Wednesday, March 03, 2010

REQUEST NUMBER: 10-2264

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2264
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/3/2010
TURNAROUND/REPORT DUE: 4/2/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13202	S	3/2/2010	
		1	RE46-10-13203	S	3/2/2010	
	HASL-300:AM-241	1	RE46-10-13202	S	3/2/2010	
		1	RE46-10-13203	S	3/2/2010	

HASL-300:ISOPU	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
HASL-300:ISOU	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:6010B	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:8015M EXTRACTABLE	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:8081A	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:8082	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:8260B	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:8270C	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:9012A	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010

Final Page of REQUEST NUMBER 10-2264

Wednesday, March 03, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2264C

REQUEST NUMBER: 10-2264

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/2/2010

TURNAROUND REQ'D: 30

Request Hard Copy Flag: True

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13203	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13203	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13203	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13203	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13203	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13202	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13202	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13202	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13202	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13202	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/3/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13202 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/2/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1020	SUB-MEDIA:	SOIL	ok
PRS ID:	46-008(f)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611555		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	3'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	4'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: reddish brown, silty coarse sandy sediment/fill w/ large gravel (5YR 4/3) some fine roots present

SAMPLE COMMENTS: ~~beneath asphalts~~ ft 3/2/10
fine roots present

LOCATION DESC: 8f - 3

FIELD SCREENING/MEASUREMENT RESULTS: PID: NA

Background screening: α: 10
β: 1269

Samples w/DIA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** T. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) T. ROMERO	3/2/10	(Printed Name) Sherri Sherwood	3/2/10
(Signature)	1700	(Signature) Sherri Sherwood	1700
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13203 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/2/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	SOIL	OK
PRS ID:	46-008(f)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611555		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Reddish brown clayey silty sediment/fill (5YR 4/4) w/ Roots

SAMPLE COMMENTS: With Roots

LOCATION DESC: 8f - 3

FIELD SCREENING/MEASUREMENT RESULTS: PID: NA

Background Screening α: 10 β: 1269 Samples MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** J. Romero

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. ROMERO	3/2/10 1700	(Printed Name) Sherri Sherwood	3/2/10 1700
(Signature)		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2264 VALIDATION DATE: 06/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The CCV %D was >20% for 2-hexanone. The associated sample results were NDs and, thus, were qualified UJ,V7c.
2. It should be noted that the ethylbenzene results exceeded the calibration range in the ICV, CCV, LCS, and MS/MSD. No sample data were qualified as a result.
3. It should also be noted that the MS/MSD was performed on a LANL sample from another RN. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 6/3/10

VALIDATOR'S SIGNATURE: [illegible] DATE: 06/03/10

Form 5114-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☒	☐	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☐	☐	☒	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☐	☒	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☐	☒	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702001	**Date Received:**	03/04/2010 08:50	**%Moisture:**	18.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13203	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965707	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/16/2010 14:49	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 11:35	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V9\9D213.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.23	ug/kg	0.418	1.23	
74-87-3	Chloromethane	U	1.23	ug/kg	0.369	1.23	
75-01-4	Vinyl chloride	U	1.23	ug/kg	0.369	1.23	
74-83-9	Bromomethane	U	1.23	ug/kg	0.369	1.23	
75-00-3	Chloroethane	U	1.23	ug/kg	0.369	1.23	
75-69-4	Trichlorofluoromethane	U	1.23	ug/kg	0.369	1.23	
67-64-1	Acetone	U	6.15	ug/kg	2.04	6.15	
75-35-4	1,1-Dichloroethylene	U	1.23	ug/kg	0.369	1.23	
74-88-4	Iodomethane	U	6.15	ug/kg	1.97	6.15	
75-09-2	Methylene chloride	U	6.15	ug/kg	2.46	6.15	
75-15-0	Carbon disulfide	U	6.15	ug/kg	1.54	6.15	
156-60-5	trans-1,2-Dichloroethylene	U	1.23	ug/kg	0.369	1.23	
75-34-3	1,1-Dichloroethane	U	1.23	ug/kg	0.369	1.23	
78-93-3	2-Butanone	U	6.15	ug/kg	1.85	6.15	
156-59-2	cis-1,2-Dichloroethylene	U	1.23	ug/kg	0.369	1.23	
594-20-7	2,2-Dichloropropane	U	1.23	ug/kg	0.369	1.23	
67-66-3	Chloroform	U	1.23	ug/kg	0.369	1.23	
74-97-5	Bromochloromethane	U	1.23	ug/kg	0.406	1.23	
71-55-6	1,1,1-Trichloroethane	U	1.23	ug/kg	0.369	1.23	
563-58-6	1,1-Dichloropropene	U	1.23	ug/kg	0.369	1.23	
56-23-5	Carbon tetrachloride	U	1.23	ug/kg	0.369	1.23	
107-06-2	1,2-Dichloroethane	U	1.23	ug/kg	0.369	1.23	
71-43-2	Benzene	U	1.23	ug/kg	0.369	1.23	
79-01-6	Trichloroethylene	U	1.23	ug/kg	0.406	1.23	
78-87-5	1,2-Dichloropropane	U	1.23	ug/kg	0.369	1.23	
75-27-4	Bromodichloromethane	U	1.23	ug/kg	0.369	1.23	
74-95-3	Dibromomethane	U	1.23	ug/kg	0.369	1.23	
108-10-1	4-Methyl-2-pentanone	U	6.15	ug/kg	1.54	6.15	
10061-01-5	cis-1,3-Dichloropropylene	U	1.23	ug/kg	0.369	1.23	
108-88-3	Toluene	U	1.23	ug/kg	0.369	1.23	
10061-02-6	trans-1,3-Dichloropropylene	U	1.23	ug/kg	0.369	1.23	
79-00-5	1,1,2-Trichloroethane	U	1.23	ug/kg	0.369	1.23	
591-78-6	2-Hexanone	U	6.15	ug/kg	1.85	6.15	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.23	ug/kg	0.369	1.23	
127-18-4	Tetrachloroethylene	U	1.23	ug/kg	0.369	1.23	
124-48-1	Dibromochloromethane	U	1.23	ug/kg	0.369	1.23	
106-93-4	1,2-Dibromoethane	U	1.23	ug/kg	0.369	1.23	
108-90-7	Chlorobenzene	U	1.23	ug/kg	0.369	1.23	

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702001	**Date Received:**	03/04/2010 08:50	**%Moisture:**	18.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13203	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965707	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/16/2010 14:49	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 11:35	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V9\9D213.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.23	ug/kg	0.369	1.23
179601-23-1	m,p-Xylenes	U	2.46	ug/kg	0.369	2.46
95-47-6	o-Xylene	U	1.23	ug/kg	0.369	1.23
100-42-5	Styrene	U	1.23	ug/kg	0.369	1.23
75-25-2	Bromoform	U	1.23	ug/kg	0.369	1.23
79-34-5	1,1,2,2-Tetrachloroethane	U	1.23	ug/kg	0.369	1.23
96-18-4	1,2,3-Trichloropropane	U	1.23	ug/kg	0.369	1.23
108-86-1	Bromobenzene	U	1.23	ug/kg	0.369	1.23
103-65-1	n-Propylbenzene	U	1.23	ug/kg	0.369	1.23
95-49-8	2-Chlorotoluene	U	1.23	ug/kg	0.369	1.23
98-82-8	Isopropylbenzene	U	1.23	ug/kg	0.369	1.23
108-67-8	1,3,5-Trimethylbenzene	U	1.23	ug/kg	0.369	1.23
106-43-4	4-Chlorotoluene	U	1.23	ug/kg	0.369	1.23
98-06-6	tert-Butylbenzene	U	1.23	ug/kg	0.369	1.23
95-63-6	1,2,4-Trimethylbenzene	U	1.23	ug/kg	0.369	1.23
135-98-8	sec-Butylbenzene	U	1.23	ug/kg	0.369	1.23
99-87-6	4-Isopropyltoluene	U	1.23	ug/kg	0.369	1.23
541-73-1	1,3-Dichlorobenzene	U	1.23	ug/kg	0.369	1.23
106-46-7	1,4-Dichlorobenzene	U	1.23	ug/kg	0.369	1.23
104-51-8	n-Butylbenzene	U	1.23	ug/kg	0.369	1.23
96-12-8	1,2-Dibromo-3-chloropropane	U	1.23	ug/kg	0.369	1.23
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.15	ug/kg	1.97	6.15
630-20-6	1,1,1,2-Tetrachloroethane	U	1.23	ug/kg	0.369	1.23
95-50-1	1,2-Dichlorobenzene	U	1.23	ug/kg	0.369	1.23

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.55	6.79	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702002	**Date Received:**	03/04/2010 08:50	**%Moisture:**	21.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13202	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965707	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/16/2010 15:19	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 11:36	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V9\9D214.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.27	ug/kg	0.432	1.27	
74-87-3	Chloromethane	U	1.27	ug/kg	0.381	1.27	
75-01-4	Vinyl chloride	U	1.27	ug/kg	0.381	1.27	
74-83-9	Bromomethane	U	1.27	ug/kg	0.381	1.27	
75-00-3	Chloroethane	U	1.27	ug/kg	0.381	1.27	
75-69-4	Trichlorofluoromethane	U	1.27	ug/kg	0.381	1.27	
67-64-1	Acetone	U	6.35	ug/kg	2.11	6.35	
75-35-4	1,1-Dichloroethylene	U	1.27	ug/kg	0.381	1.27	
74-88-4	Iodomethane	U	6.35	ug/kg	2.03	6.35	
75-09-2	Methylene chloride	U	6.35	ug/kg	2.54	6.35	
75-15-0	Carbon disulfide	U	6.35	ug/kg	1.59	6.35	
156-60-5	trans-1,2-Dichloroethylene	U	1.27	ug/kg	0.381	1.27	
75-34-3	1,1-Dichloroethane	U	1.27	ug/kg	0.381	1.27	
78-93-3	2-Butanone	U	6.35	ug/kg	1.91	6.35	
156-59-2	cis-1,2-Dichloroethylene	U	1.27	ug/kg	0.381	1.27	
594-20-7	2,2-Dichloropropane	U	1.27	ug/kg	0.381	1.27	
67-66-3	Chloroform	U	1.27	ug/kg	0.381	1.27	
74-97-5	Bromochloromethane	U	1.27	ug/kg	0.419	1.27	
71-55-6	1,1,1-Trichloroethane	U	1.27	ug/kg	0.381	1.27	
563-58-6	1,1-Dichloropropene	U	1.27	ug/kg	0.381	1.27	
56-23-5	Carbon tetrachloride	U	1.27	ug/kg	0.381	1.27	
107-06-2	1,2-Dichloroethane	U	1.27	ug/kg	0.381	1.27	
71-43-2	Benzene	U	1.27	ug/kg	0.381	1.27	
79-01-6	Trichloroethylene	U	1.27	ug/kg	0.419	1.27	
78-87-5	1,2-Dichloropropane	U	1.27	ug/kg	0.381	1.27	
75-27-4	Bromodichloromethane	U	1.27	ug/kg	0.381	1.27	
74-95-3	Dibromomethane	U	1.27	ug/kg	0.381	1.27	
108-10-1	4-Methyl-2-pentanone	U	6.35	ug/kg	1.59	6.35	
10061-01-5	cis-1,3-Dichloropropylene	U	1.27	ug/kg	0.381	1.27	
108-88-3	Toluene	U	1.27	ug/kg	0.381	1.27	
10061-02-6	trans-1,3-Dichloropropylene	U	1.27	ug/kg	0.381	1.27	
79-00-5	1,1,2-Trichloroethane	U	1.27	ug/kg	0.381	1.27	
591-78-6	2-Hexanone	U	6.35	ug/kg	1.91	6.35	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.27	ug/kg	0.381	1.27	
127-18-4	Tetrachloroethylene	U	1.27	ug/kg	0.381	1.27	
124-48-1	Dibromochloromethane	U	1.27	ug/kg	0.381	1.27	
106-93-4	1,2-Dibromoethane	U	1.27	ug/kg	0.381	1.27	
108-90-7	Chlorobenzene	U	1.27	ug/kg	0.381	1.27	

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702002	**Date Received:**	03/04/2010 08:50	**%Moisture:**	21.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13202	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965707	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/16/2010 15:19	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 11:36	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V9\9D214.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.27	ug/kg	0.381	1.27
179601-23-1	m,p-Xylenes	U	2.54	ug/kg	0.381	2.54
95-47-6	o-Xylene	U	1.27	ug/kg	0.381	1.27
100-42-5	Styrene	U	1.27	ug/kg	0.381	1.27
75-25-2	Bromoform	U	1.27	ug/kg	0.381	1.27
79-34-5	1,1,2,2-Tetrachloroethane	U	1.27	ug/kg	0.381	1.27
96-18-4	1,2,3-Trichloropropane	U	1.27	ug/kg	0.381	1.27
108-86-1	Bromobenzene	U	1.27	ug/kg	0.381	1.27
103-65-1	n-Propylbenzene	U	1.27	ug/kg	0.381	1.27
95-49-8	2-Chlorotoluene	U	1.27	ug/kg	0.381	1.27
98-82-8	Isopropylbenzene	U	1.27	ug/kg	0.381	1.27
108-67-8	1,3,5-Trimethylbenzene	U	1.27	ug/kg	0.381	1.27
106-43-4	4-Chlorotoluene	U	1.27	ug/kg	0.381	1.27
98-06-6	tert-Butylbenzene	U	1.27	ug/kg	0.381	1.27
95-63-6	1,2,4-Trimethylbenzene	U	1.27	ug/kg	0.381	1.27
135-98-8	sec-Butylbenzene	U	1.27	ug/kg	0.381	1.27
99-87-6	4-Isopropyltoluene	U	1.27	ug/kg	0.381	1.27
541-73-1	1,3-Dichlorobenzene	U	1.27	ug/kg	0.381	1.27
106-46-7	1,4-Dichlorobenzene	U	1.27	ug/kg	0.381	1.27
104-51-8	n-Butylbenzene	U	1.27	ug/kg	0.381	1.27
96-12-8	1,2-Dibromo-3-chloropropane	U	1.27	ug/kg	0.381	1.27
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.35	ug/kg	2.03	6.35
630-20-6	1,1,1,2-Tetrachloroethane	U	1.27	ug/kg	0.381	1.27
95-50-1	1,2-Dichlorobenzene	U	1.27	ug/kg	0.381	1.27

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2264 VALIDATION DATE: 06/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The ICV and/or CCV %Ds were >20% for pyridine; 2-methyl-4,6-dinitrophenol; bis(2-chloroisopropyl)ether; benzyl alcohol; 2,4-dimethylphenol; benzoic acid; 3-nitroaniline; 2,4-dinitrophenol; and 4-nitroaniline. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The LCS %R for benzyl alcohol was < the laboratory LAL but ≥10%. The associated sample results were NDs and, thus, were qualified UJ,SV12a.
3. The MS %Rs for twenty-nine analytes and the MSD %R for one analyte were < the laboratory LAL. The MS/MSD RPDs for sixty-four analytes were above the laboratory acceptance limit. Since MS/MSD analyses are not required, no sample results were qualified.
4. It should be noted that the MS/MSD was performed on a LANL sample from another RN. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 6/3/10

VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 06/03/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702002	**Date Received:**	03/04/2010 08:50	**%Moisture:**	21.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13202	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/20/2010 18:52	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s6c2012.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	423	ug/kg	84.6	423	
108-95-2	Phenol	U	423	ug/kg	84.6	423	
95-57-8	2-Chlorophenol	U	423	ug/kg	84.6	423	
106-46-7	1,4-Dichlorobenzene	U	423	ug/kg	84.6	423	
621-64-7	N-Nitrosodipropylamine	U	423	ug/kg	84.6	423	
59-50-7	4-Chloro-3-methylphenol	U	423	ug/kg	84.6	423	
83-32-9	Acenaphthene	U	42.3	ug/kg	14.0	42.3	
121-14-2	2,4-Dinitrotoluene	U	423	ug/kg	42.3	423	
100-02-7	4-Nitrophenol	U	423	ug/kg	140	423	
87-86-5	Pentachlorophenol	U	423	ug/kg	106	423	
129-00-0	Pyrene	U	42.3	ug/kg	12.7	42.3	
110-86-1	Pyridine	U	423	ug/kg	84.6	423	UJ,SV7c
62-53-3	Aniline	U	423	ug/kg	127	423	
111-44-4	bis(2-Chloroethyl) ether	U	423	ug/kg	84.6	423	
541-73-1	1,3-Dichlorobenzene	U	423	ug/kg	84.6	423	
100-51-6	Benzyl alcohol	U	423	ug/kg	127	423	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	423	ug/kg	84.6	423	
108-60-1	bis(2-Chloroisopropyl)ether	U	423	ug/kg	84.6	423	UJ,SV7c
95-48-7	o-Cresol	U	423	ug/kg	84.6	423	
65794-96-9	m,p-Cresols	U	423	ug/kg	127	423	
67-72-1	Hexachloroethane	U	423	ug/kg	84.6	423	
98-95-3	Nitrobenzene	U	423	ug/kg	84.6	423	
78-59-1	Isophorone	U	423	ug/kg	84.6	423	
88-75-5	2-Nitrophenol	U	423	ug/kg	84.6	423	
105-67-9	2,4-Dimethylphenol	U	423	ug/kg	148	423	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	423	ug/kg	84.6	423	
120-83-2	2,4-Dichlorophenol	U	423	ug/kg	84.6	423	
65-85-0	Benzoic acid	U	846	ug/kg	211	846	UJ,SV7c
91-20-3	Naphthalene	U	42.3	ug/kg	12.7	42.3	
106-47-8	4-Chloroaniline	U	423	ug/kg	84.6	423	
87-68-3	Hexachlorobutadiene	U	423	ug/kg	84.6	423	
91-57-6	2-Methylnaphthalene	U	42.3	ug/kg	8.46	42.3	
77-47-4	Hexachlorocyclopentadiene	U	423	ug/kg	84.6	423	
88-06-2	2,4,6-Trichlorophenol	U	423	ug/kg	84.6	423	
95-95-4	2,4,5-Trichlorophenol	U	423	ug/kg	84.6	423	
91-58-7	2-Chloronaphthalene	U	42.3	ug/kg	14.0	42.3	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	423	ug/kg	84.6	423	
99-09-2	3-Nitroaniline	U	423	ug/kg	84.6	423	UJ,SV7c

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702002	**Date Received:**	03/04/2010 08:50	**%Moisture:**	21.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13202	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/20/2010 18:52	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s6c2012.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Quallfier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	423	ug/kg	84.6	423	
606-20-2	2,6-Dinitrotoluene	U	423	ug/kg	42.3	423	
208-96-8	Acenaphthylene	U	42.3	ug/kg	12.7	42.3	
51-28-5	2,4-Dinitrophenol	U	846	ug/kg	161	846	UJ,SV7c
132-64-9	Dibenzofuran	U	423	ug/kg	84.6	423	
84-66-2	Diethylphthalate	U	423	ug/kg	84.6	423	
86-73-7	Fluorene	U	42.3	ug/kg	12.7	42.3	
7005-72-3	4-Chlorophenylphenylether	U	423	ug/kg	84.6	423	
534-52-1	2-Methyl-4,6-dinitrophenol	U	423	ug/kg	84.6	423	UJ,SV7c
100-01-6	4-Nitroaniline	U	423	ug/kg	127	423	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	423	ug/kg	84.6	423	
122-66-7	Azobenzene	U	423	ug/kg	84.6	423	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	423	ug/kg	84.6	423	
118-74-1	Hexachlorobenzene	U	423	ug/kg	84.6	423	
85-01-8	Phenanthrene	U	42.3	ug/kg	12.7	42.3	
120-12-7	Anthracene	U	42.3	ug/kg	8.46	42.3	
84-74-2	Di-n-butylphthalate	U	423	ug/kg	84.6	423	
206-44-0	Fluoranthene	U	42.3	ug/kg	12.7	42.3	
85-68-7	Butylbenzylphthalate	U	423	ug/kg	84.6	423	
56-55-3	Benzo(a)anthracene	U	42.3	ug/kg	12.7	42.3	
91-94-1	3,3'-Dichlorobenzidine	U	423	ug/kg	127	423	
218-01-9	Chrysene	U	42.3	ug/kg	12.7	42.3	
117-81-7	bis(2-Ethylhexyl)phthalate	U	423	ug/kg	84.6	423	
117-84-0	Di-n-octylphthalate	U	423	ug/kg	84.6	423	
205-99-2	Benzo(b)fluoranthene	U	42.3	ug/kg	12.7	42.3	
207-08-9	Benzo(k)fluoranthene	U	42.3	ug/kg	12.7	42.3	
50-32-8	Benzo(a)pyrene	U	42.3	ug/kg	12.7	42.3	
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.3	ug/kg	12.7	42.3	
53-70-3	Dibenzo(a,h)anthracene	U	42.3	ug/kg	12.7	42.3	
191-24-2	Benzo(ghi)perylene	U	42.3	ug/kg	12.7	42.3	
120-82-1	1,2,4-Trichlorobenzene	U	423	ug/kg	84.6	423	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	1200	ug/kg		JA
	Unknown	7.59	310	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702001	**Date Received:**	03/04/2010 08:50	**%Moisture:**	18.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13203	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/20/2010 18:29	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6c2011.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	410	ug/kg	82.0	410	
108-95-2	Phenol	U	410	ug/kg	82.0	410	
95-57-8	2-Chlorophenol	U	410	ug/kg	82.0	410	
106-46-7	1,4-Dichlorobenzene	U	410	ug/kg	82.0	410	
621-64-7	N-Nitrosodipropylamine	U	410	ug/kg	82.0	410	
59-50-7	4-Chloro-3-methylphenol	U	410	ug/kg	82.0	410	
83-32-9	Acenaphthene	U	41.0	ug/kg	13.5	41.0	
121-14-2	2,4-Dinitrotoluene	U	410	ug/kg	41.0	410	
100-02-7	4-Nitrophenol	U	410	ug/kg	135	410	
87-86-5	Pentachlorophenol	U	410	ug/kg	103	410	
129-00-0	Pyrene		532	ug/kg	12.3	41.0	
110-86-1	Pyridine	U	410	ug/kg	82.0	410	UJ,SV7c
62-53-3	Aniline	U	410	ug/kg	123	410	
111-44-4	bis(2-Chloroethyl) ether	U	410	ug/kg	82.0	410	
541-73-1	1,3-Dichlorobenzene	U	410	ug/kg	82.0	410	
100-51-6	Benzyl alcohol	U	410	ug/kg	123	410	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	410	ug/kg	82.0	410	
108-60-1	bis(2-Chloroisopropyl)ether	U	410	ug/kg	82.0	410	UJ,SV7c
95-48-7	o-Cresol	U	410	ug/kg	82.0	410	
65794-96-9	m,p-Cresols	U	410	ug/kg	123	410	
67-72-1	Hexachloroethane	U	410	ug/kg	82.0	410	
98-95-3	Nitrobenzene	U	410	ug/kg	82.0	410	
78-59-1	Isophorone	U	410	ug/kg	82.0	410	
88-75-5	2-Nitrophenol	U	410	ug/kg	82.0	410	
105-67-9	2,4-Dimethylphenol	U	410	ug/kg	144	410	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	410	ug/kg	82.0	410	
120-83-2	2,4-Dichlorophenol	U	410	ug/kg	82.0	410	
65-85-0	Benzoic acid	U	820	ug/kg	205	820	UJ,SV7c
91-20-3	Naphthalene	U	41.0	ug/kg	12.3	41.0	
106-47-8	4-Chloroaniline	U	410	ug/kg	82.0	410	
87-68-3	Hexachlorobutadiene	U	410	ug/kg	82.0	410	
91-57-6	2-Methylnaphthalene	U	41.0	ug/kg	8.20	41.0	
77-47-4	Hexachlorocyclopentadiene	U	410	ug/kg	82.0	410	
88-06-2	2,4,6-Trichlorophenol	U	410	ug/kg	82.0	410	
95-95-4	2,4,5-Trichlorophenol	U	410	ug/kg	82.0	410	
91-58-7	2-Chloronaphthalene	U	41.0	ug/kg	13.5	41.0	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	410	ug/kg	82.0	410	
99-09-2	3-Nitroaniline	U	410	ug/kg	82.0	410	UJ,SV7c

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702001	**Date Received:**	03/04/2010 08:50	**%Moisture:**	18.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13203	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/20/2010 18:29	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6c2011.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	410	ug/kg	82.0	410	
606-20-2	2,6-Dinitrotoluene	U	410	ug/kg	41.0	410	
208-96-8	Acenaphthylene	U	41.0	ug/kg	12.3	41.0	
51-28-5	2,4-Dinitrophenol	U	820	ug/kg	156	820	UJ,SV7c
132-64-9	Dibenzofuran	U	410	ug/kg	82.0	410	
84-66-2	Diethylphthalate	U	410	ug/kg	82.0	410	
86-73-7	Fluorene	U	41.0	ug/kg	12.3	41.0	
7005-72-3	4-Chlorophenylphenylether	U	410	ug/kg	82.0	410	
534-52-1	2-Methyl-4,6-dinitrophenol	U	410	ug/kg	82.0	410	UJ,SV7c
100-01-6	4-Nitroaniline	U	410	ug/kg	123	410	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	410	ug/kg	82.0	410	
122-66-7	Azobenzene	U	410	ug/kg	82.0	410	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	410	ug/kg	82.0	410	
118-74-1	Hexachlorobenzene	U	410	ug/kg	82.0	410	
85-01-8	Phenanthrene		215	ug/kg	12.3	41.0	
120-12-7	Anthracene	J	40.9	ug/kg	8.20	41.0	
84-74-2	Di-n-butylphthalate	U	410	ug/kg	82.0	410	
206-44-0	Fluoranthene		586	ug/kg	12.3	41.0	
85-68-7	Butylbenzylphthalate	U	410	ug/kg	82.0	410	
56-55-3	Benzo(a)anthracene		239	ug/kg	12.3	41.0	
91-94-1	3,3'-Dichlorobenzidine	U	410	ug/kg	123	410	
218-01-9	Chrysene		256	ug/kg	12.3	41.0	
117-81-7	bis(2-Ethylhexyl)phthalate	U	410	ug/kg	82.0	410	
117-84-0	Di-n-octylphthalate	U	410	ug/kg	82.0	410	
205-99-2	Benzo(b)fluoranthene		418	ug/kg	12.3	41.0	
207-08-9	Benzo(k)fluoranthene	U	41.0	ug/kg	12.3	41.0	
50-32-8	Benzo(a)pyrene		225	ug/kg	12.3	41.0	
193-39-5	Indeno(1,2,3-cd)pyrene		108	ug/kg	12.3	41.0	
53-70-3	Dibenzo(a,h)anthracene	U	41.0	ug/kg	12.3	41.0	
191-24-2	Benzo(ghi)perylene		122	ug/kg	12.3	41.0	
120-82-1	1,2,4-Trichlorobenzene	U	410	ug/kg	82.0	410	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	916	ug/kg		JA
192-97-2	Benzo[e]pyrene	10.72	317	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702001	**Date Received:**	03/04/2010 08:50	**%Moisture:**	18.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13203	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/20/2010 18:29	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6c2011.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.04	221	ug/kg		J

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2264 VALIDATION DATE: 06/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. It should be noted that the MS/MSD was performed on a LANL sample from another RN. No sample data were qualified as a result.
2. It should also be noted that perchlorate was not listed on the analysis request form. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 6/3/10

VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 06/03/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☐	☒	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☐	☒	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964112

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13203

Date Received: 04-MAR-10

GEL Job No (SDG): 10-2264

GEL Sample ID: 248702001

Date Filtered: 16-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.615	2.46	0.615	ug/kg	U	1	27-MAR-10 01:38	per0326045a
	Perchlorate Isotope Ratio						1	27-MAR-10 01:38	per0326045a
14797-73-0	Perchlorate-101	.615	2.46	0.615	ug/kg	U	1	27-MAR-10 01:38	per0326045a
	Perchlorate-O(18)			5.53	ug/kg		1	27-MAR-10 01:38	per0326045a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964112

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13202

Date Received: 04-MAR-10

GEL Job No (SDG): 10-2264

GEL Sample ID: 248702002

Date Filtered: 16-MAR-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.635	2.54	0.635	ug/kg	U	1	27-MAR-10 01:48	per0326046a
	Perchlorate Isotope Ratio						1	27-MAR-10 01:48	per0326046a
14797-73-0	Perchlorate-101	.635	2.54	0.635	ug/kg	U	1	27-MAR-10 01:48	per0326046a
	Perchlorate-O(18)			5.76	ug/kg		1	27-MAR-10 01:48	per0326046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

DATA VALIDATION COVER SHEET

5130-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2264 VALIDATION DATE: 06/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

None.

Reviewed by: ETM Level: 1 Date: 6/3/10

VALIDATOR'S SIGNATURE: [illegible] DATE: 06/03/10

Form 5130-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The retention time criteria were not met.	R, DR0 or GR0	R, DR0 or GR0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR0b	R, GR0b
☐	☒	☐	3. The surrogate is less than 10%R. Follow external laboratory limits.	R, DR3 or GR3	J-, DR3 or GR3
☐	☒	☐	4. The surrogate is less than the Lower Acceptance Limit, but greater than or equal to 10%R. Follow external laboratory limits.	UJ, DR3a or GR3a	J-, DR3a or GR3a
☐	☒	☐	5. The surrogate %R value is greater than the Upper Acceptance Limit. Follow external laboratory limits.	N/A	J+, DR3b or GR3b
☐	☒	☐	6. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR3d or GR3d	R, DR3d or GR3d
☐	☒	☐	7. The sample result is less than or equal to 5 times the concentration of the related analyte in the method blank.	U, DR4 or GR4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank, but was greater than 5x.	N/A	J+, DR4a or GR4a
☐	☐	☒	9. The sample result is less than or equal to 5 times the concentration of the related analyte in the trip blank, rinsate blank or equipment blank.	U, DR4d or GR4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR4e or GR4e	R, DR4e or GR4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, DR7 or GR7	J, DR7 or GR7

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less than 0.995.	UJ, DR7a or GR7a	J, DR7a or GR7a
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method specific limits.	UJ, DR7c or GR7c	J, DR7c or GR7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DR7d or GR7d	J, DR7d or GR7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DR7f or GR7f	R, DR7f or GR7f
☐	☒	☐	16. The holding time was greater than 1 and less than or equal to 2 times the applicable holding time requirement.	UJ, DR9 or GR9	J-, DR9 or GR9
☐	☒	☐	17. The holding time was greater than 2 times the applicable holding time requirement.	R, DR9a or GR9a	J-, DR9a or GR9a
☐	☒	☐	18. The LCS percent recovery was less than 10%. Follow the external laboratory limits.	R, DR12 or GR12	J-, DR12 or GR12
☐	☒	☐	19. The LCS percent recovery was less than the Lower Acceptance Limit, but greater than 10%. Follow the external laboratory limits.	UJ, DR12a or GR12a	J-, DR12a or GR12a
☐	☒	☐	20. The LCS percent recovery was greater than the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DR12b or GR12b
☐	☒	☐	21. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or the external laboratory for information.	R, DR12c or GR12c	R, DR12c or GR12c
☐	☒	☐	22. The MS/MSD percent recovery was less than 10%.	R, DR12d or GR12d	R, DR12d or Gr12d
☐	☒	☐	23. The MS/MSD percent recovery was greater than 10%, but less than 70%.	UJ, DR12e or GR12e	J, DR12e or GR12e

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2 TPH GRO and DRO Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The MS/MSD percent recovery was greater than 70%.	N/A	J+, DR12f or GR12f
☐	☒	☐	25. The MS/MSD relative percent difference was greater than 30%.	UJ, DR12g or GR12g	J, DR12g or GR12g
☐	☐	☒	26. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, DR15 or GR15	R, DR15 or GR15
☐	☒	☐	27. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, DR19 or GR19	J, R, DR19 or GR19
☐	☒	☐	28. Duplicate, dilution, or reanalysis.	UJ, DR88 or GR88	J, DR88 or GR88

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702001	**Date Received:**	03/04/2010 08:50	**%Moisture:**	18.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13203	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	964269	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 04:18	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/12/2010 12:21	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	026f2601.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		10.9	mg/kg	2.66	8.19

EJ

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702002	**Date Received:**	03/04/2010 08:50	**%Moisture:**	21.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13202	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	964269	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 06:08	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/12/2010 12:21	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	029f2901.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		42.5	mg/kg	2.74	8.43

EJ

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2264 VALIDATION DATE: 06/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The CCV %Ds were >15% for 4,4'-DDD on the primary column. The outliers were >15% on only one column and associated results were NDs. Thus, sample data were not qualified.
2. It should be noted that toxaphene was not present in the MS/MSD. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 6/3/10

VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 06/03/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702002	**Date Received:**	03/04/2010 08:50	**%Moisture:**	21.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13202	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	965433	**Inst:**	ECD7A.I	**Dilution:**	10
Run Date:	03/18/2010 10:58	**Analyst:**	JXM	**Inj. Vol:**	1 uL
Prep Date:	03/16/2010 11:42	**Aliquot:**	30 g	**Final Volume:**	5 mL
Data File:	087f8701.d	**Column:**	1 CLP-1	**Level:**	LOW
	087b8701.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	8.47	ug/kg	2.12	8.47	1
58-89-9	gamma-BHC (Lindane)	U	8.47	ug/kg	2.12	8.47	1
319-85-7	beta-BHC	U	8.47	ug/kg	2.12	8.47	1
319-86-8	delta-BHC	U	8.47	ug/kg	2.12	8.47	1
76-44-8	Heptachlor	U	8.47	ug/kg	2.12	8.47	1
309-00-2	Aldrin	U	8.47	ug/kg	2.12	8.47	1
1024-57-3	Heptachlor epoxide	U	8.47	ug/kg	2.65	8.47	1
5103-74-2	gamma-Chlordane	U	8.47	ug/kg	2.12	8.47	1
5103-71-9	alpha-Chlordane	U	8.47	ug/kg	2.12	8.47	1
959-98-8	Endosulfan I	U	8.47	ug/kg	2.12	8.47	1
72-55-9	4,4'-DDE	U	16.9	ug/kg	4.23	16.9	1
60-57-1	Dieldrin	U	16.9	ug/kg	4.23	16.9	1
72-20-8	Endrin	U	16.9	ug/kg	4.23	16.9	1
72-54-8	4,4'-DDD	U	16.9	ug/kg	4.23	16.9	1
33213-65-9	Endosulfan II	U	16.9	ug/kg	4.23	16.9	1
7421-93-4	Endrin aldehyde	U	16.9	ug/kg	4.23	16.9	1
50-29-3	4,4'-DDT	U	16.9	ug/kg	4.23	16.9	1
1031-07-8	Endosulfan sulfate	U	16.9	ug/kg	4.23	16.9	1
72-43-5	Methoxychlor	U	84.7	ug/kg	21.2	84.7	1
53494-70-5	Endrin ketone	U	16.9	ug/kg	4.23	16.9	1
8001-35-2	Toxaphene	U	212	ug/kg	70.5	212	1

EJ

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702001	**Date Received:**	03/04/2010 08:50	**%Moisture:**	18.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13203	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	965433	**Inst:**	ECD7A.I	**Dilution:**	10
Run Date:	03/18/2010 10:07	**Analyst:**	JXM	**Inj. Vol:**	1 uL
Prep Date:	03/16/2010 11:42	**Aliquot:**	30 g	**Final Volume:**	5 mL
Data File:	084f8401.d	**Column:**	1 CLP-1	**Level:**	LOW
	084b8401.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	8.20	ug/kg	2.05	8.20	1
58-89-9	gamma-BHC (Lindane)	U	8.20	ug/kg	2.05	8.20	1
319-85-7	beta-BHC	U	8.20	ug/kg	2.05	8.20	1
319-86-8	delta-BHC	U	8.20	ug/kg	2.05	8.20	1
76-44-8	Heptachlor	U	8.20	ug/kg	2.05	8.20	1
309-00-2	Aldrin	U	8.20	ug/kg	2.05	8.20	1
1024-57-3	Heptachlor epoxide	U	8.20	ug/kg	2.56	8.20	1
5103-74-2	gamma-Chlordane	U	8.20	ug/kg	2.05	8.20	1
5103-71-9	alpha-Chlordane	U	8.20	ug/kg	2.05	8.20	1
959-98-8	Endosulfan I	U	8.20	ug/kg	2.05	8.20	1
72-55-9	4,4'-DDE	U	16.4	ug/kg	4.10	16.4	1
60-57-1	Dieldrin	U	16.4	ug/kg	4.10	16.4	1
72-20-8	Endrin	U	16.4	ug/kg	4.10	16.4	1
72-54-8	4,4'-DDD	U	16.4	ug/kg	4.10	16.4	1
33213-65-9	Endosulfan II	U	16.4	ug/kg	4.10	16.4	1
7421-93-4	Endrin aldehyde	U	16.4	ug/kg	4.10	16.4	1
50-29-3	4,4'-DDT	U	16.4	ug/kg	4.10	16.4	1
1031-07-8	Endosulfan sulfate	U	16.4	ug/kg	4.10	16.4	1
72-43-5	Methoxychlor	U	82.0	ug/kg	20.5	82.0	1
53494-70-5	Endrin ketone	U	16.4	ug/kg	4.10	16.4	1
8001-35-2	Toxaphene	U	205	ug/kg	68.3	205	1

EJ

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2264 VALIDATION DATE: 06/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The MS %R for aroclor 1260 was <10% and the MS/MSD RPD for aroclor 1016 was above the laboratory acceptance limit. Since MS/MSD analyses are not required, no sample results were qualified.
2. It should be noted that the MS/MSD was performed on a LANL sample from another RN. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 6/3/10

VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 06/03/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

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Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702002	**Date Received:**	03/04/2010 08:50	**%Moisture:**	21.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13202	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967999	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/24/2010 08:35	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/23/2010 10:13	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	018f1801.d	**Column:**	1 CLP1	**Level:**	LOW
	018b1801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.23	ug/kg	1.41	4.23	1
11104-28-2	Aroclor-1221	U	4.23	ug/kg	1.41	4.23	1
11141-16-5	Aroclor-1232	U	4.23	ug/kg	1.41	4.23	1
53469-21-9	Aroclor-1242	U	4.23	ug/kg	1.41	4.23	1
12672-29-6	Aroclor-1248	U	4.23	ug/kg	1.41	4.23	1
11097-69-1	Aroclor-1254	P	4.30	ug/kg	1.41	4.23	1
11096-82-5	Aroclor-1260	J	4.00	ug/kg	1.41	4.23	1

EJ

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702001**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**18.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13203**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967999**	**Inst:**	**ECD1A.I**	**Dilution:**	**10**
Run Date:	**03/24/2010 08:23**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 10:13**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**017f1701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	017b1701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	41.0	ug/kg	13.7	41.0	1
11104–28–2	Aroclor–1221	U	41.0	ug/kg	13.7	41.0	1
11141–16–5	Aroclor–1232	U	41.0	ug/kg	13.7	41.0	1
53469–21–9	Aroclor–1242	U	41.0	ug/kg	13.7	41.0	1
12672–29–6	Aroclor–1248	U	41.0	ug/kg	13.7	41.0	1
11097–69–1	Aroclor–1254		95.0	ug/kg	13.7	41.0	1
11096–82–5	Aroclor–1260		76.1	ug/kg	13.7	41.0	1

EJ

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2264 VALIDATION DATE: 06/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The LCS %R was < the laboratory LAL but ≥10% for Sb. The associated sample results were NDs and, thus, were qualified UJ,I12a.
2. The MS %Rs were < the laboratory LAL but ≥10% for Sb and Ni. The sample results for Sb were NDs and, thus, were qualified UJ,I6a. The sample results for Ni were detects and, thus, were qualified J-,I6a. The MS %Rs were > the laboratory UAL for Ba, Cu, Mg, Mn, K, and Zn. The associated sample results were detects and, thus, were qualified J+,I6b. The MS %Rs were also > the laboratory UAL for Al and Fe, and <10% for Ca. However, the sample concentrations were >4X the spike concentrations. The associated sample results were not qualified, based on professional judgment.
3. The replicate RPDs were >35% and both the parent sample and duplicate sample results were ≥5X the PQLs for Al, Ba, Ca, Cu, Fe, K, Zn, Cr, Co, Pb, and V. The associated sample results were detects and, thus, were qualified J,I10a.

Reviewed by: ETM Level: 1 Date: 6/3/10

VALIDATOR'S SIGNATURE: [illegible] DATE: 06/03/10

Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☒	☐	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☒	☐	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2264 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248702001 **BASIS:** Dry Weight **DATE COLLECTED** 02-MAR-10

CLIENT ID: RE46-10-13203 **LEVEL:** Low **DATE RECEIVED** 04-MAR-10

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	J,I10a	4340000	ug/kg	*	8300	24400	24400	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-36-0	Antimony	UJ,I12a	1220	ug/kg	U*N	403	1220	1220	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-38-2	Arsenic		1920	ug/kg	*N	234	1170	1170	2	MS	RMJ	05/03/10 12:32	100502-2	962601
7440-39-3	Barium	J+,I6b	56000	ug/kg	*N	122	610	610	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-41-7	Beryllium		763	ug/kg		23.4	117	117	2	MS	RMJ	05/03/10 12:32	100502-2	962601
7440-43-9	Cadmium		192	ug/kg	J*	122	610	610	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-70-2	Calcium	J,I10a	7770000	ug/kg	*	9760	30500	30500	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-47-3	Chromium		5640	ug/kg	*	183	610	610	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-48-4	Cobalt		2760	ug/kg	*	183	610	610	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-50-8	Copper	J+,I6b	15100	ug/kg	*N	366	1220	1220	1	P	HSC	03/31/10 10:45	033110A-1	962595
7439-89-6	Iron	J,I10a	6420000	ug/kg	*	9760	30500	30500	1	P	HSC	03/31/10 10:45	033110A-1	962595
7439-92-1	Lead	J,I10a	14800	ug/kg	*	305	1220	1220	1	P	HSC	03/31/10 10:45	033110A-1	962595
7439-95-4	Magnesium	J+,I6b	1030000	ug/kg	*N	10400	36600	36600	1	P	HSC	03/31/10 10:45	033110A-1	962595
7439-96-5	Manganese	J+,I6b	194000	ug/kg	*N	244	1220	1220	1	P	HSC	03/31/10 10:45	033110A-1	962595
7439-97-6	Mercury		72	ug/kg		4.28	12.6	12.6	1	AV	JXLI	03/23/10 10:15	032310S1-4	967582
7440-02-0	Nickel	J-,I6a	8440	ug/kg	*N	123	490	490	2	MS	RMJ	05/05/10 19:45	100504-3	980583
7440-09-7	Potassium	J+,I6b	786000	ug/kg	*N	7810	30500	30500	1	P	HSC	03/31/10 10:45	033110A-1	962595
7782-49-2	Selenium		1170	ug/kg	U	586	1170	1170	2	MS	RMJ	05/03/10 12:32	100502-2	962601
7440-22-4	Silver		610	ug/kg	U	122	610	610	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-23-5	Sodium		108000	ug/kg	*	8540	30500	30500	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-28-0	Thallium		217	ug/kg	J	70.3	234	234	2	MS	RMJ	05/03/10 12:32	100502-2	962601
7440-62-2	Vanadium	J,I10a	11300	ug/kg	*N	122	610	610	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-66-6	Zinc	J+,I6b	42600	ug/kg	*N	403	1220	1220	1	P	HSC	03/31/10 10:45	033110A-1	962595

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
962595	962594	SW846 3050B	0.504	g	50	mL	03/16/10	AXG2
962601	962599	SW846 3050B	0.525	g	50	mL	03/17/10	LYH1
967582	967581	SW846 7471A Prep	0.586	g	30	mL	03/22/10	TXB3
980583	980582	SW846 3050B	0.502	g	50	mL	05/04/10	AXG2

EJI
06/03

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2264 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248702002 **BASIS:** Dry Weight **DATE COLLECTED** 02-MAR-10

CLIENT ID: RE46-10-13202 **LEVEL:** Low **DATE RECEIVED** 04-MAR-10

MATRIX: SOIL **%SOLIDS:** 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum J,I10a	12100000	ug/kg	*	8640	25400	25400	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-36-0	Antimony UJ,I12a	1270	ug/kg	U*N	419	1270	1270	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-38-2	Arsenic	2200	ug/kg	*N	238	1190	1190	2	MS	RMJ	05/03/10 13:03	100502-2	962601
7440-39-3	Barium J+,I6b	99600	ug/kg	*N	127	635	635	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-41-7	Beryllium	1260	ug/kg		23.8	119	119	2	MS	RMJ	05/03/10 13:03	100502-2	962601
7440-43-9	Cadmium	635	ug/kg	U*	127	635	635	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-70-2	Calcium J,I10a	5880000	ug/kg	*	10200	31800	31800	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-47-3	Chromium	16400	ug/kg	*	191	635	635	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-48-4	Cobalt	2930	ug/kg	*	191	635	635	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-50-8	Copper J+,I6b	7650	ug/kg	*N	381	1270	1270	1	P	HSC	03/31/10 11:17	033110A-1	962595
7439-89-6	Iron J,I10a	10700000	ug/kg	*	10200	31800	31800	1	P	HSC	03/31/10 11:17	033110A-1	962595
7439-92-1	Lead J,I10a	10100	ug/kg	*	318	1270	1270	1	P	HSC	03/31/10 11:17	033110A-1	962595
7439-95-4	Magnesium J+,I6b	2170000	ug/kg	*N	10800	38100	38100	1	P	HSC	03/31/10 11:17	033110A-1	962595
7439-96-5	Manganese J+,I6b	293000	ug/kg	*N	254	1270	1270	1	P	HSC	03/31/10 11:17	033110A-1	962595
7439-97-6	Mercury	29.2	ug/kg		5.07	14.9	14.9	1	AV	JXL1	03/23/10 10:23	032310S1-4	967582
7440-02-0	Nickel J-,I6a	7250	ug/kg	*N	116	464	464	2	MS	RMJ	05/05/10 20:05	100504-3	980583
7440-09-7	Potassium J+,I6b	1850000	ug/kg	*N	8130	31800	31800	1	P	HSC	03/31/10 11:17	033110A-1	962595
7782-49-2	Selenium	1190	ug/kg	U	596	1190	1190	2	MS	RMJ	05/03/10 13:03	100502-2	962601
7440-22-4	Silver	635	ug/kg	U	127	635	635	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-23-5	Sodium	177000	ug/kg	*	8890	31800	31800	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-28-0	Thallium	324	ug/kg		71.5	238	238	2	MS	RMJ	05/03/10 13:03	100502-2	962601
7440-62-2	Vanadium J,I10a	13900	ug/kg	*N	127	635	635	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-66-6	Zinc J+,I6b	31400	ug/kg	*N	419	1270	1270	1	P	HSC	03/31/10 11:17	033110A-1	962595

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
962595	962594	SW846 3050B	0.5	g	50	mL	03/16/10	AXG2
962601	962599	SW846 3050B	0.533	g	50	mL	03/17/10	LYH1
967582	967581	SW846 7471A Prep	0.511	g	30	mL	03/22/10	TXB3
980583	980582	SW846 3050B	0.547	g	50	mL	05/04/10	AXG2

EJM
06/03

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2264 VALIDATION DATE: 06/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. It should be noted that the matrix QC for total cyanide was performed on a LANL sample from another RN. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 6/3/10

VALIDATOR'S SIGNATURE: [illegible] DATE: 06/03/10

Form 5120-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 26, 2010

Client SDG: 10-2264

Client Sample ID:	RE46-10-13203	Project:	LANL01004
Sample ID:	248702001	Client ID:	LANL010
Matrix:	S		
Collect Date:	02-MAR-10 12:00		
Receive Date:	04-MAR-10		
Collector:	Client		
Moisture:	18.7%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	77.4	285	ug/kg	1	AXC2 03/12/10	1353	962256	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1239	962255

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 26, 2010

Client SDG: 10-2264

Client Sample ID:	RE46-10-13202	Project:	LANL01004
Sample ID:	248702002	Client ID:	LANL010
Matrix:	S		
Collect Date:	02-MAR-10 12:00		
Receive Date:	04-MAR-10		
Collector:	Client		
Moisture:	21.3%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	77.1	284	ug/kg	1	AXC2 03/12/10	1358	962256	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1239	962255

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2264 VALIDATION DATE: 06/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The gamma spec results that were rejected by the laboratory due to high peak-width, interference, or low abundance were qualified R,R5a. Some gamma spec results from QC samples were also rejected by the laboratory. No sample data were qualified as a result.
2. The Pu-236 tracer %R in sample RE46-10-13203 was < the laboratory's LAL. The associated sample results were NDs and, thus, were not qualified.
3. It should be noted that the matrix QC for gamma spec, Am-241, isotopic Pu, and isotopic U were performed on LANL samples from other RNs. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 6/3/10

VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 06/03/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 **Rad Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

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

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: April 1, 2010

Client Sample ID: RE46-10-13203
Sample ID: 248702001
Matrix: S
Collect Date: 02-MAR-10
Receive Date: 04-MAR-10
Collector: Client
Moisture: 18.7%

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
s Received"													
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
ericium-241	U	0.00151		0.0152	+/-0.00121	0.050	pCi/g		CXM2	03/31/10	1331	970440	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.0123		0.0347	+/-0.00656	0.050	pCi/g		CXM2	03/30/10	0802	965515	4
tonium-239/240	U	0.00		0.0292	+/-0.00246	0.050	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		1.08		0.0744	+/-0.0926	0.100	pCi/g		CXM2	03/31/10	0646	965517	5
nium-235/236		0.111		0.0454	+/-0.0205	0.100	pCi/g						
nium-238		1.00		0.0523	+/-0.0873	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	0.110		0.113	+/-0.0347	0.200	pCi/g		MXR1	03/23/10	0852	962631	7
muth-211	UI	3.95	R,R5a	0.340	+/-0.283		pCi/g						
muth-214		1.29		0.119	+/-0.109	0.200	pCi/g						
lmium-109	UI	2.54	R,R5a	0.994	+/-0.425		pCi/g						
ium-139	U	-0.0195		0.0537	+/-0.0165	0.050	pCi/g						
ium-134	U	0.0843		0.104	+/-0.0279	0.100	pCi/g						
ium-137	U	0.0625		0.0831	+/-0.0232	0.100	pCi/g						
alt-60	U	-0.0264		0.0601	+/-0.0205	0.100	pCi/g						
opium-152	U	0.0582		0.173	+/-0.064	0.200	pCi/g						
thanum-140	U	-0.0159		0.208	+/-0.0638		pCi/g						
d-212		1.62		0.0951	+/-0.105	0.100	pCi/g						
d-214		1.44		0.129	+/-0.110	0.100	pCi/g						
rcury-203	U	0.00837		0.0796	+/-0.0229	0.100	pCi/g						
assium-40		21.5		0.629	+/-1.04	1.00	pCi/g						
lium-223	U	-0.664		1.25	+/-0.387		pCi/g						
lium-224	UI	5.13	R,R5a	1.02	+/-0.746		pCi/g						
lium-226		1.29		0.119	+/-0.109		pCi/g						
lium-228		1.69		0.228	+/-0.196	0.500	pCi/g						
henium-106	U	-0.00293		0.551	+/-0.168	0.800	pCi/g						

EJ

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: April 1, 2010

Client Sample ID: RE46-10-13203
Sample ID: 248702001

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis												
ıMMA SPEC "Dry Weight Corrected"												
lium-22	U	0.0295	0.0913	+/-0.0266	0.080	pCi/g						
›ntium-85	U	0.0549	0.0798	+/-0.0253		pCi/g						
ıllium-208		0.493	0.062	+/-0.0486	0.080	pCi/g						
›rium-227	U	-0.0654	0.436	+/-0.128		pCi/g						
›rium-231	U	-0.664	1.25	+/-0.387		pCi/g						
›rium-234		1.68	1.11	+/-0.533	2.00	pCi/g						
-113	U	0.013	0.0857	+/-0.025	0.100	pCi/g						
.nium-235	U	0.0937	0.370	+/-0.108	0.500	pCi/g						
:ium-88	U	0.0215	0.0612	+/-0.0163	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ɜricium-243 Tracer	AM241 "Dry Weight Corrected"	92.8	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	43.7 *	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	86.6	(50%-105%)

tes:
?U is calculated at the 67% confidence level (1-sigma).
ıe Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
3D Results are either below the MDC or tracer recovery is low
: Analyte has been confirmed by GC/MS analysis

EJ

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: April 1, 2010

Client Sample ID: RE46-10-13202
Sample ID: 248702002
Matrix: S
Collect Date: 02-MAR-10
Receive Date: 04-MAR-10
Collector: Client
Moisture: 21.3%

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
s Received"													
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
ericium-241	U	0.00409		0.0172	+/-0.00264	0.050	pCi/g		CXM2	03/31/10	1331	970440	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.0112		0.025	+/-0.00725	0.050	pCi/g		CXM2	03/26/10	2118	965515	4
tonium-239/240	U	0.00241		0.0212	+/-0.003	0.050	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		1.16		0.0896	+/-0.102	0.100	pCi/g		CXM2	03/31/10	0646	965517	5
nium-235/236		0.255		0.0547	+/-0.0365	0.100	pCi/g						
nium-238		1.15		0.063	+/-0.102	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.164		0.592	+/-0.178	0.200	pCi/g		MXR1	03/23/10	1223	962631	6
muth-211	UI	4.02	R,R5a	0.432	+/-0.344		pCi/g						
muth-214		1.48		0.152	+/-0.138	0.200	pCi/g						
lmium-109	UI	2.27	R,R5a	2.22	+/-0.754		pCi/g						
ium-139	U	-0.0159		0.0735	+/-0.0235	0.050	pCi/g						
ium-134	UI	0.161	R,R5a	0.125	+/-0.0443	0.100	pCi/g						
ium-137	U	-0.0579		0.0784	+/-0.0256	0.100	pCi/g						
alt-60	U	0.00573		0.0892	+/-0.0274	0.100	pCi/g						
opium-152	U	-0.082		0.217	+/-0.0783	0.200	pCi/g						
thanum-140	U	-0.0687		0.253	+/-0.0818		pCi/g						
d-212		2.43		0.128	+/-0.167	0.100	pCi/g						
d-214		1.46		0.171	+/-0.131	0.100	pCi/g						
rcury-203	U	0.065		0.0992	+/-0.0393	0.100	pCi/g						
assium-40		29.1		0.694	+/-1.76	1.00	pCi/g						
lium-223	U	0.317		1.48	+/-0.497		pCi/g						
lium-224	UI	5.68	R,R5a	1.37	+/-1.04		pCi/g						
lium-226		1.48		0.152	+/-0.138		pCi/g						
lium-228		2.42		0.338	+/-0.284	0.500	pCi/g						
henium-106	U	0.381		0.750	+/-0.218	0.800	pCi/g						
lium-22	U	0.027		0.109	+/-0.0325	0.080	pCi/g						

EJ

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: April 1, 2010

Client Sample ID: RE46-10-13202
Sample ID: 248702002

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ontium-85	UI	0.133	R,R5a	0.107	+/-0.0325		pCi/g						
illium-208		0.671		0.0801	+/-0.0602	0.080	pCi/g						
rium-227	U	0.0648		0.608	+/-0.178		pCi/g						
rium-231	U	0.317		1.48	+/-0.497		pCi/g						
rium-234	U	1.67		4.79	+/-1.40	2.00	pCi/g						
-113	U	0.0609		0.119	+/-0.0342	0.100	pCi/g						
nium-235	U	-0.173		0.470	+/-0.150	0.500	pCi/g						
ium-88	U	0.0189		0.0733	+/-0.0205	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery %	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	85.5	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	88.1	(50%-105%)
ium-232 Tracer	ISOU "Dry Weight Corrected"	73.8	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
e Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported
. Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
3D Results are either below the MDC or tracer recovery is low
: Analyte has been confirmed by GC/MS analysis
) Results are reported from a diluted aliquot of the sample
3 General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
3 Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

EJ

Wednesday, March 03, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-226

REQUEST NUMBER: 10-2264

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/2/2010

TURNAROUND REQ'D: 30

Request Hard Copy Flag: True

LAB REQUEST COMMENTS: 248702

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13203	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13203	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13203	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13203	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13203	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13202	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13202	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13202	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13202	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13202	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	3/3/10	1400	Mercedes Simmons	Mercedes Simmons	3/4/10	0850
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

Wednesday, March 03, 2010

REQUEST NUMBER: 10-2264

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2264
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/3/2010
TURNAROUND/REPORT DUE: 4/2/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13202	S	3/2/2010	
		1	RE46-10-13203	S	3/2/2010	
	HASL-300:AM-241	1	RE46-10-13202	S	3/2/2010	
		1	RE46-10-13203	S	3/2/2010	

HASL-300:ISOPU	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
HASL-300:ISOU	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:6010B	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:8015M, EXTRACTABLE	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:8081A	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:8082	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:8260B	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:8270C	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:9012A	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010

Final Page of REQUEST NUMBER 10-2264

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

March 11, 2010

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

Re: LANL ER Project
Work Order: 248702
SDG: 10-2264

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 04, 2010, and analyzed for FID Flame Ionization Detector, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2264
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 248702
SDG: 10-2264

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Sample Data Summary 155
QC Summary 161
Sample Data 180
Standard Data 215
QC Data 266
Miscellaneous Data 294

LC/MS/MS Perchlorate Analysis **310**
Sample Data Summary 315
Quality Control Summary 318
Sample Data 351
Standards Data 356
Quality Control 381
Miscellaneous Data 386

FID Diesel Range Organics Analysis **398**
Sample Data Summary 402
QC Summary 405
Sample Data 411
Standard Data 422
QC Data 440
Miscellaneous Data 457

GC Semivolatile Pesticide Analysis **465**
Sample Data Summary 471

Quality Control Summary 474
Sample Data 481
Standards Data 492
Quality Control Data 610
Miscellaneous Data 656

GC Semivolatile PCB Analysis 671
Sample Data Summary 678
Quality Control Summary 681
Sample Data 687
Standards Data 704
Quality Control Data 766
Miscellaneous Data 781

Metals Analysis 801
Case Narrative 802
Sample Data Summary 808
Quality Control Summary 811
Standards 858
Raw Data 870
Miscellaneous 1036

General Chemistry Analysis 1076
Case Narrative 1077
Sample Data Summary 1082
Quality Control Summary 1086
Instrument QC Data Summary 1089
Cyanide, Total 1091

Radiological Analysis 1099
Sample Data Summary 1111
Quality Control Data 1119
Raw Data 1126
Background and Efficiency Data 1345
Standards Data 1407
Runlogs 1435

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 248702
SDG # : 10-2264

March 11, 2010

Laboratory Identification:

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

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 04, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 10,13-15C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
248702001	RE46-10-13203
248702002	RE46-10-13202

Case Narrative

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

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: FID Flame Ionization Detector, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

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

for Francis

Valerie Davis

Project Manager

List of current GEL Certifications as of 11 March 2010

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

Chain of Custody and Supporting Documentation

Wednesday, March 03, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2264C

REQUEST NUMBER: 10-2264

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/2/2010

TURNAROUND REQ'D: 30

Request Hard Copy Flag: True

LAB REQUEST COMMENTS: 248702

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13203	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13203	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13203	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13203	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13203	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13202	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13202	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13202	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13202	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13202	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	3/3/10	1400	Mercedes Simmons	Mercedes Simmons	3/4/10	0850
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Wednesday, March 03, 2010

REQUEST NUMBER: 10-2264

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number:10-2264
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/3/2010
TURNAROUND/REPORT DUE: 4/2/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13202	S	3/2/2010	
		1	RE46-10-13203	S	3/2/2010	
	HASL-300:AM-241	1	RE46-10-13202	S	3/2/2010	
		1	RE46-10-13203	S	3/2/2010	

HASL-300:ISOPU	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
HASL-300:ISOU	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:6010B	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:8015M EXTRACTABLE	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:8081A	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:8082	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:8260B	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:8270C	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010
SW-846:9012A	1	RE46-10-13202	S	3/2/2010
	1	RE46-10-13203	S	3/2/2010

Final Page of REQUEST NUMBER 10-2264

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2264**
Received By: Mercedes Simmons	**Date Received: 3/4/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **40cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **1, 3-6C** **10, 13-15C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?	X			Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers:

7209 7850 3326 1C	**7209 7850 3370 5C**	**7209 7850 3267 14C**
7209 7850 3381 3C	**7209 7850 3440 5C**	**7209 7850 3278 14C**
7209 7850 3451 3C	**7209 7850 3510 5C**	**7209 7850 3289 15C**
7209 7850 3315 3C	**7209 7850 3290 6C**	
7209 7850 3304 4C	**7209 7850 3430 6C**	
7209 7850 3337 4C	**7209 7850 3348 10C**	
7209 7850 3360 4C	**7209 7850 3521 10C**	
7209 7850 3359 4C	**7209 7850 3256 13C**	

PM (or PMA) review: Initials MF Date 3/5/10

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 03MAR10
ACTWGT: 8.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

1°

FedEx Express

TRK# 0201 7209 7850 3326

THU - 04MAR A1
PRIORITY OVERNIGHT

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SC-US
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LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 53.0 LB MA
CAD: 0014176/CAFE2

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
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TRK# 0201 7209 7850 3381

THU - 04MAR A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 03MAR10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2450

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A05158YD0

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FedEx Express

3 of 3
MPS# 0243 7209 7850 3451
7209 7850 3430 0201

THU - 04MAR A1
PRIORITY OVERNIGHT

CHSA

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 03MAR10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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THU - 04MAR A1
PRIORITY OVERNIGHT

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 03MAR10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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MPS# 0263 7209 7850 3304
Mstr# 7209 7850 3290 0201

THU - 04MAR A1
PRIORITY OVERNIGHT

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 03MAR10
ACTWGT: 47.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843) 556-8171
REF: 6B010AMR1A015AGWM0

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TRK# 0201 7209 7850 3337
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Part # 156848-434 NAIT V3.04.09

LOS ALAMOS NATL LAB
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LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

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REF: 6B010AMR1A015AGWM0

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

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 03MAR10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843) 556-9171
REF: 6B010AMR1A015AGWM0

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2040 SAVAGE RD

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-9171
REF: 6B010AMR3A0532VA00

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1 of 2
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PRIORITY OVERNIGHT

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 03MAR10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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REF: 6B010AMR2A0515BYDO

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PRIORITY OVERNIGHT

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 03MAR10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2450

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GENERAL ENGINEERING LAB
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MPS# 0263 7209 7850 3521
Mstr# 7209 7850 3510 0201

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 03MAR10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843) 556-8171
REF: 6B010AMR1A015AGWMO

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Mstr# 7209 7850 3245 0201

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ENA VALDEZ
ALAMOS NATL LAB
BLDG 1237 DPU 03

ALAMOS, NM 87545
BD STATES US

SHIP DATE: 03MAR10
ACTWGT: 67.0 LB MAN
CAD: 0014176/CAFE2450

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 03MAR10
ACTWGT: 69.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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2040 SAVAGE RD

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TRK# 0201 7209 7850 3278
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XX CHSA

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 03MAR10
ACTWGT: 65.0 LB MAN
CAD: 0014176/CAFE2450

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REF: 6B010AMR3A0532VA00

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2 of 2
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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

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

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2264

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	965707
Prep Batch Number:	965706

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
248702001	RE46-10-13203
248702002	RE46-10-13202
1202072229	Method Blank (MB)
1202072232	Laboratory Control Sample (LCS)
1202072233	Laboratory Control Sample (LCS)
1202072230	249074004(RE16-10-3777) Post Spike (PS)
1202072231	249074004(RE16-10-3777) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 249074004 (RE16-10-3777) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate

all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
A Data Exception Document was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG. Tentatively identified compounds (TIC) were required for this sample delivery group/work order. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA9.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

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

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-2264 GEL Work Order: 248702

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

E Organics--Concentration of the target analyte exceeds the instrument calibration range

H Analytical holding time was exceeded

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

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

Signature: Erin Haubert **Name: Erin Haubert**

Date: 31 MAR 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702001**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**18.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13203**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965707**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 14:49**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 11:35**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V9\9D213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.23	ug/kg	0.418	1.23
74-87-3	Chloromethane	U	1.23	ug/kg	0.369	1.23
75-01-4	Vinyl chloride	U	1.23	ug/kg	0.369	1.23
74-83-9	Bromomethane	U	1.23	ug/kg	0.369	1.23
75-00-3	Chloroethane	U	1.23	ug/kg	0.369	1.23
75-69-4	Trichlorofluoromethane	U	1.23	ug/kg	0.369	1.23
67-64-1	Acetone	U	6.15	ug/kg	2.04	6.15
75-35-4	1,1-Dichloroethylene	U	1.23	ug/kg	0.369	1.23
74-88-4	Iodomethane	U	6.15	ug/kg	1.97	6.15
75-09-2	Methylene chloride	U	6.15	ug/kg	2.46	6.15
75-15-0	Carbon disulfide	U	6.15	ug/kg	1.54	6.15
156-60-5	trans-1,2-Dichloroethylene	U	1.23	ug/kg	0.369	1.23
75-34-3	1,1-Dichloroethane	U	1.23	ug/kg	0.369	1.23
78-93-3	2-Butanone	U	6.15	ug/kg	1.85	6.15
156-59-2	cis-1,2-Dichloroethylene	U	1.23	ug/kg	0.369	1.23
594-20-7	2,2-Dichloropropane	U	1.23	ug/kg	0.369	1.23
67-66-3	Chloroform	U	1.23	ug/kg	0.369	1.23
74-97-5	Bromochloromethane	U	1.23	ug/kg	0.406	1.23
71-55-6	1,1,1-Trichloroethane	U	1.23	ug/kg	0.369	1.23
563-58-6	1,1-Dichloropropene	U	1.23	ug/kg	0.369	1.23
56-23-5	Carbon tetrachloride	U	1.23	ug/kg	0.369	1.23
107-06-2	1,2-Dichloroethane	U	1.23	ug/kg	0.369	1.23
71-43-2	Benzene	U	1.23	ug/kg	0.369	1.23
79-01-6	Trichloroethylene	U	1.23	ug/kg	0.406	1.23
78-87-5	1,2-Dichloropropane	U	1.23	ug/kg	0.369	1.23
75-27-4	Bromodichloromethane	U	1.23	ug/kg	0.369	1.23
74-95-3	Dibromomethane	U	1.23	ug/kg	0.369	1.23
108-10-1	4-Methyl-2-pentanone	U	6.15	ug/kg	1.54	6.15
10061-01-5	cis-1,3-Dichloropropylene	U	1.23	ug/kg	0.369	1.23
108-88-3	Toluene	U	1.23	ug/kg	0.369	1.23
10061-02-6	trans-1,3-Dichloropropylene	U	1.23	ug/kg	0.369	1.23
79-00-5	1,1,2-Trichloroethane	U	1.23	ug/kg	0.369	1.23
591-78-6	2-Hexanone	U	6.15	ug/kg	1.85	6.15
142-28-9	1,3-Dichloropropane	U	1.23	ug/kg	0.369	1.23
127-18-4	Tetrachloroethylene	U	1.23	ug/kg	0.369	1.23
124-48-1	Dibromochloromethane	U	1.23	ug/kg	0.369	1.23
106-93-4	1,2-Dibromoethane	U	1.23	ug/kg	0.369	1.23
108-90-7	Chlorobenzene	U	1.23	ug/kg	0.369	1.23

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702001**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**18.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13203**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965707**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 14:49**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 11:35**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V9\9D213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.23	ug/kg	0.369	1.23
179601-23-1	m,p-Xylenes	U	2.46	ug/kg	0.369	2.46
95-47-6	o-Xylene	U	1.23	ug/kg	0.369	1.23
100-42-5	Styrene	U	1.23	ug/kg	0.369	1.23
75-25-2	Bromoform	U	1.23	ug/kg	0.369	1.23
79-34-5	1,1,2,2-Tetrachloroethane	U	1.23	ug/kg	0.369	1.23
96-18-4	1,2,3-Trichloropropane	U	1.23	ug/kg	0.369	1.23
108-86-1	Bromobenzene	U	1.23	ug/kg	0.369	1.23
103-65-1	n-Propylbenzene	U	1.23	ug/kg	0.369	1.23
95-49-8	2-Chlorotoluene	U	1.23	ug/kg	0.369	1.23
98-82-8	Isopropylbenzene	U	1.23	ug/kg	0.369	1.23
108-67-8	1,3,5-Trimethylbenzene	U	1.23	ug/kg	0.369	1.23
106-43-4	4-Chlorotoluene	U	1.23	ug/kg	0.369	1.23
98-06-6	tert-Butylbenzene	U	1.23	ug/kg	0.369	1.23
95-63-6	1,2,4-Trimethylbenzene	U	1.23	ug/kg	0.369	1.23
135-98-8	sec-Butylbenzene	U	1.23	ug/kg	0.369	1.23
99-87-6	4-Isopropyltoluene	U	1.23	ug/kg	0.369	1.23
541-73-1	1,3-Dichlorobenzene	U	1.23	ug/kg	0.369	1.23
106-46-7	1,4-Dichlorobenzene	U	1.23	ug/kg	0.369	1.23
104-51-8	n-Butylbenzene	U	1.23	ug/kg	0.369	1.23
96-12-8	1,2-Dibromo-3-chloropropane	U	1.23	ug/kg	0.369	1.23
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.15	ug/kg	1.97	6.15
630-20-6	1,1,1,2-Tetrachloroethane	U	1.23	ug/kg	0.369	1.23
95-50-1	1,2-Dichlorobenzene	U	1.23	ug/kg	0.369	1.23

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.55	6.79	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702002**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**21.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13202**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965707**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 15:19**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 11:36**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V9\9D214.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.27	ug/kg	0.432	1.27
74-87-3	Chloromethane	U	1.27	ug/kg	0.381	1.27
75-01-4	Vinyl chloride	U	1.27	ug/kg	0.381	1.27
74-83-9	Bromomethane	U	1.27	ug/kg	0.381	1.27
75-00-3	Chloroethane	U	1.27	ug/kg	0.381	1.27
75-69-4	Trichlorofluoromethane	U	1.27	ug/kg	0.381	1.27
67-64-1	Acetone	U	6.35	ug/kg	2.11	6.35
75-35-4	1,1-Dichloroethylene	U	1.27	ug/kg	0.381	1.27
74-88-4	Iodomethane	U	6.35	ug/kg	2.03	6.35
75-09-2	Methylene chloride	U	6.35	ug/kg	2.54	6.35
75-15-0	Carbon disulfide	U	6.35	ug/kg	1.59	6.35
156-60-5	trans-1,2-Dichloroethylene	U	1.27	ug/kg	0.381	1.27
75-34-3	1,1-Dichloroethane	U	1.27	ug/kg	0.381	1.27
78-93-3	2-Butanone	U	6.35	ug/kg	1.91	6.35
156-59-2	cis-1,2-Dichloroethylene	U	1.27	ug/kg	0.381	1.27
594-20-7	2,2-Dichloropropane	U	1.27	ug/kg	0.381	1.27
67-66-3	Chloroform	U	1.27	ug/kg	0.381	1.27
74-97-5	Bromochloromethane	U	1.27	ug/kg	0.419	1.27
71-55-6	1,1,1-Trichloroethane	U	1.27	ug/kg	0.381	1.27
563-58-6	1,1-Dichloropropene	U	1.27	ug/kg	0.381	1.27
56-23-5	Carbon tetrachloride	U	1.27	ug/kg	0.381	1.27
107-06-2	1,2-Dichloroethane	U	1.27	ug/kg	0.381	1.27
71-43-2	Benzene	U	1.27	ug/kg	0.381	1.27
79-01-6	Trichloroethylene	U	1.27	ug/kg	0.419	1.27
78-87-5	1,2-Dichloropropane	U	1.27	ug/kg	0.381	1.27
75-27-4	Bromodichloromethane	U	1.27	ug/kg	0.381	1.27
74-95-3	Dibromomethane	U	1.27	ug/kg	0.381	1.27
108-10-1	4-Methyl-2-pentanone	U	6.35	ug/kg	1.59	6.35
10061-01-5	cis-1,3-Dichloropropylene	U	1.27	ug/kg	0.381	1.27
108-88-3	Toluene	U	1.27	ug/kg	0.381	1.27
10061-02-6	trans-1,3-Dichloropropylene	U	1.27	ug/kg	0.381	1.27
79-00-5	1,1,2-Trichloroethane	U	1.27	ug/kg	0.381	1.27
591-78-6	2-Hexanone	U	6.35	ug/kg	1.91	6.35
142-28-9	1,3-Dichloropropane	U	1.27	ug/kg	0.381	1.27
127-18-4	Tetrachloroethylene	U	1.27	ug/kg	0.381	1.27
124-48-1	Dibromochloromethane	U	1.27	ug/kg	0.381	1.27
106-93-4	1,2-Dibromoethane	U	1.27	ug/kg	0.381	1.27
108-90-7	Chlorobenzene	U	1.27	ug/kg	0.381	1.27

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702002**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**21.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13202**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965707**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 15:19**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 11:36**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V9\9D214.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.27	ug/kg	0.381	1.27
179601-23-1	m,p-Xylenes	U	2.54	ug/kg	0.381	2.54
95-47-6	o-Xylene	U	1.27	ug/kg	0.381	1.27
100-42-5	Styrene	U	1.27	ug/kg	0.381	1.27
75-25-2	Bromoform	U	1.27	ug/kg	0.381	1.27
79-34-5	1,1,2,2-Tetrachloroethane	U	1.27	ug/kg	0.381	1.27
96-18-4	1,2,3-Trichloropropane	U	1.27	ug/kg	0.381	1.27
108-86-1	Bromobenzene	U	1.27	ug/kg	0.381	1.27
103-65-1	n-Propylbenzene	U	1.27	ug/kg	0.381	1.27
95-49-8	2-Chlorotoluene	U	1.27	ug/kg	0.381	1.27
98-82-8	Isopropylbenzene	U	1.27	ug/kg	0.381	1.27
108-67-8	1,3,5-Trimethylbenzene	U	1.27	ug/kg	0.381	1.27
106-43-4	4-Chlorotoluene	U	1.27	ug/kg	0.381	1.27
98-06-6	tert-Butylbenzene	U	1.27	ug/kg	0.381	1.27
95-63-6	1,2,4-Trimethylbenzene	U	1.27	ug/kg	0.381	1.27
135-98-8	sec-Butylbenzene	U	1.27	ug/kg	0.381	1.27
99-87-6	4-Isopropyltoluene	U	1.27	ug/kg	0.381	1.27
541-73-1	1,3-Dichlorobenzene	U	1.27	ug/kg	0.381	1.27
106-46-7	1,4-Dichlorobenzene	U	1.27	ug/kg	0.381	1.27
104-51-8	n-Butylbenzene	U	1.27	ug/kg	0.381	1.27
96-12-8	1,2-Dibromo-3-chloropropane	U	1.27	ug/kg	0.381	1.27
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.35	ug/kg	2.03	6.35
630-20-6	1,1,1,2-Tetrachloroethane	U	1.27	ug/kg	0.381	1.27
95-50-1	1,2-Dichlorobenzene	U	1.27	ug/kg	0.381	1.27

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-2264

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202072232	LCS for batch 965706	102	101	98
1202072233	LCS for batch 965706	99	97	91
1202072229	MB for batch 965706	108	100	98
248702001	RE46-10-13203	112	102	103
248702002	RE46-10-13202	113	99	99

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(66%-134%)
TOL	= Toluene-d8	(71%-128%)
BFB	= Bromofluorobenzene	(65%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: RE16-10-3777PS
Lab Sample ID: 1202072230
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 6.3
Analysis Date: 03/17/2010 19:04
Prep Batch ID: 965706
Batch ID: 965707
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	HU	38.5	77	39-148
74-87-3	PS	Chloromethane	50.0	0.00	HU	44.6	89	42-131
75-01-4	PS	Vinyl chloride	50.0	0.00	HU	44.9	90	50-127
74-83-9	PS	Bromomethane	50.0	0.00	HU	40.4	81	26-135
75-00-3	PS	Chloroethane	50.0	0.00	HU	37.3	75	54-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	HU	44.6	89	55-138
67-64-1	PS	Acetone	250	0.00	HU	187	75	20-144
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	HU	41.1	82	55-128
74-88-4	PS	Iodomethane	250	0.00	HU	195	78	47-132
75-09-2	PS	Methylene chloride	50.0	0.00	HU	40.1	80	56-123
75-15-0	PS	Carbon disulfide	250	0.00	HU	197	79	53-133
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	HU	40.8	82	57-119
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	HU	40.0	80	62-125
78-93-3	PS	2-Butanone	250	0.00	HU	181	72	30-150
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	HU	41.6	83	60-124
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	HU	43.7	87	56-129
67-66-3	PS	Chloroform	50.0	0.00	HU	41.7	83	62-120
74-97-5	PS	Bromochloromethane	50.0	0.00	HU	40.8	82	51-135
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	HU	46.8	94	58-129
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	HU	38.5	77	59-126
56-23-5	PS	Carbon tetrachloride	50.0	0.00	HU	47.5	95	55-132
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	HU	50.1	100	54-121

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: RE16-10-3777PS
Lab Sample ID: 1202072230
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 6.3
Analysis Date: 03/17/2010 19:04
Prep Batch ID: 965706
Batch ID: 965707
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	HU	36.0	72	58-120
79-01-6	PS	Trichloroethylene	50.0	0.00	HU	38.8	78	54-130
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	HU	38.1	76	59-121
75-27-4	PS	Bromodichloromethane	50.0	0.00	HU	45.0	90	57-130
74-95-3	PS	Dibromomethane	50.0	0.00	HU	42.2	84	57-124
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	HU	195	78	40-137
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	HU	40.4	81	50-131
108-88-3	PS	Toluene	50.0	0.00	HU	34.7	69	54-119
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	HU	42.8	86	47-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	HU	36.6	73	60-130
591-78-6	PS	2-Hexanone	250	0.00	HU	169	68	30-139
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	HU	37.6	75	59-125
127-18-4	PS	Tetrachloroethylene	50.0	0.00	HU	34.0	68	50-126
124-48-1	PS	Dibromochloromethane	50.0	0.00	HU	44.5	89	54-131
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	HU	39.7	79	55-127
108-90-7	PS	Chlorobenzene	50.0	0.00	HU	35.7	71	50-130
100-41-4	PS	Ethylbenzene	50.0	0.00	HU	32.0	64	50-121
179601-23-1	PS	m,p-Xylenes	100	0.00	HU	67.0	67	47-125
95-47-6	PS	o-Xylene	50.0	0.00	HU	33.5	67	51-127
100-42-5	PS	Styrene	50.0	0.00	HU	35.9	72	41-136
75-25-2	PS	Bromoform	50.0	0.00	HU	42.1	84	48-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	HU	35.1	70	52-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: RE16-10-3777PS
Lab Sample ID: 1202072230
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 6.3
Analysis Date: 03/17/2010 19:04
Prep Batch ID: 965706
Batch ID: 965707
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	HU	40.7	81	56-139
108-86-1	PS	Bromobenzene	50.0	0.00	HU	34.1	68	54-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	HU	29.7	59	46-127
95-49-8	PS	2-Chlorotoluene	50.0	0.00	HU	32.9	66	47-130
98-82-8	PS	Isopropylbenzene	50.0	0.00	HU	32.6	65	42-126
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	HU	32.1	64	44-132
106-43-4	PS	4-Chlorotoluene	50.0	0.00	HU	33.3	67	46-127
98-06-6	PS	tert-Butylbenzene	50.0	0.00	HU	32.1	64	48-136
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	HU	33.4	67	42-132
135-98-8	PS	sec-Butylbenzene	50.0	0.00	HU	30.6	61	47-130
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	HU	31.2	62	36-142
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	HU	32.0	64	41-130
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	HU	32.6	65	41-126
104-51-8	PS	n-Butylbenzene	50.0	0.00	HU	28.9	58	37-136
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	HU	39.9	80	42-143
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	HU	41.4	83	58-127
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	HU	34.5	69	42-128

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: RE16-10-3777PSD
Lab Sample ID: 1202072231
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 6.3
Analysis Date: 03/17/2010 19:32
Dilution: 1
Prep Batch ID: 965706
Batch ID: 965707

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	HU	41.7	83	39-148	8	0-19
74-87-3	PSD	Chloromethane	50.0	0.00	HU	48.1	96	42-131	8	0-23
75-01-4	PSD	Vinyl chloride	50.0	0.00	HU	49.7	99	50-127	10	0-23
74-83-9	PSD	Bromomethane	50.0	0.00	HU	44.4	89	26-135	9	0-22
75-00-3	PSD	Chloroethane	50.0	0.00	HU	41.6	83	54-128	11	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	HU	48.4	97	55-138	8	0-21
67-64-1	PSD	Acetone	250	0.00	HU	185	74	20-144	1	0-22
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	HU	45.1	90	55-128	9	0-20
74-88-4	PSD	Iodomethane	250	0.00	HU	214	85	47-132	9	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	HU	44.1	88	56-123	10	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	HU	217	87	53-133	10	0-22
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	HU	44.0	88	57-119	8	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	HU	43.0	86	62-125	7	0-20
78-93-3	PSD	2-Butanone	250	0.00	HU	183	73	30-150	1	0-21
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	HU	45.0	90	60-124	8	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	HU	46.1	92	56-129	5	0-20
67-66-3	PSD	Chloroform	50.0	0.00	HU	44.8	90	62-120	7	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	HU	42.6	85	51-135	4	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	HU	50.2	100	58-129	7	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	HU	41.5	83	59-126	7	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	HU	50.3	101	55-132	6	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	HU	52.1	104	54-121	4	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: RE16-10-3777PSD
Lab Sample ID: 1202072231
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 6.3
Analysis Date: 03/17/2010 19:32
Dilution: 1
Prep Batch ID: 965706
Batch ID: 965707

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	HU	39.3	79	58-120	9	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	HU	41.5	83	54-130	7	0-23
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	HU	40.1	80	59-121	5	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	HU	47.5	95	57-130	5	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	HU	45.3	91	57-124	7	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	HU	206	82	40-137	6	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	HU	42.6	85	50-131	5	0-20
108-88-3	PSD	Toluene	50.0	0.00	HU	37.0	74	54-119	7	0-23
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	HU	44.4	89	47-133	4	0-24
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	HU	38.3	77	60-130	5	0-20
591-78-6	PSD	2-Hexanone	250	0.00	HU	169	68	30-139	0	0-21
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	HU	38.8	78	59-125	3	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	HU	35.1	70	50-126	3	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	HU	46.5	93	54-131	4	0-23
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	HU	41.7	83	55-127	5	0-23
108-90-7	PSD	Chlorobenzene	50.0	0.00	HU	37.8	76	50-130	6	0-24
100-41-4	PSD	Ethylbenzene	50.0	0.00	HU	34.3	69	50-121	7	0-24
179601-23-1	PSD	m,p-Xylenes	100	0.00	HU	71.8	72	47-125	7	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	HU	36.1	72	51-127	8	0-24
100-42-5	PSD	Styrene	50.0	0.00	HU	38.5	77	41-136	7	0-24
75-25-2	PSD	Bromoform	50.0	0.00	HU	43.9	88	48-143	4	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	HU	37.5	75	52-129	7	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: RE16-10-3777PSD
Lab Sample ID: 1202072231
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 6.3
Analysis Date: 03/17/2010 19:32
Dilution: 1
Prep Batch ID: 965706
Batch ID: 965707

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	HU	41.2	82	56-139	1	0-34
108-86-1	PSD	Bromobenzene	50.0	0.00	HU	35.6	71	54-125	4	0-22
103-65-1	PSD	n-Propylbenzene	50.0	0.00	HU	31.2	62	46-127	5	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	HU	34.5	69	47-130	5	0-24
98-82-8	PSD	Isopropylbenzene	50.0	0.00	HU	34.0	68	42-126	4	0-22
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	HU	33.6	67	44-132	4	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	HU	35.2	70	46-127	6	0-26
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	HU	34.3	69	48-136	7	0-24
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	HU	35.0	70	42-132	5	0-26
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	HU	31.7	63	47-130	4	0-27
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	HU	32.3	65	36-142	3	0-27
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	HU	33.8	68	41-130	6	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	HU	34.4	69	41-126	5	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	HU	29.7	59	37-136	3	0-29
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	HU	43.1	86	42-143	8	0-21
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	HU	43.7	87	58-127	5	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	HU	35.9	72	42-128	4	0-24

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: LCS for batch 965706
Lab Sample ID: 1202072232
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/16/2010 09:29
Dilution: 1
Prep Batch ID: 965706
Batch ID: 965707

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	43.9	88	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	40.6	81	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	47.5	95	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	45.3	91	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	45.4	91	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	45.7	91	73-143
67-64-1	LCS	Acetone	250	0.0	232	93	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	43.4	87	71-129
74-88-4	LCS	Iodomethane	250	0.0	212	85	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	45.9	92	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	231	92	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	43.9	88	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	43.5	87	73-120
78-93-3	LCS	2-Butanone	250	0.0	222	89	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	44.0	88	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	49.8	100	73-134
67-66-3	LCS	Chloroform	50.0	0.0	41.2	82	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	44.8	90	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	46.5	93	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	43.8	88	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	45.9	92	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	43.1	86	65-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 965706 **Matrix:** SOIL

Lab Sample ID: 1202072232

Instrument: VOA9.I **Analysis Date:** 03/16/2010 09:29 **Dilution:** 1

Analyst: RXY1 **Prep Batch ID** 965706

Purge Vol: 5 mL **Batch ID:** 965707

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	42.2	84	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	42.9	86	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	43.2	86	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	43.6	87	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	43.2	86	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	238	95	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	44.8	90	78-127
108-88-3	LCS	Toluene	50.0	0.0	41.3	83	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	46.8	94	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	41.9	84	75-120
591-78-6	LCS	2-Hexanone	250	0.0	212	85	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	40.8	82	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	42.0	84	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	46.3	93	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	43.0	86	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	41.8	84	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	37.2	74	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	82.7	83	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	40.8	82	76-122
100-42-5	LCS	Styrene	50.0	0.0	42.1	84	75-125
75-25-2	LCS	Bromoform	50.0	0.0	45.1	90	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	43.2	86	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 965706 **Matrix:** SOIL

Lab Sample ID: 1202072232

Instrument: VOA9.I **Analysis Date:** 03/16/2010 09:29 **Dilution:** 1

Analyst: RXY1 **Prep Batch ID:** 965706

Purge Vol: 5 mL **Batch ID:** 965707

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	41.9	84	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	40.0	80	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	37.6	75	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	40.5	81	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	39.7	79	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	38.8	78	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	40.4	81	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	41.7	83	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	40.4	81	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	39.9	80	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	41.5	83	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	40.0	80	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	40.5	81	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	40.7	81	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	44.9	90	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	43.4	87	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	40.6	81	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: LCS for batch 965706
Lab Sample ID: 1202072233
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/16/2010 10:25
Dilution: 1
Prep Batch ID: 965706
Batch ID: 965707

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	263	105	67-140

Method Blank Summary

SDG Number:	10-2264	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965706	Instrument ID:	VOA9.I	Data File:	031610V9\9D207B.D
Lab Sample ID:	1202072229	Prep Date:	03/16/2010 08:02	Analyzed:	03/16/10 11:51
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 965706	1202072232	031610V9\9D202L.D	03/16/10	0929
02	LCS for batch 965706	1202072233	031610V9\9D204L.D	03/16/10	1025
03	RE46-10-13203	248702001	031610V9\9D213.D	03/16/10	1449
04	RE46-10-13202	248702002	031610V9\9D214.D	03/16/10	1519

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2264

Instrument ID: VOA9.I **Injection Date/Time:** 02-MAR-10 12:10

Column Description: DB-624 **Lab File ID** 030210V9\9B209.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	24.9
75	30.0 - 60.0% of mass 95	49.7
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	56.9
175	5.0 -9.0% of mass 174	6.6
176	95.0 - 101.0% of mass 174	96.5
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W9VM100302-07	030210V9\9B210.D	02-MAR-10 12:38
ICALMIX[A]	W9VM100302-08	030210V9\9B211.D	02-MAR-10 13:07
ICALMIX[A]	W9VM100302-09	030210V9\9B212.D	02-MAR-10 13:36
ICALMIX[A]	W9VM100302-10	030210V9\9B213.D	02-MAR-10 14:04
ICALMIX[A]	W9VM100302-11	030210V9\9B214.D	02-MAR-10 14:33
ICALMIX[A]	W9VM100302-12	030210V9\9B215.D	02-MAR-10 15:02
ICALMIX[A]	W9VM100302-13	030210V9\9B216.D	02-MAR-10 15:31
ICALMIX[A]	W9VM100302-14	030210V9\9B217.D	02-MAR-10 16:00
ICALMIX[B]	W9VM100302-18	030210V9\9B223.D	02-MAR-10 18:51
ICALMIX[B]	W9VM100302-19	030210V9\9B224.D	02-MAR-10 19:19
ICALMIX[B]	W9VM100302-20	030210V9\9B225.D	02-MAR-10 19:48
ICALMIX[B]	W9VM100302-21	030210V9\9B226.D	02-MAR-10 20:16
ICALMIX[B]	W9VM100302-22	030210V9\9B227.D	02-MAR-10 20:44
ICALMIX[B]	W9VM100302-23	030210V9\9B228.D	02-MAR-10 21:12
ICALMIX[B]	W9VM100302-24	030210V9\9B229.D	02-MAR-10 21:40

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2264

Instrument ID: VOA9.I **Injection Date/Time:** 03-MAR-10 10:50

Column Description: DB-624 **Lab File ID** 030310V9\9B303BFB.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	25.6
75	30.0 - 60.0% of mass 95	49.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	53.3
175	5.0 -9.0% of mass 174	6.9
176	95.0 - 101.0% of mass 174	97.5
177	5.0 - 9.0% of mass 176	6.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICVMIX[A]01	W9VM100303-03	030310V9\9B303ICV.D	03-MAR-10 10:50
ICVMIX[B]02	W9VM100303-05	030310V9\9B305ICV.D	03-MAR-10 12:00

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2264

Instrument ID: VOA9.I **Injection Date/Time:** 16-MAR-10 09:01

Column Description: DB-624 **Lab File ID** 031610V9\9D201BFB.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	26
75	30.0 - 60.0% of mass 95	49.4
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	53.8
175	5.0 -9.0% of mass 174	7
176	95.0 - 101.0% of mass 174	96.9
177	5.0 - 9.0% of mass 176	6.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]01	W9VM100316-01	031610V9\9D201.D	16-MAR-10 09:01
BLK01LCS	1202072232	031610V9\9D202L.D	16-MAR-10 09:29
CCVMIX[B]02	W9VM100316-03	031610V9\9D203.D	16-MAR-10 09:57
BLK01SLCS	1202072233	031610V9\9D204L.D	16-MAR-10 10:25
BLK01	1202072229	031610V9\9D207B.D	16-MAR-10 11:51
RE46-10-13203	248702001	031610V9\9D213.D	16-MAR-10 14:49
RE46-10-13202	248702002	031610V9\9D214.D	16-MAR-10 15:19

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA9.I

GC Column: DB-624

Client SDG: 10-2264

STD Analysis Time: 16-MAR-10 09:01

Data File: C:\msdchem\1\DATA\031610V9\9D201.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1447732		10.8	980773		13.9	447855		16.4
Upper Limit	2895464		11.3	1961546		14.4	895710		16.9
Lower Limit	723866		10.3	490387		13.4	223928		15.9
Sample ID									
BLK01LCS	1403985		10.8	972973		13.9	452773		16.4
BLK01SLCS	1393156		10.8	971023		13.9	450780		16.4
BLK01	1294779		10.8	891768		13.9	406723		16.4
RE46-10-13203	1009204		10.8	690846		13.9	292175		16.4
RE46-10-13202	1076233		10.8	746638		13.9	322428		16.4

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702001**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**18.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13203**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965707**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 14:49**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 11:35**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V9\9D213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.23	ug/kg	0.418	1.23
74-87-3	Chloromethane	U	1.23	ug/kg	0.369	1.23
75-01-4	Vinyl chloride	U	1.23	ug/kg	0.369	1.23
74-83-9	Bromomethane	U	1.23	ug/kg	0.369	1.23
75-00-3	Chloroethane	U	1.23	ug/kg	0.369	1.23
75-69-4	Trichlorofluoromethane	U	1.23	ug/kg	0.369	1.23
67-64-1	Acetone	U	6.15	ug/kg	2.04	6.15
75-35-4	1,1-Dichloroethylene	U	1.23	ug/kg	0.369	1.23
74-88-4	Iodomethane	U	6.15	ug/kg	1.97	6.15
75-09-2	Methylene chloride	U	6.15	ug/kg	2.46	6.15
75-15-0	Carbon disulfide	U	6.15	ug/kg	1.54	6.15
156-60-5	trans-1,2-Dichloroethylene	U	1.23	ug/kg	0.369	1.23
75-34-3	1,1-Dichloroethane	U	1.23	ug/kg	0.369	1.23
78-93-3	2-Butanone	U	6.15	ug/kg	1.85	6.15
156-59-2	cis-1,2-Dichloroethylene	U	1.23	ug/kg	0.369	1.23
594-20-7	2,2-Dichloropropane	U	1.23	ug/kg	0.369	1.23
67-66-3	Chloroform	U	1.23	ug/kg	0.369	1.23
74-97-5	Bromochloromethane	U	1.23	ug/kg	0.406	1.23
71-55-6	1,1,1-Trichloroethane	U	1.23	ug/kg	0.369	1.23
563-58-6	1,1-Dichloropropene	U	1.23	ug/kg	0.369	1.23
56-23-5	Carbon tetrachloride	U	1.23	ug/kg	0.369	1.23
107-06-2	1,2-Dichloroethane	U	1.23	ug/kg	0.369	1.23
71-43-2	Benzene	U	1.23	ug/kg	0.369	1.23
79-01-6	Trichloroethylene	U	1.23	ug/kg	0.406	1.23
78-87-5	1,2-Dichloropropane	U	1.23	ug/kg	0.369	1.23
75-27-4	Bromodichloromethane	U	1.23	ug/kg	0.369	1.23
74-95-3	Dibromomethane	U	1.23	ug/kg	0.369	1.23
108-10-1	4-Methyl-2-pentanone	U	6.15	ug/kg	1.54	6.15
10061-01-5	cis-1,3-Dichloropropylene	U	1.23	ug/kg	0.369	1.23
108-88-3	Toluene	U	1.23	ug/kg	0.369	1.23
10061-02-6	trans-1,3-Dichloropropylene	U	1.23	ug/kg	0.369	1.23
79-00-5	1,1,2-Trichloroethane	U	1.23	ug/kg	0.369	1.23
591-78-6	2-Hexanone	U	6.15	ug/kg	1.85	6.15
142-28-9	1,3-Dichloropropane	U	1.23	ug/kg	0.369	1.23
127-18-4	Tetrachloroethylene	U	1.23	ug/kg	0.369	1.23
124-48-1	Dibromochloromethane	U	1.23	ug/kg	0.369	1.23
106-93-4	1,2-Dibromoethane	U	1.23	ug/kg	0.369	1.23
108-90-7	Chlorobenzene	U	1.23	ug/kg	0.369	1.23

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702001**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**18.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13203**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965707**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 14:49**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 11:35**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V9\9D213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.23	ug/kg	0.369	1.23
179601-23-1	m,p-Xylenes	U	2.46	ug/kg	0.369	2.46
95-47-6	o-Xylene	U	1.23	ug/kg	0.369	1.23
100-42-5	Styrene	U	1.23	ug/kg	0.369	1.23
75-25-2	Bromoform	U	1.23	ug/kg	0.369	1.23
79-34-5	1,1,2,2-Tetrachloroethane	U	1.23	ug/kg	0.369	1.23
96-18-4	1,2,3-Trichloropropane	U	1.23	ug/kg	0.369	1.23
108-86-1	Bromobenzene	U	1.23	ug/kg	0.369	1.23
103-65-1	n-Propylbenzene	U	1.23	ug/kg	0.369	1.23
95-49-8	2-Chlorotoluene	U	1.23	ug/kg	0.369	1.23
98-82-8	Isopropylbenzene	U	1.23	ug/kg	0.369	1.23
108-67-8	1,3,5-Trimethylbenzene	U	1.23	ug/kg	0.369	1.23
106-43-4	4-Chlorotoluene	U	1.23	ug/kg	0.369	1.23
98-06-6	tert-Butylbenzene	U	1.23	ug/kg	0.369	1.23
95-63-6	1,2,4-Trimethylbenzene	U	1.23	ug/kg	0.369	1.23
135-98-8	sec-Butylbenzene	U	1.23	ug/kg	0.369	1.23
99-87-6	4-Isopropyltoluene	U	1.23	ug/kg	0.369	1.23
541-73-1	1,3-Dichlorobenzene	U	1.23	ug/kg	0.369	1.23
106-46-7	1,4-Dichlorobenzene	U	1.23	ug/kg	0.369	1.23
104-51-8	n-Butylbenzene	U	1.23	ug/kg	0.369	1.23
96-12-8	1,2-Dibromo-3-chloropropane	U	1.23	ug/kg	0.369	1.23
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.15	ug/kg	1.97	6.15
630-20-6	1,1,1,2-Tetrachloroethane	U	1.23	ug/kg	0.369	1.23
95-50-1	1,2-Dichlorobenzene	U	1.23	ug/kg	0.369	1.23

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.55	6.79	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D213.D
Acq On : 16 Mar 2010 2:49 pm
Operator : RXY1
InstName : VOA9
Sample : |248702001|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 17:46:49 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.787	10.775	1.000	96	1009204	50.00	ug/L	0.01
41) Chlorobenzene-d5	13.941	13.941	1.000	117	690846	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	292156	50.00	ug/L	0.00
82) B Fluorobenzene	10.787	10.775	1.000	96	1009204	50.00	ug/L	0.01
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	690846	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	292175	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.967	65	379577	55.97	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 111.94%					
43) Toluene-d8	12.412	12.412	0.890	98	903411	50.90	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 101.80%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	365581	51.45	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 102.90%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	0.000	5.308	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.546	0.000		0	N.D.		
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	7.087	7.099	0.657	59	446	N.D.		
9) Acetone	7.502	7.490	0.695	43	4153	N.D.		
10) 1,1-Dichloroethylene	0.000	7.502	0.000		0	N.D.		
11) Iodomethane	0.000	7.763	0.000		0	N.D.		
12) Acetonitrile	8.083	7.858	0.749	41	880	Below Cal	#	35
13) Methyl acetate	7.893	7.882	0.732	43	179	Below Cal	#	67
14) Carbon disulfide	7.893	7.906	0.732	76	1446	N.D.		
15) Methylene chloride	8.083	8.083	0.749	84	9783	Below Cal	#	77
16) tert-Butyl methyl ether	0.000	8.368	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.427	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.854	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.913	0.000		0	N.D.		
20) 2-Butanone	9.494	9.483	0.880	43	713	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.554	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	0.000	9.850	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	0.000	10.230	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	10.289	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.514	0.000		0	N.D.		
31) Benzene	10.538	10.538	0.977	78	473	N.D.		
32) Cyclohexene	0.000	10.645	0.000		0	N.D.		
33) n-Butyl alcohol	10.775	10.846	0.999	56	7843	Below Cal	#	21
34) Trichloroethylene	0.000	11.167	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.416	0.000		0	N.D.		
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D213.D
Acq On : 16 Mar 2010 2:49 pm
Operator : RXY1
InstName : VOA9
Sample : |248702001|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 17:46:49 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.665	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	12.103	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.186	0.000		0	N.D.	
44) Toluene	12.483	12.483	0.895	91	1609	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.637	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.	
47) 2-Hexanone	13.028	13.028	0.935	43	203	N.D.	
48) 1,3-Dichloropropane	0.000	13.052	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	13.088	0.000		0	N.D.	
50) Dibromochloromethane	0.000	13.325	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.503	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.977	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	14.024	0.000		0	N.D.	
54) Ethylbenzene	14.131	14.024	1.014	91	625	N.D.	
55) m,p-Xylenes	14.143	14.131	1.014	106	195	N.D.	
56) o-Xylene	0.000	14.570	0.000		0	N.D.	
57) Styrene	0.000	14.570	0.000		0	N.D.	
59) Bromoform	0.000	14.855	0.000		0	N.D.	
60) Isopropylbenzene	14.937	14.926	0.912	105	727	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.198	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.	
64) Bromobenzene	0.000	15.353	0.000		0	N.D.	
65) n-Propylbenzene	0.000	15.353	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.495	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.507	0.000		0	N.D.	
68) 4-Chlorotoluene	15.602	15.614	0.953	91	214	N.D.	
69) tert-Butylbenzene	0.000	15.874	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.922	15.910	0.972	105	206	N.D.	
71) sec-Butylbenzene	0.000	16.112	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	16.230	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	16.408	16.313	1.002	146	217	N.D.	
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	217	N.D.	
75) n-Butylbenzene	0.000	16.693	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.859	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.922	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	19.088	0.000		0	N.D.	
80) Naphthalene	19.349	19.349	1.182	128	2248	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.717	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.	
85) Acrolein	0.000	7.313	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.550	0.000		0	N.D.	
88) Allyl chloride	0.000	7.929	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.060	0.000		0	N.D.	
90) Acrylonitrile	0.000	8.332	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.866	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	9.008	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.	
94) Ethyl acetate	9.494	9.483	0.880	43	713	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D213.D
Acq On : 16 Mar 2010 2:49 pm
Operator : RXY1
InstName : VOA9
Sample : |248702001|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 17:46:49 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.578	0.000		0	N.D.	
96) Methacrylonitrile	9.874	9.744	0.915	41	460	N.D.	
97) Tetrahydrofuran	9.874	9.874	0.915	42	824	N.D.	
98) Isobutyl alcohol	0.000	10.159	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.368	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.487	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.854	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.613	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.937	14.961	0.912	53	713	N.D.	
108) Cyclohexanone	0.000	15.092	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	15.281	15.246	0.933	53	290	N.D.	
110) Pentachloroethane	0.000	15.957	0.000		0	N.D.	
111) Benzyl chloride	16.372	16.527	1.000	91	811	N.D.	
112) bis(2-Chloroisopropyl)...	16.942	16.918	1.035	45	620	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D213.D
Acq On : 16 Mar 2010 2:49 pm
Operator : RXY1
InstName : VOA9
Sample : |248702001|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 17:46:49 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

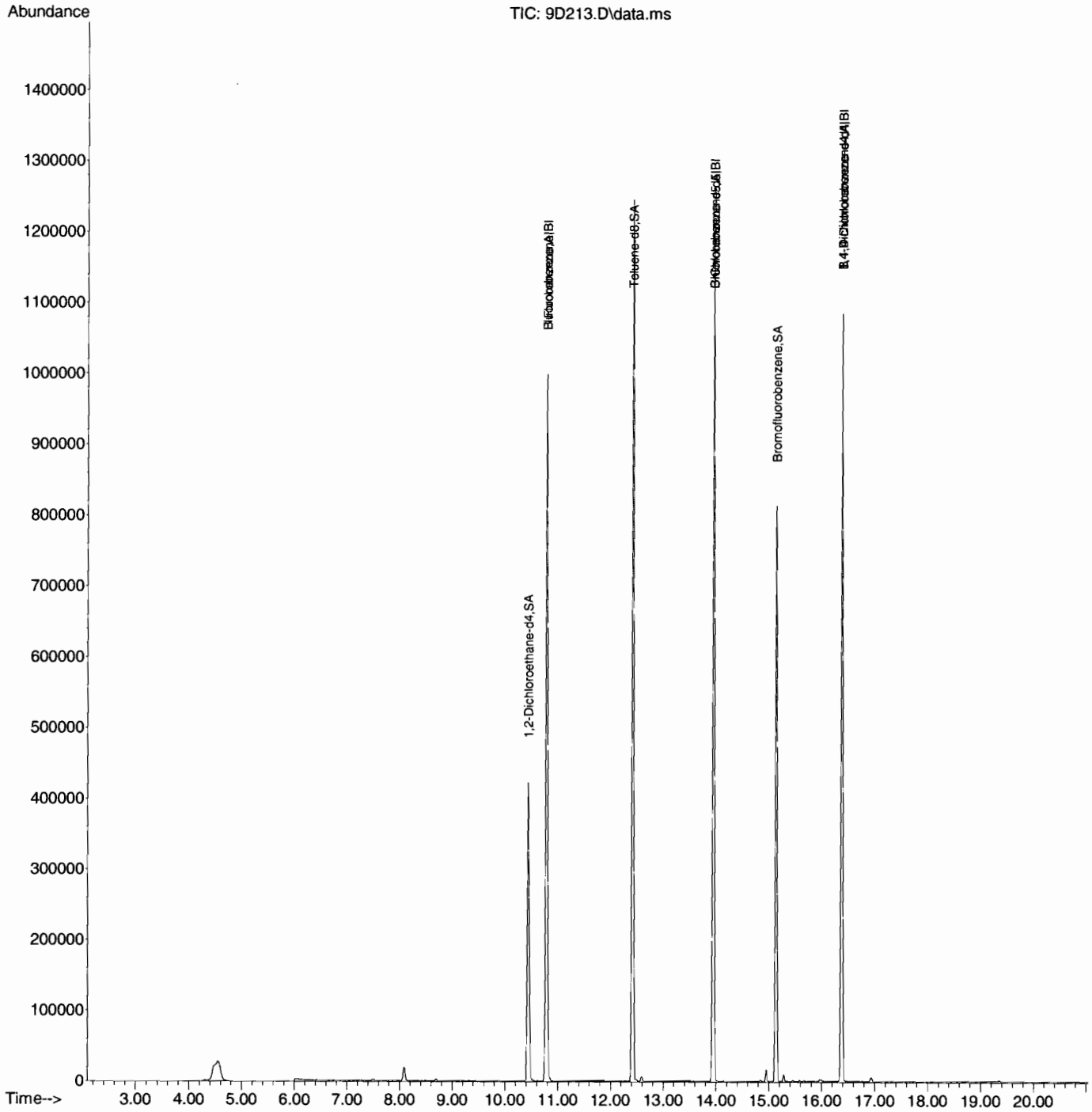

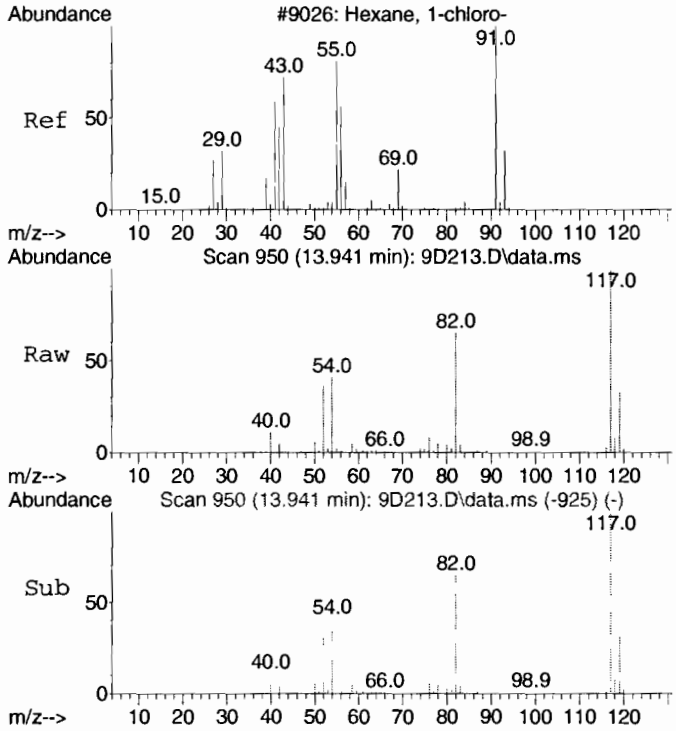

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.97 ug/L
RT: 13.941 min Scan# 950
Delta R.T. 0.118 min
Lab File: 9D213.D
Acq: 16 Mar 2010 2:49 pm

Tgt Ion: 55 Resp: 11360

Ion	Ratio	Lower	Upper
55	100		
91	12.3	74.8	134.8#
56	61.2	31.8	91.8

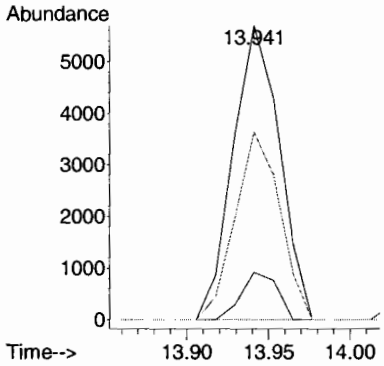

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D213.D
Acq On : 16 Mar 2010 2:49 pm
Operator : RXY1
Sample : |248702001|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.551	5.52 ug/L	262795	Fluorobenzene	10.787

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hydrazine, methyl-	46	CH6N2	000060-34-4	4
2	Formic acid	46	CH2O2	000064-18-6	4
3	Ethene, fluoro-	46	C2H3F	000075-02-5	3
4	Formic acid	46	CH2O2	000064-18-6	3
5	Hydrazine, methyl-	46	CH6N2	000060-34-4	3

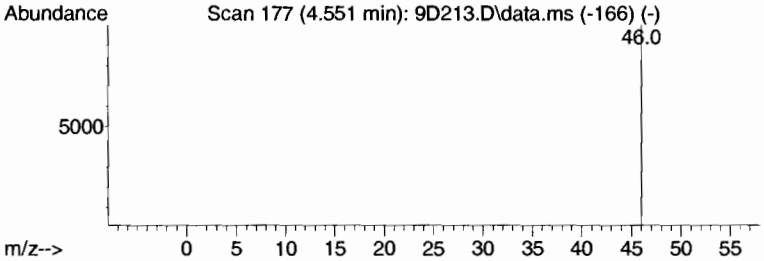

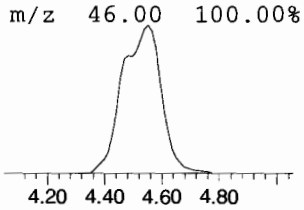

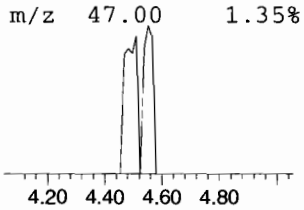

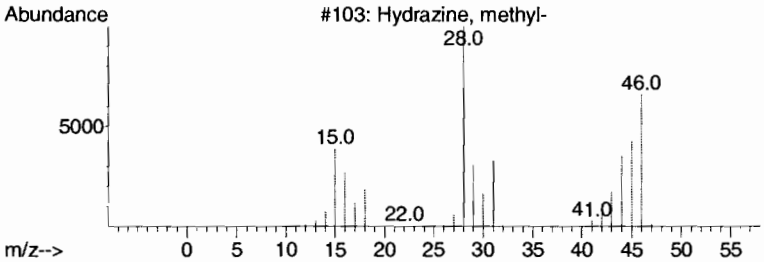

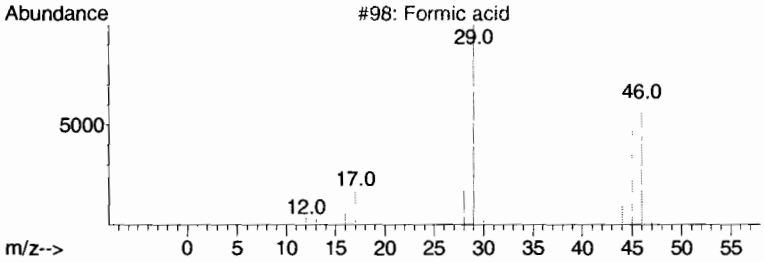

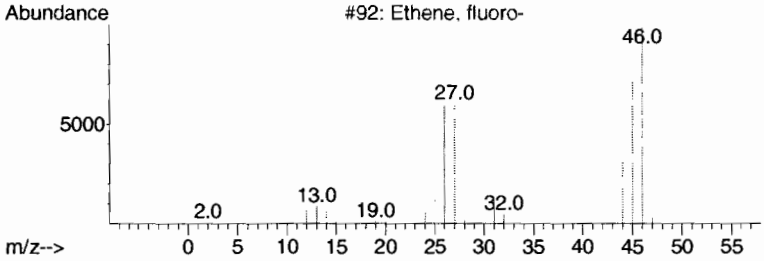

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D213.D
Acq On : 16 Mar 2010 2:49 pm
Operator : RXY1
Sample : |248702001|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown hydroca...	4.551	5.5	ug/L	262795	1	10.787	2381920	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702002**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**21.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13202**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965707**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 15:19**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 11:36**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V9\9D214.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.27	ug/kg	0.432	1.27
74-87-3	Chloromethane	U	1.27	ug/kg	0.381	1.27
75-01-4	Vinyl chloride	U	1.27	ug/kg	0.381	1.27
74-83-9	Bromomethane	U	1.27	ug/kg	0.381	1.27
75-00-3	Chloroethane	U	1.27	ug/kg	0.381	1.27
75-69-4	Trichlorofluoromethane	U	1.27	ug/kg	0.381	1.27
67-64-1	Acetone	U	6.35	ug/kg	2.11	6.35
75-35-4	1,1-Dichloroethylene	U	1.27	ug/kg	0.381	1.27
74-88-4	Iodomethane	U	6.35	ug/kg	2.03	6.35
75-09-2	Methylene chloride	U	6.35	ug/kg	2.54	6.35
75-15-0	Carbon disulfide	U	6.35	ug/kg	1.59	6.35
156-60-5	trans-1,2-Dichloroethylene	U	1.27	ug/kg	0.381	1.27
75-34-3	1,1-Dichloroethane	U	1.27	ug/kg	0.381	1.27
78-93-3	2-Butanone	U	6.35	ug/kg	1.91	6.35
156-59-2	cis-1,2-Dichloroethylene	U	1.27	ug/kg	0.381	1.27
594-20-7	2,2-Dichloropropane	U	1.27	ug/kg	0.381	1.27
67-66-3	Chloroform	U	1.27	ug/kg	0.381	1.27
74-97-5	Bromochloromethane	U	1.27	ug/kg	0.419	1.27
71-55-6	1,1,1-Trichloroethane	U	1.27	ug/kg	0.381	1.27
563-58-6	1,1-Dichloropropene	U	1.27	ug/kg	0.381	1.27
56-23-5	Carbon tetrachloride	U	1.27	ug/kg	0.381	1.27
107-06-2	1,2-Dichloroethane	U	1.27	ug/kg	0.381	1.27
71-43-2	Benzene	U	1.27	ug/kg	0.381	1.27
79-01-6	Trichloroethylene	U	1.27	ug/kg	0.419	1.27
78-87-5	1,2-Dichloropropane	U	1.27	ug/kg	0.381	1.27
75-27-4	Bromodichloromethane	U	1.27	ug/kg	0.381	1.27
74-95-3	Dibromomethane	U	1.27	ug/kg	0.381	1.27
108-10-1	4-Methyl-2-pentanone	U	6.35	ug/kg	1.59	6.35
10061-01-5	cis-1,3-Dichloropropylene	U	1.27	ug/kg	0.381	1.27
108-88-3	Toluene	U	1.27	ug/kg	0.381	1.27
10061-02-6	trans-1,3-Dichloropropylene	U	1.27	ug/kg	0.381	1.27
79-00-5	1,1,2-Trichloroethane	U	1.27	ug/kg	0.381	1.27
591-78-6	2-Hexanone	U	6.35	ug/kg	1.91	6.35
142-28-9	1,3-Dichloropropane	U	1.27	ug/kg	0.381	1.27
127-18-4	Tetrachloroethylene	U	1.27	ug/kg	0.381	1.27
124-48-1	Dibromochloromethane	U	1.27	ug/kg	0.381	1.27
106-93-4	1,2-Dibromoethane	U	1.27	ug/kg	0.381	1.27
108-90-7	Chlorobenzene	U	1.27	ug/kg	0.381	1.27

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702002**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**21.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13202**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965707**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 15:19**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 11:36**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V9\9D214.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.27	ug/kg	0.381	1.27
179601-23-1	m,p-Xylenes	U	2.54	ug/kg	0.381	2.54
95-47-6	o-Xylene	U	1.27	ug/kg	0.381	1.27
100-42-5	Styrene	U	1.27	ug/kg	0.381	1.27
75-25-2	Bromoform	U	1.27	ug/kg	0.381	1.27
79-34-5	1,1,2,2-Tetrachloroethane	U	1.27	ug/kg	0.381	1.27
96-18-4	1,2,3-Trichloropropane	U	1.27	ug/kg	0.381	1.27
108-86-1	Bromobenzene	U	1.27	ug/kg	0.381	1.27
103-65-1	n-Propylbenzene	U	1.27	ug/kg	0.381	1.27
95-49-8	2-Chlorotoluene	U	1.27	ug/kg	0.381	1.27
98-82-8	Isopropylbenzene	U	1.27	ug/kg	0.381	1.27
108-67-8	1,3,5-Trimethylbenzene	U	1.27	ug/kg	0.381	1.27
106-43-4	4-Chlorotoluene	U	1.27	ug/kg	0.381	1.27
98-06-6	tert-Butylbenzene	U	1.27	ug/kg	0.381	1.27
95-63-6	1,2,4-Trimethylbenzene	U	1.27	ug/kg	0.381	1.27
135-98-8	sec-Butylbenzene	U	1.27	ug/kg	0.381	1.27
99-87-6	4-Isopropyltoluene	U	1.27	ug/kg	0.381	1.27
541-73-1	1,3-Dichlorobenzene	U	1.27	ug/kg	0.381	1.27
106-46-7	1,4-Dichlorobenzene	U	1.27	ug/kg	0.381	1.27
104-51-8	n-Butylbenzene	U	1.27	ug/kg	0.381	1.27
96-12-8	1,2-Dibromo-3-chloropropane	U	1.27	ug/kg	0.381	1.27
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.35	ug/kg	2.03	6.35
630-20-6	1,1,1,2-Tetrachloroethane	U	1.27	ug/kg	0.381	1.27
95-50-1	1,2-Dichlorobenzene	U	1.27	ug/kg	0.381	1.27

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D214.D
Acq On : 16 Mar 2010 3:19 pm
Operator : RXY1
InstName : VOA9
Sample : |248702002|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 16 17:47:26 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.787	10.775	1.000	96	1076233	50.00	ug/L	0.01
41) Chlorobenzene-d5	13.942	13.941	1.000	117	746638	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.373	16.372	1.000	152	322408	50.00	ug/L	0.00
82) B Fluorobenzene	10.787	10.775	1.000	96	1076233	50.00	ug/L	0.01
103) B Chlorobenzene-d5	13.942	13.942	1.000	117	746638	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.373	16.372	1.000	152	322428	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.967	65	408481	56.48	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 112.96%					
43) Toluene-d8	12.412	12.412	0.890	98	948079	49.42	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 98.84%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	389160	49.63	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 99.26%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	5.308	5.308	0.492	50	240	N.D.		
4) Vinyl chloride	0.000	5.546	0.000		0	N.D.		
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	7.099	7.099	0.658	59	416	N.D.		
9) Acetone	7.514	7.490	0.697	43	2954	N.D.		
10) 1,1-Dichloroethylene	0.000	7.502	0.000		0	N.D.		
11) Iodomethane	0.000	7.763	0.000		0	N.D.		
12) Acetonitrile	7.870	7.858	0.730	41	636	Below Cal	#	1
13) Methyl acetate	0.000	7.882	0.000		0	N.D.		
14) Carbon disulfide	7.906	7.906	0.733	76	1626	N.D.		
15) Methylene chloride	8.095	8.083	0.750	84	9486	Below Cal	#	81
16) tert-Butyl methyl ether	0.000	8.368	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.427	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.854	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.913	0.000		0	N.D.		
20) 2-Butanone	9.495	9.483	0.880	43	450	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.554	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	0.000	9.850	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	0.000	10.230	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	10.289	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.514	0.000		0	N.D.		
31) Benzene	0.000	10.538	0.000		0	N.D.		
32) Cyclohexene	0.000	10.645	0.000		0	N.D.		
33) n-Butyl alcohol	10.775	10.846	0.999	56	8617	Below Cal	#	21
34) Trichloroethylene	0.000	11.167	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.416	0.000		0	N.D.		
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D214.D
Acq On : 16 Mar 2010 3:19 pm
Operator : RXY1
InstName : VOA9
Sample : |248702002|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 16 17:47:26 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	11.665	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000	12.103	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	12.186	0.000		0	N.D.	
44)	Toluene	12.495	12.483	0.896	91	1329	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	12.637	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.	
47)	2-Hexanone	13.028	13.028	0.935	43	186	N.D.	
48)	1,3-Dichloropropane	0.000	13.052	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	13.088	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	13.325	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	13.503	0.000		0	N.D.	
52)	Chlorobenzene	0.000	13.977	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	14.024	0.000		0	N.D.	
54)	Ethylbenzene	14.036	14.024	1.007	91	463	N.D.	
55)	m,p-Xylenes	0.000	14.131	0.000		0	N.D.	
56)	o-Xylene	0.000	14.570	0.000		0	N.D.	
57)	Styrene	0.000	14.570	0.000		0	N.D.	
59)	Bromoform	0.000	14.855	0.000		0	N.D.	
60)	Isopropylbenzene	0.000	14.926	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	15.198	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.	
64)	Bromobenzene	0.000	15.353	0.000		0	N.D.	
65)	n-Propylbenzene	15.353	15.353	0.938	91	365	N.D.	
66)	1,3,5-Trimethylbenzene	15.495	15.495	0.946	105	198	N.D.	
67)	2-Chlorotoluene	0.000	15.507	0.000		0	N.D.	
68)	4-Chlorotoluene	15.602	15.614	0.953	91	439	N.D.	
69)	tert-Butylbenzene	0.000	15.874	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.922	15.910	0.972	105	442	N.D.	
71)	sec-Butylbenzene	0.000	16.112	0.000		0	N.D.	
72)	4-Isopropyltoluene	16.230	16.230	0.991	119	517	N.D.	
73)	1,3-Dichlorobenzene	0.000	16.313	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	0.000	16.408	0.000		0	N.D.	
75)	n-Butylbenzene	16.693	16.693	1.020	91	206	N.D.	
76)	1,2-Dichlorobenzene	0.000	16.859	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000	18.922	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000	19.088	0.000		0	N.D.	
80)	Naphthalene	19.349	19.349	1.182	128	988	N.D.	
81)	1,2,3-Trichlorobenzene	0.000	19.717	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.	
85)	Acrolein	0.000	7.313	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	7.550	0.000		0	N.D.	
88)	Allyl chloride	7.870	7.929	0.730	41	636	N.D.	
89)	tert-Butyl Alcohol	8.072	8.060	0.748	59	697	N.D.	
90)	Acrylonitrile	0.000	8.332	0.000		0	N.D.	
91)	Isopropyl ether	0.000	8.866	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	9.008	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.	
94)	Ethyl acetate	9.495	9.483	0.880	43	450	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D214.D
Acq On : 16 Mar 2010 3:19 pm
Operator : RXY1
InstName : VOA9
Sample : |248702002|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 16 17:47:26 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.578	0.000		0	N.D.	
96) Methacrylonitrile	9.886	9.744	0.916	41	477	N.D.	
97) Tetrahydrofuran	9.886	9.874	0.916	42	914	N.D.	
98) Isobutyl alcohol	0.000	10.159	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.368	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.487	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.854	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.613	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.961	0.000		0	N.D.	
108) Cyclohexanone	0.000	15.092	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.246	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.957	0.000		0	N.D.	
111) Benzyl chloride	16.527	16.527	1.009	91	213	N.D.	
112) bis(2-Chloroisopropyl)...	16.942	16.918	1.035	45	2906	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D214.D
Acq On : 16 Mar 2010 3:19 pm
Operator : RXY1
InstName : VOA9
Sample : |248702002|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 16 17:47:26 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

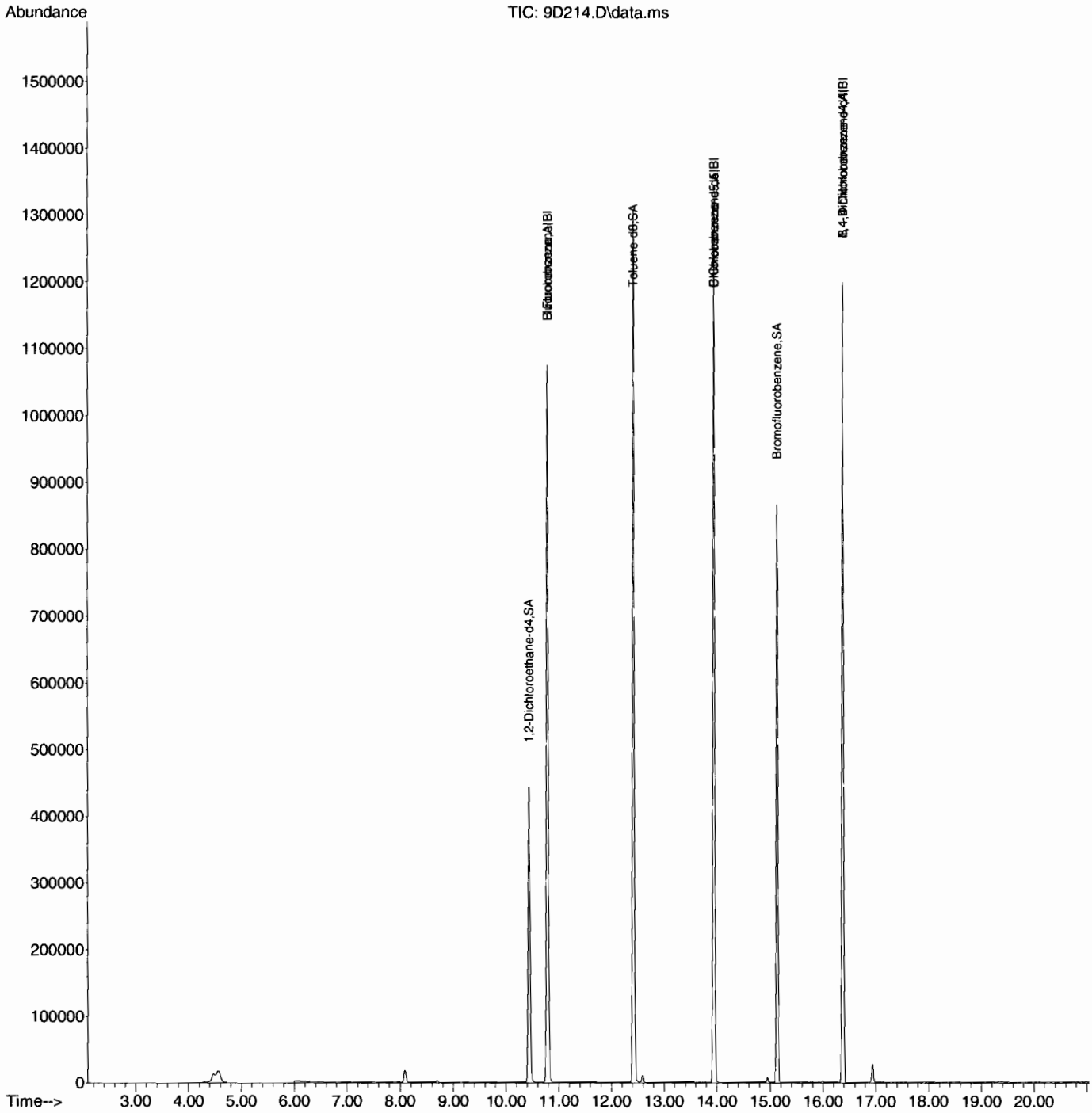

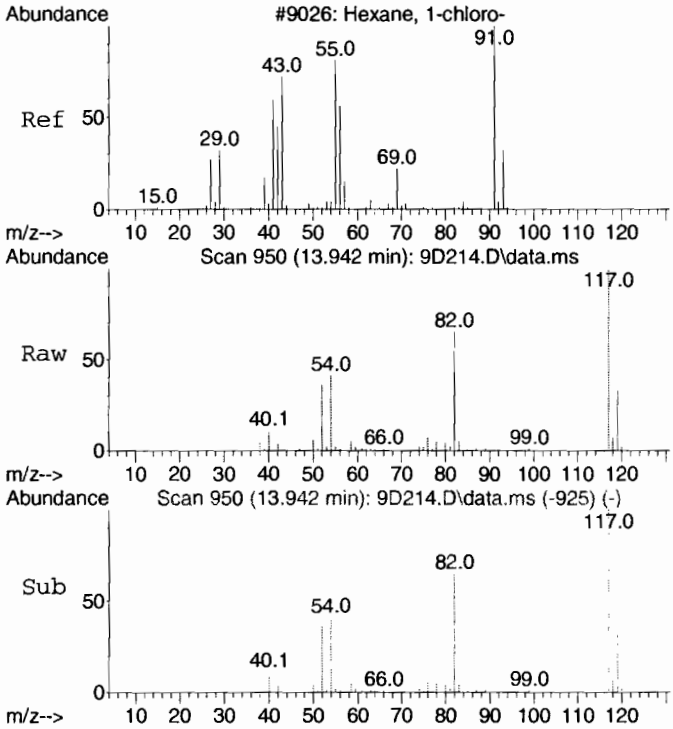

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.01 ug/L
RT: 13.942 min Scan# 950
Delta R.T. 0.119 min
Lab File: 9D214.D
Acq: 16 Mar 2010 3:19 pm

Tgt Ion: 55 Resp: 12783

Ion	Ratio	Lower	Upper
55	100		
91	11.2	74.8	134.8#
56	61.3	31.8	91.8

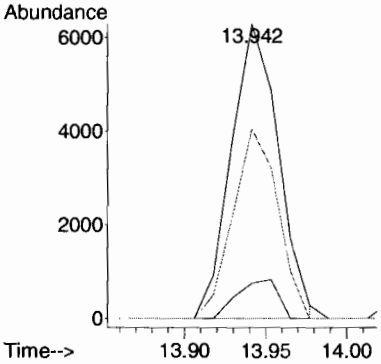

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D214.D
Acq On : 16 Mar 2010 3:19 pm
Operator : RXY1
Sample : |248702002|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D214.D
Acq On : 16 Mar 2010 3:19 pm
Operator : RXY1
Sample : |248702002|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA9
GEL Laboratories, LLC
Method File : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Last Update : Wed Mar 03 09:48:05 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\030210V9\9B210.D

Injection Date	Mix	Calibration File
2 Mar 2010 12:38 pm	A	C:\msdchem\1\DATA\030210V9\9B210.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\030210V9\9B223.D

Injection Date	Mix	Calibration File
2 Mar 2010 1:07 pm	A	C:\msdchem\1\DATA\030210V9\9B211.D
2 Mar 2010 6:51 pm	B	C:\msdchem\1\DATA\030210V9\9B223.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\030210V9\9B224.D

Injection Date	Mix	Calibration File
2 Mar 2010 1:36 pm	A	C:\msdchem\1\DATA\030210V9\9B212.D
2 Mar 2010 7:19 pm	B	C:\msdchem\1\DATA\030210V9\9B224.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\030210V9\9B225.D

Injection Date	Mix	Calibration File
2 Mar 2010 2:04 pm	A	C:\msdchem\1\DATA\030210V9\9B213.D
2 Mar 2010 7:48 pm	B	C:\msdchem\1\DATA\030210V9\9B225.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\030210V9\9B226.D

Injection Date	Mix	Calibration File
2 Mar 2010 2:33 pm	A	C:\msdchem\1\DATA\030210V9\9B214.D
2 Mar 2010 8:16 pm	B	C:\msdchem\1\DATA\030210V9\9B226.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\030210V9\9B227.D

Injection Date	Mix	Calibration File
2 Mar 2010 3:02 pm	A	C:\msdchem\1\DATA\030210V9\9B215.D
2 Mar 2010 8:44 pm	B	C:\msdchem\1\DATA\030210V9\9B227.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\030210V9\9B216.D

Injection Date	Mix	Calibration File
2 Mar 2010 3:31 pm	A	C:\msdchem\1\DATA\030210V9\9B216.D
2 Mar 2010 9:12 pm	B	C:\msdchem\1\DATA\030210V9\9B228.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\030210V9\9B229.D

Injection Date	Mix	Calibration File
2 Mar 2010 4:00 pm	A	C:\msdchem\1\DATA\030210V9\9B217.D
2 Mar 2010 9:40 pm	B	C:\msdchem\1\DATA\030210V9\9B229.D

Response Factor Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Last Update : Wed Mar 03 09:48:05 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane		0.1476374	0.1525562	0.1938436	0.1559301	0.1571292				
	0.1472534	0.1434503					0.1568	AVRG		10.8723
3)MPA Chloromethane		0.4660623	0.4184783	0.4371195	0.3786000	0.3734662				
	0.3746618	0.3493483					0.3997	AVRG		10.4430
4)MCA Vinyl chloride		0.3217009	0.2997456	0.3026155	0.2804646	0.2822206				
	0.2866614	0.2714328					0.2921	AVRG		5.8211
5)MA Bromomethane		0.1850927	0.1876338	0.2040400	0.1961536	0.1963611				
	0.2087821	0.1931165					0.1959	AVRG		4.2984
6)MA Chloroethane		0.1970318	0.2266581	0.2211997	0.2154075	0.2164887				
	0.2244208	0.2098022					0.2159	AVRG		4.6719
7)MA Trichlorofluoromethane		0.3233025	0.3259708	0.3341540	0.3125275	0.3255175				
	0.3323397	0.3084532					0.3232	AVRG		2.9570
8)MA Ethyl ether		0.2906156	0.2774487	0.2906022	0.2785802	0.2840597				
	0.2948129	0.2710840					0.2839	AVRG		3.0278
9)MA Acetone		0.2656890	0.2469669	0.2427717	0.2335843	0.1764634				
	0.2086445	0.1915796					0.2237	AVRG		14.4360
10)MCA 1,1-Dichloroethylene		0.4179055	0.4508080	0.5230365	0.4921364	0.4065384				
	0.4494584	0.4447909					0.4550	AVRG		8.9217
11)MA Iodomethane		0.2931344	0.2964186	0.3539625	0.3358961	0.2587273				
	0.2869819	0.2655895					0.2987	AVRG		11.6827
12)MA Acetonitrile		37968	65685	176997	358544	483059				
0.0274 | 0.0392 | 0.00	1480442	2649868						LINR		0.9948
13)MA Methyl acetate		38323	71663	196507	410986	491300				
0.0221 | 0.2226 | 0.00	1662316	3003320						LINR		0.9935
14)MA Carbon disulfide		0.6188466	0.6631031	0.7963456	0.7411253	0.5435523				
	0.6201504	0.5622642					0.6493	AVRG		14.1676
15)MA Methylene chloride			24857	50029	89221	141011				
0.0106 | 0.2485 | 0.00	349713	689038						LINR		0.9996
16)MA tert-Butyl methyl ether		0.7244277	0.7054802	0.7636577	0.7892043	0.5536261				
	0.6865890	0.6606341					0.6977	AVRG		11.0646

Response Factor Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Last Update : Wed Mar 03 09:48:05 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle		0.4653707	0.4499965	0.5035113	0.4766072	0.4177994				
	0.4199159	0.4157909					0.4499	AVRG		7.5491
18)MA Vinyl acetate		0.6722887	0.6427979	0.6870887	0.6658144	0.6884478				
	0.6414402	0.4985933					0.6424	AVRG		10.2952
19)MPA 1,1-Dichloroethane		0.5696196	0.5567047	0.6153310	0.5853374	0.5112857				
	0.5224316	0.5125873					0.5533	AVRG		7.2017
20)MA 2-Butanone		0.2803800	0.2850802	0.2899111	0.2853008	0.2668745				
	0.2703742	0.2387283					0.2738	AVRG		6.4167
21)MA cis-1,2-Dichloroethylene		0.5598281	0.4870844	0.5802923	0.5354943	0.4909380				
	0.4792706	0.4680827					0.5144	AVRG		8.5202
22)MA 2,2-Dichloropropane		0.3091066	0.3075837	0.3557556	0.3425448	0.3146859				
	0.3110846	0.3079831					0.3212	AVRG		6.0956
23)MA Bromochloromethane		0.1059597	0.1155421	0.1203996	0.1264884	0.1100169				
	0.1098648	0.1061113					0.1135	AVRG		6.7997
24)MCA Chloroform		0.4737063	0.4479310	0.4928328	0.4740006	0.4656351				
	0.4140239	0.3995848					0.4525	AVRG		7.5547
25)MA 1,1,1-Trichloroethane		0.3280709	0.3299544	0.3739609	0.3521021	0.3349078				
	0.3292436	0.3214085					0.3385	AVRG		5.4135
26)MA Cyclohexane		0.5791563	0.5529240	0.6490126	0.6021021	0.5599430				
	0.5529980	0.5423433					0.5769	AVRG		6.5118
27)MA 1,1-Dichloropropene		0.3244673	0.3372761	0.3616065	0.3357663	0.3120474				
	0.3027793	0.2944936					0.3241	AVRG		7.1186
28)MA Carbon tetrachloride		0.2807876	0.2646680	0.3051664	0.2962211	0.2771692				
	0.2762088	0.2745016					0.2821	AVRG		4.9157
29)SA 1,2-Dichloroethane-d4		0.3343666	0.3295738	0.3689487	0.3351233	0.3366745				
	0.3265190	0.3207524					0.3360	AVRG		4.6318
30)MA 1,2-Dichloroethane		0.4207811	0.4199722	0.4690362	0.4625664	0.4334455				
	0.4027770	0.3849316					0.4276	AVRG		7.0896
31)MA Benzene		1.0341168	0.9795724	1.0808151	1.0191586	0.9047000				
	0.8769692	0.8326346					0.9611	AVRG		9.5109

Response Factor Report VOA9
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Last Update : Wed Mar 03 09:48:05 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene	0.4806021	0.5223363 0.4688600	0.5076293	0.5672928	0.5365795	0.4890821	0.5103	AVRG		6.7596
33)MA n-Butyl alcohol 0.0318 | 0.0102 | 0.00	13608 1550435	26542 2733273	53083	140383	312815	758062		LINR		0.9909
34)MA Trichloroethylene	0.2341661	0.2410755 0.2278934	0.2521272	0.2782923	0.2566721	0.2597801	0.2500	AVRG		6.8590
35)MCA 1,2-Dichloropropane	0.2966667	0.3354964 0.2823848	0.3176348	0.3550511	0.3413460	0.3388749	0.3239	AVRG		8.1072
36)MA Methylcyclohexane	0.3809803	0.4036732 0.3667074	0.4055686	0.4631260	0.4341511	0.4193925	0.4105	AVRG		7.8734
37)MA Dibromomethane	0.1508399	0.1500397 0.1450326	0.1502509	0.1641738	0.1703412	0.1680682	0.1570	AVRG		6.5132
38)MA Bromodichloromethane	0.3275310	0.3133290 0.3197953	0.3250856	0.3470497	0.3548956	0.4077097	0.3422	AVRG		9.4841
39)MA 2-Chloroethylvinyl ether	0.1769678	0.1659100 0.1493751	0.1560049	0.2164129	0.1774467	0.1738874	0.1737	AVRG		12.4681
40)MA cis-1,3-Dichloropropylen	0.3918995	0.3870385 0.3837026	0.3616570	0.4254177	0.4251217	0.4760597	0.4073	AVRG		9.3291
42)MA 4-Methyl-2-pentanone	0.1959823	0.1908742 0.1781461	0.2027142	0.2151534	0.2156581	0.2374407	0.2051	AVRG		9.4946
43)SA Toluene-d8	1.2473074	1.2883111 1.2479950	1.2832375	1.4091322	1.2571669	1.2595407	1.2847	AVRG		4.4530
44)MCA Toluene	1.2559453	1.6311715 1.1674146	1.5157013	1.6126680	1.4767168	1.5089578	1.4527	AVRG		12.0961
45)MA trans-1,3-Dichloropropyl	0.5200492	0.4626700 0.5082026	0.4886037	0.5376485	0.5574011	0.6715061	0.5352	AVRG		12.6434
46)MA 1,1,2-Trichloroethane	0.2549339	0.2993962 0.2414829	0.2819196	0.2911071	0.2878545	0.3444982	0.2859	AVRG		11.5964
47)MA 2-Hexanone	0.5221123	0.5613026 0.4390635	0.5881973	0.5904674	0.5892408	0.6407765	0.5616	AVRG		11.5280

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane	0.4978358	0.5954507 0.4599480	0.5922259	0.6147254	0.5890273	0.6553679	0.5721	AVRG		11.9583
49)MA Tetrachloroethylene	0.1840632	0.2092223 0.1747417	0.2269070	0.2344125	0.2126851	0.2177419	0.2085	AVRG		10.4519
50)MA Dibromochloromethane 0.0073 | 0.3117 | 0.00	297610	4948 593594	10693	29547	63883	159058		LINR		0.9953
51)MA 1,2-Dibromoethane	0.2981151	0.3156348 0.2857973	0.3092925	0.3269176	0.3241840	0.3724980	0.3189	AVRG		8.6780
52)MPA Chlorobenzene	0.7938753	0.9457035 0.7524095	0.9181662	0.9673958	0.9067684	1.0491657	0.9048	AVRG		11.2480
53)MA 1,1,1,2-Tetrachloroethan	0.2818454	0.2602878 0.2719111	0.2929915	0.3076457	0.3142201	0.3970874	0.3037	AVRG		14.9289
54)MCA Ethylbenzene		1.7395159	1.8037838	1.8204414	1.6784848	1.9089935	1.7902	AVRG		4.8584
55)MA m,p-Xylenes	0.5154516	0.6182683 0.4862620	0.6518673	0.6569421	0.6058274	0.6998315	0.6049	AVRG		12.8372
56)MA o-Xylene	0.5370559	0.6380053 0.5112298	0.6476120	0.6698932	0.6270496	0.7450380	0.6251	AVRG		12.6948
57)MA Styrene	0.8959110	0.9618377 0.8193340	1.0143716	1.0588759	1.0352055	1.2640800	1.0071	AVRG		13.9975
59)MPA Bromoform 0.0048 | 0.3804 | 0.00	166876	2443 330739	5191	14669	32312	84225		LINR		0.9967
60)MA Isopropylbenzene	2.9804302	3.4971295 2.7427422	3.7510546	3.8005851	3.5627158	4.2214993	3.5080	AVRG		14.3516
61)SA Bromofluorobenzene	1.1666904	1.2013128 1.1921074	1.2126933	1.3373281	1.2169830	1.1859127	1.2161	AVRG		4.6095
62)MPA 1,1,2,2-Tetrachloroethan	0.9082576	0.9735380 0.8523526	1.0497038	1.0184044	1.0296258	1.1882554	1.0029	AVRG		10.7692
63)MA 1,2,3-Trichloropropane	0.2240788	0.2112090 0.2143559	0.2596422	0.2443653	0.2467733	0.2926599	0.2419	AVRG		11.8626

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene	0.6373839	0.7806000 0.5996815	0.7924772	0.8270700	0.7545939	0.9004857	0.7560	AVRG		13.9112
65)MA n-Propylbenzene	3.6487862	4.4922710	4.8536059	4.8329116	4.5268683	5.3297049	4.6140	AVRG		12.1509
66)MA 1,3,5-Trimethylbenzene	2.4865552	2.7677804	3.0259772	3.1815467	2.9990847	3.6002670	3.0102	AVRG		12.5262
67)MA 2-Chlorotoluene	0.7160813	0.8735642 0.6852049	0.9040049	0.9175399	0.8586027	1.0168713	0.8531	AVRG		13.6173
68)MA 4-Chlorotoluene	2.4561437	2.9473885 2.2879852	3.0798263	3.0933343	2.8879388	3.4985004	2.8930	AVRG		14.1224
69)MA tert-Butylbenzene	0.5052107	0.5307804 0.4894823	0.5771397	0.6263287	0.5456842	0.6890710	0.5662	AVRG		12.5112
70)MA 1,2,4-Trimethylbenzene	2.6084404	2.9064797 2.3954121	3.2952226	3.2280868	3.1515120	3.6870200	3.0389	AVRG		14.4137
71)MA sec-Butylbenzene	3.3847108	3.9511484 3.1163324	4.3806883	4.2890806	4.0118410	4.8422168	3.9966	AVRG		14.8019
72)MA 4-Isopropyltoluene	2.6996659	2.9615227 2.5297696	3.2721865	3.3604406	3.1091994	3.8165032	3.1070	AVRG		13.8757
73)MA 1,3-Dichlorobenzene	1.3108105	1.6851905 1.2274756	1.6458733	1.6272835	1.5413973	1.8427464	1.5544	AVRG		13.9054
74)MA 1,4-Dichlorobenzene	1.2717651	1.5467211 1.2038807	1.6422794	1.5524288	1.4899896	1.7765950	1.4977	AVRG		13.3963
75)MA n-Butylbenzene	2.9282019	3.4732277 2.6650895	3.5133291	3.6104500	3.4405283	4.1274654	3.3940	AVRG		14.0056
76)MA 1,2-Dichlorobenzene	1.2916244	1.4850131 1.2249851	1.5777077	1.5333565	1.4968949	1.7919747	1.4859	AVRG		12.5993
77)MA 1,2-Dibromo-3-chloroprop 0.0007 | 0.1513 | 0.00	66201	921 131229	2147	5795	12078	31067		LINR		0.9984
78)MA 1,2,4-Trichlorobenzene	0.8437424	0.9545774 0.7883980	0.9676929	0.9487235	0.9554281	1.1430201	0.9431	AVRG		11.8308

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene		0.4271294	0.4695594	0.4465646	0.4368439	0.5490925				
	0.3985668	0.3892581					0.4453	AVRG		11.9852
80)MA Naphthalene		2.4819932	2.3287670	2.5307603	2.6428340	3.2258243				
	2.4517532	2.2461319					2.5583	AVRG		12.5733
81)MA 1,2,3-Trichlorobenzene		0.8443764	0.7918291	0.8221079	0.8398679	1.0291682				
	0.7582996	0.7031437					0.8270	AVRG		12.3575
83)B Chlorotrifluoroethylene		0.0961882	0.0865555	0.0843713	0.0863942	0.1202562				
	0.0824430	0.0912472					0.0925	AVRG		14.1339
84)B 2-Chloro-1,1,1-trifluoro		0.2162198	0.2125439	0.2258463	0.2060994	0.2244076				
	0.2026459	0.1968224					0.2121	AVRG		5.1522
85)B Acrolein		4379	8997	24400	50440	104962				
-0.0125 | 0.0533 | 0.00	335107	732477						LINR		0.9966
86)B Trichlorotrifluoroethane		0.0774762	0.0855444	0.0796362	0.0784645	0.0768733				
	0.0644732	0.0679645					0.0758	AVRG		9.4922
87)B Isopropyl Alcohol		0.0231203	0.0230129	0.0252959	0.0254713	0.0251017				
	0.0234891	0.0236553					0.0242	AVRG		4.4694
88)B Allyl chloride		0.5195764	0.5556699	0.5191052	0.5002615	0.4960520				
	0.4481804	0.4100815					0.4927	AVRG		9.8950
89)B tert-Butyl Alcohol		0.0322083	0.0331544	0.0380542	0.0366874	0.0362058				
	0.0335457	0.0334044					0.0348	AVRG		6.3326
90)B Acrylonitrile		0.1263668	0.1371169	0.1368889	0.1333613	0.1365959				
	0.1314014	0.1321071					0.1334	AVRG		2.9246
91)B Isopropyl ether		1.2182275	1.2461026	1.3682860	1.2706696	1.3204028				
	1.1786418	1.1620931					1.2521	AVRG		5.9402
92)B 2-Chloro-1,3-butadiene		0.4052194	0.4461528	0.4383873	0.4409943	0.4497868				
	0.4501787	0.4456551					0.4395	AVRG		3.5744
93)B Ethyl tert-butyl ether		1.0139294	0.9757690	1.1421939	1.0504886	1.1049463				
	1.0116017	1.0070676					1.0437	AVRG		5.7182
94)B Ethyl acetate		0.3562260	0.3595199	0.3507009	0.3354244	0.3303789				
	0.3024143	0.2825284					0.3310	AVRG		8.7419

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile		0.0521867	0.0534173	0.0518532	0.0502164	0.0515169				
	0.0508092	0.0518541					0.0517	AVRG		1.9761
96)B Methacrylonitrile		0.1931913	0.2154773	0.2161646	0.2087863	0.2073865				
	0.1915482	0.1798854					0.2018	AVRG		6.8100
97)B Tetrahydrofuran		0.1185047	0.1179262	0.1126520	0.1101508	0.1090612				
	0.1042643	0.1040504					0.1109	AVRG		5.2705
98)B Isobutyl alcohol		0.0122160	0.0127807	0.0130356	0.0128722	0.0127557				
	0.0125718	0.0112450					0.0125	AVRG		4.8787
99)B Methyl tert-amyl ether		0.6590688	0.6715446	0.7653116	0.7134329	0.7464296				
	0.7026508	0.7116438					0.7100	AVRG		5.3098
100)B Methyl methacrylate		0.1528382	0.1737197	0.1728712	0.1696768	0.1703010				
	0.1601083	0.1486081					0.1640	AVRG		6.2064
101)B 1,4-Dioxane		0.0024959	0.0028851	0.0025792	0.0027252	0.0026682				
	0.0026769	0.0027069					0.0027	AVRG	#	4.5482
102)B 2-Nitropropane		0.0649966	0.0684643	0.0751530	0.0811045	0.0847881				
	0.0889104	0.0941351					0.0797	AVRG		13.4064
104)B Ethyl methacrylate		0.4128027	0.4665493	0.4821596	0.4687102	0.4672360				
	0.4186415	0.3631801					0.4399	AVRG		9.7977
106)B 1-Chlorohexane		1.0323023	0.9274308	1.0269946	1.0127783	1.0736003				
	0.9094329	0.9203834					0.9861	AVRG		6.6514
107)B cis-1,4-Dichloro-2-buten		0.3092989	0.3504452	0.3579210	0.3571278	0.3681356				
	0.3492118	0.3390761					0.3473	AVRG		5.4740
108)B Cyclohexanone		0.0271307	0.0288157	0.0283410	0.0321433	0.0337446				
							0.0300	AVRG		9.2684
109)B trans-1,4-Dichloro-2-but		0.3045262	0.3319908	0.3410833	0.3347336	0.3457361				
	0.3273745	0.3171022					0.3289	AVRG		4.3191
110)B Pentachloroethane		0.2197338	0.2249505	0.1693181	0.1816313	0.2142965				
	0.2228954	0.1588173					0.1988	AVRG		14.0861
111)B Benzyl chloride		0.8909499	1.0466718	1.1096677	1.1570406	1.1916552				
	1.1016260	1.0022308					1.0714	AVRG		9.4979

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Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
112)B bis(2-Chloroisopropyl)et		0.5708472	0.5924487	0.6096016	0.6115560	0.6245797				
	0.6060860	0.5871301					0.6003	AVRG		2.9943

(#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-2264

Instrument ID: VOA9.I **Injection Date** 03-MAR-10 10:50

Data File: 030310V9\9B303ICV.D **Init. Cal. Date(s)** 02-MAR-10 12:38 - 02-MAR-10 21:4

Lab Sample ID W9VM100303-03 **Quant Type** ISTD **Method:** 030210V9\VOA9-8260-030210.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.336	0.31683		.01		-5.70536	30		Averaged	
S	Toluene-d8	1.2847	1.29661		.01		0.92706	30		Averaged	
S	Bromofluorobenzene	1.2161	1.23691		.01		1.71121	30		Averaged	
	Dichlorodifluoromethane	0.1568	0.16563		.01		5.63138	30		Averaged	
	Chloromethane	0.3997	0.35494		.1		-11.1984	30		Averaged	spcc
	Vinyl chloride	0.2921	0.29839		.01		2.15337	20		Averaged	ccc
	Bromomethane	0.1959	0.20224		.01		3.23635	30		Averaged	
	Chloroethane	0.2159	0.22412		.01		3.80732	30		Averaged	
	Trichlorofluoromethane	0.3232	0.33974		.01		5.11757	30		Averaged	
	Ethyl ether	0.2839	0.26225		.01		-7.62592	30		Averaged	
	Acetone	0.2237	0.19755		.01		-11.68976	40		Averaged	
	1,1-Dichloroethylene	0.455	0.46291		.01		1.73846	20		Averaged	ccc
	Iodomethane	0.2987	0.2872		.01		-3.85002	30		Averaged	
	Acetonitrile	1250	1212.24	1250			-3.0208	30		Linear	
	Methyl acetate	250	235.05	250			-5.98	40		Linear	
	Carbon disulfide	0.6493	0.68832		.01		6.00955	30		Averaged	
	Methylene chloride	50	49.94	50			-0.12	30		Linear	
	tert-Butyl methyl ether	0.6977	0.65576		.01		-6.01118	30		Averaged	
	trans-1,2-Dichloroethylene	0.4499	0.44399		.01		-1.31363	30		Averaged	
	Vinyl acetate	0.6424	0.63215		.01		-1.59558	40		Averaged	
	1,1-Dichloroethane	0.5533	0.53632		.1		-3.06886	30		Averaged	spcc
	2-Butanone	0.2738	0.23451		.01		-14.34989	40		Averaged	
	cis-1,2-Dichloroethylene	0.5144	0.49748		.01		-3.28927	30		Averaged	
	2,2-Dichloropropane	0.3212	0.35431		.01		10.30822	30		Averaged	
	Bromochloromethane	0.1135	0.10602		.01		-6.59031	30		Averaged	
	Chloroform	0.4525	0.42156		.01		-6.83757	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3385	0.34667		.01		2.41359	30		Averaged	
	Cyclohexane	0.5769	0.6083		.01		5.44288	30		Averaged	
	1,1-Dichloropropene	0.3241	0.3261		.01		0.61709	30		Averaged	
	Carbon tetrachloride	0.2821	0.29048		.01		2.97058	30		Averaged	
	1,2-Dichloroethane	0.4276	0.38514		.01		-9.92984	30		Averaged	
	Benzene	0.9611	0.91469		.01		-4.82884	30		Averaged	
	Cyclohexene	0.5103	0.50149		.01		-1.72644	30		Averaged	
	n-Butyl alcohol	5000	4625.95	5000			-7.481	40		Linear	
	Trichloroethylene	0.25	0.24157		.01		-3.372	30		Averaged	
	1,2-Dichloropropane	0.3239	0.29641		.01		-8.48719	20		Averaged	ccc
	Methylcyclohexane	0.4105	0.41623		.01		1.39586	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Dat** 03-MAR-10 10:50

Data File: 030310V9\9B303ICV.D **Init. Cal. Date(s)** 02-MAR-10 12:38 02-MAR-10 21:4

Lab Sample ID W9VM100303-03 **Quant Type** ISTD **Method:** 030210V9\VOA9-8260-030210.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.157	0.14278		.01		-9.05732	30		Averaged	
Bromodichloromethane	0.3422	0.3232		.01		-5.55231	30		Averaged	
2-Chloroethylvinyl ether	0.1737	0.14925		.01		-14.07599	30		Averaged	
cis-1,3-Dichloropropylene	0.4073	0.39359		.01		-3.36607	30		Averaged	
4-Methyl-2-pentanone	0.2051	0.18859		.01		-8.04973	40		Averaged	
Toluene	1.4527	1.35705		.01		-6.58429	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.5352	0.53657		.01		0.25598	30		Averaged	
1,1,2-Trichloroethane	0.2859	0.25903		.01		-9.39839	30		Averaged	
2-Hexanone	0.5616	0.46671		.01		-16.89637	40		Averaged	
1,3-Dichloropropane	0.5721	0.49853		.01		-12.85964	30		Averaged	
Tetrachloroethylene	0.2085	0.20304		.01		-2.61871	30		Averaged	
Dibromochloromethane	50	48.8	50			-2.4	30		Linear	
1,2-Dibromoethane	0.3189	0.29473		.01		-7.57918	30		Averaged	
Chlorobenzene	0.9048	0.852		.3		-5.83554	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3037	0.29404		.01		-3.18077	30		Averaged	
Ethylbenzene	1.7902	1.49911		.01		-16.26019	20		Averaged	ccc
m,p-Xylenes	0.6049	0.56376		.01		-6.80112	30		Averaged	
o-Xylene	0.6251	0.57597		.01		-7.85954	30		Averaged	
Styrene	1.0071	0.93978		.01		-6.68454	30		Averaged	
Bromoform	50	48.14	50			-3.72	30		Linear	spcc
Isopropylbenzene	3.508	3.24572		.01		-7.47662	30		Averaged	
1,1,2,2-Tetrachloroethane	1.0029	0.90272		.3		-9.98903	30		Averaged	spcc
1,2,3-Trichloropropane	0.2419	0.21369		.01		-11.66184	30		Averaged	
Bromobenzene	0.756	0.67302		.01		-10.97619	30		Averaged	
n-Propylbenzene	4.614	4.03418		.01		-12.56654	30		Averaged	
1,3,5-Trimethylbenzene	3.0102	2.71132		.01		-9.92891	30		Averaged	
2-Chlorotoluene	0.8531	0.786		.01		-7.86543	30		Averaged	
4-Chlorotoluene	2.893	2.67189		.01		-7.64293	30		Averaged	
tert-Butylbenzene	0.5662	0.55084		.01		-2.71282	30		Averaged	
1,2,4-Trimethylbenzene	3.0389	2.80226		.01		-7.78703	30		Averaged	
sec-Butylbenzene	3.9966	3.74557		.01		-6.28109	30		Averaged	
4-Isopropyltoluene	3.107	2.9416		.01		-5.32346	30		Averaged	
1,3-Dichlorobenzene	1.5544	1.40443		.01		-9.6481	30		Averaged	
1,4-Dichlorobenzene	1.4977	1.37274		.01		-8.34346	30		Averaged	
n-Butylbenzene	3.394	3.23614		.01		-4.65115	30		Averaged	
1,2-Dichlorobenzene	1.4859	1.35762		.01		-8.63315	30		Averaged	
1,2-Dibromo-3-chloropropane	50	46.21	50			-7.58	30		Linear	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Date** 03-MAR-10 10:50

Data File: 030310V9\9B303ICV.D **Init. Cal. Date(s)** 02-MAR-10 12:38 02-MAR-10 21:4

Lab Sample ID W9VM100303-03 **Quant Type** ISTD **Method:** 030210V9\VOA9-8260-030210.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.9431	0.90851		.01		-3.66769	30		Averaged
Hexachlorobutadiene	0.4453	0.44307		.01		-0.50079	30		Averaged
Naphthalene	2.5583	2.38163		.01		-6.90576	30		Averaged
1,2,3-Trichlorobenzene	0.827	0.79902		.01		-3.38331	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V9\
Data File : 9B303ICV.D
Acq On : 3 Mar 2010 10:50 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100303-03|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A]0220-01C/0301-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 03 11:19:44 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.775	10.775	1.000	96	1360321	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.941	13.941	1.000	117	918430	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	419873	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	1360321	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	918430	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	419896	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	430986	47.15	ug/L	0.00
43) Toluene-d8	12.412	12.412	0.890	98	1190843	50.46	ug/L	0.00
61) Bromofluorobenzene	15.127	15.127	0.924	95	519347	50.85	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.944	4.944	0.459	85	225312	52.81	ug/L	98
3) Chloromethane	5.308	5.308	0.493	50	482839	44.40	ug/L	100
4) Vinyl chloride	5.560	5.546	0.516	62	405912	51.07	ug/L	99
5) Bromomethane	6.186	6.186	0.574	94	275105	51.62	ug/L	99
6) Chloroethane	6.340	6.340	0.588	64	304879	51.91	ug/L	98
7) Trichlorofluoromethane	6.767	6.767	0.628	101	462157	52.56	ug/L	100
8) Ethyl ether	7.099	7.099	0.659	59	356744	46.19	ug/L	96
9) Acetone	7.490	7.490	0.695	43	1343662	220.80	ug/L	99
10) 1,1-Dichloroethylene	7.502	7.502	0.696	61	629706	50.87	ug/L	98
11) Iodomethane	7.763	7.763	0.720	142	1953451	240.40	ug/L	97
12) Acetonitrile	7.858	7.858	0.729	41	1331412	1212.24	ug/L	99
13) Methyl acetate	7.882	7.882	0.731	43	1453506	235.05	ug/L	97
14) Carbon disulfide	7.905	7.906	0.734	76	4681713	265.01	ug/L	99
15) Methylene chloride	8.083	8.083	0.750	84	351995	49.94	ug/L	93
16) tert-Butyl methyl ether	8.368	8.368	0.777	73	892045	47.00	ug/L	97
17) trans-1,2-Dichloroethy...	8.427	8.427	0.782	61	603972	49.35	ug/L	97
18) Vinyl acetate	8.854	8.854	0.822	43	4299631	246.03	ug/L	97
19) 1,1-Dichloroethane	8.913	8.913	0.827	63	729573	48.46	ug/L	99
20) 2-Butanone	9.482	9.483	0.880	43	1595078	214.12	ug/L	95
21) cis-1,2-Dichloroethylene	9.554	9.554	0.887	61	676735	48.35	ug/L	97
22) 2,2-Dichloropropane	9.577	9.578	0.889	77	481977	55.15	ug/L	97
23) Bromochloromethane	9.826	9.827	0.912	128	144217	46.71	ug/L	92
24) Chloroform	9.850	9.850	0.914	83	573456	46.58	ug/L	97
25) 1,1,1-Trichloroethane	10.135	10.135	0.941	97	471579	51.20	ug/L	100
26) Cyclohexane	10.230	10.230	0.949	56	827479	52.72	ug/L	97
27) 1,1-Dichloropropene	10.289	10.289	0.955	75	443597	50.31	ug/L	99
28) Carbon tetrachloride	10.324	10.325	0.958	117	395144	51.48	ug/L	99
30) 1,2-Dichloroethane	10.514	10.514	0.976	62	523916	45.03	ug/L	100
31) Benzene	10.538	10.538	0.978	78	1244274	47.58	ug/L	99
32) Cyclohexene	10.645	10.645	0.988	67	682190	49.13	ug/L	94
33) n-Butyl alcohol	10.846	10.846	1.007	56	1333113	4625.95	ug/L	97
34) Trichloroethylene	11.166	11.167	1.036	95	328616	48.31	ug/L	100
35) 1,2-Dichloropropane	11.415	11.416	1.059	63	403208	45.75	ug/L	99
36) Methylcyclohexane	11.415	11.416	1.059	83	566202	50.70	ug/L	96
37) Dibromomethane	11.558	11.558	1.073	93	194224	45.48	ug/L	99
38) Bromodichloromethane	11.664	11.665	1.083	83	439658	47.22	ug/L	99
39) 2-Chloroethylvinyl ether	11.866	11.866	1.101	63	1015121	214.79	ug/L	98
40) cis-1,3-Dichloropropylene	12.103	12.103	1.123	75	535408	48.32	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V9\
Data File : 9B303ICV.D
Acq On : 3 Mar 2010 10:50 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100303-03|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A]0220-01C/0301-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 03 11:19:44 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42) 4-Methyl-2-pentanone	12.186	12.186	0.874	58	866043	229.84	ug/L		92
44) Toluene	12.483	12.483	0.895	91	1246358	46.71	ug/L		98
45) trans-1,3-Dichloroprop...	12.637	12.637	0.906	75	492800	50.13	ug/L		100
46) 1,1,2-Trichloroethane	12.862	12.862	0.923	83	237905	45.30	ug/L		99
47) 2-Hexanone	13.028	13.028	0.935	43	2143186	207.76	ug/L		97
48) 1,3-Dichloropropane	13.052	13.052	0.936	76	457862	43.57	ug/L		100
49) Tetrachloroethylene	13.087	13.088	0.939	164	186477	48.68	ug/L		97
50) Dibromochloromethane	13.325	13.325	0.956	129	286114	48.80	ug/L		99
51) 1,2-Dibromoethane	13.503	13.503	0.969	107	270685	46.21	ug/L		100
52) Chlorobenzene	13.977	13.977	1.003	112	782506	47.08	ug/L		99
53) 1,1,1,2-Tetrachloroethane	14.024	14.024	1.006	131	270058	48.41	ug/L		99
54) Ethylbenzene	14.024	14.024	1.006	91	1376829	41.87	ug/L		98 E
55) m,p-Xylenes	14.131	14.131	1.014	106	1035541	93.19	ug/L		94
56) o-Xylene	14.570	14.570	1.045	106	528989	46.07	ug/L		94
57) Styrene	14.570	14.570	1.045	104	863119	46.66	ug/L		98
59) Bromoform	14.854	14.855	0.907	173	155800	48.14	ug/L		97
60) Isopropylbenzene	14.926	14.926	0.912	105	1362789	46.26	ug/L		99
62) 1,1,2,2-Tetrachloroethane	15.198	15.198	0.928	83	379028	45.01	ug/L		100
63) 1,2,3-Trichloropropane	15.293	15.293	0.934	110	89723	44.17	ug/L	#	91
64) Bromobenzene	15.352	15.353	0.938	156	282582	44.51	ug/L		98
65) n-Propylbenzene	15.352	15.353	0.938	91	1693842	43.72	ug/L		99
66) 1,3,5-Trimethylbenzene	15.495	15.495	0.946	105	1138408	45.04	ug/L		97
67) 2-Chlorotoluene	15.507	15.507	0.947	126	330021	46.07	ug/L		96
68) 4-Chlorotoluene	15.613	15.614	0.954	91	1121853	46.18	ug/L		100
69) tert-Butylbenzene	15.874	15.874	0.970	134	231284	48.64	ug/L		94
70) 1,2,4-Trimethylbenzene	15.922	15.910	0.972	105	1176592	46.11	ug/L		98
71) sec-Butylbenzene	16.111	16.112	0.984	105	1572665	46.86	ug/L		99
72) 4-Isopropyltoluene	16.230	16.230	0.991	119	1235098	47.34	ug/L		99
73) 1,3-Dichlorobenzene	16.313	16.313	0.996	146	589681	45.18	ug/L		100
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	576376	45.83	ug/L		99
75) n-Butylbenzene	16.692	16.693	1.020	91	1358767	47.67	ug/L		99
76) 1,2-Dichlorobenzene	16.858	16.859	1.030	146	570026	45.68	ug/L		99
77) 1,2-Dibromo-3-chloropr...	17.783	17.784	1.086	157	59005	46.21	ug/L		99
78) 1,2,4-Trichlorobenzene	18.922	18.922	1.156	180	381458	48.17	ug/L		100
79) Hexachlorobutadiene	19.088	19.088	1.166	225	186032	49.75	ug/L		99
80) Naphthalene	19.349	19.349	1.182	128	999984	46.55	ug/L		100
81) 1,2,3-Trichlorobenzene	19.716	19.717	1.204	180	335486	48.31	ug/L		99
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.			
85) Acrolein	7.253	7.313	0.673		0m	N.D.	d		
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.			
87) Isopropyl Alcohol	7.490	7.550	0.695		0m	N.D.	d		
88) Allyl chloride	7.858	7.929	0.729		0m	N.D.	d		
89) tert-Butyl Alcohol	8.059	8.060	0.748		0m	N.D.	d		
90) Acrylonitrile	8.380	8.332	0.778		0m	N.D.	d		
91) Isopropyl ether	8.854	8.866	0.822		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	9.008	9.008	0.836		0m	N.D.	d		
93) Ethyl tert-butyl ether	9.281	9.269	0.861		0m	N.D.	d		
94) Ethyl acetate	9.482	9.483	0.880		0m	N.D.	d		
95) Propionitrile	9.494	9.578	0.881		0m	N.D.	d		
96) Methacrylonitrile	9.838	9.744	0.913		0m	N.D.	d		
97) Tetrahydrofuran	9.838	9.874	0.913		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V9\
Data File : 9B303ICV.D
Acq On : 3 Mar 2010 10:50 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100303-03|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A]0220-01C/0301-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 03 11:19:44 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	10.135	10.159	0.941		0m	N.D.	d
99)	Methyl tert-amyl ether	10.538	10.526	0.978		0m	N.D.	d
100)	Methyl methacrylate	11.415	11.368	1.059		0m	N.D.	d
101)	1,4-Dioxane	11.498	11.487	1.067		0m	N.D.	d
102)	2-Nitropropane	11.866	11.854	1.101		0m	N.D.	d
104)	Ethyl methacrylate	0.000	12.613	0.000		0	N.D.	
106)	1-Chlorohexane	13.941	13.823	0.852		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.926	14.961	0.912		0m	N.D.	d
108)	Cyclohexanone	14.914	15.092	0.911		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	15.352	15.246	0.938		0m	N.D.	d
110)	Pentachloroethane	15.957	15.957	0.975		0m	N.D.	d
111)	Benzyl chloride	16.515	16.527	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.930	16.918	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V9\
Data File : 9B303ICV.D
Acq On : 3 Mar 2010 10:50 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100303-03|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A]0220-01C/0301-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 03 11:19:44 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

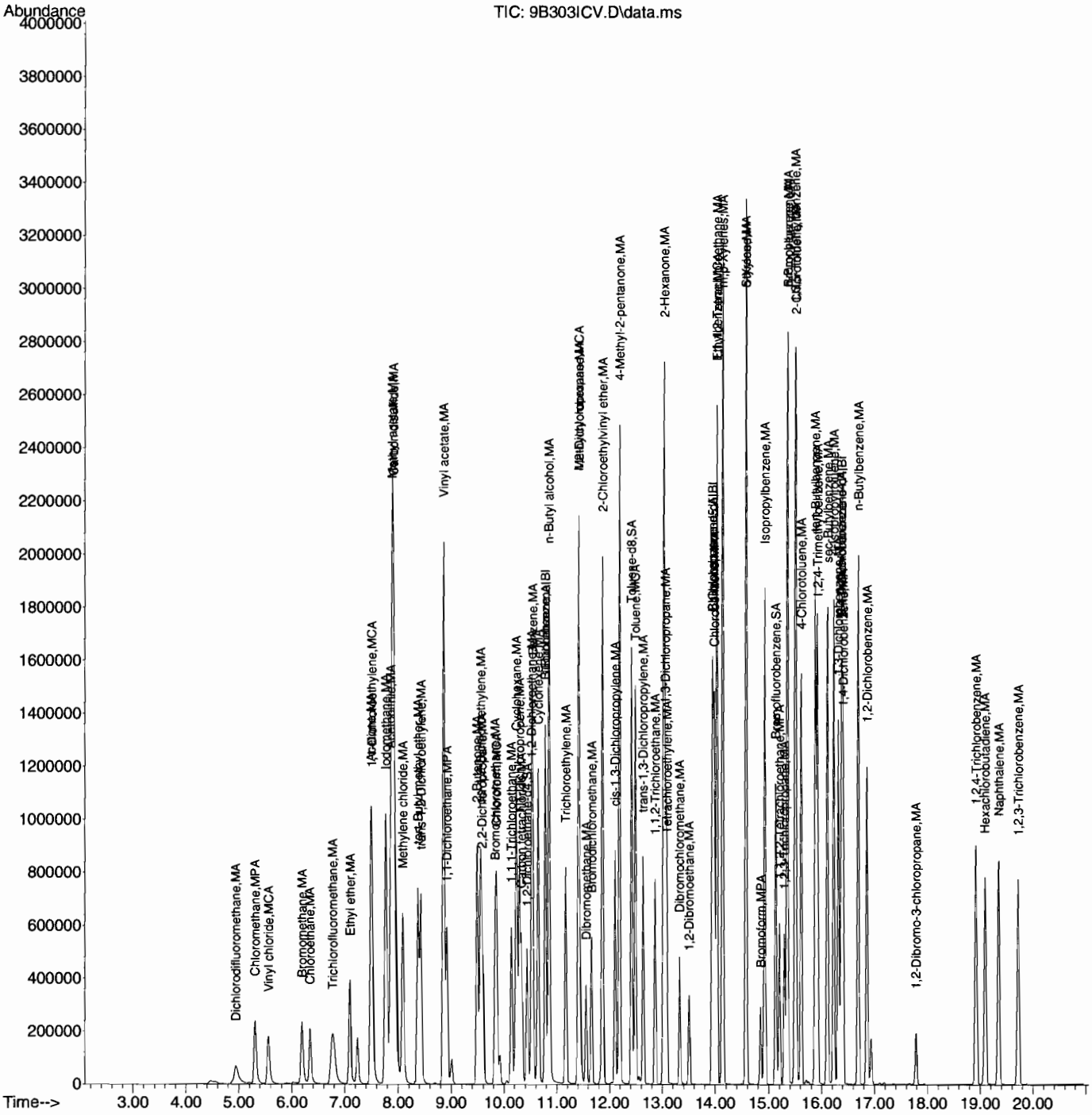

Continuing Calibration Summary

Client SDG: 10-2264

Instrument ID: VOA9.I **Injection Date** 03-MAR-10 12:00

Data File: 030310V9\9B305ICV.D **Init. Cal. Date(s)** 02-MAR-10 12:38 - 02-MAR-10 21:4

Lab Sample ID W9VM100303-05 **Quant Type** ISTD **Method:** 030210V9\VOA9-8260-030210.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.336	0.31548		.01		-6.10714	30		Averaged
S	Toluene-d8	1.2847	1.29899		.01		1.11232	30		Averaged
S	Bromofluorobenzene	1.2161	1.15928		.01		-4.67231	30		Averaged
	Acrolein	250	238.83	250			-4.468	30		Linear
	Trichlorotrifluoroethane	0.0758	0.06806		.01		-10.21108	30		Averaged
	Isopropyl Alcohol	0.0242	0.00039		.01		-98.38843	40	*	Averaged
	Allyl chloride	0.4927	0.43147		.01		-12.42744	30		Averaged
	Acrylonitrile	0.1334	0.12173		.01		-8.74813	30		Averaged
	2-Chloro-1,3-butadiene	0.4395	0.46631		.01		6.10011	30		Averaged
	Ethyl acetate	0.331	0.26844		.01		-18.9003	40		Averaged
	Propionitrile	0.0517	0.04699		.01		-9.11025	30		Averaged
	Methacrylonitrile	0.2018	0.17239		.01		-14.57384	30		Averaged
	Tetrahydrofuran	0.1109	0.09692		.01		-12.60595	30		Averaged
	Isobutyl alcohol	0.0125	0.01069		.01		-14.48	40		Averaged
	Methyl methacrylate	0.164	0.14664		.01		-10.58537	30		Averaged
	1,4-Dioxane	0.0027	0.00237		.01		-12.22222	40		Averaged
	2-Nitropropane	0.0797	0.08627		.01		8.24341	30		Averaged
	Ethyl methacrylate	0.4399	0.39111		.01		-11.09116	30		Averaged
	1-Chlorohexane	0.9861	0.03228		.01		-96.7265	30	*	Averaged
	cis-1,4-Dichloro-2-butene	0.3473	0.37413		.01		7.72531	30		Averaged
	Cyclohexanone	0.03	0.066		.01		120	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.3289	0.35198		.01		7.01733	30		Averaged
	Pentachloroethane	0.1988	0.31447		.01		58.1841	30	*	Averaged
	Benzyl chloride	1.0714	1.41286		.01		31.87045	30	*	Averaged
	bis(2-Chloroisopropyl)ether	0.6003	0.60597		.01		0.94453	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V9\
Data File : 9B305ICV.D
Acq On : 3 Mar 2010 12:00 pm
Operator : RXY1
InstName : VOA9
Sample : |W9VM100303-05|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]UVM100215-08A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 08 16:35:52 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.775	10.775	1.000	96	1429846	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.942	13.941	1.000	117	964157	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.373	16.372	1.000	152	438994	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	1429846	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.942	13.942	1.000	117	964157	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.373	16.372	1.000	152	438970	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	451081	46.95	ug/L	0.00
43) Toluene-d8	12.412	12.412	0.890	98	1252434	50.56	ug/L	0.00
61) Bromofluorobenzene	15.127	15.127	0.924	95	508915	47.66	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	5.294	5.308	0.491		0m	N.D.	d	
4) Vinyl chloride	5.546	5.546	0.515		0m	N.D.	d	
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	7.099	7.099	0.659		0m	N.D.	d	
9) Acetone	7.491	7.490	0.695		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.467	7.502	0.693		0m	N.D.	d	
11) Iodomethane	7.751	7.763	0.719		0m	N.D.	d	
12) Acetonitrile	7.941	7.858	0.737		0m	N.D.	d	
13) Methyl acetate	7.882	7.882	0.731		0m	N.D.	d	
14) Carbon disulfide	7.941	7.906	0.737		0m	N.D.	d	
15) Methylene chloride	8.095	8.083	0.751		0m	N.D.	d	
16) tert-Butyl methyl ether	8.368	8.368	0.777		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.415	8.427	0.781		0m	N.D.	d	
18) Vinyl acetate	8.854	8.854	0.822		0m	N.D.	d	
19) 1,1-Dichloroethane	8.914	8.913	0.827		0m	N.D.	d	
20) 2-Butanone	9.483	9.483	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.483	9.554	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	9.578	9.578	0.889		0m	N.D.	d	
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	9.850	9.850	0.914		0m	N.D.	d	
25) 1,1,1-Trichloroethane	10.123	10.135	0.939		0m	N.D.	d	
26) Cyclohexane	10.171	10.230	0.944		0m	N.D.	d	
27) 1,1-Dichloropropene	10.289	10.289	0.955		0m	N.D.	d	
28) Carbon tetrachloride	10.325	10.325	0.958		0m	N.D.	d	
30) 1,2-Dichloroethane	10.514	10.514	0.976		0m	N.D.	d	
31) Benzene	10.538	10.538	0.978		0m	N.D.	d	
32) Cyclohexene	10.633	10.645	0.987		0m	N.D.	d	
33) n-Butyl alcohol	10.858	10.846	1.008		0m	N.D.	d	
34) Trichloroethylene	11.167	11.167	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	11.416	11.416	1.059		0m	N.D.	d	
36) Methylcyclohexane	11.368	11.416	1.055		0m	N.D.	d	
37) Dibromomethane	11.558	11.558	1.073		0m	N.D.	d	
38) Bromodichloromethane	11.653	11.665	1.081		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.866	11.866	1.101		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	12.103	12.103	1.123		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V9\
Data File : 9B305ICV.D
Acq On : 3 Mar 2010 12:00 pm
Operator : RXY1
InstName : VOA9
Sample : |W9VM100303-05|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]UVM100215-08A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 08 16:35:52 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	12.186	12.186	0.874		0m	N.D.	d	
44) Toluene	12.495	12.483	0.896		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	12.637	12.637	0.906		0m	N.D.	d	
46) 1,1,2-Trichloroethane	12.874	12.862	0.923		0m	N.D.	d	
47) 2-Hexanone	13.028	13.028	0.935		0m	N.D.	d	
48) 1,3-Dichloropropane	13.088	13.052	0.939		0m	N.D.	d	
49) Tetrachloroethylene	13.076	13.088	0.938		0m	N.D.	d	
50) Dibromochloromethane	13.325	13.325	0.956		0m	N.D.	d	
51) 1,2-Dibromoethane	13.503	13.503	0.969		0m	N.D.	d	
52) Chlorobenzene	13.977	13.977	1.003		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	14.025	14.024	1.006		0m	N.D.	d	
54) Ethylbenzene	14.025	14.024	1.006		0m	N.D.	d	
55) m,p-Xylenes	14.131	14.131	1.014		0m	N.D.	d	
56) o-Xylene	14.570	14.570	1.045		0m	N.D.	d	
57) Styrene	14.570	14.570	1.045		0m	N.D.	d	
59) Bromoform	0.000	14.855	0.000		0	N.D.		
60) Isopropylbenzene	14.926	14.926	0.912		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	15.246	15.198	0.931		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.		
64) Bromobenzene	15.341	15.353	0.937		0m	N.D.	d	
65) n-Propylbenzene	15.353	15.353	0.938		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	15.495	15.495	0.946		0m	N.D.	d	
67) 2-Chlorotoluene	15.507	15.507	0.947		0m	N.D.	d	
68) 4-Chlorotoluene	15.602	15.614	0.953		0m	N.D.	d	
69) tert-Butylbenzene	15.874	15.874	0.970		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	15.910	15.910	0.972		0m	N.D.	d	
71) sec-Butylbenzene	16.112	16.112	0.984		0m	N.D.	d	
72) 4-Isopropyltoluene	16.230	16.230	0.991		0m	N.D.	d	
73) 1,3-Dichlorobenzene	16.313	16.313	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	16.408	16.408	1.002		0m	N.D.	d	
75) n-Butylbenzene	16.693	16.693	1.020		0m	N.D.	d	
76) 1,2-Dichlorobenzene	16.859	16.859	1.030		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	17.796	17.784	1.087		0m	N.D.	d	
78) 1,2,4-Trichlorobenzene	18.910	18.922	1.155		0m	N.D.	d	
79) Hexachlorobutadiene	19.100	19.088	1.167		0m	N.D.	d	
80) Naphthalene	19.349	19.349	1.182		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	19.717	19.717	1.204		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.		
85) Acrolein	7.313	7.313	0.679	56	346016	238.83	ug/L	100
86) Trichlorotrifluoroethane	7.467	7.467	0.693	85	486554	224.53	ug/L	98
87) Isopropyl Alcohol	7.562	7.550	0.702	45	27742	40.15	ug/L #	59
88) Allyl chloride	7.941	7.929	0.737	41	3084693	218.93	ug/L	97
89) tert-Butyl Alcohol	8.072	8.060	0.749	59	1571	N.D.		
90) Acrylonitrile	8.344	8.332	0.774	53	870307	228.13	ug/L	98
91) Isopropyl ether	8.866	8.866	0.823	45	685	N.D.		
92) 2-Chloro-1,3-butadiene	9.020	9.008	0.837	53	666748	53.05	ug/L	97
93) Ethyl tert-butyl ether	9.269	9.269	0.860	59	381	N.D.		
94) Ethyl acetate	9.483	9.483	0.880	43	1919144	202.73	ug/L	96
95) Propionitrile	9.578	9.578	0.889	54	335941	227.25	ug/L	100
96) Methacrylonitrile	9.755	9.744	0.905	41	1232459	213.59	ug/L	99
97) Tetrahydrofuran	9.874	9.874	0.916	42	692928	218.41	ug/L	96

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V9\
Data File : 9B305ICV.D
Acq On : 3 Mar 2010 12:00 pm
Operator : RXY1
InstName : VOA9
Sample : |W9VM100303-05|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]UVM100215-08A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 08 16:35:52 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
98)	Isobutyl alcohol	10.171	10.159	0.944	41	764512	2139.29	ug/L		96
99)	Methyl tert-amyl ether	10.526	10.526	0.977	73	982	N.D.			
100)	Methyl methacrylate	11.368	11.368	1.055	69	1048391	223.52	ug/L		91
101)	1,4-Dioxane	11.487	11.487	1.066	88	169565	2215.16	ug/L		100
102)	2-Nitropropane	11.866	11.854	1.101	43	616746	270.77	ug/L		100
104)	Ethyl methacrylate	12.613	12.613	0.905	69	1885436	222.27	ug/L		94
106)	1-Chlorohexane	13.942	13.823	0.852	55	14168	1.64	ug/L	#	43
107)	cis-1,4-Dichloro-2-butene	14.961	14.961	0.914	53	821166	269.30	ug/L		98
108)	Cyclohexanone	15.092	15.092	0.922	42	724288	2746.74	ug/L		93 E
109)	trans-1,4-Dichloro-2-b...	15.246	15.246	0.931	53	772548	267.52	ug/L		95
110)	Pentachloroethane	15.957	15.957	0.975	167	690219	395.45	ug/L		95
111)	Benzyl chloride	16.527	16.527	1.009	91	3101024	329.68	ug/L		99
112)	bis(2-Chloroisopropyl)...	16.918	16.918	1.033	45	1330023	252.35	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V9\
Data File : 9B305ICV.D
Acq On : 3 Mar 2010 12:00 pm
Operator : RXY1
InstName : VOA9
Sample : |W9VM100303-05|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]UVM100215-08A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 08 16:35:52 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

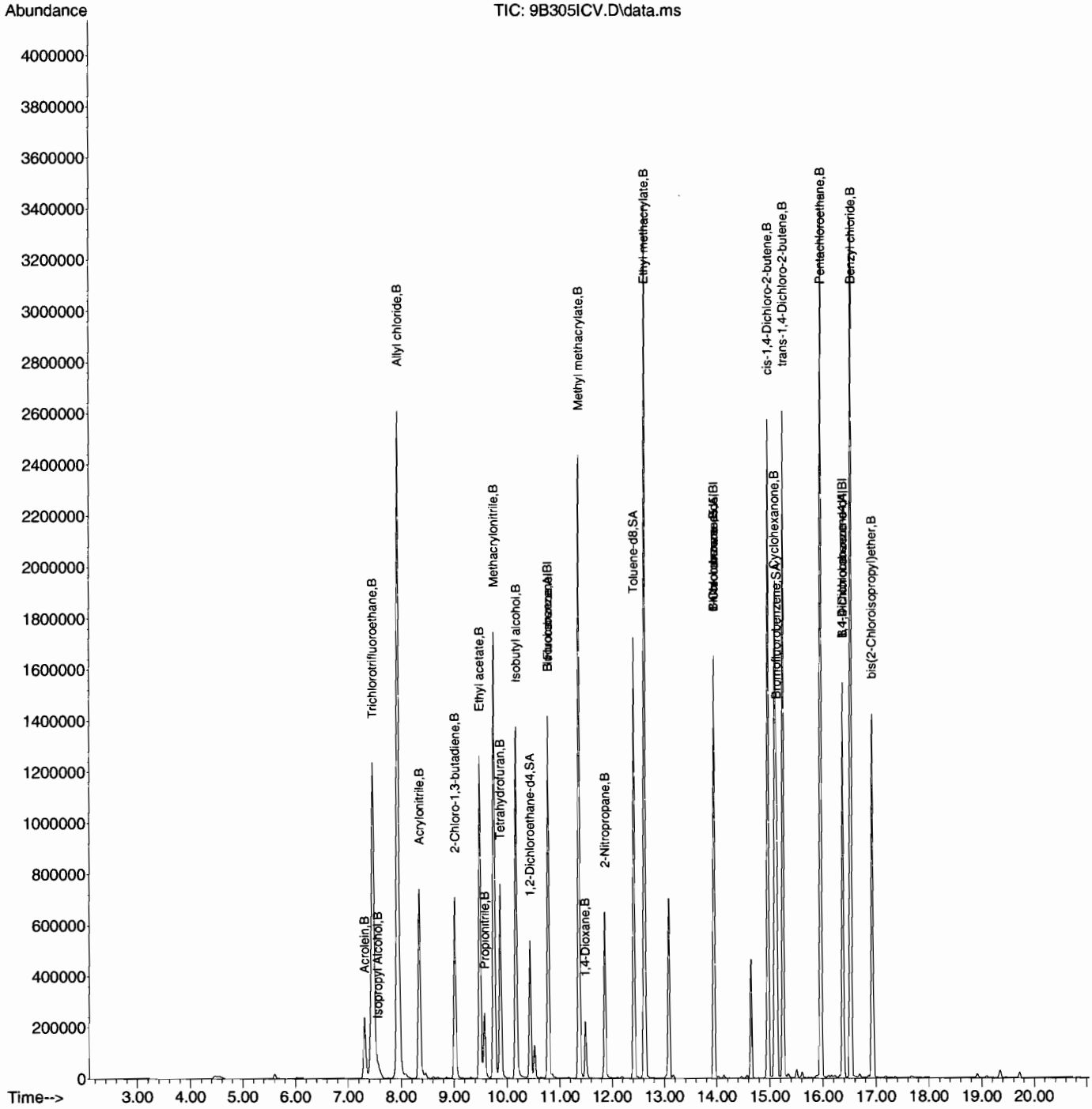

Continuing Calibration Summary

Client SDG: 10-2264

Instrument ID: VOA9.I **Injection Date** 16-MAR-10 09:01

Data File: 031610V9\9D201.D **Init. Cal. Date(s)** 02-MAR-10 12:38 - 02-MAR-10 21:4

Lab Sample ID W9VM100316-01 **Quant Type** ISTD **Method:** 030210V9\VOA9-8260-030210.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.336	0.31709		.01		-5.62798	30		Averaged	
S	Toluene-d8	1.2847	1.29335		.01		0.67331	30		Averaged	
S	Bromofluorobenzene	1.2161	1.18404		.01		-2.6363	30		Averaged	
	Dichlorodifluoromethane	0.1568	0.16982		.01		8.30357	30		Averaged	
	Chloromethane	0.3997	0.37916		.1		-5.13885	30		Averaged	spcc
	Vinyl chloride	0.2921	0.3193		.01		9.31188	20		Averaged	ccc
	Bromomethane	0.1959	0.20305		.01		3.64982	30		Averaged	
	Chloroethane	0.2159	0.227		.01		5.14127	30		Averaged	
	Trichlorofluoromethane	0.3232	0.34037		.01		5.3125	30		Averaged	
	Ethyl ether	0.2839	0.25785		.01		-9.17577	30		Averaged	
	Acetone	0.2237	0.19613		.01		-12.32454	40		Averaged	
	1,1-Dichloroethylene	0.455	0.45357		.01		-0.31429	20		Averaged	ccc
	Iodomethane	0.2987	0.28217		.01		-5.53398	30		Averaged	
	Acetonitrile	1000	1159.27	1000			15.927	30		Linear	
	Methyl acetate	250	225.6	250			-9.76	40		Linear	
	Carbon disulfide	0.6493	0.68456		.01		5.43046	30		Averaged	
	Methylene chloride	50	49.52	50			-0.96	30		Linear	
	tert-Butyl methyl ether	0.6977	0.63395		.01		-9.13716	30		Averaged	
	trans-1,2-Dichloroethylene	0.4499	0.44845		.01		-0.32229	30		Averaged	
	Vinyl acetate	0.6424	0.61438		.01		-4.36177	40		Averaged	
	1,1-Dichloroethane	0.5533	0.52838		.1		-4.50389	30		Averaged	spcc
	2-Butanone	0.2738	0.22247		.01		-18.74726	40		Averaged	
	cis-1,2-Dichloroethylene	0.5144	0.49357		.01		-4.04938	30		Averaged	
	2,2-Dichloropropane	0.3212	0.35486		.01		10.47945	30		Averaged	
	Bromochloromethane	0.1135	0.10289		.01		-9.34802	30		Averaged	
	Chloroform	0.4525	0.40628		.01		-10.21436	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3385	0.35257		.01		4.15657	30		Averaged	
	Cyclohexane	0.5769	0.62477		.01		8.2978	30		Averaged	
	1,1-Dichloropropene	0.3241	0.32222		.01		-0.58007	30		Averaged	
	Carbon tetrachloride	0.2821	0.29204		.01		3.52357	30		Averaged	
	1,2-Dichloroethane	0.4276	0.36377		.01		-14.9275	30		Averaged	
	Benzene	0.9611	0.8857		.01		-7.84518	30		Averaged	
	Cyclohexene	0.5103	0.50841		.01		-0.37037	30		Averaged	
	n-Butyl alcohol	5000	4291.08	5000			-14.1784	40		Linear	
	Trichloroethylene	0.25	0.23745		.01		-5.02	30		Averaged	
	1,2-Dichloropropane	0.3239	0.28999		.01		-10.46928	20		Averaged	ccc
	Methylcyclohexane	0.4105	0.41497		.01		1.08892	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Dat** 16-MAR-10 09:01

Data File: 031610V9\9D201.D **Init. Cal. Date(s)** 02-MAR-10 12:38 02-MAR-10 21:4

Lab Sample ID W9VM100316-01 **Quant Type** ISTD **Method:** 030210V9\VOA9-8260-030210.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.157	0.13345		.01		-15	30		Averaged	
Bromodichloromethane	0.3422	0.30673		.01		-10.36528	30		Averaged	
2-Chloroethylvinyl ether	0.1737	0.14153		.01		-18.52044	30		Averaged	
cis-1,3-Dichloropropylene	0.4073	0.37677		.01		-7.4957	30		Averaged	
4-Methyl-2-pentanone	0.2051	0.18386		.01		-10.35592	40		Averaged	
Toluene	1.4527	1.33605		.01		-8.02988	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.5352	0.51095		.01		-4.53102	30		Averaged	
1,1,2-Trichloroethane	0.2859	0.24027		.01		-15.96013	30		Averaged	
2-Hexanone	0.5616	0.44265		.01		-21.18056	40		Averaged	
1,3-Dichloropropane	0.5721	0.46766		.01		-18.25555	30		Averaged	
Tetrachloroethylene	0.2085	0.2006		.01		-3.78897	30		Averaged	
Dibromochloromethane	50	46.2	50			-7.6	30		Linear	
1,2-Dibromoethane	0.3189	0.27514		.01		-13.72217	30		Averaged	
Chlorobenzene	0.9048	0.81795		.3		-9.59881	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3037	0.28068		.01		-7.57985	30		Averaged	
Ethylbenzene	1.7902	1.46081		.01		-18.39962	20		Averaged	ccc
m,p-Xylenes	0.6049	0.55433		.01		-8.36006	30		Averaged	
o-Xylene	0.6251	0.55954		.01		-10.48792	30		Averaged	
Styrene	1.0071	0.90752		.01		-9.8878	30		Averaged	
Bromoform	50	44.96	50			-10.08	30		Linear	spcc
Isopropylbenzene	3.508	3.177		.01		-9.43558	30		Averaged	
1,1,2,2-Tetrachloroethane	1.0029	0.82581		.3		-17.65779	30		Averaged	spcc
1,2,3-Trichloropropane	0.2419	0.19872		.01		-17.85035	30		Averaged	
Bromobenzene	0.756	0.64271		.01		-14.98545	30		Averaged	
n-Propylbenzene	4.614	3.89233		.01		-15.64088	30		Averaged	
1,3,5-Trimethylbenzene	3.0102	2.60692		.01		-13.39712	30		Averaged	
2-Chlorotoluene	0.8531	0.76866		.01		-9.89802	30		Averaged	
4-Chlorotoluene	2.893	2.57942		.01		-10.83927	30		Averaged	
tert-Butylbenzene	0.5662	0.53893		.01		-4.81632	30		Averaged	
1,2,4-Trimethylbenzene	3.0389	2.69458		.01		-11.33042	30		Averaged	
sec-Butylbenzene	3.9966	3.63844		.01		-8.96162	30		Averaged	
4-Isopropyltoluene	3.107	2.89234		.01		-6.90892	30		Averaged	
1,3-Dichlorobenzene	1.5544	1.33602		.01		-14.04915	30		Averaged	
1,4-Dichlorobenzene	1.4977	1.30193		.01		-13.07138	30		Averaged	
n-Butylbenzene	3.394	3.13132		.01		-7.73954	30		Averaged	
1,2-Dichlorobenzene	1.4859	1.27047		.01		-14.49828	30		Averaged	
1,2-Dibromo-3-chloropropane	50	40.35	50			-19.3	30		Linear	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Dat** 16-MAR-10 09:01

Data File: 031610V9\9D201.D **Init. Cal. Date(s)** 02-MAR-10 12:38 02-MAR-10 21:4

Lab Sample ID W9VM100316-01 **Quant Type** ISTD **Method:** 030210V9\VOA9-8260-030210.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.9431	0.84816		.01		-10.0668	30		Averaged
Hexachlorobutadiene	0.4453	0.41731		.01		-6.28565	30		Averaged
Naphthalene	2.5583	2.11885		.01		-17.17742	30		Averaged
1,2,3-Trichlorobenzene	0.827	0.72496		.01		-12.33857	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D201.D
Acq On : 16 Mar 2010 9:01 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100316-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A]0305-01B/0316-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 16 09:24:58 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.775	10.775	1.000	96	1447732	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.941	13.941	1.000	117	980773	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	447831	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	1447732	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	980773	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	447855	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	459065	47.19	ug/L	0.00
43) Toluene-d8	12.412	12.412	0.890	98	1268479	50.34	ug/L	0.00
61) Bromofluorobenzene	15.127	15.127	0.924	95	530250	48.68	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.944	4.944	0.459	85	245850	54.14	ug/L	100
3) Chloromethane	5.322	5.308	0.494	50	548924	47.43	ug/L	99
4) Vinyl chloride	5.574	5.546	0.517	62	462258	54.65	ug/L	100
5) Bromomethane	6.198	6.186	0.575	94	293964	51.83	ug/L	98
6) Chloroethane	6.352	6.340	0.590	64	328637	52.58	ug/L	98
7) Trichlorofluoromethane	6.767	6.767	0.628	101	492758	52.66	ug/L	99
8) Ethyl ether	7.099	7.099	0.659	59	373300	45.41	ug/L	95
9) Acetone	7.490	7.490	0.695	43	1419731	219.22	ug/L	99
10) 1,1-Dichloroethylene	7.502	7.502	0.696	61	656652	49.85	ug/L	98
11) Iodomethane	7.763	7.763	0.720	142	2042523	236.19	ug/L	98
12) Acetonitrile	7.858	7.858	0.729	41	1356770	1159.27	ug/L	99
13) Methyl acetate	7.882	7.882	0.731	43	1485973	225.60	ug/L	97
14) Carbon disulfide	7.906	7.906	0.734	76	4955282	263.56	ug/L	99
15) Methylene chloride	8.083	8.083	0.750	84	371605	49.52	ug/L	89
16) tert-Butyl methyl ether	8.368	8.368	0.777	73	917785	45.43	ug/L	95
17) trans-1,2-Dichloroethy...	8.427	8.427	0.782	61	649238	49.84	ug/L	96
18) Vinyl acetate	8.854	8.854	0.822	43	4447283	239.11	ug/L	97
19) 1,1-Dichloroethane	8.913	8.913	0.827	63	764946	47.75	ug/L	99
20) 2-Butanone	9.483	9.483	0.880	43	1610354	203.12	ug/L	94
21) cis-1,2-Dichloroethylene	9.554	9.554	0.887	61	714560	47.97	ug/L	95
22) 2,2-Dichloropropane	9.578	9.578	0.889	77	513749	55.23	ug/L	99
23) Bromochloromethane	9.827	9.827	0.912	128	148964	45.33	ug/L #	89
24) Chloroform	9.850	9.850	0.914	83	588181	44.89	ug/L	97
25) 1,1,1-Trichloroethane	10.135	10.135	0.941	97	510428	52.08	ug/L	99
26) Cyclohexane	10.230	10.230	0.949	56	904503	54.15	ug/L	93
27) 1,1-Dichloropropene	10.289	10.289	0.955	75	466482	49.72	ug/L	99
28) Carbon tetrachloride	10.325	10.325	0.958	117	422798	51.76	ug/L	99
30) 1,2-Dichloroethane	10.514	10.514	0.976	62	526637	42.53	ug/L	99
31) Benzene	10.538	10.538	0.978	78	1282254	46.08	ug/L	98
32) Cyclohexene	10.645	10.645	0.988	67	736036	49.81	ug/L	91
33) n-Butyl alcohol	10.846	10.846	1.007	56	1319408	4291.08	ug/L	98
34) Trichloroethylene	11.167	11.167	1.036	95	343769	47.49	ug/L	100
35) 1,2-Dichloropropane	11.416	11.416	1.059	63	419822	44.76	ug/L	98
36) Methylcyclohexane	11.416	11.416	1.059	83	600761	50.54	ug/L	93
37) Dibromomethane	11.558	11.558	1.073	93	193204	42.51	ug/L	99
38) Bromodichloromethane	11.653	11.665	1.081	83	444056	44.82	ug/L	99
39) 2-Chloroethylvinyl ether	11.866	11.866	1.101	63	1024470	203.68	ug/L	98
40) cis-1,3-Dichloropropylene	12.103	12.103	1.123	75	545455	46.25	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D201.D
Acq On : 16 Mar 2010 9:01 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100316-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A]0305-01B/0316-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 16 09:24:58 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42) 4-Methyl-2-pentanone	12.186	12.186	0.874	58	901610	224.06	ug/L		94
44) Toluene	12.483	12.483	0.895	91	1310365	45.99	ug/L		98
45) trans-1,3-Dichloroprop...	12.637	12.637	0.906	75	501127	47.74	ug/L		99
46) 1,1,2-Trichloroethane	12.862	12.862	0.923	83	235654	42.02	ug/L		99
47) 2-Hexanone	13.028	13.028	0.935	43	2170681	197.05	ug/L		98
48) 1,3-Dichloropropane	13.052	13.052	0.936	76	458673	40.87	ug/L		99
49) Tetrachloroethylene	13.076	13.088	0.938	164	196740	48.10	ug/L		98
50) Dibromochloromethane	13.325	13.325	0.956	129	289635	46.20	ug/L		100
51) 1,2-Dibromoethane	13.503	13.503	0.969	107	269850	43.14	ug/L		100
52) Chlorobenzene	13.977	13.977	1.003	112	802224	45.20	ug/L		99
53) 1,1,1,2-Tetrachloroethane	14.025	14.024	1.006	131	275279	46.21	ug/L		99
54) Ethylbenzene	14.025	14.024	1.006	91	1432726	40.80	ug/L		99 E
55) m,p-Xylenes	14.131	14.131	1.014	106	1087341	91.64	ug/L		96
56) o-Xylene	14.570	14.570	1.045	106	548786	44.75	ug/L		94
57) Styrene	14.570	14.570	1.045	104	890069	45.06	ug/L		98
59) Bromoform	14.855	14.855	0.907	173	155337	44.96	ug/L		100
60) Isopropylbenzene	14.926	14.926	0.912	105	1422758	45.28	ug/L		99
62) 1,1,2,2-Tetrachloroethane	15.198	15.198	0.928	83	369824	41.17	ug/L		99
63) 1,2,3-Trichloropropane	15.293	15.293	0.934	110	88991	41.08	ug/L	#	93
64) Bromobenzene	15.353	15.353	0.938	156	287827	42.51	ug/L		98
65) n-Propylbenzene	15.353	15.353	0.938	91	1743106	42.18	ug/L		99
66) 1,3,5-Trimethylbenzene	15.495	15.495	0.946	105	1167460	43.30	ug/L		99
67) 2-Chlorotoluene	15.507	15.507	0.947	126	344231	45.05	ug/L		98
68) 4-Chlorotoluene	15.614	15.614	0.954	91	1155146	44.58	ug/L		99
69) tert-Butylbenzene	15.874	15.874	0.970	134	241351	47.59	ug/L		95
70) 1,2,4-Trimethylbenzene	15.910	15.910	0.972	105	1206716	44.34	ug/L		98
71) sec-Butylbenzene	16.112	16.112	0.984	105	1629405	45.52	ug/L		100
72) 4-Isopropyltoluene	16.230	16.230	0.991	119	1295279	46.54	ug/L		99
73) 1,3-Dichlorobenzene	16.313	16.313	0.996	146	598310	42.98	ug/L		100
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	583043	43.47	ug/L		99
75) n-Butylbenzene	16.693	16.693	1.020	91	1402304	46.13	ug/L		98
76) 1,2-Dichlorobenzene	16.859	16.859	1.030	146	568957	42.75	ug/L		99
77) 1,2-Dibromo-3-chloropr...	17.784	17.784	1.086	157	54995	40.35	ug/L		98
78) 1,2,4-Trichlorobenzene	18.922	18.922	1.156	180	379832	44.97	ug/L		99
79) Hexachlorobutadiene	19.088	19.088	1.166	225	186885	46.86	ug/L		100
80) Naphthalene	19.349	19.349	1.182	128	948887	41.41	ug/L		99
81) 1,2,3-Trichlorobenzene	19.717	19.717	1.204	180	324658	43.83	ug/L		99
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.			
85) Acrolein	7.313	7.313	0.679		0m	N.D.	d		
86) Trichlorotrifluoroethane	7.467	7.467	0.693		0m	N.D.	d		
87) Isopropyl Alcohol	7.479	7.550	0.694		0m	N.D.	d		
88) Allyl chloride	7.858	7.929	0.729		0m	N.D.	d		
89) tert-Butyl Alcohol	8.060	8.060	0.748		0m	N.D.	d		
90) Acrylonitrile	8.368	8.332	0.777		0m	N.D.	d		
91) Isopropyl ether	8.854	8.866	0.822		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	9.008	9.008	0.836		0m	N.D.	d		
93) Ethyl tert-butyl ether	9.269	9.269	0.860		0m	N.D.	d		
94) Ethyl acetate	9.483	9.483	0.880		0m	N.D.	d		
95) Propionitrile	9.578	9.578	0.889		0m	N.D.	d		
96) Methacrylonitrile	9.755	9.744	0.905		0m	N.D.	d		
97) Tetrahydrofuran	9.921	9.874	0.921		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D201.D
Acq On : 16 Mar 2010 9:01 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100316-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A]0305-01B/0316-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 16 09:24:58 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	10.230	10.159	0.949		0m	N.D.	d
99)	Methyl tert-amyl ether	10.538	10.526	0.978		0m	N.D.	d
100)	Methyl methacrylate	11.416	11.368	1.059		0m	N.D.	d
101)	1,4-Dioxane	11.499	11.487	1.067		0m	N.D.	d
102)	2-Nitropropane	11.866	11.854	1.101		0m	N.D.	d
104)	Ethyl methacrylate	12.613	12.613	0.905		0m	N.D.	d
106)	1-Chlorohexane	13.941	13.823	0.852		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.926	14.961	0.912		0m	N.D.	d
108)	Cyclohexanone	15.104	15.092	0.923		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	15.246	15.246	0.931		0m	N.D.	d
110)	Pentachloroethane	15.957	15.957	0.975		0m	N.D.	d
111)	Benzyl chloride	16.527	16.527	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.930	16.918	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D201.D
Acq On : 16 Mar 2010 9:01 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100316-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A]0305-01B/0316-01
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 16 09:24:58 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

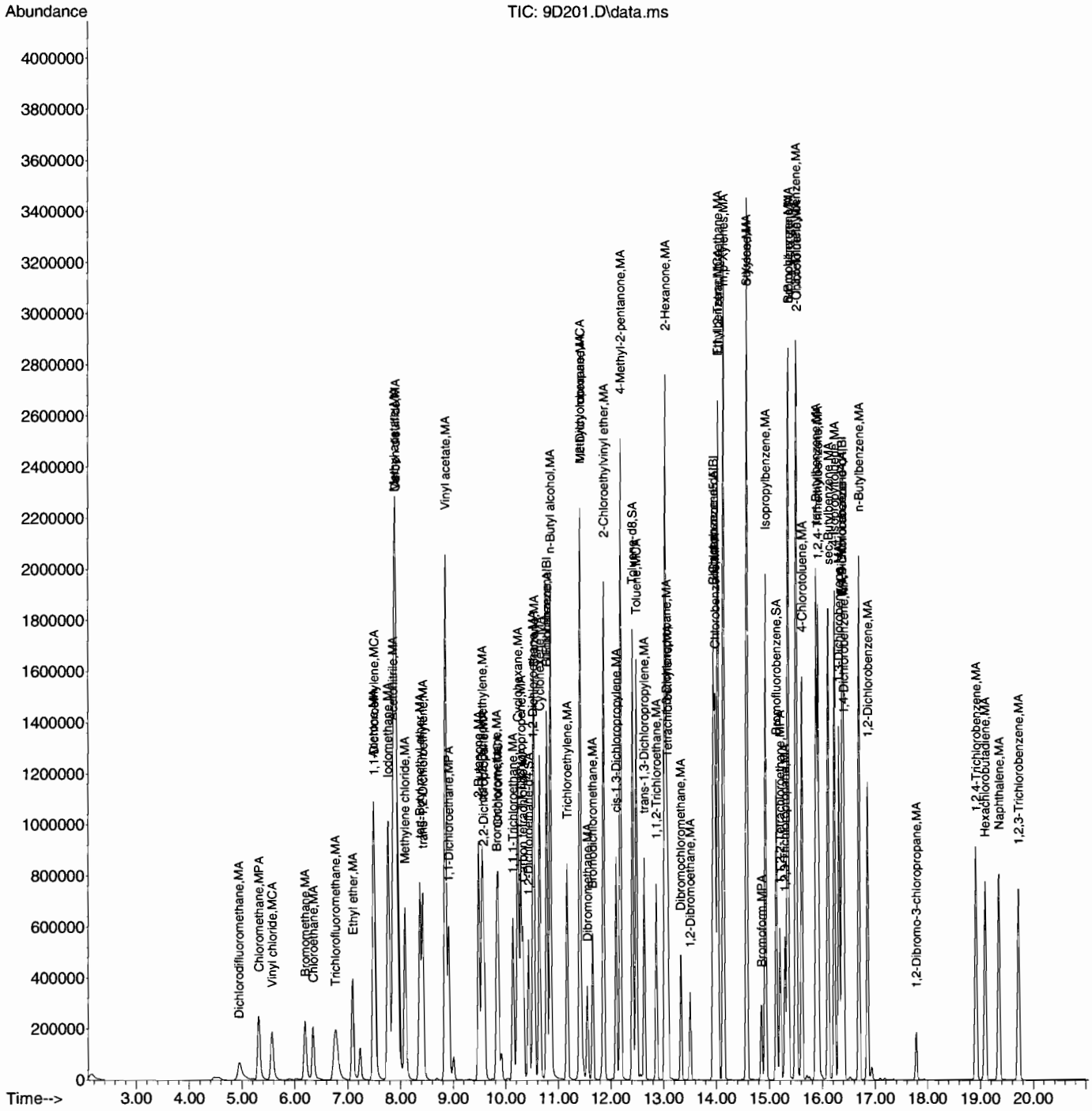

Continuing Calibration Summary

Client SDG: 10-2264

Instrument ID: VOA9.I **Injection Dat** 16-MAR-10 09:57

Data File: 031610V9\9D203.D **Init. Cal. Date(s)** 02-MAR-10 12:38 - 02-MAR-10 21:4

Lab Sample ID W9VM100316-03 **Quant Type** ISTD **Method:** 030210V9\VOA9-8260-030210.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.336	0.31749		.01		-5.50893	30		Averaged
S	Toluene-d8	1.2847	1.26812		.01		-1.29057	30		Averaged
S	Bromofluorobenzene	1.2161	1.09838		.01		-9.68012	30		Averaged
	Acrolein	250	312.9	250			25.16	30		Linear
	Trichlorotrifluoroethane	0.0758	0.08291		.01		9.37995	30		Averaged
	Allyl chloride	0.4927	0.50226		.01		1.94033	30		Averaged
	Acrylonitrile	0.1334	0.12082		.01		-9.43028	30		Averaged
	2-Chloro-1,3-butadiene	0.4395	0.54227		.01		23.38339	30		Averaged
	Ethyl acetate	0.331	0.25513		.01		-22.92145	40		Averaged
	Propionitrile	0.0517	0.04536		.01		-12.26306	30		Averaged
	Methacrylonitrile	0.2018	0.16968		.01		-15.91675	30		Averaged
	Tetrahydrofuran	0.1109	0.09144		.01		-17.54734	30		Averaged
	Isobutyl alcohol	0.0125	0.01022		.01		-18.24	40		Averaged
	Methyl methacrylate	0.164	0.13912		.01		-15.17073	30		Averaged
	1,4-Dioxane	0.0027	0.00214		.01		-20.74074	40		Averaged
	2-Nitropropane	0.0797	0.08306		.01		4.21581	30		Averaged
	Ethyl methacrylate	0.4399	0.37671		.01		-14.36463	30		Averaged
	cis-1,4-Dichloro-2-butene	0.3473	0.37059		.01		6.70602	30		Averaged
	Cyclohexanone	0.03	0.02544		.01		-15.2	40		Averaged
	trans-1,4-Dichloro-2-butene	0.3289	0.34744		.01		5.63697	30		Averaged
	Pentachloroethane	0.1988	0.33665		.01		69.34105	30	*	Averaged
	Benzyl chloride	1.0714	1.42501		.01		33.00448	30	*	Averaged
	bis(2-Chloroisopropyl)ether	0.6003	0.53976		.01		-10.08496	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D203.D
Acq On : 16 Mar 2010 9:57 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100316-03|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]UVM100304-08A
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 10:25:35 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.787	10.775	1.000	96	1443391	50.00	ug/L	0.01
41) Chlorobenzene-d5	13.941	13.941	1.000	117	987598	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	463755	50.00	ug/L	0.00
82) B Fluorobenzene	10.787	10.775	1.000	96	1443391	50.00	ug/L	0.01
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	987598	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	463785	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.967	65	458266	47.25	ug/L	0.00
43) Toluene-d8	12.412	12.412	0.890	98	1252390	49.36	ug/L	0.00
61) Bromofluorobenzene	15.127	15.127	0.924	95	509381	45.16	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	5.308	5.308	0.492		0m	N.D.	d	
4) Vinyl chloride	5.546	5.546	0.514		0m	N.D.	d	
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	0.000	7.099	0.000		0	N.D.		
9) Acetone	7.478	7.490	0.693		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.478	7.502	0.693		0m	N.D.	d	
11) Iodomethane	7.775	7.763	0.721		0m	N.D.	d	
12) Acetonitrile	7.941	7.858	0.736		0m	N.D.	d	
13) Methyl acetate	7.882	7.882	0.731		0m	N.D.	d	
14) Carbon disulfide	7.941	7.906	0.736		0m	N.D.	d	
15) Methylene chloride	8.083	8.083	0.749		0m	N.D.	d	
16) tert-Butyl methyl ether	8.380	8.368	0.777		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.427	8.427	0.781		0m	N.D.	d	
18) Vinyl acetate	8.854	8.854	0.821		0m	N.D.	d	
19) 1,1-Dichloroethane	8.901	8.913	0.825		0m	N.D.	d	
20) 2-Butanone	9.482	9.483	0.879		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.494	9.554	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	9.589	9.578	0.889		0m	N.D.	d	
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	9.850	9.850	0.913		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	10.170	10.230	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.277	10.289	0.953		0m	N.D.	d	
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.514	10.514	0.975		0m	N.D.	d	
31) Benzene	10.538	10.538	0.977		0m	N.D.	d	
32) Cyclohexene	10.645	10.645	0.987		0m	N.D.	d	
33) n-Butyl alcohol	10.858	10.846	1.007		0m	N.D.	d	
34) Trichloroethylene	11.166	11.167	1.035		0m	N.D.	d	
35) 1,2-Dichloropropane	11.427	11.416	1.059		0m	N.D.	d	
36) Methylcyclohexane	11.368	11.416	1.054		0m	N.D.	d	
37) Dibromomethane	11.558	11.558	1.071		0m	N.D.	d	
38) Bromodichloromethane	11.653	11.665	1.080		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.866	11.866	1.100		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	12.103	12.103	1.122		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D203.D
Acq On : 16 Mar 2010 9:57 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100316-03|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]UVM100304-08A
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 10:25:35 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	12.186	12.186	0.874		0m	N.D.	d	
44) Toluene	12.495	12.483	0.896		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	12.637	12.637	0.906		0m	N.D.	d	
46) 1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.		
47) 2-Hexanone	13.028	13.028	0.935		0m	N.D.	d	
48) 1,3-Dichloropropane	13.099	13.052	0.940		0m	N.D.	d	
49) Tetrachloroethylene	13.087	13.088	0.939		0m	N.D.	d	
50) Dibromochloromethane	13.325	13.325	0.956		0m	N.D.	d	
51) 1,2-Dibromoethane	13.503	13.503	0.969		0m	N.D.	d	
52) Chlorobenzene	13.977	13.977	1.003		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	14.024	14.024	1.006		0m	N.D.	d	
54) Ethylbenzene	14.024	14.024	1.006		0m	N.D.	d	
55) m,p-Xylenes	14.131	14.131	1.014		0m	N.D.	d	
56) o-Xylene	14.570	14.570	1.045		0m	N.D.	d	
57) Styrene	14.570	14.570	1.045		0m	N.D.	d	
59) Bromoform	0.000	14.855	0.000		0	N.D.		
60) Isopropylbenzene	14.926	14.926	0.912		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	15.198	15.198	0.928		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.		
64) Bromobenzene	15.352	15.353	0.938		0m	N.D.	d	
65) n-Propylbenzene	15.352	15.353	0.938		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	15.495	15.495	0.946		0m	N.D.	d	
67) 2-Chlorotoluene	15.507	15.507	0.947		0m	N.D.	d	
68) 4-Chlorotoluene	15.613	15.614	0.954		0m	N.D.	d	
69) tert-Butylbenzene	15.874	15.874	0.970		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	15.922	15.910	0.972		0m	N.D.	d	
71) sec-Butylbenzene	16.111	16.112	0.984		0m	N.D.	d	
72) 4-Isopropyltoluene	16.230	16.230	0.991		0m	N.D.	d	
73) 1,3-Dichlorobenzene	16.313	16.313	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	16.408	16.408	1.002		0m	N.D.	d	
75) n-Butylbenzene	16.692	16.693	1.020		0m	N.D.	d	
76) 1,2-Dichlorobenzene	16.858	16.859	1.030		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	17.783	17.784	1.086		0m	N.D.	d	
78) 1,2,4-Trichlorobenzene	18.910	18.922	1.155		0m	N.D.	d	
79) Hexachlorobutadiene	19.100	19.088	1.167		0m	N.D.	d	
80) Naphthalene	19.349	19.349	1.182		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	19.716	19.717	1.204		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.		
85) Acrolein	7.312	7.313	0.678	56	463236	312.90	ug/L	98
86) Trichlorotrifluoroethane	7.467	7.467	0.692	85	598358	273.54	ug/L	98
87) Isopropyl Alcohol	0.000	7.550	0.000		0m	N.D.	d	
88) Allyl chloride	7.941	7.929	0.736	41	3624804	254.85	ug/L	98
89) tert-Butyl Alcohol	8.059	8.060	0.747	59	953	N.D.		
90) Acrylonitrile	8.344	8.332	0.774	53	871984	226.42	ug/L	98
91) Isopropyl ether	0.000	8.866	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	9.020	9.008	0.836	53	782709	61.69	ug/L	94
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.		
94) Ethyl acetate	9.482	9.483	0.879	43	1841230	192.68	ug/L	95
95) Propionitrile	9.577	9.578	0.888	54	327389	219.39	ug/L	98
96) Methacrylonitrile	9.755	9.744	0.904	41	1224582	210.23	ug/L	100
97) Tetrahydrofuran	9.874	9.874	0.915	42	659935	206.05	ug/L	94

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D203.D
Acq On : 16 Mar 2010 9:57 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100316-03|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]UVM100304-08A
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 10:25:35 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
98)	Isobutyl alcohol	10.170	10.159	0.943	41	737916	2045.49	ug/L	95	
99)	Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.			
100)	Methyl methacrylate	11.368	11.368	1.054	69	1004017	212.05	ug/L	87	
101)	1,4-Dioxane	11.498	11.487	1.066	88	154728	2002.36	ug/L	96	
102)	2-Nitropropane	11.866	11.854	1.100	43	599407	260.69	ug/L	100	
104)	Ethyl methacrylate	12.613	12.613	0.905	69	1860210	214.09	ug/L	91	
106)	1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d		
107)	cis-1,4-Dichloro-2-butene	14.961	14.961	0.914	53	859361	266.75	ug/L	98	
108)	Cyclohexanone	15.103	15.092	0.922	42	294951	1058.70	ug/L	94	E
109)	trans-1,4-Dichloro-2-b...	15.246	15.246	0.931	53	805698	264.07	ug/L	93	
110)	Pentachloroethane	15.957	15.957	0.975	167	780657	423.33	ug/L	96	
111)	Benzyl chloride	16.526	16.527	1.009	91	3304495	332.51	ug/L	99	
112)	bis(2-Chloroisopropyl)...	16.930	16.918	1.034	45	1251661	224.78	ug/L	96	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D203.D
Acq On : 16 Mar 2010 9:57 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100316-03|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]UVM100304-08A
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 16 10:25:35 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

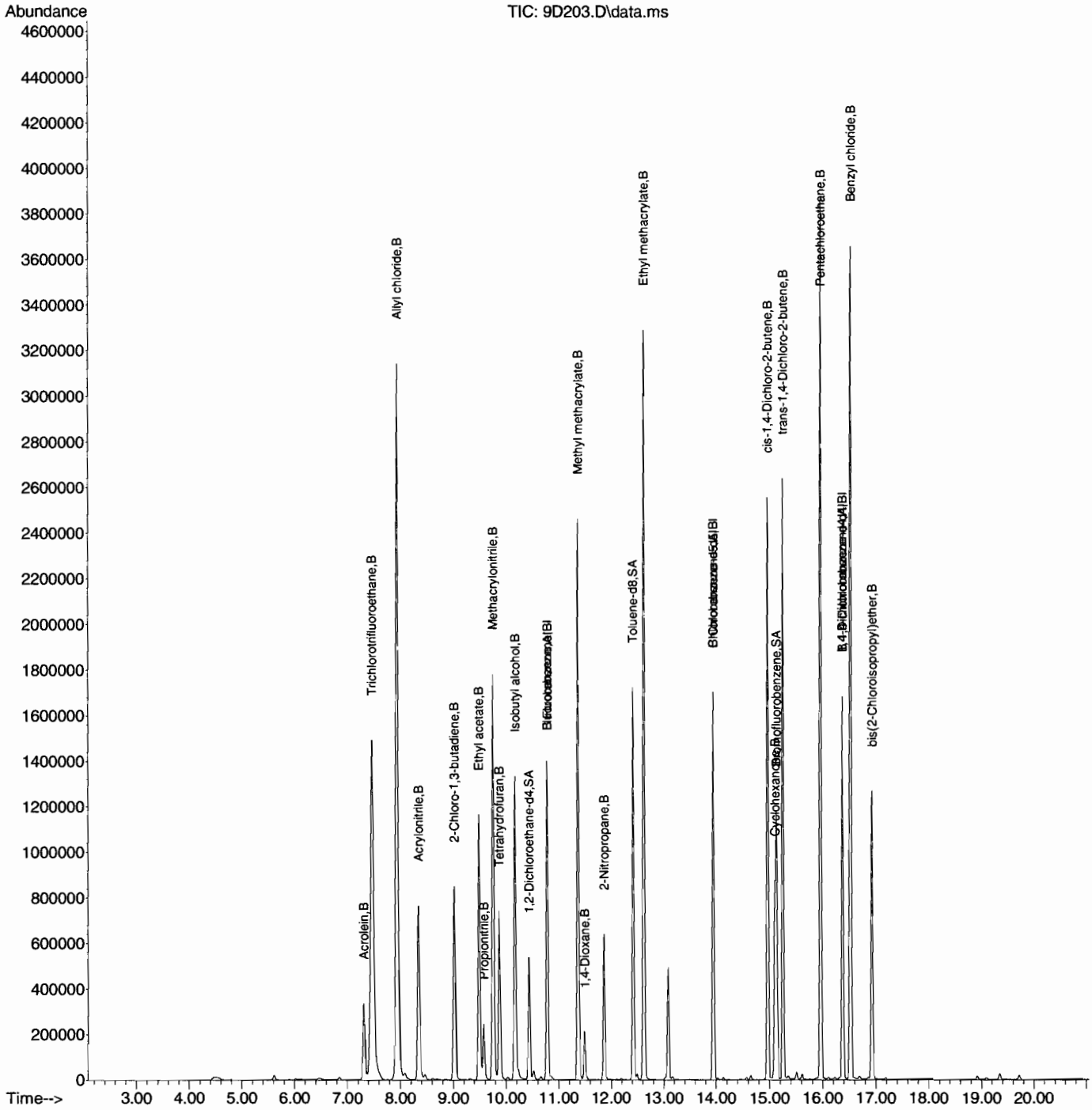

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030210V9\
Data File : 9B209.D
Acq On : 2 Mar 2010 12:10 pm
Operator : RXY1
Sample : |UVM100203-02|BFB|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a
ALS Vial : 9 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Title : Volatile Organics 8260B SubList :
Last Update : Tue Mar 02 12:19:44 2010

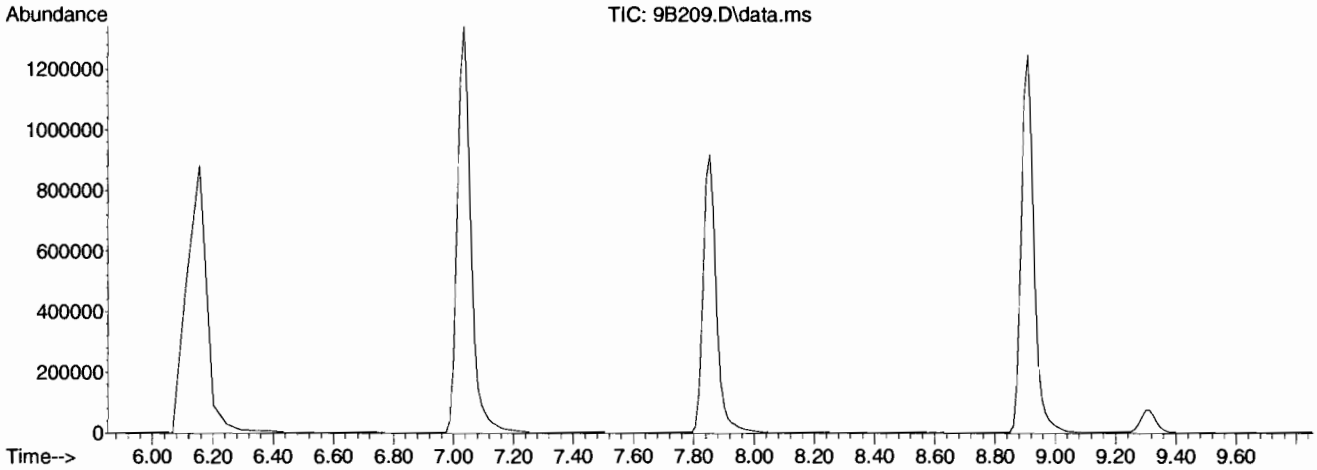

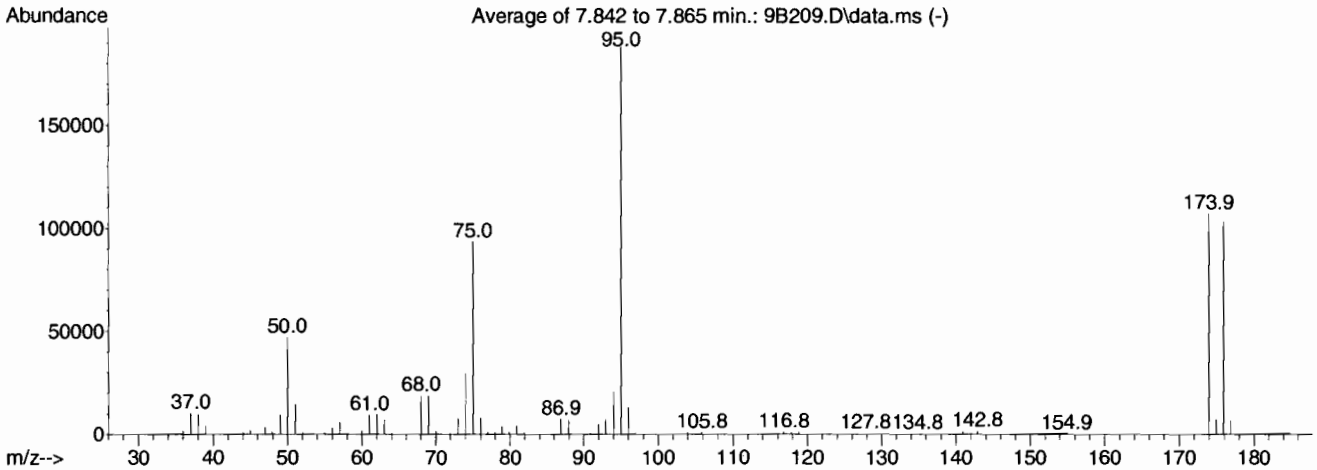

AutoFind: Scans 223, 224, 225; Background Corrected with Scan 216

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.9	46856	PASS
75	95	30	60	49.7	93451	PASS
95	95	100	100	100.0	188181	PASS
96	95	5	9	6.9	13004	PASS
173	174	0.00	2	0.5	552	PASS
174	95	50	100	56.9	107056	PASS
175	174	5	9	6.6	7038	PASS
176	174	95	101	96.5	103259	PASS
177	176	5	9	6.5	6668	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V9\
Data File : 9B303BFB.D
Acq On : 3 Mar 2010 10:50 am
Operator : RXY1
Sample : |W9VM100303-03|BFB|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A]0220-01C/0301-01
ALS Vial : 3 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Title : Volatile Organics 8260B SubList :
Last Update : Wed Mar 03 09:48:05 2010

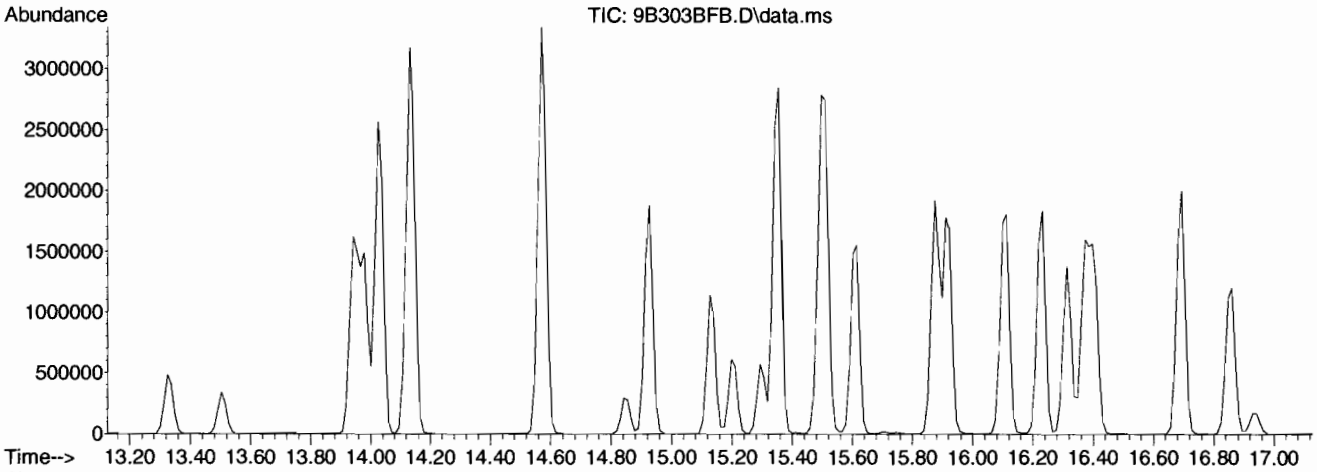

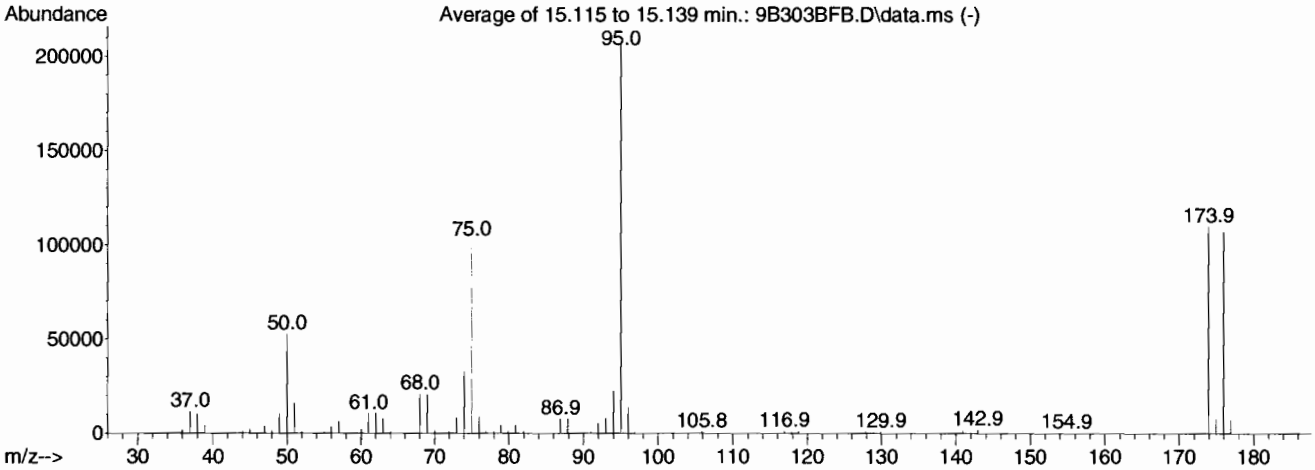

Spectrum Information: Average of 15.115 to 15.139 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.6	52624	PASS
75	95	30	60	49.8	102501	PASS
95	95	100	100	100.0	205867	PASS
96	95	5	9	6.7	13713	PASS
173	174	0.00	2	0.5	581	PASS
174	95	50	100	53.3	109765	PASS
175	174	5	9	6.9	7618	PASS
176	174	95	101	97.5	107037	PASS
177	176	5	9	6.4	6838	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D201BFB.D
Acq On : 16 Mar 2010 9:01 am
Operator : RXY1
Sample : |W9VM100316-01|BFB|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A]0305-01B/0316-01
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Title : Volatile Organics 8260B SubList :
Last Update : Wed Mar 03 09:48:05 2010

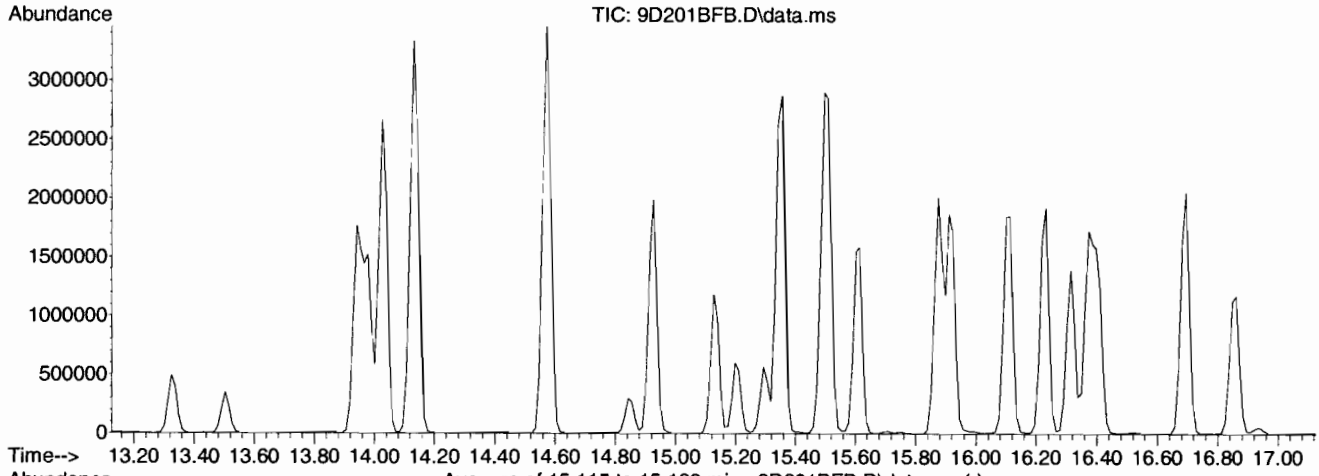

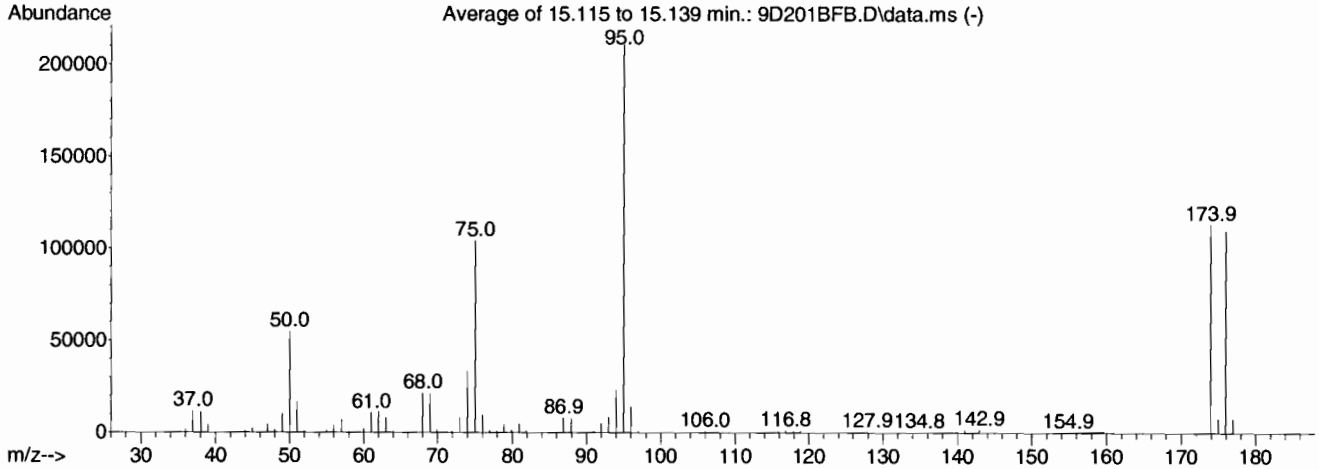

Spectrum Information: Average of 15.115 to 15.139 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.0	54819	PASS
75	95	30	60	49.4	104216	PASS
95	95	100	100	100.0	210752	PASS
96	95	5	9	6.6	13949	PASS
173	174	0.00	2	0.6	634	PASS
174	95	50	100	53.8	113301	PASS
175	174	5	9	7.0	7904	PASS
176	174	95	101	96.9	109795	PASS
177	176	5	9	6.9	7618	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072229**				
Client Sample:	**QC for batch 965706**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965706**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965707**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 11:51**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 08:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V9\9D207B.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072229**				
Client Sample:	**QC for batch 965706**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965706**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965707**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 11:51**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 08:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V9\9D207B.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D207B.D
Acq On : 16 Mar 2010 11:51 am
Operator : RXY1
InstName : VOA9
Sample : |1202072229|965707|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 16 12:12:07 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.787	10.775	1.000	96	1294779	50.00	ug/L	0.01
41) Chlorobenzene-d5	13.941	13.941	1.000	117	891768	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	406697	50.00	ug/L	0.00
82) B Fluorobenzene	10.787	10.775	1.000	96	1294779	50.00	ug/L	0.01
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	891768	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	406723	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.967	65	468086	53.80	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 107.60%					
43) Toluene-d8	12.412	12.412	0.890	98	1149204	50.16	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 100.32%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	486145	49.14	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 98.28%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	5.308	5.308	0.492	50	748	N.D.		
4) Vinyl chloride	5.560	5.546	0.515	62	485	N.D.		
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	0.000	7.099	0.000		0	N.D.		
9) Acetone	7.502	7.490	0.695	43	2294	N.D.		
10) 1,1-Dichloroethylene	0.000	7.502	0.000		0	N.D.		
11) Iodomethane	0.000	7.763	0.000		0	N.D.		
12) Acetonitrile	7.893	7.858	0.732	41	592	Below Cal	#	35
13) Methyl acetate	0.000	7.882	0.000		0	N.D.		
14) Carbon disulfide	7.893	7.906	0.732	76	1634	N.D.		
15) Methylene chloride	8.083	8.083	0.749	84	6977	Below Cal	#	74
16) tert-Butyl methyl ether	0.000	8.368	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.427	0.000		0	N.D.		
18) Vinyl acetate	8.842	8.854	0.820	43	249	N.D.		
19) 1,1-Dichloroethane	0.000	8.913	0.000		0	N.D.		
20) 2-Butanone	9.494	9.483	0.880	43	1497	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.554	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	0.000	9.850	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	0.000	10.230	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	10.289	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.514	0.000		0	N.D.		
31) Benzene	10.538	10.538	0.977	78	292	N.D.		
32) Cyclohexene	0.000	10.645	0.000		0	N.D.		
33) n-Butyl alcohol	10.787	10.846	1.000	56	9553	Below Cal	#	21
34) Trichloroethylene	0.000	11.167	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.416	0.000		0	N.D.		
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D207B.D
Acq On : 16 Mar 2010 11:51 am
Operator : RXY1
InstName : VOA9
Sample : |1202072229|965707|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 16 12:12:07 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.665	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	12.103	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.186	0.000		0	N.D.	
44) Toluene	12.495	12.483	0.896	91	2746	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.637	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.	
47) 2-Hexanone	13.028	13.028	0.935	43	1069	N.D.	
48) 1,3-Dichloropropane	0.000	13.052	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	13.088	0.000		0	N.D.	
50) Dibromochloromethane	0.000	13.325	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.503	0.000		0	N.D.	
52) Chlorobenzene	13.965	13.977	1.002	112	479	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	14.024	0.000		0	N.D.	
54) Ethylbenzene	14.131	14.024	1.014	91	1481	N.D.	
55) m,p-Xylenes	14.131	14.131	1.014	106	250	N.D.	
56) o-Xylene	0.000	14.570	0.000		0	N.D.	
57) Styrene	14.570	14.570	1.045	104	436	N.D.	
59) Bromoform	0.000	14.855	0.000		0	N.D.	
60) Isopropylbenzene	14.926	14.926	0.912	105	191	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.198	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.	
64) Bromobenzene	0.000	15.353	0.000		0	N.D.	
65) n-Propylbenzene	15.341	15.353	0.937	91	625	N.D.	
66) 1,3,5-Trimethylbenzene	15.495	15.495	0.946	105	258	N.D.	
67) 2-Chlorotoluene	0.000	15.507	0.000		0	N.D.	
68) 4-Chlorotoluene	15.613	15.614	0.954	91	1006	N.D.	
69) tert-Butylbenzene	0.000	15.874	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.922	15.910	0.972	105	457	N.D.	
71) sec-Butylbenzene	16.111	16.112	0.984	105	450	N.D.	
72) 4-Isopropyltoluene	16.230	16.230	0.991	119	396	N.D.	
73) 1,3-Dichlorobenzene	16.313	16.313	0.996	146	514	N.D.	
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	479	N.D.	
75) n-Butylbenzene	16.692	16.693	1.020	91	557	N.D.	
76) 1,2-Dichlorobenzene	16.859	16.859	1.030	146	218	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.910	18.922	1.155	180	194	N.D.	
79) Hexachlorobutadiene	0.000	19.088	0.000		0	N.D.	
80) Naphthalene	19.349	19.349	1.182	128	1700	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.717	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.	
85) Acrolein	0.000	7.313	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.550	0.000		0	N.D.	
88) Allyl chloride	7.929	7.929	0.735	41	403	N.D.	
89) tert-Butyl Alcohol	0.000	8.060	0.000		0	N.D.	
90) Acrylonitrile	0.000	8.332	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.866	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	9.008	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.	
94) Ethyl acetate	9.494	9.483	0.880	43	1497	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D207B.D
Acq On : 16 Mar 2010 11:51 am
Operator : RXY1
InstName : VOA9
Sample : |1202072229|965707|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 16 12:12:07 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.578	0.000		0	N.D.	
96) Methacrylonitrile	9.874	9.744	0.915	41	442	N.D.	
97) Tetrahydrofuran	9.886	9.874	0.916	42	1152	N.D.	
98) Isobutyl alcohol	10.218	10.159	0.947	41	420	N.D.	
99) Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.368	0.000		0	N.D.	
101) 1,4-Dioxane	11.487	11.487	1.065	88	214	N.D.	
102) 2-Nitropropane	0.000	11.854	0.000		0	N.D.	
104) Ethyl methacrylate	12.613	12.613	0.905	69	219	N.D.	
106) 1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.961	0.000		0	N.D.	
108) Cyclohexanone	0.000	15.092	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.246	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.957	0.000		0	N.D.	
111) Benzyl chloride	16.526	16.527	1.009	91	1870	N.D.	
112) bis(2-Chloroisopropyl)...	16.930	16.918	1.034	45	1340	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D207B.D
Acq On : 16 Mar 2010 11:51 am
Operator : RXY1
InstName : VOA9
Sample : |1202072229|965707|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 16 12:12:07 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

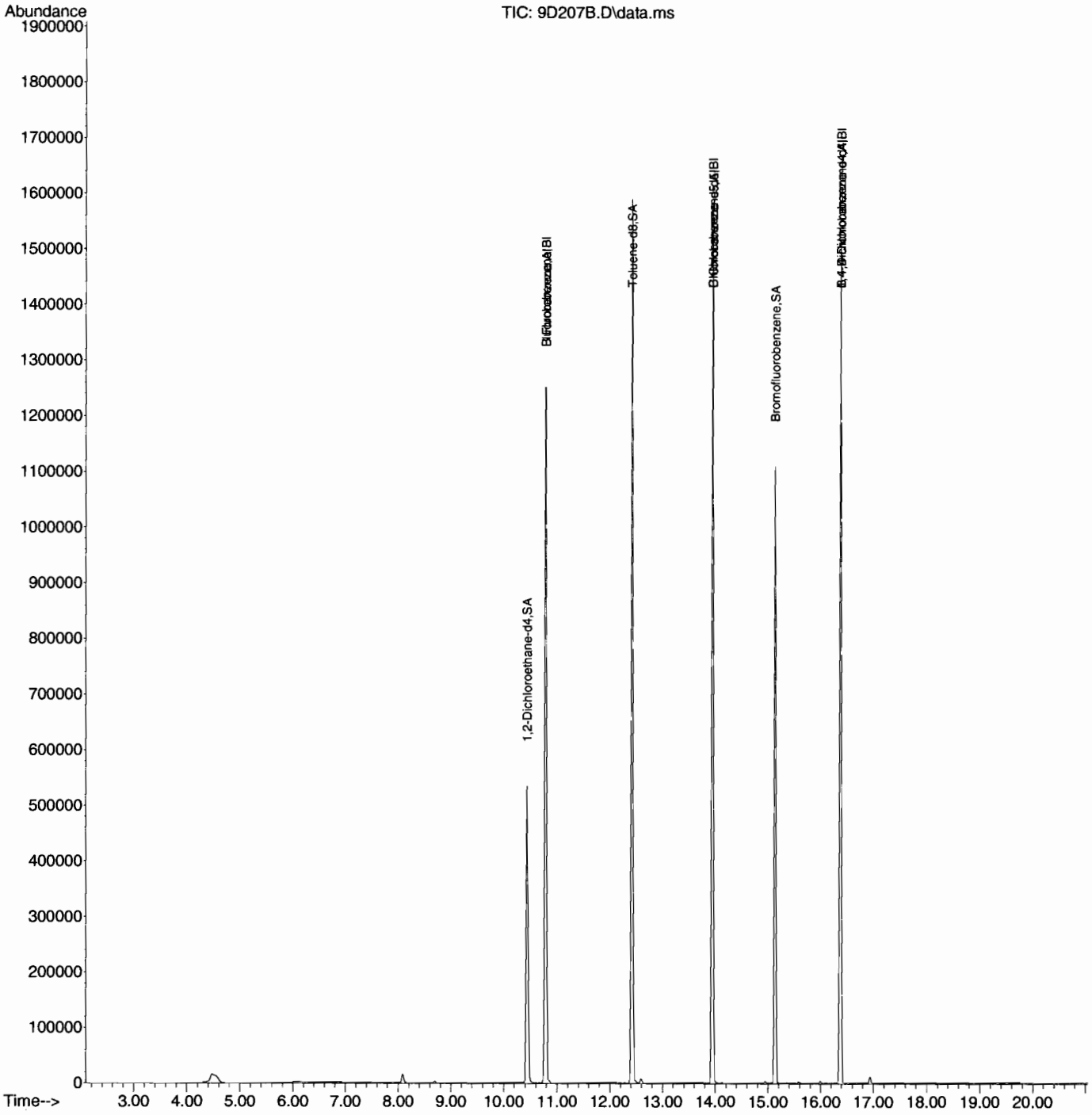

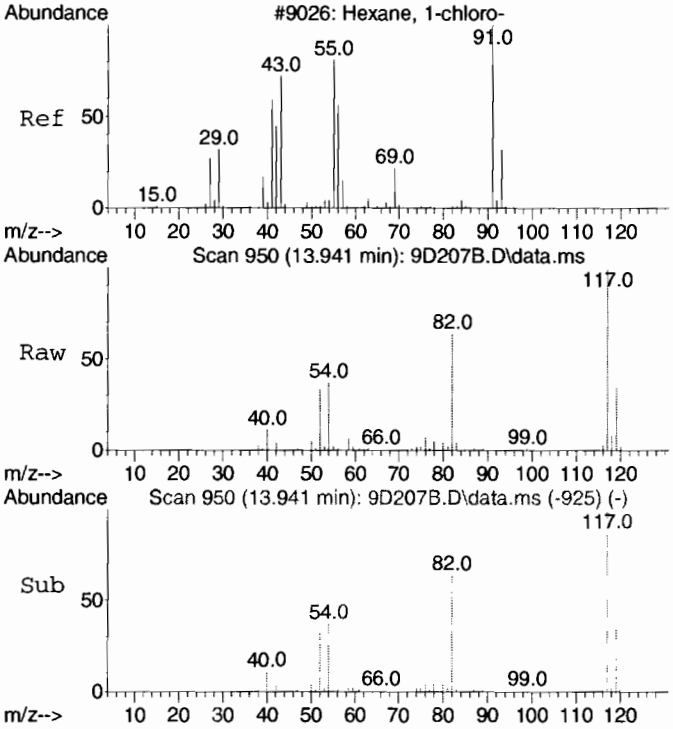

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.83 ug/L
RT: 13.941 min Scan# 950
Delta R.T. 0.118 min
Lab File: 9D207B.D
Acq: 16 Mar 2010 11:51 am

Tgt Ion: 55 Resp: 14670

Ion	Ratio	Lower	Upper
55	100		
91	13.5	74.8	134.8#
56	62.4	31.8	91.8

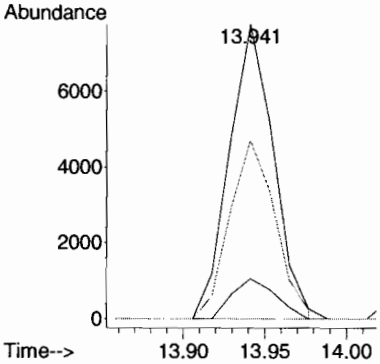

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D207B.D
Acq On : 16 Mar 2010 11:51 am
Operator : RXY1
Sample : |1202072229|965707|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D207B.D
Acq On : 16 Mar 2010 11:51 am
Operator : RXY1
Sample : |1202072229|965707|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072232**				
Client Sample:	**QC for batch 965706**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965706**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965707**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 09:29**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V9\9D202L.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		43.9	ug/kg	0.340	1.00
74-87-3	Chloromethane		40.6	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		47.5	ug/kg	0.300	1.00
74-83-9	Bromomethane		45.3	ug/kg	0.300	1.00
75-00-3	Chloroethane		45.4	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		45.7	ug/kg	0.300	1.00
67-64-1	Acetone		232	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		43.4	ug/kg	0.300	1.00
74-88-4	Iodomethane		212	ug/kg	1.60	5.00
75-09-2	Methylene chloride		45.9	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		231	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		43.9	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		43.5	ug/kg	0.300	1.00
78-93-3	2-Butanone		222	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		44.0	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		49.8	ug/kg	0.300	1.00
67-66-3	Chloroform		41.2	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		44.8	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		46.5	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		43.8	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		45.9	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		43.1	ug/kg	0.300	1.00
71-43-2	Benzene		42.2	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		42.9	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		43.2	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		43.6	ug/kg	0.300	1.00
74-95-3	Dibromomethane		43.2	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		238	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		44.8	ug/kg	0.300	1.00
108-88-3	Toluene		41.3	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		46.8	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		41.9	ug/kg	0.300	1.00
591-78-6	2-Hexanone		212	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		40.8	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		42.0	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		46.3	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		43.0	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		41.8	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072232**				
Client Sample:	**QC for batch 965706**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965706**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965707**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 09:29**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 08:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V9\9D202L.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	E	37.2	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		82.7	ug/kg	0.300	2.00
95-47-6	o-Xylene		40.8	ug/kg	0.300	1.00
100-42-5	Styrene		42.1	ug/kg	0.300	1.00
75-25-2	Bromoform		45.1	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		43.2	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		41.9	ug/kg	0.300	1.00
108-86-1	Bromobenzene		40.0	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		37.6	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		40.5	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		39.7	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		38.8	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		40.4	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		41.7	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		40.4	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		39.9	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		41.5	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		40.0	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		40.5	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		40.7	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		44.9	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		43.4	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		40.6	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D202L.D
Acq On : 16 Mar 2010 9:29 am
Operator : RXY1
InstName : VOA9
Sample : |1202072232|965707|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[A]0305-01B/0316-01 SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 09:48:48 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.775	10.775	1.000	96	1403985	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.941	13.941	1.000	117	972973	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	452802	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	1403985	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	972973	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	452773	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	480768	50.96	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 101.92%					
43) Toluene-d8	12.412	12.412	0.890	98	1259186	50.37	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 100.74%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	539239	48.96	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 97.92%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.944	4.944	0.459	85	193185	43.87	ug/L	97
3) Chloromethane	5.308	5.308	0.493	50	455048	40.55	ug/L	99
4) Vinyl chloride	5.574	5.546	0.517	62	389401	47.47	ug/L	99
5) Bromomethane	6.198	6.186	0.575	94	249199	45.31	ug/L	97
6) Chloroethane	6.352	6.340	0.589	64	274860	45.35	ug/L	98
7) Trichlorofluoromethane	6.767	6.767	0.628	101	414893	45.72	ug/L	99
8) Ethyl ether	7.099	7.099	0.659	59	362432	45.47	ug/L	95
9) Acetone	7.490	7.490	0.695	43	1459483	232.38	ug/L	100
10) 1,1-Dichloroethylene	7.502	7.502	0.696	61	554019	43.37	ug/L	97
11) Iodomethane	7.763	7.763	0.720	142	1777900	211.99	ug/L	97
12) Acetonitrile	7.858	7.858	0.729	41	1417748	1251.81	ug/L	99
13) Methyl acetate	7.882	7.882	0.731	43	1557597	244.24	ug/L	97
14) Carbon disulfide	7.905	7.906	0.734	76	4209715	230.88	ug/L	99
15) Methylene chloride	8.083	8.083	0.750	84	334744	45.85	ug/L	88
16) tert-Butyl methyl ether	8.368	8.368	0.777	73	898605	45.87	ug/L	94
17) trans-1,2-Dichloroethy...	8.427	8.427	0.782	61	554546	43.90	ug/L	96
18) Vinyl acetate	8.854	8.854	0.822	43	4438760	246.09	ug/L	97
19) 1,1-Dichloroethane	8.913	8.913	0.827	63	676074	43.51	ug/L	98
20) 2-Butanone	9.483	9.483	0.880	43	1708951	222.28	ug/L	95
21) cis-1,2-Dichloroethylene	9.554	9.554	0.887	61	635123	43.97	ug/L	96
22) 2,2-Dichloropropane	9.577	9.578	0.889	77	448784	49.75	ug/L	99
23) Bromochloromethane	9.826	9.827	0.912	128	142626	44.76	ug/L	91
24) Chloroform	9.862	9.850	0.915	83	523923	41.23	ug/L	97
25) 1,1,1-Trichloroethane	10.135	10.135	0.941	97	441655	46.46	ug/L	99
26) Cyclohexane	10.230	10.230	0.949	56	773011	47.72	ug/L	94
27) 1,1-Dichloropropene	10.289	10.289	0.955	75	398304	43.77	ug/L	99
28) Carbon tetrachloride	10.325	10.325	0.958	117	363567	45.90	ug/L	99
30) 1,2-Dichloroethane	10.514	10.514	0.976	62	517150	43.07	ug/L	99
31) Benzene	10.538	10.538	0.978	78	1139593	42.23	ug/L	97
32) Cyclohexene	10.645	10.645	0.988	67	631902	44.10	ug/L	92
33) n-Butyl alcohol	10.846	10.846	1.007	56	1457002	4907.76	ug/L	98
34) Trichloroethylene	11.166	11.167	1.036	95	301391	42.93	ug/L	99
35) 1,2-Dichloropropane	11.416	11.416	1.059	63	392677	43.17	ug/L	99
36) Methylcyclohexane	11.416	11.416	1.059	83	513456	44.54	ug/L	92
37) Dibromomethane	11.558	11.558	1.073	93	190446	43.21	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D202L.D
Acq On : 16 Mar 2010 9:29 am
Operator : RXY1
InstName : VOA9
Sample : |1202072232|965707|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[A]0305-01B/0316-01 SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 09:48:48 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38) Bromodichloromethane	11.665	11.665	1.083	83	418600	43.56	ug/L		99
39) 2-Chloroethylvinyl ether	11.866	11.866	1.101	63	1124665	230.57	ug/L		98
40) cis-1,3-Dichloropropylene	12.103	12.103	1.123	75	511818	44.75	ug/L		99
42) 4-Methyl-2-pentanone	12.186	12.186	0.874	58	948640	237.64	ug/L		94
44) Toluene	12.483	12.483	0.895	91	1168380	41.33	ug/L		98
45) trans-1,3-Dichloroprop...	12.637	12.637	0.906	75	486917	46.76	ug/L		100
46) 1,1,2-Trichloroethane	12.862	12.862	0.923	83	232999	41.88	ug/L		100
47) 2-Hexanone	13.028	13.028	0.935	43	2311375	211.50	ug/L		98
48) 1,3-Dichloropropane	13.052	13.052	0.936	76	454081	40.79	ug/L		95
49) Tetrachloroethylene	13.088	13.088	0.939	164	170332	41.97	ug/L		98
50) Dibromochloromethane	13.325	13.325	0.956	129	287827	46.29	ug/L		99
51) 1,2-Dibromoethane	13.503	13.503	0.969	107	266780	42.99	ug/L		100
52) Chlorobenzene	13.977	13.977	1.003	112	736115	41.81	ug/L		100
53) 1,1,1,2-Tetrachloroethane	14.024	14.024	1.006	131	256737	43.44	ug/L		99
54) Ethylbenzene	14.024	14.024	1.006	91	1294362	37.15	ug/L		98 E
55) m,p-Xylenes	14.131	14.131	1.014	106	973009	82.66	ug/L		93
56) o-Xylene	14.570	14.570	1.045	106	496085	40.78	ug/L		94
57) Styrene	14.570	14.570	1.045	104	825546	42.13	ug/L		99
59) Bromoform	14.855	14.855	0.907	173	157502	45.09	ug/L		100
60) Isopropylbenzene	14.926	14.926	0.912	105	1260603	39.68	ug/L		99
62) 1,1,2,2-Tetrachloroethane	15.198	15.198	0.928	83	392114	43.17	ug/L		99
63) 1,2,3-Trichloropropane	15.293	15.293	0.934	110	91733	41.88	ug/L	#	93
64) Bromobenzene	15.353	15.353	0.938	156	274175	40.04	ug/L		97
65) n-Propylbenzene	15.353	15.353	0.938	91	1569986	37.57	ug/L		99
66) 1,3,5-Trimethylbenzene	15.495	15.495	0.946	105	1057220	38.78	ug/L		98
67) 2-Chlorotoluene	15.507	15.507	0.947	126	312723	40.48	ug/L		97
68) 4-Chlorotoluene	15.613	15.614	0.954	91	1057622	40.37	ug/L		99
69) tert-Butylbenzene	15.874	15.874	0.970	134	213706	41.68	ug/L		93
70) 1,2,4-Trimethylbenzene	15.910	15.910	0.972	105	1110467	40.35	ug/L		93
71) sec-Butylbenzene	16.111	16.112	0.984	105	1445238	39.93	ug/L		99
72) 4-Isopropyltoluene	16.230	16.230	0.991	119	1167702	41.50	ug/L		99
73) 1,3-Dichlorobenzene	16.313	16.313	0.996	146	563118	40.00	ug/L		100
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	549550	40.52	ug/L		100
75) n-Butylbenzene	16.693	16.693	1.020	91	1250438	40.68	ug/L		98
76) 1,2-Dichlorobenzene	16.859	16.859	1.030	146	546357	40.60	ug/L		99
77) 1,2-Dibromo-3-chloropr...	17.784	17.784	1.086	157	61827	44.89	ug/L		100
78) 1,2,4-Trichlorobenzene	18.922	18.922	1.156	180	373653	43.75	ug/L		99
79) Hexachlorobutadiene	19.088	19.088	1.166	225	172320	42.73	ug/L		99
80) Naphthalene	19.349	19.349	1.182	128	1027064	44.33	ug/L		100
81) 1,2,3-Trichlorobenzene	19.716	19.717	1.204	180	333218	44.49	ug/L		100
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.			
85) Acrolein	7.241	7.313	0.672		0m	N.D.	d		
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.			
87) Isopropyl Alcohol	7.479	7.550	0.694		0m	N.D.	d		
88) Allyl chloride	7.858	7.929	0.729		0m	N.D.	d		
89) tert-Butyl Alcohol	8.071	8.060	0.749		0m	N.D.	d		
90) Acrylonitrile	8.368	8.332	0.777		0m	N.D.	d		
91) Isopropyl ether	8.854	8.866	0.822		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	9.008	9.008	0.836		0m	N.D.	d		
93) Ethyl tert-butyl ether	9.269	9.269	0.860		0m	N.D.	d		
94) Ethyl acetate	9.483	9.483	0.880		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D202L.D
Acq On : 16 Mar 2010 9:29 am
Operator : RXY1
InstName : VOA9
Sample : |1202072232|965707|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[A]0305-01B/0316-01 SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 09:48:48 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	9.483	9.578	0.880		0m	N.D.	d
96)	Methacrylonitrile	9.838	9.744	0.913		0m	N.D.	d
97)	Tetrahydrofuran	9.921	9.874	0.921		0m	N.D.	d
98)	Isobutyl alcohol	10.230	10.159	0.949		0m	N.D.	d
99)	Methyl tert-amyl ether	10.538	10.526	0.978		0m	N.D.	d
100)	Methyl methacrylate	11.416	11.368	1.059		0m	N.D.	d
101)	1,4-Dioxane	11.499	11.487	1.067		0m	N.D.	d
102)	2-Nitropropane	11.866	11.854	1.101		0m	N.D.	d
104)	Ethyl methacrylate	0.000	12.613	0.000		0	N.D.	
106)	1-Chlorohexane	13.941	13.823	0.852		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.926	14.961	0.912		0m	N.D.	d
108)	Cyclohexanone	15.080	15.092	0.921		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	15.341	15.246	0.937		0m	N.D.	d
110)	Pentachloroethane	15.969	15.957	0.975		0m	N.D.	d
111)	Benzyl chloride	16.491	16.527	1.007		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.930	16.918	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D202L.D
Acq On : 16 Mar 2010 9:29 am
Operator : RXY1
InstName : VOA9
Sample : |1202072232|965707|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[A]0305-01B/0316-01 SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 09:48:48 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

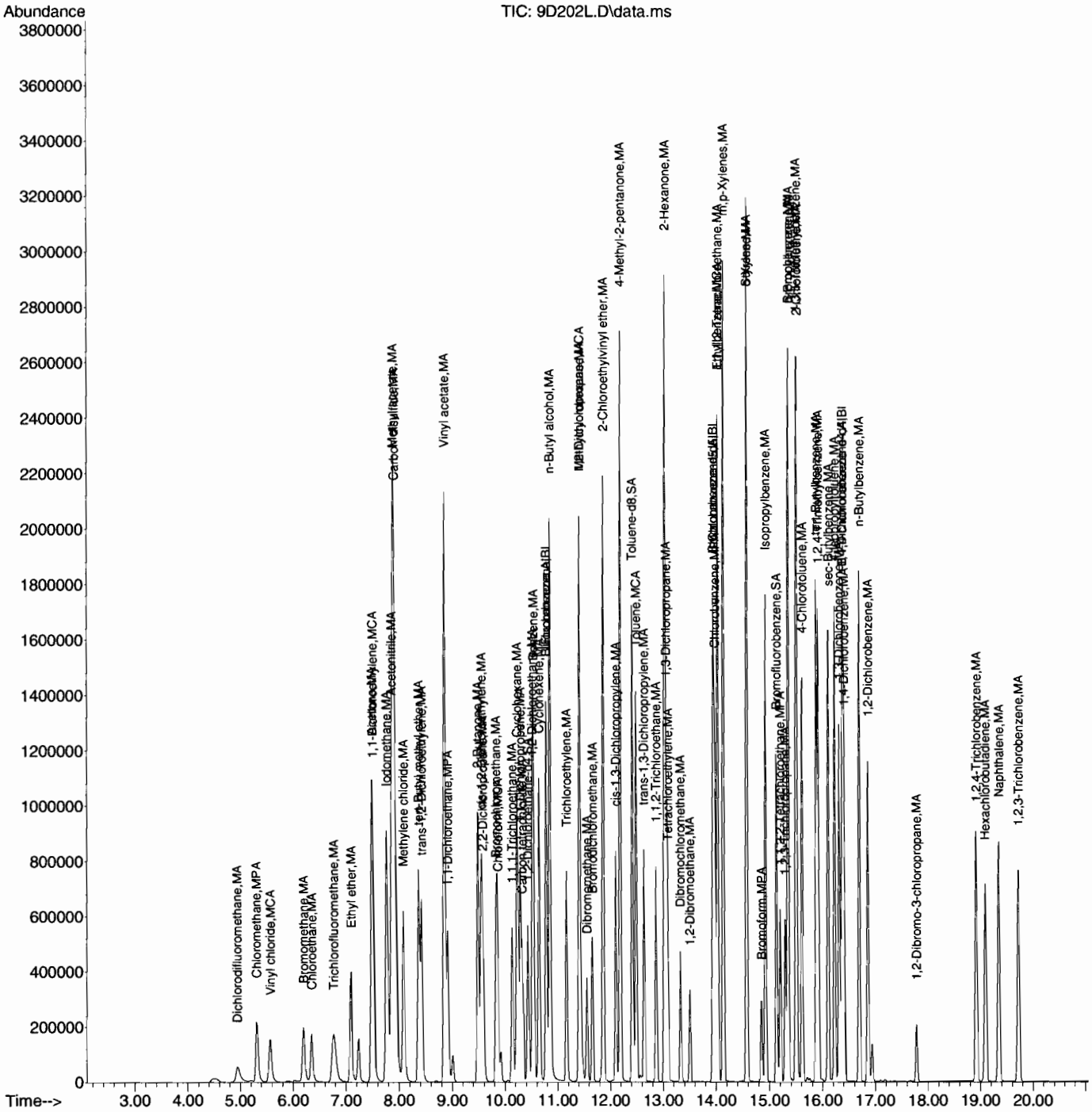

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072233**				
Client Sample:	**QC for batch 965706**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965706**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965707**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 10:25**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 08:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V9\9D204L.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072233**				
Client Sample:	**QC for batch 965706**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965706**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965707**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 10:25**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 08:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V9\9D204L.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		263	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D204L.D
Acq On : 16 Mar 2010 10:25 am
Operator : RXY1
InstName : VOA9
Sample : |1202072233|965707|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[B]UVM100304-08A SOIL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 11:22:58 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.775	10.775	1.000	96	1393156	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.941	13.941	1.000	117	971023	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	450804	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	1393156	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	971023	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	450780	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	461450	49.29	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 98.58%					
43) Toluene-d8	12.412	12.412	0.890	98	1207860	48.41	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 96.82%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	500631	45.66	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 91.32%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	5.308	5.308	0.493		0m	N.D.	d	
4) Vinyl chloride	5.546	5.546	0.515		0m	N.D.	d	
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	0.000	7.099	0.000		0	N.D.		
9) Acetone	7.490	7.490	0.695		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.467	7.502	0.693		0m	N.D.	d	
11) Iodomethane	7.763	7.763	0.720		0m	N.D.	d	
12) Acetonitrile	7.941	7.858	0.737		0m	N.D.	d	
13) Methyl acetate	7.882	7.882	0.731		0m	N.D.	d	
14) Carbon disulfide	7.941	7.906	0.737		0m	N.D.	d	
15) Methylene chloride	8.083	8.083	0.750		0m	N.D.	d	
16) tert-Butyl methyl ether	8.368	8.368	0.777		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.415	8.427	0.781		0m	N.D.	d	
18) Vinyl acetate	8.854	8.854	0.822		0m	N.D.	d	
19) 1,1-Dichloroethane	9.020	8.913	0.837		0m	N.D.	d	
20) 2-Butanone	9.483	9.483	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.483	9.554	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	9.850	9.850	0.914		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	10.170	10.230	0.944		0m	N.D.	d	
27) 1,1-Dichloropropene	10.277	10.289	0.954		0m	N.D.	d	
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.514	10.514	0.976		0m	N.D.	d	
31) Benzene	10.538	10.538	0.978		0m	N.D.	d	
32) Cyclohexene	10.775	10.645	1.000		0m	N.D.	d	
33) n-Butyl alcohol	10.858	10.846	1.008		0m	N.D.	d	
34) Trichloroethylene	11.167	11.167	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	11.368	11.416	1.055		0m	N.D.	d	
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D204L.D
Acq On : 16 Mar 2010 10:25 am
Operator : RXY1
InstName : VOA9
Sample : |1202072233|965707|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[B]UVM100304-08A SOIL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 11:22:58 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38)	Bromodichloromethane	0.000	11.665	0.000		0	N.D.		
39)	2-Chloroethylvinyl ether	11.854	11.866	1.100		0m	N.D.	d	
40)	cis-1,3-Dichloropropylene	12.103	12.103	1.123		0m	N.D.	d	
42)	4-Methyl-2-pentanone	12.186	12.186	0.874		0m	N.D.	d	
44)	Toluene	12.495	12.483	0.896		0m	N.D.	d	
45)	trans-1,3-Dichloroprop...	12.637	12.637	0.906		0m	N.D.	d	
46)	1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.		
47)	2-Hexanone	13.028	13.028	0.935		0m	N.D.	d	
48)	1,3-Dichloropropane	13.099	13.052	0.940		0m	N.D.	d	
49)	Tetrachloroethylene	13.088	13.088	0.939		0m	N.D.	d	
50)	Dibromochloromethane	0.000	13.325	0.000		0	N.D.		
51)	1,2-Dibromoethane	13.503	13.503	0.969		0m	N.D.	d	
52)	Chlorobenzene	13.977	13.977	1.003		0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane	14.036	14.024	1.007		0m	N.D.	d	
54)	Ethylbenzene	14.131	14.024	1.014		0m	N.D.	d	
55)	m,p-Xylenes	14.143	14.131	1.014		0m	N.D.	d	
56)	o-Xylene	14.570	14.570	1.045		0m	N.D.	d	
57)	Styrene	14.570	14.570	1.045		0m	N.D.	d	
59)	Bromoform	0.000	14.855	0.000		0	N.D.		
60)	Isopropylbenzene	14.926	14.926	0.912		0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane	15.258	15.198	0.932		0m	N.D.	d	
63)	1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.		
64)	Bromobenzene	15.353	15.353	0.938		0m	N.D.	d	
65)	n-Propylbenzene	15.353	15.353	0.938		0m	N.D.	d	
66)	1,3,5-Trimethylbenzene	15.495	15.495	0.946		0m	N.D.	d	
67)	2-Chlorotoluene	15.602	15.507	0.953		0m	N.D.	d	
68)	4-Chlorotoluene	15.613	15.614	0.954		0m	N.D.	d	
69)	tert-Butylbenzene	15.957	15.874	0.975		0m	N.D.	d	
70)	1,2,4-Trimethylbenzene	15.922	15.910	0.972		0m	N.D.	d	
71)	sec-Butylbenzene	16.112	16.112	0.984		0m	N.D.	d	
72)	4-Isopropyltoluene	16.230	16.230	0.991		0m	N.D.	d	
73)	1,3-Dichlorobenzene	16.313	16.313	0.996		0m	N.D.	d	
74)	1,4-Dichlorobenzene	16.408	16.408	1.002		0m	N.D.	d	
75)	n-Butylbenzene	0.000	16.693	0.000		0	N.D.		
76)	1,2-Dichlorobenzene	16.859	16.859	1.030		0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.		
78)	1,2,4-Trichlorobenzene	18.922	18.922	1.156		0m	N.D.	d	
79)	Hexachlorobutadiene	19.100	19.088	1.167		0m	N.D.	d	
80)	Naphthalene	19.349	19.349	1.182		0m	N.D.	d	
81)	1,2,3-Trichlorobenzene	19.717	19.717	1.204		0m	N.D.	d	
83)	Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.		
85)	Acrolein	7.313	7.313	0.679	56	478927	334.32	ug/L	99
86)	Trichlorotrifluoroethane	7.467	7.467	0.693	85	555286	263.00	ug/L	99
87)	Isopropyl Alcohol	0.000	7.550	0.000		0m	N.D.	d	
88)	Allyl chloride	7.941	7.929	0.737	41	3336032	243.00	ug/L	97
89)	tert-Butyl Alcohol	8.060	8.060	0.748	59	882	N.D.		
90)	Acrylonitrile	8.344	8.332	0.774	53	908690	244.46	ug/L	98
91)	Isopropyl ether	8.996	8.866	0.835	45	198	N.D.		
92)	2-Chloro-1,3-butadiene	9.020	9.008	0.837	53	720388	58.83	ug/L	94
93)	Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.		
94)	Ethyl acetate	9.483	9.483	0.880	43	1915468	207.67	ug/L	96

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D204L.D
Acq On : 16 Mar 2010 10:25 am
Operator : RXY1
InstName : VOA9
Sample : |1202072233|965707|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[B]UVM100304-08A SOIL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 11:22:58 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
95)	Propionitrile	9.577	9.578	0.889	54	340958	236.72	ug/L	99	
96)	Methacrylonitrile	9.755	9.744	0.905	41	1252099	222.71	ug/L	99	
97)	Tetrahydrofuran	9.874	9.874	0.916	42	698210	225.87	ug/L	94	
98)	Isobutyl alcohol	10.170	10.159	0.944	41	783196	2249.29	ug/L	94	
99)	Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.			
100)	Methyl methacrylate	11.368	11.368	1.055	69	1040766	227.74	ug/L	89	
101)	1,4-Dioxane	11.499	11.487	1.067	88	159957	2144.67	ug/L	94	
102)	2-Nitropropane	11.866	11.854	1.101	43	615682	277.42	ug/L	99	
104)	Ethyl methacrylate	12.613	12.613	0.905	69	1880800	220.16	ug/L	92	
106)	1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d		
107)	cis-1,4-Dichloro-2-butene	14.961	14.961	0.914	53	860026	274.66	ug/L	98	
108)	Cyclohexanone	15.104	15.092	0.923	42	314986	1163.24	ug/L	93	E
109)	trans-1,4-Dichloro-2-b...	15.246	15.246	0.931	53	812420	273.95	ug/L	94	
110)	Pentachloroethane	15.957	15.957	0.975	167	724797	404.38	ug/L	96	
111)	Benzyl chloride	16.527	16.527	1.009	91	3259381	337.43	ug/L	99	
112)	bis(2-Chloroisopropyl)...	16.918	16.918	1.033	45	1346528	248.79	ug/L	96	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V9\
Data File : 9D204L.D
Acq On : 16 Mar 2010 10:25 am
Operator : RXY1
InstName : VOA9
Sample : |1202072233|965707|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[B]UVM100304-08A SOIL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 11:22:58 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

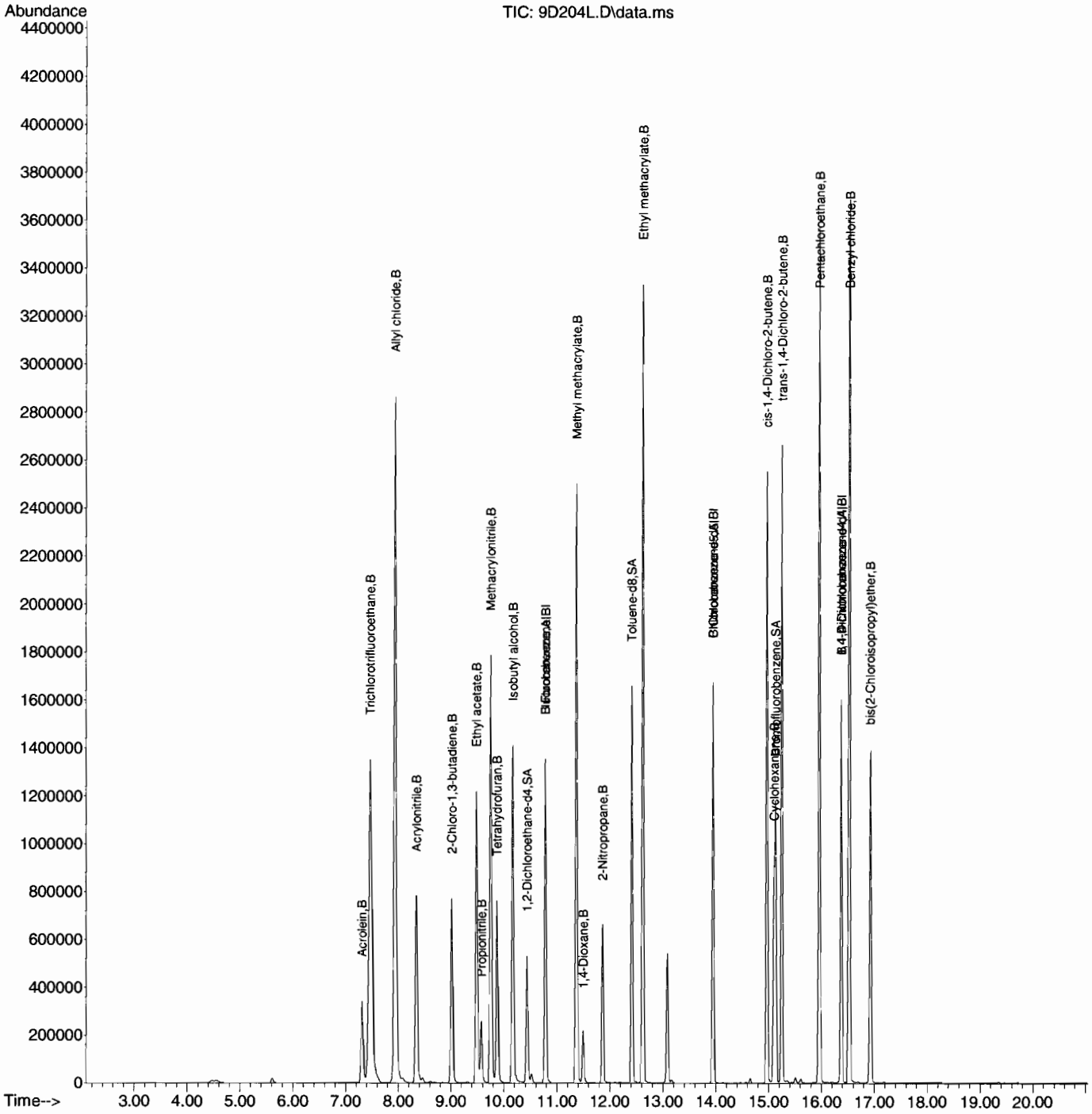

Miscellaneous

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **965706** Verified by: Type Sample Id Description Serial Number Spike Amount Spike Units

Analyst: Ramona Yarbrough

Method: SW846 5030

Lab SOP: GL-OA-E-038 REV# 14

Instrument: Sartorius Balance B-001

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
249074003	16-MAR-2010 07:29:00	Soil	5	5	1	
1202072232 LCS	16-MAR-2010 08:00:00	Soil	5	5	1	
1202072233 LCS	16-MAR-2010 08:01:00	Soil	5	5	1	
1202072229 MB	16-MAR-2010 08:02:00	Soil	5	5	1	
248702001	16-MAR-2010 11:35:00	Soil	5	5	1	
248702002	16-MAR-2010 11:36:00	Soil	5	5	1	
1202072230 PS (249074004)	16-MAR-2010 11:39:00	Soil	5	5	1	
1202072231 PSD (249074004)	16-MAR-2010 11:40:00	Soil	5	5	1	
249074006	16-MAR-2010 11:42:00	Soil	5	5	1	
249074007	16-MAR-2010 11:43:00	Soil	5	5	1	
249074009	16-MAR-2010 11:45:00	Soil	5	5	1	
249074010	16-MAR-2010 11:46:00	Soil	5	5	1	
249074013	16-MAR-2010 11:49:00	Soil	5	5	1	
249074016	16-MAR-2010 11:52:00	Soil	5	5	1	
249074019	16-MAR-2010 11:55:00	Soil	5	5	1	
1202073419 LCS	17-MAR-2010 08:00:00	Soil	5	5	1	
1202073420 LCS	17-MAR-2010 08:01:00	Soil	5	5	1	
1202073418 MB	17-MAR-2010 08:02:00	Soil	5	5	1	
249074012	17-MAR-2010 09:37:00	Soil	5	5	1	
249074017	17-MAR-2010 09:40:00	Soil	5	5	1	
249074020	17-MAR-2010 09:42:00	Soil	5	5	1	
249074004	18-MAR-2010 12:10:00	Soil	5	5	1	
249074005	18-MAR-2010 12:11:00	Soil	5	5	1	
249074008	18-MAR-2010 12:12:00	Soil	5	5	1	
249074011	18-MAR-2010 12:13:00	Soil	5	5	1	
249074014	18-MAR-2010 12:14:00	Soil	5	5	1	

Prep Logbook

Batch ID: **965706** Verified by: _____ Type Sample Id Description Serial Number Spike Amount Spike Units

Analyst: Ramona Yarbrough
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 14
Instrument: Sartorius Balance B-001

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
249074015	18-MAR-2010 12:15:00	Soil	5	5	1	
249074018	18-MAR-2010 12:16:00	Soil	5	5	1	
1202078921 LCS	23-MAR-2010 08:00:00	Soil	5	5	1	
1202078922 LCS	23-MAR-2010 08:01:00	Soil	5	5	1	
1202078920 MB	23-MAR-2010 08:02:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031710V9\
Data File : 9D322.D
Acq On : 17 Mar 2010 7:04 pm
Operator : RXY1
InstName : VOA9
Sample : |1202072230|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5g n/a MIX[A] MS 249074004 SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 18 08:02:53 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.775	10.775	1.000	96	761782	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.941	13.941	1.000	117	561929	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	275754	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	761782	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	561929	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	275772	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	328471	64.17	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 128.34%					
43) Toluene-d8	12.412	12.412	0.890	98	712543	49.35	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 98.70%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	325529	48.53	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 97.06%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.958	4.944	0.460	85	92020	38.51	ug/L	97
3) Chloromethane	5.308	5.308	0.493	50	271444	44.58	ug/L	98
4) Vinyl chloride	5.560	5.546	0.516	62	199787	44.89	ug/L	99
5) Bromomethane	6.198	6.186	0.575	94	120601	40.41	ug/L	97
6) Chloroethane	6.352	6.340	0.590	64	122641	37.29	ug/L	96
7) Trichlorofluoromethane	6.779	6.767	0.629	101	219808	44.64	ug/L	100
8) Ethyl ether	7.099	7.099	0.659	59	174607	40.37	ug/L	84
9) Acetone	7.490	7.490	0.695	43	636317	186.72	ug/L	87
10) 1,1-Dichloroethylene	7.514	7.502	0.697	61	284671	41.07	ug/L	92
11) Iodomethane	7.775	7.763	0.722	142	889050	195.38	ug/L	86
12) Acetonitrile	7.858	7.858	0.729	41	838278	1367.27	ug/L	98
13) Methyl acetate	7.882	7.882	0.731	43	951757	275.69	ug/L	93
14) Carbon disulfide	7.905	7.906	0.734	76	1951585	197.27	ug/L	98
15) Methylene chloride	8.083	8.083	0.750	84	159810	40.09	ug/L #	71
16) tert-Butyl methyl ether	8.368	8.368	0.777	73	463173	43.58	ug/L	96
17) trans-1,2-Dichloroethy...	8.427	8.427	0.782	61	279563	40.79	ug/L	89
18) Vinyl acetate	8.854	8.854	0.822	43	2034887	207.92	ug/L	92
19) 1,1-Dichloroethane	8.913	8.913	0.827	63	337516	40.04	ug/L	98
20) 2-Butanone	9.495	9.483	0.881	43	753485	180.62	ug/L	87
21) cis-1,2-Dichloroethylene	9.554	9.554	0.887	61	326265	41.63	ug/L	89
22) 2,2-Dichloropropane	9.578	9.578	0.889	77	213985	43.72	ug/L	86
23) Bromochloromethane	9.827	9.827	0.912	128	70513	40.78	ug/L #	75
24) Chloroform	9.862	9.850	0.915	83	287785	41.74	ug/L	95
25) 1,1,1-Trichloroethane	10.135	10.135	0.941	97	241334	46.79	ug/L	98
26) Cyclohexane	10.230	10.230	0.949	56	321329	36.56	ug/L	91
27) 1,1-Dichloropropene	10.289	10.289	0.955	75	189974	38.48	ug/L	82
28) Carbon tetrachloride	10.336	10.325	0.959	117	204088	47.48	ug/L	99
30) 1,2-Dichloroethane	10.514	10.514	0.976	62	326512	50.11	ug/L	100
31) Benzene	10.538	10.538	0.978	78	527245	36.01	ug/L	90
32) Cyclohexene	10.645	10.645	0.988	67	276661	35.58	ug/L	81
33) n-Butyl alcohol	10.846	10.846	1.007	56	781549	4850.12	ug/L	84
34) Trichloroethylene	11.167	11.167	1.036	95	147766	38.79	ug/L	95
35) 1,2-Dichloropropane	11.416	11.416	1.059	63	188079	38.11	ug/L	98
36) Methylcyclohexane	11.416	11.416	1.059	83	189751	30.34	ug/L	82
37) Dibromomethane	11.558	11.558	1.073	93	100911	42.20	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031710V9\
Data File : 9D322.D
Acq On : 17 Mar 2010 7:04 pm
Operator : RXY1
InstName : VOA9
Sample : |1202072230|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5g n/a MIX[A] MS 249074004 SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 18 08:02:53 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38) Bromodichloromethane	11.665	11.665	1.083	83	234370	44.95	ug/L		100
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.			
40) cis-1,3-Dichloropropylene	12.103	12.103	1.123	75	250491	40.37	ug/L		84
42) 4-Methyl-2-pentanone	12.186	12.186	0.874	58	449402	194.93	ug/L	#	66
44) Toluene	12.495	12.483	0.896	91	566536	34.70	ug/L		94
45) trans-1,3-Dichloroprop...	12.637	12.637	0.906	75	257363	42.79	ug/L		90
46) 1,1,2-Trichloroethane	12.862	12.862	0.923	83	117672	36.62	ug/L		100
47) 2-Hexanone	13.028	13.028	0.935	43	1065920	168.88	ug/L		87
48) 1,3-Dichloropropane	13.052	13.052	0.936	76	241699	37.59	ug/L		89
49) Tetrachloroethylene	13.088	13.088	0.939	164	79766	34.03	ug/L		97
50) Dibromochloromethane	13.325	13.325	0.956	129	159992	44.51	ug/L		100
51) 1,2-Dibromoethane	13.503	13.503	0.969	107	142360	39.72	ug/L		99
52) Chlorobenzene	13.977	13.977	1.003	112	362549	35.65	ug/L		97
53) 1,1,1,2-Tetrachloroethane	14.024	14.024	1.006	131	141418	41.43	ug/L		97
54) Ethylbenzene	14.024	14.024	1.006	91	643597	31.99	ug/L		94 E
55) m,p-Xylenes	14.131	14.131	1.014	106	455465	67.00	ug/L	#	79
56) o-Xylene	14.570	14.570	1.045	106	235476	33.52	ug/L	#	78
57) Styrene	14.570	14.570	1.045	104	405741	35.85	ug/L		90
59) Bromoform	14.855	14.855	0.907	173	89664	42.11	ug/L		99
60) Isopropylbenzene	14.926	14.926	0.912	105	630360	32.58	ug/L		95
62) 1,1,2,2-Tetrachloroethane	15.198	15.198	0.928	83	194346	35.14	ug/L		100
63) 1,2,3-Trichloropropane	15.293	15.293	0.934	110	54282	40.69	ug/L	#	96
64) Bromobenzene	15.353	15.353	0.938	156	142161	34.09	ug/L		98
65) n-Propylbenzene	15.353	15.353	0.938	91	755008	29.67	ug/L		95
66) 1,3,5-Trimethylbenzene	15.495	15.495	0.946	105	533394	32.13	ug/L		92
67) 2-Chlorotoluene	15.613	15.507	0.954	126	154594	32.86	ug/L		99
68) 4-Chlorotoluene	15.613	15.614	0.954	91	530689	33.26	ug/L		96
69) tert-Butylbenzene	15.874	15.874	0.970	134	100276	32.11	ug/L	#	82
70) 1,2,4-Trimethylbenzene	15.910	15.910	0.972	105	559344	33.37	ug/L		91
71) sec-Butylbenzene	16.112	16.112	0.984	105	673280	30.55	ug/L		98
72) 4-Isopropyltoluene	16.230	16.230	0.991	119	534195	31.17	ug/L		96
73) 1,3-Dichlorobenzene	16.313	16.313	0.996	146	274383	32.01	ug/L		99
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	269533	32.63	ug/L		98
75) n-Butylbenzene	16.693	16.693	1.020	91	540804	28.89	ug/L		94
76) 1,2-Dichlorobenzene	16.859	16.859	1.030	146	282539	34.48	ug/L		98
77) 1,2-Dibromo-3-chloropr...	17.784	17.784	1.086	157	33514	39.93	ug/L		93
78) 1,2,4-Trichlorobenzene	18.922	18.922	1.156	180	149989	28.84	ug/L		98
79) Hexachlorobutadiene	19.088	19.088	1.166	225	62640	25.51	ug/L		100
80) Naphthalene	19.349	19.349	1.182	128	509152	36.09	ug/L		99
81) 1,2,3-Trichlorobenzene	19.717	19.717	1.204	180	147822	32.41	ug/L		98
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.			
85) Acrolein	0.000	7.313	0.000		0	N.D.			
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.			
87) Isopropyl Alcohol	7.502	7.550	0.696		0m	N.D.	d		
88) Allyl chloride	7.858	7.929	0.729		0m	N.D.	d		
89) tert-Butyl Alcohol	8.060	8.060	0.748		0m	N.D.	d		
90) Acrylonitrile	8.368	8.332	0.777		0m	N.D.	d		
91) Isopropyl ether	8.854	8.866	0.822		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	9.008	9.008	0.836		0m	N.D.	d		
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.			
94) Ethyl acetate	9.495	9.483	0.881		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031710V9\
Data File : 9D322.D
Acq On : 17 Mar 2010 7:04 pm
Operator : RXY1
InstName : VOA9
Sample : |1202072230|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5g n/a MIX[A] MS 249074004 SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 18 08:02:53 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	9.483	9.578	0.880		0m	N.D.	d
96)	Methacrylonitrile	9.850	9.744	0.914		0m	N.D.	d
97)	Tetrahydrofuran	9.862	9.874	0.915		0m	N.D.	d
98)	Isobutyl alcohol	10.230	10.159	0.949		0m	N.D.	d
99)	Methyl tert-amyl ether	10.538	10.526	0.978		0m	N.D.	d
100)	Methyl methacrylate	11.416	11.368	1.059		0m	N.D.	d
101)	1,4-Dioxane	11.558	11.487	1.073		0m	N.D.	d
102)	2-Nitropropane	0.000	11.854	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	12.613	0.000		0	N.D.	
106)	1-Chlorohexane	13.941	13.823	0.852		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.926	14.961	0.912		0m	N.D.	d
108)	Cyclohexanone	14.914	15.092	0.911		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	15.353	15.246	0.938		0m	N.D.	d
110)	Pentachloroethane	15.957	15.957	0.975		0m	N.D.	d
111)	Benzyl chloride	16.372	16.527	1.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.930	16.918	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031710V9\
Data File : 9D322.D
Acq On : 17 Mar 2010 7:04 pm
Operator : RXY1
InstName : VOA9
Sample : |1202072230|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5g n/a MIX[A] MS 249074004 SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 18 08:02:53 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

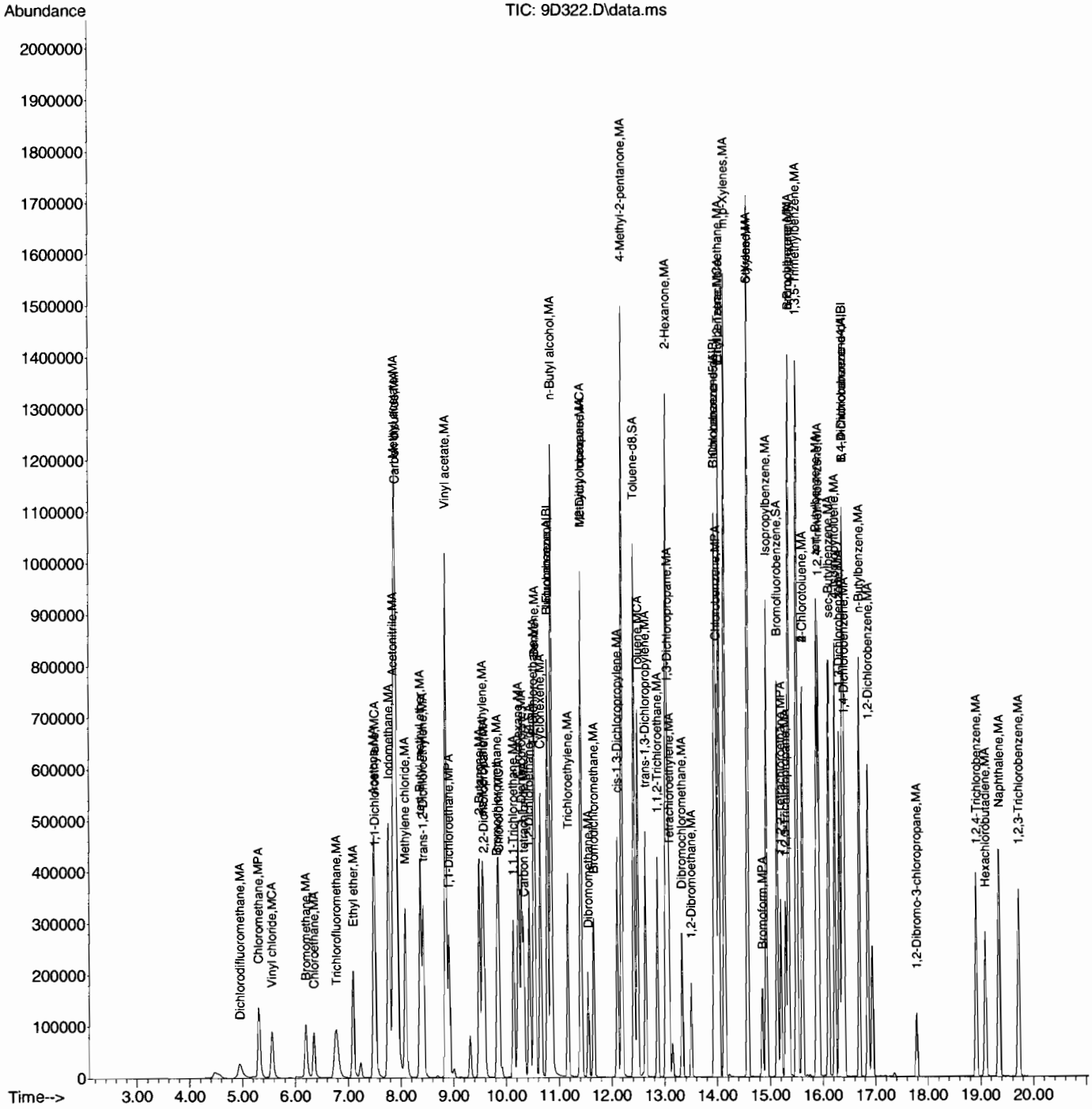

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031710V9\
Data File : 9D323.D
Acq On : 17 Mar 2010 7:32 pm
Operator : RXY1
InstName : VOA9
Sample : |1202072231|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5g n/a MIX[A] MSD 249074004 SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 18 08:02:55 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.775	10.775	1.000	96	801946	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.942	13.941	1.000	117	594824	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.373	16.372	1.000	152	289598	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	801946	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.942	13.942	1.000	117	594824	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.373	16.372	1.000	152	289616	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	341200	63.31	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 126.62%					
43) Toluene-d8	12.412	12.412	0.890	98	747509	48.91	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 97.82%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	335430	47.62	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 95.24%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.958	4.944	0.460	85	104934	41.72	ug/L	96
3) Chloromethane	5.308	5.308	0.493	50	308433	48.11	ug/L	99
4) Vinyl chloride	5.560	5.546	0.516	62	232678	49.66	ug/L	98
5) Bromomethane	6.198	6.186	0.575	94	139564	44.42	ug/L	98
6) Chloroethane	6.352	6.340	0.590	64	143877	41.56	ug/L	97
7) Trichlorofluoromethane	6.767	6.767	0.628	101	250722	48.37	ug/L	99
8) Ethyl ether	7.099	7.099	0.659	59	194360	42.69	ug/L	85
9) Acetone	7.490	7.490	0.695	43	662683	184.72	ug/L	88
10) 1,1-Dichloroethylene	7.502	7.502	0.696	61	329077	45.10	ug/L	92
11) Iodomethane	7.775	7.763	0.722	142	1023274	213.61	ug/L	88
12) Acetonitrile	7.858	7.858	0.729	41	904627	1402.47	ug/L	98
13) Methyl acetate	7.882	7.882	0.731	43	1025291	282.23	ug/L	93
14) Carbon disulfide	7.906	7.906	0.734	76	2260901	217.09	ug/L	98
15) Methylene chloride	8.083	8.083	0.750	84	184222	44.10	ug/L #	74
16) tert-Butyl methyl ether	8.368	8.368	0.777	73	521297	46.59	ug/L	97
17) trans-1,2-Dichloroethy...	8.427	8.427	0.782	61	317394	43.99	ug/L	89
18) Vinyl acetate	8.854	8.854	0.822	43	2089987	202.86	ug/L	92
19) 1,1-Dichloroethane	8.914	8.913	0.827	63	381982	43.04	ug/L	98
20) 2-Butanone	9.495	9.483	0.881	43	801976	182.62	ug/L	88
21) cis-1,2-Dichloroethylene	9.554	9.554	0.887	61	371325	45.00	ug/L	90
22) 2,2-Dichloropropane	9.578	9.578	0.889	77	237719	46.14	ug/L	86
23) Bromochloromethane	9.827	9.827	0.912	128	77578	42.62	ug/L #	73
24) Chloroform	9.862	9.850	0.915	83	324839	44.76	ug/L	95
25) 1,1,1-Trichloroethane	10.135	10.135	0.941	97	272782	50.24	ug/L	98
26) Cyclohexane	10.230	10.230	0.949	56	375314	40.56	ug/L	90
27) 1,1-Dichloropropene	10.289	10.289	0.955	75	215459	41.45	ug/L	83
28) Carbon tetrachloride	10.325	10.325	0.958	117	227738	50.33	ug/L	100
30) 1,2-Dichloroethane	10.514	10.514	0.976	62	357295	52.09	ug/L	98
31) Benzene	10.538	10.538	0.978	78	606171	39.32	ug/L	91
32) Cyclohexene	10.645	10.645	0.988	67	321030	39.22	ug/L	82
33) n-Butyl alcohol	10.846	10.846	1.007	56	856471	5055.24	ug/L	87
34) Trichloroethylene	11.167	11.167	1.036	95	166426	41.51	ug/L	98
35) 1,2-Dichloropropane	11.416	11.416	1.059	63	208514	40.13	ug/L	97
36) Methylcyclohexane	11.416	11.416	1.059	83	213746	32.46	ug/L	82
37) Dibromomethane	11.558	11.558	1.073	93	114124	45.33	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031710V9\
Data File : 9D323.D
Acq On : 17 Mar 2010 7:32 pm
Operator : RXY1
InstName : VOA9
Sample : |1202072231|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5g n/a MIX[A] MSD 249074004 SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 18 08:02:55 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38) Bromodichloromethane	11.665	11.665	1.083	83	260569	47.48	ug/L		100
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.			
40) cis-1,3-Dichloropropylene	12.103	12.103	1.123	75	278439	42.63	ug/L		86
42) 4-Methyl-2-pentanone	12.186	12.186	0.874	58	502888	206.07	ug/L	#	71
44) Toluene	12.483	12.483	0.895	91	640027	37.04	ug/L		95
45) trans-1,3-Dichloroprop...	12.637	12.637	0.906	75	282496	44.37	ug/L		91
46) 1,1,2-Trichloroethane	12.862	12.862	0.923	83	130321	38.32	ug/L		99
47) 2-Hexanone	13.028	13.028	0.935	43	1131664	169.39	ug/L		88
48) 1,3-Dichloropropane	13.052	13.052	0.936	76	264074	38.80	ug/L		92
49) Tetrachloroethylene	13.076	13.088	0.938	164	87105	35.11	ug/L		95
50) Dibromochloromethane	13.325	13.325	0.956	129	176644	46.47	ug/L		99
51) 1,2-Dibromoethane	13.503	13.503	0.969	107	158085	41.67	ug/L		99
52) Chlorobenzene	13.977	13.977	1.003	112	406419	37.76	ug/L		98
53) 1,1,1,2-Tetrachloroethane	14.025	14.024	1.006	131	157828	43.68	ug/L		97
54) Ethylbenzene	14.025	14.024	1.006	91	729657	34.26	ug/L		95 E
55) m,p-Xylenes	14.131	14.131	1.014	106	516363	71.75	ug/L		81
56) o-Xylene	14.570	14.570	1.045	106	268763	36.14	ug/L		82
57) Styrene	14.570	14.570	1.045	104	461472	38.52	ug/L		92
59) Bromoform	14.855	14.855	0.907	173	98100	43.89	ug/L		99
60) Isopropylbenzene	14.926	14.926	0.912	105	691013	34.01	ug/L		95
62) 1,1,2,2-Tetrachloroethane	15.199	15.198	0.928	83	218076	37.54	ug/L		99
63) 1,2,3-Trichloropropane	15.293	15.293	0.934	110	57728	41.21	ug/L	#	98
64) Bromobenzene	15.353	15.353	0.938	156	156012	35.63	ug/L		97
65) n-Propylbenzene	15.353	15.353	0.938	91	833585	31.19	ug/L		95
66) 1,3,5-Trimethylbenzene	15.495	15.495	0.946	105	585346	33.57	ug/L		93
67) 2-Chlorotoluene	15.507	15.507	0.947	126	170325	34.47	ug/L		87
68) 4-Chlorotoluene	15.614	15.614	0.954	91	589227	35.16	ug/L		96
69) tert-Butylbenzene	15.874	15.874	0.970	134	112506	34.30	ug/L	#	85
70) 1,2,4-Trimethylbenzene	15.910	15.910	0.972	105	616351	35.02	ug/L		92
71) sec-Butylbenzene	16.112	16.112	0.984	105	733578	31.69	ug/L		97
72) 4-Isopropyltoluene	16.230	16.230	0.991	119	580563	32.26	ug/L		97
73) 1,3-Dichlorobenzene	16.313	16.313	0.996	146	304635	33.84	ug/L		98
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	298637	34.43	ug/L		99
75) n-Butylbenzene	16.693	16.693	1.020	91	583318	29.67	ug/L		94
76) 1,2-Dichlorobenzene	16.859	16.859	1.030	146	309046	35.91	ug/L		98
77) 1,2-Dibromo-3-chloropr...	17.784	17.784	1.086	157	37970	43.10	ug/L		95
78) 1,2,4-Trichlorobenzene	18.922	18.922	1.156	180	161729	29.61	ug/L		100
79) Hexachlorobutadiene	19.100	19.088	1.167	225	67695	26.25	ug/L		99
80) Naphthalene	19.349	19.349	1.182	128	562736	37.98	ug/L		99
81) 1,2,3-Trichlorobenzene	19.717	19.717	1.204	180	155116	32.38	ug/L		99
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.			
85) Acrolein	0.000	7.313	0.000		0	N.D.			
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.			
87) Isopropyl Alcohol	7.562	7.550	0.702		0m	N.D.	d		
88) Allyl chloride	7.858	7.929	0.729		0m	N.D.	d		
89) tert-Butyl Alcohol	8.072	8.060	0.749		0m	N.D.	d		
90) Acrylonitrile	8.368	8.332	0.777		0m	N.D.	d		
91) Isopropyl ether	8.854	8.866	0.822		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	9.008	9.008	0.836		0m	N.D.	d		
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.			
94) Ethyl acetate	9.495	9.483	0.881		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031710V9\
Data File : 9D323.D
Acq On : 17 Mar 2010 7:32 pm
Operator : RXY1
InstName : VOA9
Sample : |1202072231|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5g n/a MIX[A] MSD 249074004 SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 18 08:02:55 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	9.483	9.578	0.880		0m	N.D.	d
96)	Methacrylonitrile	9.838	9.744	0.913		0m	N.D.	d
97)	Tetrahydrofuran	9.862	9.874	0.915		0m	N.D.	d
98)	Isobutyl alcohol	10.230	10.159	0.949		0m	N.D.	d
99)	Methyl tert-amyl ether	10.538	10.526	0.978		0m	N.D.	d
100)	Methyl methacrylate	11.416	11.368	1.059		0m	N.D.	d
101)	1,4-Dioxane	11.558	11.487	1.073		0m	N.D.	d
102)	2-Nitropropane	0.000	11.854	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	12.613	0.000		0	N.D.	
106)	1-Chlorohexane	13.942	13.823	0.852		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.926	14.961	0.912		0m	N.D.	d
108)	Cyclohexanone	14.914	15.092	0.911		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	15.341	15.246	0.937		0m	N.D.	d
110)	Pentachloroethane	15.946	15.957	0.974		0m	N.D.	d
111)	Benzyl chloride	16.373	16.527	1.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.930	16.918	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031710V9\
Data File : 9D323.D
Acq On : 17 Mar 2010 7:32 pm
Operator : RXY1
InstName : VOA9
Sample : |1202072231|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5g n/a MIX[A] MSD 249074004 SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 18 08:02:55 2010
Quant Method : C:\msdchem\1\DATA\030210V9\VOA9-8260-030210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Mar 03 09:48:05 2010
Response via : Initial Calibration
Integrator: RTE

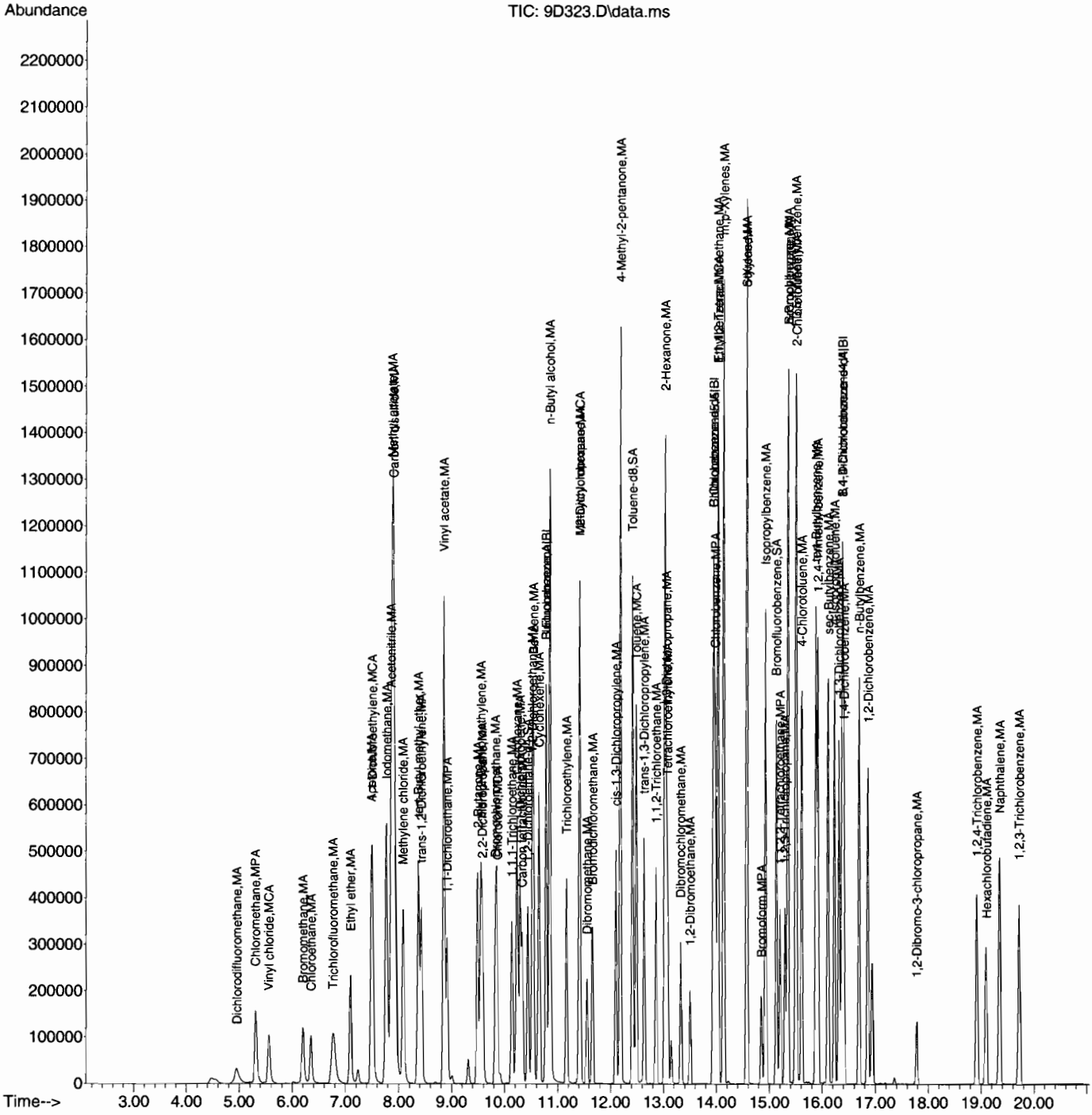

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E210.D
Acq On : 23 Mar 2010 2:36 pm
Operator : RXY1
InstName : VOA9
Sample : |249074004|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 23 14:56:14 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.775	10.775	1.000	96	1286504	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.942	13.941	1.000	117	855973	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	366980	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	1286504	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.942	13.942	1.000	117	855973	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	366999	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	433642	44.41	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 88.82%					
43) Toluene-d8	12.412	12.412	0.890	98	1105128	50.30	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 100.60%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	450057	51.81	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 103.62%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	5.294	5.308	0.491	50	475	N.D.		
4) Vinyl chloride	0.000	5.546	0.000		0	N.D.		
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	0.000	7.099	0.000		0	N.D.		
9) Acetone	7.490	7.490	0.695	43	35892	Below Cal		91
10) 1,1-Dichloroethylene	0.000	7.502	0.000		0	N.D.		
11) Iodomethane	0.000	7.763	0.000		0	N.D.		
12) Acetonitrile	7.882	7.858	0.731	41	1087	N.D.		
13) Methyl acetate	0.000	7.882	0.000		0	N.D.		
14) Carbon disulfide	7.906	7.906	0.734	76	1283	N.D.		
15) Methylene chloride	8.095	8.083	0.751	84	7911	Below Cal		98
16) tert-Butyl methyl ether	0.000	8.368	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.427	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.854	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.913	0.000		0	N.D.		
20) 2-Butanone	9.495	9.483	0.881	43	1524	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.554	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	0.000	9.850	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	0.000	10.230	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	10.289	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.514	0.000		0	N.D.		
31) Benzene	10.526	10.538	0.977	78	544	N.D.		
32) Cyclohexene	0.000	10.645	0.000		0	N.D.		
33) n-Butyl alcohol	10.775	10.846	1.000	56	9259	38.05	ug/L #	21
34) Trichloroethylene	0.000	11.167	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.416	0.000		0	N.D.		
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E210.D
Acq On : 23 Mar 2010 2:36 pm
Operator : RXY1
InstName : VOA9
Sample : |249074004|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 23 14:56:14 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.665	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	12.103	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.186	0.000		0	N.D.	
44) Toluene	12.483	12.483	0.895	91	2846	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.637	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.	
47) 2-Hexanone	13.028	13.028	0.935	43	438	N.D.	
48) 1,3-Dichloropropane	0.000	13.052	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	13.088	0.000		0	N.D.	
50) Dibromochloromethane	0.000	13.325	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.503	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.977	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	14.024	0.000		0	N.D.	
54) Ethylbenzene	14.025	14.024	1.006	91	479	N.D.	
55) m,p-Xylenes	0.000	14.131	0.000		0	N.D.	
56) o-Xylene	0.000	14.570	0.000		0	N.D.	
57) Styrene	0.000	14.570	0.000		0	N.D.	
59) Bromoform	0.000	14.855	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.926	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.198	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.	
64) Bromobenzene	0.000	15.353	0.000		0	N.D.	
65) n-Propylbenzene	15.353	15.353	0.938	91	460	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.495	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.507	0.000		0	N.D.	
68) 4-Chlorotoluene	15.614	15.614	0.954	91	576	N.D.	
69) tert-Butylbenzene	0.000	15.874	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.993	15.910	0.977	105	1223	N.D.	
71) sec-Butylbenzene	16.100	16.112	0.983	105	189	N.D.	
72) 4-Isopropyltoluene	0.000	16.230	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	16.408	16.313	1.002	146	214	N.D.	
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	214	N.D.	
75) n-Butylbenzene	16.693	16.693	1.020	91	196	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.859	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.910	18.922	1.155	180	182	N.D.	
79) Hexachlorobutadiene	0.000	19.088	0.000		0	N.D.	
80) Naphthalene	19.337	19.349	1.181	128	1273	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.717	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.	
85) Acrolein	0.000	7.313	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.	
87) Isopropyl Alcohol	7.573	7.550	0.703	45	859	N.D.	
88) Allyl chloride	7.882	7.929	0.731	41	1087	N.D.	
89) tert-Butyl Alcohol	8.060	8.060	0.748	59	625	N.D.	
90) Acrylonitrile	0.000	8.332	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.866	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	9.008	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.	
94) Ethyl acetate	9.495	9.483	0.881	43	1524	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E210.D
Acq On : 23 Mar 2010 2:36 pm
Operator : RXY1
InstName : VOA9
Sample : |249074004|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 23 14:56:14 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.578	0.000		0	N.D.	
96) Methacrylonitrile	9.874	9.744	0.916	41	206	N.D.	
97) Tetrahydrofuran	9.874	9.874	0.916	42	535	N.D.	
98) Isobutyl alcohol	0.000	10.159	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.368	0.000		0	N.D.	
101) 1,4-Dioxane	11.499	11.487	1.067	88	395	N.D.	
102) 2-Nitropropane	0.000	11.854	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.613	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.961	0.000		0	N.D.	
108) Cyclohexanone	15.104	15.092	0.923	42	228	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.246	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.957	0.000		0	N.D.	
111) Benzyl chloride	16.515	16.527	1.009	91	404	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.918	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E210.D
Acq On : 23 Mar 2010 2:36 pm
Operator : RXY1
InstName : VOA9
Sample : |249074004|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 23 14:56:14 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

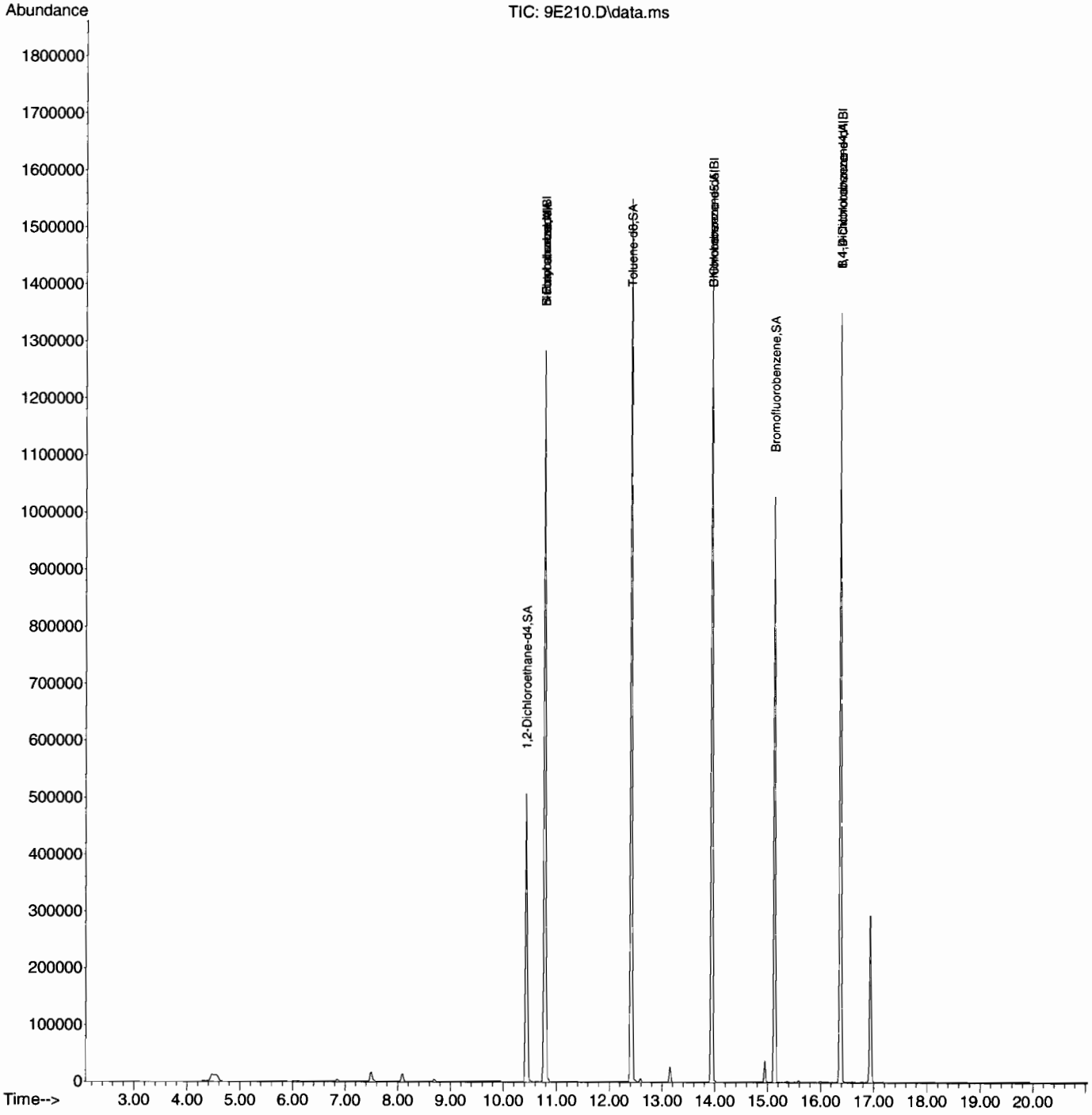

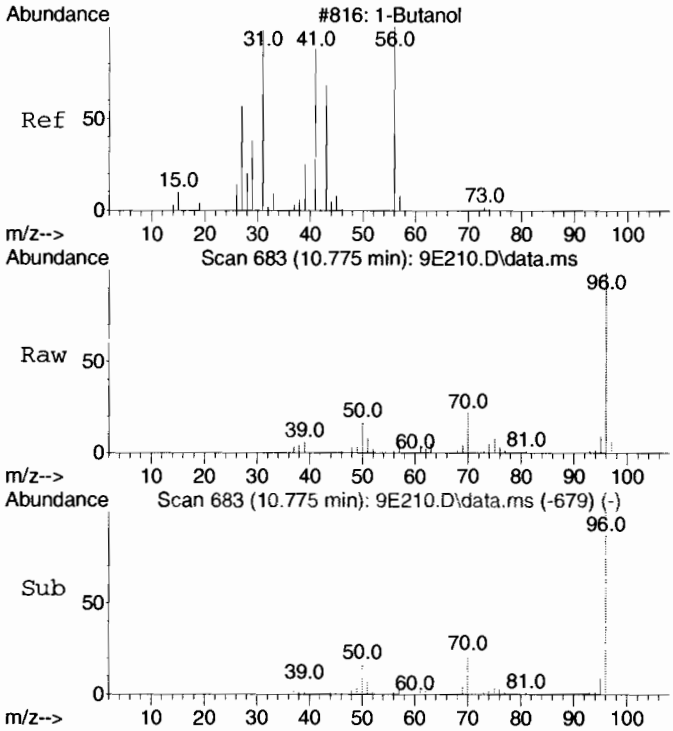

#33
n-Butyl alcohol
Concen: 38.05 ug/L
RT: 10.775 min Scan# 683
Delta R.T. -0.071 min
Lab File: 9E210.D
Acq: 23 Mar 2010 2:36 pm

Tgt Ion: 56 Resp: 9259

Ion	Ratio	Lower	Upper
56	100		
41	0.0	33.0	93.0#
43	0.0	25.0	85.0#

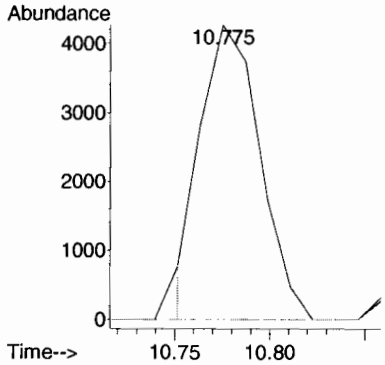

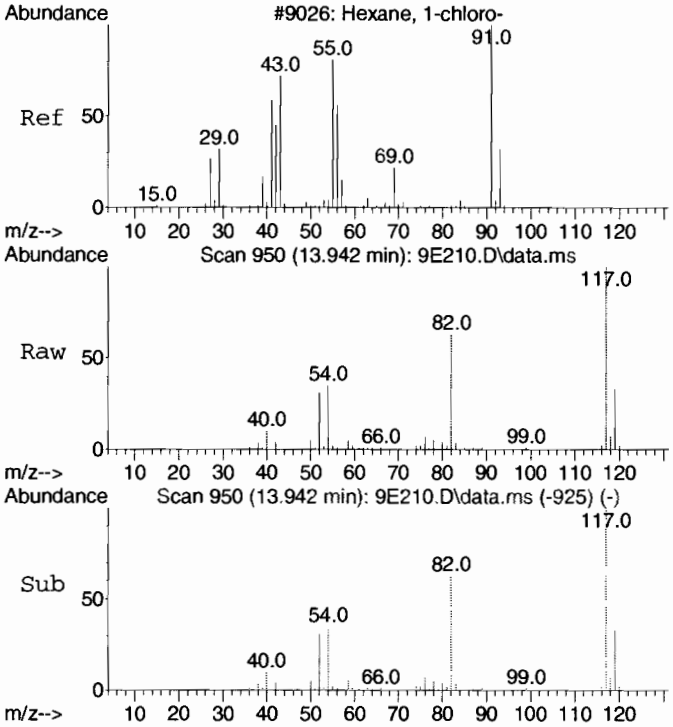

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.85 ug/L
RT: 13.942 min Scan# 950
Delta R.T. 0.118 min
Lab File: 9E210.D
Acq: 23 Mar 2010 2:36 pm

Tgt Ion: 55 Resp: 13008

Ion	Ratio	Lower	Upper
55	100		
91	13.9	74.8	134.8#
56	59.6	31.8	91.8

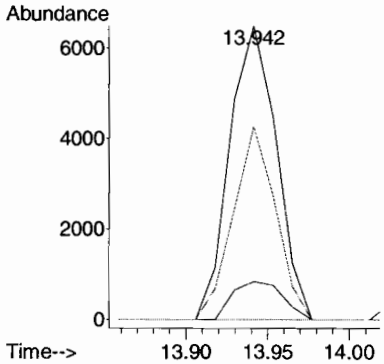

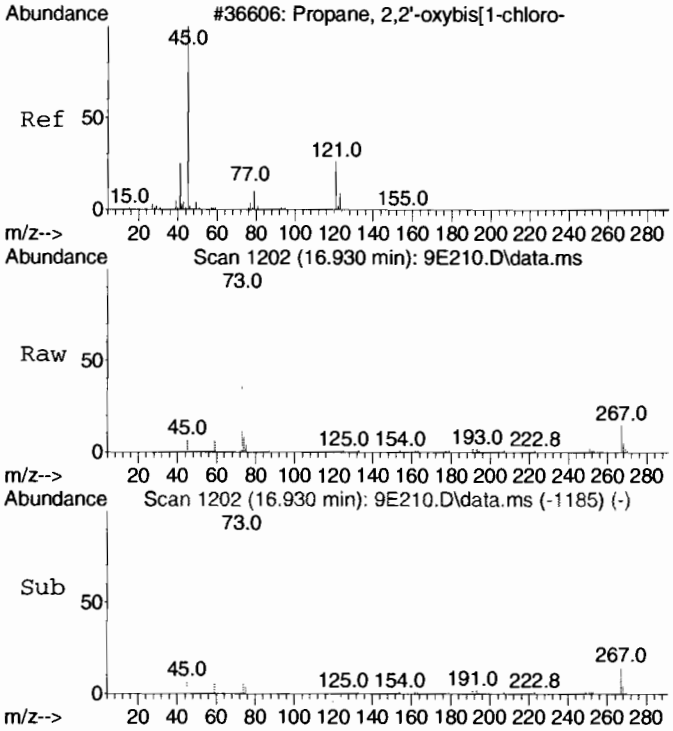

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 5.33 ug/L
RT: 16.930 min Scan# 1202
Delta R.T. 0.012 min
Lab File: 9E210.D
Acq: 23 Mar 2010 2:36 pm

Tgt Ion: 45 Resp: 24542

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	46.4

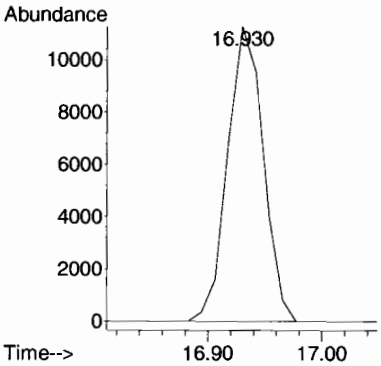

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E210.D
Acq On : 23 Mar 2010 2:36 pm
Operator : RXY1
Sample : |249074004|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.942	13.36 ug/L	700361	B 1,4-Dichlorobenzene-d4	16.372

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	59
2	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	38
3	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	37
4	Benzoic acid, 4-[(trimethylsilyl...	282	C13H22O3Si2	002078-13-9	33
5	Benzoic acid, 4-[(trimethylsily1...	282	C13H22O3Si2	002078-13-9	33

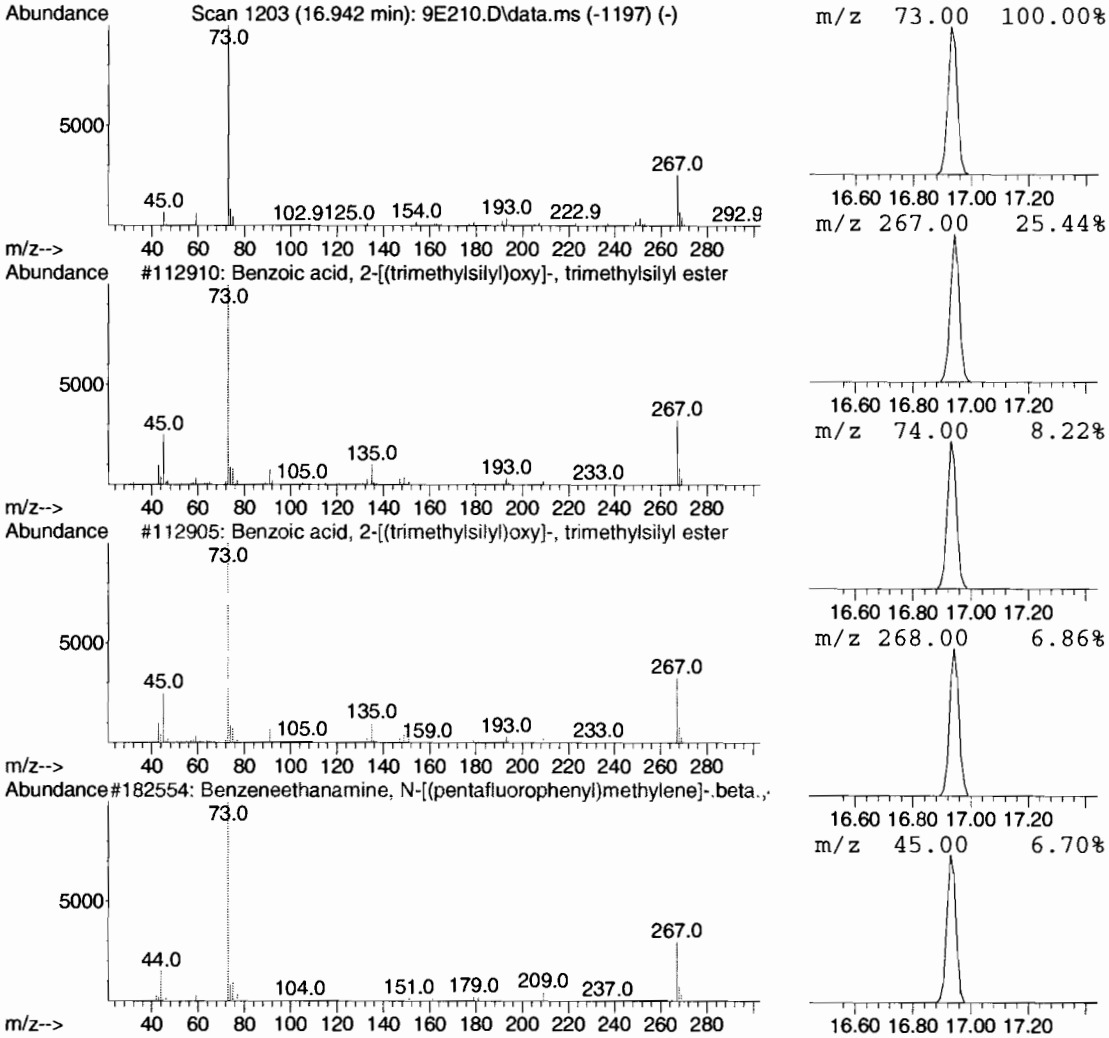

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E210.D
Acq On : 23 Mar 2010 2:36 pm
Operator : RXY1
Sample : |249074004|965707|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown siloxane	16.942	13.4	ug/L	700361	6	16.372	2621300	50.0

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

Date: 3/2/2010 Method 8260/624 Operator: RXY1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 Daily Instrument Readings:

Multiplier Voltage: 1553

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/2/2010

(See pg. 59 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 030210V9

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
IS	UVM100203-01	1	1	1	
SS	UVM100203-02	1	1	1	
BFB	UVM100203-02				1

Purge Amount	
5	Water Purge Vol:
N/A	Soil Purge Wt.
X	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
2 Mar 2010 07:29	9B201.D	W9VM100302-01	--------	CCV	5ml	1	--------	1	w / s	RXY1	N/A	X	MIX[A]UVM100220-01B/IVM100301-01
2 Mar 2010 07:57	9B202.D	W9VM100302-02	--------	CCV	5g	1	--------	2	s	RXY1	N/A	X	MIX[A]UVM100220-01B/IVM100301-01SOIL
2 Mar 2010 08:50	9B203.D	W9VM100302-03	--------	CCV	5ml	1	--------	3	w	RXY1	N/A	X	MIX[A]UVM100220-01B/IVM100301-01
2 Mar 2010 09:19	9B204.D	W9VM100302-04	--------	LCS	5g	1	--------	4	s	RXY1	N/A	X	MIX[A]UVM100220-01B/IVM100301-01SOIL
2 Mar 2010 09:57	9B205.D	W9VM100302-05	--------	CCV	5ml	1	--------	5	w	RXY1	N/A	X	MIX[A]UVM100106-07C/UVM100222-07A
2 Mar 2010 10:25	9B206.D	W9VM100302-06	--------	LCS	5ml	1	--------	6	w	RXY1	N/A	X	MIX[A]UVM100126-02E/IVM100301-01
2 Mar 2010 11:14	9B207.D	1202----------	--------	BLANK	5ml	1	n/a	7	w	RXY1	N/A	X	Instrument blank
2 Mar 2010 11:43	9B208.D	1202----------	--------	BLANK	5ml	1	n/a	8	w	RXY1	N/A	X	Instrument blank
2 Mar 2010 12:10	9B209.D	UVM100203-02	--------	BFB	--------	1	--------	9	w	RXY1	N/A	O	
2 Mar 2010 12:38	9B210.D	W9VM100302-07	--------	ICAL	5ml	1	n/a	10	w	RXY1	N/A	O	MIX[A]UVM100106-01C/UVM100222-01A
2 Mar 2010 13:07	9B211.D	W9VM100302-08	--------	ICAL	5ml	1	n/a	11	w	RXY1	N/A	O	MIX[A]UVM100106-02C/UVM100222-02A
2 Mar 2010 13:36	9B212.D	W9VM100302-09	--------	ICAL	5ml	1	n/a	12	w	RXY1	N/A	O	MIX[A]UVM100106-03C/UVM100222-03A
2 Mar 2010 14:04	9B213.D	W9VM100302-10	--------	ICAL	5ml	1	n/a	13	w	RXY1	N/A	O	MIX[A]UVM100106-04C/UVM100222-04A
2 Mar 2010 14:33	9B214.D	W9VM100302-11	--------	ICAL	5ml	1	n/a	14	w	RXY1	N/A	O	MIX[A]UVM100106-05C/UVM100222-05A
2 Mar 2010 15:02	9B215.D	W9VM100302-12	--------	ICAL	5ml	1	n/a	15	w	RXY1	N/A	O	MIX[A]UVM100106-06C/UVM100222-06A
2 Mar 2010 15:31	9B216.D	W9VM100302-13	--------	ICAL	5ml	1	n/a	16	w	RXY1	N/A	O	MIX[A]UVM100106-08C/UVM100222-07A
2 Mar 2010 16:00	9B217.D	W9VM100302-14	--------	ICAL	5ml	1	n/a	17	w	RXY1	N/A	O	MIX[A]UVM100106-08C/UVM100222-08A
2 Mar 2010 16:28	9B218.D	1202----------	GEL	BLANK	5ml	1	n/a	18	w	RXY1	N/A	X	Instrument blank
2 Mar 2010 16:57	9B219.D	W9VM100302-15	--------	ICV	5ml	1	n/a	19	w	RXY1	N/A	X	MIX[B]UVM100215-08A/UVM100125-08E
2 Mar 2010 17:25	9B220.D	W9VM100302-16	--------	ICV	5ml	1	n/a	20	w	RXY1	N/A	X	MIX[A]UVM100220-01C/IVM100301-01
2 Mar 2010 17:54	9B221.D	W9VM100302-17	--------	ICV	5ml	1	n/a	21	w	RXY1	N/A	X	MIX[A]UVM100126-02E/IVM100301-01
2 Mar 2010 18:23	9B222.D	1202----------	GEL	BLANK	5ml	1	n/a	22	w	RXY1	N/A	X	Instrument blank
2 Mar 2010 18:51	9B223.D	W9VM100302-18	--------	ICAL	5ml	1	n/a	23	w	RXY1	N/A	O	MIX[B]UVM100215-01/UVM100227-01A
2 Mar 2010 19:19	9B224.D	W9VM100302-19	--------	ICAL	5ml	1	n/a	24	w	RXY1	N/A	O	MIX[B]UVM100215-02/UVM100227-02A
2 Mar 2010 19:48	9B225.D	W9VM100302-20	--------	ICAL	5ml	1	n/a	25	w	RXY1	N/A	O	MIX[B]UVM100215-03/UVM100227-03A
2 Mar 2010 20:16	9B226.D	W9VM100302-21	--------	ICAL	5ml	1	n/a	26	w	RXY1	N/A	O	MIX[B]UVM100215-04/UVM100227-04A
2 Mar 2010 20:44	9B227.D	W9VM100302-22	--------	ICAL	5ml	1	n/a	27	w	RXY1	N/A	O	MIX[B]UVM100215-05/UVM100227-05A
2 Mar 2010 21:12	9B228.D	W9VM100302-23	--------	ICAL	5ml	1	n/a	28	w	RXY1	N/A	O	MIX[B]UVM100215-06/UVM100227-06A
2 Mar 2010 21:40	9B229.D	W9VM100302-24	--------	ICAL	5ml	1	n/a	29	w	RXY1	N/A	O	MIX[B]UVM100215-07/UVM100227-07A
2 Mar 2010 22:09	9B230.D	1202----------	GEL	BLANK	5ml	1	n/a	30	w	RXY1	N/A	X	Instrument blank

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

Date: 3/3/2010 Method 8260/624 Operator: RXY1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 Daily Instrument Readings:

Multiplier Voltage: 1553

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/2/2010 & 3/3/2010

(See pg. 59 & 61 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 030310V9

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV/ICV	W9VM100303-03		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100203-02	1	1	1	
LCS/MS	W9VM100303-03/04			5+5	
BFB	UVM100203-02				1
SHORT	W9VM100303-05		5	5	
N/A					

Purge Amount

5	Water Purge Vol:
5.2g	Soil Purge Wt.
X	Mid level ext. MeOH Vol:
100	ul
DA 057	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3 Mar 2010	09:53	9B301.D	W9VM100303-01	--------	CCV	5ml	1	--------	1	w / s	RXY1	N/A	X	MIX[A]UVM100106-08C/UVM100222-07A
3 Mar 2010	10:22	9B302.D	W9VM100303-02	--------	LCS	5ml	1	--------	2	w	RXY1	N/A	X	MIX[A]UVM100126-02E/IVM100301-01
3 Mar 2010	**10:50**	9B303.D	W9VM100303-03	--------	BFB/CCV/ICV/LCS	5ml	1	--------	3	w	RXY1	N/A	O	MIX[A]UVM100220-01C/IVM100301-01
3 Mar 2010	11:32	9B304.D	W9VM100303-04	--------	LCS	5g	1	--------	4	s	RXY1	N/A	O	MIX[A]UVM100126-02E/IVM100301-01SOIL
3 Mar 2010	12:00	9B305.D	W9VM100303-05	--------	CCV/ICV	5ml	1	--------	5	w	RXY1	N/A	O	MIX[B]UVM100215-08A
3 Mar 2010	12:29	9B306.D	W9VM100303-06	--------	LCS	5g	1	--------	6	s	RXY1	N/A	X	MIX[B]UVM100215-08A SOIL
3 Mar 2010	12:58	9B307.D	1202----------	--------	BLANK	5ml	1	--------	7	w	RXY1	N/A	X	CO - Use 9B309
3 Mar 2010	13:26	9B308.D	1202----------	--------	BLANK	5g	1	--------	8	s	RXY1	N/A	O	SOIL
3 Mar 2010	13:55	9B309.D	1202----------	--------	BLANK	5ml	1	--------	9	w	RXY1	N/A	O	
3 Mar 2010	14:24	9B310.D	248086003	PSCT	959462	5ml	1	pH2	10	w	RXY1	N	O	
3 Mar 2010	14:53	9B311.D	1202----------	--------	HB	100ul	50	--------	11	s	RXY1	N/A	O	SOIL Lot DA 057
3 Mar 2010	15:22	9B312.D	248086001	PSCT	959462	5ml	1	pH2	12	w	RXY1	N	O	
3 Mar 2010	15:51	9B313.D	248086002	PSCT	959462	5ml	1	pH2	13	w	RXY1	N	O	
3 Mar 2010	16:21	9B314.D	247864009	WASP	959467	5ml	1	pH2	14	w	RXY1	N	O	
3 Mar 2010	16:50	9B315.D	248061001	FUJI	960376	100ul	50	n/a	15	s	RXY1	N/A	O	SOIL 5.2g
3 Mar 2010	17:19	9B316.D	248050001	LANL	960378	5ml	1	pH2	16	w	RXY1	N	O	
3 Mar 2010	17:48	9B317.D	248050002	LANL	960378	5ml	1	pH2	17	w	RXY1	N	O	
3 Mar 2010	18:16	9B318.D	248062001	LANL	960378	5ml	1	pH2	18	w	RXY1	N	O	
3 Mar 2010	18:45	9B319.D	248062002	LANL	960378	5ml	1	pH2	19	w	RXY1	N	O	
3 Mar 2010	19:13	9B320.D	248062003	LANL	960378	5ml	1	pH2	20	w	RXY1	N	O	
3 Mar 2010	19:41	9B321.D	1202060004	LANL	960378	5ml	1	pH2	21	w	RXY1	N	O	MIX [A] MS 248062001
3 Mar 2010	20:09	9B322.D	1202060005	LANL	960378	5ml	1	pH2	22	w	RXY1	N	O	MIX [A] MSD 248062001
3 Mar 2010	20:38	9B323.D	1202057851	PSCT	959462	5ml	1	pH2	23	w	RXY1	N	O	MIX[A] MS 248086001
3 Mar 2010	21:06	9B324.D	1202057852	PSCT	959462	5ml	1	pH2	24	w	RXY1	N	O	MIX[A] MSD 248086001
3 Mar 2010	21:34	9B325.D	1202059980	FUJI	960376	100ul	50	n/a	25	s	RXY1	N/A	O	MIX[A] MS 248061001 SOIL
3 Mar 2010	22:02	9B326.D	1202059981	FUJI	960376	100ul	50	n/a	26	s	RXY1	N/A	O	MIX[A] MSD 248061001 SOIL
3 Mar 2010	22:30	9B327.D	1202----------	GEL	BLANK	5ml	1	n/a	27	w	RXY1	N/A	X	Instrument blank

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

Date: 3/16/2010 Method 8260/624 Operator: RXY1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 Daily Instrument Readings:

Multiplier Voltage: 1588

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/2/2010 & 3/3/2010

(See pg. 59 & 61 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 031610V9

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W9VM100316-01		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100217-02	1	1	1	
LCS/MS	W9VM100316-01/02			5+5	
BFB	UVM100217-02				1
SHORT	W9VM100316-03/04		5	5	
N/A					

Purge Amount

5	Water Purge Vol:
5.0g	Soil Purge Wt.
X	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3/16/2010 9:01	9D201.D	W9VM100316-01	--------	BFB/CCV/LCS	5ml	1	--------	1	w / s	RXY1	N/A	O	MIX[A]UVM100305-01B/IVM100316-01
3/16/2010 9:29	9D202.D	W9VM100316-02	--------	LCS	5g	1	--------	2	s	RXY1	N/A	O	MIX[A]UVM100305-01B/IVM100316-01 SOIL
3/16/2010 9:57	9D203.D	W9VM100316-03	--------	CCV/LCS	5ml	1	--------	3	w	RXY1	N/A	O	MIX[B]UVM100304-08A
3/16/2010 10:25	9D204.D	W9VM100316-04	--------	LCS	5g	1	--------	4	s	RXY1	N/A	O	MIX[B]UVM100304-08A SOIL
3/16/2010 10:53	9D205.D	1202----------	--------	BLANK	5g	1	--------	5	s	RXY1	N/A	X	SOIL - CO: Use 9D207
3/16/2010 11:22	9D206.D	1202----------	--------	BLANK	5ml	1	--------	6	w	RXY1	N/A	O	
3/16/2010 11:51	9D207.D	1202----------	--------	BLANK	5g	1	--------	7	s	RXY1	N/A	O	SOIL
3/16/2010 12:20	9D208.D	248595001	PNTX	965704	5ml	1	pH2	8	w	RXY1	N	O	
3/16/2010 12:49	9D209.D	248595002	PNTX	965704	5ml	1	pH2	9	w	RXY1	N	O	
3/16/2010 13:19	9D210.D	248595003	PNTX	965704	5ml	1	pH2	10	w	RXY1	N	O	
3/16/2010 13:48	9D211.D	248595004	PNTX	965704	5ml	1	pH2	11	w	RXY1	N	O	
3/16/2010 14:18	9D212.D	249074002	LANL	965713	5ml	1	pH2	12	w	RXY1	N	O	
3/16/2010 14:49	9D213.D	248702001	LANL	965707	5.0g	1	n/a	13	s	RXY1	N/A	O	SOIL
3/16/2010 15:19	9D214.D	248702002	LANL	965707	5.0g	1	n/a	14	s	RXY1	N/A	O	SOIL
3/16/2010 15:50	9D215.D	249074006	LANL	965707	5.0g	1	n/a	15	s	RXY1	N/A	O	SOIL
3/16/2010 16:20	9D216.D	249074007	LANL	965707	5.0g	1	n/a	16	s	RXY1	N/A	O	SOIL
3/16/2010 16:51	9D217.D	249074009	LANL	965707	5.0g	1	n/a	17	s	RXY1	N/A	O	SOIL
3/16/2010 17:22	9D218.D	249074010	LANL	965707	5.0g	1	n/a	18	s	RXY1	N/A	O	SOIL
3/16/2010 17:53	9D219.D	249074013	LANL	965707	5.0g	1	n/a	19	s	RXY1	N/A	O	SOIL
3/16/2010 18:23	9D220.D	249074016	LANL	965707	5.0g	1	n/a	20	s	RXY1	N/A	O	SOIL
3/16/2010 18:54	9D221.D	249074019	LANL	965707	5.0g	1	n/a	21	s	RXY1	N/A	O	SOIL
3/16/2010 19:24	9D222.D	1202072223	PNTX	965704	5ml	1	pH2	22	w	RXY1	N	O	MIX[A] MS 248595002
3/16/2010 19:54	9D223.D	1202072224	PNTX	965704	5ml	1	pH2	23	w	RXY1	N	O	MIX[A] MSD 248595002
3/16/2010 20:24	9D224.D	1202072247	LANL	965713	5ml	1	pH2	24	w	RXY1	N	O	MIX[A] MS 249074002
3/16/2010 20:53	9D225.D	1202072248	LANL	965713	5ml	1	pH2	25	w	RXY1	N	O	MIX[A] MSD 249074002
3/16/2010 21:23	9D226.D	1202----------	GEL	BLANK	5ml	1	n/a	26	w	RXY1	N/A	X	Instrument blank

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

Date: 3/17/2010 Method 8260/624 Operator: RXY1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 Daily Instrument Readings:

Multiplier Voltage: 1588

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/2/2010 & 3/3/2010

(See pg. 59 & 61 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 031710V9

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W9VM100317-01		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100217-02	1	1	1	
LCS/MS	W9VM100317-01/02			5+5	
BFB	UVM100217-02				1
SHORT	W9VM100317-03/04		5	5	
N/A					

Purge Amount

5	Water Purge Vol:
5.0g	Soil Purge Wt.
X	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3/17/2010	9:01	9D301.D	W9VM100317-01	--------	BFB/CCV/LCS	5ml	1	--------	1	w	RXY1	N/A	O	MIX[A]UVM100305-01C/IVM100316-01
3/17/2010	9:30	9D302.D	W9VM100317-02	--------	LCS	5g	1	--------	2	s	RXY1	N/A	O	MIX[A]UVM100305-01C/IVM100316-01 SOIL
3/17/2010	9:58	9D303.D	W9VM100317-03	--------	CCV/LCS	5ml	1	--------	3	w	RXY1	N/A	O	MIX[B]UVM100304-08A
3/17/2010	10:26	9D304.D	W9VM100317-04	--------	LCS	5g	1		4	s	RXY1	N/A	O	MIX[B]UVM100304-08A SOIL
3/17/2010	10:55	9D305.D	1202----------	--------	BLANK	5ml	1	n/a	5	w	RXY1	N/A	O	
3/17/2010	11:23	9D306.D	1202----------	--------	BLANK	5g	1	n/a	6	s	RXY1	N/A	O	SOIL
3/17/2010	11:52	9D307.D	249074003	LANL	965707	5g	1	n/a	7	s	RXY1	N/A	O	SOIL
3/17/2010	12:21	9D308.D	249057004	LANL	966338	5ml	1	pH2	8	w	RXY1	N	X	Moved to VOA #7 (Target software)
3/17/2010	12:51	9D309.D	249074012	LANL	965707	5g	1	n/a	9	s	RXY1	N/A	O	SOIL
3/17/2010	13:20	9D310.D	249074017	LANL	965707	5g	1	n/a	10	s	RXY1	N/A	O	SOIL
3/17/2010	13:50	9D311.D	249074020	LANL	965707	5g	1	n/a	11	s	RXY1	N/A	O	SOIL: High SS
3/17/2010	14:19	9D312.D	249074004	LANL	965707	5g	1	n/a	12	s	RXY1	N/A	X	SOIL: High SS - Report 9E210
3/17/2010	14:47	9D313.D	249074005	LANL	965707	5g	1	n/a	13	s	RXY1	N/A	X	SOIL: High SS - Report 9E212
3/17/2010	15:15	9D314.D	249074020	LANL	965707	5g	1	n/a	14	s	RXY1	N/A	X	SOIL: High SS - Confirmation for 9D311
3/17/2010	15:43	9D315.D	249074008	LANL	965707	5g	1	n/a	15	s	RXY1	N/A	X	SOIL: High SS - Report 9E213
3/17/2010	16:12	9D316.D	249074011	LANL	965707	5g	1	n/a	16	s	RXY1	N/A	X	SOIL: High SS - Report 9E214
3/17/2010	16:40	9D317.D	249074014	LANL	965707	5g	1	n/a	17	s	RXY1	N/A	X	SOIL: High SS - Report 9E215
3/17/2010	17:09	9D318.D	249074015	LANL	965707	5g	1	n/a	18	s	RXY1	N/A	X	SOIL: High SS - Report 9E216
3/17/2010	17:37	9D319.D	249074018	LANL	965707	5g	1	n/a	19	s	RXY1	N/A	X	SOIL: High SS - Report 9E217
3/17/2010	18:06	9D320.D	1202073781	LANL	966338	5ml	1	pH2	20	w	RXY1	N	X	MIX[A] MS 249057004
3/17/2010	18:35	9D321.D	1202073782	LANL	966338	5ml	1	pH2	21	w	RXY1	N	X	MIX[A] MSD 249057004
3/17/2010	19:04	9D322.D	1202072230	LANL	965707	5g	1	n/a	22	s	RXY1	N/A	O	MIX[A] MS 249074004 SOIL
3/17/2010	19:32	9D323.D	1202072231	LANL	965707	5g	1	n/a	23	s	RXY1	N/A	O	MIX[A] MSD 249074004 SOIL
3/17/2010	20:00	9D324.D	1202----------	GEL	BLANK	5ml	1	n/a	24	w	RXY1	N/A	X	Instrument blank

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2264

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	965425
Prep Batch Number:	965424

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
248702001	RE46-10-13203
248702002	RE46-10-13202
1202071493	Method Blank (MB)
1202071494	Laboratory Control Sample (LCS)
1202071495	248842002(RE46-10-13553) Matrix Spike (MS)
1202071496	248842002(RE46-10-13553) Matrix Spike Duplicate (MSD)

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

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The laboratory control sample (LCS) recoveries were within the acceptance limits except for Benzyl alcohol. The low recovery accounts for less than 5% of the total analytes requested, therefore the LCS was considered acceptable and reported.

QC Sample Designation
Sample 248842002 (RE46-10-13553) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
Many of the MS recoveries were not within the acceptance limits. The low recoveries were attributed to possible laboratory error combined with matrix interference. The recoveries in the MS, although below the acceptance limits, were similarly demonstrated in the MSD. The recoveries in the MSD were within the

acceptance limits, however many recoveries were slightly above the lower limit. Please see the spike summary form in the QC Data Summary section of the data package for details.

Matrix Spike Duplicate (MSD) Recovery Statement
The recoveries in the MSD were within the acceptance limits except for Benzyl alcohol. The low recovery was attributed to matrix interference. Many of the MSD recoveries were slightly above the lower limit. Please see the spike summary form in the QC Data Summary section of the data package for details.

MS/MSD Relative Percent Difference (RPD) Statement
Many of the relative percent differences (RPD) between the MS and MSD were above the acceptance limits. The high differences were attributed to possible laboratory error and matrix interference. Please see the spike summary form in the QC Data Summary section of the data package for details.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report (DER ID 809235) was generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

The Semi-Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD6.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.20mm x 0.33 um (5% Phenylmethylpolysiloxane)

Certification Statement

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

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-2264 GEL Work Order: 248702

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

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

Signature: Pat Steele **Name:** **Patricia Steele**

Date: **01 APR 2010** **Title:** **Group Leader**
Laboratory Manager

Roadmap for LANL 10-2264 SVOA

This roadmap was analyzed by llo00884 on 03-24-2010, 18:20.
This roadmap was reviewed by bar00895 on 03-25-2010, 09:56.
This roadmap was packaged by CHA01131 on 03-26-2010, 12:27.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s032010.b/s6c2011.d	248702001	20-MAR-2010	18:29	10-2264.sub	RE46-10-13203	1	965425	
☐	N	/chem/MSD6.i/s032010.b/s6c2012.d	248702002	20-MAR-2010	18:52	10-2264.sub	RE46-10-13202	1	965425	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s032010.b/s6c2009.d	1202071493	mb	20-MAR-2010	17:42	10-2264.sub	SBLK01	1	965425	
☐	N	/chem/MSD6.i/s032010.b/s6c2010.d	1202071494	lcs	20-MAR-2010	18:06	10-2264.sub	SBLK01LCS	1	965425	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702002	**Date Received:**	03/04/2010 08:50	**%Moisture:**	21.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13202	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/20/2010 18:52	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s6c2012.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	423	ug/kg	84.6	423
108-95-2	Phenol	U	423	ug/kg	84.6	423
95-57-8	2-Chlorophenol	U	423	ug/kg	84.6	423
106-46-7	1,4-Dichlorobenzene	U	423	ug/kg	84.6	423
621-64-7	N-Nitrosodipropylamine	U	423	ug/kg	84.6	423
59-50-7	4-Chloro-3-methylphenol	U	423	ug/kg	84.6	423
83-32-9	Acenaphthene	U	42.3	ug/kg	14.0	42.3
121-14-2	2,4-Dinitrotoluene	U	423	ug/kg	42.3	423
100-02-7	4-Nitrophenol	U	423	ug/kg	140	423
87-86-5	Pentachlorophenol	U	423	ug/kg	106	423
129-00-0	Pyrene	U	42.3	ug/kg	12.7	42.3
110-86-1	Pyridine	U	423	ug/kg	84.6	423
62-53-3	Aniline	U	423	ug/kg	127	423
111-44-4	bis(2-Chloroethyl) ether	U	423	ug/kg	84.6	423
541-73-1	1,3-Dichlorobenzene	U	423	ug/kg	84.6	423
100-51-6	Benzyl alcohol	U	423	ug/kg	127	423
95-50-1	1,2-Dichlorobenzene	U	423	ug/kg	84.6	423
108-60-1	bis(2-Chloroisopropyl)ether	U	423	ug/kg	84.6	423
95-48-7	o-Cresol	U	423	ug/kg	84.6	423
65794-96-9	m,p-Cresols	U	423	ug/kg	127	423
67-72-1	Hexachloroethane	U	423	ug/kg	84.6	423
98-95-3	Nitrobenzene	U	423	ug/kg	84.6	423
78-59-1	Isophorone	U	423	ug/kg	84.6	423
88-75-5	2-Nitrophenol	U	423	ug/kg	84.6	423
105-67-9	2,4-Dimethylphenol	U	423	ug/kg	148	423
111-91-1	bis(2-Chloroethoxy)methane	U	423	ug/kg	84.6	423
120-83-2	2,4-Dichlorophenol	U	423	ug/kg	84.6	423
65-85-0	Benzoic acid	U	846	ug/kg	211	846
91-20-3	Naphthalene	U	42.3	ug/kg	12.7	42.3
106-47-8	4-Chloroaniline	U	423	ug/kg	84.6	423
87-68-3	Hexachlorobutadiene	U	423	ug/kg	84.6	423
91-57-6	2-Methylnaphthalene	U	42.3	ug/kg	8.46	42.3
77-47-4	Hexachlorocyclopentadiene	U	423	ug/kg	84.6	423
88-06-2	2,4,6-Trichlorophenol	U	423	ug/kg	84.6	423
95-95-4	2,4,5-Trichlorophenol	U	423	ug/kg	84.6	423
91-58-7	2-Chloronaphthalene	U	42.3	ug/kg	14.0	42.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	423	ug/kg	84.6	423
99-09-2	3-Nitroaniline	U	423	ug/kg	84.6	423

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702002**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**21.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13202**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 18:52**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2012.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	423	ug/kg	84.6	423
606-20-2	2,6-Dinitrotoluene	U	423	ug/kg	42.3	423
208-96-8	Acenaphthylene	U	42.3	ug/kg	12.7	42.3
51-28-5	2,4-Dinitrophenol	U	846	ug/kg	161	846
132-64-9	Dibenzofuran	U	423	ug/kg	84.6	423
84-66-2	Diethylphthalate	U	423	ug/kg	84.6	423
86-73-7	Fluorene	U	42.3	ug/kg	12.7	42.3
7005-72-3	4-Chlorophenylphenylether	U	423	ug/kg	84.6	423
534-52-1	2-Methyl-4,6-dinitrophenol	U	423	ug/kg	84.6	423
100-01-6	4-Nitroaniline	U	423	ug/kg	127	423
	p-Nitroaniline					
122-39-4	Diphenylamine	U	423	ug/kg	84.6	423
122-66-7	Azobenzene	U	423	ug/kg	84.6	423
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	423	ug/kg	84.6	423
118-74-1	Hexachlorobenzene	U	423	ug/kg	84.6	423
85-01-8	Phenanthrene	U	42.3	ug/kg	12.7	42.3
120-12-7	Anthracene	U	42.3	ug/kg	8.46	42.3
84-74-2	Di-n-butylphthalate	U	423	ug/kg	84.6	423
206-44-0	Fluoranthene	U	42.3	ug/kg	12.7	42.3
85-68-7	Butylbenzylphthalate	U	423	ug/kg	84.6	423
56-55-3	Benzo(a)anthracene	U	42.3	ug/kg	12.7	42.3
91-94-1	3,3'-Dichlorobenzidine	U	423	ug/kg	127	423
218-01-9	Chrysene	U	42.3	ug/kg	12.7	42.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	423	ug/kg	84.6	423
117-84-0	Di-n-octylphthalate	U	423	ug/kg	84.6	423
205-99-2	Benzo(b)fluoranthene	U	42.3	ug/kg	12.7	42.3
207-08-9	Benzo(k)fluoranthene	U	42.3	ug/kg	12.7	42.3
50-32-8	Benzo(a)pyrene	U	42.3	ug/kg	12.7	42.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.3	ug/kg	12.7	42.3
53-70-3	Dibenzo(a,h)anthracene	U	42.3	ug/kg	12.7	42.3
191-24-2	Benzo(ghi)perylene	U	42.3	ug/kg	12.7	42.3
120-82-1	1,2,4-Trichlorobenzene	U	423	ug/kg	84.6	423

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	1200	ug/kg		JA
	Unknown	7.59	310	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702001**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**18.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13203**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 18:29**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2011.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	410	ug/kg	82.0	410
108-95-2	Phenol	U	410	ug/kg	82.0	410
95-57-8	2-Chlorophenol	U	410	ug/kg	82.0	410
106-46-7	1,4-Dichlorobenzene	U	410	ug/kg	82.0	410
621-64-7	N-Nitrosodipropylamine	U	410	ug/kg	82.0	410
59-50-7	4-Chloro-3-methylphenol	U	410	ug/kg	82.0	410
83-32-9	Acenaphthene	U	41.0	ug/kg	13.5	41.0
121-14-2	2,4-Dinitrotoluene	U	410	ug/kg	41.0	410
100-02-7	4-Nitrophenol	U	410	ug/kg	135	410
87-86-5	Pentachlorophenol	U	410	ug/kg	103	410
129-00-0	Pyrene		532	ug/kg	12.3	41.0
110-86-1	Pyridine	U	410	ug/kg	82.0	410
62-53-3	Aniline	U	410	ug/kg	123	410
111-44-4	bis(2-Chloroethyl) ether	U	410	ug/kg	82.0	410
541-73-1	1,3-Dichlorobenzene	U	410	ug/kg	82.0	410
100-51-6	Benzyl alcohol	U	410	ug/kg	123	410
95-50-1	1,2-Dichlorobenzene	U	410	ug/kg	82.0	410
108-60-1	bis(2-Chloroisopropyl)ether	U	410	ug/kg	82.0	410
95-48-7	o-Cresol	U	410	ug/kg	82.0	410
65794-96-9	m,p-Cresols	U	410	ug/kg	123	410
67-72-1	Hexachloroethane	U	410	ug/kg	82.0	410
98-95-3	Nitrobenzene	U	410	ug/kg	82.0	410
78-59-1	Isophorone	U	410	ug/kg	82.0	410
88-75-5	2-Nitrophenol	U	410	ug/kg	82.0	410
105-67-9	2,4-Dimethylphenol	U	410	ug/kg	144	410
111-91-1	bis(2-Chloroethoxy)methane	U	410	ug/kg	82.0	410
120-83-2	2,4-Dichlorophenol	U	410	ug/kg	82.0	410
65-85-0	Benzoic acid	U	820	ug/kg	205	820
91-20-3	Naphthalene	U	41.0	ug/kg	12.3	41.0
106-47-8	4-Chloroaniline	U	410	ug/kg	82.0	410
87-68-3	Hexachlorobutadiene	U	410	ug/kg	82.0	410
91-57-6	2-Methylnaphthalene	U	41.0	ug/kg	8.20	41.0
77-47-4	Hexachlorocyclopentadiene	U	410	ug/kg	82.0	410
88-06-2	2,4,6-Trichlorophenol	U	410	ug/kg	82.0	410
95-95-4	2,4,5-Trichlorophenol	U	410	ug/kg	82.0	410
91-58-7	2-Chloronaphthalene	U	41.0	ug/kg	13.5	41.0
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	410	ug/kg	82.0	410
99-09-2	3-Nitroaniline	U	410	ug/kg	82.0	410

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702001**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**18.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13203**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 18:29**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2011.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	410	ug/kg	82.0	410
606-20-2	2,6-Dinitrotoluene	U	410	ug/kg	41.0	410
208-96-8	Acenaphthylene	U	41.0	ug/kg	12.3	41.0
51-28-5	2,4-Dinitrophenol	U	820	ug/kg	156	820
132-64-9	Dibenzofuran	U	410	ug/kg	82.0	410
84-66-2	Diethylphthalate	U	410	ug/kg	82.0	410
86-73-7	Fluorene	U	41.0	ug/kg	12.3	41.0
7005-72-3	4-Chlorophenylphenylether	U	410	ug/kg	82.0	410
534-52-1	2-Methyl-4,6-dinitrophenol	U	410	ug/kg	82.0	410
100-01-6	4-Nitroaniline	U	410	ug/kg	123	410
	p-Nitroaniline					
122-39-4	Diphenylamine	U	410	ug/kg	82.0	410
122-66-7	Azobenzene	U	410	ug/kg	82.0	410
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	410	ug/kg	82.0	410
118-74-1	Hexachlorobenzene	U	410	ug/kg	82.0	410
85-01-8	Phenanthrene		215	ug/kg	12.3	41.0
120-12-7	Anthracene	J	40.9	ug/kg	8.20	41.0
84-74-2	Di-n-butylphthalate	U	410	ug/kg	82.0	410
206-44-0	Fluoranthene		586	ug/kg	12.3	41.0
85-68-7	Butylbenzylphthalate	U	410	ug/kg	82.0	410
56-55-3	Benzo(a)anthracene		239	ug/kg	12.3	41.0
91-94-1	3,3'-Dichlorobenzidine	U	410	ug/kg	123	410
218-01-9	Chrysene		256	ug/kg	12.3	41.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	410	ug/kg	82.0	410
117-84-0	Di-n-octylphthalate	U	410	ug/kg	82.0	410
205-99-2	Benzo(b)fluoranthene		418	ug/kg	12.3	41.0
207-08-9	Benzo(k)fluoranthene	U	41.0	ug/kg	12.3	41.0
50-32-8	Benzo(a)pyrene		225	ug/kg	12.3	41.0
193-39-5	Indeno(1,2,3-cd)pyrene		108	ug/kg	12.3	41.0
53-70-3	Dibenzo(a,h)anthracene	U	41.0	ug/kg	12.3	41.0
191-24-2	Benzo(ghi)perylene		122	ug/kg	12.3	41.0
120-82-1	1,2,4-Trichlorobenzene	U	410	ug/kg	82.0	410

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	916	ug/kg		JA
192-97-2	Benzo[e]pyrene	10.72	317	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702001	**Date Received:**	03/04/2010 08:50	**%Moisture:**	18.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13203	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/20/2010 18:29	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6c2011.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.04	221	ug/kg		J

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-2264

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202071493	MB for batch 965424	62	64	61	71	77	85
1202071494	LCS for batch 965424	61	59	61	70	80	89
248702001	RE46-10-13203	38	41	37	46	61	71
248702002	RE46-10-13202	46	48	44	53	74	81

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(29%-99%)
PHL	=	Phenol-d5	(33%-98%)
NBZ	=	Nitrobenzene-d5	(31%-105%)
FBP	=	2-Fluorobiphenyl	(25%-109%)
TBP	=	2,4,6-Tribromophenol	(37%-106%)
TPH	=	p-Terphenyl-d14	(13%-150%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: LCS for batch 965424
Lab Sample ID: 1202071494
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/20/2010 18:06
Dilution: 1
Prep Batch ID: 965424
Batch ID: 965425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	816	49	22-114
108-95-2	LCS	Phenol	1670	0.0	981	59	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1060	64	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1040	63	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1020	61	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1110	67	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	1040	62	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1220	73	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	811	49	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	1430	86	27-116
129-00-0	LCS	Pyrene	1670	0.0	1240	75	42-113
110-86-1	LCS	Pyridine	1670	0.0	771	46	8-125
62-53-3	LCS	Aniline	1670	0.0	1090	65	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	960	58	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1020	61	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	338	20 *	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1110	67	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	924	55	28-117
95-48-7	LCS	o-Cresol	1670	0.0	1130	68	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1240	74	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	925	56	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	1120	67	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: LCS for batch 965424
Lab Sample ID: 1202071494
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/20/2010 18:06
Prep Batch ID: 965424
Batch ID: 965425
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1040	62	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	1120	67	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1390	83	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1010	61	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1140	69	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	2580	77	22-138
91-20-3	LCS	Naphthalene	1670	0.0	975	58	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	1050	63	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1150	69	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1070	64	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1040	63	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1020	61	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1400	84	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1120	67	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	999	60	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1040	62	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	1300	78	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1230	74	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	1170	70	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1180	71	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	1220	73	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	1340	81	51-126

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2264

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 965424

Matrix: SOIL

Lab Sample ID: 1202071494

Instrument: MSD6.I

Analysis Date: 03/20/2010 18:06

Dilution: 1

Analyst: NAG1

Prep Batch ID: 965424

Inj. Vol: .5 uL

Batch ID: 965425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1130	68	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1290	78	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1180	71	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1250	75	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	1280	77	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1180	71	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1340	80	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1400	84	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	1150	69	46-107
120-12-7	LCS	Anthracene	1670	0.0	1150	69	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1310	78	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1290	77	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1330	80	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1270	76	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1230	74	36-103
218-01-9	LCS	Chrysene	1670	0.0	1270	76	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1310	79	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1230	74	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1240	74	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1380	83	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1340	80	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1370	82	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: LCS for batch 965424
Lab Sample ID: 1202071494
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/20/2010 18:06
Dilution: 1
Prep Batch ID: 965424
Batch ID: 965425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1370	82	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1350	81	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1140	68	32-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: RE46-10-13553MS
Lab Sample ID: 1202071495
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 13.9
Analysis Date: 03/20/2010 22:45
Prep Batch ID: 965424
Batch ID: 965425

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1930	0.00	U	439	23 *	27-98
108-95-2	MS	Phenol	1930	0.00	U	521	27 *	33-94
95-57-8	MS	2-Chlorophenol	1930	0.00	U	550	29	29-96
106-46-7	MS	1,4-Dichlorobenzene	1930	0.00	U	495	26 *	27-96
621-64-7	MS	N-Nitrosodipropylamine	1930	0.00	U	504	26 *	29-102
59-50-7	MS	4-Chloro-3-methylphenol	1930	0.00	U	590	31	29-110
83-32-9	MS	Acenaphthene	1930	0.00	U	521	27	17-109
121-14-2	MS	2,4-Dinitrotoluene	1930	0.00	U	615	32 *	33-107
100-02-7	MS	4-Nitrophenol	1930	0.00	U	459	24	15-110
87-86-5	MS	Pentachlorophenol	1930	0.00	U	642	33	23-110
129-00-0	MS	Pyrene	1930	0.00	U	656	34	24-118
110-86-1	MS	Pyridine	1930	0.00	U	305	16 *	25-102
62-53-3	MS	Aniline	1930	0.00	U	453	23	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	1930	0.00	U	461	24 *	29-96
541-73-1	MS	1,3-Dichlorobenzene	1930	0.00	U	480	25 *	26-97
100-51-6	MS	Benzyl alcohol	1930	0.00	U	0.00	0 *	19-112
95-50-1	MS	1,2-Dichlorobenzene	1930	0.00	U	546	28 *	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	1930	0.00	U	442	23 *	28-103
95-48-7	MS	o-Cresol	1930	0.00	U	540	28 *	32-107
65794-96-9	MS	m,p-Cresols	1930	0.00	U	606	31 *	33-115
67-72-1	MS	Hexachloroethane	1930	0.00	U	411	21 *	25-100
98-95-3	MS	Nitrobenzene	1930	0.00	U	602	31	27-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: RE46-10-13553MS
Lab Sample ID: 1202071495
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 13.9
Analysis Date: 03/20/2010 22:45
Prep Batch ID 965424
Batch ID: 965425
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1930	0.00	U	522	27 *	29-104
88-75-5	MS	2-Nitrophenol	1930	0.00	U	593	31	26-102
105-67-9	MS	2,4-Dimethylphenol	1930	0.00	U	1170	60	22-104
111-91-1	MS	bis(2-Chloroethoxy)methane	1930	0.00	U	529	27	27-101
120-83-2	MS	2,4-Dichlorophenol	1930	0.00	U	576	30	26-103
65-85-0	MS	Benzoic acid	3860	0.00	U	1400	36	13-131
91-20-3	MS	Naphthalene	1930	0.00	U	507	26	23-103
106-47-8	MS	4-Chloroaniline	1930	0.00	U	542	28	26-103
87-68-3	MS	Hexachlorobutadiene	1930	0.00	U	544	28	28-101
91-57-6	MS	2-Methylnaphthalene	1930	0.00	U	554	29	27-106
77-47-4	MS	Hexachlorocyclopentadiene	1930	0.00	U	375	19 *	24-117
88-06-2	MS	2,4,6-Trichlorophenol	1930	0.00	U	536	28	26-105
95-95-4	MS	2,4,5-Trichlorophenol	1930	0.00	U	668	35	30-110
91-58-7	MS	2-Chloronaphthalene	1930	0.00	U	574	30	28-102
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1930	0.00	U	791	41	33-106
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1930	0.00	U	586	30 *	33-116
131-11-3	MS	Dimethylphthalate	1930	0.00	U	651	34 *	38-113
606-20-2	MS	2,6-Dinitrotoluene	1930	0.00	U	586	30	29-107
208-96-8	MS	Acenaphthylene	1930	0.00	U	598	31	25-108
51-28-5	MS	2,4-Dinitrophenol	1930	0.00	U	565	29	14-102
132-64-9	MS	Dibenzofuran	1930	0.00	U	649	34 *	35-112
84-66-2	MS	Diethylphthalate	1930	0.00	U	657	34 *	36-122

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: RE46-10-13553MS
Lab Sample ID: 1202071495
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 13.9
Analysis Date: 03/20/2010 22:45
Prep Batch ID: 965424
Batch ID: 965425
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1930	0.00	U	588	30 *	33-105
7005-72-3	MS	4-Chlorophenylphenylether	1930	0.00	U	657	34	30-110
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1930	0.00	U	595	31	26-97
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1930	0.00	U	692	36	28-135
122-39-4	MS	Diphenylamine	1930	0.00	U	653	34	33-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1930	0.00	U	592	31	31-113
101-55-3	MS	4-Bromophenylphenylether	1930	0.00	U	679	35	31-109
118-74-1	MS	Hexachlorobenzene	1930	0.00	U	691	36 *	37-99
85-01-8	MS	Phenanthrene	1930	0.00	U	598	31	29-109
120-12-7	MS	Anthracene	1930	0.00	U	627	32	19-118
84-74-2	MS	Di-n-butylphthalate	1930	0.00	U	637	33 *	39-123
206-44-0	MS	Fluoranthene	1930	0.00	U	644	33	33-114
85-68-7	MS	Butylbenzylphthalate	1930	0.00	U	636	33 *	35-131
56-55-3	MS	Benzo(a)anthracene	1930	0.00	U	616	32	30-111
91-94-1	MS	3,3'-Dichlorobenzidine	1930	0.00	U	557	29 *	30-124
218-01-9	MS	Chrysene	1930	0.00	U	653	34	32-108
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1930	236	J	728	25 *	37-129
117-84-0	MS	Di-n-octylphthalate	1930	0.00	U	846	44	31-143
205-99-2	MS	Benzo(b)fluoranthene	1930	0.00	U	687	36	29-118
207-08-9	MS	Benzo(k)fluoranthene	1930	0.00	U	778	40	32-118
50-32-8	MS	Benzo(a)pyrene	1930	0.00	U	652	34	33-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1930	0.00	U	455	24 *	29-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: RE46-10-13553MS
Lab Sample ID: 1202071495
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 13.9
Analysis Date: 03/20/2010 22:45
Prep Batch ID: 965424
Batch ID: 965425

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1930	0.00	U	477	25 *	27-119
191-24-2	MS	Benzo(ghi)perylene	1930	0.00	U	391	20 *	28-112
120-82-1	MS	1,2,4-Trichlorobenzene	1930	0.00	U	561	29	28-99

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2264

Client ID: RE46-10-13553MSD

Lab Sample ID: 1202071496

Instrument: MSD6.I

Analyst: NAG1

Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate

Matrix: S

%Moisture: 13.9

Analysis Date: 03/20/2010 23:07

Dilution: 1

Prep Batch ID: 965424

Batch ID: 965425

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1930	0.00	U	693	36	27-98	45 *	0-30
108-95-2	MSD Phenol	1930	0.00	U	886	46	33-94	52 *	0-30
95-57-8	MSD 2-Chlorophenol	1930	0.00	U	780	40	29-96	35 *	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1930	0.00	U	669	35	27-96	30	0-30
621-64-7	MSD N-Nitrosodipropylamine	1930	0.00	U	815	42	29-102	47 *	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1930	0.00	U	937	48	29-110	45 *	0-30
83-32-9	MSD Acenaphthene	1930	0.00	U	818	42	17-109	44 *	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1930	0.00	U	954	49	33-107	43 *	0-30
100-02-7	MSD 4-Nitrophenol	1930	0.00	U	666	34	15-110	37 *	0-30
87-86-5	MSD Pentachlorophenol	1930	0.00	U	944	49	23-110	38 *	0-30
129-00-0	MSD Pyrene	1930	0.00	U	964	50	24-118	38 *	0-30
110-86-1	MSD Pyridine	1930	0.00	U	488	25	25-102	46 *	0-30
62-53-3	MSD Aniline	1930	0.00	U	830	43	18-109	59 *	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1930	0.00	U	723	37	29-96	44 *	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1930	0.00	U	698	36	26-97	37 *	0-30
100-51-6	MSD Benzyl alcohol	1930	0.00	U	0.00	0 *	19-112	0	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1930	0.00	U	779	40	30-97	35 *	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1930	0.00	U	702	36	28-103	46 *	0-30
95-48-7	MSD o-Cresol	1930	0.00	U	944	49	32-107	55 *	0-30
65794-96-9	MSD m,p-Cresols	1930	0.00	U	1050	54	33-115	54 *	0-30
67-72-1	MSD Hexachloroethane	1930	0.00	U	578	30	25-100	34 *	0-30
98-95-3	MSD Nitrobenzene	1930	0.00	U	944	49	27-106	44 *	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: RE46-10-13553MSD
Lab Sample ID: 1202071496
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 13.9
Analysis Date: 03/20/2010 23:07
Dilution: 1
Prep Batch ID: 965424
Batch ID: 965425

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1930	0.00	U	844	44	29-104	47 *	0-30
88-75-5	MSD 2-Nitrophenol	1930	0.00	U	929	48	26-102	44 *	0-30
105-67-9	MSD 2,4-Dimethylphenol	1930	0.00	U	2000	104	22-104	53 *	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1930	0.00	U	844	44	27-101	46 *	0-30
120-83-2	MSD 2,4-Dichlorophenol	1930	0.00	U	868	45	26-103	40 *	0-30
65-85-0	MSD Benzoic acid	3870	0.00	U	2040	53	13-131	38 *	0-30
91-20-3	MSD Naphthalene	1930	0.00	U	756	39	23-103	40 *	0-30
106-47-8	MSD 4-Chloroaniline	1930	0.00	U	865	45	26-103	46 *	0-30
87-68-3	MSD Hexachlorobutadiene	1930	0.00	U	784	41	28-101	36 *	0-30
91-57-6	MSD 2-Methylnaphthalene	1930	0.00	U	867	45	27-106	44 *	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1930	0.00	U	514	27	24-117	31 *	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1930	0.00	U	954	49	26-105	56 *	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1930	0.00	U	961	50	30-110	36 *	0-30
91-58-7	MSD 2-Chloronaphthalene	1930	0.00	U	899	46	28-102	44 *	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1930	0.00	U	1470	76	33-106	60 *	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1930	0.00	U	892	46	33-116	41 *	0-30
131-11-3	MSD Dimethylphthalate	1930	0.00	U	998	52	38-113	42 *	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1930	0.00	U	955	49	29-107	48 *	0-30
208-96-8	MSD Acenaphthylene	1930	0.00	U	956	49	25-108	46 *	0-30
51-28-5	MSD 2,4-Dinitrophenol	1930	0.00	U	748	39	14-102	28	0-30
132-64-9	MSD Dibenzofuran	1930	0.00	U	1020	53	35-112	44 *	0-30
84-66-2	MSD Diethylphthalate	1930	0.00	U	1020	53	36-122	43 *	0-30

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2264

Client ID: RE46-10-13553MSD

Lab Sample ID: 1202071496

Instrument: MSD6.I

Analyst: NAG1

Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate

Matrix: S

%Moisture: 13.9

Analysis Date: 03/20/2010 23:07

Dilution: 1

Prep Batch ID: 965424

Batch ID: 965425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1930	0.00	U	919	48	33-105	44 *	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1930	0.00	U	1050	54	30-110	46 *	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1930	0.00	U	785	41	26-97	28	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1930	0.00	U	998	52	28-135	36 *	0-30
122-39-4	MSD	Diphenylamine	1930	0.00	U	1020	53	33-109	44 *	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1930	0.00	U	924	48	31-113	44 *	0-30
101-55-3	MSD	4-Bromophenylphenylether	1930	0.00	U	1060	55	31-109	44 *	0-30
118-74-1	MSD	Hexachlorobenzene	1930	0.00	U	1070	55	37-99	43 *	0-30
85-01-8	MSD	Phenanthrene	1930	0.00	U	908	47	29-109	41 *	0-30
120-12-7	MSD	Anthracene	1930	0.00	U	930	48	19-118	39 *	0-30
84-74-2	MSD	Di-n-butylphthalate	1930	0.00	U	970	50	39-123	41 *	0-30
206-44-0	MSD	Fluoranthene	1930	0.00	U	986	51	33-114	42 *	0-30
85-68-7	MSD	Butylbenzylphthalate	1930	0.00	U	977	51	35-131	42 *	0-30
56-55-3	MSD	Benzo(a)anthracene	1930	0.00	U	939	49	30-111	42 *	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1930	0.00	U	995	51	30-124	56 *	0-30
218-01-9	MSD	Chrysene	1930	0.00	U	1010	52	32-108	43 *	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1930	236	J	1120	46	37-129	42 *	0-30
117-84-0	MSD	Di-n-octylphthalate	1930	0.00	U	1030	53	31-143	19	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1930	0.00	U	940	49	29-118	31 *	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1930	0.00	U	1160	60	32-118	40 *	0-30
50-32-8	MSD	Benzo(a)pyrene	1930	0.00	U	1010	52	33-115	44 *	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1930	0.00	U	903	47	29-114	66 *	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: RE46-10-13553MSD
Lab Sample ID: 1202071496
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 13.9
Analysis Date: 03/20/2010 23:07
Prep Batch ID: 965424
Batch ID: 965425
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1930	0.00	U	919	48	27-119	63 *	0-30
191-24-2	MSD Benzo(ghi)perylene	1930	0.00	U	827	43	28-112	72 *	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1930	0.00	U	821	42	28-99	38 *	0-30

Method Blank Summary

SDG Number:	10-2264	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965424	Instrument ID:	MSD6.I	Data File:	s6c2009-1.d
Lab Sample ID:	1202071493	Prep Date:	03/16/2010 12:02	Analyzed:	03/20/10 17:42
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 965424	1202071494	s6c2010-1.d	03/20/10	1806
02 RE46-10-13203	248702001	s6c2011.d	03/20/10	1829
03 RE46-10-13202	248702002	s6c2012.d	03/20/10	1852

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2264

Instrument ID: MSD6.I **Injection Date/Time:** 16-MAR-10 08:42

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s031610.b/s6c1601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	53.3
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	50.4
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	52
197	0 - 1% of mass 198	0.8
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	22.3
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	76.8
442	Greater than 40% of mass 198	55.2
443	17 - 23% of mass 442	18.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100309-08	s6c1603.d	16-MAR-10 09:18
MEGA010	WBN100309-07	s6c1604.d	16-MAR-10 09:47
MEGA020	WBN100309-06	s6c1605.d	16-MAR-10 10:17
MEGA040	WBN100309-05.1	s6c1606.d	16-MAR-10 10:48
MEGA050	WBN100309-04	s6c1607.d	16-MAR-10 11:18
MEGA080	WBN100309-03	s6c1608.d	16-MAR-10 11:48
MEGA100	WBN100309-02	s6c1609.d	16-MAR-10 12:18
MEGA120	WBN100309-01	s6c1610.d	16-MAR-10 12:48
MEGAICV	WBN100309-09.1	s6c1612.d	16-MAR-10 13:40

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2264

Instrument ID: MSD6.I **Injection Date/Time:** 16-MAR-10 16:06

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s031610.b/s6c1613.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	46.4
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43.8
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	48.2
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.4
365	Greater than 1% of mass 198	2.1
441	Present, but less than mass 443	74.3
442	Greater than 40% of mass 198	65.5
443	17 - 23% of mass 442	19.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN100312-01	s6c1615.d	16-MAR-10 16:42
AP020	WBN100312-02	s6c1616.d	16-MAR-10 17:06
AP040	WBN100312-03.1	s6c1617.d	16-MAR-10 17:30
AP050	WBN100312-04	s6c1618.d	16-MAR-10 17:53
AP080	WBN100312-05	s6c1619.d	16-MAR-10 18:16
AP100	WBN100312-06	s6c1620.d	16-MAR-10 18:40
AP120	WBN100312-07	s6c1621.d	16-MAR-10 19:04
APICV	WBN100312-08.1	s6c1635.d	17-MAR-10 00:41

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2264

Instrument ID: MSD6.I **Injection Date/Time:** 20-MAR-10 14:38

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s032010.b/s6c2003.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	42.9
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	41.5
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	47.3
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	24.1
365	Greater than 1% of mass 198	2
441	Present, but less than mass 443	74.8
442	Greater than 40% of mass 198	70.8
443	17 - 23% of mass 442	19.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
APCVS	WBN100312-03.3	s6c2005.d	20-MAR-10 15:22
MEGACVS	WBN100309-05.3	s6c2006.d	20-MAR-10 15:45
SBLK01	1202071493	s6c2009-1.d	20-MAR-10 17:42
SBLK01LCS	1202071494	s6c2010-1.d	20-MAR-10 18:06
RE46-10-13203	248702001	s6c2011.d	20-MAR-10 18:29
RE46-10-13202	248702002	s6c2012.d	20-MAR-10 18:52

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2264

Instrument: MSD6.I

STD Analysis Time: 20-MAR-10 15:45

GC Column: J&W DB-5MS

Data File: s6c2006.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT	Area	#	RT	Area	#	RT	Area	#	RT	Area	#	RT	Area	#	RT
12 Hour STD	322202		3.86	1215321		4.73	685274		5.99	1152765		7.15	953837		9.55	730562		11.2
Upper Limit	644404		4.36	2430642		5.23	1370548		6.49	2305530		7.65	1907674		10.1	1461124		11.7
Lower Limit	161101		3.36	607661		4.23	342637		5.49	576383		6.65	476919		9.05	365281		10.7
Sample ID																		
BLK01	397721		3.88	1424092		4.74	893608		5.99	1517057		7.16	1386290		9.56	1218363		11.2
BLK01LCS	372664		3.87	1418901		4.74	821866		5.99	1405089		7.16	1211561		9.57	1059467		11.2
RE46-10-13203	379825		3.87	1351438		4.74	810596		5.99	1393547		7.16	1072210		9.56	682692		11.2
RE46-10-13202	397578		3.87	1416429		4.74	867435		5.99	1476844		7.16	1254774		9.56	909605		11.2

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702002**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**21.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13202**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 18:52**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2012.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	423	ug/kg	84.6	423
108-95-2	Phenol	U	423	ug/kg	84.6	423
95-57-8	2-Chlorophenol	U	423	ug/kg	84.6	423
106-46-7	1,4-Dichlorobenzene	U	423	ug/kg	84.6	423
621-64-7	N-Nitrosodipropylamine	U	423	ug/kg	84.6	423
59-50-7	4-Chloro-3-methylphenol	U	423	ug/kg	84.6	423
83-32-9	Acenaphthene	U	42.3	ug/kg	14.0	42.3
121-14-2	2,4-Dinitrotoluene	U	423	ug/kg	42.3	423
100-02-7	4-Nitrophenol	U	423	ug/kg	140	423
87-86-5	Pentachlorophenol	U	423	ug/kg	106	423
129-00-0	Pyrene	U	42.3	ug/kg	12.7	42.3
110-86-1	Pyridine	U	423	ug/kg	84.6	423
62-53-3	Aniline	U	423	ug/kg	127	423
111-44-4	bis(2-Chloroethyl) ether	U	423	ug/kg	84.6	423
541-73-1	1,3-Dichlorobenzene	U	423	ug/kg	84.6	423
100-51-6	Benzyl alcohol	U	423	ug/kg	127	423
95-50-1	1,2-Dichlorobenzene	U	423	ug/kg	84.6	423
108-60-1	bis(2-Chloroisopropyl)ether	U	423	ug/kg	84.6	423
95-48-7	o-Cresol	U	423	ug/kg	84.6	423
65794-96-9	m,p-Cresols	U	423	ug/kg	127	423
67-72-1	Hexachloroethane	U	423	ug/kg	84.6	423
98-95-3	Nitrobenzene	U	423	ug/kg	84.6	423
78-59-1	Isophorone	U	423	ug/kg	84.6	423
88-75-5	2-Nitrophenol	U	423	ug/kg	84.6	423
105-67-9	2,4-Dimethylphenol	U	423	ug/kg	148	423
111-91-1	bis(2-Chloroethoxy)methane	U	423	ug/kg	84.6	423
120-83-2	2,4-Dichlorophenol	U	423	ug/kg	84.6	423
65-85-0	Benzoic acid	U	846	ug/kg	211	846
91-20-3	Naphthalene	U	42.3	ug/kg	12.7	42.3
106-47-8	4-Chloroaniline	U	423	ug/kg	84.6	423
87-68-3	Hexachlorobutadiene	U	423	ug/kg	84.6	423
91-57-6	2-Methylnaphthalene	U	42.3	ug/kg	8.46	42.3
77-47-4	Hexachlorocyclopentadiene	U	423	ug/kg	84.6	423
88-06-2	2,4,6-Trichlorophenol	U	423	ug/kg	84.6	423
95-95-4	2,4,5-Trichlorophenol	U	423	ug/kg	84.6	423
91-58-7	2-Chloronaphthalene	U	42.3	ug/kg	14.0	42.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	423	ug/kg	84.6	423
99-09-2	3-Nitroaniline	U	423	ug/kg	84.6	423

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702002**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**21.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13202**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 18:52**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2012.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	423	ug/kg	84.6	423
606-20-2	2,6-Dinitrotoluene	U	423	ug/kg	42.3	423
208-96-8	Acenaphthylene	U	42.3	ug/kg	12.7	42.3
51-28-5	2,4-Dinitrophenol	U	846	ug/kg	161	846
132-64-9	Dibenzofuran	U	423	ug/kg	84.6	423
84-66-2	Diethylphthalate	U	423	ug/kg	84.6	423
86-73-7	Fluorene	U	42.3	ug/kg	12.7	42.3
7005-72-3	4-Chlorophenylphenylether	U	423	ug/kg	84.6	423
534-52-1	2-Methyl-4,6-dinitrophenol	U	423	ug/kg	84.6	423
100-01-6	4-Nitroaniline	U	423	ug/kg	127	423
	p-Nitroaniline					
122-39-4	Diphenylamine	U	423	ug/kg	84.6	423
122-66-7	Azobenzene	U	423	ug/kg	84.6	423
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	423	ug/kg	84.6	423
118-74-1	Hexachlorobenzene	U	423	ug/kg	84.6	423
85-01-8	Phenanthrene	U	42.3	ug/kg	12.7	42.3
120-12-7	Anthracene	U	42.3	ug/kg	8.46	42.3
84-74-2	Di-n-butylphthalate	U	423	ug/kg	84.6	423
206-44-0	Fluoranthene	U	42.3	ug/kg	12.7	42.3
85-68-7	Butylbenzylphthalate	U	423	ug/kg	84.6	423
56-55-3	Benzo(a)anthracene	U	42.3	ug/kg	12.7	42.3
91-94-1	3,3'-Dichlorobenzidine	U	423	ug/kg	127	423
218-01-9	Chrysene	U	42.3	ug/kg	12.7	42.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	423	ug/kg	84.6	423
117-84-0	Di-n-octylphthalate	U	423	ug/kg	84.6	423
205-99-2	Benzo(b)fluoranthene	U	42.3	ug/kg	12.7	42.3
207-08-9	Benzo(k)fluoranthene	U	42.3	ug/kg	12.7	42.3
50-32-8	Benzo(a)pyrene	U	42.3	ug/kg	12.7	42.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.3	ug/kg	12.7	42.3
53-70-3	Dibenzo(a,h)anthracene	U	42.3	ug/kg	12.7	42.3
191-24-2	Benzo(ghi)perylene	U	42.3	ug/kg	12.7	42.3
120-82-1	1,2,4-Trichlorobenzene	U	423	ug/kg	84.6	423

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	1200	ug/kg		JA
	Unknown	7.59	310	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2012.d
Lab Smp Id: 248702002 Client Smp ID: RE46-10-13202
Inj Date : 20-MAR-2010 18:52
Operator : nagl Inst ID: MSD6.i
Smp Info : |248702002|965425|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6cl646.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2264.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	21.26750	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.869	3.863	(1.000)	397578	40.0000	
* 29 Naphthalene-d8	136	4.740	4.734	(1.000)	1416429	40.0000	
* 46 Acenaphthene-d10	164	5.993	5.987	(1.000)	867435	40.0000	
* 67 Phenanthrene-d10	188	7.157	7.145	(1.000)	1476844	40.0000	
* 91 Chrysene-d12	240	9.563	9.551	(1.000)	1254774	40.0000	
* 98 Perylene-d12	264	11.192	11.174	(1.000)	909605	40.0000	
$ 3 2-Fluorophenol	112	3.063	3.046	(0.792)	510094	46.1529	1950
$ 5 Phenol-d5	99	3.587	3.575	(0.927)	680206	48.3941	2050
$ 20 Nitrobenzene-d5	82	4.234	4.228	(0.893)	294887	21.7787	921
$ 39 2-Fluorobiphenyl	172	5.481	5.475	(0.915)	590324	26.3773	1120
$ 60 2,4,6-Tribromophenol	329	6.587	6.575	(1.099)	181078	74.3909	3150
$ 81 p-Terphenyl-d14	244	8.534	8.522	(0.892)	880828	40.2838	1700

ION RATIO REPORT

SV REPORT

Data file: s6c2012.d
Report Date: 03/21/2010 07:44
Lab. ID: 248702002 SampleType: SAMPLE
Injection Date: 20-MAR-2010 18:52
Operator: nagl Instrument: MSD6.i
Sample Info: |248702002|965425|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100319-01
Comment:
Method used: /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2264
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	34683	3.59	3.65	80-120	100	( )
93	310	3.55	3.65	387-447	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	43135	4.23	4.10	80-120	100	(T)
42	25277	4.23	4.10	40-100	59	(T)
22 Isophorone			CAS#: 78-59-1			
82	294887	4.23	4.39	80-120	100	(T)
138	7812	4.74	4.39	0- 49	3	(T)
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	809969	5.99	5.58	80-120	100	(T)
164	867435	5.99	5.58	4- 64	107	(QT)
127	2072	5.48	5.58	7- 67	0	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	158790	5.99	5.75	80-120	100	(T)
164	867435	5.99	5.75	0- 40	546	(QT)
45 Acenaphthylene				CAS#: 208-96-8		
152	32024	5.48	5.89	80-120	100	(T)
151	31782	5.48	5.89	0- 50	99	(QT)
153	9705	5.48	5.89	0- 44	30	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	116918	5.99	6.10	80-120	100	(T)
89	1272	5.99	6.10	39- 99	1	(QT)
63	1293	5.99	6.10	16- 76	1	(QT)
53 Fluorene			CAS#: 86-73-7			
166	11086	6.58	6.39	80-120	100	(T)
165	11117	6.58	6.39	61-121	100	(T)
167	3707	6.58	6.39	0- 44	33	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	537	6.59	6.40	80-120	100	(T)
105	1344	6.59	6.40	9- 69	250	(QT)
51	1230	6.58	6.40	36- 96	229	(QT)
61 4-Bromophenylphenylether			CAS#: 101-55-3			
248	12875	6.59	6.76	80-120	100	(T)
141	83525	6.58	6.76	43-103	649	(QT)
250	25919	6.59	6.76	68-128	201	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2012.d
Lab Smp Id: 248702002 Client Smp ID: RE46-10-13202
Inj Date : 20-MAR-2010 18:52
Operator : nag1 Inst ID: MSD6.i
Smp Info : |248702002|965425|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2264.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	21.26750	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.869	2439218	40.000
* 67 Phenanthrene-d10	7.157	4548300	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.899	1735343	28.4573597	1200	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
Unknown				CAS #:			
7.587	833437	7.32965193	310	0		0	67

Data File: /chem/MSD6.i/s032010.b/s6c2012.d

Date : 20-MAR-2010 18:52

Client ID: RE46-10-13202

Sample Info: 1248702002196542511SVMI11LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20

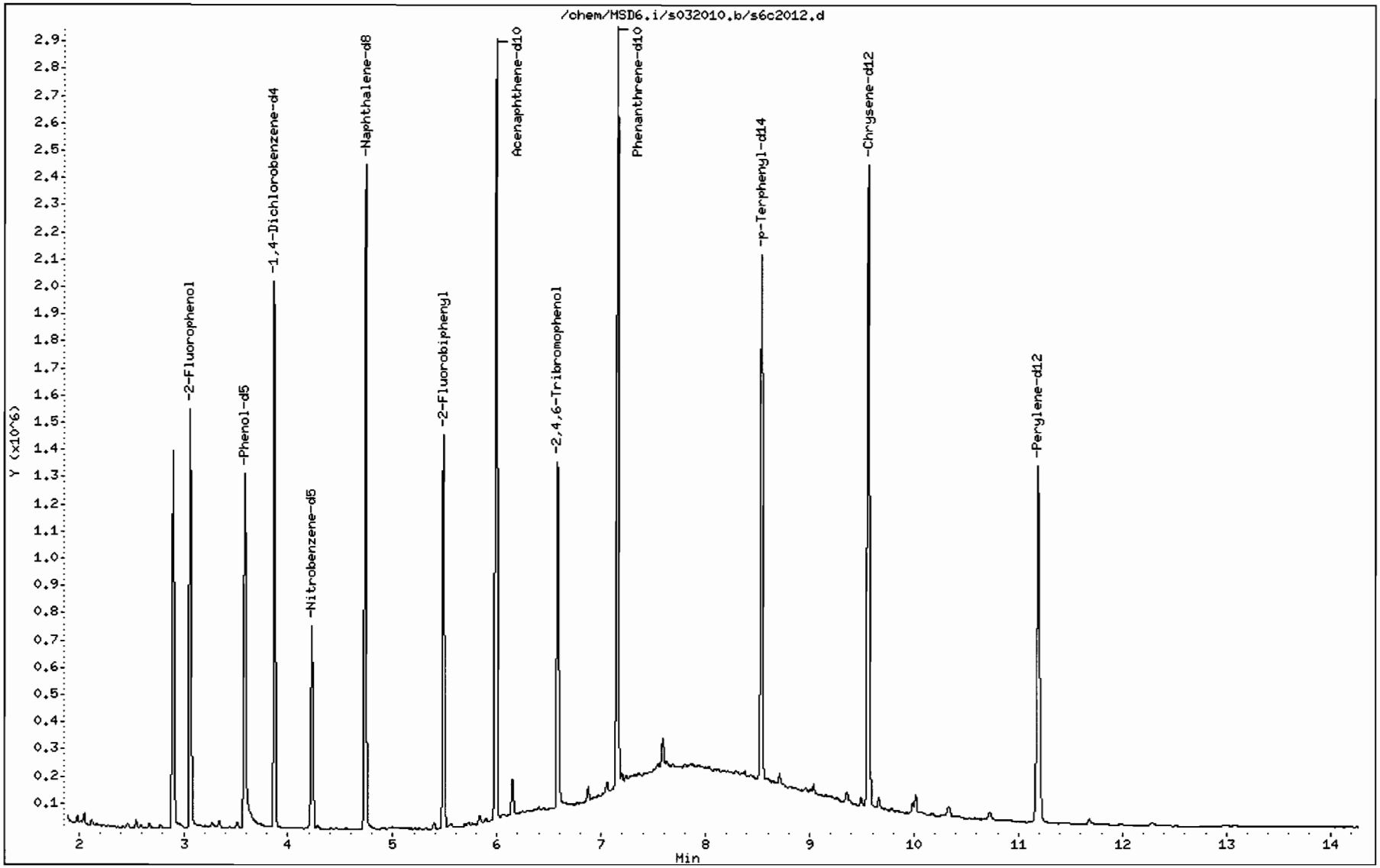

Data File: /chem/MSD6.i/s032010.b/s6c2012.d

Date : 20-MAR-2010 18:52

Client ID: RE46-10-13202

Instrument: MSD6.i

Sample Info: |2487020021965425|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	45	C6H12O2	116
Butyl aldoxime, 3-methyl-, syn-	5780-40-5	NIST05.L	4029	23	C5H11NO	101

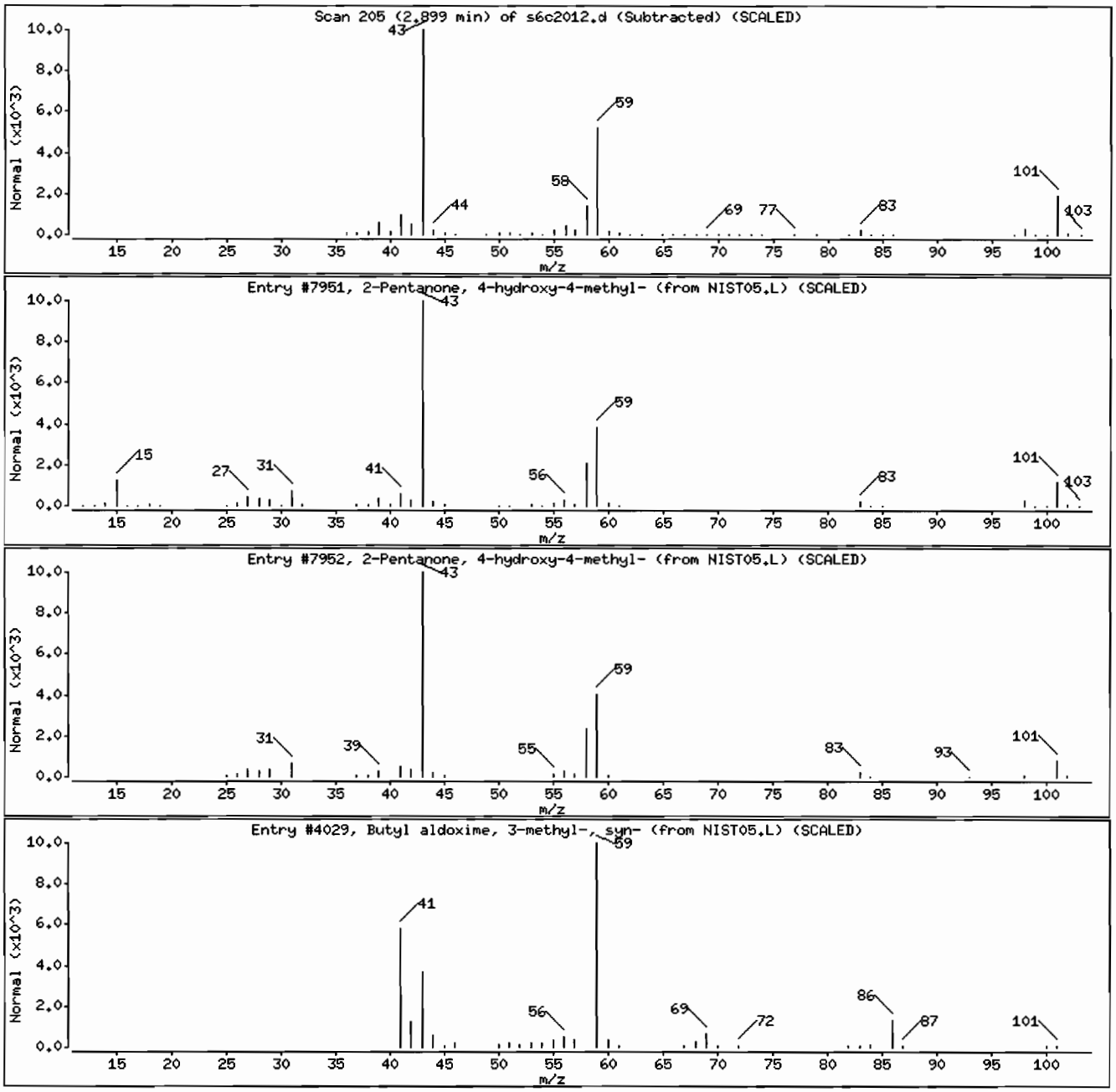

Data File: /chem/MSD6.i/s032010.b/s6c2012.d

Date : 20-MAR-2010 18:52

Client ID: RE46-10-13202

Instrument: MSD6.i

Sample Info: |2487020021965425|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	53	C18H3402	282
13-Tetradecen-1-ol acetate	56221-91-1	NIST05.L	94752	41	C16H3002	254
Pentadec-7-ene, 7-bromomethyl-	1000259-58-5	NIST05.L	125926	38	C16H31Br	302

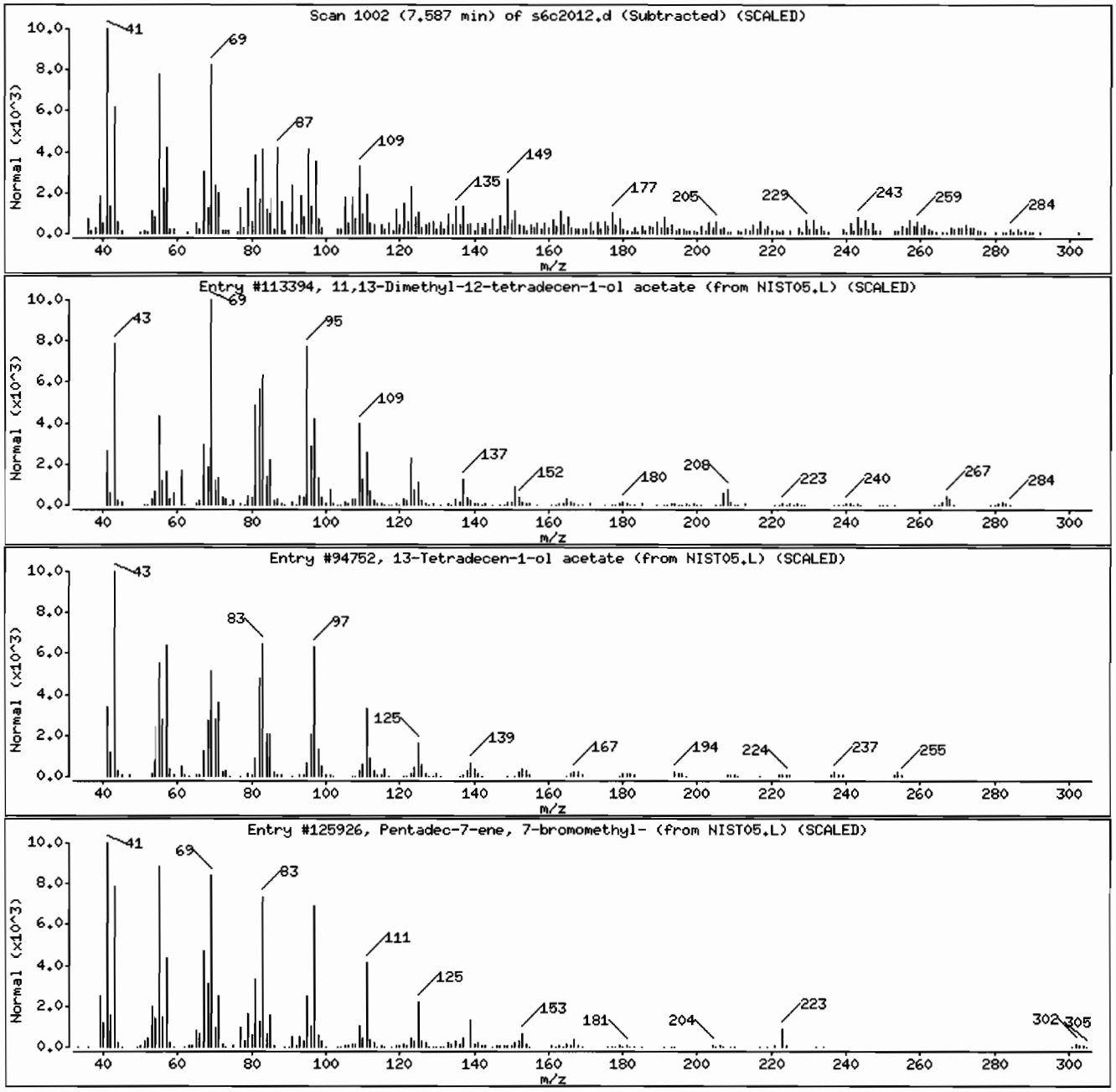

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702001	**Date Received:**	03/04/2010 08:50	**%Moisture:**	18.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13203	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/20/2010 18:29	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6c2011.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	410	ug/kg	82.0	410
108-95-2	Phenol	U	410	ug/kg	82.0	410
95-57-8	2-Chlorophenol	U	410	ug/kg	82.0	410
106-46-7	1,4-Dichlorobenzene	U	410	ug/kg	82.0	410
621-64-7	N-Nitrosodipropylamine	U	410	ug/kg	82.0	410
59-50-7	4-Chloro-3-methylphenol	U	410	ug/kg	82.0	410
83-32-9	Acenaphthene	U	41.0	ug/kg	13.5	41.0
121-14-2	2,4-Dinitrotoluene	U	410	ug/kg	41.0	410
100-02-7	4-Nitrophenol	U	410	ug/kg	135	410
87-86-5	Pentachlorophenol	U	410	ug/kg	103	410
129-00-0	Pyrene		532	ug/kg	12.3	41.0
110-86-1	Pyridine	U	410	ug/kg	82.0	410
62-53-3	Aniline	U	410	ug/kg	123	410
111-44-4	bis(2-Chloroethyl) ether	U	410	ug/kg	82.0	410
541-73-1	1,3-Dichlorobenzene	U	410	ug/kg	82.0	410
100-51-6	Benzyl alcohol	U	410	ug/kg	123	410
95-50-1	1,2-Dichlorobenzene	U	410	ug/kg	82.0	410
108-60-1	bis(2-Chloroisopropyl)ether	U	410	ug/kg	82.0	410
95-48-7	o-Cresol	U	410	ug/kg	82.0	410
65794-96-9	m,p-Cresols	U	410	ug/kg	123	410
67-72-1	Hexachloroethane	U	410	ug/kg	82.0	410
98-95-3	Nitrobenzene	U	410	ug/kg	82.0	410
78-59-1	Isophorone	U	410	ug/kg	82.0	410
88-75-5	2-Nitrophenol	U	410	ug/kg	82.0	410
105-67-9	2,4-Dimethylphenol	U	410	ug/kg	144	410
111-91-1	bis(2-Chloroethoxy)methane	U	410	ug/kg	82.0	410
120-83-2	2,4-Dichlorophenol	U	410	ug/kg	82.0	410
65-85-0	Benzoic acid	U	820	ug/kg	205	820
91-20-3	Naphthalene	U	41.0	ug/kg	12.3	41.0
106-47-8	4-Chloroaniline	U	410	ug/kg	82.0	410
87-68-3	Hexachlorobutadiene	U	410	ug/kg	82.0	410
91-57-6	2-Methylnaphthalene	U	41.0	ug/kg	8.20	41.0
77-47-4	Hexachlorocyclopentadiene	U	410	ug/kg	82.0	410
88-06-2	2,4,6-Trichlorophenol	U	410	ug/kg	82.0	410
95-95-4	2,4,5-Trichlorophenol	U	410	ug/kg	82.0	410
91-58-7	2-Chloronaphthalene	U	41.0	ug/kg	13.5	41.0
88-74-4	2-Nitroaniline	U	410	ug/kg	82.0	410
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	410	ug/kg	82.0	410

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702001**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**18.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13203**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 18:29**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2011.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	410	ug/kg	82.0	410
606-20-2	2,6-Dinitrotoluene	U	410	ug/kg	41.0	410
208-96-8	Acenaphthylene	U	41.0	ug/kg	12.3	41.0
51-28-5	2,4-Dinitrophenol	U	820	ug/kg	156	820
132-64-9	Dibenzofuran	U	410	ug/kg	82.0	410
84-66-2	Diethylphthalate	U	410	ug/kg	82.0	410
86-73-7	Fluorene	U	41.0	ug/kg	12.3	41.0
7005-72-3	4-Chlorophenylphenylether	U	410	ug/kg	82.0	410
534-52-1	2-Methyl-4,6-dinitrophenol	U	410	ug/kg	82.0	410
100-01-6	4-Nitroaniline	U	410	ug/kg	123	410
	p-Nitroaniline					
122-39-4	Diphenylamine	U	410	ug/kg	82.0	410
122-66-7	Azobenzene	U	410	ug/kg	82.0	410
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	410	ug/kg	82.0	410
118-74-1	Hexachlorobenzene	U	410	ug/kg	82.0	410
85-01-8	Phenanthrene		215	ug/kg	12.3	41.0
120-12-7	Anthracene	J	40.9	ug/kg	8.20	41.0
84-74-2	Di-n-butylphthalate	U	410	ug/kg	82.0	410
206-44-0	Fluoranthene		586	ug/kg	12.3	41.0
85-68-7	Butylbenzylphthalate	U	410	ug/kg	82.0	410
56-55-3	Benzo(a)anthracene		239	ug/kg	12.3	41.0
91-94-1	3,3'-Dichlorobenzidine	U	410	ug/kg	123	410
218-01-9	Chrysene		256	ug/kg	12.3	41.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	410	ug/kg	82.0	410
117-84-0	Di-n-octylphthalate	U	410	ug/kg	82.0	410
205-99-2	Benzo(b)fluoranthene		418	ug/kg	12.3	41.0
207-08-9	Benzo(k)fluoranthene	U	41.0	ug/kg	12.3	41.0
50-32-8	Benzo(a)pyrene		225	ug/kg	12.3	41.0
193-39-5	Indeno(1,2,3-cd)pyrene		108	ug/kg	12.3	41.0
53-70-3	Dibenzo(a,h)anthracene	U	41.0	ug/kg	12.3	41.0
191-24-2	Benzo(ghi)perylene		122	ug/kg	12.3	41.0
120-82-1	1,2,4-Trichlorobenzene	U	410	ug/kg	82.0	410

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	916	ug/kg		JA
192-97-2	Benzo[e]pyrene	10.72	317	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702001	**Date Received:**	03/04/2010 08:50	**%Moisture:**	18.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13203	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/20/2010 18:29	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6c2011.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.04	221	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2011.d
Lab Smp Id: 248702001 Client Smp ID: RE46-10-13203
Inj Date : 20-MAR-2010 18:29
Operator : nag1 Inst ID: MSD6.i
Smp Info : |248702001|965425|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2264.sub
Target Version: 3.50
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	18.69990	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.869	3.863	(1.000)	379825	40.0000	
* 29 Naphthalene-d8	136	4.740	4.734	(1.000)	1351438	40.0000	
* 46 Acenaphthene-d10	164	5.992	5.987	(1.000)	810596	40.0000	
* 67 Phenanthrene-d10	188	7.157	7.145	(1.000)	1393547	40.0000	
* 91 Chrysene-d12	240	9.563	9.551	(1.000)	1072210	40.0000	
* 98 Perylene-d12	264	11.192	11.174	(1.000)	682692	40.0000	
$ 3 2-Fluorophenol	112	3.063	3.046	(0.792)	405078	38.3642	1570
$ 5 Phenol-d5	99	3.587	3.575	(0.927)	555626	41.3784	1700
$ 20 Nitrobenzene-d5	82	4.234	4.228	(0.893)	236698	18.3219	751
$ 39 2-Fluorobiphenyl	172	5.481	5.475	(0.915)	482785	23.0848	946
$ 60 2,4,6-Tribromophenol	329	6.586	6.575	(1.099)	138757	61.0016	2500
$ 81 p-Terphenyl-d14	244	8.533	8.522	(0.892)	664583	35.5692	1460

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	8.428	8.422	(0.881)	423813	12.9663	532
68 Phenanthrene	178	7.175	7.169	(1.002)	177727	5.23407	214
69 Anthracene	178	7.216	7.210	(1.008)	34138	0.99796	40.9(a)
76 Fluoranthene	202	8.216	8.204	(1.148)	492278	14.2957	586
89 Benzo(a)anthracene	228	9.551	9.539	(0.999)	163076	5.82477	239
92 Chrysene	228	9.586	9.575	(1.002)	167179	6.25159	256
95 Benzo(b)fluoranthene	252	10.686	10.674	(0.955)	189355	10.2025	418
97 Benzo(a)pyrene	252	11.110	11.098	(0.993)	86220	5.48523	225
99 Indeno(1,2,3-cd)pyrene	276	12.892	12.880	(1.152)	37848	2.62403	108
101 Benzo(ghi)perylene	276	13.415	13.398	(1.199)	36643	2.97528	122

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s6c2011.d
Report Date: 03/21/2010 07:43
Lab. ID: 248702001 SampleType: SAMPLE
Injection Date: 20-MAR-2010 18:29
Operator: nagl Instrument: MSD6.i
Sample Info: |248702001|965425|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100319-01
Comment:
Method used: /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2264
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	29467	3.59	3.65	80-120	100	( )
93	2035	3.55	3.65	387-447	7	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	33759	4.23	4.10	80-120	100	(T)
42	20549	4.23	4.10	40-100	61	(T)
22 Isophorone			CAS#: 78-59-1			
82	236698	4.23	4.39	80-120	100	(T)
138	262	4.14	4.39	0- 49	0	(T)
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	762262	5.99	5.58	80-120	100	(T)
164	810596	5.99	5.58	4- 64	106	(QT)
127	168	6.02	5.58	7- 67	0	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	149170	5.99	5.75	80-120	100	(T)
164	810596	5.99	5.75	0- 40	543	(QT)
45 Acenaphthylene			CAS#: 208-96-8			
152	25944	5.48	5.89	80-120	100	(T)
151	26426	5.48	5.89	0- 50	102	(QT)
153	7949	5.48	5.89	0- 44	31	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	110193	5.99	6.10	80-120	100	(T)
89	1627	5.99	6.10	39- 99	1	(QT)
63	1881	5.99	6.10	16- 76	2	(QT)
53 Fluorene			CAS#: 86-73-7			
166	8885	6.58	6.39	80-120	100	(T)
165	8486	6.58	6.39	61-121	96	(T)
167	3247	6.58	6.39	0- 44	37	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	456	6.58	6.40	80-120	100	(T)
105	1139	6.58	6.40	9- 69	250	(QT)
51	976	6.58	6.40	36- 96	214	(QT)
68 Phenanthrene			CAS#: 85-01-8			
178	177727	7.17	7.17	80-120	100	( )
179	29656	7.17	7.17	0- 46	17	( )
176	33826	7.17	7.17	0- 49	19	( )
69 Anthracene			CAS#: 120-12-7			
178	34138	7.22	7.21	80-120	100	( )
179	7283	7.22	7.21	0- 47	21	( )
176	6230	7.22	7.21	0- 49	18	( )
76 Fluoranthene			CAS#: 206-44-0			
202	492278	8.22	8.20	80-120	100	( )
203	86328	8.22	8.20	0- 48	18	( )
101	50928	8.21	8.20	0- 40	10	( )
79 Pyrene			CAS#: 129-00-0			
202	423813	8.43	8.42	80-120	100	( )
200	89189	8.43	8.42	0- 51	21	( )
101	57714	8.43	8.42	0- 42	14	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	163076	9.55	9.54	80-120	100	( )
226	37766	9.55	9.54	0- 56	23	( )
229	44367	9.55	9.54	0- 50	27	( )
92 Chrysene			CAS#: 218-01-9			
228	167179	9.59	9.57	80-120	100	( )
229	39431	9.59	9.57	0- 50	24	( )
226	51013	9.59	9.57	0- 59	31	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	189355	10.69	10.67	80-120	100	( )
253	42396	10.69	10.67	0- 52	22	( )
125	20779	10.69	10.67	0- 40	11	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	189355	10.69	10.71	80-120	100	( )
253	42444	10.69	10.71	0- 52	22	( )
125	20779	10.69	10.71	0- 40	11	( )
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	86220	11.11	11.10	80-120	100	( )
253	18543	11.11	11.10	0- 52	22	( )
125	9125	11.11	11.10	0- 43	11	( )
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	37848	12.89	12.88	80-120	100	( )
138	9145	12.90	12.88	0- 57	24	( )
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	9594	12.91	12.90	80-120	100	( )
139	1336	12.91	12.90	0- 50	14	( )
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	36643	13.42	13.40	80-120	100	( )
138	10027	13.42	13.40	0- 59	27	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2011.d
Lab Smp Id: 248702001 Client Smp ID: RE46-10-13203
Inj Date : 20-MAR-2010 18:29
Operator : nagl Inst ID: MSD6.i
Smp Info : |248702001|965425|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2264.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	18.69990	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.869	2321927	40.000
* 98 Perylene-d12	11.192	2065001	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.898	1296603	22.3366736	916	0		0	10

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Benzo[e]pyrene					CAS #: 192-97-2		
10.716	399032	7.72942887	317	98	NIST05.L	93577	98
Unknown					CAS #:		
11.039	278376	5.39225761	221	0		0	98

Data File: /chem/MSD6.i/s032010.b/s6o2011.d
Date : 20-MAR-2010 18:29
Client ID: RE46-10-13203
Sample Info: 1248702001|965425|1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

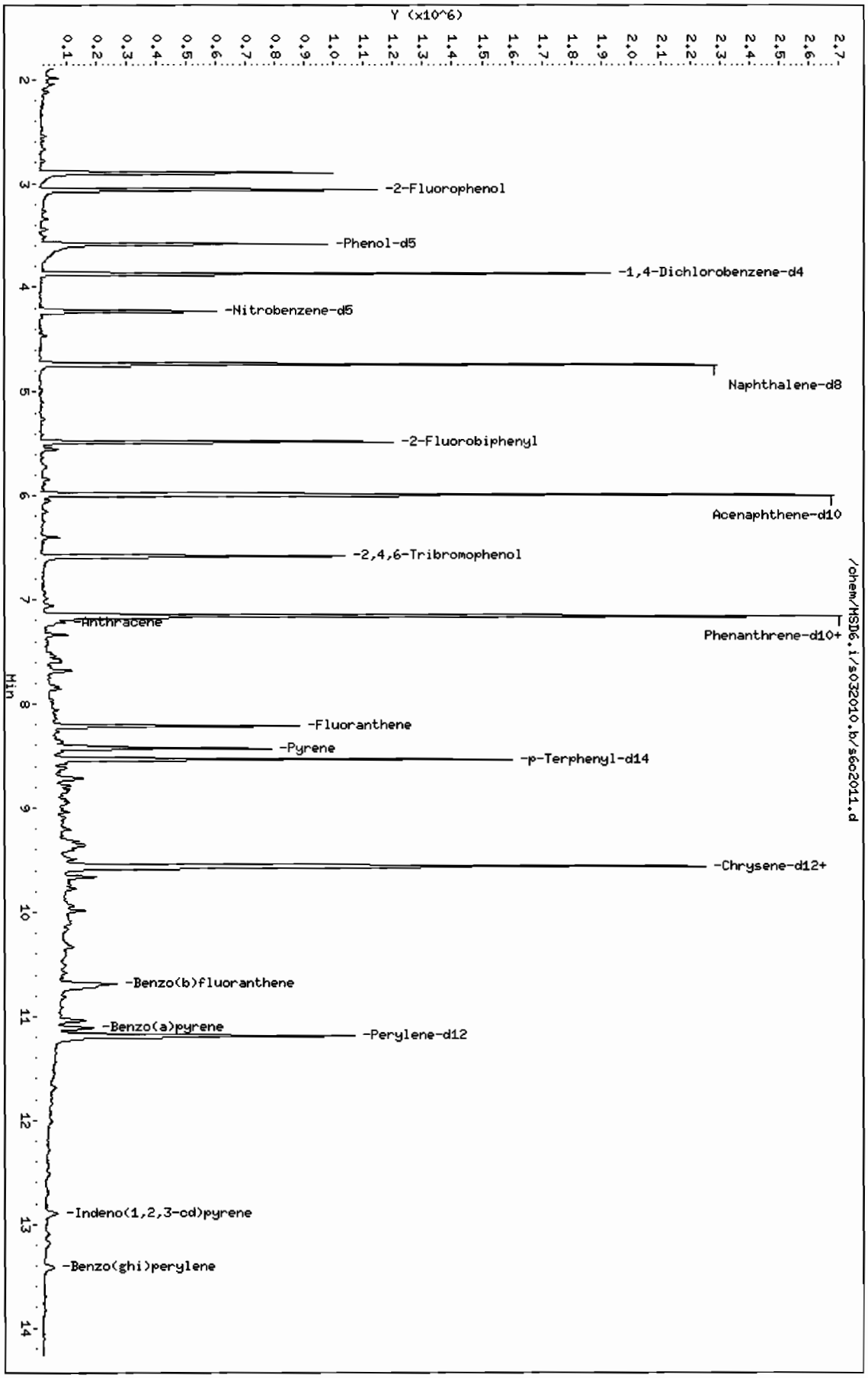

Data File: /chem/MSD6.i/s032010.b/s6c2011.d

Date : 20-MAR-2010 18:29

Client ID: RE46-10-13203

Instrument: MSD6.i

Sample Info: 1248702001|965425|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 532 ug/Kg

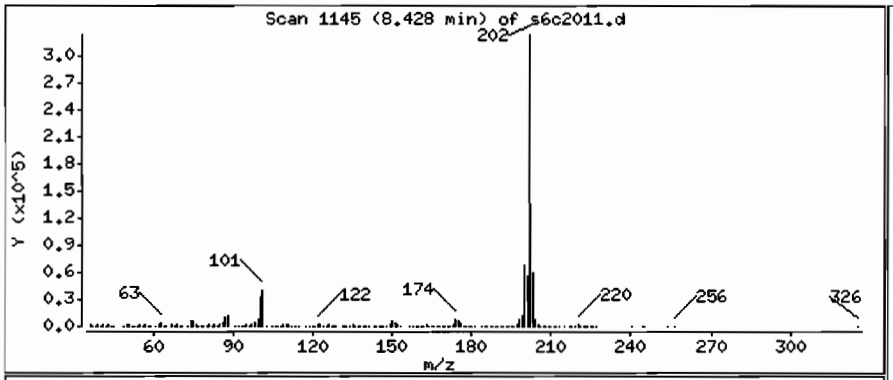

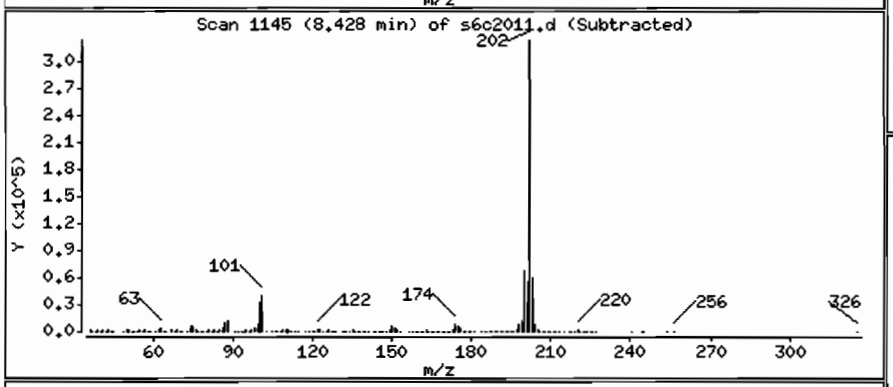

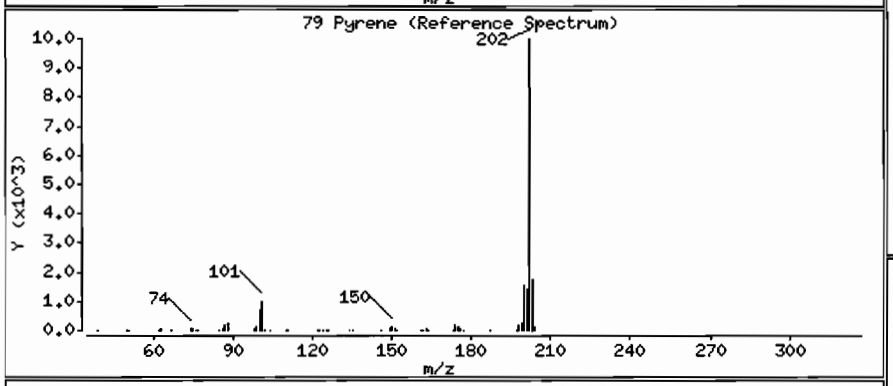

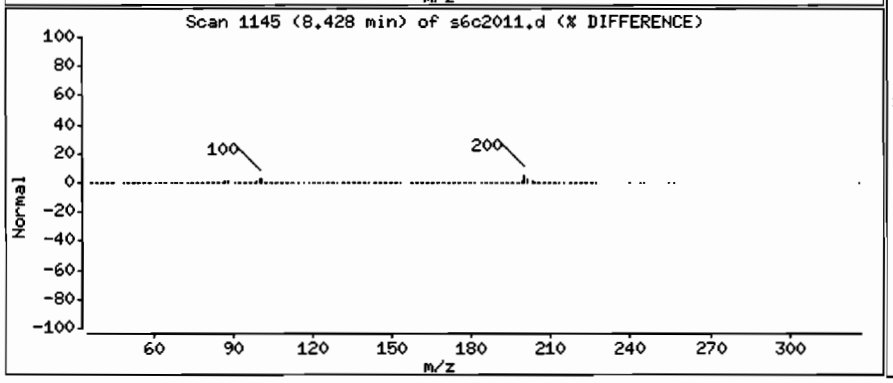

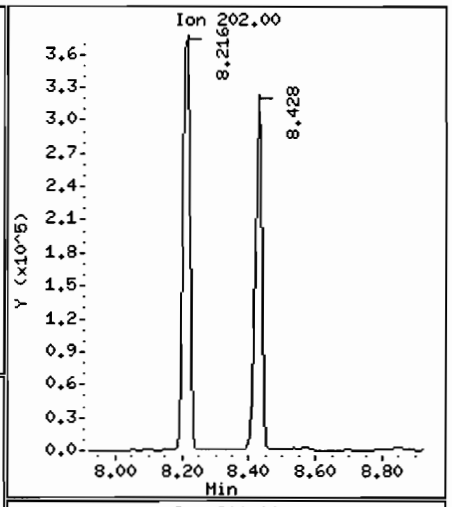

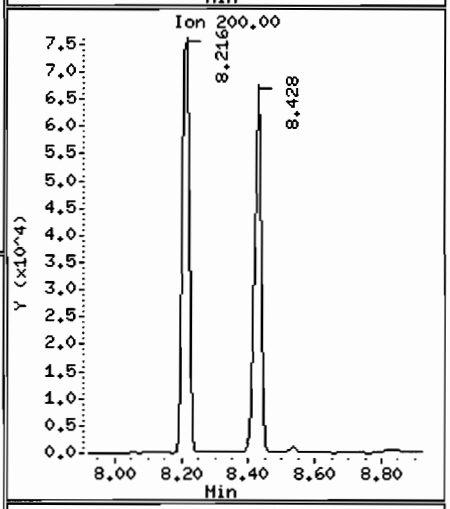

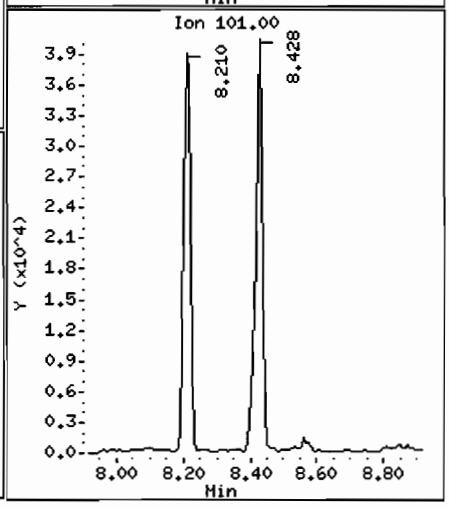

Data File: /chem/MSD6.i/s032010.b/s6c2011.d

Date : 20-MAR-2010 18:29

Client ID: RE46-10-13203

Instrument: MSD6.i

Sample Info: |2487020011965425|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 214 ug/Kg

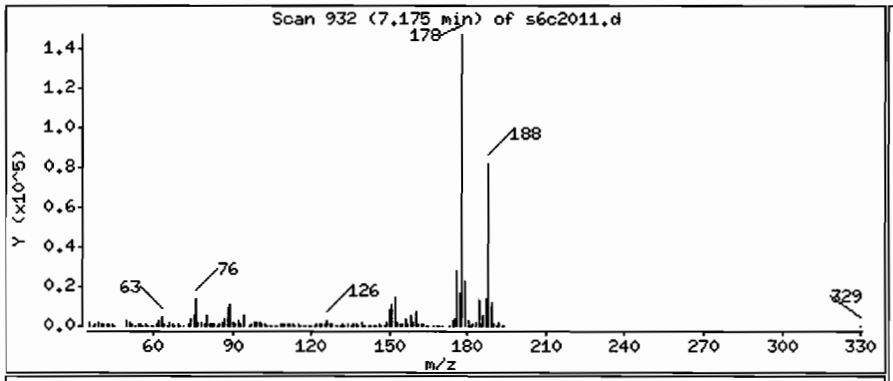

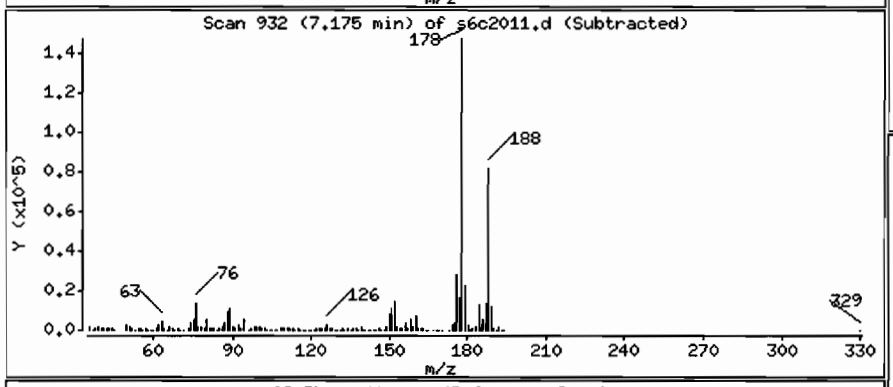

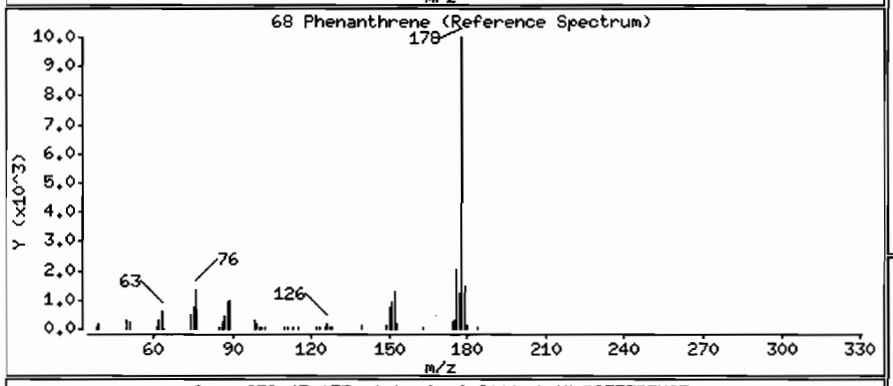

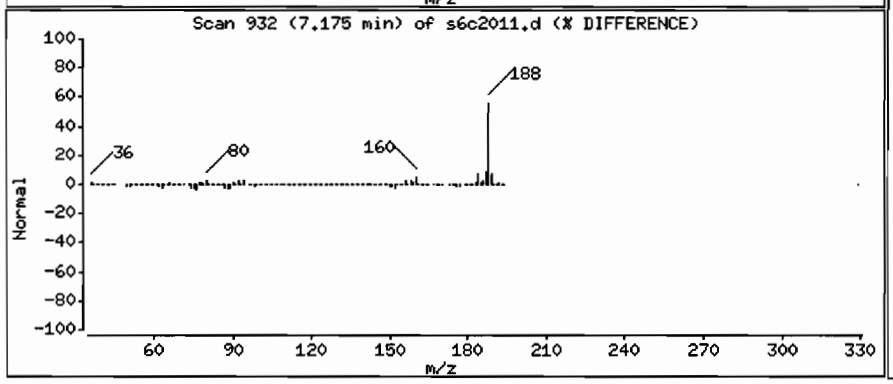

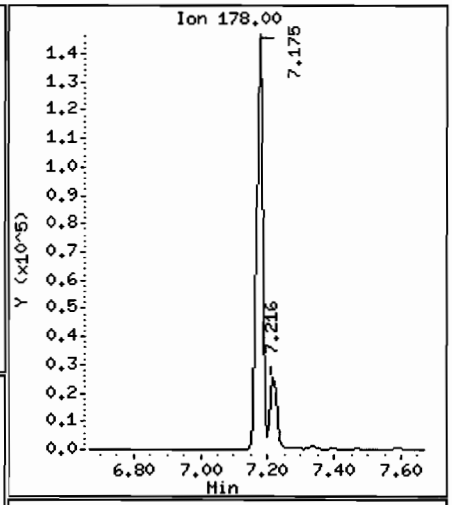

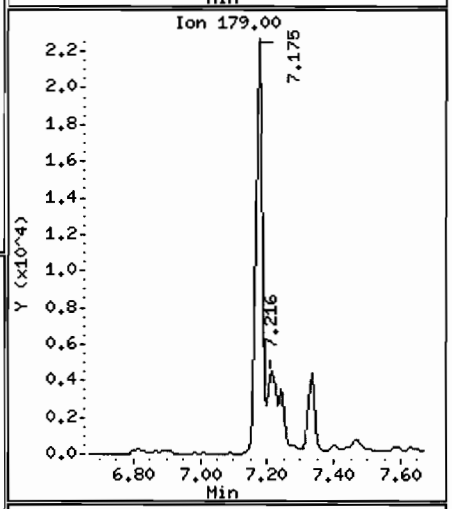

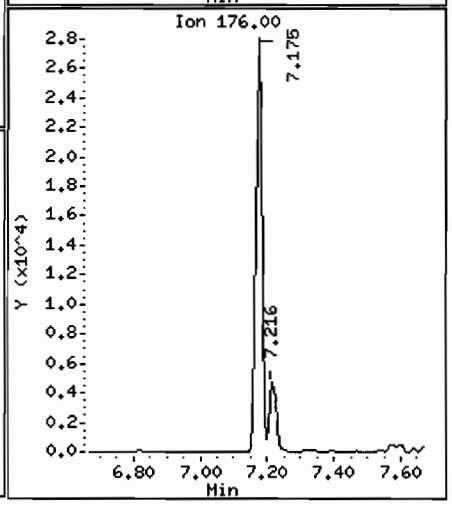

Data File: /chem/MSD6.i/s032010.b/s6c2011.d

Date : 20-MAR-2010 18:29

Client ID: RE46-10-13203

Instrument: MSD6.i

Sample Info: 1248702001|965425|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 40.9 ug/Kg

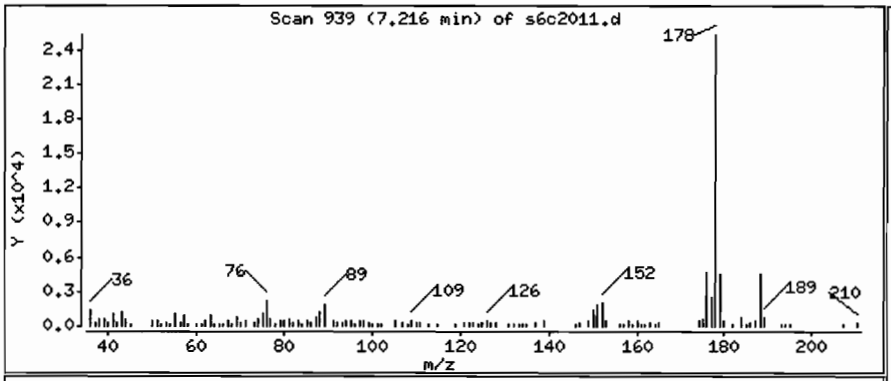

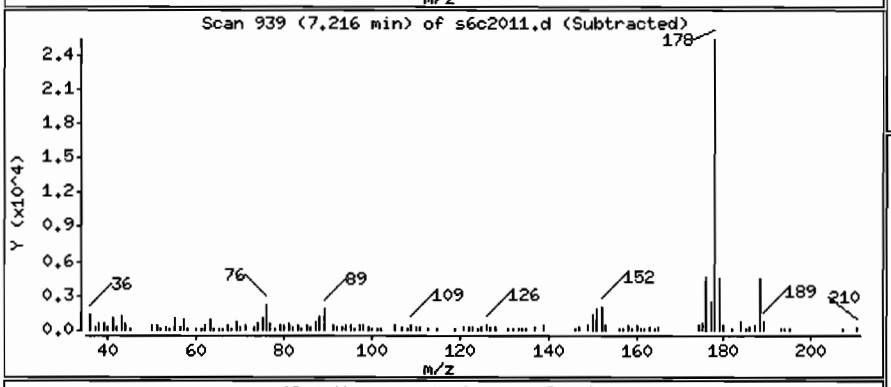

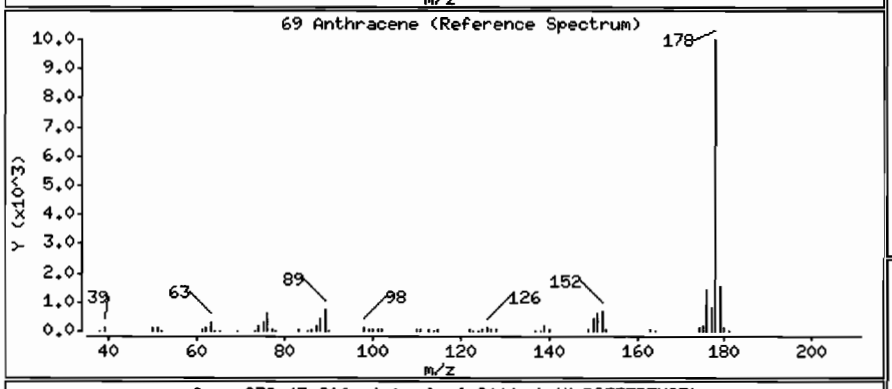

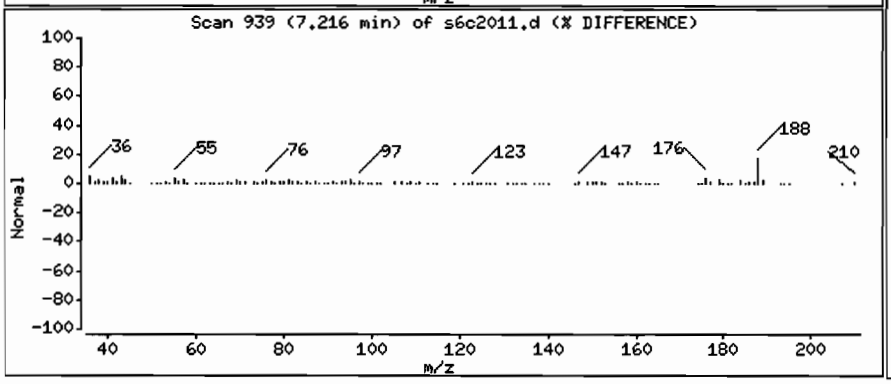

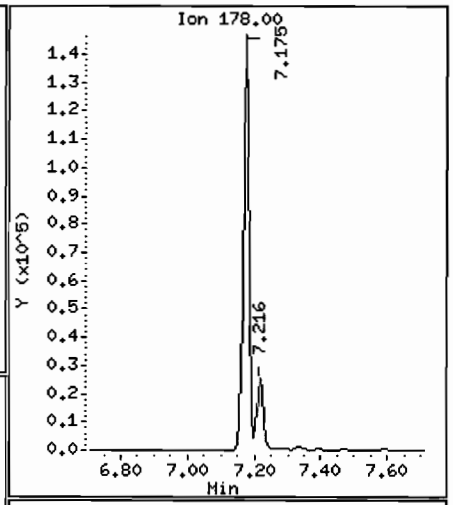

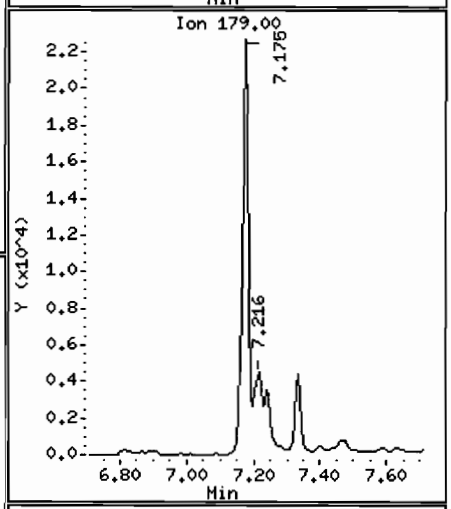

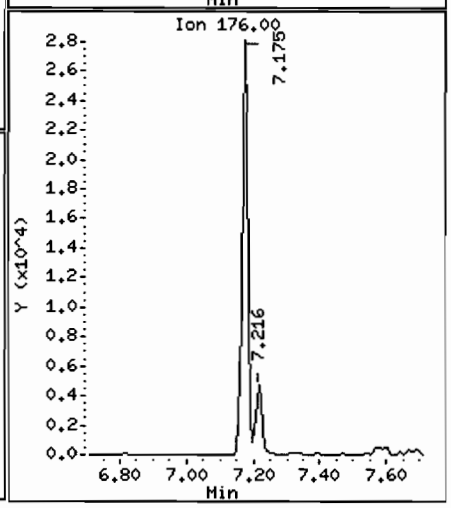

Data File: /chem/MSD6.i/s032010.b/s6c2011.d

Date : 20-MAR-2010 18:29

Client ID: RE46-10-13203

Instrument: MSD6.i

Sample Info: I2487020011965425I1ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 586 ug/Kg

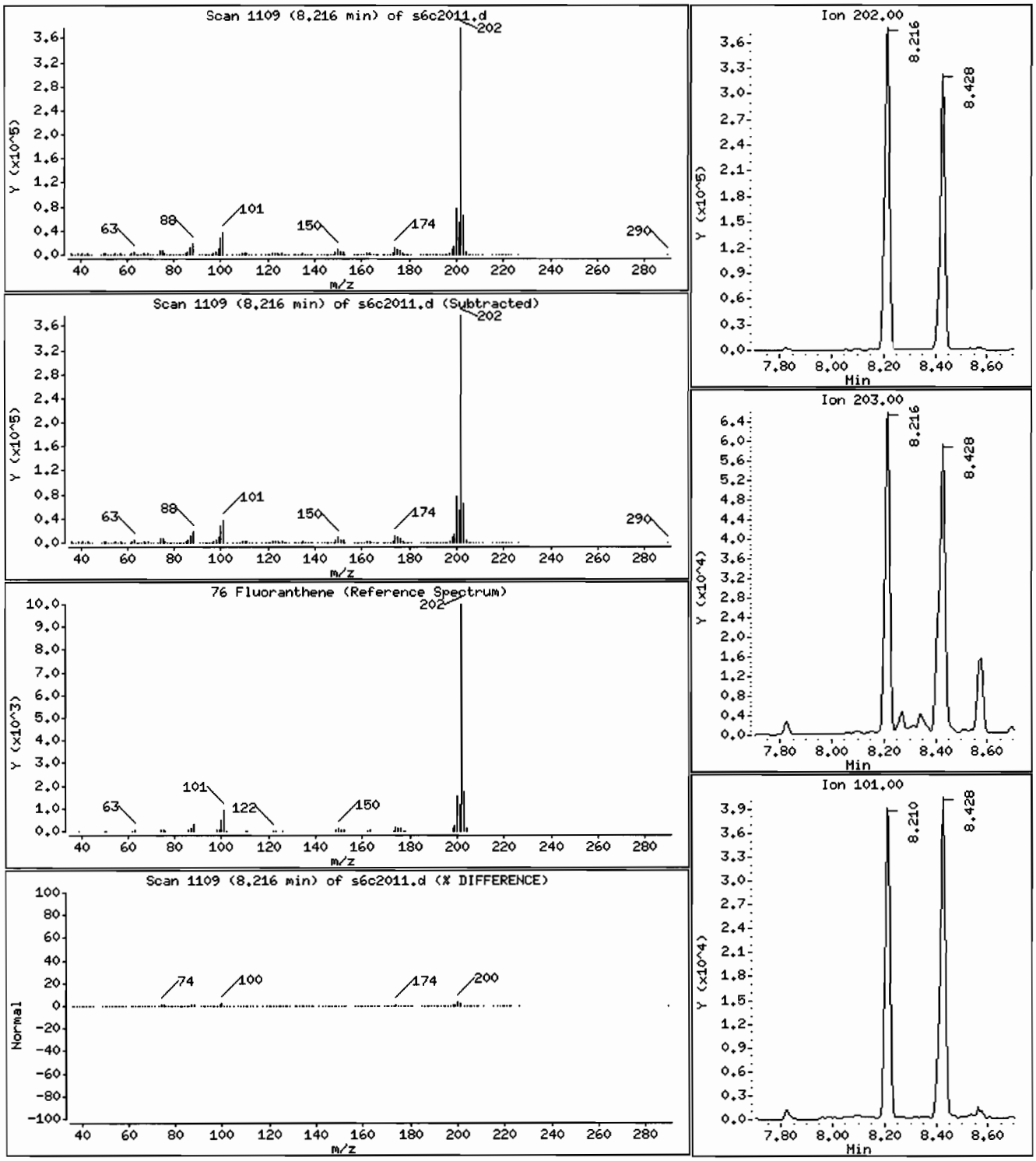

Data File: /chem/MSD6.i/s032010.b/s6c2011.d

Date : 20-MAR-2010 18:29

Client ID: RE46-10-13203

Instrument: MSD6.i

Sample Info: 1248702001|965425|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 239 ug/Kg

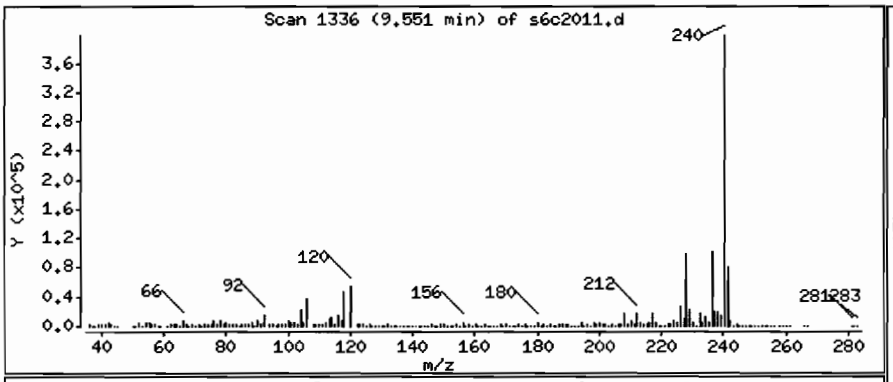

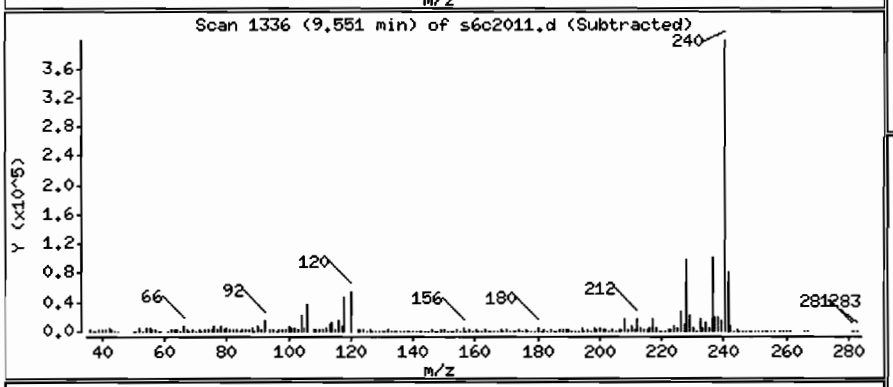

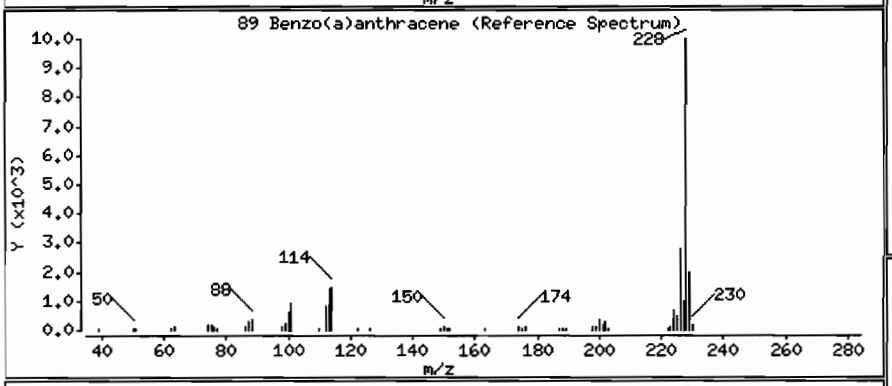

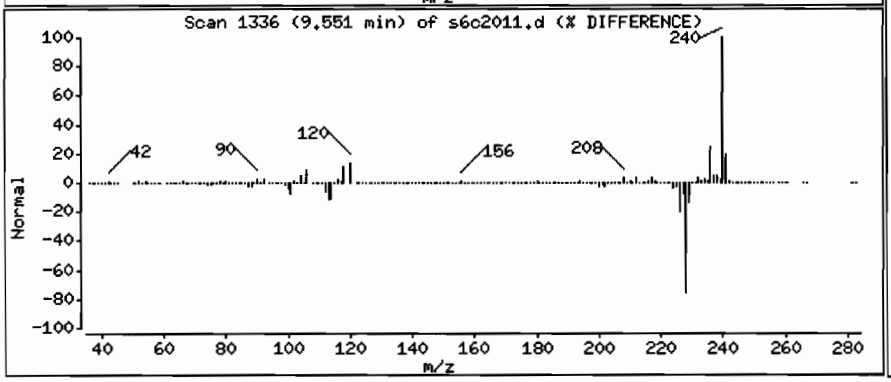

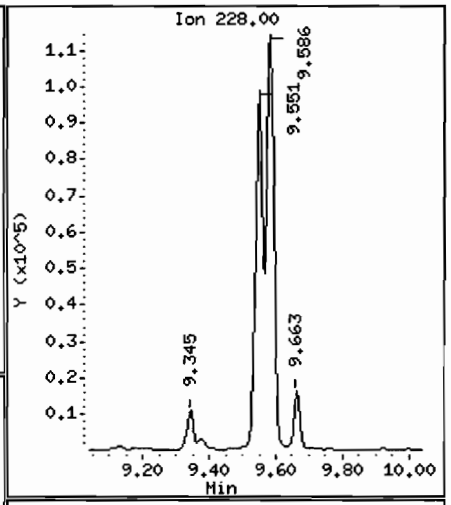

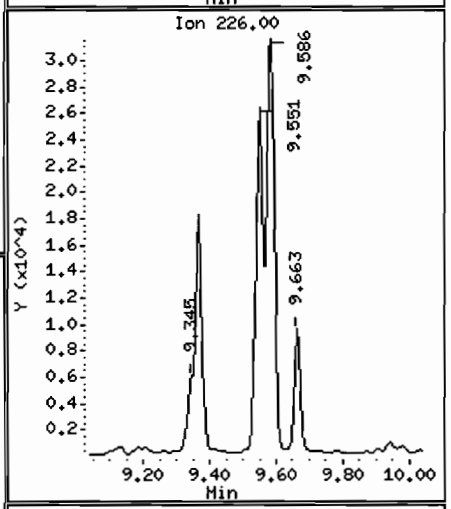

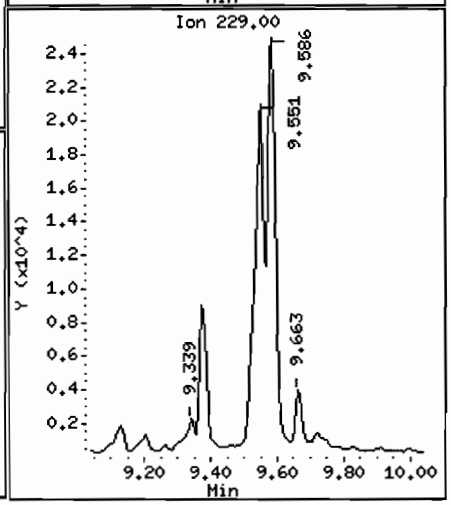

Data File: /chem/MSD6.i/s032010.b/s6c2011.d

Date : 20-MAR-2010 18:29

Client ID: RE46-10-13203

Instrument: MSD6.i

Sample Info: |2487020011965425|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 256 ug/Kg

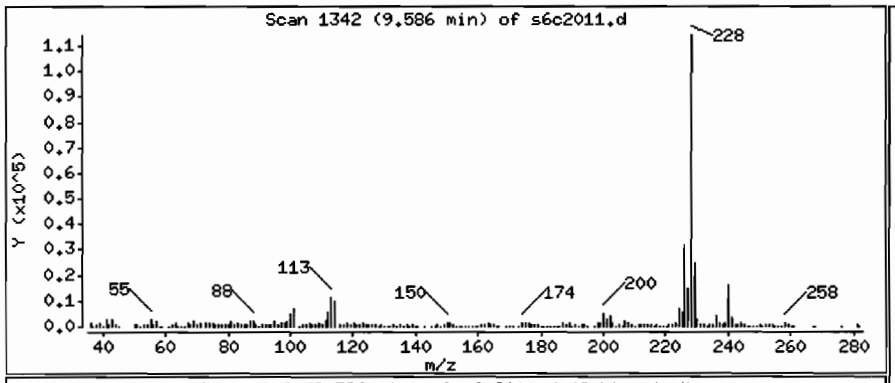

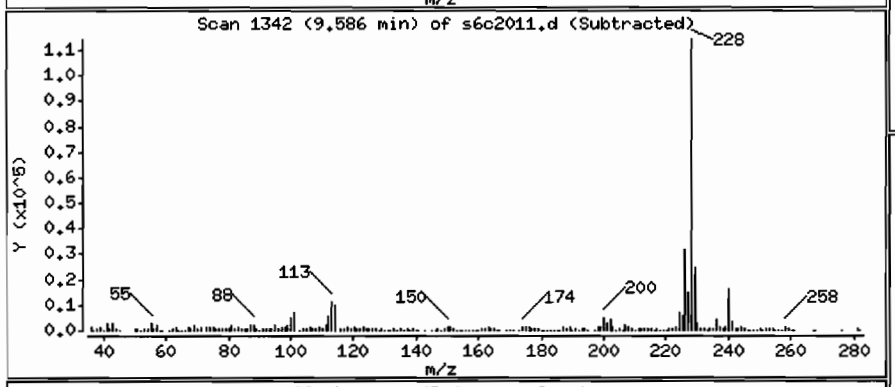

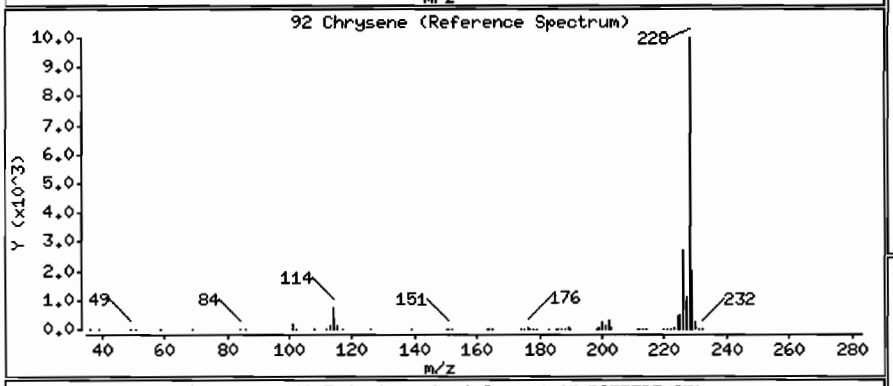

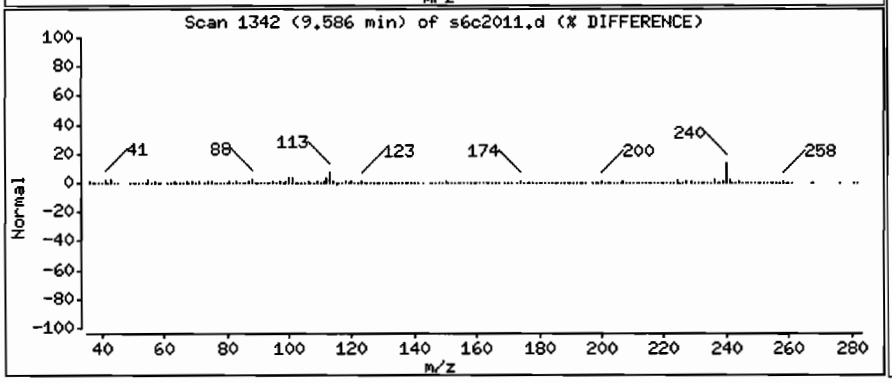

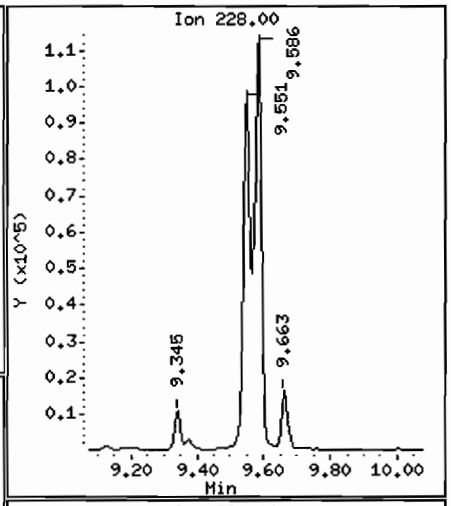

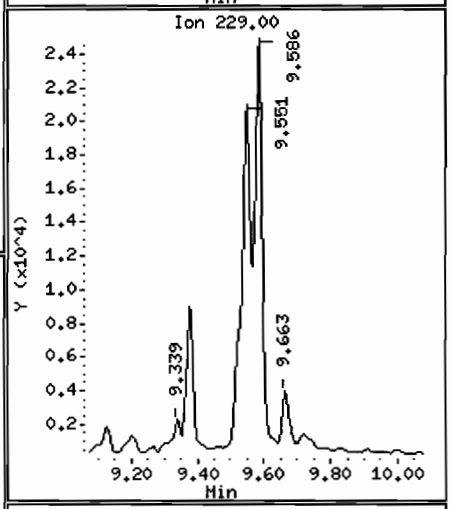

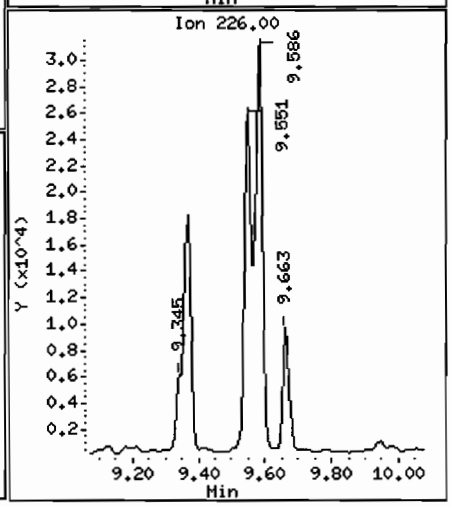

Data File: /chem/MSD6.i/s032010.b/s6c2011.d

Date : 20-MAR-2010 18:29

Client ID: RE46-10-13203

Instrument: MSD6.i

Sample Info: |2487020011965425|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 418 ug/Kg

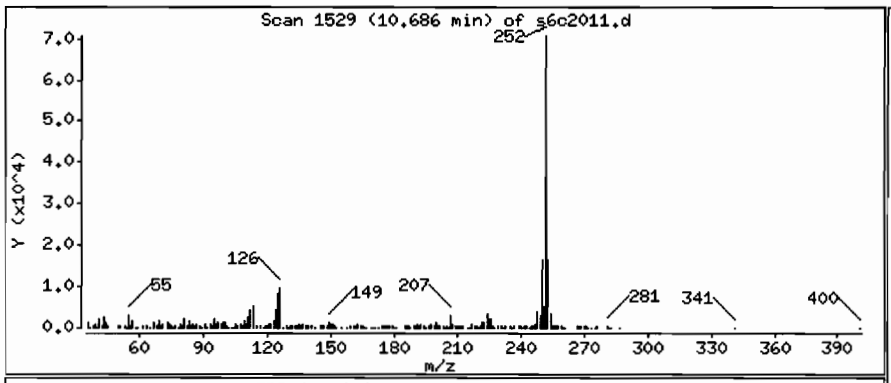

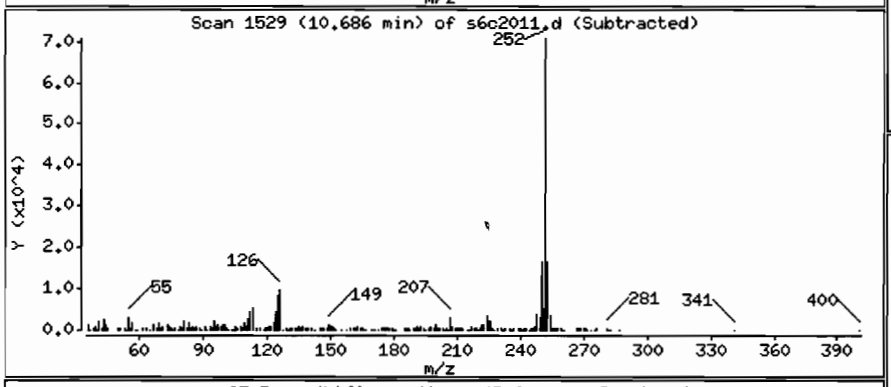

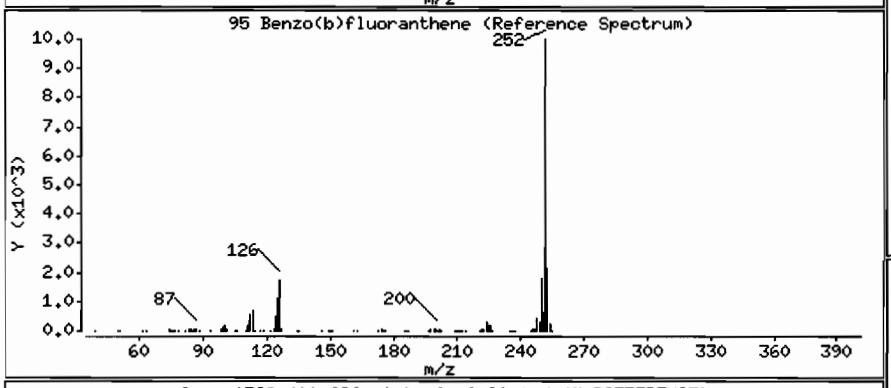

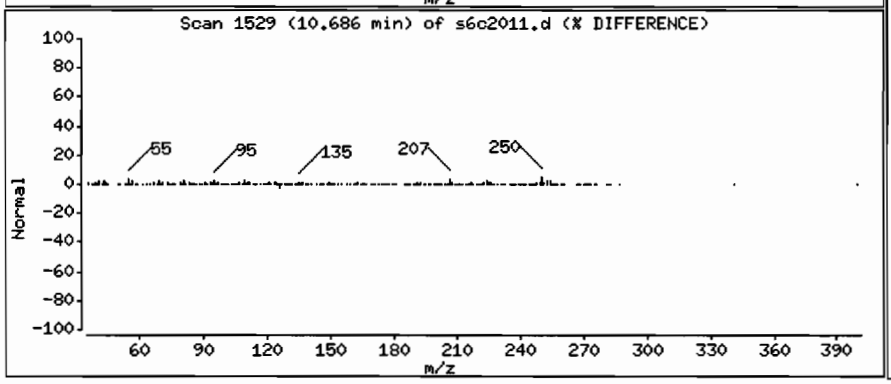

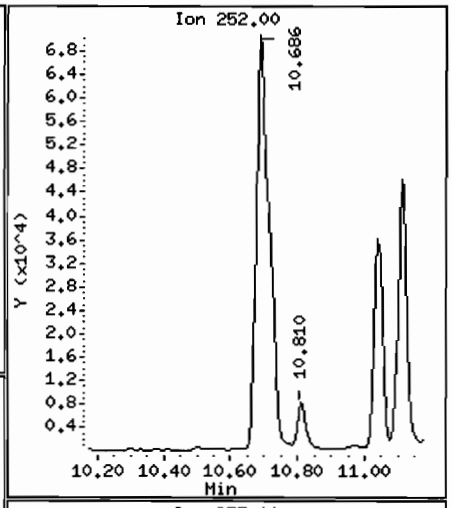

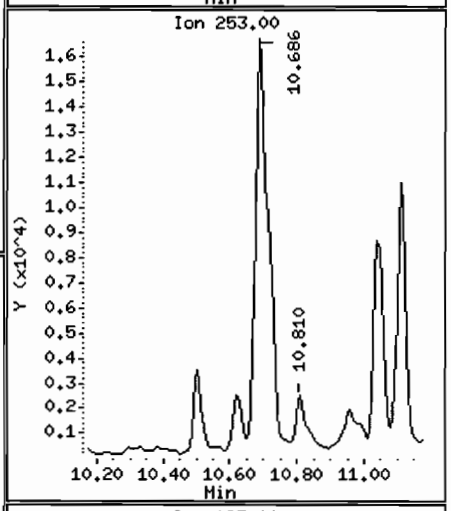

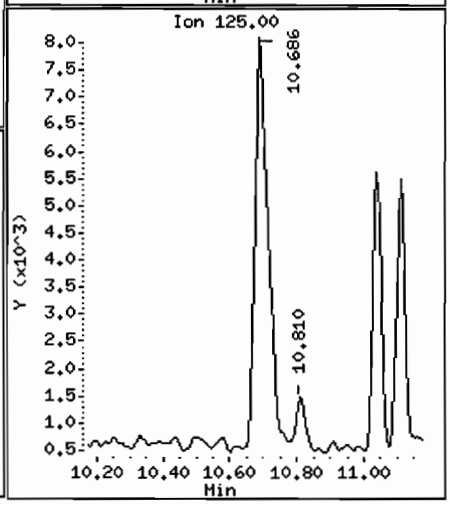

Data File: /chem/MSD6.i/s032010.b/s6c2011.d

Date : 20-MAR-2010 18:29

Client ID: RE46-10-13203

Instrument: MSD6.i

Sample Info: |2487020011965425|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 225 ug/Kg

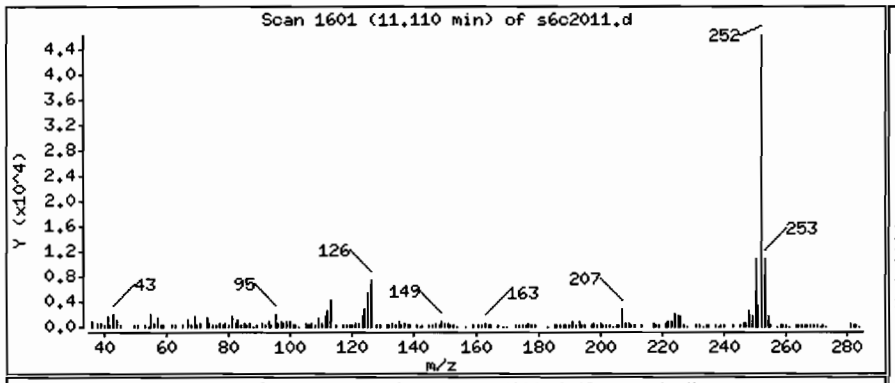

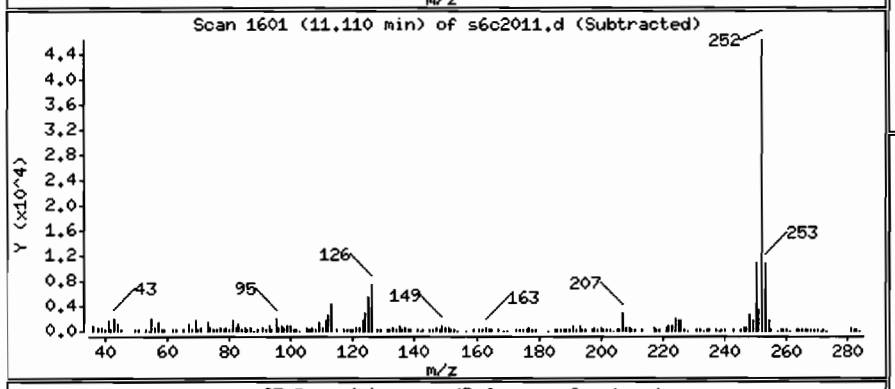

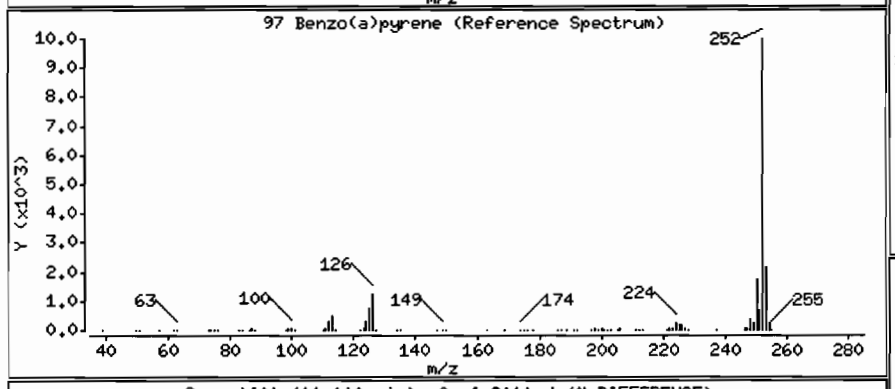

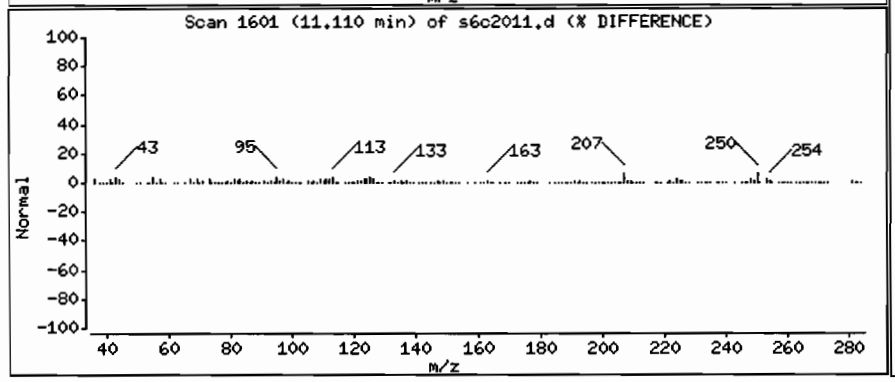

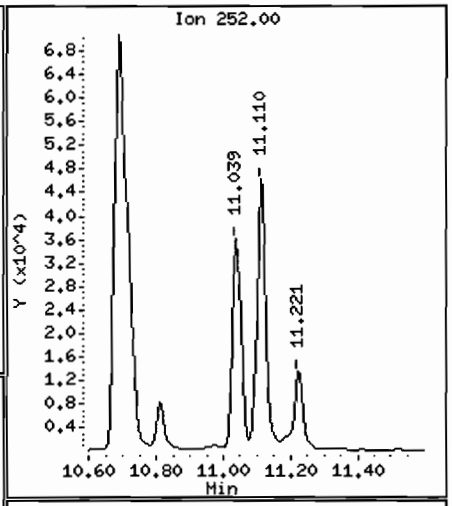

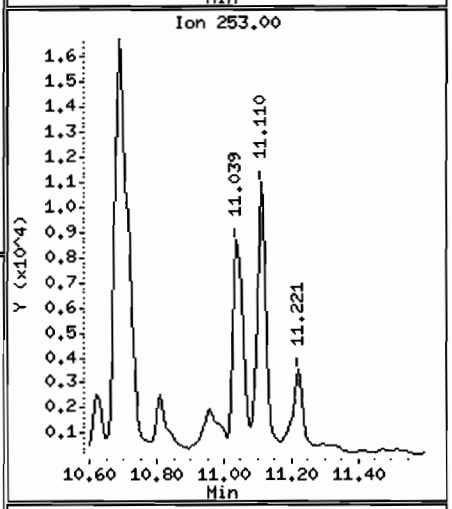

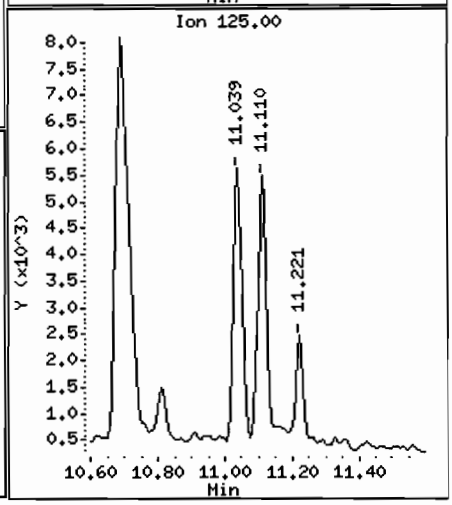

Data File: /chem/MSD6.i/s032010.b/s6c2011.d

Date : 20-MAR-2010 18:29

Client ID: RE46-10-13203

Instrument: MSD6.i

Sample Info: |2487020011965425|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 108 ug/Kg

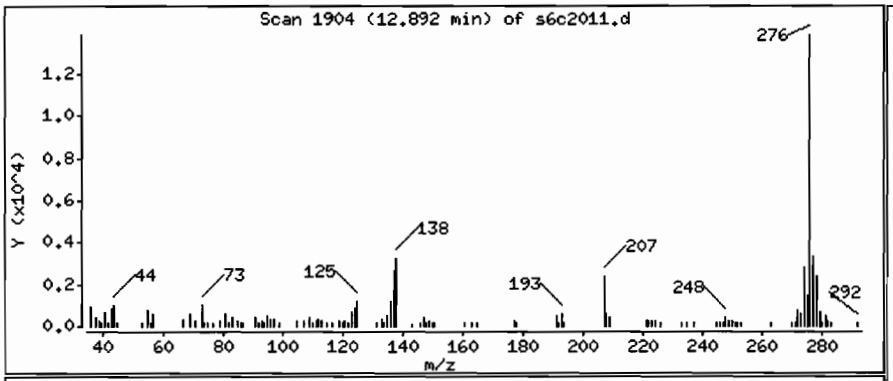

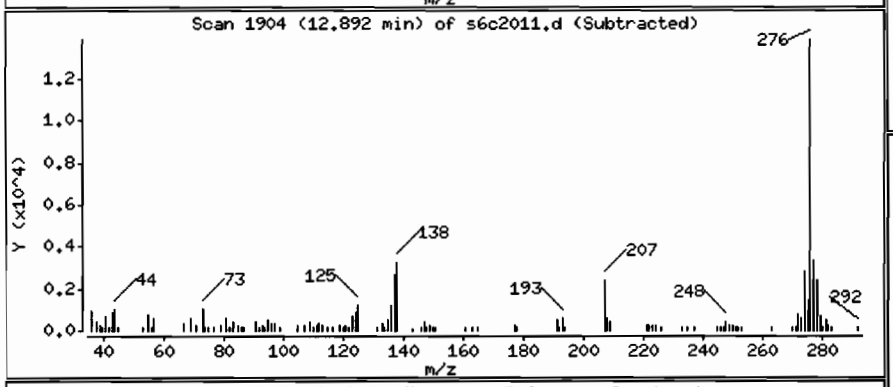

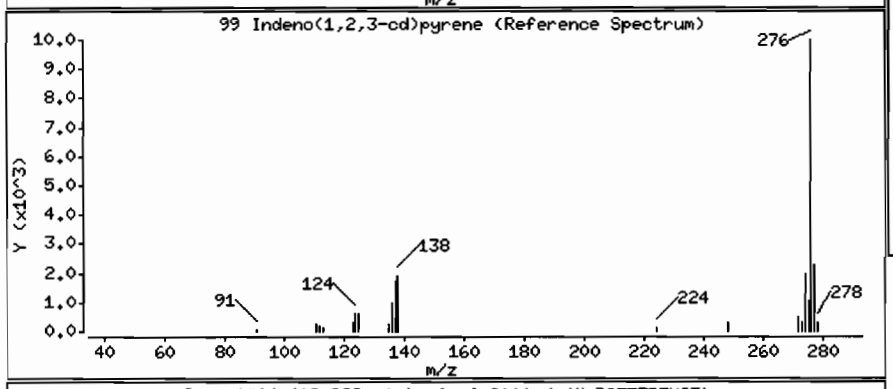

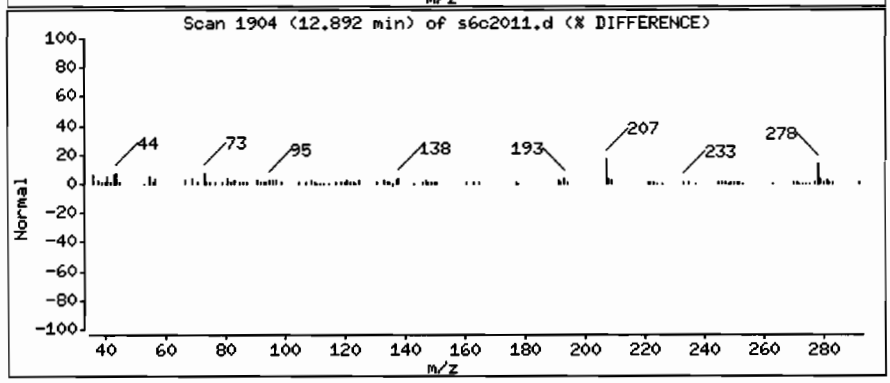

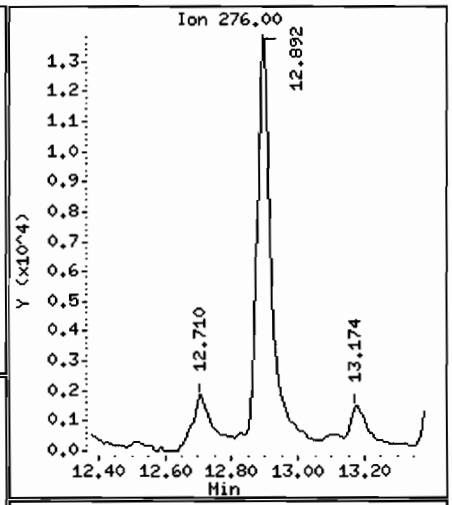

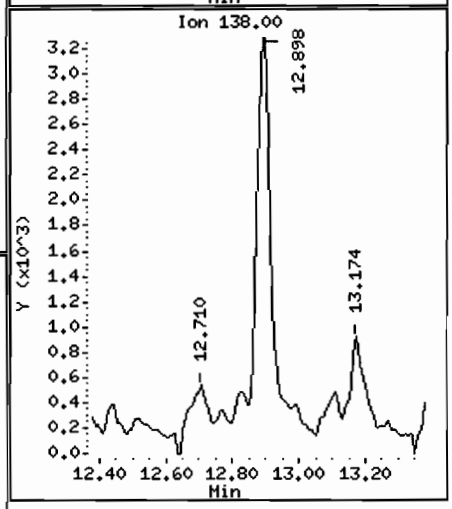

Data File: /chem/MSD6.i/s032010.b/s6c2011.d

Date : 20-MAR-2010 18:29

Client ID: RE46-10-13203

Instrument: MSD6.i

Sample Info: |2487020011965425|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 122 ug/Kg

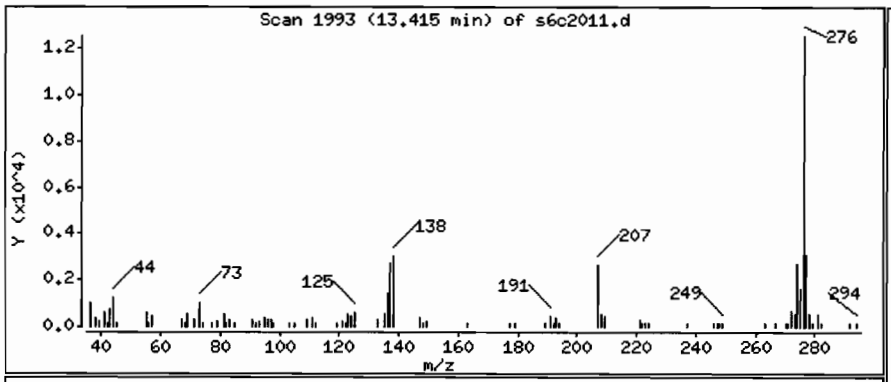

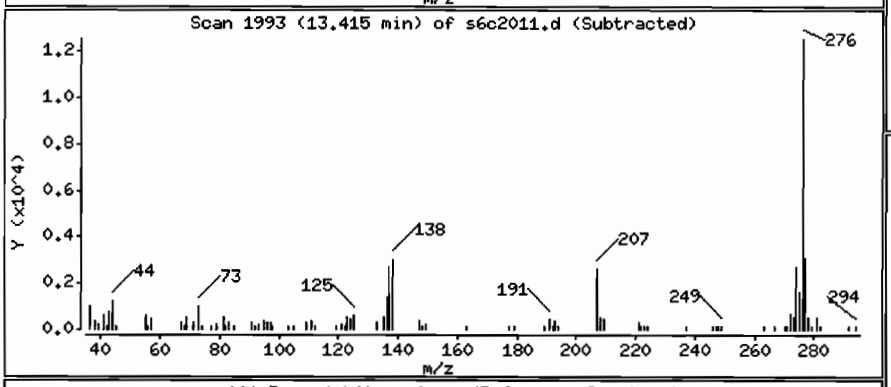

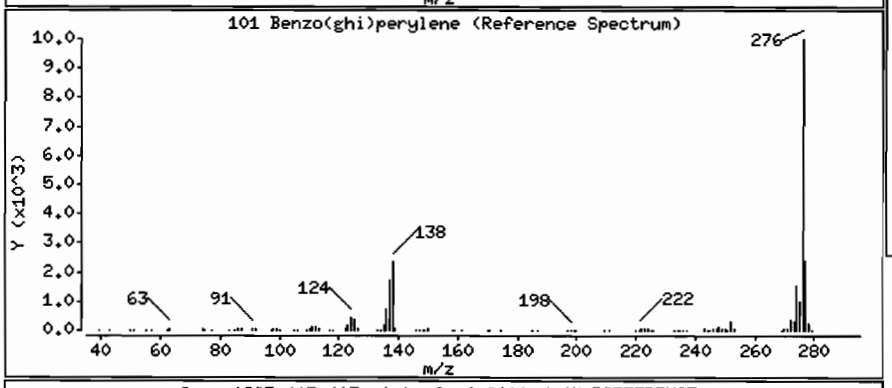

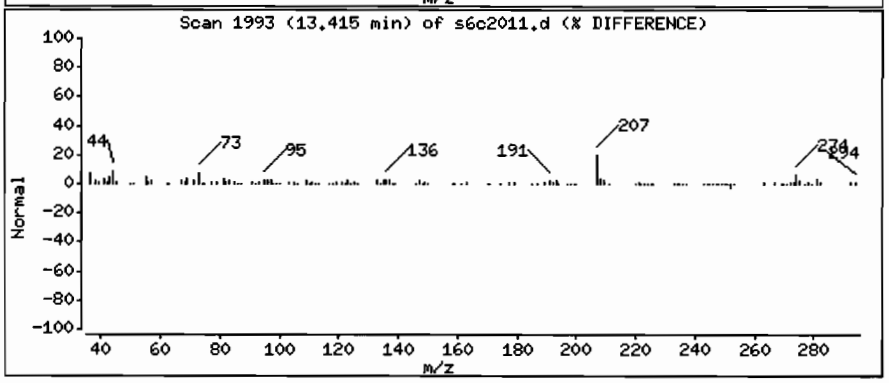

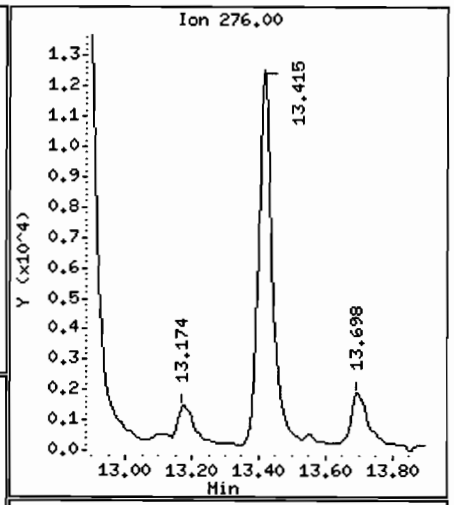

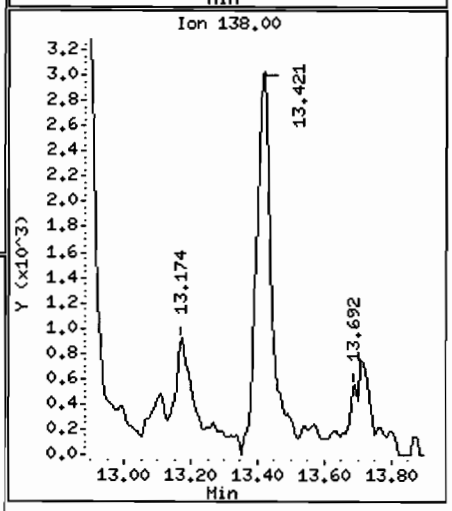

Data File: /chem/MSD6.i/s032010.b/s6c2011.d

Date : 20-MAR-2010 18:29

Client ID: RE46-10-13203

Instrument: MSD6.i

Sample Info: |2487020011965425|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	27	C4H7NO2	101

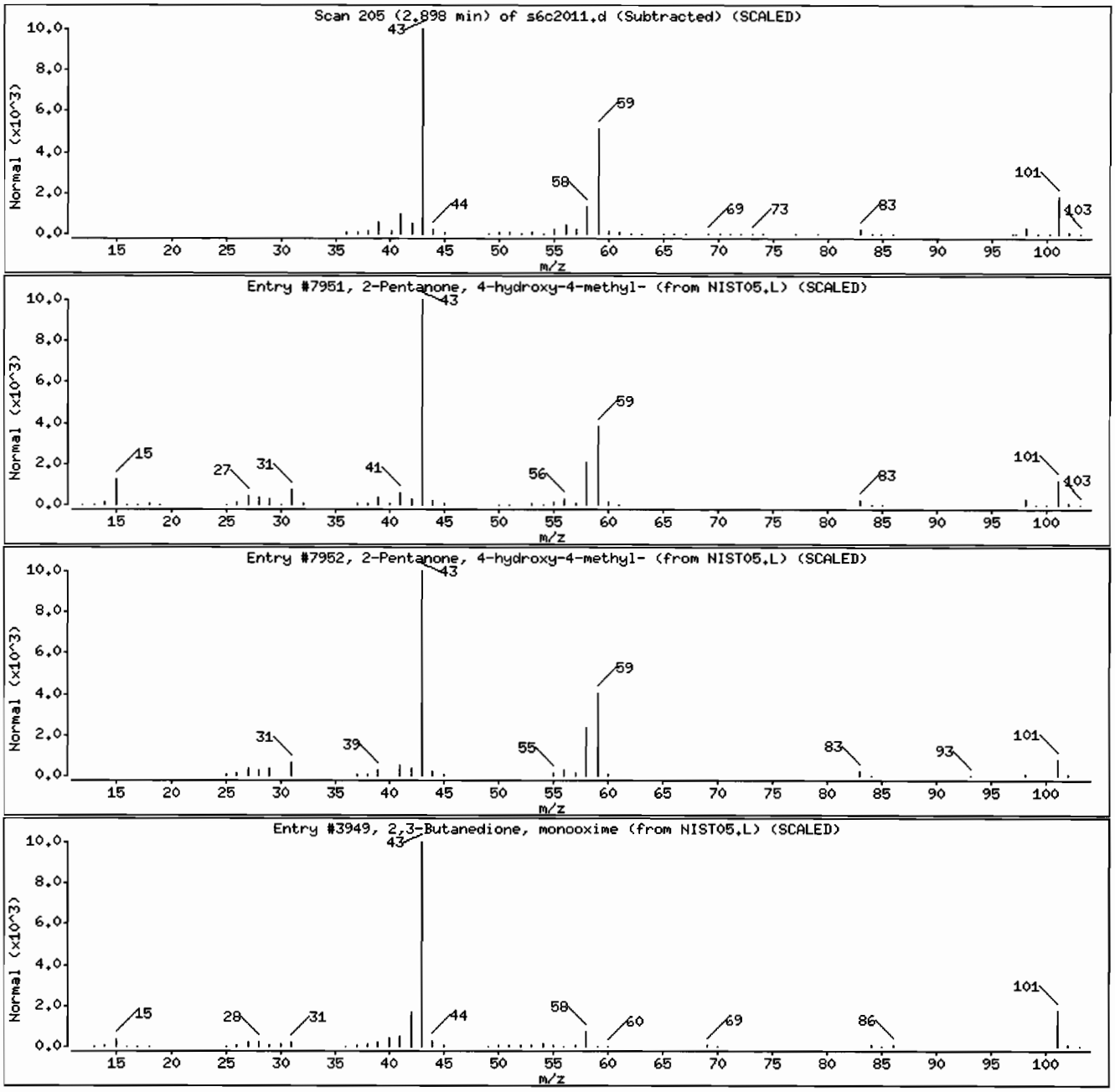

Data File: /chem/MSD6.i/s032010.b/s6c2011.d

Date : 20-MAR-2010 18:29

Client ID: RE46-10-13203

Instrument: MSD6.i

Sample Info: |2487020011965425|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[e]pyrene	192-97-2	NIST05.L	93577	98	C20H12	252
Benz[e]acephenanthrylene	205-99-2	NIST05.L	93587	98	C20H12	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	98	C20H12	252

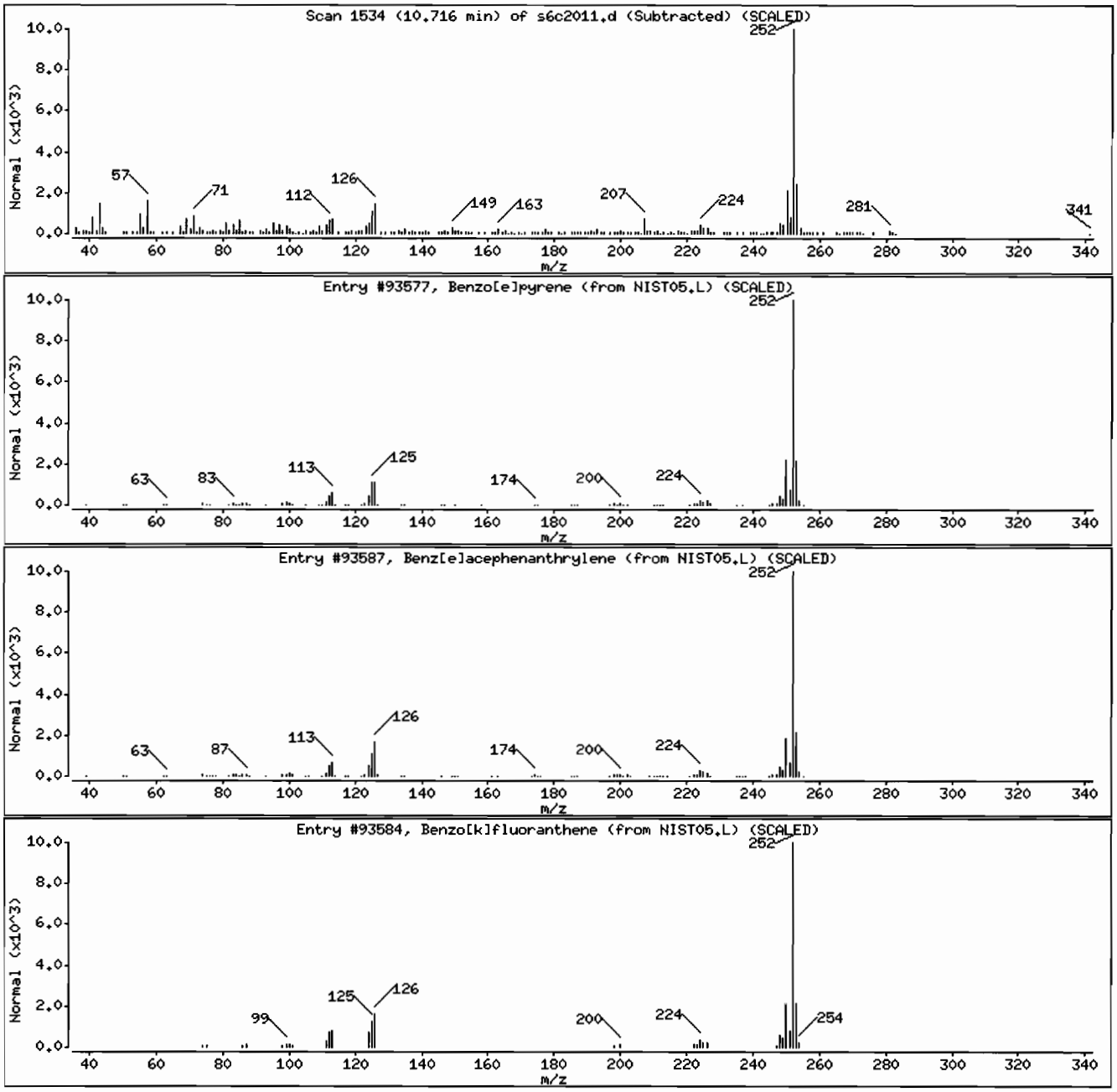

Data File: /chem/MSD6.i/s032010.b/s6c2011.d

Date : 20-MAR-2010 18:29

Client ID: RE46-10-13203

Instrument: MSD6.i

Sample Info: |2487020011965425|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzo[e]pyrene	192-97-2	NIST05.L	93577	98	C20H12	252
Perylene	198-55-0	NIST05.L	93574	98	C20H12	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	98	C20H12	252

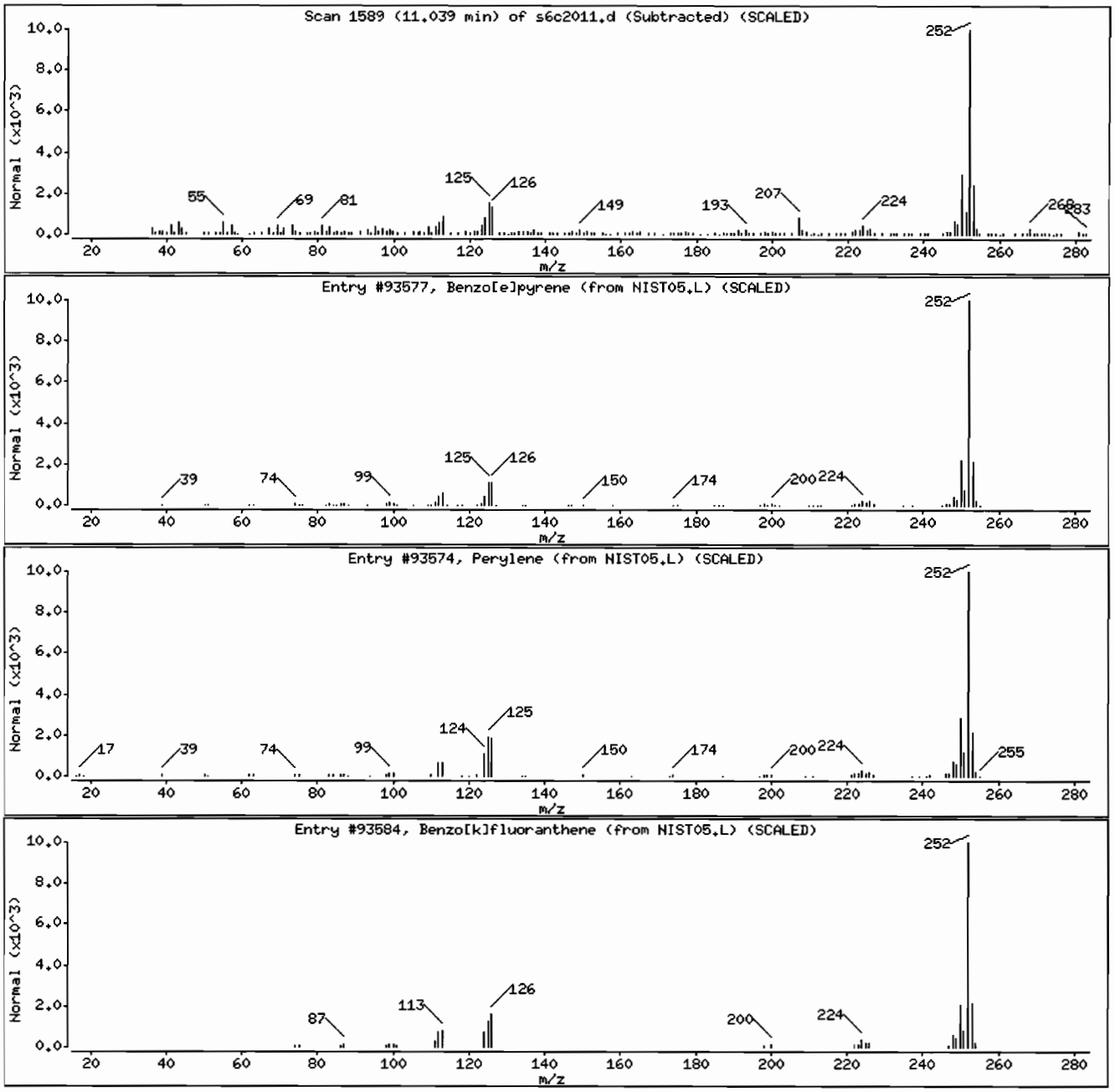

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 21-Mar-2010 13:30

Calibration History

Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Start Cal Date: 16-MAR-2010 09:18
End Cal Date : 17-MAR-2010 04:51

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
16-MAR-2010 09:18	MEGA	/chem/MSD6.i/s031610.b/s6c1603.d
Cal Level: 2 , Cal Amount: 10.00000		
17-MAR-2010 02:32	NEV	/chem/MSD6.i/s031610.b/s6c1640.d
16-MAR-2010 22:16	HEX	/chem/MSD6.i/s031610.b/s6c1629.d
16-MAR-2010 19:27	PEST	/chem/MSD6.i/s031610.b/s6c1622.d
16-MAR-2010 16:42	AP12	/chem/MSD6.i/s031610.b/s6c1615.d
16-MAR-2010 09:47	MEGA	/chem/MSD6.i/s031610.b/s6c1604.d
Cal Level: 3 , Cal Amount: 20.00000		
17-MAR-2010 02:55	NEV	/chem/MSD6.i/s031610.b/s6c1641.d
16-MAR-2010 22:40	HEX	/chem/MSD6.i/s031610.b/s6c1630.d
16-MAR-2010 19:51	PEST	/chem/MSD6.i/s031610.b/s6c1623.d
16-MAR-2010 17:06	AP12	/chem/MSD6.i/s031610.b/s6c1616.d
16-MAR-2010 10:17	MEGA	/chem/MSD6.i/s031610.b/s6c1605.d
Cal Level: 4 , Cal Amount: 40.00000		
17-MAR-2010 03:19	NEV	/chem/MSD6.i/s031610.b/s6c1642.d
16-MAR-2010 23:05	HEX	/chem/MSD6.i/s031610.b/s6c1631.d
16-MAR-2010 20:16	PEST	/chem/MSD6.i/s031610.b/s6c1624.d
16-MAR-2010 17:30	AP12	/chem/MSD6.i/s031610.b/s6c1617.d
16-MAR-2010 10:48	MEGA	/chem/MSD6.i/s031610.b/s6c1606.d
Cal Level: 5 , Cal Amount: 50.00000		
17-MAR-2010 03:42	NEV	/chem/MSD6.i/s031610.b/s6c1643.d
16-MAR-2010 23:30	HEX	/chem/MSD6.i/s031610.b/s6c1632.d
16-MAR-2010 20:39	PEST	/chem/MSD6.i/s031610.b/s6c1625.d
16-MAR-2010 17:53	AP12	/chem/MSD6.i/s031610.b/s6c1618.d
16-MAR-2010 11:18	MEGA	/chem/MSD6.i/s031610.b/s6c1607.d
Cal Level: 6 , Cal Amount: 80.00000		
17-MAR-2010 04:05	NEV	/chem/MSD6.i/s031610.b/s6c1644.d
16-MAR-2010 23:53	HEX	/chem/MSD6.i/s031610.b/s6c1633.d
16-MAR-2010 21:04	PEST	/chem/MSD6.i/s031610.b/s6c1626.d
16-MAR-2010 18:16	AP12	/chem/MSD6.i/s031610.b/s6c1619.d
16-MAR-2010 11:48	MEGA	/chem/MSD6.i/s031610.b/s6c1608.d
Cal Level: 7 , Cal Amount: 100.00000		

17-MAR-2010 04:28	NEV	/chem/MSD6.i/s031610.b/s6c1645.d
17-MAR-2010 00:17	HEX	/chem/MSD6.i/s031610.b/s6c1634.d
16-MAR-2010 21:29	PEST	/chem/MSD6.i/s031610.b/s6c1627.d
16-MAR-2010 18:40	AP12	/chem/MSD6.i/s031610.b/s6c1620.d
16-MAR-2010 12:18	MEGA	/chem/MSD6.i/s031610.b/s6c1609.d

Cal Level: 8 , Cal Amount: 120.00000		
17-MAR-2010 04:51	NEV	/chem/MSD6.i/s031610.b/s6c1646.d
16-MAR-2010 21:52	PEST	/chem/MSD6.i/s031610.b/s6c1628.d
16-MAR-2010 19:04	AP12	/chem/MSD6.i/s031610.b/s6c1621.d
16-MAR-2010 12:48	MEGA	/chem/MSD6.i/s031610.b/s6c1610.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
20-MAR-2010 15:45	MEGA	/chem/MSD6.i/s032010.b/s6c2006.d
Ccal Level: 4 , Ccal Amount: 40.0		
20-MAR-2010 16:39	NEV	/chem/MSD6.i/s032010.b/s6c2008.d
Ccal Level: 4 , Ccal Amount: 40.0		
20-MAR-2010 16:15	PEST	/chem/MSD6.i/s032010.b/s6c2007.d
Ccal Level: 4 , Ccal Amount: 40.0		
20-MAR-2010 15:22	AP12	/chem/MSD6.i/s032010.b/s6c2005.d
Ccal Level: 4 , Ccal Amount: 40.0		
20-MAR-2010 14:52	MEGA	/chem/MSD6.i/s032010.b/s6c2004.d
Ccal Level: 4 , Ccal Amount: 40.0		
20-MAR-2010 13:00	MEGA	/chem/MSD6.i/s032010.b/s6c2002.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-MAR-2010 09:18
End Cal Date : 17-MAR-2010 04:51
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Cal Date : 21-Mar-2010 07:38 nat00999

Calibration File Names:
Level 1: /chem/MSD6.i/s031610.b/s6c1603.d
Level 2: /chem/MSD6.i/s031610.b/s6c1640.d
Level 3: /chem/MSD6.i/s031610.b/s6c1641.d
Level 4: /chem/MSD6.i/s031610.b/s6c1642.d
Level 5: /chem/MSD6.i/s031610.b/s6c1643.d
Level 6: /chem/MSD6.i/s031610.b/s6c1644.d
Level 7: /chem/MSD6.i/s031610.b/s6c1645.d
Level 8: /chem/MSD6.i/s031610.b/s6c1646.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.81792	0.82056	0.78930	0.79192	0.76046					
	0.72590	0.72296					AVRG		0.77557		5.19380
2 Pyridine	+++++	1.11606	1.14524	1.09549	1.10183	1.07067					
	1.05148	1.15602					AVRG		1.10526		3.40288
4 Aniline	+++++	0.72133	0.70476	0.66890	0.68894	0.64499					
	0.62930	0.62826					AVRG		0.66950		5.53075
209 Benzaldehyde	+++++	1.13309	1.08471	1.00392	0.97767	0.86499					
	0.83244	0.82430					AVRG		0.96016		12.85923
6 Phenol	+++++	1.61272	1.56254	1.44105	1.45641	1.36160					
	1.30346	1.28275					AVRG		1.43150		8.74973

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INITIAL CALIBRATION DATA

Start Cal Date : 16-MAR-2010 09:18
End Cal Date : 17-MAR-2010 04:51
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Cal Date : 21-Mar-2010 07:38 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	+++++	1.19254	1.18236	1.09028	1.09625	1.00058					
	0.95191	0.93692					AVRG		1.06440		9.77817
8 2-Chlorophenol	+++++	1.26962	1.28222	1.17814	1.18825	1.10696					
	1.06189	1.06261					AVRG		1.16424		7.83127
203 n-Decane	+++++	1.96779	1.93918	1.70280	1.68456	1.47743					
	1.37227	+++++					AVRG		1.69067		14.13608
9 1,3-Dichlorobenzene	+++++	1.44879	1.44947	1.30584	1.30842	1.19897					
	1.15341	1.11325					AVRG		1.28259		10.51030
11 1,4-Dichlorobenzene	+++++	1.42133	1.40639	1.25708	1.27799	1.16100					
	1.09866	1.09543					AVRG		1.24541		10.83313
12 Benzyl alcohol	+++++	0.85394	0.86245	0.80492	0.83695	0.79588					
	0.79193	0.78165					AVRG		0.81825		3.95576
13 1,2-Dichlorobenzene	+++++	1.34498	1.29593	1.11046	1.13364	1.03705					
	0.99051	0.98974					AVRG		1.12890		12.62648
14 bis(2-Chloroisopropyl)ether	+++++	2.53022	2.53492	2.29878	2.31844	2.11439					
	1.96542	1.89769					AVRG		2.23712		11.38315
15 o-Cresol	+++++	1.01324	0.99090	0.86659	0.89293	0.83096					
	0.81771	0.80283					AVRG		0.88788		9.44602

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
16 Acetophenone	+++++	1.46180	1.39429	1.25730	1.25356	1.14795					
	1.11097	1.11114					AVRG		1.24814		11.07970
17 N-Nitrosodipropylamine	+++++	1.04632	1.03866	0.98744	1.01348	0.95067					
	0.89995	0.90020					AVRG		0.97668		6.28044
18 m,p-Cresols	+++++	1.32601	1.35004	1.26915	1.31796	1.25447					
	1.21737	1.21749					AVRG		1.27893		4.16878
19 Hexachloroethane	+++++	0.59901	0.59645	0.55146	0.55577	0.50879					
	0.48359	0.46860					AVRG		0.53767		9.68345
21 Nitrobenzene	+++++	0.41616	0.40868	0.35909	0.36547	0.32858					
	0.30203	0.28967					AVRG		0.35281		13.92765
22 Isophorone	+++++	0.76756	0.76141	0.67508	0.70486	0.64538					
	0.60504	0.57972					AVRG		0.67701		10.74431
23 2-Nitrophenol	+++++	0.18755	0.16925	0.15697	0.15800	0.13948					
	0.13113	0.12806					AVRG		0.15292		14.07952
24 2,4-Dimethylphenol	+++++	128503	217256	416723	533570	827995					
	966250	+++++					WLINR	-0.14975	0.25299		0.99406
25 bis(2-Chloroethoxy)methane	+++++	0.43560	0.42444	0.37400	0.37627	0.33980					
	0.32172	0.30463					AVRG		0.36806		13.49875

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.28833	0.28887	0.25784	0.26048	0.23660					
	0.22233	0.21321					AVRG		0.25252		11.88589
27 Benzoic acid	+++++	+++++	0.15188	0.16162	0.20350	0.20115					
	0.19885	0.20819					AVRG		0.18753		12.92549
28 1,2,4-Trichlorobenzene	+++++	0.33900	0.33884	0.29761	0.29991	0.26567					
	0.24757	0.23474					AVRG		0.28905		14.39082
30 Naphthalene	1.17741	1.03786	1.00687	0.84879	0.85336	+++++					
	+++++	+++++					AVRG		0.98486		14.01214
204 alpha-Terpineol	+++++	0.33608	0.33453	0.29084	0.29286	0.26114					
	0.24448	0.23009					AVRG		0.28429		14.63166
31 4-Chloroaniline	+++++	0.47746	0.49291	0.44934	0.45825	0.40866					
	0.38534	0.36929					AVRG		0.43446		10.86864
189 Caprolactam	+++++	0.10378	0.10570	0.09999	0.09912	0.09284					
	0.09092	0.09292					AVRG		0.09790		5.90407
32 Hexachlorobutadiene	+++++	0.19255	0.18969	0.16950	0.16919	0.15167					
	0.14051	0.13534					AVRG		0.16407		13.75956
33 4-Chloro-3-methylphenol	+++++	0.32043	0.30822	0.27683	0.28548	0.25715					
	0.24213	0.23028					AVRG		0.27436		12.15912

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
34 2-Methylnaphthalene	0.72925	0.65481	0.63621	0.55294	0.56663	0.49402					
	+++++	+++++					AVRG		0.60564		13.89123
35 1-Methylnaphthalene	0.70436	0.66500	0.61927	0.53454	0.53753	0.47391					
	+++++	+++++					AVRG		0.58910		14.96497
36 Hexachlorocyclopentadiene	+++++	0.25218	0.24426	0.26357	0.23616	0.19125					
	0.18872	+++++					AVRG		0.22936		13.87544
208 1,1'-Biphenyl	+++++	1.34441	1.27102	1.12196	1.11758	1.01987					
	0.96643	0.94136					AVRG		1.11180		13.65187
205 2,3-Dichloroaniline	+++++	0.61240	0.60292	0.54053	0.53714	0.47736					
	0.45417	0.44760					AVRG		0.52459		12.87597
37 2,4,6-Trichlorophenol	+++++	0.38108	0.37793	0.32193	0.36706	0.30741					
	0.28219	0.30558					AVRG		0.33474		11.93741
38 2,4,5-Trichlorophenol	+++++	0.37129	0.37911	0.38732	0.34179	0.35266					
	0.34748	0.30293					AVRG		0.35465		8.00704
40 2-Chloronaphthalene	1.19201	1.10470	1.08122	0.97966	0.96619	0.86532					
	0.80529	0.79483					AVRG		0.97365		14.96311
42 o-Nitroaniline	+++++	0.36102	0.36661	0.34980	0.35607	0.33160					
	0.31294	0.31605					AVRG		0.34201		6.37491

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.23455	0.26751	0.26609	0.27182	0.25408					
	0.24489	0.23973					AVRG		0.25409		5.81743
43 Dimethylphthalate	+++++	1.30419	1.28387	1.15700	1.15779	1.04419					
	0.99525	0.96796					AVRG		1.13004		11.83407
44 2,6-Dinitrotoluene	+++++	0.30420	0.29865	0.27654	0.28158	0.25526					
	0.23916	0.23864					AVRG		0.27058		9.91397
45 Acenaphthylene	1.85647	1.73104	1.67326	1.48789	1.47507	1.32790					
	1.24637	+++++					AVRG		1.54257		14.31335
47 Acenaphthene	1.28627	1.05044	1.03429	0.91274	0.90543	+++++					
	+++++	+++++					AVRG		1.03783		14.85478
48 2,4-Dinitrophenol	+++++	+++++	23383	83099	110420	178844					
	226466	280792					LINR	0.14548	0.11086		0.99537
49 Dibenzofuran	+++++	1.49805	1.45690	1.29929	1.28456	1.15301					
	1.08151	1.05151					AVRG		1.26069		13.90416
50 2,4-Dinitrotoluene	+++++	0.36954	0.37982	0.36276	0.37594	0.34784					
	0.32724	0.33221					AVRG		0.35648		5.89787
51 Diethylphthalate	+++++	1.30298	1.28452	1.13974	1.14323	1.01648					
	0.94857	0.91864					AVRG		1.10774		13.84255

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.20176	0.19292	0.19251	0.19939	0.18710					
	0.18356	0.18929					AVRG		0.19236		3.37304
53 Fluorene	1.38576	1.24024	1.19555	1.05553	1.05905	0.97044					
	0.91808	+++++					AVRG		1.11781		14.68974
54 4-Chlorophenylphenylether	+++++	0.61669	0.60649	0.55132	0.54613	0.49714					
	0.46826	0.46745					AVRG		0.53621		11.44943
55 2-Methyl-4,6-dinitrophenol	+++++	19709	42715	133111	183242	300925					
	377022	458868					LINR	0.11116	0.10470		0.99841
56 p-Nitroaniline	+++++	0.18685	0.19668	0.22186	0.22558	0.21140					
	0.20310	0.21295					AVRG		0.20835		6.60344
133 Diphenylamine	+++++	0.59755	0.58488	0.51490	0.52719	0.49057					
	0.45816	0.45986					AVRG		0.51902		10.72829
58 1,2-Diphenylhydrazine	+++++	0.81379	0.80943	0.71643	0.71366	0.64914					
	0.59712	0.58414					AVRG		0.69767		13.33528
59 Tributylphosphate	+++++	1.48756	1.31745	1.19079	1.17530	1.07632					
	0.98767	+++++					AVRG		1.20585		14.71177
61 4-Bromophenylphenylether	+++++	0.18913	0.19414	0.17251	0.17518	0.16699					
	0.15758	0.16024					AVRG		0.17368		7.95612

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.17986	0.18314	0.16397	0.16914	0.16087					
	0.15325	0.15146					AVRG		0.16595		7.37947
207 Atrazine	+++++	0.05303	0.05040	0.04601	0.04433	0.03650					
	+++++	+++++					AVRG		0.04606		13.80997
65 Pentachlorophenol	+++++	0.08594	0.09329	0.09347	0.09827	0.09698					
	0.09437	0.09548					AVRG		0.09397		4.23639
206 n-Octadecane	+++++	0.53452	0.53921	0.46736	0.45674	0.40532					
	+++++	+++++					AVRG		0.48063		11.74926
68 Phenanthrene	1.18955	1.04058	1.01586	0.88259	0.91454	0.80483					
	+++++	+++++					AVRG		0.97466		14.00439
69 Anthracene	1.17774	1.06636	1.01144	0.91703	0.90561	0.81316					
	+++++	+++++					AVRG		0.98189		13.26811
72 Di-n-butylphthalate	+++++	1.28361	1.29174	1.09885	1.06066	0.94298					
	+++++	+++++					AVRG		1.13557		13.23540
76 Fluoranthene	1.20011	1.09187	1.06525	0.96204	0.95592	0.84379					
	0.79997	+++++					AVRG		0.98842		14.28401
77 Benzidine	+++++	0.40621	0.45200	0.39954	0.40216	0.42655					
	0.43042	0.42719					AVRG		0.42058		4.50256

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.35186	1.32429	1.37915	1.14942	1.19852	1.19422					
	1.08124	1.07630					AVRG		1.21938		9.78236
85 Butylbenzylphthalate	+++++	0.60942	0.68418	0.57419	0.59563	0.59071					
	0.53615	0.53958					AVRG		0.58998		8.46660
89 Benzo(a)anthracene	1.23844	1.07586	1.08943	0.99635	1.02654	0.99275					
	0.98276	0.95356					AVRG		1.04446		8.71633
90 3,3'-Dichlorobenzidine	+++++	0.28634	0.34000	0.31737	0.30439	0.29332					
	0.28534	0.28530					AVRG		0.30172		6.84952
92 Chrysene	1.21905	1.11052	1.09284	0.99293	1.00791	0.89389					
	0.83298	0.83097					AVRG		0.99764		14.00287
93 bis(2-Ethylhexyl)phthalate	+++++	0.87792	0.94166	0.75843	0.78894	0.76390					
	0.69996	0.68939					AVRG		0.78860		11.64783
94 Di-n-octylphthalate	+++++	1.50498	1.84996	1.38120	1.53446	1.53965					
	1.35710	1.54699					AVRG		1.53062		10.51568
95 Benzo(b)fluoranthene	1.06453	1.04231	1.18249	1.05565	1.10684	1.12171					
	1.04658	1.07946					AVRG		1.08744		4.38133
96 Benzo(k)fluoranthene	1.13857	1.15145	1.13298	1.00215	1.05846	0.96843					
	0.91790	0.97630					AVRG		1.04328		8.61578

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.91272	0.95091	0.96305	0.93841	0.94477	0.90966					
	0.87668	0.87161					AVRG		0.92098		3.70068
99 Indeno(1,2,3-cd)pyrene	0.82214	0.91774	0.83742	0.89629	0.86445	0.85264					
	0.81655	0.75359					AVRG		0.84510		6.01764
100 Dibenzo(a,h)anthracene	0.65413	0.74504	0.67287	0.73440	0.69759	0.67777					
	0.65411	0.60951					AVRG		0.68068		6.53700
101 Benzo(ghi)perylene	0.72104	0.79945	0.72249	0.76566	0.71838	0.73009					
	0.68866	0.62705					AVRG		0.72160		7.04885
102 1,4-Dioxane	+++++	0.40364	0.39108	0.35833	0.36073	0.32452					
	0.31161	0.30837					AVRG		0.35119		10.77795
103 Methyl methacrylate	+++++	0.21508	0.20768	0.19444	0.19248	0.17684					
	0.16911	0.17292					AVRG		0.18979		9.29691
104 Ethyl methacrylate	+++++	0.94302	0.90271	0.84859	0.85171	0.77200					
	0.73535	0.73626					AVRG		0.82709		9.86302
105 2-Picoline	+++++	1.41751	1.35879	1.23892	1.24366	1.11707					
	1.05418	1.05943					AVRG		1.21280		11.79135
106 N-Nitrosomethylethylamine	+++++	0.58418	0.57876	0.54352	0.54304	0.51432					
	0.50151	0.50138					AVRG		0.53810		6.38520

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.64507	0.64908	0.61336	0.60691	0.56546					
	0.55158	0.54936					AVRG		0.59726		7.07556
108 N-Nitrosodiethylamine	+++++	0.60002	0.59792	0.54460	0.55515	0.50996					
	0.50185	0.50111					AVRG		0.54437		7.84567
109 Ethyl Methanesulfonate	+++++	0.77937	0.78398	0.73252	0.74517	0.68922					
	0.67400	0.67651					AVRG		0.72583		6.44394
110 Pentachloroethane	+++++	0.36537	0.35868	0.33978	0.34412	0.31859					
	0.30477	0.30069					AVRG		0.33314		7.67816
111 N-Nitrosopyrrolidine	+++++	0.65147	0.65118	0.60564	0.59568	0.54014					
	0.52363	0.52349					AVRG		0.58446		9.60255
113 N-Nitrosomorpholine	+++++	0.77690	0.75720	0.69860	0.69697	0.63076					
	0.60862	0.59644					AVRG		0.68078		10.46970
114 o-Toluidine	+++++	2.05374	1.96418	1.78212	1.74117	1.58116					
	1.51078	1.51005					AVRG		1.73474		12.47332
115 N-Nitrosopiperidine	+++++	0.16517	0.16671	0.15400	0.15626	0.14779					
	0.14357	0.14183					AVRG		0.15362		6.43146
116 a,a-Dimethylphenethylamine	+++++	0.84998	0.91437	0.90226	0.91158	0.87133					
	0.84727	0.81794					AVRG		0.87353		4.25275

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 16-MAR-2010 09:18
End Cal Date : 17-MAR-2010 04:51
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Cal Date : 21-Mar-2010 07:38 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
117 Triethylphosphorothioate	+++++	0.16227	0.15179	0.14508	0.14517	0.13799						
	0.13034	0.12625					AVRG		0.14270		8.68942	
118 2,6-Dichlorophenol	+++++	0.27261	0.26747	0.24661	0.24973	0.23288						
	0.22683	0.22120					AVRG		0.24533		8.04029	
119 Hexachloropropene	+++++	0.12422	0.14505	0.13455	0.13486	0.13756						
	0.13062	0.12490					AVRG		0.13311		5.48816	
120 p-Phenylenediamine	+++++	0.34413	0.36083	0.31398	0.29301	0.26154						
	0.24844	+++++					AVRG		0.30365		14.69115	
121 N-Nitrosodi-n-butylamine	+++++	0.30402	0.30501	0.24131	0.24260	0.22117						
	+++++	+++++					AVRG		0.26282		14.83811	
122 Safrole	+++++	0.24219	0.23822	0.21649	0.21692	0.20189						
	0.19239	0.18963					AVRG		0.21396		9.73528	
123 1,2,4,5-Tetrachlorobenzene	+++++	0.51062	0.49855	0.44614	0.45393	0.42366						
	0.40150	0.39571					AVRG		0.44716		10.00072	
124 Isosafrole	+++++	0.39056	0.38828	0.35693	0.35264	0.33685						
	0.32525	0.32217					AVRG		0.35324		7.88298	
125 1,4-Naphthoquinone	+++++	0.44627	0.42913	0.36710	0.34310	0.27951						
	0.26871	0.26396					AVRG		0.34254		22.12484	<-

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Cal Date : 21-Mar-2010 07:38 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.19457	0.20451	0.19900	0.20530	0.18435					
	0.17688	0.17754					AVRG		0.19174		6.33347
127 Pentachlorobenzene	+++++	0.43110	0.41421	0.37919	0.37551	0.35401					
	0.33716	0.33489					AVRG		0.37515		9.84443
128 1-Naphthylamine	+++++	1.01413	1.02551	0.91517	0.89074	0.84391					
	0.80481	0.80092					AVRG		0.89931		10.26327
129 2-Naphthylamine	+++++	1.06923	1.09028	0.96961	0.93134	0.88633					
	0.81714	0.82229					AVRG		0.94089		11.64761
130 2,3,4,6-Tetrachlorophenol	+++++	0.28320	0.29838	0.27851	0.29220	0.26438					
	0.26048	0.26802					AVRG		0.27788		5.16598
131 5-Nitro-o-toluidine	+++++	0.30371	0.33910	0.30524	0.30826	0.30565					
	0.28937	0.29520					AVRG		0.30665		5.15108
132 Thionazin	+++++	0.18517	0.17934	0.16941	0.16728	0.15846					
	0.15141	0.14819					AVRG		0.16561		8.34122
134 Sulfotepp	+++++	0.08460	0.08173	0.08195	0.08009	0.07824					
	0.07503	0.07583					AVRG		0.07964		4.35673
135 Phorate	+++++	0.45146	0.42713	0.42213	0.39953	0.37573					
	0.35382	0.34151					AVRG		0.39590		10.25989

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Method file : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Cal Date : 21-Mar-2010 07:38 nat00999

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
136 1,3,5-Trinitrobenzene	+++++	0.14215	0.17801	0.16278	0.16019	0.15578					
	0.15027	0.14373					AVRG		0.15613		7.94442
137 Phenacetin	+++++	0.31318	0.31793	0.28873	0.29334	0.28901					
	0.27803	0.27408					AVRG		0.29347		5.64036
138 Diallate	+++++	0.28920	0.27813	0.25090	0.24969	0.23408					
	0.22095	0.21741					AVRG		0.24862		10.98494
139 Dimethoate	+++++	0.27336	0.26946	0.26875	0.26784	0.25717					
	0.24705	0.24235					AVRG		0.26085		4.66441
140 4-Aminobiphenyl	+++++	0.55261	0.60071	0.58243	0.60084	0.53773					
	0.49732	0.48294					AVRG		0.55066		8.65686
141 Pentachloronitrobenzene	+++++	0.07818	0.07606	0.06875	0.06554	0.05850					
	0.05467	+++++					AVRG		0.06695		13.96038
142 Pronamide	+++++	0.30552	0.28970	0.25313	0.24216	0.21416					
	+++++	+++++					AVRG		0.26094		14.10331
143 Dinoseb	+++++	26789	59526	194494	260402	434843					
	550419	666120					LINR	0.12393	0.15282		0.99867
144 Disulfoton	+++++	0.33440	0.31848	0.31065	0.30032	0.28000					
	0.26612	0.25293					AVRG		0.29470		9.99476

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Cal Date : 21-Mar-2010 07:38 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
145 Methyl parathion	+++++	0.23174	0.22766	0.22643	0.22704	0.21420						
	0.20697	0.20133					AVRG		0.21934		5.38336	
146 4-Nitroquinoline-1-oxide	+++++	0.03620	0.04258	0.03229	0.02624	0.02359						
	0.02090	0.01975					AVRG		0.02879		29.56738	<-
147 Methapyrilene	+++++	0.50709	0.51231	0.47429	0.44273	0.38752						
	0.37265	0.36578					AVRG		0.43748		14.35658	
148 Isodrin	+++++	0.12789	0.12550	0.11252	0.11113	0.10270						
	0.09732	0.09486					AVRG		0.11028		11.76979	
149 Aramite	+++++	0.04987	0.05241	0.05098	0.04801	0.04511						
	0.04334	0.04247					AVRG		0.04746		8.18427	
150 Kepone	+++++	0.08033	0.08350	0.07854	0.07324	0.07530						
	0.07353	0.07232					AVRG		0.07668		5.48032	
151 p-(Dimethylamino)azobenzene	+++++	0.35661	0.32327	0.31849	0.32153	0.28722						
	0.28883	0.27624					AVRG		0.31031		8.98103	
152 Chlorobenzilate	+++++	0.34601	0.29739	0.29945	0.30335	0.27160						
	0.27932	0.26590					AVRG		0.29472		9.12242	
153 3,3'-Dimethylbenzidine	+++++	0.63324	0.65171	0.60049	0.59103	0.56476						
	0.56416	0.54908					AVRG		0.59350		6.40934	

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
154 Famphur	+++++	0.44294	0.43580	0.46237	0.43998	0.43138						
	0.41231	0.39369					AVRG		0.43121		5.16049	
155 2-Acetylaminofluorene	+++++	0.28561	0.37666	0.36505	0.36381	0.34665						
	0.35179	0.35001					AVRG		0.34851		8.50665	
157 7,12Dimethylbenz(a)anthracene	+++++	0.51449	0.49379	0.48383	0.50239	0.49617						
	0.46390	0.44355					AVRG		0.48545		5.00153	
158 3-Methylcholanthrene	+++++	0.35367	0.42677	0.41143	0.40554	0.40467						
	0.39610	0.40256					AVRG		0.40010		5.65129	
26 Phthalic anhydride	+++++	27295	87036	200557	277210	460400						
	556029	682236					LINR	0.03349	0.14624		0.99669	
173 Carbazole	1.01509	0.74843	0.72374	0.75388	0.76522	0.69273						
	0.66795	+++++					AVRG		0.76672		14.99112	
174 Hexachlorophene	+++++	0.04741	0.06158	+++++	0.06384	0.06162						
	0.05947	+++++					AVRG		0.05878		11.13226	
179 Dibenzo(a,e)pyrene	+++++	0.36049	0.28249	0.34513	0.30393	0.34223						
	0.31678	0.29389					AVRG		0.32071		9.10777	
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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Cal Date : 21-Mar-2010 07:38 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
184 p-Benzoquinone	+++++	0.20897	0.35254	0.17686	0.22912	0.25164						
	0.22851	0.25291					AVRG		0.24293		22.61358	<-
191 Parathion	+++++	0.06141	0.06185	0.06208	0.06168	0.05986						
	0.05714	0.05627					AVRG		0.06004		3.99838	
192 Methoxychlor	+++++	0.71007	0.76187	0.67557	0.67506	0.65556						
	0.60574	0.57499					AVRG		0.66555		9.36899	
210 m-Toluidine	+++++	1.67718	1.91596	1.79952	2.07052	1.85391						
	1.82362	+++++					AVRG		1.85679		7.05627	
211 p-Toluidine	+++++	1.47044	1.37288	1.42100	1.28519	1.31427						
	1.16108	+++++					AVRG		1.33748		8.21058	
212 Cis Diallate	+++++	0.29467	0.31145	0.29067	0.29841	0.28191						
	0.27521	0.27193					AVRG		0.28918		4.80566	
213 Trans Diallate	+++++	0.34024	0.32722	0.29518	0.29375	0.27539						
	0.25994	0.25578					AVRG		0.29250		10.98494	
214 1,4-Dinitrobenzene	+++++	0.27003	0.28077	0.27490	0.28781	0.26587						
	0.25743	0.25119					AVRG		0.26971		4.75195	
215 2-Ethoxyethanol	+++++	0.75153	0.75427	0.72199	0.73882	0.68817						
	0.66248	0.66748					AVRG		0.71211		5.48996	

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	0.14670	0.14448	0.16081	0.16367	0.16247					
	0.16353	0.15734					AVRG		0.15700		5.16494
229 2,2'-Dichlorobenzil	+++++	0.75519	0.72438	0.63746	0.67020	+++++					
	0.60843	0.58423					AVRG		0.66332		10.03522
230 4-Chlorothioanisole	+++++	0.25858	0.25840	0.25992	0.26979	+++++					
	0.24846	0.24389					AVRG		0.25651		3.57209
231 4-Chlorothiophenol	+++++	20380	113799	319351	419370	+++++					
	924542	1190062					LINR	0.19963	0.21635		0.99920
232 bis(p-Chlorophenyl)sulfone	+++++	0.42993	0.41812	0.36485	0.38196	+++++					
	0.35821	0.34208					AVRG		0.38252		9.09627
233 bis(p-Chlorophenyl)disulfide	+++++	0.18867	0.16361	0.14247	0.15771	+++++					
	0.13916	0.13446					AVRG		0.15435		13.09397
234 Diphenyl disulfide	+++++	0.25253	0.23711	0.22392	0.22770	+++++					
	0.20985	0.20621					AVRG		0.22622		7.62190
235 Diphenyl sulfide	+++++	0.81794	0.80171	0.75220	0.72922	+++++					
	0.67001	0.65856					AVRG		0.73827		8.91554
236 Phenyl sulfone	+++++	0.47552	0.46096	0.43737	0.43617	+++++					
	0.40374	0.40017					AVRG		0.43565		6.89465

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
237 Hydroxymethyl phthalimide	+++++	38588	80856	126016	157606	+++++					
	292598	364853					LINR	-0.21210	0.09455		0.99652
238 Phthalic acid	+++++	19671	59106	176058	250394	+++++					
	603096	+++++					LINR	0.26696	0.14514		0.99255
239 Thiophenol	+++++	62327	207465	508832	672604	+++++					
	1367181	1721186					LINR	0.09119	1.06115		0.99838
240 bis(Chloromethyl)ether	+++++	0.97516	0.91313	0.87686	0.87662	+++++					
	0.80538	0.76021					AVRG		0.86789		8.80685
241 Octachlorostyrene	+++++	0.05974	0.05913	0.05893	0.06005	+++++					
	0.05689	0.05659					AVRG		0.05855		2.50376
M 225 Trichlorophenols	+++++	0.37618	0.37852	0.35462	0.35443	0.33004					
	0.31483	0.30425					AVRG		0.34470		8.43399
M 226 Tetrachlorophenols	+++++	0.28320	0.29838	0.27851	0.29220	0.26438					
	0.26048	0.26802					AVRG		0.27788		5.16598
M 227 Benzo(b,k)fluoranthene	1.10155	1.09688	1.15773	1.02890	1.08265	1.04507					
	0.98224	1.02788					AVRG		1.06536		5.16433
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	1.17799	1.21081	1.12585	1.16530	1.06488						
	1.02412	1.01478					AVRG		1.11196		7.01882	
$ 5 Phenol-d5	+++++	1.53055	1.52276	1.42264	1.44854	1.34995						
	1.31463	1.30976					AVRG		1.41412		6.55306	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.43556	0.43337	0.38834	0.39802	0.36088						
	0.33590	0.32456					AVRG		0.38237		11.53560	
$ 39 2-Fluorobiphenyl	+++++	1.22526	1.18747	1.05919	1.04982	0.94356						
	0.89495	0.86381					AVRG		1.03201		13.55845	
$ 60 2,4,6-Tribromophenol	+++++	0.11014	0.11537	0.11089	0.11508	0.11113						
	0.10877	0.11433					AVRG		0.11225		2.35114	
$ 81 p-Terphenyl-d14	+++++	0.73264	0.77308	0.65971	0.68870	0.71170						
	0.64309	0.67033					AVRG		0.69704		6.50888	

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Cal Date : 21-Mar-2010 07:38 nat00999

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-MAR-2010 13:40
Lab File ID: s6c1612.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 03:19
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 3 2-Fluorophenol	1.11196	1.12168	1.12168	0.000	0.87417	60.00000	Averaged	
$ 5 Phenol-d5	1.41412	1.37076	1.37076	0.000	-3.06618	60.00000	Averaged	
$ 20 Nitrobenzene-d5	0.38237	0.38375	0.38375	0.000	0.36085	60.00000	Averaged	
$ 39 2-Fluorobiphenyl	1.03201	1.06678	1.06678	0.000	3.36917	60.00000	Averaged	
$ 60 2,4,6-Tribromophenol	0.11225	0.11519	0.11519	0.000	2.62633	60.00000	Averaged	
$ 81 p-Terphenyl-d14	0.69704	0.79497	0.79497	0.000	14.04962	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.77557	0.72913	0.72913	0.000	-5.98844	60.00000	Averaged	
2 Pyridine	1.10526	0.87234	0.87234	0.000	-21.07309	60.00000	Averaged	
4 Aniline	0.66950	0.60777	0.60777	0.000	-9.21935	60.00000	Averaged	
6 Phenol	1.43150	1.41995	1.41995	0.001	-0.80724	20.00000	Averaged	ccc
7 bis(2-Chloroethyl) ether	1.06440	0.94128	0.94128	0.000	-11.56744	60.00000	Averaged	
8 2-Chlorophenol	1.16424	1.11829	1.11829	0.000	-3.94731	60.00000	Averaged	
203 n-Decane	1.69067	1.54455	1.54455	0.000	-8.64282	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.28259	1.28904	1.28904	0.000	0.50225	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.24541	1.21952	1.21952	0.001	-2.07919	20.00000	Averaged	ccc
13 1,2-Dichlorobenzene	1.12890	1.06600	1.06600	0.000	-5.57188	60.00000	Averaged	
14 bis(2-Chloroisopropyl)ether	2.23712	2.09235	2.09235	0.000	-6.47116	60.00000	Averaged	
12 Benzyl alcohol	0.81825	0.80249	0.80249	0.000	-1.92556	60.00000	Averaged	
15 o-Cresol	0.88788	0.81788	0.81788	0.000	-7.88416	60.00000	Averaged	
18 m,p-Cresols	1.27893	1.27505	1.27505	0.000	-0.30315	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.97668	0.94425	0.94425	0.050	-3.31985	60.00000	Averaged	spcc
19 Hexachloroethane	0.53767	0.51894	0.51894	0.000	-3.48261	60.00000	Averaged	
21 Nitrobenzene	0.35281	0.34682	0.34682	0.000	-1.69798	60.00000	Averaged	
22 Isophorone	0.67701	0.62895	0.62895	0.000	-7.09880	60.00000	Averaged	
23 2-Nitrophenol	0.15292	0.16307	0.16307	0.001	6.63474	20.00000	Averaged	ccc
24 2,4-Dimethylphenol	41.38180	40.00000	0.29961	0.000	3.45451	60.00000	Wt Linear	
25 bis(2-Chloroethoxy)methane	0.36806	0.34233	0.34233	0.000	-6.99093	60.00000	Averaged	
26 2,4-Dichlorophenol	0.25252	0.26160	0.26160	0.001	3.59413	20.00000	Averaged	ccc
27 Benzoic acid	0.18753	0.19379	0.19379	0.000	3.33592	60.00000	Averaged	
28 1,2,4-Trichlorobenzene	0.28905	0.28858	0.28858	0.000	-0.16362	60.00000	Averaged	
30 Naphthalene	0.98486	0.79921	0.79921	0.000	-18.85032	60.00000	Averaged	
204 alpha-Terpineol	0.28429	0.25507	0.25507	0.000	-10.27705	60.00000	Averaged	
31 4-Chloroaniline	0.43446	0.43164	0.43164	0.000	-0.64988	60.00000	Averaged	
32 Hexachlorobutadiene	0.16407	0.16530	0.16530	0.001	0.75184	20.00000	Averaged	ccc
33 4-Chloro-3-methylphenol	0.27436	0.27921	0.27921	0.001	1.76856	20.00000	Averaged	ccc
34 2-Methylnaphthalene	0.60564	0.55335	0.55335	0.000	-8.63470	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-MAR-2010 13:40
Lab File ID: s6c1612.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 03:19
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.58910	0.52291	0.52291	0.000	-11.23674	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.22936	0.18652	0.18652	0.050	-18.67482	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.52459	0.51110	0.51110	0.000	-2.57171	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.33474	0.32662	0.32662	0.001	-2.42453	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.35465	0.40021	0.40021	0.000	12.84507	60.00000	Averaged	
40 2-Chloronaphthalene	0.97365	0.93597	0.93597	0.000	-3.87057	60.00000	Averaged	
42 o-Nitroaniline	0.34201	0.32847	0.32847	0.000	-3.95892	60.00000	Averaged	
41 m-Nitroaniline	0.25409	0.25677	0.25677	0.000	1.05507	60.00000	Averaged	
43 Dimethylphthalate	1.13004	1.08997	1.08997	0.000	-3.54579	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.27058	0.26832	0.26832	0.000	-0.83186	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.35648	0.35493	0.35493	0.000	-0.43442	60.00000	Averaged	
45 Acenaphthylene	1.54257	1.46080	1.46080	0.000	-5.30128	60.00000	Averaged	
47 Acenaphthene	1.03783	0.85181	0.85181	0.001	-17.92376	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	46.32757	40.00000	0.11227	0.050	15.81891	60.00000	Linear	spcc
49 Dibenzofuran	1.26069	1.27158	1.27158	0.000	0.86401	60.00000	Averaged	
51 Diethylphthalate	1.10774	1.08784	1.08784	0.000	-1.79621	60.00000	Averaged	
52 4-Nitrophenol	0.19236	0.19555	0.19555	0.050	1.66021	60.00000	Averaged	spcc
53 Fluorene	1.11781	1.00173	1.00173	0.000	-10.38406	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.53621	0.52718	0.52718	0.000	-1.68531	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	53.31509	40.00000	0.12791	0.000	33.28773	60.00000	Linear	
56 p-Nitroaniline	0.20835	0.21709	0.21709	0.000	4.19498	60.00000	Averaged	
133 Diphenylamine	0.51902	0.51728	0.51728	0.001	-0.33469	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.69767	0.67966	0.67966	0.000	-2.58092	60.00000	Averaged	
61 4-Bromophenylphenylether	0.17368	0.16740	0.16740	0.000	-3.61790	60.00000	Averaged	
63 Hexachlorobenzene	0.16595	0.16267	0.16267	0.000	-1.98022	60.00000	Averaged	
65 Pentachlorophenol	0.09397	0.10258	0.10258	0.001	9.16648	20.00000	Averaged	ccc
206 n-Octadecane	0.48063	0.43611	0.43611	0.000	-9.26268	60.00000	Averaged	
68 Phenanthrene	0.97466	0.84202	0.84202	0.000	-13.60887	60.00000	Averaged	
69 Anthracene	0.98189	0.86400	0.86400	0.000	-12.00660	60.00000	Averaged	
72 Di-n-butylphthalate	1.13557	1.00857	1.00857	0.000	-11.18389	60.00000	Averaged	
76 Fluoranthene	0.98842	0.88230	0.88230	0.001	-10.73646	20.00000	Averaged	ccc
79 Pyrene	1.21938	1.19482	1.19482	0.000	-2.01369	60.00000	Averaged	
85 Butylbenzylphthalate	0.58998	0.57132	0.57132	0.000	-3.16294	60.00000	Averaged	
89 Benzo(a)anthracene	1.04446	0.93343	0.93343	0.000	-10.63003	60.00000	Averaged	
92 Chrysene	0.99764	0.88878	0.88878	0.000	-10.91116	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.78860	0.68724	0.68724	0.000	-12.85331	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-MAR-2010 13:40
Lab File ID: s6c1612.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 03:19
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.53062	1.45980	1.45980	0.001	-4.62716	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	1.08744	1.04680	1.04680	0.000	-3.73780	60.00000	Averaged	
96 Benzo(k)fluoranthene	1.04328	1.00268	1.00268	0.000	-3.89200	60.00000	Averaged	
97 Benzo(a)pyrene	0.92098	0.86170	0.86170	0.001	-6.43663	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	0.84510	0.68869	0.68869	0.000	-18.50875	60.00000	Averaged	
100 Dibenzo(a,h)anthracene	0.68068	0.54838	0.54838	0.000	-19.43674	60.00000	Averaged	
101 Benzo(ghi)perylene	0.72160	0.57432	0.57432	0.000	-20.41069	60.00000	Averaged	
126 m-Dinitrobenzene	0.19174	0.20089	0.20089	0.000	4.77491	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.27788	0.27031	0.27031	0.000	-2.72357	60.00000	Averaged	
143 Dinoseb	45.06416	40.00000	0.15323	0.000	12.66041	60.00000	Linear	
173 Carbazole	0.76672	0.77286	0.77286	0.000	0.80138	60.00000	Averaged	
184 p-Benzoquinone	0.24293	0.15889	0.15889	0.000	-34.59747	60.00000	Averaged	
192 Methoxychlor	0.66555	0.59810	0.59810	0.000	-10.13445	60.00000	Averaged	
211 p-Toluidine	1.33748	1.16997	1.16997	0.000	-12.52380	60.00000	Averaged	
210 m-Toluidine	1.85679	1.79116	1.79116	0.000	-3.53432	60.00000	Averaged	
215 2-Ethoxyethanol	0.71211	0.71416	0.71416	0.000	0.28894	60.00000	Averaged	
179 Dibenzo(a,e)pyrene	0.32071	0.16099	0.16099	0.000	-49.80217	60.00000	Averaged	
26 Phthalic anhydride	53.63299	40.00000	0.19118	0.000	34.08247	60.00000	Linear	
214 1,4-Dinitrobenzene	0.26971	0.26900	0.26900	0.000	-0.26254	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	0.15700	0.15460	0.15460	0.000	-1.53152	60.00000	Averaged	
M 225 Trichlorophenols	0.34470	0.36342	0.36342	0.000	5.43080	60.00000	Averaged	
M 226 Tetrachlorophenols	0.27788	0.27031	0.27031	0.000	-2.72357	60.00000	Averaged	
M 227 Benzo(b,k)fluoranthene	1.06536	1.02474	1.02474	0.000	-3.81330	60.00000	Averaged	

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Data file : /chem/MSD6.i/s031610.b/s6c1612.d
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGAICV
Inj Date : 16-MAR-2010 13:40
Operator : nag1 Inst ID: MSD6.i
Smp Info : |WBN100309-09.1|040 PPM|1|SVM|1|MEGAICV
Misc Info : |MSD8270|WBN100310-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m
Meth Date : 17-Mar-2010 09:42 nat00999 Quant Type: ISTD
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpc1p1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.963	3.963	(1.000)	456524	40.0000	
* 29 Naphthalene-d8	136	4.834	4.834	(1.000)	1718025	40.0000	
* 46 Acenaphthene-d10	164	6.093	6.093	(1.000)	1004258	40.0000	
* 67 Phenanthrene-d10	188	7.269	7.269	(1.000)	1718283	40.0000	
* 91 Chrysene-d12	240	9.698	9.698	(1.000)	1300638	40.0000	
* 98 Perylene-d12	264	11.398	11.398	(1.000)	952660	40.0000	
$ 3 2-Fluorophenol	112	3.140	3.140	(0.792)	512074	40.0000	40.3
$ 5 Phenol-d5	99	3.669	3.669	(0.926)	625784	40.0000	38.8
$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.895)	659299	40.0000	40.1
$ 39 2-Fluorobiphenyl	172	5.575	5.575	(0.915)	1071322	40.0000	41.3
$ 60 2,4,6-Tribromophenol	329	6.692	6.692	(1.098)	115684	40.0000	41.0
$ 81 p-Terphenyl-d14	244	8.657	8.657	(0.893)	1033963	40.0000	45.6
1 N-Methyl-N-nitrosomethylamine	74	2.452	2.452	(0.619)	332865	40.0000	37.6
2 Pyridine	79	2.481	2.481	(0.626)	398246	40.0000	31.6
4 Aniline	66	3.746	3.746	(0.945)	277463	40.0000	36.3
6 Phenol	94	3.681	3.681	(0.929)	648240	40.0000	39.7
7 bis(2-Chloroethyl) ether	63	3.763	3.763	(0.950)	429717	40.0000	35.4
8 2-Chlorophenol	128	3.828	3.828	(0.966)	510524	40.0000	38.4
203 n-Decane	43	3.810	3.810	(0.961)	705124	40.0000	36.5
9 1,3-Dichlorobenzene	146	3.928	3.928	(0.991)	588476	40.0000	40.2
11 1,4-Dichlorobenzene	146	3.975	3.975	(1.003)	556738	40.0000	39.2
13 1,2-Dichlorobenzene	146	4.081	4.081	(1.030)	486655	40.0000	37.8
14 bis(2-Chloroisopropyl)ether	45	4.104	4.104	(1.036)	955210	40.0000	37.4
12 Benzyl alcohol	108	4.028	4.028	(1.016)	366356	40.0000	39.2
15 o-Cresol	107	4.075	4.075	(1.028)	373380	40.0000	36.8
18 m,p-Cresols	107	4.181	4.181	(1.055)	582091	40.0000	39.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.204	4.204	(1.061)	431074	40.0000	38.7
19 Hexachloroethane	117	4.310	4.310	(1.088)	236910	40.0000	38.6
21 Nitrobenzene	77	4.340	4.340	(0.898)	595845	40.0000	39.3
22 Isophorone	82	4.498	4.498	(0.931)	1080551	40.0000	37.2
23 2-Nitrophenol	139	4.557	4.557	(0.943)	280151	40.0000	42.6
24 2,4-Dimethylphenol	122	4.546	4.546	(0.940)	514742	40.0000	41.4
25 bis(2-Chloroethoxy)methane	93	4.616	4.616	(0.955)	588138	40.0000	37.2
26 2,4-Dichlorophenol	162	4.716	4.716	(0.976)	449433	40.0000	41.4
27 Benzoic acid	105	4.604	4.604	(0.953)	332933	40.0000	41.3
28 1,2,4-Trichlorobenzene	180	4.781	4.781	(0.989)	495781	40.0000	39.9
30 Naphthalene	128	4.851	4.851	(1.004)	1373063	40.0000	32.4
204 alpha-Terpineol	59	4.822	4.822	(0.998)	438221	40.0000	35.9
31 4-Chloroaniline	127	4.863	4.863	(1.006)	741569	40.0000	39.7
32 Hexachlorobutadiene	225	4.910	4.910	(1.016)	283988	40.0000	40.3
33 4-Chloro-3-methylphenol	107	5.169	5.169	(1.069)	479692	40.0000	40.7
34 2-Methylnaphthalene	142	5.328	5.328	(1.102)	950663	40.0000	36.5
35 1-Methylnaphthalene	142	5.404	5.404	(1.118)	898368	40.0000	35.5
36 Hexachlorocyclopentadiene	237	5.434	5.434	(0.892)	187318	40.0000	32.5
205 2,3-Dichloroaniline	161	5.528	5.528	(0.907)	513274	40.0000	39.0
37 2,4,6-Trichlorophenol	196	5.516	5.516	(0.905)	328015	40.0000	39.0
38 2,4,5-Trichlorophenol	196	5.545	5.545	(0.910)	401913	40.0000	45.1
40 2-Chloronaphthalene	162	5.687	5.687	(0.933)	939951	40.0000	38.4
42 o-Nitroaniline	65	5.740	5.740	(0.942)	329871	40.0000	38.4
41 m-Nitroaniline	138	6.040	6.040	(0.991)	257868	40.0000	40.4
43 Dimethylphthalate	163	5.851	5.851	(0.960)	1094609	40.0000	38.6
44 2,6-Dinitrotoluene	165	5.910	5.910	(0.970)	269467	40.0000	39.7
50 2,4-Dinitrotoluene	165	6.204	6.204	(1.018)	356439	40.0000	39.8
45 Acenaphthylene	152	5.993	5.993	(0.984)	1467016	40.0000	37.9
47 Acenaphthene	154	6.116	6.116	(1.004)	855440	40.0000	32.8
48 2,4-Dinitrophenol	184	6.110	6.110	(1.003)	112751	40.0000	46.3
49 Dibenzofuran	168	6.245	6.245	(1.025)	1276999	40.0000	40.3
51 Diethylphthalate	149	6.363	6.363	(1.044)	1092470	40.0000	39.3
52 4-Nitrophenol	139	6.122	6.122	(1.005)	196387	40.0000	40.7
53 Fluorene	166	6.504	6.504	(1.068)	1005998	40.0000	35.8
54 4-Chlorophenylphenylether	204	6.481	6.481	(1.064)	529421	40.0000	39.3
55 2-Methyl-4,6-dinitrophenol	198	6.522	6.522	(0.897)	219793	40.0000	53.3
56 p-Nitroaniline	138	6.504	6.504	(1.068)	218010	40.0000	41.7
133 Diphenylamine	169	6.569	6.569	(0.904)	888833	40.0000	39.9
58 1,2-Diphenylhydrazine	77	6.604	6.604	(0.909)	1167855	40.0000	39.0
61 4-Bromophenylphenylether	248	6.869	6.869	(0.945)	287633	40.0000	38.6
63 Hexachlorobenzene	284	6.940	6.940	(0.955)	279510	40.0000	39.2
65 Pentachlorophenol	266	7.087	7.087	(0.975)	176266	40.0000	43.7
206 n-Octadecane	57	7.081	7.081	(0.974)	749361	40.0000	36.3
68 Phenanthrene	178	7.292	7.292	(1.003)	1446824	40.0000	34.6
69 Anthracene	178	7.334	7.334	(1.009)	1484597	40.0000	35.2
72 Di-n-butylphthalate	149	7.692	7.692	(1.058)	1733003	40.0000	35.5
76 Fluoranthene	202	8.339	8.339	(1.147)	1516040	40.0000	35.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	8.557	8.557	(0.882)	1554030	40.0000	39.2
85 Butylbenzylphthalate	149	9.092	9.092	(0.938)	743080	40.0000	38.7
89 Benzo(a)anthracene	228	9.681	9.681	(0.998)	1214059	40.0000	35.7
92 Chrysene	228	9.722	9.722	(1.002)	1155983	40.0000	35.6
93 bis(2-Ethylhexyl)phthalate	149	9.616	9.616	(0.992)	893848	40.0000	34.8
94 Di-n-octylphthalate	149	10.280	10.280	(0.902)	1390689	40.0000	38.1
95 Benzo(b)fluoranthene	252	10.875	10.875	(0.954)	997243	40.0000	38.5
96 Benzo(k)fluoranthene	252	10.910	10.910	(0.957)	955210	40.0000	38.4
97 Benzo(a)pyrene	252	11.322	11.322	(0.993)	820904	40.0000	37.4
99 Indeno(1,2,3-cd)pyrene	276	13.204	13.204	(1.158)	656083	40.0000	32.6
100 Dibenzo(a,h)anthracene	278	13.221	13.221	(1.160)	522415	40.0000	32.2
101 Benzo(ghi)perylene	276	13.757	13.757	(1.207)	547130	40.0000	31.8
126 m-Dinitrobenzene	168	5.893	5.893	(0.967)	201747	40.0000	41.9
130 2,3,4,6-Tetrachlorophenol	232	6.316	6.316	(1.037)	271462	40.0000	38.9
143 Dinoseb	211	7.210	7.210	(0.992)	263293	40.0000	45.1
173 Carbazole	167	7.451	7.451	(1.025)	1327998	40.0000	40.3
184 p-Benzoquinone	54	3.446	3.446	(0.869)	72535	40.0000	26.2
192 Methoxychlor	227	9.569	9.569	(0.987)	777910	40.0000	35.9
211 p-Toluidine	106	4.246	4.246	(1.071)	534121	40.0000	35.0(H)
210 m-Toluidine	106	4.263	4.263	(1.076)	817708	40.0000	38.6
215 2-Ethoxyethanol	59	2.293	2.293	(0.578)	326033	40.0000	40.1
179 Dibenzo(a,e)pyrene	302	17.974	17.974	(1.577)	153366	40.0000	20.1
26 Phthalic anhydride	104	5.369	5.369	(1.111)	328450	40.0000	53.6
214 1,4-Dinitrobenzene	75	5.834	5.834	(0.958)	270150	40.0000	39.9
216 Methylenebis(2-chloroaniline)	231	9.628	9.628	(0.993)	201073	40.0000	39.4
M 225 Trichlorophenols	196				729928	80.0000	84.3
M 226 Tetrachlorophenols	232				271462	40.0000	38.9
M 227 Benzo(b,k)fluoranthene	252				1952453	80.0000	76.9

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s031610.b/s6c1612.d
Date : 16-MAR-2010 13:40
Client ID: MEGAICV
Sample Info: IWBN100309-09,1|040 PPM|1|SVM|1|MEGAICV

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

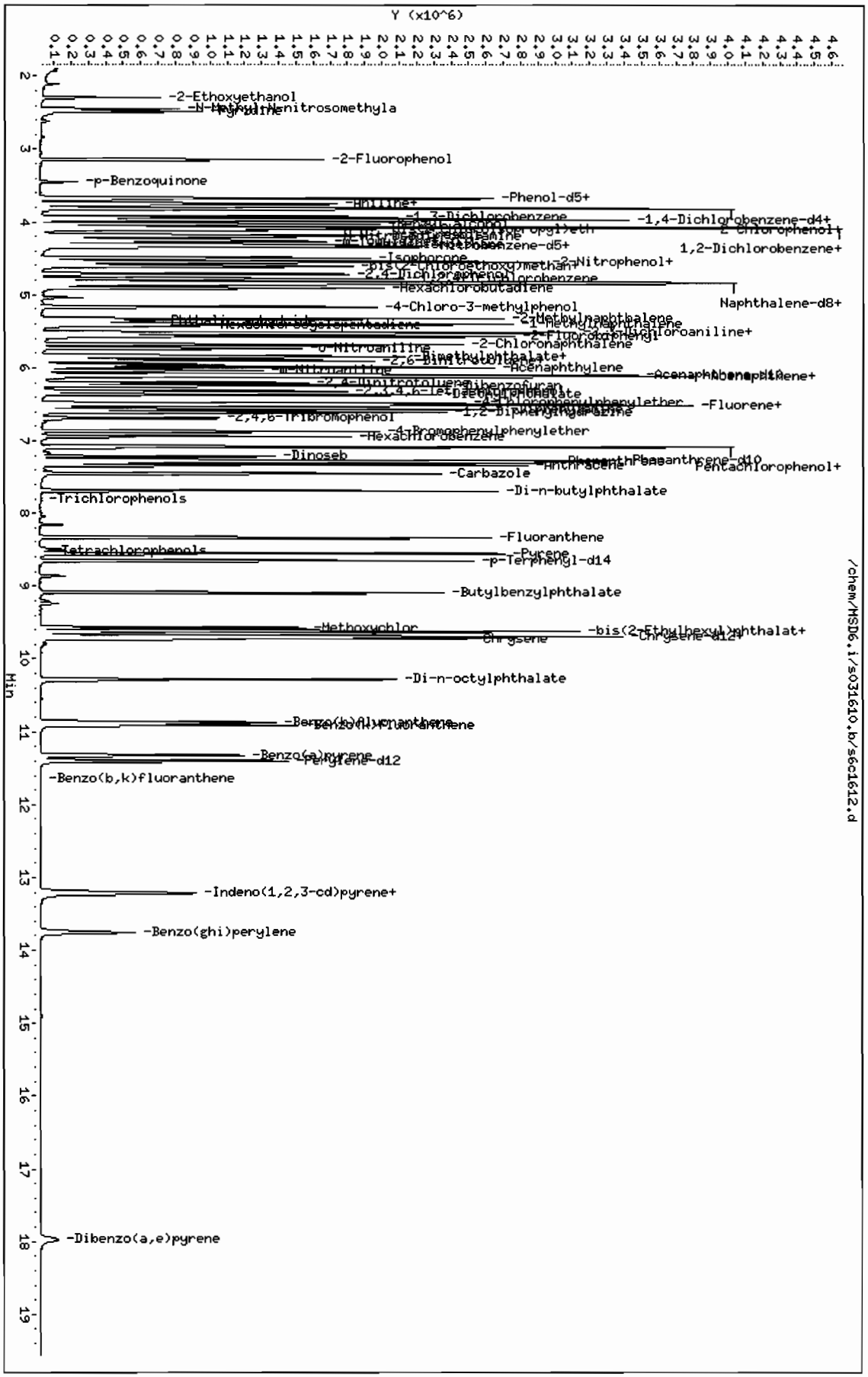

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Data file : /chem/MSD6.i/s031610.b/s6c1635.d
Lab Smp Id: WBN100312-08.1 Client Smp ID: APICV
Inj Date : 17-MAR-2010 00:41
Operator : nag1 Inst ID: MSD6.i
Smp Info : |WBN100312-08.1|40 PPM|1|SVM|1|APICV
Misc Info : |MSD8270|WBN100310-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m
Meth Date : 17-Mar-2010 09:44 nat00999 Quant Type: ISTD
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d
Als bottle: 34 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.969	3.969	(1.000)	439915	40.0000	
* 29 Naphthalene-d8	136	4.840	4.840	(1.000)	1539251	40.0000	
* 46 Acenaphthene-d10	164	6.098	6.098	(1.000)	929656	40.0000	
* 67 Phenanthrene-d10	188	7.281	7.281	(1.000)	1586415	40.0000	
* 91 Chrysene-d12	240	9.704	9.704	(1.000)	1243348	40.0000	
* 98 Perylene-d12	264	11.422	11.422	(1.000)	840077	40.0000	
209 Benzaldehyde	77	3.698	3.698	(0.932)	360181	40.0000	34.1
16 Acetophenone	105	4.222	4.222	(1.064)	551051	40.0000	40.1
189 Caprolactam	113	5.116	5.116	(1.057)	159753	40.0000	42.4
208 1,1'-Biphenyl	154	5.663	5.663	(0.929)	1104517	40.0000	42.7
207 Atrazine	173	6.981	6.981	(0.959)	77154	40.0000	42.2
77 Benzidine	184	8.439	8.439	(0.870)	473712	40.0000	36.2
90 3,3'-Dichlorobenzidine	252	9.639	9.639	(0.993)	361998	40.0000	38.6
102 1,4-Dioxane	88	2.310	2.310	(0.582)	186917	40.0000	48.4
103 Methyl methacrylate	100	2.304	2.304	(0.581)	103758	40.0000	49.7
104 Ethyl methacrylate	69	2.669	2.669	(0.672)	436599	40.0000	48.0
105 2-Picoline	93	2.863	2.863	(0.721)	517853	40.0000	38.8
106 N-Nitrosomethylethylamine	88	2.904	2.904	(0.732)	227308	40.0000	38.4
107 Methyl methanesulfonate	80	3.063	3.063	(0.772)	282879	40.0000	43.1
108 N-Nitrosodiethylamine	102	3.299	3.299	(0.831)	226233	40.0000	37.8
109 Ethyl Methanesulfonate	79	3.457	3.457	(0.871)	379437	40.0000	47.5
110 Pentachloroethane	167	3.798	3.798	(0.957)	202582	40.0000	55.3
111 N-Nitrosopyrrolidine	100	4.210	4.210	(1.061)	240197	40.0000	37.4(Q)
113 N-Nitrosomorpholine	56	4.234	4.234	(1.067)	298338	40.0000	39.8
114 o-Toluidine	106	4.251	4.251	(1.071)	753495	40.0000	39.5
115 N-Nitrosopiperidine	114	4.451	4.451	(0.920)	239154	40.0000	40.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.710	4.710	(0.973)	1297528	40.0000	38.6
118 2,6-Dichlorophenol	162	4.881	4.881	(1.008)	393003	40.0000	41.6
119 Hexachloropropene	213	4.910	4.910	(1.015)	324808	40.0000	63.4
120 p-Phenylenediamine	108	5.122	5.122	(1.058)	391247	40.0000	33.5
121 N-Nitrosodi-n-butylamine	84	5.087	5.087	(1.051)	363602	40.0000	36.0(Q)
122 Safrole	162	5.251	5.251	(1.085)	381780	40.0000	46.4
123 1,2,4,5-Tetrachlorobenzene	216	5.457	5.457	(0.895)	464506	40.0000	44.7
124 Isosafrole	162	5.622	5.622	(0.922)	436182	40.0000	53.1
125 1,4-Naphthoquinone	158	5.816	5.816	(0.954)	335363	40.0000	42.1
127 Pentachlorobenzene	250	6.216	6.216	(1.019)	367336	40.0000	42.1
128 1-Naphthylamine	143	6.310	6.310	(1.035)	804986	40.0000	38.5
129 2-Naphthylamine	143	6.363	6.363	(1.043)	884595	40.0000	40.4
131 5-Nitro-o-toluidine	152	6.504	6.504	(1.067)	277025	40.0000	38.9
136 1,3,5-Trinitrobenzene	75	6.757	6.757	(0.928)	330916	40.0000	53.4
137 Phenacetin	108	6.798	6.798	(0.934)	497127	40.0000	42.7(Q)
138 Diallate	86	6.787	6.787	(0.932)	378872	40.0000	38.4
212 Cis Diallate	86	6.863	6.863	(0.943)	85109	6.00000	7.4
213 Trans Diallate	86	6.787	6.787	(0.932)	378872	34.0000	32.6
140 4-Aminobiphenyl	169	7.092	7.092	(0.974)	964585	40.0000	44.2
141 Pentachloronitrobenzene	237	7.110	7.110	(0.977)	113813	40.0000	42.9(Q)
142 Pronamide	173	7.110	7.110	(0.977)	431425	40.0000	41.7
146 4-Nitroquinoline-1-oxide	101	7.951	7.951	(1.092)	42870	40.0000	37.5
147 Methapyrilene	58	7.986	7.986	(1.097)	571288	40.0000	32.9
148 Isodrin	193	8.210	8.210	(1.128)	169307	40.0000	38.7
149 Aramite	185	8.616	8.616	(1.183)	76213	40.0000	40.5
150 Kepone	272	9.204	9.204	(1.264)	118500	40.0000	39.0
151 p-(Dimethylamino)azobenzene	120	8.792	8.792	(0.906)	406018	40.0000	42.1
152 Chlorobenzilate	251	8.828	8.828	(0.910)	391852	40.0000	42.8
153 3,3'-Dimethylbenzidine	212	9.116	9.116	(0.939)	698099	40.0000	37.8
155 2-Acetylaminofluorene	181	9.363	9.363	(0.965)	414870	40.0000	38.3
157 7,12Dimethylbenz(a)anthracene	256	10.869	10.869	(0.952)	423939	40.0000	41.6
158 3-Methylcholanthrene	268	11.839	11.839	(1.037)	339249	40.0000	40.4(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s031610.b/s6c1635.d
Date : 17-MAR-2010 00:41
Client ID: APICV
Sample Info: IWBN100312-08.1|40 PPM|1|SVM|1|APICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

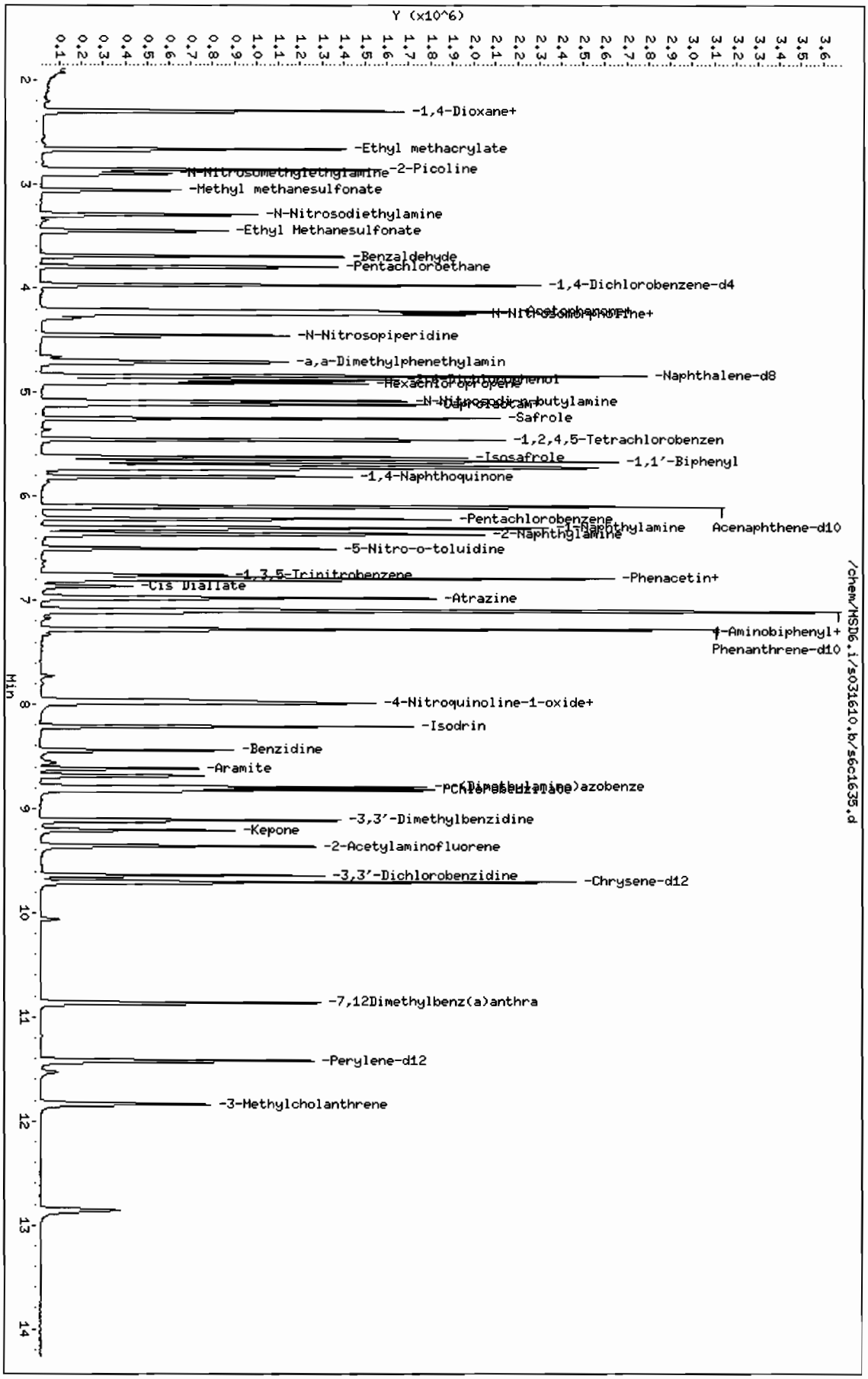

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 20-MAR-2010 15:22
Lab File ID: s6c2005.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100312-03.3 Quant Type: ISTD
Method: /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.96016	0.89482	0.89482	0.000	-6.80537	60.00000	Averaged
16 Acetophenone	1.24814	1.19219	1.19219	0.000	-4.48267	60.00000	Averaged
189 Caprolactam	0.09790	0.08921	0.08921	0.000	-8.86749	60.00000	Averaged
208 1,1'-Biphenyl	1.11180	1.06819	1.06819	0.000	-3.92265	60.00000	Averaged
207 Atrazine	0.04606	0.04555	0.04555	0.000	-1.10178	60.00000	Averaged
77 Benzidine	0.42058	0.29615	0.29615	0.000	-29.58499	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.30172	0.29349	0.29349	0.000	-2.72948	60.00000	Averaged
102 1,4-Dioxane	0.35119	0.33235	0.33235	0.000	-5.36418	60.00000	Averaged
103 Methyl methacrylate	0.18979	0.18996	0.18996	0.000	0.08938	60.00000	Averaged
104 Ethyl methacrylate	0.82709	0.75123	0.75123	0.000	-9.17223	60.00000	Averaged
105 2-Picoline	1.21280	1.15322	1.15322	0.000	-4.91208	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.53810	0.47171	0.47171	0.000	-12.33760	60.00000	Averaged
107 Methyl methanesulfonate	0.59726	0.54914	0.54914	0.000	-8.05707	60.00000	Averaged
108 N-Nitrosodiethylamine	0.54437	0.50236	0.50236	0.000	-7.71821	60.00000	Averaged
109 Ethyl Methanesulfonate	0.72583	0.63098	0.63098	0.000	-13.06736	60.00000	Averaged
110 Pentachloroethane	0.33314	0.32694	0.32694	0.000	-1.86102	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.58446	0.52768	0.52768	0.000	-9.71532	60.00000	Averaged
113 N-Nitrosomorpholine	0.68078	0.62098	0.62098	0.000	-8.78389	60.00000	Averaged
114 o-Toluidine	1.73474	1.64225	1.64225	0.000	-5.33157	60.00000	Averaged
115 N-Nitrosopiperidine	0.15362	0.13993	0.13993	0.000	-8.91021	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.87353	0.74645	0.74645	0.000	-14.54843	60.00000	Averaged
118 2,6-Dichlorophenol	0.24533	0.23357	0.23357	0.000	-4.79382	60.00000	Averaged
119 Hexachloropropene	0.13311	0.08857	0.08857	0.000	-33.45646	60.00000	Averaged
120 p-Phenylenediamine	0.30365	0.25324	0.25324	0.000	-16.60112	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.26282	0.22473	0.22473	0.000	-14.49332	60.00000	Averaged
122 Safrole	0.21396	0.21216	0.21216	0.000	-0.84102	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44716	0.45897	0.45897	0.000	2.64228	60.00000	Averaged
124 Isosafrole	0.35324	0.32312	0.32312	0.000	-8.52835	60.00000	Averaged
125 1,4-Naphthoquinone	0.34254	0.33199	0.33199	0.000	-3.07871	60.00000	Averaged
127 Pentachlorobenzene	0.37515	0.39097	0.39097	0.000	4.21466	60.00000	Averaged
128 1-Naphthylamine	0.89931	0.81231	0.81231	0.000	-9.67465	60.00000	Averaged
129 2-Naphthylamine	0.94089	0.84042	0.84042	0.000	-10.67782	60.00000	Averaged
131 5-Nitro-o-toluidine	0.30665	0.25461	0.25461	0.000	-16.97013	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.15613	0.10585	0.10585	0.000	-32.20593	60.00000	Averaged
137 Phenacetin	0.29347	0.25310	0.25310	0.000	-13.75481	60.00000	Averaged
138 Diallate	0.24862	0.22850	0.22850	0.000	-8.09230	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 20-MAR-2010 15:22
Lab File ID: s6c2005.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100312-03.3 Quant Type: ISTD
Method: /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.28918	0.24806	0.24806	0.000	-14.22061	60.00000	Averaged
213 Trans Diallate	0.29250	0.26883	0.26883	0.000	-8.09230	60.00000	Averaged
140 4-Aminobiphenyl	0.55066	0.49237	0.49237	0.000	-10.58397	60.00000	Averaged
141 Pentachloronitrobenzene	0.06695	0.07135	0.07135	0.000	6.58110	60.00000	Averaged
142 Pronamide	0.26094	0.25931	0.25931	0.000	-0.62248	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02879	0.02498	0.02498	0.000	-13.23682	60.00000	Averaged
147 Methapyrilene	0.43748	0.39906	0.39906	0.000	-8.78258	60.00000	Averaged
148 Isodrin	0.11028	0.11460	0.11460	0.000	3.91881	60.00000	Averaged
149 Aramite	0.04746	0.04755	0.04755	0.000	0.19177	60.00000	Averaged
150 Kepone	0.07668	0.08132	0.08132	0.000	6.05603	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31031	0.27771	0.27771	0.000	-10.50844	60.00000	Averaged
152 Chlorobenzilate	0.29472	0.30967	0.30967	0.000	5.07493	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.59350	0.55125	0.55125	0.000	-7.11862	60.00000	Averaged
155 2-Acetylaminofluorene	0.34851	0.32258	0.32258	0.000	-7.44180	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.48545	0.49342	0.49342	0.000	1.64352	60.00000	Averaged
158 3-Methylcholanthrene	0.40010	0.40749	0.40749	0.000	1.84580	60.00000	Averaged

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Data file : /chem/MSD6.i/s032010.b/s6c2005.d
Lab Smp Id: WBN100312-03.3 Client Smp ID: APCVS
Inj Date : 20-MAR-2010 15:22
Operator : nag1 Inst ID: MSD6.i
Smp Info : |WBN100312-03.3|40 PPM|1|SVM|1|APCVS
Misc Info : |MSD8270|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 21-Mar-2010 13:31 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.875	3.875	(1.000)	337680	40.0000	
* 29 Naphthalene-d8	136	4.740	4.740	(1.000)	1173617	40.0000	
* 46 Acenaphthene-d10	164	5.992	5.992	(1.000)	742841	40.0000	
* 67 Phenanthrene-d10	188	7.157	7.157	(1.000)	1247917	40.0000	
* 91 Chrysene-d12	240	9.563	9.563	(1.000)	1062454	40.0000	
* 98 Perylene-d12	264	11.192	11.192	(1.000)	879792	40.0000	
209 Benzaldehyde	77	3.598	3.598	(0.929)	302162	40.0000	37.3(H)
16 Acetophenone	105	4.128	4.128	(1.065)	402580	40.0000	38.2(H)
189 Caprolactam	113	5.010	5.010	(1.057)	104704	40.0000	36.4
208 1,1'-Biphenyl	154	5.563	5.563	(0.928)	793497	40.0000	38.4(H)
207 Atrazine	173	6.863	6.863	(0.959)	56842	40.0000	39.6(H)
77 Benzidine	184	8.310	8.310	(0.869)	314649	40.0000	28.2
90 3,3'-Dichlorobenzidine	252	9.498	9.498	(0.993)	311817	40.0000	38.9(H)
102 1,4-Dioxane	88	2.210	2.210	(0.570)	112227	40.0000	37.8
103 Methyl methacrylate	100	2.204	2.204	(0.569)	64147	40.0000	40.0
104 Ethyl methacrylate	69	2.581	2.581	(0.666)	253674	40.0000	36.3
105 2-Picoline	93	2.769	2.769	(0.715)	389420	40.0000	38.0(H)
106 N-Nitrosomethylethylamine	88	2.816	2.816	(0.727)	159288	40.0000	35.1
107 Methyl methanesulfonate	80	2.975	2.975	(0.768)	185433	40.0000	36.8
108 N-Nitrosodiethylamine	102	3.204	3.204	(0.827)	169636	40.0000	36.9
109 Ethyl Methanesulfonate	79	3.363	3.363	(0.868)	213069	40.0000	34.8
110 Pentachloroethane	167	3.698	3.698	(0.954)	110402	40.0000	39.2
111 N-Nitrosopyrrolidine	100	4.116	4.116	(1.062)	178187	40.0000	36.1(QH)
113 N-Nitrosomorpholine	56	4.134	4.134	(1.067)	209694	40.0000	36.5
114 o-Toluidine	106	4.151	4.151	(1.071)	554556	40.0000	37.9
115 N-Nitrosopiperidine	114	4.351	4.351	(0.918)	164225	40.0000	36.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.604	4.604	(0.971)	876044	40.0000	34.2
118 2,6-Dichlorophenol	162	4.781	4.781	(1.009)	274124	40.0000	38.1
119 Hexachloropropene	213	4.810	4.810	(1.015)	103953	40.0000	26.6
120 p-Phenylenediamine	108	5.016	5.016	(1.058)	297211	40.0000	33.4(H)
121 N-Nitrosodi-n-butylamine	84	4.987	4.987	(1.052)	263749	40.0000	34.2(QH)
122 Safrole	162	5.151	5.151	(1.087)	248997	40.0000	39.7
123 1,2,4,5-Tetrachlorobenzene	216	5.351	5.351	(0.893)	340944	40.0000	41.0(H)
124 Isosafrole	162	5.522	5.522	(0.921)	240024	40.0000	36.6(H)
125 1,4-Naphthoquinone	158	5.710	5.710	(0.953)	246618	40.0000	38.8
127 Pentachlorobenzene	250	6.110	6.110	(1.020)	290425	40.0000	41.7(H)
128 1-Naphthylamine	143	6.198	6.198	(1.034)	603415	40.0000	36.1(H)
129 2-Naphthylamine	143	6.257	6.257	(1.044)	624299	40.0000	35.7(H)
131 5-Nitro-o-toluidine	152	6.392	6.392	(1.067)	189133	40.0000	33.2
136 1,3,5-Trinitrobenzene	75	6.645	6.645	(0.928)	132090	40.0000	27.1(H)
137 Phenacetin	108	6.687	6.687	(0.934)	315853	40.0000	34.5(QH)
138 Diallate	86	6.675	6.675	(0.933)	285154	40.0000	36.8(H)
212 Cis Diallate	86	6.751	6.751	(0.943)	46433	6.00000	5.1(H)
213 Trans Diallate	86	6.675	6.675	(0.933)	285154	34.0000	31.2(H)
140 4-Aminobiphenyl	169	6.975	6.975	(0.975)	614442	40.0000	35.8
141 Pentachloronitrobenzene	237	6.992	6.992	(0.977)	89044	40.0000	42.6(Q)
142 Pronamide	173	6.992	6.992	(0.977)	323599	40.0000	39.8(H)
146 4-Nitroquinoline-1-oxide	101	7.828	7.828	(1.094)	31175	40.0000	34.7(H)
147 Methapyrilene	58	7.863	7.863	(1.099)	497991	40.0000	36.5(H)
148 Isodrin	193	8.081	8.081	(1.129)	143007	40.0000	41.6(H)
149 Aramite	185	8.486	8.486	(1.186)	59334	40.0000	40.1(H)
150 Kepone	272	9.069	9.069	(1.267)	101485	40.0000	42.4(H)
151 p-(Dimethylamino)azobenzene	120	8.663	8.663	(0.906)	295049	40.0000	35.8(H)
152 Chlorobenzilate	251	8.692	8.692	(0.909)	329013	40.0000	42.0(H)
153 3,3'-Dimethylbenzidine	212	8.980	8.980	(0.939)	585677	40.0000	37.2(H)
155 2-Acetylaminofluorene	181	9.222	9.222	(0.964)	342722	40.0000	37.0
157 7,12Dimethylbenz(a)anthracene	256	10.669	10.669	(0.953)	434110	40.0000	40.6(H)
158 3-Methylcholanthrene	268	11.586	11.586	(1.035)	358506	40.0000	40.7(QH)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s032010.b/s6c2005.d
Date : 20-MAR-2010 15:22
Client ID: APCVS
Sample Info: IWBN100312-03.3140 PPM11ISVM11APCVS
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

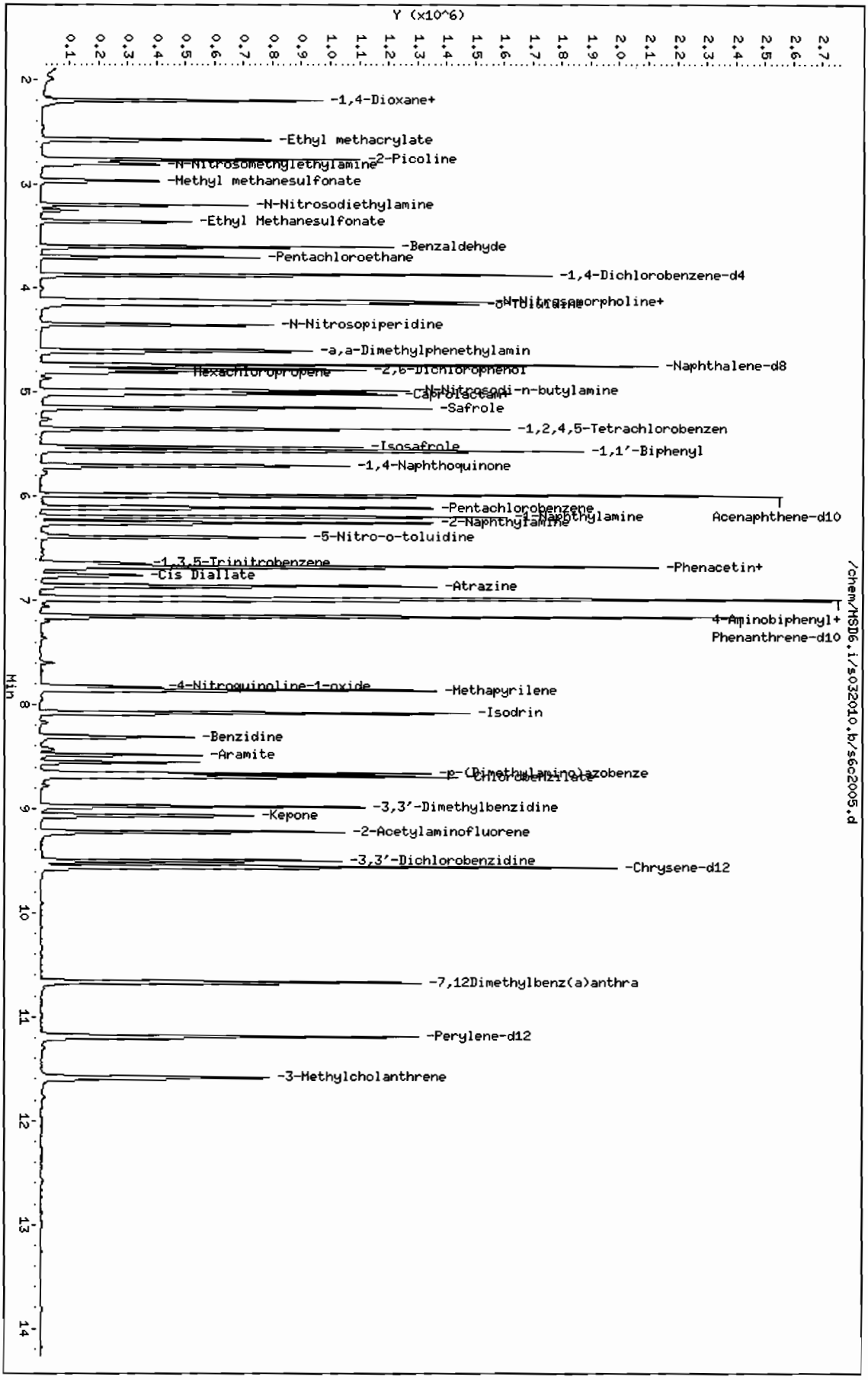

Page 1

Data File: /chem/MSD6.i/s032010.b/s6c2006.d
Report Date: 24-Mar-2010 18:20

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 20-MAR-2010 15:45
Lab File ID: s6c2006.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100309-05.3 Quant Type: ISTD
Method: /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.11196	1.00219	1.00219	0.000	-9.87137	60.00000	Averaged
$ 5 Phenol-d5	1.41412	1.20425	1.20425	0.000	-14.84083	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.38237	0.32337	0.32337	0.000	-15.43152	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.03201	1.05949	1.05949	0.000	2.66254	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11225	0.12168	0.12168	0.000	8.40759	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.69704	0.71667	0.71667	0.000	2.81715	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.77557	0.64765	0.64765	0.000	-16.49456	60.00000	Averaged
2 Pyridine	1.10526	0.90273	0.90273	0.000	-18.32398	60.00000	Averaged
4 Aniline	0.66950	0.57029	0.57029	0.000	-14.81739	60.00000	Averaged
6 Phenol	1.43150	1.18631	1.18631	0.001	-17.12824	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06440	0.87191	0.87191	0.000	-18.08506	60.00000	Averaged
8 2-Chlorophenol	1.16424	1.04973	1.04973	0.000	-9.83574	60.00000	Averaged
203 n-Decane	1.69067	1.27619	1.27619	0.000	-24.51578	60.00000	Averaged
9 1,3-Dichlorobenzene	1.28259	1.27629	1.27629	0.000	-0.49158	60.00000	Averaged
11 1,4-Dichlorobenzene	1.24541	1.22201	1.22201	0.001	-1.87889	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.12890	1.14719	1.14719	0.000	1.61973	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.23712	1.69657	1.69657	0.000	-24.16287	60.00000	Averaged
12 Benzyl alcohol	0.81825	0.51413	0.51413	0.000	-37.16671	60.00000	Averaged
15 o-Cresol	0.88788	0.79000	0.79000	0.000	-11.02398	60.00000	Averaged
18 m,p-Cresols	1.27893	1.05513	1.05513	0.000	-17.49858	60.00000	Averaged
17 N-Nitrosodipropylamine	0.97668	0.80229	0.80229	0.050	-17.85495	60.00000	Averaged spcc
19 Hexachloroethane	0.53767	0.47331	0.47331	0.000	-11.97067	60.00000	Averaged
21 Nitrobenzene	0.35281	0.30783	0.30783	0.000	-12.74830	60.00000	Averaged
22 Isophorone	0.67701	0.57580	0.57580	0.000	-14.94978	60.00000	Averaged
23 2-Nitrophenol	0.15292	0.13774	0.13774	0.001	-9.92687	20.00000	Averaged ccc
24 2,4-Dimethylphenol	23.72940	40.00000	0.18797	0.000	-40.67649	60.00000	Wt Linear
25 bis(2-Chloroethoxy)methane	0.36806	0.32078	0.32078	0.000	-12.84593	60.00000	Averaged
26 2,4-Dichlorophenol	0.25252	0.23278	0.23278	0.001	-7.81668	20.00000	Averaged ccc
27 Benzoic acid	0.18753	0.13473	0.13473	0.000	-28.15778	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.28905	0.29213	0.29213	0.000	1.06624	60.00000	Averaged
30 Naphthalene	0.98486	0.82570	0.82570	0.000	-16.16032	60.00000	Averaged
204 alpha-Terpineol	0.28429	0.23467	0.23467	0.000	-17.45472	60.00000	Averaged
31 4-Chloroaniline	0.43446	0.39473	0.39473	0.000	-9.14525	60.00000	Averaged
32 Hexachlorobutadiene	0.16407	0.17388	0.17388	0.001	5.98149	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.27436	0.24687	0.24687	0.001	-10.01978	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.60564	0.51983	0.51983	0.000	-14.16932	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 20-MAR-2010 15:45
Lab File ID: s6c2006.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100309-05.3 Quant Type: ISTD
Method: /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.58910	0.50923	0.50923	0.000	-13.55916	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.22936	0.18903	0.18903	0.050	-17.58041	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.52459	0.52928	0.52928	0.000	0.89406	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.33474	0.34403	0.34403	0.001	2.77490	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.35465	0.35870	0.35870	0.000	1.14026	60.00000	Averaged	
40 2-Chloronaphthalene	0.97365	0.94080	0.94080	0.000	-3.37372	60.00000	Averaged	
42 o-Nitroaniline	0.34201	0.27296	0.27296	0.000	-20.19104	60.00000	Averaged	
41 m-Nitroaniline	0.25409	0.19461	0.19461	0.000	-23.41142	60.00000	Averaged	
43 Dimethylphthalate	1.13004	1.12325	1.12325	0.000	-0.60045	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.27058	0.26122	0.26122	0.000	-3.45609	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.35648	0.33179	0.33179	0.000	-6.92553	60.00000	Averaged	
45 Acenaphthylene	1.54257	1.43540	1.43540	0.000	-6.94765	60.00000	Averaged	
47 Acenaphthene	1.03783	0.89802	0.89802	0.001	-13.47146	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	26.20351	40.00000	0.05650	0.050	-34.49122	60.00000	Linear	spcc
49 Dibenzofuran	1.26069	1.24905	1.24905	0.000	-0.92376	60.00000	Averaged	
51 Diethylphthalate	1.10774	1.10853	1.10853	0.000	0.07217	60.00000	Averaged	
52 4-Nitrophenol	0.19236	0.16212	0.16212	0.050	-15.72056	60.00000	Averaged	spcc
53 Fluorene	1.11781	1.06626	1.06626	0.000	-4.61116	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.53621	0.55932	0.55932	0.000	4.30887	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	29.75544	40.00000	0.06625	0.000	-25.61139	60.00000	Linear	
56 p-Nitroaniline	0.20835	0.13095	0.13095	0.000	-37.14674	60.00000	Averaged	
133 Diphenylamine	0.51902	0.49847	0.49847	0.001	-3.95909	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.69767	0.59870	0.59870	0.000	-14.18637	60.00000	Averaged	
61 4-Bromophenylphenylether	0.17368	0.18696	0.18696	0.000	7.64782	60.00000	Averaged	
63 Hexachlorobenzene	0.16595	0.19028	0.19028	0.000	14.65632	60.00000	Averaged	
65 Pentachlorophenol	0.09397	0.09893	0.09893	0.001	5.27568	20.00000	Averaged	ccc
206 n-Octadecane	0.48063	0.38944	0.38944	0.000	-18.97290	60.00000	Averaged	
68 Phenanthrene	0.97466	0.88547	0.88547	0.000	-9.15025	60.00000	Averaged	
69 Anthracene	0.98189	0.88999	0.88999	0.000	-9.36008	60.00000	Averaged	
72 Di-n-butylphthalate	1.13557	1.06095	1.06095	0.000	-6.57116	60.00000	Averaged	
76 Fluoranthene	0.98842	0.95564	0.95564	0.001	-3.31607	20.00000	Averaged	ccc
79 Pyrene	1.21938	1.21374	1.21374	0.000	-0.46254	60.00000	Averaged	
85 Butylbenzylphthalate	0.58998	0.55828	0.55828	0.000	-5.37314	60.00000	Averaged	
89 Benzo(a)anthracene	1.04446	0.94926	0.94926	0.000	-9.11487	60.00000	Averaged	
92 Chrysene	0.99764	0.98511	0.98511	0.000	-1.25520	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.78860	0.74351	0.74351	0.000	-5.71808	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 20-MAR-2010 15:45
Lab File ID: s6c2006.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100309-05.3 Quant Type: ISTD
Method: /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.53062	1.51659	1.51659	0.001	-0.91644	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	1.08744	1.07475	1.07475	0.000	-1.16697	60.00000	Averaged	
96 Benzo(k)fluoranthene	1.04328	1.09364	1.09364	0.000	4.82712	60.00000	Averaged	
97 Benzo(a)pyrene	0.92098	0.89443	0.89443	0.001	-2.88267	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	0.84510	0.68838	0.68838	0.000	-18.54444	60.00000	Averaged	
100 Dibenzo(a,h)anthracene	0.68068	0.55395	0.55395	0.000	-18.61808	60.00000	Averaged	
101 Benzo(ghi)perylene	0.72160	0.57502	0.57502	0.000	-20.31320	60.00000	Averaged	
126 m-Dinitrobenzene	0.19174	0.17701	0.17701	0.000	-7.67851	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.27788	0.26828	0.26828	0.000	-3.45306	60.00000	Averaged	
143 Dinoseb	28.48686	40.00000	0.08990	0.000	-28.78285	60.00000	Linear	
173 Carbazole	0.76672	0.57051	0.57051	0.000	-25.59050	60.00000	Averaged	
184 p-Benzoquinone	0.24293	0.27894	0.27894	0.000	14.82225	60.00000	Averaged	
192 Methoxychlor	0.66555	0.64062	0.64062	0.000	-3.74571	60.00000	Averaged	
211 p-Toluidine	1.33748	1.09499	1.09499	0.000	-18.13037	60.00000	Averaged	
210 m-Toluidine	1.85679	1.49491	1.49491	0.000	-19.48920	60.00000	Averaged	
215 2-Ethoxyethanol	0.71211	0.51390	0.51390	0.000	-27.83408	60.00000	Averaged	
179 Dibenzo(a,e)pyrene	0.32071	0.20454	0.20454	0.000	-36.22275	60.00000	Averaged	
26 Phthalic anhydride	26.18243	40.00000	0.09082	0.000	-34.54392	60.00000	Linear	
214 1,4-Dinitrobenzene	0.26971	0.21477	0.21477	0.000	-20.36990	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	0.15700	0.10549	0.10549	0.000	-32.80649	60.00000	Averaged	
M 225 Trichlorophenols	0.34470	0.35136	0.35136	0.000	1.93397	60.00000	Averaged	
M 226 Tetrachlorophenols	0.27788	0.26828	0.26828	0.000	-3.45306	60.00000	Averaged	
M 227 Benzo(b,k)fluoranthene	1.06536	1.08420	1.08420	0.000	1.76796	60.00000	Averaged	

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Data file : /chem/MSD6.i/s032010.b/s6c2006.d
Lab Smp Id: WBN100309-05.3 Client Smp ID: MEGACVS
Inj Date : 20-MAR-2010 15:45
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN100309-05.3|40 PPM|1|SVM|1|MEGACVS
Misc Info : |MSD8270|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.863	3.863	(1.000)	322202	40.0000	
* 29 Naphthalene-d8	136	4.734	4.734	(1.000)	1215321	40.0000	
* 46 Acenaphthene-d10	164	5.987	5.987	(1.000)	685274	40.0000	
* 67 Phenanthrene-d10	188	7.145	7.145	(1.000)	1152765	40.0000	
* 91 Chrysene-d12	240	9.551	9.551	(1.000)	953837	40.0000	
* 98 Perylene-d12	264	11.174	11.174	(1.000)	730562	40.0000	
$ 3 2-Fluorophenol	112	3.046	3.046	(0.788)	322909	40.0000	36.0
$ 5 Phenol-d5	99	3.575	3.575	(0.925)	388012	40.0000	34.1
$ 20 Nitrobenzene-d5	82	4.228	4.228	(0.893)	392996	40.0000	33.8
$ 39 2-Fluorobiphenyl	172	5.475	5.475	(0.915)	726039	40.0000	41.1
$ 60 2,4,6-Tribromophenol	329	6.575	6.575	(1.098)	83386	40.0000	43.4
$ 81 p-Terphenyl-d14	244	8.522	8.522	(0.892)	683588	40.0000	41.1
1 N-Methyl-N-nitrosomethylamine	74	2.352	2.352	(0.609)	208673	40.0000	33.4
2 Pyridine	79	2.381	2.381	(0.616)	290861	40.0000	32.7
4 Aniline	66	3.646	3.646	(0.944)	183750	40.0000	34.1
6 Phenol	94	3.587	3.587	(0.928)	382232	40.0000	33.1
7 bis(2-Chloroethyl) ether	63	3.669	3.669	(0.950)	280930	40.0000	32.8
8 2-Chlorophenol	128	3.728	3.728	(0.965)	338225	40.0000	36.1
203 n-Decane	43	3.716	3.716	(0.962)	411191	40.0000	30.2
9 1,3-Dichlorobenzene	146	3.834	3.834	(0.992)	411223	40.0000	39.8
11 1,4-Dichlorobenzene	146	3.875	3.875	(1.003)	393734	40.0000	39.2
13 1,2-Dichlorobenzene	146	3.981	3.981	(1.030)	369626	40.0000	40.6
14 bis(2-Chloroisopropyl)ether	45	4.010	4.010	(1.038)	546638	40.0000	30.3
12 Benzyl alcohol	108	3.934	3.934	(1.018)	165654	40.0000	25.1
15 o-Cresol	107	3.981	3.981	(1.030)	254539	40.0000	35.6
18 m,p-Cresols	107	4.081	4.081	(1.056)	339966	40.0000	33.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.104	4.104	(1.062)	258500	40.0000	32.8
19 Hexachloroethane	117	4.210	4.210	(1.090)	152500	40.0000	35.2
21 Nitrobenzene	77	4.240	4.240	(0.896)	374116	40.0000	34.9
22 Isophorone	82	4.393	4.393	(0.928)	699779	40.0000	34.0
23 2-Nitrophenol	139	4.457	4.457	(0.942)	167398	40.0000	36.0
24 2,4-Dimethylphenol	122	4.445	4.445	(0.939)	228440	40.0000	23.7
25 bis(2-Chloroethoxy)methane	93	4.516	4.516	(0.954)	389855	40.0000	34.9
26 2,4-Dichlorophenol	162	4.616	4.616	(0.975)	282907	40.0000	36.9
27 Benzoic acid	105	4.487	4.487	(0.948)	163737	40.0000	28.7
28 1,2,4-Trichlorobenzene	180	4.681	4.681	(0.989)	355033	40.0000	40.4
30 Naphthalene	128	4.745	4.745	(1.002)	1003494	40.0000	33.5
204 alpha-Terpineol	59	4.722	4.722	(0.998)	285196	40.0000	33.0
31 4-Chloroaniline	127	4.763	4.763	(1.006)	479725	40.0000	36.3
32 Hexachlorobutadiene	225	4.810	4.810	(1.016)	211319	40.0000	42.4
33 4-Chloro-3-methylphenol	107	5.075	5.075	(1.072)	300025	40.0000	36.0
34 2-Methylnaphthalene	142	5.228	5.228	(1.104)	631756	40.0000	34.3
35 1-Methylnaphthalene	142	5.304	5.304	(1.121)	618873	40.0000	34.6
36 Hexachlorocyclopentadiene	237	5.328	5.328	(0.890)	129540	40.0000	33.0
205 2,3-Dichloroaniline	161	5.422	5.422	(0.906)	362701	40.0000	40.4
37 2,4,6-Trichlorophenol	196	5.416	5.416	(0.905)	235754	40.0000	41.1
38 2,4,5-Trichlorophenol	196	5.440	5.440	(0.909)	245806	40.0000	40.4
40 2-Chloronaphthalene	162	5.581	5.581	(0.932)	644708	40.0000	38.6
42 o-Nitroaniline	65	5.640	5.640	(0.942)	187050	40.0000	31.9
41 m-Nitroaniline	138	5.934	5.934	(0.991)	133359	40.0000	30.6
43 Dimethylphthalate	163	5.751	5.751	(0.961)	769735	40.0000	39.8
44 2,6-Dinitrotoluene	165	5.804	5.804	(0.970)	179010	40.0000	38.6
50 2,4-Dinitrotoluene	165	6.098	6.098	(1.019)	227366	40.0000	37.2
45 Acenaphthylene	152	5.887	5.887	(0.983)	983642	40.0000	37.2
47 Acenaphthene	154	6.010	6.010	(1.004)	615390	40.0000	34.6
48 2,4-Dinitrophenol	184	6.004	6.004	(1.003)	38716	40.0000	26.2
49 Dibenzofuran	168	6.134	6.134	(1.025)	855939	40.0000	39.6
51 Diethylphthalate	149	6.257	6.257	(1.045)	759650	40.0000	40.0
52 4-Nitrophenol	139	6.016	6.016	(1.005)	111097	40.0000	33.7
53 Fluorene	166	6.392	6.392	(1.068)	730682	40.0000	38.2
54 4-Chlorophenylphenylether	204	6.369	6.369	(1.064)	383286	40.0000	41.7
55 2-Methyl-4,6-dinitrophenol	198	6.404	6.404	(0.896)	76367	40.0000	29.8
56 p-Nitroaniline	138	6.387	6.387	(1.067)	89738	40.0000	25.1
133 Diphenylamine	169	6.457	6.457	(0.904)	574617	40.0000	38.4
58 1,2-Diphenylhydrazine	77	6.492	6.492	(0.909)	690156	40.0000	34.3
61 4-Bromophenylphenylether	248	6.757	6.757	(0.946)	215523	40.0000	43.0
63 Hexachlorobenzene	284	6.822	6.822	(0.955)	219345	40.0000	45.9
65 Pentachlorophenol	266	6.969	6.969	(0.975)	114039	40.0000	42.1
206 n-Octadecane	57	6.969	6.969	(0.975)	448933	40.0000	32.4
68 Phenanthrene	178	7.169	7.169	(1.003)	1020743	40.0000	36.3
69 Anthracene	178	7.210	7.210	(1.009)	1025945	40.0000	36.2
72 Di-n-butylphthalate	149	7.575	7.575	(1.060)	1223023	40.0000	37.4
76 Fluoranthene	202	8.204	8.204	(1.148)	1101633	40.0000	38.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	8.422	8.422	(0.882)	1157706	40.0000	39.8
85 Butylbenzylphthalate	149	8.957	8.957	(0.938)	532508	40.0000	37.8
89 Benzo(a)anthracene	228	9.539	9.539	(0.999)	905438	40.0000	36.4
92 Chrysene	228	9.575	9.575	(1.002)	939637	40.0000	39.5
93 bis(2-Ethylhexyl)phthalate	149	9.486	9.486	(0.993)	709184	40.0000	37.7
94 Di-n-octylphthalate	149	10.122	10.122	(0.906)	1107965	40.0000	39.6
95 Benzo(b)fluoranthene	252	10.674	10.674	(0.955)	785175	40.0000	39.5
96 Benzo(k)fluoranthene	252	10.710	10.710	(0.958)	798973	40.0000	41.9
97 Benzo(a)pyrene	252	11.098	11.098	(0.993)	653435	40.0000	38.8
99 Indeno(1,2,3-cd)pyrene	276	12.880	12.880	(1.153)	502907	40.0000	32.6
100 Dibenzo(a,h)anthracene	278	12.898	12.898	(1.154)	404693	40.0000	32.6
101 Benzo(ghi)perylene	276	13.398	13.398	(1.199)	420089	40.0000	31.9
126 m-Dinitrobenzene	168	5.787	5.787	(0.967)	121303	40.0000	36.9
130 2,3,4,6-Tetrachlorophenol	232	6.210	6.210	(1.037)	183848	40.0000	38.6
143 Dinoseb	211	7.092	7.092	(0.993)	103629	40.0000	28.5
173 Carbazole	167	7.328	7.328	(1.026)	657666	40.0000	29.8
184 p-Benzoquinone	54	3.351	3.351	(0.868)	89876	40.0000	45.9
192 Methoxychlor	227	9.428	9.428	(0.987)	611046	40.0000	38.5
211 p-Toluidine	106	4.146	4.146	(1.073)	352807	40.0000	32.7
210 m-Toluidine	106	4.163	4.163	(1.078)	481664	40.0000	32.2
215 2-Ethoxyethanol	59	2.187	2.187	(0.566)	165579	40.0000	28.9
179 Dibenzo(a,e)pyrene	302	17.368	17.368	(1.554)	149427	40.0000	25.5
26 Phthalic anhydride	104	5.263	5.263	(1.112)	110379	40.0000	26.2
214 1,4-Dinitrobenzene	75	5.728	5.728	(0.957)	147178	40.0000	31.8
216 Methylenebis(2-chloroaniline)	231	9.486	9.486	(0.993)	100624	40.0000	26.9
M 225 Trichlorophenols	196				481560	80.0000	81.5
M 226 Tetrachlorophenols	232				183848	40.0000	38.6
M 227 Benzo(b,k)fluoranthene	252				1584148	80.0000	81.4

Data File: /chem/MSD6.i/s032010.b/s6c2006.d
Date : 20-MAR-2010 15:45
Client ID: MEGACVS
Sample Info: IWBN100309-05.3140 PPM11ISVH11MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

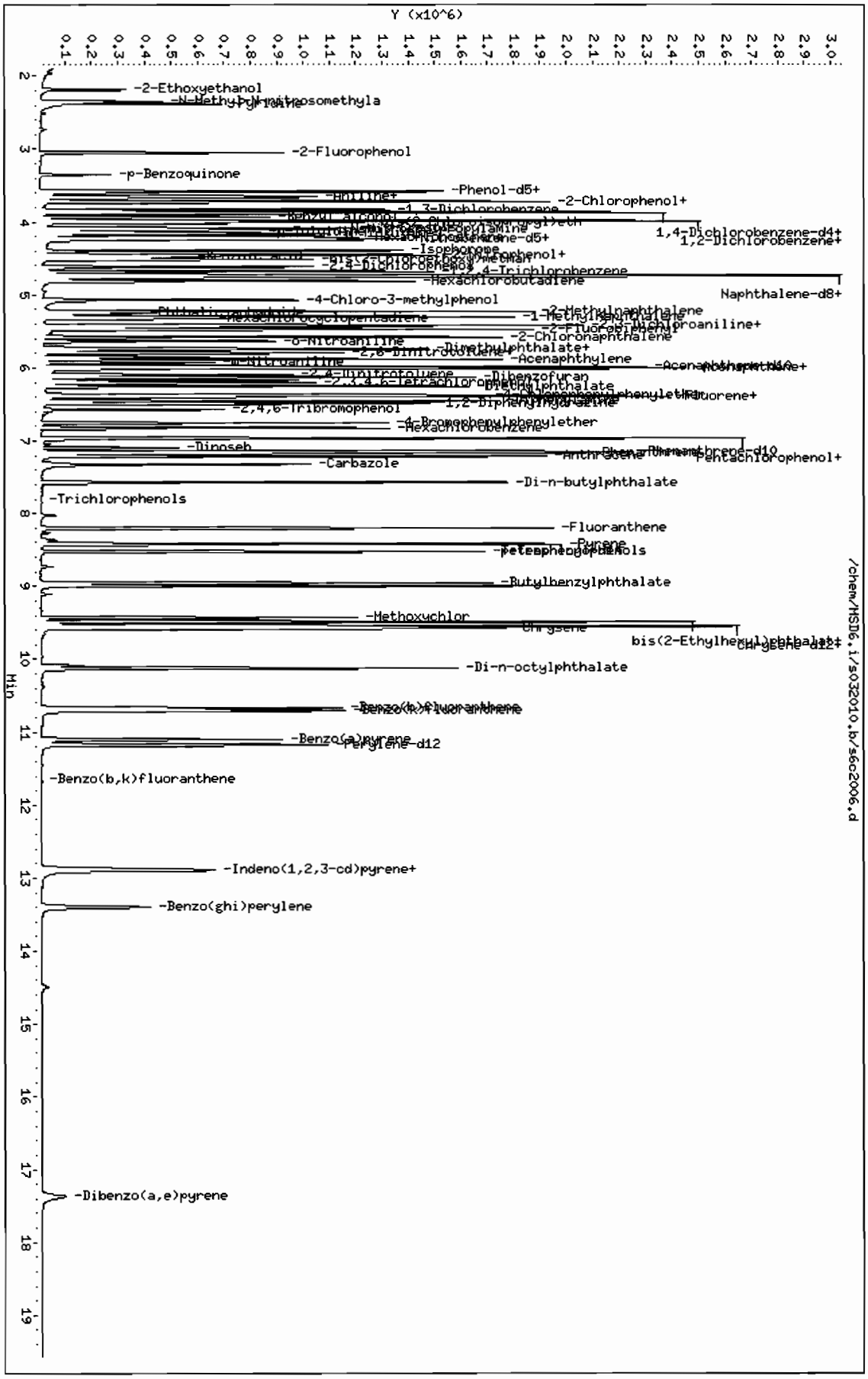

Page 1

QC Data

Data File: /chem/MSD6.i/s031610.b/s6c1601.d

Page 1

Date : 16-MAR-2010 08:42

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

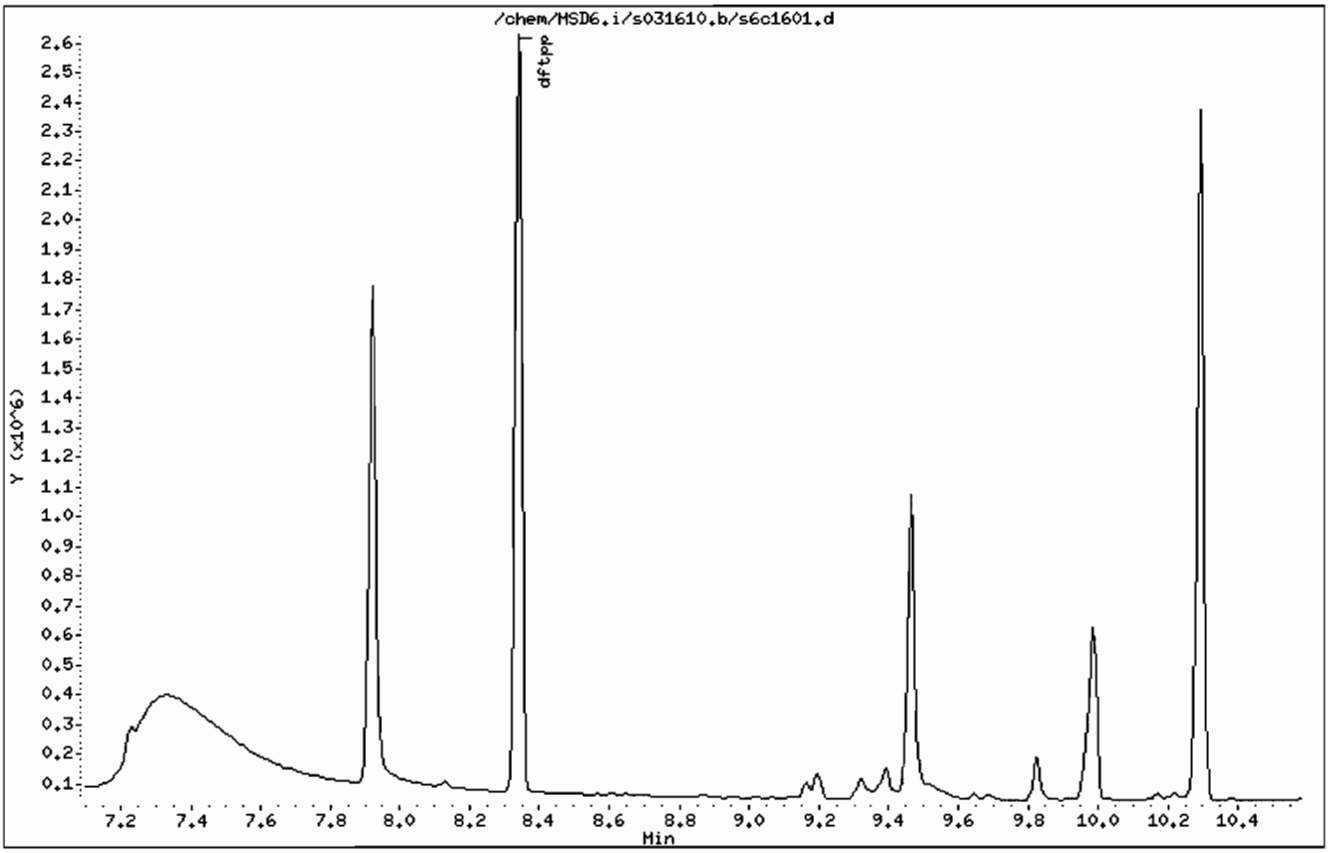

Data File: /chem/MSD6.i/s031610.b/s6c1601.d

Date : 16-MAR-2010 08:42

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

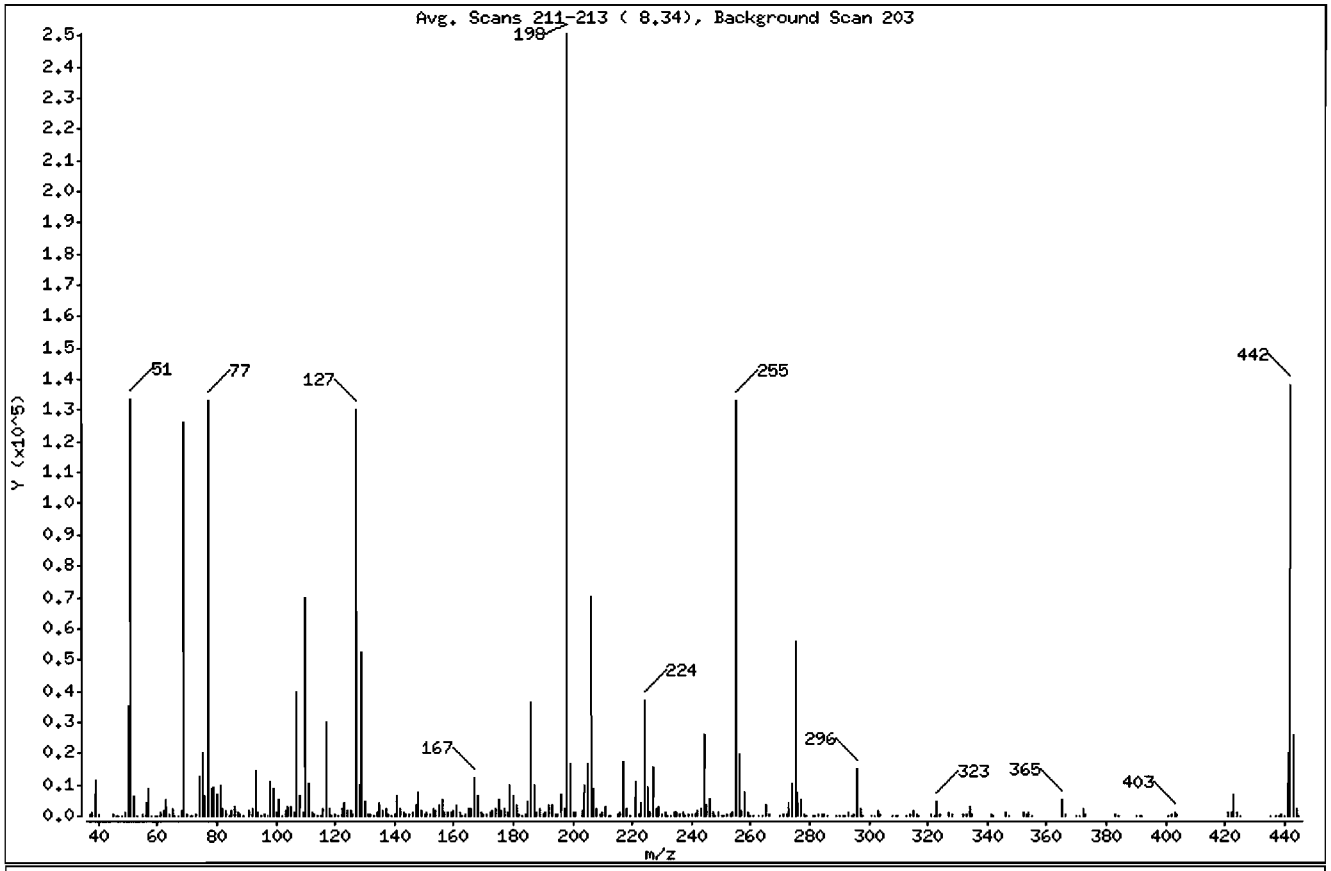

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	53.30
68	Less than 2.00% of mass 69	0.78 (1.54)
69	Mass 69 relative abundance	50.41
70	Less than 2.00% of mass 69	0.28 (0.56)
127	40.00 - 60.00% of mass 198	52.01
197	Less than 1.00% of mass 198	0.84
199	5.00 - 9.00% of mass 198	6.75
275	10.00 - 30.00% of mass 198	22.34
365	Greater than 1.00% of mass 198	2.18
441	Present, but less than mass 443	8.03
442	Greater than 40.00% of mass 198	55.21
443	17.00 - 23.00% of mass 442	10.46 (18.94)

Data File: /chem/MSD6.i/s031610.b/s6c1601.d

Date : 16-MAR-2010 08:42

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c1601.d
Spectrum: Avg. Scans 211-213 (8.34), Background Scan 203
Location of Maximum: 198.00
Number of points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	539	120.00	690	197.00	2101	282.00	175
38.00	1021	121.00	284	198.00	250688	283.00	581
39.00	11554	122.00	2497	199.00	16920	284.00	435
40.00	474	123.00	4070	200.00	1419	285.00	830
45.00	300	124.00	1835	201.00	1008	286.00	97
46.00	46	125.00	1582	203.00	2006	289.00	199
47.00	60	126.00	769	204.00	9820	290.00	99
48.00	25	127.00	130384	205.00	16848	291.00	153
49.00	905	128.00	9814	206.00	70072	292.00	220
50.00	35064	129.00	52280	207.00	8715	293.00	1013
51.00	133568	130.00	4484	208.00	2324	294.00	236
52.00	6515	131.00	816	209.00	743	295.00	313
53.00	284	132.00	347	210.00	990	296.00	14707
55.00	376	133.00	28	211.00	2712	297.00	2266
56.00	3828	134.00	1402	212.00	148	298.00	198
57.00	8839	135.00	3990	213.00	284	301.00	142
58.00	228	136.00	1606	215.00	822	302.00	270
59.00	27	137.00	2099	216.00	1420	303.00	1812
60.00	108	138.00	482	217.00	17528	304.00	512
61.00	1396	139.00	258	218.00	2263	308.00	203
62.00	1919	140.00	663	219.00	261	309.00	114
63.00	5112	141.00	6250	221.00	11113	310.00	110
64.00	635	142.00	2224	222.00	580	313.00	93
65.00	2325	143.00	1420	223.00	3783	314.00	744
66.00	149	144.00	488	224.00	36608	315.00	1650
67.00	103	145.00	350	225.00	8974	316.00	843
68.00	1952	146.00	1154	226.00	893	317.00	116
69.00	126368	147.00	3460	227.00	15730	321.00	466
70.00	702	148.00	7480	228.00	2314	322.00	243
71.00	66	149.00	1592	229.00	3106	323.00	4480
72.00	95	150.00	434	230.00	397	324.00	777
73.00	837	151.00	889	231.00	1211	327.00	865
74.00	12548	152.00	496	232.00	91	328.00	383
75.00	20072	153.00	2051	233.00	286	332.00	333
76.00	6493	154.00	1643	234.00	1082	333.00	429

Date : 16-MAR-2010 08:42

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c1601.d
Spectrum: Avg. Scans 211-213 (8.34), Background Scan 203
Location of Maximum: 198.00
Number of points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	133056	155.00	3537	235.00	1238	334.00	2708
78.00	8864	156.00	5472	236.00	768	335.00	749
79.00	8991	157.00	1057	237.00	1331	341.00	581
80.00	6867	158.00	1121	238.00	239	342.00	43
81.00	9608	159.00	928	239.00	633	346.00	972
82.00	2327	160.00	1972	240.00	459	347.00	145
83.00	1949	161.00	3180	241.00	862	352.00	1224
84.00	261	162.00	886	242.00	1802	353.00	739
85.00	1469	163.00	271	243.00	2025	354.00	1267
86.00	2809	164.00	438	244.00	26176	355.00	268
87.00	1114	165.00	2425	245.00	3604	365.00	5468
88.00	433	166.00	2061	246.00	5257	366.00	789
89.00	231	167.00	12297	247.00	1192	370.00	107
91.00	1935	168.00	6571	248.00	227	371.00	268
92.00	2326	169.00	1233	249.00	956	372.00	2160
93.00	14334	170.00	433	250.00	234	373.00	460
94.00	1077	171.00	659	251.00	256	383.00	543
95.00	133	172.00	1265	252.00	384	384.00	118
96.00	674	173.00	1486	253.00	717	390.00	253
97.00	121	174.00	2557	254.00	1407	391.00	132
98.00	11118	175.00	5058	255.00	133184	392.00	111
99.00	8880	176.00	1554	256.00	19792	401.00	115
100.00	944	177.00	2489	257.00	1568	402.00	760
101.00	5006	178.00	902	258.00	7663	403.00	1027
102.00	281	179.00	9717	259.00	1235	404.00	326
103.00	1616	180.00	6606	260.00	239	421.00	927
104.00	3089	181.00	3260	261.00	257	422.00	875
105.00	2736	182.00	564	263.00	87	423.00	6945
106.00	1065	183.00	288	264.00	119	424.00	1275
107.00	39496	184.00	841	265.00	3196	425.00	105
108.00	6480	185.00	4847	266.00	506	435.00	219
109.00	1157	186.00	36512	270.00	248	437.00	226
110.00	69912	187.00	10075	271.00	298	438.00	232
111.00	10462	188.00	1064	272.00	473	439.00	357
112.00	1431	189.00	2374	273.00	3934	440.00	227

Date : 16-MAR-2010 08:42

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVHF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c1601.d
Spectrum: Avg. Scans 211-213 (8.34), Background Scan 203
Location of Maximum: 198.00
Number of points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	400	190.00	463	274.00	10466	441.00	20128
114.00	154	191.00	1185	275.00	55992	442.00	138368
115.00	109	192.00	3223	276.00	7246	443.00	26216
116.00	2178	193.00	3395	277.00	4967	444.00	2405
117.00	30184	194.00	756	278.00	826	445.00	105
118.00	2298	195.00	517	279.00	213		
119.00	256	196.00	7034	281.00	100		

Data File: /chem/MSD6.i/s031610.b/s6c1613.d

Date : 16-MAR-2010 16:06

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

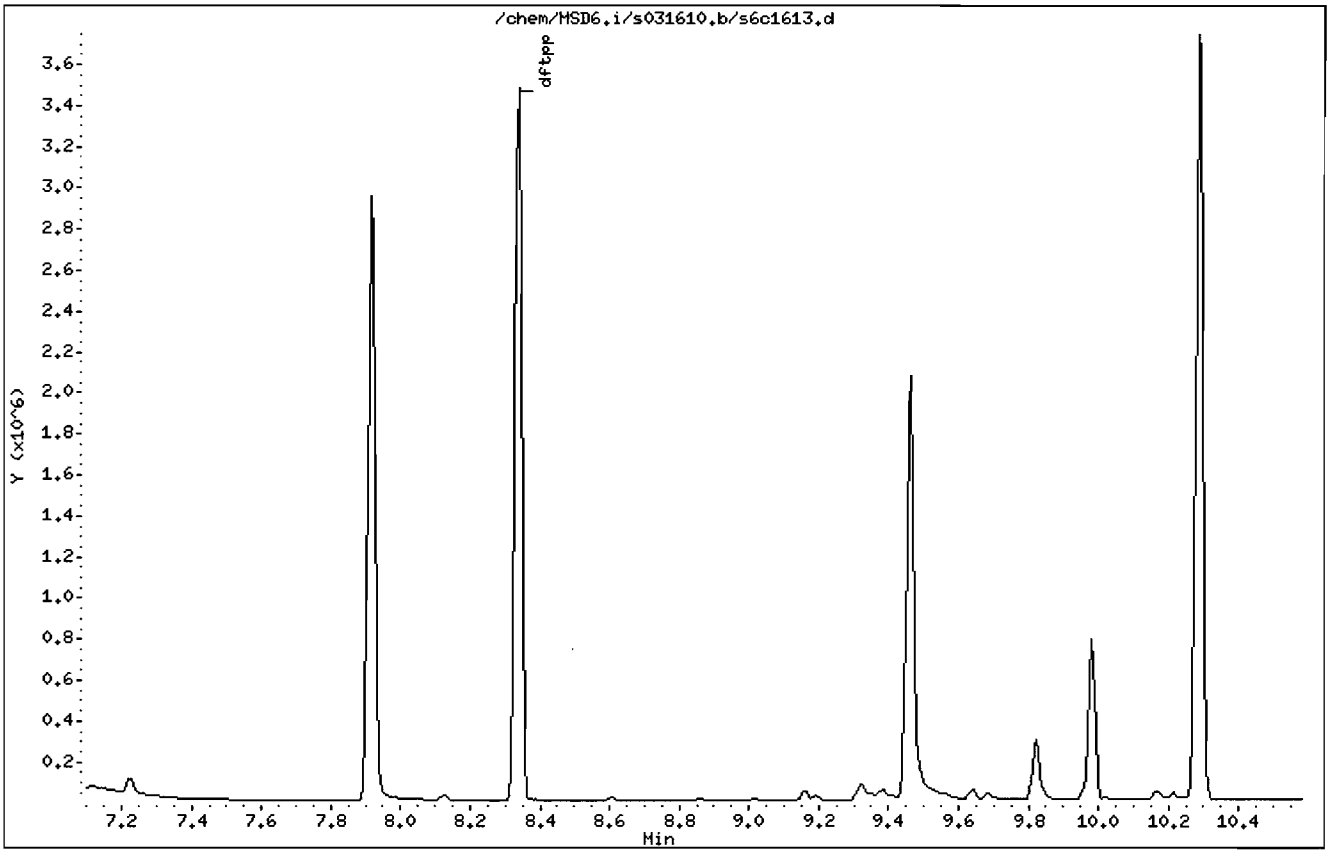

Data File: /chem/MSD6.i/s031610.b/s6c1613.d

Date : 16-MAR-2010 16:06

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

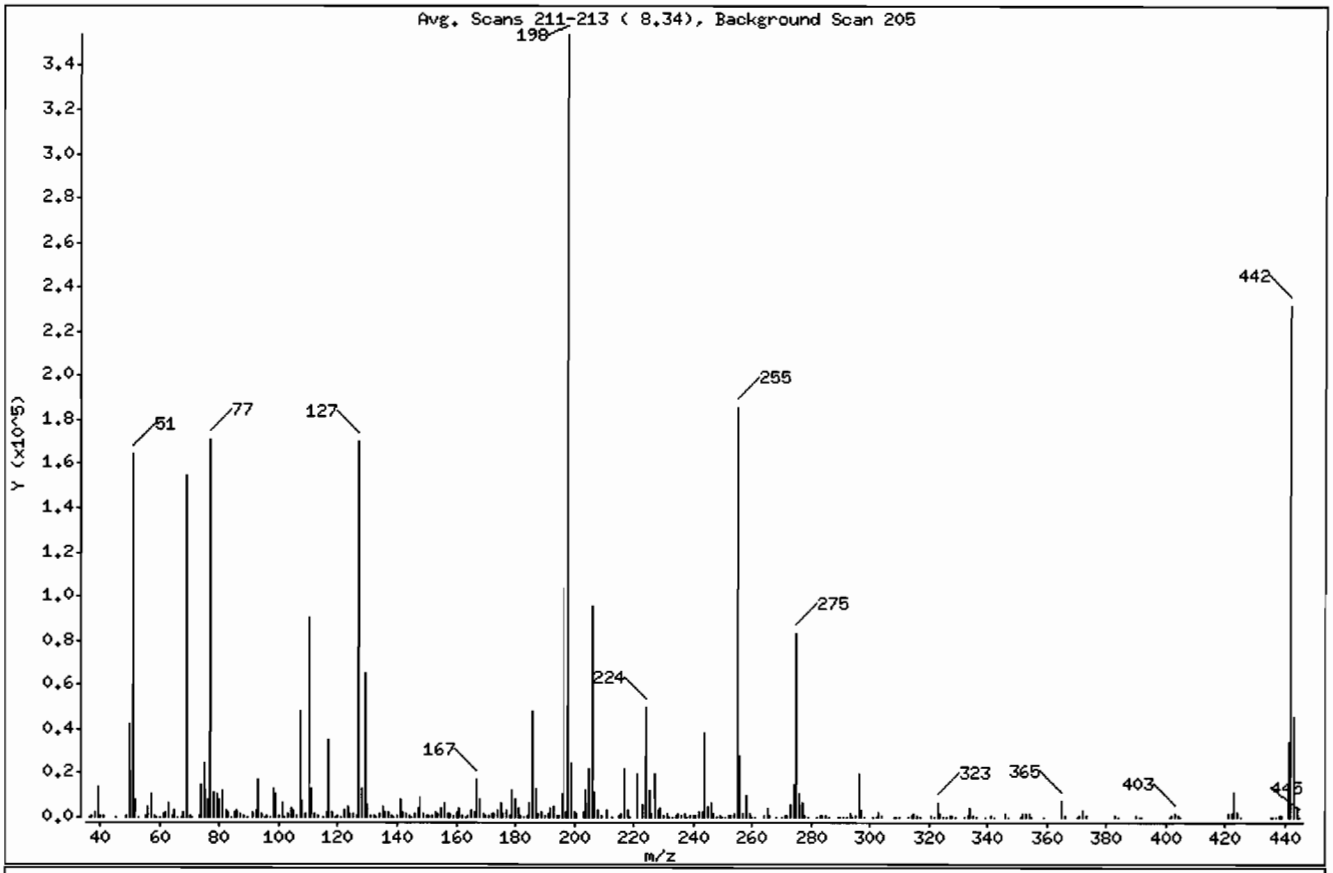

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	46.37
68	Less than 2.00% of mass 69	0.69 (1.58)
69	Mass 69 relative abundance	43.77
70	Less than 2.00% of mass 69	0.27 (0.61)
127	40.00 - 60.00% of mass 198	48.16
197	Less than 1.00% of mass 198	0.72
199	5.00 - 9.00% of mass 198	6.92
275	10.00 - 30.00% of mass 198	23.38
365	Greater than 1.00% of mass 198	2.06
441	Present, but less than mass 443	9.55
442	Greater than 40.00% of mass 198	65.47
443	17.00 - 23.00% of mass 442	12.86 (19.65)

Date : 16-MAR-2010 16:06

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c1613.d
Spectrum: Avg. Scans 211-213 (8.34), Background Scan 205
Location of Maximum: 198.00
Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	365	123.00	4688	200.00	2049	291.00	95
37.00	686	124.00	1969	201.00	1887	292.00	268
38.00	2219	125.00	2034	203.00	2289	293.00	1469
39.00	14217	126.00	969	204.00	12413	294.00	360
40.00	662	127.00	170560	205.00	22120	295.00	415
41.00	451	128.00	12972	206.00	94880	296.00	19192
45.00	343	129.00	65336	207.00	11802	297.00	2923
49.00	1033	130.00	5614	208.00	3327	298.00	205
50.00	42256	131.00	1072	209.00	988	301.00	261
51.00	164224	132.00	586	211.00	3614	302.00	347
52.00	8273	133.00	265	213.00	247	303.00	2358
53.00	361	134.00	1727	215.00	826	304.00	634
55.00	615	135.00	4970	216.00	1782	308.00	279
56.00	4569	136.00	2207	217.00	22368	309.00	172
57.00	10965	137.00	2269	218.00	2954	310.00	279
58.00	541	138.00	648	219.00	312	313.00	172
59.00	160	139.00	341	221.00	19520	314.00	916
60.00	185	140.00	679	223.00	5297	315.00	2018
61.00	1949	141.00	7898	224.00	49688	316.00	1164
62.00	2059	142.00	2664	225.00	12403	317.00	239
63.00	6240	143.00	1748	226.00	1307	321.00	668
64.00	905	144.00	480	227.00	19504	322.00	322
65.00	3077	145.00	407	228.00	2871	323.00	6305
66.00	225	146.00	1518	229.00	4196	324.00	1298
67.00	216	147.00	4305	230.00	634	325.00	44
68.00	2445	148.00	9003	231.00	1804	326.00	156
69.00	155008	149.00	1778	232.00	342	327.00	1043
70.00	947	150.00	449	233.00	316	328.00	530
71.00	201	151.00	1098	234.00	1167	329.00	108
73.00	1127	152.00	658	235.00	1577	332.00	394
74.00	14976	153.00	2511	236.00	873	333.00	734
75.00	24336	154.00	1999	237.00	1570	334.00	3934
76.00	8200	155.00	4297	238.00	231	335.00	1090
77.00	171200	156.00	6528	239.00	790	336.00	90
78.00	11711	157.00	1348	240.00	604	339.00	45

Date : 16-MAR-2010 16:06

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c1613.d
Spectrum: Avg. Scans 211-213 (8.34), Background Scan 205
Location of Maximum: 198.00
Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	10991	158.00	1467	241.00	1051	341.00	791
80.00	8089	159.00	1196	242.00	2678	342.00	112
81.00	12006	160.00	2557	243.00	2830	346.00	1303
82.00	3062	161.00	3725	244.00	38552	347.00	236
83.00	2754	162.00	1103	245.00	5015	351.00	51
84.00	311	163.00	384	246.00	6837	352.00	1714
85.00	2148	164.00	520	247.00	1386	353.00	1258
86.00	2960	165.00	2927	248.00	316	354.00	1807
87.00	1512	166.00	2460	249.00	1167	355.00	303
88.00	490	167.00	16936	250.00	324	359.00	50
89.00	261	168.00	7860	251.00	332	365.00	7286
91.00	2590	169.00	1424	252.00	511	366.00	1134
92.00	2914	170.00	561	253.00	815	370.00	153
93.00	17192	171.00	668	254.00	1800	371.00	455
94.00	1273	172.00	1340	255.00	185344	372.00	2898
95.00	330	173.00	1876	256.00	27576	373.00	675
96.00	904	174.00	3377	257.00	1895	383.00	836
97.00	358	175.00	6789	258.00	10115	384.00	240
98.00	12960	176.00	2015	259.00	1699	390.00	414
99.00	10708	177.00	3013	260.00	258	391.00	350
100.00	942	178.00	1036	261.00	383	392.00	234
101.00	6393	179.00	11838	264.00	435	401.00	184
102.00	360	180.00	8500	265.00	3865	402.00	1191
103.00	1979	181.00	4159	266.00	588	403.00	1692
104.00	4113	182.00	603	268.00	160	404.00	639
105.00	3560	183.00	335	270.00	275	405.00	87
106.00	1067	184.00	1026	271.00	443	421.00	1562
107.00	48096	185.00	6230	272.00	556	422.00	1423
108.00	7432	186.00	48112	273.00	5738	423.00	11200
109.00	1348	187.00	13352	274.00	15003	424.00	2246
110.00	90080	188.00	1313	275.00	82816	425.00	236
111.00	13316	189.00	2686	276.00	10769	435.00	42
112.00	1579	190.00	445	277.00	6686	436.00	161
113.00	490	191.00	1473	278.00	1075	437.00	275
115.00	181	192.00	4225	279.00	229	438.00	434

Data File: /chem/MSD6.i/s031610.b/s6c1613.d

Date : 16-MAR-2010 16:06

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c1613.d
Spectrum: Avg. Scans 211-213 (8.34), Background Scan 205
Location of Maximum: 198.00
Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	2631	193.00	4772	282.00	109	439.00	605
117.00	34760	194.00	868	283.00	778	441.00	33840
118.00	2557	195.00	649	284.00	498	442.00	231872
119.00	366	196.00	10847	285.00	1031	443.00	45560
120.00	634	197.00	2536	286.00	215	444.00	4334
121.00	221	198.00	354176	289.00	202	445.00	211
122.00	3127	199.00	24520	290.00	227		

Data File: /chem/MSD6.i/s032010.b/s6c2003.d

Date : 20-MAR-2010 14:38

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

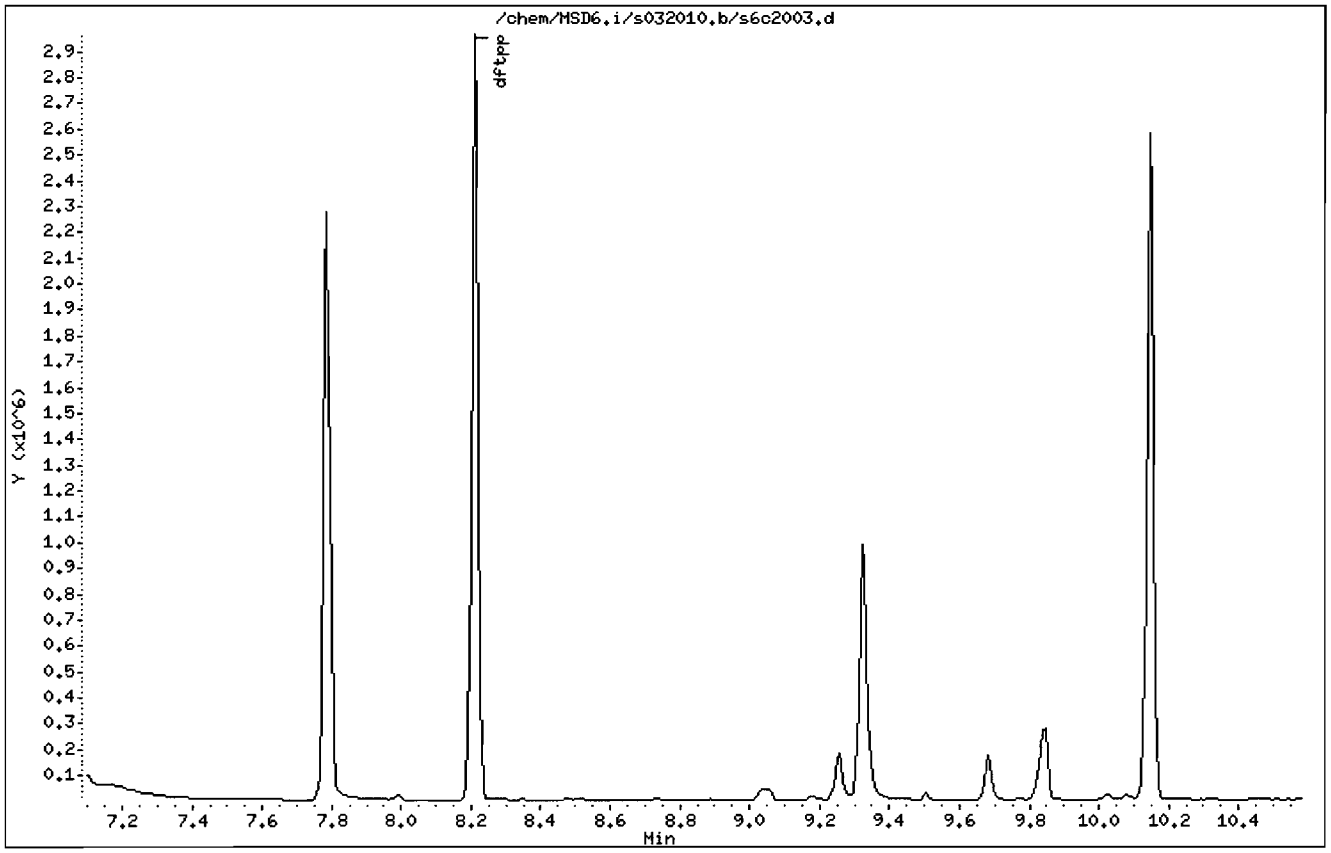

Data File: /chem/MSD6.i/s032010.b/s6c2003.d

Date : 20-MAR-2010 14:38

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

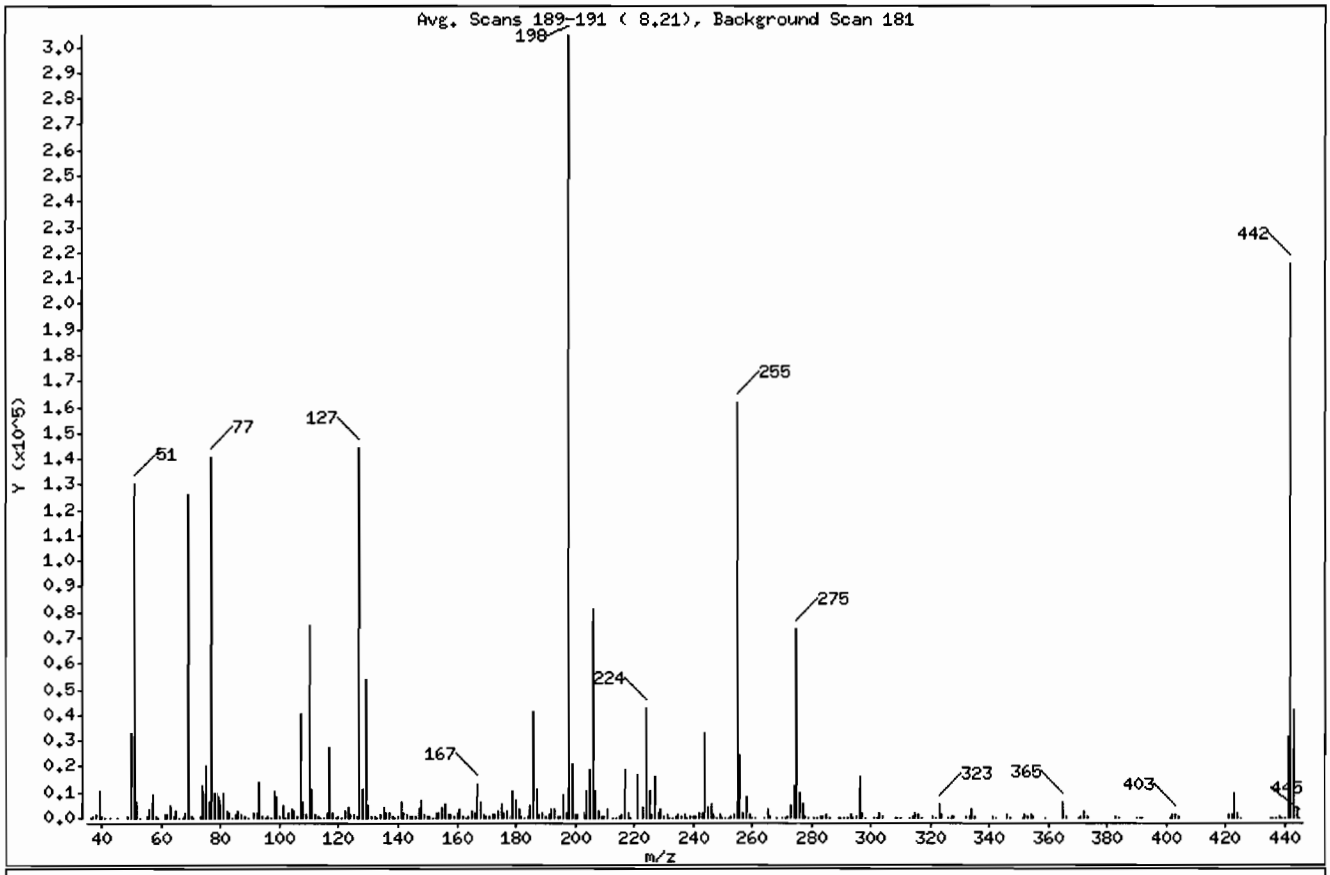

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	42.87
68	Less than 2.00% of mass 69	0.64 (1.54)
69	Mass 69 relative abundance	41.49
70	Less than 2.00% of mass 69	0.20 (0.48)
127	40.00 - 60.00% of mass 198	47.26
197	Less than 1.00% of mass 198	0.66
199	5.00 - 9.00% of mass 198	6.84
275	10.00 - 30.00% of mass 198	24.08
365	Greater than 1.00% of mass 198	2.00
441	Present, but less than mass 443	10.30
442	Greater than 40.00% of mass 198	70.78
443	17.00 - 23.00% of mass 442	13.77 (19.45)

Data File: /chem/MSD6.i/s032010.b/s6c2003.d

Date : 20-MAR-2010 14:38

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c2003.d
Spectrum: Avg. Scans 189-191 (8.21), Background Scan 181
Location of Maximum: 198.00
Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	317	122.00	2594	199.00	20848	285.00	1058
37.00	480	123.00	4087	200.00	1555	286.00	147
38.00	1611	124.00	1734	201.00	1561	289.00	202
39.00	10694	125.00	1623	203.00	1990	290.00	104
40.00	570	126.00	932	204.00	10532	291.00	117
41.00	350	127.00	143936	205.00	19168	292.00	265
43.00	8	128.00	11325	206.00	81072	293.00	1147
45.00	306	129.00	53632	207.00	10545	294.00	314
49.00	918	130.00	4686	208.00	2485	295.00	451
50.00	32784	131.00	893	209.00	923	296.00	16205
51.00	130600	132.00	569	210.00	358	297.00	2191
52.00	6611	133.00	188	211.00	3160	298.00	125
53.00	293	134.00	1499	213.00	198	301.00	291
55.00	534	135.00	4229	214.00	114	302.00	311
56.00	3686	136.00	1753	215.00	851	303.00	1997
57.00	9343	137.00	2062	216.00	1676	304.00	623
58.00	434	138.00	433	217.00	18776	308.00	260
59.00	44	139.00	284	218.00	2426	309.00	101
61.00	1597	140.00	557	219.00	231	310.00	222
62.00	1608	141.00	6555	221.00	16632	313.00	178
63.00	4917	142.00	2167	223.00	4277	314.00	715
64.00	739	143.00	1435	224.00	42424	315.00	1760
65.00	2561	144.00	440	225.00	10334	316.00	1106
66.00	309	145.00	361	226.00	1129	317.00	194
67.00	192	146.00	1047	227.00	16440	321.00	440
68.00	1947	147.00	3370	228.00	2238	322.00	271
69.00	126384	148.00	6802	229.00	3428	323.00	5566
70.00	609	149.00	1432	230.00	586	324.00	1130
71.00	95	150.00	425	231.00	1499	326.00	49
73.00	867	151.00	841	232.00	195	327.00	938
74.00	12340	152.00	185	233.00	329	328.00	496
75.00	20136	153.00	2066	234.00	1000	332.00	411
76.00	6558	154.00	1755	235.00	1171	333.00	561
77.00	140672	155.00	3863	236.00	783	334.00	3540
78.00	9836	156.00	5728	237.00	1396	335.00	965

Date : 20-MAR-2010 14:38

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c2003.d
Spectrum: Avg. Scans 189-191 (8.21), Background Scan 181
Location of Maximum: 198.00
Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	8411	157.00	1214	238.00	206	341.00	606
80.00	6929	158.00	1150	239.00	628	342.00	128
81.00	9924	159.00	826	240.00	526	346.00	1115
82.00	2488	160.00	2183	241.00	1028	347.00	239
83.00	2273	161.00	3163	242.00	2278	351.00	86
84.00	219	162.00	842	243.00	2306	352.00	1480
85.00	1648	163.00	185	244.00	33056	353.00	988
86.00	2663	164.00	361	245.00	4351	354.00	1514
87.00	1222	165.00	2767	246.00	5917	355.00	403
88.00	450	166.00	2065	247.00	1413	359.00	122
89.00	291	167.00	13188	248.00	273	365.00	6083
91.00	2152	168.00	6179	249.00	1106	366.00	813
92.00	2387	169.00	1122	250.00	241	370.00	140
93.00	13980	170.00	354	251.00	316	371.00	366
94.00	892	171.00	591	252.00	348	372.00	2538
95.00	322	172.00	1131	253.00	795	373.00	782
96.00	733	173.00	1463	254.00	1446	383.00	762
97.00	295	174.00	3091	255.00	161728	384.00	179
98.00	10472	175.00	5360	256.00	24352	390.00	348
99.00	8615	176.00	1859	257.00	1823	391.00	157
100.00	895	177.00	2761	258.00	8301	392.00	149
101.00	4706	178.00	988	259.00	1446	401.00	51
102.00	343	179.00	10360	260.00	279	402.00	1084
103.00	1773	180.00	7036	261.00	282	403.00	1377
104.00	3158	181.00	3401	264.00	171	404.00	472
105.00	2914	182.00	527	265.00	3202	421.00	1272
106.00	1045	183.00	301	266.00	488	422.00	1249
107.00	40360	184.00	876	268.00	41	423.00	9888
108.00	6244	185.00	5017	270.00	219	424.00	2004
109.00	1211	186.00	41584	271.00	292	425.00	110
110.00	74640	187.00	11462	272.00	458	435.00	98
111.00	11110	188.00	1176	273.00	5131	436.00	117
112.00	1441	189.00	2382	274.00	12939	437.00	197
113.00	415	190.00	459	275.00	73352	438.00	395
114.00	93	191.00	1058	276.00	9547	439.00	253

Date : 20-MAR-2010 14:38

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c2003.d
Spectrum: Avg. Scans 189-191 (8.21), Background Scan 181
Location of Maximum: 198.00
Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
115.00	203	192.00	3255	277.00	5266	440.00	175
116.00	2312	193.00	3518	278.00	827	441.00	31368
117.00	26984	194.00	735	279.00	249	442.00	215616
118.00	2030	195.00	621	281.00	138	443.00	41936
119.00	284	196.00	9339	282.00	216	444.00	4201
120.00	498	197.00	2024	283.00	569	445.00	202
121.00	261	198.00	304640	284.00	379		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071493**				
Client Sample:	**QC for batch 965424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965424**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 17:42**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2009-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	333	ug/kg	66.7	333
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071493**				
Clieut Sample:	**QC for batch 965424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965424**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 17:42**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2009-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	425	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2009.d
Lab Smp Id: 1202071493 Client Smp ID: SBLK01
Inj Date : 20-MAR-2010 17:42
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202071493|965425|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2264.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.875	3.863	(1.000)	397721	40.0000	
* 29 Naphthalene-d8	136	4.740	4.734	(1.000)	1424092	40.0000	
* 46 Acenaphthene-d10	164	5.993	5.987	(1.000)	893608	40.0000	
* 67 Phenanthrene-d10	188	7.157	7.145	(1.000)	1517057	40.0000	
* 91 Chrysene-d12	240	9.563	9.551	(1.000)	1386290	40.0000	
* 98 Perylene-d12	264	11.192	11.174	(1.000)	1218363	40.0000	
$ 3 2-Fluorophenol	112	3.063	3.046	(0.791)	682604	61.7392	2060
$ 5 Phenol-d5	99	3.587	3.575	(0.926)	902243	64.1681	2140
$ 20 Nitrobenzene-d5	82	4.234	4.228	(0.893)	415209	30.5000	1020
$ 39 2-Fluorobiphenyl	172	5.481	5.475	(0.915)	820096	35.5708	1180
$ 60 2,4,6-Tribromophenol	329	6.581	6.575	(1.098)	193465	77.1518	2570
$ 81 p-Terphenyl-d14	244	8.534	8.522	(0.892)	1031268	42.6897	1420

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2009.d
Lab Smp Id: 1202071493 Client Smp ID: SBLK01
Inj Date : 20-MAR-2010 17:42
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202071493|965425|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 11o00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2264.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.875	2464282	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.899	784976	12.7416497	425	0		0	10

Data File: /chem/MSD6.i/s032010.b/s6c2009.d

Date : 20-MAR-2010 17:42

Client ID: SBLK01

Sample Info: |1202071493|965425|1|SVM|1|MB

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20

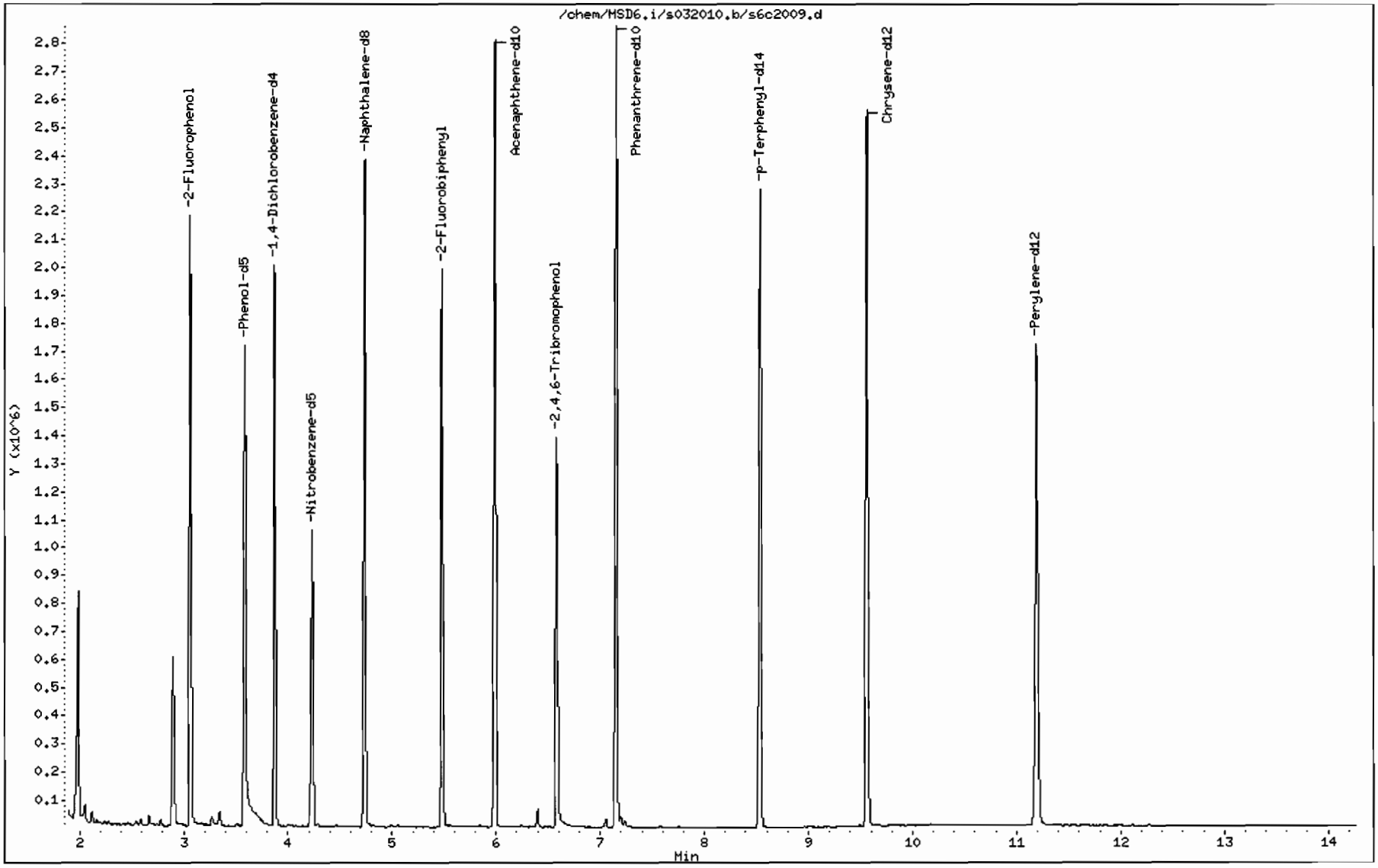

Data File: /chem/MSD6.i/s032010.b/s6c2009.d

Date : 20-MAR-2010 17:42

Client ID: SBLK01

Instrument: MSD6.i

Sample Info: |120207149319654251|SVMI1|MB

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	45	C6H12O2	116

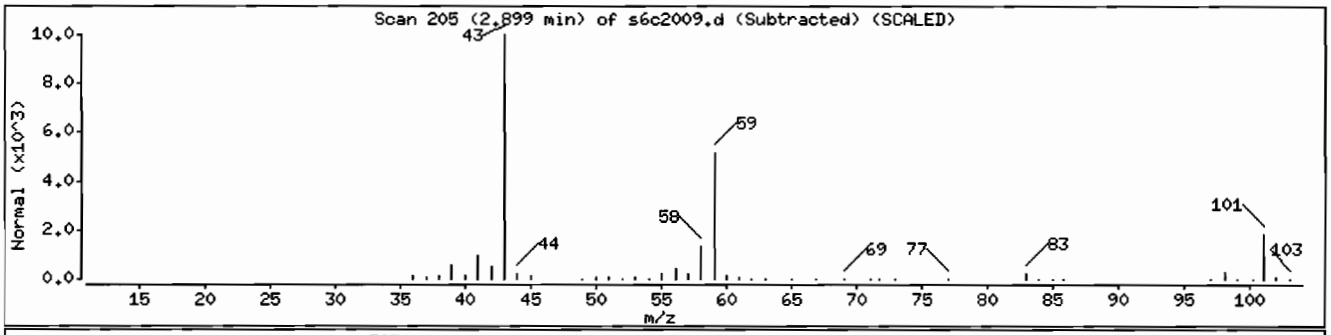

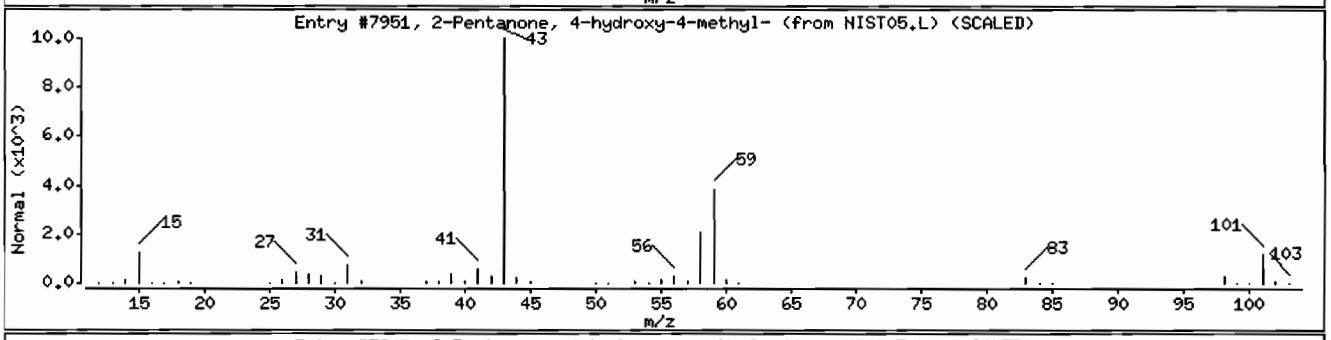

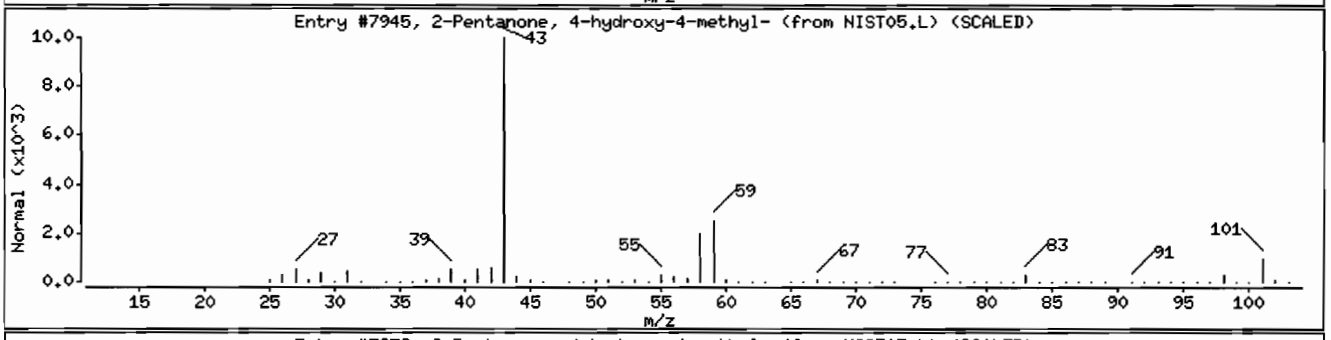

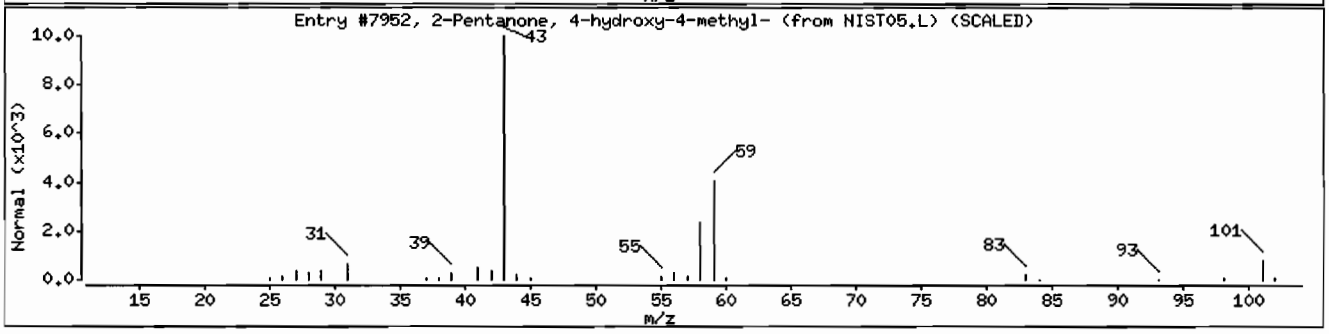

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071494**				
Client Sample:	**QC for batch 965424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965424**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 18:06**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2010-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		816	ug/kg	66.7	333
108-95-2	Phenol		981	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1060	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1040	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1020	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1110	ug/kg	66.7	333
83-32-9	Acenaphthene		1040	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1220	ug/kg	33.3	333
100-02-7	4-Nitrophenol		811	ug/kg	110	333
87-86-5	Pentachlorophenol		1430	ug/kg	83.3	333
129-00-0	Pyrene		1240	ug/kg	10.0	33.3
110-86-1	Pyridine		771	ug/kg	66.7	333
62-53-3	Aniline		1090	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		960	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1020	ug/kg	66.7	333
100-51-6	Benzyl alcohol		338	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1110	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		924	ug/kg	66.7	333
95-48-7	o-Cresol		1130	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1240	ug/kg	100	333
67-72-1	Hexachloroethane		925	ug/kg	66.7	333
98-95-3	Nitrobenzene		1120	ug/kg	66.7	333
78-59-1	Isophorone		1040	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1120	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1390	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1010	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1140	ug/kg	66.7	333
65-85-0	Benzoic acid		2580	ug/kg	167	667
91-20-3	Naphthalene		975	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1050	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1150	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1070	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1040	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1020	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1400	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1120	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		999	ug/kg	66.7	333
	o-Nitroaniline					
99-09-2	3-Nitroaniline		1040	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071494**				
Client Sample:	**QC for batch 965424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965424**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 18:06**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2010-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1300	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1230	ug/kg	33.3	333
208-96-8	Acenaphthylene		1170	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1180	ug/kg	127	667
132-64-9	Dibenzofuran		1220	ug/kg	66.7	333
84-66-2	Diethylphthalate		1340	ug/kg	66.7	333
86-73-7	Fluorene		1130	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1290	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1180	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1250	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1280	ug/kg	66.7	333
122-66-7	Azobenzene		1180	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1340	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1400	ug/kg	66.7	333
85-01-8	Phenanthrene		1150	ug/kg	10.0	33.3
120-12-7	Anthracene		1150	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1310	ug/kg	66.7	333
206-44-0	Fluoranthene		1290	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1330	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1270	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1230	ug/kg	100	333
218-01-9	Chrysene		1270	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1310	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1230	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1240	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1380	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1340	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1370	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1370	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1350	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1140	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2010.d
Lab Smp Id: 1202071494 Client Smp ID: SBLK01LCS
Inj Date : 20-MAR-2010 18:06
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202071494|965425|1|SVM|1|LCS
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 7 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2264.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.875	3.863	(1.000)	372664	40.0000	
* 29 Naphthalene-d8	136	4.740	4.734	(1.000)	1418901	40.0000	
* 46 Acenaphthene-d10	164	5.992	5.987	(1.000)	821866	40.0000	
* 67 Phenanthrene-d10	188	7.157	7.145	(1.000)	1405089	40.0000	
* 91 Chrysene-d12	240	9.569	9.551	(1.000)	1211561	40.0000	
* 98 Perylene-d12	264	11.198	11.174	(1.000)	1059467	40.0000	
$ 3 2-Fluorophenol	112	3.063	3.046	(0.791)	628792	60.6960	2020
$ 5 Phenol-d5	99	3.587	3.575	(0.926)	774325	58.7733	1960
$ 20 Nitrobenzene-d5	82	4.234	4.228	(0.893)	411367	30.3283	1010
$ 39 2-Fluorobiphenyl	172	5.481	5.475	(0.915)	739019	34.8523	1160
$ 60 2,4,6-Tribromophenol	329	6.586	6.575	(1.099)	184328	79.9247	2660
$ 81 p-Terphenyl-d14	244	8.533	8.522	(0.892)	936326	44.3493	1480

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.598	3.587	(0.929)	392505	29.4304	981
8 2-Chlorophenol	128	3.740	3.728	(0.965)	344745	31.7832	1060
11 1,4-Dichlorobenzene	146	3.887	3.875	(1.003)	362739	31.2626	1040
17 N-Nitrosodipropylamine	70	4.110	4.104	(1.061)	279623	30.7301	1020(Q)
28 1,2,4-Trichlorobenzene	180	4.692	4.681	(0.990)	350267	34.1614	1140
33 4-Chloro-3-methylphenol	107	5.092	5.075	(1.074)	325339	33.4291	1110
47 Acenaphthene	154	6.016	6.010	(1.004)	664634	31.1684	1040
50 2,4-Dinitrotoluene	165	6.104	6.098	(1.019)	267639	36.5408	1220
52 4-Nitrophenol	139	6.039	6.016	(1.008)	96104	24.3155	810
65 Pentachlorophenol	266	6.986	6.969	(0.976)	141240	42.7887	1430
79 Pyrene	202	8.433	8.422	(0.881)	1377948	37.3087	1240
2 Pyridine	79	2.416	2.381	(0.624)	238176	23.1301	771
4 Aniline	66	3.657	3.646	(0.944)	203796	32.6731	1090
7 bis(2-Chloroethyl) ether	63	3.675	3.669	(0.948)	285635	28.8036	960
9 1,3-Dichlorobenzene	146	3.840	3.834	(0.991)	366004	30.6294	1020
12 Benzyl alcohol	108	3.945	3.934	(1.018)	77311	10.1414	338(R)
13 1,2-Dichlorobenzene	146	3.987	3.981	(1.029)	350167	33.2937	1110
14 bis(2-Chloroisopropyl)ether	45	4.016	4.010	(1.036)	578035	27.7336	924
15 o-Cresol	107	3.993	3.981	(1.030)	281409	34.0195	1130
18 m,p-Cresols	107	4.093	4.081	(1.056)	443559	37.2261	1240
19 Hexachloroethane	117	4.216	4.210	(1.088)	139019	27.7525	925
21 Nitrobenzene	77	4.251	4.240	(0.897)	422113	33.7284	1120
22 Isophorone	82	4.404	4.393	(0.929)	747955	31.1450	1040
23 2-Nitrophenol	139	4.463	4.457	(0.942)	181925	33.5379	1120
24 2,4-Dimethylphenol	122	4.492	4.445	(0.948)	428035	41.7066	1390(Q)
25 bis(2-Chloroethoxy)methane	93	4.522	4.516	(0.954)	395070	30.2592	1010
26 2,4-Dichlorophenol	162	4.634	4.616	(0.978)	306921	34.2637	1140
27 Benzoic acid	105	4.522	4.487	(0.954)	514830	77.3919	2580(Q)
30 Naphthalene	128	4.757	4.745	(1.004)	1021802	29.2483	975
31 4-Chloroaniline	127	4.769	4.763	(1.006)	485506	31.5028	1050
32 Hexachlorobutadiene	225	4.822	4.810	(1.017)	201332	34.5942	1150
34 2-Methylnaphthalene	142	5.234	5.228	(1.104)	691216	32.1741	1070
36 Hexachlorocyclopentadiene	237	5.339	5.328	(0.891)	147488	31.2973	1040
37 2,4,6-Trichlorophenol	196	5.428	5.416	(0.906)	211229	30.7118	1020
38 2,4,5-Trichlorophenol	196	5.457	5.440	(0.911)	306393	42.0469	1400(H)
40 2-Chloronaphthalene	162	5.592	5.581	(0.933)	674256	33.7039	1120
42 o-Nitroaniline	65	5.645	5.640	(0.942)	210696	29.9829	999
41 m-Nitroaniline	138	5.939	5.934	(0.991)	162918	31.2057	1040
43 Dimethylphthalate	163	5.757	5.751	(0.961)	908718	39.1377	1300
44 2,6-Dinitrotoluene	165	5.810	5.804	(0.970)	205090	36.8906	1230
45 Acenaphthylene	152	5.892	5.887	(0.983)	1110241	35.0292	1170
48 2,4-Dinitrophenol	184	6.010	6.004	(1.003)	67463	35.4357	1180(Q)
49 Dibenzofuran	168	6.139	6.134	(1.025)	947478	36.5779	1220
51 Diethylphthalate	149	6.263	6.257	(1.045)	918347	40.3487	1340
53 Fluorene	166	6.404	6.392	(1.069)	777862	33.8684	1130
54 4-Chlorophenylphenylether	204	6.381	6.369	(1.065)	427150	38.7705	1290
55 2-Methyl-4,6-dinitrophenol	198	6.416	6.404	(0.896)	113808	35.3907	1180

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.398	6.387	(1.068)	160761	37.5539	1250
133 Diphenylamine	169	6.469	6.457	(0.904)	700359	38.4145	1280
58 1,2-Diphenylhydrazine	77	6.504	6.492	(0.909)	863903	35.2510	1180
61 4-Bromophenylphenylether	248	6.769	6.757	(0.946)	244883	40.1391	1340
63 Hexachlorobenzene	284	6.833	6.822	(0.955)	244817	41.9961	1400
68 Phenanthrene	178	7.181	7.169	(1.003)	1177361	34.3886	1150
69 Anthracene	178	7.222	7.210	(1.009)	1193994	34.6174	1150
72 Di-n-butylphthalate	149	7.581	7.575	(1.059)	1561871	39.1551	1300
76 Fluoranthene	202	8.216	8.204	(1.148)	1342354	38.6617	1290
85 Butylbenzylphthalate	149	8.969	8.957	(0.937)	711923	39.8392	1330
89 Benzo(a)anthracene	228	9.551	9.539	(0.998)	1209285	38.2254	1270
90 3,3'-Dichlorobenzidine	252	9.504	9.498	(0.993)	337569	36.9376	1230
92 Chrysene	228	9.592	9.575	(1.002)	1149394	38.0375	1270
93 bis(2-Ethylhexyl)phthalate	149	9.492	9.486	(0.992)	942088	39.4412	1310
94 Di-n-octylphthalate	149	10.139	10.122	(0.905)	1499800	36.9946	1230
95 Benzo(b)fluoranthene	252	10.692	10.674	(0.955)	1068812	37.1079	1240
96 Benzo(k)fluoranthene	252	10.727	10.710	(0.958)	1148106	41.5483	1380
97 Benzo(a)pyrene	252	11.121	11.098	(0.993)	980528	40.1961	1340
99 Indeno(1,2,3-cd)pyrene	276	12.915	12.880	(1.153)	923297	41.2481	1370
100 Dibenzo(a,h)anthracene	278	12.933	12.898	(1.155)	742679	41.1939	1370
101 Benzo(ghi)perylene	276	13.445	13.398	(1.201)	775373	40.5682	1350
1 N-Methyl-N-nitrosomethylamine	74	2.381	2.352	(0.614)	176974	24.4923	816

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s032010.b/s6c2010.d
Date : 20-MAR-2010 18:06
Client ID: SBLK01LCS
Sample Info: 1120271494|965425|1|SVM|1|LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

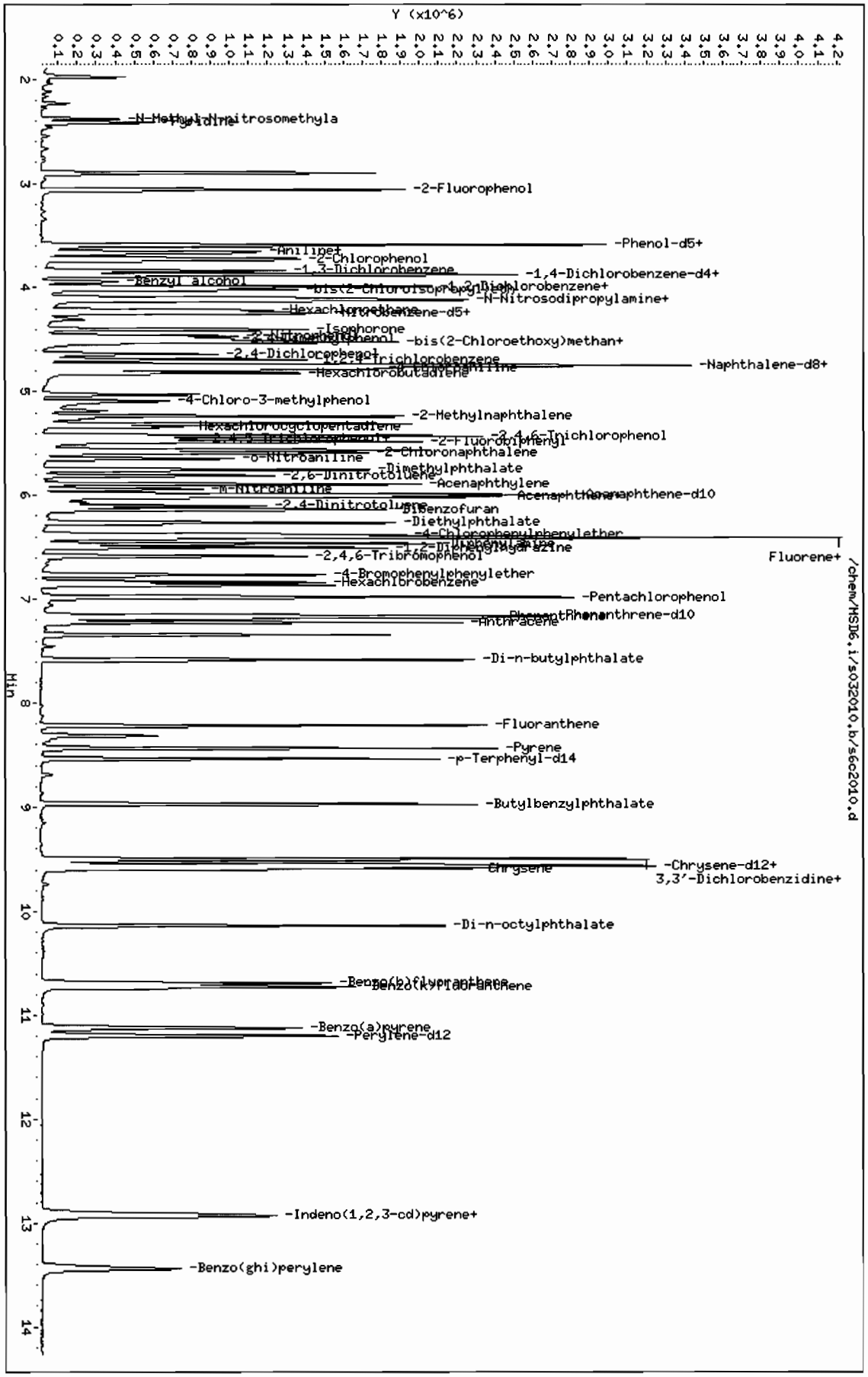

Page 1

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 965424 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202071493 MB	16-MAR-2010 12:02:00	30	1	0.03333
1202071494 LCS	16-MAR-2010 12:02:00	30	1	0.03333
248702001	16-MAR-2010 12:02:00	30	1	0.03333
248702002	16-MAR-2010 12:02:00	30.03	1	0.0333
248780002	16-MAR-2010 12:02:00	30.02	1	0.03331
248780003	16-MAR-2010 12:02:00	30.06	1	0.03327
248780004	16-MAR-2010 12:02:00	30.09	1	0.03323
248780005	16-MAR-2010 12:02:00	30.08	1	0.03324
248780006	16-MAR-2010 12:02:00	30.09	1	0.03323
248780007	16-MAR-2010 12:02:00	30.06	1	0.03327
248780008	16-MAR-2010 12:02:00	30.03	1	0.0333
248780009	16-MAR-2010 12:02:00	30.04	1	0.03329
248842002	16-MAR-2010 12:02:00	30.04	1	0.03329
1202071495 MS (248842002)	16-MAR-2010 12:02:00	30.09	1	0.03323
1202071496 MSD (248842002)	16-MAR-2010 12:02:00	30.04	1	0.03329
248842003	16-MAR-2010 12:02:00	30	1	0.03333
248842004	16-MAR-2010 12:02:00	30.02	1	0.03331
248842005	16-MAR-2010 12:02:00	30.09	1	0.03323
248842006	16-MAR-2010 12:02:00	30.09	1	0.03323
248842007	16-MAR-2010 12:02:00	30.09	1	0.03323
248842008	16-MAR-2010 12:02:00	30	1	0.03333
248842009	16-MAR-2010 12:02:00	30.04	1	0.03329
248842010	16-MAR-2010 12:02:00	30.09	1	0.03323

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202071494	BNA LCS w/o Benzidine 50ppm	UE100302-14	1	mL
LCS	1202071494	BENZIDINE LCS	UE100310-22	1	mL
MS	1202071495	BNA LCS w/o Benzidine 50ppm	UE100302-14	1	mL
MS	1202071495	BENZIDINE LCS	UE100310-22	1	mL
MSD	1202071496	BNA LCS w/o Benzidine 50ppm	UE100302-14	1	mL
MSD	1202071496	BENZIDINE LCS	UE100310-22	1	mL
SURR	All	BNA for all Surrogate	UE100310-10	1	mL
REGNT	All	Acetone	1273739-B1	150	mL
REGNT	All	Methylene Chloride	1281955-D	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: JAM

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 03/16/2010 METHOD: See raw data OPERATOR: nag1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1576 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s031610.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6c1601-D.d	WBN100306-01.2	nag1	16-MAR-2010 08:42	DFTPP	s031610	1.0	DFTPP	MEGA
s6c1601.d	WBN100306-01.2	nag1	16-MAR-2010 08:42	DFTPP	s031610	1.0	DFTPP	MEGA
s6c1602.d	INSTBLK	nag1	16-MAR-2010 08:55		s031610	1.0		
s6c1603.d	WBN100309-08	nag1	16-MAR-2010 09:18	001 PPM	s031610	1.0	MEGA001	
s6c1604-RQ.d	WBN100309-07	nag1	16-MAR-2010 09:47	010 PPM	s031610	1.0	MEGA010	
s6c1604.d	WBN100309-07	nag1	16-MAR-2010 09:47	010 PPM	s031610	1.0	MEGA010	
s6c1605.d	WBN100309-06	nag1	16-MAR-2010 10:17	020 PPM	s031610	1.0	MEGA020	
s6c1606.d	WBN100309-05.1	nag1	16-MAR-2010 10:48	040 PPM	s031610	1.0	MEGA040	
s6c1607.d	WBN100309-04	nag1	16-MAR-2010 11:18	050 PPM	s031610	1.0	MEGA050	
s6c1608.d	WBN100309-03	nag1	16-MAR-2010 11:48	080 PPM	s031610	1.0	MEGA080	
s6c1609.d	WBN100309-02	nag1	16-MAR-2010 12:18	100 PPM	s031610	1.0	MEGA100	
s6c1610.d	WBN100309-01	nag1	16-MAR-2010 12:48	120 PPM	s031610	1.0	MEGA120	
s6c1611.d	INSTBLK	nag1	16-MAR-2010 13:16		s031610	1.0		
s6c1612-BOE.d	WBN100309-09.1	nag1	16-MAR-2010 13:40	040 PPM	s031610	1.0	MEGAICV	
s6c1612-D.d	WBN100309-09.1	nag1	16-MAR-2010 13:40	040 PPM	s031610	1.0	MEGAICV	
s6c1612.d	WBN100309-09.1	nag1	16-MAR-2010 13:40	040 PPM	s031610	1.0	MEGAICV	
s6c1613-D.d	WBN100306-01.2	nag1	16-MAR-2010 16:06	DFTPP	s031610	1.0	DFTPP	AP/PEST/HEX
s6c1613.d	WBN100306-01.2	nag1	16-MAR-2010 16:06	DFTPP	s031610	1.0	DFTPP	AP/PEST/HEX
s6c1614.d	INSTBLK	nag1	16-MAR-2010 16:19		s031610	1.0		

s6c1615.d	WBN100312-01	nag1	16-MAR-2010 16:42	10 PPM	s031610	1.0	AP010	
s6c1616.d	WBN100312-02	nag1	16-MAR-2010 17:06	20 PPM	s031610	1.0	AP020	
s6c1617.d	WBN100312-03.1	nag1	16-MAR-2010 17:30	40 PPM	s031610	1.0	AP040	
s6c1618.d	WBN100312-04	nag1	16-MAR-2010 17:53	50 PPM	s031610	1.0	AP050	
s6c1619.d	WBN100312-05	nag1	16-MAR-2010 18:16	80 PPM	s031610	1.0	AP080	
s6c1620.d	WBN100312-06	nag1	16-MAR-2010 18:40	100 PPM	s031610	1.0	AP100	
s6c1621.d	WBN100312-07	nag1	16-MAR-2010 19:04	120 PPM	s031610	1.0	AP120	
s6c1622.d	WBN100304-25	nag1	16-MAR-2010 19:27	10 PPM	s031610	1.0	PEST010	
s6c1623.d	WBN100304-24	nag1	16-MAR-2010 19:51	20 PPM	s031610	1.0	PEST020	
s6c1624.d	WBN100304-23.1	nag1	16-MAR-2010 20:16	40 PPM	s031610	1.0	PEST040	
s6c1625.d	WBN100304-22	nag1	16-MAR-2010 20:39	50 PPM	s031610	1.0	PEST050	
s6c1626.d	WBN100304-21	nag1	16-MAR-2010 21:04	80 PPM	s031610	1.0	PEST080	
s6c1627.d	WBN100304-20	nag1	16-MAR-2010 21:29	100 PPM	s031610	1.0	PEST100	
s6c1628.d	WBN100304-19	nag1	16-MAR-2010 21:52	120 PPM	s031610	1.0	PEST120	
s6c1629.d	WBN100304-16	nag1	16-MAR-2010 22:16	500 PPM	s031610	1.0	HEX500	
s6c1630.d	WBN100304-15	nag1	16-MAR-2010 22:40	1000 PPM	s031610	1.0	HEX1000	
s6c1631.d	WBN100304-14	nag1	16-MAR-2010 23:05	1250 PPM	s031610	1.0	HEX1250	
s6c1632.d	WBN100304-15	nag1	16-MAR-2010 23:30	1500 PPM	s031610	1.0	HEX1500	
s6c1633.d	WBN100304-16	nag1	16-MAR-2010 23:53	1750 PPM	s031610	1.0	HEX1750	
s6c1634.d	UBN100304-16	nag1	17-MAR-2010 00:17	2000 PPM	s031610	1.0	HEX2000	
s6c1635-D.d	WBN100312-08.1	nag1	17-MAR-2010 00:41	40 PPM	s031710	1.0	APICV	
s6c1635.d	WBN100312-08.1	nag1	17-MAR-2010 00:41	40 PPM	s031710	1.0	APICV	
s6c1636-D.d	WBN100304-26.1	nag1	17-MAR-2010 01:05	40 PPM	s031710	1.0	PESTICV	
s6c1636.d	WBN100304-26.1	nag1	17-MAR-2010 01:05	40 PPM	s031710	1.0	PESTICV	
s6c1637-D.d	WBN100304-14	nag1	17-MAR-2010 01:30	1250 PPM	s031710	1.0	HEX1250	
s6c1637.d	WBN100304-14	nag1	17-MAR-2010 01:30	1250 PPM	s031710	1.0	HEX1250	
s6c1638-D.d	WBN100306-01.2	nag1	17-MAR-2010 01:55	DFTPP	s031610	1.0	DFTPP	NEV

s6c1638.d	WBN100306-01.2	nag1	17-MAR-2010 01:55	DFTPP	s031610	1.0	DFTPP	NEV
s6c1639.d	INSTBLK	nag1	17-MAR-2010 02:08		s031610	1.0		
s6c1640.d	WBN100127-01	nag1	17-MAR-2010 02:32	10 PPM	s031610	1.0	NEV010	
s6c1641.d	WBN100127-02	nag1	17-MAR-2010 02:55	20 PPM	s031610	1.0	NEV020	
s6c1642.d	WBN100127-03	nag1	17-MAR-2010 03:19	40 PPM	s031610	1.0	NEV040	
s6c1643.d	WBN100127-04	nag1	17-MAR-2010 03:42	50 PPM	s031610	1.0	NEV050	
s6c1644.d	WBN100127-05	nag1	17-MAR-2010 04:05	80 PPM	s031610	1.0	NEV080	
s6c1645.d	WBN100127-06	nag1	17-MAR-2010 04:28	100 PPM	s031610	1.0	NEV100	
s6c1646.d	WBN100127-07	nag1	17-MAR-2010 04:51	120 PPM	s031610	1.0	NEV120	
s6c1647.d	WBN100127-03	nag1	17-MAR-2010 05:14	40 PPM	s031610	1.0	NEVcvs	

Instrument Batch: /chem/MSD6.i/s031610.b

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 03/20/2010 METHOD: See raw data OPERATOR: nagl REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1576 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s032010.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6c2001.d	WBN100306-01.2	nagl	20-MAR-2010 12:47	DFTPP	s032010	1.0	DFTPP	DUSE
s6c2002.d	WBN100309-05.3	nagl	20-MAR-2010 13:00	40 PPM	s032010	1.0	MEGACVS	DUSE; MAINTENANCE
s6c2003.d	WBN100306-01.2	nagl	20-MAR-2010 14:38	DFTPP	s032010	1.0	DFTPP	USE
s6c2004.d	WBN100309-05.3	nagl	20-MAR-2010 14:52	40 PPM	s032010	1.0	MEGACVS	DUSE
s6c2005.d	WBN100312-03.3	nagl	20-MAR-2010 15:22	40 PPM	s032010	1.0	APCVS	USE
s6c2006.d	WBN100309-05.3	nagl	20-MAR-2010 15:45	40 PPM	s032010	1.0	MEGACVS	pass 322202
s6c2007.d	WBN100304-23.3	nagl	20-MAR-2010 16:15	40 PPM	s032010	1.0	PESTCVS	USE
s6c2008.d	UBN100127-08.1	nagl	20-MAR-2010 16:39	40 PPM	s032010	1.0	NEVCVS	USE
s6c2009-1.d	1202071493	nagl	20-MAR-2010 17:42	965425	10-2283	1.0	MB	
s6c2009-2.d	1202071493	nagl	20-MAR-2010 17:42	965425	10-2302	1.0	MB	
s6c2009.d	1202071493	nagl	20-MAR-2010 17:42	965425	10-2264	1.0	MB	
s6c2010-1.d	1202071494	nagl	20-MAR-2010 18:06	965425	10-2283	1.0	LCS	
s6c2010-2.d	1202071494	nagl	20-MAR-2010 18:06	965425	10-2302	1.0	LCS	
s6c2010.d	1202071494	nagl	20-MAR-2010 18:06	965425	10-2264	1.0	LCS	
s6c2011.d	248702001	nagl	20-MAR-2010 18:29	965425	10-2264	1.0	LANL	
s6c2012.d	248702002	nagl	20-MAR-2010 18:52	965425	10-2264	1.0	LANL	
s6c2013.d	248780002	nagl	20-MAR-2010 19:16	965425	10-2283	1.0	LANL	
s6c2014.d	248780003	nagl	20-MAR-2010 19:40	965425	10-2283	1.0	LANL	
s6c2015.d	248780004	nagl	20-MAR-2010 20:03	965425	10-2283	1.0	LANL	

s6c2016.d	248780005	nagl	20-MAR-2010 20:26	965425	10-2283	1.0	LANL	
s6c2017.d	248780006	nagl	20-MAR-2010 20:49	965425	10-2283	1.0	LANL	
s6c2018.d	248780007	nagl	20-MAR-2010 21:12	965425	10-2283	1.0	LANL	
s6c2019.d	248780008	nagl	20-MAR-2010 21:36	965425	10-2283	1.0	LANL	
s6c2020.d	248780009	nagl	20-MAR-2010 21:58	965425	10-2283	1.0	LANL	
s6c2021.d	248842002	nagl	20-MAR-2010 22:22	965425	10-2302	1.0	LANL	
s6c2022.d	1202071495	nagl	20-MAR-2010 22:45	965425	10-2302	1.0	MS	
s6c2023.d	1202071496	nagl	20-MAR-2010 23:07	965425	10-2302	1.0	MSD	
s6c2024.d	248842003	nagl	20-MAR-2010 23:30	965425	10-2302	1.0	LANL	
s6c2025.d	248842004	nagl	20-MAR-2010 23:53	965425	10-2302	1.0	LANL	DUSE c93 overrange rr 10x s6c2318
s6c2026.d	248842005	nagl	21-MAR-2010 00:16	965425	10-2302	1.0	LANL	USE; fail surr RX; SEE RE S6C2419 CONFIRMS
s6c2027.d	248842006	nagl	21-MAR-2010 00:39	965425	10-2302	1.0	LANL	USE; fail surr RX; SEE RE S6C2420 PASS OH REPORT BOTH SETS
s6c2028.d	248842007	nagl	21-MAR-2010 01:01	965425	10-2302	1.0	LANL	DUSE c93 overrange rr 10x s6c2319
s6c2029.d	248842008	nagl	21-MAR-2010 01:24	965425	10-2302	1.0	LANL	DUSE-carryover s6c2320
s6c2030.d	248842009	nagl	21-MAR-2010 01:47	965425	10-2302	1.0	LANL	DUSE-c93 overrange rr 10x s6c2321

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
965425	See Below		

Potentially affected work order(s)(SDG): 248702(10-2264),248780(10-2283),248842(10-2302)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for LCS/LCSD

Failed Yield for Surrogates

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Samples 248842005 and 248842006 recovered surrogates outside of the established acceptance limits. Please see the QC Summary report for the specific failures.	1. The samples were re extracted out of hold in batch 968549. WAITING ON RESULTS
2. The LCS(1202071494) recovered Benzyl alcohol at 20%. The limits are 27%-108%.	2. The LCS failure represents less than 5% of the total spike analyte list. That satisfied the acceptance criteria for the client and the data results have been reported. Please note that Benzyl alcohol is known to be a poor responder that is subject to erratic chromatography behavior as stated in the method. This may account for the low recovery in the LCS (and also the zero recoveries in the MS and MSD).
3. The MS(1202071495) recovered multiple spike analytes outside of the established acceptance limits. Please see the QC Summary report for the specific failures. 4. The MSD(1202071496) recovered Benzyl alcohol at 0%. The limits are 19%-112%.	3., 4. Since the MSD displayed similar low (but passing, with the exception of Benzyl alcohol) recoveries to the MS, the failures were attributed to sample matrix interference and the data results have been reported. Please note that Benzyl alcohol is known to be a poor responder that is subject to erratic chromatography behavior as stated in the method. This may account for the zero recoveries in the MS and MSD (and also the low recovery in the LCS).
5. Multiple MS(1202071495)/MSD(1202071496) RPD values were outside of the established acceptance limits. Please see the QC Summary report for the specific failures.	5. The RPD failures attributed to sample matrix interference and the data results have been reported.

Originator's Name:

Lloyd O Fox 24-MAR-10

Data Validator/Group Leader:

Barbara Bailey 25-MAR-10

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2022.d
Lab Smp Id: 1202071495 Client Smp ID: RE46-10-13553MS
Inj Date : 20-MAR-2010 22:45
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202071495|965425|1|SVM|1|MS
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 19 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	13.94230	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.869	3.863	(1.000)	383971	40.0000	
* 29 Naphthalene-d8	136	4.740	4.734	(1.000)	1432691	40.0000	
* 46 Acenaphthene-d10	164	5.992	5.987	(1.000)	855124	40.0000	
* 67 Phenanthrene-d10	188	7.157	7.145	(1.000)	1482724	40.0000	
* 91 Chrysene-d12	240	9.563	9.551	(1.000)	1208205	40.0000	
* 98 Perylene-d12	264	11.192	11.174	(1.000)	725547	40.0000	
$ 3 2-Fluorophenol	112	3.063	3.046	(0.792)	437210	40.9602	1580
$ 5 Phenol-d5	99	3.587	3.575	(0.927)	538964	39.7041	1530
$ 20 Nitrobenzene-d5	82	4.234	4.228	(0.893)	265441	19.3815	748
$ 39 2-Fluorobiphenyl	172	5.481	5.475	(0.915)	506906	22.9760	887
$ 60 2,4,6-Tribromophenol	329	6.586	6.575	(1.099)	133665	55.7031	2150
$ 81 p-Terphenyl-d14	244	8.533	8.522	(0.892)	660979	31.3944	1210

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.598	3.587	(0.930)	185233	13.4799	520(R)
8 2-Chlorophenol	128	3.734	3.728	(0.965)	159303	14.2542	550(R)
11 1,4-Dichlorobenzene	146	3.881	3.875	(1.003)	153323	12.8250	495(R)
17 N-Nitrosodipropylamine	70	4.104	4.104	(1.061)	122387	13.0541	504(QR)
28 1,2,4-Trichlorobenzene	180	4.687	4.681	(0.989)	150438	14.5309	561
33 4-Chloro-3-methylphenol	107	5.098	5.075	(1.076)	150192	15.2839	590
47 Acenaphthene	154	6.016	6.010	(1.004)	299595	13.5033	521
50 2,4-Dinitrotoluene	165	6.104	6.098	(1.019)	121317	15.9192	615(R)
52 4-Nitrophenol	139	6.051	6.016	(1.010)	48871	11.8841	459
65 Pentachlorophenol	266	6.986	6.969	(0.976)	57885	16.6181	642
79 Pyrene	202	8.428	8.422	(0.881)	625636	16.9865	656
2 Pyridine	79	2.416	2.381	(0.624)	83749	7.89366	305(aR)
4 Aniline	66	3.651	3.646	(0.944)	75439	11.7384	453
7 bis(2-Chloroethyl) ether	63	3.669	3.669	(0.948)	121888	11.9293	461(R)
9 1,3-Dichlorobenzene	146	3.840	3.834	(0.992)	152877	12.4169	480(R)
13 1,2-Dichlorobenzene	146	3.987	3.981	(1.030)	153228	14.1398	546(R)
14 bis(2-Chloroisopropyl)ether	45	4.016	4.010	(1.038)	245589	11.4362	442(R)
15 o-Cresol	107	3.993	3.981	(1.032)	119181	13.9835	540(R)
18 m,p-Cresols	107	4.087	4.081	(1.056)	192790	15.7036	606(R)
19 Hexachloroethane	117	4.216	4.210	(1.090)	54889	10.6349	411(R)
21 Nitrobenzene	77	4.245	4.240	(0.896)	197121	15.5991	602
22 Isophorone	82	4.398	4.393	(0.928)	327827	13.5194	522(R)
23 2-Nitrophenol	139	4.463	4.457	(0.942)	84147	15.3632	593
24 2,4-Dimethylphenol	122	4.493	4.445	(0.948)	327755	30.1806	1160(Q)
25 bis(2-Chloroethoxy)methane	93	4.522	4.516	(0.954)	180584	13.6982	529
26 2,4-Dichlorophenol	162	4.628	4.616	(0.976)	135010	14.9270	576
27 Benzoic acid	105	4.504	4.487	(0.950)	242763	36.1421	1400
30 Naphthalene	128	4.751	4.745	(1.002)	463183	13.1306	507
31 4-Chloroaniline	127	4.769	4.763	(1.006)	218594	14.0473	542
32 Hexachlorobutadiene	225	4.816	4.810	(1.016)	82852	14.0992	544
34 2-Methylnaphthalene	142	5.234	5.228	(1.104)	311195	14.3458	554
36 Hexachlorocyclopentadiene	237	5.340	5.328	(0.891)	47647	9.71756	375(aR)
37 2,4,6-Trichlorophenol	196	5.422	5.416	(0.905)	99278	13.8732	536
38 2,4,5-Trichlorophenol	196	5.457	5.440	(0.911)	131070	17.2874	668
40 2-Chloronaphthalene	162	5.587	5.581	(0.932)	309495	14.8690	574
42 o-Nitroaniline	65	5.645	5.640	(0.942)	149714	20.4763	791(Q)
41 m-Nitroaniline	138	5.939	5.934	(0.991)	82417	15.1724	586(R)
43 Dimethylphthalate	163	5.751	5.751	(0.960)	407385	16.8633	651(R)
44 2,6-Dinitrotoluene	165	5.810	5.804	(0.970)	87820	15.1823	586
45 Acenaphthylene	152	5.892	5.887	(0.983)	510986	15.4951	598
48 2,4-Dinitrophenol	184	6.010	6.004	(1.003)	20880	14.6291	565(aQ)
49 Dibenzofuran	168	6.139	6.134	(1.025)	452819	16.8014	649(R)
51 Diethylphthalate	149	6.263	6.257	(1.045)	403191	17.0257	657(R)
53 Fluorene	166	6.398	6.392	(1.068)	364057	15.2347	588(R)
54 4-Chlorophenylphenylether	204	6.381	6.369	(1.065)	194888	17.0012	656
55 2-Methyl-4,6-dinitrophenol	198	6.410	6.404	(0.896)	42492	15.3949	594
56 p-Nitroaniline	138	6.398	6.387	(1.068)	79783	17.9125	692(R)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.463	6.457	(0.903)	325514	16.9195	653
58 1,2-Diphenylhydrazine	77	6.504	6.492	(0.909)	396151	15.3183	592(R)
61 4-Bromophenylphenylether	248	6.763	6.757	(0.945)	113140	17.5739	679
63 Hexachlorobenzene	284	6.834	6.822	(0.955)	110073	17.8933	691(R)
68 Phenanthrene	178	7.175	7.169	(1.002)	559013	15.4728	598
69 Anthracene	178	7.222	7.210	(1.009)	591327	16.2466	627
72 Di-n-butylphthalate	149	7.581	7.575	(1.059)	694700	16.5038	637(R)
76 Fluoranthene	202	8.216	8.204	(1.148)	610881	16.6730	644
85 Butylbenzylphthalate	149	8.969	8.957	(0.938)	293578	16.4742	636(R)
89 Benzo(a)anthracene	228	9.551	9.539	(0.999)	503131	15.9481	616
90 3,3'-Dichlorobenzidine	252	9.504	9.498	(0.994)	131500	14.4290	557(R)
92 Chrysene	228	9.586	9.575	(1.002)	509205	16.8982	652
93 bis(2-Ethylhexyl)phthalate	149	9.492	9.486	(0.993)	449041	18.8516	728
94 Di-n-octylphthalate	149	10.133	10.122	(0.905)	608090	21.9026	846
95 Benzo(b)fluoranthene	252	10.686	10.674	(0.955)	350968	17.7932	687
96 Benzo(k)fluoranthene	252	10.722	10.710	(0.958)	381401	20.1546	778
97 Benzo(a)pyrene	252	11.116	11.098	(0.993)	281954	16.8781	652
99 Indeno(1,2,3-cd)pyrene	276	12.898	12.880	(1.152)	180548	11.7782	455(R)
100 Dibenzo(a,h)anthracene	278	12.915	12.898	(1.154)	152651	12.3638	477(R)
101 Benzo(ghi)perylene	276	13.421	13.398	(1.199)	132560	10.1277	391(R)
1 N-Methyl-N-nitrosomethylamine	74	2.375	2.352	(0.614)	84543	11.3558	438(R)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD6.i/s032010.b/s6c2022.d
Date : 20-MAR-2010 22:45
Client ID: RE46-10-13553MS
Sample Info: I120207149519654251|1|SVM|1|MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagi
Column diameter: 0.20

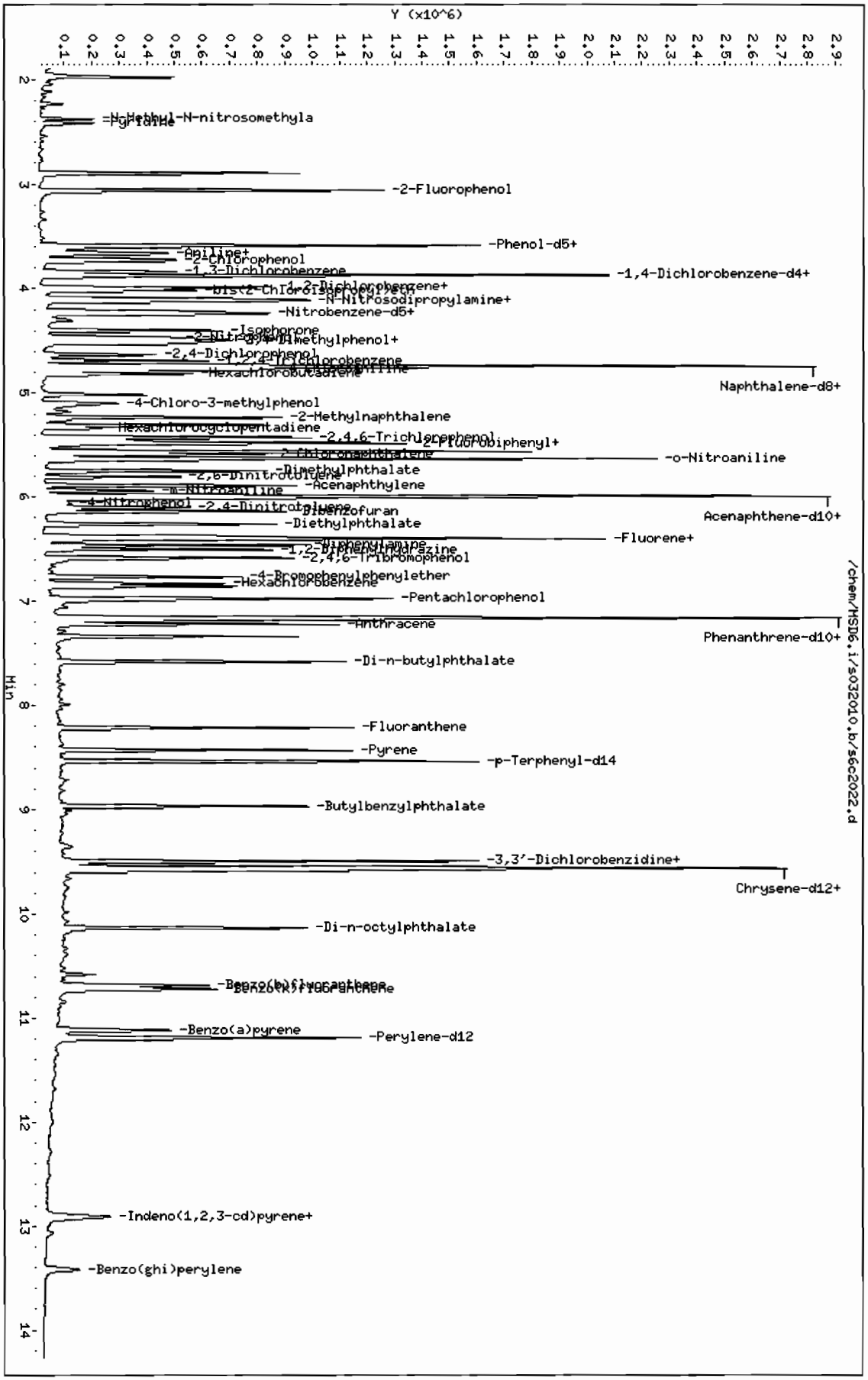

Page 1

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2023.d
Lab Smp Id: 1202071496 Client Smp ID: RE46-10-13553MSD
Inj Date : 20-MAR-2010 23:07
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202071496|965425|1|SVM|1|MSD
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 11o00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 20 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	13.94230	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.869	3.863	(1.000)	362790	40.0000	
* 29 Naphthalene-d8	136	4.740	4.734	(1.000)	1398747	40.0000	
* 46 Acenaphthene-d10	164	5.992	5.987	(1.000)	819843	40.0000	
* 67 Phenanthrene-d10	188	7.157	7.145	(1.000)	1417372	40.0000	
* 91 Chrysene-d12	240	9.563	9.551	(1.000)	1212784	40.0000	
* 98 Perylene-d12	264	11.198	11.174	(1.000)	925568	40.0000	
$ 3 2-Fluorophenol	112	3.063	3.046	(0.792)	465027	46.1098	1780
$ 5 Phenol-d5	99	3.587	3.575	(0.927)	527140	41.1003	1590
$ 20 Nitrobenzene-d5	82	4.234	4.228	(0.893)	275487	20.6031	797
$ 39 2-Fluorobiphenyl	172	5.481	5.475	(0.915)	537454	25.4090	983
$ 60 2,4,6-Tribromophenol	329	6.586	6.575	(1.099)	133938	58.2189	2250
$ 81 p-Terphenyl-d14	244	8.533	8.522	(0.892)	660179	31.2380	1210

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.598	3.587	(0.930)	297332	22.9010	886
8 2-Chlorophenol	128	3.740	3.728	(0.967)	212831	20.1556	780
11 1,4-Dichlorobenzene	146	3.881	3.875	(1.003)	195422	17.3008	669
17 N-Nitrosodipropylamine	70	4.104	4.104	(1.061)	186722	21.0790	815(Q)
28 1,2,4-Trichlorobenzene	180	4.687	4.681	(0.989)	214650	21.2364	821
33 4-Chloro-3-methylphenol	107	5.092	5.075	(1.074)	232411	24.2247	937
47 Acenaphthene	154	6.016	6.010	(1.004)	449592	21.1359	818
50 2,4-Dinitrotoluene	165	6.104	6.098	(1.019)	180174	24.6599	954
52 4-Nitrophenol	139	6.045	6.016	(1.009)	67884	17.2179	666
65 Pentachlorophenol	266	6.986	6.969	(0.976)	81241	24.3987	944
79 Pyrene	202	8.428	8.422	(0.881)	921465	24.9240	964
2 Pyridine	79	2.410	2.381	(0.623)	126488	12.6180	488
4 Aniline	66	3.651	3.646	(0.944)	130244	21.4494	830
7 bis(2-Chloroethyl) ether	63	3.669	3.669	(0.948)	180314	18.6779	722
9 1,3-Dichlorobenzene	146	3.834	3.834	(0.991)	209976	18.0503	698
13 1,2-Dichlorobenzene	146	3.981	3.981	(1.029)	206075	20.1268	778
14 bis(2-Chloroisopropyl)ether	45	4.016	4.010	(1.038)	368400	18.1566	702
15 o-Cresol	107	3.993	3.981	(1.032)	196600	24.4138	944
18 m,p-Cresols	107	4.093	4.081	(1.058)	315819	27.2268	1050
19 Hexachloroethane	117	4.210	4.210	(1.088)	72863	14.9416	578
21 Nitrobenzene	77	4.245	4.240	(0.896)	301198	24.4136	944
22 Isophorone	82	4.398	4.393	(0.928)	516521	21.8180	844
23 2-Nitrophenol	139	4.463	4.457	(0.942)	128452	24.0214	929
24 2,4-Dimethylphenol	122	4.487	4.445	(0.947)	511268	51.8022	2000(Q)
25 bis(2-Chloroethoxy)methane	93	4.522	4.516	(0.954)	280674	21.8071	844
26 2,4-Dichlorophenol	162	4.628	4.616	(0.976)	198074	22.4310	868
27 Benzoic acid	105	4.510	4.487	(0.952)	346594	52.8525	2040
30 Naphthalene	128	4.751	4.745	(1.002)	673378	19.5526	756
31 4-Chloroaniline	127	4.769	4.763	(1.006)	339826	22.3678	865
32 Hexachlorobutadiene	225	4.816	4.810	(1.016)	116335	20.2775	784
34 2-Methylnaphthalene	142	5.234	5.228	(1.104)	474417	22.4009	866
36 Hexachlorocyclopentadiene	237	5.334	5.328	(0.890)	62491	13.2934	514
37 2,4,6-Trichlorophenol	196	5.422	5.416	(0.905)	169127	24.6510	954
38 2,4,5-Trichlorophenol	196	5.457	5.440	(0.911)	180511	24.8330	960
40 2-Chloronaphthalene	162	5.587	5.581	(0.932)	463595	23.2308	899
42 o-Nitroaniline	65	5.645	5.640	(0.942)	265898	37.9317	1470(Q)
41 m-Nitroaniline	138	5.939	5.934	(0.991)	120081	23.0574	892
43 Dimethylphthalate	163	5.751	5.751	(0.960)	597690	25.8055	998
44 2,6-Dinitrotoluene	165	5.810	5.804	(0.970)	136859	24.6783	955
45 Acenaphthylene	152	5.892	5.887	(0.983)	781093	24.7051	956
48 2,4-Dinitrophenol	184	6.010	6.004	(1.003)	30734	19.3449	748(aQ)
49 Dibenzofuran	168	6.139	6.134	(1.025)	680260	26.3266	1020
51 Diethylphthalate	149	6.263	6.257	(1.045)	600063	26.4296	1020
53 Fluorene	166	6.398	6.392	(1.068)	544152	23.7511	919
54 4-Chlorophenylphenylether	204	6.381	6.369	(1.065)	298901	27.1969	1050
55 2-Methyl-4,6-dinitrophenol	198	6.416	6.404	(0.896)	58836	20.3052	785
56 p-Nitroaniline	138	6.398	6.387	(1.068)	110228	25.8129	998

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.469	6.457	(0.904)	486755	26.4670	1020
58 1,2-Diphenylhydrazine	77	6.504	6.492	(0.909)	590219	23.8748	924
61 4-Bromophenylphenylether	248	6.763	6.757	(0.945)	168904	27.4453	1060
63 Hexachlorobenzene	284	6.834	6.822	(0.955)	162771	27.6799	1070
68 Phenanthrene	178	7.181	7.169	(1.003)	810489	23.4677	908
69 Anthracene	178	7.222	7.210	(1.009)	836068	24.0300	930
72 Di-n-butylphthalate	149	7.581	7.575	(1.059)	1009483	25.0878	970
76 Fluoranthene	202	8.216	8.204	(1.148)	893103	25.4997	986
85 Butylbenzylphthalate	149	8.969	8.957	(0.938)	451833	25.2590	977
89 Benzo(a)anthracene	228	9.551	9.539	(0.999)	768687	24.2736	939
90 3,3'-Dichlorobenzidine	252	9.504	9.498	(0.994)	235220	25.7124	995
92 Chrysene	228	9.586	9.575	(1.002)	791629	26.1714	1010
93 bis(2-Ethylhexyl)phthalate	149	9.492	9.486	(0.993)	691773	28.9324	1120
94 Di-n-octylphthalate	149	10.133	10.122	(0.905)	941179	26.5740	1030
95 Benzo(b)fluoranthene	252	10.692	10.674	(0.955)	611489	24.3015	940
96 Benzo(k)fluoranthene	252	10.722	10.710	(0.957)	724756	30.0222	1160
97 Benzo(a)pyrene	252	11.116	11.098	(0.993)	559123	26.2368	1010
99 Indeno(1,2,3-cd)pyrene	276	12.904	12.880	(1.152)	456555	23.3472	903
100 Dibenzo(a,h)anthracene	278	12.921	12.898	(1.154)	374112	23.7527	919
101 Benzo(ghi)perylene	276	13.427	13.398	(1.199)	356845	21.3714	827
1 N-Methyl-N-nitrosomethylamine	74	2.369	2.352	(0.612)	125970	17.9081	693

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s032010.b/s6c2023.d
Date : 20-MAR-2010 23:07
Client ID: RE46-10-13553MSD
Sample Info: I120207149G|965425I1|SVM14|MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

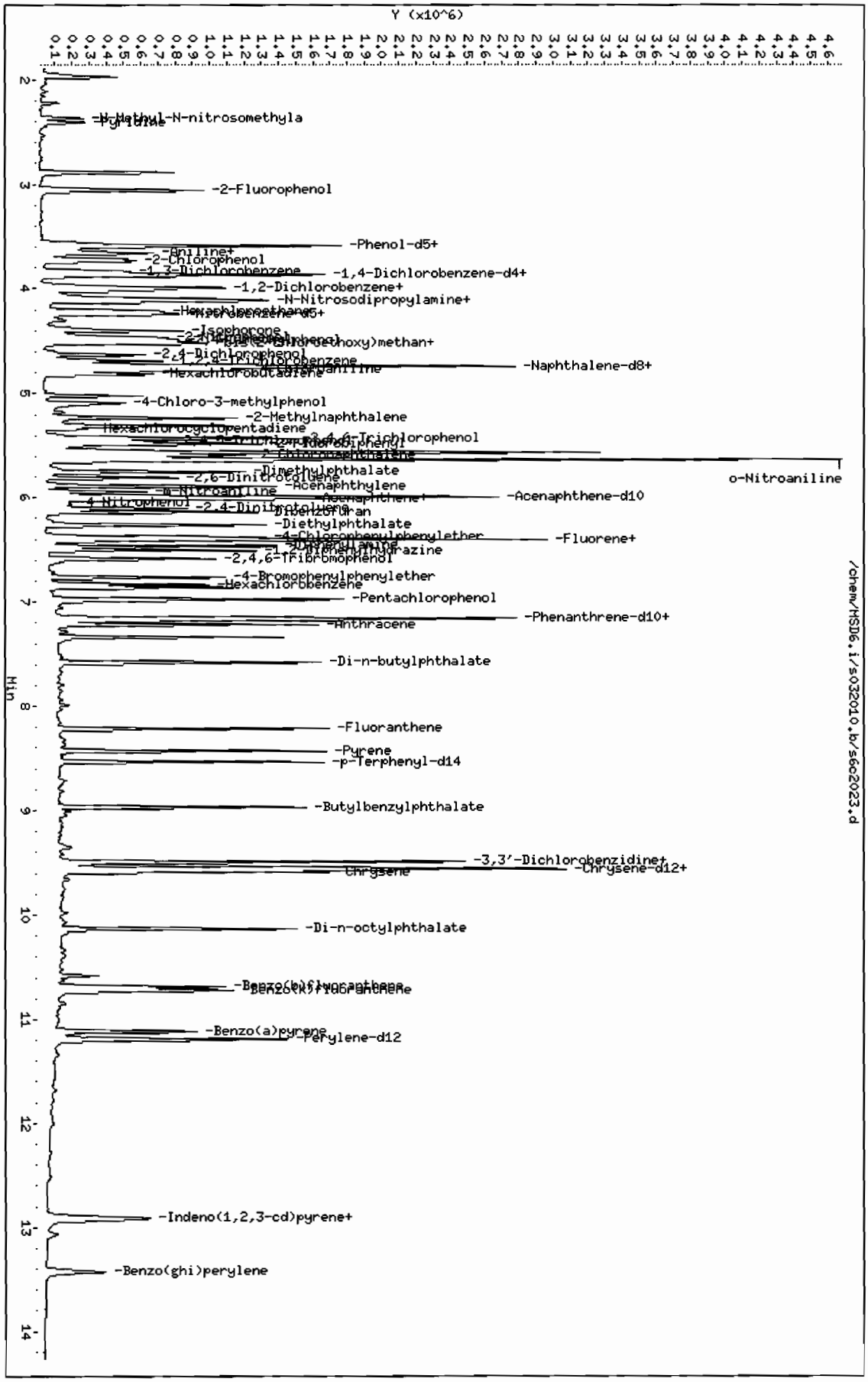

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2264

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	964113
Prep Batch Number:	964112

Sample Analysis

Sample ID	Client ID
248702001	RE46-10-13203
248702002	RE46-10-13202
1202068336	Interference Check Sample (ICS)
1202068332	Method Blank (MB)
1202068333	Laboratory Control Sample (LCS)
1202068334	248776001(RE11-10-1678) Matrix Spike (MS)
1202068335	248776001(RE11-10-1678) Matrix Spike Duplicate (MSD)

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

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

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CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 248776001 (RE11-10-1678) from SDG 10-2281 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

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Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
The 1202068336 (ICS) failed acceptance criteria. It was re-analyzed and passed acceptance criteria. The re-analysis is reported.

Miscellaneous Information

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

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

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

Review Validation:

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

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

Reviewer: Heather M Moore **Date:** 03/31/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964112

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13203

Date Received: 04-MAR-10

GEL Job No (SDG): 10-2264

GEL Sample ID: 248702001

Date Filtered: 16-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.615	2.46	0.615	ug/kg	U	1	27-MAR-10 01:38	per0326045a
	Perchlorate Isotope Ratio						1	27-MAR-10 01:38	per0326045a
14797-73-0	Perchlorate-101	.615	2.46	0.615	ug/kg	U	1	27-MAR-10 01:38	per0326045a
	Perchlorate-O(18)			5.53	ug/kg		1	27-MAR-10 01:38	per0326045a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964112

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13202

Date Received: 04-MAR-10

GEL Job No (SDG): 10-2264

GEL Sample ID: 248702002

Date Filtered: 16-MAR-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.635	2.54	0.635	ug/kg	U	1	27-MAR-10 01:48	per0326046a
	Perchlorate Isotope Ratio						1	27-MAR-10 01:48	per0326046a
14797-73-0	Perchlorate-101	.635	2.54	0.635	ug/kg	U	1	27-MAR-10 01:48	per0326046a
	Perchlorate-O(18)			5.76	ug/kg		1	27-MAR-10 01:48	per0326046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2264

Extract Batch Code: 964112

Date Filtered: 16–MAR–10

Matrix: SOIL

Sample ID: 1202068333

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.88	ug/kg	94.2		70 – 130
Perchlorate Isotope Ratio		3.55				–
Perchlorate–101	2.00	1.82	ug/kg	91.2		70 – 130
Perchlorate–O(18)		4.51	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-2264

Extract Batch Code: 964112

Date Filtered: 16-MAR-10

Matrix: SOIL

Sample ID: 1202068336

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.23	ug/kg	112		70 – 130
Perchlorate Isotope Ratio		3.28				
Perchlorate-101	2.00	2.17	ug/kg	108		70 – 130
Perchlorate-O(18)		5.29	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327012a
Date: 27-Mar-2010
Time: 15:21:50
ID: 1202068336
Vial: 1:3,A

ILANL | 964113 | 50120 | 2(5 | 1 |

03-28-10

Perchlorate

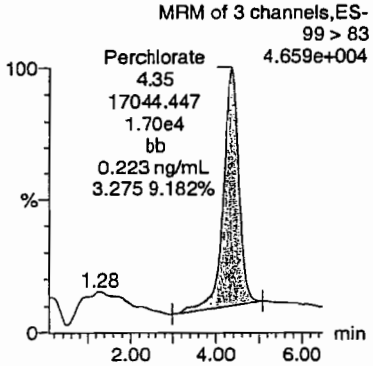

Perchlorate

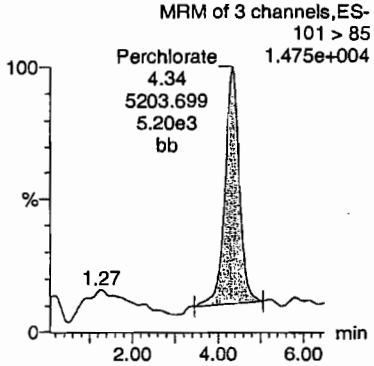

Perchlorate-101

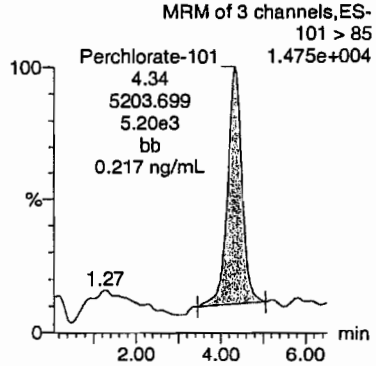

Perchlorate-O(18)

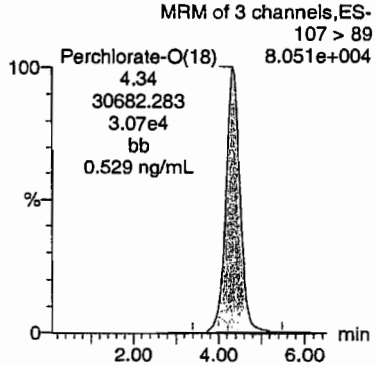

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
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1202068336	Perchlorate-101	101 > 85	4.34	5203.699	5203.699	bb			0.2169	108.45	8.45	148.417	
1202068336	Perchlorate-O(18)	107 > 89	4.34	30682.283	30682.283	bb			0.5286	105.71	5.71	1305.4...	

MM 3/30/10

$$\frac{17044.447}{76347.5} = 0.2232$$

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–2264

Extract Batch Code: 964112

Date Extracted: 16–MAR–10

GEL MS/PS ID: 1202068334

Client ID: RE11–10–1678

GEL MSD/PSD ID: 1202068335

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.21	0.0632	ug/kg	1.94	85	1.92	83.8	1.38	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.28		3.37		0		–
Perchlorate–101	2.21	0.00	ug/kg	2.04	92.2	1.96	88.5	4.11	30	75 – 125
Perchlorate–O(18)	0	4.79	ug/kg	4.79		4.75		.767		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2264

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	26–MAR–10	per0326001a	IPB001
Perchlorate–101	0.00	0	NA	26–MAR–10	per0326001a	IPB001
Perchlorate	0.00	0	NA	26–MAR–10	per0326002a	IPB001
Perchlorate–101	0.00	0	NA	26–MAR–10	per0326002a	IPB001
Perchlorate	0.00	0	NA	27–MAR–10	per0327001a	IPB001
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327001a	IPB001
Perchlorate	0.00	0	NA	27–MAR–10	per0327002a	IPB001
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327002a	IPB001

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032610a.mdb 27 Mar 2010 09:40:09
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032610a.cdb 27 Mar 2010 09:40:32

Name: per0326001a
Date: 26-Mar-2010
Time: 18:12:50
ID: IPB001
Vial: 1:1,A

CWW
03-27-10

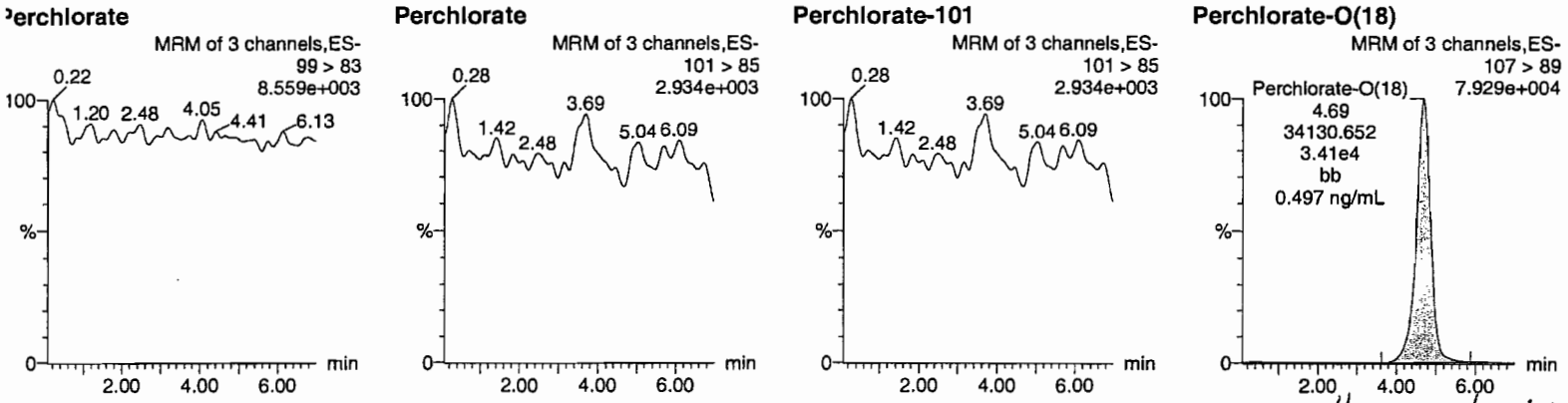

Hnne 03/27/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB001	Perchlorate	99 > 83											0.00
PB001	Perchlorate-101	101 > 85											
PB001	Perchlorate-O(18)	107 > 89	4.69	34130.652	34130.652	bb			0.4965	99.30	-0.70	2414.6...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326002a
Date: 26-Mar-2010
Time: 18:23:00
ID: IPB001
Vial: 1:1,A

CWW 03/27/10

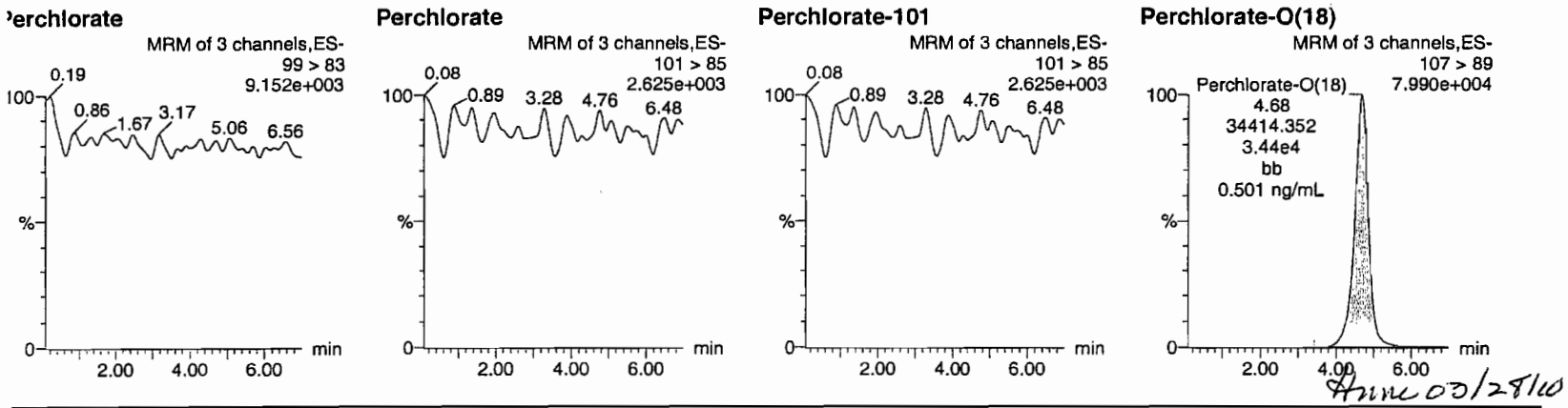

AMC 03/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	4.68	34414.352	34414.352	bb			0.5006	100.13	0.13	1995.4...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032710a.mdb 28 Mar 2010 10:15:37
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032710a.cdb 28 Mar 2010 10:33:56

Name: per0327001a
Date: 27-Mar-2010
Time: 13:35:19
ID: IPB001
Vial: 1:1,A

CWW 03-28-10

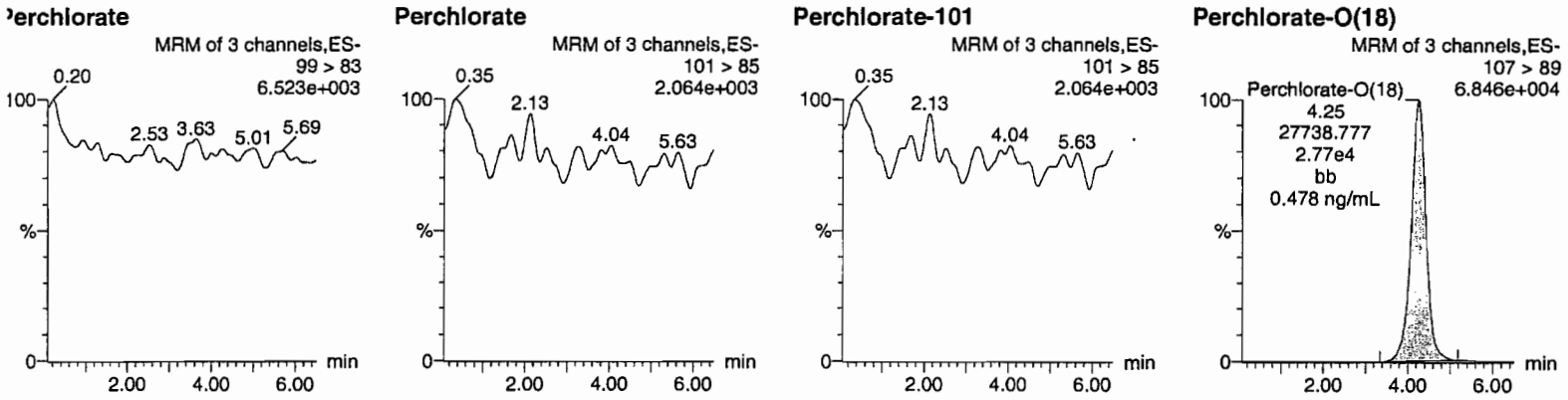

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB001	Perchlorate	99 > 83											0.00
PB001	Perchlorate-101	101 > 85											
PB001	Perchlorate-O(18)	107 > 89	4.25	27738.777	27738.777	bb			0.4778	95.57	-4.43	3497.0...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327002a
Date: 27-Mar-2010
Time: 13:44:59
ID: IPB001
Vial: 1:1,A

CWW
03-28-10

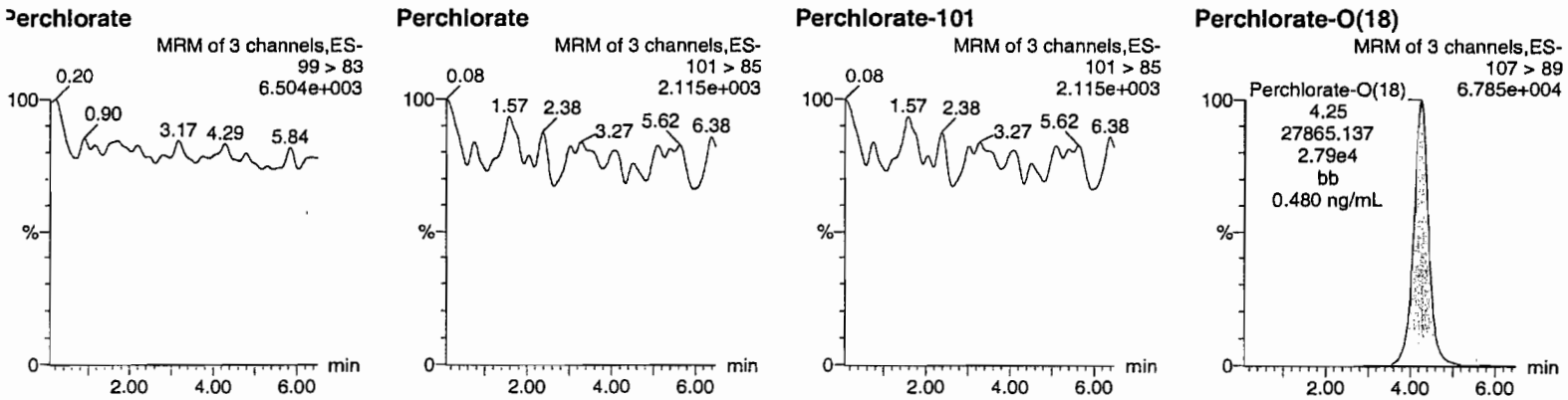

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB001	Perchlorate	99 > 83											0.00
PB001	Perchlorate-101	101 > 85											
PB001	Perchlorate-O(18)	107 > 89	4.25	27865.137	27865.137	bb			0.4800	96.00	-4.00	9932.1...	

LMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2264

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	26–MAR–10	per0326008a	IPB002
Perchlorate–101	0.00	0	NA	26–MAR–10	per0326008a	IPB002
Perchlorate	0.00	0	NA	26–MAR–10	per0326010a	IPB003
Perchlorate–101	0.00	0	NA	26–MAR–10	per0326010a	IPB003
Perchlorate	0.00	0	NA	26–MAR–10	per0326013a	IPB004
Perchlorate–101	0.00	0	NA	26–MAR–10	per0326013a	IPB004
Perchlorate	0.00	0	NA	26–MAR–10	per0326023a	IPB005
Perchlorate–101	0.00	0	NA	26–MAR–10	per0326023a	IPB005
Perchlorate	0.00	0	NA	26–MAR–10	per0326029a	IPB006
Perchlorate–101	0.00	0	NA	26–MAR–10	per0326029a	IPB006
Perchlorate	0.00	0	NA	27–MAR–10	per0326036a	IPB007
Perchlorate–101	0.00	0	NA	27–MAR–10	per0326036a	IPB007
Perchlorate	0.00	0	NA	27–MAR–10	per0326048a	IPB008

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2264

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate–101	0.00	0	NA	27–MAR–10	per0326048a	IPB008
Perchlorate	0.00	0	NA	27–MAR–10	per0327008a	IPB002
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327008a	IPB002
Perchlorate	0.00	0	NA	27–MAR–10	per0327010a	IPB003
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327010a	IPB003
Perchlorate	0.00	0	NA	27–MAR–10	per0327023a	IPB004
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327023a	IPB004

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326008a
Date: 26-Mar-2010
Time: 19:24:10
ID: IPB002
Vial: 1:1,A

CW 03-27-10

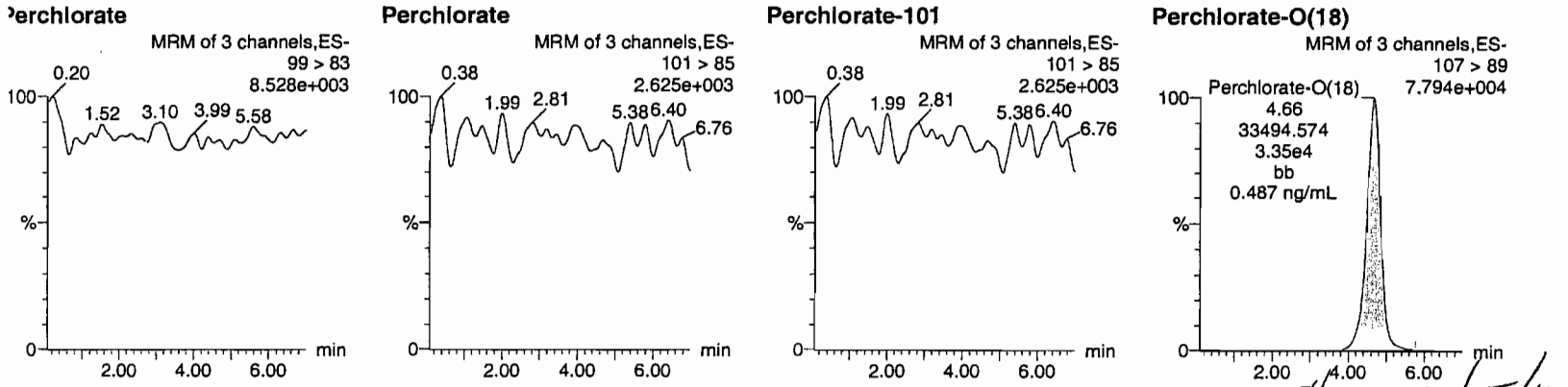

03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB002	Perchlorate	99 > 83											0.00
PB002	Perchlorate-101	101 > 85											
PB002	Perchlorate-O(18)	107 > 89	4.66	33494.574	33494.574	bb			0.4873	97.45	-2.55	2589.0...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326010a
Date: 26-Mar-2010
Time: 19:44:29
ID: IPB003
Vial: 1:1,A

CWO 03-27-10

Perchlorate

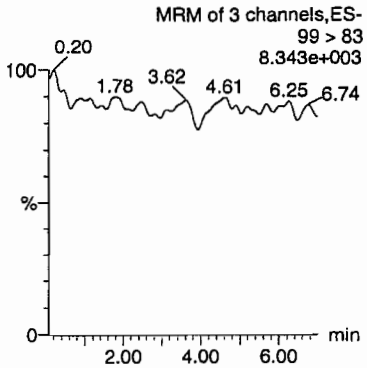

Perchlorate

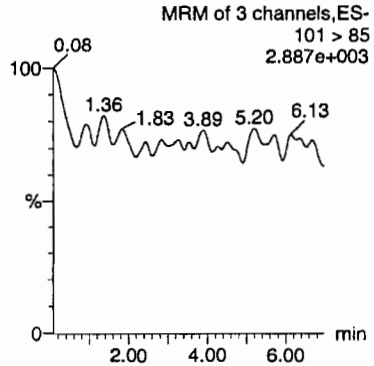

Perchlorate-101

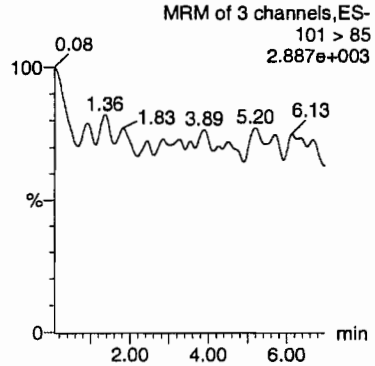

Perchlorate-O(18)

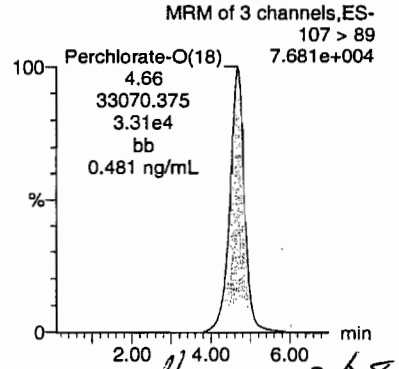

Hm 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB003	Perchlorate	99 > 83											0.00
PB003	Perchlorate-101	101 > 85											
PB003	Perchlorate-O(18)	107 > 89	4.66	33070.375	33070.375	bb			0.4811	96.22	-3.78	2830.8...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

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Date: 26-Mar-2010
Time: 20:14:44
ID: IPB004
Vial: 1:1,A

CW
03-27-10

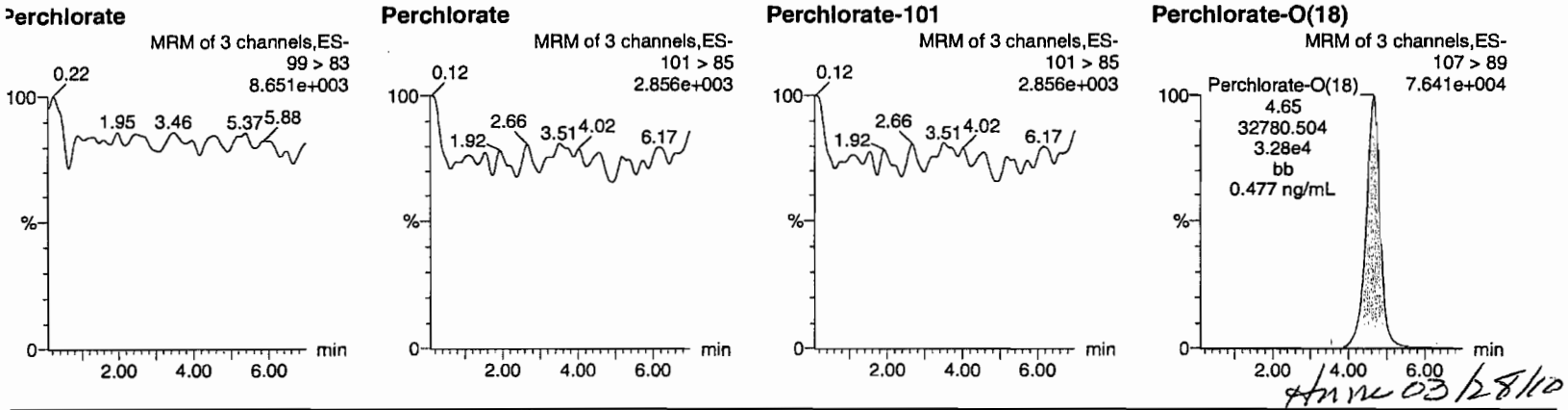

HM 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB004	Perchlorate	99 > 83											0.00
PB004	Perchlorate-101	101 > 85											
PB004	Perchlorate-O(18)	107 > 89	4.65	32780.504	32780.504	bb			0.4769	95.37	-4.63	1828.6...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

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Date: 26-Mar-2010
Time: 21:55:59
D: IPB005
Vial: 1:1,A

CWO 03-27-10

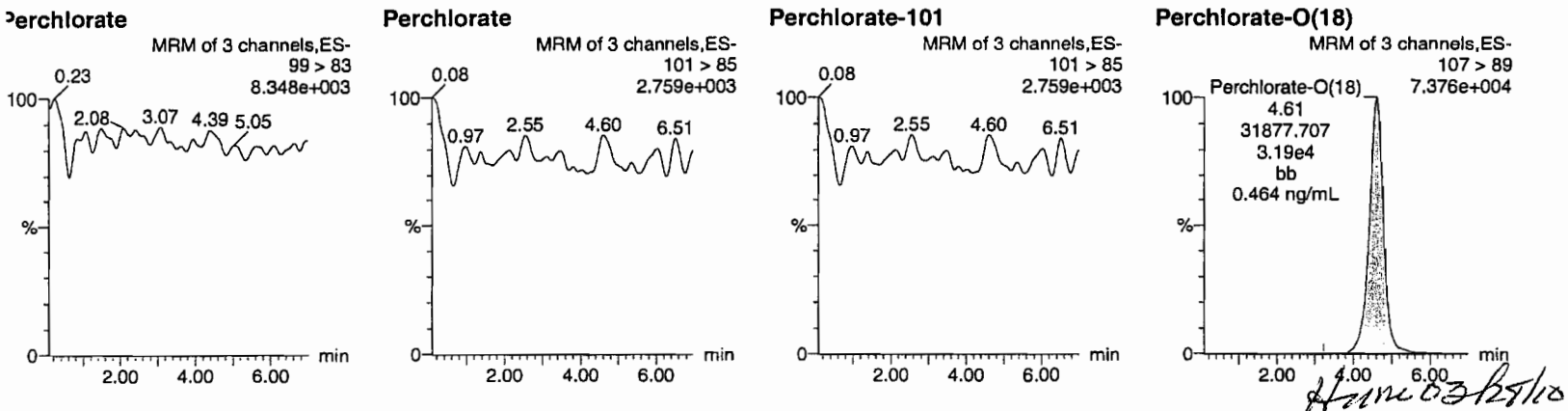

Hzmc 03/27/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB005	Perchlorate	99 > 83											0.00
PB005	Perchlorate-101	101 > 85											
PB005	Perchlorate-O(18)	107 > 89	4.61	31877.707	31877.707	bb			0.4637	92.75	-7.25	3230.6...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326029a
Date: 26-Mar-2010
Time: 22:56:12
D: IPB006
Vial: 1:1,A

CWJ 03-27-10

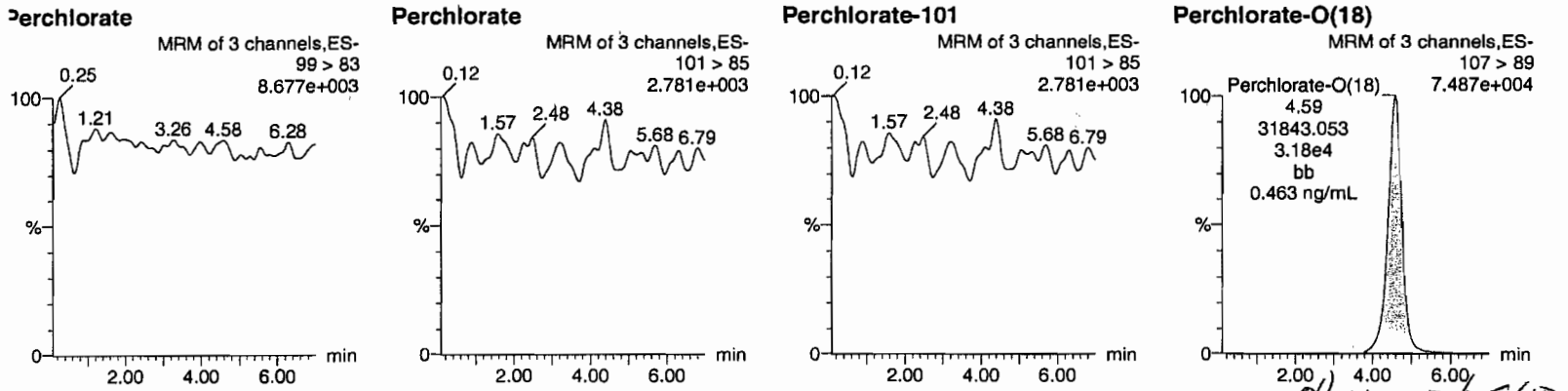

HM 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB006	Perchlorate	99 > 83											0.00
PB006	Perchlorate-101	101 > 85											
PB006	Perchlorate-O(18)	107 > 89	4.59	31843.053	31843.053	bb			0.4632	92.65	-7.35	4856.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326036a
Date: 27-Mar-2010
Time: 00:07:36
ID: IPB007
Vial: 1:1,A

CWW 03-27-10

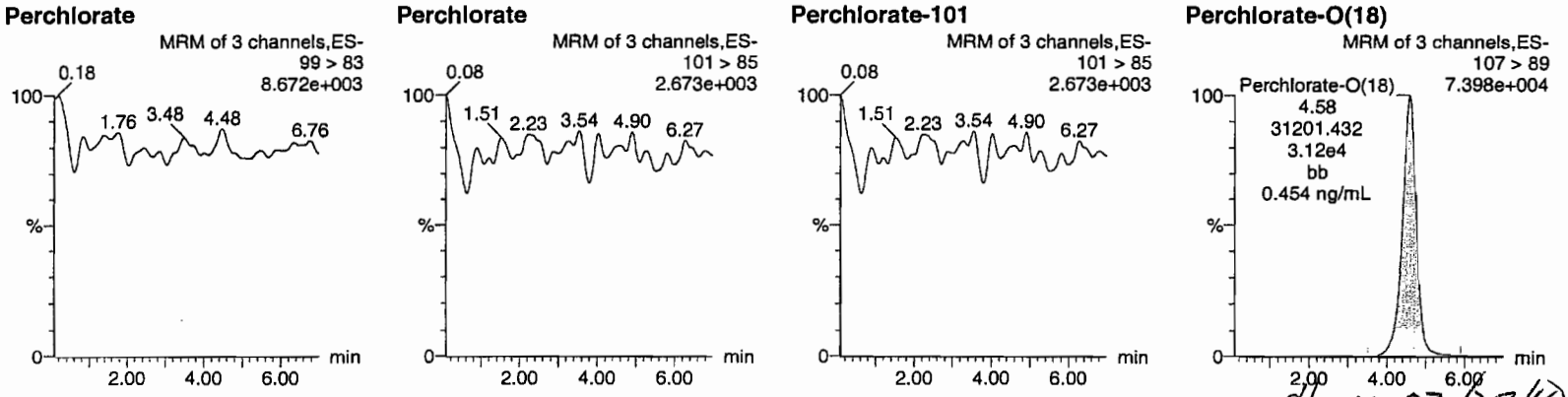

HMM 03/29/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB007	Perchlorate	99 > 83											0.00
PB007	Perchlorate-101	101 > 85											
PB007	Perchlorate-O(18)	107 > 89	4.58	31201.432	31201.432	bb			0.4539	90.78	-9.22	4965.1...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

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Date: 27-Mar-2010
Time: 02:08:42
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CWW 03-27-10

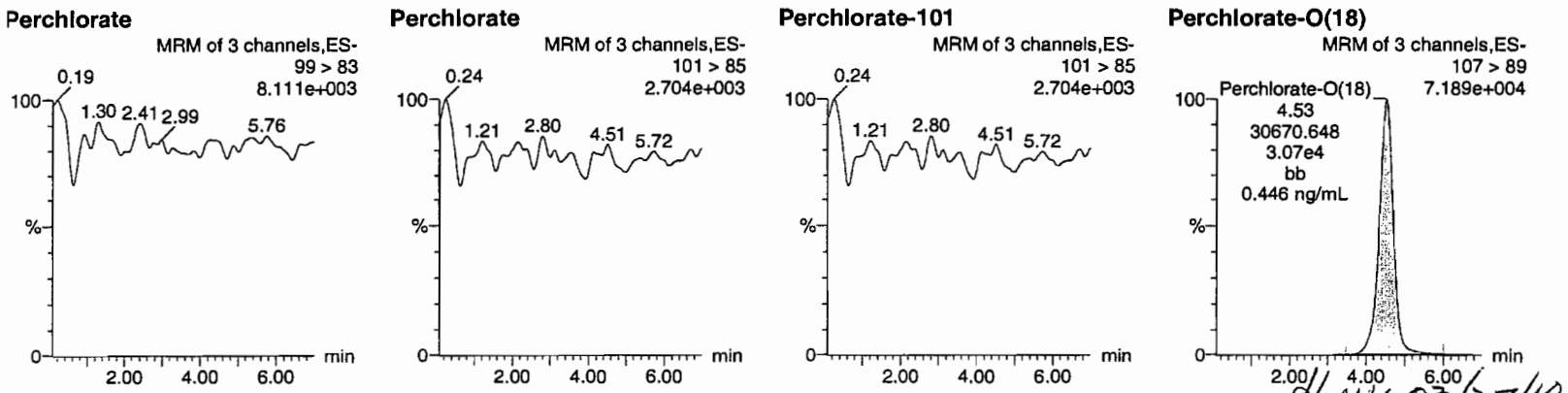

03/27/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB008	Perchlorate	99 > 83											0.00
PB008	Perchlorate-101	101 > 85											
PB008	Perchlorate-O(18)	107 > 89	4.53	30670.648	30670.648	bb			0.4462	89.24	-10.76	372.208	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

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Date: 27-Mar-2010
Time: 14:42:58
ID: IPB002
Vial: 1:1,A

03-28-10

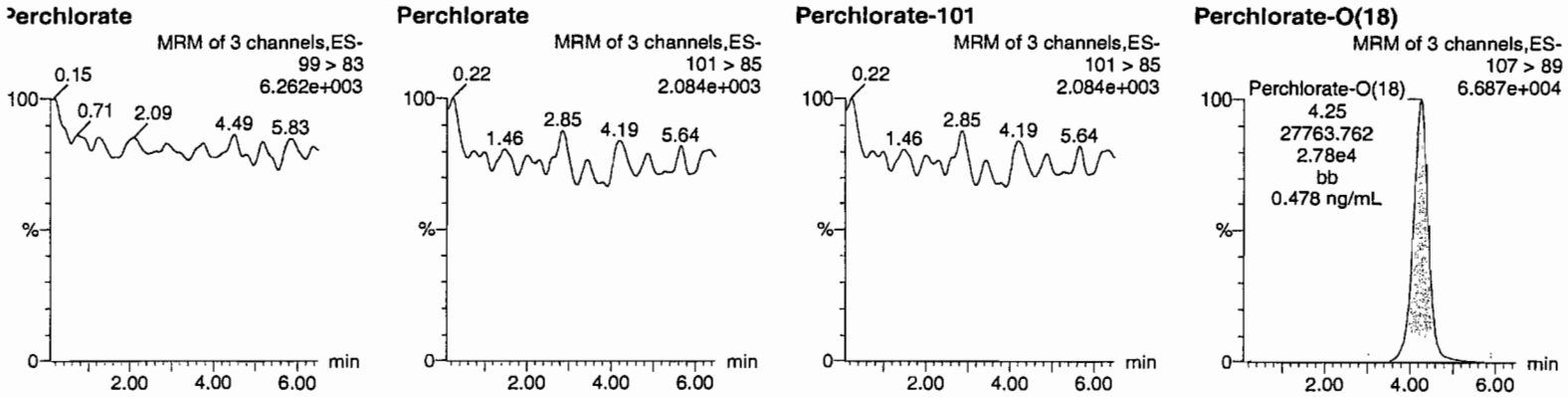

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB002	Perchlorate	99 > 83											0.00
PB002	Perchlorate-101	101 > 85											
PB002	Perchlorate-O(18)	107 > 89	4.25	27763.762	27763.762	bb			0.4783	95.66	-4.34	688.538	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

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Date: 27-Mar-2010
Time: 15:02:11
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Vial: 1:1,A

CWW
03-28-10

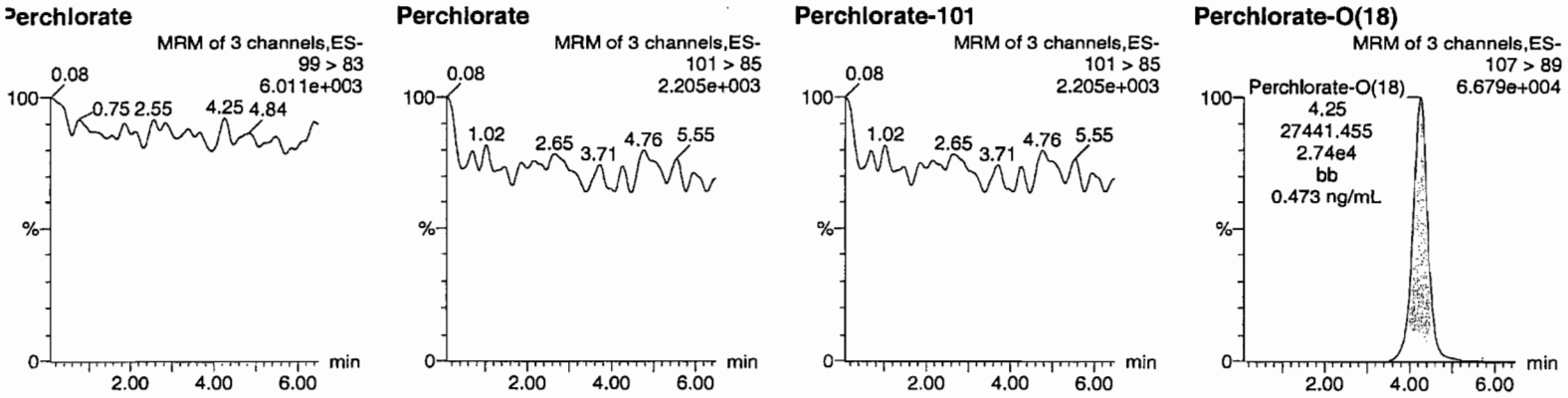

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB003	Perchlorate	99 > 83											0.00
PB003	Perchlorate-101	101 > 85											
PB003	Perchlorate-O(18)	107 > 89	4.25	27441.455	27441.455	bb			0.4727	94.54	-5.46	2478.5...	

MHT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

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Date: 27-Mar-2010
Time: 17:07:55
ID: IPB004
Vial: 1:1,A

cmw
03-28-10

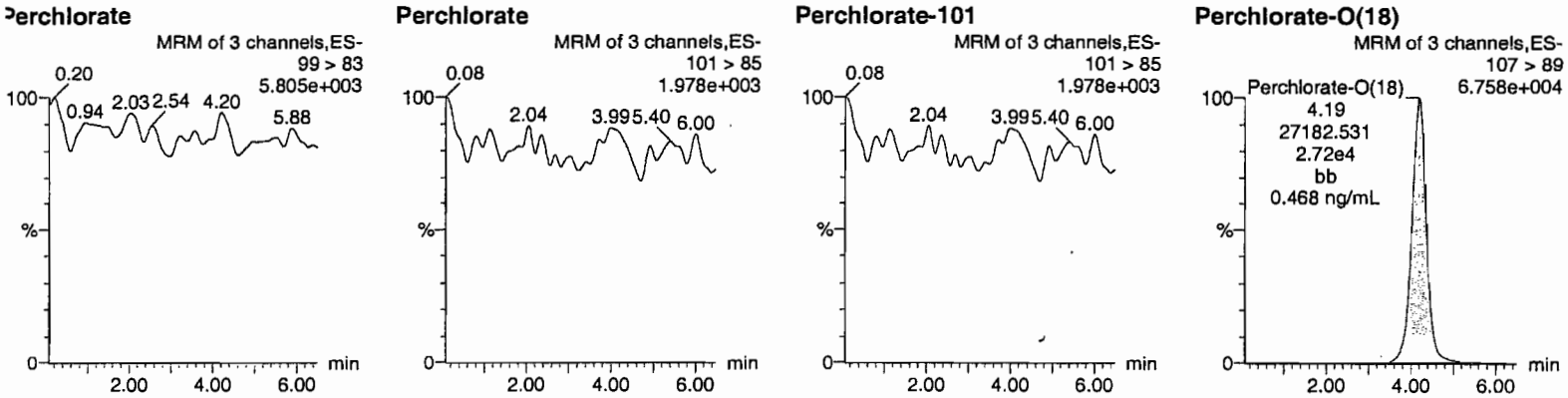

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB004	Perchlorate	99 > 83											0.00
PB004	Perchlorate-101	101 > 85											
PB004	Perchlorate-O(18)	107 > 89	4.19	27182.531	27182.531	bb			0.4683	93.65	-6.35	2906.6...	

MST 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.rcf

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CUNO 01-09-08

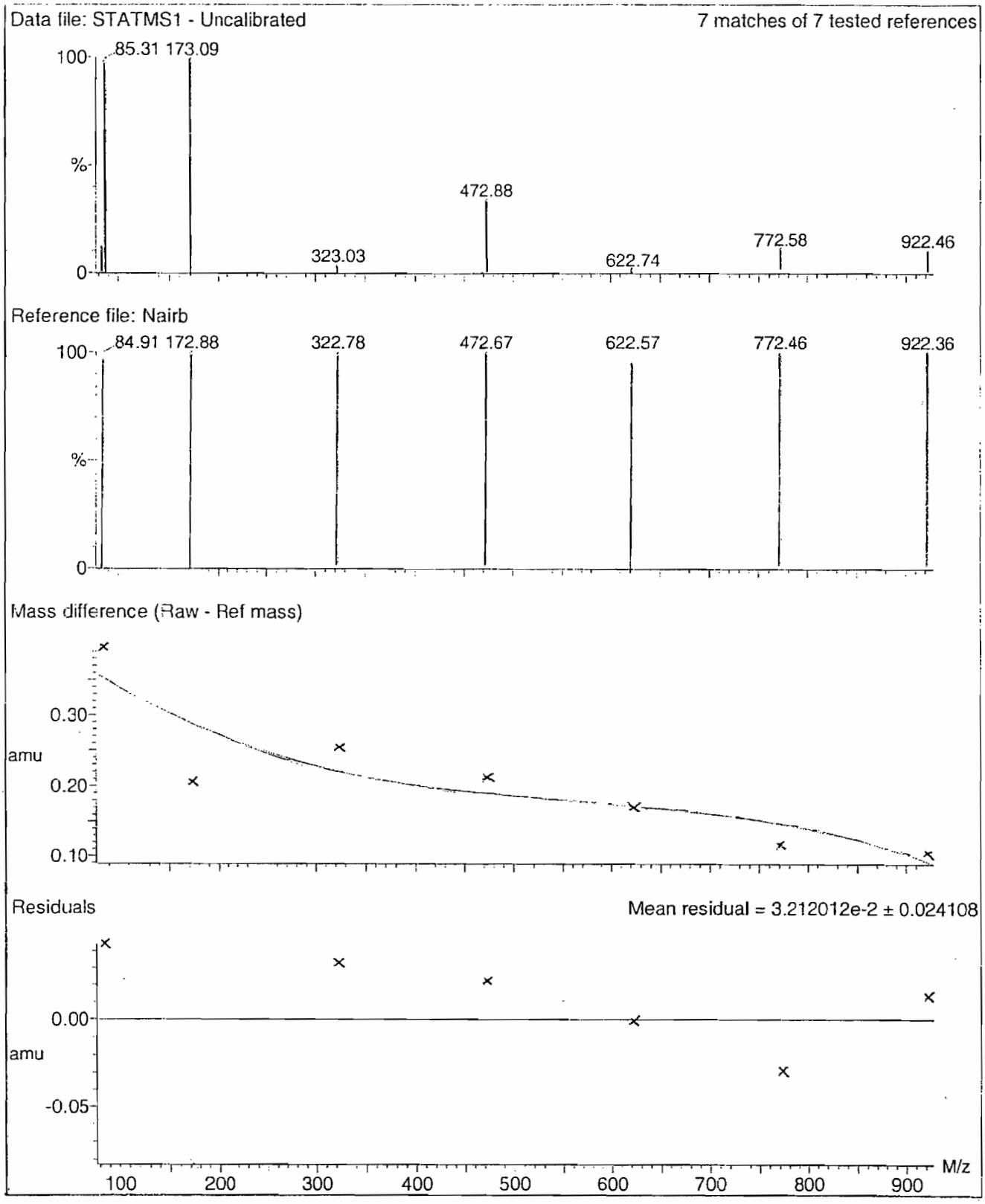

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Printed: Tue Jan 08 12:20:09 2008

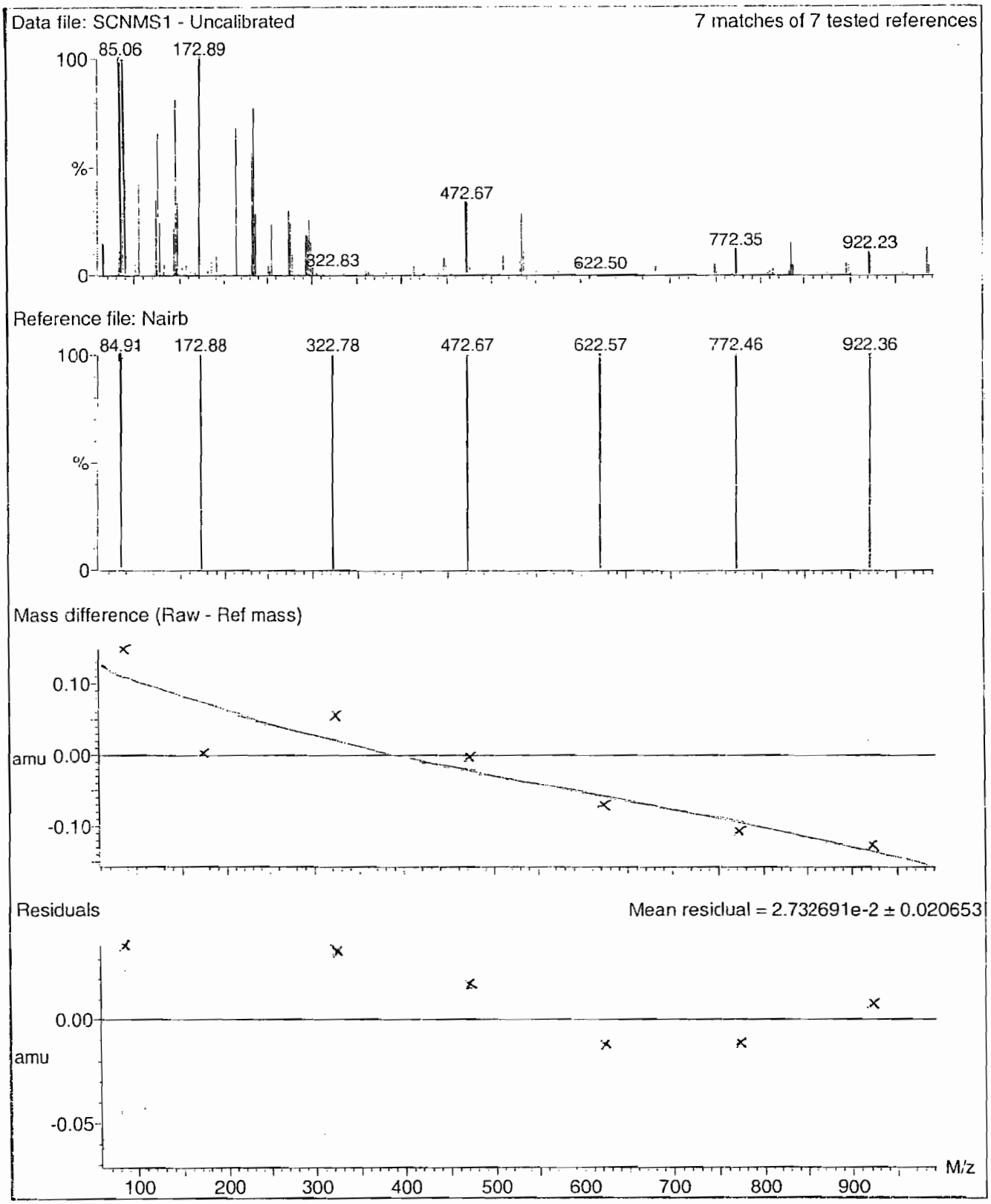

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

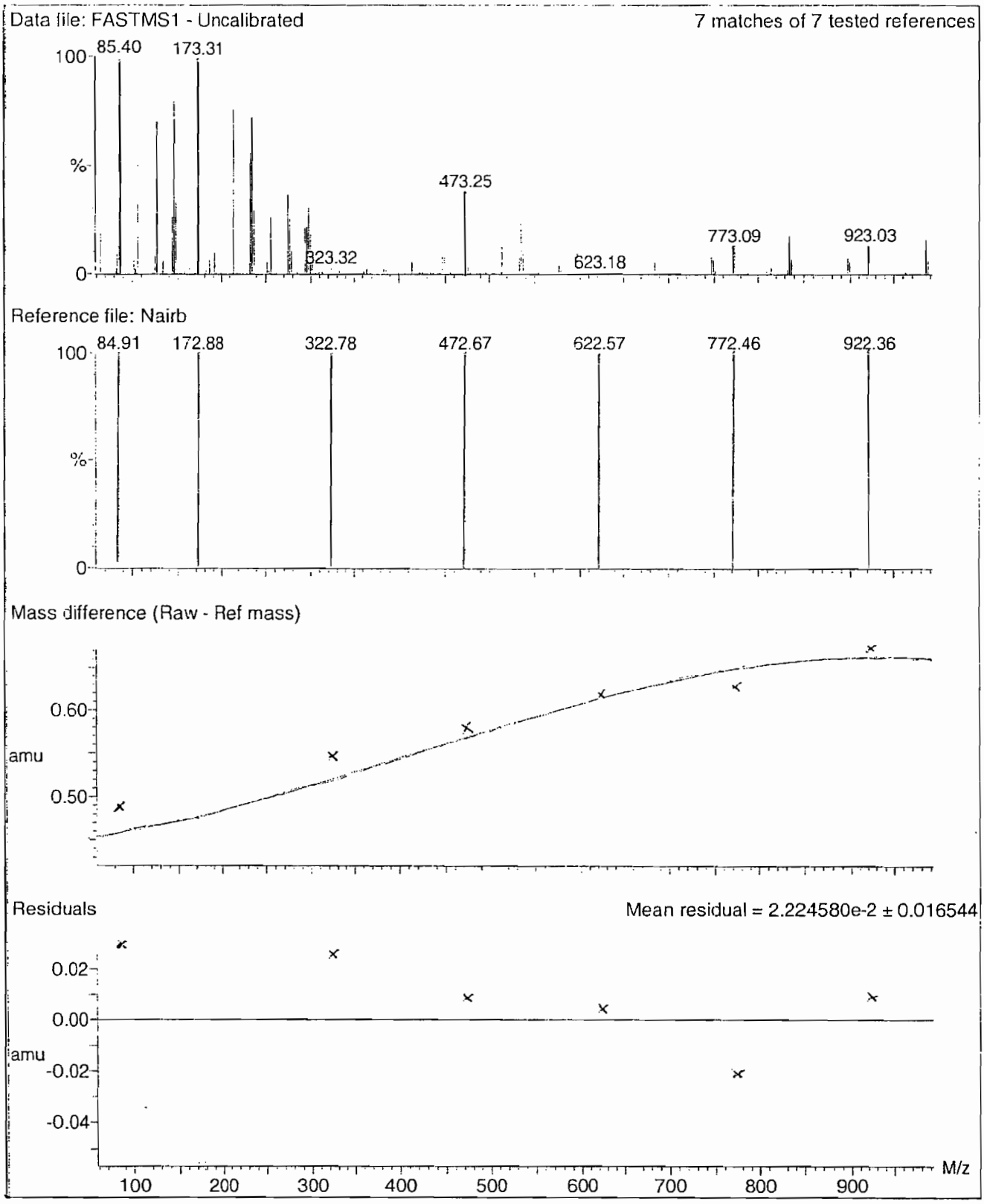

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Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

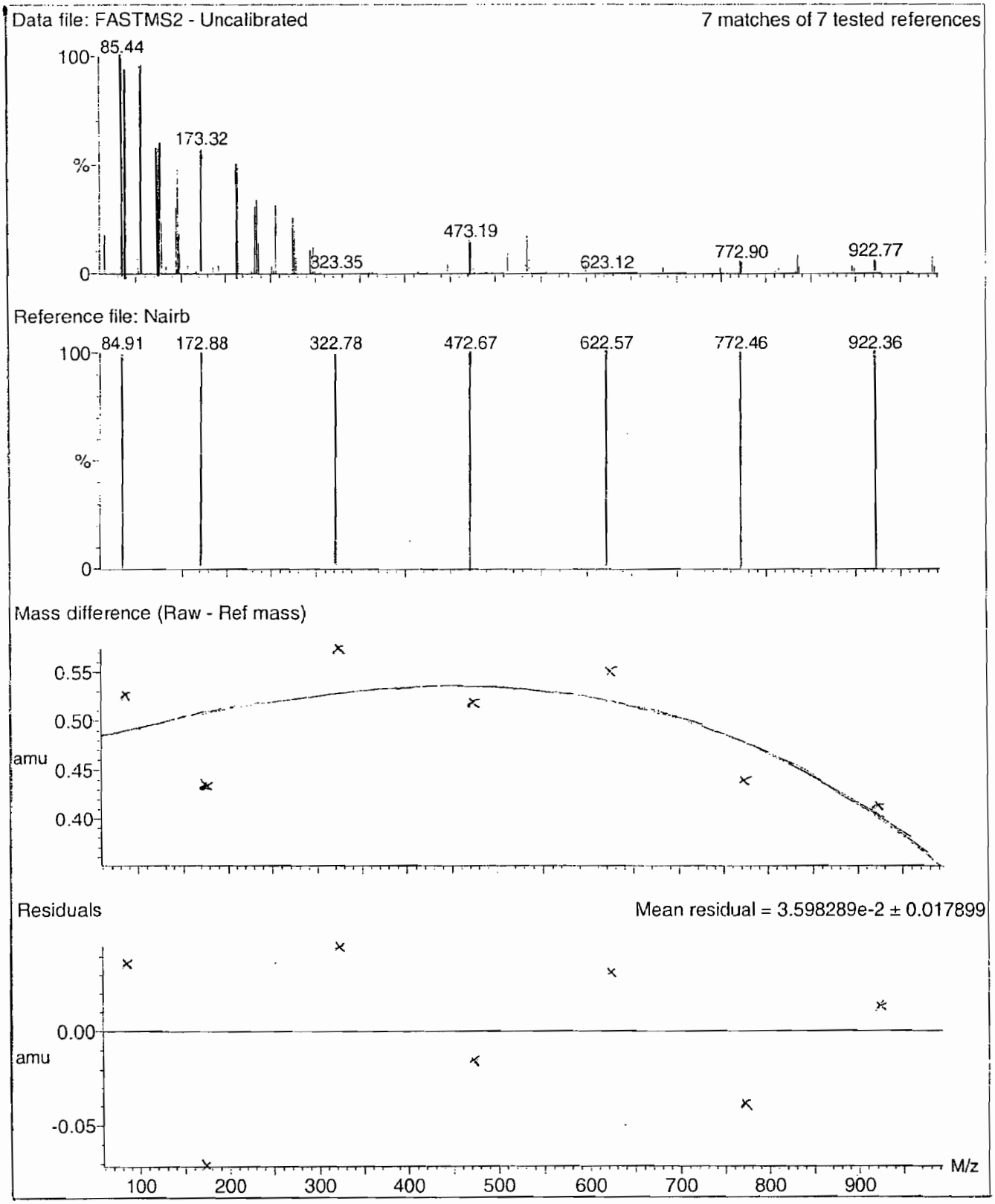

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Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

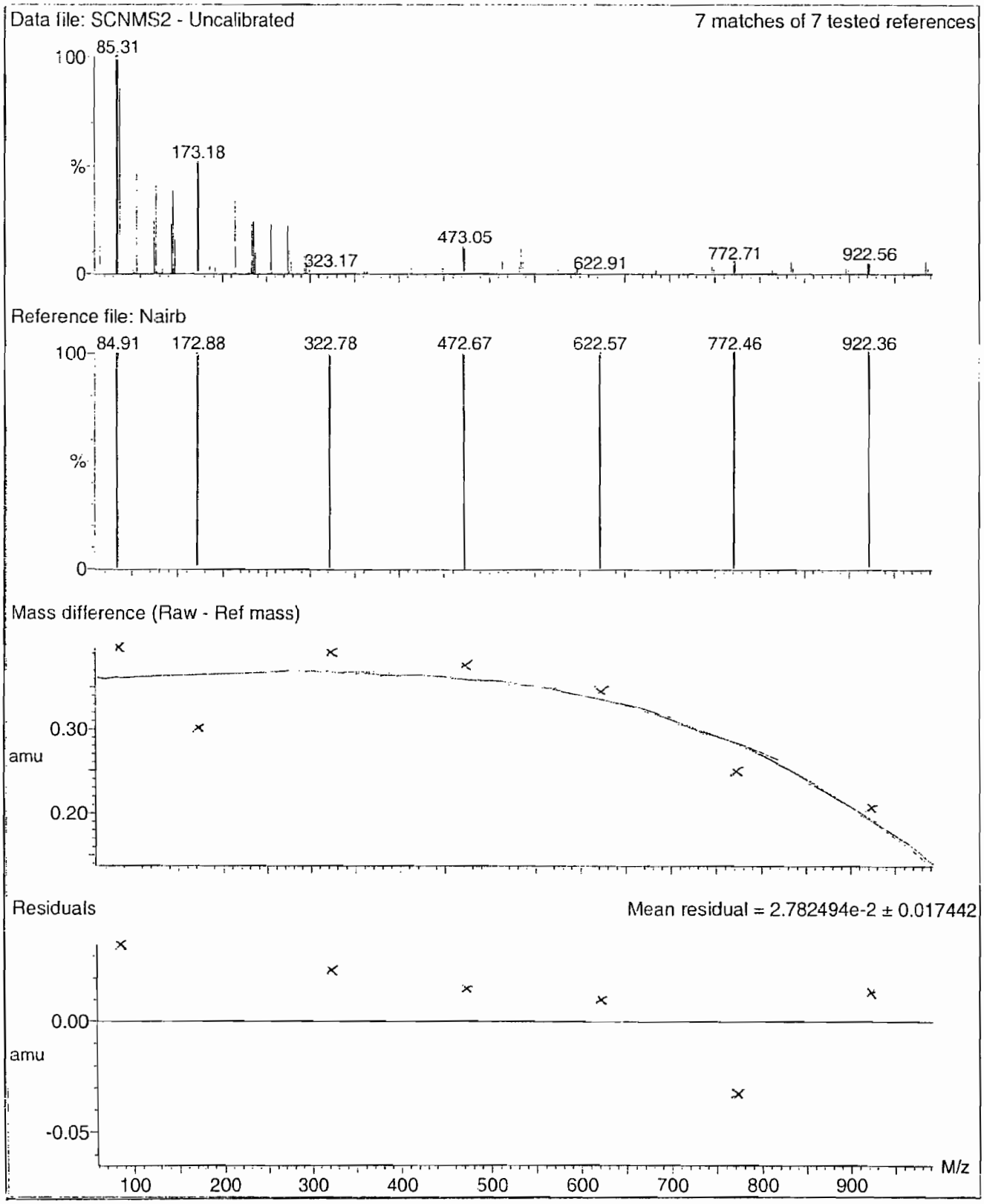

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

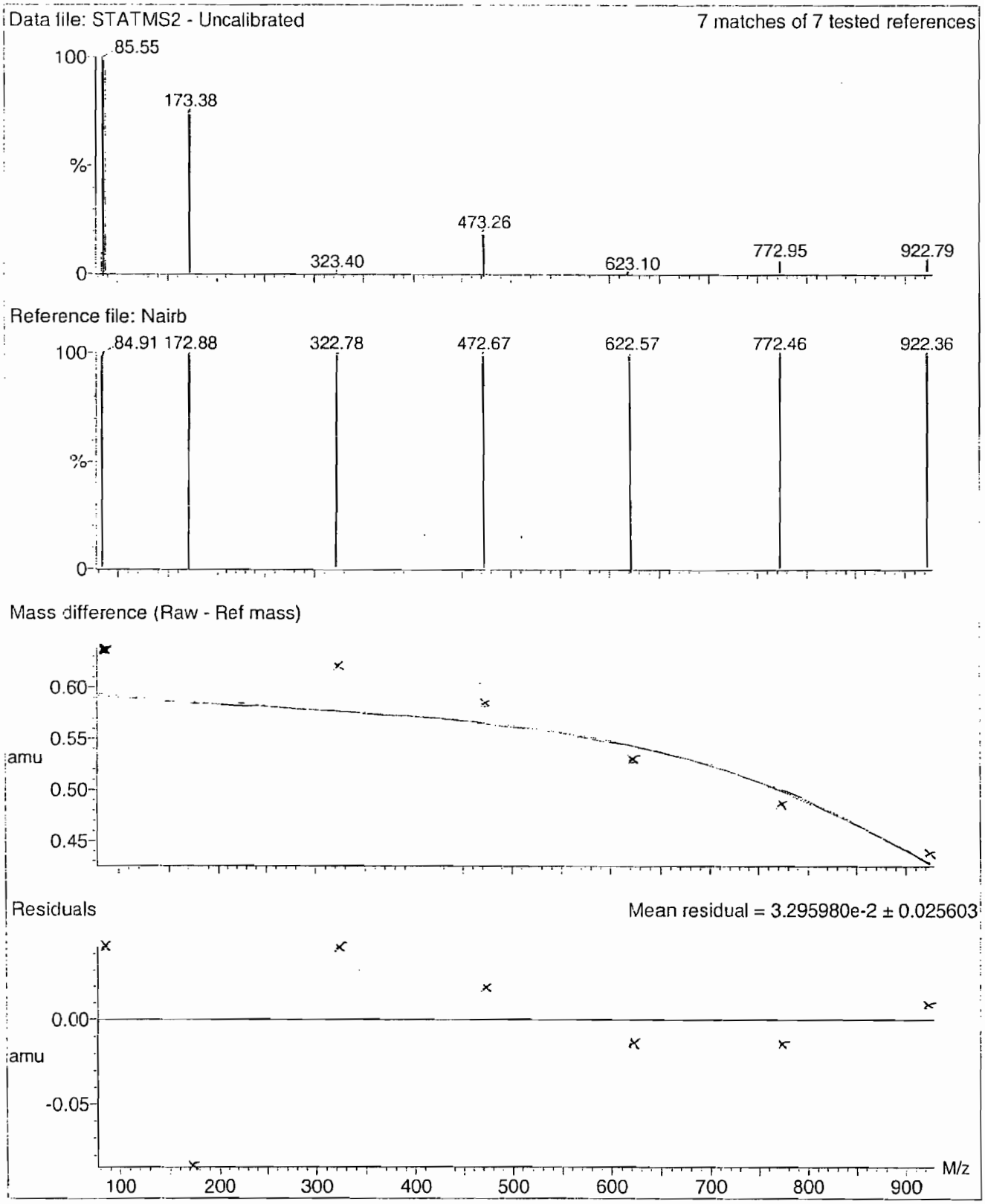

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Friday, March 26, 2010 16:27:14 Eastern Standard Time

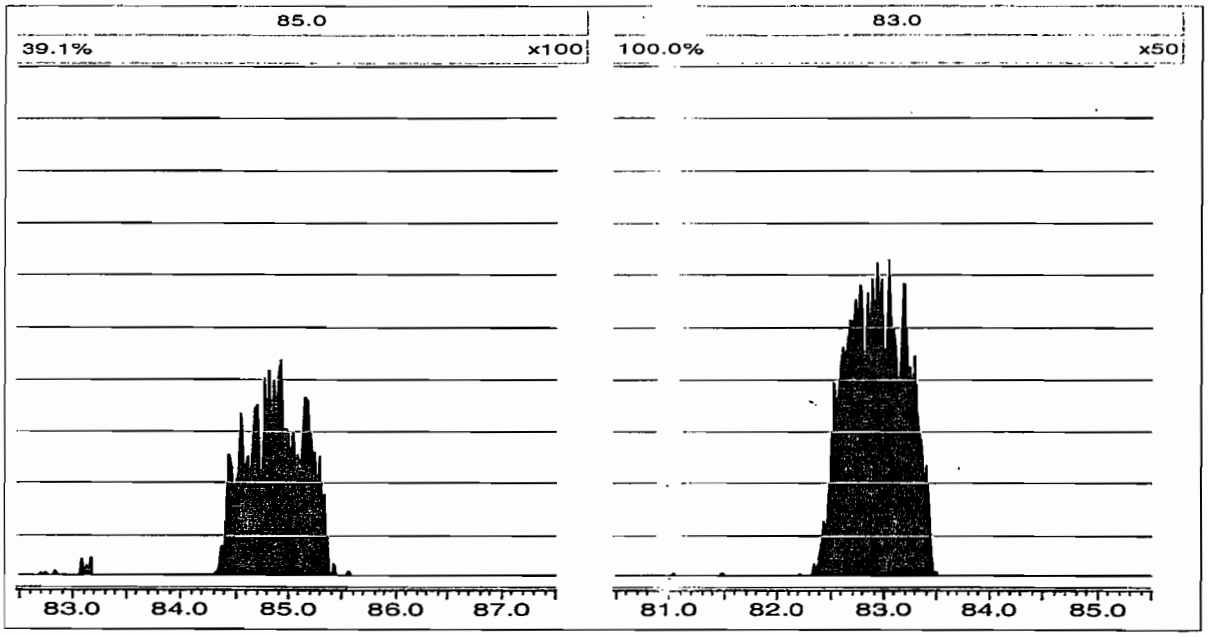

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File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Saturday, March 27, 2010 08:39:45 Eastern Standard Time

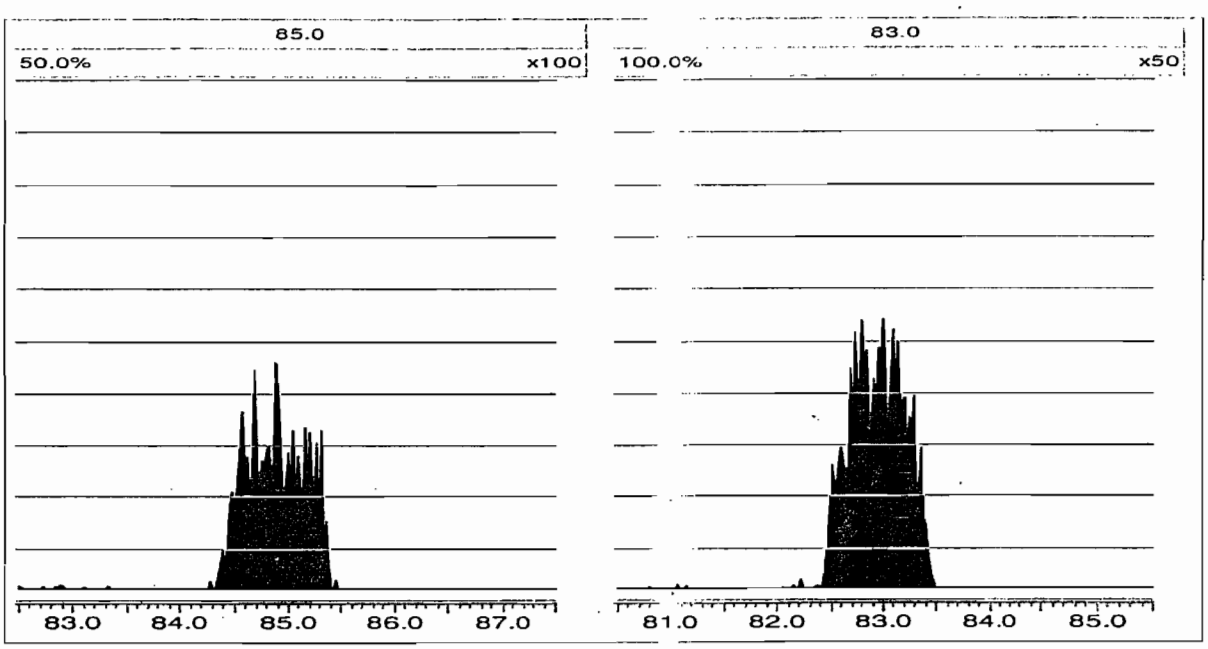

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2264

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0326006a**	**26–MAR–10**	**34622.5**				
Lower Area Limit			**17311.25**				
Upper Area Limit			**69245**				
1202068332	per0326030a	26–MAR–10 23:06	31578.1	4.59			
1202068333	per0326031a	26–MAR–10 23:16	30989.1	4.58	4.6008	1.005	
248702001	per0326045a	27–MAR–10 01:38	30928.8	4.53	4.56363	1.007	
248702002	per0326046a	27–MAR–10 01:48	31170.5	4.53	4.53878	1.002	

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2264

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0327006a**	**27–MAR–10**	**29367.8**				
Lower Area Limit			**14683.9**				
Upper Area Limit			**58735.6**				
1202068336	per0327012a	27–MAR–10 15:21	30682.3	4.34	4.35247	1.003	

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SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964112

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13203

Date Received: 04-MAR-10

GEL Job No (SDG): 10-2264

GEL Sample ID: 248702001

Date Filtered: 16-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.615	2.46	0.615	ug/kg	U	1	27-MAR-10 01:38	per0326045a
	Perchlorate Isotope Ratio						1	27-MAR-10 01:38	per0326045a
14797-73-0	Perchlorate-101	.615	2.46	0.615	ug/kg	U	1	27-MAR-10 01:38	per0326045a
	Perchlorate-O(18)			5.53	ug/kg		1	27-MAR-10 01:38	per0326045a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326045a
Date: 27-Mar-2010
Time: 01:38:11
ID: 248702001
Vial: 2:3,A

|LANL|964113|30620|1|

CWW 03-27-10

Perchlorate

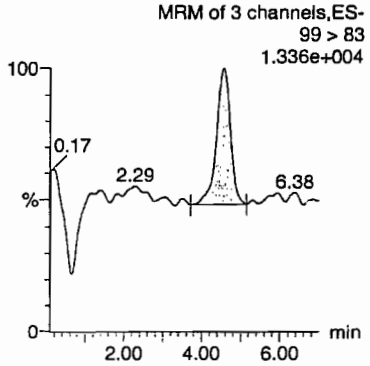

Perchlorate

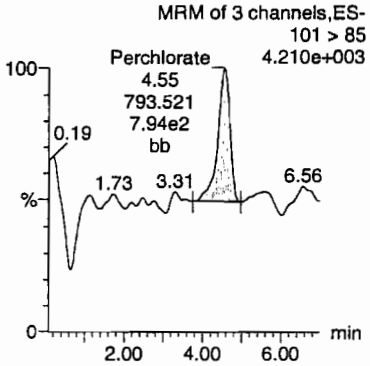

Perchlorate-101

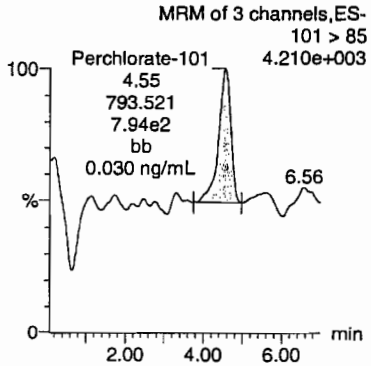

Perchlorate-O(18)

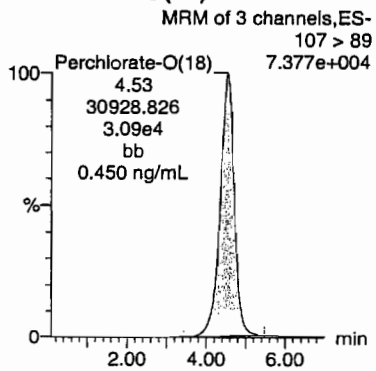

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248702001	Perchlorate	99 > 83	4.56	2932.415	2932.415	bb			0.0323			43.302	3.70
248702001	Perchlorate-101	101 > 85	4.55	793.521	793.521	bb			0.0301			15.507	
248702001	Perchlorate-O(18)	107 > 89	4.53	30928.826	30928.826	bb			0.4499	89.99	-10.01	567.570	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964112

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13202

Date Received: 04-MAR-10

GEL Job No (SDG): 10-2264

GEL Sample ID: 248702002

Date Filtered: 16-MAR-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.635	2.54	0.635	ug/kg	U	1	27-MAR-10 01:48	per0326046a
	Perchlorate Isotope Ratio						1	27-MAR-10 01:48	per0326046a
14797-73-0	Perchlorate-101	.635	2.54	0.635	ug/kg	U	1	27-MAR-10 01:48	per0326046a
	Perchlorate-O(18)			5.76	ug/kg		1	27-MAR-10 01:48	per0326046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326046a
Date: 27-Mar-2010
Time: 01:48:22
ID: 248702002
Vial: 2:3,B

|LANL|964113|50120|1|

03.27.10

Perchlorate

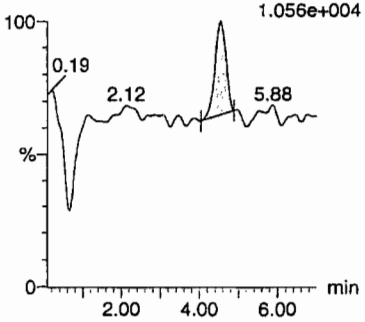

Perchlorate

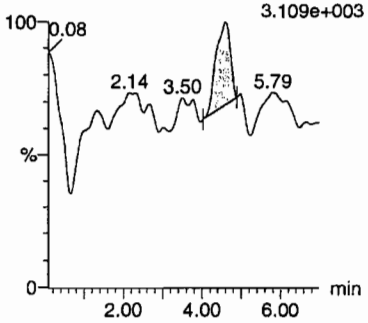

Perchlorate-101

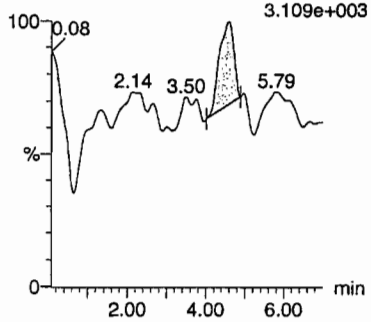

Perchlorate-O(18)

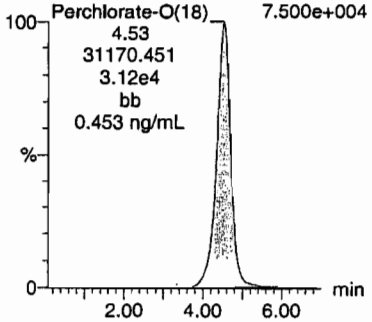

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248702002	Perchlorate	99 > 83	4.54	1250.111	1250.111	bb			0.0138			17.337	2.96
248702002	Perchlorate-101	101 > 85	4.59	422.768	422.768	bb			0.0160			7.240	
248702002	Perchlorate-O(18)	107 > 89	4.53	31170.451	31170.451	bb			0.4534	90.69	-9.31	2922.9...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2264

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 26–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 90680.54

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2264

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 26–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 26371.22

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032610a.mdb 27 Mar 2010 09:40:09
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032610a.cdb 27 Mar 2010 09:40:32

Compound name: Perchlorate
Response Factor: 90680.5
RRF SD: 9014.57, % Relative SD: 9.94103
Response type: External Std, Area
Curve type: RF

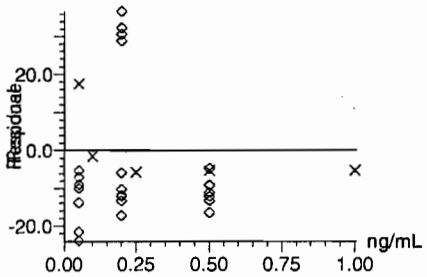

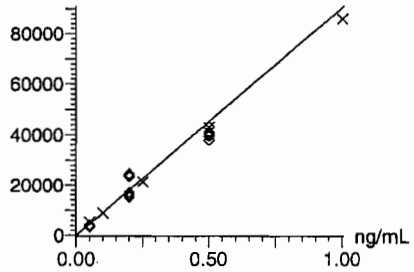

CW
05-27-10

Compound name: Perchlorate-101
Response Factor: 26371.2
RRF SD: 1470.92, % Relative SD: 5.57775
Response type: External Std, Area
Curve type: RF

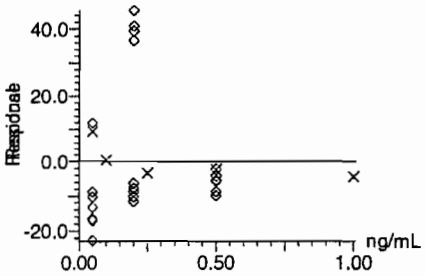

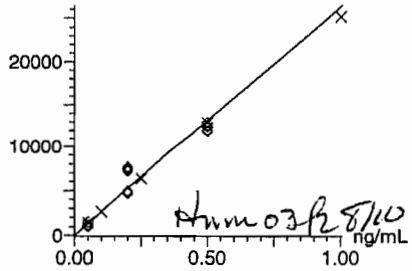

Hmm 03/28/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 68740.9
RRF SD: 1495.52, % Relative SD: 2.17559
Response type: External Std, Area
Curve type: RF

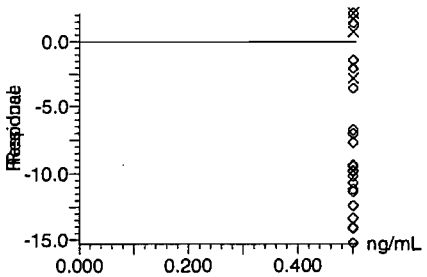

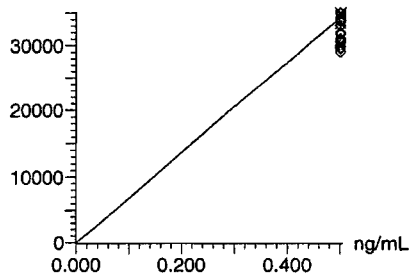

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2264

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 27–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 76347.46

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-2264

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 27-MAR-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 23991.9

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032710a.mdb 28 Mar 2010 10:15:37
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032710a.cdb 28 Mar 2010 10:33:56

Compound name: Perchlorate
Response Factor: 76347.5
RRF SD: 11462.3, % Relative SD: 15.0133
Response type: External Std, Area
Curve type: RF

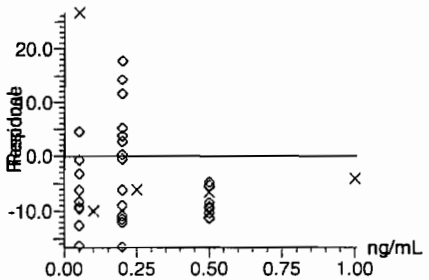

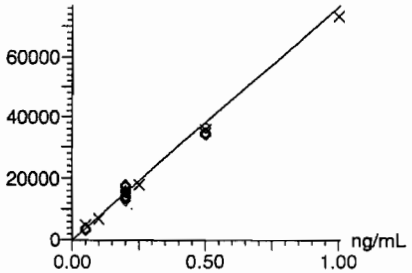

CW
03-28-10

Compound name: Perchlorate-101
Response Factor: 23991.9
RRF SD: 3203.85, % Relative SD: 13.3539
Response type: External Std, Area
Curve type: RF

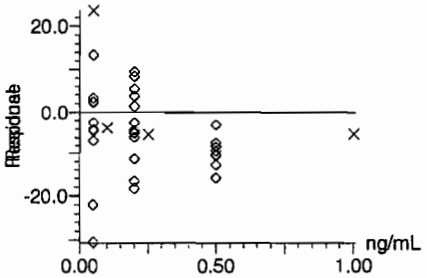

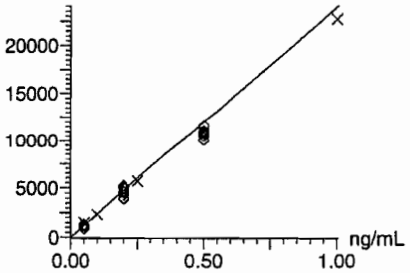

MW
3/30/10

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 58049.6
RRF SD: 736.924, % Relative SD: 1.26947
Response type: External Std, Area
Curve type: RF

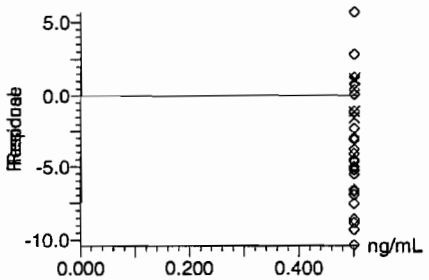

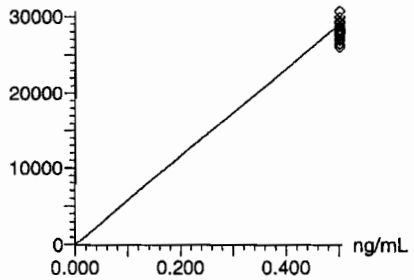

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2264

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.48	95.31	26–MAR–10 19:34	per0326009a
Perchlorate Isotope Ratio		3.35		26–MAR–10 19:34	per0326009a
Perchlorate–101	.5	.49	97.77	26–MAR–10 19:34	per0326009a
Perchlorate	.5	.48	95.3	27–MAR–10 14:52	per0327009a
Perchlorate Isotope Ratio		3.13		27–MAR–10 14:52	per0327009a
Perchlorate–101	.5	.48	96.92	27–MAR–10 14:52	per0327009a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326009a
Date: 26-Mar-2010
Time: 19:34:19
ID: WCL100326-06ICV
Vial: 1:2,A

Pers
aw
03-27-10

Perchlorate

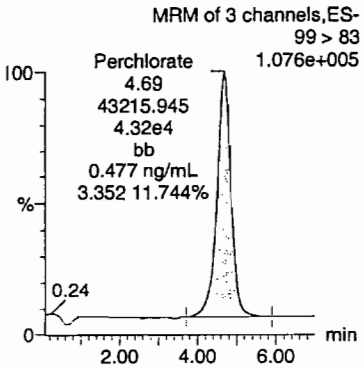

Perchlorate

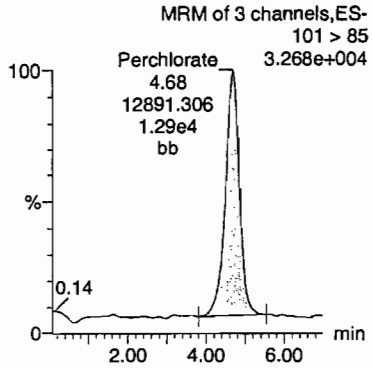

Perchlorate-101

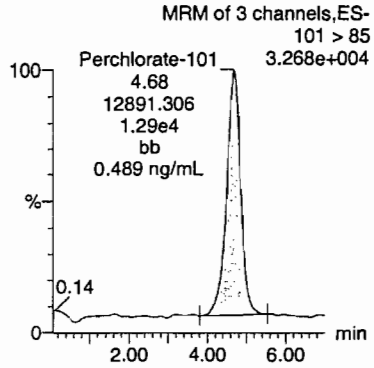

Perchlorate-O(18)

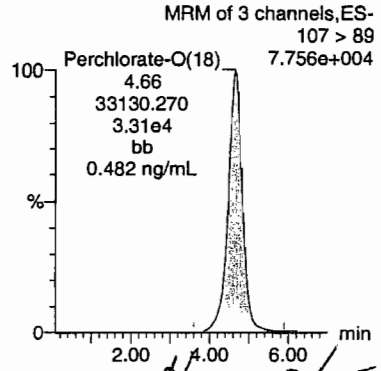

AMM 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100326-06ICV	Perchlorate	99 > 83	4.69	43215.945	43215.945	bb			0.4766	95.31	-4.69	531.890	3.35
/CL100326-06ICV	Perchlorate-101	101 > 85	4.68	12891.306	12891.306	bb			0.4888	97.77	-2.23	212.978	
/CL100326-06ICV	Perchlorate-O(18)	107 > 89	4.66	33130.270	33130.270	bb			0.4820	96.39	-3.61	2714.5...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327009a
Date: 27-Mar-2010
Time: 14:52:39
D: WCL100326-06ICV
Vial: 1:2,A

Pass
CWW
03-28-10

Perchlorate

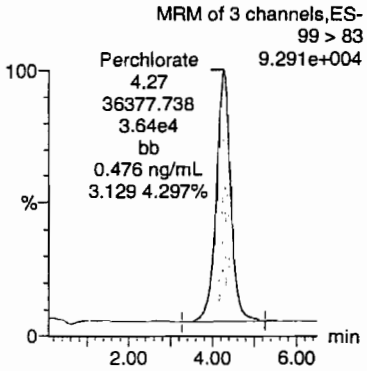

Perchlorate

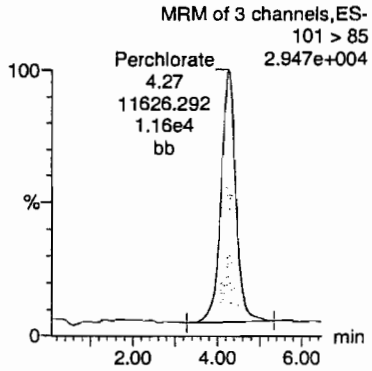

Perchlorate-101

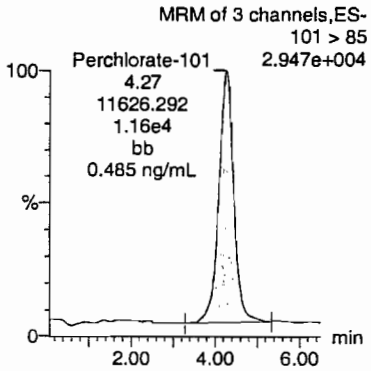

Perchlorate-O(18)

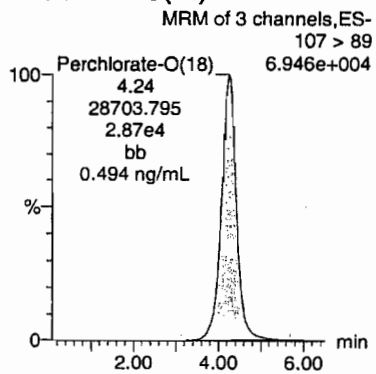

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06ICV	Perchlorate	99 > 83	4.27	36377.738	36377.738	bb			0.4765	95.30	-4.70	650.248	3.13
WCL100326-06ICV	Perchlorate-101	101 > 85	4.27	11626.292	11626.292	bb			0.4846	96.92	-3.08	275.524	
WCL100326-06ICV	Perchlorate-O(18)	107 > 89	4.24	28703.795	28703.795	bb			0.4945	98.89	-1.11	789.224	

MMT 3/30/10

$$\frac{36377.738}{76347.5} = 0.4765$$

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2264

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.46	91.09	26–MAR–10 21:45	per0326022a
Perchlorate Isotope Ratio		3.27		26–MAR–10 21:45	per0326022a
Perchlorate–101	.5	.48	95.83	26–MAR–10 21:45	per0326022a
Perchlorate	.5	.45	90.79	26–MAR–10 23:57	per0326035a
Perchlorate Isotope Ratio		3.31		26–MAR–10 23:57	per0326035a
Perchlorate–101	.5	.47	94.31	26–MAR–10 23:57	per0326035a
Perchlorate	.5	.44	88.87	27–MAR–10 01:58	per0326047a
Perchlorate Isotope Ratio		3.35		27–MAR–10 01:58	per0326047a
Perchlorate–101	.5	.46	91.25	27–MAR–10 01:58	per0326047a
Perchlorate	.5	.47	94.68	27–MAR–10 16:58	per0327022a
Perchlorate Isotope Ratio		3.33		27–MAR–10 16:58	per0327022a
Perchlorate–101	.5	.45	90.53	27–MAR–10 16:58	per0327022a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326022a
Date: 26-Mar-2010
Time: 21:45:57
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
03-27-10

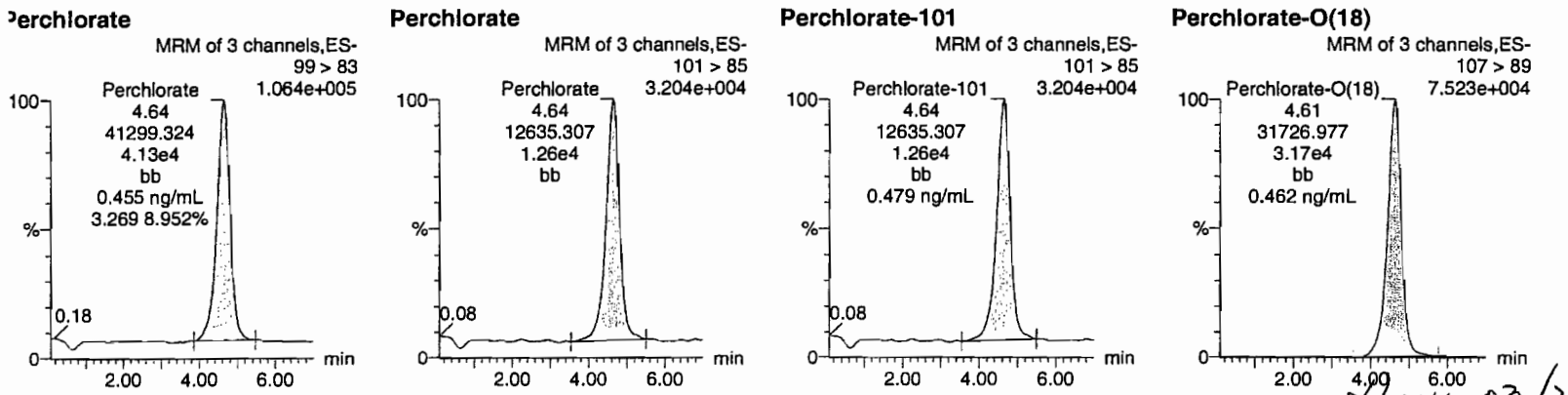

03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100326-06CCV	Perchlorate	99 > 83	4.64	41299.324	41299.324	bb			0.4554	91.09	-8.91	790.293	3.27
VCL100326-06CCV	Perchlorate-101	101 > 85	4.64	12635.307	12635.307	bb			0.4791	95.83	-4.17	272.586	
VCL100326-06CCV	Perchlorate-O(18)	107 > 89	4.61	31726.977	31726.977	bb			0.4615	92.31	-7.69	2870.3...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326035a
Date: 26-Mar-2010
Time: 23:57:19
ID: WCL100326-06CCV
Vial: 1:2,A

Perm
03-27-10

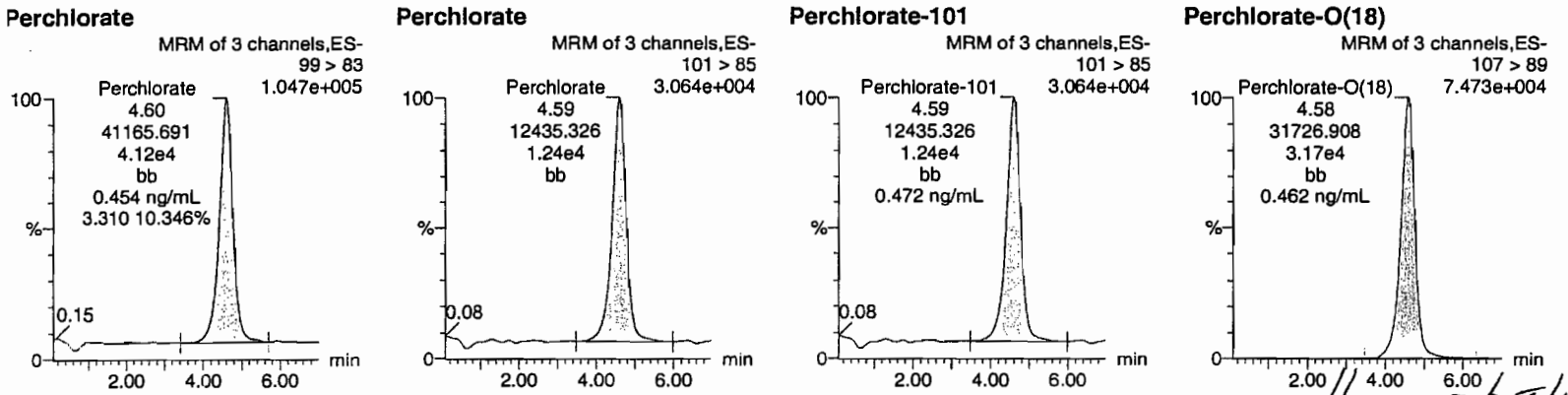

Hue 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	4.60	41165.691	41165.691	bb			0.4540	90.79	-9.21	481.358	3.31
WCL100326-06CCV	Perchlorate-101	101 > 85	4.59	12435.326	12435.326	bb			0.4715	94.31	-5.69	314.552	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	4.58	31726.908	31726.908	bb			0.4615	92.31	-7.69	5456.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326047a
Date: 27-Mar-2010
Time: 01:58:25
ID: WCL100326-06CCV
Vial: 1:2,A

Pwas
ONO
03·27-10

Perchlorate

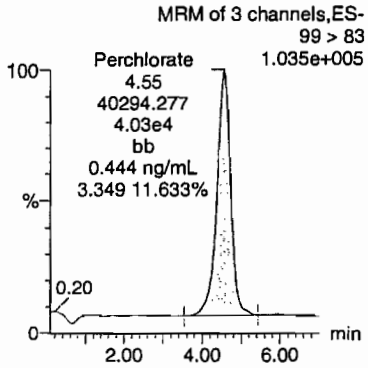

Perchlorate

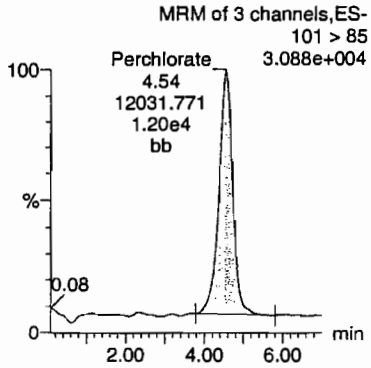

Perchlorate-101

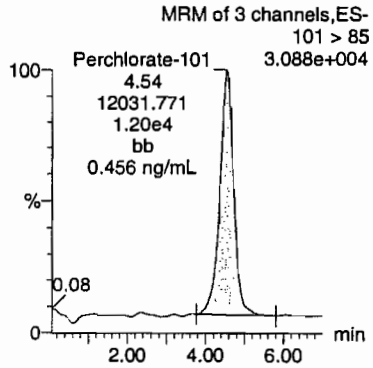

Perchlorate-O(18)

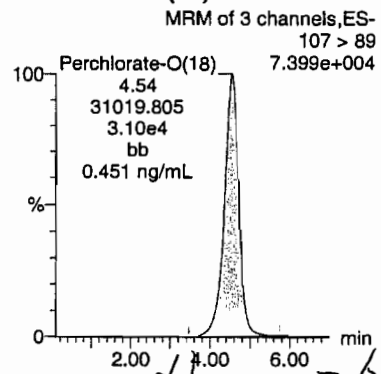

HMC 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
NCL100326-06CCV	Perchlorate	99 > 83	4.55	40294.277	40294.277	bb			0.4444	88.87	-11.13	522.774	3.35
NCL100326-06CCV	Perchlorate-101	101 > 85	4.54	12031.771	12031.771	bb			0.4562	91.25	-8.75	192.131	
NCL100326-06CCV	Perchlorate-O(18)	107 > 89	4.54	31019.805	31019.805	bb			0.4513	90.25	-9.75	3100.7...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327022a
Date: 27-Mar-2010
Time: 16:58:15
ID: WCL100326-06CCV
Vial: 1:2,A

Perm
aw
03-28-10

Perchlorate

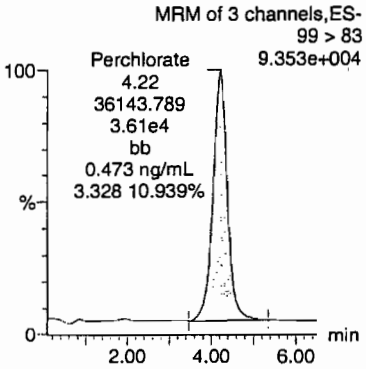

Perchlorate

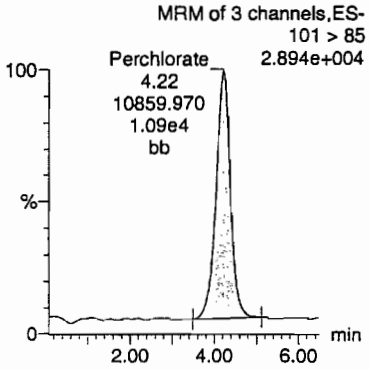

Perchlorate-101

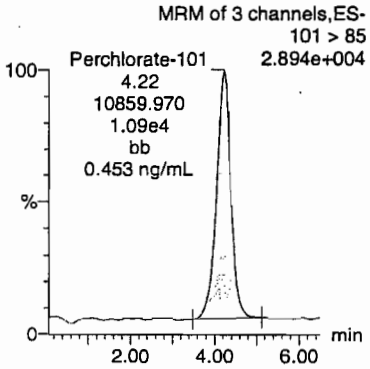

Perchlorate-O(18)

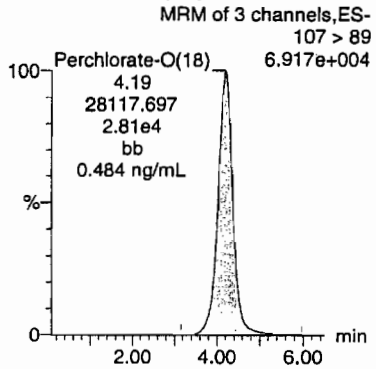

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
NCL100326-06CCV	Perchlorate	99 > 83	4.22	36143.789	36143.789	bb			0.4734	94.68	-5.32	718.874	3.33
NCL100326-06CCV	Perchlorate-101	101 > 85	4.22	10859.970	10859.970	bb			0.4527	90.53	-9.47	307.369	
NCL100326-06CCV	Perchlorate-O(18)	107 > 89	4.19	28117.697	28117.697	bb			0.4844	96.87	-3.13	3566.7...	

MM
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2264

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	91.11	26–MAR–10 19:54	per0326011a
Perchlorate Isotope Ratio		2.8		26–MAR–10 19:54	per0326011a
Perchlorate–101	.05	.06	111.94	26–MAR–10 19:54	per0326011a
Perchlorate	.05	.04	76.13	26–MAR–10 22:06	per0326024a
Perchlorate Isotope Ratio		2.92		26–MAR–10 22:06	per0326024a
Perchlorate–101	.05	.04	89.75	26–MAR–10 22:06	per0326024a
Perchlorate	.05	.05	94.78	27–MAR–10 00:17	per0326037a
Perchlorate Isotope Ratio		3.76		27–MAR–10 00:17	per0326037a
Perchlorate–101	.05	.04	86.76	27–MAR–10 00:17	per0326037a
Perchlorate	.05	.04	86.09	27–MAR–10 02:18	per0326049a
Perchlorate Isotope Ratio		3.57		27–MAR–10 02:18	per0326049a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2264

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate–101	.05	.04	82.97	27–MAR–10 02:18	per0326049a
Perchlorate	.05	.04	87.45	27–MAR–10 15:12	per0327011a
Perchlorate Isotope Ratio		2.72		27–MAR–10 15:12	per0327011a
Perchlorate–101	.05	.05	102.42	27–MAR–10 15:12	per0327011a
Perchlorate	.05	.05	104.5	27–MAR–10 17:17	per0327024a
Perchlorate Isotope Ratio		3.46		27–MAR–10 17:17	per0327024a
Perchlorate–101	.05	.05	95.98	27–MAR–10 17:17	per0327024a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326011a
Date: 26-Mar-2010
Time: 19:54:39
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
AWO
03-27-10

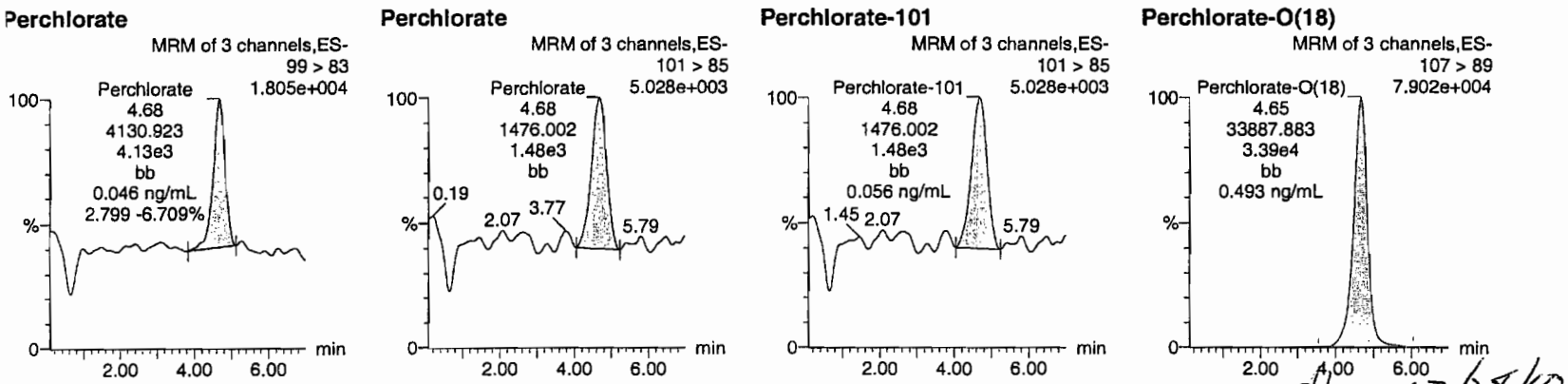

HMC 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100326-07CRI	Perchlorate	99 > 83	4.68	4130.923	4130.923	bb			0.0456	91.11	-8.89	80.633	2.80
VCL100326-07CRI	Perchlorate-101	101 > 85	4.68	1476.002 ✓	1476.002	bb			0.0560	111.94	11.94	14.788	
VCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.65	33887.883	33887.883	bb			0.4930	98.60 ✓	-1.40	2942.1...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326024a
Date: 26-Mar-2010
Time: 22:06:01
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
aw
03-27-10

Perchlorate

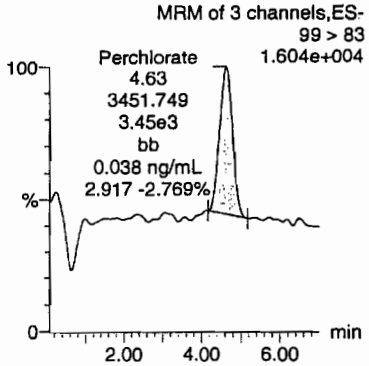

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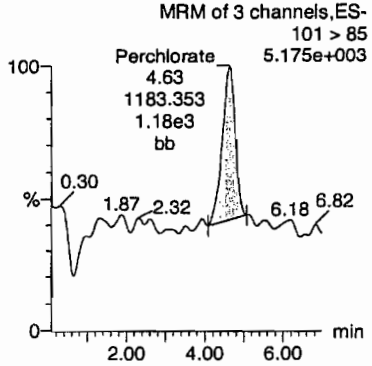

Perchlorate-101

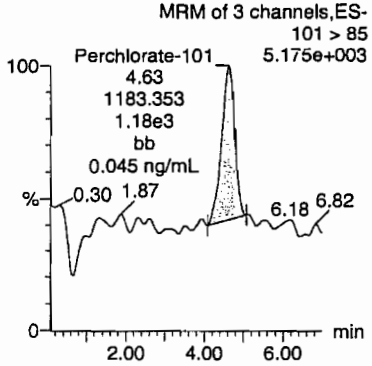

Perchlorate-O(18)

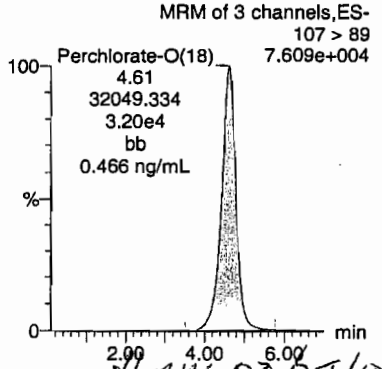

AMW 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100326-07CRI	Perchlorate	99 > 83	4.63	3451.749	3451.749	bb			0.0381	76.13	-23.87	81.944	2.92
VCL100326-07CRI	Perchlorate-101	101 > 85	4.63	1183.353	1183.353	bb			0.0449	89.75	-10.25	22.996	
VCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.61	32049.334	32049.334	bb			0.4662	93.25	-6.75	3395.9...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

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Date: 27-Mar-2010
Time: 00:17:37
ID: WCL100326-07CRI
Vial: 1:2,B

Pwo
03-27-10

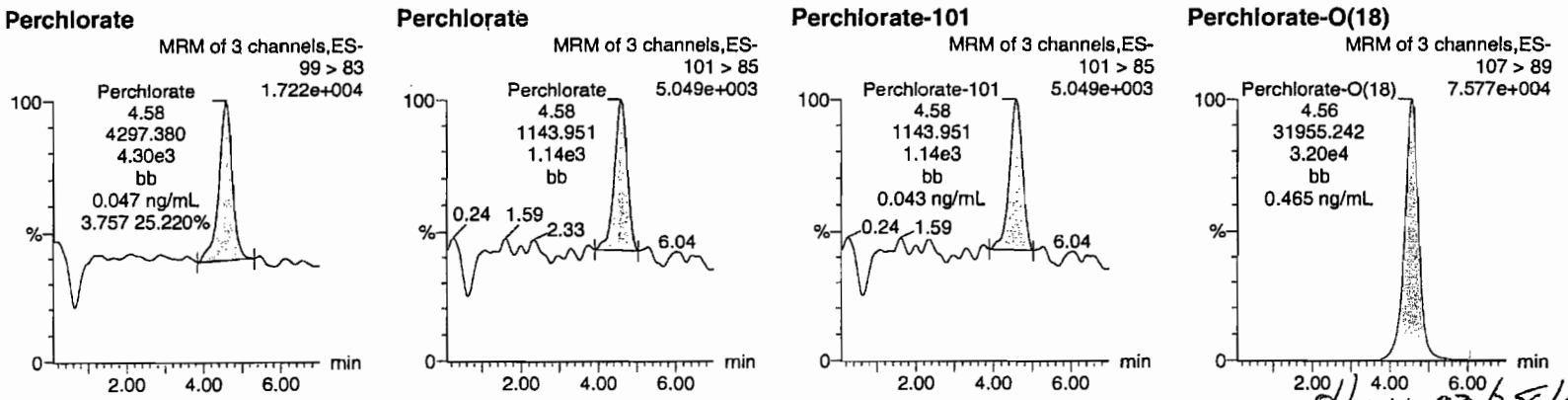

Hmm 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	4.58	4297.380	4297.380	bb			0.0474	94.78	-5.22	60.556	3.76
WCL100326-07CRI	Perchlorate-101	101 > 85	4.58	1143.951	1143.951	bb			0.0434	86.76	-13.24	28.899	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.56	31955.242	31955.242	bb			0.4649	92.97	-7.03	3054.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

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Time: 02:18:44
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
OWD
03-27-10

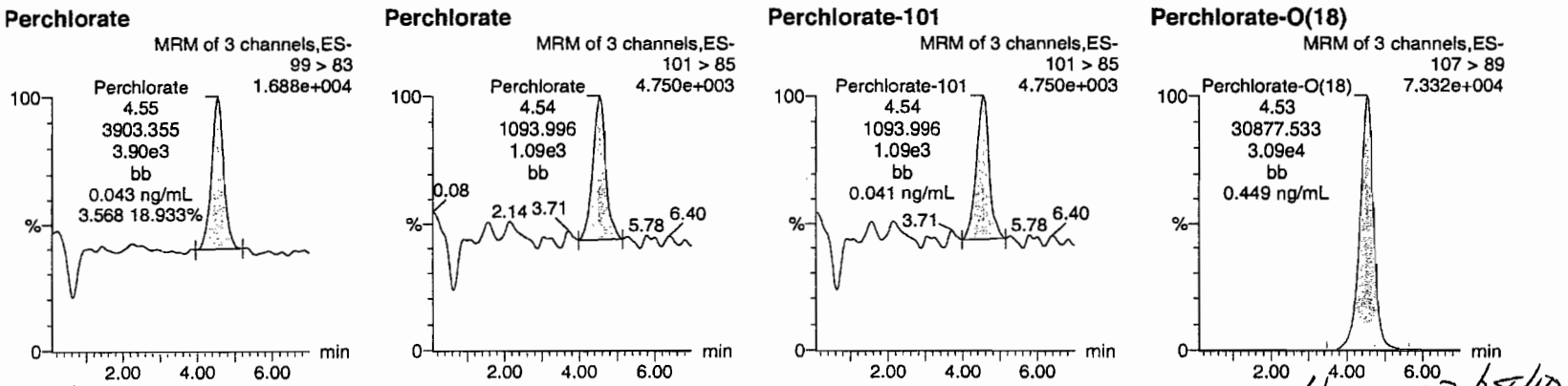

Hnnc 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	4.55	3903.355	3903.355	bb			0.0430	86.09	-13.91	73.342	3.57
WCL100326-07CRI	Perchlorate-101	101 > 85	4.54	1093.996	1093.996	bb			0.0415	82.97	-17.03	27.530	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.53	30877.533	30877.533	bb			0.4492	89.84	-10.16	745.296	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327011a
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Time: 15:12:07
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
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03-28-10

Perchlorate

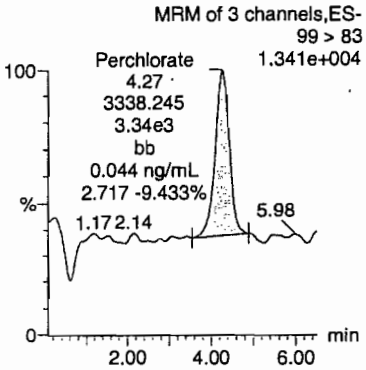

Perchlorate

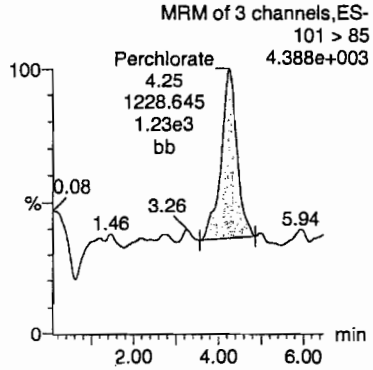

Perchlorate-101

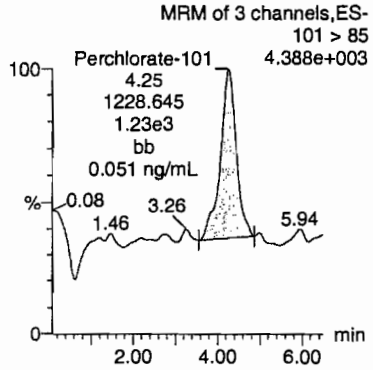

Perchlorate-O(18)

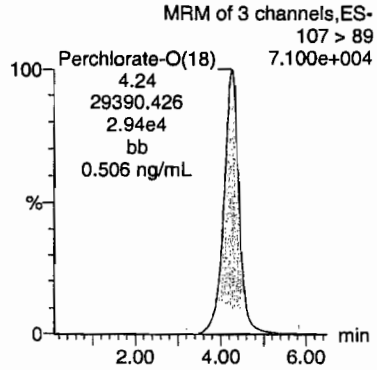

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100326-07CRI	Perchlorate	99 > 83	4.27	3338.245	3338.245	bb			0.0437	87.45	-12.55	57.023	2.72
VCL100326-07CRI	Perchlorate-101	101 > 85	4.25	1228.645	1228.645	bb			0.0512	102.42	2.42	37.113	
VCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.24	29390.426	29390.426	bb			0.5063	101.26	1.26	1326.3...	

MMT 3/30/10

$$\frac{3338.245}{76347.5} = 0.0437$$

$$\frac{3338.245}{1228.645} = 2.7170$$

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327024a
Date: 27-Mar-2010
Time: 17:17:35
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
ans
03-28-10

Perchlorate

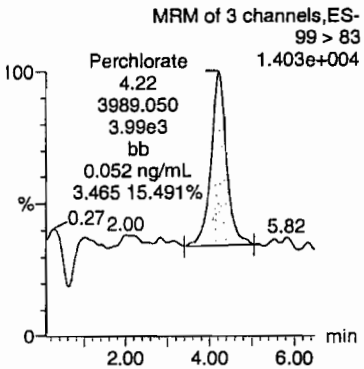

Perchlorate

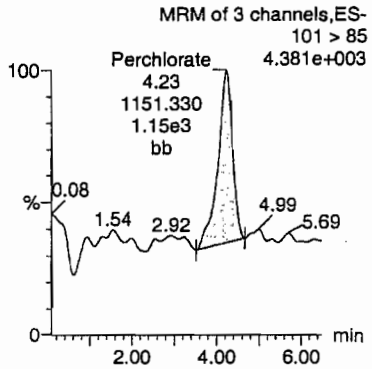

Perchlorate-101

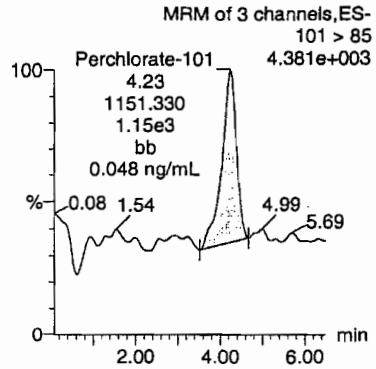

Perchlorate-O(18)

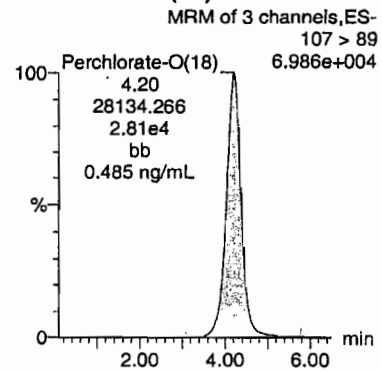

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100326-07CRI	Perchlorate	99 > 83	4.22	3989.050	3989.050	bb			0.0522	104.50	4.50	91.832	3.46
VCL100326-07CRI	Perchlorate-101	101 > 85	4.23	1151.330	1151.330	bb			0.0480	95.98	-4.02	17.575	
VCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.20	28134.266	28134.266	bb			0.4847	96.93	-3.07	731.209	

MAT 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964112

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 16-MAR-10

GEL Job No (SDG): 10-2264

GEL Sample ID: 1202068332

Date Filtered: 16-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	26-MAR-10 23:06	per0326030a
	Perchlorate Isotope Ratio						1	26-MAR-10 23:06	per0326030a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	26-MAR-10 23:06	per0326030a
	Perchlorate-O(18)			4.59	ug/kg		1	26-MAR-10 23:06	per0326030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326030a
Date: 26-Mar-2010
Time: 23:06:22
ID: 1202068332
Vial: 2:1,A

|LZNC|964113|50120|MB|1|

03-27-10

Perchlorate

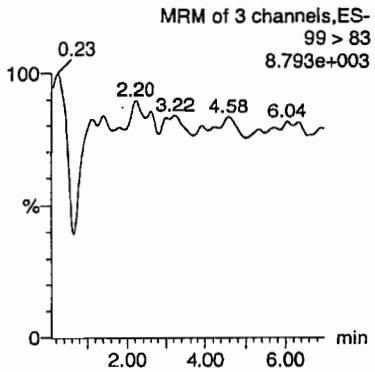

Perchlorate

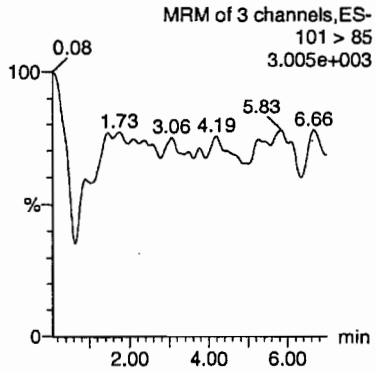

Perchlorate-101

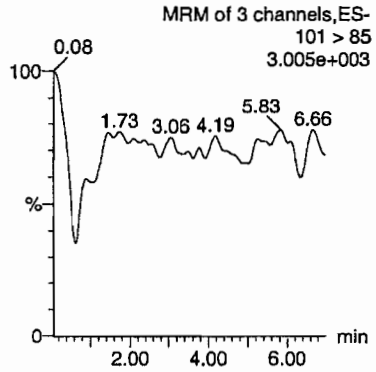

Perchlorate-O(18)

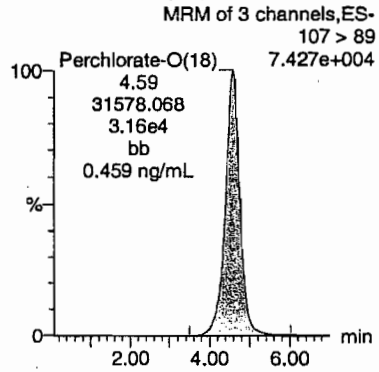

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068332	Perchlorate	99 > 83											0.00
1202068332	Perchlorate-101	101 > 85											
1202068332	Perchlorate-O(18)	107 > 89	4.59	31578.068	31578.068	bb			0.4594	91.88	-8.12	5102.1...	

MATT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964112

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 16–MAR–10

GEL Job No (SDG): 10–2264

GEL Sample ID: 1202068333

Date Filtered: 16–MAR–10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.5	2	1.88	ug/kg	J	1	26–MAR–10 23:16	per0326031a
	Perchlorate Isotope Ratio			3.55			1	26–MAR–10 23:16	per0326031a
14797–73–0	Perchlorate–101	.5	2	1.82	ug/kg	J	1	26–MAR–10 23:16	per0326031a
	Perchlorate–O(18)			4.51	ug/kg		1	26–MAR–10 23:16	per0326031a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326031a
Date: 26-Mar-2010
Time: 23:16:43
ID: 1202068333
Vial: 2:1,B

|LZNL|964113|50120|LCS|1|

CWW
03-27-10

Perchlorate

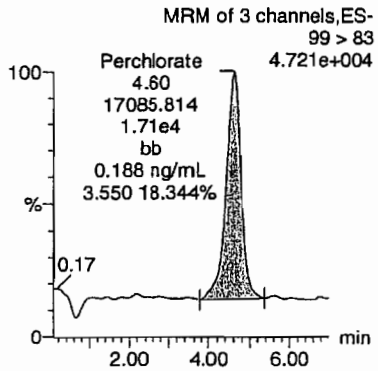

Perchlorate

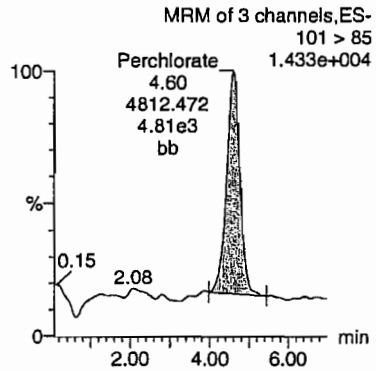

Perchlorate-101

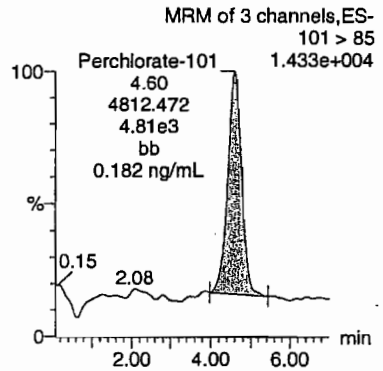

Perchlorate-O(18)

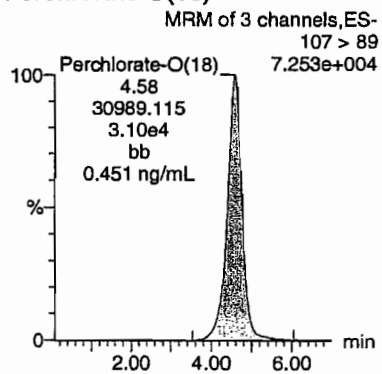

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068333	Perchlorate	99 > 83	4.60	17085.814	17085.814	bb			✓0.1884	94.21	-5.79	196.109	3.55
1202068333	Perchlorate-101	101 > 85	4.60	✓4812.472	4812.472	bb			0.1825	91.24	-8.76	110.732	
1202068333	Perchlorate-O(18)	107 > 89	4.58	30989.115	30989.115	bb			0.4508	✓90.16	-9.84	2174.9...	

MM 3/30/10

$$\frac{17085.814}{90680.5} = 0.1884$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 964112 Verified by:
Analyst: Jareth Shirley
Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6
Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202068332 MB	16-MAR-2010 16:17:00	2	20	10
1202068333 LCS	16-MAR-2010 16:17:00	2	20	10
248647001	16-MAR-2010 16:17:00	2	20	10
248647002	16-MAR-2010 16:17:00	2	20	10
248647003	16-MAR-2010 16:17:00	2	20	10
248647004	16-MAR-2010 16:17:00	2	20	10
248647005	16-MAR-2010 16:17:00	2	20	10
248647006	16-MAR-2010 16:17:00	2	20	10
248647007	16-MAR-2010 16:17:00	2	20	10
248647008	16-MAR-2010 16:17:00	2	20	10
248660002	16-MAR-2010 16:17:00	2	20	10
248702001	16-MAR-2010 16:17:00	2	20	10
248702002	16-MAR-2010 16:17:00	2	20	10
248776001	16-MAR-2010 16:17:00	2	20	10
1202068334 MS (248776001)	16-MAR-2010 16:17:00	2	20	10
1202068335 MSD (248776001)	16-MAR-2010 16:17:00	2	20	10
248776002	16-MAR-2010 16:17:00	2	20	10
248776003	16-MAR-2010 16:17:00	2	20	10
248776004	16-MAR-2010 16:17:00	2	20	10
248776005	16-MAR-2010 16:17:00	2	20	10
1202068336 ICS	16-MAR-2010 16:17:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202068336	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL
LCS	1202068333	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL
MS	1202068334	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL
MSD	1202068335	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL

Comments:

Desalting Cartridges used: 100216-1-H & 100223-1-Ba

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/26/10
Extr. Injection Volume: 20uL
Sequence Number: per032610a
Initial Calibration Date: 03/26/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1284736
Standard-Samp Reagent Lot#:: 1284736

Reviewed BY: [illegible]
Date: 3/30/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100326-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0326001a	IPB001	CWW	3/26/2010 18:12			1		USE	B
per0326002a	IPB001	CWW	3/26/2010 18:23			1		USE	B
per0326003a	WCLICAL-01	CWW	3/26/2010 18:33			1		USE	I
per0326004a	WCLICAL-02	CWW	3/26/2010 18:43			1		USE	I
per0326005a	WCLICAL-03	CWW	3/26/2010 18:53			1		USE	I
per0326006a	WCLICAL-04	CWW	3/26/2010 19:04			1		USE	I
per0326007a	WCLICAL-05	CWW	3/26/2010 19:14			1		USE	I
per0326008a	IPB002	CWW	3/26/2010 19:24			1		USE	B
per0326009a	WCLICV	CWW	3/26/2010 19:34			1		USE	C
per0326010a	IPB003	CWW	3/26/2010 19:44			1		USE	B
per0326011a	WCLCRI	CWW	3/26/2010 19:54			1		USE	C
per0326012a	248623009	CWW	3/26/2010 20:04	964107	10-2237	1	LANL	USE	S
per0326013a	IPB004	CWW	3/26/2010 20:14			1		USE	B
per0326014a	248635004	CWW	3/26/2010 20:25	964110	10-2234	1	LANL	USE	S
per0326015a	248635005	CWW	3/26/2010 20:35	964110	10-2234	1	LANL	USE	S
per0326016a	248635006	CWW	3/26/2010 20:45	964110	10-2234	1	LANL	USE	S
per0326017a	248635007	CWW	3/26/2010 20:55	964110	10-2234	1	LANL	USE	S
per0326018a	248635008	CWW	3/26/2010 21:05	964110	10-2234	1	LANL	USE	S
per0326019a	248635009	CWW	3/26/2010 21:15	964110	10-2234	1	LANL	USE	S
per0326020a	248635010	CWW	3/26/2010 21:25	964110	10-2234	1	LANL	USE	S
per0326021a	248635011	CWW	3/26/2010 21:35	964110	10-2234	1	LANL	USE	S
per0326022a	WCLCCV	CWW	3/26/2010 21:45			1		USE	C
per0326023a	IPB005	CWW	3/26/2010 21:55			1		USE	B
per0326024a	WCLCRI	CWW	3/26/2010 22:06			1		USE	C
per0326025a	248635012	CWW	3/26/2010 22:16	964110	10-2234	1	LANL	USE	S
per0326026a	248635013	CWW	3/26/2010 22:26	964110	10-2234	1	LANL	USE	S
per0326027a	1202068326	CWW	3/26/2010 22:36	964107	VARIOUS	1	LANL	DUSE	S
per0326028a	1202068331	CWW	3/26/2010 22:46	964110	VARIOUS	1	LANL	DUSE	S
per0326029a	IPB006	CWW	3/26/2010 22:56			1		USE	B

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per0326030a	1202068332	CWW	3/26/2010 23:06	964113	VARIOUS	1	LANL	USE	S
per0326031a	1202068333	CWW	3/26/2010 23:16	964113	VARIOUS	1	LANL	USE	S
per0326032a	1202068336	CWW	3/26/2010 23:27	964113	VARIOUS	1	LANL	DUSE-RA	S
per0326033a	248647001	CWW	3/26/2010 23:37	964113	10-2240	1	LANL	USE	S
per0326034a	248647002	CWW	3/26/2010 23:47	964113	10-2240	1	LANL	USE	S
per0326035a	WCLCCV	CWW	3/26/2010 23:57			1		USE	C
per0326036a	IPB007	CWW	3/27/2010 0:07			1		USE	B
per0326037a	WCLCRI	CWW	3/27/2010 0:17			1		USE	C
per0326038a	248647003	CWW	3/27/2010 0:27	964113	10-2240	1	LANL	USE	S
per0326039a	248647004	CWW	3/27/2010 0:37	964113	10-2240	1	LANL	USE	S
per0326040a	248647005	CWW	3/27/2010 0:47	964113	10-2240	1	LANL	USE	S
per0326041a	248647006	CWW	3/27/2010 0:57	964113	10-2240	1	LANL	USE	S
per0326042a	248647007	CWW	3/27/2010 1:07	964113	10-2240	1	LANL	USE	S
per0326043a	248647008	CWW	3/27/2010 1:18	964113	10-2240	1	LANL	USE	S
per0326044a	248660002	CWW	3/27/2010 1:28	964113	10-2244	1	LANL	USE	S
per0326045a	248702001	CWW	3/27/2010 1:38	964113	10-2264	1	LANL	USE	S
per0326046a	248702002	CWW	3/27/2010 1:48	964113	10-2264	1	LANL	USE	S
per0326047a	WCLCCV	CWW	3/27/2010 1:58			1		USE	C
per0326048a	IPB008	CWW	3/27/2010 2:08			1		USE	B
per0326049a	WCLCRI	CWW	3/27/2010 2:18			1		USE	C
per0326050a	248776001	CWW	3/27/2010 2:28	964113	10-2281	1	LANL	USE	S
per0326051a	1202068334	CWW	3/27/2010 2:39	964113	10-2281	1	LANL	USE	S
per0326052a	1202068335	CWW	3/27/2010 2:49	964113	10-2281	1	LANL	USE	S
per0326053a	248776002	CWW	3/27/2010 2:59	964113	10-2281	1	LANL	USE	S
per0326054a	248776003	CWW	3/27/2010 3:09	964113	10-2281	1	LANL	USE	S
per0326055a	248776004	CWW	3/27/2010 3:19	964113	10-2281	1	LANL	USE	S
per0326056a	248776005	CWW	3/27/2010 3:29	964113	10-2281	1	LANL	USE	S
per0326057a	WCLCCV	CWW	3/27/2010 3:39			1		USE	C
per0326058a	IPB009	CWW	3/27/2010 3:49			1		USE	B
per0326059a	WCLCRI	CWW	3/27/2010 3:59			1		USE	C
per0326060a	1202068342	CWW	3/27/2010 4:09	964119	VARIOUS	1	LANL	USE	S
per0326061a	1202068343	CWW	3/27/2010 4:20	964119	VARIOUS	1	LANL	USE	S
per0326062a	1202068346	CWW	3/27/2010 4:30	964119	VARIOUS	1	LANL	DUSE-RA	S
per0326063a	248793001	CWW	3/27/2010 4:40	964119	10-2287-1	1	LANL	USE	S
per0326064a	1202068344	CWW	3/27/2010 4:50	964119	10-2287-1	1	LANL	USE	S
per0326065a	1202068345	CWW	3/27/2010 5:00	964119	10-2287-1	1	LANL	USE	S
per0326066a	248793002	CWW	3/27/2010 5:10	964119	10-2287-1	1	LANL	USE	S

per0326067a	248793003	CWW	3/27/2010 5:21	964119	10-2287-1	1	LANL	USE	S
per0326068a	248793004	CWW	3/27/2010 5:31	964119	10-2287-1	1	LANL	USE	S
per0326069a	248824001	CWW	3/27/2010 5:41	964119	10-2305	1	LANL	USE	S
per0326070a	WCLCCV	CWW	3/27/2010 5:51			1		USE	C
per0326071a	IPB010	CWW	3/27/2010 6:01			1		USE	B
per0326072a	WCLCRI	CWW	3/27/2010 6:11			1		USE	C
per0326073a	248824002	CWW	3/27/2010 6:21	964119	10-2305	1	LANL	DUSE-RA	S
per0326074a	248834001	CWW	3/27/2010 6:31	964119	10-2299	1	LANL	DUSE-RA	S
per0326075a	248834002	CWW	3/27/2010 6:42	964119	10-2299	1	LANL	DUSE-RA	S
per0326076a	248834003	CWW	3/27/2010 6:52	964119	10-2299	1	LANL	DUSE-RA	S
per0326077a	248834004	CWW	3/27/2010 7:02	964119	10-2299	1	LANL	DUSE-RA	S
per0326078a	248834005	CWW	3/27/2010 7:12	964119	10-2299	1	LANL	DUSE-RA	S
per0326079a	248834006	CWW	3/27/2010 7:22	964119	10-2299	1	LANL	DUSE-RA	S
per0326080a	248834007	CWW	3/27/2010 7:32	964119	10-2299	1	LANL	DUSE-RA	S
per0326081a	248834008	CWW	3/27/2010 7:42	964119	10-2299	1	LANL	DUSE-RA	S
per0326082a	248834009	CWW	3/27/2010 7:52	964119	10-2299	1	LANL	DUSE-RA	S
per0326083a	WCLCCV	CWW	3/27/2010 8:02			1		DUSE	C
per0326084a	IPB011	CWW	3/27/2010 8:13			1		DUSE	B
per0326085a	WCLCRI	CWW	3/27/2010 8:23			1		DUSE	C

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/27/10
Extr. Injection Volume: 20uL
Sequence Number: per032710a
Initial Calibration Date: 03/27/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1284736
Standard-Samp Reagent Lot#:: 1284736

Reviewed BY: [illegible]
Date: 3/30/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100326-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0327001a	IPB001	CWW	3/27/2010 13:35			1		USE	B
per0327002a	IPB001	CWW	3/27/2010 13:44			1		USE	B
per0327003a	WCLICAL-01	CWW	3/27/2010 13:54			1		USE	I
per0327004a	WCLICAL-02	CWW	3/27/2010 14:04			1		USE	I
per0327005a	WCLICAL-03	CWW	3/27/2010 14:14			1		USE	I
per0327006a	WCLICAL-04	CWW	3/27/2010 14:23			1		USE	I
per0327007a	WCLICAL-05	CWW	3/27/2010 14:33			1		USE	I
per0327008a	IPB002	CWW	3/27/2010 14:42			1		USE	B
per0327009a	WCLICV	CWW	3/27/2010 14:52			1		USE	C
per0327010a	IPB003	CWW	3/27/2010 15:02			1		USE	B
per0327011a	WCLCRI	CWW	3/27/2010 15:12			1		USE	C
per0327012a	1202068336	CWW	3/27/2010 15:21	964113	VARIOUS	1	LANL	USE	S
per0327013a	1202068346	CWW	3/27/2010 15:31	964119	VARIOUS	1	LANL	USE	S
per0327014a	248824002	CWW	3/27/2010 15:41	964119	10-2305	1	LANL	USE	S
per0327015a	248834001	CWW	3/27/2010 15:51	964119	10-2299	1	LANL	USE	S
per0327016a	248834002	CWW	3/27/2010 16:00	964119	10-2299	1	LANL	USE	S
per0327017a	248834003	CWW	3/27/2010 16:10	964119	10-2299	1	LANL	USE	S
per0327018a	248834004	CWW	3/27/2010 16:20	964119	10-2299	1	LANL	USE	S
per0327019a	248834005	CWW	3/27/2010 16:29	964119	10-2299	1	LANL	USE	S
per0327020a	248834006	CWW	3/27/2010 16:39	964119	10-2299	1	LANL	USE	S
per0327021a	248834007	CWW	3/27/2010 16:48	964119	10-2299	1	LANL	USE	S
per0327022a	WCLCCV	CWW	3/27/2010 16:58			1		USE	C
per0327023a	IPB004	CWW	3/27/2010 17:07			1		USE	B
per0327024a	WCLCRI	CWW	3/27/2010 17:17			1		USE	C
per0327025a	248834008	CWW	3/27/2010 17:27	964119	10-2299	1	LANL	USE	S
per0327026a	248834009	CWW	3/27/2010 17:36	964119	10-2299	1	LANL	USE	S
per0327027a	248834010	CWW	3/27/2010 17:46	964119	10-2299	1	LANL	USE	S
per0327028a	248834011	CWW	3/27/2010 17:55	964119	10-2299	1	LANL	USE	S
per0327029a	IPB005	CWW	3/27/2010 18:05			1		USE	B

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per0327030a	1202068337	CWW	3/27/2010 18:15	964116	VARIOUS	1	LANL	USE	S
per0327031a	1202068338	CWW	3/27/2010 18:25	964116	VARIOUS	1	LANL	USE	S
per0327032a	1202068341	CWW	3/27/2010 18:34	964116	VARIOUS	1	LANL	USE	S
per0327033a	248784001	CWW	3/27/2010 18:44	964116	10-2284-1	1	LANL	USE	S
per0327034a	248784002	CWW	3/27/2010 18:54	964116	10-2284-1	1	LANL	USE	S
per0327035a	WCLCCV	CWW	3/27/2010 19:04			1		USE	C
per0327036a	IPB006	CWW	3/27/2010 19:13			1		USE	B
per0327037a	WCLCRI	CWW	3/27/2010 19:23			1		USE	C
per0327038a	248784003	CWW	3/27/2010 19:33	964116	10-2284-1	1	LANL	USE	S
per0327039a	248784004	CWW	3/27/2010 19:42	964116	10-2284-1	1	LANL	USE	S
per0327040a	248784005	CWW	3/27/2010 19:52	964116	10-2284-1	1	LANL	USE	S
per0327041a	248784006	CWW	3/27/2010 20:02	964116	10-2284-1	1	LANL	USE	S
per0327042a	248784007	CWW	3/27/2010 20:11	964116	10-2284-1	1	LANL	USE	S
per0327043a	248784008	CWW	3/27/2010 20:21	964116	10-2284-1	1	LANL	USE	S
per0327044a	248798001	CWW	3/27/2010 20:30	964116	10-2289	1	LANL	USE	S
per0327045a	1202068339	CWW	3/27/2010 20:40	964116	10-2289	1	LANL	USE	S
per0327046a	1202068340	CWW	3/27/2010 20:49	964116	10-2289	1	LANL	USE	S
per0327047a	248798002	CWW	3/27/2010 20:59	964116	10-2289	1	LANL	USE	S
per0327048a	WCLCCV	CWW	3/27/2010 21:08			1		USE	C
per0327049a	IPB007	CWW	3/27/2010 21:18			1		USE	B
per0327050a	WCLCRI	CWW	3/27/2010 21:28			1		USE	C
per0327051a	248798003	CWW	3/27/2010 21:37	964116	10-2289	1	LANL	USE	S
per0327052a	248798004	CWW	3/27/2010 21:47	964116	10-2289	1	LANL	USE	S
per0327053a	248798005	CWW	3/27/2010 21:57	964116	10-2289	1	LANL	USE	S
per0327054a	248798006	CWW	3/27/2010 22:06	964116	10-2289	1	LANL	USE	S
per0327055a	248798007	CWW	3/27/2010 22:16	964116	10-2289	1	LANL	USE	S
per0327056a	248798008	CWW	3/27/2010 22:25	964116	10-2289	1	LANL	USE	S
per0327057a	248798009	CWW	3/27/2010 22:35	964116	10-2289	1	LANL	USE	S
per0327058a	248798010	CWW	3/27/2010 22:45	964116	10-2289	1	LANL	USE	S
per0327059a	248798011	CWW	3/27/2010 22:54	964116	10-2289	1	LANL	USE	S
per0327060a	248798012	CWW	3/27/2010 23:04	964116	10-2289	1	LANL	USE	S
per0327061a	WCLCCV	CWW	3/27/2010 23:13			1		USE	C
per0327062a	IPB008	CWW	3/27/2010 23:23			1		USE	B
per0327063a	WCLCRI	CWW	3/27/2010 23:33			1		USE	C
per0327064a	1202074284	CWW	3/27/2010 23:42	966566	VARIOUS	1	LANL	USE	S
per0327065a	1202074285	CWW	3/27/2010 23:52	966566	VARIOUS	1	LANL	USE	S
per0327066a	1202074288	CWW	3/28/2010 0:02	966566	VARIOUS	1	LANL	USE	S

per0327067a	249057004	CWW	3/28/2010 0:11	966566	10-2350	1	LANL	USE	S
per0327068a	249064001	CWW	3/28/2010 0:21	966566	10-2353	1	LANL	USE	S
per0327069a	249072001	CWW	3/28/2010 0:30	966566	10-2355	1	LANL	USE	S
per0327070a	249076001	CWW	3/28/2010 0:40	966566	10-2357	1	LANL	USE	S
per0327071a	249076002	CWW	3/28/2010 0:49	966566	10-2357	1	LANL	USE	S
per0327072a	249097001	CWW	3/28/2010 0:59	966566	10-2360	1	LANL	USE	S
per0327073a	249102001	CWW	3/28/2010 1:09	966566	10-2367	1	LANL	USE	S
per0327074a	WCLCCV	CWW	3/28/2010 1:18			1		USE	C
per0327075a	IPB009	CWW	3/28/2010 1:28			1		USE	B
per0327076a	WCLCRI	CWW	3/28/2010 1:38			1		USE	C
per0327077a	249248005	CWW	3/28/2010 1:48	966566	10-2417	1	LANL	USE	S
per0327078a	249250002	CWW	3/28/2010 1:57	966566	10-2418	1	LANL	USE	S
per0327079a	249328001	CWW	3/28/2010 2:07	966566	10-2429	1	LANL	USE	S
per0327080a	249328002	CWW	3/28/2010 2:17	966566	10-2429	1	LANL	USE	S
per0327081a	IPB010	CWW	3/28/2010 2:26			1		USE	B
per0327082a	249333001	CWW	3/28/2010 2:36	966566	10-2434	1	LANL	USE	S
per0327083a	1202074286	CWW	3/28/2010 2:46	966566	10-2434	1	LANL	USE	S
per0327084a	1202074287	CWW	3/28/2010 2:56	966566	10-2434	1	LANL	USE	S
per0327085a	249333002	CWW	3/28/2010 3:05	966566	10-2434	1	LANL	USE	S
per0327086a	249373001	CWW	3/28/2010 3:15	966566	10-2353	1	LANL	USE	S
per0327087a	WCLCCV	CWW	3/28/2010 3:25			1		USE	C
per0327088a	IPB011	CWW	3/28/2010 3:35			1		USE	B
per0327089a	WCLCRI	CWW	3/28/2010 3:44			1		USE	C
per0327090a	249376001	CWW	3/28/2010 3:54	966566	10-2446	1	LANL	DUSE-RA	S
per0327091a	249376004	CWW	3/28/2010 4:04	966566	10-2446	1	LANL	DUSE-RA	S
per0327092a	IPB012	CWW	3/28/2010 4:13			1		DUSE	B
per0327093a	1202069098	CWW	3/28/2010 4:23	964450	VARIOUS	1	LANL	DUSE-RA	S
per0327094a	1202069099	CWW	3/28/2010 4:33	964450	VARIOUS	1	LANL	DUSE-RA	S
per0327095a	1202069102	CWW	3/28/2010 4:43	964450	VARIOUS	1	LANL	DUSE-RA	S
per0327096a	248863001	CWW	3/28/2010 4:52	964450	10-2315	1	LANL	DUSE-RA	S
per0327097a	248863002	CWW	3/28/2010 5:02	964450	10-2315	1	LANL	DUSE-RA	S
per0327098a	1202069100	CWW	3/28/2010 5:11	964450	10-2315	1	LANL	DUSE-RA	S
per0327099a	1202069101	CWW	3/28/2010 5:21	964450	10-2315	1	LANL	DUSE-RA	S
per0327100a	WCLCCV	CWW	3/28/2010 5:30			1		DUSE	C
per0327101a	IPB013	CWW	3/28/2010 5:40			1		DUSE	B
per0327102a	WCLCRI	CWW	3/28/2010 5:50			1		DUSE	C
per0327103a	248863003	CWW	3/28/2010 5:59	964450	10-2315	1	LANL	DUSE-RA	S

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per0327104a	248863004	CWW	3/28/2010 6:09	964450	10-2315	1	LANL	DUSE-RA	S
per0327105a	248865001	CWW	3/28/2010 6:18	964450	10-2318	1	LANL	DUSE-RA	S
per0327106a	248866001	CWW	3/28/2010 6:28	964450	10-2319	1	LANL	DUSE-RA	S
per0327107a	248866002	CWW	3/28/2010 6:37	964450	10-2319	1	LANL	DUSE-RA	S
per0327108a	248867001	CWW	3/28/2010 6:47	964450	10-2320	1	LANL	DUSE-RA	S
per0327109a	248867002	CWW	3/28/2010 6:57	964450	10-2320	1	LANL	DUSE-RA	S
per0327110a	248867003	CWW	3/28/2010 7:06	964450	10-2320	1	LANL	DUSE-RA	S
per0327111a	248867004	CWW	3/28/2010 7:16	964450	10-2320	1	LANL	DUSE-RA	S
per0327112a	249055001	CWW	3/28/2010 7:25	964450	10-2349	1	LANL	DUSE-RA	S
per0327113a	WCLCCV	CWW	3/28/2010 7:35			1		USE	C
per0327114a	IPB014	CWW	3/28/2010 7:44			1		USE	B
per0327115a	WCLCRI	CWW	3/28/2010 7:54			1		USE	C
per0327116a	249055002	CWW	3/28/2010 8:03	964450	10-2349	1	LANL	USE	S
per0327117a	249057002	CWW	3/28/2010 8:13	964450	10-2350	1	LANL	USE	S
per0327118a	249057003	CWW	3/28/2010 8:23	964450	10-2350	1	LANL	USE	S
per0327119a	249064002	CWW	3/28/2010 8:32	964450	10-2353	1	LANL	USE	S
per0327120a	249064003	CWW	3/28/2010 8:42	964450	10-2353	1	LANL	USE	S
per0327121a	249064004	CWW	3/28/2010 8:51	964450	10-2353	1	LANL	USE	S
per0327122a	249064005	CWW	3/28/2010 9:01	964450	10-2353	1	LANL	USE	S
per0327123a	WCLCCV	CWW	3/28/2010 9:10			1		USE	C
per0327124a	IPB015	CWW	3/28/2010 9:20			1		USE	B
per0327125a	WCLCRI	CWW	3/28/2010 9:30			1		USE	C

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326051a
Date: 27-Mar-2010
Time: 02:39:10
ID: 1202068334
Vial: 2:3,D

|LANL|964113|50620|MS|1|

CWJ 032710

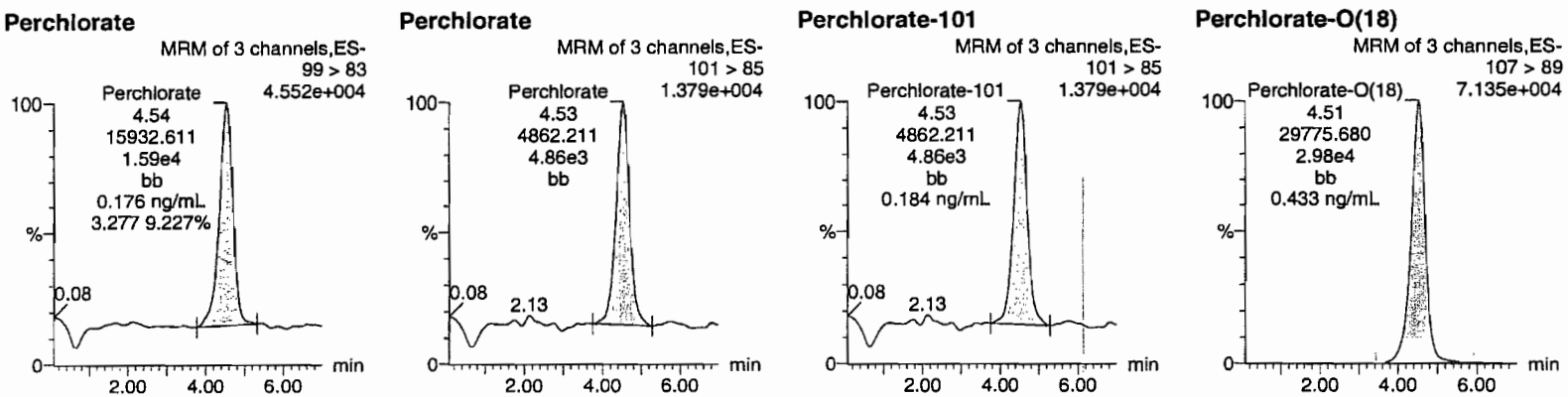

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068334	Perchlorate	99 > 83	4.54	15932.611	15932.611	bb			0.1757	87.85	-12.15	144.165	3.28
1202068334	Perchlorate-101	101 > 85	4.53	4862.211	4862.211	bb			0.1844	92.19	-7.81	55.885	
1202068334	Perchlorate-O(18)	107 > 89	4.51	29775.680	29775.680	bb			0.4332	86.63	-13.37	4180.9...	

MMT 3/30/10

$$\frac{15932.611}{90680.5} = 0.1757$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326052a
Date: 27-Mar-2010
Time: 02:49:11
ID: 1202068335
Vial: 2:3,E

|LANL|964113|3020|MSD|1|

GWD 03-27-10

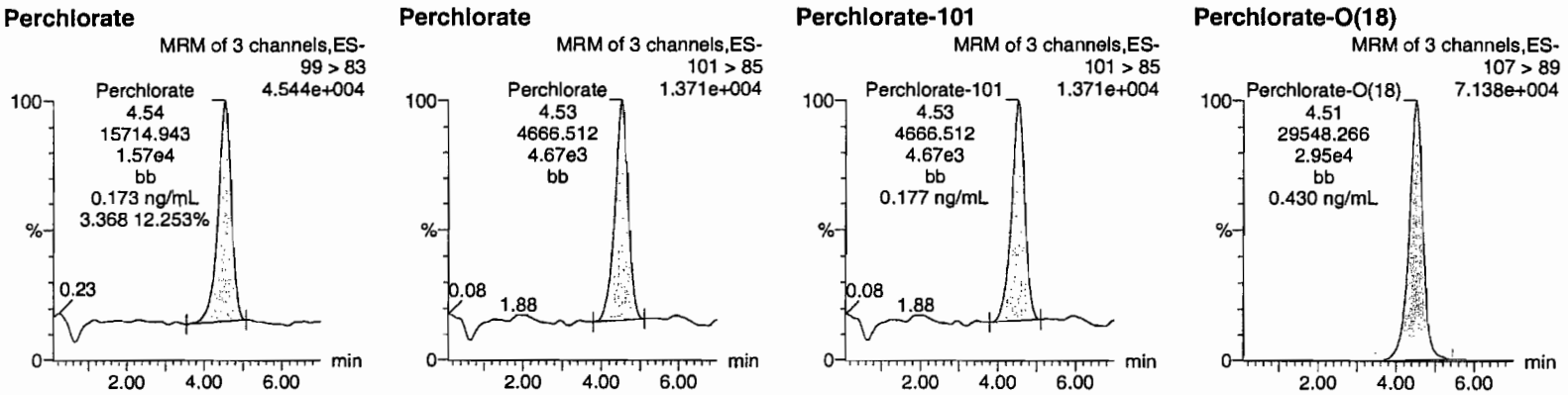

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion.Ratio
1202068335	Perchlorate	99 > 83	4.54	15714.943	15714.943	bb			0.1733	86.65	-13.35	248.769	3.37
1202068335	Perchlorate-101	101 > 85	4.53	4666.512	4666.512	bb			0.1770	88.48	-11.52	151.143	
1202068335	Perchlorate-O(18)	107 > 89	4.51	29548.266	29548.266	bb			0.4298	85.97	-14.03	2684.1...	

MAT 3/30/10

$$\frac{15714.943}{4666.512} = 3.3676$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

FID Diesel Range Organics Analysis

FID Diesel Range Organics
Los Alamos National Laboratory (LANL)
SDG 10-2264

Method/Analysis Information

Procedure:	**Analysis of Diesel Range Organics by Flame Ionization Dectector**
Analytical Method:	SW846 8015A/B SVOC
Prep Method:	SW846 3550B
Analytical Batch Number:	964269
Prep Batch Number:	964268

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8015A/B SVOC:

Sample ID	Client ID
248702001	RE46-10-13203
248702002	RE46-10-13202
1202068694	Method Blank (MB)
1202068695	Laboratory Control Sample (LCS)
1202068696	248702001(RE46-10-13203) Matrix Spike (MS)
1202068697	248702001(RE46-10-13203) Matrix Spike Duplicate (MSD)

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

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-003 REV# 18.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248702001 (RE46-10-13203) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS recovery was within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery was within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

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

Certain standards and QC samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this fraction.
Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Diesel Range Organics analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
FID7.I	Agilent GC FID	Agilent 6890N GC/FID	DB-5MS	30m x 0.25mm, 0.25um(J&W)

Certification Statement

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

Review Validation:

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

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

Reviewer: Jimi Cao **Date:** 4/1/10

Sample Data Summary

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702001	**Date Received:**	03/04/2010 08:50	**%Moisture:**	18.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13203	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	964269	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 04:18	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/12/2010 12:21	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	026f2601.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		10.9	mg/kg	2.66	8.19

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702002	**Date Received:**	03/04/2010 08:50	**%Moisture:**	21.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13202	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	964269	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 06:08	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/12/2010 12:21	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	029f2901.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		42.5	mg/kg	2.74	8.43

QC Summary

FID Diesel Range Organics

Surrogate Recovery Report

SDG Number: 10-2264

Matrix Type: SOLID

CAP Column (1) : DB-5MS

Sample ID	Client ID	OTP %REC
1202068694	MB for batch 964268	46
1202068695	LCS for batch 964268	72
248702001	RE46-10-13203	44
1202068696	RE46-10-13203MS	56
1202068697	RE46-10-13203MSD	64
248702002	RE46-10-13202	115

Surrogate	Acceptance Limits
OTP = o-Terphenyl	(8%-121%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

FID Diesel Range Organics

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2264 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 964268 **Matrix:** SOIL

Lab Sample ID: 1202068695

Instrument: FID7.I **Analysis Date:** 03/18/2010 20:55 **Dilution:** 1

Analyst: KXR2 **Prep Batch ID** 964268

Inj. Vol: 1 uL **Batch ID:** 964269

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg	Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	LCS	Diesel Range Organics	33.3	0.0	23.8	72	44-113

FID Diesel Range Organics

Quality Control Summary

Spike Recovery Report

SDG Number:	**10-2264**	**Sample Type:**	**Matrix Spike**	
Client ID:	**RE46-10-13203MS**	**Matrix:**	**S**	
Lab Sample ID:	**1202068696**	**%Moisture:**	**18.7**	
Instrument:	**FID7.I**	**Analysis Date:**	**03/19/2010 04:55**	**Dilution: 1**
Analyst:	**KXR2**	**Prep Batch ID:**	**964268**	
Inj. Vol:	**1 uL**	**Batch ID:**	**964269**	

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg	Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	MS	Diesel Range Organics	40.9	10.9	27.3	40	23-130

FID Diesel Range Organics

Quality Control Summary

Spike Recovery Report

SDG Number:	10-2264	Sample Type:	Matrix Spike Duplicate
Client ID:	RE46-10-13203MSD	Matrix:	S
Lab Sample ID:	1202068697	%Moisture:	18.7
Instrument:	FID7.I	Analysis Date:	03/19/2010 05:32
Analyst:	KXR2	Prep Batch ID:	964268
Inj. Vol:	1 uL	Batch ID:	964269

Dilution: 1

CAS No	Parmname	Amount Added mg/kg	Sample Conc. mg/kg	Spike Conc. mg/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
DRO	MSD Diesel Range Organics	40.9	10.9	34.4	57	23-130	23	0-30

Method Blank Summary

SDG Number:	10-2264	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 964268	Instrument ID:	FID7.I	Data File:	013f1301.d
Lab Sample ID:	1202068694	Prep Date:	03/12/2010 12:21	Analyzed:	03/18/10 20:18
Column:	DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 964268	1202068695	014f1401.d	03/18/10	2055
02 RE46-10-13203	248702001	026f2601.d	03/19/10	0418
03 RE46-10-13203MS	1202068696	027f2701.d	03/19/10	0455
04 RE46-10-13203MSD	1202068697	028f2801.d	03/19/10	0532
05 RE46-10-13202	248702002	029f2901.d	03/19/10	0608

Sample Data

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702001	**Date Received:**	03/04/2010 08:50	**%Moisture:**	18.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13203	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	964269	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 04:18	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/12/2010 12:21	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	026f2601.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		10.9	mg/kg	2.66	8.19

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/026f2601.d
Lab Smp Id: 248702001 Client Smp ID: RE46-10-13203
Inj Date : 19-MAR-2010 04:18
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248702001|1|
Misc Info : |FIDDRO_S|964269|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	18.69990	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.415- 17.722			3477603	265.798	10.9	
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.528	13.532	-0.004	220950	8.79278	0.36	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/031810dr/026f2601.d
Date : 19-MAR-2010 04:18
Client ID: RE46-10-13203
Sample Info: |248702001|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

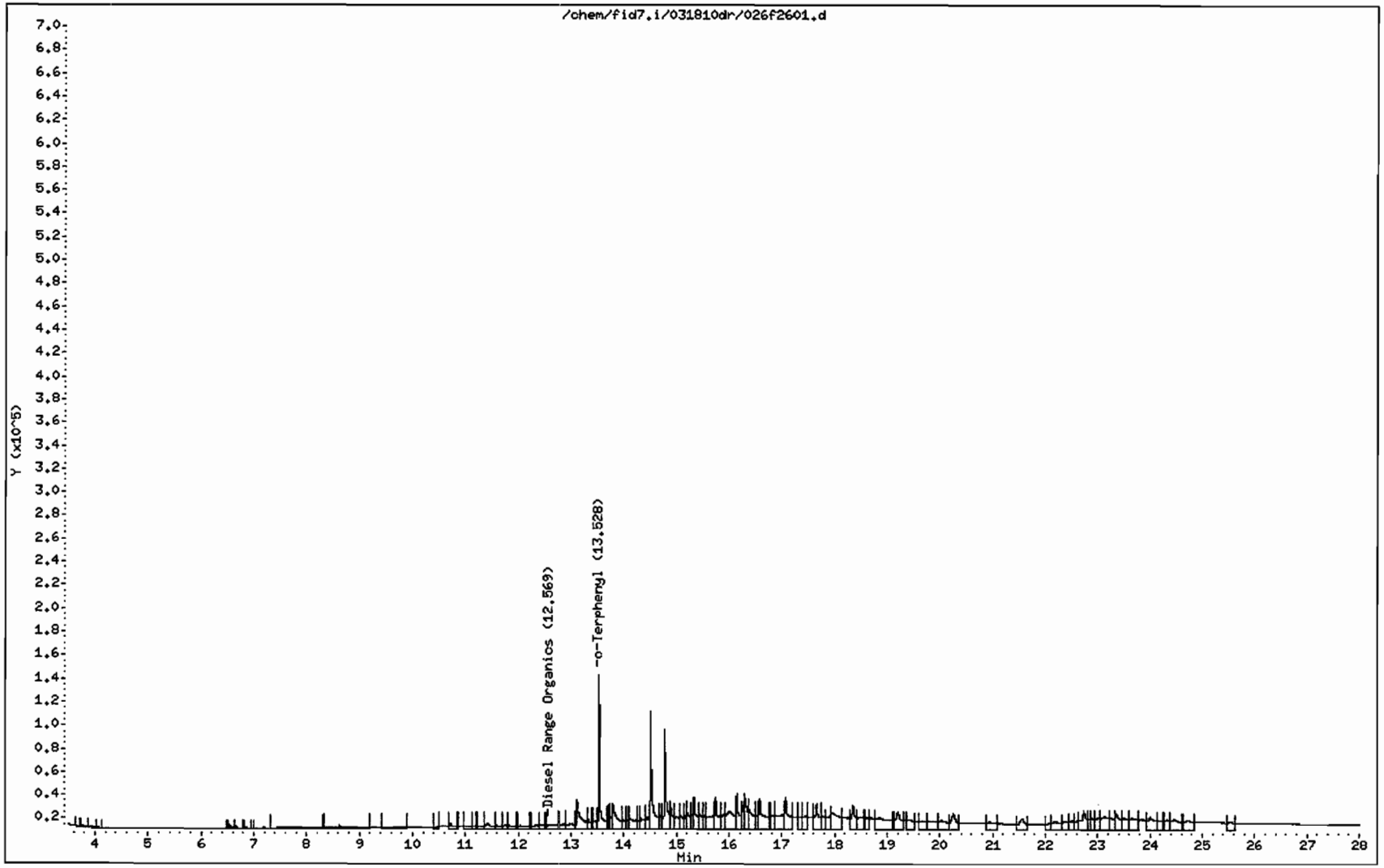

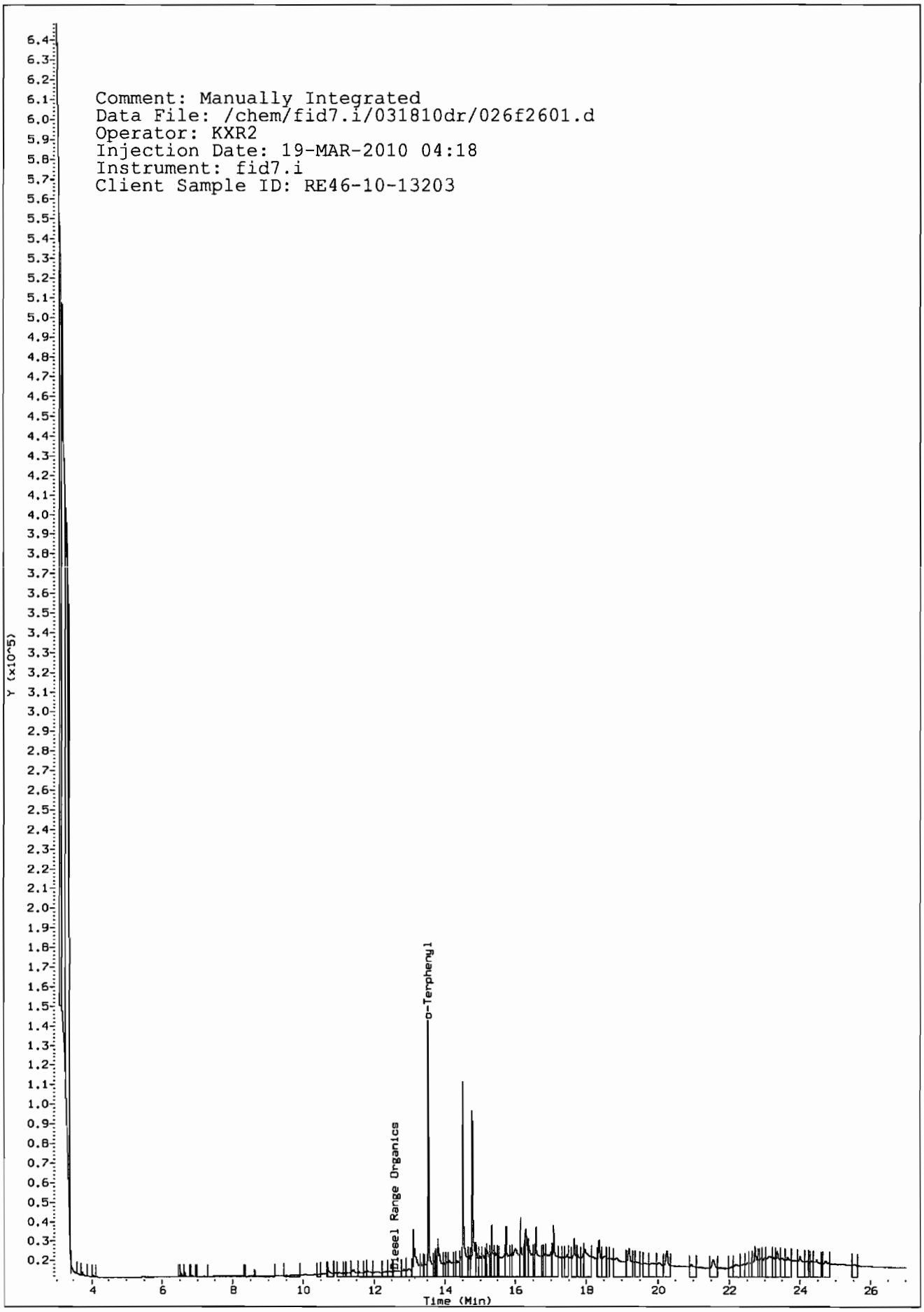
Comment: Manually Integrated
Data File: /chem/fid7.i/031810dr/026f2601.d
Operator: KXR2
Injection Date: 19-MAR-2010 04:18
Instrument: fid7.i
Client Sample ID: RE46-10-13203
Diesel Range Organics
o-Terphenyl
Y (x10^5)
Time (Min)

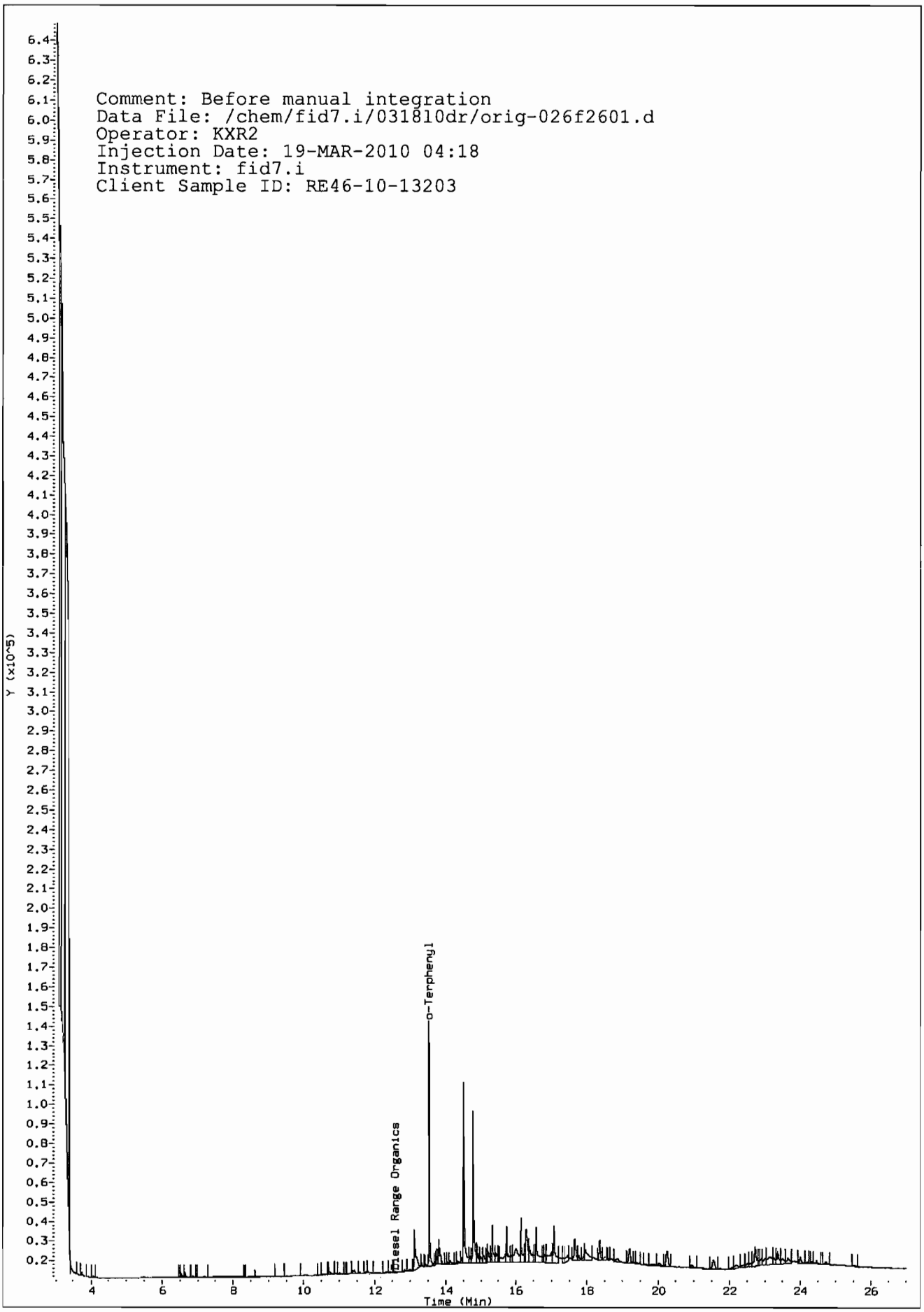
Comment: Before manual integration
Data File: /chem/fid7.i/031810dr/orig-026f2601.d
Operator: KXR2
Injection Date: 19-MAR-2010 04:18
Instrument: fid7.i
Client Sample ID: RE46-10-13203
o-Terphenyl
esel Range Organics
Y (x10^5)
Time (Min)

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702002	**Date Received:**	03/04/2010 08:50	**%Moisture:**	21.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13202	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	964269	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 06:08	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/12/2010 12:21	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	029f2901.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		42.5	mg/kg	2.74	8.43

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/029f2901.d
Lab Smp Id: 248702002 Client Smp ID: RE46-10-13202
Inj Date : 19-MAR-2010 06:08
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248702002|1|
Misc Info : |FIDDRO_S|964269|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weigth of sample extracted (g)
M	21.26750	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.415- 17.722			13192076	1008.29	42.5	
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.529	13.532	-0.003	578550	23.0235	0.97	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/031810dr/029f2901.d
Date : 19-MAR-2010 06:08
Client ID: RE46-10-13202
Sample Info: |248702002|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

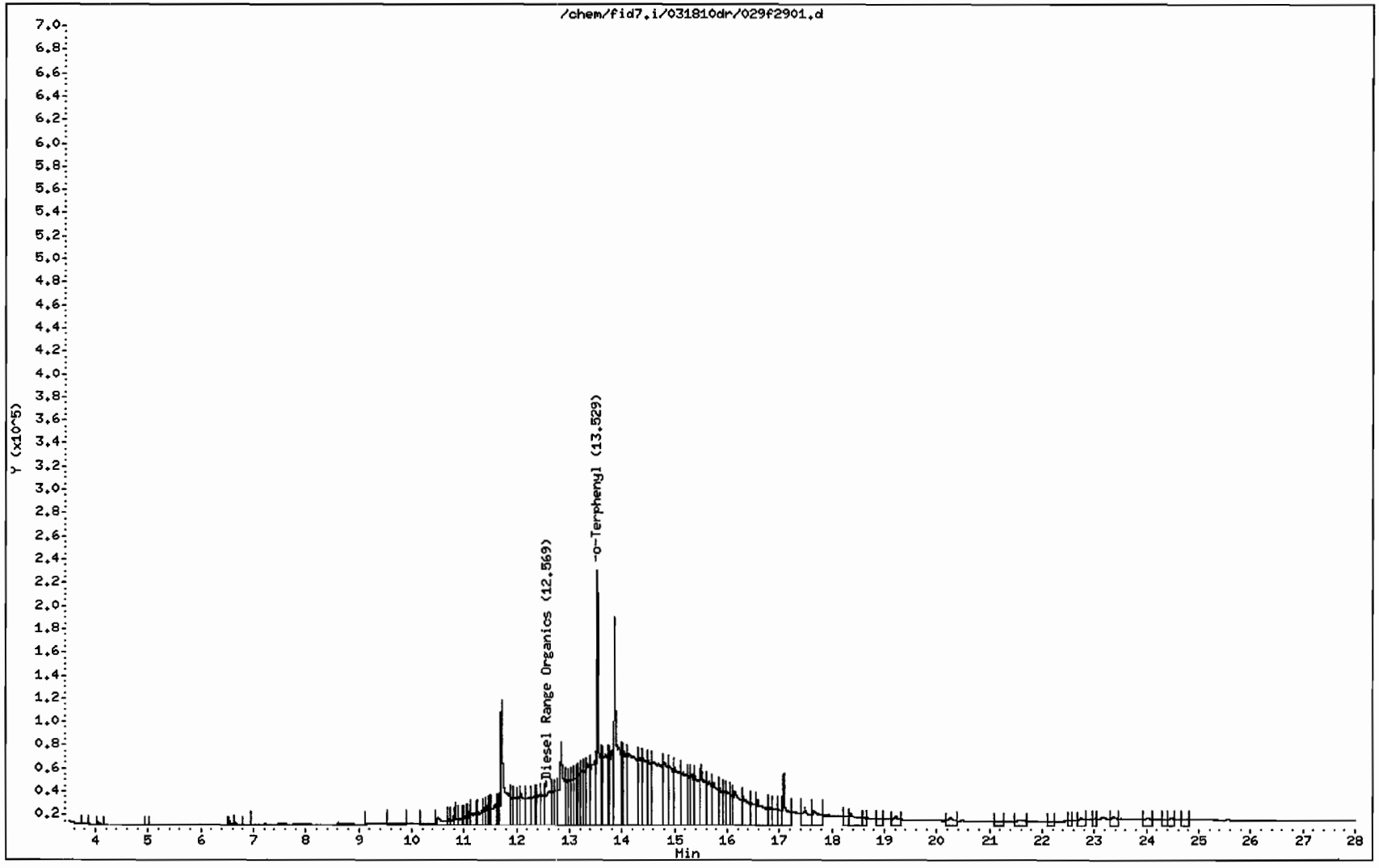

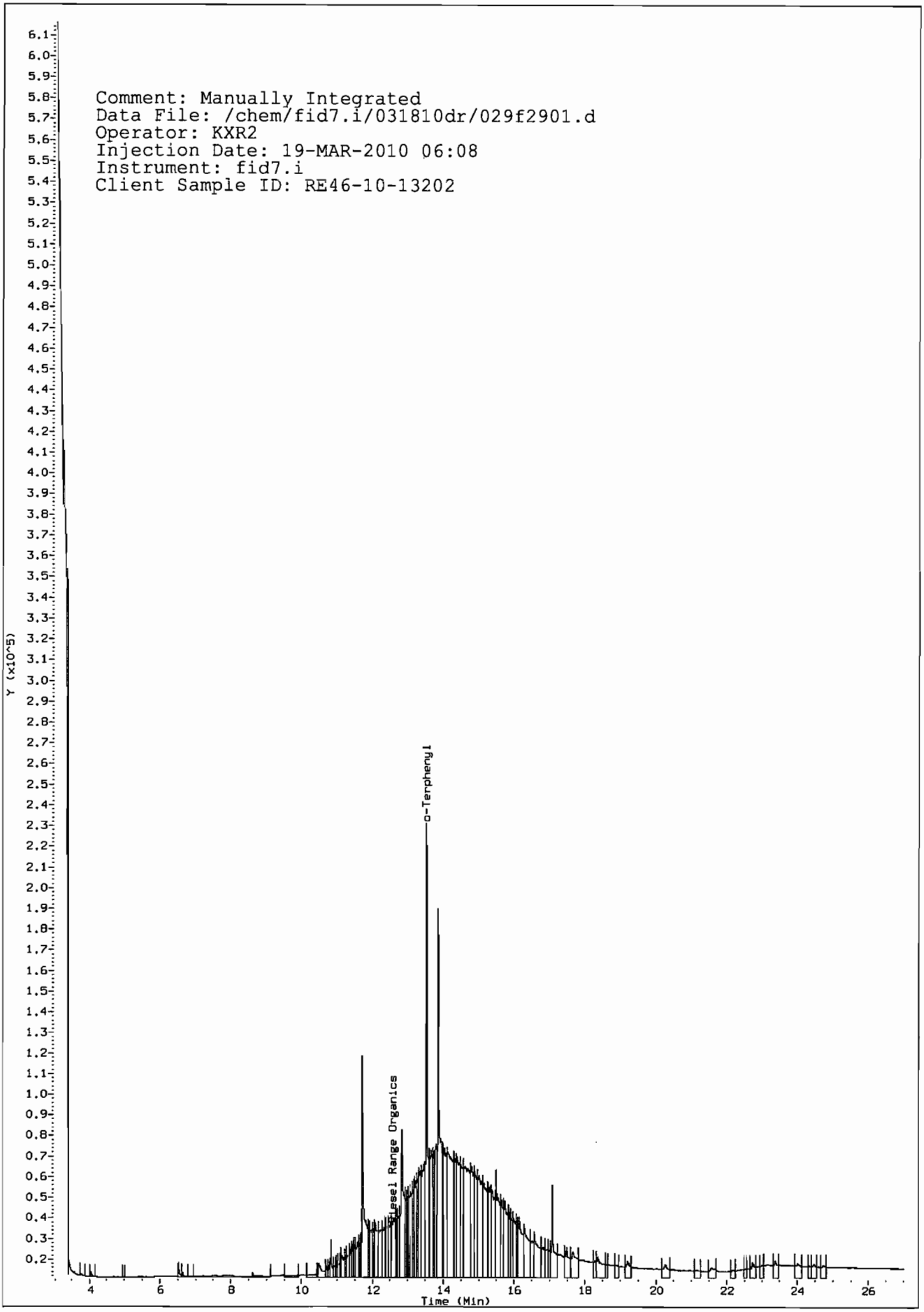
Comment: Manually Integrated
Data File: /chem/fid7.i/031810dr/029f2901.d
Operator: KXR2
Injection Date: 19-MAR-2010 06:08
Instrument: fid7.i
Client Sample ID: RE46-10-13202
o-Terphenyl
Diesel Range Organics
Y (x10^5)
Time (Min)

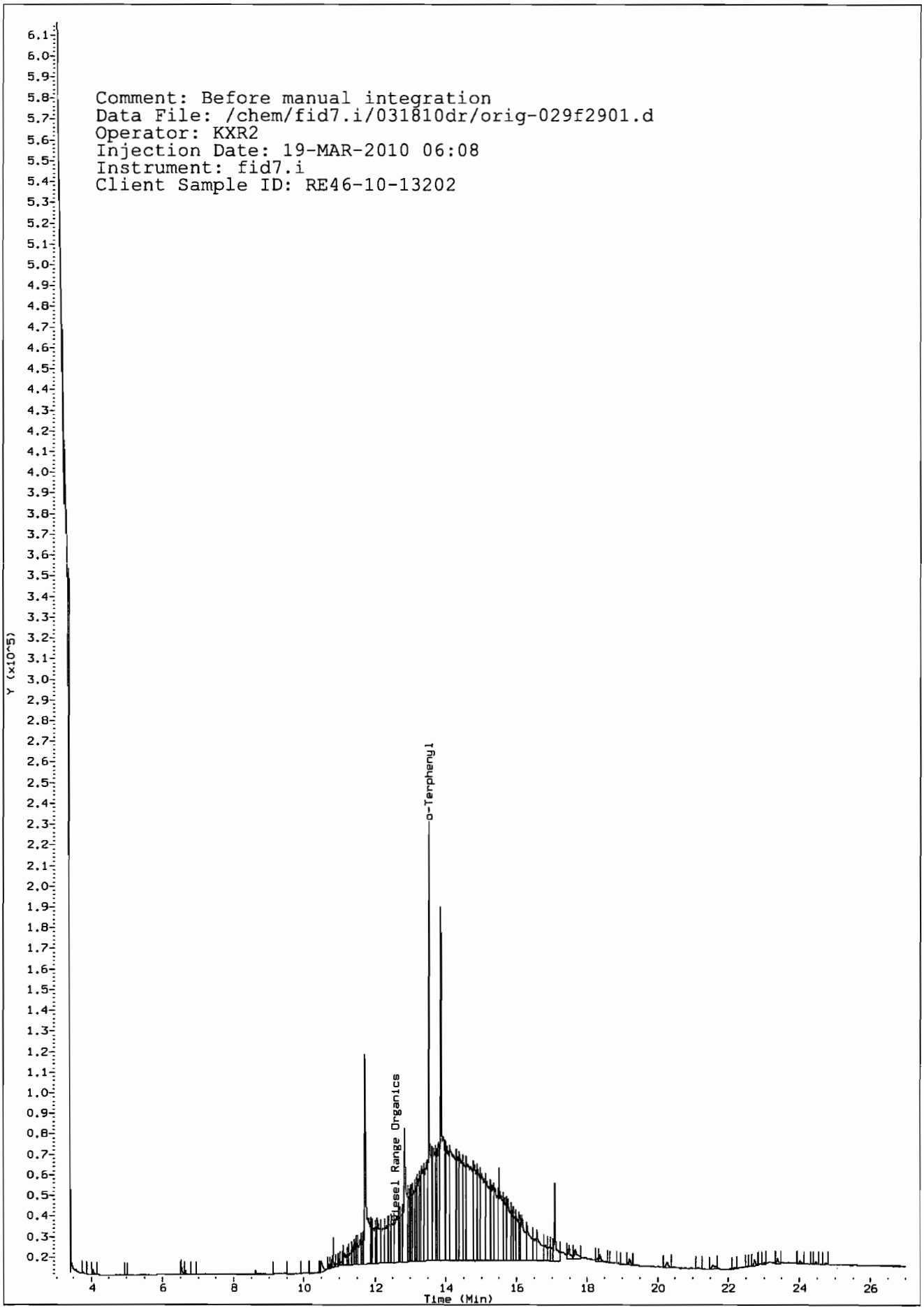
Comment: Before manual integration
Data File: /chem/fid7.i/031810dr/orig-029f2901.d
Operator: KXR2
Injection Date: 19-MAR-2010 06:08
Instrument: fid7.i
Client Sample ID: RE46-10-13202
o-Terphenyl
Diesel Range Organics
Y (x10^5)
Time (Min)

Standard Data

Report Date: 22-Mar-2010 11:22

Calibration History

Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Start Cal Date: 11-MAR-2010 14:05
End Cal Date : 11-MAR-2010 16:33

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 3 , Cal Amount: 200.00000		
11-MAR-2010 14:05	dro	/chem/fid7.i/031110dr/003f0301.d
Cal Level: 4 , Cal Amount: 500.00000		
11-MAR-2010 14:42	dro	/chem/fid7.i/031110dr/004f0401.d
Cal Level: 5 , Cal Amount: 1000.00000		
11-MAR-2010 15:19	dro	/chem/fid7.i/031110dr/005f0501.d
Cal Level: 6 , Cal Amount: 2000.00000		
11-MAR-2010 15:56	dro	/chem/fid7.i/031110dr/006f0601.d
Cal Level: 7 , Cal Amount: 5000.00000		
11-MAR-2010 16:33	dro	/chem/fid7.i/031110dr/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 1000		
19-MAR-2010 19:04	dro	/chem/fid7.i/031810dr/050f5001.d
Ccal Level: 5 , Ccal Amount: 1000		
19-MAR-2010 12:55	dro	/chem/fid7.i/031810dr/040f4001.d
Ccal Level: 5 , Ccal Amount: 1000		
19-MAR-2010 06:45	dro	/chem/fid7.i/031810dr/030f3001.d
Ccal Level: 5 , Ccal Amount: 1000		
19-MAR-2010 01:14	dro	/chem/fid7.i/031810dr/021f2101.d
Ccal Level: 5 , Ccal Amount: 1000		
18-MAR-2010 19:04	dro	/chem/fid7.i/031810dr/011f1101.d
Ccal Level: 5 , Ccal Amount: 1000		
18-MAR-2010 13:10	dro	/chem/fid7.i/031810dr/003f0301.d

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COMPOUND LISTING

Method file : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Quant Method : ESTD Target Version : 3.50
Last Update : 22-Mar-2010 10:14 Number of Cpnds : 6
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	100.000000
Initial:End Threshold	50.000000
Initial:Area Threshold	100.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	11.000000
Initial:Negative Peaks	OFF
Initial:Tension	7.000000
5.000:Force Cluster ON	n/a
17.000:Force Cluster OFF	n/a
17.371:Tension	1.000000

		Compound	RT	RT Window	RF
	3	Decane (C10)	7.437	7.407-7.467	
S	1	Diesel Range Organics	12.569	7.415-17.722	1.308e+04
$	2	o-Terphenyl	13.532	13.502-13.562	2.513e+04
	4	Octacosane (C28)	17.672	17.642-17.702	
S	75	JP-4	6.750	3.500-10.000	
S	76	Motor oil	17.000	14.000-20.000	

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INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 14:05
End Cal Date : 11-MAR-2010 16:33
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Cal Date : 22-Mar-2010 10:14 kev01577
Curve Type : Average

Calibration File Names:
Level 3: /chem/fid7.i/031110dr/003f0301.d
Level 4: /chem/fid7.i/031110dr/004f0401.d
Level 5: /chem/fid7.i/031110dr/005f0501.d
Level 6: /chem/fid7.i/031110dr/006f0601.d
Level 7: /chem/fid7.i/031110dr/007f0701.d

Compound	200.000 Level 3	500.000 Level 4	1000.000 Level 5	2000.000 Level 6	5000.000 Level 7	RRF	% RSD
3 Decane (C10)	#####	#####	#####	#####	#####	#####	#####
S 1 Diesel Range Organics	12016	12573	13899	13696	13234	13084	5.997
4 Octacosane (C28)	#####	#####	#####	#####	#####	#####	#####
S 75 JP-4	#####	#####	#####	#####	#####	#####	#####
S 76 Motor oil	#####	#####	#####	#####	#####	#####	#####
$ 2 o-Terphenyl	23465	24862	25111	25585	26620	25129	4.569

Continuing Calibration Summary

Client SDG: 10-2264

Instrument ID: FID7.I

Injection Date: 18-MAR-10 13:10

Data File: /chem/fid7.i/031810dr/003f0301.d

Init. Cal. Date(s) 11-MAR-10 14:42 - 11-MAR-10 16:33

Lab Sample ID UFI100302-01 D1

Method: /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m

Column ID: DB-5MS

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Diesel Range Organics	13083.65	12433.37	1000	-4.97	15		Averaged
o-Terphenyl(Surr)	25128.64	21777.32	25	-13.34	15		Averaged

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/003f0301.d
Lab Smp Id: UFI100302-01 D1 Client Smp ID: DSTD01
Inj Date : 18-MAR-2010 13:10
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI100302-01 D1
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	
S	1 Diesel Range Organics						CAS #:
	7.415- 17.722			12433372	1000.00		950
$	2 o-Terphenyl						CAS #: 84-15-1
	13.532	13.532	0.000	544433	25.0000		21.7

Data File: /chem/fid7.i/031810dr/003f0301.d
Date : 18-MAR-2010 13:10
Client ID: DSTD01
Sample Info: IUFI100302-01 D1

Instrument: fid7.i

Operator: KXR2

Column phase: DB-5MS

Column diameter: 0.25

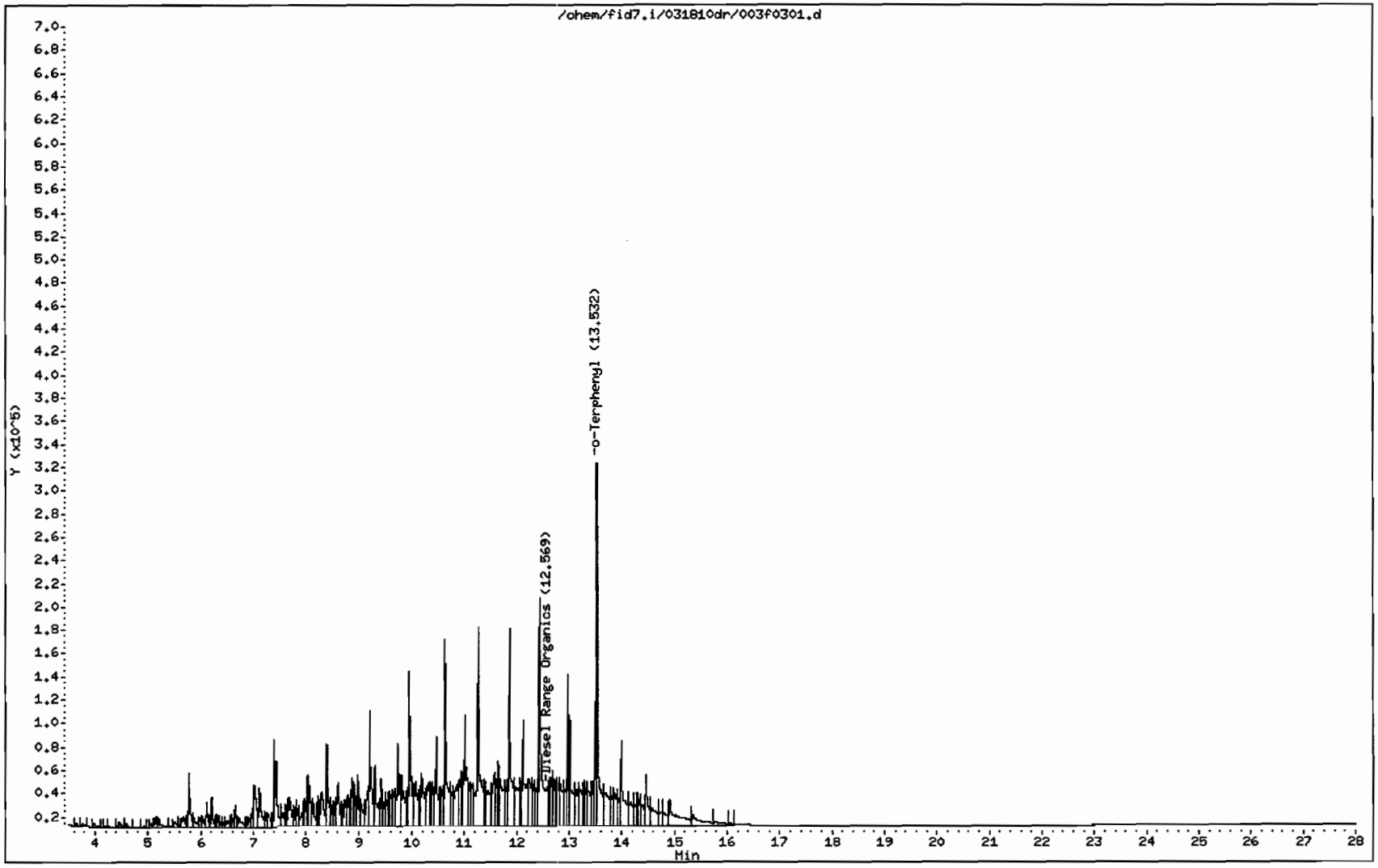

Continuing Calibration Summary

Client SDG: 10-2264

Instrument ID: FID7.I

Injection Date: 18-MAR-10 19:04

Data File: /chem/fid7.i/031810dr/011f1101.d

Init. Cal. Date(s) 11-MAR-10 14:42 - 11-MAR-10 16:33

Lab Sample ID UFI100302-01 D2

Method: /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m

Column ID: DB-5MS

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Diesel Range Organics	13083.65	13041.47	1000	-0.32	15		Averaged
o-Terphenyl(Surr)	25128.64	21863.76	25	-12.99	15		Averaged

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/011f1101.d
Lab Smp Id: UFI100302-01 D2 Client Smp ID: DSTD02
Inj Date : 18-MAR-2010 19:04
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI100302-01 D2
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S 1 Diesel Range Organics					CAS #:
7.415-	17.722		13041468	1000.00	997
$ 2 o-Terphenyl					CAS #: 84-15-1
13.531	13.532	-0.001	546594	25.0000	21.8

Data File: /chem/fid7.i/031810dr/011f1101.d

Date : 18-MAR-2010 19:04

Client ID: DSTD02

Sample Info: IUFI100302-01 D2

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

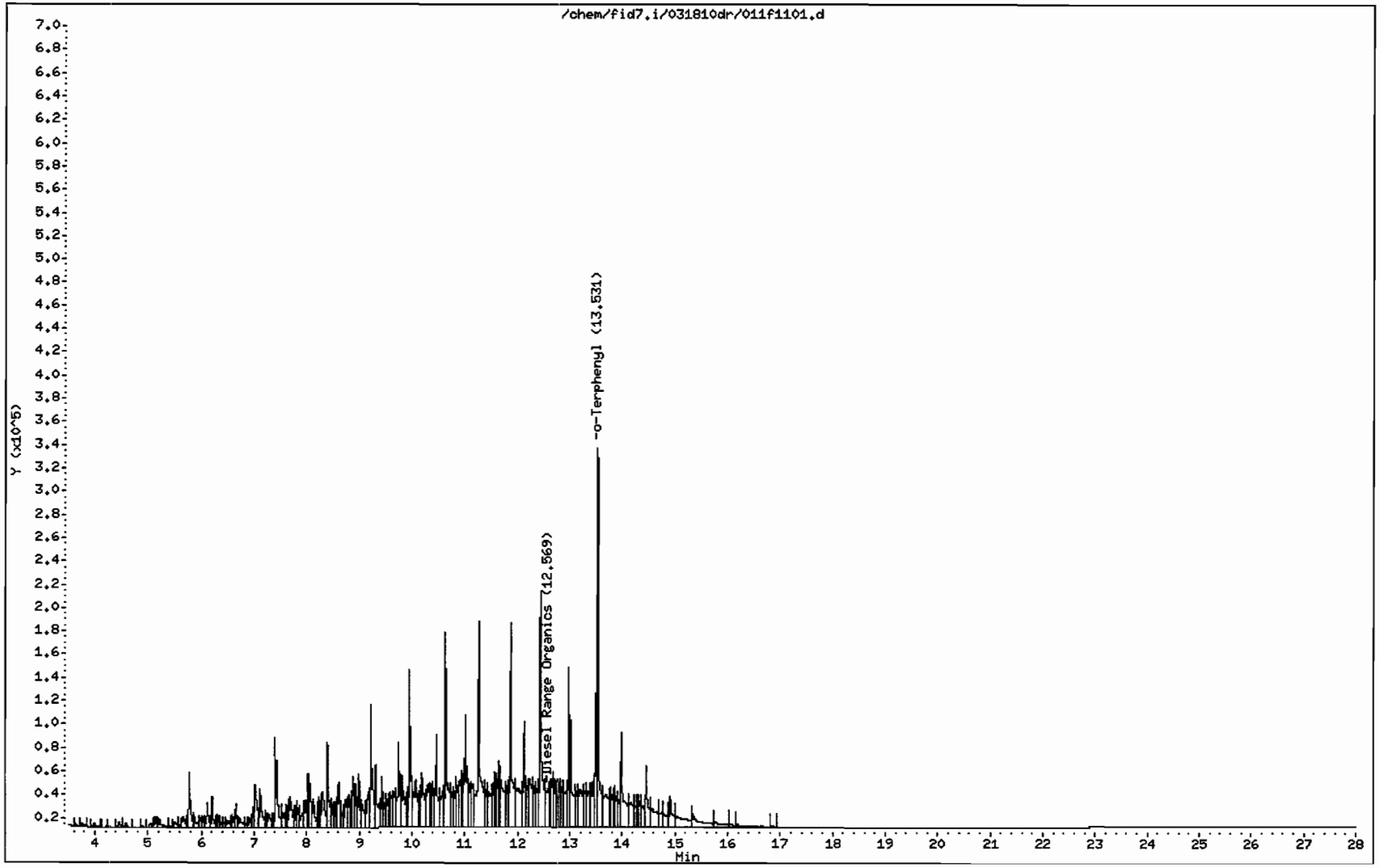

Continuing Calibration Summary

Client SDG: 10-2264

Instrument ID: FID7.I

Injection Date: 19-MAR-10 01:14

Data File: /chem/fid7.i/031810dr/021f2101.d

Init. Cal. Date(s) 11-MAR-10 14:42 - 11-MAR-10 16:33

Lab Sample ID UFI100302-01 D3

Method: /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m

Column ID: DB-5MS

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Diesel Range Organics	13083.65	13424.59	1000	2.61	15		Averaged
o-Terphenyl(Surr)	25128.64	22925.64	25	-8.77	15		Averaged

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/021f2101.d
Lab Smp Id: UFI100302-01 D3 Client Smp ID: DSTD03
Inj Date : 19-MAR-2010 01:14
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI100302-01 D3
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S 1 Diesel Range Organics						CAS #:
	7.415-	17.722		13424588	1000.00	1030
$ 2 o-Terphenyl						CAS #: 84-15-1
	13.531	13.532	-0.001	573141	25.0000	22.8

Data File: /chem/fid7.i/031810dr/021f2101.d

Date : 19-MAR-2010 01:14

Client ID: DSTD03

Sample Info: !UFI100302-01 D3

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

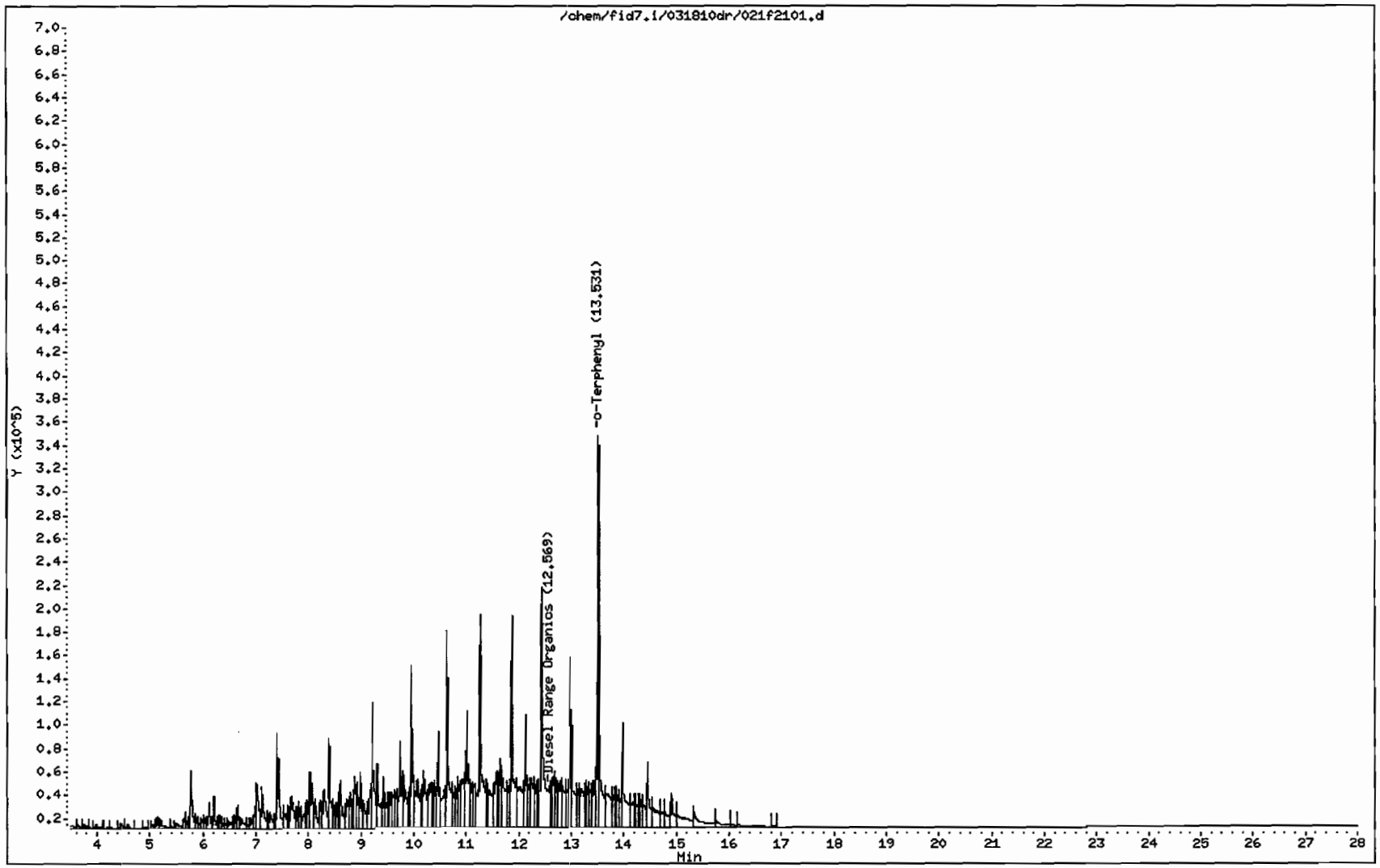

Continuing Calibration Summary

Client SDG: 10-2264

Instrument ID: FID7.I

Injection Date: 19-MAR-10 06:45

Data File: /chem/fid7.i/031810dr/030f3001.d

Init. Cal. Date(s) 11-MAR-10 14:42 - 11-MAR-10 16:33

Lab Sample ID UFI100302-01 D4

Method: /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m

Column ID: DB-5MS

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Diesel Range Organics	13083.65	13160.06	1000	0.58	15		Averaged
o-Terphenyl(Surr)	25128.64	22583.8	25	-10.13	15		Averaged

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/030f3001.d
Lab Smp Id: UFI100302-01 D4 Client Smp ID: DSTD04
Inj Date : 19-MAR-2010 06:45
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI100302-01 D4
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	
S	1 Diesel Range Organics						CAS #:
	7.415- 17.722			13160063	1000.00	1000	
$	2 o-Terphenyl						CAS #: 84-15-1
	13.530	13.532	-0.002	564595	25.0000	22.5	

Data File: /chem/fid7.i/031810dr/030f3001.d

Date : 19-MAR-2010 06:45

Client ID: DSTD04

Sample Info: IUFI100302-01 D4

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

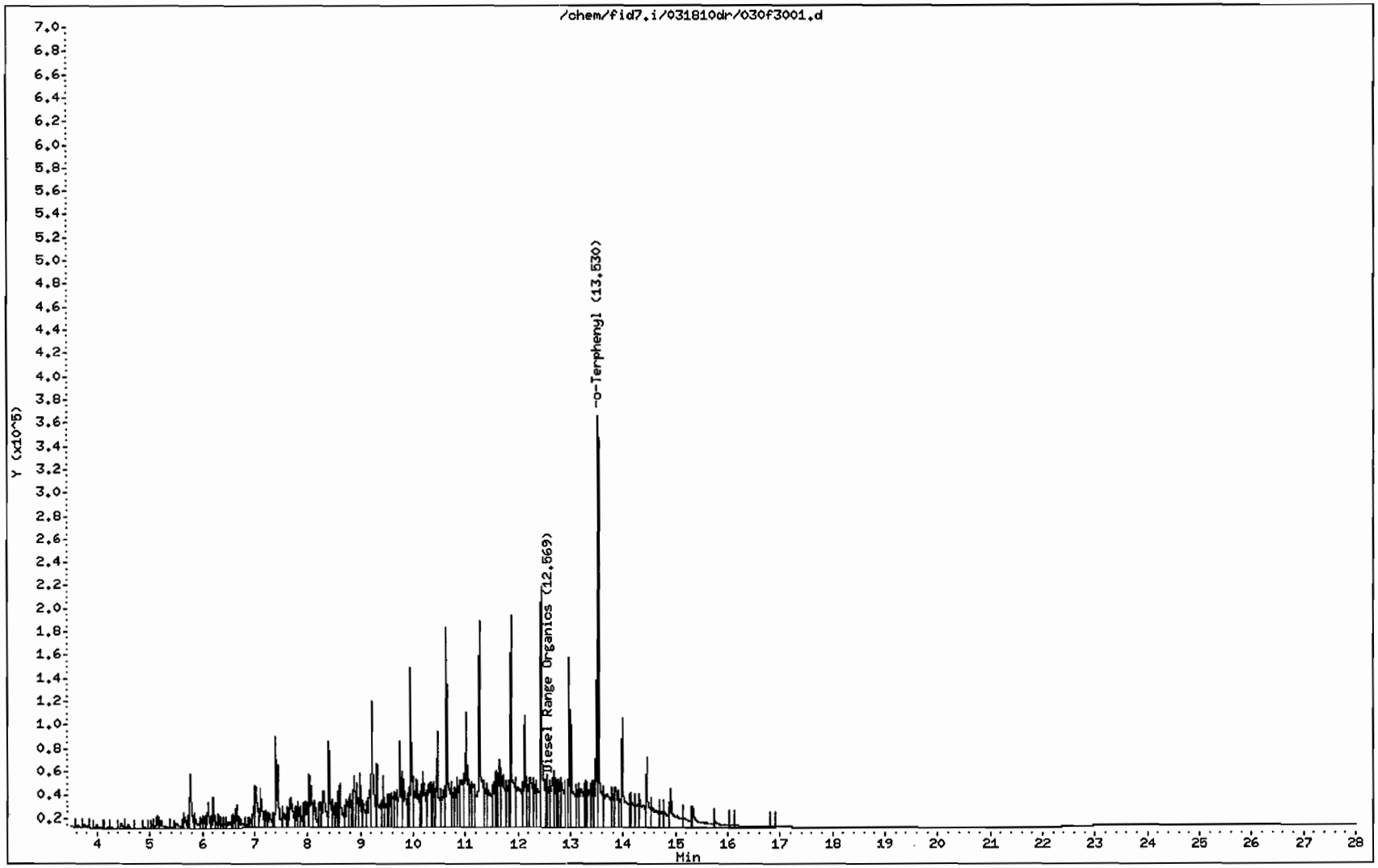

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 10-2264

GC Column: DB-5MS **Init. Calibration Dates:** 11-MAR-10 14:05 - 11-MAR-10 16:33

Instrument ID: FID7.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration:				13.54
RT Range Based on Calibration Verification:				13.51 13.57 #
File	**Sample Number**	**Lab Sample ID**	**Analysis Date**	**o-Terphenyl**
001f0101.d	DIBLK01	WFI100125-06 B1	11-MAR-10 12:51	13.54
002f0201.d	RTMARKER	UFI091203-03 RT	11-MAR-10 13:27	NA
003f0301.d	CSTD01	UFI090827-20 200	11-MAR-10 14:05	13.54
004f0401.d	CSTD02	UFI090827-21 500	11-MAR-10 14:42	13.54
005f0501.d	CSTD03	UFI090827-22 1000	11-MAR-10 15:19	13.54
006f0601.d	CSTD04	UFI090827-23 2000	11-MAR-10 15:56	13.55
007f0701.d	CSTD05	UFI090827-24 5000	11-MAR-10 16:33	13.56
008f0801.d	DSTD01	WFI100125-01 D1	11-MAR-10 17:10	13.54
009f0901.d	DIBLK02	WFI100125-06 B2	11-MAR-10 17:46	13.54

Column used to flag retention time values with an asterisk.

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 10-2264

GC Column: DB-5MS **Init. Calibration Dates:** 11-MAR-10 14:05 - 11-MAR-10 16:33

Instrument ID: FID7.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration:				13.53
RT Range Based on Calibration Verification:				13.5 13.56 #
File	**Sample Number**	**Lab Sample ID**	**Analysis Date**	**o-Terphenyl**
001f0101.d	DIBLK01	WFI100125-06 B1	18-MAR-10 11:56	13.54
002f0201.d	RTMARKER	UFI091203-03 RT	18-MAR-10 12:33	NA
003f0301.d	DSTD01	UFI100302-01 D1	18-MAR-10 13:10	13.53
004f0401.d	DIBLK02	WFI100125-06 B2	18-MAR-10 13:46	13.54
011f1101.d	DSTD02	UFI100302-01 D2	18-MAR-10 19:04	13.53
012f1201.d	DIBLK03	WFI100125-06 B3	18-MAR-10 19:41	13.53
013f1301c.d	DBLK01	1202068694	18-MAR-10 20:18	13.53
014f1401d.d	BLK01LCS	1202068695	18-MAR-10 20:55	13.53
015f1501.d	ZZZZZZZ	ZZZZZZZ	18-MAR-10 21:33	13.53
016f1601.d	ZZZZZZZ	ZZZZZZZ	18-MAR-10 22:09	13.53
017f1701.d	ZZZZZZZ	ZZZZZZZ	18-MAR-10 22:46	13.54
018f1801.d	ZZZZZZZ	ZZZZZZZ	18-MAR-10 23:23	13.53
019f1901.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 00:00	13.53
020f2001.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 00:37	13.53
021f2101.d	DSTD03	UFI100302-01 D3	19-MAR-10 01:14	13.53
022f2201.d	DIBLK04	WFI100125-06 B4	19-MAR-10 01:51	13.53
023f2301.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 02:28	13.54
024f2401.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 03:05	13.53
025f2501.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 03:41	13.53
026f2601.d	RE46-10-13203	248702001	19-MAR-10 04:18	13.53
027f2701.d	RE46-10-13203MS	1202068696	19-MAR-10 04:55	13.53
028f2801.d	RE46-10-13203MSD	1202068697	19-MAR-10 05:32	13.53
029f2901.d	RE46-10-13202	248702002	19-MAR-10 06:08	13.53
030f3001.d	DSTD04	UFI100302-01 D4	19-MAR-10 06:45	13.53
031f3101.d	DIBLK05	WFI100125-06 B5	19-MAR-10 07:22	13.53

Column used to flag retention time values with an asterisk.

QC Data

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2264			**Matrix:**	SOIL
Lab Sample ID:	1202068694				
Client Sample:	QC for batch 964268	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 964268	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	964269	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/18/2010 20:18	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/12/2010 12:21	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	013f1301.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	6.67	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/013f1301d.d
Lab Smp Id: 1202068694 Client Smp ID: DBLK01
Inj Date : 18-MAR-2010 20:18
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1202068694|1|
Misc Info : |FIDDRO_S|964269|DROQ|MB|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 11:23 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 13 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.534	13.532	0.002	228720	9.10196	0.30

Data File: /chem/fid7.i/031810dr/013f1301d.d
Date : 18-MAR-2010 20:18
Client ID: DBLK01
Sample Info: |120206869411|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

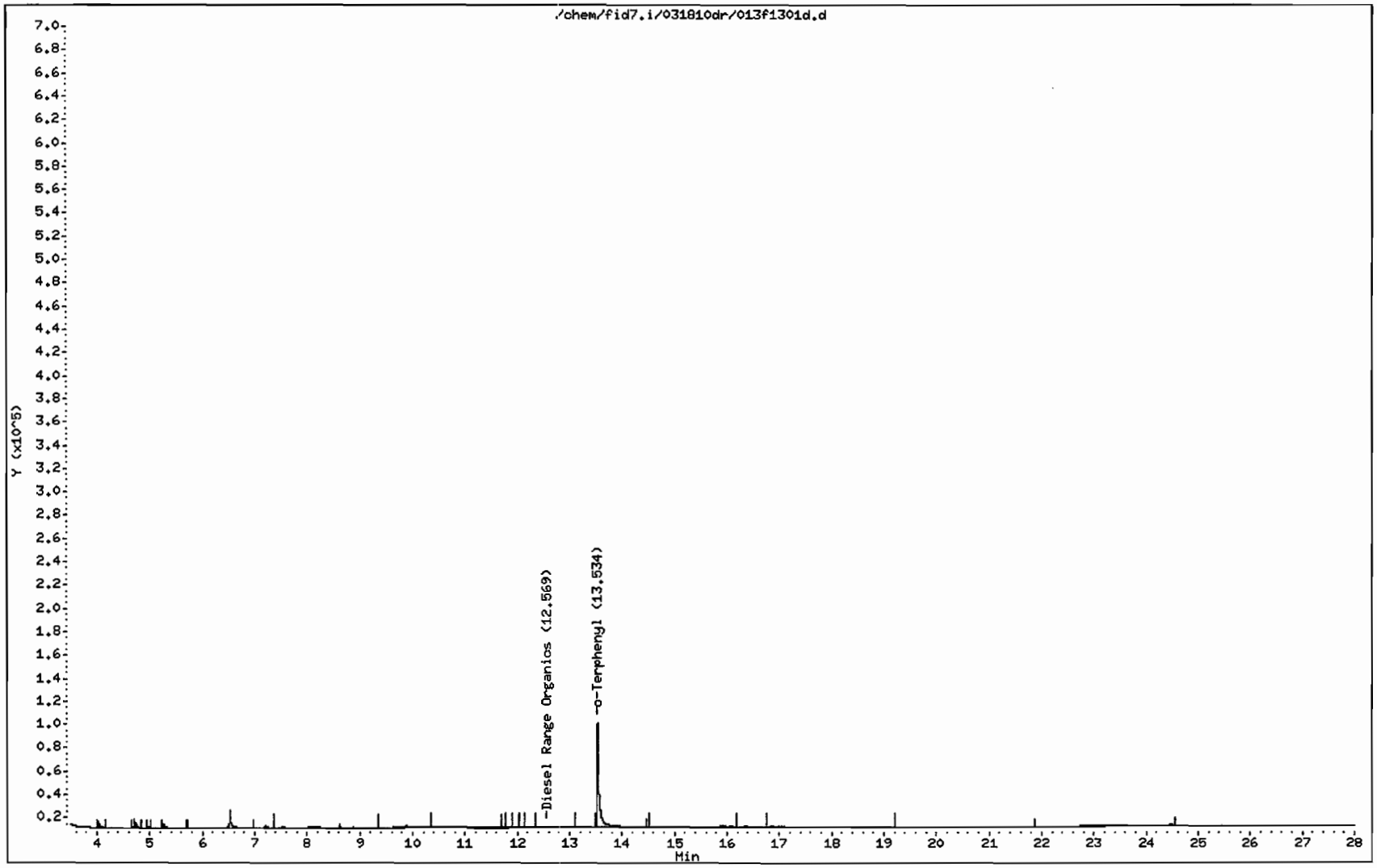

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2264			**Matrix:**	SOIL
Lab Sample ID:	1202068695				
Client Sample:	QC for batch 964268	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 964268	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	964269	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/18/2010 20:55	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/12/2010 12:21	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	014f1401.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		23.8	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/014f1401d.d
Lab Smp Id: 1202068695 Client Smp ID: DBLK01LCS
Inj Date : 18-MAR-2010 20:55
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1202068695|1|
Misc Info : |FIDDRO_S|964269|DROQ|LCS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 11:23 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 14 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics						CAS #:
	7.415	17.722		9358158	715.256	23.8
$ 2 o-Terphenyl						CAS #: 84-15-1
	13.530	13.532	-0.002	363178	14.4528	0.48

Data File: /chem/fid7.i/031810dr/014f1401d.d
Date : 18-MAR-2010 20:55
Client ID: DBLK01LCS
Sample Info: |1202068695|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

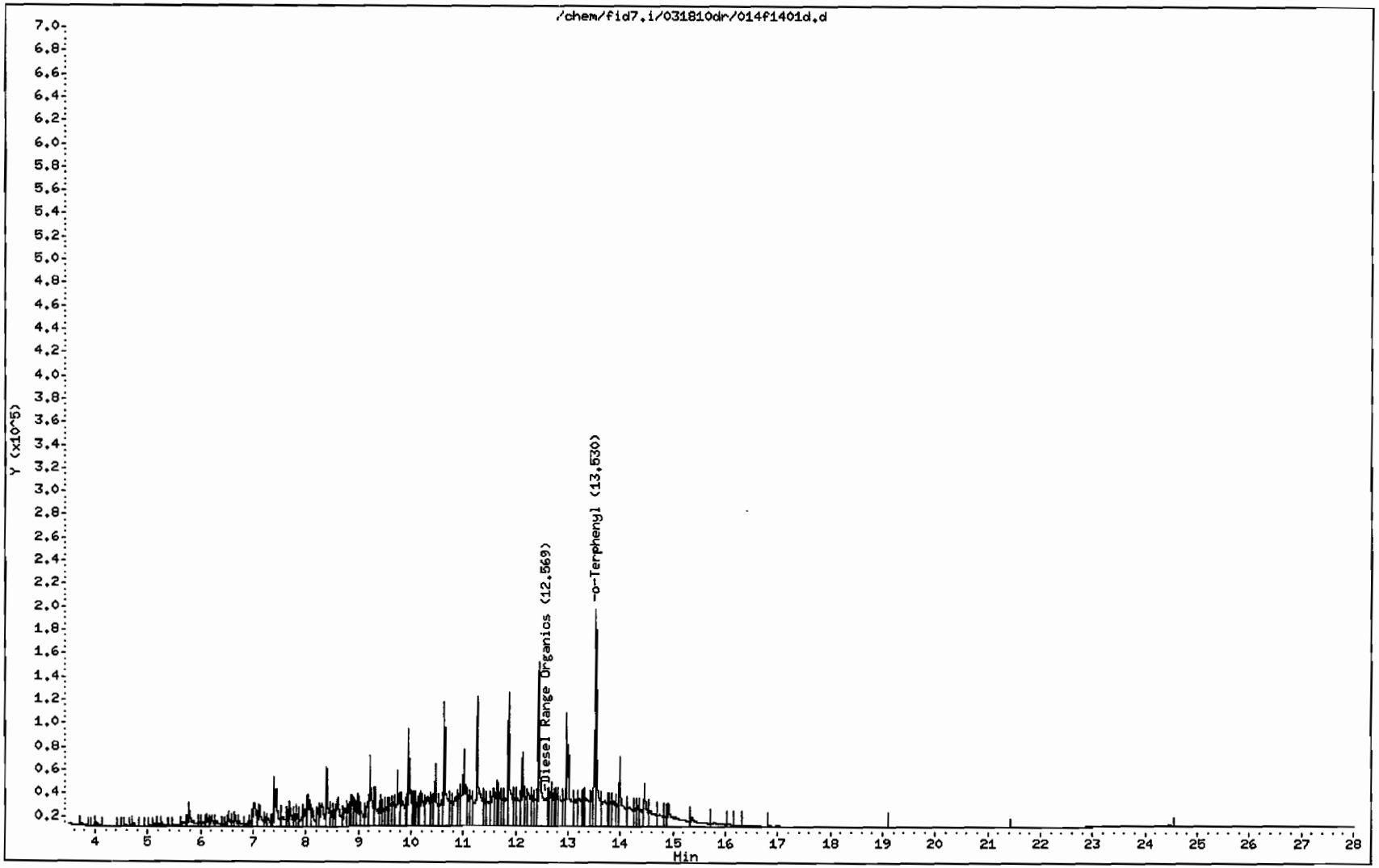

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202068696	**Date Received:**	03/04/2010 08:50	**%Moisture:**	18.7
Client Sample:	QC for batch 964268	**Client:**	LANL010	**Project:**	QC
Client ID:	RE46-10-13203MS	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	964269	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 04:55	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/12/2010 12:21	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	027f2701.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		27.3	mg/kg	2.66	8.18

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/027f2701.d
Lab Smp Id: 1202068696 Client Smp ID: RE46-10-13203MS
Inj Date : 19-MAR-2010 04:55
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1202068696|1|
Misc Info : |FIDDRO_S|964269|DROQ|MS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 27 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weigth of sample extracted (g)
M	18.69990	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	CONCENTRATIONS FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.415- 17.722			8726368	666.968	27.3	
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.529	13.532	-0.003	279138	11.1084	0.45	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/031810dr/027f2701.d

Date : 19-MAR-2010 04:55

Client ID: RE46-10-13203MS

Sample Info: |1202068696|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

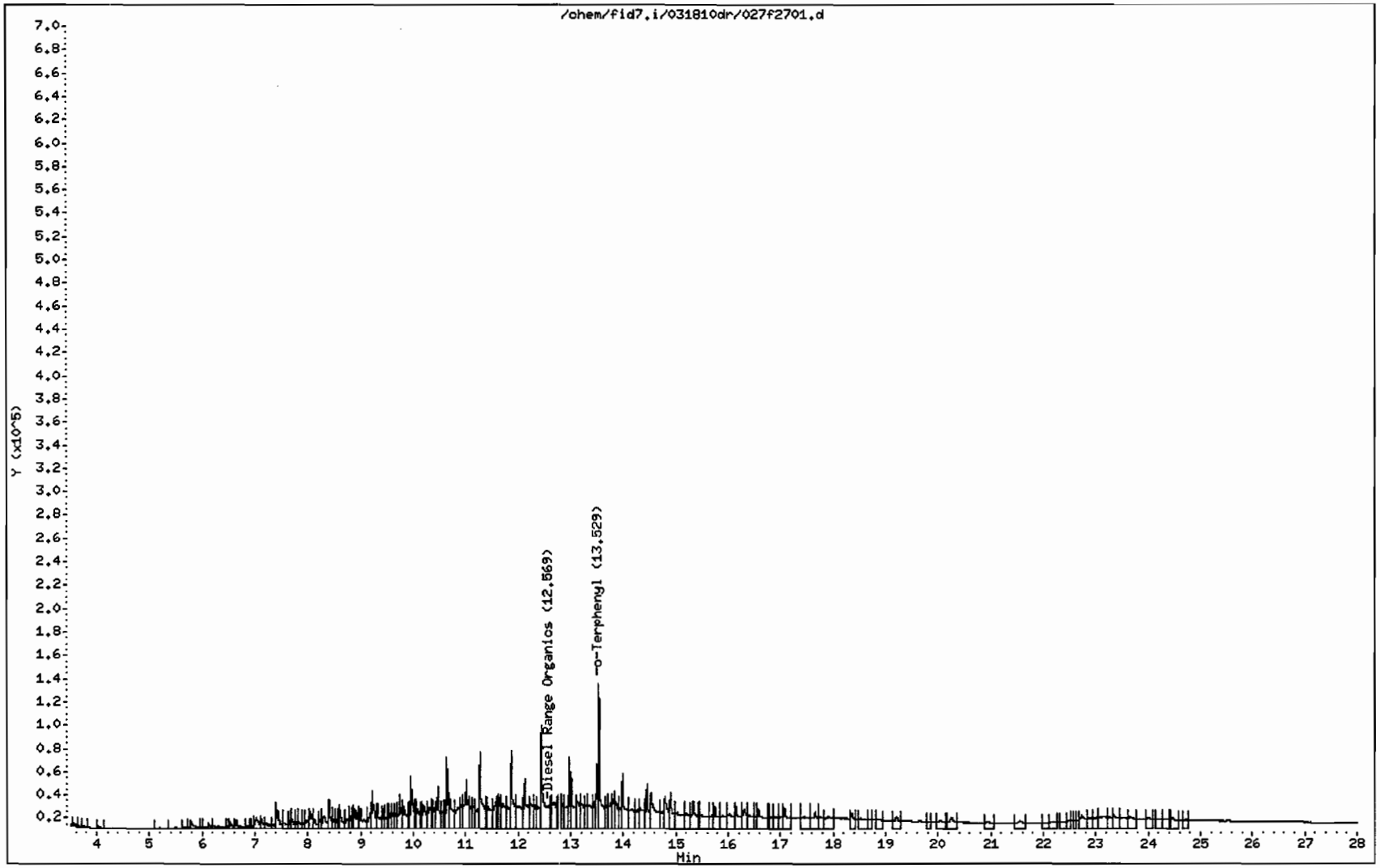

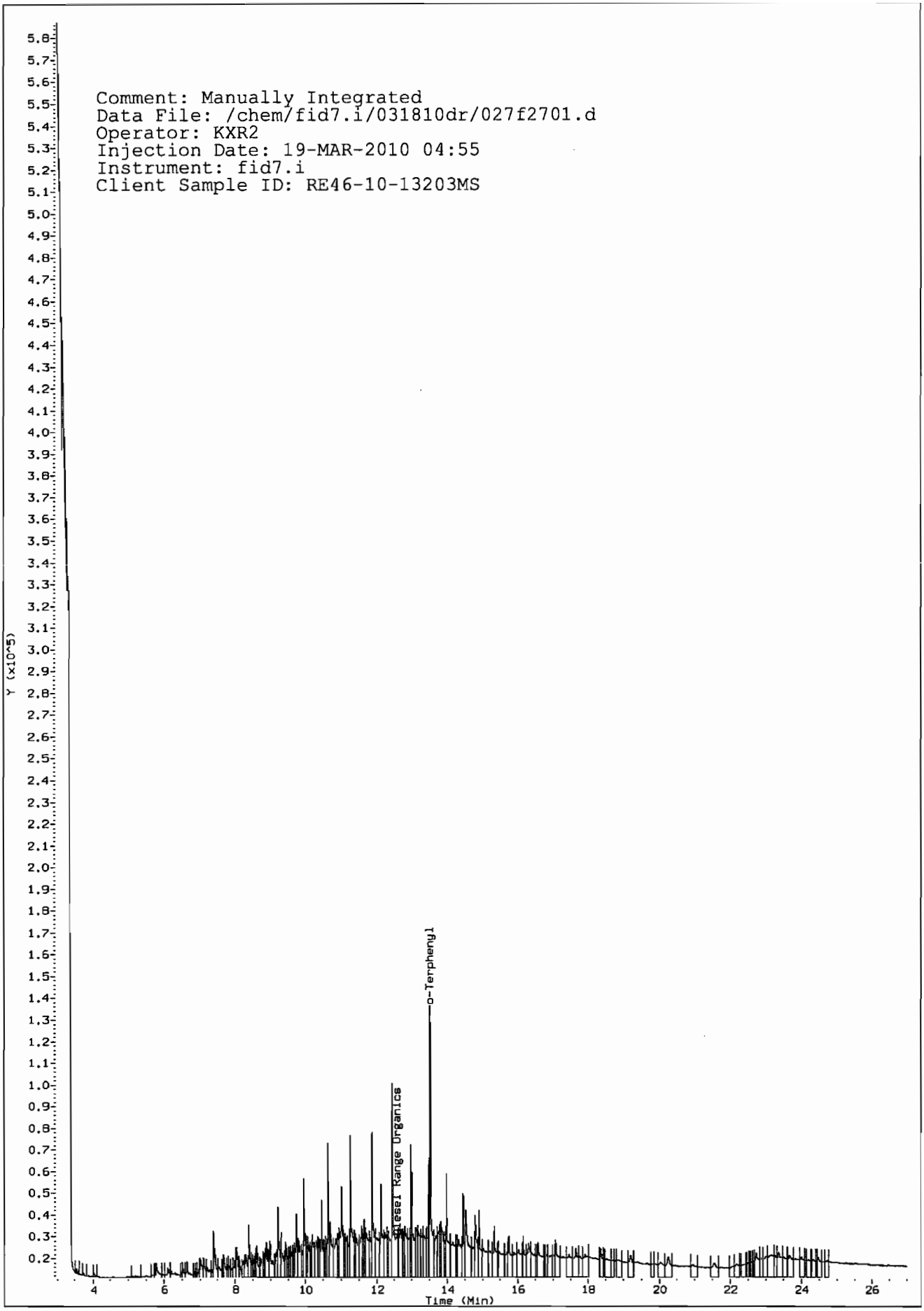
Comment: Manually Integrated
Data File: /chem/fid7.i/031810dr/027f2701.d
Operator: KXR2
Injection Date: 19-MAR-2010 04:55
Instrument: fid7.i
Client Sample ID: RE46-10-13203MS
Diesel Range Organics
o-Terphenyl
Y (x10^5)
Time (Min)

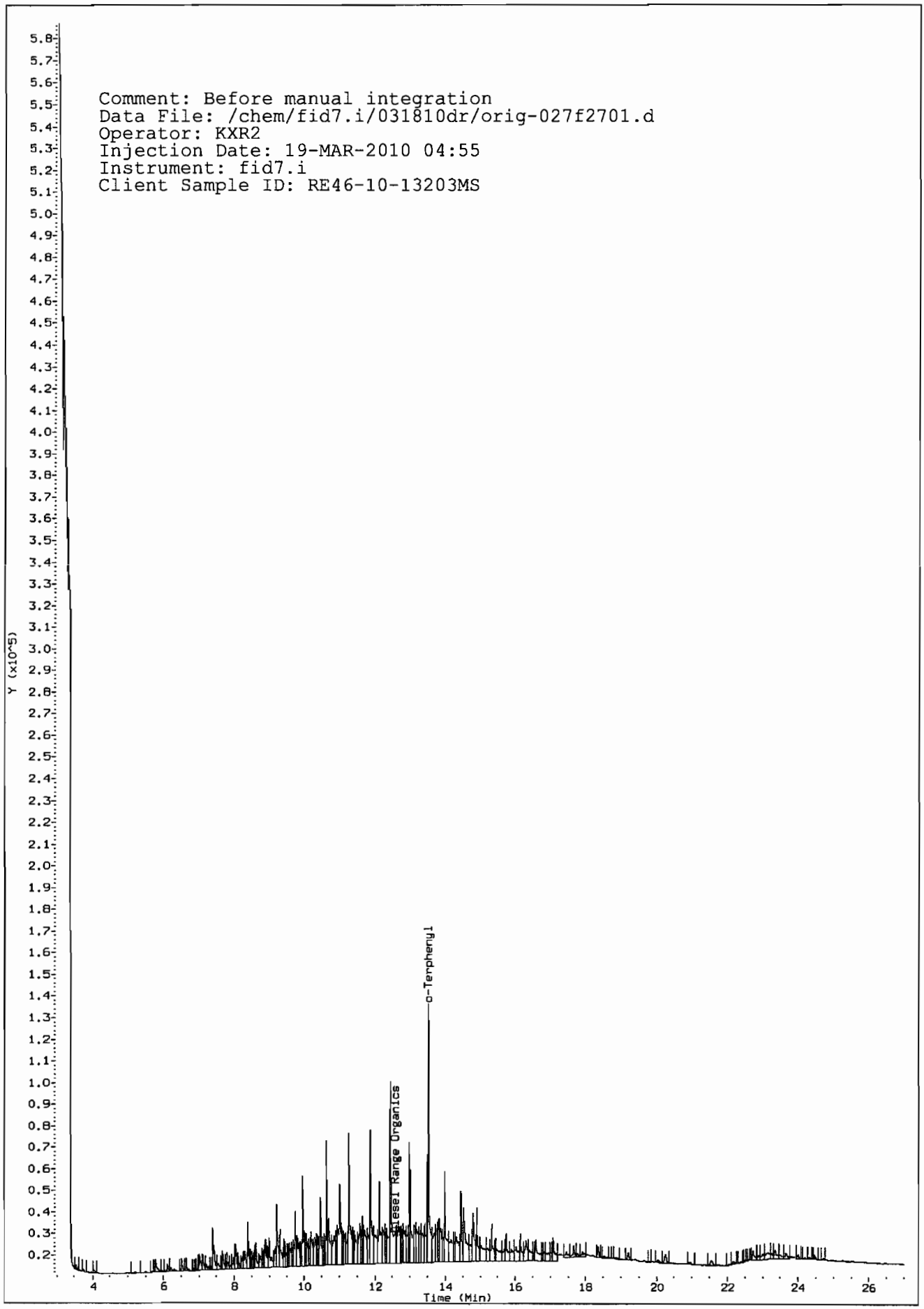
Comment: Before manual integration
Data File: /chem/fid7.i/031810dr/orig-027f2701.d
Operator: KXR2
Injection Date: 19-MAR-2010 04:55
Instrument: fid7.i
Client Sample ID: RE46-10-13203MS
Diesel Range Organics
o-Terphenyl
Y (x10^5)
Time (Min)

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202068697	**Date Received:**	03/04/2010 08:50	**%Moisture:**	18.7
Client Sample:	QC for batch 964268	**Client:**	LANL010	**Project:**	QC
Client ID:	RE46-10-13203MSD	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	964269	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 05:32	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/12/2010 12:21	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	028f2801.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		34.4	mg/kg	2.66	8.19

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/028f2801.d
Lab Smp Id: 1202068697 Client Smp ID: RE46-10-13203MSD
Inj Date : 19-MAR-2010 05:32
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1202068697|1|
Misc Info : |FIDDRO_S|964269|DROQ|MSD|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 28 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weigth of sample extracted (g)
M	18.69990	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.415- 17.722			10976398	838.940	34.4	
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.528	13.532	-0.004	321199	12.7822	0.52	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/031810dr/028f2801.d
Date : 19-MAR-2010 05:32
Client ID: RE46-10-13203MSD
Sample Info: |1202068697|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

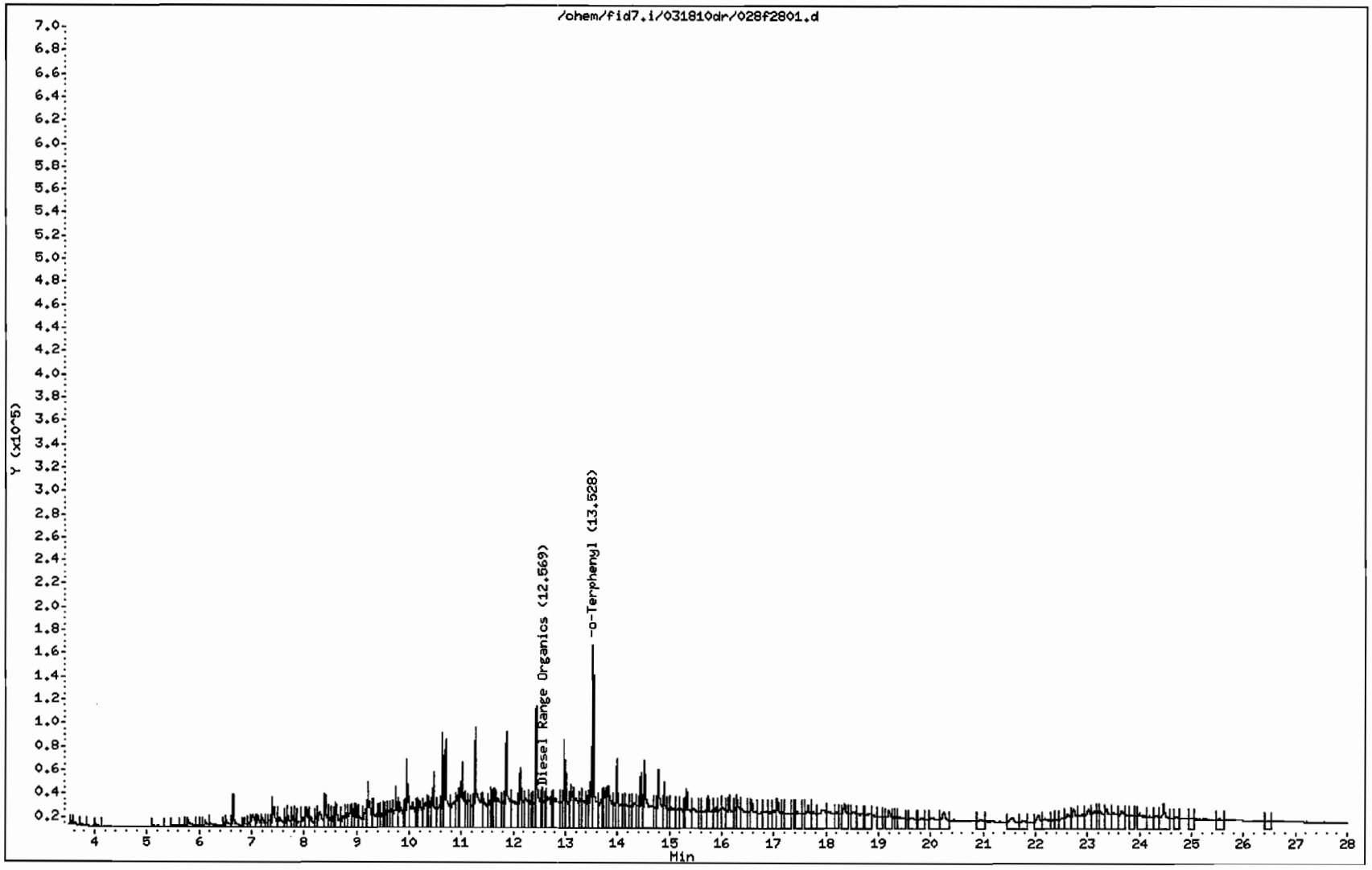

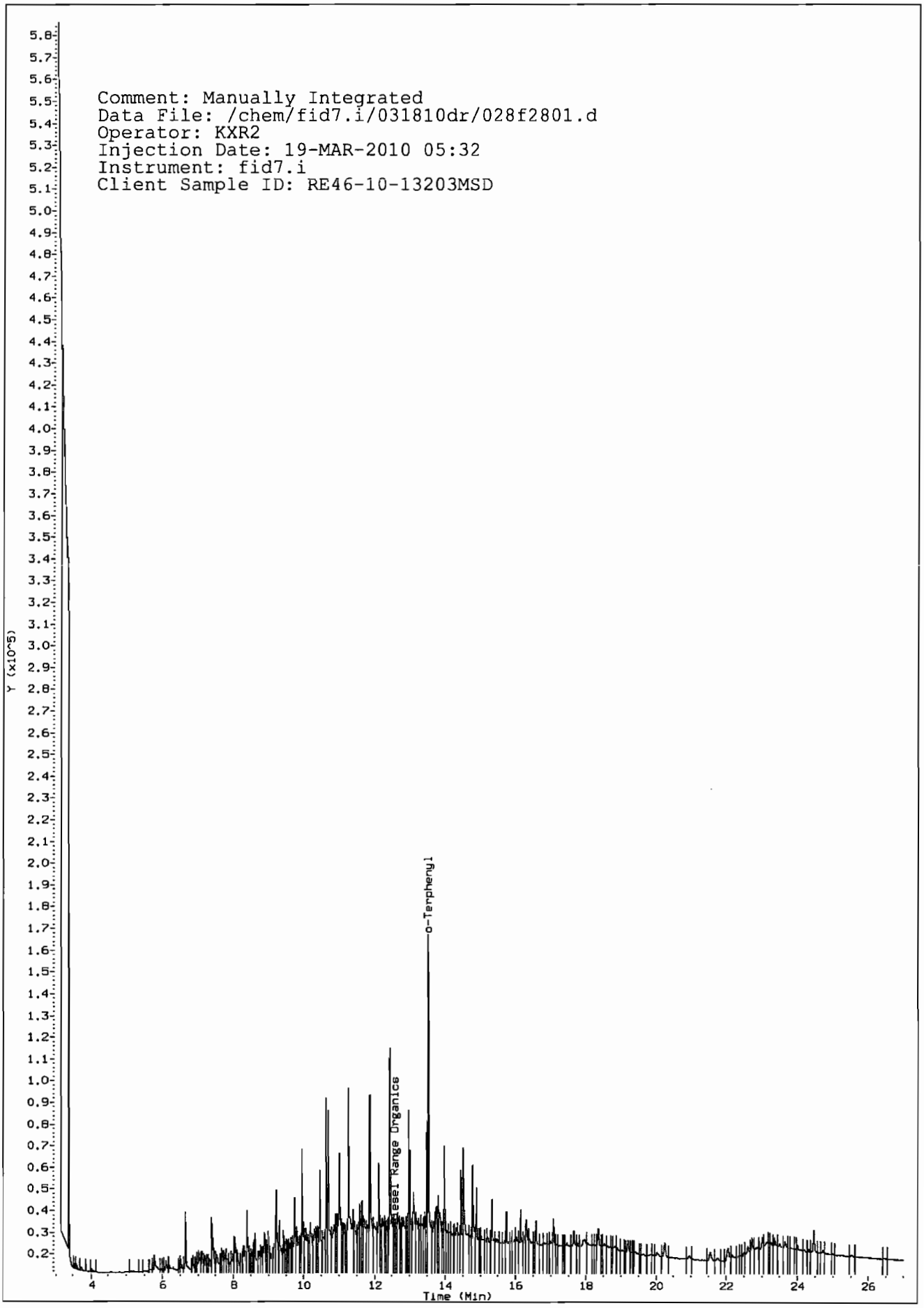
Comment: Manually Integrated
Data File: /chem/fid7.i/031810dr/028f2801.d
Operator: KXR2
Injection Date: 19-MAR-2010 05:32
Instrument: fid7.i
Client Sample ID: RE46-10-13203MSD
o-Terphenyl
Diesel Range Organics
Y (x10^5)
Time (Min)

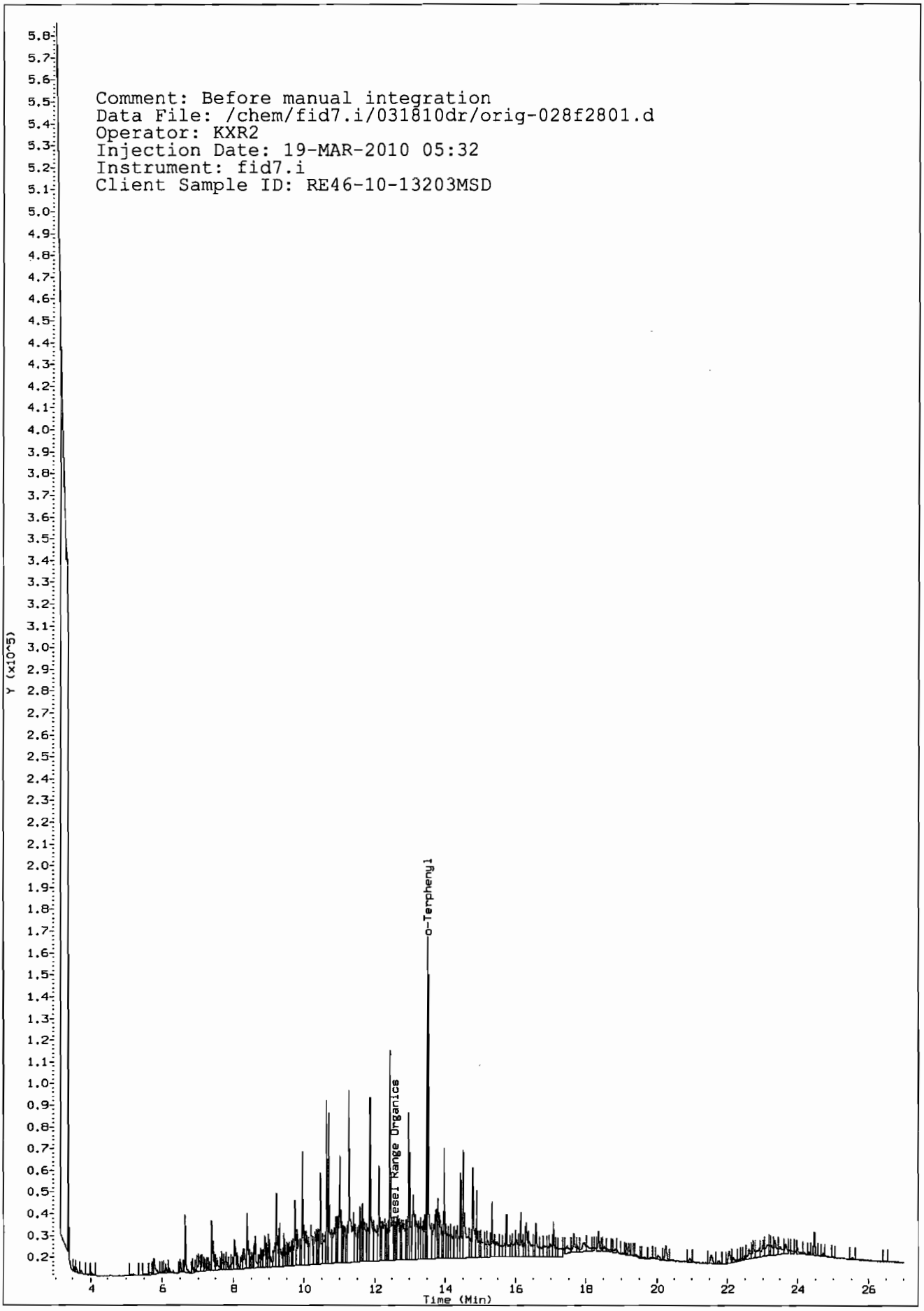
Comment: Before manual integration
Data File: /chem/fid7.i/031810dr/orig-028f2801.d
Operator: KXR2
Injection Date: 19-MAR-2010 05:32
Instrument: fid7.i
Client Sample ID: RE46-10-13203MSD
Diesel Range Organics
o-Terphenyl
Y (x10^5)
Time (Min)

Miscellaneous Data

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 03/15/2010 METHOD: FID7a.i_b_DRO_031110.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:031110DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI100125-06 B1	KXR2	11-MAR-2010 12:51		SDGa18479	1.0		CLEAN
002f0201.d	UFI091203-03 RT	KXR2	11-MAR-2010 13:27		SDGa18479	1.0		RTMARKER
003f0301.d	UFI090827-20 200	KXR2	11-MAR-2010 14:05		SDGa18479	1.0		CAL. LEVEL 1
004f0401.d	UFI090827-21 500	KXR2	11-MAR-2010 14:42		SDGa18479	1.0		CAL. LEVEL 2
005f0501.d	UFI090827-22 1000	KXR2	11-MAR-2010 15:19		SDGa18479	1.0		CAL. LEVEL 3
006f0601.d	UFI090827-23 2000	KXR2	11-MAR-2010 15:56		SDGa18479	1.0		CAL. LEVEL 4
007f0701.d	UFI090827-24 5000	KXR2	11-MAR-2010 16:33		SDGa18479	1.0		CAL. LEVEL 5
008f0801.d	WFI100125-01 D1	KXR2	11-MAR-2010 17:10		SDGa18479	1.0		PASSES
009f0901.d	WFI100125-06 B2	KXR2	11-MAR-2010 17:46		SDGa18479	1.0		CLEAN
010f1001.d	ch2cl2screen	KXR2	11-MAR-2010 18:23		SDGa18479	1.0		CLEAN
011f1101.d	1202066287	KXR2	11-MAR-2010 19:00	963172	10-2125	1.0	MB	USE
012f1201.d	1202066288	KXR2	11-MAR-2010 19:36	963172	10-2125	1.0	LCS	USE
013f1301.d	1202066290	KXR2	11-MAR-2010 20:13	963172	10-2125	1.0	MSD	USE
014f1401.d	1202066289	KXR2	11-MAR-2010 20:49	963172	10-2125	1.0	MS	USE
015f1501.d	248203002	KXR2	11-MAR-2010 21:26	963172	10-2125	1.0	LANL	USE

Instrument Batch: /chem/fid7.i/031110dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	UFI100302-01 D2	KXR2	11-MAR-2010 22:03		SDGa18479	1.0		PASSES

017f1701.d	WFI100125-06 B3	KXR2	11-MAR-2010 22:40			SDGa18479	1.0		CLEAN
018f1801.d	1202066061	KXR2	11-MAR-2010 23:17	963060	248706		1.0	MB	USE
019f1901.d	1202066062	KXR2	11-MAR-2010 23:54	963060	248706		1.0	LCS	USE,FAILS LOW, NO SAMPLE FOR RE-EXTRACT
020f2001.d	1202066063	KXR2	12-MAR-2010 00:31	963060	248706		1.0	LCSD	USE
021f2101.d	248706003	KXR2	12-MAR-2010 01:08	963060	248706		20.0	XCEL	USE
022f2201.d	UFI100302-01 D3	KXR2	12-MAR-2010 01:45			SDGa18479	1.0		PASSES
023f2301.d	WFI100125-06 B4	KXR2	12-MAR-2010 02:22			SDGa18479	1.0		CLEAN
024f2401.d	1202063324	KXR2	12-MAR-2010 02:59	961954	248343		1.0	MB	USE
025f2501.d	1202063325	KXR2	12-MAR-2010 03:36	961954	248343		1.0	LCS	USE
026f2601.d	248343001	KXR2	12-MAR-2010 04:13	961954	248343		1.0	SNLS	USE
027f2701.d	1202063326	KXR2	12-MAR-2010 04:50	961954	248343		1.0	MS	USE
028f2801.d	1202063327	KXR2	12-MAR-2010 05:27	961954	248343		1.0	MSD	USE
029f2901.d	248343004	KXR2	12-MAR-2010 06:04	961954	248343		1.0	SNLS	USE
030f3001.d	UFI100302-01 D4	KXR2	12-MAR-2010 06:41			SDGa18479	1.0		PASSES
031f3101.d	WFI100125-06 B5	KXR2	12-MAR-2010 07:19			SDGa18479	1.0		CLEAN
032f3201.d	1202066278	KXR2	12-MAR-2010 07:56	963169	10-2102		1.0	MB	USE
033f3301.d	1202066279	KXR2	12-MAR-2010 08:33	963169	10-2102		1.0	LCS	USE
034f3401.d	248154003	KXR2	12-MAR-2010 09:10	963169	10-2102		1.0	LANL	USE
035f3501.d	1202066280	KXR2	12-MAR-2010 09:47	963169	10-2102		1.0	MS	USE

Instrument Batch: /chem/fid7.i/031110dr

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202066281	KXR2	12-MAR-2010 10:24	963169	10-2102	1.0	MSD	USE
037f3701.d	248154004	KXR2	12-MAR-2010 11:01	963169	10-2102	1.0	LANL	USE
038f3801.d	248154005	KXR2	12-MAR-2010 11:38	963169	10-2102	10.0	LANL	USE
039f3901.d	248154006	KXR2	12-MAR-2010 12:15	963169	10-2102	1.0	LANL	USE
040f4001.d	UFI100302-01 D5	KXR2	12-MAR-2010 12:52		SDGa18479	1.0		PASSES
041f4101.d	WFI100125-06 B6	KXR2	12-MAR-2010 13:29		SDGa18479	1.0		CLEAN

042f4201.d	248154007	KXR2	12-MAR-2010 14:05	963169	10-2102		1.0	LANL	USE
043f4301.d	248154008	KXR2	12-MAR-2010 14:42	963169	10-2102		1.0	LANL	USE
044f4401.d	248154009	KXR2	12-MAR-2010 15:19	963169	10-2102		1.0	LANL	USE
045f4501.d	248154010	KXR2	12-MAR-2010 15:56	963169	10-2102		20.0	LANL	USE
046f4601.d	248154011	KXR2	12-MAR-2010 16:33	963169	10-2102		1.0	LANL	USE
047f4701.d	248154012	KXR2	12-MAR-2010 17:10	963169	10-2102		1.0	LANL	USE
048f4801.d	248154013	KXR2	12-MAR-2010 17:47	963169	10-2102		20.0	LANL	USE
049f4901.d	248154014	KXR2	12-MAR-2010 18:24	963169	10-2102		1.0	LANL	USE
050f5001.d	248154015	KXR2	12-MAR-2010 19:01	963169	10-2102		1.0	LANL	USE
051f5101.d	248154016	KXR2	12-MAR-2010 19:38	963169	10-2102		1.0	LANL	USE
052f5201.d	UFI100302-01 D6	KXR2	12-MAR-2010 20:15		SDGa18479		1.0		PASSES
053f5301.d	WFI100125-06 B7	KXR2	12-MAR-2010 20:52		SDGa18479		1.0		CLEAN
054f5401.d	1202066291	KXR2	12-MAR-2010 21:29	963175	IDOC-AW-DRO-S		1.0	MB	USE
055f5501.d	1202066292	KXR2	12-MAR-2010 22:07	963175	IDOC-AW-DRO-S		1.0	LCS	USE

Instrument Batch: /chem/fid7.i/031110dr Page: 3

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	1202066293	KXR2	12-MAR-2010 22:44	963175	IDOC-AW-DRO-S	1.0	LCS	USE
057f5701.d	1202066294	KXR2	12-MAR-2010 23:21	963175	IDOC-AW-DRO-S	1.0	LCS	USE
058f5801.d	1202066295	KXR2	12-MAR-2010 23:58	963175	IDOC-AW-DRO-S	1.0	LCS	USE
059f5901.d	1202066296	KXR2	13-MAR-2010 00:35	963175	IDOC-AW-DRO-S	1.0	LCS	USE
060f6001.d	248909001	KXR2	13-MAR-2010 01:12	963175	IDOC-AW-DRO-S	1.0	QCQA	USE
061f6101.d	UFI100302-01 D7	KXR2	13-MAR-2010 01:49		SDGa18479	1.0		PASSES
062f6201.d	WFI100125-06 B8	KXR2	13-MAR-2010 02:26		SDGa18479	1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 03/22/2010 METHOD: FID7a.i_b_DRO_031110.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:031810DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI100125-06 B1	KXR2	18-MAR-2010 11:56		SDGa15945	1.0		CLEAN
002f0201.d	UFI091203-03 RT	KXR2	18-MAR-2010 12:33		SDGa15945	1.0		RTMARKER
003f0301.d	UFI100302-01 D1	KXR2	18-MAR-2010 13:10		SDGa15945	1.0		PASSES
004f0401.d	WFI100125-06 B2	KXR2	18-MAR-2010 13:46		SDGa15945	1.0		CLEAN
005f0501.d	1202072853	KXR2	18-MAR-2010 15:23	965927	249301	1.0	MB	USE
006f0601.d	1202072854	KXR2	18-MAR-2010 16:00	965927	249301	1.0	LCS	USE
007f0701.d	1202072855	KXR2	18-MAR-2010 16:37	965927	249301	1.0	LCSD	USE
008f0801.d	249301001	KXR2	18-MAR-2010 17:14	965927	249301	1.0	HESS	USE
009f0901.d	249308001	KXR2	18-MAR-2010 17:50	965927	249308	1.0	HESS	USE
010f1001.d	249312001	KXR2	18-MAR-2010 18:27	965927	249312	1.0	HESS	USE
011f1101.d	UFI100302-01 D2	KXR2	18-MAR-2010 19:04		SDGa15945	1.0		PASSES
012f1201.d	WFI100125-06 B3	KXR2	18-MAR-2010 19:41		SDGa15945	1.0		CLEAN
013f1301.d	1202068694	KXR2	18-MAR-2010 20:18	964269	10-2164	1.0	MB	USE
014f1401.d	1202068695	KXR2	18-MAR-2010 20:55	964269	10-2164	1.0	LCS	USE
015f1501.d	248386003	KXR2	18-MAR-2010 21:33	964269	10-2164	1.0	LANL	USE

Instrument Batch: /chem/fid7.i/031810dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	248386004	KXR2	18-MAR-2010 22:09	964269	10-2164	1.0	LANL	USE

017f1701.d	248394001	KXR2	18-MAR-2010 22:46	964269	10-2168		1.0	LANL	USE
018f1801.d	248394002	KXR2	18-MAR-2010 23:23	964269	10-2168		1.0	LANL	USE
019f1901.d	248394003	KXR2	19-MAR-2010 00:00	964269	10-2168		1.0	LANL	USE
020f2001.d	248394004	KXR2	19-MAR-2010 00:37	964269	10-2168		1.0	LANL	USE
021f2101.d	UFI100302-01 D3	KXR2	19-MAR-2010 01:14		SDGa15945		1.0		PASSES
022f2201.d	WFI100125-06 B4	KXR2	19-MAR-2010 01:51		SDGa15945		1.0		CLEAN
023f2301.d	248394006	KXR2	19-MAR-2010 02:28	964269	10-2168		1.0	LANL	USE
024f2401.d	248660002	KXR2	19-MAR-2010 03:05	964269	10-2244		1.0	LANL	USE
025f2501.d	248689001	KXR2	19-MAR-2010 03:41	964269	10-2261		5.0	LANL	USE
026f2601.d	248702001	KXR2	19-MAR-2010 04:18	964269	10-2264		1.0	LANL	USE
027f2701.d	1202068696	KXR2	19-MAR-2010 04:55	964269	10-2264		1.0	MS	USE
028f2801.d	1202068697	KXR2	19-MAR-2010 05:32	964269	10-2264		1.0	MSD	USE
029f2901.d	248702002	KXR2	19-MAR-2010 06:08	964269	10-2264		1.0	LANL	USE
030f3001.d	UFI100302-01 D4	KXR2	19-MAR-2010 06:45		SDGa15945		1.0		PASSES
031f3101.d	WFI100125-06 B5	KXR2	19-MAR-2010 07:22		SDGa15945		1.0		CLEAN
032f3201.d	1202073046	KXR2	19-MAR-2010 07:59	966003	10-2298		1.0	MB	USE
033f3301.d	1202073047	KXR2	19-MAR-2010 08:36	966003	10-2298		1.0	LCS	USE
034f3401.d	248815001	KXR2	19-MAR-2010 09:13	966003	10-2298		1.0	LANL	USE
035f3501.d	248815002	KXR2	19-MAR-2010 09:50	966003	10-2298		1.0	LANL	USE

Instrument Batch: /chem/fid7.i/031810dr

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	248815003	KXR2	19-MAR-2010 10:27	966003	10-2298	1.0	LANL	USE
037f3701.d	248815004	KXR2	19-MAR-2010 11:04	966003	10-2298	1.0	LANL	USE
038f3801.d	248815005	KXR2	19-MAR-2010 11:42	966003	10-2298	10.0	LANL	USE
039f3901.d	248815006	KXR2	19-MAR-2010 12:18	966003	10-2298	5.0	LANL	USE
040f4001.d	UFI100302-01 D5	KXR2	19-MAR-2010 12:55		SDGa15945	1.0		PASSES
041f4101.d	WFI100125-06 B6	KXR2	19-MAR-2010 13:32		SDGa15945	1.0		CLEAN

042f4201.d	248815007	KXR2	19-MAR-2010 14:09	966003	10-2298		20.0	LANL	USE
043f4301.d	248815008	KXR2	19-MAR-2010 14:45	966003	10-2298		1.0	LANL	USE
044f4401.d	248815009	KXR2	19-MAR-2010 15:22	966003	10-2298		20.0	LANL	USE
045f4501.d	248815010	KXR2	19-MAR-2010 15:59	966003	10-2298		20.0	LANL	USE
046f4601.d	248815011	KXR2	19-MAR-2010 16:36	966003	10-2298		1.0	LANL	USE
047f4701.d	248862002	KXR2	19-MAR-2010 17:13	966003	10-2314		1.0	LANL	USE
048f4801.d	1202073048	KXR2	19-MAR-2010 17:50	966003	10-2314		1.0	MS	USE
049f4901.d	1202073049	KXR2	19-MAR-2010 18:27	966003	10-2314		1.0	MSD	USE
050f5001.d	UFI100302-01 D6	KXR2	19-MAR-2010 19:04		SDGa15945		1.0		PASSES
051f5101.d	WFI100125-06 B7	KXR2	19-MAR-2010 19:41		SDGa15945		1.0		CLEAN
052f5201.d	248862003	KXR2	19-MAR-2010 20:18	966003	10-2314		1.0	LANL	USE
053f5301.d	248862004	KXR2	19-MAR-2010 20:55	966003	10-2314		20.0	LANL	USE
054f5401.d	248862005	KXR2	19-MAR-2010 21:32	966003	10-2314		1.0	LANL	USE
055f5501.d	248862006	KXR2	19-MAR-2010 22:09	966003	10-2314		1.0	LANL	USE

Instrument Batch: /chem/fid7.i/031810dr

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	248862007	KXR2	19-MAR-2010 22:46	966003	10-2314	1.0	LANL	USE
057f5701.d	248862008	KXR2	19-MAR-2010 23:22	966003	10-2314	20.0	LANL	USE
058f5801.d	248862009	KXR2	19-MAR-2010 23:59	966003	10-2314	1.0	LANL	USE
059f5901.d	248862010	KXR2	20-MAR-2010 00:36	966003	10-2314	1.0	LANL	USE
060f6001.d	UFI100302-01 D7	KXR2	20-MAR-2010 01:12		SDGa15945	1.0		PASSES
061f6101.d	WFI100125-06 B8	KXR2	20-MAR-2010 01:49		SDGa15945	1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 964268 **Verified by:** _____
Analyst: Joshua McCartney
Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202068694 MB	12-MAR-2010 12:21:00	30	1	0.03333
1202068695 LCS	12-MAR-2010 12:21:00	30	1	0.03333
248386003	12-MAR-2010 12:21:00	30.16	1	0.03316
248386004	12-MAR-2010 12:21:00	30.13	1	0.03319
248394001	12-MAR-2010 12:21:00	30.19	1	0.03312
248394002	12-MAR-2010 12:21:00	30.17	1	0.03315
248394003	12-MAR-2010 12:21:00	30.05	1	0.03328
248394004	12-MAR-2010 12:21:00	30.12	1	0.0332
248394006	12-MAR-2010 12:21:00	30.13	1	0.03319
248660002	12-MAR-2010 12:21:00	30.07	1	0.03326
248689001	12-MAR-2010 12:21:00	30.06	1	0.03327
248702001	12-MAR-2010 12:21:00	30.02	1	0.03331
1202068696 MS (248702001)	12-MAR-2010 12:21:00	30.09	1	0.03323
1202068697 MSD (248702001)	12-MAR-2010 12:21:00	30.04	1	0.03329
248702002	12-MAR-2010 12:21:00	30.12	1	0.0332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202068695	TPH DRO LCS	UE091121-08	1	mL
MS	1202068696	TPH DRO LCS	UE091121-08	1	mL
MSD	1202068697	TPH DRO LCS	UE091121-08	1	mL
SURR	All	20 ppm surrogate	WE100305-04	1	mL
REGNT	All	Methylene Chloride	1281955-D	300	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: RWH
Final Solvent: CH2Cl2

GC SEMIVOLATILE PESTICIDE ANALYSIS

Pesticide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2264

Method/Analysis Information

Procedure:	**Analysis of Organochlorine Pesticides and Chlorinated Hydrocarbons by ECD**
Analytical Method:	SW846 8081A
Prep Method:	SW846 3550B
Analytical Batch Number:	965433
Prep Batch Number:	965432

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8081A:

Sample ID	Client ID
248702001	RE46-10-13203
248702002	RE46-10-13202
1202071510	Method Blank (MB)
1202071511	Laboratory Control Sample (LCS)
1202071545	Laboratory Control Sample (LCS)-Toxaphene LCS Only
1202071512	248702001(RE46-10-13203) Matrix Spike (MS)
1202071513	248702001(RE46-10-13203) Matrix Spike Duplicate (MSD)

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

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 10.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

One of the five quantified peaks did not meet the acceptance criteria in Toxaphene standard analyzed for this SDG; however, the average concentration of the five peaks met the acceptance criteria.

4,4'-DDD failed to meet the acceptance criteria with positive bias in the standards bracketing the samples in this SDG. The positive bias for the analytical data is a result of instrument response increasing after the initial calibration. 4,4'-DDD was not detected in the associated samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248702001 (RE46-10-13203) was selected for the matrix spike and matrix spike duplicate analysis .

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information:

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. Florisil was used during sample preparation.

Sample Dilutions
Samples 248702001 (RE46-10-13203) and 248702002 (RE46-10-13202) were diluted at 1:10 due to the viscous nature of the matrix.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information:

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The lower results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD7A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD7A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

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

Review Validation

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

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

Reviewer: Jimi Cao Date: 4/1/10

Roadmap for LANL 10-2264 PEST

This roadmap was analyzed by jam00798 on 03-18-2010, 14:03.
This roadmap was analyzed by yml on 03-31-2010, 20:01.
This roadmap was packaged by yml on 04-01-2010, 05:36.
This roadmap was validated by jim01140 on 04-01-2010, 13:25.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/031710.b/084f8401.d	248702001	sample	18-MAR-2010	10:07	10-2264.sub	RE46-10-13203	10.00000	965433	USE: LOWER
☐	N	/chem/ecd7a.i/031710.b/087f8701.d	248702002	sample	18-MAR-2010	10:58	10-2264.sub	RE46-10-13202	10.00000	965433	USE: LOWER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/031710.b/084b8401.d	248702001	sample	18-MAR-2010	10:07	10-2264.sub	RE46-10-13203	10.00000	965433	USE: LOWER
☐	N	/chem/ecd7a.i/031710.b/087b8701.d	248702002	sample	18-MAR-2010	10:58	10-2264.sub	RE46-10-13202	10.00000	965433	USE: LOWER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/031710.b/059f5901A.d	1202071510	mb	18-MAR-2010	03:01	10-2264.sub	PBLK01	1.00000	965433	USE: LOWER
☐	N	/chem/ecd7a.i/031710.b/060f6001A.d	1202071511	lcs	18-MAR-2010	03:18	10-2264.sub	PBLK01LCS	1.00000	965433	USE: LOWER
☐	N	/chem/ecd7a.i/031710.b/061f6101A.d	1202071545	lcs	18-MAR-2010	03:35	10-2264.sub	PBLK01TLCS	1.00000	965433	USE: LOWER
☐	N	/chem/ecd7a.i/031710.b/085f8501.d	1202071512	ms	18-MAR-2010	10:24	10-2264.sub	RE46-10-13203MS	10.00000	965433	USE: LOWER
☐	N	/chem/ecd7a.i/031710.b/086f8601.d	1202071513	msd	18-MAR-2010	10:41	10-2264.sub	RE46-10-13203MSD	10.00000	965433	USE: LOWER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/031710.b/059b5901A.d	1202071510	mb	18-MAR-2010	03:01	10-2264.sub	PBLK01	1.00000	965433	USE: LOWER
☐	N	/chem/ecd7a.i/031710.b/060b6001A.d	1202071511	lcs	18-MAR-2010	03:18	10-2264.sub	PBLK01LCS	1.00000	965433	USE: LOWER
☐	N	/chem/ecd7a.i/031710.b/061b6101A.d	1202071545	lcs	18-MAR-2010	03:35	10-2264.sub	PBLK01TLCS	1.00000	965433	USE: LOWER
☐	N	/chem/ecd7a.i/031710.b/085b8501.d	1202071512	ms	18-MAR-2010	10:24	10-2264.sub	RE46-10-13203MS	10.00000	965433	USE: LOWER
☐	N	/chem/ecd7a.i/031710.b/086b8601.d	1202071513	msd	18-MAR-2010	10:41	10-2264.sub	RE46-10-13203MSD	10.00000	965433	USE: LOWER

SAMPLE DATA SUMMARY

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702002**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**21.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13202**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**965433**	**Inst:**	**ECD7A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 10:58**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/16/2010 11:42**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**087f8701.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	087b8701.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	8.47	ug/kg	2.12	8.47	1
58–89–9	gamma–BHC (Lindane)	U	8.47	ug/kg	2.12	8.47	1
319–85–7	beta–BHC	U	8.47	ug/kg	2.12	8.47	1
319–86–8	delta–BHC	U	8.47	ug/kg	2.12	8.47	1
76–44–8	Heptachlor	U	8.47	ug/kg	2.12	8.47	1
309–00–2	Aldrin	U	8.47	ug/kg	2.12	8.47	1
1024–57–3	Heptachlor epoxide	U	8.47	ug/kg	2.65	8.47	1
5103–74–2	gamma–Chlordane	U	8.47	ug/kg	2.12	8.47	1
5103–71–9	alpha–Chlordane	U	8.47	ug/kg	2.12	8.47	1
959–98–8	Endosulfan I	U	8.47	ug/kg	2.12	8.47	1
72–55–9	4,4'–DDE	U	16.9	ug/kg	4.23	16.9	1
60–57–1	Dieldrin	U	16.9	ug/kg	4.23	16.9	1
72–20–8	Endrin	U	16.9	ug/kg	4.23	16.9	1
72–54–8	4,4'–DDD	U	16.9	ug/kg	4.23	16.9	1
33213–65–9	Endosulfan II	U	16.9	ug/kg	4.23	16.9	1
7421–93–4	Endrin aldehyde	U	16.9	ug/kg	4.23	16.9	1
50–29–3	4,4'–DDT	U	16.9	ug/kg	4.23	16.9	1
1031–07–8	Endosulfan sulfate	U	16.9	ug/kg	4.23	16.9	1
72–43–5	Methoxychlor	U	84.7	ug/kg	21.2	84.7	1
53494–70–5	Endrin ketone	U	16.9	ug/kg	4.23	16.9	1
8001–35–2	Toxaphene	U	212	ug/kg	70.5	212	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702001**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**18.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13203**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965433**	**Inst:**	**ECD7A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 10:07**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/16/2010 11:42**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**084f8401.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	084b8401.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	8.20	ug/kg	2.05	8.20	1
58-89-9	gamma-BHC (Lindane)	U	8.20	ug/kg	2.05	8.20	1
319-85-7	beta-BHC	U	8.20	ug/kg	2.05	8.20	1
319-86-8	delta-BHC	U	8.20	ug/kg	2.05	8.20	1
76-44-8	Heptachlor	U	8.20	ug/kg	2.05	8.20	1
309-00-2	Aldrin	U	8.20	ug/kg	2.05	8.20	1
1024-57-3	Heptachlor epoxide	U	8.20	ug/kg	2.56	8.20	1
5103-74-2	gamma-Chlordane	U	8.20	ug/kg	2.05	8.20	1
5103-71-9	alpha-Chlordane	U	8.20	ug/kg	2.05	8.20	1
959-98-8	Endosulfan I	U	8.20	ug/kg	2.05	8.20	1
72-55-9	4,4'-DDE	U	16.4	ug/kg	4.10	16.4	1
60-57-1	Dieldrin	U	16.4	ug/kg	4.10	16.4	1
72-20-8	Endrin	U	16.4	ug/kg	4.10	16.4	1
72-54-8	4,4'-DDD	U	16.4	ug/kg	4.10	16.4	1
33213-65-9	Endosulfan II	U	16.4	ug/kg	4.10	16.4	1
7421-93-4	Endrin aldehyde	U	16.4	ug/kg	4.10	16.4	1
50-29-3	4,4'-DDT	U	16.4	ug/kg	4.10	16.4	1
1031-07-8	Endosulfan sulfate	U	16.4	ug/kg	4.10	16.4	1
72-43-5	Methoxychlor	U	82.0	ug/kg	20.5	82.0	1
53494-70-5	Endrin ketone	U	16.4	ug/kg	4.10	16.4	1
8001-35-2	Toxaphene	U	205	ug/kg	68.3	205	1

QUALITY CONTROL SUMMARY

Pesticide

Surrogate Recovery Report

SDG Number: 10–2264

Matrix Type: SOLID

CAP Column (1) : CLP–1 **CAP Column (2) : CLP–2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
1202071510	MB for batch 965432	62		65		87		83	
1202071511	LCS for batch 965432	72		71		94		91	
1202071545	LCS for batch 965432	71		71		94		90	
248702001	RE46–10–13203	57	D	57	D	70	D	67	D
1202071512	RE46–10–13203MS	53	D	54	D	67	D	63	D
1202071513	RE46–10–13203MSD	57	D	57	D	71	D	69	D
248702002	RE46–10–13202	57	D	56	D	92	D	88	D

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%–120%)
DCB = Decachlorobiphenyl	(30%–116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: LCS for batch 965432
Lab Sample ID: 1202071511
Instrument: ECD7A.I
Analyst: JXM
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/18/2010 03:18
Prep Batch ID: 965432
Batch ID: 965433
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
319-84-6	LCS	alpha-BHC	16.7	0.0	13.2	79	57-130
58-89-9	LCS	gamma-BHC (Lindane)	16.7	0.0	13.1	78	56-132
319-85-7	LCS	beta-BHC	16.7	0.0	13.1	79	53-123
319-86-8	LCS	delta-BHC	16.7	0.0	14.1	85	56-130
76-44-8	LCS	Heptachlor	16.7	0.0	13.9	84	51-131
309-00-2	LCS	Aldrin	16.7	0.0	11.9	71	51-124
1024-57-3	LCS	Heptachlor epoxide	16.7	0.0	12.8	77	52-123
5103-74-2	LCS	gamma-Chlordane	16.7	0.0	13.1	79	57-126
5103-71-9	LCS	alpha-Chlordane	16.7	0.0	13.2	79	53-128
959-98-8	LCS	Endosulfan I	16.7	0.0	13.2	79	43-126
72-55-9	LCS	4,4'-DDE	41.7	0.0	34.9	84	59-122
60-57-1	LCS	Dieldrin	41.7	0.0	32.5	78	52-120
72-20-8	LCS	Endrin	41.7	0.0	38.0	91	61-135
72-54-8	LCS	4,4'-DDD	41.7	0.0	38.8	93	60-129
33213-65-9	LCS	Endosulfan II	41.7	0.0	35.1	84	50-126
7421-93-4	LCS	Endrin aldehyde	41.7	0.0	32.4	78	47-117
50-29-3	LCS	4,4'-DDT	41.7	0.0	39.6	95	50-142
1031-07-8	LCS	Endosulfan sulfate	41.7	0.0	36.9	89	61-132
72-43-5	LCS	Methoxychlor	167	0.0	166	100	59-140
53494-70-5	LCS	Endrin ketone	41.7	0.0	36.4	87	57-129

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: LCS for batch 965432
Lab Sample ID: 1202071545
Instrument: ECD7A.I
Analyst: JXM
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/18/2010 03:35
Dilution: 1
Prep Batch ID: 965432
Batch ID: 965433

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
8001-35-2	LCS	Toxaphene	133	0.0	112	84	50-129

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: RE46-10-13203MS
Lab Sample ID: 1202071512
Instrument: ECD7A.I
Analyst: JXM
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 18.7
Analysis Date: 03/18/2010 10:24
Prep Batch ID: 965432
Batch ID: 965433
Dilution: 10

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
319-84-6	MS	alpha-BHC	20.5	0.00	U	11.1	54	36-122
58-89-9	MS	gamma-BHC (Lindane)	20.5	0.00	U	11.7	57	37-126
319-85-7	MS	beta-BHC	20.5	0.00	U	12.0	59	33-129
319-86-8	MS	delta-BHC	20.5	0.00	U	11.5	56	32-125
76-44-8	MS	Heptachlor	20.5	0.00	U	11.8	58	33-128
309-00-2	MS	Aldrin	20.5	0.00	U	11.4	56	40-120
1024-57-3	MS	Heptachlor epoxide	20.5	0.00	U	12.4	60	30-128
5103-74-2	MS	gamma-Chlordane	20.5	0.00	U	10.8	53	35-133
5103-71-9	MS	alpha-Chlordane	20.5	0.00	U	13.8	67	36-129
959-98-8	MS	Endosulfan I	20.5	0.00	U	11.0	54	31-118
72-55-9	MS	4,4'-DDE	51.2	0.00	U	34.4	67	36-127
60-57-1	MS	Dieldrin	51.2	0.00	U	33.5	65	32-126
72-20-8	MS	Endrin	51.2	0.00	U	35.9	70	37-137
72-54-8	MS	4,4'-DDD	51.2	0.00	U	42.7	83	34-131
33213-65-9	MS	Endosulfan II	51.2	0.00	U	31.3	61	25-128
7421-93-4	MS	Endrin aldehyde	51.2	0.00	U	23.4	46	30-120
50-29-3	MS	4,4'-DDT	51.2	0.00	U	31.4	61	30-147
1031-07-8	MS	Endosulfan sulfate	51.2	0.00	U	30.7	60	32-127
72-43-5	MS	Methoxychlor	205	0.00	U	129	63	32-144
53494-70-5	MS	Endrin ketone	51.2	0.00	U	31.9	62	35-130

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2264**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE46-10-13203MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202071513**	**%Moisture:**	**18.7**
Instrument:	**ECD7A.I**	**Analysis Date:**	**03/18/2010 10:41**
Analyst:	**JXM**	**Prep Batch ID**	**965432**
Inj. Vol:	**1 uL**	**Batch ID:**	**965433**

Dilution: 10

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
319-84-6	MSD alpha-BHC	20.5	0.00	U	12.4	61	36-122	12	0-32
58-89-9	MSD gamma-BHC (Lindane)	20.5	0.00	U	12.9	63	37-126	10	0-29
319-85-7	MSD beta-BHC	20.5	0.00	U	13.1	64	33-129	9	0-30
319-86-8	MSD delta-BHC	20.5	0.00	U	12.8	62	32-125	10	0-29
76-44-8	MSD Heptachlor	20.5	0.00	U	13.4	65	33-128	13	0-33
309-00-2	MSD Aldrin	20.5	0.00	U	13.0	64	40-120	13	0-31
1024-57-3	MSD Heptachlor epoxide	20.5	0.00	U	13.9	68	30-128	12	0-32
5103-74-2	MSD gamma-Chlordane	20.5	0.00	U	11.6	57	35-133	7	0-34
5103-71-9	MSD alpha-Chlordane	20.5	0.00	U	15.6	76	36-129	12	0-34
959-98-8	MSD Endosulfan I	20.5	0.00	U	12.4	60	31-118	12	0-29
72-55-9	MSD 4,4'-DDE	51.3	0.00	U	39.9	78	36-127	15	0-31
60-57-1	MSD Dieldrin	51.3	0.00	U	38.7	76	32-126	14	0-31
72-20-8	MSD Endrin	51.3	0.00	U	39.2	76	37-137	9	0-27
72-54-8	MSD 4,4'-DDD	51.3	0.00	U	46.8	91	34-131	9	0-25
33213-65-9	MSD Endosulfan II	51.3	0.00	U	33.8	66	25-128	8	0-31
7421-93-4	MSD Endrin aldehyde	51.3	0.00	U	25.5	50	30-120	8	0-30
50-29-3	MSD 4,4'-DDT	51.3	0.00	U	36.1	70	30-147	14	0-27
1031-07-8	MSD Endosulfan sulfate	51.3	0.00	U	32.2	63	32-127	5	0-30
72-43-5	MSD Methoxychlor	205	0.00	U	135	66	32-144	5	0-31
53494-70-5	MSD Endrin ketone	51.3	0.00	U	35.7	70	35-130	11	0-26

Method Blank Summary

SDG Number:	10-2264	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965432	Instrument ID:	ECD7A.I_2 ECD7A.I_1	Data File:	059b5901.d 059f5901.d
Lab Sample ID:	1202071510				
Column:	CLP-2 CLP-1	Prep Date:	03/16/2010 11:42	Analyzed:	03/18/10 03:01
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 965432	1202071511	060f6001.d 060b6001.d	03/18/10	0318
02	LCS for batch 965432	1202071545	061f6101.d 061b6101.d	03/18/10	0335
03	RE46-10-13203	248702001	084f8401.d 084b8401.d	03/18/10	1007
04	RE46-10-13203MS	1202071512	085f8501.d 085b8501.d	03/18/10	1024
05	RE46-10-13203MSD	1202071513	086f8601.d 086b8601.d	03/18/10	1041
06	RE46-10-13202	248702002	087f8701.d 087b8701.d	03/18/10	1058

SAMPLE
DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702002	**Date Received:**	03/04/2010 08:50	**%Moisture:**	21.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13202	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	965433	**Inst:**	ECD7A.I	**Dilution:**	10
Run Date:	03/18/2010 10:58	**Analyst:**	JXM	**Inj. Vol:**	1 uL
Prep Date:	03/16/2010 11:42	**Aliquot:**	30 g	**Final Volume:**	5 mL
Data File:	087f8701.d	**Column:**	1 CLP-1	**Level:**	LOW
	087b8701.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	8.47	ug/kg	2.12	8.47	1
58-89-9	gamma-BHC (Lindane)	U	8.47	ug/kg	2.12	8.47	1
319-85-7	beta-BHC	U	8.47	ug/kg	2.12	8.47	1
319-86-8	delta-BHC	U	8.47	ug/kg	2.12	8.47	1
76-44-8	Heptachlor	U	8.47	ug/kg	2.12	8.47	1
309-00-2	Aldrin	U	8.47	ug/kg	2.12	8.47	1
1024-57-3	Heptachlor epoxide	U	8.47	ug/kg	2.65	8.47	1
5103-74-2	gamma-Chlordane	U	8.47	ug/kg	2.12	8.47	1
5103-71-9	alpha-Chlordane	U	8.47	ug/kg	2.12	8.47	1
959-98-8	Endosulfan I	U	8.47	ug/kg	2.12	8.47	1
72-55-9	4,4'-DDE	U	16.9	ug/kg	4.23	16.9	1
60-57-1	Dieldrin	U	16.9	ug/kg	4.23	16.9	1
72-20-8	Endrin	U	16.9	ug/kg	4.23	16.9	1
72-54-8	4,4'-DDD	U	16.9	ug/kg	4.23	16.9	1
33213-65-9	Endosulfan II	U	16.9	ug/kg	4.23	16.9	1
7421-93-4	Endrin aldehyde	U	16.9	ug/kg	4.23	16.9	1
50-29-3	4,4'-DDT	U	16.9	ug/kg	4.23	16.9	1
1031-07-8	Endosulfan sulfate	U	16.9	ug/kg	4.23	16.9	1
72-43-5	Methoxychlor	U	84.7	ug/kg	21.2	84.7	1
53494-70-5	Endrin ketone	U	16.9	ug/kg	4.23	16.9	1
8001-35-2	Toxaphene	U	212	ug/kg	70.5	212	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/031710.b/087f8701.d
Lab Smp Id: 248702002 Client Smp ID: RE46-10-13202
Inj Date : 18-MAR-2010 10:58
Operator : JXM Inst ID: ecd7a.i
Smp Info : |248702002|10|
Misc Info : |ECD81A_1S|965433|SVP|LANL|
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Meth Date : 18-Mar-2010 11:54 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010f1001.d
Als bottle: 87
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	21.26750	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.859	2.860	-0.001	11011889	11.4433	24.2	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.077	8.079	-0.002	12455023	18.4232	39.0	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/087f8701.d

Date : 18-MAR-2010 10:58

Client ID: RE46-10-13202

Sample Info: |2487020021101

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

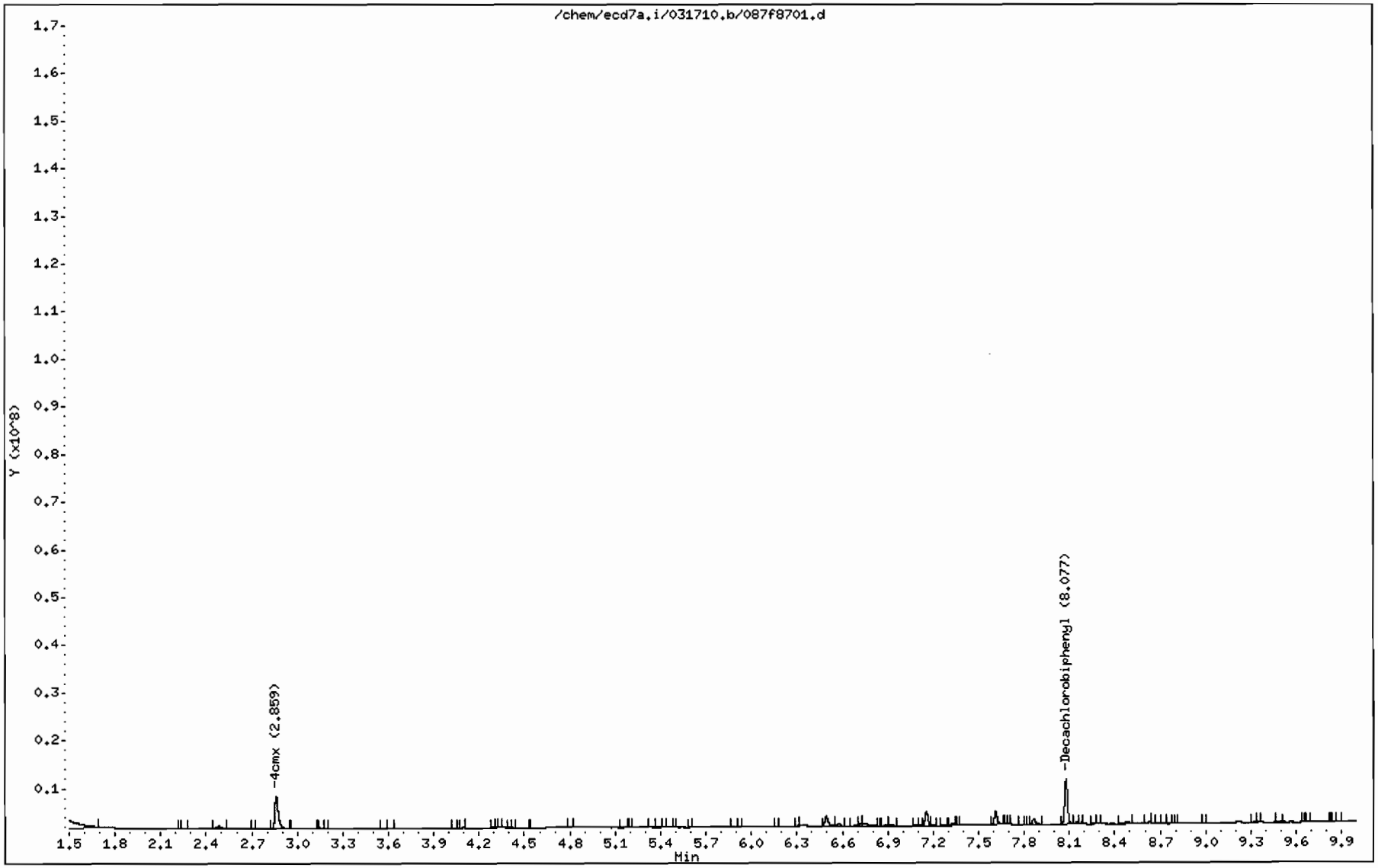

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/031710.b/087b8701.d
Lab Smp Id: 248702002 Client Smp ID: RE46-10-13202
Inj Date : 18-MAR-2010 10:58
Operator : JXM Inst ID: ecd7a.i
Smp Info : |248702002|10|
Misc Info : |ECD81A_1S|965433|SVP|LANL|
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Meth Date : 18-Mar-2010 11:54 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010b1001.d
Als bottle: 87
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	21.26750	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.162	3.165	-0.003	7217423	11.1583	23.6	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.258	9.258	0.000	7152384	17.6504	37.4	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/087b8701.d

Date : 18-MAR-2010 10:58

Client ID: RE46-10-13202

Sample Info: |2487020021101

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

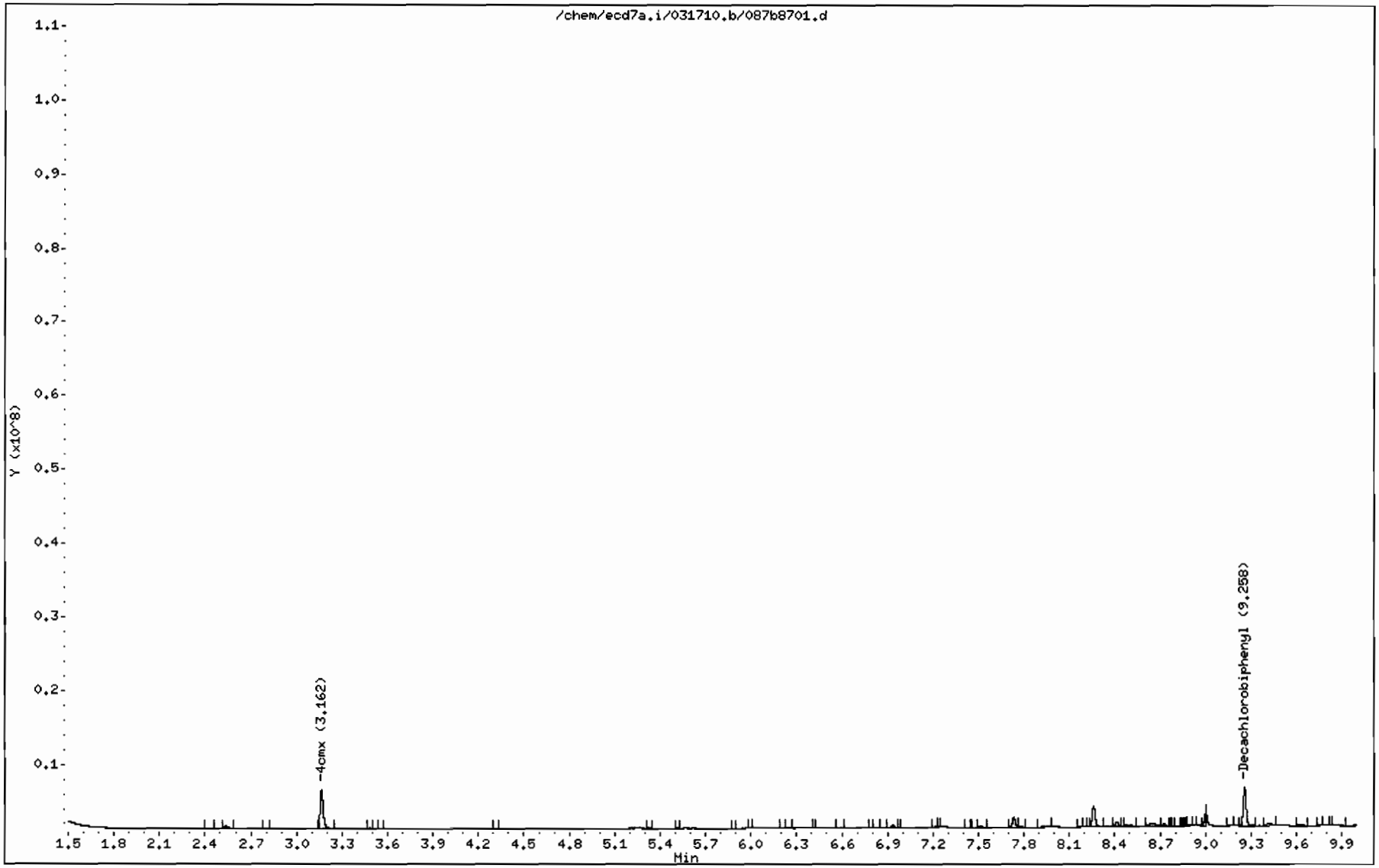

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-2264	**Date Collected:**	03/02/2010 12:00	**Matrix:**	S
Lab Sample ID:	248702001	**Date Received:**	03/04/2010 08:50	**%Moisture:**	18.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13203	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	965433	**Inst:**	ECD7A.I	**Dilution:**	10
Run Date:	03/18/2010 10:07	**Analyst:**	JXM	**Inj. Vol:**	1 uL
Prep Date:	03/16/2010 11:42	**Aliquot:**	30 g	**Final Volume:**	5 mL
Data File:	084f8401.d	**Column:**	1 CLP-1	**Level:**	LOW
	084b8401.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	8.20	ug/kg	2.05	8.20	1
58-89-9	gamma-BHC (Lindane)	U	8.20	ug/kg	2.05	8.20	1
319-85-7	beta-BHC	U	8.20	ug/kg	2.05	8.20	1
319-86-8	delta-BHC	U	8.20	ug/kg	2.05	8.20	1
76-44-8	Heptachlor	U	8.20	ug/kg	2.05	8.20	1
309-00-2	Aldrin	U	8.20	ug/kg	2.05	8.20	1
1024-57-3	Heptachlor epoxide	U	8.20	ug/kg	2.56	8.20	1
5103-74-2	gamma-Chlordane	U	8.20	ug/kg	2.05	8.20	1
5103-71-9	alpha-Chlordane	U	8.20	ug/kg	2.05	8.20	1
959-98-8	Endosulfan I	U	8.20	ug/kg	2.05	8.20	1
72-55-9	4,4'-DDE	U	16.4	ug/kg	4.10	16.4	1
60-57-1	Dieldrin	U	16.4	ug/kg	4.10	16.4	1
72-20-8	Endrin	U	16.4	ug/kg	4.10	16.4	1
72-54-8	4,4'-DDD	U	16.4	ug/kg	4.10	16.4	1
33213-65-9	Endosulfan II	U	16.4	ug/kg	4.10	16.4	1
7421-93-4	Endrin aldehyde	U	16.4	ug/kg	4.10	16.4	1
50-29-3	4,4'-DDT	U	16.4	ug/kg	4.10	16.4	1
1031-07-8	Endosulfan sulfate	U	16.4	ug/kg	4.10	16.4	1
72-43-5	Methoxychlor	U	82.0	ug/kg	20.5	82.0	1
53494-70-5	Endrin ketone	U	16.4	ug/kg	4.10	16.4	1
8001-35-2	Toxaphene	U	205	ug/kg	68.3	205	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/031710.b/084f8401.d
Lab Smp Id: 248702001 Client Smp ID: RE46-10-13203
Inj Date : 18-MAR-2010 10:07
Operator : JXM Inst ID: ecd7a.i
Smp Info : |248702001|10|
Misc Info : |ECD81A_1S|965433|SVP|LANL|
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Meth Date : 18-Mar-2010 11:54 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010f1001.d
Als bottle: 84
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	18.69990	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.860	2.860	0.000	10947857	11.3768	23.3	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.078	8.079	-0.001	9506275	14.0614	28.8	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/084f8401.d

Page 1

Date : 18-MAR-2010 10:07

Client ID: RE46-10-13203

Instrument: ecd7a.i

Sample Info: |2487020011|10|

Volume Injected (uL): 1.0

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25

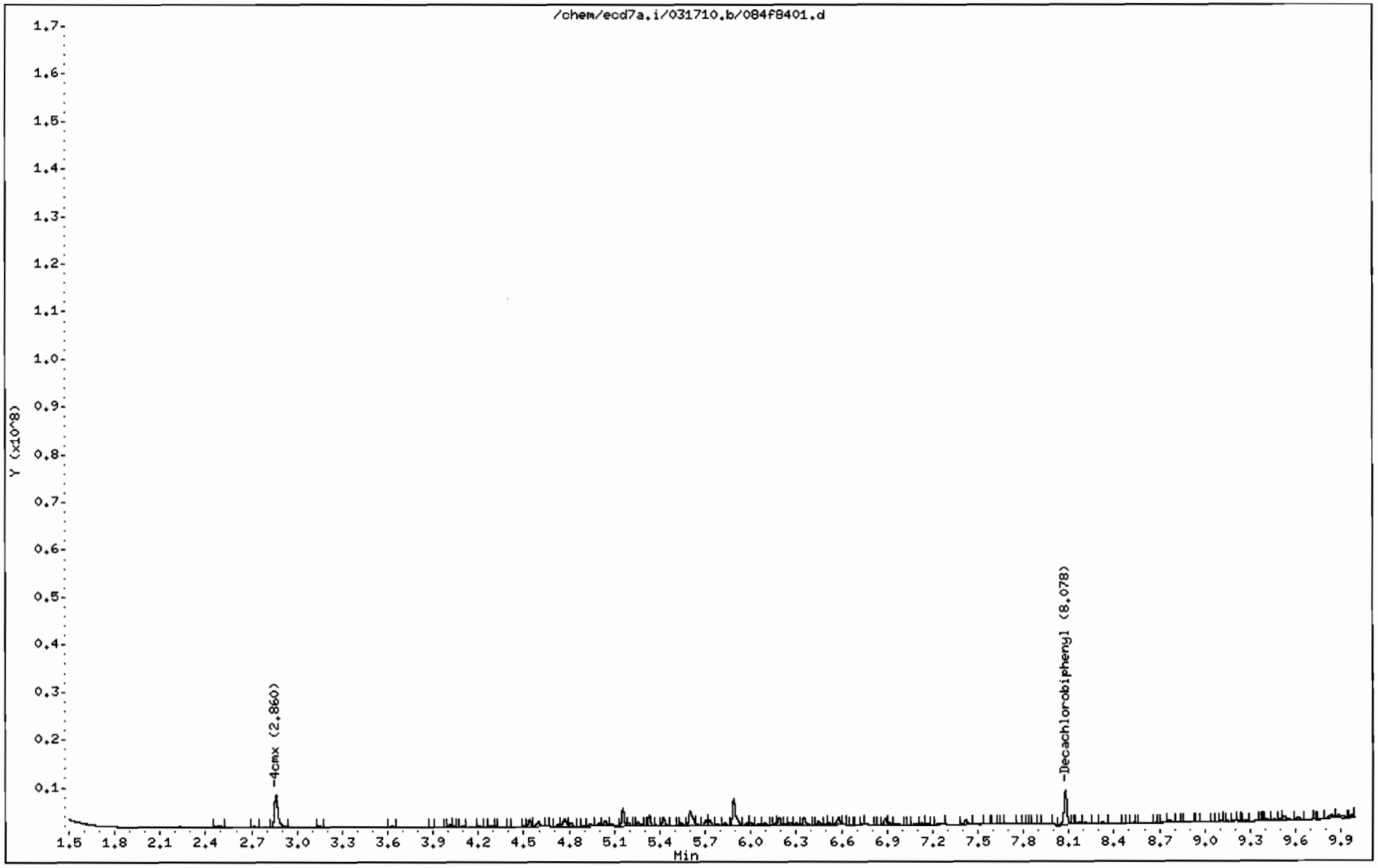

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/031710.b/084b8401.d
Lab Smp Id: 248702001 Client Smp ID: RE46-10-13203
Inj Date : 18-MAR-2010 10:07
Operator : JXM Inst ID: ecd7a.i
Smp Info : |248702001|10|
Misc Info : |ECD81A_1S|965433|SVP|LANL|
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Meth Date : 18-Mar-2010 11:54 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010bl001.d
Als bottle: 84
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	18.69990	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.164	3.165	-0.001	7409341	11.4550	23.5	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.257	9.258	-0.001	5407399	13.3442	27.4	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/084b8401.d

Page 1

Date : 18-MAR-2010 10:07

Client ID: RE46-10-13203

Instrument: ecd7a.i

Sample Info: |2487020011|10|

Volume Injected (uL): 1.0

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25

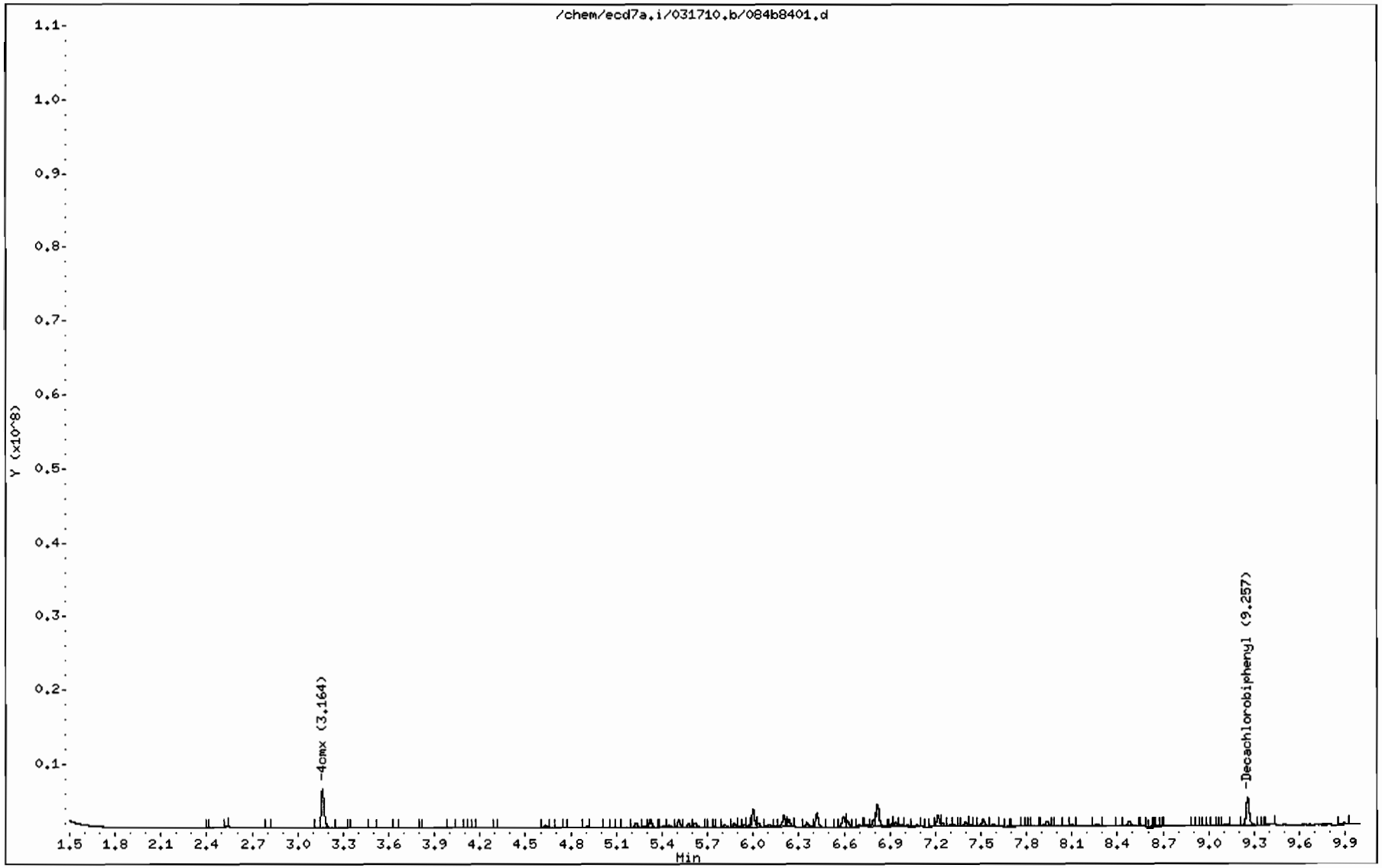

STANDARDS DATA

Report Date: 17-Mar-2010 15:14

Calibration History

Method : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Start Cal Date: 10-MAR-2010 11:57
End Cal Date : 16-MAR-2010 10:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
11-MAR-2010 15:25	gapa	/chem/ecd7a.i/031110.b/006f0601.d
10-MAR-2010 17:05	ar1660	/chem/ecd7a.i/031010.b/021f2101.d
10-MAR-2010 15:22	chlor	/chem/ecd7a.i/031010.b/015f1501.d
10-MAR-2010 13:40	tox	/chem/ecd7a.i/031010.b/009f0901.d
16-MAR-2010 09:29	indab	/chem/ecd7a.i/031610.b/007f0701.d
Cal Level: 2 , Cal Amount: 10.00000		
11-MAR-2010 15:43	gapa	/chem/ecd7a.i/031110.b/007f0701.d
10-MAR-2010 17:22	ar1660	/chem/ecd7a.i/031010.b/022f2201.d
10-MAR-2010 15:39	chlor	/chem/ecd7a.i/031010.b/016f1601.d
10-MAR-2010 13:57	tox	/chem/ecd7a.i/031010.b/010f1001.d
16-MAR-2010 09:46	indab	/chem/ecd7a.i/031610.b/008f0801.d
Cal Level: 3 , Cal Amount: 50.00000		
11-MAR-2010 16:00	gapa	/chem/ecd7a.i/031110.b/008f0801.d
10-MAR-2010 17:39	ar1660	/chem/ecd7a.i/031010.b/023f2301.d
10-MAR-2010 15:56	chlor	/chem/ecd7a.i/031010.b/017f1701.d
10-MAR-2010 14:14	tox	/chem/ecd7a.i/031010.b/011f1101.d
16-MAR-2010 10:03	indab	/chem/ecd7a.i/031610.b/009f0901.d
Cal Level: 4 , Cal Amount: 100.00000		
11-MAR-2010 16:17	gapa	/chem/ecd7a.i/031110.b/009f0901.d
10-MAR-2010 19:56	ar1221	/chem/ecd7a.i/031010.b/031f3101.d
10-MAR-2010 19:39	ar1232	/chem/ecd7a.i/031010.b/030f3001.d
10-MAR-2010 19:21	ar1248	/chem/ecd7a.i/031010.b/029f2901.d
10-MAR-2010 19:04	ar1242	/chem/ecd7a.i/031010.b/028f2801.d
10-MAR-2010 18:47	ar1254	/chem/ecd7a.i/031010.b/027f2701.d
10-MAR-2010 17:56	ar1660	/chem/ecd7a.i/031010.b/024f2401.d
10-MAR-2010 16:14	chlor	/chem/ecd7a.i/031010.b/018f1801.d
10-MAR-2010 14:31	tox	/chem/ecd7a.i/031010.b/012f1201.d
16-MAR-2010 10:20	indab	/chem/ecd7a.i/031610.b/010f1001.d
Cal Level: 5 , Cal Amount: 200.00000		
11-MAR-2010 16:34	gapa	/chem/ecd7a.i/031110.b/010f1001.d
10-MAR-2010 18:13	ar1660	/chem/ecd7a.i/031010.b/025f2501.d
10-MAR-2010 16:31	chlor	/chem/ecd7a.i/031010.b/019f1901.d
10-MAR-2010 14:48	tox	/chem/ecd7a.i/031010.b/013f1301.d
16-MAR-2010 10:37	indab	/chem/ecd7a.i/031610.b/011f1101.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 11:57	chlor	/chem/ecd7a.i/031710.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 11:40	tox	/chem/ecd7a.i/031710.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 11:23	gapa	/chem/ecd7a.i/031710.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 12:15	indab	/chem/ecd7a.i/031710.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 11:06	indab	/chem/ecd7a.i/031710.b/003f0301.d

Report Date: 17-Mar-2010 15:14

Calibration History

Method : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Start Cal Date: 10-MAR-2010 11:57
End Cal Date : 16-MAR-2010 10:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
11-MAR-2010 15:25	gapa	/chem/ecd7a.i/031110.b/006b0601.d
10-MAR-2010 17:05	ar1660	/chem/ecd7a.i/031010.b/021b2101.d
10-MAR-2010 15:22	chlor	/chem/ecd7a.i/031010.b/015b1501.d
10-MAR-2010 13:40	tox	/chem/ecd7a.i/031010.b/009b0901.d
16-MAR-2010 09:29	indab	/chem/ecd7a.i/031610.b/007b0701.d
Cal Level: 2 , Cal Amount: 10.00000		
11-MAR-2010 15:43	gapa	/chem/ecd7a.i/031110.b/007b0701.d
10-MAR-2010 17:22	ar1660	/chem/ecd7a.i/031010.b/022b2201.d
10-MAR-2010 15:39	chlor	/chem/ecd7a.i/031010.b/016b1601.d
10-MAR-2010 13:57	tox	/chem/ecd7a.i/031010.b/010b1001.d
16-MAR-2010 09:46	indab	/chem/ecd7a.i/031610.b/008b0801.d
Cal Level: 3 , Cal Amount: 50.00000		
11-MAR-2010 16:00	gapa	/chem/ecd7a.i/031110.b/008b0801.d
10-MAR-2010 17:39	ar1660	/chem/ecd7a.i/031010.b/023b2301.d
10-MAR-2010 15:56	chlor	/chem/ecd7a.i/031010.b/017b1701.d
10-MAR-2010 14:14	tox	/chem/ecd7a.i/031010.b/011b1101.d
16-MAR-2010 10:03	indab	/chem/ecd7a.i/031610.b/009b0901.d
Cal Level: 4 , Cal Amount: 100.00000		
11-MAR-2010 16:17	gapa	/chem/ecd7a.i/031110.b/009b0901.d
10-MAR-2010 19:56	ar1221	/chem/ecd7a.i/031010.b/031b3101.d
10-MAR-2010 19:39	ar1232	/chem/ecd7a.i/031010.b/030b3001.d
10-MAR-2010 19:21	ar1248	/chem/ecd7a.i/031010.b/029b2901.d
10-MAR-2010 19:04	ar1242	/chem/ecd7a.i/031010.b/028b2801.d
10-MAR-2010 18:47	ar1254	/chem/ecd7a.i/031010.b/027b2701.d
10-MAR-2010 17:56	ar1660	/chem/ecd7a.i/031010.b/024b2401.d
10-MAR-2010 16:14	chlor	/chem/ecd7a.i/031010.b/018b1801.d
10-MAR-2010 14:31	tox	/chem/ecd7a.i/031010.b/012b1201.d
16-MAR-2010 10:20	indab	/chem/ecd7a.i/031610.b/010b1001.d
Cal Level: 5 , Cal Amount: 200.00000		
11-MAR-2010 16:34	gapa	/chem/ecd7a.i/031110.b/010b1001.d
10-MAR-2010 18:13	ar1660	/chem/ecd7a.i/031010.b/025b2501.d
10-MAR-2010 16:31	chlor	/chem/ecd7a.i/031010.b/019b1901.d
10-MAR-2010 14:48	tox	/chem/ecd7a.i/031010.b/013b1301.d
16-MAR-2010 10:37	indab	/chem/ecd7a.i/031610.b/011b1101.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 11:57	chlor	/chem/ecd7a.i/031710.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 11:40	tox	/chem/ecd7a.i/031710.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 11:23	gapa	/chem/ecd7a.i/031710.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 12:14	indab	/chem/ecd7a.i/031710.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 11:06	indab	/chem/ecd7a.i/031710.b/003b0301.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Quant Method : ESTD Target Version : 3.50
Last Update : 17-Mar-2010 13:38 Number of Cpnds : 42
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1814.000000
Initial:End Threshold	907.000000
Initial:Area Threshold	18140.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	4.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.860	2.830-2.890	9.623e+05
61 2,4,5-TCP	2.900	2.800-3.000	
59 Hexachlorobenzene	3.153	3.053-3.253	9.930e+05
2 Aroclor-1221	2.970	2.940-3.000	1.065e+04
	3.079	3.049-3.108	5.469e+03
	3.111	3.080-3.140	2.611e+04
3 Aroclor-1016	3.377	3.347-3.407	3.408e+04
	3.749	3.719-3.779	4.541e+04
	3.859	3.829-3.889	2.912e+04
	4.006	3.976-4.036	1.453e+04
	4.202	4.172-4.232	2.129e+04
4 Aroclor-1232	3.377	3.347-3.407	1.382e+04
	3.748	3.718-3.778	2.003e+04
	3.859	3.829-3.889	1.233e+04
	3.913	3.883-3.943	8.240e+03
	4.202	4.172-4.232	1.193e+04
5 alpha-BHC	3.277	3.247-3.307	1.415e+06
6 Aroclor-1242	3.379	3.279-3.479	2.818e+04
	3.859	3.759-3.959	2.373e+04
	3.912	3.812-4.012	1.538e+04
	4.203	4.103-4.303	1.780e+04
	4.577	4.477-4.677	1.771e+04
7 gamma-BHC (Lindane)	3.529	3.499-3.559	1.280e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.855	3.755-3.955	3.769e+04
	4.672	4.572-4.772	2.306e+04
	4.851	4.751-4.951	1.239e+05
	4.975	4.875-5.075	9.823e+04
	5.732	5.632-5.832	3.128e+04
9 Aroclor-1248	3.753	3.653-3.853	2.181e+04
	4.010	3.910-4.110	2.090e+04
	4.205	4.105-4.305	2.896e+04
	4.580	4.480-4.680	3.244e+04
	5.160	5.060-5.260	1.984e+04
10 Heptachlor	3.924	3.894-3.954	1.041e+06
11 Aldrin	4.189	4.159-4.219	1.197e+06
12 beta-BHC	3.594	3.564-3.624	5.667e+05
13 delta-BHC	3.747	3.717-3.777	1.229e+06
14 Heptachlor epoxide	4.734	4.704-4.764	1.062e+06
15 Aroclor-1254	4.538	4.508-4.568	2.755e+04
	4.772	4.742-4.802	4.771e+04
	5.038	5.008-5.068	3.001e+04
	5.155	5.125-5.185	4.992e+04
	5.426	5.396-5.456	3.822e+04
16 Endosulfan I	5.111	5.081-5.141	9.798e+05
17 gamma-Chlordane	4.851	4.821-4.881	1.036e+06
18 alpha-Chlordane	4.977	4.947-5.007	1.028e+06
19 4,4'-DDE	5.041	5.011-5.071	8.840e+05
20 Dieldrin	5.342	5.312-5.372	9.884e+05
21 Aroclor-1260	5.328	5.228-5.428	4.211e+04
	5.599	5.499-5.699	5.988e+04
	6.258	6.158-6.358	3.907e+04
	6.580	6.480-6.680	8.207e+04
	6.886	6.786-6.986	4.023e+04
22 Endrin	5.574	5.544-5.604	7.782e+05
23 Toxaphene	5.240	5.210-5.270	8.915e+03
	5.344	5.314-5.374	1.259e+04
	5.433	5.403-5.463	1.568e+04
	5.492	5.462-5.522	1.960e+04
	5.595	5.565-5.625	1.896e+04
24 Endosulfan II	5.801	5.771-5.831	8.472e+05
25 4,4'-DDD	5.631	5.601-5.661	7.009e+05
26 4,4'-DDT	5.913	5.883-5.943	6.956e+05
27 Endrin aldehyde	6.228	6.198-6.258	7.146e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m

Compound	RT	RT Window	RF
28 Methoxychlor	6.416	6.386-6.446	2.931e+05
29 Endosulfan sulfate	6.683	6.653-6.713	7.288e+05
30 Aroclor-1268	13.480	13.380-13.580	
	13.587	13.487-13.687	
	13.984	13.884-14.084	
	14.586	14.486-14.686	
	15.182	15.082-15.282	
31 Endrin ketone	6.987	6.957-7.017	9.343e+05
51 Mirex	6.577	6.547-6.607	5.915e+05
52 C-Nonachlor	5.604	5.574-5.634	9.138e+05
53 O-Chlordane	4.638	4.608-4.668	7.499e+05
54 T-Nonachlor	4.957	4.927-4.987	9.002e+05
55 1,2-Dichlorobenzene	6.525	6.495-6.555	
56 2,4-DDE	4.716	4.686-4.746	5.376e+05
58 2,4-DDD	5.211	5.181-5.241	4.596e+05
57 2,4-DDT	5.461	5.431-5.491	4.992e+05
$ 32 Decachlorobiphenyl	8.079	8.049-8.109	6.761e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Quant Method : ESTD Target Version : 3.50
Last Update : 17-Mar-2010 13:38 Number of Cpnds : 42
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1475.000000
Initial:End Threshold	737.500000
Initial:Area Threshold	14750.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	4.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	3.165	3.135-3.195	6.468e+05
60 2,4,5-TCP	3.116	3.016-3.216	
59 Hexachlorobenzene	3.577	3.547-3.607	6.474e+05
2 Aroclor-1221	3.386	3.356-3.416	7.335e+03
	3.505	3.475-3.535	5.329e+03
	3.558	3.528-3.588	1.638e+04
3 Aroclor-1016	4.137	4.107-4.167	1.012e+04
	4.331	4.301-4.361	2.782e+04
	4.457	4.427-4.487	1.862e+04
	4.557	4.527-4.587	1.140e+04
	4.906	4.876-4.936	1.528e+04
4 Aroclor-1232	4.138	4.108-4.168	4.473e+03
	4.331	4.301-4.361	1.238e+04
	4.458	4.428-4.488	8.223e+03
	4.557	4.527-4.587	5.095e+03
	4.637	4.607-4.667	4.658e+03
5 alpha-BHC	3.688	3.658-3.718	9.123e+05
6 Aroclor-1242	3.909	3.879-3.939	1.994e+04
	4.331	4.301-4.361	2.310e+04
	4.458	4.428-4.488	1.543e+04
	4.557	4.527-4.587	9.576e+03
	4.637	4.607-4.667	9.396e+03
7 gamma-BHC (Lindane)	4.015	3.985-4.045	8.046e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	4.307	4.277-4.337	2.585e+04
	5.303	5.273-5.333	1.647e+04
	5.542	5.512-5.572	6.823e+04
	5.692	5.662-5.722	6.500e+04
	6.659	6.629-6.689	1.803e+04
9 Aroclor-1248	4.638	4.608-4.668	1.593e+04
	4.907	4.877-4.937	2.019e+04
	5.031	5.001-5.061	1.826e+04
	5.282	5.252-5.312	2.088e+04
	5.332	5.302-5.362	2.601e+04
10 Heptachlor	4.449	4.419-4.479	5.747e+05
11 Aldrin	4.778	4.748-4.808	7.852e+05
12 beta-BHC	4.079	4.049-4.109	3.694e+05
13 delta-BHC	4.368	4.338-4.398	7.890e+05
14 Heptachlor epoxide	5.346	5.316-5.376	6.754e+05
15 Aroclor-1254	5.327	5.297-5.357	2.239e+04
	5.513	5.483-5.543	2.347e+04
	6.003	5.973-6.033	3.068e+04
	6.241	6.211-6.271	2.646e+04
	6.822	6.792-6.852	2.973e+04
16 Endosulfan I	5.761	5.731-5.791	6.045e+05
17 gamma-Chlordane	5.541	5.511-5.571	6.747e+05
18 alpha-Chlordane	5.691	5.661-5.721	6.660e+05
19 4,4'-DDE	5.844	5.814-5.874	5.438e+05
20 Dieldrin	6.049	6.019-6.079	6.146e+05
21 Aroclor-1260	6.207	6.177-6.237	2.563e+04
	6.424	6.394-6.454	3.329e+04
	7.247	7.217-7.277	2.635e+04
	7.517	7.487-7.547	5.288e+04
	7.937	7.907-7.967	3.436e+04
22 Endrin	6.378	6.348-6.408	4.669e+05
23 Toxaphene	6.011	5.981-6.041	1.141e+04
	6.080	6.050-6.110	6.334e+03
	6.143	6.113-6.173	6.509e+03
	6.206	6.176-6.236	6.530e+03
	6.337	6.307-6.367	9.121e+03
24 Endosulfan II	6.602	6.572-6.632	5.349e+05
25 4,4'-DDD	6.464	6.434-6.494	4.224e+05
26 4,4'-DDT	6.809	6.779-6.839	3.495e+05
27 Endrin aldehyde	6.965	6.935-6.995	4.279e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m

Compound	RT	RT Window	RF
28 Methoxychlor	7.556	7.526-7.586	1.532e+05
29 Endosulfan sulfate	7.271	7.241-7.301	4.746e+05
30 Aroclor-1268	13.562	13.532-13.592	
	13.571	13.541-13.601	
	13.999	13.969-14.029	
	14.579	14.549-14.609	
	15.083	15.053-15.113	
31 Endrin ketone	7.880	7.850-7.910	5.651e+05
51 Mirex	7.854	7.824-7.884	3.440e+05
52 C-Nonachlor	6.457	6.427-6.487	5.342e+05
53 O-Chlordane	5.253	5.223-5.283	4.570e+05
54 T-Nonachlor	5.637	5.607-5.667	5.422e+05
55 1,2-Dichlorobenzene	6.621	6.591-6.651	
56 2,4-DDE	5.522	5.492-5.552	3.293e+05
58 2,4-DDD	6.062	6.032-6.092	2.679e+05
57 2,4-DDT	6.394	6.364-6.424	2.372e+05
$ 32 Decachlorobiphenyl	9.258	9.228-9.288	4.052e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 10-MAR-2010 11:57
End Cal Date : 16-MAR-2010 10:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Cal Date : 17-Mar-2010 13:38 jam00798
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd7a.i/031110.b/006f0601.d
Level 2: /chem/ecd7a.i/031110.b/007f0701.d
Level 3: /chem/ecd7a.i/031110.b/008f0801.d
Level 4: /chem/ecd7a.i/031110.b/009f0901.d
Level 5: /chem/ecd7a.i/031110.b/010f1001.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
61 2,4,5-TCP	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Hexachlorobenzene	1191838	1044912	941989	915906	870172	992963	12.923
2 Aroclor-1221(1)	+++++	+++++	+++++	10651	+++++	10651	0.000
(2)	+++++	+++++	+++++	5469	+++++	5469	0.000
(3)	+++++	+++++	+++++	26112	+++++	26112	0.000
3 Aroclor-1016(1)	43945	35692	33547	31431	25774	34078	19.476
(2)	56675	47325	44821	42381	35836	45408	16.763
(3)	36994	30021	28608	27147	22811	29116	17.744
(4)	18629	15044	14283	13324	11348	14525	18.444
(5)	26452	21909	21076	19891	17119	21289	16.003
4 Aroclor-1232(1)	+++++	+++++	+++++	13815	+++++	13815	0.000
(2)	+++++	+++++	+++++	20028	+++++	20028	0.000
(3)	+++++	+++++	+++++	12333	+++++	12333	0.000
(4)	+++++	+++++	+++++	8240	+++++	8240	0.000
(5)	+++++	+++++	+++++	11935	+++++	11935	0.000
5 alpha-BHC	1421966	1478023	1462780	1390081	1323210	1415212	4.377
6 Aroclor-1242(1)	+++++	+++++	+++++	28183	+++++	28183	0.000
(2)	+++++	+++++	+++++	23726	+++++	23726	0.000
(3)	+++++	+++++	+++++	15376	+++++	15376	0.000
(4)	+++++	+++++	+++++	17799	+++++	17799	0.000
(5)	+++++	+++++	+++++	17706	+++++	17706	0.000
7 gamma-BHC (Lindane)	1319417	1346236	1309115	1240757	1182314	1279568	5.224
8 Chlordane (tech.)(1)	38944	38725	37278	37514	36009	37694	3.159
(2)	24235	24133	22540	22557	21817	23057	4.651
(3)	128555	130936	124514	121980	113482	123893	5.471
(4)	103205	107069	98623	96720	85508	98225	8.320
(5)	31605	31533	31191	31469	30619	31283	1.289

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 10-MAR-2010 11:57
End Cal Date : 16-MAR-2010 10:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Cal Date : 17-Mar-2010 13:38 jam00798
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	21809	+++++	21809	0.000
(2)	+++++	+++++	+++++	20899	+++++	20899	0.000
(3)	+++++	+++++	+++++	28957	+++++	28957	0.000
(4)	+++++	+++++	+++++	32438	+++++	32438	0.000
(5)	+++++	+++++	+++++	19842	+++++	19842	0.000
10 Heptachlor	1089604	1094342	1059450	1003454	960262	1041423	5.573
11 Aldrin	1244580	1274322	1231555	1153995	1082976	1197486	6.507
12 beta-BHC	638772	606033	559306	529695	499632	566688	9.929
13 delta-BHC	1191967	1293082	1279399	1219723	1163019	1229438	4.539
14 Heptachlor epoxide	1138179	1138037	1085263	1008107	940766	1062070	8.117
15 Aroclor-1254(1)	+++++	+++++	+++++	27546	+++++	27546	0.000
(2)	+++++	+++++	+++++	47712	+++++	47712	0.000
(3)	+++++	+++++	+++++	30010	+++++	30010	0.000
(4)	+++++	+++++	+++++	49921	+++++	49921	0.000
(5)	+++++	+++++	+++++	38219	+++++	38219	0.000
16 Endosulfan I	1033985	1033181	1005734	948004	878105	979802	6.810
17 gamma-Chlordane	1060518	1085806	1074273	1008706	952521	1036365	5.342
18 alpha-Chlordane	1089886	1086776	1041934	989978	932998	1028314	6.514
19 4,4'-DDE	915457	945305	908461	853347	797416	883997	6.640
20 Dieldrin	1061682	1082500	1008018	927419	862390	988402	9.356
21 Aroclor-1260(1)	53060	43680	41660	39397	32740	42108	17.521
(2)	72712	61177	59134	57217	49145	59877	14.201
(3)	46836	39768	38635	37862	32270	39074	13.340
(4)	96137	82980	81522	79931	69766	82067	11.479
(5)	46401	39732	39203	39553	36263	40230	9.266
22 Endrin	836988	831418	790897	732981	698907	778238	7.811
23 Toxaphene(1)	9166	9262	8752	8618	8776	8915	3.160
(2)	14208	13024	12131	11663	11932	12592	8.241
(3)	16388	15560	15535	15319	15611	15683	2.614
(4)	20516	19844	19235	19403	18996	19599	3.057
(5)	19274	19768	18982	18062	18700	18957	3.364
24 Endosulfan II	922709	922729	855719	798261	736619	847208	9.535
25 4,4'-DDD	705715	713291	733300	698031	654255	700918	4.166

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 10-MAR-2010 11:57
End Cal Date : 16-MAR-2010 10:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Cal Date : 17-Mar-2010 13:38 jam00798
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
26 4,4'-DDT	714593	710884	720271	684888	647115	695550	4.354
27 Endrin aldehyde	810146	797079	716843	653668	595112	714570	12.888
28 Methoxychlor	355087	334675	278659	253470	243444	293067	16.903
29 Endosulfan sulfate	777766	790977	741679	689879	643679	728796	8.456
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Endrin ketone	1050990	1053561	930543	851244	785371	934342	12.769
51 Mirex	703269	617244	566608	545042	525205	591474	12.053
52 C-Nonachlor	965032	946244	921035	884643	852042	913799	5.013
53 O-Chlordane	851053	797108	736282	703645	661661	749950	10.017
54 T-Nonachlor	983922	945105	889522	862587	819912	900209	7.242
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 2,4-DDE	607692	564454	542073	504586	468996	537560	9.953
58 2,4-DDD	505097	495984	443147	438596	415237	459612	8.478
57 2,4-DDT	531856	511050	500702	486409	466084	499220	4.977
$ 1 4cmx	1069978	1054108	959524	891458	836428	962299	10.507
$ 32 Decachlorobiphenyl	797144	739306	655152	615809	572851	676052	13.513

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 10-MAR-2010 11:57
End Cal Date : 16-MAR-2010 10:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Cal Date : 17-Mar-2010 13:38 jam00798
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd7a.i/031110.b/006b0601.d
Level 2: /chem/ecd7a.i/031110.b/007b0701.d
Level 3: /chem/ecd7a.i/031110.b/008b0801.d
Level 4: /chem/ecd7a.i/031110.b/009b0901.d
Level 5: /chem/ecd7a.i/031110.b/010b1001.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
60 2,4,5-TCP	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Hexachlorobenzene	804232	703198	609797	582374	537640	647448	16.455
2 Aroclor-1221(1)	+++++	+++++	+++++	7335	+++++	7335	0.000
(2)	+++++	+++++	+++++	5329	+++++	5329	0.000
(3)	+++++	+++++	+++++	16376	+++++	16376	0.000
3 Aroclor-1016(1)	13100	10551	9967	9285	7691	10119	19.570
(2)	34526	28478	28001	26304	21792	27820	16.479
(3)	23740	19281	18380	17318	14396	18623	18.258
(4)	14096	11633	11209	10760	9285	11397	15.351
(5)	19513	15848	14996	14144	11881	15277	18.272
4 Aroclor-1232(1)	+++++	+++++	+++++	4473	+++++	4473	0.000
(2)	+++++	+++++	+++++	12375	+++++	12375	0.000
(3)	+++++	+++++	+++++	8223	+++++	8223	0.000
(4)	+++++	+++++	+++++	5095	+++++	5095	0.000
(5)	+++++	+++++	+++++	4658	+++++	4658	0.000
5 alpha-BHC	934399	958607	932783	890914	845035	912348	4.912
6 Aroclor-1242(1)	+++++	+++++	+++++	19942	+++++	19942	0.000
(2)	+++++	+++++	+++++	23095	+++++	23095	0.000
(3)	+++++	+++++	+++++	15430	+++++	15430	0.000
(4)	+++++	+++++	+++++	9576	+++++	9576	0.000
(5)	+++++	+++++	+++++	9396	+++++	9396	0.000
7 gamma-BHC (Lindane)	838189	846261	817931	782171	738311	804573	5.537
8 Chlordane (tech.)(1)	27306	27117	25747	25267	23805	25848	5.559
(2)	17989	17776	16049	15680	14865	16472	8.252
(3)	72272	73352	68581	66381	60567	68230	7.503
(4)	68922	70951	65088	62800	57236	64999	8.282
(5)	19091	19278	17750	17351	16700	18034	6.195

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 10-MAR-2010 11:57
End Cal Date : 16-MAR-2010 10:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Cal Date : 17-Mar-2010 13:38 jam00798
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	15926	+++++	15926	0.000
(2)	+++++	+++++	+++++	20193	+++++	20193	0.000
(3)	+++++	+++++	+++++	18264	+++++	18264	0.000
(4)	+++++	+++++	+++++	20884	+++++	20884	0.000
(5)	+++++	+++++	+++++	26011	+++++	26011	0.000
10 Heptachlor	608382	597334	579566	553673	534626	574716	5.305
11 Aldrin	821563	831741	803297	760605	708673	785176	6.456
12 beta-BHC	431228	399050	358674	341851	316037	369368	12.424
13 delta-BHC	820514	827645	805098	764402	727218	788975	5.365
14 Heptachlor epoxide	726814	718063	684037	643966	604163	675409	7.622
15 Aroclor-1254(1)	+++++	+++++	+++++	22390	+++++	22390	0.000
(2)	+++++	+++++	+++++	23468	+++++	23468	0.000
(3)	+++++	+++++	+++++	30678	+++++	30678	0.000
(4)	+++++	+++++	+++++	26460	+++++	26460	0.000
(5)	+++++	+++++	+++++	29725	+++++	29725	0.000
16 Endosulfan I	649855	641448	612186	578294	540703	604497	7.507
17 gamma-Chlordane	705242	705313	684633	656982	621367	674708	5.306
18 alpha-Chlordane	712966	703907	671822	638268	602977	665988	6.888
19 4,4'-DDE	587876	587347	549770	515862	478211	543813	8.702
20 Dieldrin	659760	661220	626295	585086	540433	614559	8.424
21 Aroclor-1260(1)	32727	26613	24961	23902	19943	25629	18.209
(2)	41600	35120	32944	30782	25992	33287	17.262
(3)	32634	27046	25922	24846	21291	26348	15.651
(4)	64349	54338	52162	50295	43241	52877	14.457
(5)	41192	35015	33735	32828	29047	34363	12.857
22 Endrin	509592	499123	473464	435442	417086	466941	8.550
23 Toxaphene(1)	12543	11706	11221	11005	10600	11415	6.537
(2)	7145	6771	6007	5825	5922	6334	9.289
(3)	6920	6758	6290	6297	6278	6509	4.719
(4)	6933	6739	5997	6626	6353	6530	5.579
(5)	9487	9320	9078	8842	8877	9121	3.067
24 Endosulfan II	578553	576505	548835	502815	467922	534926	9.036
25 4,4'-DDD	449993	444794	440878	400000	376392	422411	7.692

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 10-MAR-2010 11:57
End Cal Date : 16-MAR-2010 10:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Cal Date : 17-Mar-2010 13:38 jam00798
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
26 4,4'-DDT	349764	359795	356683	345597	335883	349544	2.708
27 Endrin aldehyde	488066	471712	420589	395839	363066	427854	12.158
28 Methoxychlor	178631	170227	146872	138628	131729	153217	13.256
29 Endosulfan sulfate	524773	503991	471774	452360	420266	474633	8.710
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Endrin ketone	636998	628756	560720	519782	479084	565068	12.098
51 Mirex	371920	376478	333423	327508	310599	343986	8.393
52 C-Nonachlor	514342	535373	569128	512341	540039	534245	4.317
53 O-Chlordane	517208	484176	444687	433974	404854	456980	9.641
54 T-Nonachlor	565762	560066	544574	542879	497689	542194	4.933
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 2,4-DDE	371097	351762	324041	312027	287646	329315	9.971
58 2,4-DDD	304088	281858	254758	260548	238337	267918	9.525
57 2,4-DDT	249758	242234	234413	232251	227217	237174	3.741
$ 1 4cmx	735116	715256	636699	593577	553462	646822	12.008
$ 32 Decachlorobiphenyl	492668	450607	384317	359851	338682	405225	15.912

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/10/10 03/16/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :03/17/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :1049

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.19	4.16	4.22	106	100	6.0
4,4'-DDE						
Endrin	5.57	5.54	5.60	115	100	15.0
4,4'-DDD						
4,4'-DDT	5.91	5.88	5.94	104	100	4.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 1.90 Endrin % breakdown (1): 3.30

Combined % breakdown (1): 5.20

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/10/10 03/16/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :03/17/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :1049

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.78	4.75	4.81	103	100	3.0
4,4'-DDE						
Endrin	6.38	6.35	6.41	112	100	12.0
4,4'-DDD						
4,4'-DDT	6.81	6.78	6.84	104	100	4.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.30 Endrin % breakdown (1): 3.60

Combined % breakdown (1): 5.90

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/10/10 03/16/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :03/17/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :1539

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.19	4.16	4.22	112	100	12.0
4,4'-DDE						
Endrin	5.57	5.54	5.60	118	100	18.0
4,4'-DDD						
4,4'-DDT	5.91	5.88	5.94	110	100	10.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 3.10 Endrin % breakdown (1): 5.20

Combined % breakdown (1): 8.30

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/10/10 03/16/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :03/17/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :1539

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.78	4.75	4.81	107	100	7.0
4,4'-DDE						
Endrin	6.38	6.35	6.41	113	100	13.0
4,4'-DDD						
4,4'-DDT	6.81	6.78	6.84	109	100	9.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 5.40 Endrin % breakdown (1): 2.90

Combined % breakdown (1): 8.30

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/10/10 03/16/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM03 Date Analyzed :03/18/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :0244

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.19	4.16	4.22	116	100	16.0
4,4'-DDE						
Endrin	5.57	5.54	5.60	113	100	13.0
4,4'-DDD						
4,4'-DDT	5.91	5.88	5.94	103	100	3.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 8.70 Endrin % breakdown (1): 11.70

Combined % breakdown (1): 20.40

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/10/10 03/16/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM03 Date Analyzed :03/18/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :0244

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.78	4.75	4.81	107	100	7.0
4,4'-DDE						
Endrin	6.38	6.35	6.41	105	100	5.0
4,4'-DDD						
4,4'-DDT	6.81	6.78	6.84	100	100	0.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 9.30 Endrin % breakdown (1): 12.00

Combined % breakdown (1): 21.30

FORM VII PEST-1 OLM03.0

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2264

Instrument ID: ECD7A Calibration Date: 03/17/10 Time: 1140

Lab File ID: 005F0501 Init. Calib. Date(s): 03/10/10 03/10/10

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1448

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	8914.845	8981.088	0.01	0.7	15.0
(2)	12591.577	12575.143	0.01	-0.1	15.0
(3)	15682.563	16700.178	0.01	6.5	15.0
(4)	19598.935	18747.232	0.01	-4.3	15.0
(5)	18957.160	19373.808	0.01	2.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2264

Instrument ID: ECD7A Calibration Date: 03/17/10 Time: 1140

Lab File ID: 005B0501 Init. Calib. Date(s): 03/10/10 03/10/10

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1448

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
Toxaphene	11414.903	10819.046	0.01	-5.2	15.0	
(2)	6333.982	4771.460	0.01	-24.7	15.0	<-
(3)	6508.620	6094.865	0.01	-6.4	15.0	
(4)	6529.762	6479.606	0.01	-0.8	15.0	
(5)	9120.947	8175.637	0.01	-10.4	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2264

Instrument ID: ECD7A Calibration Date: 03/17/10 Time: 1215

Lab File ID: 007F0701 Init. Calib. Date(s): 03/16/10 03/16/10

Heated Purge: (Y/N) N Init. Calib. Times: 0929 1037

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	1415212.0	1388620.1	0.01	-1.9	15.0
beta-BHC	566687.53	530234.29	0.01	-6.4	15.0
delta-BHC	1229438.1	1220925.8	0.01	-0.7	15.0
gamma-BHC (Lindane)	1279568.0	1272738.6	0.01	-0.5	15.0
Heptachlor	1041422.5	1003160.8	0.01	-3.7	15.0
Aldrin	1197485.7	1087406.6	0.01	-9.2	15.0
Heptachlor epoxide	1062070.4	1005352.5	0.01	-5.3	15.0
Endosulfan I	979801.72	947738.14	0.01	-3.3	15.0
Dieldrin	988401.74	921617.98	0.01	-6.8	15.0
4,4'-DDE	883997.22	868224.89	0.01	-1.8	15.0
Endrin	778238.17	801951.83	0.01	3.0	15.0
Endosulfan II	847207.52	789581.60	0.01	-6.8	15.0
4,4'-DDD	700918.50	706815.04	0.01	0.8	15.0
Endosulfan sulfate	728796.01	695611.94	0.01	-4.6	15.0
4,4'-DDT	695550.28	733448.81	0.01	5.4	15.0
Methoxychlor	293066.96	283612.71	0.01	-3.2	15.0
Endrin ketone	934341.67	850113.01	0.01	-9.0	15.0
Endrin aldehyde	714569.69	637622.54	0.01	-10.8	15.0
gamma-Chlordane	1036364.6	1051210.1	0.01	1.4	15.0
alpha-Chlordane	1028314.3	913203.34	0.01	-11.2	15.0
4cmx	962299.15	921959.56	0.01	-4.2	15.0
Decachlorobiphenyl	676052.48	653099.80	0.01	-3.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2264

Instrument ID: ECD7A Calibration Date: 03/17/10 Time: 1214

Lab File ID: 007B0701 Init. Calib. Date(s): 03/16/10 03/16/10

Heated Purge: (Y/N) N Init. Calib. Times: 0929 1037

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	912347.61	867129.44	0.01	-5.0	15.0
beta-BHC	369368.10	339155.11	0.01	-8.2	15.0
delta-BHC	788975.42	752591.31	0.01	-4.6	15.0
gamma-BHC (Lindane)	804572.74	781105.61	0.01	-2.9	15.0
Heptachlor	574716.24	537769.84	0.01	-6.4	15.0
Aldrin	785175.81	676722.06	0.01	-13.8	15.0
Heptachlor epoxide	675408.52	616819.41	0.01	-8.7	15.0
Endosulfan I	604497.23	575191.98	0.01	-4.8	15.0
Dieldrin	614558.90	560168.15	0.01	-8.8	15.0
4,4'-DDE	543813.16	534677.76	0.01	-1.7	15.0
Endrin	466941.22	479996.97	0.01	2.8	15.0
Endosulfan II	534926.02	498289.64	0.01	-6.8	15.0
4,4'-DDD	422411.41	423061.54	0.01	0.2	15.0
Endosulfan sulfate	474632.82	430824.74	0.01	-9.2	15.0
4,4'-DDT	349544.42	372189.95	0.01	6.5	15.0
Methoxychlor	153217.39	148039.83	0.01	-3.4	15.0
Endrin ketone	565068.02	498309.58	0.01	-11.8	15.0
Endrin aldehyde	427854.31	378792.42	0.01	-11.5	15.0
gamma-Chlordane	674707.61	646313.90	0.01	-4.2	15.0
alpha-Chlordane	665988.07	569206.29	0.01	-14.5	15.0
4cmx	646821.92	615459.17	0.01	-4.8	15.0
Decachlorobiphenyl	405224.80	372540.41	0.01	-8.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2264

Instrument ID: ECD7A Calibration Date: 03/18/10 Time: 0210

Lab File ID: 056F5601 Init. Calib. Date(s): 03/16/10 03/16/10

Heated Purge: (Y/N) N Init. Calib. Times: 0929 1037

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	1415212.0	1447918.1	0.01	2.3	15.0
beta-BHC	566687.53	557545.32	0.01	-1.6	15.0
delta-BHC	1229438.1	1298160.7	0.01	5.6	15.0
gamma-BHC (Lindane)	1279568.0	1332059.7	0.01	4.1	15.0
Heptachlor	1041422.5	1045345.6	0.01	0.4	15.0
Aldrin	1197485.7	1141863.2	0.01	-4.6	15.0
Heptachlor epoxide	1062070.4	1054237.2	0.01	-0.7	15.0
Endosulfan I	979801.72	1015346.3	0.01	3.6	15.0
Dieldrin	988401.74	965846.57	0.01	-2.3	15.0
4,4'-DDE	883997.22	923467.99	0.01	4.5	15.0
Endrin	778238.17	818169.06	0.01	5.1	15.0
Endosulfan II	847207.52	826191.66	0.01	-2.5	15.0
4,4'-DDD	700918.50	792880.77	0.01	13.1	15.0
Endosulfan sulfate	728796.01	725824.03	0.01	-0.4	15.0
4,4'-DDT	695550.28	717128.15	0.01	3.1	15.0
Methoxychlor	293066.96	277735.35	0.01	-5.2	15.0
Endrin ketone	934341.67	899642.18	0.01	-3.7	15.0
Endrin aldehyde	714569.69	680250.44	0.01	-4.8	15.0
gamma-Chlordane	1036364.6	1094299.8	0.01	5.6	15.0
alpha-Chlordane	1028314.3	964218.34	0.01	-6.2	15.0
4cmx	962299.15	961898.65	0.01	-0.0	15.0
Decachlorobiphenyl	676052.48	692238.90	0.01	2.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2264

Instrument ID: ECD7A Calibration Date: 03/18/10 Time: 0210

Lab File ID: 056B5601 Init. Calib. Date(s): 03/16/10 03/16/10

Heated Purge: (Y/N) N Init. Calib. Times: 0929 1037

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	912347.61	886025.63	0.01	-2.9	15.0
beta-BHC	369368.10	348373.43	0.01	-5.7	15.0
delta-BHC	788975.42	772386.20	0.01	-2.1	15.0
gamma-BHC (Lindane)	804572.74	801949.94	0.01	-0.3	15.0
Heptachlor	574716.24	547833.36	0.01	-4.7	15.0
Aldrin	785175.81	695616.89	0.01	-11.4	15.0
Heptachlor epoxide	675408.52	631667.13	0.01	-6.5	15.0
Endosulfan I	604497.23	584026.62	0.01	-3.4	15.0
Dieldrin	614558.90	570592.43	0.01	-7.2	15.0
4,4'-DDE	543813.16	550259.38	0.01	1.2	15.0
Endrin	466941.22	468301.82	0.01	0.3	15.0
Endosulfan II	534926.02	500788.24	0.01	-6.4	15.0
4,4'-DDD	422411.41	443757.79	0.01	5.0	15.0
Endosulfan sulfate	474632.82	435538.31	0.01	-8.2	15.0
4,4'-DDT	349544.42	358980.61	0.01	2.7	15.0
Methoxychlor	153217.39	144972.65	0.01	-5.4	15.0
Endrin ketone	565068.02	516564.64	0.01	-8.6	15.0
Endrin aldehyde	427854.31	395919.62	0.01	-7.5	15.0
gamma-Chlordane	674707.61	661241.99	0.01	-2.0	15.0
alpha-Chlordane	665988.07	577575.87	0.01	-13.3	15.0
4cmx	646821.92	626844.14	0.01	-3.1	15.0
Decachlorobiphenyl	405224.80	391242.04	0.01	-3.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2264

Instrument ID: ECD7A Calibration Date: 03/18/10 Time: 0608

Lab File ID: 070F7001 Init. Calib. Date(s): 03/16/10 03/16/10

Heated Purge: (Y/N) N Init. Calib. Times: 0929 1037

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	1415212.0	1456920.5	0.01	2.9	15.0	
beta-BHC	566687.53	559943.04	0.01	-1.2	15.0	
delta-BHC	1229438.1	1303075.3	0.01	6.0	15.0	
gamma-BHC (Lindane)	1279568.0	1327865.7	0.01	3.8	15.0	
Heptachlor	1041422.5	1051749.5	0.01	1.0	15.0	
Aldrin	1197485.7	1151590.8	0.01	-3.8	15.0	
Heptachlor epoxide	1062070.4	1061152.2	0.01	-0.1	15.0	
Endosulfan I	979801.72	1014185.9	0.01	3.5	15.0	
Dieldrin	988401.74	970716.72	0.01	-1.8	15.0	
4,4'-DDE	883997.22	928250.60	0.01	5.0	15.0	
Endrin	778238.17	826973.69	0.01	6.3	15.0	
Endosulfan II	847207.52	819631.05	0.01	-3.2	15.0	
4,4'-DDD	700918.50	810733.15	0.01	15.7	15.0	<-
Endosulfan sulfate	728796.01	733191.23	0.01	0.6	15.0	
4,4'-DDT	695550.28	678622.57	0.01	-2.4	15.0	
Methoxychlor	293066.96	270567.10	0.01	-7.7	15.0	
Endrin ketone	934341.67	902951.62	0.01	-3.4	15.0	
Endrin aldehyde	714569.69	680708.81	0.01	-4.7	15.0	
gamma-Chlordane	1036364.6	1102799.2	0.01	6.4	15.0	
alpha-Chlordane	1028314.3	965198.31	0.01	-6.1	15.0	
4cmx	962299.15	964330.24	0.01	0.2	15.0	
Decachlorobiphenyl	676052.48	688899.48	0.01	1.9	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2264

Instrument ID: ECD7A Calibration Date: 03/18/10 Time: 0608

Lab File ID: 070B7001 Init. Calib. Date(s): 03/16/10 03/16/10

Heated Purge: (Y/N) N Init. Calib. Times: 0929 1037

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	912347.61	877064.01	0.01	-3.9	15.0
beta-BHC	369368.10	344756.95	0.01	-6.7	15.0
delta-BHC	788975.42	773757.39	0.01	-1.9	15.0
gamma-BHC (Lindane)	804572.74	798985.43	0.01	-0.7	15.0
Heptachlor	574716.24	551688.71	0.01	-4.0	15.0
Aldrin	785175.81	691264.14	0.01	-12.0	15.0
Heptachlor epoxide	675408.52	630497.10	0.01	-6.6	15.0
Endosulfan I	604497.23	583866.04	0.01	-3.4	15.0
Dieldrin	614558.90	568249.29	0.01	-7.5	15.0
4,4'-DDE	543813.16	555711.57	0.01	2.2	15.0
Endrin	466941.22	476691.60	0.01	2.1	15.0
Endosulfan II	534926.02	506771.31	0.01	-5.3	15.0
4,4'-DDD	422411.41	471570.49	0.01	11.6	15.0
Endosulfan sulfate	474632.82	434071.11	0.01	-8.5	15.0
4,4'-DDT	349544.42	338614.08	0.01	-3.1	15.0
Methoxychlor	153217.39	139956.54	0.01	-8.6	15.0
Endrin ketone	565068.02	512656.31	0.01	-9.3	15.0
Endrin aldehyde	427854.31	396622.67	0.01	-7.3	15.0
gamma-Chlordane	674707.61	654870.52	0.01	-2.9	15.0
alpha-Chlordane	665988.07	575064.72	0.01	-13.6	15.0
4cmx	646821.92	625999.92	0.01	-3.2	15.0
Decachlorobiphenyl	405224.80	381593.45	0.01	-5.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2264

Instrument ID: ECD7A Calibration Date: 03/18/10 Time: 0933

Lab File ID: 082F8201 Init. Calib. Date(s): 03/16/10 03/16/10

Heated Purge: (Y/N) N Init. Calib. Times: 0929 1037

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	1415212.0	1456616.6	0.01	2.9	15.0	
beta-BHC	566687.53	549314.90	0.01	-3.1	15.0	
delta-BHC	1229438.1	1273346.4	0.01	3.6	15.0	
gamma-BHC (Lindane)	1279568.0	1332216.9	0.01	4.1	15.0	
Heptachlor	1041422.5	1041666.1	0.01	0.0	15.0	
Aldrin	1197485.7	1150893.3	0.01	-3.9	15.0	
Heptachlor epoxide	1062070.4	1060559.0	0.01	-0.1	15.0	
Endosulfan I	979801.72	1013231.6	0.01	3.4	15.0	
Dieldrin	988401.74	970231.14	0.01	-1.8	15.0	
4,4'-DDE	883997.22	928060.94	0.01	5.0	15.0	
Endrin	778238.17	822751.22	0.01	5.7	15.0	
Endosulfan II	847207.52	825572.20	0.01	-2.6	15.0	
4,4'-DDD	700918.50	829272.72	0.01	18.3	15.0	<-
Endosulfan sulfate	728796.01	744654.19	0.01	2.2	15.0	
4,4'-DDT	695550.28	656156.69	0.01	-5.7	15.0	
Methoxychlor	293066.96	259690.76	0.01	-11.4	15.0	
Endrin ketone	934341.67	908973.78	0.01	-2.7	15.0	
Endrin aldehyde	714569.69	680678.02	0.01	-4.7	15.0	
gamma-Chlordane	1036364.6	1099966.4	0.01	6.1	15.0	
alpha-Chlordane	1028314.3	966777.24	0.01	-6.0	15.0	
4cmx	962299.15	962912.67	0.01	0.1	15.0	
Decachlorobiphenyl	676052.48	707661.40	0.01	4.7	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2264

Instrument ID: ECD7A Calibration Date: 03/18/10 Time: 0933

Lab File ID: 082B8201 Init. Calib. Date(s): 03/16/10 03/16/10

Heated Purge: (Y/N) N Init. Calib. Times: 0929 1037

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	912347.61	879795.54	0.01	-3.6	15.0
beta-BHC	369368.10	346465.87	0.01	-6.2	15.0
delta-BHC	788975.42	768133.91	0.01	-2.6	15.0
gamma-BHC (Lindane)	804572.74	797516.59	0.01	-0.9	15.0
Heptachlor	574716.24	538395.58	0.01	-6.3	15.0
Aldrin	785175.81	688037.72	0.01	-12.4	15.0
Heptachlor epoxide	675408.52	627029.50	0.01	-7.2	15.0
Endosulfan I	604497.23	578998.07	0.01	-4.2	15.0
Dieldrin	614558.90	565043.82	0.01	-8.0	15.0
4,4'-DDE	543813.16	550439.08	0.01	1.2	15.0
Endrin	466941.22	467083.35	0.01	0.0	15.0
Endosulfan II	534926.02	498982.49	0.01	-6.7	15.0
4,4'-DDD	422411.41	465940.50	0.01	10.3	15.0
Endosulfan sulfate	474632.82	437684.88	0.01	-7.8	15.0
4,4'-DDT	349544.42	318378.84	0.01	-8.9	15.0
Methoxychlor	153217.39	133568.21	0.01	-12.8	15.0
Endrin ketone	565068.02	513538.35	0.01	-9.1	15.0
Endrin aldehyde	427854.31	390085.25	0.01	-8.8	15.0
gamma-Chlordane	674707.61	654414.03	0.01	-3.0	15.0
alpha-Chlordane	665988.07	572961.67	0.01	-14.0	15.0
4cmx	646821.92	622132.71	0.01	-3.8	15.0
Decachlorobiphenyl	405224.80	397684.82	0.01	-1.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2264

Instrument ID: ECD7A Calibration Date: 03/18/10 Time: 1132

Lab File ID: 089F8901 Init. Calib. Date(s): 03/16/10 03/16/10

Heated Purge: (Y/N) N Init. Calib. Times: 0929 1037

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	1415212.0	1472407.4	0.01	4.0	15.0	
beta-BHC	566687.53	554818.20	0.01	-2.1	15.0	
delta-BHC	1229438.1	1286016.8	0.01	4.6	15.0	
gamma-BHC (Lindane)	1279568.0	1343417.1	0.01	5.0	15.0	
Heptachlor	1041422.5	1046330.9	0.01	0.5	15.0	
Aldrin	1197485.7	1165157.3	0.01	-2.7	15.0	
Heptachlor epoxide	1062070.4	1074059.3	0.01	1.1	15.0	
Endosulfan I	979801.72	1023249.6	0.01	4.4	15.0	
Dieldrin	988401.74	980936.34	0.01	-0.8	15.0	
4,4'-DDE	883997.22	938800.89	0.01	6.2	15.0	
Endrin	778238.17	823401.89	0.01	5.8	15.0	
Endosulfan II	847207.52	833439.94	0.01	-1.6	15.0	
4,4'-DDD	700918.50	860099.11	0.01	22.7	15.0	<-
Endosulfan sulfate	728796.01	750075.10	0.01	2.9	15.0	
4,4'-DDT	695550.28	646936.42	0.01	-7.0	15.0	
Methoxychlor	293066.96	255560.97	0.01	-12.8	15.0	
Endrin ketone	934341.67	919222.91	0.01	-1.6	15.0	
Endrin aldehyde	714569.69	689710.15	0.01	-3.5	15.0	
gamma-Chlordane	1036364.6	1115762.2	0.01	7.7	15.0	
alpha-Chlordane	1028314.3	980154.27	0.01	-4.7	15.0	
4cmx	962299.15	973693.84	0.01	1.2	15.0	
Decachlorobiphenyl	676052.48	703233.56	0.01	4.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2264

Instrument ID: ECD7A Calibration Date: 03/18/10 Time: 1132

Lab File ID: 089B8901 Init. Calib. Date(s): 03/16/10 03/16/10

Heated Purge: (Y/N) N Init. Calib. Times: 0929 1037

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	912347.61	888680.30	0.01	-2.6	15.0
beta-BHC	369368.10	349314.10	0.01	-5.4	15.0
delta-BHC	788975.42	776415.77	0.01	-1.6	15.0
gamma-BHC (Lindane)	804572.74	806225.75	0.01	0.2	15.0
Heptachlor	574716.24	541986.45	0.01	-5.7	15.0
Aldrin	785175.81	700605.18	0.01	-10.8	15.0
Heptachlor epoxide	675408.52	634785.68	0.01	-6.0	15.0
Endosulfan I	604497.23	588569.20	0.01	-2.6	15.0
Dieldrin	614558.90	574444.33	0.01	-6.5	15.0
4,4'-DDE	543813.16	556990.72	0.01	2.4	15.0
Endrin	466941.22	465846.24	0.01	-0.2	15.0
Endosulfan II	534926.02	504653.62	0.01	-5.6	15.0
4,4'-DDD	422411.41	475128.40	0.01	12.5	15.0
Endosulfan sulfate	474632.82	443412.05	0.01	-6.6	15.0
4,4'-DDT	349544.42	317289.53	0.01	-9.2	15.0
Methoxychlor	153217.39	132177.60	0.01	-13.7	15.0
Endrin ketone	565068.02	520748.47	0.01	-7.8	15.0
Endrin aldehyde	427854.31	397588.28	0.01	-7.1	15.0
gamma-Chlordane	674707.61	663648.94	0.01	-1.6	15.0
alpha-Chlordane	665988.07	581788.66	0.01	-12.6	15.0
4cmx	646821.92	627640.25	0.01	-3.0	15.0
Decachlorobiphenyl	405224.80	397841.04	0.01	-1.8	15.0

FORM VII PEST

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/031710.b/002f0201.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM01
Inj Date : 17-MAR-2010 10:49
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Meth Date : 17-Mar-2010 13:38 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010f1001.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.186	4.189	-0.003	127142204	106.174	106	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.044	5.041	0.003	695285	0.78652	0.786	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.573	5.574	-0.001	89708536	115.271	115	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.633	5.631	0.002	714809	1.01982	1.02	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.231	6.228	0.003	1404637	1.96571	1.96	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.914	5.913	0.001	72460904	104.178	104	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.989	6.987	0.002	1674996	1.79270	1.79	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.861	2.860	0.001	173741502	180.548	180	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.076	8.079	-0.003	123239218	182.292	182	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/031710.b/002f0201.d
Date : 17-MAR-2010 10:49
Client ID: PEM01
Sample Info: IWPE100211-99DG

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

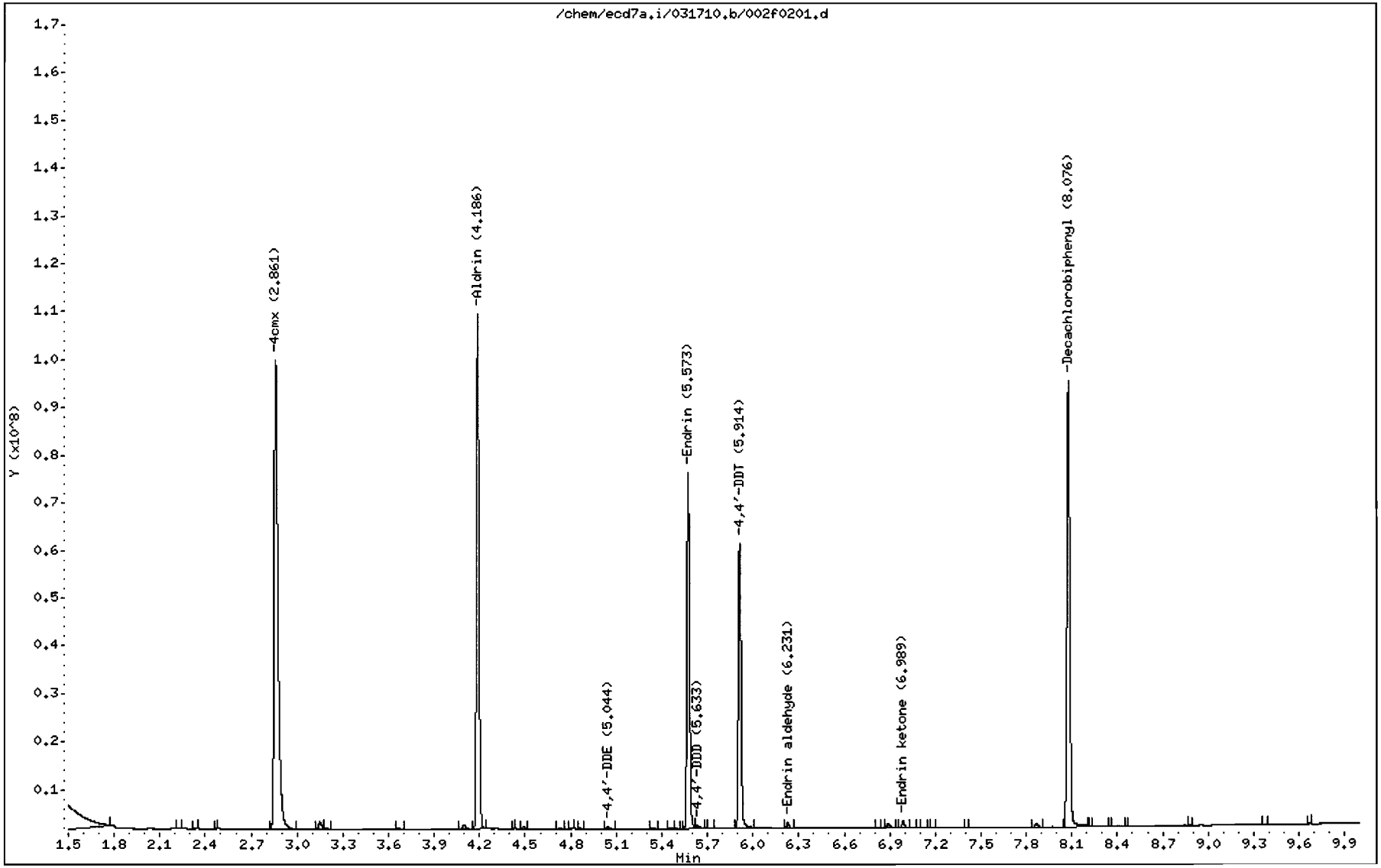

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/031710.b/002b0201.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM01
Inj Date : 17-MAR-2010 10:49
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Meth Date : 17-Mar-2010 13:38 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010b1001.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.777	4.778	-0.001	80731341	102.819	103	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.846	5.844	0.002	443080	0.81477	0.815	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
6.378	6.378	0.000	52342132	112.096	112	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.465	6.464	0.001	398046	0.94232	0.942	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
6.967	6.965	0.002	920048	2.15038	2.15	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.810	6.809	0.001	36241752	103.683	104	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.881	7.880	0.001	1047890	1.85445	1.85	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.164	3.165	-0.001	117341044	181.412	181	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.259	9.258	0.001	71601554	176.696	177	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/031710.b/002b0201.d
Date : 17-MAR-2010 10:49
Client ID: PEM01
Sample Info: IWPE100211-99DG

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

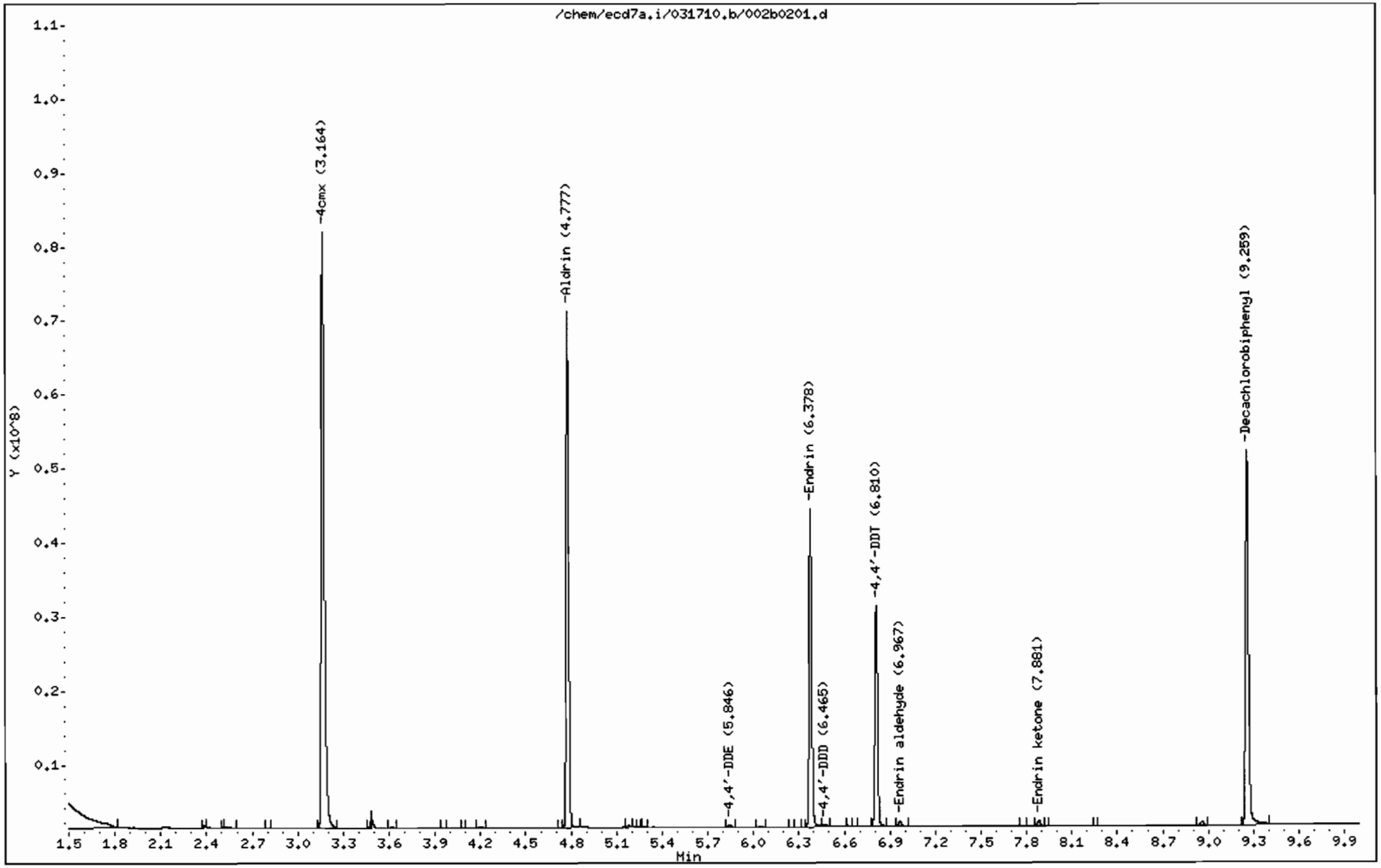

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/031710.b/019f1901.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM02
Inj Date : 17-MAR-2010 15:39
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Meth Date : 18-Mar-2010 08:36 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010f1001.d
Als bottle: 19 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.187	4.189	-0.002	133906844	111.823	112	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.043	5.041	0.002	454204	0.51381	0.514	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.574	5.574	0.000	91661078	117.780	118	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.633	5.631	0.002	1990452	2.83978	2.84	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.230	6.228	0.002	2281026	3.19217	3.19	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.915	5.913	0.002	76240182	109.611	110	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.990	6.987	0.003	2747460	2.94053	2.94	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.860	2.860	0.000	181937921	189.066	189	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.078	8.079	-0.001	128506700	190.084	190	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/031710.b/019f1901.d
Date : 17-MAR-2010 15:39
Client ID: PEM02
Sample Info: IWPE100211-99DG

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

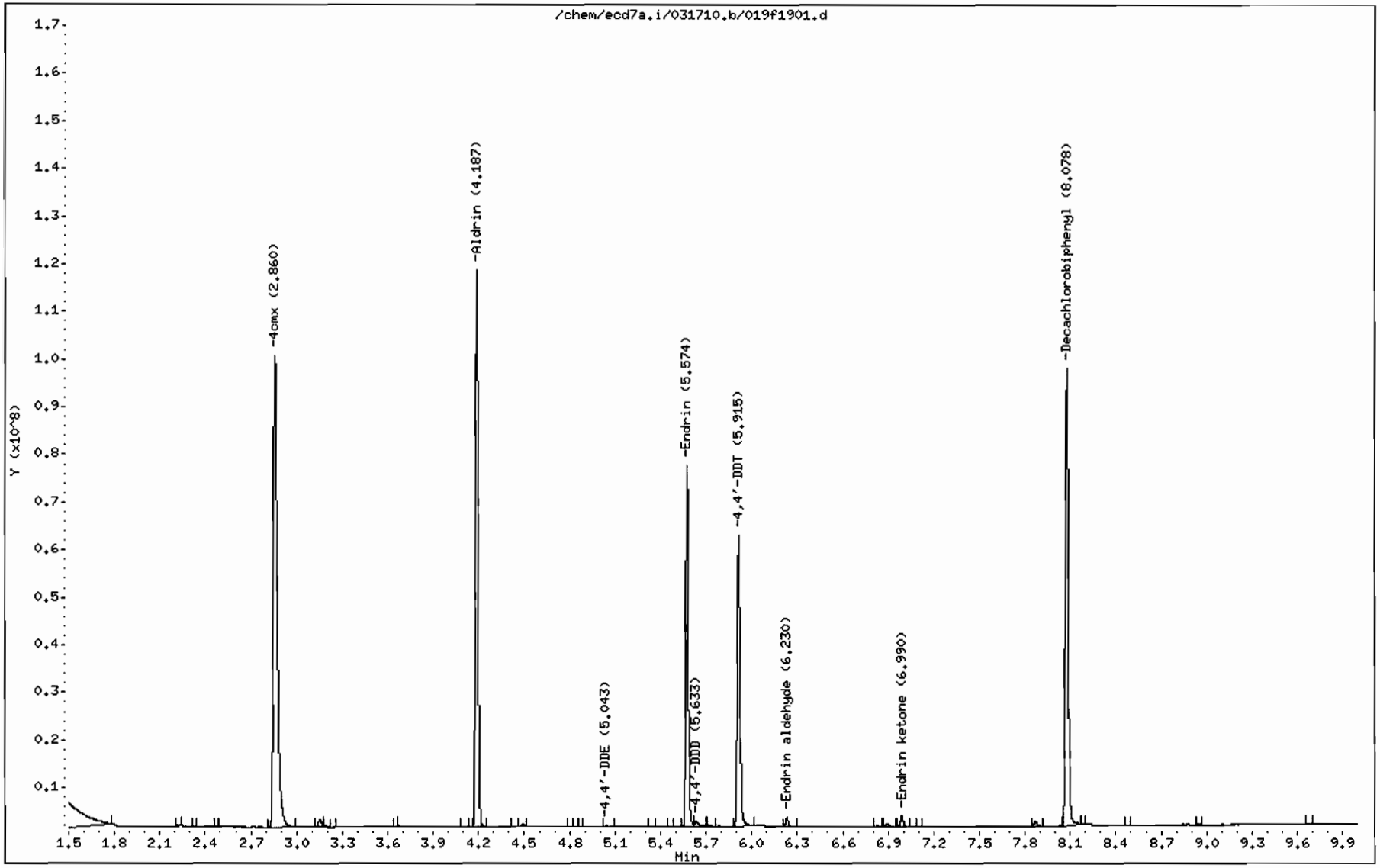

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/031710.b/019b1901.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM02
Inj Date : 17-MAR-2010 15:39
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Meth Date : 18-Mar-2010 08:36 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010b1001.d
Als bottle: 19 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.776	4.778	-0.002	84103059	107.114	107	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.844	5.844	0.000	292797	0.53842	0.538	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
6.377	6.378	-0.001	52683866	112.828	113	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.465	6.464	0.001	838891	1.98596	1.98	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
6.966	6.965	0.001	1369496	3.20085	3.20	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.809	6.809	0.000	38124751	109.070	109	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.880	7.880	0.000	1625260	2.87622	2.88	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.164	3.165	-0.001	121416120	187.712	188	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.257	9.258	-0.001	74903987	184.846	185	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/031710.b/019b1901.d

Date : 17-MAR-2010 15:39

Client ID: PEM02

Sample Info: IWPE100211-99DG

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

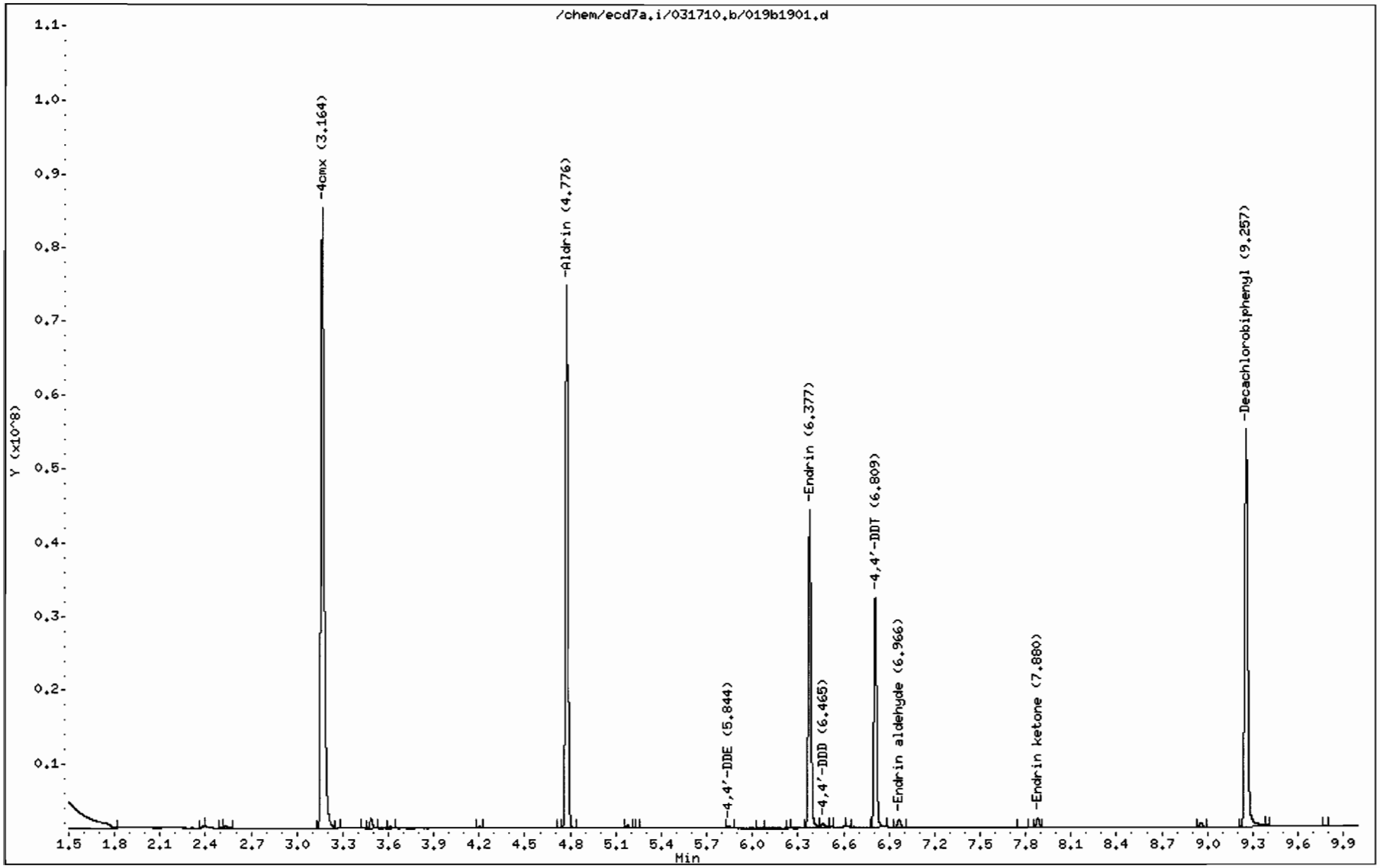

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/031710.b/058f5801.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM03
Inj Date : 18-MAR-2010 02:44
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info : |ECD81A_1S|965433|SVP|MB|
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Meth Date : 18-Mar-2010 08:36 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010f1001.d
Als bottle: 58 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.186	4.189	-0.003	138329191	115.516	116	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.041	5.041	0.000	390294	0.44151	0.442	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.574	5.574	0.000	88245732	113.392	113	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.634	5.631	0.003	6409893	9.14499	9.14	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.230	6.228	0.002	5265699	7.36905	7.37	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.914	5.913	0.001	71646316	103.007	103	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.989	6.987	0.002	6452487	6.90592	6.90	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.860	2.860	0.000	186056175	193.345	193	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.080	8.079	0.001	133627168	197.658	198	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/031710.b/058f5801.d
Date : 18-MAR-2010 02:44
Client ID: PEM03
Sample Info: IWPE100211-99DG

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

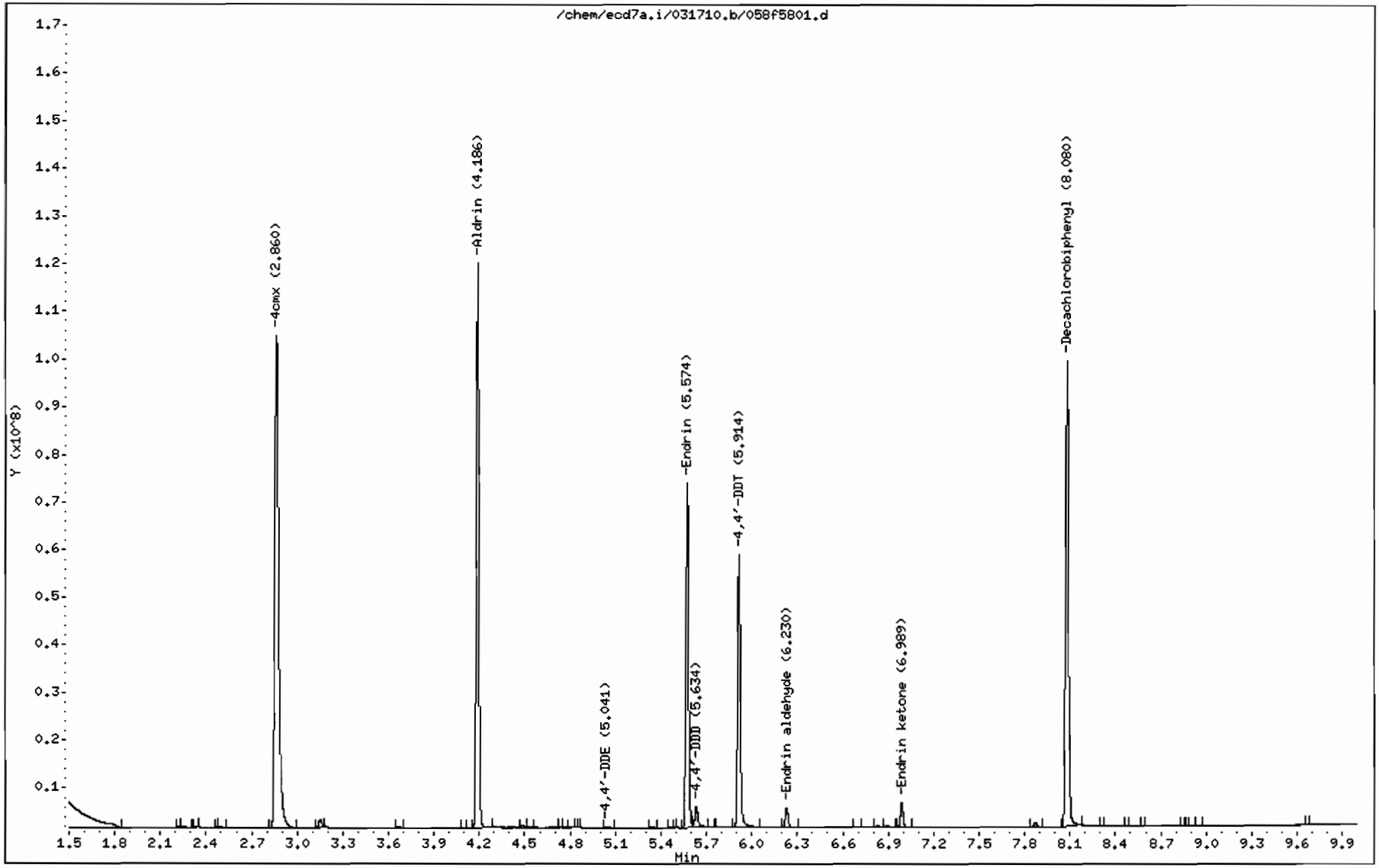

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/031710.b/058b5801.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM03
Inj Date : 18-MAR-2010 02:44
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info : |ECD81A_1S|965433|SVP|MB|
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Meth Date : 18-Mar-2010 08:36 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010b1001.d
Als bottle: 58 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.775	4.778	-0.003	83745158	106.658	107	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.844	5.844	0.000	239939	0.44122	0.441	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
6.376	6.378	-0.002	49044043	105.033	105	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.465	6.464	0.001	3338133	7.90256	7.90	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.965	6.965	0.000	3076862	7.19138	7.19	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.808	6.809	-0.001	34986817	100.093	100	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.880	7.880	0.000	3576986	6.33019	6.33	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.162	3.165	-0.003	120416299	186.166	186	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.258	9.258	0.000	76069565	187.722	188	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/031710.b/058b5801.d

Date : 18-MAR-2010 02:44

Client ID: PEM03

Sample Info: IWPE100211-99DG

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

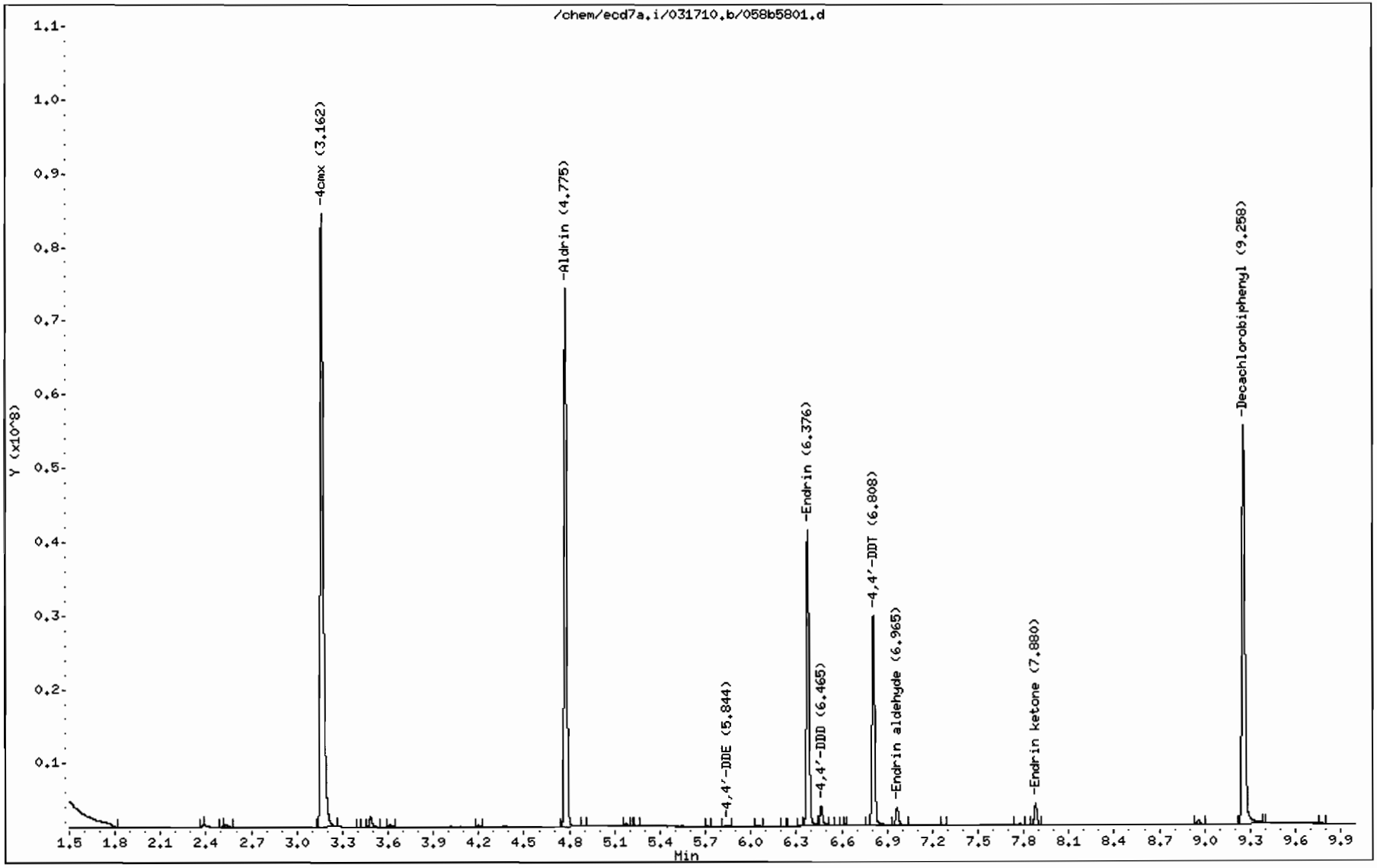

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/031710.b/005f0501.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 17-MAR-2010 11:40
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100125-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Meth Date : 17-Mar-2010 13:38 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010f1001.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.240	5.240	0.000	17962175	2000.00	2010	80.00- 120.00	100.00(M)
5.344	5.344	0.000	25150286	2000.00	2000	120.02- 160.02	140.02
5.433	5.433	0.000	33400357	2000.00	2130	165.95- 205.95	185.95
5.492	5.492	0.000	37494464	2000.00	1910	188.74- 228.74	208.74
5.595	5.595	0.000	38747616	2000.00	2040	195.72- 235.72	215.72

Average of Peak Amounts = 2.02e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/031710.b/005f0501.d

Page 1

Date : 17-MAR-2010 11:40

Client ID: TOXAPH01

Instrument: ecd7a.i

Sample Info: IWPE100125-52TX

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25

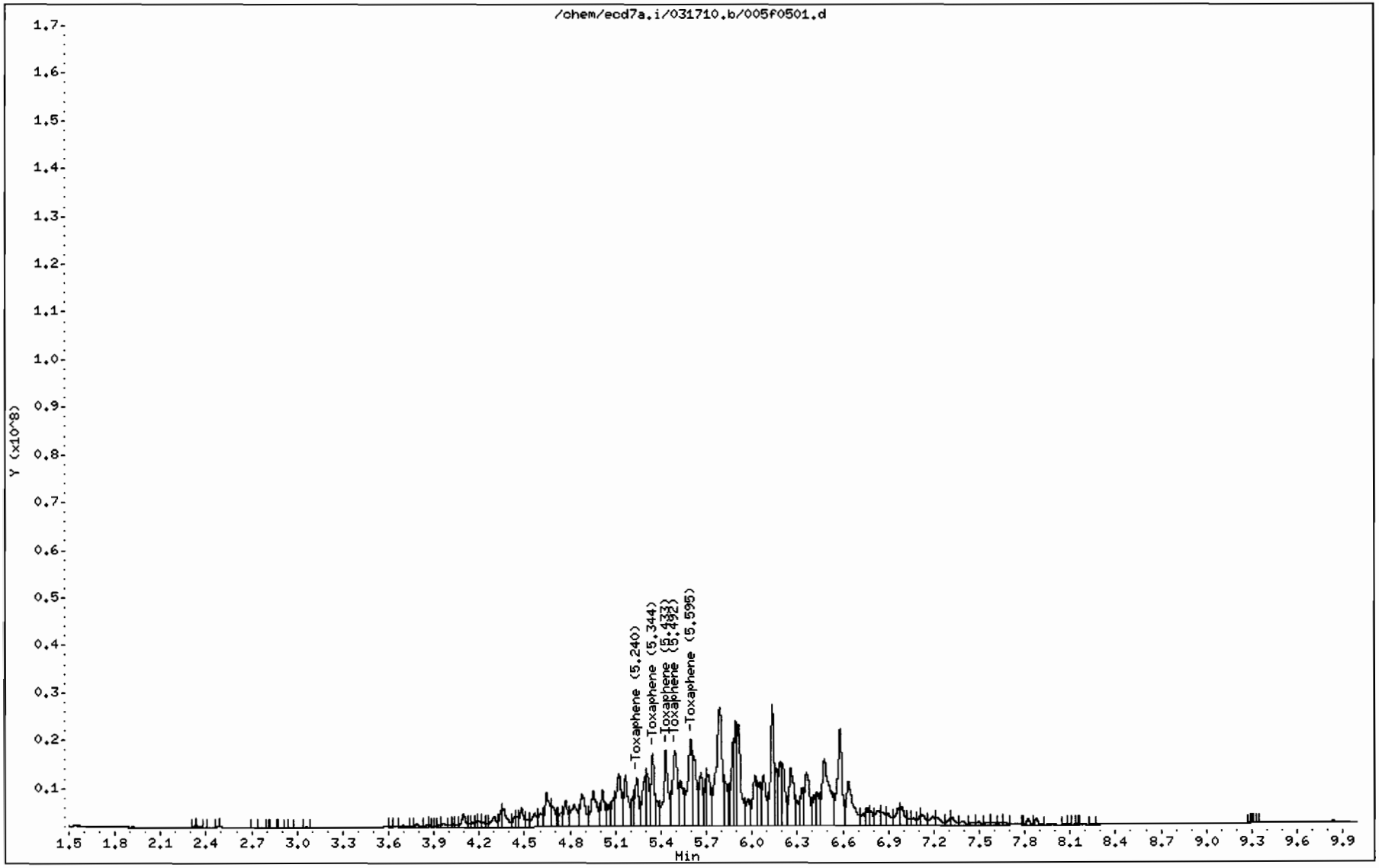

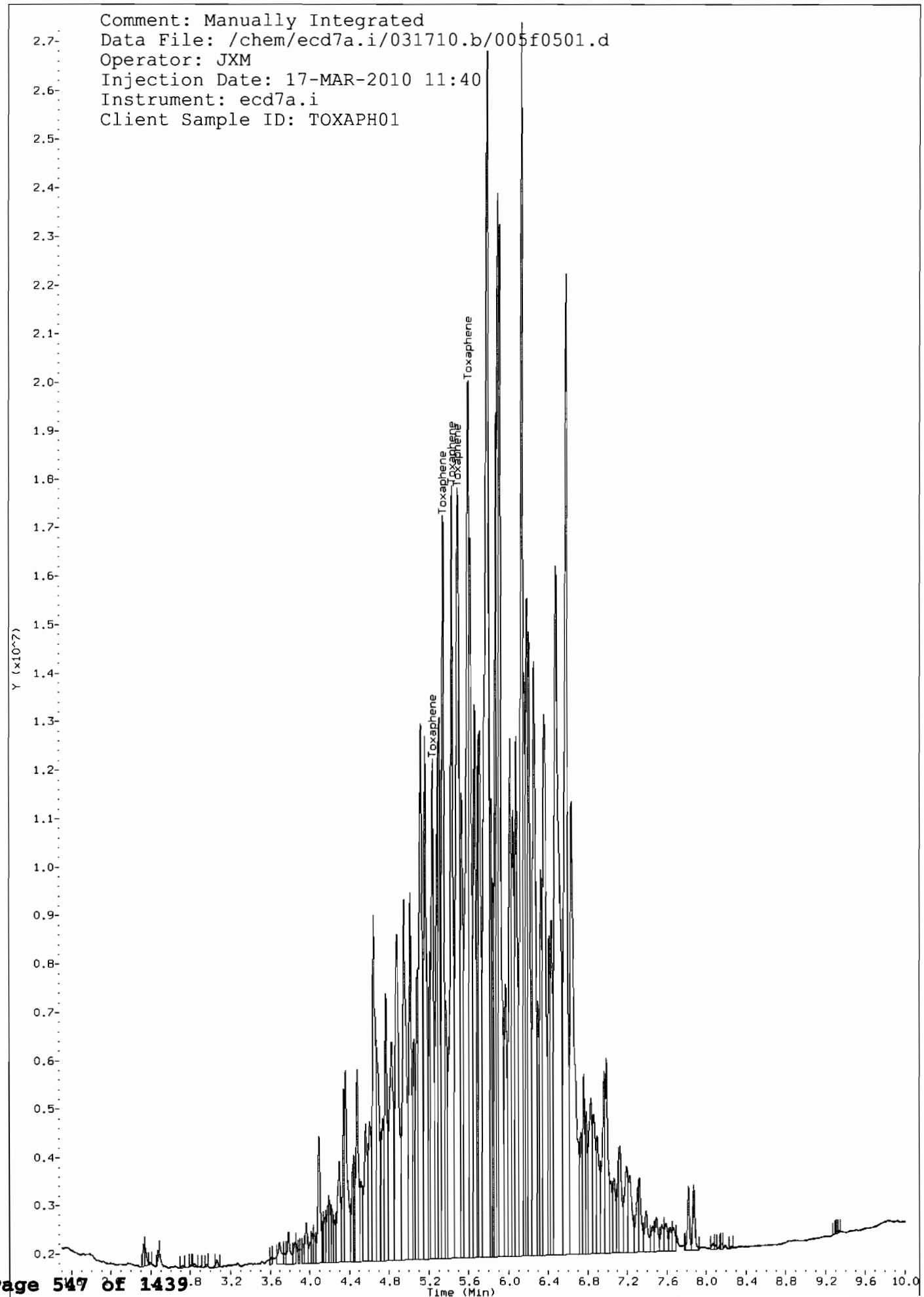
Comment: Manually Integrated
Data File: /chem/ecd7a.i/031710.b/005f0501.d
Operator: JXM
Injection Date: 17-MAR-2010 11:40
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

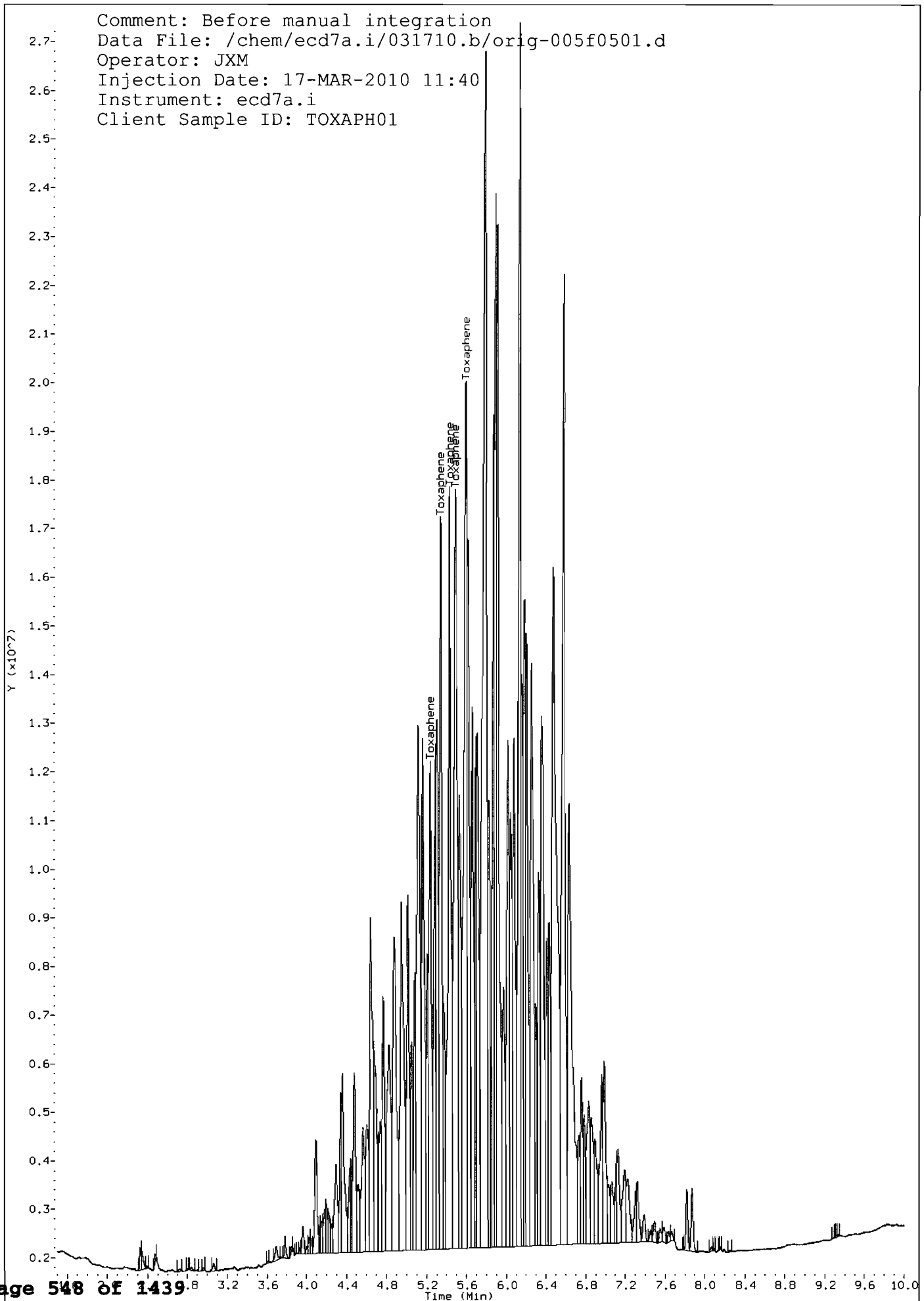
Comment: Before manual integration
Data File: /chem/ecd7a.i/031710.b/orig-005f0501.d
Operator: JXM
Injection Date: 17-MAR-2010 11:40
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/031710.b/005b0501.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 17-MAR-2010 11:40
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100125-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Meth Date : 17-Mar-2010 13:38 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010b1001.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
6.011	6.011	0.000	21638093	2000.00	1900	80.00- 120.00	100.00(M)
6.080	6.080	0.000	9542920	2000.00	1510	24.10- 64.10	44.10
6.143	6.143	0.000	12189730	2000.00	1870	36.33- 76.33	56.33
6.206	6.206	0.000	12959213	2000.00	1980	39.89- 79.89	59.89
6.337	6.337	0.000	16351274	2000.00	1790	55.57- 95.57	75.57

Average of Peak Amounts = 1.81e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/031710.b/005b0501.d

Date : 17-MAR-2010 11:40

Client ID: TOXAPH01

Sample Info: IWPE100125-52TX

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

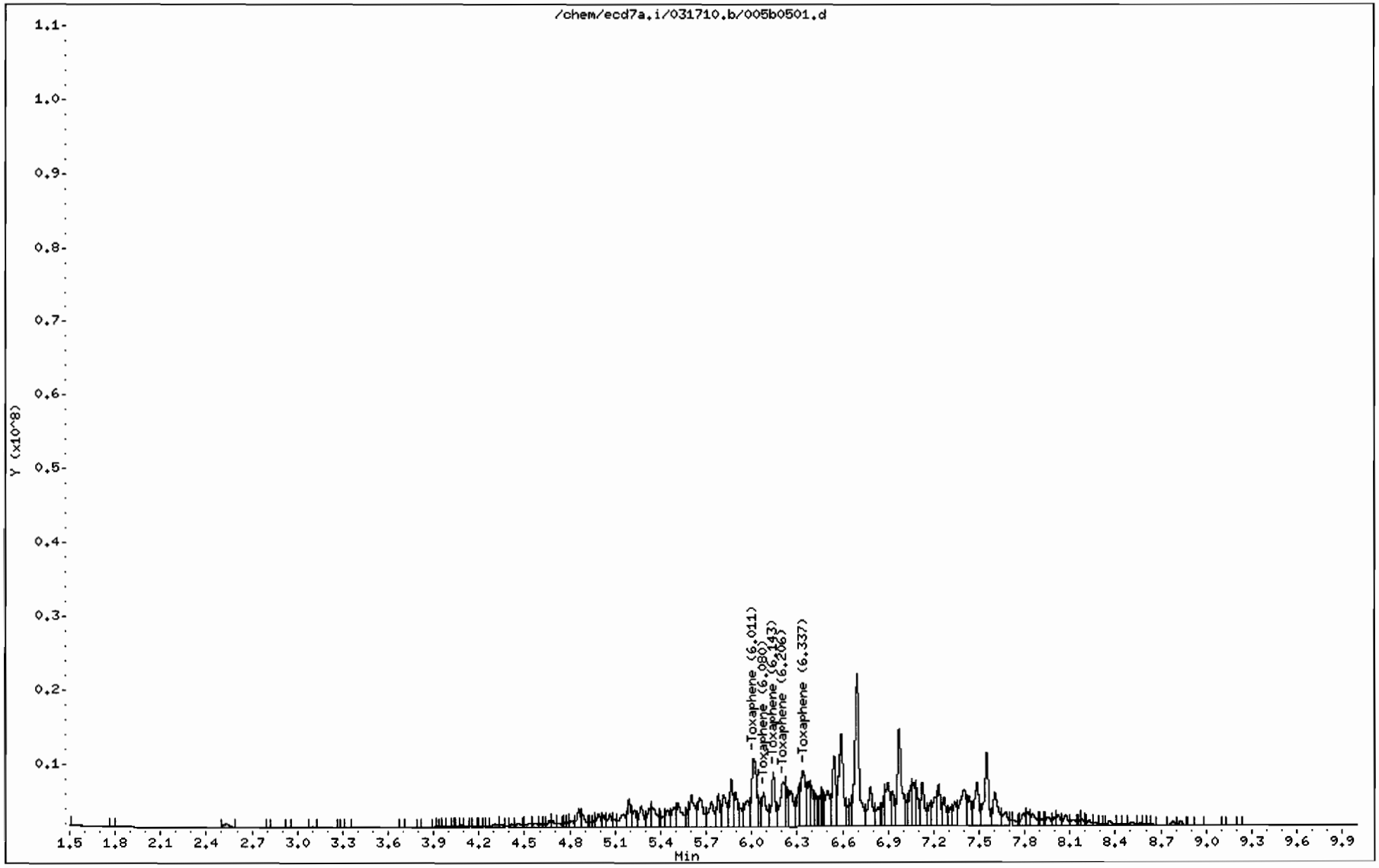

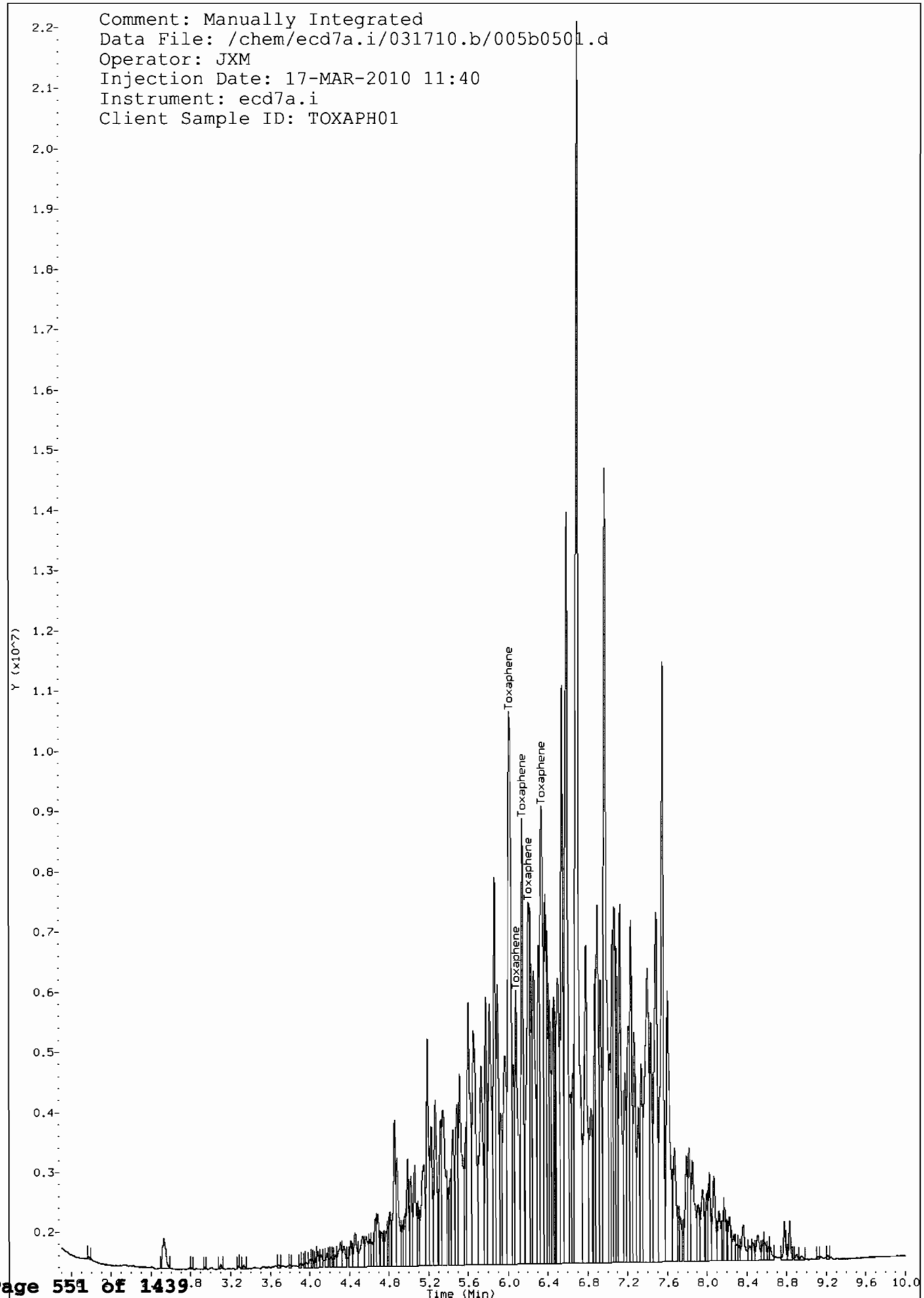
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Operator: JXM
Injection Date: 17-MAR-2010 11:40
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

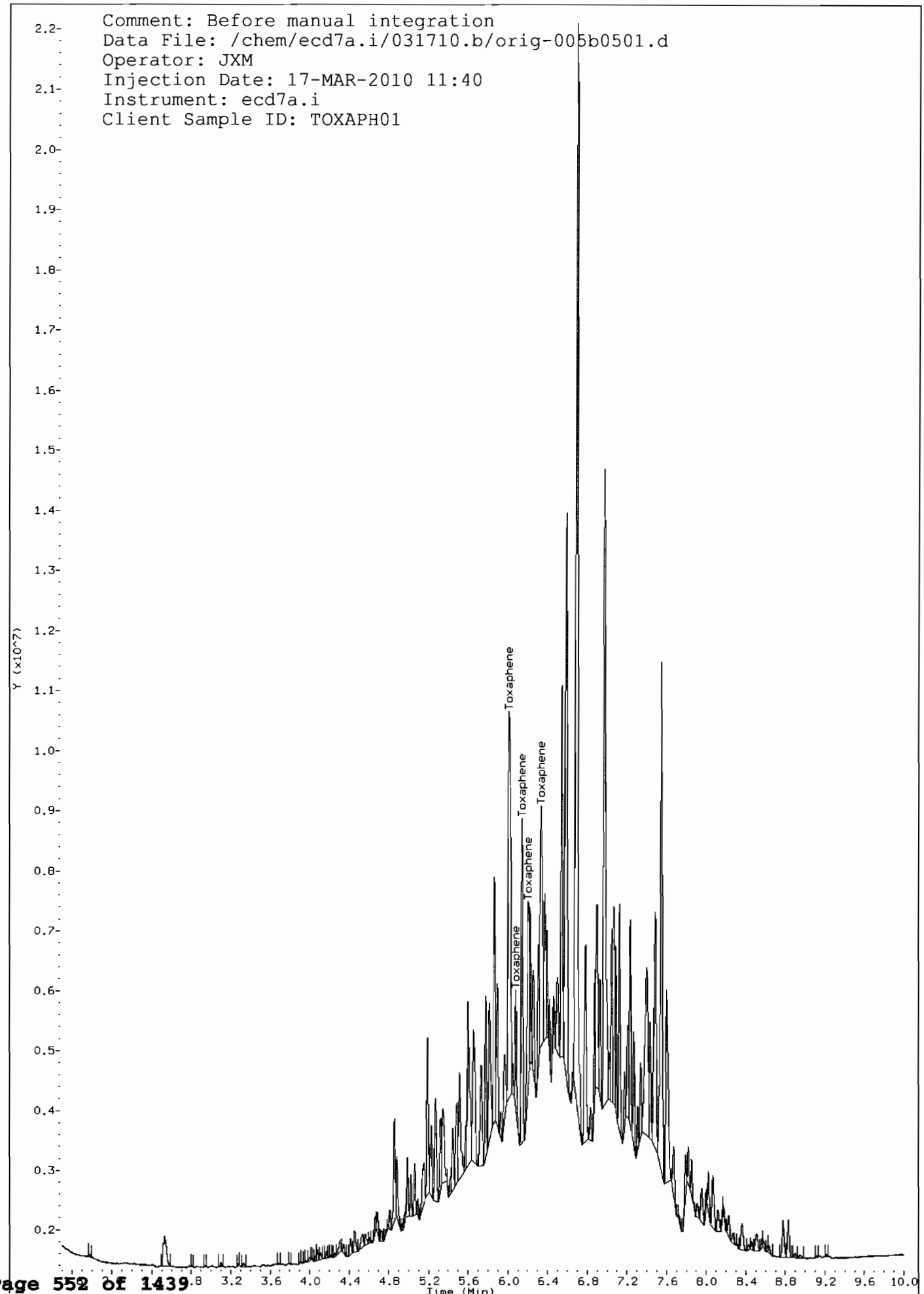
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Data File: /chem/ecd7a.i/031710.b/orig-005b0501.d
Operator: JXM
Injection Date: 17-MAR-2010 11:40
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/031710.b/007f0701.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB01
Inj Date : 17-MAR-2010 12:15
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100305-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Meth Date : 17-Mar-2010 13:38 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010f1001.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.277	3.277	0.000	138862005	100.000	98.1	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.529	3.529	0.000	127273857	100.000	99.5	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.594	3.594	0.000	53023429	100.000	93.6	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.924	3.924	0.000	100316075	100.000	96.3	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.747	3.747	0.000	122092583	100.000	99.3	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.189	4.189	0.000	108740659	100.000	90.8	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.734	4.734	0.000	100535253	100.000	94.6	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.851	4.851	0.000	105121007	100.000	101	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.977	4.977	0.000	91320334	100.000	88.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.111	5.111	0.000	94773814	100.000	96.7	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.041	5.041	0.000	173644977	200.000	196	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.342	5.342	0.000	184323597	200.000	186	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.574	5.574	0.000	160390366	200.000	206	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.631	5.631	0.000	141363008	200.000	202	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.801	5.801	0.000	157916321	200.000	186	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.228	6.228	0.000	127524507	200.000	178	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.913	5.913	0.000	146689762	200.000	211	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.683	6.683	0.000	139122389	200.000	191	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.416	6.416	0.000	283612712	1000.00	968	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.987	6.987	0.000	170022601	200.000	182	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.860	2.860	0.000	184391912	200.000	192	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.079	8.079	0.000	130619960	200.000	193	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/007f0701.d
Date : 17-MAR-2010 12:15
Client ID: INDAB01
Sample Info: IWPE100305-10AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

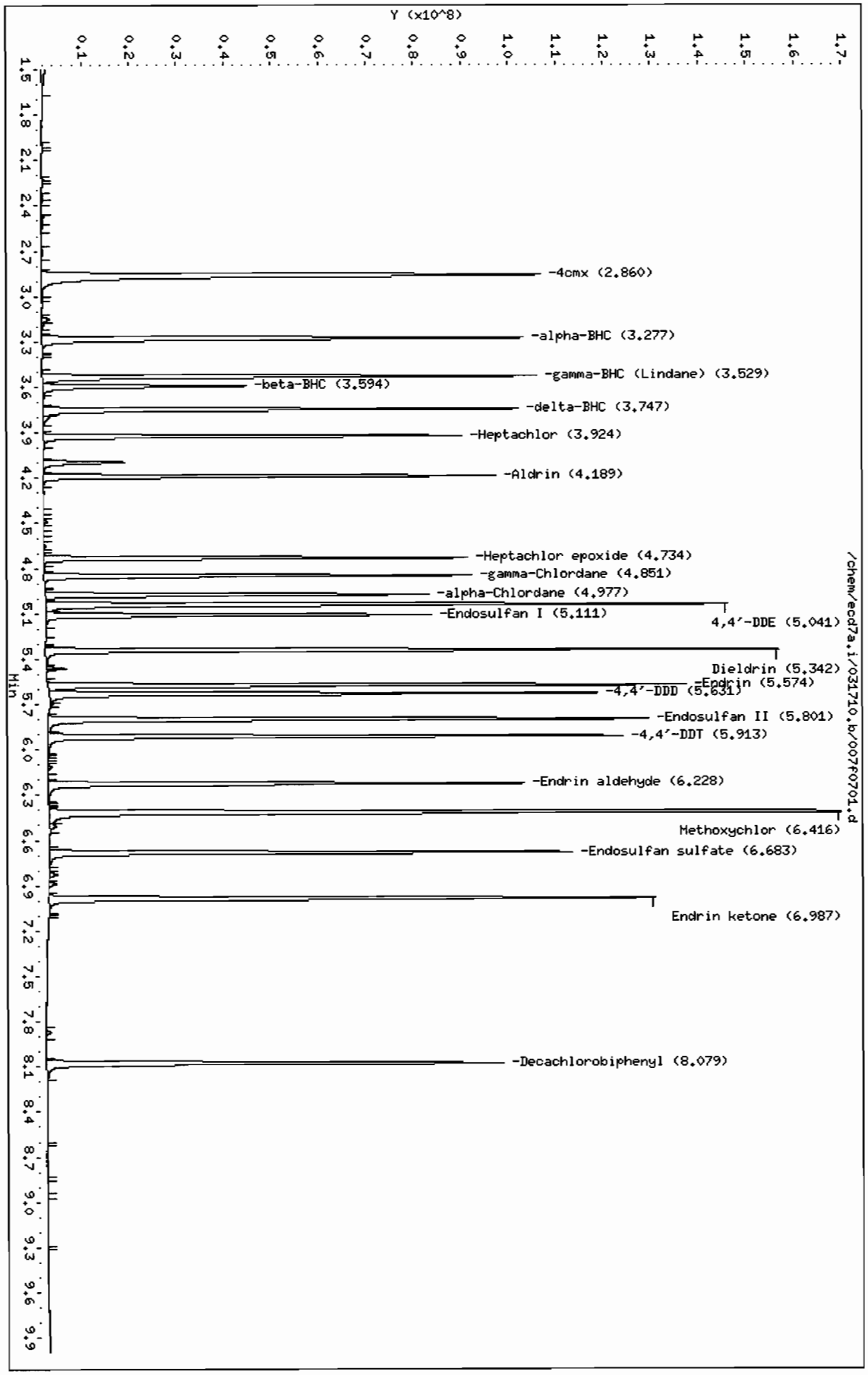

Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/031710.b/007b0701.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB01
Inj Date : 17-MAR-2010 12:14
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100305-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Meth Date : 17-Mar-2010 13:38 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010b1001.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.688	3.688	0.000	86712944	100.000	95.0	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.015	4.015	0.000	78110561	100.000	97.1	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.079	4.079	0.000	33915511	100.000	91.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.449	4.449	0.000	53776984	100.000	93.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.368	4.368	0.000	75259131	100.000	95.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.778	4.778	0.000	67672206	100.000	86.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.346	5.346	0.000	61681941	100.000	91.3	80.00- 120.00	100.00(M)
17 gamma-Chlordane					CAS #: 5103-74-2		
5.541	5.541	0.000	64631390	100.000	95.8	80.00- 120.00	100.00(M)
18 alpha-Chlordane					CAS #: 5103-71-9		
5.691	5.691	0.000	56920629	100.000	85.5	80.00- 120.00	100.00(M)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.761	5.761	0.000	57519198	100.000	95.2	80.00- 120.00	100.00(M)
19 4,4'-DDE					CAS #: 72-55-9		
5.844	5.844	0.000	106935551	200.000	197	80.00- 120.00	100.00(M)
20 Dieldrin					CAS #: 60-57-1		
6.049	6.049	0.000	112033629	200.000	182	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
6.378	6.378	0.000	95999395	200.000	206	80.00- 120.00	100.00(M)
25 4,4'-DDD					CAS #: 72-54-8		
6.464	6.464	0.000	84612308	200.000	200	80.00- 120.00	100.00(M)
24 Endosulfan II					CAS #: 33213-65-9		
6.602	6.602	0.000	99657927	200.000	186	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
6.965	6.965	0.000	75758485	200.000	177	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.809	6.809	0.000	74437990	200.000	213	80.00- 120.00	100.00(M)
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.271	7.271	0.000	86164949	200.000	182	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.556	7.556	0.000	148039833	1000.00	966	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.880	7.880	0.000	99661915	200.000	176	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.165	3.165	0.000	123091833	200.000	190	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.258	9.258	0.000	74508083	200.000	184	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/031710.b/007b0701.d
Date : 17-MAR-2010 12:14
Client ID: INDAB01
Sample Info: IWPE100305-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXH
Column diameter: 0.25

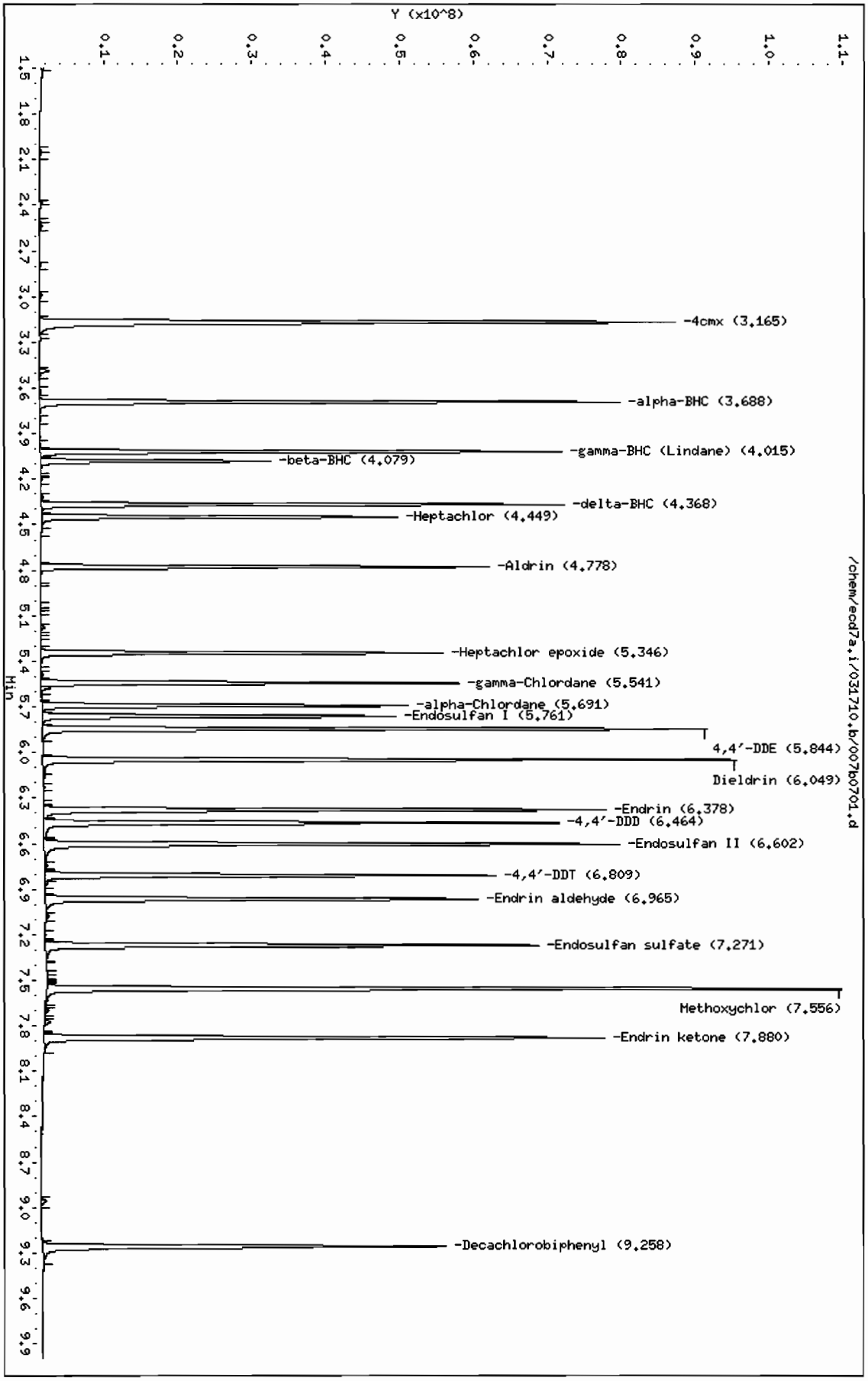

Page 1

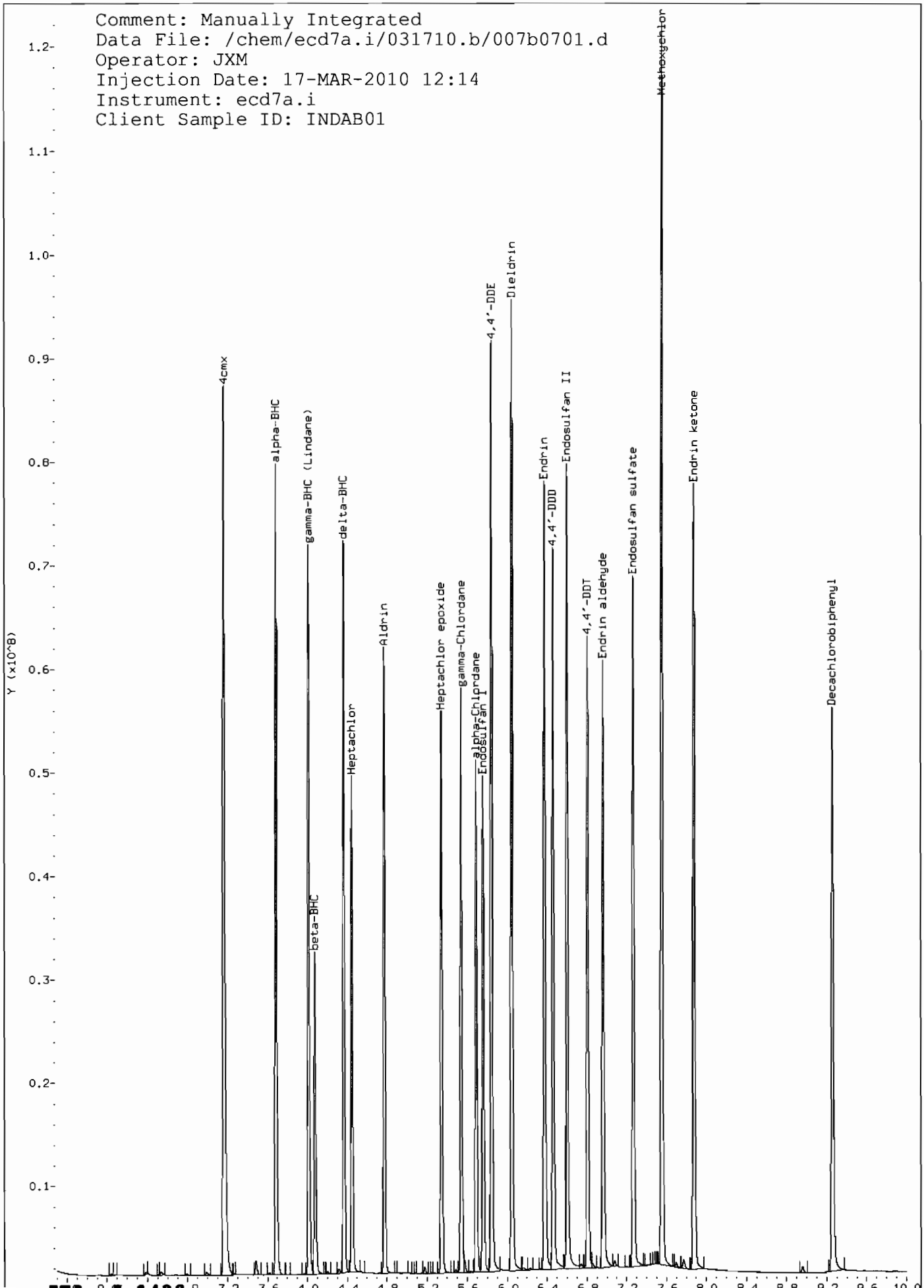
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Operator: JXM
Injection Date: 17-MAR-2010 12:14
Instrument: ecd7a.i
Client Sample ID: INDAB01
Y (x10^8)
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

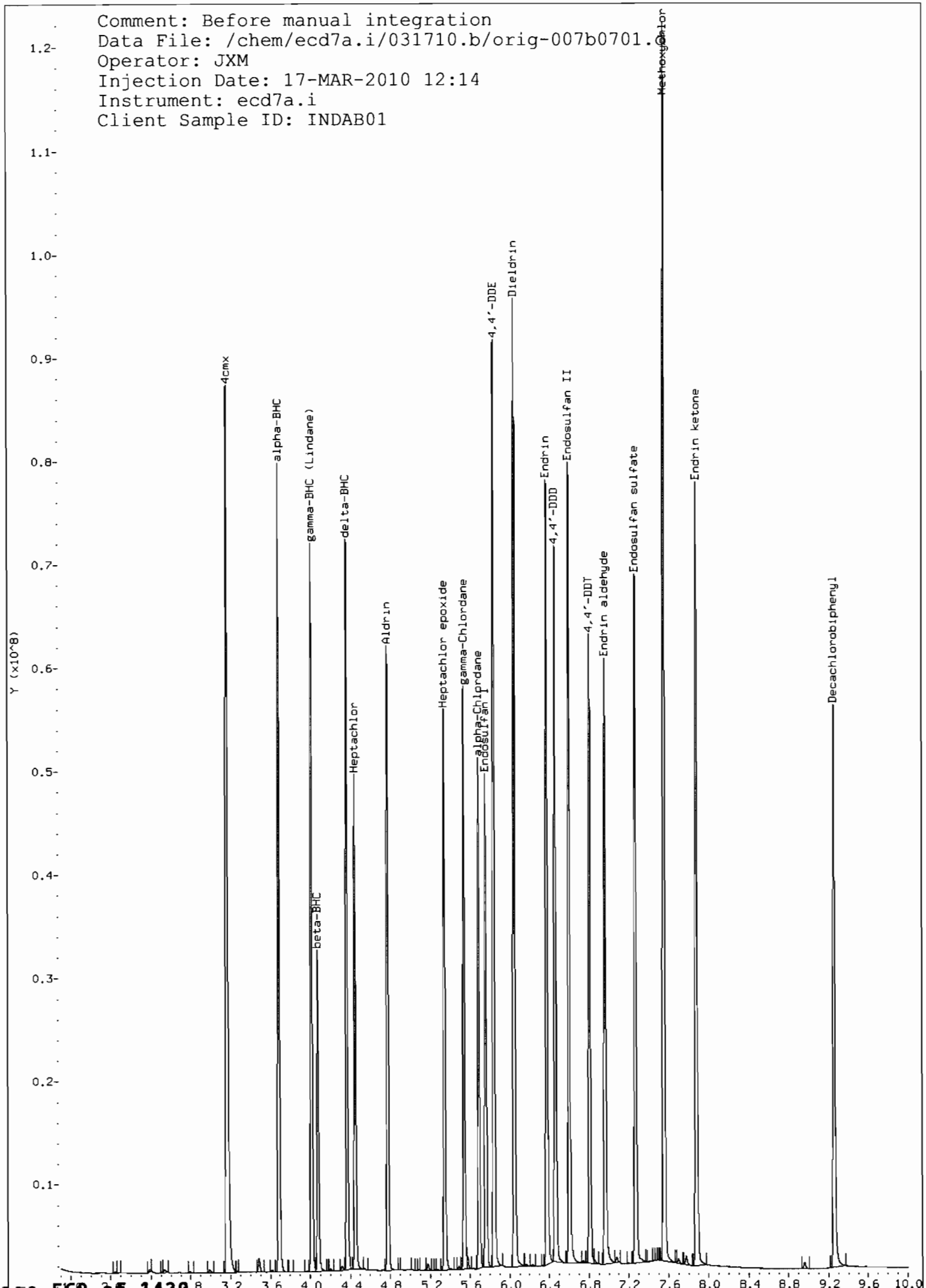
Comment: Before manual integration
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Operator: JXM
Injection Date: 17-MAR-2010 12:14
Instrument: ecd7a.i
Client Sample ID: INDAB01
Y (x10^8)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

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Data file : /chem/ecd7a.i/031710.b/056f5601.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB06
Inj Date : 18-MAR-2010 02:10
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100305-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Meth Date : 18-Mar-2010 08:36 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010f1001.d
Als bottle: 56 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.276	3.277	-0.001	144791810	100.000	102	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.528	3.529	-0.001	133205970	100.000	104	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.593	3.594	-0.001	55754532	100.000	98.4	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.922	3.924	-0.002	104534561	100.000	100	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.746	3.747	-0.001	129816065	100.000	106	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.187	4.189	-0.002	114186318	100.000	95.4	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.732	4.734	-0.002	105423719	100.000	99.3	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.850	4.851	-0.001	109429976	100.000	106	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.975	4.977	-0.002	96421833	100.000	93.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.109	5.111	-0.002	101534634	100.000	104	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.039	5.041	-0.002	184693597	200.000	209	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.341	5.342	-0.001	193169314	200.000	195	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.573	5.574	-0.001	163633811	200.000	210	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.630	5.631	-0.001	158576153	200.000	226	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.799	5.801	-0.002	165238332	200.000	195	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.227	6.228	-0.001	136050087	200.000	190	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.913	5.913	0.000	143425630	200.000	206	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.681	6.683	-0.002	145164805	200.000	199	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.416	6.416	0.000	277735354	1000.00	948	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.986	6.987	-0.001	179928436	200.000	192	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.859	2.860	-0.001	192379729	200.000	200	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.079	8.079	0.000	138447780	200.000	205	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/056f5601.d
Date : 18-MAR-2010 02:10
Client ID: INDAB06
Sample Info: IWPE100305-10AB

Instrument: ecd7a.i

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25

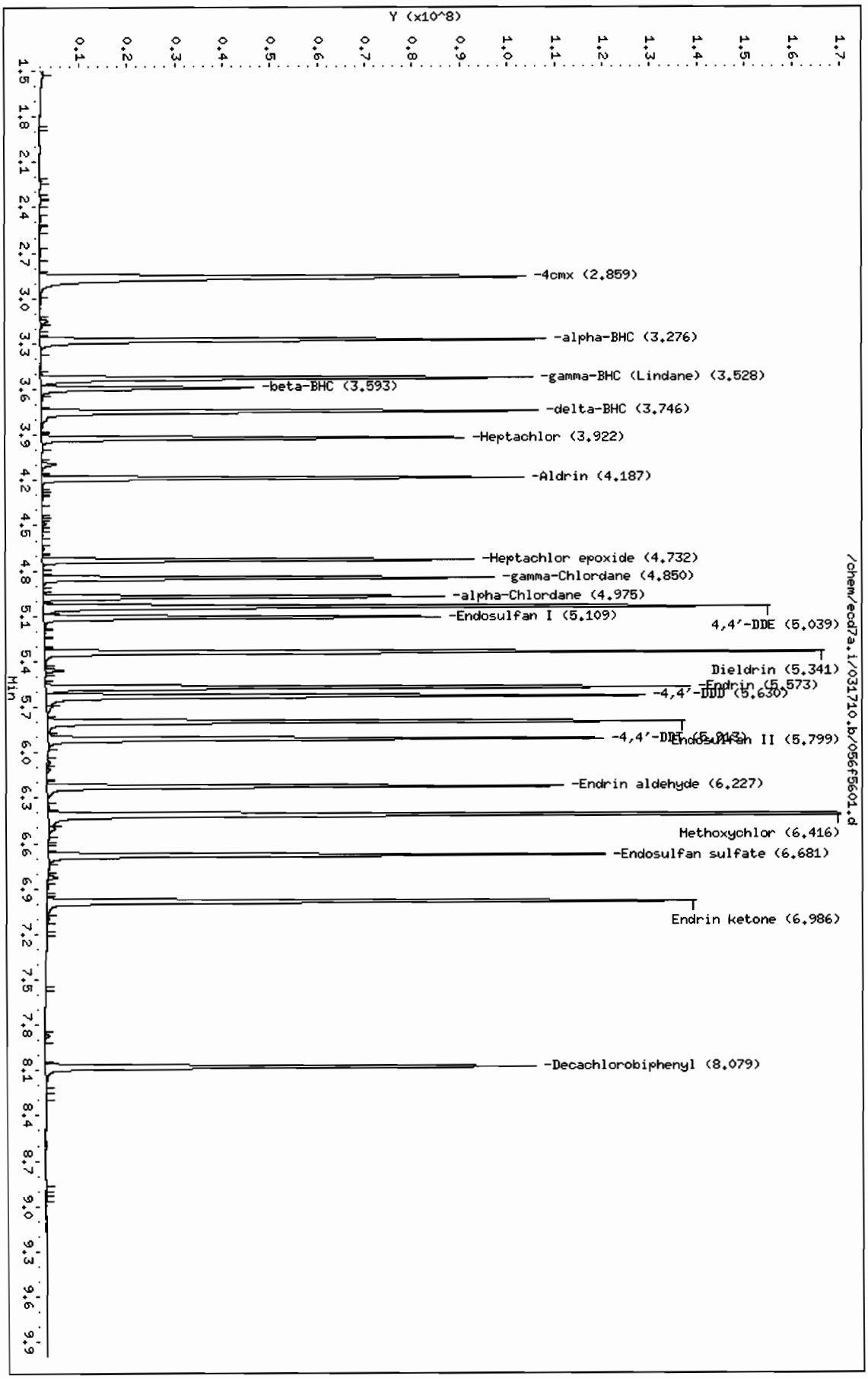

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CLP-2

Data file : /chem/ecd7a.i/031710.b/056b5601.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB06
Inj Date : 18-MAR-2010 02:10
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100305-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Meth Date : 18-Mar-2010 08:36 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010b1001.d
Als bottle: 56 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.685	3.688	-0.003	88602562	100.000	97.1	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.013	4.015	-0.002	80194993	100.000	99.7	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.077	4.079	-0.002	34837343	100.000	94.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.447	4.449	-0.002	54783335	100.000	95.3	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.365	4.368	-0.003	77238620	100.000	97.9	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.776	4.778	-0.002	69561688	100.000	88.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.343	5.346	-0.003	63166712	100.000	93.5	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.539	5.541	-0.002	66124198	100.000	98.0	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.689	5.691	-0.002	57757586	100.000	86.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.759	5.761	-0.002	58402661	100.000	96.6	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.842	5.844	-0.002	110051876	200.000	202	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.047	6.049	-0.002	114118486	200.000	186	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.375	6.378	-0.003	93660363	200.000	200	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.462	6.464	-0.002	88751557	200.000	210	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.601	6.602	-0.001	100157647	200.000	187	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.962	6.965	-0.003	79183923	200.000	185	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.807	6.809	-0.002	71796121	200.000	205	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.269	7.271	-0.002	87107662	200.000	184	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.555	7.556	-0.001	144972649	1000.00	946	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.877	7.880	-0.003	103312927	200.000	183	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.162	3.165	-0.003	125368827	200.000	194	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.257	9.258	-0.001	78248409	200.000	193	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/056b5601.d
Date : 18-MAR-2010 02:10
Client ID: INDAB06
Sample Info: IWPE100305-10AB

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

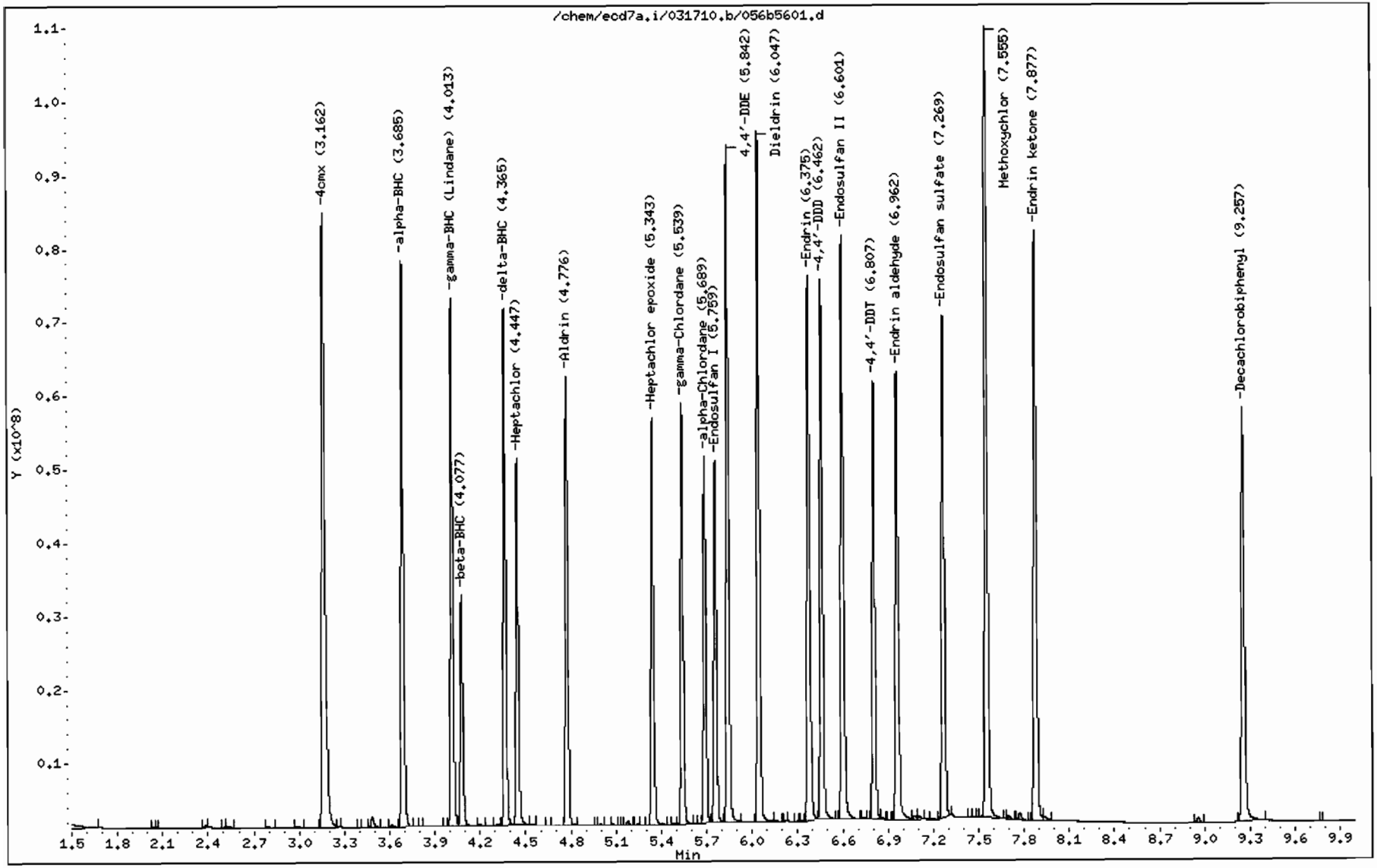

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/031710.b/070f7001.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB07
Inj Date : 18-MAR-2010 06:08
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100305-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Meth Date : 18-Mar-2010 08:36 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010f1001.d
Als bottle: 70 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.277	3.277	0.000	145692053	100.000	103	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.528	3.529	-0.001	132786567	100.000	104	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.593	3.594	-0.001	55994303	100.000	98.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.923	3.924	-0.001	105174949	100.000	101	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.746	3.747	-0.001	130307528	100.000	106	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.187	4.189	-0.002	115159076	100.000	96.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.732	4.734	-0.002	106115219	100.000	99.9	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.849	4.851	-0.002	110279924	100.000	106	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.974	4.977	-0.003	96519830	100.000	93.9	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.109	5.111	-0.002	101418586	100.000	104	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.039	5.041	-0.002	185650120	200.000	210	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.341	5.342	-0.001	194143344	200.000	196	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.573	5.574	-0.001	165394738	200.000	212	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.629	5.631	-0.002	162146630	200.000	231	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.799	5.801	-0.002	163926209	200.000	193	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.227	6.228	-0.001	136141762	200.000	190	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.912	5.913	-0.001	135724514	200.000	195	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.682	6.683	-0.001	146638246	200.000	201	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.415	6.416	-0.001	270567096	1000.00	923	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.985	6.987	-0.002	180590324	200.000	193	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.860	2.860	0.000	192866049	200.000	200	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.079	8.079	0.000	137779896	200.000	204	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/070f7001.d

Date : 18-MAR-2010 06:08

Client ID: INDAB07

Sample Info: IWPE100305-10AB

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

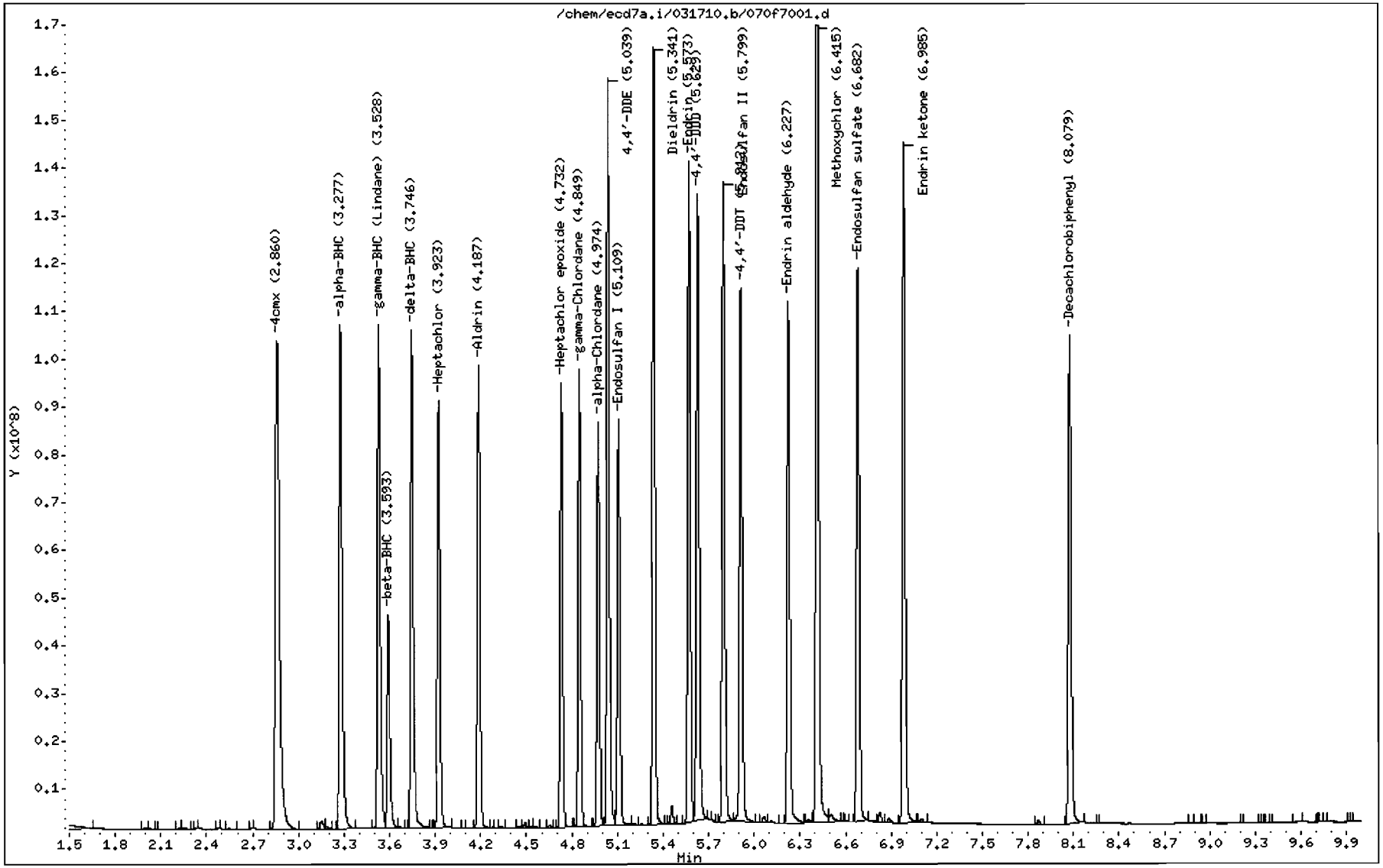

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/031710.b/070b7001.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB07
Inj Date : 18-MAR-2010 06:08
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100305-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Meth Date : 18-Mar-2010 08:36 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010b1001.d
Als bottle: 70 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.686	3.688	-0.002	87706400	100.000	96.1	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.014	4.015	-0.001	79898542	100.000	99.3	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.077	4.079	-0.002	34475694	100.000	93.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.447	4.449	-0.002	55168871	100.000	96.0	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.366	4.368	-0.002	77375738	100.000	98.1	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.776	4.778	-0.002	69126414	100.000	88.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.343	5.346	-0.003	63049710	100.000	93.4	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.539	5.541	-0.002	65487052	100.000	97.0	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.690	5.691	-0.001	57506472	100.000	86.3	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.759	5.761	-0.002	58386604	100.000	96.6	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.843	5.844	-0.001	111142314	200.000	204	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.047	6.049	-0.002	113649858	200.000	185	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.376	6.378	-0.002	95338319	200.000	204	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.462	6.464	-0.002	94314097	200.000	223	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.602	6.602	0.000	101354261	200.000	189	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.963	6.965	-0.002	79324535	200.000	185	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.808	6.809	-0.001	67722815	200.000	194	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.269	7.271	-0.002	86814222	200.000	183	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.555	7.556	-0.001	139956540	1000.00	913	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.878	7.880	-0.002	102531261	200.000	181	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.163	3.165	-0.002	125199984	200.000	194	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.257	9.258	-0.001	76318690	200.000	188	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/070b7001.d
Date : 18-MAR-2010 06:08
Client ID: INDAB07
Sample Info: IWPE100305-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JKM
Column diameter: 0.25

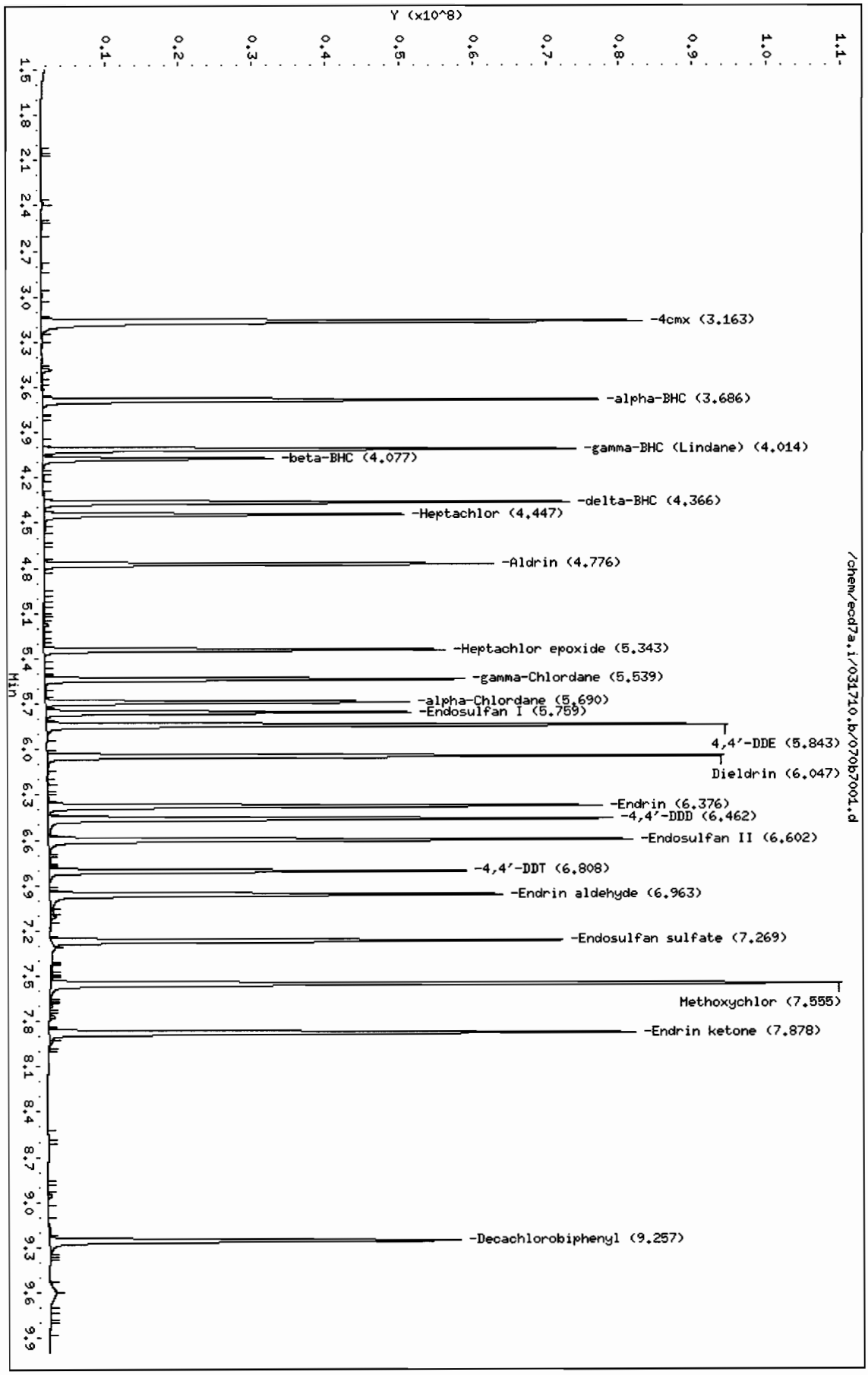

Page 1

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CLP-1

Data file : /chem/ecd7a.i/031710.b/082f8201.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB08
Inj Date : 18-MAR-2010 09:33
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100305-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Meth Date : 18-Mar-2010 10:56 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010f1001.d
Als bottle: 82 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.278	3.277	0.001	145661660	100.000	103	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.529	3.529	0.000	133221693	100.000	104	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.594	3.594	0.000	54931490	100.000	96.9	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.923	3.924	-0.001	104166611	100.000	100	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.748	3.747	0.001	127334636	100.000	104	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.188	4.189	-0.001	115089325	100.000	96.1	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.733	4.734	-0.001	106055904	100.000	99.8	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.851	4.851	0.000	109996639	100.000	106	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.976	4.977	-0.001	96677723	100.000	94.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.110	5.111	-0.001	101323155	100.000	103	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.040	5.041	-0.001	185612187	200.000	210	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.341	5.342	-0.001	194046227	200.000	196	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.574	5.574	0.000	164550243	200.000	211	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.631	5.631	0.000	165854543	200.000	237	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.800	5.801	-0.001	165114440	200.000	195	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.227	6.228	-0.001	136135604	200.000	190	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.913	5.913	0.000	131231337	200.000	189	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.683	6.683	0.000	148930837	200.000	204	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.416	6.416	0.000	259690762	1000.00	886	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.986	6.987	-0.001	181794755	200.000	194	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.861	2.860	0.001	192582534	200.000	200	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.078	8.079	-0.001	141532279	200.000	209	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/082f8201.d

Date : 18-MAR-2010 09:33

Client ID: INDAB08

Sample Info: IWPE100305-10AB

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

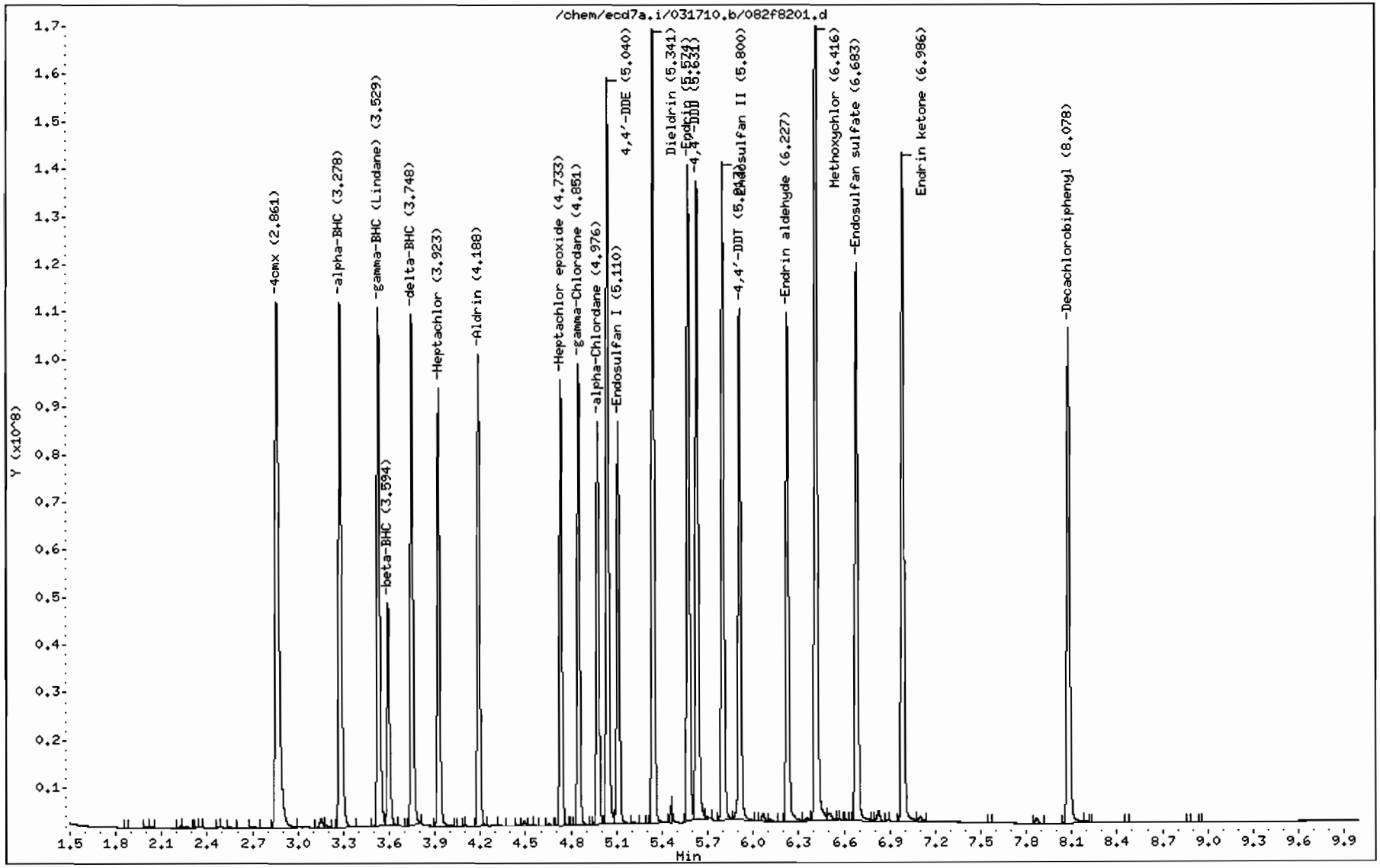

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CLP-2

Data file : /chem/ecd7a.i/031710.b/082b8201.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB08
Inj Date : 18-MAR-2010 09:33
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100305-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Meth Date : 18-Mar-2010 10:56 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010b1001.d
Als bottle: 82 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.688	3.688	0.000	87979553	100.000	96.4	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.015	4.015	0.000	79751659	100.000	99.1	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.078	4.079	-0.001	34646586	100.000	93.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.449	4.449	0.000	53839557	100.000	93.7	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.367	4.368	-0.001	76813390	100.000	97.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.777	4.778	-0.001	68803772	100.000	87.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.345	5.346	-0.001	62702950	100.000	92.8	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.541	5.541	0.000	65441403	100.000	97.0	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.691	5.691	0.000	57296167	100.000	86.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.760	5.761	-0.001	57899807	100.000	95.8	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.843	5.844	-0.001	110087815	200.000	202	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.048	6.049	-0.001	113008763	200.000	184	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.377	6.378	-0.001	93416670	200.000	200	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.463	6.464	-0.001	93188100	200.000	221	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.602	6.602	0.000	99796497	200.000	186	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.963	6.965	-0.002	78017050	200.000	182	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.808	6.809	-0.001	63675768	200.000	182	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.270	7.271	-0.001	87536975	200.000	184	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.555	7.556	-0.001	133568210	1000.00	872	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.879	7.880	-0.001	102707670	200.000	182	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.165	3.165	0.000	124426542	200.000	192	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.257	9.258	-0.001	79536964	200.000	196	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/082b8201.d

Date : 18-MAR-2010 09:33

Client ID: INDAB08

Sample Info: IWPE100305-10AB

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

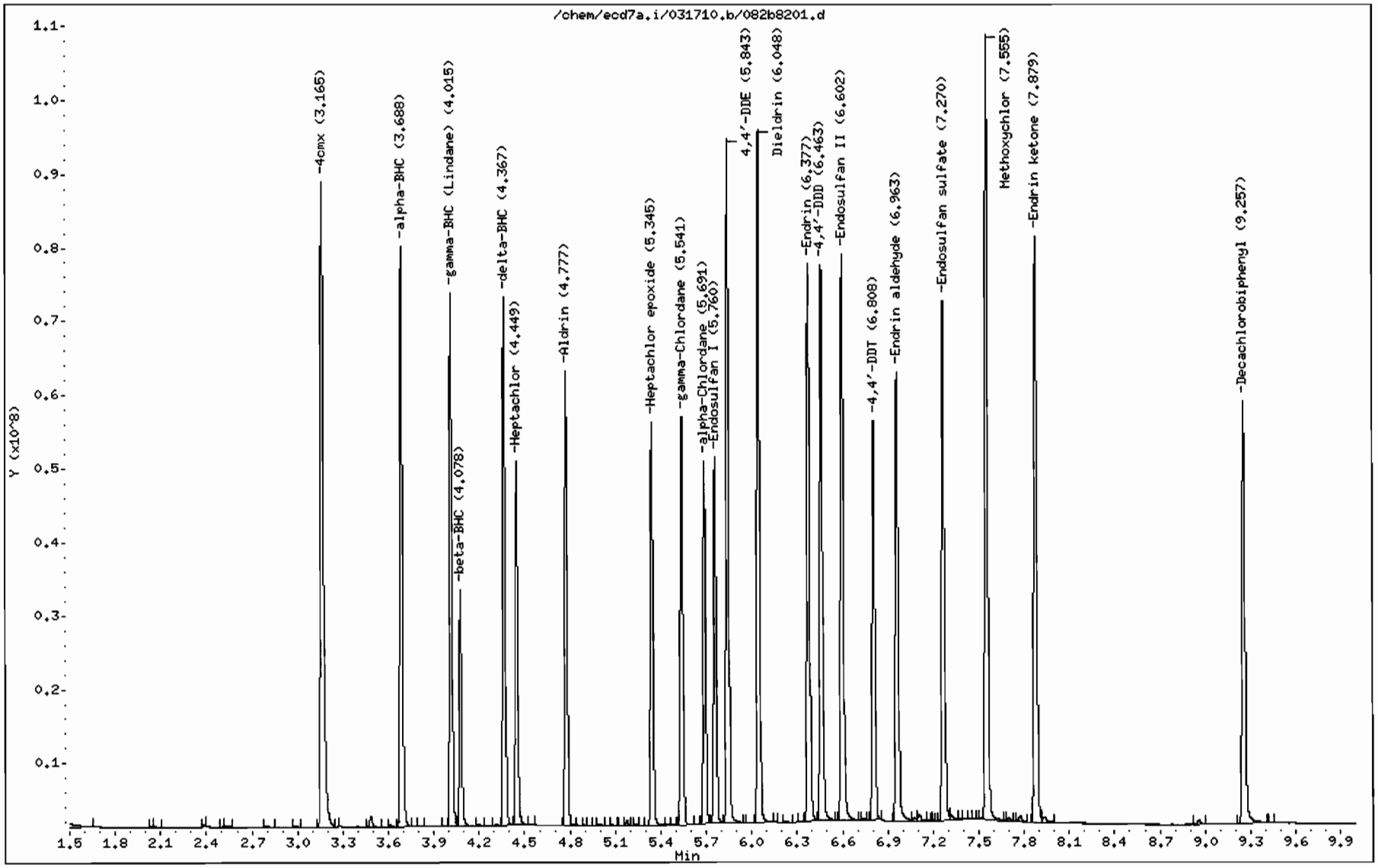

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CLP-1

Data file : /chem/ecd7a.i/031710.b/089f8901.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB09
Inj Date : 18-MAR-2010 11:32
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100305-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Meth Date : 18-Mar-2010 11:54 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010f1001.d
Als bottle: 89 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.277	3.277	0.000	147240736	100.000	104	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.528	3.529	-0.001	134341706	100.000	105	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.592	3.594	-0.002	55481819	100.000	97.9	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.922	3.924	-0.002	104633094	100.000	100	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.746	3.747	-0.001	128601680	100.000	105	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.187	4.189	-0.002	116515727	100.000	97.3	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.732	4.734	-0.002	107405931	100.000	101	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.849	4.851	-0.002	111576222	100.000	108	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.974	4.977	-0.003	98015426	100.000	95.3	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.109	5.111	-0.002	102324962	100.000	104	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.039	5.041	-0.002	187760178	200.000	212	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.341	5.342	-0.001	196187268	200.000	198	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.573	5.574	-0.001	164680378	200.000	212	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.629	5.631	-0.002	172019822	200.000	245	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.799	5.801	-0.002	166687987	200.000	197	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.226	6.228	-0.002	137942030	200.000	193	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.912	5.913	-0.001	129387284	200.000	186	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.682	6.683	-0.001	150015020	200.000	206	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.415	6.416	-0.001	255560971	1000.00	872	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.985	6.987	-0.002	183844581	200.000	197	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.859	2.860	-0.001	194738768	200.000	202	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.078	8.079	-0.001	140646712	200.000	208	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/089f8901.d

Date : 18-MAR-2010 11:32

Client ID: INDAB09

Sample Info: IWPE100305-10AB

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

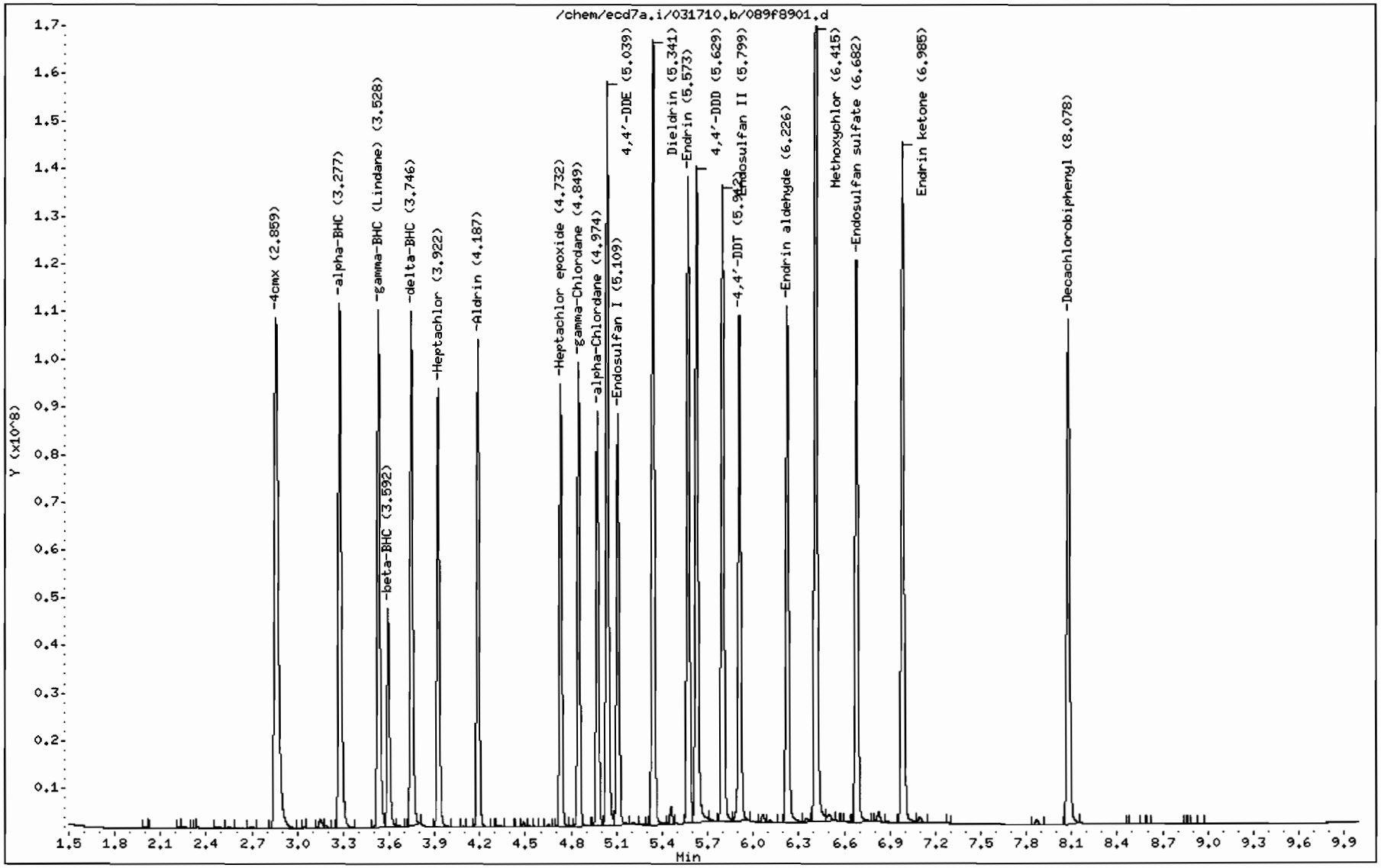

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/031710.b/089b8901.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB09
Inj Date : 18-MAR-2010 11:32
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100305-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Meth Date : 18-Mar-2010 11:54 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010b1001.d
Als bottle: 89 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.686	3.688	-0.002	88868030	100.000	97.4	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.014	4.015	-0.001	80622575	100.000	100	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.077	4.079	-0.002	34931410	100.000	94.6	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.448	4.449	-0.001	54198645	100.000	94.3	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.366	4.368	-0.002	77641577	100.000	98.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.776	4.778	-0.002	70060518	100.000	89.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.344	5.346	-0.002	63478568	100.000	94.0	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.540	5.541	-0.001	66364894	100.000	98.4	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.690	5.691	-0.001	58178866	100.000	87.4	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.759	5.761	-0.002	58856920	100.000	97.4	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.842	5.844	-0.002	111398144	200.000	205	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.047	6.049	-0.002	114888866	200.000	187	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.376	6.378	-0.002	93169249	200.000	200	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.462	6.464	-0.002	95025680	200.000	225	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.602	6.602	0.000	100930725	200.000	189	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
6.963	6.965	-0.002	79517656	200.000	186	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.807	6.809	-0.002	63457905	200.000	182	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.269	7.271	-0.002	88682410	200.000	187	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.555	7.556	-0.001	132177595	1000.00	863	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.878	7.880	-0.002	104149695	200.000	184	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.164	3.165	-0.001	125528050	200.000	194	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.257	9.258	-0.001	79568208	200.000	196	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/031710.b/089b8901.d
Date : 18-MAR-2010 11:32
Client ID: INDAB09
Sample Info: IWPE100305-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXH
Column diameter: 0.25

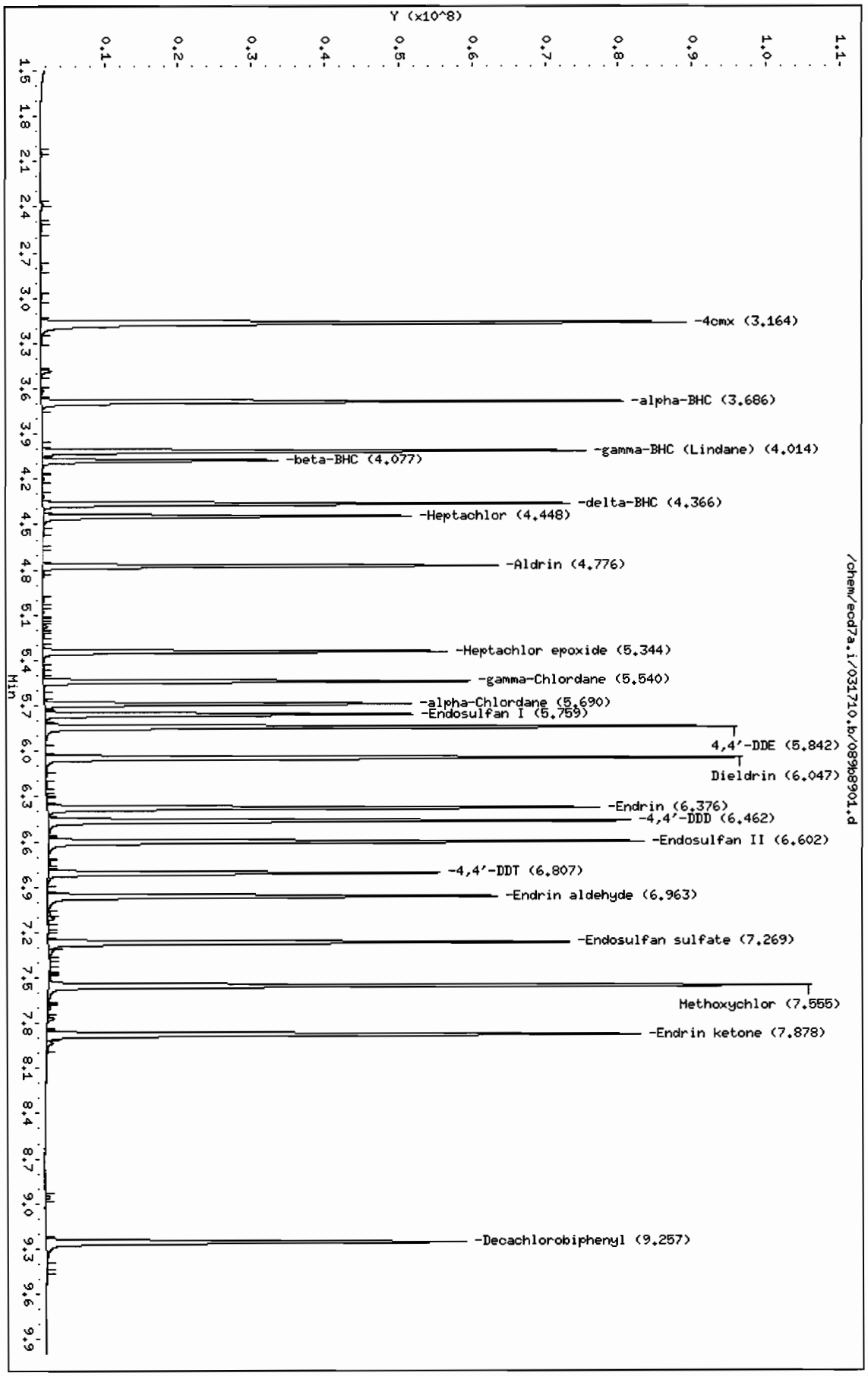

Page 1

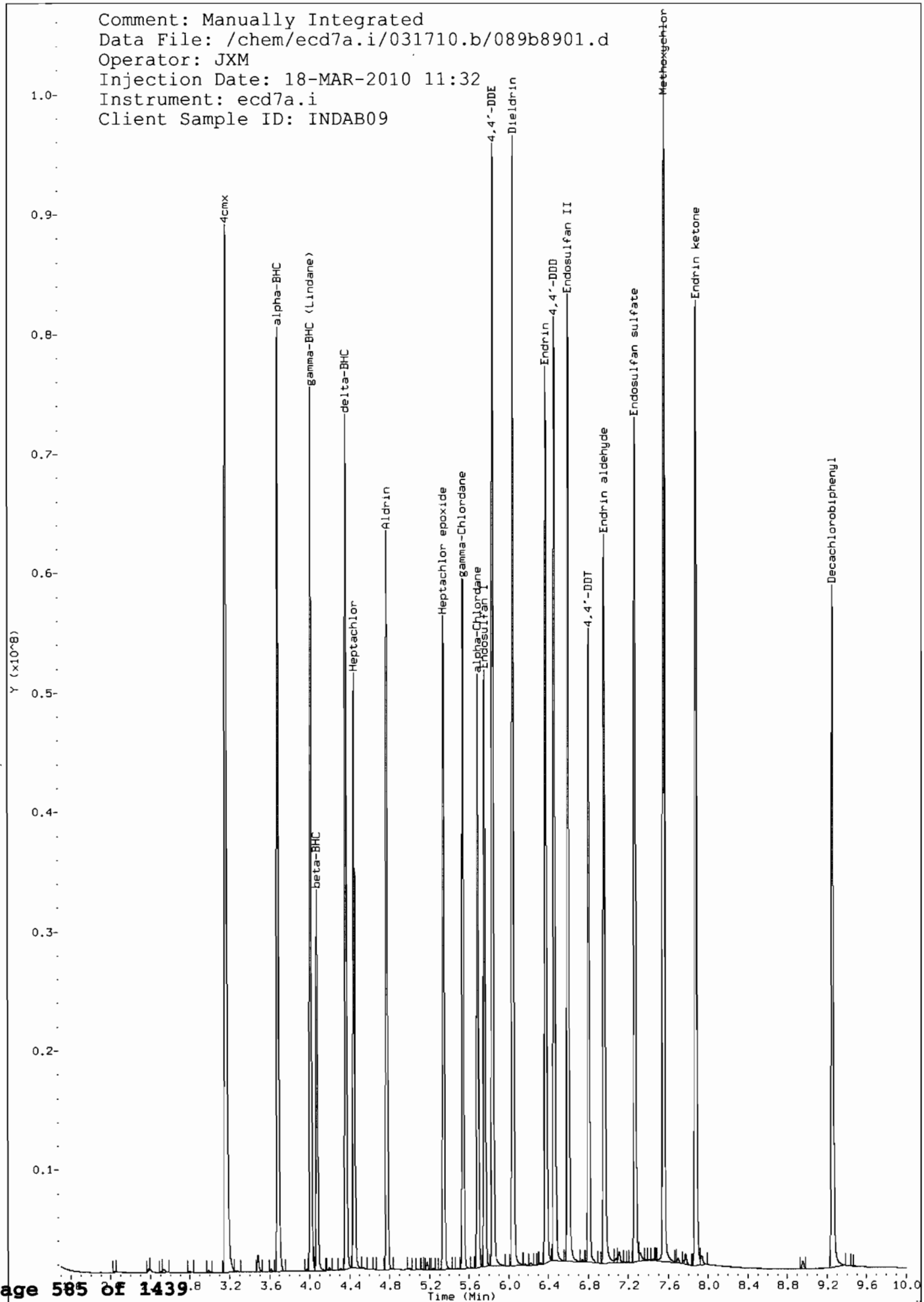
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Operator: JXM
Injection Date: 18-MAR-2010 11:32
Instrument: ecd7a.i
Client Sample ID: INDAB09
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

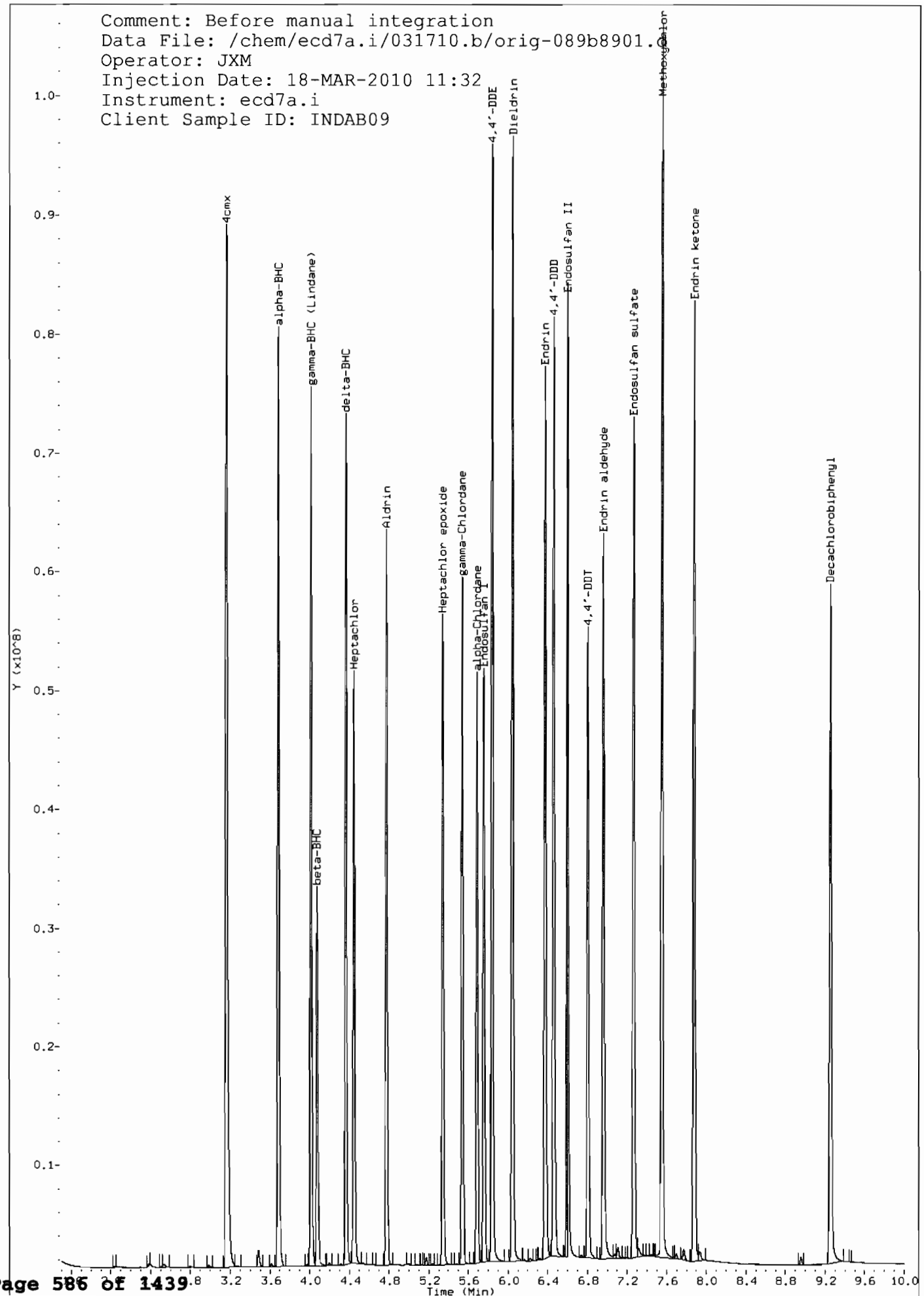
Comment: Before manual integration
Data File: /chem/ecd7a.i/031710.b/orig-089b8901.d
Operator: JXM
Injection Date: 18-MAR-2010 11:32
Instrument: ecd7a.i
Client Sample ID: INDAB09
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/10/10 03/10/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.86 DCB: 8.08

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100104-99	03/10/10	1123	2.86	8.09
02	PEM01	WPE100211-99	03/10/10	1140	2.85	8.08
03	INDAB01	WPE100310-01	03/10/10	1157	2.86	8.08
04	INDAB02	WPE100310-02	03/10/10	1214	2.86	8.08
05	INDAB03	WPE100310-03	03/10/10	1231	2.86	8.08
06	INDAB04	WPE100310-04	03/10/10	1248	2.86	8.08
07	INDAB05	IPE100204-02	03/10/10	1306	2.86	8.08
08	INDAB01	WPE100305-10	03/10/10	1323	2.86	8.08
09	TOXAPH01	WPE100310-11	03/10/10	1340		
10	TOXAPH02	WPE100310-12	03/10/10	1357		
11	TOXAPH03	WPE100310-13	03/10/10	1414		
12	TOXAPH04	WPE100310-14	03/10/10	1431		
13	TOXAPH05	IPE100204-40	03/10/10	1448		
14	TOXAPH01	WPE100125-52	03/10/10	1505		
15	CHLOR01	WPE100310-21	03/10/10	1522	2.86	8.09
16	CHLOR02	WPE100310-22	03/10/10	1539	2.86	8.09
17	CHLOR03	WPE100310-23	03/10/10	1556	2.86	8.08
18	CHLOR04	WPE100310-24	03/10/10	1614	2.86	8.08
19	CHLOR05	IPE100116-06	03/10/10	1631	2.86	8.08
20	CHLOR01	WPE100305-00	03/10/10	1648		8.09
21	AR166001	WPE100310-41	03/10/10	1705		
22	AR166002	WPE100310-42	03/10/10	1722		
23	AR166003	WPE100310-43	03/10/10	1739		
24	AR166004	WPE100310-44	03/10/10	1756		
25	AR166005	IPE100222-01	03/10/10	1813		
26	AR166001	WPE091209-60	03/10/10	1830		
27	AR125401	WAR100219-54	03/10/10	1847		
28	AR124201	WAR091217-42	03/10/10	1904		
29	AR124801	WAR091217-48	03/10/10	1921		
30	AR123201	WAR100104-32	03/10/10	1939		
31	AR122101	WAR100104-21	03/10/10	1956		
32	PIBLK02	WAR100104-99	03/10/10	2013	2.86	8.08

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/10/10 03/10/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.17 DCB: 9.27

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100104-99	03/10/10	1123	3.17	9.27
02	PEM01	WPE100211-99	03/10/10	1140	3.16	9.27
03	INDAB01	WPE100310-01	03/10/10	1157	3.17	9.27
04	INDAB02	WPE100310-02	03/10/10	1214	3.17	9.27
05	INDAB03	WPE100310-03	03/10/10	1231	3.17	9.27
06	INDAB04	WPE100310-04	03/10/10	1248	3.17	9.27
07	INDAB05	IPE100204-02	03/10/10	1306	3.17	9.27
08	INDAB01	WPE100305-10	03/10/10	1323	3.17	9.27
09	TOXAPH01	WPE100310-11	03/10/10	1340		
10	TOXAPH02	WPE100310-12	03/10/10	1357		
11	TOXAPH03	WPE100310-13	03/10/10	1414		
12	TOXAPH04	WPE100310-14	03/10/10	1431		
13	TOXAPH05	IPE100204-40	03/10/10	1448		
14	TOXAPH01	WPE100125-52	03/10/10	1505		
15	CHLOR01	WPE100310-21	03/10/10	1522	3.17	9.27
16	CHLOR02	WPE100310-22	03/10/10	1539	3.17	9.27
17	CHLOR03	WPE100310-23	03/10/10	1556	3.17	9.27
18	CHLOR04	WPE100310-24	03/10/10	1614	3.17	9.27
19	CHLOR05	IPE100116-06	03/10/10	1631	3.17	9.27
20	CHLOR01	WPE100305-00	03/10/10	1648	3.17	
21	AR166001	WPE100310-41	03/10/10	1705		
22	AR166002	WPE100310-42	03/10/10	1722		
23	AR166003	WPE100310-43	03/10/10	1739		
24	AR166004	WPE100310-44	03/10/10	1756		
25	AR166005	IPE100222-01	03/10/10	1813		
26	AR166001	WPE091209-60	03/10/10	1830		
27	AR125401	WAR100219-54	03/10/10	1847		
28	AR124201	WAR091217-42	03/10/10	1904		
29	AR124801	WAR091217-48	03/10/10	1921		
30	AR123201	WAR100104-32	03/10/10	1939		
31	AR122101	WAR100104-21	03/10/10	1956		
32	PIBLK02	WAR100104-99	03/10/10	2013	3.17	9.27

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

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FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/16/10 03/16/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.86 DCB: 8.09

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100104-99	03/16/10	0747	2.86	8.08
02	PEM01	WPE100211-99	03/16/10	0803	2.86	8.08
03	ZZZZZ	ZZZZZ	03/16/10	0821	2.86	8.08
04	TOXAPH01	WPE100125-52	03/16/10	0838		
05	ZZZZZ	ZZZZZ	03/16/10	0855	2.86	8.09
06	CHLOR01	WPE100305-00	03/16/10	0912		
07	INDAB01	WPE100316-01	03/16/10	0929	2.86	8.09
08	INDAB02	WPE100316-02	03/16/10	0946	2.86	8.09
09	INDAB03	WPE100316-03	03/16/10	1003	2.86	8.09
10	INDAB04	WPE100316-04	03/16/10	1020	2.86	8.09
11	INDAB05	IPE100204-02	03/16/10	1037	2.86	8.09
12	INDAB01	WPE100305-10	03/16/10	1054	2.86	8.09
13	PIBLK02	WAR100104-99	03/16/10	1111	2.86	8.09
14	PEM02	WPE100211-99	03/16/10	1128	2.86	8.09
15	ZZZZZ	ZZZZZ	03/16/10	1145	2.86	8.09
16	ZZZZZ	ZZZZZ	03/16/10	1202	2.86	8.08
17	ZZZZZ	ZZZZZ	03/16/10	1219	2.86	8.08
18	ZZZZZ	ZZZZZ	03/16/10	1236	2.86	8.08
19	ZZZZZ	ZZZZZ	03/16/10	1253	2.86	8.08
20	PIBLK03	WAR100104-99	03/16/10	1310	2.86	8.08
21	INDAB02	WPE100305-10	03/16/10	1327	2.86	8.09
22	PIBLK04	WAR100104-99	03/16/10	1344	2.86	8.09
23	ZZZZZ	ZZZZZ	03/16/10	1401	2.86	8.08
24	ZZZZZ	ZZZZZ	03/16/10	1418	2.86	8.09
25	ZZZZZ	ZZZZZ	03/16/10	1435	2.86	8.08
26	ZZZZZ	ZZZZZ	03/16/10	1452	2.86	8.08
27	ZZZZZ	ZZZZZ	03/16/10	1509	2.86	8.08
28	ZZZZZ	ZZZZZ	03/16/10	1526	2.86	8.08
29	ZZZZZ	ZZZZZ	03/16/10	1543	2.86	8.08
30	ZZZZZ	ZZZZZ	03/16/10	1600	2.86	8.08
31	PIBLK05	WAR100104-99	03/16/10	1617	2.86	8.09
32	INDAB03	WPE100305-10	03/16/10	1634	2.86	8.09

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

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8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/16/10 03/16/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.17 DCB: 9.27

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100104-99	03/16/10	0747	3.17	9.27
02	PEM01	WPE100211-99	03/16/10	0803	3.16	9.27
03	ZZZZZ	ZZZZZ	03/16/10	0821	3.16	9.27
04	TOXAPH01	WPE100125-52	03/16/10	0838		
05	ZZZZZ	ZZZZZ	03/16/10	0855	3.17	9.27
06	CHLOR01	WPE100305-00	03/16/10	0912		
07	INDAB01	WPE100316-01	03/16/10	0929	3.17	9.27
08	INDAB02	WPE100316-02	03/16/10	0946	3.17	9.27
09	INDAB03	WPE100316-03	03/16/10	1003	3.17	9.27
10	INDAB04	WPE100316-04	03/16/10	1020	3.17	9.27
11	INDAB05	IPE100204-02	03/16/10	1037	3.17	9.27
12	INDAB01	WPE100305-10	03/16/10	1054	3.17	9.27
13	PIBLK02	WAR100104-99	03/16/10	1111	3.17	9.27
14	PEM02	WPE100211-99	03/16/10	1128	3.17	9.27
15	ZZZZZ	ZZZZZ	03/16/10	1145	3.17	9.27
16	ZZZZZ	ZZZZZ	03/16/10	1202	3.17	9.27
17	ZZZZZ	ZZZZZ	03/16/10	1219	3.17	9.27
18	ZZZZZ	ZZZZZ	03/16/10	1236	3.17	9.27
19	ZZZZZ	ZZZZZ	03/16/10	1253	3.17	9.27
20	PIBLK03	WAR100104-99	03/16/10	1310	3.17	9.27
21	INDAB02	WPE100305-10	03/16/10	1327	3.17	9.27
22	PIBLK04	WAR100104-99	03/16/10	1344	3.17	9.27
23	ZZZZZ	ZZZZZ	03/16/10	1401	3.17	9.27
24	ZZZZZ	ZZZZZ	03/16/10	1418	3.17	9.27
25	ZZZZZ	ZZZZZ	03/16/10	1435	3.17	9.27
26	ZZZZZ	ZZZZZ	03/16/10	1452	3.17	9.27
27	ZZZZZ	ZZZZZ	03/16/10	1509	3.17	9.27
28	ZZZZZ	ZZZZZ	03/16/10	1526	3.17	9.27
29	ZZZZZ	ZZZZZ	03/16/10	1543	3.17	9.27
30	ZZZZZ	ZZZZZ	03/16/10	1600	3.17	9.27
31	PIBLK05	WAR100104-99	03/16/10	1617	3.17	9.27
32	INDAB03	WPE100305-10	03/16/10	1634	3.17	9.27

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/10/10 03/16/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.86 DCB: 8.08

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100104-99	03/17/10	1032	2.86	8.08
02	PEM01	WPE100211-99	03/17/10	1049	2.86	8.08
03	ZZZZZ	ZZZZZ	03/17/10	1106	2.86	8.08
04	GAPA01	WPE100114-05	03/17/10	1123	2.86	8.08
05	TOXAPH01	WPE100125-52	03/17/10	1140		
06	CHLOR01	WPE100305-00	03/17/10	1157		8.08
07	INDAB01	WPE100305-10	03/17/10	1215	2.86	8.08
08	PIBLK02	WPE100104-99	03/17/10	1232	2.86	8.08
09	ZZZZZ	ZZZZZ	03/17/10	1249	2.86	8.08
10	ZZZZZ	ZZZZZ	03/17/10	1306	2.86	8.08
11	ZZZZZ	ZZZZZ	03/17/10	1323	2.86	8.08
12	ZZZZZ	ZZZZZ	03/17/10	1340	2.86	8.08
13	ZZZZZ	ZZZZZ	03/17/10	1357	2.86	8.08
14	ZZZZZ	ZZZZZ	03/17/10	1414	2.86	8.08
15	ZZZZZ	ZZZZZ	03/17/10	1431	2.86	8.08
16	ZZZZZ	ZZZZZ	03/17/10	1448	2.86	8.08
17	INDAB02	WPE100305-10	03/17/10	1505	2.86	8.08
18	PIBLK03	WAR100104-99	03/17/10	1522	2.86	8.08
19	PEM02	WPE100211-99	03/17/10	1539	2.86	8.08
20	ZZZZZ	ZZZZZ	03/17/10	1556	2.86	8.08
21	ZZZZZ	ZZZZZ	03/17/10	1613	2.86	8.08
22	ZZZZZ	ZZZZZ	03/17/10	1630	2.86	8.08
23	ZZZZZ	ZZZZZ	03/17/10	1647	2.86	8.08
24	ZZZZZ	ZZZZZ	03/17/10	1704	2.86	8.08
25	PIBLK04	WAR100104-99	03/17/10	1721	2.86	8.08
26	INDAB03	WPE100305-10	03/17/10	1738	2.86	8.08
27	PIBLK05	WAR100104-99	03/17/10	1755	2.86	8.08
28	ZZZZZ	ZZZZZ	03/17/10	1812	2.86	8.08
29	ZZZZZ	ZZZZZ	03/17/10	1829	2.86	8.08
30	ZZZZZ	ZZZZZ	03/17/10	1846	2.86	8.08
31	ZZZZZ	ZZZZZ	03/17/10	1903	2.86	8.08
32	ZZZZZ	ZZZZZ	03/17/10	1920	2.86	8.08

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/10/10 03/16/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.86 DCB: 8.08

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/17/10	1938	2.86	8.08
02	ZZZZZ	ZZZZZ	03/17/10	1955	2.86	8.08
03	ZZZZZ	ZZZZZ	03/17/10	2012	2.86	8.08
04	ZZZZZ	ZZZZZ	03/17/10	2029	2.86	8.08
05	ZZZZZ	ZZZZZ	03/17/10	2046	2.86	8.08
06	PIBLK06	WAR100104-99	03/17/10	2103	2.86	8.08
07	INDAB04	WPE100305-10	03/17/10	2120	2.86	8.08
08	PIBLK07	WAR100104-99	03/17/10	2137	2.86	8.08
09	ZZZZZ	ZZZZZ	03/17/10	2154	2.86	8.08
10	ZZZZZ	ZZZZZ	03/17/10	2211	2.86	8.08
11	ZZZZZ	ZZZZZ	03/17/10	2228	2.86	8.08
12	ZZZZZ	ZZZZZ	03/17/10	2245	2.86	8.08
13	ZZZZZ	ZZZZZ	03/17/10	2302	2.86	8.08
14	ZZZZZ	ZZZZZ	03/17/10	2319	2.86	8.08
15	ZZZZZ	ZZZZZ	03/17/10	2336	2.86	8.08
16	ZZZZZ	ZZZZZ	03/17/10	2353	2.86	8.08
17	ZZZZZ	ZZZZZ	03/18/10	0010	2.86	8.08
18	ZZZZZ	ZZZZZ	03/18/10	0027	2.86	8.08
19	PIBLK08	WAR100104-99	03/18/10	0045	2.86	8.08
20	INDAB05	WPE100305-10	03/18/10	0102	2.86	8.08
21	PIBLK09	WAR100104-99	03/18/10	0119	2.86	8.08
22	ZZZZZ	ZZZZZ	03/18/10	0136	2.86	8.08
23	PIBLK10	WAR100104-99	03/18/10	0153	2.86	8.08
24	INDAB06	WPE100305-10	03/18/10	0210	2.86	8.08
25	PIBLK11	WAR100104-99	03/18/10	0227	2.86	8.08
26	PEM03	WPE100211-99	03/18/10	0244	2.86	8.08
27	PBLK01	1202071510	03/18/10	0301	2.86	8.08
28	PBLK01LCS	1202071511	03/18/10	0318	2.86	8.08
29	PBLK01TLCS	1202071545	03/18/10	0335	2.86	8.08
30	ZZZZZ	ZZZZZ	03/18/10	0352	2.86	8.08
31	ZZZZZ	ZZZZZ	03/18/10	0409	2.86	8.08
32	ZZZZZ	ZZZZZ	03/18/10	0426	2.86	8.08

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/10/10 03/16/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.86 DCB: 8.08

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/18/10	0443	2.86	8.08
02	ZZZZZ	ZZZZZ	03/18/10	0500	2.86	8.08
03	ZZZZZ	ZZZZZ	03/18/10	0517	2.86	8.08
04	ZZZZZ	ZZZZZ	03/18/10	0534	2.86	8.08
05	PIBLK12	WAR100104-99	03/18/10	0551	2.86	8.08
06	INDAB07	WPE100305-10	03/18/10	0608	2.86	8.08
07	PIBLK13	WAR100104-99	03/18/10	0625	2.86	8.08
08	ZZZZZ	ZZZZZ	03/18/10	0642	2.86	8.08
09	ZZZZZ	ZZZZZ	03/18/10	0659	2.86	8.08
10	ZZZZZ	ZZZZZ	03/18/10	0716	2.86	8.08
11	ZZZZZ	ZZZZZ	03/18/10	0733	2.86	8.08
12	ZZZZZ	ZZZZZ	03/18/10	0750	2.86	8.08
13	ZZZZZ	ZZZZZ	03/18/10	0808	2.86	8.08
14	ZZZZZ	ZZZZZ	03/18/10	0825	2.86	8.08
15	ZZZZZ	ZZZZZ	03/18/10	0842	2.86	8.08
16	ZZZZZ	ZZZZZ	03/18/10	0859	2.86	8.08
17	PIBLK14	WAR100104-99	03/18/10	0916	2.86	8.08
18	INDAB08	WPE100305-10	03/18/10	0933	2.86	8.08
19	PIBLK15	WAR100104-99	03/18/10	0950	2.86	8.08
20	RE46-10-13203	248702001	03/18/10	1007	2.86	8.08
21	RE46-10-13203MS	1202071512	03/18/10	1024	2.86	8.08
22	RE46-10-13203MSD	1202071513	03/18/10	1041	2.86	8.08
23	RE46-10-13202	248702002	03/18/10	1058	2.86	8.08
24	PIBLK16	WAR100104-99	03/18/10	1115	2.86	8.08
25	INDAB09	WPE100305-10	03/18/10	1132	2.86	8.08
26	PIBLK17	WAR100104-99	03/18/10	1149	2.86	8.08
27	ZZZZZ	ZZZZZ	03/18/10	1206	2.86	8.08
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/10/10 03/16/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.17 DCB: 9.26

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100104-99	03/17/10	1032	3.16	9.26
02	PEM01	WPE100211-99	03/17/10	1049	3.16	9.26
03	ZZZZZ	ZZZZZ	03/17/10	1106	3.16	9.26
04	GAPA01	WPE100114-05	03/17/10	1123	3.16	9.26
05	TOXAPH01	WPE100125-52	03/17/10	1140		
06	CHLOR01	WPE100305-00	03/17/10	1157	3.17	
07	INDAB01	WPE100305-10	03/17/10	1214	3.17	9.26
08	PIBLK02	WPE100104-99	03/17/10	1232	3.16	9.26
09	ZZZZZ	ZZZZZ	03/17/10	1249	3.16	9.26
10	ZZZZZ	ZZZZZ	03/17/10	1306	3.16	9.26
11	ZZZZZ	ZZZZZ	03/17/10	1323	3.16	9.26
12	ZZZZZ	ZZZZZ	03/17/10	1340	3.17	9.26
13	ZZZZZ	ZZZZZ	03/17/10	1357	3.16	9.26
14	ZZZZZ	ZZZZZ	03/17/10	1414	3.16	9.26
15	ZZZZZ	ZZZZZ	03/17/10	1431	3.16	9.26
16	ZZZZZ	ZZZZZ	03/17/10	1448	3.16	9.26
17	INDAB02	WPE100305-10	03/17/10	1505	3.16	9.26
18	PIBLK03	WAR100104-99	03/17/10	1522	3.16	9.26
19	PEM02	WPE100211-99	03/17/10	1539	3.16	9.26
20	ZZZZZ	ZZZZZ	03/17/10	1556	3.16	9.26
21	ZZZZZ	ZZZZZ	03/17/10	1613	3.16	9.26
22	ZZZZZ	ZZZZZ	03/17/10	1630	3.16	9.26
23	ZZZZZ	ZZZZZ	03/17/10	1647	3.16	9.26
24	M1010002DUP	1202071584	03/17/10	1704	3.16	9.26
25	PIBLK04	WAR100104-99	03/17/10	1721	3.16	9.26
26	INDAB03	WPE100305-10	03/17/10	1738	3.16	9.26
27	PIBLK05	WAR100104-99	03/17/10	1755	3.16	9.26
28	ZZZZZ	ZZZZZ	03/17/10	1812	3.16	9.26
29	ZZZZZ	ZZZZZ	03/17/10	1829	3.16	9.26
30	ZZZZZ	ZZZZZ	03/17/10	1846	3.16	9.26
31	ZZZZZ	ZZZZZ	03/17/10	1903	3.16	9.26
32	ZZZZZ	ZZZZZ	03/17/10	1920	3.16	9.26

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/10/10 03/16/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.17 DCB: 9.26

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/17/10	1938	3.16	9.26
02	ZZZZZ	ZZZZZ	03/17/10	1955	3.16	9.26
03	ZZZZZ	ZZZZZ	03/17/10	2012	3.16	9.26
04	ZZZZZ	ZZZZZ	03/17/10	2029	3.16	9.26
05	ZZZZZ	ZZZZZ	03/17/10	2046	3.16	9.26
06	PIBLK06	WAR100104-99	03/17/10	2103	3.16	9.26
07	INDAB04	WPE100305-10	03/17/10	2120	3.16	9.26
08	PIBLK07	WAR100104-99	03/17/10	2137	3.16	9.26
09	ZZZZZ	ZZZZZ	03/17/10	2154	3.16	9.26
10	ZZZZZ	ZZZZZ	03/17/10	2211	3.16	9.26
11	ZZZZZ	ZZZZZ	03/17/10	2228	3.16	9.26
12	ZZZZZ	ZZZZZ	03/17/10	2245	3.16	9.26
13	ZZZZZ	ZZZZZ	03/17/10	2302	3.16	9.26
14	ZZZZZ	ZZZZZ	03/17/10	2319	3.16	9.26
15	ZZZZZ	ZZZZZ	03/17/10	2336	3.16	9.26
16	ZZZZZ	ZZZZZ	03/17/10	2353	3.16	9.26
17	ZZZZZ	ZZZZZ	03/18/10	0010	3.16	9.26
18	ZZZZZ	ZZZZZ	03/18/10	0027	3.16	9.26
19	PIBLK08	WAR100104-99	03/18/10	0045	3.16	9.26
20	INDAB05	WPE100305-10	03/18/10	0102	3.16	9.26
21	PIBLK09	WAR100104-99	03/18/10	0119	3.16	9.26
22	ZZZZZ	ZZZZZ	03/18/10	0136	3.16	9.26
23	PIBLK10	WAR100104-99	03/18/10	0153	3.16	9.26
24	INDAB06	WPE100305-10	03/18/10	0210	3.16	9.26
25	PIBLK11	WAR100104-99	03/18/10	0227	3.16	9.26
26	PEM03	WPE100211-99	03/18/10	0244	3.16	9.26
27	PBLK01	1202071510	03/18/10	0301	3.16	9.26
28	PBLK01LCS	1202071511	03/18/10	0318	3.16	9.26
29	PBLK01TLCS	1202071545	03/18/10	0335	3.16	9.26
30	ZZZZZ	ZZZZZ	03/18/10	0352	3.16	9.26
31	ZZZZZ	ZZZZZ	03/18/10	0409	3.16	9.26
32	ZZZZZ	ZZZZZ	03/18/10	0426	3.16	9.26

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/10/10 03/16/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.17 DCB: 9.26

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/18/10	0443	3.16	9.26
02	ZZZZZ	ZZZZZ	03/18/10	0500	3.16	9.26
03	ZZZZZ	ZZZZZ	03/18/10	0517	3.16	9.26
04	ZZZZZ	ZZZZZ	03/18/10	0534	3.16	9.26
05	PIBLK12	WAR100104-99	03/18/10	0551	3.16	9.26
06	INDAB07	WPE100305-10	03/18/10	0608	3.16	9.26
07	PIBLK13	WAR100104-99	03/18/10	0625	3.16	9.26
08	ZZZZZ	ZZZZZ	03/18/10	0642	3.16	9.26
09	ZZZZZ	ZZZZZ	03/18/10	0659	3.16	9.26
10	ZZZZZ	ZZZZZ	03/18/10	0716	3.16	9.26
11	ZZZZZ	ZZZZZ	03/18/10	0733	3.16	9.26
12	ZZZZZ	ZZZZZ	03/18/10	0750	3.16	9.26
13	ZZZZZ	ZZZZZ	03/18/10	0808	3.16	9.26
14	ZZZZZ	ZZZZZ	03/18/10	0825	3.16	9.26
15	ZZZZZ	ZZZZZ	03/18/10	0842	3.16	9.26
16	ZZZZZ	ZZZZZ	03/18/10	0859	3.16	9.26
17	PIBLK14	WAR100104-99	03/18/10	0916	3.16	9.26
18	INDAB08	WPE100305-10	03/18/10	0933	3.17	9.26
19	PIBLK15	WAR100104-99	03/18/10	0950	3.16	9.26
20	RE46-10-13203	248702001	03/18/10	1007	3.16	9.26
21	RE46-10-13203MS	1202071512	03/18/10	1024	3.16	9.26
22	RE46-10-13203MSD	1202071513	03/18/10	1041	3.16	9.26
23	RE46-10-13202	248702002	03/18/10	1058	3.16	9.26
24	PIBLK016	WAR100104-99	03/18/10	1115	3.16	9.26
25	INDAB09	WPE100305-10	03/18/10	1132	3.16	9.26
26	PIBLK17	WAR100104-99	03/18/10	1149	3.16	9.26
27	ZZZZZ	ZZZZZ	03/18/10	1206	3.16	9.26
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–2264 **Client ID:** LCS for batch 965432

Lab Sample ID: 1202071511

Data File:	060f6001.d	**Data File:**	060b6001.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	18–MAR–10 03:18	**Analyzed:**	18–MAR–10 03:18

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							6.14
Column 1	1	3.28	3.25 – 3.31	14		ug/kg	
Column 2	1	3.69	3.66 – 3.72	13.2		ug/kg	
gamma–BHC (Lindane)							7.77
Column 1	1	3.53	3.5 – 3.56	14.1		ug/kg	
Column 2	1	4.01	3.99 – 4.05	13.1		ug/kg	
beta–BHC							.0698
Column 1	1	3.59	3.56 – 3.62	13.1		ug/kg	
Column 2	1	4.08	4.05 – 4.11	13.1		ug/kg	
delta–BHC							4.8
Column 1	1	3.75	3.72 – 3.78	14.8		ug/kg	
Column 2	1	4.37	4.34 – 4.4	14.1		ug/kg	
Heptachlor							3.58
Column 1	1	3.92	3.89 – 3.95	14.4		ug/kg	
Column 2	1	4.45	4.42 – 4.48	13.9		ug/kg	

Identification Summary

SDG Number: 10–2264 **Client ID:** LCS for batch 965432

Lab Sample ID: 1202071511

Data File:	060f6001.d	**Data File:**	060b6001.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	18–MAR–10 03:18	**Analyzed:**	18–MAR–10 03:18

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							8.43
Column 1	1	4.19	4.16 – 4.22	12.9		ug/kg	
Column 2	1	4.78	4.75 – 4.81	11.9		ug/kg	
Heptachlor epoxide							6.99
Column 1	1	4.73	4.7 – 4.76	13.7		ug/kg	
Column 2	1	5.34	5.32 – 5.38	12.8		ug/kg	
gamma–Chlordane							3.92
Column 1	1	4.85	4.82 – 4.88	13.7		ug/kg	
Column 2	1	5.54	5.51 – 5.57	13.1		ug/kg	
alpha–Chlordane							5.34
Column 1	1	4.98	4.95 – 5.01	13.9		ug/kg	
Column 2	1	5.69	5.66 – 5.72	13.2		ug/kg	
Endosulfan I							2.62
Column 1	1	5.11	5.08 – 5.14	13.6		ug/kg	
Column 2	1	5.76	5.73 – 5.79	13.2		ug/kg	

Identification Summary

SDG Number: 10–2264 **Client ID:** LCS for batch 965432

Lab Sample ID: 1202071511

Data File:	060f6001.d	**Data File:**	060b6001.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	18–MAR–10 03:18	**Analyzed:**	18–MAR–10 03:18

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								.341
	Column 1	1	5.04	5.01 – 5.07	34.9		ug/kg	
	Column 2	1	5.84	5.81 – 5.87	35		ug/kg	
Dieldrin								3.48
	Column 1	1	5.34	5.31 – 5.37	33.6		ug/kg	
	Column 2	1	6.05	6.02 – 6.08	32.5		ug/kg	
Endrin								2.3
	Column 1	1	5.57	5.54 – 5.6	38.8		ug/kg	
	Column 2	1	6.38	6.35 – 6.41	38		ug/kg	
4,4'–DDD								4.38
	Column 1	1	5.63	5.6 – 5.66	40.5		ug/kg	
	Column 2	1	6.46	6.43 – 6.49	38.8		ug/kg	
Endosulfan II								2.79
	Column 1	1	5.8	5.77 – 5.83	36.1		ug/kg	
	Column 2	1	6.6	6.57 – 6.63	35.1		ug/kg	

Identification Summary

SDG Number: 10-2264 **Client ID:** LCS for batch 965432

Lab Sample ID: 1202071511

Data File:	060f6001.d	**Data File:**	060b6001.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	18-MAR-10 03:18	**Analyzed:**	18-MAR-10 03:18

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							2.8
Column 1	1	6.23	6.2 – 6.26	33.4		ug/kg	
Column 2	1	6.96	6.93 – 6.99	32.4		ug/kg	
4,4'-DDT							.591
Column 1	1	5.91	5.88 – 5.94	39.6		ug/kg	
Column 2	1	6.81	6.78 – 6.84	39.8		ug/kg	
Endosulfan sulfate							6.79
Column 1	1	6.68	6.65 – 6.71	39.5		ug/kg	
Column 2	1	7.27	7.24 – 7.3	36.9		ug/kg	
Methoxychlor							.399
Column 1	1	6.41	6.39 – 6.45	167		ug/kg	
Column 2	1	7.55	7.53 – 7.59	166		ug/kg	
Endrin ketone							4.01
Column 1	1	6.99	6.96 – 7.02	37.8		ug/kg	
Column 2	1	7.88	7.85 – 7.91	36.4		ug/kg	

Identification Summary

SDG Number: 10–2264 **Client ID:** LCS for batch 965432

Lab Sample ID: 1202071545

Data File:	061f6101.d	**Data File:**	061b6101.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	18–MAR–10 03:35	**Analyzed:**	18–MAR–10 03:35

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							13.7
Column 1	1	5.24	5.21 – 5.27	137		ug/kg	
	2	5.35	5.31 – 5.37	126		ug/kg	
	3	5.43	5.4 – 5.46	128		ug/kg	
	4	5.5	5.46 – 5.52	123		ug/kg	
	5	5.6	5.57 – 5.63	125		ug/kg	
					128		
Column 2	1	6.02	5.98 – 6.04	114		ug/kg	
	2	6.08	6.05 – 6.11	99.1		ug/kg	
	3	6.14	6.11 – 6.17	112		ug/kg	
	4	6.2	6.18 – 6.24	120		ug/kg	
	5	6.33	6.31 – 6.37	113		ug/kg	
					112		

Identification Summary

SDG Number: 10–2264 **Client ID:** RE46–10–13203MS

Lab Sample ID: 1202071512

Data File:	085f8501.d	**Data File:**	085b8501.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	18–MAR–10 10:24	**Analyzed:**	18–MAR–10 10:24

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							5.65
Column 1	1	3.28	3.25 – 3.31	11.1		ug/kg	
Column 2	1	3.69	3.66 – 3.72	10.5		ug/kg	
gamma–BHC (Lindane)							6.26
Column 1	1	3.53	3.5 – 3.56	11.7		ug/kg	
Column 2	1	4.01	3.99 – 4.05	10.9		ug/kg	
beta–BHC							3.77
Column 1	1	3.59	3.56 – 3.62	12		ug/kg	
Column 2	1	4.08	4.05 – 4.11	11.6		ug/kg	
delta–BHC							4.28
Column 1	1	3.75	3.72 – 3.78	11.5		ug/kg	
Column 2	1	4.37	4.34 – 4.4	11		ug/kg	
Heptachlor							3.01
Column 1	1	3.92	3.89 – 3.95	11.8		ug/kg	
Column 2	1	4.45	4.42 – 4.48	11.4		ug/kg	

Identification Summary

SDG Number: 10–2264 **Client ID:** RE46–10–13203MS

Lab Sample ID: 1202071512

Data File:	085f8501.d	**Data File:**	085b8501.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	18–MAR–10 10:24	**Analyzed:**	18–MAR–10 10:24

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							10.9
Column 1	1	4.19	4.16 – 4.22	11.4		ug/kg	
Column 2	1	4.78	4.75 – 4.81	10.2		ug/kg	
Heptachlor epoxide							9.57
Column 1	1	4.73	4.7 – 4.76	12.4		ug/kg	
Column 2	1	5.34	5.32 – 5.38	13.6		ug/kg	
gamma–Chlordane							10.9
Column 1	1	4.85	4.82 – 4.88	10.8		ug/kg	
Column 2	1	5.54	5.51 – 5.57	9.71		ug/kg	
alpha–Chlordane							23.5
Column 1	1	4.97	4.95 – 5.01	13.8		ug/kg	
Column 2	1	5.69	5.66 – 5.72	10.9		ug/kg	
Endosulfan I							1.49
Column 1	1	5.11	5.08 – 5.14	11		ug/kg	
Column 2	1	5.76	5.73 – 5.79	10.9		ug/kg	

Identification Summary

SDG Number: 10–2264 **Client ID:** RE46–10–13203MS

Lab Sample ID: 1202071512

Data File:	085f8501.d	**Data File:**	085b8501.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	18–MAR–10 10:24	**Analyzed:**	18–MAR–10 10:24

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								15.5
	Column 1	1	5.04	5.01 – 5.07	34.4		ug/kg	
	Column 2	1	5.84	5.81 – 5.87	29.5		ug/kg	
Dieldrin								19.5
	Column 1	1	5.34	5.31 – 5.37	33.5		ug/kg	
	Column 2	1	6.05	6.02 – 6.08	27.6		ug/kg	
Endrin								7.21
	Column 1	1	5.57	5.54 – 5.6	35.9		ug/kg	
	Column 2	1	6.38	6.35 – 6.41	33.4		ug/kg	
4,4'–DDD								24.1
	Column 1	1	5.63	5.6 – 5.66	42.7		ug/kg	
	Column 2	1	6.46	6.43 – 6.49	33.5		ug/kg	
Endosulfan II								13.7
	Column 1	1	5.8	5.77 – 5.83	31.3		ug/kg	
	Column 2	1	6.6	6.57 – 6.63	35.9		ug/kg	

Identification Summary

SDG Number: 10–2264 **Client ID:** RE46–10–13203MS

Lab Sample ID: 1202071512

Data File:	085f8501.d	**Data File:**	085b8501.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	18–MAR–10 10:24	**Analyzed:**	18–MAR–10 10:24

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							1.06
Column 1	1	6.23	6.2 – 6.26	23.4		ug/kg	
Column 2	1	6.96	6.93 – 6.99	23.2		ug/kg	
4,4'–DDT							40.4
Column 1	1	5.91	5.88 – 5.94	31.4		ug/kg	
Column 2	1	6.81	6.78 – 6.84	47.2		ug/kg	
Endosulfan sulfate							4.68
Column 1	1	6.68	6.65 – 6.71	30.7		ug/kg	
Column 2	1	7.27	7.24 – 7.3	32.1		ug/kg	
Methoxychlor							11.8
Column 1	1	6.41	6.39 – 6.45	129		ug/kg	
Column 2	1	7.56	7.53 – 7.59	114		ug/kg	
Endrin ketone							12.1
Column 1	1	6.99	6.96 – 7.02	31.9		ug/kg	
Column 2	1	7.88	7.85 – 7.91	28.3		ug/kg	

Identification Summary

SDG Number: 10–2264 **Client ID:** RE46–10–13203MSD

Lab Sample ID: 1202071513

Data File:	086f8601.d	**Data File:**	086b8601.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	18–MAR–10 10:41	**Analyzed:**	18–MAR–10 10:41

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							6.83
Column 1	1	3.28	3.25 – 3.31	12.4		ug/kg	
Column 2	1	3.69	3.66 – 3.72	11.6		ug/kg	
gamma–BHC (Lindane)							6.17
Column 1	1	3.53	3.5 – 3.56	12.9		ug/kg	
Column 2	1	4.01	3.99 – 4.05	12.1		ug/kg	
beta–BHC							3.21
Column 1	1	3.59	3.56 – 3.62	13.1		ug/kg	
Column 2	1	4.08	4.05 – 4.11	12.7		ug/kg	
delta–BHC							4.37
Column 1	1	3.75	3.72 – 3.78	12.8		ug/kg	
Column 2	1	4.37	4.34 – 4.4	12.2		ug/kg	
Heptachlor							7.21
Column 1	1	3.92	3.89 – 3.95	13.4		ug/kg	
Column 2	1	4.45	4.42 – 4.48	12.5		ug/kg	

Identification Summary

SDG Number: 10-2264 **Client ID:** RE46-10-13203MSD

Lab Sample ID: 1202071513

Data File:	086f8601.d	**Data File:**	086b8601.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	18-MAR-10 10:41	**Analyzed:**	18-MAR-10 10:41

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							12.3
Column 1	1	4.19	4.16 – 4.22	13		ug/kg	
Column 2	1	4.78	4.75 – 4.81	11.5		ug/kg	
Heptachlor epoxide							3.19
Column 1	1	4.73	4.7 – 4.76	13.9		ug/kg	
Column 2	1	5.34	5.32 – 5.38	13.4		ug/kg	
gamma-Chlordane							8.05
Column 1	1	4.85	4.82 – 4.88	11.6		ug/kg	
Column 2	1	5.54	5.51 – 5.57	10.7		ug/kg	
alpha-Chlordane							25.2
Column 1	1	4.97	4.95 – 5.01	15.6		ug/kg	
Column 2	1	5.69	5.66 – 5.72	12.1		ug/kg	
Endosulfan I							2.1
Column 1	1	5.11	5.08 – 5.14	12.4		ug/kg	
Column 2	1	5.76	5.73 – 5.79	12.1		ug/kg	

Identification Summary

SDG Number: 10–2264 **Client ID:** RE46–10–13203MSD

Lab Sample ID: 1202071513

Data File:	086f8601.d	**Data File:**	086b8601.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	18–MAR–10 10:41	**Analyzed:**	18–MAR–10 10:41

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								15.9
	Column 1	1	5.04	5.01 – 5.07	39.9		ug/kg	
	Column 2	1	5.84	5.81 – 5.87	34		ug/kg	
Dieldrin								18.7
	Column 1	1	5.34	5.31 – 5.37	38.7		ug/kg	
	Column 2	1	6.05	6.02 – 6.08	32.1		ug/kg	
Endrin								2.22
	Column 1	1	5.57	5.54 – 5.6	39.2		ug/kg	
	Column 2	1	6.38	6.35 – 6.41	38.3		ug/kg	
4,4'–DDD								20.5
	Column 1	1	5.63	5.6 – 5.66	46.8		ug/kg	
	Column 2	1	6.46	6.43 – 6.49	38.1		ug/kg	
Endosulfan II								20.1
	Column 1	1	5.8	5.77 – 5.83	33.8		ug/kg	
	Column 2	1	6.6	6.57 – 6.63	41.4		ug/kg	

Identification Summary

SDG Number: 10–2264 **Client ID:** RE46–10–13203MSD

Lab Sample ID: 1202071513

Data File:	086f8601.d	**Data File:**	086b8601.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	18–MAR–10 10:41	**Analyzed:**	18–MAR–10 10:41

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							2.33
Column 1	1	6.23	6.2 – 6.26	25.5		ug/kg	
Column 2	1	6.96	6.93 – 6.99	26.1		ug/kg	
4,4'–DDT							46.6
Column 1	1	5.91	5.88 – 5.94	36.1		ug/kg	
Column 2	1	6.81	6.78 – 6.84	58		ug/kg	
Endosulfan sulfate							9.35
Column 1	1	6.68	6.65 – 6.71	32.2		ug/kg	
Column 2	1	7.27	7.24 – 7.3	35.3		ug/kg	
Methoxychlor							5.13
Column 1	1	6.42	6.39 – 6.45	135		ug/kg	
Column 2	1	7.55	7.53 – 7.59	129		ug/kg	
Endrin ketone							13.4
Column 1	1	6.99	6.96 – 7.02	35.7		ug/kg	
Column 2	1	7.88	7.85 – 7.91	31.2		ug/kg	

QUALITY CONTROL DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2264**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071510**				
Client Sample:	**QC for batch 965432**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965432**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**965433**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 03:01**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/16/2010 11:42**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**059f5901.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	059b5901.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.667	ug/kg	0.167	0.667	1
58–89–9	gamma–BHC (Lindane)	U	0.667	ug/kg	0.167	0.667	1
319–85–7	beta–BHC	U	0.667	ug/kg	0.167	0.667	1
319–86–8	delta–BHC	U	0.667	ug/kg	0.167	0.667	1
76–44–8	Heptachlor	U	0.667	ug/kg	0.167	0.667	1
309–00–2	Aldrin	U	0.667	ug/kg	0.167	0.667	1
1024–57–3	Heptachlor epoxide	U	0.667	ug/kg	0.208	0.667	1
5103–74–2	gamma–Chlordane	U	0.667	ug/kg	0.167	0.667	1
5103–71–9	alpha–Chlordane	U	0.667	ug/kg	0.167	0.667	1
959–98–8	Endosulfan I	U	0.667	ug/kg	0.167	0.667	1
72–55–9	4,4'–DDE	U	1.33	ug/kg	0.333	1.33	1
60–57–I	Dieldrin	U	1.33	ug/kg	0.333	1.33	1
72–20–8	Endrin	U	1.33	ug/kg	0.333	1.33	1
72–54–8	4,4'–DDD	U	1.33	ug/kg	0.333	1.33	1
33213–65–9	Endosulfan II	U	1.33	ug/kg	0.333	1.33	1
7421–93–4	Endrin aldehyde	U	1.33	ug/kg	0.333	1.33	1
50–29–3	4,4'–DDT	U	1.33	ug/kg	0.333	1.33	1
1031–07–8	Endosulfan sulfate	U	1.33	ug/kg	0.333	1.33	1
72–43–5	Methoxychlor	U	6.67	ug/kg	1.67	6.67	1
53494–70–5	Endrin ketone	U	1.33	ug/kg	0.333	1.33	1
8001–35–2	Toxaphene	U	16.7	ug/kg	5.55	16.7	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/031710.b/059f5901A.d
Lab Smp Id: 1202071510 Client Smp ID: PBLK01
Inj Date : 18-MAR-2010 03:01
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202071510|1|
Misc Info : |ECD81A_1S|965433|SVP|MB|
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Meth Date : 18-Mar-2010 11:54 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010f1001.d
Als bottle: 59 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.860	2.860	0.000	119670801	124.359	20.7	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.079	8.079	0.000	117607715	173.962	29.0	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/059f5901A.d

Date : 18-MAR-2010 03:01

Client ID: PBLK01

Sample Info: |120207151011|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

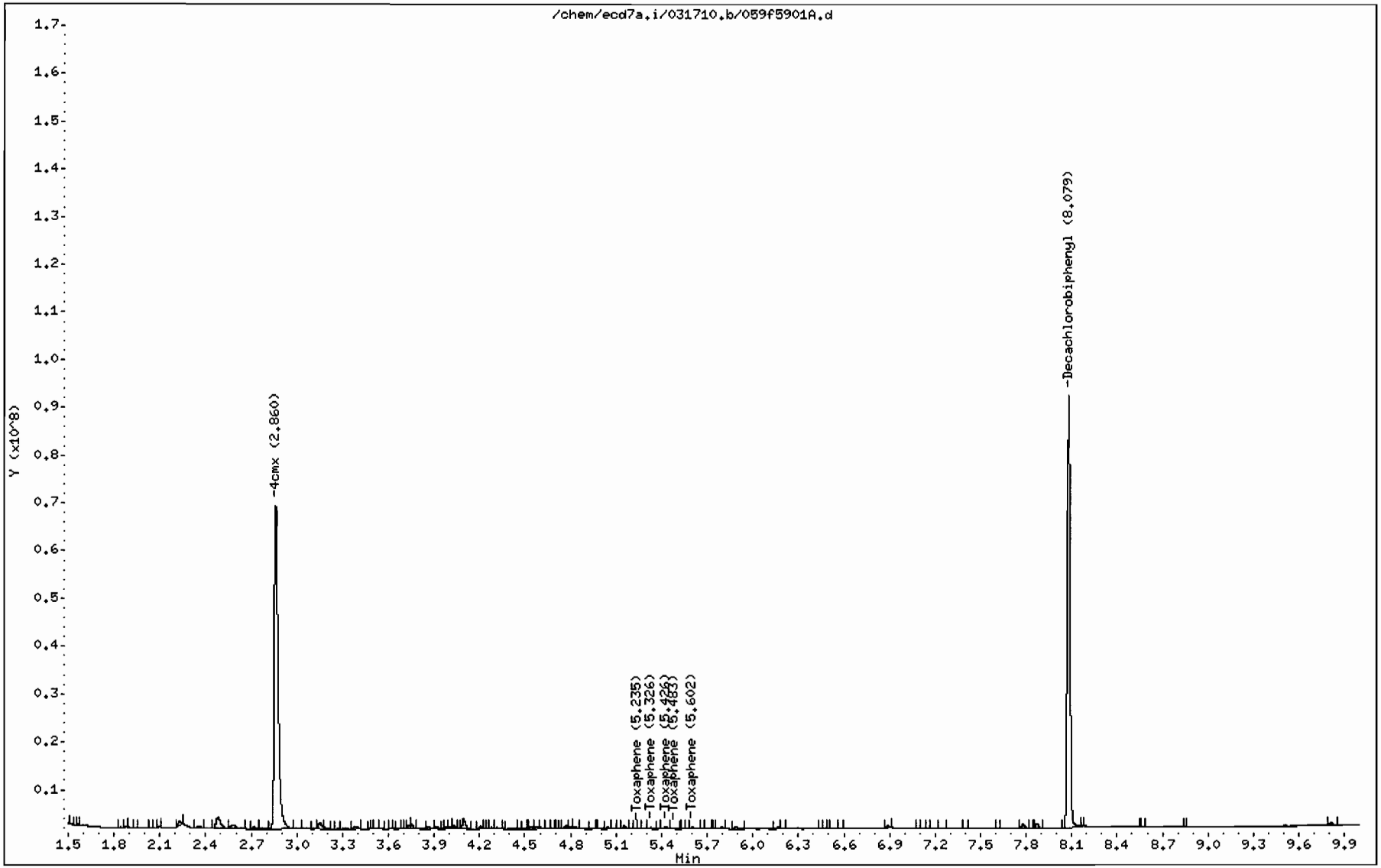

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/031710.b/059b5901A.d
Lab Smp Id: 1202071510 Client Smp ID: PBLK01
Inj Date : 18-MAR-2010 03:01
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202071510|1|
Misc Info : |ECD81A_1S|965433|SVP|MB|
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Meth Date : 18-Mar-2010 11:54 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010b1001.d
Als bottle: 59 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.163	3.165	-0.002	84580660	130.763	21.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.258	9.258	0.000	67317432	166.124	27.7	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/059b5901A.d

Date : 18-MAR-2010 03:01

Client ID: PBLK01

Sample Info: |120207151011|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

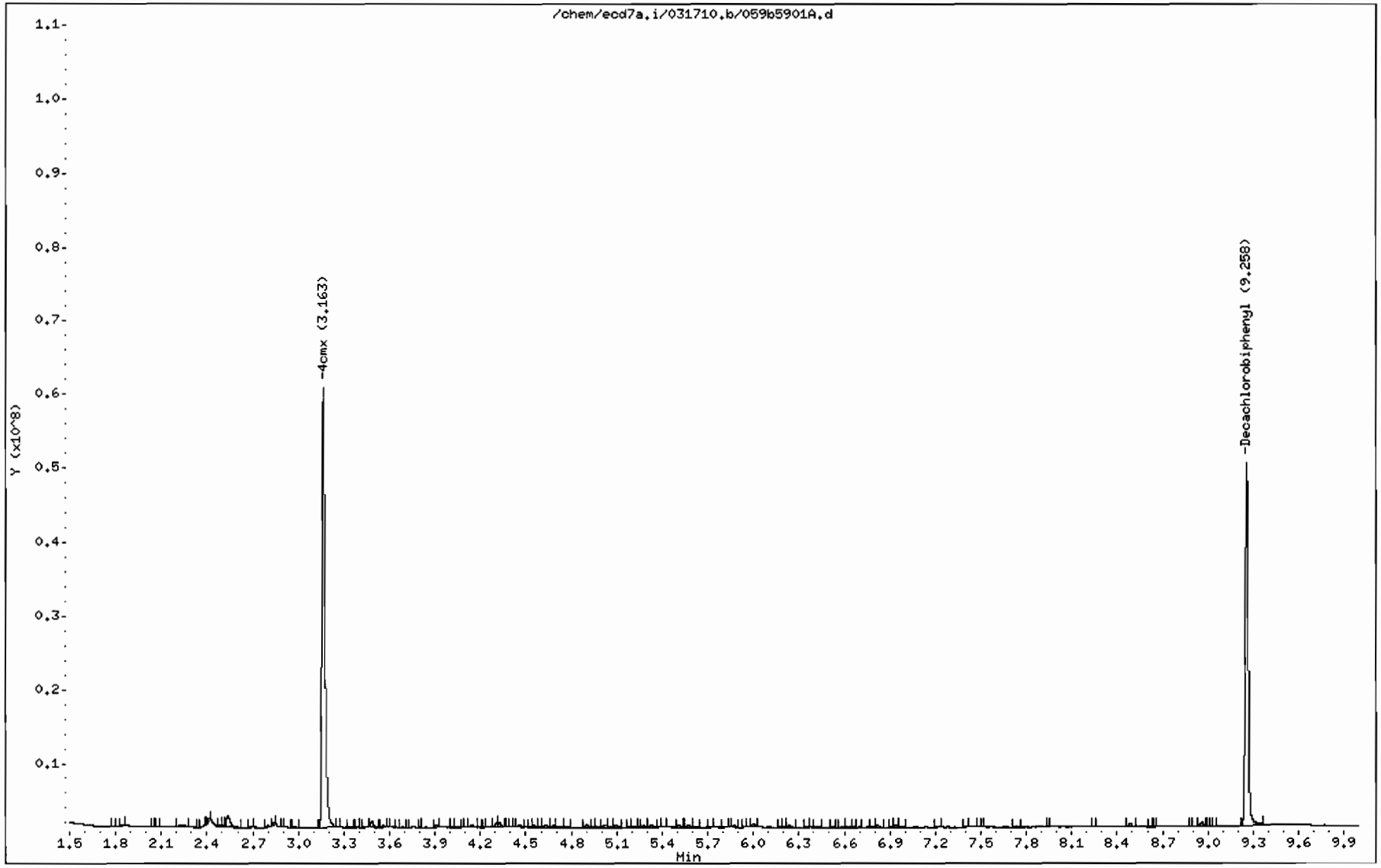

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071511**				
Client Sample:	**QC for batch 965432**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965432**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965433**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 03:18**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/16/2010 11:42**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**060f6001.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	060b6001.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC		13.2	ug/kg	0.167	0.667	2
58-89-9	gamma-BHC (Lindane)		13.1	ug/kg	0.167	0.667	2
319-85-7	beta-BHC		13.1	ug/kg	0.167	0.667	1
319-86-8	delta-BHC		14.1	ug/kg	0.167	0.667	2
76-44-8	Heptachlor		13.9	ug/kg	0.167	0.667	2
309-00-2	Aldrin		11.9	ug/kg	0.167	0.667	2
1024-57-3	Heptachlor epoxide		12.8	ug/kg	0.208	0.667	2
5103-74-2	gamma-Chlordane		13.1	ug/kg	0.167	0.667	2
5103-71-9	alpha-Chlordane		13.2	ug/kg	0.167	0.667	2
959-98-8	Endosulfan I		13.2	ug/kg	0.167	0.667	2
72-55-9	4,4'-DDE		34.9	ug/kg	0.333	1.33	1
60-57-1	Dieldrin		32.5	ug/kg	0.333	1.33	2
72-20-8	Endrin		38.0	ug/kg	0.333	1.33	2
72-54-8	4,4'-DDD		38.8	ug/kg	0.333	1.33	2
33213-65-9	Endosulfan II		35.1	ug/kg	0.333	1.33	2
7421-93-4	Endrin aldehyde		32.4	ug/kg	0.333	1.33	2
50-29-3	4,4'-DDT		39.6	ug/kg	0.333	1.33	1
1031-07-8	Endosulfan sulfate		36.9	ug/kg	0.333	1.33	2
72-43-5	Methoxychlor		166	ug/kg	1.67	6.67	2
53494-70-5	Endrin ketone		36.4	ug/kg	0.333	1.33	2
8001-35-2	Toxaphene	U	16.7	ug/kg	5.55	16.7	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/031710.b/060f6001A.d
Lab Smp Id: 1202071511 Client Smp ID: PBLK01LCS
Inj Date : 18-MAR-2010 03:18
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202071511|1|
Misc Info : |ECD81A_1S|965433|SVP|LCS|
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Meth Date : 18-Mar-2010 11:54 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010f1001.d
Als bottle: 60 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.860	2.860	0.000	138990103	144.435	24.1	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.078	8.079	-0.001	127197270	188.147	31.4	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.277	3.277	0.000	119206395	84.2322	14.0	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.529	3.529	0.000	108430425	84.7399	14.1	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.593	3.594	-0.001	44554203	78.6222	13.1	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.747	3.747	0.000	109075897	88.7201	14.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.922	3.924	-0.002	90281348	86.6904	14.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.188	4.189	-0.001	92797697	77.4938	12.9	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.734	4.734	0.000	87605515	82.4856	13.7	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.850	4.851	-0.001	84902759	81.9236	13.6	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.975	4.977	-0.002	86060040	83.6904	13.9	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.110	5.111	-0.001	79674701	81.3172	13.6	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.039	5.041	-0.002	185187179	209.488	34.9	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.341	5.342	-0.001	199345033	201.684	33.6	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.574	5.574	0.000	181400552	233.091	38.8	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.629	5.631	-0.002	170398828	243.108	40.5	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.799	5.801	-0.002	183483003	216.574	36.1	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.226	6.228	-0.002	143060244	200.205	33.4	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.912	5.913	-0.001	165217753	237.535	39.6	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.682	6.683	-0.001	172919624	237.268	39.5	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.415	6.416	-0.001	293516899	1001.54	167	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.985	6.987	-0.002	212139986	227.048	37.8	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/060f6001A.d

Date : 18-MAR-2010 03:18

Client ID: PBLK01LCS

Sample Info: |1202071511|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

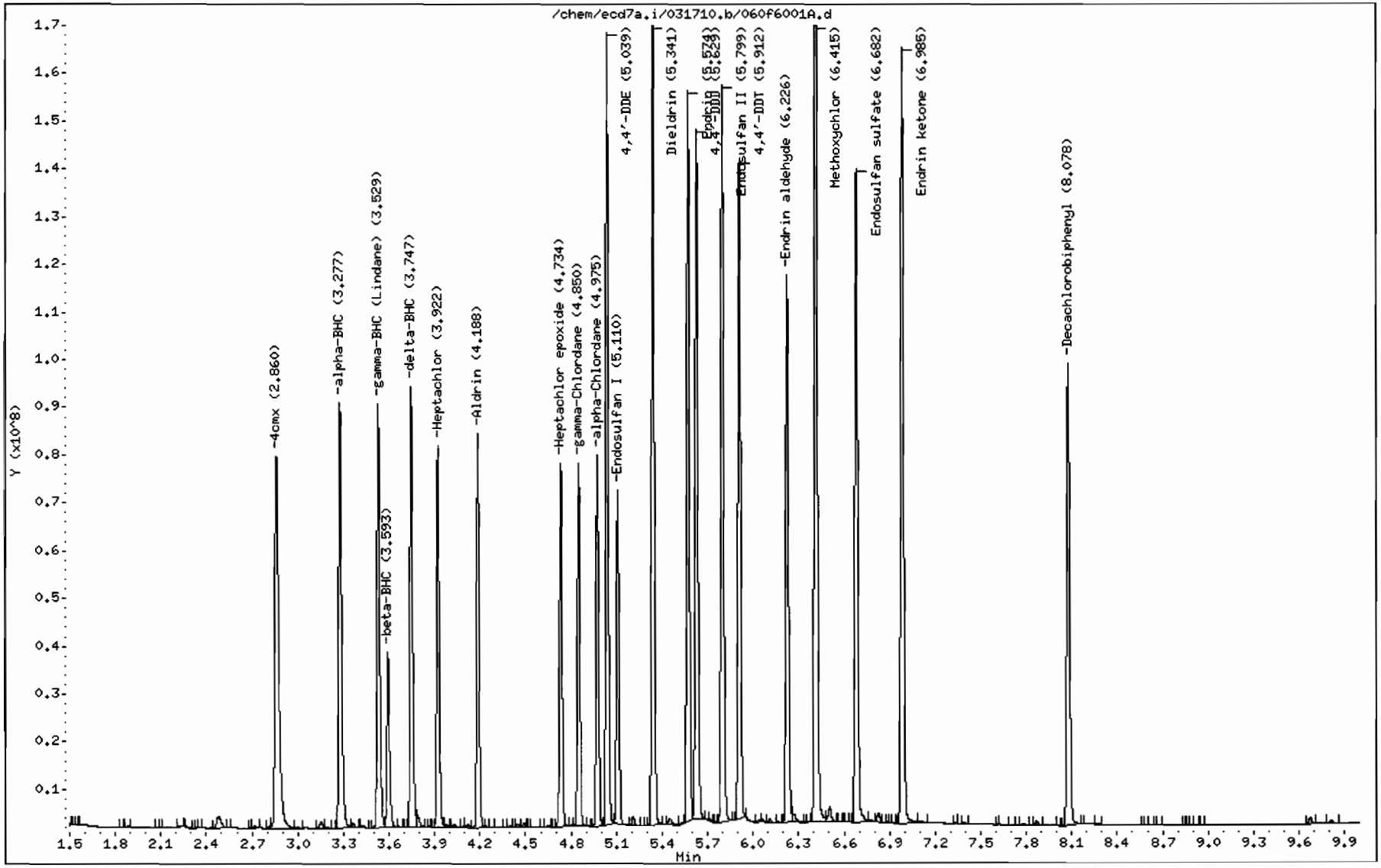

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/031710.b/060b6001A.d
Lab Smp Id: 1202071511 Client Smp ID: PBLK01LCS
Inj Date : 18-MAR-2010 03:18
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202071511|1|
Misc Info : |ECD81A_1S|965433|SVP|LCS|
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Meth Date : 18-Mar-2010 11:54 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010b1001.d
Als bottle: 60 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.164	3.165	-0.001	91682661	141.743	23.6	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.256	9.258	-0.002	73792843	182.103	30.4	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.686	3.688	-0.002	72274322	79.2180	13.2	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.013	4.015	-0.002	63078313	78.3998	13.1	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
4.077	4.079	-0.002	29060788	78.6770	13.1	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.365	4.368	-0.003	66714885	84.5589	14.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.447	4.449	-0.002	48068247	83.6382	13.9	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.776	4.778	-0.002	55924018	71.2248	11.9	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.343	5.346	-0.003	51946961	76.9119	12.8	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.539	5.541	-0.002	53149372	78.7739	13.1	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.690	5.691	-0.001	52840285	79.3412	13.2	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.759	5.761	-0.002	47885366	79.2152	13.2	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.842	5.844	-0.002	114312030	210.205	35.0	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.047	6.049	-0.002	119705815	194.783	32.5	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.376	6.378	-0.002	106364003	227.789	38.0	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.462	6.464	-0.002	98287810	232.683	38.8	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.601	6.602	-0.001	112661593	210.612	35.1	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.962	6.965	-0.003	83292961	194.676	32.4	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.806	6.809	-0.003	83521361	238.943	39.8	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.269	7.271	-0.002	105215205	221.677	36.9	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.554	7.556	-0.002	152841885	997.549	166	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.877	7.880	-0.003	123251872	218.119	36.4	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/060b6001A.d
Date : 18-MAR-2010 03:18
Client ID: PBLK01LCS
Sample Info: |1202071511|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

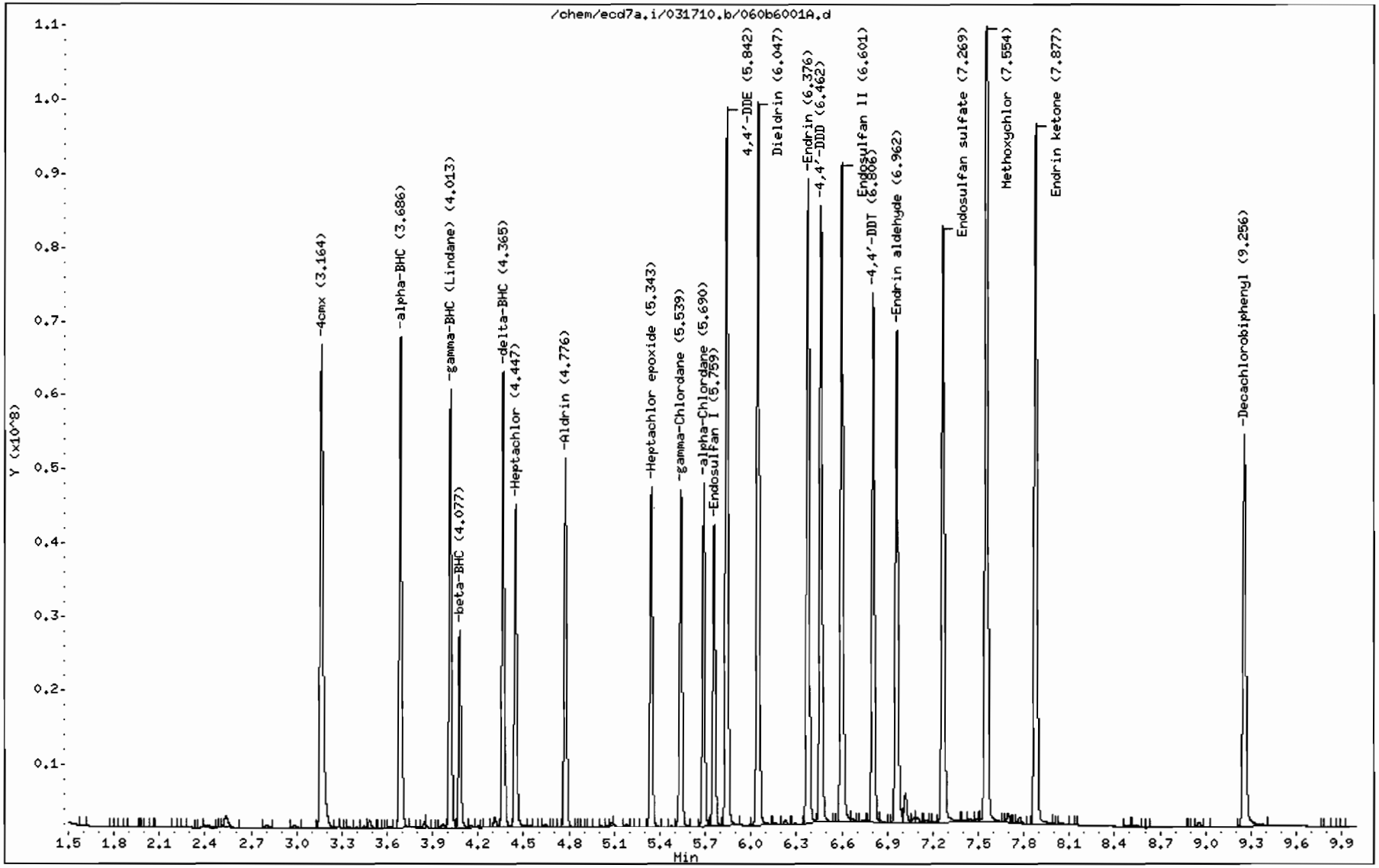

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2264**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071545**				
Client Sample:	**QC for batch 965432**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965432**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965433**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 03:35**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/16/2010 11:42**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**061f6101.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	061b6101.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.667	ug/kg	0.167	0.667	1
58-89-9	gamma-BHC (Lindane)	U	0.667	ug/kg	0.167	0.667	1
319-85-7	beta-BHC	U	0.667	ug/kg	0.167	0.667	1
319-86-8	delta-BHC	U	0.667	ug/kg	0.167	0.667	1
76-44-8	Heptachlor	U	0.667	ug/kg	0.167	0.667	1
309-00-2	Aldrin	U	0.667	ug/kg	0.167	0.667	1
1024-57-3	Heptachlor epoxide	U	0.667	ug/kg	0.208	0.667	1
5103-74-2	gamma-Chlordane	U	0.667	ug/kg	0.167	0.667	1
5103-71-9	alpha-Chlordane	U	0.667	ug/kg	0.167	0.667	1
959-98-8	Endosulfan I	U	0.667	ug/kg	0.167	0.667	1
72-55-9	4,4'-DDE	U	1.33	ug/kg	0.333	1.33	1
60-57-1	Dieldrin	U	1.33	ug/kg	0.333	1.33	1
72-20-8	Endrin	U	1.33	ug/kg	0.333	1.33	1
72-54-8	4,4'-DDD	U	1.33	ug/kg	0.333	1.33	1
33213-65-9	Endosulfan II	U	1.33	ug/kg	0.333	1.33	1
7421-93-4	Endrin aldehyde	U	1.33	ug/kg	0.333	1.33	1
50-29-3	4,4'-DDT	U	1.33	ug/kg	0.333	1.33	1
1031-07-8	Endosulfan sulfate	U	1.33	ug/kg	0.333	1.33	1
72-43-5	Methoxychlor	U	6.67	ug/kg	1.67	6.67	1
53494-70-5	Endrin ketone	U	1.33	ug/kg	0.333	1.33	1
8001-35-2	Toxaphene		112	ug/kg	5.55	16.7	2

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/031710.b/061f6101A.d
Lab Smp Id: 1202071545 Client Smp ID: PBLK01TLCS
Inj Date : 18-MAR-2010 03:35
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202071545|1|
Misc Info : |ECD81A_1S|965433|SVP|TLCS|
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Meth Date : 18-Mar-2010 11:54 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010f1001.d
Als bottle: 61 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.859	2.860	-0.001	136596902	141.948	23.6	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.078	8.079	-0.001	127754537	188.971	31.5	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.239	5.240	-0.001	7334990	822.784	137	80.00- 120.00	100.00(M)
5.346	5.344	0.002	9551284	758.546	126	120.02- 160.02	130.22
5.433	5.433	0.000	12062532	769.168	128	165.95- 205.95	164.45
5.495	5.492	0.003	14520692	740.892	123	188.74- 228.74	197.96

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
23 Toxaphene (continued)							
5.596	5.595	0.001	14178842	747.941	125	195.72- 235.72	193.30
Average of Peak Concentrations =					128		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/031710.b/061f6101A.d

Page 1

Date : 18-MAR-2010 03:35

Client ID: PBLK01TLCS

Instrument: ecd7a.i

Sample Info: |120207154511|

Volume Injected (uL): 1.0

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25

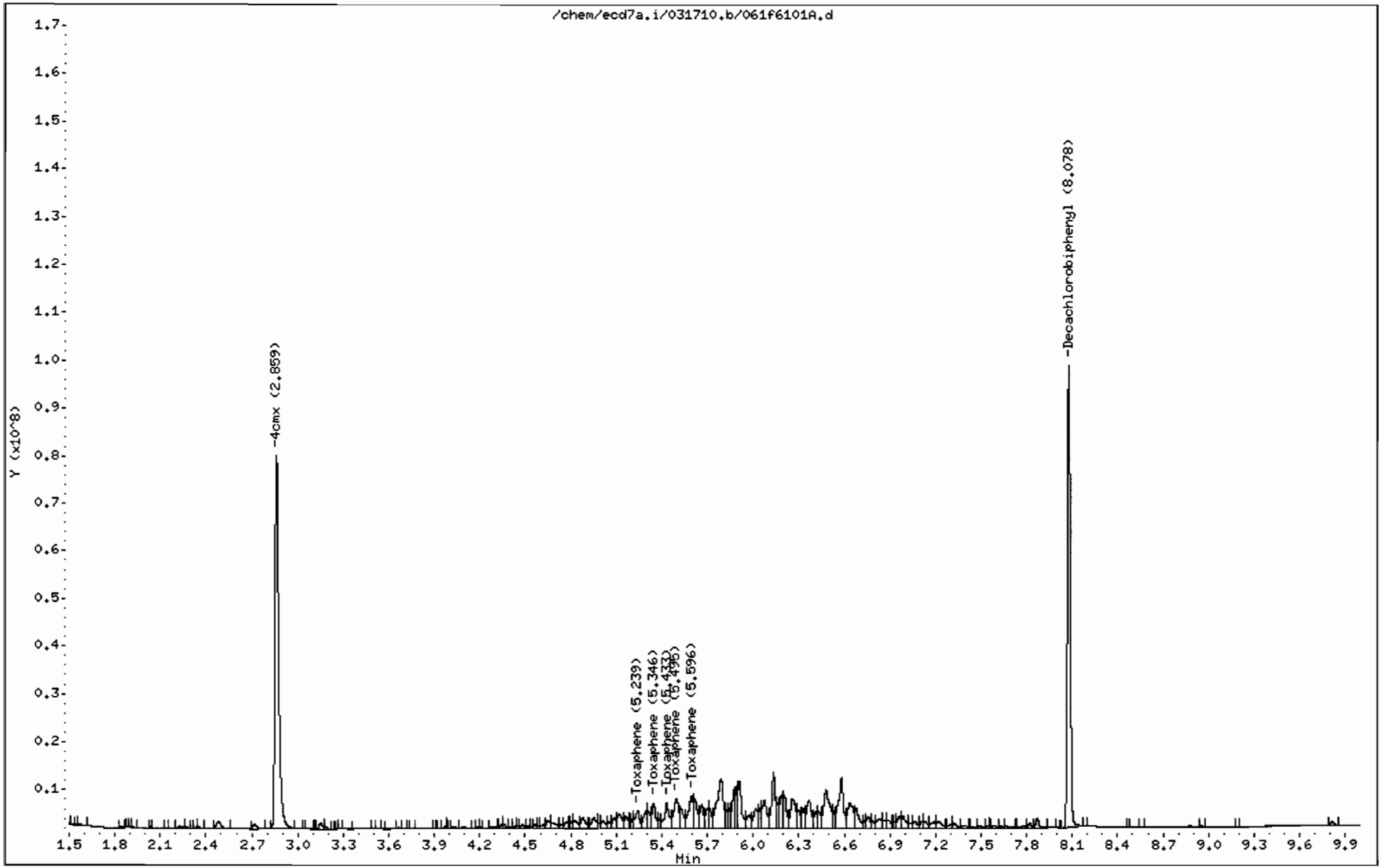

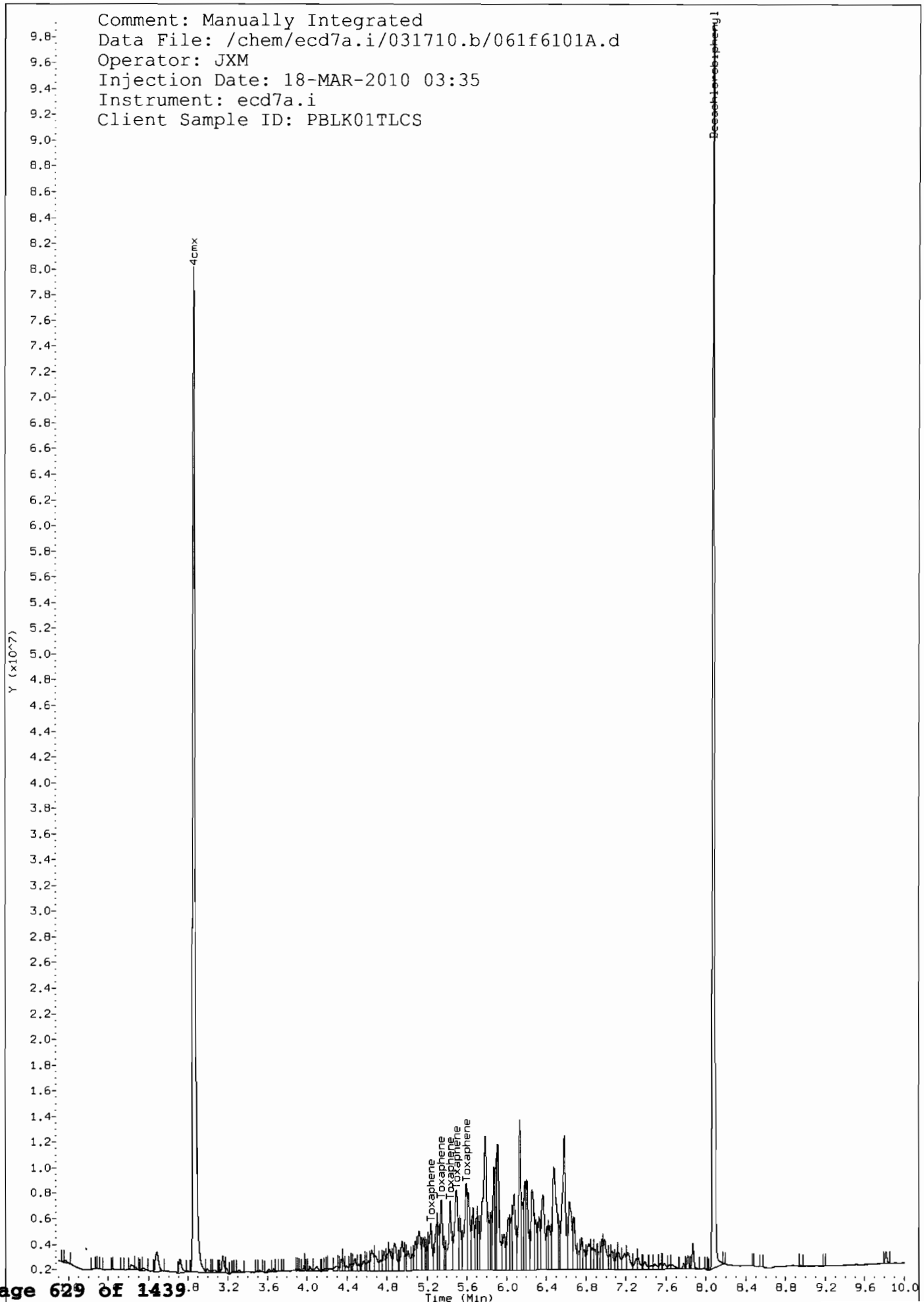
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Data File: /chem/ecd7a.i/031710.b/061f6101A.d
Operator: JXM
Injection Date: 18-MAR-2010 03:35
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

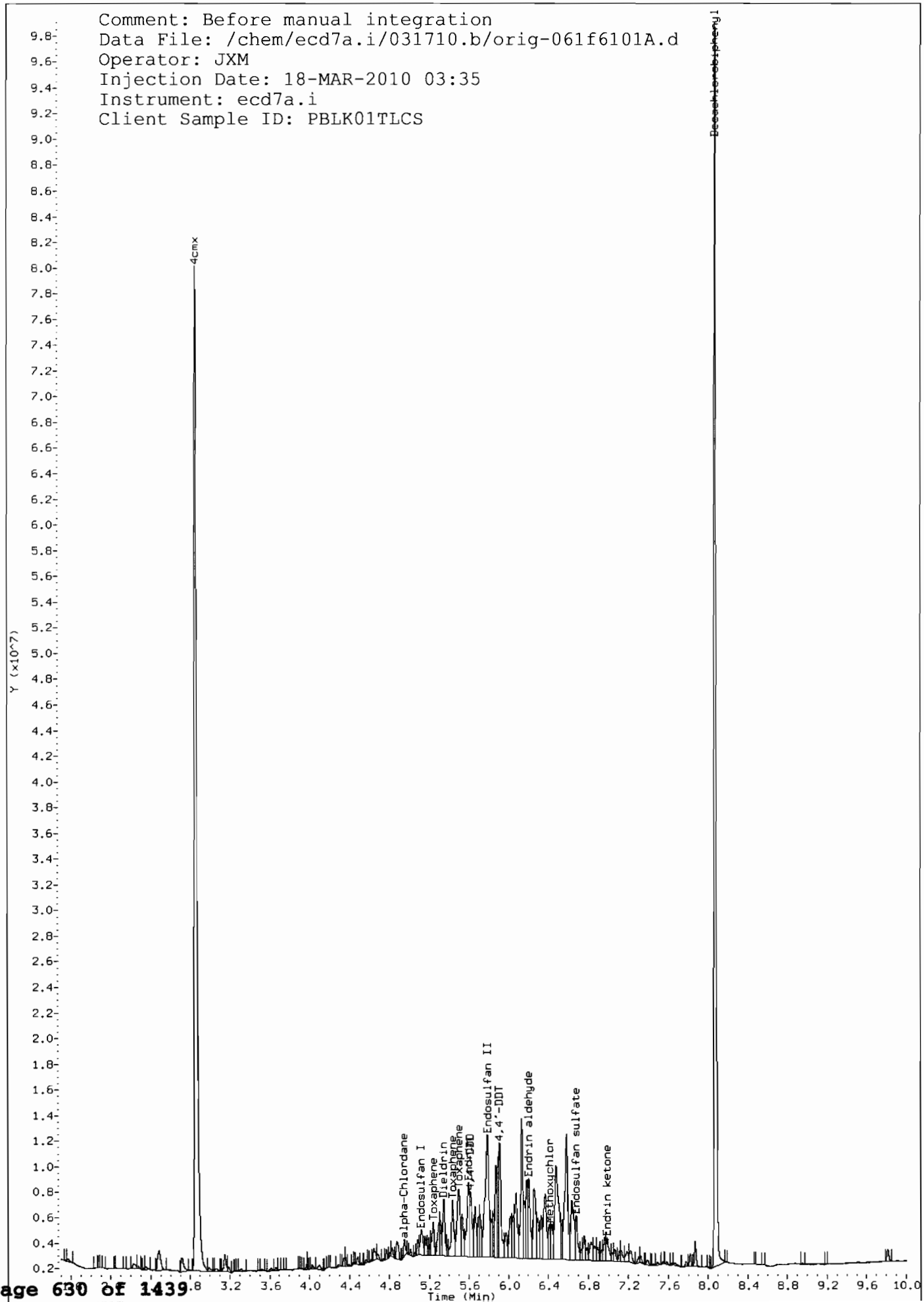
Comment: Before manual integration
Data File: /chem/ecd7a.i/031710.b/orig-061f6101A.d
Operator: JXM
Injection Date: 18-MAR-2010 03:35
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS
4cmx
Decachlorobiphenyl
alpha-Chlordane
Endosulfan I
Toxaphene
Dieldrin
Toxaphene
Toxaphene
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/031710.b/061b6101A.d
Lab Smp Id: 1202071545 Client Smp ID: PBLK01TLCS
Inj Date : 18-MAR-2010 03:35
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202071545|1|
Misc Info : |ECD81A_1S|965433|SVP|TLCS|
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Meth Date : 18-Mar-2010 11:54 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010b1001.d
Als bottle: 61 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.162	3.165	-0.003	91207558	141.009	23.5	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.257	9.258	-0.001	73212247	180.671	30.1	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
6.020	6.011	0.009	7781367	681.685	114	80.00- 120.00	100.00(M)
6.078	6.080	-0.002	3766814	594.699	99.1	24.10- 64.10	48.41
6.141	6.143	-0.002	4373933	672.022	112	36.33- 76.33	56.21
6.204	6.206	-0.002	4709961	721.307	120	39.89- 79.89	60.53

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
23 Toxaphene (continued)							
6.334	6.337	-0.003	6191210	678.790	113	55.57- 95.57	79.56
		Average of Peak Concentrations =			112		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/031710.b/061b6101A.d
Date : 18-MAR-2010 03:35
Client ID: PBLK01TLCS
Sample Info: |1202071545|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

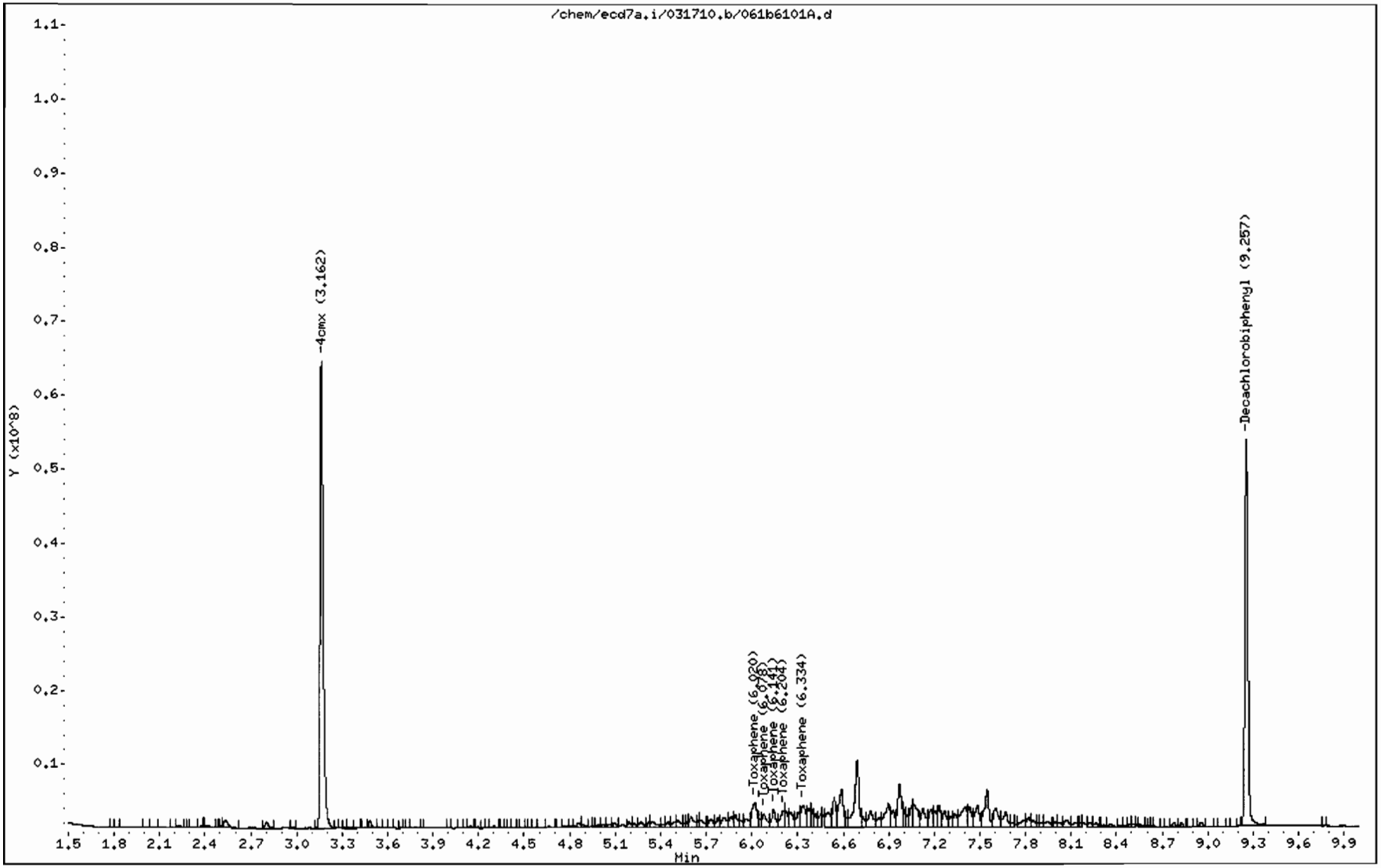

Comment: Manually Integrated
Data File: /chem/ecd7a.i/031710.b/061b6101A.d
Operator: JXM
Injection Date: 18-MAR-2010 03:35
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS

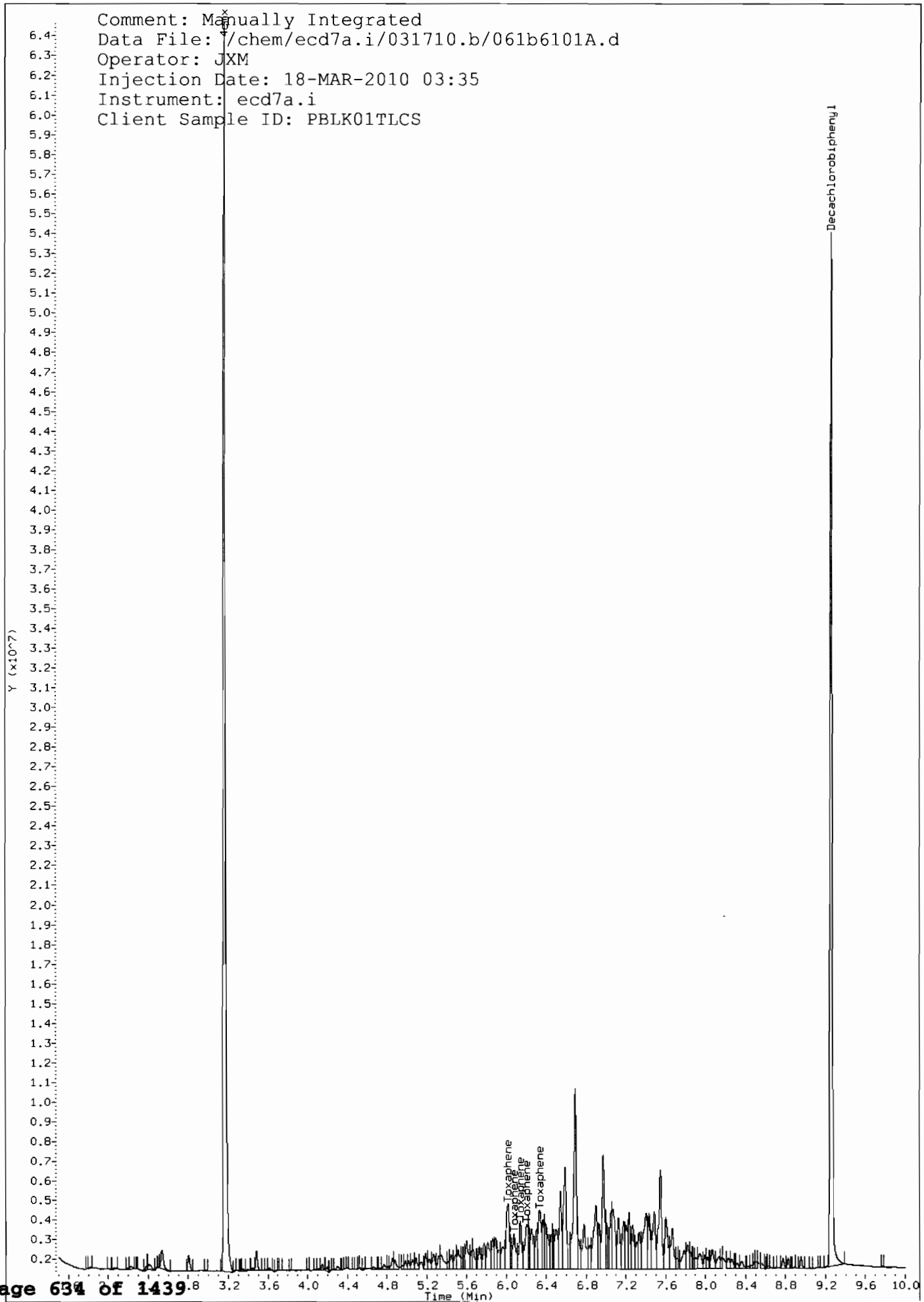

Comment: Before manual integration
Data File: /chem/ecd7a.i/031710.b/orig-061b6101A.d
Operator: JXM
Injection Date: 18-MAR-2010 03:35
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS

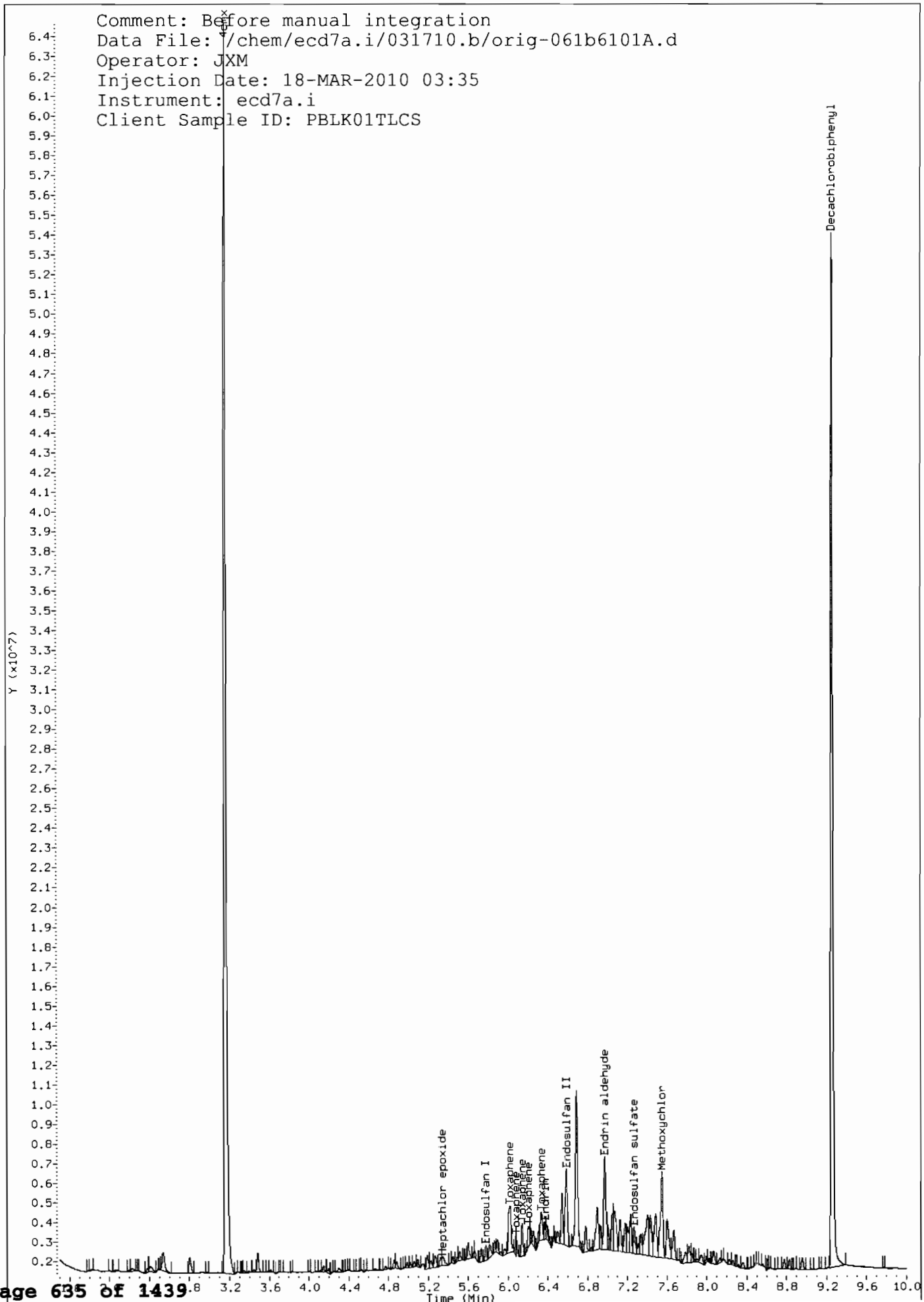

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202071512**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**18.7**
Client Sample:	**QC for batch 965432**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46–10–13203MS**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**965433**	**Inst:**	**ECD7A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 10:24**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/16/2010 11:42**	**Aliquot:**	**30.02 g**	**Final Volume:**	**5 mL**
Data File:	**085f8501.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	085b8501.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC		11.1	ug/kg	2.05	8.19	1
58–89–9	gamma–BHC (Lindane)		11.7	ug/kg	2.05	8.19	1
319–85–7	beta–BHC		12.0	ug/kg	2.05	8.19	1
319–86–8	delta–BHC		11.5	ug/kg	2.05	8.19	1
76–44–8	Heptachlor		11.8	ug/kg	2.05	8.19	1
309–00–2	Aldrin		11.4	ug/kg	2.05	8.19	1
1024–57–3	Heptachlor epoxide		12.4	ug/kg	2.56	8.19	1
5103–74–2	gamma–Chlordane		10.8	ug/kg	2.05	8.19	1
5103–71–9	alpha–Chlordane		13.8	ug/kg	2.05	8.19	1
959–98–8	Endosulfan I		11.0	ug/kg	2.05	8.19	1
72–55–9	4,4'–DDE		34.4	ug/kg	4.10	16.4	1
60–57–1	Dieldrin		33.5	ug/kg	4.10	16.4	1
72–20–8	Endrin		35.9	ug/kg	4.10	16.4	1
72–54–8	4,4'–DDD		42.7	ug/kg	4.10	16.4	1
33213–65–9	Endosulfan II		31.3	ug/kg	4.10	16.4	1
7421–93–4	Endrin aldehyde		23.4	ug/kg	4.10	16.4	1
50–29–3	4,4'–DDT		31.4	ug/kg	4.10	16.4	1
1031–07–8	Endosulfan sulfate		30.7	ug/kg	4.10	16.4	1
72–43–5	Methoxychlor		129	ug/kg	20.5	81.9	1
53494–70–5	Endrin ketone		31.9	ug/kg	4.10	16.4	1
8001–35–2	Toxaphene	U	205	ug/kg	68.2	205	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/031710.b/085f8501.d
Lab Smp Id: 1202071512 Client Smp ID: RE46-10-13203MS
Inj Date : 18-MAR-2010 10:24
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202071512|10|
Misc Info : |ECD81A_1S|965433|SVP|MS|
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Meth Date : 18-Mar-2010 11:54 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010f1001.d
Als bottle: 85 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	18.69990	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.860	2.860	0.000	10249252	10.6508	21.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.077	8.079	-0.002	9051520	13.3888	27.4	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.276	3.277	-0.001	7644970	5.40200	11.1	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.527	3.529	-0.002	7279888	5.68933	11.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.593	3.594	-0.001	3319921	5.85847	12.0	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.746	3.747	-0.001	6913249	5.62310	11.5	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.921	3.924	-0.003	5990481	5.75221	11.8	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.187	4.189	-0.002	6655945	5.55827	11.4	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.731	4.734	-0.003	6414782	6.03988	12.4	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.850	4.851	-0.001	5478786	5.28654	10.8	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.975	4.977	-0.002	6907189	6.71700	13.8	80.00- 120.00	100.00
16 Endosulfan 1					CAS #: 959-98-8		
5.109	5.111	-0.002	5274928	5.38367	11.0	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.039	5.041	-0.002	14854478	16.8038	34.4	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.340	5.342	-0.002	16180015	16.3699	33.5	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.573	5.574	-0.001	13627094	17.5102	35.9	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.629	5.631	-0.002	14608009	20.8412	42.7	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.800	5.801	-0.001	12944902	15.2795	31.3	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.227	6.228	-0.001	8173435	11.4383	23.4	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.912	5.913	-0.001	10650763	15.3127	31.4	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.682	6.683	-0.001	10906462	14.9650	30.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.415	6.416	-0.001	18395847	62.7701	128	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.987	6.987	0.000	14548879	15.5713	31.9	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/085f8501.d
Date : 18-MAR-2010 10:24
Client ID: RE46-10-13203MS
Sample Info: 1120207151211101
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

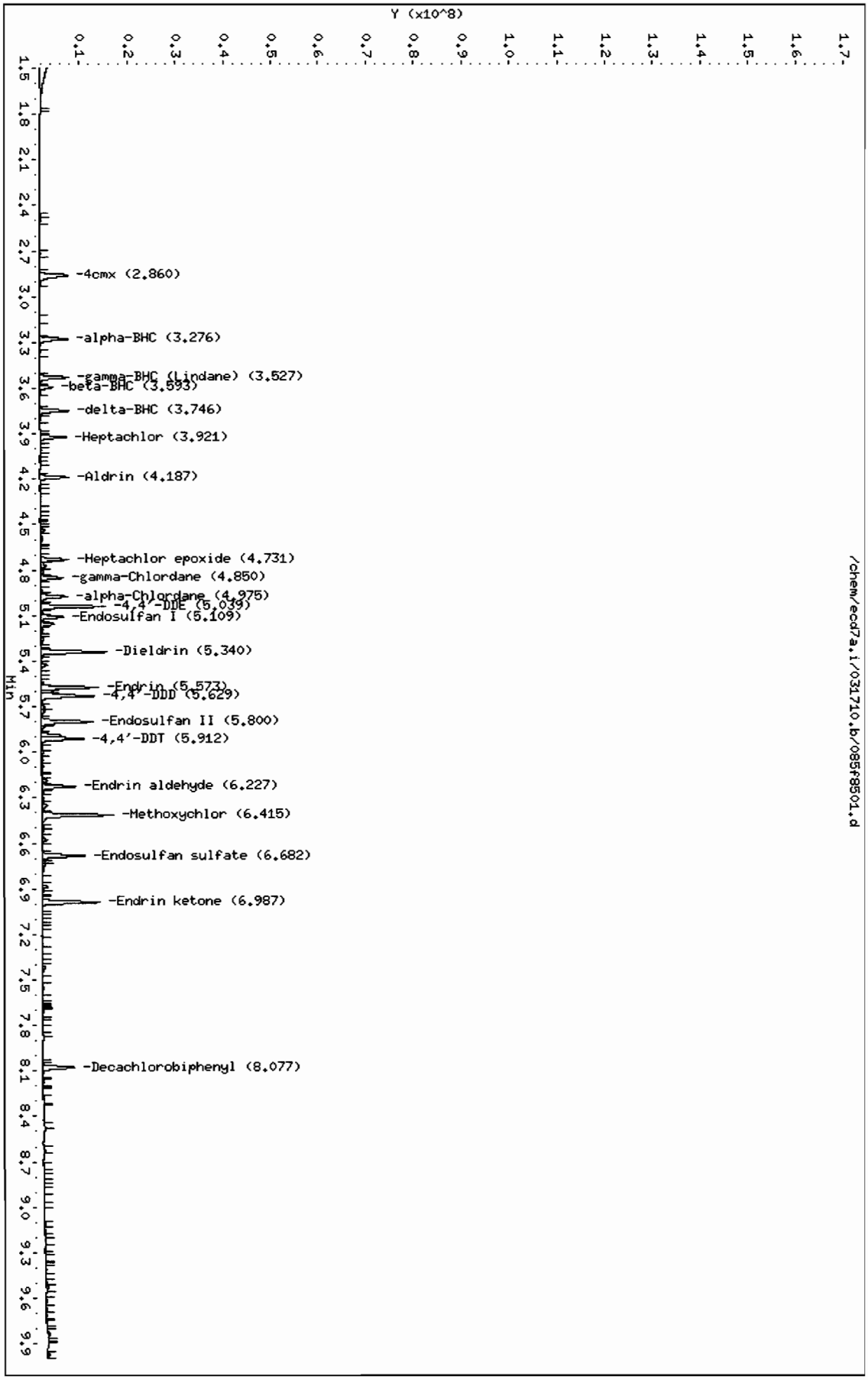

/chem/ecd7a.i/031710.b/085f8501.d

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CLP-2

Data file : /chem/ecd7a.i/031710.b/085b8501.d
Lab Smp Id: 1202071512 Client Smp ID: RE46-10-13203MS
Inj Date : 18-MAR-2010 10:24
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202071512|10|
Misc Info : |ECD81A_1S|965433|SVP|MS|
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Meth Date : 18-Mar-2010 11:54 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010b1001.d
Als bottle: 85 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	18.69990	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.163	3.165	-0.002	6927180	10.7096	21.9	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.257	9.258	-0.001	5133593	12.6685	26.0	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.685	3.688	-0.003	4657830	5.10532	10.4	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.013	4.015	-0.002	4299653	5.34402	10.9	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
4.077	4.079	-0.002	2083760	5.64142	11.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.366	4.368	-0.002	4250438	5.38729	11.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.447	4.449	-0.002	3207859	5.58164	11.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.776	4.778	-0.002	3911207	4.98131	10.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.343	5.346	-0.003	4489330	6.64684	13.6	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.539	5.541	-0.002	3198900	4.74117	9.71	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.689	5.691	-0.002	3533656	5.30588	10.9	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.759	5.761	-0.002	3206188	5.30389	10.9	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.842	5.844	-0.002	7822622	14.3848	29.5	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.046	6.049	-0.003	8268669	13.4546	27.6	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.376	6.378	-0.002	7607323	16.2918	33.4	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.462	6.464	-0.002	6910587	16.3598	33.5	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.601	6.602	-0.001	9379968	17.5351	35.9	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.963	6.965	-0.002	4842163	11.3173	23.2	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.810	6.809	0.001	8058168	23.0533	47.2	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.269	7.271	-0.002	7443252	15.6821	32.1	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.555	7.556	-0.001	8542737	55.7557	114	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.878	7.880	-0.002	7798000	13.8001	28.3	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/085b8501.d

Date : 18-MAR-2010 10:24

Client ID: RE46-10-13203MS

Sample Info: |12020715121101

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

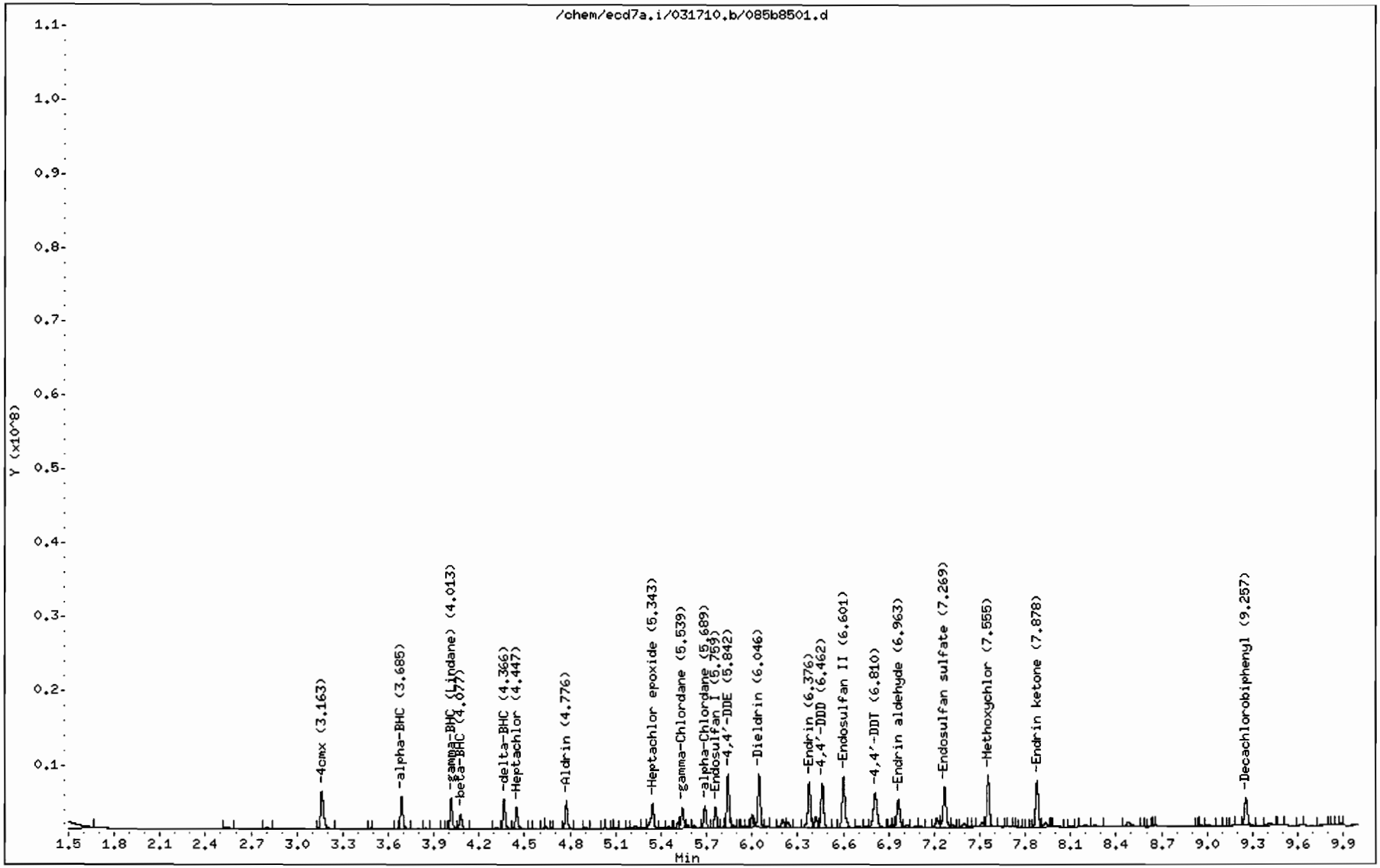

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202071513**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**18.7**
Client Sample:	**QC for batch 965432**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46–10–13203MSD**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**965433**	**Inst:**	**ECD7A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 10:41**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/16/2010 11:42**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**086f8601.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	086b8601.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC		12.4	ug/kg	2.05	8.20	1
58–89–9	gamma–BHC (Lindane)		12.9	ug/kg	2.05	8.20	1
319–85–7	beta–BHC		13.1	ug/kg	2.05	8.20	1
319–86–8	delta–BHC		12.8	ug/kg	2.05	8.20	1
76–44–8	Heptachlor		13.4	ug/kg	2.05	8.20	1
309–00–2	Aldrin		13.0	ug/kg	2.05	8.20	1
1024–57–3	Heptachlor epoxide		13.9	ug/kg	2.56	8.20	1
5103–74–2	gamma–Chlordane		11.6	ug/kg	2.05	8.20	1
5103–71–9	alpha–Chlordane		15.6	ug/kg	2.05	8.20	1
959–98–8	Endosulfan I		12.4	ug/kg	2.05	8.20	1
72–55–9	4,4'–DDE		39.9	ug/kg	4.10	16.4	1
60–57–1	Dieldrin		38.7	ug/kg	4.10	16.4	1
72–20–8	Endrin		39.2	ug/kg	4.10	16.4	1
72–54–8	4,4'–DDD		46.8	ug/kg	4.10	16.4	1
33213–65–9	Endosulfan II		33.8	ug/kg	4.10	16.4	1
7421–93–4	Endrin aldehyde		25.5	ug/kg	4.10	16.4	1
50–29–3	4,4'–DDT		36.1	ug/kg	4.10	16.4	1
1031–07–8	Endosulfan sulfate		32.2	ug/kg	4.10	16.4	1
72–43–5	Methoxychlor		135	ug/kg	20.5	82.0	1
53494–70–5	Endrin ketone		35.7	ug/kg	4.10	16.4	1
8001–35–2	Toxaphene	U	205	ug/kg	68.3	205	1

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CLP-1

Data file : /chem/ecd7a.i/031710.b/086f8601.d
Lab Smp Id: 1202071513 Client Smp ID: RE46-10-13203MSD
Inj Date : 18-MAR-2010 10:41
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202071513|10|
Misc Info : |ECD81A_1S|965433|SVP|MSD|
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-F-8081-031610.m
Meth Date : 18-Mar-2010 11:54 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010f1001.d
Als bottle: 86 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	18.69990	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.861	2.860	0.001	10905838	11.3331	23.2	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.077	8.079	-0.002	9557138	14.1367	29.0	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.276	3.277	-0.001	8582650	6.06457	12.4	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.528	3.529	-0.001	8062579	6.30102	12.9	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.592	3.594	-0.002	3626761	6.39993	13.1	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.747	3.747	0.000	7656174	6.22738	12.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.922	3.924	-0.002	6804941	6.53427	13.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.186	4.189	-0.003	7606018	6.35166	13.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.732	4.734	-0.002	7190351	6.77013	13.9	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.850	4.851	-0.001	5882211	5.67581	11.6	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.974	4.977	-0.003	7811978	7.59688	15.6	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.110	5.111	-0.001	5918958	6.04098	12.4	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.039	5.041	-0.002	17195002	19.4514	39.9	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.340	5.342	-0.002	18678128	18.8973	38.7	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.573	5.574	-0.001	14881656	19.1222	39.2	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.629	5.631	-0.002	15991569	22.8152	46.8	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.799	5.801	-0.002	13973274	16.4933	33.8	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.226	6.228	-0.002	8888054	12.4383	25.5	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.911	5.913	-0.002	12240739	17.5986	36.1	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.682	6.683	-0.001	11443420	15.7018	32.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.415	6.416	-0.001	19346172	66.0128	135	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.986	6.987	-0.001	16286090	17.4306	35.7	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/031710.b/086f8601.d
Date : 18-MAR-2010 10:41
Client ID: RE46-10-13203MSD
Sample Info: 1120207151311011
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

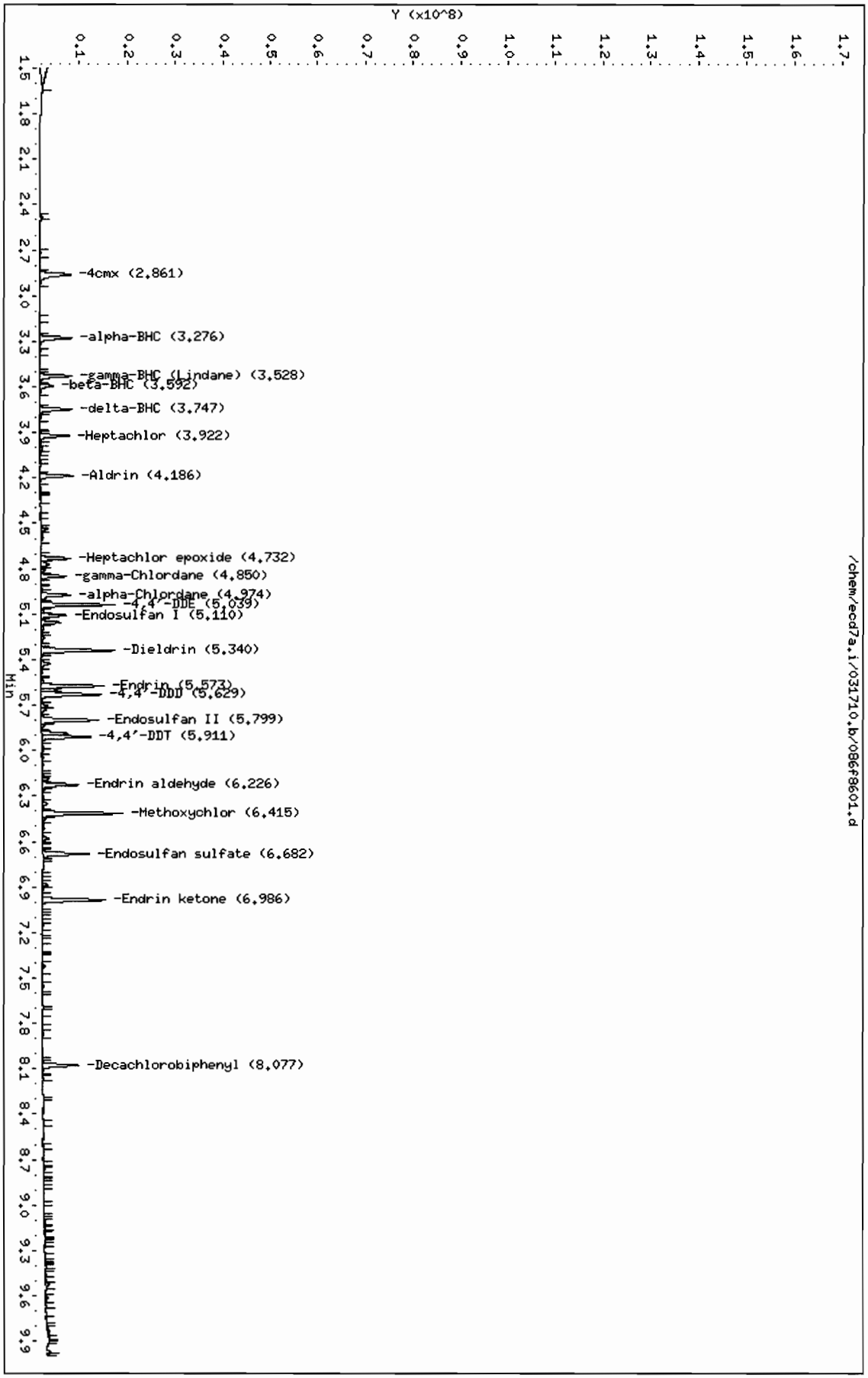

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CLP-2

Data file : /chem/ecd7a.i/031710.b/086b8601.d
Lab Smp Id: 1202071513 Client Smp ID: RE46-10-13203MSD
Inj Date : 18-MAR-2010 10:41
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202071513|10|
Misc Info : |ECD81A_1S|965433|SVP|MSD|
Comment :
Method : /chem/ecd7a.i/031710.b/ECD7-B-8081-031610.m
Meth Date : 18-Mar-2010 11:54 jam00798 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:34 Cal File: 010b1001.d
Als bottle: 86 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	18.69990	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.164	3.165	-0.001	7427845	11.4836	23.5	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.257	9.258	-0.001	5598231	13.8151	28.3	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.686	3.688	-0.002	5167618	5.66409	11.6	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.013	4.015	-0.002	4766230	5.92393	12.1	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
4.076	4.079	-0.003	2289336	6.19798	12.7	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.366	4.368	-0.002	4703320	5.96130	12.2	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.447	4.449	-0.002	3493998	6.07952	12.5	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.776	4.778	-0.002	4407358	5.61321	11.5	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.343	5.346	-0.003	4428884	6.55734	13.4	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.540	5.541	-0.001	3533199	5.23664	10.7	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.691	5.691	0.000	3927100	5.89665	12.1	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.759	5.761	-0.002	3575858	5.91543	12.1	80.00- 120.00	100.00(M)
19 4,4'-DDE					CAS #: 72-55-9		
5.842	5.844	-0.002	9023970	16.5939	34.0	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.047	6.049	-0.002	9624737	15.6612	32.1	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.376	6.378	-0.002	8733143	18.7029	38.3	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.462	6.464	-0.002	7843232	18.5678	38.1	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.601	6.602	-0.001	10791170	20.1732	41.4	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.963	6.965	-0.002	5447019	12.7310	26.1	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.810	6.809	0.001	9886589	28.2842	58.0	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.270	7.271	-0.001	8183956	17.2427	35.3	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.555	7.556	-0.001	9608092	62.7089	128	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.879	7.880	-0.001	8610821	15.2386	31.2	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/031710.b/086b8601.d

Date : 18-MAR-2010 10:41

Client ID: RE46-10-13203MSD

Sample Info: |12020715131|10|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

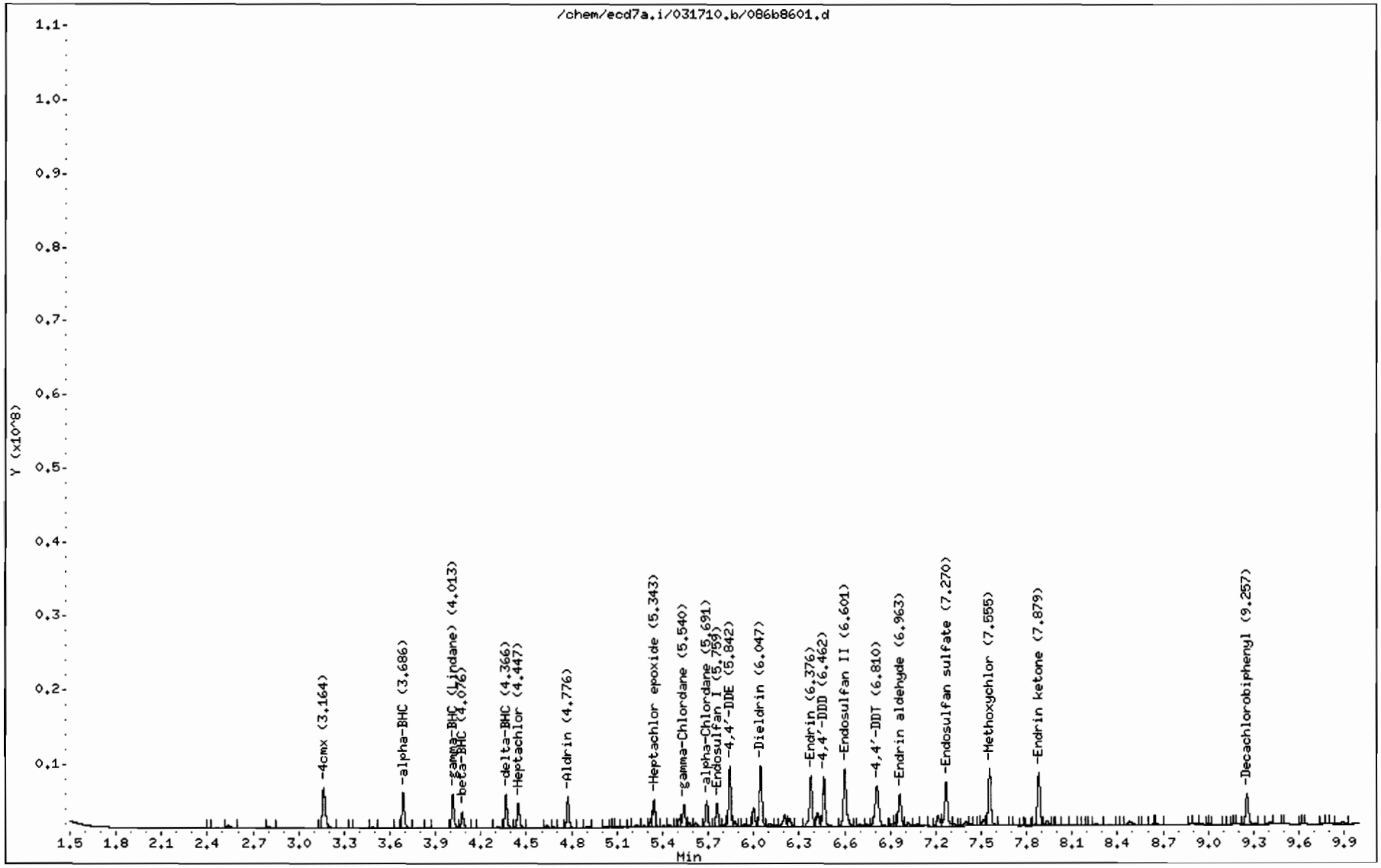

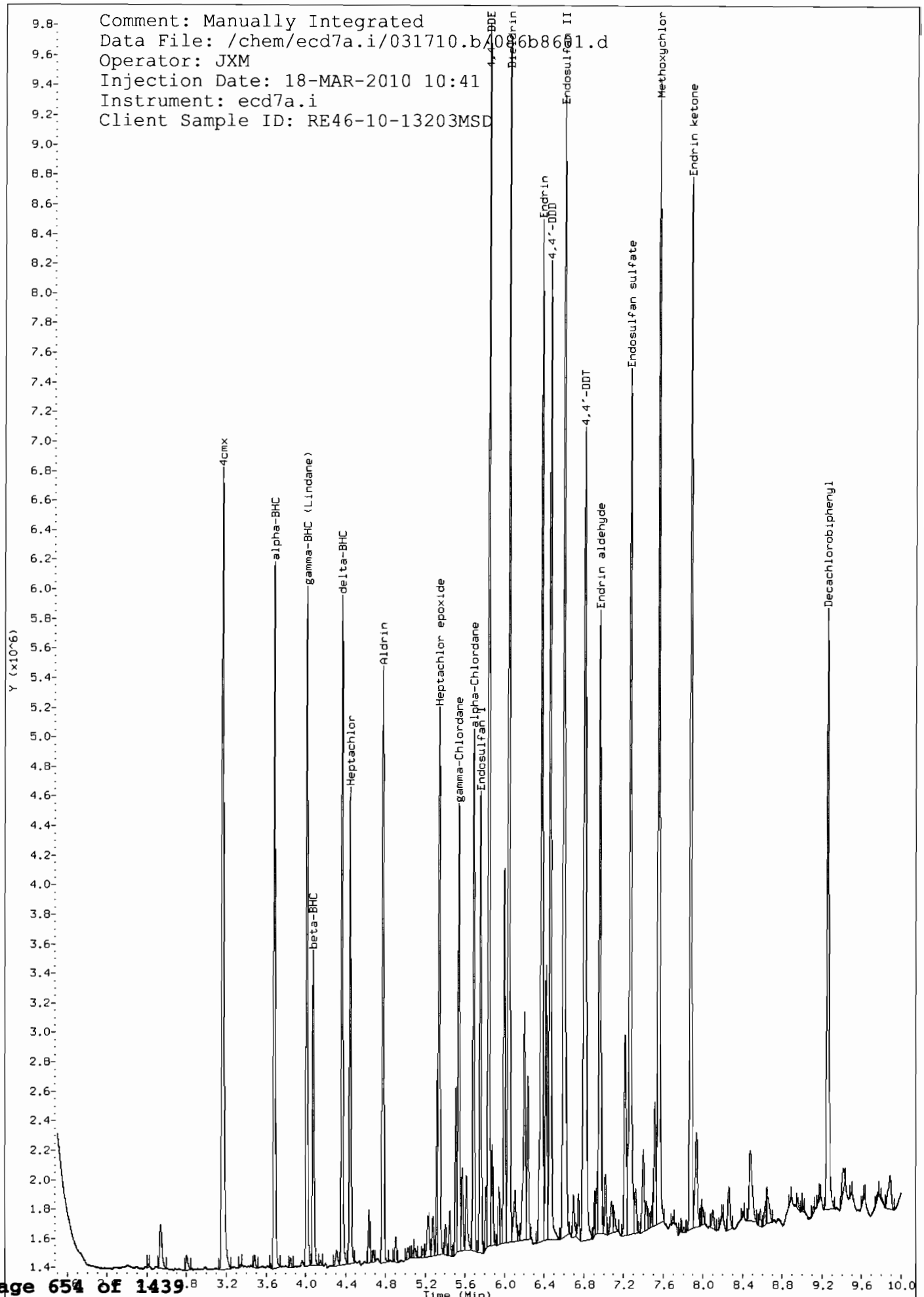
Comment: Manually Integrated
Data File: /chem/ecd7a.i/031710.b/086b8601.d
Operator: JXM
Injection Date: 18-MAR-2010 10:41
Instrument: ecd7a.i
Client Sample ID: RE46-10-13203MSD
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
Endosulfan I
alpha-Chlordane
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Y (x10^6)
Time (Min)

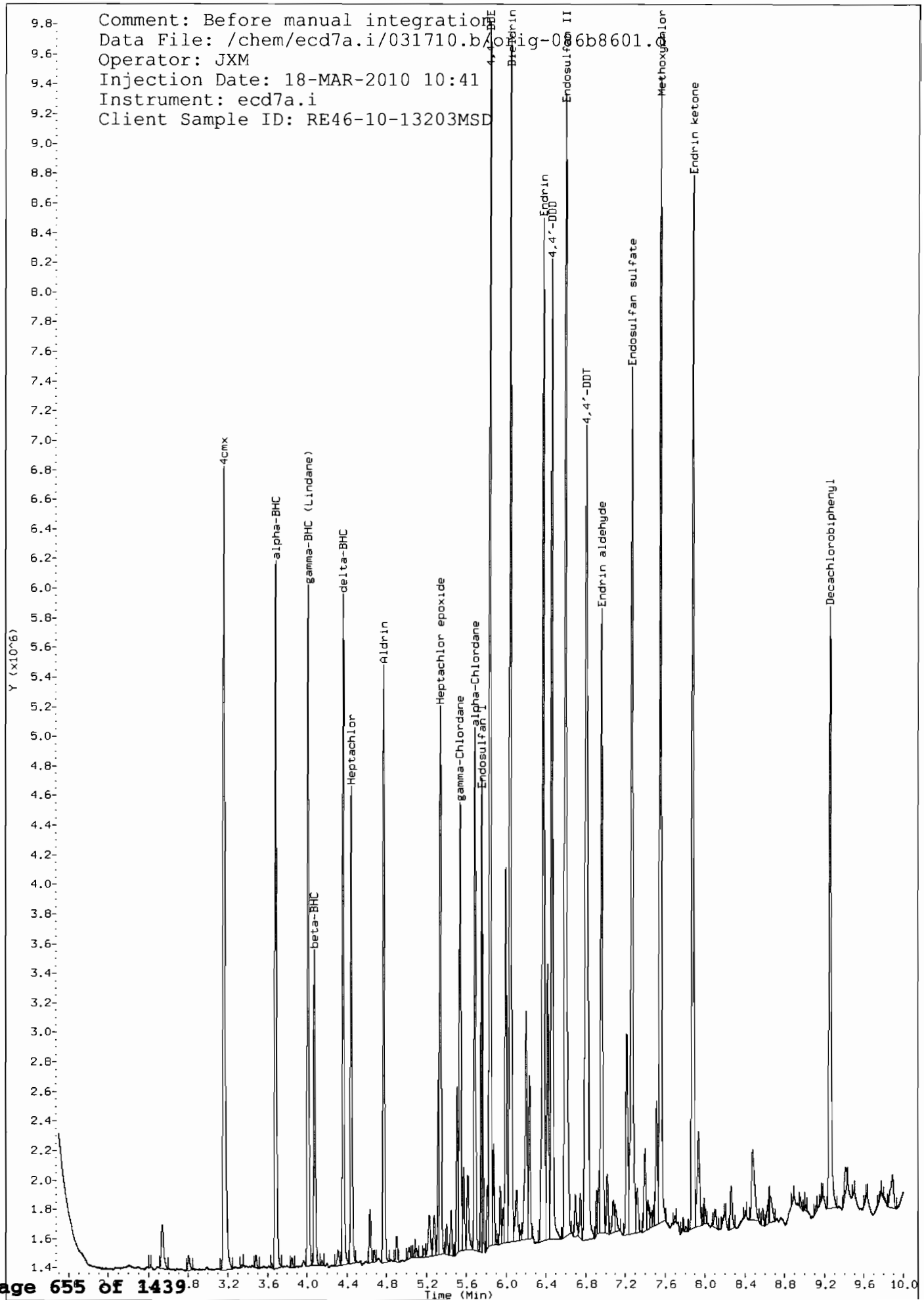
Comment: Before manual integration
Data File: /chem/ecd7a.i/031710.b/origig-026b8601.d
Operator: JXM
Injection Date: 18-MAR-2010 10:41
Instrument: ecd7a.i
Client Sample ID: RE46-10-13203MSD
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Y (x10^6)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 03/10/2010 METHOD: ECD7-B-8081-031010.m OPERATOR:JXM REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT
MERCURY LOT

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/031010.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100104-99IB	JXM	10-MAR-2010 11:23		031010	1.0		CLEAN
002b0201.d	WPE100211-99DG	JXM	10-MAR-2010 11:40		031010	1.0		(B)DDT 5.3, ENDRIN 4.9 (F)DDT 4.1, ENDRIN 5.0
003b0301.d	WPE100310-01AB	JXM	10-MAR-2010 11:57		031010	1.0		INDAB LEVEL 1
004b0401.d	WPE100310-02AB	JXM	10-MAR-2010 12:14		031010	1.0		INDAB LEVEL 2
005b0501.d	WPE100310-03AB	JXM	10-MAR-2010 12:31		031010	1.0		INDAB LEVEL 3
006b0601.d	WPE100310-04AB	JXM	10-MAR-2010 12:48		031010	1.0		INDAB LEVEL 4
007b0701.d	IPE100204-02AB	JXM	10-MAR-2010 13:06		031010	1.0		INDAB LEVEL 5
008b0801.d	WPE100305-10AB	JXM	10-MAR-2010 13:23		031010	1.0		PASSES BOTH COLUMNS
009b0901.d	WPE100310-11TX	JXM	10-MAR-2010 13:40		031010	1.0		TOXAPH LEVEL 1
010b1001.d	WPE100310-12TX	JXM	10-MAR-2010 13:57		031010	1.0		TOXAPH LEVEL 2
011b1101.d	WPE100310-13TX	JXM	10-MAR-2010 14:14		031010	1.0		TOXAPH LEVEL 3
012b1201.d	WPE100310-14TX	JXM	10-MAR-2010 14:31		031010	1.0		TOXAPH LEVEL 4
013b1301.d	IPE100204-40TX	JXM	10-MAR-2010 14:48		031010	1.0		TOXAPH LEVEL 5
014b1401.d	WPE100125-52TX	JXM	10-MAR-2010 15:05		031010	1.0		PASSES BOTH COLUMNS
015b1501.d	WPE100310-21CL	JXM	10-MAR-2010 15:22		031010	1.0		CHLOR LEVEL 1

Instrument Batch: /chem/ecd7a.i/031010.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	WPE100310-22CL	JXM	10-MAR-2010 15:39		031010		1.0		CHLOR LEVEL 2
017b1701.d	WPE100310-23CL	JXM	10-MAR-2010 15:56		031010		1.0		CHLOR LEVEL 3
018b1801.d	WPE100310-24CL	JXM	10-MAR-2010 16:14		031010		1.0		CHLOR LEVEL 4
019b1901.d	IPE100116-06CL	JXM	10-MAR-2010 16:31		031010		1.0		CHLOR LEVEL 5
020b2001.d	WPE100305-00CL	JXM	10-MAR-2010 16:48		031010		1.0		PASSES BOTH COLUMNS
021b2101.d	WPE100310-41 60	JXM	10-MAR-2010 17:05		031010		1.0		1660 LEVEL 1
022b2201.d	WPE100310-42 60	JXM	10-MAR-2010 17:22		031010		1.0		1660 LEVEL 2
023b2301.d	WPE100310-43 60	JXM	10-MAR-2010 17:39		031010		1.0		1660 LEVEL 3
024b2401.d	WPE100310-44 60	JXM	10-MAR-2010 17:56		031010		1.0		1660 LEVEL 4
025b2501.d	IPE100222-01 60	JXM	10-MAR-2010 18:13		031010		1.0		1660 LEVEL 5
026b2601.d	WPE091209-60	JXM	10-MAR-2010 18:30		031010		1.0		PASSES BOTH COLUMNS
027b2701.d	WAR100219-54	JXM	10-MAR-2010 18:47		031010		1.0		PATTERN ONLY
028b2801.d	WAR091217-42	JXM	10-MAR-2010 19:04		031010		1.0		PATTERN ONLY
029b2901.d	WAR091217-48	JXM	10-MAR-2010 19:21		031010		1.0		PATTERN ONLY
030b3001.d	WAR100104-32	JXM	10-MAR-2010 19:39		031010		1.0		PATTERN ONLY
031b3101.d	WAR100104-21	JXM	10-MAR-2010 19:56		031010		1.0		PATTERN ONLY
032b3201.d	WAR100104-99IB	JXM	10-MAR-2010 20:13		031010		1.0		CLEAN
033b3301.d	WPE100211-99DG	JXM	10-MAR-2010 20:30		031010		1.0		(B)DDT 9.2, ENDRIN 10.3 (F)DDT 5.1, ENDRIN 11.3
034b3401.d	1202063317	JXM	10-MAR-2010 20:47	961949	248686		1.0	MB	608 METHOD, SEE SEQUENCE 031010-608
035b3501.d	1202063318	JXM	10-MAR-2010 21:04	961949	248686		1.0	LCS	608 METHOD, SEE SEQUENCE 031010-608

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	248686001	JXM	10-MAR-2010 21:21	961949	248686	1.0	BJCO	608 METHOD, SEE SEQUENCE 031010-608
037b3701.d	1202063319	JXM	10-MAR-2010 21:38	961949	248686	1.0	MS	608 METHOD, SEE SEQUENCE 031010-608
038b3801.d	1202063320	JXM	10-MAR-2010 21:55	961949	248686	1.0	MSD	608 METHOD, SEE SEQUENCE 031010-608
039b3901.d	WAR100104-99IB	JXM	10-MAR-2010 22:12		031010	1.0		SLIGHT MATRIX CARRYOVER
040b4001.d	WPE100305-10AB	JXM	10-MAR-2010 22:29		031010	1.0		PASSES BOTH COLUMNS

041b4101.d	WAR100104-99IB	JXM	10-MAR-2010 22:47		031010		1.0		CLEAN
042b4201.d	1202065194	JXM	10-MAR-2010 23:04	962637	10-2286		1.0	MB	USE: LOWER
043b4301.d	1202065195	JXM	10-MAR-2010 23:21	962637	10-2286		1.0	LCS	USE: LOWER
044b4401.d	1202065201	JXM	10-MAR-2010 23:38	962637	10-2286		1.0	TLCS	USE: LOWER
045b4501.d	248789001	JXM	10-MAR-2010 23:55	962637	10-2286		1.0	LANL	USE: LOWER, FAILS DCB LOW, REPORT DUE TO NO MORE SAMPLE LEFT
046b4601.d	248801003	JXM	11-MAR-2010 00:12	962637	10-2294		1.0	LANL	USE: LOWER
047b4701.d	1202065196	JXM	11-MAR-2010 00:29	962637	10-2294		1.0	MS	USE: LOWER
048b4801.d	1202065197	JXM	11-MAR-2010 00:46	962637	10-2294		1.0	MSD	USE: LOWER
049b4901.d	248801010	JXM	11-MAR-2010 01:03	962637	10-2294		1.0	LANL	USE: LOWER
050b5001.d	WPE100305-10AB	JXM	11-MAR-2010 01:20		031010		1.0		PASSES BOTH COLUMNS
051b5101.d	WAR100104-99IB	JXM	11-MAR-2010 01:37		031010		1.0		CLEAN
052b5201.d	1202063242	JXM	11-MAR-2010 01:54	961916	248210		1.0	MB	USE: FRONT
053b5301.d	1202063243	JXM	11-MAR-2010 02:11	961916	248210		1.0	LCS	USE: FRONT
054b5401.d	1202063246	JXM	11-MAR-2010 02:28	961916	248210		1.0	TLCS	USE: FRONT
055b5501.d	248210004	JXM	11-MAR-2010 02:45	961916	248210		10.0	BY12	USE: FRONT

Instrument Batch: /chem/ecd7a.i/031010.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	1202063244	JXM	11-MAR-2010 03:02	961916	248210	10.0	MS	USE: FRONT
057b5701.d	1202063245	JXM	11-MAR-2010 03:20	961916	248210	10.0	MSD	USE: FRONT
058b5801.d	248210007	JXM	11-MAR-2010 03:37	961916	248210	10.0	BY12	USE: FRONT
059b5901.d	248210015	JXM	11-MAR-2010 03:54	961916	248210	10.0	BY12	USE: FRONT
060b6001.d	248210018	JXM	11-MAR-2010 04:11	961916	248210	10.0	BY12	USE: FRONT
061b6101.d	248210022	JXM	11-MAR-2010 04:28	961916	248210	10.0	BY12	USE: FRONT
062b6201.d	WAR100104-99IB	JXM	11-MAR-2010 04:45		031010	1.0		SLIGHT MATRIX CARRYOVER
063b6301.d	WPE100305-10AB	JXM	11-MAR-2010 05:02		031010	1.0		PASSES BOTH COLUMNS
064b6401.d	WAR100104-99IB	JXM	11-MAR-2010 05:19		031010	1.0		CLEAN

065b6501.d	248210026	JXM	11-MAR-2010 05:37	961916	248210		10.0	BY12	USE: FRONT
066b6601.d	248356003	JXM	11-MAR-2010 05:54	961916	248356		10.0	BY12	USE: FRONT
067b6701.d	248356011	JXM	11-MAR-2010 06:11	961916	248356		10.0	BY12	USE: FRONT
068b6801.d	248356012	JXM	11-MAR-2010 06:28	961916	248356		10.0	BY12	USE: FRONT
069b6901.d	WAR100104-99IB	JXM	11-MAR-2010 06:45		031010		1.0		SLIGHT MATRIX CARRYOVER
070b7001.d	WPE100305-10AB	JXM	11-MAR-2010 07:02		031010		1.0		(B)ENDO. II AND DDT HIGH (F)PASSES
071b7101.d	WAR100104-99IB	JXM	11-MAR-2010 07:19		031010		1.0		CLEAN
072b7201.d	UE100310-04	JXM	11-MAR-2010 09:46	Screen	031010		1.0		SCREEN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 03/16/2010 METHOD: ECD7-F-8081-031610.m OPERATOR:JXM REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936
MERCURY LOT

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/031610.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100104-99IB	JXM	16-MAR-2010 07:47		031610	1.0		CLEAN
002f0201.d	WPE100211-99DG	JXM	16-MAR-2010 08:03		031610	1.0		(B)DDT:2.9, ENDRIN:4.1, (F)DDT:1.7, ENDRIN:3.8
003f0301.d	WPE100305-10AB	JXM	16-MAR-2010 08:21		031610	1.0		DUSE
004f0401.d	WPE100125-52TX	JXM	16-MAR-2010 08:38		031610	1.0		USE. ICV. (B) PASSES ON AVG. (F) PASSES.
005f0501.d	WPE100305-10AB	JXM	16-MAR-2010 08:55		031610	1.0		DUSE
006f0601.d	WPE100305-00CL	JXM	16-MAR-2010 09:12		031610	1.0		USE. ICV. PASSING BOTH COLUMNS.
007f0701.d	WPE100316-01AB	JXM	16-MAR-2010 09:29		031610	1.0		INDAB ICAL 1
008f0801.d	WPE100316-02AB	JXM	16-MAR-2010 09:46		031610	1.0		INDAB ICAL 2
009f0901.d	WPE100316-03AB	JXM	16-MAR-2010 10:03		031610	1.0		INDAB ICAL 3
010f1001.d	WPE100316-04AB	JXM	16-MAR-2010 10:20		031610	1.0		INDAB ICAL 4
011f1101.d	IPE100204-02AB	JXM	16-MAR-2010 10:37		031610	1.0		INDAB ICAL 5
012f1201.d	WPE100305-10AB	JXM	16-MAR-2010 10:54		031610	1.0		USE. ICV. PASSING BOTH COLUMNS.
013f1301.d	WAR100104-99IB	JXM	16-MAR-2010 11:11		031610	1.0		CLEAN
014f1401.d	WPE100211-99DG	JXM	16-MAR-2010 11:28		031610	1.0		(B)DDT:4.1, ENDRIN:6.4, (F)DDT:2.4, ENDRIN:4.8
015f1501.d	1202068734	JXM	16-MAR-2010 11:45	965368	248571	1.0	TB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.

Instrument Batch: /chem/ecd7a.i/031610.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	1202071368	JXM	16-MAR-2010 12:02	965368	248571	1.0	MB	USE. 4CMX HI (F), PASSING (B).
017f1701.d	1202071375	JXM	16-MAR-2010 12:19	965368	248571	1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
018f1801.d	1202071376	JXM	16-MAR-2010 12:36	965368	248571	1.0	TLCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
019f1901.d	1202071377	JXM	16-MAR-2010 12:53	965368	248571	1.0	CLCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
020f2001.d	WAR100104-99IB	JXM	16-MAR-2010 13:10		031610	1.0		CLEAN
021f2101.d	WPE100305-10AB	JXM	16-MAR-2010 13:27		031610	1.0		USE. CCV. PASSING BOTH COLUMNS.
022f2201.d	WAR100104-99IB	JXM	16-MAR-2010 13:44		031610	1.0		CLEAN
023f2301.d	248571001	JXM	16-MAR-2010 14:01	965368	248571	1.0	SUBR	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
024f2401.d	248571002	JXM	16-MAR-2010 14:18	965368	248571	1.0	SUBR	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
025f2501.d	1202071369	JXM	16-MAR-2010 14:35	965368	248571	1.0	MS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
026f2601.d	1202071372	JXM	16-MAR-2010 14:52	965368	248571	1.0	MSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
027f2701.d	1202071370	JXM	16-MAR-2010 15:09	965368	248571	1.0	TMS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
028f2801.d	1202071373	JXM	16-MAR-2010 15:26	965368	248571	1.0	TMSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
029f2901.d	1202071371	JXM	16-MAR-2010 15:43	965368	248571	1.0	CMS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
030f3001.d	1202071374	JXM	16-MAR-2010 16:00	965368	248571	1.0	CMSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
031f3101.d	WAR100104-99IB	JXM	16-MAR-2010 16:17		031610	1.0		CLEAN
032f3201.d	WPE100305-10AB	JXM	16-MAR-2010 16:34		031610	1.0		USE. CCV. PASSING BOTH COLUMNS
033b3301.d	WAR100104-99IB	JXM	16-MAR-2010 16:51		031610	1.0		CLEAN
034b3401.d	1202069563	JXM	16-MAR-2010 17:09	964667	248484	1.0	MB	USE: FRONT
035b3501.d	1202069570	JXM	16-MAR-2010 17:26	964667	248484	1.0	LCS	USE: FRONT

10H

Instrument Batch: /chem/ecd7a.i/031610.b Page: 2

10H16.6H

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	1202069571	JXM	16-MAR-2010 17:43	964667	248484	1.0	TLCS	USE: FRONT
037b3701.d	1202069572	JXM	16-MAR-2010 18:00	964667	248484	1.0	CLCS	USE: FRONT
038b3801.d	WAR100104-99IB	JXM	16-MAR-2010 18:17		031610	1.0		CLEAN
039b3901.d	WPE100305-10AB	JXM	16-MAR-2010 18:34		031610	1.0		PASSES BOTH COLUMNS
040b4001.d	WAR100104-99IB	JXM	16-MAR-2010 18:51		031610	1.0		CLEAN

041b4101.d	248484001	JXM	16-MAR-2010 19:08	964667	248484		1.0	GEOC	USE: FRONT
042b4201.d	1202069564	JXM	16-MAR-2010 19:25	964667	248484		1.0	MS	USE: FRONT
043b4301.d	1202069567	JXM	16-MAR-2010 19:42	964667	248484		1.0	MSD	USE: FRONT
044b4401.d	1202069565	JXM	16-MAR-2010 19:59	964667	248484		1.0	TMS	USE: FRONT
045b4501.d	1202069568	JXM	16-MAR-2010 20:16	964667	248484		1.0	TMSD	USE: FRONT
046b4601.d	1202069566	JXM	16-MAR-2010 20:33	964667	248484		1.0	CMS	USE: FRONT
047b4701.d	1202069569	JXM	16-MAR-2010 20:50	964667	248484		1.0	CMSD	USE: FRONT
048b4801.d	WAR100104-99IB	JXM	16-MAR-2010 21:07		031610		1.0		CLEAN
049b4901.d	WPE100305-10AB	JXM	16-MAR-2010 21:24		031610		1.0		PASSES BOTH COLUMNS
050b5001.d	WAR100104-99IB	JXM	16-MAR-2010 21:41		031610		1.0		CLEAN
051b5101.d	1202070146	JXM	16-MAR-2010 21:58	964908	249200		1.0	MB	USE: FRONT
052b5201.d	1202070147	JXM	16-MAR-2010 22:15	964908	249200		1.0	LCS	USE: FRONT
053b5301.d	1202070150	JXM	16-MAR-2010 22:32	964908	249200		1.0	TLCS	USE: FRONT
054b5401.d	249200004	JXM	16-MAR-2010 22:49	964908	249200		1.0	BY12	USE: FRONT
055b5501.d	1202070148	JXM	16-MAR-2010 23:06	964908	249200		1.0	MS	USE: FRONT

10H

10H16.6H

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	1202070149	JXM	16-MAR-2010 23:23	964908	249200	1.0	MSD	USE: FRONT
057b5701.d	WPE100305-10AB	JXM	16-MAR-2010 23:40		031610	1.0		PASSES BOTH COLUMNS
058b5801.d	WAR100104-99IB	JXM	16-MAR-2010 23:57		031610	1.0		CLEAN
059b5901.d	1202069885	JXM	17-MAR-2010 00:15	964798	248920-2	1.0	MB	USE: FRONT
060b6001.d	1202069886	JXM	17-MAR-2010 00:32	964798	248920-2	1.0	LCS	USE: FRONT
061b6101.d	1202069889	JXM	17-MAR-2010 00:49	964798	248920-2	1.0	TLCS	USE: FRONT
062b6201.d	248922004	JXM	17-MAR-2010 01:06	964798	248920-2	10.0	BY12	USE: FRONT
063b6301.d	248922008	JXM	17-MAR-2010 01:23	964798	248920-2	10.0	BY12	USE: FRONT
064b6401.d	1202069887	JXM	17-MAR-2010 01:40	964798	248920-2	10.0	MS	USE: FRONT

065b6501.d	1202069888	JXM	17-MAR-2010 01:57	964798	248920-2		10.0	MSD	USE: FRONT
066b6601.d	248922012	JXM	17-MAR-2010 02:14	964798	248920-2		10.0	BY12	USE: FRONT
067b6701.d	248922013	JXM	17-MAR-2010 02:31	964798	248920-2		10.0	BY12	USE: FRONT
068b6801.d	248922017	JXM	17-MAR-2010 02:48	964798	248920-2		10.0	BY12	USE: FRONT
069b6901.d	WAR100104-99IB	JXM	17-MAR-2010 03:05		031610		1.0		CLEAN
070b7001.d	WPE100305-10AB	JXM	17-MAR-2010 03:22		031610		1.0		(B)ALPHA-CHLORDANE LOW (F)PASSES
071b7101.d	WAR100104-99IB	JXM	17-MAR-2010 03:39		031610		1.0		CLEAN
072b7201.d	1202071571	JXM	17-MAR-2010 03:56	965455	249086		1.0	MB	USE: FRONT
073b7301.d	1202071572	JXM	17-MAR-2010 04:13	965455	249086		1.0	LCS	USE: FRONT
074b7401.d	1202071575	JXM	17-MAR-2010 04:30	965455	249086		1.0	TLCS	USE: FRONT
075b7501.d	249086005	JXM	17-MAR-2010 04:47	965455	249086		10.0	BY12	USE: FRONT

10H

Instrument Batch: /chem/ecd7a.i/031610.b Page: 4

10H16.6H

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076b7601.d	1202071573	JXM	17-MAR-2010 05:04	965455	249086		10.0	MS	USE: FRONT
077b7701.d	1202071574	JXM	17-MAR-2010 05:21	965455	249086		10.0	MSD	USE: FRONT
078b7801.d	249086014	JXM	17-MAR-2010 05:38	965455	249086		10.0	BY12	USE: FRONT
079b7901.d	WAR100104-99IB	JXM	17-MAR-2010 05:55		031610		1.0		CLEAN
080b8001.d	WPE100305-10AB	JXM	17-MAR-2010 06:12		031610		1.0		(B)ALPHA-CHLORDANE LOW (F)PASSES
081b8101.d	WAR100104-99IB	JXM	17-MAR-2010 06:32		031610		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 03/17/2010 METHOD: ECD7-B-8081-031610.m OPERATOR:JXM REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT
MERCURY LOT

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/031710.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100104-99IB	JXM	17-MAR-2010 10:32		031710	1.0		CLEAN
002b0201.d	WPE100211-99DG	JXM	17-MAR-2010 10:49		031710	1.0		(B)DDT 2.3, ENDRIN 3.6 (F)DDT 1.9, ENDRIN 3.3
003b0301.d	WPE100305-10AB	JXM	17-MAR-2010 11:06		031710	1.0		DUSE
004b0401.d	WPE100114-05GA	JXM	17-MAR-2010 11:23		031710	1.0		(B)DDT HIGH (F)PASSES
005b0501.d	WPE100125-52TX	JXM	17-MAR-2010 11:40		031710	1.0		PASSES AVERAGE
006b0601.d	WPE100305-00CL	JXM	17-MAR-2010 11:57		031710	1.0		PASSES AVERAGE
007b0701.d	WPE100305-10AB	JXM	17-MAR-2010 12:14		031710	1.0		PASSES BOTH COLUMNS
008b0801.d	WPE100104-99IB	JXM	17-MAR-2010 12:32		031710	1.0		CLEAN
009b0901.d	1202072436	JXM	17-MAR-2010 12:49	965780	10-2359	1.0	MB	DUSE: ALDRIN LOW IN LCS, PRE-FLORISIL LCS PASSES SCREEN
010b1001.d	1202072437	JXM	17-MAR-2010 13:06	965780	10-2359	1.0	LCS	DUSE: ALDRIN LOW IN LCS, PRE-FLORISIL LCS PASSES SCREEN
011b1101.d	1202072440	JXM	17-MAR-2010 13:23	965780	10-2359	1.0	TLCS	DUSE: ALDRIN LOW IN LCS, PRE-FLORISIL LCS PASSES SCREEN
012b1201.d	249080001	JXM	17-MAR-2010 13:40	965780	10-2359	1.0	LANL	DUSE: ALDRIN LOW IN LCS, PRE-FLORISIL LCS PASSES SCREEN
013b1301.d	249168003	JXM	17-MAR-2010 13:57	965780	10-2392	1.0	LANL	DUSE: ALDRIN LOW IN LCS, PRE-FLORISIL LCS PASSES SCREEN
014b1401.d	1202072438	JXM	17-MAR-2010 14:14	965780	10-2392	1.0	MS	DUSE: ALDRIN LOW IN LCS, PRE-FLORISIL LCS PASSES SCREEN
015b1501.d	1202072439	JXM	17-MAR-2010 14:31	965780	10-2392	1.0	MSD	DUSE: ALDRIN LOW IN LCS, PRE-FLORISIL LCS PASSES SCREEN

Instrument Batch: /chem/ecd7a.i/031710.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	249168009	JXM	17-MAR-2010 14:48	965780	10-2392	1.0	LANL	DUSE: ALDRIN LOW IN LCS, PRE-FLORISIL LCS PASSES SCREEN
017b1701.d	WPE100305-10AB	JXM	17-MAR-2010 15:05		031710	1.0		PASSES BOTH COLUMNS
018b1801.d	WAR100104-99IB	JXM	17-MAR-2010 15:22		031710	1.0		CLEAN
019b1901.d	WPE100211-99DG	JXM	17-MAR-2010 15:39		031710	1.0		(B)DDT 2.9, ENDRIN 5.4 (F)DDT 3.1, ENDRIN 5.2
020b2001.d	1202071583	JXM	17-MAR-2010 15:56	965459	249262	1.0	MB	USE: HIGHER
021b2101.d	1202071585	JXM	17-MAR-2010 16:13	965459	249262	1.0	LCS	USE: HIGHER
022b2201.d	1202071586	JXM	17-MAR-2010 16:30	965459	249262	1.0	LCSD	USE: HIGHER
023b2301.d	249262001	JXM	17-MAR-2010 16:47	965459	249262	2.0	MECP	USE: HIGHER
024b2401.d	1202071584	JXM	17-MAR-2010 17:04	965459	249262	2.0	DUP	USE: HIGHER
025b2501.d	WAR100104-99IB	JXM	17-MAR-2010 17:21		031710	1.0		CLEAN
026b2601.d	WPE100305-10AB	JXM	17-MAR-2010 17:38		031710	1.0		PASSES BOTH COLUMNS
027b2701.d	WAR100104-99IB	JXM	17-MAR-2010 17:55		031710	1.0		CLEAN
028b2801.d	1202069876	JXM	17-MAR-2010 18:12	964793	10-2286-1	1.0	MB	USE: LOWER
029b2901.d	1202069877	JXM	17-MAR-2010 18:29	964793	10-2286-1	1.0	LCS	USE: LOWER
030b3001.d	1202069972	JXM	17-MAR-2010 18:46	964793	10-2286-1	1.0	TLCS	USE: LOWER
031b3101.d	248790001	JXM	17-MAR-2010 19:03	964793	10-2286-1	10.0	LANL	USE: LOWER
032b3201.d	248790002	JXM	17-MAR-2010 19:20	964793	10-2286-1	10.0	LANL	USE: LOWER
033b3301.d	248790003	JXM	17-MAR-2010 19:38	964793	10-2286-1	10.0	LANL	USE: LOWER
034b3401.d	1202069878	JXM	17-MAR-2010 19:55	964793	10-2286-1	10.0	MS	USE: LOWER
035b3501.d	1202069879	JXM	17-MAR-2010 20:12	964793	10-2286-1	10.0	MSD	USE: LOWER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	248790004	JXM	17-MAR-2010 20:29	964793	10-2286-1	10.0	LANL	USE: LOWER
037b3701.d	248790006	JXM	17-MAR-2010 20:46	964793	10-2286-1	10.0	LANL	USE: LOWER
038b3801.d	WAR100104-99IB	JXM	17-MAR-2010 21:03		031710	1.0		CLEAN
039b3901.d	WPE100305-10AB	JXM	17-MAR-2010 21:20		031710	1.0		PASSES BOTH COLUMNS
040b4001.d	WAR100104-99IB	JXM	17-MAR-2010 21:37		031710	1.0		CLEAN

041b4101.d	248790007	JXM	17-MAR-2010 21:54	964793	10-2286-1	10.0	LANL	USE: LOWER
042b4201.d	248790008	JXM	17-MAR-2010 22:11	964793	10-2286-1	10.0	LANL	USE: LOWER
043b4301.d	248790009	JXM	17-MAR-2010 22:28	964793	10-2286-1	10.0	LANL	USE: LOWER
044b4401.d	248790010	JXM	17-MAR-2010 22:45	964793	10-2286-1	10.0	LANL	USE: LOWER
045b4501.d	248790011	JXM	17-MAR-2010 23:02	964793	10-2286-1	10.0	LANL	USE: LOWER
046b4601.d	248790012	JXM	17-MAR-2010 23:19	964793	10-2286-1	10.0	LANL	USE: LOWER
047b4701.d	248790013	JXM	17-MAR-2010 23:36	964793	10-2286-1	10.0	LANL	USE: LOWER
048b4801.d	248790014	JXM	17-MAR-2010 23:53	964793	10-2286-1	10.0	LANL	USE: LOWER
049b4901.d	248790015	JXM	18-MAR-2010 00:10	964793	10-2286-1	10.0	LANL	USE: LOWER
050b5001.d	248790016	JXM	18-MAR-2010 00:27	964793	10-2286-1	10.0	LANL	USE: LOWER
051b5101.d	WAR100104-99IB	JXM	18-MAR-2010 00:45		031710	1.0		SLIGHT MATRIX CARRYOVER
052b5201.d	WPE100305-10AB	JXM	18-MAR-2010 01:02		031710	1.0		PASSES BOTH COLUMNS
053b5301.d	WAR100104-99IB	JXM	18-MAR-2010 01:19		031710	1.0		CLEAN
054b5401.d	248790017	JXM	18-MAR-2010 01:36	964793	10-2286-1	10.0	LANL	USE: LOWER
055b5501.d	WAR100104-99IB	JXM	18-MAR-2010 01:53		031710	1.0		CLEAN

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	WPE100305-10AB	JXM	18-MAR-2010 02:10		031710	1.0		PASSES BOTH COLUMNS
057b5701.d	WAR100104-99IB	JXM	18-MAR-2010 02:27		031710	1.0		CLEAN
058b5801.d	WPE100211-99DG	JXM	18-MAR-2010 02:44	965433	031710	1.0	MB	(B)DDT 9.3, ENDRIN 12.0 (F)DDT 8.7, ENDRIN 11.7
059b5901.d	1202071510	JXM	18-MAR-2010 03:01	965433	10-2261	1.0	MB	USE: LOWER
060b6001.d	1202071511	JXM	18-MAR-2010 03:18	965433	10-2261	1.0	LCS	USE: LOWER
061b6101.d	1202071545	JXM	18-MAR-2010 03:35	965433	10-2261	1.0	TLCS	USE: LOWER
062b6201.d	248689001	JXM	18-MAR-2010 03:52	965433	10-2261	10.0	LANL	USE: LOWER
063b6301.d	248689003	JXM	18-MAR-2010 04:09	965433	10-2261	10.0	LANL	USE: LOWER
064b6401.d	248689005	JXM	18-MAR-2010 04:26	965433	10-2261	10.0	LANL	USE: LOWER

065b6501.d	248689006	JXM	18-MAR-2010 04:43	965433	10-2261	10.0	LANL	USE: LOWER
066b6601.d	248689007	JXM	18-MAR-2010 05:00	965433	10-2261	10.0	LANL	USE: LOWER
067b6701.d	248689008	JXM	18-MAR-2010 05:17	965433	10-2261	10.0	LANL	USE: LOWER
068b6801.d	248689009	JXM	18-MAR-2010 05:34	965433	10-2261	10.0	LANL	USE: LOWER
069b6901.d	WAR100104-99IB	JXM	18-MAR-2010 05:51		031710	1.0		MATRIX CARRYOVER
070b7001.d	WPE100305-10AB	JXM	18-MAR-2010 06:08		031710	1.0		(B)PASSES (F)DDD HIGH
071b7101.d	WAR100104-99IB	JXM	18-MAR-2010 06:25		031710	1.0		SLIGHT MATRIX CARRYOVER
072b7201.d	248689010	JXM	18-MAR-2010 06:42	965433	10-2261	10.0	LANL	USE: LOWER
073b7301.d	248689011	JXM	18-MAR-2010 06:59	965433	10-2261	10.0	LANL	USE: LOWER
074b7401.d	248689012	JXM	18-MAR-2010 07:16	965433	10-2261	10.0	LANL	USE: LOWER
075b7501.d	248689013	JXM	18-MAR-2010 07:33	965433	10-2261	10.0	LANL	USE: LOWER

Instrument Batch: /chem/ecd7a.i/031710.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076b7601.d	248689014	JXM	18-MAR-2010 07:50	965433	10-2261	10.0	LANL	USE: LOWER
077b7701.d	248689015	JXM	18-MAR-2010 08:08	965433	10-2261	10.0	LANL	USE: LOWER
078b7801.d	248689016	JXM	18-MAR-2010 08:25	965433	10-2261	10.0	LANL	USE: LOWER
079b7901.d	248689017	JXM	18-MAR-2010 08:42	965433	10-2261	10.0	LANL	USE: LOWER
080b8001.d	248689018	JXM	18-MAR-2010 08:59	965433	10-2261	10.0	LANL	USE: LOWER
081b8101.d	WAR100104-99IB	JXM	18-MAR-2010 09:16		031710	1.0		CLEAN
082b8201.d	WPE100305-10AB	JXM	18-MAR-2010 09:33		031710	1.0		(B)PASSES (F)DDD HIGH
083b8301.d	WAR100104-99IB	JXM	18-MAR-2010 09:50		031710	1.0		CLEAN
084b8401.d	248702001	JXM	18-MAR-2010 10:07	965433	10-2264	10.0	LANL	USE: LOWER
085b8501.d	1202071512	JXM	18-MAR-2010 10:24	965433	10-2264	10.0	MS	USE: LOWER
086b8601.d	1202071513	JXM	18-MAR-2010 10:41	965433	10-2264	10.0	MSD	USE: LOWER
087b8701.d	248702002	JXM	18-MAR-2010 10:58	965433	10-2264	10.0	LANL	USE: LOWER
088b8801.d	WAR100104-99IB	JXM	18-MAR-2010 11:15		031710	1.0		SLIGHT MATRIX CARRYOVER
089b8901.d	WPE100305-10AB	JXM	18-MAR-2010 11:32		031710	1.0		(B)PASSES (F)DDD HIGH

090b9001.d	WAR100104-99IB	JXM	18-MAR-2010 11:49		031710		1.0	CLEAN
091b9101.d	1202072437	JXM	18-MAR-2010 12:06	965780	10-2359		1.0	LCS SCREEN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 965432 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202071510 MB	16-MAR-2010 11:42:00	30	Florisil	5	1	10	5	0.16667
1202071511 LCS	16-MAR-2010 11:42:00	30	Florisil	5	1	10	5	0.16667
1202071545 LCS	16-MAR-2010 11:42:00	30	Florisil	5	1	10	5	0.16667
248689001	16-MAR-2010 11:42:00	30	Florisil	5	1	10	5	0.16667
248689003	16-MAR-2010 11:42:00	30.03	Florisil	5	1	10	5	0.1665
248689005	16-MAR-2010 11:42:00	30	Florisil	5	1	10	5	0.16667
248689006	16-MAR-2010 11:42:00	30.02	Florisil	5	1	10	5	0.16656
248689007	16-MAR-2010 11:42:00	30.08	Florisil	5	1	10	5	0.16622
248689008	16-MAR-2010 11:42:00	30.06	Florisil	5	1	10	5	0.16633
248689009	16-MAR-2010 11:42:00	30	Florisil	5	1	10	5	0.16667
248689010	16-MAR-2010 11:42:00	30.04	Florisil	5	1	10	5	0.16644
248689011	16-MAR-2010 11:42:00	30.02	Florisil	5	1	10	5	0.16656
248689012	16-MAR-2010 11:42:00	30.04	Florisil	5	1	10	5	0.16644
248689013	16-MAR-2010 11:42:00	30.02	Florisil	5	1	10	5	0.16656
248689014	16-MAR-2010 11:42:00	30.09	Florisil	5	1	10	5	0.16617
248689015	16-MAR-2010 11:42:00	30.09	Florisil	5	1	10	5	0.16617
248689016	16-MAR-2010 11:42:00	30	Florisil	5	1	10	5	0.16667
248689017	16-MAR-2010 11:42:00	30.03	Florisil	5	1	10	5	0.1665
248689018	16-MAR-2010 11:42:00	30.04	Florisil	5	1	10	5	0.16644
248702001	16-MAR-2010 11:42:00	30	Florisil	5	1	10	5	0.16667
1202071512 MS (248702001)	16-MAR-2010 11:42:00	30.02	Florisil	5	1	10	5	0.16656
1202071513 MSD (248702001)	16-MAR-2010 11:42:00	30	Florisil	5	1	10	5	0.16667
248702002	16-MAR-2010 11:42:00	30	Florisil	5	1	10	5	0.16667

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202071511	PESTSPIKE	UE100310-04	1	mL
LCS	1202071545	Toxaphene TCLP LCS	WE100206-11	2	mL
MS	1202071512	PESTSPIKE	UE100310-04	1	mL
MSD	1202071513	PESTSPIKE	UE100310-04	1	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE100302-08	1	mL
REGNT	All	Acetone	1273739-B1	150	mL
REGNT	All	Hexane	1279341-B2	150	mL
REGNT	All	Florisil cartridge 1000mg per cartridge	1284410-28	1	g
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 03/16/2010

Clean up Initials: JAM

Verified By: RWH

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-036

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2264

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	967999
Prep Batch Number:	967997

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
248702001	RE46-10-13203
248702002	RE46-10-13202
1202077986	Method Blank (MB)
1202077987	Laboratory Control Sample (LCS)
1202077988	248747001(RE32-10-11381) Matrix Spike (MS)
1202077989	248747001(RE32-10-11381) Matrix Spike Duplicate (MSD)

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

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report

located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix from sdg 10-2279 was selected for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were not within the established acceptance limits

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent differences (RPD) between the MS and MSD were not within the required acceptance limits due to the relatively low recoveries in the MS.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
Sample 248702001 (RE46-10-13203) was diluted at 10X due to the presence of over range target analytes.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

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

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

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

Review Validation

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

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

Reviewer: Andy Whatlack Date: 3-30-2010

Roadmap for LANL 10-2264 PCB

This roadmap was analyzed by yip00818 on 03-24-2010, 13:44.
This roadmap was packaged by sha01289 on 03-29-2010, 19:23.
This roadmap was validated by rob01090 on 03-30-2010, 14:58.

From Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd1a.i/032210.b/024f2401.d	248702001	sample	22-MAR-2010	11:10	10-2264.sub	RE46-10-13203	5.00000	966771	DUSE RE DUE TO BLANK CONTAMINATION
□	N	/chem/ecd1a.i/032410.b/017f1701.d	248702001	sample	24-MAR-2010	08:23	10-2264.sub	RE46-10-13203	10.00000	967999	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/032210.b/025f2501.d	248702002	sample	22-MAR-2010	11:23	10-2264.sub	RE46-10-13202	1.00000	966771	DUSE RE DUE TO BLANK CONTAMINATION
□	N	/chem/ecd1a.i/032410.b/018f1801.d	248702002	sample	24-MAR-2010	08:35	10-2264.sub	RE46-10-13202	1.00000	967999	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd1a.i/032210.b/024b2401.d	248702001	sample	22-MAR-2010	11:10	10-2264.sub	RE46-10-13203	5.00000	966771	DUSE RE DUE TO BLANK CONTAMINATION
□	N	/chem/ecd1a.i/032410.b/017b1701.d	248702001	sample	24-MAR-2010	08:23	10-2264.sub	RE46-10-13203	10.00000	967999	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/032210.b/025b2501.d	248702002	sample	22-MAR-2010	11:23	10-2264.sub	RE46-10-13202	1.00000	966771	DUSE RE DUE TO BLANK CONTAMINATION
□	N	/chem/ecd1a.i/032410.b/018b1801.d	248702002	sample	24-MAR-2010	08:35	10-2264.sub	RE46-10-13202	1.00000	967999	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd1a.i/032410.b/012f1201-1.d	1202077986	mb	24-MAR-2010	07:24	10-2264.sub	PBLK01	1.00000	967999	
□	N	/chem/ecd1a.i/032410.b/013f1301-1.d	1202077987	lcs	24-MAR-2010	07:34	10-2264.sub	PBLK01LCS	1.00000	967999	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd1a.i/032410.b/012b1201-1.d	1202077986	mb	24-MAR-2010	07:24	10-2264.sub	PBLK01	1.00000	967999	
□	N	/chem/ecd1a.i/032410.b/013b1301-1.d	1202077987	lcs	24-MAR-2010	07:34	10-2264.sub	PBLK01LCS	1.00000	967999	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702002**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**21.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13202**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967999**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 08:35**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 10:13**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	018b1801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.23	ug/kg	1.41	4.23	1
11104–28–2	Aroclor–1221	U	4.23	ug/kg	1.41	4.23	1
11141–16–5	Aroclor–1232	U	4.23	ug/kg	1.41	4.23	1
53469–21–9	Aroclor–1242	U	4.23	ug/kg	1.41	4.23	1
12672–29–6	Aroclor–1248	U	4.23	ug/kg	1.41	4.23	1
11097–69–1	Aroclor–1254	P	4.30	ug/kg	1.41	4.23	1
11096–82–5	Aroclor–1260	J	4.00	ug/kg	1.41	4.23	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702001**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**18.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13203**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967999**	**Inst:**	**ECD1A.I**	**Dilution:**	**10**
Run Date:	**03/24/2010 08:23**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 10:13**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**017f1701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	017b1701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	41.0	ug/kg	13.7	41.0	1
11104–28–2	Aroclor–1221	U	41.0	ug/kg	13.7	41.0	1
11141–16–5	Aroclor–1232	U	41.0	ug/kg	13.7	41.0	1
53469–21–9	Aroclor–1242	U	41.0	ug/kg	13.7	41.0	1
12672–29–6	Aroclor–1248	U	41.0	ug/kg	13.7	41.0	1
11097–69–1	Aroclor–1254		95.0	ug/kg	13.7	41.0	1
11096–82–5	Aroclor–1260		76.1	ug/kg	13.7	41.0	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-2264

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
1202077986	MB for batch 967997	79		76		89		84	
1202077987	LCS for batch 967997	79		76		85		82	
248702001	RE46-10-13203	46	D	49	D	49	D	59	D
248702002	RE46-10-13202	54		54		77		62	

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%-120%)
DCB = Decachlorobiphenyl	(30%-116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2264
Client ID: LCS for batch 967997
Lab Sample ID: 1202077987
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/24/2010 07:34
Dilution: 1
Prep Batch ID: 967997
Batch ID: 967999

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	24.0	72	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	27.1	81	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2264**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE32-10-11381MS**	**Matrix:**	**R**
Lab Sample ID:	**1202077988**	**%Moisture:**	**17.4**
Instrument:	**ECD1A.I**	**Analysis Date:**	**03/24/2010 09:21**
Analyst:	**YS1**	**Prep Batch ID:**	**967997**
Inj. Vol:	**1 uL**	**Batch ID:**	**967999**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	40.3	0.00	U	19.1	47	23-119
11096-82-5	MS	Aroclor-1260	40.3	73.6		73.9	1 *	28-124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2264
Client ID: RE32–10–11381MSD
Lab Sample ID: 1202077989
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 17.4
Analysis Date: 03/24/2010 09:34
Prep Batch ID: 967997
Batch ID: 967999
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	40.3	0.00	U	42.8	106	23–119	77 *	0–28
11096–82–5	MSD Aroclor–1260	40.3	73.6		88.0	36	28–124	17	0–30

Method Blank Summary

SDG Number:	**10-2264**	**Client:**	**LANL010**	**Matrix:**	**SOIL**
Client ID:	**MB for batch 967997**	**Instrument ID:**	**ECD1A.I_2** **ECD1A.I_1**	**Data File:**	**012b1201-1.d** **012f1201-1.d**
Lab Sample ID:	**1202077986**				
Column:	**CLP2** **CLP1**	**Prep Date:**	**03/23/2010 10:13**	**Analyzed:**	**03/24/10 07:24**
		Level:	**LOW**		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 967997	1202077987	013f1301-1.d 013b1301-1.d	03/24/10	0734
02 RE46-10-13203	248702001	017f1701.d 017b1701.d	03/24/10	0823
03 RE46-10-13202	248702002	018f1801.d 018b1801.d	03/24/10	0835

SAMPLE
DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702002**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**21.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13202**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967999**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 08:35**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 10:13**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	018b1801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.23	ug/kg	1.41	4.23	1
11104–28–2	Aroclor–1221	U	4.23	ug/kg	1.41	4.23	1
11141–16–5	Aroclor–1232	U	4.23	ug/kg	1.41	4.23	1
53469–21–9	Aroclor–1242	U	4.23	ug/kg	1.41	4.23	1
12672–29–6	Aroclor–1248	U	4.23	ug/kg	1.41	4.23	1
11097–69–1	Aroclor–1254	P	4.30	ug/kg	1.41	4.23	1
11096–82–5	Aroclor–1260	J	4.00	ug/kg	1.41	4.23	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/018f1801.d
Lab Smp Id: 248702002 Client Smp ID: RE46-10-13202
Inj Date : 24-MAR-2010 08:35
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248702002|1|
Misc Info : |ECD82P_1S|967999|SVA|LANL|SOIL|RE46-10-13202|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 06:44 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	21.26750	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.910	0.001	41825677	107.377	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.212	5.213	-0.001	45543039	153.380	6.5	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.205	3.207	-0.002	1210632	91.2861	3.9	80.00- 120.00	100.00
3.360	3.362	-0.002	860737	48.2657	2.0	115.19- 155.19	71.10
3.592	3.595	-0.003	2499891	111.745	4.7	155.81- 195.81	206.49
3.756	3.758	-0.002	1099732	66.6906	2.8	110.49- 150.49	90.84

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.863	3.867	-0.004	3108560	194.718	8.2	112.27- 152.27	256.77
Average of Peak Concentrations =					4.3		
7 Aroclor-1260					CAS #: 11096-82-5		
3.700	3.701	-0.001	2009853	109.648	4.6	80.00- 120.00	100.00(aH)
3.863	3.864	-0.001	3108560	115.604	4.9	128.84- 168.84	154.67
4.025	4.026	-0.001	4837932	170.859	7.2	136.80- 176.80	240.71
4.091	4.094	-0.003	739130	45.7443	1.9	69.79- 109.79	36.78
4.235	4.237	-0.002	589428	35.0586	1.5	73.64- 113.64	29.33
Average of Peak Concentrations =					4.0		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

Data File: /chem/ecd1a.i/032410.b/018f1801.d
Date : 24-MAR-2010 08:35
Client ID: RE46-10-13202
Sample Info: |248702002|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

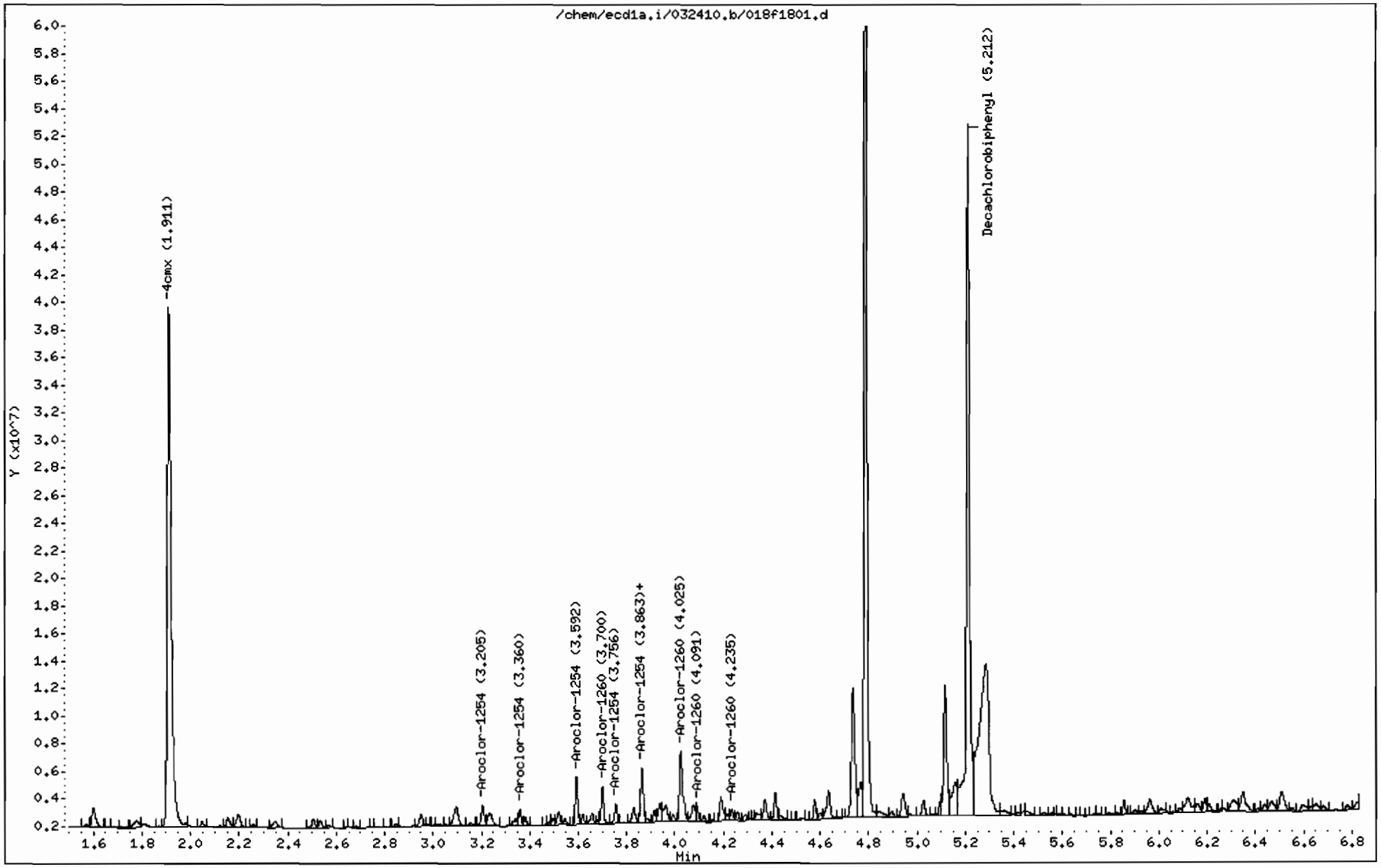

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/018b1801.d
Lab Smp Id: 248702002 Client Smp ID: RE46-10-13202
Inj Date : 24-MAR-2010 08:35
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248702002|1|
Misc Info : |ECD82P_1S|967999|SVA|LANL|SOIL|RE46-10-13202|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 06:44 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	21.26750	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	28112885	107.165	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.908	5.909	-0.001	23200410	123.951	5.2	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.371	3.373	-0.002	171519	28.4858	1.2	80.00- 120.00	100.00(a)
3.792	3.794	-0.002	797586	73.7155	3.1	161.28- 201.28	465.01
3.910	3.911	-0.001	745639	62.4822	2.6	180.25- 220.25	434.72
4.184	4.186	-0.002	1755924	106.796	4.5	261.58- 301.58	1023.74

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.321	4.323	-0.002	599678	49.4967	2.1	185.17- 225.17	349.63
Average of Peak Concentrations =					2.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.301	4.301	0.000	1366559	104.475	4.4	80.00- 120.00	100.00(aH)
4.426	4.426	0.000	1734512	111.551	4.7	101.96- 141.96	126.93
4.692	4.691	0.001	683237	57.4338	2.4	72.05- 112.05	50.00
4.866	4.864	0.002	1126434	91.6604	3.9	75.86- 115.86	82.43
5.011	5.012	-0.001	947714	35.9056	1.5	194.34- 234.34	69.35
Average of Peak Concentrations =					3.4		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

Data File: /chem/ecd1a.i/032410.b/018b1801.d

Date : 24-MAR-2010 08:35

Client ID: RE46-10-13202

Sample Info: |248702002|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

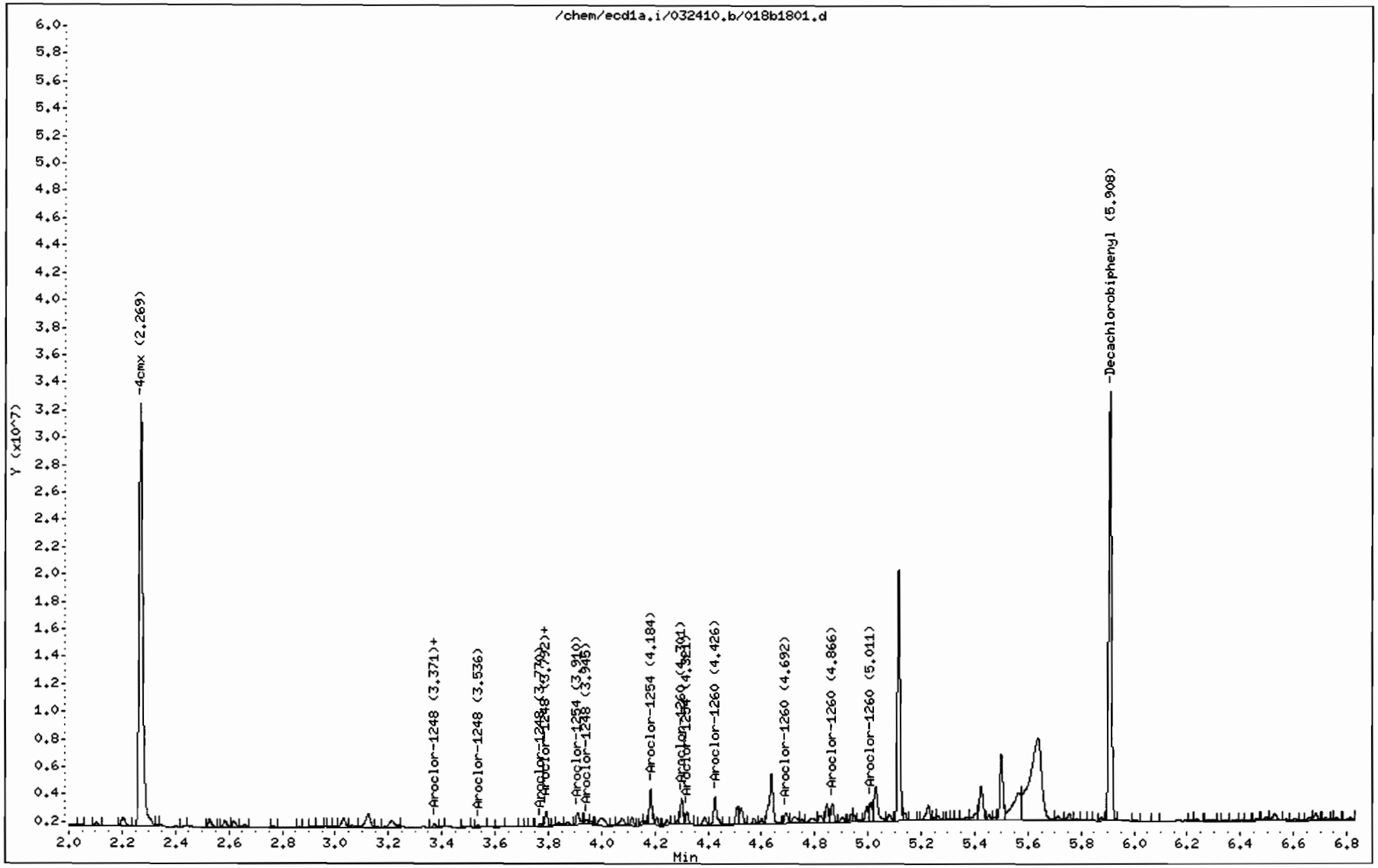

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2264**	**Date Collected:**	**03/02/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248702001**	**Date Received:**	**03/04/2010 08:50**	**%Moisture:**	**18.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13203**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967999**	**Inst:**	**ECD1A.I**	**Dilution:**	**10**
Run Date:	**03/24/2010 08:23**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 10:13**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**017f1701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	017b1701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	41.0	ug/kg	13.7	41.0	1
11104–28–2	Aroclor–1221	U	41.0	ug/kg	13.7	41.0	1
11141–16–5	Aroclor–1232	U	41.0	ug/kg	13.7	41.0	1
53469–21–9	Aroclor–1242	U	41.0	ug/kg	13.7	41.0	1
12672–29–6	Aroclor–1248	U	41.0	ug/kg	13.7	41.0	1
11097–69–1	Aroclor–1254		95.0	ug/kg	13.7	41.0	1
11096–82–5	Aroclor–1260		76.1	ug/kg	13.7	41.0	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/017f1701.d
Lab Smp Id: 248702001 Client Smp ID: RE46-10-13203
Inj Date : 24-MAR-2010 08:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248702001|10|
Misc Info : |ECD82P_1S|967999|SVA|LANL|SOIL|RE46-10-13203|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 09:45 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 17
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	18.69990	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.910	0.000	3612929	9.27526	3.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.213	0.001	2890417	9.73433	4.0	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.205	3.207	-0.002	2283522	172.186	70.6	80.00- 120.00	100.00(M)
3.360	3.362	-0.002	2257317	126.579	51.9	115.19- 155.19	98.85
3.594	3.595	-0.001	5715223	255.471	105	155.81- 195.81	250.28
3.756	3.758	-0.002	2791228	169.267	69.4	110.49- 150.49	122.23

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.865	3.867	-0.002	6911645	432.941	178	112.27- 152.27	302.67
Average of Peak Concentrations =					95.0		
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.701	0.001	3823906	208.614	85.5	80.00- 120.00	100.00(M)
3.865	3.864	0.001	6911645	257.036	105	130.12- 170.12	180.75
4.026	4.026	0.000	9602674	339.134	139	140.37- 180.37	251.12
4.095	4.094	0.001	1033811	63.9819	26.2	70.27- 110.27	27.04
4.237	4.237	0.000	1013991	60.3111	24.7	74.54- 114.54	26.52
Average of Peak Concentrations =					76.1		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032410.b/017f1701.d

Page 1

Date : 24-MAR-2010 08:23

Client ID: RE46-10-13203

Instrument: ecd1a.i

Sample Info: |2487020011|10|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

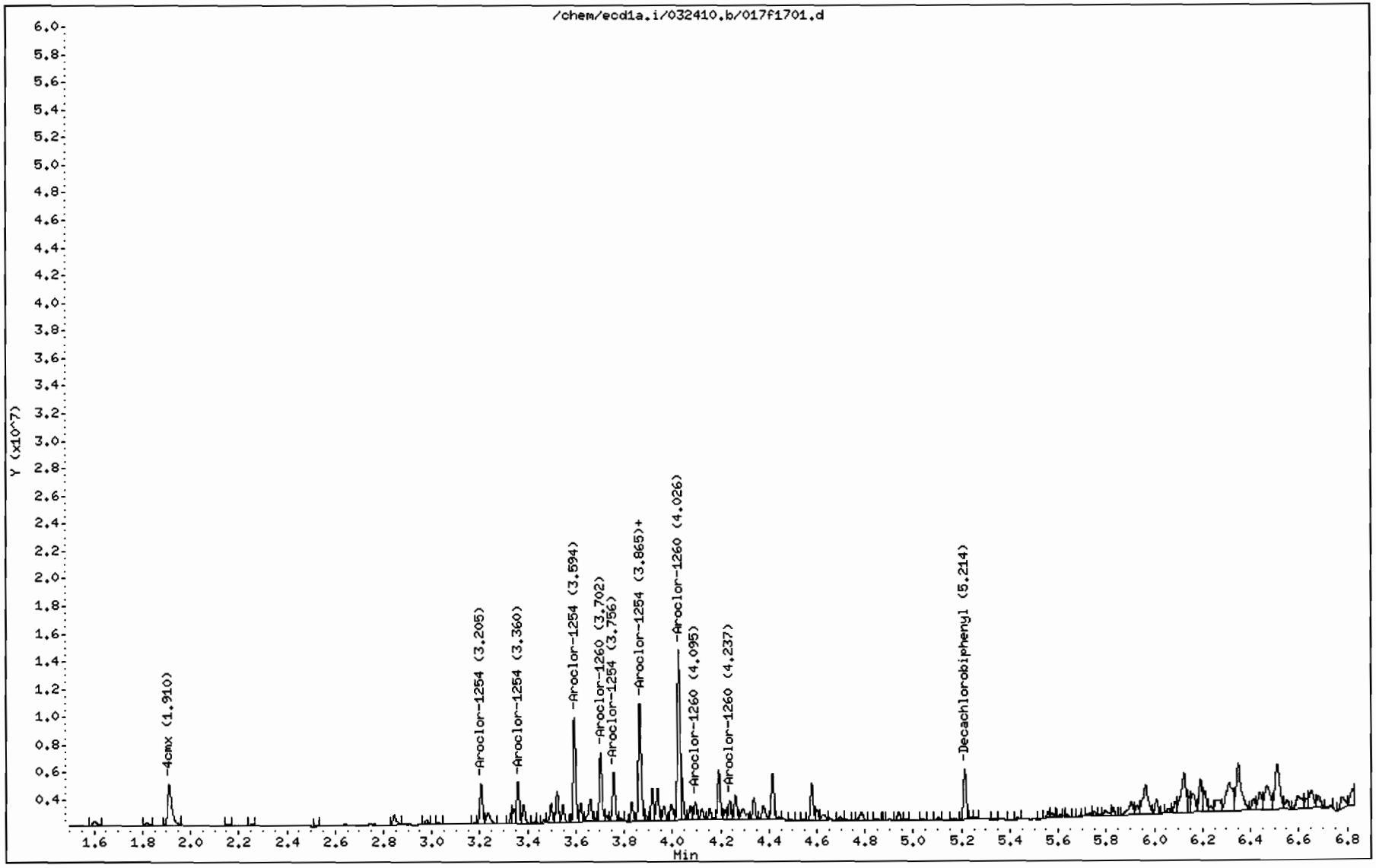

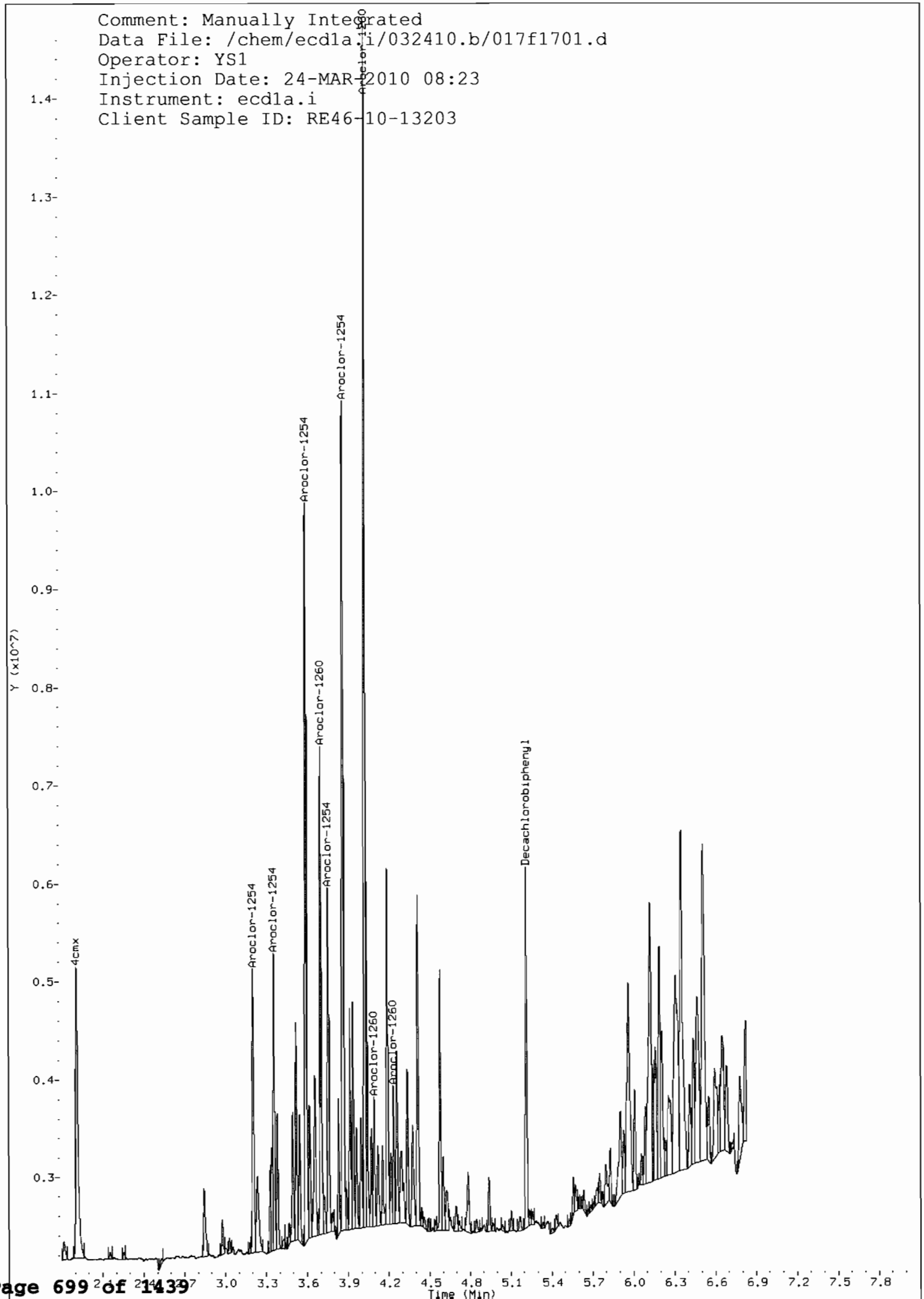
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032410.b/017f1701.d
Operator: YS1
Injection Date: 24-MAR-2010 08:23
Instrument: ecd1a.i
Client Sample ID: RE46-10-13203
Y (x10^7)
Time (Min)
4cmx
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

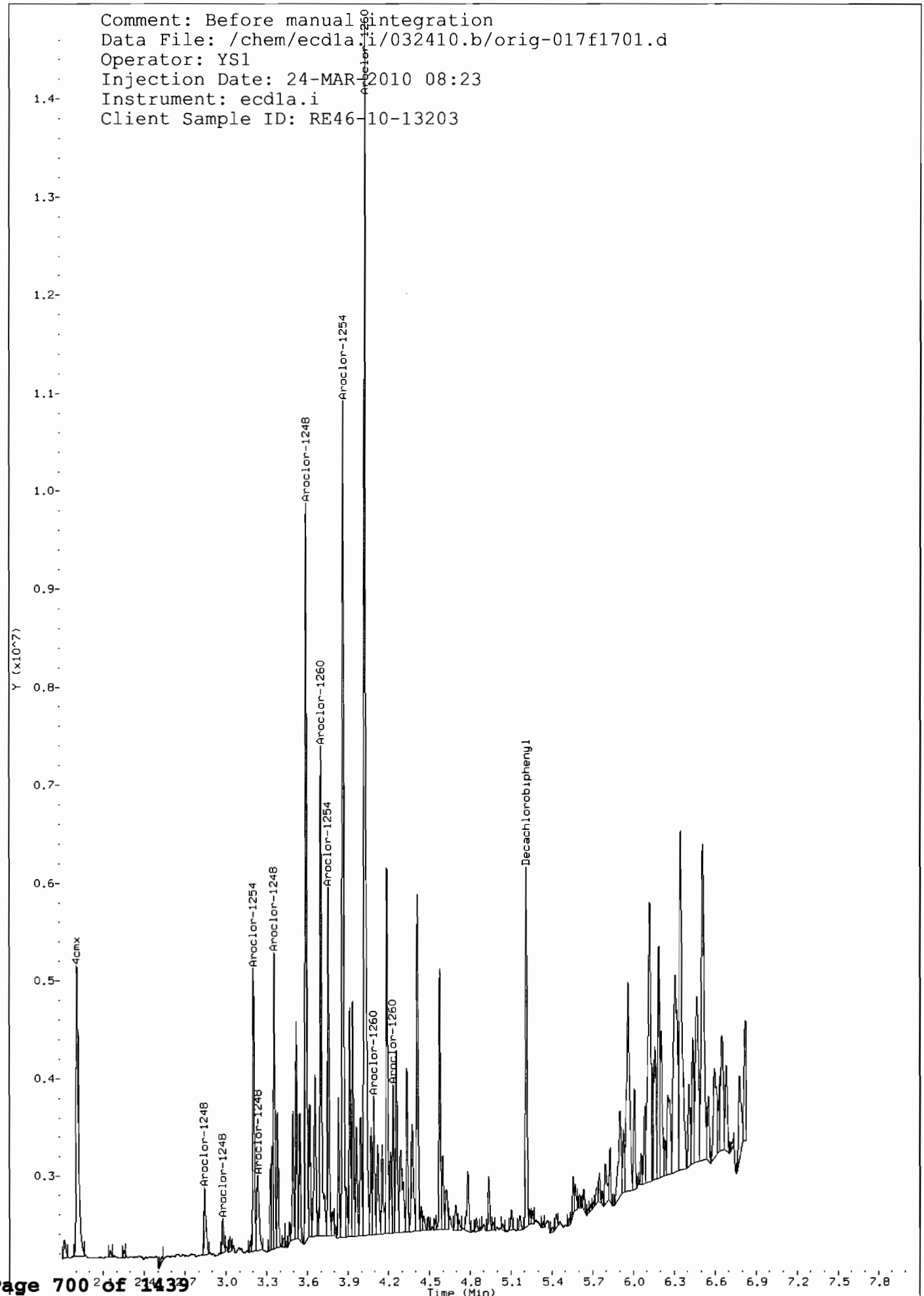
Comment: Before manual integration
Data File: /chem/ecd1a.i/032410.b/orig-017f1701.d
Operator: YS1
Injection Date: 24-MAR-2010 08:23
Instrument: ecd1a.i
Client Sample ID: RE46-10-13203
Y (x10^7)
Time (Min)
4cmx
Aroclor-1248
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/017b1701.d
Lab Smp Id: 248702001 Client Smp ID: RE46-10-13203
Inj Date : 24-MAR-2010 08:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248702001|10|
Misc Info : |ECD82P_1S|967999|SVA|LANL|SOIL|RE46-10-13203|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 09:45 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 17
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	18.69990	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	2582381	9.84392	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.909	0.001	2198626	11.7465	4.8	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.371	3.373	-0.002	428906	71.2324	29.2	80.00- 120.00	100.00
3.793	3.794	-0.001	1883370	174.067	71.4	161.28- 201.28	439.11
3.910	3.911	-0.001	1979638	165.887	68.0	180.25- 220.25	461.55
4.185	4.186	-0.001	4325644	263.088	108	261.58- 301.58	1008.53

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.322	4.323	-0.001	1847107	152.458	62.5	185.17- 225.17	430.66
Average of Peak Concentrations =					67.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.301	0.001	3461671	264.649	108	80.00- 120.00	100.00
4.426	4.426	0.000	3497425	224.929	92.2	103.26- 143.26	101.03
4.695	4.691	0.004	1236207	103.917	42.6	72.22- 112.22	35.71
4.865	4.864	0.001	893199	72.6815	29.8	75.54- 115.54	25.80
5.012	5.012	0.000	2135839	80.9194	33.2	193.55- 233.55	61.70
Average of Peak Concentrations =					61.2		

Data File: /chem/ecd1a.i/032410.b/017b1701.d

Date : 24-MAR-2010 08:23

Client ID: RE46-10-13203

Sample Info: |2487020011101|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

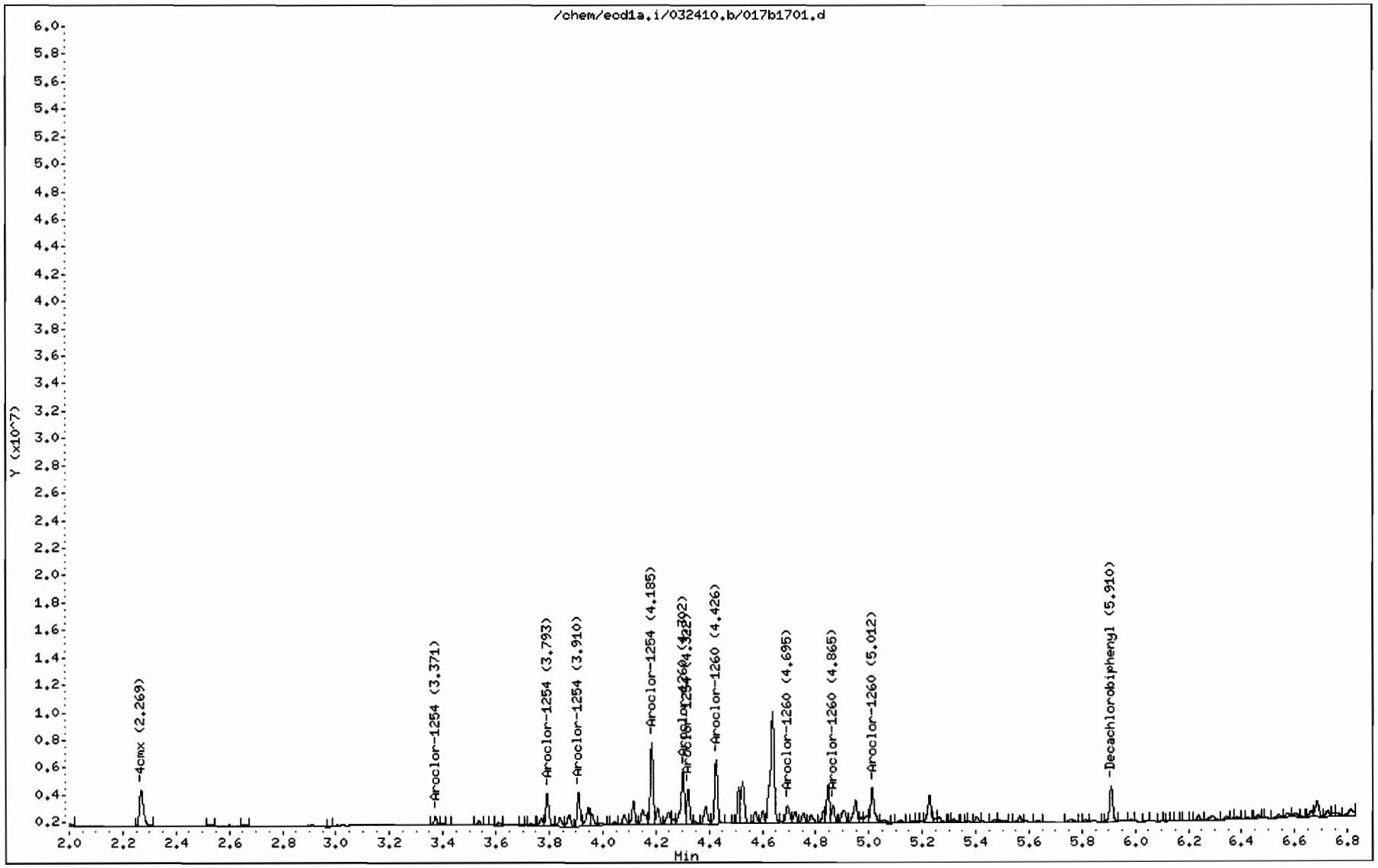

STANDARDS DATA

Report Date: 25-Mar-2010 10:54

Calibration History

Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032f3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029f2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023f2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017f1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033f3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030f3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024f2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018f1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034f3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031f3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025f2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019f1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035f3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032f3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026f2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020f2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014f1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009f0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008f0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007f0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010f1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036f3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033f3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027f2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021f2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 16:50	AR1660	/chem/ecd1a.i/032410.b/059f5901.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 17:28	AR1660	/chem/ecd1a.i/032410.b/062f6201.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 14:49	AR1660	/chem/ecd1a.i/032410.b/049f4901.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 13:24	AR1660	/chem/ecd1a.i/032410.b/042f4201.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 11:02	AR1660	/chem/ecd1a.i/032410.b/030f3001.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 08:58	AR1660	/chem/ecd1a.i/032410.b/020f2001.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 06:52	AR1262	/chem/ecd1a.i/032410.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 06:42	AR1221	/chem/ecd1a.i/032410.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 06:31	AR1232	/chem/ecd1a.i/032410.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 06:21	AR1268	/chem/ecd1a.i/032410.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 06:10	AR1248	/chem/ecd1a.i/032410.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 06:00	AR1242	/chem/ecd1a.i/032410.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 05:49	AR1254	/chem/ecd1a.i/032410.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 05:39	AR1660	/chem/ecd1a.i/032410.b/002f0201.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 08:48	AR1660	/chem/ecd1a.i/032410.b/019f1901.d

Report Date: 25-Mar-2010 10:54

Calibration History

Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029b2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023b2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017b1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030b3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024b2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018b1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031b3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025b2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019b1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032b3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026b2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020b2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014b1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009b0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008b0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007b0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010b1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033b3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027b2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021b2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 1000 |

24-MAR-2010 17:28	AR1660	/chem/ecd1a.i/032410.b/062b6201.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 16:50	AR1660	/chem/ecd1a.i/032410.b/059b5901.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 14:49	AR1660	/chem/ecd1a.i/032410.b/049b4901.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 13:24	AR1660	/chem/ecd1a.i/032410.b/042b4201.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 11:02	AR1660	/chem/ecd1a.i/032410.b/030b3001.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 08:58	AR1660	/chem/ecd1a.i/032410.b/020b2001.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 06:52	AR1262	/chem/ecd1a.i/032410.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 06:42	AR1221	/chem/ecd1a.i/032410.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 06:31	AR1232	/chem/ecd1a.i/032410.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 06:21	AR1268	/chem/ecd1a.i/032410.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 06:10	AR1248	/chem/ecd1a.i/032410.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 06:00	AR1242	/chem/ecd1a.i/032410.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 05:49	AR1254	/chem/ecd1a.i/032410.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 05:39	AR1660	/chem/ecd1a.i/032410.b/002b0201.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 08:48	AR1660	/chem/ecd1a.i/032410.b/019b1901.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Mar-2010 06:44 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.362	2.332-2.392	1.518e+04
	2.650	2.619-2.680	1.894e+04
	2.729	2.699-2.759	1.244e+04
	2.766	2.736-2.796	7.348e+03
	2.977	2.947-3.007	9.518e+03
63 4,4-DDD	3.888	3.868-3.908	3.140e+05
64 4,4-DDE	3.539	3.519-3.559	3.727e+05
62 4,4-DDT	4.052	4.032-4.072	2.363e+05
2 Aroclor-1221	2.025	1.995-2.055	4.466e+03
	2.117	2.087-2.147	2.447e+03
	2.142	2.112-2.172	1.083e+04
3 Aroclor-1232	2.364	2.334-2.394	6.667e+03
	2.651	2.621-2.681	8.344e+03
	2.731	2.701-2.761	5.531e+03
	2.845	2.815-2.875	2.649e+03
	3.232	3.202-3.262	3.555e+03
4 Aroclor-1242	2.364	2.334-2.394	1.233e+04
	2.650	2.620-2.680	1.490e+04
	2.768	2.738-2.798	5.896e+03
	2.978	2.948-3.008	7.735e+03
	3.231	3.201-3.261	7.285e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.845	2.815-2.875	1.000e+04
	2.979	2.949-3.009	1.314e+04
	3.232	3.202-3.262	1.430e+04
	3.364	3.334-3.394	1.190e+04
	3.596	3.566-3.626	8.005e+03
6 Aroclor-1254	3.207	3.177-3.237	1.326e+04
	3.362	3.332-3.392	1.783e+04
	3.595	3.565-3.625	2.237e+04
	3.758	3.728-3.788	1.649e+04
	3.867	3.837-3.897	1.596e+04
7 Aroclor-1260	3.701	3.671-3.731	1.833e+04
	3.864	3.834-3.894	2.689e+04
	4.026	3.996-4.056	2.832e+04
	4.094	4.064-4.124	1.616e+04
	4.237	4.207-4.267	1.681e+04
8 Aroclor-1262	3.704	3.674-3.734	1.423e+04
	3.867	3.837-3.897	1.874e+04
	4.097	4.067-4.127	2.315e+04
	4.240	4.210-4.270	2.110e+04
	4.418	4.388-4.448	4.350e+04
9 Aroclor-1268	4.603	4.573-4.633	4.848e+04
	4.626	4.596-4.656	5.448e+04
	4.739	4.709-4.769	3.862e+04
	4.941	4.911-4.971	1.635e+04
	5.106	5.076-5.136	1.121e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.910	1.880-1.940	3.895e+05
$ 12 Decachlorobiphenyl	5.213	5.183-5.243	2.969e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Mar-2010 06:44 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.163	3.133-3.193	1.258e+04
	3.245	3.215-3.275	8.634e+03
	3.309	3.279-3.339	5.287e+03
	3.536	3.506-3.566	6.893e+03
	3.611	3.581-3.641	6.423e+03
62 4,4-DDT	4.642	4.622-4.662	7.489e+04
63 4,4-DDE	4.111	4.091-4.131	2.469e+05
64 4,4-DDD	4.455	4.435-4.475	1.989e+05
2 Aroclor-1221	2.466	2.436-2.496	3.250e+03
	2.560	2.530-2.590	2.084e+03
	2.601	2.571-2.631	7.320e+03
3 Aroclor-1232	2.867	2.837-2.897	5.054e+03
	3.165	3.135-3.195	5.712e+03
	3.247	3.217-3.277	3.888e+03
	3.537	3.507-3.567	2.840e+03
	3.771	3.741-3.801	2.821e+03
4 Aroclor-1242	3.164	3.134-3.194	1.014e+04
	3.247	3.217-3.277	7.097e+03
	3.537	3.507-3.567	5.514e+03
	3.770	3.740-3.800	5.722e+03
	3.798	3.768-3.828	6.370e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.373	3.343-3.403	7.604e+03
	3.538	3.508-3.568	9.470e+03
	3.771	3.741-3.801	1.093e+04
	3.799	3.769-3.829	1.216e+04
	3.935	3.905-3.965	1.181e+04
6 Aroclor-1254	3.373	3.343-3.403	6.021e+03
	3.794	3.764-3.824	1.082e+04
	3.911	3.881-3.941	1.193e+04
	4.186	4.156-4.216	1.644e+04
	4.323	4.293-4.353	1.212e+04
7 Aroclor-1260	4.301	4.271-4.331	1.308e+04
	4.426	4.396-4.456	1.555e+04
	4.691	4.661-4.721	1.190e+04
	4.864	4.835-4.894	1.229e+04
	5.012	4.982-5.042	2.639e+04
8 Aroclor-1262	4.428	4.398-4.458	1.160e+04
	4.694	4.664-4.724	1.620e+04
	4.868	4.838-4.898	1.484e+04
	5.014	4.984-5.044	2.937e+04
	5.227	5.197-5.257	2.065e+04
9 Aroclor-1268	5.226	5.196-5.256	3.730e+04
	5.253	5.223-5.283	3.492e+04
	5.402	5.372-5.432	2.658e+04
	5.567	5.537-5.597	1.223e+04
	5.759	5.729-5.789	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.269	2.239-2.299	2.623e+05
$ 12 Decachlorobiphenyl	5.909	5.879-5.939	1.872e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Cal Date : 24-Mar-2010 11:25 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032f3201.d
Level 2: /chem/ecd1a.i/022210.b/033f3301.d
Level 3: /chem/ecd1a.i/022210.b/034f3401.d
Level 4: /chem/ecd1a.i/022210.b/035f3501.d
Level 5: /chem/ecd1a.i/022210.b/036f3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	17517	15916	14941	14342	13168	15177	10.833
(2)	20378	19291	18809	18310	17891	18936	5.082
(3)	13830	13020	12255	11836	11271	12442	8.071
(4)	7957	7573	7201	7091	6919	7348	5.665
(5)	10680	9850	9332	8998	8729	9518	8.119
63 4,4-DDD	+++++	+++++	+++++	313980	+++++	313980	0.000
64 4,4-DDE	+++++	+++++	+++++	372684	+++++	372684	0.000
62 4,4-DDT	+++++	+++++	+++++	236265	+++++	236265	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4466	+++++	4466	0.000
(2)	+++++	+++++	+++++	2447	+++++	2447	0.000
(3)	+++++	+++++	+++++	10828	+++++	10828	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6667	+++++	6667	0.000
(2)	+++++	+++++	+++++	8344	+++++	8344	0.000
(3)	+++++	+++++	+++++	5531	+++++	5531	0.000
(4)	+++++	+++++	+++++	2649	+++++	2649	0.000
(5)	+++++	+++++	+++++	3555	+++++	3555	0.000
4 Aroclor-1242(1)	14179	12973	12200	11692	10617	12332	10.871
(2)	16141	15119	14927	14559	13766	14903	5.801
(3)	6352	6182	5816	5703	5424	5896	6.324
(4)	8823	8005	7582	7293	6975	7735	9.260
(5)	7955	7511	7149	7022	6787	7285	6.273
5 Aroclor-1248(1)	11183	10572	9738	9526	8980	10000	8.748
(2)	14876	13683	12753	12517	11873	13140	8.885
(3)	15448	14508	14083	13911	13564	14303	5.068
(4)	13161	12385	11501	11480	10960	11898	7.335
(5)	8649	8385	7955	7608	7427	8005	6.411

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Cal Date : 24-Mar-2010 11:25 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	15079	13757	12872	12576	12027	13262	8.998
(2)	20126	18408	17163	17147	16322	17833	8.313
(3)	24516	23104	21642	21571	21024	22371	6.372
(4)	18056	17097	15691	15840	15766	16490	6.365
(5)	18024	16683	15151	15091	14874	15964	8.504
7 Aroclor-1260(1)	20231	18737	18018	17739	16925	18330	6.792
(2)	29345	27114	26401	26314	25275	26890	5.656
(3)	30716	28501	27786	27176	27398	28315	5.062
(4)	17775	16311	15776	15627	15300	16158	6.034
(5)	18203	16850	16463	16434	16114	16813	4.876
8 Aroclor-1262(1)	+++++	+++++	+++++	14232	+++++	14232	0.000
(2)	+++++	+++++	+++++	18742	+++++	18742	0.000
(3)	+++++	+++++	+++++	23151	+++++	23151	0.000
(4)	+++++	+++++	+++++	21098	+++++	21098	0.000
(5)	+++++	+++++	+++++	43500	+++++	43500	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	407603	391717	384007	385362	378927	389523	2.846
$ 12 Decachlorobiphenyl	324859	292709	291687	292552	282844	296930	5.438

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Cal Date : 25-Mar-2010 06:44 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032b3201.d
Level 2: /chem/ecd1a.i/022210.b/033b3301.d
Level 3: /chem/ecd1a.i/022210.b/034b3401.d
Level 4: /chem/ecd1a.i/022210.b/035b3501.d
Level 5: /chem/ecd1a.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14376	12782	12025	12307	11436	12585	8.846
(2)	10090	9074	8445	8099	7462	8634	11.594
(3)	6137	5472	5151	4973	4701	5287	10.435
(4)	7962	7103	6817	6522	6060	6893	10.318
(5)	7497	6686	6263	5965	5703	6423	10.948
62 4,4-DDT	+++++	+++++	+++++	74891	+++++	74891	0.000
63 4,4-DDE	+++++	+++++	+++++	246875	+++++	246875	0.000
64 4,4-DDD	+++++	+++++	+++++	198885	+++++	198885	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3250	+++++	3250	0.000
(2)	+++++	+++++	+++++	2084	+++++	2084	0.000
(3)	+++++	+++++	+++++	7320	+++++	7320	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	5054	+++++	5054	0.000
(2)	+++++	+++++	+++++	5712	+++++	5712	0.000
(3)	+++++	+++++	+++++	3888	+++++	3888	0.000
(4)	+++++	+++++	+++++	2840	+++++	2840	0.000
(5)	+++++	+++++	+++++	2821	+++++	2821	0.000
4 Aroclor-1242(1)	11230	10514	10117	9526	9309	10139	7.634
(2)	8350	7546	6909	6642	6036	7097	12.487
(3)	6442	5836	5387	5177	4727	5514	11.868
(4)	6626	6011	5573	5400	4999	5722	10.877
(5)	7365	6655	6241	6005	5582	6370	10.658
5 Aroclor-1248(1)	9056	8166	7435	6980	6383	7604	13.684
(2)	11093	10088	9257	8814	8097	9470	12.242
(3)	12505	11602	10677	10284	9581	10930	10.466
(4)	13890	12873	11986	11379	10657	12157	10.405
(5)	13590	12468	11541	11009	10453	11812	10.502

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Cal Date : 25-Mar-2010 06:44 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7300	6493	5824	5480	5009	6021	14.886
(2)	12825	11548	10490	9974	9262	10820	12.909
(3)	14182	12643	11550	11031	10262	11934	12.788
(4)	19027	17317	15983	15442	14439	16442	10.826
(5)	14064	13049	11651	11174	10640	12116	11.634
7 Aroclor-1260(1)	15189	13569	12744	12369	11530	13080	10.610
(2)	17885	16016	15152	14853	13838	15549	9.776
(3)	13812	12250	11562	11271	10585	11896	10.311
(4)	14218	12635	11954	11625	11015	12289	9.981
(5)	29595	26825	25949	25629	23976	26395	7.824
8 Aroclor-1262(1)	+++++	+++++	+++++	11597	+++++	11597	0.000
(2)	+++++	+++++	+++++	16200	+++++	16200	0.000
(3)	+++++	+++++	+++++	14838	+++++	14838	0.000
(4)	+++++	+++++	+++++	29366	+++++	29366	0.000
(5)	+++++	+++++	+++++	20651	+++++	20651	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	286554	267083	258607	255362	244057	262333	6.044
$ 12 Decachlorobiphenyl	217815	191410	181026	177515	168101	187173	10.178

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 0539

Lab File ID: 002F0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	13917.336	0.01	-8.3	15.0
(2)	18935.774	17330.622	0.01	-8.5	15.0
(3)	12442.153	11091.414	0.01	-10.8	15.0
(4)	7348.319	6706.603	0.01	-8.7	15.0
(5)	9517.775	8595.230	0.01	-9.7	15.0
Aroclor-1260	18330.091	17944.577	0.01	-2.1	15.0
(2)	26889.831	26637.168	0.01	-0.9	15.0
(3)	28315.304	28619.758	0.01	1.1	15.0
(4)	16157.873	16175.637	0.01	0.1	15.0
(5)	16812.669	16935.976	0.01	0.7	15.0
4cmx	389523.02	393283.71	0.01	1.0	15.0
Decachlorobiphenyl	296930.38	300643.30	0.01	1.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 0539

Lab File ID: 002B0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11657.208	0.01	-7.4	15.0
(2)	8634.207	7555.228	0.01	-12.5	15.0
(3)	5286.637	4704.651	0.01	-11.0	15.0
(4)	6892.719	6183.823	0.01	-10.3	15.0
(5)	6422.564	5745.271	0.01	-10.5	15.0
Aroclor-1260	13080.231	12438.009	0.01	-4.9	15.0
(2)	15549.023	15198.346	0.01	-2.2	15.0
(3)	11896.069	11456.823	0.01	-3.7	15.0
(4)	12289.216	11904.207	0.01	-3.1	15.0
(5)	26394.638	26564.667	0.01	0.6	15.0
4cmx	262332.66	254554.57	0.01	-3.0	15.0
Decachlorobiphenyl	187173.38	183893.43	0.01	-1.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 0549

Lab File ID: 003F0301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	13261.954	12655.702	0.01	-4.6	15.0
(2)	17833.306	17108.757	0.01	-4.1	15.0
(3)	22371.301	22249.968	0.01	-0.5	15.0
(4)	16490.050	16514.415	0.01	0.1	15.0
(5)	15964.418	16740.316	0.01	4.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 0549

Lab File ID: 003B0301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6021.217	5572.091	0.01	-7.4	15.0
(2)	10819.790	10101.252	0.01	-6.6	15.0
(3)	11933.626	11158.366	0.01	-6.5	15.0
(4)	16441.788	15689.738	0.01	-4.6	15.0
(5)	12115.517	11432.434	0.01	-5.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 0858

Lab File ID: 020F2001 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14147.481	0.01	-6.8	15.0
(2)	18935.774	18596.300	0.01	-1.8	15.0
(3)	12442.153	11296.982	0.01	-9.2	15.0
(4)	7348.319	6830.392	0.01	-7.0	15.0
(5)	9517.775	8817.572	0.01	-7.4	15.0
Aroclor-1260	18330.091	18275.970	0.01	-0.3	15.0
(2)	26889.831	27435.727	0.01	2.0	15.0
(3)	28315.304	29309.774	0.01	3.5	15.0
(4)	16157.873	16497.890	0.01	2.1	15.0
(5)	16812.669	17277.787	0.01	2.8	15.0
4cmx	389523.02	400630.13	0.01	2.8	15.0
Decachlorobiphenyl	296930.38	302278.13	0.01	1.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 0858

Lab File ID: 020B2001 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11878.241	0.01	-5.6	15.0
(2)	8634.207	7583.800	0.01	-12.2	15.0
(3)	5286.637	4708.522	0.01	-10.9	15.0
(4)	6892.719	6159.296	0.01	-10.6	15.0
(5)	6422.564	5642.066	0.01	-12.2	15.0
Aroclor-1260	13080.231	12344.543	0.01	-5.6	15.0
(2)	15549.023	15215.512	0.01	-2.1	15.0
(3)	11896.069	11384.470	0.01	-4.3	15.0
(4)	12289.216	11793.466	0.01	-4.0	15.0
(5)	26394.638	26362.075	0.01	-0.1	15.0
4cmx	262332.66	256212.41	0.01	-2.3	15.0
Decachlorobiphenyl	187173.38	167375.64	0.01	-10.6	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/002f0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 24-MAR-2010 05:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.910	0.000	39328371	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.213	0.000	30064330	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.362	2.362	0.000	13917336	1000.00	917	80.00- 120.00	100.00
2.650	2.650	0.000	17330622	1000.00	915	104.01- 144.01	124.53
2.729	2.729	0.000	11091414	1000.00	891	59.94- 99.94	79.69
2.766	2.766	0.000	6706603	1000.00	913	28.17- 68.17	48.19
2.977	2.977	0.000	8595230	1000.00	903	42.68- 82.68	61.76
Average of Peak Amounts =					908		
7 Aroclor-1260					CAS #: 11096-82-5		
3.701	3.701	0.000	17944577	1000.00	979	80.00- 120.00	100.00
3.864	3.864	0.000	26637168	1000.00	991	127.48- 167.48	148.44
4.026	4.026	0.000	28619758	1000.00	1010	135.59- 175.59	159.49
4.094	4.094	0.000	16175637	1000.00	1000	68.96- 108.96	90.14
4.237	4.237	0.000	16935976	1000.00	1010	72.51- 112.51	94.38
Average of Peak Amounts =					998		

Data File: /chem/ecd1a.i/032410.b/002f0201.d

Date : 24-MAR-2010 05:39

Client ID: AR166001

Sample Info: IWAR100222-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

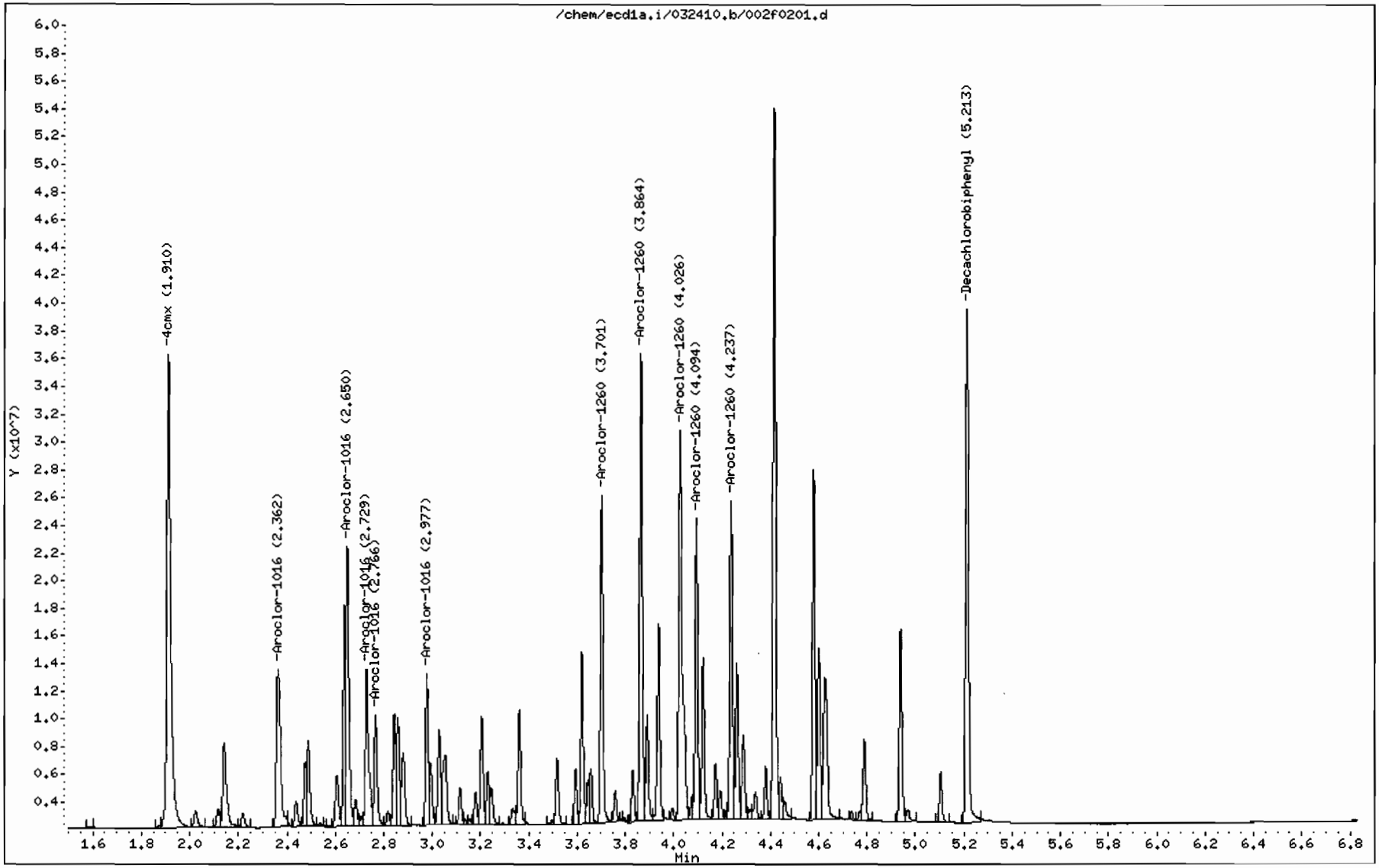

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/002b0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 24-MAR-2010 05:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	25455457	100.000	97.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.909	5.909	0.000	18389343	100.000	98.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.163	3.163	0.000	11657208	1000.00	926	80.00- 120.00	100.00(M)
3.245	3.245	0.000	7555228	1000.00	875	44.58- 84.58	64.81
3.309	3.309	0.000	4704651	1000.00	890	20.18- 60.18	40.36
3.536	3.536	0.000	6183823	1000.00	897	32.45- 72.45	53.05
3.611	3.611	0.000	5745271	1000.00	894	28.97- 68.97	49.29
Average of Peak Amounts =					897		
7 Aroclor-1260					CAS #: 11096-82-5		
4.301	4.301	0.000	12438009	1000.00	951	80.00- 120.00	100.00
4.426	4.426	0.000	15198346	1000.00	977	102.36- 142.36	122.19
4.691	4.691	0.000	11456823	1000.00	963	71.70- 111.70	92.11
4.864	4.864	0.000	11904207	1000.00	969	75.18- 115.18	95.71
5.012	5.012	0.000	26564667	1000.00	1010	193.37- 233.37	213.58
Average of Peak Amounts =					973		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032410.b/002b0201.d

Date : 24-MAR-2010 05:39

Client ID: AR166001

Sample Info: IWAR100222-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

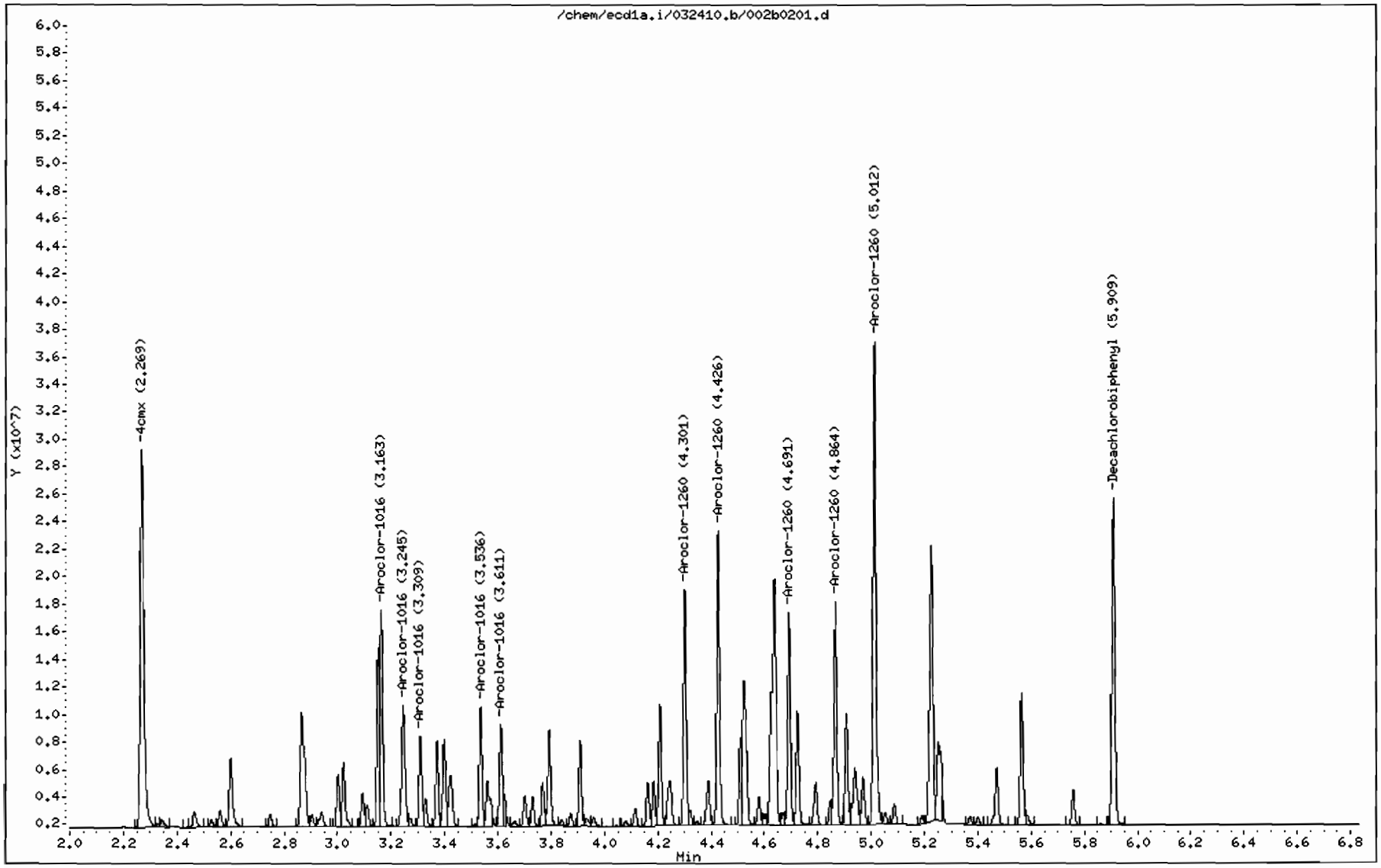

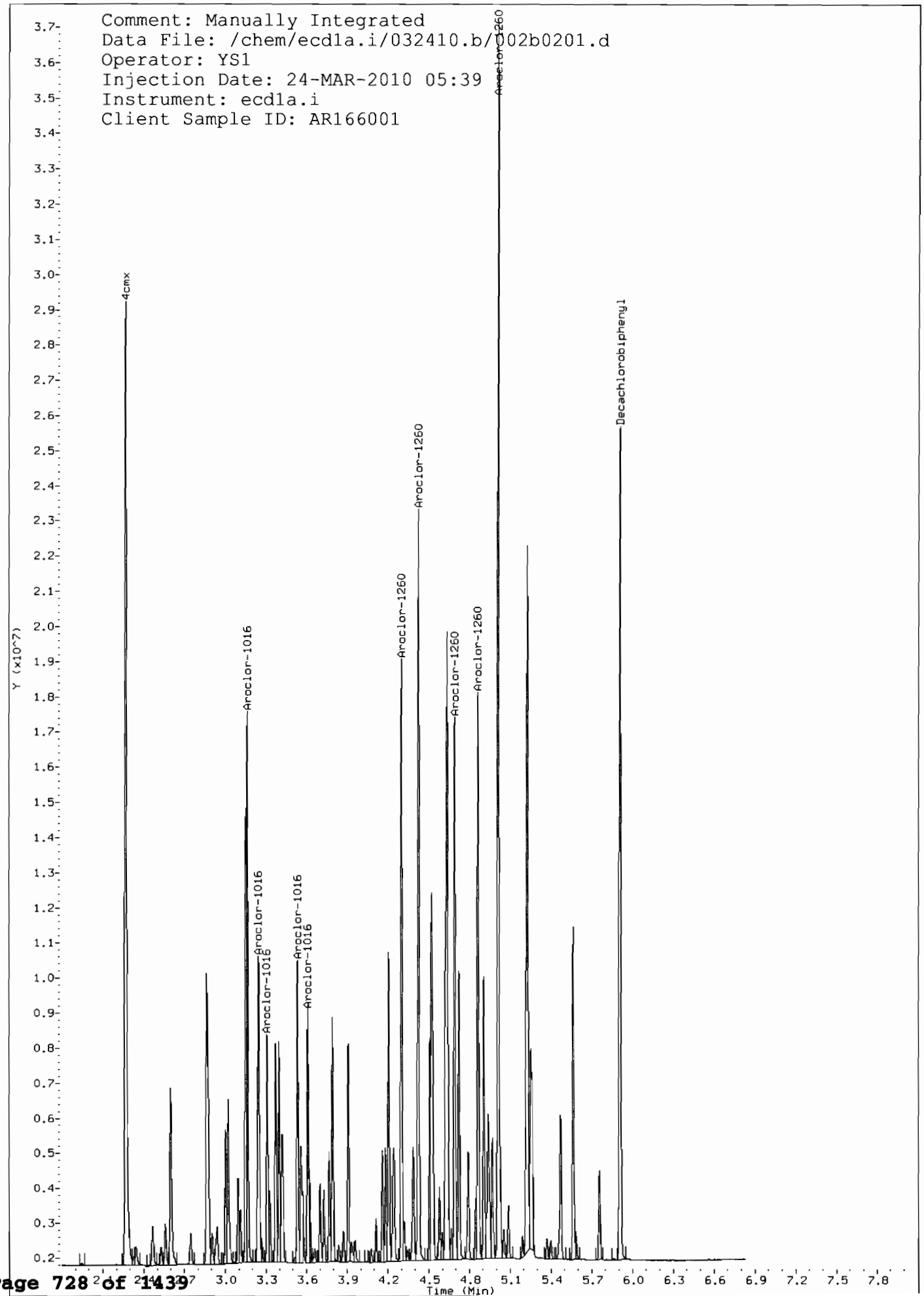
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032410.b/002b0201.d
Operator: YS1
Injection Date: 24-MAR-2010 05:39
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

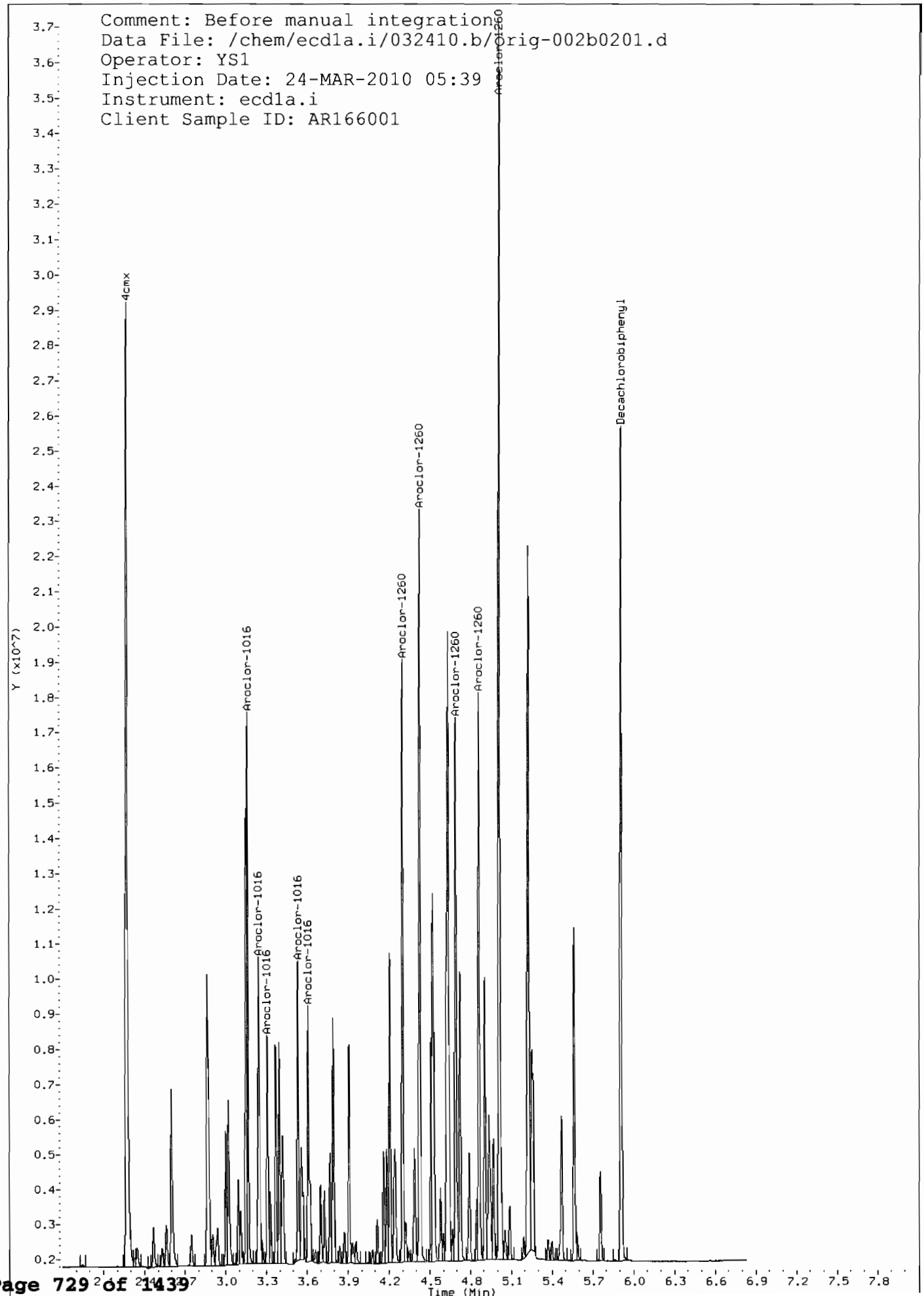
Comment: Before manual integration
Data File: /chem/ecd1a.i/032410.b/orig-002b0201.d
Operator: YS1
Injection Date: 24-MAR-2010 05:39
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 24-MAR-2010 05:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.207	3.207	0.000	12655702	1000.00	954	80.00- 120.00	100.00
3.362	3.362	0.000	17108757	1000.00	959	115.19- 155.19	135.19
3.595	3.595	0.000	22249968	1000.00	994	155.81- 195.81	175.81
3.758	3.758	0.000	16514415	1000.00	1000	110.49- 150.49	130.49
3.867	3.867	0.000	16740316	1000.00	1050	112.27- 152.27	132.27
Average of Peak Amounts =					992		

Data File: /chem/ecd1a.i/032410.b/003f0301.d

Date : 24-MAR-2010 05:49

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

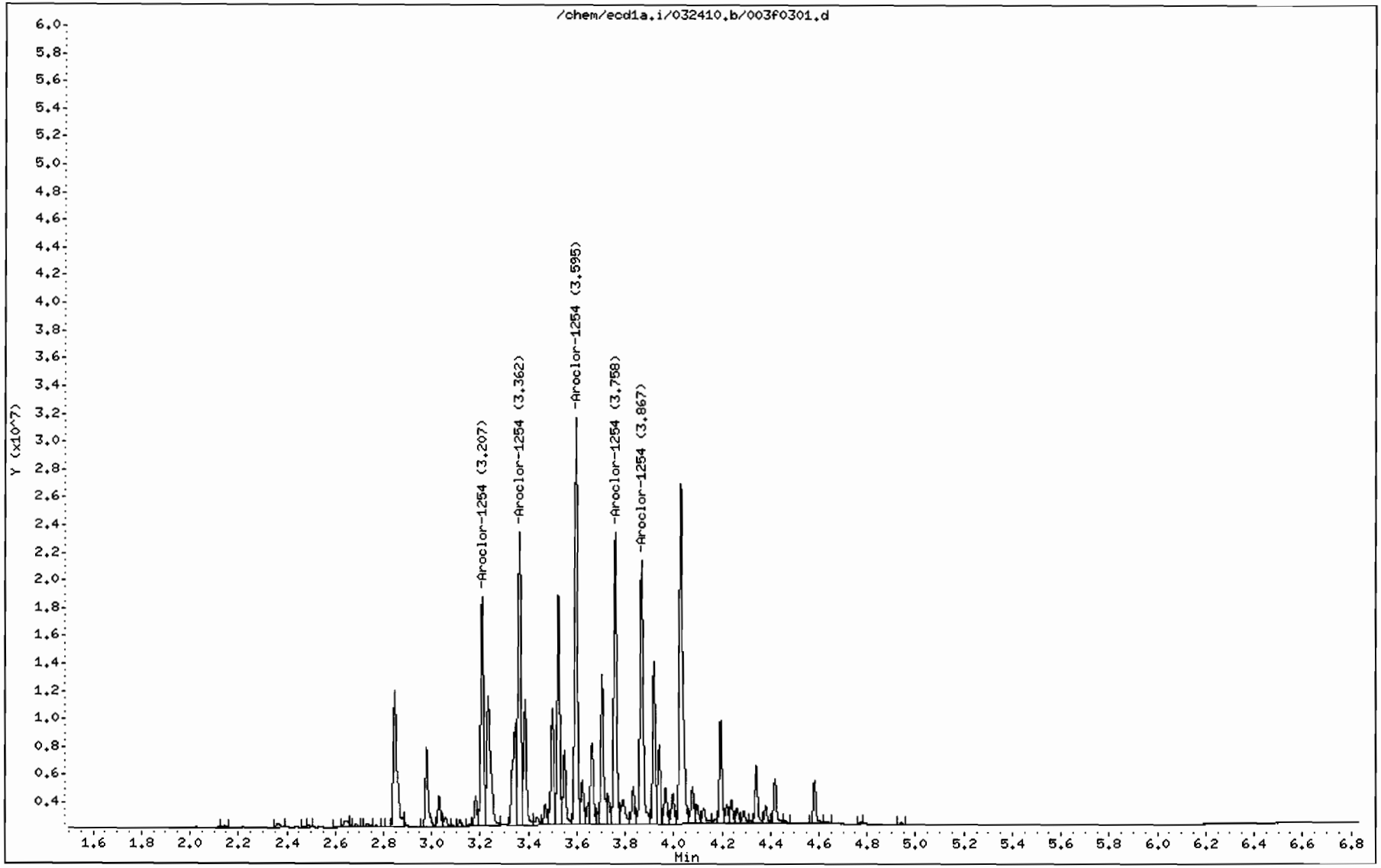

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 24-MAR-2010 05:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.373	3.373	0.000	5572091	1000.00	925	80.00- 120.00	100.00
3.794	3.794	0.000	10101252	1000.00	934	161.28- 201.28	181.28
3.911	3.911	0.000	11158366	1000.00	935	180.25- 220.25	200.25
4.186	4.186	0.000	15689738	1000.00	954	261.58- 301.58	281.58
4.323	4.323	0.000	11432434	1000.00	944	185.17- 225.17	205.17
Average of Peak Amounts =					938		

Data File: /chem/ecd1a.i/032410.b/003b0301.d

Date : 24-MAR-2010 05:49

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

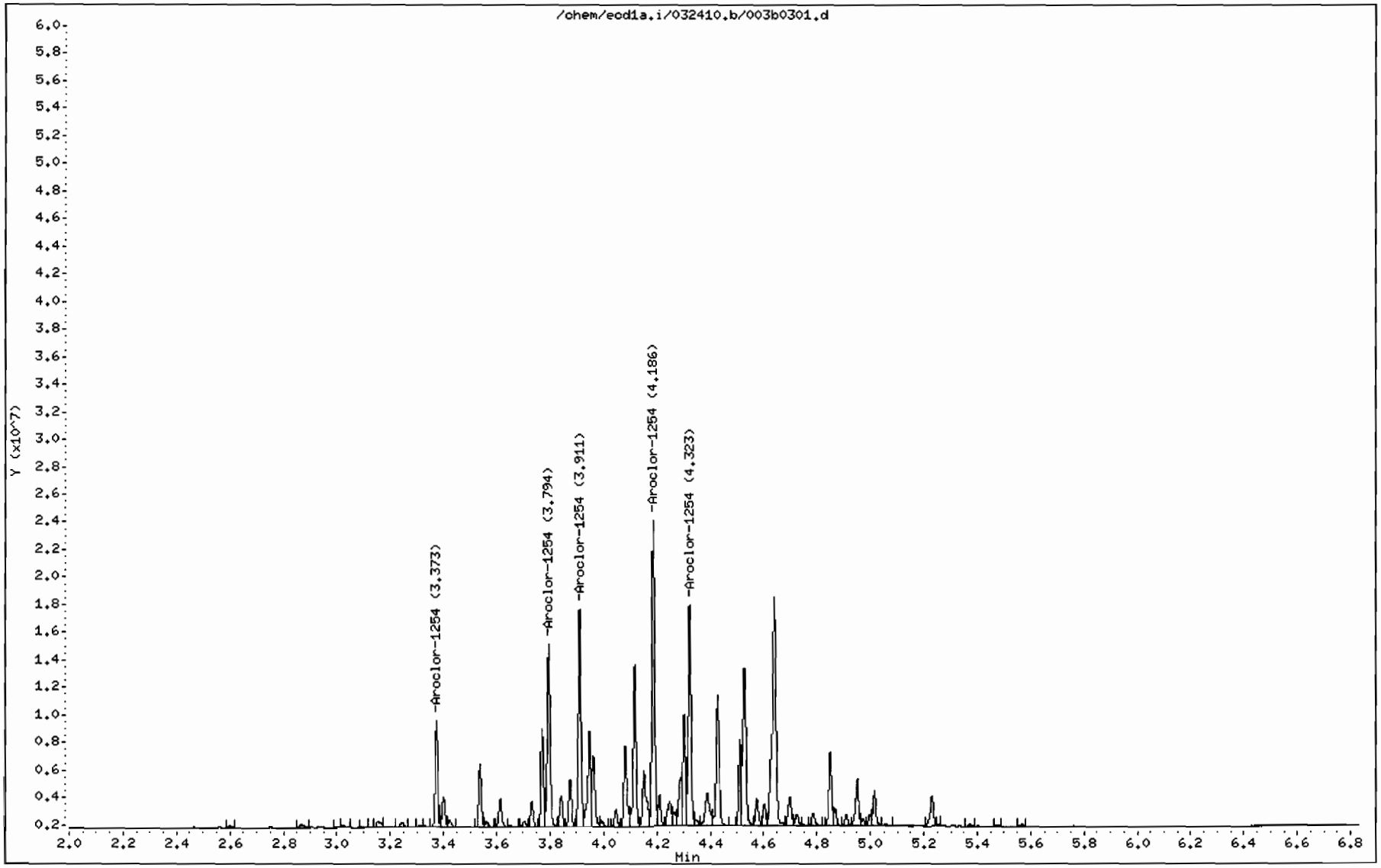

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/004f0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 24-MAR-2010 06:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.364	2.364	0.000	12723972	1000.00	1030	80.00- 120.00	100.00
2.650	2.650	0.000	15792585	1000.00	1060	104.12- 144.12	124.12
2.768	2.768	0.000	5897944	1000.00	1000	26.35- 66.35	46.35
2.978	2.978	0.000	7592928	1000.00	982	39.67- 79.67	59.67
3.231	3.231	0.000	7117665	1000.00	977	35.94- 75.94	55.94

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032410.b/004f0401.d

Page 1

Date : 24-MAR-2010 06:00

Client ID: AR124201

Instrument: ecd1a.i

Sample Info: IWAR100219-42

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

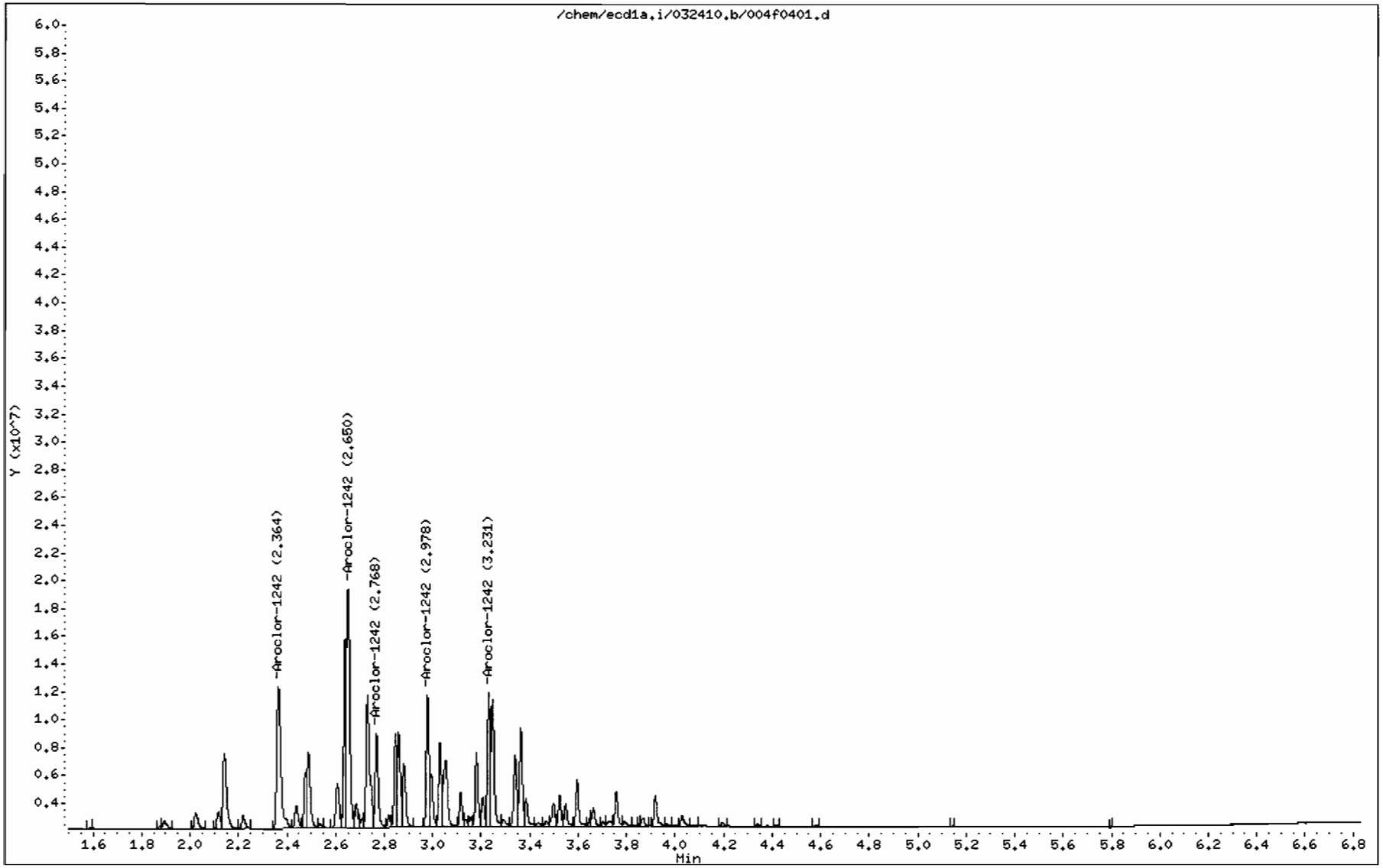

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/004b0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 24-MAR-2010 06:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.164	3.164	0.000	10104779	1000.00	997	80.00- 120.00	100.00
3.247	3.247	0.000	6649699	1000.00	937	45.81- 85.81	65.81
3.537	3.537	0.000	5252941	1000.00	953	31.98- 71.98	51.98
3.770	3.770	0.000	5489763	1000.00	959	34.33- 74.33	54.33
3.798	3.798	0.000	6195366	1000.00	973	41.31- 81.31	61.31
		Average of Peak Amounts =			964		

Data File: /chem/ecd1a.i/032410.b/004b0401.d

Date : 24-MAR-2010 06:00

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

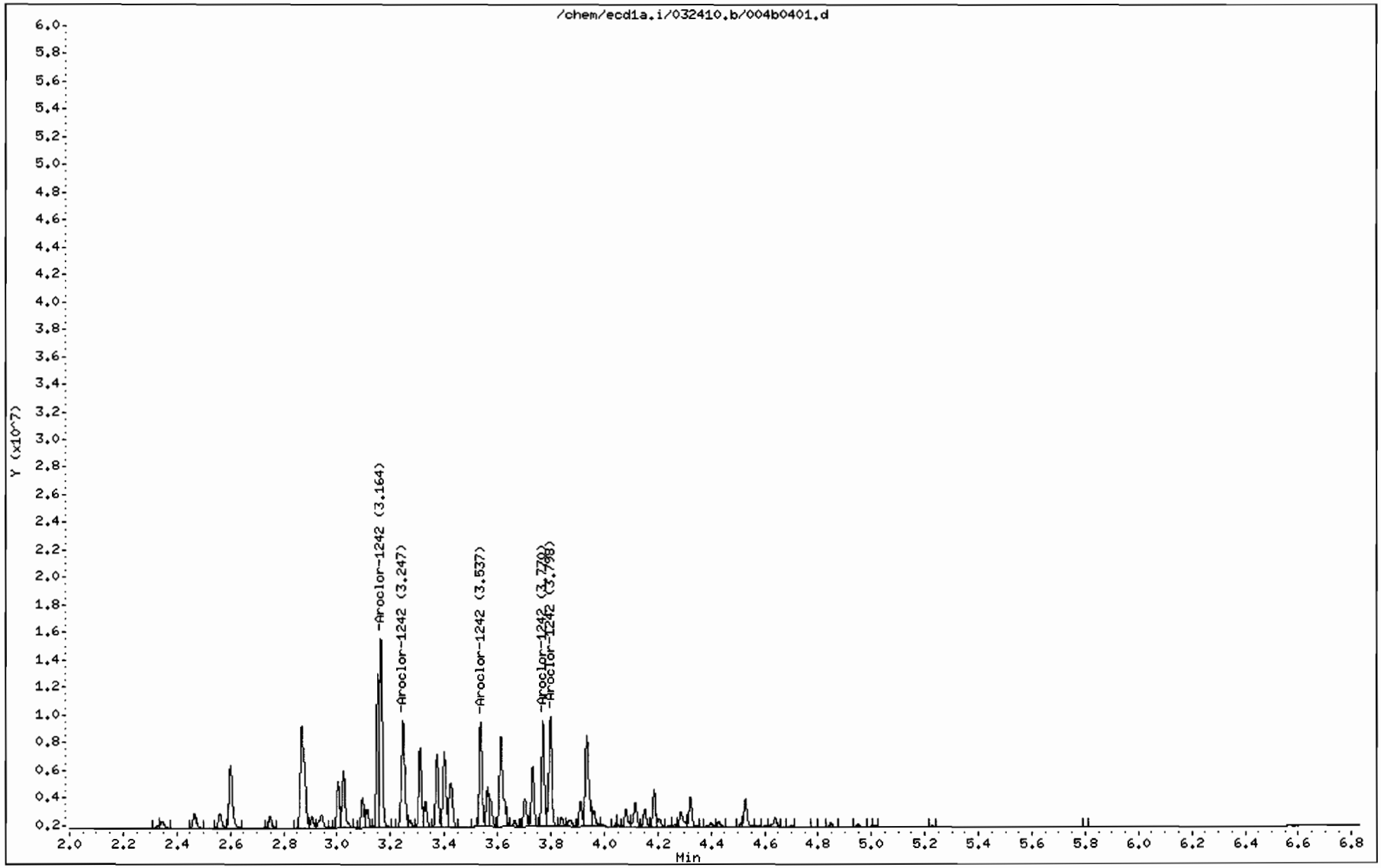

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 24-MAR-2010 06:10
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
2.845	2.845	0.000	9522430	1000.00	952	80.00- 120.00	100.00
2.979	2.979	0.000	12924894	1000.00	984	115.73- 155.73	135.73
3.232	3.232	0.000	13995374	1000.00	978	126.97- 166.97	146.97
3.364	3.364	0.000	11347074	1000.00	954	99.16- 139.16	119.16
3.596	3.596	0.000	7439990	1000.00	929	58.13- 98.13	78.13
		Average of Peak Amounts =			960		

Data File: /chem/ecd1a.i/032410.b/005f0501.d

Date : 24-MAR-2010 06:10

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

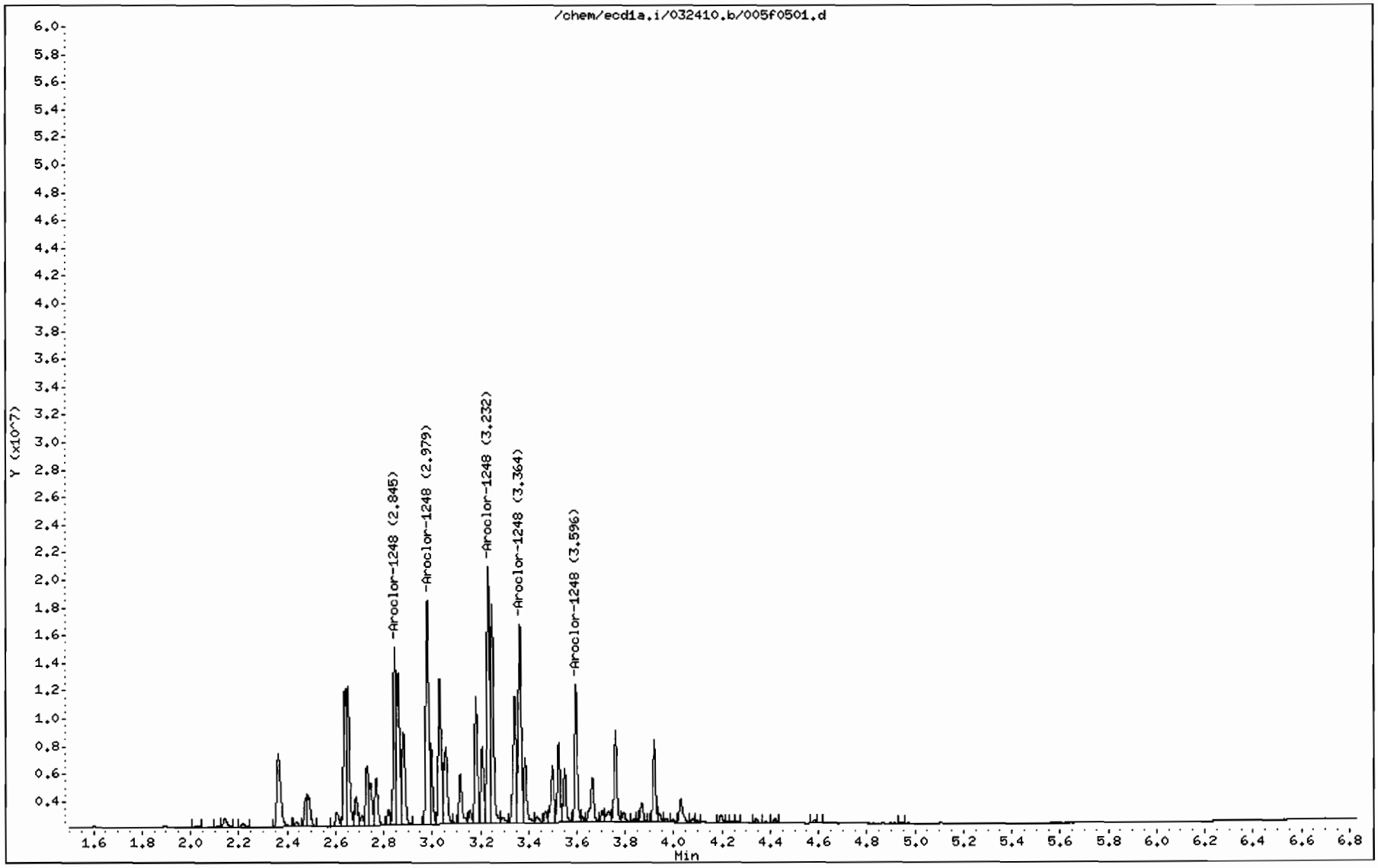

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 24-MAR-2010 06:10
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.373	3.373	0.000	7164068	1000.00	942	80.00- 120.00	100.00
3.538	3.538	0.000	9007385	1000.00	951	105.73- 145.73	125.73
3.771	3.771	0.000	10377241	1000.00	949	124.85- 164.85	144.85
3.799	3.799	0.000	11673278	1000.00	960	142.94- 182.94	162.94
3.935	3.935	0.000	11205755	1000.00	949	136.42- 176.42	156.42
		Average of Peak Amounts =			950		

Data File: /chem/ecd1a.i/032410.b/005b0501.d

Date : 24-MAR-2010 06:10

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

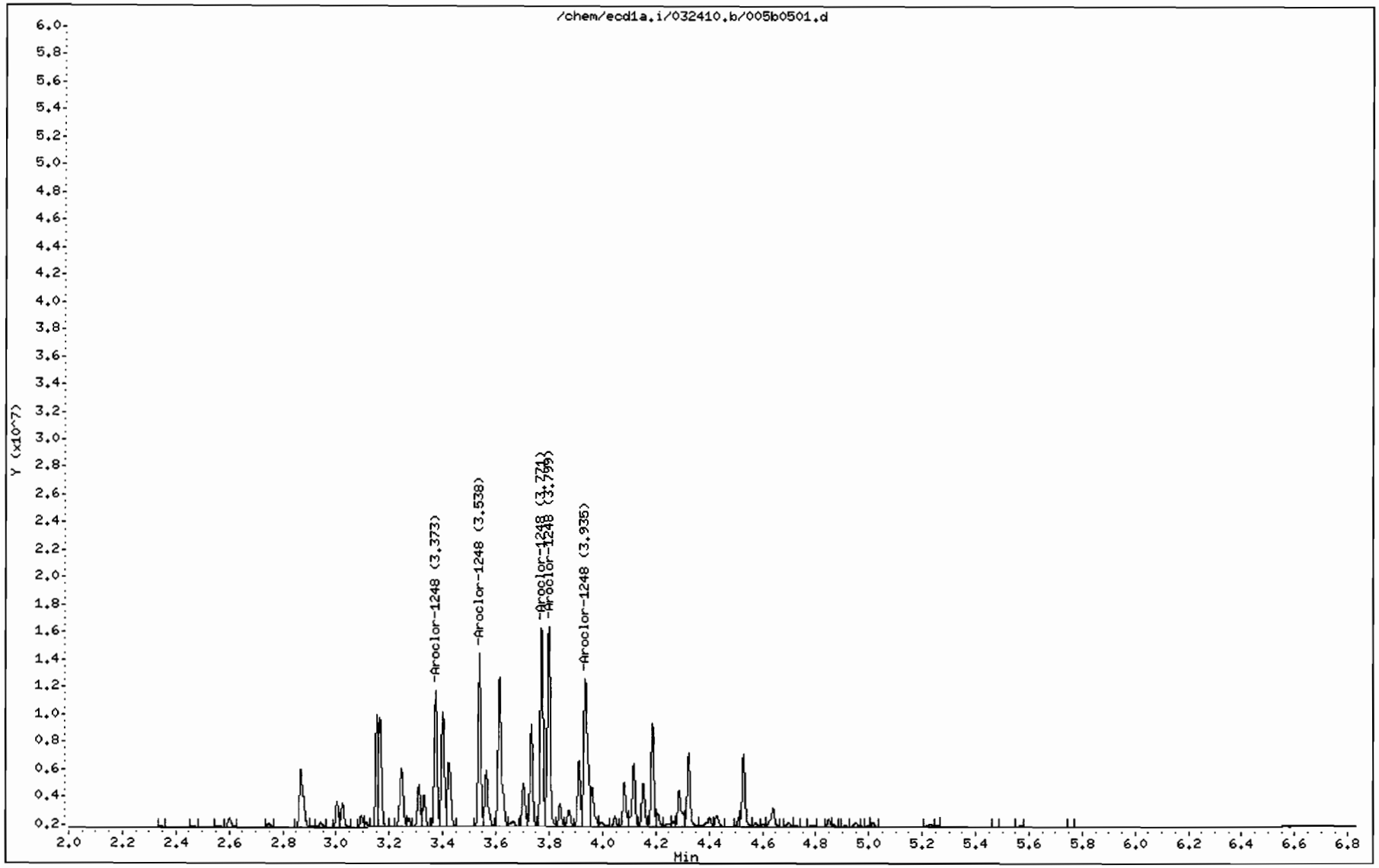

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/007f0701.d
Lab Smp Id: WAR100323-32 Client Smp ID: AR123201
Inj Date : 24-MAR-2010 06:31
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100323-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.364	2.364	0.000	6738988	1000.00	1010	80.00- 120.00	100.00
2.651	2.651	0.000	8705686	1000.00	1040	109.18- 149.18	129.18
2.731	2.731	0.000	5516778	1000.00	997	61.86- 101.86	81.86
2.845	2.845	0.000	2665659	1000.00	1010	19.56- 59.56	39.56
3.232	3.232	0.000	3558179	1000.00	1000	32.80- 72.80	52.80

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032410.b/007f0701.d

Date : 24-MAR-2010 06:31

Client ID: AR123201

Sample Info: IWAR100323-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

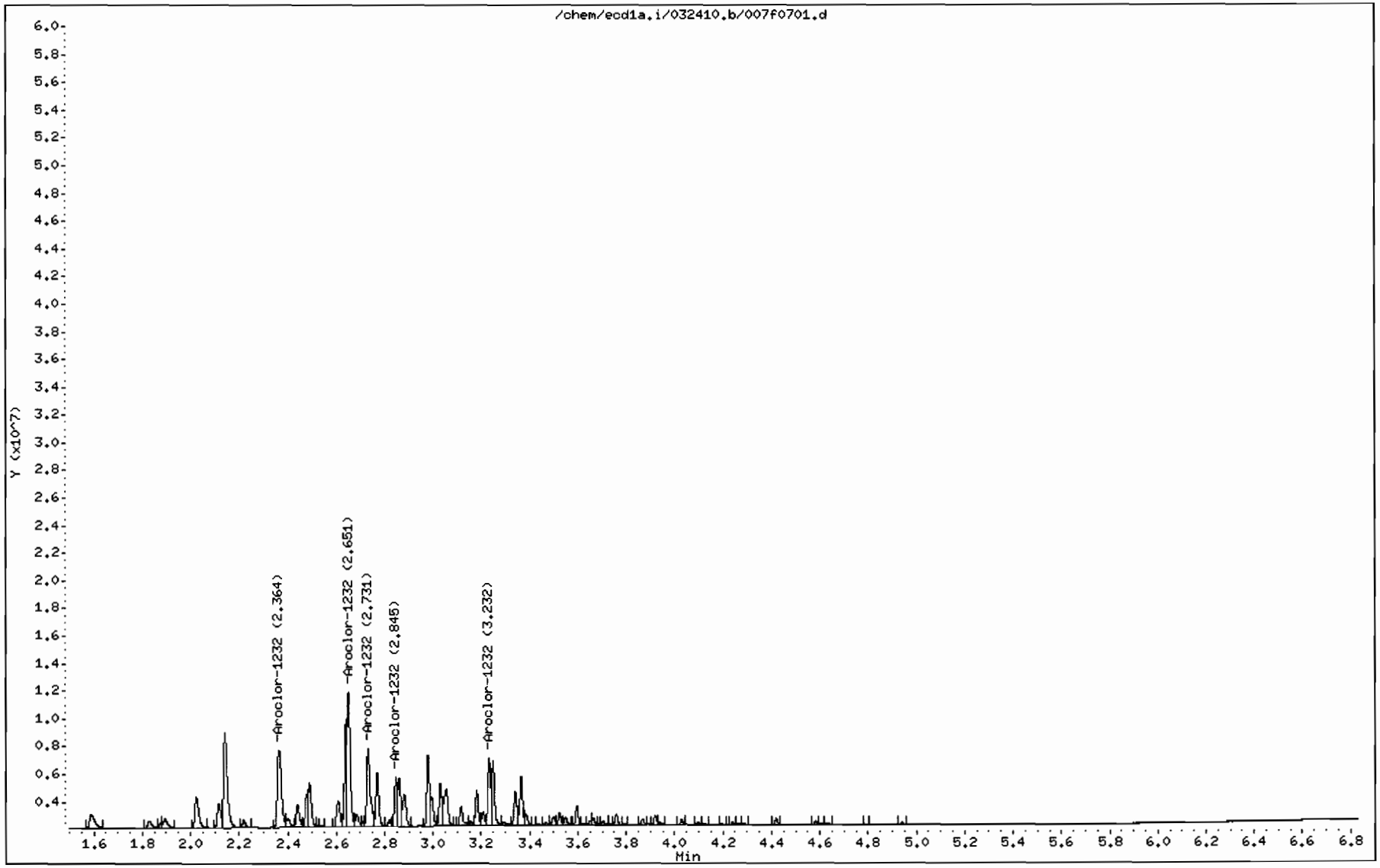

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/007b0701.d
Lab Smp Id: WAR100323-32 Client Smp ID: AR123201
Inj Date : 24-MAR-2010 06:31
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100323-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.867	2.867	0.000	5084227	1000.00	1010	80.00- 120.00	100.00
3.165	3.165	0.000	5707032	1000.00	999	92.25- 132.25	112.25
3.247	3.247	0.000	3908124	1000.00	1000	56.87- 96.87	76.87
3.537	3.537	0.000	2915616	1000.00	1030	37.35- 77.35	57.35
3.771	3.771	0.000	2894884	1000.00	1030	36.94- 76.94	56.94

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032410.b/007b0701.d

Date : 24-MAR-2010 06:31

Client ID: AR123201

Sample Info: IWAR100323-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

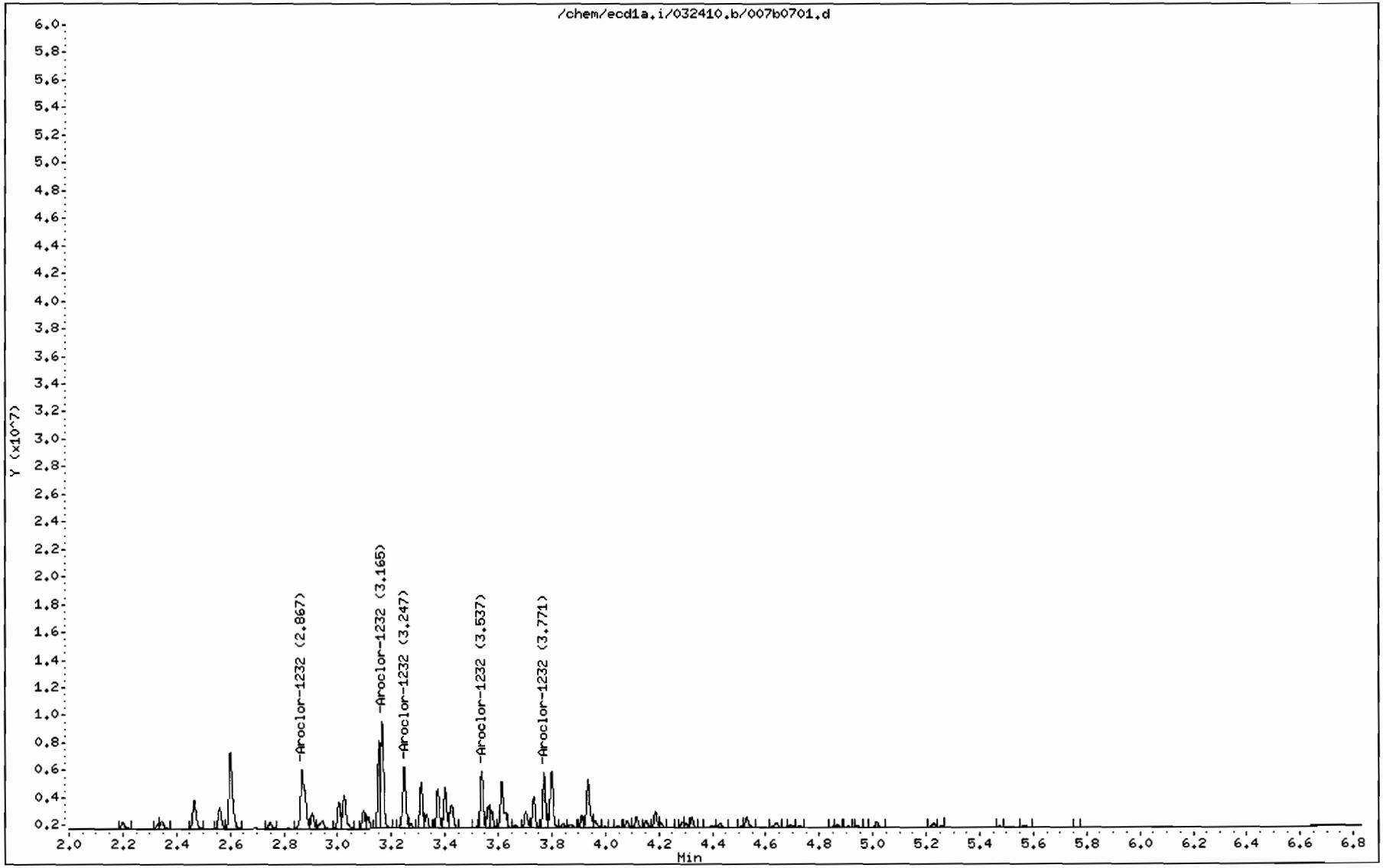

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/032410.b/008f0801.d
Lab Smp Id: WAR100323-21 Client Smp ID: AR122101
Inj Date : 24-MAR-2010 06:42
Operator : YS1 Inst ID: ecdla.i
Smp Info : |WAR100323-21
Misc Info :
Comment :
Method : /chem/ecdla.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.025	2.025	0.000	4422553	1000.00	990	80.00- 120.00	100.00
2.117	2.117	0.000	2422317	1000.00	990	34.77- 74.77	54.77
2.142	2.142	0.000	10216985	1000.00	944	211.02- 251.02	231.02
Average of Peak Amounts =					975		

Data File: /chem/ecd1a.i/032410.b/008f0801.d

Date : 24-MAR-2010 06:42

Client ID: AR122101

Sample Info: IWAR100323-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

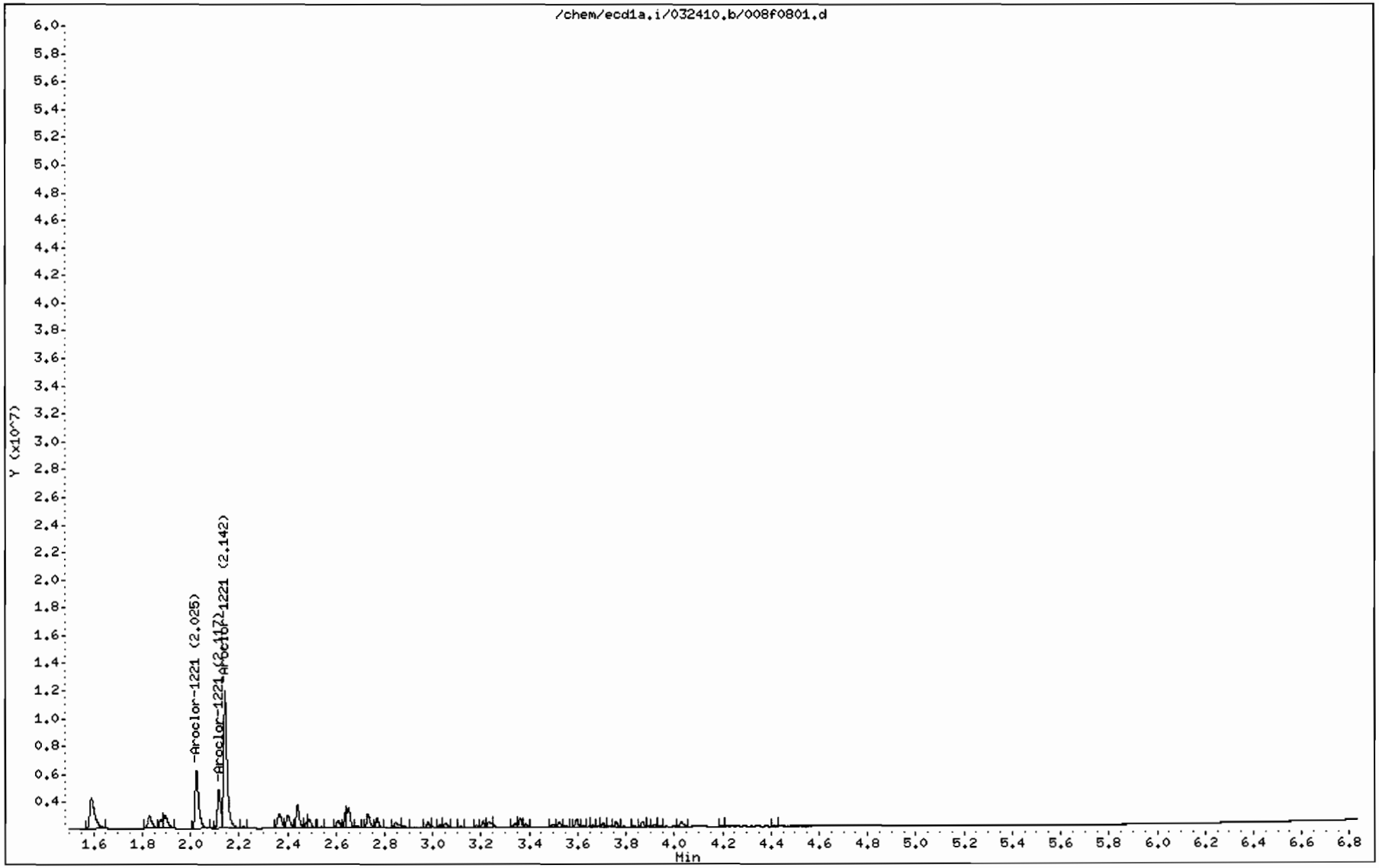

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/008b0801.d
Lab Smp Id: WAR100323-21 Client Smp ID: AR122101
Inj Date : 24-MAR-2010 06:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100323-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.466	2.466	0.000	3219361	1000.00	990	80.00- 120.00	100.00
2.560	2.560	0.000	2048586	1000.00	983	43.63- 83.63	63.63
2.601	2.601	0.000	6983091	1000.00	954	196.91- 236.91	216.91
		Average of Peak Amounts =			976		

Data File: /chem/ecd1a.i/032410.b/008b0801.d

Date : 24-MAR-2010 06:42

Client ID: AR122101

Sample Info: IWAR100323-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

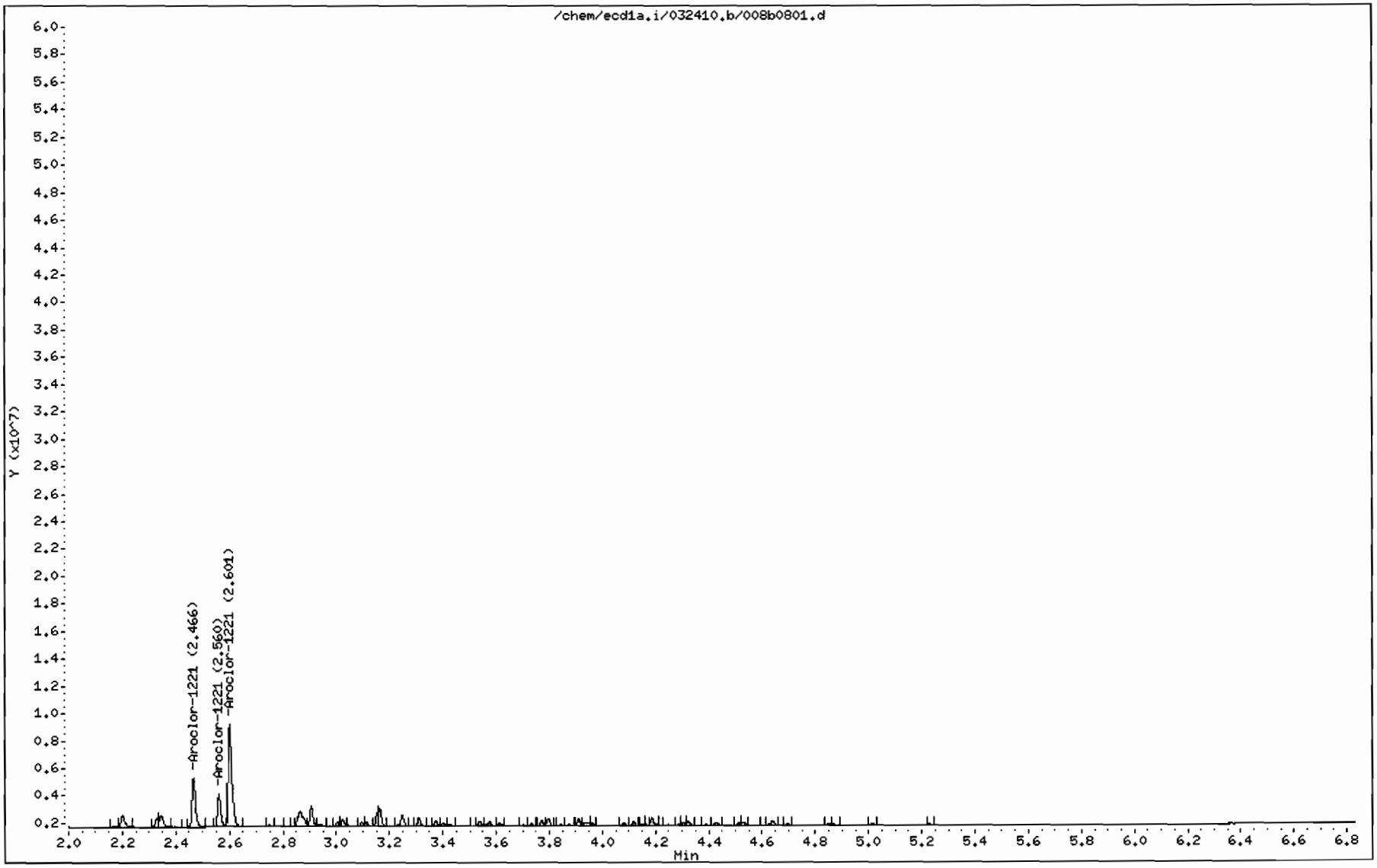

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/020f2001.d
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002
Inj Date : 24-MAR-2010 08:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 09:45 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.910	0.002	40063013	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.213	0.002	30227813	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.362	0.002	14147481	1000.00	932	80.00- 120.00	100.00
2.650	2.650	0.000	18596300	1000.00	982	111.45- 151.45	131.45
2.731	2.729	0.002	11296982	1000.00	908	59.85- 99.85	79.85
2.768	2.766	0.002	6830392	1000.00	930	28.28- 68.28	48.28
2.977	2.977	0.000	8817572	1000.00	926	42.33- 82.33	62.33
Average of Peak Amounts =					936		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.701	0.002	18275970	1000.00	997	80.00- 120.00	100.00
3.866	3.864	0.002	27435727	1000.00	1020	130.12- 170.12	150.12
4.027	4.026	0.001	29309774	1000.00	1040	140.37- 180.37	160.37
4.096	4.094	0.002	16497890	1000.00	1020	70.27- 110.27	90.27
4.238	4.237	0.001	17277787	1000.00	1030	74.54- 114.54	94.54
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd1a.i/032410.b/020f2001.d

Date : 24-MAR-2010 08:58

Client ID: AR166002

Sample Info: IWAR100222-60 02

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

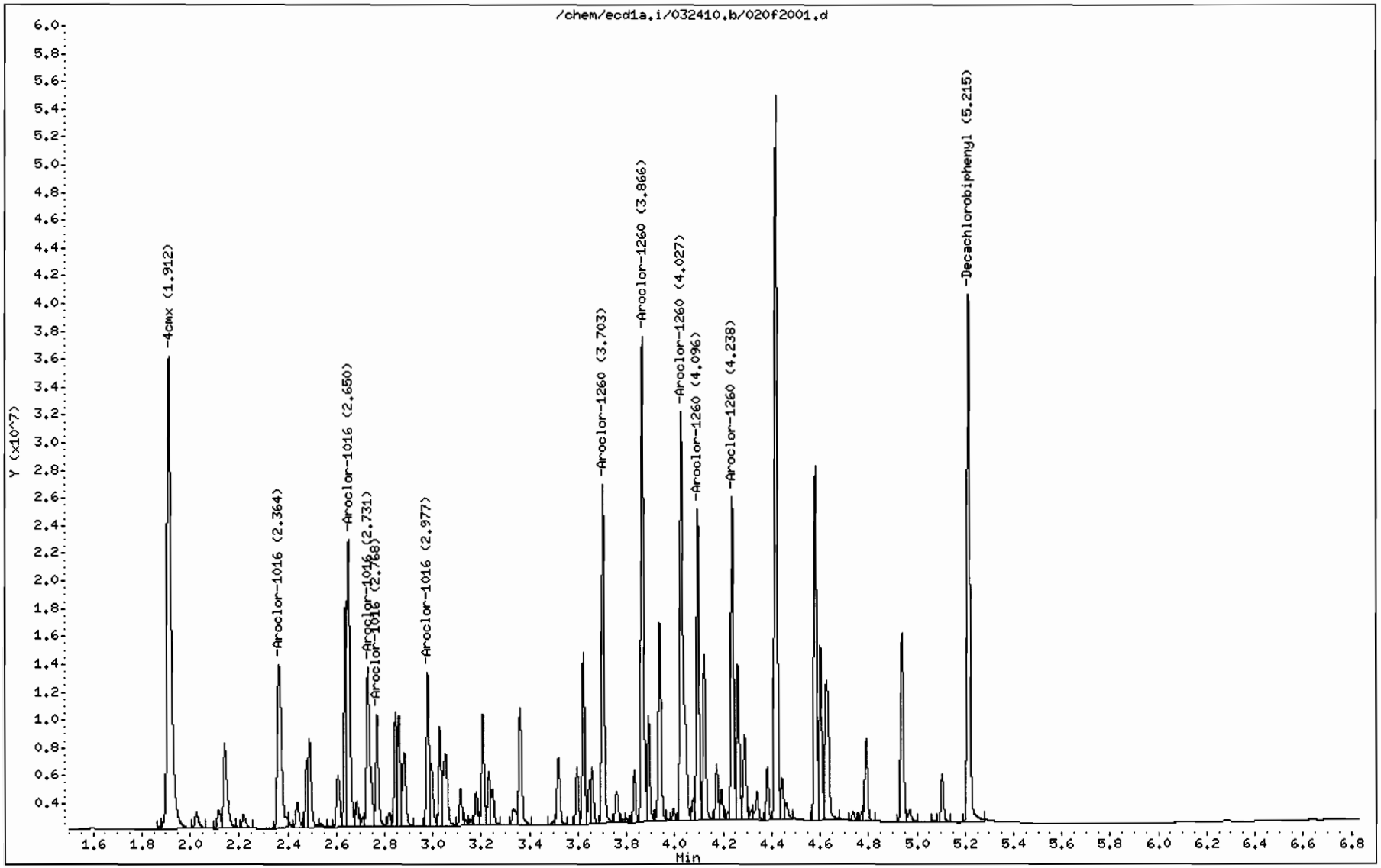

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/020b2001.d
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002
Inj Date : 24-MAR-2010 08:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 09:45 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	25621241	100.000	97.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.909	0.001	16737564	100.000	89.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.163	3.163	0.000	11878241	1000.00	944	80.00- 120.00	100.00(M)
3.247	3.245	0.002	7583800	1000.00	878	43.85- 83.85	63.85
3.310	3.309	0.001	4708522	1000.00	891	19.64- 59.64	39.64
3.537	3.536	0.001	6159296	1000.00	894	29.95- 69.95	51.85
3.612	3.611	0.001	5642066	1000.00	878	36.07- 76.07	47.50
Average of Peak Amounts =					897		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.301	0.001	12344543	1000.00	944	80.00- 120.00	100.00
4.427	4.426	0.001	15215512	1000.00	978	103.26- 143.26	123.26
4.692	4.691	0.001	11384470	1000.00	957	72.22- 112.22	92.22
4.866	4.864	0.002	11793466	1000.00	960	75.54- 115.54	95.54
5.013	5.012	0.001	26362075	1000.00	999	193.55- 233.55	213.55
Average of Peak Amounts =					968		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdia.i/032410.b/020b2001.d
Date : 24-MAR-2010 08:58
Client ID: AR166002
Sample Info: IWAR100222-60 02
Column phase: CLP2

Instrument: ecdia.i
Operator: YSI
Column diameter: 0.25

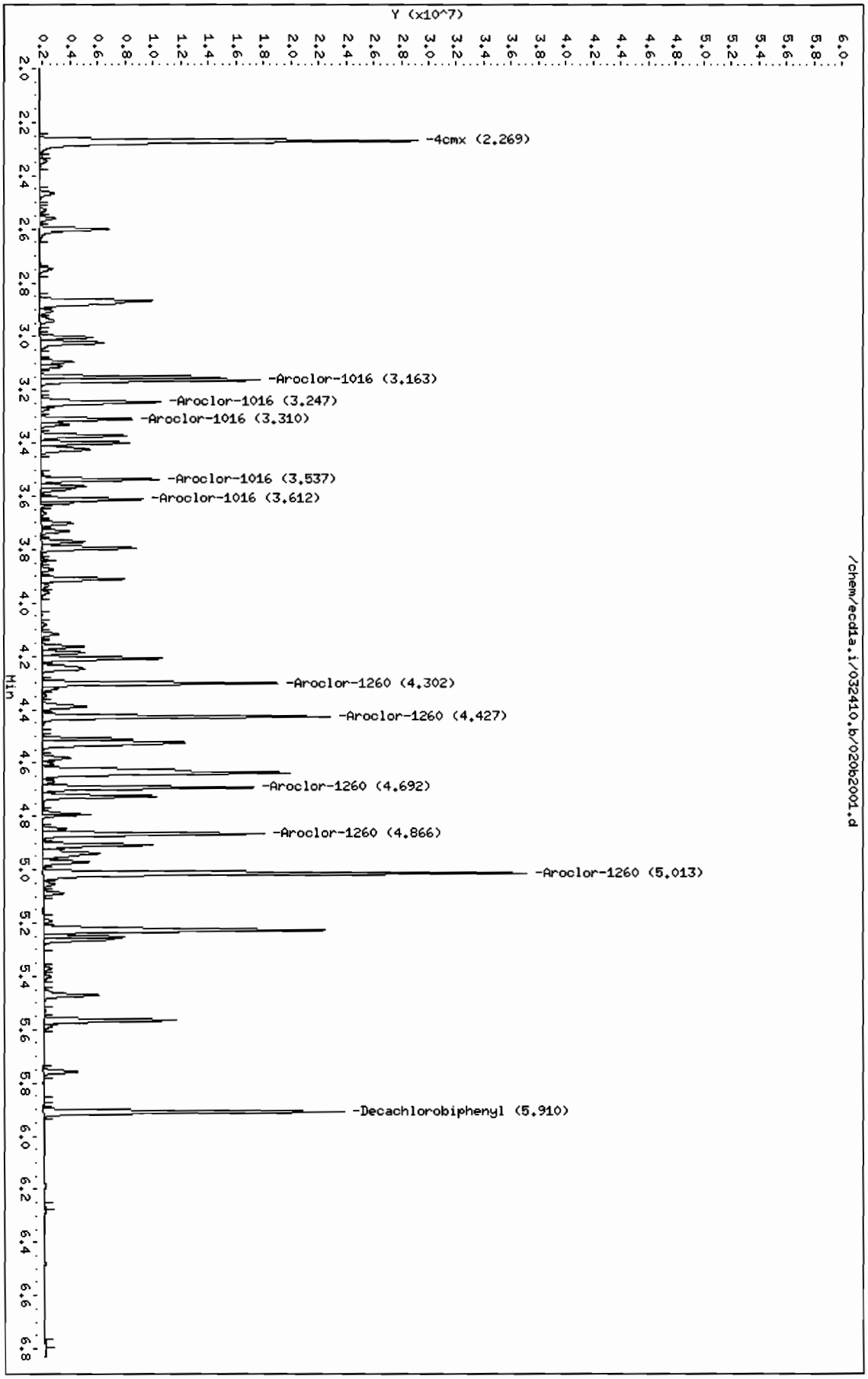

Page 1

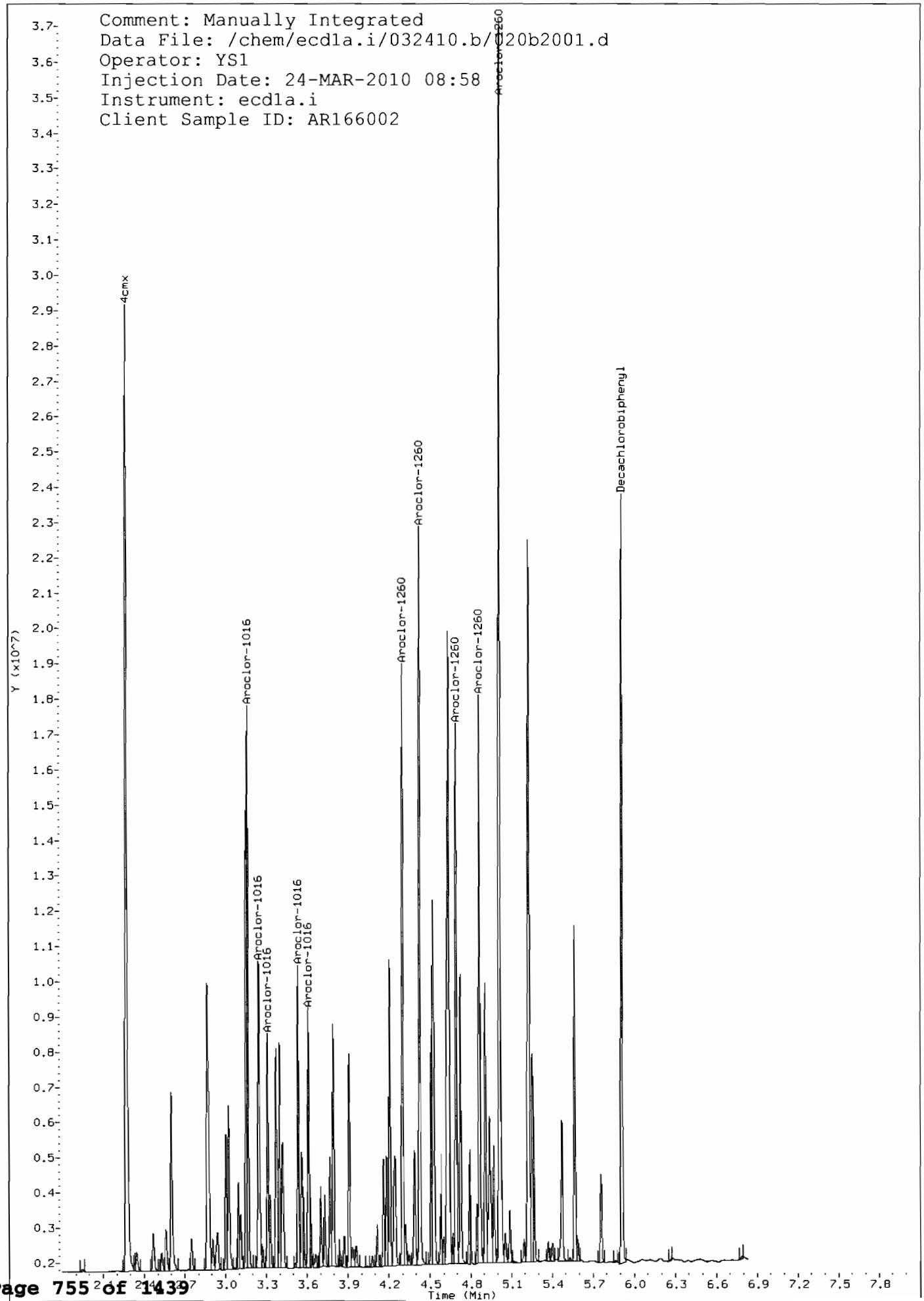
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032410.b/020b2001.d
Operator: YS1
Injection Date: 24-MAR-2010 08:58
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

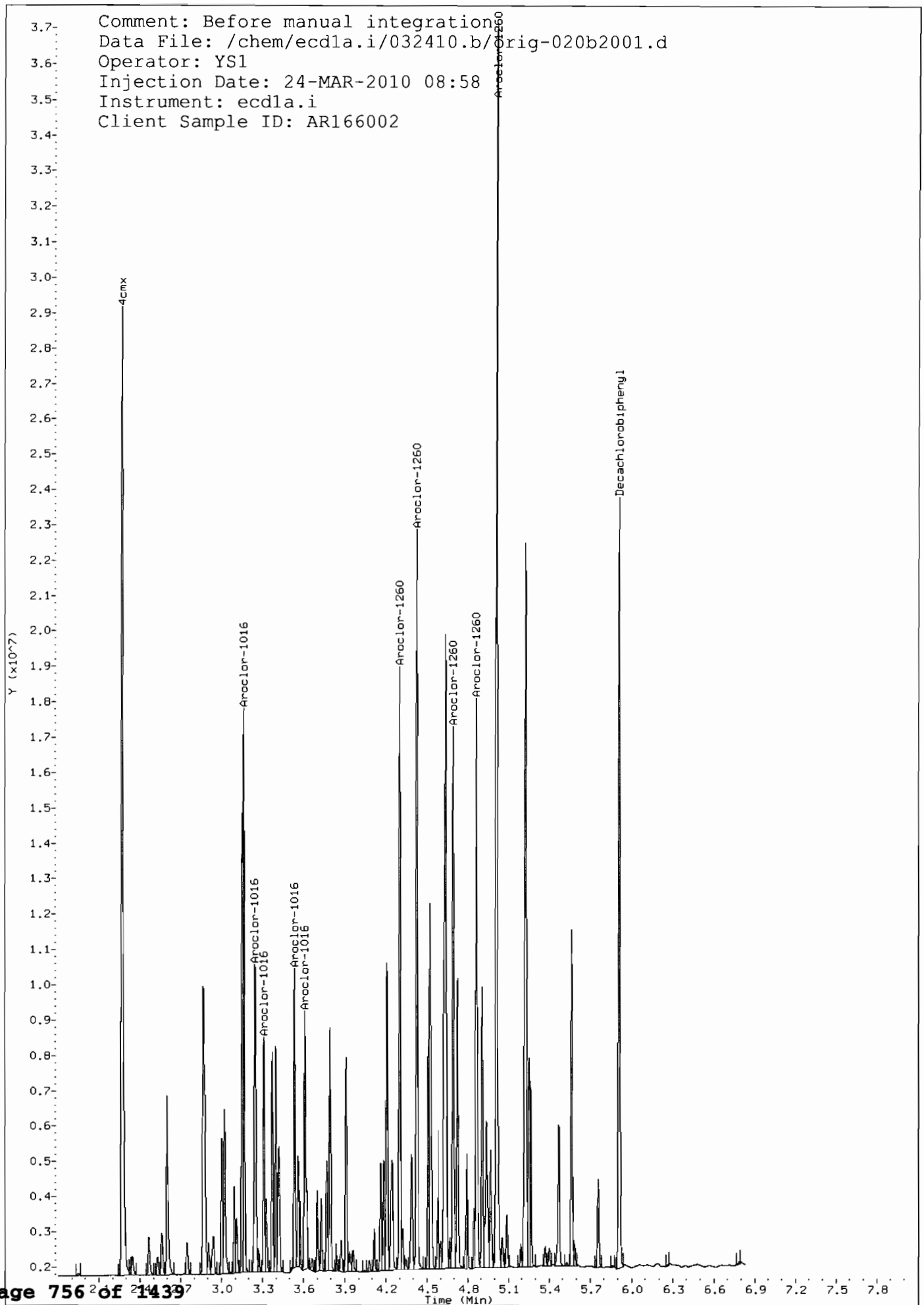
Comment: Before manual integration
Data File: /chem/ecd1a.i/032410.b/Orig-020b2001.d
Operator: YS1
Injection Date: 24-MAR-2010 08:58
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10	1446	1.91	5.23
02	AR166001DUSE	WAR100222-60	03/11/10	1456	1.92	5.22
03	AR125401	WAR100219-54	03/11/10	1507		
04	AR124201	WAR100219-42	03/11/10	1517		
05	AR124801	WAR100223-48	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	1.92	5.22
12	AR166002	WAR100311-02	03/11/10	1641	1.92	5.22
13	AR166003	WAR100311-03	03/11/10	1652	1.92	5.22
14	AR166004	WAR100311-04	03/11/10	1702	1.91	5.22
15	AR166005	IAR100311-01	03/11/10	1713	1.92	5.22
16	AR166001	WAR100222-60	03/11/10	1724	1.91	5.22
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	1.91	5.22
04	ZZZZZ	ZZZZZ	03/11/10	2054	1.92	5.22
05	ZZZZZ	ZZZZZ	03/11/10	2105	1.92	5.22
06	ZZZZZ	ZZZZZ	03/11/10	2115	1.92	5.22
07	ZZZZZ	ZZZZZ	03/11/10	2126	1.92	5.22
08	ZZZZZ	ZZZZZ	03/11/10	2136	1.92	5.22
09	ZZZZZ	ZZZZZ	03/11/10	2147	1.92	5.22
10	ZZZZZ	ZZZZZ	03/11/10	2157	1.92	5.22
11	ZZZZZ	ZZZZZ	03/11/10	2208	1.92	5.22
12	ZZZZZ	ZZZZZ	03/11/10	2218	1.92	5.22
13	ZZZZZ	ZZZZZ	03/11/10	2229	1.92	5.22
14	AR	WAR100222-60	03/11/10	2239	1.91	5.22
15	PIBLK03	WAR100219-99	03/11/10	2250	1.91	5.22
16	ZZZZZ	ZZZZZ	03/11/10	2300	1.90	5.23
17	ZZZZZ	ZZZZZ	03/11/10	2311	1.92	5.22
18	AR	WAR100219-99	03/11/10	2321	1.91	5.22
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10	1446	2.27	5.92
02	AR166001DUSE	WAR100222-60	03/11/10	1456	2.27	5.92
03	AR125401	WAR100219-54	03/11/10	1507		
04	AR124201	WAR100219-42	03/11/10	1517		
05	AR124801	WAR100223-48	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	2.27	5.92
12	AR166002	WAR100311-02	03/11/10	1641	2.27	5.92
13	AR166003	WAR100311-03	03/11/10	1652	2.27	5.92
14	AR166004	WAR100311-04	03/11/10	1702	2.27	5.92
15	AR166005	IAR100311-01	03/11/10	1713	2.27	5.92
16	AR166001	WAR100222-60	03/11/10	1724	2.27	5.92
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	2.27	5.92
04	ZZZZZ	ZZZZZ	03/11/10	2054	2.28	5.92
05	ZZZZZ	ZZZZZ	03/11/10	2105	2.28	5.92
06	ZZZZZ	ZZZZZ	03/11/10	2115	2.28	5.92
07	ZZZZZ	ZZZZZ	03/11/10	2126	2.28	5.92
08	ZZZZZ	ZZZZZ	03/11/10	2136	2.28	5.92
09	ZZZZZ	ZZZZZ	03/11/10	2147	2.28	5.92
10	ZZZZZ	ZZZZZ	03/11/10	2157	2.28	5.92
11	ZZZZZ	ZZZZZ	03/11/10	2208	2.28	5.92
12	ZZZZZ	ZZZZZ	03/11/10	2218	2.28	5.92
13	ZZZZZ	ZZZZZ	03/11/10	2229	2.28	5.92
14	AR166002	WAR100222-60	03/11/10	2239	2.27	5.92
15	PIBLK03	WAR100219-99	03/11/10	2250	2.27	5.92
16	ZZZZZ	ZZZZZ	03/11/10	2300		5.92
17	ZZZZZ	ZZZZZ	03/11/10	2311		5.23*
18	ZZZZZ	ZZZZZ	03/11/10	2321		
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.21

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/24/10	0528	1.91	5.21
02	AR166001	WAR100222-60	03/24/10	0539	1.91	5.21
03	AR125401	WAR100219-54	03/24/10	0549		
04	AR124201	WAR100219-42	03/24/10	0600		
05	AR124801	WAR100223-48	03/24/10	0610		
06	AR126801	WAR100323-68	03/24/10	0621		
07	AR123201	WAR100323-32	03/24/10	0631		
08	AR122101	WAR100323-21	03/24/10	0642		
09	AR126201	WAR100323-62	03/24/10	0652		
10	DDTANALOGSTD	WAR100323-DD	03/24/10	0703		
11	PIBLK02	WAR100219-99	03/24/10	0713	1.91	5.22
12	PBLK01	1202077986	03/24/10	0724	1.91	5.22
13	PBLK01LCS	1202077987	03/24/10	0734	1.91	5.22
14	ZZZZZ	ZZZZZ	03/24/10	0745	1.91	5.21
15	ZZZZZ	ZZZZZ	03/24/10	0757	1.91	5.21
16	ZZZZZ	ZZZZZ	03/24/10	0810	1.91	5.21
17	RE46-10-1320	248702001	03/24/10	0823	1.91	5.21
18	RE46-10-1320	248702002	03/24/10	0835	1.91	5.21
19	ZZZZZ	ZZZZZ	03/24/10	0848	1.91	5.21
20	AR166002	WAR100222-60	03/24/10	0858	1.91	5.21
21	PIBLK03	WAR100219-99	03/24/10	0909	1.91	5.22
22	ZZZZZ	ZZZZZ	03/24/10	0921	1.91	5.21
23	ZZZZZ	ZZZZZ	03/24/10	0934	1.91	5.21
24	ZZZZZ	ZZZZZ	03/24/10	0946	1.91	5.21
25	ZZZZZ	ZZZZZ	03/24/10	0959	1.91	5.21
26	ZZZZZ	ZZZZZ	03/24/10	1011	1.91	5.21
27	ZZZZZ	ZZZZZ	03/24/10	1024	1.91	5.21
28	ZZZZZ	ZZZZZ	03/24/10	1037	1.91	5.21
29	ZZZZZ	ZZZZZ	03/24/10	1049	1.91	5.21
30	AR166003	WAR100222-60	03/24/10	1102	1.91	5.21
31	PIBLK04	WAR100219-99	03/24/10	1112	1.91	5.21
32	ZZZZZ	ZZZZZ	03/24/10	1123	1.91	5.21

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

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8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2264

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/24/10	0528	2.27	5.91
02	AR166001	WAR100222-60	03/24/10	0539	2.27	5.91
03	AR125401	WAR100219-54	03/24/10	0549		
04	AR124201	WAR100219-42	03/24/10	0600		
05	AR124801	WAR100223-48	03/24/10	0610		
06	AR126801	WAR100323-68	03/24/10	0621		
07	AR123201	WAR100323-32	03/24/10	0631		
08	AR122101	WAR100323-21	03/24/10	0642		
09	AR126201	WAR100323-62	03/24/10	0652		
10	DDTANALOGSTD	WAR100323-DD	03/24/10	0703		
11	PIBLK02	WAR100219-99	03/24/10	0713	2.27	5.91
12	PBLK01	1202077986	03/24/10	0724	2.27	5.91
13	PBLK01LCS	1202077987	03/24/10	0734	2.27	5.91
14	ZZZZZ	ZZZZZ	03/24/10	0745	2.27	5.91
15	ZZZZZ	ZZZZZ	03/24/10	0757	2.27	5.91
16	ZZZZZ	ZZZZZ	03/24/10	0810	2.27	5.91
17	RE46-10-1320	248702001	03/24/10	0823	2.27	5.91
18	RE46-10-1320	248702002	03/24/10	0835	2.27	5.91
19	ZZZZZ	ZZZZZ	03/24/10	0848	2.27	5.91
20	AR166002	WAR100222-60	03/24/10	0858	2.27	5.91
21	PIBLK03	WAR100219-99	03/24/10	0909	2.27	5.91
22	ZZZZZ	ZZZZZ	03/24/10	0921	2.27	5.91
23	ZZZZZ	ZZZZZ	03/24/10	0934	2.27	5.91
24	ZZZZZ	ZZZZZ	03/24/10	0946	2.27	5.91
25	ZZZZZ	ZZZZZ	03/24/10	0959	2.27	5.91
26	ZZZZZ	ZZZZZ	03/24/10	1011	2.27	5.91
27	ZZZZZ	ZZZZZ	03/24/10	1024	2.27	5.91
28	ZZZZZ	ZZZZZ	03/24/10	1037	2.27	5.91
29	ZZZZZ	ZZZZZ	03/24/10	1049	2.27	5.91
30	AR166003	WAR100222-60	03/24/10	1102	2.27	5.91
31	PIBLK04	WAR100219-99	03/24/10	1112	2.27	5.91
32	ZZZZZ	ZZZZZ	03/24/10	1123	2.27	5.91

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10–2264 **Client ID:** LCS for batch 967997

Lab Sample ID: 1202077987

Data File:	013f1301.d	**Data File:**	013b1301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	24–MAR–10 07:34	**Analyzed:**	24–MAR–10 07:34

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							5.28
Column 1	1	2.36	2.33 – 2.39	24.6		ug/kg	
	2	2.65	2.62 – 2.68	24.8		ug/kg	
	3	2.73	2.7 – 2.76	23.2		ug/kg	
	4	2.77	2.74 – 2.8	23.7		ug/kg	
	5	2.98	2.95 – 3.01	23.6		ug/kg	
					24		
Column 2	1	3.16	3.13 – 3.19	23.8		ug/kg	
	2	3.25	3.22 – 3.28	23		ug/kg	
	3	3.31	3.28 – 3.34	21.4		ug/kg	
	4	3.54	3.51 – 3.57	22.7		ug/kg	
	5	3.61	3.58 – 3.64	22.9		ug/kg	
					22.8		
Aroclor–1260							2.69
Column 1	1	3.7	3.67 – 3.73	26.5		ug/kg	
	2	3.87	3.83 – 3.89	27		ug/kg	
	3	4.03	4 – 4.06	27.8		ug/kg	
	4	4.1	4.06 – 4.12	27.5		ug/kg	
	5	4.24	4.21 – 4.27	27		ug/kg	
					27.2		
Column 2	1	4.3	4.27 – 4.33	25.5		ug/kg	
	2	4.43	4.4 – 4.46	26.3		ug/kg	
	3	4.69	4.66 – 4.72	26.2		ug/kg	
	4	4.87	4.83 – 4.89	26.2		ug/kg	
	5	5.01	4.98 – 5.04	27.9		ug/kg	
					26.4		

Identification Summary

SDG Number: 10–2264 **Client ID:** RE46–10–13202

Lab Sample ID: 248702002

Data File:	018f1801.d	**Data File:**	018b1801.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	24–MAR–10 08:35	**Analyzed:**	24–MAR–10 08:35

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							46
Column 1	1	3.2	3.18 – 3.24	3.86		ug/kg	
	2	3.36	3.33 – 3.39	2.04		ug/kg	
	3	3.59	3.57 – 3.63	4.73		ug/kg	
	4	3.76	3.73 – 3.79	2.82		ug/kg	
	5	3.86	3.84 – 3.9	8.24		ug/kg	
					4.34		
Column 2	1	3.37	3.34 – 3.4	1.2		ug/kg	
	2	3.79	3.76 – 3.82	3.12		ug/kg	
	3	3.91	3.88 – 3.94	2.64		ug/kg	
	4	4.18	4.16 – 4.22	4.52		ug/kg	
	5	4.32	4.29 – 4.35	2.09		ug/kg	
					2.72		
Aroclor–1260							17.3
Column 1	1	3.7	3.67 – 3.73	4.64		ug/kg	
	2	3.86	3.83 – 3.89	4.89		ug/kg	
	3	4.02	4 – 4.06	7.23		ug/kg	
	4	4.09	4.06 – 4.12	1.93		ug/kg	
	5	4.23	4.21 – 4.27	1.48		ug/kg	
					4.03		
Column 2	1	4.3	4.27 – 4.33	4.42		ug/kg	
	2	4.43	4.4 – 4.46	4.72		ug/kg	
	3	4.69	4.66 – 4.72	2.43		ug/kg	
	4	4.87	4.83 – 4.89	3.88		ug/kg	
	5	5.01	4.98 – 5.04	1.52		ug/kg	
					3.39		

Identification Summary

SDG Number: 10–2264 **Client ID:** RE46–10–13203

Lab Sample ID: 248702001

Data File:	017f1701.d	**Data File:**	017b1701.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	24–MAR–10 08:23	**Analyzed:**	24–MAR–10 08:23

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							33.3
Column 1	1	3.21	3.18 – 3.24	70.6		ug/kg	
	2	3.36	3.33 – 3.39	51.9		ug/kg	
	3	3.59	3.57 – 3.63	105		ug/kg	
	4	3.76	3.73 – 3.79	69.4		ug/kg	
	5	3.87	3.84 – 3.9	177		ug/kg	
					94.8		
Column 2	1	3.37	3.34 – 3.4	29.2		ug/kg	
	2	3.79	3.76 – 3.82	71.4		ug/kg	
	3	3.91	3.88 – 3.94	68		ug/kg	
	4	4.19	4.16 – 4.22	108		ug/kg	
	5	4.32	4.29 – 4.35	62.5		ug/kg	
					67.8		
Aroclor–1260							21.7
Column 1	1	3.7	3.67 – 3.73	85.5		ug/kg	
	2	3.87	3.83 – 3.89	105		ug/kg	
	3	4.03	4 – 4.06	139		ug/kg	
	4	4.09	4.06 – 4.12	26.2		ug/kg	
	5	4.24	4.21 – 4.27	24.7		ug/kg	
					76.2		
Column 2	1	4.3	4.27 – 4.33	108		ug/kg	
	2	4.43	4.4 – 4.46	92.2		ug/kg	
	3	4.69	4.66 – 4.72	42.6		ug/kg	
	4	4.87	4.83 – 4.89	29.8		ug/kg	
	5	5.01	4.98 – 5.04	33.2		ug/kg	
					61.3		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2264**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202077986**				
Client Sample:	**QC for batch 967997**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 967997**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967999**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 07:24**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 10:13**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**012f1201–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	012b1201–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/012f1201-1.d
Lab Smp Id: 1202077986 Client Smp ID: PBLK01
Inj Date : 24-MAR-2010 07:24
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202077986|1|
Misc Info : |ECD82P_1S|967999|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.910	0.001	61229249	157.190	5.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.216	5.213	0.003	52920162	178.224	5.9	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032410.b/012f1201-1.d

Date : 24-MAR-2010 07:24

Client ID: PBLK01

Sample Info: |1202077986|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

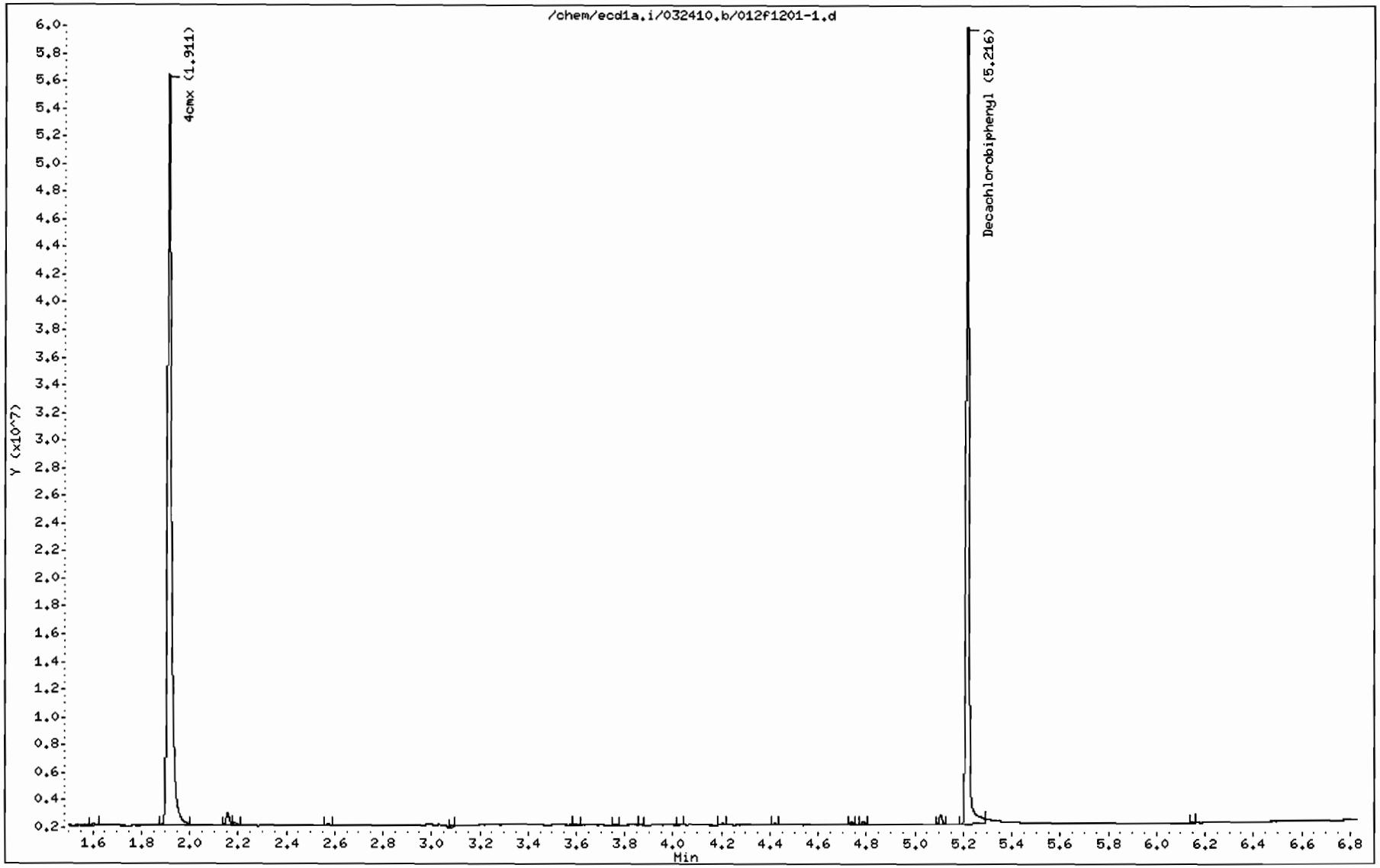

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/012b1201-1.d
Lab Smp Id: 1202077986 Client Smp ID: PBLK01
Inj Date : 24-MAR-2010 07:24
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202077986|1|
Misc Info : |ECD82P_1S|967999|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	39613085	151.003	5.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.909	0.002	31432358	167.932	5.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032410.b/012b1201-1.d

Date : 24-MAR-2010 07:24

Client ID: PBLK01

Sample Info: |120207798611|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

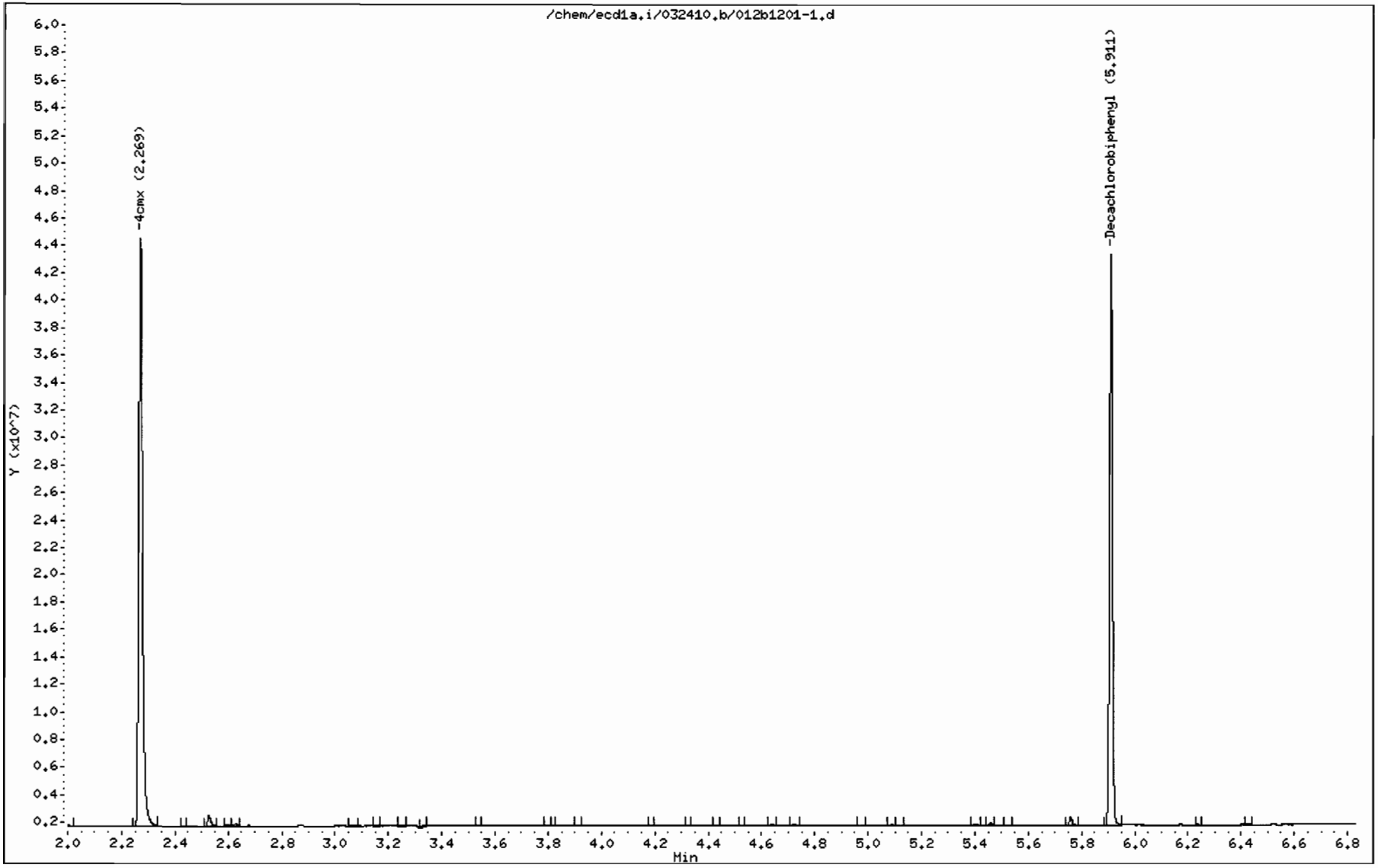

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2264**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202077987**				
Client Sample:	**QC for batch 967997**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967997**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967999**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 07:34**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 10:13**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**013f1301–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	013b1301–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		24.0	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		27.1	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/013f1301-1.d
Lab Smp Id: 1202077987 Client Smp ID: PBLK01LCS
Inj Date : 24-MAR-2010 07:34
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202077987|1|
Misc Info : |ECD82P_1S|967999|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.910	0.001	61771301	158.582	5.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.216	5.213	0.003	50547976	170.235	5.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.362	0.002	11199241	737.918	24.6	80.00- 120.00	100.00
2.650	2.650	0.000	14084524	743.805	24.8	104.01- 144.01	125.76
2.731	2.729	0.002	8674417	697.180	23.2	59.94- 99.94	77.46
2.768	2.766	0.002	5227077	711.330	23.7	28.17- 68.17	46.67

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.979	2.977	0.002	6745925	708.771	23.6	42.68- 82.68	60.24
Average of Peak Concentrations =					24.0		
7 Aroclor-1260					CAS #: 11096-82-5		
3.705	3.701	0.004	14548425	793.691	26.4	80.00- 120.00	100.00
3.866	3.864	0.002	21816696	811.336	27.0	127.48- 167.48	149.96
4.028	4.026	0.002	23627505	834.443	27.8	135.59- 175.59	162.41
4.096	4.094	0.002	13318839	824.294	27.5	68.96- 108.96	91.55
4.239	4.237	0.002	13605954	809.268	27.0	72.51- 112.51	93.52
Average of Peak Concentrations =					27.1		

Data File: /chem/ecd1a.i/032410.b/013f1301-1.d
Date : 24-MAR-2010 07:34
Client ID: PBLK01LCS
Sample Info: |1202077987|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

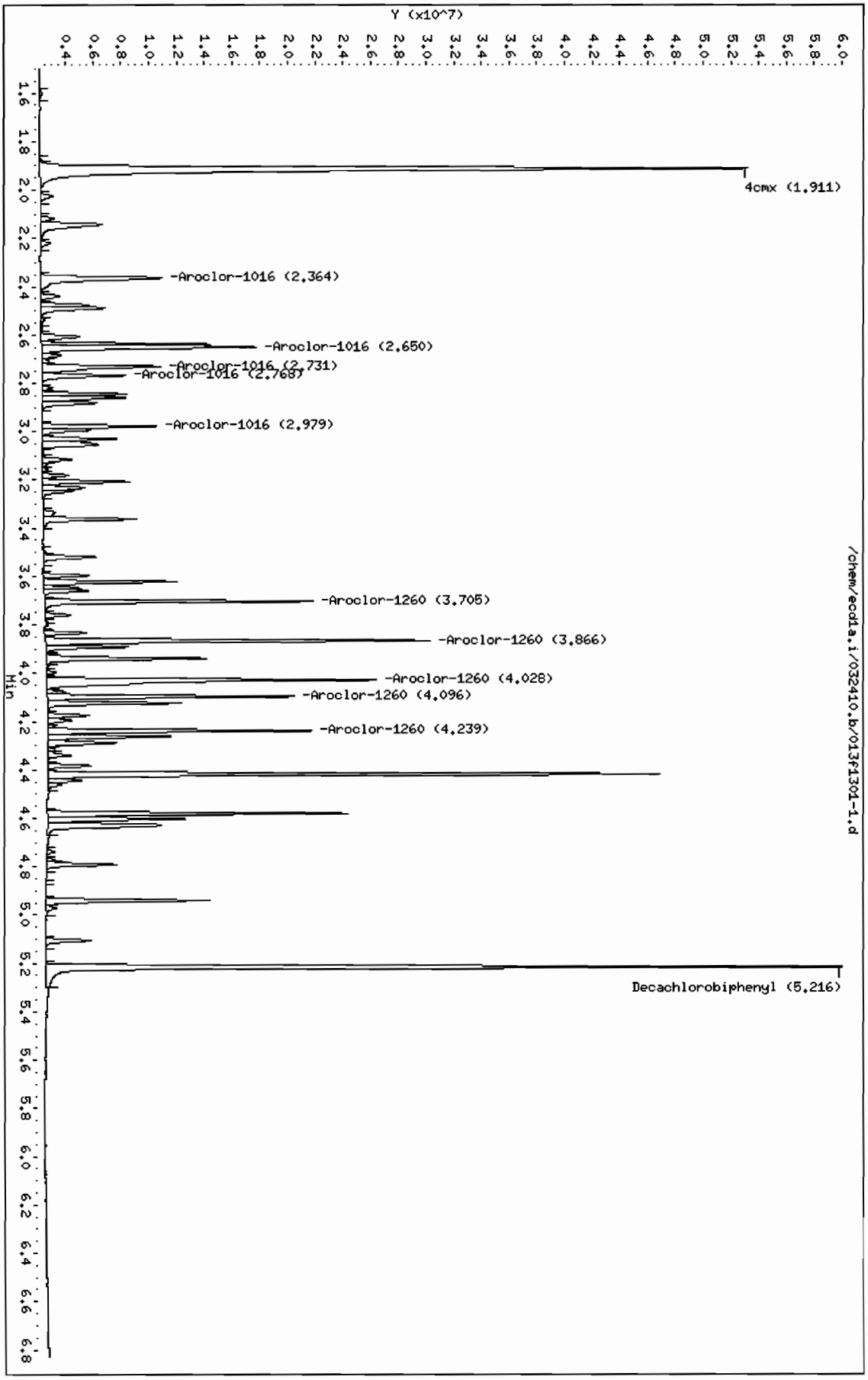

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/013b1301-1.d
Lab Smp Id: 1202077987 Client Smp ID: PBLK01LCS
Inj Date : 24-MAR-2010 07:34
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202077987|1|
Misc Info : |ECD82P_1S|967999|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2264.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	39806442	151.740	5.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.909	0.002	30707769	164.061	5.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.165	3.163	0.002	8988682	714.239	23.8	80.00- 120.00	100.00(M)
3.247	3.245	0.002	5965777	690.947	23.0	44.58- 84.58	66.37
3.310	3.309	0.001	3386598	640.596	21.4	20.18- 60.18	37.68
3.538	3.536	0.002	4688192	680.166	22.7	32.45- 72.45	52.16

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.613	3.611	0.002	4418835	688.017	22.9	28.97- 68.97	49.16
Average of Peak Concentrations =					22.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.303	4.301	0.002	10015458	765.694	25.5	80.00- 120.00	100.00
4.428	4.426	0.002	12291206	790.481	26.3	102.36- 142.36	122.72
4.694	4.691	0.003	9348768	785.870	26.2	71.70- 111.70	93.34
4.867	4.864	0.003	9670605	786.918	26.2	75.18- 115.18	96.56
5.015	5.012	0.003	22062618	835.875	27.9	193.37- 233.37	220.29
Average of Peak Concentrations =					26.4		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032410.b/013b1301-1.d
Date : 24-MAR-2010 07:34
Client ID: PBLK01LCS
Sample Info: 1120207798711
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

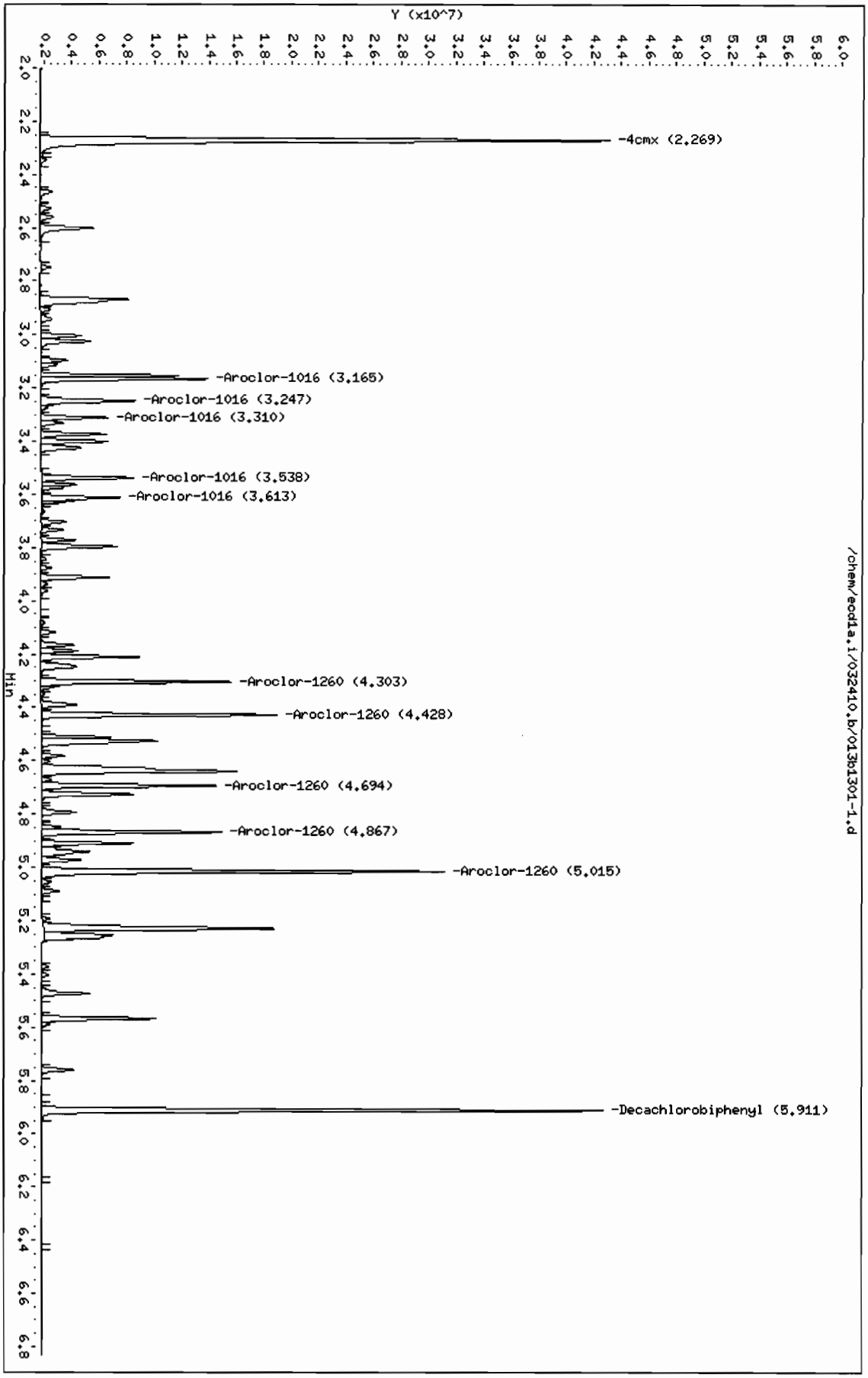

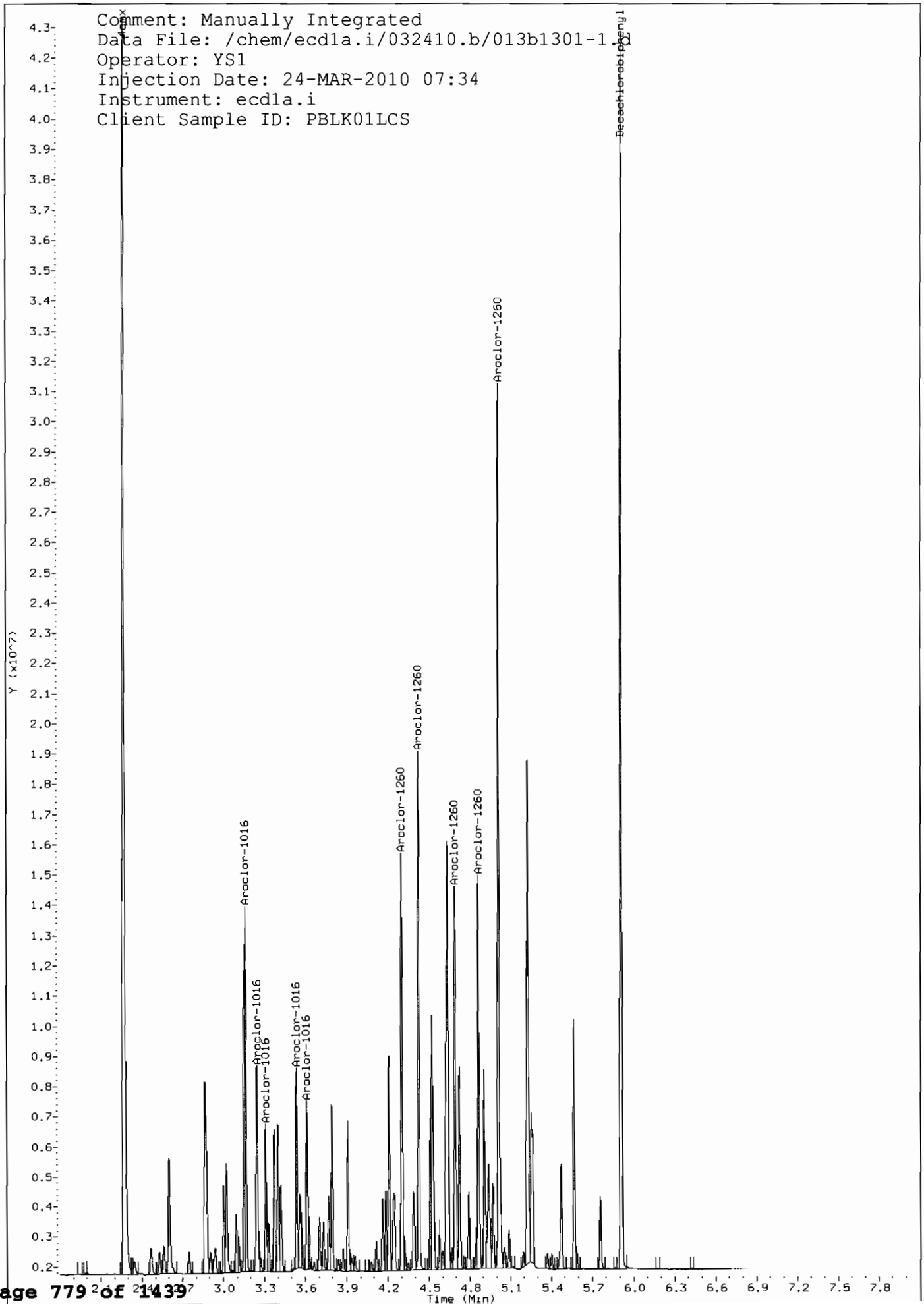
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032410.b/013b1301-1.d
Operator: YS1
Injection Date: 24-MAR-2010 07:34
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Y (x10^7)
Time (Min)

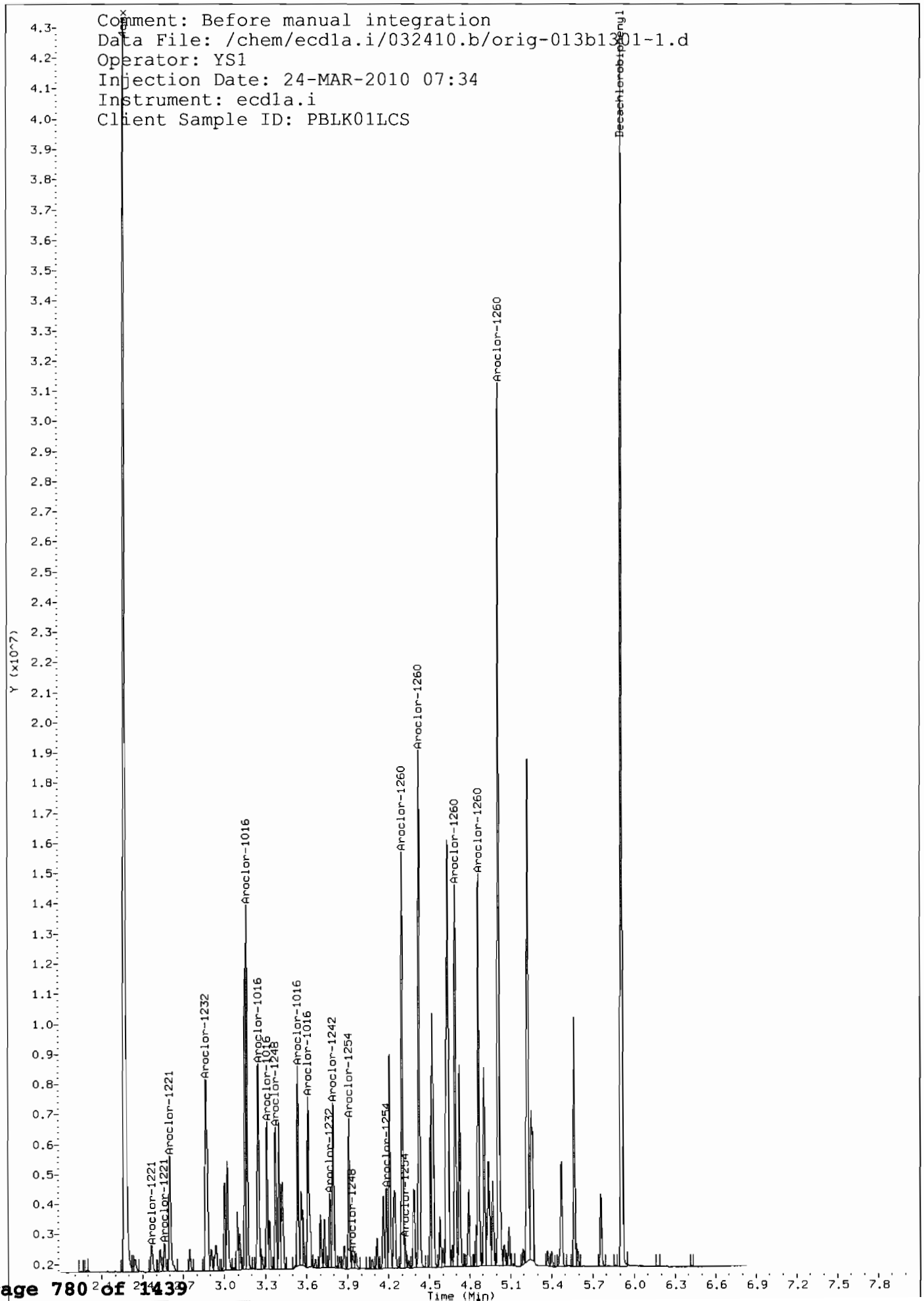
Comment: Before manual integration
Data File: /chem/ecd1a.i/032410.b/orig-013b1301-1.d
Operator: YS1
Injection Date: 24-MAR-2010 07:34
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1232
Aroclor-1221
Aroclor-1242
Aroclor-1254
Aroclor-1248
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/12/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/031110b.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	11-MAR-2010 14:46		031110b	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	11-MAR-2010 14:56		031110b	1.0		DUSE RE-ICAL
003f0301.d	WAR100219-54	YS1	11-MAR-2010 15:07		031110b	1.0		DUSE RE-ICAL
004f0401.d	WAR100219-42	YS1	11-MAR-2010 15:17		031110b	1.0		DUSE RE-ICAL
005f0501.d	WAR100223-48	YS1	11-MAR-2010 15:28		031110b	1.0		DUSE RE-ICAL
006f0601.d	WAR100107-68	YS1	11-MAR-2010 15:38		031110b	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	11-MAR-2010 15:49		031110b	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	11-MAR-2010 15:59		031110b	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	11-MAR-2010 16:10		031110b	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	11-MAR-2010 16:21		031110b	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100311-01	YS1	11-MAR-2010 16:31		031110b	1.0		AR1660 I-CAL LEVEL 1
012f1201.d	WAR100311-02	YS1	11-MAR-2010 16:41		031110b	1.0		AR1660 I-CAL LEVEL 2
013f1301.d	WAR100311-03	YS1	11-MAR-2010 16:52		031110b	1.0		AR1660 I-CAL LEVEL 3
014f1401.d	WAR100311-04	YS1	11-MAR-2010 17:02		031110b	1.0		AR1660 I-CAL LEVEL 4
015f1501.d	IAR100311-01	YS1	11-MAR-2010 17:13		031110b	1.0		AR1660 I-CAL LEVEL 5

Instrument Batch: /chem/ecd1a.i/031110b.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100222-60 01	YS1	11-MAR-2010 17:24		031110b	1.0	PASSED ON BOTH COLUMNS
017f1701.d	WAR100311-05	YS1	11-MAR-2010 17:34		031110b	1.0	AR1254 I-CAL LEVEL 1
018f1801.d	WAR100311-06	YS1	11-MAR-2010 17:45		031110b	1.0	AR1254 I-CAL LEVEL 2
019f1901.d	WAR100311-07	YS1	11-MAR-2010 17:55		031110b	1.0	AR1254 I-CAL LEVEL 3
020f2001.d	WAR100311-08	YS1	11-MAR-2010 18:06		031110b	1.0	AR1254 I-CAL LEVEL 4
021f2101.d	IAR100219-02	YS1	11-MAR-2010 18:16		031110b	1.0	AR1254 I-CAL LEVEL 5
022f2201.d	WAR100219-54	YS1	11-MAR-2010 18:27		031110b	1.0	PASSED ON BOTH COLUMNS
023f2301.d	WAR100311-09	YS1	11-MAR-2010 18:37		031110b	1.0	AR1242 I-CAL LEVEL 1
024f2401.d	WAR100311-10	YS1	11-MAR-2010 18:48		031110b	1.0	AR1242 I-CAL LEVEL 2
025f2501.d	WAR100311-11	YS1	11-MAR-2010 18:58		031110b	1.0	AR1242 I-CAL LEVEL 3
026f2601.d	WAR100311-12	YS1	11-MAR-2010 19:09		031110b	1.0	AR1242 I-CAL LEVEL 4
027f2701.d	IAR100219-01	YS1	11-MAR-2010 19:19		031110b	1.0	AR1242 I-CAL LEVEL 5
028f2801.d	WAR100219-42	YS1	11-MAR-2010 19:30		031110b	1.0	PASSED ON BOTH COLUMNS
029f2901.d	WAR100311-13	YS1	11-MAR-2010 19:40		031110b	1.0	AR1248 I-CAL LEVEL 1
030f3001.d	WAR100311-14	YS1	11-MAR-2010 19:51		031110b	1.0	AR1248 I-CAL LEVEL 2
031f3101.d	WAR100311-15	YS1	11-MAR-2010 20:01		031110b	1.0	AR1248 I-CAL LEVEL 3
032f3201.d	WAR100311-16	YS1	11-MAR-2010 20:12		031110b	1.0	AR1248 I-CAL LEVEL 4
033f3301.d	IAR100211-01	YS1	11-MAR-2010 20:22		031110b	1.0	AR1248 I-CAL LEVEL 5
034f3401.d	WAR100223-48	YS1	11-MAR-2010 20:33		031110b	1.0	PASSED ON BOTH COLUMNS
035f3501.d	WAR100219-99 02	YS1	11-MAR-2010 20:44		031110b	1.0	CLEAN

Instrument Batch: /chem/ecd1a.i/031110b.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202067743	YS1	11-MAR-2010 20:54	963869	246954	1.0	MB	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
037f3701.d	1202067744	YS1	11-MAR-2010 21:05	963869	246954	1.0	LCS	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
038f3801.d	246954003	YS1	11-MAR-2010 21:15	963869	246954	1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
039f3901.d	1202067745	YS1	11-MAR-2010 21:26	963869	246954	1.0	MS	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
040f4001.d	1202067746	YS1	11-MAR-2010 21:36	963869	246954	1.0	MSD	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT

041f4101.d	246954006	YS1	11-MAR-2010 21:47	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
042f4201.d	246954007	YS1	11-MAR-2010 21:57	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
043f4301.d	246954009	YS1	11-MAR-2010 22:08	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
044f4401.d	246954012	YS1	11-MAR-2010 22:18	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
045f4501.d	246954014	YS1	11-MAR-2010 22:29	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
046f4601.d	WAR100222-60 02	YS1	11-MAR-2010 22:39		031110b		1.0		PASSED ON BOTH COLUMNS
046f4901.d	WAR100222-60 03	YS1	11-MAR-2010 23:11		031110b		1.0		CLEAN
047f4701.d	WAR100219-99 03	YS1	11-MAR-2010 22:50		031210		1.0		
047f5001.d	WAR100219-99 04	YS1	11-MAR-2010 23:21		031110b		1.0		
048f4801.d	WE100311-07SCR	YS1	11-MAR-2010 23:00		031110b		1.0		LCS CSREEN FOR PREP

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/25/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/032410.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	24-MAR-2010 05:28		032410	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	24-MAR-2010 05:39		032410	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YS1	24-MAR-2010 05:49		032410	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YS1	24-MAR-2010 06:00		032410	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR100223-48	YS1	24-MAR-2010 06:10		032410	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100323-68	YS1	24-MAR-2010 06:21		032410	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100323-32	YS1	24-MAR-2010 06:31		032410	1.0		PATTERN ONLY
008f0801.d	WAR100323-21	YS1	24-MAR-2010 06:42		032410	1.0		PATTERN ONLY
009f0901.d	WAR100323-62	YS1	24-MAR-2010 06:52		032410	1.0		PATTERN ONLY
010f1001.d	WAR100323-DDT	YS1	24-MAR-2010 07:03		032410	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100219-99 02	YS1	24-MAR-2010 07:13		032410	1.0		CLEAN
012f1201.d	1202077986	YS1	24-MAR-2010 07:24	967999	10-2216	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202077987	YS1	24-MAR-2010 07:34	967999	10-2216	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	248556002	YS1	24-MAR-2010 07:45	967999	10-2216	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	248556006	YS1	24-MAR-2010 07:57	967999	10-2216	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/032410.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	248556008	YS1	24-MAR-2010 08:10	967999	10-2216		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
017f1701.d	248702001	YS1	24-MAR-2010 08:23	967999	10-2264		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	248702002	YS1	24-MAR-2010 08:35	967999	10-2264		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	248747001	YS1	24-MAR-2010 08:48	967999	10-2279		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	WAR100222-60 02	YS1	24-MAR-2010 08:58		032410		1.0		PASSED ON BOTH COLUMNS
021f2101.d	WAR100219-99 03	YS1	24-MAR-2010 09:09		032410		1.0		CLEAN
022f2201.d	1202077988	YS1	24-MAR-2010 09:21	967999	10-2279		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	1202077989	YS1	24-MAR-2010 09:34	967999	10-2279		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	248747002	YS1	24-MAR-2010 09:46	967999	10-2279		1.0	LANL	RE SURROGATE LOW
025f2501.d	248747003	YS1	24-MAR-2010 09:59	967999	10-2279		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	248747004	YS1	24-MAR-2010 10:11	967999	10-2279		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	248747005	YS1	24-MAR-2010 10:24	967999	10-2279		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	248747006	YS1	24-MAR-2010 10:37	967999	10-2279		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	248747007	YS1	24-MAR-2010 10:49	967999	10-2279		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	WAR100222-60 03	YS1	24-MAR-2010 11:02		032410		1.0		PASSED ON BOTH COLUMNS
031f3101.d	WAR100219-99 04	YS1	24-MAR-2010 11:12		032410		1.0		CLEAN
032f3201.d	1202078651	YS1	24-MAR-2010 11:23	968275	10-2433		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	1202078652	YS1	24-MAR-2010 11:33	968275	10-2433		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	249332001	YS1	24-MAR-2010 11:44	968275	10-2433		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	249332002	YS1	24-MAR-2010 11:56	968275	10-2433		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	249332003	YS1	24-MAR-2010 12:09	968275	10-2433	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	249332004	YS1	24-MAR-2010 12:22	968275	10-2433	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	249332005	YS1	24-MAR-2010 12:34	968275	10-2433	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	249332006	YS1	24-MAR-2010 12:47	968275	10-2433	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	249332007	YS1	24-MAR-2010 12:59	968275	10-2433	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

041f4101.d	249332009	YS1	24-MAR-2010 13:12	968275	10-2433		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
042f4201.d	WAR100222-60 04	YS1	24-MAR-2010 13:24		032410		1.0		PASSED ON BOTH COLUMNS
043f4301.d	WAR100219-99 05	YS1	24-MAR-2010 13:35		032410		1.0		CLEAN
044f4401.d	249523001	YS1	24-MAR-2010 13:46	968275	10-2471		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	249523002	YS1	24-MAR-2010 13:58	968275	10-2471		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	249523003	YS1	24-MAR-2010 14:11	968275	10-2471		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	249523004	YS1	24-MAR-2010 14:23	968275	10-2471		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
048f4801.d	249523006	YS1	24-MAR-2010 14:36	968275	10-2471		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	WAR100222-60 05	YS1	24-MAR-2010 14:49		032410		1.0		PASSED ON BOTH COLUMNS
050f5001.d	WAR100219-99 06	YS1	24-MAR-2010 14:59		032410		1.0		CLEAN
051f5101.d	249614001	YS1	24-MAR-2010 15:10	968275	10-2486		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	1202078653	YS1	24-MAR-2010 15:22	968275	10-2486		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	1202078654	YS1	24-MAR-2010 15:35	968275	10-2486		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	249614002	YS1	24-MAR-2010 15:47	968275	10-2486		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	249614003	YS1	24-MAR-2010 16:00	968275	10-2486		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	249614004	YS1	24-MAR-2010 16:13	968275	10-2486		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	249614005	YS1	24-MAR-2010 16:25	968275	10-2486		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	249614006	YS1	24-MAR-2010 16:38	968275	10-2486		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	WAR100222-60 06	YS1	24-MAR-2010 16:50		032410		1.0		PASSED ON BOTH COLUMNS
060f6001.d	WAR100219-99 07	YS1	24-MAR-2010 17:03		032410		1.0		CLEAN
061f6101.d	248067001	YS1	24-MAR-2010 17:16		032410		3.0		UPLOAD BOTH COLUMNS, USE HIGHER
062f6201.d	WAR100222-60 07	YS1	24-MAR-2010 17:28		032410		1.0		PASSED ON BOTH COLUMNS
063f6301.d	WAR100219-99 08	YS1	24-MAR-2010 17:41		032410		1.0		CLEAN
064f6401.d		YS1	24-MAR-2010 18:51		032410		1.0		duse

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/022b2201.d
Lab Smp Id: 1202077988 Client Smp ID: RE32-10-11381MS
Inj Date : 24-MAR-2010 09:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202077988|1|
Misc Info : |ECD82P_1S|967999|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 09:45 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 22 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2279.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	17.35950	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	25768967	98.2301	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.908	5.909	-0.001	19597789	104.704	4.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.163	3.163	0.000	6347537	504.374	20.3	80.00- 120.00	100.00
3.246	3.245	0.001	4408651	510.603	20.6	43.85- 83.85	69.45
3.309	3.309	0.000	2596857	491.212	19.8	19.64- 59.64	40.91
3.536	3.536	0.000	3594678	521.518	21.0	31.85- 71.85	56.63

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.612	3.611	0.001	2309366	359.571	14.5	27.50- 67.50	36.38
Average of Peak Concentrations =					19.2		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.301	0.001	19274645	1473.57	59.4	80.00- 120.00	100.00(R)
4.426	4.426	0.000	26896624	1729.80	69.8	103.26- 143.26	139.54
4.692	4.691	0.001	23729712	1994.75	80.4	72.22- 112.22	123.11
4.865	4.864	0.001	23069784	1877.24	75.7	75.54- 115.54	119.69
5.012	5.012	0.000	55188260	2090.89	84.3	193.55- 233.55	286.33
Average of Peak Concentrations =					73.9		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/032410.b/022b2201.d

Date : 24-MAR-2010 09:21

Client ID: RE32-10-11381MS

Sample Info: |120207798811|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

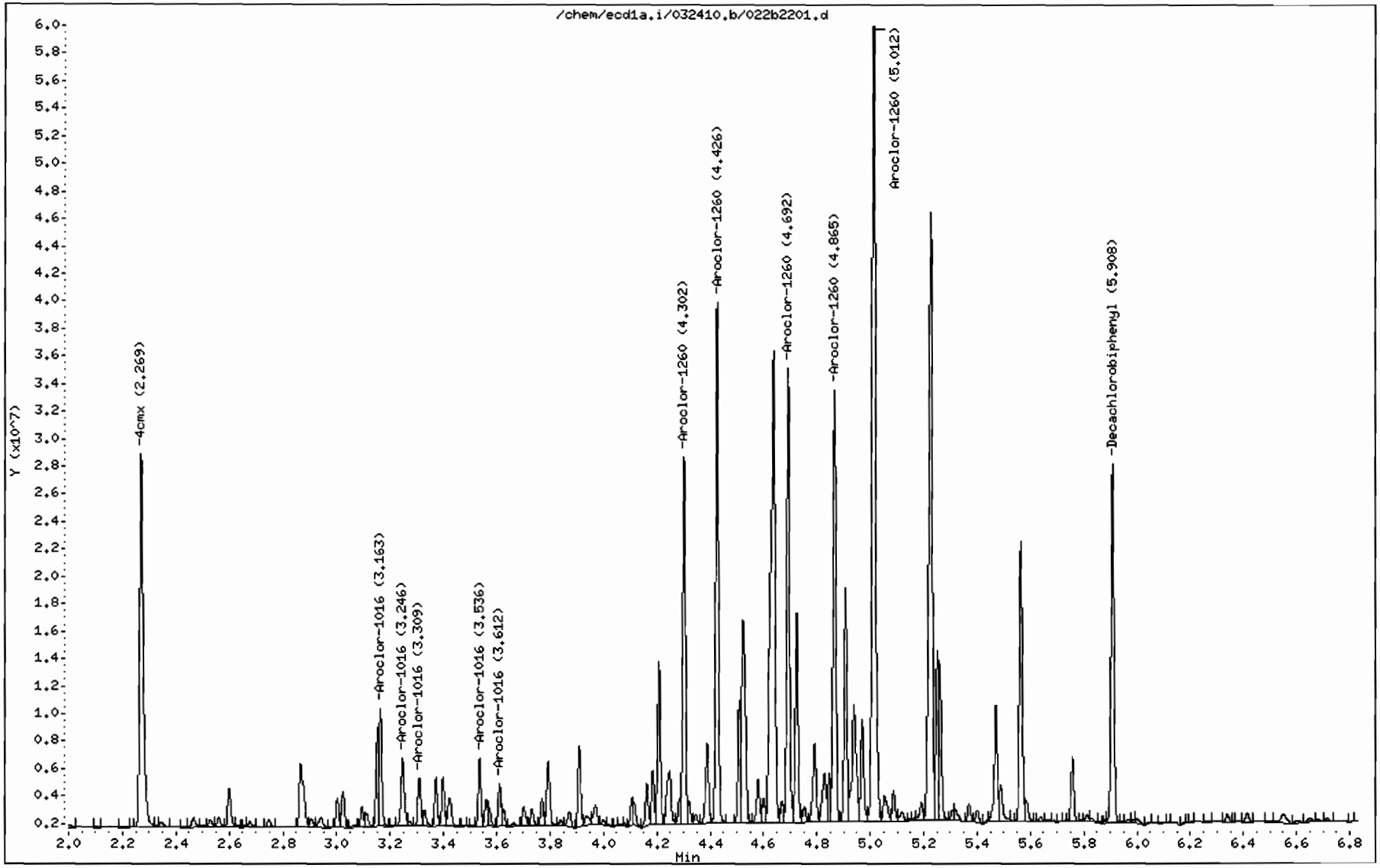

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/022f2201.d
Lab Smp Id: 1202077988 Client Smp ID: RE32-10-11381MS
Inj Date : 24-MAR-2010 09:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202077988|1|
Misc Info : |ECD82P_1S|967999|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 09:45 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 22 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2279.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	17.35950	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.910	0.002	41239310	105.871	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.212	5.213	-0.001	32590773	109.759	4.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.362	0.002	7801832	514.063	20.7	80.00- 120.00	100.00
2.650	2.650	0.000	10008615	528.556	21.3	111.45- 151.45	128.29
2.730	2.729	0.001	5528196	444.312	17.9	59.85- 99.85	70.86
2.767	2.766	0.001	3332879	453.557	18.3	28.28- 68.28	42.72

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.977	2.977	0.000	4111663	431.998	17.4	42.33- 82.33	52.70
Average of Peak Concentrations =					19.1		
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.701	0.001	30857042	1683.41	67.9	80.00- 120.00	100.00(RM)
3.864	3.864	0.000	47035652	1749.20	70.6	130.12- 170.12	152.43
4.026	4.026	0.000	55050609	1944.20	78.4	140.37- 180.37	178.41
4.094	4.094	0.000	34917296	2161.01	87.2	70.27- 110.27	113.16
4.237	4.237	0.000	34255993	2037.51	82.2	74.54- 114.54	111.02
Average of Peak Concentrations =					77.3		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032410.b/022f2201.d
Date : 24-MAR-2010 09:21
Client ID: RE32-10-11381MS
Sample Info: 1120207798111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

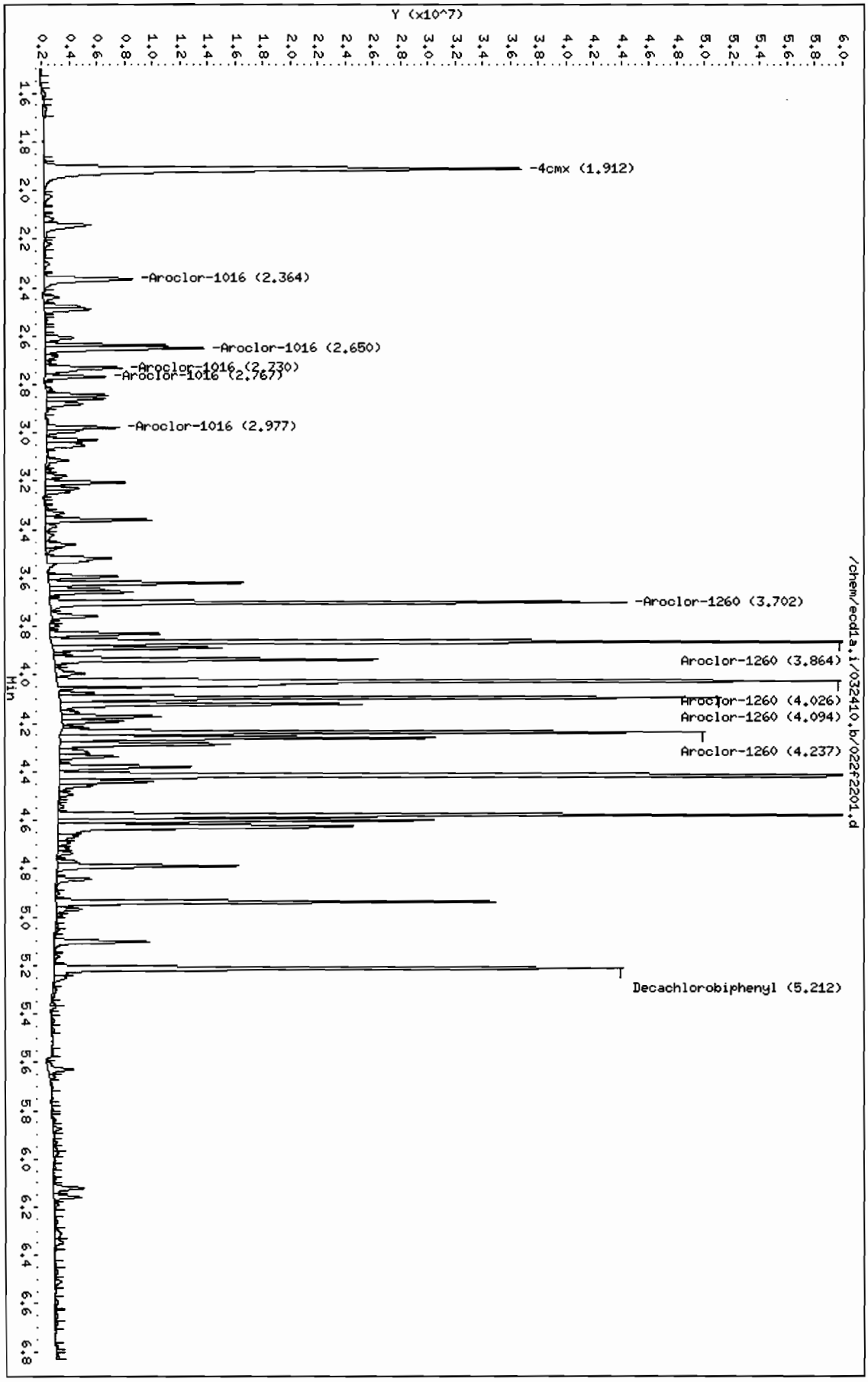

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/023b2301.d
Lab Smp Id: 1202077989 Client Smp ID: RE32-10-11381MSD
Inj Date : 24-MAR-2010 09:34
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202077989|1|
Misc Info : |ECD82P_1S|967999|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 09:45 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 23 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2279.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	17.35950	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	24082808	91.8026	3.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.909	5.909	0.000	17917600	95.7273	3.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.162	3.163	-0.001	13618106	1082.09	43.6	80.00- 120.00	100.00
3.245	3.245	0.000	10039064	1162.71	46.9	43.85- 83.85	73.72
3.309	3.309	0.000	5481400	1036.84	41.8	19.64- 59.64	40.25
3.535	3.536	-0.001	8420188	1221.61	49.2	31.85- 71.85	61.83

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.610	3.611	-0.001	5560817	865.825	34.9	27.50- 67.50	40.83
Average of Peak Concentrations =					43.3		
7 Aroclor-1260					CAS #: 11096-82-5		
4.300	4.301	-0.001	24277390	1856.04	74.8	80.00- 120.00	100.00(R)
4.426	4.426	0.000	33770063	2171.84	87.5	103.26- 143.26	139.10
4.691	4.691	0.000	27443963	2306.98	93.0	72.22- 112.22	113.04
4.864	4.864	0.000	26756800	2177.26	87.8	75.54- 115.54	110.21
5.011	5.012	-0.001	63332283	2399.44	96.7	193.55- 233.55	260.87
Average of Peak Concentrations =					88.0		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/032410.b/023b2301.d
Date : 24-MAR-2010 09:34
Client ID: RE32-10-11381HSD
Sample Info: 1120207798911
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

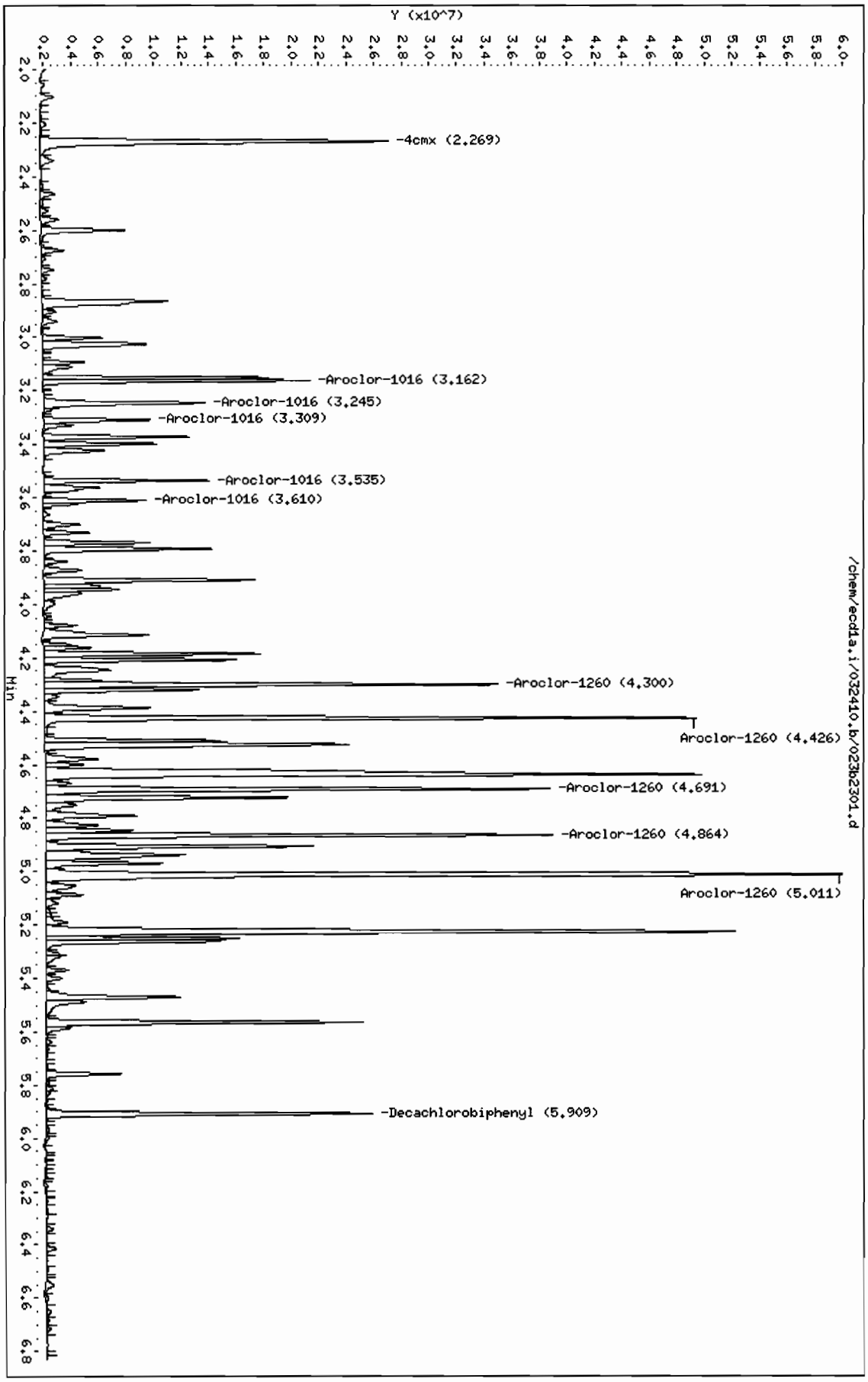

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/023f2301.d
Lab Smp Id: 1202077989 Client Smp ID: RE32-10-11381MSD
Inj Date : 24-MAR-2010 09:34
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202077989|1|
Misc Info : |ECD82P_1S|967999|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 09:45 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 23 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2279.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	17.35950	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.910	0.000	40781970	104.697	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.212	5.213	-0.001	28381659	95.5835	3.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.362	2.362	0.000	16916249	1114.61	44.9	80.00- 120.00	100.00(M)
2.649	2.650	-0.001	21824077	1152.53	46.4	111.45- 151.45	280.24
2.729	2.729	0.000	12398188	996.466	40.2	59.85- 99.85	159.20
2.766	2.766	0.000	7573859	1030.69	41.5	28.28- 68.28	97.25

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.976	2.977	-0.001	9729299	1022.22	41.2	42.33- 82.33	124.93
Average of Peak Concentrations =					42.8		
7 Aroclor-1260					CAS #: 11096-82-5		
3.700	3.701	-0.001	37291392	2034.44	82.0	80.00- 120.00	100.00(R)
3.863	3.864	-0.001	60284079	2241.89	90.4	130.12- 170.12	161.66
4.025	4.026	-0.001	75035747	2650.01	107	140.37- 180.37	201.21
4.093	4.094	-0.001	40263181	2491.86	100	70.27- 110.27	107.97
4.235	4.237	-0.002	40088124	2384.40	96.1	74.54- 114.54	107.50
Average of Peak Concentrations =					95.1		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032410.b/023f2301.d

Date : 24-MAR-2010 09:34

Client ID: RE32-10-11381MSD

Sample Info: |1202077989|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

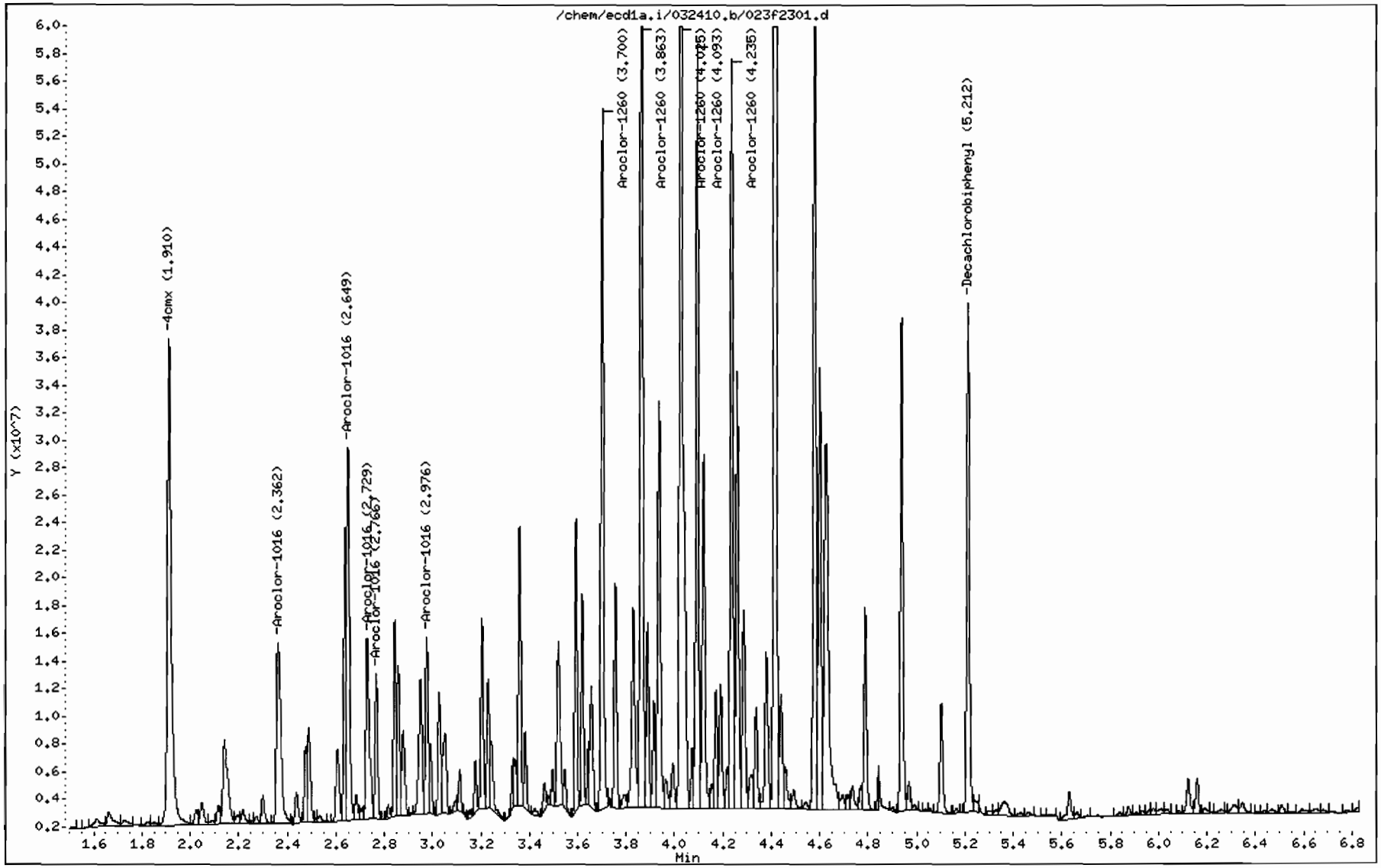

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 967997 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202077986 MB	23-MAR-2010 10:13:00	30	H2SO4/KMnl		1	8	1	0.03333
1202077987 LCS	23-MAR-2010 10:13:00	30	H2SO4/KMnl		1	8	1	0.03333
248556002 - 2	23-MAR-2010 10:13:00	30	H2SO4/KMnl		1	8	1	0.03333
248556006 - 2	23-MAR-2010 10:13:00	30	H2SO4/KMnl		1	8	1	0.03333
248556008 - 2	23-MAR-2010 10:13:00	30.09	H2SO4/KMnl		1	8	1	0.03323
248702001 - 2	23-MAR-2010 10:13:00	30	H2SO4/KMnl		1	8	1	0.03333
248702002 - 2	23-MAR-2010 10:13:00	30.03	H2SO4/KMnl		1	8	1	0.0333
248747001 - 2	23-MAR-2010 10:13:00	30	H2SO4/KMnl		1	8	1	0.03333
1202077988 - 2 MS (248747001)	23-MAR-2010 10:13:00	30	H2SO4/KMnl		1	8	1	0.03333
1202077989 - 2 MSD (248747001)	23-MAR-2010 10:13:00	30.02	H2SO4/KMnl		1	8	1	0.03331
248747002 - 2	23-MAR-2010 10:13:00	30	H2SO4/KMnl		1	8	1	0.03333
248747003 - 2	23-MAR-2010 10:13:00	30.09	H2SO4/KMnl		1	8	1	0.03323
248747004 - 2	23-MAR-2010 10:13:00	30.02	H2SO4/KMnl		1	8	1	0.03331
248747005 - 2	23-MAR-2010 10:13:00	30.05	H2SO4/KMnl		1	8	1	0.03328
248747006 - 2	23-MAR-2010 10:13:00	30.03	H2SO4/KMnl		1	8	1	0.0333
248747007 - 2	23-MAR-2010 10:13:00	30.07	H2SO4/KMnl		1	8	1	0.03326

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202077987	PCB Laboratory Control	WE100311-07	1	mL
MS	1202077988	PCB Laboratory Control	WE100311-07	1	mL
MSD	1202077989	PCB Laboratory Control	WE100311-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100310-16	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1273823-B1	150	mL
REGNT	All	Hexane	1279341-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 03/23/2010

Clean up Initials: RWH

Verified By: JAM

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2264

Sample Analysis

Sample ID	**Client ID**
248702001	RE46-10-13203
248702002	RE46-10-13202
1202065091	Method Blank (MB) **ICP**
1202065092	Laboratory Control Sample (LCS)
1202065095	248702001(RE46-10-13203L) Serial Dilution (SD)
1202065093	248702001(RE46-10-13203D) Sample Duplicate (DUP)
1202065094	248702001(RE46-10-13203S) Matrix Spike (MS)
1202065096	248702001(RE46-10-13203SD) Matrix Spike Duplicate (MSD)
1202065101	Method Blank (MB) **ICP-MS**
1202108417	Method Blank (MB) **ICP-MS**
1202065102	Laboratory Control Sample (LCS)
1202108418	Laboratory Control Sample (LCS)
1202065105	248702001(RE46-10-13203L) Serial Dilution (SD)
1202065103	248702001(RE46-10-13203D) Sample Duplicate (DUP)
1202065104	248702001(RE46-10-13203S) Matrix Spike (MS)
1202065106	248702001(RE46-10-13203SD) Matrix Spike Duplicate (MSD)
1202076770	Method Blank (MB) **CVAA**
1202076771	Laboratory Control Sample (LCS)
1202076774	248702001(RE46-10-13203L) Serial Dilution (SD)
1202076772	248702001(RE46-10-13203D) Sample Duplicate (DUP)

1202076773	248702001(RE46-10-13203S) Matrix Spike (MS)
1202076775	248702001(RE46-10-13203SD) Matrix Spike Duplicate (MSD)

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

Method/Analysis Information

Analytical Batch:	962595, 962601, 980583 and 967582
Prep Batch :	962594, 962599, 980582 and 967581
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21, GL-MA-E-009 REV# 20 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The laboratory control sample (LCS) met the recommended acceptance criteria for percent recovery (%R) for all elements of interest, with the exception of antimony. Silver and/or antimony did not meet the recovery acceptance criteria for the LCS. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 248702001 (RE46-10-13203).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of antimony, barium, copper, magnesium, manganese, potassium, zinc and nickel, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of antimony, barium, magnesium, manganese, potassium, vanadium, arsenic, zinc and nickel, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exceptions of antimony, copper and arsenic, as indicated by the "*" qualifiers.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of aluminum, barium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, potassium, sodium, vanadium, zinc and nickel, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all

initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 812273, 824104 and 825052. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

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

Review Validation:

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

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

Reviewer: Kristen Parson **Date:** 5/6/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2264 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248702001 **BASIS:** Dry Weight **DATE COLLECTED** 02-MAR-10

CLIENT ID: RE46-10-13203 **LEVEL:** Low **DATE RECEIVED** 04-MAR-10

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4340000	ug/kg	*	8300	24400	24400	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-36-0	Antimony	1220	ug/kg	U*N	403	1220	1220	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-38-2	Arsenic	1920	ug/kg	*N	234	1170	1170	2	MS	RMJ	05/03/10 12:32	100502-2	962601
7440-39-3	Barium	56000	ug/kg	*N	122	610	610	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-41-7	Beryllium	763	ug/kg		23.4	117	117	2	MS	RMJ	05/03/10 12:32	100502-2	962601
7440-43-9	Cadmium	192	ug/kg	J*	122	610	610	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-70-2	Calcium	7770000	ug/kg	*	9760	30500	30500	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-47-3	Chromium	5640	ug/kg	*	183	610	610	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-48-4	Cobalt	2760	ug/kg	*	183	610	610	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-50-8	Copper	15100	ug/kg	*N	366	1220	1220	1	P	HSC	03/31/10 10:45	033110A-1	962595
7439-89-6	Iron	6420000	ug/kg	*	9760	30500	30500	1	P	HSC	03/31/10 10:45	033110A-1	962595
7439-92-1	Lead	14800	ug/kg	*	305	1220	1220	1	P	HSC	03/31/10 10:45	033110A-1	962595
7439-95-4	Magnesium	1030000	ug/kg	*N	10400	36600	36600	1	P	HSC	03/31/10 10:45	033110A-1	962595
7439-96-5	Manganese	194000	ug/kg	*N	244	1220	1220	1	P	HSC	03/31/10 10:45	033110A-1	962595
7439-97-6	Mercury	72	ug/kg		4.28	12.6	12.6	1	AV	JXL1	03/23/10 10:15	032310S1-4	967582
7440-02-0	Nickel	8440	ug/kg	*N	123	490	490	2	MS	RMJ	05/05/10 19:45	100504-3	980583
7440-09-7	Potassium	786000	ug/kg	*N	7810	30500	30500	1	P	HSC	03/31/10 10:45	033110A-1	962595
7782-49-2	Selenium	1170	ug/kg	U	586	1170	1170	2	MS	RMJ	05/03/10 12:32	100502-2	962601
7440-22-4	Silver	610	ug/kg	U	122	610	610	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-23-5	Sodium	108000	ug/kg	*	8540	30500	30500	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-28-0	Thallium	217	ug/kg	J	70.3	234	234	2	MS	RMJ	05/03/10 12:32	100502-2	962601
7440-62-2	Vanadium	11300	ug/kg	*N	122	610	610	1	P	HSC	03/31/10 10:45	033110A-1	962595
7440-66-6	Zinc	42600	ug/kg	*N	403	1220	1220	1	P	HSC	03/31/10 10:45	033110A-1	962595

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
962595	962594	SW846 3050B	0.504	g	50	mL	03/16/10	AXG2
962601	962599	SW846 3050B	0.525	g	50	mL	03/17/10	LYH1
967582	967581	SW846 7471A Prep	0.586	g	30	mL	03/22/10	TXB3
980583	980582	SW846 3050B	0.502	g	50	mL	05/04/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2264 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248702002 **BASIS:** Dry Weight **DATE COLLECTED** 02-MAR-10

CLIENT ID: RE46-10-13202 **LEVEL:** Low **DATE RECEIVED** 04-MAR-10

MATRIX: SOIL **%SOLIDS:** 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	12100000	ug/kg	*	8640	25400	25400	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-36-0	Antimony	1270	ug/kg	U*N	419	1270	1270	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-38-2	Arsenic	2200	ug/kg	*N	238	1190	1190	2	MS	RMJ	05/03/10 13:03	100502-2	962601
7440-39-3	Barium	99600	ug/kg	*N	127	635	635	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-41-7	Beryllium	1260	ug/kg		23.8	119	119	2	MS	RMJ	05/03/10 13:03	100502-2	962601
7440-43-9	Cadmium	635	ug/kg	U*	127	635	635	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-70-2	Calcium	5880000	ug/kg	*	10200	31800	31800	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-47-3	Chromium	16400	ug/kg	*	191	635	635	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-48-4	Cobalt	2930	ug/kg	*	191	635	635	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-50-8	Copper	7650	ug/kg	*N	381	1270	1270	1	P	HSC	03/31/10 11:17	033110A-1	962595
7439-89-6	Iron	10700000	ug/kg	*	10200	31800	31800	1	P	HSC	03/31/10 11:17	033110A-1	962595
7439-92-1	Lead	10100	ug/kg	*	318	1270	1270	1	P	HSC	03/31/10 11:17	033110A-1	962595
7439-95-4	Magnesium	2170000	ug/kg	*N	10800	38100	38100	1	P	HSC	03/31/10 11:17	033110A-1	962595
7439-96-5	Manganese	293000	ug/kg	*N	254	1270	1270	1	P	HSC	03/31/10 11:17	033110A-1	962595
7439-97-6	Mercury	29.2	ug/kg		5.07	14.9	14.9	1	AV	JXL1	03/23/10 10:23	032310S1-4	967582
7440-02-0	Nickel	7250	ug/kg	*N	116	464	464	2	MS	RMJ	05/05/10 20:05	100504-3	980583
7440-09-7	Potassium	1850000	ug/kg	*N	8130	31800	31800	1	P	HSC	03/31/10 11:17	033110A-1	962595
7782-49-2	Selenium	1190	ug/kg	U	596	1190	1190	2	MS	RMJ	05/03/10 13:03	100502-2	962601
7440-22-4	Silver	635	ug/kg	U	127	635	635	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-23-5	Sodium	177000	ug/kg	*	8890	31800	31800	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-28-0	Thallium	324	ug/kg		71.5	238	238	2	MS	RMJ	05/03/10 13:03	100502-2	962601
7440-62-2	Vanadium	13900	ug/kg	*N	127	635	635	1	P	HSC	03/31/10 11:17	033110A-1	962595
7440-66-6	Zinc	31400	ug/kg	*N	419	1270	1270	1	P	HSC	03/31/10 11:17	033110A-1	962595

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
962595	962594	SW846 3050B	0.5	g	50	mL	03/16/10	AXG2
962601	962599	SW846 3050B	0.533	g	50	mL	03/17/10	LYH1
967582	967581	SW846 7471A Prep	0.511	g	30	mL	03/22/10	TXB3
980583	980582	SW846 3050B	0.547	g	50	mL	05/04/10	AXG2

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2264

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.1	ug/L	5	ug/L	101.9	90.0 – 110.0	AV	23–MAR–10 09:00	032310S1–4
	Aluminum	5230	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	31–MAR–10 08:54	033110A–1
	Antimony	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	31–MAR–10 08:54	033110A–1
	Barium	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	31–MAR–10 08:54	033110A–1
	Cadmium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	31–MAR–10 08:54	033110A–1
	Calcium	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	31–MAR–10 08:54	033110A–1
	Chromium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	31–MAR–10 08:54	033110A–1
	Cobalt	522	ug/L	500	ug/L	104.4	90.0 – 110.0	P	31–MAR–10 08:54	033110A–1
	Copper	524	ug/L	500	ug/L	104.7	90.0 – 110.0	P	31–MAR–10 08:54	033110A–1
	Iron	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	31–MAR–10 08:54	033110A–1
	Lead	522	ug/L	500	ug/L	104.5	90.0 – 110.0	P	31–MAR–10 08:54	033110A–1
	Magnesium	5460	ug/L	5000	ug/L	109.1	90.0 – 110.0	P	31–MAR–10 08:54	033110A–1
	Manganese	531	ug/L	500	ug/L	106.2	90.0 – 110.0	P	31–MAR–10 08:54	033110A–1
	Potassium	2520	ug/L	2500	ug/L	100.7	90.0 – 110.0	P	31–MAR–10 08:54	033110A–1
	Silver	267	ug/L	250	ug/L	106.8	90.0 – 110.0	P	31–MAR–10 08:54	033110A–1
	Sodium	2560	ug/L	2500	ug/L	102.6	90.0 – 110.0	P	31–MAR–10 08:54	033110A–1
	Vanadium	526	ug/L	500	ug/L	105.2	90.0 – 110.0	P	31–MAR–10 08:54	033110A–1
	Zinc	520	ug/L	500	ug/L	103.9	90.0 – 110.0	P	31–MAR–10 08:54	033110A–1
	Arsenic	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	03–MAY–10 11:04	100502–2
	Beryllium	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	03–MAY–10 11:04	100502–2
	Selenium	53.1	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	03–MAY–10 11:04	100502–2
	Thallium	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	03–MAY–10 11:04	100502–2
	Nickel	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	05–MAY–10 18:32	100504–3
CCV01										
	Mercury	5.09	ug/L	5	ug/L	101.8	80.0 – 120.0	AV	23–MAR–10 09:05	032310S1–4
	Aluminum	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	31–MAR–10 09:06	033110A–1
	Antimony	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	31–MAR–10 09:06	033110A–1
	Barium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	31–MAR–10 09:06	033110A–1
	Cadmium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	31–MAR–10 09:06	033110A–1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	31–MAR–10 09:06	033110A–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2264

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	31–MAR–10 09:06	033110A–1
	Cobalt	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	31–MAR–10 09:06	033110A–1
	Copper	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	31–MAR–10 09:06	033110A–1
	Iron	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	31–MAR–10 09:06	033110A–1
	Lead	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	31–MAR–10 09:06	033110A–1
	Magnesium	5210	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	31–MAR–10 09:06	033110A–1
	Manganese	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	31–MAR–10 09:06	033110A–1
	Potassium	5850	ug/L	5000	ug/L	117	90.0 – 110.0	P	31–MAR–10 09:06	033110A–1
	Silver	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	31–MAR–10 09:06	033110A–1
	Sodium	10200	ug/L	10000	ug/L	101.9	90.0 – 110.0	P	31–MAR–10 09:06	033110A–1
	Vanadium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	31–MAR–10 09:06	033110A–1
	Zinc	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	31–MAR–10 09:06	033110A–1
	Arsenic	52	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	03–MAY–10 11:26	100502–2
	Beryllium	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	03–MAY–10 11:26	100502–2
	Selenium	53.5	ug/L	50	ug/L	106.9	90.0 – 110.0	MS	03–MAY–10 11:26	100502–2
	Thallium	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	03–MAY–10 11:26	100502–2
	Nickel	54.8	ug/L	50	ug/L	109.6	90.0 – 110.0	MS	05–MAY–10 18:49	100504–3
CCV02										
	Mercury	5.14	ug/L	5	ug/L	102.7	80.0 – 120.0	AV	23–MAR–10 09:25	032310S1–4
	Aluminum	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	31–MAR–10 09:17	033110A–1
	Antimony	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	31–MAR–10 09:17	033110A–1
	Barium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	31–MAR–10 09:17	033110A–1
	Cadmium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	31–MAR–10 09:17	033110A–1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	31–MAR–10 09:17	033110A–1
	Chromium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	31–MAR–10 09:17	033110A–1
	Cobalt	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	31–MAR–10 09:17	033110A–1
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	31–MAR–10 09:17	033110A–1
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	31–MAR–10 09:17	033110A–1
	Lead	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	31–MAR–10 09:17	033110A–1
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	31–MAR–10 09:17	033110A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2264

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	31–MAR–10 09:17	033110A–1
	Potassium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	31–MAR–10 09:17	033110A–1
	Silver	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	31–MAR–10 09:17	033110A–1
	Sodium	10100	ug/L	10000	ug/L	100.6	90.0 – 110.0	P	31–MAR–10 09:17	033110A–1
	Vanadium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	31–MAR–10 09:17	033110A–1
	Zinc	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	31–MAR–10 09:17	033110A–1
	Arsenic	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	03–MAY–10 12:10	100502–2
	Beryllium	51.8	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	03–MAY–10 12:10	100502–2
	Selenium	53.6	ug/L	50	ug/L	107.2	90.0 – 110.0	MS	03–MAY–10 12:10	100502–2
	Thallium	51.7	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	03–MAY–10 12:10	100502–2
	Nickel	53.5	ug/L	50	ug/L	106.9	90.0 – 110.0	MS	05–MAY–10 19:27	100504–3
CCV03										
	Mercury	5.17	ug/L	5	ug/L	103.5	80.0 – 120.0	AV	23–MAR–10 09:45	032310S1–4
	Aluminum	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	31–MAR–10 09:47	033110A–1
	Antimony	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	31–MAR–10 09:47	033110A–1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	31–MAR–10 09:47	033110A–1
	Cadmium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	31–MAR–10 09:47	033110A–1
	Calcium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	31–MAR–10 09:47	033110A–1
	Chromium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	31–MAR–10 09:47	033110A–1
	Cobalt	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	31–MAR–10 09:47	033110A–1
	Copper	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 09:47	033110A–1
	Iron	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	31–MAR–10 09:47	033110A–1
	Lead	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	31–MAR–10 09:47	033110A–1
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	31–MAR–10 09:47	033110A–1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	31–MAR–10 09:47	033110A–1
	Potassium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	31–MAR–10 09:47	033110A–1
	Silver	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	31–MAR–10 09:47	033110A–1
	Sodium	10100	ug/L	10000	ug/L	100.8	90.0 – 110.0	P	31–MAR–10 09:47	033110A–1
	Vanadium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	31–MAR–10 09:47	033110A–1
	Zinc	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	31–MAR–10 09:47	033110A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2264

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	03–MAY–10 12:50	100502–2
	Beryllium	49.8	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	03–MAY–10 12:50	100502–2
	Selenium	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	03–MAY–10 12:50	100502–2
	Thallium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	03–MAY–10 12:50	100502–2
	Nickel	53.8	ug/L	50	ug/L	107.7	90.0 – 110.0	MS	05–MAY–10 20:09	100504–3
CCV04										
	Mercury	5.21	ug/L	5	ug/L	104.1	80.0 – 120.0	AV	23–MAR–10 10:05	032310S1–4
	Aluminum	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	31–MAR–10 10:16	033110A–1
	Antimony	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	31–MAR–10 10:16	033110A–1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	31–MAR–10 10:16	033110A–1
	Cadmium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	31–MAR–10 10:16	033110A–1
	Calcium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	31–MAR–10 10:16	033110A–1
	Chromium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 10:16	033110A–1
	Cobalt	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	31–MAR–10 10:16	033110A–1
	Copper	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 10:16	033110A–1
	Iron	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	31–MAR–10 10:16	033110A–1
	Lead	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	31–MAR–10 10:16	033110A–1
	Magnesium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	31–MAR–10 10:16	033110A–1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	31–MAR–10 10:16	033110A–1
	Potassium	4970	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	31–MAR–10 10:16	033110A–1
	Silver	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	31–MAR–10 10:16	033110A–1
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	31–MAR–10 10:16	033110A–1
	Vanadium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	31–MAR–10 10:16	033110A–1
	Zinc	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	31–MAR–10 10:16	033110A–1
	Arsenic	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	03–MAY–10 13:07	100502–2
	Beryllium	49.5	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	03–MAY–10 13:07	100502–2
	Selenium	52.5	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	03–MAY–10 13:07	100502–2
	Thallium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	03–MAY–10 13:07	100502–2
CCV05										
	Mercury	4.9	ug/L	5	ug/L	98	80.0 – 120.0	AV	23–MAR–10 10:25	032310S1–4

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2264

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Aluminum	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	31–MAR–10 10:36	033110A–1
	Antimony	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	31–MAR–10 10:36	033110A–1
	Barium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	31–MAR–10 10:36	033110A–1
	Cadmium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31–MAR–10 10:36	033110A–1
	Calcium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	31–MAR–10 10:36	033110A–1
	Chromium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	31–MAR–10 10:36	033110A–1
	Cobalt	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 10:36	033110A–1
	Copper	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	31–MAR–10 10:36	033110A–1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 10:36	033110A–1
	Lead	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 10:36	033110A–1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	31–MAR–10 10:36	033110A–1
	Manganese	500	ug/L	500	ug/L	100	90.0 – 110.0	P	31–MAR–10 10:36	033110A–1
	Potassium	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	31–MAR–10 10:36	033110A–1
	Silver	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	31–MAR–10 10:36	033110A–1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 – 110.0	P	31–MAR–10 10:36	033110A–1
	Vanadium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	31–MAR–10 10:36	033110A–1
	Zinc	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	31–MAR–10 10:36	033110A–1
CCV06										
	Aluminum	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	31–MAR–10 10:58	033110A–1
	Antimony	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	31–MAR–10 10:58	033110A–1
	Barium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	31–MAR–10 10:58	033110A–1
	Cadmium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	31–MAR–10 10:58	033110A–1
	Calcium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	31–MAR–10 10:58	033110A–1
	Chromium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31–MAR–10 10:58	033110A–1
	Cobalt	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	31–MAR–10 10:58	033110A–1
	Copper	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	31–MAR–10 10:58	033110A–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	31–MAR–10 10:58	033110A–1
	Lead	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	31–MAR–10 10:58	033110A–1
	Magnesium	5160	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	31–MAR–10 10:58	033110A–1
	Manganese	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	31–MAR–10 10:58	033110A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2264

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	31–MAR–10 10:58	033110A–1
	Silver	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	31–MAR–10 10:58	033110A–1
	Sodium	10000	ug/L	10000	ug/L	100.2	90.0 – 110.0	P	31–MAR–10 10:58	033110A–1
	Vanadium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	31–MAR–10 10:58	033110A–1
	Zinc	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	31–MAR–10 10:58	033110A–1
CCV07										
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	31–MAR–10 11:19	033110A–1
	Antimony	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31–MAR–10 11:19	033110A–1
	Barium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31–MAR–10 11:19	033110A–1
	Cadmium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 11:19	033110A–1
	Calcium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	31–MAR–10 11:19	033110A–1
	Chromium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31–MAR–10 11:19	033110A–1
	Cobalt	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	31–MAR–10 11:19	033110A–1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	31–MAR–10 11:19	033110A–1
	Iron	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	31–MAR–10 11:19	033110A–1
	Lead	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	31–MAR–10 11:19	033110A–1
	Magnesium	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	31–MAR–10 11:19	033110A–1
	Manganese	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	31–MAR–10 11:19	033110A–1
	Potassium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	31–MAR–10 11:19	033110A–1
	Silver	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	31–MAR–10 11:19	033110A–1
	Sodium	10000	ug/L	10000	ug/L	100.3	90.0 – 110.0	P	31–MAR–10 11:19	033110A–1
	Vanadium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	31–MAR–10 11:19	033110A–1
	Zinc	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 11:19	033110A–1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-2264

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.17	ug/L	.2	ug/L	85	70.0 - 130.0	AV	23-MAR-10 09:03	032310S1-4
	Thallium	1.18	ug/L	1	ug/L	117.9	70.0 - 130.0	MS	03-MAY-10 11:13	100502-2
	Arsenic	5.27	ug/L	5	ug/L	105.3	70.0 - 130.0	MS	03-MAY-10 11:13	100502-2
	Selenium	5.89	ug/L	5	ug/L	117.7	70.0 - 130.0	MS	03-MAY-10 11:13	100502-2
	Beryllium	.544	ug/L	.5	ug/L	108.8	70.0 - 130.0	MS	03-MAY-10 11:13	100502-2
	Nickel	2.45	ug/L	2	ug/L	122.7	70.0 - 130.0	MS	05-MAY-10 18:39	100504-3
PQL01										
	Aluminum	207	ug/L	200	ug/L	103.7	70.0 - 130.0	P	31-MAR-10 08:58	033110A-1
	Iron	105	ug/L	100	ug/L	104.6	70.0 - 130.0	P	31-MAR-10 08:58	033110A-1
	Lead	11.2	ug/L	10	ug/L	111.9	70.0 - 130.0	P	31-MAR-10 08:58	033110A-1
	Magnesium	326	ug/L	300	ug/L	108.7	70.0 - 130.0	P	31-MAR-10 08:58	033110A-1
	Manganese	10.7	ug/L	10	ug/L	106.8	70.0 - 130.0	P	31-MAR-10 08:58	033110A-1
	Potassium	173	ug/L	150	ug/L	115.2	70.0 - 130.0	P	31-MAR-10 08:58	033110A-1
	Silver	5.2	ug/L	5	ug/L	104.1	70.0 - 130.0	P	31-MAR-10 08:58	033110A-1
	Sodium	310	ug/L	300	ug/L	103.4	70.0 - 130.0	P	31-MAR-10 08:58	033110A-1
	Antimony	9.32	ug/L	10	ug/L	93.2	70.0 - 130.0	P	31-MAR-10 08:58	033110A-1
	Barium	5.14	ug/L	5	ug/L	102.8	70.0 - 130.0	P	31-MAR-10 08:58	033110A-1
	Cadmium	5.1	ug/L	5	ug/L	102.1	70.0 - 130.0	P	31-MAR-10 08:58	033110A-1
	Chromium	5	ug/L	5	ug/L	100.1	70.0 - 130.0	P	31-MAR-10 08:58	033110A-1
	Cobalt	5.04	ug/L	5	ug/L	100.8	70.0 - 130.0	P	31-MAR-10 08:58	033110A-1
	Copper	10.1	ug/L	10	ug/L	101	70.0 - 130.0	P	31-MAR-10 08:58	033110A-1
	Vanadium	4.85	ug/L	5	ug/L	96.9	70.0 - 130.0	P	31-MAR-10 08:58	033110A-1
	Zinc	10.1	ug/L	10	ug/L	100.8	70.0 - 130.0	P	31-MAR-10 08:58	033110A-1
	Calcium	209	ug/L	200	ug/L	104.5	70.0 - 130.0	P	31-MAR-10 08:58	033110A-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2264

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 09:01	032310S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 08:55	033110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 08:55	033110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 08:55	033110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 08:55	033110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 08:55	033110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 08:55	033110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 08:55	033110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 08:55	033110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 08:55	033110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 08:55	033110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 08:55	033110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 08:55	033110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 08:55	033110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 08:55	033110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 08:55	033110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 08:55	033110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 08:55	033110A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	03–MAY–10 11:09	100502–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	03–MAY–10 11:09	100502–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	03–MAY–10 11:09	100502–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	03–MAY–10 11:09	100502–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	05–MAY–10 18:35	100504–3
CCB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 09:06	032310S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 09:08	033110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 09:08	033110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 09:08	033110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 09:08	033110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 09:08	033110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 09:08	033110A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2264

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 09:08	033110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 09:08	033110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 09:08	033110A–1
	Lead	3.39	+/–10	J	2.5	10.0	SOL	P	31–MAR–10 09:08	033110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 09:08	033110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 09:08	033110A–1
	Potassium	277.68	+/–250		64.0	250	SOL	P	31–MAR–10 09:08	033110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 09:08	033110A–1
	Sodium	119.53	+/–250	J	70.0	250	SOL	P	31–MAR–10 09:08	033110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 09:08	033110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 09:08	033110A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	03–MAY–10 11:30	100502–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	03–MAY–10 11:30	100502–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	03–MAY–10 11:30	100502–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	03–MAY–10 11:30	100502–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	05–MAY–10 18:52	100504–3
CCB02										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 09:26	032310S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 09:19	033110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 09:19	033110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 09:19	033110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 09:19	033110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 09:19	033110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 09:19	033110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 09:19	033110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 09:19	033110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 09:19	033110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 09:19	033110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 09:19	033110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 09:19	033110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 09:19	033110A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2264

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 09:19	033110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 09:19	033110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 09:19	033110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 09:19	033110A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	03–MAY–10 12:14	100502–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	03–MAY–10 12:14	100502–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	03–MAY–10 12:14	100502–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	03–MAY–10 12:14	100502–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	05–MAY–10 19:30	100504–3
CCB03										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 09:46	032310S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 09:50	033110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 09:50	033110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 09:50	033110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 09:50	033110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 09:50	033110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 09:50	033110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 09:50	033110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 09:50	033110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 09:50	033110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 09:50	033110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 09:50	033110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 09:50	033110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 09:50	033110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 09:50	033110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 09:50	033110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 09:50	033110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 09:50	033110A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	03–MAY–10 12:54	100502–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	03–MAY–10 12:54	100502–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	03–MAY–10 12:54	100502–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2264

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	03–MAY–10 12:54	100502–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	05–MAY–10 20:12	100504–3
CCB04										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 10:06	032310S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 10:18	033110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 10:18	033110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 10:18	033110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 10:18	033110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 10:18	033110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 10:18	033110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 10:18	033110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 10:18	033110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 10:18	033110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 10:18	033110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 10:18	033110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 10:18	033110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 10:18	033110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 10:18	033110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 10:18	033110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 10:18	033110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 10:18	033110A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	03–MAY–10 13:12	100502–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	03–MAY–10 13:12	100502–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	03–MAY–10 13:12	100502–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	03–MAY–10 13:12	100502–2
CCB05										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 10:27	032310S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 10:38	033110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 10:38	033110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 10:38	033110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 10:38	033110A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2264

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 10:38	033110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 10:38	033110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 10:38	033110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 10:38	033110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 10:38	033110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 10:38	033110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 10:38	033110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 10:38	033110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 10:38	033110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 10:38	033110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 10:38	033110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 10:38	033110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 10:38	033110A–1
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 11:00	033110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 11:00	033110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 11:00	033110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 11:00	033110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 11:00	033110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 11:00	033110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 11:00	033110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 11:00	033110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 11:00	033110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 11:00	033110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 11:00	033110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 11:00	033110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 11:00	033110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 11:00	033110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 11:00	033110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 11:00	033110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 11:00	033110A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2264

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 11:21	033110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 11:21	033110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 11:21	033110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 11:21	033110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 11:21	033110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 11:21	033110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 11:21	033110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 11:21	033110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 11:21	033110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 11:21	033110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 11:21	033110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 11:21	033110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 11:21	033110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 11:21	033110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 11:21	033110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 11:21	033110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 11:21	033110A–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2264
Contract: LANL01004
Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202065091								
	Magnesium	8190	ug/kg	+/–28900	U	P	8190	28900
	Manganese	193	ug/kg	+/–963	U	P	193	963
	Potassium	6170	ug/kg	+/–24100	U	P	6170	24100
	Silver	96.3	ug/kg	+/–482	U	P	96.3	482
	Sodium	6740	ug/kg	+/–24100	U	P	6740	24100
	Vanadium	96.3	ug/kg	+/–482	U	P	96.3	482
	Zinc	318	ug/kg	+/–963	U	P	318	963
	Aluminum	6550	ug/kg	+/–19300	U	P	6550	19300
	Barium	96.3	ug/kg	+/–482	U	P	96.3	482
	Lead	241	ug/kg	+/–963	U	P	241	963
	Iron	7710	ug/kg	+/–24100	U	P	7710	24100
	Copper	289	ug/kg	+/–963	U	P	289	963
	Cobalt	145	ug/kg	+/–482	U	P	145	482
	Chromium	145	ug/kg	+/–482	U	P	145	482
	Calcium	7710	ug/kg	+/–24100	U	P	7710	24100
	Cadmium	96.3	ug/kg	+/–482	U	P	96.3	482
	Antimony	318	ug/kg	+/–963	U	P	318	963
1202065101								
	Arsenic	186	ug/kg	+/–929	U	MS	186	929
	Beryllium	18.6	ug/kg	+/–92.9	U	MS	18.6	92.9
	Selenium	465	ug/kg	+/–929	U	MS	465	929
	Thallium	55.8	ug/kg	+/–186	U	MS	55.8	186
1202076770								
	Mercury	3.4	ug/kg	+/–10	U	AV	3.4	10
1202108417								
	Nickel	94.9	ug/kg	+/–380	U	MS	94.9	380

METALS
–4–
Interference Check Sample

SDG No: 10–2264

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	505000	ug/L	500000	ug/L	101	80.0 – 120.0	31–MAR–10 09:00	033110A–1
	Antimony	1.65	ug/L					31–MAR–10 09:00	033110A–1
	Barium	0.194	ug/L					31–MAR–10 09:00	033110A–1
	Cadmium	–1.75	ug/L					31–MAR–10 09:00	033110A–1
	Calcium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	31–MAR–10 09:00	033110A–1
	Chromium	1.01	ug/L					31–MAR–10 09:00	033110A–1
	Cobalt	–6.3	ug/L					31–MAR–10 09:00	033110A–1
	Copper	4.73	ug/L					31–MAR–10 09:00	033110A–1
	Iron	192000	ug/L	200000	ug/L	95.9	80.0 – 120.0	31–MAR–10 09:00	033110A–1
	Lead	–4.8	ug/L					31–MAR–10 09:00	033110A–1
	Magnesium	489000	ug/L	500000	ug/L	97.7	80.0 – 120.0	31–MAR–10 09:00	033110A–1
	Manganese	4.07	ug/L					31–MAR–10 09:00	033110A–1
	Potassium	–150.0	ug/L					31–MAR–10 09:00	033110A–1
	Silver	–1.07	ug/L					31–MAR–10 09:00	033110A–1
	Sodium	44.9	ug/L					31–MAR–10 09:00	033110A–1
	Vanadium	–1.19	ug/L					31–MAR–10 09:00	033110A–1
	Zinc	8.88	ug/L					31–MAR–10 09:00	033110A–1
ICSAB01									
	Aluminum	509000	ug/L	500000	ug/L	102	80.0 – 120.0	31–MAR–10 09:02	033110A–1
	Antimony	510	ug/L	500	ug/L	102	80.0 – 120.0	31–MAR–10 09:02	033110A–1
	Barium	506	ug/L	500	ug/L	101	80.0 – 120.0	31–MAR–10 09:02	033110A–1
	Cadmium	484	ug/L	500	ug/L	96.9	80.0 – 120.0	31–MAR–10 09:02	033110A–1
	Calcium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	31–MAR–10 09:02	033110A–1
	Chromium	491	ug/L	500	ug/L	98.3	80.0 – 120.0	31–MAR–10 09:02	033110A–1
	Cobalt	449	ug/L	500	ug/L	89.8	80.0 – 120.0	31–MAR–10 09:02	033110A–1
	Copper	549	ug/L	500	ug/L	110	80.0 – 120.0	31–MAR–10 09:02	033110A–1
	Iron	193000	ug/L	200000	ug/L	96.6	80.0 – 120.0	31–MAR–10 09:02	033110A–1
	Lead	479	ug/L	500	ug/L	95.9	80.0 – 120.0	31–MAR–10 09:02	033110A–1
	Magnesium	496000	ug/L	500000	ug/L	99.3	80.0 – 120.0	31–MAR–10 09:02	033110A–1

METALS
–4–
Interference Check Sample

SDG No: 10–2264

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Manganese	492	ug/L	500	ug/L	98.5	80.0 – 120.0	31–MAR–10 09:02	033110A–1
	Potassium	5560	ug/L	5000	ug/L	111	80.0 – 120.0	31–MAR–10 09:02	033110A–1
	Silver	270	ug/L	250	ug/L	108	80.0 – 120.0	31–MAR–10 09:02	033110A–1
	Sodium	5450	ug/L	5000	ug/L	109	80.0 – 120.0	31–MAR–10 09:02	033110A–1
	Vanadium	520	ug/L	500	ug/L	104	80.0 – 120.0	31–MAR–10 09:02	033110A–1
	Zinc	501	ug/L	500	ug/L	100	80.0 – 120.0	31–MAR–10 09:02	033110A–1

METALS
–4–
Interference Check Sample

SDG No: 10–2264

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.479	ug/L					03–MAY–10 11:17	100502–2
	Beryllium	0.086	ug/L					03–MAY–10 11:17	100502–2
	Selenium	–2.81	ug/L					03–MAY–10 11:17	100502–2
	Thallium	0.013	ug/L					03–MAY–10 11:17	100502–2
ICSAB01									
	Arsenic	20.0	ug/L	20	ug/L	100	80.0 – 120.0	03–MAY–10 11:22	100502–2
	Beryllium	19.7	ug/L	20	ug/L	98.5	80.0 – 120.0	03–MAY–10 11:22	100502–2
	Selenium	18.5	ug/L	20	ug/L	92.6	80.0 – 120.0	03–MAY–10 11:22	100502–2
	Thallium	19.7	ug/L	20	ug/L	98.6	80.0 – 120.0	03–MAY–10 11:22	100502–2

METALS
–4–
Interference Check Sample

SDG No: 10–2264

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Nickel	2.64	ug/L					05–MAY–10 18:42	100504–3
ICSAB01									
	Nickel	19.9	ug/L	23.31	ug/L	85.4	80.0 – 120.0	05–MAY–10 18:45	100504–3

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–2264 **Client ID** RE46–10–13203S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 81

Sample ID: 248702001 **Spike ID:** 1202065094

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		13500000		4340000		599000	1520	N/A	P
Antimony	ug/kg	75–125	43000		403	U	59900	71.8	N	P
Barium	ug/kg	75–125	171000		56000		59900	191	N	P
Cadmium	ug/kg	75–125	58000		192	J	59900	96.4		P
Calcium	ug/kg		3460000		7770000		599000	–719	N/A	P
Chromium	ug/kg	75–125	70200		5640		59900	108		P
Cobalt	ug/kg	75–125	62800		2760		59900	100		P
Copper	ug/kg	75–125	240000		15100		59900	375	N	P
Iron	ug/kg		13600000		6420000		599000	1200	N/A	P
Lead	ug/kg	75–125	81100		14800		59900	111		P
Magnesium	ug/kg	75–125	2760000		1030000		599000	289	N	P
Manganese	ug/kg	75–125	363000		194000		59900	282	N	P
Potassium	ug/kg	75–125	2380000		786000		599000	266	N	P
Silver	ug/kg	75–125	58300		122	U	59900	97.3		P
Sodium	ug/kg	75–125	808000		108000		599000	117		P
Vanadium	ug/kg	75–125	82800		11300		59900	119		P
Zinc	ug/kg	75–125	137000		42600		59900	157	N	P

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–2264 **Client ID** RE46–10–13203SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 81

Sample ID: 248702001 **Spike ID:** 1202065096

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		15900000		4340000		552000	2090	N/A	P
Antimony	ug/kg	75–125	34600		403	U	55200	62.6	N	P
Barium	ug/kg	75–125	176000		56000		55200	217	N	P
Cadmium	ug/kg	75–125	53100		192	J	55200	95.8		P
Calcium	ug/kg		3380000		7770000		552000	–796	N/A	P
Chromium	ug/kg	75–125	68100		5640		55200	113		P
Cobalt	ug/kg	75–125	57700		2760		55200	99.6		P
Copper	ug/kg	75–125	81300		15100		55200	120		P
Iron	ug/kg		15900000		6420000		552000	1710	N/A	P
Lead	ug/kg	75–125	73800		14800		55200	107		P
Magnesium	ug/kg	75–125	3270000		1030000		552000	405	N	P
Manganese	ug/kg	75–125	349000		194000		55200	281	N	P
Potassium	ug/kg	75–125	2800000		786000		552000	366	N	P
Silver	ug/kg	75–125	54000		122	U	55200	97.7		P
Sodium	ug/kg	75–125	731000		108000		552000	113		P
Vanadium	ug/kg	75–125	81800		11300		55200	128	N	P
Zinc	ug/kg	75–125	122000		42600		55200	144	N	P

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–2264 **Client ID** RE46–10–13203S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 81

Sample ID: 248702001 **Spike ID:** 1202065104

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	10800		1920		8910	100		MS
Beryllium	ug/kg	75–125	6000		763		5570	94		MS
Nickel	ug/kg	75–125	11400		8440		5940	49.3	N	MS
Selenium	ug/kg	75–125	1910		586	U	2230	85.5		MS
Thallium	ug/kg	75–125	11900		217	J	11100	105		MS

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–2264 **Client ID** RE46–10–13203SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 81

Sample ID: 248702001 **Spike ID:** 1202065106

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	14100		1920		9520	128	N	MS
Beryllium	ug/kg	75–125	7030		763		5950	105		MS
Nickel	ug/kg	75–125	11800		8440		6020	55.1	N	MS
Selenium	ug/kg	75–125	2190		586	U	2380	92		MS
Thallium	ug/kg	75–125	13700		217	J	11900	114		MS

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–2264 **Client ID** RE46–10–13203S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 81

Sample ID: 248702001 **Spike ID:** 1202076773

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	227		72		146	107		AV

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–2264 **Client ID** RE46–10–13203SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 81

Sample ID: 248702001 **Spike ID:** 1202076775

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	198		72		125	101		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2264

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13203D

Sample ID: 248702001 **Duplicate ID:** 1202065093 **Percent Solids for Dup:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	4340000		6430000		38.9	*	P
Antimony	ug/kg		403	U	345	U			P
Barium	ug/kg	+/–20%	56000		88500		45	*	P
Cadmium	ug/kg	+/–523	192	J	878		128	*	P
Calcium	ug/kg	+/–20%	7770000		2700000		97	*	P
Chromium	ug/kg	+/–20%	5640		9460		50.6	*	P
Cobalt	ug/kg	+/–20%	2760		4180		41.2	*	P
Copper	ug/kg	+/–20%	15100		34200		77.8	*	P
Iron	ug/kg	+/–20%	6420000		10300000		46	*	P
Lead	ug/kg	+/–20%	14800		23200		44.5	*	P
Magnesium	ug/kg	+/–20%	1030000		1470000		34.7	*	P
Manganese	ug/kg	+/–20%	194000		240000		21.5	*	P
Potassium	ug/kg	+/–20%	786000		1230000		44.2	*	P
Silver	ug/kg		122	U	105	U			P
Sodium	ug/kg	+/–26100	108000		166000		42.6	*	P
Vanadium	ug/kg	+/–20%	11300		18200		47	*	P
Zinc	ug/kg	+/–20%	42600		75200		55.4	*	P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2264

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13203SD

Sample ID: 1202065094 **Duplicate ID:** 1202065096 **Percent Solids for Dup:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	13500000		15900000		16.4		P
Antimony	ug/kg	+/–20	43000		34600		21.9	*	P
Barium	ug/kg	+/–20	171000		176000		3.12		P
Cadmium	ug/kg	+/–20	58000		53100		8.84		P
Calcium	ug/kg	+/–20	3460000		3380000		2.39		P
Chromium	ug/kg	+/–20	70200		68100		3.13		P
Cobalt	ug/kg	+/–20	62800		57700		8.39		P
Copper	ug/kg	+/–20	240000		81300		98.7	*	P
Iron	ug/kg	+/–20	13600000		15900000		15.5		P
Lead	ug/kg	+/–20	81100		73800		9.42		P
Magnesium	ug/kg	+/–20	2760000		3270000		16.8		P
Manganese	ug/kg	+/–20	363000		349000		3.9		P
Potassium	ug/kg	+/–20	2380000		2800000		16.4		P
Silver	ug/kg	+/–20	58300		54000		7.77		P
Sodium	ug/kg	+/–20	808000		731000		10		P
Vanadium	ug/kg	+/–20	82800		81800		1.14		P
Zinc	ug/kg	+/–20	137000		122000		11.5		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-2264

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46-10-13203D

Sample ID: 248702001 **Duplicate ID:** 1202065103 **Percent Solids for Dup:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/-1120	1920		2150		11.2		MS
Beryllium	ug/kg	+/-20%	763		734		3.82		MS
Nickel	ug/kg	+/-20%	8440		6850		20.8	*	MS
Selenium	ug/kg		586	U	558	U			MS
Thallium	ug/kg	+/-223	217	J	192	J	12.1		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2264

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13203SD

Sample ID: 1202065104 **Duplicate ID:** 1202065106 **Percent Solids for Dup:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	10800		14100		26.3	*	MS
Beryllium	ug/kg	+/–20	6000		7030		15.8		MS
Nickel	ug/kg	+/–20	11400		11800		3.37		MS
Selenium	ug/kg	+/–20	1910		2190		13.9		MS
Thallium	ug/kg	+/–20	11900		13700		14.1		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2264

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13203D

Sample ID: 248702001 **Duplicate ID:** 1202076772 **Percent Solids for Dup:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20%	72		77.7		7.52		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2264

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13203SD

Sample ID: 1202076773 **Duplicate ID:** 1202076775 **Percent Solids for Dup:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	227		198		13.6		AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2264

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202065092								
	Aluminum	ug/kg	10500000	8480000		80.7	56–144	P
	Antimony	ug/kg	173000	114000		66.1	71–130	P
	Barium	ug/kg	198000	181000		91.5	80–120	P
	Cadmium	ug/kg	60700	57400		94.6	81–120	P
	Calcium	ug/kg	9870000	9360000		94.8	83–117	P
	Chromium	ug/kg	236000	228000		96.6	80–120	P
	Cobalt	ug/kg	91200	87700		96.2	81–120	P
	Copper	ug/kg	174000	177000		101	81–118	P
	Iron	ug/kg	18000000	17500000		97.5	51–149	P
	Lead	ug/kg	86000	84400		98.1	79–121	P
	Magnesium	ug/kg	4000000	3630000		90.8	79–122	P
	Manganese	ug/kg	558000	523000		93.7	81–119	P
	Potassium	ug/kg	4300000	3910000		91	74–127	P
	Silver	ug/kg	30100	28700		95.3	66–134	P
	Sodium	ug/kg	1020000	961000		94.2	74–127	P
	Vanadium	ug/kg	115000	116000		101	79–121	P
	Zinc	ug/kg	594000	557000		93.8	80–121	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2264

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202065102								
	Arsenic	ug/kg	104000	110000		106	78-123	MS
	Beryllium	ug/kg	77600	80100		103	84-116	MS
	Selenium	ug/kg	286000	311000		109	77-123	MS
	Thallium	ug/kg	121000	123000		102	78-122	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2264

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202076771								
	Mercury	ug/kg	5150	5290		103	71.6–128.3	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2264

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202108418								
	Nickel	ug/kg	134000	141000		105	78–123	MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2264 **Client ID** RE46-10-13203L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248702001 **Serial Dilution ID:** 1202065095

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	35500		37000		4.23		10	P
Antimony	3.3	U	16.5	U				P
Barium	459		464		.98		10	P
Cadmium	1.58	J	5	U	100			P
Calcium	63700		65500		2.83		10	P
Chromium	46.2		46.7		.974			P
Cobalt	22.6		22.6	J	.221			P
Copper	123		120		2.85			P
Iron	52600		54500		3.61		10	P
Lead	121		132		8.68			P
Magnesium	8470		8800		3.9		10	P
Manganese	1590		1620		1.89		10	P
Potassium	6440		6850		6.37		10	P
Silver	1	U	5	U				P
Sodium	883		905	J	2.49			P
Vanadium	92.2		93.5		1.41		10	P
Zinc	349		347		.716		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2264 **Client ID** RE46–10–13203L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248702001 **Serial Dilution ID:** 1202065105

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	8.21		5.4	J	34.2			MS
Beryllium	3.26		3.49		6.9			MS
Nickel	34.4		38.3		11.3			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.927	J	1.5	U	100			MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2264 **Client ID** RE46–10–13203L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248702001 **Serial Dilution ID:** 1202076774

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	1.14		1.04		8.77			AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2264 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	962594						
1202065091	MB for batch 962594	MB	S	16-MAR-10	.519g	50mL	
1202065092	LCS for batch 962594	LCS	S	16-MAR-10	.516g	50mL	
1202065094	RE46-10-13203S	MS	S	16-MAR-10	.513g	50mL	
1202065096	RE46-10-13203SD	MSD	S	16-MAR-10	.557g	50mL	
1202065093	RE46-10-13203D	DUP	S	16-MAR-10	.588g	50mL	
248702001	RE46-10-13203	SAMPLE	S	16-MAR-10	.504g	50mL	
248702002	RE46-10-13202	SAMPLE	S	16-MAR-10	.5g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2264 **Method Type**: MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 962599							
1202065101	MB for batch 962599	MB	S	17-MAR-10	.538g	50mL	
1202065102	LCS for batch 962599	LCS	S	17-MAR-10	.512g	50mL	
1202065104	RE46-10-13203S	MS	S	17-MAR-10	.552g	50mL	
1202065106	RE46-10-13203SD	MSD	S	17-MAR-10	.517g	50mL	
1202065103	RE46-10-13203D	DUP	S	17-MAR-10	.551g	50mL	
248702001	RE46-10-13203	SAMPLE	S	17-MAR-10	.525g	50mL	
248702002	RE46-10-13202	SAMPLE	S	17-MAR-10	.533g	50mL	
Batch Number 980582							
1202108417	MB for batch 980582	MB	S	04-MAY-10	.527g	50mL	
1202108418	LCS for batch 980582	LCS	S	04-MAY-10	.503g	50mL	
1202065104	RE46-10-13203S	MS	S	04-MAY-10	.518g	50mL	
1202065106	RE46-10-13203SD	MSD	S	04-MAY-10	.511g	50mL	
1202065103	RE46-10-13203D	DUP	S	04-MAY-10	.523g	50mL	
248702001	RE46-10-13203	SAMPLE	S	04-MAY-10	.502g	50mL	
248702002	RE46-10-13202	SAMPLE	S	04-MAY-10	.547g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2264 **Method Type**: AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	967581						
1202076770	MB for batch 967581	MB	S	22-MAR-10	.6g	30mL	
1202076771	LCS for batch 967581	LCS	S	22-MAR-10	.201g	30mL	
1202076773	RE46-10-13203S	MS	S	22-MAR-10	.507g	30mL	
1202076775	RE46-10-13203SD	MSD	S	22-MAR-10	.589g	30mL	
1202076772	RE46-10-13203D	DUP	S	22-MAR-10	.525g	30mL	
248702001	RE46-10-13203	SAMPLE	S	22-MAR-10	.586g	30mL	
248702002	RE46-10-13202	SAMPLE	S	22-MAR-10	.511g	30mL	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 03-MAY-10 **End Date:** 03-MAY-10

Client Sdg: 10-2264
Method MS
Data File: 100502-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	10:51:00			X		X													X			X		
S10	1	10:56:00			X		X													X			X		
S100	1	11:00:00			X		X													X			X		
ICV01	1	11:04:00			X		X													X			X		
ICB01	1	11:09:00			X		X													X			X		
CRDL01	1	11:13:00			X		X													X			X		
ICSA01	1	11:17:00			X		X													X			X		
ICSAB01	1	11:22:00			X		X													X			X		
CCV01	1	11:26:00			X		X													X			X		
CCB01	1	11:30:00			X		X													X			X		
1202065101	2	11:35:00			X		X													X			X		
1202065102	40	11:39:00			X		X													X			X		
ZZZZZZ	2	11:44:00																							
ZZZZZZ	2	11:48:00																							
ZZZZZZ	2	11:52:00																							
ZZZZZZ	2	11:57:00																							
ZZZZZZ	2	12:01:00																							
ZZZZZZ	2	12:06:00																							
CCV02	1	12:10:00			X		X													X			X		
CCB02	1	12:14:00			X		X													X			X		
ZZZZZZ	2	12:19:00																							
ZZZZZZ	2	12:23:00																							
ZZZZZZ	2	12:28:00																							
248702001	2	12:32:00			X		X													X			X		
1202065103	2	12:36:00			X		X													X			X		
1202065104	2	12:41:00			X		X													X			X		
1202065106	2	12:45:00			X		X													X			X		
CCV03	1	12:50:00			X		X													X			X		
CCB03	1	12:54:00			X		X													X			X		
1202065105	10	12:58:00			X		X													X			X		
248702002	2	13:03:00			X		X													X			X		
CCV04	1	13:07:00			X		X													X			X		
CCB04	1	13:12:00			X		X													X			X		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 05-MAY-10 **End Date:** 05-MAY-10

Client Sdg: 10-2264
Method MS
Data File: 100504-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	18:22:00																X							
S10	1	18:25:00																X							
S100	1	18:28:00																X							
ICV01	1	18:32:00																X							
ICB01	1	18:35:00																X							
CRDL01	1	18:39:00																X							
ICSA01	1	18:42:00																X							
ICSAB01	1	18:45:00																X							
CCV01	1	18:49:00																X							
CCB01	1	18:52:00																X							
1202108417	2	18:56:00																X							
1202108418	40	19:00:00																X							
ZZZZZZ	2	19:03:00																							
ZZZZZZ	2	19:07:00																							
ZZZZZZ	2	19:11:00																							
ZZZZZZ	2	19:15:00																							
ZZZZZZ	2	19:19:00																							
ZZZZZZ	2	19:23:00																							
CCV02	1	19:27:00																X							
CCB02	1	19:30:00																X							
ZZZZZZ	2	19:34:00																							
ZZZZZZ	2	19:38:00																							
ZZZZZZ	2	19:41:00																							
248702001	2	19:45:00																X							
1202065103	2	19:49:00																X							
1202065104	2	19:53:00																X							
1202065106	2	19:57:00																X							
1202065105	10	20:01:00																X							
248702002	2	20:05:00																X							
CCV03	1	20:09:00																X							
CCB03	1	20:12:00																X							

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 23-MAR-10 **End Date:** 23-MAR-10

Client Sdg: 10-2264
Method AV
Data File: 032310S1-4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	08:50:00															X								
S0.2	1	08:51:00															X								
S0.5	1	08:53:00															X								
S2.0	1	08:55:00															X								
S5.0	1	08:56:00															X								
S10.0	1	08:58:00															X								
ICV01	1	09:00:00															X								
ICB01	1	09:01:00															X								
ZZZZZZ	1	09:03:00																							
CCV01	1	09:05:00															X								
CCB01	1	09:06:00															X								
ZZZZZZ	1	09:08:00																							
ZZZZZZ	1	09:10:00																							
ZZZZZZ	1	09:11:00																							
ZZZZZZ	1	09:13:00																							
ZZZZZZ	1	09:15:00																							
ZZZZZZ	1	09:16:00																							
ZZZZZZ	1	09:18:00																							
ZZZZZZ	1	09:20:00																							
ZZZZZZ	1	09:21:00																							
ZZZZZZ	5	09:23:00																							
CCV02	1	09:25:00															X								
CCB02	1	09:26:00															X								
ZZZZZZ	1	09:28:00																							
ZZZZZZ	1	09:30:00																							
ZZZZZZ	1	09:31:00																							
ZZZZZZ	1	09:33:00																							
ZZZZZZ	1	09:35:00																							
ZZZZZZ	1	09:36:00																							
ZZZZZZ	1	09:38:00																							
ZZZZZZ	1	09:40:00																							
ZZZZZZ	1	09:41:00																							
ZZZZZZ	1	09:43:00																							
CCV03	1	09:45:00															X								
CCB03	1	09:46:00															X								
ZZZZZZ	1	09:48:00																							
ZZZZZZ	1	09:50:00																							
ZZZZZZ	1	09:51:00																							
ZZZZZZ	1	09:53:00																							
ZZZZZZ	1	09:55:00																							

Metals
-14-
Analysis Run Log

| Samp No. | D/F | Run Time | | |

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 31–MAR–10 **End Date:** 31–MAR–10

Client Sdg: 10–2264
Method P
Data File: 033110A–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	08:43:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
S0.1	1	08:46:44		X		X		X		X	X	X		X		X			X		X			X	X
S0.5	1	08:48:41	X	X		X		X	X	X	X	X		X	X	X			X		X			X	X
SCAL	1	08:50:54	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
S10	1	08:53:12	X						X				X		X							X			
ICV01	1	08:54:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICB01	1	08:55:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
PQL01	1	08:58:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICSA01	1	09:00:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICSAB01	1	09:02:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR01	1	09:03:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR02	1	09:04:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV01	1	09:06:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB01	1	09:08:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV02	1	09:17:40	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB02	1	09:19:39	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	09:22:50																							
ZZZZZZ	1	09:25:47																							
ZZZZZZ	1	09:27:46																							
ZZZZZZ	1	09:30:43																							
ZZZZZZ	1	09:33:40																							
ZZZZZZ	5	09:35:39																							
ZZZZZZ	1	09:38:49																							
ZZZZZZ	1	09:41:45																							
ZZZZZZ	1	09:44:55																							
CCV03	1	09:47:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB03	1	09:50:06	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	10:00:18																							
ZZZZZZ	1	10:03:16																							
ZZZZZZ	1	10:05:15																							
ZZZZZZ	1	10:08:06																							
ZZZZZZ	1	10:11:11																							
ZZZZZZ	5	10:13:11																							
CCV04	1	10:16:08	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB04	1	10:18:09	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	10:21:19																							
ZZZZZZ	1	10:24:27																							
ZZZZZZ	1	10:27:18																							
ZZZZZZ	1	10:30:09																							
ZZZZZZ	1	10:33:14																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
CCV05	1	10:36:06	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB05	1	10:38:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202065091	1	10:41:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202065092	1	10:44:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
248702001	1	10:45:11	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202065093	1	10:47:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202065094	1	10:49:36	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202065096	1	10:50:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202065095	5	10:51:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	10:53:55																							
ZZZZZZ	1	10:56:08																							
CCV06	1	10:58:06	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB06	1	11:00:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	11:03:03																							
ZZZZZZ	1	11:05:03																							
ZZZZZZ	1	11:07:07																							
ZZZZZZ	1	11:09:12																							
ZZZZZZ	1	11:11:12																							
ZZZZZZ	1	11:13:11																							
ZZZZZZ	1	11:15:11																							
248702002	1	11:17:10	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV07	1	11:19:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB07	1	11:21:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2264

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2264

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2264

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2264
Contract: LANL01004
Instrument: OPTIMA4
Effective Dates: 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2264
Contract: LANL01004
Instrument: OPTIMA4
Effective Dates: 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2264
Effective Dates: 22-MAR-10

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2264
Effective Dates: 22-MAR-10

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2264
Effective Dates: 22-MAR-10

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2264
Effective Dates: 22-MAR-10

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–2264

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2264

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 050510

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

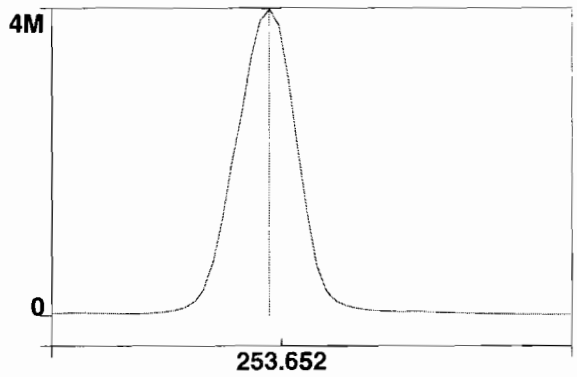

Intensity: 4292189.5 cps
Conc:

1

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Analysis Begun

Start Time: 3/31/2010 8:43:46 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110A
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/31/2010 8:43:47**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	149659.0	149659.0	99.8	%	08:44:18
1	Al 396.153Radial†	-74.0	-74.2	[0.00]	µg/L	08:44:38
1	Ca 317.933Radial†	671.4	673.0	[0.00]	µg/L	08:44:38
1	Fe 238.204 Radial†	126.9	127.2	[0.00]	µg/L	08:44:38
1	K 766.490 Radial†	1445.4	1449.0	[0.00]	µg/L	08:44:18
1	Mg 279.077 IEC†	168.6	169.0	[0.00]	µg/L	08:44:38
1	Na 589.592 Radial†	1117.8	1120.5	[0.00]	µg/L	08:44:18
1	Sr 421.552†	-199.0	-199.5	[0.00]	µg/L	08:44:18
1	Sc 361.383	1808766.6	1808766.6	100.92	%	08:45:26
1	Y 371.029	1088104.3	1088104.3	100.88	%	08:45:26
1	Ag 328.068†	3990.8	3954.4	[0.00]	µg/L	08:45:28
1	As 188.979†	-21.2	-21.0	[0.00]	µg/L	08:45:48
1	B 249.677†	3366.0	3335.2	[0.00]	µg/L	08:45:28
1	Ba 233.527†	-153.2	-151.8	[0.00]	µg/L	08:45:48
1	Be 313.107†	-904.3	-896.1	[0.00]	µg/L	08:45:28
1	Cd 226.502†	-114.4	-113.4	[0.00]	µg/L	08:45:48
1	Co 228.616†	-180.3	-178.6	[0.00]	µg/L	08:45:48
1	Cr 267.716†	173.1	171.5	[0.00]	µg/L	08:45:48
1	Cu 324.752†	3060.5	3032.6	[0.00]	µg/L	08:45:28
1	Mn 257.610†	210.9	208.9	[0.00]	µg/L	08:45:48
1	Mo 202.031†	-40.3	-39.9	[0.00]	µg/L	08:45:48
1	Ni 231.604†	-110.6	-109.6	[0.00]	µg/L	08:45:48
1	P 214.914†	-36.8	-36.5	[0.00]	µg/L	08:45:48
1	Pb 220.353†	67.8	67.2	[0.00]	µg/L	08:45:48
1	S 181.975 Axial†	95.1	94.3	[0.00]	µg/L	08:45:48
1	Sb 206.836†	84.0	83.2	[0.00]	µg/L	08:45:48
1	Se 196.026†	24.8	24.6	[0.00]	µg/L	08:45:48
1	SiO2†	1800.2	1783.8	[0.00]	µg/L	08:45:48
1	Si 251.611†	978.3	969.4	[0.00]	µg/L	08:45:28
1	Sn 189.927†	-6.5	-6.4	[0.00]	µg/L	08:45:48
1	Ti 334.940†	1055.4	1045.7	[0.00]	µg/L	08:45:28
1	Tl 190.801†	-124.3	-123.1	[0.00]	µg/L	08:45:48
1	U 409.014†	-371.9	-368.5	[0.00]	µg/L	08:45:28
1	V 292.402†	393.6	390.0	[0.00]	µg/L	08:45:28
1	Zn 213.857†	584.3	579.0	[0.00]	µg/L	08:45:48
2	Sc RADIAL	149277.7	149277.7	99.5	%	08:44:40
2	Al 396.153Radial†	-64.9	-65.2	[0.00]	µg/L	08:45:00
2	Ca 317.933Radial†	608.7	611.7	[0.00]	µg/L	08:45:00
2	Fe 238.204 Radial†	145.7	146.4	[0.00]	µg/L	08:45:00
2	K 766.490 Radial†	1684.9	1693.3	[0.00]	µg/L	08:44:40
2	Mg 279.077 IEC†	167.2	168.0	[0.00]	µg/L	08:45:00
2	Na 589.592 Radial†	990.6	995.6	[0.00]	µg/L	08:44:40
2	Sr 421.552†	-277.8	-279.2	[0.00]	µg/L	08:44:40
2	Sc 361.383	1779001.4	1779001.4	99.260	%	08:45:50
2	Y 371.029	1070661.1	1070661.1	99.267	%	08:45:50
2	Ag 328.068†	4021.6	4051.5	[0.00]	µg/L	08:45:52
2	As 188.979†	-6.7	-6.7	[0.00]	µg/L	08:46:12

2	B 249.677†	3362.9	3388.0	[0.00]	µg/L	08:45:52
2	Ba 233.527†	-125.2	-126.2	[0.00]	µg/L	08:46:12
2	Be 313.107†	-985.5	-992.8	[0.00]	µg/L	08:45:52
2	Cd 226.502†	-105.3	-106.1	[0.00]	µg/L	08:46:12
2	Co 228.616†	-169.5	-170.8	[0.00]	µg/L	08:46:12
2	Cr 267.716†	183.8	185.1	[0.00]	µg/L	08:46:12
2	Cu 324.752†	2966.6	2988.7	[0.00]	µg/L	08:45:52
2	Mn 257.610†	183.6	184.9	[0.00]	µg/L	08:46:12
2	Mo 202.031†	-37.5	-37.8	[0.00]	µg/L	08:46:12
2	Ni 231.604†	-88.6	-89.2	[0.00]	µg/L	08:46:12
2	P 214.914†	-26.8	-27.0	[0.00]	µg/L	08:46:12
2	Pb 220.353†	65.9	66.4	[0.00]	µg/L	08:46:12
2	S 181.975 Axial†	88.8	89.5	[0.00]	µg/L	08:46:12
2	Sb 206.836†	83.0	83.6	[0.00]	µg/L	08:46:12
2	Se 196.026†	19.2	19.4	[0.00]	µg/L	08:46:12
2	SiO2†	1783.8	1797.1	[0.00]	µg/L	08:46:12
2	Si 251.611†	926.4	933.3	[0.00]	µg/L	08:45:52
2	Sn 189.927†	0.7	0.7	[0.00]	µg/L	08:46:12
2	Ti 334.940†	943.8	950.8	[0.00]	µg/L	08:45:52
2	Tl 190.801†	-117.9	-118.7	[0.00]	µg/L	08:46:12
2	U 409.014†	-307.8	-310.1	[0.00]	µg/L	08:45:52
2	V 292.402†	296.9	299.1	[0.00]	µg/L	08:45:52
2	Zn 213.857†	597.0	601.4	[0.00]	µg/L	08:46:12
3	Sc RADIAL	151144.5	151144.5	101	%	08:45:02
3	Al 396.153Radial†	-83.0	-82.4	[0.00]	µg/L	08:45:22
3	Ca 317.933Radial†	618.8	614.2	[0.00]	µg/L	08:45:22
3	Fe 238.204 Radial†	139.9	138.9	[0.00]	µg/L	08:45:22
3	K 766.490 Radial†	1595.0	1583.2	[0.00]	µg/L	08:45:02
3	Mg 279.077 IEC†	181.0	179.6	[0.00]	µg/L	08:45:22
3	Na 589.592 Radial†	1246.9	1237.6	[0.00]	µg/L	08:45:02
3	Sr 421.552†	-290.2	-288.1	[0.00]	µg/L	08:45:02
3	Sc 361.383	1789002.5	1789002.5	99.818	%	08:46:14
3	Y 371.029	1076950.8	1076950.8	99.850	%	08:46:14
3	Ag 328.068†	3771.6	3778.4	[0.00]	µg/L	08:46:16
3	As 188.979†	-13.6	-13.7	[0.00]	µg/L	08:46:36
3	B 249.677†	3480.5	3486.8	[0.00]	µg/L	08:46:16
3	Ba 233.527†	-136.7	-136.9	[0.00]	µg/L	08:46:36
3	Be 313.107†	-1158.8	-1160.9	[0.00]	µg/L	08:46:16
3	Cd 226.502†	-109.6	-109.8	[0.00]	µg/L	08:46:36
3	Co 228.616†	-165.1	-165.4	[0.00]	µg/L	08:46:36
3	Cr 267.716†	185.1	185.5	[0.00]	µg/L	08:46:36
3	Cu 324.752†	2905.8	2911.1	[0.00]	µg/L	08:46:16
3	Mn 257.610†	185.0	185.3	[0.00]	µg/L	08:46:36
3	Mo 202.031†	-31.5	-31.6	[0.00]	µg/L	08:46:36
3	Ni 231.604†	-93.8	-94.0	[0.00]	µg/L	08:46:36
3	P 214.914†	-6.4	-6.5	[0.00]	µg/L	08:46:36
3	Pb 220.353†	52.0	52.1	[0.00]	µg/L	08:46:36
3	S 181.975 Axial†	92.8	92.9	[0.00]	µg/L	08:46:36
3	Sb 206.836†	75.9	76.1	[0.00]	µg/L	08:46:36
3	Se 196.026†	18.8	18.9	[0.00]	µg/L	08:46:36
3	SiO2†	1761.4	1764.6	[0.00]	µg/L	08:46:36
3	Si 251.611†	879.9	881.5	[0.00]	µg/L	08:46:16
3	Sn 189.927†	-1.7	-1.7	[0.00]	µg/L	08:46:36
3	Ti 334.940†	912.6	914.2	[0.00]	µg/L	08:46:16
3	Tl 190.801†	-108.3	-108.5	[0.00]	µg/L	08:46:36
3	U 409.014†	-276.3	-276.8	[0.00]	µg/L	08:46:16
3	V 292.402†	227.5	227.9	[0.00]	µg/L	08:46:16
3	Zn 213.857†	592.5	593.5	[0.00]	µg/L	08:46:36

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1792256.8	15147.09	0.85%	100.00	%
Sc RADIAL	150027.1	986.34	0.66%	100	%
Y 371.029	1078572.0	8833.87	0.82%	100.00	%
Ag 328.068†	3928.1	138.43	3.52%	[0.00]	µg/L
Al 396.153Radial†	-73.9	8.57	11.59%	[0.00]	µg/L
As 188.979†	-13.8	7.15	51.81%	[0.00]	µg/L
B 249.677†	3403.3	76.94	2.26%	[0.00]	µg/L
Ba 233.527†	-138.3	12.85	9.30%	[0.00]	µg/L

Be 313.107†	-1016.6	133.98	13.18%	[0.00]	µg/L
Ca 317.933Radial†	633.0	34.70	5.48%	[0.00]	µg/L
Cd 226.502†	-109.8	3.64	3.32%	[0.00]	µg/L
Co 228.616†	-171.6	6.66	3.88%	[0.00]	µg/L
Cr 267.716†	180.7	7.97	4.41%	[0.00]	µg/L
Cu 324.752†	2977.4	61.52	2.07%	[0.00]	µg/L
Fe 238.204 Radial†	137.5	9.68	7.04%	[0.00]	µg/L
K 766.490 Radial†	1575.2	122.39	7.77%	[0.00]	µg/L
Mg 279.077 IEC†	172.2	6.43	3.73%	[0.00]	µg/L
Mn 257.610†	193.1	13.75	7.12%	[0.00]	µg/L
Mo 202.031†	-36.4	4.32	11.87%	[0.00]	µg/L
Na 589.592 Radial†	1117.9	121.05	10.83%	[0.00]	µg/L
Ni 231.604†	-97.6	10.66	10.92%	[0.00]	µg/L
P 214.914†	-23.3	15.35	65.87%	[0.00]	µg/L
Pb 220.353†	61.9	8.51	13.75%	[0.00]	µg/L
S 181.975 Axial†	92.2	2.46	2.66%	[0.00]	µg/L
Sb 206.836†	81.0	4.24	5.23%	[0.00]	µg/L
Se 196.026†	20.9	3.16	15.11%	[0.00]	µg/L
SiO2†	1781.8	16.34	0.92%	[0.00]	µg/L
Si 251.611†	928.1	44.17	4.76%	[0.00]	µg/L
Sn 189.927†	-2.5	3.62	146.05%	[0.00]	µg/L
Sr 421.552†	-255.6	48.78	19.09%	[0.00]	µg/L
Ti 334.940†	970.3	67.87	6.99%	[0.00]	µg/L
Tl 190.801†	-116.8	7.52	6.44%	[0.00]	µg/L
U 409.014†	-318.5	46.42	14.58%	[0.00]	µg/L
V 292.402†	305.7	81.25	26.58%	[0.00]	µg/L
Zn 213.857†	591.3	11.38	1.93%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/31/2010 8:46:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	150831.1	150831.1	101	%	08:47:15
1	K 766.490 Radial†	4035.4	2438.7	[1000]	µg/L	08:47:15
1	Sr 421.552†	46130.8	46140.5	[100]	µg/L	08:47:15
1	Sc 361.383	1795265.8	1795265.8	100.17	%	08:47:23
1	Y 371.029	1078939.8	1078939.8	100.03	%	08:47:23
1	Ag 328.068†	29977.9	25999.6	[100]	µg/L	08:47:25
1	As 188.979†	299.7	313.0	[100]	µg/L	08:47:45
1	B 249.677†	9719.2	6299.6	[100]	µg/L	08:47:25
1	Ba 233.527†	24158.3	24256.1	[100]	µg/L	08:47:25
1	Be 313.107†	343439.1	343880.0	[100]	µg/L	08:47:23
1	Cd 226.502†	15256.4	15340.6	[100]	µg/L	08:47:25
1	Co 228.616†	7489.1	7648.1	[100]	µg/L	08:47:45
1	Cr 267.716†	12561.0	12359.2	[100]	µg/L	08:47:25
1	Cu 324.752†	27584.8	24561.2	[100]	µg/L	08:47:25
1	Mn 257.610†	80159.0	79831.6	[100]	µg/L	08:47:25
1	Mo 202.031†	3135.8	3166.9	[100]	µg/L	08:47:45
1	Ni 231.604†	8348.7	8432.3	[100]	µg/L	08:47:25
1	P 214.914†	2083.1	2102.9	[500]	µg/L	08:47:45
1	Pb 220.353†	1750.2	1685.3	[100]	µg/L	08:47:45
1	S 181.975 Axial†	332.3	239.5	[200]	µg/L	08:47:45
1	Sb 206.836†	832.0	749.6	[100]	µg/L	08:47:45
1	Se 196.026†	280.8	259.4	[100]	µg/L	08:47:45
1	SiO2†	12058.1	10256.1	[1069.5]	µg/L	08:47:25
1	Si 251.611†	32642.1	31659.3	[500]	µg/L	08:47:25
1	Sn 189.927†	1488.6	1488.6	[100]	µg/L	08:47:45
1	Ti 334.940†	103076.8	101933.8	[100]	µg/L	08:47:25
1	Tl 190.801†	678.7	794.4	[100]	µg/L	08:47:45
1	U 409.014†	1409.4	1725.5	[100]	µg/L	08:47:25
1	V 292.402†	19596.5	19258.0	[100]	µg/L	08:47:25
1	Zn 213.857†	17537.5	16916.7	[100]	µg/L	08:47:25
2	Sc RADIAL	152242.2	152242.2	101	%	08:47:17
2	K 766.490 Radial†	3929.0	2296.7	[1000]	µg/L	08:47:17
2	Sr 421.552†	46586.1	46163.8	[100]	µg/L	08:47:17
2	Sc 361.383	1770151.3	1770151.3	98.767	%	08:47:47
2	Y 371.029	1062909.6	1062909.6	98.548	%	08:47:47
2	Ag 328.068†	29448.5	25888.1	[100]	µg/L	08:47:49
2	As 188.979†	298.0	315.6	[100]	µg/L	08:48:09
2	B 249.677†	9477.2	6192.2	[100]	µg/L	08:47:49
2	Ba 233.527†	23543.1	23975.4	[100]	µg/L	08:47:49
2	Be 313.107†	340554.3	345823.8	[100]	µg/L	08:47:47
2	Cd 226.502†	14788.6	15083.0	[100]	µg/L	08:47:49
2	Co 228.616†	7496.1	7761.4	[100]	µg/L	08:48:09
2	Cr 267.716†	12142.9	12113.8	[100]	µg/L	08:47:49
2	Cu 324.752†	26906.1	24264.7	[100]	µg/L	08:47:49
2	Mn 257.610†	78138.1	78920.8	[100]	µg/L	08:47:49
2	Mo 202.031†	3116.5	3191.8	[100]	µg/L	08:48:09
2	Ni 231.604†	8225.3	8425.6	[100]	µg/L	08:47:49
2	P 214.914†	2085.2	2134.6	[500]	µg/L	08:48:09
2	Pb 220.353†	1787.6	1748.0	[100]	µg/L	08:48:09
2	S 181.975 Axial†	334.8	246.8	[200]	µg/L	08:48:09
2	Sb 206.836†	838.1	767.7	[100]	µg/L	08:48:09
2	Se 196.026†	284.6	267.2	[100]	µg/L	08:48:09
2	SiO2†	11727.3	10091.9	[1069.5]	µg/L	08:47:49
2	Si 251.611†	31871.6	31341.5	[500]	µg/L	08:47:49
2	Sn 189.927†	1486.2	1507.2	[100]	µg/L	08:48:09
2	Ti 334.940†	100561.0	100846.6	[100]	µg/L	08:47:49
2	Tl 190.801†	678.1	803.4	[100]	µg/L	08:48:09
2	U 409.014†	1242.2	1576.1	[100]	µg/L	08:47:49
2	V 292.402†	19148.7	19082.1	[100]	µg/L	08:47:49

2	Zn 213.857†	17217.8	16841.5	[100]	µg/L	08:47:49
3	Sc RADIAL	149830.2	149830.2	99.9	%	08:47:19
3	K 766.490 Radial†	4045.5	2475.7	[1000]	µg/L	08:47:19
3	Sr 421.552†	45809.4	46125.2	[100]	µg/L	08:47:19
3	Sc 361.383	1775612.2	1775612.2	99.071	%	08:48:11
3	Y 371.029	1066163.6	1066163.6	98.850	%	08:48:11
3	Ag 328.068†	29682.6	26032.7	[100]	µg/L	08:48:13
3	As 188.979†	298.7	315.3	[100]	µg/L	08:48:33
3	B 249.677†	9666.2	6353.5	[100]	µg/L	08:48:13
3	Ba 233.527†	23758.6	24119.6	[100]	µg/L	08:48:13
3	Be 313.107†	339937.3	344140.4	[100]	µg/L	08:48:11
3	Cd 226.502†	15062.9	15313.9	[100]	µg/L	08:48:13
3	Co 228.616†	7534.1	7776.3	[100]	µg/L	08:48:33
3	Cr 267.716†	12206.1	12139.8	[100]	µg/L	08:48:13
3	Cu 324.752†	27250.8	24528.8	[100]	µg/L	08:48:13
3	Mn 257.610†	79034.7	79582.6	[100]	µg/L	08:48:13
3	Mo 202.031†	3134.0	3199.8	[100]	µg/L	08:48:33
3	Ni 231.604†	8250.6	8425.5	[100]	µg/L	08:48:13
3	P 214.914†	2107.4	2150.5	[500]	µg/L	08:48:33
3	Pb 220.353†	1759.0	1713.6	[100]	µg/L	08:48:33
3	S 181.975 Axial†	336.4	247.3	[200]	µg/L	08:48:33
3	Sb 206.836†	857.6	784.7	[100]	µg/L	08:48:33
3	Se 196.026†	280.7	262.4	[100]	µg/L	08:48:33
3	SiO2†	11954.9	10285.1	[1069.5]	µg/L	08:48:13
3	Si 251.611†	32134.0	31507.2	[500]	µg/L	08:48:13
3	Sn 189.927†	1497.7	1514.2	[100]	µg/L	08:48:33
3	Ti 334.940†	101603.0	101585.1	[100]	µg/L	08:48:13
3	Tl 190.801†	659.8	782.8	[100]	µg/L	08:48:33
3	U 409.014†	1363.2	1694.5	[100]	µg/L	08:48:13
3	V 292.402†	19375.1	19251.0	[100]	µg/L	08:48:13
3	Zn 213.857†	17255.0	16825.5	[100]	µg/L	08:48:13

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1780343.1	13208.69	0.74%	99.335	%
Sc RADIAL	150967.8	1211.82	0.80%	101	%
Y 371.029	1069337.7	8473.39	0.79%	99.144	%
Ag 328.068†	25973.5	75.75	0.29%	[100]	µg/L
As 188.979†	314.6	1.40	0.44%	[100]	µg/L
B 249.677†	6281.8	82.08	1.31%	[100]	µg/L
Ba 233.527†	24117.0	140.35	0.58%	[100]	µg/L
Be 313.107†	344614.7	1055.10	0.31%	[100]	µg/L
Cd 226.502†	15245.8	141.61	0.93%	[100]	µg/L
Co 228.616†	7728.6	70.08	0.91%	[100]	µg/L
Cr 267.716†	12204.3	134.81	1.10%	[100]	µg/L
Cu 324.752†	24451.6	162.64	0.67%	[100]	µg/L
K 766.490 Radial†	2403.7	94.49	3.93%	[1000]	µg/L
Mn 257.610†	79445.0	470.70	0.59%	[100]	µg/L
Mo 202.031†	3186.2	17.15	0.54%	[100]	µg/L
Ni 231.604†	8427.8	3.91	0.05%	[100]	µg/L
P 214.914†	2129.3	24.23	1.14%	[500]	µg/L
Pb 220.353†	1715.7	31.40	1.83%	[100]	µg/L
S 181.975 Axial†	244.5	4.34	1.78%	[200]	µg/L
Sb 206.836†	767.3	17.56	2.29%	[100]	µg/L
Se 196.026†	263.0	3.92	1.49%	[100]	µg/L
SiO2†	10211.0	104.19	1.02%	[1069.5]	µg/L
Si 251.611†	31502.7	158.95	0.50%	[500]	µg/L
Sn 189.927†	1503.3	13.24	0.88%	[100]	µg/L
Sr 421.552†	46143.2	19.48	0.04%	[100]	µg/L
Ti 334.940†	101455.2	555.13	0.55%	[100]	µg/L
Tl 190.801†	793.5	10.30	1.30%	[100]	µg/L
U 409.014†	1665.4	78.81	4.73%	[100]	µg/L
V 292.402†	19197.1	99.59	0.52%	[100]	µg/L
Zn 213.857†	16861.2	48.74	0.29%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/31/2010 8:48:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	149379.0	149379.0	99.6	%	08:49:12
1	Al 396.153Radial†	25586.2	25771.2	[5000]	µg/L	08:49:12
1	Ca 317.933Radial†	84970.8	84706.4	[5000]	µg/L	08:49:12
1	K 766.490 Radial†	13832.9	12317.8	[5000]	µg/L	08:49:12
1	Mg 279.077 IEC†	12992.8	12877.0	[5000]	µg/L	08:49:12
1	Sr 421.552†	227861.9	229106.0	[500]	µg/L	08:49:10
1	Sc 361.383	1765930.6	1765930.6	98.531	%	08:49:39
1	Y 371.029	1051067.1	1051067.1	97.450	%	08:49:39
1	Ag 328.068†	128771.4	126763.0	[500]	µg/L	08:49:39
1	As 188.979†	1554.6	1591.6	[500]	µg/L	08:49:59
1	B 249.677†	34337.9	31446.5	[500]	µg/L	08:49:39
1	Ba 233.527†	115647.4	117509.7	[500]	µg/L	08:49:39
1	Be 313.107†	1718215.6	1744847.1	[500]	µg/L	08:49:39
1	Cd 226.502†	73653.1	74860.9	[500]	µg/L	08:49:39
1	Co 228.616†	37444.0	38173.8	[500]	µg/L	08:49:39
1	Cr 267.716†	59362.6	60066.8	[500]	µg/L	08:49:39
1	Cu 324.752†	121851.7	120690.8	[500]	µg/L	08:49:39
1	Mn 257.610†	377852.5	383292.5	[500]	µg/L	08:49:39
1	Mo 202.031†	15884.7	16157.9	[500]	µg/L	08:49:59
1	Ni 231.604†	40111.5	40807.0	[500]	µg/L	08:49:39
1	P 214.914†	10814.4	10999.0	[2500]	µg/L	08:49:59
1	Pb 220.353†	8471.8	8536.2	[500]	µg/L	08:49:59
1	S 181.975 Axial†	1339.6	1267.4	[1000]	µg/L	08:49:59
1	Sb 206.836†	3977.9	3956.2	[500]	µg/L	08:49:59
1	Se 196.026†	1305.1	1303.6	[500]	µg/L	08:49:59
1	SiO2†	52900.3	51907.1	[5347.5]	µg/L	08:49:39
1	Si 251.611†	159822.3	161276.8	[2500]	µg/L	08:49:39
1	Sn 189.927†	7476.6	7590.5	[500]	µg/L	08:49:59
1	Ti 334.940†	501083.9	507583.7	[500]	µg/L	08:49:39
1	Tl 190.801†	3681.2	3852.9	[500]	µg/L	08:49:59
1	U 409.014†	6908.9	7330.4	[500]	µg/L	08:49:39
1	V 292.402†	94785.4	95892.8	[500]	µg/L	08:49:39
1	Zn 213.857†	82476.3	83114.5	[500]	µg/L	08:49:39
2	Sc RADIAL	148207.8	148207.8	98.8	%	08:49:16
2	Al 396.153Radial†	25652.7	26041.5	[5000]	µg/L	08:49:16
2	Ca 317.933Radial†	84837.8	85246.2	[5000]	µg/L	08:49:16
2	K 766.490 Radial†	14089.7	12687.5	[5000]	µg/L	08:49:16
2	Mg 279.077 IEC†	12959.1	12945.9	[5000]	µg/L	08:49:16
2	Sr 421.552†	225688.2	228714.0	[500]	µg/L	08:49:14
2	Sc 361.383	1790055.3	1790055.3	99.877	%	08:50:02
2	Y 371.029	1064621.6	1064621.6	98.707	%	08:50:02
2	Ag 328.068†	130624.8	126857.3	[500]	µg/L	08:50:02
2	As 188.979†	1551.5	1567.2	[500]	µg/L	08:50:22
2	B 249.677†	35048.9	31688.7	[500]	µg/L	08:50:02
2	Ba 233.527†	117767.6	118050.7	[500]	µg/L	08:50:02
2	Be 313.107†	1748524.0	1751691.0	[500]	µg/L	08:50:02
2	Cd 226.502†	75299.5	75501.9	[500]	µg/L	08:50:02
2	Co 228.616†	38037.6	38256.0	[500]	µg/L	08:50:02
2	Cr 267.716†	60370.8	60264.3	[500]	µg/L	08:50:02
2	Cu 324.752†	123487.2	120661.7	[500]	µg/L	08:50:02
2	Mn 257.610†	384103.0	384382.3	[500]	µg/L	08:50:02
2	Mo 202.031†	15797.2	15853.1	[500]	µg/L	08:50:22
2	Ni 231.604†	40746.3	40894.0	[500]	µg/L	08:50:02
2	P 214.914†	10742.3	10778.8	[2500]	µg/L	08:50:22
2	Pb 220.353†	8427.9	8376.4	[500]	µg/L	08:50:22
2	S 181.975 Axial†	1332.1	1241.5	[1000]	µg/L	08:50:22
2	Sb 206.836†	3943.4	3867.3	[500]	µg/L	08:50:22
2	Se 196.026†	1296.5	1277.2	[500]	µg/L	08:50:22
2	SiO2†	53903.6	52188.1	[5347.5]	µg/L	08:50:02

2	Si 251.611†	162723.7	161995.8	[2500]	µg/L	08:50:02
2	Sn 189.927†	7418.1	7429.7	[500]	µg/L	08:50:22
2	Ti 334.940†	508483.1	508138.2	[500]	µg/L	08:50:02
2	Tl 190.801†	3708.0	3829.3	[500]	µg/L	08:50:22
2	U 409.014†	7098.2	7425.4	[500]	µg/L	08:50:02
2	V 292.402†	96265.0	96077.8	[500]	µg/L	08:50:02
2	Zn 213.857†	84053.6	83565.6	[500]	µg/L	08:50:02
3	Sc RADIAL	147993.9	147993.9	98.6	%	08:49:20
3	Al 396.153Radial†	25573.3	25998.6	[5000]	µg/L	08:49:20
3	Ca 317.933Radial†	84375.9	84902.1	[5000]	µg/L	08:49:20
3	K 766.490 Radial†	13918.1	12534.2	[5000]	µg/L	08:49:20
3	Mg 279.077 IEC†	12913.9	12919.1	[5000]	µg/L	08:49:20
3	Sr 421.552†	225905.5	229264.7	[500]	µg/L	08:49:18
3	Sc 361.383	1772403.5	1772403.5	98.892	%	08:50:25
3	Y 371.029	1054621.1	1054621.1	97.779	%	08:50:25
3	Ag 328.068†	129393.3	126914.5	[500]	µg/L	08:50:25
3	As 188.979†	1560.8	1592.1	[500]	µg/L	08:50:46
3	B 249.677†	34661.5	31646.4	[500]	µg/L	08:50:25
3	Ba 233.527†	116729.0	118174.8	[500]	µg/L	08:50:25
3	Be 313.107†	1731034.3	1751440.9	[500]	µg/L	08:50:25
3	Cd 226.502†	74490.0	75434.2	[500]	µg/L	08:50:25
3	Co 228.616†	37692.0	38285.8	[500]	µg/L	08:50:25
3	Cr 267.716†	59925.7	60416.3	[500]	µg/L	08:50:25
3	Cu 324.752†	122618.3	121014.3	[500]	µg/L	08:50:25
3	Mn 257.610†	380992.6	385067.2	[500]	µg/L	08:50:25
3	Mo 202.031†	15880.0	16094.3	[500]	µg/L	08:50:46
3	Ni 231.604†	40491.3	41042.5	[500]	µg/L	08:50:25
3	P 214.914†	10843.0	10987.8	[2500]	µg/L	08:50:46
3	Pb 220.353†	8495.2	8528.5	[500]	µg/L	08:50:46
3	S 181.975 Axial†	1344.1	1266.9	[1000]	µg/L	08:50:46
3	Sb 206.836†	3996.0	3959.8	[500]	µg/L	08:50:46
3	Se 196.026†	1303.9	1297.6	[500]	µg/L	08:50:46
3	SiO2†	53607.4	52426.0	[5347.5]	µg/L	08:50:25
3	Si 251.611†	161209.6	162087.3	[2500]	µg/L	08:50:25
3	Sn 189.927†	7466.1	7552.2	[500]	µg/L	08:50:46
3	Ti 334.940†	504282.2	508960.6	[500]	µg/L	08:50:25
3	Tl 190.801†	3712.5	3870.9	[500]	µg/L	08:50:46
3	U 409.014†	7172.1	7570.9	[500]	µg/L	08:50:25
3	V 292.402†	95506.9	96271.1	[500]	µg/L	08:50:25
3	Zn 213.857†	83161.0	83501.2	[500]	µg/L	08:50:25

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1776129.8	12486.57	0.70%	99.100	%
Sc RADIAL	148526.9	745.65	0.50%	99.0	%
Y 371.029	1056770.0	7028.09	0.67%	97.979	%
Ag 328.068†	126845.0	76.52	0.06%	[500]	µg/L
Al 396.153Radial†	25937.1	145.28	0.56%	[5000]	µg/L
As 188.979†	1583.6	14.22	0.90%	[500]	µg/L
B 249.677†	31593.8	129.37	0.41%	[500]	µg/L
Ba 233.527†	117911.7	353.66	0.30%	[500]	µg/L
Be 313.107†	1749326.3	3881.15	0.22%	[500]	µg/L
Ca 317.933Radial†	84951.6	273.26	0.32%	[5000]	µg/L
Cd 226.502†	75265.6	352.18	0.47%	[500]	µg/L
Co 228.616†	38238.5	57.96	0.15%	[500]	µg/L
Cr 267.716†	60249.1	175.21	0.29%	[500]	µg/L
Cu 324.752†	120788.9	195.74	0.16%	[500]	µg/L
K 766.490 Radial†	12513.1	185.77	1.48%	[5000]	µg/L
Mg 279.077 IEC†	12914.0	34.75	0.27%	[5000]	µg/L
Mn 257.610†	384247.3	895.04	0.23%	[500]	µg/L
Mo 202.031†	16035.1	160.80	1.00%	[500]	µg/L
Ni 231.604†	40914.5	119.03	0.29%	[500]	µg/L
P 214.914†	10921.9	124.03	1.14%	[2500]	µg/L
Pb 220.353†	8480.3	90.13	1.06%	[500]	µg/L
S 181.975 Axial†	1258.6	14.78	1.17%	[1000]	µg/L
Sb 206.836†	3927.8	52.41	1.33%	[500]	µg/L
Se 196.026†	1292.8	13.83	1.07%	[500]	µg/L
SiO2†	52173.7	259.77	0.50%	[5347.5]	µg/L
Si 251.611†	161786.6	443.87	0.27%	[2500]	µg/L

Sn 189.927†	7524.1	83.99	1.12%	[500] µg/L
Sr 421.552†	229028.2	283.44	0.12%	[500] µg/L
Ti 334.940†	508227.5	692.78	0.14%	[500] µg/L
Tl 190.801†	3851.0	20.84	0.54%	[500] µg/L
U 409.014†	7442.2	121.13	1.63%	[500] µg/L
V 292.402†	96080.5	189.15	0.20%	[500] µg/L
Zn 213.857†	83393.8	244.00	0.29%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/31/2010 8:50:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	148748.7	148748.7	99.1	%	08:51:25
1	Al 396.153Radial†	51170.1	51683.8	[10000]	µg/L	08:51:25
1	Ca 317.933Radial†	168454.2	169269.0	[10000]	µg/L	08:51:25
1	Fe 238.204 Radial†	150151.8	151304.7	[10000]	µg/L	08:51:25
1	K 766.490 Radial†	26343.9	24995.1	[10000]	µg/L	08:51:25
1	Mg 279.077 IEC†	25756.9	25806.1	[10000]	µg/L	08:51:25
1	Na 589.592 Radial†	67814.0	67278.9	[10000]	µg/L	08:51:25
1	Sr 421.552†	453368.5	457520.5	[1000]	µg/L	08:51:23
1	Sc 361.383	1762899.2	1762899.2	98.362	%	08:51:52
1	Y 371.029	1044342.9	1044342.9	96.826	%	08:51:52
1	Ag 328.068†	256251.8	256591.1	[1000]	µg/L	08:51:54
1	As 188.979†	3110.5	3176.1	[1000]	µg/L	08:52:14
1	B 249.677†	65952.0	63646.9	[1000]	µg/L	08:51:54
1	Ba 233.527†	232557.6	236568.7	[1000]	µg/L	08:51:54
1	Be 313.107†	3402888.6	3460573.6	[1000]	µg/L	08:51:52
1	Cd 226.502†	147842.7	150414.5	[1000]	µg/L	08:51:54
1	Co 228.616†	74799.3	76216.5	[1000]	µg/L	08:51:54
1	Cr 267.716†	119535.3	121345.2	[1000]	µg/L	08:51:54
1	Cu 324.752†	242914.2	243982.0	[1000]	µg/L	08:51:54
1	Mn 257.610†	744346.9	756549.5	[1000]	µg/L	08:51:52
1	Mo 202.031†	31429.2	31989.0	[1000]	µg/L	08:52:14
1	Ni 231.604†	80284.9	81719.5	[1000]	µg/L	08:51:54
1	P 214.914†	21363.8	21742.8	[5000]	µg/L	08:52:14
1	Pb 220.353†	16543.4	16757.0	[1000]	µg/L	08:52:14
1	S 181.975 Axial†	2555.2	2505.5	[2000]	µg/L	08:52:14
1	Sb 206.836†	7823.4	7872.7	[1000]	µg/L	08:52:14
1	Se 196.026†	2544.4	2565.8	[1000]	µg/L	08:52:14
1	SiO2†	102746.2	102675.4	[10695]	µg/L	08:51:54
1	Si 251.611†	314059.0	318361.0	[5000]	µg/L	08:51:54
1	Sn 189.927†	14775.9	15024.4	[1000]	µg/L	08:52:14
1	Ti 334.940†	994117.8	1009702.7	[1000]	µg/L	08:51:52
1	Tl 190.801†	7393.8	7633.7	[1000]	µg/L	08:52:14
1	U 409.014†	15686.8	16266.5	[1000]	µg/L	08:51:54
1	V 292.402†	191393.6	194275.3	[1000]	µg/L	08:51:54
1	Zn 213.857†	164442.6	166589.8	[1000]	µg/L	08:51:54
2	Sc RADIAL	148381.8	148381.8	98.9	%	08:51:29
2	Al 396.153Radial†	51160.1	51801.3	[10000]	µg/L	08:51:29
2	Ca 317.933Radial†	168613.9	169850.5	[10000]	µg/L	08:51:29
2	Fe 238.204 Radial†	150106.3	151633.3	[10000]	µg/L	08:51:29
2	K 766.490 Radial†	26541.8	25261.0	[10000]	µg/L	08:51:29
2	Mg 279.077 IEC†	25758.2	25871.6	[10000]	µg/L	08:51:29
2	Na 589.592 Radial†	67966.8	67602.5	[10000]	µg/L	08:51:29
2	Sr 421.552†	443935.7	449113.8	[1000]	µg/L	08:51:27
2	Sc 361.383	1768187.6	1768187.6	98.657	%	08:52:17
2	Y 371.029	1046483.9	1046483.9	97.025	%	08:52:17
2	Ag 328.068†	254047.5	253577.6	[1000]	µg/L	08:52:19
2	As 188.979†	3056.2	3111.6	[1000]	µg/L	08:52:39
2	B 249.677†	65336.8	62822.8	[1000]	µg/L	08:52:19
2	Ba 233.527†	230214.6	233486.6	[1000]	µg/L	08:52:19
2	Be 313.107†	3419671.5	3467237.9	[1000]	µg/L	08:52:17
2	Cd 226.502†	146015.0	148112.3	[1000]	µg/L	08:52:19
2	Co 228.616†	74085.9	75266.0	[1000]	µg/L	08:52:19
2	Cr 267.716†	118088.5	119515.2	[1000]	µg/L	08:52:19
2	Cu 324.752†	240497.7	240794.0	[1000]	µg/L	08:52:19
2	Mn 257.610†	749179.8	759184.8	[1000]	µg/L	08:52:17
2	Mo 202.031†	31127.7	31587.8	[1000]	µg/L	08:52:39
2	Ni 231.604†	79506.6	80686.5	[1000]	µg/L	08:52:19
2	P 214.914†	21133.3	21444.3	[5000]	µg/L	08:52:39
2	Pb 220.353†	16375.6	16536.6	[1000]	µg/L	08:52:39

2	S 181.975 Axial†	2524.0	2466.1	[2000]	µg/L	08:52:39
2	Sb 206.836†	7757.9	7782.5	[1000]	µg/L	08:52:39
2	Se 196.026†	2518.0	2531.3	[1000]	µg/L	08:52:39
2	SiO2†	101688.7	101291.1	[10695]	µg/L	08:52:19
2	Si 251.611†	310977.5	314282.5	[5000]	µg/L	08:52:19
2	Sn 189.927†	14603.5	14804.8	[1000]	µg/L	08:52:39
2	Ti 334.940†	999702.8	1012340.9	[1000]	µg/L	08:52:17
2	Tl 190.801†	7341.0	7557.7	[1000]	µg/L	08:52:39
2	U 409.014†	15809.9	16343.6	[1000]	µg/L	08:52:19
2	V 292.402†	189539.2	191813.6	[1000]	µg/L	08:52:19
2	Zn 213.857†	163137.7	164767.1	[1000]	µg/L	08:52:19
3	Sc RADIAL	149198.9	149198.9	99.4	%	08:51:34
3	Al 396.153Radial†	51585.0	51945.3	[10000]	µg/L	08:51:34
3	Ca 317.933Radial†	170226.3	170538.2	[10000]	µg/L	08:51:34
3	Fe 238.204 Radial†	151619.1	152323.2	[10000]	µg/L	08:51:34
3	K 766.490 Radial†	26517.5	25089.6	[10000]	µg/L	08:51:34
3	Mg 279.077 IEC†	25875.4	25846.8	[10000]	µg/L	08:51:34
3	Na 589.592 Radial†	68500.0	67762.3	[10000]	µg/L	08:51:34
3	Sr 421.552†	448196.1	450939.6	[1000]	µg/L	08:51:32
3	Sc 361.383	1754313.8	1754313.8	97.883	%	08:52:42
3	Y 371.029	1037656.0	1037656.0	96.206	%	08:52:42
3	Ag 328.068†	254875.1	256459.6	[1000]	µg/L	08:52:44
3	As 188.979†	3094.3	3175.0	[1000]	µg/L	08:53:04
3	B 249.677†	65718.3	63736.3	[1000]	µg/L	08:52:44
3	Ba 233.527†	230793.8	235923.8	[1000]	µg/L	08:52:44
3	Be 313.107†	3407192.3	3481901.0	[1000]	µg/L	08:52:42
3	Cd 226.502†	146605.1	149885.7	[1000]	µg/L	08:52:44
3	Co 228.616†	74185.7	75961.8	[1000]	µg/L	08:52:44
3	Cr 267.716†	118380.2	120759.9	[1000]	µg/L	08:52:44
3	Cu 324.752†	241120.6	243358.2	[1000]	µg/L	08:52:44
3	Mn 257.610†	746476.7	762428.8	[1000]	µg/L	08:52:42
3	Mo 202.031†	31351.6	32066.1	[1000]	µg/L	08:53:04
3	Ni 231.604†	79575.1	81393.8	[1000]	µg/L	08:52:44
3	P 214.914†	21265.1	21748.3	[5000]	µg/L	08:53:04
3	Pb 220.353†	16578.0	16874.6	[1000]	µg/L	08:53:04
3	S 181.975 Axial†	2548.1	2511.0	[2000]	µg/L	08:53:04
3	Sb 206.836†	7814.9	7903.0	[1000]	µg/L	08:53:04
3	Se 196.026†	2550.7	2584.9	[1000]	µg/L	08:53:04
3	SiO2†	102125.4	102552.4	[10695]	µg/L	08:52:44
3	Si 251.611†	311969.2	317788.5	[5000]	µg/L	08:52:44
3	Sn 189.927†	14699.3	15019.7	[1000]	µg/L	08:53:04
3	Ti 334.940†	995301.4	1015857.9	[1000]	µg/L	08:52:42
3	Tl 190.801†	7397.1	7673.8	[1000]	µg/L	08:53:04
3	U 409.014†	15919.3	16582.0	[1000]	µg/L	08:52:44
3	V 292.402†	190091.9	193897.6	[1000]	µg/L	08:52:44
3	Zn 213.857†	163532.7	166478.3	[1000]	µg/L	08:52:44

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1761800.2	7001.87	0.40%	98.301	%
Sc RADIAL	148776.4	409.25	0.28%	99.2	%
Y 371.029	1042827.6	4604.86	0.44%	96.686	%
Ag 328.068†	255542.8	1703.14	0.67%	[1000]	µg/L
Al 396.153Radial†	51810.1	130.97	0.25%	[10000]	µg/L
As 188.979†	3154.2	36.94	1.17%	[1000]	µg/L
B 249.677†	63402.0	503.59	0.79%	[1000]	µg/L
Ba 233.527†	235326.4	1625.55	0.69%	[1000]	µg/L
Be 313.107†	3469904.2	10910.83	0.31%	[1000]	µg/L
Ca 317.933Radial†	169885.9	635.36	0.37%	[10000]	µg/L
Cd 226.502†	149470.8	1205.84	0.81%	[1000]	µg/L
Co 228.616†	75814.7	492.02	0.65%	[1000]	µg/L
Cr 267.716†	120540.1	934.58	0.78%	[1000]	µg/L
Cu 324.752†	242711.4	1689.57	0.70%	[1000]	µg/L
Fe 238.204 Radial†	151753.7	519.81	0.34%	[10000]	µg/L
K 766.490 Radial†	25115.2	134.77	0.54%	[10000]	µg/L
Mg 279.077 IEC†	25841.5	33.09	0.13%	[10000]	µg/L
Mn 257.610†	759387.7	2944.90	0.39%	[1000]	µg/L
Mo 202.031†	31881.0	256.80	0.81%	[1000]	µg/L
Na 589.592 Radial†	67547.9	246.30	0.36%	[10000]	µg/L

Ni 231.604†	81266.6	528.12	0.65%	[1000]	µg/L
P 214.914†	21645.2	173.95	0.80%	[5000]	µg/L
Pb 220.353†	16722.8	171.59	1.03%	[1000]	µg/L
S 181.975 Axial†	2494.2	24.50	0.98%	[2000]	µg/L
Sb 206.836†	7852.7	62.68	0.80%	[1000]	µg/L
Se 196.026†	2560.7	27.18	1.06%	[1000]	µg/L
SiO2†	102173.0	766.22	0.75%	[10695]	µg/L
Si 251.611†	316810.7	2208.05	0.70%	[5000]	µg/L
Sn 189.927†	14949.6	125.48	0.84%	[1000]	µg/L
Sr 421.552†	452524.6	4421.81	0.98%	[1000]	µg/L
Ti 334.940†	1012633.8	3088.06	0.30%	[1000]	µg/L
Tl 190.801†	7621.7	58.99	0.77%	[1000]	µg/L
U 409.014†	16397.4	164.50	1.00%	[1000]	µg/L
V 292.402†	193328.8	1325.76	0.69%	[1000]	µg/L
Zn 213.857†	165945.1	1021.66	0.62%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/31/2010 8:53:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	147084.6	147084.6	98.0	%	08:53:41
1	Al 396.153Radial†	248919.9	253973.5	[50000]	µg/L	08:53:41
1	Ca 317.933Radial†	821798.3	837605.4	[50000]	µg/L	08:53:41
1	Fe 238.204 Radial†	295796.6	301576.5	[20000]	µg/L	08:53:41
1	Mg 279.077 IEC†	123088.9	125379.1	[50000]	µg/L	08:53:41
1	Na 589.592 Radial†	134043.5	135607.1	[20000]	µg/L	08:53:41
1	Sc 361.383	1721419.1	1721419.1	96.048	%	08:53:49
1	Y 371.029	1020186.5	1020186.5	94.587	%	08:53:49
2	Sc RADIAL	147158.7	147158.7	98.1	%	08:53:43
2	Al 396.153Radial†	248290.2	253203.7	[50000]	µg/L	08:53:43
2	Ca 317.933Radial†	816382.3	831661.8	[50000]	µg/L	08:53:43
2	Fe 238.204 Radial†	294279.2	299877.6	[20000]	µg/L	08:53:43
2	Mg 279.077 IEC†	122198.2	124407.8	[50000]	µg/L	08:53:43
2	Na 589.592 Radial†	132756.9	134226.6	[20000]	µg/L	08:53:43
2	Sc 361.383	1710078.5	1710078.5	95.415	%	08:53:52
2	Y 371.029	1012755.8	1012755.8	93.898	%	08:53:52
3	Sc RADIAL	146036.7	146036.7	97.3	%	08:53:45
3	Al 396.153Radial†	250009.8	256915.1	[50000]	µg/L	08:53:45
3	Ca 317.933Radial†	822271.1	844106.1	[50000]	µg/L	08:53:45
3	Fe 238.204 Radial†	296030.4	303981.7	[20000]	µg/L	08:53:45
3	Mg 279.077 IEC†	122911.6	126097.9	[50000]	µg/L	08:53:45
3	Na 589.592 Radial†	133716.0	136251.8	[20000]	µg/L	08:53:45
3	Sc 361.383	1708052.8	1708052.8	95.302	%	08:53:54
3	Y 371.029	1011466.2	1011466.2	93.778	%	08:53:54

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1713183.5	7203.85	0.42%	95.588	%
Sc RADIAL	146760.0	627.50	0.43%	97.8	%
Y 371.029	1014802.8	4706.79	0.46%	94.088	%
Al 396.153Radial†	254697.5	1958.71	0.77%	[50000]	µg/L
Ca 317.933Radial†	837791.1	6224.22	0.74%	[50000]	µg/L
Fe 238.204 Radial†	301812.0	2062.14	0.68%	[20000]	µg/L
Mg 279.077 IEC†	125294.9	848.16	0.68%	[50000]	µg/L
Na 589.592 Radial†	135361.8	1034.65	0.76%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	255.2	0.00000	0.999995	
Al 396.153Radial	3	Lin Thru 0	0.0	5.098	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	3.157	0.00000	0.999999	
B 249.677	3	Lin Thru 0	0.0	63.35	0.00000	0.999999	
Ba 233.527	3	Lin Thru 0	0.0	235.5	0.00000	0.999997	
Be 313.107	3	Lin Thru 0	0.0	3475	0.00000	0.999994	
Ca 317.933Radial	3	Lin Thru 0	0.0	16.77	0.00000	0.999996	
Cd 226.502	3	Lin Thru 0	0.0	149.7	0.00000	0.999995	
Co 228.616	3	Lin Thru 0	0.0	75.96	0.00000	0.999993	
Cr 267.716	3	Lin Thru 0	0.0	120.5	0.00000	0.999999	
Cu 324.752	3	Lin Thru 0	0.0	242.5	0.00000	0.999998	
Fe 238.204 Radia	2	Lin Thru 0	0.0	15.11	0.00000	0.999997	
K 766.490 Radial	3	Lin Thru 0	0.0	2.509	0.00000	0.999992	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.510	0.00000	0.999978	
Mn 257.610	3	Lin Thru 0	0.0	761.5	0.00000	0.999981	
Mo 202.031	3	Lin Thru 0	0.0	31.92	0.00000	0.999997	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.765	0.00000	1.000000	

Ni 231.604	3	Lin Thru 0	0.0	81.40	0.00000	0.999991
P 214.914	3	Lin Thru 0	0.0	4.336	0.00000	0.999992
Pb 220.353	3	Lin Thru 0	0.0	16.77	0.00000	0.999982
S 181.975 Axial	3	Lin Thru 0	0.0	1.249	0.00000	0.999991
Sb 206.836	3	Lin Thru 0	0.0	7.852	0.00000	0.999998
Se 196.026	3	Lin Thru 0	0.0	2.566	0.00000	0.999990
SiO2	3	Lin Thru 0	0.0	9.594	0.00000	0.999964
Si 251.611	3	Lin Thru 0	0.0	63.63	0.00000	0.999964
Sn 189.927	3	Lin Thru 0	0.0	14.97	0.00000	0.999996
Sr 421.552	3	Lin Thru 0	0.0	453.7	0.00000	0.999987
Ti 334.940	3	Lin Thru 0	0.0	1013	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	7.640	0.00000	0.999985
U 409.014	3	Lin Thru 0	0.0	16.10	0.00000	0.999295
V 292.402	3	Lin Thru 0	0.0	193.1	0.00000	0.999997
Zn 213.857	3	Lin Thru 0	0.0	166.1	0.00000	0.999997

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/31/2010 8:54:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	149423.2	149423.2	99.6	%			08:54:34
1	Al 396.153Radial†	26685.0	26866.8	5244.1	µg/L	5244.1	ppb	08:54:34
1	Ca 317.933Radial†	86534.1	86250.9	5144.1	µg/L	5144.1	ppb	08:54:34
1	Fe 238.204 Radial†	77699.5	77876.0	5154.8	µg/L	5154.8	ppb	08:54:34
1	K 766.490 Radial†	7867.2	6323.8	2517.6	µg/L	2517.6	ppb	08:54:34
1	Mg 279.077 IEC†	13680.6	13563.7	5413.9	µg/L	5413.9	ppb	08:54:34
1	Na 589.592 Radial†	18227.0	17182.7	2537.5	µg/L	2537.5	ppb	08:54:34
1	Sr 421.552†	243534.2	244773.9	539.47	µg/L	539.47	ppb	08:54:32
1	Sc 361.383	1760650.5	1760650.5	98.237	%			08:54:47
1	Y 371.029	1051232.3	1051232.3	97.465	%			08:54:47
1	Ag 328.068†	69278.4	66593.9	267.47	µg/L	267.47	ppb	08:54:47
1	As 188.979†	1502.4	1543.2	496.37	µg/L	496.37	ppb	08:54:49
1	B 249.677†	36002.8	33245.7	522.94	µg/L	522.94	ppb	08:54:47
1	Ba 233.527†	120355.0	122653.8	521.33	µg/L	521.33	ppb	08:54:47
1	Be 313.107†	914266.3	931695.3	268.23	µg/L	268.23	ppb	08:54:47
1	Cd 226.502†	75126.7	76585.1	511.28	µg/L	511.28	ppb	08:54:47
1	Co 228.616†	38836.4	39705.2	523.06	µg/L	523.06	ppb	08:54:49
1	Cr 267.716†	59851.1	60744.8	503.77	µg/L	503.77	ppb	08:54:49
1	Cu 324.752†	127386.5	126695.8	524.06	µg/L	524.06	ppb	08:54:47
1	Mn 257.610†	398138.7	405092.8	531.76	µg/L	531.76	ppb	08:54:47
1	Mo 202.031†	17419.9	17769.1	557.18	µg/L	557.18	ppb	08:54:49
1	Ni 231.604†	41648.2	42493.4	522.02	µg/L	522.02	ppb	08:54:49
1	P 214.914†	11104.3	11327.0	2603.0	µg/L	2603.0	ppb	08:54:49
1	Pb 220.353†	8683.6	8777.6	525.13	µg/L	525.13	ppb	08:54:49
1	S 181.975 Axial†	3239.8	3205.7	2570.9	µg/L	2570.9	ppb	08:54:49
1	Sb 206.836†	4038.4	4030.0	515.25	µg/L	515.25	ppb	08:54:49
1	Se 196.026†	6571.6	6668.7	2600	µg/L	2600	ppb	08:54:49
1	SiO2†	102374.2	102430.2	10653	µg/L	10653	ppb	08:54:47
1	Si 251.611†	312204.0	316880.4	4969.2	µg/L	4969.2	ppb	08:54:47
1	Sn 189.927†	8106.1	8254.1	553.09	µg/L	553.09	ppb	08:54:49
1	Ti 334.940†	506402.4	514522.8	507.04	µg/L	507.04	ppb	08:54:47
1	Tl 190.801†	3973.7	4161.8	552.40	µg/L	552.40	ppb	08:54:49
1	U 409.014†	7296.3	7745.7	512.90	µg/L	512.90	ppb	08:54:47
1	V 292.402†	98727.2	100193.8	526.14	µg/L	526.14	ppb	08:54:47
1	Zn 213.857†	86030.5	86983.6	519.41	µg/L	519.41	ppb	08:54:47
2	Sc RADIAL	150108.5	150108.5	100	%			08:54:38
2	Al 396.153Radial†	26793.1	26852.5	5241.7	µg/L	5241.7	ppb	08:54:38
2	Ca 317.933Radial†	87179.9	86499.6	5158.9	µg/L	5158.9	ppb	08:54:38
2	Fe 238.204 Radial†	78361.8	78181.7	5175.0	µg/L	5175.0	ppb	08:54:38
2	K 766.490 Radial†	7962.2	6382.7	2541.0	µg/L	2541.0	ppb	08:54:38
2	Mg 279.077 IEC†	13924.5	13744.7	5485.8	µg/L	5485.8	ppb	08:54:38
2	Na 589.592 Radial†	18575.7	17447.7	2576.7	µg/L	2576.7	ppb	08:54:38
2	Sr 421.552†	240639.7	240764.7	530.64	µg/L	530.64	ppb	08:54:36
2	Sc 361.383	1776122.2	1776122.2	99.100	%			08:54:52
2	Y 371.029	1059169.1	1059169.1	98.201	%			08:54:52
2	Ag 328.068†	69790.7	66496.5	267.08	µg/L	267.08	ppb	08:54:52
2	As 188.979†	1503.0	1530.5	492.27	µg/L	492.27	ppb	08:54:54
2	B 249.677†	36611.5	33540.7	527.60	µg/L	527.60	ppb	08:54:52
2	Ba 233.527†	121925.1	123170.9	523.52	µg/L	523.52	ppb	08:54:52
2	Be 313.107†	925455.9	934879.5	269.14	µg/L	269.14	ppb	08:54:52
2	Cd 226.502†	76174.5	76976.3	513.89	µg/L	513.89	ppb	08:54:52
2	Co 228.616†	38900.9	39425.9	519.39	µg/L	519.39	ppb	08:54:54
2	Cr 267.716†	59554.4	59914.7	496.90	µg/L	496.90	ppb	08:54:54
2	Cu 324.752†	128890.7	127084.2	525.65	µg/L	525.65	ppb	08:54:52
2	Mn 257.610†	402388.2	405850.5	532.75	µg/L	532.75	ppb	08:54:52
2	Mo 202.031†	17237.5	17430.5	546.58	µg/L	546.58	ppb	08:54:54
2	Ni 231.604†	41290.0	41762.7	513.04	µg/L	513.04	ppb	08:54:54
2	P 214.914†	11040.9	11164.5	2565.6	µg/L	2565.6	ppb	08:54:54
2	Pb 220.353†	8628.2	8644.7	517.19	µg/L	517.19	ppb	08:54:54

2	S 181.975 Axial†	3235.0	3172.2	2544.0 µg/L	2544.0 ppb	08:54:54
2	Sb 206.836†	4036.0	3991.7	510.32 µg/L	510.32 ppb	08:54:54
2	Se 196.026†	6524.6	6562.9	2560 µg/L	2560 ppb	08:54:54
2	SiO2†	103430.3	102588.0	10670 µg/L	10670 ppb	08:54:52
2	Si 251.611†	315881.4	317822.8	4984.2 µg/L	4984.2 ppb	08:54:52
2	Sn 189.927†	8060.7	8136.4	545.24 µg/L	545.24 ppb	08:54:54
2	Ti 334.940†	511927.5	515607.7	508.12 µg/L	508.12 ppb	08:54:52
2	Tl 190.801†	4017.6	4170.9	553.64 µg/L	553.64 ppb	08:54:54
2	U 409.014†	7012.8	7394.9	491.22 µg/L	491.22 ppb	08:54:52
2	V 292.402†	99903.8	100505.7	527.60 µg/L	527.60 ppb	08:54:52
2	Zn 213.857†	87309.9	87511.7	522.65 µg/L	522.65 ppb	08:54:52
3	Sc RADIAL	150818.5	150818.5	101 %		08:54:42
3	Al 396.153Radial†	26764.8	26698.3	5211.2 µg/L	5211.2 ppb	08:54:42
3	Ca 317.933Radial†	87295.5	86204.5	5141.3 µg/L	5141.3 ppb	08:54:42
3	Fe 238.204 Radial†	78325.3	77776.7	5148.2 µg/L	5148.2 ppb	08:54:42
3	K 766.490 Radial†	7886.2	6269.6	2496.0 µg/L	2496.0 ppb	08:54:42
3	Mg 279.077 IEC†	13949.0	13703.6	5469.5 µg/L	5469.5 ppb	08:54:42
3	Na 589.592 Radial†	18685.9	17469.9	2580.0 µg/L	2580.0 ppb	08:54:42
3	Sr 421.552†	240823.2	239815.1	528.54 µg/L	528.54 ppb	08:54:40
3	Sc 361.383	1756601.1	1756601.1	98.011 %		08:54:57
3	Y 371.029	1047343.1	1047343.1	97.105 %		08:54:57
3	Ag 328.068†	68904.4	66374.9	266.57 µg/L	266.57 ppb	08:54:57
3	As 188.979†	1485.6	1529.6	492.06 µg/L	492.06 ppb	08:54:59
3	B 249.677†	35848.2	33172.5	521.78 µg/L	521.78 ppb	08:54:57
3	Ba 233.527†	119504.5	122068.5	518.84 µg/L	518.84 ppb	08:54:57
3	Be 313.107†	907680.8	927121.6	266.91 µg/L	266.91 ppb	08:54:57
3	Cd 226.502†	74656.9	76282.1	509.26 µg/L	509.26 ppb	08:54:57
3	Co 228.616†	38723.5	39681.1	522.74 µg/L	522.74 ppb	08:54:59
3	Cr 267.716†	59662.8	60693.1	503.35 µg/L	503.35 ppb	08:54:59
3	Cu 324.752†	126468.0	126057.7	521.42 µg/L	521.42 ppb	08:54:57
3	Mn 257.610†	395003.4	402828.2	528.78 µg/L	528.78 ppb	08:54:57
3	Mo 202.031†	17232.1	17618.3	552.46 µg/L	552.46 ppb	08:54:59
3	Ni 231.604†	41172.9	42106.2	517.26 µg/L	517.26 ppb	08:54:59
3	P 214.914†	10914.9	11159.7	2564.5 µg/L	2564.5 ppb	08:54:59
3	Pb 220.353†	8654.3	8768.1	524.55 µg/L	524.55 ppb	08:54:59
3	S 181.975 Axial†	3234.3	3207.7	2572.5 µg/L	2572.5 ppb	08:54:59
3	Sb 206.836†	4045.0	4046.2	517.25 µg/L	517.25 ppb	08:54:59
3	Se 196.026†	6551.7	6663.8	2600 µg/L	2600 ppb	08:54:59
3	SiO2†	101512.0	101790.7	10587 µg/L	10587 ppb	08:54:57
3	Si 251.611†	309506.8	314861.1	4937.5 µg/L	4937.5 ppb	08:54:57
3	Sn 189.927†	8066.5	8232.7	551.66 µg/L	551.66 ppb	08:54:59
3	Ti 334.940†	503581.2	512832.7	505.38 µg/L	505.38 ppb	08:54:57
3	Tl 190.801†	4002.1	4200.2	557.38 µg/L	557.38 ppb	08:54:59
3	U 409.014†	7077.2	7539.3	499.94 µg/L	499.94 ppb	08:54:57
3	V 292.402†	98096.5	99782.0	523.95 µg/L	523.95 ppb	08:54:57
3	Zn 213.857†	85382.2	86524.0	516.68 µg/L	516.68 ppb	08:54:57

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1764457.9	98.449	%	0.5748				0.58%
Sc RADIAL	150116.8	100	%	0.5				0.46%
Y 371.029	1052581.5	97.590	%	0.5588				0.57%
Ag 328.068†	66488.5	267.04	µg/L	0.451	267.04	ppb	0.451	0.17%
QC value within limits for Ag 328.068 Recovery = 106.82%								
Al 396.153Radial†	26805.9	5232.3	µg/L	18.33	5232.3	ppb	18.33	0.35%
QC value within limits for Al 396.153Radial Recovery = 104.65%								
As 188.979†	1534.4	493.57	µg/L	2.432	493.57	ppb	2.432	0.49%
QC value within limits for As 188.979 Recovery = 98.71%								
B 249.677†	33319.6	524.11	µg/L	3.083	524.11	ppb	3.083	0.59%
QC value within limits for B 249.677 Recovery = 104.82%								
Ba 233.527†	122631.1	521.23	µg/L	2.343	521.23	ppb	2.343	0.45%
QC value within limits for Ba 233.527 Recovery = 104.25%								
Be 313.107†	931232.2	268.09	µg/L	1.121	268.09	ppb	1.121	0.42%
QC value within limits for Be 313.107 Recovery = 107.24%								
Ca 317.933Radial†	86318.3	5148.1	µg/L	9.46	5148.1	ppb	9.46	0.18%
QC value within limits for Ca 317.933Radial Recovery = 102.96%								
Cd 226.502†	76614.5	511.48	µg/L	2.322	511.48	ppb	2.322	0.45%
QC value within limits for Cd 226.502 Recovery = 102.30%								
Co 228.616†	39604.1	521.73	µg/L	2.037	521.73	ppb	2.037	0.39%

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   QC value within limits for Co 228.616  Recovery = 104.35%
Cr 267.716†            60450.9      501.34 µg/L        3.850      501.34 ppb         3.850   0.77%
   QC value within limits for Cr 267.716  Recovery = 100.27%
Cu 324.752†           126612.6      523.71 µg/L        2.136      523.71 ppb         2.136   0.41%
   QC value within limits for Cu 324.752  Recovery = 104.74%
Fe 238.204 Radial†     77944.8      5159.3 µg/L        13.97      5159.3 ppb         13.97   0.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.19%
K 766.490 Radial†       6325.4      2518.2 µg/L        22.53      2518.2 ppb         22.53   0.89%
   QC value within limits for K 766.490 Radial  Recovery = 100.73%
Mg 279.077 IEC†        13670.7      5456.4 µg/L        37.69      5456.4 ppb         37.69   0.69%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.13%
Mn 257.610†           404590.5      531.10 µg/L        2.065      531.10 ppb         2.065   0.39%
   QC value within limits for Mn 257.610  Recovery = 106.22%
Mo 202.031†            17605.9      552.07 µg/L        5.313      552.07 ppb         5.313   0.96%
   QC value greater than the upper limit for Mo 202.031  Recovery = 110.41%
Na 589.592 Radial†     17366.8      2564.7 µg/L        23.62      2564.7 ppb         23.62   0.92%
   QC value within limits for Na 589.592 Radial  Recovery = 102.59%
Ni 231.604†            42120.8      517.44 µg/L        4.491      517.44 ppb         4.491   0.87%
   QC value within limits for Ni 231.604  Recovery = 103.49%
P 214.914†             11217.1      2577.7 µg/L        21.94      2577.7 ppb         21.94   0.85%
   QC value within limits for P 214.914  Recovery = 103.11%
Pb 220.353†             8730.1      522.29 µg/L        4.426      522.29 ppb         4.426   0.85%
   QC value within limits for Pb 220.353  Recovery = 104.46%
S 181.975 Axial†        3195.2      2562.5 µg/L        16.02      2562.5 ppb         16.02   0.63%
   QC value within limits for S 181.975 Axial  Recovery = 102.50%
Sb 206.836†             4022.6      514.27 µg/L        3.568      514.27 ppb         3.568   0.69%
   QC value within limits for Sb 206.836  Recovery = 102.85%
Se 196.026†             6631.8        2590 µg/L         23.3        2590 ppb          23.3   0.90%
   QC value within limits for Se 196.026  Recovery = 103.46%
SiO2†                 102269.6       10637 µg/L         44.1       10637 ppb          44.1   0.41%
   QC value within limits for SiO2  Recovery = 99.45%
Si 251.611†           316521.5      4963.6 µg/L        23.82      4963.6 ppb         23.82   0.48%
   QC value within limits for Si 251.611  Recovery = 99.27%
Sn 189.927†             8207.8      550.00 µg/L        4.184      550.00 ppb         4.184   0.76%
   QC value within limits for Sn 189.927  Recovery = 110.00%
Sr 421.552†           241784.6      532.89 µg/L        5.801      532.89 ppb         5.801   1.09%
   QC value within limits for Sr 421.552  Recovery = 106.58%
Ti 334.940†           514321.1      506.85 µg/L        1.382      506.85 ppb         1.382   0.27%
   QC value within limits for Ti 334.940  Recovery = 101.37%
Tl 190.801†             4177.6      554.47 µg/L        2.595      554.47 ppb         2.595   0.47%
   QC value greater than the upper limit for Tl 190.801  Recovery = 110.89%
U 409.014†              7560.0      501.36 µg/L       10.911      501.36 ppb        10.911   2.18%
   QC value within limits for U 409.014  Recovery = 100.27%
V 292.402†            100160.5      525.90 µg/L        1.836      525.90 ppb         1.836   0.35%
   QC value within limits for V 292.402  Recovery = 105.18%
Zn 213.857†            87006.4      519.58 µg/L        2.988      519.58 ppb         2.988   0.58%
   QC value within limits for Zn 213.857  Recovery = 103.92%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/31/2010 8:55:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	148819.0	148819.0	99.2	%			08:55:36
1	Al 396.153Radial†	-69.0	4.4	0.8529	µg/L	0.8529	ppb	08:55:56
1	Ca 317.933Radial†	604.8	-23.3	-1.3920	µg/L	-1.3920	ppb	08:55:56
1	Fe 238.204 Radial†	179.3	43.2	2.8617	µg/L	2.8617	ppb	08:55:56
1	K 766.490 Radial†	1630.5	68.6	27.324	µg/L	27.324	ppb	08:55:36
1	Mg 279.077 IEC†	170.5	-0.4	-0.1461	µg/L	-0.1461	ppb	08:55:56
1	Na 589.592 Radial†	1344.4	237.4	35.066	µg/L	35.066	ppb	08:55:36
1	Sr 421.552†	-59.7	195.4	0.4306	µg/L	0.4306	ppb	08:55:36
1	Sc 361.383	1747477.1	1747477.1	97.501	%			08:56:44
1	Y 371.029	1051488.4	1051488.4	97.489	%			08:56:44
1	Ag 328.068†	4048.3	223.9	0.8870	µg/L	0.8870	ppb	08:56:46
1	As 188.979†	-16.2	-2.8	-0.8942	µg/L	-0.8942	ppb	08:57:06
1	B 249.677†	3485.1	171.0	2.6998	µg/L	2.6998	ppb	08:57:06
1	Ba 233.527†	-150.2	-15.7	-0.0667	µg/L	-0.0667	ppb	08:57:06
1	Be 313.107†	-961.9	30.0	0.0107	µg/L	0.0107	ppb	08:56:46
1	Cd 226.502†	-115.8	-9.0	-0.0603	µg/L	-0.0603	ppb	08:57:06
1	Co 228.616†	-175.5	-8.4	-0.1102	µg/L	-0.1102	ppb	08:57:06
1	Cr 267.716†	190.3	14.5	0.1147	µg/L	0.1147	ppb	08:57:06
1	Cu 324.752†	3032.4	132.7	0.5530	µg/L	0.5530	ppb	08:56:46
1	Mn 257.610†	294.6	109.1	0.1432	µg/L	0.1432	ppb	08:57:06
1	Mo 202.031†	-28.6	7.1	0.2216	µg/L	0.2216	ppb	08:57:06
1	Ni 231.604†	-97.1	-1.9	-0.0239	µg/L	-0.0239	ppb	08:57:06
1	P 214.914†	-29.5	-7.0	-1.6106	µg/L	-1.6106	ppb	08:57:06
1	Pb 220.353†	106.3	47.1	2.8056	µg/L	2.8056	ppb	08:57:06
1	S 181.975 Axial†	89.4	-0.5	-0.4127	µg/L	-0.4127	ppb	08:57:06
1	Sb 206.836†	87.6	8.9	1.1388	µg/L	1.1388	ppb	08:57:06
1	Se 196.026†	18.2	-2.2	-0.865	µg/L	-0.865	ppb	08:57:06
1	SiO2†	1792.5	56.6	5.8756	µg/L	5.8756	ppb	08:57:06
1	Si 251.611†	1092.4	192.3	3.0104	µg/L	3.0104	ppb	08:56:46
1	Sn 189.927†	18.9	21.8	1.4576	µg/L	1.4576	ppb	08:57:06
1	Ti 334.940†	794.0	-155.9	-0.1566	µg/L	-0.1566	ppb	08:56:46
1	Tl 190.801†	-102.0	12.2	1.5977	µg/L	1.5977	ppb	08:57:06
1	U 409.014†	-205.6	107.6	6.6876	µg/L	6.6876	ppb	08:56:46
1	V 292.402†	318.8	21.3	0.1173	µg/L	0.1173	ppb	08:56:46
1	Zn 213.857†	599.5	23.5	0.1408	µg/L	0.1408	ppb	08:57:06
2	Sc RADIAL	150230.5	150230.5	100	%			08:55:58
2	Al 396.153Radial†	-60.1	13.9	2.7247	µg/L	2.7247	ppb	08:56:18
2	Ca 317.933Radial†	567.6	-66.2	-3.9487	µg/L	-3.9487	ppb	08:56:18
2	Fe 238.204 Radial†	172.9	35.1	2.3249	µg/L	2.3249	ppb	08:56:18
2	K 766.490 Radial†	1738.5	161.0	64.172	µg/L	64.172	ppb	08:55:58
2	Mg 279.077 IEC†	172.3	-0.1	-0.0390	µg/L	-0.0390	ppb	08:56:18
2	Na 589.592 Radial†	1329.1	209.4	30.893	µg/L	30.893	ppb	08:55:58
2	Sr 421.552†	-163.7	92.1	0.2029	µg/L	0.2029	ppb	08:55:58
2	Sc 361.383	1782283.3	1782283.3	99.444	%			08:57:08
2	Y 371.029	1071082.2	1071082.2	99.306	%			08:57:08
2	Ag 328.068†	3888.7	-17.6	-0.0603	µg/L	-0.0603	ppb	08:57:11
2	As 188.979†	-10.8	3.0	0.9438	µg/L	0.9438	ppb	08:57:31
2	B 249.677†	3415.8	31.5	0.4985	µg/L	0.4985	ppb	08:57:31
2	Ba 233.527†	-129.3	8.2	0.0353	µg/L	0.0353	ppb	08:57:31
2	Be 313.107†	-1047.4	-36.6	-0.0096	µg/L	-0.0096	ppb	08:57:11
2	Cd 226.502†	-84.9	24.4	0.1629	µg/L	0.1629	ppb	08:57:31
2	Co 228.616†	-185.4	-14.8	-0.1950	µg/L	-0.1950	ppb	08:57:31
2	Cr 267.716†	202.0	22.4	0.1837	µg/L	0.1837	ppb	08:57:31
2	Cu 324.752†	2906.1	-55.1	-0.2244	µg/L	-0.2244	ppb	08:57:11
2	Mn 257.610†	303.9	112.6	0.1479	µg/L	0.1479	ppb	08:57:31
2	Mo 202.031†	-34.2	2.0	0.0644	µg/L	0.0644	ppb	08:57:31
2	Ni 231.604†	-87.3	9.8	0.1206	µg/L	0.1206	ppb	08:57:31
2	P 214.914†	-25.9	-2.7	-0.6228	µg/L	-0.6228	ppb	08:57:31
2	Pb 220.353†	74.3	12.9	0.7651	µg/L	0.7651	ppb	08:57:31

2	S 181.975 Axial†	98.7	7.0	5.6244 µg/L	5.6244 ppb	08:57:31
2	Sb 206.836†	76.9	-3.6	-0.4598 µg/L	-0.4598 ppb	08:57:31
2	Se 196.026†	18.7	-2.1	-0.810 µg/L	-0.810 ppb	08:57:31
2	SiO2†	1806.9	35.1	3.6466 µg/L	3.6466 ppb	08:57:31
2	Si 251.611†	892.3	-30.8	-0.4912 µg/L	-0.4912 ppb	08:57:11
2	Sn 189.927†	11.9	14.4	0.9627 µg/L	0.9627 ppb	08:57:31
2	Ti 334.940†	1019.7	55.1	0.0529 µg/L	0.0529 ppb	08:57:11
2	Tl 190.801†	-122.8	-6.7	-0.8711 µg/L	-0.8711 ppb	08:57:31
2	U 409.014†	-266.5	50.5	3.1583 µg/L	3.1583 ppb	08:57:11
2	V 292.402†	381.6	78.1	0.4076 µg/L	0.4076 ppb	08:57:11
2	Zn 213.857†	597.2	9.2	0.0548 µg/L	0.0548 ppb	08:57:31
3	Sc RADIAL	148943.6	148943.6	99.3 %		08:56:20
3	Al 396.153Radial†	-67.9	5.6	1.0831 µg/L	1.0831 ppb	08:56:40
3	Ca 317.933Radial†	596.9	-31.7	-1.8923 µg/L	-1.8923 ppb	08:56:40
3	Fe 238.204 Radial†	171.0	34.8	2.3023 µg/L	2.3023 ppb	08:56:40
3	K 766.490 Radial†	1596.5	32.9	13.122 µg/L	13.122 ppb	08:56:20
3	Mg 279.077 IEC†	190.0	19.1	7.6322 µg/L	7.6322 ppb	08:56:40
3	Na 589.592 Radial†	1199.8	90.6	13.379 µg/L	13.379 ppb	08:56:20
3	Sr 421.552†	-282.8	-29.3	-0.0645 µg/L	-0.0645 ppb	08:56:20
3	Sc 361.383	1766524.3	1766524.3	98.564 %		08:57:33
3	Y 371.029	1062999.0	1062999.0	98.556 %		08:57:33
3	Ag 328.068†	3864.1	-7.7	-0.0252 µg/L	-0.0252 ppb	08:57:35
3	As 188.979†	-20.6	-7.0	-2.2290 µg/L	-2.2290 ppb	08:57:55
3	B 249.677†	3384.5	30.5	0.4809 µg/L	0.4809 ppb	08:57:55
3	Ba 233.527†	-166.1	-30.2	-0.1283 µg/L	-0.1283 ppb	08:57:55
3	Be 313.107†	-1031.9	-30.3	-0.0071 µg/L	-0.0071 ppb	08:57:35
3	Cd 226.502†	-113.5	-5.4	-0.0362 µg/L	-0.0362 ppb	08:57:55
3	Co 228.616†	-164.5	4.7	0.0612 µg/L	0.0612 ppb	08:57:55
3	Cr 267.716†	211.7	34.1	0.2782 µg/L	0.2782 ppb	08:57:55
3	Cu 324.752†	3053.8	120.8	0.5033 µg/L	0.5033 ppb	08:57:35
3	Mn 257.610†	307.2	118.6	0.1554 µg/L	0.1554 ppb	08:57:55
3	Mo 202.031†	-28.2	7.8	0.2453 µg/L	0.2453 ppb	08:57:55
3	Ni 231.604†	-85.8	10.6	0.1300 µg/L	0.1300 ppb	08:57:55
3	P 214.914†	-24.3	-1.3	-0.3042 µg/L	-0.3042 ppb	08:57:55
3	Pb 220.353†	62.8	1.8	0.1040 µg/L	0.1040 ppb	08:57:55
3	S 181.975 Axial†	91.0	0.0	0.0410 µg/L	0.0410 ppb	08:57:55
3	Sb 206.836†	66.7	-13.3	-1.6905 µg/L	-1.6905 ppb	08:57:55
3	Se 196.026†	13.4	-7.3	-2.85 µg/L	-2.85 ppb	08:57:55
3	SiO2†	1810.3	54.8	5.6888 µg/L	5.6888 ppb	08:57:55
3	Si 251.611†	897.2	-17.8	-0.2932 µg/L	-0.2932 ppb	08:57:35
3	Sn 189.927†	19.3	22.1	1.4741 µg/L	1.4741 ppb	08:57:55
3	Ti 334.940†	941.7	-14.8	-0.0176 µg/L	-0.0176 ppb	08:57:35
3	Tl 190.801†	-106.3	8.9	1.1698 µg/L	1.1698 ppb	08:57:55
3	U 409.014†	-229.3	85.8	5.3227 µg/L	5.3227 ppb	08:57:35
3	V 292.402†	274.1	-27.5	-0.1355 µg/L	-0.1355 ppb	08:57:35
3	Zn 213.857†	610.1	27.6	0.1648 µg/L	0.1648 ppb	08:57:55

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1765428.2	98.503	%	0.9725				0.99%
Sc RADIAL	149331.1	99.5	%	0.52				0.52%
Y 371.029	1061856.5	98.450	%	0.9129				0.93%
Ag 328.068†	66.2	0.2672	µg/L	0.53707	0.2672	ppb	0.53707	201.03%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.0	1.5536	µg/L	1.02072	1.5536	ppb	1.02072	65.70%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.3	-0.7265	µg/L	1.59304	-0.7265	ppb	1.59304	219.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	77.7	1.2264	µg/L	1.27604	1.2264	ppb	1.27604	104.05%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-12.6	-0.0533	µg/L	0.08262	-0.0533	ppb	0.08262	155.14%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-12.3	-0.0020	µg/L	0.01104	-0.0020	ppb	0.01104	548.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-40.4	-2.4110	µg/L	1.35502	-2.4110	ppb	1.35502	56.20%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	3.3	0.0221	µg/L	0.12252	0.0221	ppb	0.12252	553.98%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-6.2	-0.0814	µg/L	0.13054	-0.0814	ppb	0.13054	160.43%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                23.6      0.1922 µg/L       0.08205      0.1922 ppb        0.08205  42.69%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                66.1      0.2773 µg/L       0.43516      0.2773 ppb        0.43516 156.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         37.7      2.4963 µg/L       0.31668      2.4963 ppb        0.31668  12.69%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          87.5      34.873 µg/L       26.3491      34.873 ppb        26.3491  75.56%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             6.2      2.4824 µg/L       4.46021      2.4824 ppb        4.46021 179.68%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               113.4      0.1488 µg/L       0.00617      0.1488 ppb        0.00617   4.14%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.6      0.1771 µg/L       0.09832      0.1771 ppb        0.09832  55.51%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        179.1      26.446 µg/L       11.5075      26.446 ppb        11.5075  43.51%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 6.2      0.0756 µg/L       0.08624      0.0756 ppb        0.08624 114.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.7     -0.8458 µg/L       0.68117     -0.8458 ppb        0.68117  80.53%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                20.6      1.2249 µg/L       1.40825      1.2249 ppb        1.40825 114.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.2      1.7509 µg/L       3.36221      1.7509 ppb        3.36221 192.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.7     -0.3372 µg/L       1.41863     -0.3372 ppb        1.41863 420.76%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.9      -1.51 µg/L         1.163       -1.51 ppb          1.163  77.09%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      48.9      5.0703 µg/L       1.23653      5.0703 ppb        1.23653  24.39%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                47.9      0.7420 µg/L       1.96701      0.7420 ppb        1.96701 265.10%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                19.4      1.2982 µg/L       0.29060      1.2982 ppb        0.29060  22.39%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                86.0      0.1897 µg/L       0.24782      0.1897 ppb        0.24782 130.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -38.5     -0.0404 µg/L       0.10663     -0.0404 ppb        0.10663 263.76%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 4.8      0.6321 µg/L       1.31930      0.6321 ppb        1.31930 208.72%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 81.3      5.0562 µg/L       1.77968      5.0562 ppb        1.77968  35.20%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 23.9      0.1298 µg/L       0.27174      0.1298 ppb        0.27174 209.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                20.1      0.1201 µg/L       0.05786      0.1201 ppb        0.05786  48.17%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 3/31/2010 8:58:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	151523.0	151523.0	101	%			08:58:32
1	Al 396.153Radial†	955.4	1019.9	199.59	µg/L	199.59	ppb	08:58:34
1	Ca 317.933Radial†	4160.8	3486.8	207.95	µg/L	207.95	ppb	08:58:34
1	Fe 238.204 Radial†	1697.5	1543.3	102.15	µg/L	102.15	ppb	08:58:34
1	K 766.490 Radial†	1860.3	266.7	106.15	µg/L	106.15	ppb	08:58:32
1	Mg 279.077 IEC†	960.0	778.3	310.30	µg/L	310.30	ppb	08:58:34
1	Na 589.592 Radial†	3201.8	2052.2	303.25	µg/L	303.25	ppb	08:58:34
1	Sr 421.552†	2361.8	2594.1	5.7161	µg/L	5.7161	ppb	08:58:34
1	Sc 361.383	1768403.3	1768403.3	98.669	%			08:58:46
1	Y 371.029	1065976.0	1065976.0	98.832	%			08:58:46
1	Ag 328.068†	5148.6	1289.9	5.1814	µg/L	5.1814	ppb	08:58:48
1	As 188.979†	73.7	88.5	28.146	µg/L	28.146	ppb	08:59:08
1	B 249.677†	6461.0	3144.8	49.619	µg/L	49.619	ppb	08:58:48
1	Ba 233.527†	1036.3	1188.6	5.0525	µg/L	5.0525	ppb	08:59:08
1	Be 313.107†	15768.1	16997.4	4.9104	µg/L	4.9104	ppb	08:58:48
1	Cd 226.502†	635.4	753.7	5.0267	µg/L	5.0267	ppb	08:59:08
1	Co 228.616†	217.5	392.0	5.1615	µg/L	5.1615	ppb	08:59:08
1	Cr 267.716†	784.3	614.1	5.0431	µg/L	5.0431	ppb	08:59:08
1	Cu 324.752†	5278.1	2371.9	9.8610	µg/L	9.8610	ppb	08:58:48
1	Mn 257.610†	8137.3	8054.0	10.564	µg/L	10.564	ppb	08:58:48
1	Mo 202.031†	279.2	319.4	10.018	µg/L	10.018	ppb	08:59:08
1	Ni 231.604†	329.9	432.0	5.3065	µg/L	5.3065	ppb	08:59:08
1	P 214.914†	621.6	653.3	150.51	µg/L	150.51	ppb	08:59:08
1	Pb 220.353†	240.6	181.9	10.836	µg/L	10.836	ppb	08:59:08
1	S 181.975 Axial†	225.1	135.9	108.89	µg/L	108.89	ppb	08:59:08
1	Sb 206.836†	152.4	73.5	9.4457	µg/L	9.4457	ppb	08:59:08
1	Se 196.026†	95.4	75.7	29.6	µg/L	29.6	ppb	08:59:08
1	SiO2†	3853.0	2123.1	220.86	µg/L	220.86	ppb	08:58:48
1	Si 251.611†	7373.1	6544.4	102.65	µg/L	102.65	ppb	08:58:48
1	Sn 189.927†	161.9	166.5	11.140	µg/L	11.140	ppb	08:59:08
1	Ti 334.940†	5791.9	4899.7	4.7867	µg/L	4.7867	ppb	08:58:48
1	Tl 190.801†	47.5	164.9	21.667	µg/L	21.667	ppb	08:59:08
1	U 409.014†	718.0	1046.2	65.298	µg/L	65.298	ppb	08:58:48
1	V 292.402†	1185.5	895.9	4.7936	µg/L	4.7936	ppb	08:58:48
1	Zn 213.857†	2239.8	1678.7	10.054	µg/L	10.054	ppb	08:59:08
2	Sc RADIAL	150385.1	150385.1	100	%			08:58:36
2	Al 396.153Radial†	1022.9	1094.4	214.20	µg/L	214.20	ppb	08:58:38
2	Ca 317.933Radial†	4248.7	3605.6	215.04	µg/L	215.04	ppb	08:58:38
2	Fe 238.204 Radial†	1768.2	1626.5	107.66	µg/L	107.66	ppb	08:58:38
2	K 766.490 Radial†	2059.1	479.0	190.77	µg/L	190.77	ppb	08:58:36
2	Mg 279.077 IEC†	975.4	800.9	319.29	µg/L	319.29	ppb	08:58:38
2	Na 589.592 Radial†	3208.6	2083.0	307.72	µg/L	307.72	ppb	08:58:38
2	Sr 421.552†	2413.8	2663.7	5.8694	µg/L	5.8694	ppb	08:58:38
2	Sc 361.383	1774879.8	1774879.8	99.030	%			08:59:10
2	Y 371.029	1069956.4	1069956.4	99.201	%			08:59:10
2	Ag 328.068†	5229.8	1352.9	5.4305	µg/L	5.4305	ppb	08:59:12
2	As 188.979†	79.4	94.0	29.867	µg/L	29.867	ppb	08:59:32
2	B 249.677†	6602.1	3263.4	51.493	µg/L	51.493	ppb	08:59:12
2	Ba 233.527†	1073.3	1222.1	5.1949	µg/L	5.1949	ppb	08:59:32
2	Be 313.107†	16138.9	17313.5	5.0021	µg/L	5.0021	ppb	08:59:12
2	Cd 226.502†	673.3	789.6	5.2658	µg/L	5.2658	ppb	08:59:32
2	Co 228.616†	203.1	376.7	4.9591	µg/L	4.9591	ppb	08:59:32
2	Cr 267.716†	779.3	606.3	4.9756	µg/L	4.9756	ppb	08:59:32
2	Cu 324.752†	5316.4	2391.0	9.9430	µg/L	9.9430	ppb	08:59:12
2	Mn 257.610†	8332.8	8221.4	10.784	µg/L	10.784	ppb	08:59:12
2	Mo 202.031†	286.3	325.5	10.210	µg/L	10.210	ppb	08:59:32
2	Ni 231.604†	318.5	419.2	5.1498	µg/L	5.1498	ppb	08:59:32
2	P 214.914†	626.3	655.7	151.07	µg/L	151.07	ppb	08:59:32
2	Pb 220.353†	253.4	194.0	11.558	µg/L	11.558	ppb	08:59:32

2	S 181.975 Axial†	216.0	125.9	100.90 µg/L	100.90 ppb	08:59:32
2	Sb 206.836†	151.7	72.3	9.2963 µg/L	9.2963 ppb	08:59:32
2	Se 196.026†	89.6	69.5	27.2 µg/L	27.2 ppb	08:59:32
2	SiO2†	3880.8	2136.9	222.30 µg/L	222.30 ppb	08:59:12
2	Si 251.611†	7629.1	6775.7	106.28 µg/L	106.28 ppb	08:59:12
2	Sn 189.927†	153.1	157.1	10.512 µg/L	10.512 ppb	08:59:32
2	Ti 334.940†	6025.7	5114.4	4.9970 µg/L	4.9970 ppb	08:59:12
2	Tl 190.801†	45.4	162.6	21.376 µg/L	21.376 ppb	08:59:32
2	U 409.014†	761.6	1087.5	67.864 µg/L	67.864 ppb	08:59:12
2	V 292.402†	1178.0	883.9	4.7342 µg/L	4.7342 ppb	08:59:12
2	Zn 213.857†	2262.7	1693.5	10.144 µg/L	10.144 ppb	08:59:32
3	Sc RADIAL	149101.1	149101.1	99.4 %		08:58:40
3	Al 396.153Radial†	983.8	1063.9	208.22 µg/L	208.22 ppb	08:58:42
3	Ca 317.933Radial†	4028.1	3420.1	203.98 µg/L	203.98 ppb	08:58:42
3	Fe 238.204 Radial†	1698.2	1571.3	104.01 µg/L	104.01 ppb	08:58:42
3	K 766.490 Radial†	2117.9	555.9	221.41 µg/L	221.41 ppb	08:58:40
3	Mg 279.077 IEC†	1039.8	874.0	348.42 µg/L	348.42 ppb	08:58:42
3	Na 589.592 Radial†	3261.4	2163.8	319.63 µg/L	319.63 ppb	08:58:42
3	Sr 421.552†	2201.5	2470.7	5.4441 µg/L	5.4441 ppb	08:58:42
3	Sc 361.383	1775996.3	1775996.3	99.093 %		08:59:34
3	Y 371.029	1071001.6	1071001.6	99.298 %		08:59:34
3	Ag 328.068†	5128.9	1247.8	5.0019 µg/L	5.0019 ppb	08:59:36
3	As 188.979†	85.1	99.7	31.669 µg/L	31.669 ppb	08:59:56
3	B 249.677†	6550.9	3207.6	50.611 µg/L	50.611 ppb	08:59:36
3	Ba 233.527†	1069.9	1218.0	5.1776 µg/L	5.1776 ppb	08:59:56
3	Be 313.107†	16335.8	17501.9	5.0513 µg/L	5.0513 ppb	08:59:36
3	Cd 226.502†	636.6	752.2	5.0159 µg/L	5.0159 ppb	08:59:56
3	Co 228.616†	205.9	379.4	4.9951 µg/L	4.9951 ppb	08:59:56
3	Cr 267.716†	780.0	606.4	4.9895 µg/L	4.9895 ppb	08:59:56
3	Cu 324.752†	5454.9	2527.4	10.492 µg/L	10.492 ppb	08:59:36
3	Mn 257.610†	8261.9	8144.5	10.682 µg/L	10.682 ppb	08:59:36
3	Mo 202.031†	274.5	313.4	9.8313 µg/L	9.8313 ppb	08:59:56
3	Ni 231.604†	312.6	413.1	5.0744 µg/L	5.0744 ppb	08:59:56
3	P 214.914†	642.7	671.9	154.80 µg/L	154.80 ppb	08:59:56
3	Pb 220.353†	246.9	187.2	11.165 µg/L	11.165 ppb	08:59:56
3	S 181.975 Axial†	218.7	128.4	102.91 µg/L	102.91 ppb	08:59:56
3	Sb 206.836†	151.3	71.8	9.2281 µg/L	9.2281 ppb	08:59:56
3	Se 196.026†	108.1	88.1	34.4 µg/L	34.4 ppb	08:59:56
3	SiO2†	3848.8	2102.3	218.69 µg/L	218.69 ppb	08:59:36
3	Si 251.611†	7449.4	6589.5	103.36 µg/L	103.36 ppb	08:59:36
3	Sn 189.927†	158.2	162.1	10.847 µg/L	10.847 ppb	08:59:56
3	Ti 334.940†	6090.6	5176.1	5.0620 µg/L	5.0620 ppb	08:59:36
3	Tl 190.801†	53.9	171.2	22.494 µg/L	22.494 ppb	08:59:56
3	U 409.014†	498.3	821.3	51.344 µg/L	51.344 ppb	08:59:36
3	V 292.402†	1234.9	940.6	5.0131 µg/L	5.0131 ppb	08:59:36
3	Zn 213.857†	2246.6	1675.9	10.038 µg/L	10.038 ppb	08:59:56

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1773093.1	98.931	%	0.2287				0.23%
Sc RADIAL	150336.4	100	%	0.8				0.81%
Y 371.029	1068978.0	99.110	%	0.2459				0.25%
Ag 328.068†	1296.9	5.2046	µg/L	0.21521	5.2046	ppb	0.21521	4.13%
QC value within limits for Ag 328.068 Recovery = 104.09%								
Al 396.153Radial†	1059.4	207.33	µg/L	7.344	207.33	ppb	7.344	3.54%
QC value within limits for Al 396.153Radial Recovery = 103.67%								
As 188.979†	94.1	29.894	µg/L	1.7614	29.894	ppb	1.7614	5.89%
QC value within limits for As 188.979 Recovery = 99.65%								
B 249.677†	3205.3	50.575	µg/L	0.9373	50.575	ppb	0.9373	1.85%
QC value within limits for B 249.677 Recovery = 101.15%								
Ba 233.527†	1209.6	5.1416	µg/L	0.07772	5.1416	ppb	0.07772	1.51%
QC value within limits for Ba 233.527 Recovery = 102.83%								
Be 313.107†	17271.0	4.9880	µg/L	0.07154	4.9880	ppb	0.07154	1.43%
QC value within limits for Be 313.107 Recovery = 99.76%								
Ca 317.933Radial†	3504.2	208.99	µg/L	5.604	208.99	ppb	5.604	2.68%
QC value within limits for Ca 317.933Radial Recovery = 104.50%								
Cd 226.502†	765.2	5.1028	µg/L	0.14128	5.1028	ppb	0.14128	2.77%
QC value within limits for Cd 226.502 Recovery = 102.06%								
Co 228.616†	382.7	5.0385	µg/L	0.10796	5.0385	ppb	0.10796	2.14%

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   QC value within limits for Co 228.616  Recovery = 100.77%
Cr 267.716†              608.9      5.0027 µg/L       0.03561      5.0027 ppb        0.03561   0.71%
   QC value within limits for Cr 267.716  Recovery = 100.05%
Cu 324.752†             2430.1      10.099 µg/L        0.3431      10.099 ppb         0.3431   3.40%
   QC value within limits for Cu 324.752  Recovery = 100.99%
Fe 238.204 Radial†      1580.3      104.61 µg/L         2.802      104.61 ppb          2.802   2.68%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.61%
K 766.490 Radial†        433.9      172.78 µg/L        59.697      172.78 ppb         59.697  34.55%
   QC value within limits for K 766.490 Radial  Recovery = 115.18%
Mg 279.077 IEC†          817.8      326.00 µg/L        19.926      326.00 ppb         19.926   6.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.67%
Mn 257.610†             8140.0      10.677 µg/L        0.1098      10.677 ppb         0.1098   1.03%
   QC value within limits for Mn 257.610  Recovery = 106.77%
Mo 202.031†              319.4      10.020 µg/L        0.1894      10.020 ppb         0.1894   1.89%
   QC value within limits for Mo 202.031  Recovery = 100.20%
Na 589.592 Radial†      2099.7      310.20 µg/L         8.467      310.20 ppb          8.467   2.73%
   QC value within limits for Na 589.592 Radial  Recovery = 103.40%
Ni 231.604†              421.4      5.1769 µg/L       0.11842      5.1769 ppb        0.11842   2.29%
   QC value within limits for Ni 231.604  Recovery = 103.54%
P 214.914†               660.3      152.13 µg/L         2.337      152.13 ppb          2.337   1.54%
   QC value within limits for P 214.914  Recovery = 101.42%
Pb 220.353†              187.7      11.187 µg/L        0.3616      11.187 ppb         0.3616   3.23%
   QC value within limits for Pb 220.353  Recovery = 111.87%
S 181.975 Axial†         130.1      104.23 µg/L         4.156      104.23 ppb          4.156   3.99%
   QC value within limits for S 181.975 Axial  Recovery = 104.23%
Sb 206.836†               72.5      9.3233 µg/L       0.11128      9.3233 ppb        0.11128   1.19%
   QC value within limits for Sb 206.836  Recovery = 93.23%
Se 196.026†               77.8        30.4 µg/L          3.69        30.4 ppb           3.69  12.14%
   QC value within limits for Se 196.026  Recovery = 101.36%
SiO2†                   2120.8      220.62 µg/L         1.817      220.62 ppb          1.817   0.82%
   QC value within limits for SiO2  Recovery = 103.58%
Si 251.611†             6636.5      104.10 µg/L         1.927      104.10 ppb          1.927   1.85%
   QC value within limits for Si 251.611  Recovery = 104.10%
Sn 189.927†              161.9      10.833 µg/L        0.3143      10.833 ppb         0.3143   2.90%
   QC value within limits for Sn 189.927  Recovery = 108.33%
Sr 421.552†             2576.1      5.6765 µg/L       0.21536      5.6765 ppb        0.21536   3.79%
   QC value within limits for Sr 421.552  Recovery = 113.53%
Ti 334.940†             5063.4      4.9486 µg/L       0.14388      4.9486 ppb        0.14388   2.91%
   QC value within limits for Ti 334.940  Recovery = 98.97%
Tl 190.801†              166.2      21.846 µg/L        0.5801      21.846 ppb         0.5801   2.66%
   QC value within limits for Tl 190.801  Recovery = 109.23%
U 409.014†               985.0      61.502 µg/L        8.8899      61.502 ppb         8.8899  14.45%
   QC value within limits for U 409.014  Recovery = 123.00%
V 292.402†               906.8      4.8470 µg/L       0.14690      4.8470 ppb        0.14690   3.03%
   QC value within limits for V 292.402  Recovery = 96.94%
Zn 213.857†             1682.7      10.079 µg/L        0.0572      10.079 ppb         0.0572   0.57%
   QC value within limits for Zn 213.857  Recovery = 100.79%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 3/31/2010 9:00:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140520.2	140520.2	93.7	%			09:00:37
1	Al 396.153Radial†	2400769.3	2563267.8	502780	µg/L	502780	ppb	09:00:35
1	Ca 317.933Radial†	7549731.0	8059876.7	480700	µg/L	480700	ppb	09:00:35
1	Fe 238.204 Radial†	2696149.9	2878421.0	190530	µg/L	190530	ppb	09:00:35
1	K 766.490 Radial†	1657.4	194.3	-162.25	µg/L	-162.25	ppb	09:00:37
1	Mg 279.077 IEC†	1139883.9	1216830.8	484700	µg/L	484700	ppb	09:00:35
1	Na 589.592 Radial†	1329.2	301.2	44.453	µg/L	44.453	ppb	09:00:37
1	Sr 421.552†	1349.1	1696.0	-0.0243	µg/L	-0.0243	ppb	09:00:37
1	Sc 361.383	1573725.9	1573725.9	87.807	%			09:01:04
1	Y 371.029	931192.8	931192.8	86.336	%			09:01:04
1	Ag 328.068†	6098.7	3017.5	-1.4469	µg/L	-1.4469	ppb	09:01:04
1	As 188.979†	-101.9	-102.2	10.311	µg/L	10.311	ppb	09:01:24
1	B 249.677†	3454.3	530.6	8.3612	µg/L	8.3612	ppb	09:01:04
1	Ba 233.527†	463.2	665.8	0.3916	µg/L	0.3916	ppb	09:01:24
1	Be 313.107†	-1381.4	-556.6	-0.1520	µg/L	-0.1520	ppb	09:01:04
1	Cd 226.502†	2298.4	2727.4	-1.8163	µg/L	-1.8163	ppb	09:01:24
1	Co 228.616†	110.4	297.3	-6.0220	µg/L	-6.0220	ppb	09:01:24
1	Cr 267.716†	183.5	28.3	0.9157	µg/L	0.9157	ppb	09:01:24
1	Cu 324.752†	-5034.3	-8710.9	4.9514	µg/L	4.9514	ppb	09:01:04
1	Mn 257.610†	16228.4	18288.9	4.2892	µg/L	4.2892	ppb	09:01:04
1	Mo 202.031†	-562.0	-603.7	-2.5173	µg/L	-2.5173	ppb	09:01:24
1	Ni 231.604†	138.9	255.7	3.1417	µg/L	3.1417	ppb	09:01:24
1	P 214.914†	184.8	233.7	36.249	µg/L	36.249	ppb	09:01:24
1	Pb 220.353†	-401.5	-519.2	-5.9450	µg/L	-5.9450	ppb	09:01:24
1	S 181.975 Axial†	166.5	97.4	77.774	µg/L	77.774	ppb	09:01:24
1	Sb 206.836†	111.7	46.2	-0.1312	µg/L	-0.1312	ppb	09:01:24
1	Se 196.026†	-149.3	-191.0	-8.30	µg/L	-8.30	ppb	09:01:24
1	SiO2†	1629.5	74.0	8.2124	µg/L	8.2124	ppb	09:01:24
1	Si 251.611†	516.4	-340.0	-5.1084	µg/L	-5.1084	ppb	09:01:24
1	Sn 189.927†	31.6	38.5	2.6492	µg/L	2.6492	ppb	09:01:24
1	Ti 334.940†	21828.5	23889.4	-3.3961	µg/L	-3.3961	ppb	09:01:04
1	Tl 190.801†	-145.0	-48.4	-5.9104	µg/L	-5.9104	ppb	09:01:24
1	U 409.014†	101.9	434.5	5.5681	µg/L	5.5681	ppb	09:01:04
1	V 292.402†	3531.8	3716.5	-1.0510	µg/L	-1.0510	ppb	09:01:24
1	Zn 213.857†	4216.5	4210.7	8.9881	µg/L	8.9881	ppb	09:01:24
2	Sc RADIAL	141123.3	141123.3	94.1	%			09:00:42
2	Al 396.153Radial†	2426718.8	2579899.5	506050	µg/L	506050	ppb	09:00:40
2	Ca 317.933Radial†	7651902.3	8134043.7	485120	µg/L	485120	ppb	09:00:40
2	Fe 238.204 Radial†	2733731.5	2906070.8	192360	µg/L	192360	ppb	09:00:40
2	K 766.490 Radial†	1636.9	165.0	-175.91	µg/L	-175.91	ppb	09:00:42
2	Mg 279.077 IEC†	1157803.7	1230679.7	490220	µg/L	490220	ppb	09:00:40
2	Na 589.592 Radial†	1425.1	397.1	58.630	µg/L	58.630	ppb	09:00:42
2	Sr 421.552†	1446.2	1793.0	0.1549	µg/L	0.1549	ppb	09:00:42
2	Sc 361.383	1581092.3	1581092.3	88.218	%			09:01:27
2	Y 371.029	935435.6	935435.6	86.729	%			09:01:27
2	Ag 328.068†	6261.3	3169.4	-0.9812	µg/L	-0.9812	ppb	09:01:27
2	As 188.979†	-111.2	-112.2	7.5642	µg/L	7.5642	ppb	09:01:47
2	B 249.677†	3479.6	540.9	8.5247	µg/L	8.5247	ppb	09:01:27
2	Ba 233.527†	419.5	613.8	0.1477	µg/L	0.1477	ppb	09:01:47
2	Be 313.107†	-1377.7	-545.1	-0.1504	µg/L	-0.1504	ppb	09:01:27
2	Cd 226.502†	2351.3	2775.1	-1.6898	µg/L	-1.6898	ppb	09:01:47
2	Co 228.616†	106.0	291.7	-6.1911	µg/L	-6.1911	ppb	09:01:47
2	Cr 267.716†	187.2	31.5	0.9432	µg/L	0.9432	ppb	09:01:47
2	Cu 324.752†	-5125.7	-8787.7	5.0455	µg/L	5.0455	ppb	09:01:27
2	Mn 257.610†	16378.3	18372.7	4.1756	µg/L	4.1756	ppb	09:01:27
2	Mo 202.031†	-545.5	-581.9	-1.6616	µg/L	-1.6616	ppb	09:01:47
2	Ni 231.604†	134.9	250.5	3.0770	µg/L	3.0770	ppb	09:01:47
2	P 214.914†	165.0	210.3	30.335	µg/L	30.335	ppb	09:01:47
2	Pb 220.353†	-381.9	-494.8	-4.3446	µg/L	-4.3446	ppb	09:01:47

2	S 181.975 Axial†	164.7	94.4	75.437 µg/L	75.437 ppb	09:01:47
2	Sb 206.836†	136.5	73.8	3.3441 µg/L	3.3441 ppb	09:01:47
2	Se 196.026†	-161.6	-204.1	-12.8 µg/L	-12.8 ppb	09:01:47
2	SiO2†	1627.0	62.5	6.9918 µg/L	6.9918 ppb	09:01:47
2	Si 251.611†	483.7	-379.8	-5.7443 µg/L	-5.7443 ppb	09:01:47
2	Sn 189.927†	36.4	43.7	2.9988 µg/L	2.9988 ppb	09:01:47
2	Ti 334.940†	21304.6	23179.7	-4.4282 µg/L	-4.4282 ppb	09:01:27
2	Tl 190.801†	-175.9	-82.6	-10.392 µg/L	-10.392 ppb	09:01:47
2	U 409.014†	21.8	343.2	-0.3135 µg/L	-0.3135 ppb	09:01:27
2	V 292.402†	3584.6	3757.7	-1.0268 µg/L	-1.0268 ppb	09:01:47
2	Zn 213.857†	4230.8	4204.5	8.7692 µg/L	8.7692 ppb	09:01:47
3	Sc RADIAL	140112.5	140112.5	93.4 %		09:00:46
3	Al 396.153Radial†	2413123.4	2583953.2	506840 µg/L	506840 ppb	09:00:44
3	Ca 317.933Radial†	7619796.2	8158350.4	486570 µg/L	486570 ppb	09:00:44
3	Fe 238.204 Radial†	2717980.3	2910170.8	192630 µg/L	192630 ppb	09:00:44
3	K 766.490 Radial†	1778.9	329.6	-110.80 µg/L	-110.80 ppb	09:00:46
3	Mg 279.077 IEC†	1150715.2	1231969.1	490730 µg/L	490730 ppb	09:00:44
3	Na 589.592 Radial†	1243.5	213.6	31.457 µg/L	31.457 ppb	09:00:46
3	Sr 421.552†	1375.4	1728.3	0.0010 µg/L	0.0010 ppb	09:00:46
3	Sc 361.383	1573760.4	1573760.4	87.809 %		09:01:50
3	Y 371.029	931881.2	931881.2	86.400 %		09:01:50
3	Ag 328.068†	6286.7	3231.4	-0.7822 µg/L	-0.7822 ppb	09:01:50
3	As 188.979†	-111.7	-113.3	7.2615 µg/L	7.2615 ppb	09:02:10
3	B 249.677†	3128.2	159.2	2.5013 µg/L	2.5013 ppb	09:01:50
3	Ba 233.527†	396.6	590.0	0.0426 µg/L	0.0426 ppb	09:02:10
3	Be 313.107†	-1254.6	-412.2	-0.1122 µg/L	-0.1122 ppb	09:01:50
3	Cd 226.502†	2335.9	2769.9	-1.7527 µg/L	-1.7527 ppb	09:02:10
3	Co 228.616†	72.8	254.6	-6.6947 µg/L	-6.6947 ppb	09:02:10
3	Cr 267.716†	209.8	58.3	1.1682 µg/L	1.1682 ppb	09:02:10
3	Cu 324.752†	-5296.7	-9009.5	4.1841 µg/L	4.1841 ppb	09:01:50
3	Mn 257.610†	16035.5	18068.7	3.7553 µg/L	3.7553 ppb	09:01:50
3	Mo 202.031†	-570.7	-613.5	-2.6316 µg/L	-2.6316 ppb	09:02:10
3	Ni 231.604†	171.3	292.7	3.5963 µg/L	3.5963 ppb	09:02:10
3	P 214.914†	189.3	238.9	36.927 µg/L	36.927 ppb	09:02:10
3	Pb 220.353†	-377.3	-491.6	-4.1140 µg/L	-4.1140 ppb	09:02:10
3	S 181.975 Axial†	162.9	93.3	74.499 µg/L	74.499 ppb	09:02:10
3	Sb 206.836†	124.9	61.3	1.7293 µg/L	1.7293 ppb	09:02:10
3	Se 196.026†	-137.3	-177.3	-2.24 µg/L	-2.24 ppb	09:02:10
3	SiO2†	1688.4	141.0	15.196 µg/L	15.196 ppb	09:02:10
3	Si 251.611†	521.8	-333.8	-5.0121 µg/L	-5.0121 ppb	09:02:10
3	Sn 189.927†	43.1	51.5	3.5175 µg/L	3.5175 ppb	09:02:10
3	Ti 334.940†	20663.8	22562.4	-5.0415 µg/L	-5.0415 ppb	09:01:50
3	Tl 190.801†	-161.0	-66.5	-8.3012 µg/L	-8.3012 ppb	09:02:10
3	U 409.014†	22.7	344.3	-0.2760 µg/L	-0.2760 ppb	09:01:50
3	V 292.402†	3493.0	3672.3	-1.5062 µg/L	-1.5062 ppb	09:02:10
3	Zn 213.857†	4233.8	4230.3	8.8923 µg/L	8.8923 ppb	09:02:10

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1576192.8	87.945	%	0.2367				0.27%
Sc RADIAL	140585.3	93.7	%	0.34				0.36%
Y 371.029	932836.5	86.488	%	0.2111				0.24%
Ag 328.068†	3139.4	-1.0701	µg/L	0.34117	-1.0701	ppb	0.34117	31.88%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2575706.8	505220	µg/L	2150.1	505220	ppb	2150.1	0.43%
QC value within limits for Al 396.153Radial Recovery = 101.04%								
As 188.979†	-109.3	8.3790	µg/L	1.68017	8.3790	ppb	1.68017	20.05%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	410.2	6.4624	µg/L	3.43139	6.4624	ppb	3.43139	53.10%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	623.2	0.1940	µg/L	0.17907	0.1940	ppb	0.17907	92.32%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-504.7	-0.1382	µg/L	0.02256	-0.1382	ppb	0.02256	16.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8117423.6	484130	µg/L	3059.4	484130	ppb	3059.4	0.63%
QC value within limits for Ca 317.933Radial Recovery = 96.83%								
Cd 226.502†	2757.5	-1.7530	µg/L	0.06323	-1.7530	ppb	0.06323	3.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	281.2	-6.3026	µg/L	0.34993	-6.3026	ppb	0.34993	5.55%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              39.4      1.0090 µg/L       0.13855      1.0090 ppb        0.13855  13.73%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -8836.0      4.7270 µg/L       0.47249      4.7270 ppb        0.47249  10.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2898220.9      191840 µg/L        1143.1      191840 ppb         1143.1   0.60%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.92%
K 766.490 Radial†        229.6     -149.65 µg/L        34.335     -149.65 ppb         34.335  22.94%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1226493.2      488550 µg/L        3343.2      488550 ppb         3343.2   0.68%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.71%
Mn 257.610†            18243.4      4.0734 µg/L       0.28121      4.0734 ppb        0.28121   6.90%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -599.7     -2.2701 µg/L       0.53012     -2.2701 ppb        0.53012  23.35%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       304.0      44.847 µg/L       13.5911      44.847 ppb        13.5911  30.31%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              266.3      3.2717 µg/L       0.28298      3.2717 ppb        0.28298   8.65%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               227.6      34.504 µg/L        3.6262      34.504 ppb         3.6262  10.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -501.9     -4.8012 µg/L       0.99727     -4.8012 ppb        0.99727  20.77%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          95.0      75.903 µg/L        1.6863      75.903 ppb         1.6863   2.22%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               60.5      1.6474 µg/L       1.73909      1.6474 ppb        1.73909 105.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -190.8       -7.77 µg/L         5.278       -7.77 ppb          5.278  67.94%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     92.5      10.133 µg/L        4.4267      10.133 ppb         4.4267  43.68%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -351.2     -5.2883 µg/L       0.39786     -5.2883 ppb        0.39786   7.52%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               44.6      3.0552 µg/L       0.43692      3.0552 ppb        0.43692  14.30%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             1739.1      0.0438 µg/L       0.09697      0.0438 ppb        0.09697 221.16%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            23210.5     -4.2886 µg/L       0.83152     -4.2886 ppb        0.83152  19.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -65.8     -8.2011 µg/L       2.24242     -8.2011 ppb        2.24242  27.34%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               374.0      1.6596 µg/L       3.38492      1.6596 ppb        3.38492 203.97%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              3715.5     -1.1947 µg/L       0.27008     -1.1947 ppb        0.27008  22.61%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             4215.2      8.8832 µg/L       0.10975      8.8832 ppb        0.10975   1.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 3/31/2010 9:02:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137224.0	137224.0	91.5	%			09:02:50
1	Al 396.153Radial†	2402511.5	2626740.3	515210	µg/L	515210	ppb	09:02:48
1	Ca 317.933Radial†	7555342.5	8259624.5	492610	µg/L	492610	ppb	09:02:48
1	Fe 238.204 Radial†	2701130.0	2953008.5	195470	µg/L	195470	ppb	09:02:48
1	K 766.490 Radial†	14843.4	14653.1	5594.1	µg/L	5594.1	ppb	09:02:50
1	Mg 279.077 IEC†	1136616.0	1242490.3	494940	µg/L	494940	ppb	09:02:50
1	Na 589.592 Radial†	34719.0	36840.4	5440.2	µg/L	5440.2	ppb	09:02:50
1	Sr 421.552†	214286.7	234535.3	513.09	µg/L	513.09	ppb	09:02:50
1	Sc 361.383	1575015.8	1575015.8	87.879	%			09:03:18
1	Y 371.029	933295.6	933295.6	86.531	%			09:03:18
1	Ag 328.068†	65324.3	70406.3	268.89	µg/L	268.89	ppb	09:03:18
1	As 188.979†	1328.1	1525.1	533.05	µg/L	533.05	ppb	09:03:20
1	B 249.677†	32335.8	33392.5	525.46	µg/L	525.46	ppb	09:03:18
1	Ba 233.527†	104295.9	118819.7	502.59	µg/L	502.59	ppb	09:03:18
1	Be 313.107†	753131.6	858027.2	247.03	µg/L	247.03	ppb	09:03:18
1	Cd 226.502†	65820.7	75009.1	480.72	µg/L	480.72	ppb	09:03:18
1	Co 228.616†	30695.8	35101.3	452.51	µg/L	452.51	ppb	09:03:20
1	Cr 267.716†	52614.9	59691.3	495.67	µg/L	495.67	ppb	09:03:20
1	Cu 324.752†	110061.3	122264.6	546.71	µg/L	546.71	ppb	09:03:18
1	Mn 257.610†	341595.0	388517.9	490.07	µg/L	490.07	ppb	09:03:18
1	Mo 202.031†	13577.0	15486.1	502.13	µg/L	502.13	ppb	09:03:20
1	Ni 231.604†	33452.1	38163.8	468.83	µg/L	468.83	ppb	09:03:20
1	P 214.914†	10280.0	11721.3	2677.9	µg/L	2677.9	ppb	09:03:20
1	Pb 220.353†	6785.4	7659.4	483.79	µg/L	483.79	ppb	09:03:20
1	S 181.975 Axial†	3170.9	3516.1	2818.8	µg/L	2818.8	ppb	09:03:20
1	Sb 206.836†	3636.5	4057.1	511.92	µg/L	511.92	ppb	09:03:20
1	Se 196.026†	5465.0	6197.9	2480	µg/L	2480	ppb	09:03:20
1	SiO2†	95702.4	107120.7	11145	µg/L	11145	ppb	09:03:18
1	Si 251.611†	292431.7	331838.6	5205.6	µg/L	5205.6	ppb	09:03:18
1	Sn 189.927†	6518.4	7419.9	497.46	µg/L	497.46	ppb	09:03:20
1	Ti 334.940†	477257.4	542115.0	507.09	µg/L	507.09	ppb	09:03:18
1	Tl 190.801†	3012.4	3544.6	472.24	µg/L	472.24	ppb	09:03:20
1	U 409.014†	6707.0	7950.5	503.93	µg/L	503.93	ppb	09:03:18
1	V 292.402†	90601.2	102792.2	518.73	µg/L	518.73	ppb	09:03:18
1	Zn 213.857†	76141.8	86052.7	497.90	µg/L	497.90	ppb	09:03:18
2	Sc RADIAL	137560.8	137560.8	91.7	%			09:02:55
2	Al 396.153Radial†	2382542.5	2598532.0	509680	µg/L	509680	ppb	09:02:53
2	Ca 317.933Radial†	7508366.4	8188171.7	488350	µg/L	488350	ppb	09:02:53
2	Fe 238.204 Radial†	2685190.4	2928395.6	193840	µg/L	193840	ppb	09:02:53
2	K 766.490 Radial†	14802.4	14568.7	5562.3	µg/L	5562.3	ppb	09:02:55
2	Mg 279.077 IEC†	1145560.0	1249203.0	497610	µg/L	497610	ppb	09:02:55
2	Na 589.592 Radial†	34975.6	37027.3	5467.9	µg/L	5467.9	ppb	09:02:55
2	Sr 421.552†	215471.0	235253.4	514.71	µg/L	514.71	ppb	09:02:55
2	Sc 361.383	1593260.8	1593260.8	88.897	%			09:03:23
2	Y 371.029	943047.1	943047.1	87.435	%			09:03:23
2	Ag 328.068†	66773.5	71185.3	272.09	µg/L	272.09	ppb	09:03:23
2	As 188.979†	1405.2	1594.5	554.59	µg/L	554.59	ppb	09:03:25
2	B 249.677†	33133.6	33868.6	533.01	µg/L	533.01	ppb	09:03:23
2	Ba 233.527†	106703.2	120168.5	508.34	µg/L	508.34	ppb	09:03:23
2	Be 313.107†	769626.0	866767.8	249.55	µg/L	249.55	ppb	09:03:23
2	Cd 226.502†	67526.4	76070.1	487.97	µg/L	487.97	ppb	09:03:23
2	Co 228.616†	30469.2	34446.3	443.97	µg/L	443.97	ppb	09:03:25
2	Cr 267.716†	52334.4	58690.1	487.26	µg/L	487.26	ppb	09:03:25
2	Cu 324.752†	112332.4	123385.1	551.17	µg/L	551.17	ppb	09:03:23
2	Mn 257.610†	348511.9	391847.5	494.34	µg/L	494.34	ppb	09:03:23
2	Mo 202.031†	13530.3	15256.7	494.93	µg/L	494.93	ppb	09:03:25
2	Ni 231.604†	32918.7	37127.8	456.10	µg/L	456.10	ppb	09:03:25
2	P 214.914†	10074.9	11356.5	2593.6	µg/L	2593.6	ppb	09:03:25
2	Pb 220.353†	6720.3	7497.8	473.84	µg/L	473.84	ppb	09:03:25

2	S 181.975 Axial†	3158.0	3460.2	2774.0 µg/L	2774.0 ppb	09:03:25
2	Sb 206.836†	3595.1	3963.2	500.03 µg/L	500.03 ppb	09:03:25
2	Se 196.026†	5456.0	6116.5	2450 µg/L	2450 ppb	09:03:25
2	SiO2†	97429.8	107816.8	11218 µg/L	11218 ppb	09:03:23
2	Si 251.611†	298847.8	335245.4	5259.3 µg/L	5259.3 ppb	09:03:23
2	Sn 189.927†	6474.7	7285.8	488.52 µg/L	488.52 ppb	09:03:25
2	Ti 334.940†	486394.1	546173.8	510.77 µg/L	510.77 ppb	09:03:23
2	Tl 190.801†	3058.9	3557.7	474.06 µg/L	474.06 ppb	09:03:25
2	U 409.014†	6977.2	8167.1	517.69 µg/L	517.69 ppb	09:03:23
2	V 292.402†	91895.4	103067.4	520.22 µg/L	520.22 ppb	09:03:23
2	Zn 213.857†	78103.7	87267.4	505.42 µg/L	505.42 ppb	09:03:23
3	Sc RADIAL	138834.0	138834.0	92.5 %		09:02:59
3	Al 396.153Radial†	2368832.5	2559886.7	502100 µg/L	502100 ppb	09:02:57
3	Ca 317.933Radial†	7451379.6	8051492.6	480200 µg/L	480200 ppb	09:02:57
3	Fe 238.204 Radial†	2661225.9	2875642.1	190340 µg/L	190340 ppb	09:02:57
3	K 766.490 Radial†	14843.9	14465.5	5524.5 µg/L	5524.5 ppb	09:02:59
3	Mg 279.077 IEC†	1153142.8	1245939.4	496320 µg/L	496320 ppb	09:02:59
3	Na 589.592 Radial†	35167.6	36885.0	5446.9 µg/L	5446.9 ppb	09:02:59
3	Sr 421.552†	216639.9	234361.4	512.81 µg/L	512.81 ppb	09:02:59
3	Sc 361.383	1568437.9	1568437.9	87.512 %		09:03:28
3	Y 371.029	929595.9	929595.9	86.188 %		09:03:28
3	Ag 328.068†	65204.5	70581.2	269.96 µg/L	269.96 ppb	09:03:28
3	As 188.979†	1354.4	1561.5	543.41 µg/L	543.41 ppb	09:03:30
3	B 249.677†	32673.8	33933.0	534.00 µg/L	534.00 ppb	09:03:28
3	Ba 233.527†	104483.6	119531.9	505.68 µg/L	505.68 ppb	09:03:28
3	Be 313.107†	753316.5	861832.8	248.13 µg/L	248.13 ppb	09:03:28
3	Cd 226.502†	65909.6	75424.7	484.03 µg/L	484.03 ppb	09:03:28
3	Co 228.616†	30419.9	34932.5	450.55 µg/L	450.55 ppb	09:03:30
3	Cr 267.716†	51979.5	59216.4	491.52 µg/L	491.52 ppb	09:03:30
3	Cu 324.752†	110087.6	122819.9	548.31 µg/L	548.31 ppb	09:03:28
3	Mn 257.610†	341681.3	390246.7	492.30 µg/L	492.30 ppb	09:03:28
3	Mo 202.031†	13558.7	15529.9	503.33 µg/L	503.33 ppb	09:03:30
3	Ni 231.604†	33011.5	37820.0	464.61 µg/L	464.61 ppb	09:03:30
3	P 214.914†	10273.0	11762.2	2687.9 µg/L	2687.9 ppb	09:03:30
3	Pb 220.353†	6718.9	7615.8	480.54 µg/L	480.54 ppb	09:03:30
3	S 181.975 Axial†	3113.8	3465.9	2778.6 µg/L	2778.6 ppb	09:03:30
3	Sb 206.836†	3667.8	4110.3	518.93 µg/L	518.93 ppb	09:03:30
3	Se 196.026†	5425.2	6178.5	2470 µg/L	2470 ppb	09:03:30
3	SiO2†	95689.5	107562.7	11191 µg/L	11191 ppb	09:03:28
3	Si 251.611†	292758.9	333608.1	5233.3 µg/L	5233.3 ppb	09:03:28
3	Sn 189.927†	6527.0	7460.9	500.21 µg/L	500.21 ppb	09:03:30
3	Ti 334.940†	478186.2	545454.0	509.95 µg/L	509.95 ppb	09:03:28
3	Tl 190.801†	2945.7	3482.8	464.20 µg/L	464.20 ppb	09:03:30
3	U 409.014†	6961.1	8273.0	524.65 µg/L	524.65 ppb	09:03:28
3	V 292.402†	90345.0	102931.7	520.00 µg/L	520.00 ppb	09:03:28
3	Zn 213.857†	76175.3	86454.4	500.79 µg/L	500.79 ppb	09:03:28

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1578904.9	88.096	%	0.7175				0.81%
Sc RADIAL	137872.9	91.9	%	0.57				0.62%
Y 371.029	935312.9	86.718	%	0.6443				0.74%
Ag 328.068†	70724.3	270.31	µg/L	1.631	270.31	ppb	1.631	0.60%
QC value within limits for Ag 328.068 Recovery = 108.12%								
Al 396.153Radial†	2595053.0	509000	µg/L	6583.3	509000	ppb	6583.3	1.29%
QC value within limits for Al 396.153Radial Recovery = 101.80%								
As 188.979†	1560.4	543.68	µg/L	10.774	543.68	ppb	10.774	1.98%
QC value within limits for As 188.979 Recovery = 108.74%								
B 249.677†	33731.4	530.83	µg/L	4.670	530.83	ppb	4.670	0.88%
QC value within limits for B 249.677 Recovery = 106.17%								
Ba 233.527†	119506.7	505.54	µg/L	2.877	505.54	ppb	2.877	0.57%
QC value within limits for Ba 233.527 Recovery = 101.11%								
Be 313.107†	862209.2	248.24	µg/L	1.263	248.24	ppb	1.263	0.51%
QC value within limits for Be 313.107 Recovery = 99.30%								
Ca 317.933Radial†	8166429.6	487060	µg/L	6307.4	487060	ppb	6307.4	1.30%
QC value within limits for Ca 317.933Radial Recovery = 97.41%								
Cd 226.502†	75501.3	484.24	µg/L	3.631	484.24	ppb	3.631	0.75%
QC value within limits for Cd 226.502 Recovery = 96.85%								
Co 228.616†	34826.7	449.01	µg/L	4.471	449.01	ppb	4.471	1.00%

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   QC value within limits for Co 228.616  Recovery = 89.80%
Cr 267.716†            59199.3      491.48 µg/L        4.203      491.48 ppb         4.203   0.86%
   QC value within limits for Cr 267.716  Recovery = 98.30%
Cu 324.752†           122823.2      548.73 µg/L        2.261      548.73 ppb         2.261   0.41%
   QC value within limits for Cu 324.752  Recovery = 109.75%
Fe 238.204 Radial†   2919015.4      193220 µg/L       2616.4      193220 ppb        2616.4   1.35%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.61%
K 766.490 Radial†      14562.4      5560.3 µg/L        34.84      5560.3 ppb         34.84   0.63%
   QC value within limits for K 766.490 Radial  Recovery = 111.21%
Mg 279.077 IEC†      1245877.6      496290 µg/L       1338.2      496290 ppb        1338.2   0.27%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.26%
Mn 257.610†           390204.0      492.24 µg/L        2.136      492.24 ppb         2.136   0.43%
   QC value within limits for Mn 257.610  Recovery = 98.45%
Mo 202.031†            15424.2      500.13 µg/L        4.543      500.13 ppb         4.543   0.91%
   QC value within limits for Mo 202.031  Recovery = 100.03%
Na 589.592 Radial†     36917.6      5451.6 µg/L        14.44      5451.6 ppb         14.44   0.26%
   QC value within limits for Na 589.592 Radial  Recovery = 109.03%
Ni 231.604†            37703.8      463.18 µg/L        6.482      463.18 ppb         6.482   1.40%
   QC value within limits for Ni 231.604  Recovery = 92.64%
P 214.914†             11613.3      2653.1 µg/L        51.79      2653.1 ppb         51.79   1.95%
   QC value within limits for P 214.914  Recovery = 106.13%
Pb 220.353†             7591.0      479.39 µg/L        5.073      479.39 ppb         5.073   1.06%
   QC value within limits for Pb 220.353  Recovery = 95.88%
S 181.975 Axial†        3480.7      2790.5 µg/L        24.63      2790.5 ppb         24.63   0.88%
   QC value within limits for S 181.975 Axial  Recovery = 111.62%
Sb 206.836†             4043.5      510.29 µg/L        9.553      510.29 ppb         9.553   1.87%
   QC value within limits for Sb 206.836  Recovery = 102.06%
Se 196.026†             6164.3        2470 µg/L         16.6        2470 ppb          16.6   0.67%
   QC value within limits for Se 196.026  Recovery = 98.79%
SiO2†                 107500.1       11184 µg/L         36.9       11184 ppb          36.9   0.33%
   QC value within limits for SiO2  Recovery = 104.58%
Si 251.611†           333564.0      5232.7 µg/L        26.85      5232.7 ppb         26.85   0.51%
   QC value within limits for Si 251.611  Recovery = 104.65%
Sn 189.927†             7388.9      495.40 µg/L        6.114      495.40 ppb         6.114   1.23%
   QC value within limits for Sn 189.927  Recovery = 99.08%
Sr 421.552†           234716.7      513.53 µg/L        1.026      513.53 ppb         1.026   0.20%
   QC value within limits for Sr 421.552  Recovery = 102.71%
Ti 334.940†           544580.9      509.27 µg/L        1.928      509.27 ppb         1.928   0.38%
   QC value within limits for Ti 334.940  Recovery = 101.85%
Tl 190.801†             3528.4      470.17 µg/L        5.246      470.17 ppb         5.246   1.12%
   QC value within limits for Tl 190.801  Recovery = 94.03%
U 409.014†              8130.2      515.42 µg/L       10.544      515.42 ppb        10.544   2.05%
   QC value within limits for U 409.014  Recovery = 103.08%
V 292.402†            102930.4      519.65 µg/L        0.805      519.65 ppb         0.805   0.15%
   QC value within limits for V 292.402  Recovery = 103.93%
Zn 213.857†            86591.5      501.37 µg/L        3.791      501.37 ppb         3.791   0.76%
   QC value within limits for Zn 213.857  Recovery = 100.27%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 3/31/2010 9:03:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	134993.8	134993.8	90.0	%			09:04:09
1	Al 396.153Radial†	2305054.5	2561824.9	502500	µg/L	502500	ppb	09:04:07
1	Ca 317.933Radial†	7304116.7	8116887.7	484100	µg/L	484100	ppb	09:04:07
1	Fe 238.204 Radial†	6249097.2	6944874.2	459700	µg/L	459700	ppb	09:04:07
1	K 766.490 Radial†	1922.3	561.2	-99.320	µg/L	-99.320	ppb	09:04:09
1	Mg 279.077 IEC†	1093633.0	1215250.4	483840	µg/L	483840	ppb	09:04:07
1	Na 589.592 Radial†	3097635.6	3441477.8	508690	µg/L	508690	ppb	09:04:07
1	Sr 421.552†	5022.6	5837.5	9.0775	µg/L	9.0775	ppb	09:04:09
1	Sc 361.383	1524303.7	1524303.7	85.049	%			09:04:22
1	Y 371.029	899112.8	899112.8	83.361	%			09:04:22
1	Ag 328.068†	1922.2	-1668.0	-0.9725	µg/L	-0.9725	ppb	09:04:22
1	As 188.979†	-242.0	-270.8	17.290	µg/L	17.290	ppb	09:04:24
1	B 249.677†	4201.2	1536.4	24.204	µg/L	24.204	ppb	09:04:22
1	Ba 233.527†	746.7	1016.2	-1.5620	µg/L	-1.5620	ppb	09:04:24
1	Be 313.107†	-15272.1	-16940.1	0.1514	µg/L	0.1514	ppb	09:04:22
1	Cd 226.502†	5856.3	6995.6	-1.6102	µg/L	-1.6102	ppb	09:04:24
1	Co 228.616†	729.0	1028.7	-10.432	µg/L	-10.432	ppb	09:04:24
1	Cr 267.716†	354.8	236.4	-1.0724	µg/L	-1.0724	ppb	09:04:24
1	Cu 324.752†	-15096.2	-20727.4	8.3015	µg/L	8.3015	ppb	09:04:24
1	Mn 257.610†	18016.1	20990.0	7.1585	µg/L	7.1585	ppb	09:04:22
1	Mo 202.031†	-868.3	-984.5	-3.8090	µg/L	-3.8090	ppb	09:04:24
1	Ni 231.604†	264.5	408.6	5.0192	µg/L	5.0192	ppb	09:04:24
1	P 214.914†	977.0	1172.1	70.312	µg/L	70.312	ppb	09:04:24
1	Pb 220.353†	-34.1	-102.0	-2.1820	µg/L	-2.1820	ppb	09:04:24
1	S 181.975 Axial†	116.1	44.3	35.186	µg/L	35.186	ppb	09:04:24
1	Sb 206.836†	154.8	101.1	3.3333	µg/L	3.3333	ppb	09:04:24
1	Se 196.026†	-409.1	-502.0	-20.1	µg/L	-20.1	ppb	09:04:24
1	SiO2†	1935.9	494.4	52.250	µg/L	52.250	ppb	09:04:24
1	Si 251.611†	-1907.0	-3170.3	-49.488	µg/L	-49.488	ppb	09:04:24
1	Sn 189.927†	140.3	167.4	11.280	µg/L	11.280	ppb	09:04:24
1	Ti 334.940†	25194.4	28653.0	-5.3501	µg/L	-5.3501	ppb	09:04:22
1	Tl 190.801†	-188.5	-104.8	-13.152	µg/L	-13.152	ppb	09:04:24
1	U 409.014†	227370.4	267657.7	16544	µg/L	16544	ppb	09:04:22
1	V 292.402†	6465.9	7296.8	0.1330	µg/L	0.1330	ppb	09:04:24
1	Zn 213.857†	8366.8	9246.3	10.848	µg/L	10.848	ppb	09:04:24
2	Sc RADIAL	135565.5	135565.5	90.4	%			09:04:14
2	Al 396.153Radial†	2329997.8	2578627.0	505800	µg/L	505800	ppb	09:04:12
2	Ca 317.933Radial†	7371784.7	8157545.6	486530	µg/L	486530	ppb	09:04:12
2	Fe 238.204 Radial†	6306633.8	6979264.0	461970	µg/L	461970	ppb	09:04:12
2	K 766.490 Radial†	2046.2	689.3	-50.120	µg/L	-50.120	ppb	09:04:14
2	Mg 279.077 IEC†	1103724.8	1221293.7	486250	µg/L	486250	ppb	09:04:12
2	Na 589.592 Radial†	3128701.2	3461341.2	511620	µg/L	511620	ppb	09:04:12
2	Sr 421.552†	4928.7	5710.0	8.7776	µg/L	8.7776	ppb	09:04:14
2	Sc 361.383	1512003.0	1512003.0	84.363	%			09:04:27
2	Y 371.029	891400.5	891400.5	82.646	%			09:04:27
2	Ag 328.068†	1911.8	-1661.9	-1.0774	µg/L	-1.0774	ppb	09:04:27
2	As 188.979†	-269.5	-305.6	6.7508	µg/L	6.7508	ppb	09:04:29
2	B 249.677†	4124.3	1485.4	23.403	µg/L	23.403	ppb	09:04:27
2	Ba 233.527†	569.8	813.7	-2.4509	µg/L	-2.4509	ppb	09:04:29
2	Be 313.107†	-15085.3	-16864.8	0.1600	µg/L	0.1600	ppb	09:04:27
2	Cd 226.502†	5924.8	7132.7	-0.9338	µg/L	-0.9338	ppb	09:04:29
2	Co 228.616†	645.6	936.9	-11.761	µg/L	-11.761	ppb	09:04:29
2	Cr 267.716†	188.8	43.1	-2.5927	µg/L	-2.5927	ppb	09:04:29
2	Cu 324.752†	-15141.0	-20924.8	7.8474	µg/L	7.8474	ppb	09:04:29
2	Mn 257.610†	17914.0	21041.4	7.1245	µg/L	7.1245	ppb	09:04:27
2	Mo 202.031†	-847.9	-968.7	-3.1803	µg/L	-3.1803	ppb	09:04:29
2	Ni 231.604†	220.5	359.0	4.4098	µg/L	4.4098	ppb	09:04:29
2	P 214.914†	1034.6	1249.6	87.358	µg/L	87.358	ppb	09:04:29
2	Pb 220.353†	-44.0	-114.0	-2.7339	µg/L	-2.7339	ppb	09:04:29

2	S 181.975 Axial†	117.5	47.0	37.365 µg/L	37.365 ppb	09:04:29
2	Sb 206.836†	140.7	85.8	1.3659 µg/L	1.3659 ppb	09:04:29
2	Se 196.026†	-377.1	-467.9	-6.05 µg/L	-6.05 ppb	09:04:29
2	SiO2†	1779.2	327.1	34.836 µg/L	34.836 ppb	09:04:29
2	Si 251.611†	-1874.4	-3149.9	-49.157 µg/L	-49.157 ppb	09:04:29
2	Sn 189.927†	106.5	128.8	8.6993 µg/L	8.6993 ppb	09:04:29
2	Ti 334.940†	25550.5	29316.1	-4.8104 µg/L	-4.8104 ppb	09:04:27
2	Tl 190.801†	-215.3	-138.4	-17.531 µg/L	-17.531 ppb	09:04:29
2	U 409.014†	224948.9	266962.2	16501 µg/L	16501 ppb	09:04:27
2	V 292.402†	6430.3	7316.5	-0.0366 µg/L	-0.0366 ppb	09:04:29
2	Zn 213.857†	8247.9	9185.4	10.277 µg/L	10.277 ppb	09:04:29
3	Sc RADIAL	135158.1	135158.1	90.1 %		09:04:18
3	Al 396.153Radial†	2315562.2	2570374.8	504180 µg/L	504180 ppb	09:04:16
3	Ca 317.933Radial†	7324764.6	8129940.6	484880 µg/L	484880 ppb	09:04:16
3	Fe 238.204 Radial†	6265812.2	6954986.6	460360 µg/L	460360 ppb	09:04:16
3	K 766.490 Radial†	2012.8	659.1	-61.149 µg/L	-61.149 ppb	09:04:18
3	Mg 279.077 IEC†	1095455.9	1215796.6	484060 µg/L	484060 ppb	09:04:16
3	Na 589.592 Radial†	3112355.9	3453633.2	510480 µg/L	510480 ppb	09:04:16
3	Sr 421.552†	4748.7	5526.7	8.3864 µg/L	8.3864 ppb	09:04:18
3	Sc 361.383	1517177.0	1517177.0	84.652 %		09:04:32
3	Y 371.029	895335.4	895335.4	83.011 %		09:04:32
3	Ag 328.068†	2045.0	-1512.3	-0.4888 µg/L	-0.4888 ppb	09:04:32
3	As 188.979†	-246.8	-277.7	15.232 µg/L	15.232 ppb	09:04:34
3	B 249.677†	4242.0	1607.7	25.329 µg/L	25.329 ppb	09:04:32
3	Ba 233.527†	695.7	960.1	-1.8083 µg/L	-1.8083 ppb	09:04:34
3	Be 313.107†	-15202.0	-16941.7	0.1241 µg/L	0.1241 ppb	09:04:32
3	Cd 226.502†	5857.4	7029.2	-1.4561 µg/L	-1.4561 ppb	09:04:34
3	Co 228.616†	727.6	1031.2	-10.435 µg/L	-10.435 ppb	09:04:34
3	Cr 267.716†	295.7	168.7	-1.5441 µg/L	-1.5441 ppb	09:04:34
3	Cu 324.752†	-14999.8	-20696.9	8.4574 µg/L	8.4574 ppb	09:04:34
3	Mn 257.610†	17929.4	20987.2	7.1444 µg/L	7.1444 ppb	09:04:32
3	Mo 202.031†	-846.3	-963.3	-3.1145 µg/L	-3.1145 ppb	09:04:34
3	Ni 231.604†	230.0	369.4	4.5375 µg/L	4.5375 ppb	09:04:34
3	P 214.914†	981.2	1182.4	72.568 µg/L	72.568 ppb	09:04:34
3	Pb 220.353†	-18.0	-83.2	-0.9089 µg/L	-0.9089 ppb	09:04:34
3	S 181.975 Axial†	153.6	89.3	71.194 µg/L	71.194 ppb	09:04:34
3	Sb 206.836†	153.8	100.7	3.2773 µg/L	3.2773 ppb	09:04:34
3	Se 196.026†	-367.5	-455.0	-1.64 µg/L	-1.64 ppb	09:04:34
3	SiO2†	1882.2	441.6	46.764 µg/L	46.764 ppb	09:04:34
3	Si 251.611†	-1870.8	-3138.1	-48.975 µg/L	-48.975 ppb	09:04:34
3	Sn 189.927†	109.4	131.7	8.8923 µg/L	8.8923 ppb	09:04:34
3	Ti 334.940†	25483.6	29133.8	-4.8366 µg/L	-4.8366 ppb	09:04:32
3	Tl 190.801†	-272.7	-205.4	-26.310 µg/L	-26.310 ppb	09:04:34
3	U 409.014†	225099.1	266230.4	16455 µg/L	16455 ppb	09:04:32
3	V 292.402†	6532.3	7411.1	0.5983 µg/L	0.5983 ppb	09:04:34
3	Zn 213.857†	8160.5	9048.8	9.6121 µg/L	9.6121 ppb	09:04:34

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1517827.9	84.688	%	0.3446				0.41%
Sc RADIAL	135239.1	90.1	%	0.20				0.22%
Y 371.029	895282.9	83.006	%	0.3575				0.43%
Ag 328.068†	-1614.1	-0.8462	µg/L	0.31399	-0.8462	ppb	0.31399	37.11%
Al 396.153Radial†	2570275.6	504160	µg/L	1647.9	504160	ppb	1647.9	0.33%
QC value within limits for Al 396.153Radial Recovery = 100.83%								
As 188.979†	-284.7	13.091	µg/L	5.5862	13.091	ppb	5.5862	42.67%
B 249.677†	1543.2	24.312	µg/L	0.9677	24.312	ppb	0.9677	3.98%
Ba 233.527†	930.0	-1.9404	µg/L	0.45891	-1.9404	ppb	0.45891	23.65%
Be 313.107†	-16915.5	0.1452	µg/L	0.01872	0.1452	ppb	0.01872	12.89%
Ca 317.933Radial†	8134791.3	485170	µg/L	1238.1	485170	ppb	1238.1	0.26%
QC value within limits for Ca 317.933Radial Recovery = 97.03%								
Cd 226.502†	7052.5	-1.3334	µg/L	0.35454	-1.3334	ppb	0.35454	26.59%
Co 228.616†	998.9	-10.876	µg/L	0.7661	-10.876	ppb	0.7661	7.04%
Cr 267.716†	149.4	-1.7364	µg/L	0.77817	-1.7364	ppb	0.77817	44.81%
Cu 324.752†	-20783.0	8.2021	µg/L	0.31693	8.2021	ppb	0.31693	3.86%
Fe 238.204 Radial†	6959708.3	460680	µg/L	1169.9	460680	ppb	1169.9	0.25%
QC value within limits for Fe 238.204 Radial Recovery = 92.14%								
K 766.490 Radial†	636.5	-70.196	µg/L	25.8178	-70.196	ppb	25.8178	36.78%
Mg 279.077 IEC†	1217446.9	484720	µg/L	1330.9	484720	ppb	1330.9	0.27%

QC value within limits for Mg 279.077 IEC Recovery = 96.94%

Mn 257.610†	21006.2	7.1425 µg/L	0.01710	7.1425 ppb	0.01710	0.24%
Mo 202.031†	-972.1	-3.3679 µg/L	0.38335	-3.3679 ppb	0.38335	11.38%
Na 589.592 Radial†	3452150.8	510260 µg/L	1480.2	510260 ppb	1480.2	0.29%

QC value within limits for Na 589.592 Radial Recovery = 102.05%

Ni 231.604†	379.0	4.6555 µg/L	0.32140	4.6555 ppb	0.32140	6.90%
P 214.914†	1201.4	76.746 µg/L	9.2590	76.746 ppb	9.2590	12.06%
Pb 220.353†	-99.7	-1.9416 µg/L	0.93591	-1.9416 ppb	0.93591	48.20%
S 181.975 Axial†	60.2	47.915 µg/L	20.1895	47.915 ppb	20.1895	42.14%
Sb 206.836†	95.9	2.6589 µg/L	1.12006	2.6589 ppb	1.12006	42.13%
Se 196.026†	-475.0	-9.25 µg/L	9.620	-9.25 ppb	9.620	103.98%
SiO2†	421.1	44.617 µg/L	8.9033	44.617 ppb	8.9033	19.96%
Si 251.611†	-3152.8	-49.207 µg/L	0.2597	-49.207 ppb	0.2597	0.53%
Sn 189.927†	142.6	9.6238 µg/L	1.43738	9.6238 ppb	1.43738	14.94%
Sr 421.552†	5691.4	8.7471 µg/L	0.34654	8.7471 ppb	0.34654	3.96%
Ti 334.940†	29034.3	-4.9990 µg/L	0.30430	-4.9990 ppb	0.30430	6.09%
Tl 190.801†	-149.5	-18.998 µg/L	6.7004	-18.998 ppb	6.7004	35.27%
U 409.014†	266950.1	16500 µg/L	44.4	16500 ppb	44.4	0.27%

QC value within limits for U 409.014 Recovery = 110.00%

V 292.402†	7341.5	0.2316 µg/L	0.32875	0.2316 ppb	0.32875	141.96%
Zn 213.857†	9160.2	10.246 µg/L	0.6183	10.246 ppb	0.6183	6.03%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 3/31/2010 9:04:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	152044.8	152044.8	101	%			09:05:15
1	Al 396.153Radial†	2244.7	2288.8	-9.0241	µg/L	-9.0241	ppb	09:05:17
1	Ca 317.933Radial†	1277.3	627.4	37.417	µg/L	37.417	ppb	09:05:17
1	Fe 238.204 Radial†	-654.0	-782.8	-51.814	µg/L	-51.814	ppb	09:05:17
1	K 766.490 Radial†	761684.5	750001.6	298940	µg/L	298940	ppb	09:05:15
1	Mg 279.077 IEC†	-394.6	-561.6	17.481	µg/L	17.481	ppb	09:05:17
1	Na 589.592 Radial†	4229.8	3055.8	185.81	µg/L	185.81	ppb	09:05:17
1	Sr 421.552†	4339138.4	4281812.5	9437.7	µg/L	9437.7	ppb	09:05:13
1	Sc 361.383	1735492.4	1735492.4	96.833	%			09:05:53
1	Y 371.029	1016562.2	1016562.2	94.251	%			09:05:53
1	Ag 328.068†	-28769.0	-33638.1	-11.842	µg/L	-11.842	ppb	09:05:55
1	As 188.979†	31318.0	32356.2	10509	µg/L	10509	ppb	09:05:55
1	B 249.677†	315698.0	322620.5	5059.0	µg/L	5059.0	ppb	09:05:53
1	Ba 233.527†	3181109.3	3285295.2	13962	µg/L	13962	ppb	09:05:53
1	Be 313.107†	9887637.0	10212058.3	2938.1	µg/L	2938.1	ppb	09:05:50
1	Cd 226.502†	1432306.1	1479263.7	9886.0	µg/L	9886.0	ppb	09:05:53
1	Co 228.616†	704433.2	727645.3	9597.8	µg/L	9597.8	ppb	09:05:53
1	Cr 267.716†	2845204.5	2938084.7	24377	µg/L	24377	ppb	09:05:53
1	Cu 324.752†	4785681.3	4939233.9	20373	µg/L	20373	ppb	09:05:53
1	Mn 257.610†	7046749.5	7277041.4	9556.5	µg/L	9556.5	ppb	09:05:53
1	Mo 202.031†	304738.2	314742.0	9864.3	µg/L	9864.3	ppb	09:05:55
1	Ni 231.604†	783978.2	809718.1	9947.1	µg/L	9947.1	ppb	09:05:53
1	P 214.914†	65372.8	67534.3	15336	µg/L	15336	ppb	09:05:55
1	Pb 220.353†	393505.2	406314.0	24258	µg/L	24258	ppb	09:05:53
1	S 181.975 Axial†	63915.2	65913.5	52848	µg/L	52848	ppb	09:05:55
1	Sb 206.836†	77245.8	79691.4	9957.0	µg/L	9957.0	ppb	09:05:55
1	Se 196.026†	24806.9	25597.4	9970	µg/L	9970	ppb	09:05:55
1	SiO2†	955833.8	985315.4	102280	µg/L	102280	ppb	09:05:53
1	Si 251.611†	2948716.1	3044234.6	47647	µg/L	47647	ppb	09:05:53
1	Sn 189.927†	145761.8	150531.8	10090	µg/L	10090	ppb	09:05:55
1	Ti 334.940†	9980633.8	10306109.9	10162	µg/L	10162	ppb	09:05:50
1	Tl 190.801†	71185.1	73630.2	9790.9	µg/L	9790.9	ppb	09:05:55
1	U 409.014†	-11758.3	-11824.4	-115.72	µg/L	-115.72	ppb	09:05:55
1	V 292.402†	1902045.3	1963951.7	10368	µg/L	10368	ppb	09:05:53
1	Zn 213.857†	2364981.3	2441743.8	14619	µg/L	14619	ppb	09:05:53
2	Sc RADIAL	148253.4	148253.4	98.8	%			09:05:21
2	Al 396.153Radial†	2365.4	2467.6	26.261	µg/L	26.261	ppb	09:05:23
2	Ca 317.933Radial†	1200.1	581.4	34.677	µg/L	34.677	ppb	09:05:23
2	Fe 238.204 Radial†	-643.3	-788.5	-52.191	µg/L	-52.191	ppb	09:05:23
2	K 766.490 Radial†	747645.5	755015.1	300930	µg/L	300930	ppb	09:05:21
2	Mg 279.077 IEC†	-498.8	-677.0	-28.613	µg/L	-28.613	ppb	09:05:23
2	Na 589.592 Radial†	3930.1	2859.2	154.98	µg/L	154.98	ppb	09:05:23
2	Sr 421.552†	4350427.9	4402731.7	9704.2	µg/L	9704.2	ppb	09:05:19
2	Sc 361.383	1732192.4	1732192.4	96.649	%			09:06:03
2	Y 371.029	1013481.0	1013481.0	93.965	%			09:06:03
2	Ag 328.068†	-28448.6	-33363.1	-10.791	µg/L	-10.791	ppb	09:06:05
2	As 188.979†	31099.2	32191.4	10457	µg/L	10457	ppb	09:06:05
2	B 249.677†	314843.1	322357.0	5054.8	µg/L	5054.8	ppb	09:06:03
2	Ba 233.527†	3175134.9	3285372.2	13962	µg/L	13962	ppb	09:06:03
2	Be 313.107†	9812283.7	10153545.1	2921.3	µg/L	2921.3	ppb	09:05:59
2	Cd 226.502†	1428182.8	1477815.4	9876.3	µg/L	9876.3	ppb	09:06:03
2	Co 228.616†	702659.0	727195.6	9591.9	µg/L	9591.9	ppb	09:06:03
2	Cr 267.716†	2838191.9	2936426.6	24363	µg/L	24363	ppb	09:06:03
2	Cu 324.752†	4778483.3	4941201.6	20381	µg/L	20381	ppb	09:06:03
2	Mn 257.610†	7030735.4	7274335.8	9553.0	µg/L	9553.0	ppb	09:06:03
2	Mo 202.031†	304019.5	314597.9	9859.8	µg/L	9859.8	ppb	09:06:05
2	Ni 231.604†	781307.3	808497.0	9932.1	µg/L	9932.1	ppb	09:06:03
2	P 214.914†	65048.4	67327.2	15288	µg/L	15288	ppb	09:06:05
2	Pb 220.353†	392805.2	406363.9	24261	µg/L	24261	ppb	09:06:03

2	S 181.975 Axial†	63801.6	65921.7	52854	µg/L	52854	ppb	09:06:05
2	Sb 206.836†	77037.0	79627.3	9948.9	µg/L	9948.9	ppb	09:06:05
2	Se 196.026†	24823.6	25663.5	10000	µg/L	10000	ppb	09:06:05
2	SiO2†	953981.3	985279.2	102280	µg/L	102280	ppb	09:06:03
2	Si 251.611†	2943217.7	3044346.8	47649	µg/L	47649	ppb	09:06:03
2	Sn 189.927†	145155.4	150191.2	10067	µg/L	10067	ppb	09:06:05
2	Ti 334.940†	9912077.4	10254812.2	10111	µg/L	10111	ppb	09:05:59
2	Tl 190.801†	70976.1	73554.0	9780.5	µg/L	9780.5	ppb	09:06:05
2	U 409.014†	-11935.2	-12030.6	-128.58	µg/L	-128.58	ppb	09:06:05
2	V 292.402†	1898264.6	1963782.0	10367	µg/L	10367	ppb	09:06:03
2	Zn 213.857†	2359611.7	2440840.8	14614	µg/L	14614	ppb	09:06:03
3	Sc RADIAL	149064.9	149064.9	99.4	%			09:05:28
3	Al 396.153Radial†	2288.5	2377.2	2.5602	µg/L	2.5602	ppb	09:05:30
3	Ca 317.933Radial†	1186.9	561.5	33.490	µg/L	33.490	ppb	09:05:30
3	Fe 238.204 Radial†	-703.5	-845.6	-55.970	µg/L	-55.970	ppb	09:05:30
3	K 766.490 Radial†	753846.1	757136.8	301780	µg/L	301780	ppb	09:05:28
3	Mg 279.077 IEC†	-484.8	-660.2	-18.749	µg/L	-18.749	ppb	09:05:30
3	Na 589.592 Radial†	3563.1	2468.2	96.426	µg/L	96.426	ppb	09:05:30
3	Sr 421.552†	4320721.6	4348866.5	9585.5	µg/L	9585.5	ppb	09:05:26
3	Sc 361.383	1734266.2	1734266.2	96.764	%			09:06:12
3	Y 371.029	1016235.7	1016235.7	94.220	%			09:06:12
3	Ag 328.068†	-28647.1	-33533.1	-11.171	µg/L	-11.171	ppb	09:06:15
3	As 188.979†	31669.9	32742.6	10632	µg/L	10632	ppb	09:06:15
3	B 249.677†	316052.2	323217.1	5068.3	µg/L	5068.3	ppb	09:06:12
3	Ba 233.527†	3184654.9	3291282.1	13987	µg/L	13987	ppb	09:06:12
3	Be 313.107†	9885352.1	10216916.5	2939.5	µg/L	2939.5	ppb	09:06:09
3	Cd 226.502†	1431994.7	1479987.7	9890.9	µg/L	9890.9	ppb	09:06:12
3	Co 228.616†	704707.6	728443.3	9608.3	µg/L	9608.3	ppb	09:06:12
3	Cr 267.716†	2845821.1	2940799.4	24399	µg/L	24399	ppb	09:06:12
3	Cu 324.752†	4793149.5	4950446.1	20419	µg/L	20419	ppb	09:06:12
3	Mn 257.610†	7051765.3	7287370.2	9570.1	µg/L	9570.1	ppb	09:06:12
3	Mo 202.031†	308349.9	318697.0	9988.2	µg/L	9988.2	ppb	09:06:15
3	Ni 231.604†	783535.7	809833.3	9948.6	µg/L	9948.6	ppb	09:06:12
3	P 214.914†	66392.5	68635.8	15589	µg/L	15589	ppb	09:06:15
3	Pb 220.353†	393771.2	406876.3	24292	µg/L	24292	ppb	09:06:12
3	S 181.975 Axial†	65149.1	67235.4	53907	µg/L	53907	ppb	09:06:15
3	Sb 206.836†	78307.7	80845.2	10106	µg/L	10106	ppb	09:06:15
3	Se 196.026†	25144.1	25963.9	10100	µg/L	10100	ppb	09:06:15
3	SiO2†	957337.6	987567.4	102510	µg/L	102510	ppb	09:06:12
3	Si 251.611†	2954957.2	3052837.5	47779	µg/L	47779	ppb	09:06:12
3	Sn 189.927†	147571.9	152508.9	10222	µg/L	10222	ppb	09:06:15
3	Ti 334.940†	9977470.6	10310128.4	10166	µg/L	10166	ppb	09:06:09
3	Tl 190.801†	71948.0	74470.6	9901.1	µg/L	9901.1	ppb	09:06:15
3	U 409.014†	-12023.7	-12107.3	-131.88	µg/L	-131.88	ppb	09:06:15
3	V 292.402†	1905071.9	1968468.3	10393	µg/L	10393	ppb	09:06:12
3	Zn 213.857†	2364502.3	2442975.5	14627	µg/L	14627	ppb	09:06:12

Mean Data: LR2

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1733983.6	96.749	%	0.0931				0.10%
Sc RADIAL	149787.7	99.8	%	1.33				1.33%
Y 371.029	1015426.3	94.145	%	0.1569				0.17%
Ag 328.068†	-33511.4	-11.268	µg/L	0.5321	-11.268	ppb	0.5321	4.72%
Al 396.153Radial†	2377.9	6.5990	µg/L	17.98580	6.5990	ppb	17.98580	272.55%
As 188.979†	32430.1	10533	µg/L	90.0	10533	ppb	90.0	0.85%
QC value within limits for As 188.979 Recovery = 105.33%								
B 249.677†	322731.5	5060.7	µg/L	6.93	5060.7	ppb	6.93	0.14%
QC value within limits for B 249.677 Recovery = 101.21%								
Ba 233.527†	3287316.5	13970	µg/L	14.6	13970	ppb	14.6	0.10%
QC value within limits for Ba 233.527 Recovery = 93.13%								
Be 313.107†	10194173.3	2933.0	µg/L	10.15	2933.0	ppb	10.15	0.35%
QC value within limits for Be 313.107 Recovery = 97.77%								
Ca 317.933Radial†	590.1	35.195	µg/L	2.0142	35.195	ppb	2.0142	5.72%
Cd 226.502†	1479022.3	9884.4	µg/L	7.39	9884.4	ppb	7.39	0.07%
QC value within limits for Cd 226.502 Recovery = 98.84%								
Co 228.616†	727761.4	9599.3	µg/L	8.34	9599.3	ppb	8.34	0.09%
QC value within limits for Co 228.616 Recovery = 95.99%								
Cr 267.716†	2938436.9	24380	µg/L	18.3	24380	ppb	18.3	0.08%
QC value within limits for Cr 267.716 Recovery = 97.52%								

Cu 324.752†	4943627.2	20391 µg/L	24.7	20391 ppb	24.7	0.12%
QC value within limits for Cu 324.752 Recovery = 101.96%						
Fe 238.204 Radial†	-805.6	-53.325 µg/L	2.2981	-53.325 ppb	2.2981	4.31%
K 766.490 Radial†	754051.2	300550 µg/L	1460.4	300550 ppb	1460.4	0.49%
QC value within limits for K 766.490 Radial Recovery = 100.18%						
Mg 279.077 IEC†	-632.9	-9.9606 µg/L	24.27117	-9.9606 ppb	24.27117	243.67%
Mn 257.610†	7279582.5	9559.9 µg/L	9.03	9559.9 ppb	9.03	0.09%
QC value within limits for Mn 257.610 Recovery = 95.60%						
Mo 202.031†	316012.3	9904.1 µg/L	72.88	9904.1 ppb	72.88	0.74%
QC value within limits for Mo 202.031 Recovery = 99.04%						
Na 589.592 Radial†	2794.4	145.74 µg/L	45.405	145.74 ppb	45.405	31.15%
Ni 231.604†	809349.5	9942.6 µg/L	9.10	9942.6 ppb	9.10	0.09%
QC value within limits for Ni 231.604 Recovery = 99.43%						
P 214.914†	67832.5	15404 µg/L	161.9	15404 ppb	161.9	1.05%
QC value within limits for P 214.914 Recovery = 102.70%						
Pb 220.353†	406518.1	24270 µg/L	18.8	24270 ppb	18.8	0.08%
QC value within limits for Pb 220.353 Recovery = 97.08%						
S 181.975 Axial†	66356.9	53203 µg/L	609.7	53203 ppb	609.7	1.15%
QC value within limits for S 181.975 Axial Recovery = 106.41%						
Sb 206.836†	80054.7	10004 µg/L	88.2	10004 ppb	88.2	0.88%
QC value within limits for Sb 206.836 Recovery = 100.04%						
Se 196.026†	25741.6	10000 µg/L	76.1	10000 ppb	76.1	0.76%
QC value within limits for Se 196.026 Recovery = 100.30%						
SiO2†	986054.0	102350 µg/L	133.4	102350 ppb	133.4	0.13%
QC value within limits for SiO2 Recovery = 95.66%						
Si 251.611†	3047139.6	47691 µg/L	76.0	47691 ppb	76.0	0.16%
QC value within limits for Si 251.611 Recovery = 95.38%						
Sn 189.927†	151077.3	10126 µg/L	83.7	10126 ppb	83.7	0.83%
QC value within limits for Sn 189.927 Recovery = 101.26%						
Sr 421.552†	4344470.2	9575.8 µg/L	133.53	9575.8 ppb	133.53	1.39%
QC value within limits for Sr 421.552 Recovery = 95.76%						
Ti 334.940†	10290350.2	10146 µg/L	30.4	10146 ppb	30.4	0.30%
QC value within limits for Ti 334.940 Recovery = 101.46%						
Tl 190.801†	73885.0	9824.2 µg/L	66.85	9824.2 ppb	66.85	0.68%
QC value within limits for Tl 190.801 Recovery = 98.24%						
U 409.014†	-11987.4	-125.40 µg/L	8.539	-125.40 ppb	8.539	6.81%
V 292.402†	1965400.7	10376 µg/L	14.6	10376 ppb	14.6	0.14%
QC value within limits for V 292.402 Recovery = 103.76%						
Zn 213.857†	2441853.4	14620 µg/L	6.4	14620 ppb	6.4	0.04%
QC value within limits for Zn 213.857 Recovery = 97.47%						

All analyte(s) passed QC.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 9:06:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	152017.6	152017.6	101	%			09:06:57
1	Al 396.153Radial†	26237.9	25968.3	5070.3	µg/L	5070.3	ppb	09:06:57
1	Ca 317.933Radial†	87410.9	85633.4	5107.3	µg/L	5107.3	ppb	09:06:57
1	Fe 238.204 Radial†	77655.3	76500.9	5063.8	µg/L	5063.8	ppb	09:06:57
1	K 766.490 Radial†	16666.8	14873.4	5924.1	µg/L	5924.1	ppb	09:06:57
1	Mg 279.077 IEC†	13428.9	13080.8	5220.3	µg/L	5220.3	ppb	09:06:57
1	Na 589.592 Radial†	70894.6	68848.4	10171	µg/L	10171	ppb	09:06:57
1	Sr 421.552†	227190.5	224471.2	494.72	µg/L	494.72	ppb	09:06:55
1	Sc 361.383	1790301.8	1790301.8	99.891	%			09:07:10
1	Y 371.029	1064939.1	1064939.1	98.736	%			09:07:10
1	Ag 328.068†	130417.1	126631.4	502.50	µg/L	502.50	ppb	09:07:10
1	As 188.979†	1570.6	1586.1	509.91	µg/L	509.91	ppb	09:07:30
1	B 249.677†	35691.6	32327.2	508.49	µg/L	508.49	ppb	09:07:10
1	Ba 233.527†	119705.8	119974.8	509.92	µg/L	509.92	ppb	09:07:10
1	Be 313.107†	1749798.4	1752725.9	504.46	µg/L	504.46	ppb	09:07:10
1	Cd 226.502†	76054.6	76247.4	509.03	µg/L	509.03	ppb	09:07:10
1	Co 228.616†	38304.5	38517.9	507.43	µg/L	507.43	ppb	09:07:10
1	Cr 267.716†	62091.8	61978.9	514.02	µg/L	514.02	ppb	09:07:10
1	Cu 324.752†	126822.0	123983.1	512.83	µg/L	512.83	ppb	09:07:10
1	Mn 257.610†	388262.2	388493.1	509.97	µg/L	509.97	ppb	09:07:10
1	Mo 202.031†	16001.7	16055.6	503.49	µg/L	503.49	ppb	09:07:30
1	Ni 231.604†	41443.2	41586.1	510.87	µg/L	510.87	ppb	09:07:10
1	P 214.914†	10888.6	10923.8	2510.3	µg/L	2510.3	ppb	09:07:30
1	Pb 220.353†	8668.4	8615.9	515.35	µg/L	515.35	ppb	09:07:30
1	S 181.975 Axial†	1379.4	1288.7	1035.9	µg/L	1035.9	ppb	09:07:30
1	Sb 206.836†	3991.4	3914.8	499.56	µg/L	499.56	ppb	09:07:30
1	Se 196.026†	1308.4	1288.9	504	µg/L	504	ppb	09:07:30
1	SiO2†	54863.7	53141.8	5517.6	µg/L	5517.6	ppb	09:07:10
1	Si 251.611†	165539.7	164792.4	2579.9	µg/L	2579.9	ppb	09:07:10
1	Sn 189.927†	7551.6	7562.3	506.88	µg/L	506.88	ppb	09:07:30
1	Ti 334.940†	513589.3	513179.9	505.74	µg/L	505.74	ppb	09:07:10
1	Tl 190.801†	3712.9	3833.7	509.34	µg/L	509.34	ppb	09:07:30
1	U 409.014†	7026.4	7352.5	487.41	µg/L	487.41	ppb	09:07:10
1	V 292.402†	97245.1	97045.7	509.32	µg/L	509.32	ppb	09:07:10
1	Zn 213.857†	86818.7	86322.1	515.52	µg/L	515.52	ppb	09:07:10
2	Sc RADIAL	150090.6	150090.6	100	%			09:07:01
2	Al 396.153Radial†	25869.4	25932.4	5063.0	µg/L	5063.0	ppb	09:07:01
2	Ca 317.933Radial†	86143.3	85473.8	5097.8	µg/L	5097.8	ppb	09:07:01
2	Fe 238.204 Radial†	76787.4	76617.4	5071.5	µg/L	5071.5	ppb	09:07:01
2	K 766.490 Radial†	16316.0	14733.9	5868.5	µg/L	5868.5	ppb	09:07:01
2	Mg 279.077 IEC†	13233.0	13055.2	5210.2	µg/L	5210.2	ppb	09:07:01
2	Na 589.592 Radial†	70208.3	69060.6	10203	µg/L	10203	ppb	09:07:01
2	Sr 421.552†	231595.7	231753.2	510.78	µg/L	510.78	ppb	09:06:59
2	Sc 361.383	1761457.0	1761457.0	98.282	%			09:07:33
2	Y 371.029	1048245.8	1048245.8	97.188	%			09:07:33
2	Ag 328.068†	128837.1	127161.7	504.55	µg/L	504.55	ppb	09:07:33
2	As 188.979†	1556.9	1598.0	513.55	µg/L	513.55	ppb	09:07:53
2	B 249.677†	34980.9	32189.2	506.32	µg/L	506.32	ppb	09:07:33
2	Ba 233.527†	116308.9	118480.8	503.58	µg/L	503.58	ppb	09:07:33
2	Be 313.107†	1722310.4	1753442.4	504.67	µg/L	504.67	ppb	09:07:33
2	Cd 226.502†	74272.3	75680.8	505.24	µg/L	505.24	ppb	09:07:33
2	Co 228.616†	37555.5	38383.7	505.65	µg/L	505.65	ppb	09:07:33
2	Cr 267.716†	59618.9	60480.7	501.59	µg/L	501.59	ppb	09:07:33
2	Cu 324.752†	122518.3	121683.1	503.35	µg/L	503.35	ppb	09:07:33
2	Mn 257.610†	379546.3	385989.8	506.68	µg/L	506.68	ppb	09:07:33
2	Mo 202.031†	15919.9	16234.7	509.10	µg/L	509.10	ppb	09:07:53
2	Ni 231.604†	40433.8	41238.4	506.60	µg/L	506.60	ppb	09:07:33
2	P 214.914†	10800.7	11012.8	2531.0	µg/L	2531.0	ppb	09:07:53
2	Pb 220.353†	8586.3	8674.6	518.86	µg/L	518.86	ppb	09:07:53

2	S 181.975 Axial†	1377.9	1309.7	1052.8 µg/L	1052.8 ppb	09:07:53
2	Sb 206.836†	3984.0	3972.7	507.22 µg/L	507.22 ppb	09:07:53
2	Se 196.026†	1298.2	1299.9	509 µg/L	509 ppb	09:07:53
2	SiO2†	53546.8	52701.3	5471.5 µg/L	5471.5 ppb	09:07:33
2	Si 251.611†	161176.6	163066.7	2552.7 µg/L	2552.7 ppb	09:07:33
2	Sn 189.927†	7523.0	7657.1	513.20 µg/L	513.20 ppb	09:07:53
2	Ti 334.940†	502752.4	510573.0	503.17 µg/L	503.17 ppb	09:07:33
2	Tl 190.801†	3705.7	3887.3	516.31 µg/L	516.31 ppb	09:07:53
2	U 409.014†	7003.5	7444.4	492.93 µg/L	492.93 ppb	09:07:33
2	V 292.402†	95112.1	96469.5	506.35 µg/L	506.35 ppb	09:07:33
2	Zn 213.857†	83866.2	84741.3	506.04 µg/L	506.04 ppb	09:07:33
3	Sc RADIAL	148552.4	148552.4	99.0 %		09:07:05
3	Al 396.153Radial†	25775.7	26105.5	5097.1 µg/L	5097.1 ppb	09:07:05
3	Ca 317.933Radial†	85152.0	85364.3	5091.2 µg/L	5091.2 ppb	09:07:05
3	Fe 238.204 Radial†	75865.0	76480.6	5062.4 µg/L	5062.4 ppb	09:07:05
3	K 766.490 Radial†	15871.2	14453.6	5756.8 µg/L	5756.8 ppb	09:07:05
3	Mg 279.077 IEC†	13100.2	13058.0	5211.2 µg/L	5211.2 ppb	09:07:05
3	Na 589.592 Radial†	69485.6	69057.5	10202 µg/L	10202 ppb	09:07:05
3	Sr 421.552†	226607.6	229112.7	504.96 µg/L	504.96 ppb	09:07:03
3	Sc 361.383	1782895.6	1782895.6	99.478 %		09:07:56
3	Y 371.029	1060483.2	1060483.2	98.323 %		09:07:56
3	Ag 328.068†	130015.8	126770.3	502.99 µg/L	502.99 ppb	09:07:56
3	As 188.979†	1556.1	1578.1	507.23 µg/L	507.23 ppb	09:08:16
3	B 249.677†	35305.2	32087.2	504.71 µg/L	504.71 ppb	09:07:56
3	Ba 233.527†	117602.6	118358.4	503.06 µg/L	503.06 ppb	09:07:56
3	Be 313.107†	1740152.5	1750305.9	503.76 µg/L	503.76 ppb	09:07:56
3	Cd 226.502†	75096.4	75600.4	504.71 µg/L	504.71 ppb	09:07:56
3	Co 228.616†	38084.4	38455.9	506.60 µg/L	506.60 ppb	09:07:56
3	Cr 267.716†	60241.8	60377.4	500.73 µg/L	500.73 ppb	09:07:56
3	Cu 324.752†	123729.9	121402.1	502.19 µg/L	502.19 ppb	09:07:56
3	Mn 257.610†	383286.0	385105.4	505.52 µg/L	505.52 ppb	09:07:56
3	Mo 202.031†	15995.9	16116.3	505.39 µg/L	505.39 ppb	09:08:16
3	Ni 231.604†	40745.5	41057.1	504.37 µg/L	504.37 ppb	09:07:56
3	P 214.914†	10886.1	10966.6	2520.3 µg/L	2520.3 ppb	09:08:16
3	Pb 220.353†	8572.2	8555.3	511.74 µg/L	511.74 ppb	09:08:16
3	S 181.975 Axial†	1370.9	1285.9	1033.6 µg/L	1033.6 ppb	09:08:16
3	Sb 206.836†	4013.3	3953.4	504.71 µg/L	504.71 ppb	09:08:16
3	Se 196.026†	1313.2	1299.1	508 µg/L	508 ppb	09:08:16
3	SiO2†	54083.9	52586.1	5459.6 µg/L	5459.6 ppb	09:07:56
3	Si 251.611†	163231.2	163160.2	2554.2 µg/L	2554.2 ppb	09:07:56
3	Sn 189.927†	7557.1	7599.3	509.33 µg/L	509.33 ppb	09:08:16
3	Ti 334.940†	507834.3	509530.5	502.14 µg/L	502.14 ppb	09:07:56
3	Tl 190.801†	3717.8	3854.1	511.94 µg/L	511.94 ppb	09:08:16
3	U 409.014†	7046.7	7402.1	490.22 µg/L	490.22 ppb	09:07:56
3	V 292.402†	95990.9	96189.2	504.85 µg/L	504.85 ppb	09:07:56
3	Zn 213.857†	84762.2	84615.9	505.30 µg/L	505.30 ppb	09:07:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1778218.1	99.217	%	0.8358				0.84%
Sc RADIAL	150220.2	100	%	1.2				1.16%
Y 371.029	1057889.4	98.082	%	0.8014				0.82%
Ag 328.068†	126854.5	503.35	µg/L	1.069	503.35	ppb	1.069	0.21%
QC value within limits for Ag 328.068 Recovery = 100.67%								
Al 396.153Radial†	26002.0	5076.8	µg/L	17.97	5076.8	ppb	17.97	0.35%
QC value within limits for Al 396.153Radial Recovery = 101.54%								
As 188.979†	1587.4	510.23	µg/L	3.173	510.23	ppb	3.173	0.62%
QC value within limits for As 188.979 Recovery = 102.05%								
B 249.677†	32201.2	506.51	µg/L	1.900	506.51	ppb	1.900	0.38%
QC value within limits for B 249.677 Recovery = 101.30%								
Ba 233.527†	118938.0	505.52	µg/L	3.823	505.52	ppb	3.823	0.76%
QC value within limits for Ba 233.527 Recovery = 101.10%								
Be 313.107†	1752158.0	504.30	µg/L	0.473	504.30	ppb	0.473	0.09%
QC value within limits for Be 313.107 Recovery = 100.86%								
Ca 317.933Radial†	85490.5	5098.8	µg/L	8.07	5098.8	ppb	8.07	0.16%
QC value within limits for Ca 317.933Radial Recovery = 101.98%								
Cd 226.502†	75842.9	506.33	µg/L	2.357	506.33	ppb	2.357	0.47%
QC value within limits for Cd 226.502 Recovery = 101.27%								
Co 228.616†	38452.5	506.56	µg/L	0.888	506.56	ppb	0.888	0.18%

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   QC value within limits for Co 228.616  Recovery = 101.31%
Cr 267.716†            60945.6      505.45 µg/L         7.438      505.45 ppb          7.438   1.47%
   QC value within limits for Cr 267.716  Recovery = 101.09%
Cu 324.752†           122356.1      506.12 µg/L         5.837      506.12 ppb          5.837   1.15%
   QC value within limits for Cu 324.752  Recovery = 101.22%
Fe 238.204 Radial†     76533.0      5065.9 µg/L          4.88      5065.9 ppb           4.88   0.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.32%
K 766.490 Radial†      14687.0      5849.8 µg/L         85.22      5849.8 ppb          85.22   1.46%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 117.00%
Mg 279.077 IEC†        13064.7      5213.9 µg/L          5.54      5213.9 ppb           5.54   0.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.28%
Mn 257.610†           386529.4      507.39 µg/L         2.307      507.39 ppb          2.307   0.45%
   QC value within limits for Mn 257.610  Recovery = 101.48%
Mo 202.031†            16135.5      505.99 µg/L         2.854      505.99 ppb          2.854   0.56%
   QC value within limits for Mo 202.031  Recovery = 101.20%
Na 589.592 Radial†     68988.9       10192 µg/L          18.0       10192 ppb           18.0   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 101.92%
Ni 231.604†            41293.9      507.28 µg/L         3.302      507.28 ppb          3.302   0.65%
   QC value within limits for Ni 231.604  Recovery = 101.46%
P 214.914†             10967.7      2520.6 µg/L         10.32      2520.6 ppb          10.32   0.41%
   QC value within limits for P 214.914  Recovery = 100.82%
Pb 220.353†             8615.3      515.32 µg/L         3.559      515.32 ppb          3.559   0.69%
   QC value within limits for Pb 220.353  Recovery = 103.06%
S 181.975 Axial†        1294.8      1040.8 µg/L         10.45      1040.8 ppb          10.45   1.00%
   QC value within limits for S 181.975 Axial  Recovery = 104.08%
Sb 206.836†             3947.0      503.83 µg/L         3.903      503.83 ppb          3.903   0.77%
   QC value within limits for Sb 206.836  Recovery = 100.77%
Se 196.026†             1296.0         507 µg/L           2.4         507 ppb            2.4   0.47%
   QC value within limits for Se 196.026  Recovery = 101.45%
SiO2†                  52809.7      5482.9 µg/L         30.66      5482.9 ppb          30.66   0.56%
   QC value within limits for SiO2  Recovery = 102.53%
Si 251.611†           163673.1      2562.3 µg/L         15.30      2562.3 ppb          15.30   0.60%
   QC value within limits for Si 251.611  Recovery = 102.49%
Sn 189.927†             7606.2      509.80 µg/L         3.186      509.80 ppb          3.186   0.63%
   QC value within limits for Sn 189.927  Recovery = 101.96%
Sr 421.552†           228445.7      503.49 µg/L         8.126      503.49 ppb          8.126   1.61%
   QC value within limits for Sr 421.552  Recovery = 100.70%
Ti 334.940†           511094.5      503.68 µg/L         1.853      503.68 ppb          1.853   0.37%
   QC value within limits for Ti 334.940  Recovery = 100.74%
Tl 190.801†             3858.4      512.53 µg/L         3.521      512.53 ppb          3.521   0.69%
   QC value within limits for Tl 190.801  Recovery = 102.51%
U 409.014†              7399.7      490.19 µg/L         2.763      490.19 ppb          2.763   0.56%
   QC value within limits for U 409.014  Recovery = 98.04%
V 292.402†             96568.1      506.84 µg/L         2.274      506.84 ppb          2.274   0.45%
   QC value within limits for V 292.402  Recovery = 101.37%
Zn 213.857†            85226.5      508.96 µg/L         5.699      508.96 ppb          5.699   1.12%
   QC value within limits for Zn 213.857  Recovery = 101.79%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 9:08:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	150016.6	150016.6	100.0	%			09:08:54
1	Al 396.153Radial†	-27.0	46.9	9.1746	µg/L	9.1746	ppb	09:09:14
1	Ca 317.933Radial†	629.2	-3.7	-0.2217	µg/L	-0.2217	ppb	09:09:14
1	Fe 238.204 Radial†	180.9	43.4	2.8736	µg/L	2.8736	ppb	09:09:14
1	K 766.490 Radial†	2383.4	808.4	322.18	µg/L	322.18	ppb	09:08:54
1	Mg 279.077 IEC†	184.0	11.8	4.6945	µg/L	4.6945	ppb	09:09:14
1	Na 589.592 Radial†	2074.8	957.1	141.18	µg/L	141.18	ppb	09:08:54
1	Sr 421.552†	-180.8	74.8	0.1648	µg/L	0.1648	ppb	09:08:54
1	Sc 361.383	1783843.1	1783843.1	99.531	%			09:10:16
1	Y 371.029	1073651.5	1073651.5	99.544	%			09:10:16
1	Ag 328.068†	3953.6	44.2	0.1645	µg/L	0.1645	ppb	09:10:18
1	As 188.979†	-9.1	4.6	1.4713	µg/L	1.4713	ppb	09:10:38
1	B 249.677†	3424.6	37.4	0.5900	µg/L	0.5900	ppb	09:10:18
1	Ba 233.527†	-133.5	4.1	0.0176	µg/L	0.0176	ppb	09:10:38
1	Be 313.107†	-1106.6	-95.2	-0.0292	µg/L	-0.0292	ppb	09:10:18
1	Cd 226.502†	-103.5	5.8	0.0382	µg/L	0.0382	ppb	09:10:38
1	Co 228.616†	-150.2	20.7	0.2723	µg/L	0.2723	ppb	09:10:38
1	Cr 267.716†	171.7	-8.2	-0.0631	µg/L	-0.0631	ppb	09:10:38
1	Cu 324.752†	3243.1	280.9	1.1544	µg/L	1.1544	ppb	09:10:18
1	Mn 257.610†	292.6	100.9	0.1323	µg/L	0.1323	ppb	09:10:38
1	Mo 202.031†	-19.7	16.6	0.5201	µg/L	0.5201	ppb	09:10:38
1	Ni 231.604†	-82.7	14.5	0.1782	µg/L	0.1782	ppb	09:10:38
1	P 214.914†	-27.3	-4.1	-0.9595	µg/L	-0.9595	ppb	09:10:38
1	Pb 220.353†	134.6	73.4	4.3788	µg/L	4.3788	ppb	09:10:38
1	S 181.975 Axial†	107.4	15.7	12.563	µg/L	12.563	ppb	09:10:38
1	Sb 206.836†	89.8	9.3	1.1943	µg/L	1.1943	ppb	09:10:38
1	Se 196.026†	2.7	-18.2	-7.10	µg/L	-7.10	ppb	09:10:38
1	SiO2†	1818.5	45.2	4.6783	µg/L	4.6783	ppb	09:10:38
1	Si 251.611†	1050.5	127.3	1.9843	µg/L	1.9843	ppb	09:10:18
1	Sn 189.927†	20.2	22.8	1.5200	µg/L	1.5200	ppb	09:10:38
1	Ti 334.940†	804.5	-161.9	-0.1578	µg/L	-0.1578	ppb	09:10:18
1	Tl 190.801†	-115.9	0.4	0.0465	µg/L	0.0465	ppb	09:10:38
1	U 409.014†	-410.6	-94.1	-5.8518	µg/L	-5.8518	ppb	09:10:18
1	V 292.402†	283.1	-21.3	-0.1091	µg/L	-0.1091	ppb	09:10:18
1	Zn 213.857†	883.2	296.0	1.7794	µg/L	1.7794	ppb	09:10:38
2	Sc RADIAL	150131.3	150131.3	100	%			09:09:16
2	Al 396.153Radial†	-40.7	33.3	6.4807	µg/L	6.4807	ppb	09:09:36
2	Ca 317.933Radial†	653.3	19.9	1.1842	µg/L	1.1842	ppb	09:09:36
2	Fe 238.204 Radial†	182.6	45.0	2.9796	µg/L	2.9796	ppb	09:09:36
2	K 766.490 Radial†	2290.9	714.1	284.63	µg/L	284.63	ppb	09:09:16
2	Mg 279.077 IEC†	182.4	10.1	4.0475	µg/L	4.0475	ppb	09:09:36
2	Na 589.592 Radial†	1820.2	701.0	103.36	µg/L	103.36	ppb	09:09:16
2	Sr 421.552†	-182.2	73.5	0.1619	µg/L	0.1619	ppb	09:09:16
2	Sc 361.383	1801615.7	1801615.7	100.52	%			09:10:40
2	Y 371.029	1082609.5	1082609.5	100.37	%			09:10:40
2	Ag 328.068†	3727.5	-220.0	-0.8456	µg/L	-0.8456	ppb	09:10:43
2	As 188.979†	-15.5	-1.6	-0.4944	µg/L	-0.4944	ppb	09:11:03
2	B 249.677†	3563.6	141.8	2.2383	µg/L	2.2383	ppb	09:10:43
2	Ba 233.527†	-116.8	22.0	0.0940	µg/L	0.0940	ppb	09:11:03
2	Be 313.107†	-645.3	374.6	0.1112	µg/L	0.1112	ppb	09:10:43
2	Cd 226.502†	-99.0	11.3	0.0753	µg/L	0.0753	ppb	09:11:03
2	Co 228.616†	-182.4	-9.8	-0.1296	µg/L	-0.1296	ppb	09:11:03
2	Cr 267.716†	217.8	35.9	0.2892	µg/L	0.2892	ppb	09:11:03
2	Cu 324.752†	3177.0	183.1	0.7646	µg/L	0.7646	ppb	09:10:43
2	Mn 257.610†	312.3	117.6	0.1543	µg/L	0.1543	ppb	09:11:03
2	Mo 202.031†	-7.1	29.4	0.9205	µg/L	0.9205	ppb	09:11:03
2	Ni 231.604†	-91.9	6.2	0.0761	µg/L	0.0761	ppb	09:11:03
2	P 214.914†	-27.7	-4.2	-0.9830	µg/L	-0.9830	ppb	09:11:03
2	Pb 220.353†	118.1	55.5	3.3057	µg/L	3.3057	ppb	09:11:03

2	S 181.975 Axial†	99.5	6.8	5.4455 µg/L	5.4455 ppb	09:11:03
2	Sb 206.836†	83.1	1.7	0.2345 µg/L	0.2345 ppb	09:11:03
2	Se 196.026†	12.4	-8.6	-3.36 µg/L	-3.36 ppb	09:11:03
2	SiO2†	1817.9	26.7	2.7301 µg/L	2.7301 ppb	09:11:03
2	Si 251.611†	1056.2	122.7	1.9050 µg/L	1.9050 ppb	09:10:43
2	Sn 189.927†	22.0	24.3	1.6258 µg/L	1.6258 ppb	09:11:03
2	Ti 334.940†	800.7	-173.7	-0.1764 µg/L	-0.1764 ppb	09:10:43
2	Tl 190.801†	-111.5	5.8	0.7652 µg/L	0.7652 ppb	09:11:03
2	U 409.014†	-138.6	180.6	11.232 µg/L	11.232 ppb	09:10:43
2	V 292.402†	350.6	43.1	0.2416 µg/L	0.2416 ppb	09:10:43
2	Zn 213.857†	872.9	277.0	1.6659 µg/L	1.6659 ppb	09:11:03
3	Sc RADIAL	149252.8	149252.8	99.5 %		09:09:38
3	Al 396.153Radial†	-40.4	33.3	6.5164 µg/L	6.5164 ppb	09:09:58
3	Ca 317.933Radial†	656.4	26.8	1.5963 µg/L	1.5963 ppb	09:09:58
3	Fe 238.204 Radial†	200.3	63.8	4.2256 µg/L	4.2256 ppb	09:09:58
3	K 766.490 Radial†	2131.7	567.6	226.22 µg/L	226.22 ppb	09:09:38
3	Mg 279.077 IEC†	181.7	10.5	4.1748 µg/L	4.1748 ppb	09:09:58
3	Na 589.592 Radial†	1881.2	773.0	114.06 µg/L	114.06 ppb	09:09:38
3	Sr 421.552†	-248.4	5.9	0.0131 µg/L	0.0131 ppb	09:09:38
3	Sc 361.383	1773363.7	1773363.7	98.946 %		09:11:05
3	Y 371.029	1066587.5	1066587.5	98.889 %		09:11:05
3	Ag 328.068†	3937.2	51.0	0.2003 µg/L	0.2003 ppb	09:11:07
3	As 188.979†	-10.9	2.7	0.8712 µg/L	0.8712 ppb	09:11:27
3	B 249.677†	3549.8	184.3	2.9099 µg/L	2.9099 ppb	09:11:07
3	Ba 233.527†	-119.7	17.3	0.0741 µg/L	0.0741 ppb	09:11:27
3	Be 313.107†	-954.8	51.6	0.0123 µg/L	0.0123 ppb	09:11:07
3	Cd 226.502†	-108.2	0.4	0.0024 µg/L	0.0024 ppb	09:11:27
3	Co 228.616†	-187.9	-18.3	-0.2417 µg/L	-0.2417 ppb	09:11:27
3	Cr 267.716†	161.6	-17.4	-0.1375 µg/L	-0.1375 ppb	09:11:27
3	Cu 324.752†	3105.9	161.6	0.6600 µg/L	0.6600 ppb	09:11:07
3	Mn 257.610†	277.5	87.4	0.1145 µg/L	0.1145 ppb	09:11:27
3	Mo 202.031†	-22.9	13.3	0.4181 µg/L	0.4181 ppb	09:11:27
3	Ni 231.604†	-85.3	11.4	0.1403 µg/L	0.1403 ppb	09:11:27
3	P 214.914†	-6.1	17.1	3.9492 µg/L	3.9492 ppb	09:11:27
3	Pb 220.353†	102.6	41.8	2.4989 µg/L	2.4989 ppb	09:11:27
3	S 181.975 Axial†	103.3	12.2	9.7833 µg/L	9.7833 ppb	09:11:27
3	Sb 206.836†	87.2	7.2	0.9317 µg/L	0.9317 ppb	09:11:27
3	Se 196.026†	22.9	2.2	0.857 µg/L	0.857 ppb	09:11:27
3	SiO2†	1829.1	66.8	6.9278 µg/L	6.9278 ppb	09:11:27
3	Si 251.611†	944.0	25.9	0.3927 µg/L	0.3927 ppb	09:11:07
3	Sn 189.927†	18.4	21.1	1.4069 µg/L	1.4069 ppb	09:11:27
3	Ti 334.940†	924.8	-35.6	-0.0320 µg/L	-0.0320 ppb	09:11:07
3	Tl 190.801†	-101.9	13.8	1.8198 µg/L	1.8198 ppb	09:11:27
3	U 409.014†	-447.0	-133.3	-8.2255 µg/L	-8.2255 ppb	09:11:07
3	V 292.402†	472.8	172.1	0.8892 µg/L	0.8892 ppb	09:11:07
3	Zn 213.857†	818.5	235.9	1.4184 µg/L	1.4184 ppb	09:11:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786274.2	99.666	%	0.7969				0.80%
Sc RADIAL	149800.2	99.8	%	0.32				0.32%
Y 371.029	1074282.8	99.602	%	0.7445				0.75%
Ag 328.068†	-41.6	-0.1603	µg/L	0.59378	-0.1603	ppb	0.59378	370.49%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	37.8	7.3906	µg/L	1.54513	7.3906	ppb	1.54513	20.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.9	0.6160	µg/L	1.00738	0.6160	ppb	1.00738	163.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	121.2	1.9127	µg/L	1.19370	1.9127	ppb	1.19370	62.41%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	14.5	0.0619	µg/L	0.03959	0.0619	ppb	0.03959	63.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	110.3	0.0315	µg/L	0.07210	0.0315	ppb	0.07210	229.20%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	14.3	0.8529	µg/L	0.95323	0.8529	ppb	0.95323	111.76%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.8	0.0387	µg/L	0.03646	0.0387	ppb	0.03646	94.33%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.5	-0.0330	µg/L	0.27025	-0.0330	ppb	0.27025	819.27%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 3.4      0.0295 µg/L       0.22796      0.0295 ppb        0.22796 771.73%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               208.5      0.8597 µg/L       0.26053      0.8597 ppb        0.26053  30.31%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         50.8      3.3596 µg/L       0.75183      3.3596 ppb        0.75183  22.38%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         696.7      277.68 µg/L        48.353      277.68 ppb         48.353  17.41%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            10.8      4.3056 µg/L       0.34274      4.3056 ppb        0.34274   7.96%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               102.0      0.1337 µg/L       0.01991      0.1337 ppb        0.01991  14.89%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                19.8      0.6196 µg/L       0.26557      0.6196 ppb        0.26557  42.87%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        810.4      119.53 µg/L        19.494      119.53 ppb         19.494  16.31%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                10.7      0.1315 µg/L       0.05158      0.1315 ppb        0.05158  39.21%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.9      0.6689 µg/L       2.84088      0.6689 ppb        2.84088 424.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                56.9      3.3944 µg/L       0.94307      3.3944 ppb        0.94307  27.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           11.6      9.2640 µg/L       3.58713      9.2640 ppb        3.58713  38.72%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 6.1      0.7869 µg/L       0.49601      0.7869 ppb        0.49601  63.04%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -8.2       -3.20 µg/L         3.979       -3.20 ppb          3.979 124.40%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      46.2      4.7787 µg/L       2.10065      4.7787 ppb        2.10065  43.96%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                92.0      1.4273 µg/L       0.89695      1.4273 ppb        0.89695  62.84%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                22.7      1.5176 µg/L       0.10950      1.5176 ppb        0.10950   7.22%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                51.4      0.1133 µg/L       0.08678      0.1133 ppb        0.08678  76.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -123.8     -0.1221 µg/L       0.07853     -0.1221 ppb        0.07853  64.33%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.7      0.8772 µg/L       0.89195      0.8772 ppb        0.89195 101.68%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -15.6     -0.9485 µg/L      10.61496     -0.9485 ppb       10.61496 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 64.7      0.3406 µg/L       0.50645      0.3406 ppb        0.50645 148.71%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               269.6      1.6212 µg/L       0.18462      1.6212 ppb        0.18462  11.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

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Analysis Begun

Start Time: 3/31/2010 9:17:37 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110A
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 3/31/2010 8:46:38**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/31/2010 9:17:40**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	152612.8	152612.8	102	%			09:18:12
1	Al 396.153Radial†	26428.6	26054.7	5087.3	µg/L	5087.3	ppb	09:18:12
1	Ca 317.933Radial†	87726.6	85607.3	5105.7	µg/L	5105.7	ppb	09:18:12
1	Fe 238.204 Radial†	78218.4	76755.6	5080.6	µg/L	5080.6	ppb	09:18:12

1	K 766.490 Radial†	14531.4	12710.0	5061.8 µg/L	5061.8 ppb	09:18:12
1	Mg 279.077 IEC†	13542.1	13140.4	5244.0 µg/L	5244.0 ppb	09:18:12
1	Na 589.592 Radial†	70298.0	67989.0	10045 µg/L	10045 ppb	09:18:12
1	Sr 421.552†	225859.9	222288.7	489.91 µg/L	489.91 ppb	09:18:10
1	Sc 361.383	1784654.3	1784654.3	99.576 %		09:18:25
1	Y 371.029	1062001.5	1062001.5	98.464 %		09:18:25
1	Ag 328.068†	130533.6	127161.5	504.52 µg/L	504.52 ppb	09:18:25
1	As 188.979†	1567.6	1588.1	510.42 µg/L	510.42 ppb	09:18:45
1	B 249.677†	35116.1	31862.4	501.15 µg/L	501.15 ppb	09:18:25
1	Ba 233.527†	118064.8	118706.0	504.53 µg/L	504.53 ppb	09:18:25
1	Be 313.107†	1746268.8	1754724.4	505.03 µg/L	505.03 ppb	09:18:25
1	Cd 226.502†	75245.5	75675.8	505.21 µg/L	505.21 ppb	09:18:25
1	Co 228.616†	38288.1	38622.8	508.80 µg/L	508.80 ppb	09:18:25
1	Cr 267.716†	60384.9	60461.4	501.44 µg/L	501.44 ppb	09:18:25
1	Cu 324.752†	123890.7	121441.1	502.35 µg/L	502.35 ppb	09:18:25
1	Mn 257.610†	384835.1	386281.4	507.06 µg/L	507.06 ppb	09:18:25
1	Mo 202.031†	15931.4	16035.7	502.86 µg/L	502.86 ppb	09:18:45
1	Ni 231.604†	40986.0	41258.2	506.84 µg/L	506.84 ppb	09:18:25
1	P 214.914†	10845.0	10914.5	2508.3 µg/L	2508.3 ppb	09:18:45
1	Pb 220.353†	8568.1	8542.7	510.99 µg/L	510.99 ppb	09:18:45
1	S 181.975 Axial†	1352.5	1266.0	1017.7 µg/L	1017.7 ppb	09:18:45
1	Sb 206.836†	3989.5	3925.5	501.10 µg/L	501.10 ppb	09:18:45
1	Se 196.026†	1296.4	1281.0	501 µg/L	501 ppb	09:18:45
1	SiO2†	54106.0	52554.7	5456.5 µg/L	5456.5 ppb	09:18:25
1	Si 251.611†	162997.0	162763.3	2548.0 µg/L	2548.0 ppb	09:18:25
1	Sn 189.927†	7508.3	7542.8	505.56 µg/L	505.56 ppb	09:18:45
1	Ti 334.940†	509455.0	510655.0	503.25 µg/L	503.25 ppb	09:18:25
1	Tl 190.801†	3744.6	3877.3	514.98 µg/L	514.98 ppb	09:18:45
1	U 409.014†	6921.4	7269.3	482.00 µg/L	482.00 ppb	09:18:25
1	V 292.402†	96160.0	96264.0	505.21 µg/L	505.21 ppb	09:18:25
1	Zn 213.857†	84460.7	84229.1	502.96 µg/L	502.96 ppb	09:18:25
2	Sc RADIAL	148285.2	148285.2	98.8 %		09:18:16
2	Al 396.153Radial†	25839.5	26217.0	5118.6 µg/L	5118.6 ppb	09:18:16
2	Ca 317.933Radial†	85138.0	85505.1	5099.6 µg/L	5099.6 ppb	09:18:16
2	Fe 238.204 Radial†	75889.8	76643.8	5073.2 µg/L	5073.2 ppb	09:18:16
2	K 766.490 Radial†	14306.6	12899.5	5137.4 µg/L	5137.4 ppb	09:18:16
2	Mg 279.077 IEC†	13032.4	13013.2	5193.5 µg/L	5193.5 ppb	09:18:16
2	Na 589.592 Radial†	68571.9	68259.5	10085 µg/L	10085 ppb	09:18:16
2	Sr 421.552†	226682.5	229600.9	506.03 µg/L	506.03 ppb	09:18:14
2	Sc 361.383	1758415.0	1758415.0	98.112 %		09:18:48
2	Y 371.029	1046623.9	1046623.9	97.038 %		09:18:48
2	Ag 328.068†	128560.4	127106.6	504.33 µg/L	504.33 ppb	09:18:48
2	As 188.979†	1566.5	1610.4	517.53 µg/L	517.53 ppb	09:19:08
2	B 249.677†	34410.8	31669.7	498.12 µg/L	498.12 ppb	09:18:48
2	Ba 233.527†	115794.6	118161.4	502.22 µg/L	502.22 ppb	09:18:48
2	Be 313.107†	1716587.6	1750641.0	503.86 µg/L	503.86 ppb	09:18:48
2	Cd 226.502†	73943.0	75475.9	503.88 µg/L	503.88 ppb	09:18:48
2	Co 228.616†	37567.0	38461.6	506.68 µg/L	506.68 ppb	09:18:48
2	Cr 267.716†	59560.7	60526.3	501.97 µg/L	501.97 ppb	09:18:48
2	Cu 324.752†	121827.1	121194.3	501.34 µg/L	501.34 ppb	09:18:48
2	Mn 257.610†	378416.5	385506.4	506.05 µg/L	506.05 ppb	09:18:48
2	Mo 202.031†	16012.3	16356.9	512.93 µg/L	512.93 ppb	09:19:08
2	Ni 231.604†	40244.9	41117.1	505.11 µg/L	505.11 ppb	09:18:48
2	P 214.914†	10907.3	11140.5	2560.4 µg/L	2560.4 ppb	09:19:08
2	Pb 220.353†	8582.3	8685.6	519.53 µg/L	519.53 ppb	09:19:08
2	S 181.975 Axial†	1358.5	1292.4	1038.9 µg/L	1038.9 ppb	09:19:08
2	Sb 206.836†	4014.9	4011.2	512.17 µg/L	512.17 ppb	09:19:08
2	Se 196.026†	1313.0	1317.3	516 µg/L	516 ppb	09:19:08
2	SiO2†	53164.8	52406.2	5440.6 µg/L	5440.6 ppb	09:18:48
2	Si 251.611†	160349.0	162506.9	2543.8 µg/L	2543.8 ppb	09:18:48
2	Sn 189.927†	7556.3	7704.2	516.34 µg/L	516.34 ppb	09:19:08
2	Ti 334.940†	501282.1	509959.3	502.56 µg/L	502.56 ppb	09:18:48
2	Tl 190.801†	3740.5	3929.3	521.79 µg/L	521.79 ppb	09:19:08
2	U 409.014†	7069.8	7524.4	497.87 µg/L	497.87 ppb	09:18:48
2	V 292.402†	94863.3	96383.3	505.95 µg/L	505.95 ppb	09:18:48
2	Zn 213.857†	82727.8	83728.6	499.96 µg/L	499.96 ppb	09:18:48
3	Sc RADIAL	150715.7	150715.7	100 %		09:18:20
3	Al 396.153Radial†	26004.7	25959.8	5068.6 µg/L	5068.6 ppb	09:18:20
3	Ca 317.933Radial†	86359.3	85331.7	5089.3 µg/L	5089.3 ppb	09:18:20
3	Fe 238.204 Radial†	76873.6	76384.9	5056.1 µg/L	5056.1 ppb	09:18:20
3	K 766.490 Radial†	14198.2	12558.1	5001.3 µg/L	5001.3 ppb	09:18:20

3	Mg 279.077 IEC†	13243.9	13011.2	5192.5 µg/L	5192.5 ppb	09:18:20
3	Na 589.592 Radial†	69453.7	68018.5	10049 µg/L	10049 ppb	09:18:20
3	Sr 421.552†	229272.7	228480.7	503.56 µg/L	503.56 ppb	09:18:18
3	Sc 361.383	1782483.3	1782483.3	99.455 %		09:19:11
3	Y 371.029	1060279.1	1060279.1	98.304 %		09:19:11
3	Ag 328.068†	130219.4	127005.3	503.94 µg/L	503.94 ppb	09:19:11
3	As 188.979†	1571.1	1593.5	512.14 µg/L	512.14 ppb	09:19:31
3	B 249.677†	35113.6	31902.8	501.80 µg/L	501.80 ppb	09:19:11
3	Ba 233.527†	117518.7	118301.4	502.82 µg/L	502.82 ppb	09:19:11
3	Be 313.107†	1741916.0	1752483.7	504.39 µg/L	504.39 ppb	09:19:11
3	Cd 226.502†	75333.0	75855.8	506.42 µg/L	506.42 ppb	09:19:11
3	Co 228.616†	38083.8	38464.2	506.71 µg/L	506.71 ppb	09:19:11
3	Cr 267.716†	60289.2	60439.1	501.24 µg/L	501.24 ppb	09:19:11
3	Cu 324.752†	123541.2	121241.1	501.53 µg/L	501.53 ppb	09:19:11
3	Mn 257.610†	383753.1	385664.2	506.25 µg/L	506.25 ppb	09:19:11
3	Mo 202.031†	15972.3	16096.3	504.76 µg/L	504.76 ppb	09:19:31
3	Ni 231.604†	40936.0	41258.0	506.84 µg/L	506.84 ppb	09:19:11
3	P 214.914†	10905.5	10988.6	2525.4 µg/L	2525.4 ppb	09:19:31
3	Pb 220.353†	8567.6	8552.6	511.57 µg/L	511.57 ppb	09:19:31
3	S 181.975 Axial†	1350.1	1265.3	1017.1 µg/L	1017.1 ppb	09:19:31
3	Sb 206.836†	4010.7	3951.7	504.47 µg/L	504.47 ppb	09:19:31
3	Se 196.026†	1322.2	1308.5	512 µg/L	512 ppb	09:19:31
3	SiO2†	53958.1	52472.1	5447.8 µg/L	5447.8 ppb	09:19:11
3	Si 251.611†	162749.6	162713.9	2547.2 µg/L	2547.2 ppb	09:19:11
3	Sn 189.927†	7538.8	7582.6	508.22 µg/L	508.22 ppb	09:19:31
3	Ti 334.940†	507695.1	509508.6	502.12 µg/L	502.12 ppb	09:19:11
3	Tl 190.801†	3712.0	3849.1	511.30 µg/L	511.30 ppb	09:19:31
3	U 409.014†	7218.8	7576.8	501.14 µg/L	501.14 ppb	09:19:11
3	V 292.402†	96164.6	96386.3	505.88 µg/L	505.88 ppb	09:19:11
3	Zn 213.857†	84034.7	83904.2	501.00 µg/L	501.00 ppb	09:19:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1775184.2	99.047	%	0.8126				0.82%
Sc RADIAL	150537.9	100	%	1.4				1.44%
Y 371.029	1056301.5	97.935	%	0.7811				0.80%
Ag 328.068†	127091.1	504.26	µg/L	0.296	504.26	ppb	0.296	0.06%
QC value within limits for Ag 328.068 Recovery = 100.85%								
Al 396.153Radial†	26077.2	5091.5	µg/L	25.30	5091.5	ppb	25.30	0.50%
QC value within limits for Al 396.153Radial Recovery = 101.83%								
As 188.979†	1597.4	513.36	µg/L	3.708	513.36	ppb	3.708	0.72%
QC value within limits for As 188.979 Recovery = 102.67%								
B 249.677†	31811.6	500.35	µg/L	1.964	500.35	ppb	1.964	0.39%
QC value within limits for B 249.677 Recovery = 100.07%								
Ba 233.527†	118389.6	503.19	µg/L	1.199	503.19	ppb	1.199	0.24%
QC value within limits for Ba 233.527 Recovery = 100.64%								
Be 313.107†	1752616.4	504.43	µg/L	0.586	504.43	ppb	0.586	0.12%
QC value within limits for Be 313.107 Recovery = 100.89%								
Ca 317.933Radial†	85481.4	5098.2	µg/L	8.31	5098.2	ppb	8.31	0.16%
QC value within limits for Ca 317.933Radial Recovery = 101.96%								
Cd 226.502†	75669.2	505.17	µg/L	1.271	505.17	ppb	1.271	0.25%
QC value within limits for Cd 226.502 Recovery = 101.03%								
Co 228.616†	38516.2	507.40	µg/L	1.216	507.40	ppb	1.216	0.24%
QC value within limits for Co 228.616 Recovery = 101.48%								
Cr 267.716†	60475.6	501.55	µg/L	0.375	501.55	ppb	0.375	0.07%
QC value within limits for Cr 267.716 Recovery = 100.31%								
Cu 324.752†	121292.2	501.74	µg/L	0.535	501.74	ppb	0.535	0.11%
QC value within limits for Cu 324.752 Recovery = 100.35%								
Fe 238.204 Radial†	76594.8	5070.0	µg/L	12.59	5070.0	ppb	12.59	0.25%
QC value within limits for Fe 238.204 Radial Recovery = 101.40%								
K 766.490 Radial†	12722.5	5066.8	µg/L	68.16	5066.8	ppb	68.16	1.35%
QC value within limits for K 766.490 Radial Recovery = 101.34%								
Mg 279.077 IEC†	13054.9	5210.0	µg/L	29.40	5210.0	ppb	29.40	0.56%
QC value within limits for Mg 279.077 IEC Recovery = 104.20%								
Mn 257.610†	385817.3	506.45	µg/L	0.537	506.45	ppb	0.537	0.11%
QC value within limits for Mn 257.610 Recovery = 101.29%								
Mo 202.031†	16163.0	506.85	µg/L	5.347	506.85	ppb	5.347	1.06%
QC value within limits for Mo 202.031 Recovery = 101.37%								
Na 589.592 Radial†	68089.0	10060	µg/L	21.9	10060	ppb	21.9	0.22%

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   QC value within limits for Na 589.592 Radial  Recovery = 100.60%
Ni 231.604†            41211.1      506.27 µg/L        1.000      506.27 ppb         1.000   0.20%
   QC value within limits for Ni 231.604  Recovery = 101.25%
P 214.914†             11014.6      2531.4 µg/L       26.57      2531.4 ppb         26.57   1.05%
   QC value within limits for P 214.914  Recovery = 101.26%
Pb 220.353†             8593.7      514.03 µg/L        4.770      514.03 ppb         4.770   0.93%
   QC value within limits for Pb 220.353  Recovery = 102.81%
S 181.975 Axial†        1274.6      1024.6 µg/L       12.42      1024.6 ppb         12.42   1.21%
   QC value within limits for S 181.975 Axial  Recovery = 102.46%
Sb 206.836†             3962.8      505.92 µg/L        5.673      505.92 ppb         5.673   1.12%
   QC value within limits for Sb 206.836  Recovery = 101.18%
Se 196.026†             1302.3         510 µg/L         7.4         510 ppb           7.4   1.45%
   QC value within limits for Se 196.026  Recovery = 101.94%
SiO2†                  52477.7      5448.3 µg/L        7.97      5448.3 ppb         7.97   0.15%
   QC value within limits for SiO2  Recovery = 101.88%
Si 251.611†           162661.4      2546.3 µg/L        2.25      2546.3 ppb         2.25   0.09%
   QC value within limits for Si 251.611  Recovery = 101.85%
Sn 189.927†             7609.9      510.04 µg/L        5.616      510.04 ppb         5.616   1.10%
   QC value within limits for Sn 189.927  Recovery = 102.01%
Sr 421.552†           226790.1      499.84 µg/L        8.681      499.84 ppb         8.681   1.74%
   QC value within limits for Sr 421.552  Recovery = 99.97%
Ti 334.940†           510041.0      502.64 µg/L        0.572      502.64 ppb         0.572   0.11%
   QC value within limits for Ti 334.940  Recovery = 100.53%
Tl 190.801†             3885.2      516.02 µg/L        5.325      516.02 ppb         5.325   1.03%
   QC value within limits for Tl 190.801  Recovery = 103.20%
U 409.014†              7456.8      493.67 µg/L       10.237      493.67 ppb        10.237   2.07%
   QC value within limits for U 409.014  Recovery = 98.73%
V 292.402†             96344.5      505.68 µg/L        0.407      505.68 ppb         0.407   0.08%
   QC value within limits for V 292.402  Recovery = 101.14%
Zn 213.857†            83954.0      501.31 µg/L        1.522      501.31 ppb         1.522   0.30%
   QC value within limits for Zn 213.857  Recovery = 100.26%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 9:19:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	150828.8	150828.8	101	%			09:20:08
1	Al 396.153Radial†	-51.5	22.7	4.4140	µg/L	4.4140	ppb	09:20:28
1	Ca 317.933Radial†	674.8	38.2	2.2785	µg/L	2.2785	ppb	09:20:28
1	Fe 238.204 Radial†	175.5	37.0	2.4517	µg/L	2.4517	ppb	09:20:28
1	K 766.490 Radial†	1618.0	34.2	13.625	µg/L	13.625	ppb	09:20:08
1	Mg 279.077 IEC†	174.9	1.7	0.6972	µg/L	0.6972	ppb	09:20:28
1	Na 589.592 Radial†	1442.7	317.1	46.865	µg/L	46.865	ppb	09:20:08
1	Sr 421.552†	-173.2	83.3	0.1836	µg/L	0.1836	ppb	09:20:08
1	Sc 361.383	1801507.9	1801507.9	100.52	%			09:21:30
1	Y 371.029	1083746.0	1083746.0	100.48	%			09:21:30
1	Ag 328.068†	3714.3	-232.8	-0.9068	µg/L	-0.9068	ppb	09:21:32
1	As 188.979†	-13.6	0.3	0.0818	µg/L	0.0818	ppb	09:21:52
1	B 249.677†	3327.8	-92.7	-1.4628	µg/L	-1.4628	ppb	09:21:32
1	Ba 233.527†	-120.6	18.3	0.0782	µg/L	0.0782	ppb	09:21:52
1	Be 313.107†	-815.5	205.3	0.0593	µg/L	0.0593	ppb	09:21:32
1	Cd 226.502†	-120.5	-10.1	-0.0677	µg/L	-0.0677	ppb	09:21:52
1	Co 228.616†	-174.1	-1.6	-0.0209	µg/L	-0.0209	ppb	09:21:52
1	Cr 267.716†	166.8	-14.8	-0.1231	µg/L	-0.1231	ppb	09:21:52
1	Cu 324.752†	2965.9	-26.8	-0.1095	µg/L	-0.1095	ppb	09:21:32
1	Mn 257.610†	286.3	91.8	0.1205	µg/L	0.1205	ppb	09:21:52
1	Mo 202.031†	-12.5	24.0	0.7525	µg/L	0.7525	ppb	09:21:52
1	Ni 231.604†	-84.1	13.9	0.1709	µg/L	0.1709	ppb	09:21:52
1	P 214.914†	-14.1	9.3	2.1483	µg/L	2.1483	ppb	09:21:52
1	Pb 220.353†	103.0	40.6	2.4224	µg/L	2.4224	ppb	09:21:52
1	S 181.975 Axial†	97.0	4.2	3.4015	µg/L	3.4015	ppb	09:21:52
1	Sb 206.836†	90.6	9.2	1.1792	µg/L	1.1792	ppb	09:21:52
1	Se 196.026†	15.9	-5.1	-2.00	µg/L	-2.00	ppb	09:21:52
1	SiO2†	1787.5	-3.5	-0.3938	µg/L	-0.3938	ppb	09:21:52
1	Si 251.611†	977.3	44.2	0.6822	µg/L	0.6822	ppb	09:21:32
1	Sn 189.927†	4.2	6.6	0.4438	µg/L	0.4438	ppb	09:21:52
1	Ti 334.940†	949.1	-26.0	-0.0260	µg/L	-0.0260	ppb	09:21:32
1	Tl 190.801†	-120.6	-3.2	-0.4140	µg/L	-0.4140	ppb	09:21:52
1	U 409.014†	-307.7	12.4	0.7925	µg/L	0.7925	ppb	09:21:32
1	V 292.402†	384.2	76.6	0.4040	µg/L	0.4040	ppb	09:21:32
1	Zn 213.857†	667.3	72.6	0.4357	µg/L	0.4357	ppb	09:21:52
2	Sc RADIAL	150792.5	150792.5	101	%			09:20:30
2	Al 396.153Radial†	-57.3	16.9	3.2975	µg/L	3.2975	ppb	09:20:50
2	Ca 317.933Radial†	676.5	40.1	2.3898	µg/L	2.3898	ppb	09:20:50
2	Fe 238.204 Radial†	188.1	49.6	3.2853	µg/L	3.2853	ppb	09:20:50
2	K 766.490 Radial†	1815.7	231.3	92.194	µg/L	92.194	ppb	09:20:30
2	Mg 279.077 IEC†	182.1	8.9	3.5765	µg/L	3.5765	ppb	09:20:50
2	Na 589.592 Radial†	1517.6	392.0	57.858	µg/L	57.858	ppb	09:20:30
2	Sr 421.552†	-192.6	64.0	0.1410	µg/L	0.1410	ppb	09:20:30
2	Sc 361.383	1777404.6	1777404.6	99.171	%			09:21:55
2	Y 371.029	1071043.0	1071043.0	99.302	%			09:21:55
2	Ag 328.068†	3371.5	-528.4	-2.0721	µg/L	-2.0721	ppb	09:21:57
2	As 188.979†	-17.3	-3.6	-1.1413	µg/L	-1.1413	ppb	09:22:17
2	B 249.677†	3566.7	193.2	3.0486	µg/L	3.0486	ppb	09:21:57
2	Ba 233.527†	-102.3	35.1	0.1491	µg/L	0.1491	ppb	09:22:17
2	Be 313.107†	-1187.2	-180.5	-0.0508	µg/L	-0.0508	ppb	09:21:57
2	Cd 226.502†	-64.5	44.7	0.2983	µg/L	0.2983	ppb	09:22:17
2	Co 228.616†	-163.7	6.6	0.0864	µg/L	0.0864	ppb	09:22:17
2	Cr 267.716†	166.8	-12.6	-0.1074	µg/L	-0.1074	ppb	09:22:17
2	Cu 324.752†	2976.3	23.7	0.1015	µg/L	0.1015	ppb	09:21:57
2	Mn 257.610†	289.0	98.4	0.1291	µg/L	0.1291	ppb	09:22:17
2	Mo 202.031†	-18.3	18.0	0.5631	µg/L	0.5631	ppb	09:22:17
2	Ni 231.604†	-76.3	20.7	0.2540	µg/L	0.2540	ppb	09:22:17
2	P 214.914†	-27.0	-3.9	-0.8982	µg/L	-0.8982	ppb	09:22:17
2	Pb 220.353†	84.0	22.8	1.3575	µg/L	1.3575	ppb	09:22:17

2	S 181.975 Axial†	102.1	10.7	8.5796 µg/L	8.5796 ppb	09:22:17
2	Sb 206.836†	78.2	-2.1	-0.2533 µg/L	-0.2533 ppb	09:22:17
2	Se 196.026†	26.9	6.2	2.42 µg/L	2.42 ppb	09:22:17
2	SiO2†	1794.7	27.8	2.8695 µg/L	2.8695 ppb	09:22:17
2	Si 251.611†	891.5	-29.2	-0.4735 µg/L	-0.4735 ppb	09:21:57
2	Sn 189.927†	14.1	16.7	1.1170 µg/L	1.1170 ppb	09:22:17
2	Ti 334.940†	1239.3	279.4	0.2740 µg/L	0.2740 ppb	09:21:57
2	Tl 190.801†	-129.0	-13.3	-1.7391 µg/L	-1.7391 ppb	09:22:17
2	U 409.014†	-255.2	61.1	3.7655 µg/L	3.7655 ppb	09:21:57
2	V 292.402†	205.1	-98.9	-0.5048 µg/L	-0.5048 ppb	09:21:57
2	Zn 213.857†	661.2	75.4	0.4522 µg/L	0.4522 ppb	09:22:17
3	Sc RADIAL	152536.7	152536.7	102 %		09:20:52
3	Al 396.153Radial†	-49.3	25.4	4.9559 µg/L	4.9559 ppb	09:21:12
3	Ca 317.933Radial†	634.3	-9.1	-0.5443 µg/L	-0.5443 ppb	09:21:12
3	Fe 238.204 Radial†	168.4	28.1	1.8613 µg/L	1.8613 ppb	09:21:12
3	K 766.490 Radial†	1792.8	188.1	74.979 µg/L	74.979 ppb	09:20:52
3	Mg 279.077 IEC†	188.4	13.1	5.2458 µg/L	5.2458 ppb	09:21:12
3	Na 589.592 Radial†	1579.0	435.1	64.253 µg/L	64.253 ppb	09:20:52
3	Sr 421.552†	-242.1	17.4	0.0384 µg/L	0.0384 ppb	09:20:52
3	Sc 361.383	1783224.4	1783224.4	99.496 %		09:22:19
3	Y 371.029	1072877.3	1072877.3	99.472 %		09:22:19
3	Ag 328.068†	4130.8	223.6	0.8725 µg/L	0.8725 ppb	09:22:21
3	As 188.979†	-14.8	-1.1	-0.3495 µg/L	-0.3495 ppb	09:22:41
3	B 249.677†	3597.4	212.2	3.3493 µg/L	3.3493 ppb	09:22:21
3	Ba 233.527†	-111.5	26.2	0.1114 µg/L	0.1114 ppb	09:22:41
3	Be 313.107†	-902.7	109.3	0.0310 µg/L	0.0310 ppb	09:22:21
3	Cd 226.502†	-118.4	-9.2	-0.0620 µg/L	-0.0620 ppb	09:22:41
3	Co 228.616†	-158.0	12.8	0.1687 µg/L	0.1687 ppb	09:22:41
3	Cr 267.716†	204.2	24.5	0.2041 µg/L	0.2041 ppb	09:22:41
3	Cu 324.752†	2848.1	-114.9	-0.4745 µg/L	-0.4745 ppb	09:22:21
3	Mn 257.610†	330.3	139.0	0.1823 µg/L	0.1823 ppb	09:22:41
3	Mo 202.031†	-17.6	18.7	0.5868 µg/L	0.5868 ppb	09:22:41
3	Ni 231.604†	-96.7	0.4	0.0047 µg/L	0.0047 ppb	09:22:41
3	P 214.914†	-43.1	-20.0	-4.6108 µg/L	-4.6108 ppb	09:22:41
3	Pb 220.353†	64.8	3.2	0.1944 µg/L	0.1944 ppb	09:22:41
3	S 181.975 Axial†	91.5	-0.2	-0.1716 µg/L	-0.1716 ppb	09:22:41
3	Sb 206.836†	90.3	9.8	1.2552 µg/L	1.2552 ppb	09:22:41
3	Se 196.026†	23.8	3.0	1.16 µg/L	1.16 ppb	09:22:41
3	SiO2†	1806.0	33.3	3.4379 µg/L	3.4379 ppb	09:22:41
3	Si 251.611†	889.8	-33.8	-0.5479 µg/L	-0.5479 ppb	09:22:21
3	Sn 189.927†	19.0	21.6	1.4435 µg/L	1.4435 ppb	09:22:41
3	Ti 334.940†	930.4	-35.2	-0.0346 µg/L	-0.0346 ppb	09:22:21
3	Tl 190.801†	-120.0	-3.9	-0.5082 µg/L	-0.5082 ppb	09:22:41
3	U 409.014†	-339.4	-22.7	-1.4164 µg/L	-1.4164 ppb	09:22:21
3	V 292.402†	273.8	-30.5	-0.1520 µg/L	-0.1520 ppb	09:22:21
3	Zn 213.857†	645.1	57.1	0.3438 µg/L	0.3438 ppb	09:22:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787379.0	99.728	%	0.7018				0.70%
Sc RADIAL	151386.0	101	%	0.7				0.66%
Y 371.029	1075888.8	99.751	%	0.6366				0.64%
Ag 328.068†	-179.2	-0.7021	µg/L	1.48290	-0.7021	ppb	1.48290	211.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	21.7	4.2225	µg/L	0.84559	4.2225	ppb	0.84559	20.03%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.5	-0.4697	µg/L	0.62037	-0.4697	ppb	0.62037	132.09%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	104.2	1.6450	µg/L	2.69568	1.6450	ppb	2.69568	163.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	26.6	0.1129	µg/L	0.03546	0.1129	ppb	0.03546	31.41%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	44.7	0.0132	µg/L	0.05718	0.0132	ppb	0.05718	434.08%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	23.0	1.3746	µg/L	1.66280	1.3746	ppb	1.66280	120.96%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.4	0.0562	µg/L	0.20965	0.0562	ppb	0.20965	372.94%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.9	0.0781	µg/L	0.09507	0.0781	ppb	0.09507	121.79%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -1.0     -0.0088 µg/L       0.18453     -0.0088 ppb        0.18453 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -39.3     -0.1608 µg/L       0.29142     -0.1608 ppb        0.29142 181.22%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       38.3      2.5328 µg/L       0.71547      2.5328 ppb        0.71547  28.25%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       151.2     60.266 µg/L       41.2993     60.266 ppb        41.2993  68.53%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           7.9      3.1732 µg/L       2.30098      3.1732 ppb        2.30098  72.51%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             109.7      0.1440 µg/L       0.03347      0.1440 ppb        0.03347  23.25%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              20.2      0.6341 µg/L       0.10316      0.6341 ppb        0.10316  16.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      381.4     56.325 µg/L        8.7943     56.325 ppb         8.7943  15.61%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              11.7      0.1432 µg/L       0.12690      0.1432 ppb        0.12690  88.61%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.9     -1.1203 µg/L       3.38502     -1.1203 ppb        3.38502 302.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              22.2      1.3248 µg/L       1.11437      1.3248 ppb        1.11437  84.12%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.9      3.9365 µg/L       4.40003      3.9365 ppb        4.40003 111.77%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.6      0.7271 µg/L       0.84985      0.7271 ppb        0.84985 116.89%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.3       0.527 µg/L        2.2764       0.527 ppb         2.2764 431.57%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    19.2      1.9712 µg/L       2.06776      1.9712 ppb        2.06776 104.90%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -6.2     -0.1131 µg/L       0.68976     -0.1131 ppb        0.68976 610.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              15.0      1.0014 µg/L       0.50977      1.0014 ppb        0.50977  50.90%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              54.9      0.1210 µg/L       0.07461      0.1210 ppb        0.07461  61.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              72.7      0.0711 µg/L       0.17575      0.0711 ppb        0.17575 247.08%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -6.8     -0.8871 µg/L       0.73937     -0.8871 ppb        0.73937  83.35%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               16.9      1.0472 µg/L       2.60037      1.0472 ppb        2.60037 248.32%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -17.6     -0.0843 µg/L       0.45820     -0.0843 ppb        0.45820 543.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              68.4      0.4106 µg/L       0.05843      0.4106 ppb        0.05843  14.23%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 9:47:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	150864.4	150864.4	101	%			09:48:25
1	Al 396.153Radial†	25964.0	25893.9	5055.7	µg/L	5055.7	ppb	09:48:25
1	Ca 317.933Radial†	85831.5	84722.1	5052.9	µg/L	5052.9	ppb	09:48:25
1	Fe 238.204 Radial†	76467.3	75905.4	5024.3	µg/L	5024.3	ppb	09:48:25
1	K 766.490 Radial†	14091.0	12437.6	4953.3	µg/L	4953.3	ppb	09:48:25
1	Mg 279.077 IEC†	13152.8	12907.5	5151.2	µg/L	5151.2	ppb	09:48:25
1	Na 589.592 Radial†	69015.9	67515.0	9975.0	µg/L	9975.0	ppb	09:48:25
1	Sr 421.552†	227795.4	226786.7	499.83	µg/L	499.83	ppb	09:48:23
1	Sc 361.383	1765444.2	1765444.2	98.504	%			09:48:52
1	Y 371.029	1050975.7	1050975.7	97.441	%			09:48:52
1	Ag 328.068†	127988.7	126004.4	499.95	µg/L	499.95	ppb	09:48:52
1	As 188.979†	1539.1	1576.3	506.61	µg/L	506.61	ppb	09:49:12
1	B 249.677†	34135.2	31250.3	491.53	µg/L	491.53	ppb	09:48:52
1	Ba 233.527†	115212.6	117100.6	497.71	µg/L	497.71	ppb	09:48:52
1	Be 313.107†	1703319.1	1730204.7	497.98	µg/L	497.98	ppb	09:48:52
1	Cd 226.502†	73054.8	74274.0	495.85	µg/L	495.85	ppb	09:48:52
1	Co 228.616†	37074.6	37809.2	498.08	µg/L	498.08	ppb	09:48:52
1	Cr 267.716†	58992.6	59707.9	495.18	µg/L	495.18	ppb	09:48:52
1	Cu 324.752†	121150.3	120012.8	496.45	µg/L	496.45	ppb	09:48:52
1	Mn 257.610†	375568.6	381079.5	500.23	µg/L	500.23	ppb	09:48:52
1	Mo 202.031†	15777.6	16053.6	503.42	µg/L	503.42	ppb	09:49:12
1	Ni 231.604†	39870.0	40573.2	498.43	µg/L	498.43	ppb	09:48:52
1	P 214.914†	10717.2	10903.3	2505.8	µg/L	2505.8	ppb	09:49:12
1	Pb 220.353†	8412.1	8478.0	507.12	µg/L	507.12	ppb	09:49:12
1	S 181.975 Axial†	1324.3	1252.2	1006.6	µg/L	1006.6	ppb	09:49:12
1	Sb 206.836†	3965.5	3944.8	503.65	µg/L	503.65	ppb	09:49:12
1	Se 196.026†	1279.8	1278.3	500	µg/L	500	ppb	09:49:12
1	SiO2†	52782.1	51801.9	5378.0	µg/L	5378.0	ppb	09:48:52
1	Si 251.611†	158966.1	160452.3	2511.7	µg/L	2511.7	ppb	09:48:52
1	Sn 189.927†	7427.8	7543.1	505.57	µg/L	505.57	ppb	09:49:12
1	Ti 334.940†	498637.4	505240.2	497.91	µg/L	497.91	ppb	09:48:52
1	Tl 190.801†	3682.1	3854.8	511.98	µg/L	511.98	ppb	09:49:12
1	U 409.014†	7065.7	7491.5	495.51	µg/L	495.51	ppb	09:48:52
1	V 292.402†	94256.0	95381.9	500.64	µg/L	500.64	ppb	09:48:52
1	Zn 213.857†	81959.7	82613.2	493.29	µg/L	493.29	ppb	09:48:52
2	Sc RADIAL	149411.3	149411.3	99.6	%			09:48:29
2	Al 396.153Radial†	26354.9	26537.4	5181.7	µg/L	5181.7	ppb	09:48:29
2	Ca 317.933Radial†	86931.1	86656.3	5168.3	µg/L	5168.3	ppb	09:48:29
2	Fe 238.204 Radial†	77474.1	77655.9	5140.2	µg/L	5140.2	ppb	09:48:29
2	K 766.490 Radial†	14285.4	12769.1	5085.3	µg/L	5085.3	ppb	09:48:29
2	Mg 279.077 IEC†	13318.4	13201.1	5268.2	µg/L	5268.2	ppb	09:48:29
2	Na 589.592 Radial†	69760.9	68930.5	10184	µg/L	10184	ppb	09:48:29
2	Sr 421.552†	225711.6	226897.4	500.07	µg/L	500.07	ppb	09:48:27
2	Sc 361.383	1751017.1	1751017.1	97.699	%			09:49:15
2	Y 371.029	1042557.9	1042557.9	96.661	%			09:49:15
2	Ag 328.068†	128155.2	127245.4	504.88	µg/L	504.88	ppb	09:49:15
2	As 188.979†	1551.4	1601.7	514.75	µg/L	514.75	ppb	09:49:35
2	B 249.677†	34357.6	31763.4	499.60	µg/L	499.60	ppb	09:49:15
2	Ba 233.527†	115603.7	118464.7	503.51	µg/L	503.51	ppb	09:49:15
2	Be 313.107†	1710868.5	1752179.2	504.31	µg/L	504.31	ppb	09:49:15
2	Cd 226.502†	73300.3	75136.4	501.60	µg/L	501.60	ppb	09:49:15
2	Co 228.616†	37241.2	38289.9	504.41	µg/L	504.41	ppb	09:49:15
2	Cr 267.716†	59313.1	60529.3	501.99	µg/L	501.99	ppb	09:49:15
2	Cu 324.752†	121675.6	121563.8	502.87	µg/L	502.87	ppb	09:49:15
2	Mn 257.610†	377338.8	386032.8	506.73	µg/L	506.73	ppb	09:49:15
2	Mo 202.031†	15805.3	16213.9	508.45	µg/L	508.45	ppb	09:49:35
2	Ni 231.604†	39897.0	40934.2	502.86	µg/L	502.86	ppb	09:49:15
2	P 214.914†	10750.8	11027.3	2534.3	µg/L	2534.3	ppb	09:49:35
2	Pb 220.353†	8403.4	8539.4	510.80	µg/L	510.80	ppb	09:49:35

2	S 181.975 Axial†	1322.3	1261.2	1013.9 µg/L	1013.9 ppb	09:49:35
2	Sb 206.836†	3983.2	3996.1	510.17 µg/L	510.17 ppb	09:49:35
2	Se 196.026†	1287.1	1296.4	507 µg/L	507 ppb	09:49:35
2	SiO2†	52936.7	52401.6	5440.3 µg/L	5440.3 ppb	09:49:15
2	Si 251.611†	159526.3	162355.4	2541.5 µg/L	2541.5 ppb	09:49:15
2	Sn 189.927†	7441.9	7619.7	510.70 µg/L	510.70 ppb	09:49:35
2	Ti 334.940†	500758.9	511582.5	504.16 µg/L	504.16 ppb	09:49:15
2	Tl 190.801†	3669.7	3872.9	514.45 µg/L	514.45 ppb	09:49:35
2	U 409.014†	7059.5	7544.2	499.13 µg/L	499.13 ppb	09:49:15
2	V 292.402†	94586.9	96508.9	506.54 µg/L	506.54 ppb	09:49:15
2	Zn 213.857†	82211.9	83556.8	498.93 µg/L	498.93 ppb	09:49:15
3	Sc RADIAL	149097.5	149097.5	99.4 %		09:48:33
3	Al 396.153Radial†	25977.3	26213.2	5118.4 µg/L	5118.4 ppb	09:48:33
3	Ca 317.933Radial†	85623.9	85524.8	5100.8 µg/L	5100.8 ppb	09:48:33
3	Fe 238.204 Radial†	76032.9	76369.5	5055.1 µg/L	5055.1 ppb	09:48:33
3	K 766.490 Radial†	14170.4	12683.6	5051.3 µg/L	5051.3 ppb	09:48:33
3	Mg 279.077 IEC†	13151.1	13060.9	5212.3 µg/L	5212.3 ppb	09:48:33
3	Na 589.592 Radial†	68857.4	68168.8	10072 µg/L	10072 ppb	09:48:33
3	Sr 421.552†	228875.3	230557.9	508.14 µg/L	508.14 ppb	09:48:31
3	Sc 361.383	1780303.4	1780303.4	99.333 %		09:49:38
3	Y 371.029	1059619.9	1059619.9	98.243 %		09:49:38
3	Ag 328.068†	129386.1	126326.8	501.20 µg/L	501.20 ppb	09:49:38
3	As 188.979†	1560.9	1585.2	509.46 µg/L	509.46 ppb	09:49:59
3	B 249.677†	34601.7	31430.7	494.36 µg/L	494.36 ppb	09:49:38
3	Ba 233.527†	116382.4	117302.1	498.57 µg/L	498.57 ppb	09:49:38
3	Be 313.107†	1725055.2	1737654.3	500.12 µg/L	500.12 ppb	09:49:38
3	Cd 226.502†	74340.1	74949.0	500.36 µg/L	500.36 ppb	09:49:38
3	Co 228.616†	37640.3	38064.6	501.45 µg/L	501.45 ppb	09:49:38
3	Cr 267.716†	59794.9	60015.6	497.74 µg/L	497.74 ppb	09:49:38
3	Cu 324.752†	122503.4	120348.5	497.83 µg/L	497.83 ppb	09:49:38
3	Mn 257.610†	379999.6	382357.9	501.91 µg/L	501.91 ppb	09:49:38
3	Mo 202.031†	15880.9	16023.9	502.49 µg/L	502.49 ppb	09:49:59
3	Ni 231.604†	40437.0	40806.1	501.29 µg/L	501.29 ppb	09:49:38
3	P 214.914†	10790.2	10885.9	2501.8 µg/L	2501.8 ppb	09:49:59
3	Pb 220.353†	8476.5	8471.5	506.75 µg/L	506.75 ppb	09:49:59
3	S 181.975 Axial†	1322.5	1239.2	996.22 µg/L	996.22 ppb	09:49:59
3	Sb 206.836†	4005.3	3951.2	504.42 µg/L	504.42 ppb	09:49:59
3	Se 196.026†	1296.6	1284.4	503 µg/L	503 ppb	09:49:59
3	SiO2†	53447.8	52024.8	5401.3 µg/L	5401.3 ppb	09:49:38
3	Si 251.611†	161197.1	161351.4	2525.9 µg/L	2525.9 ppb	09:49:38
3	Sn 189.927†	7473.4	7526.1	504.43 µg/L	504.43 ppb	09:49:59
3	Ti 334.940†	503715.4	506127.2	498.79 µg/L	498.79 ppb	09:49:38
3	Tl 190.801†	3695.1	3836.7	509.61 µg/L	509.61 ppb	09:49:59
3	U 409.014†	6924.8	7289.7	482.99 µg/L	482.99 ppb	09:49:38
3	V 292.402†	95094.6	95427.5	500.86 µg/L	500.86 ppb	09:49:38
3	Zn 213.857†	83101.5	83068.1	496.01 µg/L	496.01 ppb	09:49:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1765588.2	98.512	%	0.8171				0.83%
Sc RADIAL	149791.1	99.8	%	0.63				0.63%
Y 371.029	1051051.2	97.448	%	0.7910				0.81%
Ag 328.068†	126525.5	502.01	µg/L	2.564	502.01	ppb	2.564	0.51%
QC value within limits for Ag 328.068 Recovery = 100.40%								
Al 396.153Radial†	26214.8	5118.6	µg/L	63.00	5118.6	ppb	63.00	1.23%
QC value within limits for Al 396.153Radial Recovery = 102.37%								
As 188.979†	1587.7	510.27	µg/L	4.135	510.27	ppb	4.135	0.81%
QC value within limits for As 188.979 Recovery = 102.05%								
B 249.677†	31481.5	495.16	µg/L	4.098	495.16	ppb	4.098	0.83%
QC value within limits for B 249.677 Recovery = 99.03%								
Ba 233.527†	117622.5	499.93	µg/L	3.129	499.93	ppb	3.129	0.63%
QC value within limits for Ba 233.527 Recovery = 99.99%								
Be 313.107†	1740012.7	500.80	µg/L	3.217	500.80	ppb	3.217	0.64%
QC value within limits for Be 313.107 Recovery = 100.16%								
Ca 317.933Radial†	85634.4	5107.3	µg/L	57.96	5107.3	ppb	57.96	1.13%
QC value within limits for Ca 317.933Radial Recovery = 102.15%								
Cd 226.502†	74786.5	499.27	µg/L	3.026	499.27	ppb	3.026	0.61%
QC value within limits for Cd 226.502 Recovery = 99.85%								
Co 228.616†	38054.6	501.31	µg/L	3.166	501.31	ppb	3.166	0.63%

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   QC value within limits for Co 228.616  Recovery = 100.26%
Cr 267.716†            60084.3      498.30 µg/L         3.443      498.30 ppb          3.443   0.69%
   QC value within limits for Cr 267.716  Recovery = 99.66%
Cu 324.752†           120641.7      499.05 µg/L         3.380      499.05 ppb          3.380   0.68%
   QC value within limits for Cu 324.752  Recovery = 99.81%
Fe 238.204 Radial†     76643.6      5073.2 µg/L         60.03      5073.2 ppb          60.03   1.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.46%
K 766.490 Radial†      12630.1      5030.0 µg/L         68.55      5030.0 ppb          68.55   1.36%
   QC value within limits for K 766.490 Radial  Recovery = 100.60%
Mg 279.077 IEC†        13056.5      5210.6 µg/L         58.51      5210.6 ppb          58.51   1.12%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.21%
Mn 257.610†           383156.7      502.96 µg/L         3.375      502.96 ppb          3.375   0.67%
   QC value within limits for Mn 257.610  Recovery = 100.59%
Mo 202.031†            16097.2      504.79 µg/L         3.206      504.79 ppb          3.206   0.64%
   QC value within limits for Mo 202.031  Recovery = 100.96%
Na 589.592 Radial†     68204.7       10077 µg/L         104.7       10077 ppb          104.7   1.04%
   QC value within limits for Na 589.592 Radial  Recovery = 100.77%
Ni 231.604†            40771.2      500.86 µg/L         2.249      500.86 ppb          2.249   0.45%
   QC value within limits for Ni 231.604  Recovery = 100.17%
P 214.914†             10938.9      2514.0 µg/L         17.72      2514.0 ppb          17.72   0.70%
   QC value within limits for P 214.914  Recovery = 100.56%
Pb 220.353†             8496.3      508.22 µg/L         2.243      508.22 ppb          2.243   0.44%
   QC value within limits for Pb 220.353  Recovery = 101.64%
S 181.975 Axial†        1250.8      1005.6 µg/L          8.88      1005.6 ppb           8.88   0.88%
   QC value within limits for S 181.975 Axial  Recovery = 100.56%
Sb 206.836†             3964.0      506.08 µg/L         3.562      506.08 ppb          3.562   0.70%
   QC value within limits for Sb 206.836  Recovery = 101.22%
Se 196.026†             1286.4         503 µg/L           3.6         503 ppb            3.6   0.72%
   QC value within limits for Se 196.026  Recovery = 100.70%
SiO2†                  52076.1      5406.5 µg/L         31.47      5406.5 ppb          31.47   0.58%
   QC value within limits for SiO2  Recovery = 101.10%
Si 251.611†           161386.4      2526.4 µg/L         14.91      2526.4 ppb          14.91   0.59%
   QC value within limits for Si 251.611  Recovery = 101.05%
Sn 189.927†             7563.0      506.90 µg/L         3.341      506.90 ppb          3.341   0.66%
   QC value within limits for Sn 189.927  Recovery = 101.38%
Sr 421.552†           228080.6      502.68 µg/L         4.730      502.68 ppb          4.730   0.94%
   QC value within limits for Sr 421.552  Recovery = 100.54%
Ti 334.940†           507649.9      500.29 µg/L         3.383      500.29 ppb          3.383   0.68%
   QC value within limits for Ti 334.940  Recovery = 100.06%
Tl 190.801†             3854.8      512.01 µg/L         2.421      512.01 ppb          2.421   0.47%
   QC value within limits for Tl 190.801  Recovery = 102.40%
U 409.014†              7441.8      492.55 µg/L         8.468      492.55 ppb          8.468   1.72%
   QC value within limits for U 409.014  Recovery = 98.51%
V 292.402†             95772.8      502.68 µg/L         3.345      502.68 ppb          3.345   0.67%
   QC value within limits for V 292.402  Recovery = 100.54%
Zn 213.857†            83079.4      496.08 µg/L         2.819      496.08 ppb          2.819   0.57%
   QC value within limits for Zn 213.857  Recovery = 99.22%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 9:50:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	152841.5	152841.5	102	%			09:50:35
1	Al 396.153Radial†	-47.2	27.6	5.4064	µg/L	5.4064	ppb	09:50:55
1	Ca 317.933Radial†	629.8	-14.8	-0.8832	µg/L	-0.8832	ppb	09:50:55
1	Fe 238.204 Radial†	172.8	32.1	2.1269	µg/L	2.1269	ppb	09:50:55
1	K 766.490 Radial†	1693.6	87.3	34.776	µg/L	34.776	ppb	09:50:35
1	Mg 279.077 IEC†	170.4	-5.0	-1.9738	µg/L	-1.9738	ppb	09:50:55
1	Na 589.592 Radial†	1347.9	205.1	30.289	µg/L	30.289	ppb	09:50:35
1	Sr 421.552†	-119.7	138.1	0.3043	µg/L	0.3043	ppb	09:50:35
1	Sc 361.383	1778476.9	1778476.9	99.231	%			09:51:43
1	Y 371.029	1070202.1	1070202.1	99.224	%			09:51:43
1	Ag 328.068†	3955.0	57.6	0.2265	µg/L	0.2265	ppb	09:51:45
1	As 188.979†	-13.2	0.5	0.1525	µg/L	0.1525	ppb	09:52:05
1	B 249.677†	3411.3	34.4	0.5410	µg/L	0.5410	ppb	09:52:05
1	Ba 233.527†	-131.6	5.6	0.0235	µg/L	0.0235	ppb	09:52:05
1	Be 313.107†	-1123.5	-115.6	-0.0309	µg/L	-0.0309	ppb	09:51:45
1	Cd 226.502†	-109.2	-0.3	-0.0021	µg/L	-0.0021	ppb	09:52:05
1	Co 228.616†	-144.4	26.1	0.3436	µg/L	0.3436	ppb	09:52:05
1	Cr 267.716†	180.5	1.2	0.0032	µg/L	0.0032	ppb	09:52:05
1	Cu 324.752†	2913.8	-41.0	-0.1621	µg/L	-0.1621	ppb	09:51:45
1	Mn 257.610†	214.9	23.5	0.0310	µg/L	0.0310	ppb	09:52:05
1	Mo 202.031†	-30.8	5.4	0.1684	µg/L	0.1684	ppb	09:52:05
1	Ni 231.604†	-86.7	10.2	0.1255	µg/L	0.1255	ppb	09:52:05
1	P 214.914†	-18.0	5.2	1.1997	µg/L	1.1997	ppb	09:52:05
1	Pb 220.353†	64.4	3.0	0.1737	µg/L	0.1737	ppb	09:52:05
1	S 181.975 Axial†	91.7	0.2	0.1614	µg/L	0.1614	ppb	09:52:05
1	Sb 206.836†	86.8	6.6	0.8366	µg/L	0.8366	ppb	09:52:05
1	Se 196.026†	9.3	-11.6	-4.50	µg/L	-4.50	ppb	09:52:05
1	SiO2†	1771.0	2.9	0.2887	µg/L	0.2887	ppb	09:52:05
1	Si 251.611†	947.9	27.1	0.4201	µg/L	0.4201	ppb	09:51:45
1	Sn 189.927†	6.0	8.5	0.5672	µg/L	0.5672	ppb	09:52:05
1	Ti 334.940†	960.3	-2.6	-0.0057	µg/L	-0.0057	ppb	09:51:45
1	Tl 190.801†	-97.1	19.0	2.4746	µg/L	2.4746	ppb	09:52:05
1	U 409.014†	-188.8	128.2	7.9177	µg/L	7.9177	ppb	09:51:45
1	V 292.402†	162.6	-141.8	-0.7275	µg/L	-0.7275	ppb	09:51:45
1	Zn 213.857†	616.3	29.7	0.1780	µg/L	0.1780	ppb	09:52:05
2	Sc RADIAL	148741.3	148741.3	99.1	%			09:50:57
2	Al 396.153Radial†	-46.3	27.2	5.3285	µg/L	5.3285	ppb	09:51:17
2	Ca 317.933Radial†	643.0	15.6	0.9303	µg/L	0.9303	ppb	09:51:17
2	Fe 238.204 Radial†	171.4	35.4	2.3402	µg/L	2.3402	ppb	09:51:17
2	K 766.490 Radial†	1502.4	-59.8	-23.837	µg/L	-23.837	ppb	09:50:57
2	Mg 279.077 IEC†	187.5	16.9	6.7230	µg/L	6.7230	ppb	09:51:17
2	Na 589.592 Radial†	1290.8	184.0	27.218	µg/L	27.218	ppb	09:50:57
2	Sr 421.552†	-303.4	-50.5	-0.1113	µg/L	-0.1113	ppb	09:50:57
2	Sc 361.383	1760161.0	1760161.0	98.209	%			09:52:07
2	Y 371.029	1059746.1	1059746.1	98.255	%			09:52:07
2	Ag 328.068†	3791.1	-67.9	-0.2437	µg/L	-0.2437	ppb	09:52:09
2	As 188.979†	-17.7	-4.2	-1.3299	µg/L	-1.3299	ppb	09:52:29
2	B 249.677†	3367.4	25.5	0.4011	µg/L	0.4011	ppb	09:52:29
2	Ba 233.527†	-125.0	11.0	0.0473	µg/L	0.0473	ppb	09:52:29
2	Be 313.107†	-909.9	90.2	0.0285	µg/L	0.0285	ppb	09:52:09
2	Cd 226.502†	-118.5	-10.9	-0.0728	µg/L	-0.0728	ppb	09:52:29
2	Co 228.616†	-153.5	15.2	0.2007	µg/L	0.2007	ppb	09:52:29
2	Cr 267.716†	213.4	36.6	0.2971	µg/L	0.2971	ppb	09:52:29
2	Cu 324.752†	2987.9	65.0	0.2756	µg/L	0.2756	ppb	09:52:09
2	Mn 257.610†	238.4	49.7	0.0650	µg/L	0.0650	ppb	09:52:29
2	Mo 202.031†	-26.6	9.4	0.2945	µg/L	0.2945	ppb	09:52:29
2	Ni 231.604†	-95.7	0.2	0.0025	µg/L	0.0025	ppb	09:52:29
2	P 214.914†	-25.4	-2.5	-0.5824	µg/L	-0.5824	ppb	09:52:29
2	Pb 220.353†	57.8	-3.1	-0.1895	µg/L	-0.1895	ppb	09:52:29

2	S 181.975 Axial†	91.5	1.0	0.7942 µg/L	0.7942 ppb	09:52:29
2	Sb 206.836†	69.6	-10.1	-1.2808 µg/L	-1.2808 ppb	09:52:29
2	Se 196.026†	14.7	-6.0	-2.32 µg/L	-2.32 ppb	09:52:29
2	SiO2†	1752.2	2.3	0.2200 µg/L	0.2200 ppb	09:52:29
2	Si 251.611†	1099.8	191.8	3.0040 µg/L	3.0040 ppb	09:52:09
2	Sn 189.927†	11.1	13.8	0.9213 µg/L	0.9213 ppb	09:52:29
2	Ti 334.940†	776.3	-179.8	-0.1815 µg/L	-0.1815 ppb	09:52:09
2	Tl 190.801†	-106.7	8.2	1.0756 µg/L	1.0756 ppb	09:52:29
2	U 409.014†	-178.5	136.7	8.5480 µg/L	8.5480 ppb	09:52:09
2	V 292.402†	489.4	192.7	1.0080 µg/L	1.0080 ppb	09:52:09
2	Zn 213.857†	602.6	22.3	0.1338 µg/L	0.1338 ppb	09:52:29
3	Sc RADIAL	149011.0	149011.0	99.3 %		09:51:19
3	Al 396.153Radial†	-57.1	16.5	3.2235 µg/L	3.2235 ppb	09:51:39
3	Ca 317.933Radial†	662.3	33.8	2.0163 µg/L	2.0163 ppb	09:51:39
3	Fe 238.204 Radial†	160.6	24.1	1.5985 µg/L	1.5985 ppb	09:51:39
3	K 766.490 Radial†	1536.4	-28.3	-11.266 µg/L	-11.266 ppb	09:51:19
3	Mg 279.077 IEC†	170.0	-1.0	-0.4130 µg/L	-0.4130 ppb	09:51:39
3	Na 589.592 Radial†	1289.1	180.0	26.619 µg/L	26.619 ppb	09:51:19
3	Sr 421.552†	-193.8	60.4	0.1332 µg/L	0.1332 ppb	09:51:19
3	Sc 361.383	1787845.7	1787845.7	99.754 %		09:52:32
3	Y 371.029	1075984.5	1075984.5	99.760 %		09:52:32
3	Ag 328.068†	3936.1	17.7	0.0676 µg/L	0.0676 ppb	09:52:34
3	As 188.979†	-20.4	-6.6	-2.0902 µg/L	-2.0902 ppb	09:52:54
3	B 249.677†	3418.0	23.0	0.3635 µg/L	0.3635 ppb	09:52:54
3	Ba 233.527†	-133.6	4.3	0.0183 µg/L	0.0183 ppb	09:52:54
3	Be 313.107†	-1121.6	-107.8	-0.0311 µg/L	-0.0311 ppb	09:52:34
3	Cd 226.502†	-83.2	26.3	0.1757 µg/L	0.1757 ppb	09:52:54
3	Co 228.616†	-165.2	6.0	0.0784 µg/L	0.0784 ppb	09:52:54
3	Cr 267.716†	184.0	3.7	0.0310 µg/L	0.0310 ppb	09:52:54
3	Cu 324.752†	2891.1	-79.2	-0.3266 µg/L	-0.3266 ppb	09:52:34
3	Mn 257.610†	244.4	52.0	0.0683 µg/L	0.0683 ppb	09:52:54
3	Mo 202.031†	-28.6	7.8	0.2443 µg/L	0.2443 ppb	09:52:54
3	Ni 231.604†	-80.8	16.6	0.2044 µg/L	0.2044 ppb	09:52:54
3	P 214.914†	-38.5	-15.3	-3.5289 µg/L	-3.5289 ppb	09:52:54
3	Pb 220.353†	52.8	-8.9	-0.5318 µg/L	-0.5318 ppb	09:52:54
3	S 181.975 Axial†	102.3	10.3	8.2584 µg/L	8.2584 ppb	09:52:54
3	Sb 206.836†	80.9	0.1	0.0163 µg/L	0.0163 ppb	09:52:54
3	Se 196.026†	16.6	-4.3	-1.66 µg/L	-1.66 ppb	09:52:54
3	SiO2†	1779.5	2.1	0.2030 µg/L	0.2030 ppb	09:52:54
3	Si 251.611†	932.8	7.0	0.1044 µg/L	0.1044 ppb	09:52:34
3	Sn 189.927†	3.0	5.5	0.3691 µg/L	0.3691 ppb	09:52:54
3	Ti 334.940†	920.5	-47.5	-0.0466 µg/L	-0.0466 ppb	09:52:34
3	Tl 190.801†	-107.6	8.9	1.1700 µg/L	1.1700 ppb	09:52:54
3	U 409.014†	-323.8	-6.1	-0.3855 µg/L	-0.3855 ppb	09:52:34
3	V 292.402†	286.8	-18.2	-0.0919 µg/L	-0.0919 ppb	09:52:34
3	Zn 213.857†	605.5	15.7	0.0931 µg/L	0.0931 ppb	09:52:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1775494.5	99.065	%	0.7857				0.79%
Sc RADIAL	150197.9	100	%	1.5				1.53%
Y 371.029	1068644.3	99.080	%	0.7631				0.77%
Ag 328.068†	2.4	0.0168	µg/L	0.23921	0.0168	ppb	0.23921	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	23.8	4.6528	µg/L	1.23843	4.6528	ppb	1.23843	26.62%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.4	-1.0892	µg/L	1.14059	-1.0892	ppb	1.14059	104.72%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	27.6	0.4352	µg/L	0.09356	0.4352	ppb	0.09356	21.50%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.0	0.0297	µg/L	0.01548	0.0297	ppb	0.01548	52.06%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-44.4	-0.0112	µg/L	0.03436	-0.0112	ppb	0.03436	307.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	11.5	0.6878	µg/L	1.46488	0.6878	ppb	1.46488	212.97%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.1	0.0336	µg/L	0.12802	0.0336	ppb	0.12802	381.12%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	15.8	0.2076	µg/L	0.13273	0.2076	ppb	0.13273	63.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              13.8      0.1104 µg/L       0.16222      0.1104 ppb        0.16222 146.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -18.4     -0.0710 µg/L       0.31124     -0.0710 ppb        0.31124 438.14%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       30.5      2.0219 µg/L       0.38185      2.0219 ppb        0.38185  18.89%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -0.3     -0.1094 µg/L      30.85818     -0.1094 ppb       30.85818 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.6      1.4454 µg/L       4.63666      1.4454 ppb        4.63666 320.78%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              41.7      0.0547 µg/L       0.02065      0.0547 ppb        0.02065  37.73%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               7.5      0.2357 µg/L       0.06349      0.2357 ppb        0.06349  26.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      189.7      28.042 µg/L        1.9688      28.042 ppb         1.9688   7.02%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               9.0      0.1108 µg/L       0.10177      0.1108 ppb        0.10177  91.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.2     -0.9705 µg/L       2.38806     -0.9705 ppb        2.38806 246.05%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -3.0     -0.1825 µg/L       0.35285     -0.1825 ppb        0.35285 193.31%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.8      3.0714 µg/L       4.50323      3.0714 ppb        4.50323 146.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.1     -0.1426 µg/L       1.06762     -0.1426 ppb        1.06762 748.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -7.3       -2.83 µg/L         1.489       -2.83 ppb          1.489  52.69%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     2.4      0.2372 µg/L       0.04538      0.2372 ppb        0.04538  19.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              75.3      1.1762 µg/L       1.59079      1.1762 ppb        1.59079 135.25%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.3      0.6192 µg/L       0.27974      0.6192 ppb        0.27974  45.18%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              49.3      0.1087 µg/L       0.20886      0.1087 ppb        0.20886 192.06%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -76.6     -0.0779 µg/L       0.09203     -0.0779 ppb        0.09203 118.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              12.0      1.5734 µg/L       0.78191      1.5734 ppb        0.78191  49.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               86.2      5.3601 µg/L       4.98581      5.3601 ppb        4.98581  93.02%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               10.9      0.0629 µg/L       0.87804      0.0629 ppb        0.87804 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              22.6      0.1350 µg/L       0.04249      0.1350 ppb        0.04249  31.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 10:16:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	149512.1	149512.1	99.7	%			10:16:42
1	Al 396.153Radial†	25661.0	25823.3	5041.8	µg/L	5041.8	ppb	10:16:42
1	Ca 317.933Radial†	85034.0	84693.9	5051.2	µg/L	5051.2	ppb	10:16:42
1	Fe 238.204 Radial†	75570.8	75693.6	5010.3	µg/L	5010.3	ppb	10:16:42
1	K 766.490 Radial†	13977.1	12450.1	4958.3	µg/L	4958.3	ppb	10:16:42
1	Mg 279.077 IEC†	12952.6	12825.0	5118.4	µg/L	5118.4	ppb	10:16:42
1	Na 589.592 Radial†	68639.1	67757.6	10011	µg/L	10011	ppb	10:16:42
1	Sr 421.552†	226578.1	227614.1	501.65	µg/L	501.65	ppb	10:16:40
1	Sc 361.383	1769989.3	1769989.3	98.758	%			10:16:55
1	Y 371.029	1053955.0	1053955.0	97.718	%			10:16:55
1	Ag 328.068†	128734.9	126426.4	501.62	µg/L	501.62	ppb	10:16:55
1	As 188.979†	1531.8	1564.9	503.01	µg/L	503.01	ppb	10:17:15
1	B 249.677†	34284.0	31312.0	492.49	µg/L	492.49	ppb	10:16:55
1	Ba 233.527†	115865.3	117461.2	499.25	µg/L	499.25	ppb	10:16:55
1	Be 313.107†	1710309.4	1732842.7	498.74	µg/L	498.74	ppb	10:16:55
1	Cd 226.502†	73417.7	74451.1	497.03	µg/L	497.03	ppb	10:16:55
1	Co 228.616†	37390.4	38032.4	501.02	µg/L	501.02	ppb	10:16:55
1	Cr 267.716†	59458.8	60026.2	497.82	µg/L	497.82	ppb	10:16:55
1	Cu 324.752†	121828.9	120384.2	497.98	µg/L	497.98	ppb	10:16:55
1	Mn 257.610†	377404.0	381958.9	501.39	µg/L	501.39	ppb	10:16:55
1	Mo 202.031†	15871.3	16107.4	505.10	µg/L	505.10	ppb	10:17:15
1	Ni 231.604†	40138.0	40740.6	500.49	µg/L	500.49	ppb	10:16:55
1	P 214.914†	10744.6	10903.1	2505.7	µg/L	2505.7	ppb	10:17:15
1	Pb 220.353†	8442.4	8486.7	507.65	µg/L	507.65	ppb	10:17:15
1	S 181.975 Axial†	1316.6	1240.9	997.63	µg/L	997.63	ppb	10:17:15
1	Sb 206.836†	3977.8	3946.9	503.90	µg/L	503.90	ppb	10:17:15
1	Se 196.026†	1288.6	1283.9	502	µg/L	502	ppb	10:17:15
1	SiO2†	53241.2	52129.1	5412.1	µg/L	5412.1	ppb	10:16:55
1	Si 251.611†	159973.2	161057.7	2521.2	µg/L	2521.2	ppb	10:16:55
1	Sn 189.927†	7434.0	7530.0	504.70	µg/L	504.70	ppb	10:17:15
1	Ti 334.940†	501058.7	506392.1	499.05	µg/L	499.05	ppb	10:16:55
1	Tl 190.801†	3691.6	3854.8	512.00	µg/L	512.00	ppb	10:17:15
1	U 409.014†	7033.2	7440.2	492.41	µg/L	492.41	ppb	10:16:55
1	V 292.402†	94773.7	95660.3	502.11	µg/L	502.11	ppb	10:16:55
1	Zn 213.857†	82464.1	82910.2	495.07	µg/L	495.07	ppb	10:16:55
2	Sc RADIAL	150554.4	150554.4	100	%			10:16:46
2	Al 396.153Radial†	25966.2	25949.2	5066.6	µg/L	5066.6	ppb	10:16:46
2	Ca 317.933Radial†	85577.2	84644.4	5048.3	µg/L	5048.3	ppb	10:16:46
2	Fe 238.204 Radial†	75971.7	75568.1	5002.0	µg/L	5002.0	ppb	10:16:46
2	K 766.490 Radial†	14139.7	12515.0	4984.1	µg/L	4984.1	ppb	10:16:46
2	Mg 279.077 IEC†	13069.3	12851.3	5128.8	µg/L	5128.8	ppb	10:16:46
2	Na 589.592 Radial†	68819.8	67460.9	9967.0	µg/L	9967.0	ppb	10:16:46
2	Sr 421.552†	224344.5	223814.3	493.28	µg/L	493.28	ppb	10:16:44
2	Sc 361.383	1770533.2	1770533.2	98.788	%			10:17:18
2	Y 371.029	1053963.3	1053963.3	97.718	%			10:17:18
2	Ag 328.068†	128589.9	126239.5	500.91	µg/L	500.91	ppb	10:17:18
2	As 188.979†	1526.1	1558.7	501.05	µg/L	501.05	ppb	10:17:38
2	B 249.677†	34411.3	31430.1	494.35	µg/L	494.35	ppb	10:17:18
2	Ba 233.527†	116033.1	117595.0	499.81	µg/L	499.81	ppb	10:17:18
2	Be 313.107†	1712595.4	1734624.7	499.26	µg/L	499.26	ppb	10:17:18
2	Cd 226.502†	73789.2	74804.3	499.39	µg/L	499.39	ppb	10:17:18
2	Co 228.616†	37437.6	38068.6	501.50	µg/L	501.50	ppb	10:17:18
2	Cr 267.716†	59600.7	60151.2	498.85	µg/L	498.85	ppb	10:17:18
2	Cu 324.752†	122058.2	120578.4	498.79	µg/L	498.79	ppb	10:17:18
2	Mn 257.610†	378651.2	383104.1	502.89	µg/L	502.89	ppb	10:17:18
2	Mo 202.031†	15820.8	16051.4	503.35	µg/L	503.35	ppb	10:17:38
2	Ni 231.604†	40153.3	40743.6	500.52	µg/L	500.52	ppb	10:17:18
2	P 214.914†	10741.7	10896.8	2504.3	µg/L	2504.3	ppb	10:17:38
2	Pb 220.353†	8424.9	8466.4	506.42	µg/L	506.42	ppb	10:17:38

2	S 181.975 Axial†	1323.0	1247.0	1002.5 µg/L	1002.5 ppb	10:17:38
2	Sb 206.836†	3959.9	3927.6	501.40 µg/L	501.40 ppb	10:17:38
2	Se 196.026†	1283.1	1277.9	500 µg/L	500 ppb	10:17:38
2	SiO2†	53169.6	52040.1	5402.8 µg/L	5402.8 ppb	10:17:18
2	Si 251.611†	160750.1	161794.4	2532.8 µg/L	2532.8 ppb	10:17:18
2	Sn 189.927†	7445.0	7538.8	505.29 µg/L	505.29 ppb	10:17:38
2	Ti 334.940†	501804.8	506991.4	499.64 µg/L	499.64 ppb	10:17:18
2	Tl 190.801†	3684.0	3846.0	510.86 µg/L	510.86 ppb	10:17:38
2	U 409.014†	7231.2	7638.4	504.76 µg/L	504.76 ppb	10:17:18
2	V 292.402†	94892.0	95750.6	502.57 µg/L	502.57 ppb	10:17:18
2	Zn 213.857†	82880.9	83306.5	497.46 µg/L	497.46 ppb	10:17:18
3	Sc RADIAL	149508.1	149508.1	99.7 %		10:16:50
3	Al 396.153Radial†	25833.3	25996.9	5076.2 µg/L	5076.2 ppb	10:16:50
3	Ca 317.933Radial†	85093.9	84756.2	5055.0 µg/L	5055.0 ppb	10:16:50
3	Fe 238.204 Radial†	75665.0	75790.2	5016.7 µg/L	5016.7 ppb	10:16:50
3	K 766.490 Radial†	13962.5	12435.7	4952.5 µg/L	4952.5 ppb	10:16:50
3	Mg 279.077 IEC†	12899.2	12771.7	5097.0 µg/L	5097.0 ppb	10:16:50
3	Na 589.592 Radial†	68632.2	67752.5	10010 µg/L	10010 ppb	10:16:50
3	Sr 421.552†	225429.0	226467.0	499.12 µg/L	499.12 ppb	10:16:48
3	Sc 361.383	1781025.8	1781025.8	99.373 %		10:17:41
3	Y 371.029	1060596.0	1060596.0	98.333 %		10:17:41
3	Ag 328.068†	130019.9	126911.7	503.55 µg/L	503.55 ppb	10:17:41
3	As 188.979†	1516.1	1539.5	494.96 µg/L	494.96 ppb	10:18:01
3	B 249.677†	34847.5	31663.9	498.04 µg/L	498.04 ppb	10:17:41
3	Ba 233.527†	117104.1	117980.9	501.45 µg/L	501.45 ppb	10:17:41
3	Be 313.107†	1730234.3	1742161.6	501.42 µg/L	501.42 ppb	10:17:41
3	Cd 226.502†	74505.3	75084.9	501.27 µg/L	501.27 ppb	10:17:41
3	Co 228.616†	37784.6	38194.5	503.16 µg/L	503.16 ppb	10:17:41
3	Cr 267.716†	60102.8	60301.1	500.10 µg/L	500.10 ppb	10:17:41
3	Cu 324.752†	123183.5	120982.8	500.45 µg/L	500.45 ppb	10:17:41
3	Mn 257.610†	381954.5	384170.0	504.29 µg/L	504.29 ppb	10:17:41
3	Mo 202.031†	15700.2	15835.6	496.59 µg/L	496.59 ppb	10:18:01
3	Ni 231.604†	40528.1	40881.2	502.21 µg/L	502.21 ppb	10:17:41
3	P 214.914†	10629.9	10720.3	2463.6 µg/L	2463.6 ppb	10:18:01
3	Pb 220.353†	8351.4	8342.2	499.01 µg/L	499.01 ppb	10:18:01
3	S 181.975 Axial†	1311.4	1227.5	986.80 µg/L	986.80 ppb	10:18:01
3	Sb 206.836†	3940.4	3884.3	495.77 µg/L	495.77 ppb	10:18:01
3	Se 196.026†	1290.3	1277.5	500 µg/L	500 ppb	10:18:01
3	SiO2†	53553.0	52108.9	5410.3 µg/L	5410.3 ppb	10:17:41
3	Si 251.611†	161759.6	161851.6	2533.8 µg/L	2533.8 ppb	10:17:41
3	Sn 189.927†	7381.1	7430.1	498.03 µg/L	498.03 ppb	10:18:01
3	Ti 334.940†	506670.0	508894.8	501.52 µg/L	501.52 ppb	10:17:41
3	Tl 190.801†	3662.3	3802.2	505.15 µg/L	505.15 ppb	10:18:01
3	U 409.014†	7138.3	7501.7	496.37 µg/L	496.37 ppb	10:17:41
3	V 292.402†	95757.7	96055.9	504.08 µg/L	504.08 ppb	10:17:41
3	Zn 213.857†	83629.2	83565.2	499.00 µg/L	499.00 ppb	10:17:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1773849.5	98.973	%	0.3471				0.35%
Sc RADIAL	149858.2	99.9	%	0.40				0.40%
Y 371.029	1056171.4	97.923	%	0.3553				0.36%
Ag 328.068†	126525.9	502.03	µg/L	1.367	502.03	ppb	1.367	0.27%
QC value within limits for Ag 328.068 Recovery = 100.41%								
Al 396.153Radial†	25923.2	5061.5	µg/L	17.77	5061.5	ppb	17.77	0.35%
QC value within limits for Al 396.153Radial Recovery = 101.23%								
As 188.979†	1554.3	499.67	µg/L	4.195	499.67	ppb	4.195	0.84%
QC value within limits for As 188.979 Recovery = 99.93%								
B 249.677†	31468.7	494.96	µg/L	2.823	494.96	ppb	2.823	0.57%
QC value within limits for B 249.677 Recovery = 98.99%								
Ba 233.527†	117679.0	500.17	µg/L	1.145	500.17	ppb	1.145	0.23%
QC value within limits for Ba 233.527 Recovery = 100.03%								
Be 313.107†	1736543.0	499.81	µg/L	1.423	499.81	ppb	1.423	0.28%
QC value within limits for Be 313.107 Recovery = 99.96%								
Ca 317.933Radial†	84698.2	5051.5	µg/L	3.34	5051.5	ppb	3.34	0.07%
QC value within limits for Ca 317.933Radial Recovery = 101.03%								
Cd 226.502†	74780.1	499.23	µg/L	2.121	499.23	ppb	2.121	0.42%
QC value within limits for Cd 226.502 Recovery = 99.85%								
Co 228.616†	38098.5	501.90	µg/L	1.121	501.90	ppb	1.121	0.22%

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   QC value within limits for Co 228.616  Recovery = 100.38%
Cr 267.716†            60159.5      498.92 µg/L        1.141      498.92 ppb          1.141   0.23%
   QC value within limits for Cr 267.716  Recovery = 99.78%
Cu 324.752†           120648.5      499.07 µg/L        1.261      499.07 ppb          1.261   0.25%
   QC value within limits for Cu 324.752  Recovery = 99.81%
Fe 238.204 Radial†     75683.9      5009.7 µg/L         7.37      5009.7 ppb           7.37   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.19%
K 766.490 Radial†      12466.9      4965.0 µg/L        16.83      4965.0 ppb          16.83   0.34%
   QC value within limits for K 766.490 Radial  Recovery = 99.30%
Mg 279.077 IEC†        12816.0      5114.7 µg/L        16.26      5114.7 ppb          16.26   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.29%
Mn 257.610†           383077.6      502.86 µg/L        1.453      502.86 ppb          1.453   0.29%
   QC value within limits for Mn 257.610  Recovery = 100.57%
Mo 202.031†            15998.1      501.68 µg/L        4.496      501.68 ppb          4.496   0.90%
   QC value within limits for Mo 202.031  Recovery = 100.34%
Na 589.592 Radial†     67657.0      9996.0 µg/L        25.12      9996.0 ppb          25.12   0.25%
   QC value within limits for Na 589.592 Radial  Recovery = 99.96%
Ni 231.604†            40788.5      501.07 µg/L        0.987      501.07 ppb          0.987   0.20%
   QC value within limits for Ni 231.604  Recovery = 100.21%
P 214.914†             10840.1      2491.2 µg/L        23.94      2491.2 ppb          23.94   0.96%
   QC value within limits for P 214.914  Recovery = 99.65%
Pb 220.353†             8431.7      504.36 µg/L        4.674      504.36 ppb          4.674   0.93%
   QC value within limits for Pb 220.353  Recovery = 100.87%
S 181.975 Axial†        1238.5      995.63 µg/L        8.023      995.63 ppb          8.023   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 99.56%
Sb 206.836†             3919.6      500.36 µg/L        4.165      500.36 ppb          4.165   0.83%
   QC value within limits for Sb 206.836  Recovery = 100.07%
Se 196.026†             1279.8         501 µg/L          1.4         501 ppb            1.4   0.28%
   QC value within limits for Se 196.026  Recovery = 100.18%
SiO2†                  52092.7      5408.4 µg/L         4.90      5408.4 ppb           4.90   0.09%
   QC value within limits for SiO2  Recovery = 101.14%
Si 251.611†           161567.9      2529.3 µg/L         7.01      2529.3 ppb           7.01   0.28%
   QC value within limits for Si 251.611  Recovery = 101.17%
Sn 189.927†             7499.6      502.67 µg/L        4.029      502.67 ppb          4.029   0.80%
   QC value within limits for Sn 189.927  Recovery = 100.53%
Sr 421.552†           225965.1      498.02 µg/L        4.296      498.02 ppb          4.296   0.86%
   QC value within limits for Sr 421.552  Recovery = 99.60%
Ti 334.940†           507426.1      500.07 µg/L        1.290      500.07 ppb          1.290   0.26%
   QC value within limits for Ti 334.940  Recovery = 100.01%
Tl 190.801†             3834.3      509.33 µg/L        3.670      509.33 ppb          3.670   0.72%
   QC value within limits for Tl 190.801  Recovery = 101.87%
U 409.014†              7526.8      497.85 µg/L        6.306      497.85 ppb          6.306   1.27%
   QC value within limits for U 409.014  Recovery = 99.57%
V 292.402†             95822.3      502.92 µg/L        1.030      502.92 ppb          1.030   0.20%
   QC value within limits for V 292.402  Recovery = 100.58%
Zn 213.857†            83260.6      497.17 µg/L        1.980      497.17 ppb          1.980   0.40%
   QC value within limits for Zn 213.857  Recovery = 99.43%
All analyte(s) passed QC.
```

Sequence No.: 8 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/31/2010 10:18:09**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	153299.2	153299.2	102	%			10:18:38
1	Al 396.153Radial†	-63.6	11.7	2.2911	µg/L	2.2911	ppb	10:18:58
1	Ca 317.933Radial†	633.4	-13.1	-0.7805	µg/L	-0.7805	ppb	10:18:58
1	Fe 238.204 Radial†	147.5	6.9	0.4566	µg/L	0.4566	ppb	10:18:58
1	K 766.490 Radial†	1570.1	-38.6	-15.376	µg/L	-15.376	ppb	10:18:38
1	Mg 279.077 IEC†	166.4	-9.4	-3.7466	µg/L	-3.7466	ppb	10:18:58
1	Na 589.592 Radial†	1336.2	189.7	28.056	µg/L	28.056	ppb	10:18:38
1	Sr 421.552†	-224.3	36.0	0.0794	µg/L	0.0794	ppb	10:18:38
1	Sc 361.383	1797258.0	1797258.0	100.28	%			10:20:00
1	Y 371.029	1081350.5	1081350.5	100.26	%			10:20:00
1	Ag 328.068†	3744.4	-194.1	-0.7717	µg/L	-0.7717	ppb	10:20:02
1	As 188.979†	-23.5	-9.6	-3.0337	µg/L	-3.0337	ppb	10:20:22
1	B 249.677†	3401.9	-10.9	-0.1728	µg/L	-0.1728	ppb	10:20:22
1	Ba 233.527†	-150.1	-11.5	-0.0483	µg/L	-0.0483	ppb	10:20:22
1	Be 313.107†	-846.9	172.0	0.0452	µg/L	0.0452	ppb	10:20:02
1	Cd 226.502†	-113.5	-3.5	-0.0231	µg/L	-0.0231	ppb	10:20:22
1	Co 228.616†	-168.5	3.6	0.0474	µg/L	0.0474	ppb	10:20:22
1	Cr 267.716†	192.0	10.7	0.1006	µg/L	0.1006	ppb	10:20:22
1	Cu 324.752†	2968.2	-17.4	-0.0837	µg/L	-0.0837	ppb	10:20:02
1	Mn 257.610†	228.2	34.5	0.0455	µg/L	0.0455	ppb	10:20:22
1	Mo 202.031†	-35.5	1.0	0.0311	µg/L	0.0311	ppb	10:20:22
1	Ni 231.604†	-94.9	3.0	0.0371	µg/L	0.0371	ppb	10:20:22
1	P 214.914†	-22.8	0.6	0.1366	µg/L	0.1366	ppb	10:20:22
1	Pb 220.353†	74.7	12.6	0.7638	µg/L	0.7638	ppb	10:20:22
1	S 181.975 Axial†	96.1	3.6	2.8474	µg/L	2.8474	ppb	10:20:22
1	Sb 206.836†	64.1	-17.1	-2.1721	µg/L	-2.1721	ppb	10:20:22
1	Se 196.026†	23.6	2.6	0.987	µg/L	0.987	ppb	10:20:22
1	SiO2†	1796.0	9.2	0.9452	µg/L	0.9452	ppb	10:20:22
1	Si 251.611†	906.6	-24.0	-0.3829	µg/L	-0.3829	ppb	10:20:02
1	Sn 189.927†	8.7	11.2	0.7463	µg/L	0.7463	ppb	10:20:22
1	Ti 334.940†	727.3	-245.0	-0.2357	µg/L	-0.2357	ppb	10:20:02
1	Tl 190.801†	-99.3	17.7	2.3208	µg/L	2.3208	ppb	10:20:22
1	U 409.014†	-548.6	-228.6	-14.168	µg/L	-14.168	ppb	10:20:02
1	V 292.402†	408.1	101.3	0.5161	µg/L	0.5161	ppb	10:20:02
1	Zn 213.857†	608.8	15.8	0.0948	µg/L	0.0948	ppb	10:20:22
2	Sc RADIAL	152680.7	152680.7	102	%			10:19:00
2	Al 396.153Radial†	-32.9	41.6	8.1422	µg/L	8.1422	ppb	10:19:20
2	Ca 317.933Radial†	658.4	13.9	0.8299	µg/L	0.8299	ppb	10:19:20
2	Fe 238.204 Radial†	168.0	27.6	1.8287	µg/L	1.8287	ppb	10:19:20
2	K 766.490 Radial†	1585.8	-16.9	-6.7618	µg/L	-6.7618	ppb	10:19:00
2	Mg 279.077 IEC†	183.1	7.7	3.0692	µg/L	3.0692	ppb	10:19:20
2	Na 589.592 Radial†	1359.3	217.7	32.186	µg/L	32.186	ppb	10:19:00
2	Sr 421.552†	-225.2	34.3	0.0756	µg/L	0.0756	ppb	10:19:00
2	Sc 361.383	1792462.9	1792462.9	100.01	%			10:20:24
2	Y 371.029	1078638.8	1078638.8	100.01	%			10:20:24
2	Ag 328.068†	3836.3	-92.3	-0.3359	µg/L	-0.3359	ppb	10:20:26
2	As 188.979†	-16.5	-2.7	-0.8608	µg/L	-0.8608	ppb	10:20:47
2	B 249.677†	3393.0	-10.7	-0.1679	µg/L	-0.1679	ppb	10:20:47
2	Ba 233.527†	-116.4	21.9	0.0933	µg/L	0.0933	ppb	10:20:47
2	Be 313.107†	-865.9	150.8	0.0477	µg/L	0.0477	ppb	10:20:26
2	Cd 226.502†	-121.2	-11.4	-0.0765	µg/L	-0.0765	ppb	10:20:47
2	Co 228.616†	-194.6	-22.9	-0.3021	µg/L	-0.3021	ppb	10:20:47
2	Cr 267.716†	172.2	-8.5	-0.0816	µg/L	-0.0816	ppb	10:20:47
2	Cu 324.752†	2948.9	-28.9	-0.1071	µg/L	-0.1071	ppb	10:20:26
2	Mn 257.610†	226.0	32.9	0.0431	µg/L	0.0431	ppb	10:20:47
2	Mo 202.031†	-29.4	7.0	0.2204	µg/L	0.2204	ppb	10:20:47
2	Ni 231.604†	-83.0	14.7	0.1800	µg/L	0.1800	ppb	10:20:47
2	P 214.914†	-13.6	9.7	2.2515	µg/L	2.2515	ppb	10:20:47
2	Pb 220.353†	87.4	25.5	1.5120	µg/L	1.5120	ppb	10:20:47

2	S 181.975 Axial†	91.6	-0.7	-0.5226 µg/L	-0.5226 ppb	10:20:47
2	Sb 206.836†	63.8	-17.2	-2.1819 µg/L	-2.1819 ppb	10:20:47
2	Se 196.026†	11.5	-9.4	-3.67 µg/L	-3.67 ppb	10:20:47
2	SiO2†	1799.9	17.9	1.8499 µg/L	1.8499 ppb	10:20:47
2	Si 251.611†	926.4	-1.8	-0.0349 µg/L	-0.0349 ppb	10:20:26
2	Sn 189.927†	5.3	7.8	0.5202 µg/L	0.5202 ppb	10:20:47
2	Ti 334.940†	704.3	-266.0	-0.2685 µg/L	-0.2685 ppb	10:20:26
2	Tl 190.801†	-108.5	8.3	1.0863 µg/L	1.0863 ppb	10:20:47
2	U 409.014†	-88.2	230.3	14.346 µg/L	14.346 ppb	10:20:26
2	V 292.402†	437.6	131.9	0.6949 µg/L	0.6949 ppb	10:20:26
2	Zn 213.857†	616.5	25.1	0.1497 µg/L	0.1497 ppb	10:20:47
3	Sc RADIAL	150855.9	150855.9	101 %		10:19:22
3	Al 396.153Radial†	-75.1	-0.7	-0.1332 µg/L	-0.1332 ppb	10:19:42
3	Ca 317.933Radial†	624.3	-12.1	-0.7241 µg/L	-0.7241 ppb	10:19:42
3	Fe 238.204 Radial†	166.5	28.0	1.8565 µg/L	1.8565 ppb	10:19:42
3	K 766.490 Radial†	1419.6	-163.4	-65.118 µg/L	-65.118 ppb	10:19:22
3	Mg 279.077 IEC†	181.2	7.9	3.1609 µg/L	3.1609 ppb	10:19:42
3	Na 589.592 Radial†	1363.7	238.3	35.280 µg/L	35.280 ppb	10:19:22
3	Sr 421.552†	-152.1	104.3	0.2298 µg/L	0.2298 ppb	10:19:22
3	Sc 361.383	1802441.5	1802441.5	100.57 %		10:20:49
3	Y 371.029	1085508.9	1085508.9	100.64 %		10:20:49
3	Ag 328.068†	4063.3	112.2	0.4396 µg/L	0.4396 ppb	10:20:51
3	As 188.979†	-20.7	-6.8	-2.1570 µg/L	-2.1570 ppb	10:21:11
3	B 249.677†	3456.9	34.0	0.5364 µg/L	0.5364 ppb	10:21:11
3	Ba 233.527†	-143.2	-4.2	-0.0179 µg/L	-0.0179 ppb	10:21:11
3	Be 313.107†	-915.6	106.2	0.0314 µg/L	0.0314 ppb	10:20:51
3	Cd 226.502†	-112.1	-1.7	-0.0112 µg/L	-0.0112 ppb	10:21:11
3	Co 228.616†	-171.3	1.3	0.0169 µg/L	0.0169 ppb	10:21:11
3	Cr 267.716†	194.0	12.2	0.0989 µg/L	0.0989 ppb	10:21:11
3	Cu 324.752†	2876.9	-116.8	-0.4789 µg/L	-0.4789 ppb	10:20:51
3	Mn 257.610†	248.7	54.3	0.0712 µg/L	0.0712 ppb	10:21:11
3	Mo 202.031†	-39.9	-3.3	-0.1020 µg/L	-0.1020 ppb	10:21:11
3	Ni 231.604†	-74.4	23.6	0.2905 µg/L	0.2905 ppb	10:21:11
3	P 214.914†	-26.1	-2.7	-0.5953 µg/L	-0.5953 ppb	10:21:11
3	Pb 220.353†	75.2	12.9	0.7656 µg/L	0.7656 ppb	10:21:11
3	S 181.975 Axial†	94.7	1.9	1.5341 µg/L	1.5341 ppb	10:21:11
3	Sb 206.836†	76.4	-5.0	-0.6336 µg/L	-0.6336 ppb	10:21:11
3	Se 196.026†	7.8	-13.2	-5.13 µg/L	-5.13 ppb	10:21:11
3	SiO2†	1781.7	-10.2	-1.0828 µg/L	-1.0828 ppb	10:21:11
3	Si 251.611†	903.3	-29.9	-0.4765 µg/L	-0.4765 ppb	10:20:51
3	Sn 189.927†	16.4	18.8	1.2564 µg/L	1.2564 ppb	10:21:11
3	Ti 334.940†	840.0	-135.1	-0.1348 µg/L	-0.1348 ppb	10:20:51
3	Tl 190.801†	-115.1	2.4	0.3073 µg/L	0.3073 ppb	10:21:11
3	U 409.014†	-273.4	46.6	2.8799 µg/L	2.8799 ppb	10:20:51
3	V 292.402†	249.1	-57.9	-0.2987 µg/L	-0.2987 ppb	10:20:51
3	Zn 213.857†	589.1	-5.6	-0.0353 µg/L	-0.0353 ppb	10:21:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1797387.5	100.29	%	0.278				0.28%
Sc RADIAL	152278.6	102	%	0.8				0.83%
Y 371.029	1081832.7	100.30	%	0.321				0.32%
Ag 328.068†	-58.1	-0.2227	µg/L	0.61358	-0.2227	ppb	0.61358	275.54%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	17.5	3.4333	µg/L	4.25432	3.4333	ppb	4.25432	123.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.4	-2.0171	µg/L	1.09319	-2.0171	ppb	1.09319	54.20%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	4.1	0.0653	µg/L	0.40804	0.0653	ppb	0.40804	625.16%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0090	µg/L	0.07454	0.0090	ppb	0.07454	825.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	143.0	0.0414	µg/L	0.00876	0.0414	ppb	0.00876	21.14%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-3.8	-0.2249	µg/L	0.91392	-0.2249	ppb	0.91392	406.29%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-5.5	-0.0369	µg/L	0.03479	-0.0369	ppb	0.03479	94.16%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-6.0	-0.0793	µg/L	0.19356	-0.0793	ppb	0.19356	244.22%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                4.8      0.0393 µg/L       0.10470      0.0393 ppb        0.10470 266.48%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -54.4     -0.2232 µg/L       0.22177     -0.2232 ppb        0.22177  99.35%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        20.9      1.3806 µg/L       0.80032      1.3806 ppb        0.80032  57.97%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -73.0     -29.085 µg/L       31.5014     -29.085 ppb        31.5014 108.31%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.1      0.8278 µg/L       3.96180      0.8278 ppb        3.96180 478.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              40.6      0.0532 µg/L       0.01555      0.0532 ppb        0.01555  29.21%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.6      0.0498 µg/L       0.16201      0.0498 ppb        0.16201 325.22%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       215.2      31.841 µg/L        3.6245      31.841 ppb         3.6245  11.38%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              13.8      0.1692 µg/L       0.12705      0.1692 ppb        0.12705  75.08%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                2.6      0.5976 µg/L       1.47832      0.5976 ppb        1.47832 247.37%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              17.0      1.0138 µg/L       0.43142      1.0138 ppb        0.43142  42.55%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.6      1.2863 µg/L       1.69864      1.2863 ppb        1.69864 132.06%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -13.1     -1.6625 µg/L       0.89112     -1.6625 ppb        0.89112  53.60%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -6.7       -2.60 µg/L         3.194       -2.60 ppb          3.194 122.72%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     5.6      0.5708 µg/L       1.50176      0.5708 ppb        1.50176 263.12%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -18.6     -0.2981 µg/L       0.23273     -0.2981 ppb        0.23273  78.07%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              12.6      0.8410 µg/L       0.37712      0.8410 ppb        0.37712  44.84%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              58.2      0.1283 µg/L       0.08795      0.1283 ppb        0.08795  68.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -215.3     -0.2130 µg/L       0.06971     -0.2130 ppb        0.06971  32.73%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               9.5      1.2381 µg/L       1.01533      1.2381 ppb        1.01533  82.00%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               16.1      1.0191 µg/L      14.34787      1.0191 ppb       14.34787 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               58.4      0.3041 µg/L       0.52967      0.3041 ppb        0.52967 174.17%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              11.8      0.0697 µg/L       0.09500      0.0697 ppb        0.09500 136.21%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 10:36:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	151359.4	151359.4	101	%			10:36:40
1	Al 396.153Radial†	26026.4	25871.2	5051.7	µg/L	5051.7	ppb	10:36:40
1	Ca 317.933Radial†	85899.0	84509.9	5040.3	µg/L	5040.3	ppb	10:36:40
1	Fe 238.204 Radial†	76416.7	75606.5	5004.6	µg/L	5004.6	ppb	10:36:40
1	K 766.490 Radial†	14120.0	12420.6	4946.5	µg/L	4946.5	ppb	10:36:40
1	Mg 279.077 IEC†	13151.5	12863.5	5133.5	µg/L	5133.5	ppb	10:36:40
1	Na 589.592 Radial†	69420.0	67691.1	10001	µg/L	10001	ppb	10:36:40
1	Sr 421.552†	225575.1	223845.1	493.35	µg/L	493.35	ppb	10:36:38
1	Sc 361.383	1771830.4	1771830.4	98.860	%			10:36:53
1	Y 371.029	1055580.2	1055580.2	97.868	%			10:36:53
1	Ag 328.068†	128478.8	126031.8	500.06	µg/L	500.06	ppb	10:36:53
1	As 188.979†	1527.7	1559.1	501.13	µg/L	501.13	ppb	10:37:13
1	B 249.677†	34194.3	31185.1	490.49	µg/L	490.49	ppb	10:36:53
1	Ba 233.527†	115540.5	117010.8	497.33	µg/L	497.33	ppb	10:36:53
1	Be 313.107†	1708784.4	1729500.6	497.78	µg/L	497.78	ppb	10:36:53
1	Cd 226.502†	73028.9	73980.6	493.89	µg/L	493.89	ppb	10:36:53
1	Co 228.616†	37317.4	37919.2	499.53	µg/L	499.53	ppb	10:36:53
1	Cr 267.716†	59250.6	59753.0	495.55	µg/L	495.55	ppb	10:36:53
1	Cu 324.752†	121657.0	120082.1	496.74	µg/L	496.74	ppb	10:36:53
1	Mn 257.610†	376456.2	380603.1	499.61	µg/L	499.61	ppb	10:36:53
1	Mo 202.031†	15562.7	15778.5	494.80	µg/L	494.80	ppb	10:37:13
1	Ni 231.604†	39911.8	40469.5	497.16	µg/L	497.16	ppb	10:36:53
1	P 214.914†	10499.2	10643.6	2445.9	µg/L	2445.9	ppb	10:37:13
1	Pb 220.353†	8239.8	8272.9	494.87	µg/L	494.87	ppb	10:37:13
1	S 181.975 Axial†	1291.8	1214.4	976.34	µg/L	976.34	ppb	10:37:13
1	Sb 206.836†	3896.9	3860.8	492.82	µg/L	492.82	ppb	10:37:13
1	Se 196.026†	1266.3	1260.0	493	µg/L	493	ppb	10:37:13
1	SiO2†	52931.5	51759.8	5374.0	µg/L	5374.0	ppb	10:36:53
1	Si 251.611†	159385.5	160294.8	2509.4	µg/L	2509.4	ppb	10:36:53
1	Sn 189.927†	7320.5	7407.3	496.49	µg/L	496.49	ppb	10:37:13
1	Ti 334.940†	499418.4	504205.6	496.89	µg/L	496.89	ppb	10:36:53
1	Tl 190.801†	3616.6	3775.1	501.53	µg/L	501.53	ppb	10:37:13
1	U 409.014†	7144.4	7545.2	498.82	µg/L	498.82	ppb	10:36:53
1	V 292.402†	94514.7	95298.7	500.13	µg/L	500.13	ppb	10:36:53
1	Zn 213.857†	81951.8	82305.2	491.45	µg/L	491.45	ppb	10:36:53
2	Sc RADIAL	149386.8	149386.8	99.6	%			10:36:44
2	Al 396.153Radial†	25712.0	25896.1	5056.6	µg/L	5056.6	ppb	10:36:44
2	Ca 317.933Radial†	84594.8	84324.4	5029.2	µg/L	5029.2	ppb	10:36:44
2	Fe 238.204 Radial†	75248.8	75433.8	4993.1	µg/L	4993.1	ppb	10:36:44
2	K 766.490 Radial†	13990.4	12475.2	4968.3	µg/L	4968.3	ppb	10:36:44
2	Mg 279.077 IEC†	12957.0	12840.3	5124.2	µg/L	5124.2	ppb	10:36:44
2	Na 589.592 Radial†	68639.7	67816.0	10019	µg/L	10019	ppb	10:36:44
2	Sr 421.552†	225138.7	226359.3	498.89	µg/L	498.89	ppb	10:36:42
2	Sc 361.383	1780191.3	1780191.3	99.327	%			10:37:16
2	Y 371.029	1059960.4	1059960.4	98.274	%			10:37:16
2	Ag 328.068†	128849.3	125794.5	499.12	µg/L	499.12	ppb	10:37:16
2	As 188.979†	1510.8	1534.9	493.46	µg/L	493.46	ppb	10:37:36
2	B 249.677†	34368.8	31198.4	490.69	µg/L	490.69	ppb	10:37:16
2	Ba 233.527†	116420.1	117347.5	498.76	µg/L	498.76	ppb	10:37:16
2	Be 313.107†	1719965.8	1732639.7	498.68	µg/L	498.68	ppb	10:37:16
2	Cd 226.502†	73707.9	74317.2	496.14	µg/L	496.14	ppb	10:37:16
2	Co 228.616†	37668.2	38095.1	501.85	µg/L	501.85	ppb	10:37:16
2	Cr 267.716†	59695.1	59919.0	496.93	µg/L	496.93	ppb	10:37:16
2	Cu 324.752†	122199.3	120050.1	496.60	µg/L	496.60	ppb	10:37:16
2	Mn 257.610†	379189.4	381566.3	500.87	µg/L	500.87	ppb	10:37:16
2	Mo 202.031†	15607.3	15749.5	493.89	µg/L	493.89	ppb	10:37:36
2	Ni 231.604†	40420.8	40792.4	501.12	µg/L	501.12	ppb	10:37:16
2	P 214.914†	10518.1	10612.7	2438.8	µg/L	2438.8	ppb	10:37:36
2	Pb 220.353†	8282.4	8276.6	495.09	µg/L	495.09	ppb	10:37:36

2	S 181.975 Axial†	1280.6	1197.1	962.46 µg/L	962.46 ppb	10:37:36
2	Sb 206.836†	3889.3	3834.7	489.46 µg/L	489.46 ppb	10:37:36
2	Se 196.026†	1264.3	1252.0	490 µg/L	490 ppb	10:37:36
2	SiO2†	53215.3	51794.2	5377.6 µg/L	5377.6 ppb	10:37:16
2	Si 251.611†	160671.9	160832.8	2517.9 µg/L	2517.9 ppb	10:37:16
2	Sn 189.927†	7326.8	7379.0	494.60 µg/L	494.60 ppb	10:37:36
2	Ti 334.940†	502931.5	505369.9	498.04 µg/L	498.04 ppb	10:37:16
2	Tl 190.801†	3622.2	3763.5	500.01 µg/L	500.01 ppb	10:37:36
2	U 409.014†	7092.9	7459.5	493.48 µg/L	493.48 ppb	10:37:16
2	V 292.402†	94872.7	95210.0	499.66 µg/L	499.66 ppb	10:37:16
2	Zn 213.857†	82632.8	82601.5	493.21 µg/L	493.21 ppb	10:37:16
3	Sc RADIAL	150825.9	150825.9	101 %		10:36:48
3	Al 396.153Radial†	25862.6	25799.6	5037.2 µg/L	5037.2 ppb	10:36:48
3	Ca 317.933Radial†	85163.9	84079.9	5014.6 µg/L	5014.6 ppb	10:36:48
3	Fe 238.204 Radial†	75618.1	75080.1	4969.7 µg/L	4969.7 ppb	10:36:48
3	K 766.490 Radial†	14142.1	12492.0	4975.0 µg/L	4975.0 ppb	10:36:48
3	Mg 279.077 IEC†	12930.5	12689.8	5064.5 µg/L	5064.5 ppb	10:36:48
3	Na 589.592 Radial†	68860.5	67377.9	9954.7 µg/L	9954.7 ppb	10:36:48
3	Sr 421.552†	225385.9	224447.8	494.67 µg/L	494.67 ppb	10:36:46
3	Sc 361.383	1752645.2	1752645.2	97.790 %		10:37:39
3	Y 371.029	1044161.6	1044161.6	96.810 %		10:37:39
3	Ag 328.068†	127001.6	125943.8	499.73 µg/L	499.73 ppb	10:37:39
3	As 188.979†	1524.7	1573.0	505.54 µg/L	505.54 ppb	10:37:59
3	B 249.677†	33804.4	31165.0	490.19 µg/L	490.19 ppb	10:37:39
3	Ba 233.527†	114020.9	116736.1	496.17 µg/L	496.17 ppb	10:37:39
3	Be 313.107†	1687696.1	1726856.3	497.02 µg/L	497.02 ppb	10:37:39
3	Cd 226.502†	72048.1	73786.2	492.60 µg/L	492.60 ppb	10:37:39
3	Co 228.616†	36624.4	37623.8	495.64 µg/L	495.64 ppb	10:37:39
3	Cr 267.716†	58602.0	59745.8	495.48 µg/L	495.48 ppb	10:37:39
3	Cu 324.752†	120332.2	120074.4	496.70 µg/L	496.70 ppb	10:37:39
3	Mn 257.610†	372153.8	380371.9	499.31 µg/L	499.31 ppb	10:37:39
3	Mo 202.031†	15642.7	16032.6	502.76 µg/L	502.76 ppb	10:37:59
3	Ni 231.604†	39420.9	40409.5	496.42 µg/L	496.42 ppb	10:37:39
3	P 214.914†	10568.8	10831.0	2489.2 µg/L	2489.2 ppb	10:37:59
3	Pb 220.353†	8343.4	8470.1	506.64 µg/L	506.64 ppb	10:37:59
3	S 181.975 Axial†	1302.7	1239.9	996.81 µg/L	996.81 ppb	10:37:59
3	Sb 206.836†	3918.1	3925.7	501.20 µg/L	501.20 ppb	10:37:59
3	Se 196.026†	1264.8	1272.4	498 µg/L	498 ppb	10:37:59
3	SiO2†	52366.8	51768.5	5374.5 µg/L	5374.5 ppb	10:37:39
3	Si 251.611†	157792.2	160430.4	2511.4 µg/L	2511.4 ppb	10:37:39
3	Sn 189.927†	7365.1	7534.1	504.96 µg/L	504.96 ppb	10:37:59
3	Ti 334.940†	494381.6	504584.8	497.26 µg/L	497.26 ppb	10:37:39
3	Tl 190.801†	3653.8	3853.2	511.78 µg/L	511.78 ppb	10:37:59
3	U 409.014†	7242.1	7724.3	509.97 µg/L	509.97 ppb	10:37:39
3	V 292.402†	93577.4	95386.7	500.68 µg/L	500.68 ppb	10:37:39
3	Zn 213.857†	81072.5	82313.5	491.51 µg/L	491.51 ppb	10:37:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1768222.3	98.659	%	0.7880				0.80%
Sc RADIAL	150524.0	100	%	0.7				0.68%
Y 371.029	1053234.1	97.651	%	0.7562				0.77%
Ag 328.068†	125923.4	499.64	µg/L	0.478	499.64	ppb	0.478	0.10%
QC value within limits for Ag 328.068 Recovery = 99.93%								
Al 396.153Radial†	25855.6	5048.5	µg/L	10.06	5048.5	ppb	10.06	0.20%
QC value within limits for Al 396.153Radial Recovery = 100.97%								
As 188.979†	1555.6	500.04	µg/L	6.114	500.04	ppb	6.114	1.22%
QC value within limits for As 188.979 Recovery = 100.01%								
B 249.677†	31182.8	490.46	µg/L	0.254	490.46	ppb	0.254	0.05%
QC value within limits for B 249.677 Recovery = 98.09%								
Ba 233.527†	117031.5	497.42	µg/L	1.298	497.42	ppb	1.298	0.26%
QC value within limits for Ba 233.527 Recovery = 99.48%								
Be 313.107†	1729665.6	497.83	µg/L	0.831	497.83	ppb	0.831	0.17%
QC value within limits for Be 313.107 Recovery = 99.57%								
Ca 317.933Radial†	84304.7	5028.0	µg/L	12.86	5028.0	ppb	12.86	0.26%
QC value within limits for Ca 317.933Radial Recovery = 100.56%								
Cd 226.502†	74028.0	494.21	µg/L	1.795	494.21	ppb	1.795	0.36%
QC value within limits for Cd 226.502 Recovery = 98.84%								
Co 228.616†	37879.4	499.01	µg/L	3.136	499.01	ppb	3.136	0.63%

```
   QC value within limits for Co 228.616  Recovery = 99.80%
Cr 267.716†            59805.9      495.98 µg/L         0.818      495.98 ppb          0.818   0.16%
   QC value within limits for Cr 267.716  Recovery = 99.20%
Cu 324.752†           120068.9      496.68 µg/L         0.072      496.68 ppb          0.072   0.01%
   QC value within limits for Cu 324.752  Recovery = 99.34%
Fe 238.204 Radial†     75373.5      4989.1 µg/L         17.76      4989.1 ppb          17.76   0.36%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.78%
K 766.490 Radial†      12462.6      4963.3 µg/L         14.89      4963.3 ppb          14.89   0.30%
   QC value within limits for K 766.490 Radial  Recovery = 99.27%
Mg 279.077 IEC†        12797.9      5107.4 µg/L         37.44      5107.4 ppb          37.44   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.15%
Mn 257.610†           380847.1      499.93 µg/L         0.831      499.93 ppb          0.831   0.17%
   QC value within limits for Mn 257.610  Recovery = 99.99%
Mo 202.031†            15853.6      497.15 µg/L         4.879      497.15 ppb          4.879   0.98%
   QC value within limits for Mo 202.031  Recovery = 99.43%
Na 589.592 Radial†     67628.3      9991.7 µg/L         33.36      9991.7 ppb          33.36   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 99.92%
Ni 231.604†            40557.1      498.23 µg/L         2.530      498.23 ppb          2.530   0.51%
   QC value within limits for Ni 231.604  Recovery = 99.65%
P 214.914†             10695.8      2458.0 µg/L         27.25      2458.0 ppb          27.25   1.11%
   QC value within limits for P 214.914  Recovery = 98.32%
Pb 220.353†             8339.9      498.86 µg/L         6.731      498.86 ppb          6.731   1.35%
   QC value within limits for Pb 220.353  Recovery = 99.77%
S 181.975 Axial†        1217.2      978.54 µg/L        17.281      978.54 ppb         17.281   1.77%
   QC value within limits for S 181.975 Axial  Recovery = 97.85%
Sb 206.836†             3873.7      494.49 µg/L         6.050      494.49 ppb          6.050   1.22%
   QC value within limits for Sb 206.836  Recovery = 98.90%
Se 196.026†             1261.5         494 µg/L           4.0         494 ppb            4.0   0.81%
   QC value within limits for Se 196.026  Recovery = 98.75%
SiO2†                  51774.2      5375.4 µg/L          1.96      5375.4 ppb           1.96   0.04%
   QC value within limits for SiO2  Recovery = 100.52%
Si 251.611†           160519.4      2512.9 µg/L          4.44      2512.9 ppb           4.44   0.18%
   QC value within limits for Si 251.611  Recovery = 100.52%
Sn 189.927†             7440.1      498.69 µg/L         5.515      498.69 ppb          5.515   1.11%
   QC value within limits for Sn 189.927  Recovery = 99.74%
Sr 421.552†           224884.0      495.64 µg/L         2.893      495.64 ppb          2.893   0.58%
   QC value within limits for Sr 421.552  Recovery = 99.13%
Ti 334.940†           504720.1      497.40 µg/L         0.587      497.40 ppb          0.587   0.12%
   QC value within limits for Ti 334.940  Recovery = 99.48%
Tl 190.801†             3797.3      504.44 µg/L         6.400      504.44 ppb          6.400   1.27%
   QC value within limits for Tl 190.801  Recovery = 100.89%
U 409.014†              7576.3      500.76 µg/L         8.417      500.76 ppb          8.417   1.68%
   QC value within limits for U 409.014  Recovery = 100.15%
V 292.402†             95298.5      500.15 µg/L         0.508      500.15 ppb          0.508   0.10%
   QC value within limits for V 292.402  Recovery = 100.03%
Zn 213.857†            82406.7      492.06 µg/L         0.999      492.06 ppb          0.999   0.20%
   QC value within limits for Zn 213.857  Recovery = 98.41%
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 10:38:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	148323.5	148323.5	98.9	%			10:38:36
1	Al 396.153Radial†	-49.8	23.5	4.6147	µg/L	4.6147	ppb	10:38:56
1	Ca 317.933Radial†	622.0	-3.8	-0.2285	µg/L	-0.2285	ppb	10:38:56
1	Fe 238.204 Radial†	158.4	22.7	1.5037	µg/L	1.5037	ppb	10:38:56
1	K 766.490 Radial†	1675.3	119.4	47.570	µg/L	47.570	ppb	10:38:36
1	Mg 279.077 IEC†	185.6	15.5	6.1925	µg/L	6.1925	ppb	10:38:56
1	Na 589.592 Radial†	1455.2	354.0	52.278	µg/L	52.278	ppb	10:38:36
1	Sr 421.552†	-333.6	-81.9	-0.1805	µg/L	-0.1805	ppb	10:38:36
1	Sc 361.383	1760118.7	1760118.7	98.207	%			10:39:44
1	Y 371.029	1060693.1	1060693.1	98.342	%			10:39:44
1	Ag 328.068†	4050.3	196.1	0.7888	µg/L	0.7888	ppb	10:39:46
1	As 188.979†	-13.2	0.4	0.1164	µg/L	0.1164	ppb	10:40:06
1	B 249.677†	3332.3	-10.2	-0.1609	µg/L	-0.1609	ppb	10:40:06
1	Ba 233.527†	-160.8	-25.4	-0.1076	µg/L	-0.1076	ppb	10:40:06
1	Be 313.107†	-772.1	230.4	0.0696	µg/L	0.0696	ppb	10:39:46
1	Cd 226.502†	-125.0	-17.5	-0.1170	µg/L	-0.1170	ppb	10:40:06
1	Co 228.616†	-169.4	-0.9	-0.0126	µg/L	-0.0126	ppb	10:40:06
1	Cr 267.716†	167.6	-10.0	-0.0915	µg/L	-0.0915	ppb	10:40:06
1	Cu 324.752†	2942.0	18.3	0.0851	µg/L	0.0851	ppb	10:39:46
1	Mn 257.610†	226.1	37.2	0.0486	µg/L	0.0486	ppb	10:40:06
1	Mo 202.031†	-35.0	0.8	0.0241	µg/L	0.0241	ppb	10:40:06
1	Ni 231.604†	-88.6	7.3	0.0902	µg/L	0.0902	ppb	10:40:06
1	P 214.914†	-19.5	3.5	0.8036	µg/L	0.8036	ppb	10:40:06
1	Pb 220.353†	83.0	22.6	1.3374	µg/L	1.3374	ppb	10:40:06
1	S 181.975 Axial†	93.6	3.1	2.4818	µg/L	2.4818	ppb	10:40:06
1	Sb 206.836†	53.5	-26.5	-3.3725	µg/L	-3.3725	ppb	10:40:06
1	Se 196.026†	12.9	-7.8	-3.03	µg/L	-3.03	ppb	10:40:06
1	SiO2†	1754.8	5.0	0.5188	µg/L	0.5188	ppb	10:40:06
1	Si 251.611†	909.2	-2.3	-0.0388	µg/L	-0.0388	ppb	10:39:46
1	Sn 189.927†	2.2	4.7	0.3163	µg/L	0.3163	ppb	10:40:06
1	Ti 334.940†	909.2	-44.5	-0.0489	µg/L	-0.0489	ppb	10:39:46
1	Tl 190.801†	-110.8	3.9	0.5177	µg/L	0.5177	ppb	10:40:06
1	U 409.014†	-138.6	177.3	11.047	µg/L	11.047	ppb	10:39:46
1	V 292.402†	408.5	110.3	0.5785	µg/L	0.5785	ppb	10:39:46
1	Zn 213.857†	605.7	25.5	0.1526	µg/L	0.1526	ppb	10:40:06
2	Sc RADIAL	148613.9	148613.9	99.1	%			10:38:58
2	Al 396.153Radial†	-49.0	24.5	4.8030	µg/L	4.8030	ppb	10:39:18
2	Ca 317.933Radial†	624.1	-2.9	-0.1748	µg/L	-0.1748	ppb	10:39:18
2	Fe 238.204 Radial†	155.7	19.7	1.3032	µg/L	1.3032	ppb	10:39:18
2	K 766.490 Radial†	1451.2	-110.2	-43.930	µg/L	-43.930	ppb	10:38:58
2	Mg 279.077 IEC†	179.3	8.8	3.5130	µg/L	3.5130	ppb	10:39:18
2	Na 589.592 Radial†	1449.9	345.7	51.142	µg/L	51.142	ppb	10:38:58
2	Sr 421.552†	-106.4	148.2	0.3266	µg/L	0.3266	ppb	10:38:58
2	Sc 361.383	1734866.3	1734866.3	96.798	%			10:40:08
2	Y 371.029	1045519.0	1045519.0	96.935	%			10:40:08
2	Ag 328.068†	3531.3	-280.0	-1.0706	µg/L	-1.0706	ppb	10:40:10
2	As 188.979†	-11.2	2.3	0.7148	µg/L	0.7148	ppb	10:40:30
2	B 249.677†	3285.8	-8.8	-0.1393	µg/L	-0.1393	ppb	10:40:30
2	Ba 233.527†	-166.8	-34.0	-0.1443	µg/L	-0.1443	ppb	10:40:30
2	Be 313.107†	-860.1	128.0	0.0423	µg/L	0.0423	ppb	10:40:10
2	Cd 226.502†	-119.1	-13.3	-0.0889	µg/L	-0.0889	ppb	10:40:30
2	Co 228.616†	-166.1	0.0	0.0004	µg/L	0.0004	ppb	10:40:30
2	Cr 267.716†	188.6	14.1	0.1029	µg/L	0.1029	ppb	10:40:30
2	Cu 324.752†	2776.7	-108.9	-0.4339	µg/L	-0.4339	ppb	10:40:10
2	Mn 257.610†	220.2	34.4	0.0451	µg/L	0.0451	ppb	10:40:30
2	Mo 202.031†	-39.9	-4.8	-0.1505	µg/L	-0.1505	ppb	10:40:30
2	Ni 231.604†	-73.6	21.6	0.2648	µg/L	0.2648	ppb	10:40:30
2	P 214.914†	-12.9	10.0	2.3152	µg/L	2.3152	ppb	10:40:30
2	Pb 220.353†	77.4	18.1	1.0636	µg/L	1.0636	ppb	10:40:30

2	S 181.975 Axial†	90.9	1.7	1.3580 µg/L	1.3580 ppb		10:40:30
2	Sb 206.836†	96.0	18.2	2.3130 µg/L	2.3130 ppb		10:40:30
2	Se 196.026†	13.7	-6.8	-2.64 µg/L	-2.64 ppb		10:40:30
2	SiO2†	1779.3	56.3	5.8623 µg/L	5.8623 ppb		10:40:30
2	Si 251.611†	1061.8	168.8	2.6480 µg/L	2.6480 ppb		10:40:10
2	Sn 189.927†	12.6	15.5	1.0365 µg/L	1.0365 ppb		10:40:30
2	Ti 334.940†	931.3	-8.1	-0.0157 µg/L	-0.0157 ppb		10:40:10
2	Tl 190.801†	-96.1	17.5	2.2956 µg/L	2.2956 ppb		10:40:30
2	U 409.014†	-27.5	290.1	18.038 µg/L	18.038 ppb		10:40:10
2	V 292.402†	365.2	71.6	0.3820 µg/L	0.3820 ppb		10:40:10
2	Zn 213.857†	560.6	-12.2	-0.0750 µg/L	-0.0750 ppb		10:40:30
3	Sc RADIAL	149390.1	149390.1	99.6 %			10:39:20
3	Al 396.153Radial†	-86.9	-13.3	-2.6303 µg/L	-2.6303 ppb		10:39:40
3	Ca 317.933Radial†	633.8	3.5	0.2079 µg/L	0.2079 ppb		10:39:40
3	Fe 238.204 Radial†	151.3	14.5	0.9587 µg/L	0.9587 ppb		10:39:40
3	K 766.490 Radial†	1483.0	-85.8	-34.213 µg/L	-34.213 ppb		10:39:20
3	Mg 279.077 IEC†	166.8	-4.7	-1.8715 µg/L	-1.8715 ppb		10:39:40
3	Na 589.592 Radial†	1392.9	280.9	41.553 µg/L	41.553 ppb		10:39:20
3	Sr 421.552†	-157.4	97.5	0.2148 µg/L	0.2148 ppb		10:39:20
3	Sc 361.383	1777562.7	1777562.7	99.180 %			10:40:33
3	Y 371.029	1069494.7	1069494.7	99.158 %			10:40:33
3	Ag 328.068†	4101.7	207.5	0.8226 µg/L	0.8226 ppb		10:40:35
3	As 188.979†	-12.1	1.6	0.5158 µg/L	0.5158 ppb		10:40:55
3	B 249.677†	3310.8	-65.2	-1.0281 µg/L	-1.0281 ppb		10:40:55
3	Ba 233.527†	-122.6	14.6	0.0627 µg/L	0.0627 ppb		10:40:55
3	Be 313.107†	-942.3	66.5	0.0192 µg/L	0.0192 ppb		10:40:35
3	Cd 226.502†	-121.2	-12.4	-0.0830 µg/L	-0.0830 ppb		10:40:55
3	Co 228.616†	-188.0	-17.9	-0.2362 µg/L	-0.2362 ppb		10:40:55
3	Cr 267.716†	197.4	18.3	0.1524 µg/L	0.1524 ppb		10:40:55
3	Cu 324.752†	2929.2	-24.0	-0.0987 µg/L	-0.0987 ppb		10:40:35
3	Mn 257.610†	242.9	51.8	0.0681 µg/L	0.0681 ppb		10:40:55
3	Mo 202.031†	-22.7	13.5	0.4242 µg/L	0.4242 ppb		10:40:55
3	Ni 231.604†	-80.5	16.4	0.2019 µg/L	0.2019 ppb		10:40:55
3	P 214.914†	-6.0	17.3	3.9890 µg/L	3.9890 ppb		10:40:55
3	Pb 220.353†	81.4	20.1	1.2017 µg/L	1.2017 ppb		10:40:55
3	S 181.975 Axial†	86.8	-4.7	-3.7928 µg/L	-3.7928 ppb		10:40:55
3	Sb 206.836†	76.1	-4.2	-0.5326 µg/L	-0.5326 ppb		10:40:55
3	Se 196.026†	5.5	-15.3	-5.98 µg/L	-5.98 ppb		10:40:55
3	SiO2†	1712.6	-55.1	-5.7609 µg/L	-5.7609 ppb		10:40:55
3	Si 251.611†	950.4	30.2	0.4672 µg/L	0.4672 ppb		10:40:35
3	Sn 189.927†	0.5	3.0	0.2017 µg/L	0.2017 ppb		10:40:55
3	Ti 334.940†	1016.5	54.6	0.0539 µg/L	0.0539 ppb		10:40:35
3	Tl 190.801†	-104.5	11.5	1.5081 µg/L	1.5081 ppb		10:40:55
3	U 409.014†	-311.9	4.0	0.2928 µg/L	0.2928 ppb		10:40:35
3	V 292.402†	453.5	151.6	0.7900 µg/L	0.7900 ppb		10:40:35
3	Zn 213.857†	577.1	-9.5	-0.0584 µg/L	-0.0584 ppb		10:40:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1757515.9	98.062	%	1.1978				1.22%
Sc RADIAL	148775.8	99.2	%	0.37				0.37%
Y 371.029	1058568.9	98.145	%	1.1245				1.15%
Ag 328.068†	41.2	0.1803	µg/L	1.08342	0.1803	ppb	1.08342	601.06%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.6	2.2625	µg/L	4.23832	2.2625	ppb	4.23832	187.33%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.4	0.4490	µg/L	0.30477	0.4490	ppb	0.30477	67.88%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-28.1	-0.4427	µg/L	0.50702	-0.4427	ppb	0.50702	114.52%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-14.9	-0.0631	µg/L	0.11047	-0.0631	ppb	0.11047	175.13%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	141.6	0.0437	µg/L	0.02523	0.0437	ppb	0.02523	57.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.1	-0.0651	µg/L	0.23800	-0.0651	ppb	0.23800	365.46%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-14.4	-0.0963	µg/L	0.01812	-0.0963	ppb	0.01812	18.82%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-6.3	-0.0828	µg/L	0.13302	-0.0828	ppb	0.13302	160.70%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                7.5      0.0546 µg/L       0.12894      0.0546 ppb        0.12894 236.16%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -38.2     -0.1492 µg/L       0.26314     -0.1492 ppb        0.26314 176.38%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        19.0      1.2552 µg/L       0.27565      1.2552 ppb        0.27565  21.96%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -25.5     -10.191 µg/L       50.2577     -10.191 ppb        50.2577 493.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            6.6      2.6113 µg/L       4.10695      2.6113 ppb        4.10695 157.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               41.2      0.0540 µg/L       0.01241      0.0540 ppb        0.01241  23.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                3.2      0.0993 µg/L       0.29462      0.0993 ppb        0.29462 296.83%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       326.9      48.324 µg/L        5.8918      48.324 ppb         5.8918  12.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               15.1      0.1857 µg/L       0.08842      0.1857 ppb        0.08842  47.63%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                10.3      2.3693 µg/L       1.59336      2.3693 ppb        1.59336  67.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               20.3      1.2009 µg/L       0.13692      1.2009 ppb        0.13692  11.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.0      0.0156 µg/L       3.34577      0.0156 ppb        3.34577 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -4.2     -0.5307 µg/L       2.84272     -0.5307 ppb        2.84272 535.65%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -10.0      -3.89 µg/L         1.825       -3.89 ppb          1.825  46.97%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      2.1      0.2067 µg/L       5.81786      0.2067 ppb        5.81786 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               65.5      1.0255 µg/L       1.42777      1.0255 ppb        1.42777 139.23%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                7.8      0.5182 µg/L       0.45257      0.5182 ppb        0.45257  87.34%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               54.6      0.1203 µg/L       0.26646      0.1203 ppb        0.26646 221.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                0.7     -0.0036 µg/L       0.05248     -0.0036 ppb        0.05248 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               11.0      1.4405 µg/L       0.89090      1.4405 ppb        0.89090  61.85%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               157.1      9.7926 µg/L       8.93897      9.7926 ppb        8.93897  91.28%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               111.2      0.5835 µg/L       0.20406      0.5835 ppb        0.20406  34.97%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                1.3      0.0064 µg/L       0.12687      0.0064 ppb        0.12687 >999.9%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: 1202065091|962595|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 312
Date Collected: 3/31/2010 10:41:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065091|962595|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145003.9	145003.9	96.7	%			10:41:36
1	Al 396.153Radial†	-25.0	48.1	9.4273	µg/L	9.4273	ppb	10:41:56
1	Ca 317.933Radial†	810.7	205.7	12.271	µg/L	12.271	ppb	10:41:56
1	Fe 238.204 Radial†	634.6	519.1	34.358	µg/L	34.358	ppb	10:41:56
1	K 766.490 Radial†	1538.3	16.4	6.5285	µg/L	6.5285	ppb	10:41:36
1	Mg 279.077 IEC†	198.2	32.8	13.055	µg/L	13.055	ppb	10:41:56
1	Na 589.592 Radial†	1564.3	500.6	73.987	µg/L	73.987	ppb	10:41:36
1	Sr 421.552†	-115.2	136.4	0.3006	µg/L	0.3006	ppb	10:41:36
1	Sc 361.383	1746497.7	1746497.7	97.447	%			10:42:43
1	Y 371.029	1050187.0	1050187.0	97.368	%			10:42:43
1	Ag 328.068†	3954.5	130.0	0.5222	µg/L	0.5222	ppb	10:42:45
1	As 188.979†	-13.0	0.5	0.1574	µg/L	0.1574	ppb	10:43:06
1	B 249.677†	3375.3	60.3	0.9530	µg/L	0.9530	ppb	10:43:06
1	Ba 233.527†	-108.5	27.0	0.1145	µg/L	0.1145	ppb	10:43:06
1	Be 313.107†	-1041.0	-51.6	-0.0138	µg/L	-0.0138	ppb	10:42:45
1	Cd 226.502†	-105.4	1.6	0.0075	µg/L	0.0075	ppb	10:43:06
1	Co 228.616†	-177.0	-10.1	-0.1344	µg/L	-0.1344	ppb	10:43:06
1	Cr 267.716†	201.4	25.9	0.2136	µg/L	0.2136	ppb	10:43:06
1	Cu 324.752†	2926.7	26.0	0.1154	µg/L	0.1154	ppb	10:42:45
1	Mn 257.610†	758.2	585.0	0.7677	µg/L	0.7677	ppb	10:43:06
1	Mo 202.031†	-35.0	0.5	0.0190	µg/L	0.0190	ppb	10:43:06
1	Ni 231.604†	-62.4	33.6	0.4123	µg/L	0.4123	ppb	10:43:06
1	P 214.914†	-9.1	14.0	3.2212	µg/L	3.2212	ppb	10:43:06
1	Pb 220.353†	61.3	1.0	0.0590	µg/L	0.0590	ppb	10:43:06
1	S 181.975 Axial†	103.1	13.5	10.845	µg/L	10.845	ppb	10:43:06
1	Sb 206.836†	100.2	21.8	2.7811	µg/L	2.7811	ppb	10:43:06
1	Se 196.026†	3.0	-17.9	-6.96	µg/L	-6.96	ppb	10:43:06
1	SiO2†	2224.7	501.2	52.218	µg/L	52.218	ppb	10:43:06
1	Si 251.611†	2304.0	1436.3	22.563	µg/L	22.563	ppb	10:42:45
1	Sn 189.927†	19.2	22.1	1.4796	µg/L	1.4796	ppb	10:43:06
1	Ti 334.940†	1048.1	105.3	0.1016	µg/L	0.1016	ppb	10:42:45
1	Tl 190.801†	-122.9	-9.4	-1.2158	µg/L	-1.2158	ppb	10:43:06
1	U 409.014†	-254.6	57.2	3.5955	µg/L	3.5955	ppb	10:42:45
1	V 292.402†	444.7	150.7	0.7803	µg/L	0.7803	ppb	10:42:45
1	Zn 213.857†	790.4	219.8	1.3164	µg/L	1.3164	ppb	10:43:06
2	Sc RADIAL	148329.5	148329.5	98.9	%			10:41:58
2	Al 396.153Radial†	-35.6	37.9	7.4219	µg/L	7.4219	ppb	10:42:18
2	Ca 317.933Radial†	837.0	213.6	12.738	µg/L	12.738	ppb	10:42:18
2	Fe 238.204 Radial†	641.9	511.7	33.871	µg/L	33.871	ppb	10:42:18
2	K 766.490 Radial†	1643.5	87.1	34.703	µg/L	34.703	ppb	10:41:58
2	Mg 279.077 IEC†	210.3	40.5	16.131	µg/L	16.131	ppb	10:42:18
2	Na 589.592 Radial†	1498.7	398.0	58.794	µg/L	58.794	ppb	10:41:58
2	Sr 421.552†	-257.8	-5.2	-0.0115	µg/L	-0.0115	ppb	10:41:58
2	Sc 361.383	1766595.5	1766595.5	98.568	%			10:43:08
2	Y 371.029	1062209.0	1062209.0	98.483	%			10:43:08
2	Ag 328.068†	3858.7	-13.3	-0.0409	µg/L	-0.0409	ppb	10:43:10
2	As 188.979†	-10.8	2.9	0.9270	µg/L	0.9270	ppb	10:43:30
2	B 249.677†	3363.5	9.0	0.1418	µg/L	0.1418	ppb	10:43:30
2	Ba 233.527†	-125.6	10.9	0.0460	µg/L	0.0460	ppb	10:43:30
2	Be 313.107†	-973.2	29.3	0.0107	µg/L	0.0107	ppb	10:43:10
2	Cd 226.502†	-125.1	-17.1	-0.1179	µg/L	-0.1179	ppb	10:43:30
2	Co 228.616†	-166.1	3.0	0.0384	µg/L	0.0384	ppb	10:43:30
2	Cr 267.716†	283.4	106.8	0.8811	µg/L	0.8811	ppb	10:43:30
2	Cu 324.752†	2989.0	55.0	0.2382	µg/L	0.2382	ppb	10:43:10
2	Mn 257.610†	815.3	634.1	0.8320	µg/L	0.8320	ppb	10:43:30
2	Mo 202.031†	-22.1	14.0	0.4390	µg/L	0.4390	ppb	10:43:30
2	Ni 231.604†	-62.0	34.7	0.4266	µg/L	0.4266	ppb	10:43:30
2	P 214.914†	-3.1	20.2	4.6312	µg/L	4.6312	ppb	10:43:30
2	Pb 220.353†	78.5	17.7	1.0525	µg/L	1.0525	ppb	10:43:30

2	S 181.975 Axial†	92.6	1.7	1.3944 µg/L	1.3944 ppb	10:43:30
2	Sb 206.836†	80.4	0.6	0.0765 µg/L	0.0765 ppb	10:43:30
2	Se 196.026†	18.4	-2.3	-0.868 µg/L	-0.868 ppb	10:43:30
2	SiO2†	2201.2	451.4	47.018 µg/L	47.018 ppb	10:43:30
2	Si 251.611†	2167.6	1271.0	19.961 µg/L	19.961 ppb	10:43:10
2	Sn 189.927†	16.7	19.4	1.2946 µg/L	1.2946 ppb	10:43:30
2	Ti 334.940†	1204.8	252.1	0.2444 µg/L	0.2444 ppb	10:43:10
2	Tl 190.801†	-113.3	1.9	0.2520 µg/L	0.2520 ppb	10:43:30
2	U 409.014†	-196.1	119.5	7.4333 µg/L	7.4333 ppb	10:43:10
2	V 292.402†	346.7	46.1	0.2484 µg/L	0.2484 ppb	10:43:10
2	Zn 213.857†	814.2	234.7	1.4064 µg/L	1.4064 ppb	10:43:30
3	Sc RADIAL	146580.2	146580.2	97.7 %		10:42:20
3	Al 396.153Radial†	-30.0	43.2	8.4851 µg/L	8.4851 ppb	10:42:40
3	Ca 317.933Radial†	818.6	204.9	12.219 µg/L	12.219 ppb	10:42:40
3	Fe 238.204 Radial†	636.0	513.4	33.985 µg/L	33.985 ppb	10:42:40
3	K 766.490 Radial†	1538.7	-0.3	-0.1154 µg/L	-0.1154 ppb	10:42:20
3	Mg 279.077 IEC†	182.5	14.6	5.7919 µg/L	5.7919 ppb	10:42:40
3	Na 589.592 Radial†	1387.6	302.3	44.685 µg/L	44.685 ppb	10:42:20
3	Sr 421.552†	-123.8	128.9	0.2839 µg/L	0.2839 ppb	10:42:20
3	Sc 361.383	1774954.0	1774954.0	99.035 %		10:43:32
3	Y 371.029	1066691.1	1066691.1	98.898 %		10:43:32
3	Ag 328.068†	3611.1	-281.8	-1.1113 µg/L	-1.1113 ppb	10:43:34
3	As 188.979†	-8.8	5.0	1.5842 µg/L	1.5842 ppb	10:43:54
3	B 249.677†	3389.6	19.3	0.3042 µg/L	0.3042 ppb	10:43:54
3	Ba 233.527†	-73.6	64.0	0.2714 µg/L	0.2714 ppb	10:43:54
3	Be 313.107†	-1186.3	-181.3	-0.0543 µg/L	-0.0543 ppb	10:43:34
3	Cd 226.502†	-105.9	2.9	0.0158 µg/L	0.0158 ppb	10:43:54
3	Co 228.616†	-161.9	8.1	0.1048 µg/L	0.1048 ppb	10:43:54
3	Cr 267.716†	249.7	71.5	0.5994 µg/L	0.5994 ppb	10:43:54
3	Cu 324.752†	2930.5	-18.3	-0.0762 µg/L	-0.0762 ppb	10:43:34
3	Mn 257.610†	774.2	588.7	0.7728 µg/L	0.7728 ppb	10:43:54
3	Mo 202.031†	-40.3	-4.3	-0.1327 µg/L	-0.1327 ppb	10:43:54
3	Ni 231.604†	-56.6	40.4	0.4965 µg/L	0.4965 ppb	10:43:54
3	P 214.914†	-13.9	9.3	2.1436 µg/L	2.1436 ppb	10:43:54
3	Pb 220.353†	101.2	40.3	2.4077 µg/L	2.4077 ppb	10:43:54
3	S 181.975 Axial†	101.0	9.8	7.8129 µg/L	7.8129 ppb	10:43:54
3	Sb 206.836†	69.7	-10.6	-1.3572 µg/L	-1.3572 ppb	10:43:54
3	Se 196.026†	17.9	-2.8	-1.09 µg/L	-1.09 ppb	10:43:54
3	SiO2†	2216.9	456.7	47.574 µg/L	47.574 ppb	10:43:54
3	Si 251.611†	2206.1	1299.5	20.413 µg/L	20.413 ppb	10:43:34
3	Sn 189.927†	27.7	30.4	2.0321 µg/L	2.0321 ppb	10:43:54
3	Ti 334.940†	1178.4	219.6	0.2193 µg/L	0.2193 ppb	10:43:34
3	Tl 190.801†	-115.2	0.5	0.0685 µg/L	0.0685 ppb	10:43:54
3	U 409.014†	-429.1	-114.8	-7.1259 µg/L	-7.1259 ppb	10:43:34
3	V 292.402†	338.8	36.4	0.1812 µg/L	0.1812 ppb	10:43:34
3	Zn 213.857†	815.3	231.9	1.3890 µg/L	1.3890 ppb	10:43:54

Mean Data: 1202065091|962595|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1762682.4	98.350	%	0.8161				0.83%
Sc RADIAL	146637.9	97.7	%	1.11				1.13%
Y 371.029	1059695.7	98.250	%	0.7913				0.81%
Ag 328.068†	-55.1	-0.2100	µg/L	0.82978	-0.2100	ppb	0.82978	395.06%
Al 396.153Radial†	43.1	8.4448	µg/L	1.00334	8.4448	ppb	1.00334	11.88%
As 188.979†	2.8	0.8896	µg/L	0.71412	0.8896	ppb	0.71412	80.28%
B 249.677†	29.5	0.4663	µg/L	0.42920	0.4663	ppb	0.42920	92.04%
Ba 233.527†	33.9	0.1440	µg/L	0.11551	0.1440	ppb	0.11551	80.23%
Be 313.107†	-67.9	-0.0191	µg/L	0.03282	-0.0191	ppb	0.03282	171.42%
Ca 317.933Radial†	208.1	12.409	µg/L	0.2859	12.409	ppb	0.2859	2.30%
Cd 226.502†	-4.2	-0.0315	µg/L	0.07490	-0.0315	ppb	0.07490	237.54%
Co 228.616†	0.3	0.0029	µg/L	0.12347	0.0029	ppb	0.12347	>999.9%
Cr 267.716†	68.1	0.5647	µg/L	0.33506	0.5647	ppb	0.33506	59.33%
Cu 324.752†	20.9	0.0925	µg/L	0.15849	0.0925	ppb	0.15849	171.42%
Fe 238.204 Radial†	514.7	34.071	µg/L	0.2546	34.071	ppb	0.2546	0.75%
K 766.490 Radial†	34.4	13.705	µg/L	18.4852	13.705	ppb	18.4852	134.88%
Mg 279.077 IEC†	29.3	11.659	µg/L	5.3088	11.659	ppb	5.3088	45.53%
Mn 257.610†	602.6	0.7908	µg/L	0.03573	0.7908	ppb	0.03573	4.52%
Mo 202.031†	3.4	0.1084	µg/L	0.29616	0.1084	ppb	0.29616	273.13%
Na 589.592 Radial†	400.3	59.156	µg/L	14.6542	59.156	ppb	14.6542	24.77%

Ni 231.604†	36.2	0.4452 µg/L	0.04505	0.4452 ppb	0.04505	10.12%
P 214.914†	14.5	3.3320 µg/L	1.24749	3.3320 ppb	1.24749	37.44%
Pb 220.353†	19.7	1.1731 µg/L	1.17899	1.1731 ppb	1.17899	100.50%
S 181.975 Axial†	8.3	6.6842 µg/L	4.82552	6.6842 ppb	4.82552	72.19%
Sb 206.836†	4.0	0.5001 µg/L	2.10144	0.5001 ppb	2.10144	420.19%
Se 196.026†	-7.7	-2.97 µg/L	3.454	-2.97 ppb	3.454	116.17%
SiO2†	469.7	48.937 µg/L	2.8553	48.937 ppb	2.8553	5.83%
Si 251.611†	1335.6	20.979 µg/L	1.3904	20.979 ppb	1.3904	6.63%
Sn 189.927†	24.0	1.6021 µg/L	0.38369	1.6021 ppb	0.38369	23.95%
Sr 421.552†	86.7	0.1910 µg/L	0.17558	0.1910 ppb	0.17558	91.93%
Ti 334.940†	192.3	0.1884 µg/L	0.07623	0.1884 ppb	0.07623	40.45%
Tl 190.801†	-2.3	-0.2984 µg/L	0.79975	-0.2984 ppb	0.79975	267.97%
U 409.014†	20.6	1.3010 µg/L	7.54594	1.3010 ppb	7.54594	580.03%
V 292.402†	77.8	0.4033 µg/L	0.32823	0.4033 ppb	0.32823	81.38%
Zn 213.857†	228.8	1.3706 µg/L	0.04776	1.3706 ppb	0.04776	3.48%

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Sequence No.: 17
Sample ID: 1202065092|962595|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 313
Date Collected: 3/31/2010 10:44:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065092|962595|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	151390.3	151390.3	101	%			10:44:34
1	Al 396.153Radial†	449012.1	445042.8	87272	µg/L	87272	ppb	10:44:34
1	Ca 317.933Radial†	1629032.0	1613729.9	96245	µg/L	96245	ppb	10:44:34
1	Fe 238.204 Radial†	2752372.3	2727450.2	180540	µg/L	180540	ppb	10:44:32
1	K 766.490 Radial†	103400.9	100894.7	40173	µg/L	40173	ppb	10:44:34
1	Mg 279.077 IEC†	95104.8	94076.2	37344	µg/L	37344	ppb	10:44:34
1	Na 589.592 Radial†	68798.2	67060.7	9876.5	µg/L	9876.5	ppb	10:44:34
1	Sr 421.552†	1017048.2	1008145.4	2221.3	µg/L	2221.3	ppb	10:44:32
1	Sc 361.383	1761901.5	1761901.5	98.306	%			10:44:48
1	Y 371.029	1122182.7	1122182.7	104.04	%			10:44:48
1	Ag 328.068†	75728.7	73105.3	295.63	µg/L	295.63	ppb	10:44:48
1	As 188.979†	3171.3	3239.7	1090.5	µg/L	1090.5	ppb	10:44:51
1	B 249.677†	93968.5	92184.2	1451.9	µg/L	1451.9	ppb	10:44:48
1	Ba 233.527†	432453.4	440042.3	1867.4	µg/L	1867.4	ppb	10:44:48
1	Be 313.107†	2686550.0	2733852.4	786.55	µg/L	786.55	ppb	10:44:48
1	Cd 226.502†	89689.2	91344.2	591.82	µg/L	591.82	ppb	10:44:48
1	Co 228.616†	67867.6	69208.4	903.99	µg/L	903.99	ppb	10:44:48
1	Cr 267.716†	277981.7	282590.3	2349.5	µg/L	2349.5	ppb	10:44:48
1	Cu 324.752†	430734.4	435178.0	1822.2	µg/L	1822.2	ppb	10:44:48
1	Mn 257.610†	4037942.4	4107317.9	5392.0	µg/L	5392.0	ppb	10:44:48
1	Mo 202.031†	15536.1	15840.2	504.51	µg/L	504.51	ppb	10:44:51
1	Ni 231.604†	106860.5	108799.1	1336.6	µg/L	1336.6	ppb	10:44:48
1	P 214.914†	34304.5	34918.8	7933.2	µg/L	7933.2	ppb	10:44:51
1	Pb 220.353†	14440.5	14627.4	879.82	µg/L	879.82	ppb	10:44:51
1	S 181.975 Axial†	4909.9	4902.2	3928.5	µg/L	3928.5	ppb	10:44:51
1	Sb 206.836†	9412.3	9493.5	1181.9	µg/L	1181.9	ppb	10:44:51
1	Se 196.026†	7260.6	7364.7	2930	µg/L	2930	ppb	10:44:51
1	SiO2†	753146.7	764340.6	79643	µg/L	79643	ppb	10:44:48
1	Si 251.611†	2318659.6	2357679.1	37041	µg/L	37041	ppb	10:44:48
1	Sn 189.927†	15068.8	15330.9	1042.5	µg/L	1042.5	ppb	10:44:51
1	Ti 334.940†	5438238.3	5530961.9	5456.6	µg/L	5456.6	ppb	10:44:48
1	Tl 190.801†	8399.1	8660.6	1206.6	µg/L	1206.6	ppb	10:44:51
1	U 409.014†	-4184.2	-3937.9	-179.83	µg/L	-179.83	ppb	10:44:48
1	V 292.402†	229410.9	233057.7	1198.0	µg/L	1198.0	ppb	10:44:48
1	Zn 213.857†	942713.2	958363.6	5742.4	µg/L	5742.4	ppb	10:44:48
2	Sc RADIAL	151342.7	151342.7	101	%			10:44:38
2	Al 396.153Radial†	449491.9	445658.4	87393	µg/L	87393	ppb	10:44:38
2	Ca 317.933Radial†	1633368.8	1618536.8	96532	µg/L	96532	ppb	10:44:38
2	Fe 238.204 Radial†	2802908.3	2778404.8	183910	µg/L	183910	ppb	10:44:36
2	K 766.490 Radial†	103977.6	101498.5	40413	µg/L	40413	ppb	10:44:38
2	Mg 279.077 IEC†	95412.9	94411.3	37474	µg/L	37474	ppb	10:44:38
2	Na 589.592 Radial†	69055.2	67337.0	9917.1	µg/L	9917.1	ppb	10:44:38
2	Sr 421.552†	1035189.9	1026446.4	2261.7	µg/L	2261.7	ppb	10:44:36
2	Sc 361.383	1756576.5	1756576.5	98.009	%			10:44:55
2	Y 371.029	1119222.2	1119222.2	103.77	%			10:44:55
2	Ag 328.068†	75628.3	73236.3	296.14	µg/L	296.14	ppb	10:44:55
2	As 188.979†	3100.1	3176.9	1071.4	µg/L	1071.4	ppb	10:44:57
2	B 249.677†	94156.7	92665.9	1459.5	µg/L	1459.5	ppb	10:44:55
2	Ba 233.527†	432119.1	441034.8	1871.6	µg/L	1871.6	ppb	10:44:55
2	Be 313.107†	2685263.4	2740824.3	788.56	µg/L	788.56	ppb	10:44:55
2	Cd 226.502†	89847.1	91781.9	594.40	µg/L	594.40	ppb	10:44:55
2	Co 228.616†	67817.3	69366.5	905.91	µg/L	905.91	ppb	10:44:55
2	Cr 267.716†	278282.7	283754.6	2359.3	µg/L	2359.3	ppb	10:44:55
2	Cu 324.752†	430147.5	435907.5	1825.7	µg/L	1825.7	ppb	10:44:55
2	Mn 257.610†	4038440.2	4120277.8	5409.0	µg/L	5409.0	ppb	10:44:55
2	Mo 202.031†	15340.3	15688.3	499.88	µg/L	499.88	ppb	10:44:57
2	Ni 231.604†	107067.8	109340.2	1343.2	µg/L	1343.2	ppb	10:44:55
2	P 214.914†	33780.1	34489.5	7831.9	µg/L	7831.9	ppb	10:44:57
2	Pb 220.353†	14121.5	14346.5	862.98	µg/L	862.98	ppb	10:44:57

2	S 181.975 Axial†	4856.3	4862.7	3896.8	µg/L	3896.8 ppb	10:44:57
2	Sb 206.836†	9304.3	9412.4	1171.3	µg/L	1171.3 ppb	10:44:57
2	Se 196.026†	7137.8	7261.8	2890	µg/L	2890 ppb	10:44:57
2	SiO2†	753028.5	766542.6	79872	µg/L	79872 ppb	10:44:55
2	Si 251.611†	2319340.5	2365523.9	37164	µg/L	37164 ppb	10:44:55
2	Sn 189.927†	14914.2	15219.6	1035.1	µg/L	1035.1 ppb	10:44:57
2	Ti 334.940†	5439031.4	5548541.2	5473.9	µg/L	5473.9 ppb	10:44:55
2	Tl 190.801†	8351.8	8638.2	1203.9	µg/L	1203.9 ppb	10:44:57
2	U 409.014†	-4243.6	-4011.4	-184.85	µg/L	-184.85 ppb	10:44:55
2	V 292.402†	229400.1	233754.1	1201.2	µg/L	1201.2 ppb	10:44:55
2	Zn 213.857†	943182.3	961749.3	5762.4	µg/L	5762.4 ppb	10:44:55
3	Sc RADIAL	151683.7	151683.7	101	%		10:44:43
3	Al 396.153Radial†	452267.9	447402.5	87735	µg/L	87735 ppb	10:44:43
3	Ca 317.933Radial†	1642873.4	1624298.2	96875	µg/L	96875 ppb	10:44:43
3	Fe 238.204 Radial†	2730579.1	2700620.3	178760	µg/L	178760 ppb	10:44:41
3	K 766.490 Radial†	104592.8	101875.4	40563	µg/L	40563 ppb	10:44:43
3	Mg 279.077 IEC†	95894.5	94675.0	37584	µg/L	37584 ppb	10:44:43
3	Na 589.592 Radial†	69493.1	67616.2	9958.3	µg/L	9958.3 ppb	10:44:43
3	Sr 421.552†	1012964.8	1002157.5	2208.1	µg/L	2208.1 ppb	10:44:41
3	Sc 361.383	1763907.6	1763907.6	98.418	%		10:45:01
3	Y 371.029	1124633.3	1124633.3	104.27	%		10:45:01
3	Ag 328.068†	75970.4	73263.2	296.23	µg/L	296.23 ppb	10:45:01
3	As 188.979†	3148.8	3213.2	1081.6	µg/L	1081.6 ppb	10:45:03
3	B 249.677†	94304.3	92416.5	1455.5	µg/L	1455.5 ppb	10:45:01
3	Ba 233.527†	433019.2	440116.9	1867.7	µg/L	1867.7 ppb	10:45:01
3	Be 313.107†	2689712.4	2733957.5	786.58	µg/L	786.58 ppb	10:45:01
3	Cd 226.502†	89814.9	91368.1	592.17	µg/L	592.17 ppb	10:45:01
3	Co 228.616†	68061.9	69327.4	905.65	µg/L	905.65 ppb	10:45:01
3	Cr 267.716†	278207.1	282497.7	2348.7	µg/L	2348.7 ppb	10:45:01
3	Cu 324.752†	430699.0	434643.7	1819.7	µg/L	1819.7 ppb	10:45:01
3	Mn 257.610†	4043753.1	4108550.5	5393.6	µg/L	5393.6 ppb	10:45:01
3	Mo 202.031†	15468.5	15753.6	501.73	µg/L	501.73 ppb	10:45:03
3	Ni 231.604†	106864.9	108680.0	1335.1	µg/L	1335.1 ppb	10:45:01
3	P 214.914†	33985.7	34555.2	7850.6	µg/L	7850.6 ppb	10:45:03
3	Pb 220.353†	14272.1	14439.6	868.71	µg/L	868.71 ppb	10:45:03
3	S 181.975 Axial†	4794.5	4779.3	3830.1	µg/L	3830.1 ppb	10:45:03
3	Sb 206.836†	9455.6	9526.6	1186.0	µg/L	1186.0 ppb	10:45:03
3	Se 196.026†	7040.2	7132.4	2840	µg/L	2840 ppb	10:45:03
3	SiO2†	753697.3	764028.8	79610	µg/L	79610 ppb	10:45:01
3	Si 251.611†	2322434.9	2358832.6	37059	µg/L	37059 ppb	10:45:01
3	Sn 189.927†	14929.0	15171.4	1031.9	µg/L	1031.9 ppb	10:45:03
3	Ti 334.940†	5447988.4	5534577.2	5460.1	µg/L	5460.1 ppb	10:45:01
3	Tl 190.801†	8307.9	8558.2	1193.3	µg/L	1193.3 ppb	10:45:03
3	U 409.014†	-4379.5	-4131.4	-191.40	µg/L	-191.40 ppb	10:45:01
3	V 292.402†	229723.4	233109.9	1198.4	µg/L	1198.4 ppb	10:45:01
3	Zn 213.857†	944536.1	959125.2	5747.2	µg/L	5747.2 ppb	10:45:01

Mean Data: 1202065092|962595|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1760795.2	98.245	%	0.2114				0.22%
Sc RADIAL	151472.2	101	%	0.1				0.12%
Y 371.029	1122012.7	104.03	%	0.251				0.24%
Ag 328.068†	73201.6	296.00	µg/L	0.326	296.00	ppb	0.326	0.11%
Al 396.153Radial†	446034.6	87466	µg/L	240.1	87466	ppb	240.1	0.27%
As 188.979†	3209.9	1081.2	µg/L	9.55	1081.2	ppb	9.55	0.88%
B 249.677†	92422.2	1455.6	µg/L	3.80	1455.6	ppb	3.80	0.26%
Ba 233.527†	440398.0	1868.9	µg/L	2.32	1868.9	ppb	2.32	0.12%
Be 313.107†	2736211.4	787.23	µg/L	1.150	787.23	ppb	1.150	0.15%
Ca 317.933Radial†	1618855.0	96551	µg/L	315.6	96551	ppb	315.6	0.33%
Cd 226.502†	91498.1	592.80	µg/L	1.396	592.80	ppb	1.396	0.24%
Co 228.616†	69300.8	905.18	µg/L	1.038	905.18	ppb	1.038	0.11%
Cr 267.716†	282947.5	2352.5	µg/L	5.90	2352.5	ppb	5.90	0.25%
Cu 324.752†	435243.0	1822.5	µg/L	3.00	1822.5	ppb	3.00	0.16%
Fe 238.204 Radial†	2735491.8	181070	µg/L	2615.3	181070	ppb	2615.3	1.44%
K 766.490 Radial†	101422.9	40383	µg/L	197.1	40383	ppb	197.1	0.49%
Mg 279.077 IEC†	94387.5	37467	µg/L	120.2	37467	ppb	120.2	0.32%
Mn 257.610†	4112048.7	5398.2	µg/L	9.39	5398.2	ppb	9.39	0.17%
Mo 202.031†	15760.7	502.04	µg/L	2.328	502.04	ppb	2.328	0.46%
Na 589.592 Radial†	67338.0	9917.3	µg/L	40.88	9917.3	ppb	40.88	0.41%

Ni 231.604†	108939.8	1338.3	µg/L	4.32	1338.3	ppb	4.32	0.32%
P 214.914†	34654.5	7871.9	µg/L	53.91	7871.9	ppb	53.91	0.68%
Pb 220.353†	14471.1	870.50	µg/L	8.559	870.50	ppb	8.559	0.98%
S 181.975 Axial†	4848.1	3885.1	µg/L	50.23	3885.1	ppb	50.23	1.29%
Sb 206.836†	9477.5	1179.7	µg/L	7.62	1179.7	ppb	7.62	0.65%
Se 196.026†	7253.0	2890	µg/L	45.7	2890	ppb	45.7	1.58%
SiO2†	764970.6	79708	µg/L	142.9	79708	ppb	142.9	0.18%
Si 251.611†	2360678.5	37088	µg/L	66.6	37088	ppb	66.6	0.18%
Sn 189.927†	15240.7	1036.5	µg/L	5.45	1036.5	ppb	5.45	0.53%
Sr 421.552†	1012249.8	2230.4	µg/L	27.89	2230.4	ppb	27.89	1.25%
Ti 334.940†	5538026.8	5463.5	µg/L	9.16	5463.5	ppb	9.16	0.17%
Tl 190.801†	8619.0	1201.3	µg/L	7.07	1201.3	ppb	7.07	0.59%
U 409.014†	-4026.9	-185.36	µg/L	5.799	-185.36	ppb	5.799	3.13%
Concentration less than lower limit for U 409.014.								
V 292.402†	233307.2	1199.2	µg/L	1.75	1199.2	ppb	1.75	0.15%
Zn 213.857†	959746.0	5750.7	µg/L	10.43	5750.7	ppb	10.43	0.18%

Sequence No.: 18
Sample ID: 248702001|962595|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 314
Date Collected: 3/31/2010 10:45:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248702001|962595|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	149130.6	149130.6	99.4	%			10:45:43
1	Al 396.153Radial†	180021.2	181177.4	35538	µg/L	35538	ppb	10:45:43
1	Ca 317.933Radial†	1066743.4	1072523.2	63967	µg/L	63967	ppb	10:45:41
1	Fe 238.204 Radial†	793725.8	798359.8	52845	µg/L	52845	ppb	10:45:41
1	K 766.490 Radial†	17615.9	16146.6	6414.9	µg/L	6414.9	ppb	10:45:43
1	Mg 279.077 IEC†	21421.7	21378.3	8473.3	µg/L	8473.3	ppb	10:45:43
1	Na 589.592 Radial†	7125.2	6050.1	888.55	µg/L	888.55	ppb	10:45:43
1	Sr 421.552†	120970.6	121953.4	268.30	µg/L	268.30	ppb	10:45:43
1	Sc 361.383	1759580.0	1759580.0	98.177	%			10:46:10
1	Y 371.029	1089284.5	1089284.5	100.99	%			10:46:10
1	Ag 328.068†	3872.5	16.3	-1.3940	µg/L	-1.3940	ppb	10:46:10
1	As 188.979†	7.0	20.9	18.897	µg/L	18.897	ppb	10:46:30
1	B 249.677†	4170.2	844.3	13.240	µg/L	13.240	ppb	10:46:10
1	Ba 233.527†	106319.1	108431.8	459.87	µg/L	459.87	ppb	10:46:10
1	Be 313.107†	14517.2	15803.4	4.4925	µg/L	4.4925	ppb	10:46:10
1	Cd 226.502†	916.6	1043.4	1.4302	µg/L	1.4302	ppb	10:46:30
1	Co 228.616†	1675.4	1878.1	22.430	µg/L	22.430	ppb	10:46:30
1	Cr 267.716†	5427.1	5347.2	45.877	µg/L	45.877	ppb	10:46:30
1	Cu 324.752†	30612.9	28204.0	124.10	µg/L	124.10	ppb	10:46:10
1	Mn 257.610†	1189023.5	1210911.6	1589.7	µg/L	1589.7	ppb	10:46:10
1	Mo 202.031†	-17.3	18.8	2.8673	µg/L	2.8673	ppb	10:46:30
1	Ni 231.604†	2878.9	3030.0	37.223	µg/L	37.223	ppb	10:46:30
1	P 214.914†	1950.1	2009.6	434.10	µg/L	434.10	ppb	10:46:30
1	Pb 220.353†	2007.1	1982.5	120.83	µg/L	120.83	ppb	10:46:30
1	S 181.975 Axial†	465.1	381.5	305.37	µg/L	305.37	ppb	10:46:30
1	Sb 206.836†	88.6	9.3	-0.2169	µg/L	-0.2169	ppb	10:46:30
1	Se 196.026†	-27.2	-48.6	-0.786	µg/L	-0.786	ppb	10:46:30
1	SiO2†	593249.0	602484.3	62800	µg/L	62800	ppb	10:46:10
1	Si 251.611†	1819115.6	1851970.1	29106	µg/L	29106	ppb	10:46:10
1	Sn 189.927†	26.8	29.8	7.1813	µg/L	7.1813	ppb	10:46:30
1	Ti 334.940†	1532395.0	1559882.6	1540.3	µg/L	1540.3	ppb	10:46:10
1	Tl 190.801†	-259.2	-147.3	0.8921	µg/L	0.8921	ppb	10:46:30
1	U 409.014†	-3170.1	-2910.5	-174.10	µg/L	-174.10	ppb	10:46:10
1	V 292.402†	19063.6	19112.0	92.054	µg/L	92.054	ppb	10:46:10
1	Zn 213.857†	58718.8	59217.9	351.26	µg/L	351.26	ppb	10:46:10
2	Sc RADIAL	151420.0	151420.0	101	%			10:45:47
2	Al 396.153Radial†	182451.8	180847.3	35473	µg/L	35473	ppb	10:45:47
2	Ca 317.933Radial†	1062605.6	1052197.3	62754	µg/L	62754	ppb	10:45:45
2	Fe 238.204 Radial†	790765.8	783353.8	51852	µg/L	51852	ppb	10:45:45
2	K 766.490 Radial†	17968.5	16228.1	6447.6	µg/L	6447.6	ppb	10:45:47
2	Mg 279.077 IEC†	21754.1	21381.8	8475.5	µg/L	8475.5	ppb	10:45:47
2	Na 589.592 Radial†	7127.0	5943.5	872.76	µg/L	872.76	ppb	10:45:47
2	Sr 421.552†	122768.6	121894.8	268.18	µg/L	268.18	ppb	10:45:47
2	Sc 361.383	1734530.8	1734530.8	96.779	%			10:46:33
2	Y 371.029	1073645.8	1073645.8	99.543	%			10:46:33
2	Ag 328.068†	4048.6	255.2	-0.3877	µg/L	-0.3877	ppb	10:46:33
2	As 188.979†	0.9	14.7	16.722	µg/L	16.722	ppb	10:46:53
2	B 249.677†	4020.5	751.0	11.767	µg/L	11.767	ppb	10:46:33
2	Ba 233.527†	104441.8	108055.9	458.29	µg/L	458.29	ppb	10:46:33
2	Be 313.107†	14151.1	15638.7	4.4510	µg/L	4.4510	ppb	10:46:33
2	Cd 226.502†	949.7	1091.0	1.8537	µg/L	1.8537	ppb	10:46:53
2	Co 228.616†	1651.2	1877.8	22.476	µg/L	22.476	ppb	10:46:53
2	Cr 267.716†	5445.9	5446.5	46.653	µg/L	46.653	ppb	10:46:53
2	Cu 324.752†	29969.2	27989.1	123.08	µg/L	123.08	ppb	10:46:33
2	Mn 257.610†	1168114.8	1206797.2	1584.3	µg/L	1584.3	ppb	10:46:33
2	Mo 202.031†	-19.7	16.0	2.7423	µg/L	2.7423	ppb	10:46:53
2	Ni 231.604†	2913.1	3107.6	38.176	µg/L	38.176	ppb	10:46:53
2	P 214.914†	1958.8	2047.3	443.47	µg/L	443.47	ppb	10:46:53
2	Pb 220.353†	1988.0	1992.3	121.43	µg/L	121.43	ppb	10:46:53

2	S 181.975 Axial†	475.7	399.3	319.65 µg/L	319.65 ppb	10:46:53
2	Sb 206.836†	88.2	10.2	-0.0929 µg/L	-0.0929 ppb	10:46:53
2	Se 196.026†	-18.9	-40.5	2.07 µg/L	2.07 ppb	10:46:53
2	SiO2†	581831.0	599412.8	62480 µg/L	62480 ppb	10:46:33
2	Si 251.611†	1785300.5	1843788.1	28978 µg/L	28978 ppb	10:46:33
2	Sn 189.927†	34.0	37.6	7.6939 µg/L	7.6939 ppb	10:46:53
2	Ti 334.940†	1508367.9	1557596.9	1538.0 µg/L	1538.0 ppb	10:46:33
2	Tl 190.801†	-257.1	-148.9	0.6521 µg/L	0.6521 ppb	10:46:53
2	U 409.014†	-2822.1	-2597.6	-154.49 µg/L	-154.49 ppb	10:46:33
2	V 292.402†	18908.4	19232.0	92.798 µg/L	92.798 ppb	10:46:33
2	Zn 213.857†	57238.4	58552.0	347.36 µg/L	347.36 ppb	10:46:33
3	Sc RADIAL	149001.7	149001.7	99.3 %		10:45:51
3	Al 396.153Radial†	180271.4	181585.9	35618 µg/L	35618 ppb	10:45:51
3	Ca 317.933Radial†	1071629.4	1078370.8	64315 µg/L	64315 ppb	10:45:49
3	Fe 238.204 Radial†	797055.6	802403.1	53113 µg/L	53113 ppb	10:45:49
3	K 766.490 Radial†	17703.7	16250.4	6456.2 µg/L	6456.2 ppb	10:45:51
3	Mg 279.077 IEC†	21394.5	21369.5	8469.5 µg/L	8469.5 ppb	10:45:51
3	Na 589.592 Radial†	7107.5	6038.5	886.79 µg/L	886.79 ppb	10:45:51
3	Sr 421.552†	121094.2	122183.1	268.80 µg/L	268.80 ppb	10:45:51
3	Sc 361.383	1758940.1	1758940.1	98.141 %		10:46:56
3	Y 371.029	1088300.3	1088300.3	100.90 %		10:46:56
3	Ag 328.068†	3991.3	138.8	-0.9245 µg/L	-0.9245 ppb	10:46:56
3	As 188.979†	15.5	29.6	21.705 µg/L	21.705 ppb	10:47:16
3	B 249.677†	4180.6	856.4	13.430 µg/L	13.430 ppb	10:46:56
3	Ba 233.527†	105918.6	108063.1	458.30 µg/L	458.30 ppb	10:46:56
3	Be 313.107†	14339.0	15627.2	4.4421 µg/L	4.4421 ppb	10:46:56
3	Cd 226.502†	922.1	1049.3	1.4419 µg/L	1.4419 ppb	10:47:16
3	Co 228.616†	1707.5	1911.4	22.853 µg/L	22.853 ppb	10:47:16
3	Cr 267.716†	5449.7	5372.2	46.094 µg/L	46.094 ppb	10:47:16
3	Cu 324.752†	30333.2	27930.3	123.01 µg/L	123.01 ppb	10:46:56
3	Mn 257.610†	1185234.2	1207491.1	1585.3 µg/L	1585.3 ppb	10:46:56
3	Mo 202.031†	-13.6	22.5	2.9954 µg/L	2.9954 ppb	10:47:16
3	Ni 231.604†	2886.7	3039.0	37.333 µg/L	37.333 ppb	10:47:16
3	P 214.914†	1962.7	2023.2	437.09 µg/L	437.09 ppb	10:47:16
3	Pb 220.353†	2008.4	1984.6	120.95 µg/L	120.95 ppb	10:47:16
3	S 181.975 Axial†	473.8	390.5	312.64 µg/L	312.64 ppb	10:47:16
3	Sb 206.836†	84.5	5.1	-0.7509 µg/L	-0.7509 ppb	10:47:16
3	Se 196.026†	-33.0	-54.6	-3.02 µg/L	-3.02 ppb	10:47:16
3	SiO2†	590210.1	599607.7	62501 µg/L	62501 ppb	10:46:56
3	Si 251.611†	1811914.0	1845306.1	29002 µg/L	29002 ppb	10:46:56
3	Sn 189.927†	27.3	30.3	7.1981 µg/L	7.1981 ppb	10:47:16
3	Ti 334.940†	1526540.8	1554485.3	1535.0 µg/L	1535.0 ppb	10:46:56
3	Tl 190.801†	-250.7	-138.7	1.9500 µg/L	1.9500 ppb	10:47:16
3	U 409.014†	-3155.9	-2897.2	-173.36 µg/L	-173.36 ppb	10:46:56
3	V 292.402†	19022.2	19076.8	91.851 µg/L	91.851 ppb	10:46:56
3	Zn 213.857†	58155.5	58665.7	347.91 µg/L	347.91 ppb	10:46:56

Mean Data: 248702001|962595|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1751016.9	97.699	%	0.7968				0.82%
Sc RADIAL	149850.8	99.9	%	0.91				0.91%
Y 371.029	1083743.6	100.48	%	0.812				0.81%
Ag 328.068†	136.8	-0.9021	µg/L	0.50355	-0.9021	ppb	0.50355	55.82%
Al 396.153Radial†	181203.5	35543	µg/L	72.6	35543	ppb	72.6	0.20%
As 188.979†	21.7	19.108	µg/L	2.4985	19.108	ppb	2.4985	13.08%
B 249.677†	817.2	12.812	µg/L	0.9102	12.812	ppb	0.9102	7.10%
Ba 233.527†	108183.6	458.82	µg/L	0.910	458.82	ppb	0.910	0.20%
Be 313.107†	15689.8	4.4619	µg/L	0.02693	4.4619	ppb	0.02693	0.60%
Ca 317.933Radial†	1067697.1	63679	µg/L	819.3	63679	ppb	819.3	1.29%
Cd 226.502†	1061.2	1.5753	µg/L	0.24116	1.5753	ppb	0.24116	15.31%
Co 228.616†	1889.1	22.587	µg/L	0.2319	22.587	ppb	0.2319	1.03%
Cr 267.716†	5388.6	46.208	µg/L	0.4002	46.208	ppb	0.4002	0.87%
Cu 324.752†	28041.1	123.40	µg/L	0.608	123.40	ppb	0.608	0.49%
Fe 238.204 Radial†	794705.6	52603	µg/L	664.3	52603	ppb	664.3	1.26%
K 766.490 Radial†	16208.4	6439.6	µg/L	21.77	6439.6	ppb	21.77	0.34%
Mg 279.077 IEC†	21376.5	8472.8	µg/L	3.01	8472.8	ppb	3.01	0.04%
Mn 257.610†	1208400.0	1586.4	µg/L	2.89	1586.4	ppb	2.89	0.18%
Mo 202.031†	19.1	2.8683	µg/L	0.12652	2.8683	ppb	0.12652	4.41%
Na 589.592 Radial†	6010.7	882.70	µg/L	8.655	882.70	ppb	8.655	0.98%

Ni 231.604†	3058.9	37.577	µg/L	0.5218	37.577	ppb	0.5218	1.39%
P 214.914†	2026.7	438.22	µg/L	4.787	438.22	ppb	4.787	1.09%
Pb 220.353†	1986.5	121.07	µg/L	0.316	121.07	ppb	0.316	0.26%
S 181.975 Axial†	390.4	312.56	µg/L	7.139	312.56	ppb	7.139	2.28%
Sb 206.836†	8.2	-0.3536	µg/L	0.34963	-0.3536	ppb	0.34963	98.89%
Se 196.026†	-47.9	-0.579	µg/L	2.5494	-0.579	ppb	2.5494	440.44%
SiO2†	600501.6	62594	µg/L	179.3	62594	ppb	179.3	0.29%
Si 251.611†	1847021.4	29029	µg/L	68.4	29029	ppb	68.4	0.24%
Sn 189.927†	32.6	7.3577	µg/L	0.29121	7.3577	ppb	0.29121	3.96%
Sr 421.552†	122010.4	268.43	µg/L	0.331	268.43	ppb	0.331	0.12%
Ti 334.940†	1557321.6	1537.7	µg/L	2.67	1537.7	ppb	2.67	0.17%
Tl 190.801†	-144.9	1.1647	µg/L	0.69057	1.1647	ppb	0.69057	59.29%
U 409.014†	-2801.8	-167.32	µg/L	11.114	-167.32	ppb	11.114	6.64%
Concentration less than lower limit for U 409.014.								
V 292.402†	19140.3	92.235	µg/L	0.4987	92.235	ppb	0.4987	0.54%
Zn 213.857†	58811.9	348.84	µg/L	2.112	348.84	ppb	2.112	0.61%

Sequence No.: 19
Sample ID: 1202065093|962595|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 315
Date Collected: 3/31/2010 10:47:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065093|962595|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	151292.6	151292.6	101	%			10:47:55
1	Al 396.153Radial†	315973.1	313404.1	61474	µg/L	61474	ppb	10:47:53
1	Ca 317.933Radial†	439646.8	435336.4	25964	µg/L	25964	ppb	10:47:55
1	Fe 238.204 Radial†	1493480.0	1480850.3	98021	µg/L	98021	ppb	10:47:53
1	K 766.490 Radial†	31739.0	29898.4	11897	µg/L	11897	ppb	10:47:55
1	Mg 279.077 IEC†	36227.8	35752.5	14162	µg/L	14162	ppb	10:47:55
1	Na 589.592 Radial†	12025.4	10806.9	1586.8	µg/L	1586.8	ppb	10:47:55
1	Sr 421.552†	81779.5	81351.0	179.11	µg/L	179.11	ppb	10:47:55
1	Sc 361.383	1768015.2	1768015.2	98.647	%			10:48:22
1	Y 371.029	1119482.3	1119482.3	103.79	%			10:48:22
1	Ag 328.068†	3456.9	-423.8	-1.7023	µg/L	-1.7023	ppb	10:48:22
1	As 188.979†	26.7	40.8	35.759	µg/L	35.759	ppb	10:48:42
1	B 249.677†	4807.4	1470.0	23.047	µg/L	23.047	ppb	10:48:22
1	Ba 233.527†	195667.2	198488.3	841.80	µg/L	841.80	ppb	10:48:22
1	Be 313.107†	26641.2	28023.1	7.9804	µg/L	7.9804	ppb	10:48:22
1	Cd 226.502†	2654.2	2800.4	8.4309	µg/L	8.4309	ppb	10:48:42
1	Co 228.616†	3160.0	3374.9	40.163	µg/L	40.163	ppb	10:48:42
1	Cr 267.716†	10609.9	10574.7	90.678	µg/L	90.678	ppb	10:48:42
1	Cu 324.752†	77386.3	75470.0	325.68	µg/L	325.68	ppb	10:48:22
1	Mn 257.610†	1716866.7	1740214.0	2284.5	µg/L	2284.5	ppb	10:48:22
1	Mo 202.031†	-29.7	6.3	4.3978	µg/L	4.3978	ppb	10:48:42
1	Ni 231.604†	5331.4	5502.1	67.592	µg/L	67.592	ppb	10:48:42
1	P 214.914†	4273.8	4355.7	948.05	µg/L	948.05	ppb	10:48:42
1	Pb 220.353†	3670.4	3658.8	222.37	µg/L	222.37	ppb	10:48:42
1	S 181.975 Axial†	808.3	727.2	582.10	µg/L	582.10	ppb	10:48:42
1	Sb 206.836†	99.6	20.0	-0.0995	µg/L	-0.0995	ppb	10:48:42
1	Se 196.026†	-60.7	-82.5	1.61	µg/L	1.61	ppb	10:48:42
1	SiO2†	692250.2	699960.0	72961	µg/L	72961	ppb	10:48:22
1	Si 251.611†	2118149.8	2146264.1	33732	µg/L	33732	ppb	10:48:22
1	Sn 189.927†	44.5	47.6	12.032	µg/L	12.032	ppb	10:48:42
1	Ti 334.940†	2625074.8	2660097.5	2624.5	µg/L	2624.5	ppb	10:48:22
1	Tl 190.801†	-387.4	-275.9	-2.7093	µg/L	-2.7093	ppb	10:48:42
1	U 409.014†	-4665.1	-4410.6	-269.73	µg/L	-269.73	ppb	10:48:22
1	V 292.402†	35693.0	35876.8	173.23	µg/L	173.23	ppb	10:48:22
1	Zn 213.857†	119099.0	120140.7	714.21	µg/L	714.21	ppb	10:48:22
2	Sc RADIAL	151304.0	151304.0	101	%			10:47:59
2	Al 396.153Radial†	317055.8	314453.9	61680	µg/L	61680	ppb	10:47:57
2	Ca 317.933Radial†	435671.3	431361.4	25727	µg/L	25727	ppb	10:47:59
2	Fe 238.204 Radial†	1503691.3	1490863.4	98683	µg/L	98683	ppb	10:47:57
2	K 766.490 Radial†	31255.2	29416.2	11705	µg/L	11705	ppb	10:47:59
2	Mg 279.077 IEC†	35783.9	35309.7	13985	µg/L	13985	ppb	10:47:59
2	Na 589.592 Radial†	11947.5	10728.8	1575.4	µg/L	1575.4	ppb	10:47:59
2	Sr 421.552†	81062.5	80633.9	177.53	µg/L	177.53	ppb	10:47:59
2	Sc 361.383	1771803.2	1771803.2	98.859	%			10:48:45
2	Y 371.029	1121813.6	1121813.6	104.01	%			10:48:45
2	Ag 328.068†	3704.8	-180.5	-0.7497	µg/L	-0.7497	ppb	10:48:45
2	As 188.979†	20.7	34.7	33.966	µg/L	33.966	ppb	10:49:05
2	B 249.677†	4681.0	1331.7	20.866	µg/L	20.866	ppb	10:48:45
2	Ba 233.527†	197942.3	200365.6	849.77	µg/L	849.77	ppb	10:48:45
2	Be 313.107†	26775.8	28101.5	8.0021	µg/L	8.0021	ppb	10:48:45
2	Cd 226.502†	2654.4	2794.8	8.3234	µg/L	8.3234	ppb	10:49:05
2	Co 228.616†	3137.9	3345.7	39.753	µg/L	39.753	ppb	10:49:05
2	Cr 267.716†	10590.0	10531.5	90.342	µg/L	90.342	ppb	10:49:05
2	Cu 324.752†	78108.0	76032.3	328.08	µg/L	328.08	ppb	10:48:45
2	Mn 257.610†	1737010.3	1756869.3	2306.4	µg/L	2306.4	ppb	10:48:45
2	Mo 202.031†	-25.9	10.2	4.5424	µg/L	4.5424	ppb	10:49:05
2	Ni 231.604†	5294.0	5452.8	66.986	µg/L	66.986	ppb	10:49:05
2	P 214.914†	4242.8	4315.1	938.24	µg/L	938.24	ppb	10:49:05
2	Pb 220.353†	3664.6	3645.0	221.56	µg/L	221.56	ppb	10:49:05

2	S 181.975 Axial†	802.4	719.4	575.90	µg/L	575.90 ppb	10:49:05
2	Sb 206.836†	104.9	25.2	0.5567	µg/L	0.5567 ppb	10:49:05
2	Se 196.026†	-69.9	-91.7	-1.75	µg/L	-1.75 ppb	10:49:05
2	SiO2†	700072.9	706372.7	73629	µg/L	73629 ppb	10:48:45
2	Si 251.611†	2143277.9	2167091.8	34059	µg/L	34059 ppb	10:48:45
2	Sn 189.927†	28.4	31.2	11.013	µg/L	11.013 ppb	10:49:05
2	Ti 334.940†	2652853.7	2682508.0	2646.6	µg/L	2646.6 ppb	10:48:45
2	Tl 190.801†	-367.3	-254.7	0.3494	µg/L	0.3494 ppb	10:49:05
2	U 409.014†	-4723.8	-4459.9	-272.78	µg/L	-272.78 ppb	10:48:45
2	V 292.402†	35888.7	35997.4	173.76	µg/L	173.76 ppb	10:48:45
2	Zn 213.857†	120802.8	121606.0	722.98	µg/L	722.98 ppb	10:48:45
3	Sc RADIAL	151377.8	151377.8	101	%		10:48:03
3	Al 396.153Radial†	314890.0	312154.3	61229	µg/L	61229 ppb	10:48:01
3	Ca 317.933Radial†	434277.5	429769.5	25632	µg/L	25632 ppb	10:48:03
3	Fe 238.204 Radial†	1483628.4	1470252.9	97319	µg/L	97319 ppb	10:48:01
3	K 766.490 Radial†	31331.1	29476.4	11729	µg/L	11729 ppb	10:48:03
3	Mg 279.077 IEC†	35698.9	35208.1	13946	µg/L	13946 ppb	10:48:03
3	Na 589.592 Radial†	12108.7	10882.7	1598.1	µg/L	1598.1 ppb	10:48:03
3	Sr 421.552†	80817.7	80352.2	176.91	µg/L	176.91 ppb	10:48:03
3	Sc 361.383	1768092.3	1768092.3	98.652	%		10:49:08
3	Y 371.029	1119924.8	1119924.8	103.83	%		10:49:08
3	Ag 328.068†	3951.6	77.5	0.2852	µg/L	0.2852 ppb	10:49:08
3	As 188.979†	18.7	32.8	33.059	µg/L	33.059 ppb	10:49:28
3	B 249.677†	4690.2	1351.0	21.170	µg/L	21.170 ppb	10:49:08
3	Ba 233.527†	196784.7	199612.5	846.59	µg/L	846.59 ppb	10:49:08
3	Be 313.107†	26612.7	27993.0	7.9718	µg/L	7.9718 ppb	10:49:08
3	Cd 226.502†	2642.4	2788.3	8.4232	µg/L	8.4232 ppb	10:49:28
3	Co 228.616†	3153.1	3367.8	40.111	µg/L	40.111 ppb	10:49:28
3	Cr 267.716†	10570.7	10534.4	90.320	µg/L	90.320 ppb	10:49:28
3	Cu 324.752†	78065.5	76155.0	328.39	µg/L	328.39 ppb	10:49:08
3	Mn 257.610†	1726283.3	1749683.4	2297.0	µg/L	2297.0 ppb	10:49:08
3	Mo 202.031†	-29.0	7.1	4.3894	µg/L	4.3894 ppb	10:49:28
3	Ni 231.604†	5257.0	5426.5	66.662	µg/L	66.662 ppb	10:49:28
3	P 214.914†	4265.1	4346.7	946.36	µg/L	946.36 ppb	10:49:28
3	Pb 220.353†	3664.5	3652.7	222.03	µg/L	222.03 ppb	10:49:28
3	S 181.975 Axial†	802.2	721.0	577.15	µg/L	577.15 ppb	10:49:28
3	Sb 206.836†	112.7	33.3	1.6106	µg/L	1.6106 ppb	10:49:28
3	Se 196.026†	-74.0	-96.0	-3.90	µg/L	-3.90 ppb	10:49:28
3	SiO2†	695511.7	703235.4	73302	µg/L	73302 ppb	10:49:08
3	Si 251.611†	2130593.3	2158784.0	33928	µg/L	33928 ppb	10:49:08
3	Sn 189.927†	39.2	42.2	11.728	µg/L	11.728 ppb	10:49:28
3	Ti 334.940†	2642057.6	2677196.3	2641.4	µg/L	2641.4 ppb	10:49:08
3	Tl 190.801†	-372.2	-260.5	-0.4775	µg/L	-0.4775 ppb	10:49:28
3	U 409.014†	-4662.1	-4407.3	-269.23	µg/L	-269.23 ppb	10:49:08
3	V 292.402†	35908.3	36093.4	174.41	µg/L	174.41 ppb	10:49:08
3	Zn 213.857†	119899.0	120946.3	719.15	µg/L	719.15 ppb	10:49:08

Mean Data: 1202065093|962595|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769303.6	98.719	%	0.1208				0.12%
Sc RADIAL	151324.8	101	%	0.0				0.03%
Y 371.029	1120406.9	103.88	%	0.115				0.11%
Ag 328.068†	-175.6	-0.7223	µg/L	0.99399	-0.7223	ppb	0.99399	137.62%
Al 396.153Radial†	313337.4	61461	µg/L	225.8	61461	ppb	225.8	0.37%
As 188.979†	36.1	34.261	µg/L	1.3743	34.261	ppb	1.3743	4.01%
B 249.677†	1384.2	21.694	µg/L	1.1815	21.694	ppb	1.1815	5.45%
Ba 233.527†	199488.8	846.05	µg/L	4.009	846.05	ppb	4.009	0.47%
Be 313.107†	28039.2	7.9848	µg/L	0.01558	7.9848	ppb	0.01558	0.20%
Ca 317.933Radial†	432155.8	25774	µg/L	171.0	25774	ppb	171.0	0.66%
Cd 226.502†	2794.5	8.3925	µg/L	0.05995	8.3925	ppb	0.05995	0.71%
Co 228.616†	3362.8	40.009	µg/L	0.2234	40.009	ppb	0.2234	0.56%
Cr 267.716†	10546.9	90.447	µg/L	0.2006	90.447	ppb	0.2006	0.22%
Cu 324.752†	75885.7	327.38	µg/L	1.487	327.38	ppb	1.487	0.45%
Fe 238.204 Radial†	1480655.5	98008	µg/L	682.2	98008	ppb	682.2	0.70%
K 766.490 Radial†	29597.0	11777	µg/L	104.7	11777	ppb	104.7	0.89%
Mg 279.077 IEC†	35423.4	14031	µg/L	115.2	14031	ppb	115.2	0.82%
Mn 257.610†	1748922.2	2295.9	µg/L	10.97	2295.9	ppb	10.97	0.48%
Mo 202.031†	7.9	4.4432	µg/L	0.08604	4.4432	ppb	0.08604	1.94%
Na 589.592 Radial†	10806.1	1586.8	µg/L	11.37	1586.8	ppb	11.37	0.72%

Ni 231.604†	5460.4	67.080	µg/L	0.4719	67.080	ppb	0.4719	0.70%
P 214.914†	4339.2	944.22	µg/L	5.243	944.22	ppb	5.243	0.56%
Pb 220.353†	3652.1	221.99	µg/L	0.403	221.99	ppb	0.403	0.18%
S 181.975 Axial†	722.5	578.38	µg/L	3.278	578.38	ppb	3.278	0.57%
Sb 206.836†	26.2	0.6893	µg/L	0.86275	0.6893	ppb	0.86275	125.17%
Se 196.026†	-90.0	-1.35	µg/L	2.777	-1.35	ppb	2.777	205.75%
SiO2†	703189.4	73297	µg/L	334.3	73297	ppb	334.3	0.46%
Si 251.611†	2157380.0	33906	µg/L	164.8	33906	ppb	164.8	0.49%
Sn 189.927†	40.3	11.591	µg/L	0.5232	11.591	ppb	0.5232	4.51%
Sr 421.552†	80779.0	177.85	µg/L	1.134	177.85	ppb	1.134	0.64%
Ti 334.940†	2673267.2	2637.5	µg/L	11.56	2637.5	ppb	11.56	0.44%
Tl 190.801†	-263.7	-0.9458	µg/L	1.58222	-0.9458	ppb	1.58222	167.28%
U 409.014†	-4425.9	-270.58	µg/L	1.918	-270.58	ppb	1.918	0.71%
Concentration less than lower limit for U 409.014.								
V 292.402†	35989.2	173.80	µg/L	0.591	173.80	ppb	0.591	0.34%
Zn 213.857†	120897.7	718.78	µg/L	4.396	718.78	ppb	4.396	0.61%

Sequence No.: 20
Sample ID: 1202065094|962595|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 316
Date Collected: 3/31/2010 10:49:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065094|962595|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	151812.8	151812.8	101	%			10:50:09
1	Al 396.153Radial†	578003.9	571278.9	112030	µg/L	112030	ppb	10:50:06
1	Ca 317.933Radial†	489423.6	483033.7	28809	µg/L	28809	ppb	10:50:09
1	Fe 238.204 Radial†	1734936.3	1714391.2	113480	µg/L	113480	ppb	10:50:06
1	K 766.490 Radial†	52093.2	49905.2	19858	µg/L	19858	ppb	10:50:09
1	Mg 279.077 IEC†	58860.9	57996.3	23024	µg/L	23024	ppb	10:50:09
1	Na 589.592 Radial†	47190.9	45517.9	6710.3	µg/L	6710.3	ppb	10:50:09
1	Sr 421.552†	309849.1	306460.0	675.25	µg/L	675.25	ppb	10:50:06
1	Sc 361.383	1744493.6	1744493.6	97.335	%			10:50:23
1	Y 371.029	1092193.6	1092193.6	101.26	%			10:50:23
1	Ag 328.068†	123226.7	122672.4	487.07	µg/L	487.07	ppb	10:50:23
1	As 188.979†	1517.7	1573.0	530.67	µg/L	530.67	ppb	10:50:25
1	B 249.677†	34587.7	32131.3	505.31	µg/L	505.31	ppb	10:50:23
1	Ba 233.527†	326874.6	335962.5	1425.9	µg/L	1425.9	ppb	10:50:23
1	Be 313.107†	1706742.2	1754488.5	504.90	µg/L	504.90	ppb	10:50:23
1	Cd 226.502†	72193.7	74280.0	484.52	µg/L	484.52	ppb	10:50:23
1	Co 228.616†	39270.0	40516.8	529.00	µg/L	529.00	ppb	10:50:25
1	Cr 267.716†	68656.9	70356.0	586.70	µg/L	586.70	ppb	10:50:23
1	Cu 324.752†	471392.1	481321.2	2002.5	µg/L	2002.5	ppb	10:50:23
1	Mn 257.610†	2246217.4	2307524.5	3029.1	µg/L	3029.1	ppb	10:50:23
1	Mo 202.031†	14777.5	15218.5	481.94	µg/L	481.94	ppb	10:50:25
1	Ni 231.604†	45531.3	46875.5	575.85	µg/L	575.85	ppb	10:50:25
1	P 214.914†	6351.2	6548.4	1436.4	µg/L	1436.4	ppb	10:50:25
1	Pb 220.353†	11051.4	11292.1	682.36	µg/L	682.36	ppb	10:50:25
1	S 181.975 Axial†	6875.4	6971.4	5584.8	µg/L	5584.8	ppb	10:50:25
1	Sb 206.836†	2928.3	2927.5	370.86	µg/L	370.86	ppb	10:50:25
1	Se 196.026†	1130.9	1140.9	484	µg/L	484	ppb	10:50:25
1	SiO2†	771139.2	790470.7	82373	µg/L	82373	ppb	10:50:23
1	Si 251.611†	2373065.5	2437110.6	38292	µg/L	38292	ppb	10:50:23
1	Sn 189.927†	8970.1	9218.2	629.45	µg/L	629.45	ppb	10:50:25
1	Ti 334.940†	3998406.9	4106910.7	4051.2	µg/L	4051.2	ppb	10:50:23
1	Tl 190.801†	3132.5	3335.0	487.52	µg/L	487.52	ppb	10:50:25
1	U 409.014†	3307.1	3716.1	265.55	µg/L	265.55	ppb	10:50:23
1	V 292.402†	131953.3	135260.4	692.39	µg/L	692.39	ppb	10:50:23
1	Zn 213.857†	187691.5	192239.1	1143.4	µg/L	1143.4	ppb	10:50:23
2	Sc RADIAL	150520.7	150520.7	100	%			10:50:13
2	Al 396.153Radial†	573512.1	571705.1	112120	µg/L	112120	ppb	10:50:11
2	Ca 317.933Radial†	486439.3	484211.0	28879	µg/L	28879	ppb	10:50:13
2	Fe 238.204 Radial†	1715056.7	1709294.4	113140	µg/L	113140	ppb	10:50:11
2	K 766.490 Radial†	51659.8	49915.2	19862	µg/L	19862	ppb	10:50:13
2	Mg 279.077 IEC†	58398.5	58034.7	23040	µg/L	23040	ppb	10:50:13
2	Na 589.592 Radial†	46999.8	45727.7	6741.3	µg/L	6741.3	ppb	10:50:13
2	Sr 421.552†	307406.3	306653.7	675.68	µg/L	675.68	ppb	10:50:11
2	Sc 361.383	1750467.4	1750467.4	97.668	%			10:50:28
2	Y 371.029	1095663.9	1095663.9	101.58	%			10:50:28
2	Ag 328.068†	123426.9	122445.4	486.14	µg/L	486.14	ppb	10:50:28
2	As 188.979†	1511.4	1561.3	526.87	µg/L	526.87	ppb	10:50:31
2	B 249.677†	34782.2	32209.2	506.55	µg/L	506.55	ppb	10:50:28
2	Ba 233.527†	327272.5	335223.8	1422.8	µg/L	1422.8	ppb	10:50:28
2	Be 313.107†	1708413.8	1750215.8	503.66	µg/L	503.66	ppb	10:50:28
2	Cd 226.502†	72470.4	74310.3	484.76	µg/L	484.76	ppb	10:50:28
2	Co 228.616†	39082.9	40187.5	524.68	µg/L	524.68	ppb	10:50:31
2	Cr 267.716†	68918.2	70382.8	586.92	µg/L	586.92	ppb	10:50:28
2	Cu 324.752†	471996.4	480287.1	1998.2	µg/L	1998.2	ppb	10:50:28
2	Mn 257.610†	2251746.6	2305310.1	3026.2	µg/L	3026.2	ppb	10:50:28
2	Mo 202.031†	14717.7	15105.5	478.39	µg/L	478.39	ppb	10:50:31
2	Ni 231.604†	45290.0	46468.8	570.86	µg/L	570.86	ppb	10:50:31
2	P 214.914†	6270.0	6443.0	1412.4	µg/L	1412.4	ppb	10:50:31
2	Pb 220.353†	11052.2	11254.2	680.11	µg/L	680.11	ppb	10:50:31

2	S 181.975 Axial†	6861.5	6933.1	5554.0	µg/L	5554.0 ppb	10:50:31
2	Sb 206.836†	2848.0	2835.0	359.01	µg/L	359.01 ppb	10:50:31
2	Se 196.026†	1145.8	1152.3	488	µg/L	488 ppb	10:50:31
2	SiO2†	772399.9	789057.8	82226	µg/L	82226 ppb	10:50:28
2	Si 251.611†	2376530.5	2432338.0	38217	µg/L	38217 ppb	10:50:28
2	Sn 189.927†	8885.4	9100.0	621.52	µg/L	621.52 ppb	10:50:31
2	Ti 334.940†	4001422.8	4095979.6	4040.4	µg/L	4040.4 ppb	10:50:28
2	Tl 190.801†	3153.8	3345.8	488.82	µg/L	488.82 ppb	10:50:31
2	U 409.014†	3052.6	3444.0	248.58	µg/L	248.58 ppb	10:50:28
2	V 292.402†	132003.4	134849.1	690.25	µg/L	690.25 ppb	10:50:28
2	Zn 213.857†	188135.2	192035.3	1142.2	µg/L	1142.2 ppb	10:50:28
3	Sc RADIAL	150204.2	150204.2	100	%		10:50:17
3	Al 396.153Radial†	575698.4	575093.6	112780	µg/L	112780 ppb	10:50:15
3	Ca 317.933Radial†	485818.4	484612.6	28903	µg/L	28903 ppb	10:50:17
3	Fe 238.204 Radial†	1714935.3	1712775.9	113370	µg/L	113370 ppb	10:50:15
3	K 766.490 Radial†	51487.1	49851.2	19836	µg/L	19836 ppb	10:50:17
3	Mg 279.077 IEC†	58415.3	58174.2	23095	µg/L	23095 ppb	10:50:17
3	Na 589.592 Radial†	47085.0	45911.6	6768.5	µg/L	6768.5 ppb	10:50:17
3	Sr 421.552†	308298.0	308190.1	679.07	µg/L	679.07 ppb	10:50:15
3	Sc 361.383	1739619.8	1739619.8	97.063	%		10:50:34
3	Y 371.029	1089305.2	1089305.2	101.00	%		10:50:34
3	Ag 328.068†	122685.9	122470.0	486.26	µg/L	486.26 ppb	10:50:34
3	As 188.979†	1448.8	1506.4	509.49	µg/L	509.49 ppb	10:50:36
3	B 249.677†	34393.7	32031.0	503.77	µg/L	503.77 ppb	10:50:34
3	Ba 233.527†	324645.4	334606.7	1420.1	µg/L	1420.1 ppb	10:50:34
3	Be 313.107†	1694470.1	1746757.6	502.68	µg/L	502.68 ppb	10:50:34
3	Cd 226.502†	71664.1	73942.2	482.27	µg/L	482.27 ppb	10:50:34
3	Co 228.616†	38309.8	39640.6	517.47	µg/L	517.47 ppb	10:50:36
3	Cr 267.716†	68176.7	70058.8	584.21	µg/L	584.21 ppb	10:50:34
3	Cu 324.752†	469125.5	480342.7	1998.4	µg/L	1998.4 ppb	10:50:34
3	Mn 257.610†	2233269.2	2300649.9	3020.1	µg/L	3020.1 ppb	10:50:34
3	Mo 202.031†	14324.8	14794.7	468.66	µg/L	468.66 ppb	10:50:36
3	Ni 231.604†	44286.0	45723.6	561.70	µg/L	561.70 ppb	10:50:36
3	P 214.914†	6090.9	6298.5	1379.1	µg/L	1379.1 ppb	10:50:36
3	Pb 220.353†	10777.6	11041.8	667.43	µg/L	667.43 ppb	10:50:36
3	S 181.975 Axial†	6683.5	6793.5	5442.2	µg/L	5442.2 ppb	10:50:36
3	Sb 206.836†	2742.0	2744.0	347.30	µg/L	347.30 ppb	10:50:36
3	Se 196.026†	1100.7	1113.1	473	µg/L	473 ppb	10:50:36
3	SiO2†	766505.4	787916.3	82107	µg/L	82107 ppb	10:50:34
3	Si 251.611†	2359337.3	2429797.4	38178	µg/L	38178 ppb	10:50:34
3	Sn 189.927†	8669.2	8934.0	610.43	µg/L	610.43 ppb	10:50:36
3	Ti 334.940†	3975878.7	4095209.6	4039.6	µg/L	4039.6 ppb	10:50:34
3	Tl 190.801†	3152.1	3364.3	491.25	µg/L	491.25 ppb	10:50:36
3	U 409.014†	3552.3	3978.2	281.62	µg/L	281.62 ppb	10:50:34
3	V 292.402†	130980.2	134637.7	689.04	µg/L	689.04 ppb	10:50:34
3	Zn 213.857†	186425.3	191474.8	1138.9	µg/L	1138.9 ppb	10:50:34

Mean Data: 1202065094|962595|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1744860.3	97.355	%	0.3031				0.31%
Sc RADIAL	150845.9	101	%	0.6				0.56%
Y 371.029	1092387.5	101.28	%	0.295				0.29%
Ag 328.068†	122529.3	486.49	µg/L	0.508	486.49	ppb	0.508	0.10%
Al 396.153Radial†	572692.6	112310	µg/L	410.3	112310	ppb	410.3	0.37%
As 188.979†	1546.9	522.34	µg/L	11.293	522.34	ppb	11.293	2.16%
B 249.677†	32123.8	505.21	µg/L	1.396	505.21	ppb	1.396	0.28%
Ba 233.527†	335264.4	1422.9	µg/L	2.89	1422.9	ppb	2.89	0.20%
Be 313.107†	1750487.3	503.75	µg/L	1.112	503.75	ppb	1.112	0.22%
Ca 317.933Radial†	483952.4	28864	µg/L	48.9	28864	ppb	48.9	0.17%
Cd 226.502†	74177.5	483.85	µg/L	1.373	483.85	ppb	1.373	0.28%
Co 228.616†	40115.0	523.72	µg/L	5.828	523.72	ppb	5.828	1.11%
Cr 267.716†	70265.9	585.94	µg/L	1.501	585.94	ppb	1.501	0.26%
Cu 324.752†	480650.3	1999.7	µg/L	2.42	1999.7	ppb	2.42	0.12%
Fe 238.204 Radial†	1712153.8	113330	µg/L	172.4	113330	ppb	172.4	0.15%
K 766.490 Radial†	49890.6	19852	µg/L	13.8	19852	ppb	13.8	0.07%
Mg 279.077 IEC†	58068.4	23053	µg/L	37.1	23053	ppb	37.1	0.16%
Mn 257.610†	2304494.8	3025.2	µg/L	4.61	3025.2	ppb	4.61	0.15%
Mo 202.031†	15039.6	476.33	µg/L	6.875	476.33	ppb	6.875	1.44%
Na 589.592 Radial†	45719.1	6740.1	µg/L	29.13	6740.1	ppb	29.13	0.43%

Ni 231.604†	46356.0	569.47	µg/L	7.176	569.47	ppb	7.176	1.26%
P 214.914†	6430.0	1409.3	µg/L	28.80	1409.3	ppb	28.80	2.04%
Pb 220.353†	11196.0	676.63	µg/L	8.052	676.63	ppb	8.052	1.19%
S 181.975 Axial†	6899.3	5527.0	µg/L	75.04	5527.0	ppb	75.04	1.36%
Sb 206.836†	2835.5	359.05	µg/L	11.782	359.05	ppb	11.782	3.28%
Se 196.026†	1135.4	482	µg/L	7.8	482	ppb	7.8	1.62%
SiO2†	789148.2	82235	µg/L	133.1	82235	ppb	133.1	0.16%
Si 251.611†	2433082.0	38229	µg/L	58.2	38229	ppb	58.2	0.15%
Sn 189.927†	9084.1	620.47	µg/L	9.556	620.47	ppb	9.556	1.54%
Sr 421.552†	307101.3	676.67	µg/L	2.089	676.67	ppb	2.089	0.31%
Ti 334.940†	4099366.7	4043.7	µg/L	6.46	4043.7	ppb	6.46	0.16%
Tl 190.801†	3348.4	489.20	µg/L	1.890	489.20	ppb	1.890	0.39%
U 409.014†	3712.8	265.25	µg/L	16.520	265.25	ppb	16.520	6.23%
V 292.402†	134915.7	690.56	µg/L	1.691	690.56	ppb	1.691	0.24%
Zn 213.857†	191916.4	1141.5	µg/L	2.33	1141.5	ppb	2.33	0.20%

Sequence No.: 21
Sample ID: 1202065096|962595|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 317
Date Collected: 3/31/2010 10:50:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065096|962595|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	151643.2	151643.2	101	%			10:51:16
1	Al 396.153Radial†	743898.5	736044.5	144350	µg/L	144350	ppb	10:51:14
1	Ca 317.933Radial†	522549.4	516347.5	30796	µg/L	30796	ppb	10:51:16
1	Fe 238.204 Radial†	2206322.8	2182671.9	144480	µg/L	144480	ppb	10:51:14
1	K 766.490 Radial†	66355.6	64073.3	25497	µg/L	25497	ppb	10:51:16
1	Mg 279.077 IEC†	76224.0	75239.5	29868	µg/L	29868	ppb	10:51:16
1	Na 589.592 Radial†	46682.7	45067.3	6638.7	µg/L	6638.7	ppb	10:51:16
1	Sr 421.552†	334893.2	331579.7	730.61	µg/L	730.61	ppb	10:51:14
1	Sc 361.383	1752895.9	1752895.9	97.804	%			10:51:30
1	Y 371.029	1107496.3	1107496.3	102.68	%			10:51:30
1	Ag 328.068†	123986.6	122842.5	487.99	µg/L	487.99	ppb	10:51:30
1	As 188.979†	1513.2	1560.9	534.01	µg/L	534.01	ppb	10:51:32
1	B 249.677†	34272.4	31638.6	497.55	µg/L	497.55	ppb	10:51:30
1	Ba 233.527†	366154.8	374515.0	1589.3	µg/L	1589.3	ppb	10:51:30
1	Be 313.107†	1715590.7	1755130.5	505.06	µg/L	505.06	ppb	10:51:30
1	Cd 226.502†	72490.4	74227.9	480.91	µg/L	480.91	ppb	10:51:30
1	Co 228.616†	39142.3	40192.9	523.29	µg/L	523.29	ppb	10:51:32
1	Cr 267.716†	72278.5	73720.8	615.64	µg/L	615.64	ppb	10:51:30
1	Cu 324.752†	172131.2	173018.9	735.78	µg/L	735.78	ppb	10:51:30
1	Mn 257.610†	2351061.4	2403660.9	3155.0	µg/L	3155.0	ppb	10:51:30
1	Mo 202.031†	14300.2	14657.7	465.74	µg/L	465.74	ppb	10:51:32
1	Ni 231.604†	45457.8	46576.1	572.17	µg/L	572.17	ppb	10:51:32
1	P 214.914†	6435.1	6602.9	1448.0	µg/L	1448.0	ppb	10:51:32
1	Pb 220.353†	10902.2	11085.1	671.52	µg/L	671.52	ppb	10:51:32
1	S 181.975 Axial†	6963.0	7027.2	5629.2	µg/L	5629.2	ppb	10:51:32
1	Sb 206.836†	2496.5	2471.6	311.36	µg/L	311.36	ppb	10:51:32
1	Se 196.026†	1019.4	1021.3	448	µg/L	448	ppb	10:51:32
1	SiO2†	816454.4	833005.9	86809	µg/L	86809	ppb	10:51:30
1	Si 251.611†	2511813.5	2567287.7	40339	µg/L	40339	ppb	10:51:30
1	Sn 189.927†	6995.0	7154.6	491.80	µg/L	491.80	ppb	10:51:32
1	Ti 334.940†	4077015.1	4167593.4	4110.5	µg/L	4110.5	ppb	10:51:30
1	Tl 190.801†	3126.1	3313.1	485.98	µg/L	485.98	ppb	10:51:32
1	U 409.014†	2290.5	2660.4	196.76	µg/L	196.76	ppb	10:51:30
1	V 292.402†	142335.1	145225.6	740.56	µg/L	740.56	ppb	10:51:30
1	Zn 213.857†	182250.1	185751.2	1102.7	µg/L	1102.7	ppb	10:51:30
2	Sc RADIAL	149857.6	149857.6	99.9	%			10:51:20
2	Al 396.153Radial†	740071.0	740982.0	145320	µg/L	145320	ppb	10:51:18
2	Ca 317.933Radial†	510885.7	510830.5	30467	µg/L	30467	ppb	10:51:20
2	Fe 238.204 Radial†	2190511.7	2192851.8	145150	µg/L	145150	ppb	10:51:18
2	K 766.490 Radial†	65018.3	63516.6	25275	µg/L	25275	ppb	10:51:20
2	Mg 279.077 IEC†	74211.0	74122.8	29422	µg/L	29422	ppb	10:51:20
2	Na 589.592 Radial†	45755.4	44689.3	6583.0	µg/L	6583.0	ppb	10:51:20
2	Sr 421.552†	333136.2	333768.6	735.43	µg/L	735.43	ppb	10:51:18
2	Sc 361.383	1740189.5	1740189.5	97.095	%			10:51:36
2	Y 371.029	1100601.8	1100601.8	102.04	%			10:51:36
2	Ag 328.068†	123428.6	123193.5	489.38	µg/L	489.38	ppb	10:51:36
2	As 188.979†	1534.7	1594.4	544.78	µg/L	544.78	ppb	10:51:38
2	B 249.677†	34448.6	32076.0	504.45	µg/L	504.45	ppb	10:51:36
2	Ba 233.527†	365189.2	376254.1	1596.6	µg/L	1596.6	ppb	10:51:36
2	Be 313.107†	1707026.2	1759117.8	506.21	µg/L	506.21	ppb	10:51:36
2	Cd 226.502†	71862.0	74121.9	480.13	µg/L	480.13	ppb	10:51:36
2	Co 228.616†	38907.3	40243.0	523.92	µg/L	523.92	ppb	10:51:38
2	Cr 267.716†	71892.9	73863.3	616.85	µg/L	616.85	ppb	10:51:36
2	Cu 324.752†	171152.3	173295.8	737.02	µg/L	737.02	ppb	10:51:36
2	Mn 257.610†	2337281.3	2407020.9	3159.5	µg/L	3159.5	ppb	10:51:36
2	Mo 202.031†	14247.6	14710.3	467.41	µg/L	467.41	ppb	10:51:38
2	Ni 231.604†	45317.9	46771.4	574.57	µg/L	574.57	ppb	10:51:38
2	P 214.914†	6419.9	6635.3	1455.1	µg/L	1455.1	ppb	10:51:38
2	Pb 220.353†	10790.1	11051.1	669.54	µg/L	669.54	ppb	10:51:38

2	S 181.975 Axial†	6910.7	7025.2	5627.7 µg/L	5627.7 ppb	10:51:38
2	Sb 206.836†	2563.7	2559.4	322.53 µg/L	322.53 ppb	10:51:38
2	Se 196.026†	1093.7	1105.5	481 µg/L	481 ppb	10:51:38
2	SiO2†	811647.3	834150.4	86928 µg/L	86928 ppb	10:51:36
2	Si 251.611†	2497672.5	2571476.1	40405 µg/L	40405 ppb	10:51:36
2	Sn 189.927†	6920.8	7130.4	490.21 µg/L	490.21 ppb	10:51:38
2	Ti 334.940†	4055851.5	4176234.3	4119.1 µg/L	4119.1 ppb	10:51:36
2	Tl 190.801†	3127.7	3338.1	489.34 µg/L	489.34 ppb	10:51:38
2	U 409.014†	2392.7	2782.8	204.23 µg/L	204.23 ppb	10:51:36
2	V 292.402†	141311.1	145233.5	740.55 µg/L	740.55 ppb	10:51:36
2	Zn 213.857†	181300.0	186133.3	1104.9 µg/L	1104.9 ppb	10:51:36
3	Sc RADIAL	153321.1	153321.1	102 %		10:51:25
3	Al 396.153Radial†	738426.3	722635.3	141720 µg/L	141720 ppb	10:51:23
3	Ca 317.933Radial†	523889.7	512001.0	30536 µg/L	30536 ppb	10:51:25
3	Fe 238.204 Radial†	2182780.0	2135745.9	141370 µg/L	141370 ppb	10:51:23
3	K 766.490 Radial†	66914.1	63901.3	25429 µg/L	25429 ppb	10:51:25
3	Mg 279.077 IEC†	76301.9	74490.3	29572 µg/L	29572 ppb	10:51:25
3	Na 589.592 Radial†	47201.1	45069.1	6639.0 µg/L	6639.0 ppb	10:51:25
3	Sr 421.552†	331948.9	325072.6	716.26 µg/L	716.26 ppb	10:51:23
3	Sc 361.383	1761450.5	1761450.5	98.281 %		10:51:42
3	Y 371.029	1113944.0	1113944.0	103.28 %		10:51:42
3	Ag 328.068†	124787.2	123041.5	488.83 µg/L	488.83 ppb	10:51:42
3	As 188.979†	1501.3	1541.4	527.12 µg/L	527.12 ppb	10:51:44
3	B 249.677†	34755.4	31959.9	502.63 µg/L	502.63 ppb	10:51:42
3	Ba 233.527†	369447.6	376047.2	1595.8 µg/L	1595.8 ppb	10:51:42
3	Be 313.107†	1731753.8	1763057.3	507.35 µg/L	507.35 ppb	10:51:42
3	Cd 226.502†	72899.6	74284.3	481.61 µg/L	481.61 ppb	10:51:42
3	Co 228.616†	39175.5	40032.2	521.34 µg/L	521.34 ppb	10:51:44
3	Cr 267.716†	72847.7	73941.0	617.36 µg/L	617.36 ppb	10:51:42
3	Cu 324.752†	173362.8	173417.4	736.97 µg/L	736.97 ppb	10:51:42
3	Mn 257.610†	2367892.0	2409111.4	3162.2 µg/L	3162.2 ppb	10:51:42
3	Mo 202.031†	14313.0	14599.7	463.80 µg/L	463.80 ppb	10:51:44
3	Ni 231.604†	45425.2	46317.2	568.99 µg/L	568.99 ppb	10:51:44
3	P 214.914†	6305.4	6439.0	1411.6 µg/L	1411.6 ppb	10:51:44
3	Pb 220.353†	10842.2	10969.9	664.59 µg/L	664.59 ppb	10:51:44
3	S 181.975 Axial†	7004.2	7034.5	5635.1 µg/L	5635.1 ppb	10:51:44
3	Sb 206.836†	2459.1	2421.2	304.93 µg/L	304.93 ppb	10:51:44
3	Se 196.026†	1095.6	1093.9	475 µg/L	475 ppb	10:51:44
3	SiO2†	822451.6	835053.8	87023 µg/L	87023 ppb	10:51:42
3	Si 251.611†	2532176.3	2575533.9	40469 µg/L	40469 ppb	10:51:42
3	Sn 189.927†	6934.8	7058.5	485.41 µg/L	485.41 ppb	10:51:44
3	Ti 334.940†	4105879.4	4176717.5	4119.6 µg/L	4119.6 ppb	10:51:42
3	Tl 190.801†	3111.7	3282.9	482.16 µg/L	482.16 ppb	10:51:44
3	U 409.014†	2436.0	2797.1	206.10 µg/L	206.10 ppb	10:51:42
3	V 292.402†	143377.4	145579.3	742.71 µg/L	742.71 ppb	10:51:42
3	Zn 213.857†	183648.8	186269.3	1106.1 µg/L	1106.1 ppb	10:51:42

Mean Data: 1202065096|962595|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1751512.0	97.727	%	0.5969				0.61%
Sc RADIAL	151607.3	101	%	1.2				1.14%
Y 371.029	1107347.4	102.67	%	0.619				0.60%
Ag 328.068†	123025.9	488.73	µg/L	0.699	488.73	ppb	0.699	0.14%
Al 396.153Radial†	733220.6	143800	µg/L	1862.1	143800	ppb	1862.1	1.29%
As 188.979†	1565.6	535.30	µg/L	8.902	535.30	ppb	8.902	1.66%
B 249.677†	31891.5	501.54	µg/L	3.577	501.54	ppb	3.577	0.71%
Ba 233.527†	375605.4	1593.9	µg/L	4.04	1593.9	ppb	4.04	0.25%
Be 313.107†	1759101.9	506.21	µg/L	1.142	506.21	ppb	1.142	0.23%
Ca 317.933Radial†	513059.7	30600	µg/L	173.4	30600	ppb	173.4	0.57%
Cd 226.502†	74211.4	480.89	µg/L	0.740	480.89	ppb	0.740	0.15%
Co 228.616†	40156.0	522.85	µg/L	1.344	522.85	ppb	1.344	0.26%
Cr 267.716†	73841.7	616.62	µg/L	0.881	616.62	ppb	0.881	0.14%
Cu 324.752†	173244.0	736.59	µg/L	0.700	736.59	ppb	0.700	0.10%
Fe 238.204 Radial†	2170423.2	143660	µg/L	2016.2	143660	ppb	2016.2	1.40%
K 766.490 Radial†	63830.4	25400	µg/L	113.7	25400	ppb	113.7	0.45%
Mg 279.077 IEC†	74617.5	29621	µg/L	226.7	29621	ppb	226.7	0.77%
Mn 257.610†	2406597.7	3158.9	µg/L	3.62	3158.9	ppb	3.62	0.11%
Mo 202.031†	14655.9	465.65	µg/L	1.807	465.65	ppb	1.807	0.39%
Na 589.592 Radial†	44941.9	6620.2	µg/L	32.24	6620.2	ppb	32.24	0.49%

Ni 231.604†	46554.9	571.91 µg/L	2.799	571.91 ppb	2.799	0.49%
P 214.914†	6559.1	1438.2 µg/L	23.32	1438.2 ppb	23.32	1.62%
Pb 220.353†	11035.4	668.55 µg/L	3.570	668.55 ppb	3.570	0.53%
S 181.975 Axial†	7028.9	5630.6 µg/L	3.89	5630.6 ppb	3.89	0.07%
Sb 206.836†	2484.1	312.94 µg/L	8.905	312.94 ppb	8.905	2.85%
Se 196.026†	1073.6	468 µg/L	17.6	468 ppb	17.6	3.77%
SiO2†	834070.0	86920 µg/L	107.0	86920 ppb	107.0	0.12%
Si 251.611†	2571432.6	40404 µg/L	64.8	40404 ppb	64.8	0.16%
Sn 189.927†	7114.5	489.14 µg/L	3.325	489.14 ppb	3.325	0.68%
Sr 421.552†	330140.3	727.43 µg/L	9.970	727.43 ppb	9.970	1.37%
Ti 334.940†	4173515.1	4116.4 µg/L	5.08	4116.4 ppb	5.08	0.12%
Tl 190.801†	3311.3	485.82 µg/L	3.595	485.82 ppb	3.595	0.74%
U 409.014†	2746.7	202.36 µg/L	4.939	202.36 ppb	4.939	2.44%
V 292.402†	145346.1	741.28 µg/L	1.242	741.28 ppb	1.242	0.17%
Zn 213.857†	186051.3	1104.5 µg/L	1.74	1104.5 ppb	1.74	0.16%

Sequence No.: 22
Sample ID: 1202065095|962595|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 318
Date Collected: 3/31/2010 10:51:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065095|962595|5

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	149190.7	149190.7	99.4	%			10:52:22
1	Al 396.153Radial†	37662.3	37947.3	7443.3	µg/L	7443.3	ppb	10:52:24
1	Ca 317.933Radial†	218618.8	219211.3	13074	µg/L	13074	ppb	10:52:22
1	Fe 238.204 Radial†	163515.4	164294.5	10875	µg/L	10875	ppb	10:52:22
1	K 766.490 Radial†	5008.1	3461.0	1375.2	µg/L	1375.2	ppb	10:52:24
1	Mg 279.077 IEC†	4596.2	4449.8	1763.8	µg/L	1763.8	ppb	10:52:24
1	Na 589.592 Radial†	2306.4	1201.5	176.36	µg/L	176.36	ppb	10:52:24
1	Sr 421.552†	24797.1	25191.7	55.424	µg/L	55.424	ppb	10:52:24
1	Sc 361.383	1792726.7	1792726.7	100.03	%			10:52:36
1	Y 371.029	1079680.0	1079680.0	100.10	%			10:52:36
1	Ag 328.068†	3856.1	-73.0	-0.5675	µg/L	-0.5675	ppb	10:52:38
1	As 188.979†	-15.8	-2.0	1.8880	µg/L	1.8880	ppb	10:52:58
1	B 249.677†	3568.5	164.2	2.5752	µg/L	2.5752	ppb	10:52:38
1	Ba 233.527†	21358.2	21490.8	91.141	µg/L	91.141	ppb	10:52:38
1	Be 313.107†	2378.3	3394.3	0.9709	µg/L	0.9709	ppb	10:52:38
1	Cd 226.502†	105.3	215.0	0.2964	µg/L	0.2964	ppb	10:52:58
1	Co 228.616†	193.0	364.6	4.3237	µg/L	4.3237	ppb	10:52:58
1	Cr 267.716†	1234.3	1053.3	9.0374	µg/L	9.0374	ppb	10:52:58
1	Cu 324.752†	8266.5	5286.9	23.420	µg/L	23.420	ppb	10:52:38
1	Mn 257.610†	243015.2	242758.5	318.70	µg/L	318.70	ppb	10:52:38
1	Mo 202.031†	-25.1	11.3	0.8235	µg/L	0.8235	ppb	10:52:58
1	Ni 231.604†	556.5	653.9	8.0334	µg/L	8.0334	ppb	10:52:58
1	P 214.914†	360.0	383.3	82.398	µg/L	82.398	ppb	10:52:58
1	Pb 220.353†	487.7	425.7	25.899	µg/L	25.899	ppb	10:52:58
1	S 181.975 Axial†	176.0	83.7	66.988	µg/L	66.988	ppb	10:52:58
1	Sb 206.836†	67.2	-13.8	-2.0378	µg/L	-2.0378	ppb	10:52:58
1	Se 196.026†	17.6	-3.3	2.45	µg/L	2.45	ppb	10:52:58
1	SiO2†	118256.7	116443.8	12138	µg/L	12138	ppb	10:52:38
1	Si 251.611†	371214.0	370188.7	5818.0	µg/L	5818.0	ppb	10:52:36
1	Sn 189.927†	5.4	7.9	1.5475	µg/L	1.5475	ppb	10:52:58
1	Ti 334.940†	307485.2	306434.4	302.58	µg/L	302.58	ppb	10:52:38
1	Tl 190.801†	-153.9	-37.1	-0.8731	µg/L	-0.8731	ppb	10:52:58
1	U 409.014†	-627.1	-308.4	-17.880	µg/L	-17.880	ppb	10:52:38
1	V 292.402†	4107.9	3801.2	18.287	µg/L	18.287	ppb	10:52:38
1	Zn 213.857†	12088.7	11494.2	68.114	µg/L	68.114	ppb	10:52:38
2	Sc RADIAL	151212.0	151212.0	101	%			10:52:26
2	Al 396.153Radial†	37767.0	37545.0	7364.4	µg/L	7364.4	ppb	10:52:28
2	Ca 317.933Radial†	220988.4	218623.7	13039	µg/L	13039	ppb	10:52:26
2	Fe 238.204 Radial†	165431.3	163997.5	10855	µg/L	10855	ppb	10:52:26
2	K 766.490 Radial†	5052.0	3437.2	1365.7	µg/L	1365.7	ppb	10:52:28
2	Mg 279.077 IEC†	4627.2	4418.7	1751.4	µg/L	1751.4	ppb	10:52:28
2	Na 589.592 Radial†	2384.6	1248.0	183.24	µg/L	183.24	ppb	10:52:28
2	Sr 421.552†	24979.1	25038.9	55.087	µg/L	55.087	ppb	10:52:28
2	Sc 361.383	1766502.7	1766502.7	98.563	%			10:53:00
2	Y 371.029	1065341.9	1065341.9	98.773	%			10:53:00
2	Ag 328.068†	3939.4	68.8	-0.0308	µg/L	-0.0308	ppb	10:53:02
2	As 188.979†	-4.6	9.1	5.4133	µg/L	5.4133	ppb	10:53:22
2	B 249.677†	3480.2	127.6	1.9969	µg/L	1.9969	ppb	10:53:02
2	Ba 233.527†	21719.6	22174.5	94.045	µg/L	94.045	ppb	10:53:02
2	Be 313.107†	2205.3	3254.0	0.9243	µg/L	0.9243	ppb	10:53:02
2	Cd 226.502†	151.0	263.0	0.6187	µg/L	0.6187	ppb	10:53:22
2	Co 228.616†	204.8	379.3	4.5221	µg/L	4.5221	ppb	10:53:22
2	Cr 267.716†	1274.7	1112.6	9.5433	µg/L	9.5433	ppb	10:53:22
2	Cu 324.752†	8231.7	5374.3	23.761	µg/L	23.761	ppb	10:53:02
2	Mn 257.610†	245583.5	248970.9	326.86	µg/L	326.86	ppb	10:53:02
2	Mo 202.031†	-14.7	21.5	1.1420	µg/L	1.1420	ppb	10:53:22
2	Ni 231.604†	527.5	632.8	7.7739	µg/L	7.7739	ppb	10:53:22
2	P 214.914†	382.5	411.4	88.870	µg/L	88.870	ppb	10:53:22
2	Pb 220.353†	493.6	438.9	26.703	µg/L	26.703	ppb	10:53:22

2	S 181.975 Axial†	181.0	91.5	73.219	µg/L	73.219 ppb	10:53:22
2	Sb 206.836†	71.3	-8.7	-1.3833	µg/L	-1.3833 ppb	10:53:22
2	Se 196.026†	7.4	-13.5	-1.52	µg/L	-1.52 ppb	10:53:22
2	SiO2†	119468.0	119427.9	12449	µg/L	12449 ppb	10:53:02
2	Si 251.611†	362968.2	367331.9	5773.1	µg/L	5773.1 ppb	10:53:00
2	Sn 189.927†	10.5	13.1	1.9101	µg/L	1.9101 ppb	10:53:22
2	Ti 334.940†	306899.7	310403.8	306.51	µg/L	306.51 ppb	10:53:02
2	Tl 190.801†	-134.7	-19.9	1.4437	µg/L	1.4437 ppb	10:53:22
2	U 409.014†	-941.7	-637.0	-38.195	µg/L	-38.195 ppb	10:53:02
2	V 292.402†	4167.0	3922.1	18.903	µg/L	18.903 ppb	10:53:02
2	Zn 213.857†	12233.7	11820.7	70.084	µg/L	70.084 ppb	10:53:02
3	Sc RADIAL	151604.2	151604.2	101	%		10:52:30
3	Al 396.153Radial†	38048.1	37726.2	7399.9	µg/L	7399.9 ppb	10:52:32
3	Ca 317.933Radial†	222945.7	219993.3	13121	µg/L	13121 ppb	10:52:30
3	Fe 238.204 Radial†	167270.3	165392.7	10948	µg/L	10948 ppb	10:52:30
3	K 766.490 Radial†	5081.8	3453.8	1372.3	µg/L	1372.3 ppb	10:52:32
3	Mg 279.077 IEC†	4669.5	4448.7	1763.3	µg/L	1763.3 ppb	10:52:32
3	Na 589.592 Radial†	2385.9	1243.2	182.53	µg/L	182.53 ppb	10:52:32
3	Sr 421.552†	25076.1	25070.8	55.157	µg/L	55.157 ppb	10:52:32
3	Sc 361.383	1771409.5	1771409.5	98.837	%		10:53:25
3	Y 371.029	1068009.1	1068009.1	99.021	%		10:53:25
3	Ag 328.068†	3697.0	-187.6	-1.0264	µg/L	-1.0264 ppb	10:53:27
3	As 188.979†	-9.7	4.0	3.7960	µg/L	3.7960 ppb	10:53:47
3	B 249.677†	3403.3	40.0	0.6137	µg/L	0.6137 ppb	10:53:27
3	Ba 233.527†	21484.0	21875.1	92.772	µg/L	92.772 ppb	10:53:27
3	Be 313.107†	2011.5	3051.8	0.8686	µg/L	0.8686 ppb	10:53:27
3	Cd 226.502†	89.3	200.1	0.1893	µg/L	0.1893 ppb	10:53:47
3	Co 228.616†	218.2	392.4	4.6874	µg/L	4.6874 ppb	10:53:47
3	Cr 267.716†	1262.3	1096.4	9.4066	µg/L	9.4066 ppb	10:53:47
3	Cu 324.752†	8424.4	5546.1	24.490	µg/L	24.490 ppb	10:53:27
3	Mn 257.610†	245269.9	247963.4	325.54	µg/L	325.54 ppb	10:53:27
3	Mo 202.031†	-16.9	19.3	1.0769	µg/L	1.0769 ppb	10:53:47
3	Ni 231.604†	536.7	640.7	7.8703	µg/L	7.8703 ppb	10:53:47
3	P 214.914†	372.2	399.9	86.156	µg/L	86.156 ppb	10:53:47
3	Pb 220.353†	487.0	430.9	26.216	µg/L	26.216 ppb	10:53:47
3	S 181.975 Axial†	168.2	78.0	62.422	µg/L	62.422 ppb	10:53:47
3	Sb 206.836†	80.8	0.7	-0.1872	µg/L	-0.1872 ppb	10:53:47
3	Se 196.026†	16.4	-4.4	2.07	µg/L	2.07 ppb	10:53:47
3	SiO2†	119060.6	118680.0	12371	µg/L	12371 ppb	10:53:27
3	Si 251.611†	366182.8	369564.3	5808.2	µg/L	5808.2 ppb	10:53:25
3	Sn 189.927†	-2.8	-0.4	1.0046	µg/L	1.0046 ppb	10:53:47
3	Ti 334.940†	307093.7	309737.6	305.85	µg/L	305.85 ppb	10:53:27
3	Tl 190.801†	-141.0	-25.9	0.6492	µg/L	0.6492 ppb	10:53:47
3	U 409.014†	-817.6	-508.7	-30.251	µg/L	-30.251 ppb	10:53:27
3	V 292.402†	4197.8	3941.6	18.999	µg/L	18.999 ppb	10:53:27
3	Zn 213.857†	12201.5	11753.8	69.670	µg/L	69.670 ppb	10:53:27

Mean Data: 1202065095|962595|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1776879.7	99.142	%	0.7779				0.78%
Sc RADIAL	150669.0	100	%	0.9				0.86%
Y 371.029	1071010.3	99.299	%	0.7070				0.71%
Ag 328.068†	-63.9	-0.5416	µg/L	0.49834	-0.5416	ppb	0.49834	92.02%
Al 396.153Radial†	37739.5	7402.6	µg/L	39.53	7402.6	ppb	39.53	0.53%
As 188.979†	3.7	3.6991	µg/L	1.76469	3.6991	ppb	1.76469	47.71%
B 249.677†	110.6	1.7286	µg/L	1.00794	1.7286	ppb	1.00794	58.31%
Ba 233.527†	21846.8	92.652	µg/L	1.4557	92.652	ppb	1.4557	1.57%
Be 313.107†	3233.4	0.9213	µg/L	0.05122	0.9213	ppb	0.05122	5.56%
Ca 317.933Radial†	219276.1	13078	µg/L	41.0	13078	ppb	41.0	0.31%
Cd 226.502†	226.0	0.3682	µg/L	0.22353	0.3682	ppb	0.22353	60.71%
Co 228.616†	378.8	4.5111	µg/L	0.18209	4.5111	ppb	0.18209	4.04%
Cr 267.716†	1087.4	9.3291	µg/L	0.26169	9.3291	ppb	0.26169	2.81%
Cu 324.752†	5402.4	23.890	µg/L	0.5463	23.890	ppb	0.5463	2.29%
Fe 238.204 Radial†	164561.6	10893	µg/L	48.6	10893	ppb	48.6	0.45%
K 766.490 Radial†	3450.7	1371.1	µg/L	4.85	1371.1	ppb	4.85	0.35%
Mg 279.077 IEC†	4439.1	1759.5	µg/L	7.00	1759.5	ppb	7.00	0.40%
Mn 257.610†	246564.2	323.70	µg/L	4.379	323.70	ppb	4.379	1.35%
Mo 202.031†	17.4	1.0141	µg/L	0.16824	1.0141	ppb	0.16824	16.59%
Na 589.592 Radial†	1230.9	180.71	µg/L	3.784	180.71	ppb	3.784	2.09%

Ni 231.604†	642.5	7.8925	µg/L	0.13116	7.8925	ppb	0.13116	1.66%
P 214.914†	398.2	85.808	µg/L	3.2501	85.808	ppb	3.2501	3.79%
Pb 220.353†	431.8	26.273	µg/L	0.4049	26.273	ppb	0.4049	1.54%
S 181.975 Axial†	84.4	67.543	µg/L	5.4197	67.543	ppb	5.4197	8.02%
Sb 206.836†	-7.2	-1.2027	µg/L	0.93837	-1.2027	ppb	0.93837	78.02%
Se 196.026†	-7.1	1.00	µg/L	2.194	1.00	ppb	2.194	219.29%
SiO2†	118183.9	12319	µg/L	161.8	12319	ppb	161.8	1.31%
Si 251.611†	369028.3	5799.8	µg/L	23.61	5799.8	ppb	23.61	0.41%
Sn 189.927†	6.9	1.4874	µg/L	0.45571	1.4874	ppb	0.45571	30.64%
Sr 421.552†	25100.5	55.222	µg/L	0.1776	55.222	ppb	0.1776	0.32%
Ti 334.940†	308858.6	304.98	µg/L	2.102	304.98	ppb	2.102	0.69%
Tl 190.801†	-27.6	0.4066	µg/L	1.17729	0.4066	ppb	1.17729	289.57%
U 409.014†	-484.7	-28.775	µg/L	10.2372	-28.775	ppb	10.2372	35.58%
V 292.402†	3888.3	18.730	µg/L	0.3865	18.730	ppb	0.3865	2.06%
Zn 213.857†	11689.6	69.289	µg/L	1.0385	69.289	ppb	1.0385	1.50%

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 10:58:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	153679.5	153679.5	102	%			10:58:40
1	Al 396.153Radial†	26363.6	25811.0	5039.5	µg/L	5039.5	ppb	10:58:40
1	Ca 317.933Radial†	88044.3	85318.8	5088.5	µg/L	5088.5	ppb	10:58:40
1	Fe 238.204 Radial†	78513.5	76510.0	5064.4	µg/L	5064.4	ppb	10:58:40
1	K 766.490 Radial†	14517.5	12597.3	5016.9	µg/L	5016.9	ppb	10:58:40
1	Mg 279.077 IEC†	13475.5	12983.1	5181.3	µg/L	5181.3	ppb	10:58:40
1	Na 589.592 Radial†	70737.1	67938.0	10037	µg/L	10037	ppb	10:58:40
1	Sr 421.552†	226687.6	221555.6	488.30	µg/L	488.30	ppb	10:58:38
1	Sc 361.383	1793876.2	1793876.2	100.09	%			10:58:53
1	Y 371.029	1068295.2	1068295.2	99.047	%			10:58:53
1	Ag 328.068†	130589.4	126543.4	502.08	µg/L	502.08	ppb	10:58:53
1	As 188.979†	1534.8	1547.2	497.44	µg/L	497.44	ppb	10:59:13
1	B 249.677†	34779.0	31344.2	493.00	µg/L	493.00	ppb	10:58:53
1	Ba 233.527†	117480.5	117512.7	499.46	µg/L	499.46	ppb	10:58:53
1	Be 313.107†	1736634.5	1736083.5	499.67	µg/L	499.67	ppb	10:58:53
1	Cd 226.502†	74594.6	74637.0	498.27	µg/L	498.27	ppb	10:58:53
1	Co 228.616†	37945.1	38082.5	501.68	µg/L	501.68	ppb	10:58:53
1	Cr 267.716†	60429.3	60194.0	499.21	µg/L	499.21	ppb	10:58:53
1	Cu 324.752†	123709.0	120619.9	498.96	µg/L	498.96	ppb	10:58:53
1	Mn 257.610†	383624.9	383085.5	502.87	µg/L	502.87	ppb	10:58:53
1	Mo 202.031†	15981.2	16003.2	501.84	µg/L	501.84	ppb	10:59:13
1	Ni 231.604†	40642.7	40703.6	500.03	µg/L	500.03	ppb	10:58:53
1	P 214.914†	10808.7	10822.2	2487.0	µg/L	2487.0	ppb	10:59:13
1	Pb 220.353†	8501.9	8432.3	504.39	µg/L	504.39	ppb	10:59:13
1	S 181.975 Axial†	1317.2	1223.8	983.90	µg/L	983.90	ppb	10:59:13
1	Sb 206.836†	4008.1	3923.6	500.86	µg/L	500.86	ppb	10:59:13
1	Se 196.026†	1300.4	1278.3	500	µg/L	500	ppb	10:59:13
1	SiO2†	53811.7	51981.3	5396.8	µg/L	5396.8	ppb	10:58:53
1	Si 251.611†	162660.5	161585.6	2529.6	µg/L	2529.6	ppb	10:58:53
1	Sn 189.927†	7485.8	7481.5	501.46	µg/L	501.46	ppb	10:59:13
1	Ti 334.940†	508494.0	507064.7	499.71	µg/L	499.71	ppb	10:58:53
1	Tl 190.801†	3694.6	3808.1	505.89	µg/L	505.89	ppb	10:59:13
1	U 409.014†	7117.4	7429.4	491.77	µg/L	491.77	ppb	10:58:53
1	V 292.402†	96163.7	95771.2	502.65	µg/L	502.65	ppb	10:58:53
1	Zn 213.857†	83715.3	83048.4	495.90	µg/L	495.90	ppb	10:58:53
2	Sc RADIAL	149941.3	149941.3	99.9	%			10:58:44
2	Al 396.153Radial†	25842.1	25930.8	5063.0	µg/L	5063.0	ppb	10:58:44
2	Ca 317.933Radial†	85434.0	84849.9	5060.5	µg/L	5060.5	ppb	10:58:44
2	Fe 238.204 Radial†	76254.8	76160.9	5041.2	µg/L	5041.2	ppb	10:58:44
2	K 766.490 Radial†	14193.9	12626.8	5028.7	µg/L	5028.7	ppb	10:58:44
2	Mg 279.077 IEC†	12977.9	12813.1	5113.6	µg/L	5113.6	ppb	10:58:44
2	Na 589.592 Radial†	68872.3	67793.8	10016	µg/L	10016	ppb	10:58:44
2	Sr 421.552†	229030.7	229417.3	505.63	µg/L	505.63	ppb	10:58:42
2	Sc 361.383	1778915.6	1778915.6	99.256	%			10:59:16
2	Y 371.029	1059250.4	1059250.4	98.209	%			10:59:16
2	Ag 328.068†	129319.7	126361.4	501.36	µg/L	501.36	ppb	10:59:16
2	As 188.979†	1531.0	1556.3	500.29	µg/L	500.29	ppb	10:59:36
2	B 249.677†	34433.2	31288.1	492.11	µg/L	492.11	ppb	10:59:16
2	Ba 233.527†	116310.3	117320.8	498.65	µg/L	498.65	ppb	10:59:16
2	Be 313.107†	1719172.9	1733082.7	498.81	µg/L	498.81	ppb	10:59:16
2	Cd 226.502†	73918.8	74582.9	497.91	µg/L	497.91	ppb	10:59:16
2	Co 228.616†	37625.3	38079.0	501.64	µg/L	501.64	ppb	10:59:16
2	Cr 267.716†	59707.1	59974.2	497.39	µg/L	497.39	ppb	10:59:16
2	Cu 324.752†	122777.8	120721.2	499.37	µg/L	499.37	ppb	10:59:16
2	Mn 257.610†	379830.1	382485.6	502.08	µg/L	502.08	ppb	10:59:16
2	Mo 202.031†	15873.3	16028.8	502.64	µg/L	502.64	ppb	10:59:36
2	Ni 231.604†	40254.8	40654.3	499.43	µg/L	499.43	ppb	10:59:16
2	P 214.914†	10739.9	10843.8	2492.0	µg/L	2492.0	ppb	10:59:36
2	Pb 220.353†	8430.9	8432.2	504.40	µg/L	504.40	ppb	10:59:36

2	S 181.975 Axial†	1304.9	1222.5	982.86 µg/L	982.86 ppb	10:59:36
2	Sb 206.836†	3964.5	3913.2	499.59 µg/L	499.59 ppb	10:59:36
2	Se 196.026†	1290.7	1279.5	501 µg/L	501 ppb	10:59:36
2	SiO2†	53472.7	52091.8	5408.3 µg/L	5408.3 ppb	10:59:16
2	Si 251.611†	160893.4	161172.0	2523.1 µg/L	2523.1 ppb	10:59:16
2	Sn 189.927†	7419.0	7477.1	501.17 µg/L	501.17 ppb	10:59:36
2	Ti 334.940†	503876.8	506685.4	499.34 µg/L	499.34 ppb	10:59:16
2	Tl 190.801†	3693.4	3837.9	509.78 µg/L	509.78 ppb	10:59:36
2	U 409.014†	6985.9	7356.7	487.22 µg/L	487.22 ppb	10:59:16
2	V 292.402†	95227.9	95636.4	501.95 µg/L	501.95 ppb	10:59:16
2	Zn 213.857†	82891.9	82922.3	495.14 µg/L	495.14 ppb	10:59:16
3	Sc RADIAL	151024.1	151024.1	101 %		10:58:48
3	Al 396.153Radial†	25892.3	25795.3	5036.5 µg/L	5036.5 ppb	10:58:48
3	Ca 317.933Radial†	86235.3	85033.0	5071.5 µg/L	5071.5 ppb	10:58:48
3	Fe 238.204 Radial†	76786.3	76141.9	5040.0 µg/L	5040.0 ppb	10:58:48
3	K 766.490 Radial†	14391.3	12721.1	5066.3 µg/L	5066.3 ppb	10:58:48
3	Mg 279.077 IEC†	13272.3	13012.5	5193.0 µg/L	5193.0 ppb	10:58:48
3	Na 589.592 Radial†	69385.3	67809.3	10018 µg/L	10018 ppb	10:58:48
3	Sr 421.552†	227544.1	226297.5	498.75 µg/L	498.75 ppb	10:58:46
3	Sc 361.383	1777225.6	1777225.6	99.161 %		10:59:39
3	Y 371.029	1058080.0	1058080.0	98.100 %		10:59:39
3	Ag 328.068†	129217.3	126382.1	501.45 µg/L	501.45 ppb	10:59:39
3	As 188.979†	1522.3	1549.0	497.96 µg/L	497.96 ppb	10:59:59
3	B 249.677†	34501.9	31390.4	493.73 µg/L	493.73 ppb	10:59:39
3	Ba 233.527†	115774.6	116892.0	496.83 µg/L	496.83 ppb	10:59:39
3	Be 313.107†	1718333.3	1733883.1	499.04 µg/L	499.04 ppb	10:59:39
3	Cd 226.502†	73501.6	74233.1	495.58 µg/L	495.58 ppb	10:59:39
3	Co 228.616†	37526.7	38015.7	500.80 µg/L	500.80 ppb	10:59:39
3	Cr 267.716†	59680.9	60005.0	497.64 µg/L	497.64 ppb	10:59:39
3	Cu 324.752†	122715.2	120775.6	499.60 µg/L	499.60 ppb	10:59:39
3	Mn 257.610†	379440.6	382456.8	502.04 µg/L	502.04 ppb	10:59:39
3	Mo 202.031†	15760.4	15930.2	499.55 µg/L	499.55 ppb	10:59:59
3	Ni 231.604†	40371.7	40810.8	501.35 µg/L	501.35 ppb	10:59:39
3	P 214.914†	10654.5	10767.9	2474.5 µg/L	2474.5 ppb	10:59:59
3	Pb 220.353†	8364.0	8372.8	500.84 µg/L	500.84 ppb	10:59:59
3	S 181.975 Axial†	1319.1	1238.0	995.26 µg/L	995.26 ppb	10:59:59
3	Sb 206.836†	3952.6	3905.1	498.49 µg/L	498.49 ppb	10:59:59
3	Se 196.026†	1269.3	1259.1	493 µg/L	493 ppb	10:59:59
3	SiO2†	53163.2	51831.0	5381.3 µg/L	5381.3 ppb	10:59:39
3	Si 251.611†	160970.6	161403.9	2526.8 µg/L	2526.8 ppb	10:59:39
3	Sn 189.927†	7351.8	7416.5	497.12 µg/L	497.12 ppb	10:59:59
3	Ti 334.940†	503880.9	507172.3	499.82 µg/L	499.82 ppb	10:59:39
3	Tl 190.801†	3649.9	3797.6	504.52 µg/L	504.52 ppb	10:59:59
3	U 409.014†	7069.6	7447.8	492.91 µg/L	492.91 ppb	10:59:39
3	V 292.402†	95233.6	95733.4	502.43 µg/L	502.43 ppb	10:59:39
3	Zn 213.857†	82765.3	82874.0	494.84 µg/L	494.84 ppb	10:59:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783339.1	99.502	%	0.5113				0.51%
Sc RADIAL	151548.3	101	%	1.3				1.27%
Y 371.029	1061875.2	98.452	%	0.5183				0.53%
Ag 328.068†	126429.0	501.63	µg/L	0.395	501.63	ppb	0.395	0.08%
QC value within limits for Ag 328.068 Recovery = 100.33%								
Al 396.153Radial†	25845.7	5046.4	µg/L	14.49	5046.4	ppb	14.49	0.29%
QC value within limits for Al 396.153Radial Recovery = 100.93%								
As 188.979†	1550.8	498.56	µg/L	1.520	498.56	ppb	1.520	0.30%
QC value within limits for As 188.979 Recovery = 99.71%								
B 249.677†	31340.9	492.95	µg/L	0.810	492.95	ppb	0.810	0.16%
QC value within limits for B 249.677 Recovery = 98.59%								
Ba 233.527†	117241.9	498.31	µg/L	1.350	498.31	ppb	1.350	0.27%
QC value within limits for Ba 233.527 Recovery = 99.66%								
Be 313.107†	1734349.8	499.17	µg/L	0.448	499.17	ppb	0.448	0.09%
QC value within limits for Be 313.107 Recovery = 99.83%								
Ca 317.933Radial†	85067.2	5073.5	µg/L	14.09	5073.5	ppb	14.09	0.28%
QC value within limits for Ca 317.933Radial Recovery = 101.47%								
Cd 226.502†	74484.3	497.25	µg/L	1.463	497.25	ppb	1.463	0.29%
QC value within limits for Cd 226.502 Recovery = 99.45%								
Co 228.616†	38059.1	501.37	µg/L	0.496	501.37	ppb	0.496	0.10%

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   QC value within limits for Co 228.616  Recovery = 100.27%
Cr 267.716†            60057.7      498.08 µg/L         0.987      498.08 ppb          0.987   0.20%
   QC value within limits for Cr 267.716  Recovery = 99.62%
Cu 324.752†           120705.6      499.31 µg/L         0.324      499.31 ppb          0.324   0.06%
   QC value within limits for Cu 324.752  Recovery = 99.86%
Fe 238.204 Radial†     76270.9      5048.5 µg/L         13.72      5048.5 ppb          13.72   0.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.97%
K 766.490 Radial†      12648.4      5037.3 µg/L         25.77      5037.3 ppb          25.77   0.51%
   QC value within limits for K 766.490 Radial  Recovery = 100.75%
Mg 279.077 IEC†        12936.2      5162.6 µg/L         42.86      5162.6 ppb          42.86   0.83%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.25%
Mn 257.610†           382676.0      502.33 µg/L         0.466      502.33 ppb          0.466   0.09%
   QC value within limits for Mn 257.610  Recovery = 100.47%
Mo 202.031†            15987.4      501.35 µg/L         1.603      501.35 ppb          1.603   0.32%
   QC value within limits for Mo 202.031  Recovery = 100.27%
Na 589.592 Radial†     67847.0       10024 µg/L          11.7       10024 ppb           11.7   0.12%
   QC value within limits for Na 589.592 Radial  Recovery = 100.24%
Ni 231.604†            40722.9      500.27 µg/L         0.983      500.27 ppb          0.983   0.20%
   QC value within limits for Ni 231.604  Recovery = 100.05%
P 214.914†             10811.3      2484.5 µg/L          9.02      2484.5 ppb           9.02   0.36%
   QC value within limits for P 214.914  Recovery = 99.38%
Pb 220.353†             8412.4      503.21 µg/L         2.052      503.21 ppb          2.052   0.41%
   QC value within limits for Pb 220.353  Recovery = 100.64%
S 181.975 Axial†        1228.1      987.34 µg/L         6.877      987.34 ppb          6.877   0.70%
   QC value within limits for S 181.975 Axial  Recovery = 98.73%
Sb 206.836†             3914.0      499.65 µg/L         1.186      499.65 ppb          1.186   0.24%
   QC value within limits for Sb 206.836  Recovery = 99.93%
Se 196.026†             1272.3         498 µg/L           4.5         498 ppb            4.5   0.90%
   QC value within limits for Se 196.026  Recovery = 99.60%
SiO2†                  51968.0      5395.5 µg/L         13.57      5395.5 ppb          13.57   0.25%
   QC value within limits for SiO2  Recovery = 100.90%
Si 251.611†           161387.2      2526.5 µg/L          3.26      2526.5 ppb           3.26   0.13%
   QC value within limits for Si 251.611  Recovery = 101.06%
Sn 189.927†             7458.4      499.91 µg/L         2.427      499.91 ppb          2.427   0.49%
   QC value within limits for Sn 189.927  Recovery = 99.98%
Sr 421.552†           225756.8      497.56 µg/L         8.725      497.56 ppb          8.725   1.75%
   QC value within limits for Sr 421.552  Recovery = 99.51%
Ti 334.940†           506974.1      499.62 µg/L         0.248      499.62 ppb          0.248   0.05%
   QC value within limits for Ti 334.940  Recovery = 99.92%
Tl 190.801†             3814.5      506.73 µg/L         2.727      506.73 ppb          2.727   0.54%
   QC value within limits for Tl 190.801  Recovery = 101.35%
U 409.014†              7411.3      490.63 µg/L         3.011      490.63 ppb          3.011   0.61%
   QC value within limits for U 409.014  Recovery = 98.13%
V 292.402†             95713.7      502.34 µg/L         0.356      502.34 ppb          0.356   0.07%
   QC value within limits for V 292.402  Recovery = 100.47%
Zn 213.857†            82948.2      495.29 µg/L         0.544      495.29 ppb          0.544   0.11%
   QC value within limits for Zn 213.857  Recovery = 99.06%
All analyte(s) passed QC.
```

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 11:00:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	151660.3	151660.3	101	%			11:00:36
1	Al 396.153Radial†	-45.8	28.6	5.5730	µg/L	5.5730	ppb	11:00:56
1	Ca 317.933Radial†	628.9	-10.9	-0.6499	µg/L	-0.6499	ppb	11:00:56
1	Fe 238.204 Radial†	189.4	49.8	3.2981	µg/L	3.2981	ppb	11:00:56
1	K 766.490 Radial†	1505.5	-85.9	-34.258	µg/L	-34.258	ppb	11:00:36
1	Mg 279.077 IEC†	170.6	-3.4	-1.3372	µg/L	-1.3372	ppb	11:00:56
1	Na 589.592 Radial†	1433.6	300.2	44.406	µg/L	44.406	ppb	11:00:36
1	Sr 421.552†	-286.7	-28.1	-0.0619	µg/L	-0.0619	ppb	11:00:36
1	Sc 361.383	1809025.8	1809025.8	100.94	%			11:01:44
1	Y 371.029	1088498.7	1088498.7	100.92	%			11:01:44
1	Ag 328.068†	3844.0	-119.7	-0.4736	µg/L	-0.4736	ppb	11:01:46
1	As 188.979†	-14.1	-0.2	-0.0503	µg/L	-0.0503	ppb	11:02:06
1	B 249.677†	3344.2	-90.2	-1.4227	µg/L	-1.4227	ppb	11:02:06
1	Ba 233.527†	-128.3	11.2	0.0477	µg/L	0.0477	ppb	11:02:06
1	Be 313.107†	-975.9	49.8	0.0139	µg/L	0.0139	ppb	11:01:46
1	Cd 226.502†	-113.9	-3.1	-0.0212	µg/L	-0.0212	ppb	11:02:06
1	Co 228.616†	-183.6	-10.3	-0.1355	µg/L	-0.1355	ppb	11:02:06
1	Cr 267.716†	191.7	9.2	0.0773	µg/L	0.0773	ppb	11:02:06
1	Cu 324.752†	2979.8	-25.2	-0.1047	µg/L	-0.1047	ppb	11:01:46
1	Mn 257.610†	296.2	100.4	0.1319	µg/L	0.1319	ppb	11:02:06
1	Mo 202.031†	-5.4	31.1	0.9742	µg/L	0.9742	ppb	11:02:06
1	Ni 231.604†	-99.3	-0.7	-0.0090	µg/L	-0.0090	ppb	11:02:06
1	P 214.914†	-24.8	-1.2	-0.2856	µg/L	-0.2856	ppb	11:02:06
1	Pb 220.353†	114.3	51.3	3.0630	µg/L	3.0630	ppb	11:02:06
1	S 181.975 Axial†	88.2	-4.8	-3.8627	µg/L	-3.8627	ppb	11:02:06
1	Sb 206.836†	83.6	1.9	0.2509	µg/L	0.2509	ppb	11:02:06
1	Se 196.026†	19.6	-1.6	-0.610	µg/L	-0.610	ppb	11:02:06
1	SiO2†	1753.3	-44.8	-4.7095	µg/L	-4.7095	ppb	11:02:06
1	Si 251.611†	938.6	1.8	0.0112	µg/L	0.0112	ppb	11:01:46
1	Sn 189.927†	7.5	9.9	0.6588	µg/L	0.6588	ppb	11:02:06
1	Ti 334.940†	1042.4	62.5	0.0623	µg/L	0.0623	ppb	11:01:46
1	Tl 190.801†	-118.5	-0.6	-0.0793	µg/L	-0.0793	ppb	11:02:06
1	U 409.014†	-344.2	-22.5	-1.4130	µg/L	-1.4130	ppb	11:01:46
1	V 292.402†	262.9	-45.2	-0.2248	µg/L	-0.2248	ppb	11:01:46
1	Zn 213.857†	611.2	14.2	0.0856	µg/L	0.0856	ppb	11:02:06
2	Sc RADIAL	152547.8	152547.8	102	%			11:00:58
2	Al 396.153Radial†	-64.8	10.2	1.9850	µg/L	1.9850	ppb	11:01:18
2	Ca 317.933Radial†	663.3	19.3	1.1523	µg/L	1.1523	ppb	11:01:18
2	Fe 238.204 Radial†	179.5	39.0	2.5812	µg/L	2.5812	ppb	11:01:18
2	K 766.490 Radial†	1499.4	-100.6	-40.081	µg/L	-40.081	ppb	11:00:58
2	Mg 279.077 IEC†	183.7	8.4	3.3652	µg/L	3.3652	ppb	11:01:18
2	Na 589.592 Radial†	1187.1	49.6	7.3622	µg/L	7.3622	ppb	11:00:58
2	Sr 421.552†	-402.2	-140.0	-0.3086	µg/L	-0.3086	ppb	11:00:58
2	Sc 361.383	1816520.8	1816520.8	101.35	%			11:02:08
2	Y 371.029	1092663.9	1092663.9	101.31	%			11:02:08
2	Ag 328.068†	3681.6	-295.7	-1.1717	µg/L	-1.1717	ppb	11:02:10
2	As 188.979†	-13.8	0.2	0.0763	µg/L	0.0763	ppb	11:02:31
2	B 249.677†	3416.1	-32.8	-0.5172	µg/L	-0.5172	ppb	11:02:31
2	Ba 233.527†	-153.8	-13.5	-0.0569	µg/L	-0.0569	ppb	11:02:31
2	Be 313.107†	-1020.1	10.1	-0.0012	µg/L	-0.0012	ppb	11:02:10
2	Cd 226.502†	-84.8	26.1	0.1739	µg/L	0.1739	ppb	11:02:31
2	Co 228.616†	-198.5	-24.2	-0.3191	µg/L	-0.3191	ppb	11:02:31
2	Cr 267.716†	178.8	-4.3	-0.0245	µg/L	-0.0245	ppb	11:02:31
2	Cu 324.752†	3117.2	98.1	0.3938	µg/L	0.3938	ppb	11:02:10
2	Mn 257.610†	277.3	80.5	0.1056	µg/L	0.1056	ppb	11:02:31
2	Mo 202.031†	-20.0	16.7	0.5229	µg/L	0.5229	ppb	11:02:31
2	Ni 231.604†	-106.6	-7.6	-0.0936	µg/L	-0.0936	ppb	11:02:31
2	P 214.914†	-23.8	-0.1	-0.0435	µg/L	-0.0435	ppb	11:02:31
2	Pb 220.353†	89.4	26.3	1.5781	µg/L	1.5781	ppb	11:02:31

2	S 181.975 Axial†	93.6	0.1	0.0931 µg/L	0.0931 ppb	11:02:31
2	Sb 206.836†	89.9	7.8	0.9994 µg/L	0.9994 ppb	11:02:31
2	Se 196.026†	26.3	5.0	1.93 µg/L	1.93 ppb	11:02:31
2	SiO2†	1808.5	2.5	0.2410 µg/L	0.2410 ppb	11:02:31
2	Si 251.611†	980.6	39.4	0.6125 µg/L	0.6125 ppb	11:02:10
2	Sn 189.927†	-1.5	1.0	0.0690 µg/L	0.0690 ppb	11:02:31
2	Ti 334.940†	868.7	-113.2	-0.1064 µg/L	-0.1064 ppb	11:02:10
2	Tl 190.801†	-117.6	0.7	0.0956 µg/L	0.0956 ppb	11:02:31
2	U 409.014†	-543.7	-217.9	-13.520 µg/L	-13.520 ppb	11:02:10
2	V 292.402†	367.1	56.5	0.2888 µg/L	0.2888 ppb	11:02:10
2	Zn 213.857†	623.3	23.6	0.1422 µg/L	0.1422 ppb	11:02:31
3	Sc RADIAL	153244.5	153244.5	102 %		11:01:20
3	Al 396.153Radial†	-48.2	26.7	5.2131 µg/L	5.2131 ppb	11:01:40
3	Ca 317.933Radial†	661.8	14.9	0.8871 µg/L	0.8871 ppb	11:01:40
3	Fe 238.204 Radial†	169.9	28.8	1.9080 µg/L	1.9080 ppb	11:01:40
3	K 766.490 Radial†	1643.6	33.9	13.497 µg/L	13.497 ppb	11:01:20
3	Mg 279.077 IEC†	182.5	6.5	2.5951 µg/L	2.5951 ppb	11:01:40
3	Na 589.592 Radial†	1396.8	249.6	36.878 µg/L	36.878 ppb	11:01:20
3	Sr 421.552†	-293.1	-31.3	-0.0691 µg/L	-0.0691 ppb	11:01:20
3	Sc 361.383	1805745.6	1805745.6	100.75 %		11:02:33
3	Y 371.029	1086492.3	1086492.3	100.73 %		11:02:33
3	Ag 328.068†	3822.3	-134.3	-0.5167 µg/L	-0.5167 ppb	11:02:35
3	As 188.979†	-3.0	10.8	3.4262 µg/L	3.4262 ppb	11:02:55
3	B 249.677†	3386.4	-42.3	-0.6674 µg/L	-0.6674 ppb	11:02:55
3	Ba 233.527†	-147.9	-8.5	-0.0357 µg/L	-0.0357 ppb	11:02:55
3	Be 313.107†	-1063.0	-38.5	-0.0092 µg/L	-0.0092 ppb	11:02:35
3	Cd 226.502†	-99.8	10.7	0.0718 µg/L	0.0718 ppb	11:02:55
3	Co 228.616†	-168.4	4.5	0.0589 µg/L	0.0589 ppb	11:02:55
3	Cr 267.716†	173.5	-8.5	-0.0749 µg/L	-0.0749 ppb	11:02:55
3	Cu 324.752†	3050.8	50.6	0.2142 µg/L	0.2142 ppb	11:02:35
3	Mn 257.610†	263.7	68.7	0.0901 µg/L	0.0901 ppb	11:02:55
3	Mo 202.031†	-15.1	21.5	0.6725 µg/L	0.6725 ppb	11:02:55
3	Ni 231.604†	-59.6	38.5	0.4728 µg/L	0.4728 ppb	11:02:55
3	P 214.914†	-11.5	11.9	2.7301 µg/L	2.7301 ppb	11:02:55
3	Pb 220.353†	78.0	15.5	0.9230 µg/L	0.9230 ppb	11:02:55
3	S 181.975 Axial†	98.8	5.9	4.7091 µg/L	4.7091 ppb	11:02:55
3	Sb 206.836†	86.9	5.3	0.6897 µg/L	0.6897 ppb	11:02:55
3	Se 196.026†	12.5	-8.6	-3.34 µg/L	-3.34 ppb	11:02:55
3	SiO2†	1807.2	11.8	1.2087 µg/L	1.2087 ppb	11:02:55
3	Si 251.611†	854.7	-79.8	-1.2654 µg/L	-1.2654 ppb	11:02:35
3	Sn 189.927†	2.4	4.9	0.3266 µg/L	0.3266 ppb	11:02:55
3	Ti 334.940†	1040.3	62.3	0.0587 µg/L	0.0587 ppb	11:02:35
3	Tl 190.801†	-96.8	20.7	2.7110 µg/L	2.7110 ppb	11:02:55
3	U 409.014†	-220.4	99.8	6.2063 µg/L	6.2063 ppb	11:02:35
3	V 292.402†	341.4	33.2	0.1824 µg/L	0.1824 ppb	11:02:35
3	Zn 213.857†	622.9	26.9	0.1587 µg/L	0.1587 ppb	11:02:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1810430.7	101.01	%	0.308				0.31%
Sc RADIAL	152484.2	102	%	0.5				0.52%
Y 371.029	1089218.3	100.99	%	0.292				0.29%
Ag 328.068†	-183.2	-0.7207	µg/L	0.39120	-0.7207	ppb	0.39120	54.28%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	21.9	4.2570	µg/L	1.97587	4.2570	ppb	1.97587	46.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.6	1.1507	µg/L	1.97159	1.1507	ppb	1.97159	171.33%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-55.1	-0.8691	µg/L	0.48529	-0.8691	ppb	0.48529	55.84%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.6	-0.0150	µg/L	0.05529	-0.0150	ppb	0.05529	368.67%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	7.1	0.0012	µg/L	0.01173	0.0012	ppb	0.01173	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.8	0.4632	µg/L	0.97301	0.4632	ppb	0.97301	210.07%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.2	0.0749	µg/L	0.09758	0.0749	ppb	0.09758	130.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-10.0	-0.1319	µg/L	0.18906	-0.1319	ppb	0.18906	143.33%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -1.2     -0.0074 µg/L      0.07753     -0.0074 ppb       0.07753 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              41.2      0.1678 µg/L      0.25250      0.1678 ppb       0.25250 150.51%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       39.2      2.5958 µg/L      0.69517      2.5958 ppb       0.69517  26.78%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -50.9     -20.281 µg/L      29.3971     -20.281 ppb       29.3971 144.95%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.8      1.5410 µg/L      2.52216      1.5410 ppb       2.52216 163.67%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              83.2      0.1092 µg/L      0.02112      0.1092 ppb       0.02112  19.34%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              23.1      0.7232 µg/L      0.22989      0.7232 ppb       0.22989  31.79%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      199.8      29.549 µg/L      19.5792      29.549 ppb       19.5792  66.26%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              10.0      0.1234 µg/L      0.30551      0.1234 ppb       0.30551 247.62%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                3.5      0.8004 µg/L      1.67562      0.8004 ppb       1.67562 209.36%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              31.0      1.8547 µg/L      1.09648      1.8547 ppb       1.09648  59.12%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.4      0.3131 µg/L      4.29016      0.3131 ppb       4.29016 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.0      0.6467 µg/L      0.37613      0.6467 ppb       0.37613  58.17%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.7      -0.671 µg/L       2.6353      -0.671 ppb        2.6353 392.81%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -10.2     -1.0866 µg/L      3.17463     -1.0866 ppb       3.17463 292.16%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -12.8     -0.2139 µg/L      0.95894     -0.2139 ppb       0.95894 448.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               5.3      0.3515 µg/L      0.29569      0.3515 ppb       0.29569  84.12%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -66.5     -0.1465 µg/L      0.14041     -0.1465 ppb       0.14041  95.84%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               3.8      0.0049 µg/L      0.09638      0.0049 ppb       0.09638 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               6.9      0.9091 µg/L      1.56293      0.9091 ppb       1.56293 171.92%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -46.9     -2.9089 µg/L      9.94782     -2.9089 ppb       9.94782 341.98%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               14.9      0.0821 µg/L      0.27110      0.0821 ppb       0.27110 330.09%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              21.6      0.1288 µg/L      0.03833      0.1288 ppb       0.03833  29.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 34
Sample ID: 248702002|962595|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 328
Date Collected: 3/31/2010 11:17:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248702002|962595|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	149198.5	149198.5	99.4	%			11:17:42
1	Al 396.153Radial†	485917.2	488689.8	95856	µg/L	95856	ppb	11:17:40
1	Ca 317.933Radial†	772673.9	776332.2	46301	µg/L	46301	ppb	11:17:42
1	Fe 238.204 Radial†	1276894.7	1283848.7	84981	µg/L	84981	ppb	11:17:40
1	K 766.490 Radial†	38075.8	36712.0	14601	µg/L	14601	ppb	11:17:42
1	Mg 279.077 IEC†	42938.8	43005.1	17063	µg/L	17063	ppb	11:17:42
1	Na 589.592 Radial†	10578.7	9519.5	1394.1	µg/L	1394.1	ppb	11:17:42
1	Sr 421.552†	113927.6	114815.9	252.71	µg/L	252.71	ppb	11:17:42
1	Sc 361.383	1763144.7	1763144.7	98.376	%			11:18:09
1	Y 371.029	1271691.4	1271691.4	117.91	%			11:18:09
1	Ag 328.068†	3833.0	-31.8	-1.5533	µg/L	-1.5533	ppb	11:18:09
1	As 188.979†	34.0	48.4	35.590	µg/L	35.590	ppb	11:18:29
1	B 249.677†	4714.1	1388.6	21.825	µg/L	21.825	ppb	11:18:09
1	Ba 233.527†	181380.4	184513.5	782.58	µg/L	782.58	ppb	11:18:09
1	Be 313.107†	35289.5	36888.8	10.494	µg/L	10.494	ppb	11:18:09
1	Cd 226.502†	1159.4	1288.3	-0.2795	µg/L	-0.2795	ppb	11:18:29
1	Co 228.616†	1809.9	2011.4	22.841	µg/L	22.841	ppb	11:18:29
1	Cr 267.716†	15121.7	15190.7	128.55	µg/L	128.55	ppb	11:18:29
1	Cu 324.752†	14255.3	11513.3	60.003	µg/L	60.003	ppb	11:18:09
1	Mn 257.610†	1723941.7	1752213.5	2300.2	µg/L	2300.2	ppb	11:18:09
1	Mo 202.031†	-15.3	20.8	4.3670	µg/L	4.3670	ppb	11:18:29
1	Ni 231.604†	8371.4	8607.3	105.74	µg/L	105.74	ppb	11:18:29
1	P 214.914†	2677.0	2744.6	595.89	µg/L	595.89	ppb	11:18:29
1	Pb 220.353†	1286.3	1245.6	79.499	µg/L	79.499	ppb	11:18:29
1	S 181.975 Axial†	350.7	264.2	211.53	µg/L	211.53	ppb	11:18:29
1	Sb 206.836†	89.8	10.3	-2.0747	µg/L	-2.0747	ppb	11:18:29
1	Se 196.026†	-52.7	-74.5	0.065	µg/L	0.065	ppb	11:18:29
1	SiO2†	885783.9	898627.7	93669	µg/L	93669	ppb	11:18:09
1	Si 251.611†	2709744.4	2753558.3	43276	µg/L	43276	ppb	11:18:09
1	Sn 189.927†	94.1	98.2	11.010	µg/L	11.010	ppb	11:18:29
1	Ti 334.940†	1317030.1	1337806.0	1320.0	µg/L	1320.0	ppb	11:18:09
1	Tl 190.801†	-295.9	-184.0	-4.1425	µg/L	-4.1425	ppb	11:18:29
1	U 409.014†	-6627.9	-6418.8	-394.40	µg/L	-394.40	ppb	11:18:09
1	V 292.402†	22961.1	23034.6	109.39	µg/L	109.39	ppb	11:18:09
1	Zn 213.857†	42206.6	42312.2	246.71	µg/L	246.71	ppb	11:18:09
2	Sc RADIAL	150287.4	150287.4	100	%			11:17:46
2	Al 396.153Radial†	487986.1	487214.9	95567	µg/L	95567	ppb	11:17:44
2	Ca 317.933Radial†	779447.4	777464.4	46369	µg/L	46369	ppb	11:17:46
2	Fe 238.204 Radial†	1280281.0	1277926.0	84589	µg/L	84589	ppb	11:17:44
2	K 766.490 Radial†	38395.2	36753.5	14618	µg/L	14618	ppb	11:17:46
2	Mg 279.077 IEC†	43354.2	43106.9	17104	µg/L	17104	ppb	11:17:46
2	Na 589.592 Radial†	10607.7	9471.4	1386.9	µg/L	1386.9	ppb	11:17:46
2	Sr 421.552†	114890.6	114947.2	253.00	µg/L	253.00	ppb	11:17:46
2	Sc 361.383	1754678.9	1754678.9	97.903	%			11:18:32
2	Y 371.029	1266000.3	1266000.3	117.38	%			11:18:32
2	Ag 328.068†	3931.7	87.8	-1.0772	µg/L	-1.0772	ppb	11:18:32
2	As 188.979†	52.8	67.7	41.641	µg/L	41.641	ppb	11:18:52
2	B 249.677†	4823.4	1523.4	23.951	µg/L	23.951	ppb	11:18:32
2	Ba 233.527†	181113.7	185130.7	785.20	µg/L	785.20	ppb	11:18:32
2	Be 313.107†	35446.6	37222.3	10.595	µg/L	10.595	ppb	11:18:32
2	Cd 226.502†	1149.8	1284.1	-0.2657	µg/L	-0.2657	ppb	11:18:52
2	Co 228.616†	1845.3	2056.4	23.457	µg/L	23.457	ppb	11:18:52
2	Cr 267.716†	15251.5	15397.4	130.23	µg/L	130.23	ppb	11:18:52
2	Cu 324.752†	14316.9	11646.1	60.509	µg/L	60.509	ppb	11:18:32
2	Mn 257.610†	1719855.8	1756494.9	2305.8	µg/L	2305.8	ppb	11:18:32
2	Mo 202.031†	11.1	47.8	5.1960	µg/L	5.1960	ppb	11:18:52
2	Ni 231.604†	8433.2	8711.4	107.02	µg/L	107.02	ppb	11:18:52
2	P 214.914†	2718.9	2800.4	608.96	µg/L	608.96	ppb	11:18:52
2	Pb 220.353†	1293.2	1259.0	80.289	µg/L	80.289	ppb	11:18:52

2	S 181.975 Axial†	356.3	271.7	217.47	µg/L	217.47 ppb	11:18:52
2	Sb 206.836†	94.7	15.7	-1.3905	µg/L	-1.3905 ppb	11:18:52
2	Se 196.026†	-52.9	-74.9	-0.222	µg/L	-0.222 ppb	11:18:52
2	SiO2†	884018.3	901168.5	93934	µg/L	93934 ppb	11:18:32
2	Si 251.611†	2703321.4	2760287.2	43382	µg/L	43382 ppb	11:18:32
2	Sn 189.927†	103.8	108.5	11.717	µg/L	11.717 ppb	11:18:52
2	Ti 334.940†	1315666.4	1342872.3	1325.0	µg/L	1325.0 ppb	11:18:32
2	Tl 190.801†	-292.3	-181.8	-3.7997	µg/L	-3.7997 ppb	11:18:52
2	U 409.014†	-6329.9	-6147.0	-377.46	µg/L	-377.46 ppb	11:18:32
2	V 292.402†	22649.9	22829.3	108.39	µg/L	108.39 ppb	11:18:32
2	Zn 213.857†	42015.3	42323.8	246.81	µg/L	246.81 ppb	11:18:32
3	Sc RADIAL	150593.5	150593.5	100	%		11:17:50
3	Al 396.153Radial†	482709.5	480968.0	94342	µg/L	94342 ppb	11:17:48
3	Ca 317.933Radial†	779465.9	775901.3	46276	µg/L	46276 ppb	11:17:50
3	Fe 238.204 Radial†	1266552.6	1261651.7	83511	µg/L	83511 ppb	11:17:48
3	K 766.490 Radial†	38393.5	36673.9	14586	µg/L	14586 ppb	11:17:50
3	Mg 279.077 IEC†	43450.3	43114.7	17108	µg/L	17108 ppb	11:17:50
3	Na 589.592 Radial†	10682.2	9524.1	1394.8	µg/L	1394.8 ppb	11:17:50
3	Sr 421.552†	114948.2	114771.4	252.61	µg/L	252.61 ppb	11:17:50
3	Sc 361.383	1767437.8	1767437.8	98.615	%		11:18:55
3	Y 371.029	1275629.5	1275629.5	118.27	%		11:18:55
3	Ag 328.068†	3719.3	-156.5	-2.0267	µg/L	-2.0267 ppb	11:18:55
3	As 188.979†	55.6	70.2	42.161	µg/L	42.161 ppb	11:19:15
3	B 249.677†	4714.2	1377.1	21.644	µg/L	21.644 ppb	11:18:55
3	Ba 233.527†	182580.8	185283.0	785.87	µg/L	785.87 ppb	11:18:55
3	Be 313.107†	35739.8	37258.3	10.602	µg/L	10.602 ppb	11:18:55
3	Cd 226.502†	1134.5	1260.2	-0.3132	µg/L	-0.3132 ppb	11:19:15
3	Co 228.616†	1808.2	2005.2	22.840	µg/L	22.840 ppb	11:19:15
3	Cr 267.716†	15144.7	15176.7	128.37	µg/L	128.37 ppb	11:19:15
3	Cu 324.752†	14409.5	11634.4	60.295	µg/L	60.295 ppb	11:18:55
3	Mn 257.610†	1734884.0	1759052.9	2309.2	µg/L	2309.2 ppb	11:18:55
3	Mo 202.031†	-1.6	34.8	4.7473	µg/L	4.7473 ppb	11:19:15
3	Ni 231.604†	8377.8	8593.0	105.56	µg/L	105.56 ppb	11:19:15
3	P 214.914†	2687.8	2748.8	597.54	µg/L	597.54 ppb	11:19:15
3	Pb 220.353†	1268.1	1224.0	78.166	µg/L	78.166 ppb	11:19:15
3	S 181.975 Axial†	352.0	264.7	211.90	µg/L	211.90 ppb	11:19:15
3	Sb 206.836†	94.8	15.2	-1.4160	µg/L	-1.4160 ppb	11:19:15
3	Se 196.026†	-85.4	-107.5	-13.3	µg/L	-13.3 ppb	11:19:15
3	SiO2†	892033.9	902778.3	94102	µg/L	94102 ppb	11:18:55
3	Si 251.611†	2726558.2	2763917.4	43439	µg/L	43439 ppb	11:18:55
3	Sn 189.927†	109.6	113.6	12.067	µg/L	12.067 ppb	11:19:15
3	Ti 334.940†	1327507.3	1345178.4	1327.3	µg/L	1327.3 ppb	11:18:55
3	Tl 190.801†	-276.1	-163.2	-1.3208	µg/L	-1.3208 ppb	11:19:15
3	U 409.014†	-6533.3	-6306.6	-387.05	µg/L	-387.05 ppb	11:18:55
3	V 292.402†	23006.5	23024.0	109.49	µg/L	109.49 ppb	11:18:55
3	Zn 213.857†	42454.9	42459.7	247.74	µg/L	247.74 ppb	11:18:55

Mean Data: 248702002|962595|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1761753.8	98.298	%	0.3622				0.37%
Sc RADIAL	150026.4	100.0	%	0.49				0.49%
Y 371.029	1271107.0	117.85	%	0.449				0.38%
Ag 328.068†	-33.5	-1.5524	µg/L	0.47477	-1.5524	ppb	0.47477	30.58%
Al 396.153Radial†	485624.2	95255	µg/L	804.1	95255	ppb	804.1	0.84%
As 188.979†	62.1	39.797	µg/L	3.6531	39.797	ppb	3.6531	9.18%
B 249.677†	1429.7	22.473	µg/L	1.2830	22.473	ppb	1.2830	5.71%
Ba 233.527†	184975.7	784.55	µg/L	1.738	784.55	ppb	1.738	0.22%
Be 313.107†	37123.1	10.564	µg/L	0.0606	10.564	ppb	0.0606	0.57%
Ca 317.933Radial†	776566.0	46315	µg/L	48.2	46315	ppb	48.2	0.10%
Cd 226.502†	1277.6	-0.2861	µg/L	0.02447	-0.2861	ppb	0.02447	8.55%
Co 228.616†	2024.3	23.046	µg/L	0.3561	23.046	ppb	0.3561	1.55%
Cr 267.716†	15254.9	129.05	µg/L	1.027	129.05	ppb	1.027	0.80%
Cu 324.752†	11597.9	60.269	µg/L	0.2540	60.269	ppb	0.2540	0.42%
Fe 238.204 Radial†	1274475.5	84360	µg/L	760.8	84360	ppb	760.8	0.90%
K 766.490 Radial†	36713.2	14602	µg/L	15.7	14602	ppb	15.7	0.11%
Mg 279.077 IEC†	43075.5	17092	µg/L	24.9	17092	ppb	24.9	0.15%
Mn 257.610†	1755920.4	2305.1	µg/L	4.54	2305.1	ppb	4.54	0.20%
Mo 202.031†	34.5	4.7701	µg/L	0.41497	4.7701	ppb	0.41497	8.70%
Na 589.592 Radial†	9505.0	1391.9	µg/L	4.33	1391.9	ppb	4.33	0.31%

Ni 231.604†	8637.2	106.11	µg/L	0.794	106.11	ppb	0.794	0.75%
P 214.914†	2764.6	600.79	µg/L	7.119	600.79	ppb	7.119	1.18%
Pb 220.353†	1242.9	79.318	µg/L	1.0726	79.318	ppb	1.0726	1.35%
S 181.975 Axial†	266.9	213.63	µg/L	3.331	213.63	ppb	3.331	1.56%
Sb 206.836†	13.8	-1.6270	µg/L	0.38791	-1.6270	ppb	0.38791	23.84%
Se 196.026†	-85.7	-4.49	µg/L	7.641	-4.49	ppb	7.641	170.21%
SiO2†	900858.1	93902	µg/L	218.1	93902	ppb	218.1	0.23%
Si 251.611†	2759254.3	43366	µg/L	82.6	43366	ppb	82.6	0.19%
Sn 189.927†	106.8	11.598	µg/L	0.5385	11.598	ppb	0.5385	4.64%
Sr 421.552†	114844.8	252.77	µg/L	0.201	252.77	ppb	0.201	0.08%
Ti 334.940†	1341952.2	1324.1	µg/L	3.72	1324.1	ppb	3.72	0.28%
Tl 190.801†	-176.3	-3.0877	µg/L	1.53971	-3.0877	ppb	1.53971	49.87%
U 409.014†	-6290.8	-386.30	µg/L	8.499	-386.30	ppb	8.499	2.20%
Concentration less than lower limit for U 409.014.								
V 292.402†	22962.6	109.09	µg/L	0.608	109.09	ppb	0.608	0.56%
Zn 213.857†	42365.2	247.09	µg/L	0.564	247.09	ppb	0.564	0.23%

Sequence No.: 35
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 11:19:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	150493.9	150493.9	100	%			11:19:56
1	Al 396.153Radial†	25904.9	25898.5	5056.9	µg/L	5056.9	ppb	11:19:56
1	Ca 317.933Radial†	85118.2	84221.2	5023.1	µg/L	5023.1	ppb	11:19:56
1	Fe 238.204 Radial†	75745.1	75372.6	4989.1	µg/L	4989.1	ppb	11:19:56
1	K 766.490 Radial†	14210.7	12591.5	5014.6	µg/L	5014.6	ppb	11:19:56
1	Mg 279.077 IEC†	12953.2	12740.8	5084.7	µg/L	5084.7	ppb	11:19:56
1	Na 589.592 Radial†	69034.0	67701.9	10003	µg/L	10003	ppb	11:19:56
1	Sr 421.552†	226883.5	226435.3	499.05	µg/L	499.05	ppb	11:19:54
1	Sc 361.383	1758162.7	1758162.7	98.098	%			11:20:09
1	Y 371.029	1048420.4	1048420.4	97.204	%			11:20:09
1	Ag 328.068†	127725.8	126274.5	501.02	µg/L	501.02	ppb	11:20:09
1	As 188.979†	1473.8	1516.2	487.54	µg/L	487.54	ppb	11:20:29
1	B 249.677†	33447.0	30692.2	482.73	µg/L	482.73	ppb	11:20:09
1	Ba 233.527†	114166.6	116518.8	495.24	µg/L	495.24	ppb	11:20:09
1	Be 313.107†	1685193.6	1718889.3	494.73	µg/L	494.73	ppb	11:20:09
1	Cd 226.502†	71885.3	73389.0	489.94	µg/L	489.94	ppb	11:20:09
1	Co 228.616†	36720.2	37603.9	495.38	µg/L	495.38	ppb	11:20:09
1	Cr 267.716†	58623.0	59579.1	494.10	µg/L	494.10	ppb	11:20:09
1	Cu 324.752†	120765.5	120130.0	496.93	µg/L	496.93	ppb	11:20:09
1	Mn 257.610†	372917.5	379956.0	498.76	µg/L	498.76	ppb	11:20:09
1	Mo 202.031†	15543.6	15881.4	498.02	µg/L	498.02	ppb	11:20:29
1	Ni 231.604†	39300.0	40159.7	493.35	µg/L	493.35	ppb	11:20:09
1	P 214.914†	10413.8	10639.0	2444.8	µg/L	2444.8	ppb	11:20:29
1	Pb 220.353†	8187.3	8284.1	495.54	µg/L	495.54	ppb	11:20:29
1	S 181.975 Axial†	1278.7	1211.3	973.82	µg/L	973.82	ppb	11:20:29
1	Sb 206.836†	3889.0	3883.5	495.76	µg/L	495.76	ppb	11:20:29
1	Se 196.026†	1250.1	1253.4	491	µg/L	491	ppb	11:20:29
1	SiO2†	52332.0	51565.0	5353.6	µg/L	5353.6	ppb	11:20:09
1	Si 251.611†	158016.8	160153.0	2507.2	µg/L	2507.2	ppb	11:20:09
1	Sn 189.927†	7213.8	7356.1	493.08	µg/L	493.08	ppb	11:20:29
1	Ti 334.940†	496641.8	505302.4	497.97	µg/L	497.97	ppb	11:20:09
1	Tl 190.801†	3598.7	3785.3	502.89	µg/L	502.89	ppb	11:20:29
1	U 409.014†	7156.5	7613.7	503.07	µg/L	503.07	ppb	11:20:09
1	V 292.402†	93780.3	95293.2	500.13	µg/L	500.13	ppb	11:20:09
1	Zn 213.857†	80811.7	81787.4	488.36	µg/L	488.36	ppb	11:20:09
2	Sc RADIAL	148241.5	148241.5	98.8	%			11:20:01
2	Al 396.153Radial†	25605.2	25987.5	5074.5	µg/L	5074.5	ppb	11:20:01
2	Ca 317.933Radial†	84396.3	84779.9	5056.4	µg/L	5056.4	ppb	11:20:01
2	Fe 238.204 Radial†	75033.4	75799.7	5017.3	µg/L	5017.3	ppb	11:20:01
2	K 766.490 Radial†	14049.8	12643.9	5035.5	µg/L	5035.5	ppb	11:20:01
2	Mg 279.077 IEC†	12891.8	12874.9	5138.0	µg/L	5138.0	ppb	11:20:01
2	Na 589.592 Radial†	68570.6	68278.7	10088	µg/L	10088	ppb	11:20:01
2	Sr 421.552†	224093.7	227048.5	500.41	µg/L	500.41	ppb	11:19:58
2	Sc 361.383	1772732.0	1772732.0	98.911	%			11:20:32
2	Y 371.029	1056792.8	1056792.8	97.981	%			11:20:32
2	Ag 328.068†	128216.8	125700.8	498.76	µg/L	498.76	ppb	11:20:32
2	As 188.979†	1496.0	1526.3	490.72	µg/L	490.72	ppb	11:20:52
2	B 249.677†	33942.0	30912.5	486.21	µg/L	486.21	ppb	11:20:32
2	Ba 233.527†	114838.4	116241.5	494.06	µg/L	494.06	ppb	11:20:32
2	Be 313.107†	1700217.1	1719959.9	495.03	µg/L	495.03	ppb	11:20:32
2	Cd 226.502†	72526.0	73434.5	490.24	µg/L	490.24	ppb	11:20:32
2	Co 228.616†	36993.3	37572.4	494.96	µg/L	494.96	ppb	11:20:32
2	Cr 267.716†	58886.8	59354.7	492.24	µg/L	492.24	ppb	11:20:32
2	Cu 324.752†	121629.4	119991.6	496.36	µg/L	496.36	ppb	11:20:32
2	Mn 257.610†	375671.5	379616.1	498.31	µg/L	498.31	ppb	11:20:32
2	Mo 202.031†	15554.5	15762.3	494.29	µg/L	494.29	ppb	11:20:52
2	Ni 231.604†	39786.8	40322.6	495.35	µg/L	495.35	ppb	11:20:32
2	P 214.914†	10439.4	10577.7	2430.7	µg/L	2430.7	ppb	11:20:52
2	Pb 220.353†	8229.3	8258.0	493.98	µg/L	493.98	ppb	11:20:52

2	S 181.975 Axial†	1293.7	1215.8	977.41 µg/L	977.41 ppb	11:20:52
2	Sb 206.836†	3891.8	3853.7	491.94 µg/L	491.94 ppb	11:20:52
2	Se 196.026†	1253.8	1246.7	488 µg/L	488 ppb	11:20:52
2	SiO2†	52838.8	51638.9	5361.5 µg/L	5361.5 ppb	11:20:32
2	Si 251.611†	159245.8	160071.6	2505.9 µg/L	2505.9 ppb	11:20:32
2	Sn 189.927†	7240.0	7322.2	490.81 µg/L	490.81 ppb	11:20:52
2	Ti 334.940†	500142.0	504680.3	497.36 µg/L	497.36 ppb	11:20:32
2	Tl 190.801†	3607.0	3763.5	500.04 µg/L	500.04 ppb	11:20:52
2	U 409.014†	7140.1	7537.2	498.32 µg/L	498.32 ppb	11:20:32
2	V 292.402†	94555.5	95291.3	500.07 µg/L	500.07 ppb	11:20:32
2	Zn 213.857†	81791.4	82100.9	490.23 µg/L	490.23 ppb	11:20:32
3	Sc RADIAL	146405.7	146405.7	97.6 %		11:20:05
3	Al 396.153Radial†	25277.6	25976.8	5072.2 µg/L	5072.2 ppb	11:20:05
3	Ca 317.933Radial†	82501.4	83909.1	5004.4 µg/L	5004.4 ppb	11:20:05
3	Fe 238.204 Radial†	73586.7	75269.4	4982.2 µg/L	4982.2 ppb	11:20:05
3	K 766.490 Radial†	13938.2	12707.7	5061.0 µg/L	5061.0 ppb	11:20:05
3	Mg 279.077 IEC†	12464.5	12600.6	5028.9 µg/L	5028.9 ppb	11:20:05
3	Na 589.592 Radial†	67145.2	67688.1	10000 µg/L	10000 ppb	11:20:05
3	Sr 421.552†	224569.6	230380.0	507.75 µg/L	507.75 ppb	11:20:03
3	Sc 361.383	1767088.5	1767088.5	98.596 %		11:20:56
3	Y 371.029	1053347.2	1053347.2	97.661 %		11:20:56
3	Ag 328.068†	127722.9	125613.9	498.42 µg/L	498.42 ppb	11:20:56
3	As 188.979†	1495.1	1530.2	491.96 µg/L	491.96 ppb	11:21:16
3	B 249.677†	33911.0	30990.6	487.44 µg/L	487.44 ppb	11:20:56
3	Ba 233.527†	114675.3	116446.9	494.94 µg/L	494.94 ppb	11:20:56
3	Be 313.107†	1693846.1	1718987.8	494.76 µg/L	494.76 ppb	11:20:56
3	Cd 226.502†	72289.7	73429.1	490.21 µg/L	490.21 ppb	11:20:56
3	Co 228.616†	36919.5	37616.9	495.55 µg/L	495.55 ppb	11:20:56
3	Cr 267.716†	58833.0	59490.3	493.36 µg/L	493.36 ppb	11:20:56
3	Cu 324.752†	121385.8	120137.3	496.96 µg/L	496.96 ppb	11:20:56
3	Mn 257.610†	374665.8	379809.0	498.57 µg/L	498.57 ppb	11:20:56
3	Mo 202.031†	15653.9	15913.3	499.02 µg/L	499.02 ppb	11:21:16
3	Ni 231.604†	39609.2	40270.9	494.72 µg/L	494.72 ppb	11:20:56
3	P 214.914†	10504.9	10677.9	2453.8 µg/L	2453.8 ppb	11:21:16
3	Pb 220.353†	8290.5	8346.7	499.27 µg/L	499.27 ppb	11:21:16
3	S 181.975 Axial†	1294.0	1220.2	980.99 µg/L	980.99 ppb	11:21:16
3	Sb 206.836†	3923.8	3898.7	497.73 µg/L	497.73 ppb	11:21:16
3	Se 196.026†	1251.6	1248.4	489 µg/L	489 ppb	11:21:16
3	SiO2†	52551.5	51518.1	5348.7 µg/L	5348.7 ppb	11:20:56
3	Si 251.611†	158600.5	159931.4	2503.6 µg/L	2503.6 ppb	11:20:56
3	Sn 189.927†	7283.8	7390.0	495.34 µg/L	495.34 ppb	11:21:16
3	Ti 334.940†	498256.6	504382.9	497.07 µg/L	497.07 ppb	11:20:56
3	Tl 190.801†	3620.6	3788.9	503.35 µg/L	503.35 ppb	11:21:16
3	U 409.014†	7264.4	7686.3	507.51 µg/L	507.51 ppb	11:20:56
3	V 292.402†	94003.3	95036.5	498.81 µg/L	498.81 ppb	11:20:56
3	Zn 213.857†	81501.0	82070.5	490.06 µg/L	490.06 ppb	11:20:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1765994.4	98.535	%	0.4099				0.42%
Sc RADIAL	148380.4	98.9	%	1.36				1.38%
Y 371.029	1052853.5	97.615	%	0.3901				0.40%
Ag 328.068†	125863.1	499.40	µg/L	1.412	499.40	ppb	1.412	0.28%
QC value within limits for Ag 328.068 Recovery = 99.88%								
Al 396.153Radial†	25954.3	5067.8	µg/L	9.58	5067.8	ppb	9.58	0.19%
QC value within limits for Al 396.153Radial Recovery = 101.36%								
As 188.979†	1524.2	490.07	µg/L	2.279	490.07	ppb	2.279	0.47%
QC value within limits for As 188.979 Recovery = 98.01%								
B 249.677†	30865.1	485.46	µg/L	2.443	485.46	ppb	2.443	0.50%
QC value within limits for B 249.677 Recovery = 97.09%								
Ba 233.527†	116402.4	494.75	µg/L	0.612	494.75	ppb	0.612	0.12%
QC value within limits for Ba 233.527 Recovery = 98.95%								
Be 313.107†	1719279.0	494.84	µg/L	0.169	494.84	ppb	0.169	0.03%
QC value within limits for Be 313.107 Recovery = 98.97%								
Ca 317.933Radial†	84303.4	5028.0	µg/L	26.31	5028.0	ppb	26.31	0.52%
QC value within limits for Ca 317.933Radial Recovery = 100.56%								
Cd 226.502†	73417.5	490.13	µg/L	0.166	490.13	ppb	0.166	0.03%
QC value within limits for Cd 226.502 Recovery = 98.03%								
Co 228.616†	37597.7	495.30	µg/L	0.303	495.30	ppb	0.303	0.06%

```
   QC value within limits for Co 228.616  Recovery = 99.06%
Cr 267.716†            59474.7      493.23 µg/L         0.935      493.23 ppb          0.935   0.19%
   QC value within limits for Cr 267.716  Recovery = 98.65%
Cu 324.752†           120086.3      496.75 µg/L         0.338      496.75 ppb          0.338   0.07%
   QC value within limits for Cu 324.752  Recovery = 99.35%
Fe 238.204 Radial†     75480.6      4996.2 µg/L         18.61      4996.2 ppb          18.61   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.92%
K 766.490 Radial†      12647.7      5037.0 µg/L         23.21      5037.0 ppb          23.21   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 100.74%
Mg 279.077 IEC†        12738.8      5083.9 µg/L         54.56      5083.9 ppb          54.56   1.07%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.68%
Mn 257.610†           379793.7      498.55 µg/L         0.225      498.55 ppb          0.225   0.05%
   QC value within limits for Mn 257.610  Recovery = 99.71%
Mo 202.031†            15852.3      497.11 µg/L         2.492      497.11 ppb          2.492   0.50%
   QC value within limits for Mo 202.031  Recovery = 99.42%
Na 589.592 Radial†     67889.6       10030 µg/L          49.8       10030 ppb           49.8   0.50%
   QC value within limits for Na 589.592 Radial  Recovery = 100.30%
Ni 231.604†            40251.1      494.47 µg/L         1.023      494.47 ppb          1.023   0.21%
   QC value within limits for Ni 231.604  Recovery = 98.89%
P 214.914†             10631.5      2443.1 µg/L         11.64      2443.1 ppb          11.64   0.48%
   QC value within limits for P 214.914  Recovery = 97.72%
Pb 220.353†             8296.3      496.27 µg/L         2.719      496.27 ppb          2.719   0.55%
   QC value within limits for Pb 220.353  Recovery = 99.25%
S 181.975 Axial†        1215.7      977.41 µg/L         3.580      977.41 ppb          3.580   0.37%
   QC value within limits for S 181.975 Axial  Recovery = 97.74%
Sb 206.836†             3878.6      495.14 µg/L         2.944      495.14 ppb          2.944   0.59%
   QC value within limits for Sb 206.836  Recovery = 99.03%
Se 196.026†             1249.5         489 µg/L           1.4         489 ppb            1.4   0.28%
   QC value within limits for Se 196.026  Recovery = 97.82%
SiO2†                  51574.0      5354.6 µg/L          6.45      5354.6 ppb          6.45   0.12%
   QC value within limits for SiO2  Recovery = 100.13%
Si 251.611†           160052.0      2505.6 µg/L          1.78      2505.6 ppb          1.78   0.07%
   QC value within limits for Si 251.611  Recovery = 100.22%
Sn 189.927†             7356.1      493.07 µg/L         2.264      493.07 ppb          2.264   0.46%
   QC value within limits for Sn 189.927  Recovery = 98.61%
Sr 421.552†           227954.6      502.40 µg/L         4.679      502.40 ppb          4.679   0.93%
   QC value within limits for Sr 421.552  Recovery = 100.48%
Ti 334.940†           504788.5      497.47 µg/L         0.462      497.47 ppb          0.462   0.09%
   QC value within limits for Ti 334.940  Recovery = 99.49%
Tl 190.801†             3779.2      502.09 µg/L         1.792      502.09 ppb          1.792   0.36%
   QC value within limits for Tl 190.801  Recovery = 100.42%
U 409.014†              7612.4      502.97 µg/L         4.597      502.97 ppb          4.597   0.91%
   QC value within limits for U 409.014  Recovery = 100.59%
V 292.402†             95207.0      499.67 µg/L         0.744      499.67 ppb          0.744   0.15%
   QC value within limits for V 292.402  Recovery = 99.93%
Zn 213.857†            81986.3      489.55 µg/L         1.033      489.55 ppb          1.033   0.21%
   QC value within limits for Zn 213.857  Recovery = 97.91%
All analyte(s) passed QC.
```

Sequence No.: 36
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 11:21:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	148373.7	148373.7	98.9	%			11:21:54
1	Al 396.153Radial†	-44.5	29.0	5.6344	µg/L	5.6344	ppb	11:22:14
1	Ca 317.933Radial†	639.4	13.6	0.8085	µg/L	0.8085	ppb	11:22:14
1	Fe 238.204 Radial†	186.3	50.9	3.3667	µg/L	3.3667	ppb	11:22:14
1	K 766.490 Radial†	1732.1	176.2	70.215	µg/L	70.215	ppb	11:21:54
1	Mg 279.077 IEC†	191.6	21.5	8.6006	µg/L	8.6006	ppb	11:22:14
1	Na 589.592 Radial†	1408.9	306.7	45.266	µg/L	45.266	ppb	11:21:54
1	Sr 421.552†	-250.0	2.8	0.0062	µg/L	0.0062	ppb	11:21:54
1	Sc 361.383	1769558.7	1769558.7	98.734	%			11:23:01
1	Y 371.029	1065806.1	1065806.1	98.816	%			11:23:01
1	Ag 328.068†	3806.5	-72.7	-0.2820	µg/L	-0.2820	ppb	11:23:03
1	As 188.979†	-18.2	-4.6	-1.4565	µg/L	-1.4565	ppb	11:23:24
1	B 249.677†	3374.1	14.1	0.2225	µg/L	0.2225	ppb	11:23:24
1	Ba 233.527†	-107.1	29.8	0.1271	µg/L	0.1271	ppb	11:23:24
1	Be 313.107†	-1141.6	-139.6	-0.0407	µg/L	-0.0407	ppb	11:23:03
1	Cd 226.502†	-100.0	8.4	0.0563	µg/L	0.0563	ppb	11:23:24
1	Co 228.616†	-181.5	-12.3	-0.1614	µg/L	-0.1614	ppb	11:23:24
1	Cr 267.716†	190.7	12.5	0.1050	µg/L	0.1050	ppb	11:23:24
1	Cu 324.752†	2966.7	27.3	0.1117	µg/L	0.1117	ppb	11:23:03
1	Mn 257.610†	331.5	142.7	0.1870	µg/L	0.1870	ppb	11:23:24
1	Mo 202.031†	-4.7	31.7	0.9931	µg/L	0.9931	ppb	11:23:24
1	Ni 231.604†	-53.9	43.0	0.5279	µg/L	0.5279	ppb	11:23:24
1	P 214.914†	-4.7	18.6	4.2750	µg/L	4.2750	ppb	11:23:24
1	Pb 220.353†	68.8	7.8	0.4686	µg/L	0.4686	ppb	11:23:24
1	S 181.975 Axial†	89.6	-1.4	-1.1483	µg/L	-1.1483	ppb	11:23:24
1	Sb 206.836†	73.0	-7.0	-0.8831	µg/L	-0.8831	ppb	11:23:24
1	Se 196.026†	17.2	-3.5	-1.38	µg/L	-1.38	ppb	11:23:24
1	SiO2†	1734.5	-25.1	-2.6521	µg/L	-2.6521	ppb	11:23:24
1	Si 251.611†	931.0	14.8	0.2179	µg/L	0.2179	ppb	11:23:03
1	Sn 189.927†	1.8	4.3	0.2875	µg/L	0.2875	ppb	11:23:24
1	Ti 334.940†	826.8	-132.8	-0.1310	µg/L	-0.1310	ppb	11:23:03
1	Tl 190.801†	-106.8	8.6	1.1336	µg/L	1.1336	ppb	11:23:24
1	U 409.014†	-344.4	-30.4	-1.8599	µg/L	-1.8599	ppb	11:23:03
1	V 292.402†	386.9	86.2	0.4554	µg/L	0.4554	ppb	11:23:03
1	Zn 213.857†	602.5	18.9	0.1098	µg/L	0.1098	ppb	11:23:24
2	Sc RADIAL	148834.2	148834.2	99.2	%			11:22:16
2	Al 396.153Radial†	-53.4	20.2	3.9248	µg/L	3.9248	ppb	11:22:36
2	Ca 317.933Radial†	647.9	20.1	1.1985	µg/L	1.1985	ppb	11:22:36
2	Fe 238.204 Radial†	189.6	53.6	3.5466	µg/L	3.5466	ppb	11:22:36
2	K 766.490 Radial†	1636.0	73.9	29.442	µg/L	29.442	ppb	11:22:16
2	Mg 279.077 IEC†	182.4	11.7	4.6678	µg/L	4.6678	ppb	11:22:36
2	Na 589.592 Radial†	1515.1	409.4	60.482	µg/L	60.482	ppb	11:22:16
2	Sr 421.552†	-128.4	126.1	0.2779	µg/L	0.2779	ppb	11:22:16
2	Sc 361.383	1750551.0	1750551.0	97.673	%			11:23:26
2	Y 371.029	1055038.6	1055038.6	97.818	%			11:23:26
2	Ag 328.068†	3656.1	-184.9	-0.7179	µg/L	-0.7179	ppb	11:23:28
2	As 188.979†	-11.6	2.0	0.6261	µg/L	0.6261	ppb	11:23:48
2	B 249.677†	3324.2	0.1	0.0016	µg/L	0.0016	ppb	11:23:48
2	Ba 233.527†	-115.6	19.9	0.0850	µg/L	0.0850	ppb	11:23:48
2	Be 313.107†	-752.2	246.5	0.0710	µg/L	0.0710	ppb	11:23:28
2	Cd 226.502†	-110.9	-3.8	-0.0255	µg/L	-0.0255	ppb	11:23:48
2	Co 228.616†	-175.3	-7.9	-0.1037	µg/L	-0.1037	ppb	11:23:48
2	Cr 267.716†	154.1	-22.9	-0.1901	µg/L	-0.1901	ppb	11:23:48
2	Cu 324.752†	2791.0	-120.0	-0.4940	µg/L	-0.4940	ppb	11:23:28
2	Mn 257.610†	283.9	97.6	0.1280	µg/L	0.1280	ppb	11:23:48
2	Mo 202.031†	-16.4	19.7	0.6161	µg/L	0.6161	ppb	11:23:48
2	Ni 231.604†	-55.0	41.3	0.5069	µg/L	0.5069	ppb	11:23:48
2	P 214.914†	-24.0	-1.3	-0.2962	µg/L	-0.2962	ppb	11:23:48
2	Pb 220.353†	100.5	41.0	2.4461	µg/L	2.4461	ppb	11:23:48

2	S 181.975 Axial†	87.4	-2.8	-2.2212 µg/L	-2.2212 ppb	11:23:48
2	Sb 206.836†	64.4	-15.0	-1.9029 µg/L	-1.9029 ppb	11:23:48
2	Se 196.026†	15.3	-5.3	-2.05 µg/L	-2.05 ppb	11:23:48
2	SiO2†	1737.8	-2.6	-0.2946 µg/L	-0.2946 ppb	11:23:48
2	Si 251.611†	875.8	-31.4	-0.5029 µg/L	-0.5029 ppb	11:23:28
2	Sn 189.927†	-0.9	1.5	0.1014 µg/L	0.1014 ppb	11:23:48
2	Ti 334.940†	695.1	-258.6	-0.2555 µg/L	-0.2555 ppb	11:23:28
2	Tl 190.801†	-96.6	17.9	2.3486 µg/L	2.3486 ppb	11:23:48
2	U 409.014†	-308.5	2.6	0.1939 µg/L	0.1939 ppb	11:23:28
2	V 292.402†	398.9	102.7	0.5375 µg/L	0.5375 ppb	11:23:28
2	Zn 213.857†	571.5	-6.2	-0.0408 µg/L	-0.0408 ppb	11:23:48
3	Sc RADIAL	149363.8	149363.8	99.6 %		11:22:38
3	Al 396.153Radial†	-22.4	51.4	10.047 µg/L	10.047 ppb	11:22:58
3	Ca 317.933Radial†	653.4	23.3	1.3903 µg/L	1.3903 ppb	11:22:58
3	Fe 238.204 Radial†	173.1	36.4	2.4068 µg/L	2.4068 ppb	11:22:58
3	K 766.490 Radial†	1633.4	65.4	26.066 µg/L	26.066 ppb	11:22:38
3	Mg 279.077 IEC†	186.3	15.0	5.9748 µg/L	5.9748 ppb	11:22:58
3	Na 589.592 Radial†	1506.6	395.4	58.424 µg/L	58.424 ppb	11:22:38
3	Sr 421.552†	-203.2	51.4	0.1133 µg/L	0.1133 ppb	11:22:38
3	Sc 361.383	1755375.4	1755375.4	97.942 %		11:23:50
3	Y 371.029	1058055.0	1058055.0	98.098 %		11:23:50
3	Ag 328.068†	3689.3	-161.3	-0.6329 µg/L	-0.6329 ppb	11:23:52
3	As 188.979†	-18.5	-5.1	-1.6151 µg/L	-1.6151 ppb	11:24:12
3	B 249.677†	3301.8	-32.1	-0.5062 µg/L	-0.5062 ppb	11:24:12
3	Ba 233.527†	-156.7	-21.7	-0.0917 µg/L	-0.0917 ppb	11:24:12
3	Be 313.107†	-983.3	12.7	0.0022 µg/L	0.0022 ppb	11:23:52
3	Cd 226.502†	-125.7	-18.6	-0.1242 µg/L	-0.1242 ppb	11:24:12
3	Co 228.616†	-188.3	-20.7	-0.2728 µg/L	-0.2728 ppb	11:24:12
3	Cr 267.716†	178.4	1.4	0.0157 µg/L	0.0157 ppb	11:24:12
3	Cu 324.752†	2836.8	-81.0	-0.3377 µg/L	-0.3377 ppb	11:23:52
3	Mn 257.610†	317.5	131.1	0.1719 µg/L	0.1719 ppb	11:24:12
3	Mo 202.031†	-12.4	23.8	0.7446 µg/L	0.7446 ppb	11:24:12
3	Ni 231.604†	-94.8	0.8	0.0100 µg/L	0.0100 ppb	11:24:12
3	P 214.914†	-8.8	14.3	3.2935 µg/L	3.2935 ppb	11:24:12
3	Pb 220.353†	84.6	24.5	1.4673 µg/L	1.4673 ppb	11:24:12
3	S 181.975 Axial†	86.4	-4.0	-3.1736 µg/L	-3.1736 ppb	11:24:12
3	Sb 206.836†	72.1	-7.3	-0.9202 µg/L	-0.9202 ppb	11:24:12
3	Se 196.026†	19.0	-1.6	-0.620 µg/L	-0.620 ppb	11:24:12
3	SiO2†	1723.7	-21.9	-2.3014 µg/L	-2.3014 ppb	11:24:12
3	Si 251.611†	921.5	12.7	0.1933 µg/L	0.1933 ppb	11:23:52
3	Sn 189.927†	-8.7	-6.4	-0.4277 µg/L	-0.4277 ppb	11:24:12
3	Ti 334.940†	1094.5	147.3	0.1468 µg/L	0.1468 ppb	11:23:52
3	Tl 190.801†	-114.4	-0.0	0.0051 µg/L	0.0051 ppb	11:24:12
3	U 409.014†	-386.7	-76.4	-4.7201 µg/L	-4.7201 ppb	11:23:52
3	V 292.402†	378.4	80.7	0.4222 µg/L	0.4222 ppb	11:23:52
3	Zn 213.857†	563.6	-15.9	-0.0952 µg/L	-0.0952 ppb	11:24:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1758495.0	98.116	%	0.5513				0.56%
Sc RADIAL	148857.2	99.2	%	0.33				0.33%
Y 371.029	1059633.2	98.244	%	0.5150				0.52%
Ag 328.068†	-139.6	-0.5443	µg/L	0.23104	-0.5443	ppb	0.23104	42.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	33.5	6.5354	µg/L	3.15897	6.5354	ppb	3.15897	48.34%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.6	-0.8152	µg/L	1.25068	-0.8152	ppb	1.25068	153.43%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-6.0	-0.0940	µg/L	0.37366	-0.0940	ppb	0.37366	397.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.3	0.0401	µg/L	0.11610	0.0401	ppb	0.11610	289.43%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	39.9	0.0108	µg/L	0.05635	0.0108	ppb	0.05635	520.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	19.0	1.1324	µg/L	0.29645	1.1324	ppb	0.29645	26.18%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-4.6	-0.0311	µg/L	0.09042	-0.0311	ppb	0.09042	290.49%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-13.6	-0.1793	µg/L	0.08596	-0.1793	ppb	0.08596	47.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -3.0     -0.0231 µg/L      0.15134     -0.0231 ppb       0.15134 654.84%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -57.9     -0.2400 µg/L      0.31446     -0.2400 ppb       0.31446 131.02%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       46.9      3.1067 µg/L      0.61277      3.1067 ppb       0.61277  19.72%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       105.2     41.908 µg/L      24.5732     41.908 ppb       24.5732  58.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          16.1      6.4144 µg/L      2.00293      6.4144 ppb       2.00293  31.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             123.8      0.1623 µg/L      0.03068      0.1623 ppb       0.03068  18.90%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              25.0      0.7846 µg/L      0.19165      0.7846 ppb       0.19165  24.43%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      370.5     54.724 µg/L       8.2553     54.724 ppb        8.2553  15.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              28.3      0.3483 µg/L      0.29313      0.3483 ppb       0.29313  84.17%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               10.5      2.4241 µg/L      2.40640      2.4241 ppb       2.40640  99.27%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              24.4      1.4607 µg/L      0.98873      1.4607 ppb       0.98873  67.69%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.7     -2.1810 µg/L      1.01323     -2.1810 ppb       1.01323  46.46%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -9.8     -1.2354 µg/L      0.57839     -1.2354 ppb       0.57839  46.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.5      -1.35 µg/L        0.714       -1.35 ppb         0.714  52.92%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -16.6     -1.7494 µg/L      1.27203     -1.7494 ppb       1.27203  72.71%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -1.3     -0.0306 µg/L      0.40926     -0.0306 ppb       0.40926 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.2     -0.0129 µg/L      0.37106     -0.0129 ppb       0.37106 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              60.1      0.1325 µg/L      0.13688      0.1325 ppb       0.13688 103.31%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -81.4     -0.0799 µg/L      0.20599     -0.0799 ppb       0.20599 257.74%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               8.9      1.1624 µg/L      1.17204      1.1624 ppb       1.17204 100.83%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -34.7     -2.1287 µg/L      2.46803     -2.1287 ppb       2.46803 115.94%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               89.9      0.4717 µg/L      0.05932      0.4717 ppb       0.05932  12.57%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -1.1     -0.0087 µg/L      0.10620     -0.0087 ppb       0.10620 >999.9%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Sunday, May 02, 2010 23:21:23
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100422\Sample.265
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1455.3	1455.274	31.319	2.2
	Mg	24.0	161552.2	161552.169	1151.794	0.7
	Co	58.9	27699.4	27699.430	282.166	1.0
	Rh	102.9	63206.1	63206.125	528.690	0.8
	In	114.9	79064.4	79064.392	392.876	0.5
	Pb	208.0	66604.9	66604.908	265.667	0.4
⌈>	Ba	137.9	82021.1	82021.140	723.745	0.9
⌊	Ba++	69.0	891.0	0.011	0.000	2.9
⌈>	Ce	139.9	91293.0	91292.984	577.953	0.6
⌊	CeO	155.9	1774.8	0.019	0.000	1.4
	Bkgd	220.0	7.2	7.200	3.347	46.5

Current Optimization File Data

Current Value	Description
0.94	Nebulizer Gas Flow
9.00	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	6.5	2324.2
Co	59	17	7.5	26863.2
In	115	17	8.8	71613.7

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	582	2080	0.630
Be	9.0	9.1	2037	2080	0.634
Mg	24.0	24.0	5692	2120	0.638
Mg	25.0	25.0	5896	2080	0.662
Mg	26.0	25.9	6167	2120	0.668
Co	58.9	58.9	14182	2170	0.638
Rh	102.9	102.9	24856	2230	0.692
In	114.9	114.9	27780	2260	0.698
Ce	139.9	139.9	33845	2280	0.752
Pb	206.0	206.0	49936	2422	0.742
Pb	207.0	207.0	50137	2385	0.689
Pb	208.0	208.0	50451	2430	0.735
U	238.1	238.0	57722	2470	0.720

Report Date/Time: Sunday, May 02, 2010 23:19:27

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, May 03, 2010 10:51:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\Blank.126

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		15	
>	Sc	45		ug/L		711042	
	Ni	60		ug/L		76	
>	Ge	74		ug/L		266911	
	As	75		ug/L		851	
	Se	77		ug/L		8211	
	Se	82		ug/L		-6	
	Kr	83		ug/L		66	
>	Lu	175		ug/L		270247	
	Tl	205		ug/L		610	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, May 03, 2010 10:56:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\Standard 1.127

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.000**	**ug/L**	2.229	3561	0.005
>	Sc	45		**ug/L**		652072	652072.420
	Ni	60	**10.000**	**ug/L**	1.189	9944	0.015
>	Ge	74		**ug/L**		250514	250514.262
	As	75	**10.000**	**ug/L**	5.952	7137	0.025
	Se	77		**ug/L**		6221	-0.006
	Se	82	**10.000**	**ug/L**	7.062	713	0.003
	Kr	83		**ug/L**		50	-0.000
>	Lu	175		**ug/L**		252964	252963.926
	Tl	205	**10.000**	**ug/L**	1.395	94508	0.371

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, May 03, 2010 11:00:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\Standard 2.128

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.985**	**ug/L**	2.226	36647	0.054
>	Sc	45		**ug/L**		683264	683263.611
	Ni	60	**99.971**	**ug/L**	0.250	100631	0.147
>	Ge	74		**ug/L**		257996	257996.388
	As	75	**100.072**	**ug/L**	1.310	71191	0.273
	Se	77		**ug/L**		12235	0.017
	Se	82	**99.967**	**ug/L**	1.845	7162	0.028
	Kr	83		**ug/L**		77	0.000
>	Lu	175		**ug/L**		260739	260738.693
	Tl	205	**99.961**	**ug/L**	0.915	931888	3.572

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, May 03, 2010 11:04:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\QC Std 1.129

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.883**	**ug/L**	0.392	19506	0.028
>	Sc	45		**ug/L**		700533	700532.668
	Ni	60	**53.410**	**ug/L**	1.679	55150	0.079
>	Ge	74		**ug/L**		267249	267249.374
	As	75	**51.688**	**ug/L**	2.719	38497	0.141
	Se	77		**ug/L**		10246	0.008
	Se	82	**53.141**	**ug/L**	0.712	3941	0.015
	Kr	83		**ug/L**		65	-0.000
>	Lu	175		**ug/L**		270823	270823.353
	Tl	205	**50.622**	**ug/L**	1.062	490515	1.809

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	103.767				
>	Sc	45		98.5			
	Ni	60	106.819				
>	Ge	74		100.1			
	As	75	103.376				
	Se	77					
	Se	82	106.282				
	Kr	83					
>	Lu	175		100.2			
	Tl	205	101.244				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, May 03, 2010 11:09:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\QC Std 2.130

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.003	ug/L	143.342	15	-0.000
>	Sc	45		ug/L		767007	767007.108
	Ni	60	0.005	ug/L	194.646	88	0.000
>	Ge	74		ug/L		285670	285670.390
	As	75	-0.657	ug/L	109.063	397	-0.002
	Se	77		ug/L		10982	0.008
	Se	82	-0.054	ug/L	110.480	-11	-0.000
	Kr	83		ug/L		74	0.000
>	Lu	175		ug/L		285974	285974.180
	Tl	205	0.126	ug/L	6.570	1928	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		107.9			
	Ni	60					
>	Ge	74		107.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		105.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, May 03, 2010 11:13:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\QC Std 3.131

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.544**	**ug/L**	2.576	224	0.000
>	Sc	45		**ug/L**		717659	717658.706
	Ni	60	**2.347**	**ug/L**	2.264	2556	0.003
>	Ge	74		**ug/L**		272769	272768.964
	As	75	**5.265**	**ug/L**	4.684	4785	0.014
	Se	77		**ug/L**		7493	-0.003
	Se	82	**5.886**	**ug/L**	2.918	440	0.002
	Kr	83		**ug/L**		67	-0.000
>	Lu	175		**ug/L**		272442	272442.411
	Tl	205	**1.179**	**ug/L**	1.715	12094	0.042

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	108.708				
>	Sc	45		100.9			
	Ni	60	117.336				
>	Ge	74		102.2			
	As	75	105.306				
	Se	77					
	Se	82	117.723				
	Kr	83					
>	Lu	175		100.8			
	Tl	205	117.894				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, May 03, 2010 11:17:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\QC Std 4.132

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.086**	**ug/L**	25.619	36	0.000
>	Sc	45		**ug/L**		538207	538207.088
	Ni	60	**5.935**	**ug/L**	4.055	4759	0.009
>	Ge	74		**ug/L**		204279	204278.953
	As	75	**0.479**	**ug/L**	116.173	919	0.001
	Se	77		**ug/L**		8824	0.012
	Se	82	**-2.810**	**ug/L**	11.477	-164	-0.001
	Kr	83		**ug/L**		274	0.001
>	Lu	175		**ug/L**		218714	218714.491
	Tl	205	**0.013**	**ug/L**	40.088	594	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		75.7			
	Ni	60	219.816				
>	Ge	74		76.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		80.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, May 03, 2010 11:22:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\QC Std 5.133

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.703**	**ug/L**	0.307	5416	0.011
>	Sc	45		**ug/L**		511542	511542.074
	Ni	60	**25.520**	**ug/L**	1.831	19275	0.038
>	Ge	74		**ug/L**		193383	193383.053
	As	75	**20.040**	**ug/L**	5.914	11177	0.055
	Se	77		**ug/L**		8226	0.012
	Se	82	**18.512**	**ug/L**	4.252	990	0.005
	Kr	83		**ug/L**		252	0.001
>	Lu	175		**ug/L**		209957	209957.036
	Tl	205	**19.728**	**ug/L**	0.134	148490	0.705

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	98.517				
>	Sc	45		71.9			
	Ni	60	112.425				
>	Ge	74		72.5			
	As	75	100.201				
	Se	77					
	Se	82	92.561				
	Kr	83					
>	Lu	175		77.7			
	Tl	205	98.639				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
In 115 Int Std for QC	Lu	175	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 03, 2010 11:26:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\QC Std 6.134

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.861**	**ug/L**	1.630	17325	0.027
>	Sc	45		**ug/L**		647451	647450.983
	Ni	60	**53.450**	**ug/L**	1.045	51014	0.079
>	Ge	74		**ug/L**		251714	251713.835
	As	75	**51.952**	**ug/L**	0.405	36442	0.142
	Se	77		**ug/L**		10395	0.011
	Se	82	**53.471**	**ug/L**	2.342	3734	0.015
	Kr	83		**ug/L**		63	0.000
>	Lu	175		**ug/L**		258135	258135.297
	Tl	205	**51.269**	**ug/L**	0.954	473500	1.832

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	99.723				
>	Sc	45		91.1			
	Ni	60	106.900				
>	Ge	74		94.3			
	As	75	103.904				
	Se	77					
	Se	82	106.942				
	Kr	83					
>	Lu	175		95.5			
	Tl	205	102.539				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 03, 2010 11:30:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\QC Std 7.135

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.003	ug/L	96.086	14	-0.000
>	Sc	45		ug/L		731459	731459.194
	Ni	60	0.018	ug/L	64.584	98	0.000
>	Ge	74		ug/L		272661	272660.817
	As	75	-0.636	ug/L	54.474	397	-0.002
	Se	77		ug/L		12879	0.016
	Se	82	0.006	ug/L	1178.162	-6	0.000
	Kr	83		ug/L		70	0.000
>	Lu	175		ug/L		285493	285492.828
	Tl	205	0.119	ug/L	8.279	1859	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.9			
	Ni	60					
>	Ge	74		102.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		105.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065101
Sample Date/Time: Monday, May 03, 2010 11:35:18
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 962601|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\1202065101.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.010	ug/L	48.409	9	-0.000
>	Sc	45		ug/L		601166	601166.495
	Ni	60	2.818	ug/L	1.880	2558	0.004
>	Ge	74		ug/L		232177	232176.880
	As	75	-0.777	ug/L	81.289	249	-0.002
	Se	77		ug/L		5074	-0.009
	Se	82	0.062	ug/L	239.114	-1	0.000
	Kr	83		ug/L		50	-0.000
>	Lu	175		ug/L		242015	242014.965
	Tl	205	0.023	ug/L	6.856	748	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		84.5			
	Ni	60					
>	Ge	74		87.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		89.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065102
Sample Date/Time: Monday, May 03, 2010 11:39:42
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 962601|40|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\1202065102.137

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**20.515**	**ug/L**	2.654	7483	0.011
>	Sc	45		**ug/L**		678883	678883.086
	Ni	60	**38.626**	**ug/L**	3.593	38669	0.057
>	Ge	74		**ug/L**		259880	259879.930
	As	75	**28.131**	**ug/L**	4.121	20758	0.077
	Se	77		**ug/L**		12369	0.017
	Se	82	**79.696**	**ug/L**	1.225	5750	0.022
	Kr	83		**ug/L**		78	0.000
>	Lu	175		**ug/L**		261131	261130.755
	Tl	205	**31.519**	**ug/L**	1.271	294699	1.126

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.5			
	Ni	60					
>	Ge	74		97.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 03, 2010 12:10:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\QC Std 6.144

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.840**	**ug/L**	0.254	18245	0.028
>	Sc	45		**ug/L**		655801	655800.658
	Ni	60	**53.662**	**ug/L**	1.358	51875	0.079
>	Ge	74		**ug/L**		250572	250572.401
	As	75	**52.191**	**ug/L**	1.506	36445	0.142
	Se	77		**ug/L**		9069	0.005
	Se	82	**53.574**	**ug/L**	2.587	3725	0.015
	Kr	83		**ug/L**		54	-0.000
>	Lu	175		**ug/L**		254864	254864.113
	Tl	205	**51.668**	**ug/L**	1.018	471108	1.846

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	103.680				
>	Sc	45		92.2			
	Ni	60	107.323				
>	Ge	74		93.9			
	As	75	104.382				
	Se	77					
	Se	82	107.149				
	Kr	83					
>	Lu	175		94.3			
	Tl	205	103.336				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 03, 2010 12:14:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\QC Std 7.145

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.001	ug/L	661.250	15	-0.000
>	Sc	45		ug/L		747683	747683.089
	Ni	60	0.004	ug/L	97.872	84	0.000
>	Ge	74		ug/L		276803	276803.386
	As	75	-0.553	ug/L	143.503	465	-0.002
	Se	77		ug/L		10094	0.006
	Se	82	0.150	ug/L	108.115	5	0.000
	Kr	83		ug/L		66	-0.000
>	Lu	175		ug/L		281814	281814.412
	Tl	205	0.079	ug/L	7.902	1434	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		105.2			
	Ni	60					
>	Ge	74		103.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248702001
Sample Date/Time: Monday, May 03, 2010 12:32:32
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 962601|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\248702001.149

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.256**	**ug/L**	0.455	981	0.002
>	Sc	45		**ug/L**		555519	555519.076
	Ni	60	**34.404**	**ug/L**	1.535	28191	0.051
>	Ge	74		**ug/L**		192455	192455.040
	As	75	**8.207**	**ug/L**	1.844	4918	0.022
	Se	77		**ug/L**		2605	-0.017
	Se	82	**-0.756**	**ug/L**	33.976	-45	-0.000
	Kr	83		**ug/L**		152	0.001
>	Lu	175		**ug/L**		212058	212057.542
	Tl	205	**0.927**	**ug/L**	1.096	7501	0.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		78.1			
	Ni	60					
>	Ge	74		72.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		78.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065103
Sample Date/Time: Monday, May 03, 2010 12:36:57
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 962601|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\1202065103.150

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.289**	**ug/L**	2.092	1008	0.002
>	Sc	45		**ug/L**		564898	564898.233
	Ni	60	**38.910**	**ug/L**	0.744	32418	0.057
>	Ge	74		**ug/L**		194343	194343.272
	As	75	**9.639**	**ug/L**	1.988	5725	0.026
	Se	77		**ug/L**		2737	-0.017
	Se	82	**-1.021**	**ug/L**	45.537	-60	-0.000
	Kr	83		**ug/L**		157	0.001
>	Lu	175		**ug/L**		218667	218667.434
	Tl	205	**0.862**	**ug/L**	3.274	7225	0.031

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		79.4			
	Ni	60					
>	Ge	74		72.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		80.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065104
Sample Date/Time: Monday, May 03, 2010 12:41:22
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 962601|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\1202065104.151

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**26.911**	**ug/L**	2.222	7935	0.014
>	Sc	45		**ug/L**		548999	548999.313
	Ni	60	**58.517**	**ug/L**	0.692	47350	0.086
>	Ge	74		**ug/L**		190768	190767.865
	As	75	**48.649**	**ug/L**	1.870	25904	0.133
	Se	77		**ug/L**		3000	-0.015
	Se	82	**8.553**	**ug/L**	4.492	449	0.002
	Kr	83		**ug/L**		148	0.001
>	Lu	175		**ug/L**		212163	212162.677
	Tl	205	**53.566**	**ug/L**	0.177	406598	1.914

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		77.2			
	Ni	60					
>	Ge	74		71.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		78.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065106
Sample Date/Time: Monday, May 03, 2010 12:45:47
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 962601|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\1202065106.152

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**29.529**	**ug/L**	0.310	8703	0.016
>	Sc	45		**ug/L**		548875	548874.853
	Ni	60	**97.800**	**ug/L**	1.381	79082	0.144
>	Ge	74		**ug/L**		184358	184358.126
	As	75	**59.346**	**ug/L**	1.077	30407	0.162
	Se	77		**ug/L**		2932	-0.015
	Se	82	**9.203**	**ug/L**	3.366	467	0.003
	Kr	83		**ug/L**		167	0.001
>	Lu	175		**ug/L**		210693	210692.652
	Tl	205	**57.791**	**ug/L**	0.647	435574	2.065

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		77.2			
	Ni	60					
>	Ge	74		69.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		78.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 03, 2010 12:50:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\QC Std 6.153

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.830**	**ug/L**	0.784	17346	0.027
>	Sc	45		**ug/L**		648601	648601.144
	Ni	60	**51.743**	**ug/L**	1.780	49475	0.076
>	Ge	74		**ug/L**		247625	247625.476
	As	75	**49.802**	**ug/L**	0.411	34401	0.136
	Se	77		**ug/L**		8240	0.003
	Se	82	**52.015**	**ug/L**	0.653	3574	0.014
	Kr	83		**ug/L**		64	0.000
>	Lu	175		**ug/L**		253929	253928.786
	Tl	205	**50.800**	**ug/L**	1.601	461546	1.815

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	99.660				
>	Sc	45		91.2			
	Ni	60	103.486				
>	Ge	74		92.8			
	As	75	99.604				
	Se	77					
	Se	82	104.030				
	Kr	83					
>	Lu	175		94.0			
	Tl	205	101.600				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 03, 2010 12:54:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\QC Std 7.154

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.001	ug/L	1217.709	14	-0.000
>	Sc	45		ug/L		696337	696336.713
	Ni	60	0.006	ug/L	255.999	81	0.000
>	Ge	74		ug/L		261433	261433.111
	As	75	0.276	ug/L	288.025	1029	0.001
	Se	77		ug/L		8564	0.002
	Se	82	0.062	ug/L	393.125	-2	0.000
	Kr	83		ug/L		59	-0.000
>	Lu	175		ug/L		268873	268873.391
	Tl	205	0.135	ug/L	10.039	1904	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.9			
	Ni	60					
>	Ge	74		97.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		99.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065105
Sample Date/Time: Monday, May 03, 2010 12:58:57
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 962601|10|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\1202065105.155

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.697**	**ug/L**	2.791	240	0.000
>	Sc	45		**ug/L**		609532	609531.629
	Ni	60	**6.856**	**ug/L**	2.222	6218	0.010
>	Ge	74		**ug/L**		229436	229436.420
	As	75	**1.080**	**ug/L**	56.146	1404	0.003
	Se	77		**ug/L**		4223	-0.012
	Se	82	**-0.226**	**ug/L**	116.493	-20	-0.000
	Kr	83		**ug/L**		74	0.000
>	Lu	175		**ug/L**		239802	239801.972
	Tl	205	**0.191**	**ug/L**	1.055	2181	0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		85.7			
	Ni	60					
>	Ge	74		86.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		88.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248702002
Sample Date/Time: Monday, May 03, 2010 13:03:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 962601|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\248702002.156

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.275**	**ug/L**	2.724	1679	0.003
>	Sc	45		**ug/L**		589470	589470.007
	Ni	60	**44.135**	**ug/L**	1.550	38358	0.065
>	Ge	74		**ug/L**		192229	192229.311
	As	75	**9.217**	**ug/L**	4.901	5443	0.025
	Se	77		**ug/L**		3067	-0.015
	Se	82	**-1.084**	**ug/L**	53.003	-63	-0.000
	Kr	83		**ug/L**		218	0.001
>	Lu	175		**ug/L**		227684	227683.852
	Tl	205	**1.358**	**ug/L**	2.580	11565	0.049

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		82.9			
	Ni	60					
>	Ge	74		72.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		84.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 03, 2010 13:07:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\QC Std 6.157

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.539**	**ug/L**	0.333	17706	0.027
>	Sc	45		**ug/L**		665961	665961.115
	Ni	60	**51.518**	**ug/L**	1.028	50579	0.076
>	Ge	74		**ug/L**		251151	251150.967
	As	75	**50.446**	**ug/L**	1.758	35327	0.137
	Se	77		**ug/L**		8765	0.004
	Se	82	**52.469**	**ug/L**	1.500	3656	0.015
	Kr	83		**ug/L**		59	-0.000
>	Lu	175		**ug/L**		255495	255494.890
	Tl	205	**50.874**	**ug/L**	0.818	465019	1.818

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	99.079				
>	Sc	45		93.7			
	Ni	60	103.036				
>	Ge	74		94.1			
	As	75	100.892				
	Se	77					
	Se	82	104.938				
	Kr	83					
>	Lu	175		94.5			
	Tl	205	101.747				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 03, 2010 13:12:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100502\QC Std 7.158

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.005	ug/L	3.009	13	-0.000
>	Sc	45		ug/L		727340	727340.183
	Ni	60	0.017	ug/L	31.197	96	0.000
>	Ge	74		ug/L		271694	271693.565
	As	75	-0.687	ug/L	46.936	356	-0.002
	Se	77		ug/L		9018	0.002
	Se	82	0.245	ug/L	34.954	12	0.000
	Kr	83		ug/L		57	-0.000
>	Lu	175		ug/L		279643	279642.683
	Tl	205	0.091	ug/L	8.861	1536	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.3			
	Ni	60					
>	Ge	74		101.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, May 05, 2010 01:50:03
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100422\Sample.270
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2305.6	2305.586	29.993	1.3
	Mg	24.0	36802.3	36802.348	384.589	1.0
	Co	58.9	46285.1	46285.065	434.738	0.9
	Rh	102.9	99539.2	99539.214	1134.513	1.1
	In	114.9	123138.0	123138.039	665.594	0.5
	Pb	208.0	96242.3	96242.311	575.910	0.6
⌈>	Ba	137.9	112066.1	112066.064	650.716	0.6
⌊	Ba++	69.0	1670.0	0.015	0.000	2.6
⌈>	Ce	139.9	141266.0	141266.046	837.196	0.6
⌊	CeO	155.9	2283.6	0.016	0.000	1.3
	Bkgd	220.0	13.8	13.800	1.891	13.7

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
8.75	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
45.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.0	4181.3
Co	59	17	8.0	44414.9
In	115	17	9.8	113772.6

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	586	2080	0.653
Be	9.0	9.0	2035	2080	0.677
Mg	24.0	24.0	5686	2120	0.629
Mg	25.0	25.0	5913	2080	0.662
Mg	26.0	25.9	6174	2120	0.675
Co	58.9	58.9	14164	2170	0.637
Rh	102.9	102.9	24847	2230	0.689
In	114.9	114.9	27784	2260	0.693
Ce	139.9	139.9	33848	2280	0.749
Pb	206.0	206.0	49948	2422	0.762
Pb	207.0	207.0	50149	2385	0.709
Pb	208.0	208.0	50463	2430	0.729
U	238.1	238.1	57739	2470	0.729

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, May 05, 2010 18:22:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\Blank.255

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		680828	
	Ni	60		ug/L		85	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45					
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, May 05, 2010 18:25:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\Standard 1.256

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		711198	711198.466
	Ni	60	**10.000**	**ug/L**	1.092	8154	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45					
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, May 05, 2010 18:28:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\Standard 2.257

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		704704	704704.179
	Ni	60	**100.026**	**ug/L**	0.981	82152	0.116

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45					
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, May 05, 2010 18:32:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\QC Std 1.258

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		717482	717482.152
	Ni	60	52.577	ug/L	0.298	44010	0.061

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		105.4			
	Ni	60	105.153				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, May 05, 2010 18:35:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\QC Std 2.259

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		704966	704965.787
	Ni	60	0.003	ug/L	624.175	91	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		103.5			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, May 05, 2010 18:39:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\QC Std 3.260

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		705566	705565.557
	Ni	60	**2.453**	**ug/L**	0.572	2104	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		103.6			
	Ni	60	122.647				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, May 05, 2010 18:42:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\QC Std 4.261

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		683129	683128.710
	Ni	60	2.641	ug/L	1.160	2186	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		100.3			
	Ni	60	79.782				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, May 05, 2010 18:45:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\QC Std 5.262

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		644940	644940.150
	Ni	60	19.905	ug/L	1.420	15028	0.023

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		94.7			
	Ni	60	87.685				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 05, 2010 18:49:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\QC Std 6.263

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		663011	663010.951
	Ni	60	54.822	ug/L	2.774	42387	0.064

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		97.4			
	Ni	60	109.644				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 05, 2010 18:52:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\QC Std 7.264

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		698743	698742.694
⌊	Ni	60	-0.006	ug/L	174.457	82	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		102.6			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202108417
Sample Date/Time: Wednesday, May 05, 2010 18:56:10
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 980583|2|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\1202108417.265

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		745266	745265.634
	Ni	60	**0.041**	**ug/L**	30.883	129	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		109.5			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202108418
Sample Date/Time: Wednesday, May 05, 2010 19:00:04
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 980583|40|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\1202108418.266

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		721062	721062.317
	Ni	60	**35.544**	**ug/L**	0.540	29930	0.041

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		105.9			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 05, 2010 19:27:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\QC Std 6.273

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		667442	667442.391
	Ni	60	53.457	ug/L	1.128	41625	0.062

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		98.0			
	Ni	60	106.914				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 05, 2010 19:30:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\QC Std 7.274

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		665175	665175.344
	Ni	60	-0.006	ug/L	181.241	79	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		97.7			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248702001
Sample Date/Time: Wednesday, May 05, 2010 19:45:52
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 980583|2|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\248702001.278

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		671805	671805.395
	Ni	60	**34.448**	**ug/L**	0.783	27027	0.040

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		98.7			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065103
Sample Date/Time: Wednesday, May 05, 2010 19:49:45
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 980583|2|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\1202065103.279

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		652156	652155.870
	Ni	60	**29.136**	**ug/L**	0.591	22204	0.034

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		95.8			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065104
Sample Date/Time: Wednesday, May 05, 2010 19:53:40
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 980583|2|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\1202065104.280

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		638269	638268.563
	Ni	60	**47.868**	**ug/L**	1.251	35651	0.056

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		93.7			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065106
Sample Date/Time: Wednesday, May 05, 2010 19:57:34
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 980583|2|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\1202065106.281

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		636379	636378.800
	Ni	60	**48.838**	**ug/L**	1.074	36263	0.057

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		93.5			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065105
Sample Date/Time: Wednesday, May 05, 2010 20:01:29
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 980583|10|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\1202065105.282

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		636329	636329.464
⌊	Ni	60	7.657	ug/L	4.602	5747	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		93.5			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248702002
Sample Date/Time: Wednesday, May 05, 2010 20:05:23
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 980583|2|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\248702002.283

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Sc	45		ug/L		672861	672860.757
Ni	60	31.221	ug/L	0.445	24544	0.036

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Sc	45		98.8			
Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 05, 2010 20:09:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\QC Std 6.284

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		634736	634735.855
	Ni	60	53.832	ug/L	0.857	39861	0.063

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		93.2			
	Ni	60	107.663				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 05, 2010 20:12:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: c:\elandata\dataset\100504\QC Std 7.285

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		654065	654064.799
⌊	Ni	60	-0.018	ug/L	40.675	69	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		96.1			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\032310S1.SIF
Batch ID:
Results Data Set: 032310S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 3/16/2010 09:36:57**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/23/2010 08:48:48**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0005	0.0030	0.0005	08:49:41	Yes
2		[0.00]	0.0005	0.0022	0.0005	08:50:11	Yes
Mean:		[0.00]	0.0005				
SD:		0.00	0.0000				
%RSD:		0.00	9.84				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/23/2010 08:50:29**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0029	0.0172	0.0034	08:51:20	Yes
2		[0.2]	0.0028	0.0155	0.0033	08:51:49	Yes
Mean:		[0.2]	0.0029				
SD:		0.0	0.0001				
%RSD:		0.0	2.74				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01426 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/23/2010 08:52:09**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0071	0.0362	0.0076	08:52:59	Yes
2		[0.5]	0.0071	0.0368	0.0075	08:53:29	Yes
Mean:		[0.5]	0.0071				
SD:		0.0	0.0000				
%RSD:		0.0	0.05				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999987 Slope: 0.01410 Intercept: 0.00001

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/23/2010 08:53:48**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0284	0.1413	0.0289	08:54:40	Yes
2		[2.0]	0.0280	0.1385	0.0285	08:55:10	Yes
Mean:		[2.0]	0.0282				
SD:		0.0	0.0003				
%RSD:		0.0	1.02				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999999 Slope: 0.01408 Intercept: 0.00002

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/23/2010 08:55:30**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0699	0.3467	0.0704	08:56:22	Yes
2		[5.0]	0.0698	0.3436	0.0703	08:56:52	Yes
Mean:		[5.0]	0.0699				
SD:		0.0	0.0001				
%RSD:		0.0	0.16				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999995 Slope: 0.01397 Intercept: 0.00007

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/23/2010 08:57:12**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1354	0.6726	0.1359	08:58:02	Yes
2		[10.0]	0.1357	0.6712	0.1362	08:58:32	Yes
Mean:		[10.0]	0.1355				
SD:		0.0	0.0002				
%RSD:		0.0	0.18				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999880 Slope: 0.01358 Intercept: 0.00051

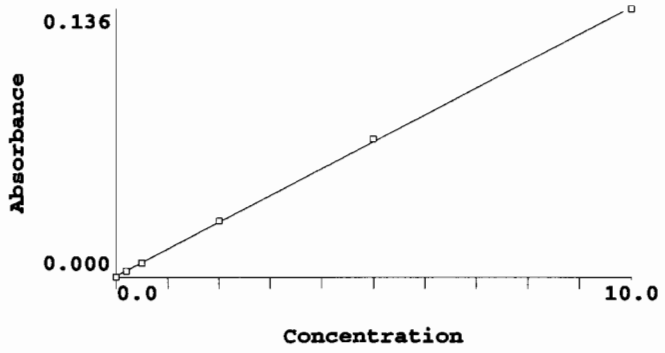

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.038	0.00	9.8
S0.2	0.0029	0.2	0.172	0.00	2.7
S0.5	0.0071	0.5	0.482	0.00	0.1
S2.0	0.0282	2.0	2.036	0.00	1.0

S5.0	0.0699	5.0	5.106	0.00	0.2
S10.0	0.1355	10.0	9.941	0.00	0.2

Correlation Coef.: 0.999880 Slope: 0.01358 Intercept: 0.00051

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/23/2010 08:58:51**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.117	5.117	0.0700	0.3487	0.0705	08:59:41	Yes
2	5.078	5.078	0.0695	0.3422	0.0700	09:00:11	Yes
Mean:	5.097	5.097	0.0697				
SD:	0.027	0.027	0.0004				
%RSD:	0.531	0.531	0.53				

QC value within limits for Hg 253.7 Recovery = 101.95%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/23/2010 09:00:31**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.040	-0.040	-0.0000	0.0010	0.0005	09:01:23	Yes
2	-0.043	-0.043	-0.0001	0.0009	0.0004	09:01:52	Yes
Mean:	-0.042	-0.042	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	4.646	4.646	49.05				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/23/2010 09:02:12**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.172	0.172	0.0028	0.0156	0.0033	09:03:04	Yes
2	0.168	0.168	0.0028	0.0153	0.0033	09:03:34	Yes
Mean:	0.170	0.170	0.0028				
SD:	0.003	0.003	0.0000				
%RSD:	1.682	1.682	1.38				

QC value within limits for Hg 253.7 Recovery = 84.82%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 09:03:54**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.085	5.085	0.0696	0.3468	0.0701	09:04:44	Yes
2	5.100	5.100	0.0698	0.3464	0.0703	09:05:14	Yes
Mean:	5.092	5.092	0.0697				
SD:	0.011	0.011	0.0002				
%RSD:	0.219	0.219	0.22				

QC value within limits for Hg 253.7 Recovery = 101.85%
All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 09:05:33**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.042	-0.042	-0.0001	0.0013	0.0004	09:06:24	Yes
2	-0.044	-0.044	-0.0001	0.0014	0.0004	09:06:54	Yes
Mean:	-0.043	-0.043	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	3.779	3.779	31.29				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202076787|967588|1 **Date Collected: 3/23/2010 09:07:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076787|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.037	-0.037	0.0000	0.0018	0.0005	09:08:05	Yes
2	-0.039	-0.039	-0.0000	0.0015	0.0005	09:08:35	Yes
Mean:	-0.038	-0.038	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.857	3.857	171.19				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202076788|967588|1 **Date Collected: 3/23/2010 09:08:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076788|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.049	2.049	0.0283	0.1421	0.0288	09:09:46	Yes
2	2.045	2.045	0.0283	0.1417	0.0288	09:10:16	Yes
Mean:	2.047	2.047	0.0283				
SD:	0.003	0.003	0.0000				
%RSD:	0.124	0.124	0.12				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 248483001|967588|1 **Date Collected: 3/23/2010 09:10:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483001|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	0.0009	0.0059	0.0014	09:11:27	Yes
2	0.030	0.030	0.0009	0.0069	0.0014	09:11:57	Yes
Mean:	0.029	0.029	0.0009				
SD:	0.002	0.002	0.0000				
%RSD:	7.965	7.965	3.44				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 248483002|967588|1 **Date Collected: 3/23/2010 09:12:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483002|967588|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 1202076791|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.178	2.178	0.0301	0.1528	0.0306	09:21:24	Yes
2	2.161	2.161	0.0299	0.1510	0.0304	09:21:54	Yes
Mean:	2.169	2.169	0.0300				
SD:	0.012	0.012	0.0002				
%RSD:	0.561	0.561	0.55				

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 1202076792|967588|5 **Date Collected: 3/23/2010 09:22:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076792|967588|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	0.0005	0.0050	0.0010	09:23:04	Yes
2	-0.011	-0.011	0.0004	0.0046	0.0009	09:23:34	Yes
Mean:	-0.007	-0.007	0.0004				
SD:	0.006	0.006	0.0001				
%RSD:	83.40	83.40	19.79				

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 09:23:53**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.174	5.174	0.0708	0.3530	0.0713	09:24:43	Yes
2	5.099	5.099	0.0698	0.3475	0.0703	09:25:13	Yes
Mean:	5.136	5.136	0.0703				
SD:	0.053	0.053	0.0007				
%RSD:	1.034	1.034	1.03				

QC value within limits for Hg 253.7 Recovery = 102.73%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 09:25:32**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.029	-0.029	0.0001	0.0036	0.0006	09:26:23	Yes
2	-0.028	-0.028	0.0001	0.0031	0.0006	09:26:53	Yes
Mean:	-0.028	-0.028	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.927	2.927	9.13				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 248483005|967588|1 **Date Collected: 3/23/2010 09:27:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483005|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.049	0.049	0.0012	0.0088	0.0017	09:28:03	Yes
2	0.047	0.047	0.0011	0.0080	0.0016	09:28:33	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.090	0.090	0.0017	0.0111	0.0022	09:36:27	Yes
2	0.097	0.097	0.0018	0.0112	0.0023	09:36:57	Yes
Mean:	0.093	0.093	0.0018				
SD:	0.005	0.005	0.0001				
%RSD:	5.347	5.347	3.81				

==========

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 248483011|967588|1 **Date Collected: 3/23/2010 09:37:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483011|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.158	0.158	0.0027	0.0154	0.0032	09:38:07	Yes
2	0.167	0.167	0.0028	0.0165	0.0033	09:38:37	Yes
Mean:	0.162	0.162	0.0027				
SD:	0.006	0.006	0.0001				
%RSD:	3.724	3.724	3.02				

==========

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 248483012|967588|1 **Date Collected: 3/23/2010 09:38:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483012|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.162	0.162	0.0027	0.0179	0.0032	09:39:46	Yes
2	0.148	0.148	0.0025	0.0154	0.0030	09:40:16	Yes
Mean:	0.155	0.155	0.0026				
SD:	0.010	0.010	0.0001				
%RSD:	6.492	6.492	5.22				

==========

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 248483013|967588|1 **Date Collected: 3/23/2010 09:40:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483013|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.150	0.150	0.0026	0.0139	0.0031	09:41:26	Yes
2	0.152	0.152	0.0026	0.0147	0.0031	09:41:56	Yes
Mean:	0.151	0.151	0.0026				
SD:	0.001	0.001	0.0000				
%RSD:	0.691	0.691	0.55				

==========

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 248483014|967588|1 **Date Collected: 3/23/2010 09:42:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483014|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.087	0.087	0.0017	0.0101	0.0022	09:43:06	Yes
2	0.079	0.079	0.0016	0.0099	0.0021	09:43:36	Yes
Mean:	0.083	0.083	0.0016				
SD:	0.006	0.006	0.0001				
%RSD:	7.146	7.146	4.92				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 09:43:55**

Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.174	5.174	0.0708	0.3535	0.0713	09:44:45	Yes
2	5.173	5.173	0.0708	0.3542	0.0713	09:45:15	Yes
Mean:	5.174	5.174	0.0708				
SD:	0.001	0.001	0.0000				
%RSD:	0.014	0.014	0.01				

QC value within limits for Hg 253.7 Recovery = 103.48%
All analyte(s) passed QC.

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 09:45:34**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.031	-0.031	0.0001	0.0023	0.0006	09:46:24	Yes
2	-0.031	-0.031	0.0001	0.0024	0.0006	09:46:54	Yes
Mean:	-0.031	-0.031	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.575	0.575	2.65				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 248483015|967588|1 **Date Collected: 3/23/2010 09:47:14**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483015|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.254	0.254	0.0040	0.0221	0.0045	09:48:05	Yes
2	0.252	0.252	0.0039	0.0220	0.0044	09:48:35	Yes
Mean:	0.253	0.253	0.0039				
SD:	0.001	0.001	0.0000				
%RSD:	0.412	0.412	0.36				

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 248483016|967588|1 **Date Collected: 3/23/2010 09:48:54**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483016|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.131	0.131	0.0023	0.0135	0.0028	09:49:45	Yes
2	0.145	0.145	0.0025	0.0147	0.0030	09:50:15	Yes
Mean:	0.138	0.138	0.0024				
SD:	0.010	0.010	0.0001				
%RSD:	7.065	7.065	5.55				

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 248483017|967588|1 **Date Collected: 3/23/2010 09:50:34**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483017|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.072	0.072	0.0015	0.0104	0.0020	09:51:25	Yes

2	0.067	0.067	0.0014	0.0098	0.0019	09:51:55	Yes
Mean:	0.069	0.069	0.0015				
SD:	0.004	0.004	0.0000				
%RSD:	5.238	5.238	3.40				

==========

Sequence No.: 39 **Autosampler Location: 35**
Sample ID: 248483018|967588|1 **Date Collected: 3/23/2010 09:52:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483018|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.077	0.077	0.0016	0.0099	0.0021	09:53:06	Yes
2	0.075	0.075	0.0015	0.0103	0.0020	09:53:36	Yes
Mean:	0.076	0.076	0.0015				
SD:	0.001	0.001	0.0000				
%RSD:	1.873	1.873	1.25				

==========

Sequence No.: 40 **Autosampler Location: 36**
Sample ID: 248483019|967588|1 **Date Collected: 3/23/2010 09:53:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483019|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.091	0.091	0.0017	0.0112	0.0022	09:54:48	Yes
2	0.096	0.096	0.0018	0.0114	0.0023	09:55:18	Yes
Mean:	0.093	0.093	0.0018				
SD:	0.003	0.003	0.0000				
%RSD:	3.429	3.429	2.44				

==========

Sequence No.: 41 **Autosampler Location: 37**
Sample ID: 1202076770|967582|1 **Date Collected: 3/23/2010 09:55:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076770|967582|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.033	-0.033	0.0001	0.0028	0.0006	09:56:30	Yes
2	-0.036	-0.036	0.0000	0.0022	0.0005	09:57:00	Yes
Mean:	-0.035	-0.035	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	6.843	6.843	80.23				

==========

Sequence No.: 42 **Autosampler Location: 38**
Sample ID: 1202076771|967582|10 **Date Collected: 3/23/2010 09:57:20**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076771|967582|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.556	3.556	0.0488	0.2443	0.0493	09:58:11	Yes
2	3.528	3.528	0.0484	0.2416	0.0489	09:58:41	Yes
Mean:	3.542	3.542	0.0486				
SD:	0.019	0.019	0.0003				
%RSD:	0.545	0.545	0.54				

==========

Sequence No.: 43 **Autosampler Location: 39**
Sample ID: 248673001|967582|1 **Date Collected: 3/23/2010 09:59:00**
Analyst: JXL **Data Type: Original**
User canceled analysis.

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\032310S1.SIF
Batch ID:
Results Data Set: 032310S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 3/16/2010 09:36:57**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/23/2010 10:02:14**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.176	0.176	0.0029	0.0173	0.0034	10:03:06	Yes
2	0.172	0.172	0.0028	0.0167	0.0033	10:03:36	Yes
Mean:	0.174	0.174	0.0029				
SD:	0.003	0.003	0.0000				
%RSD:	1.725	1.725	1.42				

QC value within limits for Hg 253.7 Recovery = 87.10%
All analyte(s) passed QC.

==========

Sequence No.: 2 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 10:03:56**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.204	5.204	0.0712	0.3552	0.0717	10:04:46	Yes
2	5.206	5.206	0.0712	0.3552	0.0717	10:05:16	Yes
Mean:	5.205	5.205	0.0712				
SD:	0.001	0.001	0.0000				
%RSD:	0.021	0.021	0.02				

QC value within limits for Hg 253.7 Recovery = 104.10%
All analyte(s) passed QC.

==========

Sequence No.: 3 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 10:05:35**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.037	-0.037	0.0000	0.0021	0.0005	10:06:25	Yes
2	-0.036	-0.036	0.0000	0.0021	0.0005	10:06:55	Yes
Mean:	-0.036	-0.036	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	1.756	1.756	46.59				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 4 **Autosampler Location: 39**
Sample ID: 248673001|967582|1 **Date Collected: 3/23/2010 10:07:14**

Analyst: JXL Data Type: Original

Replicate Data: 248673001|967582|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.618	0.618	0.0089	0.0470	0.0094	10:08:05	Yes
2	0.610	0.610	0.0088	0.0463	0.0093	10:08:35	Yes
Mean:	0.614	0.614	0.0088				
SD:	0.006	0.006	0.0001				
%RSD:	0.909	0.909	0.86				

Sequence No.: 5 Autosampler Location: 40
Sample ID: 248673002|967582|1 Date Collected: 3/23/2010 10:08:55
Analyst: JXL Data Type: Original

Replicate Data: 248673002|967582|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.304	0.304	0.0046	0.0253	0.0051	10:09:46	Yes
2	0.306	0.306	0.0047	0.0254	0.0052	10:10:16	Yes
Mean:	0.305	0.305	0.0046				
SD:	0.001	0.001	0.0000				
%RSD:	0.445	0.445	0.40				

Sequence No.: 6 Autosampler Location: 41
Sample ID: 248673003|967582|1 Date Collected: 3/23/2010 10:10:35
Analyst: JXL Data Type: Original

Replicate Data: 248673003|967582|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.370	0.370	0.0055	0.0302	0.0060	10:11:26	Yes
2	0.367	0.367	0.0055	0.0298	0.0060	10:11:56	Yes
Mean:	0.369	0.369	0.0055				
SD:	0.002	0.002	0.0000				
%RSD:	0.626	0.626	0.57				

Sequence No.: 7 Autosampler Location: 42
Sample ID: 248673004|967582|1 Date Collected: 3/23/2010 10:12:16
Analyst: JXL Data Type: Original

Replicate Data: 248673004|967582|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.358	0.358	0.0054	0.0293	0.0059	10:13:07	Yes
2	0.349	0.349	0.0053	0.0288	0.0058	10:13:37	Yes
Mean:	0.353	0.353	0.0053				
SD:	0.006	0.006	0.0001				
%RSD:	1.678	1.678	1.52				

Sequence No.: 8 Autosampler Location: 43
Sample ID: 248702001|967582|1 Date Collected: 3/23/2010 10:13:56
Analyst: JXL Data Type: Original

Replicate Data: 248702001|967582|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.149	1.149	0.0161	0.0829	0.0166	10:14:48	Yes
2	1.138	1.138	0.0160	0.0818	0.0165	10:15:17	Yes
Mean:	1.144	1.144	0.0160				
SD:	0.008	0.008	0.0001				
%RSD:	0.723	0.723	0.70				

Sequence No.: 9
Sample ID: 1202076772|967582|1
Analyst: JXL
Autosampler Location: 44
Date Collected: 3/23/2010 10:15:37
Data Type: Original

Replicate Data: 1202076772|967582|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.109	1.109	0.0156	0.0802	0.0161	10:16:28	Yes
2	1.101	1.101	0.0155	0.0795	0.0160	10:16:58	Yes
Mean:	1.105	1.105	0.0155				
SD:	0.006	0.006	0.0001				
%RSD:	0.530	0.530	0.51				

Sequence No.: 10
Sample ID: 1202076773|967582|1
Analyst: JXL
Autosampler Location: 45
Date Collected: 3/23/2010 10:17:17
Data Type: Original

Replicate Data: 1202076773|967582|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.136	3.136	0.0431	0.2172	0.0436	10:18:08	Yes
2	3.107	3.107	0.0427	0.2139	0.0432	10:18:38	Yes
Mean:	3.121	3.121	0.0429				
SD:	0.021	0.021	0.0003				
%RSD:	0.674	0.674	0.67				

Sequence No.: 11
Sample ID: 1202076775|967582|1
Analyst: JXL
Autosampler Location: 46
Date Collected: 3/23/2010 10:18:58
Data Type: Original

Replicate Data: 1202076775|967582|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.184	3.184	0.0438	0.2200	0.0443	10:19:49	Yes
2	3.144	3.144	0.0432	0.2166	0.0437	10:20:19	Yes
Mean:	3.164	3.164	0.0435				
SD:	0.029	0.029	0.0004				
%RSD:	0.901	0.901	0.89				

Sequence No.: 12
Sample ID: 1202076774|967582|5
Analyst: JXL
Autosampler Location: 47
Date Collected: 3/23/2010 10:20:39
Data Type: Original

Replicate Data: 1202076774|967582|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.209	0.209	0.0033	0.0188	0.0038	10:21:31	Yes
2	0.208	0.208	0.0033	0.0187	0.0038	10:22:01	Yes
Mean:	0.208	0.208	0.0033				
SD:	0.001	0.001	0.0000				
%RSD:	0.483	0.483	0.41				

Sequence No.: 13
Sample ID: 248702002|967582|1
Analyst: JXL
Autosampler Location: 48
Date Collected: 3/23/2010 10:22:21
Data Type: Original

Replicate Data: 248702002|967582|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.391	0.391	0.0058	0.0315	0.0063	10:23:12	Yes

2	0.392	0.392	0.0058	0.0316	0.0063	10:23:42	Yes
Mean:	0.391	0.391	0.0058				
SD:	0.000	0.000	0.0000				
%RSD:	0.021	0.021	0.02				

Sequence No.: 14 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 10:24:02**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.939	4.939	0.0676	0.3393	0.0681	10:24:52	Yes
2	4.862	4.862	0.0665	0.3334	0.0670	10:25:22	Yes
Mean:	4.900	4.900	0.0671				
SD:	0.055	0.055	0.0007				
%RSD:	1.117	1.117	1.11				

QC value within limits for Hg 253.7 Recovery = 98.00%
All analyte(s) passed QC.

Sequence No.: 15 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 10:25:41**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.041	-0.041	-0.0000	0.0022	0.0005	10:26:31	Yes
2	-0.044	-0.044	-0.0001	0.0017	0.0004	10:27:01	Yes
Mean:	-0.043	-0.043	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	4.782	4.782	40.46				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 16 **Autosampler Location: 49**
Sample ID: 1202076781|967585|1 **Date Collected: 3/23/2010 10:27:21**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076781|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.046	-0.046	-0.0001	0.0020	0.0004	10:28:12	Yes
2	-0.045	-0.045	-0.0001	0.0020	0.0004	10:28:42	Yes
Mean:	-0.045	-0.045	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.559	0.559	3.22				

Sequence No.: 17 **Autosampler Location: 50**
Sample ID: 1202076782|967585|10 **Date Collected: 3/23/2010 10:29:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076782|967585|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.640	3.640	0.0499	0.2499	0.0504	10:29:54	Yes
2	3.612	3.612	0.0496	0.2477	0.0501	10:30:23	Yes
Mean:	3.626	3.626	0.0498				
SD:	0.020	0.020	0.0003				
%RSD:	0.544	0.544	0.54				

Sequence No.: 18 **Autosampler Location: 51**

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 962599.0 **Verified by:**
Analyst: Louis Hall
Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19
Instrument: Sartorius Balance B-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202065101 MB	17-MAR-2010 10:00:00	0.538	50	92.9368	<2
1202065102 LCS	17-MAR-2010 10:00:00	0.512	50	97.65625	<2
248663001	17-MAR-2010 10:00:00	0.556	50	89.92806	<2
248663002	17-MAR-2010 10:00:00	0.525	50	95.2381	<2
248671001	17-MAR-2010 10:00:00	0.527	50	94.87666	<2
248671002	17-MAR-2010 10:00:00	0.52	50	96.15385	<2
248671003	17-MAR-2010 10:00:00	0.53	50	94.33962	<2
248673001	17-MAR-2010 10:00:00	0.5	50	100	<2
248673002	17-MAR-2010 10:00:00	0.516	50	96.89922	<2
248673003	17-MAR-2010 10:00:00	0.553	50	90.41591	<2
248673004	17-MAR-2010 10:00:00	0.542	50	92.25092	<2
248702001	17-MAR-2010 10:00:00	0.525	50	95.2381	<2
1202065103 DUP (248702001)	17-MAR-2010 10:00:00	0.551	50	90.7441	<2
1202065104 MS (248702001)	17-MAR-2010 10:00:00	0.552	50	90.57971	<2
1202065106 MSD (248702001)	17-MAR-2010 10:00:00	0.517	50	96.7118	<2
1202065105 SDILT (248702001)	17-MAR-2010 10:00:00	0.525	50	95.2381	<2
248702002	17-MAR-2010 10:00:00	0.533	50	93.80863	<2

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202065102	Metals Soil LCS SRM ICPMS	UI062540-MS	.512	g
MS	1202065104	ICP-MS Spike for soil products.	UI1286780-A	.5	mL
MS	1202065104	ICP-MS Spike for Soil Products	UI1286784-B	.5	mL
MSD	1202065106	ICP-MS Spike for soil products.	UI1286780-A	.5	mL
MSD	1202065106	ICP-MS Spike for Soil Products	UI1286784-B	.5	mL
REGNT	All	Nitric Acid CONC.	1234886	5	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL

Comments:

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **967581.0** Verified by:
Analyst: Tara Griffin
Method: SW846 7471A Prep
Lab SOP: GL-MA-E-010 REV# 23
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202076771	Metals LCS Soil SRM	UI031809A	.201	g
MS	1202076773	Mercury soil working intermediate standard for MS	WHG100322-14	.3	mL
MSD	1202076775	Mercury soil working intermediate standard for MS	WHG100322-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202076770 MB	22-MAR-2010 16:35:00	Soil	0.6	30	50	
1202076771 LCS	22-MAR-2010 16:35:00	Soil	0.201	30	149.25373	
248673001	22-MAR-2010 16:35:00	Soil	0.564	30	53.19149	
248673002	22-MAR-2010 16:35:00	Soil	0.559	30	53.66726	
248673003	22-MAR-2010 16:35:00	Soil	0.501	30	59.88024	
248673004	22-MAR-2010 16:35:00	Soil	0.523	30	57.36138	
248702001	22-MAR-2010 16:35:00	Soil	0.586	30	51.19454	
1202076772 DUP (248702001)	22-MAR-2010 16:35:00	Soil	0.525	30	57.14286	
1202076773 MS (248702001)	22-MAR-2010 16:35:00	Soil	0.507	30	59.1716	
1202076775 MSD (248702001)	22-MAR-2010 16:35:00	Soil	0.589	30	50.93379	
1202076774 SDILT (248702001)	22-MAR-2010 16:35:00	Soil	0.586	30	51.19454	
248702002	22-MAR-2010 16:35:00	Soil	0.511	30	58.70841	

Reagent/Solvent Lot ID	Description	Amount
1255532-C	Hg reducing agent	2 mL
1274391-1	NITRIC ACID	.375 mL
1277235-A	Hydrochloric Acid Conc.	1.125 mL
1277238-C	5% KMnO4 solution	7.5 mL
WHG100322-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL
WHG100322-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL
WHG100322-09	Mercury Working 1st Source CAL S 2.0	300 uL
WHG100322-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL
WHG100322-11	Mercury Working 1st Source CAL S 10.0	1.5 mL
WHG100322-12	Mercury Working 2nd Source S 5.0/ICV	750 uL

Comments:

Sample 248702001 is a clumpy brown soil.

Digestion Start Date: 22-MAR-10 16:35

Digestion End Date: 22-MAR-10 17:05

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **962594.0** Verified by:
Analyst: Anthony Green
Method: SW846 3050B
Lab SOP: GL-MA-E-009 REV# 19
Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202065092	Metals Soil LCS SRM ICP/Hg	UI062540-I	.516	g
MS	1202065094	Metals Spike Mix I	UI1268741-01	.25	mL
MS	1202065094	Metals Spike Mix II	UI1268744-06	.25	mL
MSD	1202065096	Metals Spike Mix I	UI1268741-01	.25	mL
MSD	1202065096	Metals Spike Mix II	UI1268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202065091 MB	16-MAR-2010 09:30:00	Soil	0.519	50	96.33911	
1202065092 LCS	16-MAR-2010 09:30:00	Soil	0.516	50	96.89922	
248663001	16-MAR-2010 09:30:00	Soil	0.525	50	95.2381	
248663002	16-MAR-2010 09:30:00	Soil	0.545	50	91.74312	
248671001	16-MAR-2010 09:30:00	Soil	0.5	50	100	
248671002	16-MAR-2010 09:30:00	Soil	0.511	50	97.84736	
248671003	16-MAR-2010 09:30:00	Soil	0.562	50	88.96797	
248673001	16-MAR-2010 09:30:00	Soil	0.522	50	95.78544	
248673002	16-MAR-2010 09:30:00	Soil	0.518	50	96.5251	
248673003	16-MAR-2010 09:30:00	Soil	0.515	50	97.08738	
248673004	16-MAR-2010 09:30:00	Soil	0.521	50	95.96929	
248702001	16-MAR-2010 09:30:00	Soil	0.504	50	99.20635	
1202065093 DUP (248702001)	16-MAR-2010 09:30:00	Soil	0.588	50	85.03401	
1202065094 MS (248702001)	16-MAR-2010 09:30:00	Soil	0.513	50	97.46589	
1202065096 MSD (248702001)	16-MAR-2010 09:30:00	Soil	0.557	50	89.76661	
1202065095 SDILT (248702001)	16-MAR-2010 09:30:00	Soil	0.504	50	99.20635	
248702002	16-MAR-2010 09:30:00	Soil	0.5	50	100	

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL
1282566	Nitric Acid CONC.	1.25 mL

Comments:
Sample 248702001 consist of brown, medium soil.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 980582.0 **Verified by:** _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: BAL-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202108417 MB	04-MAY-2010 08:15:00	0.527	50	94.87666	
1202108418 LCS	04-MAY-2010 08:15:00	0.503	50	99.40358	
248663001 - 2	04-MAY-2010 08:15:00	0.504	50	99.20635	
248663002 - 2	04-MAY-2010 08:15:00	0.551	50	90.7441	
248671001 - 2	04-MAY-2010 08:15:00	0.5	50	100	
248671002 - 2	04-MAY-2010 08:15:00	0.506	50	98.81423	
248671003 - 2	04-MAY-2010 08:15:00	0.505	50	99.0099	
248673001 - 2	04-MAY-2010 08:15:00	0.535	50	93.45794	
248673002 - 2	04-MAY-2010 08:15:00	0.52	50	96.15385	
248673003 - 2	04-MAY-2010 08:15:00	0.503	50	99.40358	
248673004 - 2	04-MAY-2010 08:15:00	0.53	50	94.33962	
248702001 - 2	04-MAY-2010 08:15:00	0.502	50	99.60159	
1202065103 - 2 DUP (248702001)	04-MAY-2010 08:15:00	0.523	50	95.60229	
1202065104 - 2 MS (248702001)	04-MAY-2010 08:15:00	0.518	50	96.5251	
1202065106 - 2 MSD (248702001)	04-MAY-2010 08:15:00	0.511	50	97.84736	
1202065105 - 2 SDILT (248702001)	04-MAY-2010 08:15:00	0.502	50	99.60159	
248702002 - 2	04-MAY-2010 08:15:00	0.547	50	91.40768	

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202108418	Metals Soil LCS SRM ICPMS	UI062540-MS	.503	g
MS	1202065104	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MS	1202065104	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
MSD	1202065106	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MSD	1202065106	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1291278	5	mL

Comments:

Sample 248702001 consist of brown, medium soil.

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
31-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
962595	See Below		

Potentially affected work order(s)(SDG): 248663(10-2254),248671(10-2253),248673(10-2252),248702(10-2264)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Failed Recovery for MSD/PSD

Failed Recovery for LCS/LCSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202065094MS 2. Failed RPD for DUP: QC 1202065093DUP 3. Failed RPD for MS/MSD, or PS/PSD: QC 1202065096MSD 4. Failed Recovery for LCS/LCSD: QC 1202065092LCS 5. Failed Recovery for MSD/PSD: QC 1202065096MSD	1. The matrix spike recovery failed outside of the control limits for antimony,barium,copper,magnesium,manganese,potassium and zinc due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for aluminum,barium,cadmium,calcium,chromium,cobalt,copper, iron,lead,magnesium,manganese,potassium,sodium,vanadium and zinc due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for antimony and copper due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 4. Silver and/or antimony did not meet the recovery acceptance criteria for the LCS. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures. 5. The matrix spike duplicate recovery failed outside of the control limits for antimony,barium,magnesium,manganese,potassium,vanadium and zinc due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 31-MAR-10

Data Validator/Group Leader:

Louise Smith 01-APR-10

DER Report No.: 824104
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
03-MAY-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
962601	See Below		

Potentially affected work order(s)(SDG): 248663(10-2254),248671(10-2253),248673(10-2252),248702(10-2264)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for MS/MSD, or PS/PSD: QC 1202065106MSD 2. Failed Recovery for MSD/PSD: QC 1202065106MSD	The matrix spike duplicate failed outside of the control limits for As. The matrix spike duplicate % RPD failed outside of the control limits for As. These failures were due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:
Rose Jenkins 04-MAY-10

Data Validator/Group Leader:
Jamie Johnson 04-MAY-10

DER Report No.: 825052
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
05-MAY-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
980583	See Below		

Potentially affected work order(s)(SDG): 248663(10-2254),248671(10-2253),248673(10-2252),248702(10-2264)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202065104MS 2. Failed RPD for DUP: QC 1202065103DUP 3. Failed Recovery for MSD/PSD: QC 1202065106MSD	The sample and sample duplicate % RPD failed outside the control limits for Ni due to possible sample homogeneity and /or matrix interference. Per GEL's accredited methods and SOP's, a corrective action is not required and the data is qualified and reported. The matrix spike/ matrix spike duplicate recovery failed outside of the control limits for Ni due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Rose Jenkins 06-MAY-10

Data Validator/Group Leader:

Jamie Johnson 06-MAY-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 22-APR-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090827-A **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 27-AUG-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090827-B **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 27-AUG-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L

Analyte	Concentration	Analyte	Concentration
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100310-49.13 **Opened:** 31-MAR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 01-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100325-40 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100325-41 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Standard Logbook

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100415-11 **Opened:** 15-APR-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 15-APR-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 15-APR-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI1268741-01 **Opened:** 11-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1268744-06 **Opened:** 11-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI1286780-A **Opened:** 16-MAR-10 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 16-MAR-10 **Lot Number :** 1017435
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI1286784-B **Opened:** 16-MAR-10 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 16-MAR-10 **Lot Number :** 1017435
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100415-03 **Opened:** 15-APR-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100322-01 **Opened:** 22-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 22-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 23-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L

Standard Logbook

Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100322-02 **Opened:** 22-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 23-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100322-07 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100322-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100322-08 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100322-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100322-09 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100322-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100322-10 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100322-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100322-11 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100322-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100322-12 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100322-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100322-14 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100331-42 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100331-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100331-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100331-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100331-43 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100331-44 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1293083
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100331-45 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100331-46 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1293083
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100331-47 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL &1%HNO3-1293083
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100502-04AB **Opened:** 02-MAY-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 02-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 03-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1306665
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100502-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100502-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100502-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100502-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100502-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100502-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100502-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100502-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100502-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100502-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100502-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100502-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100502-04B **Opened:** 02-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 02-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 03-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1306665
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100502-06B **Opened:** 02-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 02-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 03-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1306665
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100502-07B **Opened:** 02-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 02-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 03-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1306665
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100502-08B **Opened:** 02-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 02-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 03-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1306665
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100504-04AB **Opened:** 04-MAY-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 04-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 05-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100504-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100504-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100504-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100504-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100504-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100504-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100504-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100504-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100504-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100504-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100504-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100504-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100504-04B **Opened:** 04-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 04-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 05-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1333263
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100504-06B **Opened:** 04-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 04-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 05-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100504-07B **Opened:** 04-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 04-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 05-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1333263
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100504-08B **Opened:** 04-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 04-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 05-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-08
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Standard Logbook

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1234886 **Opened:** 27-NOV-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 27-NOV-09
Type: Reagent/Solvent **Expires:** 27-NOV-10
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Standard Logbook

Serial ID: 1277235-A **Opened:** 01-MAR-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 01-MAR-11
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1282564 **Opened:** 09-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 09-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1282566 **Opened:** 09-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 09-MAR-10
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1291278 **Opened:** 25-MAR-10 **Lot Number :** J 08035 L
Name: I-HNO3 **Received:** 25-MAR-10
Type: Reagent/Solvent **Expires:** 25-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1293083 **Opened:** 29-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 29-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 04-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1302252 **Opened:** 15-APR-10 **Lot Number :** J 10027 L
Name: I-HNO3 **Received:** 15-APR-10
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1302255 **Opened:** 15-APR-10 **Lot Number :** J07033
Name: I-HCL **Received:** 15-APR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1333263 **Opened:** 03-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 03-MAY-10
Type: Reagent/Solvent **Expires:** 10-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1302255	I-HCL	36.5-38.0	80 mL	8 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2264

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	962256	**Method:**	SW9012A Cyanide and Total
Prep Batch :	962255	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
248702001	RE46-10-13203
248702002	RE46-10-13202
1202064125	Method Blank (MB)
1202064126	248660002(WST36-10-8929) Sample Duplicate (DUP)
1202064127	248776001(RE11-10-1678) Sample Duplicate (DUP)
1202064128	248660002(WST36-10-8929) Matrix Spike (MS)
1202064129	248776001(RE11-10-1678) Matrix Spike (MS)
1202064130	248660002(WST36-10-8929) Matrix Spike Duplicate (MSD)
1202064131	248776001(RE11-10-1678) Matrix Spike Duplicate (MSD)
1202064132	Laboratory Control Sample (LCS)

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

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 248660002 (WST36-10-8929) and 248776001 (RE11-10-1678).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202064126 (WST36-10-8929) and 1202064127 (RE11-10-1678).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202064132 (LCS).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

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

Review Validation:

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

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

Reviewer: Nick Cole A. Elmore **Date:** 3.29.10

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-2264 GEL Work Order: 248702

The Qualifiers in this report are defined as follows:

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

** Indicates the analyte is a surrogate compound.

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

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

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

Reviewed by Nicki Cole A. Elmore 3.29.10

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 26, 2010

Client SDG: 10-2264

Client Sample ID:	RE46-10-13203	Project:	LANL01004
Sample ID:	248702001	Client ID:	LANL010
Matrix:	S		
Collect Date:	02-MAR-10 12:00		
Receive Date:	04-MAR-10		
Collector:	Client		
Moisture:	18.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.4	285	ug/kg	1	AXC2 03/12/10	1353	962256	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1239	962255

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 26, 2010

Client SDG: 10-2264

Client Sample ID:	RE46-10-13202	Project:	LANL01004
Sample ID:	248702002	Client ID:	LANL010
Matrix:	S		
Collect Date:	02-MAR-10 12:00		
Receive Date:	04-MAR-10		
Collector:	Client		
Moisture:	21.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.1	284	ug/kg	1	AXC2 03/12/10	1358	962256	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1239	962255

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 26, 2010

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

Contact: Ms. Joylene Valdez

Workorder: 248702

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis											
Batch 962256											
QC1202064126 248660002 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			AXC2	03/12/10 13:48
QC1202064127 248776001 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A				03/12/10 14:00
QC1202064132 LCS											
Cyanide, Total	67900				81300	ug/kg		120	(32%-157%)		03/12/10 13:46
QC1202064125 MB											
Cyanide, Total				U	250	ug/kg					03/12/10 13:45
QC1202064128 248660002 MS											
Cyanide, Total	5800	U	ND		5970	ug/kg		103	(26%-158%)		03/12/10 13:49
QC1202064129 248776001 MS											
Cyanide, Total	4850	U	ND		5040	ug/kg		104	(26%-158%)		03/12/10 14:01
QC1202064130 248660002 MSD											
Cyanide, Total	5370	U	ND		5480	ug/kg	8.67	102	(0%-30%)		03/12/10 13:50
QC1202064131 248776001 MSD											
Cyanide, Total	5420	U	ND		6020	ug/kg	17.6	111	(0%-30%)		03/12/10 14:02

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- JNX Non Calibrated Compound
- M M if above MDC and less than LLD
- M Matrix Related Failure

QC Summary

Workorder: 248702

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

N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

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

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

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 26-MAR-2010 16:40

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2264

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**12-MAR-2010 13:40:12**	**OM_3-12-2010_13-32-06**	**147**	**150**	**98**	**(90%-110%)**	**Yes**
CCV	12-MAR-2010 13:54:29	OM_3-12-2010_13-32-06	107	100	107	(90%-110%)	Yes
CCV	12-MAR-2010 14:06:54	OM_3-12-2010_13-32-06	108	100	108	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**12-MAR-2010 13:42:03**	**OM_3-12-2010_13-32-06**	**-1.46**	**10**	**Yes**
CCB	12-MAR-2010 13:56:19	OM_3-12-2010_13-32-06	-1.44	10	Yes
CCB	12-MAR-2010 14:08:45	OM_3-12-2010_13-32-06	-1.38	10	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **962255.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010C Distillation SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064132	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202064128	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064129	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064130	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064131	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202064125 MB	12-MAR-2010 12:39:00	Soil	0.5	25	50	>12
1202064132 LCS	12-MAR-2010 12:39:00	Soil	0.25	25	100	>12
248660002	12-MAR-2010 12:39:00	Soil	0.5	25	50	>12
1202064126 DUP (248660002)	12-MAR-2010 12:39:00	Soil	0.51	25	49.01961	>12
1202064128 MS (248660002)	12-MAR-2010 12:39:00	Soil	0.5	25	50	>12
1202064130 MSD (248660002)	12-MAR-2010 12:39:00	Soil	0.54	25	46.2963	>12
248682001	12-MAR-2010 12:39:00	Soil	0.53	25	47.16981	>12
248682002	12-MAR-2010 12:39:00	Soil	0.5	25	50	>12
248682003	12-MAR-2010 12:39:00	Soil	0.52	25	48.07692	>12
248702001	12-MAR-2010 12:39:00	Soil	0.54	25	46.2963	>12
248702002	12-MAR-2010 12:39:00	Soil	0.56	25	44.64286	>12
248728001	12-MAR-2010 12:39:00	Solid	0.58	25	43.10345	>12
248776001	12-MAR-2010 12:39:00	Soil	0.5	25	50	>12
1202064127 DUP (248776001)	12-MAR-2010 12:39:00	Soil	0.51	25	49.01961	>12
1202064129 MS (248776001)	12-MAR-2010 12:39:00	Soil	0.57	25	43.85965	>12
1202064131 MSD (248776001)	12-MAR-2010 12:39:00	Soil	0.51	25	49.01961	>12
248776002	12-MAR-2010 12:39:00	Soil	0.57	25	43.85965	>12
248776003	12-MAR-2010 12:39:00	Soil	0.54	25	46.2963	>12
248776004	12-MAR-2010 12:39:00	Soil	0.57	25	43.85965	>12
248776005	12-MAR-2010 12:39:00	Soil	0.58	25	43.10345	>12
248793001	12-MAR-2010 12:39:00	Soil	0.59	25	42.37288	>12

Prep Logbook

Batch ID: **962255.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010C Distillation SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064132	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202064128	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064129	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064130	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064131	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
248793002	12-MAR-2010 12:39:00	Soil	0.51	25	49.01961	>12
248793003	12-MAR-2010 12:39:00	Soil	0.54	25	46.2963	>12
248793004	12-MAR-2010 12:39:00	Soil	0.59	25	42.37288	>12
248863001	12-MAR-2010 12:39:00	Soil	0.56	25	44.64286	>12
248863002	12-MAR-2010 12:39:00	Soil	0.51	25	49.01961	>12
248863003	12-MAR-2010 12:39:00	Soil	0.53	25	47.16981	>12
248863004	12-MAR-2010 12:39:00	Soil	0.5	25	50	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100311-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/12/2010 13:33:03	OM_3-12-2010_13-32-06
150 ppb		1	axc2	3/12/2010 13:33:55	OM_3-12-2010_13-32-06
100 ppb		1	axc2	3/12/2010 13:34:47	OM_3-12-2010_13-32-06
50 ppb		1	axc2	3/12/2010 13:35:40	OM_3-12-2010_13-32-06
10 ppb		1	axc2	3/12/2010 13:36:34	OM_3-12-2010_13-32-06
CRDL 5.0 ppb		1	axc2	3/12/2010 13:37:27	OM_3-12-2010_13-32-06
ICAL-00		1	axc2	3/12/2010 13:38:22	OM_3-12-2010_13-32-06
ICV		1	axc2	3/12/2010 13:40:12	OM_3-12-2010_13-32-06
ICB		1	axc2	3/12/2010 13:42:03	OM_3-12-2010_13-32-06
CRDL		1	axc2	3/12/2010 13:43:53	OM_3-12-2010_13-32-06
1202064125	962256	1	axc2	3/12/2010 13:45:42	OM_3-12-2010_13-32-06
1202064132	962256	25	axc2	3/12/2010 13:46:35	OM_3-12-2010_13-32-06
248660002	962256	1	axc2	3/12/2010 13:47:28	OM_3-12-2010_13-32-06
1202064126	962256	1	axc2	3/12/2010 13:48:22	OM_3-12-2010_13-32-06
1202064128	962256	1	axc2	3/12/2010 13:49:14	OM_3-12-2010_13-32-06
1202064130	962256	1	axc2	3/12/2010 13:50:07	OM_3-12-2010_13-32-06
248682001	962256	1	axc2	3/12/2010 13:51:00	OM_3-12-2010_13-32-06
248682002	962256	1	axc2	3/12/2010 13:51:52	OM_3-12-2010_13-32-06
248682003	962256	1	axc2	3/12/2010 13:52:45	OM_3-12-2010_13-32-06
248702001	962256	1	axc2	3/12/2010 13:53:37	OM_3-12-2010_13-32-06
CCV		1	axc2	3/12/2010 13:54:29	OM_3-12-2010_13-32-06
CCB		1	axc2	3/12/2010 13:56:19	OM_3-12-2010_13-32-06
248702002	962256	1	axc2	3/12/2010 13:58:08	OM_3-12-2010_13-32-06
248728001	962256	1	axc2	3/12/2010 13:59:00	OM_3-12-2010_13-32-06
248776001	962256	1	axc2	3/12/2010 13:59:52	OM_3-12-2010_13-32-06
1202064127	962256	1	axc2	3/12/2010 14:00:44	OM_3-12-2010_13-32-06
1202064129	962256	1	axc2	3/12/2010 14:01:35	OM_3-12-2010_13-32-06
1202064131	962256	1	axc2	3/12/2010 14:02:29	OM_3-12-2010_13-32-06
248776002	962256	1	axc2	3/12/2010 14:03:22	OM_3-12-2010_13-32-06
248776003	962256	1	axc2	3/12/2010 14:04:16	OM_3-12-2010_13-32-06
248776004	962256	1	axc2	3/12/2010 14:05:09	OM_3-12-2010_13-32-06
248776005	962256	1	axc2	3/12/2010 14:06:02	OM_3-12-2010_13-32-06
CCV		1	axc2	3/12/2010 14:06:54	OM_3-12-2010_13-32-06
CCB		1	axc2	3/12/2010 14:08:45	OM_3-12-2010_13-32-06
248793001	962256	1	axc2	3/12/2010 14:10:34	OM_3-12-2010_13-32-06
248793002	962256	1	axc2	3/12/2010 14:11:27	OM_3-12-2010_13-32-06
248793003	962256	1	axc2	3/12/2010 14:12:19	OM_3-12-2010_13-32-06
248793004	962256	1	axc2	3/12/2010 14:13:12	OM_3-12-2010_13-32-06
248863001	962256	1	axc2	3/12/2010 14:14:05	OM_3-12-2010_13-32-06
248863002	962256	1	axc2	3/12/2010 14:14:57	OM_3-12-2010_13-32-06
248863003	962256	1	axc2	3/12/2010 14:15:49	OM_3-12-2010_13-32-06
248863004	962256	1	axc2	3/12/2010 14:16:41	OM_3-12-2010_13-32-06
CCV		1	axc2	3/12/2010 14:17:34	OM_3-12-2010_13-32-06
CCB		1	axc2	3/12/2010 14:19:24	OM_3-12-2010_13-32-06

Author: axc2 Date : 3/12/2010

Original Run Filename: OM_3-12-2010_13-32-06.OMN created 3/12/2010 13:32:06
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-12-2010_13-32-06.OMN last modified 3/12/2010 14:20:28
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100312-01	1	S1	200	10.7	3/12/2010@13:33:03			200 ppb
WCN100312-02	1	S2	150	7.88	3/12/2010@13:33:55			150 ppb
WCN100312-03	1	S3	100	5.47	3/12/2010@13:34:47			100 ppb
WCN100312-04	1	S4	50.0	2.82	3/12/2010@13:35:40			50 ppb
WCN100312-05	1	S5	10.0	0.717	3/12/2010@13:36:34			10 ppb
WCN100312-06	1	S6	5.00	0.426	3/12/2010@13:37:27			CRDL 5.0 ppb
WCN100312-08	1	S7	0.00	0.0751	3/12/2010@13:38:22			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99983 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100312-07	1	S8	147	7.85	3/12/2010@13:40:12			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-2.0 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.0 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100312-08	1	S7	-1.46	0.0807	3/12/2010@13:42:03			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.46 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.46 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100312-06	1	S6	5.06	0.422	3/12/2010@13:43:53			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.06 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.06 > 2.50					
		Message	Pass					
		Action	None					
1202064125|962256|MB	1	1	-2.23	0.0404	3/12/2010@13:45:42			
1202064132||LCS	1	2	32.5	1.86	3/12/2010@13:46:35		25.00	
248660002	1	3	-2.55	0.0237	3/12/2010@13:47:28			
1202064126||DUP	1	4	-1.90	0.0576	3/12/2010@13:48:22			
1202064128||MS	1	5	103	5.55	3/12/2010@13:49:14			
1202064130||MSD	1	6	102	5.49	3/12/2010@13:50:07			
248682001	1	7	-1.86	0.0593	3/12/2010@13:51:00			
248682002	1	8	-1.13	0.0976	3/12/2010@13:51:52			
248682003	1	9	-2.38	0.0325	3/12/2010@13:52:45			
248702001	1	10	-1.44	0.0814	3/12/2010@13:53:37			
WCN100312-03	1	S3	107	5.76	3/12/2010@13:54:29			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.9 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100312-08	1	S7	-1.44	0.0816	3/12/2010@13:56:19			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.44 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.44 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248702002	1	11	-1.65	0.0707	3/12/2010@13:58:08			
248728001	1	12	4.14	0.374	3/12/2010@13:59:00			
248776001	1	13	-0.741	0.118	3/12/2010@13:59:52			
1202064127||DUP	1	14	-1.55	0.0758	3/12/2010@14:00:44			
1202064129||MS	1	15	104	5.61	3/12/2010@14:01:35			
1202064131||MSD	1	16	111	5.98	3/12/2010@14:02:29			
248776002	1	17	-0.517	0.130	3/12/2010@14:03:22			
248776003	1	18	-1.89	0.0582	3/12/2010@14:04:16			
248776004	1	19	-1.84	0.0607	3/12/2010@14:05:09			
248776005	1	20	-1.39	0.0841	3/12/2010@14:06:02			
WCN100312-03	1	S3	108	5.81	3/12/2010@14:06:54			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	7.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100312-08	1	S7	-1.38	0.0849	3/12/2010@14:08:45			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.38 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.38 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248793001	1	21	-2.40	0.0313	3/12/2010@14:10:34			
248793002	1	22	-2.49	0.0267	3/12/2010@14:11:27			
248793003	1	23	-2.02	0.0512	3/12/2010@14:12:19			
248793004	1	24	-2.37	0.0327	3/12/2010@14:13:12			
248863001	1	25	-1.94	0.0555	3/12/2010@14:14:05			
248863002	1	26	-2.25	0.0390	3/12/2010@14:14:57			
248863003	1	27	-1.66	0.0701	3/12/2010@14:15:49			
248863004	1	28	-1.51	0.0781	3/12/2010@14:16:41			
WCN100312-03	1	S3	108	5.83	3/12/2010@14:17:34			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	8.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	8.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100312-08	1	S7	-1.72	0.0667	3/12/2010@14:19:24			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.72 < 5.00					

Author: axc2 Date : 3/12/2010

Message	CCB Passed					
Action	Continue					
DQM Test: < - Concentration Limit						
Result:	-1.72 > -5.00					
Message	CCB Passed					
Action	Continue					

Analyte Properties Table for OM_3-12-2010_13-32-06.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

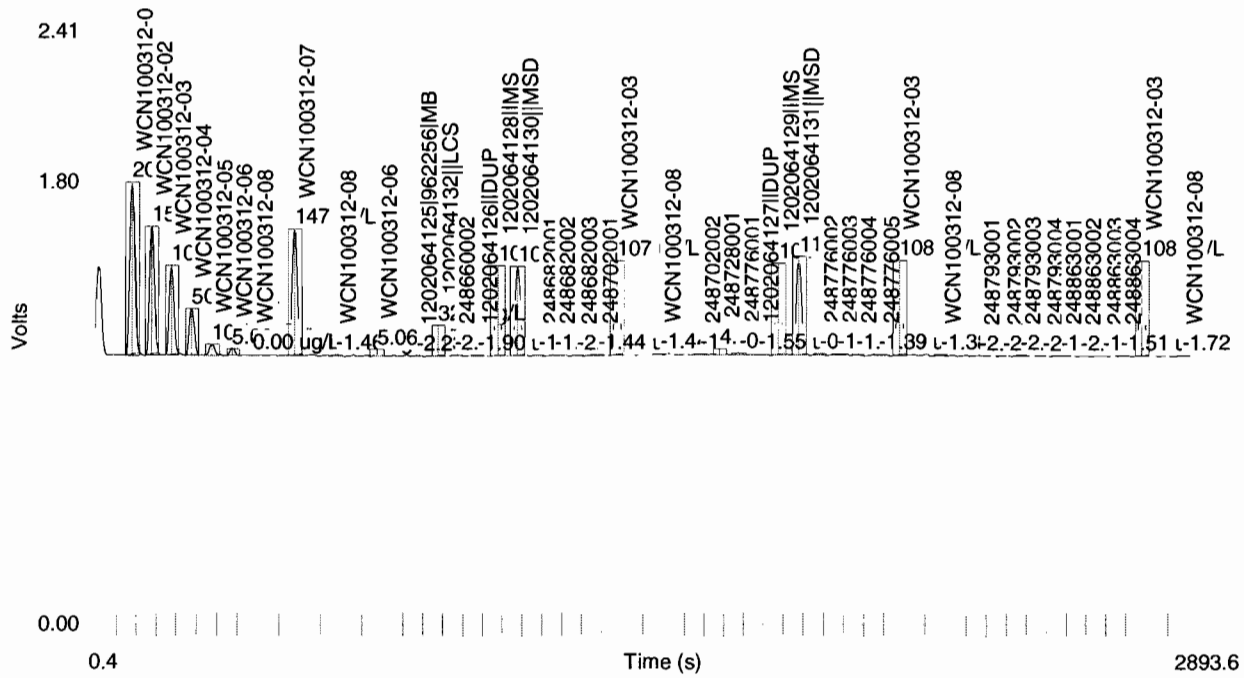

Author: axc2 Date : 3/12/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.7	0.699	-0.4	3/12/2010	13:34:06
2	150	1	7.88	0.517	1.6	3/12/2010	13:34:58
3	100	1	5.47	0.360	-1.5	3/12/2010	13:35:50
4	50.0	1	2.82	0.186	-1.7	3/12/2010	13:36:43
5	10.0	1	0.717	0.0456	-5.2	3/12/2010	13:37:37
6	5.00	1	0.426	0.0257	-1.3	3/12/2010	13:38:30
7	0.00	1	0.0751	0.00390		3/12/2010	13:39:25

Figure 1: TCYANIDE

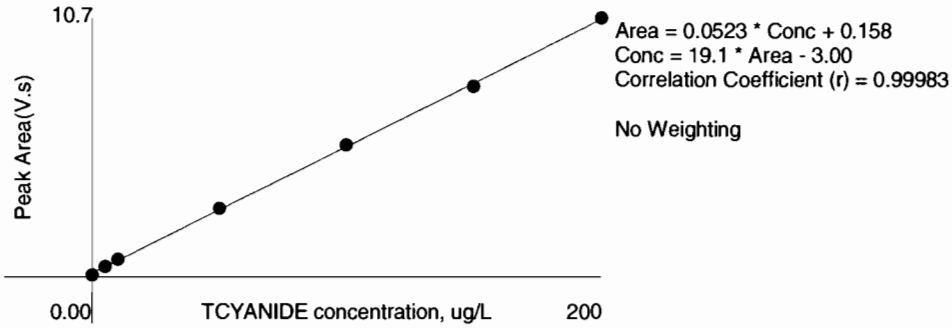

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2264

Method/Analysis Information

Product:	**Dry Weight-Percent Moisture**
Analytical Method:	Dry Soil Prep
Analytical Batch Number:	961746

Sample ID	Client ID
248702001	RE46-10-13203
248702002	RE46-10-13202
1202062888	248702001(RE46-10-13203) Sample Duplicate (DUP)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

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

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 248702001 (RE46-10-13203). The QC was from LANL work order 248702.

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

CSU
Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

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

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

Miscellaneous Information:

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

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

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	970440
Prep Batch Number:	961746

Sample ID	Client ID
248702001	RE46-10-13203
248702002	RE46-10-13202
1202083886	Method Blank (MB)
1202083887	249259001(RE16-10-2903) Sample Duplicate (DUP)
1202083888	Laboratory Control Sample (LCS)

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

SOP Reference

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

Calibration Information:

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

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

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

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202083886 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249259001 (RE16-10-2903). The QC was from LANL work order 249259.

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

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

Technical Information:

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

Sample Re-prep/Re-analysis
Samples were reprepped due to low carrier/tracer yield.

Miscellaneous Information:

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

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

Additional Comments

The MDCs are calculated using a blank population.

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

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965515
Prep Batch Number:	961746

Sample ID	Client ID
248702001	RE46-10-13203
248702002	RE46-10-13202
1202071742	Method Blank (MB)
1202071743	249259001(RE16-10-2903) Sample Duplicate (DUP)
1202071744	Laboratory Control Sample (LCS)

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

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

Calibration Information:

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

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

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

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202071742 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249259001 (RE16-10-2903). The QC was from LANL work order 249259.

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

CSU
The Pu-239/240 blank result, 1202071742 (MB), is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

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

Sample Re-prep/Re-analysis
Sample 1202071742 (MB) was given additional clean-up steps and recounted in order to remove suspected interferences. Sample 248702001 (RE46-10-13203) was recounted to achieve 400 tracer counts.

Miscellaneous Information:

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

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

Additional Comments
The MDCs are calculated using a blank population. Sample 248702001 (RE46-10-13203) did not meet the client's yield requirement. However, there are 400 tracer counts, GEL's standard tracer yield requirements are met, and the client's detection limits are met.

Blank Decision Level
The Pu-239/240 blank, 1202071742 (MB), result is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965517
Prep Batch Number:	961746

Sample ID	Client ID
248702001	RE46-10-13203
248702002	RE46-10-13202
1202071746	Method Blank (MB)
1202071747	249259001(RE16-10-2903) Sample Duplicate (DUP)
1202071748	Laboratory Control Sample (LCS)

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

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

Calibration Information:

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

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

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

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202071746 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249259001 (RE16-10-2903). The QC was from LANL work order 249259.

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

CSU
The U238 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

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

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

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG:
DER 812528 was generated due to Other. 1. Sample 248702002 does not meet the resolution requirement of having a full width half maximum of 100 keV or less. 1. The full width half maximum for the U232 tracer peak is 102 keV. The sample meets the client's tracer yield requirement, required detection limits and there are greater than 400 tracer counts. Reporting results.

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

Additional Comments
The MDCs are calculated using a blank population.

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

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962631
Prep Batch Number:	961746

Sample ID	Client ID
248702001	RE46-10-13203
248702002	RE46-10-13202
1202065185	Method Blank (MB)
1202065186	248824001(RE46-10-11926) Sample Duplicate (DUP)
1202065187	Laboratory Control Sample (LCS)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 19.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in June 2009, December 2009 and February 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

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

Quality Control (QC) Information:

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

Designated QC
The following sample was used for QC: 248824001 (RE46-10-11926). The QC was from LANL work order 248824.

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

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

Technical Information:

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

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

Miscellaneous Information:

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

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

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

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to high peak-width.	Radium-224	1202065185	MB for batch 962631
UI	Data rejected due to interference.	Bismuth-211	248702001	RE46-10-13203
			248702002	RE46-10-13202
			1202065186	RE46-10-11926(248824001DUP)
		Cadmium-109	248702001	RE46-10-13203
			248702002	RE46-10-13202
			1202065186	RE46-10-11926(248824001DUP)
		Mercury-203	1202065186	RE46-10-11926(248824001DUP)
		Radium-224	248702001	RE46-10-13203
			248702002	RE46-10-13202
			1202065186	RE46-10-11926(248824001DUP)
UI	Data rejected due to low abundance.	Cesium-134	248702002	RE46-10-13202
			1202065186	RE46-10-11926(248824001DUP)
		Lead-212	1202065185	MB for batch 962631
		Strontium-85	248702002	RE46-10-13202
			1202065186	RE46-10-11926(248824001DUP)

Certification Statement

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

Review Validation:

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

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

Reviewer/Date: Kath Bellatt 4/1/10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
01-APR-10	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ALPHA SPECTROMETER	DOE EML HASL-300, U-02-RC Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
965517	See below		

Potentially affected work order(s)(SDG): 248702(10-2264),249245(10-2415),249247(10-2416),249248(10-2417),249250(10-2418),249252(10-2419),249255(10-2420),249259(10-2421)

Application Issues:

Other

Specification and Requirements Exception Description:	DER Disposition:
1. Sample 248702002 does not meet the resolution requirement of having a full width half maximum of 100 keV or less.	1. The full width half maximum for the U232 tracer peak is 102 keV. The sample meets the client's tracer yield requirement, required detection limits and there are greater than 400 tracer counts. Reporting results.

Originator's Name:

Joseph Moulden 01-APR-10

Data Validator/Group Leader:

Kate Gellatly 01-APR-10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-2264 GEL Work Order: 248702

The Qualifiers in this report are defined as follows:

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

** Indicates the analyte is a surrogate compound.

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

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

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

Reviewed by _____

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: April 1, 2010

Client Sample ID: RE46-10-13203
Sample ID: 248702001
Matrix: S
Collect Date: 02-MAR-10
Receive Date: 04-MAR-10
Collector: Client
Moisture: 18.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00151	0.0152	+/-0.00121	0.050	pCi/g		CXM2	03/31/10	1331	970440	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0123	0.0347	+/-0.00656	0.050	pCi/g		CXM2	03/30/10	0802	965515	4
Plutonium-239/240	U	0.00	0.0292	+/-0.00246	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.08	0.0744	+/-0.0926	0.100	pCi/g		CXM2	03/31/10	0646	965517	6
Uranium-235/236		0.111	0.0454	+/-0.0205	0.100	pCi/g						
Uranium-238		1.00	0.0523	+/-0.0873	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.110	0.113	+/-0.0347	0.200	pCi/g		MXR1	03/23/10	0852	962631	7
Bismuth-211	UI	3.95	0.340	+/-0.283		pCi/g						
Bismuth-214		1.29	0.119	+/-0.109	0.200	pCi/g						
Cadmium-109	UI	2.54	0.994	+/-0.425		pCi/g						
Cerium-139	U	-0.0195	0.0537	+/-0.0165	0.050	pCi/g						
Cesium-134	U	0.0843	0.104	+/-0.0279	0.100	pCi/g						
Cesium-137	U	0.0625	0.0831	+/-0.0232	0.100	pCi/g						
Cobalt-60	U	-0.0264	0.0601	+/-0.0205	0.100	pCi/g						
Europium-152	U	0.0582	0.173	+/-0.064	0.200	pCi/g						
Lanthanum-140	U	-0.0159	0.208	+/-0.0638		pCi/g						
Lead-212		1.62	0.0951	+/-0.105	0.100	pCi/g						
Lead-214		1.44	0.129	+/-0.110	0.100	pCi/g						
Mercury-203	U	0.00837	0.0796	+/-0.0229	0.100	pCi/g						
Potassium-40		21.5	0.629	+/-1.04	1.00	pCi/g						
Radium-223	U	-0.664	1.25	+/-0.387		pCi/g						
Radium-224	UI	5.13	1.02	+/-0.746		pCi/g						
Radium-226		1.29	0.119	+/-0.109		pCi/g						
Radium-228		1.69	0.228	+/-0.196	0.500	pCi/g						
Ruthenium-106	U	-0.00293	0.551	+/-0.168	0.800	pCi/g						

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Certificate of Analysis

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

Report Date: April 1, 2010

Client Sample ID: RE46-10-13203
Sample ID: 248702001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Sodium-22	U	0.0295	0.0913	+/-0.0266	0.080	pCi/g						
Strontium-85	U	0.0549	0.0798	+/-0.0253		pCi/g						
Thallium-208		0.493	0.062	+/-0.0486	0.080	pCi/g						
Thorium-227	U	-0.0654	0.436	+/-0.128		pCi/g						
Thorium-231	U	-0.664	1.25	+/-0.387		pCi/g						
Thorium-234		1.68	1.11	+/-0.533	2.00	pCi/g						
Tin-113	U	0.013	0.0857	+/-0.025	0.100	pCi/g						
Uranium-235	U	0.0937	0.370	+/-0.108	0.500	pCi/g						
Yttrium-88	U	0.0215	0.0612	+/-0.0163	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Am-05-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, Pu-11-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	92.8	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	43.7 *	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	86.6	(50%-105%)

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

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

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Report Date: April 1, 2010

Client Sample ID: RE46-10-13203
Sample ID: 248702001

Project: LANL01004
Client ID: LANL010

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

D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
JNX Non Calibrated Compound
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13202
Sample ID: 248702002
Matrix: S
Collect Date: 02-MAR-10
Receive Date: 04-MAR-10
Collector: Client
Moisture: 21.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00409	0.0172	+/-0.00264	0.050	pCi/g		CXM2	03/31/10	1331	970440	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0112	0.025	+/-0.00725	0.050	pCi/g		CXM2	03/26/10	2118	965515	4
Plutonium-239/240	U	0.00241	0.0212	+/-0.003	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.16	0.0896	+/-0.102	0.100	pCi/g		CXM2	03/31/10	0646	965517	5
Uranium-235/236		0.255	0.0547	+/-0.0365	0.100	pCi/g						
Uranium-238		1.15	0.063	+/-0.102	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.164	0.592	+/-0.178	0.200	pCi/g		MXR1	03/23/10	1223	962631	6
Bismuth-211	UI	4.02	0.432	+/-0.344		pCi/g						
Bismuth-214		1.48	0.152	+/-0.138	0.200	pCi/g						
Cadmium-109	UI	2.27	2.22	+/-0.754		pCi/g						
Cerium-139	U	-0.0159	0.0735	+/-0.0235	0.050	pCi/g						
Cesium-134	UI	0.161	0.125	+/-0.0443	0.100	pCi/g						
Cesium-137	U	-0.0579	0.0784	+/-0.0256	0.100	pCi/g						
Cobalt-60	U	0.00573	0.0892	+/-0.0274	0.100	pCi/g						
Europium-152	U	-0.082	0.217	+/-0.0783	0.200	pCi/g						
Lanthanum-140	U	-0.0687	0.253	+/-0.0818		pCi/g						
Lead-212		2.43	0.128	+/-0.167	0.100	pCi/g						
Lead-214		1.46	0.171	+/-0.131	0.100	pCi/g						
Mercury-203	U	0.065	0.0992	+/-0.0393	0.100	pCi/g						
Potassium-40		29.1	0.694	+/-1.76	1.00	pCi/g						
Radium-223	U	0.317	1.48	+/-0.497		pCi/g						
Radium-224	UI	5.68	1.37	+/-1.04		pCi/g						
Radium-226		1.48	0.152	+/-0.138		pCi/g						
Radium-228		2.42	0.338	+/-0.284	0.500	pCi/g						
Ruthenium-106	U	0.381	0.750	+/-0.218	0.800	pCi/g						
Sodium-22	U	0.027	0.109	+/-0.0325	0.080	pCi/g						

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Report Date: April 1, 2010

Client Sample ID: RE46-10-13202
Sample ID: 248702002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.133	0.107	+/-0.0325		pCi/g						
Thallium-208		0.671	0.0801	+/-0.0602	0.080	pCi/g						
Thorium-227	U	0.0648	0.608	+/-0.178		pCi/g						
Thorium-231	U	0.317	1.48	+/-0.497		pCi/g						
Thorium-234	U	1.67	4.79	+/-1.40	2.00	pCi/g						
Tin-113	U	0.0609	0.119	+/-0.0342	0.100	pCi/g						
Uranium-235	U	-0.173	0.470	+/-0.150	0.500	pCi/g						
Yttrium-88	U	0.0189	0.0733	+/-0.0205	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Am-05-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.5	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	88.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	73.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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- > Result is greater than value reported
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- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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

Report Date: April 1, 2010

Client Sample ID: RE46-10-13202
Sample ID: 248702002

Project: LANL01004
Client ID: LANL010

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

E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
JNX Non Calibrated Compound
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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

QC Summary

Report Date: April 1, 2010

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

Contact: Ms. Joylene Valdez

Workorder: 248702

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965515										
QC1202071743 249259001 DUP										
Plutonium-238	U	0.00136	U	0.0132	pCi/g	0.806		(0-1)	CXM2	03/27/1013:01
	TPU:	+/-0.00236		+/-0.00501						
	Yield:	86.0		81.4						
Plutonium-239/240	U	0.00272	U	0.00132	pCi/g	0.166		(0-1)		
	TPU:	+/-0.00193		+/-0.00229						
	Yield:	86.0		81.4						
QC1202071744 LCS										
Plutonium-238				5.24	pCi/g			(75%-125%)		
	TPU:			+/-0.471						
	Yield:			78.4						
Plutonium-239/240	41.8			36.3	pCi/g		86.8	(75%-125%)		
	TPU:			+/-2.51						
	Yield:			78.4						
QC1202071742 MB										
Plutonium-238			U	0.00345	pCi/g					03/30/1008:02
	TPU:			+/-0.00346						
	Yield:			78.3						
Plutonium-239/240			U	0.0104	pCi/g					
	TPU:			+/-0.00427						
	Yield:			78.3						
Batch 965517										
QC1202071747 249259001 DUP										
Uranium-233/234		0.712		0.684	pCi/g	0.106		(0-1)	CXM2	03/30/1016:45
	TPU:	+/-0.0673		+/-0.0694						
	Yield:	80.2		75.2						
Uranium-235/236		0.0832		0.126	pCi/g	0.476		(0-1)		
	TPU:	+/-0.0189		+/-0.0258						
	Yield:	80.2		75.2						
Uranium-238		0.690		0.600	pCi/g	0.347		(0-1)		
	TPU:	+/-0.0659		+/-0.0634						
	Yield:	80.2		75.2						
QC1202071748 LCS										
Uranium-233/234				7.55	pCi/g					
	TPU:			+/-0.650						
	Yield:			87.0						
Uranium-235/236			U	0.226	pCi/g					
	TPU:			+/-0.104						
	Yield:			87.0						
Uranium-238	5.75			5.39	pCi/g		93.7	(75%-125%)		
	TPU:			+/-0.497						
	Yield:			87.0						
QC1202071746 MB										
Uranium-233/234			U	0.00589	pCi/g					

QC Summary

Workorder: 248702

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965517										
	TPU:			+/-0.00443						
	Yield:			93.0						
Uranium-235/236			U	0.00196	pCi/g					
	TPU:			+/-0.0034						
	Yield:			93.0						
Uranium-238			U	0.00635	pCi/g					
	TPU:			+/-0.00321						
	Yield:			93.0						
Batch 970440										
QC1202083887 249259001 DUP										
Americium-241	U	0.0017	U	-0.00142	pCi/g	0.553		(0-1)	CXM2	03/31/1013:32
	TPU:	+/-0.00134		+/-0.00149						
	Yield:	90.7		84.3						
QC1202083888 LCS										
Americium-241	33.1			31.1	pCi/g		93.7	(75%-125%)		03/31/1013:33
	TPU:			+/-2.21						
	Yield:			103						
QC1202083886 MB										
Americium-241			U	0.00194	pCi/g					03/31/1013:32
	TPU:			+/-0.00293						
	Yield:			95.1						
Rad Gamma Spec										
Batch 962631										
QC1202065186 248824001 DUP										
Americium-241	U	0.0757	U	0.303	pCi/g	0.360		(0-1)	MXR1	03/23/1014:39
	TPU:	+/-0.122		+/-0.194						
Bismuth-211	UI	5.22	UI	5.75	pCi/g	0.310		(0-1)		
	TPU:	+/-0.390		+/-0.460						
Bismuth-214		1.70		1.57	pCi/g	0.235		(0-1)		
	TPU:	+/-0.136		+/-0.141						
Cadmium-109	UI	6.27	UI	2.83	pCi/g	0.964		(0-1)		
	TPU:	+/-0.969		+/-0.813						
Cerium-139	U	0.028	U	0.00175	pCi/g	0.282		(0-1)		
	TPU:	+/-0.0216		+/-0.025						
Cesium-134	UI	0.160	UI	0.227	pCi/g	0.349		(0-1)		
	TPU:	+/-0.0469		+/-0.0488						
Cesium-137	U	-0.0349	U	0.0237	pCi/g	0.556		(0-1)		
	TPU:	+/-0.0254		+/-0.0274						
Cobalt-60	U	-0.0165	U	-0.0192	pCi/g	0.0237		(0-1)		
	TPU:	+/-0.0276		+/-0.0294						
Europium-152	U	0.120	U	-0.0656	pCi/g	0.540		(0-1)		
	TPU:	+/-0.0747		+/-0.0974						
Lanthanum-140	U	0.110	U	-0.0825	pCi/g	0.643		(0-1)		
	TPU:	+/-0.0679		+/-0.0819						
Lead-212		2.33		2.31	pCi/g	0.0414		(0-1)		
	TPU:	+/-0.140		+/-0.163						
Lead-214		1.90		2.09	pCi/g	0.292		(0-1)		
	TPU:	+/-0.151		+/-0.176						
Mercury-203	U	0.102	UI	0.132	pCi/g	0.209		(0-1)		

QC Summary

Workorder: 248702

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962631										
	TPU:	+/-0.0326		+/-0.0396						
Potassium-40		39.5		39.7	pCi/g	0.0159		(0-1)		
	TPU:	+/-2.41		+/-2.30						
Radium-223	U	0.396	U	-0.963	pCi/g	0.655		(0-1)		
	TPU:	+/-0.513		+/-0.525						
Radium-224	UI	5.86	UI	6.23	pCi/g	0.105		(0-1)		
	TPU:	+/-0.772		+/-0.983						
Radium-226		1.70		1.57	pCi/g	0.235		(0-1)		
	TPU:	+/-0.136		+/-0.141						
Radium-228		2.32		2.09	pCi/g	0.222		(0-1)		
	TPU:	+/-0.273		+/-0.240						
Ruthenium-106	U	-0.0495	U	0.328	pCi/g	0.435		(0-1)		
	TPU:	+/-0.209		+/-0.226						
Sodium-22	U	-0.036	U	-0.061	pCi/g	0.192		(0-1)		
	TPU:	+/-0.0299		+/-0.035						
Strontium-85	UI	0.135	UI	0.167	pCi/g	0.218		(0-1)		
	TPU:	+/-0.0338		+/-0.0388						
Thallium-208		0.644		0.752	pCi/g	0.386		(0-1)		
	TPU:	+/-0.0664		+/-0.0732						
Thorium-227	U	0.380	U	0.0182	pCi/g	0.481		(0-1)		
	TPU:	+/-0.182		+/-0.194						
Thorium-231	U	0.396	U	-0.963	pCi/g	0.655		(0-1)		
	TPU:	+/-0.513		+/-0.525						
Thorium-234		3.10		6.02	pCi/g	0.448		(0-1)		
	TPU:	+/-1.24		+/-2.01						
Tin-113	U	-0.0337	U	0.0133	pCi/g	0.349		(0-1)		
	TPU:	+/-0.0311		+/-0.0361						
Uranium-235	U	0.148	U	-0.0776	pCi/g	0.361		(0-1)		
	TPU:	+/-0.147		+/-0.165						
Yttrium-88	U	0.0165	U	0.0422	pCi/g	0.276		(0-1)		
	TPU:	+/-0.0195		+/-0.0271						
QC1202065187 LCS										
Americium-241	16.3			13.6	pCi/g		83.7	(75%-125%)		03/23/1014:40
	TPU:			+/-0.599						
Bismuth-211				3.40	pCi/g					
	TPU:			+/-0.374						
Bismuth-214				0.715	pCi/g					
	TPU:			+/-0.0974						
Cadmium-109				35.2	pCi/g					
	TPU:			+/-1.95						
Cerium-139			U	-0.00872	pCi/g					
	TPU:			+/-0.0216						
Cesium-134			U	0.053	pCi/g					
	TPU:			+/-0.0399						
Cesium-137	5.69			6.00	pCi/g		106	(75%-125%)		
	TPU:			+/-0.336						
Cobalt-60	6.49			6.63	pCi/g		102	(75%-125%)		
	TPU:			+/-0.326						
Europium-152			U	0.132	pCi/g					
	TPU:			+/-0.107						
Lanthanum-140			U	-0.128	pCi/g					

QC Summary

Workorder: 248702

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962631										
	TPU:			+/-0.0551						
Lead-212				1.57	pCi/g					
	TPU:			+/-0.128						
Lead-214				1.23	pCi/g					
	TPU:			+/-0.140						
Mercury-203			U	0.0203	pCi/g					
	TPU:			+/-0.0314						
Potassium-40			U	0.260	pCi/g					
	TPU:			+/-0.269						
Radium-223			U	-0.252	pCi/g					
	TPU:			+/-0.518						
Radium-224				3.47	pCi/g					
	TPU:			+/-0.978						
Radium-226				0.715	pCi/g					
	TPU:			+/-0.0974						
Radium-228				1.66	pCi/g					
	TPU:			+/-0.303						
Ruthenium-106			U	0.113	pCi/g					
	TPU:			+/-0.266						
Sodium-22			U	-0.0666	pCi/g					
	TPU:			+/-0.0239						
Strontium-85			U	-0.00466	pCi/g					
	TPU:			+/-0.0361						
Thallium-208				0.394	pCi/g					
	TPU:			+/-0.0551						
Thorium-227			U	0.0715	pCi/g					
	TPU:			+/-0.212						
Thorium-231			U	-0.252	pCi/g					
	TPU:			+/-0.518						
Thorium-234			U	-0.70	pCi/g					
	TPU:			+/-0.982						
Tin-113			U	0.0118	pCi/g					
	TPU:			+/-0.0383						
Uranium-235			U	-0.0818	pCi/g					
	TPU:			+/-0.144						
Yttrium-88			U	0.0286	pCi/g					
	TPU:			+/-0.0237						
QC1202065185 MB										
Americium-241			U	-0.0199	pCi/g					03/23/1014:39
	TPU:			+/-0.0419						
Bismuth-211			U	0.0304	pCi/g					
	TPU:			+/-0.0744						
Bismuth-214			U	-0.016	pCi/g					
	TPU:			+/-0.0272						
Cadmium-109			U	-0.0647	pCi/g					
	TPU:			+/-0.187						
Cerium-139			U	-0.00276	pCi/g					
	TPU:			+/-0.00912						
Cesium-134			U	-0.00715	pCi/g					
	TPU:			+/-0.0113						
Cesium-137			U	0.000152	pCi/g					

GEL LABORATORIES LLC

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

QC Summary

Workorder: 248702

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962631										
	TPU:			+/-0.0124						
Cobalt-60			U	-0.00737	pCi/g					
	TPU:			+/-0.0113						
Europium-152			U	0.0314	pCi/g					
	TPU:			+/-0.0313						
Lanthanum-140			U	0.0102	pCi/g					
	TPU:			+/-0.0262						
Lead-212			UI	0.079	pCi/g					
	TPU:			+/-0.0404						
Lead-214			U	0.0102	pCi/g					
	TPU:			+/-0.0275						
Mercury-203			U	-0.0217	pCi/g					
	TPU:			+/-0.0127						
Potassium-40			U	-0.309	pCi/g					
	TPU:			+/-0.134						
Radium-223			U	0.0566	pCi/g					
	TPU:			+/-0.203						
Radium-224			UI	0.840	pCi/g					
	TPU:			+/-0.429						
Radium-226			U	-0.016	pCi/g					
	TPU:			+/-0.0272						
Radium-228			U	0.0183	pCi/g					
	TPU:			+/-0.0474						
Ruthenium-106			U	-0.0474	pCi/g					
	TPU:			+/-0.0983						
Sodium-22			U	0.000677	pCi/g					
	TPU:			+/-0.0103						
Strontium-85			U	-0.07	pCi/g					
	TPU:			+/-0.0191						
Thallium-208			U	0.000768	pCi/g					
	TPU:			+/-0.0131						
Thorium-227			U	-0.0114	pCi/g					
	TPU:			+/-0.0763						
Thorium-231			U	0.0566	pCi/g					
	TPU:			+/-0.203						
Thorium-234			U	0.0562	pCi/g					
	TPU:			+/-0.391						
Tin-113			U	-0.00664	pCi/g					
	TPU:			+/-0.0145						
Uranium-235			U	-0.0424	pCi/g					
	TPU:			+/-0.0616						
Yttrium-88			U	0.000102	pCi/g					
	TPU:			+/-0.00764						

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

** Analyte is a surrogate compound

< Result is less than value reported

QC Summary

Workorder: **248702**

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

>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
JNX	Non Calibrated Compound
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

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

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

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 965575 Product: Pu Date: 3/31/10

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

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 3/31/10

Secondary Review Performed By: [illegible] 3/31/10

4/12 AP 3/31/10

Plutonium Que Sheet

15-MAR-10

Batch #: 965515 Pu-236 **Analyst:** CXM2 **First Client Due Date:** 01-APR-10 **Internal Due Date:** 21-MAR-10

Tracer Isotope(s): ~~Pu-242~~/Pu-236 3/23/10 CMM **Tracer Code:** 1430-C **Expiration Date:** 3/4/11 **Vol:** 0.1mL

LCS Isotope(s): Pu-239/Pu-238 **LCS Code:** 0244-B **Expiration Date:** 4/30/20 **Vol:** 0.102g

Spike Isotope(s): Pu-239/Pu-238 **Spike Code:** — **Expiration Date:** — **Vol:** —

Prep Date: 3/23/10 **Initials:** CMM **Pipet ID:** 4497063 **Balance ID:** 50410272 **Witness:** ME 3/23/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Pu Det #	
248702001-1	RE46-10-13203	SAMPLE		.05 pCi/g	SOIL	LANL010	02-MAR-10	1	1	1.252	112 ~~16~~	3/31
248702002-1	RE46-10-13202	SAMPLE		.05 pCi/g	SOIL	LANL010	02-MAR-10	2	2	1.269	17	
249245001-1	RE16-10-2800	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	3	3	1.251	18	
249245002-1	RE16-10-2799	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	4	4	1.276	31	
249247001-1	RE16-10-2985	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	5	5	1.267	33	
249247002-1	RE16-10-2984	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	6	6	1.272	35	
249247003-1	RE16-10-2982	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	7	7	1.253	36	
249248002-1	RE16-10-2911	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	8	8	1.276	65	
249248003-1	RE16-10-2910	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	9	9	1.272	66	
249248004-1	RE16-10-2909	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	10	10	1.264	67	
249250003-1	RE16-10-2917	SAMPLE		.05 pCi/g	SOIL	LANL010	08-MAR-10	11	11	1.275	68	
249250004-1	RE16-10-2916	SAMPLE		.05 pCi/g	SOIL	LANL010	08-MAR-10	12	12	1.277	69	
249252001-1	RE16-10-2871	SAMPLE		.05 pCi/g	SOIL	LANL010	08-MAR-10	13	13	1.254	~~24~~ 18	MC 3/24
249252002-1	RE16-10-2872	SAMPLE		.05 pCi/g	SOIL	LANL010	08-MAR-10	14	14	1.264	65	
249252003-1	RE16-10-2873	SAMPLE		.05 pCi/g	SOIL	LANL010	08-MAR-10	15	15	1.269	66	
249255001-1	RE16-10-2979	SAMPLE		.05 pCi/g	SOIL	LANL010	08-MAR-10	16	16	1.257	67	
249259001-1	RE16-10-2903	SAMPLE		.05 pCi/g	SOIL	LANL010	08-MAR-10	17	17	1.287	68	
249259002-1	RE16-10-2902	SAMPLE		.05 pCi/g	SOIL	LANL010	08-MAR-10	18	18	1.261	69	
1202071742-1	MB for batch 965515	MB		.05 pCi/g	SOIL	QC ACCOUNT		19	19	1	~~14~~ 105	3/31
1202071743-1	RE16-10-2903(249259001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	08-MAR-10	20	20	1.251	16	
1202071744-1	LCS for batch 965515	LCS		.05 pCi/g	SOIL	QC ACCOUNT		21	21	0.102	17	

*SRM 0244-B Exp 4/30/20

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

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

Data Reviewed By: 3/30/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 965515

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202071743	DUP	Plutonium-238	1.25 g	0.0132	0.00501	0.0187	.00276	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00132	0.00229	0.0157	.00832	pCi/g	YES
1202071744	LCS	Plutonium-238	0.102 g	5.24	0.471	0.268	.033823529	pCi/g	NO
		Plutonium-239/240	0.102 g	36.3	2.51	0.226	.101960784	pCi/g	NO
1202071742	MB	Plutonium-238	1.00 g	0.00345	0.00346	0.0244	.00345	pCi/g	YES
		Plutonium-239/240	1.00 g	0.0104	0.00427	0.0205	.0104	pCi/g	YES
248702001	RE46-10-13203	Plutonium-238	1.25 g	0.0123	0.00656	0.0347	.00276	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00	0.00246	0.0292	.00832	pCi/g	YES
248702002	RE46-10-13202	Plutonium-238	1.27 g	0.0112	0.00725	0.025	.002716535	pCi/g	YES
		Plutonium-239/240	1.27 g	0.00241	0.003	0.0212	.008188976	pCi/g	YES
249245001	RE16-10-2800	Plutonium-238	1.25 g	0.000611	0.00662	0.0225	.00276	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00387	0.00319	0.019	.00832	pCi/g	YES
249245002	RE16-10-2799	Plutonium-238	1.28 g	0.00783	0.00543	0.0292	.002695313	pCi/g	YES
		Plutonium-239/240	1.28 g	0.000879	0.00565	0.0247	.008125	pCi/g	YES
249247001	RE16-10-2985	Plutonium-238	1.27 g	0.00869	0.00392	0.0231	.002716535	pCi/g	YES
		Plutonium-239/240	1.27 g	0.00174	0.00174	0.0195	.008188976	pCi/g	YES
249247002	RE16-10-2984	Plutonium-238	1.27 g	0.00554	0.00361	0.0224	.002716535	pCi/g	YES
		Plutonium-239/240	1.27 g	0.00858	0.00732	0.019	.008188976	pCi/g	YES
249247003	RE16-10-2982	Plutonium-238	1.25 g	-0.000268	0.00316	0.0222	.00276	pCi/g	YES
		Plutonium-239/240	1.25 g	-0.000268	0.00316	0.0188	.00832	pCi/g	YES
249248002	RE16-10-2911	Plutonium-238	1.28 g	0.000141	0.00651	0.0234	.002695313	pCi/g	YES
		Plutonium-239/240	1.28 g	0.00274	0.00354	0.0197	.008125	pCi/g	YES
249248003	RE16-10-2910	Plutonium-238	1.27 g	0.000859	0.00564	0.0219	.002716535	pCi/g	YES
		Plutonium-239/240	1.27 g	0.00258	0.00332	0.0185	.008188976	pCi/g	YES
249248004	RE16-10-2909	Plutonium-238	1.26 g	0.00615	0.00561	0.024	.002738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00333	0.00427	0.0203	.008253968	pCi/g	YES
249250003	RE16-10-2917	Plutonium-238	1.28 g	0.000481	0.00212	0.0228	.002695313	pCi/g	YES
		Plutonium-239/240	1.28 g	0.00516	0.00299	0.0193	.008125	pCi/g	YES
249250004	RE16-10-2916	Plutonium-238	1.28 g	0.00517	0.003	0.0229	.002695313	pCi/g	YES
		Plutonium-239/240	1.28 g	-0.00152	0.00348	0.0193	.008125	pCi/g	YES
249252001	RE16-10-2871	Plutonium-238	1.25 g	-0.00376	0.00575	0.0177	.00276	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00502	0.00308	0.0149	.00832	pCi/g	YES
249252002	RE16-10-2872	Plutonium-238	1.26 g	0.00559	0.00714	0.0197	.002738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0014	0.00313	0.0166	.008253968	pCi/g	YES
249252003	RE16-10-2873	Plutonium-238	1.27 g	0.0044	0.00517	0.0155	.002716535	pCi/g	YES
		Plutonium-239/240	1.27 g	0.0055	0.00331	0.0131	.008188976	pCi/g	YES
249255001	RE16-10-2979	Plutonium-238	1.26 g	0.00246	0.00427	0.0174	.002738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00246	0.00348	0.0146	.008253968	pCi/g	YES
249259001	RE16-10-2903	Plutonium-238	1.29 g	0.00136	0.00236	0.0192	.002674419	pCi/g	YES

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
249259001	RE16-10-2903	Plutonium-239/240	1.29 g	0.00272	0.00193	0.0162	.008062016	pCi/g	YES
249259002	RE16-10-2902	Plutonium-238	1.26 g	0.00601	0.00271	0.017	.002738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00	0.0034	0.0143	.008253968	pCi/g	YES

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

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965515	CHAMBER : 112	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248702001_PU	DETECTOR S/N : 78261	BKG FILE : B112.CNF;700
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 33.5504	BKG DATE : 28-MAR-2010
SAMPLE DATE : 2-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 08:02:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W112.CNF;223
% YIELD : 43.660		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0059E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 1.3124E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5760.508	50.345	433.000	432.000	1.000	1.0000	100.0000	1.08E+00	8.65E-02	5.71E-03	1.81E-02	5.22E-02
PU-238	5499.000	5441.741	117.713	6.000	5.000	1.000	2.4495	99.90000	1.23E-02	6.56E-03	1.40E-02	3.47E-02	6.51E-03
PU-9/0	5155.000	5121.130	0.000	0.000	0.000	0.000	1.9732	99.90000	0.00E+00	2.46E-03	1.13E-02	2.92E-02	2.46E-03
PU242	4890.000	4752.676	185.766	5.000	4.000	1.000	*******	100.0000	9.82E-03	6.05E-03	7.12E-01	1.43E+00	6.02E-03
PU-244	4589.000	4525.294	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	2.46E-03	3.70E-02	8.06E-02	2.46E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

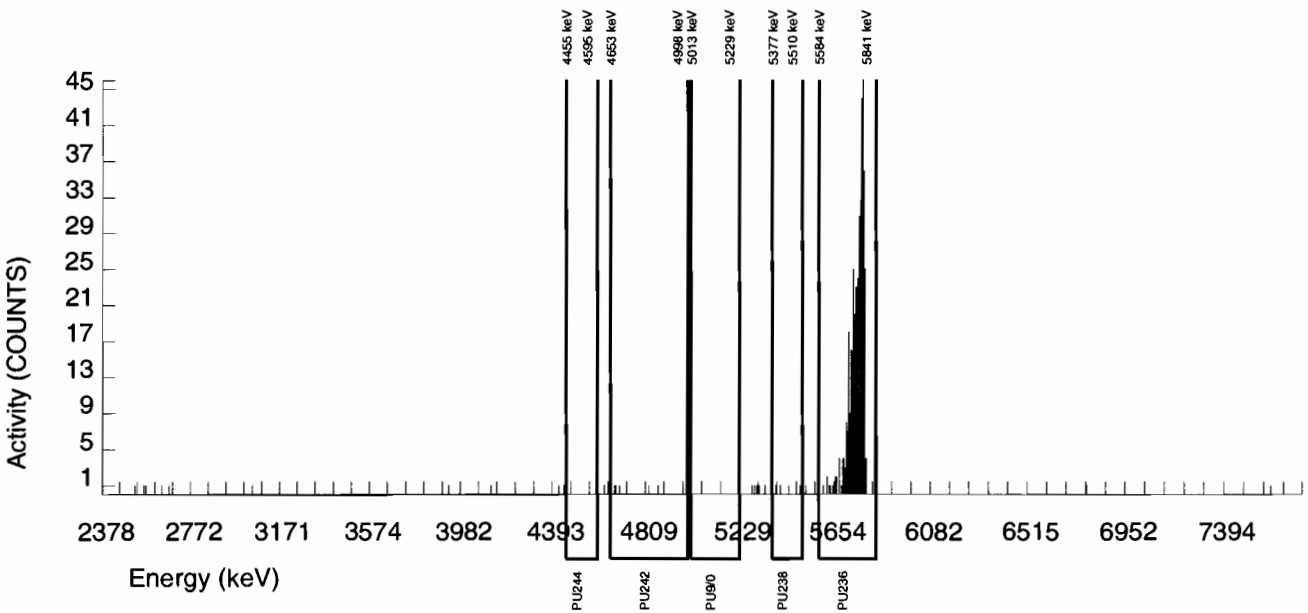

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965515	CHAMBER : 017	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248702002_PU	DETECTOR S/N : 78791	BKG FILE : B017.CNF;1948
SAMPLE QTY : 1.269 G	AVERAGE %EFFICIENCY : 29.7179	BKG DATE : 21-MAR-2010
SAMPLE DATE : 2-MAR-2010 00:00:00.	COUNT DATE : 26-MAR-2010 21:18:56	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W017.CNF;1264
% YIELD : 88.064		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0060E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6472E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5764.787	28.759	570.000	557.040	12.960	3.6000	100.0000	1.07E+00	7.89E-02	1.46E-02	3.44E-02	4.61E-02
PU-238	5499.000	5447.447	22.316	11.000	5.960	5.040	2.4495	99.90000	1.12E-02	7.25E-03	9.96E-03	2.50E-02	7.22E-03
PU-9/0	5155.000	5165.702	109.099	2.000	1.280	0.720	1.9732	99.90000	2.41E-03	3.00E-03	8.03E-03	2.12E-02	2.99E-03
PU242	4890.000	4858.742	133.894	3.000	1.560	1.440	*******	100.0000	2.94E-03	3.79E-03	5.07E-01	1.02E+00	3.78E-03
PU-244	4589.000	4464.276	4.959	1.000	0.280	0.720	6.4609	99.90000	5.28E-04	2.33E-03	2.63E-02	5.77E-02	2.32E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

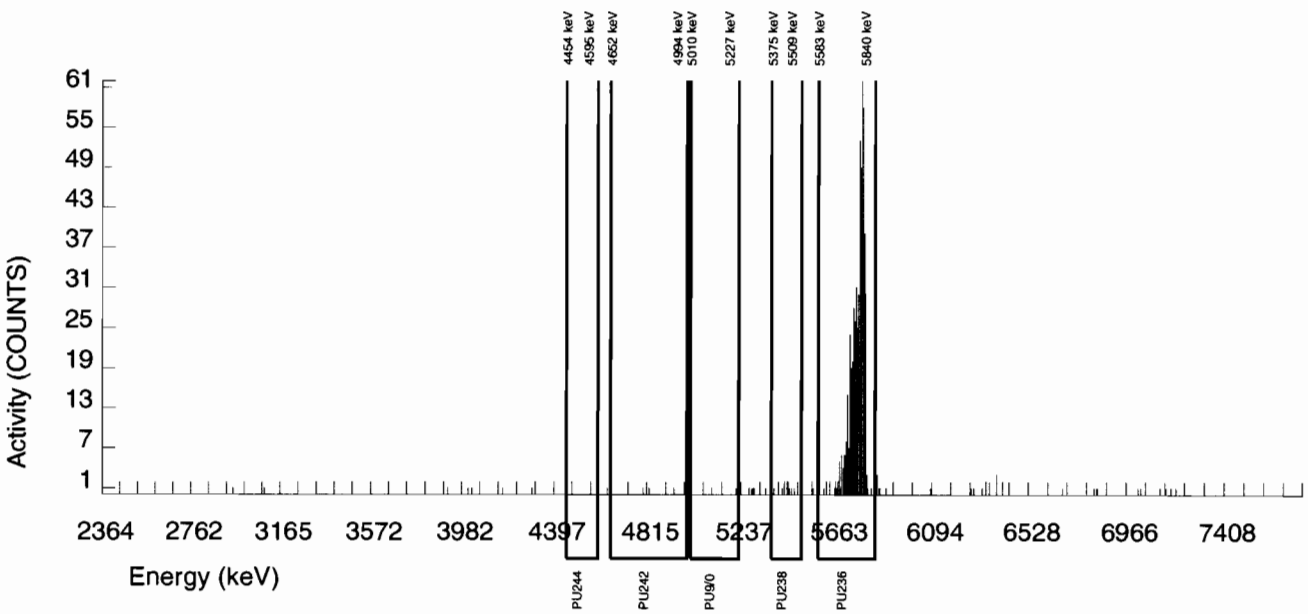

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965515	CHAMBER : 068	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0249259001_PU	DETECTOR S/N : 78794	BKG FILE : B068.CNF;1107
SAMPLE QTY : 1.287 G	AVERAGE %EFFICIENCY : 29.9395	BKG DATE : 21-MAR-2010
SAMPLE DATE : 8-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:01:50	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W068.CNF;282
% YIELD : 86.027		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9939E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.5756E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5772.712	42.436	766.000	761.000	5.000	2.2361	100.0000	1.05E+00	6.95E-02	7.07E-03	1.78E-02	3.82E-02
PU-238	5499.000	5378.527	0.000	2.000	1.000	1.000	2.4495	99.90000	1.36E-03	2.36E-03	7.75E-03	1.92E-02	2.36E-03
PU-9/0	5155.000	5143.759	44.625	2.000	2.000	0.000	1.9732	99.90000	2.72E-03	1.93E-03	6.24E-03	1.62E-02	1.92E-03
PU242	4890.000	4825.704	104.125	2.000	-1.000	3.000	*******	100.0000	-1.36E-03	3.04E-03	3.94E-01	7.92E-01	3.04E-03
PU-244	4589.000	4528.400	0.000	0.000	-3.000	3.000	6.4609	99.90000	-4.08E-03	2.72E-03	2.04E-02	4.46E-02	2.72E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

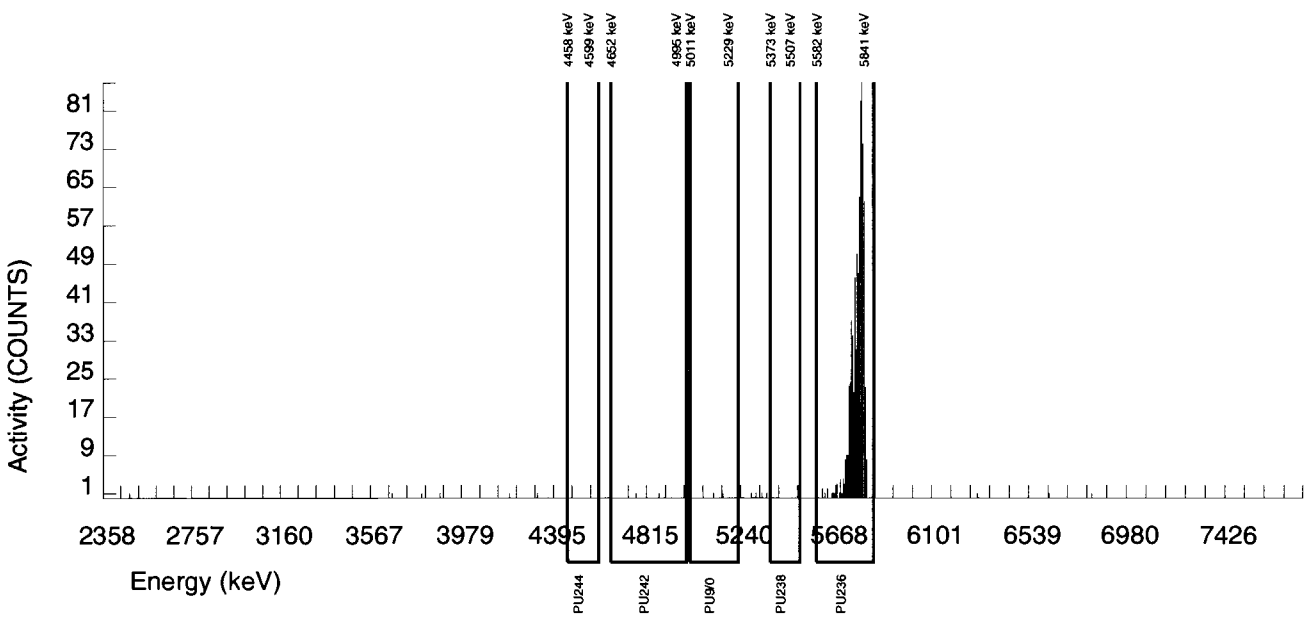

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965515	CHAMBER : 105	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202071742_PU	DETECTOR S/N : 78777	BKG FILE : B105.CNF;696
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 33.3263	BKG DATE : 28-MAR-2010
SAMPLE DATE : 23-MAR-2010 00:00:00	COUNT DATE : 30-MAR-2010 08:02:14	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W105.CNF;177
% YIELD : 78.344		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9643E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.3223E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5763.385	54.056	772.000	770.000	2.000	1.4142	100.0000	1.34E+00	8.81E-02	5.68E-03	1.60E-02	4.82E-02
PU-238	5499.000	5479.430	33.592	3.000	2.000	1.000	2.4495	99.90000	3.45E-03	3.46E-03	9.84E-03	2.44E-02	3.45E-03
PU-9/0	5155.000	5184.322	7.176	6.000	6.000	0.000	1.9732	99.90000	1.04E-02	4.27E-03	7.93E-03	2.05E-02	4.23E-03
PU242	4890.000	4823.445	263.848	6.000	5.000	1.000	*******	100.0000	8.63E-03	4.59E-03	5.00E-01	1.01E+00	4.56E-03
PU-244	4589.000	4533.975	63.519	2.000	1.000	1.000	6.4609	99.90000	1.73E-03	2.99E-03	2.60E-02	5.66E-02	2.99E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

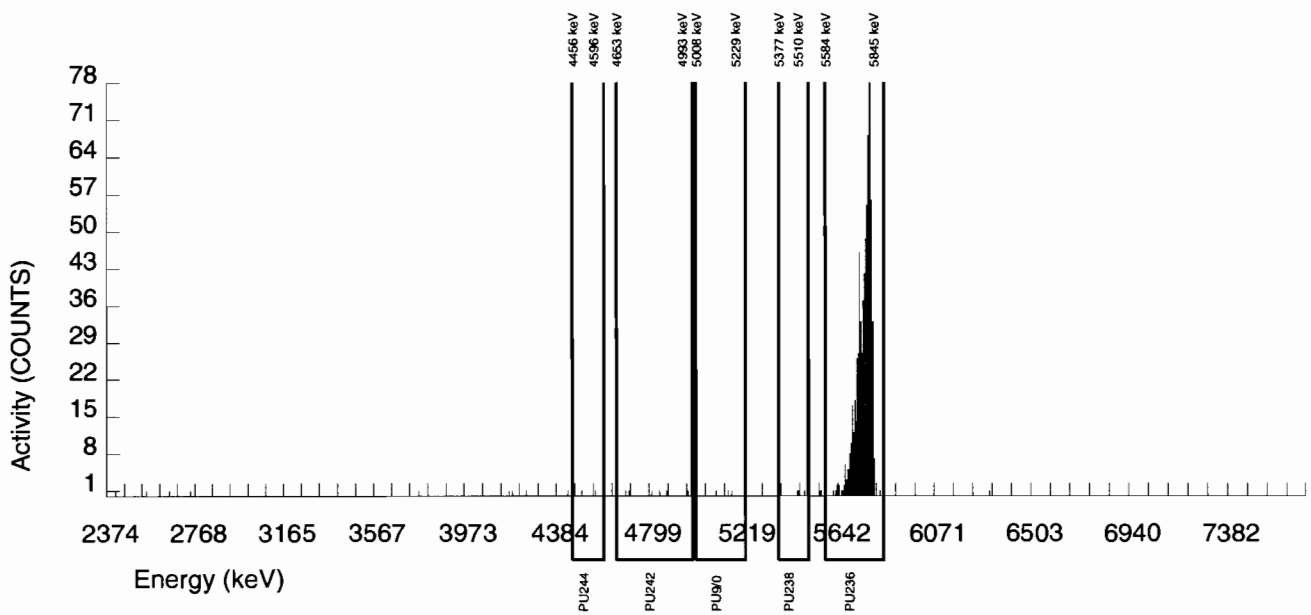

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965515	CHAMBER : 016	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202071743_PU	DETECTOR S/N : 78774	BKG FILE : B016.CNF;1101
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 33.4863	BKG DATE : 21-MAR-2010
SAMPLE DATE : 8-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:01:48	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W016.CNF;313
% YIELD : 81.362		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9939E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.4359E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5772.617	35.235	824.000	805.000	19.000	4.3589	100.0000	1.08E+00	7.10E-02	1.34E-02	3.04E-02	3.89E-02
PU-238	5499.000	5448.507	46.293	12.000	10.000	2.000	2.4495	99.90000	1.32E-02	5.01E-03	7.54E-03	1.87E-02	4.95E-03
PU-9/0	5155.000	5097.983	88.003	2.000	1.000	1.000	1.9732	99.90000	1.32E-03	2.29E-03	6.07E-03	1.57E-02	2.29E-03
PU242	4890.000	4668.617	4.889	1.000	-5.000	6.000	*******	100.0000	-6.61E-03	3.50E-03	3.83E-01	7.70E-01	3.50E-03
PU-244	4589.000	4526.445	0.000	0.000	-1.000	1.000	6.4609	99.90000	-1.32E-03	1.87E-03	1.99E-02	4.34E-02	1.87E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

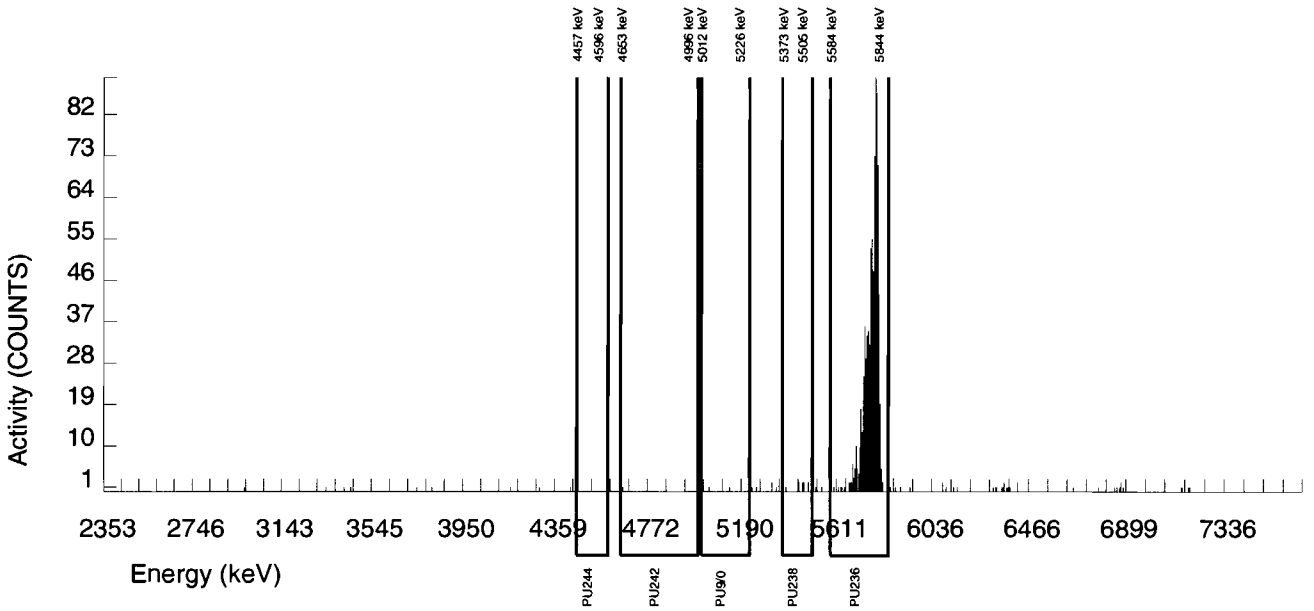

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965515	CHAMBER : 017	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202071744_PU	DETECTOR S/N : 78791	BKG FILE : B017.CNF;1948
SAMPLE QTY : 0.102 G	AVERAGE %EFFICIENCY : 29.7179	BKG DATE : 21-MAR-2010
SAMPLE DATE : 23-MAR-2010 00:00:00	COUNT DATE : 27-MAR-2010 13:01:48	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W017.CNF;1264
% YIELD : 78.355		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9643E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.3226E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5764.252	55.985	706.000	688.000	18.000	4.2426	100.0000	1.31E+01	9.97E-01	1.87E-01	4.26E-01	5.12E-01
PU-238	5499.000	5480.340	0.000	283.000	276.000	7.000	2.4495	99.90000	5.24E+00	4.71E-01	1.08E-01	2.68E-01	3.23E-01
PU-9/0	5155.000	5149.718	33.407	1911.000	1910.000	1.000	1.9732	99.90000	3.63E+01	2.51E+00	8.71E-02	2.26E-01	8.30E-01
PU242	4890.000	4874.523	166.851	33.000	31.000	2.000	*******	100.0000	5.88E-01	1.19E-01	5.50E+00	1.11E+01	1.12E-01
PU-244	4589.000	4514.351	54.549	5.000	4.000	1.000	6.4609	99.90000	7.59E-02	4.68E-02	2.85E-01	6.22E-01	4.65E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

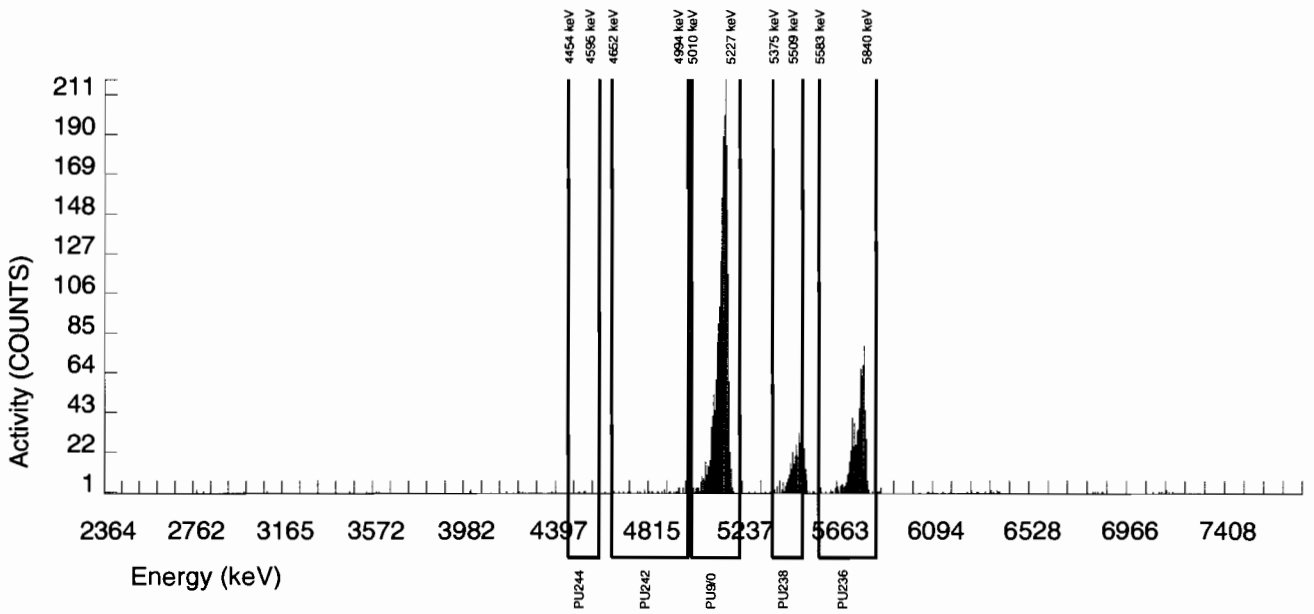

Radiochemistry Batch Checklist, Rev10

Batch# 965517 Product: U Date: 4/1/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	✓		DER 812528
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	✓		DER 812528
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 4/1/10

Secondary Review Performed By: [illegible] 4/1/10

4/2

Uranium Que Sheet

26-MAR-10

(Recopy)

Batch #: 965517 Analyst: CXM2 First Client Due Date: ~~01-APR-10~~ 2-APR-10 AD 3/31/10 Internal Due Date: 21-MAR-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: 0.1mL Analyzed Sequentially with Pu N/A

LCS Isotope: U-238 LCS Code: 0244-A Expiration Date: 10/31/20 Vol: 0.100g Pu-236 ID: ____

Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: — # SRM ~~Vol.~~ ____

Prep Date: 3/23/10 Initials: CMM Pipet ID: 4497063 Balance ID: 50410272 Witness: ME 3/23/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g / l / f)	U Det #
248702001-1	RE46-10-13203	SAMPLE		.1 pCi/g	SOIL	LANL010	02-MAR-10	1	1	0.504	~~128~~ 161
248702002-1	RE46-10-13202	SAMPLE		.1 pCi/g	SOIL	LANL010	02-MAR-10	2	2	0.503	129 162
249245001-1	RE16-10-2800	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	3	3	0.506	132 164
249245002-1	RE16-10-2799	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	4	4	0.505	133 165
249247001-1	RE16-10-2985	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	5	5	0.523	134 166
249247002-1	RE16-10-2984	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	6	6	0.504	~~135~~ 167
249247003-1	RE16-10-2982	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	7	7	0.521	168 ~~161~~
249248002-1	RE16-10-2911	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	8	8	0.514	161 167
249248003-1	RE16-10-2910	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	9	9	0.517	162 164
249248004-1	RE16-10-2909	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	10	10	0.500	164 165
249250003-1	RE16-10-2917	SAMPLE		.1 pCi/g	SOIL	LANL010	08-MAR-10	11	11	0.517	165 166
249250004-1	RE16-10-2916	SAMPLE		.1 pCi/g	SOIL	LANL010	08-MAR-10	12	12	0.520	166 167
249252001-1	RE16-10-2871	SAMPLE		.1 pCi/g	SOIL	LANL010	08-MAR-10	13	13	0.536	167 168
249252002-1	RE16-10-2872	SAMPLE		.1 pCi/g	SOIL	LANL010	08-MAR-10	14	14	0.509	168 169
249252003-1	RE16-10-2873	SAMPLE		.1 pCi/g	SOIL	LANL010	08-MAR-10	15	15	0.539	169 170
249255001-1	RE16-10-2979	SAMPLE		.1 pCi/g	SOIL	LANL010	08-MAR-10	16	16	0.528	170 171
249259001-1	RE16-10-2903	SAMPLE		.1 pCi/g	SOIL	LANL010	08-MAR-10	17	17	0.516	171 ~~172~~
249259002-1	RE16-10-2902	SAMPLE		.1 pCi/g	SOIL	LANL010	08-MAR-10	18	18	0.534	172
1202071746-1	MB for batch 965517	MB		.1 pCi/g	SOIL	QC ACCOUNT		19	19	1	2
1202071747-1	RE16-10-2903(249259001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	08-MAR-10	20	20	0.531	3
1202071748-1	LCS for batch 965517	LCS		.1 pCi/g	SOIL	QC ACCOUNT		21	21	0.100	4

3/31/10

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: JoLMC 4/1/10

Blank Correction Report

Batch ID 965517

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202071747	DUP	Uranium-233/234	0.531 g	0.684	0.0694	0.0989	.011092279	pCi/g	NO
		Uranium-235/236	0.531 g	0.126	0.0258	0.0604	.003691149	pCi/g	NO
		Uranium-238	0.531 g	0.600	0.0634	0.0695	.011958569	pCi/g	NO
1202071748	LCS	Uranium-233/234	0.100 g	7.55	0.650	0.468	.0589	pCi/g	NO
		Uranium-235/236	0.100 g	0.226	0.104	0.286	.0196	pCi/g	NO
		Uranium-238	0.100 g	5.39	0.497	0.329	.0635	pCi/g	NO
1202071746	MB	Uranium-233/234	1.00 g	0.00589	0.00443	0.0448	.00589	pCi/g	YES
		Uranium-235/236	1.00 g	0.00196	0.0034	0.0274	.00196	pCi/g	YES
		Uranium-238	1.00 g	0.00635	0.00321	0.0315	.00635	pCi/g	YES
248702001	RE46-10-13203	Uranium-233/234	0.504 g	1.08	0.0926	0.0744	.011686508	pCi/g	NO
		Uranium-235/236	0.504 g	0.111	0.0205	0.0454	.003888889	pCi/g	NO
		Uranium-238	0.504 g	1.00	0.0873	0.0523	.012599206	pCi/g	NO
248702002	RE46-10-13202	Uranium-233/234	0.503 g	1.16	0.102	0.0896	.011709742	pCi/g	NO
		Uranium-235/236	0.503 g	0.255	0.0365	0.0547	.003896620	pCi/g	NO
		Uranium-238	0.503 g	1.15	0.102	0.063	.012624254	pCi/g	NO
249245001	RE16-10-2800	Uranium-233/234	0.506 g	0.851	0.0754	0.0711	.011640316	pCi/g	NO
		Uranium-235/236	0.506 g	0.0717	0.0164	0.0434	.003873518	pCi/g	NO
		Uranium-238	0.506 g	0.961	0.0832	0.050	.012549407	pCi/g	NO
249245002	RE16-10-2799	Uranium-233/234	0.505 g	0.841	0.0751	0.0724	.011663366	pCi/g	NO
		Uranium-235/236	0.505 g	0.117	0.021	0.0442	.003881188	pCi/g	NO
		Uranium-238	0.505 g	0.801	0.0722	0.0509	.012574257	pCi/g	NO
249247001	RE16-10-2985	Uranium-233/234	0.523 g	0.649	0.0609	0.0695	.011261950	pCi/g	NO
		Uranium-235/236	0.523 g	0.0823	0.0179	0.0425	.003747610	pCi/g	NO
		Uranium-238	0.523 g	0.624	0.0586	0.0489	.012141491	pCi/g	NO
249247002	RE16-10-2984	Uranium-233/234	0.504 g	0.800	0.0729	0.0748	.011686508	pCi/g	NO
		Uranium-235/236	0.504 g	0.0656	0.0161	0.0457	.003888889	pCi/g	NO
		Uranium-238	0.504 g	0.732	0.068	0.0526	.012599206	pCi/g	NO
249247003	RE16-10-2982	Uranium-233/234	0.521 g	0.967	0.0838	0.0695	.011305182	pCi/g	NO
		Uranium-235/236	0.521 g	0.067	0.0162	0.0424	.003761996	pCi/g	NO
		Uranium-238	0.521 g	0.894	0.0783	0.0488	.012188100	pCi/g	NO
249248002	RE16-10-2911	Uranium-233/234	0.514 g	0.679	0.0624	0.068	.011459144	pCi/g	NO
		Uranium-235/236	0.514 g	0.0656	0.0147	0.0416	.003613230	pCi/g	NO
		Uranium-238	0.514 g	0.743	0.067	0.0478	.012354086	pCi/g	NO
249248003	RE16-10-2910	Uranium-233/234	0.517 g	0.536	0.0507	0.0626	.011392650	pCi/g	NO
		Uranium-235/236	0.517 g	0.0274	0.00889	0.0383	.003791103	pCi/g	NO
		Uranium-238	0.517 g	0.469	0.0459	0.044	.012282398	pCi/g	NO
249248004	RE16-10-2909	Uranium-233/234	0.500 g	0.721	0.0684	0.0821	.01178	pCi/g	NO
		Uranium-235/236	0.500 g	0.0792	0.0185	0.0502	.00392	pCi/g	NO
		Uranium-238	0.500 g	0.757	0.0711	0.0577	.0127	pCi/g	NO
249250003	RE16-10-2917	Uranium-233/234	0.517 g	0.574	0.0557	0.0715	.011392650	pCi/g	NO
		Uranium-235/236	0.517 g	0.069	0.0155	0.0437	.003791103	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
249250003	RE16-10-2917	Uranium-238	0.517 g	0.589	0.0566	0.0503	.012282398	pCi/g	NO
249250004	RE16-10-2916	Uranium-233/234	0.520 g	0.584	0.0554	0.0663	.011326923	pCi/g	NO
		Uranium-235/236	0.520 g	0.0669	0.0158	0.0405	.003769231	pCi/g	NO
		Uranium-238	0.520 g	0.649	0.0598	0.0466	.012211538	pCi/g	NO
249252001	RE16-10-2871	Uranium-233/234	0.536 g	0.791	0.0714	0.0708	.010988806	pCi/g	NO
		Uranium-235/236	0.536 g	0.0744	0.0166	0.0432	.003656716	pCi/g	NO
		Uranium-238	0.536 g	0.843	0.0751	0.0497	.011847015	pCi/g	NO
249252002	RE16-10-2872	Uranium-233/234	0.509 g	0.692	0.0655	0.0753	.011571709	pCi/g	NO
		Uranium-235/236	0.509 g	0.0792	0.0183	0.046	.003850688	pCi/g	NO
		Uranium-238	0.509 g	0.699	0.0656	0.0529	.012475442	pCi/g	NO
249252003	RE16-10-2873	Uranium-233/234	0.539 g	0.878	0.0778	0.0723	.010927644	pCi/g	NO
		Uranium-235/236	0.539 g	0.162	0.0261	0.0441	.003636364	pCi/g	NO
		Uranium-238	0.539 g	0.856	0.0763	0.0508	.011781076	pCi/g	NO
249255001	RE16-10-2979	Uranium-233/234	0.528 g	0.776	0.0733	0.0839	.011155303	pCi/g	NO
		Uranium-235/236	0.528 g	0.0919	0.0202	0.0512	.003712121	pCi/g	NO
		Uranium-238	0.528 g	0.866	0.080	0.059	.012026515	pCi/g	NO
249259001	RE16-10-2903	Uranium-233/234	0.516 g	0.712	0.0673	0.076	.011414729	pCi/g	NO
		Uranium-235/236	0.516 g	0.0832	0.0189	0.0464	.003798450	pCi/g	NO
		Uranium-238	0.516 g	0.690	0.0659	0.0534	.012306202	pCi/g	NO
249259002	RE16-10-2902	Uranium-233/234	0.534 g	0.334	0.0372	0.068	.011029963	pCi/g	NO
		Uranium-235/236	0.534 g	0.0865	0.0191	0.0416	.003670412	pCi/g	NO
		Uranium-238	0.534 g	0.357	0.0388	0.0478	.011891386	pCi/g	NO

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965517	CHAMBER : 161	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248702001_UU	DETECTOR S/N : 70321	BKG FILE : B161.CNF;185
SAMPLE QTY : 0.504 G	AVERAGE %EFFICIENCY : 39.1643	BKG DATE : 28-MAR-2010
SAMPLE DATE : 2-MAR-2010 00:00:00.	COUNT DATE : 31-MAR-2010 06:46:42	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W161.CNF;65
% YIELD : 86.561		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5021E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.8970E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5292.340	79.035	1528.000	1525.000	3.000	1.7321	100.0000	4.02E+00	3.00E-01	1.06E-02	2.84E-02	1.03E-01
U-3/4	4763.020	4749.922	71.123	412.000	409.455	1.000	5.4790	100.0000	1.08E+00	9.26E-02	3.36E-02	7.44E-02	5.35E-02
U-235	4391.000	4406.640	112.530	34.000	34.000	0.000	2.4127	80.90000	1.11E-01	2.05E-02	1.83E-02	4.54E-02	1.90E-02
U-238	4184.730	4174.788	76.392	382.000	381.000	1.000	3.6781	100.0000	1.00E+00	8.73E-02	2.26E-02	5.23E-02	5.16E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

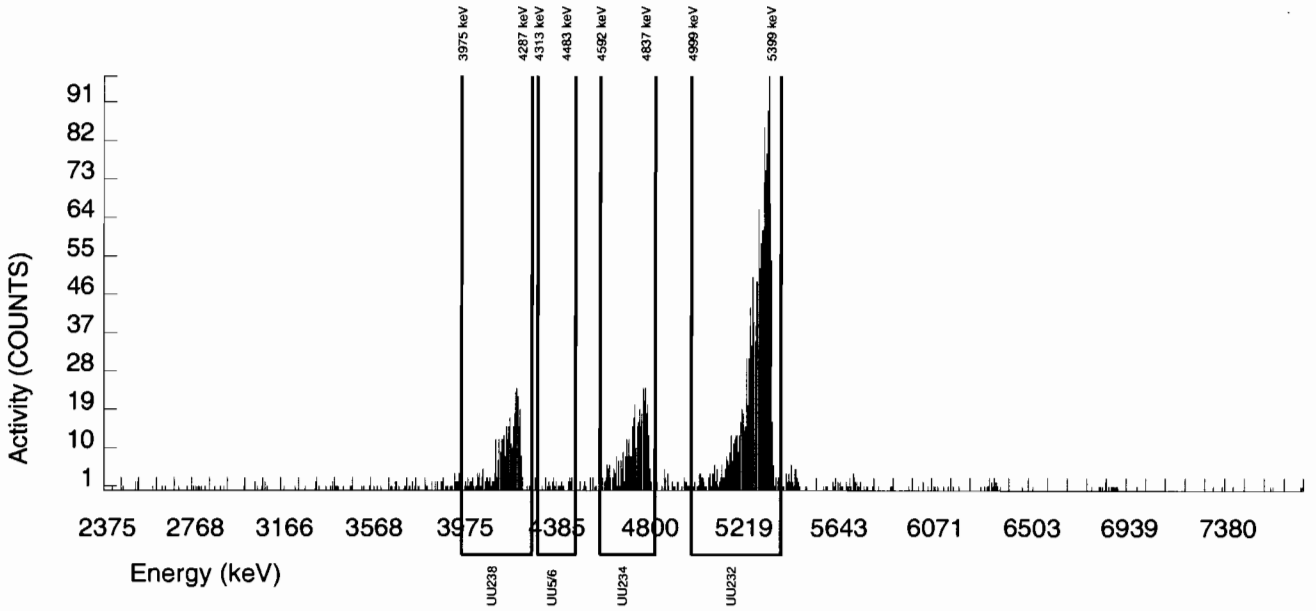

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965517	CHAMBER : 162	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248702002_UU	DETECTOR S/N : 70323	BKG FILE : B162.CNF;185
SAMPLE QTY : 0.503 G	AVERAGE %EFFICIENCY : 38.1976	BKG DATE : 28-MAR-2010
SAMPLE DATE : 2-MAR-2010 00:00:00.	COUNT DATE : 31-MAR-2010 06:46:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W162.CNF;71
% YIELD : 73.795		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5021E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.3223E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5265.728	101.912	1271.000	1268.000	3.000	1.7321	100.0000	4.03E+00	3.08E-01	1.28E-02	3.42E-02	1.13E-01
U-3/4	4763.020	4731.450	94.912	367.000	365.715	0.000	5.4790	100.0000	1.16E+00	1.02E-01	4.05E-02	8.96E-02	6.08E-02
U-235	4391.000	4402.193	0.000	65.000	65.000	0.000	2.4127	80.90000	2.55E-01	3.65E-02	2.20E-02	5.47E-02	3.17E-02
U-238	4184.730	4149.393	85.786	364.000	363.000	1.000	3.6781	100.0000	1.15E+00	1.02E-01	2.72E-02	6.30E-02	6.07E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

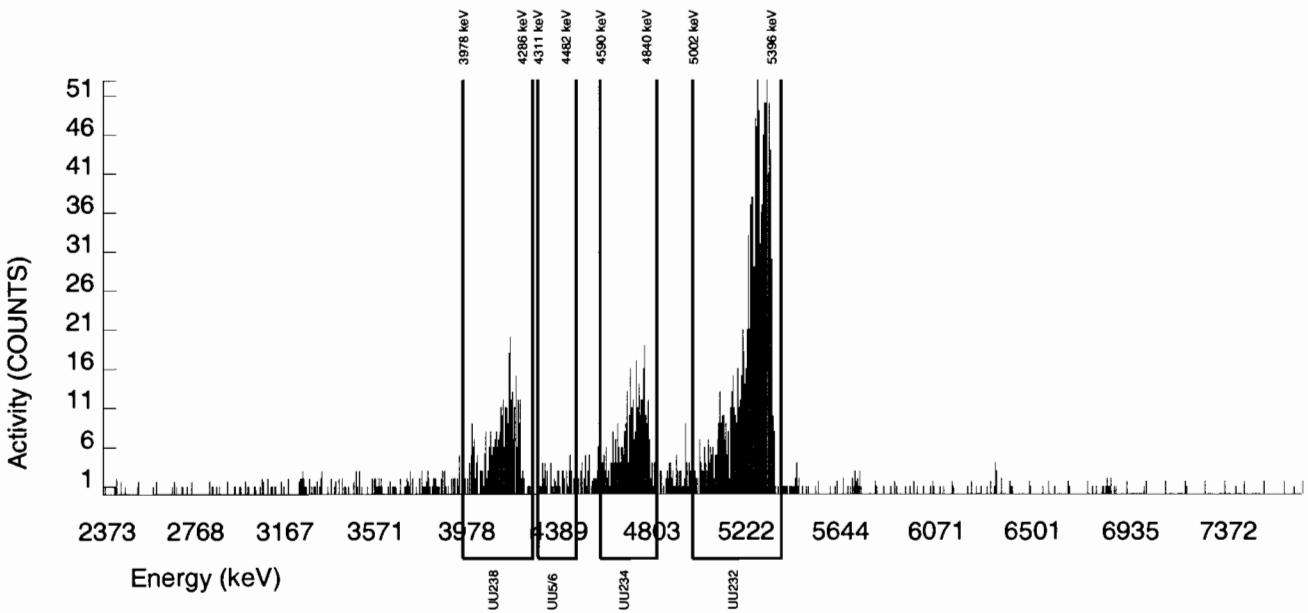

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965517	CHAMBER : 171	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0249259001_UU	DETECTOR S/N : 78260	BKG FILE : B171.CNF;190
SAMPLE QTY : 0.516 G	AVERAGE %EFFICIENCY : 40.4087	BKG DATE : 28-MAR-2010
SAMPLE DATE : 8-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 08:48:02	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W171.CNF;77
% YIELD : 80.207		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5013E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.6104E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5287.802	66.017	1475.000	1458.000	17.000	4.1231	100.0000	3.93E+00	2.95E-01	2.58E-02	5.90E-02	1.04E-01
U-3/4	4763.020	4752.919	90.424	273.000	264.523	7.000	5.4790	100.0000	7.12E-01	6.73E-02	3.43E-02	7.60E-02	4.50E-02
U-235	4391.000	4408.698	136.711	27.000	25.000	2.000	2.4127	80.90000	8.32E-02	1.89E-02	1.87E-02	4.64E-02	1.79E-02
U-238	4184.730	4162.141	48.924	265.000	256.000	9.000	3.6781	100.0000	6.90E-01	6.59E-02	2.30E-02	5.34E-02	4.46E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

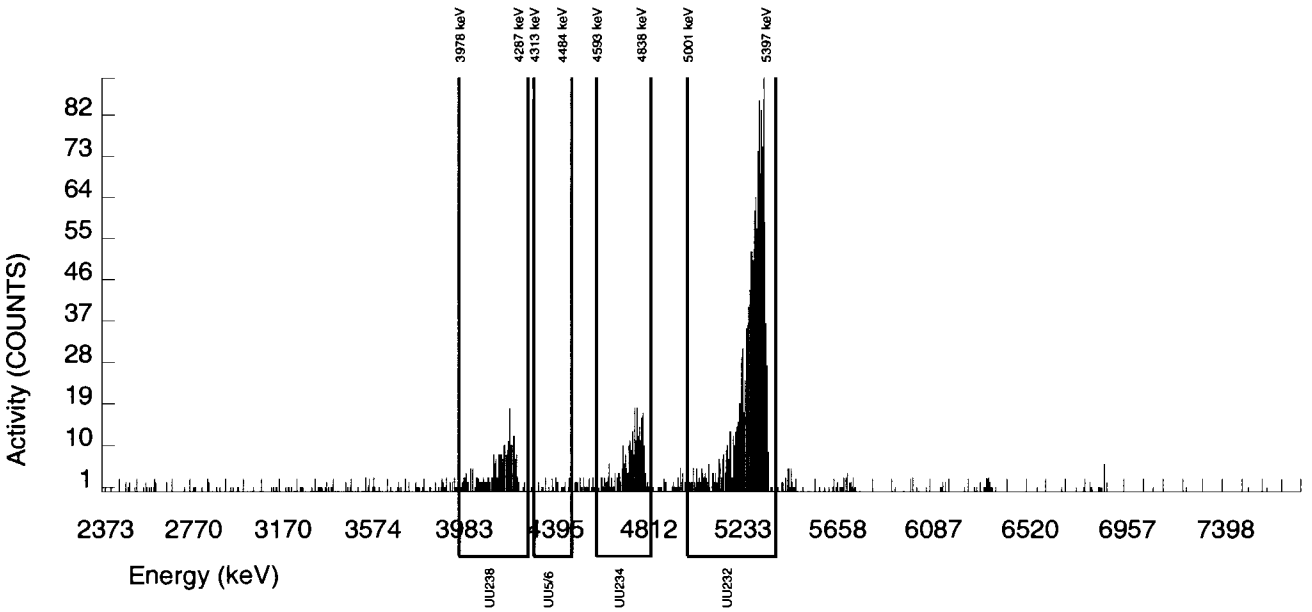

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965517	CHAMBER : 002	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202071746_UU	DETECTOR S/N : 79452	BKG FILE : B002.CNF;1127
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 30.4967	BKG DATE : 28-MAR-2010
SAMPLE DATE : 23-MAR-2010 00:00:00	COUNT DATE : 30-MAR-2010 16:45:41	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W002.CNF;330
% YIELD : 93.011		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4995E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.1850E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5298.879	44.337	1280.000	1276.000	4.000	2.0000	100.0000	2.03E+00	1.54E-01	7.39E-03	1.91E-02	5.69E-02
U-3/4	4763.020	4680.018	4.943	7.000	3.707	2.000	5.4790	100.0000	5.89E-03	4.43E-03	2.02E-02	4.48E-02	4.41E-03
U-235	4391.000	4454.858	24.713	2.000	1.000	1.000	2.4127	80.90000	1.96E-03	3.40E-03	1.10E-02	2.74E-02	3.40E-03
U-238	4184.730	4162.626	0.000	4.000	4.000	0.000	3.6781	100.0000	6.35E-03	3.21E-03	1.36E-02	3.15E-02	3.18E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

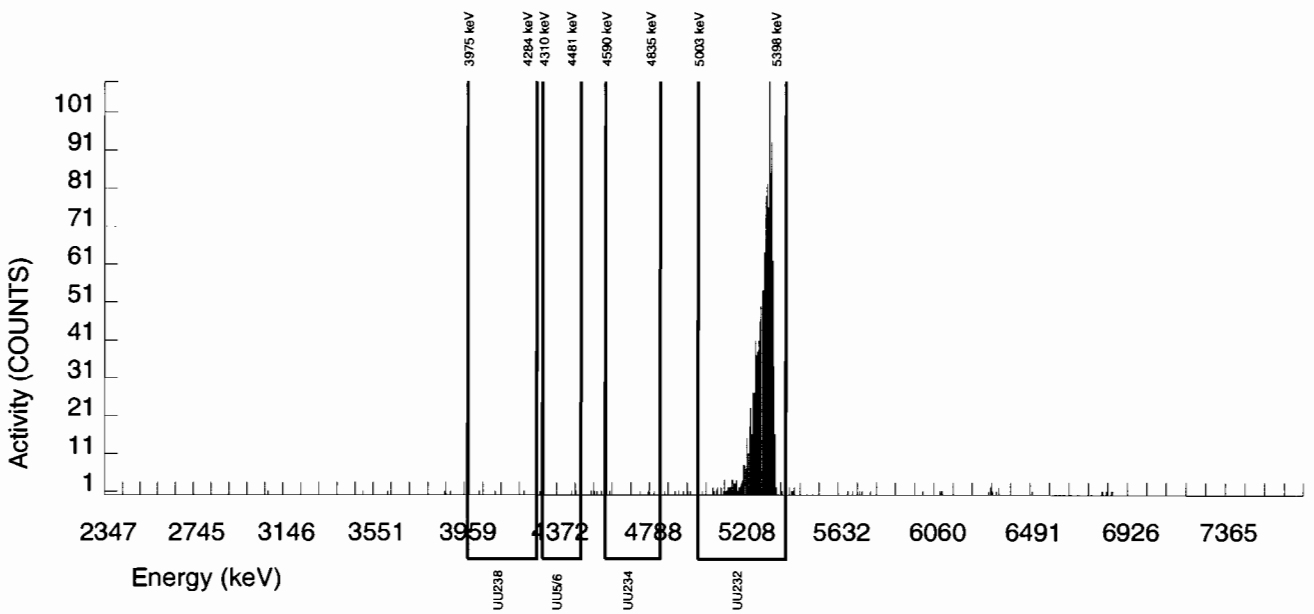

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965517	CHAMBER : 003	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202071747_UU	DETECTOR S/N : 79453	BKG FILE : B003.CNF;1122
SAMPLE QTY : 0.531 G	AVERAGE %EFFICIENCY : 32.1827	BKG DATE : 28-MAR-2010
SAMPLE DATE : 8-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:45:41	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W003.CNF;343
% YIELD : 75.152		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5013E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.3828E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5294.131	66.576	1097.000	1088.000	9.000	3.0000	100.0000	3.82E+00	2.99E-01	2.45E-02	5.85E-02	1.17E-01
U-3/4	4763.020	4747.615	70.711	196.000	194.898	0.000	5.4790	100.0000	6.84E-01	6.94E-02	4.47E-02	9.89E-02	4.90E-02
U-235	4391.000	4412.816	5.776	30.000	29.000	1.000	2.4127	80.90000	1.26E-01	2.58E-02	2.43E-02	6.04E-02	2.41E-02
U-238	4184.730	4178.251	29.569	173.000	171.000	2.000	3.6781	100.0000	6.00E-01	6.34E-02	3.00E-02	6.95E-02	4.64E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

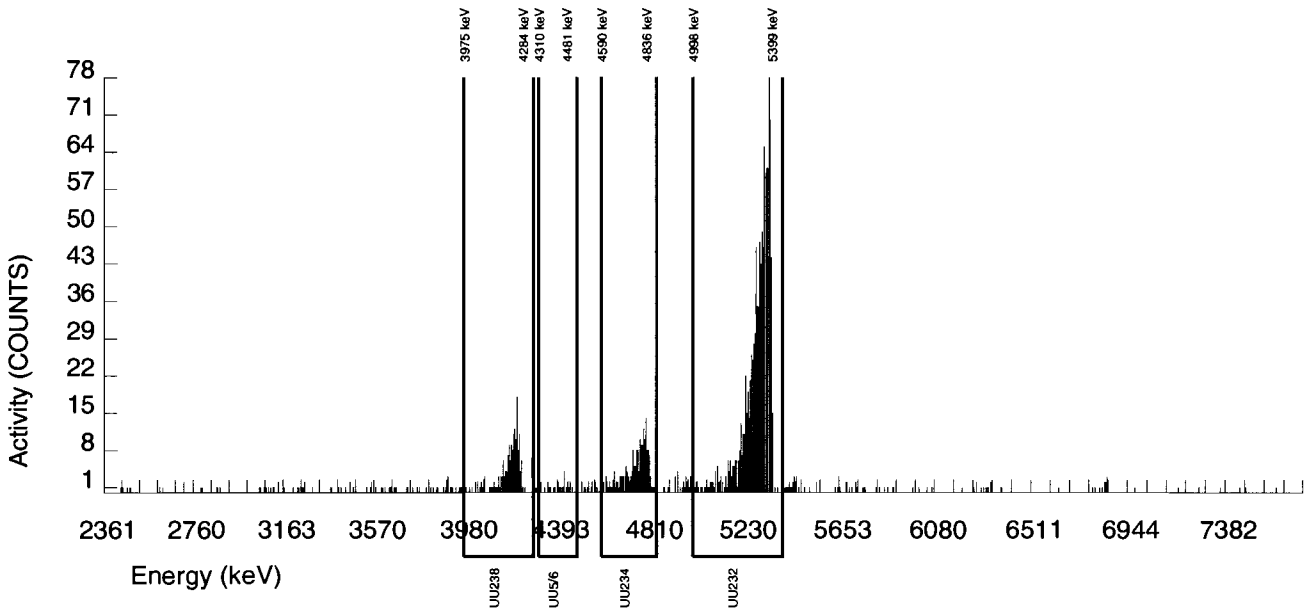

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965517	CHAMBER : 004	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202071748_UU	DETECTOR S/N : 68548	BKG FILE : B004.CNF;1131
SAMPLE QTY : 0.100 G	AVERAGE %EFFICIENCY : 31.2086	BKG DATE : 28-MAR-2010
SAMPLE DATE : 23-MAR-2010 00:00:00	COUNT DATE : 30-MAR-2010 16:45:41	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W004.CNF;332
% YIELD : 86.971		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4995E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9132E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5299.852	46.231	1240.000	1221.000	19.000	4.3589	100.0000	2.03E+01	1.56E+00	1.68E-01	3.82E-01	5.89E-01
U-3/4	4763.020	4745.833	54.608	470.000	454.763	14.000	5.4790	100.0000	7.55E+00	6.50E-01	2.12E-01	4.68E-01	3.65E-01
U-235	4391.000	4396.008	55.933	18.000	11.000	7.000	2.4127	80.90000	2.26E-01	1.04E-01	1.15E-01	2.86E-01	1.03E-01
U-238	4184.730	4182.673	48.044	342.000	325.000	17.000	3.6781	100.0000	5.39E+00	4.97E-01	1.42E-01	3.29E-01	3.14E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

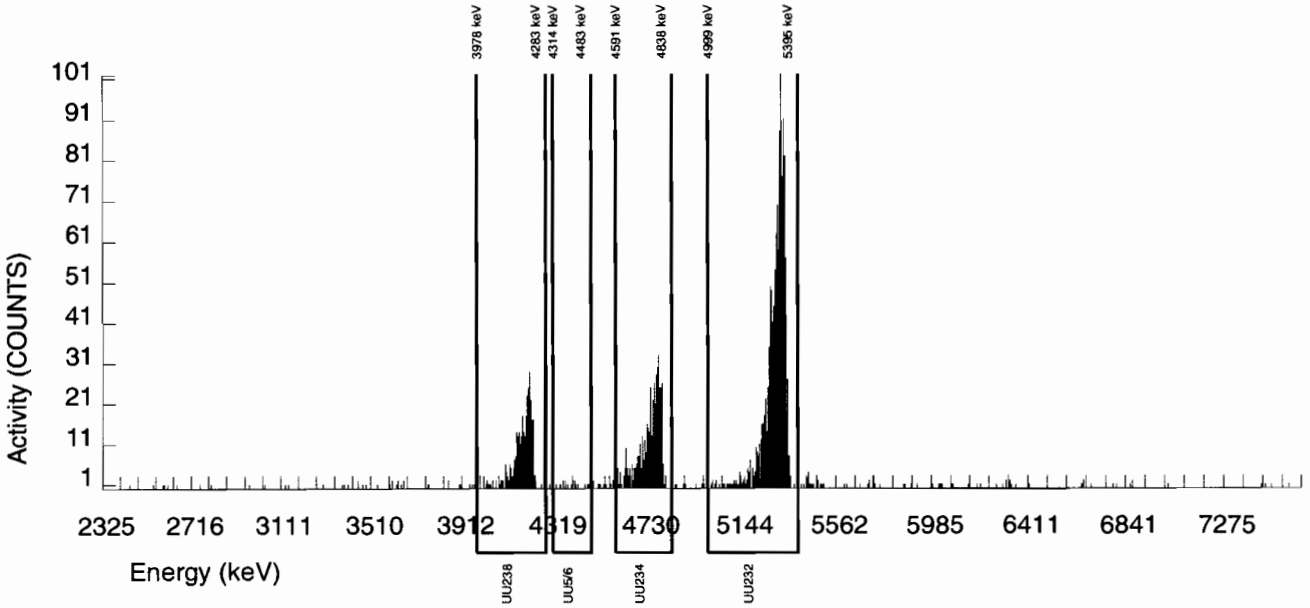

Radiochemistry Batch Checklist, Rev10

Batch# 970440 Product: Am Date: 4/1/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.		✓	DER 812625
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.	✓		
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	✓		DER 812625
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	X		DER 812625
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 4/1/10

Secondary Review Performed By: [signature] 4/1/10

4/2

Am/Cm Que Sheet

30-MAR-10

Batch #: 970440 | Analyst: CXM2 | First Client Due Date: ~~01-APR-10~~ 02-APR-10 3/30/10 | Internal Due Date 26-MAR-10 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-VV | Expiration Date: 3/9/11 | Vol: 0.1 mL

LCS Isotope(s): Am241/Cm244 | LCS Code(s): SRM 0244-B / N/A | Expiration Date: 4/30/20 / N/A | Vol(s): 0.1g / N/A

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

Prep Date: 3/30/10 | Initials: MDA | Pipet ID: 1642319 | Balance ID: 50410272 | Witness: JW 3/30/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #
248702001-2	RE46-10-13203	SAMPLE		.05 pCi/g	SOIL	LANL010	02-MAR-10	1	1	1.265	210
248702002-2	RE46-10-13202	SAMPLE		.05 pCi/g	SOIL	LANL010	02-MAR-10	2	2	1.254	213
249245001-2	RE16-10-2800	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	3	3	1.254	214
249245002-2	RE16-10-2799	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	4	4	1.259	215
249247001-2	RE16-10-2985	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	5	5	1.251	216
249247002-2	RE16-10-2984	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	6	6	1.268	217
249247003-2	RE16-10-2982	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	7	7	1.264	218
249248002-2	RE16-10-2911	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	8	8	1.263	219
249248003-2	RE16-10-2910	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	9	9	1.254	220
249248004-2	RE16-10-2909	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	10	10	1.250	221
249250003-2	RE16-10-2917	SAMPLE		.05 pCi/g	SOIL	LANL010	08-MAR-10	11	11	1.266	222
249250004-2	RE16-10-2916	SAMPLE		.05 pCi/g	SOIL	LANL010	08-MAR-10	12	12	1.259	223
249252001-2	RE16-10-2871	SAMPLE		.05 pCi/g	SOIL	LANL010	08-MAR-10	13	13	1.254	224
249252002-2	RE16-10-2872	SAMPLE		.05 pCi/g	SOIL	LANL010	08-MAR-10	14	14	1.270	225
249252003-2	RE16-10-2873	SAMPLE		.05 pCi/g	SOIL	LANL010	08-MAR-10	15	15	1.280	226
249255001-2	RE16-10-2979	SAMPLE		.05 pCi/g	SOIL	LANL010	08-MAR-10	16	16	1.259	227
• 249259001-2	RE16-10-2903	SAMPLE		.05 pCi/g	SOIL	LANL010	08-MAR-10	17	17	1.252	228
249259002-2	RE16-10-2902	SAMPLE		.05 pCi/g	SOIL	LANL010	08-MAR-10	18	18	1.275	229
1202083886-1	MB for batch 970440	MB		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		19	19	1	230
1202083887-2	RE16-10-2903(249259001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	08-MAR-10	20	20	1.254	231
1202083888-1	LCS for batch 970440	LCS		UCF pCi/g to pCi/	SOIL	QC ACCOUNT	SRM	21	21	0.103	232

*SRM 0244-B Exp 4/30/20

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

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

Data Reviewed By: JaeL MLr 4/1/10

Blank Correction Report

Batch ID 970440

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202083887	DUP	Americium-241	1.25 g	-0.00142	0.00149	0.0164	.001552	pCi/g	YES
1202083888	LCS	Americium-241	0.103 g	31.1	2.21	0.171	.018834951	pCi/g	NO
1202083886	MB	Americium-241	1.00 g	0.00194	0.00293	0.0194	.00194	pCi/g	YES
248702001	RE46-10-13203	Americium-241	1.27 g	0.00151	0.00121	0.0152	.001527559	pCi/g	YES
248702002	RE46-10-13202	Americium-241	1.25 g	0.00409	0.00264	0.0172	.001552	pCi/g	YES
249245001	RE16-10-2800	Americium-241	1.25 g	-0.00142	0.00141	0.0155	.001552	pCi/g	YES
249245002	RE16-10-2799	Americium-241	1.26 g	0.000442	0.00093	0.0145	.001539683	pCi/g	YES
249247001	RE16-10-2985	Americium-241	1.25 g	-0.00046	0.00227	0.015	.001552	pCi/g	YES
249247002	RE16-10-2984	Americium-241	1.27 g	-0.00245	0.00149	0.0164	.001527559	pCi/g	YES
249247003	RE16-10-2982	Americium-241	1.26 g	-0.00547	0.00388	0.0158	.001539683	pCi/g	YES
249248002	RE16-10-2911	Americium-241	1.26 g	0.00527	0.00291	0.0174	.001539683	pCi/g	YES
249248003	RE16-10-2910	Americium-241	1.25 g	-0.00183	0.0048	0.0508	.001552	pCi/g	YES
249248004	RE16-10-2909	Americium-241	1.25 g	-0.00579	0.00289	0.017	.001552	pCi/g	YES
249250003	RE16-10-2917	Americium-241	1.27 g	0.000693	0.00105	0.0164	.001527559	pCi/g	YES
249250004	RE16-10-2916	Americium-241	1.26 g	0.000542	0.00098	0.0153	.001539683	pCi/g	YES
249252001	RE16-10-2871	Americium-241	1.25 g	-0.00037	0.00149	0.0164	.001552	pCi/g	YES
249252002	RE16-10-2872	Americium-241	1.27 g	0.00163	0.00129	0.0158	.001527559	pCi/g	YES
249252003	RE16-10-2873	Americium-241	1.28 g	-0.00139	0.000965	0.015	.001515625	pCi/g	YES
249255001	RE16-10-2979	Americium-241	1.26 g	0.000633	0.00166	0.016	.001539683	pCi/g	YES
249259001	RE16-10-2903	Americium-241	1.25 g	0.0017	0.00134	0.0162	.001552	pCi/g	YES
249259002	RE16-10-2902	Americium-241	1.28 g	0.00169	0.00245	0.0161	.001515625	pCi/g	YES

GEL Laboratories LLC
Form GEL-DER

DER Report No.: 812625
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
01-APR-10	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ALPHA SPECTROMETER	DOE EML HASL-300, Am-05-RC Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
970440	See Below		

Potentially affected work order(s)(SDG): 248702(10-2264),249245(10-2415),249247(10-2416),249248(10-2417),249250(10-2418),249252(10-2419),249255(10-2420),249259(10-2421)

Application Issues:

RDL less than MDA

Specification and Requirements Exception Description:	DER Disposition:
1. Sample 249248003 does not meet the client's tracer yield requirement of 50 - 105%, nor the client's 400 tracer count requirement.	1. With a yield of 25.9%, the sample does meet the GEL standard tracer yield requirement. The sample meets the required detection limit for Am241. This is the second time that this sample has been analyzed and both results confirm that there is no activity in the sample. The original analysis met the client's tracer yield requirement, 400 tracer count requirement and required detection limits. Reporting results.

Originator's Name:
Joseph Moulden 01-APR-10

Data Validator/Group Leader:
Mary Aders 01-APR-10

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

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 970440	CHAMBER : 210	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248702001_AM	DETECTOR S/N : 79189	BKG FILE : B210.CNF;93
SAMPLE QTY : 1.265 G	AVERAGE %EFFICIENCY : 39.5479	BKG DATE : 28-MAR-2010
SAMPLE DATE : 2-MAR-2010 00:00:00.	COUNT DATE : 31-MAR-2010 13:31:42	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W210.CNF;34
% YIELD : 92.777		CAL DATE : 30-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 2.1110E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5522.411	7.252	3.000	1.551	0.000	2.7707	99.94000	1.51E-03	1.21E-03	6.26E-03	1.52E-02	1.21E-03
AM243	5270.000	5277.830	51.739	834.000	833.000	1.000	1.0000	99.78000	8.10E-01	5.74E-02	2.26E-03	7.16E-03	2.81E-02
CM-242	6102.000	6057.955	4.938	5.000	5.000	0.000	4.0092	100.0000	5.51E-03	2.49E-03	9.05E-03	2.07E-02	2.46E-03
CM-3/4	5795.020	5784.414	93.815	5.000	4.000	1.000	4.8510	100.0000	3.89E-03	2.40E-03	1.10E-02	2.45E-02	2.38E-03
CM-5/6	5386.000	5376.671	0.000	14.000	14.000	0.000	6.1294	86.09000	1.58E-02	4.33E-03	1.61E-02	3.52E-02	4.22E-03
CM-247	4946.000	4919.392	108.011	6.000	6.000	0.000	6.3427	79.30000	7.34E-03	3.03E-03	1.81E-02	3.94E-02	3.00E-03
CM-248	5078.600	5071.275	22.065	10.000	10.000	0.000	11.0244	91.00000	1.07E-02	3.44E-03	2.74E-02	5.76E-02	3.37E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

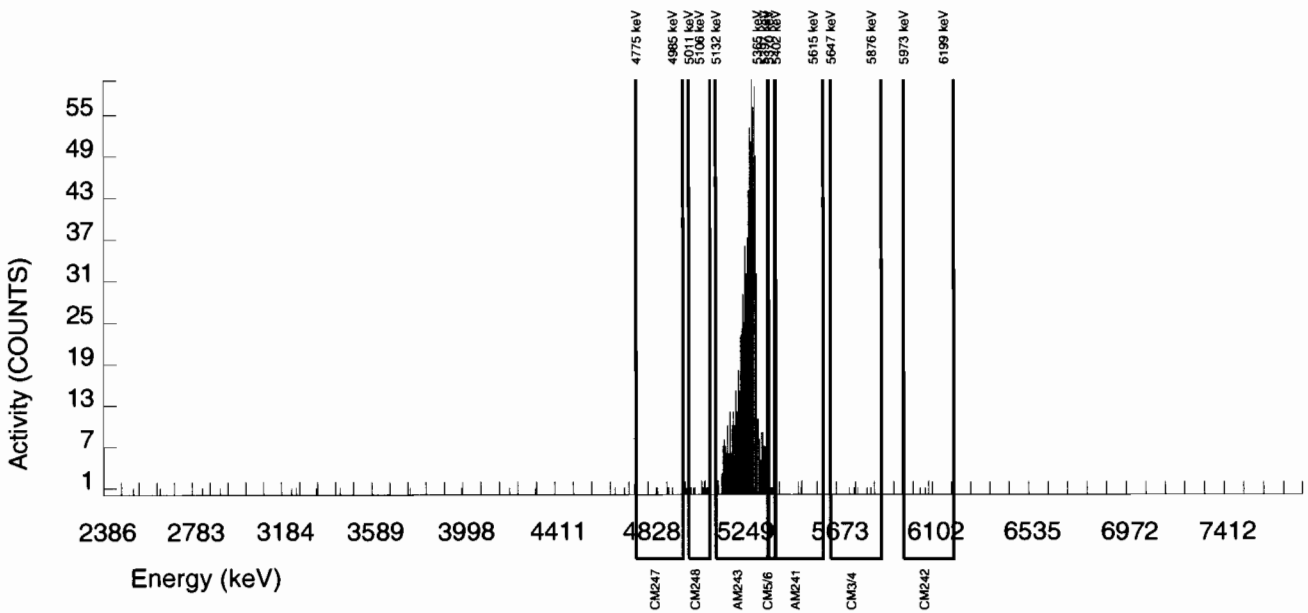

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 970440	CHAMBER : 213	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248702002_AM	DETECTOR S/N : 79192	BKG FILE : B213.CNF;93
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 38.1825	BKG DATE : 28-MAR-2010
SAMPLE DATE : 2-MAR-2010 00:00:00.	COUNT DATE : 31-MAR-2010 13:31:53	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W213.CNF;33
% YIELD : 85.481		CAL DATE : 30-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.9450E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5483.996	0.000	6.000	3.711	1.000	2.7707	99.94000	4.09E-03	2.64E-03	7.10E-03	1.72E-02	2.63E-03
AM243	5270.000	5288.064	49.942	741.000	741.000	0.000	0.0000	99.78000	8.17E-01	5.96E-02	0.00E+00	2.99E-03	3.00E-02
CM-242	6102.000	6060.518	16.487	18.000	18.000	0.000	4.0092	100.0000	2.25E-02	5.49E-03	1.03E-02	2.35E-02	5.30E-03
CM-3/4	5795.020	5774.547	21.396	18.000	18.000	0.000	4.8510	100.0000	1.99E-02	4.85E-03	1.24E-02	2.78E-02	4.68E-03
CM-5/6	5386.000	5382.346	0.000	10.000	10.000	0.000	6.1294	86.09000	1.28E-02	4.12E-03	1.82E-02	3.99E-02	4.04E-03
CM-247	4946.000	4916.511	99.126	13.000	13.000	0.000	6.3427	79.30000	1.80E-02	5.13E-03	2.05E-02	4.47E-02	5.00E-03
CM-248	5078.600	5059.713	49.511	10.000	10.000	0.000	11.0244	91.00000	1.21E-02	3.90E-03	3.10E-02	6.53E-02	3.82E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

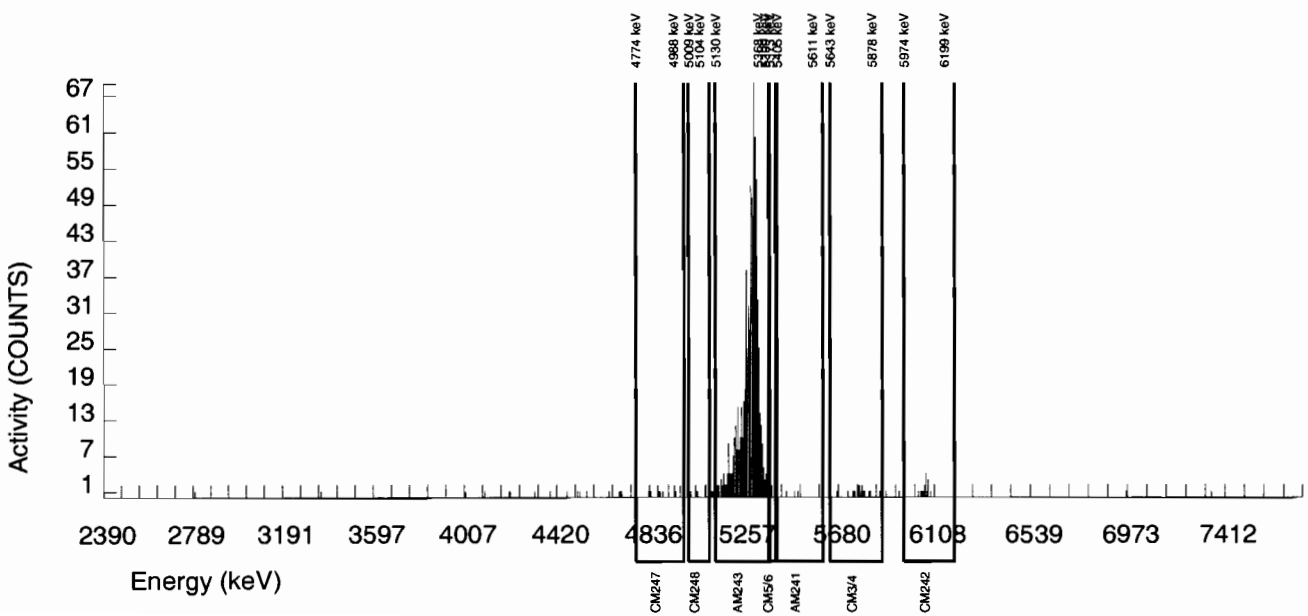

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 970440	CHAMBER : 228	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0249259001_AM	DETECTOR S/N : 79421	BKG FILE : B228.CNF;93
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 38.1285	BKG DATE : 28-MAR-2010
SAMPLE DATE : 8-MAR-2010 00:00:00.	COUNT DATE : 31-MAR-2010 13:32:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W228.CNF;33
% YIELD : 90.685		CAL DATE : 30-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3150E+01 pCi/G	NOMINAL : 3.3150E+01 pCi/G
RESULTS : 2.0634E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5464.989	149.308	3.000	1.634	0.000	2.7707	99.94000	1.70E-03	1.34E-03	6.71E-03	1.62E-02	1.33E-03
AM243	5270.000	5285.202	40.826	786.000	785.000	1.000	1.0000	99.78000	8.19E-01	5.88E-02	2.43E-03	7.68E-03	2.93E-02
CM-242	6102.000	6030.961	5.780	13.000	13.000	0.000	4.0092	100.0000	1.50E-02	4.26E-03	9.70E-03	2.22E-02	4.15E-03
CM-3/4	5795.020	5787.256	114.469	8.000	7.000	1.000	4.8510	100.0000	7.30E-03	3.16E-03	1.17E-02	2.63E-02	3.13E-03
CM-5/6	5386.000	5377.119	0.000	16.000	16.000	0.000	6.1294	86.09000	1.93E-02	4.98E-03	1.72E-02	3.77E-02	4.83E-03
CM-247	4946.000	4908.403	169.215	5.000	4.000	1.000	6.3427	79.30000	5.25E-03	3.23E-03	1.94E-02	4.23E-02	3.21E-03
CM-248	5078.600	5063.036	24.885	10.000	10.000	0.000	11.0244	91.00000	1.14E-02	3.69E-03	2.93E-02	6.18E-02	3.62E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

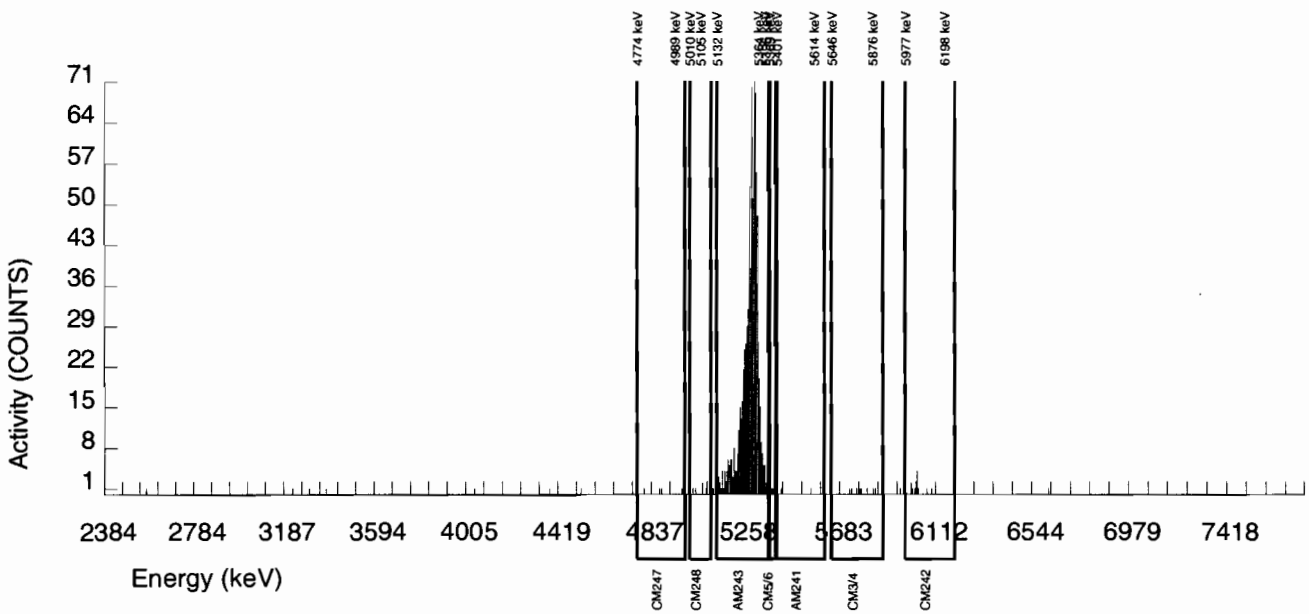

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 970440	CHAMBER : 230	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202083886_AM	DETECTOR S/N : 79423	BKG FILE : B230.CNF;93
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 38.2171	BKG DATE : 28-MAR-2010
SAMPLE DATE : 30-MAR-2010 00:00:00	COUNT DATE : 31-MAR-2010 13:32:53	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W230.CNF;33
% YIELD : 95.085		CAL DATE : 30-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3147E+01 pCi/G	NOMINAL : 3.3147E+01 pCi/G
RESULTS : 2.1635E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5478.878	7.295	5.000	1.565	2.000	2.7707	99.94000	1.94E-03	2.93E-03	7.99E-03	1.94E-02	2.93E-03
AM243	5270.000	5285.431	38.355	826.000	825.000	1.000	1.0000	99.78000	1.02E+00	7.28E-02	2.89E-03	9.15E-03	3.57E-02
CM-242	6102.000	6048.765	62.085	10.000	10.000	0.000	4.0092	100.0000	1.25E-02	4.03E-03	1.16E-02	2.65E-02	3.95E-03
CM-3/4	5795.020	5776.236	4.967	8.000	8.000	0.000	4.8510	100.0000	9.92E-03	3.56E-03	1.40E-02	3.13E-02	3.51E-03
CM-5/6	5386.000	5379.954	0.000	14.000	14.000	0.000	6.1294	86.09000	2.02E-02	5.53E-03	2.05E-02	4.50E-02	5.39E-03
CM-247	4946.000	4945.088	89.403	6.000	5.000	1.000	6.3427	79.30000	7.82E-03	4.16E-03	2.31E-02	5.04E-02	4.14E-03
CM-248	5078.600	5060.965	0.000	4.000	4.000	0.000	11.0244	91.00000	5.45E-03	2.75E-03	3.49E-02	7.36E-02	2.72E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

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

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

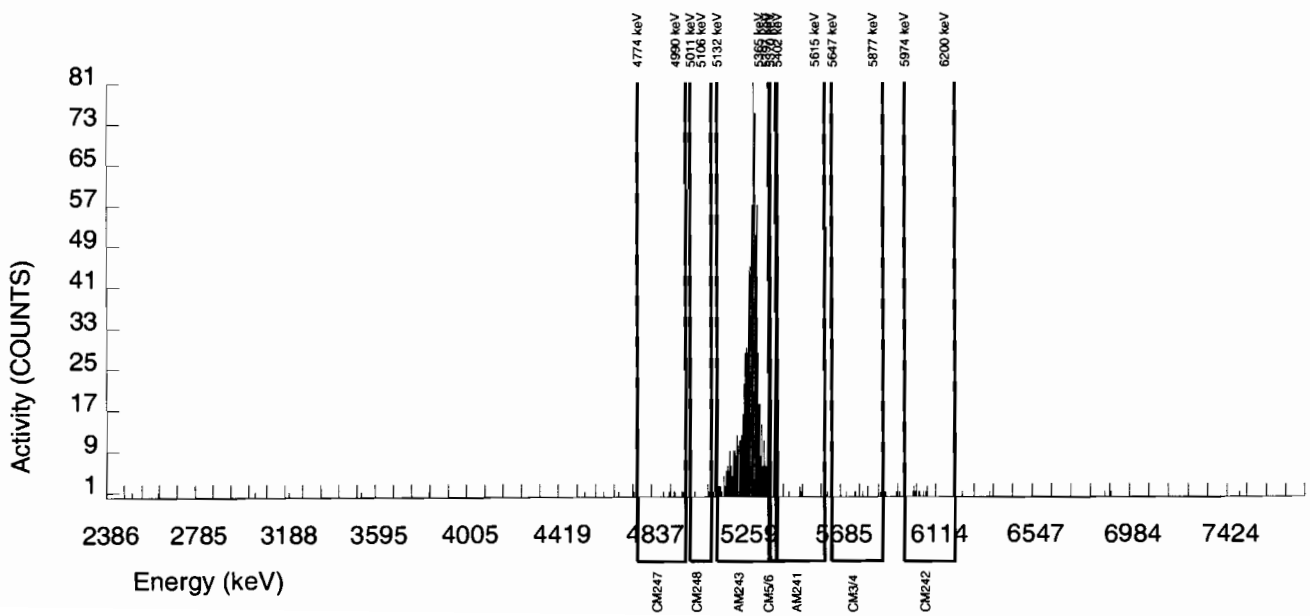

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 970440	CHAMBER : 231	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202083887_AM	DETECTOR S/N : 79424	BKG FILE : B231.CNF;93
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 40.5669	BKG DATE : 28-MAR-2010
SAMPLE DATE : 8-MAR-2010 00:00:00.	COUNT DATE : 31-MAR-2010 13:32:56	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W231.CNF;33
% YIELD : 84.257		CAL DATE : 30-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3150E+01 pCi/G	NOMINAL : 3.3150E+01 pCi/G
RESULTS : 1.9171E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5500.391	4.927	1.000	-1.350	1.000	2.7707	99.94000	-1.42E-03	1.49E-03	6.78E-03	1.64E-02	1.49E-03
AM243	5270.000	5284.933	59.698	782.000	776.000	6.000	2.4495	99.78000	8.17E-01	5.91E-02	6.00E-03	1.49E-02	2.96E-02
CM-242	6102.000	6055.194	20.848	15.000	15.000	0.000	4.0092	100.0000	1.75E-02	4.64E-03	9.80E-03	2.25E-02	4.51E-03
CM-3/4	5795.020	5758.843	4.927	11.000	10.000	1.000	4.8510	100.0000	1.05E-02	3.71E-03	1.19E-02	2.66E-02	3.65E-03
CM-5/6	5386.000	5378.819	0.000	20.000	20.000	0.000	6.1294	86.09000	2.44E-02	5.67E-03	1.74E-02	3.81E-02	5.46E-03
CM-247	4946.000	4908.458	133.030	8.000	3.000	5.000	6.3427	79.30000	3.98E-03	4.78E-03	1.96E-02	4.27E-02	4.78E-03
CM-248	5078.600	5072.641	4.927	16.000	16.000	0.000	11.0244	91.00000	1.85E-02	4.76E-03	2.96E-02	6.24E-02	4.62E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

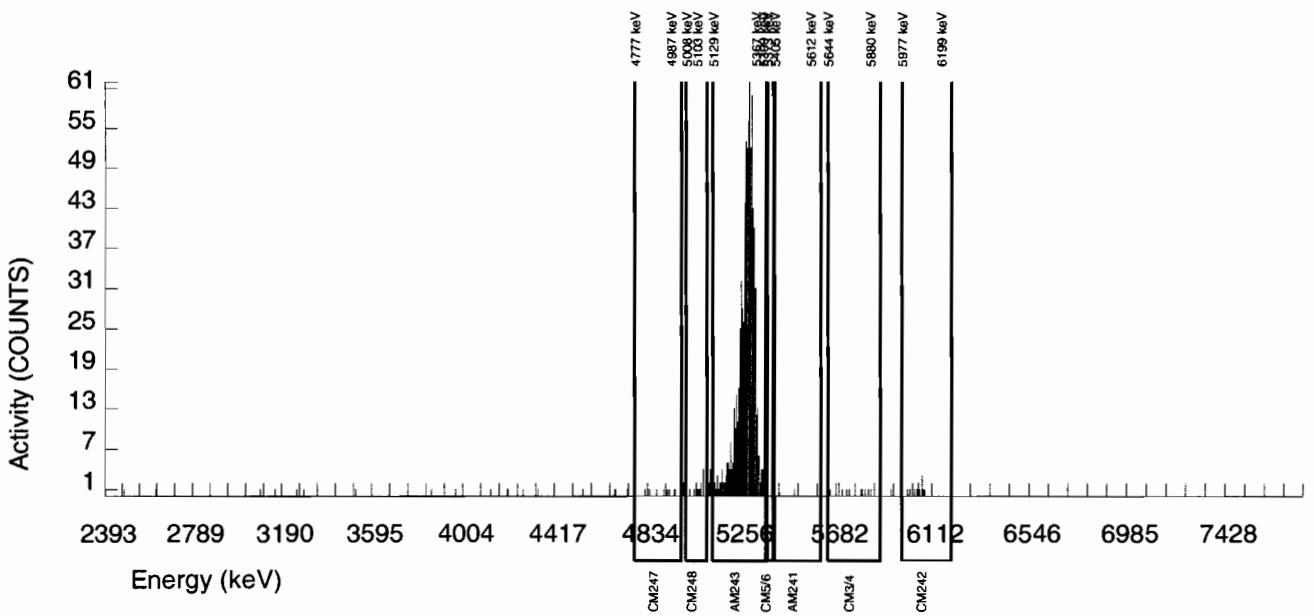

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 970440	CHAMBER : 232	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202083888_AM	DETECTOR S/N : 79425	BKG FILE : B232.CNF;95
SAMPLE QTY : 0.103 G	AVERAGE %EFFICIENCY : 38.8663	BKG DATE : 28-MAR-2010
SAMPLE DATE : 30-MAR-2010 00:00:00	COUNT DATE : 31-MAR-2010 13:33:01	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W232.CNF;33
% YIELD : 102.903		CAL DATE : 30-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3147E+01 pCi/G	NOMINAL : 3.3147E+01 pCi/G
RESULTS : 2.3414E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5516.637	43.751	2848.000	2840.420	6.000	2.7707	99.94000	3.11E+01	2.21E+00	7.05E-02	1.71E-01	5.84E-01
AM243	5270.000	5295.512	44.825	909.000	908.000	1.000	1.0000	99.78000	9.95E+00	7.58E-01	2.55E-02	8.07E-02	3.31E-01
CM-242	6102.000	6055.139	57.531	10.000	10.000	0.000	4.0092	100.0000	1.10E-01	3.57E-02	1.02E-01	2.34E-01	3.49E-02
CM-3/4	5795.020	5771.162	5.016	11.000	10.000	1.000	4.8510	100.0000	1.09E-01	3.86E-02	1.23E-01	2.76E-01	3.79E-02
CM-5/6	5386.000	5385.829	0.000	60.000	60.000	0.000	6.1294	86.09000	7.62E-01	1.11E-01	1.81E-01	3.97E-01	9.84E-02
CM-247	4946.000	4882.095	180.586	9.000	8.000	1.000	6.3427	79.30000	1.10E-01	4.43E-02	2.03E-01	4.44E-01	4.36E-02
CM-248	5078.600	5075.405	8.867	18.000	18.000	0.000	11.0244	91.00000	2.16E-01	5.31E-02	3.08E-01	6.49E-01	5.10E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

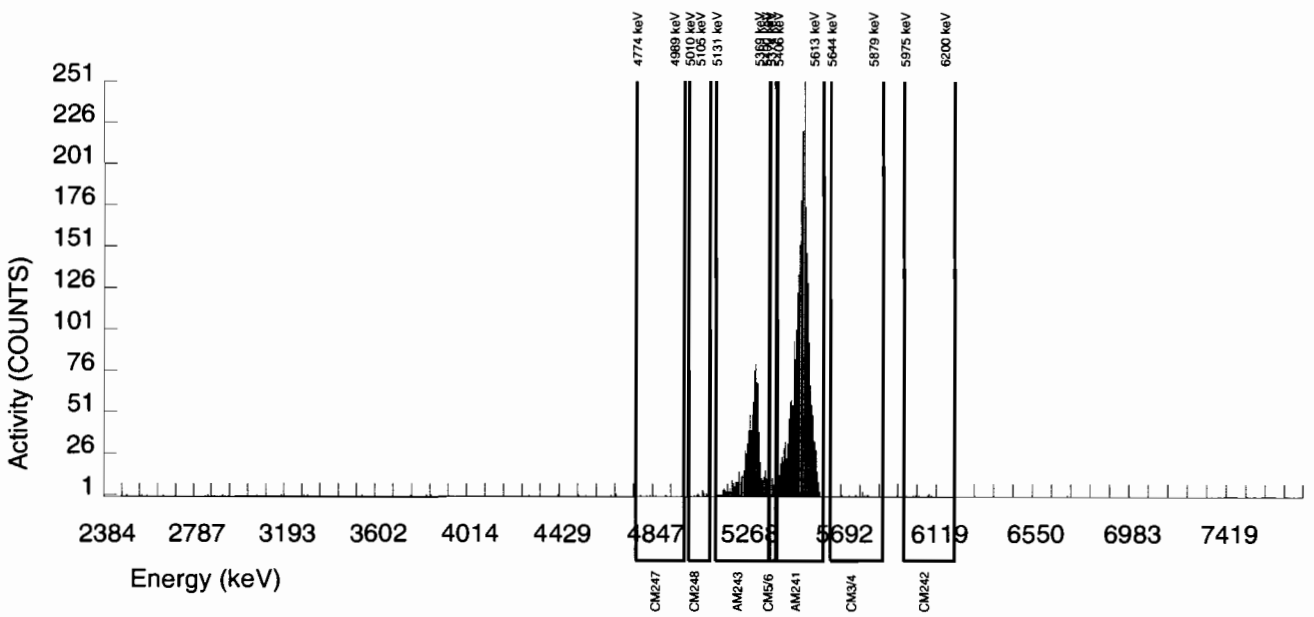

Radiochemistry Batch Checklist, Rev10

Batch# 962631 Product: γS / LANL Date: 3/24/10

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

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: M Stamper 3/24/10

Secondary Review Performed By: B Hunter 3/25/10

4/1/10

Gamma Spec Que Sheet

I.G.-3/16/10

03/08/2010

Batch #:962631 **Analyst:** MXR1 **First Client DueDate**04/01/2010 **Internal Due Date:** 03/21/2010

Gamma Spike Isotope: Mixed Gamma **Spike Code:** Na **Expiration Date:** Na **Vol:** Na **Nominal Concentration:** Na

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0 mL **Nominal Concentration:** Cs137-5.685 Co60-6.485

Initials: US **Prep Date:** 3/9/10 **Library:** SOLID **Witness:** Na Am241-16.29

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Wet/Dry Aliquot (1/g/F)	Detector	Sealing Date/Time (if Applicable)
248702001-1	RE46-10-13203	SAMPLE		LANL010	SOIL	02-MAR-10 12:00:00 RF	can	133.70	5	3/8/10
248702002-1	RE46-10-13202	SAMPLE		LANL010	SOIL	02-MAR-10 12:00:00 RF		113.61	15	3/8/10
248818001-1	RE46-10-13553	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		122.42	16	3/9/10
248818002-1	RE46-10-13549	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		121.17	5	
248818003-1	RE46-10-13551	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		128.87	18	
248818004-1	RE46-10-13550	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		119.44	1	
248818005-1	RE46-10-13548	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		113.15	16	
248818006-1	RE46-10-13546	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		125.16	20	
248818007-1	RE46-10-13552	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		114.31	17	
248818008-1	RE46-10-13547	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		133.63	21	
248818009-1	RE46-10-13556	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		102.58	23	
248824001-1	RE46-10-11926	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		103.87	29	
248824002-1	RE46-10-11925	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		128.93	4	
1202065185-1	MB	MB		QC ACCOUNT	SOIL	3/9/10 RF		133.70	6	
1202065186-1	DUP RE46-10-11926(248824001)	DUP		QC ACCOUNT	SOIL	03-MAR-10 12:00:00 RF		105.55	15	
1202065187-1	LCS	LCS		QC ACCOUNT	SOIL	3/9/10 RF		151.73	22	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: M. Stamps 3/24/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
962631	248702001	SAMPLE	23-MAR-10		Cerium-139	-0.01949	0.05367	0.050
					Cesium-134	0.08432	0.1035	0.100
					Sodium-22	0.02953	0.09131	0.080
962631	248702002	SAMPLE	23-MAR-10		Americium-241	-0.1635	0.592	0.200
					Cerium-139	-0.01591	0.07347	0.050
					Europium-152	-0.08195	0.2165	0.200
					Sodium-22	0.02703	0.1091	0.080
					Thorium-234	1.67	4.791	2.00
					Tin-113	0.06093	0.1188	0.100
962631	248818001	SAMPLE	23-MAR-10		Americium-241	-0.202	0.4285	0.200
					Cerium-139	-0.03331	0.05437	0.050
					Cesium-134	0.07987	0.1002	0.100
					Sodium-22	-0.05477	0.08189	0.080
					Thorium-234	1.507	3.631	2.00
962631	248818002	SAMPLE	23-MAR-10		Cerium-139	-0.00331	0.06202	0.050
					Europium-152	-0.0237	0.2078	0.200
					Sodium-22	0.02973	0.1029	0.080
962631	248818003	SAMPLE	23-MAR-10		Americium-241	-0.07452	0.295	0.200
					Thorium-234	1.813	2.682	2.00
962631	248818004	SAMPLE	23-MAR-10		Americium-241	-0.1378	0.3224	0.200
					Cerium-139	0.02073	0.06375	0.050
					Cesium-134	0.07912	0.1076	0.100
					Europium-152	0.07322	0.2063	0.200
					Sodium-22	0.02654	0.09217	0.080
					Thorium-234	1.849	3.104	2.00
962631	248818005	SAMPLE	23-MAR-10		Americium-241	0.04214	0.253	0.200
					Cerium-139	-0.00772	0.05172	0.050
					Sodium-22	0.00954	0.08094	0.080
962631	248818006	SAMPLE	23-MAR-10					
962631	248818007	SAMPLE	23-MAR-10		Cerium-139	-0.00718	0.05891	0.050
					Cesium-134	0.09814	0.1284	0.100
					Cobalt-60	0.01713	0.102	0.100
					Sodium-22	-0.00632	0.09898	0.080
962631	248818008	SAMPLE	23-MAR-10		Cesium-134	0.1051	0.1159	0.100
					Sodium-22	-0.06933	0.0994	0.080
962631	248818009	SAMPLE	23-MAR-10		Americium-241	-0.1469	0.4262	0.200
					Cerium-139	0.00169	0.06644	0.050
					Cesium-134	0.07345	0.1164	0.100
					Europium-152	0.06583	0.2179	0.200
					Sodium-22	-0.0248	0.1044	0.080
					Thorium-234	0.8359	3.643	2.00
					Tin-113	-0.04453	0.1045	0.100
962631	248824001	SAMPLE	23-MAR-10		Americium-241	0.07572	0.3604	0.200
					Cerium-139	0.02796	0.0711	0.050
					Europium-152	0.1204	0.2152	0.200

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
962631	248824001	SAMPLE	23-MAR-10		Mercury-203	0.1018	0.1023	0.100
					Sodium-22	-0.03604	0.09398	0.080
962631	248824002	SAMPLE	23-MAR-10		Americium-241	0.02526	0.4029	0.200
					Cerium-139	0.04107	0.05231	0.050
962631	1202065185	MB	23-MAR-10					
962631	1202065186	DUP	23-MAR-10		Americium-241	0.3026	0.5921	0.200
					Cerium-139	0.00175	0.07846	0.050
					Europium-152	-0.06564	0.2356	0.200
					Sodium-22	-0.06097	0.1016	0.080
					Tin-113	0.01325	0.1202	0.100
					Uranium-235	-0.07759	0.5243	0.500
962631	1202065187	LCS	23-MAR-10		Cerium-139	-0.00872	0.07594	0.050
					Cesium-134	0.05304	0.1363	0.100
					Europium-152	0.1315	0.2694	0.200
					Mercury-203	0.02032	0.1069	0.100
					Ruthenium-106	0.1129	0.9141	0.800
					Thorium-234	-0.7001	3.198	2.00
					Tin-113	0.01181	0.132	0.100
					Uranium-235	-0.08175	0.5099	0.500

Gamma Review Report based on Result > MDA for Batch:962631

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals		Zero?	queue
248702001	02-MAR-10 12:00	23-MAR-10 08:52	20.9	SAMPLE	LOAD	1	LANL	LANL01004	GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr	1.692	0.1961	pCi/g	0.2275	N	910.9	3	1.412	IDENTIFIED	9.702	☐	
Annihilation Rad. HE	0.1307	0.04068	pCi/g	0.05323	N	510.1	1	2.015	IDENTIFIED	30.95	☐	
Bismuth-211 INT	3.953	0.2825	pCi/g	0.3403	Y	351.5	2	1.186	IDENTIFIED	5.95	☑ ✓ UI	
Bismuth-214 ✓	1.288	0.1089	pCi/g	0.1194	0.200	608.8	3	1.638	IDENTIFIED	7.326	☐	
Cadmium-109 INT	2.537	0.4253	pCi/g	0.9936	Y	89.31	1	1.452	IDENTIFIED	16.3	☑ ✓ UI	
Cadmium-115 HE	48.31	37.9	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cerium-143	20060	2970	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Gross Gamma	8.326	1.23	pCi/g	4.056	N		0				☐	
Lead-210 HE	1.391	0.3857	pCi/g	0.8489	N	45.85	1	1.025	IDENTIFIED	27.46	☐	
Lead-212 ✓	1.622	0.1052	pCi/g	0.09513	0.100	238.2	2	1.282	IDENTIFIED	3.566	☐	
Lead-214 ✓	1.435	0.1099	pCi/g	0.1288	0.100	351.5	2	1.186	IDENTIFIED	5.95	☐	
Neptunium-237 INT nr	1.253	0.1788	pCi/g	0.2861	N	86.71	2	1.385	IDENTIFIED	8.894	☐	
Niobium-95m	1.213	0.1153	pCi/g	0.3626	N	0	4	0	NOT_IDENTI	0	☐	
Potassium-40 ✓	21.53	1.037	pCi/g	0.6286	1.00	1460	1	2.054	IDENTIFIED	3.677	☐	
Promethium-149 HE	155.4	281.2	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Radium-224 INT	5.125	0.7455	pCi/g	1.02	Y	241.2	1	2.024	IDENTIFIED	13.7	☑ ✓ UI	
Radium-226 ✓	1.288	0.1089	pCi/g	0.1194	Y	608.8	3	1.638	IDENTIFIED	7.326	☐	
Radium-228 ✓	1.692	0.1961	pCi/g	0.2275	0.500	910.9	3	1.412	IDENTIFIED	9.702	☐	
Thallium-208 ✓	0.4926	0.04859	pCi/g	0.06203	0.080	582.8	1	1.432	IDENTIFIED	9.153	☐	
Thorium-228 nr	1.622	0.1052	pCi/g	0.09513	N	238.2	2	1.282	IDENTIFIED	3.566	☐	
Thorium-230 nr	1.288	0.1034	pCi/g	0.1194	N	608.8	3	1.638	IDENTIFIED	7.326	☐	
Thorium-232 nr	1.692	0.1961	pCi/g	0.2275	N	910.9	3	1.412	IDENTIFIED	9.702	☐	
Thorium-234 ✓	1.675	0.5328	pCi/g	1.106	2.00	62.38	2	0.9936	IDENTIFIED	30.49	☐	
Tin-126 INT nr	0.4199	0.04064	pCi/g	0.09617	N	86.71	2	1.385	IDENTIFIED	8.894	☐	
Total Uranium	5.0254	1.59E-06	ug/g	1.6485	N		0				☐	
Uranium-238 HE	1.675	0.5328	pCi/g	1.106	N	62.38	2	0.9936	IDENTIFIED	30.49	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals		Zero?	queue
248702002	02-MAR-10 12:00	23-MAR-10 12:23	21	SAMPLE	LOAD	1	LANL	LANL01004	GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr	2.422	0.2842	pCi/g	0.3383	N	911.2	3	1.878	IDENTIFIED	10.05	☐	
Annihilation Rad. HE	0.137	0.04342	pCi/g	0.06758	N	510.6	1	1.701	IDENTIFIED	31.4	☐	
Bismuth-211 INT	4.017	0.3436	pCi/g	0.4322	Y	351.9	2	1.289	IDENTIFIED	6.96	☑ ✓ UI	
Bismuth-214 ✓	1.475	0.1379	pCi/g	0.1519	0.200	609.3	3	1.528	IDENTIFIED	7.91	☐	
Cadmium-109 INT	2.269	0.7542	pCi/g	2.216	Y	87.21	2	0.9653	IDENTIFIED	32.66	☑ ✓ UI	
Cerium-143	17630	3231	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-134 LA	0.1607	0.04427	pCi/g	0.125	0.100	0	5	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	10.58	1.826	pCi/g	4.652	N		0				☐	
Iodine-133 HE	1.42E+05	4.46E+05	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-212 ✓	2.433	0.1672	pCi/g	0.128	0.100	238.7	2	1.32	IDENTIFIED	3.399	☐	
Lead-214 ✓	1.458	0.131	pCi/g	0.1711	0.100	351.9	2	1.289	IDENTIFIED	6.96	☐	
Neptunium-237 HE	0.656	0.2286	pCi/g	0.6202	N	87.21	2	0.9653	IDENTIFIED	32.66	☐	
Niobium-95m HE	0.5605	0.1204	pCi/g	0.3837	N	0	5	0	NOT_IDENTI	0	☐	
Potassium-40 ✓	29.09	1.757	pCi/g	0.6942	1.00	1460	1	2.139	IDENTIFIED	3.512	☐	

Radium-224 INT	5.684	1.035	pCi/g	1.371	Y	241.6	1	2.017	IDENTIFIED	17.35	☑ UI		
Radium-226 ✓	1.475	0.1379	pCi/g	0.1519	Y	609.3	3	1.528	IDENTIFIED	7.91	☐		
Radium-228 ✓	2.422	0.2842	pCi/g	0.3383	0.500	911.2	3	1.878	IDENTIFIED	10.05	☐		
Strontium-85 LA	0.133	0.03248	pCi/g	0.1069	Y	0	5	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.	
Thallium-208 ✓	0.671	0.06015	pCi/g	0.0801	0.080	583.3	1	1.384	IDENTIFIED	7.71	☐		
Thorium-228 nr	2.433	0.1672	pCi/g	0.128	N	238.7	2	1.32	IDENTIFIED	3.399	☐		
Thorium-230 nr	1.475	0.1323	pCi/g	0.1519	N	609.3	3	1.528	IDENTIFIED	7.91	☐		
Thorium-232 nr	2.422	0.2842	pCi/g	0.3383	N	911.2	3	1.878	IDENTIFIED	10.05	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818001	03-MAR-10 12:00	23-MAR-10 12:59	20	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr	2.179	0.2373	pCi/g	0.2442	N	911.8	3	1.65	IDENTIFIED	8.952	☐	
Annihilation Rad.	0.1793	0.03834	pCi/g	0.05036	N	510.8	1	1.815	IDENTIFIED	20.96	☐	
Bismuth-211 INT	5.389	0.3762	pCi/g	0.356	Y	352	2	1.398	IDENTIFIED	5.169	☑ UI	
Bismuth-212 HE	1.834	0.4542	pCi/g	1.327	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓	1.5	0.1248	pCi/g	0.1243	0.200	609.8	3	1.423	IDENTIFIED	6.708	☐	
Cadmium-109 INT	4.295	0.6853	pCi/g	1.511	Y	87.14	3	1.235	IDENTIFIED	14.94	☑ UI	
Cerium-143	7264	1376	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Gross Gamma	12.17	1.694	pCi/g	4.744	N		0				☐	
Iodine-135	1.22E+21	0	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Lead-212 ✓	2.01	0.1296	pCi/g	0.1132	0.100	238.6	2	1.165	IDENTIFIED	3.536	☐	
Lead-214 ✓	1.956	0.1468	pCi/g	0.1295	0.100	352	2	1.398	IDENTIFIED	5.169	☐	
Neptunium-237 INT nr	1.243	0.2374	pCi/g	0.5115	N	87.14	3	1.235	IDENTIFIED	14.94	☐	
Potassium-40 ✓	38.94	2.131	pCi/g	0.5698	1.00	1462	1	2.304	IDENTIFIED	2.699	☐	
Radium-224 INT	4.348	0.5363	pCi/g	1.468	Y	241.7	1	1.975	IDENTIFIED	11.33	☑ UI	
Radium-226 ✓	1.5	0.1248	pCi/g	0.1243	Y	609.8	3	1.423	IDENTIFIED	6.708	☐	
Radium-228 ✓	2.179	0.2373	pCi/g	0.2442	0.500	911.8	3	1.65	IDENTIFIED	8.952	☐	
Sodium-24 HE	2.02E+07	9.76E+07	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Thallium-208 ✓	0.7185	0.05204	pCi/g	0.06379	0.080	583.5	1	1.622	IDENTIFIED	5.672	☐	
Thorium-228 nr	2.01	0.1296	pCi/g	0.1132	N	238.6	2	1.165	IDENTIFIED	3.536	☐	
Thorium-230 nr	1.5	0.1183	pCi/g	0.1243	N	609.8	3	1.423	IDENTIFIED	6.708	☐	
Thorium-232 nr	2.179	0.2373	pCi/g	0.2442	N	911.8	3	1.65	IDENTIFIED	8.952	☐	
Tin-126 nr	0.4167	0.06649	pCi/g	0.1477	N	87.14	3	1.235	IDENTIFIED	14.94	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818002	03-MAR-10 12:00	23-MAR-10 13:02	20	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr	2.187	0.2509	pCi/g	0.312	N	910.8	3	1.417	IDENTIFIED	9.554	☐	
Annihilation Rad.	0.1778	0.03772	pCi/g	0.06241	N	510.6	1	1.703	IDENTIFIED	20.97	☐	
Bismuth-211 INT	4.766	0.3649	pCi/g	0.4194	Y	351.5	2	1.318	IDENTIFIED	6.556	☑ UI	
Bismuth-212 LA	2.543	0.5232	pCi/g	1.399	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓	1.438	0.1275	pCi/g	0.1653	0.200	609	3	1.373	IDENTIFIED	7.799	☐	
Cadmium-109 INT	3.124	0.4595	pCi/g	1.354	Y	86.75	3	0.9615	IDENTIFIED	14.21	☑ UI	
Cerium-143	18480	2600	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134 LA	0.125	0.04481	pCi/g	0.1222	0.100	0	8	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	11.49	1.614	pCi/g	5.912	N		0				☐	
Iodine-135	5.18E+20	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-210 HE	1.882	0.5411	pCi/g	1.03	N	45.63	1	1.101	IDENTIFIED	28.49	☐	

Lead-212 ✓	2.151	0.134	pCi/g	0.113	0.100	238.3	2	1.246	IDENTIFIED	3.077	☐		
Lead-214 ✓	1.73	0.1408	pCi/g	0.1526	0.100	351.5	2	1.318	IDENTIFIED	6.556	☐		
Neptunium-237 nr	0.9045	0.1634	pCi/g	0.3904	N	86.75	3	0.9615	IDENTIFIED	14.21	☐		
Niobium-95m	1.378	0.129	pCi/g	0.3976	N	0	8	0	NOT_IDENTI	0	☐		
Potassium-40 ✓	37.65	1.621	pCi/g	0.7031	1.00	1460	1	2.041	IDENTIFIED	2.977	☐		
Promethium-149 HE	358.4	250.7	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Radium-224 INT	5.795	0.7868	pCi/g	1.211	Y	241.3	1	1.83	IDENTIFIED	12.67	☑ ✓ UI		
Radium-226 ✓	1.438	0.1275	pCi/g	0.1653	Y	609	3	1.373	IDENTIFIED	7.799	☐		
Radium-228 ✓	2.187	0.2509	pCi/g	0.312	0.500	910.8	3	1.417	IDENTIFIED	9.554	☐		
Sodium-24 HE	2.43E+08	1.29E+08	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Strontium-85 LA	0.1181	0.02736	pCi/g	0.09244	Y	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.	
Thallium-208 ✓	0.59	0.06143	pCi/g	0.07753	0.080	582.9	1	1.539	IDENTIFIED	9.744	☐		
Thorium-228 nr	2.151	0.134	pCi/g	0.113	N	238.3	2	1.246	IDENTIFIED	3.077	☐		
Thorium-230 nr	1.438	0.1218	pCi/g	0.1653	N	609	3	1.373	IDENTIFIED	7.799	☐		
Thorium-232 nr	2.187	0.2509	pCi/g	0.312	N	910.8	3	1.417	IDENTIFIED	9.554	☐		
Thorium-234 ✓	2.417	0.6136	pCi/g	1.265	2.00	62.75	2	1.537	IDENTIFIED	23.71	☐		
Tin-126 nr	0.3031	0.04459	pCi/g	0.1312	N	86.75	3	0.9615	IDENTIFIED	14.21	☐		
Total Uranium	7.233	1.83E-06	ug/g	1.8848	N		0				☐		
Uranium-238 HE	2.417	0.6136	pCi/g	1.265	N	62.75	2	1.537	IDENTIFIED	23.71	☐		

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals		Zero?	queue
248818003	03-MAR-10 12:00	23-MAR-10 13:05	20	SAMPLE	LOAD	1	LANL	LANL01004	GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr	1.818	0.192	pCi/g	0.2011	N	910.7	3	1.907	IDENTIFIED	8.1	☐	
Annihilation Rad.	0.09908	0.02423	pCi/g	0.04043	N	510.5	1	1.776	IDENTIFIED	24.23	☐	
Bismuth-211 INT	3.774	0.2106	pCi/g	0.2658	Y	351.8	2	1.384	IDENTIFIED	4.564	☑ ✓ UI	
Bismuth-212 ✓ nr	1.553	0.4163	pCi/g	0.6154	N	727.2	1	1.78	IDENTIFIED	26.08	☐	
Bismuth-214 ✓	1.045	0.08124	pCi/g	0.09997	0.200	609	3	1.58	IDENTIFIED	6.346	☐	
Cadmium-109 INT	3.702	0.4873	pCi/g	1.28	Y	87.26	3	0.9561	IDENTIFIED	12.33	☑ ✓ UI	
Cerium-143	9939	1415	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-134 LA	0.08143	0.03625	pCi/g	0.07605	0.100	0	6	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135 HE	0.3465	0.07636	pCi/g	0.2508	N	0	6	0	NOT_IDENTI	0	☐	
Gross Gamma	9.651	1.302	pCi/g	2.567	N		0				☐	
Iodine-133 HE	34660	1.22E+05	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212 ✓	1.387	0.07776	pCi/g	0.1048	0.100	238.5	2	1.19	IDENTIFIED	4.293	☐	
Lead-214 ✓	1.37	0.08525	pCi/g	0.09665	0.100	351.8	2	1.384	IDENTIFIED	4.564	☐	
Neptunium-237 nr	1.072	0.1804	pCi/g	0.348	N	87.26	3	0.9561	IDENTIFIED	12.33	☐	
Potassium-40 ✓	37.64	1.627	pCi/g	0.4532	1.00	1460	1	2.393	IDENTIFIED	2.065	☐	
Radium-224 INT	3.199	0.3693	pCi/g	1.122	Y	241.8	1	1.755	IDENTIFIED	11.2	☑ ✓ UI	
Radium-226 ✓	1.045	0.08124	pCi/g	0.09997	Y	609	3	1.58	IDENTIFIED	6.346	☐	
Radium-228 ✓	1.818	0.192	pCi/g	0.2011	0.500	910.7	3	1.907	IDENTIFIED	8.1	☐	
Strontium-85 LA	0.08688	0.01782	pCi/g	0.06036	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	9.58E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208 ✓	0.5426	0.03957	pCi/g	0.04494	0.080	583	1	1.85	IDENTIFIED	6.155	☐	
Thorium-228 nr	1.387	0.07776	pCi/g	0.1048	N	238.5	2	1.19	IDENTIFIED	4.293	☐	
Thorium-230 nr	1.045	0.07642	pCi/g	0.09996	N	609	3	1.58	IDENTIFIED	6.346	☐	
Thorium-232 nr	1.818	0.192	pCi/g	0.2011	N	910.7	3	1.907	IDENTIFIED	8.1	☐	
Tin-126 nr	0.3592	0.04728	pCi/g	0.1124	N	87.26	3	0.9561	IDENTIFIED	12.33	☐	
Total Uranium	5.3799	2.25E-06	ug/g	3.9929	N		0				☐	

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818004	03-MAR-10 12:00	23-MAR-10 13:33	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		2.245	0.248	pCi/g	0.2587	N	911.8	3	1.444	IDENTIFIED	9.304	☐	
Annihilation Rad.	HE	0.09448	0.04036	pCi/g	0.05833	N	511.2	1	1.855	IDENTIFIED	42.51	☐	
Bismuth-211 INT		4.831	0.3412	pCi/g	0.3868	Y	352.3	2	1.39	IDENTIFIED	5.41	☑ UI	
Bismuth-212	HE	1.703	0.4944	pCi/g	1.364	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.388	0.1257	pCi/g	0.1336	0.200	609.8	3	1.507	IDENTIFIED	7.585	☐	
Cadmium-109 INT		3.419	0.6327	pCi/g	1.903	Y	87.19	3	1.187	IDENTIFIED	17.9	☑ UI	
Cerium-143		5161	1281	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Gross Gamma		10.81	1.572	pCi/g	4.243	N		0				☐	
Iodine-133	HE	1.41E+05	1.85E+05	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-212 ✓		1.935	0.1209	pCi/g	0.1138	0.100	239.1	2	1.17	IDENTIFIED	3.627	☐	
Lead-214 ✓		1.753	0.1329	pCi/g	0.1477	0.100	352.3	2	1.39	IDENTIFIED	5.41	☐	
Neptunium-237 nr		0.9899	0.2105	pCi/g	0.5076	N	87.19	3	1.187	IDENTIFIED	17.9	☐	
Potassium-40 ✓		34.44	1.868	pCi/g	0.5348	1.00	1461	1	2.023	IDENTIFIED	3.11	☐	
Radium-224 INT		5.673	0.8542	pCi/g	1.219	Y	242	1	1.879	IDENTIFIED	14.36	☑ UI	
Radium-226 ✓		1.388	0.1257	pCi/g	0.1336	Y	609.8	3	1.507	IDENTIFIED	7.585	☐	
Radium-228 ✓		2.245	0.248	pCi/g	0.2587	0.500	911.8	3	1.444	IDENTIFIED	9.304	☐	
Sodium-24	HE	3.38E+07	9.82E+07	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Strontium-85 LA		0.1084	0.03054	pCi/g	0.09904	Y	0	5	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓		0.6121	0.05514	pCi/g	0.07032	0.080	583.7	1	1.278	IDENTIFIED	7.785	☐	
Thorium-228 nr		1.935	0.1209	pCi/g	0.1138	N	239.1	2	1.17	IDENTIFIED	3.627	☐	
Thorium-230 nr		1.388	0.1203	pCi/g	0.1336	N	609.8	3	1.507	IDENTIFIED	7.585	☐	
Thorium-232 nr		2.245	0.248	pCi/g	0.2587	N	911.8	3	1.444	IDENTIFIED	9.304	☐	
Tin-126 nr		0.3318	0.06139	pCi/g	0.1848	N	87.19	3	1.187	IDENTIFIED	17.9	☐	
Total Uranium		5.499	2.69E-06	ug/g	4.6206	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818005	03-MAR-10 12:00	23-MAR-10 13:33	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		2.648	0.2328	pCi/g	0.2486	N	910.8	3	1.667	IDENTIFIED	6.327	☐	
Annihilation Rad.		0.1548	0.03786	pCi/g	0.04678	N	510.9	1	1.509	IDENTIFIED	23.98	☐	
Bismuth-211 INT		4.394	0.3408	pCi/g	0.3254	Y	351.7	2	1.106	IDENTIFIED	5.509	☑ UI	
Bismuth-212 ✓ nr		2.193	0.4075	pCi/g	0.9146	N	727	1	1.04	IDENTIFIED	17.45	☐	
Bismuth-214 ✓		1.195	0.1073	pCi/g	0.1279	0.200	609.1	3	1.271	IDENTIFIED	7.246	☐	
Cadmium-109 INT		4.609	0.5797	pCi/g	1.194	Y	87.15	3	1.222	IDENTIFIED	11.64	☑ UI	
Cadmium-115	HE	23.75	26.91	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cerium-143		5979	1262	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-134 LA		0.1154	0.0405	pCi/g	0.1079	0.100	0	5	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Europium-155	HE	0.2536	0.07335	pCi/g	0.176	N	105.3	1	1.325	IDENTIFIED	28.59	☐	
Gross Gamma		11.87	1.672	pCi/g	4.093	N		0				☐	
Iodine-133	HE	22900	1.59E+05	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-212 ✓		1.974	0.1331	pCi/g	0.09341	0.100	238.5	2	0.9514	IDENTIFIED	3.197	☐	
Lead-214 ✓		1.595	0.1313	pCi/g	0.1255	0.100	351.7	2	1.106	IDENTIFIED	5.509	☐	
Neptunium-237 nr		1.334	0.2185	pCi/g	0.3513	N	87.15	3	1.222	IDENTIFIED	11.64	☐	
Potassium-40 ✓		41.04	2.097	pCi/g	0.5373	1.00	1460	1	1.944	IDENTIFIED	2.609	☐	
Radium-224 INT		4.301	0.5889	pCi/g	1.001	Y	241.4	1	1.519	IDENTIFIED	12.53	☑ UI	
Radium-226 ✓		1.195	0.1073	pCi/g	0.1279	Y	609.1	3	1.271	IDENTIFIED	7.246	☐	
Radium-228 ✓		2.648	0.2328	pCi/g	0.2486	0.500	910.8	3	1.667	IDENTIFIED	6.327	☐	

Tellurium-125m	HE	18.48	5.439	pCi/g	18.02	N	0	5	0	NOT_IDENTI	0	☐
Thallium-208 ✓		0.5786	0.05577	pCi/g	0.06189	0.080	583	1	1.379	IDENTIFIED	8.27	☐
Thorium-228 nr		1.974	0.1331	pCi/g	0.09341	N	238.5	2	0.9514	IDENTIFIED	3.197	☐
Thorium-230 nr		1.195	0.1026	pCi/g	0.1279	N	609.1	3	1.271	IDENTIFIED	7.246	☐
Thorium-232 nr		2.648	0.2328	pCi/g	0.2486	N	910.8	3	1.667	IDENTIFIED	6.327	☐
Thorium-234 ✓		2.623	0.9397	pCi/g	2.091	2.00	63.22	2	0.6979	IDENTIFIED	34.69	☐
Tin-126 nr		0.4472	0.05624	pCi/g	0.1164	N	87.15	3	1.222	IDENTIFIED	11.64	☐
Total Uranium		7.8568	2.80E-06	ug/g	3.113	N		0				☐
Uranium-238	HE	2.623	0.9397	pCi/g	2.091	N	63.22	2	0.6979	IDENTIFIED	34.69	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818006	03-MAR-10 12:00	23-MAR-10 13:34	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		1.635	0.176	pCi/g	0.2394	N	911.8	3	1.327	IDENTIFIED	8.743	☐	
Annihilation Rad.		0.1192	0.03518	pCi/g	0.04586	N	511.3	1	2.026	IDENTIFIED	29.14	☐	
Bismuth-211 INT		3.534	0.2684	pCi/g	0.3073	Y	352.1	2	1.201	IDENTIFIED	5.9	☑ UI	
Bismuth-212 LA		2.062	0.4095	pCi/g	1.103	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.146	0.09791	pCi/g	0.1067	0.200	609.7	3	1.391	IDENTIFIED	6.469	☐	
Cadmium-109 INT		2.838	0.4261	pCi/g	1.329	Y	87.29	3	1.258	IDENTIFIED	14.26	☑ UI	
Cerium-143		5856	1136	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134 LA		0.1043	0.02429	pCi/g	0.09191	0.100	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		9.818	1.393	pCi/g	3.686	N		0				☐	
Iodine-133	HE	2.25E+05	1.48E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212 ✓		1.527	0.09708	pCi/g	0.08824	0.100	238.8	2	1.082	IDENTIFIED	3.449	☐	
Lead-214 ✓		1.282	0.1036	pCi/g	0.1118	0.100	352.1	2	1.201	IDENTIFIED	5.9	☐	
Neptunium-237 nr		0.8216	0.1504	pCi/g	0.3073	N	87.29	3	1.258	IDENTIFIED	14.26	☐	
Potassium-40 ✓		36.77	1.865	pCi/g	0.4628	1.00	1462	1	1.842	IDENTIFIED	2.591	☐	
Promethium-149		436.5	202.8	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Radium-224 INT		4.336	0.5802	pCi/g	0.9455	Y	241.6	1	1.706	IDENTIFIED	12.48	☑ UI	
Radium-226 ✓		1.146	0.09791	pCi/g	0.1067	Y	609.7	3	1.391	IDENTIFIED	6.469	☐	
Radium-228 ✓		1.635	0.176	pCi/g	0.2394	0.500	911.8	3	1.327	IDENTIFIED	8.743	☐	
Sodium-24	HE	2.64E+07	7.69E+07	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Strontium-85 LA		0.08419	0.02133	pCi/g	0.07732	Y	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓		0.4587	0.0474	pCi/g	0.05786	0.080	583.6	1	1.344	IDENTIFIED	8.967	☐	
Thorium-228 nr		1.527	0.09708	pCi/g	0.08824	N	238.8	2	1.082	IDENTIFIED	3.449	☐	
Thorium-230 nr		1.146	0.09313	pCi/g	0.1067	N	609.7	3	1.391	IDENTIFIED	6.469	☐	
Thorium-232 nr		1.635	0.176	pCi/g	0.2394	N	911.8	3	1.327	IDENTIFIED	8.743	☐	
Thorium-234 ✓		2.299	0.7954	pCi/g	1.645	2.00	63.76	2	1.006	IDENTIFIED	33.44	☐	
Tin-126 nr		0.2754	0.04134	pCi/g	0.1296	N	87.29	3	1.258	IDENTIFIED	14.26	☐	
Total Uranium		6.8817	2.37E-06	ug/g	2.4501	N		0				☐	
Uranium-238	HE	2.299	0.7954	pCi/g	1.645	N	63.76	2	1.006	IDENTIFIED	33.44	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818007	03-MAR-10 12:00	23-MAR-10 13:54	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		2.26	0.2609	pCi/g	0.3614	N	911.4	3	1.621	IDENTIFIED	9.958	☐	
Annihilation Rad.	HE	0.1169	0.04555	pCi/g	0.05922	N	511	1	1.643	IDENTIFIED	38.71	☐	
Bismuth-211 INT		3.722	0.3368	pCi/g	0.4327	Y	351.9	2	1.106	IDENTIFIED	7.755	☑ UI	
Bismuth-212	HE	2.805	0.6396	pCi/g	1.752	N	0	3	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.08	0.1276	pCi/g	0.1472	0.200	609.4	3	1.769	IDENTIFIED	10.66	☐	

Cadmium-109 int	4.975	0.5398	pCi/g	0.9812	Y	87.29	3	1.119	IDENTIFIED	9.691	☑ ui
Cadmium-115 HE	22.15	34.63	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐
Cerium-143	4289	1166	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐
Gross Gamma	10.69	1.487	pCi/g	3.577	N		0				☐
Lead-212 ✓	2.001	0.1237	pCi/g	0.1076	0.100	238.8	2	1.095	IDENTIFIED	3.54	☐
Lead-214 ✓	1.351	0.1278	pCi/g	0.1594	0.100	351.9	2	1.106	IDENTIFIED	7.755	☐
Neptunium-237 nr	1.44	0.2173	pCi/g	0.2828	N	87.29	3	1.119	IDENTIFIED	9.691	☐
Potassium-40 ✓	37.35	2.109	pCi/g	0.8407	1.00	1461	1	2.137	IDENTIFIED	3.487	☐
Radium-224 int	5.909	0.9135	pCi/g	1.154	Y	241.7	1	2.003	IDENTIFIED	14.78	☑ ui
Radium-226 ✓	1.08	0.1276	pCi/g	0.1472	Y	609.4	3	1.769	IDENTIFIED	10.66	☐
Radium-228 ✓	2.26	0.2609	pCi/g	0.3614	0.500	911.4	3	1.621	IDENTIFIED	9.958	☐
Thallium-208 ✓	0.545	0.05806	pCi/g	0.08051	0.080	583.4	1	1.143	IDENTIFIED	9.549	☐
Thorium-228 nr	2.001	0.1237	pCi/g	0.1076	N	238.8	2	1.095	IDENTIFIED	3.54	☐
Thorium-230 nr	1.08	0.1244	pCi/g	0.1472	N	609.4	3	1.769	IDENTIFIED	10.66	☐
Thorium-232 nr	2.26	0.2609	pCi/g	0.3614	N	911.4	3	1.621	IDENTIFIED	9.958	☐
Thorium-234 ✓	1.778	0.6677	pCi/g	1.152	2.00	63.53	2	1.041	IDENTIFIED	36.34	☐
Tin-126 nr	0.4827	0.05237	pCi/g	0.09507	N	87.29	3	1.119	IDENTIFIED	9.691	☐
Total Uranium	5.3548	1.99E-06	ug/g	1.7168	N		0				☐
Uranium-238 HE	1.778	0.6677	pCi/g	1.152	N	63.53	2	1.041	IDENTIFIED	36.34	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818008	03-MAR-10 12:00	23-MAR-10 14:24	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr	1.914	0.2075	pCi/g	0.2909	N	910.8	3	1.82	IDENTIFIED	9.124	☐	
Annihilation Rad.	0.1652	0.04399	pCi/g	0.05055	N	510.5	1	1.829	IDENTIFIED	26.2	☐	
Bismuth-211 int	3.709	0.2906	pCi/g	0.3204	Y	351.7	2	1.059	IDENTIFIED	6.406	☑ ui	
Bismuth-212 HE	2.241	0.5605	pCi/g	1.428	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓	1.318	0.1272	pCi/g	0.1362	0.200	609	3	1.346	IDENTIFIED	7.62	☐	
Cadmium-109 int	2.927	0.3765	pCi/g	0.8389	Y	87.14	3	0.9226	IDENTIFIED	11.99	☑ ui	
Cadmium-115 HE	6.371	27.33	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cerium-143	2608	959.3	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Europium-155 HE	0.1231	0.05661	pCi/g	0.1198	N	105	1	1.348	IDENTIFIED	45.68	☐	
Gross Gamma	9.944	1.412	pCi/g	3.22	N		0				☐	
Iodine-133 HE	18160	1.62E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Iodine-135	5.75E+20	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-210 HE	1.003	0.2744	pCi/g	0.633	N	46.6	1	0.7603	IDENTIFIED	26.96	☐	
Lead-212 ✓	1.458	0.09977	pCi/g	0.09866	0.100	238.4	2	0.9436	IDENTIFIED	4.679	☐	
Lead-214 ✓	1.346	0.1118	pCi/g	0.1166	0.100	351.7	2	1.059	IDENTIFIED	6.406	☐	
Neptunium-237 nr	0.8472	0.1406	pCi/g	0.2149	N	87.14	3	0.9226	IDENTIFIED	11.99	☐	
Potassium-40 ✓	37.1	1.984	pCi/g	0.7074	1.00	1460	1	2.128	IDENTIFIED	3.222	☐	
Promethium-149 HE	170.3	207.6	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Radium-224 int	2.813	0.5998	pCi/g	1.271	Y	241.4	1	1.472	IDENTIFIED	20.85	☑ ui	
Radium-226 ✓	1.318	0.1272	pCi/g	0.1362	Y	609	3	1.346	IDENTIFIED	7.62	☐	
Radium-228 ✓	1.914	0.2075	pCi/g	0.2909	0.500	910.8	3	1.82	IDENTIFIED	9.124	☐	
Sodium-24 HE	7.22E+07	1.08E+08	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-208 ✓	0.5199	0.04949	pCi/g	0.0686	0.080	583	1	1.104	IDENTIFIED	7.812	☐	
Thorium-228 nr	1.458	0.09977	pCi/g	0.09866	N	238.4	2	0.9436	IDENTIFIED	4.679	☐	
Thorium-230 nr	1.318	0.1224	pCi/g	0.1362	N	609	3	1.346	IDENTIFIED	7.62	☐	
Thorium-232 nr	1.914	0.2075	pCi/g	0.2909	N	910.8	3	1.82	IDENTIFIED	9.124	☐	
Thorium-234 ✓	1.848	0.4478	pCi/g	0.7839	2.00	63.38	2	0.9593	IDENTIFIED	22.5	☐	
Tin-126 nr	0.2839	0.03653	pCi/g	0.07413	N	87.14	3	0.9226	IDENTIFIED	11.99	☐	

Total Uranium	5.5174	1.33E-06	ug/g	1.1685	N		0				☐
Uranium-238 nr	1.848	0.4478	pCi/g	0.7839	N	63.38	2	0.9593	IDENTIFIED	22.5	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818009	03-MAR-10 12:00	23-MAR-10 14:25	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr	2.162	0.2545	pCi/g	0.3222	N	910.2	3	1.756	IDENTIFIED	10.16	☐	
Annihilation Rad.	0.1682	0.04918	pCi/g	0.06237	N	510.5	1	2.076	IDENTIFIED	29.09	☐	
Bismuth-211 INT	4.294	0.3101	pCi/g	0.4472	Y	351.4	2	1.351	IDENTIFIED	6.444	☑ UI	
Bismuth-212 HE	1.812	0.5554	pCi/g	1.523	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 LA	1.381	0.1106	pCi/g	0.3572	0.200	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cadmium-109 INT	4.01	0.7935	pCi/g	1.763	Y	87.2	3	1.549	IDENTIFIED	19.19	☑ UI	
Cerium-143	17870	2743	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Gross Gamma	10.6	1.463	pCi/g	3.681	N		0				☐	
Lead-212 ✓	1.957	0.1002	pCi/g	0.1205	0.100	238.3	2	1.185	IDENTIFIED	3.611	☐	
Lead-214 ✓	1.558	0.1205	pCi/g	0.1595	0.100	351.4	2	1.351	IDENTIFIED	6.444	☐	
Neptunium-237 nr	1.161	0.2599	pCi/g	0.5214	N	87.2	3	1.549	IDENTIFIED	19.19	☐	
Niobium-95m	0.7492	0.1163	pCi/g	0.3746	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40 ✓	35	1.796	pCi/g	0.8711	1.00	1459	1	2.122	IDENTIFIED	3.509	☐	
Promethium-149 HE	173.5	293.9	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Radium-224 INT	5.86	0.8242	pCi/g	1.292	Y	241.3	1	1.774	IDENTIFIED	13.78	☑ UI	
Radium-226 LA	1.381	0.1106	pCi/g	0.3572	Y	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Radium-228 ✓	2.162	0.2545	pCi/g	0.3222	0.500	910.2	3	1.756	IDENTIFIED	10.16	☐	
Thallium-208 ✓	0.6247	0.06061	pCi/g	0.07968	0.080	582.3	1	1.587	IDENTIFIED	9.145	☐	
Thorium-228 nr	1.957	0.1002	pCi/g	0.1205	N	238.3	2	1.185	IDENTIFIED	3.611	☐	
Thorium-230 nr	1.381	0.1044	pCi/g	0.3572	N	0	7	0	FAIL_ABUND	0	☐	
Thorium-232 nr	2.162	0.2545	pCi/g	0.3222	N	910.2	3	1.756	IDENTIFIED	10.16	☐	
Tin-126 nr	0.389	0.07698	pCi/g	0.1721	N	87.2	3	1.549	IDENTIFIED	19.19	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248824001	03-MAR-10 12:00	23-MAR-10 14:25	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr	2.321	0.2729	pCi/g	0.3006	N	911.2	3	1.629	IDENTIFIED	8.957	☐	
Annihilation Rad.	0.2108	0.04863	pCi/g	0.06309	N	510.6	1	1.868	IDENTIFIED	22.63	☐	
Bismuth-211 INT	5.221	0.3902	pCi/g	0.4397	Y	351.9	2	1.18	IDENTIFIED	5.74	☑ UI	
Bismuth-212 HE	2.165	0.4775	pCi/g	1.578	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓ HS 3/24/10	1.704	0.1357	pCi/g	0.1541	0.200	609.2	3	1.338	IDENTIFIED	6.157	☐	
Cadmium-109 ~~INT~~ LA	6.27	0.9692	pCi/g	2.355	Y	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Cerium-143	16440	2478	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-134 LA	0.1598	0.04686	pCi/g	0.1262	0.100	0	9	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	12.63	1.969	pCi/g	5.103	N		0				☐	
Iodine-133 HE	2.24E+05	2.01E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Iodine-135	1.55E+21	0	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212 ✓	2.334	0.1395	pCi/g	0.123	0.100	238.5	2	1.151	IDENTIFIED	3.3	☐	
Lead-214 ✓	1.895	0.151	pCi/g	0.1599	0.100	351.9	2	1.18	IDENTIFIED	5.74	☐	
Neptunium-237 nr	1.827	0.3589	pCi/g	0.5364	N	86.35	2	1.215	IDENTIFIED	15.95	☐	
Niobium-95m	1.086	0.1258	pCi/g	0.4008	N	0	9	0	NOT_IDENTI	0	☐	
Potassium-40 ✓	39.52	2.414	pCi/g	0.7697	1.00	1461	1	1.85	IDENTIFIED	2.781	☐	
Promethium-149 HE	475.3	299.3	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Radium-224 INT	5.861	0.7723	pCi/g	1.317	Y	241.5	1	1.735	IDENTIFIED	12.41	☑ UI	

Radium-226 ✓		1.704	0.1357	pCi/g	0.1541	Y	609.2	3	1.338	IDENTIFIED	6.157	☐	
Radium-228 ✓		2.321	0.2729	pCi/g	0.3006	0.500	911.2	3	1.629	IDENTIFIED	8.957	☐	
Strontium-85 LA		0.1349	0.0338	pCi/g	0.1074	Y	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓		0.6442	0.06636	pCi/g	0.0682	0.080	583.2	1	1.61	IDENTIFIED	9.175	☐	
Thorium-228 nr		2.334	0.1395	pCi/g	0.123	N	238.5	2	1.151	IDENTIFIED	3.3	☐	
Thorium-230 nr		1.704	0.128	pCi/g	0.1541	N	609.2	3	1.338	IDENTIFIED	6.157	☐	
Thorium-232 nr		2.321	0.2729	pCi/g	0.3006	N	911.2	3	1.629	IDENTIFIED	8.957	☐	
Thorium-234 ✓		3.103	1.24	pCi/g	3.061	2.00	63.32	2	1.105	IDENTIFIED	38.94	☐	
Tin-126 nr		0.6123	0.1017	pCi/g	0.1725	N	86.35	2	1.215	IDENTIFIED	15.95	☐	
Total Uranium		9.2993	3.69E-06	ug/g	4.5575	N		0				☐	
Uranium-238	HE	3.103	1.24	pCi/g	3.061	N	63.32	2	1.105	IDENTIFIED	38.94	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248824002	03-MAR-10 12:00	23-MAR-10 14:38	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		1.811	0.2191	pCi/g	0.2287	N	912	3	1.639	IDENTIFIED	10.71	☐	
Annihilation Rad.		0.1916	0.03235	pCi/g	0.0466	N	511.2	1	1.33	IDENTIFIED	16.65	☐	
Bismuth-211 INT		4.343	0.2886	pCi/g	0.3194	Y	352.1	2	1.186	IDENTIFIED	5.725	☑ ✓ UI	
Bismuth-212	HE	1.827	0.4015	pCi/g	1.249	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.311	0.09689	pCi/g	0.1115	0.200	609.7	3	1.351	IDENTIFIED	6.396	☐	
Cadmium-109 INT		4.038	0.6364	pCi/g	1.553	Y	87.26	3	1.243	IDENTIFIED	14.58	☑ ✓ UI	
Cadmium-115		84.69	27.69	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cerium-143		4570	1078	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-134 LA		0.1284	0.04857	pCi/g	0.09085	0.100	0	5	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		10.68	1.43	pCi/g	3.385	N		0				☐	
Lead-212 ✓		2.035	0.1039	pCi/g	0.09706	0.100	238.7	2	1.153	IDENTIFIED	3.117	☐	
Lead-214 ✓		1.576	0.1134	pCi/g	0.1162	0.100	352.1	2	1.186	IDENTIFIED	5.725	☐	
Neptunium-237 nr		1.169	0.2213	pCi/g	0.4681	N	87.26	3	1.243	IDENTIFIED	14.58	☐	
Potassium-40 ✓		34.55	1.565	pCi/g	0.5951	1.00	1462	1	2.018	IDENTIFIED	2.808	☐	
Radium-224 INT		4.899	0.729	pCi/g	1.04	Y	241.7	1	1.834	IDENTIFIED	14.5	☑ ✓ UI	
Radium-226 ✓		1.311	0.09689	pCi/g	0.1115	Y	609.7	3	1.351	IDENTIFIED	6.396	☐	
Radium-228 ✓		1.811	0.2191	pCi/g	0.2287	0.500	912	3	1.639	IDENTIFIED	10.71	☐	
Sodium-24		2.14E+08	9.84E+07	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Thallium-208 ✓		0.6351	0.04855	pCi/g	0.05885	0.080	583.5	1	1.355	IDENTIFIED	6.971	☐	
Thorium-228 nr		2.035	0.1039	pCi/g	0.09706	N	238.7	2	1.153	IDENTIFIED	3.117	☐	
Thorium-230 nr		1.311	0.09051	pCi/g	0.1115	N	609.7	3	1.351	IDENTIFIED	6.396	☐	
Thorium-232 nr		1.811	0.2191	pCi/g	0.2287	N	912	3	1.639	IDENTIFIED	10.71	☐	
Thorium-234 ✓		4.849	1.474	pCi/g	2.981	2.00	63.07	2	1.316	IDENTIFIED	28.7	☐	
Tin-126 nr		0.3917	0.06174	pCi/g	0.1518	N	87.26	3	1.243	IDENTIFIED	14.58	☐	
Total Uranium		14.509	4.39E-06	ug/g	4.4373	N		0				☐	
Uranium-238	HE	4.849	1.474	pCi/g	2.981	N	63.07	2	1.316	IDENTIFIED	28.7	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065185		23-MAR-10 14:39	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Cerium-143	HE	36.03	30.4	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Gross Gamma	HE	0.03444	0.01752	pCi/g	0.02892	N		0				☐	
Lead-212 LA nr 3/24/10		0.079	0.04039	pCi/g	0.07152	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Radium-224 ✓ TPW		0.8401	0.4291	pCi/g	0.6389	Y	240.1	1	4.131	IDENTIFIED	50.87	☑ UI	Data rejected due to high peak-width.
Technetium-99m	HE	1.92E+14	2.59E+15	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	

Thorium-228	HE	0.079	0.04039	pCi/g	0.07152	N	0	4	0	FAIL_ABUND	0		☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065186	03-MAR-10 12:00	23-MAR-10 14:39	20.1	DUP	LOAD	1		LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓ nr	2.093	0.2402	pCi/g	0.3513	N	910.9	3	1.476	IDENTIFIED	9.749	☐	
Annihilation Rad.		0.1859	0.04677	pCi/g	0.07557	N	511	1	2.207	IDENTIFIED	24.78	☐	
Bismuth-211	INT	5.748	0.4596	pCi/g	0.4943	Y	352.1	2	1.52	IDENTIFIED	6.263	☑ UI	
Bismuth-212	HE	1.718	0.6941	pCi/g	1.656	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.574	0.1413	pCi/g	0.1775	0.200	609.4	3	1.434	IDENTIFIED	7.467	☐	
Cadmium-109	INT	2.833	0.8134	pCi/g	2.429	Y	87.26	3	1.591	IDENTIFIED	28.04	☑ UI	
Cerium-143		15270	2491	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.2265	0.04879	pCi/g	0.129	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		12.65	2.047	pCi/g	4.938	N		0				☐	
Iodine-133	HE	2.46E+05	2.36E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.309	0.1627	pCi/g	0.1438	0.100	238.8	2	1.309	IDENTIFIED	3.734	☐	
Lead-214	✓	2.086	0.1764	pCi/g	0.1797	0.100	352.1	2	1.52	IDENTIFIED	6.263	☐	
Mercury-203	INT	0.1319	0.03959	pCi/g	0.1019	0.100	277.9	1	1.181	IDENTIFIED	29.51	☑ UI	
Neptunium-237	HE	0.82	0.2507	pCi/g	0.652	N	87.26	3	1.591	IDENTIFIED	28.04	☐	
Niobium-95m	HE	0.6092	0.1253	pCi/g	0.3974	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40	✓	39.67	2.298	pCi/g	0.5815	1.00	1460	1	2.07	IDENTIFIED	3.069	☐	
Promethium-149	HE	105.1	330.5	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Radium-224	INT	6.231	0.9826	pCi/g	1.54	Y	241.7	1	1.854	IDENTIFIED	14.77	☑ UI	
Radium-226	✓	1.574	0.1413	pCi/g	0.1775	Y	609.4	3	1.434	IDENTIFIED	7.467	☐	
Radium-228	✓	2.093	0.2402	pCi/g	0.3513	0.500	910.9	3	1.476	IDENTIFIED	9.749	☐	
Strontium-85	LA	0.1665	0.0388	pCi/g	0.1255	Y	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.7518	0.07319	pCi/g	0.09142	0.080	583.1	1	1.67	IDENTIFIED	8.595	☐	
Thorium-228	nr	2.309	0.1627	pCi/g	0.1438	N	238.8	2	1.309	IDENTIFIED	3.734	☐	
Thorium-230	nr	1.574	0.135	pCi/g	0.1775	N	609.4	3	1.434	IDENTIFIED	7.467	☐	
Thorium-232	nr	2.093	0.2402	pCi/g	0.3513	N	910.9	3	1.476	IDENTIFIED	9.749	☐	
Thorium-234	✓	6.017	2.011	pCi/g	4.652	2.00	63.18	2	1.367	IDENTIFIED	31.92	☐	
Tin-126	HE	0.2748	0.07891	pCi/g	0.24	N	87.26	3	1.591	IDENTIFIED	28.04	☐	
Total Uranium		17.865	5.98E-06	ug/g	6.9244	N		0				☐	
Uranium-238	HE	6.017	2.011	pCi/g	4.652	N	63.18	2	1.367	IDENTIFIED	31.92	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065187		23-MAR-10 14:40	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	1.664	0.3029	pCi/g	0.4698	N	911.5	3	1.943	IDENTIFIED	16.89	☐	
Americium-241 ✓	13.63	0.5991	pCi/g	0.4769	0.200	59.58	1	0.9804	IDENTIFIED	2.006	☐ 83.7 d	
Barium-137m	5.677	0.3179	pCi/g	0.09013	N	661.7	2	1.837	IDENTIFIED	1.884	☐	
Bismuth-211	3.397	0.3742	pCi/g	0.5592	Y	351.8	2	1.559	IDENTIFIED	9.354	☐	
Bismuth-214	0.7152	0.09742	pCi/g	0.1938	0.200	609.3	3	1.663	IDENTIFIED	12.31	☐	
Cadmium-109	35.16	1.951	pCi/g	1.962	Y	88.01	2	1.188	IDENTIFIED	2.874	☐	
Californium-249	HE 0.1449	0.03507	pCi/g	0.1281	N	0	4	0	NOT_IDENTI	0	☐	
Cerium-143	346.3	101.5	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-137 ✓	5.998	0.3362	pCi/g	0.09521	0.100	661.7	2	1.837	IDENTIFIED	1.884	☐ 105.5 d	
Cobalt-57	0.2391	0.03642	pCi/g	0.06251	N	122.1	1	1.145	IDENTIFIED	14.67	☐	
Cobalt-60 ✓	6.634	0.3256	pCi/g	0.08139	0.100	1333	1	2.503	IDENTIFIED	2.05	☐ 102.3 d	
Gross Gamma	29.09	2.739	pCi/g	3.285	N		0				☐	

Lead-212	**1.57**	0.1276	pCi/g	**0.1547**	**0.100**	238.7	2	1.275	IDENTIFIED	4.7	☐
Lead-214	**1.233**	0.14	pCi/g	**0.2033**	**0.100**	351.8	2	1.559	IDENTIFIED	9.354	☐
Neptunium-237	**5.005**	0.6313	pCi/g	**1.044**	N	0	4	0	NOT_IDENTI	0	☐
Radium-224	**3.47**	0.9782	pCi/g	**1.656**	Y	241.8	1	2.074	IDENTIFIED	27.49	☐
Radium-226	**0.7152**	0.09742	pCi/g	**0.1938**	Y	609.3	3	1.663	IDENTIFIED	12.31	☐
Radium-228	**1.664**	0.3029	pCi/g	**0.4698**	**0.500**	911.5	3	1.943	IDENTIFIED	16.89	☐
Silver-110m	**0.645**	0.05843	pCi/g	**0.181**	N	0	4	0	NOT_IDENTI	0	☐
Thallium-208	**0.3935**	0.05505	pCi/g	**0.09982**	**0.080**	583.2	1	1.733	IDENTIFIED	12.9	☐
Thorium-228	**1.57**	0.1276	pCi/g	**0.1547**	N	238.7	2	1.275	IDENTIFIED	4.7	☐
Thorium-230	**0.7151**	0.09558	pCi/g	**0.1938**	N	609.3	3	1.663	IDENTIFIED	12.31	☐
Thorium-232	**1.664**	0.3029	pCi/g	**0.4698**	N	911.5	3	1.943	IDENTIFIED	16.89	☐
Tin-126	**3.44**	0.1909	pCi/g	**0.1927**	N	88.01	2	1.188	IDENTIFIED	2.874	☐

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

MS 3/22/10

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
962631	248824001	SAMPLE	23-MAR-10	Thallium-208	0.6442	0.06636	pCi/g	0.03412	0.080
				Thorium-227	0.3801	0.1817	pCi/g	0.3185	Y
				Thorium-234	3.103	1.24	pCi/g	1.531	2.00
962631	248824002	SAMPLE	23-MAR-10	Bismuth-211	4.343	0.2886	pCi/g	0.1598	Y
				Bismuth-214	1.311	0.09689	pCi/g	0.05578	0.200
				Cadmium-109	4.038	0.6364	pCi/g	0.7768	Y
				Cadmium-115	84.69	27.69	pCi/g	0	N
				Cerium-139	0.04107	0.01471	pCi/g	0.02617	0.050
				Cerium-143	4570	1078	pCi/g	0	N
				Cesium-134	0.1284	0.04857	pCi/g	0.04545	0.100
				Gross Gamma	10.68	1.43	pCi/g	1.639	N
				Lead-212	2.035	0.1039	pCi/g	0.04856	0.100
				Lead-214	1.576	0.1134	pCi/g	0.05811	0.100
				Mercury-203	0.04183	0.02209	pCi/g	0.03599	0.100
				Potassium-40	34.55	1.565	pCi/g	0.2977	1.00
				Radium-224	4.899	0.729	pCi/g	0.5206	Y
				Radium-226	1.311	0.09689	pCi/g	0.05578	Y
				Radium-228	1.811	0.2191	pCi/g	0.1144	0.500
				Sodium-24	2.14E+08	9.84E+07	pCi/g	0	N
				Strontium-85	0.04203	0.02338	pCi/g	0.03661	Y
				Thallium-208	0.6351	0.04855	pCi/g	0.02944	0.080
				Thorium-234	4.849	1.474	pCi/g	1.491	2.00
				Uranium-235	0.1616	0.09885	pCi/g	0.1696	0.500
962631	1202065185	MB	23-MAR-10	Cerium-143	36.03	30.4	pCi/g	0	N
				Lead-212	0.079	0.04039	pCi/g	0.03578	0.100
				Radium-224	0.8401	0.4291	pCi/g	0.3196	Y
				Technetium-99m	1.92E+14	2.59E+15	pCi/g	0	N
962631	1202065186	DUP	23-MAR-10	Americium-241	0.3026	0.1938	pCi/g	0.2962	0.200
				Bismuth-211	5.748	0.4596	pCi/g	0.2473	Y
				Bismuth-214	1.574	0.1413	pCi/g	0.08881	0.200
				Cadmium-109	2.833	0.8134	pCi/g	1.215	Y
				Cerium-143	15270	2491	pCi/g	0	N
				Cesium-134	0.2265	0.04879	pCi/g	0.06452	0.100
				Gross Gamma	12.65	2.047	pCi/g	2.401	N
				Iodine-133	2.46E+05	2.36E+05	pCi/g	0	N
				Lead-212	2.309	0.1627	pCi/g	0.07193	0.100
				Lead-214	2.086	0.1764	pCi/g	0.08993	0.100

MS 3/22/10

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 10:52:54.69

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248702001.CNF;1
Sample date       : 2-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 08:52:27
Sample ID         : G248702001           Sample quantity  : 1.33700E+02 GRAM
Detector name     : GAM05                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.76  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	45.85*	160	411	1.03	92.69	88	10	2.22E-02	27.5	
2	0	62.38*	178	708	0.99	125.74	120	11	2.47E-02	30.5	
3	2	74.25*	638	608	1.34	149.47	144	15	8.86E-02	7.9	1.04E+00
4	2	76.55*	907	500	1.11	154.07	144	15	1.26E-01	5.5	
5	3	83.77	197	278	1.40	168.52	165	28	2.73E-02	14.8	5.40E-01
6	3	86.71	435	350	1.38	174.39	165	28	6.05E-02	8.9	
7	3	89.31	253	370	1.45	179.60	165	28	3.52E-02	16.3	
8	3	92.33*	411	423	1.80	185.63	165	28	5.71E-02	11.9	
9	0	185.60*	221	378	1.25	372.14	367	12	3.06E-02	19.4	
10	0	208.77	76	241	1.01	418.48	415	8	1.05E-02	37.3	
11	3	238.21*	1204	175	1.28	477.35	470	20	1.67E-01	3.6	1.74E+00
12	3	241.20	354	248	2.02	483.33	470	20	4.92E-02	13.7	
13	0	269.25	48	205	1.40	539.41	537	10	6.67E-03	57.6	
14	0	294.90*	324	225	1.13	590.71	585	11	4.50E-02	10.7	
15	0	299.68*	93	141	1.69	600.26	596	9	1.29E-02	26.9	
16	0	337.69	321	140	1.52	676.25	669	14	4.46E-02	9.6	
17	0	351.50*	640	186	1.19	703.86	697	13	8.89E-02	6.0	
18	0	462.27	77	164	1.31	925.33	917	16	1.07E-02	38.9	
19	0	510.06*	119	185	2.01	1020.86	1012	18	1.65E-02	30.9	
20	0	582.82*	337	116	1.43	1166.32	1158	16	4.68E-02	9.2	
21	0	608.80*	453	119	1.64	1218.24	1210	17	6.30E-02	7.3	
22	0	728.18	47	139	1.57	1456.88	1448	18	6.55E-03	59.0	
23	0	769.43	45	96	0.89	1539.31	1531	18	6.28E-03	53.6	
24	0	910.86*	235	57	1.41	1821.98	1815	15	3.26E-02	9.7	
25	2	964.61	56	49	2.41	1929.39	1919	36	7.75E-03	28.6	1.20E+00
26	2	968.58*	137	27	1.84	1937.32	1919	36	1.91E-02	12.1	
27	0	1119.81*	82	59	2.23	2239.52	2233	13	1.14E-02	22.6	
28	0	1377.75	25	7	0.73	2754.85	2751	8	3.41E-03	28.2	
29	0	1408.08	22	18	0.82	2815.44	2806	15	2.99E-03	48.8	
30	0	1460.47*	820	15	2.05	2920.09	2912	15	1.14E-01	3.7	
31	0	1730.04	28	3	1.97	3458.51	3451	14	3.83E-03	23.9	
32	0	1764.25*	59	12	2.04	3526.83	3518	15	8.18E-03	18.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 10:52:57

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248702001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 2-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 08:52:27
Sample ID : G248702001 Sample quantity : 133.70 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA5 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.76 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	2.153E+01	2.073E+00	6.274E-01	3.902E-02	34.312
CD-109	+	88.03	*	2.537E+00	8.505E-01	9.441E-01	7.189E-02	2.687
SN-126		64.28		2.104E-01	2.951E-01	4.378E-01	6.525E-02	0.481
	+	86.94		1.746E+00	7.828E-01	3.792E-01	1.561E-01	4.604
	+	87.57	*	4.199E-01	8.128E-02	9.137E-02	6.958E-03	4.596
CS-135	+	268.22	*	1.932E-01	2.237E-01	2.690E-01	2.878E-02	0.718
TL-208		277.37		4.098E-01	4.279E-01	7.231E-01	9.411E-02	0.567
	+	583.19	*	4.926E-01	9.717E-02	6.089E-02	4.472E-03	8.090
		860.56		7.541E-01	3.636E-01	6.785E-01	6.885E-02	1.111
PB-210	+	46.54	*	1.391E+00	7.713E-01	7.981E-01	6.156E-02	1.742
BI-211	+	72.87		1.810E+01	3.195E+00	3.273E+00	2.576E-01	5.531
	+	351.06	*	3.953E+00	5.649E-01	3.311E-01	2.624E-02	11.939
PB-212	+	74.82		2.166E+00	4.365E-01	3.900E-01	4.870E-02	5.553
	+	77.11		1.857E+00	2.502E-01	2.257E-01	1.757E-02	8.228
	+	238.63	*	1.622E+00	2.103E-01	9.194E-02	9.952E-03	17.642
	+	300.09		1.964E+00	1.076E+00	1.319E+00	1.417E-01	1.489
BI-214	+	609.32	*	1.288E+00	2.177E-01	1.173E-01	9.900E-03	10.976
	+	1120.29		1.224E+00	5.667E-01	4.714E-01	4.529E-02	2.596
	+	1764.49		1.254E+00	4.759E-01	3.198E-01	1.849E-02	3.923
PB-214	+	74.82		3.839E+00	7.428E-01	6.913E-01	7.704E-02	5.553
	+	77.11		3.274E+00	5.172E-01	3.979E-01	4.512E-02	8.228
	+	242.00		2.898E+00	8.597E-01	5.307E-01	6.030E-02	5.461
	+	295.22		1.217E+00	2.935E-01	2.309E-01	2.560E-02	5.270
	+	351.93	*	1.435E+00	2.198E-01	1.253E-01	1.207E-02	11.447
RA-224	+	240.99	*	5.125E+00	1.491E+00	9.855E-01	9.642E-02	5.200
RA-226	+	609.32	*	1.288E+00	2.177E-01	1.173E-01	9.900E-03	10.976
	+	1120.29		1.224E+00	5.667E-01	4.714E-01	4.529E-02	2.596
	+	1764.49		1.254E+00	4.759E-01	3.198E-01	1.849E-02	3.923
AC-228	+	338.32		2.200E+00	1.007E+00	3.852E-01	1.601E-01	5.712
	+	911.20	*	1.692E+00	3.923E-01	2.251E-01	2.858E-02	7.515
	+	968.97		1.708E+00	5.890E-01	3.953E-01	9.738E-02	4.320
RA-228	+	338.32		2.200E+00	1.007E+00	3.852E-01	1.601E-01	5.712
	+	911.20	*	1.692E+00	3.923E-01	2.251E-01	2.858E-02	7.515
	+	968.97		1.708E+00	5.890E-01	3.953E-01	9.738E-02	4.320

Sample ID : G248702001 Acquisition date : 23-MAR-2010 08:52:27

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	74.82		2.166E+00	3.831E-01	3.900E-01	3.087E-02	5.553
	+	77.11		1.857E+00	2.502E-01	2.257E-01	1.757E-02	8.228
	+	238.63	*	1.622E+00	2.103E-01	9.194E-02	9.952E-03	17.642
	+	300.09		1.964E+00	1.600E+00	1.319E+00	8.082E-01	1.489
TH-229	+	85.43		1.057E+00	2.046E-01	2.286E-01	1.748E-02	4.624
	+	88.47		3.790E-01	1.271E-01	1.412E-01	1.086E-02	2.684
		193.51	*	5.329E-01	5.556E-01	9.243E-01	9.231E-02	0.577
		210.85		6.950E-01	1.097E+00	1.582E+00	1.576E-01	0.439
TH-230	+	609.32	*	1.288E+00	2.068E-01	1.173E-01	7.727E-03	10.976
	+	1120.29		1.224E+00	5.607E-01	4.714E-01	3.245E-02	2.596
	+	1764.49		1.254E+00	4.759E-01	3.198E-01	1.849E-02	3.923
TH-232	+	338.32		2.200E+00	4.563E-01	3.852E-01	3.020E-02	5.712
	+	911.20	*	1.692E+00	3.923E-01	2.251E-01	2.858E-02	7.515
	+	968.97		1.708E+00	5.890E-01	3.953E-01	9.738E-02	4.320
TH-234	+	63.29	*	1.675E+00	1.066E+00	1.045E+00	1.897E-01	1.602
	+	92.59		3.519E+00	1.138E+00	8.116E-01	1.785E-01	4.335
U-235	+	89.96		2.622E+00	1.067E+00	9.813E-01	2.393E-01	2.672
	+	93.35		2.658E+00	8.783E-01	6.145E-01	1.418E-01	4.325
		143.76	*	9.369E-02	2.163E-01	3.545E-01	6.762E-02	0.264
		163.33		9.615E-02	4.581E-01	7.440E-01	1.397E-01	0.129
	+	185.72		1.911E-01	7.642E-02	6.689E-02	6.676E-03	2.857
		205.31		5.143E-01	5.891E-01	8.545E-01	1.609E-01	0.602
NP-237	+	86.48	*	1.253E+00	3.576E-01	2.718E-01	6.064E-02	4.610
		95.86		-6.123E-01	8.728E-01	1.188E+00	2.867E-01	-0.515
U-238	+	63.29	*	1.675E+00	1.066E+00	1.045E+00	1.897E-01	1.602
	+	92.59		3.519E+00	8.852E-01	8.116E-01	6.820E-02	4.335
ANH-511	+	511.00	*	1.307E-01	8.135E-02	5.213E-02	3.337E-03	2.508

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.263E-01	3.919E-01	6.536E-01	4.680E-02	0.193
NA-22		1274.54	*	2.953E-02	5.329E-02	9.092E-02	5.296E-03	0.325
NA-24		1368.63	*	-3.924E+02	5.329E-02	Half-Life too short		
SC-46		889.28	*	2.532E-03	4.479E-02	7.449E-02	7.482E-03	0.034
	+	1120.55		2.171E-01	9.948E-02	1.492E-01	1.026E-02	1.455
V-48		944.13		-2.365E-01	1.269E+00	2.055E+00	1.988E-01	-0.115
		983.53	*	-3.462E-02	9.303E-02	1.468E-01	1.344E-02	-0.236
		1312.11		7.245E-02	1.171E-01	2.024E-01	1.174E-02	0.358
CR-51		320.08	*	-3.375E-01	4.638E-01	7.393E-01	6.533E-02	-0.456
MN-54		834.85	*	-3.619E-02	4.279E-02	6.576E-02	6.025E-03	-0.550
CO-56		846.77	*	-6.185E-02	4.927E-02	7.216E-02	6.748E-03	-0.857
		1037.84		-4.693E-02	3.351E-01	5.411E-01	4.768E-02	-0.087
		1238.28		1.754E-01	1.150E-01	2.074E-01	1.282E-02	0.845
		1771.35		-8.481E-01	3.705E-01	3.644E-01	2.104E-02	-2.328
CO-57		122.06	*	2.264E-02	2.559E-02	4.274E-02	6.064E-03	0.530
		136.47		2.389E-02	2.252E-01	3.664E-01	4.906E-02	0.065
CO-58		810.76	*	-4.476E-02	4.619E-02	6.984E-02	6.147E-03	-0.641

Sample ID : G248702001 Acquisition date : 23-MAR-2010 08:52:27

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
FE-59		1099.45	*	-1.372E-01	1.194E-01	1.722E-01	1.394E-02	-0.797
		1291.59		-4.230E-02	1.435E-01	2.236E-01	1.660E-02	-0.189
CO-60		1173.23		-5.821E-04	5.020E-02	8.159E-02	4.732E-03	-0.007
		1332.49	*	-2.642E-02	4.091E-02	5.984E-02	3.463E-03	-0.442
ZN-65		1115.54	*	2.399E-02	1.254E-01	1.797E-01	1.255E-02	0.134
SE-75		121.12		-3.539E-02	1.358E-01	2.184E-01	3.412E-02	-0.162
		136.00		5.737E-03	4.429E-02	7.213E-02	9.407E-03	0.080
		264.66	*	-2.704E-03	5.373E-02	7.798E-02	7.446E-03	-0.035
		279.54		-2.143E-02	1.223E-01	2.027E-01	1.942E-02	-0.106
		400.66		1.690E-01	2.906E-01	4.941E-01	4.505E-02	0.342
SR-85		514.00	*	5.489E-02	5.057E-02	7.819E-02	5.012E-03	0.702
Y-88		898.04		-8.737E-04	4.946E-02	8.164E-02	8.347E-03	-0.011
		1836.06	*	2.147E-02	3.259E-02	6.136E-02	3.511E-03	0.350
Y-91		1204.77	*	2.070E+01	2.754E+01	4.761E+01	2.766E+00	0.435
NB-94		702.65	*	1.791E-03	4.105E-02	6.896E-02	4.934E-03	0.026
		871.09		1.599E-02	3.793E-02	6.514E-02	6.348E-03	0.246
NB-95		765.81	*	8.157E-02	6.169E-02	9.973E-02	8.067E-03	0.818
NB-95M		235.69	*	1.213E+00	2.305E-01	3.504E-01	3.838E-02	3.463
ZR-95		724.19		1.781E-01	1.303E-01	2.121E-01	1.760E-02	0.839
		756.73	*	3.796E-03	8.912E-02	1.492E-01	1.331E-02	0.025
MO-99		140.51		-3.446E+01	1.035E+02	1.649E+02	4.197E+01	-0.209
		181.07		2.557E+01	9.107E+01	1.295E+02	2.519E+01	0.197
		366.42		4.955E+01	4.536E+02	7.542E+02	5.176E+01	0.066
		739.50	*	4.440E+01	5.940E+01	1.043E+02	1.592E+01	0.426
		777.92		9.854E+00	1.890E+02	2.840E+02	2.350E+01	0.035
TC-99M		140.51	*	-1.114E+17	1.890E+02	Half-Life too short		
RU-103		497.08	*	1.453E-02	4.801E-02	7.990E-02	1.014E-02	0.182
		610.33		1.353E+01	2.698E+00	3.436E+00	5.281E-01	3.939
RH-106		621.93	*	-2.933E-03	3.365E-01	5.415E-01	6.518E-02	-0.005
		1050.41		1.052E+00	2.834E+00	4.811E+00	3.917E-01	0.219
RU-106		621.93	*	-2.933E-03	3.365E-01	5.415E-01	3.570E-02	-0.005
		1050.41		1.052E+00	2.834E+00	4.811E+00	3.917E-01	0.219
AG-108M		433.94	*	-2.715E-02	3.264E-02	5.045E-02	3.257E-03	-0.538
		614.28		2.730E-03	4.486E-02	6.275E-02	4.365E-03	0.044
		722.91		1.535E-03	4.605E-02	6.668E-02	5.180E-03	0.023
AG-110M		657.76	*	-1.740E-02	4.201E-02	6.513E-02	4.502E-03	-0.267
		677.62		3.069E-01	3.610E-01	6.412E-01	4.560E-02	0.479
		706.68		-1.001E-01	2.543E-01	4.138E-01	3.107E-02	-0.242
		763.94		1.391E-01	2.109E-01	3.247E-01	2.699E-02	0.428
		884.68		-2.559E-02	5.436E-02	8.573E-02	8.751E-03	-0.299
		937.49		-1.006E-01	1.236E-01	1.868E-01	1.873E-02	-0.539
		1384.29		-6.004E-02	1.894E-01	2.654E-01	1.636E-02	-0.226
		1505.03		-1.777E-01	3.028E-01	4.604E-01	2.706E-02	-0.386
SN-113		391.69	*	1.302E-02	4.993E-02	8.355E-02	5.183E-03	0.156
CD-115		260.90		-1.010E-04	4.993E-02	Half-Life too short		
		492.35		8.225E-05	4.993E-02	Half-Life too short		
		527.90	*	4.831E-05	4.993E-02	Half-Life too short		
SN-117M		156.02		2.857E-01	3.208E+00	5.195E+00	5.728E-01	0.055
		158.56	*	-5.383E-02	7.755E-02	1.210E-01	1.301E-02	-0.445

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-123M		159.00	*	-2.120E-02	3.126E-02	4.881E-02	5.245E-03	-0.434
SB-124		602.73		-1.787E-02	5.424E-02	7.264E-02	4.784E-03	-0.246
		645.85		3.576E-01	5.775E-01	9.769E-01	7.057E-02	0.366
		722.78		-2.378E-02	4.913E-01	7.048E-01	5.410E-02	-0.034
		1690.97	*	2.418E-02	7.607E-02	1.341E-01	8.523E-03	0.180
SB-125		427.87	*	1.332E-02	1.030E-01	1.704E-01	1.067E-02	0.078
	+	463.37		7.463E-01	5.836E-01	6.070E-01	4.302E-02	1.229
		600.60		9.206E-02	2.216E-01	3.366E-01	2.490E-02	0.274
		635.95		-8.042E-02	3.135E-01	4.933E-01	3.691E-02	-0.163
TE-125M		109.28	*	-4.700E+00	1.024E+01	1.639E+01	2.130E+00	-0.287
I-126		388.63		1.109E-01	2.518E-01	4.255E-01	2.532E-02	0.261
		666.33	*	-7.875E-02	3.561E-01	5.612E-01	3.726E-02	-0.140
		753.82		-3.607E-01	2.909E+00	4.809E+00	3.803E-01	-0.075
SB-126		414.70		-2.645E-02	1.108E-01	1.792E-01	1.068E-02	-0.148
		666.50		-4.434E-02	1.228E-01	1.911E-01	1.270E-02	-0.232
		695.00		7.759E-02	1.313E-01	2.284E-01	1.609E-02	0.340
		697.00		-2.670E-01	4.739E-01	7.646E-01	5.409E-02	-0.349
		720.70	*	-1.267E-01	2.623E-01	3.575E-01	2.652E-02	-0.354
		856.80		-5.213E-01	8.513E-01	1.325E+00	1.261E-01	-0.393
SB-127		252.40		8.024E+00	1.290E+01	2.148E+01	9.087E+00	0.373
		473.00		8.133E-01	5.104E+00	8.425E+00	1.109E+00	0.097
		685.70	*	2.571E+00	4.118E+00	7.206E+00	8.771E-01	0.357
		783.70		4.215E+00	1.143E+01	1.955E+01	2.721E+00	0.216
I-131		80.19		2.235E+00	8.100E+00	8.615E+00	6.758E-01	0.259
		284.31		-9.233E-01	2.532E+00	4.148E+00	4.002E-01	-0.223
		364.49	*	-1.288E-02	2.006E-01	3.303E-01	2.498E-02	-0.039
		636.99		-6.053E-01	2.939E+00	4.645E+00	3.384E-01	-0.130
TE-132		49.72		-1.316E+01	1.472E+01	2.049E+01	2.418E+00	-0.642
		111.76		-1.086E+02	1.135E+02	1.764E+02	2.695E+01	-0.616
		116.30		6.652E+01	9.759E+01	1.622E+02	2.600E+01	0.410
		228.16	*	6.404E-01	2.679E+00	4.549E+00	8.084E-01	0.141
BA-133		81.00		5.455E-02	9.958E-02	1.079E-01	1.622E-02	0.506
		276.40		2.318E-01	4.269E-01	6.675E-01	9.716E-02	0.347
		302.85		4.211E-02	1.637E-01	2.413E-01	3.182E-02	0.174
		356.01	*	3.145E-02	4.794E-02	7.247E-02	8.757E-03	0.434
		383.85		-2.017E-01	3.234E-01	5.121E-01	5.563E-02	-0.394
I-133		529.87	*	-4.094E-01	3.234E-01	Half-Life too short		
		875.33		1.226E+01	3.234E-01	Half-Life too short		
		1298.22		1.672E+01	3.234E-01	Half-Life too short		
CS-134		563.25		2.636E-02	4.083E-01	6.644E-01	4.413E-02	0.040
		569.33		2.086E-02	2.366E-01	3.796E-01	2.543E-02	0.055
		604.72		-1.257E-02	4.297E-02	5.776E-02	3.820E-03	-0.218
		795.86	*	8.432E-02	5.589E-02	1.022E-01	8.801E-03	0.825
		801.95		-5.187E-01	4.997E-01	7.536E-01	6.550E-02	-0.688
		1365.19		5.375E-01	1.460E+00	2.464E+00	1.574E-01	0.218
I-135		546.56		-2.758E+15	1.460E+00	Half-Life too short		
		836.80		2.624E+16	1.460E+00	Half-Life too short		
		1038.76		5.160E+15	1.460E+00	Half-Life too short		
		1131.51		1.608E+16	1.460E+00	Half-Life too short		

Sample ID : G248702001 Acquisition date : 23-MAR-2010 08:52:27

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1260.41	*	-7.108E+15	1.460E+00	Half-Life too short		
		1457.56		1.592E+18	1.460E+00	Half-Life too short		
		1678.03		1.094E+16	1.460E+00	Half-Life too short		
		1791.20		-4.329E+16	1.460E+00	Half-Life too short		
CS-136		153.25		5.937E-01	1.205E+00	1.981E+00	2.501E-01	0.300
		176.60		9.581E-03	7.074E-01	1.137E+00	1.222E-01	0.008
		273.65		-1.392E+00	8.973E-01	1.157E+00	1.163E-01	-1.204
		340.55		3.264E-01	2.443E-01	3.822E-01	3.111E-02	0.854
		818.51		5.575E-02	1.015E-01	1.772E-01	1.580E-02	0.315
		1048.07	*	2.285E-02	1.622E-01	2.695E-01	2.309E-02	0.085
		1235.36		7.646E-01	9.203E-01	1.588E+00	1.573E-01	0.481
BA-137M		661.66	*	5.917E-02	4.398E-02	7.736E-02	5.087E-03	0.765
CS-137		661.66	*	6.251E-02	4.646E-02	8.173E-02	5.392E-03	0.765
CE-139		165.86	*	-1.949E-02	3.291E-02	5.155E-02	5.118E-03	-0.378
BA-140		162.66		7.346E-01	1.153E+00	1.904E+00	2.054E-01	0.386
		304.85		1.850E+00	2.173E+00	3.245E+00	9.512E-01	0.570
		423.72		-6.877E-01	2.953E+00	4.762E+00	1.539E+00	-0.144
		537.26	*	-3.246E-03	3.995E-01	6.480E-01	2.166E-01	-0.005
LA-140		328.76		5.846E-01	4.736E-01	8.263E-01	7.147E-02	0.707
		487.02		-7.683E-03	2.083E-01	3.388E-01	2.380E-02	-0.023
		815.77		-2.540E-01	4.497E-01	7.046E-01	6.937E-02	-0.360
		1596.21	*	-1.589E-02	1.275E-01	2.075E-01	1.219E-02	-0.077
CE-141		145.44	*	4.106E-02	7.759E-02	1.278E-01	1.562E-02	0.321
CE-143		57.36		-2.219E-04	7.759E-02	Half-Life too short		
		293.27	*	2.006E-02	7.759E-02	Half-Life too short		
		664.57		3.326E-03	7.759E-02	Half-Life too short		
		721.93		-2.234E-03	7.759E-02	Half-Life too short		
CE-144		80.12		8.328E-01	2.702E+00	2.881E+00	2.226E-01	0.289
		133.52	*	-5.742E-02	2.131E-01	3.416E-01	6.245E-02	-0.168
PM-144		476.78		2.662E-03	7.521E-02	1.231E-01	8.942E-03	0.022
		618.01		7.359E-03	3.650E-02	5.822E-02	4.021E-03	0.126
		696.49	*	-1.563E-02	4.392E-02	7.189E-02	5.085E-03	-0.217
PR-144		696.51	*	-1.178E+00	3.297E+00	5.395E+00	3.813E-01	-0.218
		1489.16		-5.576E+00	1.337E+01	2.081E+01	1.222E+00	-0.268
PM-146		453.88	*	1.288E-02	5.088E-02	7.714E-02	6.721E-03	0.167
		633.25		6.885E-01	1.666E+00	2.739E+00	1.035E+00	0.251
		735.93		-1.008E-01	2.033E-01	2.738E-01	7.595E-02	-0.368
		747.24		7.558E-02	1.158E-01	2.017E-01	2.849E-02	0.375
ND-147	+	91.11		1.997E+00	5.075E-01	6.723E-01	5.985E-02	2.970
		319.41		1.333E-01	5.014E+00	8.345E+00	7.005E-01	0.016
		531.02	*	-9.023E-01	9.279E-01	1.380E+00	1.907E-01	-0.654
PM-149		285.90	*	1.554E-04	9.279E-01	Half-Life too short		
EU-152		121.78		2.614E-02	7.233E-02	1.192E-01	1.780E-02	0.219
		244.70		1.453E-02	3.641E-01	5.338E-01	5.204E-02	0.027
		344.28	*	5.819E-02	1.280E-01	1.687E-01	1.386E-02	0.345
		778.90		2.499E-02	3.037E-01	4.868E-01	4.035E-02	0.051
	+	964.08		7.475E-01	4.333E-01	6.337E-01	5.971E-02	1.179
		1085.87		-3.683E-01	3.957E-01	5.751E-01	4.330E-02	-0.640
		1112.07		-7.636E-04	4.219E-01	6.151E-01	4.331E-02	-0.001

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1408.01		2.779E-01	2.719E-01	3.707E-01	2.166E-02	0.750
GD-153		69.67		-2.101E-01	1.202E+00	1.730E+00	1.376E-01	-0.121
		97.43	*	7.799E-02	8.041E-02	1.208E-01	1.120E-02	0.646
		103.18		-1.237E-02	1.064E-01	1.731E-01	1.790E-02	-0.071
EU-154		123.07		3.789E-02	5.205E-02	8.647E-02	1.377E-02	0.438
		723.31		1.010E-01	2.114E-01	3.209E-01	2.712E-02	0.315
		873.19		-5.175E-02	3.269E-01	5.336E-01	6.809E-02	-0.097
		996.26		-3.569E-01	3.925E-01	5.755E-01	1.016E-01	-0.620
		1004.73		-1.157E-01	2.396E-01	3.743E-01	4.422E-02	-0.309
		1274.44	*	8.485E-02	1.508E-01	2.573E-01	2.426E-02	0.330
EU-155	+	86.55		5.104E-01	9.898E-02	1.573E-01	1.215E-02	3.245
		105.31	*	1.244E-01	1.044E-01	1.763E-01	1.909E-02	0.706
TB-160	+	86.79		1.428E+00	2.763E-01	4.409E-01	3.362E-02	3.238
		197.04		-3.666E-01	6.548E-01	1.010E+00	1.009E-01	-0.363
		215.65		3.224E-01	8.222E-01	1.407E+00	1.400E-01	0.229
	+	298.57		2.923E-01	1.591E-01	2.368E-01	2.107E-02	1.234
		879.36	*	1.048E-02	1.654E-01	2.753E-01	2.720E-02	0.038
		962.29		9.976E-01	6.134E-01	1.132E+00	1.069E-01	0.881
		966.15		1.585E+00	3.484E-01	6.618E-01	6.217E-02	2.395
		1177.93		1.228E-02	4.216E-01	6.878E-01	3.991E-02	0.018
		1271.85		5.523E-01	8.906E-01	1.531E+00	8.897E-02	0.361
HO-166M		80.57		4.546E-02	2.912E-01	3.068E-01	2.369E-02	0.148
	+	184.41		1.518E-01	6.072E-02	7.345E-02	7.329E-03	2.067
		280.46		-6.592E-02	9.189E-02	1.480E-01	1.370E-02	-0.445
		410.95		-9.207E-02	2.776E-01	4.408E-01	2.616E-02	-0.209
		711.68	*	-5.111E-02	7.211E-02	1.143E-01	8.329E-03	-0.447
		752.31		-4.605E-02	3.351E-01	5.538E-01	4.367E-02	-0.083
		810.29		-6.004E-02	6.606E-02	1.006E-01	8.826E-03	-0.597
TA-182		67.75		-3.780E-02	7.488E-02	1.063E-01	8.509E-03	-0.356
		100.11		-3.556E-04	1.631E-01	2.667E-01	2.604E-02	-0.001
		152.43		1.916E-01	3.822E-01	6.287E-01	7.171E-02	0.305
		222.11		-3.695E-01	3.767E-01	6.057E-01	6.007E-02	-0.610
	+	1121.30		5.939E-01	2.721E-01	4.025E-01	2.763E-02	1.476
		1189.05		2.382E-01	3.725E-01	6.401E-01	3.717E-02	0.372
		1221.41	*	-2.419E-01	2.345E-01	3.362E-01	1.955E-02	-0.720
		1231.02		-7.277E-01	5.890E-01	8.451E-01	4.914E-02	-0.861
IR-192	+	295.96		9.499E-01	2.207E-01	3.163E-01	2.851E-02	3.003
		308.46		5.109E-02	1.046E-01	1.785E-01	1.555E-02	0.286
		316.51	*	1.683E-02	3.637E-02	6.198E-02	5.260E-03	0.272
		468.07		-3.532E-02	9.019E-02	1.224E-01	8.659E-03	-0.289
HG-203		70.83		2.694E-01	1.022E+00	1.495E+00	2.346E-01	0.180
	+	72.87		4.909E+00	1.074E+00	1.226E+00	1.855E-01	4.005
		279.20	*	8.371E-03	4.578E-02	7.711E-02	7.314E-03	0.109
BI-207	+	72.81		1.042E+00	1.838E-01	2.592E-01	2.041E-02	4.019
	+	74.97		6.244E-01	1.102E-01	2.012E-01	1.574E-02	3.104
		569.70		1.705E-03	3.627E-02	5.800E-02	3.796E-03	0.029
		1063.66	*	1.782E-02	5.803E-02	9.785E-02	7.749E-03	0.182
		1770.23		-3.783E-02	4.873E-01	7.082E-01	4.090E-02	-0.053
PB-211		404.85	*	-1.602E-01	8.144E-01	1.318E+00	6.325E-01	-0.122

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.09		1.765E-01	1.755E+00	2.895E+00	1.328E+00	0.061
		832.01		-1.187E+00	1.249E+00	1.625E+00	8.442E-01	-0.731
BI-212	+	727.33	*	1.074E+00	1.273E+00	1.282E+00	1.502E-01	0.838
		785.37		1.792E+00	3.453E+00	5.983E+00	5.018E-01	0.299
		1620.50		2.399E+00	2.632E+00	4.925E+00	2.890E-01	0.487
RN-219		271.23		2.021E-01	2.870E-01	4.350E-01	4.754E-02	0.465
		401.81	*	3.787E-01	4.516E-01	7.750E-01	1.044E-01	0.489
RA-223		81.07		1.256E-01	2.251E-01	2.446E-01	1.887E-02	0.513
	+	83.79		2.823E-01	8.606E-02	1.614E-01	1.238E-02	1.749
		94.87		2.745E-01	4.243E-01	6.271E-01	5.523E-02	0.438
		144.24		1.032E-01	7.309E-01	1.189E+00	1.540E-01	0.087
		154.21		6.057E-01	4.101E-01	6.911E-01	8.200E-02	0.876
	+	269.46		2.224E-01	2.572E-01	3.398E-01	3.261E-02	0.654
		323.87	*	-6.644E-01	7.738E-01	1.218E+00	2.091E-01	-0.545
	+	338.28		8.732E+00	1.955E+00	2.466E+00	2.843E-01	3.541
AC-227		79.69		7.962E-01	1.330E+00	1.443E+00	2.425E-01	0.552
		235.96		2.153E+00	3.401E-01	4.618E-01	5.250E-02	4.661
		256.23	*	-6.539E-02	2.550E-01	4.219E-01	5.395E-02	-0.155
	+	299.98		2.161E+00	1.193E+00	1.730E+00	2.227E-01	1.249
		304.50		1.717E+00	1.872E+00	2.863E+00	4.754E-01	0.600
		334.37		1.177E+00	2.040E+00	3.056E+00	4.655E-01	0.385
TH-227		79.80		7.971E-01	1.758E+00	1.887E+00	4.045E-01	0.422
		235.96		2.153E+00	3.320E-01	4.618E-01	5.006E-02	4.661
		256.23	*	-6.539E-02	2.550E-01	4.219E-01	6.017E-02	-0.155
	+	299.98		2.161E+00	1.193E+00	1.730E+00	2.227E-01	1.249
		304.50		1.717E+00	1.872E+00	2.863E+00	4.754E-01	0.600
		334.37		1.177E+00	2.040E+00	3.056E+00	4.655E-01	0.385
PA-231		283.69	*	-4.397E-01	1.491E+00	2.450E+00	3.659E-01	-0.179
		301.36		8.305E-01	6.997E-01	1.081E+00	1.331E-01	0.768
TH-231		81.07		1.256E-01	2.251E-01	2.446E-01	1.887E-02	0.513
	+	83.79		2.823E-01	8.606E-02	1.614E-01	1.238E-02	1.749
		94.87		2.745E-01	4.243E-01	6.271E-01	5.523E-02	0.438
		144.24		1.032E-01	7.309E-01	1.189E+00	1.540E-01	0.087
		154.21		6.057E-01	4.101E-01	6.911E-01	8.200E-02	0.876
	+	269.46		2.224E-01	2.572E-01	3.398E-01	3.261E-02	0.654
		323.87	*	-6.644E-01	7.738E-01	1.218E+00	2.091E-01	-0.545
	+	338.28		8.732E+00	1.955E+00	2.466E+00	2.843E-01	3.541
PA-233	+	300.13		9.776E-01	5.450E-01	7.835E-01	1.173E-01	1.248
		311.90	*	-3.748E-03	6.442E-02	1.068E-01	9.436E-03	-0.035
		340.48		1.187E+00	8.224E-01	1.229E+00	2.923E-01	0.966
PA-234		94.67		2.785E-01	1.568E-01	2.383E-01	2.981E-02	1.168
		98.44		1.476E-01	1.186E-01	1.333E-01	7.457E-02	1.107
		111.00		-8.389E-02	1.802E-01	2.881E-01	4.201E-02	-0.291
		131.20		-7.950E-02	1.103E-01	1.731E-01	2.324E-02	-0.459
		569.50		2.108E-02	3.239E-01	5.188E-01	3.395E-02	0.041
		733.00		-2.756E-01	5.208E-01	7.016E-01	1.531E-01	-0.393
		880.51		1.004E-01	3.018E-01	5.147E-01	5.096E-02	0.195
		883.24		1.372E-02	3.142E-01	5.218E-01	3.517E-01	0.026
		926.50		-2.062E-02	1.971E-01	3.219E-01	8.285E-02	-0.064

Sample ID : G248702001 Acquisition date : 23-MAR-2010 08:52:27

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	1.490E-01	3.458E-01	5.901E-01	1.137E-01	0.253
		949.00		1.639E-01	5.121E-01	8.679E-01	8.343E-02	0.189
PA-234M		766.42		6.214E+00	1.642E+01	2.403E+01	1.217E+01	0.259
		1001.03	*	2.799E+00	5.011E+00	8.652E+00	8.841E-01	0.324
NP-239		99.53		1.595E-01	1.469E-01	2.411E-01	2.328E-02	0.661
		103.37		7.107E-02	9.349E-02	1.565E-01	1.624E-02	0.454
		106.12		7.804E-02	8.227E-02	1.381E-01	1.506E-02	0.565
		117.23	*	-2.824E-01	3.931E-01	6.188E-01	8.137E-02	-0.456
		228.18		5.497E-02	2.281E-01	3.876E-01	3.831E-02	0.142
		277.60		1.747E-01	1.947E-01	3.296E-01	3.067E-02	0.530
AM-241		59.54	*	1.100E-01	6.932E-02	1.067E-01	9.547E-03	1.031
CM-247		278.00		6.893E-01	8.097E-01	1.400E+00	1.302E-01	0.492
		287.50		-8.093E-01	1.346E+00	2.041E+00	1.863E-01	-0.397
		402.40	*	9.737E-03	4.236E-02	7.062E-02	4.155E-03	0.138
CF-249		252.80		5.159E-01	9.794E-01	1.680E+00	1.623E-01	0.307
		333.37		3.662E-02	2.190E-01	3.194E-01	2.553E-02	0.115
		388.16	*	2.677E-02	4.391E-02	7.489E-02	4.472E-03	0.358
CF-251		177.52	*	5.669E-03	1.399E-01	2.252E-01	2.244E-02	0.025
		227.38		2.699E-01	3.718E-01	6.427E-01	6.355E-02	0.420
		285.41		3.465E-01	2.209E+00	3.716E+00	3.407E-01	0.093

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248702001       *
* Acquisition date : 23-MAR-2010 08:52:27 Detector SN#    :                 *
* Detector ID      : GAM05                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.76     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  2-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248702001           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.3370E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.153E+01	2.032E+00	6.286E-01	0.000E+00
CD-109	2.537E+00	8.335E-01	9.936E-01	0.000E+00
SN-126	4.199E-01	7.965E-02	9.617E-02	0.000E+00
CS-135	1.932E-01	2.192E-01	2.778E-01	0.000E+00
TL-208	4.926E-01	9.523E-02	6.203E-02	0.000E+00
PB-210	1.391E+00	7.559E-01	8.489E-01	0.000E+00
BI-211	3.953E+00	5.536E-01	3.403E-01	0.000E+00
PB-212	1.622E+00	2.061E-01	9.513E-02	0.000E+00
BI-214	1.288E+00	2.134E-01	1.194E-01	0.000E+00
PB-214	1.435E+00	2.154E-01	1.288E-01	0.000E+00
RA-224	5.125E+00	1.461E+00	1.020E+00	0.000E+00
RA-226	1.288E+00	2.134E-01	1.194E-01	0.000E+00
AC-228	1.692E+00	3.844E-01	2.275E-01	0.000E+00
RA-228	1.692E+00	3.844E-01	2.275E-01	0.000E+00
TH-228	1.622E+00	2.061E-01	9.513E-02	0.000E+00
TH-229	5.329E-01	5.445E-01	9.599E-01	0.000E+00
TH-230	1.288E+00	2.027E-01	1.194E-01	0.000E+00
TH-232	1.692E+00	3.844E-01	2.275E-01	0.000E+00
TH-234	1.675E+00	1.044E+00	1.106E+00	0.000E+00
U-235	9.369E-02	2.119E-01	3.700E-01	0.000E+00
NP-237	1.253E+00	3.504E-01	2.861E-01	0.000E+00
U-238	1.675E+00	1.044E+00	1.106E+00	0.000E+00
ANH-511	1.307E-01	7.972E-02	5.323E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.263E-01	3.841E-01	6.682E-01	0.000E+00	NOT IDENT.
NA-22	2.953E-02	5.222E-02	9.131E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	4.760E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	2.532E-03	4.390E-02	7.530E-02	0.000E+00	FAIL ABUN

V-48	-3.462E-02	9.117E-02	1.481E-01	0.000E+00	NOT IDENT.
CR-51	-3.375E-01	4.545E-01	7.611E-01	0.000E+00	NOT IDENT.
MN-54	-3.619E-02	4.194E-02	6.656E-02	0.000E+00	NOT IDENT.
CO-56	-6.185E-02	4.829E-02	7.301E-02	0.000E+00	NOT IDENT.
CO-57	2.264E-02	2.507E-02	4.473E-02	0.000E+00	NOT IDENT.
CO-58	-4.476E-02	4.526E-02	7.072E-02	0.000E+00	NOT IDENT.
FE-59	-1.372E-01	1.170E-01	1.734E-01	0.000E+00	NOT IDENT.
CO-60	-2.642E-02	4.009E-02	6.005E-02	0.000E+00	NOT IDENT.
ZN-65	2.399E-02	1.229E-01	1.809E-01	0.000E+00	NOT IDENT.
SE-75	-2.704E-03	5.265E-02	8.055E-02	0.000E+00	NOT IDENT.
SR-85	5.489E-02	4.956E-02	7.983E-02	0.000E+00	NOT IDENT.
Y-88	2.147E-02	3.194E-02	6.122E-02	0.000E+00	NOT IDENT.
Y-91	2.070E+01	2.699E+01	4.786E+01	0.000E+00	NOT IDENT.
NB-94	1.791E-03	4.023E-02	7.001E-02	0.000E+00	NOT IDENT.
NB-95	8.157E-02	6.046E-02	1.011E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.259E-01	3.626E-01	0.000E+00	NOT IDENT.
ZR-95	3.796E-03	8.734E-02	1.513E-01	0.000E+00	NOT IDENT.
MO-99	4.440E+01	5.821E+01	1.058E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.298E+23	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.453E-02	4.705E-02	8.162E-02	0.000E+00	NOT IDENT.
RH-106	-2.933E-03	3.297E-01	5.510E-01	0.000E+00	NOT IDENT.
RU-106	-2.933E-03	3.297E-01	5.510E-01	0.000E+00	NOT IDENT.
AG-108M	-2.715E-02	3.199E-02	5.166E-02	0.000E+00	NOT IDENT.
AG-110M	-1.740E-02	4.117E-02	6.620E-02	0.000E+00	NOT IDENT.
SN-113	1.302E-02	4.894E-02	8.571E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	7.429E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-5.383E-02	7.600E-02	1.261E-01	0.000E+00	NOT IDENT.
TE-123M	-2.120E-02	3.063E-02	5.086E-02	0.000E+00	NOT IDENT.
SB-124	2.418E-02	7.455E-02	1.339E-01	0.000E+00	NOT IDENT.
SB-125	1.332E-02	1.010E-01	1.745E-01	0.000E+00	FAIL ABUN
TE-125M	-4.700E+00	1.003E+01	1.719E+01	0.000E+00	NOT IDENT.
I-126	-7.875E-02	3.490E-01	5.703E-01	0.000E+00	NOT IDENT.
SB-126	-1.267E-01	2.571E-01	3.628E-01	0.000E+00	NOT IDENT.
SB-127	2.571E+00	4.036E+00	7.319E+00	0.000E+00	NOT IDENT.
I-131	-1.288E-02	1.966E-01	3.392E-01	0.000E+00	NOT IDENT.
TE-132	6.404E-01	2.625E+00	4.710E+00	0.000E+00	NOT IDENT.
BA-133	3.145E-02	4.698E-02	7.447E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.700E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.432E-02	5.477E-02	1.035E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.527E+22	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.285E-02	1.590E-01	2.716E-01	0.000E+00	NOT IDENT.
BA-137M	5.917E-02	4.310E-02	7.863E-02	0.000E+00	NOT IDENT.
CS-137	6.251E-02	4.553E-02	8.306E-02	0.000E+00	NOT IDENT.
CE-139	-1.949E-02	3.225E-02	5.367E-02	0.000E+00	NOT IDENT.
BA-140	-3.246E-03	3.915E-01	6.610E-01	0.000E+00	NOT IDENT.
LA-140	-1.589E-02	1.250E-01	2.075E-01	0.000E+00	NOT IDENT.
CE-141	4.106E-02	7.604E-02	1.333E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.821E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-5.742E-02	2.089E-01	3.570E-01	0.000E+00	NOT IDENT.
PM-144	-1.563E-02	4.305E-02	7.300E-02	0.000E+00	NOT IDENT.
PR-144	-1.178E+00	3.231E+00	5.478E+00	0.000E+00	NOT IDENT.
PM-146	1.288E-02	4.986E-02	7.893E-02	0.000E+00	NOT IDENT.
ND-147	-9.023E-01	9.094E-01	1.408E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	5.512E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	5.819E-02	1.254E-01	1.734E-01	0.000E+00	FAIL ABUN
GD-153	7.799E-02	7.880E-02	1.269E-01	0.000E+00	NOT IDENT.
EU-154	8.485E-02	1.478E-01	2.584E-01	0.000E+00	NOT IDENT.
EU-155	1.244E-01	1.024E-01	1.849E-01	0.000E+00	FAIL ABUN
TB-160	1.048E-02	1.621E-01	2.784E-01	0.000E+00	FAIL ABUN
HO-166M	-5.111E-02	7.066E-02	1.160E-01	0.000E+00	FAIL ABUN
TA-182	-2.419E-01	2.298E-01	3.380E-01	0.000E+00	FAIL ABUN
IR-192	1.683E-02	3.564E-02	6.382E-02	0.000E+00	FAIL ABUN
HG-203	8.371E-03	4.486E-02	7.957E-02	0.000E+00	FAIL ABUN
BI-207	1.782E-02	5.687E-02	9.860E-02	0.000E+00	FAIL ABUN
PB-211	-1.602E-01	7.981E-01	1.351E+00	0.000E+00	NOT IDENT.
BI-212	1.074E+00	1.248E+00	1.300E+00	0.000E+00	FAIL ABUN
RN-219	3.787E-01	4.426E-01	7.947E-01	0.000E+00	NOT IDENT.
RA-223	-6.644E-01	7.583E-01	1.254E+00	0.000E+00	FAIL ABUN
AC-227	-6.539E-02	2.499E-01	4.360E-01	0.000E+00	FAIL ABUN
TH-227	-6.539E-02	2.499E-01	4.360E-01	0.000E+00	FAIL ABUN
PA-231	-4.397E-01	1.461E+00	2.528E+00	0.000E+00	NOT IDENT.
TH-231	-6.644E-01	7.583E-01	1.254E+00	0.000E+00	FAIL ABUN
PA-233	-3.748E-03	6.313E-02	1.100E-01	0.000E+00	FAIL ABUN
PA-234	1.490E-01	3.388E-01	5.959E-01	0.000E+00	NOT IDENT.
PA-234M	2.799E+00	4.911E+00	8.728E+00	0.000E+00	NOT IDENT.
NP-239	-2.824E-01	3.852E-01	6.481E-01	0.000E+00	NOT IDENT.
AM-241	1.100E-01	6.793E-02	1.130E-01	0.000E+00	NOT IDENT.
CM-247	9.737E-03	4.151E-02	7.241E-02	0.000E+00	NOT IDENT.

CF-249	2.677E-02	4.303E-02	7.684E-02	0.000E+00 NOT IDENT.
CF-251	5.669E-03	1.371E-01	2.342E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 10:52:55.58

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248702001.CNF;1
Sample date       : 2-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 08:52:27
Sample ID         : G248702001           Sample quantity  : 1.33700E+02 GRAM
Detector name     : GAM05                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.76  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	820	10.66*	1.003E+00	2.153E+01	2.153E+01	9.63
CD-109	88.03	253	3.70*	7.820E+00	2.459E+00	2.537E+00	33.52
SN-126	64.28	------	9.60	8.070E+00	------ Line Not Found		------
	86.94	435	8.90	7.868E+00	1.746E+00	1.746E+00	44.84
	87.57	435	37.00*	7.868E+00	4.199E-01	4.199E-01	19.35
CS-135	268.22	48	16.00*	4.360E+00	1.932E-01	1.932E-01	115.78
TL-208	277.37	------	6.60	4.261E+00	------ Line Not Found		------
	583.19	337	85.00*	2.260E+00	4.926E-01	4.926E-01	19.72
	860.56	------	12.50	1.589E+00	------ Line Not Found		------
PB-210	46.54	160	4.25*	7.596E+00	1.388E+00	1.391E+00	55.46
BI-211	72.87	638	1.23	8.041E+00	1.810E+01	1.810E+01	17.65
	351.06	640	12.92*	3.519E+00	3.953E+00	3.953E+00	14.29
PB-212	74.82	638	10.28	8.041E+00	2.166E+00	2.166E+00	20.15
	77.11	907	17.10	8.018E+00	1.857E+00	1.857E+00	13.47
	238.63	1204	43.60*	4.779E+00	1.622E+00	1.622E+00	12.97
	300.09	93	3.30	4.009E+00	1.964E+00	1.964E+00	54.77
BI-214	609.32	453	45.49*	2.173E+00	1.288E+00	1.288E+00	16.91
	1120.29	82	14.92	1.258E+00	1.224E+00	1.224E+00	46.31
	1764.49	59	15.30	8.613E-01	1.254E+00	1.254E+00	37.94
PB-214	74.82	638	5.80	8.041E+00	3.839E+00	3.839E+00	19.35
	77.11	907	9.70	8.018E+00	3.274E+00	3.274E+00	15.80
	242.00	354	7.25	4.735E+00	2.898E+00	2.898E+00	29.66
	295.22	324	18.42	4.061E+00	1.217E+00	1.217E+00	24.11
	351.93	640	35.60*	3.519E+00	1.435E+00	1.435E+00	15.32
RA-224	240.99	354	4.10*	4.735E+00	5.125E+00	5.125E+00	29.09
RA-226	609.32	453	45.49*	2.173E+00	1.288E+00	1.288E+00	16.91
	1120.29	82	14.92	1.258E+00	1.224E+00	1.224E+00	46.31
	1764.49	59	15.30	8.613E-01	1.254E+00	1.254E+00	37.94
AC-228	338.32	321	11.27	3.638E+00	2.200E+00	2.200E+00	45.78
	911.20	235	25.80*	1.510E+00	1.692E+00	1.692E+00	23.19
	968.97	137	15.80	1.430E+00	1.708E+00	1.708E+00	34.49
RA-228	338.32	321	11.27	3.638E+00	2.200E+00	2.200E+00	45.78

Sample ID : G248702001 Acquisition date : 23-MAR-2010 08:52:27

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	235	25.80*	1.510E+00	1.692E+00	1.692E+00	23.19
	968.97	137	15.80	1.430E+00	1.708E+00	1.708E+00	34.49
TH-228	74.82	638	10.28	8.041E+00	2.166E+00	2.166E+00	17.69
	77.11	907	17.10	8.018E+00	1.857E+00	1.857E+00	13.47
	238.63	1204	43.60*	4.779E+00	1.622E+00	1.622E+00	12.97
	300.09	93	3.30	4.009E+00	1.964E+00	1.964E+00	81.46
TH-229	85.43	435	14.70	7.868E+00	1.057E+00	1.057E+00	19.35
	88.47	253	24.00	7.820E+00	3.790E-01	3.790E-01	33.52
	193.51	------	4.41*	5.516E+00	------ Line Not Found		------
	210.85	------	2.80	5.209E+00	------ Line Not Found		------
TH-230	609.32	453	45.49*	2.173E+00	1.288E+00	1.288E+00	16.07
	1120.29	82	14.92	1.258E+00	1.224E+00	1.224E+00	45.82
	1764.49	59	15.30	8.613E-01	1.254E+00	1.254E+00	37.94
TH-232	338.32	321	11.27	3.638E+00	2.200E+00	2.200E+00	20.74
	911.20	235	25.80*	1.510E+00	1.692E+00	1.692E+00	23.19
	968.97	137	15.80	1.430E+00	1.708E+00	1.708E+00	34.49
TH-234	63.29	178	3.70*	8.059E+00	1.675E+00	1.675E+00	63.63
	92.59	411	4.23	7.761E+00	3.519E+00	3.519E+00	32.35
U-235	89.96	253	3.47	7.820E+00	2.622E+00	2.622E+00	40.69
	93.35	411	5.60	7.761E+00	2.658E+00	2.658E+00	33.05
	143.76	------	10.96*	6.557E+00	------ Line Not Found		------
	163.33	------	5.08	6.119E+00	------ Line Not Found		------
	185.72	221	57.20	5.665E+00	1.911E-01	1.911E-01	40.00
	205.31	------	5.01	5.304E+00	------ Line Not Found		------
NP-237	86.48	435	12.40*	7.868E+00	1.253E+00	1.253E+00	28.54
	95.86	------	2.68	7.688E+00	------ Line Not Found		------
U-238	63.29	178	3.70*	8.059E+00	1.675E+00	1.675E+00	63.63
	92.59	411	4.23	7.761E+00	3.519E+00	3.519E+00	25.16
ANH-511	511.00	119	100.00*	2.547E+00	1.307E-01	1.307E-01	62.22

Flag: "*" = Keyline

Sample ID : G248702001 Acquisition date : 23-MAR-2010 08:52:27

Total number of lines in spectrum 32
Number of unidentified lines 4
Number of lines tentatively identified by NID 28 87.50%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	2.153E+01	2.153E+01	0.207E+01	9.63	
CD-109	461.40D	1.03	2.459E+00	2.537E+00	0.851E+00	33.52	
SN-126	2.30E+05Y	1.00	4.199E-01	4.199E-01	0.813E-01	19.35	
CS-135	2.30E+06Y	1.00	1.932E-01	1.932E-01	2.237E-01	115.78	
TL-208	1.41E+10Y	1.00	4.926E-01	4.926E-01	0.972E-01	19.72	
PB-210	22.20Y	1.00	1.388E+00	1.391E+00	0.771E+00	55.46	
BI-211	7.04E+08Y	1.00	3.953E+00	3.953E+00	0.565E+00	14.29	
PB-212	1.41E+10Y	1.00	1.622E+00	1.622E+00	0.210E+00	12.97	
BI-214	1600.00Y	1.00	1.288E+00	1.288E+00	0.218E+00	16.91	
PB-214	1600.00Y	1.00	1.435E+00	1.435E+00	0.220E+00	15.32	
RA-224	1.41E+10Y	1.00	5.125E+00	5.125E+00	1.491E+00	29.09	
RA-226	1600.00Y	1.00	1.288E+00	1.288E+00	0.218E+00	16.91	
AC-228	1.41E+10Y	1.00	1.692E+00	1.692E+00	0.392E+00	23.19	
RA-228	1.41E+10Y	1.00	1.692E+00	1.692E+00	0.392E+00	23.19	
TH-228	1.41E+10Y	1.00	1.622E+00	1.622E+00	0.210E+00	12.97	
TH-229	7340.00Y	1.00	3.790E-01	3.790E-01	1.271E-01	33.52	K
TH-230	7.54E+04Y	1.00	1.288E+00	1.288E+00	0.207E+00	16.07	
TH-232	1.41E+10Y	1.00	1.692E+00	1.692E+00	0.392E+00	23.19	
TH-234	4.47E+09Y	1.00	1.675E+00	1.675E+00	1.066E+00	63.63	
U-235	7.04E+08Y	1.00	1.911E-01	1.911E-01	0.764E-01	40.00	K
NP-237	2.14E+06Y	1.00	1.253E+00	1.253E+00	0.358E+00	28.54	
U-238	4.47E+09Y	1.00	1.675E+00	1.675E+00	1.066E+00	63.63	
ANH-511	1.00E+09Y	1.00	1.307E-01	1.307E-01	0.814E-01	62.22	
			---	---			
	Total Activity :		5.448E+01	5.456E+01			

Grand Total Activity : 5.448E+01 5.456E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248702001 Acquisition date : 23-MAR-2010 08:52:27

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	83.77	197	278	1.40	168.52	165	28	2.73E-02	29.5	7.92E+00	T
0	208.77	76	241	1.01	418.48	415	8	1.05E-02	74.7	5.24E+00	
0	462.27	77	164	1.31	925.33	917	16	1.07E-02	77.9	2.78E+00	T
0	728.18	47	139	1.57	1456.88	1448	18	6.55E-03	****	1.85E+00	T
0	769.43	45	96	0.89	1539.31	1531	18	6.28E-03	****	1.76E+00	
2	964.61	56	49	2.41	1929.39	1919	36	7.75E-03	57.2	1.44E+00	T
0	1377.75	25	7	0.73	2754.85	2751	8	3.41E-03	56.4	1.05E+00	
0	1408.08	22	18	0.82	2815.44	2806	15	2.99E-03	97.6	1.03E+00	T
0	1730.04	28	3	1.97	3458.51	3451	14	3.83E-03	47.7	8.75E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 10:52:59.48

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248702001.CNF;1   *
* Acquisition date : 23-MAR-2010 08:52:27  Detector SN#    :                 *
* Detector ID      : GAM05                 Sensitivity     : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000         *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000        *
* Elapsed real time: 0 02:00:01.76         Half life ratio : 8.00000         *
*****************************************************************************
*                                                                            *
*                                SAMPLE DATA                                 *
*                                                                            *
* Sample date      : 2-MAR-2010 12:00:00.  Nuclide Library : SOLID            *
* Sample ID        : G248702001            Analyst initials: MXR1             *
* Batch Number     : 962631                Sample Quantity : 1.33700E+02 GRAM *
*****************************************************************************
*                                                                            *
*                                  QC DATA                                   *
*                                                                            *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00.5MS Isotope      :                 *
* MSD ID           :                       MSD Isotope     :                 *
* LCS ID           : 1032-A                LCS Isotope     :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.153E+01	2.073E+00	6.274E-01	3.902E-02	34.312
CD-109	2.537E+00	8.505E-01	9.441E-01	7.189E-02	2.687
SN-126	4.199E-01	8.128E-02	9.137E-02	6.958E-03	4.596
CS-135	1.932E-01	2.237E-01	2.690E-01	2.878E-02	0.718
TL-208	4.926E-01	9.717E-02	6.089E-02	4.472E-03	8.090
PB-210	1.391E+00	7.713E-01	7.981E-01	6.156E-02	1.742
BI-211	3.953E+00	5.649E-01	3.311E-01	2.624E-02	11.939
PB-212	1.622E+00	2.103E-01	9.194E-02	9.952E-03	17.642
BI-214	1.288E+00	2.177E-01	1.173E-01	9.900E-03	10.976
PB-214	1.435E+00	2.198E-01	1.253E-01	1.207E-02	11.447
RA-224	5.125E+00	1.491E+00	9.855E-01	9.642E-02	5.200
RA-226	1.288E+00	2.177E-01	1.173E-01	9.900E-03	10.976
AC-228	1.692E+00	3.923E-01	2.251E-01	2.858E-02	7.515
RA-228	1.692E+00	3.923E-01	2.251E-01	2.858E-02	7.515
TH-228	1.622E+00	2.103E-01	9.194E-02	9.952E-03	17.642
TH-229	3.790E-01	1.271E-01	9.243E-01	9.231E-02	0.410
TH-230	1.288E+00	2.068E-01	1.173E-01	7.727E-03	10.976
TH-232	1.692E+00	3.923E-01	2.251E-01	2.858E-02	7.515

Sample ID : G248702001 Acquisition date : 23-MAR-2010 08:52:27

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234	1.675E+00	1.066E+00	1.045E+00	1.897E-01	1.602
U-235	1.911E-01	7.642E-02	3.545E-01	6.762E-02	0.539
NP-237	1.253E+00	3.576E-01	2.718E-01	6.064E-02	4.610
U-238	1.675E+00	1.066E+00	1.045E+00	1.897E-01	1.602
ANH-511	1.307E-01	8.135E-02	5.213E-02	3.337E-03	2.508

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.263E-01		3.919E-01	6.536E-01	4.680E-02	0.193
NA-22	2.953E-02		5.329E-02	9.092E-02	5.296E-03	0.325
NA-24	-3.924E+02		2.428E+02	Half-Life too short		
SC-46	2.532E-03		4.479E-02	7.449E-02	7.482E-03	0.034
V-48	-3.462E-02		9.303E-02	1.468E-01	1.344E-02	-0.236
CR-51	-3.375E-01		4.638E-01	7.393E-01	6.533E-02	-0.456
MN-54	-3.619E-02		4.279E-02	6.576E-02	6.025E-03	-0.550
CO-56	-6.185E-02		4.927E-02	7.216E-02	6.748E-03	-0.857
CO-57	2.264E-02		2.559E-02	4.274E-02	6.064E-03	0.530
CO-58	-4.476E-02		4.619E-02	6.984E-02	6.147E-03	-0.641
FE-59	-1.372E-01		1.194E-01	1.722E-01	1.394E-02	-0.797
CO-60	-2.642E-02		4.091E-02	5.984E-02	3.463E-03	-0.442
ZN-65	2.399E-02		1.254E-01	1.797E-01	1.255E-02	0.134
SE-75	-2.704E-03		5.373E-02	7.798E-02	7.446E-03	-0.035
SR-85	5.489E-02		5.057E-02	7.819E-02	5.012E-03	0.702
Y-88	2.147E-02		3.259E-02	6.136E-02	3.511E-03	0.350
Y-91	2.070E+01		2.754E+01	4.761E+01	2.766E+00	0.435
NB-94	1.791E-03		4.105E-02	6.896E-02	4.934E-03	0.026
NB-95	8.157E-02		6.169E-02	9.973E-02	8.067E-03	0.818
NB-95M	1.213E+00		2.305E-01	3.504E-01	3.838E-02	3.463
ZR-95	3.796E-03		8.912E-02	1.492E-01	1.331E-02	0.025
MO-99	4.440E+01		5.940E+01	1.043E+02	1.592E+01	0.426
TC-99M	-1.114E+17		1.682E+17	Half-Life too short		
RU-103	1.453E-02		4.801E-02	7.990E-02	1.014E-02	0.182
RH-106	-2.933E-03		3.365E-01	5.415E-01	6.518E-02	-0.005
RU-106	-2.933E-03		3.365E-01	5.415E-01	3.570E-02	-0.005
AG-108M	-2.715E-02		3.264E-02	5.045E-02	3.257E-03	-0.538
AG-110M	-1.740E-02		4.201E-02	6.513E-02	4.502E-03	-0.267
SN-113	1.302E-02		4.993E-02	8.355E-02	5.183E-03	0.156
CD-115	4.831E-05		3.790E-05	Half-Life too short		
SN-117M	-5.383E-02		7.755E-02	1.210E-01	1.301E-02	-0.445
TE-123M	-2.120E-02		3.126E-02	4.881E-02	5.245E-03	-0.434
SB-124	2.418E-02		7.607E-02	1.341E-01	8.523E-03	0.180
SB-125	1.332E-02		1.030E-01	1.704E-01	1.067E-02	0.078
TE-125M	-4.700E+00		1.024E+01	1.639E+01	2.130E+00	-0.287
I-126	-7.875E-02		3.561E-01	5.612E-01	3.726E-02	-0.140
SB-126	-1.267E-01		2.623E-01	3.575E-01	2.652E-02	-0.354
SB-127	2.571E+00		4.118E+00	7.206E+00	8.771E-01	0.357

Sample ID : G248702001 Acquisition date : 23-MAR-2010 08:52:27

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-131	-1.288E-02		2.006E-01	3.303E-01	2.498E-02	-0.039
TE-132	6.404E-01		2.679E+00	4.549E+00	8.084E-01	0.141
BA-133	3.145E-02		4.794E-02	7.247E-02	8.757E-03	0.434
I-133	-4.094E-01		3.419E-01	Half-Life too short		
CS-134	8.432E-02		5.589E-02	1.022E-01	8.801E-03	0.825
I-135	-7.108E+15		7.791E+15	Half-Life too short		
CS-136	2.285E-02		1.622E-01	2.695E-01	2.309E-02	0.085
BA-137M	5.917E-02		4.398E-02	7.736E-02	5.087E-03	0.765
CS-137	6.251E-02		4.646E-02	8.173E-02	5.392E-03	0.765
CE-139	-1.949E-02		3.291E-02	5.155E-02	5.118E-03	-0.378
BA-140	-3.246E-03		3.995E-01	6.480E-01	2.166E-01	-0.005
LA-140	-1.589E-02		1.275E-01	2.075E-01	1.219E-02	-0.077
CE-141	4.106E-02		7.759E-02	1.278E-01	1.562E-02	0.321
CE-143	2.006E-02		2.970E-03	Half-Life too short		
CE-144	-5.742E-02		2.131E-01	3.416E-01	6.245E-02	-0.168
PM-144	-1.563E-02		4.392E-02	7.189E-02	5.085E-03	-0.217
PR-144	-1.178E+00		3.297E+00	5.395E+00	3.813E-01	-0.218
PM-146	1.288E-02		5.088E-02	7.714E-02	6.721E-03	0.167
ND-147	-9.023E-01		9.279E-01	1.380E+00	1.907E-01	-0.654
PM-149	1.554E-04		2.812E-04	Half-Life too short		
EU-152	5.819E-02		1.280E-01	1.687E-01	1.386E-02	0.345
GD-153	7.799E-02		8.041E-02	1.208E-01	1.120E-02	0.646
EU-154	8.485E-02		1.508E-01	2.573E-01	2.426E-02	0.330
EU-155	1.244E-01		1.044E-01	1.763E-01	1.909E-02	0.706
TB-160	1.048E-02		1.654E-01	2.753E-01	2.720E-02	0.038
HO-166M	-5.111E-02		7.211E-02	1.143E-01	8.329E-03	-0.447
TA-182	-2.419E-01		2.345E-01	3.362E-01	1.955E-02	-0.720
IR-192	1.683E-02		3.637E-02	6.198E-02	5.260E-03	0.272
HG-203	8.371E-03		4.578E-02	7.711E-02	7.314E-03	0.109
BI-207	1.782E-02		5.803E-02	9.785E-02	7.749E-03	0.182
PB-211	-1.602E-01		8.144E-01	1.318E+00	6.325E-01	-0.122
BI-212	1.074E+00	+	1.273E+00	1.282E+00	1.502E-01	0.838
RN-219	3.787E-01		4.516E-01	7.750E-01	1.044E-01	0.489
RA-223	-6.644E-01		7.738E-01	1.218E+00	2.091E-01	-0.545
AC-227	-6.539E-02		2.550E-01	4.219E-01	5.395E-02	-0.155
TH-227	-6.539E-02		2.550E-01	4.219E-01	6.017E-02	-0.155
PA-231	-4.397E-01		1.491E+00	2.450E+00	3.659E-01	-0.179
TH-231	-6.644E-01		7.738E-01	1.218E+00	2.091E-01	-0.545
PA-233	-3.748E-03		6.442E-02	1.068E-01	9.436E-03	-0.035
PA-234	1.490E-01		3.458E-01	5.901E-01	1.137E-01	0.253
PA-234M	2.799E+00		5.011E+00	8.652E+00	8.841E-01	0.324
NP-239	-2.824E-01		3.931E-01	6.188E-01	8.137E-02	-0.456
AM-241	1.100E-01		6.932E-02	1.067E-01	9.547E-03	1.031
CM-247	9.737E-03		4.236E-02	7.062E-02	4.155E-03	0.138
CF-249	2.677E-02		4.391E-02	7.489E-02	4.472E-03	0.358
CF-251	5.669E-03		1.399E-01	2.252E-01	2.244E-02	0.025

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248702001            *
* Acquisition date : 23-MAR-2010 08:52:27 Detector SN#    :                 *
* Detector ID      : GAM05                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.76     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  2-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248702001           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.3370E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.153E+01	2.032E+00	3.145E-01	1.037E+00
CD-109	2.537E+00	8.335E-01	4.971E-01	4.253E-01
SN-126	4.199E-01	7.965E-02	4.811E-02	4.064E-02
CS-135	1.932E-01	2.192E-01	1.390E-01	1.118E-01
TL-208	4.926E-01	9.523E-02	3.103E-02	4.859E-02
PB-210	1.391E+00	7.559E-01	4.247E-01	3.857E-01
BI-211	3.953E+00	5.536E-01	1.703E-01	2.825E-01
PB-212	1.622E+00	2.061E-01	4.760E-02	1.052E-01
BI-214	1.288E+00	2.134E-01	5.973E-02	1.089E-01
PB-214	1.435E+00	2.154E-01	6.444E-02	1.099E-01
RA-224	5.125E+00	1.461E+00	5.101E-01	7.455E-01
RA-226	1.288E+00	2.134E-01	5.973E-02	1.089E-01
AC-228	1.692E+00	3.844E-01	1.138E-01	1.961E-01
RA-228	1.692E+00	3.844E-01	1.138E-01	1.961E-01
TH-228	1.622E+00	2.061E-01	4.760E-02	1.052E-01
TH-229	5.329E-01	5.445E-01	4.802E-01	2.778E-01
TH-230	1.288E+00	2.027E-01	5.973E-02	1.034E-01
TH-232	1.692E+00	3.844E-01	1.138E-01	1.961E-01
TH-234	1.675E+00	1.044E+00	5.534E-01	5.328E-01
U-235	9.369E-02	2.119E-01	1.851E-01	1.081E-01
NP-237	1.253E+00	3.504E-01	1.431E-01	1.788E-01
U-238	1.675E+00	1.044E+00	5.534E-01	5.328E-01
ANH-511	1.307E-01	7.972E-02	2.663E-02	4.068E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.263E-01	3.841E-01	3.343E-01	1.960E-01	NOT IDENT.
NA-22	2.953E-02	5.222E-02	4.568E-02	2.664E-02	NOT IDENT.
NA-24	-3.924E+08	4.760E+08	0.000E+00	2.428E+08	SHORT HLIF
SC-46	2.532E-03	4.390E-02	3.767E-02	2.240E-02	FAIL ABUN

V-48	-3.462E-02	9.117E-02	7.409E-02	4.652E-02	NOT IDENT.
CR-51	-3.375E-01	4.545E-01	3.808E-01	2.319E-01	NOT IDENT.
MN-54	-3.619E-02	4.194E-02	3.330E-02	2.140E-02	NOT IDENT.
CO-56	-6.185E-02	4.829E-02	3.653E-02	2.464E-02	NOT IDENT.
CO-57	2.264E-02	2.507E-02	2.238E-02	1.279E-02	NOT IDENT.
CO-58	-4.476E-02	4.526E-02	3.538E-02	2.309E-02	NOT IDENT.
FE-59	-1.372E-01	1.170E-01	8.674E-02	5.970E-02	NOT IDENT.
CO-60	-2.642E-02	4.009E-02	3.004E-02	2.046E-02	NOT IDENT.
ZN-65	2.399E-02	1.229E-01	9.051E-02	6.269E-02	NOT IDENT.
SE-75	-2.704E-03	5.265E-02	4.030E-02	2.686E-02	NOT IDENT.
SR-85	5.489E-02	4.956E-02	3.994E-02	2.529E-02	NOT IDENT.
Y-88	2.147E-02	3.194E-02	3.063E-02	1.630E-02	NOT IDENT.
Y-91	2.070E+01	2.699E+01	2.395E+01	1.377E+01	NOT IDENT.
NB-94	1.791E-03	4.023E-02	3.503E-02	2.052E-02	NOT IDENT.
NB-95	8.157E-02	6.046E-02	5.058E-02	3.084E-02	NOT IDENT.
NB-95M	1.213E+00	2.259E-01	1.814E-01	1.153E-01	NOT IDENT.
ZR-95	3.796E-03	8.734E-02	7.568E-02	4.456E-02	NOT IDENT.
MO-99	4.440E+01	5.821E+01	5.292E+01	2.970E+01	NOT IDENT.
TC-99M	-1.114E+23	3.298E+23	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.453E-02	4.705E-02	4.083E-02	2.401E-02	NOT IDENT.
RH-106	-2.933E-03	3.297E-01	2.757E-01	1.682E-01	NOT IDENT.
RU-106	-2.933E-03	3.297E-01	2.757E-01	1.682E-01	NOT IDENT.
AG-108M	-2.715E-02	3.199E-02	2.585E-02	1.632E-02	NOT IDENT.
AG-110M	-1.740E-02	4.117E-02	3.312E-02	2.101E-02	NOT IDENT.
SN-113	1.302E-02	4.894E-02	4.288E-02	2.497E-02	NOT IDENT.
CD-115	4.831E+01	7.429E+01	0.000E+00	3.790E+01	SHORT HLIF
SN-117M	-5.383E-02	7.600E-02	6.307E-02	3.877E-02	NOT IDENT.
TE-123M	-2.120E-02	3.063E-02	2.544E-02	1.563E-02	NOT IDENT.
SB-124	2.418E-02	7.455E-02	6.701E-02	3.804E-02	NOT IDENT.
SB-125	1.332E-02	1.010E-01	8.732E-02	5.151E-02	FAIL ABUN
TE-125M	-4.700E+00	1.003E+01	8.601E+00	5.120E+00	NOT IDENT.
I-126	-7.875E-02	3.490E-01	2.853E-01	1.781E-01	NOT IDENT.
SB-126	-1.267E-01	2.571E-01	1.815E-01	1.311E-01	NOT IDENT.
SB-127	2.571E+00	4.036E+00	3.662E+00	2.059E+00	NOT IDENT.
I-131	-1.288E-02	1.966E-01	1.697E-01	1.003E-01	NOT IDENT.
TE-132	6.404E-01	2.625E+00	2.357E+00	1.339E+00	NOT IDENT.
BA-133	3.145E-02	4.698E-02	3.726E-02	2.397E-02	NOT IDENT.
I-133	-4.094E+05	6.700E+05	0.000E+00	3.419E+05	SHORT HLIF
CS-134	8.432E-02	5.477E-02	5.180E-02	2.794E-02	NOT IDENT.
I-135	-7.108E+21	1.527E+22	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.285E-02	1.590E-01	1.359E-01	8.112E-02	NOT IDENT.
BA-137M	5.917E-02	4.310E-02	3.934E-02	2.199E-02	NOT IDENT.
CS-137	6.251E-02	4.553E-02	4.155E-02	2.323E-02	NOT IDENT.
CE-139	-1.949E-02	3.225E-02	2.685E-02	1.645E-02	NOT IDENT.
BA-140	-3.246E-03	3.915E-01	3.307E-01	1.997E-01	NOT IDENT.
LA-140	-1.589E-02	1.250E-01	1.038E-01	6.375E-02	NOT IDENT.
CE-141	4.106E-02	7.604E-02	6.670E-02	3.880E-02	NOT IDENT.
CE-143	2.006E+04	5.821E+03	0.000E+00	2.970E+03	SHORT HLIF
CE-144	-5.742E-02	2.089E-01	1.786E-01	1.066E-01	NOT IDENT.
PM-144	-1.563E-02	4.305E-02	3.652E-02	2.196E-02	NOT IDENT.
PR-144	-1.178E+00	3.231E+00	2.741E+00	1.648E+00	NOT IDENT.
PM-146	1.288E-02	4.986E-02	3.949E-02	2.544E-02	NOT IDENT.
ND-147	-9.023E-01	9.094E-01	7.043E-01	4.640E-01	FAIL ABUN
PM-149	1.554E+02	5.512E+02	0.000E+00	2.812E+02	SHORT HLIF
EU-152	5.819E-02	1.254E-01	8.677E-02	6.398E-02	FAIL ABUN
GD-153	7.799E-02	7.880E-02	6.350E-02	4.020E-02	NOT IDENT.
EU-154	8.485E-02	1.478E-01	1.293E-01	7.541E-02	NOT IDENT.
EU-155	1.244E-01	1.024E-01	9.252E-02	5.222E-02	FAIL ABUN
TB-160	1.048E-02	1.621E-01	1.393E-01	8.269E-02	FAIL ABUN
HO-166M	-5.111E-02	7.066E-02	5.805E-02	3.605E-02	FAIL ABUN
TA-182	-2.419E-01	2.298E-01	1.691E-01	1.172E-01	FAIL ABUN
IR-192	1.683E-02	3.564E-02	3.193E-02	1.818E-02	FAIL ABUN
HG-203	8.371E-03	4.486E-02	3.981E-02	2.289E-02	FAIL ABUN
BI-207	1.782E-02	5.687E-02	4.933E-02	2.902E-02	FAIL ABUN
PB-211	-1.602E-01	7.981E-01	6.761E-01	4.072E-01	NOT IDENT.
BI-212	1.074E+00	1.248E+00	6.505E-01	6.365E-01	FAIL ABUN
RN-219	3.787E-01	4.426E-01	3.976E-01	2.258E-01	NOT IDENT.
RA-223	-6.644E-01	7.583E-01	6.274E-01	3.869E-01	FAIL ABUN
AC-227	-6.539E-02	2.499E-01	2.181E-01	1.275E-01	FAIL ABUN
TH-227	-6.539E-02	2.499E-01	2.181E-01	1.275E-01	FAIL ABUN
PA-231	-4.397E-01	1.461E+00	1.265E+00	7.455E-01	NOT IDENT.
TH-231	-6.644E-01	7.583E-01	6.274E-01	3.869E-01	FAIL ABUN
PA-233	-3.748E-03	6.313E-02	5.504E-02	3.221E-02	FAIL ABUN
PA-234	1.490E-01	3.388E-01	2.981E-01	1.729E-01	NOT IDENT.
PA-234M	2.799E+00	4.911E+00	4.366E+00	2.506E+00	NOT IDENT.
NP-239	-2.824E-01	3.852E-01	3.242E-01	1.965E-01	NOT IDENT.
AM-241	1.100E-01	6.793E-02	5.655E-02	3.466E-02	NOT IDENT.
CM-247	9.737E-03	4.151E-02	3.623E-02	2.118E-02	NOT IDENT.

CF-249	2.677E-02	4.303E-02	3.844E-02	2.195E-02	NOT IDENT.
CF-251	5.669E-03	1.371E-01	1.172E-01	6.997E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	391.9296
49.72	449.0283
57.36	0.0000
59.54	442.0596
63.29	570.8295
63.29	570.8295
64.28	598.1926
67.75	608.9639
69.67	607.4269
70.83	602.0767
72.81	616.3138
72.87	616.3638
72.87	616.3638
74.82	609.0340
74.82	609.0340
74.82	609.0340
74.97	609.1513
77.11	560.9778
77.11	560.9778
77.11	560.9778
79.69	482.3014
79.80	486.3544
80.12	486.5498
80.19	486.5927
80.57	486.8235
81.00	447.1592
81.07	447.1985
81.07	447.1985
83.79	411.6412
83.79	411.6412
85.43	412.4597
86.48	412.9802
86.55	413.0147
86.79	413.1323
86.94	413.2075
87.57	413.5164
88.03	413.7422
88.47	413.9569
89.96	414.6813
91.11	415.2379
92.59	415.9465
92.59	415.9465
93.35	416.3087
94.67	368.4441
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94.87	400.9966
95.86	396.5685
97.43	315.8586
98.44	290.1332
99.53	326.3843
100.11	371.4982
103.18	399.3608
103.37	358.4742
105.31	376.6642
106.12	375.9604
109.28	404.0018
111.00	391.2977
111.76	397.8023
116.30	322.8198
117.23	359.4826
121.12	341.0446
121.78	322.4777
122.06	306.9076
123.07	317.6563
131.20	383.2842
133.52	366.1672
136.00	362.7653

136.47	359.7455
140.51	393.9695
140.51	0.0000
143.76	356.7605
144.24	371.8243
144.24	371.8243
145.44	359.4175
152.43	322.9495
153.25	312.4356
154.21	285.8234
154.21	285.8234
156.02	324.9970
158.56	329.9950
159.00	333.3504
162.66	286.7383
163.33	303.1332
165.86	327.6144
176.60	285.5325
177.52	299.9655
181.07	289.7994
184.41	295.8108
185.72	275.3906
193.51	250.3825
197.04	292.1168
205.31	253.8337
210.85	276.3428
215.65	263.7447
222.11	280.2582
227.38	241.3158
228.16	255.0542
228.18	255.0576
235.69	241.7025
235.96	241.7446
235.96	241.7446
238.63	214.7416
238.63	214.7416
240.99	215.0614
242.00	193.8305
244.70	209.4468
252.40	194.4680
252.80	195.4375
256.23	203.2348
256.23	203.2348
260.90	0.0000
264.66	191.8831
268.22	207.7938
269.46	184.6664
269.46	184.6664
271.23	209.7125
273.65	276.8973
276.40	217.6868
277.37	201.6255
277.60	202.6912
278.00	204.9195
279.20	216.2974
279.54	219.1493
280.46	226.7598
283.69	189.6265
284.31	192.5103
285.41	173.8372
285.90	0.0000
287.50	191.6797
293.27	0.0000
295.22	174.7880
295.96	174.8602
298.57	175.1109
299.98	178.4017
299.98	178.4017
300.09	178.4132
300.09	178.4132
300.13	178.4178
301.36	183.2773
302.85	169.1946
304.50	145.6049
304.50	145.6049
304.85	147.2159
308.46	153.2114
311.90	151.5857

316.51	137.6191
319.41	159.8426
320.08	186.7068
323.87	232.1658
323.87	232.1658
328.76	184.6641
333.37	165.4953
334.37	151.1111
334.37	151.1111
338.28	145.9329
338.28	145.9329
338.32	145.9366
338.32	145.9366
338.32	145.9366
340.48	161.2528
340.55	161.2589
344.28	130.8620
351.06	133.2472
351.93	144.3317
356.01	118.6191
364.49	136.0748
366.42	139.1399
383.85	151.1491
388.16	129.6711
388.63	134.6503
391.69	129.8806
400.66	127.4219
401.81	123.5050
402.40	141.4696
404.85	148.6053
410.95	142.0087
414.70	124.2119
423.72	129.7275
427.09	131.9307
427.87	125.9308
433.94	131.3076
453.88	107.6719
463.37	110.7692
468.07	116.1016
473.00	105.7259
476.78	114.1097
477.60	105.9195
487.02	102.1856
492.35	0.0000
497.08	92.2256
511.00	103.1367
514.00	97.3438
527.90	0.0000
529.87	0.0000
531.02	110.2115
537.26	89.4222
546.56	0.0000
563.25	92.3886
569.33	94.7168
569.50	94.7211
569.70	93.6633
583.19	80.2039
600.60	86.0625
602.73	98.6849
604.72	95.1610
609.32	78.7637
609.32	78.7637
609.32	78.7637
610.33	91.7423
614.28	84.6597
618.01	75.7473
621.93	71.5107
621.93	71.5107
633.25	77.2160
635.95	83.8146
636.99	81.6650
645.85	65.5195
657.76	92.0780
661.66	76.8274
661.66	76.8274
664.57	0.0000
666.33	91.2291
666.50	91.2331

677.62	71.6976
685.70	69.1132
695.00	91.4892
696.49	112.7964
696.51	112.7964
697.00	118.3620
702.65	100.0393
706.68	96.4526
711.68	98.4563
720.70	86.2151
721.93	0.0000
722.78	73.4890
722.91	73.4906
723.31	70.3046
724.19	71.9212
727.33	77.4528
733.00	91.3368
735.93	88.2087
739.50	63.6836
747.24	72.2752
752.31	88.3621
753.82	82.7578
756.73	77.1803
763.94	69.5241
765.81	74.4147
766.42	95.4614
777.92	66.7578
778.90	68.1973
783.70	73.0319
785.37	63.5758
795.86	62.8109
801.95	80.0762
810.29	74.5278
810.76	74.5374
815.77	56.4576
818.51	45.0082
832.01	75.9285
834.85	81.7575
836.80	0.0000
846.77	83.9485
856.80	87.0740
860.56	53.2645
871.09	52.4399
873.19	64.1282
875.33	0.0000
879.36	57.4179
880.51	49.6470
883.24	54.5531
884.68	58.4717
889.28	53.6617
898.04	61.6042
911.20	45.1315
911.20	45.1315
911.20	45.1315
926.50	57.1233
937.49	63.2031
944.13	57.3722
946.00	53.4397
949.00	55.4600
962.29	46.6969
964.08	46.7170
966.15	46.7409
968.97	46.7724
968.97	46.7724
968.97	46.7724
983.53	47.9336
996.26	60.0989
1001.03	48.1328
1004.73	60.2185
1037.84	45.5109
1038.76	0.0000
1048.07	50.6856
1050.41	46.6551
1050.41	46.6551
1063.66	47.8128
1085.87	51.1169
1099.45	72.8027
1112.07	66.3214

1115.54	63.5047
1120.29	45.9117
1120.29	45.9117
1120.29	45.9117
1120.55	45.9135
1121.30	44.1546
1131.51	0.0000
1173.23	56.2522
1177.93	55.2644
1189.05	55.3916
1204.77	58.7161
1221.41	70.4896
1231.02	87.4918
1235.36	66.4684
1238.28	63.3398
1260.41	0.0000
1271.85	44.6353
1274.44	47.8473
1274.54	47.8473
1291.59	40.5404
1298.22	0.0000
1312.11	34.2747
1332.49	34.4076
1365.19	29.2104
1368.63	0.0000
1384.29	30.4006
1408.01	27.8066
1457.56	0.0000
1460.82	26.4199
1489.16	22.7586
1505.03	27.5759
1596.21	22.2107
1620.50	14.5433
1678.03	0.0000
1690.97	8.8255
1764.49	10.4150
1764.49	10.4150
1764.49	10.4150
1770.23	8.6868
1771.35	42.6971
1791.20	0.0000
1836.06	6.0161

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248702001

Total Uranium Activity	5.0254E+00	ug/g
Total Uranium Counting Unc.	3.1082E+00	ug/g
Total Uranium Tpu	1.5858E-06	ug/g
Total Uranium Mda	1.6485E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 962631                    SAMPLE ID  : G248702001        *
*   ANALYST      : MXR1                      DETECTOR   : GAM05             *
*   SAMPLE DATE  :  2-MAR-2010 12:00:00.00  COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 23-MAR-2010 08:52:27.12  SAMPLE ALQT:  133.700 GRAM      *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.326E+00
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.230E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 4.056E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.976E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 14:25:40.07

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248702002.CNF;1
Sample date       : 2-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 12:23:52
Sample ID         : G248702002           Sample quantity  : 1.13610E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.28  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	4	75.00*	289	497	1.45	148.93	143	16	4.02E-02	16.0	1.11E+00
2	4	77.34*	441	361	1.17	153.61	143	16	6.13E-02	9.2	
3	0	87.21	109	429	0.97	173.34	171	7	1.52E-02	32.7	
4	2	90.00	89	179	1.23	178.93	177	12	1.23E-02	21.2	1.86E+00
5	2	93.01*	110	396	1.37	184.94	177	12	1.53E-02	35.7	
6	0	129.12	146	485	1.58	257.15	251	14	2.03E-02	33.1	
7	0	185.92*	211	317	1.28	370.75	366	12	2.93E-02	18.9	
8	0	209.23	109	228	1.64	417.36	414	8	1.52E-02	25.9	
9	3	238.73*	1321	181	1.32	476.35	468	21	1.83E-01	3.4	1.48E+00
10	3	241.62*	288	253	2.02	482.14	468	21	4.00E-02	17.3	
11	0	270.52	92	356	1.78	539.94	531	16	1.28E-02	47.1	
12	0	277.86	43	195	1.00	554.63	550	9	6.03E-03	60.2	
13	0	295.35*	287	179	1.32	589.61	585	9	3.99E-02	10.5	
14	0	300.54*	65	198	1.10	599.97	595	10	8.99E-03	44.2	
15	0	328.08	109	159	1.46	655.07	649	12	1.51E-02	25.1	
16	0	338.36	283	230	1.42	675.62	669	15	3.93E-02	13.1	
17	0	351.93*	493	170	1.29	702.76	698	11	6.85E-02	7.0	
18	0	463.77	75	157	2.15	926.44	915	17	1.04E-02	40.0	
19	0	510.61*	100	139	1.70	1020.13	1013	15	1.39E-02	31.4	
20	0	583.32*	378	96	1.38	1165.56	1160	13	5.25E-02	7.7	
21	0	609.33*	430	130	1.53	1217.57	1210	17	5.97E-02	7.9	
22	0	727.94*	46	109	1.11	1454.83	1448	12	6.42E-03	49.8	
23	0	795.33	62	52	2.07	1589.62	1584	12	8.62E-03	27.2	
24	0	861.13*	63	59	1.90	1721.23	1715	13	8.69E-03	29.3	
25	0	911.22*	283	91	1.88	1821.44	1813	18	3.92E-02	10.1	
26	0	968.89	137	91	1.50	1936.78	1931	12	1.90E-02	16.6	
27	0	1120.35	108	64	1.78	2239.76	2232	15	1.50E-02	18.7	
28	0	1377.09	51	15	1.37	2753.39	2746	15	7.08E-03	21.7	
29	0	1460.40*	907	16	2.14	2920.06	2912	17	1.26E-01	3.5	
30	0	1587.97*	27	12	1.16	3175.30	3166	13	3.70E-03	33.4	
31	0	1764.01	70	17	1.99	3527.51	3521	14	9.71E-03	17.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 14:25:43

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248702002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 2-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 12:23:52
Sample ID : G248702002 Sample quantity : 113.61 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.28 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	2.909E+01	3.513E+00	6.973E-01	6.852E-02	41.712
CD-109	+	88.03	*	2.269E+00	1.508E+00	2.171E+00	2.695E-01	1.045
SN-126		64.28		3.674E-01	1.022E+00	1.708E+00	2.891E-01	0.215
	+	86.94		9.139E-01	7.112E-01	9.100E-01	3.848E-01	1.004
	+	87.57	*	1.462E-01	2.172E-01	2.688E-02	2.688E-02	1.012
HG-203		70.83		-8.438E-01	2.900E+00	4.133E+00	7.325E-01	-0.204
		72.87		4.486E+00	1.834E+00	2.689E+00	4.643E-01	1.669
	+	279.20	*	6.500E-02	7.863E-02	9.817E-02	1.079E-02	0.662
TL-208	+	277.37		5.872E-01	7.122E-01	9.119E-01	1.289E-01	0.644
	+	583.19	*	6.710E-01	1.203E-01	7.979E-02	7.298E-03	8.409
	+	860.56		1.050E+00	6.242E-01	5.521E-01	5.397E-02	1.901
BI-211		72.87		1.651E+01	6.401E+00	9.891E+00	1.133E+00	1.669
	+	351.06	*	4.017E+00	6.871E-01	4.286E-01	4.269E-02	9.372
PB-212	+	74.82		2.860E+00	1.014E+00	9.351E-01	1.409E-01	3.059
	+	77.11		2.430E+00	5.268E-01	5.216E-01	6.046E-02	4.660
	+	238.63	*	2.433E+00	3.344E-01	1.265E-01	1.512E-02	19.230
	+	300.09		1.849E+00	1.650E+00	1.696E+00	2.065E-01	1.090
BI-214	+	609.32	*	1.475E+00	2.758E-01	1.514E-01	1.508E-02	9.745
	+	1120.29		1.956E+00	7.623E-01	6.566E-01	7.111E-02	2.979
	+	1764.49		1.764E+00	6.339E-01	3.892E-01	3.412E-02	4.533
PB-214	+	74.82		5.070E+00	1.774E+00	1.657E+00	2.316E-01	3.059
	+	77.11		4.285E+00	9.936E-01	9.195E-01	1.308E-01	4.660
	+	242.00		3.214E+00	1.185E+00	7.691E-01	9.581E-02	4.179
	+	295.22		1.452E+00	3.555E-01	3.473E-01	4.329E-02	4.179
	+	351.93	*	1.458E+00	2.620E-01	1.697E-01	1.928E-02	8.594
RA-224	+	240.99	*	5.684E+00	2.069E+00	1.356E+00	1.495E-01	4.193
RA-226	+	609.32	*	1.475E+00	2.758E-01	1.514E-01	1.508E-02	9.745
	+	1120.29		1.956E+00	7.623E-01	6.566E-01	7.111E-02	2.979
	+	1764.49		1.764E+00	6.339E-01	3.892E-01	3.412E-02	4.533
AC-228	+	338.32		2.573E+00	1.273E+00	5.536E-01	2.325E-01	4.648
	+	911.20	*	2.422E+00	5.685E-01	3.383E-01	4.098E-02	7.159
	+	968.97		2.028E+00	8.380E-01	5.857E-01	1.439E-01	3.462
RA-228	+	338.32		2.573E+00	1.273E+00	5.536E-01	2.325E-01	4.648
	+	911.20	*	2.422E+00	5.685E-01	3.383E-01	4.098E-02	7.159

Sample ID : G248702002 Acquisition date : 23-MAR-2010 12:23:52

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		2.028E+00	8.380E-01	5.857E-01	1.439E-01	3.462
TH-228	+	74.82		2.860E+00	9.756E-01	9.351E-01	1.081E-01	3.059
	+	77.11		2.430E+00	5.268E-01	5.216E-01	6.046E-02	4.660
	+	238.63	*	2.433E+00	3.344E-01	1.265E-01	1.512E-02	19.230
	+	300.09		1.849E+00	1.991E+00	1.696E+00	1.044E+00	1.090
TH-230	+	609.32	*	1.475E+00	2.646E-01	1.514E-01	1.279E-02	9.745
	+	1120.29		1.956E+00	7.509E-01	6.566E-01	5.585E-02	2.979
	+	1764.49		1.764E+00	6.339E-01	3.892E-01	3.412E-02	4.533
TH-232	+	338.32		2.573E+00	7.189E-01	5.536E-01	5.458E-02	4.648
	+	911.20	*	2.422E+00	5.685E-01	3.383E-01	4.098E-02	7.159
	+	968.97		2.028E+00	8.380E-01	5.857E-01	1.439E-01	3.462
U-235	+	89.96		1.821E+00	9.069E-01	2.221E+00	5.778E-01	0.820
	+	93.35		1.339E+00	1.011E+00	1.040E+00	2.530E-01	1.287
		143.76	*	-1.734E-01	2.990E-01	4.624E-01	8.228E-02	-0.375
		163.33		-8.620E-02	6.713E-01	1.045E+00	1.983E-01	-0.083
	+	185.72		2.511E-01	9.871E-02	9.720E-02	1.052E-02	2.583
		205.31		2.621E-01	8.373E-01	1.176E+00	2.276E-01	0.223
NP-237	+	86.48	*	6.560E-01	4.573E-01	6.075E-01	1.476E-01	1.080
		95.86		-3.273E-01	1.552E+00	2.198E+00	5.503E-01	-0.149
ANH-511	+	511.00	*	1.370E-01	8.683E-02	6.724E-02	5.810E-03	2.037

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-2.737E-01	4.878E-01	7.627E-01	7.089E-02	-0.359
NA-22		1274.54	*	2.703E-02	6.506E-02	1.094E-01	9.940E-03	0.247
NA-24		1368.63	*	-3.410E+02	6.506E-02	Half-Life too short		
SC-46		889.28	*	-3.893E-02	5.048E-02	7.645E-02	7.104E-03	-0.509
	+	1120.55		3.474E-01	1.334E-01	1.926E-01	1.638E-02	1.803
V-48		944.13		-8.457E-01	1.505E+00	2.336E+00	2.160E-01	-0.362
		983.53	*	5.037E-02	1.206E-01	2.059E-01	1.882E-02	0.245
		1312.11		-3.986E-02	1.359E-01	2.109E-01	1.988E-02	-0.189
CR-51		320.08	*	5.685E-02	6.204E-01	1.008E+00	1.070E-01	0.056
MN-54		834.85	*	-3.390E-02	5.467E-02	8.611E-02	7.815E-03	-0.394
CO-56		846.77	*	-3.835E-02	5.705E-02	8.874E-02	8.097E-03	-0.432
		1037.84		3.129E-01	4.341E-01	7.585E-01	7.112E-02	0.413
		1238.28		9.928E-02	1.255E-01	2.167E-01	1.947E-02	0.458
		1771.35		-1.281E+00	4.565E-01	3.331E-01	2.910E-02	-3.845
CO-57		122.06	*	1.405E-02	3.839E-02	6.045E-02	6.089E-03	0.232
		136.47		-1.640E-01	3.133E-01	4.771E-01	5.069E-02	-0.344
CO-58		810.76	*	-1.197E-02	5.366E-02	8.730E-02	7.849E-03	-0.137
FE-59		1099.45	*	-5.301E-02	1.360E-01	2.130E-01	1.987E-02	-0.249
		1291.59		1.274E-01	2.066E-01	3.535E-01	3.651E-02	0.360
CO-60		1173.23		-3.400E-02	5.860E-02	8.930E-02	7.269E-03	-0.381
		1332.49	*	5.727E-03	5.486E-02	8.953E-02	8.607E-03	0.064
ZN-65		1115.54	*	1.427E-02	1.403E-01	1.986E-01	1.697E-02	0.072
SE-75		121.12		-5.081E-02	1.994E-01	3.161E-01	3.871E-02	-0.161
		136.00		-6.552E-03	6.372E-02	9.483E-02	9.601E-03	-0.069

Sample ID : G248702002 Acquisition date : 23-MAR-2010 12:23:52

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		264.66	*	-1.243E-02	7.579E-02	1.090E-01	1.196E-02	-0.114
		279.54		2.127E-01	1.883E-01	2.913E-01	3.226E-02	0.730
		400.66		2.737E-01	3.871E-01	6.604E-01	7.236E-02	0.414
SR-85		514.00	*	1.330E-01	6.497E-02	1.064E-01	9.192E-03	1.250
Y-88		898.04		-3.360E-02	5.312E-02	8.186E-02	7.665E-03	-0.410
		1836.06	*	1.886E-02	4.102E-02	7.382E-02	6.217E-03	0.256
Y-91		1204.77	*	1.031E+01	3.261E+01	5.439E+01	4.585E+00	0.190
NB-94		702.65	*	3.762E-03	4.398E-02	7.405E-02	6.252E-03	0.051
		871.09		5.987E-03	4.797E-02	7.793E-02	7.187E-03	0.077
NB-95		765.81	*	5.738E-02	6.186E-02	1.094E-01	9.589E-03	0.524
NB-95M		235.69	*	5.605E-01	2.407E-01	3.791E-01	4.568E-02	1.478
ZR-95		724.19		1.273E-01	1.675E-01	2.579E-01	2.395E-02	0.494
		756.73	*	-5.904E-02	9.925E-02	1.568E-01	1.507E-02	-0.377
MO-99		140.51		-4.104E+01	1.437E+02	2.244E+02	5.461E+01	-0.183
		181.07		5.868E+01	1.264E+02	1.812E+02	3.602E+01	0.324
		366.42		-1.838E+02	5.876E+02	9.506E+02	8.711E+01	-0.193
		739.50	*	-4.616E+00	7.462E+01	1.239E+02	1.953E+01	-0.037
		777.92		-7.248E+01	2.106E+02	3.402E+02	3.000E+01	-0.213
TC-99M		140.51	*	-1.918E+17	2.106E+02	Half-Life too short		
RU-103		497.08	*	3.846E-02	5.778E-02	9.834E-02	1.375E-02	0.391
	+	610.33		1.690E+01	3.833E+00	4.152E+00	6.749E-01	4.069
RH-106		621.93	*	3.813E-01	4.372E-01	7.480E-01	9.811E-02	0.510
		1050.41		2.111E+00	3.825E+00	6.552E+00	5.822E-01	0.322
RU-106		621.93	*	3.813E-01	4.355E-01	7.480E-01	6.286E-02	0.510
		1050.41		2.111E+00	3.825E+00	6.552E+00	5.822E-01	0.322
AG-108M		433.94	*	-1.108E-02	3.976E-02	6.384E-02	5.642E-03	-0.174
		614.28		2.358E-02	5.098E-02	7.459E-02	6.506E-03	0.316
		722.91		8.900E-04	5.898E-02	8.508E-02	7.510E-03	0.010
AG-110M		657.76	*	3.262E-02	4.180E-02	7.437E-02	6.329E-03	0.439
		677.62		4.864E-02	4.262E-01	7.203E-01	6.169E-02	0.068
		706.68		-9.545E-02	2.787E-01	4.536E-01	3.953E-02	-0.210
		763.94		-7.553E-02	2.245E-01	3.642E-01	3.272E-02	-0.207
		884.68		4.688E-02	6.240E-02	1.102E-01	1.051E-02	0.425
		937.49		2.198E-02	1.753E-01	2.798E-01	2.672E-02	0.079
		1384.29		-4.226E-02	2.480E-01	3.435E-01	3.381E-02	-0.123
		1505.03		-1.099E-01	3.943E-01	6.304E-01	6.025E-02	-0.174
SN-113		391.69	*	6.093E-02	6.846E-02	1.180E-01	1.025E-02	0.516
CD-115		260.90		5.704E-04	6.846E-02	Half-Life too short		
		492.35		-3.019E-04	6.846E-02	Half-Life too short		
		527.90	*	-8.245E-05	6.846E-02	Half-Life too short		
SN-117M		156.02		9.613E-01	4.623E+00	7.513E+00	7.831E-01	0.128
		158.56	*	-1.276E-02	1.138E-01	1.825E-01	1.913E-02	-0.070
TE-123M		159.00	*	-2.525E-02	4.553E-02	7.158E-02	7.543E-03	-0.353
SB-124		602.73		-1.804E-02	6.981E-02	9.426E-02	7.989E-03	-0.191
		645.85		-4.343E-01	7.355E-01	1.119E+00	9.863E-02	-0.388
		722.78		1.512E-02	6.345E-01	9.161E-01	8.013E-02	0.017
		1690.97	*	-6.137E-03	1.259E-01	2.060E-01	1.941E-02	-0.030
SB-125		427.87	*	1.027E-01	1.260E-01	2.168E-01	1.887E-02	0.474
	+	463.37		9.179E-01	7.396E-01	7.469E-01	6.920E-02	1.229

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		600.60		6.461E-02	2.727E-01	4.218E-01	3.850E-02	0.153
		635.95		-1.183E-01	3.817E-01	5.970E-01	5.413E-02	-0.198
TE-125M		109.28	*	-1.124E-01	1.518E+01	2.475E+01	2.944E+00	-0.005
I-126		388.63		2.779E-02	3.447E-01	5.700E-01	4.851E-02	0.049
		666.33	*	4.496E-01	4.274E-01	7.639E-01	6.300E-02	0.588
		753.82		2.763E+00	3.131E+00	5.577E+00	4.854E-01	0.495
SB-126		414.70		-1.037E-01	1.473E-01	2.304E-01	1.958E-02	-0.450
		666.50		1.547E-01	1.487E-01	2.657E-01	2.192E-02	0.582
		695.00		2.760E-02	1.513E-01	2.564E-01	2.154E-02	0.108
		697.00		2.318E-01	5.131E-01	8.852E-01	7.447E-02	0.262
		720.70	*	-5.809E-03	3.104E-01	4.461E-01	3.808E-02	-0.013
		856.80		-6.392E-01	1.076E+00	1.415E+00	1.297E-01	-0.452
SB-127		252.40		-3.178E+00	1.716E+01	2.842E+01	1.212E+01	-0.112
		473.00		5.169E+00	5.940E+00	1.025E+01	1.484E+00	0.504
		685.70	*	1.296E+00	5.201E+00	8.866E+00	1.161E+00	0.146
		783.70		-9.925E-01	1.255E+01	2.072E+01	2.955E+00	-0.048
I-131		80.19		-1.489E+01	1.401E+01	1.901E+01	2.251E+00	-0.783
		284.31		4.879E-01	3.711E+00	6.069E+00	6.770E-01	0.080
		364.49	*	-1.997E-01	2.585E-01	4.045E-01	3.923E-02	-0.494
		636.99		3.044E-01	3.497E+00	5.660E+00	5.037E-01	0.054
TE-132		49.72		-1.085E+02	2.303E+02	3.745E+02	6.213E+01	-0.290
		111.76		-8.532E+01	1.712E+02	2.727E+02	3.800E+01	-0.313
		116.30		5.320E+01	1.466E+02	2.418E+02	3.354E+01	0.220
		228.16	*	-5.893E-01	3.812E+00	6.369E+00	1.176E+00	-0.093
BA-133		81.00		-3.783E-01	1.895E-01	2.302E-01	4.026E-02	-1.644
	+	276.40		5.433E-01	6.600E-01	9.310E-01	1.449E-01	0.584
		302.85		2.739E-01	2.271E-01	3.512E-01	5.053E-02	0.780
		356.01	*	1.516E-02	6.899E-02	1.006E-01	1.359E-02	0.151
		383.85		-8.797E-02	4.240E-01	6.896E-01	8.586E-02	-0.128
I-133		529.87	*	1.422E-01	4.240E-01	Half-Life too short		
		875.33		3.693E+00	4.240E-01	Half-Life too short		
		1298.22		-1.398E+01	4.240E-01	Half-Life too short		
CS-134		563.25		-2.345E-01	5.498E-01	8.615E-01	7.463E-02	-0.272
		569.33		8.674E-03	2.914E-01	4.720E-01	4.099E-02	0.018
		604.72		3.230E-02	5.362E-02	7.908E-02	6.713E-03	0.408
	+	795.86	*	1.607E-01	8.854E-02	1.248E-01	1.119E-02	1.287
		801.95		-1.841E-01	6.218E-01	8.756E-01	7.861E-02	-0.210
		1365.19		-7.350E-01	1.561E+00	2.441E+00	2.439E-01	-0.301
CS-135		268.22	*	2.862E-01	2.460E-01	4.076E-01	4.891E-02	0.702
I-135		546.56		-6.082E+16	2.460E-01	Half-Life too short		
		836.80		-2.253E+15	2.460E-01	Half-Life too short		
		1038.76		-2.323E+16	2.460E-01	Half-Life too short		
		1131.51		3.888E+15	2.460E-01	Half-Life too short		
		1260.41	*	-9.510E+15	2.460E-01	Half-Life too short		
		1457.56		3.315E+18	2.460E-01	Half-Life too short		
		1678.03		-3.067E+16	2.460E-01	Half-Life too short		
		1791.20		1.973E+16	2.460E-01	Half-Life too short		
CS-136		153.25		4.934E-01	1.723E+00	2.810E+00	3.307E-01	0.176
		176.60		-9.918E-02	1.017E+00	1.626E+00	1.867E-01	-0.061

Sample ID : G248702002 Acquisition date : 23-MAR-2010 12:23:52

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		273.65		-6.723E-01	1.797E+00	1.666E+00	1.909E-01	-0.404
		340.55		1.404E+00	3.946E-01	6.393E-01	6.460E-02	2.196
		818.51		-1.215E-01	1.318E-01	1.991E-01	1.795E-02	-0.610
		1048.07	*	-1.313E-01	2.174E-01	3.352E-01	3.102E-02	-0.392
		1235.36		8.569E-01	1.088E+00	1.871E+00	2.216E-01	0.458
BA-137M		661.66	*	-5.481E-02	4.838E-02	7.402E-02	6.086E-03	-0.740
CS-137		661.66	*	-5.790E-02	5.111E-02	7.820E-02	6.442E-03	-0.740
CE-139		165.86	*	-1.591E-02	4.704E-02	7.238E-02	7.726E-03	-0.220
BA-140		162.66		9.822E-02	1.679E+00	2.710E+00	2.999E-01	0.036
		304.85		5.775E-01	2.822E+00	4.134E+00	1.235E+00	0.140
		423.72		-1.241E+00	3.698E+00	5.892E+00	1.937E+00	-0.211
		537.26	*	-1.114E-01	5.269E-01	8.385E-01	2.844E-01	-0.133
LA-140	+	328.76		1.686E+00	8.651E-01	1.097E+00	1.150E-01	1.537
		487.02		9.426E-02	2.714E-01	4.525E-01	4.149E-02	0.208
		815.77		-1.059E-01	5.589E-01	9.110E-01	9.079E-02	-0.116
		1596.21	*	-6.869E-02	1.636E-01	2.547E-01	2.387E-02	-0.270
CE-141		145.44	*	7.578E-02	1.026E-01	1.703E-01	1.760E-02	0.445
CE-143		57.36		1.598E-02	1.026E-01	Half-Life too short		
		293.27	*	1.763E-02	1.026E-01	Half-Life too short		
		664.57		2.899E-02	1.026E-01	Half-Life too short		
		721.93		8.957E-03	1.026E-01	Half-Life too short		
CE-144		80.12		-4.227E+00	4.633E+00	6.352E+00	7.465E-01	-0.666
		133.52	*	8.892E-02	3.287E-01	4.637E-01	7.482E-02	0.192
PM-144		476.78		-6.052E-02	8.955E-02	1.385E-01	1.299E-02	-0.437
		618.01		-4.839E-02	5.093E-02	6.622E-02	5.740E-03	-0.731
		696.49	*	1.441E-02	4.912E-02	8.384E-02	7.055E-03	0.172
PR-144		696.51	*	1.078E+00	3.687E+00	6.293E+00	5.292E-01	0.171
		1489.16		-1.080E+01	1.806E+01	2.739E+01	2.623E+00	-0.394
PM-146		453.88	*	-7.891E-02	6.883E-02	9.098E-02	9.621E-03	-0.867
		633.25		-1.208E+00	2.041E+00	3.030E+00	1.156E+00	-0.399
		735.93		-4.115E-03	1.994E-01	3.251E-01	9.111E-02	-0.013
		747.24		-1.012E-01	1.317E-01	2.045E-01	2.989E-02	-0.495
ND-147	+	91.11		8.557E-01	3.790E-01	1.126E+00	1.394E-01	0.760
		319.41		3.076E-01	6.823E+00	1.135E+01	1.163E+00	0.027
		531.02	*	5.582E-01	1.073E+00	1.806E+00	2.701E-01	0.309
PM-149		285.90	*	-8.969E-05	1.073E+00	Half-Life too short		
EU-152		121.78		4.518E-02	1.090E-01	1.719E-01	1.923E-02	0.263
		244.70		2.930E-01	5.071E-01	7.665E-01	8.449E-02	0.382
		344.28	*	-8.195E-02	1.566E-01	2.147E-01	2.185E-02	-0.382
		778.90		-1.043E-01	3.390E-01	5.492E-01	4.846E-02	-0.190
		964.08		1.207E-01	4.999E-01	7.237E-01	6.656E-02	0.167
		1085.87		-4.059E-01	5.317E-01	7.974E-01	6.944E-02	-0.509
		1112.07		1.316E-01	4.323E-01	6.554E-01	5.608E-02	0.201
		1408.01		2.382E-01	2.200E-01	4.157E-01	4.005E-02	0.573
GD-153		69.67		8.156E-01	3.517E+00	5.151E+00	5.879E-01	0.158
		97.43	*	-2.653E-02	1.429E-01	2.027E-01	2.237E-02	-0.131
		103.18		-7.074E-02	1.644E-01	2.636E-01	2.787E-02	-0.268
EU-154		123.07		4.537E-02	8.310E-02	1.215E-01	1.517E-02	0.373
		723.31		3.505E-02	2.723E-01	3.974E-01	3.747E-02	0.088

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		873.19		3.976E-01	3.793E-01	6.791E-01	8.383E-02	0.585
		996.26		-3.652E-01	5.023E-01	7.597E-01	1.346E-01	-0.481
		1004.73		-1.082E-01	2.984E-01	4.723E-01	5.655E-02	-0.229
		1274.44	*	7.334E-02	1.836E-01	3.082E-01	3.614E-02	0.238
EU-155	+	86.55		2.672E-01	1.777E-01	2.807E-01	3.462E-02	0.952
		105.31	*	-6.400E-03	1.541E-01	2.511E-01	2.645E-02	-0.025
TB-160	+	86.79		7.484E-01	4.975E-01	7.767E-01	9.550E-02	0.964
		197.04		6.744E-01	8.673E-01	1.430E+00	1.559E-01	0.472
		215.65		-1.036E+00	1.166E+00	1.831E+00	2.014E-01	-0.566
		298.57		3.372E-01	2.992E-01	3.293E-01	3.484E-02	1.024
		879.36	*	5.935E-04	1.964E-01	3.248E-01	3.006E-02	0.002
		962.29		-2.086E-01	9.713E-01	1.337E+00	1.231E-01	-0.156
		966.15		1.548E+00	4.672E-01	8.026E-01	7.378E-02	1.928
		1177.93		5.691E-02	5.085E-01	8.348E-01	6.831E-02	0.068
		1271.85		3.017E-01	1.123E+00	1.863E+00	1.686E-01	0.162
HO-166M		80.57		-9.280E-01	5.130E-01	6.584E-01	7.758E-02	-1.409
		184.41		1.528E-01	6.138E-02	9.386E-02	1.015E-02	1.628
		280.46		9.823E-02	1.366E-01	2.075E-01	2.240E-02	0.473
		410.95		3.193E-01	3.409E-01	5.895E-01	5.004E-02	0.542
		711.68	*	1.007E-02	7.760E-02	1.310E-01	1.113E-02	0.077
		752.31		1.863E-01	3.528E-01	6.126E-01	5.327E-02	0.304
		810.29		-2.863E-02	7.645E-02	1.226E-01	1.100E-02	-0.234
TA-182		67.75		-1.509E-01	2.212E-01	3.503E-01	3.997E-02	-0.431
		100.11		8.808E-02	2.653E-01	4.390E-01	4.739E-02	0.201
		152.43		-1.420E-01	5.357E-01	8.547E-01	8.838E-02	-0.166
		222.11		4.681E-01	5.353E-01	9.275E-01	1.022E-01	0.505
	+	1121.30		9.499E-01	3.647E-01	5.253E-01	4.465E-02	1.808
		1189.05		-3.350E-01	4.375E-01	6.542E-01	5.420E-02	-0.512
		1221.41	*	3.573E-01	2.744E-01	4.940E-01	4.240E-02	0.723
		1231.02		1.935E-01	6.924E-01	1.149E+00	9.962E-02	0.168
IR-192	+	295.96		1.135E+00	2.681E-01	4.040E-01	4.310E-02	2.808
		308.46		1.284E-02	1.358E-01	2.270E-01	2.376E-02	0.057
		316.51	*	2.477E-02	5.022E-02	8.553E-02	8.819E-03	0.290
		468.07		-4.352E-02	1.010E-01	1.354E-01	1.252E-02	-0.321
BI-207		72.81		8.911E-01	3.655E-01	5.645E-01	6.465E-02	1.579
	+	74.97		8.247E-01	2.811E-01	3.882E-01	4.468E-02	2.124
		569.70		2.061E-02	4.408E-02	7.359E-02	6.304E-03	0.280
		1063.66	*	4.398E-03	6.904E-02	1.136E-01	1.002E-02	0.039
		1770.23		-4.199E-01	6.293E-01	6.709E-01	5.865E-02	-0.626
PB-210		46.54	*	1.097E+01	1.450E+01	2.440E+01	3.004E+00	0.450
PB-211		404.85	*	-2.221E-01	1.056E+00	1.705E+00	8.245E-01	-0.130
		427.09		1.828E+00	2.273E+00	3.650E+00	1.688E+00	0.501
		832.01		7.031E-01	1.465E+00	2.443E+00	1.269E+00	0.288
BI-212	+	727.33	*	1.252E+00	1.256E+00	1.579E+00	1.962E-01	0.793
		785.37		7.812E-01	3.935E+00	6.652E+00	5.890E-01	0.117
		1620.50		3.436E+00	3.215E+00	6.099E+00	5.677E-01	0.563
RN-219	+	271.23		7.458E-01	7.080E-01	6.644E-01	8.118E-02	1.123
		401.81	*	4.336E-01	6.054E-01	1.030E+00	1.522E-01	0.421
RA-223		81.07		-8.530E-01	4.141E-01	5.206E-01	6.152E-02	-1.638

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		83.79		2.206E-01	2.407E-01	3.297E-01	3.963E-02	0.669
		94.87		1.687E+00	7.871E-01	1.210E+00	1.370E-01	1.394
		144.24		-1.623E-01	9.989E-01	1.580E+00	1.745E-01	-0.103
		154.21		3.784E-01	5.651E-01	9.339E-01	1.034E-01	0.405
	+	269.46		5.794E-01	5.493E-01	5.121E-01	5.651E-02	1.131
		323.87	*	3.168E-01	9.946E-01	1.466E+00	2.661E-01	0.216
	+	338.28		1.021E+01	2.981E+00	3.448E+00	4.478E-01	2.962
AC-227		79.69		1.718E+00	2.333E+00	3.444E+00	6.537E-01	0.499
		235.96		1.204E+00	3.176E-01	4.894E-01	6.081E-02	2.460
		256.23	*	6.478E-02	3.564E-01	6.016E-01	8.326E-02	0.108
	+	299.98		2.034E+00	1.820E+00	2.422E+00	3.413E-01	0.840
		304.50		6.644E-01	2.474E+00	3.645E+00	6.406E-01	0.182
		334.37		1.605E+00	3.483E+00	4.143E+00	6.776E-01	0.387
TH-227		79.80		-7.111E-01	3.064E+00	4.365E+00	1.012E+00	-0.163
		235.96		1.204E+00	3.149E-01	4.894E-01	5.845E-02	2.460
		256.23	*	6.478E-02	3.564E-01	6.016E-01	9.152E-02	0.108
	+	299.98		2.034E+00	1.820E+00	2.422E+00	3.413E-01	0.840
		304.50		6.644E-01	2.474E+00	3.645E+00	6.406E-01	0.182
		334.37		1.605E+00	3.483E+00	4.143E+00	6.776E-01	0.387
TH-229		85.43		8.747E-01	3.788E-01	5.786E-01	7.039E-02	1.512
	+	88.47		3.389E-01	2.253E-01	3.636E-01	4.481E-02	0.932
		193.51	*	-6.639E-01	8.291E-01	1.224E+00	1.331E-01	-0.543
		210.85		2.809E+00	1.453E+00	2.305E+00	2.532E-01	1.219
PA-231		283.69	*	-4.166E-01	2.246E+00	3.500E+00	5.582E-01	-0.119
	+	301.36		1.307E+00	1.168E+00	1.563E+00	2.122E-01	0.836
TH-231		81.07		-8.530E-01	4.141E-01	5.206E-01	6.152E-02	-1.638
		83.79		2.206E-01	2.407E-01	3.297E-01	3.963E-02	0.669
		94.87		1.687E+00	7.871E-01	1.210E+00	1.370E-01	1.394
		144.24		-1.623E-01	9.989E-01	1.580E+00	1.745E-01	-0.103
		154.21		3.784E-01	5.651E-01	9.339E-01	1.034E-01	0.405
	+	269.46		5.794E-01	5.493E-01	5.121E-01	5.651E-02	1.131
		323.87	*	3.168E-01	9.946E-01	1.466E+00	2.661E-01	0.216
	+	338.28		1.021E+01	2.981E+00	3.448E+00	4.478E-01	2.962
PA-233	+	300.13		9.206E-01	8.267E-01	1.093E+00	1.753E-01	0.842
		311.90	*	-2.893E-02	8.679E-02	1.414E-01	1.497E-02	-0.205
		340.48		4.621E+00	1.622E+00	2.028E+00	4.973E-01	2.279
PA-234		94.67		7.337E-01	3.013E-01	4.534E-01	6.543E-02	1.618
		98.44		1.929E-03	1.391E-01	2.198E-01	1.235E-01	0.009
		111.00		-7.474E-02	2.659E-01	4.283E-01	5.685E-02	-0.175
		131.20		1.001E-01	1.743E-01	2.546E-01	2.555E-02	0.393
		569.50		-2.590E-02	4.030E-01	6.482E-01	5.553E-02	-0.040
		733.00		5.842E-02	5.599E-01	8.153E-01	1.809E-01	0.072
		880.51		-1.988E-02	3.724E-01	6.123E-01	5.670E-02	-0.032
		883.24		3.549E-01	4.352E-01	6.552E-01	4.410E-01	0.542
		926.50		-3.037E-03	2.417E-01	3.978E-01	1.015E-01	-0.008
		946.00	*	-4.464E-01	4.194E-01	6.041E-01	1.151E-01	-0.739
		949.00		1.949E-01	5.972E-01	1.012E+00	9.346E-02	0.193
PA-234M		766.42		1.681E+01	1.778E+01	2.792E+01	1.417E+01	0.602
		1001.03	*	1.947E+00	6.530E+00	1.094E+01	1.134E+00	0.178

Sample ID : G248702002 Acquisition date : 23-MAR-2010 12:23:52

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	1.670E+00	2.792E+00	4.681E+00	9.281E-01	0.357
	+	92.59		1.772E+00	1.333E+00	1.918E+00	4.493E-01	0.924
U-238		63.29	*	1.670E+00	2.792E+00	4.681E+00	9.281E-01	0.357
	+	92.59		1.772E+00	1.283E+00	1.918E+00	2.230E-01	0.924
NP-239		99.53		3.453E-03	2.397E-01	3.921E-01	4.251E-02	0.009
		103.37		-4.913E-02	1.469E-01	2.366E-01	2.499E-02	-0.208
		106.12		9.810E-03	1.236E-01	2.024E-01	2.106E-02	0.048
		117.23	*	-3.164E-01	5.677E-01	9.007E-01	9.091E-02	-0.351
		228.18		-4.417E-02	3.148E-01	5.263E-01	5.806E-02	-0.084
	+	277.60		2.684E-01	3.246E-01	4.515E-01	4.889E-02	0.594
AM-241		59.54	*	-1.635E-01	3.557E-01	5.781E-01	6.785E-02	-0.283
CM-247	+	278.00		1.140E+00	1.379E+00	1.908E+00	2.065E-01	0.597
		287.50		1.914E-01	1.814E+00	3.040E+00	3.259E-01	0.063
		402.40	*	1.613E-02	5.464E-02	9.132E-02	7.723E-03	0.177
CF-249		252.80		-2.060E-01	1.326E+00	2.205E+00	2.425E-01	-0.093
		333.37		1.589E-01	4.232E-01	4.304E-01	4.289E-02	0.369
		388.16	*	2.532E-02	5.935E-02	1.000E-01	8.525E-03	0.253
CF-251		177.52	*	-6.371E-02	1.940E-01	3.068E-01	3.301E-02	-0.208
		227.38		-6.087E-01	5.255E-01	8.348E-01	9.208E-02	-0.729
		285.41		3.679E-01	3.164E+00	5.305E+00	5.702E-01	0.069

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248702002       *
* Acquisition date : 23-MAR-2010 12:23:52 Detector SN#    :                 *
* Detector ID      : GAM15                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.28     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  2-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248702002           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.1361E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.909E+01	3.443E+00	6.942E-01	0.000E+00
CD-109	2.269E+00	1.478E+00	2.216E+00	0.000E+00
SN-126	2.198E-01	1.432E-01	2.217E-01	0.000E+00
HG-203	6.500E-02	7.706E-02	9.920E-02	0.000E+00
TL-208	6.710E-01	1.179E-01	8.010E-02	0.000E+00
BI-211	4.017E+00	6.734E-01	4.322E-01	0.000E+00
PB-212	2.433E+00	3.277E-01	1.280E-01	0.000E+00
BI-214	1.475E+00	2.703E-01	1.519E-01	0.000E+00
PB-214	1.458E+00	2.568E-01	1.711E-01	0.000E+00
RA-224	5.684E+00	2.028E+00	1.371E+00	0.000E+00
RA-226	1.475E+00	2.703E-01	1.519E-01	0.000E+00
AC-228	2.422E+00	5.571E-01	3.383E-01	0.000E+00
RA-228	2.422E+00	5.571E-01	3.383E-01	0.000E+00
TH-228	2.433E+00	3.277E-01	1.280E-01	0.000E+00
TH-230	1.475E+00	2.593E-01	1.519E-01	0.000E+00
TH-232	2.422E+00	5.571E-01	3.383E-01	0.000E+00
U-235	-1.734E-01	2.931E-01	4.700E-01	0.000E+00
NP-237	6.560E-01	4.481E-01	6.202E-01	0.000E+00
ANH-511	1.370E-01	8.509E-02	6.758E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.737E-01	4.781E-01	7.670E-01	0.000E+00	NOT IDENT.
NA-22	2.703E-02	6.376E-02	1.091E-01	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.653E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-3.893E-02	4.947E-02	7.645E-02	0.000E+00	FAIL ABUN
V-48	5.037E-02	1.182E-01	2.057E-01	0.000E+00	NOT IDENT.
CR-51	5.685E-02	6.079E-01	1.017E+00	0.000E+00	NOT IDENT.
MN-54	-3.390E-02	5.358E-02	8.617E-02	0.000E+00	NOT IDENT.
CO-56	-3.835E-02	5.591E-02	8.878E-02	0.000E+00	NOT IDENT.

CO-57	1.405E-02	3.762E-02	6.152E-02	0.000E+00	NOT IDENT.
CO-58	-1.197E-02	5.258E-02	8.738E-02	0.000E+00	NOT IDENT.
FE-59	-5.301E-02	1.333E-01	2.126E-01	0.000E+00	NOT IDENT.
CO-60	5.727E-03	5.376E-02	8.921E-02	0.000E+00	NOT IDENT.
ZN-65	1.427E-02	1.375E-01	1.982E-01	0.000E+00	NOT IDENT.
SE-75	-1.243E-02	7.428E-02	1.102E-01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	6.367E-02	1.069E-01	0.000E+00	NOT IDENT.
Y-88	1.886E-02	4.020E-02	7.334E-02	0.000E+00	NOT IDENT.
Y-91	1.031E+01	3.196E+01	5.424E+01	0.000E+00	NOT IDENT.
NB-94	3.762E-03	4.311E-02	7.421E-02	0.000E+00	NOT IDENT.
NB-95	5.738E-02	6.062E-02	1.096E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.359E-01	3.837E-01	0.000E+00	NOT IDENT.
ZR-95	-5.904E-02	9.726E-02	1.570E-01	0.000E+00	NOT IDENT.
MO-99	-4.616E+00	7.313E+01	1.241E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.607E+23	0.000E+00	0.000E+00	SHORT HLIF
RU-103	3.846E-02	5.663E-02	9.886E-02	0.000E+00	FAIL ABUN
RH-106	3.813E-01	4.284E-01	7.504E-01	0.000E+00	NOT IDENT.
RU-106	3.813E-01	4.268E-01	7.504E-01	0.000E+00	NOT IDENT.
AG-108M	-1.108E-02	3.896E-02	6.426E-02	0.000E+00	NOT IDENT.
AG-110M	3.262E-02	4.096E-02	7.458E-02	0.000E+00	NOT IDENT.
SN-113	6.093E-02	6.709E-02	1.188E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	9.359E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-1.276E-02	1.115E-01	1.853E-01	0.000E+00	NOT IDENT.
TE-123M	-2.525E-02	4.462E-02	7.269E-02	0.000E+00	NOT IDENT.
SB-124	-6.137E-03	1.234E-01	2.049E-01	0.000E+00	NOT IDENT.
SB-125	1.027E-01	1.234E-01	2.182E-01	0.000E+00	FAIL ABUN
TE-125M	-1.124E-01	1.488E+01	2.521E+01	0.000E+00	NOT IDENT.
I-126	4.496E-01	4.188E-01	7.659E-01	0.000E+00	NOT IDENT.
SB-126	-5.809E-03	3.041E-01	4.470E-01	0.000E+00	NOT IDENT.
SB-127	1.296E+00	5.097E+00	8.887E+00	0.000E+00	NOT IDENT.
I-131	-1.997E-01	2.533E-01	4.077E-01	0.000E+00	NOT IDENT.
TE-132	-5.893E-01	3.736E+00	6.447E+00	0.000E+00	NOT IDENT.
BA-133	1.516E-02	6.761E-02	1.014E-01	0.000E+00	FAIL ABUN
I-133	0.000E+00	8.743E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.677E-02	1.250E-01	0.000E+00	FAIL ABUN
CS-135	2.862E-01	2.411E-01	4.120E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.647E+22	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.313E-01	2.131E-01	3.347E-01	0.000E+00	NOT IDENT.
BA-137M	-5.481E-02	4.741E-02	7.422E-02	0.000E+00	NOT IDENT.
CS-137	-5.790E-02	5.008E-02	7.841E-02	0.000E+00	NOT IDENT.
CE-139	-1.591E-02	4.609E-02	7.347E-02	0.000E+00	NOT IDENT.
BA-140	-1.114E-01	5.164E-01	8.424E-01	0.000E+00	NOT IDENT.
LA-140	-6.869E-02	1.603E-01	2.533E-01	0.000E+00	FAIL ABUN
CE-141	7.578E-02	1.006E-01	1.730E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	6.332E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	8.892E-02	3.221E-01	4.715E-01	0.000E+00	NOT IDENT.
PM-144	1.441E-02	4.814E-02	8.402E-02	0.000E+00	NOT IDENT.
PR-144	1.078E+00	3.614E+00	6.307E+00	0.000E+00	NOT IDENT.
PM-146	-7.891E-02	6.745E-02	9.154E-02	0.000E+00	NOT IDENT.
ND-147	5.582E-01	1.052E+00	1.815E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	8.460E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-8.195E-02	1.534E-01	2.165E-01	0.000E+00	NOT IDENT.
GD-153	-2.653E-02	1.401E-01	2.067E-01	0.000E+00	NOT IDENT.
EU-154	7.334E-02	1.799E-01	3.072E-01	0.000E+00	NOT IDENT.
EU-155	-6.400E-03	1.510E-01	2.559E-01	0.000E+00	FAIL ABUN
TB-160	5.935E-04	1.925E-01	3.248E-01	0.000E+00	FAIL ABUN
HO-166M	1.007E-02	7.605E-02	1.313E-01	0.000E+00	NOT IDENT.
TA-182	3.573E-01	2.689E-01	4.927E-01	0.000E+00	FAIL ABUN
IR-192	2.477E-02	4.921E-02	8.633E-02	0.000E+00	FAIL ABUN
BI-207	4.398E-03	6.766E-02	1.134E-01	0.000E+00	FAIL ABUN
PB-210	1.097E+01	1.421E+01	2.504E+01	0.000E+00	NOT IDENT.
PB-211	-2.221E-01	1.035E+00	1.717E+00	0.000E+00	NOT IDENT.
BI-212	1.252E+00	1.231E+00	1.582E+00	0.000E+00	FAIL ABUN
RN-219	4.336E-01	5.933E-01	1.038E+00	0.000E+00	FAIL ABUN
RA-223	3.168E-01	9.747E-01	1.480E+00	0.000E+00	FAIL ABUN
AC-227	6.478E-02	3.493E-01	6.084E-01	0.000E+00	FAIL ABUN
TH-227	6.478E-02	3.493E-01	6.084E-01	0.000E+00	FAIL ABUN
TH-229	-6.639E-01	8.125E-01	1.240E+00	0.000E+00	FAIL ABUN
PA-231	-4.166E-01	2.201E+00	3.536E+00	0.000E+00	FAIL ABUN
TH-231	3.168E-01	9.747E-01	1.480E+00	0.000E+00	FAIL ABUN
PA-233	-2.893E-02	8.506E-02	1.428E-01	0.000E+00	FAIL ABUN
PA-234	-4.464E-01	4.110E-01	6.038E-01	0.000E+00	NOT IDENT.
PA-234M	1.947E+00	6.400E+00	1.092E+01	0.000E+00	NOT IDENT.
TH-234	1.670E+00	2.736E+00	4.791E+00	0.000E+00	FAIL ABUN
U-238	1.670E+00	2.736E+00	4.791E+00	0.000E+00	FAIL ABUN
NP-239	-3.164E-01	5.563E-01	9.170E-01	0.000E+00	FAIL ABUN
AM-241	-1.635E-01	3.486E-01	5.920E-01	0.000E+00	NOT IDENT.
CM-247	1.613E-02	5.354E-02	9.197E-02	0.000E+00	FAIL ABUN

CF-249	2.532E-02	5.817E-02	1.008E-01	0.000E+00 NOT IDENT.
CF-251	-6.371E-02	1.901E-01	3.112E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 14:25:41.27

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248702002.CNF;1
Sample date       : 2-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 12:23:52
Sample ID         : G248702002           Sample quantity  : 1.13610E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.28  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	907	10.66*	9.663E-01	2.909E+01	2.909E+01	12.08
CD-109	88.03	109	3.70*	4.437E+00	2.198E+00	2.269E+00	66.48
SN-126	64.28	------	9.60	1.941E+00	------ Line Not Found		------
	86.94	109	8.90	4.437E+00	9.139E-01	9.139E-01	77.82
	87.57	109	37.00*	4.437E+00	2.198E-01	2.198E-01	66.48
HG-203	70.83	------	3.69	2.755E+00	------ Line Not Found		------
	72.87	------	6.19	3.001E+00	------ Line Not Found		------
	279.20	43	81.56*	3.700E+00	4.752E-02	6.500E-02	120.97
TL-208	277.37	43	6.60	3.700E+00	5.872E-01	5.872E-01	121.30
	583.19	378	85.00*	2.190E+00	6.710E-01	6.710E-01	17.93
	860.56	63	12.50	1.575E+00	1.050E+00	1.050E+00	59.47
BI-211	72.87	------	1.23	3.001E+00	------ Line Not Found		------
	351.06	493	12.92*	3.141E+00	4.017E+00	4.017E+00	17.10
PB-212	74.82	289	10.28	3.249E+00	2.860E+00	2.860E+00	35.45
	77.11	441	17.10	3.510E+00	2.430E+00	2.430E+00	21.67
	238.63	1321	43.60*	4.114E+00	2.433E+00	2.433E+00	13.75
	300.09	65	3.30	3.503E+00	1.849E+00	1.849E+00	89.19
BI-214	609.32	430	45.49*	2.117E+00	1.475E+00	1.475E+00	18.69
	1120.29	108	14.92	1.226E+00	1.956E+00	1.956E+00	38.97
	1764.49	70	15.30	8.555E-01	1.764E+00	1.764E+00	35.93
PB-214	74.82	289	5.80	3.249E+00	5.070E+00	5.070E+00	35.00
	77.11	441	9.70	3.510E+00	4.284E+00	4.285E+00	23.19
	242.00	288	7.25	4.080E+00	3.214E+00	3.214E+00	36.87
	295.22	287	18.42	3.546E+00	1.452E+00	1.452E+00	24.49
	351.93	493	35.60*	3.141E+00	1.458E+00	1.458E+00	17.97
RA-224	240.99	288	4.10*	4.080E+00	5.684E+00	5.684E+00	36.41
RA-226	609.32	430	45.49*	2.117E+00	1.475E+00	1.475E+00	18.69
	1120.29	108	14.92	1.226E+00	1.956E+00	1.956E+00	38.97
	1764.49	70	15.30	8.555E-01	1.764E+00	1.764E+00	35.93
AC-228	338.32	283	11.27	3.227E+00	2.573E+00	2.573E+00	49.46
	911.20	283	25.80*	1.494E+00	2.422E+00	2.422E+00	23.47
	968.97	137	15.80	1.410E+00	2.028E+00	2.028E+00	41.33

Sample ID : G248702002 Acquisition date : 23-MAR-2010 12:23:52

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	283	11.27	3.227E+00	2.573E+00	2.573E+00	49.46
	911.20	283	25.80*	1.494E+00	2.422E+00	2.422E+00	23.47
	968.97	137	15.80	1.410E+00	2.028E+00	2.028E+00	41.33
TH-228	74.82	289	10.28	3.249E+00	2.860E+00	2.860E+00	34.11
	77.11	441	17.10	3.510E+00	2.430E+00	2.430E+00	21.67
	238.63	1321	43.60*	4.114E+00	2.433E+00	2.433E+00	13.75
	300.09	65	3.30	3.503E+00	1.849E+00	1.849E+00	107.67
TH-230	609.32	430	45.49*	2.117E+00	1.475E+00	1.475E+00	17.94
	1120.29	108	14.92	1.226E+00	1.956E+00	1.956E+00	38.39
	1764.49	70	15.30	8.555E-01	1.764E+00	1.764E+00	35.93
TH-232	338.32	283	11.27	3.227E+00	2.573E+00	2.573E+00	27.94
	911.20	283	25.80*	1.494E+00	2.422E+00	2.422E+00	23.47
	968.97	137	15.80	1.410E+00	2.028E+00	2.028E+00	41.33
U-235	89.96	89	3.47	4.645E+00	1.821E+00	1.821E+00	49.80
	93.35	110	5.60	4.842E+00	1.339E+00	1.339E+00	75.52
	143.76	------	10.96*	5.506E+00	------ Line Not Found		------
	163.33	------	5.08	5.224E+00	------ Line Not Found		------
	185.72	211	57.20	4.858E+00	2.511E-01	2.511E-01	39.31
	205.31	------	5.01	4.560E+00	------ Line Not Found		------
NP-237	86.48	109	12.40*	4.437E+00	6.560E-01	6.560E-01	69.71
	95.86	------	2.68	5.004E+00	------ Line Not Found		------
ANH-511	511.00	100	100.00*	2.420E+00	1.370E-01	1.370E-01	63.39

Flag: "*" = Keyline

Sample ID : G248702002 Acquisition date : 23-MAR-2010 12:23:52

Total number of lines in spectrum 31
Number of unidentified lines 4
Number of lines tentatively identified by NID 27 87.10%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	2.909E+01	2.909E+01	0.351E+01	12.08	
CD-109	461.40D	1.03	2.198E+00	2.269E+00	1.508E+00	66.48	
SN-126	2.30E+05Y	1.00	2.198E-01	2.198E-01	1.462E-01	66.48	
HG-203	46.59D	1.37	4.752E-02	6.500E-02	7.863E-02	120.97	
TL-208	1.41E+10Y	1.00	6.710E-01	6.710E-01	1.203E-01	17.93	
BI-211	7.04E+08Y	1.00	4.017E+00	4.017E+00	0.687E+00	17.10	
PB-212	1.41E+10Y	1.00	2.433E+00	2.433E+00	0.334E+00	13.75	
BI-214	1600.00Y	1.00	1.475E+00	1.475E+00	0.276E+00	18.69	
PB-214	1600.00Y	1.00	1.458E+00	1.458E+00	0.262E+00	17.97	
RA-224	1.41E+10Y	1.00	5.684E+00	5.684E+00	2.069E+00	36.41	
RA-226	1600.00Y	1.00	1.475E+00	1.475E+00	0.276E+00	18.69	
AC-228	1.41E+10Y	1.00	2.422E+00	2.422E+00	0.568E+00	23.47	
RA-228	1.41E+10Y	1.00	2.422E+00	2.422E+00	0.568E+00	23.47	
TH-228	1.41E+10Y	1.00	2.433E+00	2.433E+00	0.334E+00	13.75	
TH-230	7.54E+04Y	1.00	1.475E+00	1.475E+00	0.265E+00	17.94	
TH-232	1.41E+10Y	1.00	2.422E+00	2.422E+00	0.568E+00	23.47	
U-235	7.04E+08Y	1.00	2.511E-01	2.511E-01	0.987E-01	39.31	K
NP-237	2.14E+06Y	1.00	6.560E-01	6.560E-01	4.573E-01	69.71	
ANH-511	1.00E+09Y	1.00	1.370E-01	1.370E-01	0.868E-01	63.39	
			---	---			
	Total Activity :		6.098E+01	6.107E+01			

Grand Total Activity : 6.098E+01 6.107E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G248702002 Acquisition date : 23-MAR-2010 12:23:52

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.12	146	485	1.58	257.15	251	14	2.03E-02	66.1	5.63E+00	
0	209.23	109	228	1.64	417.36	414	8	1.52E-02	51.7	4.50E+00	
0	270.52	92	356	1.78	539.94	531	16	1.28E-02	94.1	3.77E+00	T
0	328.08	109	159	1.46	655.07	649	12	1.51E-02	50.2	3.30E+00	T
0	463.77	75	157	2.15	926.44	915	17	1.04E-02	80.0	2.59E+00	T
0	727.94	46	109	1.11	1454.83	1448	12	6.42E-03	99.6	1.83E+00	T
0	795.33	62	52	2.07	1589.62	1584	12	8.62E-03	54.4	1.69E+00	T
0	1377.09	51	15	1.37	2753.39	2746	15	7.08E-03	43.4	1.01E+00	
0	1587.97	27	12	1.16	3175.30	3166	13	3.70E-03	66.7	9.09E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 14:25:45.90

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248702002.CNF;1   *
* Acquisition date : 23-MAR-2010 12:23:52  Detector SN#    :                 *
* Detector ID      : GAM15                 Sensitivity     : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000         *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000        *
* Elapsed real time: 0 02:00:01.28         Half life ratio : 8.00000         *
*****************************************************************************
*                                                                            *
*                                SAMPLE DATA                                 *
*                                                                            *
* Sample date      : 2-MAR-2010 12:00:00.  Nuclide Library : SOLID           *
* Sample ID        : G248702002            Analyst initials: MXR1            *
* Batch Number     : 962631                Sample Quantity : 1.13610E+02 GRAM *
*****************************************************************************
*                                                                            *
*                                  QC DATA                                   *
*                                                                            *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                 *
* MSD ID           :                       MSD Isotope     :                 *
* LCS ID           : 1032-A                LCS Isotope     :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.909E+01	3.513E+00	6.973E-01	6.852E-02	41.712
CD-109	2.269E+00	1.508E+00	2.171E+00	2.695E-01	1.045
SN-126	2.198E-01	1.462E-01	2.172E-01	2.688E-02	1.012
HG-203	6.500E-02	7.863E-02	9.817E-02	1.079E-02	0.662
TL-208	6.710E-01	1.203E-01	7.979E-02	7.298E-03	8.409
BI-211	4.017E+00	6.871E-01	4.286E-01	4.269E-02	9.372
PB-212	2.433E+00	3.344E-01	1.265E-01	1.512E-02	19.230
BI-214	1.475E+00	2.758E-01	1.514E-01	1.508E-02	9.745
PB-214	1.458E+00	2.620E-01	1.697E-01	1.928E-02	8.594
RA-224	5.684E+00	2.069E+00	1.356E+00	1.495E-01	4.193
RA-226	1.475E+00	2.758E-01	1.514E-01	1.508E-02	9.745
AC-228	2.422E+00	5.685E-01	3.383E-01	4.098E-02	7.159
RA-228	2.422E+00	5.685E-01	3.383E-01	4.098E-02	7.159
TH-228	2.433E+00	3.344E-01	1.265E-01	1.512E-02	19.230
TH-230	1.475E+00	2.646E-01	1.514E-01	1.279E-02	9.745
TH-232	2.422E+00	5.685E-01	3.383E-01	4.098E-02	7.159
U-235	2.511E-01	9.871E-02	4.624E-01	8.228E-02	0.543
NP-237	6.560E-01	4.573E-01	6.075E-01	1.476E-01	1.080

Sample ID : G248702002 Acquisition date : 23-MAR-2010 12:23:52

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	1.370E-01	8.683E-02	6.724E-02	5.810E-03	2.037

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.737E-01		4.878E-01	7.627E-01	7.089E-02	-0.359
NA-22	2.703E-02		6.506E-02	1.094E-01	9.940E-03	0.247
NA-24	-3.410E+02		3.394E+02	Half-Life too short		
SC-46	-3.893E-02		5.048E-02	7.645E-02	7.104E-03	-0.509
V-48	5.037E-02		1.206E-01	2.059E-01	1.882E-02	0.245
CR-51	5.685E-02		6.204E-01	1.008E+00	1.070E-01	0.056
MN-54	-3.390E-02		5.467E-02	8.611E-02	7.815E-03	-0.394
CO-56	-3.835E-02		5.705E-02	8.874E-02	8.097E-03	-0.432
CO-57	1.405E-02		3.839E-02	6.045E-02	6.089E-03	0.232
CO-58	-1.197E-02		5.366E-02	8.730E-02	7.849E-03	-0.137
FE-59	-5.301E-02		1.360E-01	2.130E-01	1.987E-02	-0.249
CO-60	5.727E-03		5.486E-02	8.953E-02	8.607E-03	0.064
ZN-65	1.427E-02		1.403E-01	1.986E-01	1.697E-02	0.072
SE-75	-1.243E-02		7.579E-02	1.090E-01	1.196E-02	-0.114
SR-85	1.330E-01		6.497E-02	1.064E-01	9.192E-03	1.250
Y-88	1.886E-02		4.102E-02	7.382E-02	6.217E-03	0.256
Y-91	1.031E+01		3.261E+01	5.439E+01	4.585E+00	0.190
NB-94	3.762E-03		4.398E-02	7.405E-02	6.252E-03	0.051
NB-95	5.738E-02		6.186E-02	1.094E-01	9.589E-03	0.524
NB-95M	5.605E-01		2.407E-01	3.791E-01	4.568E-02	1.478
ZR-95	-5.904E-02		9.925E-02	1.568E-01	1.507E-02	-0.377
MO-99	-4.616E+00		7.462E+01	1.239E+02	1.953E+01	-0.037
TC-99M	-1.918E+17		3.371E+17	Half-Life too short		
RU-103	3.846E-02		5.778E-02	9.834E-02	1.375E-02	0.391
RH-106	3.813E-01		4.372E-01	7.480E-01	9.811E-02	0.510
RU-106	3.813E-01		4.355E-01	7.480E-01	6.286E-02	0.510
AG-108M	-1.108E-02		3.976E-02	6.384E-02	5.642E-03	-0.174
AG-110M	3.262E-02		4.180E-02	7.437E-02	6.329E-03	0.439
SN-113	6.093E-02		6.846E-02	1.180E-01	1.025E-02	0.516
CD-115	-8.245E-05		4.775E-05	Half-Life too short		
SN-117M	-1.276E-02		1.138E-01	1.825E-01	1.913E-02	-0.070
TE-123M	-2.525E-02		4.553E-02	7.158E-02	7.543E-03	-0.353
SB-124	-6.137E-03		1.259E-01	2.060E-01	1.941E-02	-0.030
SB-125	1.027E-01		1.260E-01	2.168E-01	1.887E-02	0.474
TE-125M	-1.124E-01		1.518E+01	2.475E+01	2.944E+00	-0.005
I-126	4.496E-01		4.274E-01	7.639E-01	6.300E-02	0.588
SB-126	-5.809E-03		3.104E-01	4.461E-01	3.808E-02	-0.013
SB-127	1.296E+00		5.201E+00	8.866E+00	1.161E+00	0.146
I-131	-1.997E-01		2.585E-01	4.045E-01	3.923E-02	-0.494
TE-132	-5.893E-01		3.812E+00	6.369E+00	1.176E+00	-0.093
BA-133	1.516E-02		6.899E-02	1.006E-01	1.359E-02	0.151
I-133	1.422E-01		4.461E-01	Half-Life too short		

Sample ID : G248702002 Acquisition date : 23-MAR-2010 12:23:52

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-134	1.607E-01	+	8.854E-02	1.248E-01	1.119E-02	1.287
CS-135	2.862E-01		2.460E-01	4.076E-01	4.891E-02	0.702
I-135	-9.510E+15		1.350E+16	Half-Life too short		
CS-136	-1.313E-01		2.174E-01	3.352E-01	3.102E-02	-0.392
BA-137M	-5.481E-02		4.838E-02	7.402E-02	6.086E-03	-0.740
CS-137	-5.790E-02		5.111E-02	7.820E-02	6.442E-03	-0.740
CE-139	-1.591E-02		4.704E-02	7.238E-02	7.726E-03	-0.220
BA-140	-1.114E-01		5.269E-01	8.385E-01	2.844E-01	-0.133
LA-140	-6.869E-02		1.636E-01	2.547E-01	2.387E-02	-0.270
CE-141	7.578E-02		1.026E-01	1.703E-01	1.760E-02	0.445
CE-143	1.763E-02		3.231E-03	Half-Life too short		
CE-144	8.892E-02		3.287E-01	4.637E-01	7.482E-02	0.192
PM-144	1.441E-02		4.912E-02	8.384E-02	7.055E-03	0.172
PR-144	1.078E+00		3.687E+00	6.293E+00	5.292E-01	0.171
PM-146	-7.891E-02		6.883E-02	9.098E-02	9.621E-03	-0.867
ND-147	5.582E-01		1.073E+00	1.806E+00	2.701E-01	0.309
PM-149	-8.969E-05		4.316E-04	Half-Life too short		
EU-152	-8.195E-02		1.566E-01	2.147E-01	2.185E-02	-0.382
GD-153	-2.653E-02		1.429E-01	2.027E-01	2.237E-02	-0.131
EU-154	7.334E-02		1.836E-01	3.082E-01	3.614E-02	0.238
EU-155	-6.400E-03		1.541E-01	2.511E-01	2.645E-02	-0.025
TB-160	5.935E-04		1.964E-01	3.248E-01	3.006E-02	0.002
HO-166M	1.007E-02		7.760E-02	1.310E-01	1.113E-02	0.077
TA-182	3.573E-01		2.744E-01	4.940E-01	4.240E-02	0.723
IR-192	2.477E-02		5.022E-02	8.553E-02	8.819E-03	0.290
BI-207	4.398E-03		6.904E-02	1.136E-01	1.002E-02	0.039
PB-210	1.097E+01		1.450E+01	2.440E+01	3.004E+00	0.450
PB-211	-2.221E-01		1.056E+00	1.705E+00	8.245E-01	-0.130
BI-212	1.252E+00	+	1.256E+00	1.579E+00	1.962E-01	0.793
RN-219	4.336E-01		6.054E-01	1.030E+00	1.522E-01	0.421
RA-223	3.168E-01		9.946E-01	1.466E+00	2.661E-01	0.216
AC-227	6.478E-02		3.564E-01	6.016E-01	8.326E-02	0.108
TH-227	6.478E-02		3.564E-01	6.016E-01	9.152E-02	0.108
TH-229	-6.639E-01		8.291E-01	1.224E+00	1.331E-01	-0.543
PA-231	-4.166E-01		2.246E+00	3.500E+00	5.582E-01	-0.119
TH-231	3.168E-01		9.946E-01	1.466E+00	2.661E-01	0.216
PA-233	-2.893E-02		8.679E-02	1.414E-01	1.497E-02	-0.205
PA-234	-4.464E-01		4.194E-01	6.041E-01	1.151E-01	-0.739
PA-234M	1.947E+00		6.530E+00	1.094E+01	1.134E+00	0.178
TH-234	1.670E+00		2.792E+00	4.681E+00	9.281E-01	0.357
U-238	1.670E+00		2.792E+00	4.681E+00	9.281E-01	0.357
NP-239	-3.164E-01		5.677E-01	9.007E-01	9.091E-02	-0.351
AM-241	-1.635E-01		3.557E-01	5.781E-01	6.785E-02	-0.283
CM-247	1.613E-02		5.464E-02	9.132E-02	7.723E-03	0.177
CF-249	2.532E-02		5.935E-02	1.000E-01	8.525E-03	0.253
CF-251	-6.371E-02		1.940E-01	3.068E-01	3.301E-02	-0.208

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248702002            *
* Acquisition date : 23-MAR-2010 12:23:52 Detector SN#    :                 *
* Detector ID      : GAM15                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.28     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  2-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248702002           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.1361E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.909E+01	3.443E+00	3.473E-01	1.757E+00
CD-109	2.269E+00	1.478E+00	1.109E+00	7.542E-01
SN-126	2.198E-01	1.432E-01	1.109E-01	7.308E-02
HG-203	6.500E-02	7.706E-02	4.963E-02	3.931E-02
TL-208	6.710E-01	1.179E-01	4.007E-02	6.015E-02
BI-211	4.017E+00	6.734E-01	2.162E-01	3.436E-01
PB-212	2.433E+00	3.277E-01	6.404E-02	1.672E-01
BI-214	1.475E+00	2.703E-01	7.599E-02	1.379E-01
PB-214	1.458E+00	2.568E-01	8.559E-02	1.310E-01
RA-224	5.684E+00	2.028E+00	6.861E-01	1.035E+00
RA-226	1.475E+00	2.703E-01	7.599E-02	1.379E-01
AC-228	2.422E+00	5.571E-01	1.692E-01	2.842E-01
RA-228	2.422E+00	5.571E-01	1.692E-01	2.842E-01
TH-228	2.433E+00	3.277E-01	6.404E-02	1.672E-01
TH-230	1.475E+00	2.593E-01	7.599E-02	1.323E-01
TH-232	2.422E+00	5.571E-01	1.692E-01	2.842E-01
U-235	-1.734E-01	2.931E-01	2.351E-01	1.495E-01
NP-237	6.560E-01	4.481E-01	3.103E-01	2.286E-01
ANH-511	1.370E-01	8.509E-02	3.381E-02	4.342E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.737E-01	4.781E-01	3.837E-01	2.439E-01	NOT IDENT.
NA-22	2.703E-02	6.376E-02	5.457E-02	3.253E-02	NOT IDENT.
NA-24	-3.410E+08	6.653E+08	0.000E+00	3.394E+08	SHORT HLIF
SC-46	-3.893E-02	4.947E-02	3.825E-02	2.524E-02	FAIL ABUN
V-48	5.037E-02	1.182E-01	1.029E-01	6.029E-02	NOT IDENT.
CR-51	5.685E-02	6.079E-01	5.090E-01	3.102E-01	NOT IDENT.
MN-54	-3.390E-02	5.358E-02	4.311E-02	2.733E-02	NOT IDENT.
CO-56	-3.835E-02	5.591E-02	4.442E-02	2.852E-02	NOT IDENT.

CO-57	1.405E-02	3.762E-02	3.078E-02	1.919E-02	NOT IDENT.
CO-58	-1.197E-02	5.258E-02	4.371E-02	2.683E-02	NOT IDENT.
FE-59	-5.301E-02	1.333E-01	1.063E-01	6.800E-02	NOT IDENT.
CO-60	5.727E-03	5.376E-02	4.463E-02	2.743E-02	NOT IDENT.
ZN-65	1.427E-02	1.375E-01	9.916E-02	7.014E-02	NOT IDENT.
SE-75	-1.243E-02	7.428E-02	5.514E-02	3.790E-02	NOT IDENT.
SR-85	1.330E-01	6.367E-02	5.350E-02	3.248E-02	NOT IDENT.
Y-88	1.886E-02	4.020E-02	3.669E-02	2.051E-02	NOT IDENT.
Y-91	1.031E+01	3.196E+01	2.714E+01	1.631E+01	NOT IDENT.
NB-94	3.762E-03	4.311E-02	3.713E-02	2.199E-02	NOT IDENT.
NB-95	5.738E-02	6.062E-02	5.483E-02	3.093E-02	NOT IDENT.
NB-95M	5.605E-01	2.359E-01	1.920E-01	1.204E-01	NOT IDENT.
ZR-95	-5.904E-02	9.726E-02	7.857E-02	4.962E-02	NOT IDENT.
MO-99	-4.616E+00	7.313E+01	6.209E+01	3.731E+01	NOT IDENT.
TC-99M	-1.918E+23	6.607E+23	0.000E+00	0.000E+00	SHORT HLIF
RU-103	3.846E-02	5.663E-02	4.946E-02	2.889E-02	FAIL ABUN
RH-106	3.813E-01	4.284E-01	3.754E-01	2.186E-01	NOT IDENT.
RU-106	3.813E-01	4.268E-01	3.754E-01	2.177E-01	NOT IDENT.
AG-108M	-1.108E-02	3.896E-02	3.215E-02	1.988E-02	NOT IDENT.
AG-110M	3.262E-02	4.096E-02	3.731E-02	2.090E-02	NOT IDENT.
SN-113	6.093E-02	6.709E-02	5.946E-02	3.423E-02	NOT IDENT.
CD-115	-8.245E+01	9.359E+01	0.000E+00	4.775E+01	SHORT HLIF
SN-117M	-1.276E-02	1.115E-01	9.270E-02	5.688E-02	NOT IDENT.
TE-123M	-2.525E-02	4.462E-02	3.636E-02	2.276E-02	NOT IDENT.
SB-124	-6.137E-03	1.234E-01	1.025E-01	6.296E-02	NOT IDENT.
SB-125	1.027E-01	1.234E-01	1.092E-01	6.298E-02	FAIL ABUN
TE-125M	-1.124E-01	1.488E+01	1.261E+01	7.592E+00	NOT IDENT.
I-126	4.496E-01	4.188E-01	3.832E-01	2.137E-01	NOT IDENT.
SB-126	-5.809E-03	3.041E-01	2.236E-01	1.552E-01	NOT IDENT.
SB-127	1.296E+00	5.097E+00	4.446E+00	2.600E+00	NOT IDENT.
I-131	-1.997E-01	2.533E-01	2.040E-01	1.292E-01	NOT IDENT.
TE-132	-5.893E-01	3.736E+00	3.225E+00	1.906E+00	NOT IDENT.
BA-133	1.516E-02	6.761E-02	5.073E-02	3.450E-02	FAIL ABUN
I-133	1.422E+05	8.743E+05	0.000E+00	4.461E+05	SHORT HLIF
CS-134	1.607E-01	8.677E-02	6.251E-02	4.427E-02	FAIL ABUN
CS-135	2.862E-01	2.411E-01	2.061E-01	1.230E-01	NOT IDENT.
I-135	-9.510E+21	2.647E+22	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.313E-01	2.131E-01	1.675E-01	1.087E-01	NOT IDENT.
BA-137M	-5.481E-02	4.741E-02	3.713E-02	2.419E-02	NOT IDENT.
CS-137	-5.790E-02	5.008E-02	3.923E-02	2.555E-02	NOT IDENT.
CE-139	-1.591E-02	4.609E-02	3.676E-02	2.352E-02	NOT IDENT.
BA-140	-1.114E-01	5.164E-01	4.214E-01	2.635E-01	NOT IDENT.
LA-140	-6.869E-02	1.603E-01	1.267E-01	8.178E-02	FAIL ABUN
CE-141	7.578E-02	1.006E-01	8.657E-02	5.131E-02	NOT IDENT.
CE-143	1.763E+04	6.332E+03	0.000E+00	3.231E+03	SHORT HLIF
CE-144	8.892E-02	3.221E-01	2.359E-01	1.644E-01	NOT IDENT.
PM-144	1.441E-02	4.814E-02	4.204E-02	2.456E-02	NOT IDENT.
PR-144	1.078E+00	3.614E+00	3.155E+00	1.844E+00	NOT IDENT.
PM-146	-7.891E-02	6.745E-02	4.579E-02	3.441E-02	NOT IDENT.
ND-147	5.582E-01	1.052E+00	9.079E-01	5.366E-01	FAIL ABUN
PM-149	-8.969E+01	8.460E+02	0.000E+00	4.316E+02	SHORT HLIF
EU-152	-8.195E-02	1.534E-01	1.083E-01	7.828E-02	NOT IDENT.
GD-153	-2.653E-02	1.401E-01	1.034E-01	7.146E-02	NOT IDENT.
EU-154	7.334E-02	1.799E-01	1.537E-01	9.179E-02	NOT IDENT.
EU-155	-6.400E-03	1.510E-01	1.280E-01	7.706E-02	FAIL ABUN
TB-160	5.935E-04	1.925E-01	1.625E-01	9.822E-02	FAIL ABUN
HO-166M	1.007E-02	7.605E-02	6.570E-02	3.880E-02	NOT IDENT.
TA-182	3.573E-01	2.689E-01	2.465E-01	1.372E-01	FAIL ABUN
IR-192	2.477E-02	4.921E-02	4.319E-02	2.511E-02	FAIL ABUN
BI-207	4.398E-03	6.766E-02	5.673E-02	3.452E-02	FAIL ABUN
PB-210	1.097E+01	1.421E+01	1.253E+01	7.249E+00	NOT IDENT.
PB-211	-2.221E-01	1.035E+00	8.589E-01	5.280E-01	NOT IDENT.
BI-212	1.252E+00	1.231E+00	7.914E-01	6.281E-01	FAIL ABUN
RN-219	4.336E-01	5.933E-01	5.191E-01	3.027E-01	FAIL ABUN
RA-223	3.168E-01	9.747E-01	7.403E-01	4.973E-01	FAIL ABUN
AC-227	6.478E-02	3.493E-01	3.044E-01	1.782E-01	FAIL ABUN
TH-227	6.478E-02	3.493E-01	3.044E-01	1.782E-01	FAIL ABUN
TH-229	-6.639E-01	8.125E-01	6.205E-01	4.145E-01	FAIL ABUN
PA-231	-4.166E-01	2.201E+00	1.769E+00	1.123E+00	FAIL ABUN
TH-231	3.168E-01	9.747E-01	7.403E-01	4.973E-01	FAIL ABUN
PA-233	-2.893E-02	8.506E-02	7.143E-02	4.340E-02	FAIL ABUN
PA-234	-4.464E-01	4.110E-01	3.021E-01	2.097E-01	NOT IDENT.
PA-234M	1.947E+00	6.400E+00	5.466E+00	3.265E+00	NOT IDENT.
TH-234	1.670E+00	2.736E+00	2.397E+00	1.396E+00	FAIL ABUN
U-238	1.670E+00	2.736E+00	2.397E+00	1.396E+00	FAIL ABUN
NP-239	-3.164E-01	5.563E-01	4.588E-01	2.838E-01	FAIL ABUN
AM-241	-1.635E-01	3.486E-01	2.962E-01	1.778E-01	NOT IDENT.
CM-247	1.613E-02	5.354E-02	4.601E-02	2.732E-02	FAIL ABUN

CF-249	2.532E-02	5.817E-02	5.041E-02	2.968E-02	NOT IDENT.
CF-251	-6.371E-02	1.901E-01	1.557E-01	9.701E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	272.0543
49.72	316.5785
57.36	0.0000
59.54	367.2235
63.29	348.7571
63.29	348.7571
64.28	370.7812
67.75	412.9232
69.67	383.2708
70.83	418.6334
72.81	380.1563
72.87	380.1863
72.87	380.1863
74.82	407.9741
74.82	407.9741
74.82	407.9741
74.97	408.0556
77.11	409.1970
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77.11	409.1970
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81.00	542.7083
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81.07	542.7559
83.79	409.6529
83.79	409.6529
85.43	397.5985
86.48	460.9638
86.55	461.0039
86.79	498.2191
86.94	541.8533
87.57	545.4912
88.03	519.9561
88.47	541.2324
89.96	542.1893
91.11	372.7533
92.59	373.3962
92.59	373.3962
93.35	339.6020
94.67	351.5102
94.87	348.3351
94.87	348.3351
95.86	381.3197
97.43	346.0825
98.44	346.7080
99.53	341.5771
100.11	323.3761
103.18	351.1624
103.37	349.1815
105.31	341.6797
106.12	347.1257
109.28	343.1210
111.00	344.7718
111.76	345.0437
116.30	307.0895
117.23	327.1748
121.12	315.8890
121.78	294.2635
122.06	295.5415
123.07	293.4369
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144.24	327.0347
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153.25	332.8271
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154.21	310.4604
156.02	343.3241
158.56	351.6279
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163.33	330.2015
165.86	324.3483
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184.41	298.6031
185.72	309.5099
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215.65	296.1364
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227.38	300.5006
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228.18	268.7716
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235.96	270.1364
235.96	270.1364
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238.63	218.3139
240.99	218.6422
242.00	218.7831
244.70	207.1857
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252.80	207.3066
256.23	204.9612
256.23	204.9612
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268.22	206.6765
269.46	206.8277
269.46	206.8277
271.23	207.0438
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276.40	197.1108
277.37	210.6375
277.60	209.3258
278.00	219.6057
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279.54	186.4992
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283.69	207.3645
284.31	199.0583
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285.90	0.0000
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293.27	0.0000
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295.96	199.3103
298.57	199.6000
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299.98	163.2908
300.09	163.3013
300.09	163.3013
300.13	163.3055
301.36	158.6548
302.85	158.7850
304.50	154.1596
304.50	154.1596
304.85	154.1892
308.46	150.0316
311.90	157.9686

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323.87	147.7312
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334.37	158.2232
334.37	158.2232
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338.28	171.8036
338.32	171.8080
338.32	171.8080
338.32	171.8080
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340.55	153.8618
344.28	160.6414
351.06	128.6225
351.93	152.4580
356.01	150.1532
364.49	138.6471
366.42	132.8708
383.85	146.8727
388.16	144.1840
388.63	154.1599
391.69	133.4618
400.66	133.0098
401.81	136.0797
402.40	140.1196
404.85	150.2948
410.95	116.5452
414.70	137.8730
423.72	123.2644
427.09	105.2314
427.87	104.2548
433.94	112.6463
453.88	141.8158
463.37	103.7704
468.07	92.6455
473.00	75.2964
476.78	112.6005
477.60	116.7699
487.02	103.7256
492.35	0.0000
497.08	80.1845
511.00	112.0267
514.00	89.0949
527.90	0.0000
529.87	0.0000
531.02	78.0649
537.26	103.6226
546.56	0.0000
563.25	119.5496
569.33	105.9029
569.50	109.1196
569.70	95.2187
583.19	93.5208
600.60	98.6819
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609.32	90.0254
609.32	90.0254
609.32	90.0254
610.33	90.0578
614.28	70.6208
618.01	101.0139
621.93	70.8018
621.93	70.8018
633.25	90.7488
635.95	86.4506
636.99	74.4398
645.85	88.9280
657.76	56.0234
661.66	102.9902
661.66	102.9902
664.57	0.0000
666.33	80.1199
666.50	80.1252

677.62	79.4825
685.70	78.7571
695.00	89.2051
696.49	90.1757
696.51	90.1757
697.00	82.7512
702.65	80.1001
706.68	81.1324
711.68	70.9810
720.70	78.6680
721.93	0.0000
722.78	85.1416
722.91	85.1453
723.31	86.7631
724.19	93.2143
727.33	74.1316
733.00	69.2886
735.93	73.8936
739.50	77.2253
747.24	83.0640
752.31	61.4453
753.82	54.8517
756.73	74.7761
763.94	87.2626
765.81	74.0232
766.42	74.9851
777.92	72.3741
778.90	70.4891
783.70	63.9084
785.37	62.0298
795.86	55.7872
801.95	65.7436
810.29	65.3465
810.76	63.4326
815.77	56.7829
818.51	69.3472
832.01	70.5687
834.85	90.9382
836.80	0.0000
846.77	73.7611
856.80	78.4076
860.56	50.0966
871.09	57.6316
873.19	46.9121
875.33	0.0000
879.36	57.7564
880.51	57.7732
883.24	42.1357
884.68	42.1514
889.28	55.9424
898.04	56.0676
911.20	72.0480
911.20	72.0480
911.20	72.0480
926.50	59.4458
937.49	66.5638
944.13	59.7070
946.00	69.6895
949.00	52.8048
962.29	89.1030
964.08	87.4286
966.15	82.3259
968.97	72.0850
968.97	72.0850
968.97	72.0850
983.53	47.2209
996.26	66.5116
1001.03	52.4623
1004.73	63.6152
1037.84	43.7559
1038.76	0.0000
1048.07	70.3785
1050.41	57.1507
1050.41	57.1507
1063.66	49.1328
1085.87	60.6949
1099.45	57.7819
1112.07	45.0098

1115.54	55.0285
1120.29	61.1558
1120.29	61.1558
1120.29	61.1558
1120.55	61.1606
1121.30	51.5430
1131.51	0.0000
1173.23	57.6587
1177.93	53.5193
1189.05	66.2659
1204.77	60.1497
1221.41	45.5318
1231.02	64.7182
1235.36	61.5896
1238.28	57.3750
1260.41	0.0000
1271.85	51.3438
1274.44	49.2288
1274.54	49.2306
1291.59	46.1739
1298.22	0.0000
1312.11	37.7344
1332.49	34.6354
1365.19	29.8717
1368.63	0.0000
1384.29	31.1487
1408.01	16.9365
1457.56	0.0000
1460.82	21.8489
1489.16	28.6419
1505.03	28.7214
1596.21	23.0379
1620.50	13.6680
1678.03	0.0000
1690.97	19.7496
1764.49	10.9885
1764.49	10.9885
1764.49	10.9885
1770.23	13.9976
1771.35	48.0000
1791.20	0.0000
1836.06	8.0790

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248702002

Total Uranium Activity	4.8891E+00	ug/g
Total Uranium Counting Unc.	8.1418E+00	ug/g
Total Uranium Tpu	4.1540E-06	ug/g
Total Uranium Mda	7.1314E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962631                    SAMPLE ID  : G248702002       *
*   ANALYST       : MXR1                      DETECTOR   : GAM15            *
*   SAMPLE DATE   :  2-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 12:23:52.17    SAMPLE ALQT:  113.610 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.058E+01
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.826E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 4.652E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 2.263E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:27:04.00

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824001.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 14:25:27
Sample ID         : G248824001           Sample quantity  : 1.03870E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:58.14  0.8%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.32*	108	515	1.11	126.87	123	8	1.50E-02	38.9	
2	2	74.68*	509	715	1.62	149.56	142	18	7.07E-02	11.6	1.20E+01
3	2	77.13*	832	604	1.50	154.46	142	18	1.16E-01	6.7	
4	0	86.35*	365	741	1.22	172.87	166	12	5.07E-02	15.9	
5	0	90.30	84	422	0.98	180.77	177	6	1.16E-02	40.6	
6	0	92.86*	285	569	1.52	185.88	183	11	3.97E-02	18.1	
7	0	185.67*	138	388	1.22	371.29	367	10	1.92E-02	29.3	
8	0	209.27	112	372	0.81	418.42	414	11	1.56E-02	34.5	
9	4	238.52*	1405	201	1.15	476.86	468	20	1.95E-01	3.3	2.51E+00
10	4	241.46	329	277	1.74	482.74	468	20	4.57E-02	12.4	
11	0	277.01	74	240	0.92	553.77	549	11	1.03E-02	41.9	
12	0	295.06	435	193	1.24	589.82	585	10	6.04E-02	7.7	
13	0	299.51	59	216	1.12	598.72	596	10	8.22E-03	48.0	
14	0	327.80	52	197	0.85	655.24	650	10	7.18E-03	52.7	
15	0	338.21	284	175	1.01	676.05	671	10	3.95E-02	10.5	
16	0	351.87	718	231	1.18	703.35	697	13	9.97E-02	5.7	
17	0	463.22	90	106	0.75	925.85	922	10	1.25E-02	24.0	
18	0	510.58*	171	189	1.87	1020.52	1013	18	2.38E-02	22.6	
19	0	583.16*	401	166	1.61	1165.58	1157	18	5.57E-02	9.2	
20	0	609.16*	548	113	1.34	1217.56	1210	16	7.61E-02	6.2	
21	0	727.21	88	79	1.58	1453.56	1449	9	1.22E-02	21.1	
22	0	768.37*	84	103	0.93	1535.84	1529	18	1.17E-02	31.1	
23	0	795.24	68	74	1.08	1589.57	1582	13	9.46E-03	28.8	
24	0	911.21*	299	84	1.63	1821.46	1816	15	4.16E-02	9.0	
25	0	969.55*	157	153	1.69	1938.14	1930	17	2.19E-02	20.7	
26	0	1120.98	120	90	1.54	2241.03	2232	17	1.67E-02	20.5	
27	0	1242.46	81	208	9.58	2484.05	2466	37	1.12E-02	59.0	
28	0	1378.00*	35	17	1.88	2755.28	2747	13	4.89E-03	30.3	
29	0	1460.73*	1411	21	1.85	2920.83	2912	15	1.96E-01	2.8	
30	0	1661.06	17	2	1.55	3321.83	3318	8	2.35E-03	28.4	
31	0	1729.60	30	15	2.82	3459.04	3453	12	4.14E-03	31.8	
32	0	1764.17*	83	11	2.01	3528.27	3519	17	1.16E-02	15.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 16:27:06

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 14:25:27
Sample ID : G248824001 Sample quantity : 103.87 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAM29 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:58.14 0.8%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.952E+01	4.827E+00	7.755E-01	8.435E-02	50.952
SN-126	+	64.28		1.196E+00	9.480E-01	1.141E+00	1.692E-01	1.048
	+	86.94		2.546E+00	1.332E+00	7.180E-01	2.981E-01	3.545
	+	87.57	*	6.123E-01	2.034E-01	1.716E-01	1.613E-02	3.568
TL-208	+	277.37		9.007E-01	7.629E-01	8.392E-01	1.079E-01	1.073
	+	583.19	*	6.442E-01	1.327E-01	6.843E-02	6.412E-03	9.413
		860.56		6.276E-01	4.099E-01	7.360E-01	9.439E-02	0.853
BI-211		72.87		1.936E+01	5.117E+00	8.784E+00	7.259E-01	2.204
	+	351.06	*	5.221E+00	7.804E-01	4.402E-01	4.214E-02	11.862
PB-212	+	74.82		3.705E+00	9.792E-01	8.148E-01	1.046E-01	4.547
	+	77.11		3.461E+00	5.479E-01	4.682E-01	3.987E-02	7.394
	+	238.63	*	2.334E+00	2.791E-01	1.229E-01	1.226E-02	18.986
	+	300.09		1.509E+00	1.457E+00	1.667E+00	1.831E-01	0.905
BI-214	+	609.32	*	1.704E+00	2.713E-01	1.546E-01	1.562E-02	11.018
	+	1120.29		1.943E+00	8.265E-01	5.953E-01	6.950E-02	3.263
	+	1764.49		1.820E+00	5.995E-01	2.707E-01	2.458E-02	6.726
PB-214	+	74.82		6.567E+00	1.696E+00	1.444E+00	1.665E-01	4.547
	+	77.11		6.102E+00	1.089E+00	8.253E-01	9.784E-02	7.394
	+	242.00		3.315E+00	8.944E-01	7.193E-01	7.626E-02	4.608
	+	295.22		1.966E+00	3.734E-01	2.997E-01	3.367E-02	6.559
	+	351.93	*	1.895E+00	3.019E-01	1.601E-01	1.768E-02	11.839
RA-224	+	240.99	*	5.861E+00	1.545E+00	1.316E+00	1.168E-01	4.453
RA-226	+	609.32	*	1.704E+00	2.713E-01	1.546E-01	1.562E-02	11.018
	+	1120.29		1.943E+00	8.265E-01	5.953E-01	6.950E-02	3.263
	+	1764.49		1.820E+00	5.995E-01	2.707E-01	2.458E-02	6.726
AC-228	+	338.32		2.304E+00	1.080E+00	5.057E-01	2.116E-01	4.557
	+	911.20	*	2.321E+00	5.457E-01	3.022E-01	4.604E-02	7.679
	+	968.97		2.105E+00	1.029E+00	6.631E-01	1.718E-01	3.175
RA-228	+	338.32		2.304E+00	1.080E+00	5.057E-01	2.116E-01	4.557
	+	911.20	*	2.321E+00	5.457E-01	3.022E-01	4.604E-02	7.679
	+	968.97		2.105E+00	1.029E+00	6.631E-01	1.718E-01	3.175
TH-228	+	74.82		3.705E+00	9.115E-01	8.148E-01	6.887E-02	4.547
	+	77.11		3.461E+00	5.479E-01	4.682E-01	3.987E-02	7.394
	+	238.63	*	2.334E+00	2.791E-01	1.229E-01	1.226E-02	18.986

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	300.09		1.509E+00	1.718E+00	1.667E+00	1.022E+00	0.905
TH-230	+	609.32	*	1.704E+00	2.560E-01	1.546E-01	1.332E-02	11.018
	+	1120.29		1.943E+00	8.161E-01	5.953E-01	5.690E-02	3.263
	+	1764.49		1.820E+00	5.995E-01	2.707E-01	2.458E-02	6.726
TH-232	+	338.32		2.304E+00	5.297E-01	5.057E-01	4.644E-02	4.557
	+	911.20	*	2.321E+00	5.457E-01	3.022E-01	4.604E-02	7.679
	+	968.97		2.105E+00	1.029E+00	6.631E-01	1.718E-01	3.175
TH-234	+	63.29	*	3.103E+00	2.481E+00	3.042E+00	5.496E-01	1.020
	+	92.59		3.946E+00	1.679E+00	1.452E+00	3.238E-01	2.718
U-235	+	89.96		1.439E+00	1.221E+00	2.470E+00	6.141E-01	0.582
	+	93.35		2.981E+00	1.284E+00	1.007E+00	2.345E-01	2.960
		143.76	*	1.482E-01	2.942E-01	4.753E-01	8.033E-02	0.312
		163.33		5.062E-02	6.216E-01	9.891E-01	1.756E-01	0.051
	+	185.72		1.509E-01	8.944E-02	9.130E-02	7.624E-03	1.652
		205.31		4.199E-01	7.453E-01	1.120E+00	2.029E-01	0.375
NP-237	+	86.48	*	1.827E+00	7.177E-01	5.337E-01	1.224E-01	3.424
		95.86		-1.512E+00	1.562E+00	2.069E+00	4.994E-01	-0.731
U-238	+	63.29	*	3.103E+00	2.481E+00	3.042E+00	5.496E-01	1.020
	+	92.59		3.946E+00	1.475E+00	1.452E+00	1.331E-01	2.718
ANH-511	+	511.00	*	2.108E-01	9.727E-02	6.327E-02	5.728E-03	3.331

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.560E-01	4.676E-01	7.429E-01	7.232E-02	-0.210
NA-22		1274.54	*	-3.604E-02	5.981E-02	9.463E-02	9.446E-03	-0.381
NA-24		1368.63	*	-8.221E+01	5.981E-02	Half-Life too short		
SC-46		889.28	*	-2.399E-02	5.004E-02	7.847E-02	1.025E-02	-0.306
	+	1120.55		3.425E-01	1.439E-01	1.819E-01	1.737E-02	1.883
V-48		944.13		-1.518E+00	1.604E+00	2.405E+00	3.054E-01	-0.631
		983.53	*	2.292E-02	1.133E-01	1.888E-01	2.290E-02	0.121
		1312.11		-2.759E-02	1.411E-01	2.315E-01	2.457E-02	-0.119
CR-51		320.08	*	-4.801E-02	6.166E-01	9.898E-01	9.517E-02	-0.049
MN-54		834.85	*	-2.967E-03	5.398E-02	8.883E-02	1.047E-02	-0.033
CO-56		846.77	*	2.191E-02	5.824E-02	9.875E-02	1.191E-02	0.222
		1037.84		-9.812E-02	4.491E-01	7.180E-01	8.307E-02	-0.137
		1238.28		2.922E-01	1.439E-01	2.603E-01	2.499E-02	1.123
		1771.35		-1.291E+00	4.759E-01	4.542E-01	4.102E-02	-2.842
CO-57		122.06	*	3.771E-02	3.683E-02	6.174E-02	5.578E-03	0.611
		136.47		1.134E-01	2.952E-01	4.837E-01	4.493E-02	0.235
CO-58		810.76	*	9.001E-03	5.412E-02	9.070E-02	1.021E-02	0.099
FE-59		1099.45	*	-1.566E-01	1.405E-01	2.038E-01	2.163E-02	-0.769
		1291.59		5.601E-02	1.756E-01	3.019E-01	3.399E-02	0.186
CO-60		1173.23		9.217E-02	6.846E-02	1.213E-01	1.008E-02	0.760
		1332.49	*	-1.653E-02	5.515E-02	8.928E-02	9.792E-03	-0.185
ZN-65		1115.54	*	-6.169E-02	1.453E-01	1.907E-01	1.844E-02	-0.323
SE-75		121.12		2.041E-01	1.958E-01	3.277E-01	3.733E-02	0.623
		136.00		5.796E-03	5.815E-02	9.428E-02	8.229E-03	0.061

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		264.66	*	-5.023E-02	6.433E-02	1.033E-01	9.369E-03	-0.486
		279.54		1.908E-01	1.769E-01	2.718E-01	2.558E-02	0.702
		400.66		1.050E-01	3.576E-01	5.955E-01	6.791E-02	0.176
SR-85		514.00	*	1.349E-01	6.760E-02	1.077E-01	9.746E-03	1.252
Y-88		898.04		-2.218E-03	5.611E-02	9.199E-02	1.223E-02	-0.024
		1836.06	*	1.645E-02	3.905E-02	6.904E-02	5.904E-03	0.238
Y-91		1204.77	*	-2.140E+01	3.425E+01	5.247E+01	4.628E+00	-0.408
NB-94		702.65	*	1.995E-02	4.695E-02	8.035E-02	7.217E-03	0.248
		871.09		-3.219E-02	4.647E-02	7.178E-02	9.062E-03	-0.448
NB-95		765.81	*	1.062E-01	7.518E-02	1.198E-01	1.230E-02	0.886
NB-95M		235.69	*	1.086E+00	2.516E-01	4.005E-01	4.033E-02	2.711
ZR-95		724.19		2.101E-01	1.543E-01	2.468E-01	2.488E-02	0.851
		756.73	*	-2.481E-02	1.024E-01	1.671E-01	1.815E-02	-0.149
MO-99		140.51		-9.643E+01	1.138E+02	1.739E+02	4.127E+01	-0.554
		181.07		-2.732E+01	1.013E+02	1.389E+02	2.589E+01	-0.197
		366.42		1.426E+02	4.466E+02	7.482E+02	6.820E+01	0.191
		739.50	*	-2.221E+00	5.864E+01	9.726E+01	1.594E+01	-0.023
		777.92		-1.513E+02	1.766E+02	2.357E+02	2.482E+01	-0.642
TC-99M		140.51	*	-4.526E+16	1.766E+02	Half-Life too short		
RU-103		497.08	*	5.669E-03	5.412E-02	8.845E-02	1.261E-02	0.064
	+	610.33		1.920E+01	3.929E+00	4.069E+00	6.649E-01	4.719
RH-106		621.93	*	-4.949E-02	4.177E-01	6.953E-01	9.174E-02	-0.071
		1050.41		-2.681E+00	3.672E+00	5.580E+00	6.131E-01	-0.480
RU-106		621.93	*	-4.949E-02	4.177E-01	6.953E-01	5.927E-02	-0.071
		1050.41		-2.681E+00	3.672E+00	5.580E+00	6.131E-01	-0.480
AG-108M		433.94	*	-4.201E-02	4.021E-02	6.094E-02	5.702E-03	-0.689
		614.28		2.891E-02	5.326E-02	8.095E-02	7.174E-03	0.357
		722.91		-3.284E-02	5.945E-02	7.995E-02	7.708E-03	-0.411
CD-109		88.03	*	6.270E+00	1.938E+00	2.344E+00	2.213E-01	2.675
AG-110M		657.76	*	1.796E-02	4.575E-02	7.856E-02	6.679E-03	0.229
		677.62		-6.008E-02	4.079E-01	6.743E-01	5.900E-02	-0.089
		706.68		-1.458E-01	2.887E-01	4.640E-01	4.314E-02	-0.314
		763.94		3.529E-02	2.524E-01	3.658E-01	3.815E-02	0.096
		884.68		2.118E-02	6.523E-02	1.103E-01	1.448E-02	0.192
		937.49		-5.782E-02	1.620E-01	2.580E-01	3.353E-02	-0.224
		1384.29		1.957E-01	2.225E-01	3.629E-01	4.015E-02	0.539
		1505.03		-3.637E-01	3.617E-01	5.125E-01	5.393E-02	-0.710
SN-113		391.69	*	-3.368E-02	6.219E-02	9.869E-02	9.128E-03	-0.341
CD-115		260.90		-6.546E-04	6.219E-02	Half-Life too short		
		492.35		-1.195E-04	6.219E-02	Half-Life too short		
		527.90	*	-4.103E-05	6.219E-02	Half-Life too short		
SN-117M		156.02		2.251E+00	4.211E+00	6.905E+00	5.735E-01	0.326
		158.56	*	-4.001E-03	1.008E-01	1.617E-01	1.336E-02	-0.025
TE-123M		159.00	*	-6.678E-03	4.169E-02	6.655E-02	5.532E-03	-0.100
SB-124		602.73		1.014E-03	6.584E-02	9.117E-02	7.892E-03	0.011
		645.85		3.136E-01	6.713E-01	1.159E+00	1.026E-01	0.270
		722.78		-3.662E-01	6.315E-01	8.465E-01	8.097E-02	-0.433
		1690.97	*	-7.132E-03	9.713E-02	1.574E-01	1.559E-02	-0.045
SB-125		427.87	*	8.965E-02	1.199E-01	2.044E-01	1.888E-02	0.439

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	463.37		9.874E-01	4.834E-01	7.240E-01	7.042E-02	1.364
		600.60		2.265E-01	2.671E-01	4.293E-01	3.994E-02	0.528
		635.95		3.664E-02	3.484E-01	5.883E-01	5.372E-02	0.062
TE-125M		109.28	*	-5.953E+00	1.493E+01	2.391E+01	2.555E+00	-0.249
I-126		388.63		4.088E-01	2.955E-01	5.182E-01	4.670E-02	0.789
		666.33	*	2.709E-01	3.933E-01	6.853E-01	5.677E-02	0.395
		753.82		-3.740E-02	3.082E+00	5.115E+00	5.125E-01	-0.007
SB-126		414.70		-2.052E-02	1.348E-01	2.186E-01	1.980E-02	-0.094
		666.50		1.426E-01	1.344E-01	2.391E-01	1.982E-02	0.596
		695.00		-4.507E-02	1.360E-01	2.217E-01	1.958E-02	-0.203
		697.00		-4.851E-02	4.932E-01	8.175E-01	7.253E-02	-0.059
		720.70	*	-2.124E-02	2.770E-01	4.106E-01	3.836E-02	-0.052
		856.80		-7.151E-01	8.844E-01	1.361E+00	1.672E-01	-0.526
SB-127		252.40		-7.496E+00	1.503E+01	2.403E+01	1.010E+01	-0.312
		473.00		6.111E+00	5.579E+00	9.573E+00	1.388E+00	0.638
		685.70	*	1.590E+00	4.117E+00	7.056E+00	9.155E-01	0.225
		783.70		8.644E+00	1.150E+01	1.996E+01	3.029E+00	0.433
I-131		80.19		6.747E+00	1.503E+01	1.610E+01	1.422E+00	0.419
		284.31		-3.189E+00	3.214E+00	4.919E+00	4.709E-01	-0.648
		364.49	*	-1.846E-01	2.305E-01	3.602E-01	3.458E-02	-0.513
		636.99		2.830E-01	3.223E+00	5.433E+00	4.866E-01	0.052
TE-132		49.72		-1.279E+02	8.233E+01	1.238E+02	1.554E+01	-1.033
		111.76		-6.542E+01	1.370E+02	2.182E+02	2.771E+01	-0.300
		116.30		-2.769E+01	1.197E+02	1.924E+02	2.450E+01	-0.144
		228.16	*	7.252E-01	2.866E+00	4.851E+00	8.242E-01	0.149
BA-133		81.00		1.216E-01	1.955E-01	2.115E-01	3.304E-02	0.575
	+	276.40		8.333E-01	7.078E-01	8.704E-01	1.254E-01	0.957
		302.85		-3.802E-02	2.141E-01	3.044E-01	4.090E-02	-0.125
		356.01	*	3.021E-02	6.599E-02	9.729E-02	1.295E-02	0.311
		383.85		-4.267E-01	4.037E-01	6.162E-01	7.837E-02	-0.692
I-133		529.87	*	2.239E-01	4.037E-01	Half-Life too short		
		875.33		1.673E+00	4.037E-01	Half-Life too short		
		1298.22		2.379E+00	4.037E-01	Half-Life too short		
CS-134		563.25		2.006E-01	5.005E-01	8.284E-01	7.418E-02	0.242
		569.33		-5.599E-03	2.666E-01	4.287E-01	3.841E-02	-0.013
		604.72		-6.483E-03	5.347E-02	7.300E-02	6.325E-03	-0.089
	+	795.86	*	1.598E-01	9.373E-02	1.268E-01	1.390E-02	1.260
		801.95		-5.324E-01	5.961E-01	7.961E-01	8.828E-02	-0.669
		1365.19		9.245E-01	1.569E+00	2.781E+00	3.125E-01	0.332
CS-135		268.22	*	1.535E-01	2.233E-01	3.818E-01	3.947E-02	0.402
I-135		546.56		-5.887E+15	2.233E-01	Half-Life too short		
		836.80		6.654E+15	2.233E-01	Half-Life too short		
		1038.76		-1.595E+15	2.233E-01	Half-Life too short		
		1131.51		-1.008E+13	2.233E-01	Half-Life too short		
		1260.41	*	1.550E+15	2.233E-01	Half-Life too short		
		1457.56		3.694E+17	2.233E-01	Half-Life too short		
		1678.03		-2.398E+15	2.233E-01	Half-Life too short		
		1791.20		-6.970E+14	2.233E-01	Half-Life too short		
CS-136		153.25		-2.324E-01	1.578E+00	2.523E+00	2.535E-01	-0.092

---- Non-Identified Nuclides ----

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		176.60		-4.324E-01	9.367E-01	1.469E+00	1.349E-01	-0.294
		273.65		-2.339E+00	1.167E+00	1.451E+00	1.418E-01	-1.612
		340.55		1.069E+00	3.451E-01	5.509E-01	5.230E-02	1.940
		818.51		9.367E-03	1.133E-01	1.887E-01	2.157E-02	0.050
		1048.07	*	1.163E-02	1.910E-01	3.130E-01	3.544E-02	0.037
		1235.36		1.806E+00	1.294E+00	2.011E+00	2.472E-01	0.898
BA-137M		661.66	*	-3.303E-02	4.799E-02	7.644E-02	6.266E-03	-0.432
CS-137		661.66	*	-3.490E-02	5.070E-02	8.075E-02	6.634E-03	-0.432
CE-139		165.86	*	2.796E-02	4.313E-02	7.095E-02	5.783E-03	0.394
BA-140		162.66		-3.185E-01	1.527E+00	2.401E+00	2.114E-01	-0.133
		304.85		4.737E-01	2.741E+00	3.987E+00	1.174E+00	0.119
		423.72		2.677E-01	3.303E+00	5.425E+00	1.791E+00	0.049
		537.26	*	2.118E-01	4.847E-01	7.980E-01	2.714E-01	0.265
LA-140	+	328.76		6.807E-01	7.209E-01	9.687E-01	9.352E-02	0.703
		487.02		-3.021E-03	2.254E-01	3.657E-01	3.511E-02	-0.008
		815.77		-1.676E-01	5.303E-01	8.524E-01	1.035E-01	-0.197
		1596.21	*	1.100E-01	1.357E-01	2.480E-01	2.509E-02	0.444
CE-141		145.44	*	4.440E-02	9.961E-02	1.632E-01	1.411E-02	0.272
CE-143		57.36		-6.957E-03	9.961E-02	Half-Life too short		
		293.27	*	1.644E-02	9.961E-02	Half-Life too short		
		664.57		1.483E-02	9.961E-02	Half-Life too short		
		721.93		-1.144E-02	9.961E-02	Half-Life too short		
CE-144		80.12		4.701E+00	5.218E+00	5.770E+00	5.039E-01	0.815
		133.52	*	-3.202E-01	2.954E-01	4.507E-01	6.916E-02	-0.710
PM-144		476.78		-6.598E-02	9.131E-02	1.410E-01	1.384E-02	-0.468
		618.01		2.732E-02	4.529E-02	7.569E-02	6.658E-03	0.361
		696.49	*	-2.234E-02	4.828E-02	7.803E-02	6.919E-03	-0.286
PR-144		696.51	*	-1.540E+00	3.616E+00	5.859E+00	5.193E-01	-0.263
		1489.16		-8.909E+00	1.568E+01	2.377E+01	2.515E+00	-0.375
PM-146		453.88	*	4.033E-03	5.787E-02	9.469E-02	1.041E-02	0.043
		633.25		5.966E-01	1.827E+00	3.108E+00	1.186E+00	0.192
		735.93		-1.140E-01	2.017E-01	3.174E-01	9.000E-02	-0.359
		747.24		-2.789E-02	1.291E-01	2.111E-01	3.243E-02	-0.132
ND-147	+	91.11		6.381E-01	5.218E-01	1.050E+00	1.041E-01	0.608
		319.41		-3.256E-02	6.542E+00	1.083E+01	9.953E-01	-0.003
		531.02	*	-9.714E-02	9.787E-01	1.570E+00	2.382E-01	-0.062
PM-149		285.90	*	4.753E-04	9.787E-01	Half-Life too short		
EU-152		121.78		1.138E-01	1.049E-01	1.758E-01	1.804E-02	0.647
		244.70		1.261E-01	4.979E-01	7.355E-01	6.546E-02	0.171
		344.28	*	1.204E-01	1.494E-01	2.154E-01	2.080E-02	0.559
		778.90		-2.290E-01	3.286E-01	4.828E-01	5.093E-02	-0.474
		964.08		6.235E-01	4.986E-01	7.844E-01	9.742E-02	0.795
		1085.87		-3.387E-01	5.283E-01	8.059E-01	8.294E-02	-0.420
		1112.07		3.466E-02	4.804E-01	6.738E-01	6.562E-02	0.051
		1408.01		1.586E-01	2.628E-01	4.456E-01	4.824E-02	0.356
GD-153		69.67		-2.135E-04	2.876E+00	4.153E+00	3.373E-01	0.000
		97.43	*	5.381E-02	1.389E-01	1.997E-01	1.794E-02	0.269
		103.18		-2.216E-01	1.650E-01	2.538E-01	2.252E-02	-0.873
EU-154		123.07		1.687E-02	7.386E-02	1.207E-01	1.405E-02	0.140

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		723.31		-1.419E-03	2.591E-01	3.695E-01	3.770E-02	-0.004
		873.19		-2.258E-02	3.863E-01	6.334E-01	9.560E-02	-0.036
		996.26		1.196E-01	4.523E-01	7.565E-01	1.462E-01	0.158
		1004.73		2.221E-01	2.788E-01	4.844E-01	6.853E-02	0.459
		1274.44	*	-9.878E-02	1.695E-01	2.684E-01	3.337E-02	-0.368
EU-155	+	86.55		7.440E-01	2.473E-01	2.702E-01	2.535E-02	2.753
		105.31	*	9.616E-02	1.530E-01	2.542E-01	2.276E-02	0.378
TB-160	+	86.79		2.066E+00	6.864E-01	7.424E-01	6.921E-02	2.783
		197.04		2.687E-01	8.241E-01	1.378E+00	1.167E-01	0.195
		215.65		-4.009E-01	1.195E+00	1.800E+00	1.558E-01	-0.223
	+	298.57		2.229E-01	2.148E-01	2.973E-01	2.723E-02	0.750
		879.36	*	-3.870E-02	2.083E-01	3.379E-01	4.331E-02	-0.115
		962.29		7.078E-01	9.213E-01	1.398E+00	1.740E-01	0.506
		966.15		1.660E+00	4.863E-01	7.944E-01	9.843E-02	2.090
		1177.93		-4.663E-01	5.866E-01	8.871E-01	7.441E-02	-0.526
		1271.85		5.703E-01	9.650E-01	1.696E+00	1.683E-01	0.336
HO-166M		80.57		2.196E-01	5.740E-01	6.119E-01	5.366E-02	0.359
	+	184.41		1.199E-01	7.106E-02	9.546E-02	7.958E-03	1.256
		280.46		4.401E-02	1.276E-01	1.887E-01	1.717E-02	0.233
		410.95		2.810E-01	3.323E-01	5.682E-01	5.142E-02	0.495
		711.68	*	-6.192E-02	8.514E-02	1.252E-01	1.147E-02	-0.495
		752.31		4.899E-02	3.563E-01	5.980E-01	5.973E-02	0.082
		810.29		1.707E-02	7.748E-02	1.304E-01	1.465E-02	0.131
TA-182		67.75		6.713E-02	2.592E-01	2.756E-01	2.220E-02	0.244
		100.11		2.942E-01	2.786E-01	4.375E-01	3.902E-02	0.672
		152.43		-7.854E-02	5.074E-01	8.113E-01	6.786E-02	-0.097
		222.11		1.078E-01	4.854E-01	8.220E-01	7.164E-02	0.131
	+	1121.30		9.383E-01	3.942E-01	4.966E-01	4.735E-02	1.889
		1189.05		-5.794E-02	4.965E-01	7.957E-01	6.815E-02	-0.073
		1221.41	*	-8.762E-02	2.922E-01	4.601E-01	4.182E-02	-0.190
		1231.02		-2.454E-01	8.285E-01	1.102E+00	1.019E-01	-0.223
IR-192	+	295.96		1.523E+00	2.722E-01	4.034E-01	3.717E-02	3.776
		308.46		-7.473E-02	1.356E-01	2.183E-01	2.013E-02	-0.342
		316.51	*	2.936E-02	4.974E-02	8.464E-02	7.793E-03	0.347
		468.07		-3.220E-02	1.121E-01	1.533E-01	1.487E-02	-0.210
HG-203		70.83		1.348E+00	2.356E+00	3.465E+00	5.483E-01	0.389
		72.87		5.192E+00	1.527E+00	2.355E+00	3.613E-01	2.204
		279.20	*	1.018E-01	6.512E-02	1.023E-01	9.524E-03	0.995
BI-207		72.81		1.025E+00	2.904E-01	4.991E-01	4.123E-02	2.055
	+	74.97		1.068E+00	2.625E-01	3.591E-01	3.009E-02	2.974
		569.70		-8.328E-04	4.183E-02	6.728E-02	5.949E-03	-0.012
		1063.66	*	1.161E-03	7.351E-02	1.199E-01	1.287E-02	0.010
		1770.23		-2.709E-01	6.460E-01	7.927E-01	7.165E-02	-0.342
PB-210		46.54	*	-1.765E+00	5.088E+00	8.452E+00	8.065E-01	-0.209
PB-211		404.85	*	-8.065E-01	1.063E+00	1.542E+00	7.475E-01	-0.523
		427.09		9.192E-01	2.028E+00	3.333E+00	1.545E+00	0.276
		832.01		3.214E-01	1.334E+00	2.227E+00	1.168E+00	0.144
BI-212	+	727.33	*	2.165E+00	9.550E-01	1.585E+00	2.070E-01	1.366
		785.37		4.704E+00	4.371E+00	7.610E+00	8.134E-01	0.618

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		1620.50		1.939E+00	2.491E+00	4.614E+00	4.608E-01	0.420
RN-219		271.23		7.741E-01	3.798E-01	6.024E-01	6.403E-02	1.285
		401.81	*	1.092E-02	5.492E-01	9.010E-01	1.362E-01	0.012
RA-223		81.07		2.635E-01	4.408E-01	4.775E-01	4.206E-02	0.552
		83.79		7.159E-02	2.024E-01	2.932E-01	2.651E-02	0.244
		94.87		1.723E+00	7.567E-01	1.164E+00	1.056E-01	1.480
		144.24		4.087E-01	9.869E-01	1.593E+00	1.517E-01	0.257
		154.21		3.725E-01	5.493E-01	9.054E-01	8.316E-02	0.411
		269.46		5.404E-01	2.643E-01	4.683E-01	4.315E-02	1.154
		323.87	*	3.961E-01	1.026E+00	1.508E+00	2.658E-01	0.263
	+	338.28		9.145E+00	2.240E+00	3.179E+00	3.968E-01	2.876
AC-227		79.69		3.800E+00	2.679E+00	2.990E+00	5.166E-01	1.271
		235.96		2.122E+00	3.621E-01	5.358E-01	5.637E-02	3.960
		256.23	*	3.801E-01	3.626E-01	6.265E-01	7.711E-02	0.607
	+	299.98		1.660E+00	1.607E+00	2.134E+00	2.792E-01	0.778
		304.50		6.512E-01	2.527E+00	3.699E+00	6.224E-01	0.176
		334.37		4.635E-01	2.905E+00	3.692E+00	5.874E-01	0.126
TH-227		79.80		4.509E+00	3.552E+00	3.894E+00	8.494E-01	1.158
		235.96		2.122E+00	3.547E-01	5.358E-01	5.330E-02	3.960
		256.23	*	3.801E-01	3.634E-01	6.265E-01	8.667E-02	0.607
	+	299.98		1.660E+00	1.607E+00	2.134E+00	2.792E-01	0.778
		304.50		6.512E-01	2.527E+00	3.699E+00	6.224E-01	0.176
		334.37		4.635E-01	2.905E+00	3.692E+00	5.874E-01	0.126
TH-229	+	85.43		1.541E+00	5.120E-01	5.587E-01	5.135E-02	2.759
		88.47		9.665E-01	2.902E-01	3.516E-01	3.309E-02	2.749
		193.51	*	-1.636E-01	7.672E-01	1.213E+00	1.023E-01	-0.135
		210.85		2.725E+00	1.436E+00	2.271E+00	1.955E-01	1.200
PA-231		283.69	*	-2.707E+00	2.276E+00	3.142E+00	4.677E-01	-0.861
		301.36		1.070E+00	9.251E-01	1.413E+00	1.773E-01	0.757
TH-231		81.07		2.635E-01	4.408E-01	4.775E-01	4.206E-02	0.552
		83.79		7.159E-02	2.024E-01	2.932E-01	2.651E-02	0.244
		94.87		1.723E+00	7.567E-01	1.164E+00	1.056E-01	1.480
		144.24		4.087E-01	9.869E-01	1.593E+00	1.517E-01	0.257
		154.21		3.725E-01	5.493E-01	9.054E-01	8.316E-02	0.411
		269.46		5.404E-01	2.643E-01	4.683E-01	4.315E-02	1.154
		323.87	*	3.961E-01	1.026E+00	1.508E+00	2.658E-01	0.263
	+	338.28		9.145E+00	2.240E+00	3.179E+00	3.968E-01	2.876
PA-233	+	300.13		7.511E-01	7.293E-01	9.647E-01	1.462E-01	0.779
		311.90	*	-3.476E-02	8.417E-02	1.363E-01	1.284E-02	-0.255
		340.48		3.800E+00	1.436E+00	1.852E+00	4.496E-01	2.052
PA-234		94.67		8.003E-01	2.917E-01	4.386E-01	5.581E-02	1.824
		98.44		1.996E-01	1.852E-01	2.225E-01	1.243E-01	0.897
		111.00		-1.134E-01	2.594E-01	4.142E-01	5.078E-02	-0.274
		131.20		1.154E-01	1.511E-01	2.508E-01	2.201E-02	0.460
		569.50		-3.173E-02	3.697E-01	5.917E-01	5.232E-02	-0.054
		733.00		2.983E-01	5.689E-01	8.544E-01	1.930E-01	0.349
		880.51		-3.187E-02	3.961E-01	6.481E-01	8.327E-02	-0.049
		883.24		2.882E-01	4.288E-01	6.671E-01	4.530E-01	0.432
		926.50		-2.271E-01	2.306E-01	3.294E-01	8.912E-02	-0.689

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	2.026E-01	4.267E-01	7.230E-01	1.514E-01	0.280
		949.00		6.256E-01	6.328E-01	1.110E+00	1.402E-01	0.564
PA-234M		766.42		2.161E+01	2.240E+01	3.052E+01	1.558E+01	0.708
		1001.03	*	-4.286E+00	6.047E+00	9.319E+00	1.199E+00	-0.460
NP-239		99.53		2.101E-01	2.685E-01	3.927E-01	3.506E-02	0.535
		103.37		-8.453E-02	1.453E-01	2.315E-01	2.053E-02	-0.365
		106.12		1.156E-01	1.219E-01	2.044E-01	1.809E-02	0.565
		117.23	*	-3.742E-01	5.714E-01	9.023E-01	8.059E-02	-0.415
		228.18		7.424E-02	2.883E-01	4.884E-01	4.283E-02	0.152
	+	277.60		4.117E-01	3.467E-01	4.306E-01	3.915E-02	0.956
AM-241		59.54	*	7.572E-02	2.435E-01	3.580E-01	3.090E-02	0.211
CM-247	+	278.00		1.748E+00	1.472E+00	1.838E+00	1.671E-01	0.951
		287.50		8.499E-01	1.716E+00	2.844E+00	2.597E-01	0.299
		402.40	*	-2.206E-02	5.063E-02	8.079E-02	7.293E-03	-0.273
CF-249		252.80		-5.260E-01	1.334E+00	2.191E+00	1.962E-01	-0.240
		333.37		9.161E-02	4.028E-01	3.985E-01	3.661E-02	0.230
		388.16	*	6.348E-02	5.438E-02	9.449E-02	8.517E-03	0.672
CF-251		177.52	*	-1.366E-01	1.882E-01	2.914E-01	2.408E-02	-0.469
		227.38		1.775E-01	4.728E-01	8.046E-01	7.050E-02	0.221
		285.41		-1.452E+00	2.983E+00	4.843E+00	4.418E-01	-0.300

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824001       *
* Acquisition date : 23-MAR-2010 14:25:27 Detector SN#    :                 *
* Detector ID      : GAM29                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:58.14     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248824001           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.0387E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.952E+01	4.731E+00	7.697E-01	0.000E+00
SN-126	6.123E-01	1.993E-01	1.725E-01	0.000E+00
TL-208	6.442E-01	1.301E-01	6.820E-02	0.000E+00
BI-211	5.221E+00	7.648E-01	4.397E-01	0.000E+00
PB-212	2.334E+00	2.735E-01	1.230E-01	0.000E+00
BI-214	1.704E+00	2.659E-01	1.541E-01	0.000E+00
PB-214	1.895E+00	2.959E-01	1.599E-01	0.000E+00
RA-224	5.861E+00	1.514E+00	1.317E+00	0.000E+00
RA-226	1.704E+00	2.659E-01	1.541E-01	0.000E+00
AC-228	2.321E+00	5.348E-01	3.006E-01	0.000E+00
RA-228	2.321E+00	5.348E-01	3.006E-01	0.000E+00
TH-228	2.334E+00	2.735E-01	1.230E-01	0.000E+00
TH-230	1.704E+00	2.509E-01	1.541E-01	0.000E+00
TH-232	2.321E+00	5.348E-01	3.006E-01	0.000E+00
TH-234	3.103E+00	2.431E+00	3.061E+00	0.000E+00
U-235	1.482E-01	2.883E-01	4.766E-01	0.000E+00
NP-237	1.827E+00	7.034E-01	5.364E-01	0.000E+00
U-238	3.103E+00	2.431E+00	3.061E+00	0.000E+00
ANH-511	2.108E-01	9.532E-02	6.309E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-1.560E-01	4.583E-01	7.410E-01	0.000E+00	NOT IDENT.
NA-22	-3.604E-02	5.862E-02	9.398E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.475E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.399E-02	4.903E-02	7.806E-02	0.000E+00	FAIL ABUN
V-48	2.292E-02	1.111E-01	1.877E-01	0.000E+00	NOT IDENT.
CR-51	-4.801E-02	6.043E-01	9.890E-01	0.000E+00	NOT IDENT.
MN-54	-2.967E-03	5.290E-02	8.839E-02	0.000E+00	NOT IDENT.
CO-56	2.191E-02	5.708E-02	9.825E-02	0.000E+00	NOT IDENT.

CO-57	3.771E-02	3.609E-02	6.195E-02	0.000E+00	NOT IDENT.
CO-58	9.001E-03	5.303E-02	9.026E-02	0.000E+00	NOT IDENT.
FE-59	-1.566E-01	1.377E-01	2.025E-01	0.000E+00	NOT IDENT.
CO-60	-1.653E-02	5.405E-02	8.865E-02	0.000E+00	NOT IDENT.
ZN-65	-6.169E-02	1.424E-01	1.895E-01	0.000E+00	NOT IDENT.
SE-75	-5.023E-02	6.304E-02	1.033E-01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	6.625E-02	1.074E-01	0.000E+00	NOT IDENT.
Y-88	1.645E-02	3.827E-02	6.845E-02	0.000E+00	NOT IDENT.
Y-91	-2.140E+01	3.356E+01	5.213E+01	0.000E+00	NOT IDENT.
NB-94	1.995E-02	4.601E-02	8.001E-02	0.000E+00	NOT IDENT.
NB-95	1.062E-01	7.368E-02	1.192E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.465E-01	4.008E-01	0.000E+00	NOT IDENT.
ZR-95	-2.481E-02	1.004E-01	1.663E-01	0.000E+00	NOT IDENT.
MO-99	-2.221E+00	5.747E+01	9.682E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.400E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	5.669E-03	5.304E-02	8.821E-02	0.000E+00	FAIL ABUN
RH-106	-4.949E-02	4.094E-01	6.928E-01	0.000E+00	NOT IDENT.
RU-106	-4.949E-02	4.093E-01	6.928E-01	0.000E+00	NOT IDENT.
AG-108M	-4.201E-02	3.940E-02	6.081E-02	0.000E+00	NOT IDENT.
CD-109	0.000E+00	1.900E+00	2.355E+00	0.000E+00	NOT IDENT.
AG-110M	1.796E-02	4.484E-02	7.825E-02	0.000E+00	NOT IDENT.
SN-113	-3.368E-02	6.094E-02	9.852E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	6.751E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-4.001E-03	9.877E-02	1.621E-01	0.000E+00	NOT IDENT.
TE-123M	-6.678E-03	4.086E-02	6.670E-02	0.000E+00	NOT IDENT.
SB-124	-7.132E-03	9.518E-02	1.562E-01	0.000E+00	NOT IDENT.
SB-125	8.965E-02	1.175E-01	2.040E-01	0.000E+00	FAIL ABUN
TE-125M	-5.953E+00	1.463E+01	2.400E+01	0.000E+00	NOT IDENT.
I-126	2.709E-01	3.854E-01	6.826E-01	0.000E+00	NOT IDENT.
SB-126	-2.124E-02	2.715E-01	4.088E-01	0.000E+00	NOT IDENT.
SB-127	1.590E+00	4.035E+00	7.027E+00	0.000E+00	NOT IDENT.
I-131	-1.846E-01	2.259E-01	3.597E-01	0.000E+00	NOT IDENT.
TE-132	7.252E-01	2.808E+00	4.855E+00	0.000E+00	NOT IDENT.
BA-133	3.021E-02	6.467E-02	9.717E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	3.945E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.185E-02	1.262E-01	0.000E+00	FAIL ABUN
CS-135	1.535E-01	2.189E-01	3.818E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.674E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.163E-02	1.872E-01	3.112E-01	0.000E+00	NOT IDENT.
BA-137M	-3.303E-02	4.703E-02	7.614E-02	0.000E+00	NOT IDENT.
CS-137	-3.490E-02	4.969E-02	8.043E-02	0.000E+00	NOT IDENT.
CE-139	2.796E-02	4.227E-02	7.110E-02	0.000E+00	NOT IDENT.
BA-140	2.118E-01	4.750E-01	7.955E-01	0.000E+00	NOT IDENT.
LA-140	1.100E-01	1.330E-01	2.460E-01	0.000E+00	FAIL ABUN
CE-141	4.440E-02	9.761E-02	1.636E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.857E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.202E-01	2.895E-01	4.521E-01	0.000E+00	NOT IDENT.
PM-144	-2.234E-02	4.731E-02	7.770E-02	0.000E+00	NOT IDENT.
PR-144	-1.540E+00	3.543E+00	5.835E+00	0.000E+00	NOT IDENT.
PM-146	4.033E-03	5.671E-02	9.447E-02	0.000E+00	NOT IDENT.
ND-147	-9.714E-02	9.591E-01	1.565E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	5.867E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	1.204E-01	1.464E-01	2.152E-01	0.000E+00	NOT IDENT.
GD-153	5.381E-02	1.361E-01	2.006E-01	0.000E+00	NOT IDENT.
EU-154	-9.878E-02	1.661E-01	2.665E-01	0.000E+00	NOT IDENT.
EU-155	9.616E-02	1.499E-01	2.553E-01	0.000E+00	FAIL ABUN
TB-160	-3.870E-02	2.041E-01	3.361E-01	0.000E+00	FAIL ABUN
HO-166M	-6.192E-02	8.343E-02	1.247E-01	0.000E+00	FAIL ABUN
TA-182	-8.762E-02	2.864E-01	4.570E-01	0.000E+00	FAIL ABUN
IR-192	2.936E-02	4.875E-02	8.458E-02	0.000E+00	FAIL ABUN
HG-203	1.018E-01	6.382E-02	1.023E-01	0.000E+00	NOT IDENT.
BI-207	1.161E-03	7.204E-02	1.191E-01	0.000E+00	FAIL ABUN
PB-210	-1.765E+00	4.986E+00	8.517E+00	0.000E+00	NOT IDENT.
PB-211	-8.065E-01	1.041E+00	1.539E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	9.359E-01	1.578E+00	0.000E+00	FAIL ABUN
RN-219	1.092E-02	5.382E-01	8.994E-01	0.000E+00	NOT IDENT.
RA-223	3.961E-01	1.005E+00	1.507E+00	0.000E+00	FAIL ABUN
AC-227	3.801E-01	3.554E-01	6.266E-01	0.000E+00	FAIL ABUN
TH-227	3.801E-01	3.562E-01	6.266E-01	0.000E+00	FAIL ABUN
TH-229	-1.636E-01	7.519E-01	1.214E+00	0.000E+00	FAIL ABUN
PA-231	-2.707E+00	2.231E+00	3.142E+00	0.000E+00	NOT IDENT.
TH-231	3.961E-01	1.005E+00	1.507E+00	0.000E+00	FAIL ABUN
PA-233	-3.476E-02	8.248E-02	1.363E-01	0.000E+00	FAIL ABUN
PA-234	2.026E-01	4.181E-01	7.190E-01	0.000E+00	NOT IDENT.
PA-234M	-4.286E+00	5.926E+00	9.265E+00	0.000E+00	NOT IDENT.
NP-239	-3.742E-01	5.599E-01	9.056E-01	0.000E+00	FAIL ABUN
AM-241	7.572E-02	2.386E-01	3.604E-01	0.000E+00	NOT IDENT.
CM-247	-2.206E-02	4.962E-02	8.065E-02	0.000E+00	FAIL ABUN

CF-249	6.348E-02	5.329E-02	9.434E-02	0.000E+00 NOT IDENT.
CF-251	-1.366E-01	1.844E-01	2.919E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:27:04.87

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824001.CNF;1
Sample date      : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 14:25:27
Sample ID        : G248824001           Sample quantity  : 1.03870E+02 GRAM
Detector name    : GAM29                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:58.14  0.8%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 962631               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1411	10.66*	1.210E+00	3.952E+01	3.952E+01	12.22
SN-126	64.28	108	9.60	3.404E+00	1.196E+00	1.196E+00	79.28
	86.94	365	8.90	5.822E+00	2.546E+00	2.546E+00	52.34
	87.57	365	37.00*	5.822E+00	6.123E-01	6.123E-01	33.22
TL-208	277.37	74	6.60	4.528E+00	9.007E-01	9.007E-01	84.70
	583.19	401	85.00*	2.646E+00	6.442E-01	6.442E-01	20.60
	860.56	------	12.50	1.902E+00	------	Line Not Found	------
BI-211	72.87	------	1.23	4.632E+00	------	Line Not Found	------
	351.06	718	12.92*	3.847E+00	5.221E+00	5.221E+00	14.95
PB-212	74.82	509	10.28	4.830E+00	3.705E+00	3.705E+00	26.43
	77.11	832	17.10	5.079E+00	3.461E+00	3.461E+00	15.83
	238.63	1405	43.60*	4.992E+00	2.334E+00	2.334E+00	11.96
	300.09	59	3.30	4.297E+00	1.509E+00	1.509E+00	96.54
BI-214	609.32	548	45.49*	2.555E+00	1.704E+00	1.704E+00	15.93
	1120.29	120	14.92	1.502E+00	1.943E+00	1.943E+00	42.54
	1764.49	83	15.30	1.081E+00	1.820E+00	1.820E+00	32.93
PB-214	74.82	509	5.80	4.830E+00	6.566E+00	6.567E+00	25.82
	77.11	832	9.70	5.079E+00	6.102E+00	6.102E+00	17.85
	242.00	329	7.25	4.953E+00	3.315E+00	3.315E+00	26.98
	295.22	435	18.42	4.341E+00	1.966E+00	1.966E+00	18.99
	351.93	718	35.60*	3.847E+00	1.895E+00	1.895E+00	15.93
RA-224	240.99	329	4.10*	4.953E+00	5.861E+00	5.861E+00	26.35
RA-226	609.32	548	45.49*	2.555E+00	1.704E+00	1.704E+00	15.93
	1120.29	120	14.92	1.502E+00	1.943E+00	1.943E+00	42.54
	1764.49	83	15.30	1.081E+00	1.820E+00	1.820E+00	32.93
AC-228	338.32	284	11.27	3.954E+00	2.304E+00	2.304E+00	46.84
	911.20	299	25.80*	1.808E+00	2.321E+00	2.321E+00	23.52
	968.97	157	15.80	1.710E+00	2.105E+00	2.105E+00	48.87
RA-228	338.32	284	11.27	3.954E+00	2.304E+00	2.304E+00	46.84
	911.20	299	25.80*	1.808E+00	2.321E+00	2.321E+00	23.52
	968.97	157	15.80	1.710E+00	2.105E+00	2.105E+00	48.87
TH-228	74.82	509	10.28	4.830E+00	3.705E+00	3.705E+00	24.60

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	832	17.10	5.079E+00	3.461E+00	3.461E+00	15.83
	238.63	1405	43.60*	4.992E+00	2.334E+00	2.334E+00	11.96
	300.09	59	3.30	4.297E+00	1.509E+00	1.509E+00	113.82
TH-230	609.32	548	45.49*	2.555E+00	1.704E+00	1.704E+00	15.03
	1120.29	120	14.92	1.502E+00	1.943E+00	1.943E+00	42.01
	1764.49	83	15.30	1.081E+00	1.820E+00	1.820E+00	32.93
TH-232	338.32	284	11.27	3.954E+00	2.304E+00	2.304E+00	22.99
	911.20	299	25.80*	1.808E+00	2.321E+00	2.321E+00	23.52
	968.97	157	15.80	1.710E+00	2.105E+00	2.105E+00	48.87
TH-234	63.29	108	3.70*	3.404E+00	3.103E+00	3.103E+00	79.95
	92.59	285	4.23	6.181E+00	3.946E+00	3.946E+00	42.55
U-235	89.96	84	3.47	6.055E+00	1.439E+00	1.439E+00	84.88
	93.35	285	5.60	6.181E+00	2.981E+00	2.981E+00	43.08
	143.76	------	10.96*	6.480E+00	------	Line Not Found	------
	163.33	------	5.08	6.173E+00	------	Line Not Found	------
	185.72	138	57.20	5.793E+00	1.509E-01	1.509E-01	59.29
	205.31	------	5.01	5.473E+00	------	Line Not Found	------
NP-237	86.48	365	12.40*	5.822E+00	1.827E+00	1.827E+00	39.28
	95.86	------	2.68	6.306E+00	------	Line Not Found	------
U-238	63.29	108	3.70*	3.404E+00	3.103E+00	3.103E+00	79.95
	92.59	285	4.23	6.181E+00	3.946E+00	3.946E+00	37.38
ANH-511	511.00	171	100.00*	2.935E+00	2.108E-01	2.108E-01	46.15

Flag: "*" = Keyline

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

Total number of lines in spectrum 32
Number of unidentified lines 6
Number of lines tentatively identified by NID 26 81.25%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.952E+01	3.952E+01	0.483E+01	12.22	
SN-126	2.30E+05Y	1.00	6.123E-01	6.123E-01	2.034E-01	33.22	
TL-208	1.41E+10Y	1.00	6.442E-01	6.442E-01	1.327E-01	20.60	
BI-211	7.04E+08Y	1.00	5.221E+00	5.221E+00	0.780E+00	14.95	
PB-212	1.41E+10Y	1.00	2.334E+00	2.334E+00	0.279E+00	11.96	
BI-214	1600.00Y	1.00	1.704E+00	1.704E+00	0.271E+00	15.93	
PB-214	1600.00Y	1.00	1.895E+00	1.895E+00	0.302E+00	15.93	
RA-224	1.41E+10Y	1.00	5.861E+00	5.861E+00	1.545E+00	26.35	
RA-226	1600.00Y	1.00	1.704E+00	1.704E+00	0.271E+00	15.93	
AC-228	1.41E+10Y	1.00	2.321E+00	2.321E+00	0.546E+00	23.52	
RA-228	1.41E+10Y	1.00	2.321E+00	2.321E+00	0.546E+00	23.52	
TH-228	1.41E+10Y	1.00	2.334E+00	2.334E+00	0.279E+00	11.96	
TH-230	7.54E+04Y	1.00	1.704E+00	1.704E+00	0.256E+00	15.03	
TH-232	1.41E+10Y	1.00	2.321E+00	2.321E+00	0.546E+00	23.52	
TH-234	4.47E+09Y	1.00	3.103E+00	3.103E+00	2.481E+00	79.95	
U-235	7.04E+08Y	1.00	1.509E-01	1.509E-01	0.894E-01	59.29	K
NP-237	2.14E+06Y	1.00	1.827E+00	1.827E+00	0.718E+00	39.28	
U-238	4.47E+09Y	1.00	3.103E+00	3.103E+00	2.481E+00	79.95	
ANH-511	1.00E+09Y	1.00	2.108E-01	2.108E-01	0.973E-01	46.15	
			---	---			
	Total Activity :		7.888E+01	7.888E+01			

Grand Total Activity : 7.888E+01 7.888E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.27	112	372	0.81	418.42	414	11	1.56E-02	69.0	5.41E+00	
0	327.80	52	197	0.85	655.24	650	10	7.18E-03	****	4.04E+00	T
0	463.22	90	106	0.75	925.85	922	10	1.25E-02	48.0	3.16E+00	T
0	727.21	88	79	1.58	1453.56	1449	9	1.22E-02	42.1	2.20E+00	T
0	768.37	84	103	0.93	1535.84	1529	18	1.17E-02	62.3	2.10E+00	
0	795.24	68	74	1.08	1589.57	1582	13	9.46E-03	57.6	2.04E+00	T
0	1242.46	81	208	9.58	2484.05	2466	37	1.12E-02	****	1.37E+00	
0	1378.00	35	17	1.88	2755.28	2747	13	4.89E-03	60.6	1.26E+00	
0	1661.06	17	2	1.55	3321.83	3318	8	2.35E-03	56.8	1.11E+00	
0	1729.60	30	15	2.82	3459.04	3453	12	4.14E-03	63.6	1.09E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:27:08.54

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824001.CNF;1   *
* Acquisition date : 23-MAR-2010 14:25:27  Detector SN#    :                 *
* Detector ID      : GAM29                 Sensitivity     : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000         *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000        *
* Elapsed real time: 0 02:00:58.14         Half life ratio : 8.00000         *
*****************************************************************************
*                                                                            *
*                                SAMPLE DATA                                 *
*                                                                            *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID           *
* Sample ID        : G248824001            Analyst initials: MXR1            *
* Batch Number     : 962631                Sample Quantity : 1.03870E+02 GRAM *
*****************************************************************************
*                                                                            *
*                                  QC DATA                                   *
*                                                                            *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45.9MS Isotope      :                 *
* MSD ID           :                       MSD Isotope     :                 *
* LCS ID           : 1032-A                LCS Isotope     :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.952E+01	4.827E+00	7.755E-01	8.435E-02	50.952
SN-126	6.123E-01	2.034E-01	1.716E-01	1.613E-02	3.568
TL-208	6.442E-01	1.327E-01	6.843E-02	6.412E-03	9.413
BI-211	5.221E+00	7.804E-01	4.402E-01	4.214E-02	11.862
PB-212	2.334E+00	2.791E-01	1.229E-01	1.226E-02	18.986
BI-214	1.704E+00	2.713E-01	1.546E-01	1.562E-02	11.018
PB-214	1.895E+00	3.019E-01	1.601E-01	1.768E-02	11.839
RA-224	5.861E+00	1.545E+00	1.316E+00	1.168E-01	4.453
RA-226	1.704E+00	2.713E-01	1.546E-01	1.562E-02	11.018
AC-228	2.321E+00	5.457E-01	3.022E-01	4.604E-02	7.679
RA-228	2.321E+00	5.457E-01	3.022E-01	4.604E-02	7.679
TH-228	2.334E+00	2.791E-01	1.229E-01	1.226E-02	18.986
TH-230	1.704E+00	2.560E-01	1.546E-01	1.332E-02	11.018
TH-232	2.321E+00	5.457E-01	3.022E-01	4.604E-02	7.679
TH-234	3.103E+00	2.481E+00	3.042E+00	5.496E-01	1.020
U-235	1.509E-01	8.944E-02	4.753E-01	8.033E-02	0.317
NP-237	1.827E+00	7.177E-01	5.337E-01	1.224E-01	3.424
U-238	3.103E+00	2.481E+00	3.042E+00	5.496E-01	1.020

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	2.108E-01	9.727E-02	6.327E-02	5.728E-03	3.331

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.560E-01		4.676E-01	7.429E-01	7.232E-02	-0.210
NA-22	-3.604E-02		5.981E-02	9.463E-02	9.446E-03	-0.381
NA-24	-8.221E+01		1.263E+02	Half-Life too short		
SC-46	-2.399E-02		5.004E-02	7.847E-02	1.025E-02	-0.306
V-48	2.292E-02		1.133E-01	1.888E-01	2.290E-02	0.121
CR-51	-4.801E-02		6.166E-01	9.898E-01	9.517E-02	-0.049
MN-54	-2.967E-03		5.398E-02	8.883E-02	1.047E-02	-0.033
CO-56	2.191E-02		5.824E-02	9.875E-02	1.191E-02	0.222
CO-57	3.771E-02		3.683E-02	6.174E-02	5.578E-03	0.611
CO-58	9.001E-03		5.412E-02	9.070E-02	1.021E-02	0.099
FE-59	-1.566E-01		1.405E-01	2.038E-01	2.163E-02	-0.769
CO-60	-1.653E-02		5.515E-02	8.928E-02	9.792E-03	-0.185
ZN-65	-6.169E-02		1.453E-01	1.907E-01	1.844E-02	-0.323
SE-75	-5.023E-02		6.433E-02	1.033E-01	9.369E-03	-0.486
SR-85	1.349E-01		6.760E-02	1.077E-01	9.746E-03	1.252
Y-88	1.645E-02		3.905E-02	6.904E-02	5.904E-03	0.238
Y-91	-2.140E+01		3.425E+01	5.247E+01	4.628E+00	-0.408
NB-94	1.995E-02		4.695E-02	8.035E-02	7.217E-03	0.248
NB-95	1.062E-01		7.518E-02	1.198E-01	1.230E-02	0.886
NB-95M	1.086E+00		2.516E-01	4.005E-01	4.033E-02	2.711
ZR-95	-2.481E-02		1.024E-01	1.671E-01	1.815E-02	-0.149
MO-99	-2.221E+00		5.864E+01	9.726E+01	1.594E+01	-0.023
TC-99M	-4.526E+16		2.755E+16	Half-Life too short		
RU-103	5.669E-03		5.412E-02	8.845E-02	1.261E-02	0.064
RH-106	-4.949E-02		4.177E-01	6.953E-01	9.174E-02	-0.071
RU-106	-4.949E-02		4.177E-01	6.953E-01	5.927E-02	-0.071
AG-108M	-4.201E-02		4.021E-02	6.094E-02	5.702E-03	-0.689
CD-109	6.270E+00		1.938E+00	2.344E+00	2.213E-01	2.675
AG-110M	1.796E-02		4.575E-02	7.856E-02	6.679E-03	0.229
SN-113	-3.368E-02		6.219E-02	9.869E-02	9.128E-03	-0.341
CD-115	-4.103E-05		3.444E-05	Half-Life too short		
SN-117M	-4.001E-03		1.008E-01	1.617E-01	1.336E-02	-0.025
TE-123M	-6.678E-03		4.169E-02	6.655E-02	5.532E-03	-0.100
SB-124	-7.132E-03		9.713E-02	1.574E-01	1.559E-02	-0.045
SB-125	8.965E-02		1.199E-01	2.044E-01	1.888E-02	0.439
TE-125M	-5.953E+00		1.493E+01	2.391E+01	2.555E+00	-0.249
I-126	2.709E-01		3.933E-01	6.853E-01	5.677E-02	0.395
SB-126	-2.124E-02		2.770E-01	4.106E-01	3.836E-02	-0.052
SB-127	1.590E+00		4.117E+00	7.056E+00	9.155E-01	0.225
I-131	-1.846E-01		2.305E-01	3.602E-01	3.458E-02	-0.513
TE-132	7.252E-01		2.866E+00	4.851E+00	8.242E-01	0.149
BA-133	3.021E-02		6.599E-02	9.729E-02	1.295E-02	0.311

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	2.239E-01		2.013E-01	Half-Life too short		
CS-134	1.598E-01	+	9.373E-02	1.268E-01	1.390E-02	1.260
CS-135	1.535E-01		2.233E-01	3.818E-01	3.947E-02	0.402
I-135	1.550E+15		1.364E+15	Half-Life too short		
CS-136	1.163E-02		1.910E-01	3.130E-01	3.544E-02	0.037
BA-137M	-3.303E-02		4.799E-02	7.644E-02	6.266E-03	-0.432
CS-137	-3.490E-02		5.070E-02	8.075E-02	6.634E-03	-0.432
CE-139	2.796E-02		4.313E-02	7.095E-02	5.783E-03	0.394
BA-140	2.118E-01		4.847E-01	7.980E-01	2.714E-01	0.265
LA-140	1.100E-01		1.357E-01	2.480E-01	2.509E-02	0.444
CE-141	4.440E-02		9.961E-02	1.632E-01	1.411E-02	0.272
CE-143	1.644E-02		2.478E-03	Half-Life too short		
CE-144	-3.202E-01		2.954E-01	4.507E-01	6.916E-02	-0.710
PM-144	-2.234E-02		4.828E-02	7.803E-02	6.919E-03	-0.286
PR-144	-1.540E+00		3.616E+00	5.859E+00	5.193E-01	-0.263
PM-146	4.033E-03		5.787E-02	9.469E-02	1.041E-02	0.043
ND-147	-9.714E-02		9.787E-01	1.570E+00	2.382E-01	-0.062
PM-149	4.753E-04		2.993E-04	Half-Life too short		
EU-152	1.204E-01		1.494E-01	2.154E-01	2.080E-02	0.559
GD-153	5.381E-02		1.389E-01	1.997E-01	1.794E-02	0.269
EU-154	-9.878E-02		1.695E-01	2.684E-01	3.337E-02	-0.368
EU-155	9.616E-02		1.530E-01	2.542E-01	2.276E-02	0.378
TB-160	-3.870E-02		2.083E-01	3.379E-01	4.331E-02	-0.115
HO-166M	-6.192E-02		8.514E-02	1.252E-01	1.147E-02	-0.495
TA-182	-8.762E-02		2.922E-01	4.601E-01	4.182E-02	-0.190
IR-192	2.936E-02		4.974E-02	8.464E-02	7.793E-03	0.347
HG-203	1.018E-01		6.512E-02	1.023E-01	9.524E-03	0.995
BI-207	1.161E-03		7.351E-02	1.199E-01	1.287E-02	0.010
PB-210	-1.765E+00		5.088E+00	8.452E+00	8.065E-01	-0.209
PB-211	-8.065E-01		1.063E+00	1.542E+00	7.475E-01	-0.523
BI-212	2.165E+00	+	9.550E-01	1.585E+00	2.070E-01	1.366
RN-219	1.092E-02		5.492E-01	9.010E-01	1.362E-01	0.012
RA-223	3.961E-01		1.026E+00	1.508E+00	2.658E-01	0.263
AC-227	3.801E-01		3.626E-01	6.265E-01	7.711E-02	0.607
TH-227	3.801E-01		3.634E-01	6.265E-01	8.667E-02	0.607
TH-229	-1.636E-01		7.672E-01	1.213E+00	1.023E-01	-0.135
PA-231	-2.707E+00		2.276E+00	3.142E+00	4.677E-01	-0.861
TH-231	3.961E-01		1.026E+00	1.508E+00	2.658E-01	0.263
PA-233	-3.476E-02		8.417E-02	1.363E-01	1.284E-02	-0.255
PA-234	2.026E-01		4.267E-01	7.230E-01	1.514E-01	0.280
PA-234M	-4.286E+00		6.047E+00	9.319E+00	1.199E+00	-0.460
NP-239	-3.742E-01		5.714E-01	9.023E-01	8.059E-02	-0.415
AM-241	7.572E-02		2.435E-01	3.580E-01	3.090E-02	0.211
CM-247	-2.206E-02		5.063E-02	8.079E-02	7.293E-03	-0.273
CF-249	6.348E-02		5.438E-02	9.449E-02	8.517E-03	0.672
CF-251	-1.366E-01		1.882E-01	2.914E-01	2.408E-02	-0.469

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248824001            *
* Acquisition date : 23-MAR-2010 14:25:27 Detector SN#    :                 *
* Detector ID      : GAM29                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:58.14     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248824001           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.0387E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.952E+01	4.731E+00	3.851E-01	2.414E+00
SN-126	6.123E-01	1.993E-01	8.629E-02	1.017E-01
TL-208	6.442E-01	1.301E-01	3.412E-02	6.636E-02
BI-211	5.221E+00	7.648E-01	2.200E-01	3.902E-01
PB-212	2.334E+00	2.735E-01	6.153E-02	1.395E-01
BI-214	1.704E+00	2.659E-01	7.709E-02	1.357E-01
PB-214	1.895E+00	2.959E-01	7.998E-02	1.510E-01
RA-224	5.861E+00	1.514E+00	6.589E-01	7.723E-01
RA-226	1.704E+00	2.659E-01	7.709E-02	1.357E-01
AC-228	2.321E+00	5.348E-01	1.504E-01	2.729E-01
RA-228	2.321E+00	5.348E-01	1.504E-01	2.729E-01
TH-228	2.334E+00	2.735E-01	6.153E-02	1.395E-01
TH-230	1.704E+00	2.509E-01	7.709E-02	1.280E-01
TH-232	2.321E+00	5.348E-01	1.504E-01	2.729E-01
TH-234	3.103E+00	2.431E+00	1.531E+00	1.240E+00
U-235	1.482E-01	2.883E-01	2.385E-01	1.471E-01
NP-237	1.827E+00	7.034E-01	2.683E-01	3.589E-01
U-238	3.103E+00	2.431E+00	1.531E+00	1.240E+00
ANH-511	2.108E-01	9.532E-02	3.156E-02	4.863E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.560E-01	4.583E-01	3.707E-01	2.338E-01	NOT IDENT.
NA-22	-3.604E-02	5.862E-02	4.702E-02	2.991E-02	NOT IDENT.
NA-24	-8.221E+07	2.475E+08	0.000E+00	1.263E+08	SHORT HLIF
SC-46	-2.399E-02	4.903E-02	3.905E-02	2.502E-02	FAIL ABUN
V-48	2.292E-02	1.111E-01	9.391E-02	5.666E-02	NOT IDENT.
CR-51	-4.801E-02	6.043E-01	4.948E-01	3.083E-01	NOT IDENT.
MN-54	-2.967E-03	5.290E-02	4.422E-02	2.699E-02	NOT IDENT.
CO-56	2.191E-02	5.708E-02	4.915E-02	2.912E-02	NOT IDENT.

CO-57	3.771E-02	3.609E-02	3.099E-02	1.841E-02	NOT IDENT.
CO-58	9.001E-03	5.303E-02	4.516E-02	2.706E-02	NOT IDENT.
FE-59	-1.566E-01	1.377E-01	1.013E-01	7.027E-02	NOT IDENT.
CO-60	-1.653E-02	5.405E-02	4.435E-02	2.757E-02	NOT IDENT.
ZN-65	-6.169E-02	1.424E-01	9.482E-02	7.265E-02	NOT IDENT.
SE-75	-5.023E-02	6.304E-02	5.170E-02	3.216E-02	NOT IDENT.
SR-85	1.349E-01	6.625E-02	5.375E-02	3.380E-02	NOT IDENT.
Y-88	1.645E-02	3.827E-02	3.425E-02	1.952E-02	NOT IDENT.
Y-91	-2.140E+01	3.356E+01	2.608E+01	1.712E+01	NOT IDENT.
NB-94	1.995E-02	4.601E-02	4.003E-02	2.348E-02	NOT IDENT.
NB-95	1.062E-01	7.368E-02	5.964E-02	3.759E-02	NOT IDENT.
NB-95M	1.086E+00	2.465E-01	2.005E-01	1.258E-01	NOT IDENT.
ZR-95	-2.481E-02	1.004E-01	8.320E-02	5.122E-02	NOT IDENT.
MO-99	-2.221E+00	5.747E+01	4.844E+01	2.932E+01	NOT IDENT.
TC-99M	-4.526E+22	5.400E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	5.669E-03	5.304E-02	4.413E-02	2.706E-02	FAIL ABUN
RH-106	-4.949E-02	4.094E-01	3.466E-01	2.089E-01	NOT IDENT.
RU-106	-4.949E-02	4.093E-01	3.466E-01	2.088E-01	NOT IDENT.
AG-108M	-4.201E-02	3.940E-02	3.042E-02	2.010E-02	NOT IDENT.
CD-109	6.270E+00	1.900E+00	1.178E+00	9.692E-01	NOT IDENT.
AG-110M	1.796E-02	4.484E-02	3.915E-02	2.288E-02	NOT IDENT.
SN-113	-3.368E-02	6.094E-02	4.929E-02	3.109E-02	NOT IDENT.
CD-115	-4.103E+01	6.751E+01	0.000E+00	3.444E+01	SHORT HLIF
SN-117M	-4.001E-03	9.877E-02	8.108E-02	5.039E-02	NOT IDENT.
TE-123M	-6.678E-03	4.086E-02	3.337E-02	2.085E-02	NOT IDENT.
SB-124	-7.132E-03	9.518E-02	7.813E-02	4.856E-02	NOT IDENT.
SB-125	8.965E-02	1.175E-01	1.021E-01	5.995E-02	FAIL ABUN
TE-125M	-5.953E+00	1.463E+01	1.201E+01	7.465E+00	NOT IDENT.
I-126	2.709E-01	3.854E-01	3.415E-01	1.966E-01	NOT IDENT.
SB-126	-2.124E-02	2.715E-01	2.045E-01	1.385E-01	NOT IDENT.
SB-127	1.590E+00	4.035E+00	3.516E+00	2.059E+00	NOT IDENT.
I-131	-1.846E-01	2.259E-01	1.799E-01	1.153E-01	NOT IDENT.
TE-132	7.252E-01	2.808E+00	2.429E+00	1.433E+00	NOT IDENT.
BA-133	3.021E-02	6.467E-02	4.861E-02	3.299E-02	FAIL ABUN
I-133	2.239E+05	3.945E+05	0.000E+00	2.013E+05	SHORT HLIF
CS-134	1.598E-01	9.185E-02	6.313E-02	4.686E-02	FAIL ABUN
CS-135	1.535E-01	2.189E-01	1.910E-01	1.117E-01	NOT IDENT.
I-135	1.550E+21	2.674E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.163E-02	1.872E-01	1.557E-01	9.552E-02	NOT IDENT.
BA-137M	-3.303E-02	4.703E-02	3.809E-02	2.400E-02	NOT IDENT.
CS-137	-3.490E-02	4.969E-02	4.024E-02	2.535E-02	NOT IDENT.
CE-139	2.796E-02	4.227E-02	3.557E-02	2.157E-02	NOT IDENT.
BA-140	2.118E-01	4.750E-01	3.980E-01	2.423E-01	NOT IDENT.
LA-140	1.100E-01	1.330E-01	1.231E-01	6.785E-02	FAIL ABUN
CE-141	4.440E-02	9.761E-02	8.185E-02	4.980E-02	NOT IDENT.
CE-143	1.644E+04	4.857E+03	0.000E+00	2.478E+03	SHORT HLIF
CE-144	-3.202E-01	2.895E-01	2.262E-01	1.477E-01	NOT IDENT.
PM-144	-2.234E-02	4.731E-02	3.887E-02	2.414E-02	NOT IDENT.
PR-144	-1.540E+00	3.543E+00	2.919E+00	1.808E+00	NOT IDENT.
PM-146	4.033E-03	5.671E-02	4.726E-02	2.893E-02	NOT IDENT.
ND-147	-9.714E-02	9.591E-01	7.831E-01	4.894E-01	FAIL ABUN
PM-149	4.753E+02	5.867E+02	0.000E+00	2.993E+02	SHORT HLIF
EU-152	1.204E-01	1.464E-01	1.077E-01	7.471E-02	NOT IDENT.
GD-153	5.381E-02	1.361E-01	1.004E-01	6.944E-02	NOT IDENT.
EU-154	-9.878E-02	1.661E-01	1.334E-01	8.473E-02	NOT IDENT.
EU-155	9.616E-02	1.499E-01	1.277E-01	7.650E-02	FAIL ABUN
TB-160	-3.870E-02	2.041E-01	1.681E-01	1.041E-01	FAIL ABUN
HO-166M	-6.192E-02	8.343E-02	6.236E-02	4.257E-02	FAIL ABUN
TA-182	-8.762E-02	2.864E-01	2.287E-01	1.461E-01	FAIL ABUN
IR-192	2.936E-02	4.875E-02	4.232E-02	2.487E-02	FAIL ABUN
HG-203	1.018E-01	6.382E-02	5.119E-02	3.256E-02	NOT IDENT.
BI-207	1.161E-03	7.204E-02	5.961E-02	3.675E-02	FAIL ABUN
PB-210	-1.765E+00	4.986E+00	4.261E+00	2.544E+00	NOT IDENT.
PB-211	-8.065E-01	1.041E+00	7.702E-01	5.313E-01	NOT IDENT.
BI-212	2.165E+00	9.359E-01	7.894E-01	4.775E-01	FAIL ABUN
RN-219	1.092E-02	5.382E-01	4.500E-01	2.746E-01	NOT IDENT.
RA-223	3.961E-01	1.005E+00	7.539E-01	5.128E-01	FAIL ABUN
AC-227	3.801E-01	3.554E-01	3.135E-01	1.813E-01	FAIL ABUN
TH-227	3.801E-01	3.562E-01	3.135E-01	1.817E-01	FAIL ABUN
TH-229	-1.636E-01	7.519E-01	6.076E-01	3.836E-01	FAIL ABUN
PA-231	-2.707E+00	2.231E+00	1.572E+00	1.138E+00	NOT IDENT.
TH-231	3.961E-01	1.005E+00	7.539E-01	5.128E-01	FAIL ABUN
PA-233	-3.476E-02	8.248E-02	6.817E-02	4.208E-02	FAIL ABUN
PA-234	2.026E-01	4.181E-01	3.597E-01	2.133E-01	NOT IDENT.
PA-234M	-4.286E+00	5.926E+00	4.635E+00	3.024E+00	NOT IDENT.
NP-239	-3.742E-01	5.599E-01	4.531E-01	2.857E-01	FAIL ABUN
AM-241	7.572E-02	2.386E-01	1.803E-01	1.217E-01	NOT IDENT.
CM-247	-2.206E-02	4.962E-02	4.035E-02	2.531E-02	FAIL ABUN

CF-249	6.348E-02	5.329E-02	4.720E-02	2.719E-02	NOT IDENT.
CF-251	-1.366E-01	1.844E-01	1.460E-01	9.409E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	420.2925
49.72	489.1980
57.36	0.0000
59.54	454.8640
63.29	518.5618
63.29	518.5618
64.28	532.3501
67.75	547.7212
69.67	576.2681
70.83	569.2237
72.81	581.5626
72.87	581.6093
72.87	581.6093
74.82	583.1412
74.82	583.1412
74.82	583.1412
74.97	583.2589
77.11	584.9150
77.11	584.9150
77.11	584.9150
79.69	475.9594
79.80	476.0260
80.12	476.2223
80.19	512.5908
80.57	512.8389
81.00	476.7588
81.07	476.8002
81.07	476.8002
83.79	546.5575
83.79	546.5575
85.43	526.5455
86.48	527.2258
86.55	527.2712
86.79	496.4962
86.94	496.5893
87.57	496.9709
88.03	497.2483
88.47	497.5126
89.96	947.7888
91.11	507.2712
92.59	508.1586
92.59	508.1586
93.35	433.1411
94.67	440.3810
94.87	440.4825
94.87	440.4825
95.86	503.5142
97.43	395.6250
98.44	366.3732
99.53	383.3480
100.11	373.4024
103.18	464.5447
103.37	432.4905
105.31	395.9918
106.12	388.0185
109.28	421.6923
111.00	398.4103
111.76	393.4952
116.30	377.4742
117.23	392.5675
121.12	340.2223
121.78	339.3886
122.06	341.5980
123.07	363.1121
131.20	363.8475
133.52	411.6943
136.00	361.2018

136.47	347.4190
140.51	407.9038
140.51	0.0000
143.76	359.4475
144.24	363.9221
144.24	363.9221
145.44	363.2292
152.43	362.1990
153.25	366.8094
154.21	339.8765
154.21	339.8765
156.02	352.4040
158.56	348.7894
159.00	350.0122
162.66	340.1126
163.33	327.1288
165.86	315.7083
176.60	348.3989
177.52	355.3125
181.07	342.0446
184.41	337.5652
185.72	324.0486
193.51	336.0670
197.04	311.9258
205.31	302.3091
210.85	301.9778
215.65	321.0432
222.11	276.1947
227.38	263.3630
228.16	264.4222
228.18	264.4257
235.69	270.0587
235.96	270.1068
235.96	270.1068
238.63	253.2581
238.63	253.2581
240.99	253.6447
242.00	235.5255
244.70	253.0062
252.40	264.8427
252.80	263.0362
256.23	237.3303
256.23	237.3303
260.90	0.0000
264.66	260.2425
268.22	251.3525
269.46	223.1715
269.46	223.1715
271.23	209.8365
273.65	342.8593
276.40	226.3061
277.37	222.3171
277.60	224.8824
278.00	224.9344
279.20	198.1456
279.54	209.2820
280.46	203.0495
283.69	257.4657
284.31	238.4796
285.41	229.0840
285.90	0.0000
287.50	202.8131
293.27	0.0000
295.22	203.1711
295.96	249.6692
298.57	250.0342
299.98	197.2975
299.98	197.2975
300.09	197.3075
300.09	197.3075
300.13	197.3125
301.36	223.1319
302.85	207.2498
304.50	201.0066
304.50	201.0066
304.85	201.0447
308.46	202.0886
311.90	186.0000

316.51	180.6348
319.41	210.0964
320.08	212.9811
323.87	194.9951
323.87	194.9951
328.76	192.2373
333.37	176.3701
334.37	174.0115
334.37	174.0115
338.28	179.7653
338.28	179.7653
338.32	179.7676
338.32	179.7676
338.32	179.7676
340.48	180.2942
340.55	177.0227
344.28	141.8871
351.06	170.0579
351.93	170.1313
356.01	166.8436
364.49	160.2414
366.42	140.4682
383.85	177.8103
388.16	135.8932
388.63	129.8818
391.69	164.3490
400.66	150.8552
401.81	152.9612
402.40	162.1211
404.85	175.4898
410.95	140.3719
414.70	148.7589
423.72	128.8962
427.09	121.9154
427.87	118.8830
433.94	153.1069
453.88	133.6879
463.37	148.7849
468.07	138.9974
473.00	111.7701
476.78	143.3282
477.60	130.8182
487.02	101.9009
492.35	0.0000
497.08	98.0893
511.00	121.9559
514.00	125.6360
527.90	0.0000
529.87	0.0000
531.02	98.3138
537.26	106.0407
546.56	0.0000
563.25	108.1396
569.33	108.3765
569.50	111.6353
569.70	111.6428
583.19	83.8634
600.60	105.4685
602.73	116.9688
604.72	118.8757
609.32	114.3010
609.32	114.3010
609.32	114.3010
610.33	114.3416
614.28	102.2267
618.01	97.0041
621.93	102.0978
621.93	102.0978
633.25	86.7901
635.95	89.6409
636.99	97.9905
645.85	85.2973
657.76	89.3535
661.66	114.6268
661.66	114.6268
664.57	0.0000
666.33	97.0662
666.50	87.7387

677.62	91.7972
685.70	80.7615
695.00	103.6017
696.49	116.8403
696.51	115.8981
697.00	111.2060
702.65	104.7919
706.68	106.8111
711.68	94.6696
720.70	91.1328
721.93	0.0000
722.78	105.8449
722.91	105.8494
723.31	91.2051
724.19	87.9704
727.33	92.2656
733.00	80.0369
735.93	100.1337
739.50	90.6938
747.24	88.9888
752.31	81.4549
753.82	84.3674
756.73	92.1152
763.94	92.3105
765.81	95.6599
766.42	95.6761
777.92	82.5463
778.90	76.4849
783.70	77.3649
785.37	75.9934
795.86	69.8687
801.95	87.4860
810.29	73.0759
810.76	74.0595
815.77	69.2839
818.51	57.6172
832.01	77.4361
834.85	99.0767
836.80	0.0000
846.77	79.7146
856.80	98.6796
860.56	67.1699
871.09	81.2259
873.19	75.3243
875.33	0.0000
879.36	82.3955
880.51	79.4401
883.24	60.6165
884.68	62.6283
889.28	63.6979
898.04	68.8315
911.20	70.3515
911.20	70.3515
911.20	70.3515
926.50	72.3486
937.49	85.6485
944.13	91.8461
946.00	69.6738
949.00	63.6627
962.29	81.6861
964.08	86.9385
966.15	97.4219
968.97	113.7363
968.97	113.7363
968.97	113.7363
983.53	58.0889
996.26	56.2230
1001.03	66.5208
1004.73	54.2886
1037.84	71.2292
1038.76	0.0000
1048.07	66.2240
1050.41	80.7549
1050.41	80.7549
1063.66	69.5763
1085.87	72.0154
1099.45	85.8438
1112.07	66.5876

1115.54	79.2467
1120.29	63.1030
1120.29	63.1030
1120.29	63.1030
1120.55	63.1079
1121.30	63.1177
1131.51	0.0000
1173.23	70.2109
1177.93	103.2914
1189.05	97.1318
1204.77	98.5212
1221.41	91.3397
1231.02	94.1344
1235.36	83.1320
1238.28	72.2453
1260.41	0.0000
1271.85	49.3178
1274.44	68.8950
1274.54	68.8950
1291.59	50.4461
1298.22	0.0000
1312.11	59.0911
1332.49	52.7324
1365.19	29.3739
1368.63	0.0000
1384.29	24.9628
1408.01	32.4762
1457.56	0.0000
1460.82	35.4426
1489.16	28.1099
1505.03	36.9371
1596.21	17.7727
1620.50	11.8966
1678.03	0.0000
1690.97	16.0458
1764.49	7.1021
1764.49	7.1021
1764.49	7.1021
1770.23	17.7710
1771.35	63.9866
1791.20	0.0000
1836.06	10.2577

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248824001

Total Uranium Activity	9.2993E+00	ug/g
Total Uranium Counting Unc.	7.2333E+00	ug/g
Total Uranium Tpu	3.6904E-06	ug/g
Total Uranium Mda	4.5575E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962631                    SAMPLE ID  : G248824001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM29            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 14:25:27.95    SAMPLE ALQT:  103.870 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.263E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.969E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 5.103E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 2.488E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:41:02.38

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065185.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 23-MAR-2010 14:39:21
Sample ID         : G1202065185          Sample quantity  : 1.33700E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.47  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	240.08*	51	101	4.13	479.56	473	18	7.11E-03	50.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 16:41:05

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065185.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 9-MAR-2010 00:00:00 Acquisition date : 23-MAR-2010 14:39:21
Sample ID : G1202065185 Sample quantity : 133.70 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA6 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.47 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	+	240.99	*	8.401E-01	8.581E-01	6.175E-01	5.678E-02	1.360

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-5.824E-02	1.788E-01	2.882E-01	2.692E-02	-0.202
NA-22		1274.54	*	6.768E-04	2.068E-02	3.418E-02	3.003E-03	0.020
NA-24		1368.63	*	-2.933E-02	2.068E-02	Half-Life too short		
K-40		1460.82	*	-3.089E-01	2.679E-01	3.822E-01	3.603E-02	-0.808
SC-46		889.28	*	-8.074E-03	2.189E-02	3.234E-02	2.989E-03	-0.250
		1120.55		2.229E-02	2.724E-02	5.161E-02	4.370E-03	0.432
V-48		944.13		2.163E-01	4.755E-01	8.629E-01	7.939E-02	0.251
		983.53	*	4.050E-02	3.815E-02	7.560E-02	6.879E-03	0.536
		1312.11		2.680E-02	4.688E-02	8.604E-02	7.759E-03	0.311
CR-51		320.08	*	1.195E-02	2.253E-01	3.715E-01	3.576E-02	0.032
MN-54		834.85	*	-3.960E-03	2.279E-02	3.577E-02	3.224E-03	-0.111
CO-56		846.77	*	-4.125E-02	2.353E-02	2.123E-02	1.924E-03	-1.943
		1037.84		-6.422E-02	1.943E-01	3.043E-01	2.841E-02	-0.211
		1238.28		1.755E-02	4.724E-02	8.281E-02	7.282E-03	0.212
		1771.35		1.998E-02	1.767E-01	3.014E-01	2.591E-02	0.066
CO-57		122.06	*	-5.494E-03	1.440E-02	2.238E-02	1.884E-03	-0.246
		136.47		4.219E-02	1.139E-01	1.883E-01	1.691E-02	0.224
CO-58		810.76	*	-5.484E-03	2.142E-02	3.293E-02	2.937E-03	-0.167
FE-59		1099.45	*	-3.661E-02	5.618E-02	8.138E-02	7.565E-03	-0.450
		1291.59		2.229E-02	7.292E-02	1.270E-01	1.273E-02	0.175
CO-60		1173.23		7.766E-03	2.171E-02	3.859E-02	3.129E-03	0.201
		1332.49	*	-7.372E-03	2.264E-02	3.447E-02	3.153E-03	-0.214
ZN-65		1115.54	*	-4.155E-02	4.802E-02	6.426E-02	5.468E-03	-0.647
SE-75		121.12		-2.759E-02	7.457E-02	1.160E-01	1.270E-02	-0.238
		136.00		1.407E-02	2.202E-02	3.717E-02	3.117E-03	0.378
		264.66	*	1.644E-02	2.981E-02	5.168E-02	4.823E-03	0.318
		279.54		-4.146E-02	7.160E-02	1.119E-01	1.076E-02	-0.371
		400.66		6.772E-02	1.534E-01	2.614E-01	2.873E-02	0.259

Sample ID : G1202065185 Acquisition date : 23-MAR-2010 14:39:21

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SR-85		514.00	*	-6.996E-02	3.825E-02	5.444E-02	4.723E-03	-1.285
Y-88		898.04		9.272E-03	2.247E-02	3.928E-02	3.659E-03	0.236
		1836.06	*	1.022E-04	1.528E-02	2.529E-02	2.114E-03	0.004
Y-91		1204.77	*	9.722E+00	1.102E+01	2.120E+01	1.764E+00	0.458
NB-94		702.65	*	-2.175E-02	2.213E-02	3.074E-02	2.561E-03	-0.708
		871.09		2.198E-02	2.274E-02	4.241E-02	3.888E-03	0.518
NB-95		765.81	*	1.609E-02	2.271E-02	4.139E-02	3.591E-03	0.389
NB-95M		235.69	*	7.476E-02	8.494E-02	1.360E-01	1.409E-02	0.550
ZR-95		724.19		-2.943E-02	4.910E-02	7.138E-02	6.563E-03	-0.412
		756.73	*	2.257E-02	3.578E-02	6.540E-02	6.234E-03	0.345
MO-99		140.51		3.977E-01	1.073E+01	1.719E+01	4.064E+00	0.023
		181.07		1.093E+00	8.764E+00	1.498E+01	2.815E+00	0.073
		366.42		-4.548E+00	6.081E+01	9.799E+01	8.618E+00	-0.046
		739.50	*	-1.092E+00	6.568E+00	1.043E+01	1.639E+00	-0.105
		777.92		1.936E-01	1.869E+01	3.048E+01	2.664E+00	0.006
TC-99M		140.51	*	1.919E+08	1.869E+01	Half-Life too short		
RU-103		497.08	*	-1.279E-03	2.804E-02	4.410E-02	6.177E-03	-0.029
		610.33		-2.521E-01	5.544E-01	8.587E-01	1.394E-01	-0.294
RH-106		621.93	*	-4.742E-02	1.967E-01	3.142E-01	4.108E-02	-0.151
		1050.41		-4.692E-01	1.468E+00	2.287E+00	2.023E-01	-0.205
RU-106		621.93	*	-4.742E-02	1.966E-01	3.142E-01	2.620E-02	-0.151
		1050.41		-4.692E-01	1.468E+00	2.287E+00	2.023E-01	-0.205
AG-108M		433.94	*	-3.045E-03	2.008E-02	3.163E-02	2.810E-03	-0.096
		614.28		-1.153E-02	2.123E-02	3.237E-02	2.806E-03	-0.356
		722.91		-5.433E-03	1.967E-02	3.056E-02	2.668E-03	-0.178
CD-109		88.03	*	-6.473E-02	3.739E-01	5.864E-01	6.524E-02	-0.110
AG-110M		657.76	*	-1.736E-02	2.197E-02	3.172E-02	2.662E-03	-0.547
		677.62		7.156E-02	1.791E-01	3.133E-01	2.647E-02	0.228
		706.68		6.052E-06	1.262E-01	2.071E-01	1.783E-02	0.000
		763.94		3.220E-02	8.897E-02	1.541E-01	1.372E-02	0.209
		884.68		1.768E-02	3.164E-02	5.599E-02	5.309E-03	0.316
		937.49		-9.736E-03	6.106E-02	9.944E-02	9.453E-03	-0.098
		1384.29		5.458E-02	9.400E-02	1.748E-01	1.644E-02	0.312
		1505.03		7.165E-02	1.630E-01	2.967E-01	2.722E-02	0.241
SN-113		391.69	*	-6.644E-03	2.906E-02	4.569E-02	3.985E-03	-0.145
CD-115		260.90		-1.503E+01	7.479E+01	1.218E+02	1.131E+01	-0.123
		492.35		-2.332E+01	2.059E+01	2.933E+01	2.547E+00	-0.795
		527.90	*	-7.018E+00	7.236E+00	9.285E+00	8.041E-01	-0.756
SN-117M		156.02		-2.219E-01	1.217E+00	1.898E+00	1.592E-01	-0.117
		158.56	*	2.781E-02	2.929E-02	5.048E-02	4.243E-03	0.551
TE-123M		159.00	*	1.090E-02	1.564E-02	2.641E-02	2.234E-03	0.413
SB-124		602.73		9.786E-03	2.716E-02	4.691E-02	3.957E-03	0.209
		645.85		1.678E-02	3.029E-01	5.043E-01	4.396E-02	0.033
		722.78		-5.425E-02	1.965E-01	3.052E-01	2.640E-02	-0.178
		1690.97	*	-6.903E-03	4.279E-02	6.669E-02	6.136E-03	-0.104
SB-125		427.87	*	3.118E-03	6.034E-02	9.762E-02	8.544E-03	0.032
		463.37		1.158E-02	1.843E-01	2.968E-01	2.764E-02	0.039
		600.60		3.828E-02	1.226E-01	2.109E-01	1.918E-02	0.181
		635.95		8.872E-02	1.644E-01	2.928E-01	2.632E-02	0.303

Sample ID : G1202065185 Acquisition date : 23-MAR-2010 14:39:21

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-125M		109.28	*	8.147E-01	5.684E+00	8.963E+00	9.648E-01	0.091
I-126		388.63		3.795E-02	1.039E-01	1.753E-01	1.490E-02	0.216
		666.33	*	-2.282E-02	1.460E-01	2.354E-01	1.912E-02	-0.097
		753.82		4.300E-01	9.536E-01	1.682E+00	1.449E-01	0.256
SB-126		414.70		6.788E-03	4.697E-02	7.704E-02	6.585E-03	0.088
		666.50		-8.965E-03	4.989E-02	8.019E-02	6.512E-03	-0.112
		695.00		1.771E-02	5.115E-02	8.789E-02	7.286E-03	0.202
		697.00		1.551E-01	1.859E-01	3.362E-01	2.790E-02	0.461
		720.70	*	2.865E-02	7.188E-02	1.262E-01	1.065E-02	0.227
		856.80		2.386E-02	3.141E-01	5.138E-01	4.680E-02	0.046
SN-126		64.28		-8.076E-02	2.934E-01	4.556E-01	7.053E-02	-0.177
		86.94		-1.478E-01	1.699E-01	2.320E-01	9.724E-02	-0.637
		87.57	*	-4.021E-02	3.884E-02	5.614E-02	6.218E-03	-0.716
SB-127		252.40		-1.709E-01	2.435E+00	4.021E+00	1.674E+00	-0.042
		473.00		2.286E-01	9.826E-01	1.617E+00	2.050E-01	0.141
		685.70	*	3.401E-01	6.511E-01	1.163E+00	1.272E-01	0.292
		783.70		1.350E+00	1.792E+00	3.283E+00	4.047E-01	0.411
I-131		80.19		-1.755E+00	1.903E+00	2.846E+00	2.925E-01	-0.617
		284.31		-6.809E-01	9.241E-01	1.412E+00	1.373E-01	-0.482
		364.49	*	-3.778E-03	7.608E-02	1.230E-01	1.140E-02	-0.031
		636.99		1.711E-01	9.021E-01	1.534E+00	1.344E-01	0.112
TE-132		49.72		2.943E+00	1.098E+01	1.873E+01	2.166E+00	0.157
		111.76		-1.308E+01	1.865E+01	2.697E+01	2.976E+00	-0.485
		116.30		-5.631E-02	1.384E+01	2.232E+01	2.425E+00	-0.003
		228.16	*	-1.671E-01	4.067E-01	6.558E-01	1.049E-01	-0.255
BA-133		81.00		-1.475E-02	3.801E-02	5.991E-02	9.897E-03	-0.246
		276.40		3.123E-01	2.209E-01	4.033E-01	5.866E-02	0.774
		302.85		6.041E-02	8.579E-02	1.503E-01	2.030E-02	0.402
		356.01	*	-2.918E-02	2.694E-02	3.763E-02	4.948E-03	-0.775
		383.85		4.983E-03	1.822E-01	2.960E-01	3.667E-02	0.017
I-133		529.87	*	-1.417E-03	1.822E-01	Half-Life too short		
		875.33		-3.673E-02	1.822E-01	Half-Life too short		
		1298.22		-3.587E-03	1.822E-01	Half-Life too short		
CS-134		563.25		-5.534E-02	2.538E-01	4.123E-01	3.573E-02	-0.134
		569.33		-5.352E-02	1.464E-01	2.250E-01	1.953E-02	-0.238
		604.72		-3.258E-03	2.482E-02	4.058E-02	3.428E-03	-0.080
		795.86	*	-7.150E-03	2.265E-02	3.426E-02	3.046E-03	-0.209
		801.95		5.637E-02	2.712E-01	4.184E-01	3.726E-02	0.135
		1365.19		3.672E-01	6.710E-01	1.256E+00	1.199E-01	0.292
CS-135		268.22	*	3.577E-04	9.760E-02	1.618E-01	1.708E-02	0.002
I-135		546.56		5.900E+08	9.760E-02	Half-Life too short		
		836.80		8.401E+08	9.760E-02	Half-Life too short		
		1038.76		-3.855E+08	9.760E-02	Half-Life too short		
		1131.51		7.639E+08	9.760E-02	Half-Life too short		
		1260.41	*	-2.989E+07	9.760E-02	Half-Life too short		
		1457.56		6.081E+08	9.760E-02	Half-Life too short		
		1678.03		-2.909E+08	9.760E-02	Half-Life too short		
		1791.20		1.170E+09	9.760E-02	Half-Life too short		
CS-136		153.25		5.848E-01	4.302E-01	7.660E-01	7.706E-02	0.763

Sample ID : G1202065185 Acquisition date : 23-MAR-2010 14:39:21

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		176.60		-7.393E-02	2.755E-01	4.574E-01	4.333E-02	-0.162
		273.65		-1.649E-01	3.105E-01	4.878E-01	4.873E-02	-0.338
		340.55		5.207E-02	8.914E-02	1.538E-01	1.441E-02	0.338
		818.51		-1.035E-02	3.720E-02	5.652E-02	5.055E-03	-0.183
		1048.07	*	-4.921E-02	6.097E-02	8.429E-02	7.762E-03	-0.584
		1235.36		2.819E-02	2.828E-01	4.735E-01	5.537E-02	0.060
BA-137M		661.66	*	1.440E-04	2.340E-02	3.862E-02	3.125E-03	0.004
CS-137		661.66	*	1.521E-04	2.472E-02	4.079E-02	3.308E-03	0.004
CE-139		165.86	*	-2.763E-03	1.824E-02	2.847E-02	2.408E-03	-0.097
BA-140		162.66		-3.313E-02	4.797E-01	7.554E-01	6.817E-02	-0.044
		304.85		-4.795E-01	8.593E-01	1.314E+00	3.873E-01	-0.365
		423.72		1.718E-01	1.329E+00	2.168E+00	7.130E-01	0.079
		537.26	*	-2.771E-02	1.775E-01	2.911E-01	9.874E-02	-0.095
LA-140		328.76		-6.750E-02	1.891E-01	2.979E-01	2.865E-02	-0.227
		487.02		2.793E-02	8.272E-02	1.449E-01	1.335E-02	0.193
		815.77		-9.560E-02	1.600E-01	2.220E-01	2.198E-02	-0.431
		1596.21	*	1.018E-02	5.232E-02	9.177E-02	8.316E-03	0.111
CE-141		145.44	*	-1.530E-02	3.826E-02	5.475E-02	4.654E-03	-0.279
CE-143		57.36		-1.415E-04	3.826E-02	Half-Life too short		
		293.27	*	3.603E-05	3.826E-02	Half-Life too short		
		664.57		2.918E-04	3.826E-02	Half-Life too short		
		721.93		3.065E-04	3.826E-02	Half-Life too short		
CE-144		80.12		-9.579E-01	1.076E+00	1.616E+00	1.653E-01	-0.593
		133.52	*	5.440E-03	1.046E-01	1.684E-01	2.547E-02	0.032
PM-144		476.78		1.331E-02	3.519E-02	6.228E-02	5.866E-03	0.214
		618.01		1.316E-02	1.920E-02	3.481E-02	2.996E-03	0.378
		696.49	*	6.284E-03	2.506E-02	4.244E-02	3.523E-03	0.148
PR-144		696.51	*	4.701E-01	1.875E+00	3.175E+00	2.635E-01	0.148
		1489.16		4.202E+00	8.021E+00	1.486E+01	1.365E+00	0.283
PM-146		453.88	*	-4.800E-03	2.748E-02	4.293E-02	4.557E-03	-0.112
		633.25		-1.306E-01	8.225E-01	1.323E+00	5.045E-01	-0.099
		735.93		-8.443E-02	9.161E-02	1.196E-01	3.349E-02	-0.706
		747.24		-3.988E-02	5.604E-02	7.861E-02	1.145E-02	-0.507
ND-147		91.11		5.746E-02	1.291E-01	2.173E-01	2.439E-02	0.264
		319.41		-1.699E-01	2.038E+00	3.311E+00	3.049E-01	-0.051
		531.02	*	-1.984E-03	3.272E-01	5.475E-01	8.196E-02	-0.004
PM-149		285.90	*	-6.221E+00	5.080E+01	8.286E+01	1.320E+01	-0.075
EU-152		121.78		-1.056E-02	4.039E-02	6.344E-02	6.175E-03	-0.166
		244.70		9.850E-02	1.855E-01	2.920E-01	2.691E-02	0.337
		344.28	*	3.140E-02	6.253E-02	1.073E-01	1.021E-02	0.292
		778.90		-4.207E-02	1.502E-01	2.318E-01	2.027E-02	-0.182
		964.08		-2.138E-02	1.662E-01	2.819E-01	2.580E-02	-0.076
		1085.87		2.415E-02	2.453E-01	4.142E-01	3.591E-02	0.058
		1112.07		4.740E-02	1.470E-01	2.607E-01	2.222E-02	0.182
		1408.01		-2.457E-03	1.216E-01	1.965E-01	1.808E-02	-0.013
GD-153		69.67		7.086E-02	8.234E-01	1.368E+00	1.287E-01	0.052
		97.43	*	2.749E-02	4.047E-02	6.967E-02	6.875E-03	0.395
		103.18		-1.969E-02	5.575E-02	8.746E-02	8.190E-03	-0.225
EU-154		123.07		-1.912E-02	2.947E-02	4.453E-02	4.981E-03	-0.429

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		723.31		-5.177E-02	9.301E-02	1.366E-01	1.276E-02	-0.379
		873.19		-4.357E-02	1.779E-01	2.733E-01	3.363E-02	-0.159
		996.26		-1.934E-01	2.629E-01	3.856E-01	6.822E-02	-0.501
		1004.73		-1.888E-01	1.482E-01	1.899E-01	2.268E-02	-0.994
		1274.44	*	-2.984E-03	6.139E-02	9.930E-02	1.142E-02	-0.030
EU-155		86.55		-3.079E-02	4.742E-02	7.143E-02	7.869E-03	-0.431
		105.31	*	1.272E-02	5.196E-02	8.607E-02	8.010E-03	0.148
TB-160		86.79		-1.013E-01	1.235E-01	1.826E-01	2.004E-02	-0.555
		197.04		1.643E-01	3.870E-01	6.183E-01	5.450E-02	0.266
		215.65		-2.438E-02	4.516E-01	7.545E-01	6.793E-02	-0.032
		298.57		-6.017E-02	6.636E-02	9.835E-02	9.138E-03	-0.612
		879.36	*	-3.225E-02	8.310E-02	1.231E-01	1.133E-02	-0.262
		962.29		-7.580E-02	2.957E-01	4.922E-01	4.507E-02	-0.154
		966.15		-1.262E-02	1.172E-01	1.914E-01	1.751E-02	-0.066
		1177.93		-1.552E-02	1.437E-01	2.297E-01	1.870E-02	-0.068
		1271.85		3.905E-02	3.651E-01	6.135E-01	5.374E-02	0.064
HO-166M		80.57		-1.070E-01	1.142E-01	1.702E-01	1.748E-02	-0.629
		184.41		-2.640E-02	2.317E-02	3.549E-02	3.077E-03	-0.744
		280.46		-1.178E-03	5.389E-02	8.887E-02	8.277E-03	-0.013
		410.95		-6.140E-02	1.575E-01	2.294E-01	1.957E-02	-0.268
		711.68	*	3.110E-03	3.914E-02	6.492E-02	5.444E-03	0.048
		752.31		3.033E-02	1.471E-01	2.494E-01	2.147E-02	0.122
		810.29		-2.773E-04	3.138E-02	5.084E-02	4.524E-03	-0.005
TA-182		67.75		-4.364E-02	5.919E-02	8.779E-02	8.164E-03	-0.497
		100.11		1.953E-03	8.887E-02	1.447E-01	1.391E-02	0.014
		152.43		7.591E-02	1.837E-01	3.036E-01	2.540E-02	0.250
		222.11		-1.177E-01	2.031E-01	3.226E-01	2.923E-02	-0.365
		1121.30		8.492E-02	7.467E-02	1.480E-01	1.252E-02	0.574
		1189.05		3.482E-02	1.266E-01	2.233E-01	1.834E-02	0.156
		1221.41	*	3.787E-02	8.774E-02	1.583E-01	1.334E-02	0.239
		1231.02		-1.210E-01	2.395E-01	3.493E-01	2.966E-02	-0.347
IR-192		295.96		-1.962E-02	6.860E-02	1.025E-01	9.591E-03	-0.191
		308.46		-1.756E-02	6.531E-02	1.045E-01	9.715E-03	-0.168
		316.51	*	-9.933E-03	2.206E-02	3.440E-02	3.179E-03	-0.289
		468.07		-1.701E-02	4.206E-02	6.316E-02	5.870E-03	-0.269
HG-203		70.83		2.417E-01	6.290E-01	1.067E+00	1.764E-01	0.227
		72.87		-1.127E-01	3.675E-01	5.900E-01	9.503E-02	-0.191
		279.20	*	-2.166E-02	2.544E-02	3.862E-02	3.676E-03	-0.561
BI-207		72.81		-2.588E-02	8.566E-02	1.377E-01	1.323E-02	-0.188
		74.97		-9.019E-04	5.261E-02	8.226E-02	8.034E-03	-0.011
		569.70		-1.051E-02	2.278E-02	3.456E-02	2.959E-03	-0.304
		1063.66	*	5.400E-03	3.217E-02	5.507E-02	4.837E-03	0.098
		1770.23		-3.716E-01	5.032E-01	6.114E-01	5.258E-02	-0.608
TL-208		277.37		1.179E-01	2.492E-01	4.284E-01	5.575E-02	0.275
		583.19	*	7.678E-04	2.623E-02	4.381E-02	4.000E-03	0.018
		860.56		8.099E-03	1.892E-01	3.078E-01	2.993E-02	0.026
PB-210		46.54	*	-2.399E+00	2.618E+00	3.864E+00	3.718E-01	-0.621
BI-211		72.87		-4.561E-01	1.486E+00	2.388E+00	2.295E-01	-0.191
		351.06	*	3.037E-02	1.489E-01	2.378E-01	2.231E-02	0.128

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PB-211		404.85	*	-1.737E-01	4.310E-01	6.436E-01	3.113E-01	-0.270
		427.09		1.162E-01	1.003E+00	1.634E+00	7.557E-01	0.071
		832.01		-1.101E-01	5.888E-01	9.156E-01	4.754E-01	-0.120
BI-212		727.33	*	-1.348E-01	3.011E-01	4.549E-01	5.621E-02	-0.296
		785.37		-6.601E-01	1.696E+00	2.544E+00	2.233E-01	-0.259
		1620.50		-1.936E-01	1.404E+00	2.243E+00	2.022E-01	-0.086
PB-212		74.82		-1.098E-01	1.912E-01	2.862E-01	3.943E-02	-0.384
		77.11		5.051E-02	9.410E-02	1.609E-01	1.601E-02	0.314
	+	238.63	*	7.900E-02	8.077E-02	6.912E-02	7.094E-03	1.143
		300.09		7.445E-02	4.574E-01	7.653E-01	8.487E-02	0.097
BI-214		609.32	*	-1.596E-02	5.431E-02	8.601E-02	8.534E-03	-0.186
		1120.29		1.157E-01	1.585E-01	2.968E-01	3.206E-02	0.390
		1764.49		9.559E-02	1.661E-01	3.132E-01	2.700E-02	0.305
PB-214		74.82		-1.945E-01	3.386E-01	5.073E-01	6.378E-02	-0.384
		77.11		8.904E-02	1.661E-01	2.837E-01	3.666E-02	0.314
		242.00		4.157E-02	2.139E-01	3.622E-01	3.939E-02	0.115
		295.22		8.118E-03	9.385E-02	1.461E-01	1.659E-02	0.056
		351.93	*	1.022E-02	5.505E-02	8.783E-02	9.555E-03	0.116
RN-219		271.23		-9.986E-02	1.469E-01	2.271E-01	2.461E-02	-0.440
		401.81	*	-1.260E-01	2.539E-01	3.821E-01	5.656E-02	-0.330
RA-223		81.07		-2.951E-02	8.632E-02	1.369E-01	1.413E-02	-0.216
		83.79		5.426E-02	5.561E-02	9.780E-02	1.038E-02	0.555
		94.87		-4.443E-01	2.476E-01	3.374E-01	3.424E-02	-1.317
		144.24		2.913E-02	4.071E-01	6.096E-01	5.711E-02	0.048
		154.21		-6.110E-02	2.136E-01	3.300E-01	3.044E-02	-0.185
		269.46		1.003E-01	1.084E-01	1.939E-01	1.835E-02	0.517
		323.87	*	5.661E-02	4.052E-01	6.731E-01	1.186E-01	0.084
		338.28		-1.718E-01	6.845E-01	1.024E+00	1.270E-01	-0.168
RA-226		609.32	*	-1.596E-02	5.431E-02	8.601E-02	8.534E-03	-0.186
		1120.29		1.157E-01	1.585E-01	2.968E-01	3.206E-02	0.390
		1764.49		9.559E-02	1.661E-01	3.132E-01	2.700E-02	0.305
AC-227		79.69		-5.971E-01	5.571E-01	8.093E-01	1.462E-01	-0.738
		235.96		9.941E-02	1.004E-01	1.626E-01	1.756E-02	0.612
		256.23	*	-1.136E-02	1.525E-01	2.516E-01	3.151E-02	-0.045
		299.98		-1.622E-01	5.268E-01	8.392E-01	1.105E-01	-0.193
		304.50		-4.118E-01	1.050E+00	1.655E+00	2.793E-01	-0.249
		334.37		4.537E-02	1.117E+00	1.834E+00	2.909E-01	0.025
TH-227		79.80		-7.666E-01	7.420E-01	1.072E+00	2.407E-01	-0.715
		235.96		9.941E-02	1.004E-01	1.626E-01	1.665E-02	0.612
		256.23	*	-1.136E-02	1.525E-01	2.516E-01	3.529E-02	-0.045
		299.98		-1.622E-01	5.268E-01	8.392E-01	1.105E-01	-0.193
		304.50		-4.118E-01	1.050E+00	1.655E+00	2.793E-01	-0.249
		334.37		4.537E-02	1.117E+00	1.834E+00	2.909E-01	0.025
AC-228		338.32		-4.329E-02	1.734E-01	2.581E-01	1.079E-01	-0.168
		911.20	*	1.830E-02	9.475E-02	1.572E-01	1.899E-02	0.116
		968.97		-7.063E-02	1.534E-01	2.313E-01	5.679E-02	-0.305
RA-228		338.32		-4.329E-02	1.734E-01	2.581E-01	1.079E-01	-0.168
		911.20	*	1.830E-02	9.475E-02	1.572E-01	1.899E-02	0.116
		968.97		-7.063E-02	1.534E-01	2.313E-01	5.679E-02	-0.305

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228		74.82		-1.098E-01	1.909E-01	2.862E-01	2.812E-02	-0.384
		77.11		5.051E-02	9.410E-02	1.609E-01	1.601E-02	0.314
	+	238.63	*	7.900E-02	8.077E-02	6.912E-02	7.094E-03	1.143
		300.09		7.445E-02	4.596E-01	7.653E-01	4.693E-01	0.097
TH-229		85.43		1.596E-02	9.200E-02	1.527E-01	1.650E-02	0.105
		88.47		1.417E-02	5.694E-02	9.256E-02	1.023E-02	0.153
		193.51	*	-4.037E-01	3.381E-01	4.906E-01	4.306E-02	-0.823
		210.85		1.480E-01	4.814E-01	8.289E-01	7.426E-02	0.179
TH-230		609.32	*	-1.596E-02	5.430E-02	8.601E-02	7.228E-03	-0.186
		1120.29		1.157E-01	1.583E-01	2.968E-01	2.514E-02	0.390
		1764.49		9.559E-02	1.661E-01	3.132E-01	2.700E-02	0.305
PA-231		283.69	*	-5.987E-01	9.228E-01	1.419E+00	2.129E-01	-0.422
		301.36		1.734E-01	3.410E-01	5.876E-01	7.423E-02	0.295
TH-231		81.07		-2.951E-02	8.632E-02	1.369E-01	1.413E-02	-0.216
		83.79		5.426E-02	5.561E-02	9.780E-02	1.038E-02	0.555
		94.87		-4.443E-01	2.476E-01	3.374E-01	3.424E-02	-1.317
		144.24		2.913E-02	4.071E-01	6.096E-01	5.711E-02	0.048
		154.21		-6.110E-02	2.136E-01	3.300E-01	3.044E-02	-0.185
		269.46		1.003E-01	1.084E-01	1.939E-01	1.835E-02	0.517
		323.87	*	5.661E-02	4.052E-01	6.731E-01	1.186E-01	0.084
		338.28		-1.718E-01	6.845E-01	1.024E+00	1.270E-01	-0.168
TH-232		338.32		-4.329E-02	1.725E-01	2.581E-01	2.343E-02	-0.168
		911.20	*	1.830E-02	9.475E-02	1.572E-01	1.899E-02	0.116
		968.97		-7.063E-02	1.534E-01	2.313E-01	5.679E-02	-0.305
PA-233		300.13		3.994E-02	2.280E-01	3.820E-01	5.816E-02	0.105
		311.90	*	3.413E-02	4.183E-02	7.397E-02	7.009E-03	0.461
		340.48		1.880E-01	3.968E-01	6.742E-01	1.633E-01	0.279
PA-234		94.67		-1.497E-01	9.144E-02	1.257E-01	1.700E-02	-1.191
		98.44		3.251E-02	4.782E-02	7.658E-02	4.287E-02	0.425
		111.00		8.082E-02	1.023E-01	1.752E-01	2.150E-02	0.461
		131.20		-1.984E-02	5.158E-02	7.939E-02	6.617E-03	-0.250
		569.50		-8.180E-02	2.010E-01	3.069E-01	2.628E-02	-0.267
		733.00		1.153E-01	2.241E-01	3.945E-01	8.738E-02	0.292
		880.51		4.752E-02	1.761E-01	2.981E-01	2.744E-02	0.159
		883.24		4.452E-02	1.881E-01	3.123E-01	2.102E-01	0.143
		926.50		-3.570E-02	8.723E-02	1.242E-01	3.166E-02	-0.287
		946.00	*	0.000E+00	1.558E-01	2.614E-01	4.975E-02	0.000
		949.00		-1.020E-01	2.173E-01	3.259E-01	2.994E-02	-0.313
PA-234M		766.42		7.557E-01	6.011E+00	9.998E+00	5.074E+00	0.076
		1001.03	*	8.694E-02	3.439E+00	5.819E+00	6.013E-01	0.015
TH-234		63.29	*	5.619E-02	7.825E-01	1.247E+00	2.318E-01	0.045
		92.59		-2.156E-02	3.874E-01	6.422E-01	1.467E-01	-0.034
U-235		89.96		-7.989E-01	4.803E-01	6.097E-01	1.553E-01	-1.310
		93.35		-2.714E-02	2.866E-01	4.741E-01	1.128E-01	-0.057
		143.76	*	-4.243E-02	1.232E-01	1.773E-01	2.980E-02	-0.239
		163.33		9.586E-02	2.631E-01	4.294E-01	7.671E-02	0.223
		185.72		3.683E-03	2.999E-02	5.025E-02	4.365E-03	0.073
		205.31		-1.312E-01	2.749E-01	4.427E-01	8.094E-02	-0.296
NP-237		86.48	*	-6.231E-02	1.171E-01	1.772E-01	4.190E-02	-0.352

Sample ID : G1202065185 Acquisition date : 23-MAR-2010 14:39:21

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		95.86		-1.105E+00	5.704E-01	6.633E-01	1.627E-01	-1.666
U-238		63.29	*	5.619E-02	7.825E-01	1.247E+00	2.318E-01	0.045
		92.59		-2.156E-02	3.873E-01	6.422E-01	6.698E-02	-0.034
NP-239		99.53		1.054E-03	8.328E-02	1.355E-01	1.310E-02	0.008
		103.37		-1.876E-02	5.070E-02	7.940E-02	7.424E-03	-0.236
		106.12		-6.885E-03	4.298E-02	6.862E-02	6.284E-03	-0.100
		117.23	*	-1.887E-02	2.212E-01	3.539E-01	3.039E-02	-0.053
		228.18		-8.350E-02	1.365E-01	2.165E-01	1.972E-02	-0.386
		277.60		2.298E-02	1.155E-01	1.943E-01	1.810E-02	0.118
AM-241		59.54	*	-1.988E-02	8.385E-02	1.298E-01	1.232E-02	-0.153
CM-247		278.00		-1.324E-01	4.898E-01	7.902E-01	7.359E-02	-0.168
		287.50		9.617E-01	7.709E-01	1.412E+00	1.314E-01	0.681
		402.40	*	-1.463E-02	2.327E-02	3.439E-02	2.923E-03	-0.425
CF-249		252.80		2.254E-01	5.735E-01	9.873E-01	9.137E-02	0.228
		333.37		1.100E-02	1.170E-01	1.930E-01	1.760E-02	0.057
		388.16	*	2.261E-03	2.720E-02	4.443E-02	3.778E-03	0.051
CF-251		177.52	*	4.509E-02	7.548E-02	1.333E-01	1.145E-02	0.338
		227.38		6.218E-02	2.130E-01	3.648E-01	3.321E-02	0.170
		285.41		-2.052E-01	1.419E+00	2.311E+00	2.152E-01	-0.089
ANH-511		511.00	*	-4.133E-03	3.722E-02	7.118E-02	6.177E-03	-0.058

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065185      *
* Acquisition date : 23-MAR-2010 14:39:21 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.47     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065185          Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.3370E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
RA-224	8.401E-01	8.409E-01	6.389E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-5.824E-02	1.752E-01	2.946E-01	0.000E+00	NOT IDENT.
NA-22	6.768E-04	2.027E-02	3.432E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.554E+05	0.000E+00	0.000E+00	SHORT HLIF
K-40	-3.089E-01	2.625E-01	3.828E-01	0.000E+00	NOT IDENT.
SC-46	-8.074E-03	2.145E-02	3.269E-02	0.000E+00	NOT IDENT.
V-48	4.050E-02	3.739E-02	7.629E-02	0.000E+00	NOT IDENT.
CR-51	1.195E-02	2.208E-01	3.824E-01	0.000E+00	NOT IDENT.
MN-54	-3.960E-03	2.234E-02	3.620E-02	0.000E+00	NOT IDENT.
CO-56	-4.125E-02	2.306E-02	2.148E-02	0.000E+00	NOT IDENT.
CO-57	-5.494E-03	1.411E-02	2.342E-02	0.000E+00	NOT IDENT.
CO-58	-5.484E-03	2.099E-02	3.334E-02	0.000E+00	NOT IDENT.
FE-59	-3.661E-02	5.506E-02	8.195E-02	0.000E+00	NOT IDENT.
CO-60	-7.372E-03	2.219E-02	3.459E-02	0.000E+00	NOT IDENT.
ZN-65	-4.155E-02	4.706E-02	6.470E-02	0.000E+00	NOT IDENT.
SE-75	1.644E-02	2.922E-02	5.338E-02	0.000E+00	NOT IDENT.
SR-85	-6.996E-02	3.748E-02	5.558E-02	0.000E+00	NOT IDENT.
Y-88	1.022E-04	1.498E-02	2.523E-02	0.000E+00	NOT IDENT.
Y-91	9.722E+00	1.080E+01	2.132E+01	0.000E+00	NOT IDENT.
NB-94	-2.175E-02	2.169E-02	3.121E-02	0.000E+00	NOT IDENT.
NB-95	1.609E-02	2.226E-02	4.195E-02	0.000E+00	NOT IDENT.
NB-95M	7.476E-02	8.324E-02	1.408E-01	0.000E+00	NOT IDENT.
ZR-95	2.257E-02	3.506E-02	6.631E-02	0.000E+00	NOT IDENT.
MO-99	-1.092E+00	6.437E+00	1.058E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.075E+15	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.279E-03	2.748E-02	4.505E-02	0.000E+00	NOT IDENT.
RH-106	-4.742E-02	1.928E-01	3.197E-01	0.000E+00	NOT IDENT.

RU-106	-4.742E-02	1.927E-01	3.197E-01	0.000E+00	NOT IDENT.
AG-108M	-3.045E-03	1.968E-02	3.239E-02	0.000E+00	NOT IDENT.
CD-109	-6.473E-02	3.665E-01	6.171E-01	0.000E+00	NOT IDENT.
AG-110M	-1.736E-02	2.153E-02	3.224E-02	0.000E+00	NOT IDENT.
SN-113	-6.644E-03	2.848E-02	4.687E-02	0.000E+00	NOT IDENT.
CD-115	-7.018E+00	7.092E+00	9.475E+00	0.000E+00	NOT IDENT.
SN-117M	2.781E-02	2.870E-02	5.260E-02	0.000E+00	NOT IDENT.
TE-123M	1.090E-02	1.533E-02	2.752E-02	0.000E+00	NOT IDENT.
SB-124	-6.903E-03	4.193E-02	6.663E-02	0.000E+00	NOT IDENT.
SB-125	3.118E-03	5.913E-02	9.999E-02	0.000E+00	NOT IDENT.
TE-125M	8.147E-01	5.570E+00	9.398E+00	0.000E+00	NOT IDENT.
I-126	-2.282E-02	1.431E-01	2.392E-01	0.000E+00	NOT IDENT.
SB-126	2.865E-02	7.044E-02	1.281E-01	0.000E+00	NOT IDENT.
SN-126	-4.021E-02	3.806E-02	5.908E-02	0.000E+00	NOT IDENT.
SB-127	3.401E-01	6.380E-01	1.182E+00	0.000E+00	NOT IDENT.
I-131	-3.778E-03	7.456E-02	1.263E-01	0.000E+00	NOT IDENT.
TE-132	-1.671E-01	3.986E-01	6.791E-01	0.000E+00	NOT IDENT.
BA-133	-2.918E-02	2.640E-02	3.867E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.417E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-7.150E-03	2.219E-02	3.471E-02	0.000E+00	NOT IDENT.
CS-135	3.577E-04	9.565E-02	1.671E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.860E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.921E-02	5.975E-02	8.495E-02	0.000E+00	NOT IDENT.
BA-137M	1.440E-04	2.294E-02	3.925E-02	0.000E+00	NOT IDENT.
CS-137	1.521E-04	2.423E-02	4.146E-02	0.000E+00	NOT IDENT.
CE-139	-2.763E-03	1.788E-02	2.965E-02	0.000E+00	NOT IDENT.
BA-140	-2.771E-02	1.740E-01	2.969E-01	0.000E+00	NOT IDENT.
LA-140	1.018E-02	5.127E-02	9.179E-02	0.000E+00	NOT IDENT.
CE-141	-1.530E-02	3.749E-02	5.714E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.959E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	5.440E-03	1.026E-01	1.760E-01	0.000E+00	NOT IDENT.
PM-144	6.284E-03	2.456E-02	4.309E-02	0.000E+00	NOT IDENT.
PR-144	4.701E-01	1.838E+00	3.224E+00	0.000E+00	NOT IDENT.
PM-146	-4.800E-03	2.693E-02	4.392E-02	0.000E+00	NOT IDENT.
ND-147	-1.984E-03	3.206E-01	5.586E-01	0.000E+00	NOT IDENT.
PM-149	-6.221E+00	4.978E+01	8.547E+01	0.000E+00	NOT IDENT.
EU-152	3.140E-02	6.128E-02	1.104E-01	0.000E+00	NOT IDENT.
GD-153	2.749E-02	3.966E-02	7.320E-02	0.000E+00	NOT IDENT.
EU-154	-2.984E-03	6.016E-02	9.973E-02	0.000E+00	NOT IDENT.
EU-155	1.272E-02	5.092E-02	9.031E-02	0.000E+00	NOT IDENT.
TB-160	-3.225E-02	8.144E-02	1.245E-01	0.000E+00	NOT IDENT.
HO-166M	3.110E-03	3.835E-02	6.590E-02	0.000E+00	NOT IDENT.
TA-182	3.787E-02	8.598E-02	1.591E-01	0.000E+00	NOT IDENT.
IR-192	-9.933E-03	2.162E-02	3.543E-02	0.000E+00	NOT IDENT.
HG-203	-2.166E-02	2.493E-02	3.985E-02	0.000E+00	NOT IDENT.
BI-207	5.400E-03	3.152E-02	5.549E-02	0.000E+00	NOT IDENT.
TL-208	7.678E-04	2.571E-02	4.463E-02	0.000E+00	NOT IDENT.
PB-210	-2.399E+00	2.565E+00	4.110E+00	0.000E+00	NOT IDENT.
BI-211	3.037E-02	1.459E-01	2.444E-01	0.000E+00	NOT IDENT.
PB-211	-1.737E-01	4.224E-01	6.598E-01	0.000E+00	NOT IDENT.
BI-212	-1.348E-01	2.951E-01	4.616E-01	0.000E+00	NOT IDENT.
PB-212	0.000E+00	7.916E-02	7.152E-02	0.000E+00	FAIL ABUN
BI-214	-1.596E-02	5.322E-02	8.755E-02	0.000E+00	NOT IDENT.
PB-214	1.022E-02	5.394E-02	9.026E-02	0.000E+00	NOT IDENT.
RN-219	-1.260E-01	2.488E-01	3.918E-01	0.000E+00	NOT IDENT.
RA-223	5.661E-02	3.971E-01	6.928E-01	0.000E+00	NOT IDENT.
RA-226	-1.596E-02	5.322E-02	8.755E-02	0.000E+00	NOT IDENT.
AC-227	-1.136E-02	1.494E-01	2.600E-01	0.000E+00	NOT IDENT.
TH-227	-1.136E-02	1.494E-01	2.600E-01	0.000E+00	NOT IDENT.
AC-228	1.830E-02	9.286E-02	1.589E-01	0.000E+00	NOT IDENT.
RA-228	1.830E-02	9.286E-02	1.589E-01	0.000E+00	NOT IDENT.
TH-228	0.000E+00	7.916E-02	7.152E-02	0.000E+00	FAIL ABUN
TH-229	-4.037E-01	3.313E-01	5.095E-01	0.000E+00	NOT IDENT.
TH-230	-1.596E-02	5.322E-02	8.755E-02	0.000E+00	NOT IDENT.
PA-231	-5.987E-01	9.044E-01	1.464E+00	0.000E+00	NOT IDENT.
TH-231	5.661E-02	3.971E-01	6.928E-01	0.000E+00	NOT IDENT.
TH-232	1.830E-02	9.286E-02	1.589E-01	0.000E+00	NOT IDENT.
PA-233	3.413E-02	4.099E-02	7.618E-02	0.000E+00	NOT IDENT.
PA-234	0.000E+00	1.527E-01	2.639E-01	0.000E+00	NOT IDENT.
PA-234M	8.694E-02	3.370E+00	5.870E+00	0.000E+00	NOT IDENT.
TH-234	5.619E-02	7.669E-01	1.319E+00	0.000E+00	NOT IDENT.
U-235	-4.243E-02	1.207E-01	1.851E-01	0.000E+00	NOT IDENT.
NP-237	-6.231E-02	1.147E-01	1.865E-01	0.000E+00	NOT IDENT.
U-238	5.619E-02	7.669E-01	1.319E+00	0.000E+00	NOT IDENT.
NP-239	-1.887E-02	2.167E-01	3.706E-01	0.000E+00	NOT IDENT.
AM-241	-1.988E-02	8.218E-02	1.375E-01	0.000E+00	NOT IDENT.
CM-247	-1.463E-02	2.281E-02	3.526E-02	0.000E+00	NOT IDENT.
CF-249	2.261E-03	2.665E-02	4.558E-02	0.000E+00	NOT IDENT.

CF-251	4.509E-02	7.397E-02	1.386E-01	0.000E+00 NOT IDENT.
ANH-511	-4.133E-03	3.648E-02	7.268E-02	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:41:03.29

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065185.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 23-MAR-2010 14:39:21
Sample ID         : G1202065185          Sample quantity  : 1.33700E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.47  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962631                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-224	240.99	51	4.10*	4.174E+00	8.401E-01	8.401E-01	102.14

Flag: "*" = Keyline

Sample ID : G1202065185 Acquisition date : 23-MAR-2010 14:39:21

Total number of lines in spectrum	1	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	1	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
RA-224	1.41E+10Y	1.00	8.401E-01	8.401E-01	8.581E-01	102.14	
		Total Activity :	8.401E-01	8.401E-01			
		Grand Total Activity :	8.401E-01	8.401E-01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065185
Acquisition date : 23-MAR-2010 14:39:21

None

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:41:07.78

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065185.CNF;1 *
* Acquisition date : 23-MAR-2010 14:39:21  Detector SN#    :               *
* Detector ID      : GAM06                 Sensitivity     : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:00.47         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 9-MAR-2010 00:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G1202065185           Analyst initials: MXR1           *
* Batch Number     : 962631                Sample Quantity : 1.33700E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04.7MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	8.401E-01	8.581E-01	6.175E-01	5.678E-02	1.360

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-5.824E-02		1.788E-01	2.882E-01	2.692E-02	-0.202
NA-22	6.768E-04		2.068E-02	3.418E-02	3.003E-03	0.020
NA-24	-2.933E-02		1.303E-01	Half-Life too short		
K-40	-3.089E-01		2.679E-01	3.822E-01	3.603E-02	-0.808
SC-46	-8.074E-03		2.189E-02	3.234E-02	2.989E-03	-0.250
V-48	4.050E-02		3.815E-02	7.560E-02	6.879E-03	0.536
CR-51	1.195E-02		2.253E-01	3.715E-01	3.576E-02	0.032
MN-54	-3.960E-03		2.279E-02	3.577E-02	3.224E-03	-0.111
CO-56	-4.125E-02		2.353E-02	2.123E-02	1.924E-03	-1.943
CO-57	-5.494E-03		1.440E-02	2.238E-02	1.884E-03	-0.246
CO-58	-5.484E-03		2.142E-02	3.293E-02	2.937E-03	-0.167

Sample ID : G1202065185 Acquisition date : 23-MAR-2010 14:39:21

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
FE-59	-3.661E-02		5.618E-02	8.138E-02	7.565E-03	-0.450
CO-60	-7.372E-03		2.264E-02	3.447E-02	3.153E-03	-0.214
ZN-65	-4.155E-02		4.802E-02	6.426E-02	5.468E-03	-0.647
SE-75	1.644E-02		2.981E-02	5.168E-02	4.823E-03	0.318
SR-85	-6.996E-02		3.825E-02	5.444E-02	4.723E-03	-1.285
Y-88	1.022E-04		1.528E-02	2.529E-02	2.114E-03	0.004
Y-91	9.722E+00		1.102E+01	2.120E+01	1.764E+00	0.458
NB-94	-2.175E-02		2.213E-02	3.074E-02	2.561E-03	-0.708
NB-95	1.609E-02		2.271E-02	4.139E-02	3.591E-03	0.389
NB-95M	7.476E-02		8.494E-02	1.360E-01	1.409E-02	0.550
ZR-95	2.257E-02		3.578E-02	6.540E-02	6.234E-03	0.345
MO-99	-1.092E+00		6.568E+00	1.043E+01	1.639E+00	-0.105
TC-99M	1.919E+08		2.589E+09	Half-Life too short		
RU-103	-1.279E-03		2.804E-02	4.410E-02	6.177E-03	-0.029
RH-106	-4.742E-02		1.967E-01	3.142E-01	4.108E-02	-0.151
RU-106	-4.742E-02		1.966E-01	3.142E-01	2.620E-02	-0.151
AG-108M	-3.045E-03		2.008E-02	3.163E-02	2.810E-03	-0.096
CD-109	-6.473E-02		3.739E-01	5.864E-01	6.524E-02	-0.110
AG-110M	-1.736E-02		2.197E-02	3.172E-02	2.662E-03	-0.547
SN-113	-6.644E-03		2.906E-02	4.569E-02	3.985E-03	-0.145
CD-115	-7.018E+00		7.236E+00	9.285E+00	8.041E-01	-0.756
SN-117M	2.781E-02		2.929E-02	5.048E-02	4.243E-03	0.551
TE-123M	1.090E-02		1.564E-02	2.641E-02	2.234E-03	0.413
SB-124	-6.903E-03		4.279E-02	6.669E-02	6.136E-03	-0.104
SB-125	3.118E-03		6.034E-02	9.762E-02	8.544E-03	0.032
TE-125M	8.147E-01		5.684E+00	8.963E+00	9.648E-01	0.091
I-126	-2.282E-02		1.460E-01	2.354E-01	1.912E-02	-0.097
SB-126	2.865E-02		7.188E-02	1.262E-01	1.065E-02	0.227
SN-126	-4.021E-02		3.884E-02	5.614E-02	6.218E-03	-0.716
SB-127	3.401E-01		6.511E-01	1.163E+00	1.272E-01	0.292
I-131	-3.778E-03		7.608E-02	1.230E-01	1.140E-02	-0.031
TE-132	-1.671E-01		4.067E-01	6.558E-01	1.049E-01	-0.255
BA-133	-2.918E-02		2.694E-02	3.763E-02	4.948E-03	-0.775
I-133	-1.417E-03		1.233E-03	Half-Life too short		
CS-134	-7.150E-03		2.265E-02	3.426E-02	3.046E-03	-0.209
CS-135	3.577E-04		9.760E-02	1.618E-01	1.708E-02	0.002
I-135	-2.989E+07		4.520E+08	Half-Life too short		
CS-136	-4.921E-02		6.097E-02	8.429E-02	7.762E-03	-0.584
BA-137M	1.440E-04		2.340E-02	3.862E-02	3.125E-03	0.004
CS-137	1.521E-04		2.472E-02	4.079E-02	3.308E-03	0.004
CE-139	-2.763E-03		1.824E-02	2.847E-02	2.408E-03	-0.097
BA-140	-2.771E-02		1.775E-01	2.911E-01	9.874E-02	-0.095
LA-140	1.018E-02		5.232E-02	9.177E-02	8.316E-03	0.111
CE-141	-1.530E-02		3.826E-02	5.475E-02	4.654E-03	-0.279
CE-143	3.603E-05		3.040E-05	Half-Life too short		
CE-144	5.440E-03		1.046E-01	1.684E-01	2.547E-02	0.032
PM-144	6.284E-03		2.506E-02	4.244E-02	3.523E-03	0.148
PR-144	4.701E-01		1.875E+00	3.175E+00	2.635E-01	0.148

Sample ID : G1202065185 Acquisition date : 23-MAR-2010 14:39:21

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	-4.800E-03		2.748E-02	4.293E-02	4.557E-03	-0.112
ND-147	-1.984E-03		3.272E-01	5.475E-01	8.196E-02	-0.004
PM-149	-6.221E+00		5.080E+01	8.286E+01	1.320E+01	-0.075
EU-152	3.140E-02		6.253E-02	1.073E-01	1.021E-02	0.292
GD-153	2.749E-02		4.047E-02	6.967E-02	6.875E-03	0.395
EU-154	-2.984E-03		6.139E-02	9.930E-02	1.142E-02	-0.030
EU-155	1.272E-02		5.196E-02	8.607E-02	8.010E-03	0.148
TB-160	-3.225E-02		8.310E-02	1.231E-01	1.133E-02	-0.262
HO-166M	3.110E-03		3.914E-02	6.492E-02	5.444E-03	0.048
TA-182	3.787E-02		8.774E-02	1.583E-01	1.334E-02	0.239
IR-192	-9.933E-03		2.206E-02	3.440E-02	3.179E-03	-0.289
HG-203	-2.166E-02		2.544E-02	3.862E-02	3.676E-03	-0.561
BI-207	5.400E-03		3.217E-02	5.507E-02	4.837E-03	0.098
TL-208	7.678E-04		2.623E-02	4.381E-02	4.000E-03	0.018
PB-210	-2.399E+00		2.618E+00	3.864E+00	3.718E-01	-0.621
BI-211	3.037E-02		1.489E-01	2.378E-01	2.231E-02	0.128
PB-211	-1.737E-01		4.310E-01	6.436E-01	3.113E-01	-0.270
BI-212	-1.348E-01		3.011E-01	4.549E-01	5.621E-02	-0.296
PB-212	7.900E-02	+	8.077E-02	6.912E-02	7.094E-03	1.143
BI-214	-1.596E-02		5.431E-02	8.601E-02	8.534E-03	-0.186
PB-214	1.022E-02		5.505E-02	8.783E-02	9.555E-03	0.116
RN-219	-1.260E-01		2.539E-01	3.821E-01	5.656E-02	-0.330
RA-223	5.661E-02		4.052E-01	6.731E-01	1.186E-01	0.084
RA-226	-1.596E-02		5.431E-02	8.601E-02	8.534E-03	-0.186
AC-227	-1.136E-02		1.525E-01	2.516E-01	3.151E-02	-0.045
TH-227	-1.136E-02		1.525E-01	2.516E-01	3.529E-02	-0.045
AC-228	1.830E-02		9.475E-02	1.572E-01	1.899E-02	0.116
RA-228	1.830E-02		9.475E-02	1.572E-01	1.899E-02	0.116
TH-228	7.900E-02	+	8.077E-02	6.912E-02	7.094E-03	1.143
TH-229	-4.037E-01		3.381E-01	4.906E-01	4.306E-02	-0.823
TH-230	-1.596E-02		5.430E-02	8.601E-02	7.228E-03	-0.186
PA-231	-5.987E-01		9.228E-01	1.419E+00	2.129E-01	-0.422
TH-231	5.661E-02		4.052E-01	6.731E-01	1.186E-01	0.084
TH-232	1.830E-02		9.475E-02	1.572E-01	1.899E-02	0.116
PA-233	3.413E-02		4.183E-02	7.397E-02	7.009E-03	0.461
PA-234	0.000E+00		1.558E-01	2.614E-01	4.975E-02	0.000
PA-234M	8.694E-02		3.439E+00	5.819E+00	6.013E-01	0.015
TH-234	5.619E-02		7.825E-01	1.247E+00	2.318E-01	0.045
U-235	-4.243E-02		1.232E-01	1.773E-01	2.980E-02	-0.239
NP-237	-6.231E-02		1.171E-01	1.772E-01	4.190E-02	-0.352
U-238	5.619E-02		7.825E-01	1.247E+00	2.318E-01	0.045
NP-239	-1.887E-02		2.212E-01	3.539E-01	3.039E-02	-0.053
AM-241	-1.988E-02		8.385E-02	1.298E-01	1.232E-02	-0.153
CM-247	-1.463E-02		2.327E-02	3.439E-02	2.923E-03	-0.425
CF-249	2.261E-03		2.720E-02	4.443E-02	3.778E-03	0.051
CF-251	4.509E-02		7.548E-02	1.333E-01	1.145E-02	0.338
ANH-511	-4.133E-03		3.722E-02	7.118E-02	6.177E-03	-0.058

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065185          *
* Acquisition date : 23-MAR-2010 14:39:21 Detector SN#    :                *
* Detector ID      : GAM06                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:00.47     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202065185          Analyst initials: MXR1           *
* Batch Number     : 962631               Sample Quantity : 1.3370E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
RA-224	8.401E-01	8.409E-01	3.196E-01	4.291E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-5.824E-02	1.752E-01	1.474E-01	8.941E-02	NOT IDENT.
NA-22	6.768E-04	2.027E-02	1.717E-02	1.034E-02	NOT IDENT.
NA-24	-2.933E+04	2.554E+05	0.000E+00	1.303E+05	SHORT HLIF
K-40	-3.089E-01	2.625E-01	1.915E-01	1.339E-01	NOT IDENT.
SC-46	-8.074E-03	2.145E-02	1.636E-02	1.095E-02	NOT IDENT.
V-48	4.050E-02	3.739E-02	3.817E-02	1.908E-02	NOT IDENT.
CR-51	1.195E-02	2.208E-01	1.913E-01	1.127E-01	NOT IDENT.
MN-54	-3.960E-03	2.234E-02	1.811E-02	1.140E-02	NOT IDENT.
CO-56	-4.125E-02	2.306E-02	1.075E-02	1.177E-02	NOT IDENT.
CO-57	-5.494E-03	1.411E-02	1.172E-02	7.199E-03	NOT IDENT.
CO-58	-5.484E-03	2.099E-02	1.668E-02	1.071E-02	NOT IDENT.
FE-59	-3.661E-02	5.506E-02	4.100E-02	2.809E-02	NOT IDENT.
CO-60	-7.372E-03	2.219E-02	1.731E-02	1.132E-02	NOT IDENT.
ZN-65	-4.155E-02	4.706E-02	3.237E-02	2.401E-02	NOT IDENT.
SE-75	1.644E-02	2.922E-02	2.671E-02	1.491E-02	NOT IDENT.
SR-85	-6.996E-02	3.748E-02	2.781E-02	1.912E-02	NOT IDENT.
Y-88	1.022E-04	1.498E-02	1.262E-02	7.642E-03	NOT IDENT.
Y-91	9.722E+00	1.080E+01	1.067E+01	5.512E+00	NOT IDENT.
NB-94	-2.175E-02	2.169E-02	1.561E-02	1.107E-02	NOT IDENT.
NB-95	1.609E-02	2.226E-02	2.099E-02	1.136E-02	NOT IDENT.
NB-95M	7.476E-02	8.324E-02	7.042E-02	4.247E-02	NOT IDENT.
ZR-95	2.257E-02	3.506E-02	3.318E-02	1.789E-02	NOT IDENT.
MO-99	-1.092E+00	6.437E+00	5.293E+00	3.284E+00	NOT IDENT.
TC-99M	1.919E+14	5.075E+15	0.000E+00	2.589E+15	SHORT HLIF
RU-103	-1.279E-03	2.748E-02	2.254E-02	1.402E-02	NOT IDENT.
RH-106	-4.742E-02	1.928E-01	1.599E-01	9.835E-02	NOT IDENT.

RU-106	-4.742E-02	1.927E-01	1.599E-01	9.832E-02	NOT IDENT.
AG-108M	-3.045E-03	1.968E-02	1.620E-02	1.004E-02	NOT IDENT.
CD-109	-6.473E-02	3.665E-01	3.087E-01	1.870E-01	NOT IDENT.
AG-110M	-1.736E-02	2.153E-02	1.613E-02	1.098E-02	NOT IDENT.
SN-113	-6.644E-03	2.848E-02	2.345E-02	1.453E-02	NOT IDENT.
CD-115	-7.018E+00	7.092E+00	4.740E+00	3.618E+00	NOT IDENT.
SN-117M	2.781E-02	2.870E-02	2.632E-02	1.464E-02	NOT IDENT.
TE-123M	1.090E-02	1.533E-02	1.377E-02	7.819E-03	NOT IDENT.
SB-124	-6.903E-03	4.193E-02	3.334E-02	2.139E-02	NOT IDENT.
SB-125	3.118E-03	5.913E-02	5.002E-02	3.017E-02	NOT IDENT.
TE-125M	8.147E-01	5.570E+00	4.702E+00	2.842E+00	NOT IDENT.
I-126	-2.282E-02	1.431E-01	1.197E-01	7.299E-02	NOT IDENT.
SB-126	2.865E-02	7.044E-02	6.408E-02	3.594E-02	NOT IDENT.
SN-126	-4.021E-02	3.806E-02	2.956E-02	1.942E-02	NOT IDENT.
SB-127	3.401E-01	6.380E-01	5.912E-01	3.255E-01	NOT IDENT.
I-131	-3.778E-03	7.456E-02	6.319E-02	3.804E-02	NOT IDENT.
TE-132	-1.671E-01	3.986E-01	3.398E-01	2.034E-01	NOT IDENT.
BA-133	-2.918E-02	2.640E-02	1.934E-02	1.347E-02	NOT IDENT.
I-133	-1.417E+03	2.417E+03	0.000E+00	1.233E+03	SHORT HLIF
CS-134	-7.150E-03	2.219E-02	1.736E-02	1.132E-02	NOT IDENT.
CS-135	3.577E-04	9.565E-02	8.358E-02	4.880E-02	NOT IDENT.
I-135	-2.989E+13	8.860E+14	0.000E+00	4.520E+14	SHORT HLIF
CS-136	-4.921E-02	5.975E-02	4.250E-02	3.048E-02	NOT IDENT.
BA-137M	1.440E-04	2.294E-02	1.963E-02	1.170E-02	NOT IDENT.
CS-137	1.521E-04	2.423E-02	2.074E-02	1.236E-02	NOT IDENT.
CE-139	-2.763E-03	1.788E-02	1.483E-02	9.121E-03	NOT IDENT.
BA-140	-2.771E-02	1.740E-01	1.486E-01	8.876E-02	NOT IDENT.
LA-140	1.018E-02	5.127E-02	4.592E-02	2.616E-02	NOT IDENT.
CE-141	-1.530E-02	3.749E-02	2.858E-02	1.913E-02	NOT IDENT.
CE-143	3.603E+01	5.959E+01	0.000E+00	3.040E+01	SHORT HLIF
CE-144	5.440E-03	1.026E-01	8.806E-02	5.232E-02	NOT IDENT.
PM-144	6.284E-03	2.456E-02	2.156E-02	1.253E-02	NOT IDENT.
PR-144	4.701E-01	1.838E+00	1.613E+00	9.375E-01	NOT IDENT.
PM-146	-4.800E-03	2.693E-02	2.198E-02	1.374E-02	NOT IDENT.
ND-147	-1.984E-03	3.206E-01	2.795E-01	1.636E-01	NOT IDENT.
PM-149	-6.221E+00	4.978E+01	4.276E+01	2.540E+01	NOT IDENT.
EU-152	3.140E-02	6.128E-02	5.522E-02	3.127E-02	NOT IDENT.
GD-153	2.749E-02	3.966E-02	3.662E-02	2.024E-02	NOT IDENT.
EU-154	-2.984E-03	6.016E-02	4.990E-02	3.069E-02	NOT IDENT.
EU-155	1.272E-02	5.092E-02	4.518E-02	2.598E-02	NOT IDENT.
TB-160	-3.225E-02	8.144E-02	6.229E-02	4.155E-02	NOT IDENT.
HO-166M	3.110E-03	3.835E-02	3.297E-02	1.957E-02	NOT IDENT.
TA-182	3.787E-02	8.598E-02	7.959E-02	4.387E-02	NOT IDENT.
IR-192	-9.933E-03	2.162E-02	1.772E-02	1.103E-02	NOT IDENT.
HG-203	-2.166E-02	2.493E-02	1.994E-02	1.272E-02	NOT IDENT.
BI-207	5.400E-03	3.152E-02	2.776E-02	1.608E-02	NOT IDENT.
TL-208	7.678E-04	2.571E-02	2.233E-02	1.312E-02	NOT IDENT.
PB-210	-2.399E+00	2.565E+00	2.056E+00	1.309E+00	NOT IDENT.
BI-211	3.037E-02	1.459E-01	1.223E-01	7.444E-02	NOT IDENT.
PB-211	-1.737E-01	4.224E-01	3.301E-01	2.155E-01	NOT IDENT.
BI-212	-1.348E-01	2.951E-01	2.309E-01	1.505E-01	NOT IDENT.
PB-212	7.900E-02	7.916E-02	3.578E-02	4.039E-02	FAIL ABUN
BI-214	-1.596E-02	5.322E-02	4.380E-02	2.716E-02	NOT IDENT.
PB-214	1.022E-02	5.394E-02	4.516E-02	2.752E-02	NOT IDENT.
RN-219	-1.260E-01	2.488E-01	1.960E-01	1.269E-01	NOT IDENT.
RA-223	5.661E-02	3.971E-01	3.466E-01	2.026E-01	NOT IDENT.
RA-226	-1.596E-02	5.322E-02	4.380E-02	2.716E-02	NOT IDENT.
AC-227	-1.136E-02	1.494E-01	1.301E-01	7.625E-02	NOT IDENT.
TH-227	-1.136E-02	1.494E-01	1.301E-01	7.625E-02	NOT IDENT.
AC-228	1.830E-02	9.286E-02	7.949E-02	4.738E-02	NOT IDENT.
RA-228	1.830E-02	9.286E-02	7.949E-02	4.738E-02	NOT IDENT.
TH-228	7.900E-02	7.916E-02	3.578E-02	4.039E-02	FAIL ABUN
TH-229	-4.037E-01	3.313E-01	2.549E-01	1.690E-01	NOT IDENT.
TH-230	-1.596E-02	5.322E-02	4.380E-02	2.715E-02	NOT IDENT.
PA-231	-5.987E-01	9.044E-01	7.324E-01	4.614E-01	NOT IDENT.
TH-231	5.661E-02	3.971E-01	3.466E-01	2.026E-01	NOT IDENT.
TH-232	1.830E-02	9.286E-02	7.949E-02	4.738E-02	NOT IDENT.
PA-233	3.413E-02	4.099E-02	3.812E-02	2.091E-02	NOT IDENT.
PA-234	0.000E+00	1.527E-01	1.320E-01	0.000E+00	NOT IDENT.
PA-234M	8.694E-02	3.370E+00	2.937E+00	1.719E+00	NOT IDENT.
TH-234	5.619E-02	7.669E-01	6.601E-01	3.913E-01	NOT IDENT.
U-235	-4.243E-02	1.207E-01	9.259E-02	6.161E-02	NOT IDENT.
NP-237	-6.231E-02	1.147E-01	9.331E-02	5.854E-02	NOT IDENT.
U-238	5.619E-02	7.669E-01	6.601E-01	3.913E-01	NOT IDENT.
NP-239	-1.887E-02	2.167E-01	1.854E-01	1.106E-01	NOT IDENT.
AM-241	-1.988E-02	8.218E-02	6.880E-02	4.193E-02	NOT IDENT.
CM-247	-1.463E-02	2.281E-02	1.764E-02	1.164E-02	NOT IDENT.
CF-249	2.261E-03	2.665E-02	2.281E-02	1.360E-02	NOT IDENT.

CF-251	4.509E-02	7.397E-02	6.936E-02	3.774E-02	NOT IDENT.
ANH-511	-4.133E-03	3.648E-02	3.636E-02	1.861E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	75.0736
49.72	67.3621
57.36	0.0000
59.54	60.5413
63.29	69.8479
63.29	69.8479
64.28	78.7704
67.75	77.4695
69.67	71.9091
70.83	70.1261
72.81	85.3251
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72.87	85.3369
74.82	93.6821
74.82	93.6821
74.82	93.6821
74.97	77.7620
77.11	71.1159
77.11	71.1159
77.11	71.1159
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79.80	82.6093
80.12	77.6251
80.19	77.6364
80.57	74.6715
81.00	62.6193
81.07	62.6285
81.07	62.6285
83.79	59.9354
83.79	59.9354
85.43	71.3480
86.48	81.7135
86.55	83.7684
86.79	83.8084
86.94	83.8339
87.57	89.0576
88.03	69.6719
88.47	66.6563
89.96	127.5332
91.11	86.5874
92.59	63.0586
92.59	63.0586
93.35	60.0447
94.67	117.2773
94.87	117.3215
94.87	117.3215
95.86	117.5405
97.43	55.2911
98.44	55.3943
99.53	69.1196
100.11	67.0960
103.18	70.6307
103.37	70.6545
105.31	60.3158
106.12	69.9387
109.28	71.3879
111.00	68.3916
111.76	83.4594
116.30	70.0771
117.23	74.5029
121.12	79.3184
121.78	75.0511
122.06	80.5254
123.07	83.9242
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133.52	64.2375
136.00	63.3619

136.47	65.6308
140.51	71.6120
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143.76	70.8212
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144.24	62.9949
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153.25	44.4213
154.21	70.7105
154.21	70.7105
156.02	68.5956
158.56	52.7682
159.00	56.2420
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163.33	71.5670
165.86	78.7488
176.60	75.7067
177.52	67.8597
181.07	71.6926
184.41	84.4202
185.72	71.2006
193.51	89.8109
197.04	65.8260
205.31	73.7159
210.85	59.5123
215.65	71.7819
222.11	68.5631
227.38	61.4832
228.16	73.6520
228.18	78.3148
235.69	63.1266
235.96	58.6333
235.96	58.6333
238.63	65.0060
238.63	65.0060
240.99	65.1565
242.00	65.2208
244.70	37.9083
252.40	58.2365
252.80	49.6633
256.23	54.6138
256.23	54.6138
260.90	59.6623
264.66	56.9717
268.22	58.1241
269.46	43.6418
269.46	43.6418
271.23	66.0524
273.65	64.2487
276.40	39.0332
277.37	55.6702
277.60	60.5658
278.00	65.4736
279.20	71.4116
279.54	66.5401
280.46	55.8215
283.69	59.9063
284.31	62.8867
285.41	57.0451
285.90	56.0850
287.50	37.4416
293.27	0.0000
295.22	47.6052
295.96	50.6125
298.57	57.6849
299.98	52.7736
299.98	52.7736
300.09	43.8160
300.09	43.8160
300.13	43.8174
301.36	44.8592
302.85	40.9218
304.50	55.9692
304.50	55.9692
304.85	57.9850
308.46	57.1531
311.90	40.2197

316.51	50.4608
319.41	45.5191
320.08	42.5069
323.87	44.6647
323.87	44.6647
328.76	55.0250
333.37	48.0621
334.37	49.1228
334.37	49.1228
338.28	51.3222
338.28	51.3222
338.32	51.3237
338.32	51.3237
338.32	51.3237
340.48	45.2387
340.55	43.1843
344.28	39.1811
351.06	34.1979
351.93	36.2935
356.01	50.9634
364.49	44.9979
366.42	47.1561
383.85	35.0061
388.16	41.4934
388.63	34.0566
391.69	40.5269
400.66	28.9693
401.81	38.6554
402.40	39.7450
404.85	34.4297
410.95	31.3276
414.70	33.5699
423.72	39.2113
427.09	33.8381
427.87	34.9468
433.94	37.2731
453.88	33.2945
463.37	35.7173
468.07	32.4595
473.00	29.1861
476.78	20.7006
477.60	27.0135
487.02	26.2554
492.35	38.1409
497.08	28.2273
511.00	29.3652
514.00	113.0581
527.90	28.7106
529.87	0.0000
531.02	25.0482
537.26	33.5083
546.56	0.0000
563.25	35.8523
569.33	33.1244
569.50	33.1278
569.70	34.0770
583.19	23.8257
600.60	29.7981
602.73	31.7536
604.72	40.4527
609.32	27.0279
609.32	27.0279
609.32	27.0279
610.33	28.0067
614.28	28.0598
618.01	17.4476
621.93	25.2491
621.93	25.2491
633.25	20.5022
635.95	17.5953
636.99	19.5596
645.85	21.6036
657.76	28.6325
661.66	25.7156
661.66	25.7156
664.57	0.0000
666.33	28.7430
666.50	28.7458

677.62	15.9383
685.70	12.9959
695.00	24.0896
696.49	29.1271
696.51	29.1274
697.00	23.1061
702.65	32.2258
706.68	20.1758
711.68	22.2406
720.70	12.1775
721.93	0.0000
722.78	17.2669
722.91	17.2677
723.31	20.3184
724.19	20.3257
727.33	22.3878
733.00	15.3003
735.93	24.5104
739.50	19.4328
747.24	20.5205
752.31	13.3659
753.82	12.3451
756.73	9.2698
763.94	14.4618
765.81	12.4052
766.42	15.5101
777.92	16.6199
778.90	17.6657
783.70	11.4522
785.37	16.6688
795.86	13.5989
801.95	13.6310
810.29	12.6229
810.76	14.7294
815.77	13.7033
818.51	12.6624
832.01	16.9695
834.85	19.1109
836.80	0.0000
846.77	24.5279
856.80	20.3369
860.56	19.2929
871.09	11.8352
873.19	17.2277
875.33	0.0000
879.36	16.1869
880.51	14.0344
883.24	15.1286
884.68	12.9741
889.28	14.0785
898.04	9.7767
911.20	10.9131
911.20	10.9131
911.20	10.9131
926.50	10.9709
937.49	13.7653
944.13	10.1174
946.00	11.0439
949.00	11.9764
962.29	11.1045
964.08	12.0370
966.15	13.8983
968.97	14.8385
968.97	14.8385
968.97	14.8385
983.53	6.5231
996.26	26.2004
1001.03	15.9320
1004.73	27.2099
1037.84	17.0669
1038.76	0.0000
1048.07	17.1218
1050.41	14.2786
1050.41	14.2786
1063.66	13.3808
1085.87	14.4336
1099.45	18.3568
1112.07	7.7581

1115.54	16.5033
1120.29	8.7491
1120.29	8.7491
1120.29	8.7491
1120.55	8.7499
1121.30	6.8069
1131.51	0.0000
1173.23	7.8965
1177.93	6.9185
1189.05	5.9487
1204.77	6.9704
1221.41	7.0026
1231.02	14.0416
1235.36	12.0498
1238.28	12.0591
1260.41	0.0000
1271.85	8.1120
1274.44	8.1175
1274.54	7.1028
1291.59	9.1732
1298.22	0.0000
1312.11	7.1726
1332.49	6.1802
1365.19	4.1541
1368.63	0.0000
1384.29	5.2173
1408.01	9.4453
1457.56	0.0000
1460.82	8.5026
1489.16	4.2795
1505.03	4.2951
1596.21	5.6359
1620.50	5.6656
1678.03	0.0000
1690.97	3.8337
1764.49	4.8645
1764.49	4.8645
1764.49	4.8645
1770.23	6.8181
1771.35	5.8456
1791.20	0.0000
1836.06	1.9734

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065185

Total Uranium Activity	1.4754E-01	ug/g
Total Uranium Counting Unc.	2.2822E+00	ug/g
Total Uranium Tpu	1.1644E-06	ug/g
Total Uranium Mda	1.9643E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 962631                    SAMPLE ID  : G1202065185       *
*   ANALYST      : MXR1                      DETECTOR   : GAM06             *
*   SAMPLE DATE  :  9-MAR-2010 00:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 14:39:21.19   SAMPLE ALQT:  133.700 GRAM     *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 3.444E-02
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.752E-02
         GROSS GAMMA MDA    (pCi/GRAM  )   : 2.892E-02
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.356E-02
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:41:59.59

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065186.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 14:39:49
Sample ID         : G1202065186          Sample quantity  : 1.05550E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.31  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.18*	113	345	1.37	125.28	121	9	1.57E-02	31.9	
2	3	74.90*	339	465	1.58	148.72	141	19	4.71E-02	13.1	9.41E-01
3	3	77.28*	486	396	1.27	153.49	141	19	6.75E-02	8.9	
4	0	87.26	127	418	1.59	173.44	171	7	1.76E-02	28.0	
5	0	93.33*	179	461	1.78	185.59	182	11	2.49E-02	25.9	
6	0	186.06*	170	423	1.11	371.02	365	12	2.36E-02	26.2	
7	0	209.34	81	327	1.42	417.59	413	10	1.13E-02	43.1	
8	2	238.75*	1165	198	1.31	476.41	470	18	1.62E-01	3.7	1.17E+00
9	2	241.73*	293	227	1.85	482.36	470	18	4.07E-02	14.8	
10	0	271.14	129	377	2.11	541.18	533	19	1.79E-02	37.6	
11	0	277.87	83	147	1.18	554.64	551	10	1.15E-02	29.5	
12	1	295.21*	363	174	1.46	589.32	583	23	5.04E-02	8.6	6.86E-01
13	0	338.46	247	198	1.41	675.83	670	13	3.43E-02	13.4	
14	0	352.06*	656	193	1.52	703.02	696	16	9.11E-02	6.3	
15	0	464.57	77	188	4.68	928.05	918	18	1.06E-02	43.6	
16	0	510.95*	126	131	2.21	1020.81	1013	15	1.76E-02	24.8	
17	0	583.12*	394	125	1.67	1165.15	1156	18	5.47E-02	8.6	
18	0	609.37*	426	121	1.43	1217.66	1211	14	5.92E-02	7.5	
19	0	727.54*	59	105	1.45	1454.01	1447	14	8.19E-03	39.9	
20	0	772.09	80	170	4.38	1543.12	1527	32	1.12E-02	50.7	
21	0	795.62	81	37	2.30	1590.20	1583	16	1.13E-02	21.1	
22	0	910.88*	227	55	1.48	1820.75	1814	13	3.15E-02	9.7	
23	3	964.42	51	34	1.84	1927.85	1924	20	7.02E-03	23.0	2.04E+00
24	3	968.89	147	53	2.21	1936.79	1924	20	2.04E-02	13.5	
25	0	1120.31	108	70	1.82	2239.70	2234	16	1.50E-02	20.0	
26	0	1237.58	69	52	2.13	2474.28	2467	16	9.64E-03	26.1	
27	0	1408.16	35	17	1.91	2815.54	2807	17	4.86E-03	31.8	
28	0	1460.34*	1149	15	2.07	2919.93	2910	18	1.60E-01	3.1	
29	0	1763.83	66	10	2.56	3527.15	3519	14	9.16E-03	16.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 16:42:04

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065186.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 14:39:49
Sample ID : G1202065186 Sample quantity : 105.55 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.31 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.967E+01	4.596E+00	5.856E-01	5.754E-02	67.739
CD-109	+	88.03	*	2.833E+00	1.627E+00	2.410E+00	2.992E-01	1.175
SN-126	+	64.28		2.319E+00	1.532E+00	1.706E+00	2.888E-01	1.360
	+	86.94		1.143E+00	8.025E-01	9.988E-01	4.223E-01	1.144
	+	87.57	*	2.748E-01	1.578E-01	2.381E-01	2.947E-02	1.154
HG-203		70.83		1.277E+00	3.062E+00	4.510E+00	7.993E-01	0.283
		72.87		4.967E+00	1.830E+00	2.912E+00	5.029E-01	1.706
	+	279.20	*	1.319E-01	7.917E-02	1.017E-01	1.118E-02	1.296
TL-208	+	277.37		1.207E+00	7.328E-01	7.179E-01	1.015E-01	1.682
	+	583.19	*	7.518E-01	1.464E-01	9.162E-02	8.380E-03	8.206
		860.56		9.267E-01	4.816E-01	8.791E-01	8.595E-02	1.054
BI-211		72.87		1.852E+01	6.390E+00	1.086E+01	1.244E+00	1.706
	+	351.06	*	5.748E+00	9.191E-01	4.941E-01	4.921E-02	11.634
PB-212	+	74.82		3.625E+00	1.096E+00	9.917E-01	1.494E-01	3.655
	+	77.11		2.887E+00	6.126E-01	5.531E-01	6.412E-02	5.219
	+	238.63	*	2.309E+00	3.254E-01	1.434E-01	1.714E-02	16.103
		300.09		1.564E+00	1.345E+00	2.284E+00	2.781E-01	0.685
BI-214	+	609.32	*	1.574E+00	2.825E-01	1.779E-01	1.773E-02	8.844
	+	1120.29		2.094E+00	8.693E-01	6.815E-01	7.380E-02	3.073
	+	1764.49		1.792E+00	5.980E-01	4.726E-01	4.143E-02	3.791
PB-214	+	74.82		6.425E+00	1.908E+00	1.758E+00	2.456E-01	3.655
	+	77.11		5.089E+00	1.159E+00	9.751E-01	1.387E-01	5.219
	+	242.00		3.524E+00	1.130E+00	8.719E-01	1.086E-01	4.042
	+	295.22		1.974E+00	4.183E-01	3.451E-01	4.302E-02	5.721
	+	351.93	*	2.086E+00	3.529E-01	1.797E-01	2.042E-02	11.612
RA-224	+	240.99	*	6.231E+00	1.965E+00	1.537E+00	1.695E-01	4.055
RA-226	+	609.32	*	1.574E+00	2.825E-01	1.779E-01	1.773E-02	8.844
	+	1120.29		2.094E+00	8.693E-01	6.815E-01	7.380E-02	3.073
	+	1764.49		1.792E+00	5.980E-01	4.726E-01	4.143E-02	3.791
AC-228	+	338.32		2.416E+00	1.203E+00	5.719E-01	2.401E-01	4.225
	+	911.20	*	2.093E+00	4.804E-01	3.529E-01	4.275E-02	5.930
	+	968.97		2.351E+00	8.584E-01	5.850E-01	1.437E-01	4.018
RA-228	+	338.32		2.416E+00	1.203E+00	5.719E-01	2.401E-01	4.225
	+	911.20	*	2.093E+00	4.804E-01	3.529E-01	4.275E-02	5.930

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		2.351E+00	8.584E-01	5.850E-01	1.437E-01	4.018
TH-228	+	74.82		3.625E+00	1.039E+00	9.917E-01	1.147E-01	3.655
	+	77.11		2.887E+00	6.126E-01	5.531E-01	6.412E-02	5.219
	+	238.63	*	2.309E+00	3.254E-01	1.434E-01	1.714E-02	16.103
		300.09		1.564E+00	1.643E+00	2.284E+00	1.405E+00	0.685
TH-230	+	609.32	*	1.574E+00	2.700E-01	1.779E-01	1.504E-02	8.844
	+	1120.29		2.094E+00	8.578E-01	6.815E-01	5.797E-02	3.073
	+	1764.49		1.792E+00	5.980E-01	4.726E-01	4.143E-02	3.791
TH-232	+	338.32		2.416E+00	6.881E-01	5.719E-01	5.638E-02	4.225
	+	911.20	*	2.093E+00	4.804E-01	3.529E-01	4.275E-02	5.930
	+	968.97		2.351E+00	8.584E-01	5.850E-01	1.437E-01	4.018
TH-234	+	63.29	*	6.017E+00	4.023E+00	4.609E+00	9.138E-01	1.306
	+	92.59		3.095E+00	1.761E+00	1.907E+00	4.467E-01	1.623
NP-237	+	86.48	*	8.200E-01	5.013E-01	6.470E-01	1.572E-01	1.267
		95.86		3.801E-01	1.644E+00	2.381E+00	5.961E-01	0.160
U-238	+	63.29	*	6.017E+00	4.023E+00	4.609E+00	9.138E-01	1.306
	+	92.59		3.095E+00	1.645E+00	1.907E+00	2.217E-01	1.623
ANH-511	+	511.00	*	1.859E-01	9.355E-02	7.568E-02	6.539E-03	2.457

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	8.309E-02	4.884E-01	8.061E-01	7.492E-02	0.103
NA-22		1274.54	*	-6.097E-02	7.000E-02	1.022E-01	9.285E-03	-0.597
NA-24		1368.63	*	-3.373E+02	7.000E-02	Half-Life too short		
SC-46		889.28	*	-2.742E-02	6.322E-02	1.004E-01	9.329E-03	-0.273
	+	1120.55		3.691E-01	1.512E-01	2.007E-01	1.707E-02	1.839
V-48		944.13		-1.251E+00	1.594E+00	2.417E+00	2.234E-01	-0.518
		983.53	*	7.575E-03	1.276E-01	2.107E-01	1.926E-02	0.036
		1312.11		6.446E-02	1.380E-01	2.354E-01	2.218E-02	0.274
CR-51		320.08	*	-1.772E-01	6.398E-01	1.046E+00	1.110E-01	-0.169
MN-54		834.85	*	5.296E-02	5.726E-02	1.012E-01	9.182E-03	0.523
CO-56		846.77	*	1.529E-02	6.345E-02	1.071E-01	9.774E-03	0.143
		1037.84		1.791E-03	4.974E-01	8.145E-01	7.637E-02	0.002
	+	1238.28		3.962E-01	2.101E-01	2.700E-01	2.427E-02	1.467
		1771.35		-1.161E+00	4.762E-01	4.243E-01	3.707E-02	-2.737
CO-57		122.06	*	-2.128E-03	4.042E-02	6.466E-02	6.513E-03	-0.033
		136.47		-7.430E-02	3.347E-01	5.371E-01	5.707E-02	-0.138
CO-58		810.76	*	-5.470E-02	5.987E-02	9.108E-02	8.188E-03	-0.601
FE-59		1099.45	*	-4.429E-02	1.495E-01	2.368E-01	2.209E-02	-0.187
		1291.59		1.170E-01	2.034E-01	3.482E-01	3.597E-02	0.336
CO-60		1173.23		3.052E-02	7.640E-02	1.281E-01	1.043E-02	0.238
		1332.49	*	-1.923E-02	5.880E-02	9.068E-02	8.718E-03	-0.212
ZN-65		1115.54	*	1.083E-01	1.488E-01	2.280E-01	1.949E-02	0.475
SE-75		121.12		-1.800E-02	2.107E-01	3.364E-01	4.120E-02	-0.054
		136.00		-3.404E-03	6.548E-02	1.058E-01	1.071E-02	-0.032
		264.66	*	7.829E-03	7.960E-02	1.166E-01	1.278E-02	0.067
		279.54		1.120E-01	1.914E-01	2.886E-01	3.195E-02	0.388

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.66		1.852E-03	4.002E-01	6.582E-01	7.211E-02	0.003
SR-85		514.00	*	1.665E-01	7.759E-02	1.257E-01	1.086E-02	1.324
Y-88		898.04		-8.852E-02	6.828E-02	9.903E-02	9.273E-03	-0.894
		1836.06	*	4.223E-02	5.421E-02	1.005E-01	8.463E-03	0.420
Y-91		1204.77	*	2.332E+01	4.029E+01	6.821E+01	5.750E+00	0.342
NB-94		702.65	*	2.050E-02	4.867E-02	8.382E-02	7.076E-03	0.245
		871.09		1.723E-02	5.298E-02	8.763E-02	8.082E-03	0.197
NB-95		765.81	*	6.269E-02	7.838E-02	1.213E-01	1.062E-02	0.517
NB-95M		235.69	*	6.092E-01	2.506E-01	3.964E-01	4.776E-02	1.537
ZR-95		724.19		2.475E-01	1.589E-01	2.630E-01	2.443E-02	0.941
		756.73	*	-3.315E-02	1.082E-01	1.758E-01	1.689E-02	-0.189
MO-99		140.51		-6.629E+01	1.273E+02	1.961E+02	4.770E+01	-0.338
		181.07		-2.480E+01	1.168E+02	1.612E+02	3.203E+01	-0.154
		366.42		2.439E+02	5.516E+02	9.322E+02	8.542E+01	0.262
		739.50	*	-4.363E+01	6.572E+01	1.034E+02	1.630E+01	-0.422
		777.92		-1.302E+02	2.104E+02	2.775E+02	2.447E+01	-0.469
TC-99M		140.51	*	-3.188E+16	2.104E+02	Half-Life too short		
RU-103		497.08	*	-7.209E-03	6.167E-02	9.944E-02	1.390E-02	-0.072
	+	610.33		1.774E+01	3.916E+00	4.490E+00	7.299E-01	3.951
RH-106		621.93	*	3.283E-01	4.529E-01	7.694E-01	1.009E-01	0.427
		1050.41		-2.035E+00	3.888E+00	6.027E+00	5.355E-01	-0.338
RU-106		621.93	*	3.283E-01	4.517E-01	7.694E-01	6.466E-02	0.427
		1050.41		-2.035E+00	3.888E+00	6.027E+00	5.355E-01	-0.338
AG-108M		433.94	*	3.982E-02	4.342E-02	7.518E-02	6.644E-03	0.530
		614.28		2.329E-02	6.036E-02	8.724E-02	7.609E-03	0.267
		722.91		1.347E-02	5.942E-02	8.776E-02	7.747E-03	0.153
AG-110M		657.76	*	1.586E-02	4.975E-02	8.543E-02	7.270E-03	0.186
		677.62		1.166E-01	4.307E-01	7.369E-01	6.312E-02	0.158
		706.68		-1.633E-01	3.192E-01	5.134E-01	4.475E-02	-0.318
		763.94		1.050E-01	2.558E-01	3.845E-01	3.455E-02	0.273
		884.68		1.409E-02	7.158E-02	1.204E-01	1.148E-02	0.117
		937.49		6.539E-02	1.807E-01	2.933E-01	2.801E-02	0.223
		1384.29		-1.224E-01	2.264E-01	3.515E-01	3.459E-02	-0.348
		1505.03		-7.175E-01	4.293E-01	5.233E-01	5.001E-02	-1.371
SN-113		391.69	*	1.325E-02	7.226E-02	1.202E-01	1.044E-02	0.110
CD-115		260.90		-3.255E-04	7.226E-02	Half-Life too short		
		492.35		-1.183E-04	7.226E-02	Half-Life too short		
		527.90	*	-5.711E-05	7.226E-02	Half-Life too short		
SN-117M		156.02		-1.727E+00	4.800E+00	7.621E+00	7.943E-01	-0.227
		158.56	*	1.044E-01	1.127E-01	1.876E-01	1.967E-02	0.557
TE-123M		159.00	*	4.273E-02	4.669E-02	7.771E-02	8.189E-03	0.550
SB-124		602.73		3.961E-02	7.017E-02	1.032E-01	8.748E-03	0.384
		645.85		-1.607E-01	7.188E-01	1.130E+00	9.957E-02	-0.142
		722.78		1.138E-01	6.301E-01	9.260E-01	8.100E-02	0.123
		1690.97	*	2.407E-03	1.136E-01	1.880E-01	1.771E-02	0.013
SB-125		427.87	*	6.972E-02	1.390E-01	2.349E-01	2.044E-02	0.297
	+	463.37		1.009E+00	8.853E-01	8.116E-01	7.519E-02	1.243
		600.60		1.213E-03	2.843E-01	4.457E-01	4.068E-02	0.003
		635.95		1.823E-01	3.932E-01	6.561E-01	5.948E-02	0.278

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-125M		109.28	*	-7.058E+00	1.684E+01	2.698E+01	3.208E+00	-0.262
I-126		388.63		2.919E-01	3.431E-01	5.908E-01	5.027E-02	0.494
		666.33	*	5.825E-02	4.147E-01	7.026E-01	5.794E-02	0.083
		753.82		1.347E+00	3.280E+00	5.644E+00	4.912E-01	0.239
SB-126		414.70		-8.242E-02	1.573E-01	2.496E-01	2.122E-02	-0.330
		666.50		2.025E-02	1.441E-01	2.442E-01	2.014E-02	0.083
		695.00		6.366E-02	1.487E-01	2.565E-01	2.155E-02	0.248
		697.00		-1.091E-01	5.228E-01	8.618E-01	7.250E-02	-0.127
		720.70	*	7.011E-02	3.031E-01	4.482E-01	3.826E-02	0.156
		856.80		-1.199E+00	9.825E-01	1.451E+00	1.330E-01	-0.826
SB-127		252.40		-2.170E+00	1.564E+01	2.599E+01	1.105E+01	-0.084
		473.00		1.918E+00	6.172E+00	1.001E+01	1.422E+00	0.192
		685.70	*	3.051E+00	4.783E+00	8.353E+00	1.067E+00	0.365
		783.70		1.759E+01	1.355E+01	2.260E+01	3.157E+00	0.778
I-131		80.19		-8.528E+00	1.356E+01	1.890E+01	2.236E+00	-0.451
		284.31		1.277E-01	3.830E+00	5.825E+00	6.493E-01	0.022
		364.49	*	-8.183E-02	2.800E-01	4.543E-01	4.402E-02	-0.180
		636.99		3.421E+00	3.490E+00	6.045E+00	5.375E-01	0.566
TE-132		49.72		-2.945E+01	1.962E+02	3.241E+02	5.302E+01	-0.091
		111.76		1.218E+01	1.560E+02	2.550E+02	3.484E+01	0.048
		116.30		6.570E+00	1.309E+02	2.135E+02	2.902E+01	0.031
		228.16	*	-1.053E+00	3.388E+00	5.617E+00	1.026E+00	-0.187
BA-133		81.00		-3.940E-01	1.987E-01	2.410E-01	4.216E-02	-1.635
	+	276.40		1.117E+00	6.818E-01	9.372E-01	1.459E-01	1.192
		302.85		1.423E-01	2.492E-01	3.734E-01	5.373E-02	0.381
		356.01	*	1.460E-02	7.134E-02	1.039E-01	1.405E-02	0.140
		383.85		3.146E-02	4.477E-01	7.406E-01	9.221E-02	0.042
I-133		529.87	*	2.455E-01	4.477E-01	Half-Life too short		
		875.33		-1.664E+00	4.477E-01	Half-Life too short		
		1298.22		-1.349E+01	4.477E-01	Half-Life too short		
CS-134		563.25		-1.718E-02	5.400E-01	8.710E-01	7.545E-02	-0.020
		569.33		1.413E-01	3.209E-01	5.340E-01	4.638E-02	0.265
		604.72		1.771E-02	5.818E-02	8.335E-02	7.076E-03	0.213
	+	795.86	*	2.265E-01	9.759E-02	1.294E-01	1.160E-02	1.749
		801.95		-3.912E-01	6.384E-01	8.599E-01	7.720E-02	-0.455
		1365.19		5.687E-01	1.776E+00	3.084E+00	3.080E-01	0.184
CS-135		268.22	*	2.230E-01	2.863E-01	4.347E-01	5.216E-02	0.513
I-135		546.56		-2.311E+15	2.863E-01	Half-Life too short		
		836.80		1.814E+16	2.863E-01	Half-Life too short		
		1038.76		1.299E+14	2.863E-01	Half-Life too short		
		1131.51		2.034E+15	2.863E-01	Half-Life too short		
		1260.41	*	-1.365E+15	2.863E-01	Half-Life too short		
		1457.56		4.652E+17	2.863E-01	Half-Life too short		
		1678.03		-4.987E+15	2.863E-01	Half-Life too short		
		1791.20		-2.741E+15	2.863E-01	Half-Life too short		
CS-136		153.25		1.251E+00	1.782E+00	2.944E+00	3.465E-01	0.425
		176.60		4.276E-01	1.036E+00	1.691E+00	1.942E-01	0.253
		273.65		7.281E-01	1.138E+00	1.720E+00	1.970E-01	0.423
		340.55		1.243E+00	3.906E-01	6.309E-01	6.373E-02	1.970

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		818.51		9.536E-04	1.343E-01	2.231E-01	2.011E-02	0.004
		1048.07	*	-5.844E-02	2.133E-01	3.397E-01	3.143E-02	-0.172
		1235.36		1.760E+00	1.389E+00	2.178E+00	2.578E-01	0.808
BA-137M		661.66	*	2.248E-02	5.190E-02	8.967E-02	7.372E-03	0.251
CS-137		661.66	*	2.374E-02	5.483E-02	9.473E-02	7.804E-03	0.251
CE-139		165.86	*	1.751E-03	4.993E-02	7.812E-02	8.339E-03	0.022
BA-140		162.66		-1.263E+00	1.694E+00	2.631E+00	2.912E-01	-0.480
		304.85		2.048E+00	3.061E+00	4.552E+00	1.360E+00	0.450
		423.72		2.793E-01	3.882E+00	6.394E+00	2.102E+00	0.044
		537.26	*	-2.680E-01	5.062E-01	7.719E-01	2.618E-01	-0.347
LA-140		328.76		7.906E-01	6.398E-01	1.114E+00	1.168E-01	0.710
		487.02		3.111E-01	2.658E-01	4.661E-01	4.273E-02	0.667
		815.77		4.886E-01	5.966E-01	1.057E+00	1.053E-01	0.462
		1596.21	*	-8.249E-02	1.638E-01	2.566E-01	2.406E-02	-0.321
CE-141		145.44	*	1.107E-01	1.117E-01	1.865E-01	1.928E-02	0.593
CE-143		57.36		-5.340E-03	1.117E-01	Half-Life too short		
		293.27	*	1.527E-02	1.117E-01	Half-Life too short		
		664.57		2.219E-03	1.117E-01	Half-Life too short		
		721.93		1.100E-02	1.117E-01	Half-Life too short		
CE-144		80.12		-2.298E+00	4.843E+00	6.814E+00	8.008E-01	-0.337
		133.52	*	-9.310E-02	3.404E-01	5.327E-01	8.596E-02	-0.175
PM-144		476.78		-2.400E-02	9.648E-02	1.545E-01	1.448E-02	-0.155
		618.01		-8.047E-04	5.024E-02	7.848E-02	6.803E-03	-0.010
		696.49	*	2.594E-02	5.041E-02	8.737E-02	7.353E-03	0.297
PR-144		696.51	*	1.652E+00	3.800E+00	6.551E+00	5.509E-01	0.252
		1489.16		-4.950E+00	1.841E+01	2.939E+01	2.815E+00	-0.168
PM-146		453.88	*	4.682E-03	6.290E-02	1.033E-01	1.093E-02	0.045
		633.25		5.977E-01	2.055E+00	3.364E+00	1.283E+00	0.178
		735.93		6.706E-02	2.289E-01	3.727E-01	1.044E-01	0.180
		747.24		-7.339E-02	1.451E-01	2.316E-01	3.385E-02	-0.317
ND-147		91.11		9.984E-01	1.021E+00	1.125E+00	1.393E-01	0.887
		319.41		-3.954E+00	7.055E+00	1.134E+01	1.162E+00	-0.349
		531.02	*	4.518E-01	1.108E+00	1.850E+00	2.767E-01	0.244
PM-149		285.90	*	1.051E-04	1.108E+00	Half-Life too short		
EU-152		121.78		-1.810E-02	1.147E-01	1.826E-01	2.043E-02	-0.099
		244.70		6.435E-01	5.536E-01	8.605E-01	9.485E-02	0.748
		344.28	*	-6.564E-02	1.948E-01	2.354E-01	2.396E-02	-0.279
		778.90		-2.607E-01	4.455E-01	5.921E-01	5.225E-02	-0.440
	+	964.08		8.696E-01	4.075E-01	8.583E-01	7.894E-02	1.013
		1085.87		-5.088E-02	5.637E-01	9.118E-01	7.940E-02	-0.056
		1112.07		-7.901E-02	4.960E-01	7.571E-01	6.478E-02	-0.104
	+	1408.01		5.952E-01	3.834E-01	5.545E-01	5.343E-02	1.073
GD-153		69.67		-1.458E+00	3.916E+00	5.564E+00	6.352E-01	-0.262
		97.43	*	-1.282E-01	1.540E-01	2.096E-01	2.313E-02	-0.612
		103.18		-2.973E-01	1.838E-01	2.767E-01	2.925E-02	-1.074
EU-154		123.07		8.575E-03	8.099E-02	1.321E-01	1.649E-02	0.065
		723.31		1.218E-01	2.713E-01	4.099E-01	3.865E-02	0.297
		873.19		2.209E-01	4.067E-01	7.034E-01	8.683E-02	0.314
		996.26		-7.764E-01	5.768E-01	7.978E-01	1.413E-01	-0.973

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		1004.73		-7.073E-02	3.142E-01	5.040E-01	6.035E-02	-0.140
		1274.44	*	-1.998E-01	1.999E-01	2.863E-01	3.357E-02	-0.698
EU-155	+	86.55		3.339E-01	1.918E-01	3.086E-01	3.806E-02	1.082
		105.31	*	1.908E-01	1.680E-01	2.841E-01	2.993E-02	0.671
TB-160	+	86.79		9.275E-01	5.326E-01	8.475E-01	1.042E-01	1.094
		197.04		2.366E-01	9.581E-01	1.548E+00	1.688E-01	0.153
		215.65		-1.943E-01	1.269E+00	2.007E+00	2.208E-01	-0.097
		298.57		3.972E-01	1.967E-01	3.482E-01	3.684E-02	1.141
		879.36	*	-3.299E-02	2.118E-01	3.451E-01	3.194E-02	-0.096
		962.29		1.228E+00	1.014E+00	1.609E+00	1.480E-01	0.763
		966.15		1.860E+00	4.495E-01	8.489E-01	7.803E-02	2.191
		1177.93		-7.450E-02	6.450E-01	1.037E+00	8.489E-02	-0.072
		1271.85		1.161E-01	1.117E+00	1.825E+00	1.652E-01	0.064
HO-166M		80.57		-1.037E+00	5.466E-01	6.954E-01	8.193E-02	-1.491
		184.41		1.762E-01	6.956E-02	1.059E-01	1.145E-02	1.664
		280.46		1.674E-03	1.449E-01	2.104E-01	2.273E-02	0.008
		410.95		5.135E-01	3.931E-01	6.886E-01	5.845E-02	0.746
		711.68	*	3.977E-02	8.280E-02	1.435E-01	1.218E-02	0.277
		752.31		1.546E-01	3.913E-01	6.722E-01	5.845E-02	0.230
		810.29		-6.984E-02	8.594E-02	1.322E-01	1.185E-02	-0.528
TA-182		67.75		-4.623E-02	3.169E-01	3.828E-01	4.368E-02	-0.121
		100.11		2.203E-01	3.054E-01	4.764E-01	5.142E-02	0.462
		152.43		3.627E-01	5.748E-01	9.488E-01	9.812E-02	0.382
		222.11		4.740E-01	5.706E-01	9.877E-01	1.088E-01	0.480
	+	1121.30		1.011E+00	4.143E-01	5.506E-01	4.680E-02	1.837
		1189.05		9.163E-02	5.109E-01	8.422E-01	6.977E-02	0.109
		1221.41	*	2.101E-01	3.266E-01	5.568E-01	4.779E-02	0.377
		1231.02		1.702E-01	8.397E-01	1.194E+00	1.036E-01	0.143
IR-192	+	295.96		1.530E+00	3.089E-01	4.594E-01	4.900E-02	3.331
		308.46		4.483E-02	1.573E-01	2.651E-01	2.775E-02	0.169
		316.51	*	1.606E-02	5.525E-02	9.314E-02	9.603E-03	0.172
		468.07		-5.368E-02	1.303E-01	1.766E-01	1.633E-02	-0.304
BI-207		72.81		1.008E+00	3.645E-01	6.205E-01	7.106E-02	1.625
	+	74.97		1.045E+00	2.991E-01	4.280E-01	4.926E-02	2.441
		569.70		3.150E-02	5.004E-02	8.424E-02	7.216E-03	0.374
		1063.66	*	-1.919E-03	8.442E-02	1.377E-01	1.215E-02	-0.014
		1770.23		-3.209E+00	1.061E+00	8.511E-01	7.440E-02	-3.771
PB-210		46.54	*	-1.110E+01	1.511E+01	2.391E+01	2.944E+00	-0.464
PB-211		404.85	*	-1.165E+00	1.249E+00	1.715E+00	8.296E-01	-0.679
		427.09		8.501E-01	2.385E+00	3.943E+00	1.824E+00	0.216
		832.01		-1.286E+00	1.638E+00	2.302E+00	1.195E+00	-0.559
BI-212	+	727.33	*	1.718E+00	1.388E+00	1.661E+00	2.064E-01	1.034
		785.37		2.418E+00	4.710E+00	7.979E+00	7.065E-01	0.303
		1620.50		5.256E+00	3.933E+00	7.537E+00	7.015E-01	0.697
RN-219	+	271.23		1.125E+00	8.563E-01	7.128E-01	8.711E-02	1.578
		401.81	*	-4.119E-01	6.073E-01	9.502E-01	1.404E-01	-0.433
RA-223		81.07		-8.799E-01	4.345E-01	5.464E-01	6.456E-02	-1.610
		83.79		2.039E-01	2.806E-01	3.493E-01	4.199E-02	0.584
		94.87		2.603E+00	8.598E-01	1.335E+00	1.511E-01	1.949

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		144.24		-2.138E-01	1.109E+00	1.754E+00	1.937E-01	-0.122
		154.21		3.140E-01	6.238E-01	1.025E+00	1.135E-01	0.306
		269.46		6.778E-01	3.383E-01	5.390E-01	5.947E-02	1.258
		323.87	*	-9.625E-01	1.049E+00	1.635E+00	2.967E-01	-0.589
	+	338.28		9.588E+00	2.848E+00	3.583E+00	4.653E-01	2.676
AC-227		79.69		3.067E+00	2.495E+00	3.702E+00	7.027E-01	0.828
		235.96		1.225E+00	3.290E-01	5.103E-01	6.341E-02	2.400
		256.23	*	1.816E-02	3.885E-01	6.521E-01	9.024E-02	0.028
		299.98		1.757E+00	1.487E+00	2.518E+00	3.548E-01	0.698
		304.50		1.842E+00	2.772E+00	4.175E+00	7.339E-01	0.441
		334.37		-1.146E+00	3.053E+00	4.256E+00	6.961E-01	-0.269
TH-227		79.80		6.993E-01	3.226E+00	4.694E+00	1.088E+00	0.149
		235.96		1.225E+00	3.263E-01	5.103E-01	6.095E-02	2.400
		256.23	*	1.816E-02	3.885E-01	6.521E-01	9.919E-02	0.028
		299.98		1.757E+00	1.487E+00	2.518E+00	3.548E-01	0.698
		304.50		1.842E+00	2.772E+00	4.175E+00	7.339E-01	0.441
		334.37		-1.146E+00	3.053E+00	4.256E+00	6.961E-01	-0.269
TH-229		85.43		1.023E+00	4.102E-01	6.272E-01	7.630E-02	1.630
	+	88.47		4.237E-01	2.433E-01	3.876E-01	4.778E-02	1.093
		193.51	*	-2.538E-02	8.496E-01	1.357E+00	1.477E-01	-0.019
		210.85		2.511E+00	1.607E+00	2.518E+00	2.765E-01	0.997
PA-231		283.69	*	4.233E-01	2.503E+00	3.673E+00	5.857E-01	0.115
		301.36		1.222E+00	1.057E+00	1.613E+00	2.191E-01	0.758
TH-231		81.07		-8.799E-01	4.345E-01	5.464E-01	6.456E-02	-1.610
		83.79		2.039E-01	2.806E-01	3.493E-01	4.199E-02	0.584
		94.87		2.603E+00	8.598E-01	1.335E+00	1.511E-01	1.949
		144.24		-2.138E-01	1.109E+00	1.754E+00	1.937E-01	-0.122
		154.21		3.140E-01	6.238E-01	1.025E+00	1.135E-01	0.306
		269.46		6.778E-01	3.383E-01	5.390E-01	5.947E-02	1.258
		323.87	*	-9.625E-01	1.049E+00	1.635E+00	2.967E-01	-0.589
	+	338.28		9.588E+00	2.848E+00	3.583E+00	4.653E-01	2.676
PA-233		300.13		7.723E-01	6.741E-01	1.136E+00	1.822E-01	0.680
		311.90	*	2.660E-03	9.897E-02	1.647E-01	1.743E-02	0.016
		340.48		4.330E+00	1.620E+00	2.102E+00	5.154E-01	2.060
PA-234	+	94.67		8.338E-01	4.493E-01	4.987E-01	7.196E-02	1.672
		98.44		1.117E-01	1.677E-01	2.317E-01	1.302E-01	0.482
		111.00		7.648E-02	2.917E-01	4.799E-01	6.371E-02	0.159
		131.20		4.890E-02	1.762E-01	2.885E-01	2.896E-02	0.169
		569.50		2.787E-01	4.419E-01	7.441E-01	6.374E-02	0.375
		733.00		6.362E-01	6.330E-01	9.883E-01	2.193E-01	0.644
		880.51		1.039E-01	3.989E-01	6.748E-01	6.249E-02	0.154
		883.24		4.085E-01	5.011E-01	7.506E-01	5.052E-01	0.544
		926.50		-1.612E-01	2.369E-01	3.565E-01	9.095E-02	-0.452
		946.00	*	1.450E-01	4.169E-01	7.077E-01	1.349E-01	0.205
		949.00		3.621E-01	6.115E-01	1.062E+00	9.808E-02	0.341
PA-234M		766.42		2.093E+01	2.246E+01	3.136E+01	1.592E+01	0.667
		1001.03	*	2.196E+00	7.256E+00	1.215E+01	1.260E+00	0.181
U-235		89.96		6.775E-01	2.295E+00	2.422E+00	6.301E-01	0.280
	+	93.35		2.338E+00	1.339E+00	1.534E+00	3.731E-01	1.524

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		143.76	*	-7.759E-02	3.305E-01	5.216E-01	9.281E-02	-0.149
		163.33		-4.494E-01	7.129E-01	1.076E+00	2.042E-01	-0.418
	+	185.72		2.176E-01	1.164E-01	1.388E-01	1.502E-02	1.568
		205.31		-7.598E-01	9.446E-01	1.223E+00	2.368E-01	-0.621
NP-239		99.53		2.337E-01	2.886E-01	4.299E-01	4.661E-02	0.544
		103.37		-2.444E-01	1.639E-01	2.487E-01	2.626E-02	-0.983
		106.12		1.157E-01	1.348E-01	2.262E-01	2.355E-02	0.512
		117.23	*	-1.015E-01	6.155E-01	9.946E-01	1.004E-01	-0.102
		228.18		-1.099E-01	3.397E-01	5.634E-01	6.215E-02	-0.195
	+	277.60		5.519E-01	3.312E-01	4.597E-01	4.978E-02	1.200
AM-241		59.54	*	3.026E-01	3.875E-01	5.864E-01	6.883E-02	0.516
CM-247	+	278.00		2.344E+00	1.406E+00	1.978E+00	2.141E-01	1.185
		287.50		2.248E-01	1.984E+00	3.144E+00	3.371E-01	0.071
		402.40	*	-1.378E-02	5.525E-02	8.936E-02	7.557E-03	-0.154
CF-249		252.80		-4.190E-01	1.421E+00	2.346E+00	2.580E-01	-0.179
		333.37		-1.120E-01	3.299E-01	4.623E-01	4.607E-02	-0.242
		388.16	*	6.316E-02	6.235E-02	1.082E-01	9.223E-03	0.584
CF-251		177.52	*	3.845E-03	2.108E-01	3.386E-01	3.643E-02	0.011
		227.38		8.918E-02	5.590E-01	9.461E-01	1.044E-01	0.094
		285.41		-7.675E-01	3.407E+00	5.467E+00	5.875E-01	-0.140

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065186      *
* Acquisition date : 23-MAR-2010 14:39:49 Detector SN#    :                 *
* Detector ID      : GAM15                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.31     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065186          Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.0555E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.967E+01	4.504E+00	5.815E-01	0.000E+00
CD-109	2.833E+00	1.594E+00	2.429E+00	0.000E+00
SN-126	2.748E-01	1.547E-01	2.400E-01	0.000E+00
HG-203	1.319E-01	7.759E-02	1.019E-01	0.000E+00
TL-208	7.518E-01	1.435E-01	9.142E-02	0.000E+00
BI-211	5.748E+00	9.007E-01	4.943E-01	0.000E+00
PB-212	2.309E+00	3.189E-01	1.438E-01	0.000E+00
BI-214	1.574E+00	2.769E-01	1.775E-01	0.000E+00
PB-214	2.086E+00	3.458E-01	1.797E-01	0.000E+00
RA-224	6.231E+00	1.926E+00	1.540E+00	0.000E+00
RA-226	1.574E+00	2.769E-01	1.775E-01	0.000E+00
AC-228	2.093E+00	4.708E-01	3.513E-01	0.000E+00
RA-228	2.093E+00	4.708E-01	3.513E-01	0.000E+00
TH-228	2.309E+00	3.189E-01	1.438E-01	0.000E+00
TH-230	1.574E+00	2.646E-01	1.775E-01	0.000E+00
TH-232	2.093E+00	4.708E-01	3.513E-01	0.000E+00
TH-234	6.017E+00	3.942E+00	4.652E+00	0.000E+00
NP-237	8.200E-01	4.913E-01	6.520E-01	0.000E+00
U-238	6.017E+00	3.942E+00	4.652E+00	0.000E+00
ANH-511	1.859E-01	9.168E-02	7.557E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	8.309E-02	4.786E-01	8.052E-01	0.000E+00	NOT IDENT.
NA-22	-6.097E-02	6.860E-02	1.016E-01	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.710E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.742E-02	6.196E-02	9.995E-02	0.000E+00	FAIL ABUN
V-48	7.575E-03	1.250E-01	2.097E-01	0.000E+00	NOT IDENT.
CR-51	-1.772E-01	6.270E-01	1.047E+00	0.000E+00	NOT IDENT.
MN-54	5.296E-02	5.611E-02	1.008E-01	0.000E+00	NOT IDENT.

CO-56	1.529E-02	6.218E-02	1.067E-01	0.000E+00	FAIL ABUN
CO-57	-2.128E-03	3.961E-02	6.504E-02	0.000E+00	NOT IDENT.
CO-58	-5.470E-02	5.867E-02	9.072E-02	0.000E+00	NOT IDENT.
FE-59	-4.429E-02	1.465E-01	2.355E-01	0.000E+00	NOT IDENT.
CO-60	-1.923E-02	5.762E-02	9.010E-02	0.000E+00	NOT IDENT.
ZN-65	1.083E-01	1.458E-01	2.268E-01	0.000E+00	NOT IDENT.
SE-75	7.829E-03	7.800E-02	1.168E-01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	7.604E-02	1.255E-01	0.000E+00	NOT IDENT.
Y-88	4.223E-02	5.313E-02	9.967E-02	0.000E+00	NOT IDENT.
Y-91	2.332E+01	3.948E+01	6.780E+01	0.000E+00	NOT IDENT.
NB-94	2.050E-02	4.770E-02	8.355E-02	0.000E+00	NOT IDENT.
NB-95	6.269E-02	7.681E-02	1.208E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.456E-01	3.974E-01	0.000E+00	NOT IDENT.
ZR-95	-3.315E-02	1.061E-01	1.751E-01	0.000E+00	NOT IDENT.
MO-99	-4.363E+01	6.441E+01	1.031E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.070E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-7.209E-03	6.044E-02	9.931E-02	0.000E+00	FAIL ABUN
RH-106	3.283E-01	4.439E-01	7.675E-01	0.000E+00	NOT IDENT.
RU-106	3.283E-01	4.427E-01	7.675E-01	0.000E+00	NOT IDENT.
AG-108M	3.982E-02	4.255E-02	7.513E-02	0.000E+00	NOT IDENT.
AG-110M	1.586E-02	4.876E-02	8.519E-02	0.000E+00	NOT IDENT.
SN-113	1.325E-02	7.081E-02	1.202E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	7.978E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	1.044E-01	1.104E-01	1.884E-01	0.000E+00	NOT IDENT.
TE-123M	4.273E-02	4.576E-02	7.806E-02	0.000E+00	NOT IDENT.
SB-124	2.407E-03	1.113E-01	1.866E-01	0.000E+00	NOT IDENT.
SB-125	6.972E-02	1.362E-01	2.347E-01	0.000E+00	FAIL ABUN
TE-125M	-7.058E+00	1.650E+01	2.716E+01	0.000E+00	NOT IDENT.
I-126	5.825E-02	4.064E-01	7.006E-01	0.000E+00	NOT IDENT.
SB-126	7.011E-02	2.970E-01	4.467E-01	0.000E+00	NOT IDENT.
SB-127	3.051E+00	4.688E+00	8.328E+00	0.000E+00	NOT IDENT.
I-131	-8.183E-02	2.744E-01	4.544E-01	0.000E+00	NOT IDENT.
TE-132	-1.053E+00	3.320E+00	5.632E+00	0.000E+00	NOT IDENT.
BA-133	1.460E-02	6.991E-02	1.040E-01	0.000E+00	FAIL ABUN
I-133	0.000E+00	4.622E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.564E-02	1.290E-01	0.000E+00	FAIL ABUN
CS-135	2.230E-01	2.805E-01	4.355E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.116E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.844E-02	2.090E-01	3.379E-01	0.000E+00	NOT IDENT.
BA-137M	2.248E-02	5.086E-02	8.942E-02	0.000E+00	NOT IDENT.
CS-137	2.374E-02	5.373E-02	9.446E-02	0.000E+00	NOT IDENT.
CE-139	1.751E-03	4.893E-02	7.846E-02	0.000E+00	NOT IDENT.
BA-140	-2.680E-01	4.961E-01	7.706E-01	0.000E+00	NOT IDENT.
LA-140	-8.249E-02	1.605E-01	2.547E-01	0.000E+00	NOT IDENT.
CE-141	1.107E-01	1.094E-01	1.874E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.882E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-9.310E-02	3.336E-01	5.356E-01	0.000E+00	NOT IDENT.
PM-144	2.594E-02	4.940E-02	8.710E-02	0.000E+00	NOT IDENT.
PR-144	1.652E+00	3.724E+00	6.531E+00	0.000E+00	NOT IDENT.
PM-146	4.682E-03	6.164E-02	1.032E-01	0.000E+00	NOT IDENT.
ND-147	4.518E-01	1.086E+00	1.847E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	6.477E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-6.564E-02	1.909E-01	2.356E-01	0.000E+00	FAIL ABUN
GD-153	-1.282E-01	1.510E-01	2.110E-01	0.000E+00	NOT IDENT.
EU-154	-1.998E-01	1.959E-01	2.845E-01	0.000E+00	NOT IDENT.
EU-155	1.908E-01	1.647E-01	2.861E-01	0.000E+00	FAIL ABUN
TB-160	-3.299E-02	2.076E-01	3.436E-01	0.000E+00	FAIL ABUN
HO-166M	3.977E-02	8.115E-02	1.431E-01	0.000E+00	NOT IDENT.
TA-182	2.101E-01	3.201E-01	5.534E-01	0.000E+00	FAIL ABUN
IR-192	1.606E-02	5.415E-02	9.323E-02	0.000E+00	FAIL ABUN
BI-207	-1.919E-03	8.274E-02	1.370E-01	0.000E+00	FAIL ABUN
PB-210	-1.110E+01	1.481E+01	2.417E+01	0.000E+00	NOT IDENT.
PB-211	-1.165E+00	1.224E+00	1.715E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.361E+00	1.656E+00	0.000E+00	FAIL ABUN
RN-219	-4.119E-01	5.952E-01	9.500E-01	0.000E+00	FAIL ABUN
RA-223	-9.625E-01	1.028E+00	1.636E+00	0.000E+00	FAIL ABUN
AC-227	1.816E-02	3.808E-01	6.534E-01	0.000E+00	NOT IDENT.
TH-227	1.816E-02	3.808E-01	6.534E-01	0.000E+00	NOT IDENT.
TH-229	-2.538E-02	8.326E-01	1.362E+00	0.000E+00	FAIL ABUN
PA-231	4.233E-01	2.453E+00	3.679E+00	0.000E+00	NOT IDENT.
TH-231	-9.625E-01	1.028E+00	1.636E+00	0.000E+00	FAIL ABUN
PA-233	2.660E-03	9.699E-02	1.649E-01	0.000E+00	NOT IDENT.
PA-234	1.450E-01	4.085E-01	7.044E-01	0.000E+00	FAIL ABUN
PA-234M	2.196E+00	7.111E+00	1.209E+01	0.000E+00	NOT IDENT.
U-235	-7.759E-02	3.239E-01	5.243E-01	0.000E+00	FAIL ABUN
NP-239	-1.015E-01	6.032E-01	1.001E+00	0.000E+00	FAIL ABUN
AM-241	3.026E-01	3.798E-01	5.921E-01	0.000E+00	NOT IDENT.
CM-247	-1.378E-02	5.414E-02	8.934E-02	0.000E+00	FAIL ABUN

CF-249	6.316E-02	6.110E-02	1.082E-01	0.000E+00 NOT IDENT.
CF-251	3.845E-03	2.066E-01	3.400E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:42:01.87

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065186.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 14:39:49
Sample ID         : G1202065186          Sample quantity  : 1.05550E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.31  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1149	10.66*	9.664E-01	3.967E+01	3.967E+01	11.59
CD-109	88.03	127	3.70*	4.441E+00	2.748E+00	2.833E+00	57.43
SN-126	64.28	113	9.60	1.805E+00	2.319E+00	2.319E+00	66.05
	86.94	127	8.90	4.441E+00	1.143E+00	1.143E+00	70.24
	87.57	127	37.00*	4.441E+00	2.748E-01	2.748E-01	57.43
HG-203	70.83	------	3.69	2.755E+00	------	Line Not Found	------
	72.87	------	6.19	3.001E+00	------	Line Not Found	------
	279.20	83	81.56*	3.700E+00	9.770E-02	1.319E-01	60.04
TL-208	277.37	83	6.60	3.700E+00	1.207E+00	1.207E+00	60.69
	583.19	394	85.00*	2.191E+00	7.518E-01	7.518E-01	19.47
	860.56	------	12.50	1.576E+00	------	Line Not Found	------
BI-211	72.87	------	1.23	3.001E+00	------	Line Not Found	------
	351.06	656	12.92*	3.140E+00	5.748E+00	5.748E+00	15.99
PB-212	74.82	339	10.28	3.237E+00	3.625E+00	3.625E+00	30.23
	77.11	486	17.10	3.504E+00	2.887E+00	2.887E+00	21.22
	238.63	1165	43.60*	4.114E+00	2.309E+00	2.309E+00	14.09
	300.09	------	3.30	3.507E+00	------	Line Not Found	------
BI-214	609.32	426	45.49*	2.117E+00	1.574E+00	1.574E+00	17.95
	1120.29	108	14.92	1.226E+00	2.094E+00	2.094E+00	41.51
	1764.49	66	15.30	8.555E-01	1.792E+00	1.792E+00	33.38
PB-214	74.82	339	5.80	3.237E+00	6.425E+00	6.425E+00	29.71
	77.11	486	9.70	3.504E+00	5.089E+00	5.089E+00	22.77
	242.00	293	7.25	4.079E+00	3.524E+00	3.524E+00	32.07
	295.22	363	18.42	3.547E+00	1.974E+00	1.974E+00	21.19
	351.93	656	35.60*	3.140E+00	2.086E+00	2.086E+00	16.91
RA-224	240.99	293	4.10*	4.079E+00	6.231E+00	6.231E+00	31.54
RA-226	609.32	426	45.49*	2.117E+00	1.574E+00	1.574E+00	17.95
	1120.29	108	14.92	1.226E+00	2.094E+00	2.094E+00	41.51
	1764.49	66	15.30	8.555E-01	1.792E+00	1.792E+00	33.38
AC-228	338.32	247	11.27	3.227E+00	2.416E+00	2.416E+00	49.77
	911.20	227	25.80*	1.495E+00	2.093E+00	2.093E+00	22.96
	968.97	147	15.80	1.410E+00	2.351E+00	2.351E+00	36.52

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	247	11.27	3.227E+00	2.416E+00	2.416E+00	49.77
	911.20	227	25.80*	1.495E+00	2.093E+00	2.093E+00	22.96
	968.97	147	15.80	1.410E+00	2.351E+00	2.351E+00	36.52
TH-228	74.82	339	10.28	3.237E+00	3.625E+00	3.625E+00	28.65
	77.11	486	17.10	3.504E+00	2.887E+00	2.887E+00	21.22
	238.63	1165	43.60*	4.114E+00	2.309E+00	2.309E+00	14.09
	300.09	------	3.30	3.507E+00	------ Line Not Found		------
TH-230	609.32	426	45.49*	2.117E+00	1.574E+00	1.574E+00	17.16
	1120.29	108	14.92	1.226E+00	2.094E+00	2.094E+00	40.97
	1764.49	66	15.30	8.555E-01	1.792E+00	1.792E+00	33.38
TH-232	338.32	247	11.27	3.227E+00	2.416E+00	2.416E+00	28.48
	911.20	227	25.80*	1.495E+00	2.093E+00	2.093E+00	22.96
	968.97	147	15.80	1.410E+00	2.351E+00	2.351E+00	36.52
TH-234	63.29	113	3.70*	1.805E+00	6.017E+00	6.017E+00	66.85
	92.59	179	4.23	4.861E+00	3.095E+00	3.095E+00	56.89
NP-237	86.48	127	12.40*	4.441E+00	8.200E-01	8.200E-01	61.13
	95.86	------	2.68	5.004E+00	------ Line Not Found		------
U-238	63.29	113	3.70*	1.805E+00	6.017E+00	6.017E+00	66.85
	92.59	179	4.23	4.861E+00	3.095E+00	3.095E+00	53.14
ANH-511	511.00	126	100.00*	2.419E+00	1.859E-01	1.859E-01	50.32

Flag: "*" = Keyline

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

Total number of lines in spectrum 29
Number of unidentified lines 2
Number of lines tentatively identified by NID 27 93.10%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.967E+01	3.967E+01	0.460E+01	11.59	
CD-109	461.40D	1.03	2.748E+00	2.833E+00	1.627E+00	57.43	
SN-126	2.30E+05Y	1.00	2.748E-01	2.748E-01	1.578E-01	57.43	
HG-203	46.59D	1.35	9.770E-02	1.319E-01	0.792E-01	60.04	
TL-208	1.41E+10Y	1.00	7.518E-01	7.518E-01	1.464E-01	19.47	
BI-211	7.04E+08Y	1.00	5.748E+00	5.748E+00	0.919E+00	15.99	
PB-212	1.41E+10Y	1.00	2.309E+00	2.309E+00	0.325E+00	14.09	
BI-214	1600.00Y	1.00	1.574E+00	1.574E+00	0.283E+00	17.95	
PB-214	1600.00Y	1.00	2.086E+00	2.086E+00	0.353E+00	16.91	
RA-224	1.41E+10Y	1.00	6.231E+00	6.231E+00	1.965E+00	31.54	
RA-226	1600.00Y	1.00	1.574E+00	1.574E+00	0.283E+00	17.95	
AC-228	1.41E+10Y	1.00	2.093E+00	2.093E+00	0.480E+00	22.96	
RA-228	1.41E+10Y	1.00	2.093E+00	2.093E+00	0.480E+00	22.96	
TH-228	1.41E+10Y	1.00	2.309E+00	2.309E+00	0.325E+00	14.09	
TH-230	7.54E+04Y	1.00	1.574E+00	1.574E+00	0.270E+00	17.16	
TH-232	1.41E+10Y	1.00	2.093E+00	2.093E+00	0.480E+00	22.96	
TH-234	4.47E+09Y	1.00	6.017E+00	6.017E+00	4.023E+00	66.85	
NP-237	2.14E+06Y	1.00	8.200E-01	8.200E-01	5.013E-01	61.13	
U-238	4.47E+09Y	1.00	6.017E+00	6.017E+00	4.023E+00	66.85	
ANH-511	1.00E+09Y	1.00	1.859E-01	1.859E-01	0.935E-01	50.32	
		Total Activity :	8.626E+01	8.638E+01			

Grand Total Activity : 8.626E+01 8.638E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	186.06	170	423	1.11	371.02	365	12	2.36E-02	52.4	4.86E+00	T
0	209.34	81	327	1.42	417.59	413	10	1.13E-02	86.2	4.50E+00	
0	271.14	129	377	2.11	541.18	533	19	1.79E-02	75.1	3.76E+00	T
0	464.57	77	188	4.68	928.05	918	18	1.06E-02	87.3	2.59E+00	T
0	727.54	59	105	1.45	1454.01	1447	14	8.19E-03	79.9	1.83E+00	T
0	772.09	80	170	4.38	1543.12	1527	32	1.12E-02	****	1.74E+00	
0	795.62	81	37	2.30	1590.20	1583	16	1.13E-02	42.1	1.69E+00	T
3	964.42	51	34	1.84	1927.85	1924	20	7.02E-03	46.0	1.42E+00	T
0	1237.58	69	52	2.13	2474.28	2467	16	9.64E-03	52.3	1.12E+00	T
0	1408.16	35	17	1.91	2815.54	2807	17	4.86E-03	63.7	9.95E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:42:07.83

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065186.CNF;1 *
* Acquisition date : 23-MAR-2010 14:39:49  Detector SN#    :                *
* Detector ID      : GAM15                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.31         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G1202065186           Analyst initials: MXR1           *
* Batch Number     : 962631                Sample Quantity : 1.05550E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.967E+01	4.596E+00	5.856E-01	5.754E-02	67.739
CD-109	2.833E+00	1.627E+00	2.410E+00	2.992E-01	1.175
SN-126	2.748E-01	1.578E-01	2.381E-01	2.947E-02	1.154
HG-203	1.319E-01	7.917E-02	1.017E-01	1.118E-02	1.296
TL-208	7.518E-01	1.464E-01	9.162E-02	8.380E-03	8.206
BI-211	5.748E+00	9.191E-01	4.941E-01	4.921E-02	11.634
PB-212	2.309E+00	3.254E-01	1.434E-01	1.714E-02	16.103
BI-214	1.574E+00	2.825E-01	1.779E-01	1.773E-02	8.844
PB-214	2.086E+00	3.529E-01	1.797E-01	2.042E-02	11.612
RA-224	6.231E+00	1.965E+00	1.537E+00	1.695E-01	4.055
RA-226	1.574E+00	2.825E-01	1.779E-01	1.773E-02	8.844
AC-228	2.093E+00	4.804E-01	3.529E-01	4.275E-02	5.930
RA-228	2.093E+00	4.804E-01	3.529E-01	4.275E-02	5.930
TH-228	2.309E+00	3.254E-01	1.434E-01	1.714E-02	16.103
TH-230	1.574E+00	2.700E-01	1.779E-01	1.504E-02	8.844
TH-232	2.093E+00	4.804E-01	3.529E-01	4.275E-02	5.930
TH-234	6.017E+00	4.023E+00	4.609E+00	9.138E-01	1.306
NP-237	8.200E-01	5.013E-01	6.470E-01	1.572E-01	1.267

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-238	6.017E+00	4.023E+00	4.609E+00	9.138E-01	1.306
ANH-511	1.859E-01	9.355E-02	7.568E-02	6.539E-03	2.457

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	8.309E-02		4.884E-01	8.061E-01	7.492E-02	0.103
NA-22	-6.097E-02		7.000E-02	1.022E-01	9.285E-03	-0.597
NA-24	-3.373E+02		1.383E+02	Half-Life too short		
SC-46	-2.742E-02		6.322E-02	1.004E-01	9.329E-03	-0.273
V-48	7.575E-03		1.276E-01	2.107E-01	1.926E-02	0.036
CR-51	-1.772E-01		6.398E-01	1.046E+00	1.110E-01	-0.169
MN-54	5.296E-02		5.726E-02	1.012E-01	9.182E-03	0.523
CO-56	1.529E-02		6.345E-02	1.071E-01	9.774E-03	0.143
CO-57	-2.128E-03		4.042E-02	6.466E-02	6.513E-03	-0.033
CO-58	-5.470E-02		5.987E-02	9.108E-02	8.188E-03	-0.601
FE-59	-4.429E-02		1.495E-01	2.368E-01	2.209E-02	-0.187
CO-60	-1.923E-02		5.880E-02	9.068E-02	8.718E-03	-0.212
ZN-65	1.083E-01		1.488E-01	2.280E-01	1.949E-02	0.475
SE-75	7.829E-03		7.960E-02	1.166E-01	1.278E-02	0.067
SR-85	1.665E-01		7.759E-02	1.257E-01	1.086E-02	1.324
Y-88	4.223E-02		5.421E-02	1.005E-01	8.463E-03	0.420
Y-91	2.332E+01		4.029E+01	6.821E+01	5.750E+00	0.342
NB-94	2.050E-02		4.867E-02	8.382E-02	7.076E-03	0.245
NB-95	6.269E-02		7.838E-02	1.213E-01	1.062E-02	0.517
NB-95M	6.092E-01		2.506E-01	3.964E-01	4.776E-02	1.537
ZR-95	-3.315E-02		1.082E-01	1.758E-01	1.689E-02	-0.189
MO-99	-4.363E+01		6.572E+01	1.034E+02	1.630E+01	-0.422
TC-99M	-3.188E+16		3.097E+16	Half-Life too short		
RU-103	-7.209E-03		6.167E-02	9.944E-02	1.390E-02	-0.072
RH-106	3.283E-01		4.529E-01	7.694E-01	1.009E-01	0.427
RU-106	3.283E-01		4.517E-01	7.694E-01	6.466E-02	0.427
AG-108M	3.982E-02		4.342E-02	7.518E-02	6.644E-03	0.530
AG-110M	1.586E-02		4.975E-02	8.543E-02	7.270E-03	0.186
SN-113	1.325E-02		7.226E-02	1.202E-01	1.044E-02	0.110
CD-115	-5.711E-05		4.070E-05	Half-Life too short		
SN-117M	1.044E-01		1.127E-01	1.876E-01	1.967E-02	0.557
TE-123M	4.273E-02		4.669E-02	7.771E-02	8.189E-03	0.550
SB-124	2.407E-03		1.136E-01	1.880E-01	1.771E-02	0.013
SB-125	6.972E-02		1.390E-01	2.349E-01	2.044E-02	0.297
TE-125M	-7.058E+00		1.684E+01	2.698E+01	3.208E+00	-0.262
I-126	5.825E-02		4.147E-01	7.026E-01	5.794E-02	0.083
SB-126	7.011E-02		3.031E-01	4.482E-01	3.826E-02	0.156
SB-127	3.051E+00		4.783E+00	8.353E+00	1.067E+00	0.365
I-131	-8.183E-02		2.800E-01	4.543E-01	4.402E-02	-0.180
TE-132	-1.053E+00		3.388E+00	5.617E+00	1.026E+00	-0.187
BA-133	1.460E-02		7.134E-02	1.039E-01	1.405E-02	0.140

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	2.455E-01		2.358E-01	Half-Life too short		
CS-134	2.265E-01	+	9.759E-02	1.294E-01	1.160E-02	1.749
CS-135	2.230E-01		2.863E-01	4.347E-01	5.216E-02	0.513
I-135	-1.365E+15		1.590E+15	Half-Life too short		
CS-136	-5.844E-02		2.133E-01	3.397E-01	3.143E-02	-0.172
BA-137M	2.248E-02		5.190E-02	8.967E-02	7.372E-03	0.251
CS-137	2.374E-02		5.483E-02	9.473E-02	7.804E-03	0.251
CE-139	1.751E-03		4.993E-02	7.812E-02	8.339E-03	0.022
BA-140	-2.680E-01		5.062E-01	7.719E-01	2.618E-01	-0.347
LA-140	-8.249E-02		1.638E-01	2.566E-01	2.406E-02	-0.321
CE-141	1.107E-01		1.117E-01	1.865E-01	1.928E-02	0.593
CE-143	1.527E-02		2.491E-03	Half-Life too short		
CE-144	-9.310E-02		3.404E-01	5.327E-01	8.596E-02	-0.175
PM-144	2.594E-02		5.041E-02	8.737E-02	7.353E-03	0.297
PR-144	1.652E+00		3.800E+00	6.551E+00	5.509E-01	0.252
PM-146	4.682E-03		6.290E-02	1.033E-01	1.093E-02	0.045
ND-147	4.518E-01		1.108E+00	1.850E+00	2.767E-01	0.244
PM-149	1.051E-04		3.305E-04	Half-Life too short		
EU-152	-6.564E-02		1.948E-01	2.354E-01	2.396E-02	-0.279
GD-153	-1.282E-01		1.540E-01	2.096E-01	2.313E-02	-0.612
EU-154	-1.998E-01		1.999E-01	2.863E-01	3.357E-02	-0.698
EU-155	1.908E-01		1.680E-01	2.841E-01	2.993E-02	0.671
TB-160	-3.299E-02		2.118E-01	3.451E-01	3.194E-02	-0.096
HO-166M	3.977E-02		8.280E-02	1.435E-01	1.218E-02	0.277
TA-182	2.101E-01		3.266E-01	5.568E-01	4.779E-02	0.377
IR-192	1.606E-02		5.525E-02	9.314E-02	9.603E-03	0.172
BI-207	-1.919E-03		8.442E-02	1.377E-01	1.215E-02	-0.014
PB-210	-1.110E+01		1.511E+01	2.391E+01	2.944E+00	-0.464
PB-211	-1.165E+00		1.249E+00	1.715E+00	8.296E-01	-0.679
BI-212	1.718E+00	+	1.388E+00	1.661E+00	2.064E-01	1.034
RN-219	-4.119E-01		6.073E-01	9.502E-01	1.404E-01	-0.433
RA-223	-9.625E-01		1.049E+00	1.635E+00	2.967E-01	-0.589
AC-227	1.816E-02		3.885E-01	6.521E-01	9.024E-02	0.028
TH-227	1.816E-02		3.885E-01	6.521E-01	9.919E-02	0.028
TH-229	-2.538E-02		8.496E-01	1.357E+00	1.477E-01	-0.019
PA-231	4.233E-01		2.503E+00	3.673E+00	5.857E-01	0.115
TH-231	-9.625E-01		1.049E+00	1.635E+00	2.967E-01	-0.589
PA-233	2.660E-03		9.897E-02	1.647E-01	1.743E-02	0.016
PA-234	1.450E-01		4.169E-01	7.077E-01	1.349E-01	0.205
PA-234M	2.196E+00		7.256E+00	1.215E+01	1.260E+00	0.181
U-235	-7.759E-02		3.305E-01	5.216E-01	9.281E-02	-0.149
NP-239	-1.015E-01		6.155E-01	9.946E-01	1.004E-01	-0.102
AM-241	3.026E-01		3.875E-01	5.864E-01	6.883E-02	0.516
CM-247	-1.378E-02		5.525E-02	8.936E-02	7.557E-03	-0.154
CF-249	6.316E-02		6.235E-02	1.082E-01	9.223E-03	0.584
CF-251	3.845E-03		2.108E-01	3.386E-01	3.643E-02	0.011

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065186          *
* Acquisition date  : 23-MAR-2010 14:39:49 Detector SN#    :               *
* Detector ID       : GAM15                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.31      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  3-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202065186          Analyst initials: MXR1           *
* Batch Number      : 962631               Sample Quantity : 1.0555E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.967E+01	4.504E+00	2.909E-01	2.298E+00
CD-109	2.833E+00	1.594E+00	1.215E+00	8.134E-01
SN-126	2.748E-01	1.547E-01	1.201E-01	7.891E-02
HG-203	1.319E-01	7.759E-02	5.099E-02	3.959E-02
TL-208	7.518E-01	1.435E-01	4.574E-02	7.319E-02
BI-211	5.748E+00	9.007E-01	2.473E-01	4.596E-01
PB-212	2.309E+00	3.189E-01	7.193E-02	1.627E-01
BI-214	1.574E+00	2.769E-01	8.881E-02	1.413E-01
PB-214	2.086E+00	3.458E-01	8.993E-02	1.764E-01
RA-224	6.231E+00	1.926E+00	7.707E-01	9.826E-01
RA-226	1.574E+00	2.769E-01	8.881E-02	1.413E-01
AC-228	2.093E+00	4.708E-01	1.758E-01	2.402E-01
RA-228	2.093E+00	4.708E-01	1.758E-01	2.402E-01
TH-228	2.309E+00	3.189E-01	7.193E-02	1.627E-01
TH-230	1.574E+00	2.646E-01	8.881E-02	1.350E-01
TH-232	2.093E+00	4.708E-01	1.758E-01	2.402E-01
TH-234	6.017E+00	3.942E+00	2.327E+00	2.011E+00
NP-237	8.200E-01	4.913E-01	3.262E-01	2.507E-01
U-238	6.017E+00	3.942E+00	2.327E+00	2.011E+00
ANH-511	1.859E-01	9.168E-02	3.781E-02	4.677E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	8.309E-02	4.786E-01	4.028E-01	2.442E-01	NOT IDENT.
NA-22	-6.097E-02	6.860E-02	5.082E-02	3.500E-02	NOT IDENT.
NA-24	-3.373E+08	2.710E+08	0.000E+00	1.383E+08	SHORT HLIF
SC-46	-2.742E-02	6.196E-02	5.001E-02	3.161E-02	FAIL ABUN
V-48	7.575E-03	1.250E-01	1.049E-01	6.379E-02	NOT IDENT.
CR-51	-1.772E-01	6.270E-01	5.238E-01	3.199E-01	NOT IDENT.
MN-54	5.296E-02	5.611E-02	5.042E-02	2.863E-02	NOT IDENT.

CO-56	1.529E-02	6.218E-02	5.337E-02	3.172E-02	FAIL ABUN
CO-57	-2.128E-03	3.961E-02	3.254E-02	2.021E-02	NOT IDENT.
CO-58	-5.470E-02	5.867E-02	4.539E-02	2.993E-02	NOT IDENT.
FE-59	-4.429E-02	1.465E-01	1.178E-01	7.475E-02	NOT IDENT.
CO-60	-1.923E-02	5.762E-02	4.508E-02	2.940E-02	NOT IDENT.
ZN-65	1.083E-01	1.458E-01	1.135E-01	7.439E-02	NOT IDENT.
SE-75	7.829E-03	7.800E-02	5.844E-02	3.980E-02	NOT IDENT.
SR-85	1.665E-01	7.604E-02	6.281E-02	3.880E-02	NOT IDENT.
Y-88	4.223E-02	5.313E-02	4.987E-02	2.711E-02	NOT IDENT.
Y-91	2.332E+01	3.948E+01	3.392E+01	2.015E+01	NOT IDENT.
NB-94	2.050E-02	4.770E-02	4.180E-02	2.433E-02	NOT IDENT.
NB-95	6.269E-02	7.681E-02	6.045E-02	3.919E-02	NOT IDENT.
NB-95M	6.092E-01	2.456E-01	1.988E-01	1.253E-01	NOT IDENT.
ZR-95	-3.315E-02	1.061E-01	8.763E-02	5.411E-02	NOT IDENT.
MO-99	-4.363E+01	6.441E+01	5.156E+01	3.286E+01	NOT IDENT.
TC-99M	-3.188E+22	6.070E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-7.209E-03	6.044E-02	4.968E-02	3.084E-02	FAIL ABUN
RH-106	3.283E-01	4.439E-01	3.840E-01	2.265E-01	NOT IDENT.
RU-106	3.283E-01	4.427E-01	3.840E-01	2.259E-01	NOT IDENT.
AG-108M	3.982E-02	4.255E-02	3.759E-02	2.171E-02	NOT IDENT.
AG-110M	1.586E-02	4.876E-02	4.262E-02	2.488E-02	NOT IDENT.
SN-113	1.325E-02	7.081E-02	6.011E-02	3.613E-02	NOT IDENT.
CD-115	-5.711E+01	7.978E+01	0.000E+00	4.070E+01	SHORT HLIF
SN-117M	1.044E-01	1.104E-01	9.427E-02	5.633E-02	NOT IDENT.
TE-123M	4.273E-02	4.576E-02	3.905E-02	2.334E-02	NOT IDENT.
SB-124	2.407E-03	1.113E-01	9.334E-02	5.678E-02	NOT IDENT.
SB-125	6.972E-02	1.362E-01	1.174E-01	6.951E-02	FAIL ABUN
TE-125M	-7.058E+00	1.650E+01	1.359E+01	8.419E+00	NOT IDENT.
I-126	5.825E-02	4.064E-01	3.505E-01	2.073E-01	NOT IDENT.
SB-126	7.011E-02	2.970E-01	2.235E-01	1.515E-01	NOT IDENT.
SB-127	3.051E+00	4.688E+00	4.167E+00	2.392E+00	NOT IDENT.
I-131	-8.183E-02	2.744E-01	2.273E-01	1.400E-01	NOT IDENT.
TE-132	-1.053E+00	3.320E+00	2.818E+00	1.694E+00	NOT IDENT.
BA-133	1.460E-02	6.991E-02	5.203E-02	3.567E-02	FAIL ABUN
I-133	2.455E+05	4.622E+05	0.000E+00	2.358E+05	SHORT HLIF
CS-134	2.265E-01	9.564E-02	6.452E-02	4.879E-02	FAIL ABUN
CS-135	2.230E-01	2.805E-01	2.179E-01	1.431E-01	NOT IDENT.
I-135	-1.365E+21	3.116E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.844E-02	2.090E-01	1.691E-01	1.066E-01	NOT IDENT.
BA-137M	2.248E-02	5.086E-02	4.474E-02	2.595E-02	NOT IDENT.
CS-137	2.374E-02	5.373E-02	4.726E-02	2.741E-02	NOT IDENT.
CE-139	1.751E-03	4.893E-02	3.925E-02	2.497E-02	NOT IDENT.
BA-140	-2.680E-01	4.961E-01	3.855E-01	2.531E-01	NOT IDENT.
LA-140	-8.249E-02	1.605E-01	1.274E-01	8.188E-02	NOT IDENT.
CE-141	1.107E-01	1.094E-01	9.376E-02	5.583E-02	NOT IDENT.
CE-143	1.527E+04	4.882E+03	0.000E+00	2.491E+03	SHORT HLIF
CE-144	-9.310E-02	3.336E-01	2.680E-01	1.702E-01	NOT IDENT.
PM-144	2.594E-02	4.940E-02	4.358E-02	2.521E-02	NOT IDENT.
PR-144	1.652E+00	3.724E+00	3.267E+00	1.900E+00	NOT IDENT.
PM-146	4.682E-03	6.164E-02	5.165E-02	3.145E-02	NOT IDENT.
ND-147	4.518E-01	1.086E+00	9.241E-01	5.540E-01	NOT IDENT.
PM-149	1.051E+02	6.477E+02	0.000E+00	3.305E+02	SHORT HLIF
EU-152	-6.564E-02	1.909E-01	1.179E-01	9.740E-02	FAIL ABUN
GD-153	-1.282E-01	1.510E-01	1.056E-01	7.702E-02	NOT IDENT.
EU-154	-1.998E-01	1.959E-01	1.423E-01	9.996E-02	NOT IDENT.
EU-155	1.908E-01	1.647E-01	1.431E-01	8.402E-02	FAIL ABUN
TB-160	-3.299E-02	2.076E-01	1.719E-01	1.059E-01	FAIL ABUN
HO-166M	3.977E-02	8.115E-02	7.157E-02	4.140E-02	NOT IDENT.
TA-182	2.101E-01	3.201E-01	2.769E-01	1.633E-01	FAIL ABUN
IR-192	1.606E-02	5.415E-02	4.664E-02	2.763E-02	FAIL ABUN
BI-207	-1.919E-03	8.274E-02	6.853E-02	4.221E-02	FAIL ABUN
PB-210	-1.110E+01	1.481E+01	1.209E+01	7.556E+00	NOT IDENT.
PB-211	-1.165E+00	1.224E+00	8.580E-01	6.247E-01	NOT IDENT.
BI-212	1.718E+00	1.361E+00	8.285E-01	6.941E-01	FAIL ABUN
RN-219	-4.119E-01	5.952E-01	4.753E-01	3.037E-01	FAIL ABUN
RA-223	-9.625E-01	1.028E+00	8.187E-01	5.246E-01	FAIL ABUN
AC-227	1.816E-02	3.808E-01	3.269E-01	1.943E-01	NOT IDENT.
TH-227	1.816E-02	3.808E-01	3.269E-01	1.943E-01	NOT IDENT.
TH-229	-2.538E-02	8.326E-01	6.816E-01	4.248E-01	FAIL ABUN
PA-231	4.233E-01	2.453E+00	1.840E+00	1.252E+00	NOT IDENT.
TH-231	-9.625E-01	1.028E+00	8.187E-01	5.246E-01	FAIL ABUN
PA-233	2.660E-03	9.699E-02	8.249E-02	4.949E-02	NOT IDENT.
PA-234	1.450E-01	4.085E-01	3.524E-01	2.084E-01	FAIL ABUN
PA-234M	2.196E+00	7.111E+00	6.048E+00	3.628E+00	NOT IDENT.
U-235	-7.759E-02	3.239E-01	2.623E-01	1.653E-01	FAIL ABUN
NP-239	-1.015E-01	6.032E-01	5.006E-01	3.078E-01	FAIL ABUN
AM-241	3.026E-01	3.798E-01	2.962E-01	1.938E-01	NOT IDENT.
CM-247	-1.378E-02	5.414E-02	4.470E-02	2.762E-02	FAIL ABUN

CF-249	6.316E-02	6.110E-02	5.413E-02	3.117E-02	NOT IDENT.
CF-251	3.845E-03	2.066E-01	1.701E-01	1.054E-01	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	290.1278
49.72	287.8856
57.36	0.0000
59.54	262.6911
63.29	351.6878
63.29	351.6878
64.28	369.4115
67.75	401.1254
69.67	427.4337
70.83	394.9371
72.81	395.0061
72.87	395.0373
72.87	395.0373
74.82	396.0624
74.82	396.0624
74.82	396.0624
74.97	396.1416
77.11	397.2496
77.11	397.2496
77.11	397.2496
79.69	407.5564
79.80	442.7807
80.12	442.9599
80.19	442.9988
80.57	508.8136
81.00	517.0938
81.07	517.1391
81.07	517.1391
83.79	404.2979
83.79	404.2979
85.43	391.1597
86.48	451.2932
86.55	451.3325
86.79	522.0014
86.94	563.4226
87.57	566.0106
88.03	554.4045
88.47	525.0762
89.96	526.0045
91.11	526.7166
92.59	551.9771
92.59	551.9771
93.35	448.8759
94.67	449.5588
94.87	310.8973
94.87	310.8973
95.86	358.5057
97.43	360.7747
98.44	292.5422
99.53	307.6239
100.11	309.7315
103.18	402.5019
103.37	397.4507
105.31	314.9217
106.12	332.7050
109.28	382.3938
111.00	343.7365
111.76	352.2968
116.30	321.6632
117.23	323.0069
121.12	303.3371
121.78	316.0941
122.06	315.1346
123.07	325.9246
131.20	384.4422
133.52	373.6297
136.00	346.9011

136.47	350.2348
140.51	355.7771
140.51	0.0000
143.76	351.4677
144.24	350.5470
144.24	350.5470
145.44	324.1706
152.43	326.1379
153.25	325.2873
154.21	332.0202
154.21	332.0202
156.02	364.9168
158.56	297.5313
159.00	297.6383
162.66	338.7054
163.33	329.1154
165.86	309.1104
176.60	293.0905
177.52	311.9727
181.07	331.3316
184.41	332.1739
185.72	300.6667
193.51	295.7371
197.04	300.9567
205.31	324.7174
210.85	276.1497
215.65	275.5574
222.11	254.9855
227.38	266.8081
228.16	274.2344
228.18	274.2381
235.69	251.7784
235.96	251.8221
235.96	251.8221
238.63	242.1633
238.63	242.1633
240.99	242.5274
242.00	242.6837
244.70	199.5121
252.40	202.6298
252.80	208.2321
256.23	213.3080
256.23	213.3080
260.90	0.0000
264.66	195.7522
268.22	216.4070
269.46	193.1950
269.46	193.1950
271.23	193.3968
273.65	193.6718
276.40	112.6348
277.37	112.6978
277.60	112.7139
278.00	181.6347
279.20	188.0298
279.54	178.6631
280.46	188.1665
283.69	182.2294
284.31	188.5815
285.41	192.8920
285.90	0.0000
287.50	184.2003
293.27	0.0000
295.22	185.9464
295.96	186.0229
298.57	186.2933
299.98	186.4369
299.98	186.4369
300.09	186.4488
300.09	186.4488
300.13	186.4536
301.36	179.2799
302.85	181.0149
304.50	158.9274
304.50	158.9274
304.85	158.9579
308.46	172.9664
311.90	170.4146

316.51	159.3170
319.41	178.7866
320.08	171.1555
323.87	208.1083
323.87	208.1083
328.76	176.7630
333.37	192.0289
334.37	182.4410
334.37	182.4410
338.28	158.2147
338.28	158.2147
338.32	158.2186
338.32	158.2186
338.32	158.2186
340.48	153.8570
340.55	153.8618
344.28	160.6414
351.06	147.5089
351.93	147.5715
356.01	138.7285
364.49	155.3634
366.42	145.6658
383.85	136.9488
388.16	126.2853
388.63	131.2846
391.69	142.4257
400.66	136.0100
401.81	140.0820
402.40	132.1128
404.85	160.3145
410.95	127.5969
414.70	146.9303
423.72	124.2747
427.09	121.4209
427.87	115.3888
433.94	97.4238
453.88	110.5286
463.37	105.8252
468.07	133.8213
473.00	103.1458
476.78	107.4353
477.60	94.0359
487.02	81.9432
492.35	0.0000
497.08	92.6808
511.00	122.4965
514.00	113.5523
527.90	0.0000
529.87	0.0000
531.02	82.2847
537.26	93.0488
546.56	0.0000
563.25	94.9992
569.33	104.8332
569.50	102.7008
569.70	103.7777
583.19	106.4202
600.60	102.1365
602.73	88.3818
604.72	95.6614
609.32	107.3797
609.32	107.3797
609.32	107.3797
610.33	113.9286
614.28	86.9180
618.01	88.2361
621.93	67.5340
621.93	67.5340
633.25	72.1617
635.95	70.0359
636.99	63.4927
645.85	71.3619
657.76	76.2286
661.66	81.8405
661.66	81.8405
664.57	0.0000
666.33	83.8036
666.50	83.8092

677.62	68.3919
685.70	74.1243
695.00	78.9837
696.49	79.0200
696.51	80.8793
697.00	91.1193
702.65	80.1001
706.68	94.1882
711.68	65.3772
720.70	69.0352
721.93	0.0000
722.78	72.2900
722.91	72.2932
723.31	70.6959
724.19	62.6786
727.33	83.5154
733.00	62.8432
735.93	75.6384
739.50	88.5266
747.24	84.0079
752.31	67.1172
753.82	63.3632
756.73	74.7761
763.94	65.0405
765.81	81.3442
766.42	79.7310
777.92	75.0949
778.90	80.0146
783.70	54.3699
785.37	69.7510
795.86	50.7280
801.95	62.4564
810.29	75.9173
810.76	76.8880
815.77	50.0460
818.51	58.7525
832.01	84.1025
834.85	66.7525
836.80	0.0000
846.77	68.9084
856.80	92.4487
860.56	53.5755
871.09	58.6084
873.19	52.7761
875.33	0.0000
879.36	60.6932
880.51	53.8564
883.24	48.9950
884.68	54.8949
889.28	71.6455
898.04	86.5605
911.20	67.6772
911.20	67.6772
911.20	67.6772
926.50	54.4920
937.49	57.6224
944.13	64.6826
946.00	47.7871
949.00	44.8343
962.29	68.5407
964.08	77.1429
966.15	62.0303
968.97	62.0732
968.97	62.0732
968.97	62.0732
983.53	53.2491
996.26	79.6124
1001.03	56.4979
1004.73	59.5762
1037.84	59.0195
1038.76	0.0000
1048.07	61.1987
1050.41	62.2535
1050.41	62.2535
1063.66	64.4868
1085.87	52.4651
1099.45	60.8774
1112.07	63.3242

1115.54	47.9280
1120.29	56.8616
1120.29	56.8616
1120.29	56.8616
1120.55	58.0508
1121.30	58.0599
1131.51	0.0000
1173.23	71.2871
1177.93	78.7048
1189.05	67.3177
1204.77	78.0890
1221.41	66.7094
1231.02	61.8385
1235.36	65.5338
1238.28	61.6250
1260.41	0.0000
1271.85	45.9954
1274.44	64.2114
1274.54	62.0734
1291.59	39.7310
1298.22	0.0000
1312.11	30.1875
1332.49	37.8825
1365.19	27.0712
1368.63	0.0000
1384.29	33.7249
1408.01	22.5820
1457.56	0.0000
1460.82	13.2993
1489.16	23.8682
1505.03	39.2526
1596.21	23.3371
1620.50	16.5968
1678.03	0.0000
1690.97	13.8247
1764.49	13.9854
1764.49	13.9854
1764.49	13.9854
1770.23	61.9892
1771.35	15.5556
1791.20	0.0000
1836.06	11.1086

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065186

Total Uranium Activity	1.7865E+01	ug/g
Total Uranium Counting Unc.	1.1729E+01	ug/g
Total Uranium Tpu	5.9842E-06	ug/g
Total Uranium Mda	6.9244E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                               GROSS GAMMA REPORT                          *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962631                    SAMPLE ID  : G1202065186      *
*   ANALYST       : MXR1                      DETECTOR   : GAM15            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 14:39:49.66    SAMPLE ALQT:  105.550 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.265E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 2.047E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 4.938E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.401E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:41:00.47

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065187.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 23-MAR-2010 14:40:28
Sample ID         : G1202065187          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:02.28  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	57.89	114	718	1.21	116.04	113	12	3.17E-02	33.7	1.20E+00
2	3	59.58	3608	618	0.98	119.42	113	12	1.00E+00	2.0	
3	2	74.88	240	523	1.14	149.98	146	14	6.65E-02	17.0	1.93E+00
4	2	77.24*	387	474	1.23	154.70	146	14	1.08E-01	11.0	
5	3	88.01	1940	430	1.19	176.21	171	19	5.39E-01	2.9	5.46E+00
6	3	90.20	88	358	1.09	180.60	171	19	2.45E-02	49.7	
7	0	122.13	341	540	1.14	244.40	239	12	9.47E-02	14.7	
8	0	185.85*	84	351	1.60	371.72	369	8	2.33E-02	41.5	
9	0	209.69	140	416	1.18	419.34	415	10	3.89E-02	28.6	
10	4	238.72*	928	308	1.28	477.36	472	22	2.58E-01	4.7	7.94E-01
11	4	241.83	192	430	2.07	483.56	472	22	5.32E-02	27.5	
12	0	295.31*	256	302	1.63	590.45	586	10	7.11E-02	14.2	
13	0	338.41*	201	240	1.34	676.57	672	10	5.59E-02	16.2	
14	0	351.84*	479	335	1.56	703.41	695	14	1.33E-01	9.4	
15	0	462.86	64	257	1.56	925.30	921	10	1.77E-02	48.7	
16	0	583.15*	266	208	1.73	1165.72	1159	13	7.38E-02	12.9	
17	0	609.26*	251	165	1.66	1217.89	1213	12	6.96E-02	12.3	
18	0	661.69	3699	233	1.84	1322.70	1315	16	1.03E+00	1.9	
19	0	911.53*	242	252	1.94	1822.19	1814	18	6.72E-02	16.9	
20	0	970.01*	91	226	1.57	1939.10	1931	13	2.54E-02	36.3	
21	0	1000.99*	44	73	1.69	2001.04	1997	9	1.23E-02	39.1	
22	0	1173.33	3088	128	2.37	2345.67	2334	25	8.58E-01	2.1	
23	0	1332.51	2721	59	2.50	2664.03	2651	23	7.56E-01	2.0	
24	0	1731.09	22	20	1.92	3461.36	3452	13	6.12E-03	46.6	
25	0	1764.47*	89	11	2.95	3528.13	3515	22	2.47E-02	15.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 15:41:03

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065187.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 9-MAR-2010 00:00:00 Acquisition date : 23-MAR-2010 14:40:28
Sample ID : G1202065187 Sample quantity : 151.73 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:02.28 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	+	122.06	*	2.391E-01	7.284E-02	5.832E-02	4.809E-03	4.100
		136.47		3.689E-01	2.988E-01	5.227E-01	4.844E-02	0.706
CO-60	+	1173.23		6.814E+00	6.156E-01	9.392E-02	7.553E-03	72.549
	+	1332.49	*	6.634E+00	6.511E-01	8.060E-02	7.187E-03	82.313
CD-109	+	88.03	*	3.516E+01	3.902E+00	1.816E+00	1.724E-01	19.360
SN-126		64.28		-1.808E-01	7.411E-01	1.113E+00	1.617E-01	-0.162
	+	86.94		1.430E+01	5.998E+00	7.459E-01	3.097E-01	19.171
	+	87.57	*	3.440E+00	3.817E-01	1.784E-01	1.684E-02	19.282
BA-137M	+	661.66	*	5.677E+00	6.358E-01	8.764E-02	9.241E-03	64.783
CS-137	+	661.66	*	5.998E+00	6.724E-01	9.258E-02	9.775E-03	64.783
TL-208		277.37		8.934E-01	6.293E-01	1.040E+00	1.730E-01	0.859
	+	583.19	*	3.935E-01	1.101E-01	9.675E-02	1.048E-02	4.067
		860.56		3.197E-01	5.362E-01	9.153E-01	1.066E-01	0.349
BI-211		72.87		1.841E+00	4.766E+00	7.113E+00	5.693E-01	0.259
	+	351.06	*	3.397E+00	7.485E-01	5.352E-01	6.245E-02	6.348
PB-212	+	74.82		1.867E+00	6.785E-01	7.850E-01	9.969E-02	2.378
	+	77.11		1.731E+00	4.081E-01	4.521E-01	3.781E-02	3.828
	+	238.63	*	1.570E+00	2.551E-01	1.466E-01	1.943E-02	10.710
		300.09		1.533E+00	1.440E+00	2.202E+00	3.229E-01	0.696
BI-214	+	609.32	*	7.152E-01	1.948E-01	1.881E-01	2.195E-02	3.802
		1120.29		1.085E+00	5.683E-01	9.981E-01	1.108E-01	1.087
	+	1764.49		1.673E+00	5.239E-01	3.876E-01	3.229E-02	4.317
PB-214	+	74.82		3.309E+00	1.188E+00	1.391E+00	1.584E-01	2.378
	+	77.11		3.051E+00	7.622E-01	7.970E-01	9.361E-02	3.828
	+	242.00		1.962E+00	1.112E+00	8.905E-01	1.231E-01	2.204
	+	295.22		1.151E+00	3.701E-01	3.747E-01	5.622E-02	3.072
	+	351.93	*	1.233E+00	2.800E-01	1.946E-01	2.505E-02	6.336
RA-224	+	240.99	*	3.470E+00	1.956E+00	1.570E+00	1.965E-01	2.210
RA-226	+	609.32	*	7.152E-01	1.948E-01	1.881E-01	2.195E-02	3.802
		1120.29		1.085E+00	5.683E-01	9.981E-01	1.108E-01	1.087
	+	1764.49		1.673E+00	5.239E-01	3.876E-01	3.229E-02	4.317
AC-228	+	338.32		1.601E+00	8.563E-01	6.001E-01	2.551E-01	2.667
	+	911.20	*	1.664E+00	6.057E-01	4.606E-01	6.240E-02	3.613
	+	968.97		1.082E+00	8.307E-01	8.032E-01	2.019E-01	1.347

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	+	338.32		1.601E+00	8.563E-01	6.001E-01	2.551E-01	2.667
	+	911.20	*	1.664E+00	6.057E-01	4.606E-01	6.240E-02	3.613
	+	968.97		1.082E+00	8.307E-01	8.032E-01	2.019E-01	1.347
TH-228	+	74.82		1.867E+00	6.541E-01	7.850E-01	6.473E-02	2.378
	+	77.11		1.731E+00	4.081E-01	4.521E-01	3.781E-02	3.828
	+	238.63	*	1.570E+00	2.551E-01	1.466E-01	1.943E-02	10.710
		300.09		1.533E+00	1.711E+00	2.202E+00	1.366E+00	0.696
TH-230	+	609.32	*	7.151E-01	1.912E-01	1.881E-01	1.958E-02	3.802
		1120.29		1.085E+00	5.636E-01	9.981E-01	8.827E-02	1.087
	+	1764.49		1.673E+00	5.239E-01	3.876E-01	3.229E-02	4.317
TH-232	+	338.32		1.601E+00	5.536E-01	6.001E-01	7.136E-02	2.667
	+	911.20	*	1.664E+00	6.057E-01	4.606E-01	6.240E-02	3.613
	+	968.97		1.082E+00	8.307E-01	8.032E-01	2.019E-01	1.347
AM-241	+	59.54	*	1.363E+01	1.198E+00	4.375E-01	3.420E-02	31.159

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.348E-01	5.697E-01	9.097E-01	9.492E-02	-0.148
NA-22		1274.54	*	-6.664E-02	4.787E-02	6.710E-02	5.782E-03	-0.993
NA-24		1368.63	*	-3.645E-01	4.787E-02	Half-Life too short		
K-40		1460.82	*	2.601E-01	5.381E-01	9.602E-01	8.797E-02	0.271
SC-46		889.28	*	9.258E-03	7.597E-02	1.268E-01	1.419E-02	0.073
		1120.55		1.779E-01	9.489E-02	1.678E-01	1.483E-02	1.060
V-48		944.13		-7.992E-01	1.826E+00	2.946E+00	3.195E-01	-0.271
		983.53	*	-1.237E-01	1.386E-01	2.158E-01	2.264E-02	-0.573
		1312.11		7.982E-03	9.627E-02	1.601E-01	1.411E-02	0.050
CR-51		320.08	*	-2.685E-01	5.718E-01	9.362E-01	1.212E-01	-0.287
MN-54		834.85	*	-2.402E-02	6.535E-02	1.070E-01	1.188E-02	-0.225
CO-56		846.77	*	8.165E-03	7.362E-02	1.233E-01	1.373E-02	0.066
		1037.84		3.690E-01	5.709E-01	9.647E-01	9.940E-02	0.383
		1238.28		1.415E-01	9.100E-02	1.674E-01	1.451E-02	0.845
		1771.35		-1.100E-01	3.667E-01	4.782E-01	3.973E-02	-0.230
CO-58		810.76	*	-2.736E-02	6.718E-02	1.099E-01	1.217E-02	-0.249
FE-59		1099.45	*	-1.054E-01	1.668E-01	2.603E-01	2.550E-02	-0.405
		1291.59		3.062E-02	1.201E-01	2.041E-01	2.011E-02	0.150
ZN-65		1115.54	*	-1.503E-01	1.725E-01	2.657E-01	2.370E-02	-0.566
SE-75	+	121.12		1.247E+00	3.899E-01	4.210E-01	4.545E-02	2.963
		136.00		6.337E-02	5.775E-02	1.008E-01	8.747E-03	0.629
		264.66	*	-7.144E-02	7.296E-02	1.111E-01	1.496E-02	-0.643
		279.54		3.672E-02	1.786E-01	2.881E-01	4.090E-02	0.127
		400.66		1.835E-01	4.342E-01	7.249E-01	8.466E-02	0.253
SR-85		514.00	*	-4.662E-03	7.228E-02	1.157E-01	1.161E-02	-0.040
Y-88		898.04		1.090E-02	7.911E-02	1.320E-01	1.483E-02	0.083
		1836.06	*	2.860E-02	4.735E-02	8.388E-02	6.782E-03	0.341
Y-91		1204.77	*	-3.586E+00	2.484E+01	4.086E+01	3.359E+00	-0.088
NB-94		702.65	*	5.604E-03	5.040E-02	8.281E-02	8.874E-03	0.068
		871.09		8.534E-03	6.654E-02	1.113E-01	1.243E-02	0.077

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	3.458E-02	6.781E-02	1.127E-01	1.233E-02	0.307
NB-95M		235.69	*	2.881E-01	2.183E-01	3.265E-01	4.320E-02	0.882
ZR-95		724.19		-2.772E-02	1.452E-01	2.337E-01	2.661E-02	-0.119
		756.73	*	2.071E-02	1.144E-01	1.874E-01	2.181E-02	0.111
MO-99		140.51		-1.264E+01	2.810E+01	4.643E+01	1.105E+01	-0.272
		181.07		-2.924E+01	2.549E+01	3.607E+01	7.078E+00	-0.811
		366.42		-3.780E+01	1.417E+02	2.316E+02	2.457E+01	-0.163
		739.50	*	3.164E+00	1.720E+01	2.824E+01	4.823E+00	0.112
		777.92		-2.882E+01	5.469E+01	8.553E+01	9.383E+00	-0.337
TC-99M		140.51	*	-5.811E+09	5.469E+01	Half-Life too short		
RU-103		497.08	*	2.152E-02	6.629E-02	1.084E-01	1.607E-02	0.199
	+	610.33		7.313E+00	2.203E+00	2.841E+00	4.931E-01	2.574
RH-106		621.93	*	1.129E-01	5.320E-01	8.875E-01	1.288E-01	0.127
		1050.41		3.936E-01	4.701E+00	7.708E+00	7.524E-01	0.051
RU-106		621.93	*	1.129E-01	5.319E-01	8.875E-01	9.270E-02	0.127
		1050.41		3.936E-01	4.701E+00	7.708E+00	7.524E-01	0.051
AG-108M		433.94	*	3.888E-03	5.247E-02	8.582E-02	8.446E-03	0.045
		614.28		9.682E-03	6.418E-02	9.224E-02	9.831E-03	0.105
		722.91		-1.176E-01	6.276E-02	8.884E-02	9.785E-03	-1.324
AG-110M		657.76	*	6.450E-01	1.169E-01	1.760E-01	1.891E-02	3.666
		677.62		-5.653E-02	4.894E-01	7.963E-01	8.613E-02	-0.071
		706.68		-6.460E-03	3.236E-01	5.274E-01	5.765E-02	-0.012
		763.94		8.424E-02	2.623E-01	4.322E-01	4.804E-02	0.195
		884.68		4.092E-02	9.650E-02	1.633E-01	1.862E-02	0.251
		937.49		5.545E-02	2.244E-01	3.745E-01	4.176E-02	0.148
		1384.29		5.972E-02	1.964E-01	3.326E-01	3.047E-02	0.180
		1505.03		-5.711E-02	3.477E-01	5.544E-01	4.930E-02	-0.103
SN-113		391.69	*	1.181E-02	7.651E-02	1.267E-01	1.210E-02	0.093
CD-115		260.90		7.508E+01	1.955E+02	3.193E+02	4.242E+01	0.235
		492.35		9.656E-01	5.660E+01	9.128E+01	9.060E+00	0.011
		527.90	*	8.967E+00	1.586E+01	2.723E+01	2.750E+00	0.329
SN-117M		156.02		-5.731E-01	3.154E+00	5.248E+00	4.920E-01	-0.109
		158.56	*	1.276E-02	7.660E-02	1.289E-01	1.222E-02	0.099
TE-123M		159.00	*	5.687E-03	4.016E-02	6.751E-02	6.447E-03	0.084
SB-124		602.73		9.368E-02	6.942E-02	1.075E-01	1.117E-02	0.871
		645.85		1.316E-01	8.289E-01	1.375E+00	1.501E-01	0.096
		722.78		-1.191E+00	6.260E-01	8.837E-01	9.677E-02	-1.348
		1690.97	*	9.565E-02	1.054E-01	1.934E-01	1.725E-02	0.494
SB-125		427.87	*	-1.364E-01	1.644E-01	2.576E-01	2.498E-02	-0.530
	+	463.37		6.591E-01	6.456E-01	8.886E-01	9.193E-02	0.742
		600.60		1.259E-01	2.852E-01	4.822E-01	5.263E-02	0.261
		635.95		-3.329E-01	4.565E-01	7.206E-01	7.975E-02	-0.462
TE-125M		109.28	*	-1.708E+01	1.427E+01	2.141E+01	2.201E+00	-0.798
I-126		388.63		4.454E-01	2.852E-01	4.943E-01	4.680E-02	0.901
		666.33	*	3.979E-01	4.208E-01	6.305E-01	6.662E-02	0.631
		753.82		5.865E-01	2.817E+00	4.624E+00	5.039E-01	0.127
SB-126		414.70		-8.754E-02	1.309E-01	2.076E-01	1.964E-02	-0.422
		666.50		4.147E-02	1.393E-01	2.006E-01	2.119E-02	0.207
		695.00		2.436E-02	1.161E-01	1.920E-01	2.052E-02	0.127

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		697.00		-6.569E-04	3.965E-01	6.477E-01	6.926E-02	-0.001
		720.70	*	-2.361E-01	2.253E-01	3.419E-01	3.687E-02	-0.690
		856.80		-2.028E-01	8.396E-01	1.380E+00	1.539E-01	-0.147
SB-127		252.40		-9.111E-01	6.448E+00	1.033E+01	4.399E+00	-0.088
		473.00		-8.423E-01	2.727E+00	4.343E+00	5.855E-01	-0.194
		685.70	*	1.122E-01	1.908E+00	3.133E+00	4.023E-01	0.036
		783.70		2.548E+00	5.590E+00	9.236E+00	1.292E+00	0.276
I-131		80.19		-2.260E+00	6.677E+00	9.582E+00	8.339E-01	-0.236
		284.31		8.802E-01	2.327E+00	3.774E+00	5.332E-01	0.233
		364.49	*	-3.416E-02	1.809E-01	2.968E-01	3.288E-02	-0.115
		636.99		2.027E-01	2.465E+00	4.079E+00	4.443E-01	0.050
TE-132		49.72		1.777E+01	2.854E+01	4.865E+01	5.050E+00	0.365
		111.76		4.963E+01	4.355E+01	7.217E+01	7.673E+00	0.688
		116.30		-8.765E+00	4.071E+01	6.093E+01	6.449E+00	-0.144
		228.16	*	1.264E+00	1.093E+00	1.816E+00	3.236E-01	0.696
BA-133		81.00		-1.363E-01	1.503E-01	2.079E-01	3.238E-02	-0.656
		276.40		4.786E-01	5.749E-01	9.432E-01	1.681E-01	0.507
		302.85		5.340E-03	2.258E-01	3.799E-01	6.268E-02	0.014
		356.01	*	2.407E-02	7.825E-02	1.146E-01	1.688E-02	0.210
		383.85		-3.970E-01	4.975E-01	7.864E-01	1.039E-01	-0.505
I-133		529.87	*	-1.087E-03	4.975E-01	Half-Life too short		
		875.33		-1.718E-01	4.975E-01	Half-Life too short		
		1298.22		-8.533E-02	4.975E-01	Half-Life too short		
CS-134		563.25		3.191E-01	5.653E-01	9.666E-01	9.973E-02	0.330
		569.33		-1.275E-01	3.155E-01	5.136E-01	5.326E-02	-0.248
		604.72		4.246E-02	6.160E-02	9.177E-02	9.555E-03	0.463
		795.86	*	5.304E-02	7.984E-02	1.332E-01	1.474E-02	0.398
		801.95		-5.015E-01	7.126E-01	1.098E+00	1.216E-01	-0.457
		1365.19		8.051E-02	1.417E+00	2.344E+00	2.184E-01	0.034
CS-135		268.22	*	8.156E-02	2.519E-01	4.096E-01	5.924E-02	0.199
I-135		546.56		3.315E+08	2.519E-01	Half-Life too short		
		836.80		3.835E+09	2.519E-01	Half-Life too short		
		1038.76		4.685E+09	2.519E-01	Half-Life too short		
		1131.51		-6.257E+08	2.519E-01	Half-Life too short		
		1260.41	*	-3.437E+08	2.519E-01	Half-Life too short		
		1457.56		1.380E+10	2.519E-01	Half-Life too short		
		1678.03		-2.759E+08	2.519E-01	Half-Life too short		
		1791.20		-1.138E+09	2.519E-01	Half-Life too short		
CS-136		153.25		1.063E+00	1.182E+00	2.035E+00	2.199E-01	0.523
		176.60		6.116E-01	7.259E-01	1.236E+00	1.351E-01	0.495
		273.65		-1.441E+00	8.581E-01	1.237E+00	1.763E-01	-1.165
		340.55		5.764E-01	2.651E-01	4.149E-01	4.994E-02	1.389
		818.51		1.336E-02	1.246E-01	2.095E-01	2.321E-02	0.064
		1048.07	*	-7.911E-02	1.953E-01	3.111E-01	3.145E-02	-0.254
		1235.36		3.107E-01	5.753E-01	9.949E-01	1.154E-01	0.312
CE-139		165.86	*	-8.723E-03	4.312E-02	7.136E-02	6.999E-03	-0.122
BA-140		162.66		4.542E-01	1.135E+00	1.922E+00	1.957E-01	0.236
		304.85		-2.325E+00	2.234E+00	3.402E+00	1.052E+00	-0.683
		423.72		2.009E+00	3.432E+00	5.641E+00	1.870E+00	0.356

---- Non-Identified Nuclides ----

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		537.26	*	-2.025E-01	4.062E-01	6.524E-01	2.240E-01	-0.310
LA-140		328.76		5.182E-01	4.636E-01	7.994E-01	1.010E-01	0.648
		487.02		-5.817E-02	2.376E-01	3.784E-01	3.923E-02	-0.154
		815.77		2.139E-02	5.383E-01	9.020E-01	1.071E-01	0.024
		1596.21	*	-1.275E-01	1.103E-01	1.557E-01	1.365E-02	-0.819
CE-141		145.44	*	-3.693E-02	8.801E-02	1.459E-01	1.328E-02	-0.253
CE-143	+	57.36		2.299E-03	8.801E-02	Half-Life too short		
		293.27	*	3.463E-04	8.801E-02	Half-Life too short		
		664.57		8.370E-02	8.801E-02	Half-Life too short		
		721.93		-2.968E-03	8.801E-02	Half-Life too short		
CE-144		80.12		-1.167E+00	3.776E+00	5.427E+00	4.691E-01	-0.215
		133.52	*	-3.702E-01	2.867E-01	4.540E-01	6.919E-02	-0.815
PM-144		476.78		-2.177E-02	1.147E-01	1.836E-01	1.928E-02	-0.119
		618.01		1.704E-02	5.444E-02	8.942E-02	9.508E-03	0.191
		696.49	*	9.684E-03	5.280E-02	8.716E-02	9.321E-03	0.111
PR-144		696.51	*	7.645E-01	3.953E+00	6.528E+00	6.980E-01	0.117
		1489.16		-7.836E+00	1.527E+01	2.311E+01	2.058E+00	-0.339
PM-146		453.88	*	-3.763E-03	7.873E-02	1.275E-01	1.467E-02	-0.030
		633.25		-2.967E-01	2.368E+00	3.873E+00	1.497E+00	-0.077
		735.93		5.205E-02	2.297E-01	3.776E-01	1.087E-01	0.138
		747.24		-6.486E-02	1.571E-01	2.479E-01	3.972E-02	-0.262
ND-147	+	91.11		5.114E-01	5.113E-01	5.904E-01	5.836E-02	0.866
		319.41		-3.741E+00	5.160E+00	8.341E+00	1.056E+00	-0.448
		531.02	*	1.030E-01	8.703E-01	1.466E+00	2.324E-01	0.070
PM-149		285.90	*	-1.615E+01	1.304E+02	2.069E+02	3.915E+01	-0.078
EU-152	+	121.78		6.891E-01	2.126E-01	2.366E-01	2.265E-02	2.913
		244.70		5.430E-01	5.910E-01	8.727E-01	1.105E-01	0.622
		344.28	*	1.315E-01	2.143E-01	2.577E-01	3.097E-02	0.510
		778.90		-3.357E-02	4.485E-01	7.217E-01	7.919E-02	-0.047
		964.08		1.632E-01	6.552E-01	9.350E-01	9.977E-02	0.175
		1085.87		-6.374E-02	7.441E-01	1.204E+00	1.122E-01	-0.053
		1112.07		-5.067E-01	5.741E-01	8.808E-01	7.893E-02	-0.575
		1408.01		2.899E-01	2.312E-01	4.238E-01	3.790E-02	0.684
GD-153		69.67		3.960E-01	2.493E+00	3.938E+00	3.057E-01	0.101
		97.43	*	-2.757E-02	1.251E-01	1.898E-01	1.669E-02	-0.145
		103.18		-4.288E-03	1.603E-01	2.570E-01	2.196E-02	-0.017
EU-154	+	123.07		4.872E-01	1.527E-01	1.654E-01	1.833E-02	2.946
		723.31		-4.131E-01	2.805E-01	4.111E-01	4.729E-02	-1.005
		873.19		-2.795E-01	5.544E-01	8.960E-01	1.242E-01	-0.312
		996.26		-3.856E-01	7.862E-01	1.050E+00	1.930E-01	-0.367
		1004.73		2.002E-01	4.610E-01	6.657E-01	8.594E-02	0.301
		1274.44	*	-1.902E-01	1.363E-01	1.896E-01	2.156E-02	-1.003
EU-155	+	86.55		4.170E+00	4.656E-01	4.055E-01	3.814E-02	10.283
		105.31	*	1.105E-01	1.524E-01	2.509E-01	2.153E-02	0.440
TB-160	+	86.79		1.101E+01	1.222E+00	1.159E+00	1.084E-01	9.499
		197.04		-1.090E+00	8.779E-01	1.367E+00	1.487E-01	-0.797
		215.65		4.851E-01	1.323E+00	2.031E+00	2.348E-01	0.239
		298.57		1.234E-01	2.031E-01	3.061E-01	4.103E-02	0.403
		879.36	*	1.169E-01	2.689E-01	4.523E-01	5.058E-02	0.258

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		962.29		-1.207E+00	1.245E+00	1.625E+00	1.737E-01	-0.743
		966.15		1.205E+00	4.753E-01	7.479E-01	7.967E-02	1.612
		1177.93		1.202E+01	1.421E+00	2.244E+00	1.811E-01	5.357
		1271.85		-4.574E-01	7.821E-01	1.218E+00	1.047E-01	-0.375
HO-166M		80.57		-1.302E-01	4.115E-01	5.909E-01	5.134E-02	-0.220
	+	184.41		7.574E-02	6.341E-02	9.133E-02	9.522E-03	0.829
		280.46		-3.357E-02	1.376E-01	2.175E-01	3.037E-02	-0.154
		410.95		2.025E-01	4.310E-01	7.191E-01	6.788E-02	0.282
		711.68	*	-8.677E-02	9.527E-02	1.461E-01	1.570E-02	-0.594
		752.31		6.216E-02	4.367E-01	7.143E-01	7.781E-02	0.087
		810.29		-5.243E-02	1.026E-01	1.667E-01	1.843E-02	-0.314
TA-182		67.75		4.388E-02	1.515E-01	2.528E-01	1.928E-02	0.174
		100.11		1.203E-01	2.476E-01	4.057E-01	3.515E-02	0.297
		152.43		1.574E-01	4.894E-01	8.302E-01	7.660E-02	0.190
		222.11		1.508E-01	5.705E-01	9.391E-01	1.108E-01	0.161
		1121.30		3.659E-01	2.618E-01	4.556E-01	4.023E-02	0.803
		1189.05		2.295E-01	3.987E-01	6.902E-01	5.613E-02	0.332
		1221.41	*	1.330E-01	2.113E-01	3.686E-01	3.065E-02	0.361
		1231.02		-6.985E-01	5.133E-01	7.458E-01	6.242E-02	-0.937
IR-192	+	295.96		8.471E-01	2.668E-01	3.589E-01	4.855E-02	2.360
		308.46		6.358E-02	1.516E-01	2.582E-01	3.381E-02	0.246
		316.51	*	5.225E-02	5.425E-02	9.369E-02	1.197E-02	0.558
		468.07		8.811E-02	1.447E-01	2.095E-01	2.168E-02	0.421
HG-203		70.83		3.626E-01	1.995E+00	2.959E+00	4.633E-01	0.123
		72.87		4.549E-01	1.179E+00	1.757E+00	2.671E-01	0.259
		279.20	*	2.032E-02	6.277E-02	1.017E-01	1.438E-02	0.200
BI-207		72.81		8.760E-02	2.739E-01	4.078E-01	3.262E-02	0.215
	+	74.97		5.381E-01	1.884E-01	2.769E-01	2.264E-02	1.943
		569.70		-4.804E-03	4.889E-02	8.091E-02	8.311E-03	-0.059
		1063.66	*	5.816E-02	1.006E-01	1.690E-01	1.622E-02	0.344
		1770.23		4.118E-01	8.163E-01	1.238E+00	1.029E-01	0.333
PB-210		46.54	*	-9.533E-02	5.509E+00	9.272E+00	8.539E-01	-0.010
PB-211		404.85	*	-9.115E-02	1.265E+00	2.067E+00	1.003E+00	-0.044
		427.09		-2.354E+00	2.998E+00	4.388E+00	2.038E+00	-0.537
		832.01		1.055E+00	1.794E+00	2.938E+00	1.537E+00	0.359
BI-212		727.33	*	1.228E+00	8.684E-01	1.491E+00	2.096E-01	0.824
		785.37		1.823E+00	5.475E+00	9.000E+00	9.892E-01	0.203
		1620.50		2.939E+00	3.109E+00	5.692E+00	4.962E-01	0.516
RN-219		271.23		3.471E-01	3.850E-01	6.351E-01	9.383E-02	0.547
		401.81	*	-1.248E-01	7.128E-01	1.161E+00	1.779E-01	-0.108
RA-223		81.07		-3.035E-01	3.382E-01	4.714E-01	4.119E-02	-0.644
		83.79		-2.524E-02	2.046E-01	2.957E-01	2.667E-02	-0.085
		94.87		9.346E-01	6.689E-01	1.023E+00	9.151E-02	0.913
		144.24		-3.486E-01	9.669E-01	1.602E+00	1.583E-01	-0.218
		154.21		4.572E-02	5.514E-01	9.271E-01	9.335E-02	0.049
		269.46		4.977E-01	2.991E-01	5.003E-01	6.869E-02	0.995
		323.87	*	-2.520E-01	1.036E+00	1.712E+00	3.346E-01	-0.147
	+	338.28		6.351E+00	2.262E+00	3.086E+00	4.502E-01	2.058
AC-227		79.69		7.854E-03	1.834E+00	2.676E+00	4.610E-01	0.003

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		235.96		6.138E-01	2.880E-01	4.334E-01	5.889E-02	1.416
		256.23	*	7.149E-02	4.241E-01	6.880E-01	1.072E-01	0.104
		299.98		1.299E+00	1.598E+00	2.421E+00	3.944E-01	0.537
		304.50		-2.644E+00	2.671E+00	4.232E+00	8.176E-01	-0.625
		334.37		-5.788E-01	3.057E+00	4.377E+00	7.757E-01	-0.132
TH-227		79.80		1.406E-01	2.422E+00	3.542E+00	7.712E-01	0.040
		235.96		6.138E-01	2.872E-01	4.334E-01	5.698E-02	1.416
		256.23	*	7.149E-02	4.241E-01	6.880E-01	1.157E-01	0.104
		299.98		1.299E+00	1.598E+00	2.421E+00	3.944E-01	0.537
		304.50		-2.644E+00	2.671E+00	4.232E+00	8.176E-01	-0.625
		334.37		-5.788E-01	3.057E+00	4.377E+00	7.757E-01	-0.132
TH-229		85.43		2.358E-01	3.408E-01	5.078E-01	4.671E-02	0.464
	+	88.47		5.303E+00	5.885E-01	6.051E-01	5.715E-02	8.764
		193.51	*	4.681E-01	8.318E-01	1.396E+00	1.500E-01	0.335
	+	210.85		3.446E+00	2.008E+00	2.450E+00	2.788E-01	1.407
PA-231		283.69	*	7.296E-01	2.363E+00	3.821E+00	6.949E-01	0.191
		301.36		1.240E+00	9.837E-01	1.566E+00	2.479E-01	0.792
TH-231		81.07		-3.035E-01	3.382E-01	4.714E-01	4.119E-02	-0.644
		83.79		-2.524E-02	2.046E-01	2.957E-01	2.667E-02	-0.085
		94.87		9.346E-01	6.689E-01	1.023E+00	9.151E-02	0.913
		144.24		-3.486E-01	9.669E-01	1.602E+00	1.583E-01	-0.218
		154.21		4.572E-02	5.514E-01	9.271E-01	9.335E-02	0.049
		269.46		4.977E-01	2.991E-01	5.003E-01	6.869E-02	0.995
		323.87	*	-2.520E-01	1.036E+00	1.712E+00	3.346E-01	-0.147
	+	338.28		6.351E+00	2.262E+00	3.086E+00	4.502E-01	2.058
PA-233		300.13		6.912E-01	7.231E-01	1.097E+00	1.973E-01	0.630
		311.90	*	-2.290E-02	1.019E-01	1.692E-01	2.217E-02	-0.135
		340.48		2.783E+00	1.329E+00	1.843E+00	4.677E-01	1.510
PA-234		94.67		4.261E-01	2.494E-01	3.812E-01	4.817E-02	1.118
		98.44		4.934E-02	1.323E-01	2.116E-01	1.181E-01	0.233
		111.00		7.085E-02	2.722E-01	4.373E-01	5.201E-02	0.162
		131.20		9.864E-04	1.451E-01	2.460E-01	2.083E-02	0.004
		569.50		-1.157E-01	4.347E-01	7.131E-01	7.324E-02	-0.162
		733.00		-1.004E+00	6.808E-01	9.459E-01	2.189E-01	-1.061
		880.51		2.138E-01	5.518E-01	9.262E-01	1.036E-01	0.231
		883.24		1.352E-01	5.688E-01	9.429E-01	6.374E-01	0.143
		926.50		-1.131E-01	3.384E-01	5.472E-01	1.433E-01	-0.207
		946.00	*	2.814E-01	6.346E-01	1.064E+00	2.115E-01	0.264
		949.00		6.896E-01	9.320E-01	1.585E+00	1.712E-01	0.435
PA-234M		766.42		1.724E+01	2.001E+01	3.062E+01	1.567E+01	0.563
	+	1001.03	*	1.013E+01	8.014E+00	1.401E+01	1.605E+00	0.723
TH-234		63.29	*	-7.001E-01	1.965E+00	2.938E+00	5.228E-01	-0.238
		92.59		4.668E-02	9.785E-01	1.623E+00	3.615E-01	0.029
U-235	+	89.96		1.633E+00	1.674E+00	2.571E+00	6.392E-01	0.635
		93.35		9.168E-01	7.841E-01	1.190E+00	2.767E-01	0.771
		143.76	*	-8.175E-02	2.876E-01	4.775E-01	8.162E-02	-0.171
		163.33		1.550E-01	6.270E-01	1.055E+00	1.951E-01	0.147
	+	185.72		9.534E-02	7.982E-02	1.168E-01	1.223E-02	0.816
		205.31		4.425E-02	8.507E-01	1.227E+00	2.392E-01	0.036

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237		86.48	*	5.005E+00	1.263E+00	9.665E-01	2.218E-01	5.179
		95.86		-1.553E+00	1.463E+00	1.913E+00	4.607E-01	-0.812
U-238		63.29	*	-7.001E-01	1.965E+00	2.938E+00	5.228E-01	-0.238
		92.59		4.668E-02	9.784E-01	1.623E+00	1.476E-01	0.029
NP-239		99.53		1.941E-01	2.306E-01	3.826E-01	3.325E-02	0.507
		103.37		-8.273E-04	1.457E-01	2.338E-01	1.996E-02	-0.004
		106.12		6.427E-02	1.183E-01	1.936E-01	1.637E-02	0.332
		117.23	*	-1.199E-01	6.736E-01	9.422E-01	7.786E-02	-0.127
		228.18		4.206E-01	3.586E-01	6.031E-01	7.255E-02	0.697
		277.60		3.517E-01	2.857E-01	4.746E-01	6.615E-02	0.741
CM-247		278.00		1.401E+00	1.209E+00	2.006E+00	2.799E-01	0.699
		287.50		1.657E+00	2.050E+00	3.367E+00	4.632E-01	0.492
		402.40	*	-1.938E-02	6.462E-02	1.046E-01	9.813E-03	-0.185
CF-249		252.80		-5.025E-01	1.595E+00	2.537E+00	3.291E-01	-0.198
		333.37		-2.065E-01	3.317E-01	4.618E-01	5.588E-02	-0.447
		388.16	*	1.449E-01	7.014E-02	1.229E-01	1.167E-02	1.178
CF-251		177.52	*	1.522E-01	1.939E-01	3.298E-01	3.361E-02	0.461
		227.38		6.028E-01	5.856E-01	9.822E-01	1.179E-01	0.614
		285.41		3.807E-01	3.579E+00	5.741E+00	7.934E-01	0.066
ANH-511		511.00	*	6.464E-02	6.117E-02	1.100E-01	1.102E-02	0.588

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065187     *
* Acquisition date : 23-MAR-2010 14:40:28 Detector SN#     :               *
* Detector ID      : GAM22                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:02.28     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065187          Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-57	2.391E-01	7.139E-02	6.251E-02	0.000E+00
CO-60	6.634E+00	6.381E-01	8.139E-02	0.000E+00
CD-109	3.516E+01	3.824E+00	1.962E+00	0.000E+00
SN-126	3.440E+00	3.741E-01	1.927E-01	0.000E+00
BA-137M	5.677E+00	6.231E-01	9.013E-02	0.000E+00
CS-137	5.998E+00	6.590E-01	9.521E-02	0.000E+00
TL-208	3.935E-01	1.079E-01	9.982E-02	0.000E+00
BI-211	3.397E+00	7.335E-01	5.592E-01	0.000E+00
PB-212	1.570E+00	2.500E-01	1.547E-01	0.000E+00
BI-214	7.152E-01	1.910E-01	1.938E-01	0.000E+00
PB-214	1.233E+00	2.744E-01	2.033E-01	0.000E+00
RA-224	3.470E+00	1.917E+00	1.656E+00	0.000E+00
RA-226	7.152E-01	1.910E-01	1.938E-01	0.000E+00
AC-228	1.664E+00	5.936E-01	4.698E-01	0.000E+00
RA-228	1.664E+00	5.936E-01	4.698E-01	0.000E+00
TH-228	1.570E+00	2.500E-01	1.547E-01	0.000E+00
TH-230	7.151E-01	1.873E-01	1.938E-01	0.000E+00
TH-232	1.664E+00	5.936E-01	4.698E-01	0.000E+00
AM-241	1.363E+01	1.174E+00	4.769E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-1.348E-01		5.583E-01	9.433E-01	0.000E+00	NOT IDENT.
NA-22	-6.664E-02		4.691E-02	6.784E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		4.517E+05	0.000E+00	0.000E+00	SHORT HLIF
K-40	2.601E-01		5.273E-01	9.673E-01	0.000E+00	NOT IDENT.
SC-46	9.258E-03		7.445E-02	1.294E-01	0.000E+00	NOT IDENT.
V-48	-1.237E-01		1.358E-01	2.197E-01	0.000E+00	NOT IDENT.
CR-51	-2.685E-01		5.604E-01	9.805E-01	0.000E+00	NOT IDENT.
MN-54	-2.402E-02		6.404E-02	1.093E-01	0.000E+00	NOT IDENT.

CO-56	8.165E-03	7.214E-02	1.260E-01	0.000E+00	NOT IDENT.
CO-58	-2.736E-02	6.583E-02	1.124E-01	0.000E+00	NOT IDENT.
FE-59	-1.054E-01	1.635E-01	2.642E-01	0.000E+00	NOT IDENT.
ZN-65	-1.503E-01	1.691E-01	2.696E-01	0.000E+00	NOT IDENT.
SE-75	-7.144E-02	7.150E-02	1.169E-01	0.000E+00	FAIL ABUN
SR-85	-4.662E-03	7.083E-02	1.197E-01	0.000E+00	NOT IDENT.
Y-88	2.860E-02	4.640E-02	8.399E-02	0.000E+00	NOT IDENT.
Y-91	-3.586E+00	2.434E+01	4.137E+01	0.000E+00	NOT IDENT.
NB-94	5.604E-03	4.940E-02	8.503E-02	0.000E+00	NOT IDENT.
NB-95	3.458E-02	6.645E-02	1.155E-01	0.000E+00	NOT IDENT.
NB-95M	2.881E-01	2.139E-01	3.445E-01	0.000E+00	NOT IDENT.
ZR-95	2.071E-02	1.121E-01	1.921E-01	0.000E+00	NOT IDENT.
MO-99	3.164E+00	1.686E+01	2.896E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.269E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.152E-02	6.496E-02	1.123E-01	0.000E+00	FAIL ABUN
RH-106	1.129E-01	5.214E-01	9.141E-01	0.000E+00	NOT IDENT.
RU-106	1.129E-01	5.213E-01	9.141E-01	0.000E+00	NOT IDENT.
AG-108M	3.888E-03	5.142E-02	8.920E-02	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	1.145E-01	1.810E-01	0.000E+00	NOT IDENT.
SN-113	1.181E-02	7.498E-02	1.320E-01	0.000E+00	NOT IDENT.
CD-115	8.967E+00	1.554E+01	2.817E+01	0.000E+00	NOT IDENT.
SN-117M	1.276E-02	7.506E-02	1.373E-01	0.000E+00	NOT IDENT.
TE-123M	5.687E-03	3.935E-02	7.192E-02	0.000E+00	NOT IDENT.
SB-124	9.565E-02	1.033E-01	1.941E-01	0.000E+00	NOT IDENT.
SB-125	-1.364E-01	1.611E-01	2.678E-01	0.000E+00	FAIL ABUN
TE-125M	-1.708E+01	1.399E+01	2.301E+01	0.000E+00	NOT IDENT.
I-126	3.979E-01	4.123E-01	6.483E-01	0.000E+00	NOT IDENT.
SB-126	-2.361E-01	2.208E-01	3.508E-01	0.000E+00	NOT IDENT.
SB-127	1.122E-01	1.870E+00	3.219E+00	0.000E+00	NOT IDENT.
I-131	-3.416E-02	1.773E-01	3.099E-01	0.000E+00	NOT IDENT.
TE-132	1.264E+00	1.071E+00	1.918E+00	0.000E+00	NOT IDENT.
BA-133	2.407E-02	7.669E-02	1.197E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.134E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.304E-02	7.825E-02	1.363E-01	0.000E+00	NOT IDENT.
CS-135	8.156E-02	2.469E-01	4.308E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.926E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-7.911E-02	1.914E-01	3.161E-01	0.000E+00	NOT IDENT.
CE-139	-8.723E-03	4.226E-02	7.594E-02	0.000E+00	NOT IDENT.
BA-140	-2.025E-01	3.981E-01	6.745E-01	0.000E+00	NOT IDENT.
LA-140	-1.275E-01	1.081E-01	1.565E-01	0.000E+00	NOT IDENT.
CE-141	-3.693E-02	8.625E-02	1.557E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.989E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.702E-01	2.810E-01	4.856E-01	0.000E+00	NOT IDENT.
PM-144	9.684E-03	5.175E-02	8.951E-02	0.000E+00	NOT IDENT.
PR-144	7.645E-01	3.874E+00	6.705E+00	0.000E+00	NOT IDENT.
PM-146	-3.763E-03	7.716E-02	1.324E-01	0.000E+00	NOT IDENT.
ND-147	1.030E-01	8.529E-01	1.516E+00	0.000E+00	FAIL ABUN
PM-149	-1.615E+01	1.278E+02	2.173E+02	0.000E+00	NOT IDENT.
EU-152	1.315E-01	2.100E-01	2.694E-01	0.000E+00	FAIL ABUN
GD-153	-2.757E-02	1.226E-01	2.046E-01	0.000E+00	NOT IDENT.
EU-154	-1.902E-01	1.335E-01	1.917E-01	0.000E+00	FAIL ABUN
EU-155	1.105E-01	1.494E-01	2.699E-01	0.000E+00	FAIL ABUN
TB-160	1.169E-01	2.635E-01	4.618E-01	0.000E+00	FAIL ABUN
HO-166M	-8.677E-02	9.337E-02	1.499E-01	0.000E+00	FAIL ABUN
TA-182	1.330E-01	2.070E-01	3.730E-01	0.000E+00	NOT IDENT.
IR-192	5.225E-02	5.316E-02	9.815E-02	0.000E+00	FAIL ABUN
HG-203	2.032E-02	6.151E-02	1.069E-01	0.000E+00	NOT IDENT.
BI-207	5.816E-02	9.862E-02	1.717E-01	0.000E+00	FAIL ABUN
PB-210	-9.533E-02	5.398E+00	1.016E+01	0.000E+00	NOT IDENT.
PB-211	-9.115E-02	1.240E+00	2.153E+00	0.000E+00	NOT IDENT.
BI-212	1.228E+00	8.510E-01	1.529E+00	0.000E+00	NOT IDENT.
RN-219	-1.248E-01	6.986E-01	1.209E+00	0.000E+00	NOT IDENT.
RA-223	-2.520E-01	1.015E+00	1.793E+00	0.000E+00	FAIL ABUN
AC-227	7.149E-02	4.156E-01	7.245E-01	0.000E+00	NOT IDENT.
TH-227	7.149E-02	4.156E-01	7.245E-01	0.000E+00	NOT IDENT.
TH-229	4.681E-01	8.152E-01	1.480E+00	0.000E+00	FAIL ABUN
PA-231	7.296E-01	2.315E+00	4.013E+00	0.000E+00	NOT IDENT.
TH-231	-2.520E-01	1.015E+00	1.793E+00	0.000E+00	FAIL ABUN
PA-233	-2.290E-02	9.983E-02	1.773E-01	0.000E+00	NOT IDENT.
PA-234	2.814E-01	6.219E-01	1.084E+00	0.000E+00	NOT IDENT.
PA-234M	1.013E+01	7.854E+00	1.425E+01	0.000E+00	FAIL ABUN
TH-234	-7.001E-01	1.925E+00	3.198E+00	0.000E+00	NOT IDENT.
U-235	-8.175E-02	2.819E-01	5.099E-01	0.000E+00	FAIL ABUN
NP-237	0.000E+00	1.237E+00	1.044E+00	0.000E+00	NOT IDENT.
U-238	-7.001E-01	1.925E+00	3.198E+00	0.000E+00	NOT IDENT.
NP-239	-1.199E-01	6.601E-01	1.011E+00	0.000E+00	NOT IDENT.
CM-247	-1.938E-02	6.333E-02	1.090E-01	0.000E+00	NOT IDENT.
CF-249	0.000E+00	6.873E-02	1.281E-01	0.000E+00	NOT IDENT.

CF-251	1.522E-01	1.900E-01	3.504E-01	0.000E+00 NOT IDENT.
ANH-511	6.464E-02	5.995E-02	1.139E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:41:01.57

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065187.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 23-MAR-2010 14:40:28
Sample ID         : G1202065187          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:02.28  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	341	85.60*	8.558E+00	2.303E-01	2.391E-01	30.47
	136.47	------	10.68	8.461E+00	------ Line Not Found		------
CO-60	1173.23	3088	99.85	2.258E+00	6.778E+00	6.814E+00	9.03
	1332.49	2721	99.98*	2.041E+00	6.599E+00	6.634E+00	9.81
CD-109	88.03	1940	3.70*	7.541E+00	3.440E+01	3.516E+01	11.10
SN-126	64.28	------	9.60	4.512E+00	------ Line Not Found		------
	86.94	1940	8.90	7.541E+00	1.430E+01	1.430E+01	41.94
	87.57	1940	37.00*	7.541E+00	3.440E+00	3.440E+00	11.10
BA-137M	661.66	3699	89.90*	3.590E+00	5.672E+00	5.677E+00	11.20
CS-137	661.66	3699	85.10*	3.590E+00	5.992E+00	5.998E+00	11.21
TL-208	277.37	------	6.60	6.182E+00	------ Line Not Found		------
	583.19	266	85.00*	3.931E+00	3.935E-01	3.935E-01	27.99
	860.56	------	12.50	2.923E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	5.897E+00	------ Line Not Found		------
	351.06	479	12.92*	5.402E+00	3.397E+00	3.397E+00	22.03
PB-212	74.82	240	10.28	6.174E+00	1.867E+00	1.867E+00	36.34
	77.11	387	17.10	6.477E+00	1.731E+00	1.731E+00	23.58
	238.63	928	43.60*	6.709E+00	1.570E+00	1.570E+00	16.25
	300.09	------	3.30	5.916E+00	------ Line Not Found		------
BI-214	609.32	251	45.49*	3.811E+00	7.151E-01	7.152E-01	27.25
	1120.29	------	14.92	2.346E+00	------ Line Not Found		------
	1764.49	89	15.30	1.716E+00	1.673E+00	1.673E+00	31.31
PB-214	74.82	240	5.80	6.174E+00	3.309E+00	3.309E+00	35.90
	77.11	387	9.70	6.477E+00	3.051E+00	3.051E+00	24.98
	242.00	192	7.25	6.662E+00	1.962E+00	1.962E+00	56.68
	295.22	256	18.42	5.969E+00	1.151E+00	1.151E+00	32.15
	351.93	479	35.60*	5.402E+00	1.233E+00	1.233E+00	22.71
RA-224	240.99	192	4.10*	6.662E+00	3.470E+00	3.470E+00	56.39
RA-226	609.32	251	45.49*	3.811E+00	7.151E-01	7.152E-01	27.25
	1120.29	------	14.92	2.346E+00	------ Line Not Found		------
	1764.49	89	15.30	1.716E+00	1.673E+00	1.673E+00	31.31
AC-228	338.32	201	11.27	5.525E+00	1.601E+00	1.601E+00	53.50

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	242	25.80*	2.787E+00	1.664E+00	1.664E+00	36.40
	968.97	91	15.80	2.647E+00	1.082E+00	1.082E+00	76.77
RA-228	338.32	201	11.27	5.525E+00	1.601E+00	1.601E+00	53.50
	911.20	242	25.80*	2.787E+00	1.664E+00	1.664E+00	36.40
	968.97	91	15.80	2.647E+00	1.082E+00	1.082E+00	76.77
TH-228	74.82	240	10.28	6.174E+00	1.867E+00	1.867E+00	35.04
	77.11	387	17.10	6.477E+00	1.731E+00	1.731E+00	23.58
	238.63	928	43.60*	6.709E+00	1.570E+00	1.570E+00	16.25
	300.09	------	3.30	5.916E+00	------ Line Not Found		------
TH-230	609.32	251	45.49*	3.811E+00	7.151E-01	7.151E-01	26.73
	1120.29	------	14.92	2.346E+00	------ Line Not Found		------
	1764.49	89	15.30	1.716E+00	1.673E+00	1.673E+00	31.31
TH-232	338.32	201	11.27	5.525E+00	1.601E+00	1.601E+00	34.59
	911.20	242	25.80*	2.787E+00	1.664E+00	1.664E+00	36.40
	968.97	91	15.80	2.647E+00	1.082E+00	1.082E+00	76.77
AM-241	59.54	3608	35.90*	3.647E+00	1.363E+01	1.363E+01	8.79

Flag: "*" = Keyline

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

Total number of lines in spectrum 25
Number of unidentified lines 1
Number of lines tentatively identified by NID 24 96.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	271.74D	1.04	2.303E-01	2.391E-01	0.728E-01	30.47	
CO-60	5.27Y	1.01	6.599E+00	6.634E+00	0.651E+00	9.81	
CD-109	461.40D	1.02	3.440E+01	3.516E+01	0.390E+01	11.10	
SN-126	2.30E+05Y	1.00	3.440E+00	3.440E+00	0.382E+00	11.10	
BA-137M	30.08Y	1.00	5.672E+00	5.677E+00	0.636E+00	11.20	
CS-137	30.08Y	1.00	5.992E+00	5.998E+00	0.672E+00	11.21	
TL-208	1.41E+10Y	1.00	3.935E-01	3.935E-01	1.101E-01	27.99	
BI-211	7.04E+08Y	1.00	3.397E+00	3.397E+00	0.748E+00	22.03	
PB-212	1.41E+10Y	1.00	1.570E+00	1.570E+00	0.255E+00	16.25	
BI-214	1600.00Y	1.00	7.151E-01	7.152E-01	1.948E-01	27.25	
PB-214	1600.00Y	1.00	1.233E+00	1.233E+00	0.280E+00	22.71	
RA-224	1.41E+10Y	1.00	3.470E+00	3.470E+00	1.956E+00	56.39	
RA-226	1600.00Y	1.00	7.151E-01	7.152E-01	1.948E-01	27.25	
AC-228	1.41E+10Y	1.00	1.664E+00	1.664E+00	0.606E+00	36.40	
RA-228	1.41E+10Y	1.00	1.664E+00	1.664E+00	0.606E+00	36.40	
TH-228	1.41E+10Y	1.00	1.570E+00	1.570E+00	0.255E+00	16.25	
TH-230	7.54E+04Y	1.00	7.151E-01	7.151E-01	1.912E-01	26.73	
TH-232	1.41E+10Y	1.00	1.664E+00	1.664E+00	0.606E+00	36.40	
AM-241	432.60Y	1.00	1.363E+01	1.363E+01	0.120E+01	8.79	
			---	---			
	Total Activity :		8.874E+01	8.956E+01			

Grand Total Activity : 8.874E+01 8.956E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	57.89	114	718	1.21	116.04	113	12	3.17E-02	67.4	3.33E+00	T
3	90.20	88	358	1.09	180.60	171	19	2.45E-02	99.5	7.70E+00	T
0	185.85	84	351	1.60	371.72	369	8	2.33E-02	83.1	7.61E+00	T
0	209.69	140	416	1.18	419.34	415	10	3.89E-02	57.2	7.18E+00	T
0	462.86	64	257	1.56	925.30	921	10	1.77E-02	97.4	4.58E+00	T
0	1000.99	44	73	1.69	2001.04	1997	9	1.23E-02	78.3	2.58E+00	T
0	1731.09	22	20	1.92	3461.36	3452	13	6.12E-03	93.1	1.73E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:41:05.77

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065187.CNF;1 *
* Acquisition date : 23-MAR-2010 14:40:28  Detector SN#    :                *
* Detector ID      : GAM22                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 01:00:02.28         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 9-MAR-2010 00:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G1202065187           Analyst initials: MXR1           *
* Batch Number     : 962631                Sample Quantity : 1.51730E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	2.391E-01	7.284E-02	5.832E-02	4.809E-03	4.100
CO-60	6.634E+00	6.511E-01	8.060E-02	7.187E-03	82.313
CD-109	3.516E+01	3.902E+00	1.816E+00	1.724E-01	19.360
SN-126	3.440E+00	3.817E-01	1.784E-01	1.684E-02	19.282
BA-137M	5.677E+00	6.358E-01	8.764E-02	9.241E-03	64.783
CS-137	5.998E+00	6.724E-01	9.258E-02	9.775E-03	64.783
TL-208	3.935E-01	1.101E-01	9.675E-02	1.048E-02	4.067
BI-211	3.397E+00	7.485E-01	5.352E-01	6.245E-02	6.348
PB-212	1.570E+00	2.551E-01	1.466E-01	1.943E-02	10.710
BI-214	7.152E-01	1.948E-01	1.881E-01	2.195E-02	3.802
PB-214	1.233E+00	2.800E-01	1.946E-01	2.505E-02	6.336
RA-224	3.470E+00	1.956E+00	1.570E+00	1.965E-01	2.210
RA-226	7.152E-01	1.948E-01	1.881E-01	2.195E-02	3.802
AC-228	1.664E+00	6.057E-01	4.606E-01	6.240E-02	3.613
RA-228	1.664E+00	6.057E-01	4.606E-01	6.240E-02	3.613
TH-228	1.570E+00	2.551E-01	1.466E-01	1.943E-02	10.710
TH-230	7.151E-01	1.912E-01	1.881E-01	1.958E-02	3.802
TH-232	1.664E+00	6.057E-01	4.606E-01	6.240E-02	3.613

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-241	1.363E+01	1.198E+00	4.375E-01	3.420E-02	31.159

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.348E-01		5.697E-01	9.097E-01	9.492E-02	-0.148
NA-22	-6.664E-02		4.787E-02	6.710E-02	5.782E-03	-0.993
NA-24	-3.645E-01		2.304E-01	Half-Life too short		
K-40	2.601E-01		5.381E-01	9.602E-01	8.797E-02	0.271
SC-46	9.258E-03		7.597E-02	1.268E-01	1.419E-02	0.073
V-48	-1.237E-01		1.386E-01	2.158E-01	2.264E-02	-0.573
CR-51	-2.685E-01		5.718E-01	9.362E-01	1.212E-01	-0.287
MN-54	-2.402E-02		6.535E-02	1.070E-01	1.188E-02	-0.225
CO-56	8.165E-03		7.362E-02	1.233E-01	1.373E-02	0.066
CO-58	-2.736E-02		6.718E-02	1.099E-01	1.217E-02	-0.249
FE-59	-1.054E-01		1.668E-01	2.603E-01	2.550E-02	-0.405
ZN-65	-1.503E-01		1.725E-01	2.657E-01	2.370E-02	-0.566
SE-75	-7.144E-02		7.296E-02	1.111E-01	1.496E-02	-0.643
SR-85	-4.662E-03		7.228E-02	1.157E-01	1.161E-02	-0.040
Y-88	2.860E-02		4.735E-02	8.388E-02	6.782E-03	0.341
Y-91	-3.586E+00		2.484E+01	4.086E+01	3.359E+00	-0.088
NB-94	5.604E-03		5.040E-02	8.281E-02	8.874E-03	0.068
NB-95	3.458E-02		6.781E-02	1.127E-01	1.233E-02	0.307
NB-95M	2.881E-01		2.183E-01	3.265E-01	4.320E-02	0.882
ZR-95	2.071E-02		1.144E-01	1.874E-01	2.181E-02	0.111
MO-99	3.164E+00		1.720E+01	2.824E+01	4.823E+00	0.112
TC-99M	-5.811E+09		6.475E+09	Half-Life too short		
RU-103	2.152E-02		6.629E-02	1.084E-01	1.607E-02	0.199
RH-106	1.129E-01		5.320E-01	8.875E-01	1.288E-01	0.127
RU-106	1.129E-01		5.319E-01	8.875E-01	9.270E-02	0.127
AG-108M	3.888E-03		5.247E-02	8.582E-02	8.446E-03	0.045
AG-110M	6.450E-01		1.169E-01	1.760E-01	1.891E-02	3.666
SN-113	1.181E-02		7.651E-02	1.267E-01	1.210E-02	0.093
CD-115	8.967E+00		1.586E+01	2.723E+01	2.750E+00	0.329
SN-117M	1.276E-02		7.660E-02	1.289E-01	1.222E-02	0.099
TE-123M	5.687E-03		4.016E-02	6.751E-02	6.447E-03	0.084
SB-124	9.565E-02		1.054E-01	1.934E-01	1.725E-02	0.494
SB-125	-1.364E-01		1.644E-01	2.576E-01	2.498E-02	-0.530
TE-125M	-1.708E+01		1.427E+01	2.141E+01	2.201E+00	-0.798
I-126	3.979E-01		4.208E-01	6.305E-01	6.662E-02	0.631
SB-126	-2.361E-01		2.253E-01	3.419E-01	3.687E-02	-0.690
SB-127	1.122E-01		1.908E+00	3.133E+00	4.023E-01	0.036
I-131	-3.416E-02		1.809E-01	2.968E-01	3.288E-02	-0.115
TE-132	1.264E+00		1.093E+00	1.816E+00	3.236E-01	0.696
BA-133	2.407E-02		7.825E-02	1.146E-01	1.688E-02	0.210
I-133	-1.087E-03		3.129E-03	Half-Life too short		
CS-134	5.304E-02		7.984E-02	1.332E-01	1.474E-02	0.398

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-135	8.156E-02		2.519E-01	4.096E-01	5.924E-02	0.199
I-135	-3.437E+08		9.828E+08	Half-Life too short		
CS-136	-7.911E-02		1.953E-01	3.111E-01	3.145E-02	-0.254
CE-139	-8.723E-03		4.312E-02	7.136E-02	6.999E-03	-0.122
BA-140	-2.025E-01		4.062E-01	6.524E-01	2.240E-01	-0.310
LA-140	-1.275E-01		1.103E-01	1.557E-01	1.365E-02	-0.819
CE-141	-3.693E-02		8.801E-02	1.459E-01	1.328E-02	-0.253
CE-143	3.463E-04		1.015E-04	Half-Life too short		
CE-144	-3.702E-01		2.867E-01	4.540E-01	6.919E-02	-0.815
PM-144	9.684E-03		5.280E-02	8.716E-02	9.321E-03	0.111
PR-144	7.645E-01		3.953E+00	6.528E+00	6.980E-01	0.117
PM-146	-3.763E-03		7.873E-02	1.275E-01	1.467E-02	-0.030
ND-147	1.030E-01		8.703E-01	1.466E+00	2.324E-01	0.070
PM-149	-1.615E+01		1.304E+02	2.069E+02	3.915E+01	-0.078
EU-152	1.315E-01		2.143E-01	2.577E-01	3.097E-02	0.510
GD-153	-2.757E-02		1.251E-01	1.898E-01	1.669E-02	-0.145
EU-154	-1.902E-01		1.363E-01	1.896E-01	2.156E-02	-1.003
EU-155	1.105E-01		1.524E-01	2.509E-01	2.153E-02	0.440
TB-160	1.169E-01		2.689E-01	4.523E-01	5.058E-02	0.258
HO-166M	-8.677E-02		9.527E-02	1.461E-01	1.570E-02	-0.594
TA-182	1.330E-01		2.113E-01	3.686E-01	3.065E-02	0.361
IR-192	5.225E-02		5.425E-02	9.369E-02	1.197E-02	0.558
HG-203	2.032E-02		6.277E-02	1.017E-01	1.438E-02	0.200
BI-207	5.816E-02		1.006E-01	1.690E-01	1.622E-02	0.344
PB-210	-9.533E-02		5.509E+00	9.272E+00	8.539E-01	-0.010
PB-211	-9.115E-02		1.265E+00	2.067E+00	1.003E+00	-0.044
BI-212	1.228E+00		8.684E-01	1.491E+00	2.096E-01	0.824
RN-219	-1.248E-01		7.128E-01	1.161E+00	1.779E-01	-0.108
RA-223	-2.520E-01		1.036E+00	1.712E+00	3.346E-01	-0.147
AC-227	7.149E-02		4.241E-01	6.880E-01	1.072E-01	0.104
TH-227	7.149E-02		4.241E-01	6.880E-01	1.157E-01	0.104
TH-229	4.681E-01		8.318E-01	1.396E+00	1.500E-01	0.335
PA-231	7.296E-01		2.363E+00	3.821E+00	6.949E-01	0.191
TH-231	-2.520E-01		1.036E+00	1.712E+00	3.346E-01	-0.147
PA-233	-2.290E-02		1.019E-01	1.692E-01	2.217E-02	-0.135
PA-234	2.814E-01		6.346E-01	1.064E+00	2.115E-01	0.264
PA-234M	1.013E+01	+	8.014E+00	1.401E+01	1.605E+00	0.723
TH-234	-7.001E-01		1.965E+00	2.938E+00	5.228E-01	-0.238
U-235	-8.175E-02		2.876E-01	4.775E-01	8.162E-02	-0.171
NP-237	5.005E+00		1.263E+00	9.665E-01	2.218E-01	5.179
U-238	-7.001E-01		1.965E+00	2.938E+00	5.228E-01	-0.238
NP-239	-1.199E-01		6.736E-01	9.422E-01	7.786E-02	-0.127
CM-247	-1.938E-02		6.462E-02	1.046E-01	9.813E-03	-0.185
CF-249	1.449E-01		7.014E-02	1.229E-01	1.167E-02	1.178
CF-251	1.522E-01		1.939E-01	3.298E-01	3.361E-02	0.461
ANH-511	6.464E-02		6.117E-02	1.100E-01	1.102E-02	0.588

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065187           *
* Acquisition date : 23-MAR-2010 14:40:28 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:02.28     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065187          Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
CO-57	2.391E-01	7.139E-02	3.127E-02	3.642E-02
CO-60	6.634E+00	6.381E-01	4.072E-02	3.256E-01
CD-109	3.516E+01	3.824E+00	9.815E-01	1.951E+00
SN-126	3.440E+00	3.741E-01	9.641E-02	1.909E-01
BA-137M	5.677E+00	6.231E-01	4.509E-02	3.179E-01
CS-137	5.998E+00	6.590E-01	4.763E-02	3.362E-01
TL-208	3.935E-01	1.079E-01	4.994E-02	5.505E-02
BI-211	3.397E+00	7.335E-01	2.798E-01	3.742E-01
PB-212	1.570E+00	2.500E-01	7.738E-02	1.276E-01
BI-214	7.152E-01	1.910E-01	9.698E-02	9.742E-02
PB-214	1.233E+00	2.744E-01	1.017E-01	1.400E-01
RA-224	3.470E+00	1.917E+00	8.284E-01	9.782E-01
RA-226	7.152E-01	1.910E-01	9.698E-02	9.742E-02
AC-228	1.664E+00	5.936E-01	2.351E-01	3.029E-01
RA-228	1.664E+00	5.936E-01	2.351E-01	3.029E-01
TH-228	1.570E+00	2.500E-01	7.738E-02	1.276E-01
TH-230	7.151E-01	1.873E-01	9.698E-02	9.558E-02
TH-232	1.664E+00	5.936E-01	2.351E-01	3.029E-01
AM-241	1.363E+01	1.174E+00	2.386E-01	5.991E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.348E-01	5.583E-01	4.719E-01	2.848E-01	NOT IDENT.
NA-22	-6.664E-02	4.691E-02	3.394E-02	2.393E-02	NOT IDENT.
NA-24	-3.645E+05	4.517E+05	0.000E+00	2.304E+05	SHORT HLIF
K-40	2.601E-01	5.273E-01	4.839E-01	2.690E-01	NOT IDENT.
SC-46	9.258E-03	7.445E-02	6.473E-02	3.799E-02	NOT IDENT.
V-48	-1.237E-01	1.358E-01	1.099E-01	6.930E-02	NOT IDENT.
CR-51	-2.685E-01	5.604E-01	4.906E-01	2.859E-01	NOT IDENT.
MN-54	-2.402E-02	6.404E-02	5.471E-02	3.268E-02	NOT IDENT.

CO-56	8.165E-03	7.214E-02	6.305E-02	3.681E-02	NOT IDENT.
CO-58	-2.736E-02	6.583E-02	5.624E-02	3.359E-02	NOT IDENT.
FE-59	-1.054E-01	1.635E-01	1.322E-01	8.340E-02	NOT IDENT.
ZN-65	-1.503E-01	1.691E-01	1.349E-01	8.625E-02	NOT IDENT.
SE-75	-7.144E-02	7.150E-02	5.850E-02	3.648E-02	FAIL ABUN
SR-85	-4.662E-03	7.083E-02	5.989E-02	3.614E-02	NOT IDENT.
Y-88	2.860E-02	4.640E-02	4.202E-02	2.368E-02	NOT IDENT.
Y-91	-3.586E+00	2.434E+01	2.070E+01	1.242E+01	NOT IDENT.
NB-94	5.604E-03	4.940E-02	4.254E-02	2.520E-02	NOT IDENT.
NB-95	3.458E-02	6.645E-02	5.779E-02	3.390E-02	NOT IDENT.
NB-95M	2.881E-01	2.139E-01	1.724E-01	1.092E-01	NOT IDENT.
ZR-95	2.071E-02	1.121E-01	9.611E-02	5.721E-02	NOT IDENT.
MO-99	3.164E+00	1.686E+01	1.449E+01	8.601E+00	NOT IDENT.
TC-99M	-5.811E+15	1.269E+16	0.000E+00	6.475E+15	SHORT HLIF
RU-103	2.152E-02	6.496E-02	5.618E-02	3.315E-02	FAIL ABUN
RH-106	1.129E-01	5.214E-01	4.573E-01	2.660E-01	NOT IDENT.
RU-106	1.129E-01	5.213E-01	4.573E-01	2.660E-01	NOT IDENT.
AG-108M	3.888E-03	5.142E-02	4.463E-02	2.624E-02	NOT IDENT.
AG-110M	6.450E-01	1.145E-01	9.054E-02	5.843E-02	NOT IDENT.
SN-113	1.181E-02	7.498E-02	6.603E-02	3.825E-02	NOT IDENT.
CD-115	8.967E+00	1.554E+01	1.409E+01	7.929E+00	NOT IDENT.
SN-117M	1.276E-02	7.506E-02	6.870E-02	3.830E-02	NOT IDENT.
TE-123M	5.687E-03	3.935E-02	3.598E-02	2.008E-02	NOT IDENT.
SB-124	9.565E-02	1.033E-01	9.711E-02	5.268E-02	NOT IDENT.
SB-125	-1.364E-01	1.611E-01	1.340E-01	8.222E-02	FAIL ABUN
TE-125M	-1.708E+01	1.399E+01	1.151E+01	7.137E+00	NOT IDENT.
I-126	3.979E-01	4.123E-01	3.244E-01	2.104E-01	NOT IDENT.
SB-126	-2.361E-01	2.208E-01	1.755E-01	1.127E-01	NOT IDENT.
SB-127	1.122E-01	1.870E+00	1.610E+00	9.541E-01	NOT IDENT.
I-131	-3.416E-02	1.773E-01	1.550E-01	9.044E-02	NOT IDENT.
TE-132	1.264E+00	1.071E+00	9.595E-01	5.463E-01	NOT IDENT.
BA-133	2.407E-02	7.669E-02	5.990E-02	3.913E-02	NOT IDENT.
I-133	-1.087E+03	6.134E+03	0.000E+00	3.129E+03	SHORT HLIF
CS-134	5.304E-02	7.825E-02	6.820E-02	3.992E-02	NOT IDENT.
CS-135	8.156E-02	2.469E-01	2.155E-01	1.260E-01	NOT IDENT.
I-135	-3.437E+14	1.926E+15	0.000E+00	9.828E+14	SHORT HLIF
CS-136	-7.911E-02	1.914E-01	1.582E-01	9.765E-02	NOT IDENT.
CE-139	-8.723E-03	4.226E-02	3.799E-02	2.156E-02	NOT IDENT.
BA-140	-2.025E-01	3.981E-01	3.374E-01	2.031E-01	NOT IDENT.
LA-140	-1.275E-01	1.081E-01	7.829E-02	5.514E-02	NOT IDENT.
CE-141	-3.693E-02	8.625E-02	7.790E-02	4.401E-02	NOT IDENT.
CE-143	3.463E+02	1.989E+02	0.000E+00	1.015E+02	SHORT HLIF
CE-144	-3.702E-01	2.810E-01	2.429E-01	1.434E-01	NOT IDENT.
PM-144	9.684E-03	5.175E-02	4.478E-02	2.640E-02	NOT IDENT.
PR-144	7.645E-01	3.874E+00	3.354E+00	1.976E+00	NOT IDENT.
PM-146	-3.763E-03	7.716E-02	6.625E-02	3.937E-02	NOT IDENT.
ND-147	1.030E-01	8.529E-01	7.583E-01	4.351E-01	FAIL ABUN
PM-149	-1.615E+01	1.278E+02	1.087E+02	6.519E+01	NOT IDENT.
EU-152	1.315E-01	2.100E-01	1.348E-01	1.071E-01	FAIL ABUN
GD-153	-2.757E-02	1.226E-01	1.023E-01	6.254E-02	NOT IDENT.
EU-154	-1.902E-01	1.335E-01	9.592E-02	6.813E-02	FAIL ABUN
EU-155	1.105E-01	1.494E-01	1.350E-01	7.621E-02	FAIL ABUN
TB-160	1.169E-01	2.635E-01	2.310E-01	1.344E-01	FAIL ABUN
HO-166M	-8.677E-02	9.337E-02	7.501E-02	4.764E-02	FAIL ABUN
TA-182	1.330E-01	2.070E-01	1.866E-01	1.056E-01	NOT IDENT.
IR-192	5.225E-02	5.316E-02	4.910E-02	2.712E-02	FAIL ABUN
HG-203	2.032E-02	6.151E-02	5.347E-02	3.138E-02	NOT IDENT.
BI-207	5.816E-02	9.862E-02	8.588E-02	5.032E-02	FAIL ABUN
PB-210	-9.533E-02	5.398E+00	5.084E+00	2.754E+00	NOT IDENT.
PB-211	-9.115E-02	1.240E+00	1.077E+00	6.326E-01	NOT IDENT.
BI-212	1.228E+00	8.510E-01	7.650E-01	4.342E-01	NOT IDENT.
RN-219	-1.248E-01	6.986E-01	6.048E-01	3.564E-01	NOT IDENT.
RA-223	-2.520E-01	1.015E+00	8.968E-01	5.178E-01	FAIL ABUN
AC-227	7.149E-02	4.156E-01	3.625E-01	2.121E-01	NOT IDENT.
TH-227	7.149E-02	4.156E-01	3.625E-01	2.121E-01	NOT IDENT.
TH-229	4.681E-01	8.152E-01	7.405E-01	4.159E-01	FAIL ABUN
PA-231	7.296E-01	2.315E+00	2.008E+00	1.181E+00	NOT IDENT.
TH-231	-2.520E-01	1.015E+00	8.968E-01	5.178E-01	FAIL ABUN
PA-233	-2.290E-02	9.983E-02	8.869E-02	5.094E-02	NOT IDENT.
PA-234	2.814E-01	6.219E-01	5.425E-01	3.173E-01	NOT IDENT.
PA-234M	1.013E+01	7.854E+00	7.130E+00	4.007E+00	FAIL ABUN
TH-234	-7.001E-01	1.925E+00	1.600E+00	9.823E-01	NOT IDENT.
U-235	-8.175E-02	2.819E-01	2.551E-01	1.438E-01	FAIL ABUN
NP-237	5.005E+00	1.237E+00	5.225E-01	6.313E-01	NOT IDENT.
U-238	-7.001E-01	1.925E+00	1.600E+00	9.823E-01	NOT IDENT.
NP-239	-1.199E-01	6.601E-01	5.058E-01	3.368E-01	NOT IDENT.
CM-247	-1.938E-02	6.333E-02	5.451E-02	3.231E-02	NOT IDENT.
CF-249	1.449E-01	6.873E-02	6.411E-02	3.507E-02	NOT IDENT.

CF-251	1.522E-01	1.900E-01	1.753E-01	9.694E-02	NOT IDENT.
ANH-511	6.464E-02	5.995E-02	5.697E-02	3.058E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	484.1933
49.72	547.3168
57.36	0.0000
59.54	617.4109
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63.29	395.6656
64.28	408.8275
67.75	411.1249
69.67	452.6741
70.83	444.0544
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72.87	475.8058
72.87	475.8058
74.82	467.8417
74.82	467.8417
74.82	467.8417
74.97	468.0772
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77.11	471.4048
77.11	471.4048
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79.80	431.3626
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80.19	465.8337
80.57	466.3959
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81.07	515.0865
81.07	515.0865
83.79	522.5915
83.79	522.5915
85.43	507.9705
86.48	563.0568
86.55	563.1743
86.79	462.8271
86.94	463.0379
87.57	463.9082
88.03	464.5430
88.47	465.1486
89.96	467.1864
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92.59	470.7427
93.35	365.8555
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94.87	322.3038
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97.43	358.3570
98.44	341.7707
99.53	318.8414
100.11	323.6987
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103.37	352.8962
105.31	328.1641
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109.28	379.4944
111.00	344.1352
111.76	317.8295
116.30	359.7371
117.23	349.9508
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121.78	319.7690
122.06	319.9754
123.07	320.7192
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140.51	0.0000
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144.24	373.0732
145.44	371.2554
152.43	337.7485
153.25	326.3005
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154.21	349.9892
156.02	356.7607
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163.33	337.2308
165.86	349.1672
176.60	329.8763
177.52	329.4338
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185.72	376.5890
193.51	367.9301
197.04	398.8401
205.31	372.3437
210.85	404.7192
215.65	383.3164
222.11	365.5703
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228.18	337.4695
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235.96	348.6859
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238.63	347.6222
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242.00	349.1935
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256.23	327.6023
256.23	327.6023
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269.46	272.5858
269.46	272.5858
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273.65	388.8618
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280.46	302.9287
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285.90	304.8628
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299.98	302.1843
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300.09	288.5563
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302.85	314.4207
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304.50	332.3940
304.85	335.2706
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311.90	278.7749

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323.87	294.4935
328.76	265.9240
333.37	300.5437
334.37	275.6449
334.37	275.6449
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338.32	263.7844
338.32	263.7844
340.48	247.2380
340.55	250.4270
344.28	225.9052
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351.93	264.4794
356.01	257.4805
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366.42	260.3739
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388.63	241.8520
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402.40	281.0775
404.85	288.7441
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414.70	294.2459
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569.70	185.4706
583.19	197.3563
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609.32	200.8575
609.32	200.8575
610.33	183.9791
614.28	179.3907
618.01	182.8489
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621.93	187.6542
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661.66	150.8209
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696.51	153.7598
697.00	153.7994
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722.91	211.0329
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724.19	172.6836
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756.73	143.8608
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766.42	150.9357
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778.90	167.9145
783.70	170.4514
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795.86	161.7554
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832.01	159.8375
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860.56	187.6523
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873.19	206.9146
875.33	0.0000
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911.20	207.4432
911.20	207.4432
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949.00	198.8864
962.29	264.6409
964.08	236.9541
966.15	193.5590
968.97	213.4813
968.97	213.4813
968.97	213.4813
983.53	203.6974
996.26	174.7244
1001.03	172.7803
1004.73	157.5996
1037.84	146.5610
1038.76	0.0000
1048.07	168.7361
1050.41	155.4976
1050.41	155.4976
1063.66	158.3362
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1099.45	169.8649
1112.07	185.3856

1115.54	208.8143
1120.29	141.5571
1120.29	141.5571
1120.29	141.5571
1120.55	142.6277
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1131.51	0.0000
1173.23	83.7960
1177.93	70.4147
1189.05	83.3003
1204.77	77.0795
1221.41	60.2814
1231.02	86.3855
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1260.41	0.0000
1271.85	58.3521
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1274.54	65.2150
1291.59	36.2085
1298.22	0.0000
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1368.63	0.0000
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1457.56	0.0000
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1690.97	21.3638
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1764.49	19.5696
1764.49	19.5696
1770.23	30.2846
1771.35	28.5109
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1836.06	22.1068

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065187

Total Uranium Activity	-2.1207E+00	ug/g
Total Uranium Counting Unc.	5.7292E+00	ug/g
Total Uranium Tpu	2.9231E-06	ug/g
Total Uranium Mda	4.7606E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 962631                    SAMPLE ID  : G1202065187       *
*   ANALYST      : MXR1                      DETECTOR   : GAM22             *
*   SAMPLE DATE  :  9-MAR-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 14:40:28.19   SAMPLE ALQT:  151.730 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.909E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 2.739E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 3.285E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.599E+00
```

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W002.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.282705 through 0.311367

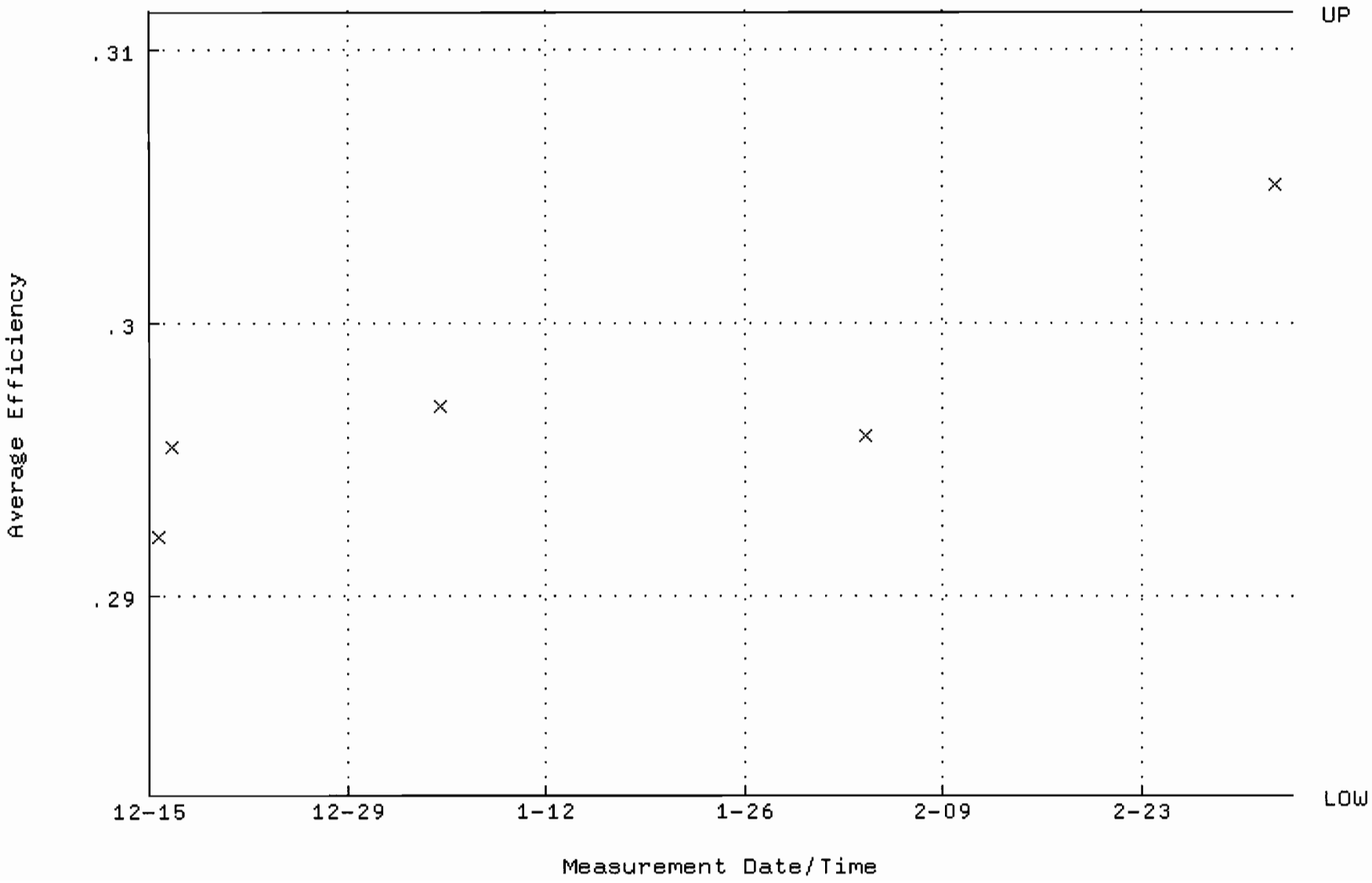

QA filename : DKA100:[ENV_ALPHA.QA.W]W002.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 84.7927 through 93.2014

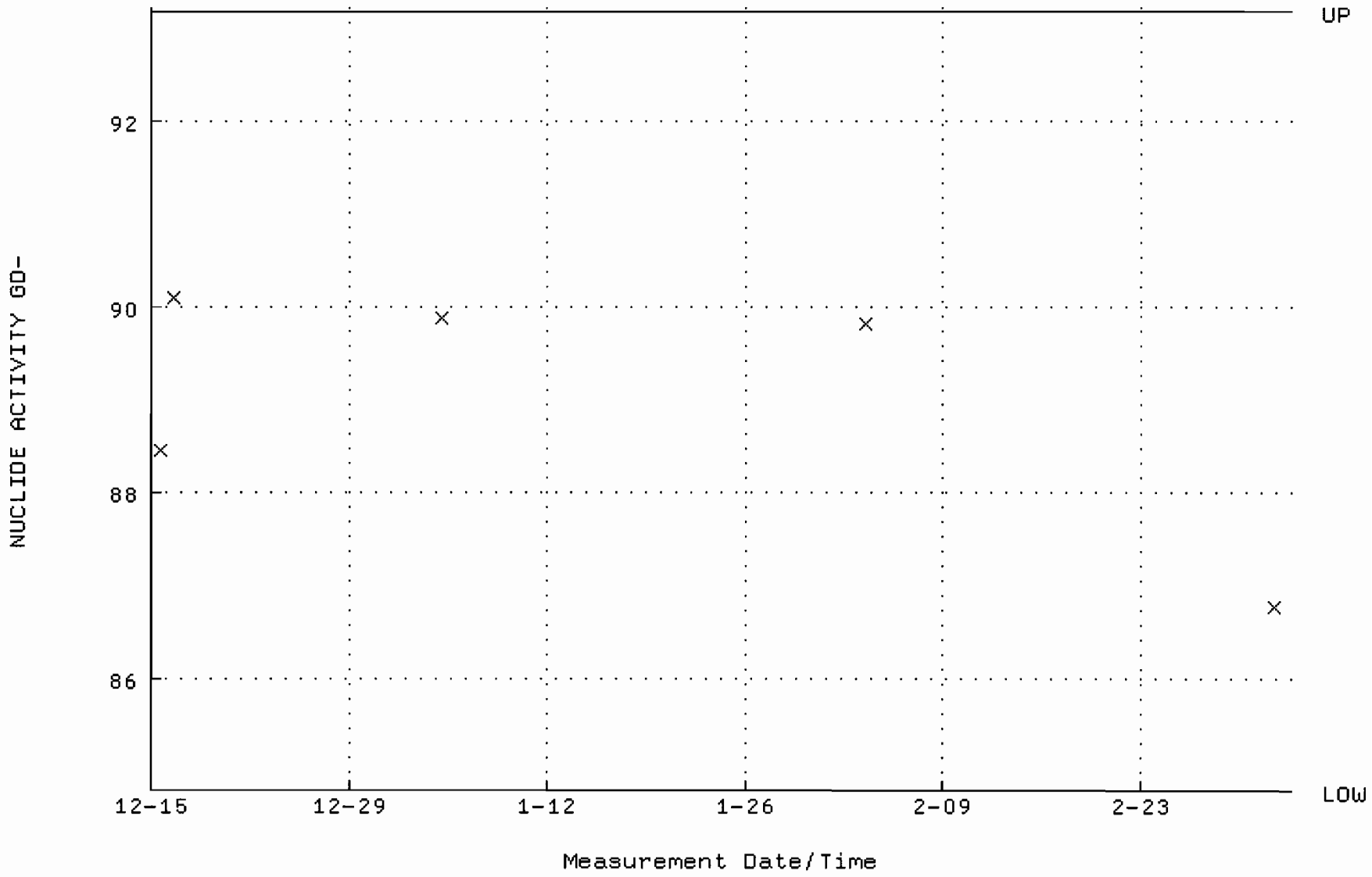

QA filename : DKA100:[ENV_ALPHA.QA.B]B002.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

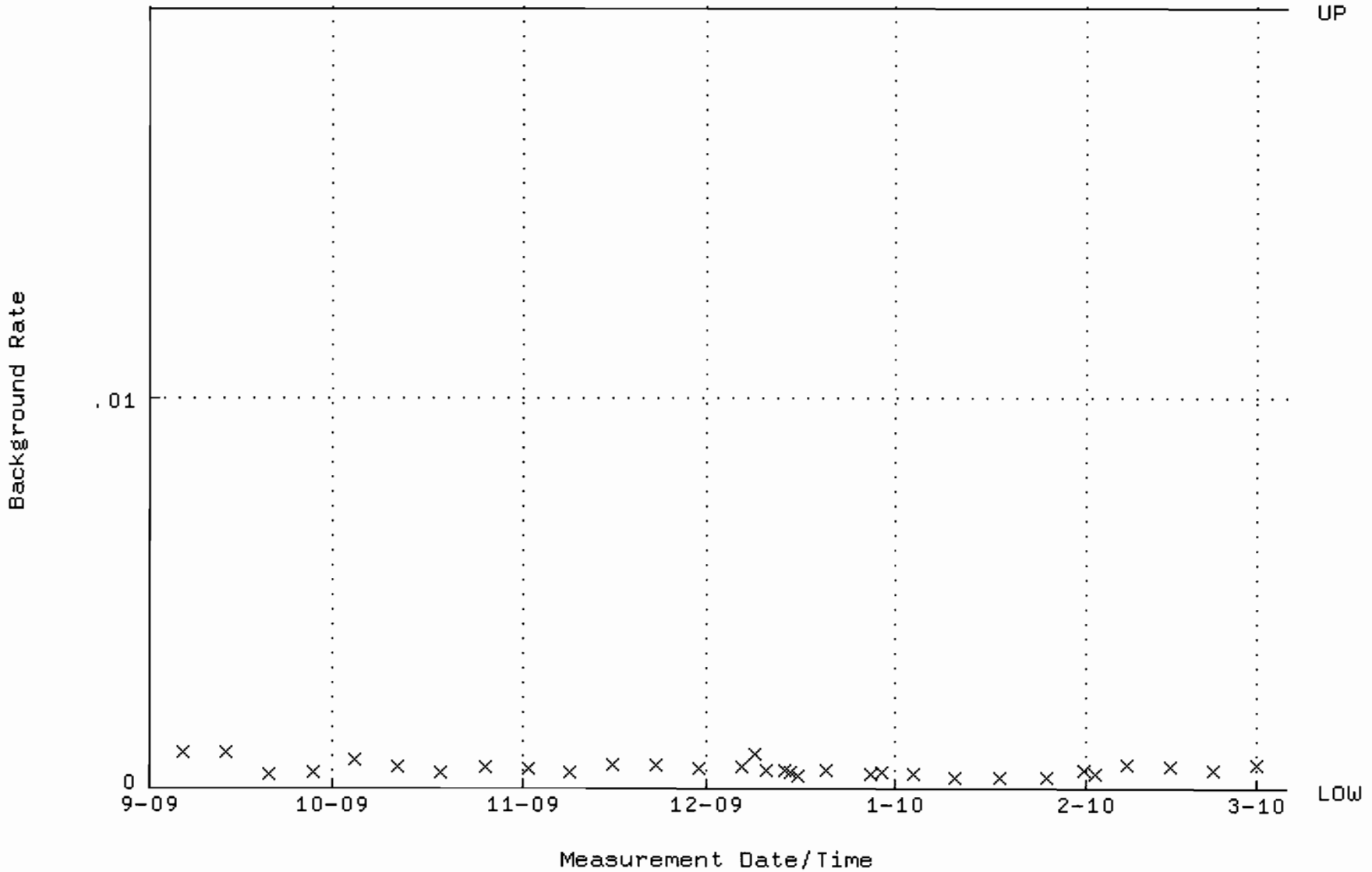

QA filename : DKA100:[ENV_ALPHA.QA.W]W003.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.295986 through 0.329192

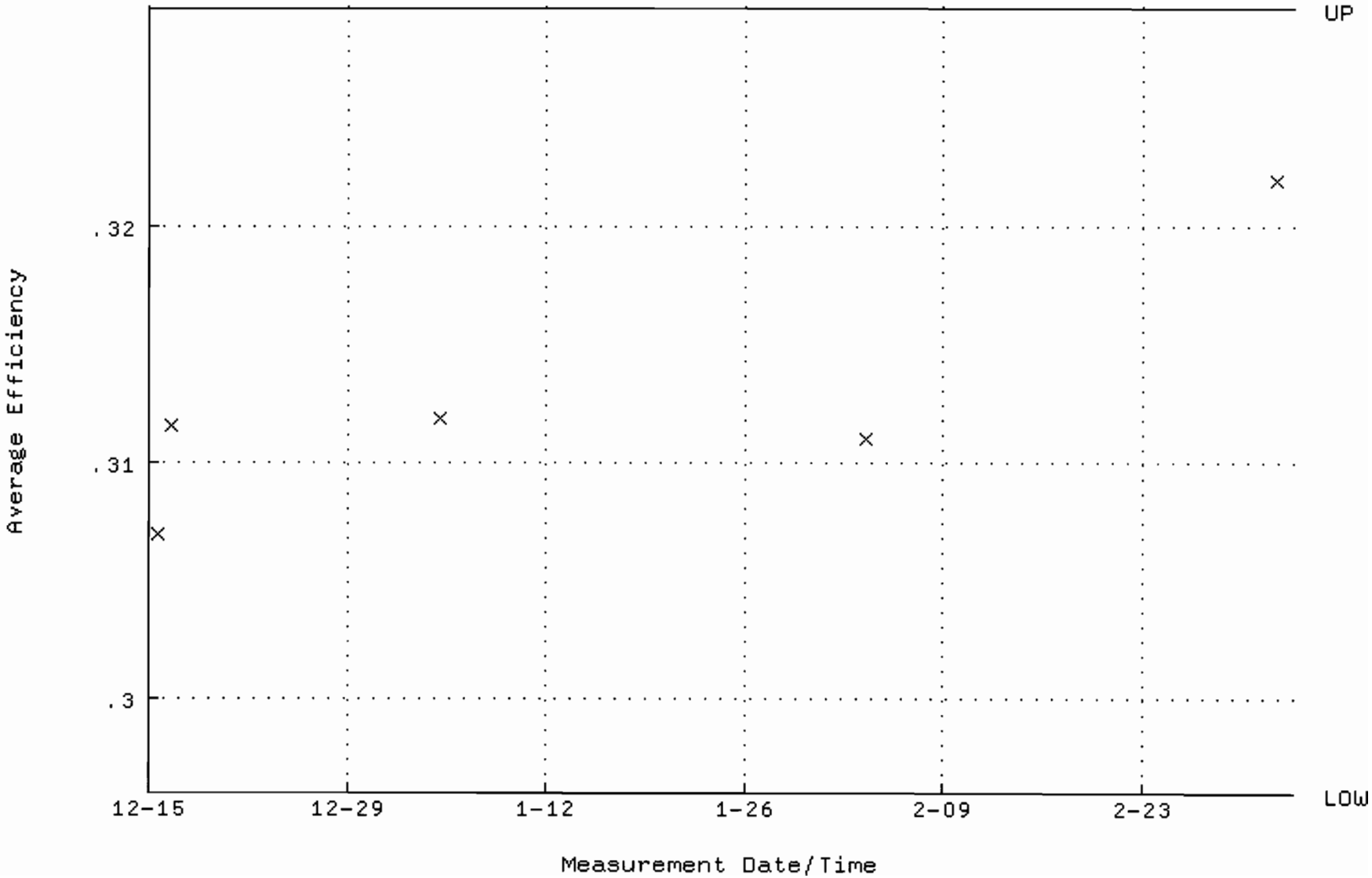

QA filename : DKA100:[ENV_ALPHA.QA.W]W003.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 85.9157 through 93.4313

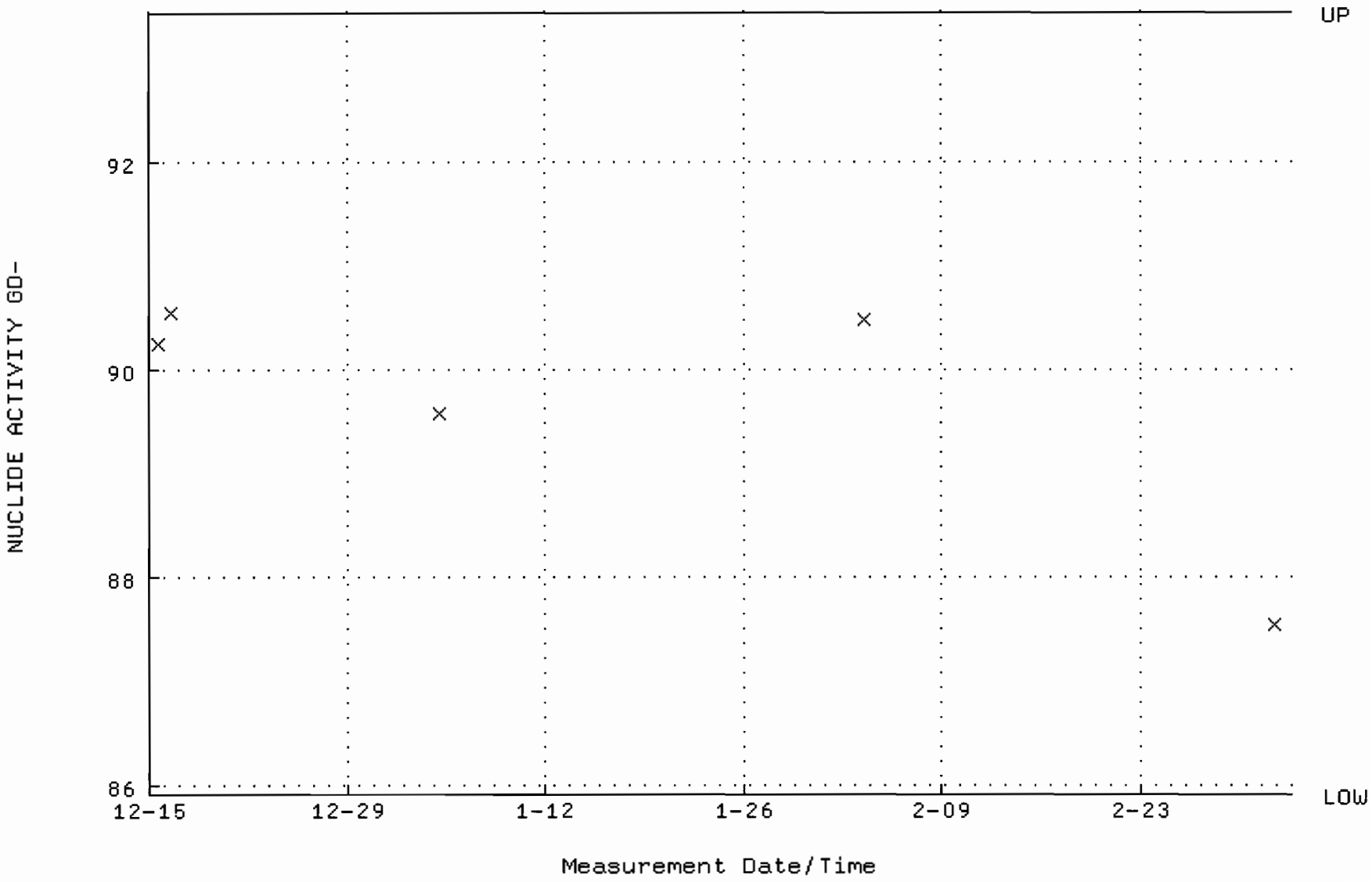

QA filename : DKA100:[ENV_ALPHA.QA.B]B003.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

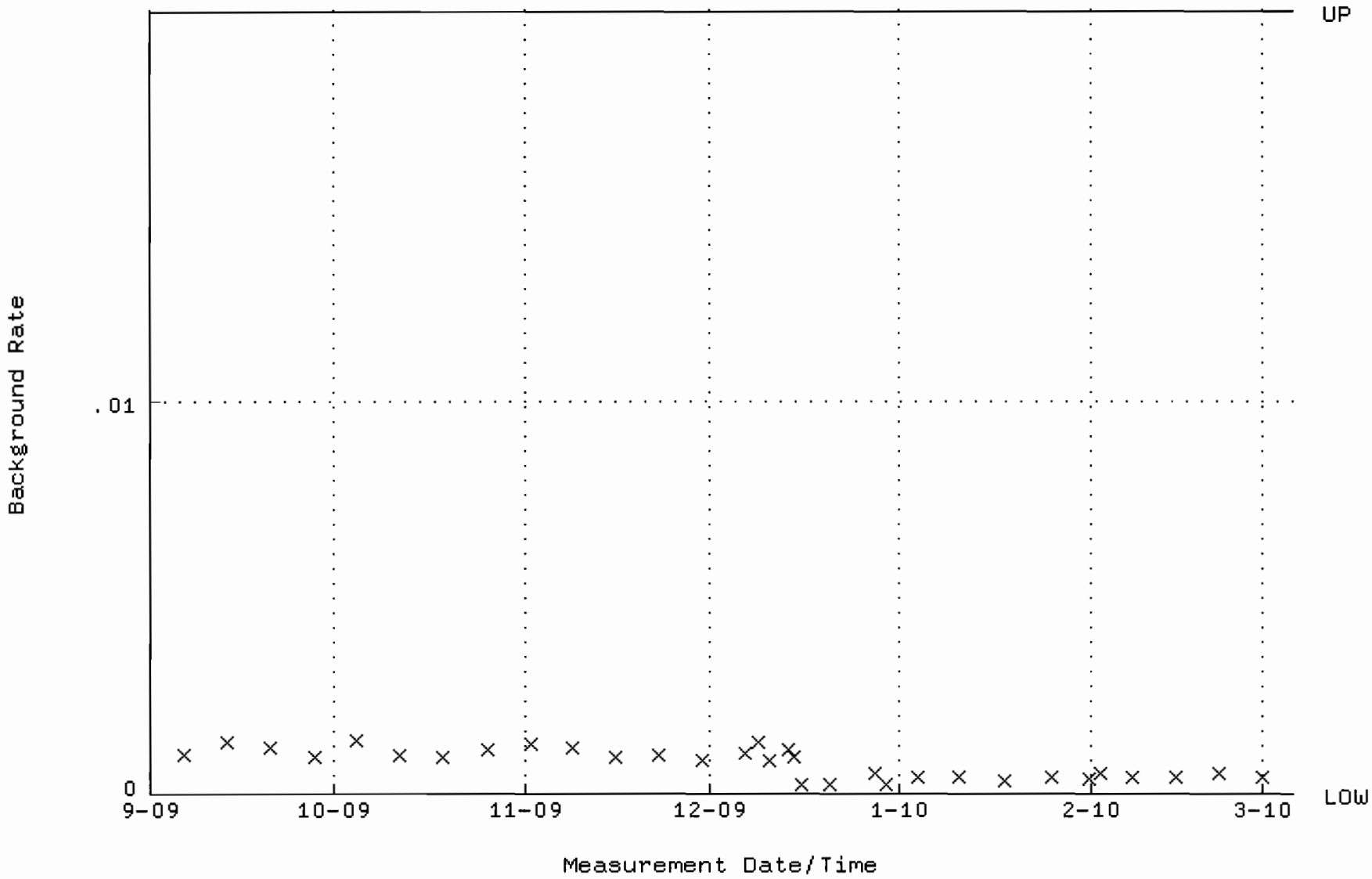

QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-DEC-2009 15:29:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.294995 through 0.314995

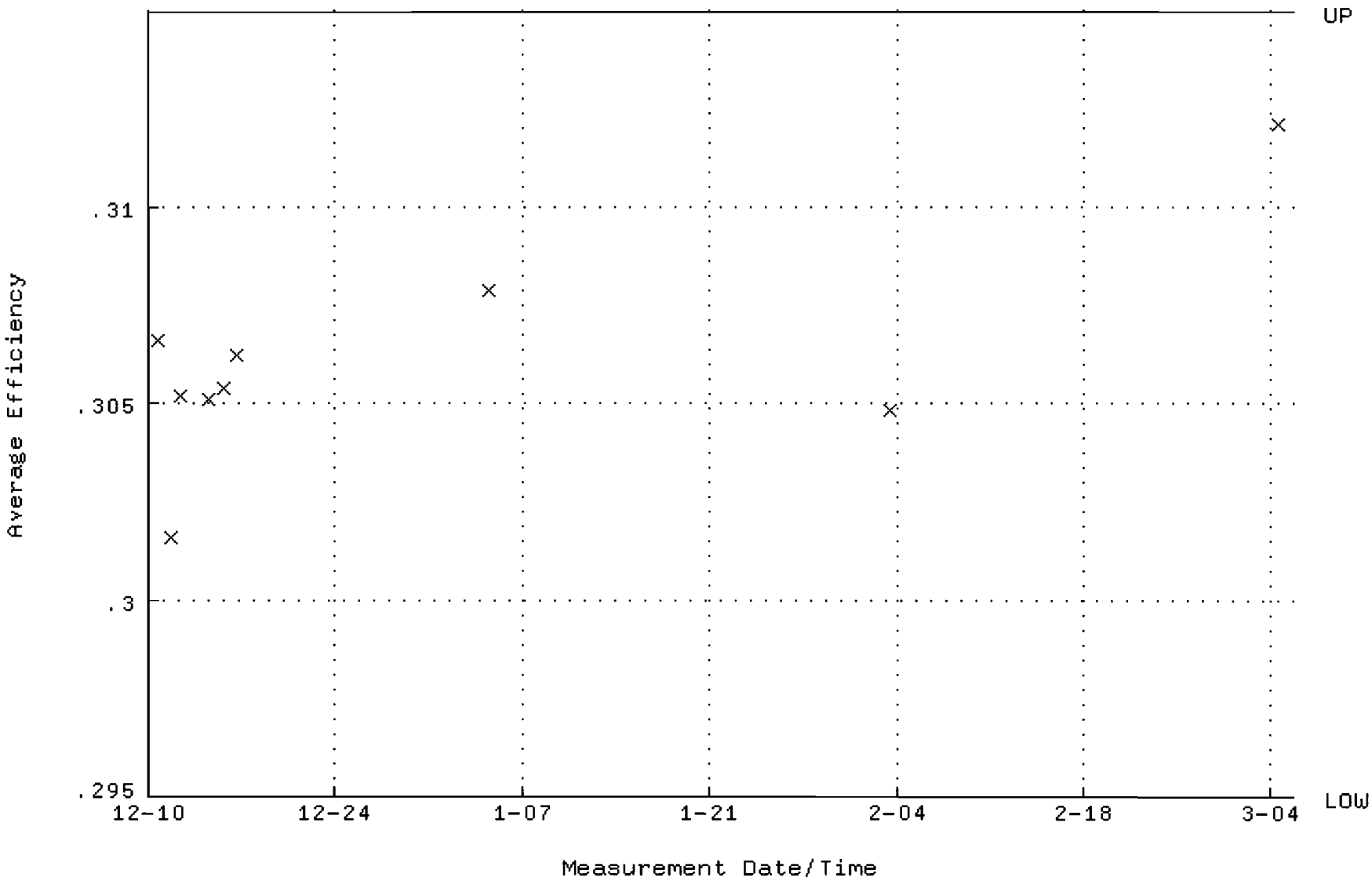

QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-DEC-2009 15:29:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 87.5863 through 96.8059

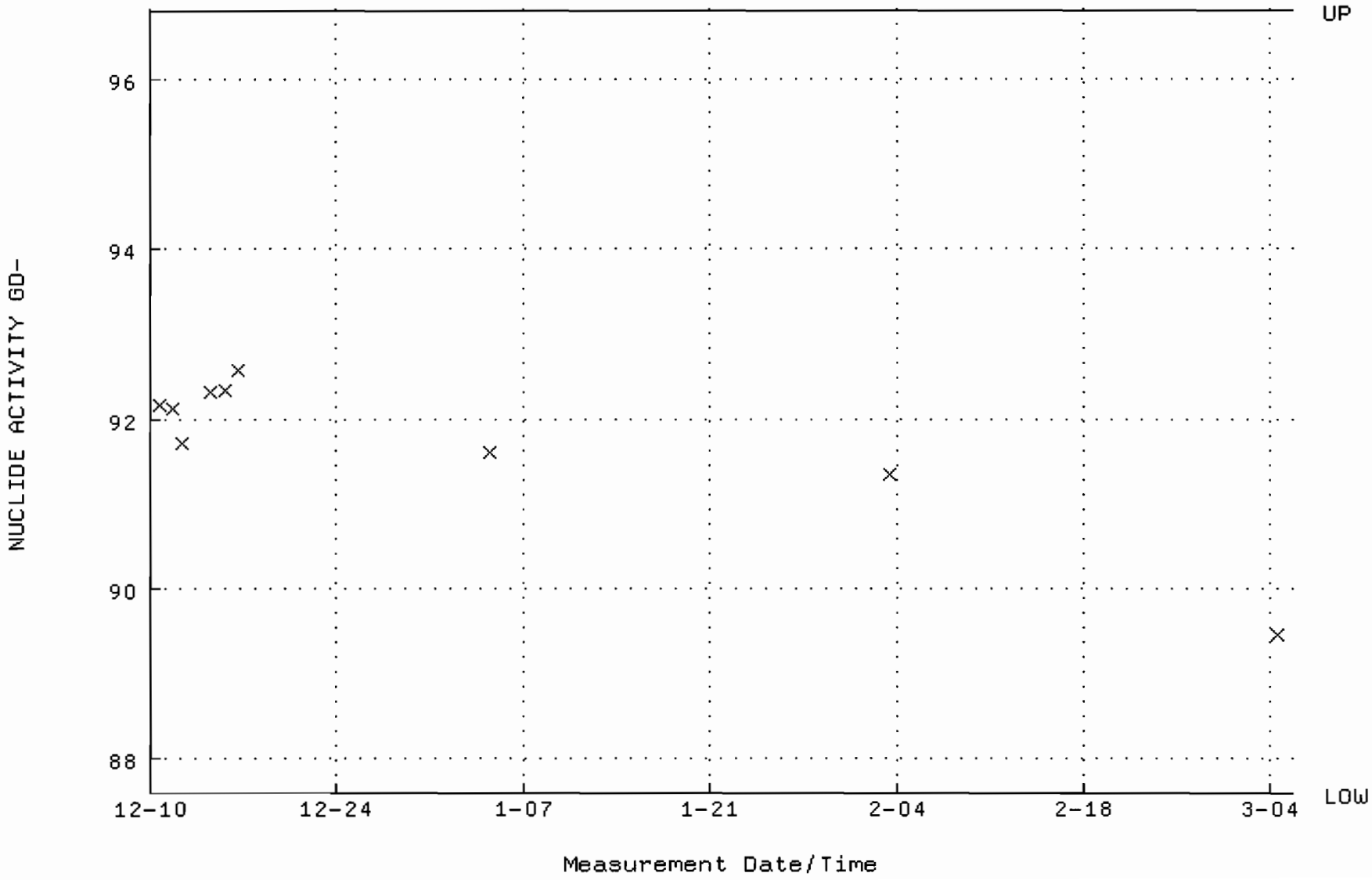

QA filename : DKA100:[ENV_ALPHA.QA.B]B004.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

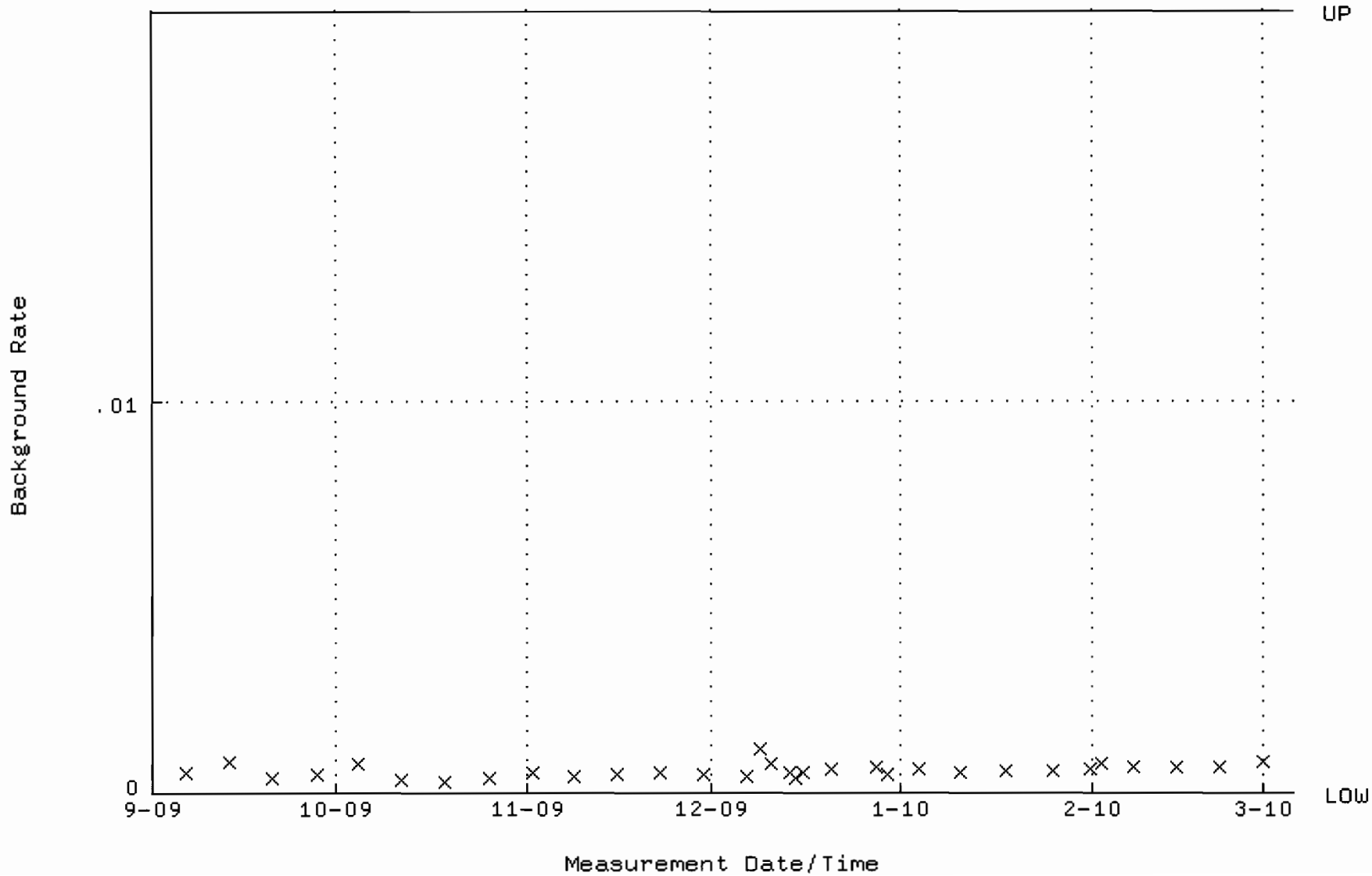

QA filename : DKA100:[ENV_ALPHA.QA.W]W016.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:41 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.326058 through 0.346058

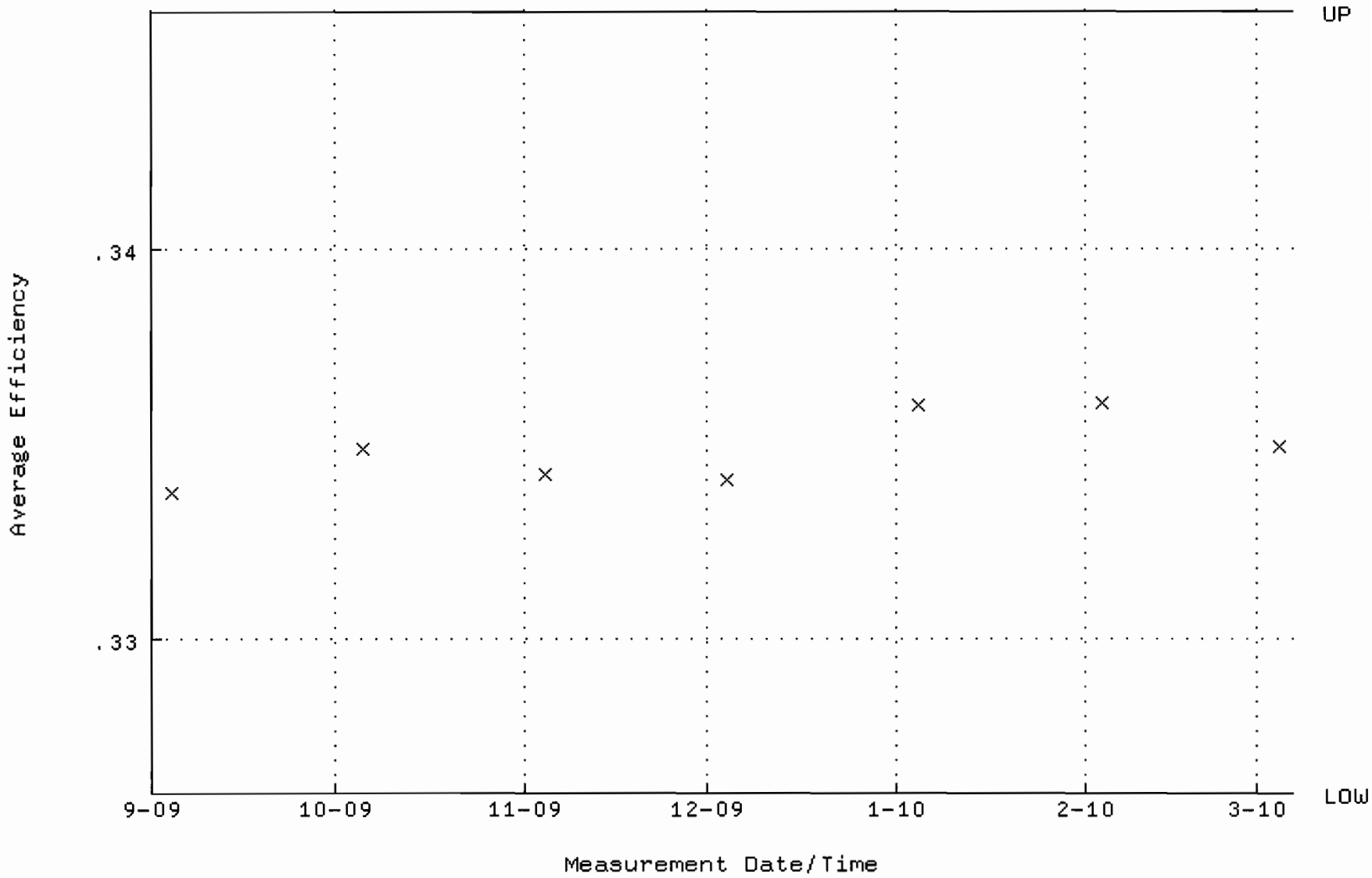

QA filename : DKA100:[ENV_ALPHA.QA.W]W016.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:41 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 85.9280 through 94.9730

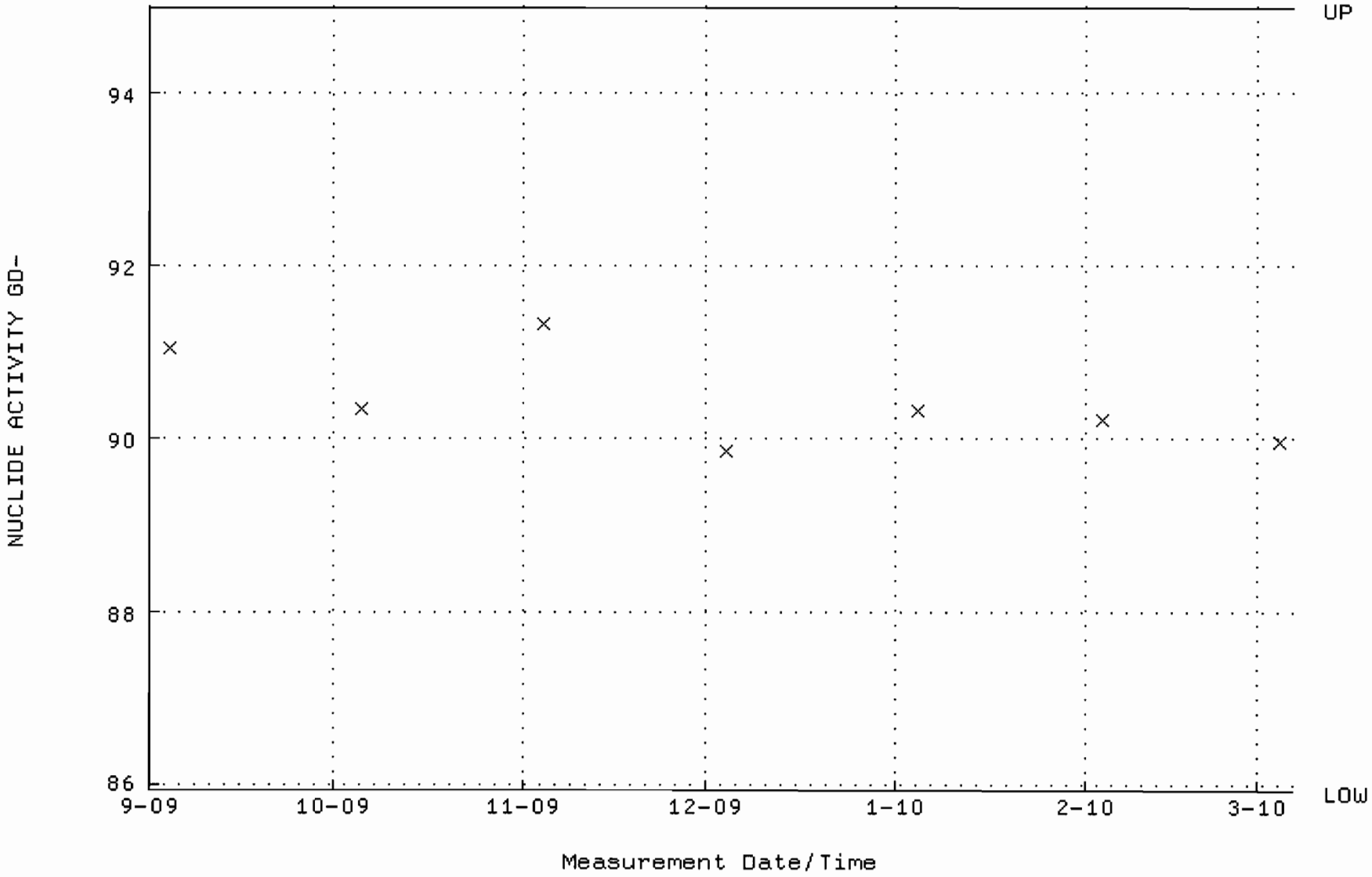

QA filename : DKA100:[ENV_ALPHA.QA.B]B016.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:02 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

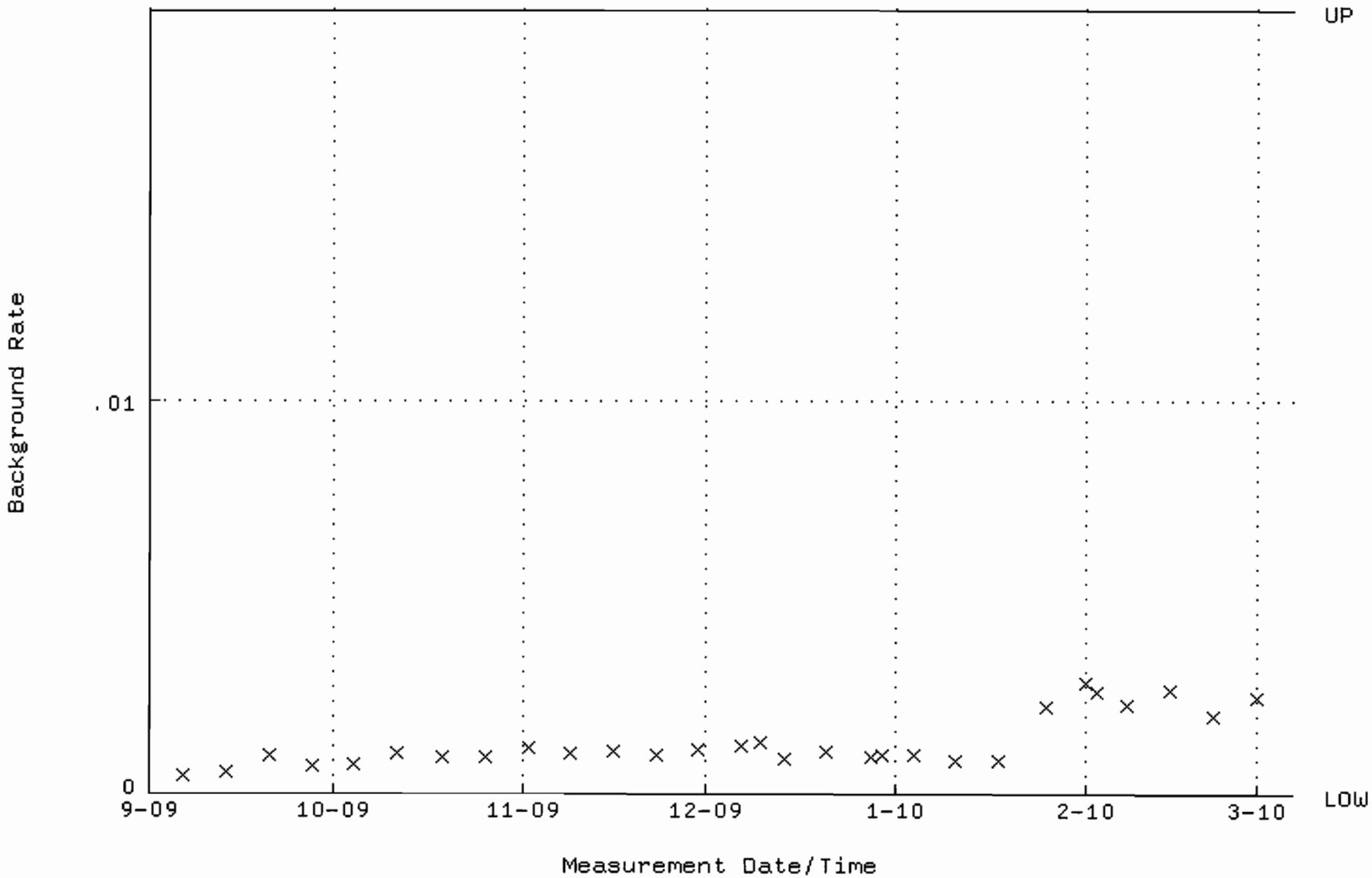

QA filename : DKA100:[ENV_ALPHA.QA.W]W017.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.276155 through 0.308631

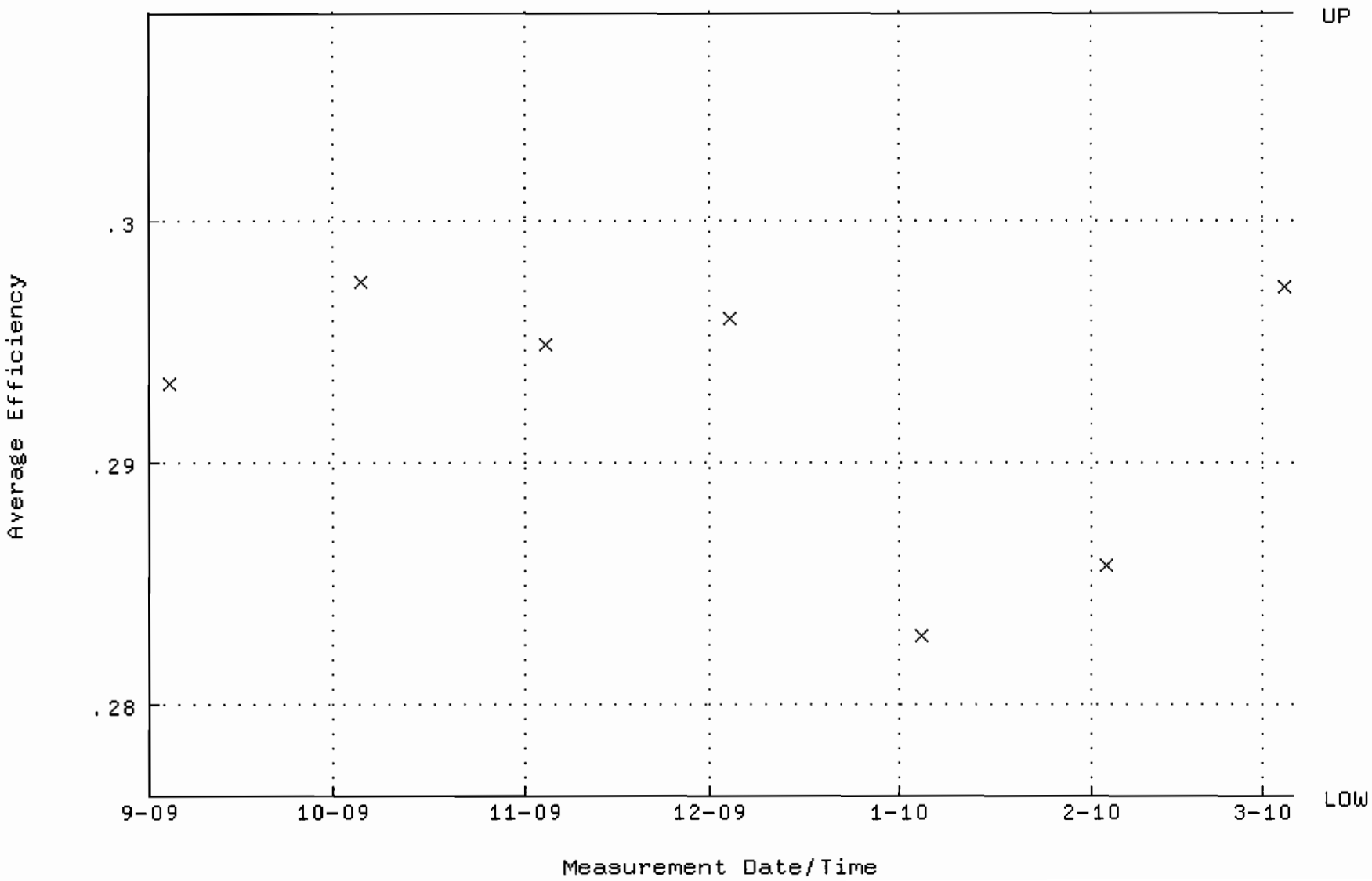

QA filename : DKA100:[ENV_ALPHA.QA.W]W017.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 90.4251 through 97.0169

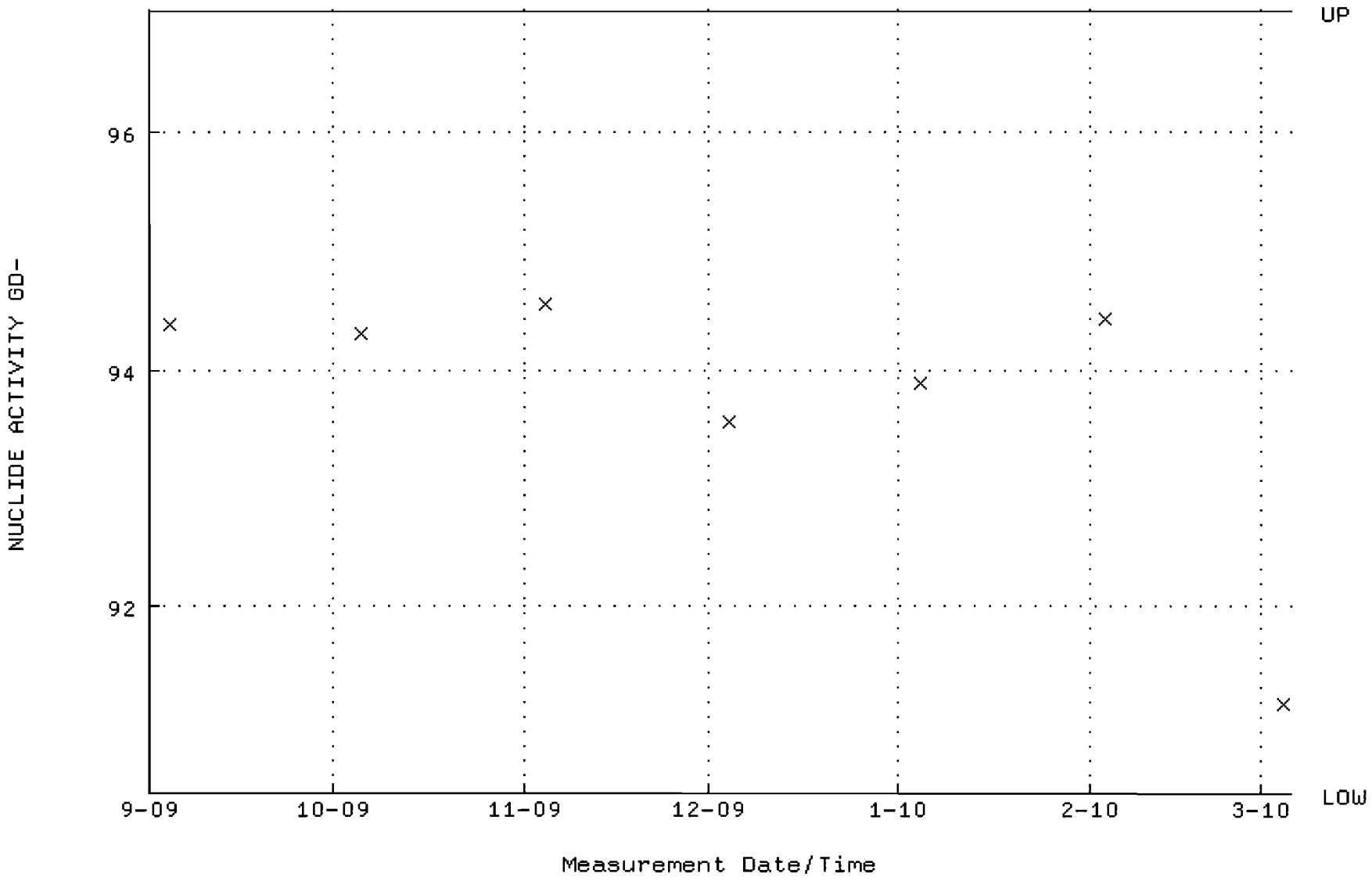

QA filename : DKA100:[ENV_ALPHA.QA.B]B017.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:02 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

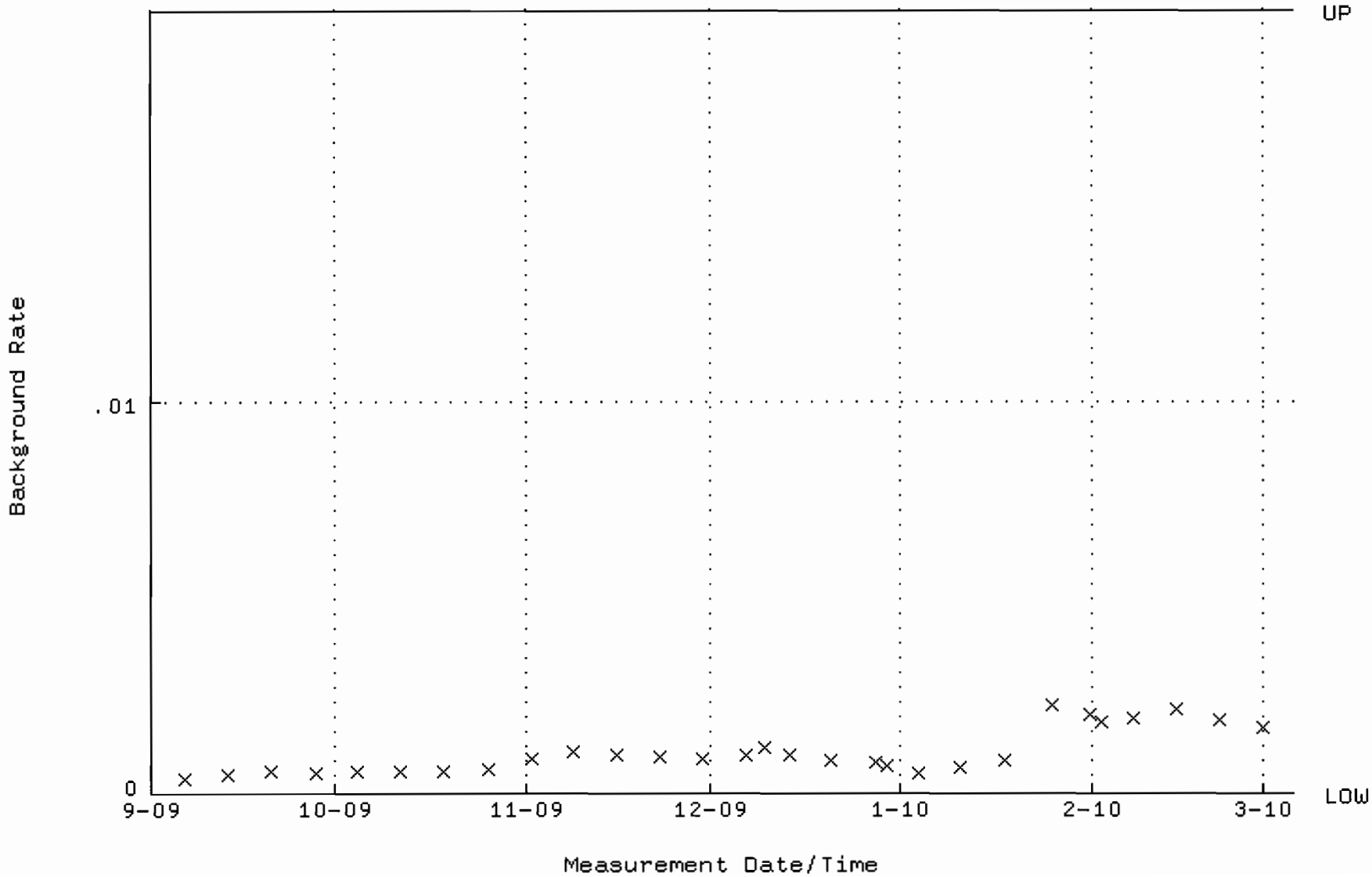

QA filename : DKA100:[ENV_ALPHA.QA.W]W068.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:46 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.294113 through 0.304839

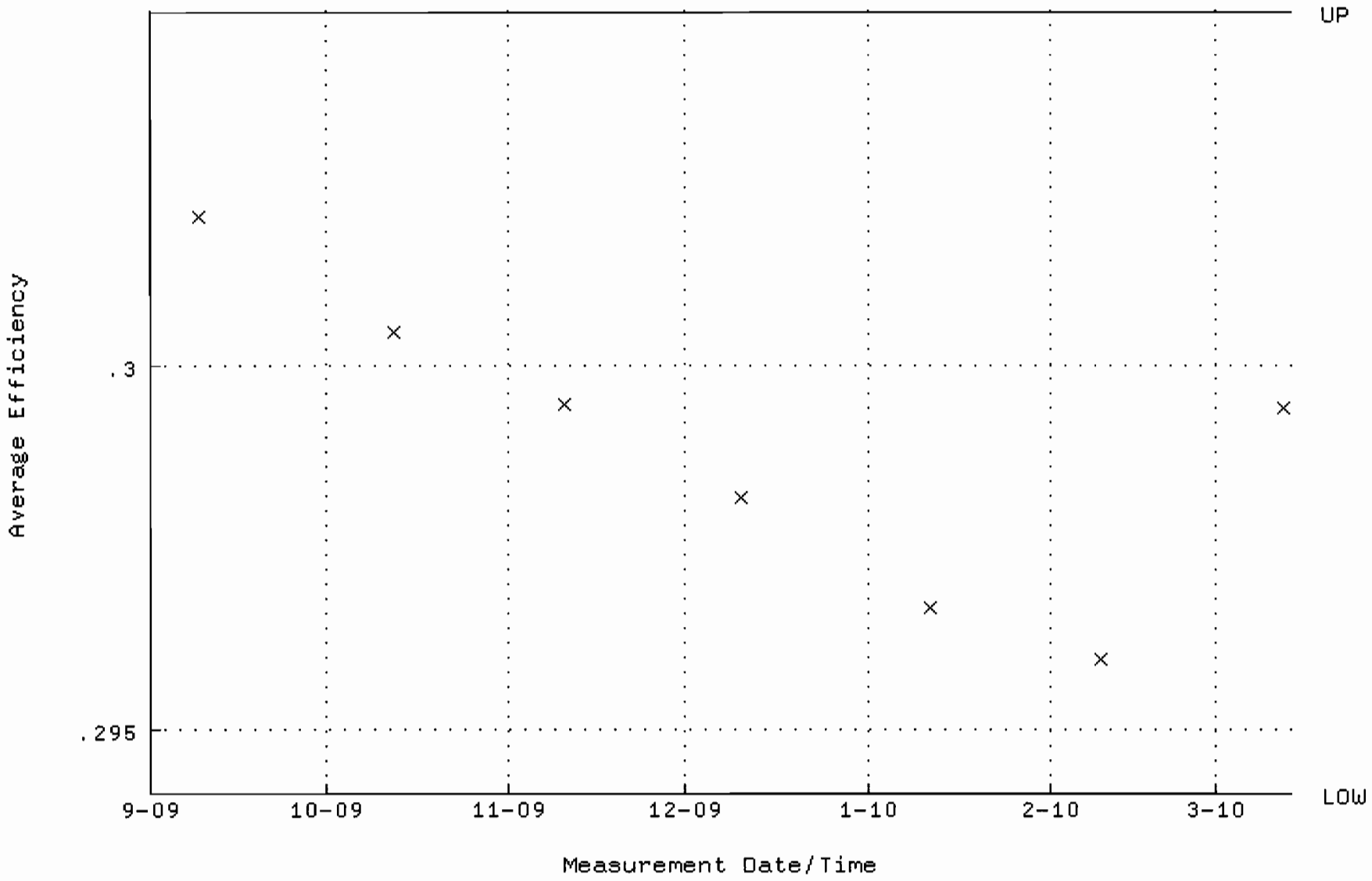

QA filename : DKA100:[ENV_ALPHA.QA.W]W068.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:46 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 90.0941 through 93.9543

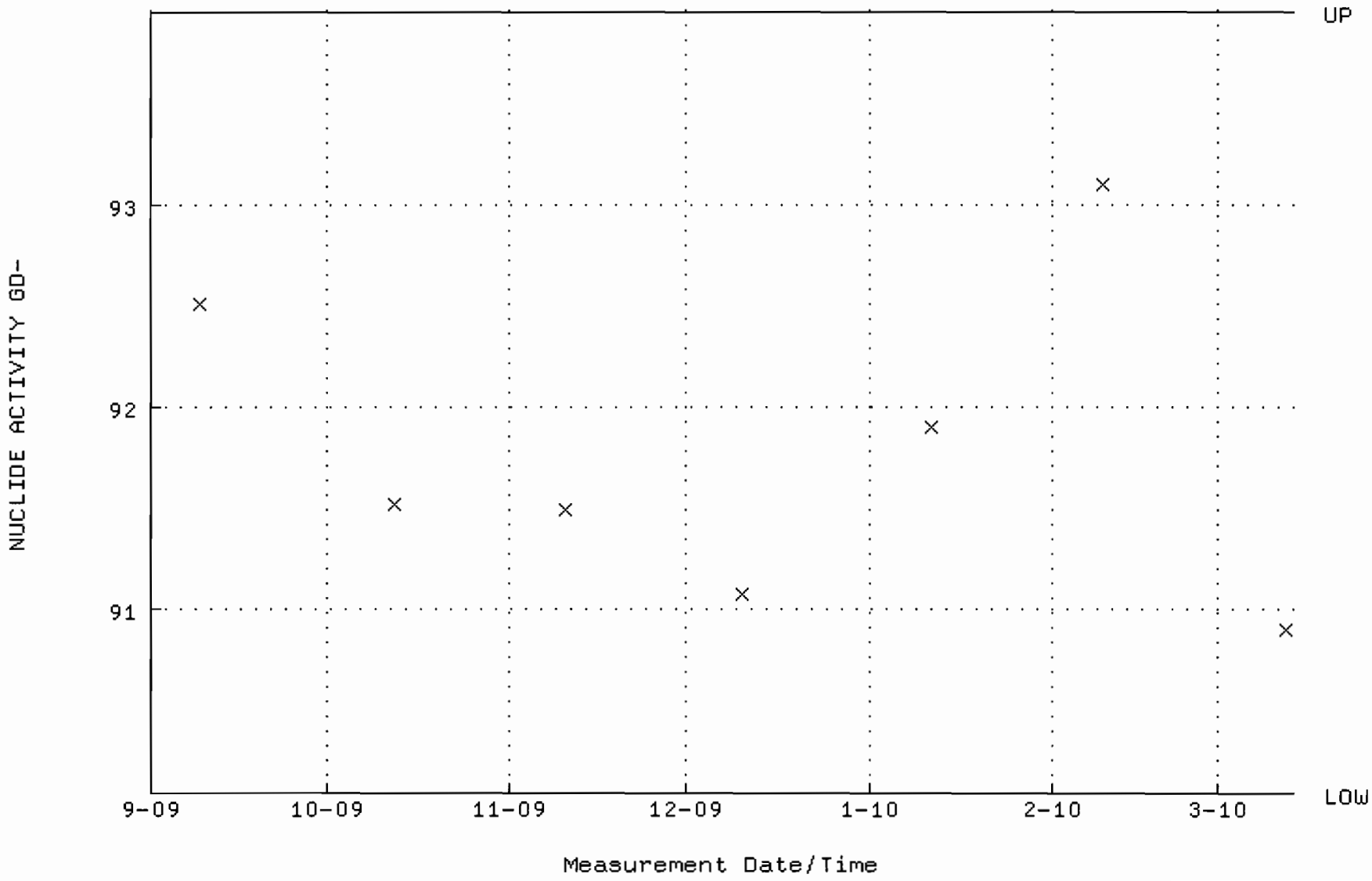

QA filename : DKA100:[ENV_ALPHA.QA.B]B068.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:07 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

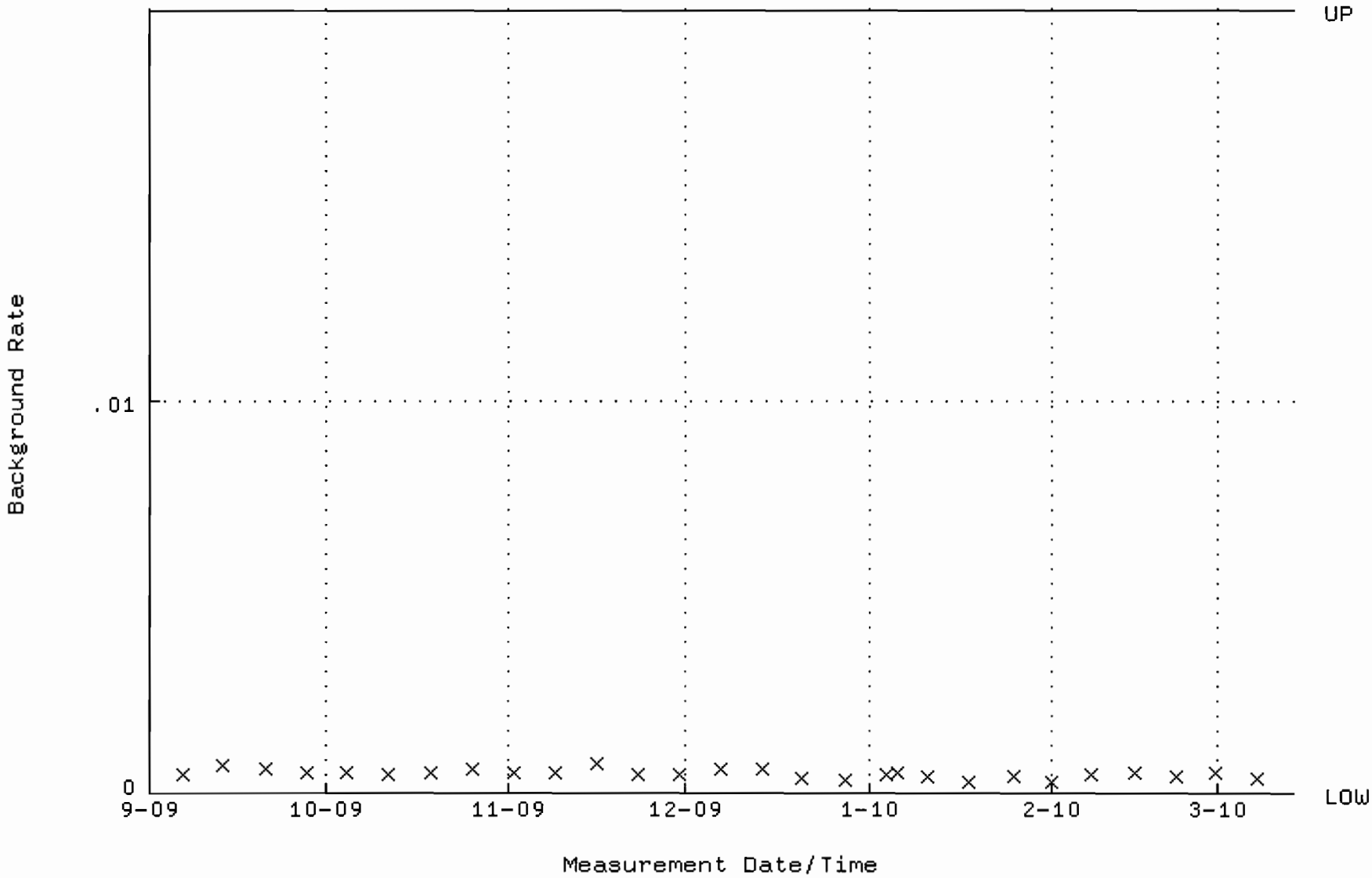

QA filename : DKA100:[ENV_ALPHA.QA.W]W105.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-SEP-2009 08:05:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.309544 through 0.338666

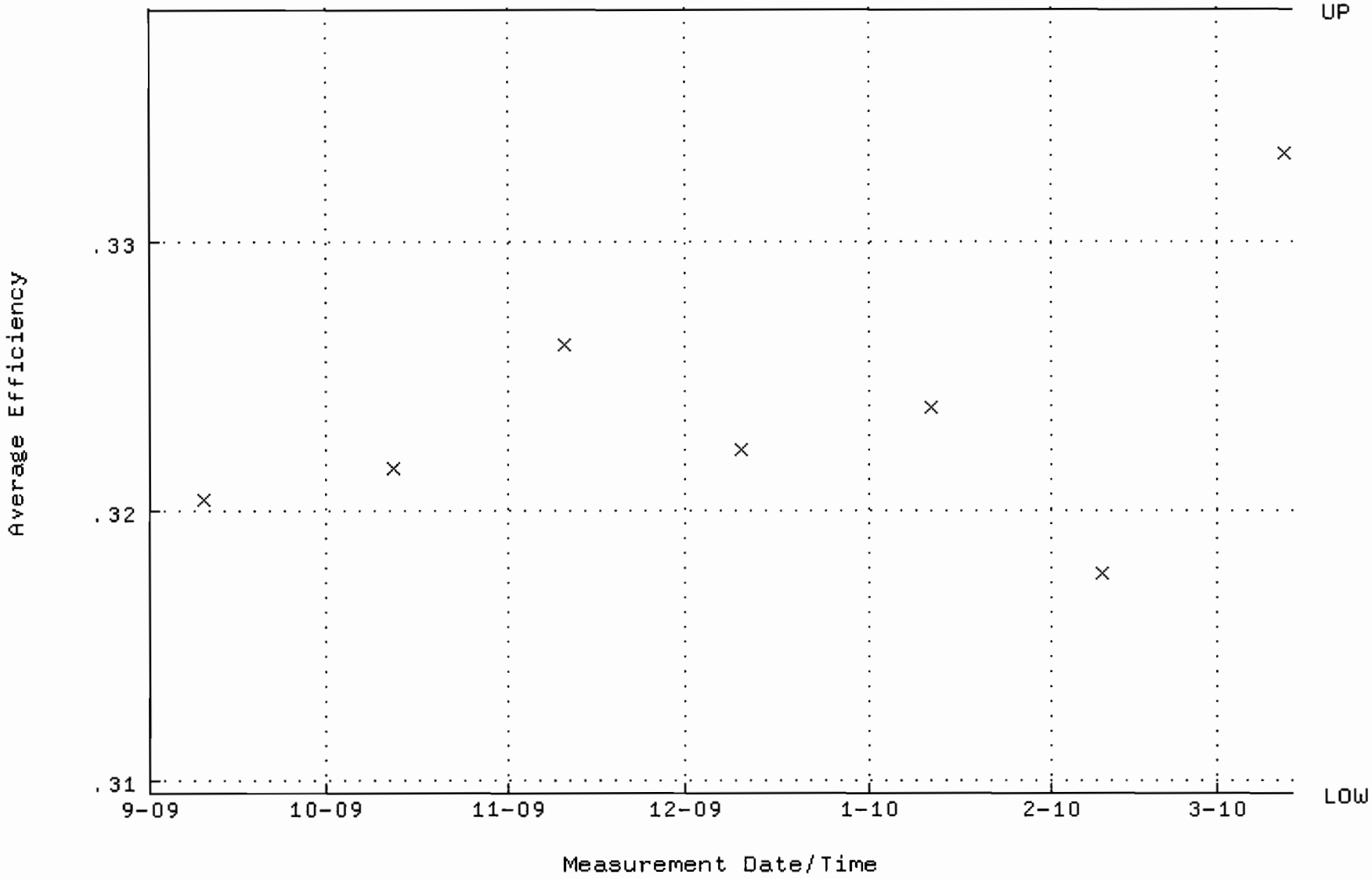

QA filename : DKA100:[ENV_ALPHA.QA.W]W105.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-SEP-2009 08:05:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 67.6585 through 76.2091

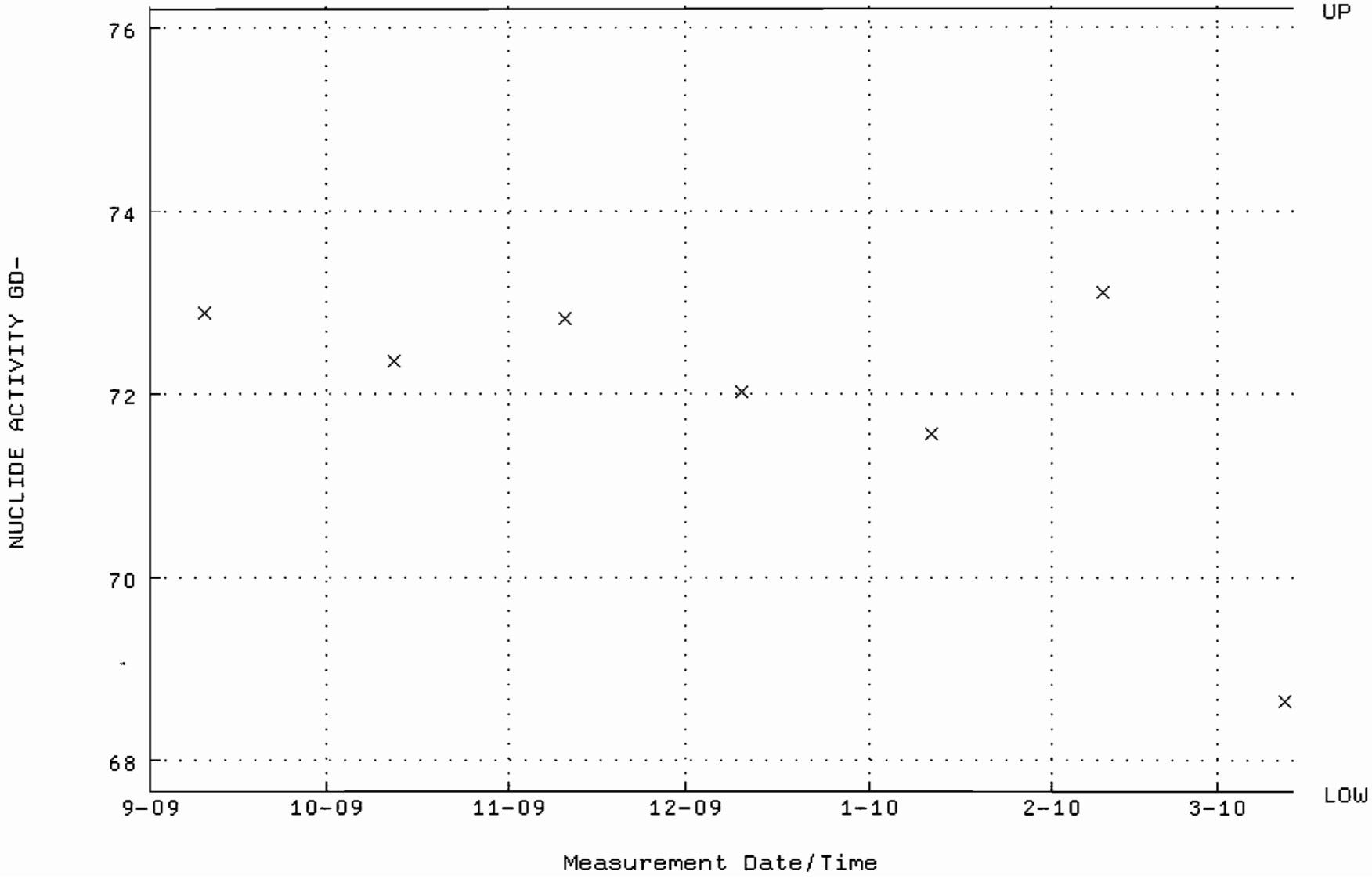

QA filename : DKA100:[ENV_ALPHA.QA.B]B105.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

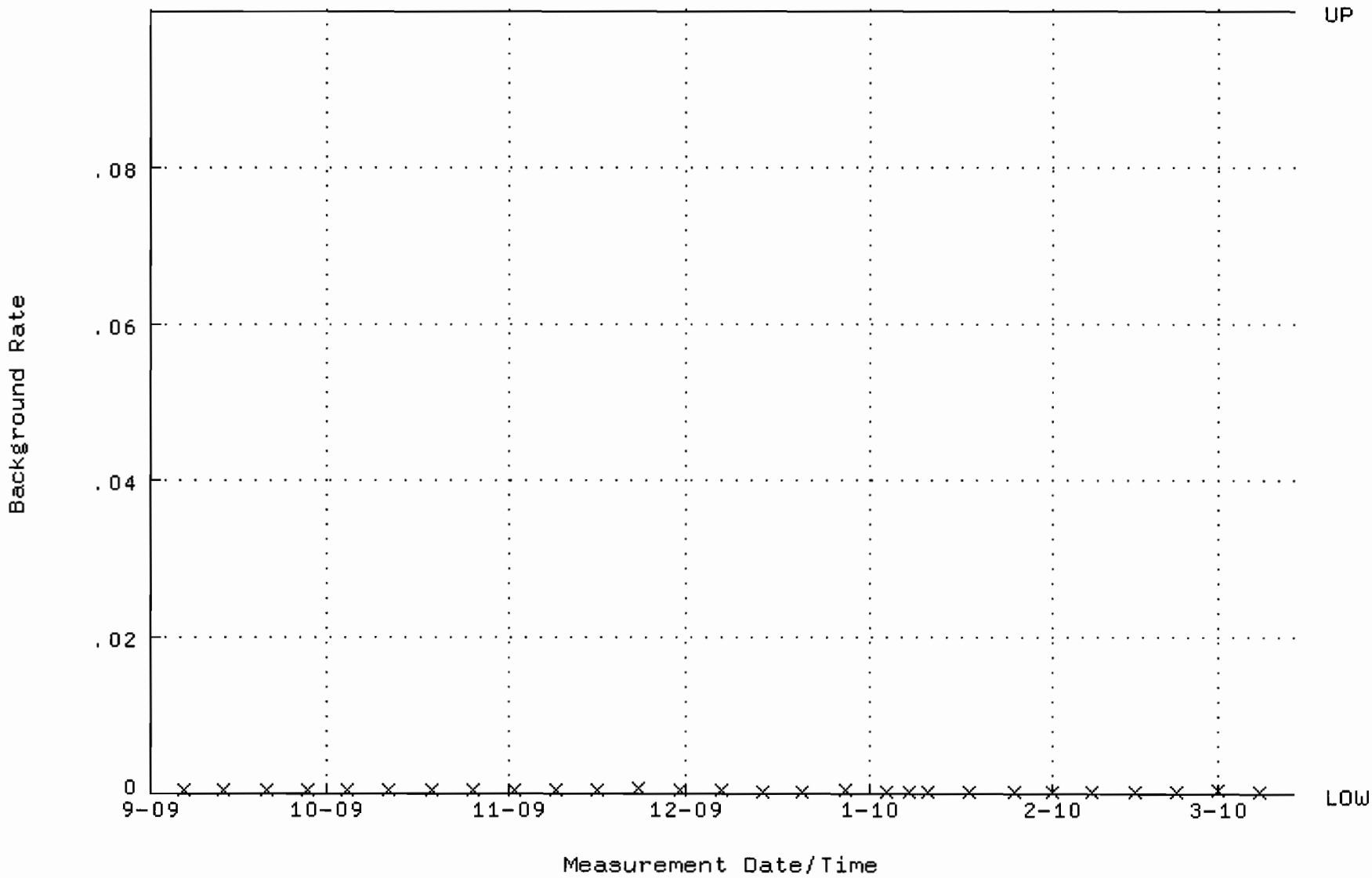

QA filename : DKA100:[ENV_ALPHA.QA.W]W112.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.297499 through 0.340389

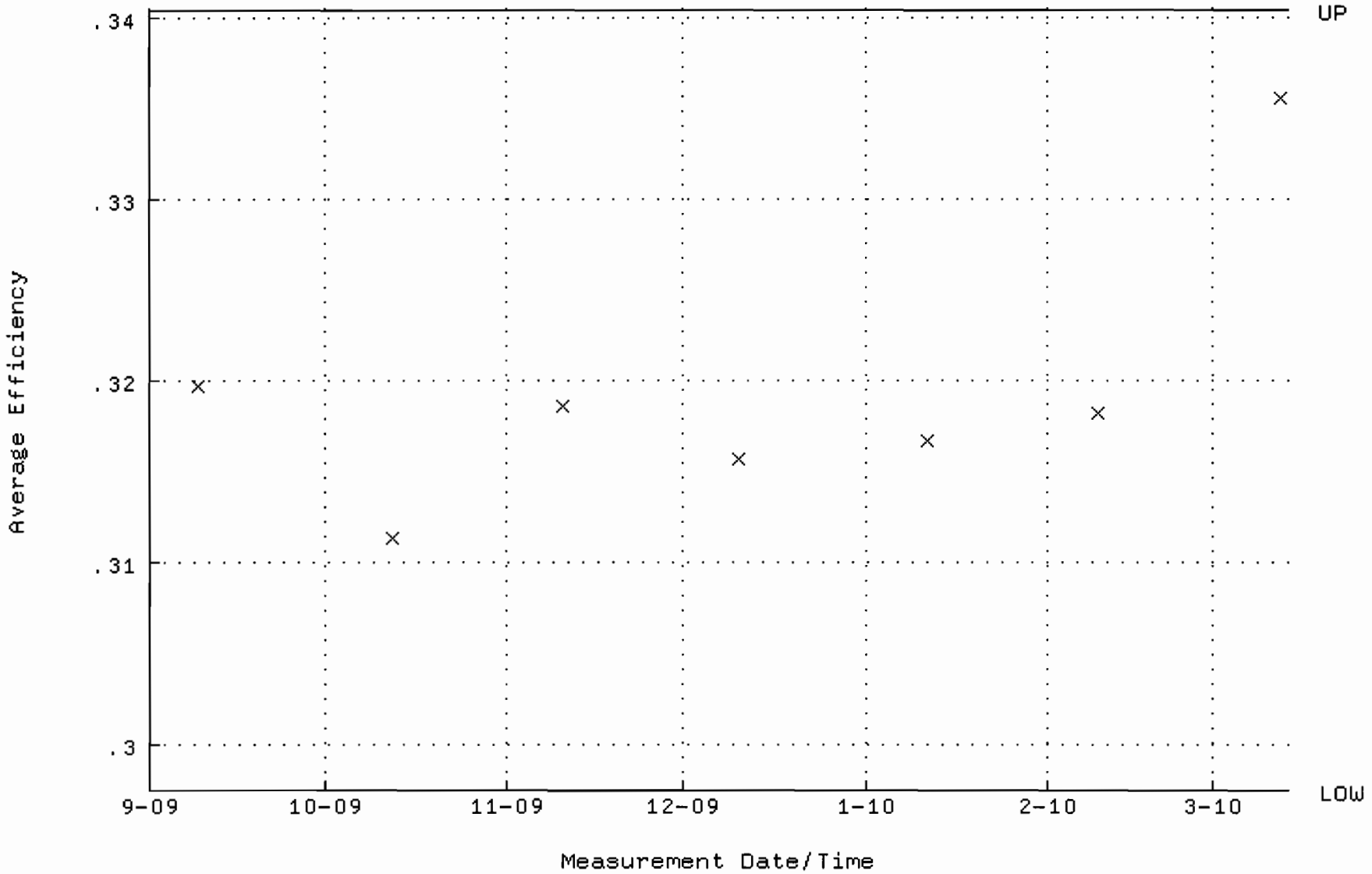

QA filename : DKA100:[ENV_ALPHA.QA.W]W112.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 63.4111 through 72.0947

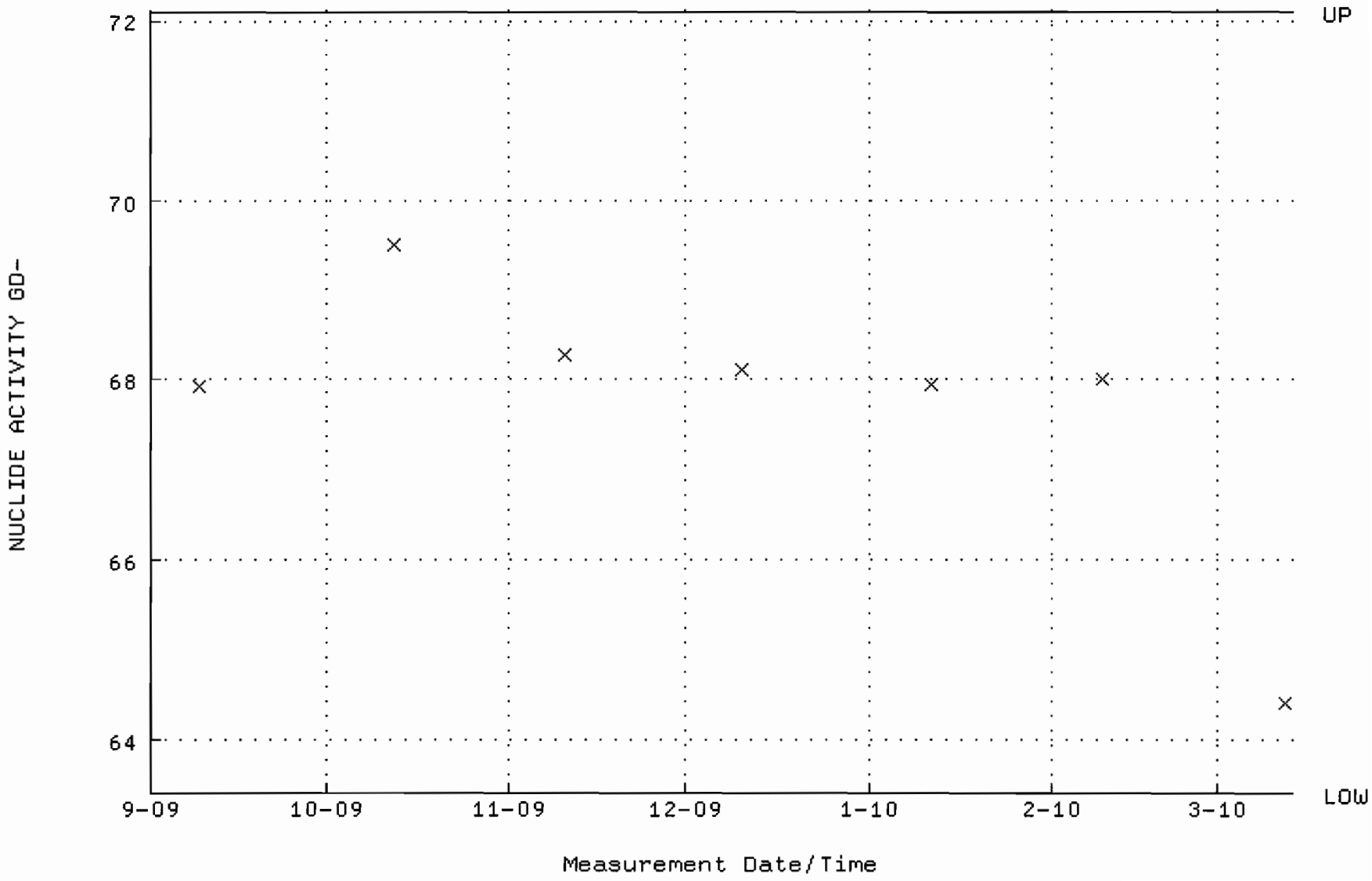

QA filename : DKA100:[ENV_ALPHA.QA.B]B112.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:12 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

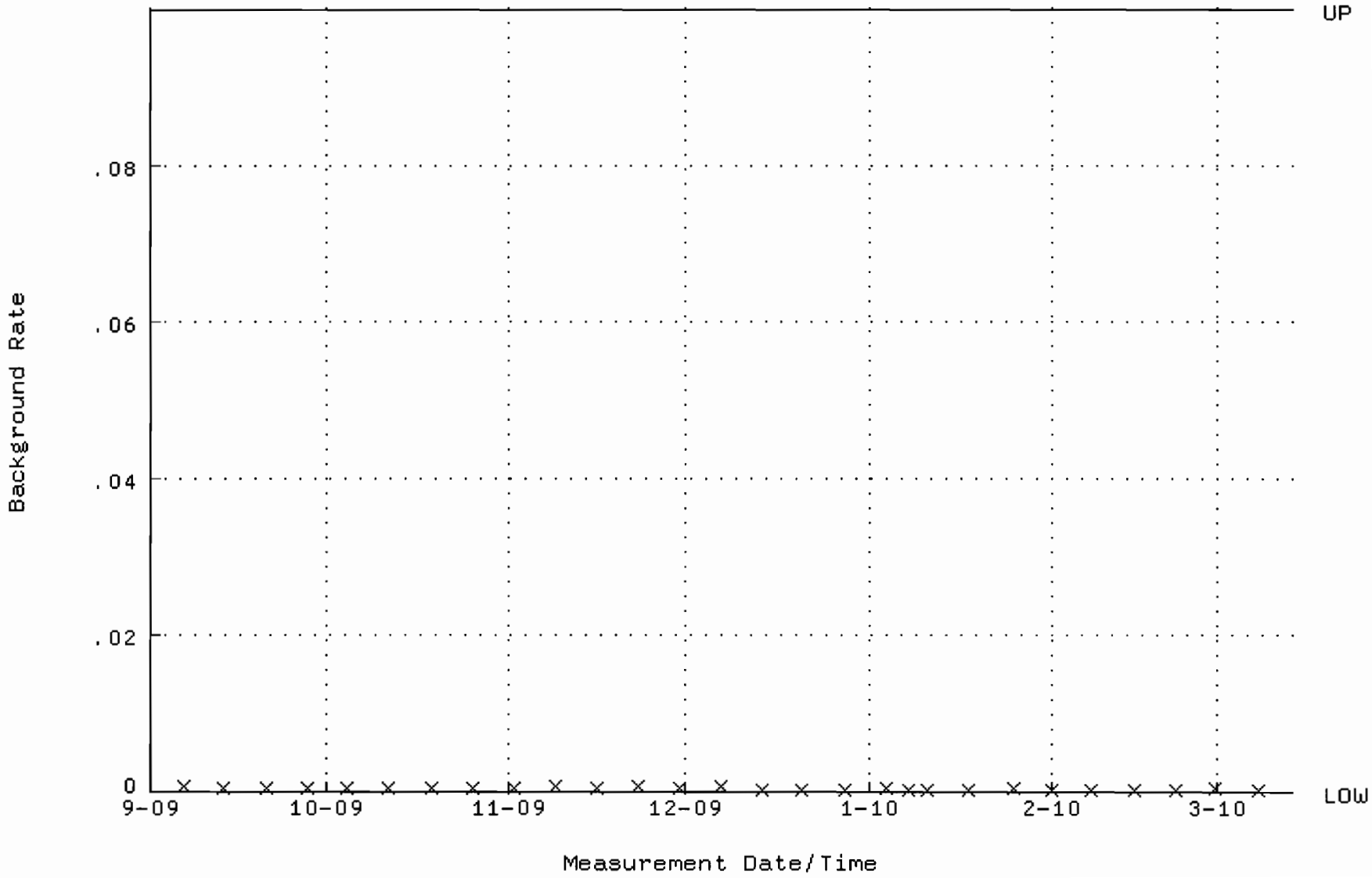

QA filename : DKA100:[ENV_ALPHA.QA.W]W161.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:28:18 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.346063 through 0.395257

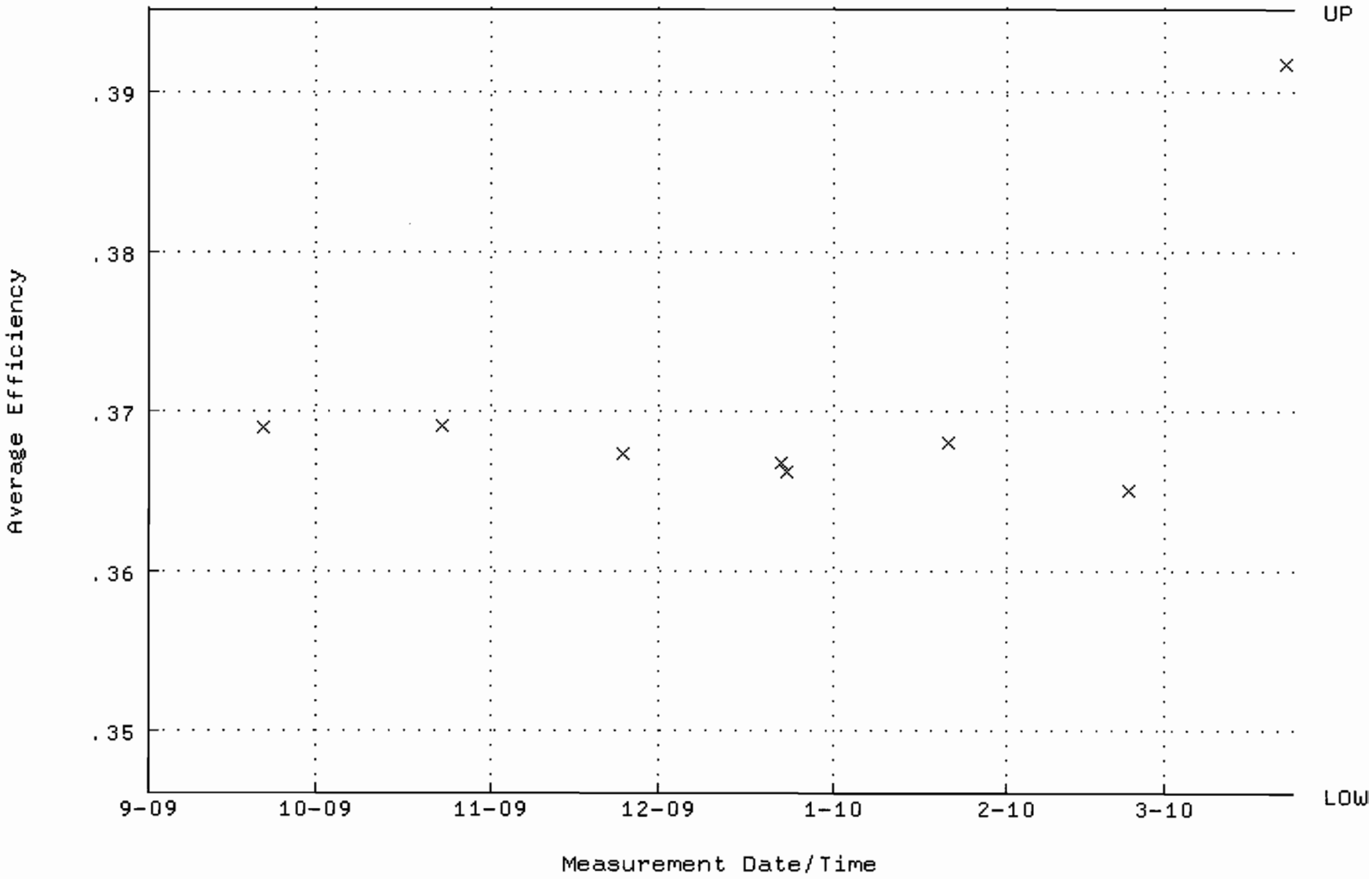

QA filename : DKA100:[ENV_ALPHA.QA.W]W161.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:28:18 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 84.0330 through 94.7716

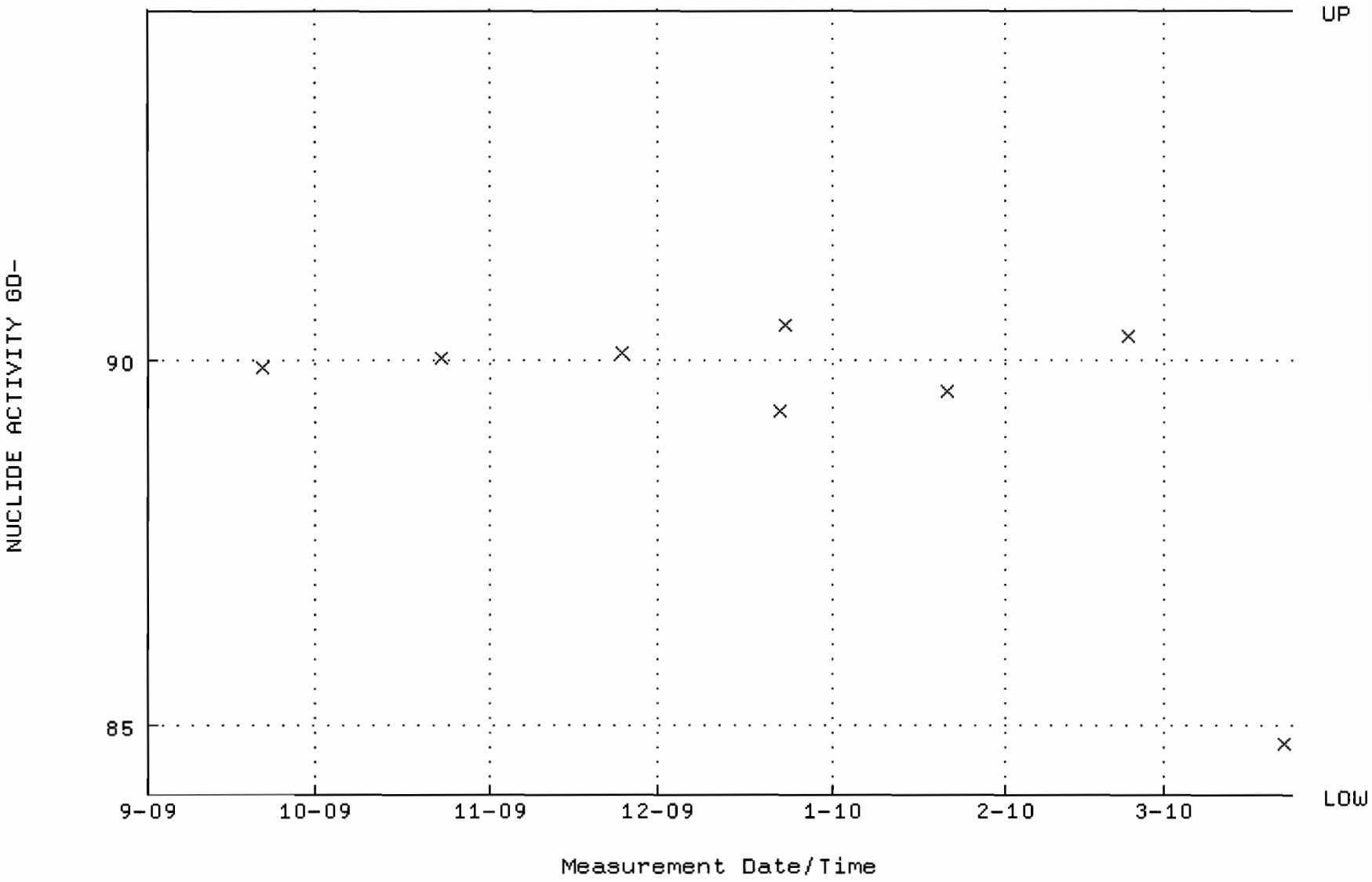

QA filename : DKA100:[ENV_ALPHA.QA.B]B161.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:44:12 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

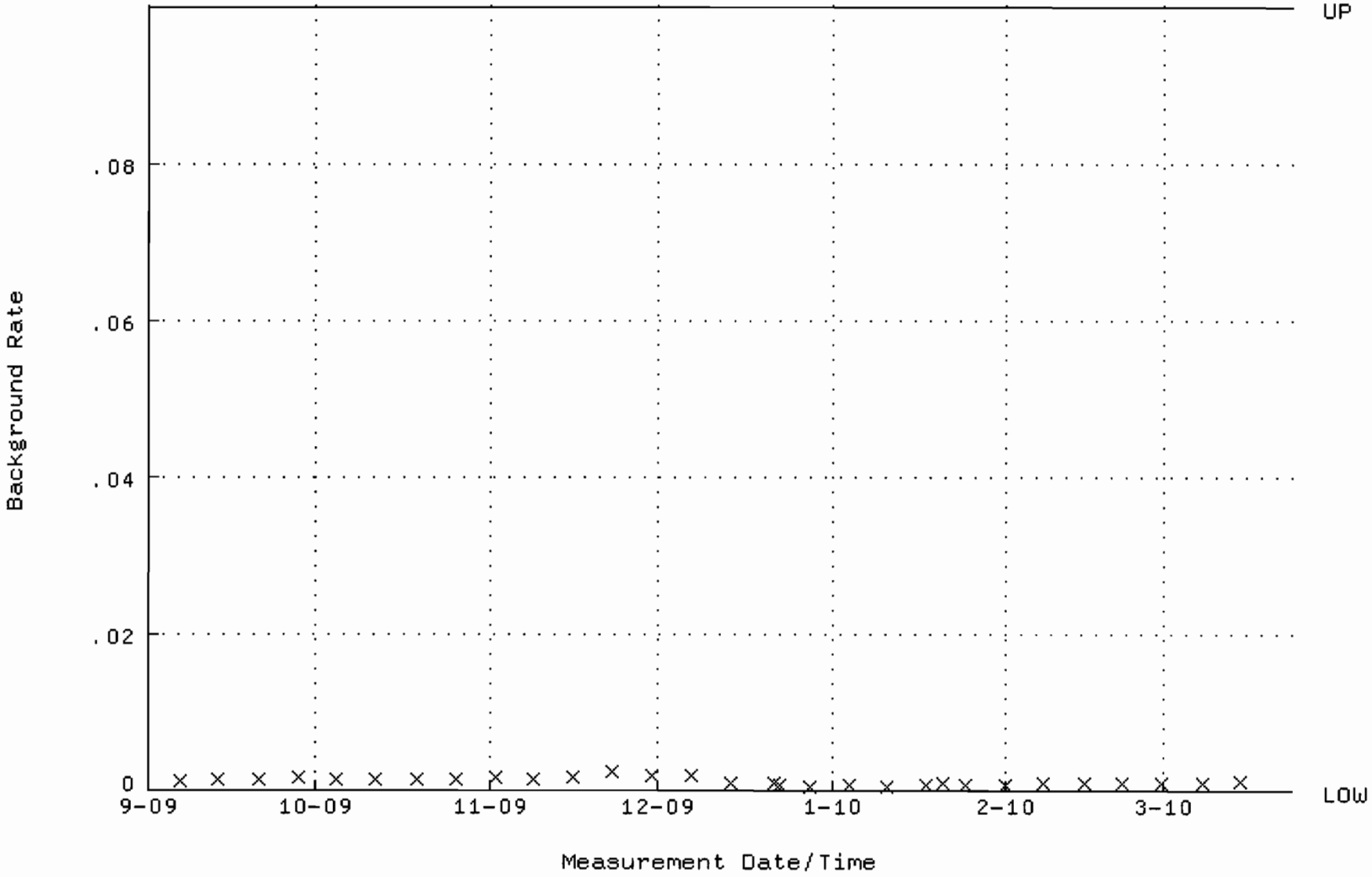

QA filename : DKA100:[ENV_ALPHA.QA.W]W162.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:28:25 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.363287 through 0.383287

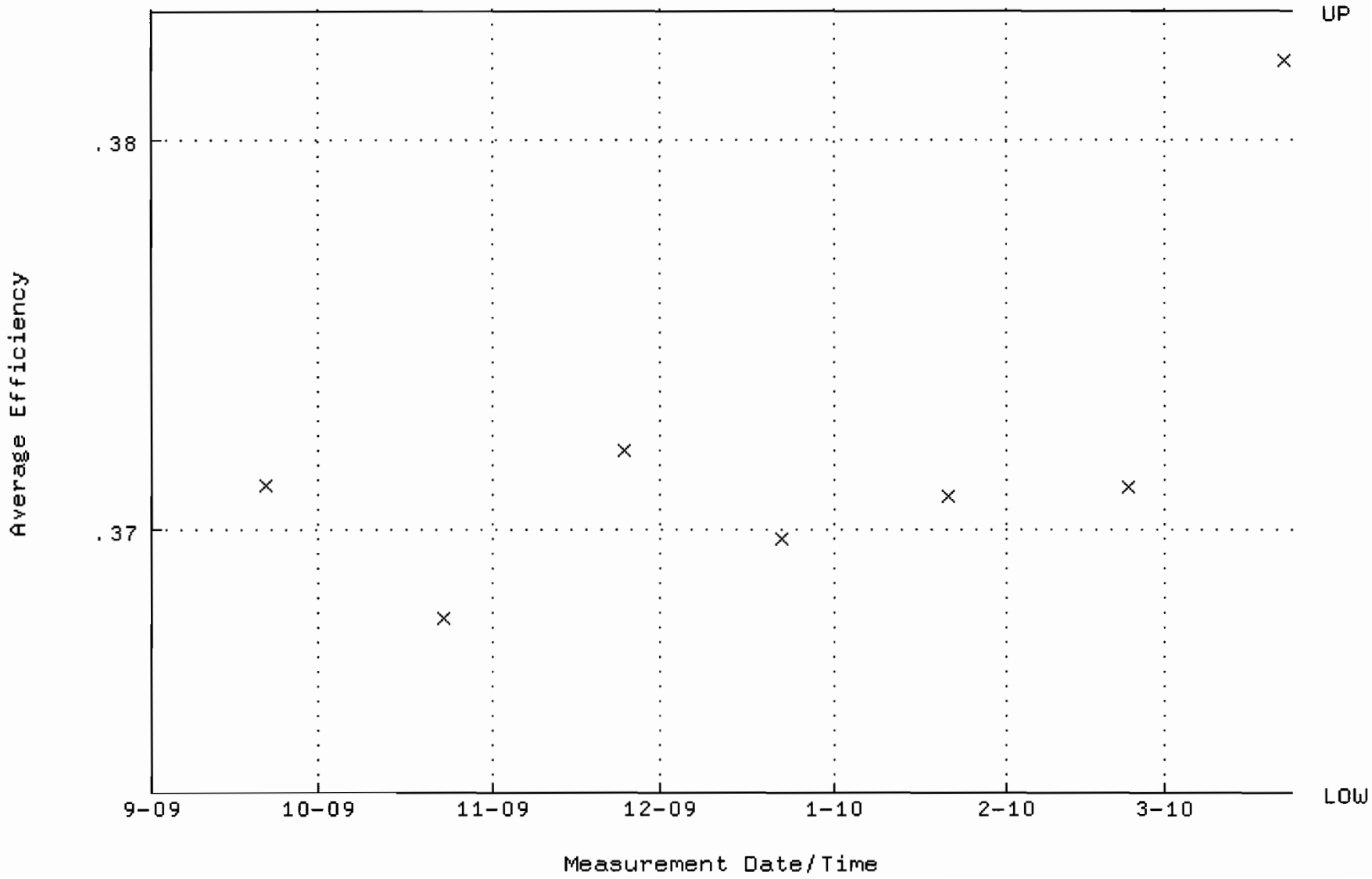

QA filename : DKA100:[ENV_ALPHA.QA.W]W162.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:28:25 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.8969 through 94.9387

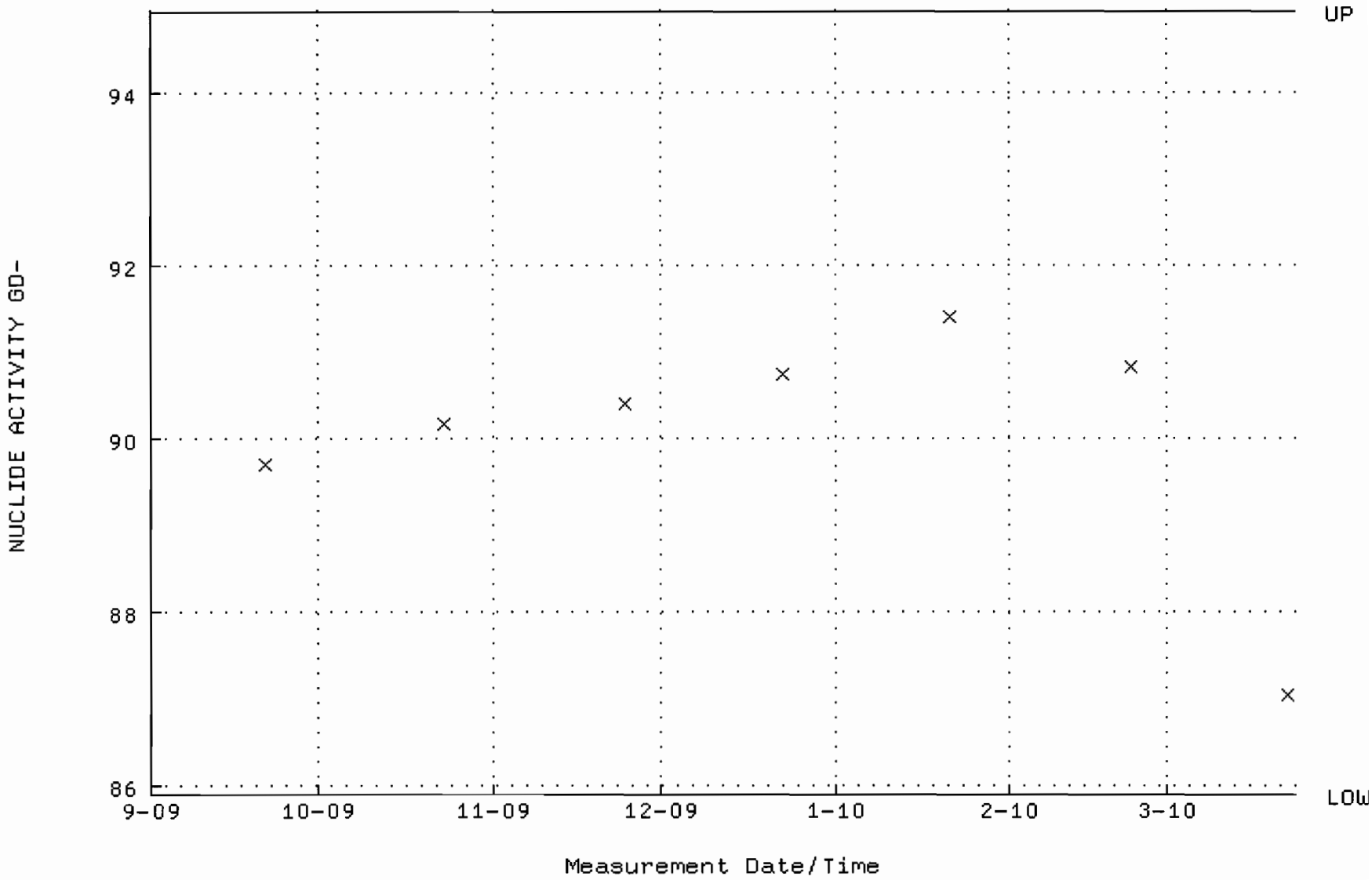

QA filename : DKA100:[ENV_ALPHA.QA.B]B162.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:44:17 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

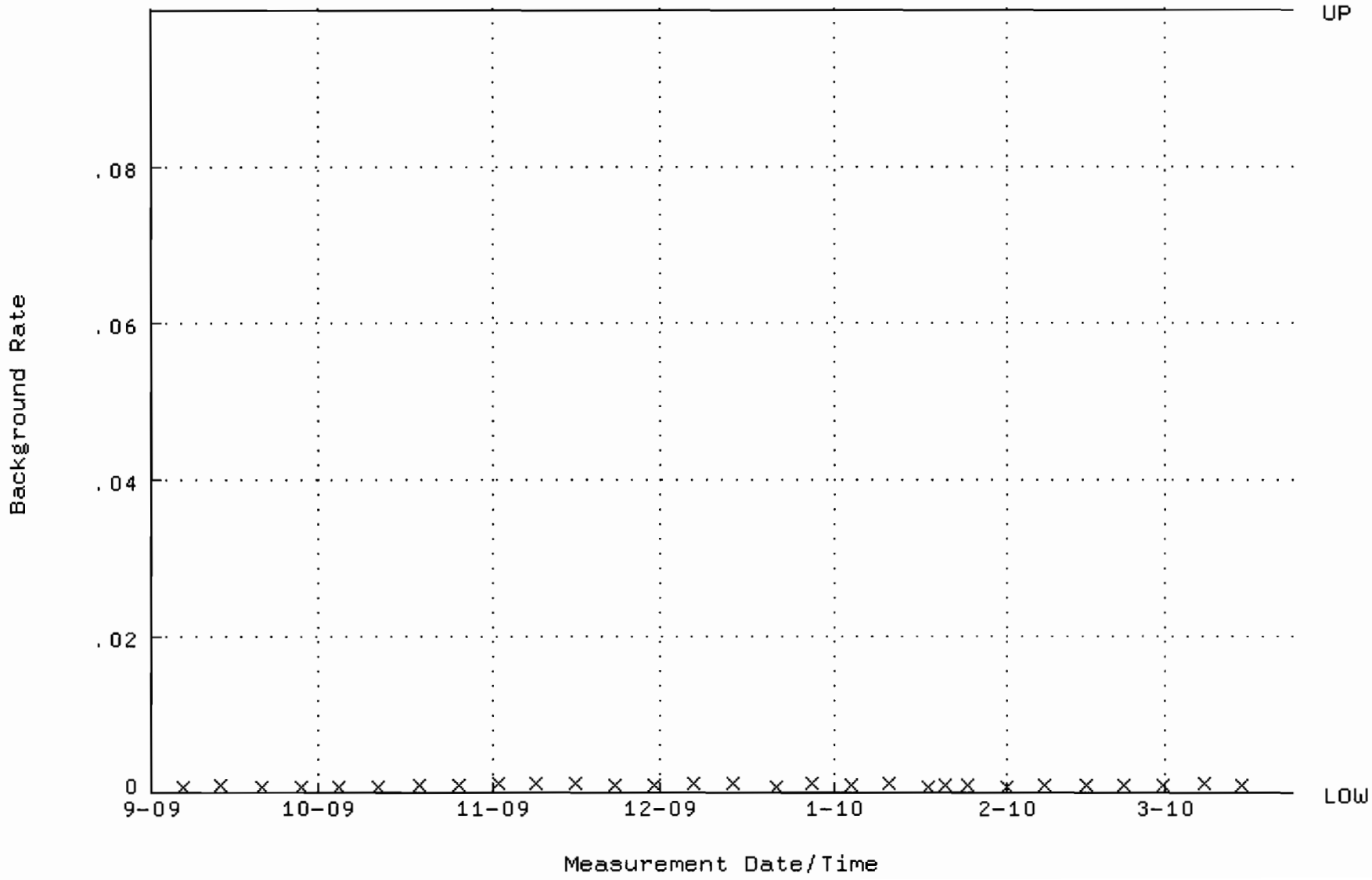

QA filename : DKA100:[ENV_ALPHA.QA.W]W171.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:29:26 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.361650 through 0.408748

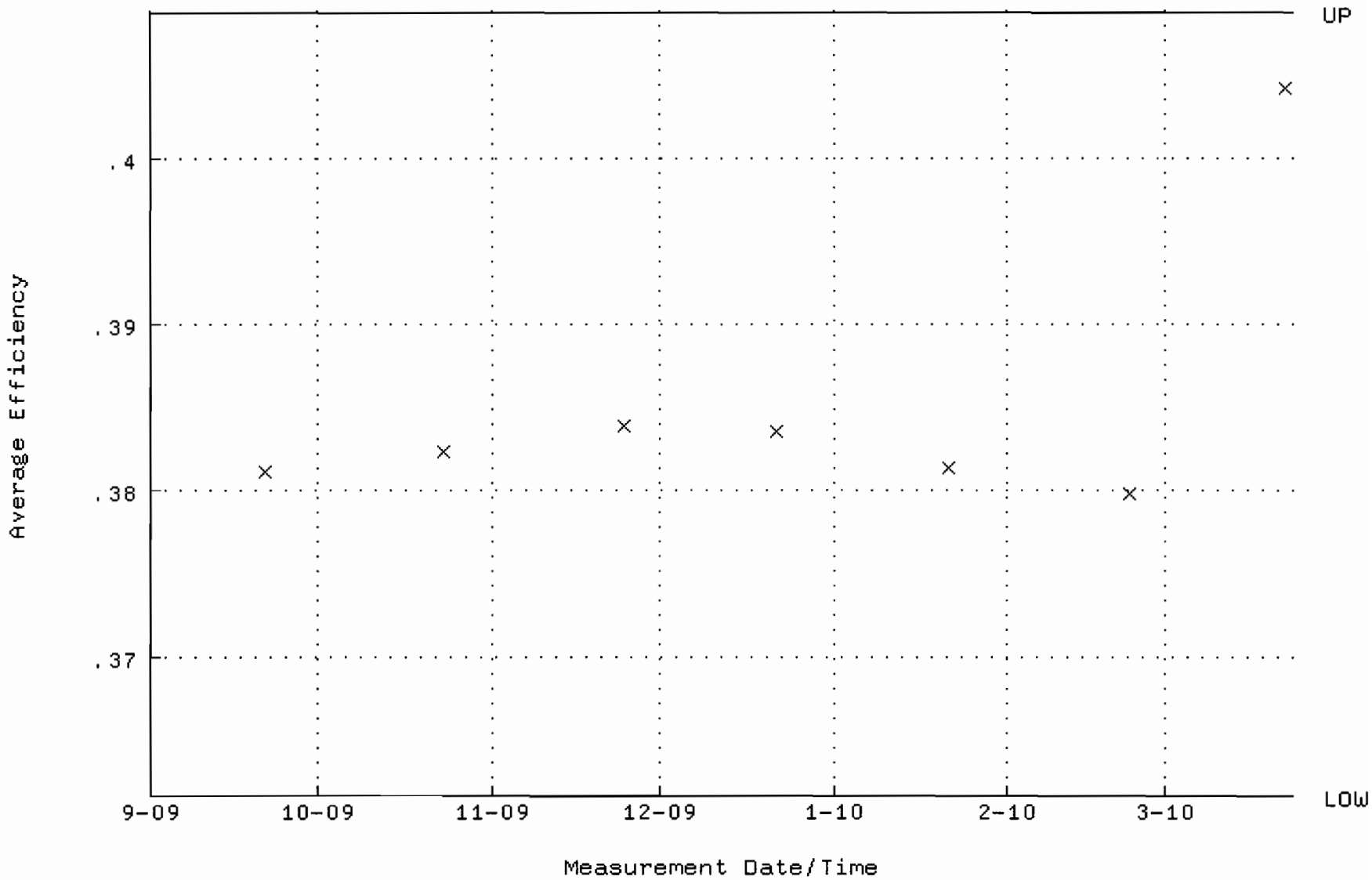

QA filename : DKA100:[ENV_ALPHA.QA.W]W171.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:29:26 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 83.4334 through 94.2602

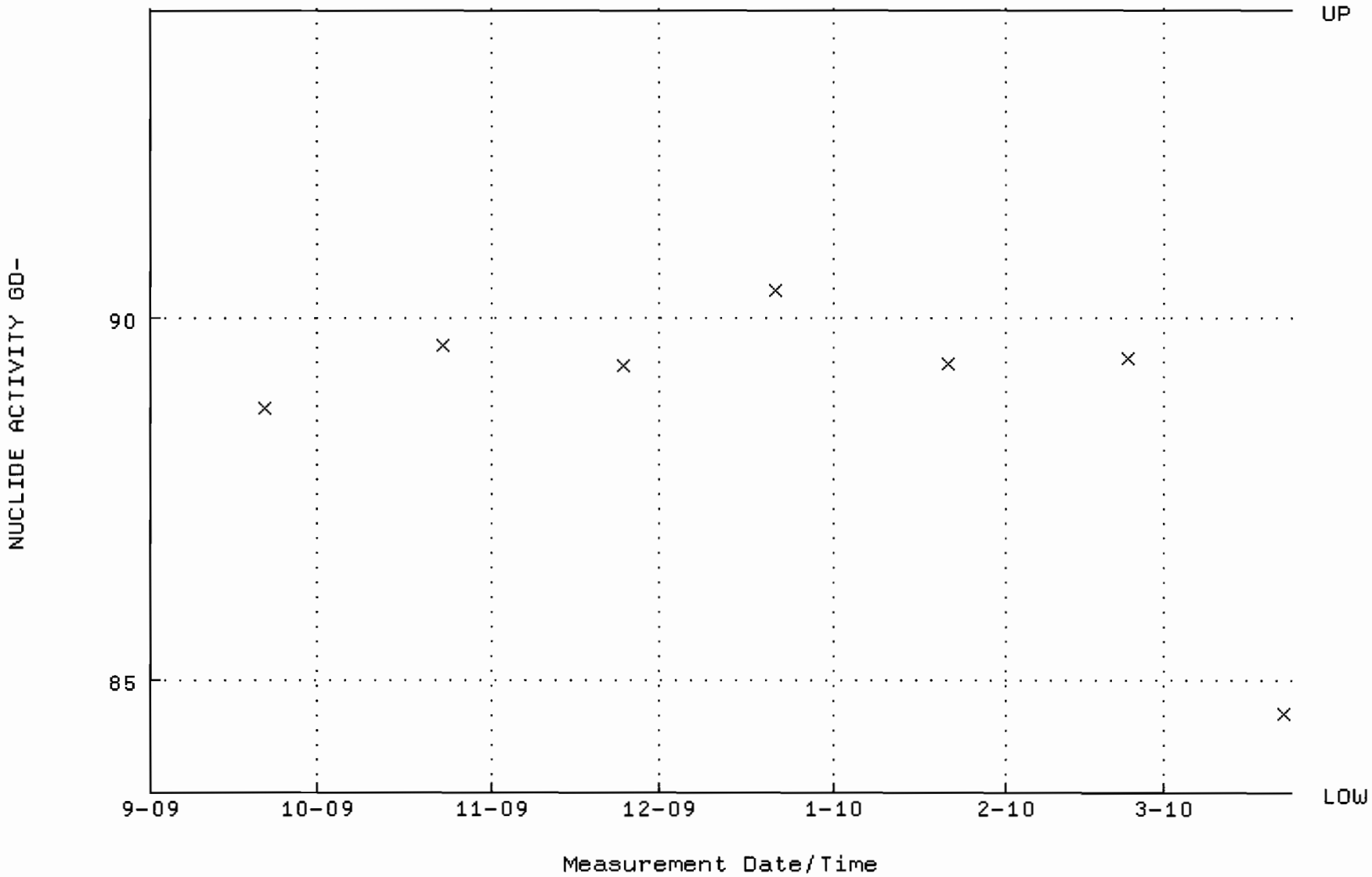

QA filename : DKA100:[ENV_ALPHA.QA.B]B171.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:44:58 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

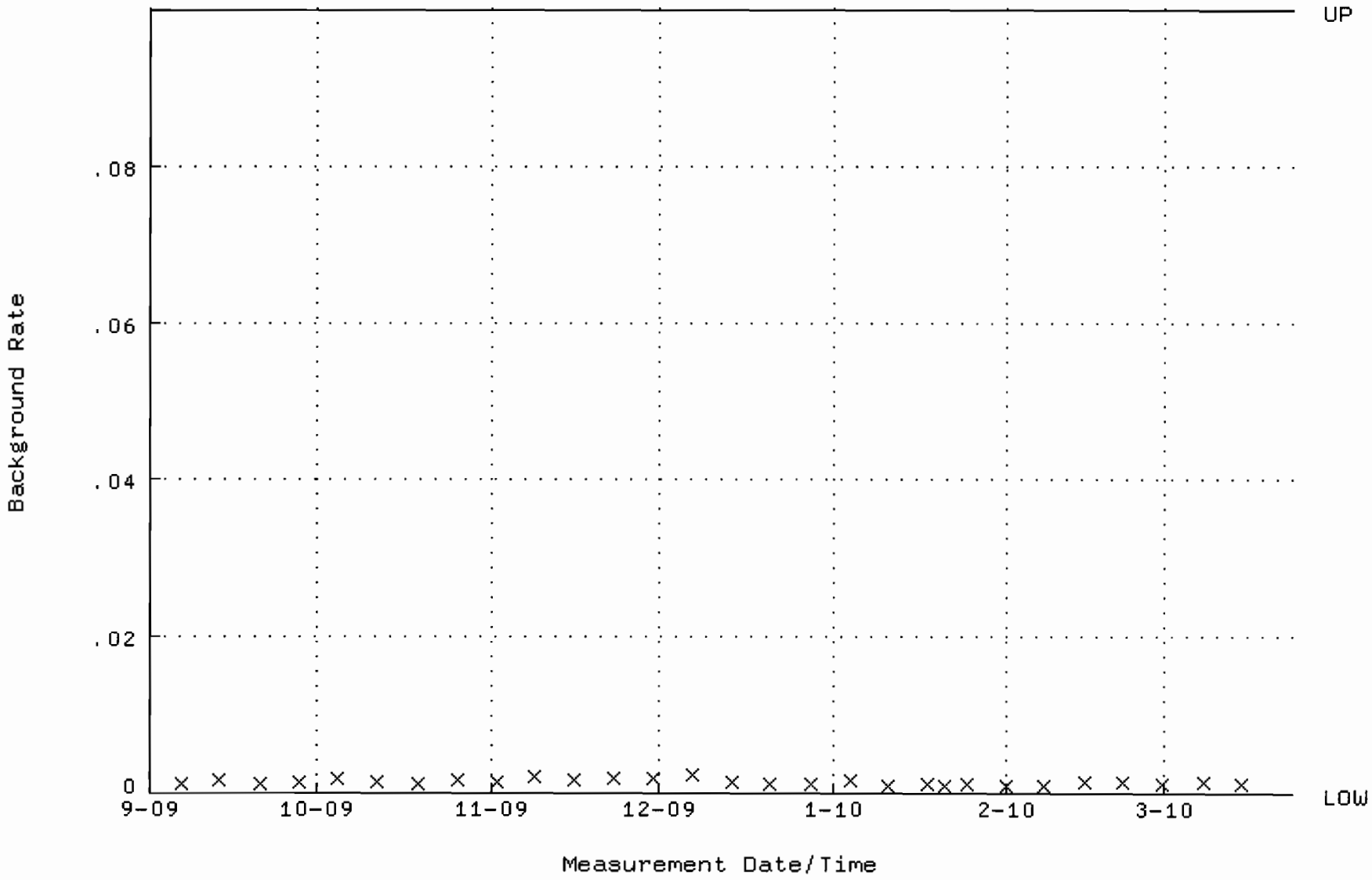

QA filename : DKA100:[ENV_ALPHA.QA.W]W210.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:36:29 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.371205 through 0.402649

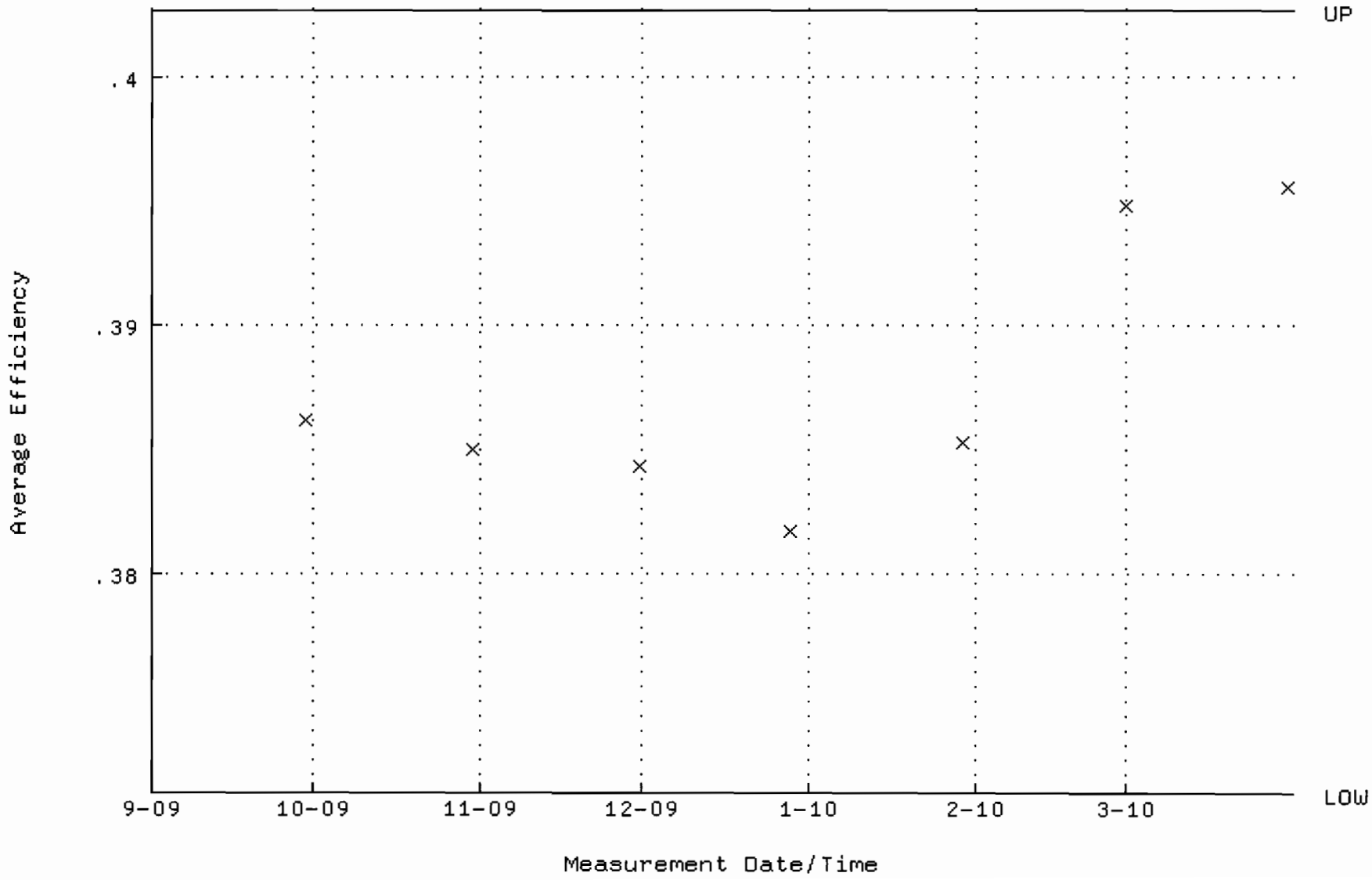

QA filename : DKA100:[ENV_ALPHA.QA.W]W210.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:36:29 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 84.5109 through 94.3421

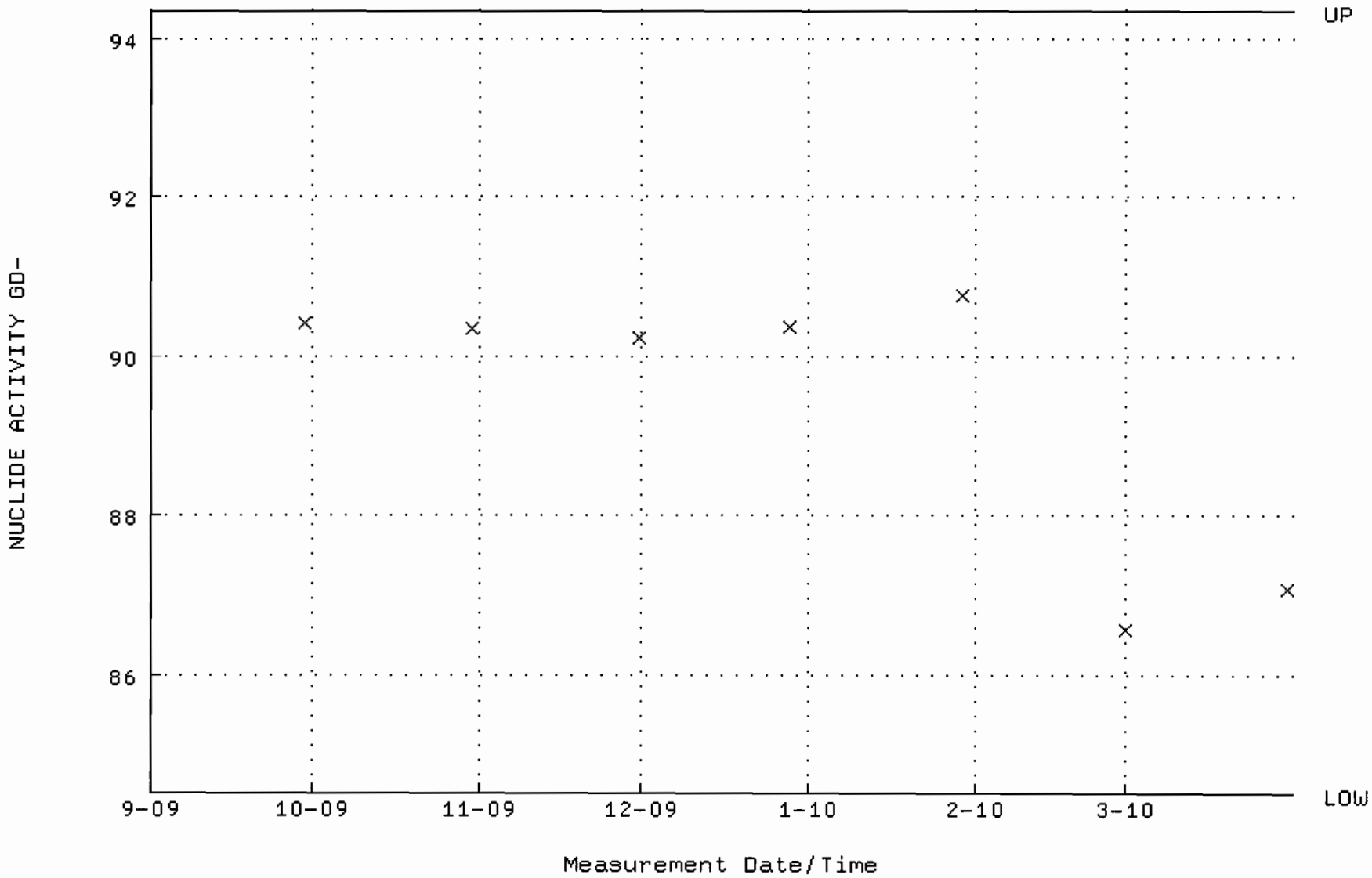

QA filename : DKA100:[ENV_ALPHA.QA.B]B210.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:48:26 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

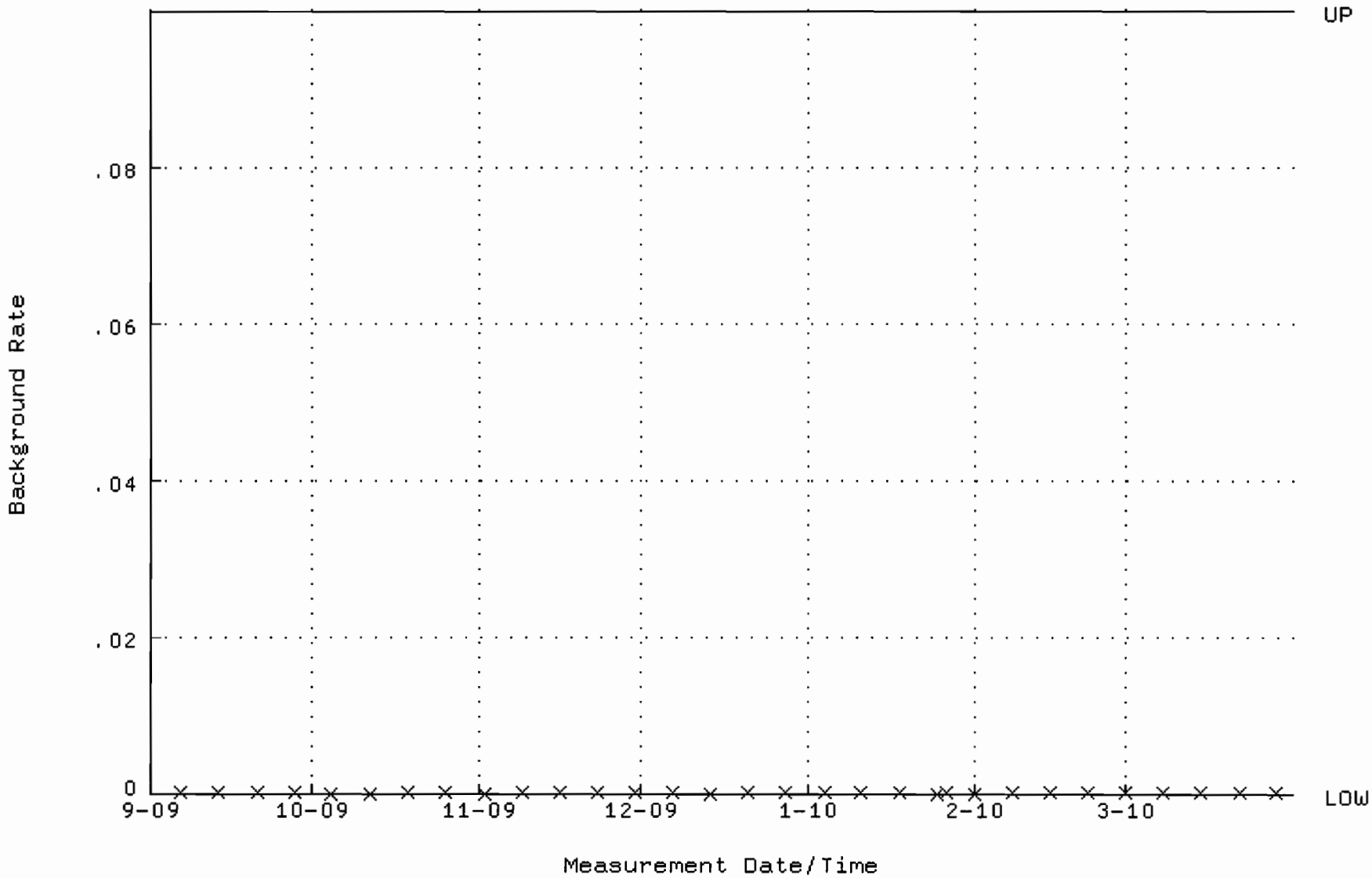

QA filename : DKA100:[ENV_ALPHA.QA.W]W213.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:36:44 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.363867 through 0.385287

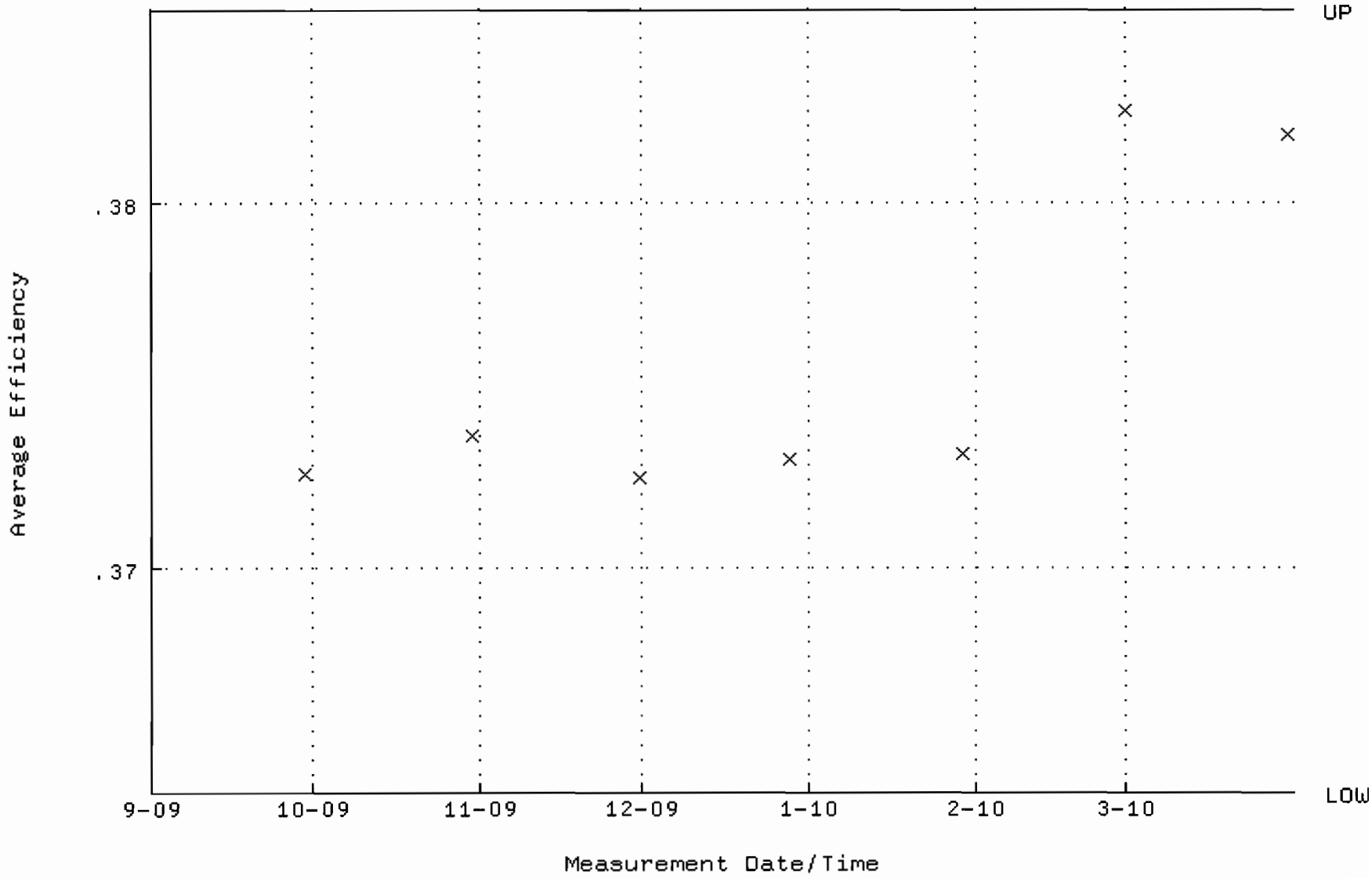

QA filename : DKA100:[ENV_ALPHA.QA.W]W213.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:36:44 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 85.8876 through 92.2476

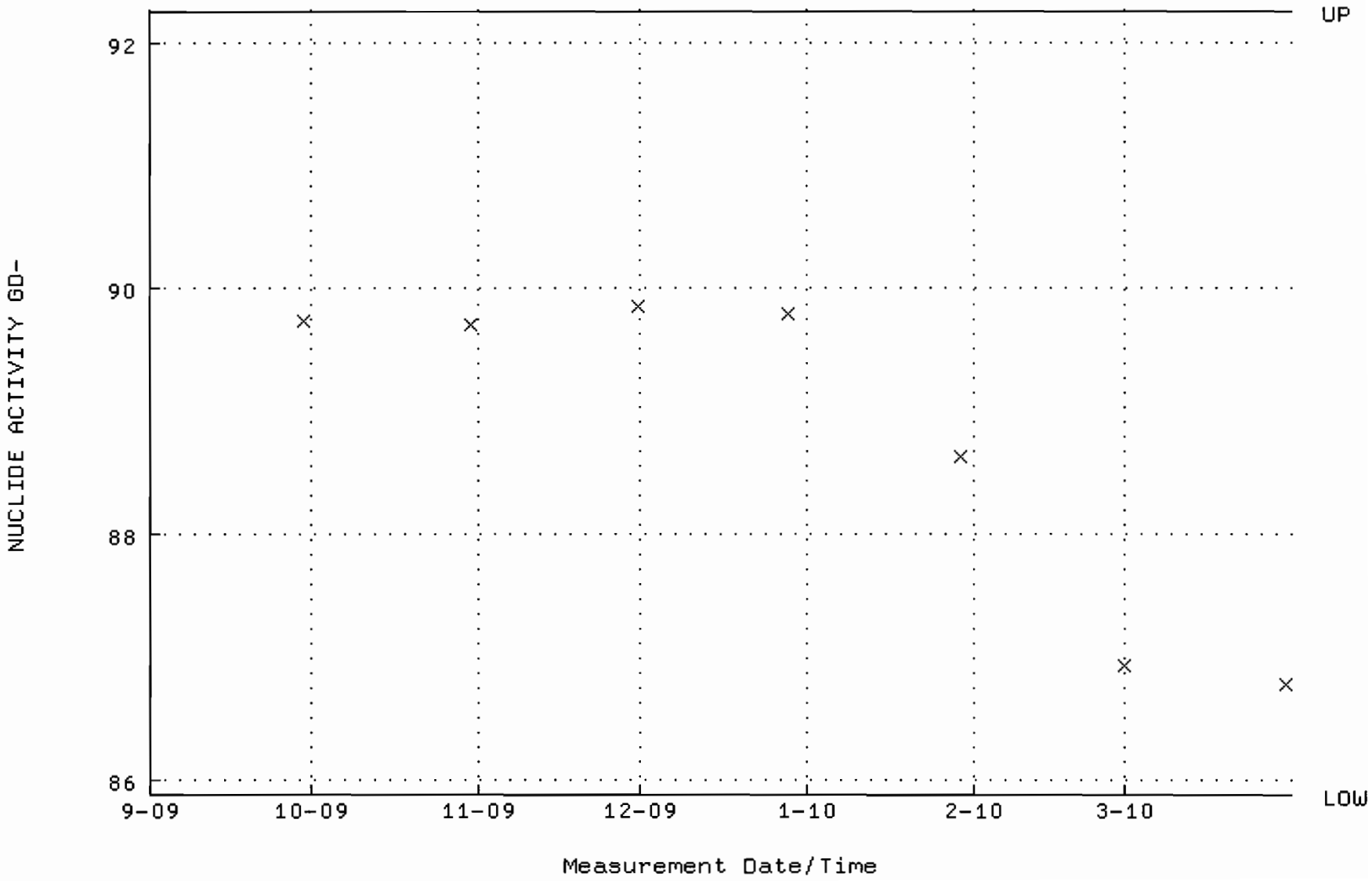

QA filename : DKA100:[ENV_ALPHA.QA.B]B213.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:48:40 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

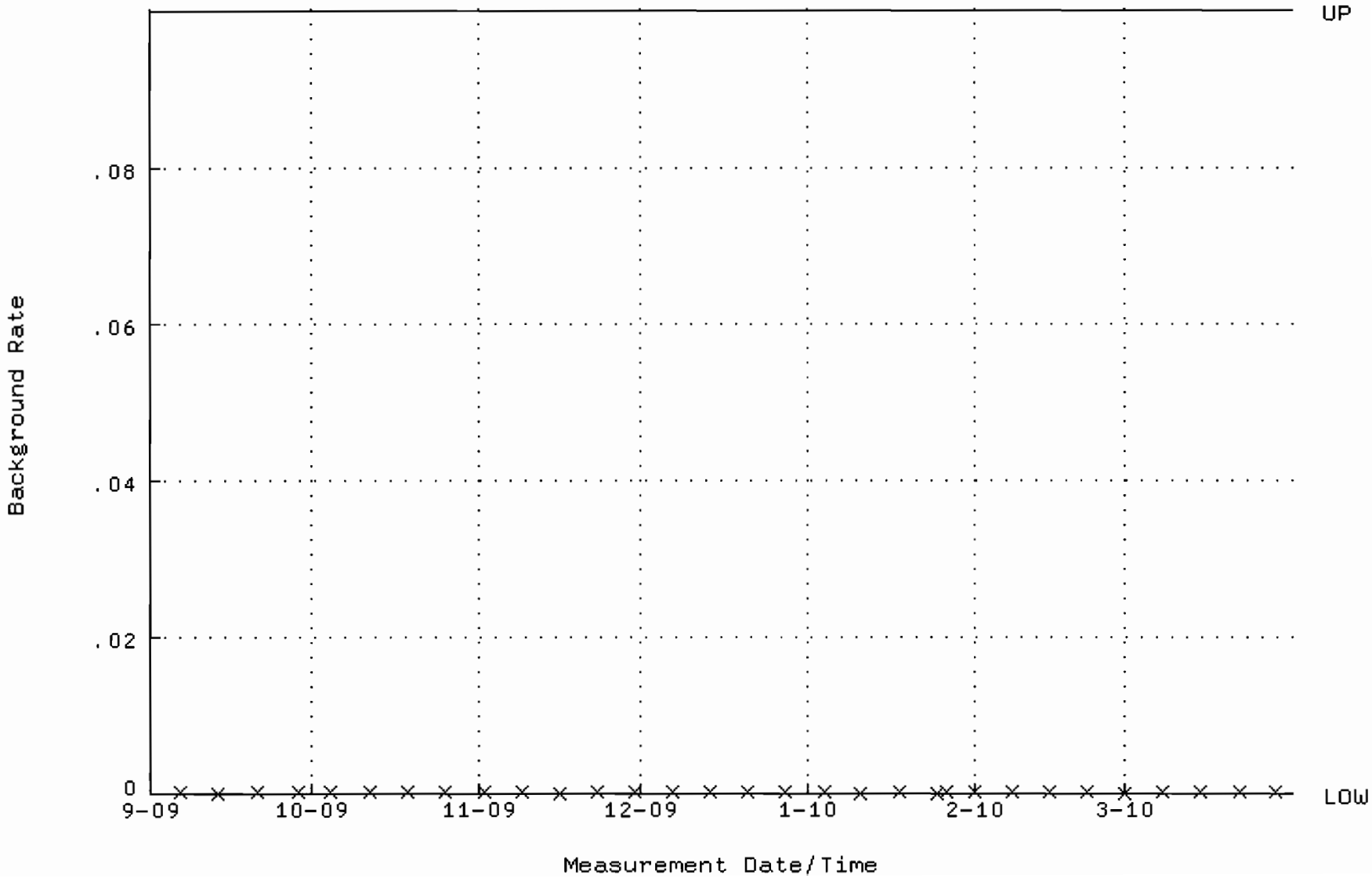

QA filename : DKA100:[ENV_ALPHA.QA.W]W228.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:09 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.359272 through 0.386096

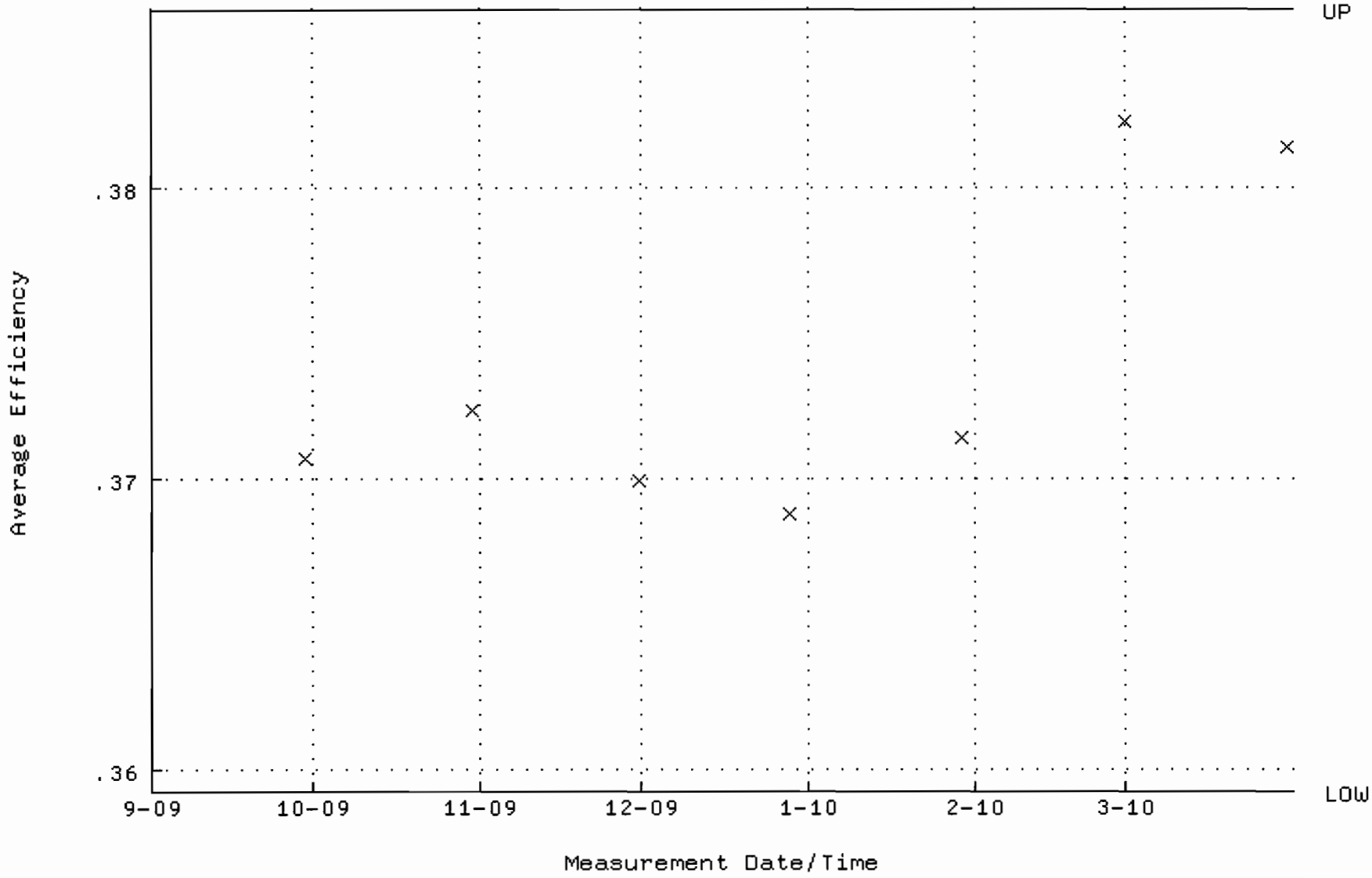

QA filename : DKA100:[ENV_ALPHA.QA.W]W228.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:09 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 87.8750 through 94.5380

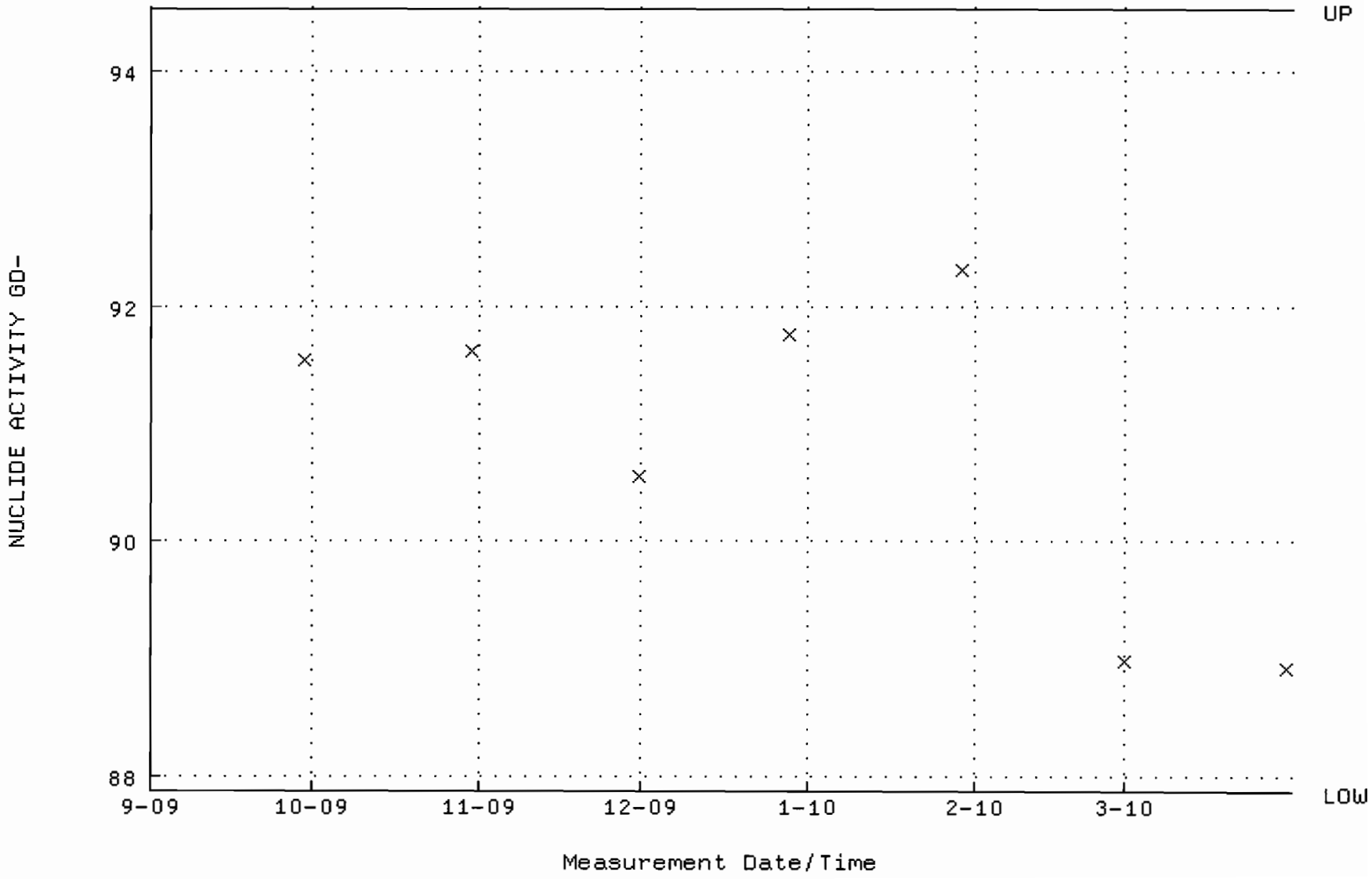

QA filename : DKA100:[ENV_ALPHA.QA.B]B228.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:49:49 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

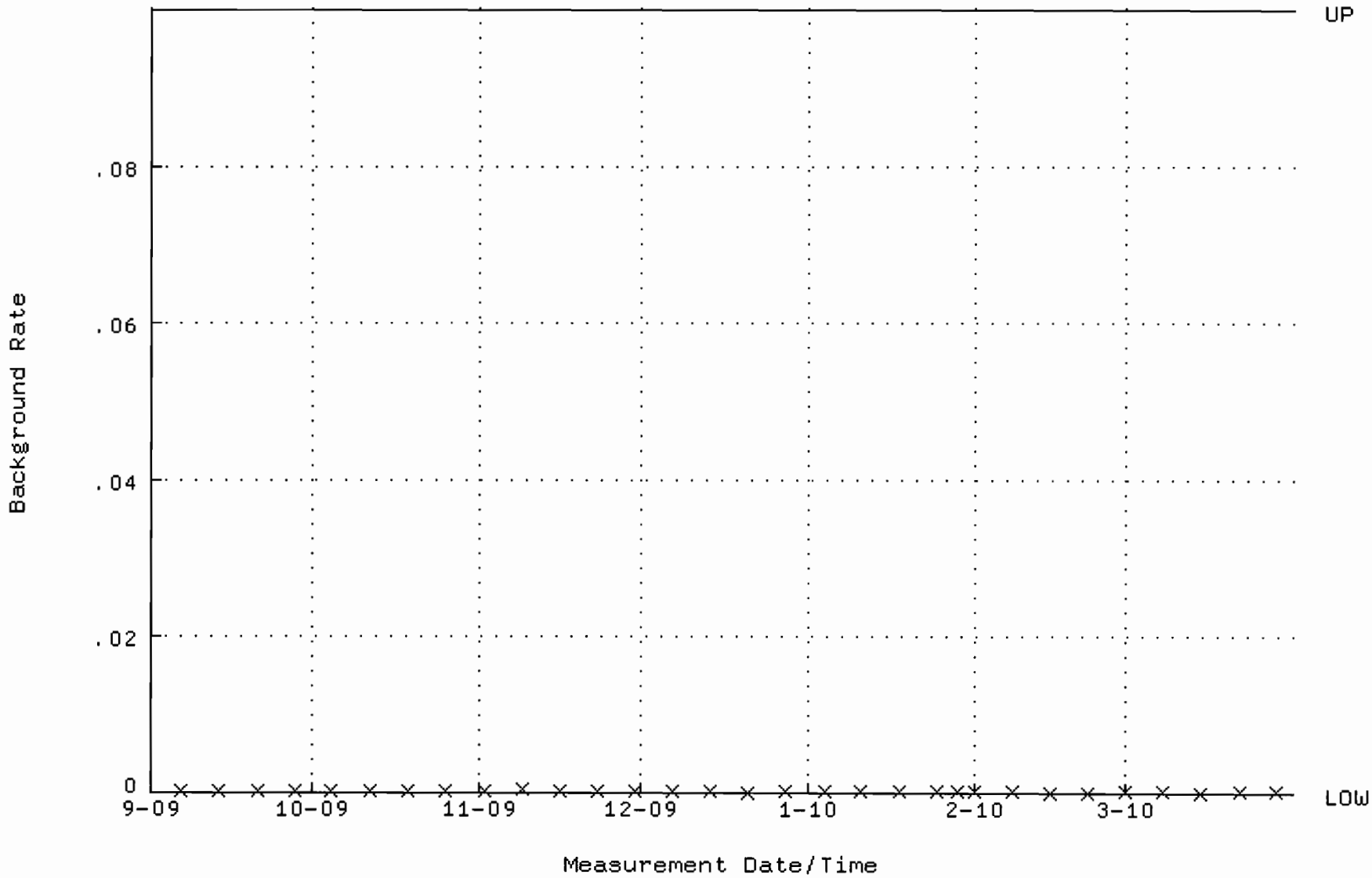

QA filename : DKA100:[ENV_ALPHA.QA.W]W230.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:20 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.368869 through 0.386247

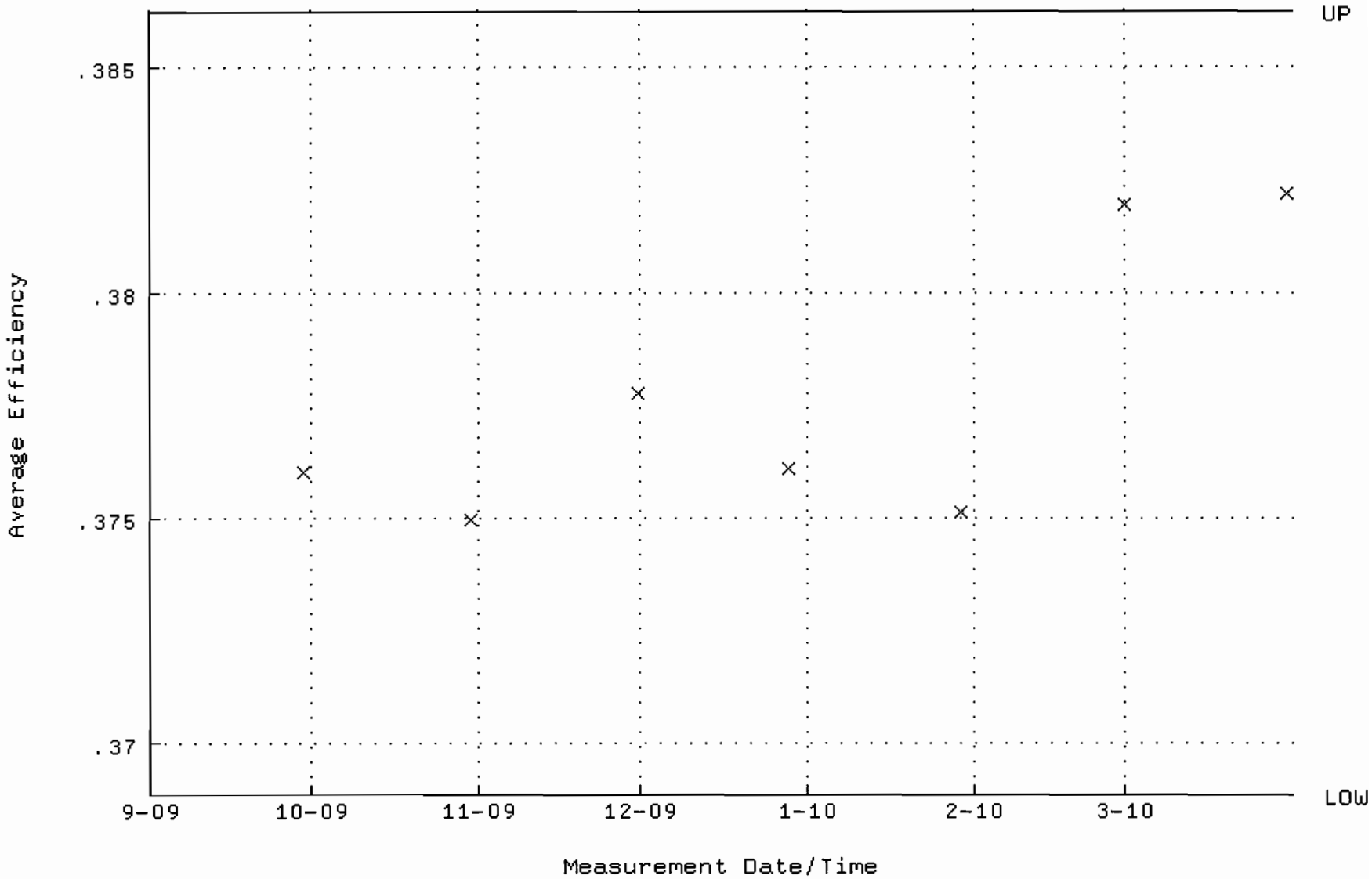

QA filename : DKA100:[ENV_ALPHA.QA.W]W230.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:20 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 87.2030 through 93.2176

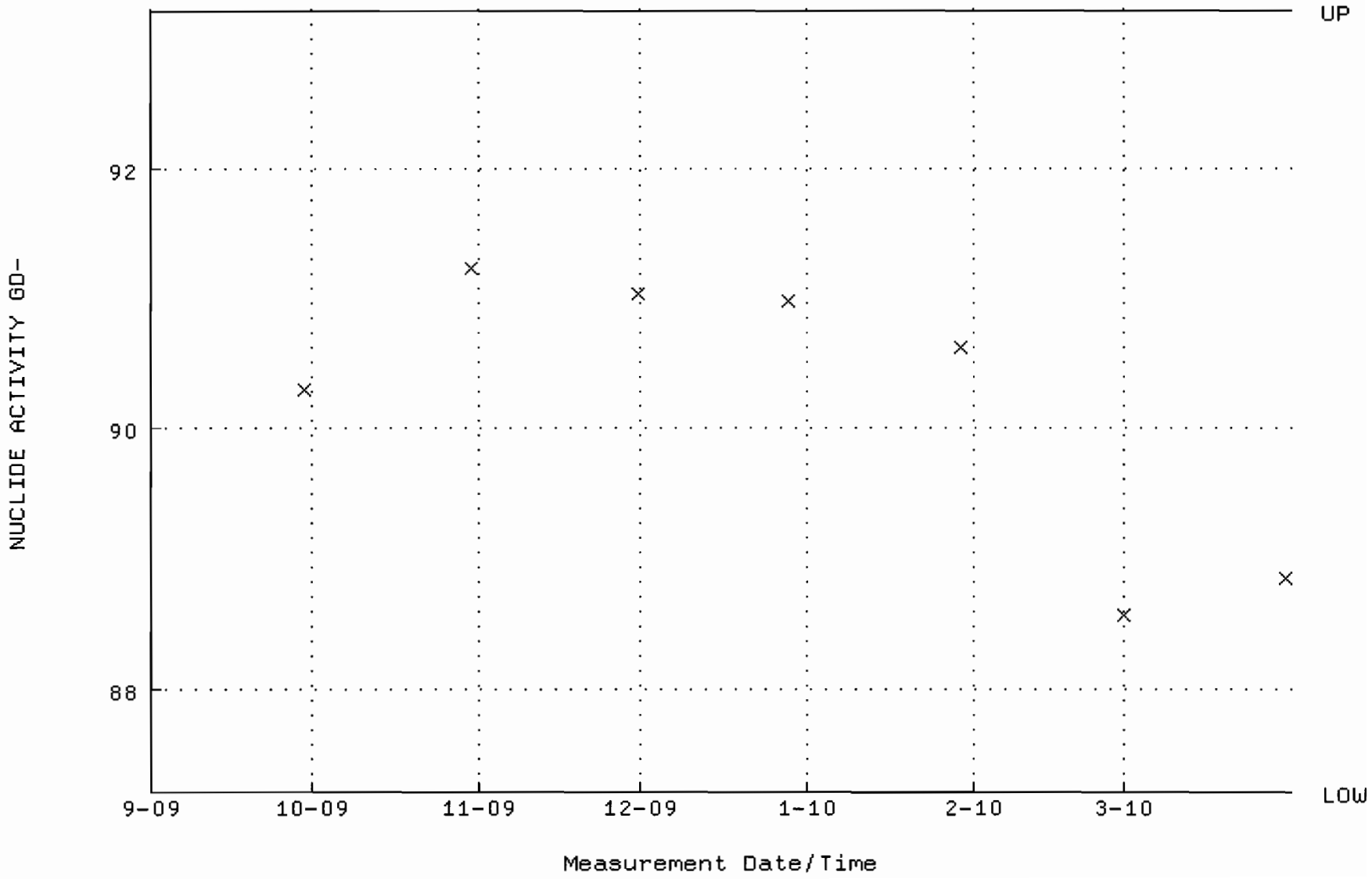

QA filename : DKA100:[ENV_ALPHA.QA.B]B230.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:49:58 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

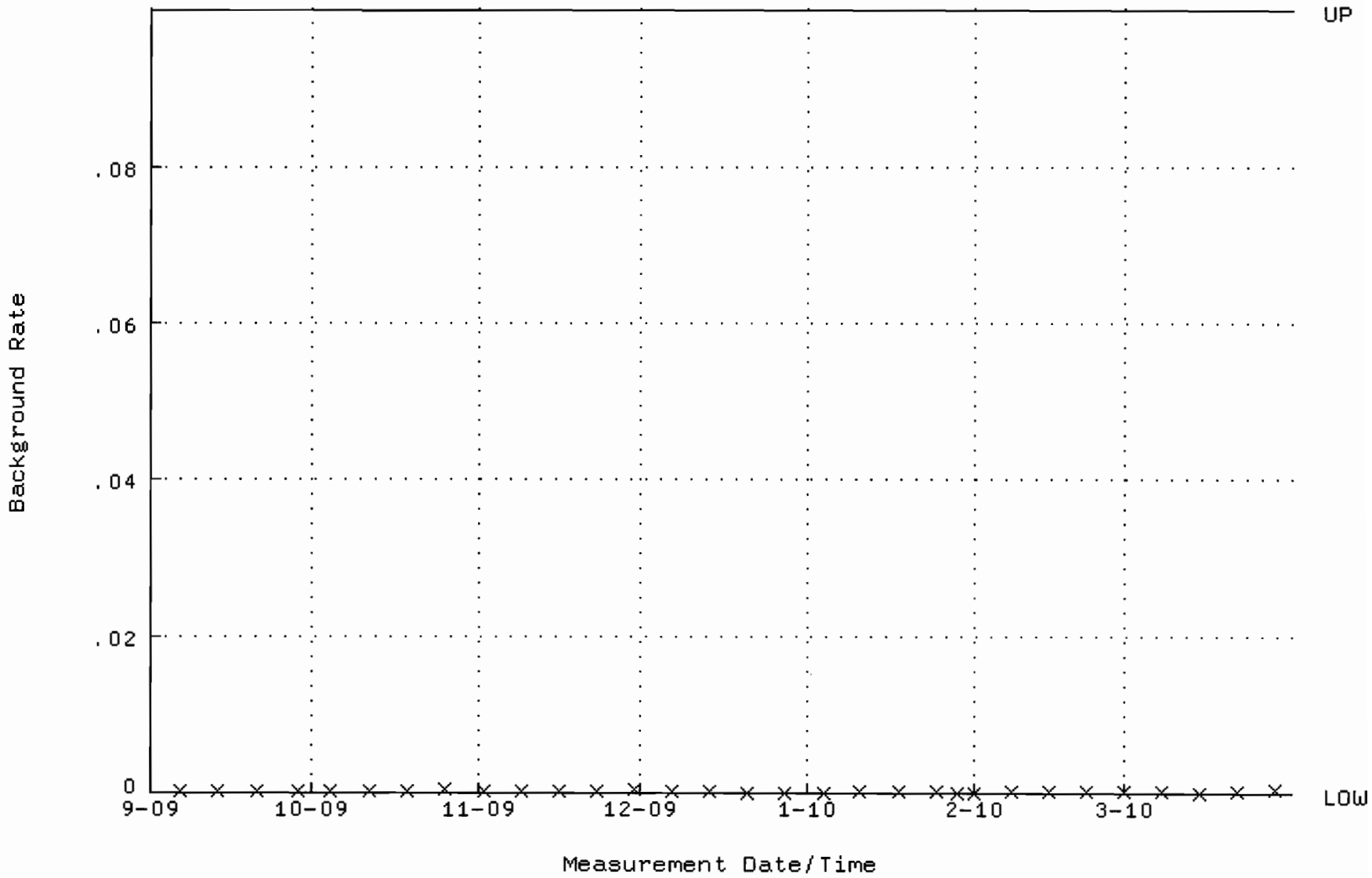

QA filename : DKA100:[ENV_ALPHA.QA.W]W231.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:26 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.369606 through 0.416088

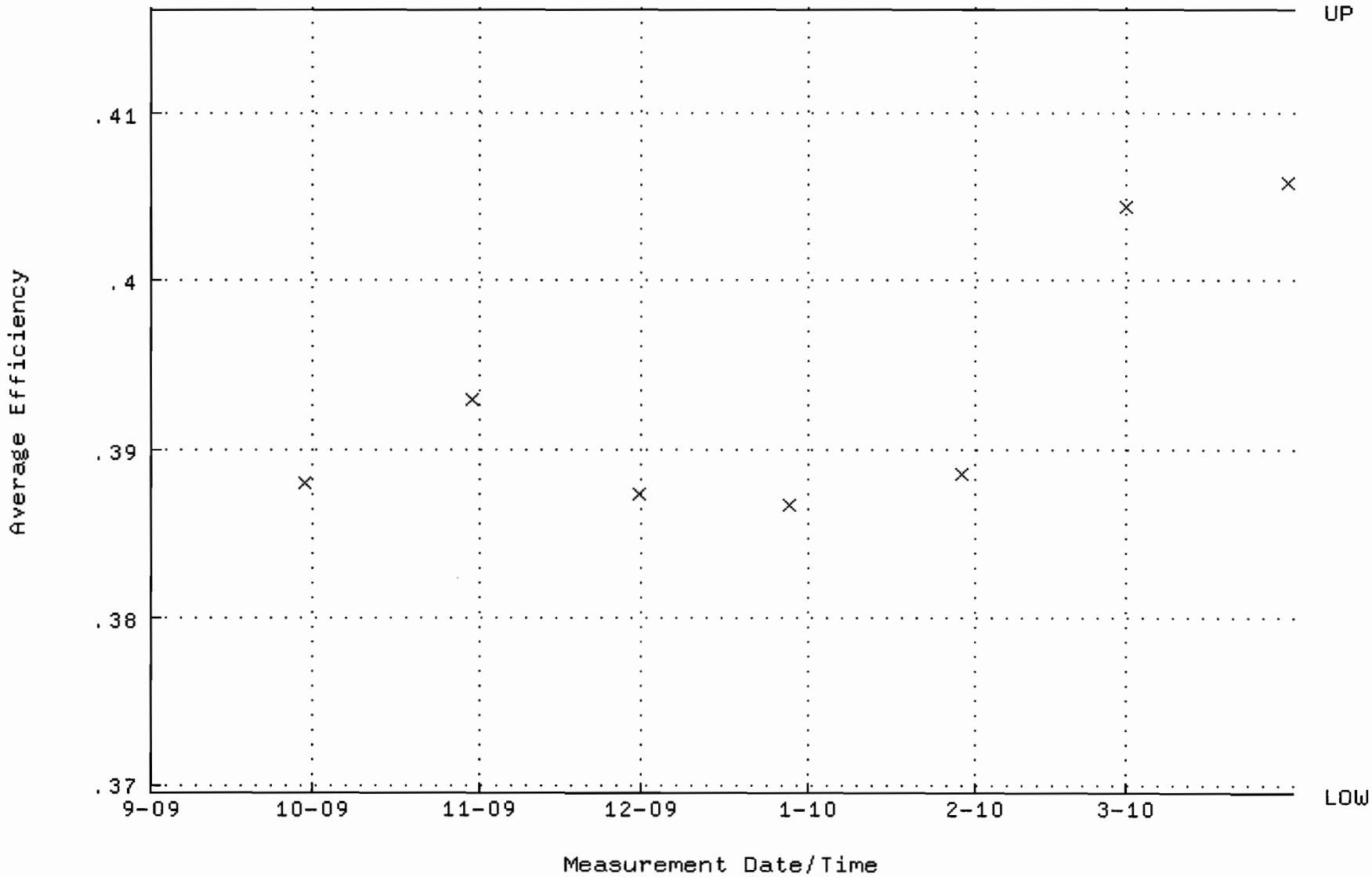

QA filename : DKA100:[ENV_ALPHA.QA.W]W231.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:26 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.9098 through 96.2570

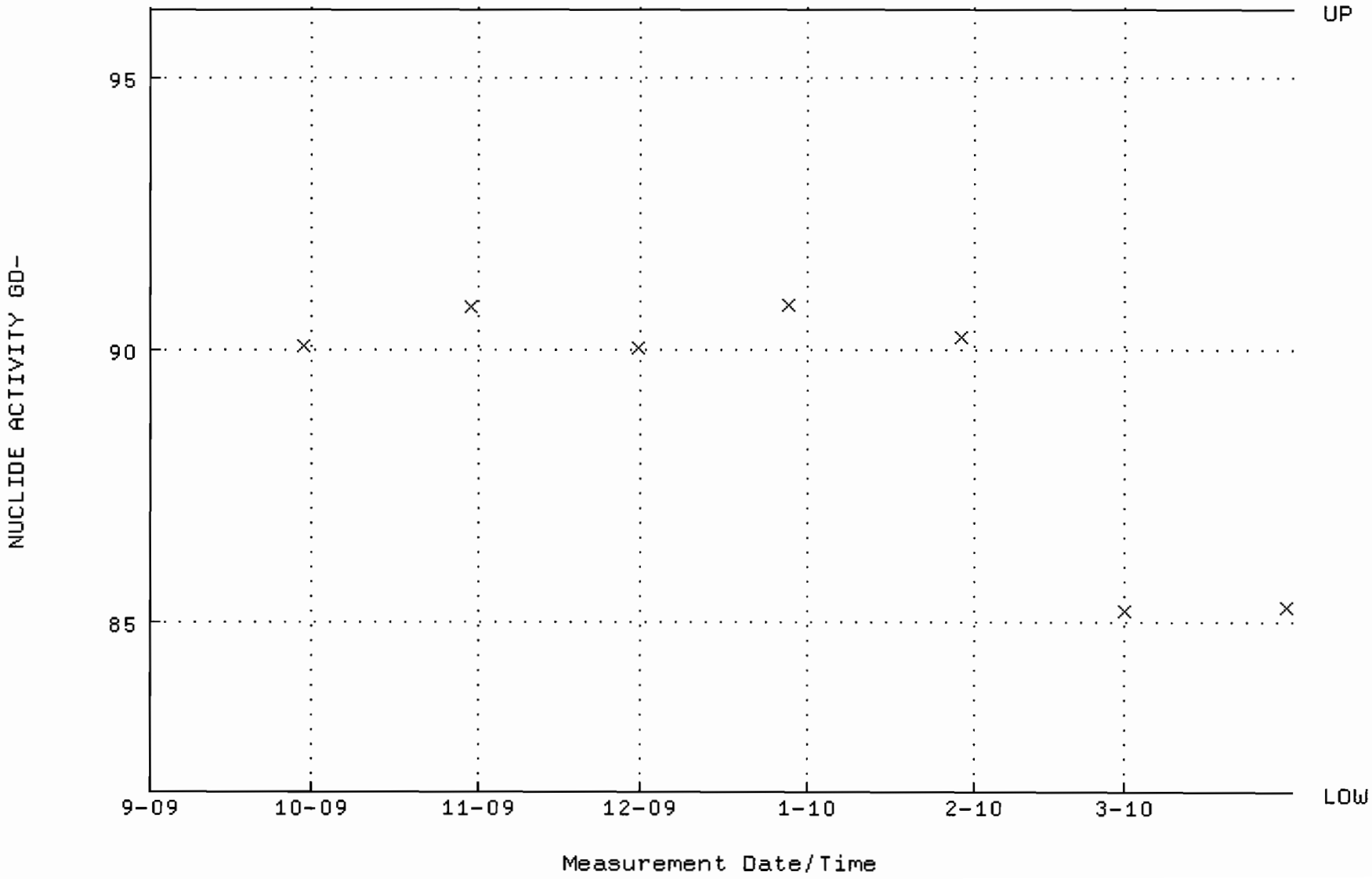

QA filename : DKA100:[ENV_ALPHA.QA.B]B231.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:03 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

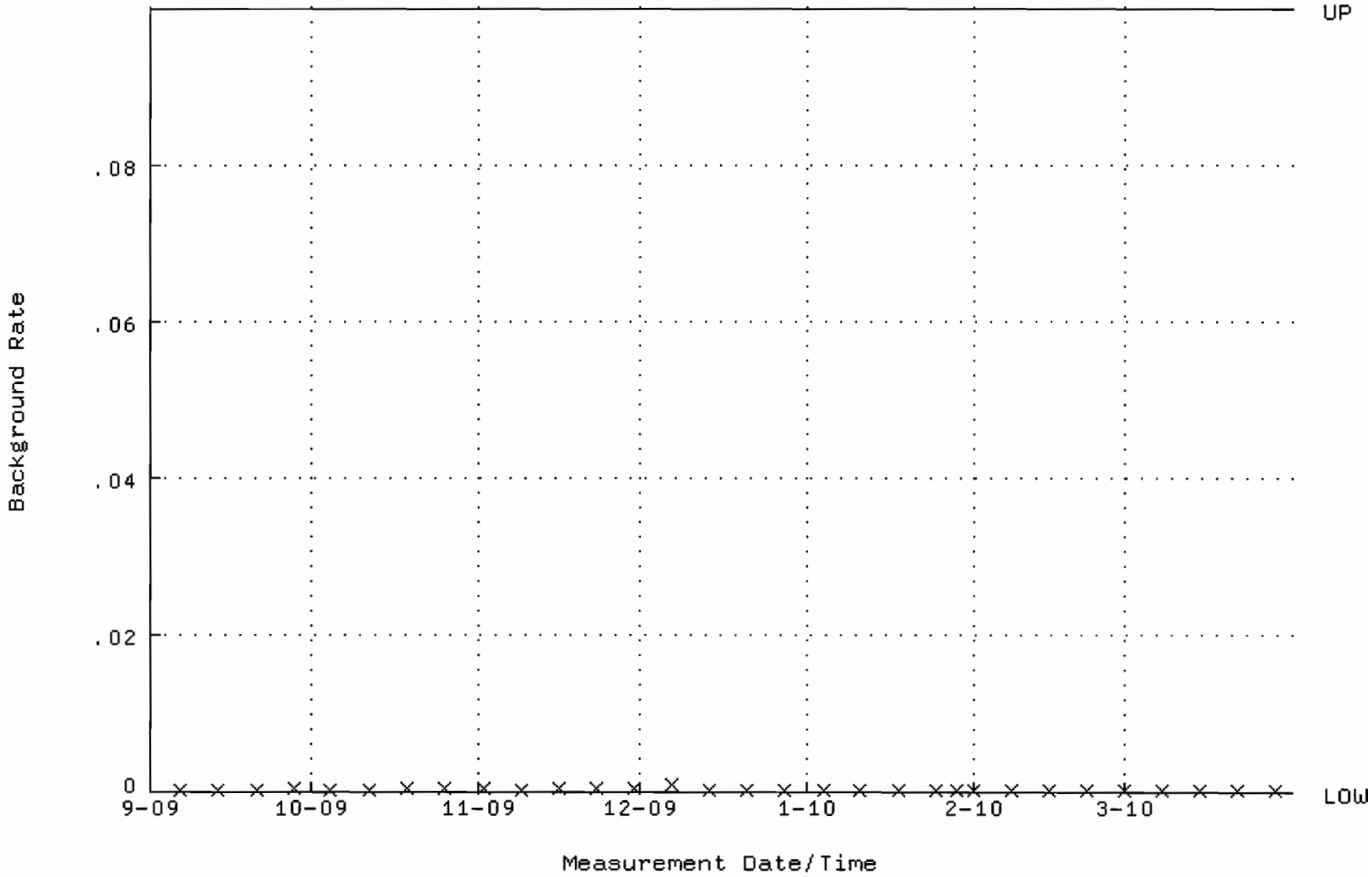

QA filename : DKA100:[ENV_ALPHA.QA.W]W232.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:31 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.356063 through 0.392181

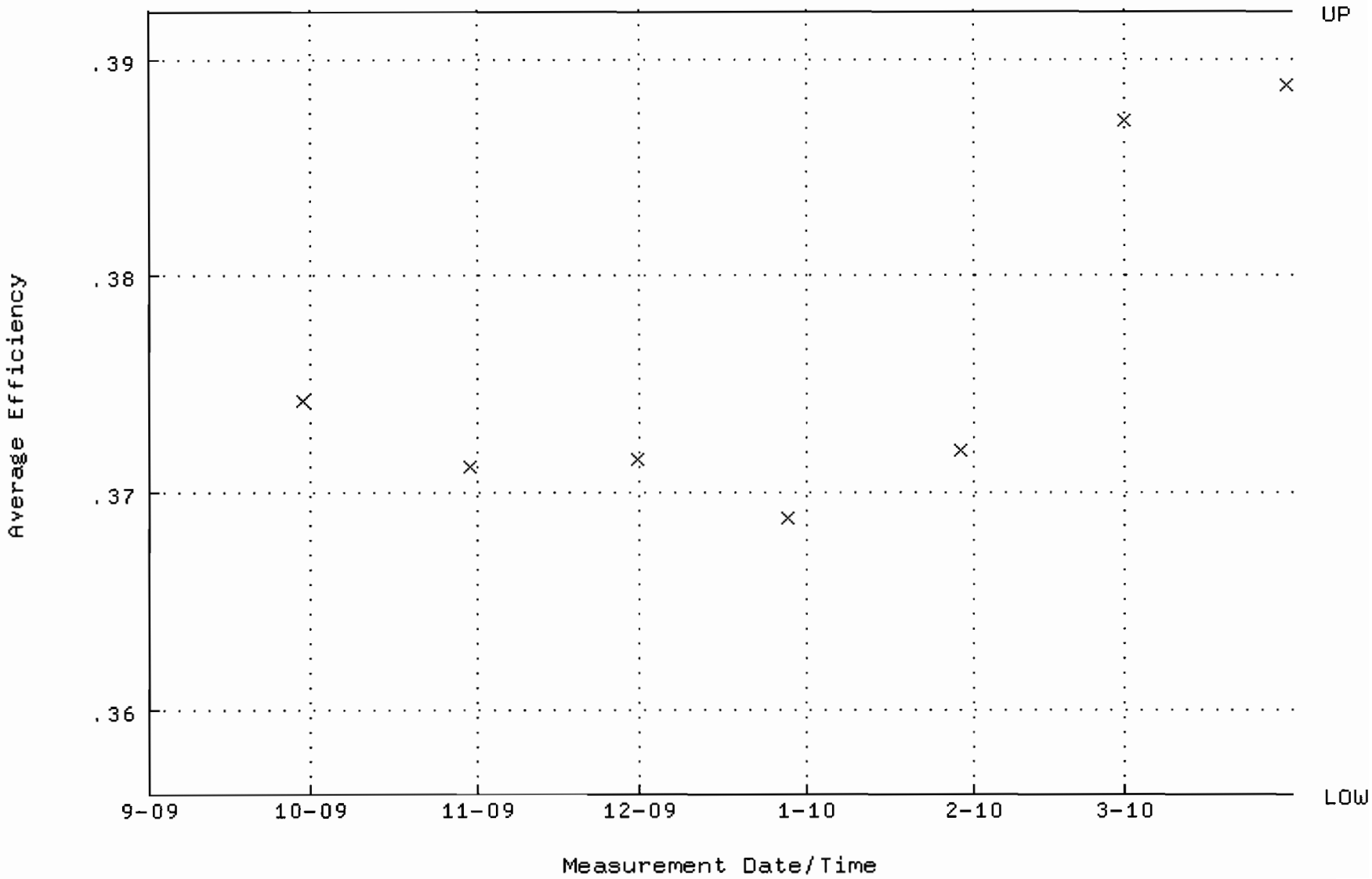

QA filename : DKA100:[ENV_ALPHA.QA.W]W232.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:31 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 83.5615 through 93.0435

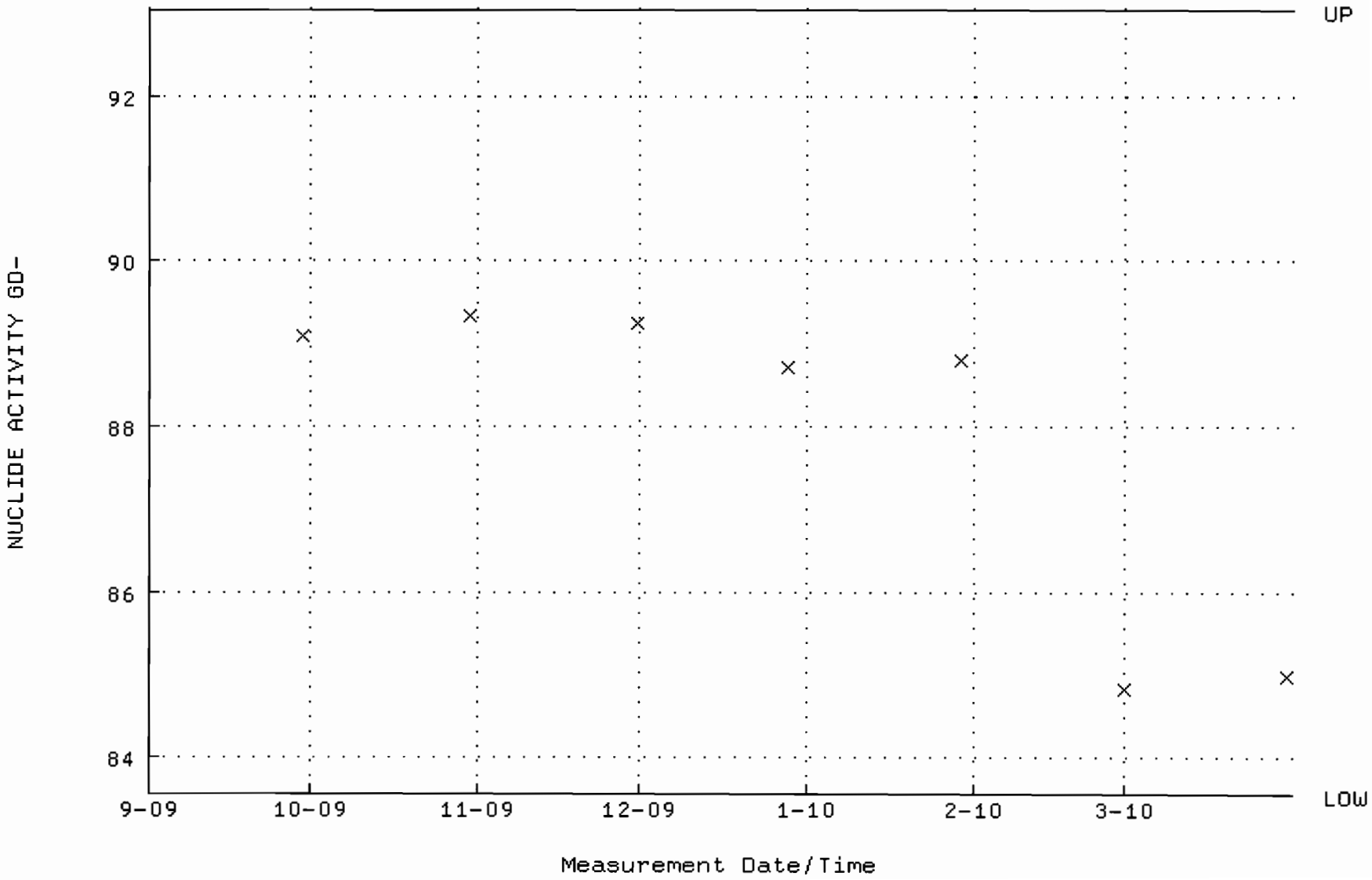

QA filename : DKA100:[ENV_ALPHA.QA.B]B232.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:07 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

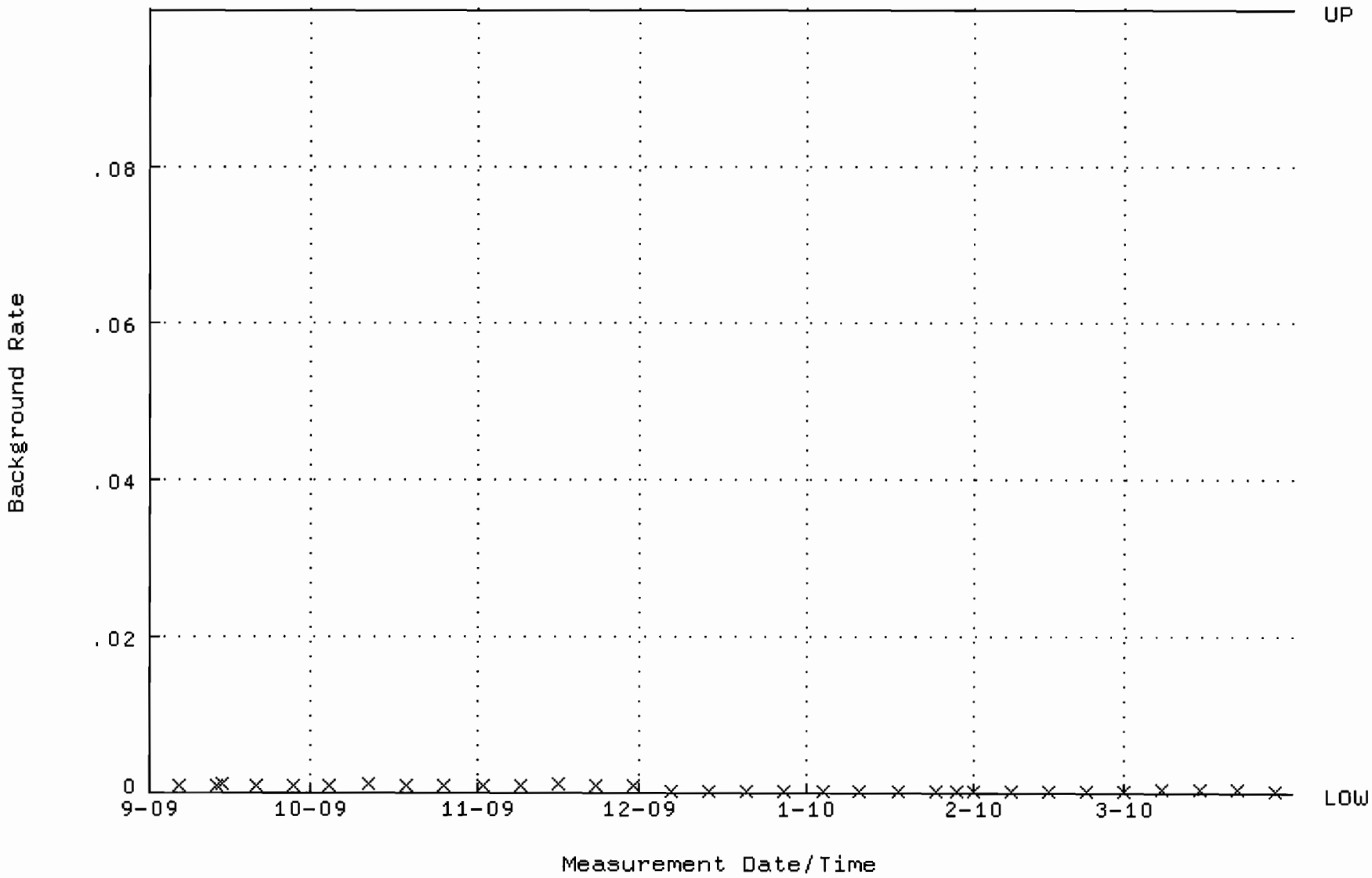

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM05_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-SEP-2009 14:54:46 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

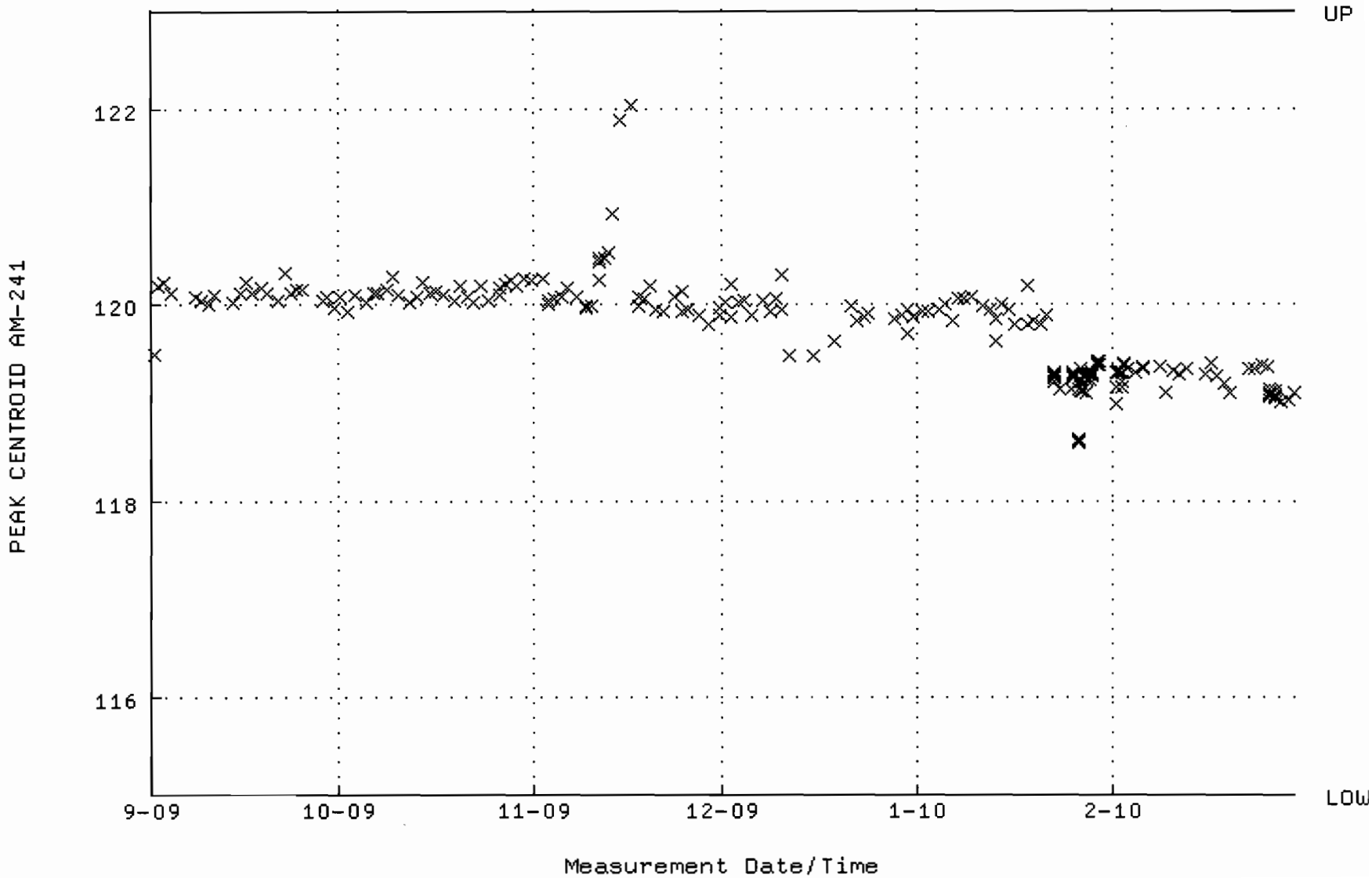

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM05.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:39:04 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.64719 +- 2.547087E-02 (1.55 %)

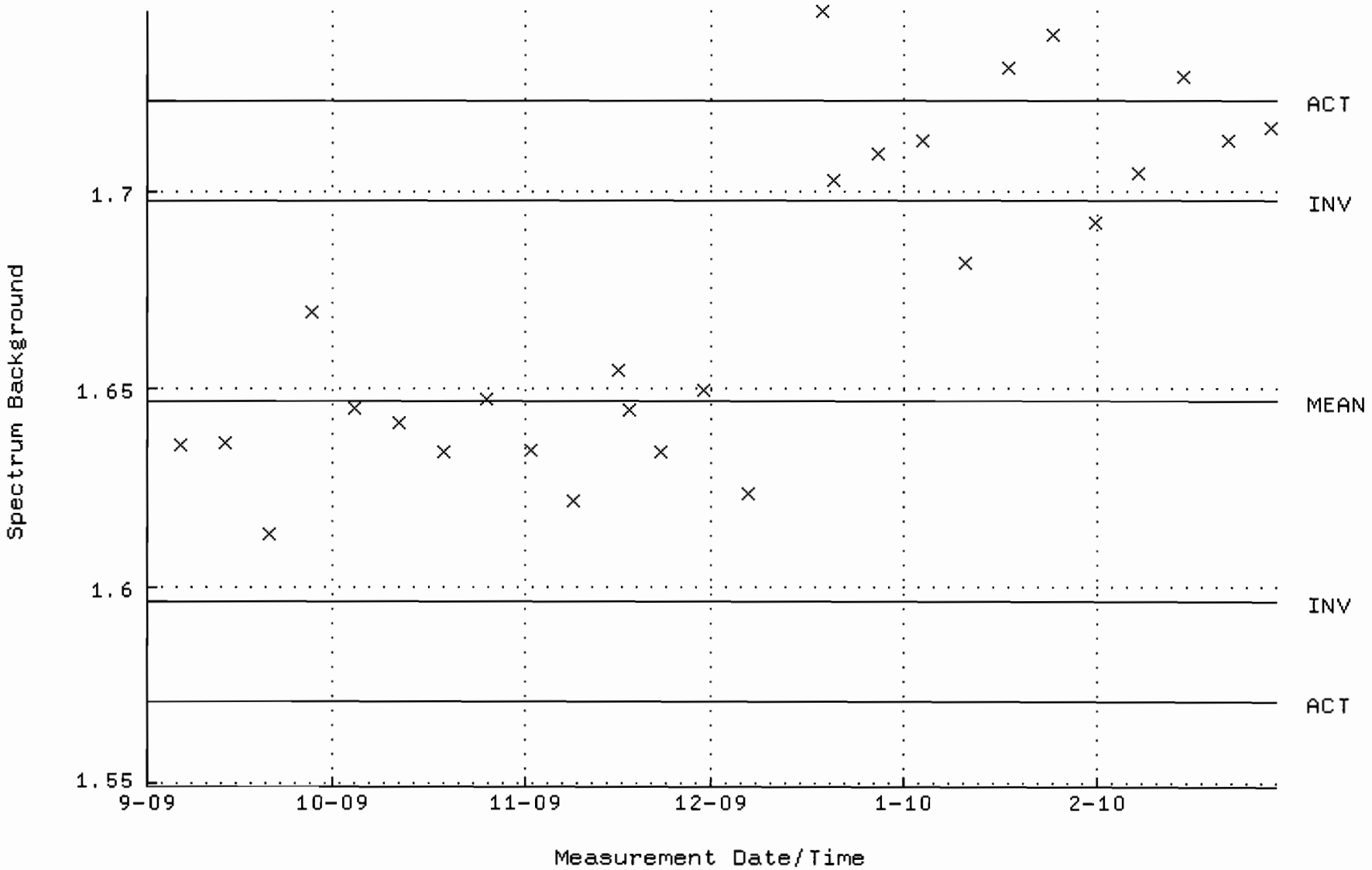

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM06_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:40:19 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

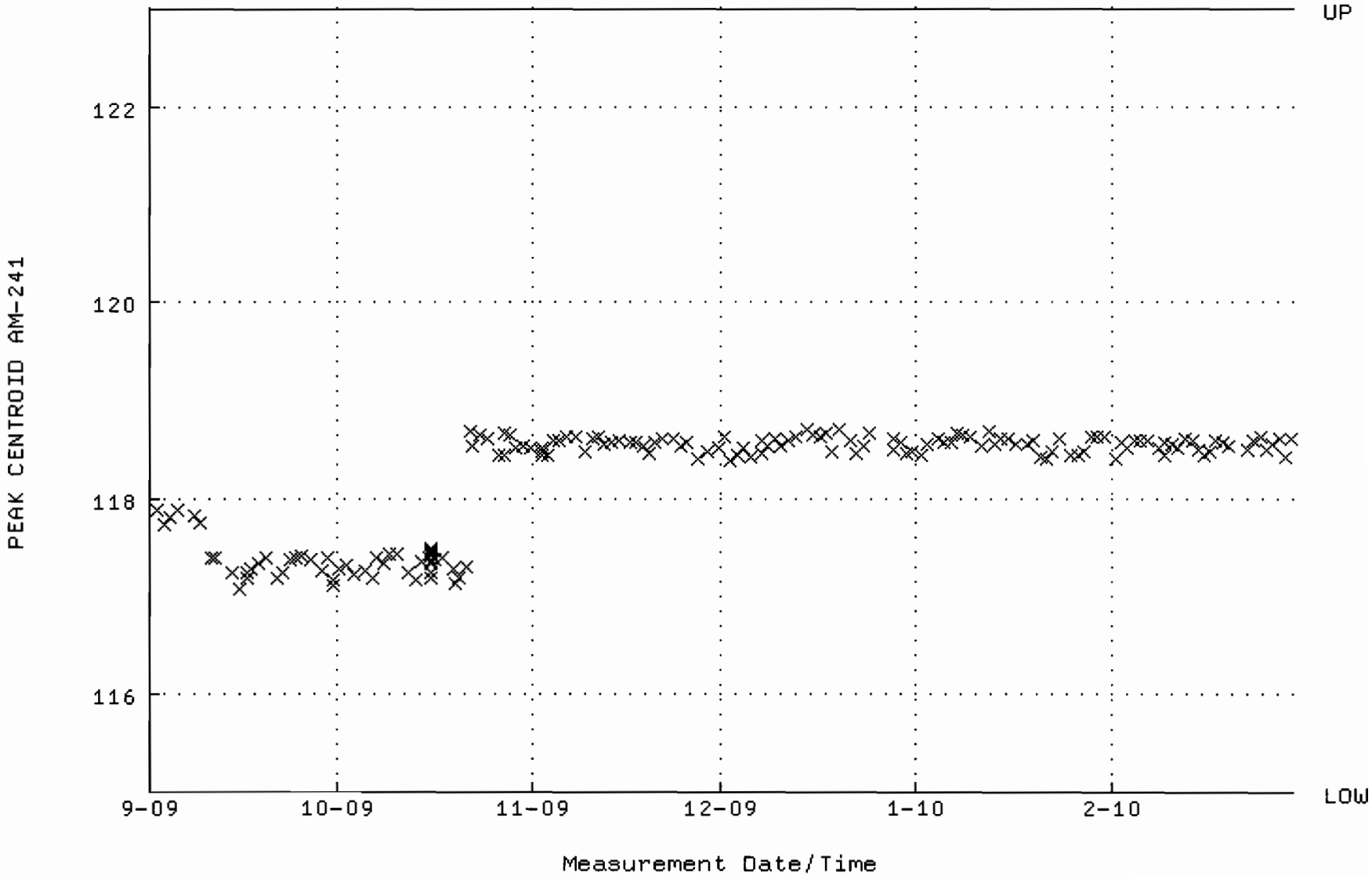

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM06.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:39:28 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.52603 +- 1.215987E-02 (0.80 %)

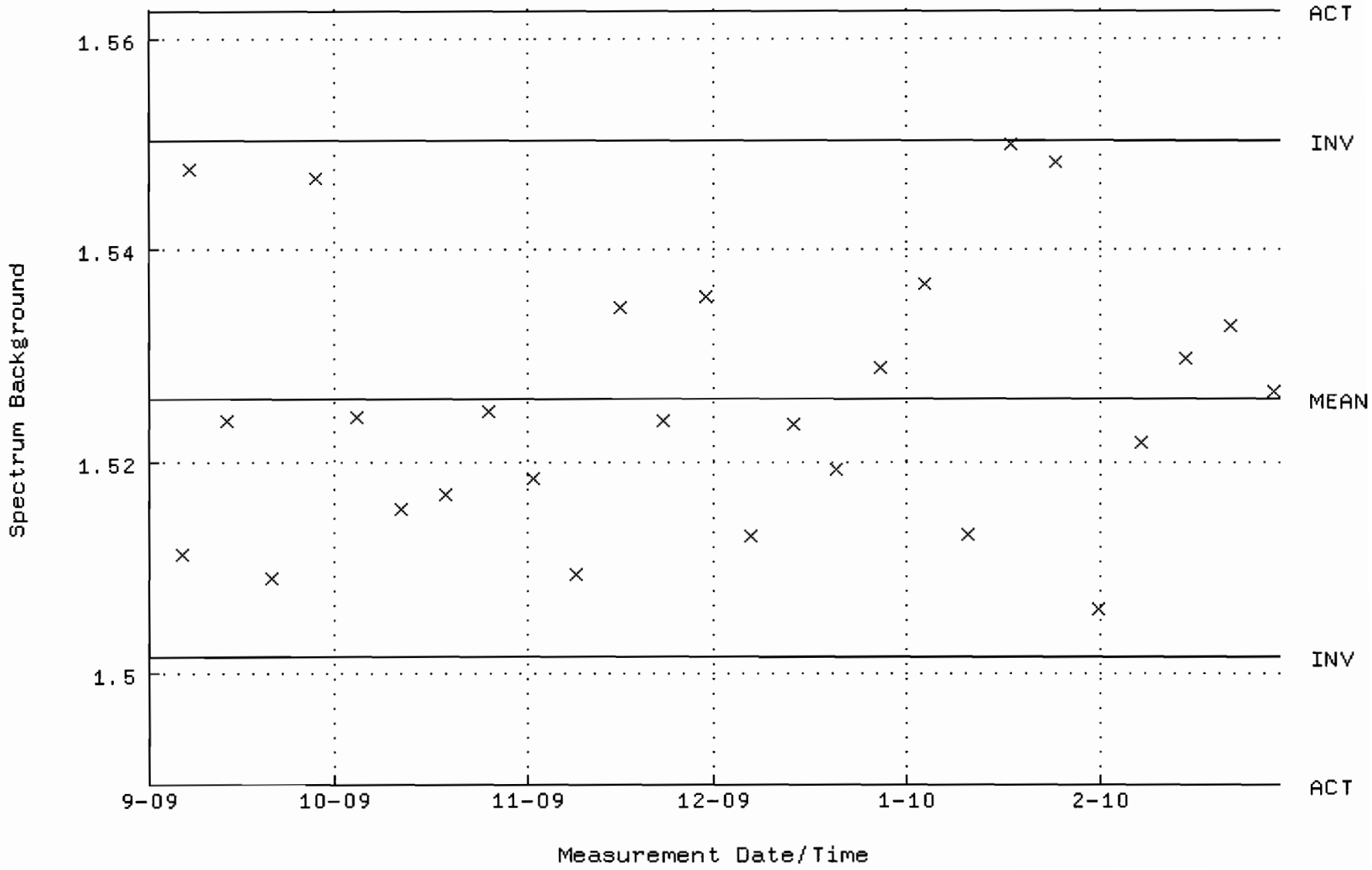

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:32:23 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

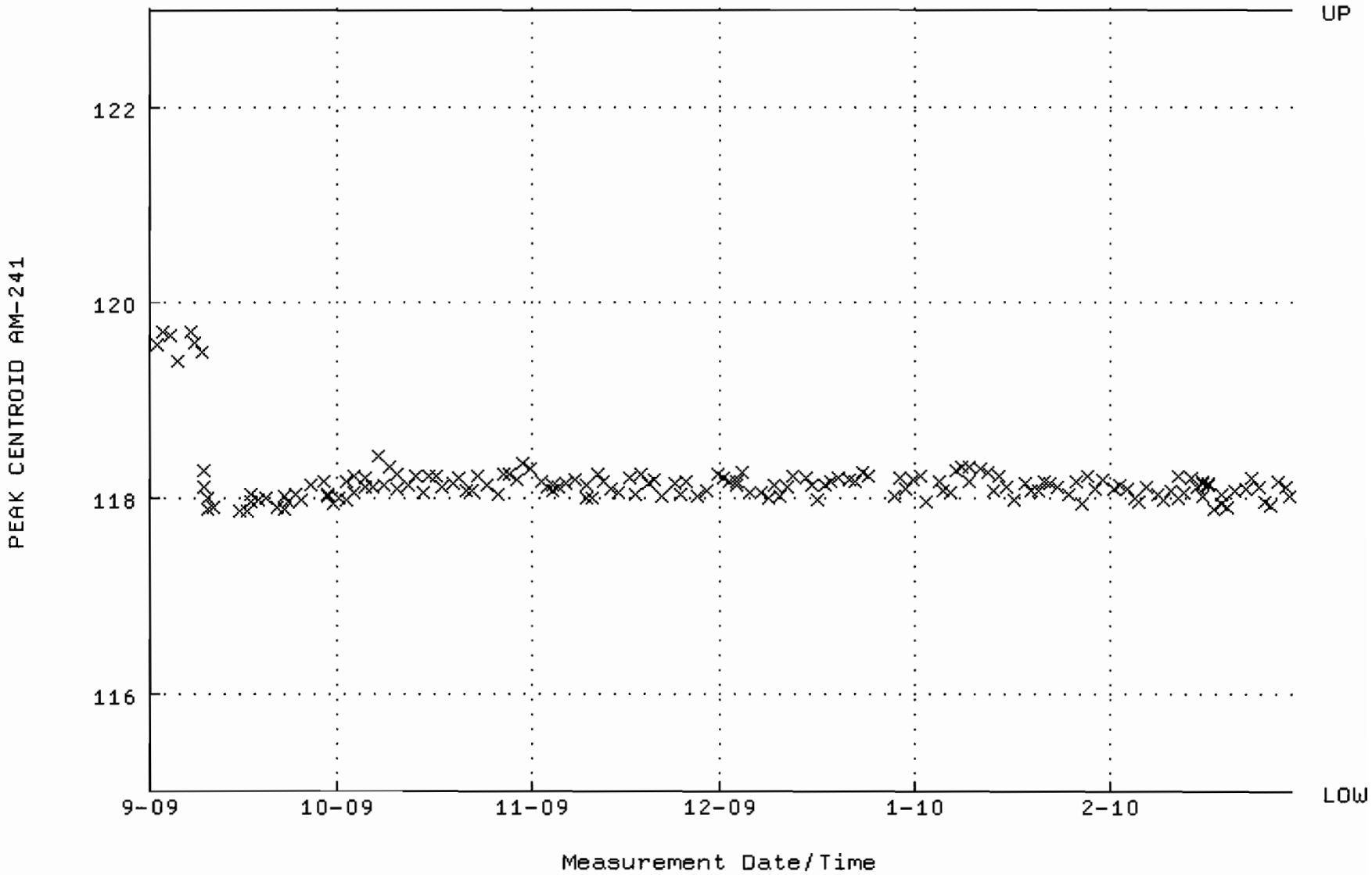

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:43:44 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)

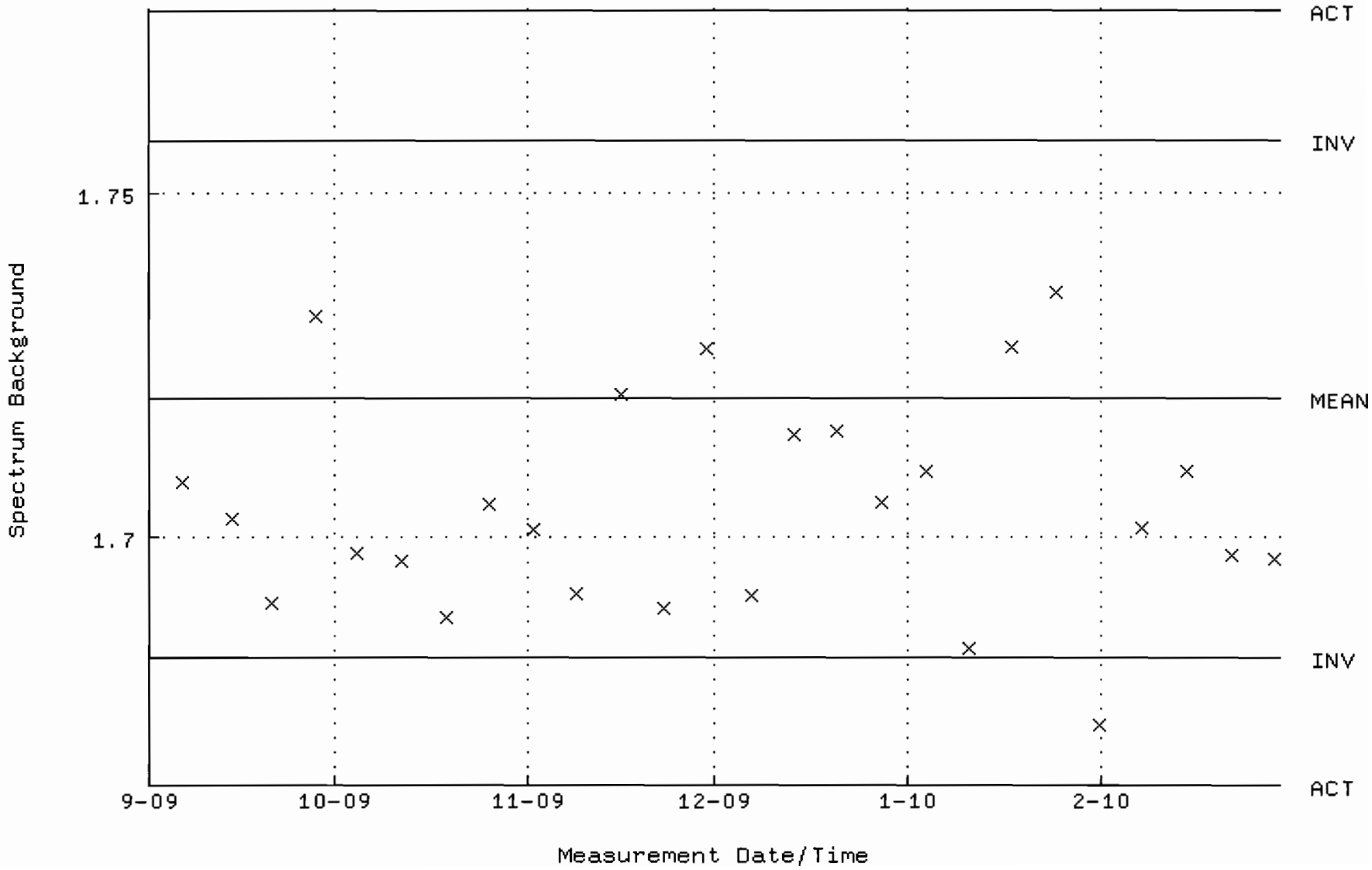

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

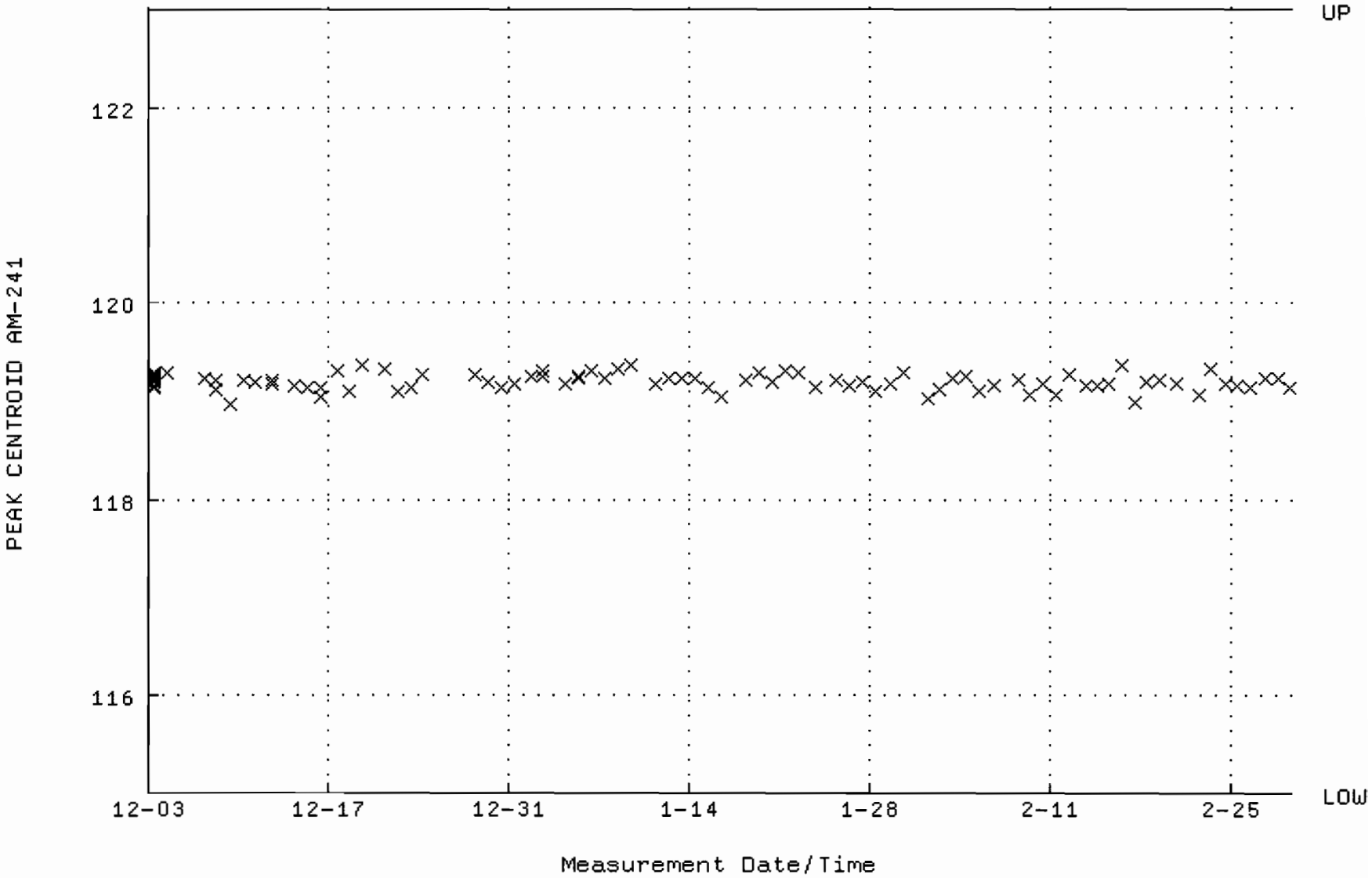

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

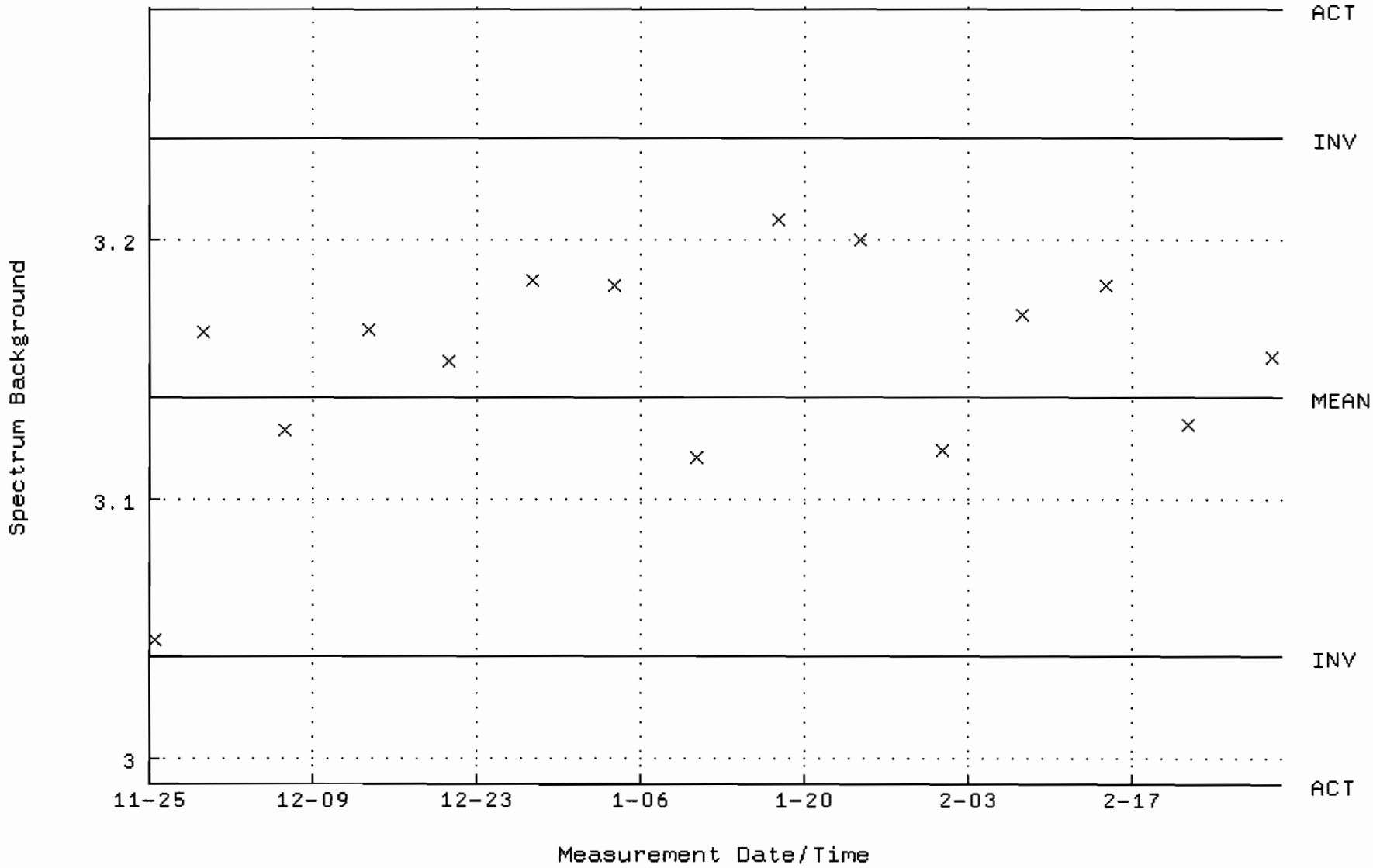

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM29_CAN.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 2-MAR-2010 08:30:43 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

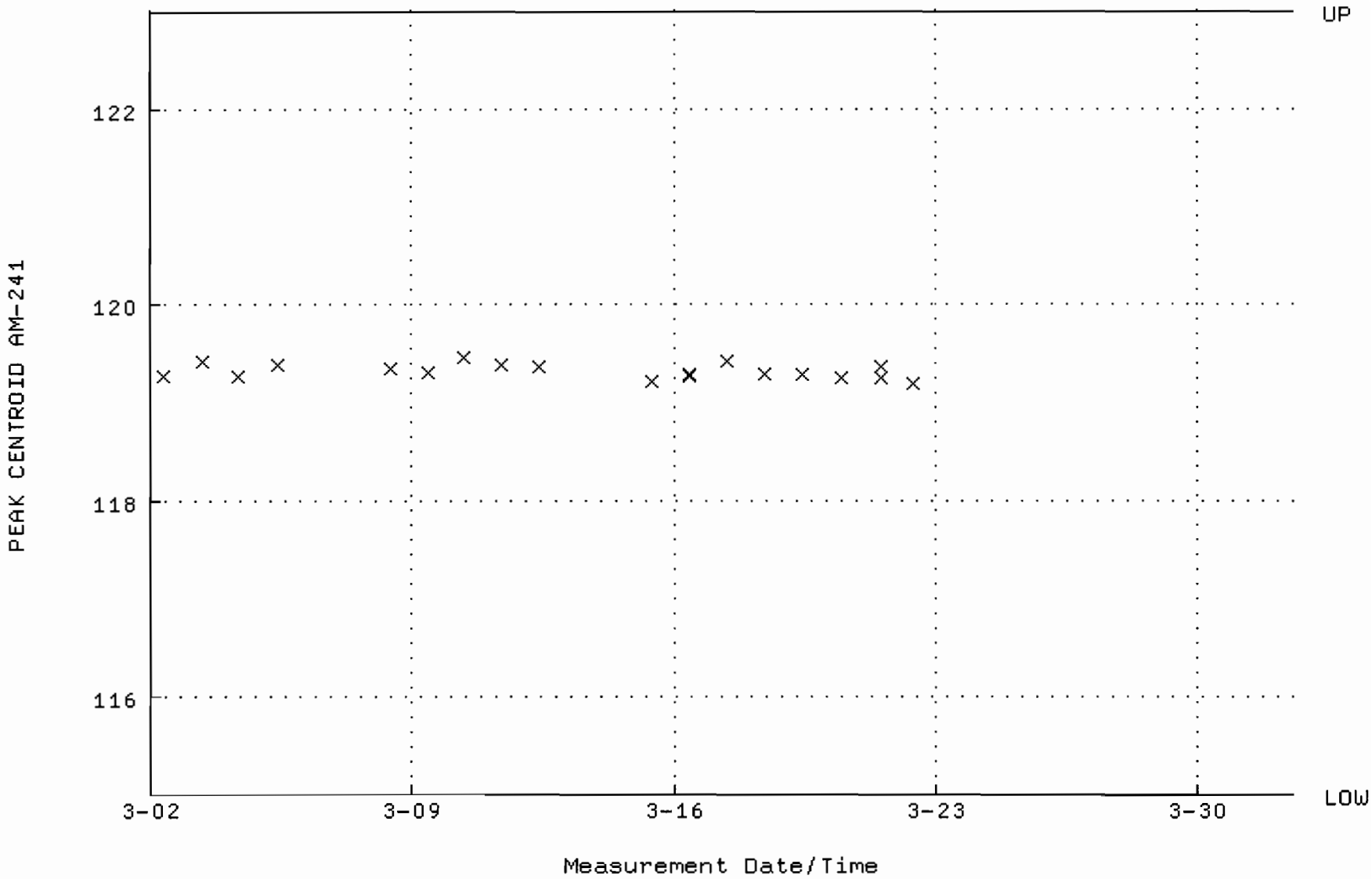

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM29.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 7-MAR-2010 16:47:12 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 1.94193 through 2.37347

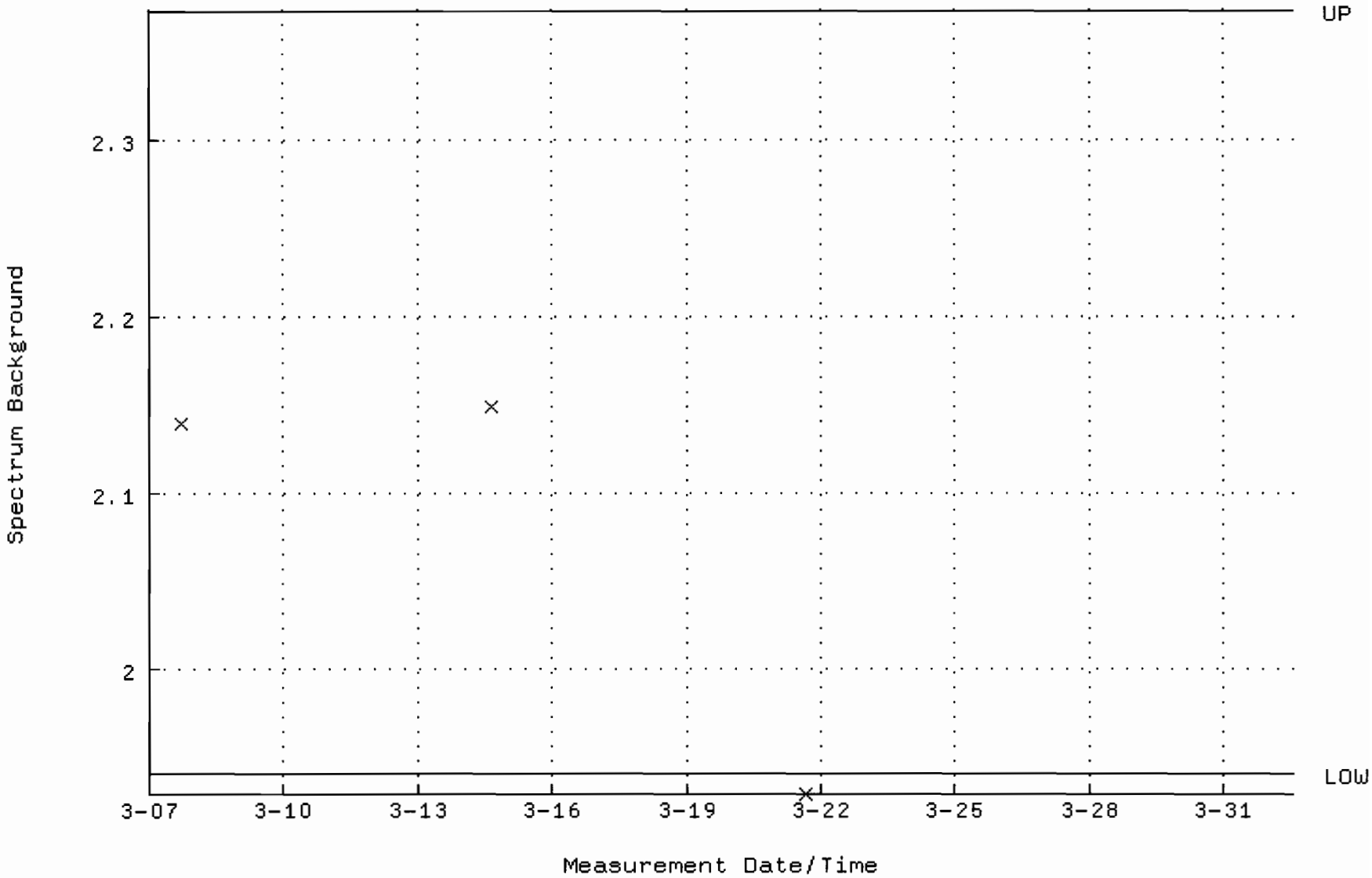

STANDARDS DATA

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

ANALYTICS
An Isotope Products Laboratories Company

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Atlanta, Georgia 30318

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ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER. JAR-1
	Mixed Gamma N2	2510	pCi/L	- VER. JAR-3
	Mixed Gamma N3	2413	pCi/L	- VER. JAR. 5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 verification 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result		
	Mixed Gamma N1	1572	pCi/L	- VER-JAR-5
	Mixed Gamma N2	1495	pCi/L	- VER-JAR-2
	Mixed Gamma N3	1501	pCi/L	- VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**	
Stdev =	42.829	**Rule 3 (Pass/Fail)**		
Certificate Value =	1545.8378	pCi/L		
Lower Limit =	1437.008431	pCi/L		
Upper Limit =	1608.324902	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	85.65823564			
10 % of Mean =	152.26666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATE 4/14/2000 Jeff C Neld 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 bottles of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM-1	TRM-2	TRM-3	TRM-4
U-238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U-234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th-230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra-226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb-210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726744
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID (LAB USE)
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking (LAB USE)
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized rad materials being sent to GEL on behalf of Hack Miller
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Turnaround Time ☒Normal ☐Rush Required Report Date

QC Limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
[illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726494
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized mud materials being sent to GEL on behalf of Hank Mistaen
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date

QC Limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Kuen
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ 1. STANDARD WIPE TEST

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 2. SOAK TEST

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 3. SOAK TEST -- BERYLLIUM WINDOW

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 4. GAS SOURCE TEST (Radioactive Gas)

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ 5. OTHER LEAK TEST

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 6. LEAK TEST NOT APPLICABLE

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	03/09/2010
Expiration Date:	03/09/2011
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Tara Sides	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/14/2009	09/14/2010
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/09/2010	Ashley Drochter	.011	1000	445-96-2-VV	22.7878 dpm/mL	03/09/2010	03/09/2011
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
03/23/2010	Ashley Drochter	.0163	1000	445-96-2-WW	33.7674 dpm/mL	03/23/2010	03/23/2011
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-VV*

A.Drochter 3/15/2010	Isotope	Value	Uncertainty
	445-96-2-VV #1	1.040	0.1630
	445-96-2-VV #2	0.964	0.1480
	445-96-2-VV #3	0.970	0.1550
Mean Value (Counting) =	0.991	96.72	**Pass**
Stdev =	0.042253205		**Rule 3 (Pass/Fail)**

Target =	1.025
Lower Limit =	0.906826923
Upper Limit =	1.075839743
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.08450641
10 % of Mean =	0.099133333
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-VV*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

3/15/10

3/16/10

1430

NATIONAL PHYSICAL LABORATORY

Teddington Middlesex UK TW11 0LW Telephone +44 20 8977 3222

Certificate of Calibration

UKAS CALIBRATION 0478

PLUTONIUM-236 SOLUTION
R37-02

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

FOR:	GEL Laboratories LLC 2040 Savage Road Charleston, SC 29407 USA
FOR THE ATTENTION OF:	Mr Tim Winters
NPL PRODUCT CODE:	R37-02
IDENTIFICATION:	A09881
DESCRIPTION:	An aqueous solution of ^{236}Pu also containing 2 mol dm^{-3} of nitric acid. The solution is contained in a flame sealed ampoule of type Q and nominal volume 5 ml (squat) as defined in BS 795:1983.
DATE(S) OF CALIBRATION:	26 June 2009 to 1 July 2009
INTENDED USE:	Calibration of instruments for response to ^{236}Pu
STORAGE:	The material may be stored at room temperature in a suitably sealed container. Flame-sealed glass ampoules are recommended for long-term storage. Regulatory conditions may apply to the manner in which this material is stored.

RECEIVED 11 JAN 2010 AMS.

MEASUREMENTS

The samples were prepared by gravimetric dilution of a ^{236}Pu solution, which had been previously standardised using liquid scintillation counting. The accuracy of the dilution factor was checked using liquid scintillation counting.

Reference: 2009100356

Date of Issue: 4 November 2009

Checked by:

Signed:

Name: Dr Arvic Harms

(Authorised Signatory)

for Managing Director

RESULTS

Principal radionuclide:	^{236}Pu
Reference time:	2009-07-01 12:00 UTC
Activity concentration of principal radionuclide:	170.8 Bq g^{-1}
Expanded uncertainty:	±0.6 Bq g^{-1} (±0.36 %)
Contaminants present:	^{226}Ra, ^{232}U, ^{228}Th, ^{237}Np
Activity concentration of ^{226}Ra:	11.0 mBq g^{-1}
Expanded uncertainty:	±4.0 mBq g^{-1} (±36 %)
Activity concentration of ^{232}U:	0.67 Bq g^{-1}
Expanded uncertainty:	±0.12 Bq g^{-1} (±18 %)
Activity concentration of ^{228}Th:	11.38 mBq g^{-1}
Expanded uncertainty:	±0.46 mBq g^{-1} (±4 %)
Activity concentration of ^{237}Np:	5.00 mBq g^{-1}
Expanded uncertainty:	±0.34 mBq g^{-1} (±8 %)
Sample Mass:	4.97 g ± 0.02 g

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Checked by:

NOTES

[1]. The reported reference time is stated consistent with the format given in ISO 8601:2004. UTC is the abbreviation for Universal Time, Coordinated. The date is stated in the format YYYY-MM-DD such that 2008-09-01 represents 1 September 2008.

[2]. The recommended half life of ^{236}Pu is 1044 (6) days and is taken from the evaluations published in *Nuclear Data Sheets*.

[3]. The recommended half life of ^{226}Ra is 5.844 (50) × 10^5 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[4]. The recommended half life of ^{232}U is 25800 (800) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[5]. The recommended half life of ^{237}Np is 7.83 (6) × 10^8 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[6]. The recommended half life of ^{228}Th is 698.60 (46) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1430
Prepared By:	Ashley Drochter
Carrier Conc:	2 M HNO3
Reference Date:	07/01/2009
Ampoule Mass (g):	4.97 g
Uncertainty:	+/- .36 %
LogBook No:	RC-S-051-149

A Solution Material Info	
Isotope:	Plutonium-236
Prepared By:	Ashley Drochter
Prep Date:	01/27/2010
Verification Date:	01/27/2010
Expiration Date:	01/27/2011
Primary Code:	1430-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8051 g
Density(g/mL):	1.0610
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (100 mL) = 492.4266 dpm/mL
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (1.0610 g/mL) / (100 mL) = 464.1156 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/27/2010	Bethany Fiem	33.0429	200	1430-B	76.6786262 dpm/mL	01/27/2010	01/27/2011
03/04/2010	Ashley Drochter	15.2331	200	1430-C	35.3496 dpm/mL	03/04/2010	03/04/2011
03/17/2010	Ashley Drochter	15.0683	200	1430-D	34.9672 dpm/mL	03/17/2010	03/17/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-236 Standard 1430-C

	Isotope	Value	Uncertainty
A. Drochter	1430-C	2.760	0.4480
3/4/2010	1430-C	2.770	0.4520
	1430-C	2.950	0.4850

Mean Value (Counting) =	2.827	104.54659	% of Known Value
Stdev =	0.106926766		
Target =	2.70		
Lower Limit =	2.612813134		
Upper Limit =	3.040520199		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.213853532		
10 % of Mean =	0.282666667		
Rule 2 (Pass/Fail)	**Pass**		

The analyst prepared three standard verification sources for standard 1430-B using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. After approximately ten minutes, two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-236 were calculated by comparison to Pu-239 certified values.

3/5/10

3/5/10

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-05

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	Serial #	Value		Uncertainty	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L

Mean Value (Counting) =	2.027	pCi/L	**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L		**Rule 3 (Pass/Fail)**

Target =	2.033	pCi/L
Lower Limit =	1.965565657	pCi/L
Upper Limit =	2.087767676	pCi/L
Rule 1 Pass/Fail	**Pass**	
Two sigma =	0.061101009	
10 % of Mean =	0.202666667	
Rule 2 (Pass/Fail)	**Pass**	

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter AD 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 962631**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248702001	SAMPLE	MXR1	GAM05	23-MAR-10 08:52	DONE	CAN	11-JUN-09 00:00
248702002	SAMPLE	MXR1	GAM15	23-MAR-10 12:23	DONE	CAN	03-FEB-10 00:00
248818001	SAMPLE	MXR1	GAM10	23-MAR-10 12:59	DONE	CAN	13-MAR-10 00:00
248818002	SAMPLE	MXR1	GAM05	23-MAR-10 13:02	DONE	CAN	11-JUN-09 00:00
248818003	SAMPLE	MXR1	GAM18	23-MAR-10 13:05	DONE	CAN	23-APR-09 00:00
248818004	SAMPLE	MXR1	GAM01	23-MAR-10 13:33	DONE	CAN	12-JAN-10 00:00
248818005	SAMPLE	MXR1	GAM16	23-MAR-10 13:33	DONE	CAN	16-NOV-09 00:00
248818006	SAMPLE	MXR1	GAM20	23-MAR-10 13:34	DONE	CAN	26-AUG-09 00:00
248818007	SAMPLE	MXR1	GAM17	23-MAR-10 13:54	DONE	CAN	06-JAN-10 00:00
248818008	SAMPLE	MXR1	GAM21	23-MAR-10 14:24	DONE	CAN	28-JUL-09 00:00
248818009	SAMPLE	MXR1	GAM23	23-MAR-10 14:25	DONE	CAN	02-JUN-09 00:00
248824001	SAMPLE	MXR1	GAM29	23-MAR-10 14:25	DONE	CAN	23-FEB-10 00:00
248824002	SAMPLE	MXR1	GAM04	23-MAR-10 14:38	DONE	CAN	05-MAY-09 00:00
1202065185	MB	MXR1	GAM06	23-MAR-10 14:39	DONE	CAN	16-FEB-10 00:00
1202065186	DUP	MXR1	GAM15	23-MAR-10 14:39	DONE	CAN	03-FEB-10 00:00
1202065187	LCS	MXR1	GAM22	23-MAR-10 14:40	DONE	CAN	02-DEC-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID:965515**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248702001	SAMPLE	CXM2	1016	26-MAR-10 21:18	DUSE		
248702002	SAMPLE	CXM2	1017	26-MAR-10 21:18	DONE		
249245001	SAMPLE	CXM2	1018	26-MAR-10 21:18	DONE		
249245002	SAMPLE	CXM2	1031	26-MAR-10 21:18	DONE		
249247001	SAMPLE	CXM2	1033	26-MAR-10 21:18	DONE		
249247002	SAMPLE	CXM2	1035	26-MAR-10 21:18	DONE		
249247003	SAMPLE	CXM2	1036	26-MAR-10 21:18	DONE		
249248002	SAMPLE	CXM2	1065	26-MAR-10 21:18	DONE		
249248003	SAMPLE	CXM2	1066	26-MAR-10 21:18	DONE		
249248004	SAMPLE	CXM2	1067	26-MAR-10 21:18	DONE		
249250003	SAMPLE	CXM2	1068	26-MAR-10 21:18	DONE		
249250004	SAMPLE	CXM2	1069	26-MAR-10 21:18	DONE		
1202071742	MB	CXM2	1014	27-MAR-10 13:01	DUSE		
1202071743	DUP	CXM2	1016	27-MAR-10 13:01	DONE		
1202071744	LCS	CXM2	1017	27-MAR-10 13:01	DONE		
249252001	SAMPLE	CXM2	1018	27-MAR-10 13:01	DONE		
249252002	SAMPLE	CXM2	1065	27-MAR-10 13:01	DONE		
249252003	SAMPLE	CXM2	1066	27-MAR-10 13:01	DONE		
249255001	SAMPLE	CXM2	1067	27-MAR-10 13:01	DONE		
249259001	SAMPLE	CXM2	1068	27-MAR-10 13:01	DONE		
249259002	SAMPLE	CXM2	1069	27-MAR-10 13:01	DONE		
1202071742	MB	CXM2	1105	30-MAR-10 08:02	DONE		
248702001	SAMPLE	CXM2	1112	30-MAR-10 08:02	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965517**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249248002	SAMPLE	CXM2	1161	30-MAR-10 08:47	DONE		
249248003	SAMPLE	CXM2	1162	30-MAR-10 08:47	DONE		
249248004	SAMPLE	CXM2	1164	30-MAR-10 08:47	DONE		
249250003	SAMPLE	CXM2	1165	30-MAR-10 08:47	DONE		
249250004	SAMPLE	CXM2	1166	30-MAR-10 08:47	DONE		
249252001	SAMPLE	CXM2	1167	30-MAR-10 08:47	DONE		
249252002	SAMPLE	CXM2	1168	30-MAR-10 08:47	DONE		
249252003	SAMPLE	CXM2	1169	30-MAR-10 08:47	DONE		
249255001	SAMPLE	CXM2	1170	30-MAR-10 08:48	DONE		
249259001	SAMPLE	CXM2	1171	30-MAR-10 08:48	DONE		
249259002	SAMPLE	CXM2	1172	30-MAR-10 08:48	DONE		
1202071746	MB	CXM2	1002	30-MAR-10 16:45	DONE		
1202071747	DUP	CXM2	1003	30-MAR-10 16:45	DONE		
1202071748	LCS	CXM2	1004	30-MAR-10 16:45	DONE		
248702001	SAMPLE	CXM2	1161	31-MAR-10 06:46	DONE		
248702002	SAMPLE	CXM2	1162	31-MAR-10 06:46	DONE		
249245001	SAMPLE	CXM2	1164	31-MAR-10 06:46	DONE		
249245002	SAMPLE	CXM2	1165	31-MAR-10 06:46	DONE		
249247001	SAMPLE	CXM2	1166	31-MAR-10 06:46	DONE		
249247002	SAMPLE	CXM2	1167	31-MAR-10 06:46	DONE		
249247003	SAMPLE	CXM2	1168	31-MAR-10 06:47	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID:970440**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248702001	SAMPLE	CXM2	1210	31-MAR-10 13:31	DONE		
248702002	SAMPLE	CXM2	1213	31-MAR-10 13:31	DONE		
249245001	SAMPLE	CXM2	1214	31-MAR-10 13:31	DONE		
249245002	SAMPLE	CXM2	1215	31-MAR-10 13:31	DONE		
249247001	SAMPLE	CXM2	1216	31-MAR-10 13:32	DONE		
249247002	SAMPLE	CXM2	1217	31-MAR-10 13:32	DONE		
249247003	SAMPLE	CXM2	1218	31-MAR-10 13:32	DONE		
249248002	SAMPLE	CXM2	1219	31-MAR-10 13:32	DONE		
249248003	SAMPLE	CXM2	1220	31-MAR-10 13:32	DONE		
249248004	SAMPLE	CXM2	1221	31-MAR-10 13:32	DONE		
249250003	SAMPLE	CXM2	1222	31-MAR-10 13:32	DONE		
249250004	SAMPLE	CXM2	1223	31-MAR-10 13:32	DONE		
249252001	SAMPLE	CXM2	1224	31-MAR-10 13:32	DONE		
249252002	SAMPLE	CXM2	1225	31-MAR-10 13:32	DONE		
249252003	SAMPLE	CXM2	1226	31-MAR-10 13:32	DONE		
249255001	SAMPLE	CXM2	1227	31-MAR-10 13:32	DONE		
249259001	SAMPLE	CXM2	1228	31-MAR-10 13:32	DONE		
249259002	SAMPLE	CXM2	1229	31-MAR-10 13:32	DONE		
1202083886	MB	CXM2	1230	31-MAR-10 13:32	DONE		
1202083887	DUP	CXM2	1231	31-MAR-10 13:32	DONE		
1202083888	LCS	CXM2	1232	31-MAR-10 13:33	DONE		

Friday, March 05, 2010

REQUEST NUMBER: 10-2315

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number: 10-2315
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/5/2010
TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	HASL-300:AM-241	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	HASL-300:ISOPU	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	

Friday, March 05, 2010

REQUEST NUMBER: 10-2315

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOPU	1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	HASL-300:ISOTH	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	HASL-300:ISOU	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	SW-846:6010B	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	SW-846:8082	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	SW-846:8270C	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	SW-846:9012A	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	

Final Page of REQUEST NUMBER 10-2315

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2315C

REQUEST NUMBER: 10-2315

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-12936	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12936	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12936	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12930	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12930	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12930	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12929	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12929	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12929	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12935	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12935	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12935	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
	3/5/10	3:00			
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

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

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2638 **EVENT NAME:** SWMU 46-004(d2), 46-004(g), 46-004(h)

SAMPLE ID: RE46-10-12930 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	~~ALLH~~ 3/4/10	Qbt 3
TIME COLLECTED (HH:MM)		1450	SUB-MEDIA:	SOIL	N
PRS ID:	46-004(d2)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	46-611484		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R 3/4/10		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: reddish gray tuff (2.5 YR 6/1)

SAMPLE COMMENTS:

LOCATION DESC: 4d2-18

FIELD SCREENING/MEASUREMENT RESULTS: PID: 1.9 ppm

Back ground screening α: 15 β: 942 dpm Samples < MDA

COLLECTED BY (PRINT) M. Shende **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/4/10	(Printed Name) Sherri Sherwood	3/4/10
(Signature) [signature]	1635	(Signature) Sherri Sherwood	1635
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2638 **EVENT NAME:** SWMU 46-004(d2), 46-004(g), 46-004(h)

SAMPLE ID: RE46-10-12936 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	~~ALLH~~ 3/4/10	QA-E3
TIME COLLECTED (HH:MM)		1430	SUB-MEDIA:	SOIL	N
PRS ID:	46-004(d2)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611487	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ 3/4/10		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: reddish gray tuff (2.5YR 6/1)

SAMPLE COMMENTS: Sample under poly or Nylon Netting

LOCATION DESC: 4d2-17

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.9 ppm

Background
α: 15
β: 942 dpm

Samples < MDA

COLLECTED BY (PRINT) J. Romero

REVIEWED BY (PRINT) Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/4/10	(Printed Name) ~~Lane~~ Sherri Sherwood 3/4/10	3/4/10
(Signature) [signature]	1635	(Signature) [signature]	1635
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2638 **EVENT NAME:** SWMU 46-004(d2), 46-004(g), 46-004(h)

SAMPLE ID: RE46-10-12929 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1442	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d2)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	46-611484		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1	SCREEN/PORT DESC:	Nt	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: dark reddish gray coarse sediment (5YR 4/2)

SAMPLE COMMENTS: tuff @ 10", small plant roots present

LOCATION DESC: 4d2-18

FIELD SCREENING/MEASUREMENT RESULTS: PID: 20 ppm
Background Screening α: 15 β: 942 dpm samples < MDA

COLLECTED BY (PRINT) M. Shmedo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/4/10	(Printed Name) Sherri Sherwood	3/4/10
(Signature) Lane Andress	1635	(Signature) Sherri Sherwood	1635
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2638 **EVENT NAME:** SWMU 46-004(d2), 46-004(g), 46-004(h)

SAMPLE ID: RE46-10-12935 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1420	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d2)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611487	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		NA

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: brown silty coarse sediment & fill (7.5 YR 5/2)

SAMPLE COMMENTS: tuff @ 4" sample under erosion netting (Polyor Nylon)

LOCATION DESC: 4d2-17

FIELD SCREENING/MEASUREMENT RESULTS: PID: 1.3ppm Background α: 15 β: 942 dpm Samples < MDA

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/4/10	(Printed Name) Sherri Sherwood	3/4/10
(Signature)	1635	(Signature) Sherri Sherwood	1635
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2315 VALIDATION DATE: 6/9/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The ICV and/or CCV %Ds were >20% for pyridine; 2-methyl-4,6-dinitrophenol; benzyl alcohol; 2,4-dimethylphenol and hexachlorocyclopentadiene. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. It should be noted that the MSD %R and MS/MSD RPD were not within the laboratory's QC limits for benzyl alcohol. It should also be noted that the MS/MSD analyses were performed on a LANL sample from a different RN and the parent sample raw data were not included in the data package. However, MS/MSD analyses are not required for this analysis and, thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 06/10/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/9/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☐	☒	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☐	☒	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2315	Date Collected:	03/04/2010 12:00	Matrix:	S
Lab Sample ID:	248863003	Date Received:	03/06/2010 09:15	%Moisture:	17.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-12929	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965979	Inst:	MSD2.I	Dilution:	1
Run Date:	03/26/2010 00:09	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/17/2010 10:52	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s2c2529.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	403	ug/kg	80.6	403	
108-95-2	Phenol	U	403	ug/kg	80.6	403	
95-57-8	2-Chlorophenol	U	403	ug/kg	80.6	403	
106-46-7	1,4-Dichlorobenzene	U	403	ug/kg	80.6	403	
621-64-7	N-Nitrosodipropylamine	U	403	ug/kg	80.6	403	
59-50-7	4-Chloro-3-methylphenol	U	403	ug/kg	80.6	403	
83-32-9	Acenaphthene	U	40.3	ug/kg	13.3	40.3	
121-14-2	2,4-Dinitrotoluene	U	403	ug/kg	40.3	403	
100-02-7	4-Nitrophenol	U	403	ug/kg	133	403	
87-86-5	Pentachlorophenol	U	403	ug/kg	101	403	
129-00-0	Pyrene	U	40.3	ug/kg	12.1	40.3	
110-86-1	Pyridine	U	403	ug/kg	80.6	403	UJ,SV7c
62-53-3	Aniline	U	403	ug/kg	121	403	
111-44-4	bis(2-Chloroethyl) ether	U	403	ug/kg	80.6	403	
541-73-1	1,3-Dichlorobenzene	U	403	ug/kg	80.6	403	
100-51-6	Benzyl alcohol	U	403	ug/kg	121	403	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	403	ug/kg	80.6	403	
108-60-1	bis(2-Chloroisopropyl)ether	U	403	ug/kg	80.6	403	
95-48-7	o-Cresol	U	403	ug/kg	80.6	403	
65794-96-9	m,p-Cresols	U	403	ug/kg	121	403	
67-72-1	Hexachloroethane	U	403	ug/kg	80.6	403	
98-95-3	Nitrobenzene	U	403	ug/kg	80.6	403	
78-59-1	Isophorone	U	403	ug/kg	80.6	403	
88-75-5	2-Nitrophenol	U	403	ug/kg	80.6	403	
105-67-9	2,4-Dimethylphenol	U	403	ug/kg	141	403	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	403	ug/kg	80.6	403	
120-83-2	2,4-Dichlorophenol	U	403	ug/kg	80.6	403	
65-85-0	Benzoic acid	U	806	ug/kg	201	806	
91-20-3	Naphthalene	U	40.3	ug/kg	12.1	40.3	
106-47-8	4-Chloroaniline	U	403	ug/kg	80.6	403	
87-68-3	Hexachlorobutadiene	U	403	ug/kg	80.6	403	
91-57-6	2-Methylnaphthalene	U	40.3	ug/kg	8.06	40.3	
77-47-4	Hexachlorocyclopentadiene	U	403	ug/kg	80.6	403	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	403	ug/kg	80.6	403	
95-95-4	2,4,5-Trichlorophenol	U	403	ug/kg	80.6	403	
91-58-7	2-Chloronaphthalene	U	40.3	ug/kg	13.3	40.3	
88-74-4	2-Nitroaniline	U	403	ug/kg	80.6	403	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	403	ug/kg	80.6	403	

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Semi-Volatile
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Sample Summary

SDG Number:	10-2315	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248863003	**Date Received:**	03/06/2010 09:15	**%Moisture:**	17.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12929	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 00:09	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s2c2529.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	403	ug/kg	80.6	403	
606-20-2	2,6-Dinitrotoluene	U	403	ug/kg	40.3	403	
208-96-8	Acenaphthylene	U	40.3	ug/kg	12.1	40.3	
51-28-5	2,4-Dinitrophenol	U	806	ug/kg	153	806	
132-64-9	Dibenzofuran	U	403	ug/kg	80.6	403	
84-66-2	Diethylphthalate	U	403	ug/kg	80.6	403	
86-73-7	Fluorene	U	40.3	ug/kg	12.1	40.3	
7005-72-3	4-Chlorophenylphenylether	U	403	ug/kg	80.6	403	
534-52-1	2-Methyl-4,6-dinitrophenol	U	403	ug/kg	80.6	403	UJ,SV7c
100-01-6	4-Nitroaniline	U	403	ug/kg	121	403	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	403	ug/kg	80.6	403	
122-66-7	Azobenzene	U	403	ug/kg	80.6	403	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	403	ug/kg	80.6	403	
118-74-1	Hexachlorobenzene	U	403	ug/kg	80.6	403	
85-01-8	Phenanthrene	U	40.3	ug/kg	12.1	40.3	
120-12-7	Anthracene	U	40.3	ug/kg	8.06	40.3	
84-74-2	Di-n-butylphthalate	U	403	ug/kg	80.6	403	
206-44-0	Fluoranthene	U	40.3	ug/kg	12.1	40.3	
85-68-7	Butylbenzylphthalate	U	403	ug/kg	80.6	403	
56-55-3	Benzo(a)anthracene	U	40.3	ug/kg	12.1	40.3	
91-94-1	3,3'-Dichlorobenzidine	U	403	ug/kg	121	403	
218-01-9	Chrysene	U	40.3	ug/kg	12.1	40.3	
117-81-7	bis(2-Ethylhexyl)phthalate	U	403	ug/kg	80.6	403	
117-84-0	Di-n-octylphthalate	U	403	ug/kg	80.6	403	
205-99-2	Benzo(b)fluoranthene	U	40.3	ug/kg	12.1	40.3	
207-08-9	Benzo(k)fluoranthene	U	40.3	ug/kg	12.1	40.3	
50-32-8	Benzo(a)pyrene	U	40.3	ug/kg	12.1	40.3	
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.3	ug/kg	12.1	40.3	
53-70-3	Dibenzo(a,h)anthracene	U	40.3	ug/kg	12.1	40.3	
191-24-2	Benzo(ghi)perylene	U	40.3	ug/kg	12.1	40.3	
120-82-1	1,2,4-Trichlorobenzene	U	403	ug/kg	80.6	403	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	478	ug/kg		JA
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	8.19	426	ug/kg	93	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2315	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248863002	**Date Received:**	03/06/2010 09:15	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12930	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 23:49	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s2c2528.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	364	ug/kg	72.8	364	
108-95-2	Phenol	U	364	ug/kg	72.8	364	
95-57-8	2-Chlorophenol	U	364	ug/kg	72.8	364	
106-46-7	1,4-Dichlorobenzene	U	364	ug/kg	72.8	364	
621-64-7	N-Nitrosodipropylamine	U	364	ug/kg	72.8	364	
59-50-7	4-Chloro-3-methylphenol	U	364	ug/kg	72.8	364	
83-32-9	Acenaphthene	U	36.4	ug/kg	12.0	36.4	
121-14-2	2,4-Dinitrotoluene	U	364	ug/kg	36.4	364	
100-02-7	4-Nitrophenol	U	364	ug/kg	120	364	
87-86-5	Pentachlorophenol	U	364	ug/kg	91.0	364	
129-00-0	Pyrene	U	36.4	ug/kg	10.9	36.4	
110-86-1	Pyridine	U	364	ug/kg	72.8	364	UJ,SV7c
62-53-3	Aniline	U	364	ug/kg	109	364	
111-44-4	bis(2-Chloroethyl) ether	U	364	ug/kg	72.8	364	
541-73-1	1,3-Dichlorobenzene	U	364	ug/kg	72.8	364	
100-51-6	Benzyl alcohol	U	364	ug/kg	109	364	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	364	ug/kg	72.8	364	
108-60-1	bis(2-Chloroisopropyl)ether	U	364	ug/kg	72.8	364	
95-48-7	o-Cresol	U	364	ug/kg	72.8	364	
65794-96-9	m,p-Cresols	U	364	ug/kg	109	364	
67-72-1	Hexachloroethane	U	364	ug/kg	72.8	364	
98-95-3	Nitrobenzene	U	364	ug/kg	72.8	364	
78-59-1	Isophorone	U	364	ug/kg	72.8	364	
88-75-5	2-Nitrophenol	U	364	ug/kg	72.8	364	
105-67-9	2,4-Dimethylphenol	U	364	ug/kg	127	364	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	364	ug/kg	72.8	364	
120-83-2	2,4-Dichlorophenol	U	364	ug/kg	72.8	364	
65-85-0	Benzoic acid	U	728	ug/kg	182	728	
91-20-3	Naphthalene	U	36.4	ug/kg	10.9	36.4	
106-47-8	4-Chloroaniline	U	364	ug/kg	72.8	364	
87-68-3	Hexachlorobutadiene	U	364	ug/kg	72.8	364	
91-57-6	2-Methylnaphthalene	U	36.4	ug/kg	7.28	36.4	
77-47-4	Hexachlorocyclopentadiene	U	364	ug/kg	72.8	364	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	364	ug/kg	72.8	364	
95-95-4	2,4,5-Trichlorophenol	U	364	ug/kg	72.8	364	
91-58-7	2-Chloronaphthalene	U	36.4	ug/kg	12.0	36.4	
88-74-4	2-Nitroaniline	U	364	ug/kg	72.8	364	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	364	ug/kg	72.8	364	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12930**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 23:49**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2528.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	364	ug/kg	72.8	364	
606-20-2	2,6-Dinitrotoluene	U	364	ug/kg	36.4	364	
208-96-8	Acenaphthylene	U	36.4	ug/kg	10.9	36.4	
51-28-5	2,4-Dinitrophenol	U	728	ug/kg	138	728	
132-64-9	Dibenzofuran	U	364	ug/kg	72.8	364	
84-66-2	Diethylphthalate	U	364	ug/kg	72.8	364	
86-73-7	Fluorene	U	36.4	ug/kg	10.9	36.4	
7005-72-3	4-Chlorophenylphenylether	U	364	ug/kg	72.8	364	
534-52-1	2-Methyl-4,6-dinitrophenol	U	364	ug/kg	72.8	364	UJ,SV7c
100-01-6	4-Nitroaniline	U	364	ug/kg	109	364	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	364	ug/kg	72.8	364	
122-66-7	Azobenzene	U	364	ug/kg	72.8	364	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	364	ug/kg	72.8	364	
118-74-1	Hexachlorobenzene	U	364	ug/kg	72.8	364	
85-01-8	Phenanthrene	U	36.4	ug/kg	10.9	36.4	
120-12-7	Anthracene	U	36.4	ug/kg	7.28	36.4	
84-74-2	Di-n-butylphthalate	U	364	ug/kg	72.8	364	
206-44-0	Fluoranthene	U	36.4	ug/kg	10.9	36.4	
85-68-7	Butylbenzylphthalate	U	364	ug/kg	72.8	364	
56-55-3	Benzo(a)anthracene	U	36.4	ug/kg	10.9	36.4	
91-94-1	3,3'-Dichlorobenzidine	U	364	ug/kg	109	364	
218-01-9	Chrysene	U	36.4	ug/kg	10.9	36.4	
117-81-7	bis(2-Ethylhexyl)phthalate	U	364	ug/kg	72.8	364	
117-84-0	Di-n-octylphthalate	U	364	ug/kg	72.8	364	
205-99-2	Benzo(b)fluoranthene	U	36.4	ug/kg	10.9	36.4	
207-08-9	Benzo(k)fluoranthene	U	36.4	ug/kg	10.9	36.4	
50-32-8	Benzo(a)pyrene	U	36.4	ug/kg	10.9	36.4	
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.4	ug/kg	10.9	36.4	
53-70-3	Dibenzo(a,h)anthracene	U	36.4	ug/kg	10.9	36.4	
191-24-2	Benzo(ghi)perylene	U	36.4	ug/kg	10.9	36.4	
120-82-1	1,2,4-Trichlorobenzene	U	364	ug/kg	72.8	364	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	386	ug/kg		JA
76-49-3	Bornyl acetate	5.08	253	ug/kg	98	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2315	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248863002	**Date Received:**	03/06/2010 09:15	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12930	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 23:49	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s2c2528.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
150320-52-8	Bicyclo[4.4.0]dec-1-ene, 2-isopropyl-5-m	5.5	635	ug/kg	86	NJ
	Unknown	5.66	2450	ug/kg		J
546-28-1	1H-3a,7-Methanoazulene, octahydro-3,8,8-	5.74	168	ug/kg	92	NJ
30021-74-0	Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro	5.83	150	ug/kg	95	NJ
	Unknown	5.89	462	ug/kg		J
19912-83-5	Spiro[5.5]undeca-1,8-diene, 1,5,5,9-tetr	5.98	329	ug/kg	90	NJ
	Unknown	6.01	787	ug/kg		J
	Unknown	6.03	1000	ug/kg		J
4045-44-7	1,3-Cyclopentadiene, 1,2,3,4,5-pentameth	6.08	334	ug/kg	95	NJ
	Unknown	6.22	175	ug/kg		J
	Unknown	6.55	274	ug/kg		J
	Unknown	6.58	204	ug/kg		J
	Unknown	6.84	617	ug/kg		J
	Unknown	6.89	182	ug/kg		J
	Unknown	7	231	ug/kg		J
	Unknown	7.05	226	ug/kg		J
	Unknown	7.15	540	ug/kg		J
	Unknown	7.2	456	ug/kg		J
	Unknown	7.3	441	ug/kg		J
	Unknown	8.34	533	ug/kg		J
18326-16-4	Podocarpa-8,11,13-trien-3-one, 14-isopro	8.54	211	ug/kg	96	NJ
15372-53-9	Podocarpa-8,11,13-triene-1,3-dione, 14-i	8.63	550	ug/kg	95	NJ
6755-93-7	2(1H)-Phenanthrenone, 3,4,4a,9,10,10a-he	8.74	674	ug/kg	97	NJ
	Unknown	8.96	18200	ug/kg		J
	Unknown	9.15	772	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2315	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248863004	**Date Received:**	03/06/2010 09:15	**%Moisture:**	12.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12935	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 00:30	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	s2c2530.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	380	ug/kg	76.0	380	
108-95-2	Phenol	U	380	ug/kg	76.0	380	
95-57-8	2-Chlorophenol	U	380	ug/kg	76.0	380	
106-46-7	1,4-Dichlorobenzene	U	380	ug/kg	76.0	380	
621-64-7	N-Nitrosodipropylamine	U	380	ug/kg	76.0	380	
59-50-7	4-Chloro-3-methylphenol	U	380	ug/kg	76.0	380	
83-32-9	Acenaphthene	U	38.0	ug/kg	12.5	38.0	
121-14-2	2,4-Dinitrotoluene	U	380	ug/kg	38.0	380	
100-02-7	4-Nitrophenol	U	380	ug/kg	125	380	
87-86-5	Pentachlorophenol	U	380	ug/kg	94.9	380	
129-00-0	Pyrene	U	38.0	ug/kg	11.4	38.0	
110-86-1	Pyridine	U	380	ug/kg	76.0	380	UJ,SV7c
62-53-3	Aniline	U	380	ug/kg	114	380	
111-44-4	bis(2-Chloroethyl) ether	U	380	ug/kg	76.0	380	
541-73-1	1,3-Dichlorobenzene	U	380	ug/kg	76.0	380	
100-51-6	Benzyl alcohol	U	380	ug/kg	114	380	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	380	ug/kg	76.0	380	
108-60-1	bis(2-Chloroisopropyl)ether	U	380	ug/kg	76.0	380	
95-48-7	o-Cresol	U	380	ug/kg	76.0	380	
65794-96-9	m,p-Cresols	U	380	ug/kg	114	380	
67-72-1	Hexachloroethane	U	380	ug/kg	76.0	380	
98-95-3	Nitrobenzene	U	380	ug/kg	76.0	380	
78-59-1	Isophorone	U	380	ug/kg	76.0	380	
88-75-5	2-Nitrophenol	U	380	ug/kg	76.0	380	
105-67-9	2,4-Dimethylphenol	U	380	ug/kg	133	380	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	380	ug/kg	76.0	380	
120-83-2	2,4-Dichlorophenol	U	380	ug/kg	76.0	380	
65-85-0	Benzoic acid	U	760	ug/kg	190	760	
91-20-3	Naphthalene	U	38.0	ug/kg	11.4	38.0	
106-47-8	4-Chloroaniline	U	380	ug/kg	76.0	380	
87-68-3	Hexachlorobutadiene	U	380	ug/kg	76.0	380	
91-57-6	2-Methylnaphthalene	U	38.0	ug/kg	7.60	38.0	
77-47-4	Hexachlorocyclopentadiene	U	380	ug/kg	76.0	380	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	380	ug/kg	76.0	380	
95-95-4	2,4,5-Trichlorophenol	U	380	ug/kg	76.0	380	
91-58-7	2-Chloronaphthalene	U	38.0	ug/kg	12.5	38.0	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	380	ug/kg	76.0	380	
99-09-2	3-Nitroaniline	U	380	ug/kg	76.0	380	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2315	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248863004	**Date Received:**	03/06/2010 09:15	**%Moisture:**	12.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12935	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 00:30	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	s2c2530.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	380	ug/kg	76.0	380	
606-20-2	2,6-Dinitrotoluene	U	380	ug/kg	38.0	380	
208-96-8	Acenaphthylene	U	38.0	ug/kg	11.4	38.0	
51-28-5	2,4-Dinitrophenol	U	760	ug/kg	144	760	
132-64-9	Dibenzofuran	U	380	ug/kg	76.0	380	
84-66-2	Diethylphthalate	U	380	ug/kg	76.0	380	
86-73-7	Fluorene	U	38.0	ug/kg	11.4	38.0	
7005-72-3	4-Chlorophenylphenylether	U	380	ug/kg	76.0	380	
534-52-1	2-Methyl-4,6-dinitrophenol	U	380	ug/kg	76.0	380	UJ,SV7c
100-01-6	4-Nitroaniline	U	380	ug/kg	114	380	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	380	ug/kg	76.0	380	
122-66-7	Azobenzene	U	380	ug/kg	76.0	380	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	380	ug/kg	76.0	380	
118-74-1	Hexachlorobenzene	U	380	ug/kg	76.0	380	
85-01-8	Phenanthrene	U	38.0	ug/kg	11.4	38.0	
120-12-7	Anthracene	U	38.0	ug/kg	7.60	38.0	
84-74-2	Di-n-butylphthalate	U	380	ug/kg	76.0	380	
206-44-0	Fluoranthene	U	38.0	ug/kg	11.4	38.0	
85-68-7	Butylbenzylphthalate	U	380	ug/kg	76.0	380	
56-55-3	Benzo(a)anthracene	U	38.0	ug/kg	11.4	38.0	
91-94-1	3,3'-Dichlorobenzidine	U	380	ug/kg	114	380	
218-01-9	Chrysene	U	38.0	ug/kg	11.4	38.0	
117-81-7	bis(2-Ethylhexyl)phthalate	U	380	ug/kg	76.0	380	
117-84-0	Di-n-octylphthalate	U	380	ug/kg	76.0	380	
205-99-2	Benzo(b)fluoranthene	U	38.0	ug/kg	11.4	38.0	
207-08-9	Benzo(k)fluoranthene	U	38.0	ug/kg	11.4	38.0	
50-32-8	Benzo(a)pyrene	U	38.0	ug/kg	11.4	38.0	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.0	ug/kg	11.4	38.0	
53-70-3	Dibenzo(a,h)anthracene	U	38.0	ug/kg	11.4	38.0	
191-24-2	Benzo(ghi)perylene	U	38.0	ug/kg	11.4	38.0	
120-82-1	1,2,4-Trichlorobenzene	U	380	ug/kg	76.0	380	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	392	ug/kg		JA

ETM
6/9/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2315	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248863001	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12936	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 23:29	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s2c2527.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	369	ug/kg	73.8	369	
108-95-2	Phenol	U	369	ug/kg	73.8	369	
95-57-8	2-Chlorophenol	U	369	ug/kg	73.8	369	
106-46-7	1,4-Dichlorobenzene	U	369	ug/kg	73.8	369	
621-64-7	N-Nitrosodipropylamine	U	369	ug/kg	73.8	369	
59-50-7	4-Chloro-3-methylphenol	U	369	ug/kg	73.8	369	
83-32-9	Acenaphthene	U	36.9	ug/kg	12.2	36.9	
121-14-2	2,4-Dinitrotoluene	U	369	ug/kg	36.9	369	
100-02-7	4-Nitrophenol	U	369	ug/kg	122	369	
87-86-5	Pentachlorophenol	U	369	ug/kg	92.2	369	
129-00-0	Pyrene	U	36.9	ug/kg	11.1	36.9	
110-86-1	Pyridine	U	369	ug/kg	73.8	369	UJ,SV7c
62-53-3	Aniline	U	369	ug/kg	111	369	
111-44-4	bis(2-Chloroethyl) ether	U	369	ug/kg	73.8	369	
541-73-1	1,3-Dichlorobenzene	U	369	ug/kg	73.8	369	
100-51-6	Benzyl alcohol	U	369	ug/kg	111	369	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	369	ug/kg	73.8	369	
108-60-1	bis(2-Chloroisopropyl)ether	U	369	ug/kg	73.8	369	
95-48-7	o-Cresol	U	369	ug/kg	73.8	369	
65794-96-9	m,p-Cresols	U	369	ug/kg	111	369	
67-72-1	Hexachloroethane	U	369	ug/kg	73.8	369	
98-95-3	Nitrobenzene	U	369	ug/kg	73.8	369	
78-59-1	Isophorone	U	369	ug/kg	73.8	369	
88-75-5	2-Nitrophenol	U	369	ug/kg	73.8	369	
105-67-9	2,4-Dimethylphenol	U	369	ug/kg	129	369	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	369	ug/kg	73.8	369	
120-83-2	2,4-Dichlorophenol	U	369	ug/kg	73.8	369	
65-85-0	Benzoic acid	U	738	ug/kg	184	738	
91-20-3	Naphthalene	U	36.9	ug/kg	11.1	36.9	
106-47-8	4-Chloroaniline	U	369	ug/kg	73.8	369	
87-68-3	Hexachlorobutadiene	U	369	ug/kg	73.8	369	
91-57-6	2-Methylnaphthalene	U	36.9	ug/kg	7.38	36.9	
77-47-4	Hexachlorocyclopentadiene	U	369	ug/kg	73.8	369	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	369	ug/kg	73.8	369	
95-95-4	2,4,5-Trichlorophenol	U	369	ug/kg	73.8	369	
91-58-7	2-Chloronaphthalene	U	36.9	ug/kg	12.2	36.9	
88-74-4	2-Nitroaniline	U	369	ug/kg	73.8	369	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	369	ug/kg	73.8	369	

ETM
6/9/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2315	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248863001	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12936	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 23:29	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s2c2527.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	369	ug/kg	73.8	369	
606-20-2	2,6-Dinitrotoluene	U	369	ug/kg	36.9	369	
208-96-8	Acenaphthylene	U	36.9	ug/kg	11.1	36.9	
51-28-5	2,4-Dinitrophenol	U	738	ug/kg	140	738	
132-64-9	Dibenzofuran	U	369	ug/kg	73.8	369	
84-66-2	Diethylphthalate	U	369	ug/kg	73.8	369	
86-73-7	Fluorene	U	36.9	ug/kg	11.1	36.9	
7005-72-3	4-Chlorophenylphenylether	U	369	ug/kg	73.8	369	
534-52-1	2-Methyl-4,6-dinitrophenol	U	369	ug/kg	73.8	369	UJ,SV7c
100-01-6	4-Nitroaniline	U	369	ug/kg	111	369	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	369	ug/kg	73.8	369	
122-66-7	Azobenzene	U	369	ug/kg	73.8	369	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	369	ug/kg	73.8	369	
118-74-1	Hexachlorobenzene	U	369	ug/kg	73.8	369	
85-01-8	Phenanthrene	U	36.9	ug/kg	11.1	36.9	
120-12-7	Anthracene	U	36.9	ug/kg	7.38	36.9	
84-74-2	Di-n-butylphthalate	U	369	ug/kg	73.8	369	
206-44-0	Fluoranthene	U	36.9	ug/kg	11.1	36.9	
85-68-7	Butylbenzylphthalate	U	369	ug/kg	73.8	369	
56-55-3	Benzo(a)anthracene	U	36.9	ug/kg	11.1	36.9	
91-94-1	3,3'-Dichlorobenzidine	U	369	ug/kg	111	369	
218-01-9	Chrysene	U	36.9	ug/kg	11.1	36.9	
117-81-7	bis(2-Ethylhexyl)phthalate	U	369	ug/kg	73.8	369	
117-84-0	Di-n-octylphthalate	U	369	ug/kg	73.8	369	
205-99-2	Benzo(b)fluoranthene	U	36.9	ug/kg	11.1	36.9	
207-08-9	Benzo(k)fluoranthene	U	36.9	ug/kg	11.1	36.9	
50-32-8	Benzo(a)pyrene	U	36.9	ug/kg	11.1	36.9	
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.9	ug/kg	11.1	36.9	
53-70-3	Dibenzo(a,h)anthracene	U	36.9	ug/kg	11.1	36.9	
191-24-2	Benzo(ghi)perylene	U	36.9	ug/kg	11.1	36.9	
120-82-1	1,2,4-Trichlorobenzene	U	369	ug/kg	73.8	369	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.88	350	ug/kg		JA

ETM
6/9/10

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2315 VALIDATION DATE: 6/9/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The MS/MSD %R calculations were performed incorrectly. The parent sample result was < the MDL and, thus, a result of 0 ug/kg should have been used to calculate the %Rs. The laboratory subtracted the parent sample concentrations. The %Rs were within the acceptance limits when calculated correctly. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 06/10/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/9/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☐	☒	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☐	☒	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46–10–12936

Date Received: 06–MAR–10

GEL Job No (SDG): 10–2315

GEL Sample ID: 248863001

Date Filtered: 19–MAR–10

Injection Volume (uL): 20

%Solids: 90.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.553	2.21	0.553	ug/kg	U	1	28–MAR–10 16:15	per0328018a
	Perchlorate Isotope Ratio						1	28–MAR–10 16:15	per0328018a
14797–73–0	Perchlorate–101	.553	2.21	0.553	ug/kg	U	1	28–MAR–10 16:15	per0328018a
	Perchlorate–O(18)			5.45	ug/kg		1	28–MAR–10 16:15	per0328018a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

ETM

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12930

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2315

GEL Sample ID: 248863002

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 91.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.546	2.18	0.546	ug/kg	U	1	28-MAR-10 16:24	per0328019a
	Perchlorate Isotope Ratio						1	28-MAR-10 16:24	per0328019a
14797-73-0	Perchlorate-101	.546	2.18	0.546	ug/kg	U	1	28-MAR-10 16:24	per0328019a
	Perchlorate-O(18)			5.38	ug/kg		1	28-MAR-10 16:24	per0328019a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12929

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2315

GEL Sample ID: 248863003

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.604	2.42	0.604	ug/kg	U	1	28-MAR-10 17:15	per0328025a
	Perchlorate Isotope Ratio						1	28-MAR-10 17:15	per0328025a
14797-73-0	Perchlorate-101	.604	2.42	0.604	ug/kg	U	1	28-MAR-10 17:15	per0328025a
	Perchlorate-O(18)			6.08	ug/kg		1	28-MAR-10 17:15	per0328025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

ETM
6/9/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12935

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2315

GEL Sample ID: 248863004

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.57	2.28	0.570	ug/kg	U	1	28-MAR-10 17:23	per0328026a
	Perchlorate Isotope Ratio						1	28-MAR-10 17:23	per0328026a
14797-73-0	Perchlorate-101	.57	2.28	0.570	ug/kg	U	1	28-MAR-10 17:23	per0328026a
	Perchlorate-O(18)			5.74	ug/kg		1	28-MAR-10 17:23	per0328026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2315 VALIDATION DATE: 6/9/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

None.

Reviewed by: Mary Donivan Level: I Date: 06/10/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/9/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2315	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248863003	**Date Received:**	03/06/2010 09:15	**%Moisture:**	17.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12929	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967400	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/23/2010 10:50	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 11:11	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	018f1801.d	**Column:**	1 CLP1	**Level:**	LOW
	018b1801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.03	ug/kg	1.34	4.03	1
11104-28-2	Aroclor-1221	U	4.03	ug/kg	1.34	4.03	1
11141-16-5	Aroclor-1232	U	4.03	ug/kg	1.34	4.03	1
53469-21-9	Aroclor-1242	U	4.03	ug/kg	1.34	4.03	1
12672-29-6	Aroclor-1248	U	4.03	ug/kg	1.34	4.03	1
11097-69-1	Aroclor-1254	U	4.03	ug/kg	1.34	4.03	1
11096-82-5	Aroclor-1260	U	4.03	ug/kg	1.34	4.03	1

ETM
6/9/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12930**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 10:12**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**015f1501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	015b1501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.64	ug/kg	1.21	3.64	1
11104–28–2	Aroclor–1221	U	3.64	ug/kg	1.21	3.64	1
11141–16–5	Aroclor–1232	U	3.64	ug/kg	1.21	3.64	1
53469–21–9	Aroclor–1242	U	3.64	ug/kg	1.21	3.64	1
12672–29–6	Aroclor–1248	U	3.64	ug/kg	1.21	3.64	1
11097–69–1	Aroclor–1254	U	3.64	ug/kg	1.21	3.64	1
11096–82–5	Aroclor–1260	U	3.64	ug/kg	1.21	3.64	1

ETM
6/9/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2315	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248863004	**Date Received:**	03/06/2010 09:15	**%Moisture:**	12.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–12935	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967400	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/23/2010 11:03	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 11:11	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	019f1901.d	**Column:**	1 CLP1	**Level:**	LOW
	019b1901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.80	ug/kg	1.26	3.80	1
11104–28–2	Aroclor–1221	U	3.80	ug/kg	1.26	3.80	1
11141–16–5	Aroclor–1232	U	3.80	ug/kg	1.26	3.80	1
53469–21–9	Aroclor–1242	U	3.80	ug/kg	1.26	3.80	1
12672–29–6	Aroclor–1248	U	3.80	ug/kg	1.26	3.80	1
11097–69–1	Aroclor–1254	U	3.80	ug/kg	1.26	3.80	1
11096–82–5	Aroclor–1260	U	3.80	ug/kg	1.26	3.80	1

ETM
6/9/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2315	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248863001	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–12936	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967400	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/23/2010 10:00	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 11:11	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	014f1401.d	**Column:**	1 CLP1	**Level:**	LOW
	014b1401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.69	ug/kg	1.23	3.69	1
11104–28–2	Aroclor–1221	U	3.69	ug/kg	1.23	3.69	1
11141–16–5	Aroclor–1232	U	3.69	ug/kg	1.23	3.69	1
53469–21–9	Aroclor–1242	U	3.69	ug/kg	1.23	3.69	1
12672–29–6	Aroclor–1248	U	3.69	ug/kg	1.23	3.69	1
11097–69–1	Aroclor–1254	U	3.69	ug/kg	1.23	3.69	1
11096–82–5	Aroclor–1260	U	3.69	ug/kg	1.23	3.69	1

ETM
6/9/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2315 VALIDATION DATE: 6/9/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. In the MB, Al and K were detected. The K results for all samples <u>except</u> RE46-10-12935 were detects >5X but ≤50X the blank concentration and, thus, were qualified J,I4a. All the other associated sample results were detects >50X the blank concentrations and, thus, were not qualified, based on professional judgment.
2. The LCS %R was < the laboratory's LAL but ≥10% for Sb. The associated sample results were NDs and, thus, were qualified UJ,I12a.
3. The MS %Rs were > the laboratory's UAL for Al, Mn, K and Na. The associated sample results were detects and, thus, were qualified J+,I6b. The MS %R was also > the laboratory's UAL for Fe. However, the associated parent sample concentration was >4X the spike concentration. Thus, the associated sample results were not qualified, based on professional judgment.
4. It should be noted that all the matrix QC analyses were performed on a LANL sample from different a RN and that the raw data for the parent sample were not included in the data package. No sample data were qualified.

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Reviewed by: Mary Donivan Level: I Date: 06/10/10

VALIDATOR'S SIGNATURE: Eric T. Mik DATE: 6/9/10

Form 5118-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☒	☐	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2315 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248863001 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-12936 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 90.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum J+,I6b	1400000	ug/kg		7410	21800	21800	1	P	HSC	04/01/10 09:22	033110B-1	964012
7440-36-0	Antimony UJ,I12a	1090	ug/kg	U	359	1090	1090	1	P	HSC	04/01/10 09:22	033110B-1	964012
7440-38-2	Arsenic	734	ug/kg	J	221	1110	1110	2	MS	BCD1	05/17/10 14:01	100517-3	964014
7440-39-3	Barium	11400	ug/kg		109	545	545	1	P	HSC	04/01/10 09:22	033110B-1	964012
7440-41-7	Beryllium	341	ug/kg		22.1	111	111	2	MS	PRB	05/17/10 20:37	100517-4	964014
7440-43-9	Cadmium	545	ug/kg	U	109	545	545	1	P	HSC	04/01/10 09:22	033110B-1	964012
7440-70-2	Calcium	480000	ug/kg		8270	25900	25900	1	P	LS	04/13/10 15:39	041310A-2	974047
7440-47-3	Chromium	2370	ug/kg		163	545	545	1	P	HSC	04/01/10 09:22	033110B-1	964012
7440-48-4	Cobalt	586	ug/kg		163	545	545	1	P	HSC	04/01/10 09:22	033110B-1	964012
7440-50-8	Copper	1260	ug/kg		327	1090	1090	1	P	HSC	04/01/10 09:22	033110B-1	964012
7439-89-6	Iron	5750000	ug/kg		8710	27200	27200	1	P	HSC	04/01/10 09:22	033110B-1	964012
7439-92-1	Lead	4050	ug/kg		272	1090	1090	1	P	HSC	04/01/10 09:22	033110B-1	964012
7439-95-4	Magnesium	253000	ug/kg		9260	32700	32700	1	P	HSC	04/01/10 09:22	033110B-1	964012
7439-96-5	Manganese J+,I6b	258000	ug/kg		218	1090	1090	1	P	HSC	04/01/10 09:22	033110B-1	964012
7439-97-6	Mercury	12.3	ug/kg	U	4.17	12.3	12.3	1	AV	JXL1	03/24/10 11:11	032410S1-5	968185
7440-02-0	Nickel	1570	ug/kg		111	443	443	2	MS	BCD1	05/17/10 14:01	100517-3	964014
7440-09-7	Potassium J,I4a	383000	ug/kg		6970	27200	27200	1	P	HSC	04/01/10 09:22	033110B-1	964012
7782-49-2	Selenium	1110	ug/kg	U	553	1110	1110	2	MS	BCD1	05/17/10 14:01	100517-3	964014
7440-22-4	Silver	545	ug/kg	U	109	545	545	1	P	HSC	04/01/10 09:22	033110B-1	964012
7440-23-5	Sodium J+,I6b	253000	ug/kg		7620	27200	27200	1	P	HSC	04/01/10 09:22	033110B-1	964012
7440-28-0	Thallium	221	ug/kg	U	66.4	221	221	2	MS	BCD1	05/17/10 14:01	100517-3	964014
7440-62-2	Vanadium	2580	ug/kg		109	545	545	1	P	HSC	04/01/10 09:22	033110B-1	964012
7440-66-6	Zinc	21500	ug/kg		359	1090	1090	1	P	HSC	04/01/10 09:22	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.508	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.5	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.541	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.535	g	50	mL	04/12/10	BXA1

ETM
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METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2315 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248863002 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-12930 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 91.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum J+,I6b	1470000	ug/kg		7380	21700	21700	1	P	HSC	04/01/10 09:24	033110B-1	964012
7440-36-0	Antimony UJ,I12a	1090	ug/kg	U	358	1090	1090	1	P	HSC	04/01/10 09:24	033110B-1	964012
7440-38-2	Arsenic	1060	ug/kg		198	990	990	2	MS	BCD1	05/17/10 14:06	100517-3	964014
7440-39-3	Barium	16200	ug/kg		109	543	543	1	P	HSC	04/01/10 09:24	033110B-1	964012
7440-41-7	Beryllium	312	ug/kg		19.8	99	99	2	MS	PRB	05/17/10 20:39	100517-4	964014
7440-43-9	Cadmium	543	ug/kg	U	109	543	543	1	P	HSC	04/01/10 09:24	033110B-1	964012
7440-70-2	Calcium	1500000	ug/kg		8490	26500	26500	1	P	LS	04/13/10 15:41	041310A-2	974047
7440-47-3	Chromium	16600	ug/kg		163	543	543	1	P	HSC	04/01/10 09:24	033110B-1	964012
7440-48-4	Cobalt	626	ug/kg		163	543	543	1	P	HSC	04/01/10 09:24	033110B-1	964012
7440-50-8	Copper	1320	ug/kg		326	1090	1090	1	P	HSC	04/01/10 09:24	033110B-1	964012
7439-89-6	Iron	5630000	ug/kg		8690	27100	27100	1	P	HSC	04/01/10 09:24	033110B-1	964012
7439-92-1	Lead	2300	ug/kg		271	1090	1090	1	P	HSC	04/01/10 09:24	033110B-1	964012
7439-95-4	Magnesium	407000	ug/kg		9230	32600	32600	1	P	HSC	04/01/10 09:24	033110B-1	964012
7439-96-5	Manganese J+,I6b	245000	ug/kg		217	1090	1090	1	P	HSC	04/01/10 09:24	033110B-1	964012
7439-97-6	Mercury	12	ug/kg		4	11.8	11.8	1	AV	JXL1	03/24/10 11:13	032410S1-5	968185
7440-02-0	Nickel	1720	ug/kg		99	396	396	2	MS	BCD1	05/17/10 14:06	100517-3	964014
7440-09-7	Potassium J,I4a	405000	ug/kg		6950	27100	27100	1	P	HSC	04/01/10 09:24	033110B-1	964012
7782-49-2	Selenium	990	ug/kg	U	495	990	990	2	MS	BCD1	05/17/10 14:06	100517-3	964014
7440-22-4	Silver	543	ug/kg	U	109	543	543	1	P	HSC	04/01/10 09:24	033110B-1	964012
7440-23-5	Sodium J+,I6b	308000	ug/kg		7600	27100	27100	1	P	HSC	04/01/10 09:24	033110B-1	964012
7440-28-0	Thallium	198	ug/kg	U	59.4	198	198	2	MS	BCD1	05/17/10 14:06	100517-3	964014
7440-62-2	Vanadium	2440	ug/kg		109	543	543	1	P	HSC	04/01/10 09:24	033110B-1	964012
7440-66-6	Zinc	17900	ug/kg		358	1090	1090	1	P	HSC	04/01/10 09:24	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.503	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.552	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.557	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.515	g	50	mL	04/12/10	BXA1

ETM
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METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2315 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248863003 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-12929 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	2030000	ug/kg		7430	21900	21900	1	P	HSC	04/01/10 09:26	033110B-1	964012
7440-36-0	Antimony UJ,I12a	1090	ug/kg	U	361	1090	1090	1	P	HSC	04/01/10 09:26	033110B-1	964012
7440-38-2	Arsenic	1040	ug/kg	J	232	1160	1160	2	MS	BCD1	05/17/10 14:18	100517-3	964014
7440-39-3	Barium	21600	ug/kg		109	547	547	1	P	HSC	04/01/10 09:26	033110B-1	964012
7440-41-7	Beryllium	341	ug/kg		23.2	116	116	2	MS	PRB	05/17/10 20:40	100517-4	964014
7440-43-9	Cadmium	547	ug/kg	U	109	547	547	1	P	HSC	04/01/10 09:26	033110B-1	964012
7440-70-2	Calcium	643000	ug/kg		9070	28400	28400	1	P	LS	04/13/10 15:43	041310A-2	974047
7440-47-3	Chromium	4960	ug/kg		164	547	547	1	P	HSC	04/01/10 09:26	033110B-1	964012
7440-48-4	Cobalt	746	ug/kg		164	547	547	1	P	HSC	04/01/10 09:26	033110B-1	964012
7440-50-8	Copper	1790	ug/kg		328	1090	1090	1	P	HSC	04/01/10 09:26	033110B-1	964012
7439-89-6	Iron	5600000	ug/kg		8740	27300	27300	1	P	HSC	04/01/10 09:26	033110B-1	964012
7439-92-1	Lead	4040	ug/kg		273	1090	1090	1	P	HSC	04/01/10 09:26	033110B-1	964012
7439-95-4	Magnesium	353000	ug/kg		9290	32800	32800	1	P	HSC	04/01/10 09:26	033110B-1	964012
7439-96-5	Manganese J+,I6b	210000	ug/kg		219	1090	1090	1	P	HSC	04/01/10 09:26	033110B-1	964012
7439-97-6	Mercury	19.8	ug/kg		4.72	13.9	13.9	1	AV	JXL1	03/24/10 11:14	032410S1-5	968185
7440-02-0	Nickel	1800	ug/kg		116	463	463	2	MS	BCD1	05/17/10 14:18	100517-3	964014
7440-09-7	Potassium J,I4a	305000	ug/kg		7000	27300	27300	1	P	HSC	04/01/10 09:26	033110B-1	964012
7782-49-2	Selenium	1160	ug/kg	U	579	1160	1160	2	MS	BCD1	05/17/10 14:18	100517-3	964014
7440-22-4	Silver	547	ug/kg	U	109	547	547	1	P	HSC	04/01/10 09:26	033110B-1	964012
7440-23-5	Sodium J+,I6b	123000	ug/kg		7650	27300	27300	1	P	HSC	04/01/10 09:26	033110B-1	964012
7440-28-0	Thallium	232	ug/kg	U	69.5	232	232	2	MS	BCD1	05/17/10 14:18	100517-3	964014
7440-62-2	Vanadium	3510	ug/kg		109	547	547	1	P	HSC	04/01/10 09:26	033110B-1	964012
7440-66-6	Zinc	20500	ug/kg		361	1090	1090	1	P	HSC	04/01/10 09:26	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.553	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.522	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.523	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.533	g	50	mL	04/12/10	BXA1

ETM
6/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2315 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248863004 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-12935 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum J+,I6b	2510000	ug/kg		7640	22500	22500	1	P	HSC	04/01/10 09:28	033110B-1	964012
7440-36-0	Antimony UJ,I12a	1120	ug/kg	U	371	1120	1120	1	P	HSC	04/01/10 09:28	033110B-1	964012
7440-38-2	Arsenic	912	ug/kg	J	214	1070	1070	2	MS	BCD1	05/17/10 14:22	100517-3	964014
7440-39-3	Barium	26700	ug/kg		112	561	561	1	P	HSC	04/01/10 09:28	033110B-1	964012
7440-41-7	Beryllium	361	ug/kg		21.4	107	107	2	MS	PRB	05/17/10 20:41	100517-4	964014
7440-43-9	Cadmium	561	ug/kg	U	112	561	561	1	P	HSC	04/01/10 09:28	033110B-1	964012
7440-70-2	Calcium	824000	ug/kg		8120	25400	25400	1	P	LS	04/13/10 15:45	041310A-2	974047
7440-47-3	Chromium	2140	ug/kg		168	561	561	1	P	HSC	04/01/10 09:28	033110B-1	964012
7440-48-4	Cobalt	1210	ug/kg		168	561	561	1	P	HSC	04/01/10 09:28	033110B-1	964012
7440-50-8	Copper	2160	ug/kg		337	1120	1120	1	P	HSC	04/01/10 09:28	033110B-1	964012
7439-89-6	Iron	6600000	ug/kg		8980	28100	28100	1	P	HSC	04/01/10 09:28	033110B-1	964012
7439-92-1	Lead	5040	ug/kg		281	1120	1120	1	P	HSC	04/01/10 09:28	033110B-1	964012
7439-95-4	Magnesium	447000	ug/kg		9540	33700	33700	1	P	HSC	04/01/10 09:28	033110B-1	964012
7439-96-5	Manganese J+,I6b	275000	ug/kg		225	1120	1120	1	P	HSC	04/01/10 09:28	033110B-1	964012
7439-97-6	Mercury	12.3	ug/kg	U	4.17	12.3	12.3	1	AV	JXL1	03/24/10 11:16	032410S1-5	968185
7440-02-0	Nickel	1990	ug/kg		107	427	427	2	MS	BCD1	05/17/10 14:22	100517-3	964014
7440-09-7	Potassium J+,I6b	467000	ug/kg		7190	28100	28100	1	P	HSC	04/01/10 09:28	033110B-1	964012
7782-49-2	Selenium	1070	ug/kg	U	534	1070	1070	2	MS	BCD1	05/17/10 14:22	100517-3	964014
7440-22-4	Silver	561	ug/kg	U	112	561	561	1	P	HSC	04/01/10 09:28	033110B-1	964012
7440-23-5	Sodium J+,I6b	132000	ug/kg		7860	28100	28100	1	P	HSC	04/01/10 09:28	033110B-1	964012
7440-28-0	Thallium	214	ug/kg	U	64.1	214	214	2	MS	BCD1	05/17/10 14:22	100517-3	964014
7440-62-2	Vanadium	4880	ug/kg		112	561	561	1	P	HSC	04/01/10 09:28	033110B-1	964012
7440-66-6	Zinc	23600	ug/kg		371	1120	1120	1	P	HSC	04/01/10 09:28	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.508	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.534	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.558	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.562	g	50	mL	04/12/10	BXA1

ETM
6/9/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2315 VALIDATION DATE: 6/9/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. It should be noted that the matrix QC analyses were performed on LANL samples from different RNs. No sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 06/10/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/9/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2315

Client Sample ID:	RE46-10-12936	Project:	LANL01004
Sample ID:	248863001	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	9.63%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	67.2	247	ug/kg	1	AXC2 03/12/10	1414	962256	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1239	962255

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

ETM
6/9/10

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

Report Date: March 27, 2010

Client SDG: 10-2315

Client Sample ID:	RE46-10-12930	Project:	LANL01004
Sample ID:	248863002	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	8.46%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	72.8	268	ug/kg	1	AXC2 03/12/10	1414	962256	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1239	962255

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

ETM
6/9/10

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

Report Date: March 27, 2010

Client SDG: 10-2315

Client Sample ID:	RE46-10-12929	Project:	LANL01004
Sample ID:	248863003	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	17.3%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	77.6	285	ug/kg	1	AXC2 03/12/10	1415	962256	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1239	962255

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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

Report Date: March 27, 2010

Client SDG: 10-2315

Client Sample ID:	RE46-10-12935	Project:	LANL01004
Sample ID:	248863004	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	12.3%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	77.6	285	ug/kg	1	AXC2 03/12/10	1416	962256	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1239	962255

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

ETM
6/9/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2315 VALIDATION DATE: 6/9/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The gamma spec sample results that were rejected by the laboratory due to spectral interference or low abundance were qualified R,R5a. In the QC samples, several results were also rejected by the laboratory. No sample data were qualified as a result.
2. It should be noted that all the duplicate analyses were performed on LANL samples from different RNs. No sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 06/10/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/9/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 **Rad Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

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

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Certificate of Analysis

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

Report Date: March 30, 2010

Client Sample ID:	RE46-10-12936	Project:	LANL01004
Sample ID:	248863001	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	9.63%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
.ericium-241	U	-0.00357		0.0237	+/-0.0037	0.050	pCi/g		MXE1	03/24/10	0804	962716	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.00531		0.0235	+/-0.00308	0.050	pCi/g		MXE1	03/24/10	1631	962718	2
tonium-239/240	U	0.00		0.0199	+/-0.00177	0.050	pCi/g						
)TH "Dry Weight Corrected"													
›rium-228		1.84		0.184	+/-0.186	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
›rium-230		1.11		0.232	+/-0.127	0.100	pCi/g						
›rium-232		1.77		0.0987	+/-0.178	0.100	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.824		0.109	+/-0.0821	0.100	pCi/g		MXE1	03/24/10	1155	962721	6
.nium-235/236	U	0.0383		0.0667	+/-0.0154	0.100	pCi/g						
.nium-238		0.848		0.0767	+/-0.0839	0.100	pCi/g						
Gamma Spec Analysis													
(MMA SPEC "Dry Weight Corrected"													
.ericium-241	U	-0.206		0.550	+/-0.163	0.200	pCi/g		MXR1	03/24/10	1828	962633	7
muth-211	UI	4.47	R,R5a	0.446	+/-0.340		pCi/g						
muth-214		1.51		0.151	+/-0.130	0.200	pCi/g						
lmium-109	UI	2.88	R,R5a	1.93	+/-0.769		pCi/g						
ium-139	U	0.00164		0.0693	+/-0.0215	0.050	pCi/g						
ium-134	U	0.0977		0.120	+/-0.0454	0.100	pCi/g						
ium-137	U	-0.0591		0.0717	+/-0.0234	0.100	pCi/g						
›alt-60	U	0.0273		0.0837	+/-0.0243	0.100	pCi/g						
·opium-152	U	0.000349		0.223	+/-0.076	0.200	pCi/g						
ıthanum-140	U	-0.0326		0.246	+/-0.0752		pCi/g						
.d-212		2.09		0.123	+/-0.147	0.100	pCi/g						
.d-214		1.62		0.164	+/-0.131	0.100	pCi/g						
rcury-203	U	0.0466		0.103	+/-0.0292	0.100	pCi/g						
assium-40		38.5		0.698	+/-2.21	1.00	pCi/g						
lium-223	U	0.289		1.50	+/-0.501		pCi/g						

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Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12936
Sample ID: 248863001

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
lium-224	UI	6.64	R,R5a	1.32	+/-0.986		pCi/g						
lium-226		1.51		0.151	+/-0.130		pCi/g						
lium-228		2.30		0.282	+/-0.233	0.500	pCi/g						
henium-106	U	-0.175		0.691	+/-0.219	0.800	pCi/g						
lium-22	U	-0.0347		0.0959	+/-0.0314	0.080	pCi/g						
ontium-85	UI	0.153	R,R5a	0.106	+/-0.0314		pCi/g						
llium-208		0.622		0.0805	+/-0.0592	0.080	pCi/g						
rium-227	U	0.0656		0.575	+/-0.166		pCi/g						
rium-231	U	0.289		1.50	+/-0.501		pCi/g						
rium-234	U	1.35		4.58	+/-1.31	2.00	pCi/g						
-113	U	-0.052		0.0996	+/-0.0313	0.100	pCi/g						
nium-235	U	0.295		0.496	+/-0.148	0.500	pCi/g						
rium-88	U	0.00731		0.0708	+/-0.021	0.100	pCi/g						

e following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	79.1	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	84.3	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	78.3	(50%-105%)
nium-232 Tracer	ISOU "Dry Weight Corrected"	87.9	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported

ETM
6/9/10

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID:	RE46-10-12930	Project:	LANL01004
Sample ID:	248863002	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	8.46%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
. Alpha Spec Analysis													
241 "Dry Weight Corrected"													
.ericium-241	U	0.00419		0.0251	+/-0.0033	0.050	pCi/g		MXE1	03/23/10	1335	962716	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.00355		0.0236	+/-0.00252	0.050	pCi/g		MXE1	03/24/10	1631	962718	3
tonium-239/240	U	-0.00383		0.0199	+/-0.00284	0.050	pCi/g						
)TH "Dry Weight Corrected"													
›rium-228		1.76		0.169	+/-0.174	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
›rium-230		1.17		0.213	+/-0.128	0.100	pCi/g						
›rium-232		1.89		0.0906	+/-0.182	0.100	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.713		0.106	+/-0.0735	0.100	pCi/g		MXE1	03/24/10	1155	962721	6
.nium-235/236	U	0.0606		0.065	+/-0.0186	0.100	pCi/g						
.nium-238		0.755		0.0748	+/-0.0765	0.100	pCi/g						
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
.ericium-241	U	0.209		0.245	+/-0.0748	0.200	pCi/g		MXR1	03/24/10	1828	962633	7
muth-211	UI	3.91	R,R5a	0.304	+/-0.301		pCi/g						
muth-214		1.31		0.105	+/-0.105	0.200	pCi/g						
lmium-109	UI	2.15	R,R5a	1.27	+/-0.530		pCi/g						
ium-139	U	0.0247		0.0541	+/-0.0154	0.050	pCi/g						
ium-134	UI	0.147	R,R5a	0.0906	+/-0.0348	0.100	pCi/g						
ium-137	U	0.00475		0.0613	+/-0.0184	0.100	pCi/g						
›alt-60	U	0.00834		0.0643	+/-0.0192	0.100	pCi/g						
opium-152	U	0.0287		0.149	+/-0.0526	0.200	pCi/g						
ıthanum-140	U	-0.302		0.152	+/-0.0641		pCi/g						
.d-212		2.10		0.0976	+/-0.150	0.100	pCi/g						
.d-214		1.42		0.113	+/-0.116	0.100	pCi/g						
rcury-203	U	0.0535		0.0759	+/-0.0225	0.100	pCi/g						
assium-40		39.5		0.487	+/-1.99	1.00	pCi/g						
lium-223	U	0.318		1.08	+/-0.355		pCi/g						
lium-224	UI	5.03	R,R5a	1.05	+/-0.741		pCi/g						

ETM
6/9/10

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 30, 2010

Client Sample ID: RE46-10-12930
Sample ID: 248863002
Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
lium-226		1.31		0.105	+/-0.105		pCi/g						
lium-228		2.11		0.243	+/-0.207	0.500	pCi/g						
henium-106	U	-0.0264		0.495	+/-0.149	0.800	pCi/g						
lium-22	U	-0.0203		0.0719	+/-0.0224	0.080	pCi/g						
ontium-85	UI	0.156	R,R5a	0.0809	+/-0.0229		pCi/g						
illium-208		0.687		0.0543	+/-0.0545	0.080	pCi/g						
orium-227	U	-0.0664		0.442	+/-0.136		pCi/g						
orium-231	U	0.318		1.08	+/-0.355		pCi/g						
orium-234		3.36		2.02	+/-0.965	2.00	pCi/g						
-113	U	0.00321		0.0741	+/-0.0221	0.100	pCi/g						
nium-235	U	0.101		0.365	+/-0.106	0.500	pCi/g						
rium-88	U	0.00422		0.0526	+/-0.0158	0.100	pCi/g						

e following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	74.5	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	84.8	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	84.6	(50%-105%)
ium-232 Tracer	ISOU "Dry Weight Corrected"	90.2	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported

ETM
6/9/10

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 30, 2010

Client Sample ID:	RE46-10-12929	Project:	LANL01004
Sample ID:	248863003	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	17.3%		

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
241 "Dry Weight Corrected"													
ericium-241	U	0.0021		0.0257	+/-0.00192	0.050	pCi/g		MXE1	03/23/10	1335	962716	2
PU "Dry Weight Corrected"													
tonium-238	U	0.00488		0.0253	+/-0.00429	0.050	pCi/g		MXE1	03/24/10	1126	962718	3
tonium-239/240	U	0.00762		0.0214	+/-0.00384	0.050	pCi/g						
TH "Dry Weight Corrected"													
rium-228		1.94		0.161	+/-0.184	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
rium-230		1.10		0.202	+/-0.119	0.100	pCi/g						
rium-232		1.83		0.0863	+/-0.174	0.100	pCi/g						
U "Dry Weight Corrected"													
nium-233/234		0.861		0.105	+/-0.0844	0.100	pCi/g		MXE1	03/24/10	1155	962721	5
nium-235/236	U	0.0369		0.0642	+/-0.0148	0.100	pCi/g						
nium-238		0.749		0.0739	+/-0.0756	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	0.066		0.388	+/-0.125	0.200	pCi/g		MXR1	03/24/10	1829	962633	7
muth-211	UI	4.45	R,R5a	0.408	+/-0.290		pCi/g						
muth-214		1.23		0.144	+/-0.115	0.200	pCi/g						
lmium-109	UI	3.20	R,R5a	1.65	+/-0.634		pCi/g						
ium-139	U	-0.0204		0.0611	+/-0.019	0.050	pCi/g						
ium-134	U	0.0732		0.103	+/-0.028	0.100	pCi/g						
ium-137	U	0.065		0.086	+/-0.024	0.100	pCi/g						
alt-60	U	0.00632		0.0846	+/-0.0257	0.100	pCi/g						
opium-152	U	0.00388		0.194	+/-0.0691	0.200	pCi/g						
thanum-140	U	-0.0971		0.150	+/-0.0546		pCi/g						
d-212		2.10		0.114	+/-0.102	0.100	pCi/g						
d-214		1.62		0.148	+/-0.114	0.100	pCi/g						
rcury-203	U	-0.000595		0.0861	+/-0.025	0.100	pCi/g						
assium-40		34.1		0.482	+/-1.64	1.00	pCi/g						
lium-223	U	-0.612		1.27	+/-0.457		pCi/g						
lium-224	UI	4.88	R,R5a	1.22	+/-0.777		pCi/g						

ETM
6/9/10

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 30, 2010

Client Sample ID: RE46-10-12929
Sample ID: 248863003

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis												
IMMA SPEC "Dry Weight Corrected"												
lium-226		1.23	0.144	+/-0.115		pCi/g						
lium-228		2.28	0.267	+/-0.249	0.500	pCi/g						
henium-106	U	0.255	0.667	+/-0.194	0.800	pCi/g						
lium-22	U	-0.0109	0.0848	+/-0.0266	0.080	pCi/g						
ontium-85	U	0.059	0.0843	+/-0.0266		pCi/g						
llium-208		0.609	0.0714	+/-0.0499	0.080	pCi/g						
rium-227	U	0.121	0.524	+/-0.158		pCi/g						
rium-231	U	-0.612	1.27	+/-0.457		pCi/g						
rium-234		4.33	3.14	+/-1.02	2.00	pCi/g						
-113	U	-0.0504	0.0935	+/-0.0292	0.100	pCi/g						
nium-235	U	0.243	0.391	+/-0.129	0.500	pCi/g						
rium-88	U	0.00256	0.0523	+/-0.0156	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	73.1	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	79.4	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	90.1	(50%-105%)
ium-232 Tracer	ISOU "Dry Weight Corrected"	90.7	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ie Qualifiers in this report are defined as follows :

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

ETM
6/9/10

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 30, 2010

Client Sample ID:	RE46-10-12935	Project:	LANL01004
Sample ID:	248863004	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	12.3%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
ericium-241	U	0.00411		0.0287	+/-0.00472	0.050	pCi/g		MXE1	03/23/10	1335	962716	2
DPU "Dry Weight Corrected"													
tonium-238	U	0.00601		0.0266	+/-0.00349	0.050	pCi/g		MXE1	03/24/10	1126	962718	3
tonium-239/240	U	0.00312		0.0225	+/-0.00402	0.050	pCi/g						
DTH "Dry Weight Corrected"													
rium-228		1.71		0.205	+/-0.181	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
rium-230		1.47		0.257	+/-0.160	0.100	pCi/g						
rium-232		1.69		0.110	+/-0.178	0.100	pCi/g						
DU "Dry Weight Corrected"													
nium-233/234		0.915		0.114	+/-0.0904	0.100	pCi/g		MXE1	03/24/10	1155	962721	6
nium-235/236		0.0747		0.0694	+/-0.0224	0.100	pCi/g						
nium-238		0.886		0.0799	+/-0.0881	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	0.121		0.415	+/-0.115	0.200	pCi/g		MXR1	03/24/10	2031	962633	7
muth-211	UI	4.24	R,R5a	0.354	+/-0.280		pCi/g						
muth-214		1.38		0.113	+/-0.102	0.200	pCi/g						
lmium-109	UI	4.33	R,R5a	1.44	+/-0.634		pCi/g						
ium-139	U	-0.0317		0.0496	+/-0.0156	0.050	pCi/g						
ium-134	U	0.0939		0.096	+/-0.0399	0.100	pCi/g						
ium-137	U	-0.0453		0.0697	+/-0.0217	0.100	pCi/g						
alt-60	U	0.00426		0.0686	+/-0.0203	0.100	pCi/g						
opium-152	U	-0.0186		0.168	+/-0.0568	0.200	pCi/g						
thanum-140	U	-0.0182		0.194	+/-0.0606		pCi/g						
d-212		1.98		0.0926	+/-0.101	0.100	pCi/g						
d-214		1.54		0.129	+/-0.110	0.100	pCi/g						
rcury-203	UI	0.089	R,R5a	0.0686	+/-0.0408	0.100	pCi/g						
assium-40		34.5		0.516	+/-1.58	1.00	pCi/g						
lium-223	U	-0.24		1.03	+/-0.351		pCi/g						
lium-224	UI	5.46	R,R5a	0.993	+/-0.809		pCi/g						

ETM
6/9/10

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 30, 2010

Client Sample ID: RE46-10-12935
Sample ID: 248863004

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
. Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
lium-226		1.38		0.113	+/-0.102		pCi/g						
lium-228		2.23		0.255	+/-0.209	0.500	pCi/g						
henium-106	U	-0.0815		0.514	+/-0.162	0.800	pCi/g						
lium-22	U	-0.019		0.0766	+/-0.0238	0.080	pCi/g						
ontium-85	UI	0.113	R,R5a	0.0858	+/-0.0251		pCi/g						
illium-208		0.658		0.0572	+/-0.0486	0.080	pCi/g						
orium-227	U	0.137		0.456	+/-0.128		pCi/g						
orium-231	U	-0.24		1.03	+/-0.351		pCi/g						
orium-234	U	-0.491		3.22	+/-0.946	2.00	pCi/g						
-113	U	-0.0363		0.075	+/-0.0235	0.100	pCi/g						
nium-235	U	0.0581		0.344	+/-0.102	0.500	pCi/g						
rium-88	U	-0.0197		0.0484	+/-0.0173	0.100	pCi/g						

e following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	65.6	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	71.6	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	73.6	(50%-105%)
nium-232 Tracer	ISOU "Dry Weight Corrected"	84.6	(50%-105%)

tes:
?U is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported

ETM
6/9/10

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2315C

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-2315

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248863/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-12936	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12936	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12936	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12930	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12930	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12930	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12929	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12929	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12929	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12935	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12935	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12935	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/5/10	3:00	Greg Tyler		3-6-10	0915
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

Friday, March 05, 2010

REQUEST NUMBER: 10-2315

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number: 10-2315
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/5/2010
TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	HASL-300:AM-241	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	HASL-300:ISOPU	1	RE46-10-12929	S	3/4/2010	

Friday, March 05, 2010

REQUEST NUMBER: 10-2315

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOPU	1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	HASL-300:ISOTH	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	HASL-300:ISOU	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	SW-846:6010B	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	SW-846:8082	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	SW-846:8270C	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	SW-846:9012A	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	

Final Page of REQUEST NUMBER 10-2315

GEL Laboratories LLC

a member of **The GEL Group** INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

March 12, 2010

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

Re: LANL ER Project
Work Order: 248863
SDG: 10-2315

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 06, 2010, and analyzed for GC Semivolatile PCB, GC/MS Semivolatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Sincerely,

Valerie Davis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2315
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 248863
SDG: 10-2315

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 248863
SDG # : 10-2315

March 12, 2010

Laboratory Identification:

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

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 06, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 11C temperature. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
248863001	RE46-10-12936
248863002	RE46-10-12930
248863003	RE46-10-12929
248863004	RE46-10-12935

Case Narrative

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

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile PCB, GC/MS Semivolatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

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

Valerie Davis

Valerie Davis

Project Manager

List of current GEL Certifications as of 12 March 2010

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

Chain of Custody and Supporting Documentation

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2315C

REQUEST NUMBER: 10-2315

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248863/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-12936	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12936	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12936	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12930	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12930	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12930	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12929	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12929	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12929	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12935	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12935	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12935	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/5/10	3:00	Greg Tyler		3-6-10	0915
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

Hard Copy Required

Friday, March 05, 2010

REQUEST NUMBER: 10-2315

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number: 10-2315
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/5/2010
TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	HASL-300:AM-241	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	HASL-300:ISOPU	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	

Friday, March 05, 2010

REQUEST NUMBER: 10-2315

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOPU	1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	HASL-300:ISOTH	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	HASL-300:ISOU	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	SW-846:6010B	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	SW-846:8082	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	SW-846:8270C	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	
	SW-846:9012A	1	RE46-10-12929	S	3/4/2010	
		1	RE46-10-12930	S	3/4/2010	
		1	RE46-10-12935	S	3/4/2010	
		1	RE46-10-12936	S	3/4/2010	

Final Page of REQUEST NUMBER 10-2315

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2315**
Received By: Greg Tyler	**Date Received: 3/6/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **2,3,5C** **11C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:
7209 7850 3782 2C
7209 7850 3808 3C
7209 7850 3793 5C
7209 7850 3771 11C

PM (or PMA) review: Initials _____ Date 3/8/10

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05MAR10
ACTWGT: 31.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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

2°

FedEx Express

3 of 3 ### SATURDAY ### A1
MPS# 0263 7209 7850 3782 PRIORITY OVERNIGHT
Mstr# 7209 7850 3760 0201

X0 CHSA 29407 SC-US CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05MAR10
ACTWGT: 30.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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

3°

FedEx Express

2 of 2 ### SATURDAY ### A1
MPS# 0263 7209 7850 3808 PRIORITY OVERNIGHT
Mstr# 7209 7850 3760 0201

X0 CHSA 29407 SC-US CHS

Part # 156148-434 RNTV3 04-09

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

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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

5°

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1 of 2 ### SATURDAY ### A1
TRK# 0201 7209 7850 3793 PRIORITY OVERNIGHT
MASTER

X0 CHSA 29407 SC-US CHS

LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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

11°

FedEx Express

2 of 3 ### SATURDAY ### A1
MPS# 0263 7209 7850 3771 PRIORITY OVERNIGHT
Mstr# 7209 7850 3760 0201

X0 CHSA 29407 SC-US CHS

RNTV3 04-09

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

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

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2315

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	965979
Prep Batch Number:	965978

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
248863001	RE46-10-12936
248863002	RE46-10-12930
248863003	RE46-10-12929
248863004	RE46-10-12935
1202072982	Method Blank (MB)
1202072983	Laboratory Control Sample (LCS)
1202072984	249081001(RE16-10-3799) Matrix Spike (MS)
1202072985	249081001(RE16-10-3799) Matrix Spike Duplicate (MSD)

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

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various

calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
The non-SDG sample 249081001 (RE16-10-3799) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD(1202072985) recovered Benzyl alcohol at 13% (limits: 19%-112%). The MS displayed a similar low (but passing) recovery for that analyte. Therefore, the low recoveries were attributed to sample matrix interference and the data were reported.

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD value for Benzyl alcohol was at 49% (Limit: 30.00%). The failure was attributed to sample matrix interference and the data were reported.

Internal Standard (ISTD) Acceptance
The internal standard responses were outside of the acceptance criteria for the following sample: 248862002 (RE46-10-13782). The sample was re-analyzed and the failures were not confirmed. The re-analysis data are reported.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for the samples reported with this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the

analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD2.I	Agilent 5975 Mass Spectrometer	HP7890A/HP5975C	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement

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

Review Validation:

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

Reviewer: Dan Beckham **Date:** 4-1-10

Roadmap for LANL 10-2315 SVOA

This roadmap was analyzed by ANN00964 on 03-30-2010, 13:11.
This roadmap was reviewed by bar00895 on 03-30-2010, 14:15.
This roadmap was packaged by CHA01131 on 03-31-2010, 11:10.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD2.i/s032510.b/s2c2527.d	248863001	25-MAR-2010	23:29	10-2315.sub	RE46-10-12936	1	965979	
☐	N	/chem/MSD2.i/s032510.b/s2c2528.d	248863002	25-MAR-2010	23:49	10-2315.sub	RE46-10-12930	1	965979	
☐	N	/chem/MSD2.i/s032510.b/s2c2529.d	248863003	26-MAR-2010	00:09	10-2315.sub	RE46-10-12929	1	965979	
☐	N	/chem/MSD2.i/s032510.b/s2c2530.d	248863004	26-MAR-2010	00:30	10-2315.sub	RE46-10-12935	1	965979	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD2.i/s032510.b/s2c2505-1.d	1202072982	mb	25-MAR-2010	16:05	10-2315.sub	SBLK01	1	965979	
☐	N	/chem/MSD2.i/s032510.b/s2c2506-1.d	1202072983	lcs	25-MAR-2010	16:24	10-2315.sub	SBLK01LCS	1	965979	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12929**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.1**	**Dilution:**	**1**
Run Date:	**03/26/2010 00:09**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2529.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	403	ug/kg	80.6	403
108-95-2	Phenol	U	403	ug/kg	80.6	403
95-57-8	2-Chlorophenol	U	403	ug/kg	80.6	403
106-46-7	1,4-Dichlorobenzene	U	403	ug/kg	80.6	403
621-64-7	N-Nitrosodipropylamine	U	403	ug/kg	80.6	403
59-50-7	4-Chloro-3-methylphenol	U	403	ug/kg	80.6	403
83-32-9	Acenaphthene	U	40.3	ug/kg	13.3	40.3
121-14-2	2,4-Dinitrotoluene	U	403	ug/kg	40.3	403
100-02-7	4-Nitrophenol	U	403	ug/kg	133	403
87-86-5	Pentachlorophenol	U	403	ug/kg	101	403
129-00-0	Pyrene	U	40.3	ug/kg	12.1	40.3
110-86-1	Pyridine	U	403	ug/kg	80.6	403
62-53-3	Aniline	U	403	ug/kg	121	403
111-44-4	bis(2-Chloroethyl) ether	U	403	ug/kg	80.6	403
541-73-1	1,3-Dichlorobenzene	U	403	ug/kg	80.6	403
100-51-6	Benzyl alcohol	U	403	ug/kg	121	403
95-50-1	1,2-Dichlorobenzene	U	403	ug/kg	80.6	403
108-60-1	bis(2-Chloroisopropyl)ether	U	403	ug/kg	80.6	403
95-48-7	o-Cresol	U	403	ug/kg	80.6	403
65794-96-9	m,p-Cresols	U	403	ug/kg	121	403
67-72-1	Hexachloroethane	U	403	ug/kg	80.6	403
98-95-3	Nitrobenzene	U	403	ug/kg	80.6	403
78-59-1	Isophorone	U	403	ug/kg	80.6	403
88-75-5	2-Nitrophenol	U	403	ug/kg	80.6	403
105-67-9	2,4-Dimethylphenol	U	403	ug/kg	141	403
111-91-1	bis(2-Chloroethoxy)methane	U	403	ug/kg	80.6	403
120-83-2	2,4-Dichlorophenol	U	403	ug/kg	80.6	403
65-85-0	Benzoic acid	U	806	ug/kg	201	806
91-20-3	Naphthalene	U	40.3	ug/kg	12.1	40.3
106-47-8	4-Chloroaniline	U	403	ug/kg	80.6	403
87-68-3	Hexachlorobutadiene	U	403	ug/kg	80.6	403
91-57-6	2-Methylnaphthalene	U	40.3	ug/kg	8.06	40.3
77-47-4	Hexachlorocyclopentadiene	U	403	ug/kg	80.6	403
88-06-2	2,4,6-Trichlorophenol	U	403	ug/kg	80.6	403
95-95-4	2,4,5-Trichlorophenol	U	403	ug/kg	80.6	403
91-58-7	2-Chloronaphthalene	U	40.3	ug/kg	13.3	40.3
88-74-4	2-Nitroaniline	U	403	ug/kg	80.6	403
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	403	ug/kg	80.6	403

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12929**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 00:09**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2529.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	403	ug/kg	80.6	403
606-20-2	2,6-Dinitrotoluene	U	403	ug/kg	40.3	403
208-96-8	Acenaphthylene	U	40.3	ug/kg	12.1	40.3
51-28-5	2,4-Dinitrophenol	U	806	ug/kg	153	806
132-64-9	Dibenzofuran	U	403	ug/kg	80.6	403
84-66-2	Diethylphthalate	U	403	ug/kg	80.6	403
86-73-7	Fluorene	U	40.3	ug/kg	12.1	40.3
7005-72-3	4-Chlorophenylphenylether	U	403	ug/kg	80.6	403
534-52-1	2-Methyl-4,6-dinitrophenol	U	403	ug/kg	80.6	403
100-01-6	4-Nitroaniline	U	403	ug/kg	121	403
	p-Nitroaniline					
122-39-4	Diphenylamine	U	403	ug/kg	80.6	403
122-66-7	Azobenzene	U	403	ug/kg	80.6	403
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	403	ug/kg	80.6	403
118-74-1	Hexachlorobenzene	U	403	ug/kg	80.6	403
85-01-8	Phenanthrene	U	40.3	ug/kg	12.1	40.3
120-12-7	Anthracene	U	40.3	ug/kg	8.06	40.3
84-74-2	Di-n-butylphthalate	U	403	ug/kg	80.6	403
206-44-0	Fluoranthene	U	40.3	ug/kg	12.1	40.3
85-68-7	Butylbenzylphthalate	U	403	ug/kg	80.6	403
56-55-3	Benzo(a)anthracene	U	40.3	ug/kg	12.1	40.3
91-94-1	3,3'-Dichlorobenzidine	U	403	ug/kg	121	403
218-01-9	Chrysene	U	40.3	ug/kg	12.1	40.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	403	ug/kg	80.6	403
117-84-0	Di-n-octylphthalate	U	403	ug/kg	80.6	403
205-99-2	Benzo(b)fluoranthene	U	40.3	ug/kg	12.1	40.3
207-08-9	Benzo(k)fluoranthene	U	40.3	ug/kg	12.1	40.3
50-32-8	Benzo(a)pyrene	U	40.3	ug/kg	12.1	40.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.3	ug/kg	12.1	40.3
53-70-3	Dibenzo(a,h)anthracene	U	40.3	ug/kg	12.1	40.3
191-24-2	Benzo(ghi)perylene	U	40.3	ug/kg	12.1	40.3
120-82-1	1,2,4-Trichlorobenzene	U	403	ug/kg	80.6	403

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	478	ug/kg		JA
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	8.19	426	ug/kg	93	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12930**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 23:49**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2528.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	364	ug/kg	72.8	364
108-95-2	Phenol	U	364	ug/kg	72.8	364
95-57-8	2-Chlorophenol	U	364	ug/kg	72.8	364
106-46-7	1,4-Dichlorobenzene	U	364	ug/kg	72.8	364
621-64-7	N-Nitrosodipropylamine	U	364	ug/kg	72.8	364
59-50-7	4-Chloro-3-methylphenol	U	364	ug/kg	72.8	364
83-32-9	Acenaphthene	U	36.4	ug/kg	12.0	36.4
121-14-2	2,4-Dinitrotoluene	U	364	ug/kg	36.4	364
100-02-7	4-Nitrophenol	U	364	ug/kg	120	364
87-86-5	Pentachlorophenol	U	364	ug/kg	91.0	364
129-00-0	Pyrene	U	36.4	ug/kg	10.9	36.4
110-86-1	Pyridine	U	364	ug/kg	72.8	364
62-53-3	Aniline	U	364	ug/kg	109	364
111-44-4	bis(2-Chloroethyl) ether	U	364	ug/kg	72.8	364
541-73-1	1,3-Dichlorobenzene	U	364	ug/kg	72.8	364
100-51-6	Benzyl alcohol	U	364	ug/kg	109	364
95-50-1	1,2-Dichlorobenzene	U	364	ug/kg	72.8	364
108-60-1	bis(2-Chloroisopropyl)ether	U	364	ug/kg	72.8	364
95-48-7	o-Cresol	U	364	ug/kg	72.8	364
65794-96-9	m,p-Cresols	U	364	ug/kg	109	364
67-72-1	Hexachloroethane	U	364	ug/kg	72.8	364
98-95-3	Nitrobenzene	U	364	ug/kg	72.8	364
78-59-1	Isophorone	U	364	ug/kg	72.8	364
88-75-5	2-Nitrophenol	U	364	ug/kg	72.8	364
105-67-9	2,4-Dimethylphenol	U	364	ug/kg	127	364
111-91-1	bis(2-Chloroethoxy)methane	U	364	ug/kg	72.8	364
120-83-2	2,4-Dichlorophenol	U	364	ug/kg	72.8	364
65-85-0	Benzoic acid	U	728	ug/kg	182	728
91-20-3	Naphthalene	U	36.4	ug/kg	10.9	36.4
106-47-8	4-Chloroaniline	U	364	ug/kg	72.8	364
87-68-3	Hexachlorobutadiene	U	364	ug/kg	72.8	364
91-57-6	2-Methylnaphthalene	U	36.4	ug/kg	7.28	36.4
77-47-4	Hexachlorocyclopentadiene	U	364	ug/kg	72.8	364
88-06-2	2,4,6-Trichlorophenol	U	364	ug/kg	72.8	364
95-95-4	2,4,5-Trichlorophenol	U	364	ug/kg	72.8	364
91-58-7	2-Chloronaphthalene	U	36.4	ug/kg	12.0	36.4
88-74-4	2-Nitroaniline	U	364	ug/kg	72.8	364
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	364	ug/kg	72.8	364

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12930**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 23:49**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2528.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	364	ug/kg	72.8	364
606-20-2	2,6-Dinitrotoluene	U	364	ug/kg	36.4	364
208-96-8	Acenaphthylene	U	36.4	ug/kg	10.9	36.4
51-28-5	2,4-Dinitrophenol	U	728	ug/kg	138	728
132-64-9	Dibenzofuran	U	364	ug/kg	72.8	364
84-66-2	Diethylphthalate	U	364	ug/kg	72.8	364
86-73-7	Fluorene	U	36.4	ug/kg	10.9	36.4
7005-72-3	4-Chlorophenylphenylether	U	364	ug/kg	72.8	364
534-52-1	2-Methyl-4,6-dinitrophenol	U	364	ug/kg	72.8	364
100-01-6	4-Nitroaniline	U	364	ug/kg	109	364
	p-Nitroaniline					
122-39-4	Diphenylamine	U	364	ug/kg	72.8	364
122-66-7	Azobenzene	U	364	ug/kg	72.8	364
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	364	ug/kg	72.8	364
118-74-1	Hexachlorobenzene	U	364	ug/kg	72.8	364
85-01-8	Phenanthrene	U	36.4	ug/kg	10.9	36.4
120-12-7	Anthracene	U	36.4	ug/kg	7.28	36.4
84-74-2	Di-n-butylphthalate	U	364	ug/kg	72.8	364
206-44-0	Fluoranthene	U	36.4	ug/kg	10.9	36.4
85-68-7	Butylbenzylphthalate	U	364	ug/kg	72.8	364
56-55-3	Benzo(a)anthracene	U	36.4	ug/kg	10.9	36.4
91-94-1	3,3'-Dichlorobenzidine	U	364	ug/kg	109	364
218-01-9	Chrysene	U	36.4	ug/kg	10.9	36.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	364	ug/kg	72.8	364
117-84-0	Di-n-octylphthalate	U	364	ug/kg	72.8	364
205-99-2	Benzo(b)fluoranthene	U	36.4	ug/kg	10.9	36.4
207-08-9	Benzo(k)fluoranthene	U	36.4	ug/kg	10.9	36.4
50-32-8	Benzo(a)pyrene	U	36.4	ug/kg	10.9	36.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.4	ug/kg	10.9	36.4
53-70-3	Dibenzo(a,h)anthracene	U	36.4	ug/kg	10.9	36.4
191-24-2	Benzo(ghi)perylene	U	36.4	ug/kg	10.9	36.4
120-82-1	1,2,4-Trichlorobenzene	U	364	ug/kg	72.8	364

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	386	ug/kg		JA
76-49-3	Bornyl acetate	5.08	253	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12930**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 23:49**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2528.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
150320-52-8	Bicyclo[4.4.0]dec-1-ene, 2-isopropyl-5-m	5.5	635	ug/kg	86	NJ
	Unknown	5.66	2450	ug/kg		J
546-28-1	1H-3a,7-Methanoazulene, octahydro-3,8,8-	5.74	168	ug/kg	92	NJ
30021-74-0	Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro	5.83	150	ug/kg	95	NJ
	Unknown	5.89	462	ug/kg		J
19912-83-5	Spiro[5.5]undeca-1,8-diene, 1,5,5,9-tetr	5.98	329	ug/kg	90	NJ
	Unknown	6.01	787	ug/kg		J
	Unknown	6.03	1000	ug/kg		J
4045-44-7	1,3-Cyclopentadiene, 1,2,3,4,5-pentameth	6.08	334	ug/kg	95	NJ
	Unknown	6.22	175	ug/kg		J
	Unknown	6.55	274	ug/kg		J
	Unknown	6.58	204	ug/kg		J
	Unknown	6.84	617	ug/kg		J
	Unknown	6.89	182	ug/kg		J
	Unknown	7	231	ug/kg		J
	Unknown	7.05	226	ug/kg		J
	Unknown	7.15	540	ug/kg		J
	Unknown	7.2	456	ug/kg		J
	Unknown	7.3	441	ug/kg		J
	Unknown	8.34	533	ug/kg		J
18326-16-4	Podocarpa-8,11,13-trien-3-one, 14-isopro	8.54	211	ug/kg	96	NJ
15372-53-9	Podocarpa-8,11,13-triene-1,3-dione, 14-i	8.63	550	ug/kg	95	NJ
6755-93-7	2(1H)-Phenanthrenone, 3,4,4a,9,10,10a-he	8.74	674	ug/kg	97	NJ
	Unknown	8.96	18200	ug/kg		J
	Unknown	9.15	772	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**12.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12935**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 00:30**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2530.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	380	ug/kg	76.0	380
108-95-2	Phenol	U	380	ug/kg	76.0	380
95-57-8	2-Chlorophenol	U	380	ug/kg	76.0	380
106-46-7	1,4-Dichlorobenzene	U	380	ug/kg	76.0	380
621-64-7	N-Nitrosodipropylamine	U	380	ug/kg	76.0	380
59-50-7	4-Chloro-3-methylphenol	U	380	ug/kg	76.0	380
83-32-9	Acenaphthene	U	38.0	ug/kg	12.5	38.0
121-14-2	2,4-Dinitrotoluene	U	380	ug/kg	38.0	380
100-02-7	4-Nitrophenol	U	380	ug/kg	125	380
87-86-5	Pentachlorophenol	U	380	ug/kg	94.9	380
129-00-0	Pyrene	U	38.0	ug/kg	11.4	38.0
110-86-1	Pyridine	U	380	ug/kg	76.0	380
62-53-3	Aniline	U	380	ug/kg	114	380
111-44-4	bis(2-Chloroethyl) ether	U	380	ug/kg	76.0	380
541-73-1	1,3-Dichlorobenzene	U	380	ug/kg	76.0	380
100-51-6	Benzyl alcohol	U	380	ug/kg	114	380
95-50-1	1,2-Dichlorobenzene	U	380	ug/kg	76.0	380
108-60-1	bis(2-Chloroisopropyl)ether	U	380	ug/kg	76.0	380
95-48-7	o-Cresol	U	380	ug/kg	76.0	380
65794-96-9	m,p-Cresols	U	380	ug/kg	114	380
67-72-1	Hexachloroethane	U	380	ug/kg	76.0	380
98-95-3	Nitrobenzene	U	380	ug/kg	76.0	380
78-59-1	Isophorone	U	380	ug/kg	76.0	380
88-75-5	2-Nitrophenol	U	380	ug/kg	76.0	380
105-67-9	2,4-Dimethylphenol	U	380	ug/kg	133	380
111-91-1	bis(2-Chloroethoxy)methane	U	380	ug/kg	76.0	380
120-83-2	2,4-Dichlorophenol	U	380	ug/kg	76.0	380
65-85-0	Benzoic acid	U	760	ug/kg	190	760
91-20-3	Naphthalene	U	38.0	ug/kg	11.4	38.0
106-47-8	4-Chloroaniline	U	380	ug/kg	76.0	380
87-68-3	Hexachlorobutadiene	U	380	ug/kg	76.0	380
91-57-6	2-Methylnaphthalene	U	38.0	ug/kg	7.60	38.0
77-47-4	Hexachlorocyclopentadiene	U	380	ug/kg	76.0	380
88-06-2	2,4,6-Trichlorophenol	U	380	ug/kg	76.0	380
95-95-4	2,4,5-Trichlorophenol	U	380	ug/kg	76.0	380
91-58-7	2-Chloronaphthalene	U	38.0	ug/kg	12.5	38.0
88-74-4	2-Nitroaniline	U	380	ug/kg	76.0	380
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	380	ug/kg	76.0	380

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**12.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12935**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 00:30**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2530.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	380	ug/kg	76.0	380
606-20-2	2,6-Dinitrotoluene	U	380	ug/kg	38.0	380
208-96-8	Acenaphthylene	U	38.0	ug/kg	11.4	38.0
51-28-5	2,4-Dinitrophenol	U	760	ug/kg	144	760
132-64-9	Dibenzofuran	U	380	ug/kg	76.0	380
84-66-2	Diethylphthalate	U	380	ug/kg	76.0	380
86-73-7	Fluorene	U	38.0	ug/kg	11.4	38.0
7005-72-3	4-Chlorophenylphenylether	U	380	ug/kg	76.0	380
534-52-1	2-Methyl-4,6-dinitrophenol	U	380	ug/kg	76.0	380
100-01-6	4-Nitroaniline	U	380	ug/kg	114	380
	p-Nitroaniline					
122-39-4	Diphenylamine	U	380	ug/kg	76.0	380
122-66-7	Azobenzene	U	380	ug/kg	76.0	380
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	380	ug/kg	76.0	380
118-74-1	Hexachlorobenzene	U	380	ug/kg	76.0	380
85-01-8	Phenanthrene	U	38.0	ug/kg	11.4	38.0
120-12-7	Anthracene	U	38.0	ug/kg	7.60	38.0
84-74-2	Di-n-butylphthalate	U	380	ug/kg	76.0	380
206-44-0	Fluoranthene	U	38.0	ug/kg	11.4	38.0
85-68-7	Butylbenzylphthalate	U	380	ug/kg	76.0	380
56-55-3	Benzo(a)anthracene	U	38.0	ug/kg	11.4	38.0
91-94-1	3,3'-Dichlorobenzidine	U	380	ug/kg	114	380
218-01-9	Chrysene	U	38.0	ug/kg	11.4	38.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	380	ug/kg	76.0	380
117-84-0	Di-n-octylphthalate	U	380	ug/kg	76.0	380
205-99-2	Benzo(b)fluoranthene	U	38.0	ug/kg	11.4	38.0
207-08-9	Benzo(k)fluoranthene	U	38.0	ug/kg	11.4	38.0
50-32-8	Benzo(a)pyrene	U	38.0	ug/kg	11.4	38.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.0	ug/kg	11.4	38.0
53-70-3	Dibenzo(a,h)anthracene	U	38.0	ug/kg	11.4	38.0
191-24-2	Benzo(ghi)perylene	U	38.0	ug/kg	11.4	38.0
120-82-1	1,2,4-Trichlorobenzene	U	380	ug/kg	76.0	380

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	392	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12936**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 23:29**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2527.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	369	ug/kg	73.8	369
108-95-2	Phenol	U	369	ug/kg	73.8	369
95-57-8	2-Chlorophenol	U	369	ug/kg	73.8	369
106-46-7	1,4-Dichlorobenzene	U	369	ug/kg	73.8	369
621-64-7	N-Nitrosodipropylamine	U	369	ug/kg	73.8	369
59-50-7	4-Chloro-3-methylphenol	U	369	ug/kg	73.8	369
83-32-9	Acenaphthene	U	36.9	ug/kg	12.2	36.9
121-14-2	2,4-Dinitrotoluene	U	369	ug/kg	36.9	369
100-02-7	4-Nitrophenol	U	369	ug/kg	122	369
87-86-5	Pentachlorophenol	U	369	ug/kg	92.2	369
129-00-0	Pyrene	U	36.9	ug/kg	11.1	36.9
110-86-1	Pyridine	U	369	ug/kg	73.8	369
62-53-3	Aniline	U	369	ug/kg	111	369
111-44-4	bis(2-Chloroethyl) ether	U	369	ug/kg	73.8	369
541-73-1	1,3-Dichlorobenzene	U	369	ug/kg	73.8	369
100-51-6	Benzyl alcohol	U	369	ug/kg	111	369
95-50-1	1,2-Dichlorobenzene	U	369	ug/kg	73.8	369
108-60-1	bis(2-Chloroisopropyl)ether	U	369	ug/kg	73.8	369
95-48-7	o-Cresol	U	369	ug/kg	73.8	369
65794-96-9	m,p-Cresols	U	369	ug/kg	111	369
67-72-1	Hexachloroethane	U	369	ug/kg	73.8	369
98-95-3	Nitrobenzene	U	369	ug/kg	73.8	369
78-59-1	Isophorone	U	369	ug/kg	73.8	369
88-75-5	2-Nitrophenol	U	369	ug/kg	73.8	369
105-67-9	2,4-Dimethylphenol	U	369	ug/kg	129	369
111-91-1	bis(2-Chloroethoxy)methane	U	369	ug/kg	73.8	369
120-83-2	2,4-Dichlorophenol	U	369	ug/kg	73.8	369
65-85-0	Benzoic acid	U	738	ug/kg	184	738
91-20-3	Naphthalene	U	36.9	ug/kg	11.1	36.9
106-47-8	4-Chloroaniline	U	369	ug/kg	73.8	369
87-68-3	Hexachlorobutadiene	U	369	ug/kg	73.8	369
91-57-6	2-Methylnaphthalene	U	36.9	ug/kg	7.38	36.9
77-47-4	Hexachlorocyclopentadiene	U	369	ug/kg	73.8	369
88-06-2	2,4,6-Trichlorophenol	U	369	ug/kg	73.8	369
95-95-4	2,4,5-Trichlorophenol	U	369	ug/kg	73.8	369
91-58-7	2-Chloronaphthalene	U	36.9	ug/kg	12.2	36.9
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	369	ug/kg	73.8	369
99-09-2	3-Nitroaniline	U	369	ug/kg	73.8	369

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12936**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 23:29**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2527.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	369	ug/kg	73.8	369
606-20-2	2,6-Dinitrotoluene	U	369	ug/kg	36.9	369
208-96-8	Acenaphthylene	U	36.9	ug/kg	11.1	36.9
51-28-5	2,4-Dinitrophenol	U	738	ug/kg	140	738
132-64-9	Dibenzofuran	U	369	ug/kg	73.8	369
84-66-2	Diethylphthalate	U	369	ug/kg	73.8	369
86-73-7	Fluorene	U	36.9	ug/kg	11.1	36.9
7005-72-3	4-Chlorophenylphenylether	U	369	ug/kg	73.8	369
534-52-1	2-Methyl-4,6-dinitrophenol	U	369	ug/kg	73.8	369
100-01-6	4-Nitroaniline	U	369	ug/kg	111	369
	p-Nitroaniline					
122-39-4	Diphenylamine	U	369	ug/kg	73.8	369
122-66-7	Azobenzene	U	369	ug/kg	73.8	369
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	369	ug/kg	73.8	369
118-74-1	Hexachlorobenzene	U	369	ug/kg	73.8	369
85-01-8	Phenanthrene	U	36.9	ug/kg	11.1	36.9
120-12-7	Anthracene	U	36.9	ug/kg	7.38	36.9
84-74-2	Di-n-butylphthalate	U	369	ug/kg	73.8	369
206-44-0	Fluoranthene	U	36.9	ug/kg	11.1	36.9
85-68-7	Butylbenzylphthalate	U	369	ug/kg	73.8	369
56-55-3	Benzo(a)anthracene	U	36.9	ug/kg	11.1	36.9
91-94-1	3,3'-Dichlorobenzidine	U	369	ug/kg	111	369
218-01-9	Chrysene	U	36.9	ug/kg	11.1	36.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	369	ug/kg	73.8	369
117-84-0	Di-n-octylphthalate	U	369	ug/kg	73.8	369
205-99-2	Benzo(b)fluoranthene	U	36.9	ug/kg	11.1	36.9
207-08-9	Benzo(k)fluoranthene	U	36.9	ug/kg	11.1	36.9
50-32-8	Benzo(a)pyrene	U	36.9	ug/kg	11.1	36.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.9	ug/kg	11.1	36.9
53-70-3	Dibenzo(a,h)anthracene	U	36.9	ug/kg	11.1	36.9
191-24-2	Benzo(ghi)perylene	U	36.9	ug/kg	11.1	36.9
120-82-1	1,2,4-Trichlorobenzene	U	369	ug/kg	73.8	369

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.88	350	ug/kg		JA

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-2315

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202072982	MB for batch 965978	75	70	75	67	89	101
1202072983	LCS for batch 965978	79	77	80	72	98	80
248863001	RE46-10-12936	56	51	56	47	57	66
248863002	RE46-10-12930	68	63	69	53	75	86
248863003	RE46-10-12929	59	56	60	52	64	79
248863004	RE46-10-12935	51	48	51	47	55	71

Surrogate		Acceptance Limits
2FP	= 2-Fluorophenol	(29%-99%)
PHL	= Phenol-d5	(33%-98%)
NBZ	= Nitrobenzene-d5	(31%-105%)
FBP	= 2-Fluorobiphenyl	(25%-109%)
TBP	= 2,4,6-Tribromophenol	(37%-106%)
TPH	= p-Terphenyl-d14	(13%-150%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2315
Client ID: LCS for batch 965978
Lab Sample ID: 1202072983
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/25/2010 16:24
Dilution: 1
Prep Batch ID: 965978
Batch ID: 965979

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	1020	61	22-114
108-95-2	LCS	Phenol	1670	0.0	1300	78	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1250	75	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1150	69	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1380	83	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1340	80	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	1290	77	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1430	86	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	993	60	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	1200	72	27-116
129-00-0	LCS	Pyrene	1670	0.0	1120	67	42-113
110-86-1	LCS	Pyridine	1670	0.0	1010	60	8-125
62-53-3	LCS	Aniline	1670	0.0	981	59	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1200	72	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1130	68	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	823	49	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1160	70	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1520	91	28-117
95-48-7	LCS	o-Cresol	1670	0.0	1230	74	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1600	96	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	1230	74	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	1310	79	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2315
Client ID: LCS for batch 965978
Lab Sample ID: 1202072983
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/25/2010 16:24
Dilution: 1
Prep Batch ID: 965978
Batch ID: 965979

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1240	75	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	1220	73	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	994	60	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1160	70	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1290	77	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	3570	107	22-138
91-20-3	LCS	Naphthalene	1670	0.0	1200	72	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	1030	62	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1350	81	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1300	78	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1040	63	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1280	77	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1220	73	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1220	73	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1390	84	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1240	74	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	1410	84	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1310	78	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	1300	78	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1380	83	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	1350	81	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	1520	91	51-126

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2315
Client ID: LCS for batch 965978
Lab Sample ID: 1202072983
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/25/2010 16:24
Dilution: 1
Prep Batch ID: 965978
Batch ID: 965979

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1470	88	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1410	85	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1270	76	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1890	113	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	1260	76	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1340	80	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1250	75	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1230	74	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	1270	76	46-107
120-12-7	LCS	Anthracene	1670	0.0	1310	79	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1490	89	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1480	89	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1300	78	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1270	76	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1070	64	36-103
218-01-9	LCS	Chrysene	1670	0.0	1300	78	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1350	81	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1390	83	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1470	88	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1260	75	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1360	82	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1400	84	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2315
Client ID: LCS for batch 965978
Lab Sample ID: 1202072983
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/25/2010 16:24
Dilution: 1
Prep Batch ID: 965978
Batch ID: 965979

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1430	86	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1310	79	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1250	75	32-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2315
Client ID: RE16-10-3799MS
Lab Sample ID: 1202072984
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 6.5
Analysis Date: 03/25/2010 17:05
Prep Batch ID: 965978
Batch ID: 965979
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1780	0.00	U	824	46	27-98
108-95-2	MS	Phenol	1780	0.00	U	964	54	33-94
95-57-8	MS	2-Chlorophenol	1780	0.00	U	960	54	29-96
106-46-7	MS	1,4-Dichlorobenzene	1780	0.00	U	800	45	27-96
621-64-7	MS	N-Nitrosodipropylamine	1780	0.00	U	1080	61	29-102
59-50-7	MS	4-Chloro-3-methylphenol	1780	0.00	U	1060	60	29-110
83-32-9	MS	Acenaphthene	1780	0.00	U	912	51	17-109
121-14-2	MS	2,4-Dinitrotoluene	1780	0.00	U	1060	60	33-107
100-02-7	MS	4-Nitrophenol	1780	0.00	U	750	42	15-110
87-86-5	MS	Pentachlorophenol	1780	0.00	U	804	45	23-110
129-00-0	MS	Pyrene	1780	0.00	U	859	48	24-118
110-86-1	MS	Pyridine	1780	0.00	U	748	42	25-102
62-53-3	MS	Aniline	1780	0.00	U	986	55	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	1780	0.00	U	959	54	29-96
541-73-1	MS	1,3-Dichlorobenzene	1780	0.00	U	776	44	26-97
100-51-6	MS	Benzyl alcohol	1780	0.00	U	377	21	19-112
95-50-1	MS	1,2-Dichlorobenzene	1780	0.00	U	812	46	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	1780	0.00	U	1180	66	28-103
95-48-7	MS	o-Cresol	1780	0.00	U	978	55	32-107
65794-96-9	MS	m,p-Cresols	1780	0.00	U	1300	73	33-115
67-72-1	MS	Hexachloroethane	1780	0.00	U	815	46	25-100
98-95-3	MS	Nitrobenzene	1780	0.00	U	1060	59	27-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	10-2315	Sample Type:	Matrix Spike
Client ID:	RE16-10-3799MS	Matrix:	S
Lab Sample ID:	1202072984	%Moisture:	6.5
Instrument:	MSD2.I	Analysis Date:	03/25/2010 17:05
Analyst:	AGS1	Prep Batch ID:	965978
Inj. Vol:	.5 uL	Batch ID:	965979

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1780	0.00	U	1010	57	29-104
88-75-5	MS	2-Nitrophenol	1780	0.00	U	979	55	26-102
105-67-9	MS	2,4-Dimethylphenol	1780	0.00	U	764	43	22-104
111-91-1	MS	bis(2-Chloroethoxy)methane	1780	0.00	U	940	53	27-101
120-83-2	MS	2,4-Dichlorophenol	1780	0.00	U	1030	58	26-103
65-85-0	MS	Benzoic acid	3560	0.00	U	2480	70	13-131
91-20-3	MS	Naphthalene	1780	0.00	U	920	52	23-103
106-47-8	MS	4-Chloroaniline	1780	0.00	U	887	50	26-103
87-68-3	MS	Hexachlorobutadiene	1780	0.00	U	949	53	28-101
91-57-6	MS	2-Methylnaphthalene	1780	0.00	U	1030	58	27-106
77-47-4	MS	Hexachlorocyclopentadiene	1780	0.00	U	591	33	24-117
88-06-2	MS	2,4,6-Trichlorophenol	1780	0.00	U	913	51	26-105
95-95-4	MS	2,4,5-Trichlorophenol	1780	0.00	U	912	51	30-110
91-58-7	MS	2-Chloronaphthalene	1780	0.00	U	919	52	28-102
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1780	0.00	U	1060	59	33-106
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1780	0.00	U	1010	57	33-116
131-11-3	MS	Dimethylphthalate	1780	0.00	U	1040	58	38-113
606-20-2	MS	2,6-Dinitrotoluene	1780	0.00	U	975	55	29-107
208-96-8	MS	Acenaphthylene	1780	0.00	U	971	54	25-108
51-28-5	MS	2,4-Dinitrophenol	1780	0.00	U	879	49	14-102
132-64-9	MS	Dibenzofuran	1780	0.00	U	1000	56	35-112
84-66-2	MS	Diethylphthalate	1780	0.00	U	1120	63	36-122

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	10-2315	Sample Type:	Matrix Spike
Client ID:	RE16-10-3799MS	Matrix:	S
Lab Sample ID:	1202072984	%Moisture:	6.5
Instrument:	MSD2.I	Analysis Date:	03/25/2010 17:05
Analyst:	AGS1	Prep Batch ID:	965978
Inj. Vol:	.5 uL	Batch ID:	965979

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1780	0.00	U	1080	60	33-105
7005-72-3	MS	4-Chlorophenylphenylether	1780	0.00	U	1030	58	30-110
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1780	0.00	U	911	51	26-97
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1780	0.00	U	1330	75	28-135
122-39-4	MS	Diphenylamine	1780	0.00	U	951	53	33-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1780	0.00	U	1010	57	31-113
101-55-3	MS	4-Bromophenylphenylether	1780	0.00	U	919	52	31-109
118-74-1	MS	Hexachlorobenzene	1780	0.00	U	895	50	37-99
85-01-8	MS	Phenanthrene	1780	0.00	U	946	53	29-109
120-12-7	MS	Anthracene	1780	0.00	U	966	54	19-118
84-74-2	MS	Di-n-butylphthalate	1780	0.00	U	1120	63	39-123
206-44-0	MS	Fluoranthene	1780	0.00	U	1090	61	33-114
85-68-7	MS	Butylbenzylphthalate	1780	0.00	U	1010	57	35-131
56-55-3	MS	Benzo(a)anthracene	1780	0.00	U	994	56	30-111
91-94-1	MS	3,3'-Dichlorobenzidine	1780	0.00	U	739	41	30-124
218-01-9	MS	Chrysene	1780	0.00	U	1010	57	32-108
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1780	0.00	U	1040	59	37-129
117-84-0	MS	Di-n-octylphthalate	1780	0.00	U	1090	61	31-143
205-99-2	MS	Benzo(b)fluoranthene	1780	0.00	U	1030	58	29-118
207-08-9	MS	Benzo(k)fluoranthene	1780	0.00	U	1070	60	32-118
50-32-8	MS	Benzo(a)pyrene	1780	0.00	U	1040	58	33-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1780	0.00	U	983	55	29-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2315
Client ID: RE16-10-3799MS
Lab Sample ID: 1202072984
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 6.5
Analysis Date: 03/25/2010 17:05
Prep Batch ID: 965978
Batch ID: 965979
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1780	0.00	U	992	56	27-119
191-24-2	MS	Benzo(ghi)perylene	1780	0.00	U	941	53	28-112
120-82-1	MS	1,2,4-Trichlorobenzene	1780	0.00	U	939	53	28-99

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2315
Client ID: RE16-10-3799MSD
Lab Sample ID: 1202072985
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 6.5
Analysis Date: 03/25/2010 17:25
Prep Batch ID: 965978
Batch ID: 965979
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1780	0.00	U	885	50	27-98	7	0-30
108-95-2	MSD Phenol	1780	0.00	U	1010	57	33-94	4	0-30
95-57-8	MSD 2-Chlorophenol	1780	0.00	U	1060	59	29-96	10	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1780	0.00	U	879	49	27-96	9	0-30
621-64-7	MSD N-Nitrosodipropylamine	1780	0.00	U	1160	65	29-102	7	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1780	0.00	U	1130	64	29-110	7	0-30
83-32-9	MSD Acenaphthene	1780	0.00	U	997	56	17-109	9	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1780	0.00	U	1130	63	33-107	6	0-30
100-02-7	MSD 4-Nitrophenol	1780	0.00	U	783	44	15-110	4	0-30
87-86-5	MSD Pentachlorophenol	1780	0.00	U	849	48	23-110	5	0-30
129-00-0	MSD Pyrene	1780	0.00	U	869	49	24-118	1	0-30
110-86-1	MSD Pyridine	1780	0.00	U	821	46	25-102	9	0-30
62-53-3	MSD Aniline	1780	0.00	U	981	55	18-109	1	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1780	0.00	U	1040	58	29-96	8	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1780	0.00	U	866	49	26-97	11	0-30
100-51-6	MSD Benzyl alcohol	1780	0.00	U	229	13 *	19-112	49 *	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1780	0.00	U	901	51	30-97	10	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1780	0.00	U	1290	72	28-103	9	0-30
95-48-7	MSD o-Cresol	1780	0.00	U	1040	58	32-107	6	0-30
65794-96-9	MSD m,p-Cresols	1780	0.00	U	1400	79	33-115	8	0-30
67-72-1	MSD Hexachloroethane	1780	0.00	U	895	50	25-100	9	0-30
98-95-3	MSD Nitrobenzene	1780	0.00	U	1170	66	27-106	10	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2315
Client ID: RE16-10-3799MSD
Lab Sample ID: 1202072985
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 6.5
Analysis Date: 03/25/2010 17:25
Dilution: 1
Prep Batch ID: 965978
Batch ID: 965979

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1780	0.00	U	1080	61	29-104	6	0-30
88-75-5	MSD 2-Nitrophenol	1780	0.00	U	1050	59	26-102	7	0-30
105-67-9	MSD 2,4-Dimethylphenol	1780	0.00	U	804	45	22-104	5	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1780	0.00	U	1010	56	27-101	7	0-30
120-83-2	MSD 2,4-Dichlorophenol	1780	0.00	U	1090	61	26-103	6	0-30
65-85-0	MSD Benzoic acid	3560	0.00	U	2650	75	13-131	7	0-30
91-20-3	MSD Naphthalene	1780	0.00	U	1000	56	23-103	9	0-30
106-47-8	MSD 4-Chloroaniline	1780	0.00	U	918	52	26-103	3	0-30
87-68-3	MSD Hexachlorobutadiene	1780	0.00	U	1070	60	28-101	12	0-30
91-57-6	MSD 2-Methylnaphthalene	1780	0.00	U	1100	62	27-106	6	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1780	0.00	U	752	42	24-117	24	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1780	0.00	U	953	54	26-105	4	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1780	0.00	U	1010	56	30-110	10	0-30
91-58-7	MSD 2-Chloronaphthalene	1780	0.00	U	999	56	28-102	8	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1780	0.00	U	1140	64	33-106	8	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1780	0.00	U	1100	62	33-116	9	0-30
131-11-3	MSD Dimethylphthalate	1780	0.00	U	1100	61	38-113	5	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1780	0.00	U	1040	59	29-107	7	0-30
208-96-8	MSD Acenaphthylene	1780	0.00	U	1040	58	25-108	7	0-30
51-28-5	MSD 2,4-Dinitrophenol	1780	0.00	U	1000	56	14-102	13	0-30
132-64-9	MSD Dibenzofuran	1780	0.00	U	1060	60	35-112	6	0-30
84-66-2	MSD Diethylphthalate	1780	0.00	U	1200	67	36-122	7	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2315
Client ID: RE16-10-3799MSD
Lab Sample ID: 1202072985
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 6.5
Analysis Date: 03/25/2010 17:25
Prep Batch ID: 965978
Batch ID: 965979
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD Fluorene	1780	0.00	U	1150	65	33-105	7	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	1780	0.00	U	1110	62	30-110	7	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	1780	0.00	U	987	55	26-97	8	0-30
100-01-6	MSD 4-Nitroaniline *p-Nitroaniline*	1780	0.00	U	1530	86	28-135	14	0-30
122-39-4	MSD Diphenylamine	1780	0.00	U	1020	57	33-109	7	0-30
122-66-7	MSD Azobenzene *1,2-Diphenylhydrazine*	1780	0.00	U	1100	62	31-113	8	0-30
101-55-3	MSD 4-Bromophenylphenylether	1780	0.00	U	981	55	31-109	7	0-30
118-74-1	MSD Hexachlorobenzene	1780	0.00	U	969	54	37-99	8	0-30
85-01-8	MSD Phenanthrene	1780	0.00	U	1020	57	29-109	8	0-30
120-12-7	MSD Anthracene	1780	0.00	U	1030	58	19-118	7	0-30
84-74-2	MSD Di-n-butylphthalate	1780	0.00	U	1170	65	39-123	4	0-30
206-44-0	MSD Fluoranthene	1780	0.00	U	1150	65	33-114	6	0-30
85-68-7	MSD Butylbenzylphthalate	1780	0.00	U	1020	58	35-131	1	0-30
56-55-3	MSD Benzo(a)anthracene	1780	0.00	U	1000	56	30-111	1	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	1780	0.00	U	816	46	30-124	10	0-30
218-01-9	MSD Chrysene	1780	0.00	U	1060	60	32-108	5	0-30
117-81-7	MSD bis(2-Ethylhexyl)phthalate	1780	0.00	U	1060	59	37-129	1	0-30
117-84-0	MSD Di-n-octylphthalate	1780	0.00	U	1080	61	31-143	1	0-30
205-99-2	MSD Benzo(b)fluoranthene	1780	0.00	U	1120	63	29-118	8	0-30
207-08-9	MSD Benzo(k)fluoranthene	1780	0.00	U	1020	57	32-118	5	0-30
50-32-8	MSD Benzo(a)pyrene	1780	0.00	U	1070	60	33-115	3	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	1780	0.00	U	1090	61	29-114	10	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2315
Client ID: RE16-10-3799MSD
Lab Sample ID: 1202072985
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 6.5
Analysis Date: 03/25/2010 17:25
Dilution: 1
Prep Batch ID: 965978
Batch ID: 965979

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1780	0.00	U	1120	63	27-119	12	0-30
191-24-2	MSD Benzo(ghi)perylene	1780	0.00	U	1060	59	28-112	11	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1780	0.00	U	1010	57	28-99	7	0-30

Method Blank Summary

SDG Number:	10-2315	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965978	Instrument ID:	MSD2.I	Data File:	s2c2505-1.d
Lab Sample ID:	1202072982	Prep Date:	03/17/2010 10:52	Analyzed:	03/25/10 16:05
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 965978	1202072983	s2c2506-1.d	03/25/10	1624
04 RE46-10-12936	248863001	s2c2527.d	03/25/10	2329
05 RE46-10-12930	248863002	s2c2528.d	03/25/10	2349
06 RE46-10-12929	248863003	s2c2529.d	03/26/10	0009
07 RE46-10-12935	248863004	s2c2530.d	03/26/10	0030

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2315

Instrument ID: MSD2.I **Injection Date/Time:** 12-MAR-10 14:32

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s031210.b/s2c1201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	51.2
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	43.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.7
197	0 - 1% of mass 198	0.5
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	21.3
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	67.2
442	Greater than 40% of mass 198	65.7
443	17 - 23% of mass 442	21.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100309-08	s2c1203.d	12-MAR-10 15:04
MEGA010	WBN100309-07	s2c1204.d	12-MAR-10 15:31
MEGA020	WBN100309-06	s2c1205.d	12-MAR-10 15:59
MEGA040	WBN100309-05.1	s2c1206.d	12-MAR-10 16:23
MEGA050	WBN100309-04	s2c1207.d	12-MAR-10 16:48
MEGA080	WBN100309-03	s2c1208.d	12-MAR-10 17:13
MEGA100	WBN100309-02	s2c1209.d	12-MAR-10 17:38
MEGA120	WBN100309-01	s2c1210.d	12-MAR-10 18:02
MEGAICV	WBN100309-09.1	s2c1212.d	12-MAR-10 18:54
AP010	WBN100218-01	s2c1213.d	12-MAR-10 19:18
AP020	WBN100218-02	s2c1214.d	12-MAR-10 19:39
AP040	WBN100218-03.1	s2c1215.d	12-MAR-10 19:59
AP050	WBN100218-04	s2c1216.d	12-MAR-10 20:19
AP080	WBN100218-05	s2c1217.d	12-MAR-10 20:39
AP100	WBN100218-06	s2c1218.d	12-MAR-10 20:59
AP120	WBN100218-07	s2c1219.d	12-MAR-10 21:19

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2315

Instrument ID: MSD2.I **Injection Date/Time:** 12-MAR-10 14:32

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s031210.b/s2c1201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	51.2
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	43.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.7
197	0 - 1% of mass 198	0.5
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	21.3
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	67.2
442	Greater than 40% of mass 198	65.7
443	17 - 23% of mass 442	21.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
APICV	WBN100218-08.1	s2c1227.d	13-MAR-10 00:00

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2315

Instrument ID: MSD2.I **Injection Date/Time:** 25-MAR-10 14:45

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s032510.b/s2c2501.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	55.8
68	Less than 2% of mass 69	1.4
69	Mass 69 Relative Abundance	46.7
70	Less than 2% of mass 69	0.4
127	40 - 60% of mass 198	53.2
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	21.4
365	Greater than 1% of mass 198	2.7
441	Present, but less than mass 443	69.2
442	Greater than 40% of mass 198	66
443	17 - 23% of mass 442	21.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-09.1	s2c2502.d	25-MAR-10 14:58
APCVS	WBN100218-08.1	s2c2503.d	25-MAR-10 15:24
SBLK01	1202072982	s2c2505-1.d	25-MAR-10 16:05
SBLK01LCS	1202072983	s2c2506-1.d	25-MAR-10 16:24
RE46-10-12936	248863001	s2c2527.d	25-MAR-10 23:29
RE46-10-12930	248863002	s2c2528.d	25-MAR-10 23:49
RE46-10-12929	248863003	s2c2529.d	26-MAR-10 00:09
RE46-10-12935	248863004	s2c2530.d	26-MAR-10 00:30

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2315

Instrument: MSD2.I

STD Analysis Time: 25-MAR-10 14:58

GC Column: J&W DB-5MS

Data File: s2c2502.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	165409		3.84	774230		4.7	421050		5.95	753174		6.94	671706		8.6	435860		10.0
Upper Limit	330818		4.34	1548460		5.2	842100		6.45	1506348		7.44	1343412		9.1	871720		10.5
Lower Limit	82705		3.34	387115		4.2	210525		5.45	376587		6.44	335853		8.1	217930		9.54
Sample ID																		
LK01	136360		3.84	529830		4.7	324342		5.94	599949		6.93	460744		8.59	288448		10.0
LK01LCS	168920		3.84	768523		4.7	409646		5.94	798278		6.94	752653		8.59	503248		10.0
E46-10-12936	203502		3.84	800229		4.7	492192		5.95	899384		6.94	676974		8.59	408897		10.0
E46-10-12930	130916		3.84	525193		4.7	359385		5.95	611880		6.94	501131		8.59	347516		10.0
E46-10-12929	136190		3.84	540745		4.7	339020		5.95	611690		6.94	448870		8.59	273645		10.0
E46-10-12935	135623		3.84	540960		4.7	333190		5.95	603611		6.94	449031		8.59	270610		10.0

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12929**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 00:09**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2529.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	403	ug/kg	80.6	403
108-95-2	Phenol	U	403	ug/kg	80.6	403
95-57-8	2-Chlorophenol	U	403	ug/kg	80.6	403
106-46-7	1,4-Dichlorobenzene	U	403	ug/kg	80.6	403
621-64-7	N-Nitrosodipropylamine	U	403	ug/kg	80.6	403
59-50-7	4-Chloro-3-methylphenol	U	403	ug/kg	80.6	403
83-32-9	Acenaphthene	U	40.3	ug/kg	13.3	40.3
121-14-2	2,4-Dinitrotoluene	U	403	ug/kg	40.3	403
100-02-7	4-Nitrophenol	U	403	ug/kg	133	403
87-86-5	Pentachlorophenol	U	403	ug/kg	101	403
129-00-0	Pyrene	U	40.3	ug/kg	12.1	40.3
110-86-1	Pyridine	U	403	ug/kg	80.6	403
62-53-3	Aniline	U	403	ug/kg	121	403
111-44-4	bis(2-Chloroethyl) ether	U	403	ug/kg	80.6	403
541-73-1	1,3-Dichlorobenzene	U	403	ug/kg	80.6	403
100-51-6	Benzyl alcohol	U	403	ug/kg	121	403
95-50-1	1,2-Dichlorobenzene	U	403	ug/kg	80.6	403
108-60-1	bis(2-Chloroisopropyl)ether	U	403	ug/kg	80.6	403
95-48-7	o-Cresol	U	403	ug/kg	80.6	403
65794-96-9	m,p-Cresols	U	403	ug/kg	121	403
67-72-1	Hexachloroethane	U	403	ug/kg	80.6	403
98-95-3	Nitrobenzene	U	403	ug/kg	80.6	403
78-59-1	Isophorone	U	403	ug/kg	80.6	403
88-75-5	2-Nitrophenol	U	403	ug/kg	80.6	403
105-67-9	2,4-Dimethylphenol	U	403	ug/kg	141	403
111-91-1	bis(2-Chloroethoxy)methane	U	403	ug/kg	80.6	403
120-83-2	2,4-Dichlorophenol	U	403	ug/kg	80.6	403
65-85-0	Benzoic acid	U	806	ug/kg	201	806
91-20-3	Naphthalene	U	40.3	ug/kg	12.1	40.3
106-47-8	4-Chloroaniline	U	403	ug/kg	80.6	403
87-68-3	Hexachlorobutadiene	U	403	ug/kg	80.6	403
91-57-6	2-Methylnaphthalene	U	40.3	ug/kg	8.06	40.3
77-47-4	Hexachlorocyclopentadiene	U	403	ug/kg	80.6	403
88-06-2	2,4,6-Trichlorophenol	U	403	ug/kg	80.6	403
95-95-4	2,4,5-Trichlorophenol	U	403	ug/kg	80.6	403
91-58-7	2-Chloronaphthalene	U	40.3	ug/kg	13.3	40.3
88-74-4	2-Nitroaniline	U	403	ug/kg	80.6	403
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	403	ug/kg	80.6	403

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12929**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 00:09**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2529.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	403	ug/kg	80.6	403
606-20-2	2,6-Dinitrotoluene	U	403	ug/kg	40.3	403
208-96-8	Acenaphthylene	U	40.3	ug/kg	12.1	40.3
51-28-5	2,4-Dinitrophenol	U	806	ug/kg	153	806
132-64-9	Dibenzofuran	U	403	ug/kg	80.6	403
84-66-2	Diethylphthalate	U	403	ug/kg	80.6	403
86-73-7	Fluorene	U	40.3	ug/kg	12.1	40.3
7005-72-3	4-Chlorophenylphenylether	U	403	ug/kg	80.6	403
534-52-1	2-Methyl-4,6-dinitrophenol	U	403	ug/kg	80.6	403
100-01-6	4-Nitroaniline	U	403	ug/kg	121	403
	p-Nitroaniline					
122-39-4	Diphenylamine	U	403	ug/kg	80.6	403
122-66-7	Azobenzene	U	403	ug/kg	80.6	403
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	403	ug/kg	80.6	403
118-74-1	Hexachlorobenzene	U	403	ug/kg	80.6	403
85-01-8	Phenanthrene	U	40.3	ug/kg	12.1	40.3
120-12-7	Anthracene	U	40.3	ug/kg	8.06	40.3
84-74-2	Di-n-butylphthalate	U	403	ug/kg	80.6	403
206-44-0	Fluoranthene	U	40.3	ug/kg	12.1	40.3
85-68-7	Butylbenzylphthalate	U	403	ug/kg	80.6	403
56-55-3	Benzo(a)anthracene	U	40.3	ug/kg	12.1	40.3
91-94-1	3,3'-Dichlorobenzidine	U	403	ug/kg	121	403
218-01-9	Chrysene	U	40.3	ug/kg	12.1	40.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	403	ug/kg	80.6	403
117-84-0	Di-n-octylphthalate	U	403	ug/kg	80.6	403
205-99-2	Benzo(b)fluoranthene	U	40.3	ug/kg	12.1	40.3
207-08-9	Benzo(k)fluoranthene	U	40.3	ug/kg	12.1	40.3
50-32-8	Benzo(a)pyrene	U	40.3	ug/kg	12.1	40.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.3	ug/kg	12.1	40.3
53-70-3	Dibenzo(a,h)anthracene	U	40.3	ug/kg	12.1	40.3
191-24-2	Benzo(ghi)perylene	U	40.3	ug/kg	12.1	40.3
120-82-1	1,2,4-Trichlorobenzene	U	403	ug/kg	80.6	403

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	478	ug/kg		JA
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	8.19	426	ug/kg	93	NJ

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2529.d
Lab Smp Id: 248863003 Client Smp ID: RE46-10-12929
Inj Date : 26-MAR-2010 00:09
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248863003|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2315.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	17.28000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.843	3.843	(1.000)	136190	40.0000	
* 29 Naphthalene-d8	136	4.704	4.704	(1.000)	540745	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	339020	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	611690	40.0000	
* 91 Chrysene-d12	240	8.592	8.603	(1.000)	448870	40.0000	
* 98 Perylene-d12	264	10.026	10.042	(1.000)	273645	40.0000	
$ 3 2-Fluorophenol	112	3.046	3.035	(0.793)	192832	59.4637	2400
$ 5 Phenol-d5	99	3.565	3.565	(0.928)	223405	55.9454	2250
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.893)	116538	29.7771	1200
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	244739	26.2389	1060
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.090)	64459	64.2830	2590
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	324692	39.6626	1600

ION RATIO REPORT

SV REPORT

Data file: s2c2529.d
Report Date: 03/26/2010 13:42
Lab. ID: 248863003 SampleType: SAMPLE
Injection Date: 26-MAR-2010 00:09
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248863003|965979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2315
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	18810	4.20	4.08	80-120	100	(T)
42	15662	4.20	4.08	90-150	83	(QT)
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	3085	5.68	5.55	80-120	100	(T)
164	122	5.68	5.55	2- 62	4	(T)
127	322	5.68	5.55	11- 71	10	(QT)
42 o-Nitroaniline				CAS#: 88-74-4		
65	5198	5.68	5.61	80-120	100	(T)
92	5640	5.68	5.61	28- 88	108	(QT)
138	215	5.68	5.61	62-122	4	(QT)
41 m-Nitroaniline				CAS#: 99-09-2		
138	215	5.68	5.90	80-120	100	(T)
92	5640	5.68	5.90	82-142	2623	(QT)
108	4817	5.68	5.90	0- 42	2240	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	61443	5.95	5.72	80-120	100	(T)
164	339020	5.95	5.72	0- 40	552	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	43305	5.95	5.77	80-120	100	(T)
63	719	5.94	5.77	85-145	2	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	43305	5.95	6.06	80-120	100	(T)
89	815	5.95	6.06	55-115	2	(QT)
63	719	5.94	6.06	44-104	2	(QT)
53 Fluorene			CAS#: 86-73-7			
166	3273	6.48	6.32	80-120	100	(T)
165	4097	6.48	6.32	63-123	125	(QT)
167	1072	6.48	6.32	0- 43	33	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	257	6.48	6.34	80-120	100	(T)
105	1931	6.48	6.34	17- 77	749	(QT)
51	1369	6.48	6.34	99-159	531	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

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Data file : /chem/MSD2.i/s032510.b/s2c2529.d
Lab Smp Id: 248863003 Client Smp ID: RE46-10-12929
Inj Date : 26-MAR-2010 00:09
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248863003|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2315.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	17.28000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.843	1019060	40.000
* 91 Chrysene-d12	8.592	1319413	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.875	302147	11.8598306	478	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	========	======
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa					CAS #: 511-15-9		
8.186	348838	10.5755412	426	93	NIST05.L	116239	91

Data File: /chem/MSD2.i/s032510.b/s2c2529.d

Date : 26-MAR-2010 00:09

Client ID: RE46-10-12929

Sample Info: 1248863003196597911|SVMI1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Page 1

Instrument: MSD2.i

Operator: AGS1

Column diameter: 0.20

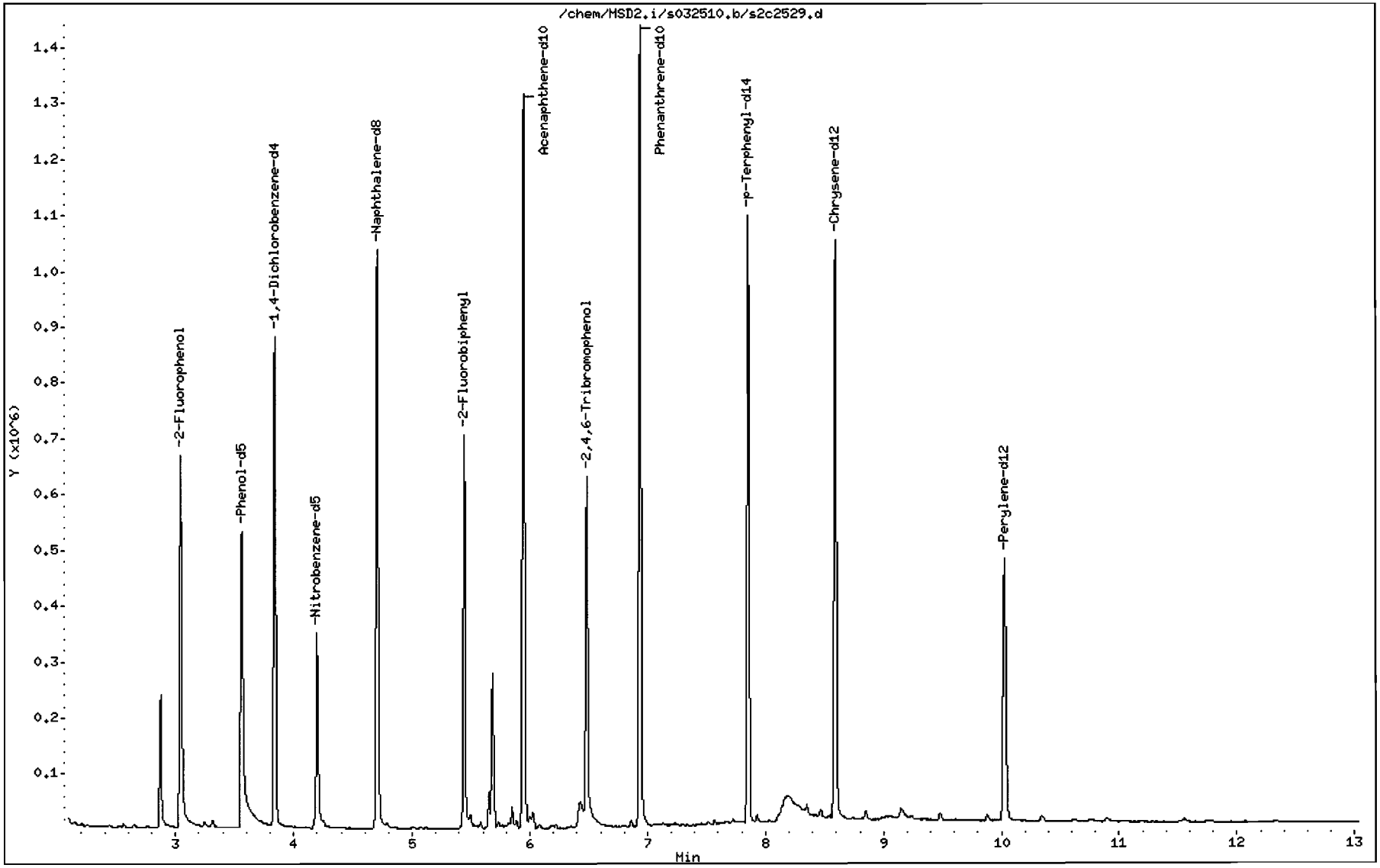

Data File: /chem/MSD2.i/s032510.b/s2c2529.d

Date : 26-MAR-2010 00:09

Client ID: RE46-10-12929

Instrument: MSD2.i

Sample Info: 1248863003|965979|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
1-Propen-2-ol, acetate	108-22-5	NIST05.L	3595	10	C5H8O2	100

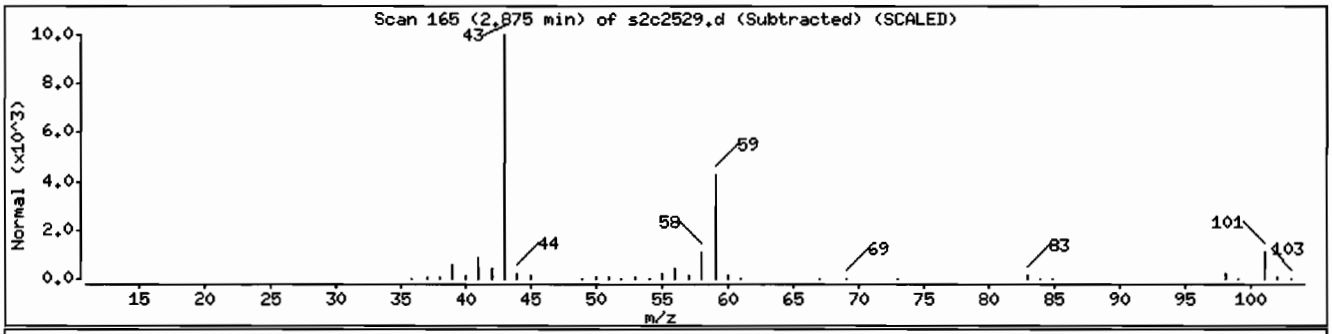

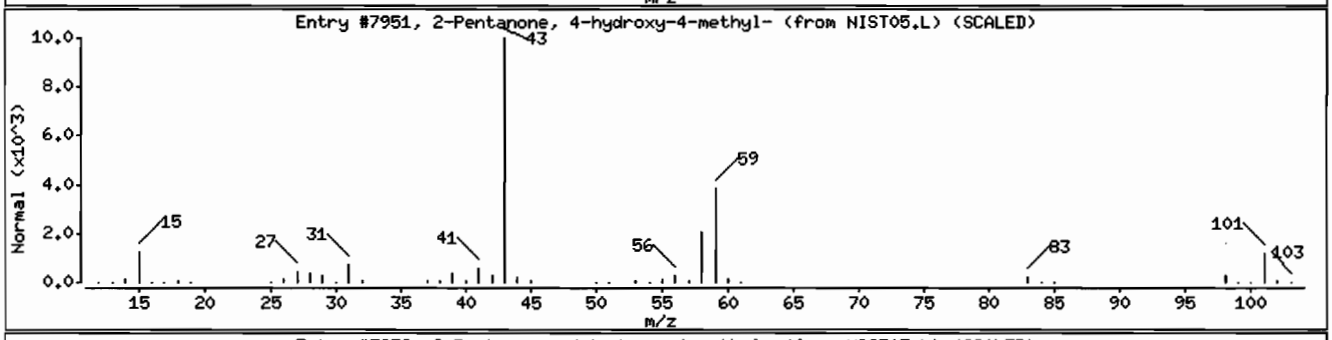

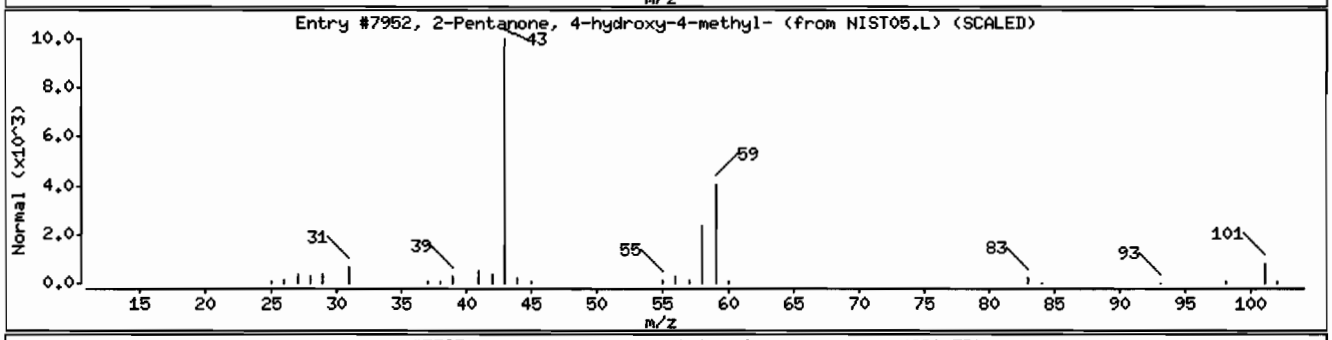

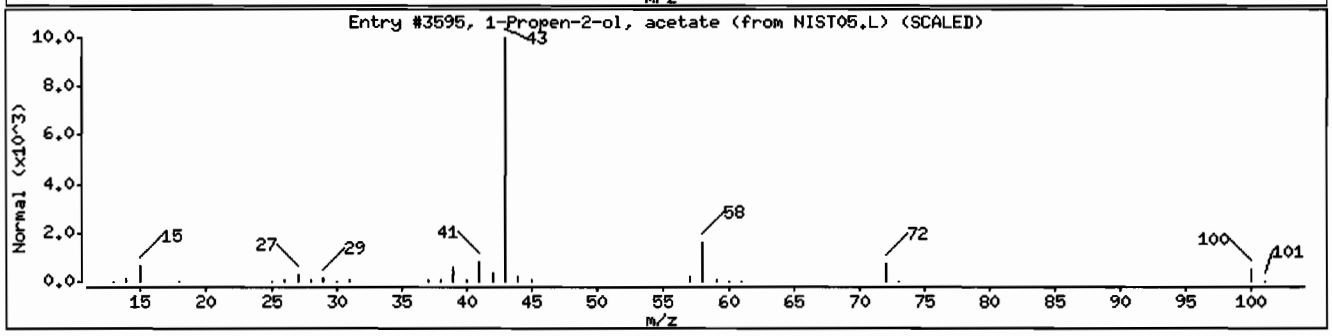

Data File: /chem/MSD2.i/s032510.b/s2c2529.d

Date : 26-MAR-2010 00:09

Client ID: RE46-10-12929

Instrument: MSD2.i

Sample Info: 1248863003|965979|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116239	93	C20H30O	286
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116238	93	C20H30O	286
Methyl cis-3-[p-anisidolacrylate	7542-88-3	NIST05.L	61971	20	C11H13NO3	207

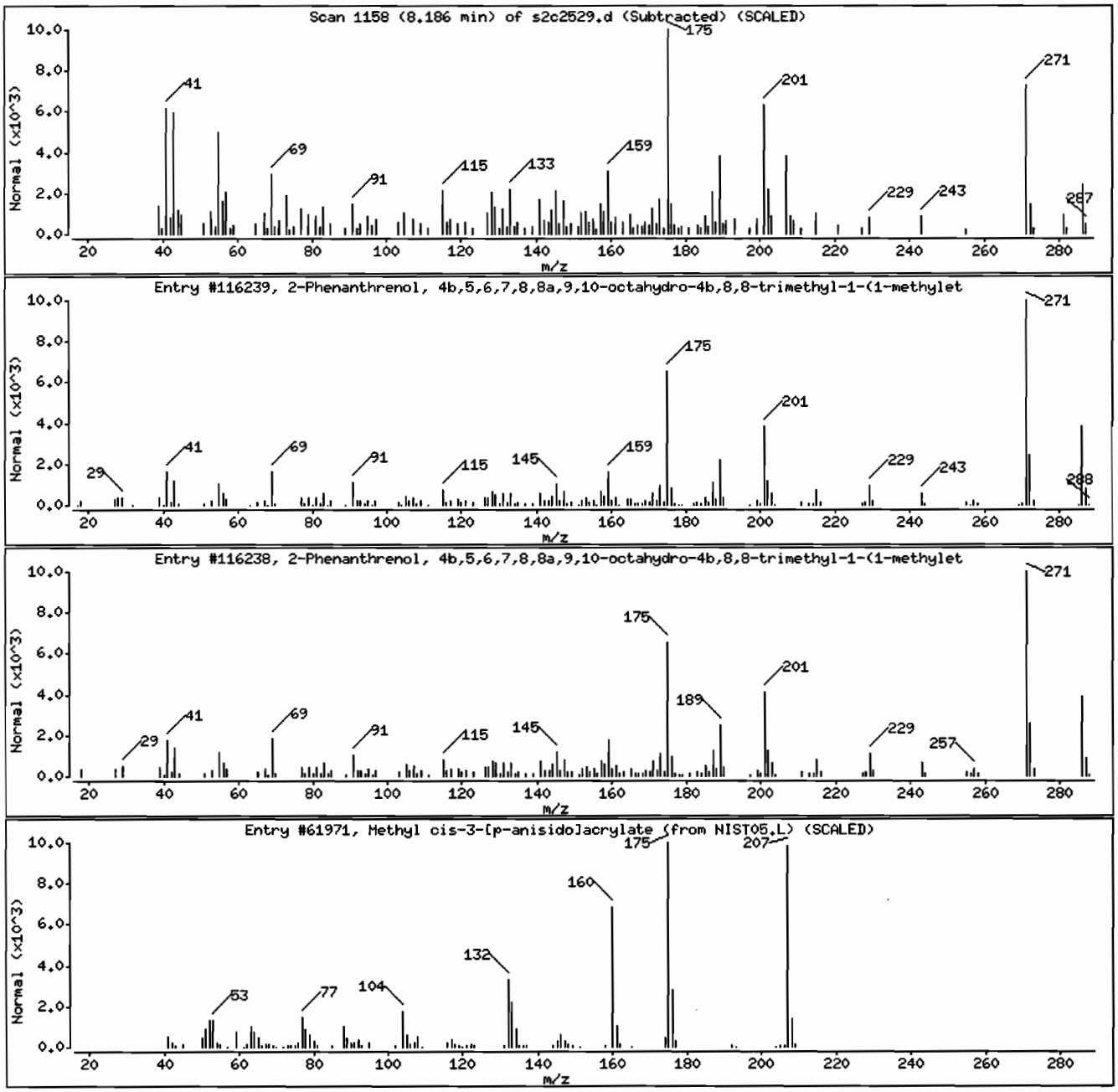

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12930**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 23:49**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2528.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	364	ug/kg	72.8	364
108-95-2	Phenol	U	364	ug/kg	72.8	364
95-57-8	2-Chlorophenol	U	364	ug/kg	72.8	364
106-46-7	1,4-Dichlorobenzene	U	364	ug/kg	72.8	364
621-64-7	N-Nitrosodipropylamine	U	364	ug/kg	72.8	364
59-50-7	4-Chloro-3-methylphenol	U	364	ug/kg	72.8	364
83-32-9	Acenaphthene	U	36.4	ug/kg	12.0	36.4
121-14-2	2,4-Dinitrotoluene	U	364	ug/kg	36.4	364
100-02-7	4-Nitrophenol	U	364	ug/kg	120	364
87-86-5	Pentachlorophenol	U	364	ug/kg	91.0	364
129-00-0	Pyrene	U	36.4	ug/kg	10.9	36.4
110-86-1	Pyridine	U	364	ug/kg	72.8	364
62-53-3	Aniline	U	364	ug/kg	109	364
111-44-4	bis(2-Chloroethyl) ether	U	364	ug/kg	72.8	364
541-73-1	1,3-Dichlorobenzene	U	364	ug/kg	72.8	364
100-51-6	Benzyl alcohol	U	364	ug/kg	109	364
95-50-1	1,2-Dichlorobenzene	U	364	ug/kg	72.8	364
108-60-1	bis(2-Chloroisopropyl)ether	U	364	ug/kg	72.8	364
95-48-7	o-Cresol	U	364	ug/kg	72.8	364
65794-96-9	m,p-Cresols	U	364	ug/kg	109	364
67-72-1	Hexachloroethane	U	364	ug/kg	72.8	364
98-95-3	Nitrobenzene	U	364	ug/kg	72.8	364
78-59-1	Isophorone	U	364	ug/kg	72.8	364
88-75-5	2-Nitrophenol	U	364	ug/kg	72.8	364
105-67-9	2,4-Dimethylphenol	U	364	ug/kg	127	364
111-91-1	bis(2-Chloroethoxy)methane	U	364	ug/kg	72.8	364
120-83-2	2,4-Dichlorophenol	U	364	ug/kg	72.8	364
65-85-0	Benzoic acid	U	728	ug/kg	182	728
91-20-3	Naphthalene	U	36.4	ug/kg	10.9	36.4
106-47-8	4-Chloroaniline	U	364	ug/kg	72.8	364
87-68-3	Hexachlorobutadiene	U	364	ug/kg	72.8	364
91-57-6	2-Methylnaphthalene	U	36.4	ug/kg	7.28	36.4
77-47-4	Hexachlorocyclopentadiene	U	364	ug/kg	72.8	364
88-06-2	2,4,6-Trichlorophenol	U	364	ug/kg	72.8	364
95-95-4	2,4,5-Trichlorophenol	U	364	ug/kg	72.8	364
91-58-7	2-Chloronaphthalene	U	36.4	ug/kg	12.0	36.4
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	364	ug/kg	72.8	364
99-09-2	3-Nitroaniline	U	364	ug/kg	72.8	364

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12930**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 23:49**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2528.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	364	ug/kg	72.8	364
606-20-2	2,6-Dinitrotoluene	U	364	ug/kg	36.4	364
208-96-8	Acenaphthylene	U	36.4	ug/kg	10.9	36.4
51-28-5	2,4-Dinitrophenol	U	728	ug/kg	138	728
132-64-9	Dibenzofuran	U	364	ug/kg	72.8	364
84-66-2	Diethylphthalate	U	364	ug/kg	72.8	364
86-73-7	Fluorene	U	36.4	ug/kg	10.9	36.4
7005-72-3	4-Chlorophenylphenylether	U	364	ug/kg	72.8	364
534-52-1	2-Methyl-4,6-dinitrophenol	U	364	ug/kg	72.8	364
100-01-6	4-Nitroaniline	U	364	ug/kg	109	364
	p-Nitroaniline					
122-39-4	Diphenylamine	U	364	ug/kg	72.8	364
122-66-7	Azobenzene	U	364	ug/kg	72.8	364
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	364	ug/kg	72.8	364
118-74-1	Hexachlorobenzene	U	364	ug/kg	72.8	364
85-01-8	Phenanthrene	U	36.4	ug/kg	10.9	36.4
120-12-7	Anthracene	U	36.4	ug/kg	7.28	36.4
84-74-2	Di-n-butylphthalate	U	364	ug/kg	72.8	364
206-44-0	Fluoranthene	U	36.4	ug/kg	10.9	36.4
85-68-7	Butylbenzylphthalate	U	364	ug/kg	72.8	364
56-55-3	Benzo(a)anthracene	U	36.4	ug/kg	10.9	36.4
91-94-1	3,3'-Dichlorobenzidine	U	364	ug/kg	109	364
218-01-9	Chrysene	U	36.4	ug/kg	10.9	36.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	364	ug/kg	72.8	364
117-84-0	Di-n-octylphthalate	U	364	ug/kg	72.8	364
205-99-2	Benzo(b)fluoranthene	U	36.4	ug/kg	10.9	36.4
207-08-9	Benzo(k)fluoranthene	U	36.4	ug/kg	10.9	36.4
50-32-8	Benzo(a)pyrene	U	36.4	ug/kg	10.9	36.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.4	ug/kg	10.9	36.4
53-70-3	Dibenzo(a,h)anthracene	U	36.4	ug/kg	10.9	36.4
191-24-2	Benzo(ghi)perylene	U	36.4	ug/kg	10.9	36.4
120-82-1	1,2,4-Trichlorobenzene	U	364	ug/kg	72.8	364

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	386	ug/kg		JA
76-49-3	Bornyl acetate	5.08	253	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2315	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248863002	**Date Received:**	03/06/2010 09:15	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12930	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 23:49	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s2c2528.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
150320-52-8	Bicyclo[4.4.0]dec-1-ene, 2-isopropyl-5-m	5.5	635	ug/kg	86	NJ
	Unknown	5.66	2450	ug/kg		J
546-28-1	1H-3a,7-Methanoazulene, octahydro-3,8,8-	5.74	168	ug/kg	92	NJ
30021-74-0	Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro	5.83	150	ug/kg	95	NJ
	Unknown	5.89	462	ug/kg		J
19912-83-5	Spiro[5.5]undeca-1,8-diene, 1,5,5,9-tetr	5.98	329	ug/kg	90	NJ
	Unknown	6.01	787	ug/kg		J
	Unknown	6.03	1000	ug/kg		J
4045-44-7	1,3-Cyclopentadiene, 1,2,3,4,5-pentameth	6.08	334	ug/kg	95	NJ
	Unknown	6.22	175	ug/kg		J
	Unknown	6.55	274	ug/kg		J
	Unknown	6.58	204	ug/kg		J
	Unknown	6.84	617	ug/kg		J
	Unknown	6.89	182	ug/kg		J
	Unknown	7	231	ug/kg		J
	Unknown	7.05	226	ug/kg		J
	Unknown	7.15	540	ug/kg		J
	Unknown	7.2	456	ug/kg		J
	Unknown	7.3	441	ug/kg		J
	Unknown	8.34	533	ug/kg		J
18326-16-4	Podocarpa-8,11,13-trien-3-one, 14-isopro	8.54	211	ug/kg	96	NJ
15372-53-9	Podocarpa-8,11,13-triene-1,3-dione, 14-i	8.63	550	ug/kg	95	NJ
6755-93-7	2(1H)-Phenanthrenone, 3,4,4a,9,10,10a-he	8.74	674	ug/kg	97	NJ
	Unknown	8.96	18200	ug/kg		J
	Unknown	9.15	772	ug/kg		J

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Data file : /chem/MSD2.i/s032510.b/s2c2528.d
Lab Smp Id: 248863002 Client Smp ID: RE46-10-12930
Inj Date : 25-MAR-2010 23:49
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248863002|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2315.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	8.46240	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.843	3.843	(1.000)	130916	40.0000	
* 29 Naphthalene-d8	136	4.704	4.704	(1.000)	525193	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	359385	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	611880	40.0000	
* 91 Chrysene-d12	240	8.592	8.603	(1.000)	501131	40.0000	
* 98 Perylene-d12	264	10.026	10.042	(1.000)	347516	40.0000	
$ 3 2-Fluorophenol	112	3.046	3.035	(0.793)	210534	67.5380	2460
$ 5 Phenol-d5	99	3.565	3.565	(0.928)	240735	62.7138	2280
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.893)	131117	34.4943	1260
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	263491	26.6486	970
$ 60 2,4,6-Tribromophenol	329	6.490	6.485	(1.091)	79678	74.9578	2730
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	393342	43.0377	1570

ION RATIO REPORT

SV REPORT

Data file: s2c2528.d
Report Date: 03/26/2010 13:42
Lab. ID: 248863002 SampleType: SAMPLE
Injection Date: 25-MAR-2010 23:49
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248863002|965979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2315
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	18883	3.56	3.63	80-120	100	(T)
93	1088	3.52	3.64	342-402	6	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	19927	4.20	4.08	80-120	100	(T)
42	17157	4.20	4.08	90-150	86	(QT)
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	4426	5.59	5.55	80-120	100	( )
164	1163	5.54	5.55	2- 62	26	( )
127	882	5.59	5.55	11- 71	20	( )
42 o-Nitroaniline				CAS#: 88-74-4		
65	8628	5.58	5.61	80-120	100	( )
92	11231	5.59	5.61	28- 88	130	(Q)
138	124	5.66	5.61	62-122	1	(Q)
41 m-Nitroaniline				CAS#: 99-09-2		
138	686	5.85	5.90	80-120	100	( )
92	85985	5.85	5.90	82-142	12523	(Q)
108	35726	5.85	5.90	0- 42	5203	(Q)
43 Dimethylphthalate				CAS#: 131-11-3		
163	106627	5.69	5.72	80-120	100	( )
164	12342	5.69	5.72	0- 40	12	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	46551	5.95	5.77	80-120	100	(T)
63	6833	5.94	5.77	85-145	15	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	46551	5.95	6.06	80-120	100	(T)
89	3724	5.94	6.06	55-115	8	(QT)
63	6823	5.94	6.06	44-104	15	(QT)
51 Diethylphthalate			CAS#: 84-66-2			
149	434377	6.42	6.20	80-120	100	(T)
177	114205	6.42	6.20	0- 52	26	(T)
150	1683633	6.42	6.20	0- 42	388	(QT)
53 Fluorene			CAS#: 86-73-7			
166	7587	6.37	6.32	80-120	100	( )
165	5270	6.37	6.32	63-123	69	( )
167	1136	6.37	6.32	0- 43	15	( )
54 4-Chlorophenylphenylether			CAS#: 7005-72-3			
204	52506	6.42	6.30	80-120	100	(T)
141	3116	6.42	6.30	44-104	6	(QT)
206	3055	6.42	6.30	2- 62	6	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	362	6.49	6.34	80-120	100	(T)
105	4469	6.54	6.34	17- 77	1234	(QT)
51	4383	6.48	6.34	99-159	1210	(QT)
56 p-Nitroaniline			CAS#: 100-01-6			
138	603	6.29	6.32	80-120	100	( )
108	5818	6.22	6.32	73-133	964	(QT)
92	4061	6.22	6.32	13- 73	673	(QT)
61 4-Bromophenylphenylether			CAS#: 101-55-3			
248	5752	6.49	6.63	80-120	100	(T)
141	53248	6.49	6.63	79-139	926	(QT)
250	11640	6.49	6.63	68-128	202	(QT)
76 Fluoranthene			CAS#: 206-44-0			
202	5244	7.85	7.67	80-120	100	(T)
203	2471	7.85	7.67	0- 47	47	(T)
101	1339	7.85	7.67	0- 39	26	(T)
79 Pyrene			CAS#: 129-00-0			
202	5244	7.85	7.81	80-120	100	( )
200	9361	7.85	7.81	0- 51	178	(Q)
101	1339	7.85	7.81	0- 40	26	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
85 Butylbenzylphthalate				CAS#: 85-68-7		
149	48341	8.14	8.13	80-120	100	( )
91	237589	8.14	8.13	42-102	491	(Q)
206	1324	8.14	8.13	0- 51	3	( )
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	4236	8.59	8.59	80-120	100	( )
226	430	8.59	8.59	0- 56	10	( )
229	4646	8.59	8.59	0- 50	110	(Q)
92 Chrysene			CAS#: 218-01-9			
228	4236	8.59	8.62	80-120	100	( )
229	4646	8.59	8.62	0- 50	110	(Q)
226	430	8.59	8.62	0- 59	10	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2528.d
Lab Smp Id: 248863002 Client Smp ID: RE46-10-12930
Inj Date : 25-MAR-2010 23:49
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248863002|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2315.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	8.46240	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.843	982066	40.000
* 29 Naphthalene-d8	4.704	1214972	40.000
* 46 Acenaphthene-d10	5.950	4117192	40.000
* 67 Phenanthrene-d10	6.940	1782377	40.000
* 91 Chrysene-d12	8.592	1581292	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.875	260367	10.6048509	386	0		0	10
Bornyl acetate					CAS #: 76-49-3		
5.078	210877	6.94262351	253	98	NIST05.L	54227	29
Bicyclo[4.4.0]dec-1-ene, 2-isopropyl-5-m					CAS #: 150320-52-8		
5.496	1794909	17.4381841	634	86	NIST05.L	59918	46
Unknown					CAS #:		
5.656	6920497	67.2351103	2450	0		0	46
1H-3a,7-Methanoazulene, octahydro-3,8,8-					CAS #: 546-28-1		
5.736	475355	4.61824224	168	92	NIST05.L	60040	46
Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro					CAS #: 30021-74-0		
5.827	424675	4.12586979	150	95	NIST05.L	60070'	46
Unknown					CAS #:		
5.891	1306912	12.6971201	462	0		0	46
Spiro[5.5]undeca-1,8-diene, 1,5,5,9-tetr					CAS #: 19912-83-5		
5.982	929826	9.03359297	329	90	NIST05.L	59904	46
Unknown					CAS #:		
6.009	2225724	21.6237086	787	0		0	46
Unknown					CAS #:		
6.030	2840143	27.5930120	1000	0		0	46
1,3-Cyclopentadiene, 1,2,3,4,5-pentameth					CAS #: 4045-44-7		
6.084	945224	9.18318591	334	95	NIST05.L	15328	46
Unknown					CAS #:		
6.223	494920	4.80832131	175	0		0	46
Unknown					CAS #:		
6.549	335919	7.53866984	274	0		0	67
Unknown					CAS #:		
6.576	249610	5.60173634	204	0		0	67
Unknown					CAS #:		
6.838	755633	16.9578643	617	0		0	67

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
6.892	222857	5.00133701	182	0		0	67
Unknown				CAS #:			
7.004	282577	6.34156696	231	0		0	67
Unknown				CAS #:			
7.052	276369	6.20225736	226	0		0	67
Unknown				CAS #:			
7.148	660769	14.8289362	540	0		0	67
Unknown				CAS #:			
7.196	558202	12.5271402	456	0		0	67
Unknown				CAS #:			
7.298	539706	12.1120379	441	0		0	67
Unknown				CAS #:			
8.336	579415	14.6567422	533	0		0	91
Podocarpa-8,11,13-trien-3-one, 14-isopro				CAS #: 18326-16-4			
8.544	229593	5.80773355	211	96	NIST05.L	133599	91
Podocarpa-8,11,13-triene-1,3-dione, 14-i				CAS #: 15372-53-9			
8.630	597160	15.1056141	550	95	NIST05.L	141463	91
2(1H)-Phenanthrenone, 3,4,4a,9,10,10a-he				CAS #: 6755-93-7			
8.737	732089	18.5187399	674	97	NIST05.L	125032	91
Unknown				CAS #:			
8.956	19783091	500.428384	18200	0		0	91
Unknown				CAS #:			
9.149	838423	21.2085596	772	0		0	91

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930

Sample Info: |2488630021965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: AGS1

Column diameter: 0.20

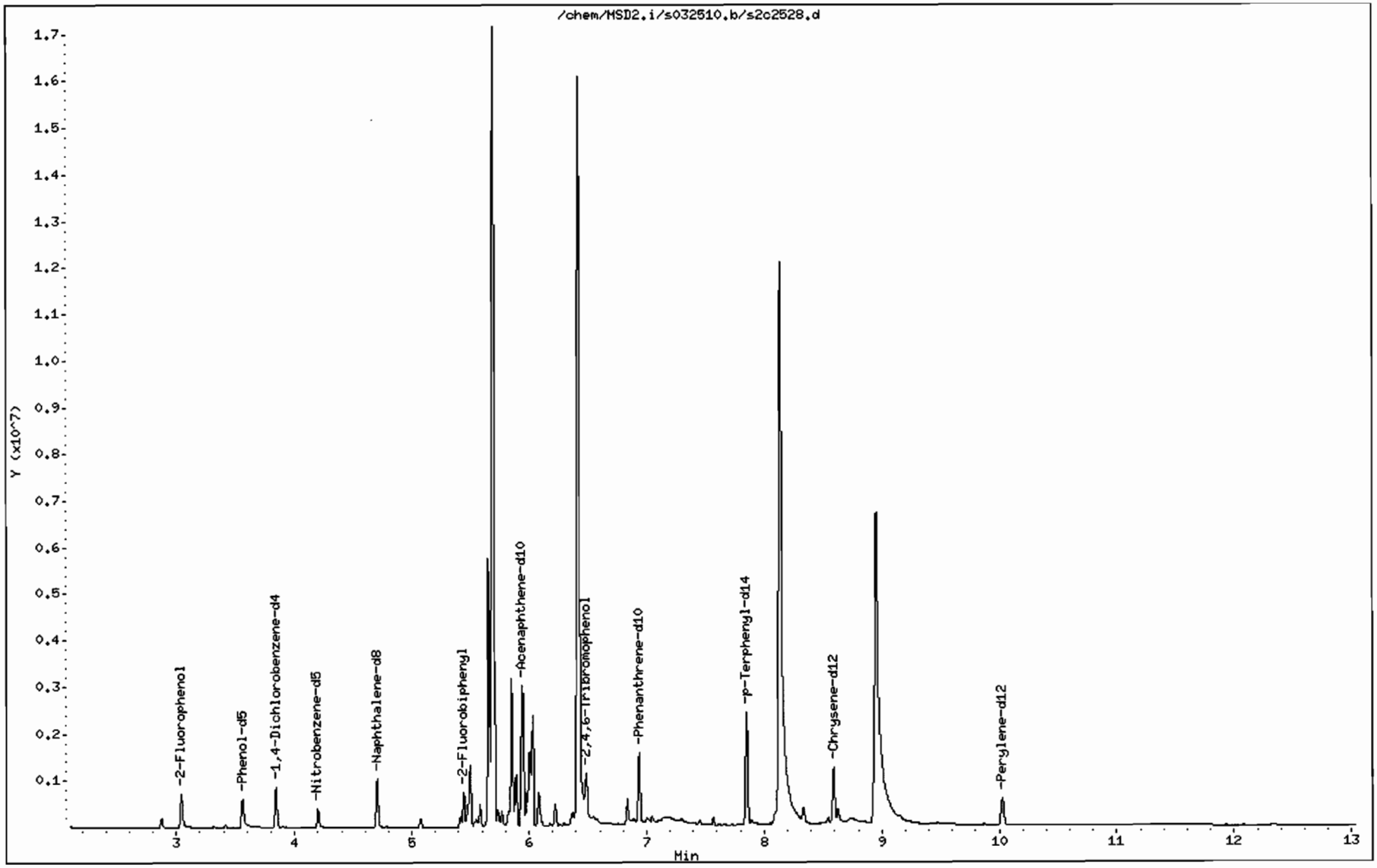

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930

Instrument: MSD2.i

Sample Info: 1248863002196597911SVMI1ILANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
1-Propen-2-ol, acetate	108-22-5	NIST05.L	3595	10	C5H8O2	100

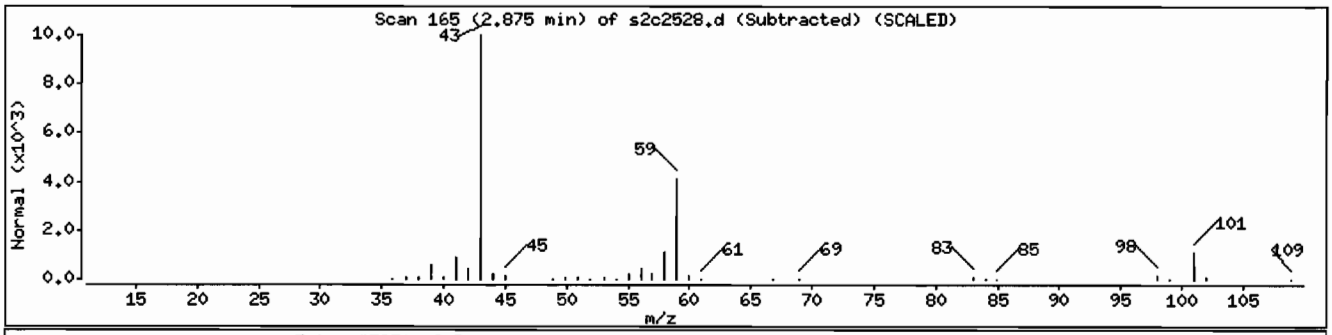

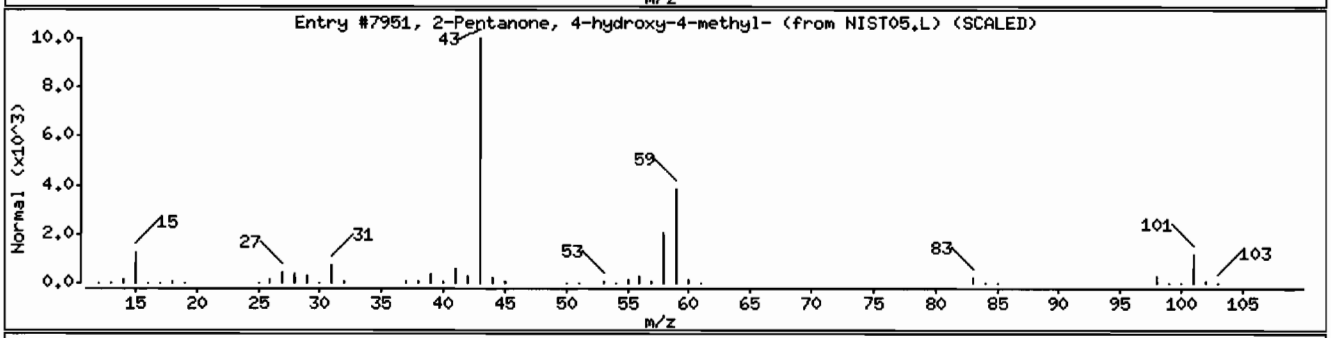

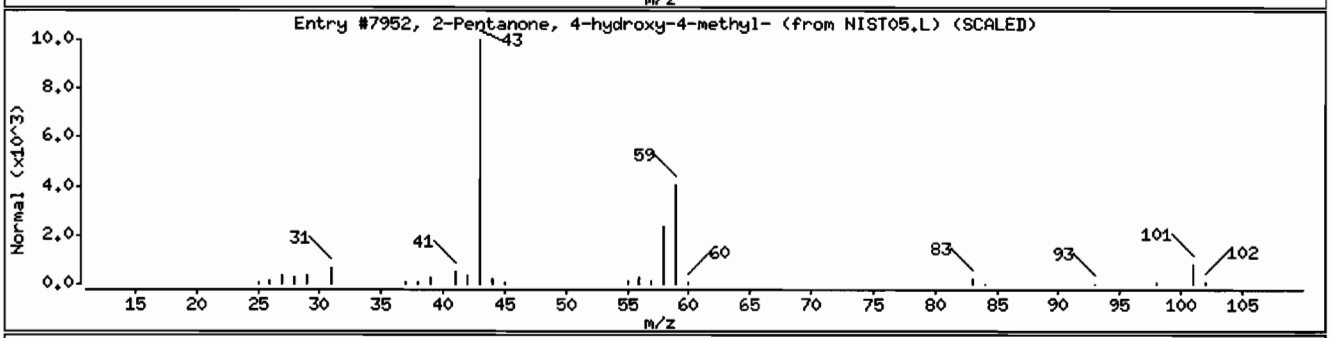

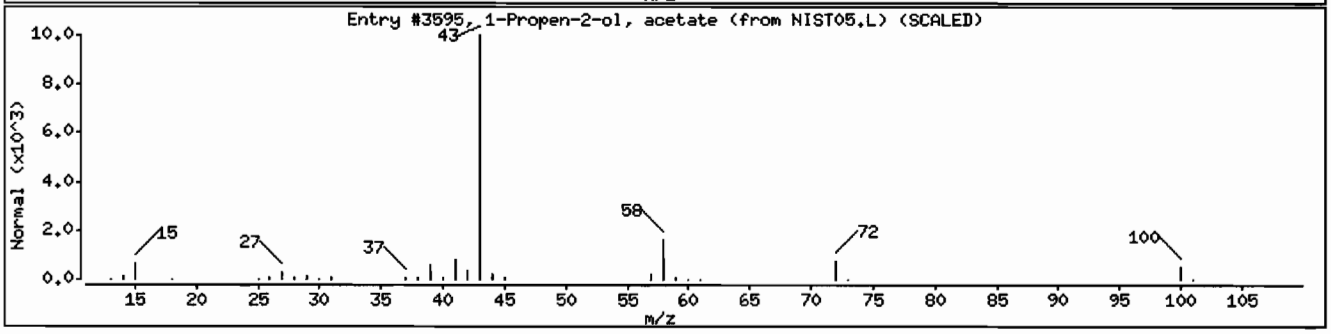

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930 Instrument: MSD2.i

Sample Info: |2488630021965979|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bornyl acetate	76-49-3	NIST05.L	54227	98	C12H2002	196
Acetic acid, 1,7,7-trimethyl-bicyclo[2.2	92618-89-8	NIST05.L	54321	98	C12H2002	196
Bornyl acetate	76-49-3	NIST05.L	54230	98	C12H2002	196

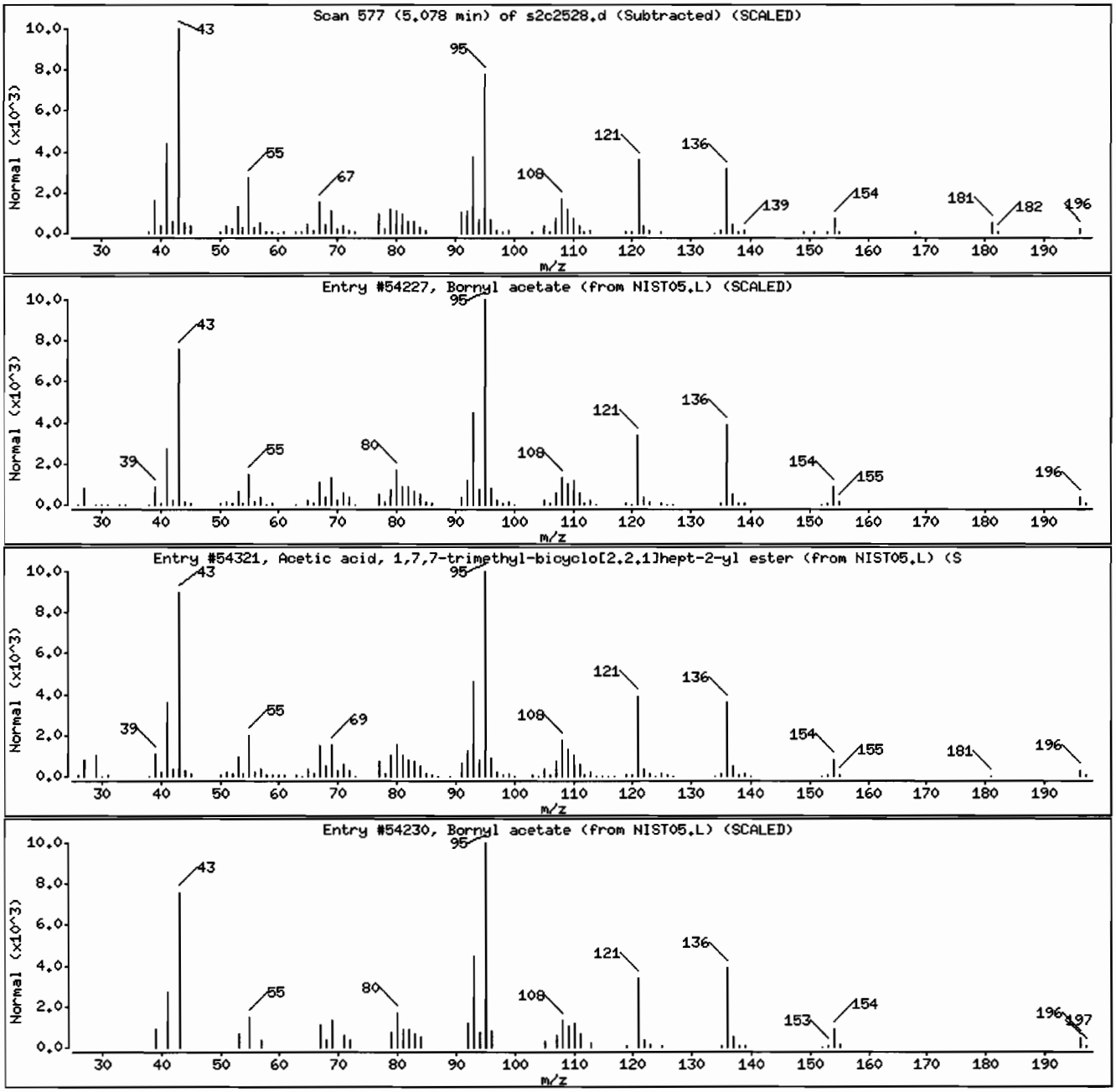

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930

Instrument: MSD2.i

Sample Info: 1248863002196597911ISVM11LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Bicyclo[4.4.0]dec-1-ene, 2-isopropyl-5-m	150320-52-8	NIST05.L	59918	86	C15H24	204
1H-Cyclopropa[a]naphthalene, 1a,2,3,5,6,	17334-55-3	NIST05.L	60094	64	C15H24	204
(+)-Epi-bicyclosesquiphellandrene	54324-03-7	NIST05.L	59869	47	C15H24	204

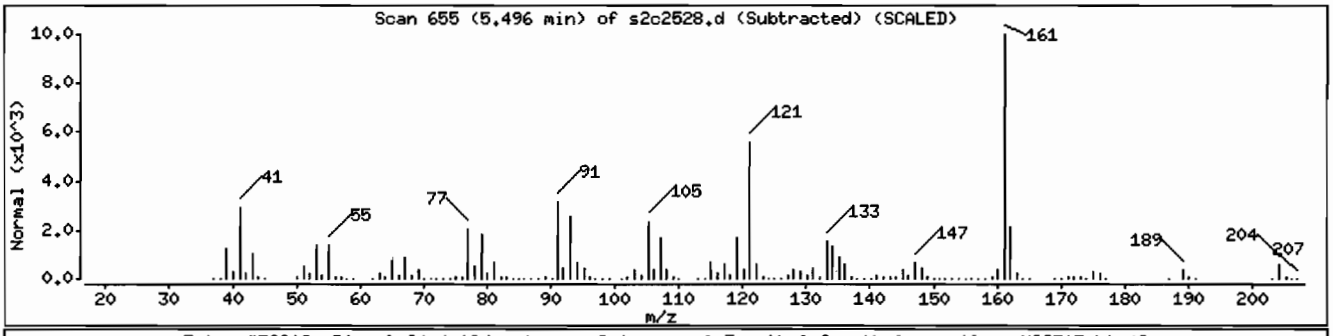

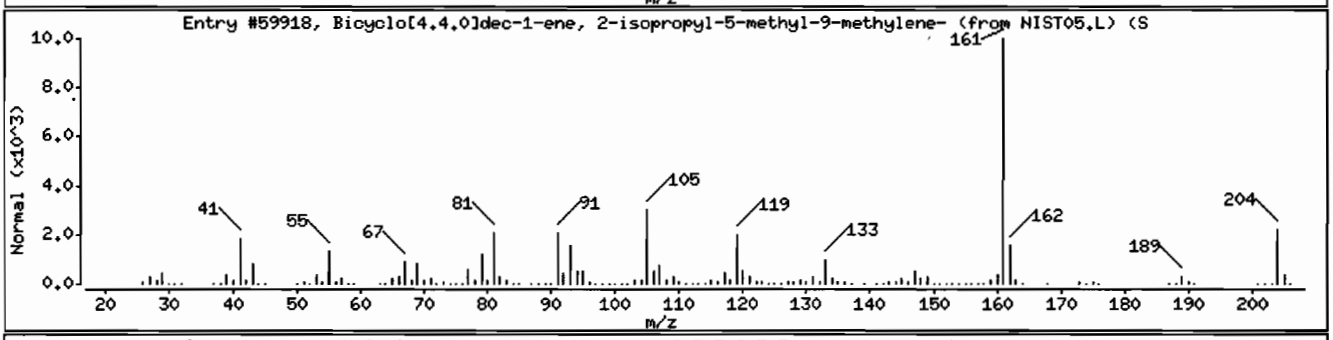

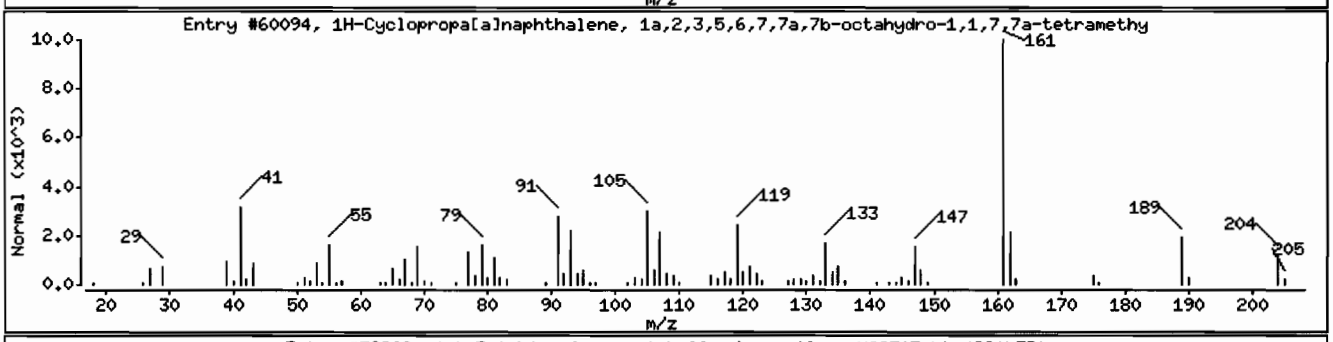

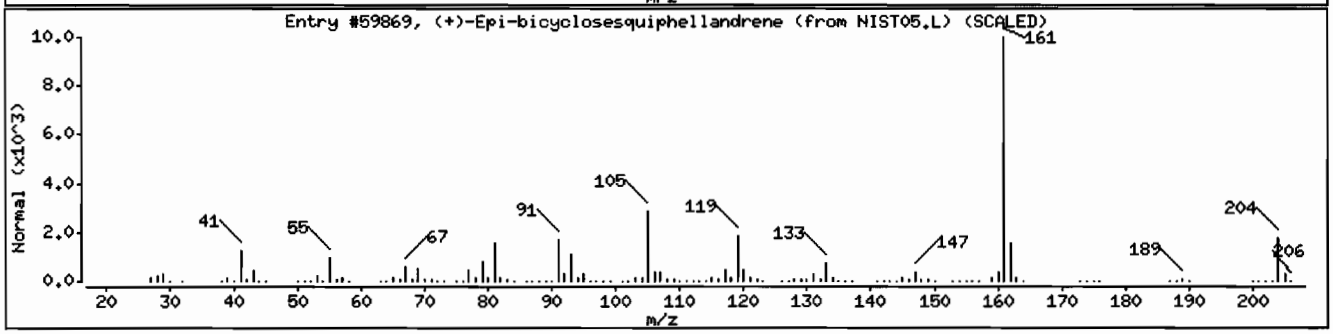

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930 Instrument: MSD2.i

Sample Info: 1248863002196597911SVMI1ILANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Tricyclo[5.4.0.0(2,8)]undec-9-ene, 2,6,6	5989-08-2	NIST05.L	59909	78	C15H24	204
Di-epi-.alpha.-cedrene	1000156-13-3	NIST05.L	59852	62	C15H24	204
Tricyclo[5.4.0.0(2,8)]undec-9-ene, 2,6,6	5989-08-2	NIST05.L	59907	58	C15H24	204

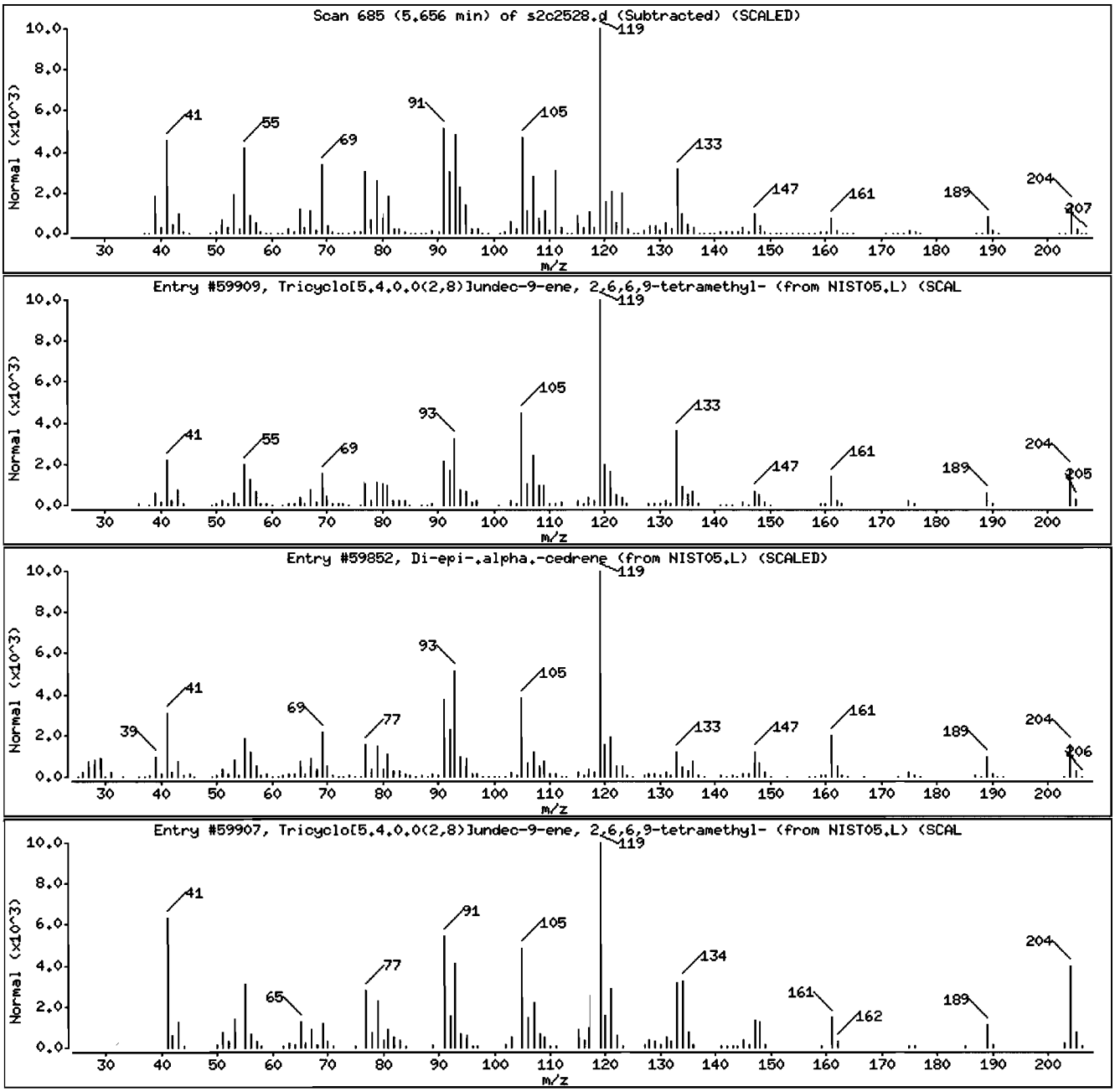

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930 Instrument: MSD2.i

Sample Info: 1248863002196597911ISVMI1ILANL

Volume Injected (uL): 0.5 Operator: ACS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1H-3a,7-Methanoazulene, octahydro-3,8,8-	546-28-1	NIST05.L	60040	92	C15H24	204
Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro	30021-74-0	NIST05.L	60068	89	C15H24	204
Cedrene	11028-42-5	NIST05.L	59777	86	C15H24	204

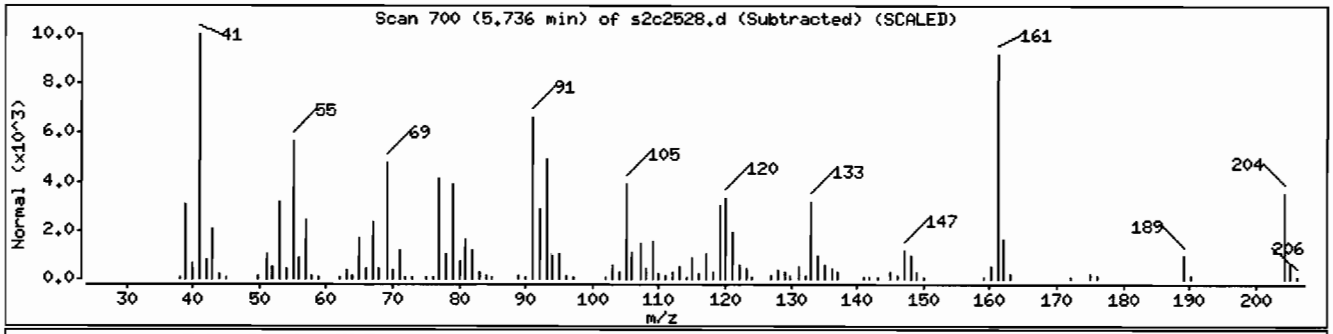

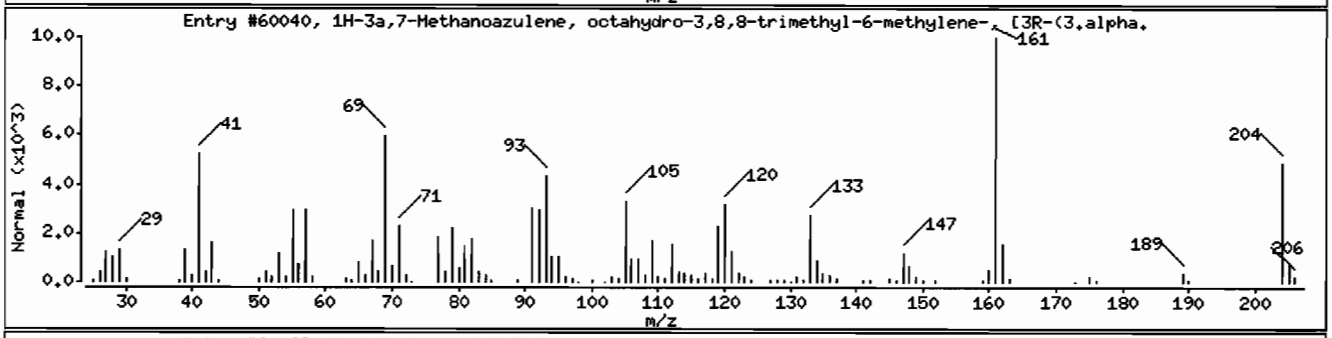

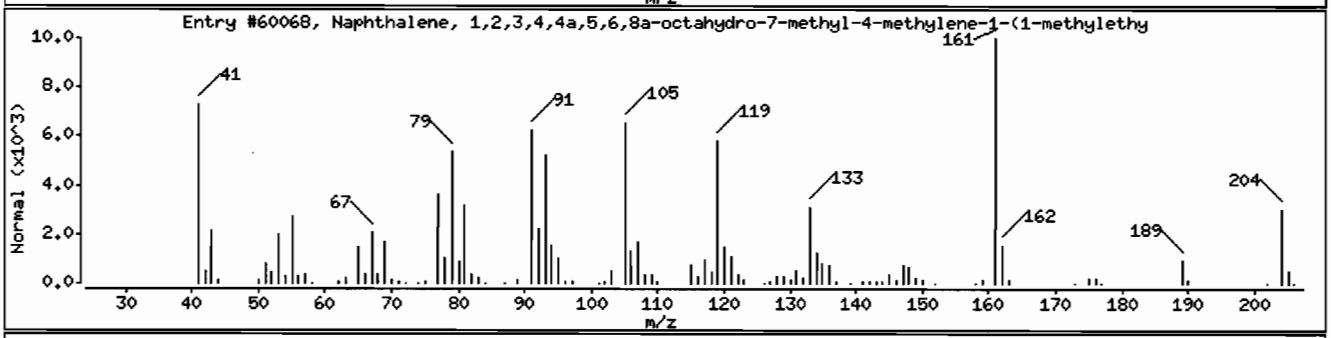

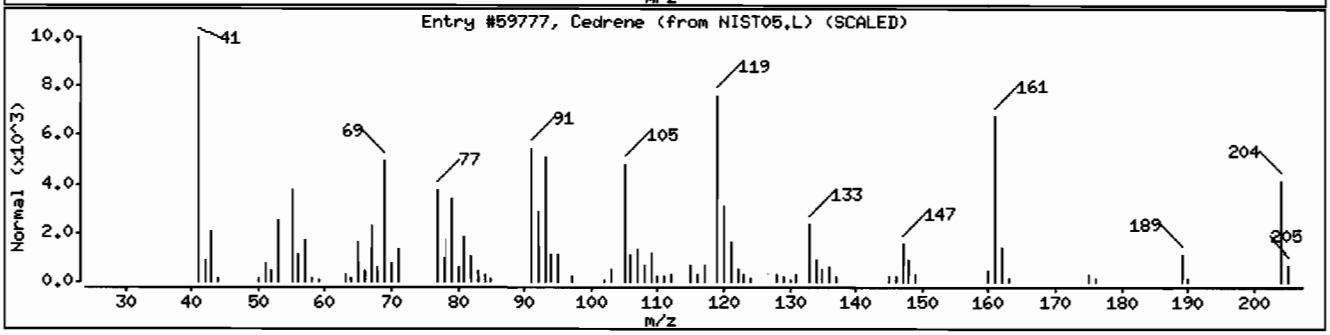

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930

Instrument: MSD2.i

Sample Info: 1248863002196597911ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro	30021-74-0	NIST05.L	60070	95	C15H24	204
Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro	30021-74-0	NIST05.L	60068	94	C15H24	204
Naphthalene, 1,2,4a,5,6,8a-hexahydro-4,7	483-75-0	NIST05.L	59954	93	C15H24	204

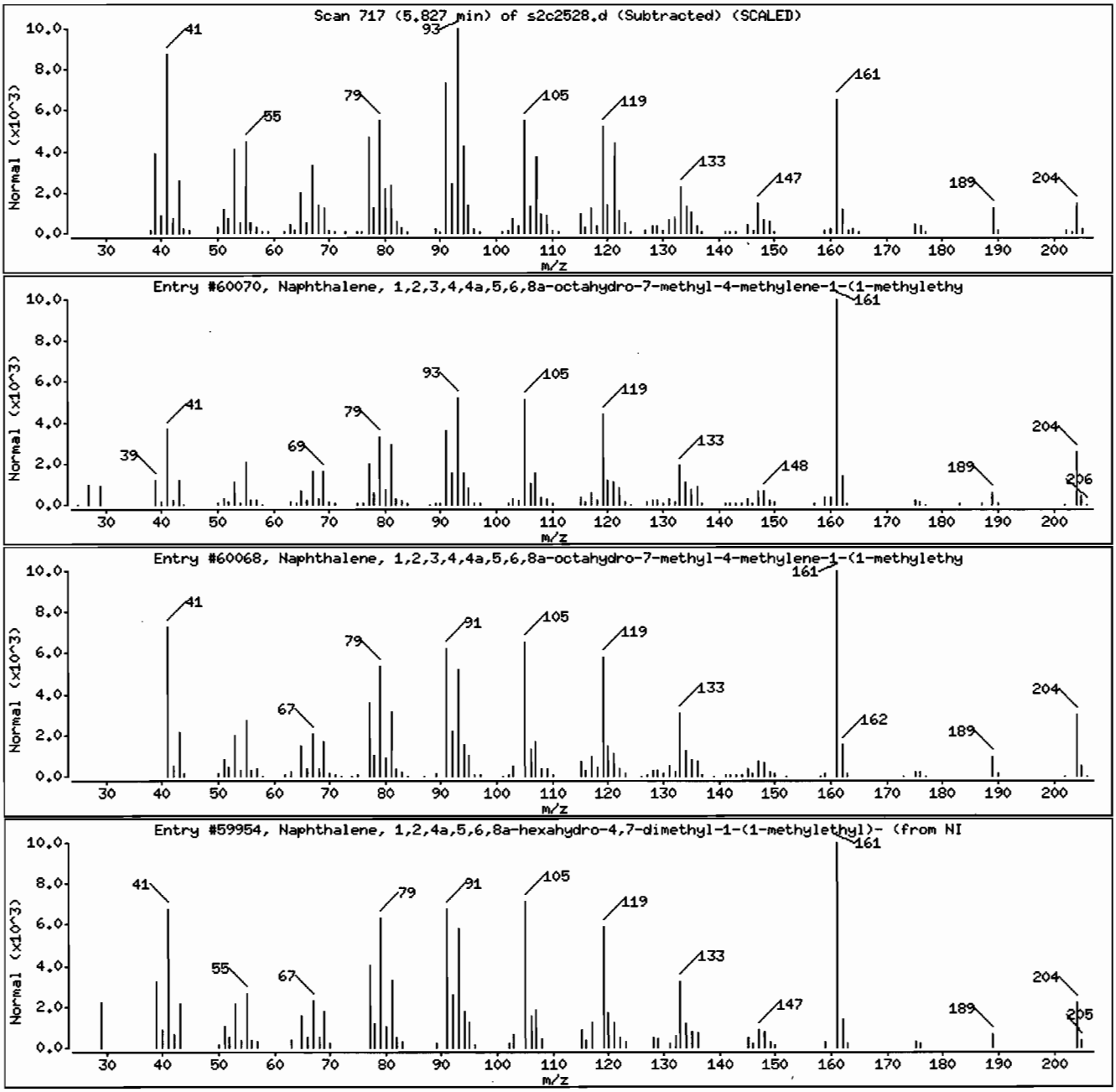

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930

Instrument: MSD2.i

Sample Info: |2488630021965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-3a,7-Methanoazulene, 2,3,4,7,8,8a-hex	469-61-4	NIST05.L	60059	70	C15H24	204
1H-3a,7-Methanoazulene, 2,3,4,7,8,8a-hex	469-61-4	NIST05.L	60060	70	C15H24	204
1H-3a,7-Methanoazulene, 2,3,4,7,8,8a-hex	469-61-4	NIST05.L	60056	60	C15H24	204

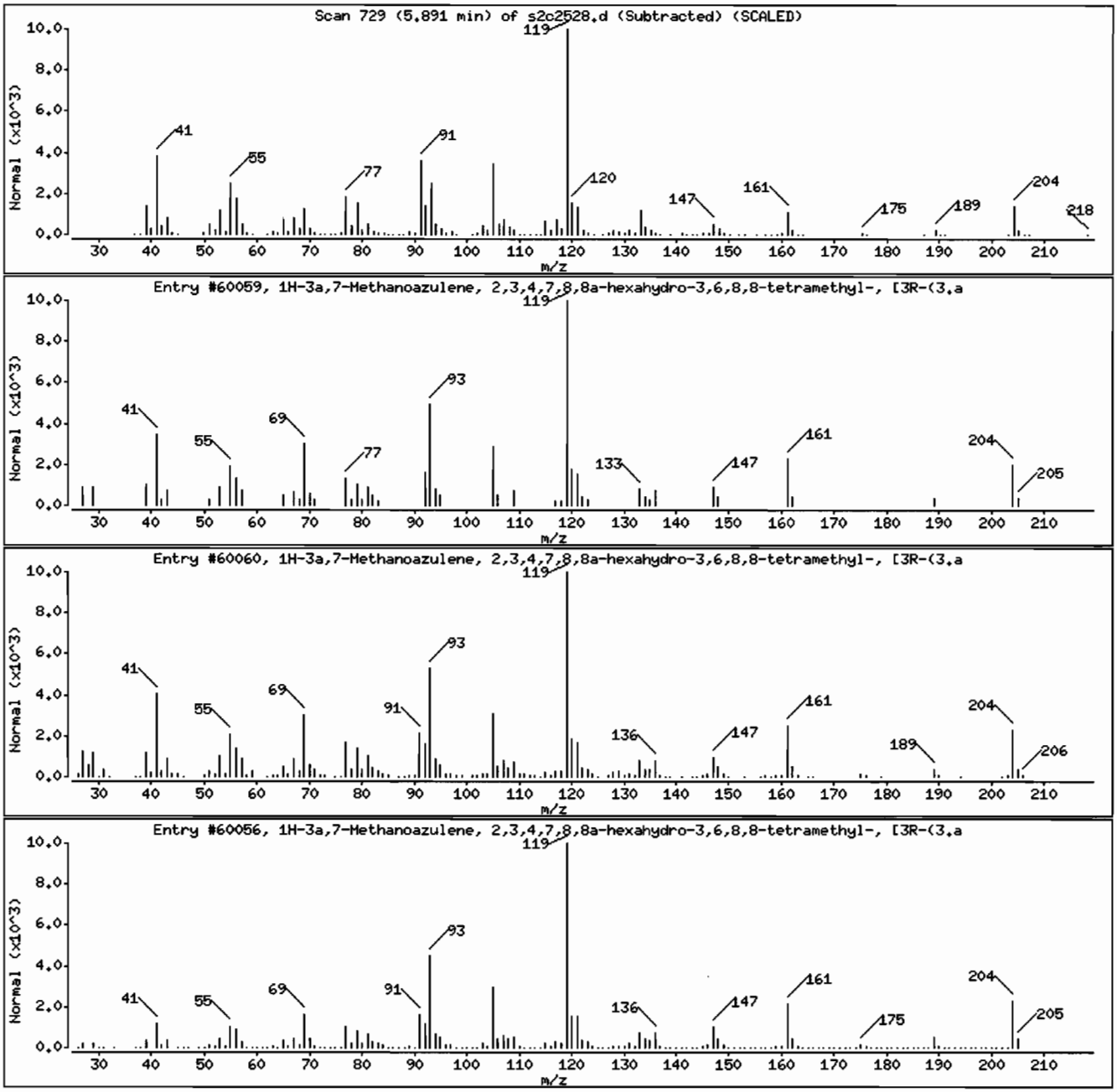

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930 Instrument: MSD2.i

Sample Info: 1248863002196597911ISVMI1ILANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Spiro[5.5]undeca-1,8-diene, 1,5,5,9-tetr	19912-83-5	NIST05.L	59904	90	C15H24	204
Spiro[5.5]undeca-1,8-diene, 1,5,5,9-tetr	19912-83-5	NIST05.L	59903	78	C15H24	204
Spiro[5.5]undeca-1,8-diene, 1,5,5,9-tetr	19912-83-5	NIST05.L	59902	76	C15H24	204

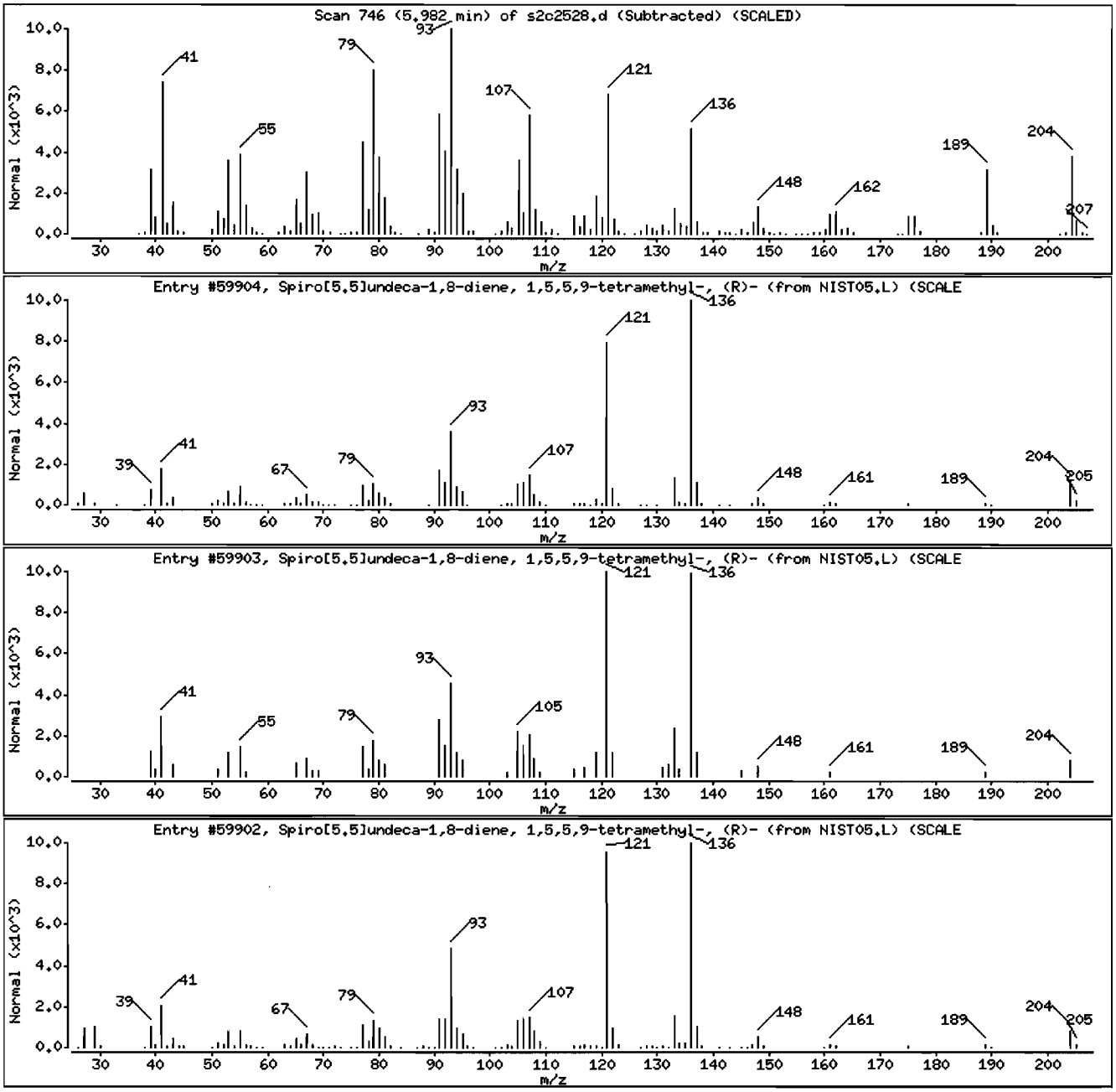

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930

Instrument: MSD2.i

Sample Info: |2488630021965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[3.1.0]hex-2-ene, 4,4,6,6-tetrame	19487-09-3	NIST05.L	15336	50	C10H16	136
2,4,6-Octatriene, 2,6-dimethyl-, (E,Z)-	7216-56-0	NIST05.L	15293	50	C10H16	136
1,3-Cyclohexadiene, 1-methyl-4-(1-methyl	99-86-5	NIST05.L	15349	50	C10H16	136

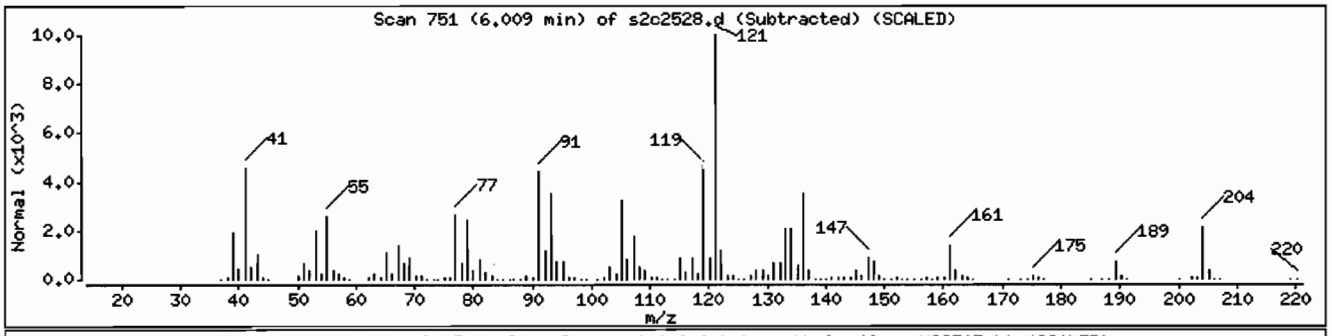

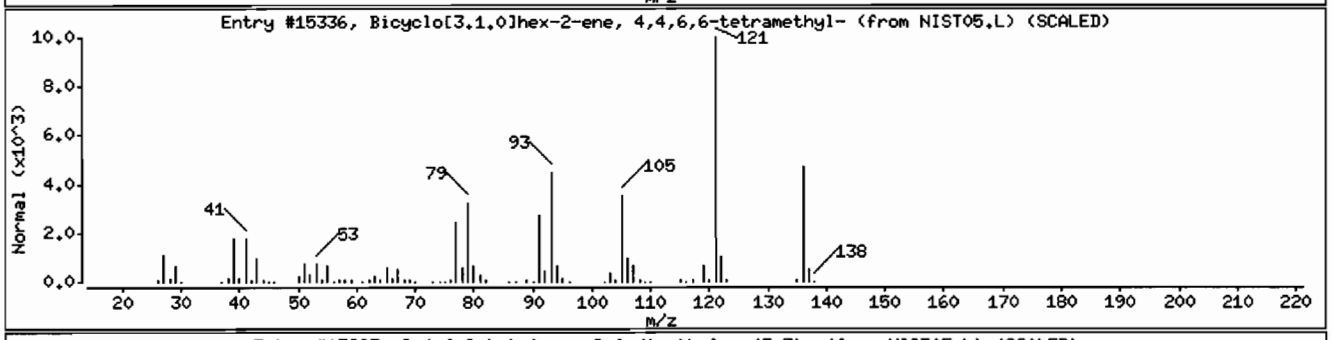

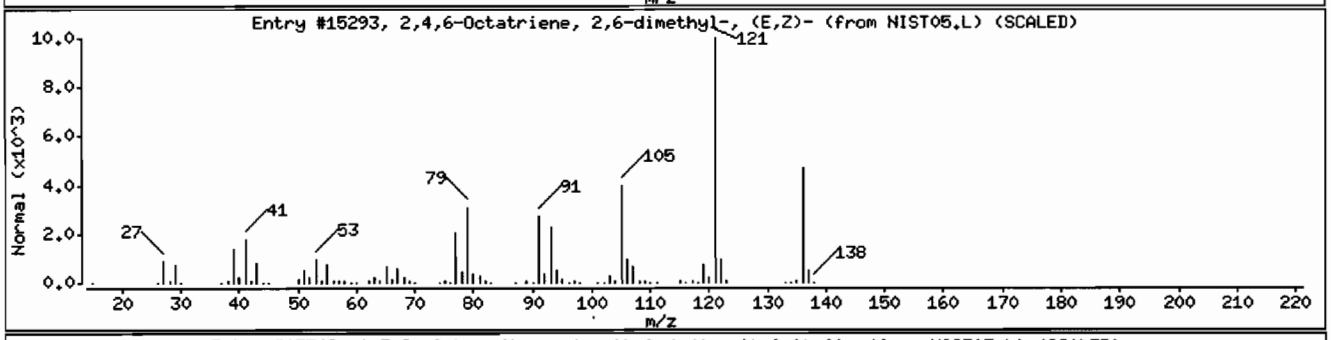

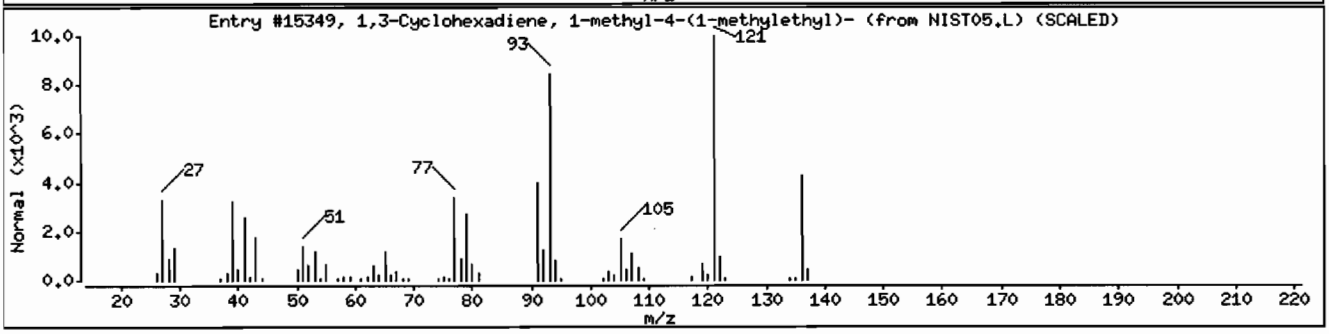

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930 Instrument: MSD2.i

Sample Info: |2488630021965979|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Spiro[5.5]undeca-1,8-diene, 1,5,5,9-tetr	19912-83-5	NIST05.L	59904	87	C15H24	204
Cyclopropane, trimethyl(2-methyl-1-prope	14803-30-6	NIST05.L	15370	83	C10H16	136
Bicyclo[3.1.0]hexane, 6-isopropylidene-1	24524-57-0	NIST05.L	15364	81	C10H16	136

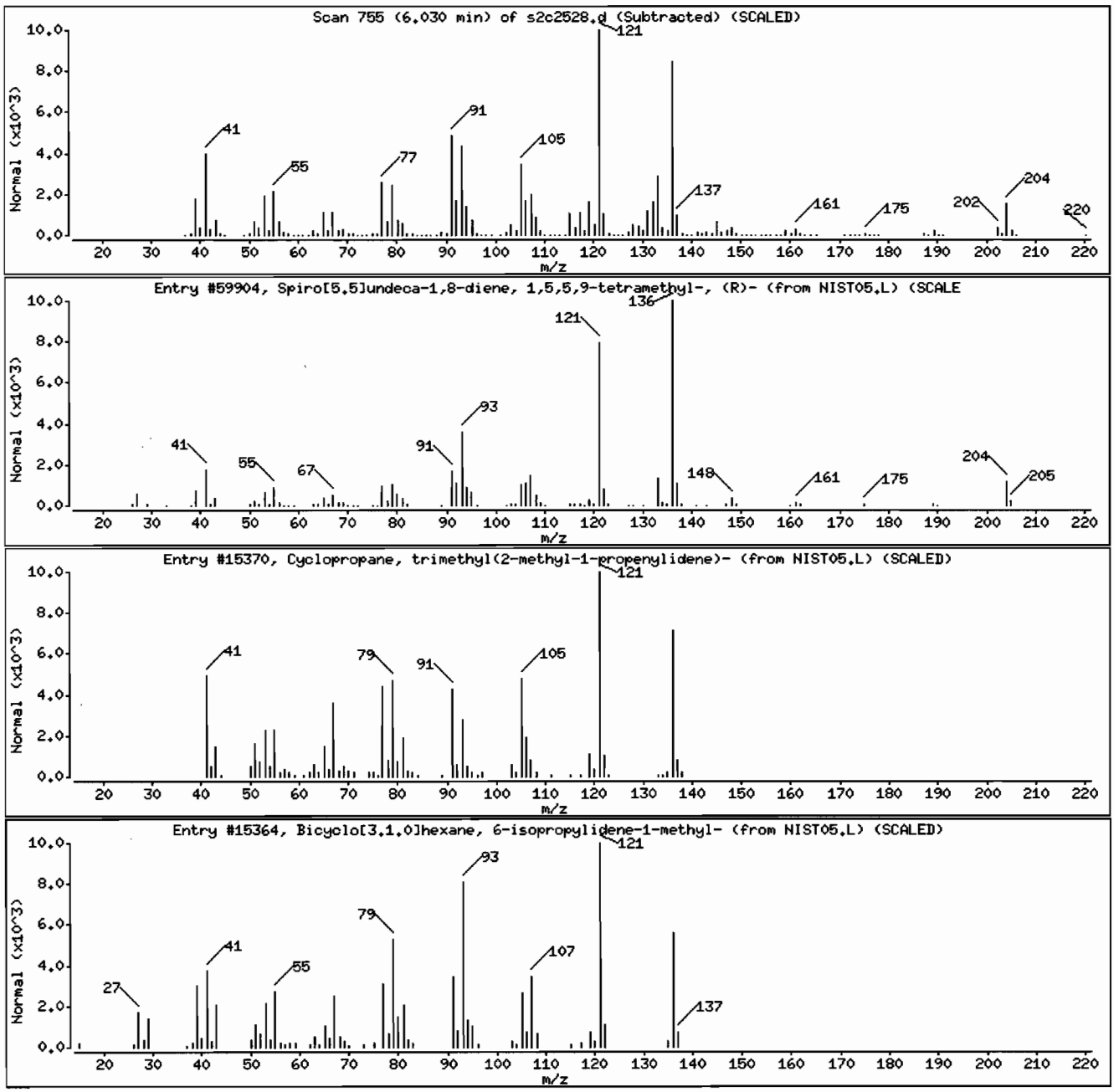

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930

Instrument: MSD2.i

Sample Info: 1248863002196597911ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,3-Cyclopentadiene, 1,2,3,4,5-pentameth	4045-44-7	NIST05.L	15328	95	C10H16	136
1,3-Cyclopentadiene, 1,2,3,4,5-pentameth	4045-44-7	NIST05.L	15327	93	C10H16	136
3,4-Dimethylbenzyl alcohol	6966-10-5	NIST05.L	15900	87	C9H12O	136

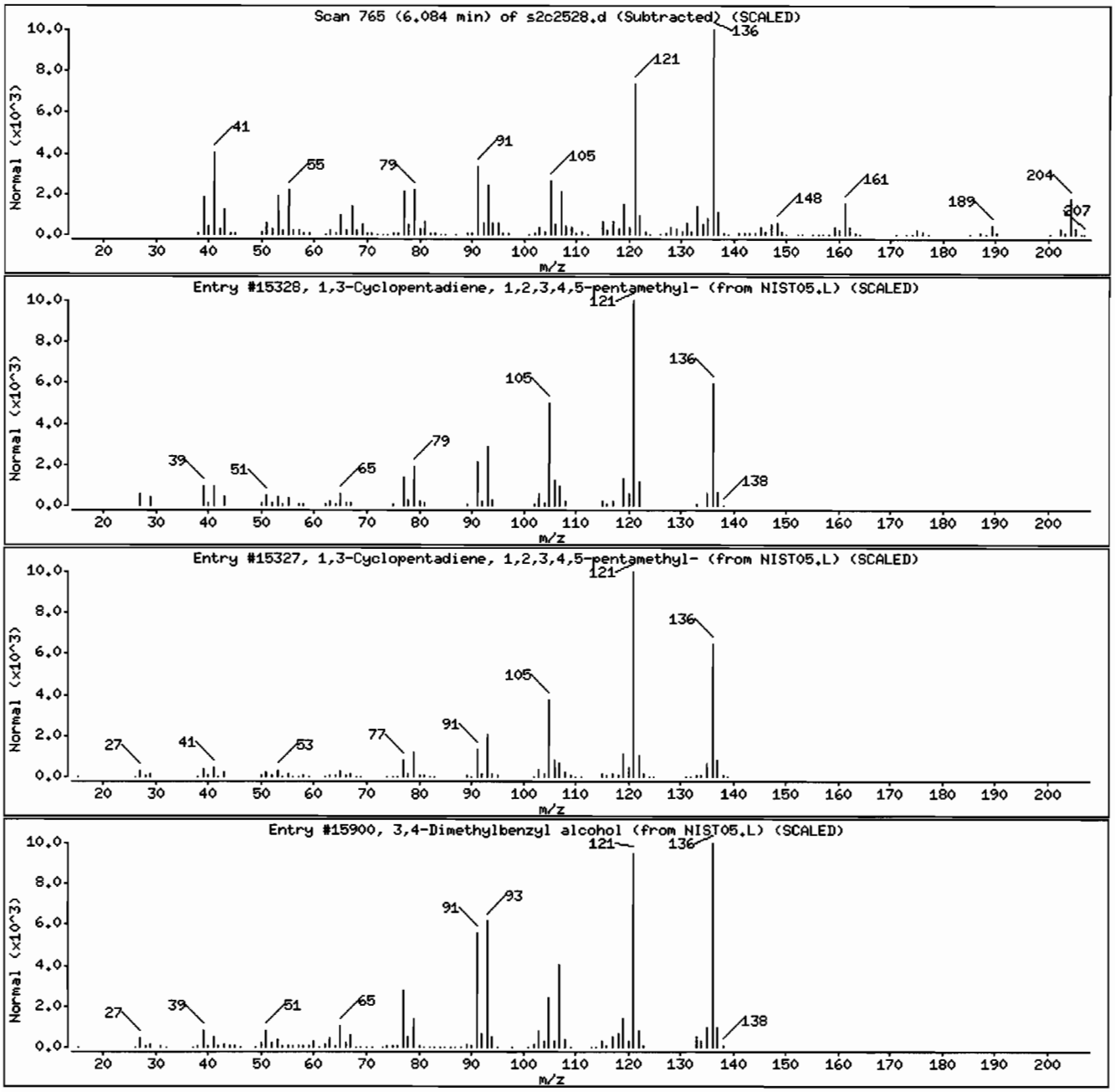

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930 Instrument: MSD2.i

Sample Info: 1248863002|965979|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cedranoxide, 8,14-	18319-31-8	NIST05.L	71348	46	C15H240	220
Neoclovene oxide	1000163-73-4	NIST05.L	71331	42	C15H240	220
4,6-Octadienoic acid, 2-acetyl-2-methyl-	1000159-11-7	NIST05.L	74192	32	C13H2003	224

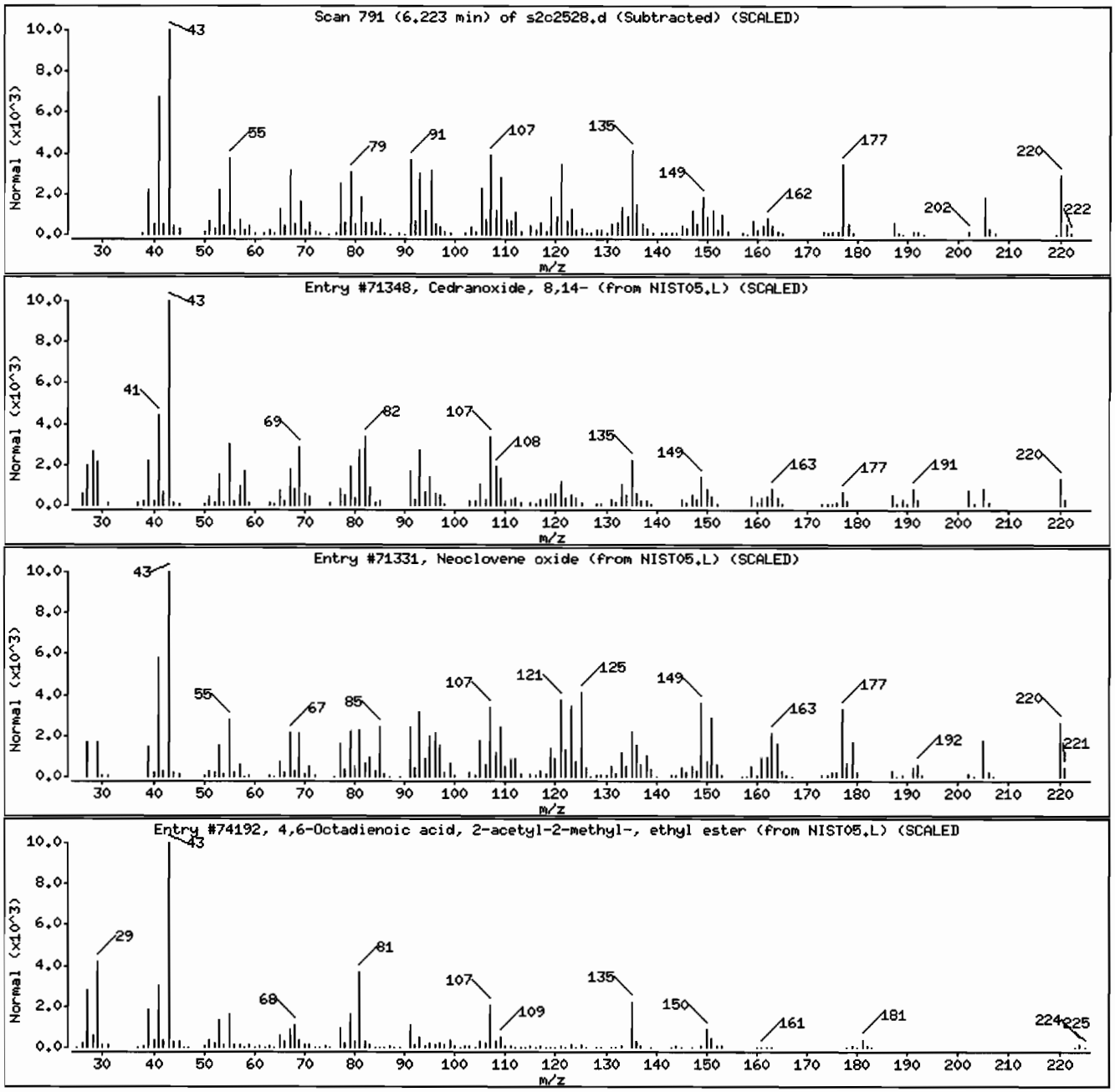

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930 Instrument: MSD2.i

Sample Info: 1248863002|965979|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
(Z,Z)-.alpha.-Farnesene	1000293-03-1	NIST05.L	59857	38	C15H24	204
Tricyclo[4.1.0.0(2,4)]heptane, 3,3,7,7-t	67843-59-8	NIST05.L	60091	38	C15H24	204
Bicyclo[5.1.0]octane, 8-(1-methylethylid	54166-47-1	NIST05.L	23006	25	C11H18	150

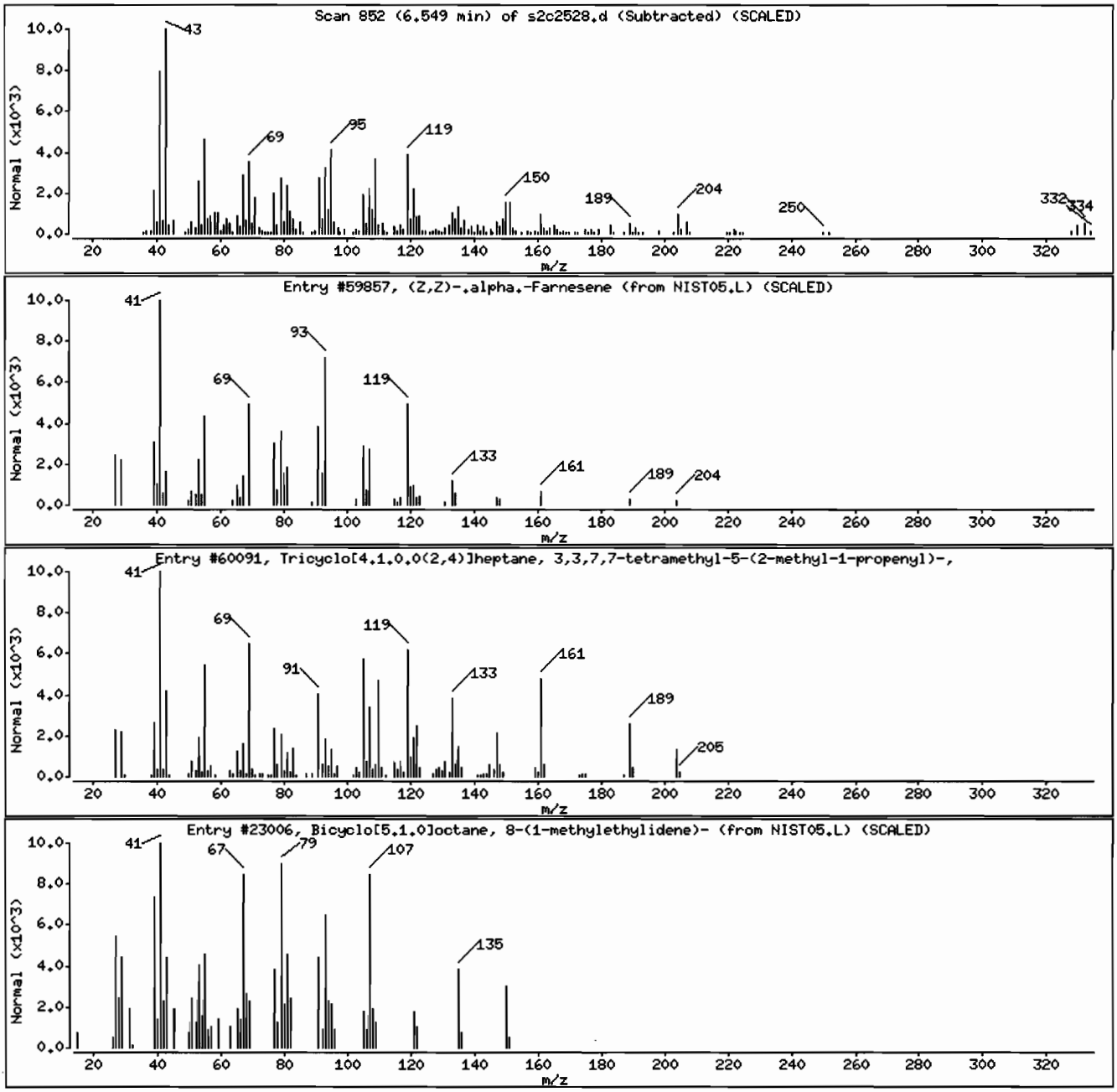

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930 Instrument: MSD2.i

Sample Info: 1248863002196597911|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-3a,7-Methanoazulene, octahydro-1,9,9-	508-55-4	NIST05.L	60016	70	C15H24	204
Ledol	577-27-5	NIST05.L	72882	70	C15H260	222
.alpha.-Cadinol	481-34-5	NIST05.L	72908	50	C15H260	222

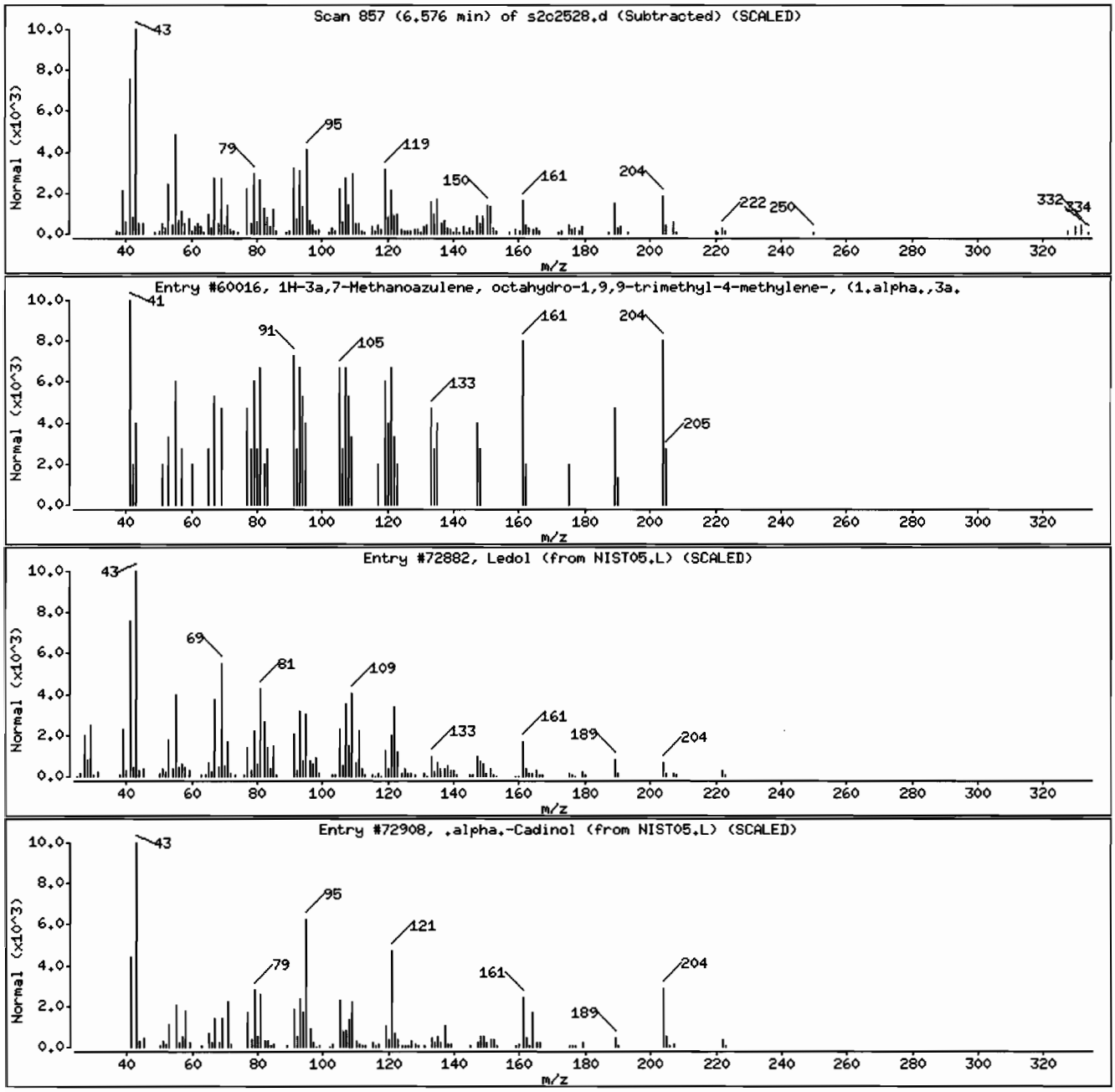

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930 Instrument: MSD2.i

Sample Info: 1248863002|965979|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3,6-Nonadien-5-one, 2,2,8,8-tetramethyl-	35845-67-1	NIST05.L	49951	43	C13H18O	190
1H-3a,7-Methanoazulene, octahydro-1,4,9,	19078-35-4	NIST05.L	61559	38	C15H26	206
(Z,Z)-.alpha.-Farnesene	1000293-03-1	NIST05.L	59857	38	C15H24	204

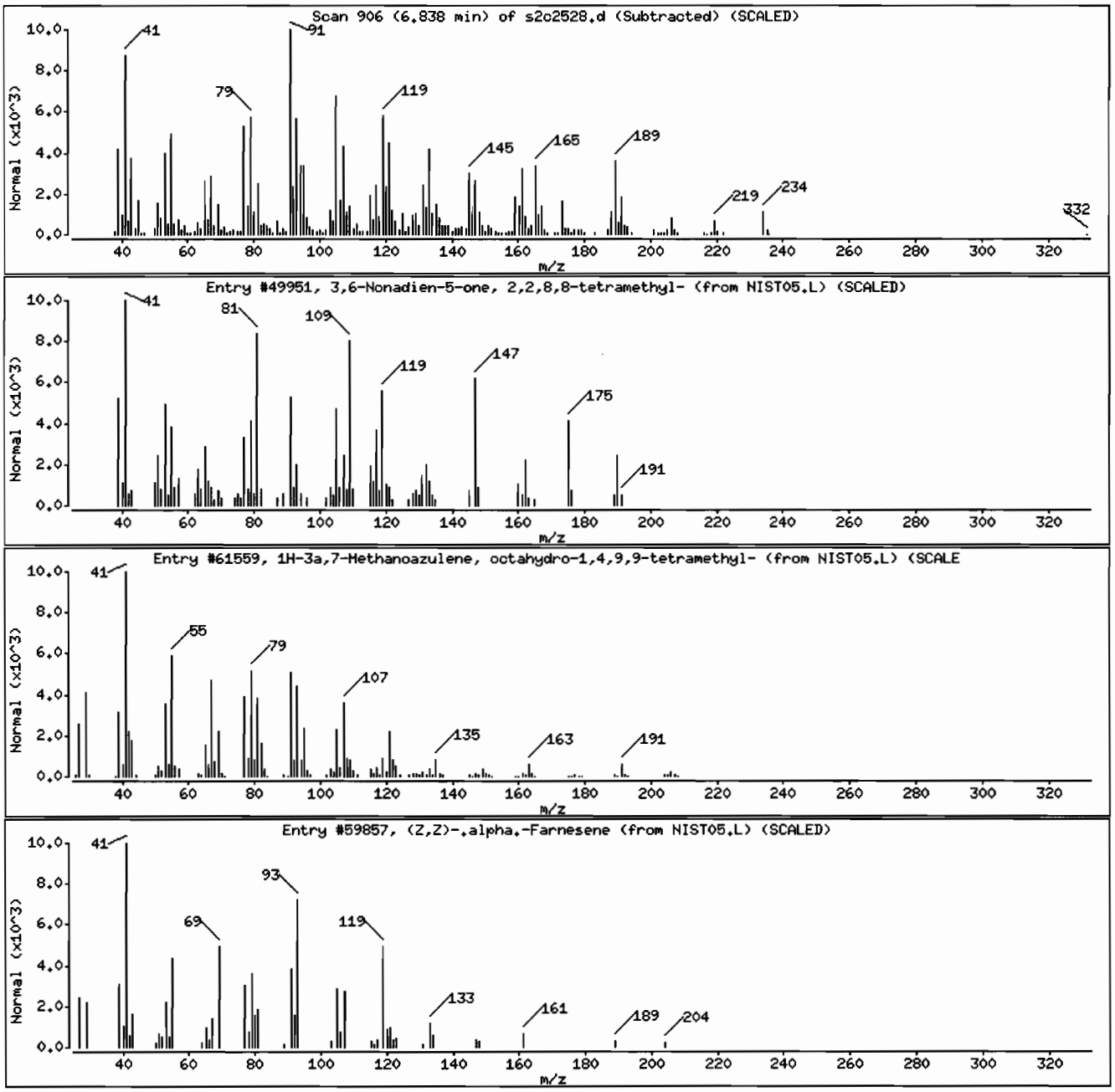

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930 Instrument: MSD2.i

Sample Info: 1248863002|965979|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: ACS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Epiglobulol	1000150-05-1	NIST05.L	72900	49	C15H26O	222
Caryophyllene oxide	1139-30-6	NIST05.L	71353	43	C15H24O	220
1H-Cyclopropl[e]azulene, 1a,2,3,4,4a,5,6,	489-40-7	NIST05.L	60084	38	C15H24	204

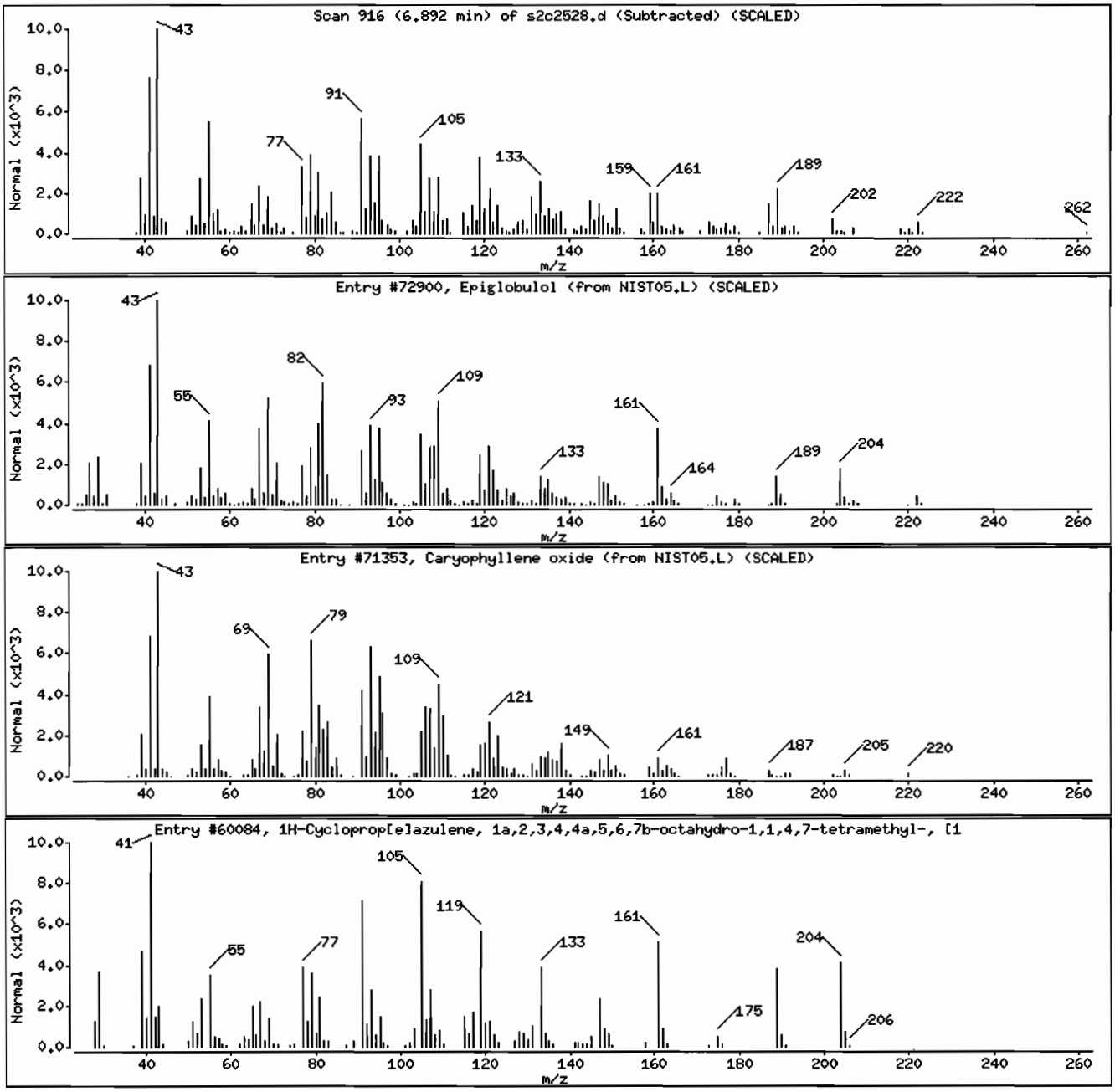

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930

Instrument: MSD2.i

Sample Info: |2488630021965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Caryophyllene oxide	1139-30-6	NIST05.L	71352	43	C15H240	220
trans-Z-.alpha.-Bisabolene epoxide	1000131-71-1	NIST05.L	71388	41	C15H240	220
2-Naphthalenecarboxylic acid, 8-ethenyl-	1451-36-1	NIST05.L	69905	35	C14H1802	218

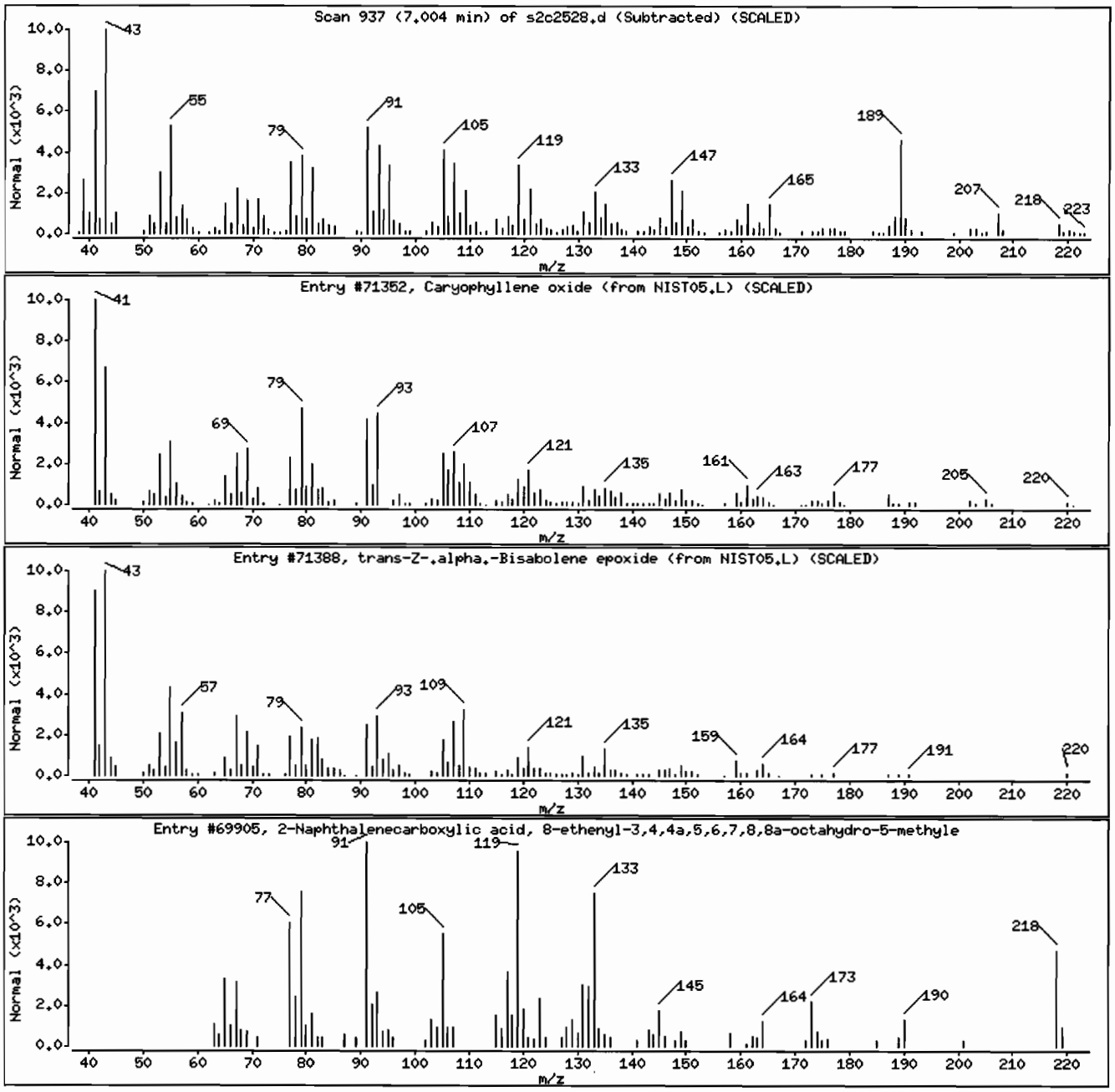

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930

Instrument: MSD2.i

Sample Info: 1248863002196597911ISVHI1ILANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Rishitin	18178-54-6	NIST05.L	72724	35	C14H2202	222
.alpha.-Farnesene	502-61-4	NIST05.L	59827	14	C15H24	204
Cyclopentanone, 3-[3,5-decadienyl]-, (Z,	1000131-99-8	NIST05.L	71394	11	C15H240	220

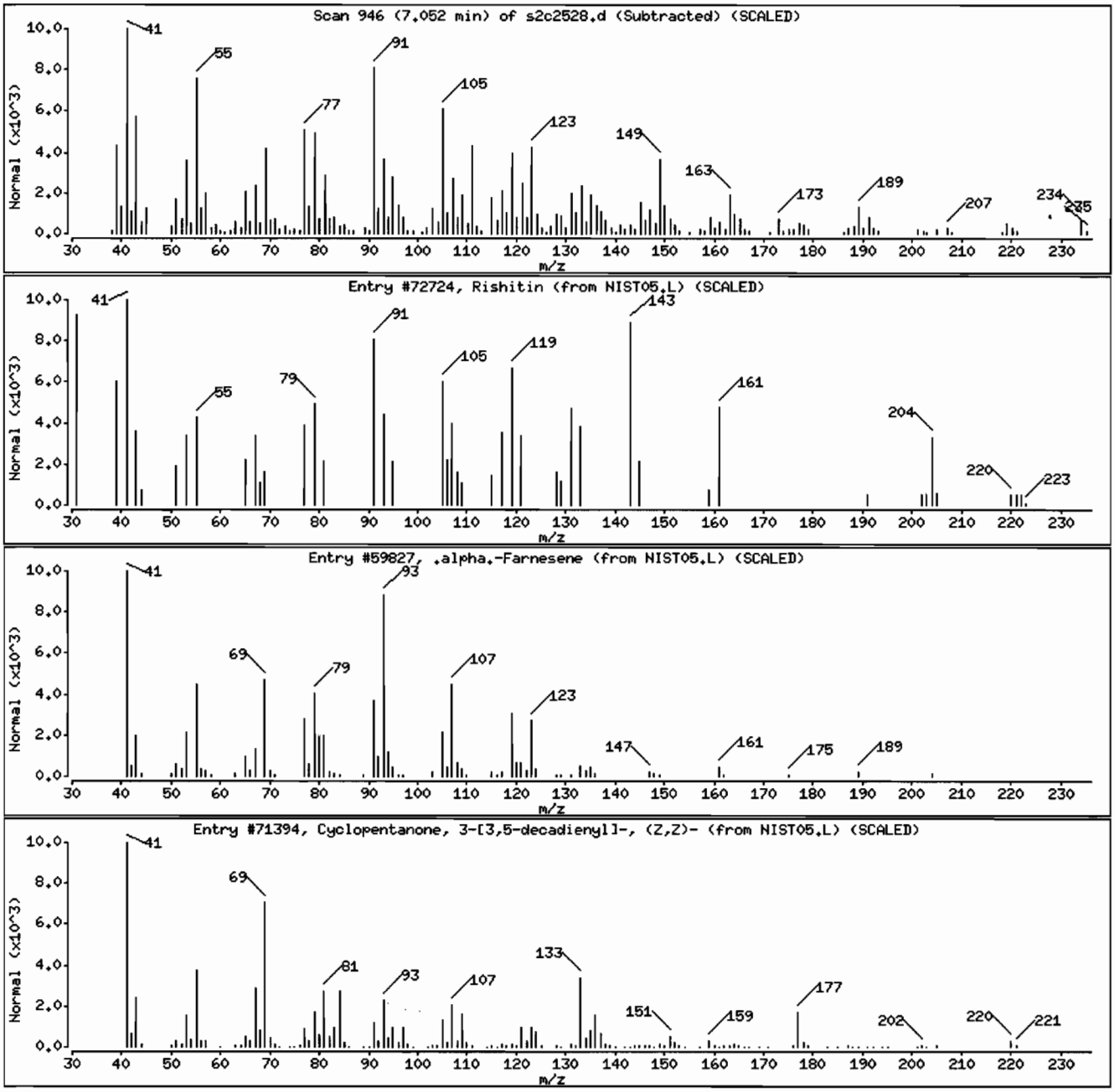

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930 Instrument: MSD2.i

Sample Info: 1248863002|965979|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: ACS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Spiro[cyclopropane-1,2'-[6,7]diazabicycl	121080-73-7	NIST05.L	23616	35	C9H14N2	150
Caryophyllene oxide	1139-30-6	NIST05.L	71352	35	C15H24O	220
Bicyclo[4.1.0]heptane,-3-cyclopropyl,-7-	1000223-00-6	NIST05.L	33471	30	C11H18O	166

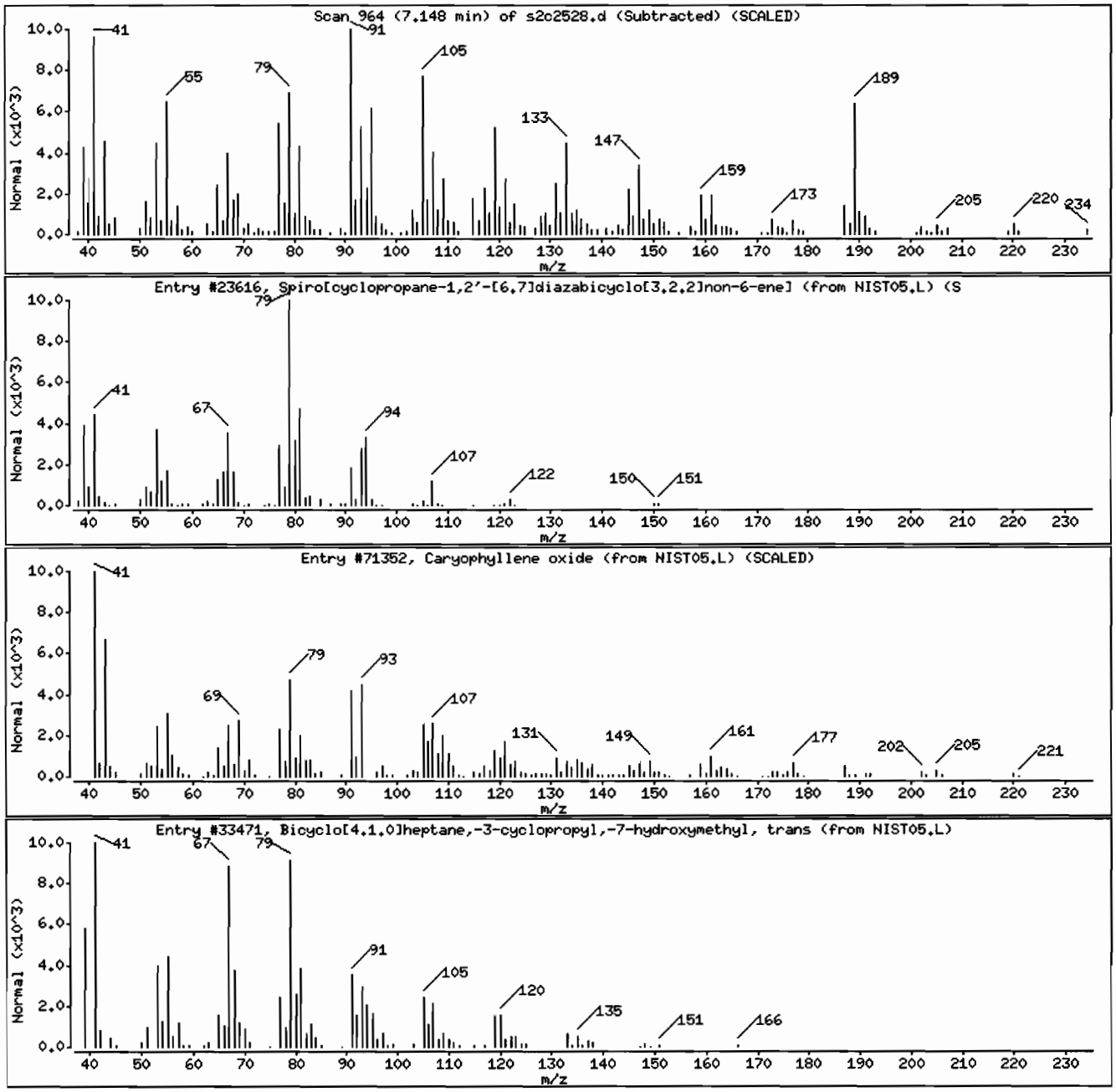

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930 Instrument: MSD2.i

Sample Info: |2488630021965979|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2H-Pyran, 2-(7-heptadecynyloxy)tetrahydr	56599-50-9	NIST05.L	145900	59	C22H4002	336
Caryophyllene oxide	1139-30-6	NIST05.L	71350	56	C15H240	220
1H-Cyclopropa[a]naphthalene, 1a,2,3,5,6,	17334-55-3	NIST05.L	60095	43	C15H24	204

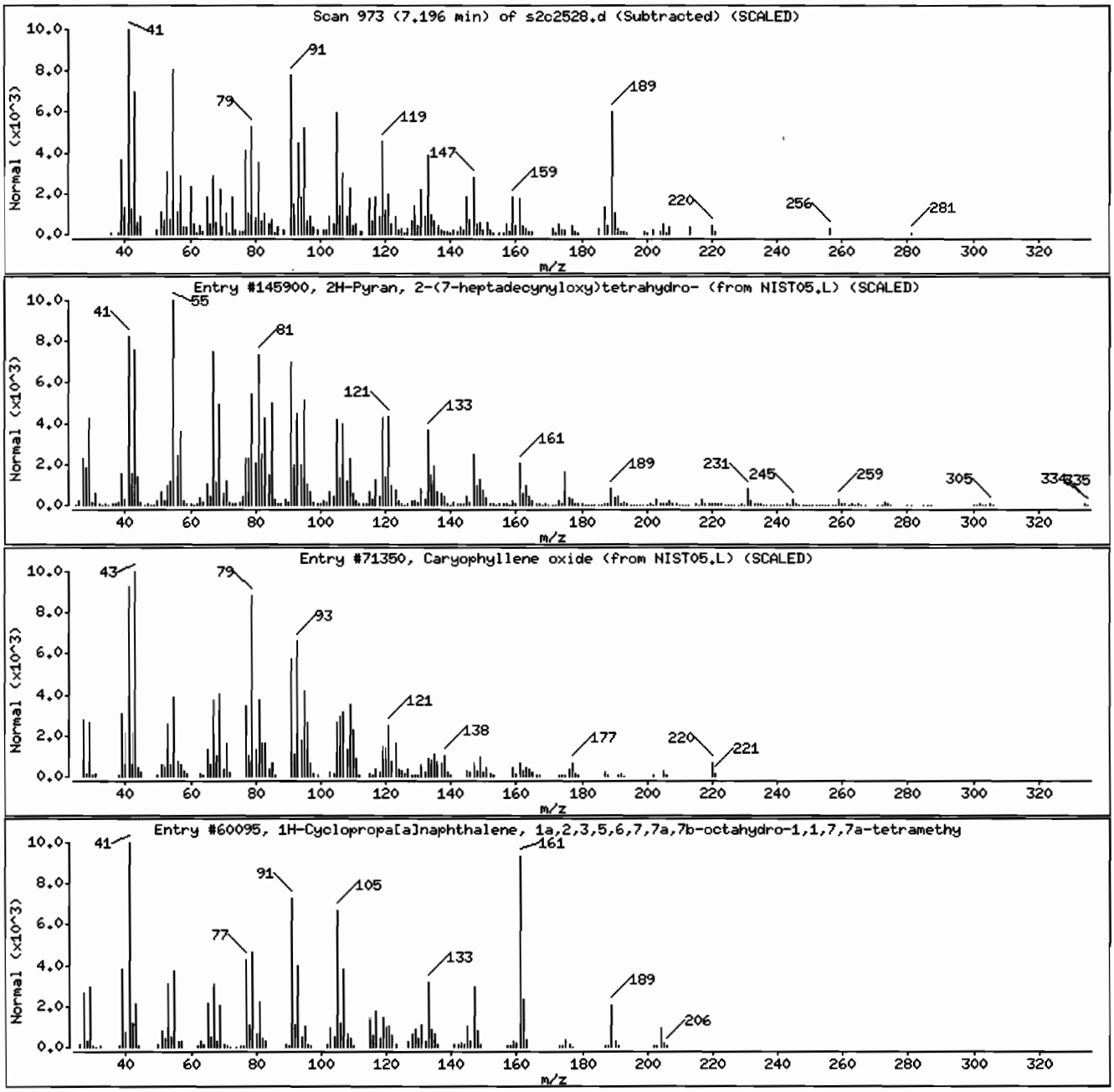

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930

Instrument: MSD2.i

Sample Info: 12488630021965979111SVMI11LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
.alpha.-Farnesene	502-61-4	NIST05.L	59827	35	C15H24	204
2-Cyclopenten-1-one, 2,3,5-trimethyl-4-m	29765-85-3	NIST05.L	15996	35	C9H120	136
Ocimene	29714-87-2	NIST05.L	15148	35	C10H16	136

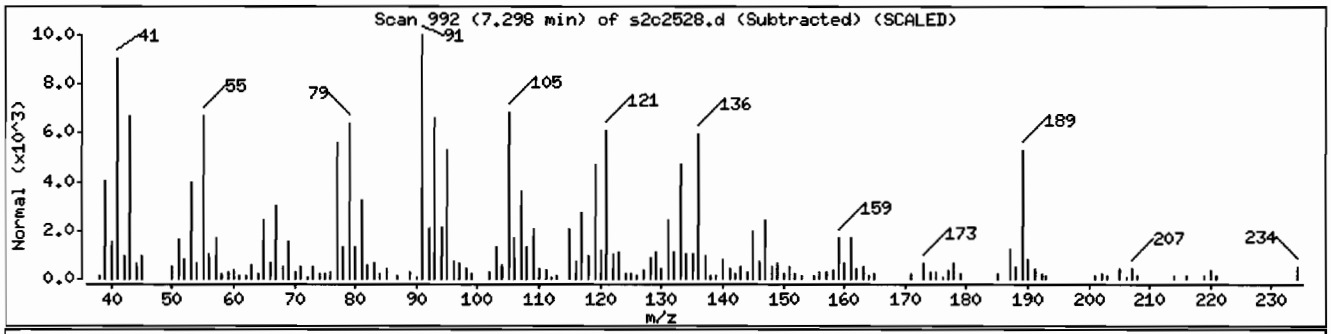

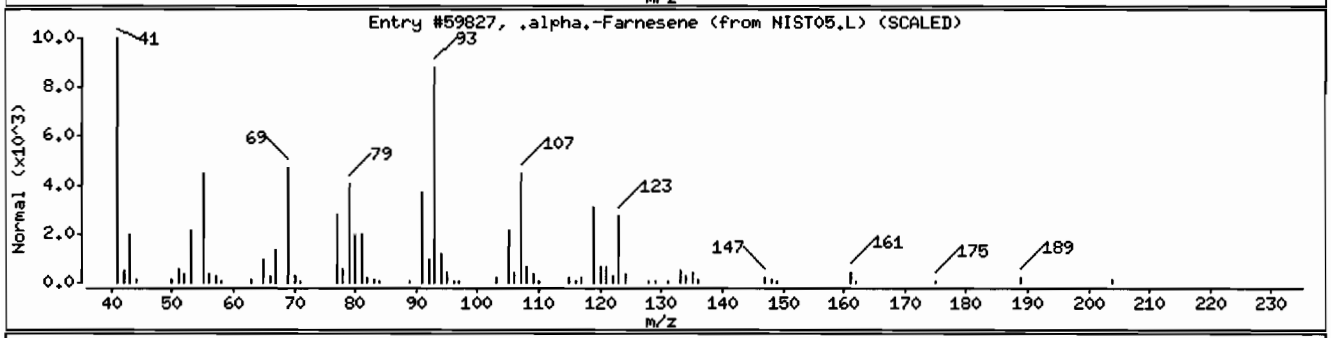

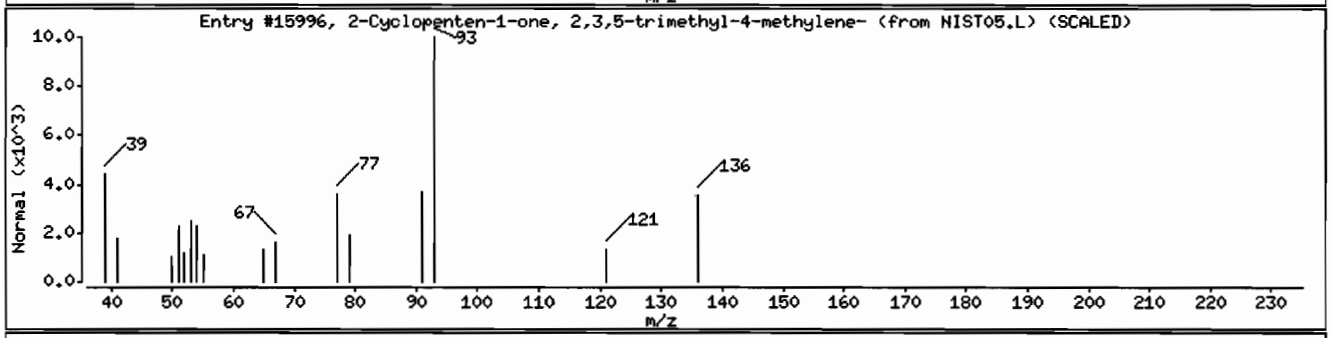

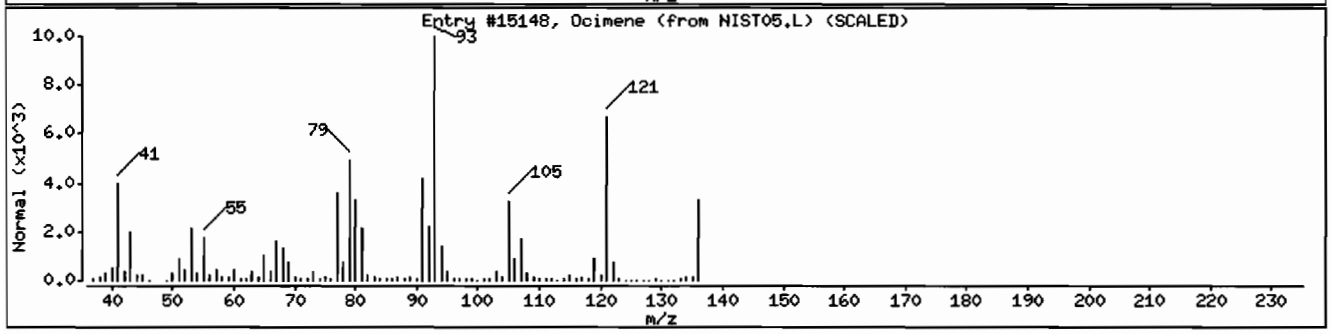

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930

Instrument: MSD2.i

Sample Info: 1248863002|965979|1|SVH|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ethyl alpha-cyano-4-hydroxy-trans-cinnam	42205-38-9	NIST05.L	69018	30	C12H11NO3	217
3-Aminopyrene	1606-67-3	NIST05.L	69215	30	C16H11N	217
2H-1,4-Ethanoquinoline-2-carboxylic acid	34291-56-0	NIST05.L	88561	30	C14H15NO3	245

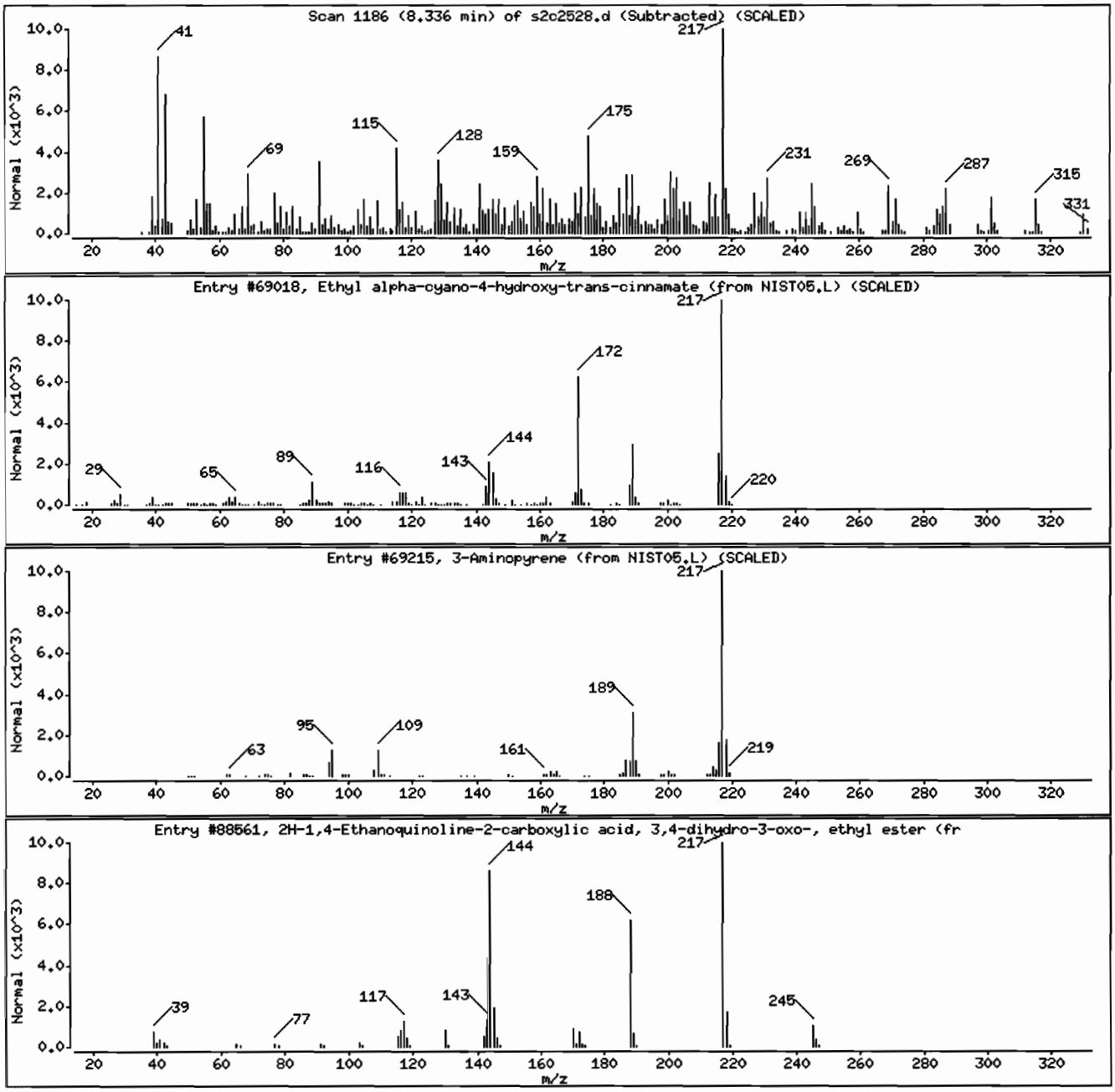

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930

Instrument: MSD2.i

Sample Info: |2488630021965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Podocarpa-8,11,13-trien-3-one, 14-isopro	18326-16-4	NIST05.L	133599	96	C21H30O2	314
Thieno[2,3-d]pyrimidin-4(3H)-one, 1,2-di	327170-57-0	NIST05.L	133150	45	C16H14N2OS2	314
Dronabinol	1972-08-3	NIST05.L	133556	41	C21H30O2	314

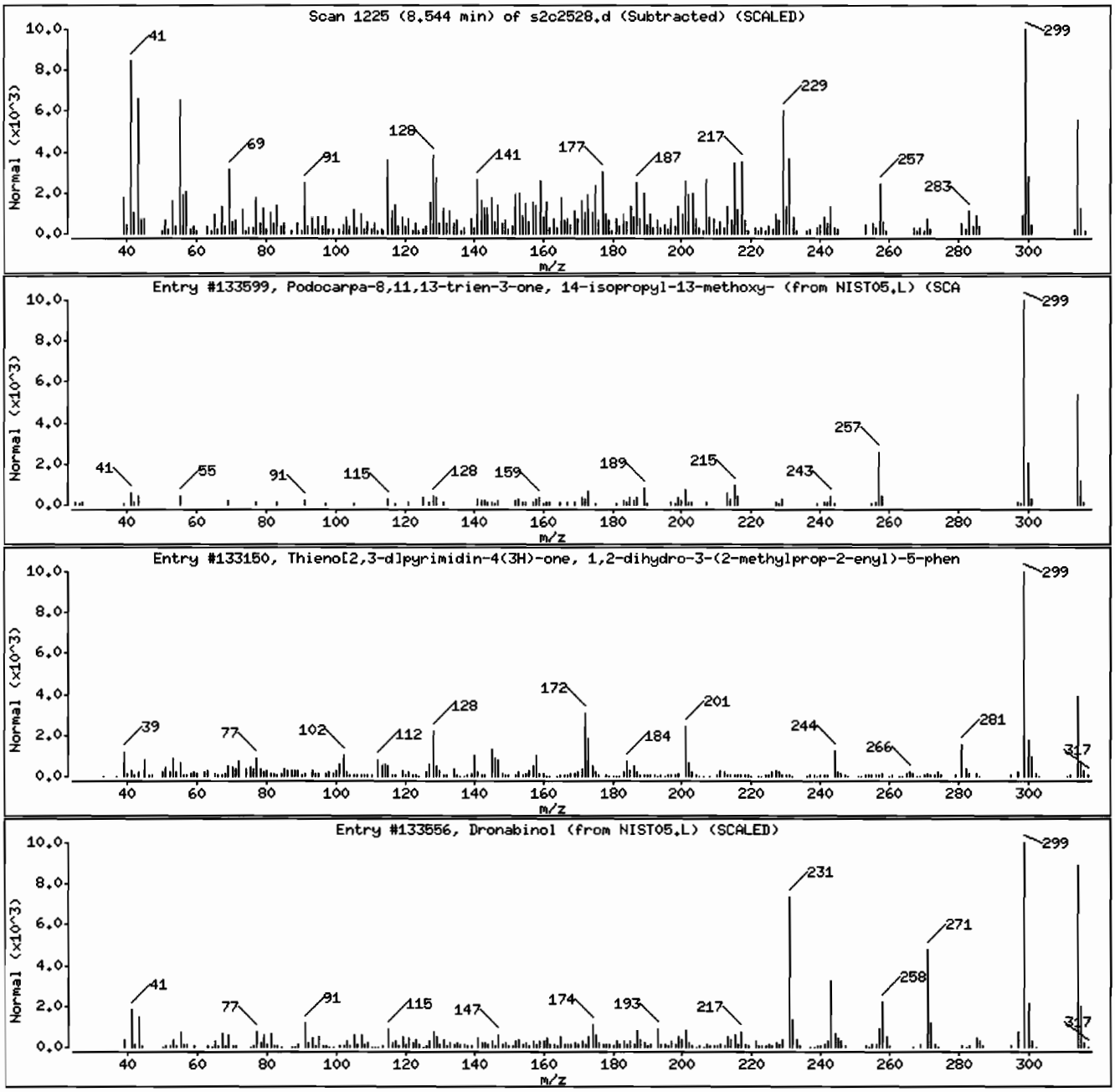

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930 Instrument: MSD2.i

Sample Info: |2488630021965979|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Podocarpa-8,11,13-triene-1,3-dione, 14-i	15372-53-9	NIST05.L	141463	95	C21H28O3	328
6-Chrysenamine	2642-98-0	NIST05.L	87420	50	C18H13N	243
2-Aminochrysene	789-47-9	NIST05.L	87422	49	C18H13N	243

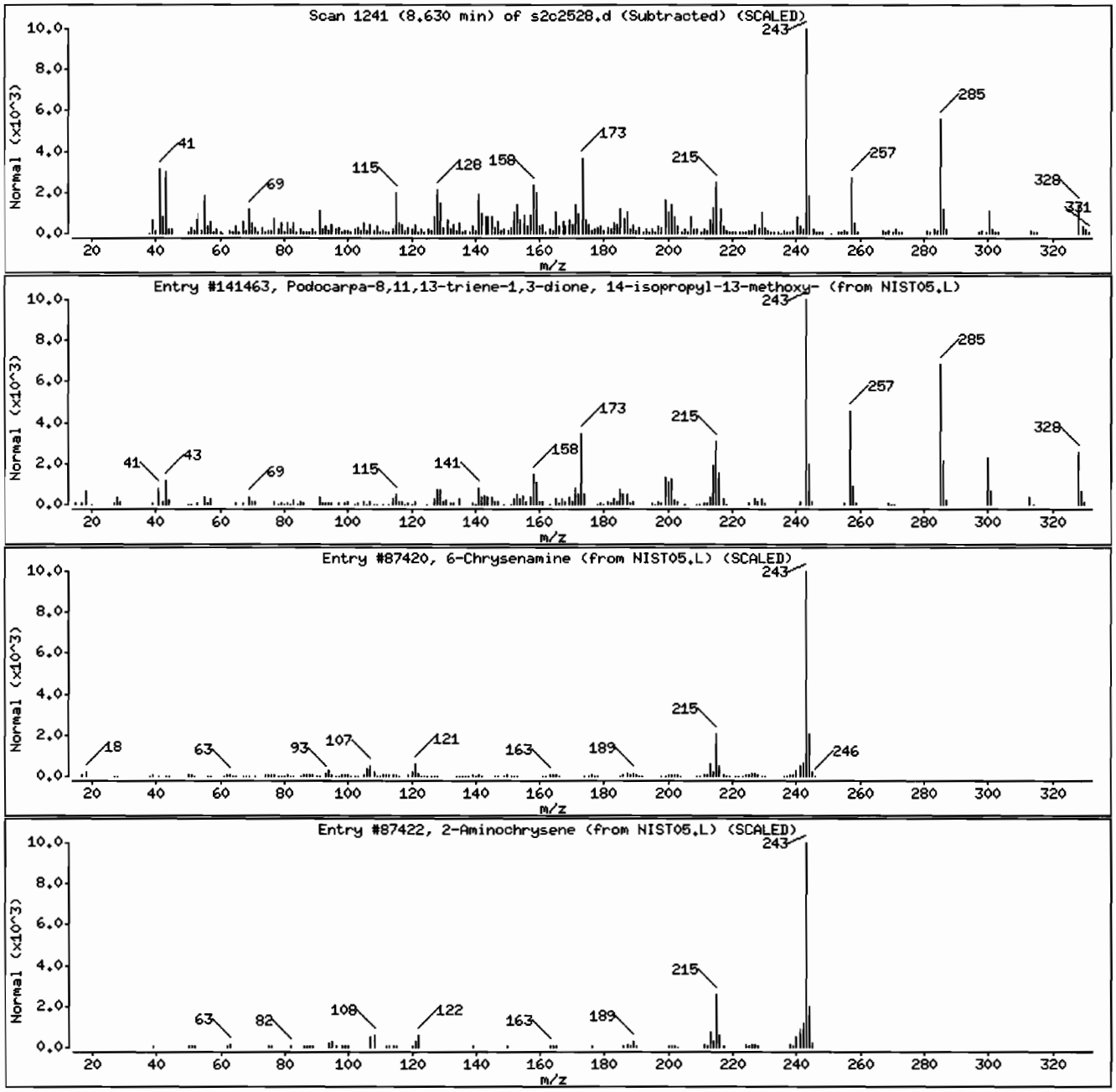

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930

Instrument: MSD2.i

Sample Info: 1248863002196597911ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2(1H)-Phenanthrenone, 3,4,4a,9,10,10a-he	6755-93-7	NIST05.L	125032	97	C20H2802	300
2(1H)-Phenanthrenone, 3,4,4a,9,10,10a-he	6755-93-7	NIST05.L	125028	93	C20H2802	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	52	C20H2802	300

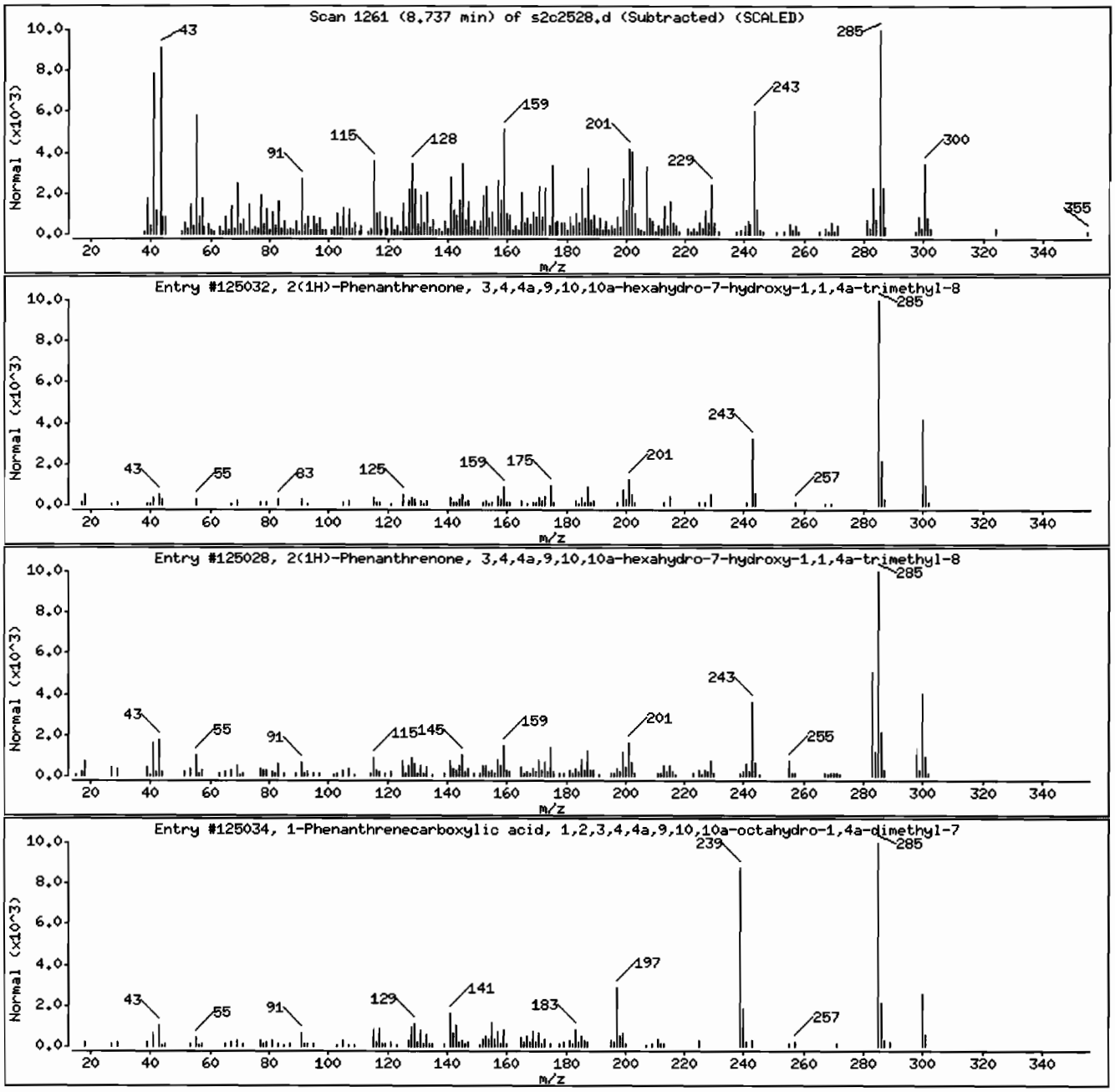

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930 Instrument: MSD2.i

Sample Info: 1248863002|965979|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,2,3,4-Tetrahydro-7-methoxy-3-methyl-1-	32550-51-9	NIST05.L	77952	55	C14H15NO2	229
Naphthalene, 6,7-diethyl-1,2,3,4-tetrahy	55741-10-1	NIST05.L	88133	30	C18H28	244
Phenol, 2,4-di(2-penten-4-yl)-6-methyl-	17258-43-4	NIST05.L	88096	27	C17H24O	244

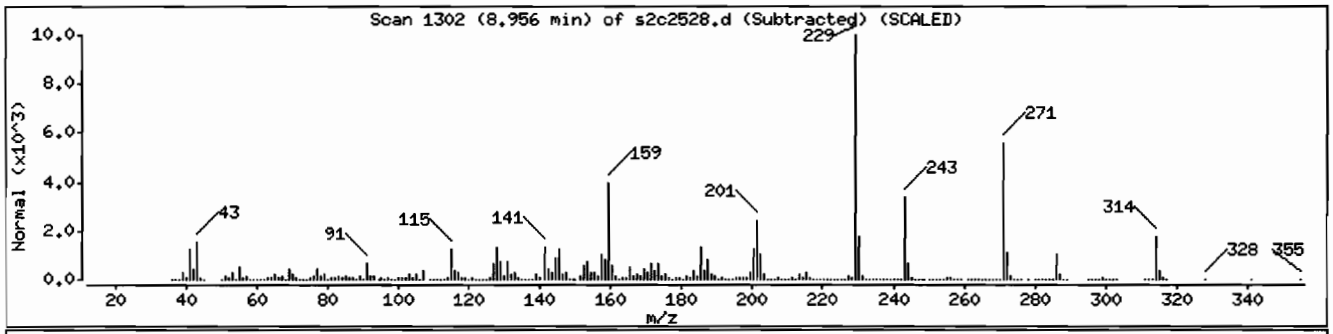

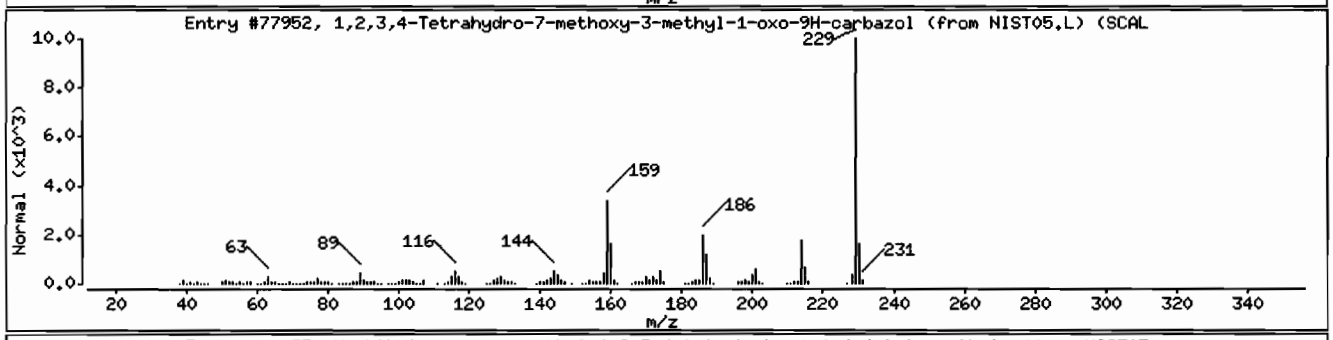

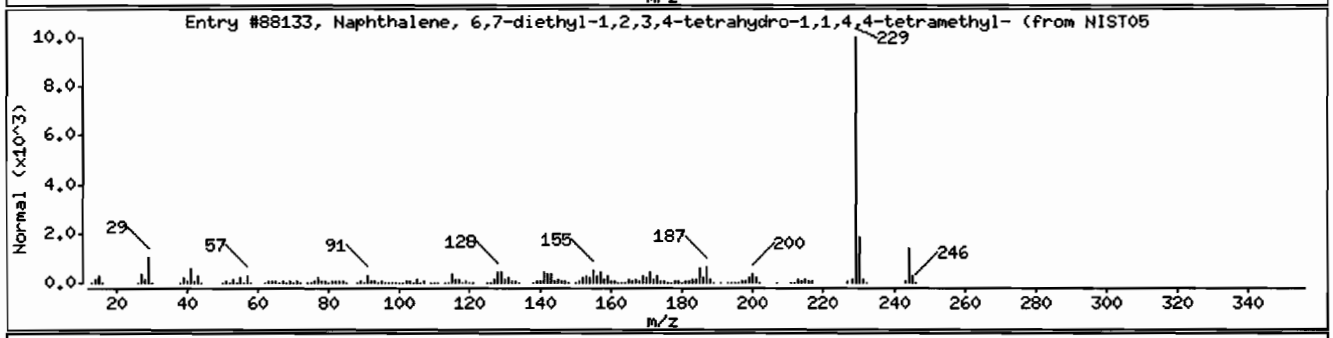

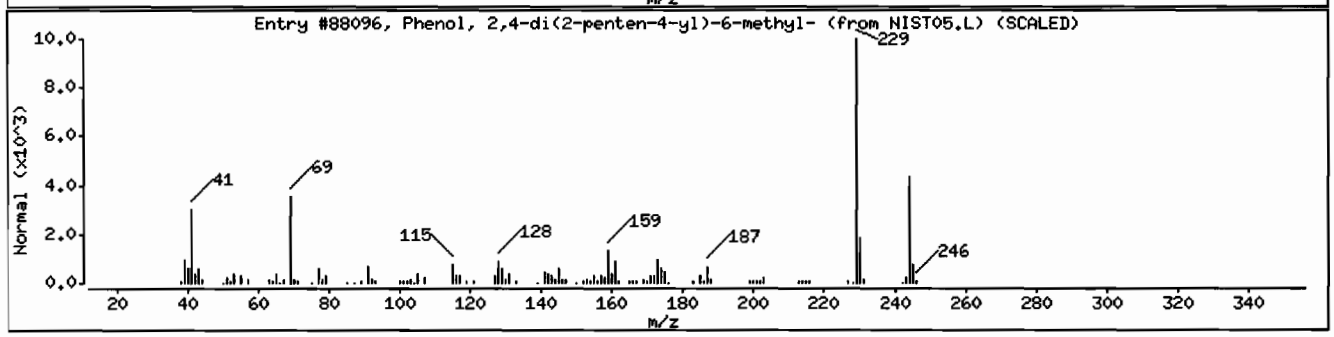

Data File: /chem/MSD2.i/s032510.b/s2c2528.d

Date : 25-MAR-2010 23:49

Client ID: RE46-10-12930 Instrument: MSD2.i

Sample Info: 1248863002|965979|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
N-(7-Chloro-2-phenazinyl)acetamide	23677-13-6	NIST05.L	106021	70	C14H10ClN3O	271
Naphthalene, 6,7-diethyl-1,2,3,4-tetrahy	55741-10-1	NIST05.L	88133	53	C18H28	244
1,2,3,4-Tetrahydro-7-methoxy-3-methyl-1-	32550-51-9	NIST05.L	77952	45	C14H15NO2	229

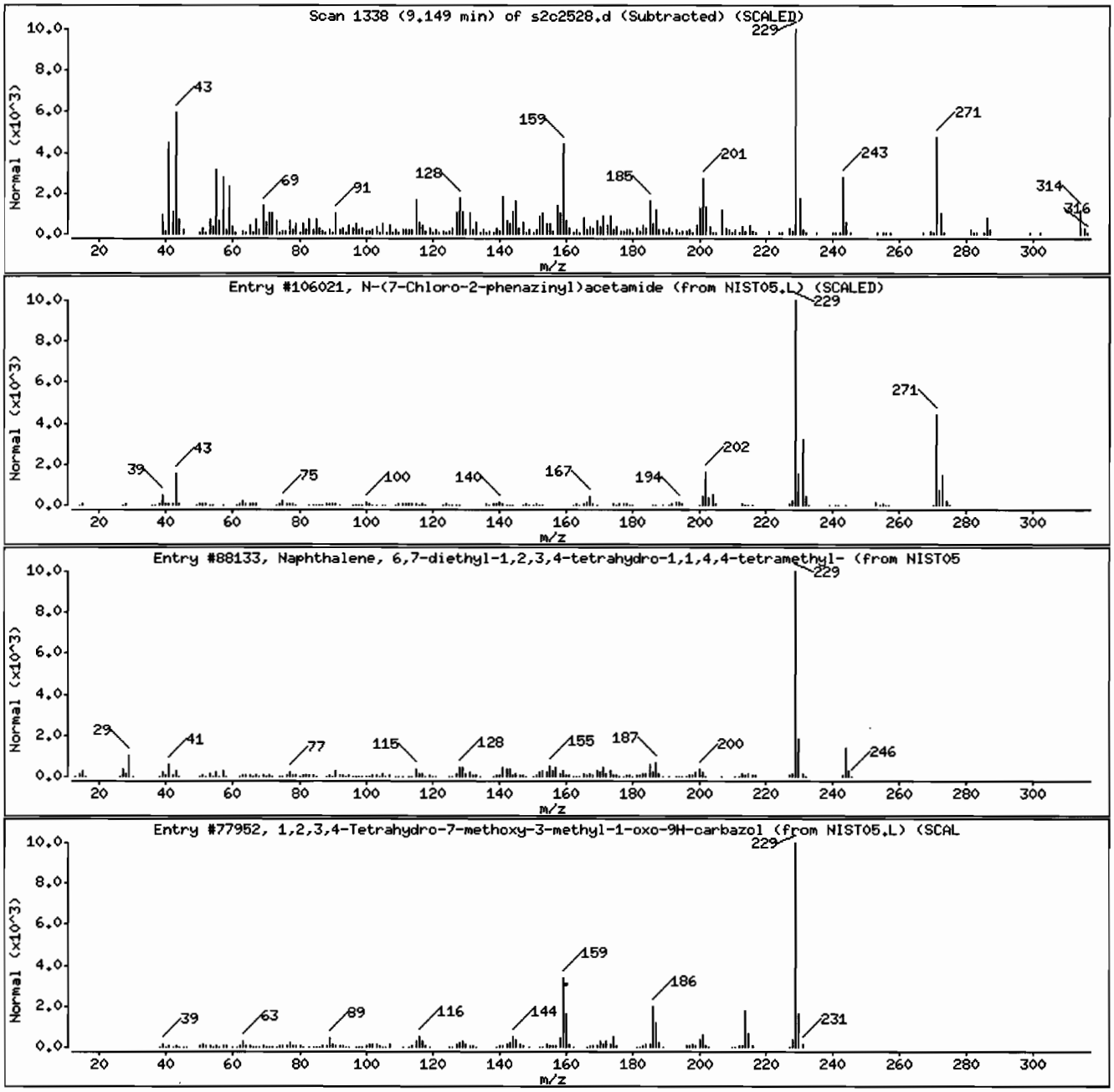

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**12.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12935**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 00:30**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2530.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	380	ug/kg	76.0	380
108-95-2	Phenol	U	380	ug/kg	76.0	380
95-57-8	2-Chlorophenol	U	380	ug/kg	76.0	380
106-46-7	1,4-Dichlorobenzene	U	380	ug/kg	76.0	380
621-64-7	N-Nitrosodipropylamine	U	380	ug/kg	76.0	380
59-50-7	4-Chloro-3-methylphenol	U	380	ug/kg	76.0	380
83-32-9	Acenaphthene	U	38.0	ug/kg	12.5	38.0
121-14-2	2,4-Dinitrotoluene	U	380	ug/kg	38.0	380
100-02-7	4-Nitrophenol	U	380	ug/kg	125	380
87-86-5	Pentachlorophenol	U	380	ug/kg	94.9	380
129-00-0	Pyrene	U	38.0	ug/kg	11.4	38.0
110-86-1	Pyridine	U	380	ug/kg	76.0	380
62-53-3	Aniline	U	380	ug/kg	114	380
111-44-4	bis(2-Chloroethyl) ether	U	380	ug/kg	76.0	380
541-73-1	1,3-Dichlorobenzene	U	380	ug/kg	76.0	380
100-51-6	Benzyl alcohol	U	380	ug/kg	114	380
95-50-1	1,2-Dichlorobenzene	U	380	ug/kg	76.0	380
108-60-1	bis(2-Chloroisopropyl)ether	U	380	ug/kg	76.0	380
95-48-7	o-Cresol	U	380	ug/kg	76.0	380
65794-96-9	m,p-Cresols	U	380	ug/kg	114	380
67-72-1	Hexachloroethane	U	380	ug/kg	76.0	380
98-95-3	Nitrobenzene	U	380	ug/kg	76.0	380
78-59-1	Isophorone	U	380	ug/kg	76.0	380
88-75-5	2-Nitrophenol	U	380	ug/kg	76.0	380
105-67-9	2,4-Dimethylphenol	U	380	ug/kg	133	380
111-91-1	bis(2-Chloroethoxy)methane	U	380	ug/kg	76.0	380
120-83-2	2,4-Dichlorophenol	U	380	ug/kg	76.0	380
65-85-0	Benzoic acid	U	760	ug/kg	190	760
91-20-3	Naphthalene	U	38.0	ug/kg	11.4	38.0
106-47-8	4-Chloroaniline	U	380	ug/kg	76.0	380
87-68-3	Hexachlorobutadiene	U	380	ug/kg	76.0	380
91-57-6	2-Methylnaphthalene	U	38.0	ug/kg	7.60	38.0
77-47-4	Hexachlorocyclopentadiene	U	380	ug/kg	76.0	380
88-06-2	2,4,6-Trichlorophenol	U	380	ug/kg	76.0	380
95-95-4	2,4,5-Trichlorophenol	U	380	ug/kg	76.0	380
91-58-7	2-Chloronaphthalene	U	38.0	ug/kg	12.5	38.0
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	380	ug/kg	76.0	380
99-09-2	3-Nitroaniline	U	380	ug/kg	76.0	380

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**12.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12935**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 00:30**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2530.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	380	ug/kg	76.0	380
606-20-2	2,6-Dinitrotoluene	U	380	ug/kg	38.0	380
208-96-8	Acenaphthylene	U	38.0	ug/kg	11.4	38.0
51-28-5	2,4-Dinitrophenol	U	760	ug/kg	144	760
132-64-9	Dibenzofuran	U	380	ug/kg	76.0	380
84-66-2	Diethylphthalate	U	380	ug/kg	76.0	380
86-73-7	Fluorene	U	38.0	ug/kg	11.4	38.0
7005-72-3	4-Chlorophenylphenylether	U	380	ug/kg	76.0	380
534-52-1	2-Methyl-4,6-dinitrophenol	U	380	ug/kg	76.0	380
100-01-6	4-Nitroaniline	U	380	ug/kg	114	380
	p-Nitroaniline					
122-39-4	Diphenylamine	U	380	ug/kg	76.0	380
122-66-7	Azobenzene	U	380	ug/kg	76.0	380
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	380	ug/kg	76.0	380
118-74-1	Hexachlorobenzene	U	380	ug/kg	76.0	380
85-01-8	Phenanthrene	U	38.0	ug/kg	11.4	38.0
120-12-7	Anthracene	U	38.0	ug/kg	7.60	38.0
84-74-2	Di-n-butylphthalate	U	380	ug/kg	76.0	380
206-44-0	Fluoranthene	U	38.0	ug/kg	11.4	38.0
85-68-7	Butylbenzylphthalate	U	380	ug/kg	76.0	380
56-55-3	Benzo(a)anthracene	U	38.0	ug/kg	11.4	38.0
91-94-1	3,3'-Dichlorobenzidine	U	380	ug/kg	114	380
218-01-9	Chrysene	U	38.0	ug/kg	11.4	38.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	380	ug/kg	76.0	380
117-84-0	Di-n-octylphthalate	U	380	ug/kg	76.0	380
205-99-2	Benzo(b)fluoranthene	U	38.0	ug/kg	11.4	38.0
207-08-9	Benzo(k)fluoranthene	U	38.0	ug/kg	11.4	38.0
50-32-8	Benzo(a)pyrene	U	38.0	ug/kg	11.4	38.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.0	ug/kg	11.4	38.0
53-70-3	Dibenzo(a,h)anthracene	U	38.0	ug/kg	11.4	38.0
191-24-2	Benzo(ghi)perylene	U	38.0	ug/kg	11.4	38.0
120-82-1	1,2,4-Trichlorobenzene	U	380	ug/kg	76.0	380

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	392	ug/kg		JA

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2530.d
Lab Smp Id: 248863004 Client Smp ID: RE46-10-12935
Inj Date : 26-MAR-2010 00:30
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248863004|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2315.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	12.34960	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.843	3.843	(1.000)	135623	40.0000	
* 29 Naphthalene-d8	136	4.704	4.704	(1.000)	540960	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	333190	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	603611	40.0000	
* 91 Chrysene-d12	240	8.592	8.603	(1.000)	449031	40.0000	
* 98 Perylene-d12	264	10.026	10.042	(1.000)	270610	40.0000	
$ 3 2-Fluorophenol	112	3.046	3.035	(0.793)	165605	51.2812	1950
$ 5 Phenol-d5	99	3.565	3.565	(0.928)	190395	47.8783	1820
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.893)	100453	25.6569	974
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	217680	23.7463	902
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.090)	54060	54.8558	2080
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	291883	35.6420	1350

ION RATIO REPORT

SV REPORT

Data file: s2c2530.d
Report Date: 03/26/2010 13:42
Lab. ID: 248863004 SampleType: SAMPLE
Injection Date: 26-MAR-2010 00:30
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248863004|965979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2315
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	16669	4.20	4.08	80-120	100	(T)
42	14012	4.20	4.08	90-150	84	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	59328	5.95	5.72	80-120	100	(T)
164	333190	5.95	5.72	0- 40	562	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	42007	5.95	5.77	80-120	100	(T)
63	700	5.95	5.77	85-145	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	42007	5.95	6.06	80-120	100	(T)
89	780	5.95	6.06	55-115	2	(QT)
63	700	5.95	6.06	44-104	2	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	242	6.49	6.34	80-120	100	(T)
105	623	6.49	6.34	17- 77	257	(QT)
51	670	6.49	6.34	99-159	277	(QT)

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD2.i/s032510.b/s2c2530.d
Lab Smp Id: 248863004 Client Smp ID: RE46-10-12935
Inj Date : 26-MAR-2010 00:30
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248863004|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2315.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	12.34960	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.843	1016917	40.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.875	262661	10.3316704	392	0		0	10

Data File: /chem/MSD2.i/s032510.b/s2c2530.d
Date : 26-MAR-2010 00:30
Client ID: RE46-10-12935
Sample Info: |2488630041965979|1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD2.i

Operator: AGS1
Column diameter: 0.20

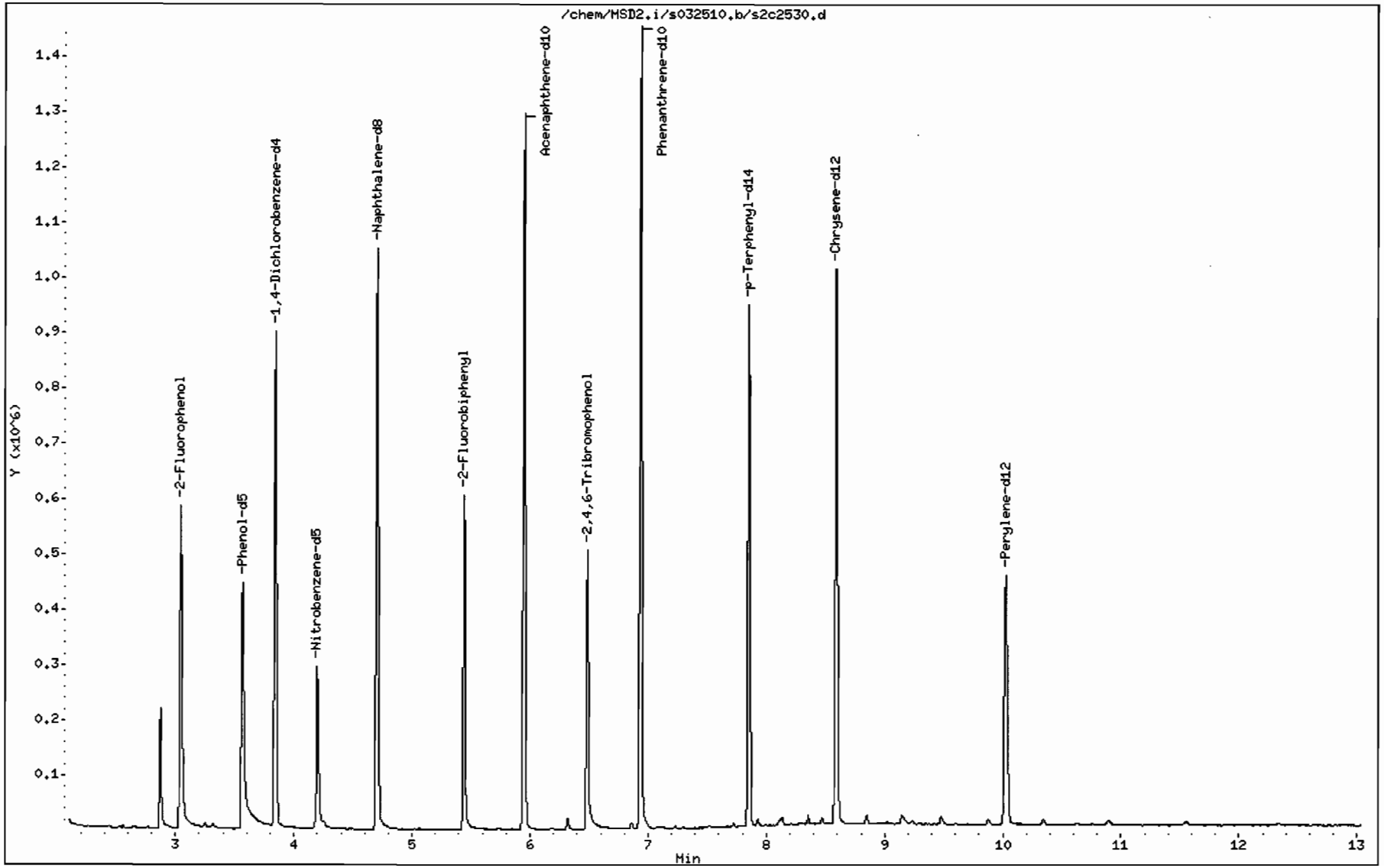

Data File: /chem/MSD2.i/s032510.b/s2c2530.d

Date : 26-MAR-2010 00:30

Client ID: RE46-10-12935

Instrument: MSD2.i

Sample Info: 1248863004196597911|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7976	28	C6H12O2	116

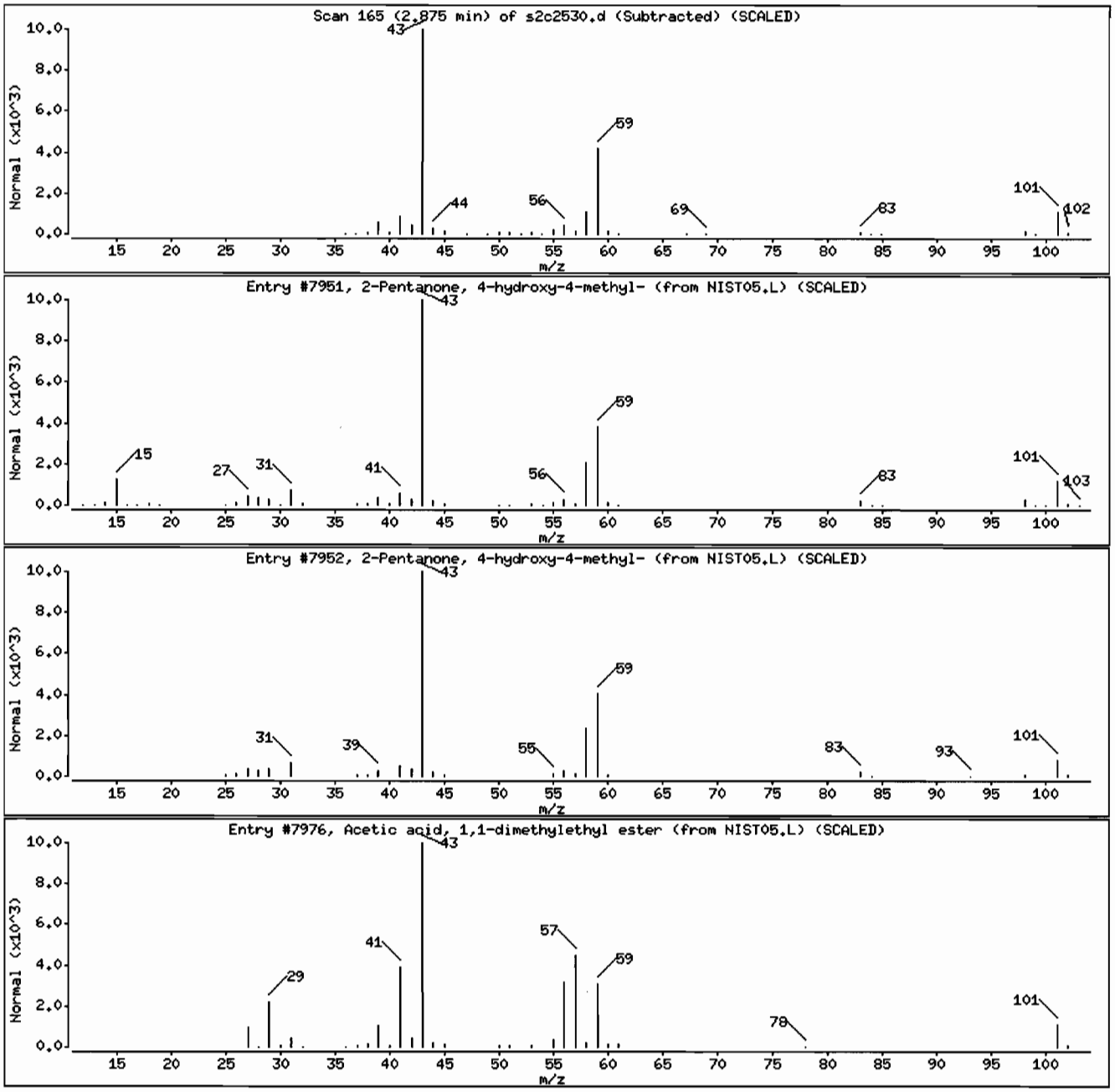

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12936**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 23:29**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2527.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	369	ug/kg	73.8	369
108-95-2	Phenol	U	369	ug/kg	73.8	369
95-57-8	2-Chlorophenol	U	369	ug/kg	73.8	369
106-46-7	1,4-Dichlorobenzene	U	369	ug/kg	73.8	369
621-64-7	N-Nitrosodipropylamine	U	369	ug/kg	73.8	369
59-50-7	4-Chloro-3-methylphenol	U	369	ug/kg	73.8	369
83-32-9	Acenaphthene	U	36.9	ug/kg	12.2	36.9
121-14-2	2,4-Dinitrotoluene	U	369	ug/kg	36.9	369
100-02-7	4-Nitrophenol	U	369	ug/kg	122	369
87-86-5	Pentachlorophenol	U	369	ug/kg	92.2	369
129-00-0	Pyrene	U	36.9	ug/kg	11.1	36.9
110-86-1	Pyridine	U	369	ug/kg	73.8	369
62-53-3	Aniline	U	369	ug/kg	111	369
111-44-4	bis(2-Chloroethyl) ether	U	369	ug/kg	73.8	369
541-73-1	1,3-Dichlorobenzene	U	369	ug/kg	73.8	369
100-51-6	Benzyl alcohol	U	369	ug/kg	111	369
95-50-1	1,2-Dichlorobenzene	U	369	ug/kg	73.8	369
108-60-1	bis(2-Chloroisopropyl)ether	U	369	ug/kg	73.8	369
95-48-7	o-Cresol	U	369	ug/kg	73.8	369
65794-96-9	m,p-Cresols	U	369	ug/kg	111	369
67-72-1	Hexachloroethane	U	369	ug/kg	73.8	369
98-95-3	Nitrobenzene	U	369	ug/kg	73.8	369
78-59-1	Isophorone	U	369	ug/kg	73.8	369
88-75-5	2-Nitrophenol	U	369	ug/kg	73.8	369
105-67-9	2,4-Dimethylphenol	U	369	ug/kg	129	369
111-91-1	bis(2-Chloroethoxy)methane	U	369	ug/kg	73.8	369
120-83-2	2,4-Dichlorophenol	U	369	ug/kg	73.8	369
65-85-0	Benzoic acid	U	738	ug/kg	184	738
91-20-3	Naphthalene	U	36.9	ug/kg	11.1	36.9
106-47-8	4-Chloroaniline	U	369	ug/kg	73.8	369
87-68-3	Hexachlorobutadiene	U	369	ug/kg	73.8	369
91-57-6	2-Methylnaphthalene	U	36.9	ug/kg	7.38	36.9
77-47-4	Hexachlorocyclopentadiene	U	369	ug/kg	73.8	369
88-06-2	2,4,6-Trichlorophenol	U	369	ug/kg	73.8	369
95-95-4	2,4,5-Trichlorophenol	U	369	ug/kg	73.8	369
91-58-7	2-Chloronaphthalene	U	36.9	ug/kg	12.2	36.9
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	369	ug/kg	73.8	369
99-09-2	3-Nitroaniline	U	369	ug/kg	73.8	369

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12936**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.1**	**Dilution:**	**1**
Run Date:	**03/25/2010 23:29**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2527.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	369	ug/kg	73.8	369
606-20-2	2,6-Dinitrotoluene	U	369	ug/kg	36.9	369
208-96-8	Acenaphthylene	U	36.9	ug/kg	11.1	36.9
51-28-5	2,4-Dinitrophenol	U	738	ug/kg	140	738
132-64-9	Dibenzofuran	U	369	ug/kg	73.8	369
84-66-2	Diethylphthalate	U	369	ug/kg	73.8	369
86-73-7	Fluorene	U	36.9	ug/kg	11.1	36.9
7005-72-3	4-Chlorophenylphenylether	U	369	ug/kg	73.8	369
534-52-1	2-Methyl-4,6-dinitrophenol	U	369	ug/kg	73.8	369
100-01-6	4-Nitroaniline	U	369	ug/kg	111	369
	p-Nitroaniline					
122-39-4	Diphenylamine	U	369	ug/kg	73.8	369
122-66-7	Azobenzene	U	369	ug/kg	73.8	369
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	369	ug/kg	73.8	369
118-74-1	Hexachlorobenzene	U	369	ug/kg	73.8	369
85-01-8	Phenanthrene	U	36.9	ug/kg	11.1	36.9
120-12-7	Anthracene	U	36.9	ug/kg	7.38	36.9
84-74-2	Di-n-butylphthalate	U	369	ug/kg	73.8	369
206-44-0	Fluoranthene	U	36.9	ug/kg	11.1	36.9
85-68-7	Butylbenzylphthalate	U	369	ug/kg	73.8	369
56-55-3	Benzo(a)anthracene	U	36.9	ug/kg	11.1	36.9
91-94-1	3,3'-Dichlorobenzidine	U	369	ug/kg	111	369
218-01-9	Chrysene	U	36.9	ug/kg	11.1	36.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	369	ug/kg	73.8	369
117-84-0	Di-n-octylphthalate	U	369	ug/kg	73.8	369
205-99-2	Benzo(b)fluoranthene	U	36.9	ug/kg	11.1	36.9
207-08-9	Benzo(k)fluoranthene	U	36.9	ug/kg	11.1	36.9
50-32-8	Benzo(a)pyrene	U	36.9	ug/kg	11.1	36.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.9	ug/kg	11.1	36.9
53-70-3	Dibenzo(a,h)anthracene	U	36.9	ug/kg	11.1	36.9
191-24-2	Benzo(ghi)perylene	U	36.9	ug/kg	11.1	36.9
120-82-1	1,2,4-Trichlorobenzene	U	369	ug/kg	73.8	369

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.88	350	ug/kg		JA

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2527.d
Lab Smp Id: 248863001 Client Smp ID: RE46-10-12936
Inj Date : 25-MAR-2010 23:29
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248863001|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2315.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	9.62660	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.838	3.843	(1.000)	203502	40.0000	
* 29 Naphthalene-d8	136	4.699	4.704	(1.000)	800229	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	492192	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	899384	40.0000	
* 91 Chrysene-d12	240	8.587	8.603	(1.000)	676974	40.0000	
* 98 Perylene-d12	264	10.026	10.042	(1.000)	408897	40.0000	
$ 3 2-Fluorophenol	112	3.046	3.035	(0.794)	273453	56.4329	2080
$ 5 Phenol-d5	99	3.559	3.565	(0.928)	305338	51.1716	1890
$ 20 Nitrobenzene-d5	82	4.196	4.207	(0.893)	162975	28.1393	1040
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	321320	23.7286	875
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.090)	83319	57.2332	2110
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.915)	404621	32.7722	1210

ION RATIO REPORT

SV REPORT

Data file: s2c2527.d
Report Date: 03/26/2010 13:41
Lab. ID: 248863001 SampleType: SAMPLE
Injection Date: 25-MAR-2010 23:29
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248863001|965979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2315
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	22720	3.56	3.63	80-120	100	(T)
93	147	3.52	3.64	342-402	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	24894	4.20	4.08	80-120	100	(T)
42	21370	4.20	4.08	90-150	86	(QT)
43 Dimethylphthalate			CAS#: 131-11-3			
163	87134	5.95	5.72	80-120	100	(T)
164	492192	5.95	5.72	0- 40	565	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	62953	5.94	5.77	80-120	100	(T)
63	982	5.94	5.77	85-145	2	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	62953	5.94	6.06	80-120	100	(T)
89	1179	5.94	6.06	55-115	2	(QT)
63	982	5.94	6.06	44-104	2	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	366	6.49	6.34	80-120	100	(T)
105	940	6.49	6.34	17- 77	256	(QT)
51	1136	6.49	6.34	99-159	310	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2527.d
Lab Smp Id: 248863001 Client Smp ID: RE46-10-12936
Inj Date : 25-MAR-2010 23:29
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248863001|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2315.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	9.62660	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.838	1500149	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.880	356201	9.49774522	350	0		0	10

Data File: /chem/MSD2.i/s032510.b/s2c2527.d
Date : 25-MAR-2010 23:29
Client ID: RE46-10-12936
Sample Info: |2488630011965979|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: AGS1
Column diameter: 0.20

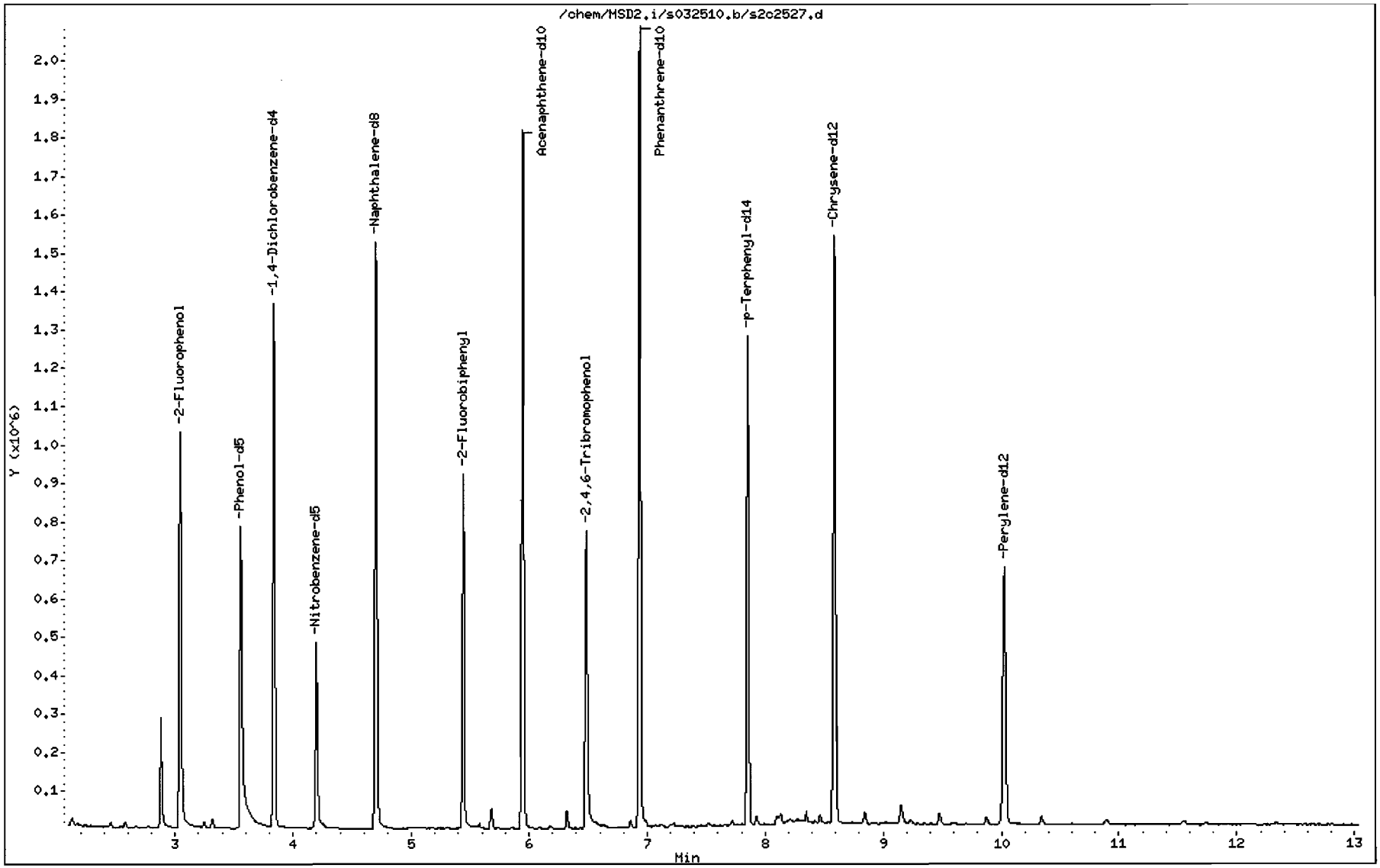

Data File: /chem/MSD2.i/s032510.b/s2c2527.d

Date : 25-MAR-2010 23:29

Client ID: RE46-10-12936

Instrument: MSD2.i

Sample Info: 1248863001|965979|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
1-Propen-2-ol, acetate	108-22-5	NIST05.L	3595	10	C5H8O2	100

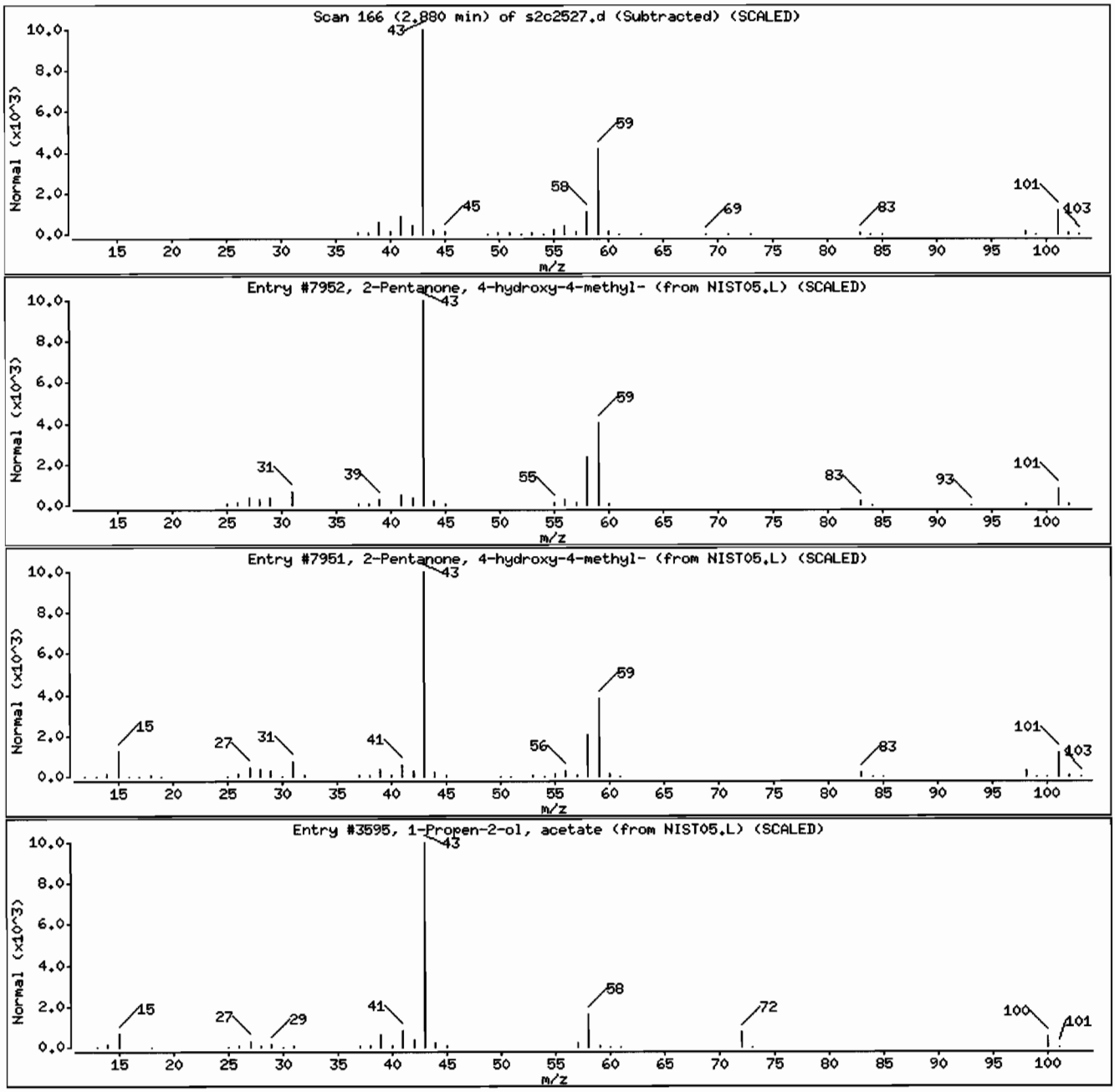

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 25-Mar-2010 18:34

Calibration History

Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Start Cal Date: 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
12-MAR-2010 15:04	MEGAII	/chem/MSD2.i/s031210.b/s2c1203.d
Cal Level: 2 , Cal Amount: 10.00000		
13-MAR-2010 03:15	BJCO	/chem/MSD2.i/s031210.b/s2c1237.d
13-MAR-2010 01:15	HEX	/chem/MSD2.i/s031210.b/s2c1231.d
12-MAR-2010 21:39	PEST	/chem/MSD2.i/s031210.b/s2c1220.d
12-MAR-2010 19:18	AP12	/chem/MSD2.i/s031210.b/s2c1213.d
12-MAR-2010 15:31	MEGAII	/chem/MSD2.i/s031210.b/s2c1204.d
Cal Level: 3 , Cal Amount: 20.00000		
13-MAR-2010 03:42	BJCO	/chem/MSD2.i/s031210.b/s2c1238.d
13-MAR-2010 01:35	HEX	/chem/MSD2.i/s031210.b/s2c1232.d
12-MAR-2010 21:59	PEST	/chem/MSD2.i/s031210.b/s2c1221.d
12-MAR-2010 19:39	AP12	/chem/MSD2.i/s031210.b/s2c1214.d
12-MAR-2010 15:59	MEGAII	/chem/MSD2.i/s031210.b/s2c1205.d
Cal Level: 4 , Cal Amount: 40.00000		
13-MAR-2010 04:08	BJCO	/chem/MSD2.i/s031210.b/s2c1239.d
13-MAR-2010 01:55	HEX	/chem/MSD2.i/s031210.b/s2c1233.d
12-MAR-2010 22:19	PEST	/chem/MSD2.i/s031210.b/s2c1222.d
12-MAR-2010 19:59	AP12	/chem/MSD2.i/s031210.b/s2c1215.d
12-MAR-2010 16:23	MEGAII	/chem/MSD2.i/s031210.b/s2c1206.d
Cal Level: 5 , Cal Amount: 50.00000		
13-MAR-2010 04:35	BJCO	/chem/MSD2.i/s031210.b/s2c1240.d
13-MAR-2010 02:15	HEX	/chem/MSD2.i/s031210.b/s2c1234.d
12-MAR-2010 22:39	PEST	/chem/MSD2.i/s031210.b/s2c1223.d
12-MAR-2010 20:19	AP12	/chem/MSD2.i/s031210.b/s2c1216.d
12-MAR-2010 16:48	MEGAII	/chem/MSD2.i/s031210.b/s2c1207.d
Cal Level: 6 , Cal Amount: 80.00000		
13-MAR-2010 05:01	BJCO	/chem/MSD2.i/s031210.b/s2c1241.d
13-MAR-2010 02:35	HEX	/chem/MSD2.i/s031210.b/s2c1235.d
12-MAR-2010 23:00	PEST	/chem/MSD2.i/s031210.b/s2c1224.d
12-MAR-2010 20:39	AP12	/chem/MSD2.i/s031210.b/s2c1217.d
12-MAR-2010 17:13	MEGAII	/chem/MSD2.i/s031210.b/s2c1208.d
Cal Level: 7 , Cal Amount: 100.00000		

13-MAR-2010 05:28	BJCO	/chem/MSD2.i/s031210.b/s2c1242.d
13-MAR-2010 02:55	HEX	/chem/MSD2.i/s031210.b/s2c1236.d
12-MAR-2010 23:20	PEST	/chem/MSD2.i/s031210.b/s2c1225.d
12-MAR-2010 20:59	AP12	/chem/MSD2.i/s031210.b/s2c1218.d
12-MAR-2010 17:38	MEGAII	/chem/MSD2.i/s031210.b/s2c1209.d

Cal Level: 8 , Cal Amount: 120.00000		
13-MAR-2010 05:54	BJCO	/chem/MSD2.i/s031210.b/s2c1243.d
12-MAR-2010 23:40	PEST	/chem/MSD2.i/s031210.b/s2c1226.d
12-MAR-2010 21:19	AP12	/chem/MSD2.i/s031210.b/s2c1219.d
12-MAR-2010 18:02	MEGAII	/chem/MSD2.i/s031210.b/s2c1210.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
25-MAR-2010 15:44	PEST	/chem/MSD2.i/s032510.b/s2c2504.d
Ccal Level: 4 , Ccal Amount: 40.0		
25-MAR-2010 15:24	AP12	/chem/MSD2.i/s032510.b/s2c2503.d
Ccal Level: 4 , Ccal Amount: 40.0		
25-MAR-2010 14:58	MEGAII	/chem/MSD2.i/s032510.b/s2c2502.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Calibration File Names:
Level 1: /chem/MSD2.i/s031210.b/s2c1203.d
Level 2: /chem/MSD2.i/s031210.b/s2c1237.d
Level 3: /chem/MSD2.i/s031210.b/s2c1238.d
Level 4: /chem/MSD2.i/s031210.b/s2c1239.d
Level 5: /chem/MSD2.i/s031210.b/s2c1240.d
Level 6: /chem/MSD2.i/s031210.b/s2c1241.d
Level 7: /chem/MSD2.i/s031210.b/s2c1242.d
Level 8: /chem/MSD2.i/s031210.b/s2c1243.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.53069	0.56409	0.54068	0.55457	0.54064					
	+++++	0.55374					AVRG		0.54740		2.22282
2 Pyridine	+++++	0.74049	0.79261	0.76560	0.80515	0.77149					
	+++++	0.79393					AVRG		0.77821		3.04477
4 Aniline	+++++	0.55826	0.57077	0.56362	0.58547	0.57284					
	+++++	0.59420					AVRG		0.57419		2.34554
209 Benzaldehyde	+++++	0.93842	0.91810	0.84928	0.88119	0.86080					
	0.82896	0.76897					AVRG		0.86368		6.55756
6 Phenol	+++++	1.14465	1.17926	1.17186	1.24067	1.22191					
	+++++	1.29706					AVRG		1.20923		4.57865

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INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
7 bis(2-Chloroethyl) ether	1.04016	1.03764	1.04161	1.01485	1.04797	1.03256					
	+++++	1.05677					AVRG		1.03880		1.26167
8 2-Chlorophenol	+++++	1.02487	1.07560	1.05680	1.09331	1.07141					
	+++++	1.13071					AVRG		1.07545		3.29921
203 n-Decane	+++++	2.00990	2.00845	1.84585	1.80869	1.77685					
	+++++	1.56954					AVRG		1.83655		8.95766
9 1,3-Dichlorobenzene	+++++	1.24048	1.30102	1.24836	1.29021	1.27457					
	+++++	1.32500					AVRG		1.27994		2.51073
11 1,4-Dichlorobenzene	+++++	1.33103	1.36189	1.32236	1.38180	1.35219					
	+++++	1.39329					AVRG		1.35709		2.04557
12 Benzyl alcohol	+++++	0.46844	0.53613	0.58192	0.62208	0.59998					
	+++++	0.60896					AVRG		0.56959		10.15574
13 1,2-Dichlorobenzene	+++++	1.21698	1.24338	1.21938	1.27220	1.26460					
	+++++	1.29976					AVRG		1.25272		2.57686
14 bis(2-Chloroisopropyl)ether	+++++	2.68696	2.65305	2.54839	2.53017	2.49533					
	+++++	2.32358					AVRG		2.53958		5.08482
15 o-Cresol	+++++	0.84323	0.82956	0.80082	0.84780	0.84739					
	+++++	0.95435					AVRG		0.85386		6.12877

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INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.37504	1.34990	1.31025	1.39529	1.40445					
	1.40367	1.39174					AVRG		1.37576		2.51790
17 N-Nitrosodipropylamine	0.73303	0.75246	0.76349	0.75895	0.77570	0.75404					
	+++++	0.77361					AVRG		0.75875		1.90533
18 m,p-Cresols	+++++	0.98606	1.00993	1.01061	1.04500	1.01871					
	+++++	1.03374					AVRG		1.01734		2.02140
19 Hexachloroethane	+++++	0.53473	0.54456	0.52915	0.54253	0.52984					
	+++++	0.53701					AVRG		0.53630		1.18806
21 Nitrobenzene	+++++	0.30184	0.30097	0.28004	0.26992	0.25041					
	+++++	0.23182					AVRG		0.27250		10.21908
22 Isophorone	+++++	0.54505	0.54677	0.50717	0.49346	0.45822					
	+++++	0.40630					AVRG		0.49283		10.93751
23 2-Nitrophenol	+++++	0.17908	0.15205	0.13691	0.13791	0.12777					
	+++++	0.12234					AVRG		0.14268		14.37906
24 2,4-Dimethylphenol	+++++	0.27372	0.30536	0.25113	0.23635	0.20969					
	+++++	+++++					AVRG		0.25525		14.26274
25 bis(2-Chloroethoxy)methane	+++++	0.30134	0.30867	0.28603	0.28357	0.26861					
	+++++	0.24812					AVRG		0.28272		7.79457

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Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.21397	0.21772	0.20785	0.20427	0.19269					
	+++++	0.17722					AVRG		0.20229		7.43147
27 Benzoic acid	+++++	+++++	0.09573	0.12767	0.14526	0.12886					
	+++++	0.13198					AVRG		0.12590		14.50415
28 1,2,4-Trichlorobenzene	+++++	0.27075	0.27246	0.25039	0.24546	0.23111					
	+++++	0.21355					AVRG		0.24729		9.21640
30 Naphthalene	0.88264	0.83585	0.83802	0.78823	0.78416	0.73200					
	+++++	0.69134					AVRG		0.79318		8.30793
204 alpha-Terpineol	+++++	0.30499	0.30556	0.27977	0.26969	0.25106					
	+++++	0.21766					AVRG		0.27145		12.40556
31 4-Chloroaniline	+++++	0.30611	0.36557	0.36836	0.36658	0.33911					
	+++++	0.32132					AVRG		0.34451		7.72390
189 Caprolactam	+++++	0.07385	0.08037	0.08218	0.09025	0.09135					
	0.08948	0.09264					AVRG		0.08573		8.19744
32 Hexachlorobutadiene	+++++	0.16400	0.16685	0.15308	0.14816	0.13933					
	+++++	0.12666					AVRG		0.14968		10.13585
33 4-Chloro-3-methylphenol	+++++	0.23613	0.23807	0.22392	0.22130	0.20293					
	+++++	0.18282					AVRG		0.21753		9.73149

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Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.55918	0.54065	0.54701	0.50998	0.50398	0.47433					
	++++++	0.43335					AVRG		0.50978		8.74067
35 1-Methylnaphthalene	0.54513	0.53724	0.53347	0.50485	0.49777	0.46277					
	++++++	0.42797					AVRG		0.50131		8.59294
36 Hexachlorocyclopentadiene	++++++	0.16297	0.19074	0.20053	0.20711	0.17732					
	++++++	0.20353					AVRG		0.19037		9.03164
208 1,1'-Biphenyl	++++++	1.35911	1.33104	1.31085	1.38582	1.39800					
	1.41044	1.39351					AVRG		1.36982		2.72454
205 2,3-Dichloroaniline	++++++	0.51010	0.54015	0.54652	0.56436	0.57152					
	++++++	0.61221					AVRG		0.55748		6.16449
37 2,4,6-Trichlorophenol	++++++	0.27124	0.28804	0.30627	0.30322	0.30549					
	++++++	0.33030					AVRG		0.30076		6.59007
38 2,4,5-Trichlorophenol	++++++	0.29158	0.32247	0.31010	0.33011	0.33422					
	++++++	0.35852					AVRG		0.32450		6.99838
40 2-Chloronaphthalene	0.95732	0.92503	0.97188	0.94372	0.96936	0.97959					
	++++++	1.03937					AVRG		0.96947		3.71428
42 o-Nitroaniline	++++++	0.28178	0.30956	0.30499	0.30426	0.30435					
	++++++	0.30862					AVRG		0.30226		3.40284

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Method file : /chem/MSD2:i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	21802	52996	142135	204510	208409					
	+++++	402686					LINR	0.08432	0.22019		0.99755
43 Dimethylphthalate	+++++	1.10980	1.15239	1.11587	1.13305	1.14965					
	+++++	1.16434					AVRG		1.13752		1.90358
44 2,6-Dinitrotoluene	+++++	0.24590	0.25940	0.25324	0.25815	0.25973					
	+++++	0.26721					AVRG		0.25727		2.77894
45 Acenaphthylene	1.37487	1.40503	1.46492	1.45336	1.46622	1.49132					
	+++++	1.57389					AVRG		1.46137		4.35613
47 Acenaphthene	1.09285	0.99386	1.05730	1.04614	1.07303	1.07796					
	+++++	1.11624					AVRG		1.06534		3.65712
48 2,4-Dinitrophenol	+++++	+++++	26928	70814	105683	112290					
	+++++	256161					LINR	0.27701	0.14408		0.99297
49 Dibenzofuran	+++++	1.23686	1.30875	1.28894	1.31722	1.32619					
	+++++	1.37415					AVRG		1.30868		3.45347
50 2,4-Dinitrotoluene	+++++	0.29926	0.32448	0.32292	0.32838	0.33137					
	+++++	0.32165					AVRG		0.32134		3.54887
51 Diethylphthalate	+++++	1.14932	1.19433	1.15409	1.17087	1.17737					
	+++++	1.15441					AVRG		1.16673		1.48807

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Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
52 4-Nitrophenol	+++++	0.13055	0.15792	0.16796	0.17481	0.16540					
	+++++	0.16153					AVRG		0.15969		9.64147
53 Fluorene	1.05424	1.07394	1.13370	1.14492	1.17060	1.17058					
	+++++	1.20012					AVRG		1.13544		4.70479
54 4-Chlorophenylphenylether	+++++	0.50279	0.52689	0.52750	0.53924	0.54595					
	+++++	0.56736					AVRG		0.53496		4.04829
55 2-Methyl-4,6-dinitrophenol	+++++	18180	48014	109404	161133	168398					
	+++++	347979					LINR	0.18671	0.12250		0.99452
56 p-Nitroaniline	+++++	22179	45659	125678	187857	194328					
	+++++	406138					LINR	0.15309	0.22168		0.99822
133 Diphenylamine	+++++	0.48570	0.49400	0.50138	0.51990	0.52948					
	+++++	0.59303					AVRG		0.52058		7.49917
58 1,2-Diphenylhydrazine	+++++	0.63730	0.66715	0.65507	0.67151	0.69301					
	+++++	0.74396					AVRG		0.67800		5.48585
59 Tributylphosphate	+++++	1.14218	1.23338	1.26398	1.24736	1.30493					
	1.31959	1.26442					AVRG		1.25369		4.61401
61 4-Bromophenylphenylether	+++++	0.16412	0.17037	0.17123	0.17327	0.18076					
	+++++	0.19621					AVRG		0.17599		6.39971

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Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.16428	0.16925	0.17087	0.17418	0.18013					
	+++++	0.19569					AVRG		0.17573		6.32010
207 Atrazine	+++++	0.04678	0.04546	0.04310	0.04200	0.04389					
	0.04014	0.03918					AVRG		0.04293		6.37284
65 Pentachlorophenol	+++++	0.07005	0.08362	0.09145	0.09635	0.09801					
	+++++	0.10656					AVRG		0.09101		14.01556
206 n-Octadecane	+++++	0.58190	0.60061	0.56933	0.56240	0.58766					
	+++++	0.58012					AVRG		0.58034		2.32517
68 Phenanthrene	0.98272	0.94591	0.98449	0.95745	1.00421	0.99535					
	+++++	1.05048					AVRG		0.98866		3.44563
69 Anthracene	0.88306	0.89261	0.96551	0.99042	0.96594	0.99150					
	+++++	1.00588					AVRG		0.95642		5.13275
72 Di-n-butylphthalate	+++++	1.11765	1.16093	1.12721	1.12060	1.15861					
	+++++	1.10402					AVRG		1.13150		2.04799
76 Fluoranthene	0.81916	0.85958	0.91809	0.91892	0.91345	0.92075					
	+++++	0.90111					AVRG		0.89301		4.36703
77 Benzidine	+++++	0.33270	0.32337	0.26589	0.33110	0.36513					
	0.36116	0.39174					AVRG		0.33873		11.83753

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Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.23304	1.24570	1.28178	1.24643	1.33748	1.35539					
	+++++	1.42729					AVRG		1.30387		5.53101
85 Butylbenzylphthalate	+++++	0.59999	0.62912	0.59210	0.60752	0.62259					
	+++++	0.60906					AVRG		0.61006		2.26136
89 Benzo(a)anthracene	1.07945	0.96635	0.97615	0.97295	1.00816	0.99033					
	+++++	0.99439					AVRG		0.99826		3.86151
90 3,3'-Dichlorobenzidine	+++++	0.21872	0.24546	0.24771	0.27723	0.29323					
	0.27943	0.29408					AVRG		0.26512		10.69374
92 Chrysene	0.92724	0.88493	0.98051	0.91794	0.90417	0.93552					
	+++++	0.96869					AVRG		0.93128		3.64633
93 bis(2-Ethylhexyl)phthalate	0.83224	0.82159	0.85356	0.79815	0.82639	0.87973					
	+++++	0.86867					AVRG		0.84005		3.40874
94 Di-n-octylphthalate	+++++	1.80144	1.89250	1.71252	1.93706	2.03001					
	+++++	2.06832					AVRG		1.90697		7.08363
95 Benzo(b)fluoranthene	0.94096	1.08670	1.08972	1.16567	1.15813	1.07475					
	+++++	1.12139					AVRG		1.09105		6.87930
96 Benzo(k)fluoranthene	1.00301	0.98897	1.13567	0.97578	1.11291	1.23028					
	+++++	1.27986					AVRG		1.10378		10.96105

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Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
97 Benzo(a)pyrene	0.82242	0.84279	0.91106	0.89892	0.92930	0.92862					
	++++++	0.99694					AVRG		0.90429		6.44159
99 Indeno(1,2,3-cd)pyrene	0.72384	0.70149	0.79920	0.80145	0.75282	0.78505					
	++++++	0.85471					AVRG		0.77408		6.72266
100 Dibenzo(a,h)anthracene	0.58300	0.56617	0.64555	0.65848	0.61402	0.64622					
	++++++	0.71335					AVRG		0.63240		7.84312
101 Benzo(ghi)perylene	0.62290	0.59146	0.65859	0.64551	0.59098	0.61395					
	++++++	0.66549					AVRG		0.62698		4.85944
102 1,4-Dioxane	++++++	0.35160	0.34509	0.33135	0.35428	0.34578					
	0.35023	0.34933					AVRG		0.34681		2.17036
103 Methyl methacrylate	++++++	0.20061	0.19873	0.18864	0.20452	0.20433					
	0.20673	0.20414					AVRG		0.20110		3.03929
104 Ethyl methacrylate	++++++	0.75667	0.76459	0.72872	0.77419	0.76818					
	0.77700	0.76357					AVRG		0.76185		2.11428
105 2-Picoline	++++++	1.16328	1.16948	1.11649	1.19601	1.20509					
	1.22656	1.22244					AVRG		1.18562		3.27696
106 N-Nitrosomethylethylamine	++++++	0.45377	0.46348	0.43670	0.46929	0.45242					
	0.45863	0.45164					AVRG		0.45513		2.27560

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Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.63060	0.60690	0.56958	0.58418	0.57873					
	0.55212	0.52685					AVRG		0.57842		5.90367
108 N-Nitrosodiethylamine	+++++	0.49994	0.50455	0.48829	0.51912	0.51895					
	0.52868	0.51703					AVRG		0.51094		2.71861
109 Ethyl Methanesulfonate	+++++	0.64316	0.63898	0.61674	0.64614	0.64667					
	0.63240	0.62556					AVRG		0.63566		1.78065
110 Pentachloroethane	+++++	0.38534	0.38296	0.36184	0.37892	0.37518					
	0.37755	0.36804					AVRG		0.37569		2.20176
111 N-Nitrosopyrrolidine	+++++	0.49075	0.50988	0.50101	0.53665	0.55050					
	0.56242	0.57355					AVRG		0.53211		6.02450
113 N-Nitrosomorpholine	+++++	1.00110	0.99132	0.94345	1.00036	0.97827					
	0.95370	0.93068					AVRG		0.97127		2.94734
114 o-Toluidine	+++++	1.80852	1.83550	1.80199	1.84876	1.97447					
	1.98694	2.00308					AVRG		1.89418		4.73437
115 N-Nitrosopiperidine	+++++	0.13521	0.13511	0.13226	0.14210	0.14020					
	0.13850	0.13785					AVRG		0.13732		2.44499
116 a,a-Dimethylphenethylamine	+++++	0.79717	0.87203	0.88887	0.95657	0.97824					
	0.96170	0.96066					AVRG		0.91646		7.23662

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INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.12969	0.13498	0.13988	0.14347	0.15050					
	0.15111	0.15112					AVRG		0.14297		5.98605
118 2,6-Dichlorophenol	+++++	0.21704	0.22718	0.22752	0.24481	0.24384					
	0.24812	0.24650					AVRG		0.23643		5.19197
119 Hexachloropropene	+++++	0.09452	0.12047	0.11686	0.12728	0.13200					
	0.12883	0.13145					AVRG		0.12163		10.85915
120 p-Phenylenediamine	+++++	0.16662	0.22639	0.22496	0.24913	0.22983					
	0.19849	0.20531					AVRG		0.21439		12.51311
121 N-Nitrosodi-n-butylamine	+++++	0.23456	0.24217	0.20702	0.21125	0.21342					
	0.20654	0.20943					AVRG		0.21777		6.62755
122 Safrole	+++++	0.20577	0.20863	0.20444	0.21501	0.21894					
	0.21571	0.21789					AVRG		0.21234		2.80176
123 1,2,4,5-Tetrachlorobenzene	+++++	0.45777	0.45385	0.43570	0.46563	0.46742					
	0.47683	0.46456					AVRG		0.46025		2.83817
124 Isosafrole	+++++	0.35040	0.35154	0.34687	0.36295	0.36305					
	0.36929	0.36287					AVRG		0.35814		2.34899
125 1,4-Naphthoquinone	+++++	0.35704	0.37620	0.36066	0.36273	0.31265					
	0.28003	0.26784					AVRG		0.33102		13.24400

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.15972	0.17551	0.17202	0.17880	0.17527					
	+++++	0.18357					AVRG		0.17415		4.63730
127 Pentachlorobenzene	+++++	0.39226	0.39020	0.38763	0.40604	0.41773					
	0.41906	0.42405					AVRG		0.40528		3.77750
128 1-Naphthylamine	+++++	0.87990	0.89273	0.87839	0.96023	0.99070					
	0.96177	0.97320					AVRG		0.93385		5.16042
129 2-Naphthylamine	+++++	0.96003	0.98889	0.96557	1.04769	1.04666					
	1.01828	1.03999					AVRG		1.00959		3.76020
130 2,3,4,6-Tetrachlorophenol	+++++	0.24559	0.25323	0.27046	0.28031	0.29434					
	+++++	0.30632					AVRG		0.27504		8.51517
131 5-Nitro-o-toluidine	+++++	0.22743	0.26020	0.25061	0.27591	0.28592					
	0.27827	0.28407					AVRG		0.26606		8.01756
132 Thionazin	+++++	0.15011	0.15522	0.16542	0.16383	0.17150					
	0.17067	0.16715					AVRG		0.16341		4.87242
134 Sulfotepp	+++++	0.08160	0.08679	0.09355	0.09774	0.10316					
	0.10522	0.10640					AVRG		0.09635		9.88855
135 Phorate	+++++	0.34717	0.36619	0.37505	0.38205	0.38811					
	0.38037	0.37522					AVRG		0.37345		3.60208

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.09652	0.13549	0.13757	0.14799	0.14625					
	0.13417	0.13774					AVRG		0.13367		12.87991
137 Phenacetin	+++++	0.27229	0.29485	0.28597	0.30648	0.30974					
	0.30537	0.31201					AVRG		0.29810		4.89196
138 Diallate	+++++	0.27591	0.25445	0.25725	0.26238	0.26308					
	0.26769	0.26482					AVRG		0.26365		2.66294
139 Dimethoate	+++++	0.18468	0.19709	0.20942	0.21468	0.22518					
	0.22365	0.22216					AVRG		0.21098		7.20828
140 4-Aminobiphenyl	+++++	0.54803	0.54411	0.53885	0.63692	0.66300					
	0.65007	0.64996					AVRG		0.60442		9.49504
141 Pentachloronitrobenzene	+++++	0.08753	0.08511	0.08321	0.08704	0.08548					
	0.08309	0.08073					AVRG		0.08460		2.84314
142 Pronamide	+++++	0.31192	0.30186	0.29923	0.31237	0.31025					
	0.30730	0.29182					AVRG		0.30496		2.51189
143 Dinoseb	+++++	26318	64904	148620	219199	230621					
	+++++	463231					LINR	0.16895	0.16301		0.99661
144 Disulfoton	+++++	0.26029	0.26807	0.27619	0.28099	0.29536					
	0.28719	0.28588					AVRG		0.27914		4.29750

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.16726	0.18176	0.19745	0.20499	0.21200					
	0.21135	0.20784					AVRG		0.19752		8.59064
146 4-Nitroquinoline-1-oxide	+++++	2342	9511	16827	20691	41438					
	+++++	+++++					LINR	0.12110	0.01872		0.99242
147 Methapyrilene	+++++	0.47127	0.44938	0.39997	0.40196	0.40766					
	0.34925	0.35531					AVRG		0.40497		11.03384
148 Isodrin	+++++	0.10675	0.09831	0.09726	0.09704	0.10075					
	0.09619	0.09809					AVRG		0.09920		3.65672
149 Aramite	+++++	0.05128	0.05168	0.04752	0.04833	0.05257					
	0.04617	0.04656					AVRG		0.04916		5.35243
150 Kepone	+++++	0.06472	0.06750	0.06098	0.06584	0.07074					
	0.06165	0.06597					AVRG		0.06534		5.13220
151 p-(Dimethylamino)azobenzene	+++++	0.40077	0.36831	0.39870	0.38456	0.36646					
	0.39314	0.38315					AVRG		0.38501		3.56168
152 Chlorobenzilate	+++++	0.36667	0.32344	0.37057	0.34530	0.34588					
	0.37301	0.36768					AVRG		0.35608		5.16475
153 3,3'-Dimethylbenzidine	+++++	0.51799	0.49896	0.45789	0.49166	0.51632					
	0.51079	0.52916					AVRG		0.50325		4.67890

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
154 Famphur	+++++	0.36991	0.39797	0.41889	0.44377	0.43941					
	0.42710	0.42618					AVRG		0.41760		6.17190
155 2-Acetylaminofluorene	+++++	0.24420	0.30205	0.29363	0.33824	0.35451					
	0.33945	0.35224					AVRG		0.31776		12.63393
157 7,12Dimethylbenz(a)anthracene	+++++	0.56588	0.53307	0.57223	0.56155	0.56719					
	0.57623	0.59670					AVRG		0.56755		3.35460
158 3-Methylcholanthrene	+++++	0.38667	0.38727	0.39472	0.41832	0.42507					
	0.41325	0.43432					AVRG		0.40852		4.66290
26 Phthalic anhydride	+++++	16723	47830	125691	196574	215901					
	+++++	+++++					LINR	0.12340	0.10949		0.99655
173 Carbazole	18867	141917	253992	658583	1027960	1048673					
	+++++	2140487					LINR	0.13239	0.73569		0.99210
174 Hexachlorophene	+++++	518849	1036568	1456110	1739399	+++++					
	2263726	+++++					LINR	5.32015	0.08280		0.99874
179 Dibenzo(a,e)pyrene	+++++	0.28512	0.33642	0.33663	0.27673	0.30466					
	+++++	0.34488					AVRG		0.31408		9.31398
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
184 p-Benzoquinone	+++++	10744	27498	56694	89591	116622					
	+++++	221829					LINR	0.17295	0.25904		0.99077
191 Parathion	+++++	0.04839	0.05278	0.05817	0.06057	0.06406					
	0.06770	0.06650					AVRG		0.05974		11.99755
192 Methoxychlor	+++++	0.56862	0.61889	0.60522	0.60255	0.61534					
	+++++	0.62322					AVRG		0.60564		3.26803
210 m-Toluidine	+++++	1.14296	1.20463	1.50407	1.47783	1.51385					
	+++++	1.62653					AVRG		1.41165		13.61097
211 p-Toluidine	+++++	1.03688	1.03950	0.98382	1.16617	1.07729					
	+++++	1.06044					AVRG		1.06068		5.70763
212 Cis Diallate	+++++	0.26579	0.24953	0.24544	0.24698	0.24161					
	0.24032	0.24133					AVRG		0.24728		3.56817
213 Trans Diallate	+++++	0.32461	0.29935	0.30264	0.30868	0.30950					
	0.31493	0.31155					AVRG		0.31018		2.66294
214 1,4-Dinitrobenzene	+++++	0.20082	0.22011	0.22052	0.22474	0.22190					
	+++++	0.23207					AVRG		0.22002		4.72222
215 2-Ethoxyethanol	+++++	0.67233	0.71321	0.70155	0.72308	0.70042					
	+++++	0.72494					AVRG		0.70592		2.75199

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
216 Methylenebis(2-chloroaniline)	+++++	18503	31120	85711	123300	126551						
	+++++	+++++					LINR	0.12923	0.11629		0.99554	
226 2,2'-Dichlorobenzil	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
227 4-Chlorothioanisole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
228 4-Chlorothiophenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
229 bis(p-Chlorophenyl)sulfone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
230 bis(p-Chlorophenyl)disulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
231 Diphenyl disulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
232 Diphenyl sulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
233 Phenyl sulfone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
234 Hydroxymethyl phthalimide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
235 Phthalic acid	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
236 Thiophenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
237 bis(Chloromethyl)ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
238 Octachlorostyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
239 Dibenzo(a,h)pyrene	+++++	0.30133	0.24543	0.32224	0.29208	0.31923						
	0.31975	0.32872					AVRG		0.30411		9.49556	<-
240 Benzo(j)fluoranthene	+++++	0.83072	0.92385	0.96790	1.00940	1.00885						
	0.96377	1.00814					AVRG		0.95895		6.76250	<-
241 Dibenzo(a,j)acridine	+++++	0.52861	0.50350	0.56758	0.54588	0.60197						
	0.62650	0.57297					AVRG		0.56386		7.48315	<-
242 Dibenz(a,h)acridine	+++++	0.50014	0.47046	0.53958	0.51864	0.56520						
	0.59114	0.54589					AVRG		0.53301		7.59150	<-

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
243 Quinoline	+++++	0.46673	0.48865	0.51133	0.52553	0.56197						
	0.54063	0.54407					AVRG		0.51984		6.42466	<-
244 2,4-Toluene Diisocyanate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
245 Dibenzo(a,i)pyrene	+++++	0.17203	0.15057	0.20368	0.18325	0.20792						
	0.21104	0.21682					AVRG		0.19219		12.67372	<-
246 1-Nitropyrene	+++++	20082	52196	139152	171773	455481						
	483179	481130					LINR	0.19784	0.19692		0.99615	<-
247 5-Methylchrysene	+++++	0.49606	0.51261	0.54747	0.54329	0.55777						
	0.55201	0.55122					AVRG		0.53721		4.35140	<-
248 Dibenzo(a,l)pyrene	+++++	0.27683	0.24014	0.28791	0.26504	0.29597						
	0.31327	0.28427					AVRG		0.28049		8.31565	<-
249 7H-Dibenzo(c,g)carbazole	+++++	0.36891	0.33138	0.39163	0.37071	0.41623						
	0.44981	0.40022					AVRG		0.38984		9.72582	<-
250 1-Hexanol	+++++	0.81019	0.88354	0.90810	0.89375	0.82269						
	0.80572	0.80074					AVRG		0.84639		5.50854	<-
M 222 Trichlorophenols	+++++	0.28141	0.30525	0.30818	0.31667	0.31985						
	+++++	0.34441					AVRG		0.31263		6.59754	

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
M 223 Tetrachlorophenols	+++++	0.24559	0.25323	0.27046	0.28031	0.29434						
	+++++	0.30632					AVRG		0.27504		8.51517	
M 224 Benzo(b,k)fluoranthene	0.97199	1.03784	1.11270	1.07072	1.13552	1.15252						
	+++++	1.20062					AVRG		1.09742		6.99618	
M 225 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 3 2-Fluorophenol	+++++	0.91171	0.95294	0.93696	0.97627	0.93389						
	+++++	1.00292					AVRG		0.95245		3.43740	
$ 5 Phenol-d5	+++++	1.12207	1.15643	1.14832	1.20475	1.17617						
	+++++	1.22938					AVRG		1.17285		3.34024	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.32032	0.32188	0.29453	0.28831	0.26888						
	+++++	0.24310					AVRG		0.28950		10.48064	
$ 39 2-Fluorobiphenyl	+++++	1.04124	1.09665	1.06393	1.09049	1.11952						
	+++++	1.19118					AVRG		1.10050		4.73010	

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	100 Level 7	120 Level 8									
$ 60 2,4,6-Tribromophenol	+++++	0.10863	0.11665	0.11808	0.12058	0.12299					
	+++++	0.12293					AVRG		0.11831		4.54874
$ 81 p-Terphenyl-d14	+++++	0.66878	0.70423	0.69072	0.73707	0.76446					
	+++++	0.81180					AVRG		0.72951		7.22278

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 12-MAR-2010 18:54
Lab File ID: s2c1212.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 18:02
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 3 2-Fluorophenol	0.95245	0.93834	0.93834	0.000	-1.48102	60.00000	Averaged	
$ 5 Phenol-d5	1.17285	1.13234	1.13234	0.000	-3.45424	60.00000	Averaged	
$ 20 Nitrobenzene-d5	0.28950	0.29753	0.29753	0.000	2.77388	60.00000	Averaged	
$ 39 2-Fluorobiphenyl	1.10050	1.08541	1.08541	0.000	-1.37168	60.00000	Averaged	
$ 60 2,4,6-Tribromophenol	0.11831	0.11606	0.11606	0.000	-1.90573	60.00000	Averaged	
$ 81 p-Terphenyl-d14	0.72951	0.73940	0.73940	0.000	1.35559	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.54740	0.52461	0.52461	0.000	-4.16446	60.00000	Averaged	
2 Pyridine	0.77821	0.58893	0.58893	0.000	-24.32317	60.00000	Averaged	
4 Aniline	0.57419	0.51885	0.51885	0.000	-9.63809	60.00000	Averaged	
6 Phenol	1.20923	1.19909	1.19909	0.001	-0.83915	20.00000	Averaged	ccc
7 bis(2-Chloroethyl) ether	1.03880	0.93188	0.93188	0.000	-10.29272	60.00000	Averaged	
8 2-Chlorophenol	1.07545	1.09732	1.09732	0.000	2.03377	60.00000	Averaged	
203 n-Decane	1.83655	1.81258	1.81258	0.000	-1.30488	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.27994	1.24868	1.24868	0.000	-2.44251	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.35709	1.30739	1.30739	0.001	-3.66268	20.00000	Averaged	ccc
13 1,2-Dichlorobenzene	1.25272	1.26001	1.26001	0.000	0.58216	60.00000	Averaged	
14 bis(2-Chloroisopropyl)ether	2.53958	2.42695	2.42695	0.000	-4.43484	60.00000	Averaged	
12 Benzyl alcohol	0.56959	0.59115	0.59115	0.000	3.78667	60.00000	Averaged	
15 o-Cresol	0.85386	0.84683	0.84683	0.000	-0.82343	60.00000	Averaged	
18 m,p-Cresols	1.01734	1.03157	1.03157	0.000	1.39833	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.75875	0.75192	0.75192	0.050	-0.89997	60.00000	Averaged	spcc
19 Hexachloroethane	0.53630	0.51130	0.51130	0.000	-4.66258	60.00000	Averaged	
21 Nitrobenzene	0.27250	0.26462	0.26462	0.000	-2.89142	60.00000	Averaged	
22 Isophorone	0.49283	0.46638	0.46638	0.000	-5.36610	60.00000	Averaged	
23 2-Nitrophenol	0.14268	0.13889	0.13889	0.001	-2.65087	20.00000	Averaged	ccc
24 2,4-Dimethylphenol	0.25525	0.24875	0.24875	0.000	-2.54825	60.00000	Averaged	
25 bis(2-Chloroethoxy)methane	0.28272	0.25590	0.25590	0.000	-9.48667	60.00000	Averaged	
26 2,4-Dichlorophenol	0.20229	0.20678	0.20678	0.001	2.22074	20.00000	Averaged	ccc
27 Benzoic acid	0.12590	0.13539	0.13539	0.000	7.54080	60.00000	Averaged	
28 1,2,4-Trichlorobenzene	0.24729	0.23757	0.23757	0.000	-3.92985	60.00000	Averaged	
30 Naphthalene	0.79318	0.73998	0.73998	0.000	-6.70624	60.00000	Averaged	
204 alpha-Terpineol	0.27145	0.24457	0.24457	0.000	-9.90400	60.00000	Averaged	
31 4-Chloroaniline	0.34451	0.34387	0.34387	0.000	-0.18513	60.00000	Averaged	
32 Hexachlorobutadiene	0.14968	0.14732	0.14732	0.001	-1.57512	20.00000	Averaged	ccc
33 4-Chloro-3-methylphenol	0.21753	0.22451	0.22451	0.001	3.20750	20.00000	Averaged	ccc
34 2-Methylnaphthalene	0.50978	0.50939	0.50939	0.000	-0.07628	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 12-MAR-2010 18:54
Lab File ID: s2c1212.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 18:02
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.50131	0.48065	0.48065	0.000	-4.12090	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.19037	0.16197	0.16197	0.050	-14.91714	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.55748	0.52593	0.52593	0.000	-5.65805	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.30076	0.29510	0.29510	0.001	-1.88287	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.32450	0.32264	0.32264	0.000	-0.57285	60.00000	Averaged
40 2-Chloronaphthalene	0.96947	0.93771	0.93771	0.000	-3.27528	60.00000	Averaged
42 o-Nitroaniline	0.30226	0.29731	0.29731	0.000	-1.63904	60.00000	Averaged
41 m-Nitroaniline	42.34792	40.00000	0.21455	0.000	5.86981	0.000e+00	Linear <-
43 Dimethylphthalate	1.13752	1.08580	1.08580	0.000	-4.54616	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25727	0.24724	0.24724	0.000	-3.90095	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32134	0.32044	0.32044	0.000	-0.28246	60.00000	Averaged
45 Acenaphthylene	1.46137	1.43394	1.43394	0.000	-1.87723	60.00000	Averaged
47 Acenaphthene	1.06534	0.99366	0.99366	0.001	-6.72774	20.00000	Averaged ccc
48 2,4-Dinitrophenol	43.39364	40.00000	0.11639	0.050	8.48410	0.000e+00	Linear <-spcc
49 Dibenzofuran	1.30868	1.27744	1.27744	0.000	-2.38769	60.00000	Averaged
51 Diethylphthalate	1.16673	1.11642	1.11642	0.000	-4.31267	60.00000	Averaged
52 4-Nitrophenol	0.15969	0.17678	0.17678	0.050	10.70040	60.00000	Averaged spcc
53 Fluorene	1.13544	1.09827	1.09827	0.000	-3.27395	60.00000	Averaged
54 4-Chlorophenylphenylether	0.53496	0.50010	0.50010	0.000	-6.51651	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	49.43642	40.00000	0.12853	0.000	23.59104	0.000e+00	Linear <-
56 p-Nitroaniline	45.98377	40.00000	0.22091	0.000	14.95942	0.000e+00	Linear <-
133 Diphenylamine	0.52058	0.49828	0.49828	0.001	-4.28299	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.67800	0.63515	0.63515	0.000	-6.32056	60.00000	Averaged
61 4-Bromophenylphenylether	0.17599	0.15541	0.15541	0.000	-11.69298	60.00000	Averaged
63 Hexachlorobenzene	0.17573	0.16135	0.16135	0.000	-8.18286	60.00000	Averaged
65 Pentachlorophenol	0.09101	0.09422	0.09422	0.001	3.52958	20.00000	Averaged ccc
206 n-Octadecane	0.58034	0.54417	0.54417	0.000	-6.23136	60.00000	Averaged
68 Phenanthrene	0.98866	0.94474	0.94474	0.000	-4.44244	60.00000	Averaged
69 Anthracene	0.95642	0.88574	0.88574	0.000	-7.39015	60.00000	Averaged
72 Di-n-butylphthalate	1.13150	1.06538	1.06538	0.000	-5.84413	60.00000	Averaged
76 Fluoranthene	0.89301	0.88183	0.88183	0.001	-1.25167	20.00000	Averaged ccc
79 Pyrene	1.30387	1.11648	1.11648	0.000	-14.37193	60.00000	Averaged
85 Butylbenzylphthalate	0.61006	0.54363	0.54363	0.000	-10.88944	60.00000	Averaged
89 Benzo(a)anthracene	0.99826	0.91547	0.91547	0.000	-8.29331	60.00000	Averaged
92 Chrysene	0.93128	0.85492	0.85492	0.000	-8.19991	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.84005	0.76087	0.76087	0.000	-9.42480	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 12-MAR-2010 18:54
Lab File ID: s2c1212.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 18:02
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.90697	1.62008	1.62008	0.001	-15.04453	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.09105	1.07318	1.07318	0.000	-1.63732	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.10378	0.96926	0.96926	0.000	-12.18747	60.00000	Averaged	
	97 Benzo(a)pyrene	0.90429	0.85268	0.85268	0.001	-5.70785	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.77408	0.74575	0.74575	0.000	-3.65997	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.63240	0.61423	0.61423	0.000	-2.87235	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.62698	0.59748	0.59748	0.000	-4.70493	60.00000	Averaged	
	126 m-Dinitrobenzene	0.17415	0.17536	0.17536	0.000	0.69298	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27504	0.24941	0.24941	0.000	-9.31817	60.00000	Averaged	
	143 Dinoseb	40.05156	40.00000	0.13568	0.000	0.12890	0.000e+00	Linear	<-
	173 Carbazole	42.31804	40.00000	0.68093	0.000	5.79511	0.000e+00	Linear	<-
	184 p-Benzoquinone	25.62660	40.00000	0.12116	0.000	-35.93349	0.000e+00	Linear	<-
	192 Methoxychlor	0.60564	0.58020	0.58020	0.000	-4.20018	60.00000	Averaged	
	211 p-Toluidine	1.06068	0.79713	0.79713	0.000	-24.84761	60.00000	Averaged	
	210 m-Toluidine	1.41165	1.45567	1.45567	0.000	3.11867	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.22002	0.22732	0.22732	0.000	3.31771	60.00000	Averaged	
	215 2-Ethoxyethanol	0.70592	0.72271	0.72271	0.000	2.37858	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	48.62249	40.00000	0.12633	0.000	21.55622	0.000e+00	Linear	<-
	179 Dibenzo(a,e)pyrene	0.31408	0.23056	0.23056	0.000	-26.59122	60.00000	Averaged	
	26 Phthalic anhydride	56.98108	40.00000	0.14245	0.000	42.45270	0.000e+00	Linear	<-
M	222 Trichlorophenols	0.31263	0.30887	0.30887	0.000	-1.20299	60.00000	Averaged	
M	223 Tetrachlorophenols	0.27504	0.24941	0.24941	0.000	-9.31817	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.09742	1.02122	1.02122	0.000	-6.94301	60.00000	Averaged	

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Data file : /chem/MSD2.i/s031210.b/s2c1212.d
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGAICV
Inj Date : 12-MAR-2010 18:54
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100309-09.1|40PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m
Meth Date : 12-Mar-2010 19:19 ann00964 Quant Type: ISTD
Cal Date : 12-MAR-2010 18:02 Cal File: s2c1210.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.982	3.982	(1.000)	333197	40.0000	
* 29 Naphthalene-d8	136	4.848	4.848	(1.000)	1447881	40.0000	
* 46 Acenaphthene-d10	164	6.095	6.095	(1.000)	750245	40.0000	
* 67 Phenanthrene-d10	188	7.073	7.073	(1.000)	1307528	40.0000	
* 91 Chrysene-d12	240	8.769	8.769	(1.000)	1059004	40.0000	
* 98 Perylene-d12	264	10.304	10.304	(1.000)	718805	40.0000	
$ 3 2-Fluorophenol	112	3.169	3.169	(0.796)	312653	40.0000	39.4
$ 5 Phenol-d5	99	3.693	3.693	(0.927)	377292	40.0000	38.6
$ 20 Nitrobenzene-d5	82	4.346	4.346	(0.896)	430793	40.0000	41.1
$ 39 2-Fluorobiphenyl	172	5.586	5.586	(0.917)	814322	40.0000	39.4
$ 60 2,4,6-Tribromophenol	329	6.624	6.624	(1.087)	87070	40.0000	39.2
$ 81 p-Terphenyl-d14	244	7.988	7.988	(0.911)	783025	40.0000	40.5
1 N-Methyl-N-nitrosomethylamine	74	2.490	2.490	(0.625)	174797	40.0000	38.3
2 Pyridine	79	2.527	2.527	(0.635)	196229	40.0000	30.3
4 Aniline	66	3.768	3.768	(0.946)	172880	40.0000	36.1
6 Phenol	94	3.704	3.704	(0.930)	399532	40.0000	39.7(Q)
7 bis(2-Chloroethyl) ether	63	3.779	3.779	(0.949)	310498	40.0000	35.9
8 2-Chlorophenol	128	3.848	3.848	(0.966)	365625	40.0000	40.8
203 n-Decane	43	3.827	3.827	(0.961)	603947	40.0000	39.5
9 1,3-Dichlorobenzene	146	3.950	3.950	(0.992)	416056	40.0000	39.0
11 1,4-Dichlorobenzene	146	3.993	3.993	(1.003)	435617	40.0000	38.5
13 1,2-Dichlorobenzene	146	4.099	4.099	(1.030)	419832	40.0000	40.2
14 bis(2-Chloroisopropyl)ether	45	4.121	4.121	(1.035)	808653	40.0000	38.2
12 Benzyl alcohol	108	4.046	4.046	(1.016)	196971	40.0000	41.5
15 o-Cresol	107	4.094	4.094	(1.028)	282161	40.0000	39.7
18 m,p-Cresols	107	4.196	4.196	(1.054)	343715	40.0000	40.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.222	4.222	(1.060)	250539	40.0000	39.6
19 Hexachloroethane	117	4.329	4.329	(1.087)	170363	40.0000	38.1
21 Nitrobenzene	77	4.356	4.356	(0.898)	383137	40.0000	38.8
22 Isophorone	82	4.511	4.511	(0.930)	675266	40.0000	37.8
23 2-Nitrophenol	139	4.570	4.570	(0.943)	201103	40.0000	38.9
24 2,4-Dimethylphenol	122	4.559	4.559	(0.940)	360154	40.0000	39.0
25 bis(2-Chloroethoxy)methane	93	4.629	4.629	(0.955)	370515	40.0000	36.2
26 2,4-Dichlorophenol	162	4.731	4.731	(0.976)	299391	40.0000	40.9
27 Benzoic acid	105	4.613	4.613	(0.951)	196034	40.0000	43.0(H)
28 1,2,4-Trichlorobenzene	180	4.795	4.795	(0.989)	343972	40.0000	38.4
30 Naphthalene	128	4.864	4.864	(1.003)	1071410	40.0000	37.3(Q)
204 alpha-Terpineol	59	4.838	4.838	(0.998)	354106	40.0000	36.0
31 4-Chloroaniline	127	4.875	4.875	(1.006)	497883	40.0000	39.9
32 Hexachlorobutadiene	225	4.928	4.928	(1.017)	213305	40.0000	39.4
33 4-Chloro-3-methylphenol	107	5.185	5.185	(1.069)	325058	40.0000	41.3
34 2-Methylnaphthalene	142	5.340	5.340	(1.101)	737542	40.0000	40.0
35 1-Methylnaphthalene	142	5.415	5.415	(1.117)	695929	40.0000	38.4
36 Hexachlorocyclopentadiene	237	5.447	5.447	(0.894)	121516	40.0000	34.0
205 2,3-Dichloroaniline	161	5.538	5.538	(0.909)	394580	40.0000	37.7
37 2,4,6-Trichlorophenol	196	5.528	5.528	(0.907)	221395	40.0000	39.2
38 2,4,5-Trichlorophenol	196	5.560	5.560	(0.912)	242060	40.0000	39.8
40 2-Chloronaphthalene	162	5.699	5.699	(0.935)	703515	40.0000	38.7
42 o-Nitroaniline	65	5.752	5.752	(0.944)	223053	40.0000	39.3
41 m-Nitroaniline	138	6.041	6.041	(0.991)	160966	40.0000	42.3
43 Dimethylphthalate	163	5.859	5.859	(0.961)	814618	40.0000	38.2
44 2,6-Dinitrotoluene	165	5.913	5.913	(0.970)	185488	40.0000	38.4
50 2,4-Dinitrotoluene	165	6.196	6.196	(1.017)	240405	40.0000	39.9
45 Acenaphthylene	152	5.998	5.998	(0.984)	1075805	40.0000	39.2
47 Acenaphthene	154	6.116	6.116	(1.004)	745492	40.0000	37.3
48 2,4-Dinitrophenol	184	6.111	6.111	(1.003)	87320	40.0000	43.4
49 Dibenzofuran	168	6.228	6.228	(1.022)	958390	40.0000	39.0
51 Diethylphthalate	149	6.335	6.335	(1.039)	837585	40.0000	38.3
52 4-Nitrophenol	139	6.127	6.127	(1.005)	132630	40.0000	44.3
53 Fluorene	166	6.464	6.464	(1.061)	823971	40.0000	38.7
54 4-Chlorophenylphenylether	204	6.442	6.442	(1.057)	375195	40.0000	37.4
55 2-Methyl-4,6-dinitrophenol	198	6.480	6.480	(0.916)	168059	40.0000	49.4
56 p-Nitroaniline	138	6.464	6.464	(1.061)	165733	40.0000	46.0
133 Diphenylamine	169	6.517	6.517	(0.921)	651520	40.0000	38.3
58 1,2-Diphenylhydrazine	77	6.549	6.549	(0.926)	830471	40.0000	37.5
61 4-Bromophenylphenylether	248	6.763	6.763	(0.956)	203209	40.0000	35.3
63 Hexachlorobenzene	284	6.822	6.822	(0.964)	210975	40.0000	36.7
65 Pentachlorophenol	266	6.940	6.940	(0.981)	123194	40.0000	41.4
206 n-Octadecane	57	6.918	6.918	(0.978)	711522	40.0000	37.5
68 Phenanthrene	178	7.089	7.089	(1.002)	1235271	40.0000	38.2
69 Anthracene	178	7.121	7.121	(1.007)	1158125	40.0000	37.0
72 Di-n-butylphthalate	149	7.357	7.357	(1.040)	1393010	40.0000	37.7
76 Fluoranthene	202	7.801	7.801	(1.103)	1153017	40.0000	39.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.945	7.945	(0.906)	1182358	40.0000	34.2
85 Butylbenzylphthalate	149	8.261	8.261	(0.942)	575706	40.0000	35.6
89 Benzo(a)anthracene	228	8.758	8.758	(0.999)	969483	40.0000	36.7
92 Chrysene	228	8.790	8.790	(1.002)	905364	40.0000	36.7
93 bis(2-Ethylhexyl)phthalate	149	8.630	8.630	(0.984)	805769	40.0000	36.2
94 Di-n-octylphthalate	149	9.191	9.191	(0.892)	1164521	40.0000	34.0
95 Benzo(b)fluoranthene	252	9.812	9.812	(0.952)	771408	40.0000	39.3
96 Benzo(k)fluoranthene	252	9.844	9.844	(0.955)	696710	40.0000	35.1
97 Benzo(a)pyrene	252	10.229	10.229	(0.993)	612909	40.0000	37.7
99 Indeno(1,2,3-cd)pyrene	276	12.037	12.037	(1.168)	536048	40.0000	38.5
100 Dibenzo(a,h)anthracene	278	12.042	12.042	(1.169)	441515	40.0000	38.8
101 Benzo(ghi)perylene	276	12.572	12.572	(1.220)	429475	40.0000	38.1
126 m-Dinitrobenzene	168	5.902	5.902	(0.968)	131560	40.0000	40.3
130 2,3,4,6-Tetrachlorophenol	232	6.303	6.303	(1.034)	187121	40.0000	36.3
143 Dinoseb	211	7.025	7.025	(0.993)	177407	40.0000	40.0
173 Carbazole	167	7.202	7.202	(1.018)	890330	40.0000	42.3
184 p-Benzoquinone	54	3.468	3.468	(0.871)	40369	40.0000	25.6
192 Methoxychlor	227	8.619	8.619	(0.983)	614438	40.0000	38.3
211 p-Toluidine	106	4.260	4.260	(1.070)	265601	40.0000	30.1
210 m-Toluidine	106	4.281	4.281	(1.075)	485025	40.0000	41.2
214 1,4-Dinitrobenzene	75	5.843	5.843	(0.959)	170549	40.0000	41.3
215 2-Ethoxyethanol	59	2.340	2.340	(0.588)	240806	40.0000	41.0
216 Methylenebis(2-chloroaniline)	231	8.683	8.683	(0.990)	133781	40.0000	48.6(Q)
179 Dibenzo(a,e)pyrene	302	16.706	16.706	(1.621)	165727	40.0000	29.4
26 Phthalic anhydride	104	5.383	5.383	(1.110)	206257	40.0000	57.0
M 222 Trichlorophenols	196				463455	80.0000	79.0
M 223 Tetrachlorophenols	232				187121	40.0000	36.3
M 224 Benzo(b,k)fluoranthene	252				1468118	80.0000	74.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD2.i/s031210.b/s2c1212.d
Date : 12-MAR-2010 18:54
Client ID: MEGAICV
Sample Info: IWBN100309-09,1|40PPM|1|SVMF|1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

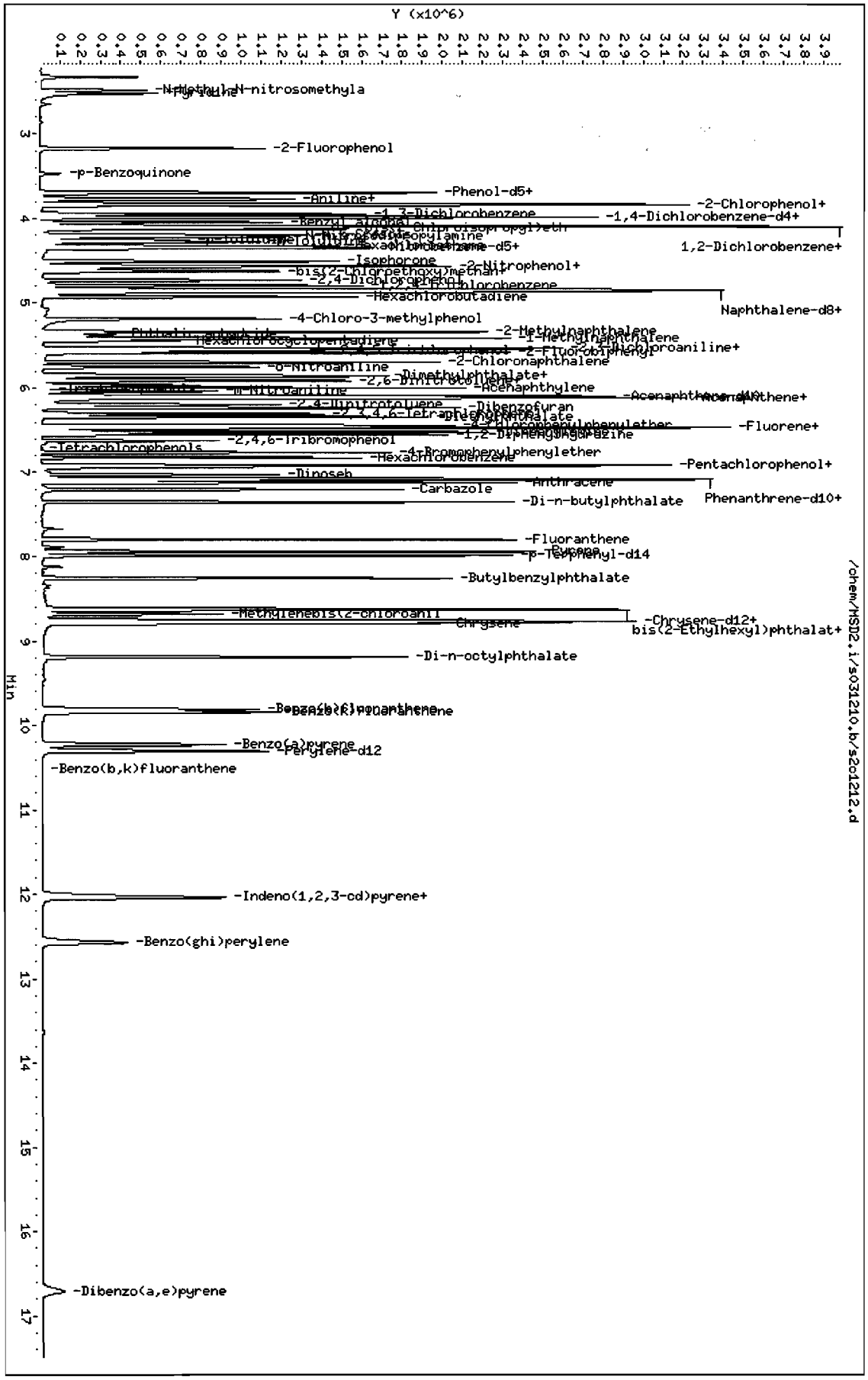

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 13-MAR-2010 00:00
Lab File ID: s2c1227.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 21:19
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86368	0.75564	0.75564	0.000	-12.50838	60.00000	Averaged
16 Acetophenone	1.37576	1.27079	1.27079	0.000	-7.62984	60.00000	Averaged
189 Caprolactam	0.08573	0.08566	0.08566	0.000	-0.08430	60.00000	Averaged
208 1,1'-Biphenyl	1.36982	1.31903	1.31903	0.000	-3.70836	60.00000	Averaged
207 Atrazine	0.04293	0.04369	0.04369	0.000	1.76064	60.00000	Averaged
77 Benzidine	0.33873	0.34309	0.34309	0.000	1.28761	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.26512	0.28321	0.28321	0.000	6.82159	60.00000	Averaged
102 1,4-Dioxane	0.34681	0.37068	0.37068	0.000	6.88370	60.00000	Averaged
103 Methyl methacrylate	0.20110	0.21548	0.21548	0.000	7.15166	60.00000	Averaged
104 Ethyl methacrylate	0.76185	0.80024	0.80024	0.000	5.03989	60.00000	Averaged
105 2-Picoline	1.18562	1.12632	1.12632	0.000	-5.00158	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45513	0.44655	0.44655	0.000	-1.88560	60.00000	Averaged
107 Methyl methanesulfonate	0.57842	0.59134	0.59134	0.000	2.23361	60.00000	Averaged
108 N-Nitrosodiethylamine	0.51094	0.49566	0.49566	0.000	-2.99036	60.00000	Averaged
109 Ethyl Methanesulfonate	0.63566	0.67502	0.67502	0.000	6.19142	60.00000	Averaged
110 Pentachloroethane	0.37569	0.42896	0.42896	0.000	14.17796	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.53211	0.49610	0.49610	0.000	-6.76619	60.00000	Averaged
113 N-Nitrosomorpholine	0.97127	0.96572	0.96572	0.000	-0.57150	60.00000	Averaged
114 o-Toluidine	1.89418	1.79540	1.79540	0.000	-5.21493	60.00000	Averaged
115 N-Nitrosopiperidine	0.13732	0.13231	0.13231	0.000	-3.64621	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.91646	0.89653	0.89653	0.000	-2.17525	60.00000	Averaged
118 2,6-Dichlorophenol	0.23643	0.22415	0.22415	0.000	-5.19240	60.00000	Averaged
119 Hexachloropropene	0.12163	0.15923	0.15923	0.000	30.90841	60.00000	Averaged
120 p-Phenylenediamine	0.21439	0.23161	0.23161	0.000	8.03359	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21777	0.20771	0.20771	0.000	-4.61876	60.00000	Averaged
122 Safrole	0.21234	0.21590	0.21590	0.000	1.67394	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.46025	0.44876	0.44876	0.000	-2.49607	60.00000	Averaged
124 Isosafrole	0.35814	0.40082	0.40082	0.000	11.91638	60.00000	Averaged
125 1,4-Naphthoquinone	0.33102	0.34506	0.34506	0.000	4.24213	60.00000	Averaged
127 Pentachlorobenzene	0.40528	0.38955	0.38955	0.000	-3.88134	60.00000	Averaged
128 1-Naphthylamine	0.93385	0.95763	0.95763	0.000	2.54649	60.00000	Averaged
129 2-Naphthylamine	1.00959	1.04476	1.04476	0.000	3.48365	60.00000	Averaged
131 5-Nitro-o-toluidine	0.26606	0.26753	0.26753	0.000	0.55219	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.13367	0.16141	0.16141	0.000	20.75009	60.00000	Averaged
137 Phenacetin	0.29810	0.30174	0.30174	0.000	1.22161	60.00000	Averaged
138 Diallate	0.26365	0.23898	0.23898	0.000	-9.35913	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 13-MAR-2010 00:00
Lab File ID: s2c1227.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 21:19
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.24728	0.26374	0.26374	0.000	6.65322	60.00000	Averaged
213 Trans Diallate	0.31018	0.28115	0.28115	0.000	-9.35913	60.00000	Averaged
140 4-Aminobiphenyl	0.60442	0.62924	0.62924	0.000	4.10653	60.00000	Averaged
141 Pentachloronitrobenzene	0.08460	0.08405	0.08405	0.000	-0.64552	60.00000	Averaged
142 Pronamide	0.30496	0.30856	0.30856	0.000	1.17857	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	45.34862	40.00000	0.01896	0.000	13.37156	60.00000	Linear
147 Methapyrilene	0.40497	0.44250	0.44250	0.000	9.26786	60.00000	Averaged
148 Isodrin	0.09920	0.08903	0.08903	0.000	-10.25242	60.00000	Averaged
149 Aramite	0.04916	0.04815	0.04815	0.000	-2.05353	60.00000	Averaged
150 Kepone	0.06534	0.05728	0.05728	0.000	-12.34233	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.38501	0.37365	0.37365	0.000	-2.95212	60.00000	Averaged
152 Chlorobenzilate	0.35608	0.32534	0.32534	0.000	-8.63249	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.50325	0.52227	0.52227	0.000	3.77811	60.00000	Averaged
155 2-Acetylaminofluorene	0.31776	0.33833	0.33833	0.000	6.47277	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.56755	0.51824	0.51824	0.000	-8.68907	60.00000	Averaged
158 3-Methylcholanthrene	0.40852	0.40827	0.40827	0.000	-0.06068	60.00000	Averaged

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s031210.b/s2c1227.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV
Inj Date : 13-MAR-2010 00:00
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100218-08.1|40 PPM|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m
Meth Date : 15-Mar-2010 14:05 ann00964 Quant Type: ISTD
Cal Date : 12-MAR-2010 21:19 Cal File: s2c1219.d
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.982	3.982	(1.000)	327425	40.0000	
* 29 Naphthalene-d8	136	4.843	4.843	(1.000)	1276866	40.0000	
* 46 Acenaphthene-d10	164	6.089	6.089	(1.000)	725322	40.0000	
* 67 Phenanthrene-d10	188	7.068	7.068	(1.000)	1248188	40.0000	
* 91 Chrysene-d12	240	8.758	8.758	(1.000)	903803	40.0000	
* 98 Perylene-d12	264	10.288	10.288	(1.000)	599145	40.0000	
209 Benzaldehyde	77	3.704	3.704	(0.930)	247417	40.0000	35.0
16 Acetophenone	105	4.228	4.228	(1.062)	416090	40.0000	36.9
189 Caprolactam	113	5.116	5.116	(1.056)	109373	40.0000	40.0
208 1,1'-Biphenyl	154	5.667	5.667	(0.931)	956718	40.0000	38.5
207 Atrazine	173	6.833	6.833	(0.967)	54534	40.0000	40.7
77 Benzidine	184	7.844	7.844	(0.896)	310084	40.0000	40.5
90 3,3'-Dichlorobenzidine	252	8.683	8.683	(0.991)	255965	40.0000	42.7
102 1,4-Dioxane	88	2.345	2.345	(0.589)	121371	40.0000	42.8
103 Methyl methacrylate	100	2.335	2.335	(0.586)	70554	40.0000	42.9
104 Ethyl methacrylate	69	2.693	2.693	(0.676)	262019	40.0000	42.0
105 2-Picoline	93	2.885	2.885	(0.725)	368786	40.0000	38.0
106 N-Nitrosomethylethylamine	88	2.928	2.928	(0.735)	146212	40.0000	39.2
107 Methyl methanesulfonate	80	3.078	3.078	(0.773)	193620	40.0000	40.9
108 N-Nitrosodiethylamine	102	3.313	3.313	(0.832)	162291	40.0000	38.8
109 Ethyl Methanesulfonate	79	3.468	3.468	(0.871)	221018	40.0000	42.5
110 Pentachloroethane	167	3.805	3.805	(0.956)	140451	40.0000	45.7
111 N-Nitrosopyrrolidine	100	4.217	4.217	(1.059)	162437	40.0000	37.3(Q)
113 N-Nitrosomorpholine	56	4.239	4.239	(1.064)	316200	40.0000	39.8
114 o-Toluidine	106	4.255	4.255	(1.068)	587859	40.0000	37.9
115 N-Nitrosopiperidine	114	4.458	4.458	(0.920)	168944	40.0000	38.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.699	4.699	(0.970)	1144746	40.0000	39.1
118 2,6-Dichlorophenol	162	4.886	4.886	(1.009)	286211	40.0000	37.9
119 Hexachloropropene	213	4.918	4.918	(1.015)	203309	40.0000	52.4
120 p-Phenylenediamine	108	5.121	5.121	(1.057)	295737	40.0000	43.2
121 N-Nitrosodi-n-butylamine	84	5.089	5.089	(1.051)	265219	40.0000	38.2
122 Safrole	162	5.255	5.255	(1.085)	275669	40.0000	40.7
123 1,2,4,5-Tetrachlorobenzene	216	5.458	5.458	(0.896)	325498	40.0000	39.0
124 Isosafrole	162	5.624	5.624	(0.924)	290720	40.0000	44.8
125 1,4-Naphthoquinone	158	5.811	5.811	(0.954)	250282	40.0000	41.7
127 Pentachlorobenzene	250	6.202	6.202	(1.018)	282550	40.0000	38.4
128 1-Naphthylamine	143	6.277	6.277	(1.031)	694587	40.0000	41.0
129 2-Naphthylamine	143	6.330	6.330	(1.040)	757785	40.0000	41.4
131 5-Nitro-o-toluidine	152	6.453	6.453	(1.060)	194043	40.0000	40.2
136 1,3,5-Trinitrobenzene	75	6.667	6.667	(0.943)	201473	40.0000	48.3
137 Phenacetin	108	6.699	6.699	(0.948)	376632	40.0000	40.5(Q)
138 Diallate	86	6.688	6.688	(0.946)	298288	40.0000	36.2
212 Cis Diallate	86	6.747	6.747	(0.955)	49379	6.00000	6.4
213 Trans Diallate	86	6.688	6.688	(0.946)	298288	34.0000	30.8
140 4-Aminobiphenyl	169	6.929	6.929	(0.980)	785409	40.0000	41.6
141 Pentachloronitrobenzene	237	6.945	6.945	(0.983)	104915	40.0000	39.7
142 Pronamide	173	6.934	6.934	(0.981)	385139	40.0000	40.5
146 4-Nitroquinoline-1-oxide	101	7.533	7.533	(1.066)	23665	40.0000	45.3
147 Methapyrilene	58	7.544	7.544	(1.067)	552326	40.0000	43.7
148 Isodrin	193	7.710	7.710	(1.091)	111124	40.0000	35.9
149 Aramite	185	7.935	7.935	(1.123)	60098	40.0000	39.2
150 Kepone	272	8.373	8.373	(1.185)	71493	40.0000	35.1
151 p-(Dimethylamino)azobenzene	120	8.063	8.063	(0.921)	337704	40.0000	38.8
152 Chlorobenzilate	251	8.074	8.074	(0.922)	294042	40.0000	36.5
153 3,3'-Dimethylbenzidine	212	8.277	8.277	(0.945)	472026	40.0000	41.5
155 2-Acetylaminofluorene	181	8.464	8.464	(0.966)	305783	40.0000	42.6
157 7,12Dimethylbenz(a)anthracene	256	9.764	9.764	(0.949)	310498	40.0000	36.5
158 3-Methylcholanthrene	268	10.668	10.668	(1.037)	244613	40.0000	40.0(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s031210.b/s2c1227.d
Date : 13-MAR-2010 00:00
Client ID: APICV
Sample Info: IWBN100218-08,1|40 PPM|1|SVMF|1|APICV
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

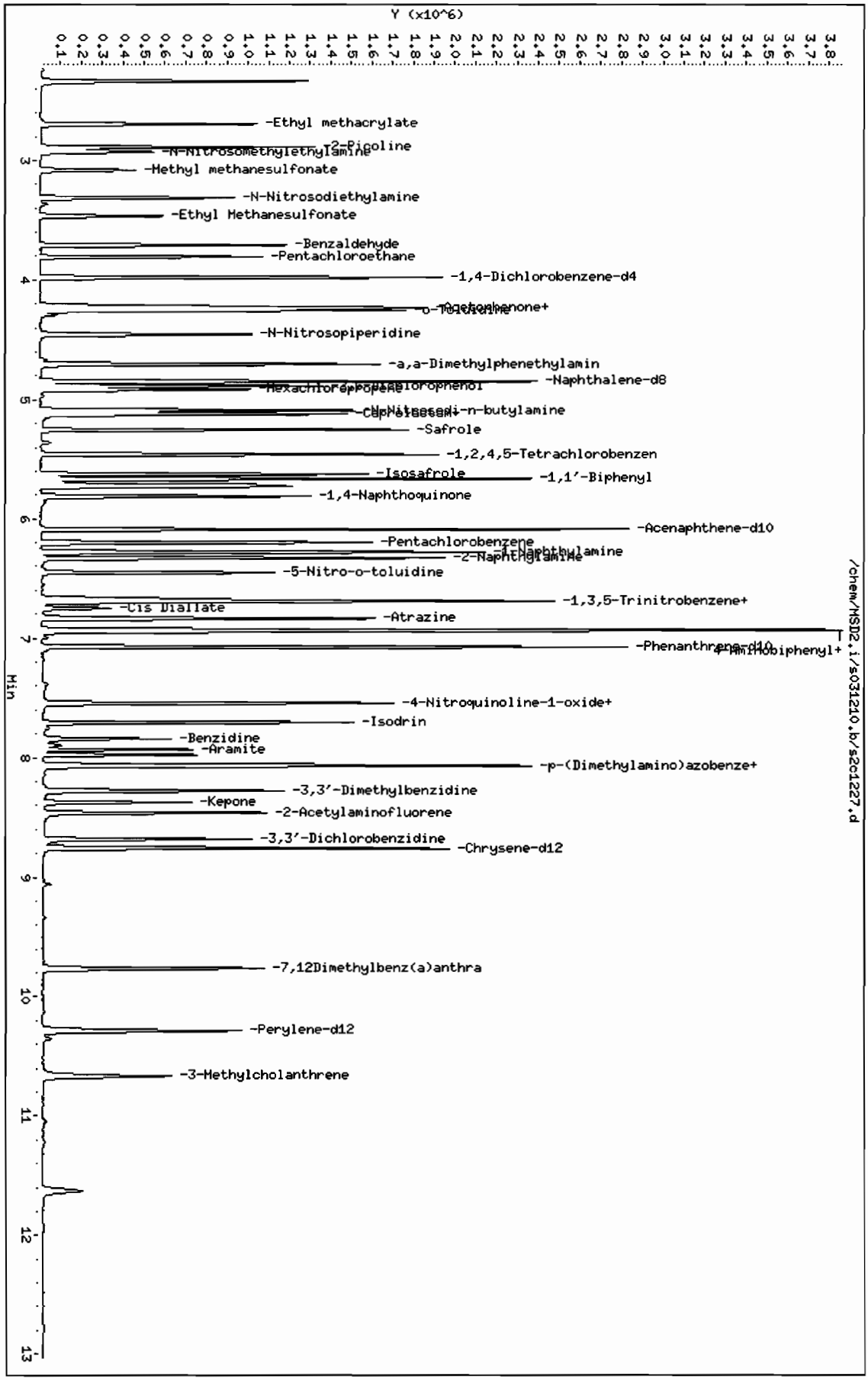

Page 1

Data File: /chem/MSD2.i/s032510.b/s2c2502.d
Report Date: 25-Mar-2010 18:37

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i
Lab File ID: s2c2502.d
Analysis Type:
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m

Injection Date: 25-MAR-2010 14:58
Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Init. Cal. Times: 15:04 05:54

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 3 2-Fluorophenol	0.95245	0.87597	0.87597	0.000	-8.02990	60.00000	Averaged	
$ 5 Phenol-d5	1.17285	1.12329	1.12329	0.000	-4.22593	60.00000	Averaged	
$ 20 Nitrobenzene-d5	0.28950	0.29590	0.29590	0.000	2.20803	60.00000	Averaged	
$ 39 2-Fluorobiphenyl	1.10050	1.03611	1.03611	0.000	-5.85130	60.00000	Averaged	
$ 60 2,4,6-Tribromophenol	0.11831	0.11776	0.11776	0.000	-0.46867	60.00000	Averaged	
$ 81 p-Terphenyl-d14	0.72951	0.66477	0.66477	0.000	-8.87405	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.54740	0.49638	0.49638	0.000	-9.32043	60.00000	Averaged	
2 Pyridine	0.77821	0.69896	0.69896	0.000	-10.18355	60.00000	Averaged	
4 Aniline	0.57419	0.58228	0.58228	0.000	1.40795	60.00000	Averaged	
6 Phenol	1.20923	1.12490	1.12490	0.001	-6.97393	20.00000	Averaged	ccc
7 bis(2-Chloroethyl) ether	1.03880	1.07326	1.07326	0.000	3.31782	60.00000	Averaged	
8 2-Chlorophenol	1.07545	1.03256	1.03256	0.000	-3.98808	60.00000	Averaged	
203 n-Decane	1.83655	2.20878	2.20878	0.000	20.26806	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.27994	1.26050	1.26050	0.000	-1.51895	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.35709	1.37572	1.37572	0.001	1.37246	20.00000	Averaged	ccc
13 1,2-Dichlorobenzene	1.25272	1.24127	1.24127	0.000	-0.91352	60.00000	Averaged	
14 bis(2-Chloroisopropyl)ether	2.53958	2.99698	2.99698	0.000	18.01109	60.00000	Averaged	
12 Benzyl alcohol	0.56959	0.37159	0.37159	0.000	-34.76072	60.00000	Averaged	
15 o-Cresol	0.85386	0.84296	0.84296	0.000	-1.27671	60.00000	Averaged	
18 m,p-Cresols	1.01734	1.01386	1.01386	0.000	-0.34193	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.75875	0.76825	0.76825	0.050	1.25207	60.00000	Averaged	spcc
19 Hexachloroethane	0.53630	0.57290	0.57290	0.000	6.82288	60.00000	Averaged	
21 Nitrobenzene	0.27250	0.26891	0.26891	0.000	-1.31734	60.00000	Averaged	
22 Isophorone	0.49283	0.48953	0.48953	0.000	-0.66834	60.00000	Averaged	
23 2-Nitrophenol	0.14268	0.13177	0.13177	0.001	-7.64653	20.00000	Averaged	ccc
24 2,4-Dimethylphenol	0.25525	0.19650	0.19650	0.000	-23.01624	60.00000	Averaged	
25 bis(2-Chloroethoxy)methane	0.28272	0.26534	0.26534	0.000	-6.14789	60.00000	Averaged	
26 2,4-Dichlorophenol	0.20229	0.19619	0.19619	0.001	-3.01326	20.00000	Averaged	ccc
27 Benzoic acid	0.12590	0.12253	0.12253	0.000	-2.67806	60.00000	Averaged	
28 1,2,4-Trichlorobenzene	0.24729	0.24776	0.24776	0.000	0.18948	60.00000	Averaged	
30 Naphthalene	0.79318	0.75315	0.75315	0.000	-5.04617	60.00000	Averaged	
204 alpha-Terpineol	0.27145	0.29788	0.29788	0.000	9.73454	60.00000	Averaged	
31 4-Chloroaniline	0.34451	0.33033	0.33033	0.000	-4.11593	60.00000	Averaged	
32 Hexachlorobutadiene	0.14968	0.16097	0.16097	0.001	7.54477	20.00000	Averaged	ccc
33 4-Chloro-3-methylphenol	0.21753	0.21782	0.21782	0.001	0.13460	20.00000	Averaged	ccc
34 2-Methylnaphthalene	0.50978	0.50755	0.50755	0.000	-0.43711	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 25-MAR-2010 14:58
Lab File ID: s2c2502.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.50131	0.50005	0.50005	0.000	-0.25089	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.19037	0.13452	0.13452	0.050	-29.33550	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.55748	0.52809	0.52809	0.000	-5.27201	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.30076	0.28456	0.28456	0.001	-5.38472	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.32450	0.28045	0.28045	0.000	-13.57585	60.00000	Averaged	
40	2-Chloronaphthalene	0.96947	0.91561	0.91561	0.000	-5.55517	60.00000	Averaged	
42	o-Nitroaniline	0.30226	0.30252	0.30252	0.000	0.08406	60.00000	Averaged	
41	m-Nitroaniline	32.62804	40.00000	0.16105	0.000	-18.42990	60.00000	Linear	
43	Dimethylphthalate	1.13752	1.13653	1.13653	0.000	-0.08708	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.25727	0.24975	0.24975	0.000	-2.92514	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.32134	0.31968	0.31968	0.000	-0.51697	60.00000	Averaged	
45	Acenaphthylene	1.46137	1.41170	1.41170	0.000	-3.39885	60.00000	Averaged	
47	Acenaphthene	1.06534	1.05001	1.05001	0.001	-1.43850	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	36.54440	40.00000	0.09172	0.050	-8.63899	60.00000	Linear	spcc
49	Dibenzofuran	1.30868	1.27016	1.27016	0.000	-2.94365	60.00000	Averaged	
51	Diethylphthalate	1.16673	1.23151	1.23151	0.000	5.55218	60.00000	Averaged	
52	4-Nitrophenol	0.15969	0.14103	0.14103	0.050	-11.69003	60.00000	Averaged	spcc
53	Fluorene	1.13544	1.17191	1.17191	0.000	3.21176	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.53496	0.55146	0.55146	0.000	3.08523	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	33.26735	40.00000	0.07901	0.000	-16.83163	60.00000	Linear	
56	p-Nitroaniline	32.55522	40.00000	0.14648	0.000	-18.61194	60.00000	Linear	
133	Diphenylamine	0.52058	0.47999	0.47999	0.001	-7.79634	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.67800	0.63852	0.63852	0.000	-5.82362	60.00000	Averaged	
61	4-Bromophenylphenylether	0.17599	0.16999	0.16999	0.000	-3.41352	60.00000	Averaged	
63	Hexachlorobenzene	0.17573	0.17156	0.17156	0.000	-2.37341	60.00000	Averaged	
65	Pentachlorophenol	0.09101	0.08300	0.08300	0.001	-8.80165	20.00000	Averaged	ccc
206	n-Octadecane	0.58034	0.61624	0.61624	0.000	6.18718	60.00000	Averaged	
68	Phenanthrene	0.98866	0.97868	0.97868	0.000	-1.00878	60.00000	Averaged	
69	Anthracene	0.95642	0.96098	0.96098	0.000	0.47736	60.00000	Averaged	
72	Di-n-butylphthalate	1.13150	1.22966	1.22966	0.000	8.67454	60.00000	Averaged	
76	Fluoranthene	0.89301	0.98167	0.98167	0.001	9.92823	20.00000	Averaged	ccc
79	Pyrene	1.30387	1.16251	1.16251	0.000	-10.84187	60.00000	Averaged	
85	Butylbenzylphthalate	0.61006	0.61120	0.61120	0.000	0.18661	60.00000	Averaged	
89	Benzo(a)anthracene	0.99826	0.94218	0.94218	0.000	-5.61732	60.00000	Averaged	
92	Chrysene	0.93128	0.95053	0.95053	0.000	2.06689	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.84005	0.84837	0.84837	0.000	0.99125	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 25-MAR-2010 14:58
Lab File ID: s2c2502.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.90697	2.03760	2.03760	0.001	6.84984	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.09105	1.11687	1.11687	0.000	2.36699	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.10378	1.16702	1.16702	0.000	5.72907	60.00000	Averaged	
	97 Benzo(a)pyrene	0.90429	0.94719	0.94719	0.001	4.74411	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.77408	0.83314	0.83314	0.000	7.62959	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.63240	0.69595	0.69595	0.000	10.04847	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.62698	0.65465	0.65465	0.000	4.41303	60.00000	Averaged	
	126 m-Dinitrobenzene	0.17415	0.16451	0.16451	0.000	-5.53223	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27504	0.26900	0.26900	0.000	-2.19545	60.00000	Averaged	
	143 Dinoseb	34.99569	40.00000	0.11508	0.000	-12.51076	60.00000	Linear	
	173 Carbazole	27.32328	40.00000	0.40514	0.000	-31.69179	60.00000	Linear	
	184 p-Benzoquinone	34.91975	40.00000	0.18134	0.000	-12.70061	60.00000	Linear	
	192 Methoxychlor	0.60564	0.59442	0.59442	0.000	-1.85274	60.00000	Averaged	
	211 p-Toluidine	1.06068	1.11491	1.11491	0.000	5.11233	60.00000	Averaged	
	210 m-Toluidine	1.41165	1.29877	1.29877	0.000	-7.99572	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.22002	0.22926	0.22926	0.000	4.19859	60.00000	Averaged	
	215 2-Ethoxyethanol	0.70592	0.61566	0.61566	0.000	-12.78708	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	32.21884	40.00000	0.07864	0.000	-19.45291	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	0.31408	0.32170	0.32170	0.000	2.42892	60.00000	Averaged	
	26 Phthalic anhydride	45.67599	40.00000	0.11151	0.000	14.18998	60.00000	Linear	
M	222 Trichlorophenols	0.31263	0.28251	0.28251	0.000	-9.63579	60.00000	Averaged	
M	223 Tetrachlorophenols	0.27504	0.26900	0.26900	0.000	-2.19545	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.09742	1.14195	1.14195	0.000	4.05779	60.00000	Averaged	

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Data file : /chem/MSD2.i/s032510.b/s2c2502.d
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGACVS
Inj Date : 25-MAR-2010 14:58
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100309-09.1|40PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.843	3.843	(1.000)	165409	40.0000	
* 29 Naphthalene-d8	136	4.704	4.704	(1.000)	774230	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	421050	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	753174	40.0000	
* 91 Chrysene-d12	240	8.603	8.603	(1.000)	671706	40.0000	
* 98 Perylene-d12	264	10.042	10.042	(1.000)	435860	40.0000	
$ 3 2-Fluorophenol	112	3.035	3.035	(0.790)	144893	40.0000	36.8
$ 5 Phenol-d5	99	3.565	3.565	(0.928)	185802	40.0000	38.3
$ 20 Nitrobenzene-d5	82	4.207	4.207	(0.894)	229091	40.0000	40.9
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	436254	40.0000	37.6
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.090)	49581	40.0000	39.8
$ 81 p-Terphenyl-d14	244	7.860	7.860	(0.914)	446531	40.0000	36.4
1 N-Methyl-N-nitrosomethylamine	74	2.351	2.351	(0.612)	82106	40.0000	36.3
2 Pyridine	79	2.383	2.383	(0.620)	115615	40.0000	35.9
4 Aniline	66	3.629	3.629	(0.944)	96314	40.0000	40.6
6 Phenol	94	3.570	3.570	(0.929)	186069	40.0000	37.2
7 bis(2-Chloroethyl) ether	63	3.645	3.645	(0.948)	177527	40.0000	41.3
8 2-Chlorophenol	128	3.709	3.709	(0.965)	170795	40.0000	38.4
203 n-Decane	43	3.693	3.693	(0.961)	365352	40.0000	48.1
9 1,3-Dichlorobenzene	146	3.811	3.811	(0.992)	208498	40.0000	39.4
11 1,4-Dichlorobenzene	146	3.854	3.854	(1.003)	227556	40.0000	40.5
13 1,2-Dichlorobenzene	146	3.955	3.955	(1.029)	205318	40.0000	39.6
14 bis(2-Chloroisopropyl)ether	45	3.987	3.987	(1.038)	495728	40.0000	47.2
12 Benzyl alcohol	108	3.912	3.912	(1.018)	61465	40.0000	26.1
15 o-Cresol	107	3.961	3.961	(1.031)	139433	40.0000	39.5
18 m,p-Cresols	107	4.062	4.062	(1.057)	167702	40.0000	39.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.084	4.084	(1.063)	127076	40.0000	40.5
19 Hexachloroethane	117	4.185	4.185	(1.089)	94762	40.0000	42.7
21 Nitrobenzene	77	4.217	4.217	(0.897)	208197	40.0000	39.5
22 Isophorone	82	4.372	4.372	(0.930)	379012	40.0000	39.7
23 2-Nitrophenol	139	4.431	4.431	(0.942)	102018	40.0000	36.9
24 2,4-Dimethylphenol	122	4.426	4.426	(0.941)	152137	40.0000	30.8
25 bis(2-Chloroethoxy)methane	93	4.490	4.490	(0.955)	205435	40.0000	37.5
26 2,4-Dichlorophenol	162	4.592	4.592	(0.976)	151897	40.0000	38.8
27 Benzoic acid	105	4.479	4.479	(0.952)	94865	40.0000	38.9
28 1,2,4-Trichlorobenzene	180	4.656	4.656	(0.990)	191820	40.0000	40.1
30 Naphthalene	128	4.720	4.720	(1.003)	583113	40.0000	38.0
204 alpha-Terpineol	59	4.699	4.699	(0.999)	230626	40.0000	43.9
31 4-Chloroaniline	127	4.736	4.736	(1.007)	255750	40.0000	38.4
32 Hexachlorobutadiene	225	4.784	4.784	(1.017)	124630	40.0000	43.0
33 4-Chloro-3-methylphenol	107	5.052	5.052	(1.074)	168644	40.0000	40.0
34 2-Methylnaphthalene	142	5.201	5.201	(1.106)	392964	40.0000	39.8
35 1-Methylnaphthalene	142	5.271	5.271	(1.121)	387157	40.0000	39.9
36 Hexachlorocyclopentadiene	237	5.303	5.303	(0.891)	56640	40.0000	28.3
205 2,3-Dichloroaniline	161	5.394	5.394	(0.906)	222351	40.0000	37.9
37 2,4,6-Trichlorophenol	196	5.389	5.389	(0.906)	119816	40.0000	37.8
38 2,4,5-Trichlorophenol	196	5.415	5.415	(0.910)	118082	40.0000	34.6
40 2-Chloronaphthalene	162	5.549	5.549	(0.933)	385518	40.0000	37.8
42 o-Nitroaniline	65	5.608	5.608	(0.942)	127374	40.0000	40.0
41 m-Nitroaniline	138	5.902	5.902	(0.992)	67808	40.0000	32.6
43 Dimethylphthalate	163	5.720	5.720	(0.961)	478534	40.0000	40.0
44 2,6-Dinitrotoluene	165	5.774	5.774	(0.970)	105156	40.0000	38.8
50 2,4-Dinitrotoluene	165	6.063	6.063	(1.019)	134602	40.0000	39.8
45 Acenaphthylene	152	5.854	5.854	(0.984)	594397	40.0000	38.6
47 Acenaphthene	154	5.977	5.977	(1.004)	442108	40.0000	39.4
48 2,4-Dinitrophenol	184	5.977	5.977	(1.004)	38618	40.0000	36.5
49 Dibenzofuran	168	6.089	6.089	(1.023)	534801	40.0000	38.8
51 Diethylphthalate	149	6.202	6.202	(1.042)	518528	40.0000	42.2
52 4-Nitrophenol	139	5.998	5.998	(1.008)	59379	40.0000	35.3
53 Fluorene	166	6.325	6.325	(1.063)	493433	40.0000	41.3
54 4-Chlorophenylphenylether	204	6.303	6.303	(1.059)	232193	40.0000	41.2
55 2-Methyl-4,6-dinitrophenol	198	6.341	6.341	(0.914)	59510	40.0000	33.3
56 p-Nitroaniline	138	6.325	6.325	(1.063)	61677	40.0000	32.6
133 Diphenylamine	169	6.383	6.383	(0.920)	361519	40.0000	36.9
58 1,2-Diphenylhydrazine	77	6.416	6.416	(0.924)	480913	40.0000	37.7
61 4-Bromophenylphenylether	248	6.630	6.630	(0.955)	128029	40.0000	38.6
63 Hexachlorobenzene	284	6.688	6.688	(0.964)	129217	40.0000	39.0
65 Pentachlorophenol	266	6.811	6.811	(0.982)	62511	40.0000	36.5
206 n-Octadecane	57	6.795	6.795	(0.979)	464138	40.0000	42.5
68 Phenanthrene	178	6.956	6.956	(1.002)	737120	40.0000	39.6
69 Anthracene	178	6.988	6.988	(1.007)	723787	40.0000	40.2
72 Di-n-butylphthalate	149	7.234	7.234	(1.042)	926145	40.0000	43.5
76 Fluoranthene	202	7.672	7.672	(1.106)	739366	40.0000	44.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.812	7.812	(0.908)	780864	40.0000	35.7
85 Butylbenzylphthalate	149	8.127	8.127	(0.945)	410547	40.0000	40.1
89 Benzo(a)anthracene	228	8.592	8.592	(0.999)	632868	40.0000	37.8
92 Chrysene	228	8.625	8.625	(1.002)	638479	40.0000	40.8
93 bis(2-Ethylhexyl)phthalate	149	8.485	8.485	(0.986)	569858	40.0000	40.4
94 Di-n-octylphthalate	149	9.010	9.010	(0.897)	888108	40.0000	42.7
95 Benzo(b)fluoranthene	252	9.582	9.582	(0.954)	486799	40.0000	40.9
96 Benzo(k)fluoranthene	252	9.614	9.614	(0.957)	508658	40.0000	42.3
97 Benzo(a)pyrene	252	9.978	9.978	(0.994)	412844	40.0000	41.9
99 Indeno(1,2,3-cd)pyrene	276	11.657	11.657	(1.161)	363132	40.0000	43.0
100 Dibenzo(a,h)anthracene	278	11.663	11.663	(1.161)	303335	40.0000	44.0
101 Benzo(ghi)perylene	276	12.155	12.155	(1.210)	285337	40.0000	41.8
126 m-Dinitrobenzene	168	5.758	5.758	(0.968)	69269	40.0000	37.8
130 2,3,4,6-Tetrachlorophenol	232	6.164	6.164	(1.036)	113264	40.0000	39.1
143 Dinoseb	211	6.897	6.897	(0.994)	86673	40.0000	35.0
173 Carbazole	167	7.073	7.073	(1.019)	305139	40.0000	27.3
184 p-Benzoquinone	54	3.335	3.335	(0.868)	29995	40.0000	34.9
192 Methoxychlor	227	8.469	8.469	(0.984)	399276	40.0000	39.2
211 p-Toluidine	106	4.121	4.121	(1.072)	184416	40.0000	42.0
210 m-Toluidine	106	4.142	4.142	(1.078)	214829	40.0000	36.8
214 1,4-Dinitrobenzene	75	5.704	5.704	(0.959)	96531	40.0000	41.7
215 2-Ethoxyethanol	59	2.195	2.195	(0.571)	101835	40.0000	34.9
216 Methylenebis(2-chloroaniline)	231	8.528	8.528	(0.991)	52822	40.0000	32.2
179 Dibenzo(a,e)pyrene	302	15.995	15.995	(1.593)	140218	40.0000	41.0
26 Phthalic anhydride	104	5.239	5.239	(1.114)	86335	40.0000	45.7
M 222 Trichlorophenols	196				237898	80.0000	72.3
M 223 Tetrachlorophenols	232				113264	40.0000	39.1
M 224 Benzo(b,k)fluoranthene	252				995457	80.0000	83.2

Data File: /chem/MSD2.i/s032510.b/s2c2502.d

Date : 25-MAR-2010 14:58

Client ID: MEGACVS

Sample Info: |WBN100309-09.1|40PPM|1|SVMF|1|MEGACVS

Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: ACS1

Column diameter: 0.20

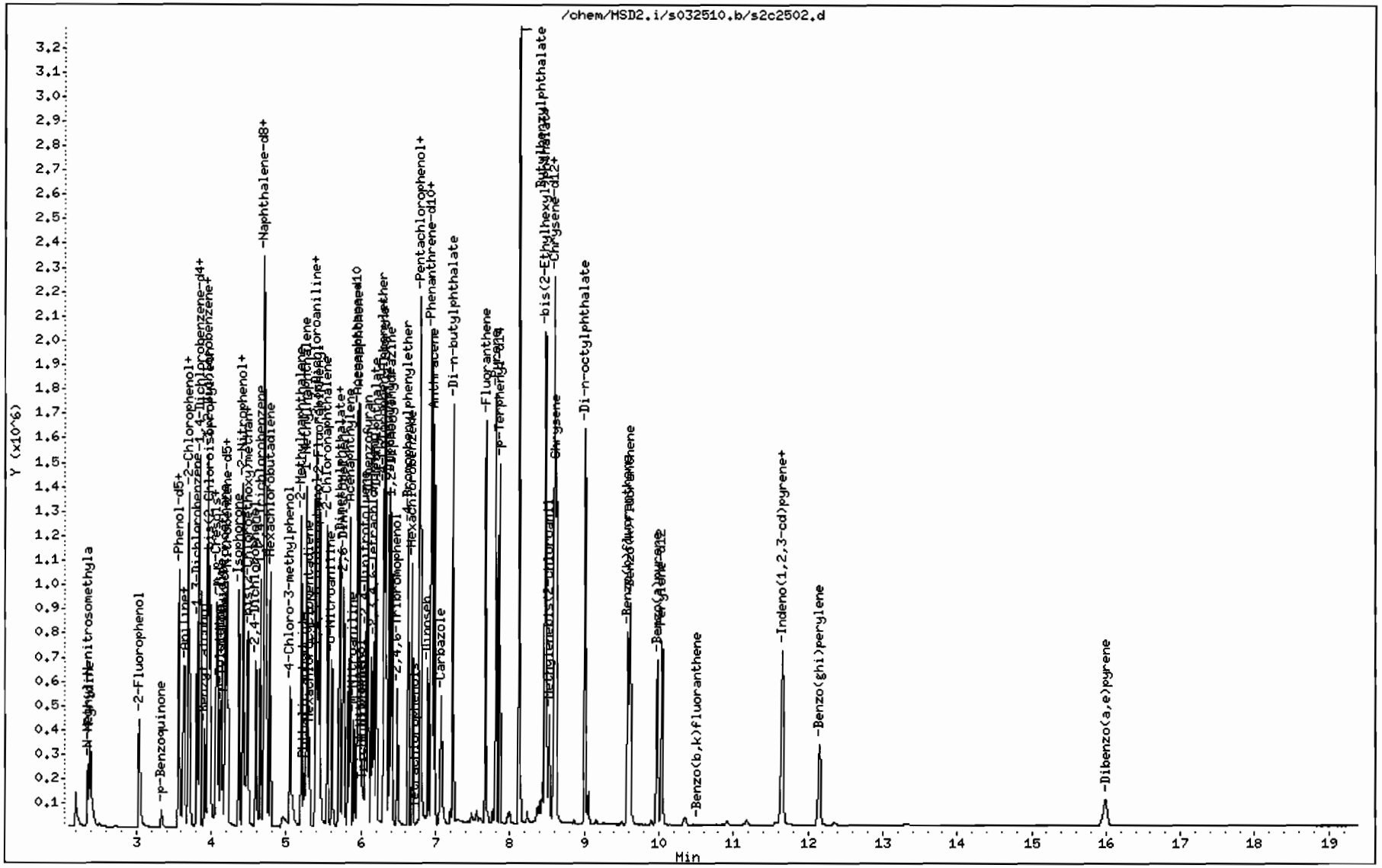

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 25-MAR-2010 15:24
Lab File ID: s2c2503.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86368	0.82595	0.82595	0.000	-4.36827	60.00000	Averaged
16 Acetophenone	1.37576	1.39964	1.39964	0.000	1.73519	60.00000	Averaged
189 Caprolactam	0.08573	0.07947	0.07947	0.000	-7.29821	60.00000	Averaged
208 1,1'-Biphenyl	1.36982	1.28211	1.28211	0.000	-6.40347	60.00000	Averaged
207 Atrazine	0.04293	0.04181	0.04181	0.000	-2.62955	60.00000	Averaged
77 Benzidine	0.33873	0.14608	0.14608	0.000	-56.87488	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.26512	0.24055	0.24055	0.000	-9.26747	60.00000	Averaged
102 1,4-Dioxane	0.34681	0.28362	0.28362	0.000	-18.22082	60.00000	Averaged
103 Methyl methacrylate	0.20110	0.15934	0.15934	0.000	-20.76479	60.00000	Averaged
104 Ethyl methacrylate	0.76185	0.63337	0.63337	0.000	-16.86372	60.00000	Averaged
105 2-Picoline	1.18562	1.00087	1.00087	0.000	-15.58295	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45513	0.40020	0.40020	0.000	-12.07013	60.00000	Averaged
107 Methyl methanesulfonate	0.57842	0.58641	0.58641	0.000	1.38068	60.00000	Averaged
108 N-Nitrosodiethylamine	0.51094	0.47374	0.47374	0.000	-7.28013	60.00000	Averaged
109 Ethyl Methanesulfonate	0.63566	0.59128	0.59128	0.000	-6.98202	60.00000	Averaged
110 Pentachloroethane	0.37569	0.36987	0.36987	0.000	-1.54829	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.53211	0.50077	0.50077	0.000	-5.89023	60.00000	Averaged
113 N-Nitrosomorpholine	0.97127	1.15052	1.15052	0.000	18.45494	60.00000	Averaged
114 o-Toluidine	1.89418	1.77311	1.77311	0.000	-6.39156	60.00000	Averaged
115 N-Nitrosopiperidine	0.13732	0.12103	0.12103	0.000	-11.86331	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.91646	0.93605	0.93605	0.000	2.13699	60.00000	Averaged
118 2,6-Dichlorophenol	0.23643	0.22476	0.22476	0.000	-4.93539	60.00000	Averaged
119 Hexachloropropene	0.12163	0.11045	0.11045	0.000	-9.19574	60.00000	Averaged
120 p-Phenylenediamine	0.21439	0.19248	0.19248	0.000	-10.21880	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21777	0.20576	0.20576	0.000	-5.51376	60.00000	Averaged
122 Safrole	0.21234	0.20777	0.20777	0.000	-2.15308	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.46025	0.43121	0.43121	0.000	-6.30912	60.00000	Averaged
124 Isosafrole	0.35814	0.32101	0.32101	0.000	-10.36573	60.00000	Averaged
125 1,4-Naphthoquinone	0.33102	0.32063	0.32063	0.000	-3.13925	60.00000	Averaged
127 Pentachlorobenzene	0.40528	0.40364	0.40364	0.000	-0.40394	60.00000	Averaged
128 1-Naphthylamine	0.93385	0.89241	0.89241	0.000	-4.43697	60.00000	Averaged
129 2-Naphthylamine	1.00959	0.90471	0.90471	0.000	-10.38844	60.00000	Averaged
131 5-Nitro-o-toluidine	0.26606	0.24027	0.24027	0.000	-9.69205	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.13367	0.14012	0.14012	0.000	4.82440	60.00000	Averaged
137 Phenacetin	0.29810	0.28506	0.28506	0.000	-4.37536	60.00000	Averaged
138 Diallate	0.26365	0.23269	0.23269	0.000	-11.74303	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 25-MAR-2010 15:24
Lab File ID: s2c2503.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.24728	0.20546	0.20546	0.000	-16.91481	60.00000	Averaged
213 Trans Diallate	0.31018	0.27375	0.27375	0.000	-11.74303	60.00000	Averaged
140 4-Aminobiphenyl	0.60442	0.48074	0.48074	0.000	-20.46231	60.00000	Averaged
141 Pentachloronitrobenzene	0.08460	0.09838	0.09838	0.000	16.28929	60.00000	Averaged
142 Pronamide	0.30496	0.33825	0.33825	0.000	10.91422	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	22.68609	40.00000	0.00835	0.000	-43.28478	60.00000	Linear
147 Methapyrilene	0.40497	0.37812	0.37812	0.000	-6.63103	60.00000	Averaged
148 Isodrin	0.09920	0.10423	0.10423	0.000	5.07078	60.00000	Averaged
149 Aramite	0.04916	0.05110	0.05110	0.000	3.95637	60.00000	Averaged
150 Kepone	0.06534	0.06230	0.06230	0.000	-4.64850	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.38501	0.33523	0.33523	0.000	-12.93056	60.00000	Averaged
152 Chlorobenzilate	0.35608	0.35158	0.35158	0.000	-1.26192	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.50325	0.35628	0.35628	0.000	-29.20420	60.00000	Averaged
155 2-Acetylaminofluorene	0.31776	0.30347	0.30347	0.000	-4.49685	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.56755	0.59483	0.59483	0.000	4.80722	60.00000	Averaged
158 3-Methylcholanthrene	0.40852	0.39808	0.39808	0.000	-2.55619	60.00000	Averaged

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2503.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APCVS
Inj Date : 25-MAR-2010 15:24
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100218-08.1|40 PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:33 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.843	3.843	(1.000)	236448	40.0000	
* 29 Naphthalene-d8	136	4.704	4.704	(1.000)	987632	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	625947	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	1166733	40.0000	
* 91 Chrysene-d12	240	8.592	8.592	(1.000)	946677	40.0000	
* 98 Perylene-d12	264	10.031	10.031	(1.000)	573253	40.0000	
209 Benzaldehyde	77	3.570	3.570	(0.929)	195294	40.0000	38.2
16 Acetophenone	105	4.094	4.094	(1.065)	330941	40.0000	40.7
189 Caprolactam	113	4.982	4.982	(1.059)	78490	40.0000	37.1
208 1,1'-Biphenyl	154	5.522	5.522	(0.928)	802531	40.0000	37.4
207 Atrazine	173	6.710	6.710	(0.967)	48776	40.0000	38.9
77 Benzidine	184	7.720	7.720	(0.899)	138287	40.0000	17.2
90 3,3'-Dichlorobenzidine	252	8.528	8.528	(0.993)	227726	40.0000	36.3
102 1,4-Dioxane	88	2.195	2.195	(0.571)	67061	40.0000	32.7
103 Methyl methacrylate	100	2.190	2.190	(0.570)	37676	40.0000	31.7
104 Ethyl methacrylate	69	2.559	2.559	(0.666)	149759	40.0000	33.2
105 2-Picoline	93	2.752	2.752	(0.716)	236653	40.0000	33.8
106 N-Nitrosomethylethylamine	88	2.794	2.794	(0.727)	94626	40.0000	35.2
107 Methyl methanesulfonate	80	2.949	2.949	(0.768)	138655	40.0000	40.6
108 N-Nitrosodiethylamine	102	3.179	3.179	(0.827)	112015	40.0000	37.1
109 Ethyl Methanesulfonate	79	3.335	3.335	(0.868)	139807	40.0000	37.2
110 Pentachloroethane	167	3.666	3.666	(0.954)	87456	40.0000	39.4
111 N-Nitrosopyrrolidine	100	4.083	4.083	(1.063)	118405	40.0000	37.6(Q)
113 N-Nitrosomorpholine	56	4.099	4.099	(1.067)	272037	40.0000	47.4
114 o-Toluidine	106	4.121	4.121	(1.072)	419249	40.0000	37.4
115 N-Nitrosopiperidine	114	4.319	4.319	(0.918)	119531	40.0000	35.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.559	4.559	(0.969)	924471	40.0000	40.8
118 2,6-Dichlorophenol	162	4.747	4.747	(1.009)	221979	40.0000	38.0
119 Hexachloropropene	213	4.773	4.773	(1.015)	109080	40.0000	36.3
120 p-Phenylenediamine	108	4.987	4.987	(1.060)	190100	40.0000	35.9
121 N-Nitrosodi-n-butylamine	84	4.950	4.950	(1.052)	203217	40.0000	37.8
122 Safrole	162	5.116	5.116	(1.088)	205199	40.0000	39.1
123 1,2,4,5-Tetrachlorobenzene	216	5.314	5.314	(0.893)	269917	40.0000	37.5
124 Isosafrole	162	5.485	5.485	(0.922)	200938	40.0000	35.8
125 1,4-Naphthoquinone	158	5.672	5.672	(0.953)	200697	40.0000	38.7
127 Pentachlorobenzene	250	6.062	6.062	(1.019)	252660	40.0000	39.8
128 1-Naphthylamine	143	6.143	6.143	(1.032)	558602	40.0000	38.2
129 2-Naphthylamine	143	6.196	6.196	(1.041)	566298	40.0000	35.8
131 5-Nitro-o-toluidine	152	6.319	6.319	(1.062)	150397	40.0000	36.1
136 1,3,5-Trinitrobenzene	75	6.544	6.544	(0.943)	163487	40.0000	41.9
137 Phenacetin	108	6.571	6.571	(0.947)	332587	40.0000	38.2(Q)
138 Diallate	86	6.554	6.554	(0.944)	271489	40.0000	35.3
212 Cis Diallate	86	6.619	6.619	(0.954)	35957	6.00000	5.0
213 Trans Diallate	86	6.554	6.554	(0.944)	271489	34.0000	30.0
140 4-Aminobiphenyl	169	6.801	6.801	(0.980)	560896	40.0000	31.8
141 Pentachloronitrobenzene	237	6.817	6.817	(0.982)	114784	40.0000	46.5
142 Pronamide	173	6.811	6.811	(0.981)	394646	40.0000	44.4
146 4-Nitroquinoline-1-oxide	101	7.410	7.410	(1.068)	9744	40.0000	22.7
147 Methapyrilene	58	7.421	7.421	(1.069)	441161	40.0000	37.3
148 Isodrin	193	7.581	7.581	(1.092)	121607	40.0000	42.0
149 Aramite	185	7.811	7.811	(1.126)	59623	40.0000	41.6
150 Kepone	272	8.223	8.223	(1.185)	72693	40.0000	38.1
151 p-(Dimethylamino)azobenzene	120	7.934	7.934	(0.923)	317354	40.0000	34.8
152 Chlorobenzilate	251	7.950	7.950	(0.925)	332836	40.0000	39.5
153 3,3'-Dimethylbenzidine	212	8.143	8.143	(0.948)	337284	40.0000	28.3
155 2-Acetylaminofluorene	181	8.320	8.320	(0.968)	287290	40.0000	38.2
157 7,12Dimethylbenz(a)anthracene	256	9.544	9.544	(0.951)	340990	40.0000	41.9
158 3-Methylcholanthrene	268	10.384	10.384	(1.035)	228198	40.0000	39.0(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s032510.b/s2c2503.d
Date : 25-MAR-2010 15:24
Client ID: APCVS
Sample Info: IWBN100218-08.1|40 PPM|1|SVMF|1|APCVS
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

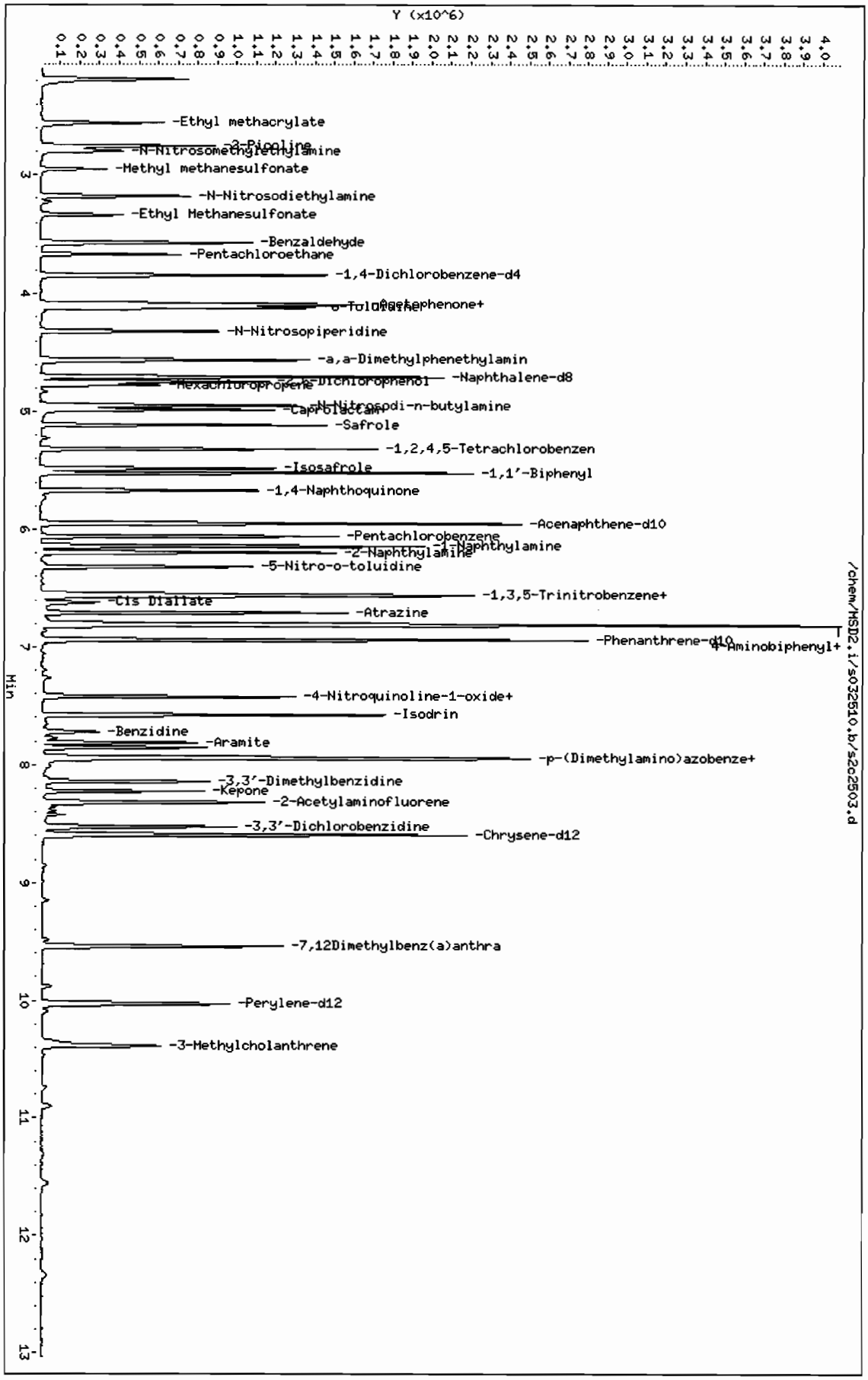

Page 1

QC Data

Data File: /chem/MSD2.i/s031210.b/s2c1201.d

Date : 12-MAR-2010 14:32

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

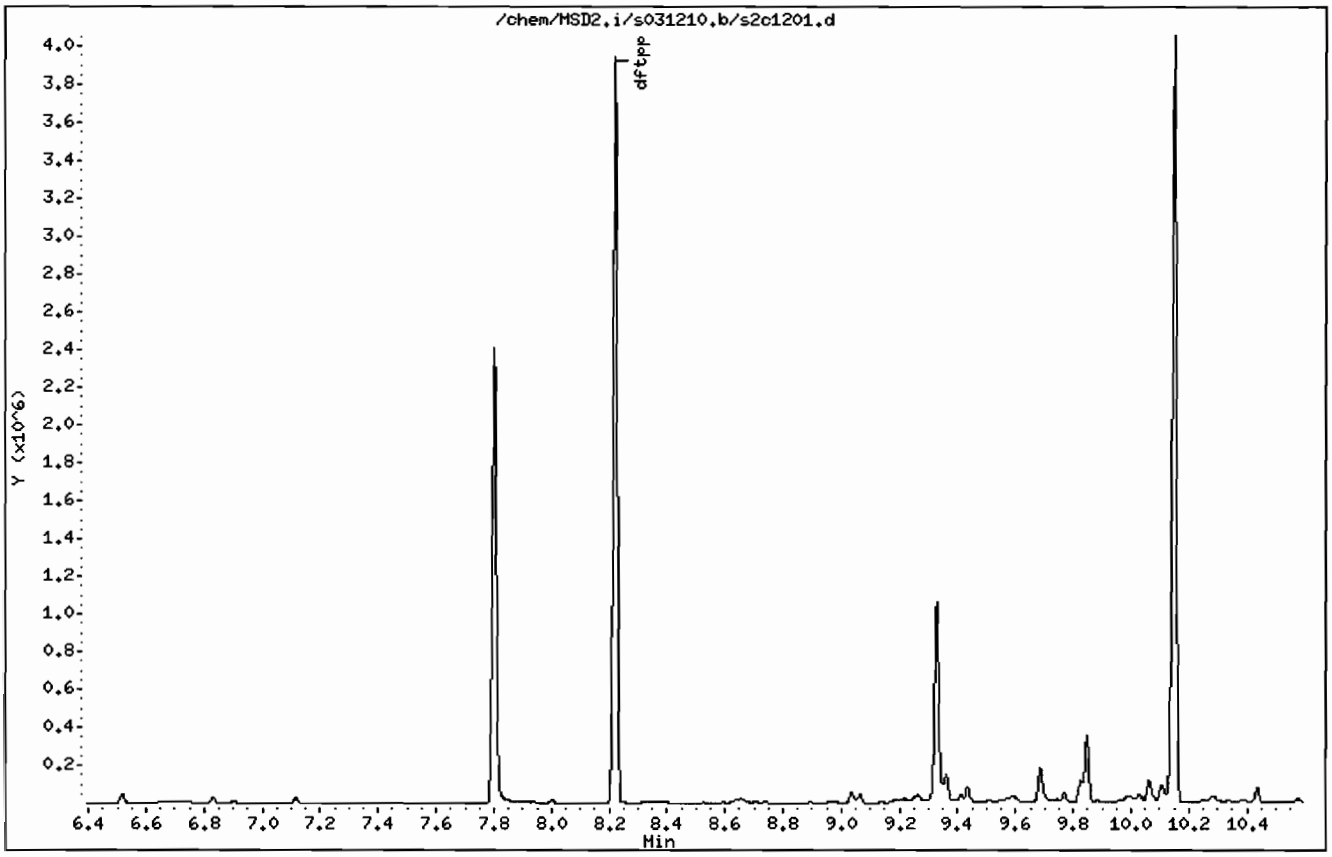

Data File: /chem/MSD2.i/s031210.b/s2c1201.d

Date : 12-MAR-2010 14:32

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

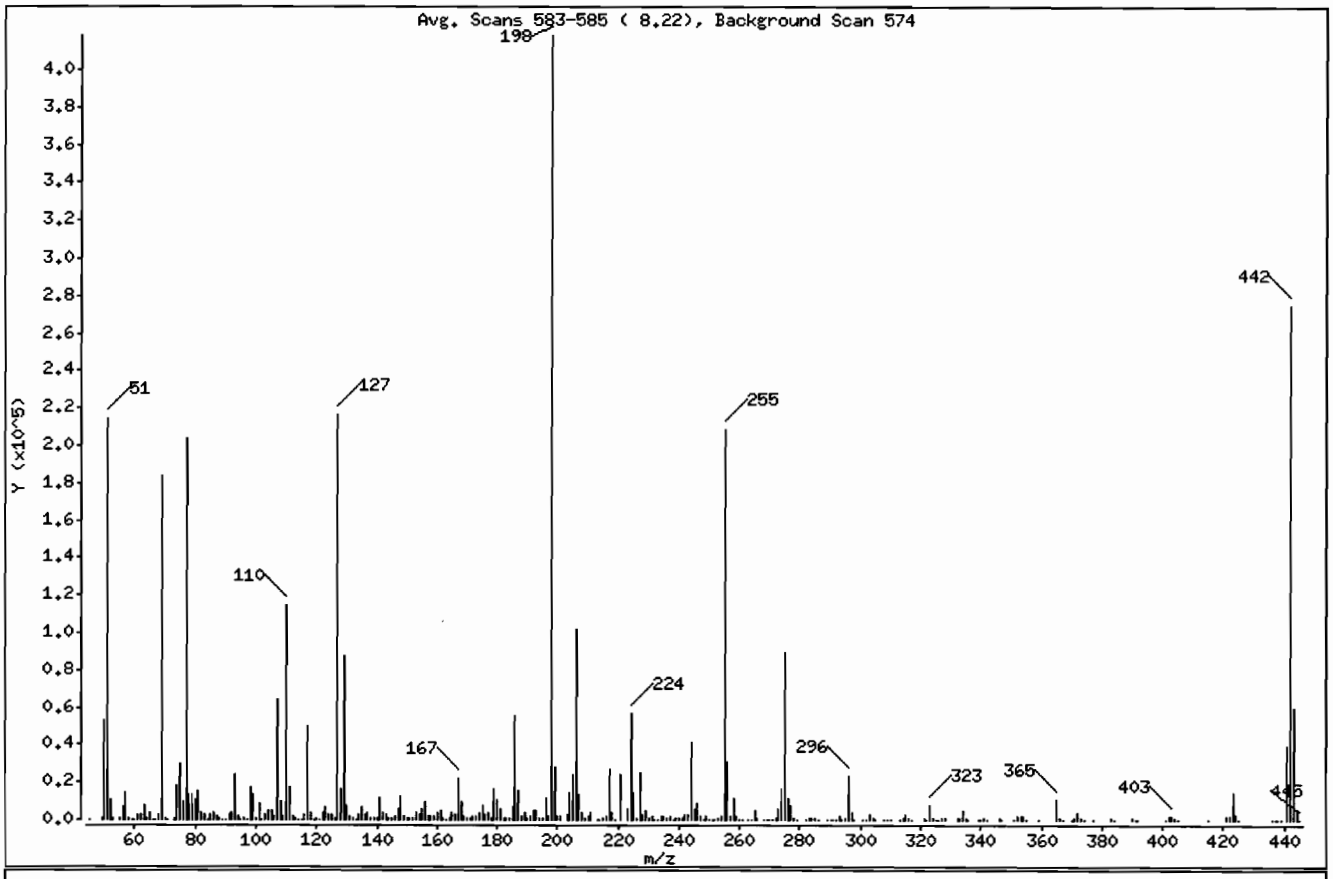

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	51.23
68	Less than 2.00% of mass 69	0.66 (1.50)
69	Mass 69 relative abundance	43.91
70	Less than 2.00% of mass 69	0.22 (0.50)
127	40.00 - 60.00% of mass 198	51.73
197	Less than 1.00% of mass 198	0.54
199	5.00 - 9.00% of mass 198	6.68
275	10.00 - 30.00% of mass 198	21.33
365	Greater than 1.00% of mass 198	2.44
441	Present, but less than mass 443	9.51
442	Greater than 40.00% of mass 198	65.73
443	17.00 - 23.00% of mass 442	14.16 (21.54)

Data File: /chem/MSD2.i/s031210.b/s2c1201.d

Date : 12-MAR-2010 14:32

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2c1201.d
Spectrum: Avg. Scans 583-585 (8.22), Background Scan 574
Location of Maximum: 198.00
Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	111	128.00	16105	207.00	13087	294.00	340
49.00	1232	129.00	87200	208.00	3366	295.00	506
50.00	53328	130.00	7430	209.00	1093	296.00	23416
51.00	214272	131.00	1539	210.00	1706	297.00	3588
52.00	10549	132.00	939	211.00	4158	298.00	195
53.00	487	133.00	251	213.00	272	301.00	290
55.00	832	134.00	2602	214.00	82	302.00	297
56.00	6559	135.00	7153	215.00	1062	303.00	2593
57.00	14416	136.00	2794	216.00	2280	304.00	688
58.00	574	137.00	3413	217.00	27360	305.00	141
59.00	214	138.00	835	218.00	3612	308.00	266
60.00	128	139.00	544	219.00	310	309.00	175
61.00	2499	140.00	1186	221.00	23584	310.00	263
62.00	2815	141.00	11269	223.00	5914	313.00	188
63.00	7676	142.00	3759	224.00	56600	314.00	1057
64.00	1029	143.00	2548	225.00	14894	315.00	2589
65.00	3643	144.00	564	226.00	1401	316.00	1393
66.00	227	145.00	550	227.00	24744	317.00	244
67.00	249	146.00	1785	228.00	3284	321.00	907
68.00	2751	147.00	5698	229.00	4822	322.00	417
69.00	183616	148.00	12040	230.00	606	323.00	7352
70.00	924	149.00	2352	231.00	2082	324.00	1433
71.00	69	150.00	590	232.00	344	325.00	163
73.00	1326	151.00	1386	233.00	452	326.00	205
74.00	18456	152.00	915	234.00	1620	327.00	1409
75.00	30256	153.00	3731	235.00	1697	328.00	800
76.00	9563	154.00	2755	236.00	1243	332.00	529
77.00	203648	155.00	6002	237.00	1721	333.00	698
78.00	13270	156.00	9198	238.00	174	334.00	4633
79.00	13512	157.00	1778	239.00	837	335.00	1148
80.00	10545	158.00	2068	240.00	582	336.00	129
81.00	15127	159.00	1680	241.00	1318	339.00	36
82.00	3756	160.00	3406	242.00	2859	340.00	35
83.00	3210	161.00	4970	243.00	2882	341.00	750
84.00	283	162.00	1386	244.00	41656	342.00	198

Data File: /chem/MSD2.i/s031210.b/s2c1201.d

Date : 12-MAR-2010 14:32

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2c1201.d
Spectrum: Avg. Scans 583-585 (8.22), Background Scan 574
Location of Maximum: 198.00
Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
85.00	2708	163.00	351	245.00	5634	346.00	1433
86.00	4261	164.00	594	246.00	8289	347.00	279
87.00	1859	165.00	4127	247.00	1512	351.00	89
88.00	737	166.00	3102	248.00	396	352.00	2169
89.00	409	167.00	21928	249.00	1500	353.00	1448
90.00	33	168.00	9147	250.00	274	354.00	2178
91.00	3326	169.00	1600	251.00	362	355.00	446
92.00	3744	170.00	833	252.00	354	359.00	204
93.00	23560	171.00	791	253.00	954	365.00	10190
94.00	1638	172.00	1833	254.00	1580	366.00	1326
95.00	431	173.00	2299	255.00	208832	367.00	69
96.00	1044	174.00	4053	256.00	30520	370.00	245
97.00	353	175.00	8142	257.00	2349	371.00	659
98.00	17640	176.00	2587	258.00	11879	372.00	4217
99.00	13822	177.00	4010	259.00	1703	373.00	973
100.00	1267	178.00	1325	260.00	329	374.00	71
101.00	8433	179.00	16023	261.00	399	377.00	73
102.00	446	180.00	10416	263.00	145	383.00	1032
103.00	2592	181.00	5383	264.00	341	384.00	293
104.00	5157	182.00	761	265.00	4795	390.00	534
105.00	4954	183.00	489	266.00	713	391.00	366
106.00	1577	184.00	1375	268.00	265	392.00	291
107.00	64696	185.00	6858	269.00	39	401.00	207
108.00	10050	186.00	56160	270.00	297	402.00	1528
109.00	1764	187.00	15585	271.00	433	403.00	2384
110.00	114096	188.00	1641	272.00	551	404.00	798
111.00	17488	189.00	3417	273.00	5795	405.00	91
112.00	2390	190.00	598	274.00	15910	415.00	123
113.00	762	191.00	1833	275.00	89224	421.00	1870
114.00	188	192.00	4782	276.00	11921	422.00	1814
115.00	216	193.00	5187	277.00	7262	423.00	14591
116.00	3185	194.00	1094	278.00	1035	424.00	2911
117.00	49888	195.00	806	279.00	226	425.00	233
118.00	3469	196.00	11999	282.00	142	436.00	76
119.00	443	197.00	2241	283.00	690	437.00	117

Data File: /chem/MSD2.i/s031210.b/s2c1201.d

Date : 12-MAR-2010 14:32

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2c1201.d
Spectrum: Avg. Scans 583-585 (8.22), Background Scan 574
Location of Maximum: 198.00
Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
120.00	823	198.00	418304	284.00	641	438.00	77
121.00	272	199.00	27952	285.00	1258	439.00	437
122.00	4046	200.00	2119	286.00	201	441.00	39784
123.00	6733	201.00	2001	289.00	268	442.00	274944
124.00	2787	203.00	2988	290.00	239	443.00	59232
125.00	2776	204.00	14572	291.00	177	444.00	5408
126.00	814	205.00	24104	292.00	278	445.00	225
127.00	216384	206.00	101472	293.00	1773		

Data File: /chem/MSD2.i/s032510.b/s2c2501.d

Date : 25-MAR-2010 14:45

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

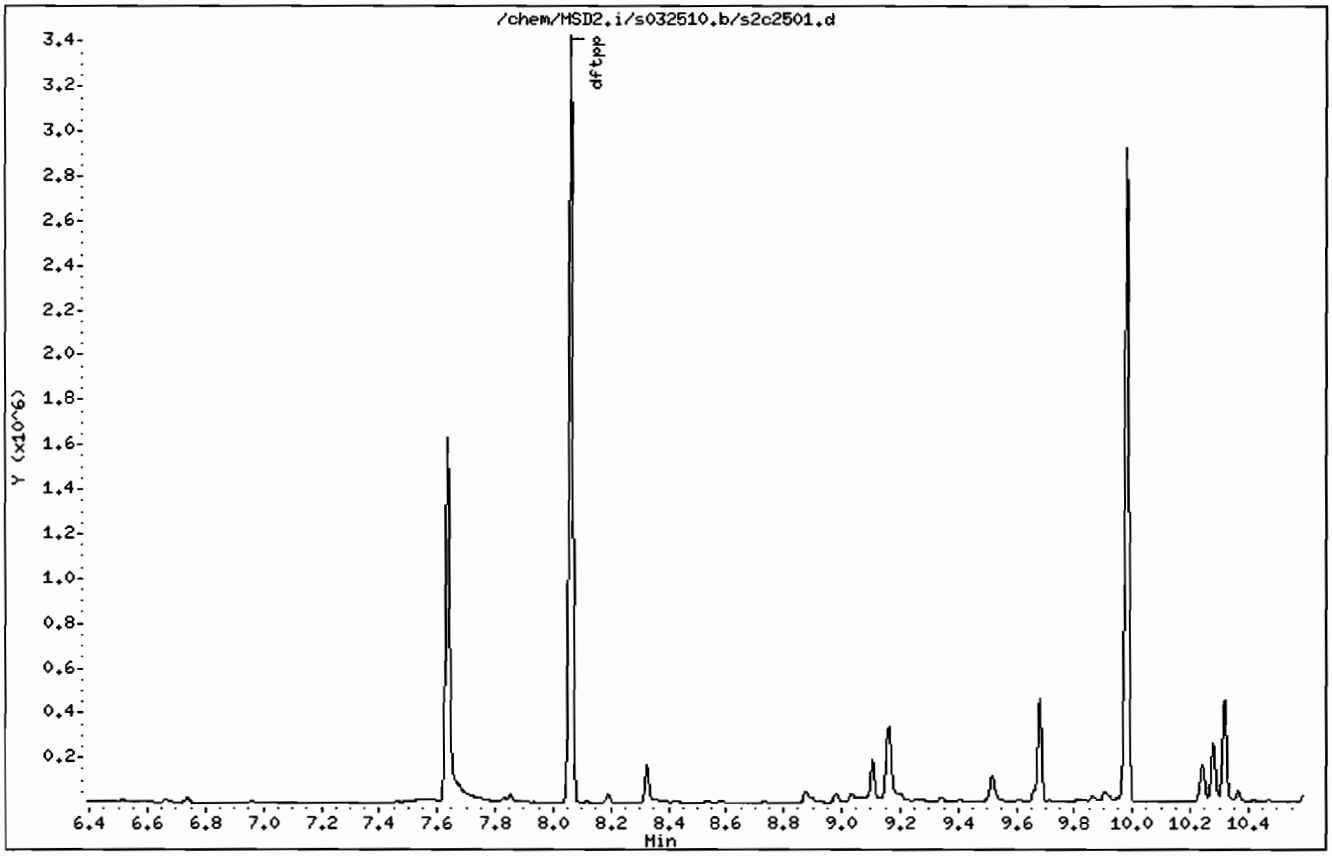

Data File: /chem/MSD2.i/s032510.b/s2c2501.d

Date : 25-MAR-2010 14:45

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

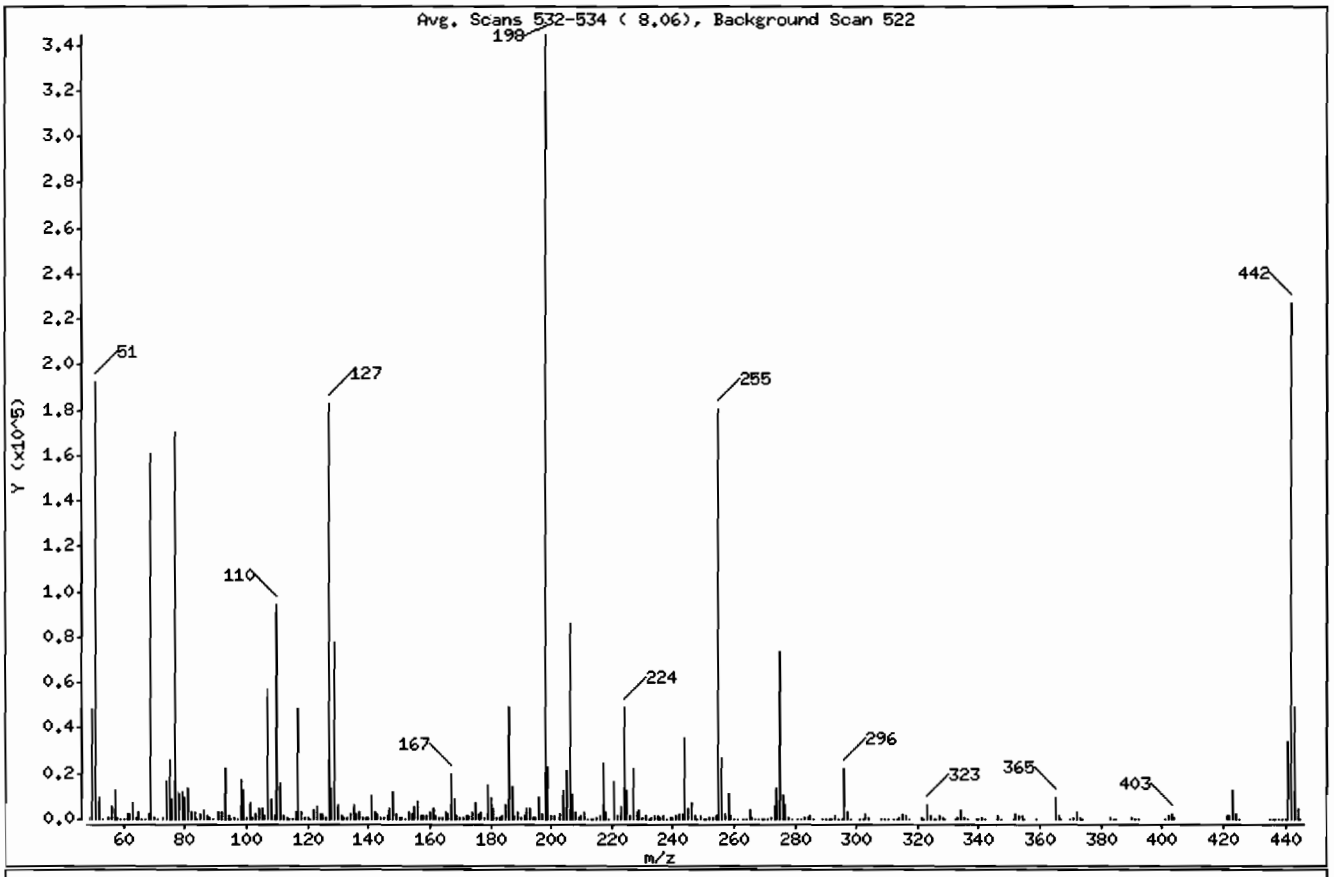

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	55.75
68	Less than 2.00% of mass 69	0.64 (1.37)
69	Mass 69 relative abundance	46.70
70	Less than 2.00% of mass 69	0.19 (0.40)
127	40.00 - 60.00% of mass 198	53.20
197	Less than 1.00% of mass 198	0.67
199	5.00 - 9.00% of mass 198	6.77
275	10.00 - 30.00% of mass 198	21.39
365	Greater than 1.00% of mass 198	2.68
441	Present, but less than mass 443	9.91
442	Greater than 40.00% of mass 198	65.97
443	17.00 - 23.00% of mass 442	14.32 (21.70)

Data File: /chem/MSD2.i/s032510.b/s2c2501.d

Date : 25-MAR-2010 14:45

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2c2501.d
Spectrum: Avg. Scans 532-534 (8.06), Background Scan 522
Location of Maximum: 198.00
Number of points: 314

m/z	Y	m/z	Y	m/z	Y	m/z	Y
49.00	998	131.00	1389	211.00	3267	295.00	370
50.00	48552	132.00	632	212.00	209	296.00	22216
51.00	192000	133.00	451	213.00	232	297.00	2940
52.00	9503	134.00	2471	214.00	35	298.00	174
53.00	388	135.00	6506	215.00	902	301.00	288
55.00	776	136.00	2553	216.00	1979	302.00	366
56.00	5672	137.00	2896	217.00	24800	303.00	2490
57.00	12487	138.00	577	218.00	2955	304.00	702
58.00	552	139.00	441	219.00	273	308.00	326
59.00	230	140.00	947	221.00	16848	309.00	183
60.00	205	141.00	10142	222.00	1390	310.00	277
61.00	2343	142.00	3117	223.00	5315	312.00	70
62.00	2567	143.00	2437	224.00	48952	313.00	184
63.00	6987	144.00	683	225.00	12273	314.00	1030
64.00	1033	145.00	574	226.00	1388	315.00	2540
65.00	3264	146.00	1680	227.00	22168	316.00	1391
66.00	280	147.00	5040	228.00	2925	317.00	161
67.00	212	148.00	11805	229.00	4000	321.00	587
68.00	2211	149.00	2263	230.00	604	322.00	291
69.00	160832	150.00	546	231.00	1524	323.00	6650
70.00	647	151.00	1119	232.00	364	324.00	1250
71.00	169	152.00	226	233.00	450	325.00	72
73.00	1088	153.00	3104	234.00	1325	326.00	122
74.00	16251	154.00	2566	235.00	1508	327.00	1276
75.00	25800	155.00	5587	236.00	1050	328.00	639
76.00	8644	156.00	8050	237.00	1494	329.00	75
77.00	170560	157.00	1609	238.00	244	332.00	381
78.00	11437	158.00	1937	239.00	886	333.00	711
79.00	12152	159.00	1409	240.00	737	334.00	4104
80.00	9358	160.00	3069	241.00	1219	335.00	1018
81.00	13144	161.00	4464	242.00	2558	336.00	122
82.00	3063	162.00	1411	243.00	2615	339.00	34
83.00	3023	163.00	467	244.00	35304	340.00	75
84.00	304	164.00	510	245.00	4651	341.00	760
85.00	2077	165.00	3343	246.00	7334	342.00	224

Data File: /chem/MSD2.i/s032510.b/s2c2501.d

Date : 25-MAR-2010 14:45

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2c2501.d
Spectrum: Avg. Scans 532-534 (8.06), Background Scan 522
Location of Maximum: 198.00
Number of points: 314

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	3611	166.00	2658	247.00	1448	346.00	1583
87.00	1698	167.00	19456	248.00	330	347.00	237
88.00	669	168.00	8706	249.00	1325	351.00	135
89.00	334	169.00	1454	250.00	281	352.00	1988
91.00	3048	170.00	638	251.00	389	353.00	1368
92.00	3124	171.00	789	252.00	460	354.00	1880
93.00	22008	172.00	1783	253.00	935	355.00	376
94.00	1451	173.00	1940	254.00	1434	359.00	75
95.00	332	174.00	3496	255.00	180544	365.00	9239
96.00	884	175.00	7415	256.00	26672	366.00	1352
97.00	335	176.00	2086	257.00	2014	367.00	41
98.00	17096	177.00	3509	258.00	10994	370.00	148
99.00	12292	178.00	1173	259.00	1926	371.00	539
100.00	1074	179.00	14861	260.00	326	372.00	3460
101.00	7270	180.00	9199	261.00	309	373.00	791
102.00	423	181.00	4437	263.00	113	374.00	121
103.00	2456	182.00	656	264.00	354	383.00	897
104.00	4504	183.00	415	265.00	4345	384.00	190
105.00	4732	184.00	1359	266.00	633	385.00	116
106.00	1274	185.00	6619	267.00	144	390.00	449
107.00	56784	186.00	49000	268.00	31	391.00	285
108.00	8394	187.00	14201	269.00	34	392.00	180
109.00	1385	188.00	1447	270.00	247	401.00	223
110.00	94568	189.00	3351	271.00	362	402.00	1279
111.00	15568	190.00	505	272.00	511	403.00	1998
112.00	1946	191.00	1534	273.00	5171	404.00	672
113.00	659	192.00	4361	274.00	13411	421.00	1601
114.00	131	193.00	4439	275.00	73664	422.00	1542
115.00	236	194.00	935	276.00	9955	423.00	12595
116.00	2909	195.00	721	277.00	6408	424.00	2359
117.00	48648	196.00	9855	278.00	1016	425.00	247
118.00	3428	197.00	2299	279.00	146	435.00	37
119.00	487	198.00	344384	281.00	34	436.00	311
120.00	633	199.00	23312	282.00	186	437.00	167
121.00	253	200.00	1927	283.00	888	438.00	227

Date : 25-MAR-2010 14:45

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c2501.d
Spectrum: Avg. Scans 532-534 (8.06), Background Scan 522
Location of Maximum: 198.00
Number of points: 314

m/z	Y	m/z	Y	m/z	Y	m/z	Y
122.00	3803	201.00	1596	284.00	439	439.00	395
123.00	5902	203.00	2700	285.00	1230	440.00	304
124.00	2677	204.00	12945	286.00	190	441.00	34128
125.00	2421	205.00	21512	289.00	262	442.00	227200
126.00	654	206.00	86224	290.00	232	443.00	49312
127.00	183168	207.00	11146	291.00	157	444.00	4434
128.00	13684	208.00	3283	292.00	316	445.00	240
129.00	77376	209.00	1128	293.00	1681		
130.00	6728	210.00	1679	294.00	296		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072982**				
Client Sample:	**QC for batch 965978**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965978**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 16:05**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2505-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072982**				
Client Sample:	**QC for batch 965978**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965978**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 16:05**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2505-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	447	ug/kg		JA

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2505-1.d
Lab Smp Id: 1202072982 Client Smp ID: SBLK01
Inj Date : 25-MAR-2010 16:05
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202072982|965979|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2315.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.838	3.843	(1.000)	136360	40.0000	
* 29 Naphthalene-d8	136	4.699	4.704	(1.000)	529830	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	324342	40.0000	
* 67 Phenanthrene-d10	188	6.934	6.940	(1.000)	599949	40.0000	
* 91 Chrysene-d12	240	8.592	8.603	(1.000)	460744	40.0000	
* 98 Perylene-d12	264	10.026	10.042	(1.000)	288448	40.0000	
$ 3 2-Fluorophenol	112	3.041	3.035	(0.792)	243518	75.0002	2500
$ 5 Phenol-d5	99	3.559	3.565	(0.928)	281480	70.4007	2350
$ 20 Nitrobenzene-d5	82	4.196	4.207	(0.893)	143591	37.4453	1250
$ 39 2-Fluorobiphenyl	172	5.437	5.442	(0.915)	297797	33.3723	1110
$ 60 2,4,6-Tribromophenol	329	6.480	6.485	(1.090)	85032	88.6375	2950
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	423750	50.4289	1680

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD2.i/s032510.b/s2c2505-1.d
Lab Smp Id: 1202072982 Client Smp ID: SBLK01
Inj Date : 25-MAR-2010 16:05
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202072982|965979|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2315.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.838	1001905	40.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.875	335873	13.4093812	447	0		0	10

Data File: /chem/MSD2.i/s032510.b/s2c2505-1.d
Date : 25-MAR-2010 16:05
Client ID: SBLK01
Sample Info: |1202072982|965979|1|SVM|1|MB
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD2.i

Operator: ACS1
Column diameter: 0.20

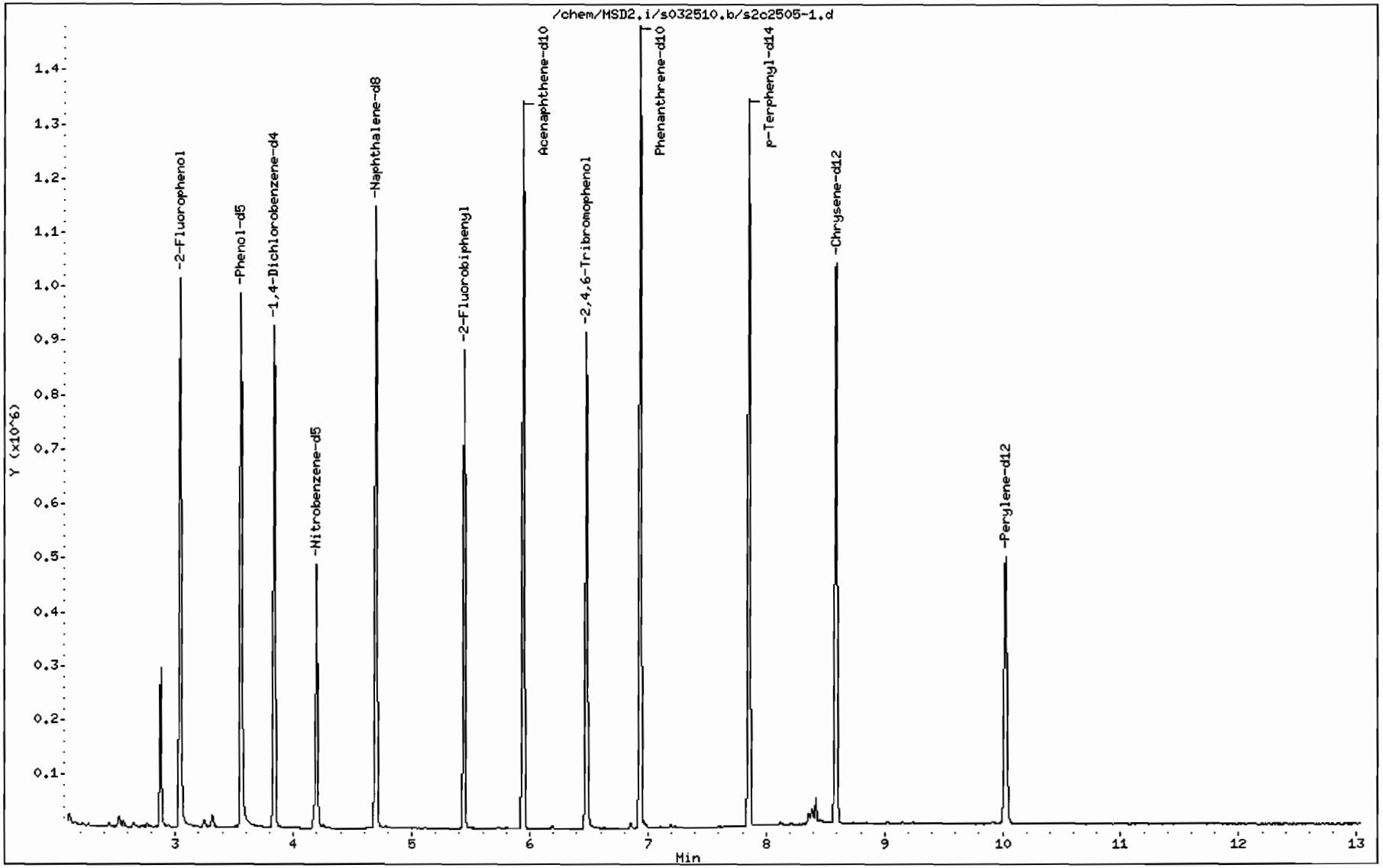

Data File: /chem/MSD2.i/s032510.b/s2c2505-1.d

Date : 25-MAR-2010 16:05

Client ID: SBLK01

Instrument: MSD2.i

Sample Info: |1202072982|965979|1|SVMI1|MB

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
Diacetamide	625-77-4	NIST05.L	3936	9	C4H7NO2	101

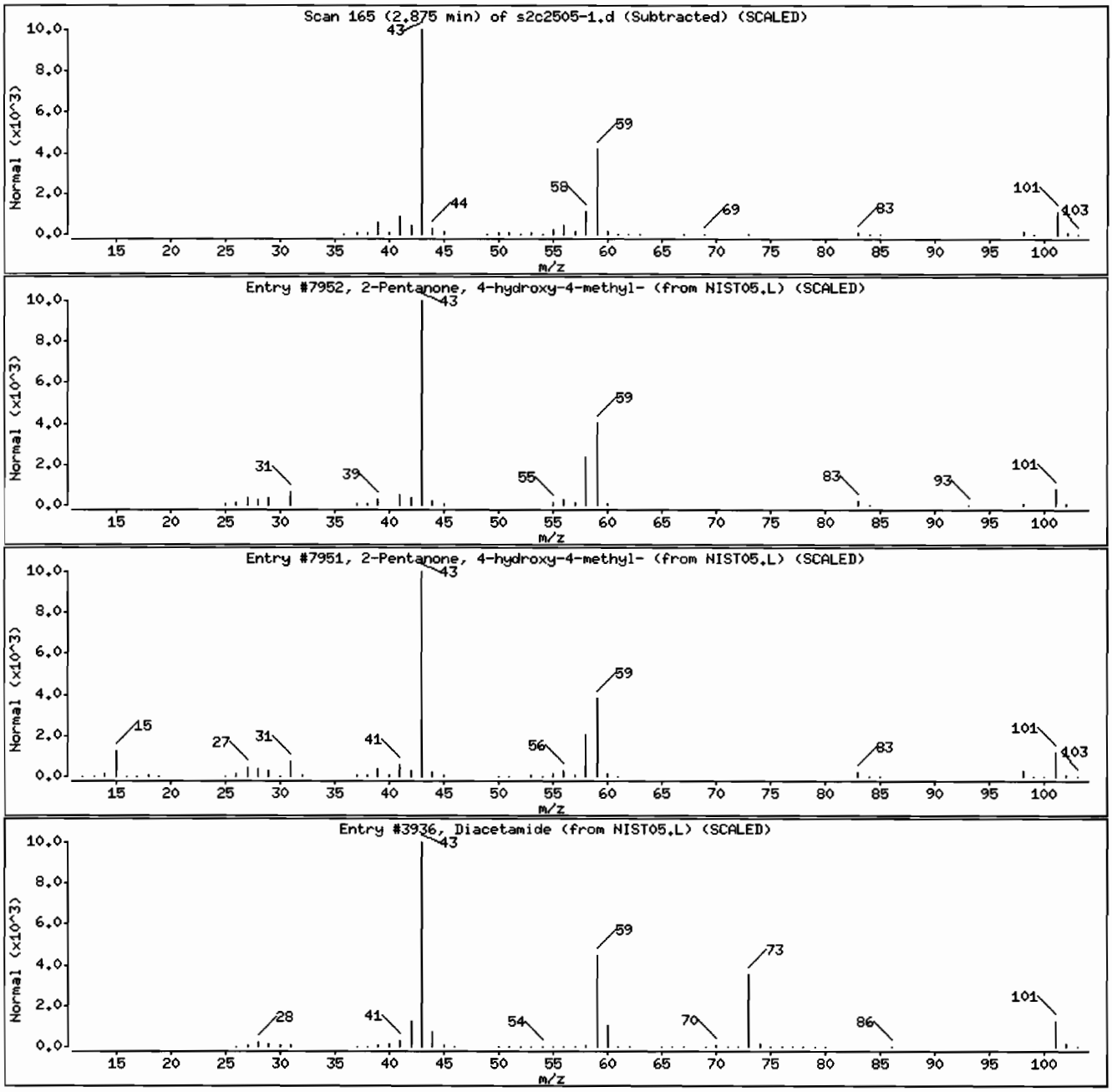

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072983**				
Client Sample:	**QC for batch 965978**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965978**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 16:24**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2506-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1020	ug/kg	66.7	333
108-95-2	Phenol		1300	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1250	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1150	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1380	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1340	ug/kg	66.7	333
83-32-9	Acenaphthene		1290	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1430	ug/kg	33.3	333
100-02-7	4-Nitrophenol		993	ug/kg	110	333
87-86-5	Pentachlorophenol		1200	ug/kg	83.3	333
129-00-0	Pyrene		1120	ug/kg	10.0	33.3
110-86-1	Pyridine		1010	ug/kg	66.7	333
62-53-3	Aniline		981	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1200	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1130	ug/kg	66.7	333
100-51-6	Benzyl alcohol		823	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1160	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1520	ug/kg	66.7	333
95-48-7	o-Cresol		1230	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1600	ug/kg	100	333
67-72-1	Hexachloroethane		1230	ug/kg	66.7	333
98-95-3	Nitrobenzene		1310	ug/kg	66.7	333
78-59-1	Isophorone		1240	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1220	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		994	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1160	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1290	ug/kg	66.7	333
65-85-0	Benzoic acid		3570	ug/kg	167	667
91-20-3	Naphthalene		1200	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1030	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1350	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1300	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1040	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1280	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1220	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1220	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1390	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1240	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2315**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072983**				
Client Sample:	**QC for batch 965978**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965978**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 16:24**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2506-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1410	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1310	ug/kg	33.3	333
208-96-8	Acenaphthylene		1300	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1380	ug/kg	127	667
132-64-9	Dibenzofuran		1350	ug/kg	66.7	333
84-66-2	Diethylphthalate		1520	ug/kg	66.7	333
86-73-7	Fluorene		1470	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1410	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1270	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1890	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1260	ug/kg	66.7	333
122-66-7	Azobenzene		1340	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1250	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1230	ug/kg	66.7	333
85-01-8	Phenanthrene		1270	ug/kg	10.0	33.3
120-12-7	Anthracene		1310	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1490	ug/kg	66.7	333
206-44-0	Fluoranthene		1480	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1300	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1270	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1070	ug/kg	100	333
218-01-9	Chrysene		1300	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1350	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1390	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1470	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1260	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1360	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1400	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1430	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1310	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1250	ug/kg	66.7	333

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2506-1.d
Lab Smp Id: 1202072983 Client Smp ID: SBLK01LCS
Inj Date : 25-MAR-2010 16:24
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202072983|965979|1|SVM|1|LCS
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2315.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.837	3.843	(1.000)	168920	40.0000	
* 29 Naphthalene-d8	136	4.699	4.704	(1.000)	768523	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	409646	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	798278	40.0000	
* 91 Chrysene-d12	240	8.592	8.603	(1.000)	752653	40.0000	
* 98 Perylene-d12	264	10.031	10.042	(1.000)	503248	40.0000	
$ 3 2-Fluorophenol	112	3.041	3.035	(0.792)	315746	78.5010	2620
$ 5 Phenol-d5	99	3.559	3.565	(0.928)	382609	77.2486	2570
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.894)	221873	39.8891	1330
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	407162	36.1266	1200
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.091)	118320	97.6535	3260
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	545763	39.7593	1320

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.570	3.570	(0.930)	199717	39.1096	1300
8 2-Chlorophenol	128	3.709	3.709	(0.967)	170485	37.5383	1250
11 1,4-Dichlorobenzene	146	3.848	3.854	(1.003)	197958	34.5416	1150
17 N-Nitrosodipropylamine	70	4.078	4.084	(1.063)	132903	41.4776	1380(Q)
28 1,2,4-Trichlorobenzene	180	4.650	4.656	(0.990)	178089	37.4834	1250
33 4-Chloro-3-methylphenol	107	5.057	5.052	(1.076)	168082	40.2168	1340
47 Acenaphthene	154	5.972	5.977	(1.004)	422283	38.7050	1290
50 2,4-Dinitrotoluene	165	6.057	6.063	(1.019)	141466	42.9867	1430
52 4-Nitrophenol	139	6.004	5.998	(1.010)	48727	29.7942	993
65 Pentachlorophenol	266	6.811	6.811	(0.982)	65619	36.1294	1200
79 Pyrene	202	7.806	7.812	(0.908)	821090	33.4673	1120
2 Pyridine	79	2.409	2.383	(0.628)	99158	30.1722	1000
4 Aniline	66	3.624	3.629	(0.944)	71397	29.4443	981(Q)
7 bis(2-Chloroethyl) ether	63	3.640	3.645	(0.948)	157946	36.0046	1200
9 1,3-Dichlorobenzene	146	3.805	3.811	(0.992)	183841	34.0119	1130
12 Benzyl alcohol	108	3.907	3.912	(1.018)	59387	24.6894	823
13 1,2-Dichlorobenzene	146	3.950	3.955	(1.029)	184709	34.9151	1160
14 bis(2-Chloroisopropyl)ether	45	3.982	3.987	(1.038)	489741	45.6650	1520
15 o-Cresol	107	3.96I	3.961	(1.032)	133142	36.9239	1230
18 m,p-Cresols	107	4.062	4.062	(1.059)	206846	48.1459	1600
19 Hexachloroethane	117	4.180	4.185	(1.089)	83608	36.9161	1230
21 Nitrobenzene	77	4.212	4.217	(0.896)	206248	39.3939	1310
22 Isophorone	82	4.367	4.372	(0.929)	352852	37.2649	1240
23 2-Nitrophenol	139	4.426	4.431	(0.942)	100285	36.5835	1220
24 2,4-Dimethylphenol	122	4.420	4.426	(0.941)	146231	29.8179	994
25 bis(2-Chloroethoxy)methane	93	4.485	4.490	(0.954)	188997	34.7935	1160
26 2,4-Dichlorophenol	162	4.592	4.592	(0.977)	149946	38.5808	1290
27 Benzoic acid	105	4.501	4.479	(0.958)	259234	107.169	3570
30 Naphthalene	128	4.715	4.720	(1.003)	546864	35.8849	1200
31 4-Chloroaniline	127	4.736	4.736	(1.008)	205107	30.9873	1030
32 Hexachlorobutadiene	225	4.779	4.784	(1.017)	116481	40.5037	1350
34 2-Methylnaphthalene	142	5.196	5.201	(1.106)	383071	39.1108	1300
36 Hexachlorocyclopentadiene	237	5.298	5.303	(0.891)	61091	31.3358	1040
37 2,4,6-Trichlorophenol	196	5.389	5.389	(0.906)	118167	38.3643	1280
38 2,4,5-Trichlorophenol	196	5.421	5.415	(0.912)	121853	36.6668	1220
40 2-Chloronaphthalene	162	5.549	5.549	(0.933)	364365	36.6991	1220
42 o-Nitroaniline	65	5.608	5.608	(0.943)	129356	41.7884	1390
41 m-Nitroaniline	138	5.902	5.902	(0.993)	76392	37.2491	1240
43 Dimethylphthalate	163	5.715	5.720	(0.961)	492094	42.2417	1410
44 2,6-Dinitrotoluene	165	5.768	5.774	(0.970)	103307	39.2091	1310
45 Acenaphthylene	152	5.849	5.854	(0.984)	585224	39.1032	1300
48 2,4-Dinitrophenol	184	5.972	5.977	(1.004)	44900	41.5108	1380(Q)
49 Dibenzofuran	168	6.089	6.089	(1.024)	542718	40.4940	1350
51 Diethylphthalate	149	6.202	6.202	(1.043)	546539	45.7405	1520
53 Fluorene	166	6.325	6.325	(1.064)	513950	44.1984	1470
54 4-Chlorophenylphenylether	204	6.303	6.303	(1.060)	232347	42.4101	1410
55 2-Methyl-4,6-dinitrophenol	198	6.341	6.341	(0.914)	74607	37.9848	1270

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.325	6.325	(1.064)	114826	56.7019	1890
133 Diphenylamine	169	6.383	6.383	(0.920)	392559	37.7853	1260
58 1,2-Diphenylhydrazine	77	6.410	6.416	(0.924)	543147	40.1415	1340
61 4-Bromophenylphenylether	248	6.629	6.630	(0.955)	132213	37.6429	1250
63 Hexachlorobenzene	284	6.688	6.688	(0.964)	129706	36.9836	1230
68 Phenanthrene	178	6.950	6.956	(1.002)	752297	38.1284	1270
69 Anthracene	178	6.982	6.988	(1.006)	751252	39.3590	1310
72 Di-n-butylphthalate	149	7.229	7.234	(1.042)	1010238	44.7377	1490
76 Fluoranthene	202	7.667	7.672	(1.105)	791900	44.4346	1480
85 Butylbenzylphthalate	149	8.116	8.127	(0.945)	447384	38.9737	1300
89 Benzo(a)anthracene	228	8.582	8.592	(0.999)	715721	38.1037	1270
90 3,3'-Dichlorobenzidine	252	8.523	8.528	(0.992)	159387	31.9500	1060
92 Chrysene	228	8.614	8.625	(1.002)	685482	39.1182	1300
93 bis(2-Ethylhexyl)phthalate	149	8.469	8.485	(0.986)	640795	40.5397	1350
94 Di-n-octylphthalate	149	8.994	9.010	(0.897)	1000869	41.7167	1390
95 Benzo(b)fluoranthene	252	9.571	9.582	(0.954)	606124	44.1567	1470
96 Benzo(k)fluoranthene	252	9.598	9.614	(0.957)	524200	37.7477	1260
97 Benzo(a)pyrene	252	9.962	9.978	(0.993)	463726	40.7596	1360
99 Indeno(1,2,3-cd)pyrene	276	11.641	11.657	(1.160)	409503	42.0484	1400
100 Dibenzo(a,h)anthracene	278	11.646	11.663	(1.161)	341464	42.9172	1430
101 Benzo(ghi)perylene	276	12.139	12.155	(1.210)	310557	39.3698	1310
1 N-Methyl-N-nitrosomethylamine	74	2.372	2.351	(0.618)	70484	30.4904	1020

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s032510.b/s2c2506-1.d
Date : 25-MAR-2010 16:24
Client ID: SBLK01LCS
Sample Info: 1120207298319659791|SVM11|LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

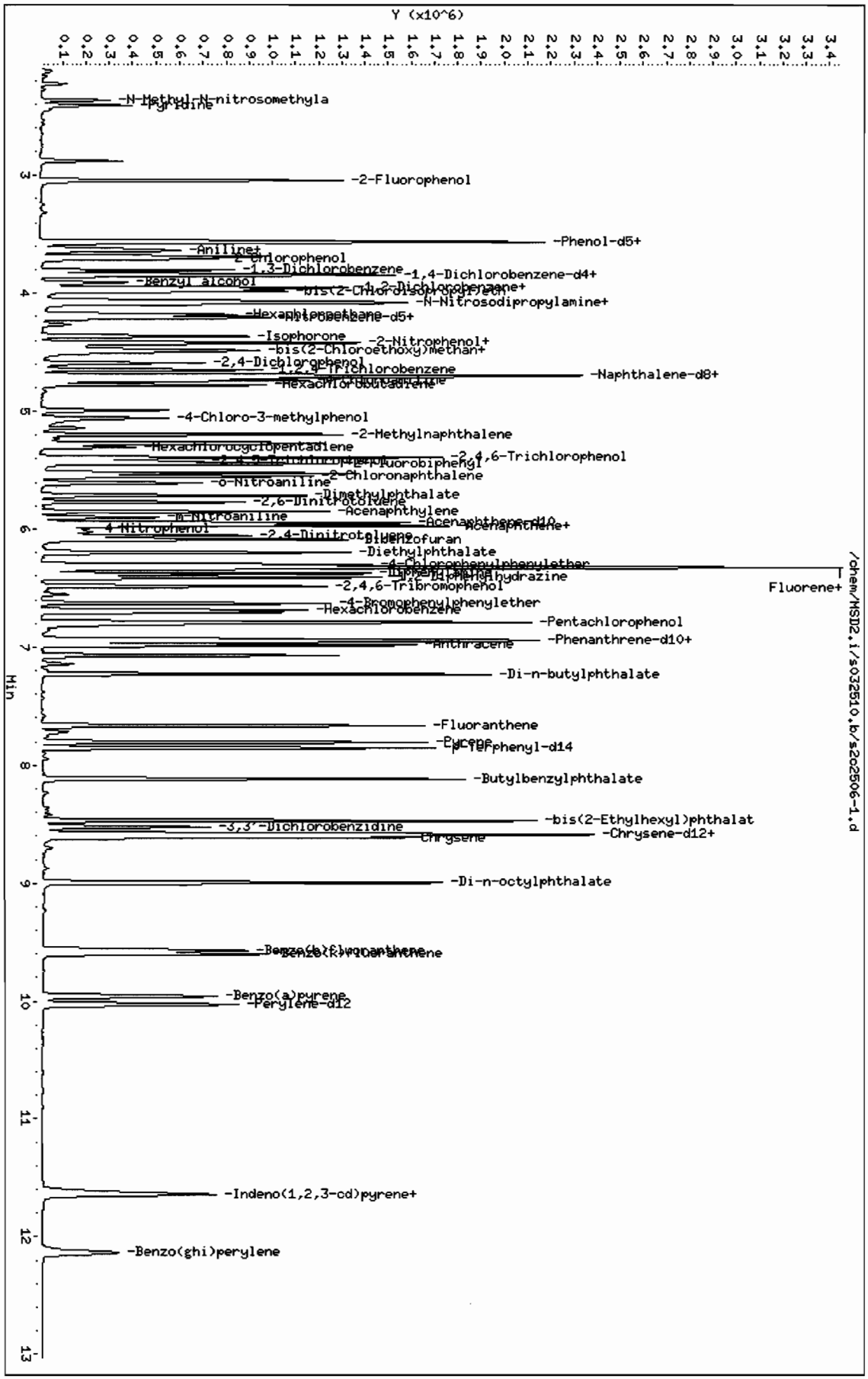

Page 1

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 965978 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202072982 MB	17-MAR-2010 10:52:00	30	1	0.03333
1202072983 LCS	17-MAR-2010 10:52:00	30	1	0.03333
248862002	17-MAR-2010 10:52:00	30.02	1	0.03331
248862003	17-MAR-2010 10:52:00	30	1	0.03333
248862004	17-MAR-2010 10:52:00	30.03	1	0.0333
248862005	17-MAR-2010 10:52:00	30	1	0.03333
248862006	17-MAR-2010 10:52:00	30.02	1	0.03331
248862007	17-MAR-2010 10:52:00	30	1	0.03333
248862008	17-MAR-2010 10:52:00	30.08	1	0.03324
248862009	17-MAR-2010 10:52:00	30.04	1	0.03329
248862010	17-MAR-2010 10:52:00	30	1	0.03333
248863001	17-MAR-2010 10:52:00	30	1	0.03333
248863002	17-MAR-2010 10:52:00	30.02	1	0.03331
248863003	17-MAR-2010 10:52:00	30.01	1	0.03332
248863004	17-MAR-2010 10:52:00	30.04	1	0.03329
248866001	17-MAR-2010 10:52:00	30	1	0.03333
248866002	17-MAR-2010 10:52:00	30	1	0.03333
249067003	17-MAR-2010 10:52:00	30	1	0.03333
249067004	17-MAR-2010 10:52:00	30.01	1	0.03332
249067005	17-MAR-2010 10:52:00	30	1	0.03333
249067006	17-MAR-2010 10:52:00	30.03	1	0.0333
249081001	17-MAR-2010 10:52:00	30.02	1	0.03331
1202072984 MS (249081001)	17-MAR-2010 10:52:00	30	1	0.03333
1202072985 MSD (249081001)	17-MAR-2010 10:52:00	30.02	1	0.03331

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202072983	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
LCS	1202072983	BENZIDINE LCS	UE100310-23	1	mL
MS	1202072984	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MS	1202072984	BENZIDINE LCS	UE100310-23	1	mL
MSD	1202072985	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MSD	1202072985	BENZIDINE LCS	UE100310-23	1	mL
SURR	All	BNA for all Surrogate	UE100310-10	1	mL
REGNT	All	Acetone	1273739-B1	150	mL
REGNT	All	Methylene Chloride	1281955-D	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: RWH

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD2

DATE: 03/12/2010 METHOD:8270C MSD2-DFTPP.m OPERATOR:AGS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1165 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100227-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD2.i/s031210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c1201.d	WBN100207-01	AGS1	12-MAR-2010 14:32	50PPM	DFTPP	1.0	DFTPP	8270C (MEGA-AP-PEST)
s2c1201D.d	WBN100207-01	AGS1	12-MAR-2010 14:32	50PPM	DFTPP	1.0	DFTPP	8270D (MEGA-AP-PEST)
s2c1202.d	INSTBLK	AGS1	12-MAR-2010 14:44	------	s031210	1.0	INSTBLK	
s2c1203.d	WBN100309-08	AGS1	12-MAR-2010 15:04	1PPM	CAL	1.0	MEGA001	
s2c1204.d	WBN100309-07	AGS1	12-MAR-2010 15:31	10PPM	CAL	1.0	MEGA010	
s2c1204D.d	WBN100309-07	AGS1	12-MAR-2010 15:31	10PPM	CAL	1.0	MEGA010	requanted for linear analytes in 8270D passes 70-130% 56/26/216
s2c1205.d	WBN100309-06	AGS1	12-MAR-2010 15:59	20PPM	CAL	1.0	MEGA020	
s2c1206.d	WBN100309-05.1	AGS1	12-MAR-2010 16:23	40PPM	CAL	1.0	MEGA040	
s2c1207.d	WBN100309-04	AGS1	12-MAR-2010 16:48	50PPM	CAL	1.0	MEGA050	
s2c1208.d	WBN100309-03	AGS1	12-MAR-2010 17:13	80PPM	CAL	1.0	MEGA080	
s2c1209.d	WBN100309-02	AGS1	12-MAR-2010 17:38	1000PPM	CAL	1.0	MEGA100	
s2c1210.d	WBN100309-01	AGS1	12-MAR-2010 18:02	120PPM	CAL	1.0	MEGA120	
s2c1211.d	INSTBLK	AGS1	12-MAR-2010 18:27	------	s031210	1.0	INSTBLK	
s2c1212.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	8270C 333197
s2c1212BOE.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	BOE 333197
s2c1212D.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	8270D 333197
s2c1212-625.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	625 333197
s2c1213.d	WBN100218-01	AGS1	12-MAR-2010 19:18	10 PPM	s031210	1.0	AP010	
s2c1214.d	WBN100218-02	AGS1	12-MAR-2010 19:39	20 PPM	CAL	1.0	AP020	

s2c1215.d	WBN100218-03.1	AGS1	12-MAR-2010 19:59	40 PPM	CAL	1.0	AP040	
s2c1216.d	WBN100218-04	AGS1	12-MAR-2010 20:19	50 PPM	CAL	1.0	AP050	
s2c1217.d	WBN100218-05	AGS1	12-MAR-2010 20:39	80 PPM	CAL	1.0	AP0800	
s2c1218.d	WBN100218-06	AGS1	12-MAR-2010 20:59	100 PPM	CAL	1.0	AP100	
s2c1219.d	WBN100218-07	AGS1	12-MAR-2010 21:19	120 PPM	CAL	1.0	AP120	
s2c1220.d	WBN100304-25	AGS1	12-MAR-2010 21:39	10 PPM	CAL	1.0	PEST010	
s2c1221.d	WBN100304-24	AGS1	12-MAR-2010 21:59	20 PPM	CAL	1.0	PEST020	
s2c1222.d	WBN100304-23.1	AGS1	12-MAR-2010 22:19	40 PPM	CAL	1.0	PEST040	
s2c1223.d	WBN100304-22	AGS1	12-MAR-2010 22:39	50 PPM	CAL	1.0	PEST050	
s2c1224.d	WBN100304-21	AGS1	12-MAR-2010 23:00	80 PPM	CAL	1.0	PEST080	
s2c1225.d	WBN100304-20	AGS1	12-MAR-2010 23:20	100 PPM	CAL	1.0	PEST100	
s2c1226.d	WBN100304-19	AGS1	12-MAR-2010 23:40	120 PPM	CAL	1.0	PEST120	
s2c1227.d	WBN100218-08.1	AGS1	13-MAR-2010 00:00	40 PPM	ICV	1.0	APICV	8270C
s2c1227D.d	WBN100218-08.1	AGS1	13-MAR-2010 00:00	40 PPM	ICV	1.0	APICV	8270D
s2c1228.d	WBN100304-26.1	AGS1	13-MAR-2010 00:20	40 PPM	ICV	1.0	PESTICV	8270C
s2c1228D.d	WBN100304-26.1	AGS1	13-MAR-2010 00:20	40 PPM	ICV	1.0	PESTICV	8270D
s2c1229.d	WBN100207-01	AGS1	13-MAR-2010 00:42	50PPM	DFTPP	1.0	DFTPP	8270C (HEX-BJCO)
s2c1229D.d	WBN100207-01	AGS1	13-MAR-2010 00:42	50PPM	DFTPP	1.0	DFTPP	8270D (HEX)
s2c1230.d	INSTBLK	AGS1	13-MAR-2010 00:55	------	s031210	1.0	INSTBLK	
s2c1231.d	WBN100304-16	AGS1	13-MAR-2010 01:15	500 PPM	CAL	1.0	HEX500	
s2c1232.d	WBN100304-15	AGS1	13-MAR-2010 01:35	1000 PPM	CAL	1.0	HEX1000	
s2c1233.d	WBN100304-14	AGS1	13-MAR-2010 01:55	1250 PPM	CAL	1.0	HEX1250	
s2c1234.d	WBN100304-13	AGS1	13-MAR-2010 02:15	1500 PPM	CAL	1.0	HEX1500	

Instrument Batch: /chem/MSD2.i/s031210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c1235.d	WBN100304-12	AGS1	13-MAR-2010 02:35	1750 PPM	CAL	1.0	HEX1750	

s2c1236.d	UBN100126-02.3	AGS1	13-MAR-2010 02:55	2000 PPM	CAL		1.0	HEX2000	
s2c1237.d	WBN100301-07	AGS1	13-MAR-2010 03:15	10PPM	CAL		1.0	BJCO010	
s2c1238.d	WBN100301-06	AGS1	13-MAR-2010 03:42	10PPM	CAL		1.0	BJCO010	
s2c1239.d	WBN100301-05.1	AGS1	13-MAR-2010 04:08	40PPM	CAL		1.0	BJCO040	
s2c1240.d	WBN100301-04	AGS1	13-MAR-2010 04:35	10PPM	CAL		1.0	BJCO010	
s2c1241.d	WBN100301-03	AGS1	13-MAR-2010 05:01	10PPM	CAL		1.0	BJCO010	
s2c1242.d	WBN100301-02	AGS1	13-MAR-2010 05:28	10PPM	CAL		1.0	BJCO010	
s2c1243.d	WBN100301-01	AGS1	13-MAR-2010 05:54	10PPM	CAL		1.0	BJCO010	
s2c1244.d	WBN100304-10.1	AGS1	13-MAR-2010 06:21	1250 PPM	ICV		1.0	HEXICV	8270C
s2c1244D.d	WBN100304-10.1	AGS1	13-MAR-2010 06:21	1250 PPM	ICV		1.0	HEXICV	8270D
s2c1245.d	WBN100301-05.3	AGS1	13-MAR-2010 06:41	10PPM	ICV		1.0	BJCOICV	
s2c1245D.d	WBN100301-05.3	AGS1	13-MAR-2010 06:41	10PPM	ICV		1.0	BJCOICV	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD2

DATE: 03/25/2010 METHOD:8270C MSD2-DFTPP.m OPERATOR:AGS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1106 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD2.i/s032510.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c2501.d	WBN100306-01.2	AGS1	25-MAR-2010 14:45	50PPM	DFTPP	1.0	DFTPP	8270C TUNE
s2c2501D.d	WBN100306-01.2	AGS1	25-MAR-2010 14:45	50PPM	DFTPP	1.0	DFTPP	8270D TUNE
s2c2502.d	WBN100309-09.1	AGS1	25-MAR-2010 14:58	40PPM	CVS	1.0	MEGACVS	8270C 165409
s2c2502D.d	WBN100309-09.1	AGS1	25-MAR-2010 14:58	40PPM	CVS	1.0	MEGACVS	8270D 165409
s2c2503.d	WBN100218-08.1	AGS1	25-MAR-2010 15:24	40 PPM	CVS	1.0	APCVS	8270C
s2c2503D.d	WBN100218-08.1	AGS1	25-MAR-2010 15:24	40 PPM	CVS	1.0	APCVS	8270D
s2c2504.d	WBN100304-26.1	AGS1	25-MAR-2010 15:44	40 PPM	CVS	1.0	PESTCVS	8270C
s2c2504D.d	WBN100304-26.1	AGS1	25-MAR-2010 15:44	40 PPM	CVS	1.0	PESTCVS	8270D
s2c2505.d	1202072982	AGS1	25-MAR-2010 16:05	965979	10-2314	1.0	MB	
s2c2506.d	1202072983	AGS1	25-MAR-2010 16:24	965979	10-2314	1.0	LCS	
s2c2507.d	249081001	AGS1	25-MAR-2010 16:45	965979	10-2359-1	1.0	LANL	
s2c2508.d	1202072984	AGS1	25-MAR-2010 17:05	965979	10-2359-1	1.0	MS	
s2c2509.d	1202072985	AGS1	25-MAR-2010 17:25	965979	10-2359-1	1.0	MSD	
s2c2510.d	248801006	AGS1	25-MAR-2010 17:45	963820	10-2294	1.0	LANL	
s2c2511.d	249338006	AGS1	25-MAR-2010 18:06	966343	249338	1.0	GEEL_BEAM	
s2c2512.d	249338015	AGS1	25-MAR-2010 18:26	966343	249338	1.0	GEEL_BEAM	
s2c2513.d	249338017	AGS1	25-MAR-2010 18:46	966343	249338	1.0	GEEL_BEAM	
s2c2514.d	249067003	AGS1	25-MAR-2010 19:07	965979	10-2354	1.0	LANL	
s2c2515.d	249067004	AGS1	25-MAR-2010 19:27	965979	10-2354	1.0	LANL	

s2c2516.d	249067005	AGS1	25-MAR-2010 19:47	965979	10-2354		1.0	LANL	
s2c2517.d	249067006	AGS1	25-MAR-2010 20:07	965979	10-2354		1.0	LANL	
s2c2518.d	248862002	AGS1	25-MAR-2010 20:27	965979	10-2314		1.0	LANL	ISTD low RR
s2c2519.d	248862003	AGS1	25-MAR-2010 20:47	965979	10-2314		1.0	LANL	
s2c2520.d	248862004	AGS1	25-MAR-2010 21:08	965979	10-2314		1.0	LANL	
s2c2521.d	248862005	AGS1	25-MAR-2010 21:28	965979	10-2314		1.0	LANL	
s2c2522.d	248862006	AGS1	25-MAR-2010 21:48	965979	10-2314		1.0	LANL	
s2c2523.d	248862007	AGS1	25-MAR-2010 22:08	965979	10-2314		1.0	LANL	
s2c2524.d	248862008	AGS1	25-MAR-2010 22:28	965979	10-2314		1.0	LANL	
s2c2525.d	248862009	AGS1	25-MAR-2010 22:49	965979	10-2314		1.0	LANL	
s2c2526.d	248862010	AGS1	25-MAR-2010 23:09	965979	10-2314		1.0	LANL	
s2c2527.d	248863001	AGS1	25-MAR-2010 23:29	965979	10-2315		1.0	LANL	
s2c2528.d	248863002	AGS1	25-MAR-2010 23:49	965979	10-2315		1.0	LANL	
s2c2529.d	248863003	AGS1	26-MAR-2010 00:09	965979	10-2315		1.0	LANL	

Instrument Batch: /chem/MSD2.i/s032510.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c2530.d	248863004	AGS1	26-MAR-2010 00:30	965979	10-2315	1.0	LANL	
s2c2531.d	248866001	AGS1	26-MAR-2010 00:50	965979	10-2319	1.0	LANL	
s2c2532.d	248866002	AGS1	26-MAR-2010 01:10	965979	10-2319	1.0	LANL	

Instrument Batch: /chem/MSD2.i/s032510.b Page: 1

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
30-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
965979	See Below		

Potentially affected work order(s)(SDG): 248862(10-2314),248863(10-2315),248866(10-2319),249067(10-2354),249081(10-2359-1)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The MSD(1202072985) recovered Benzyl alcohol at 13%. The limits are 19%-112%.	1. Since the MS displayed a similar low (but passing) recovery for Benzyl alcohol to the MSD, the failure was attributed to matrix interference and the data results have been reported.
2. The MS(1202072984)/MSD(1202072985) RPD value for Benzyl alcohol was 49%. The limit is 30%.	2. The Benzyl alcohol RPD failure was attributed to matrix interference and the data results have been reported.

Originator's Name:

Anne Salter 30-MAR-10

Data Validator/Group Leader:

Barbara Bailey 30-MAR-10

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2507.d
Lab Smp Id: 249081001 Client Smp ID: RE16-10-3799
Inj Date : 25-MAR-2010 16:45
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249081001|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2359-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	6.46600	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.838	3.843	(1.000)	148628	40.0000	
* 29 Naphthalene-d8	136	4.699	4.704	(1.000)	606845	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	379747	40.0000	
* 67 Phenanthrene-d10	188	6.934	6.940	(1.000)	709247	40.0000	
* 91 Chrysene-d12	240	8.592	8.603	(1.000)	577858	40.0000	
* 98 Perylene-d12	264	10.031	10.042	(1.000)	387343	40.0000	
$ 3 2-Fluorophenol	112	3.041	3.035	(0.792)	264657	74.7827	2660
$ 5 Phenol-d5	99	3.559	3.565	(0.928)	309657	71.0554	2530
$ 20 Nitrobenzene-d5	82	4.196	4.207	(0.893)	159036	36.2097	1290
$ 39 2-Fluorobiphenyl	172	5.437	5.442	(0.915)	308409	29.5190	1050
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.091)	99294	88.4030	3150
$ 81 p-Terphenyl-d14	244	7.860	7.860	(0.915)	459707	43.6204	1550

ION RATIO REPORT

SV REPORT

Data file: s2c2507.d
Report Date: 03/25/2010 17:57
Lab. ID: 249081001 SampleType: SAMPLE
Injection Date: 25-MAR-2010 16:45
Operator: AGS1 Instrument: MSD2.i
Sample Info: |249081001|965979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2359-1
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	24880	3.56	3.63	80-120	100	(T)
93	139	3.52	3.64	342-402	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	25321	4.20	4.08	80-120	100	(T)
42	22141	4.20	4.08	90-150	87	(QT)
41 m-Nitroaniline			CAS#: 99-09-2			
138	128	5.94	5.90	80-120	100	( )
92	2708	5.94	5.90	82-142	2104	(Q)
108	10609	5.94	5.90	0- 42	8242	(Q)
43 Dimethylphthalate			CAS#: 131-11-3			
163	67162	5.94	5.72	80-120	100	(T)
164	379747	5.94	5.72	0- 40	565	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	49178	5.94	5.77	80-120	100	(T)
63	737	5.94	5.77	85-145	1	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	49178	5.94	6.06	80-120	100	(T)
89	827	5.94	6.06	55-115	2	(QT)
63	737	5.94	6.06	44-104	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	5061	6.48	6.32	80-120	100	(T)
165	5020	6.48	6.32	63-123	99	(T)
167	1594	6.48	6.32	0- 43	32	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	396	6.48	6.34	80-120	100	(T)
105	1036	6.48	6.34	17- 77	261	(QT)
51	1240	6.48	6.34	99-159	313	(QT)
61 4-Bromophenylphenylether			CAS#: 101-55-3			
248	6788	6.49	6.63	80-120	100	(T)
141	63923	6.48	6.63	79-139	942	(QT)
250	14763	6.49	6.63	68-128	217	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2507.d
Lab Smp Id: 249081001 Client Smp ID: RE16-10-3799
Inj Date : 25-MAR-2010 16:45
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249081001|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2359-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	6.46600	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.838	1100777	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.875	399004	14.4989735	516	0		0	10

Data File: /chem/MSD2.i/s032510.b/s2c2507.d
Date : 25-MAR-2010 16:45
Client ID: RE16-10-3799
Sample Info: |2490810011965979111SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: ACS1
Column diameter: 0.20

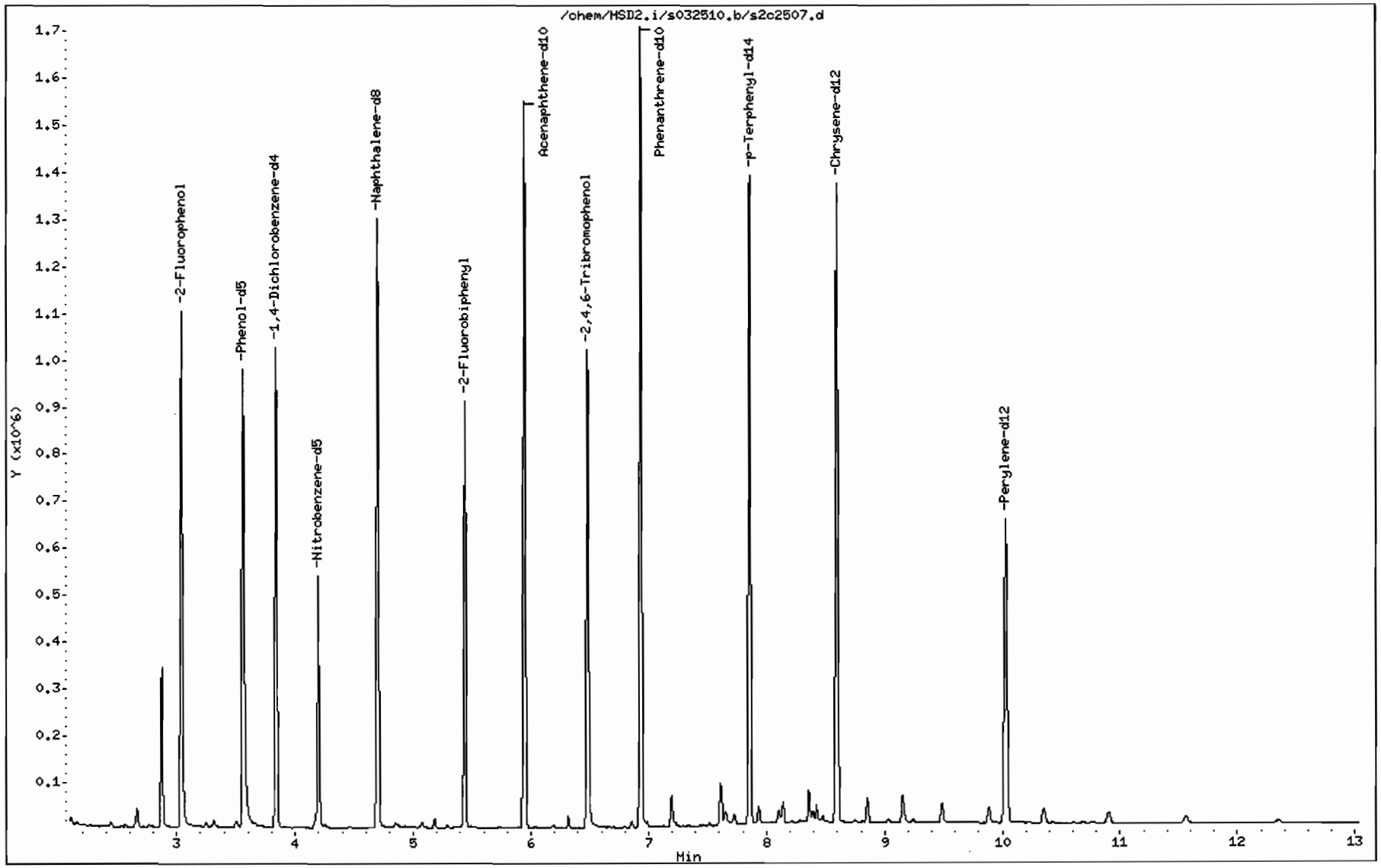

Data File: /chem/MSD2.i/s032510.b/s2c2507.d

Date : 25-MAR-2010 16:45

Client ID: RE16-10-3799

Instrument: MSD2.i

Sample Info: 1249081001|965979|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
1-Propen-2-ol, acetate	108-22-5	NIST05.L	3595	10	C5H8O2	100

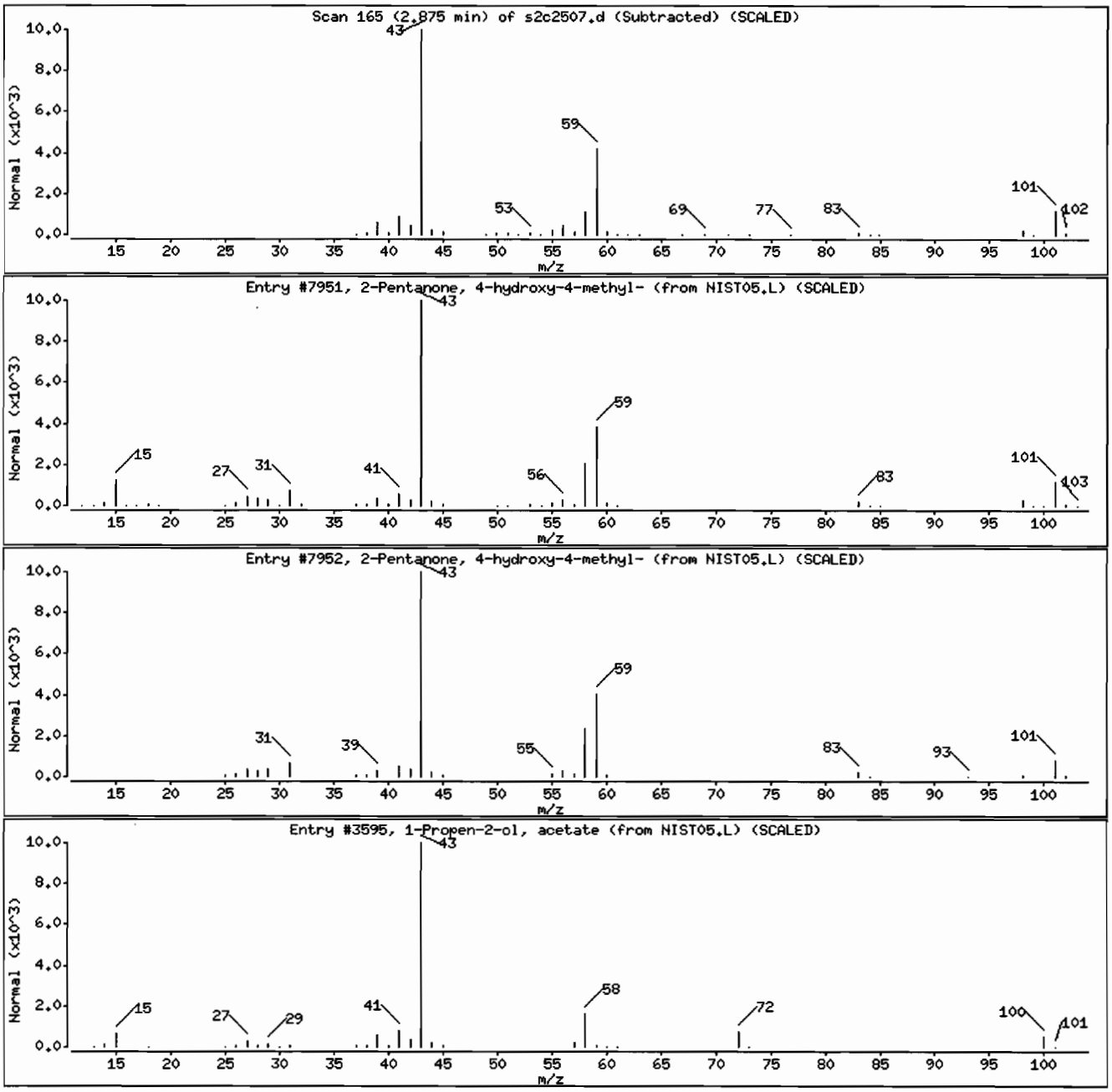

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Data file : /chem/MSD2.i/s032510.b/s2c2508.d
Lab Smp Id: 1202072984 Client Smp ID: RE16-10-3799MS
Inj Date : 25-MAR-2010 17:05
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202072984|965979|1|SVM|1|MS
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 8 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2359-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	6.46600	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.838	3.843	(1.000)	153202	40.0000	
* 29 Naphthalene-d8	136	4.699	4.704	(1.000)	682284	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	383764	40.0000	
* 67 Phenanthrene-d10	188	6.934	6.940	(1.000)	734090	40.0000	
* 91 Chrysene-d12	240	8.593	8.603	(1.000)	671337	40.0000	
* 98 Perylene-d12	264	10.026	10.042	(1.000)	430902	40.0000	
$ 3 2-Fluorophenol	112	3.041	3.035	(0.792)	205024	56.2029	2000
$ 5 Phenol-d5	99	3.559	3.565	(0.928)	247147	55.0184	1960
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.894)	144436	29.2494	1040
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	264701	25.0703	893
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.091)	72071	63.4943	2260
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	361408	29.5180	1050

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.570	3.570	(0.930)	125257	27.0450	964
8 2-Chlorophenol	128	3.709	3.709	(0.967)	110918	26.9282	960
11 1,4-Dichlorobenzene	146	3.848	3.854	(1.003)	116674	22.4471	800
17 N-Nitrosodipropylamine	70	4.073	4.084	(1.061)	87988	30.2774	1080(Q)
28 1,2,4-Trichlorobenzene	180	4.651	4.656	(0.990)	111089	26.3369	938
33 4-Chloro-3-methylphenol	107	5.057	5.052	(1.076)	110429	29.7619	1060
47 Acenaphthene	154	5.972	5.977	(1.004)	261581	25.5926	912
50 2,4-Dinitrotoluene	165	6.057	6.063	(1.019)	91912	29.8126	1060
52 4-Nitrophenol	139	6.009	5.998	(1.011)	32237	21.0407	750
65 Pentachlorophenol	266	6.811	6.811	(0.982)	37696	22.5700	804
79 Pyrene	202	7.806	7.812	(0.908)	527704	24.1143	859
2 Pyridine	79	2.399	2.383	(0.625)	62531	20.9793	748
4 Aniline	66	3.624	3.629	(0.944)	60871	27.6788	986
7 bis(2-Chloroethyl) ether	63	3.640	3.645	(0.948)	107048	26.9057	959
9 1,3-Dichlorobenzene	146	3.806	3.811	(0.992)	106730	21.7717	776
12 Benzyl alcohol	108	3.913	3.912	(1.020)	23086	10.5824	377
13 1,2-Dichlorobenzene	146	3.950	3.955	(1.029)	109383	22.7977	812
14 bis(2-Chloroisopropyl)ether	45	3.982	3.987	(1.038)	323330	33.2415	1180
15 o-Cresol	107	3.961	3.961	(1.032)	89771	27.4502	978(Q)
18 m,p-Cresols	107	4.057	4.062	(1.057)	142084	36.4648	1300
19 Hexachloroethane	117	4.180	4.185	(1.089)	46982	22.8726	815
21 Nitrobenzene	77	4.212	4.217	(0.896)	138024	29.6952	1060
22 Isophorone	82	4.362	4.372	(0.928)	238745	28.4010	1010
23 2-Nitrophenol	139	4.426	4.431	(0.942)	66834	27.4624	979
24 2,4-Dimethylphenol	122	4.421	4.426	(0.941)	93348	21.4405	764
25 bis(2-Chloroethoxy)methane	93	4.485	4.490	(0.954)	127249	26.3869	940
26 2,4-Dichlorophenol	162	4.592	4.592	(0.977)	100153	29.0263	1030
27 Benzoic acid	105	4.485	4.479	(0.954)	149493	69.6130	2480
30 Naphthalene	128	4.715	4.720	(1.003)	349275	25.8162	920
31 4-Chloroaniline	127	4.736	4.736	(1.008)	146241	24.8866	887
32 Hexachlorobutadiene	225	4.779	4.784	(1.017)	67991	26.6307	949
34 2-Methylnaphthalene	142	5.196	5.201	(1.106)	251247	28.8942	1030
36 Hexachlorocyclopentadiene	237	5.298	5.303	(0.891)	30294	16.5869	591
37 2,4,6-Trichlorophenol	196	5.389	5.389	(0.906)	73920	25.6176	913
38 2,4,5-Trichlorophenol	196	5.421	5.415	(0.912)	79713	25.6041	912
40 2-Chloronaphthalene	162	5.549	5.549	(0.933)	239788	25.7804	919
42 o-Nitroaniline	65	5.608	5.608	(0.943)	85963	29.6432	1060
41 m-Nitroaniline	138	5.897	5.902	(0.992)	52817	28.3743	1010
43 Dimethylphthalate	163	5.710	5.720	(0.960)	318225	29.1590	1040
44 2,6-Dinitrotoluene	165	5.769	5.774	(0.970)	67522	27.3557	975
45 Acenaphthylene	152	5.849	5.854	(0.984)	381850	27.2350	970
48 2,4-Dinitrophenol	184	5.972	5.977	(1.004)	18779	24.6661	879(Q)
49 Dibenzofuran	168	6.089	6.089	(1.024)	353560	28.1595	1000
51 Diethylphthalate	149	6.202	6.202	(1.043)	350640	31.3246	1120
53 Fluorene	166	6.325	6.325	(1.064)	328666	30.1707	1080
54 4-Chlorophenylphenylether	204	6.303	6.303	(1.060)	148601	28.9533	1030
55 2-Methyl-4,6-dinitrophenol	198	6.341	6.341	(0.914)	40653	25.5506	910

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.325	6.325	(1.064)	66446	37.3656	1330
133 Diphenylamine	169	6.378	6.383	(0.920)	254840	26.6742	951
58 1,2-Diphenylhydrazine	77	6.410	6.416	(0.924)	352674	28.3436	1010
61 4-Bromophenylphenylether	248	6.630	6.630	(0.956)	83326	25.7985	919
63 Hexachlorobenzene	284	6.688	6.688	(0.965)	80995	25.1138	895
68 Phenanthrene	178	6.951	6.956	(1.002)	481433	26.5339	946
69 Anthracene	178	6.983	6.988	(1.007)	475921	27.1143	966
72 Di-n-butylphthalate	149	7.229	7.234	(1.042)	652914	31.4420	1120
76 Fluoranthene	202	7.662	7.672	(1.105)	501606	30.6068	1090
85 Butylbenzylphthalate	149	8.117	8.127	(0.945)	290840	28.4053	1010
89 Benzo(a)anthracene	228	8.582	8.592	(0.999)	467368	27.8957	994
90 3,3'-Dichlorobenzidine	252	8.523	8.528	(0.992)	92239	20.7294	739
92 Chrysene	228	8.614	8.625	(1.002)	443017	28.3437	1010
93 bis(2-Ethylhexyl)phthalate	149	8.475	8.485	(0.986)	413339	29.3172	1040
94 Di-n-octylphthalate	149	8.994	9.010	(0.897)	627688	30.5549	1090
95 Benzo(b)fluoranthene	252	9.566	9.582	(0.954)	339899	28.9194	1030
96 Benzo(k)fluoranthene	252	9.598	9.614	(0.957)	357481	30.0642	1070
97 Benzo(a)pyrene	252	9.962	9.978	(0.994)	283006	29.0514	1040
99 Indeno(1,2,3-cd)pyrene	276	11.636	11.657	(1.161)	230117	27.5959	983
100 Dibenzo(a,h)anthracene	278	11.636	11.663	(1.161)	189683	27.8432	992
101 Benzo(ghi)perylene	276	12.133	12.155	(1.210)	178433	26.4180	941
1 N-Methyl-N-nitrosomethylamine	74	2.356	2.351	(0.614)	48472	23.1196	824

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s032510.b/s2c2508.d
Date : 25-MAR-2010 17:05
Client ID: RE16-10-3799MS
Sample Info: 1120072984196597911|SVM11|MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

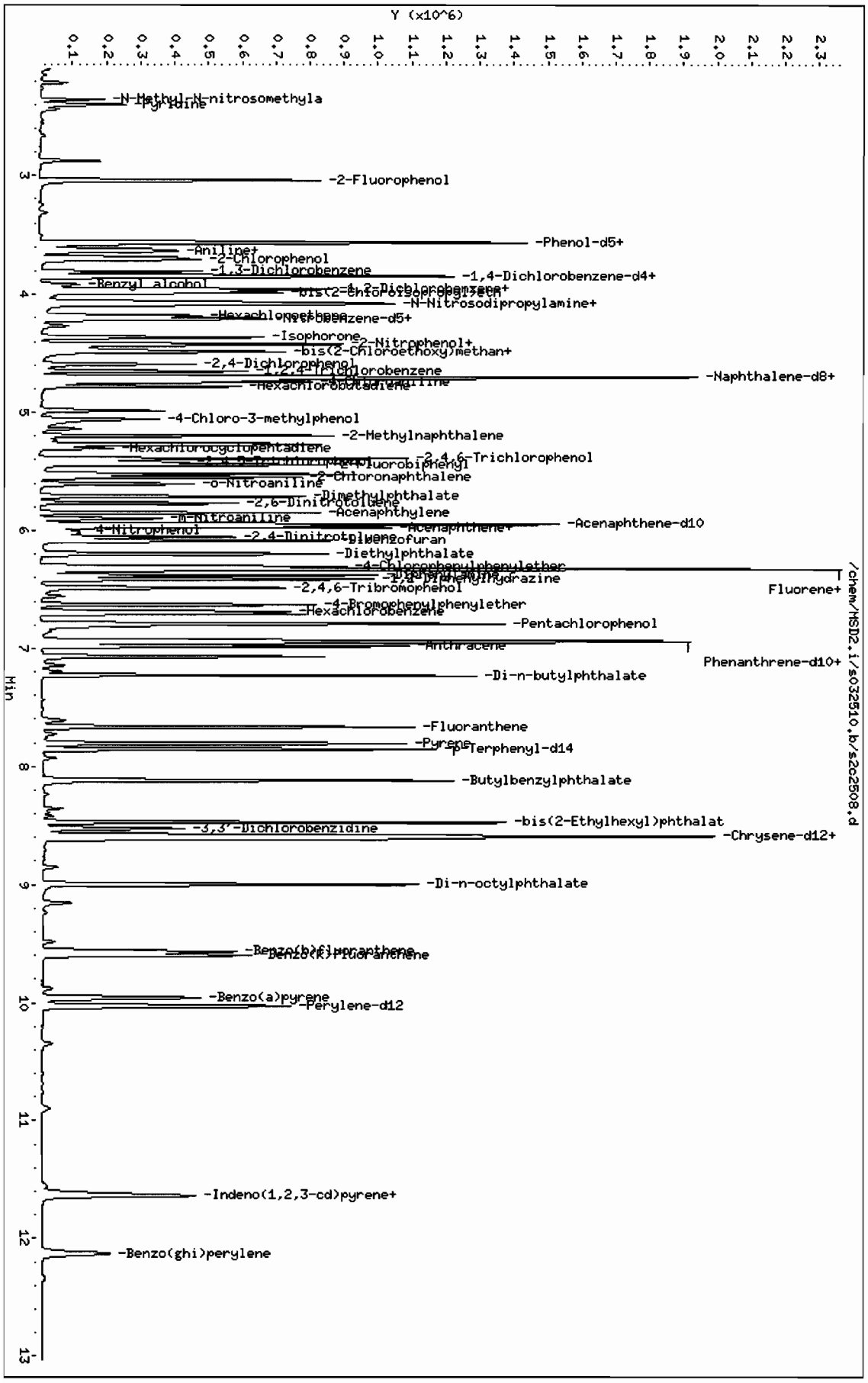

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Data file : /chem/MSD2.i/s032510.b/s2c2509.d
Lab Smp Id: 1202072985 Client Smp ID: RE16-10-3799MSD
Inj Date : 25-MAR-2010 17:25
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202072985|965979|1|SVM|1|MSD
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 9 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2359-1.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	6.46600	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.838	3.843	(1.000)	164745	40.0000	
* 29 Naphthalene-d8	136	4.699	4.704	(1.000)	732366	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	408987	40.0000	
* 67 Phenanthrene-d10	188	6.934	6.940	(1.000)	778496	40.0000	
* 91 Chrysene-d12	240	8.593	8.603	(1.000)	741211	40.0000	
* 98 Perylene-d12	264	10.031	10.042	(1.000)	500304	40.0000	
$ 3 2-Fluorophenol	112	3.041	3.035	(0.792)	241169	61.4791	2190
$ 5 Phenol-d5	99	3.559	3.565	(0.928)	288790	59.7842	2130
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.894)	169513	31.9802	1140
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	309942	27.5448	981
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.091)	82730	68.3899	2440
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	397644	29.4159	1050

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.570	3.570	(0.930)	140844	28.2798	1010
8 2-Chlorophenol	128	3.709	3.709	(0.967)	131728	29.7396	1060
11 1,4-Dichlorobenzene	146	3.848	3.854	(1.003)	137976	24.6855	879
17 N-Nitrosodipropylamine	70	4.073	4.084	(1.061)	101782	32.5700	1160(Q)
28 1,2,4-Trichlorobenzene	180	4.651	4.656	(0.990)	127971	28.2645	1010
33 4-Chloro-3-methylphenol	107	5.057	5.052	(1.076)	126894	31.8608	1130
47 Acenaphthene	154	5.972	5.977	(1.004)	304960	27.9966	997
50 2,4-Dinitrotoluene	165	6.057	6.063	(1.019)	104131	31.6929	1130
52 4-Nitrophenol	139	6.014	5.998	(1.012)	35919	21.9981	783
65 Pentachlorophenol	266	6.811	6.811	(0.982)	42223	23.8385	849
79 Pyrene	202	7.801	7.812	(0.908)	589831	24.4124	869
2 Pyridine	79	2.404	2.383	(0.626)	73850	23.0409	820
4 Aniline	66	3.624	3.629	(0.944)	65151	27.5493	981
7 bis(2-Chloroethyl) ether	63	3.640	3.645	(0.948)	124420	29.0809	1040
9 1,3-Dichlorobenzene	146	3.805	3.811	(0.992)	128233	24.3253	866
12 Benzyl alcohol	108	3.918	3.912	(1.021)	15076	6.42650	229(aR)
13 1,2-Dichlorobenzene	146	3.950	3.955	(1.029)	130482	25.2898	901
14 bis(2-Chloroisopropyl)ether	45	3.982	3.987	(1.038)	378796	36.2153	1290
15 o-Cresol	107	3.961	3.961	(1.032)	102434	29.1276	1040
18 m,p-Cresols	107	4.057	4.062	(1.057)	165298	39.4502	1400
19 Hexachloroethane	117	4.180	4.185	(1.089)	55525	25.1377	895
21 Nitrobenzene	77	4.212	4.217	(0.896)	163586	32.7880	1170
22 Isophorone	82	4.362	4.372	(0.928)	273339	30.2927	1080
23 2-Nitrophenol	139	4.426	4.431	(0.942)	77087	29.5093	1050
24 2,4-Dimethylphenol	122	4.421	4.426	(0.941)	105474	22.5690	804
25 bis(2-Chloroethoxy)methane	93	4.485	4.490	(0.954)	146229	28.2491	1010
26 2,4-Dichlorophenol	162	4.592	4.592	(0.977)	113761	30.7156	1090
27 Benzoic acid	105	4.485	4.479	(0.954)	171836	74.5454	2650
30 Naphthalene	128	4.715	4.720	(1.003)	408652	28.1394	1000
31 4-Chloroaniline	127	4.736	4.736	(1.008)	162589	25.7765	918
32 Hexachlorobutadiene	225	4.779	4.784	(1.017)	82493	30.1013	1070
34 2-Methylnaphthalene	142	5.196	5.201	(1.106)	287237	30.7742	1100
36 Hexachlorocyclopentadiene	237	5.298	5.303	(0.891)	41085	21.1079	752
37 2,4,6-Trichlorophenol	196	5.389	5.389	(0.906)	82287	26.7585	953
38 2,4,5-Trichlorophenol	196	5.421	5.415	(0.912)	93670	28.2316	1000
40 2-Chloronaphthalene	162	5.549	5.549	(0.933)	278153	28.0609	999
42 o-Nitroaniline	65	5.608	5.608	(0.943)	99080	32.0593	1140
41 m-Nitroaniline	138	5.897	5.902	(0.992)	62213	31.0058	1100
43 Dimethylphthalate	163	5.710	5.720	(0.960)	357608	30.7468	1100
44 2,6-Dinitrotoluene	165	5.768	5.774	(0.970)	77092	29.3067	1040
45 Acenaphthylene	152	5.849	5.854	(0.984)	436937	29.2421	1040
48 2,4-Dinitrophenol	184	5.972	5.977	(1.004)	25146	28.1503	1000(Q)
49 Dibenzofuran	168	6.089	6.089	(1.024)	398394	29.7734	1060
51 Diethylphthalate	149	6.202	6.202	(1.043)	401153	33.6271	1200
53 Fluorene	166	6.325	6.325	(1.064)	376344	32.4168	1150
54 4-Chlorophenylphenylether	204	6.303	6.303	(1.060)	169792	31.0419	1100
55 2-Methyl-4,6-dinitrophenol	198	6.341	6.341	(0.914)	48297	27.7252	987

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56	p-Nitroaniline	138	6.325	6.325	(1.064)	83282	42.8666	1530
133	Diphenylamine	169	6.378	6.383	(0.920)	290860	28.7078	1020
58	1,2-Diphenylhydrazine	77	6.410	6.416	(0.924)	407408	30.8748	1100
61	4-Bromophenylphenylether	248	6.630	6.630	(0.956)	94387	27.5562	981
63	Hexachlorobenzene	284	6.688	6.688	(0.965)	93032	27.2007	969
68	Phenanthrene	178	6.950	6.956	(1.002)	551910	28.6831	1020
69	Anthracene	178	6.983	6.988	(1.007)	539024	28.9577	1030
72	Di-n-butylphthalate	149	7.229	7.234	(1.042)	720755	32.7292	1160
76	Fluoranthene	202	7.662	7.672	(1.105)	562750	32.3791	1150
85	Butylbenzylphthalate	149	8.117	8.127	(0.945)	325038	28.7527	1020
89	Benzo(a)anthracene	228	8.582	8.592	(0.999)	521108	28.1711	1000
90	3,3'-Dichlorobenzidine	252	8.523	8.528	(0.992)	112568	22.9132	816
92	Chrysene	228	8.614	8.625	(1.002)	514845	29.8340	1060
93	bis(2-Ethylhexyl)phthalate	149	8.475	8.485	(0.986)	461598	29.6537	1060
94	Di-n-octylphthalate	149	8.999	9.010	(0.897)	721654	30.2559	1080
95	Benzo(b)fluoranthene	252	9.571	9.582	(0.954)	428163	31.3756	1120
96	Benzo(k)fluoranthene	252	9.598	9.614	(0.957)	395766	28.6669	1020
97	Benzo(a)pyrene	252	9.962	9.978	(0.993)	339866	30.0486	1070
99	Indeno(1,2,3-cd)pyrene	276	11.641	11.657	(1.160)	295000	30.4693	1080
100	Dibenzo(a,h)anthracene	278	11.641	11.663	(1.160)	249280	31.5153	1120
101	Benzo(ghi)perylene	276	12.139	12.155	(1.210)	232409	29.6362	1060
1	N-Methyl-N-nitrosomethylamine	74	2.361	2.351	(0.615)	56009	24.8427	885

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD2.i/s032510.b/s2c2509.d
Date : 25-MAR-2010 17:25
Client ID: RE16-10-3799MSD
Sample Info: 1420207298|965979|1|SVM|1|MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

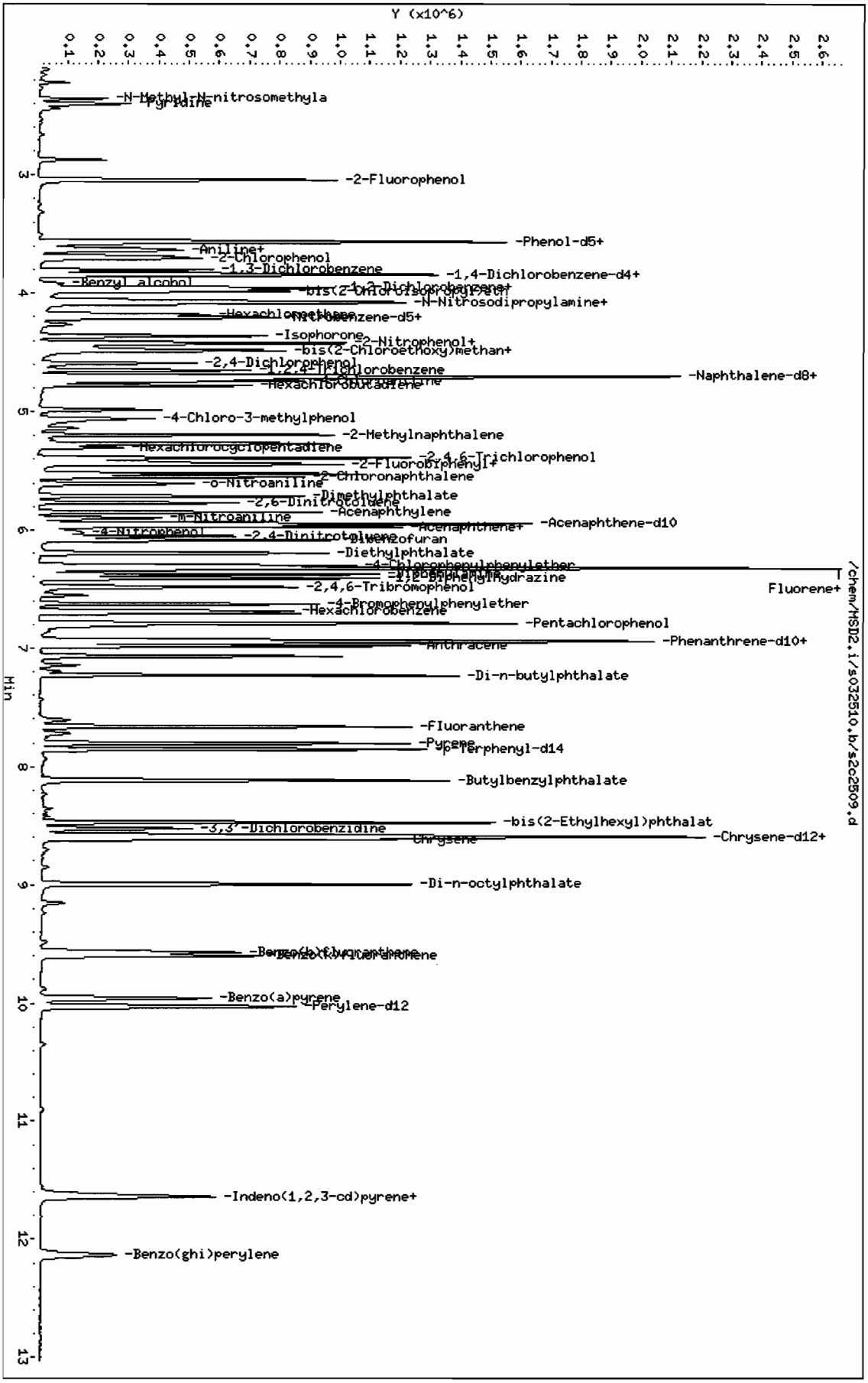

Page 1

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2315

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	964450
Prep Batch Number:	964449

Sample Analysis

Sample ID	Client ID
248863001	RE46-10-12936
248863002	RE46-10-12930
248863003	RE46-10-12929
248863004	RE46-10-12935
1202069102	Interference Check Sample (ICS)
1202069098	Method Blank (MB)
1202069099	Laboratory Control Sample (LCS)
1202069100	248863002(RE46-10-12930) Matrix Spike (MS)
1202069101	248863002(RE46-10-12930) Matrix Spike Duplicate (MSD)

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

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

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Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248863002 (RE46-10-12930) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

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Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
The SDG required re-analysis due to failure of a bracketing CCV/CRI. The re-analysis passed acceptance criteria and is reported.

Miscellaneous Information

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

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

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Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

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

Review Validation:

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

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

Reviewer: Heather K Maier **Date:** 03/31/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12936

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2315

GEL Sample ID: 248863001

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 90.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.553	2.21	0.553	ug/kg	U	1	28-MAR-10 16:15	per0328018a
	Perchlorate Isotope Ratio						1	28-MAR-10 16:15	per0328018a
14797-73-0	Perchlorate-101	.553	2.21	0.553	ug/kg	U	1	28-MAR-10 16:15	per0328018a
	Perchlorate-O(18)			5.45	ug/kg		1	28-MAR-10 16:15	per0328018a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12930

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2315

GEL Sample ID: 248863002

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 91.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.546	2.18	0.546	ug/kg	U	1	28-MAR-10 16:24	per0328019a
	Perchlorate Isotope Ratio						1	28-MAR-10 16:24	per0328019a
14797-73-0	Perchlorate-101	.546	2.18	0.546	ug/kg	U	1	28-MAR-10 16:24	per0328019a
	Perchlorate-O(18)			5.38	ug/kg		1	28-MAR-10 16:24	per0328019a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12929

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2315

GEL Sample ID: 248863003

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.604	2.42	0.604	ug/kg	U	1	28-MAR-10 17:15	per0328025a
	Perchlorate Isotope Ratio						1	28-MAR-10 17:15	per0328025a
14797-73-0	Perchlorate-101	.604	2.42	0.604	ug/kg	U	1	28-MAR-10 17:15	per0328025a
	Perchlorate-O(18)			6.08	ug/kg		1	28-MAR-10 17:15	per0328025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12935

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2315

GEL Sample ID: 248863004

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.57	2.28	0.570	ug/kg	U	1	28-MAR-10 17:23	per0328026a
	Perchlorate Isotope Ratio						1	28-MAR-10 17:23	per0328026a
14797-73-0	Perchlorate-101	.57	2.28	0.570	ug/kg	U	1	28-MAR-10 17:23	per0328026a
	Perchlorate-O(18)			5.74	ug/kg		1	28-MAR-10 17:23	per0328026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2315

Extract Batch Code: 964449

Date Filtered: 19–MAR–10

Matrix: SOIL

Sample ID: 1202069099

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.99	ug/kg	99.3		70 – 130
Perchlorate Isotope Ratio		3.25				–
Perchlorate–101	2.00	1.95	ug/kg	97.7		70 – 130
Perchlorate–O(18)		5.01	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2315

Extract Batch Code: 964449

Date Filtered: 19–MAR–10

Matrix: SOIL

Sample ID: 1202069102

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.27	ug/kg	113		70 – 130
Perchlorate Isotope Ratio		3.31				
Perchlorate–101	2.00	2.19	ug/kg	110		70 – 130
Perchlorate–O(18)		5.43	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Tuesday, March 30, 2010 12:46:03 PM Eastern Standard Time
Printed: Tuesday, March 30, 2010 12:46:36 PM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032810a.mdb 29 Mar 2010 09:32:17
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032810a.cdb 29 Mar 2010 09:32:40

Name: per0328017a
Date: 28-Mar-2010
Time: 16:06:59
ID: 1202069102 | LANC | 964450 | Soil | ICS | 1 |
Vial: 1:3,E

CW 03-30-10

Perchlorate

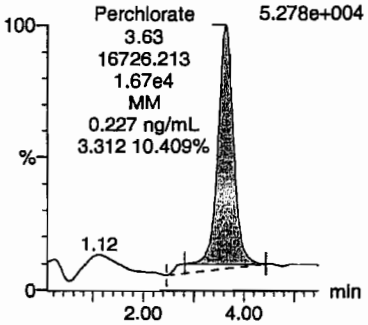

Perchlorate

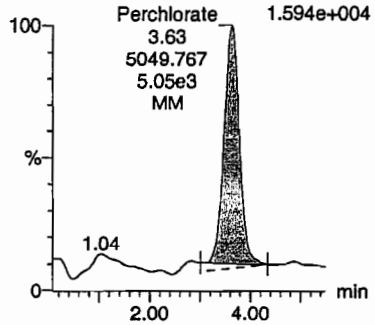

Perchlorate-101

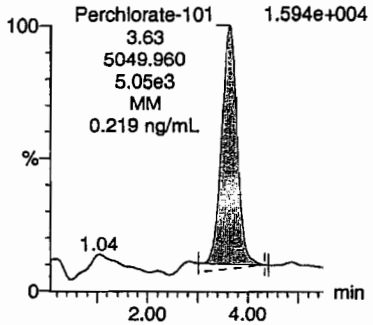

Perchlorate-O(18)

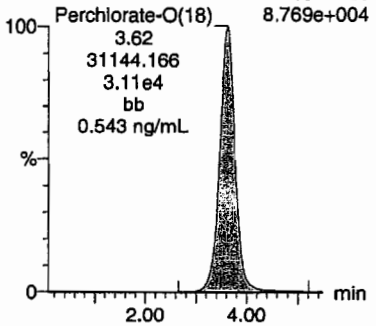

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202069102	Perchlorate	99 > 83	3.63	16726.213	16726.213	MM	30-Mar-10	12:44:48	0.2269	113.43	13.43	383.646	3.31
1202069102	Perchlorate-101	101 > 85	3.63	5049.960	5049.960	MM	30-Mar-10	12:46:03	0.2192	109.62	9.62	187.196	
1202069102	Perchlorate-O(18)	107 > 89	3.62	31144.166	31144.166	bb			0.5432	108.64	8.64	7675.1...	

MMT 3/30/10

$$\frac{16726.213}{5049.960} = 3.3121$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–2315

Extract Batch Code: 964449

Date Extracted: 19–MAR–10

GEL MS/PS ID: 1202069100

Client ID: RE46–10–12930

GEL MSD/PSD ID: 1202069101

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.18	0.444	ug/kg	2.44	91.4	2.48	93.1	1.51	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.21		3.23		0		–
Perchlorate–101	2.18	0.387	ug/kg	2.43	93.6	2.46	94.8	1.08	30	75 – 125
Perchlorate–O(18)	0	5.38	ug/kg	5.34		5.49		2.73		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2315

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	28–MAR–10	per0328001a	IPB001
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328001a	IPB001
Perchlorate	0.00	0	NA	28–MAR–10	per0328002a	IPB001
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328002a	IPB001

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he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ast Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
rinted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

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alibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032810a.cdb 29 Mar 2010 09:32:40

ame: per0328001a
ate: 28-Mar-2010
ime: 13:50:13
): IPB001
ial: 1:1,A

Cwo 03-29-10

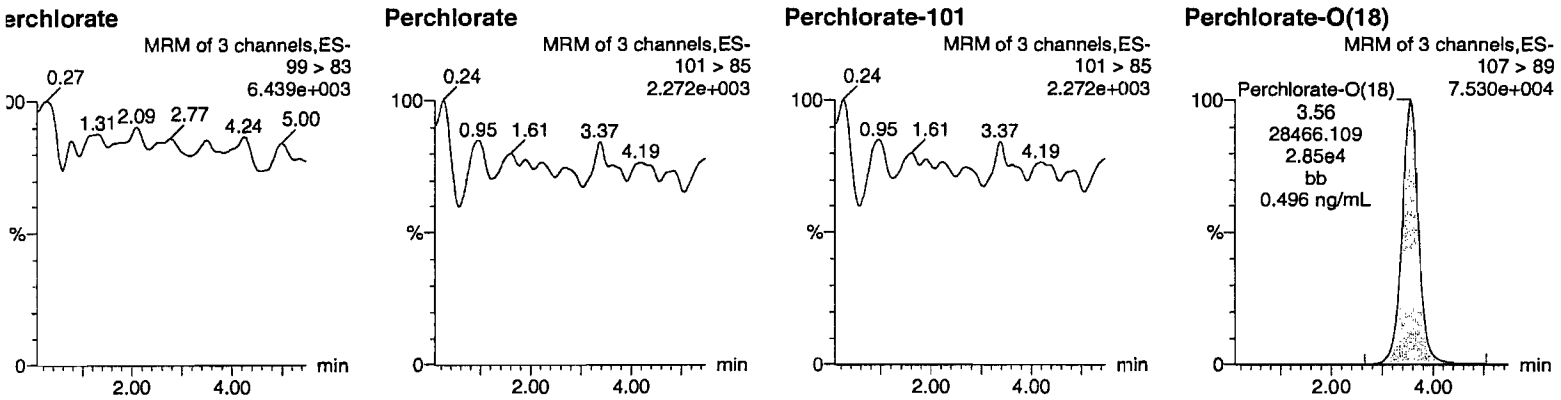

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B001	Perchlorate	99 > 83											0.00
B001	Perchlorate-101	101 > 85											
B001	Perchlorate-O(18)	107 > 89	3.56	28466.109	28466.109	bb			0.4965	99.30	-0.70	8068.7...	

MM 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328002a
Date: 28-Mar-2010
Time: 13:58:57
ID: IPB001
Vial: 1:1,A

CWO 03-29-10

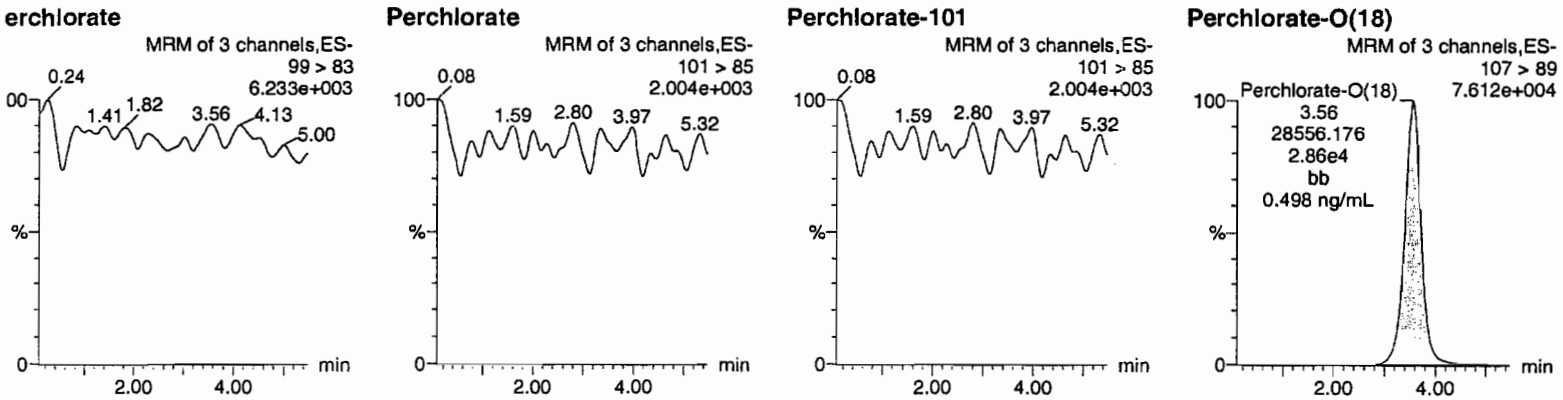

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.56	28556.176	28556.176	bb			0.4981	99.61	-0.39	617.780	

MM 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2315

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	28-MAR-10	per0328008a	IPB002
Perchlorate-101	0.00	0	NA	28-MAR-10	per0328008a	IPB002
Perchlorate	0.00	0	NA	28-MAR-10	per0328010a	IPB003
Perchlorate-101	0.00	0	NA	28-MAR-10	per0328010a	IPB003
Perchlorate	0.00	0	NA	28-MAR-10	per0328014a	IPB004
Perchlorate-101	0.00	0	NA	28-MAR-10	per0328014a	IPB004
Perchlorate	0.00	0	NA	28-MAR-10	per0328023a	IPB005
Perchlorate-101	0.00	0	NA	28-MAR-10	per0328023a	IPB005
Perchlorate	0.00	0	NA	28-MAR-10	per0328036a	IPB006
Perchlorate-101	0.00	0	NA	28-MAR-10	per0328036a	IPB006

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ast Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
rinted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

ame: per0328008a
ate: 28-Mar-2010
ime: 14:50:04
): IPB002
ial: 1:1,A

3-29-10

erchlorate

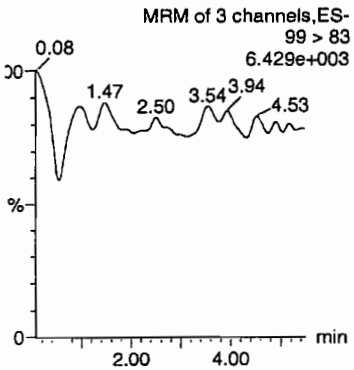

Perchlorate

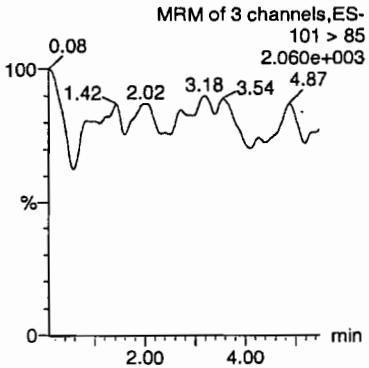

Perchlorate-101

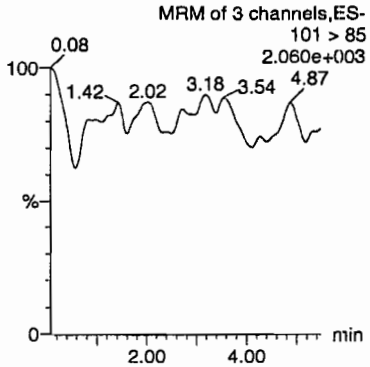

Perchlorate-O(18)

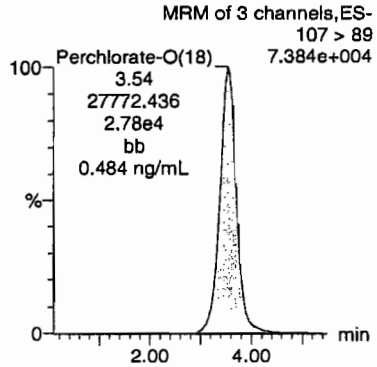

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B002	Perchlorate	99 > 83											0.00
B002	Perchlorate-101	101 > 85											
B002	Perchlorate-O(18)	107 > 89	3.54	27772.436	27772.436	bb			0.4844	96.88	-3.12	4963.3...	

MAT 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ast Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
rinted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

ame: per0328010a
ate: 28-Mar-2010
me: 15:07:08
: IPB003
al: 1:1,A

CWO 03-29-10

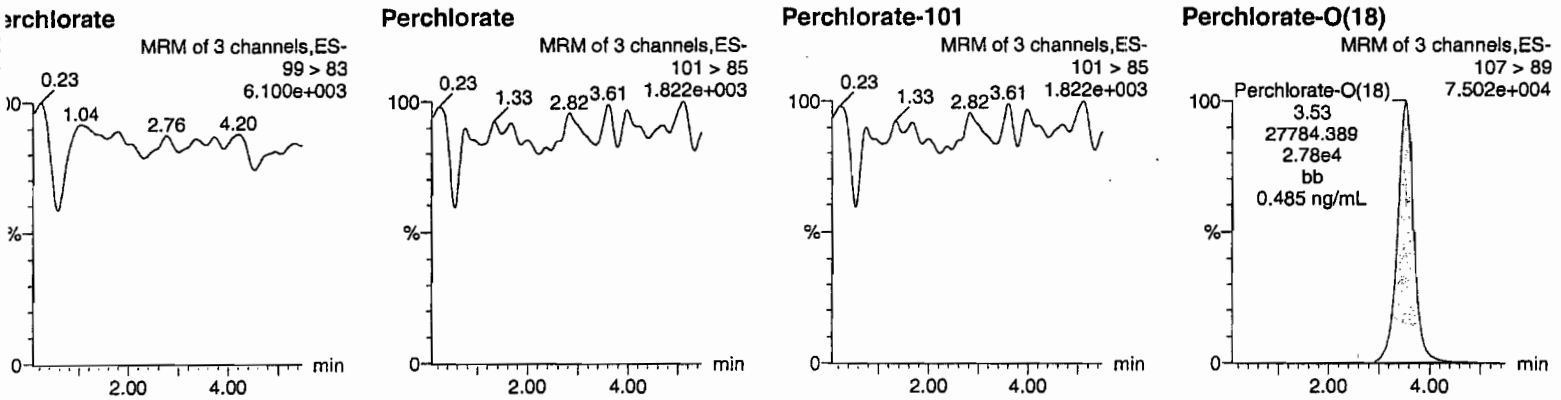

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
3003	Perchlorate	99 > 83											0.00
3003	Perchlorate-101	101 > 85											
3003	Perchlorate-O(18)	107 > 89	3.53	27784.389	27784.389	bb			0.4846	96.92	-3.08	5153.3...	

MMT 3/30/10

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

st Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
inted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

me: per0328014a
te: 28-Mar-2010
ne: 15:41:19
: IPB004
al: 1:1,A

03-29-10

rchlorate

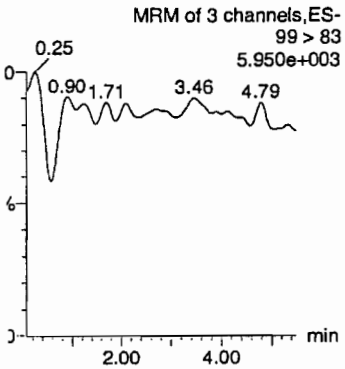

Perchlorate

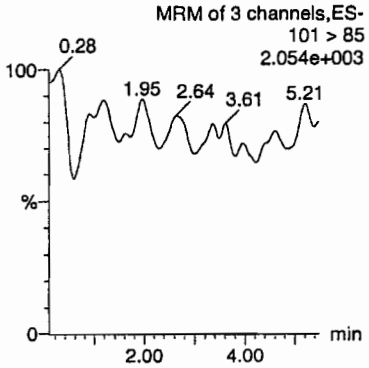

Perchlorate-101

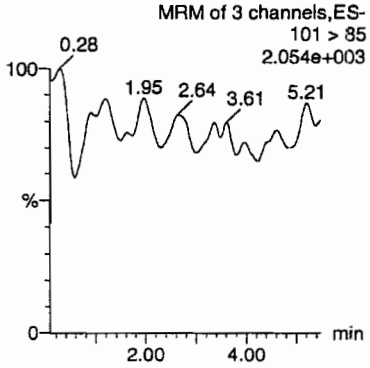

Perchlorate-O(18)

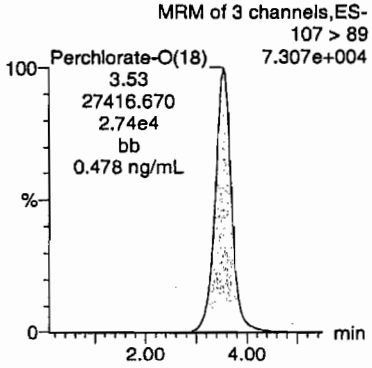

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
004	Perchlorate	99 > 83											0.00
004	Perchlorate-101	101 > 85											
004	Perchlorate-O(18)	107 > 89	3.53	27416.670	27416.670	bb			0.4782	95.64	-4.36	1369.3...	

MAT 3/30/10

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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e GEL Group, LLC Analyst: Charlers W. Wilson

ıtaset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

st Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
nted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

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ıte: 28-Mar-2010
ne: 16:58:12
: IPB005
ıl: 1:1,A

cw 03-29-10

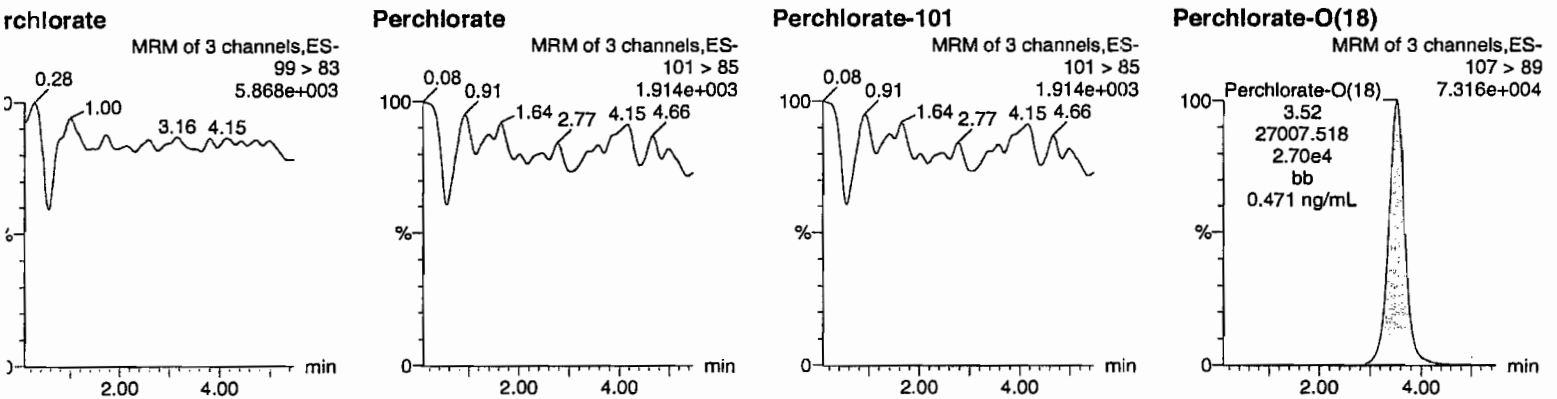

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
005	Perchlorate	99 > 83											0.00
005	Perchlorate-101	101 > 85											
005	Perchlorate-O(18)	107 > 89	3.52	27007.518	27007.518	bb			0.4711	✓94.21	-5.79	913.616	

MAT 3/30/10

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ast Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
rinted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

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ate: 28-Mar-2010
me: 18:49:11
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CWD
03-29-10

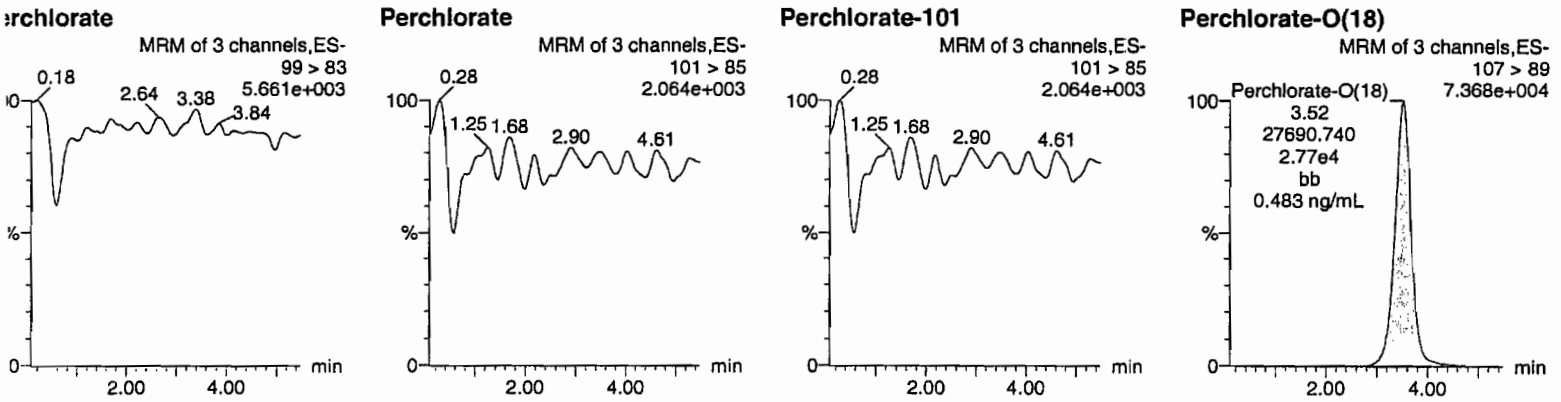

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
006	Perchlorate	99 > 83											0.00
006	Perchlorate-101	101 > 85											
006	Perchlorate-O(18)	107 > 89	3.52	27690.740	27690.740	bb			0.4830	96.59	-3.41	10009....	

MAT
3/30/10

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Naibrcf

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05mg/ml) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWW 01-09-08

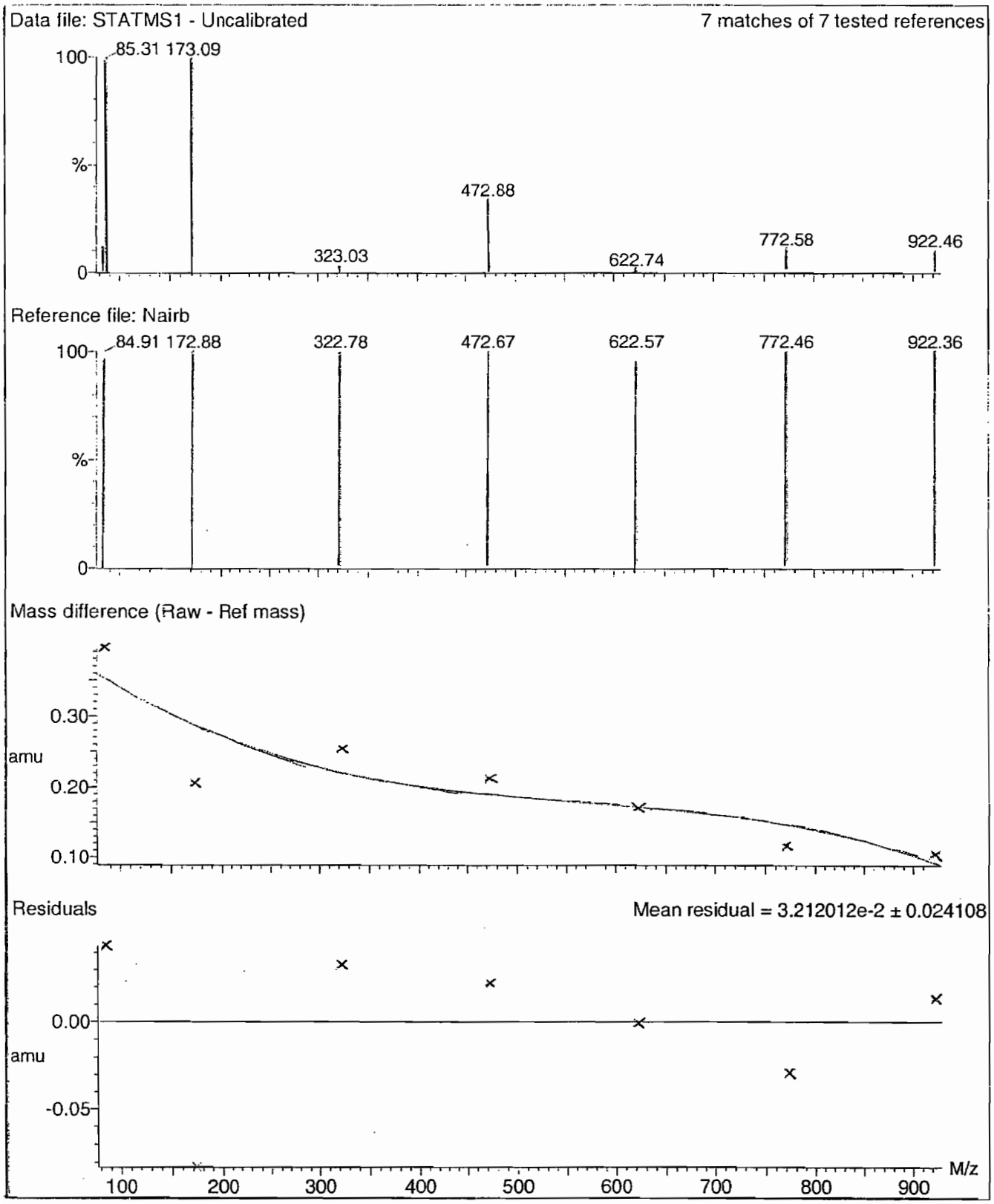

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

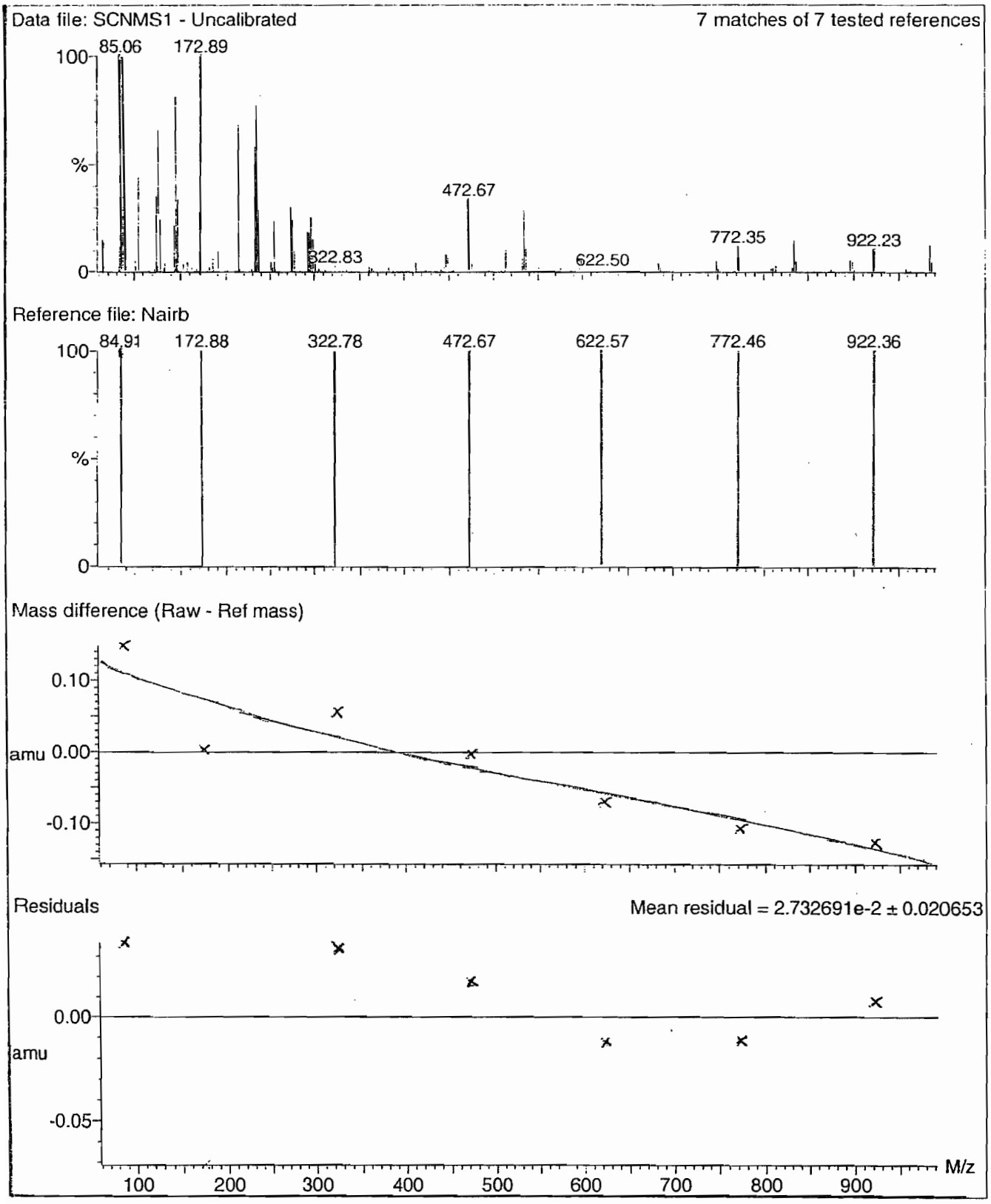

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

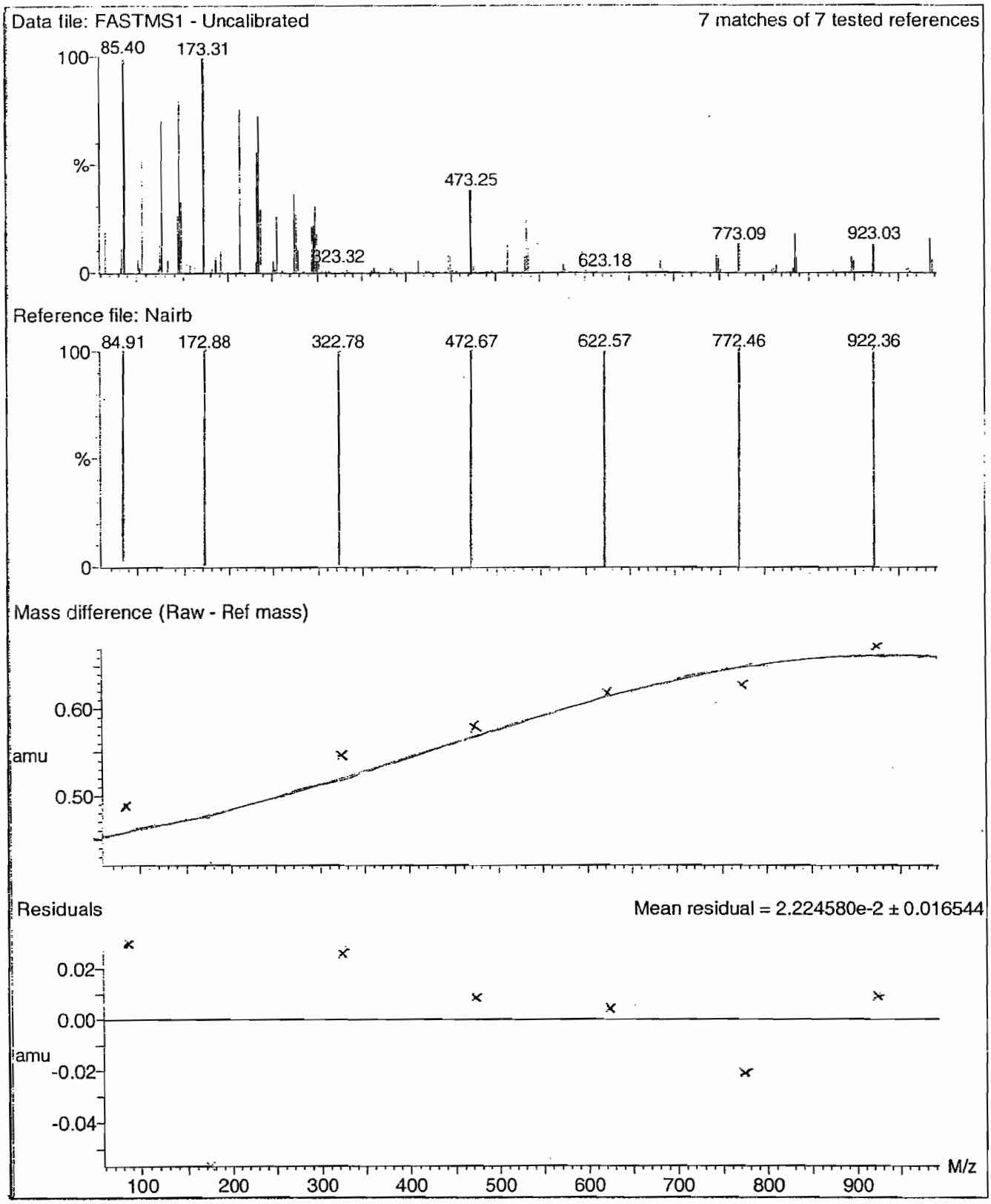

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

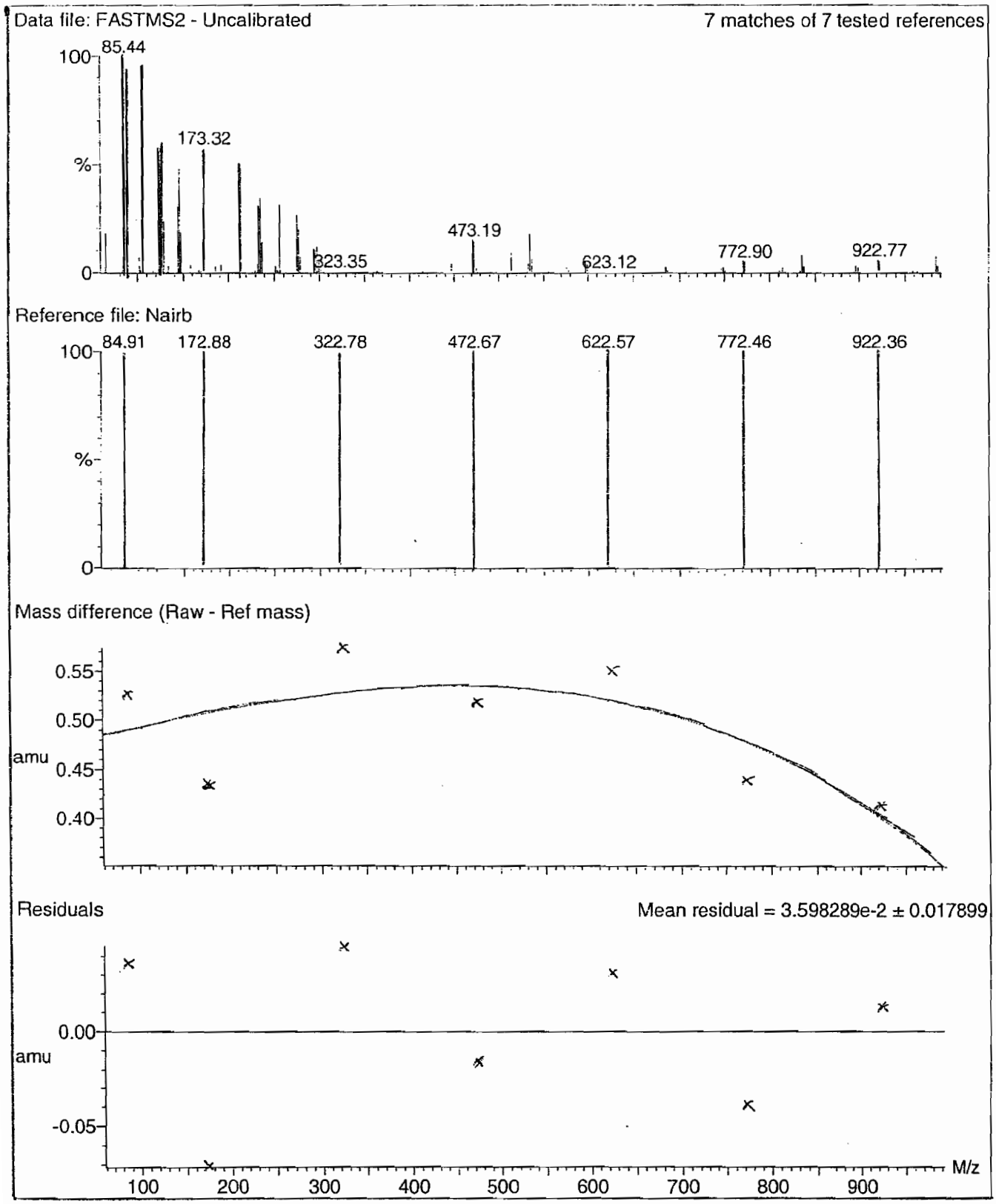

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

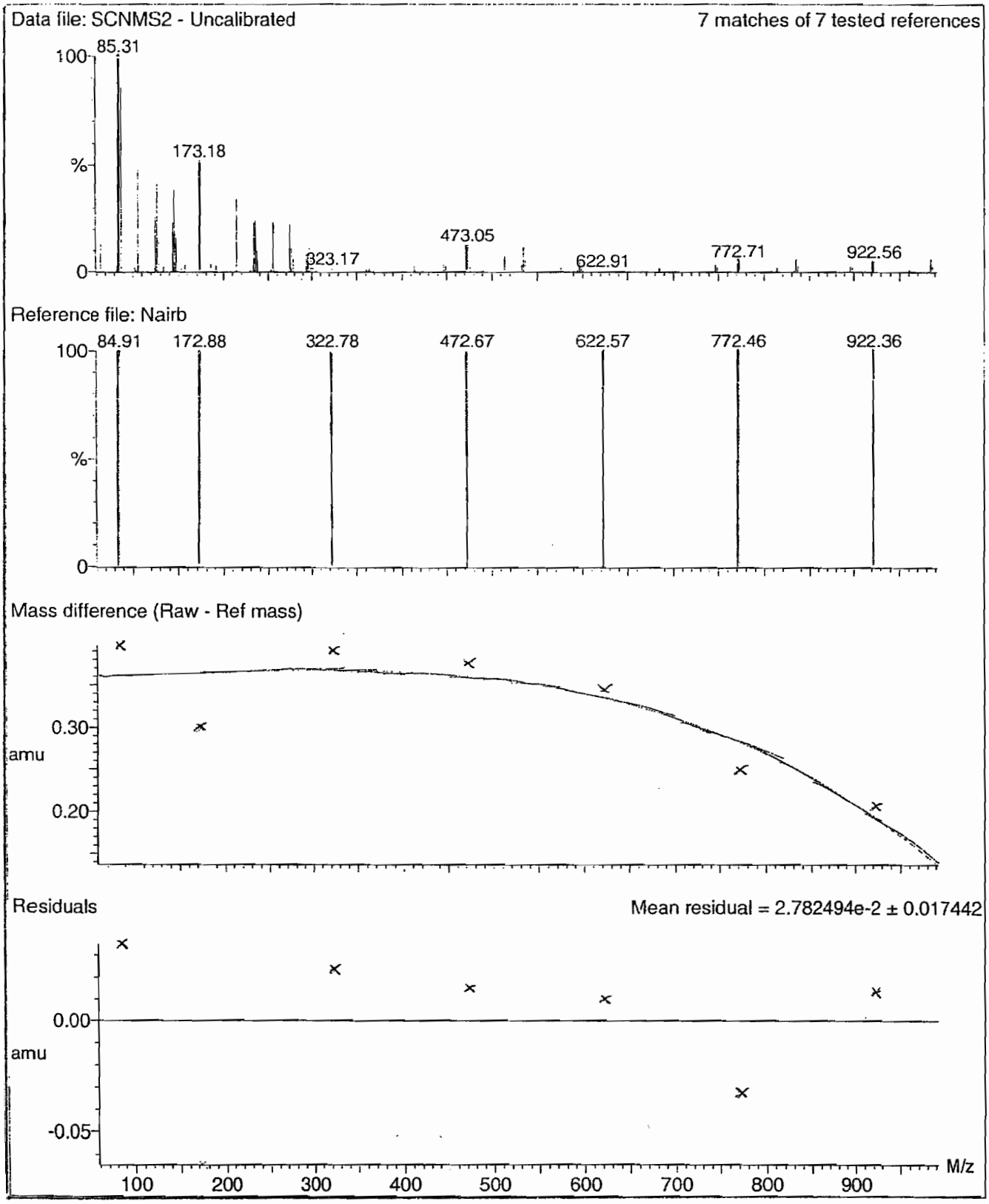

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

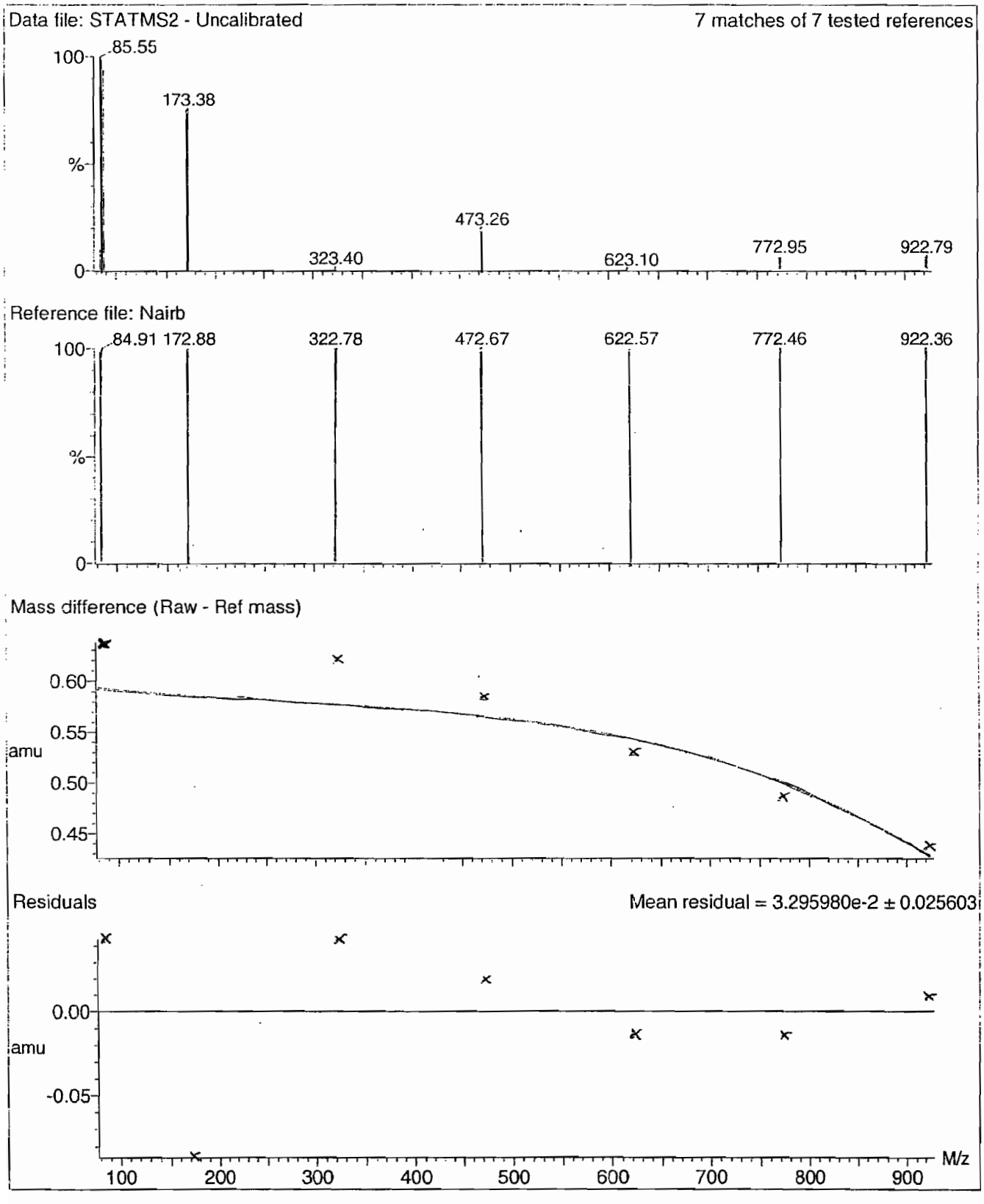

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Sunday, March 28, 2010 11:58:51 Eastern Standard Time

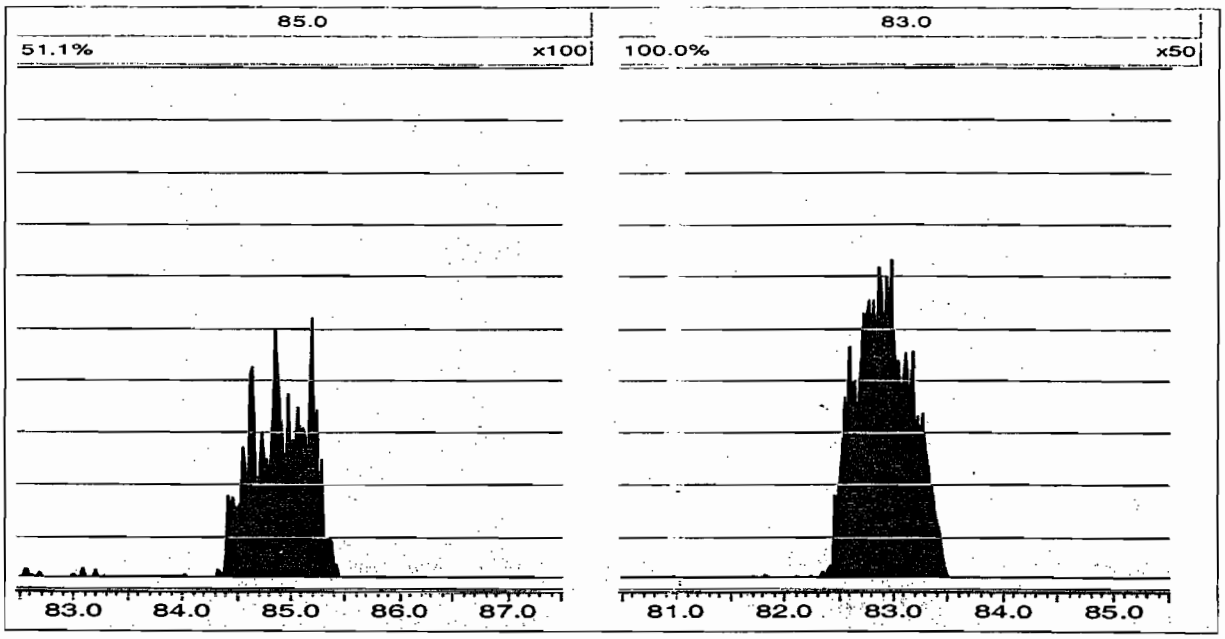

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2315

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0328006a**	**28–MAR–10**	**28421.6**				
Lower Area Limit			**14210.8**				
Upper Area Limit			**56843.2**				
1202069098	per0328015a	28–MAR–10 15:49	27626.8	3.53			
1202069099	per0328016a	28–MAR–10 15:58	28717.2	3.53	3.54503	1.004	
1202069102	per0328017a	28–MAR–10 16:06	31144.2	3.62	3.63188	1.003	
248863001	per0328018a	28–MAR–10 16:15	28256.7	3.53	3.56977	1.011	
248863002	per0328019a	28–MAR–10 16:24	28232.4	3.53	3.53255	1.001	
1202069100	per0328020a	28–MAR–10 16:32	28033.7	3.53	3.545	1.004	
1202069101	per0328021a	28–MAR–10 16:41	28810.6	3.53	3.54498	1.004	
248863003	per0328025a	28–MAR–10 17:15	28853.9	3.53	3.54502	1.004	

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Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2315

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0328006a**	**28–MAR–10**	**28421.6**				
Lower Area Limit			**14210.8**				
Upper Area Limit			**56843.2**				
248863004	per0328026a	28–MAR–10 17:23	28834.2	3.52			

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12936

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2315

GEL Sample ID: 248863001

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 90.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.553	2.21	0.553	ug/kg	U	1	28-MAR-10 16:15	per0328018a
	Perchlorate Isotope Ratio						1	28-MAR-10 16:15	per0328018a
14797-73-0	Perchlorate-101	.553	2.21	0.553	ug/kg	U	1	28-MAR-10 16:15	per0328018a
	Perchlorate-O(18)			5.45	ug/kg		1	28-MAR-10 16:15	per0328018a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328018a
Date: 28-Mar-2010
Time: 16:15:30
ID: 248863001
Vial: 1:3,F

LANL | 964450 | 50120 | 1 | NA

GWJ 03-29-10

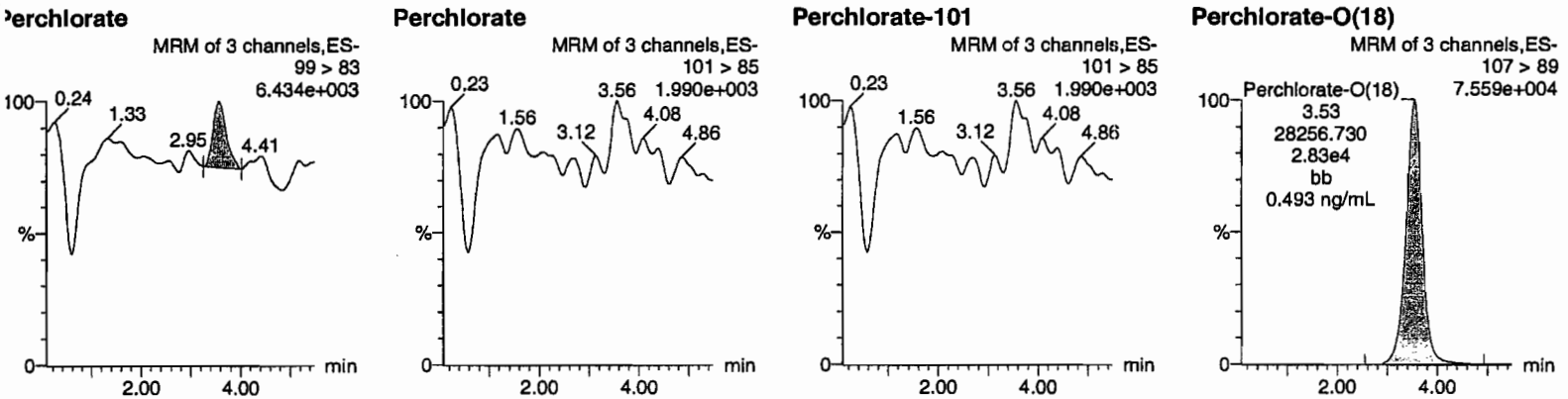

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248863001	Perchlorate	99 > 83	3.57	491.515	491.515	bb			0.0067			11.905	0.00
248863001	Perchlorate-101	101 > 85											
248863001	Perchlorate-O(18)	107 > 89	3.53	28256.730	28256.730	bb			0.4928	98.57	-1.43	2210.4...	

MM 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12930

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2315

GEL Sample ID: 248863002

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 91.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.546	2.18	0.546	ug/kg	U	1	28-MAR-10 16:24	per0328019a
	Perchlorate Isotope Ratio						1	28-MAR-10 16:24	per0328019a
14797-73-0	Perchlorate-101	.546	2.18	0.546	ug/kg	U	1	28-MAR-10 16:24	per0328019a
	Perchlorate-O(18)			5.38	ug/kg		1	28-MAR-10 16:24	per0328019a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328019a
Date: 28-Mar-2010
Time: 16:24:01
ID: 248863002
Vial: 1:4,A

LANL | 964450 | 50420 | 1 | AA

CWO 03-29-10

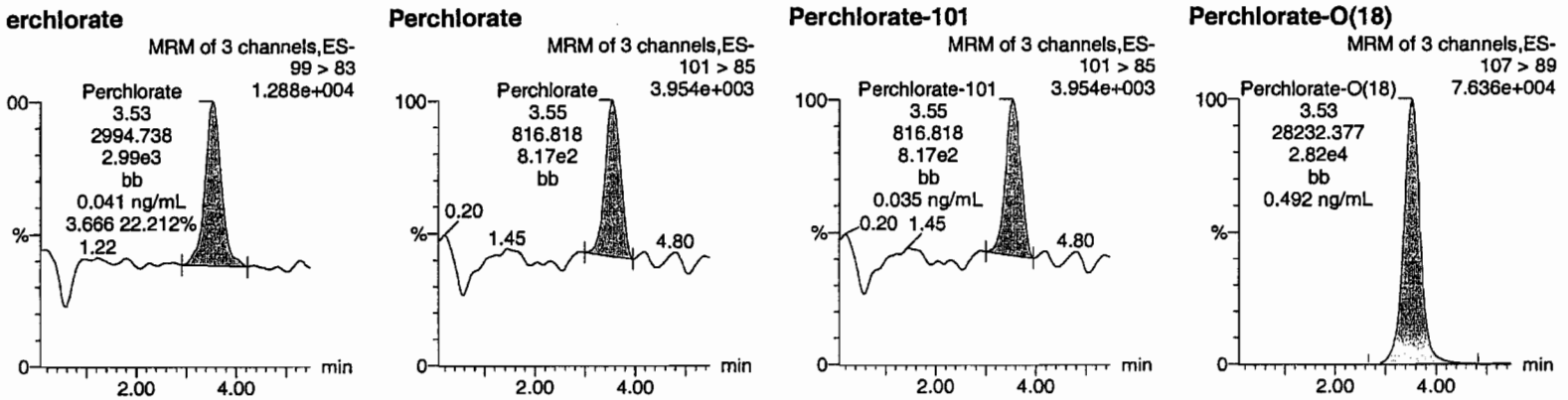

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
48863002	Perchlorate	99 > 83	3.53	2994.738	2994.738	bb			0.0406		60.228		3.67
48863002	Perchlorate-101	101 > 85	3.55	816.818	816.818	bb			0.0355		26.332		
48863002	Perchlorate-O(18)	107 > 89	3.53	28232.377	28232.377	bb			0.4924	98.48	-1.52	3077.4...	

MM 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12929

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2315

GEL Sample ID: 248863003

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.604	2.42	0.604	ug/kg	U	1	28-MAR-10 17:15	per0328025a
	Perchlorate Isotope Ratio						1	28-MAR-10 17:15	per0328025a
14797-73-0	Perchlorate-101	.604	2.42	0.604	ug/kg	U	1	28-MAR-10 17:15	per0328025a
	Perchlorate-O(18)			6.08	ug/kg		1	28-MAR-10 17:15	per0328025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328025a
Date: 28-Mar-2010
Time: 17:15:16
ID: 248863003
Vial: 1:4,D

LANL | 964450 | 30120 | 1 | na

CWA 03-29-10

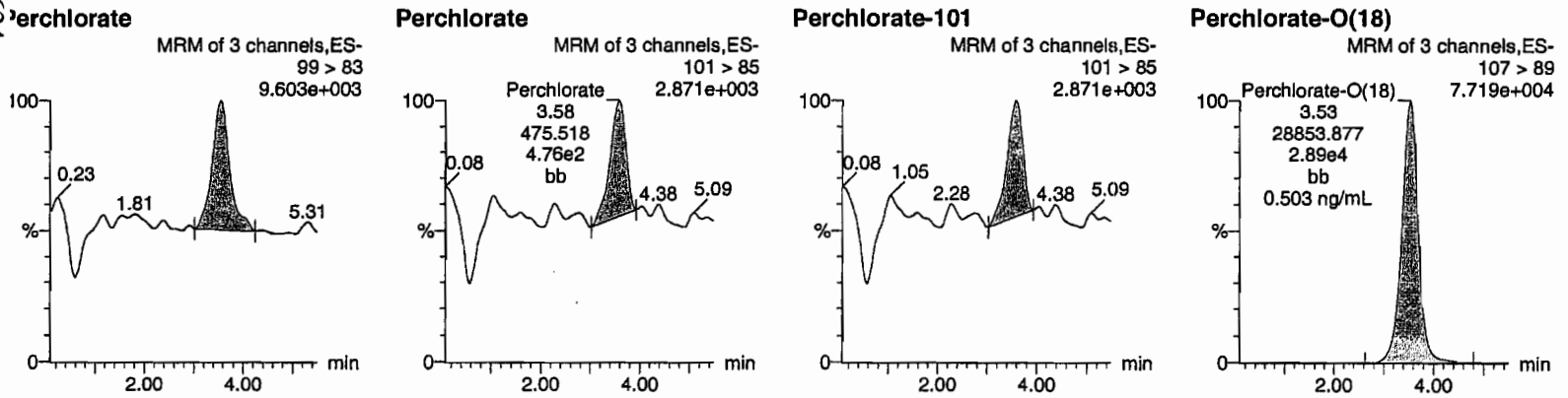

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248863003	Perchlorate	99 > 83	3.55	1970.549	1970.549	bb			0.0267			22.635	4.14
248863003	Perchlorate-101	101 > 85	3.58	475.518	475.518	bb			0.0206			11.651	
248863003	Perchlorate-O(18)	107 > 89	3.53	28853.877	28853.877	bb			0.5033	100.65	0.65	13456....	

OKAY
LOQ 500
MM 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12935

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2315

GEL Sample ID: 248863004

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.57	2.28	0.570	ug/kg	U	1	28-MAR-10 17:23	per0328026a
	Perchlorate Isotope Ratio						1	28-MAR-10 17:23	per0328026a
14797-73-0	Perchlorate-101	.57	2.28	0.570	ug/kg	U	1	28-MAR-10 17:23	per0328026a
	Perchlorate-O(18)			5.74	ug/kg		1	28-MAR-10 17:23	per0328026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ast Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
rinted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

ame: per0328026a
ate: 28-Mar-2010
ime: 17:23:48
): 248863004
ial: 1:4,E

|LANL|964450|50120|1|NA

CWO 03-29-10

erchlorate

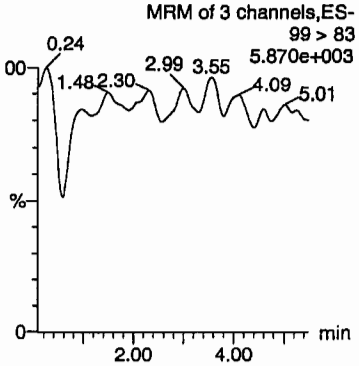

Perchlorate

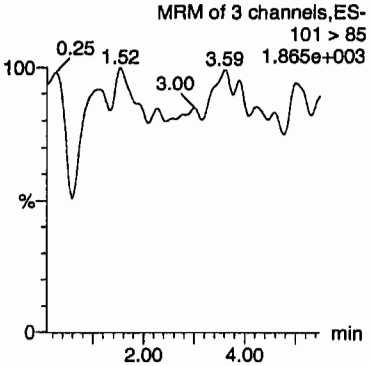

Perchlorate-101

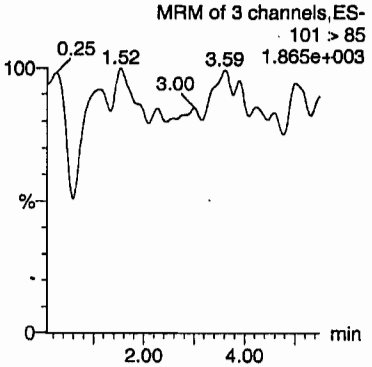

Perchlorate-O(18)

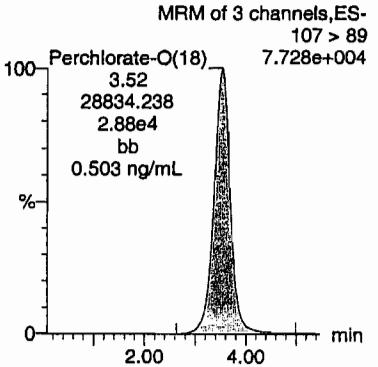

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
48863004	Perchlorate	99 > 83											0.00
48863004	Perchlorate-101	101 > 85											
48863004	Perchlorate-O(18)	107 > 89	3.52	28834.238	28834.238	bb			0.5029	100.58	0.58	4267.4...	

MMT 3/30/10

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-2315

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 28-MAR-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 73726.48

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2315

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 28–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 23033

Response Type: External Standard

Curve Type: RF

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ıantify Calibration Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ɜt Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
nted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

:thod: C:\MassLynx\Perchlorate.PRO\MethDB\per032810a.mdb 29 Mar 2010 09:32:17
libration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032810a.cdb 29 Mar 2010 09:32:40

mpound name: Perchlorate
sponse Factor: 73726.5
F SD: 1732.62, % Relative SD: 2.35006
sponse type: External Std, Area
rve type: RF

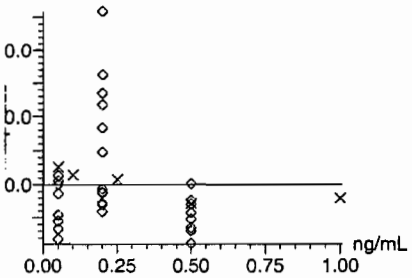

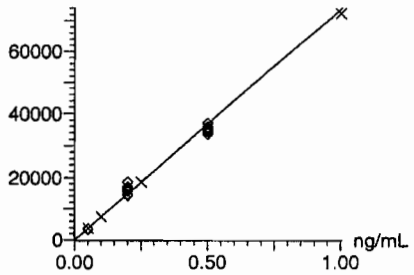

CWO
03-29-10

npound name: Perchlorate-101
sponse Factor: 23033
F SD: 903.383, % Relative SD: 3.92213
sponse type: External Std, Area
ve type: RF

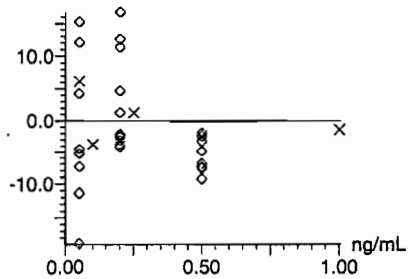

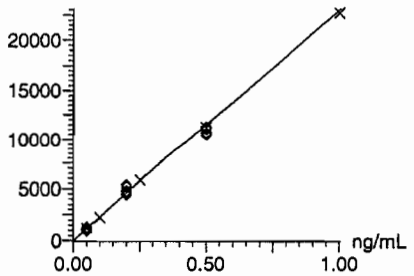

MMT
3/30/10

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Calibration Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ıst Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
·inted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

ɔmpound name: Perchlorate-O(18)
esponse Factor: 57333.8
RF SD: 1178.71, % Relative SD: 2.05586
esponse type: External Std, Area
ırve type: RF

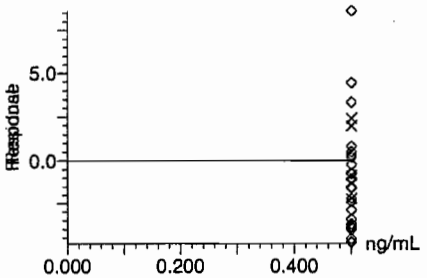

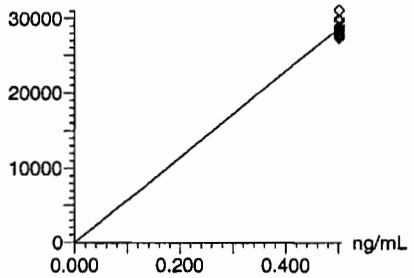

:L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-2315

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	97.61	28-MAR-10 14:58	per0328009a
Perchlorate Isotope Ratio		3.19		28-MAR-10 14:58	per0328009a
Perchlorate-101	.5	.49	98.08	28-MAR-10 14:58	per0328009a

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ıst Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
inted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Pers

CWO 03-24-10

ame: per0328009a
ate: 28-Mar-2010
me: 14:58:36
: WCL100326-06ICV
al: 1:2,A

erchlorate

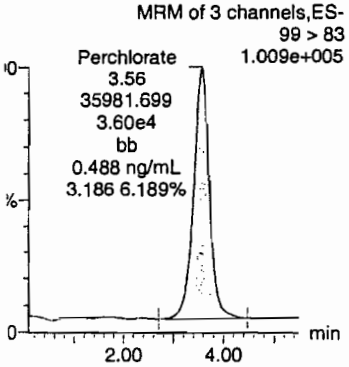

Perchlorate

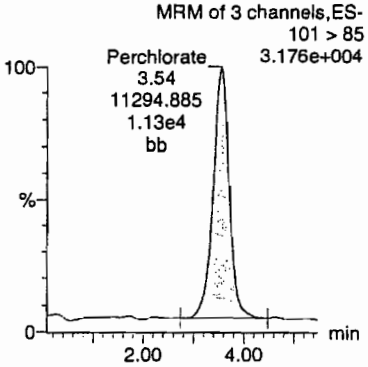

Perchlorate-101

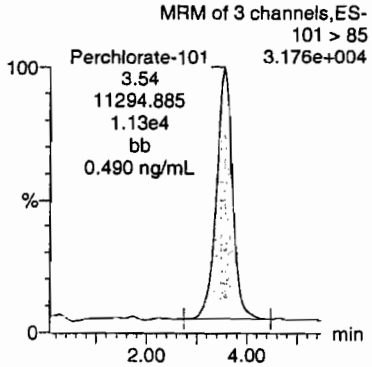

Perchlorate-O(18)

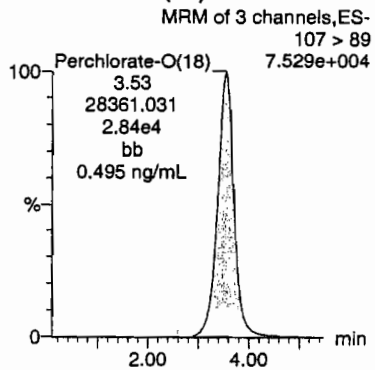

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-06ICV	Perchlorate	99 > 83	3.56	35981.699	35981.699	bb			0.4880	97.61	-2.39	915.246	3.19
CL100326-06ICV	Perchlorate-101	101 > 85	3.54	11294.885	11294.885	bb			0.4904	98.08	-1.92	276.628	
CL100326-06ICV	Perchlorate-O(18)	107 > 89	3.53	28361.031	28361.031	bb			0.4947	98.93	-1.07	3706.3...	

LMT 3/30/10

$$\frac{35981.699}{73726.5} = 0.4880$$

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2315

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.47	94.8	28–MAR–10 16:49	per0328022a
Perchlorate Isotope Ratio		3.28		28–MAR–10 16:49	per0328022a
Perchlorate–101	.5	.46	92.59	28–MAR–10 16:49	per0328022a
Perchlorate	.5	.5	100.11	28–MAR–10 18:40	per0328035a
Perchlorate Isotope Ratio		3.31		28–MAR–10 18:40	per0328035a
Perchlorate–101	.5	.48	96.74	28–MAR–10 18:40	per0328035a

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ıe GEL Group, LLC Analyst: Charlers W. Wilson

ıtaset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

st Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
inted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

ıme: per0328022a
ıte: 28-Mar-2010
ne: 16:49:40
: WCL100326-06CCV
al: 1:2,A

Page 33
03-29-10

rchlorate

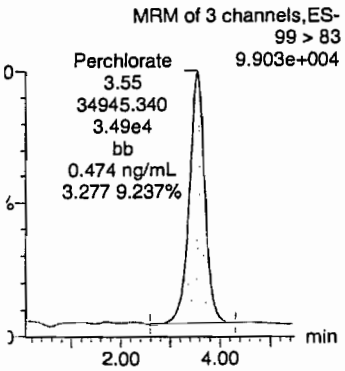

Perchlorate

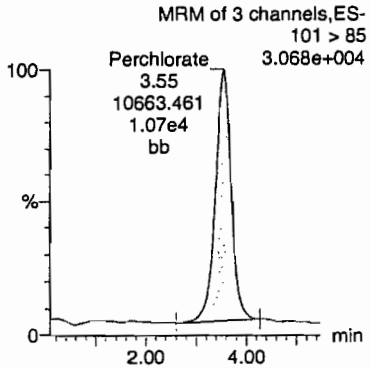

Perchlorate-101

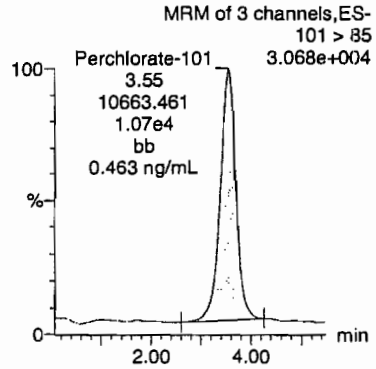

Perchlorate-O(18)

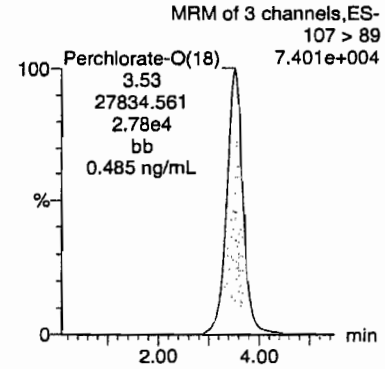

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
:L100326-06CCV	Perchlorate	99 > 83	3.55	34945.340	34945.340	bb			0.4740	94.80	-5.20	432.965	3.28
:L100326-06CCV	Perchlorate-101	101 > 85	3.55	10663.461	10663.461	bb			0.4630	92.59	-7.41	677.245	
:L100326-06CCV	Perchlorate-O(18)	107 > 89	3.53	27834.561	27834.561	bb			0.4855	97.10	-2.90	5758.9...	

MH 7/30/10

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ast Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
rinted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

ame: per0328035a
ate: 28-Mar-2010
me: 18:40:39
: WCL100326-06CCV
al: 1:2,A

Pass
ans
03-29-10

erchlorate

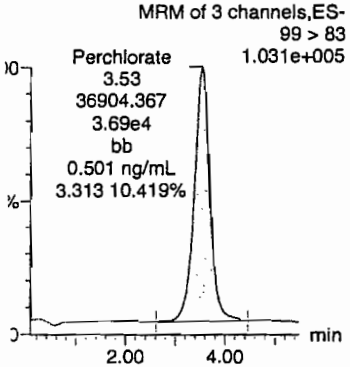

Perchlorate

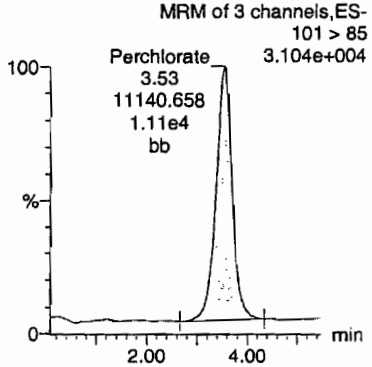

Perchlorate-101

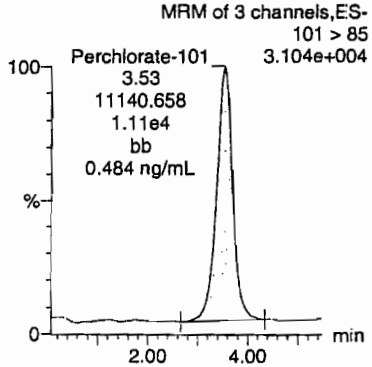

Perchlorate-O(18)

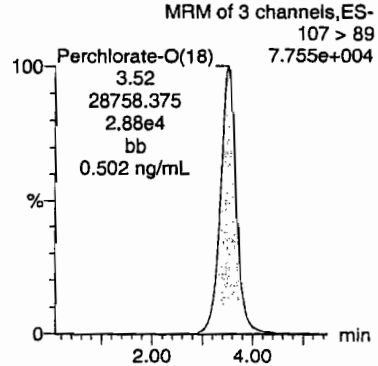

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
:L100326-06CCV	Perchlorate	99 > 83	3.53	36904.367	36904.367	bb			0.5006	100.11	0.11	986.950	3.31
:L100326-06CCV	Perchlorate-101	101 > 85	3.53	11140.658	11140.658	bb			0.4837	96.74	-3.26	547.613	
:L100326-06CCV	Perchlorate-O(18)	107 > 89	3.52	28758.375	28758.375	bb			0.5016	100.32	0.32	150.701	

MATT
3/30/10

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2315

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	94.53	28-MAR-10 15:15	per0328011a
Perchlorate Isotope Ratio		2.7		28-MAR-10 15:15	per0328011a
Perchlorate-101	.05	.06	112.08	28-MAR-10 15:15	per0328011a
Perchlorate	.05	.05	98.65	28-MAR-10 17:06	per0328024a
Perchlorate Isotope Ratio		3.41		28-MAR-10 17:06	per0328024a
Perchlorate-101	.05	.05	92.66	28-MAR-10 17:06	per0328024a
Perchlorate	.05	.05	93.38	28-MAR-10 18:57	per0328037a
Perchlorate Isotope Ratio		3.15		28-MAR-10 18:57	per0328037a
Perchlorate-101	.05	.05	94.74	28-MAR-10 18:57	per0328037a

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ataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ast Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
rinted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

ame: per0328011a
ate: 28-Mar-2010
me: 15:15:40
: WCL100326-07CRI
al: 1:2,B

Pass
03-29-10

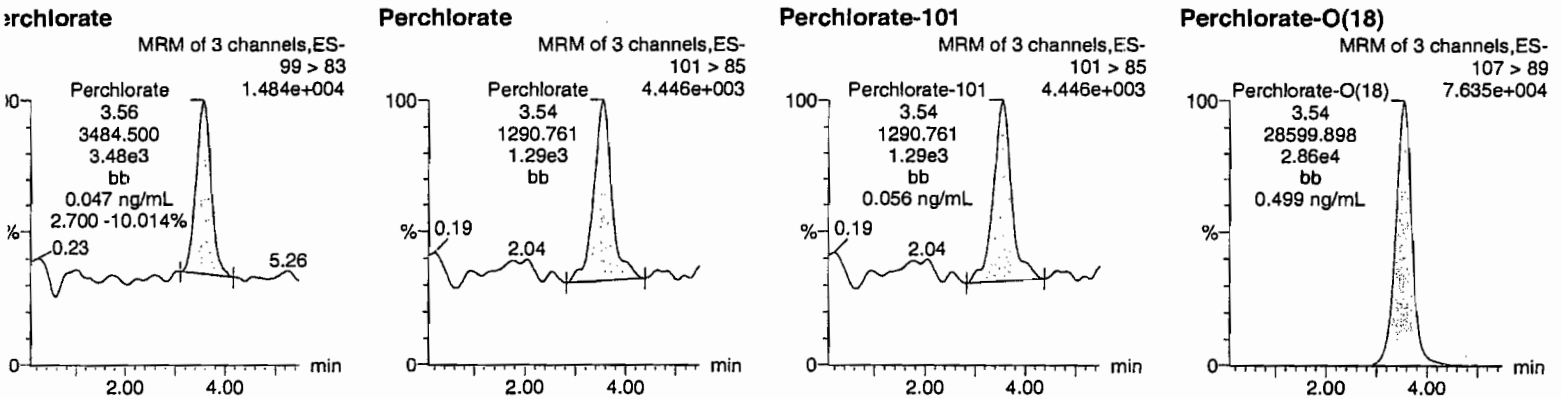

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-07CRI	Perchlorate	99 > 83	3.56	3484.500	3484.500	bb			0.0473	94.53	-5.47	43.366	2.70
CL100326-07CRI	Perchlorate-101	101 > 85	3.54	1290.761	1290.761	bb			0.0560	112.08	12.08	18.604	
CL100326-07CRI	Perchlorate-O(18)	107 > 89	3.54	28599.898	28599.898	bb			0.4988	99.77	-0.23	3124.1...	

MMT 3/30/10

$$\frac{3484.500}{1290.761} = 2.6996$$

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ast Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
rinted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

ame: per0328024a
ate: 28-Mar-2010
me: 17:06:44
: WCL100326-07CRI
al: 1:2,B

Pass
03-24-10

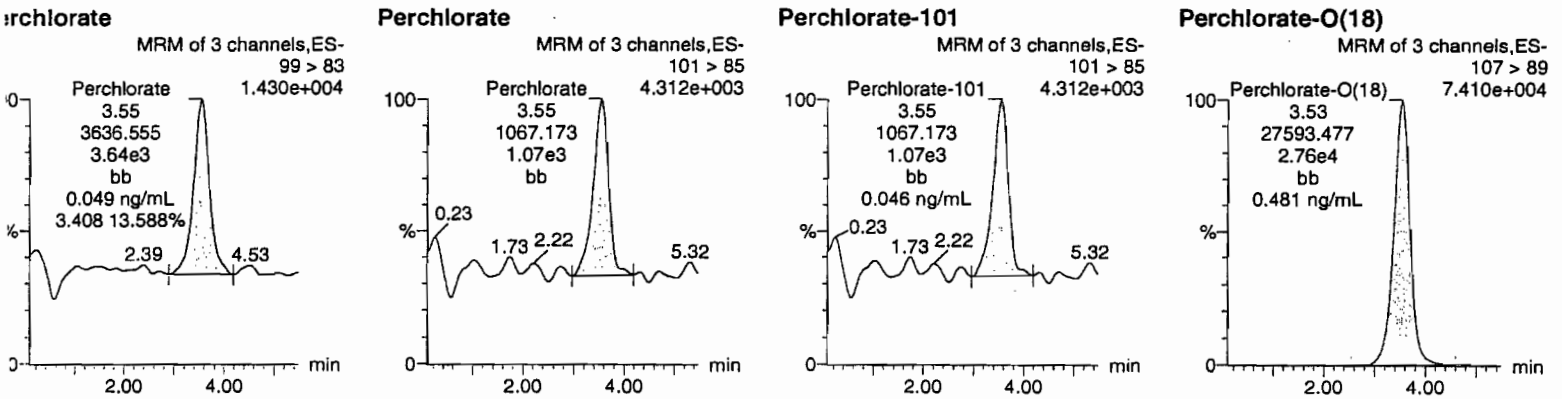

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-07CRI	Perchlorate	99 > 83	3.55	3636.555	3636.555	bb			0.0493	98.65	-1.35	51.357	3.41
CL100326-07CRI	Perchlorate-101	101 > 85	3.55	1067.173	1067.173	bb			0.0463	92.66	-7.34	20.263	
CL100326-07CRI	Perchlorate-O(18)	107 > 89	3.53	27593.477	27593.477	bb			0.4813	96.26	-3.74	1525.0...	

MMT 3/30/10

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328037a
Date: 28-Mar-2010
Time: 18:57:43
ID: WCL100326-07CRI
Vial: 1:2,B

Perchlorate
MRM of 3 channels,ES-
99 > 83
1.465e+004

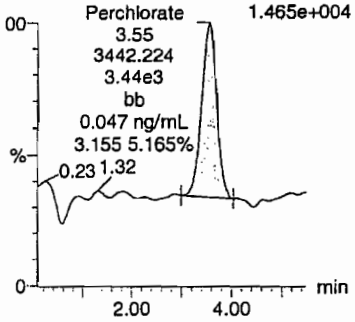

Perchlorate
MRM of 3 channels,ES-
101 > 85
4.487e+003

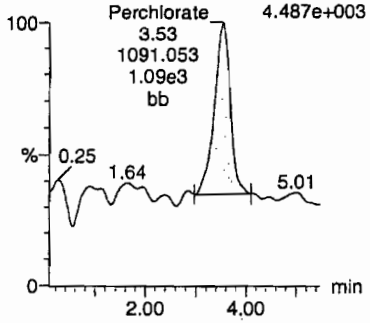

Perchlorate-101
MRM of 3 channels,ES-
101 > 85
4.487e+003

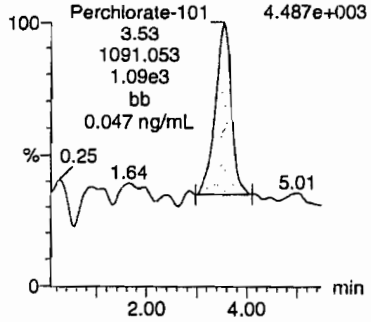

Perchlorate-O(18)
MRM of 3 channels,ES-
107 > 89
7.698e+004

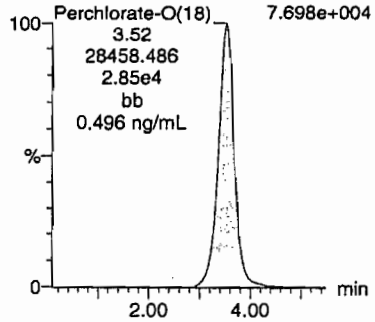

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-07CRI	Perchlorate	99 > 83	3.55	3442.224	3442.224	bb			0.0467	93.38	-6.62	71.164	3.15
CL100326-07CRI	Perchlorate-101	101 > 85	3.53	1091.053	1091.053	bb			0.0474	94.74	-5.26	28.828	
CL100326-07CRI	Perchlorate-O(18)	107 > 89	3.52	28458.486	28458.486	bb			0.4964	99.27	-0.73	6519.7...	

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 19-MAR-10

GEL Job No (SDG): 10-2315

GEL Sample ID: 1202069098

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	28-MAR-10 15:49	per0328015a
	Perchlorate Isotope Ratio						1	28-MAR-10 15:49	per0328015a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	28-MAR-10 15:49	per0328015a
	Perchlorate-O(18)			4.82	ug/kg		1	28-MAR-10 15:49	per0328015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328015a
Date: 28-Mar-2010
Time: 15:49:54
ID: 1202069098
Vial: 1:3,C

|LANL|964450|20120|MB|1|RA

03-29-10

Perchlorate

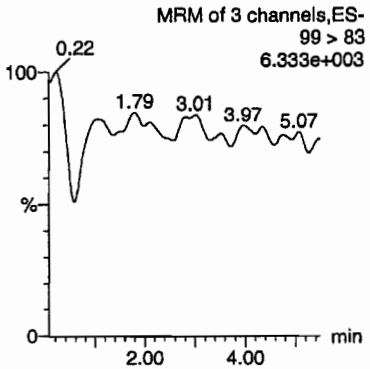

Perchlorate

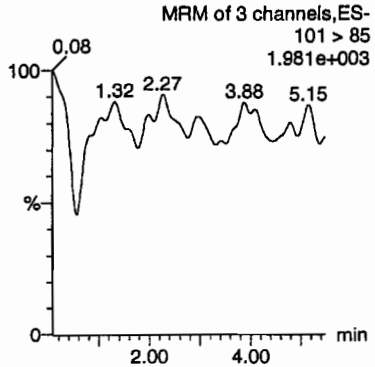

Perchlorate-101

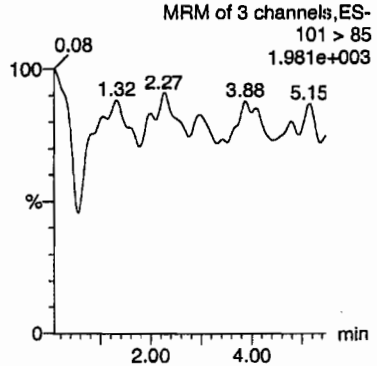

Perchlorate-O(18)

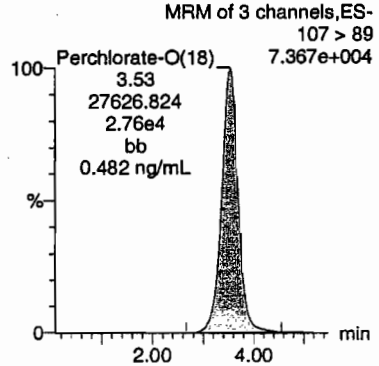

D	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202069098	Perchlorate	99 > 83											0.00
202069098	Perchlorate-101	101 > 85											
202069098	Perchlorate-O(18)	107 > 89	3.53	27626.824	27626.824	bb			0.4819	96.37	-3.63	1342.5...	

MAT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 19-MAR-10

GEL Job No (SDG): 10-2315

GEL Sample ID: 1202069099

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	1.99	ug/kg	J	1	28-MAR-10 15:58	per0328016a
	Perchlorate Isotope Ratio			3.25			1	28-MAR-10 15:58	per0328016a
14797-73-0	Perchlorate-101	.5	2	1.95	ug/kg	J	1	28-MAR-10 15:58	per0328016a
	Perchlorate-O(18)			5.01	ug/kg		1	28-MAR-10 15:58	per0328016a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328016a
Date: 28-Mar-2010
Time: 15:58:26
ID: 1202069099
Vial: 1:3,D

|LCMS|964450|50120|LCS|1|

CWO 03-29-10

Perchlorate

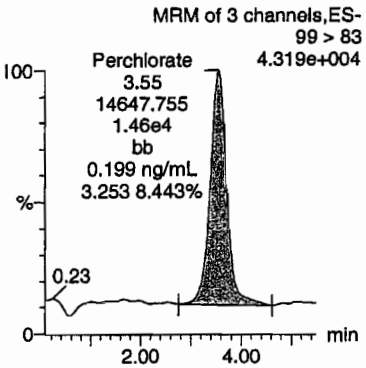

Perchlorate

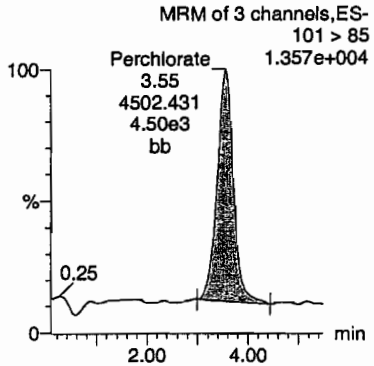

Perchlorate-101

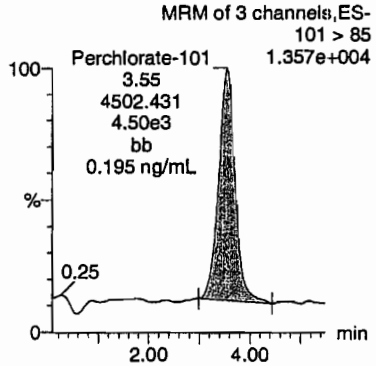

Perchlorate-O(18)

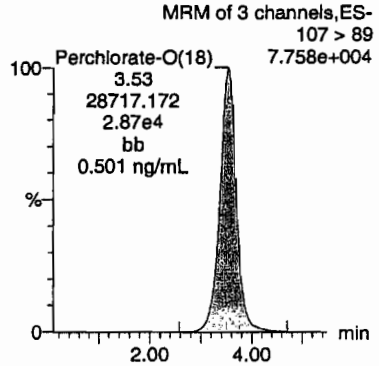

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202069099	Perchlorate	99 > 83	3.55	14647.755	14647.755	bb			0.1987	99.34	-0.66	189.751	3.25
202069099	Perchlorate-101	101 > 85	3.55	4502.431	4502.431	bb			0.1955	97.74	-2.26	143.529	
202069099	Perchlorate-O(18)	107 > 89	3.53	28717.172	28717.172	bb			0.5009	100.18	0.18	2220.8...	

3/30/10

$$\frac{14647.755}{73726.5} = 0.1987$$

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12930MS

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2315

GEL Sample ID: 1202069100

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 91.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.546	2.18	2.44	ug/kg		1	28-MAR-10 16:32	per0328020a
	Perchlorate Isotope Ratio			3.21			1	28-MAR-10 16:32	per0328020a
14797-73-0	Perchlorate-101	.546	2.18	2.43	ug/kg		1	28-MAR-10 16:32	per0328020a
	Perchlorate-O(18)			5.34	ug/kg		1	28-MAR-10 16:32	per0328020a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328020a
Date: 28-Mar-2010
Time: 16:32:35
ID: 1202069100
Vial: 1:4,B

|LZNL|964450|SOLZD|MS|1|RA

CWO 03-29-10

Perchlorate

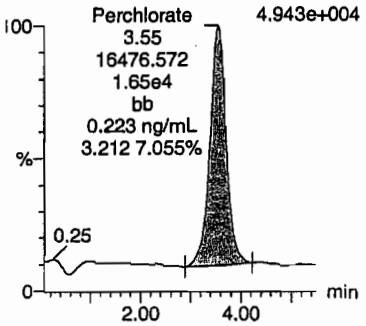

Perchlorate

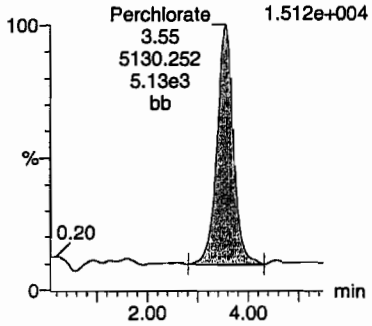

Perchlorate-101

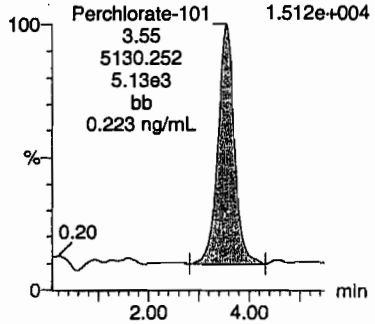

Perchlorate-O(18)

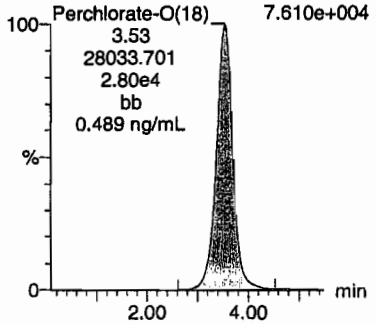

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202069100	Perchlorate	99 > 83	3.55	16476.572	16476.572	bb			0.2235	111.74	11.74	415.614	3.21
202069100	Perchlorate-101	101 > 85	3.55	5130.252	5130.252	bb			0.2227	111.37	11.37	223.625	
202069100	Perchlorate-O(18)	107 > 89	3.53	28033.701	28033.701	bb			0.4890	97.79	-2.21	2506.9...	

MAP 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12930MSD

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2315

GEL Sample ID: 1202069101

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 91.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.546	2.18	2.48	ug/kg		1	28-MAR-10 16:41	per0328021a
	Perchlorate Isotope Ratio			3.23			1	28-MAR-10 16:41	per0328021a
14797-73-0	Perchlorate-101	.546	2.18	2.46	ug/kg		1	28-MAR-10 16:41	per0328021a
	Perchlorate-O(18)			5.49	ug/kg		1	28-MAR-10 16:41	per0328021a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328021a
Date: 28-Mar-2010
Time: 16:41:07
ID: 1202069101
Vial: 1:4,C

|LANL|964450|50120|MSD|1|RA

03-24-10

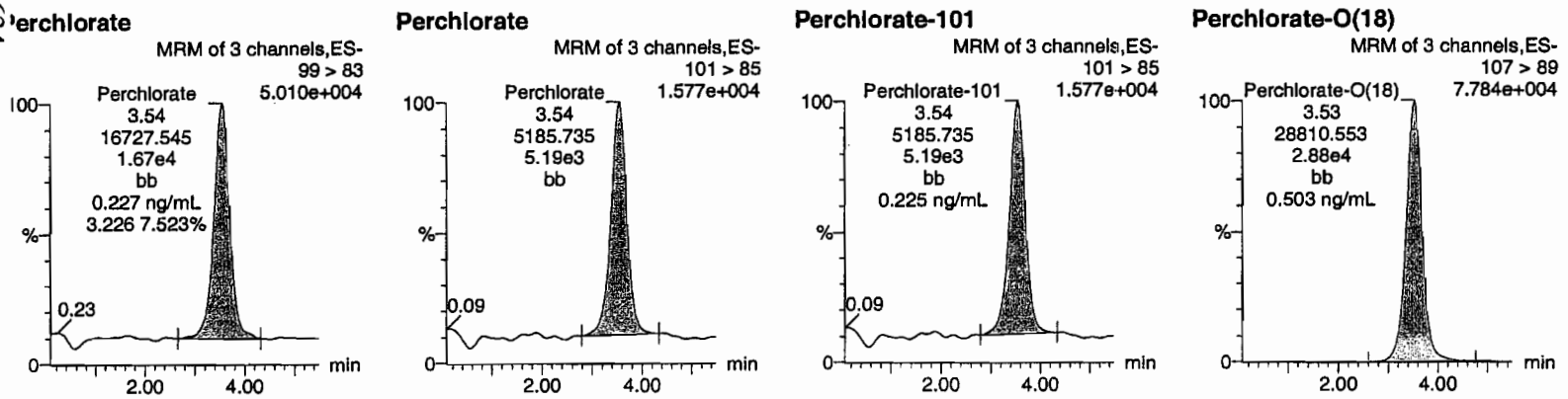

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202069101	Perchlorate	99 > 83	3.54	16727.545	16727.545	bb			0.2269	113.44	13.44	246.005	3.23
202069101	Perchlorate-101	101 > 85	3.54	5185.735	5185.735	bb			0.2251	112.57	12.57	104.512	
202069101	Perchlorate-O(18)	107 > 89	3.53	28810.553	28810.553	bb			0.5025	100.50	0.50	11052....	

MM 3/30/10

16727.545 | 10 | 100
73726.5 | | 91.54 = 2.48

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 964449 **Verified by:** _____

Analyst: Kaylie Westmoreland

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202069098 MB	19-MAR-2010 14:27:00	2	20	10
1202069099 LCS	19-MAR-2010 14:27:00	2	20	10
248863001	19-MAR-2010 14:27:00	2	20	10
248863002	19-MAR-2010 14:27:00	2	20	10
1202069100 MS (248863002)	19-MAR-2010 14:27:00	2	20	10
1202069101 MSD (248863002)	19-MAR-2010 14:27:00	2	20	10
248863003	19-MAR-2010 14:27:00	2	20	10
248863004	19-MAR-2010 14:27:00	2	20	10
248865001	19-MAR-2010 14:27:00	2	20	10
248866001	19-MAR-2010 14:27:00	2	20	10
248866002	19-MAR-2010 14:27:00	2	20	10
248867001	19-MAR-2010 14:27:00	2	20	10
248867002	19-MAR-2010 14:27:00	2	20	10
248867003	19-MAR-2010 14:27:00	2	20	10
248867004	19-MAR-2010 14:27:00	2	20	10
249055001	19-MAR-2010 14:27:00	2	20	10
249055002	19-MAR-2010 14:27:00	2	20	10
249057002	19-MAR-2010 14:27:00	2	20	10
249057003	19-MAR-2010 14:27:00	2	20	10
249064002	19-MAR-2010 14:27:00	2	20	10
249064003	19-MAR-2010 14:27:00	2	20	10
249064004	19-MAR-2010 14:27:00	2	20	10
249064005	19-MAR-2010 14:27:00	2	20	10
1202069102 ICS	19-MAR-2010 14:27:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202069102	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
LCS	1202069099	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
MS	1202069100	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
MSD	1202069101	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL

Comments:

Desalting Cartridges used: 100224-1-Ba & 100223-1-H

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/28/10
Extr. Injection Volume: 20uL
Sequence Number: per032810a
Initial Calibration Date: 03/28/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1284736
Standard-Samp Reagent Lot#:: 1284736

Reviewed BY: [illegible]
Date: 3/30/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100326-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0328001a	IPB001	CWW	3/28/2010 13:50			1		USE	B
per0328002a	IPB001	CWW	3/28/2010 13:58			1		USE	B
per0328003a	WCLICAL-01	CWW	3/28/2010 14:07			1		USE	I
per0328004a	WCLICAL-02	CWW	3/28/2010 14:16			1		USE	I
per0328005a	WCLICAL-03	CWW	3/28/2010 14:24			1		USE	I
per0328006a	WCLICAL-04	CWW	3/28/2010 14:33			1		USE	I
per0328007a	WCLICAL-05	CWW	3/28/2010 14:41			1		USE	I
per0328008a	IPB002	CWW	3/28/2010 14:50			1		USE	B
per0328009a	WCLICV	CWW	3/28/2010 14:58			1		USE	C
per0328010a	IPB003	CWW	3/28/2010 15:07			1		USE	B
per0328011a	WCLCRI	CWW	3/28/2010 15:15			1		USE	C
per0328012a	249376001	CWW	3/28/2010 15:24	966566	10-2446	1	LANL	USE	S
per0328013a	249376004	CWW	3/28/2010 15:32	966566	10-2446	1	LANL	USE	S
per0328014a	IPB004	CWW	3/28/2010 15:41			1		USE	B
per0328015a	1202069098	CWW	3/28/2010 15:49	964450	VARIOUS	1	LANL	USE	S
per0328016a	1202069099	CWW	3/28/2010 15:58	964450	VARIOUS	1	LANL	USE	S
per0328017a	1202069102	CWW	3/28/2010 16:06	964450	VARIOUS	1	LANL	USE	S
per0328018a	248863001	CWW	3/28/2010 16:15	964450	10-2315	1	LANL	USE	S
per0328019a	248863002	CWW	3/28/2010 16:24	964450	10-2315	1	LANL	USE	S
per0328020a	1202069100	CWW	3/28/2010 16:32	964450	10-2315	1	LANL	USE	S
per0328021a	1202069101	CWW	3/28/2010 16:41	964450	10-2315	1	LANL	USE	S
per0328022a	WCLCCV	CWW	3/28/2010 16:49			1		USE	C
per0328023a	IPB005	CWW	3/28/2010 16:58			1		USE	B
per0328024a	WCLCRI	CWW	3/28/2010 17:06			1		USE	C
per0328025a	248863003	CWW	3/28/2010 17:15	964450	10-2315	1	LANL	USE	S
per0328026a	248863004	CWW	3/28/2010 17:23	964450	10-2315	1	LANL	USE	S
per0328027a	248865001	CWW	3/28/2010 17:32	964450	10-2318	1	LANL	USE	S
per0328028a	248866001	CWW	3/28/2010 17:40	964450	10-2319	1	LANL	USE	S
per0328029a	248866002	CWW	3/28/2010 17:49	964450	10-2319	1	LANL	USE	S

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per0328030a	248867001	CWW	3/28/2010 17:57	964450	10-2320	1	LANL	USE	S
per0328031a	248867002	CWW	3/28/2010 18:06	964450	10-2320	1	LANL	USE	S
per0328032a	248867003	CWW	3/28/2010 18:15	964450	10-2320	1	LANL	USE	S
per0328033a	248867004	CWW	3/28/2010 18:23	964450	10-2320	1	LANL	USE	S
per0328034a	249055001	CWW	3/28/2010 18:32	964450	10-2349	1	LANL	USE	S
per0328035a	WCLCCV	CWW	3/28/2010 18:40			1		USE	C
per0328036a	IPB006	CWW	3/28/2010 18:49			1		USE	B
per0328037a	WCLCRI	CWW	3/28/2010 18:57			1		USE	C
per0328038a	1202068347	CWW	3/28/2010 19:06	964122	VARIOUS	1	LANL	USE	S
per0328039a	1202068348	CWW	3/28/2010 19:15	964122	VARIOUS	1	LANL	USE	S
per0328040a	1202068351	CWW	3/28/2010 19:23	964122	VARIOUS	1	LANL	USE	S
per0328041a	248814001	CWW	3/28/2010 19:32	964122	10-2303	1	LANL	USE	S
per0328042a	248814002	CWW	3/28/2010 19:40	964122	10-2303	1	LANL	USE	S
per0328043a	248814003	CWW	3/28/2010 19:49	964122	10-2303	1	LANL	USE	S
per0328044a	248814004	CWW	3/28/2010 19:57	964122	10-2303	1	LANL	USE	S
per0328045a	248814005	CWW	3/28/2010 20:06	964122	10-2303	1	LANL	USE	S
per0328046a	248814006	CWW	3/28/2010 20:14	964122	10-2303	1	LANL	USE	S
per0328047a	248814007	CWW	3/28/2010 20:23	964122	10-2303	1	LANL	USE	S
per0328048a	WCLCCV	CWW	3/28/2010 20:31			1		USE	C
per0328049a	IPB007	CWW	3/28/2010 20:40			1		USE	B
per0328050a	WCLCRI	CWW	3/28/2010 20:49			1		USE	C
per0328051a	248814008	CWW	3/28/2010 20:57	964122	10-2303	1	LANL	USE	S
per0328052a	248814009	CWW	3/28/2010 21:06	964122	10-2303	1	LANL	USE	S
per0328053a	248860001	CWW	3/28/2010 21:14	964122	10-2313	1	LANL	USE	S
per0328054a	1202068349	CWW	3/28/2010 21:23	964122	10-2313	1	LANL	USE	S
per0328055a	1202068350	CWW	3/28/2010 21:31	964122	10-2313	1	LANL	USE	S
per0328056a	248860002	CWW	3/28/2010 21:40	964122	10-2313	1	LANL	USE	S
per0328057a	248860003	CWW	3/28/2010 21:48	964122	10-2313	1	LANL	USE	S
per0328058a	248860004	CWW	3/28/2010 21:57	964122	10-2313	1	LANL	USE	S
per0328059a	248860005	CWW	3/28/2010 22:05	964122	10-2313	1	LANL	USE	S
per0328060a	248860006	CWW	3/28/2010 22:14	964122	10-2313	1	LANL	USE	S
per0328061a	WCLCCV	CWW	3/28/2010 22:23			1		USE	C
per0328062a	IPB008	CWW	3/28/2010 22:31			1		USE	B
per0328063a	WCLCRI	CWW	3/28/2010 22:40			1		USE	C
per0328064a	248860007	CWW	3/28/2010 22:48	964122	10-2313	1	LANL	USE	S
per0328065a	248860008	CWW	3/28/2010 22:57	964122	10-2313	1	LANL	USE	S
per0328066a	248860009	CWW	3/28/2010 23:06	964122	10-2313	1	LANL	USE	S

per0328067a	IPB009	CWW	3/28/2010 23:14			1		USE	B
per0328068a	1202069103	CWW	3/28/2010 23:23	964453	10-2357	1	LANL	USE	S
per0328069a	1202069104	CWW	3/28/2010 23:32	964453	10-2357	1	LANL	USE	S
per0328070a	1202069107	CWW	3/28/2010 23:40	964453	10-2357	1	LANL	USE	S
per0328071a	249076003	CWW	3/28/2010 23:49	964453	10-2357	1	LANL	USE	S
per0328072a	1202069105	CWW	3/28/2010 23:57	964453	10-2357	1	LANL	USE	S
per0328073a	1202069106	CWW	3/29/2010 0:06	964453	10-2357	1	LANL	USE	S
per0328074a	WCLCCV	CWW	3/29/2010 0:15			1		USE	C
per0328075a	IPB010	CWW	3/29/2010 0:23			1		USE	B
per0328076a	WCLCRI	CWW	3/29/2010 0:32			1		USE	C
per0328077a	249076004	CWW	3/29/2010 0:41	964453	10-2357	1	LANL	USE	S
per0328078a	249076005	CWW	3/29/2010 0:50	964453	10-2357	1	LANL	USE	S
per0328079a	249076006	CWW	3/29/2010 0:58	964453	10-2357	1	LANL	USE	S
per0328080a	249076007	CWW	3/29/2010 1:07	964453	10-2357	1	LANL	USE	S
per0328081a	249076008	CWW	3/29/2010 1:15	964453	10-2357	1	LANL	USE	S
per0328082a	249076009	CWW	3/29/2010 1:24	964453	10-2357	1	LANL	USE	S
per0328083a	249076010	CWW	3/29/2010 1:32	964453	10-2357	1	LANL	USE	S
per0328084a	249076011	CWW	3/29/2010 1:41	964453	10-2357	1	LANL	USE	S
per0328085a	249076012	CWW	3/29/2010 1:49	964453	10-2357	1	LANL	USE	S
per0328086a	249076013	CWW	3/29/2010 1:58	964453	10-2357	1	LANL	USE	S
per0328087a	WCLCCV	CWW	3/29/2010 2:07			1		USE	C
per0328088a	IPB011	CWW	3/29/2010 2:15			1		USE	B
per0328089a	WCLCRI	CWW	3/29/2010 2:24			1		USE	C
per0328090a	249076014	CWW	3/29/2010 2:32	964453	10-2357	1	LANL	USE	S
per0328091a	249076015	CWW	3/29/2010 2:41	964453	10-2357	1	LANL	USE	S
per0328092a	249076016	CWW	3/29/2010 2:50	964453	10-2357	1	LANL	USE	S
per0328093a	249076017	CWW	3/29/2010 2:58	964453	10-2357	1	LANL	USE	S
per0328094a	249076018	CWW	3/29/2010 3:07	964453	10-2357	1	LANL	USE	S
per0328095a	249076019	CWW	3/29/2010 3:15	964453	10-2357	1	LANL	USE	S
per0328096a	249076020	CWW	3/29/2010 3:24	964453	10-2357	1	LANL	USE	S
per0328097a	WCLCCV	CWW	3/29/2010 3:33			1		USE	C
per0328098a	IPB012	CWW	3/29/2010 3:41			1		USE	B
per0328099a	WCLCRI	CWW	3/29/2010 3:50			1		USE	C

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1 100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2315

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	967400
Prep Batch Number:	967399

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
248863001	RE46-10-12936
248863002	RE46-10-12930
248863003	RE46-10-12929
248863004	RE46-10-12935
1202076363	Method Blank (MB)
1202076364	Laboratory Control Sample (LCS)
1202076365	248863002(RE46-10-12930) Matrix Spike (MS)
1202076366	248863002(RE46-10-12930) Matrix Spike Duplicate (MSD)

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

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248863002 (RE46-10-12930) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the

analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

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

Review Validation

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

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

Reviewer: Jimi Ceo Date: 4/1/10

Roadmap for LANL 10-2315 PCB

This roadmap was analyzed by yip00818 on 03-24-2010, 09:04.
This roadmap was packaged by sha01289 on 04-01-2010, 06:11.
This roadmap was validated by jim01140 on 04-01-2010, 09:07.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032310a.b/014f1401.d	248863001	sample	23-MAR-2010	10:00	10-2315.sub	RE46-10-12936	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/015f1501.d	248863002	sample	23-MAR-2010	10:12	10-2315.sub	RE46-10-12930	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/018f1801.d	248863003	sample	23-MAR-2010	10:50	10-2315.sub	RE46-10-12929	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/019f1901.d	248863004	sample	23-MAR-2010	11:03	10-2315.sub	RE46-10-12935	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032310a.b/014b1401.d	248863001	sample	23-MAR-2010	10:00	10-2315.sub	RE46-10-12936	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/015b1501.d	248863002	sample	23-MAR-2010	10:12	10-2315.sub	RE46-10-12930	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/018b1801.d	248863003	sample	23-MAR-2010	10:50	10-2315.sub	RE46-10-12929	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/019b1901.d	248863004	sample	23-MAR-2010	11:03	10-2315.sub	RE46-10-12935	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032310a.b/012f1201.d	1202076363	mb	23-MAR-2010	09:39	10-2315.sub	PBLK01	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/013f1301.d	1202076364	lcs	23-MAR-2010	09:49	10-2315.sub	PBLK01LCS	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/016f1601.d	1202076365	ms	23-MAR-2010	10:25	10-2315.sub	RE46-10-12930MS	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/017f1701.d	1202076366	msd	23-MAR-2010	10:37	10-2244.sub	RE46-10-12930MSD	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032310a.b/012b1201.d	1202076363	mb	23-MAR-2010	09:39	10-2315.sub	PBLK01	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/013b1301.d	1202076364	lcs	23-MAR-2010	09:49	10-2315.sub	PBLK01LCS	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/016b1601.d	1202076365	ms	23-MAR-2010	10:25	10-2315.sub	RE46-10-12930MS	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/017b1701.d	1202076366	msd	23-MAR-2010	10:37	10-2315.sub	RE46-10-12930MSD	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12929**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 10:50**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	018b1801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.03	ug/kg	1.34	4.03	1
11104–28–2	Aroclor–1221	U	4.03	ug/kg	1.34	4.03	1
11141–16–5	Aroclor–1232	U	4.03	ug/kg	1.34	4.03	1
53469–21–9	Aroclor–1242	U	4.03	ug/kg	1.34	4.03	1
12672–29–6	Aroclor–1248	U	4.03	ug/kg	1.34	4.03	1
11097–69–1	Aroclor–1254	U	4.03	ug/kg	1.34	4.03	1
11096–82–5	Aroclor–1260	U	4.03	ug/kg	1.34	4.03	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12930**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 10:12**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**015f1501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	015b1501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.64	ug/kg	1.21	3.64	1
11104–28–2	Aroclor–1221	U	3.64	ug/kg	1.21	3.64	1
11141–16–5	Aroclor–1232	U	3.64	ug/kg	1.21	3.64	1
53469–21–9	Aroclor–1242	U	3.64	ug/kg	1.21	3.64	1
12672–29–6	Aroclor–1248	U	3.64	ug/kg	1.21	3.64	1
11097–69–1	Aroclor–1254	U	3.64	ug/kg	1.21	3.64	1
11096–82–5	Aroclor–1260	U	3.64	ug/kg	1.21	3.64	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**12.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12935**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 11:03**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**019f1901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	019b1901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.80	ug/kg	1.26	3.80	1
11104–28–2	Aroclor–1221	U	3.80	ug/kg	1.26	3.80	1
11141–16–5	Aroclor–1232	U	3.80	ug/kg	1.26	3.80	1
53469–21–9	Aroclor–1242	U	3.80	ug/kg	1.26	3.80	1
12672–29–6	Aroclor–1248	U	3.80	ug/kg	1.26	3.80	1
11097–69–1	Aroclor–1254	U	3.80	ug/kg	1.26	3.80	1
11096–82–5	Aroclor–1260	U	3.80	ug/kg	1.26	3.80	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2315	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248863001	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–12936	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967400	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/23/2010 10:00	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 11:11	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	014f1401.d	**Column:**	1 CLP1	**Level:**	LOW
	014b1401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.69	ug/kg	1.23	3.69	1
11104–28–2	Aroclor–1221	U	3.69	ug/kg	1.23	3.69	1
11141–16–5	Aroclor–1232	U	3.69	ug/kg	1.23	3.69	1
53469–21–9	Aroclor–1242	U	3.69	ug/kg	1.23	3.69	1
12672–29–6	Aroclor–1248	U	3.69	ug/kg	1.23	3.69	1
11097–69–1	Aroclor–1254	U	3.69	ug/kg	1.23	3.69	1
11096–82–5	Aroclor–1260	U	3.69	ug/kg	1.23	3.69	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–2315

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202076363	MB for batch 967399	71	68	86	78
1202076364	LCS for batch 967399	77	73	85	78
248863001	RE46–10–12936	56	53	61	57
248863002	RE46–10–12930	55	51	66	61
1202076365	RE46–10–12930MS	49	45	57	57
1202076366	RE46–10–12930MSD	61	58	72	67
248863003	RE46–10–12929	56	53	62	59
248863004	RE46–10–12935	56	54	69	63

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%–120%)
DCB = Decachlorobiphenyl	(30%–116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **10–2315**
Client ID: **LCS for batch 967399**
Lab Sample ID: **1202076364**
Instrument: **ECD1A.I**
Analyst: **YS1**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **03/23/2010 09:49**
Dilution: **1**
Prep Batch ID: **967399**
Batch ID: **967400**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674–11–2	LCS	Aroclor–1016	33.3	0.0	23.8	71	39–102
11096–82–5	LCS	Aroclor–1260	33.3	0.0	27.3	82	45–118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10–2315**	**Sample Type:**	**Matrix Spike**	
Client ID:	**RE46–10–12930MS**	**Matrix:**	**S**	
Lab Sample ID:	**1202076365**	**%Moisture:**	**8.5**	
Instrument:	**ECD1A.I**	**Analysis Date:**	**03/23/2010 10:25**	**Dilution: 1**
Analyst:	**YS1**	**Prep Batch ID:**	**967399**	
Inj. Vol:	**1 uL**	**Batch ID:**	**967400**	

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674–11–2	MS	Aroclor–1016	36.4	0.00	U	18.0	49	23–119
11096–82–5	MS	Aroclor–1260	36.4	0.00	U	22.4	62	28–124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2315
Client ID: RE46–10–12930MSD
Lab Sample ID: 1202076366
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 8.5
Analysis Date: 03/23/2010 10:37
Prep Batch ID: 967399
Batch ID: 967400
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	36.4	0.00	U	21.3	59	23–119	17	0–28
11096–82–5	MSD Aroclor–1260	36.4	0.00	U	25.9	71	28–124	15	0–30

Method Blank Summary

SDG Number:	10–2315	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 967399	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	012b1201–1.d 012f1201–1.d
Lab Sample ID:	1202076363				
Column:	CLP2 CLP1	Prep Date:	03/22/2010 11:11	Analyzed:	03/23/10 09:39
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 967399	1202076364	013f1301–1.d 013b1301–1.d	03/23/10	0949
02 RE46–10–12936	248863001	014f1401.d 014b1401.d	03/23/10	1000
03 RE46–10–12930	248863002	015f1501.d 015b1501.d	03/23/10	1012
04 RE46–10–12930MS	1202076365	016f1601.d 016b1601.d	03/23/10	1025
05 RE46–10–12930MSD	1202076366	017f1701.d 017b1701.d	03/23/10	1037
06 RE46–10–12929	248863003	018f1801.d 018b1801.d	03/23/10	1050
07 RE46–10–12935	248863004	019f1901.d 019b1901.d	03/23/10	1103

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12929**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 10:50**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	018b1801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.03	ug/kg	1.34	4.03	1
11104–28–2	Aroclor–1221	U	4.03	ug/kg	1.34	4.03	1
11141–16–5	Aroclor–1232	U	4.03	ug/kg	1.34	4.03	1
53469–21–9	Aroclor–1242	U	4.03	ug/kg	1.34	4.03	1
12672–29–6	Aroclor–1248	U	4.03	ug/kg	1.34	4.03	1
11097–69–1	Aroclor–1254	U	4.03	ug/kg	1.34	4.03	1
11096–82–5	Aroclor–1260	U	4.03	ug/kg	1.34	4.03	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/018f1801.d
Lab Smp Id: 248863003 Client Smp ID: RE46-10-12929
Inj Date : 23-MAR-2010 10:50
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248863003|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-12929|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	17.28000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.913	-0.001	43827056	112.515	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.217	-0.003	37106281	124.966	5.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/018f1801.d
Date : 23-MAR-2010 10:50
Client ID: RE46-10-12929
Sample Info: 1248863003111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

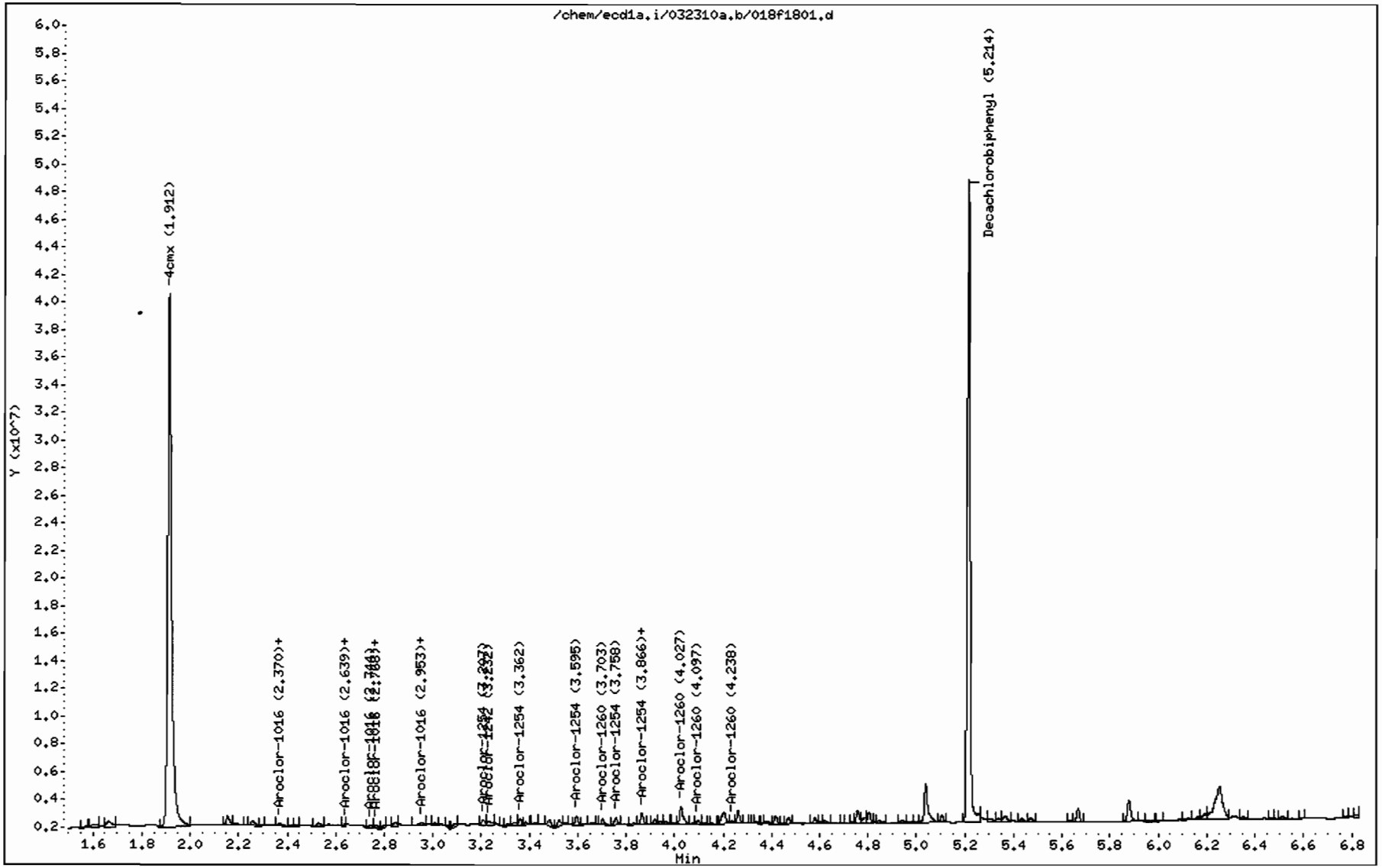

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/018b1801.d
Lab Smp Id: 248863003 Client Smp ID: RE46-10-12929
Inj Date : 23-MAR-2010 10:50
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248863003|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-12929|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:51 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	17.28000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	27772556	105.868	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	22155521	118.369	4.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/018b1801.d
Date : 23-MAR-2010 10:50
Client ID: RE46-10-12929
Sample Info: |2488630031|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

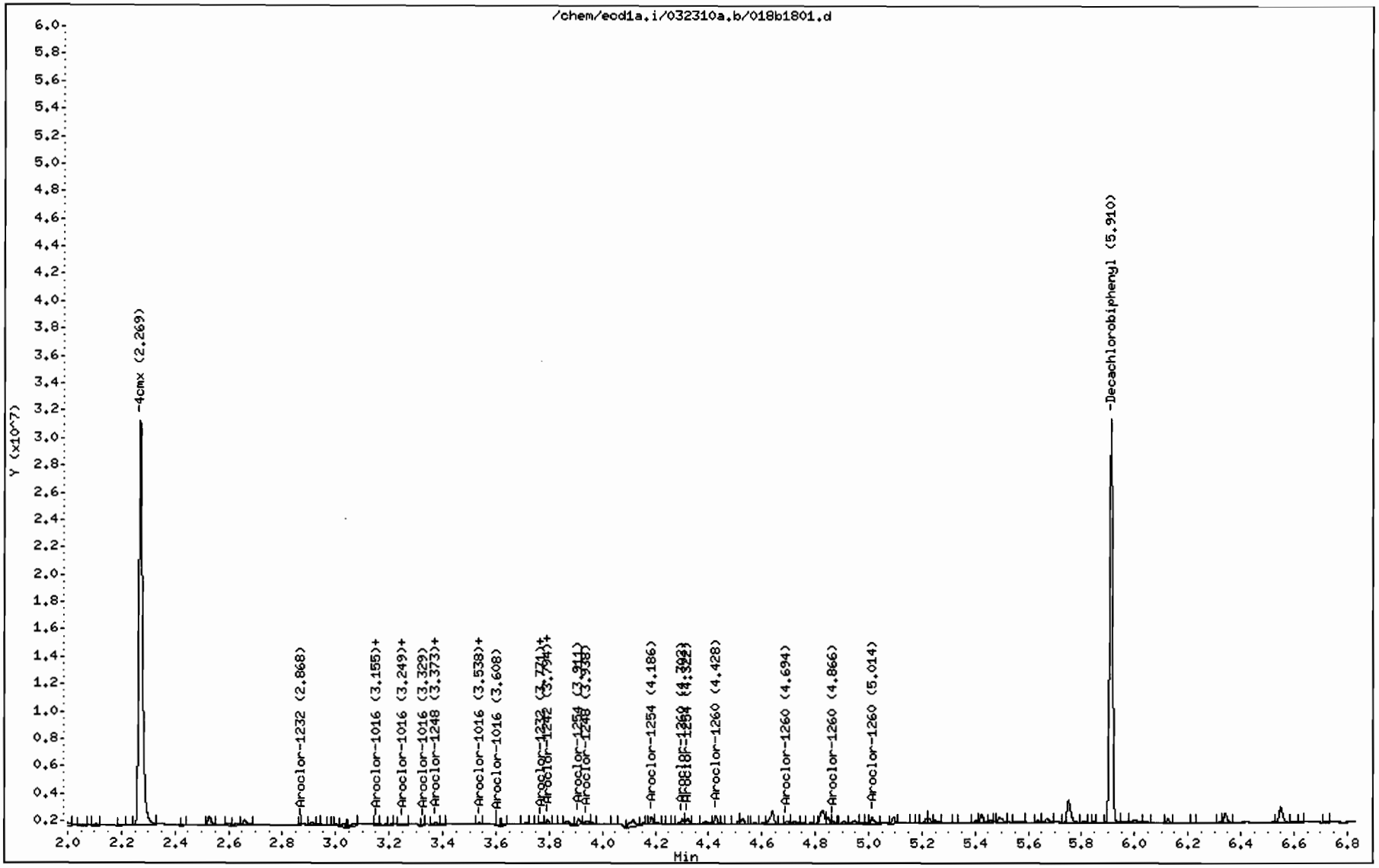

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2315	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248863002	**Date Received:**	03/06/2010 09:15	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–12930	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967400	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/23/2010 10:12	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 11:11	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	015f1501.d	**Column:**	1 CLP1	**Level:**	LOW
	015b1501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.64	ug/kg	1.21	3.64	1
11104–28–2	Aroclor–1221	U	3.64	ug/kg	1.21	3.64	1
11141–16–5	Aroclor–1232	U	3.64	ug/kg	1.21	3.64	1
53469–21–9	Aroclor–1242	U	3.64	ug/kg	1.21	3.64	1
12672–29–6	Aroclor–1248	U	3.64	ug/kg	1.21	3.64	1
11097–69–1	Aroclor–1254	U	3.64	ug/kg	1.21	3.64	1
11096–82–5	Aroclor–1260	U	3.64	ug/kg	1.21	3.64	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/015f1501.d
Lab Smp Id: 248863002 Client Smp ID: RE46-10-12930
Inj Date : 23-MAR-2010 10:12
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248863002|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-12930|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	42609132	109.388	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	39215548	132.070	4.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/015f1501.d
Date : 23-MAR-2010 10:12
Client ID: RE46-10-12930
Sample Info: |248863002|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

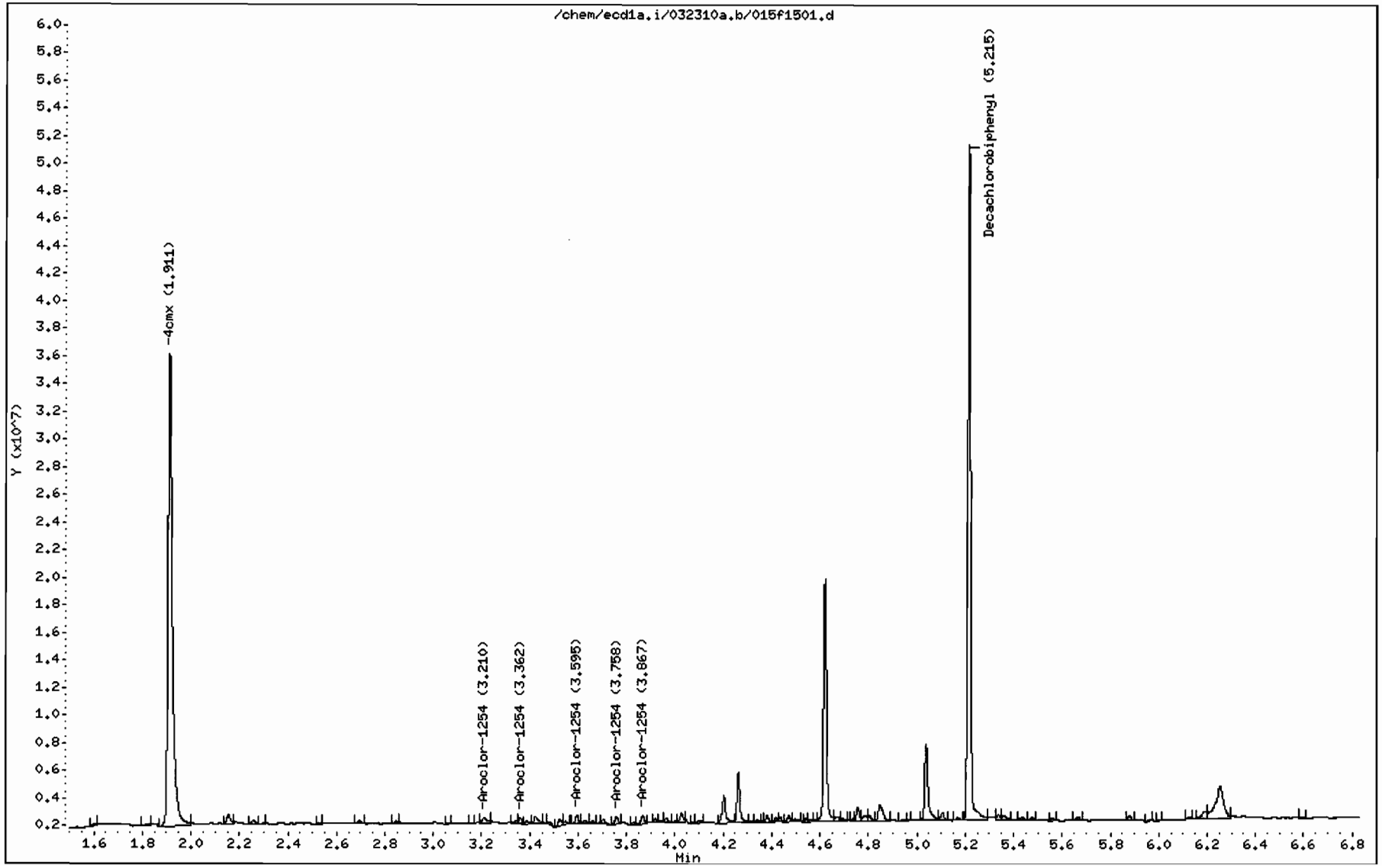

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/015b1501.d
Lab Smp Id: 248863002 Client Smp ID: RE46-10-12930
Inj Date : 23-MAR-2010 10:12
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248863002|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-12930|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:51 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	26546739	101.195	3.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	22902271	122.359	4.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/015b1501.d
Date : 23-MAR-2010 10:12
Client ID: RE46-10-12930
Sample Info: 1248863002|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

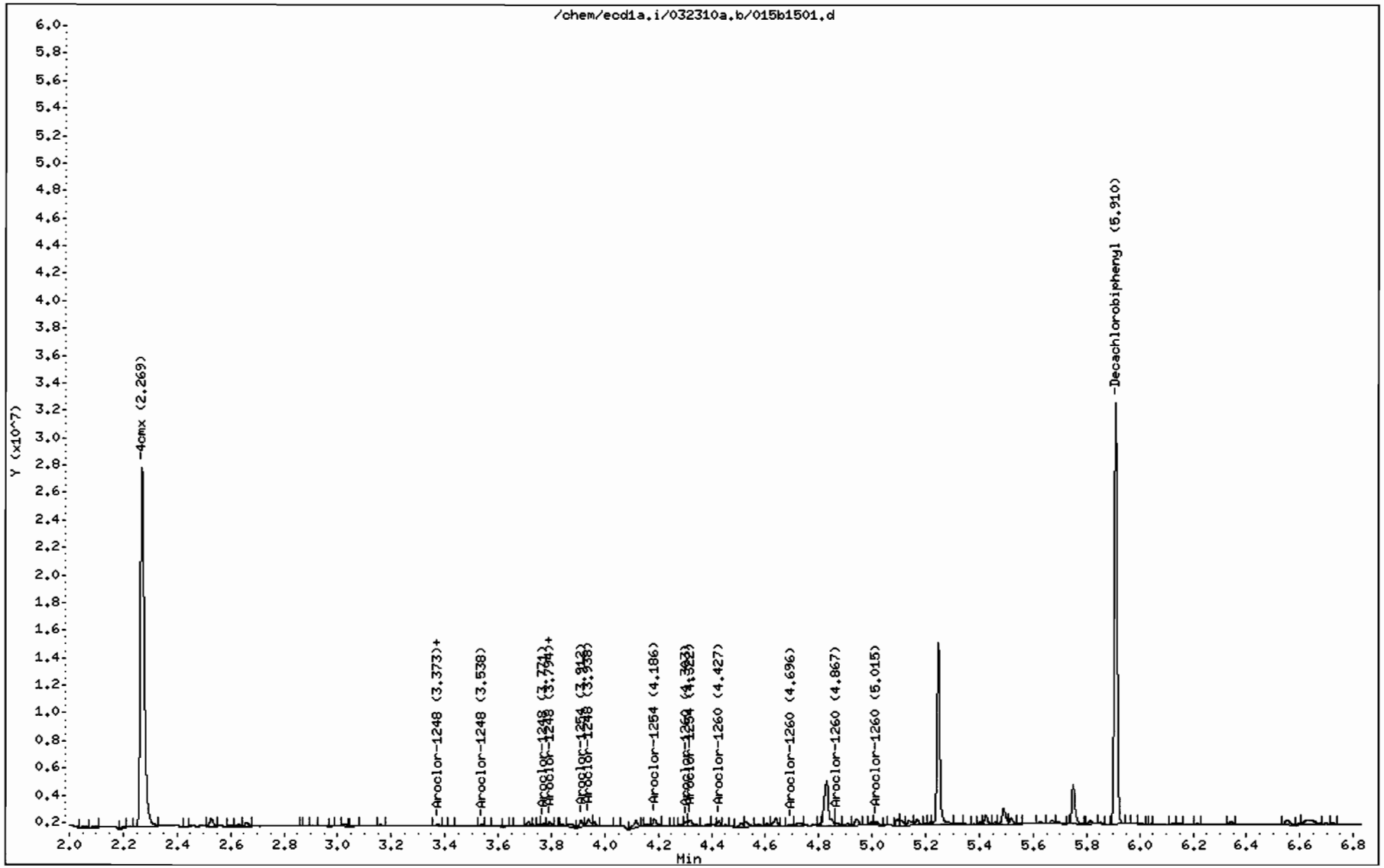

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**12.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12935**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 11:03**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**019f1901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	019b1901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.80	ug/kg	1.26	3.80	1
11104–28–2	Aroclor–1221	U	3.80	ug/kg	1.26	3.80	1
11141–16–5	Aroclor–1232	U	3.80	ug/kg	1.26	3.80	1
53469–21–9	Aroclor–1242	U	3.80	ug/kg	1.26	3.80	1
12672–29–6	Aroclor–1248	U	3.80	ug/kg	1.26	3.80	1
11097–69–1	Aroclor–1254	U	3.80	ug/kg	1.26	3.80	1
11096–82–5	Aroclor–1260	U	3.80	ug/kg	1.26	3.80	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/019f1901.d
Lab Smp Id: 248863004 Client Smp ID: RE46-10-12935
Inj Date : 23-MAR-2010 11:03
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248863004|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-12935|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	12.34960	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	43962408	112.862	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.217	-0.003	40955614	137.930	5.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/019f1901.d

Date : 23-MAR-2010 11:03

Client ID: RE46-10-12935

Sample Info: 1248863004|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

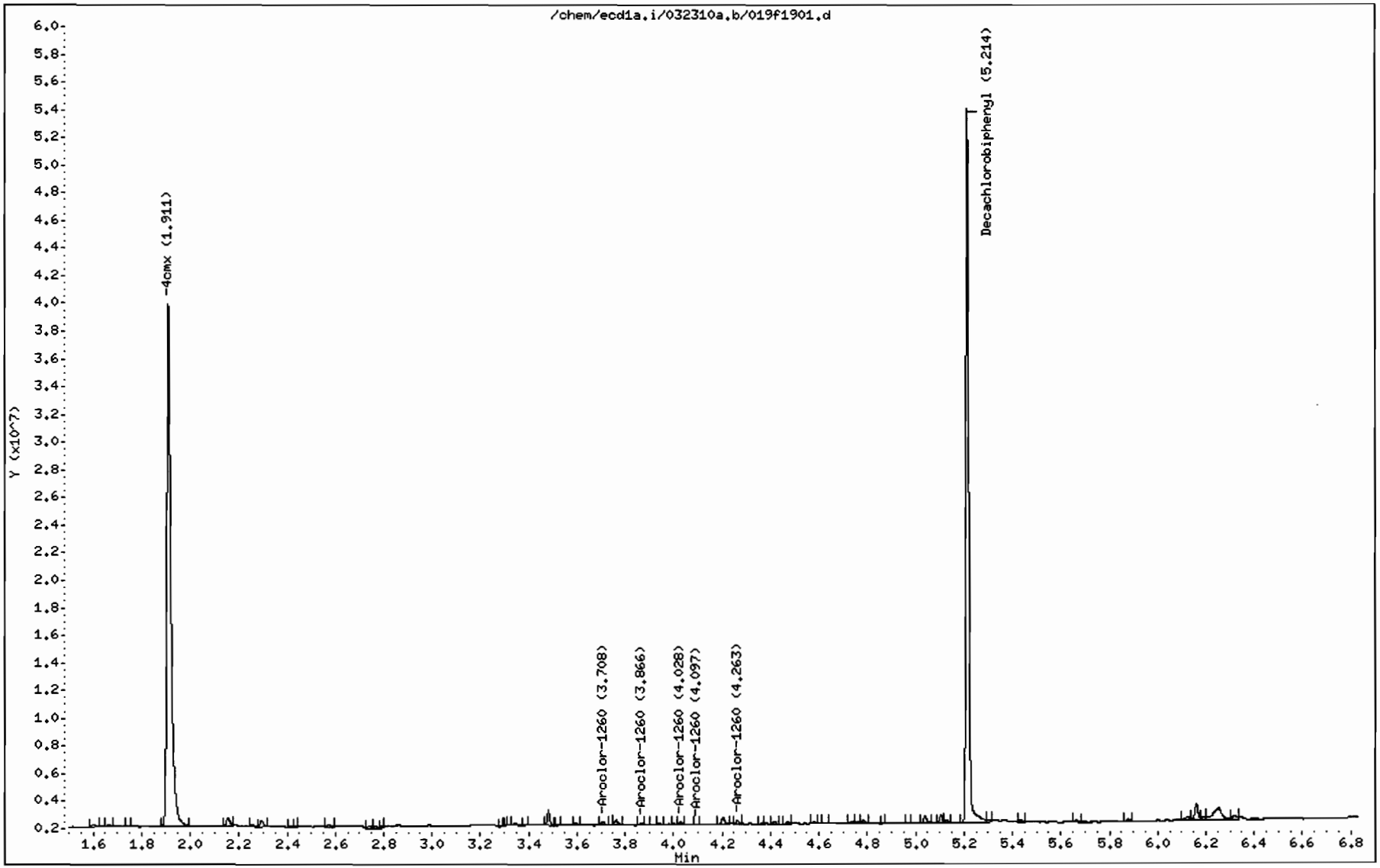

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/019b1901.d
Lab Smp Id: 248863004 Client Smp ID: RE46-10-12935
Inj Date : 23-MAR-2010 11:03
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248863004|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-12935|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:51 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	12.34960	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.268	2.270	-0.002	28591350	108.989	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	23617873	126.182	4.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/019b1901.d
Date : 23-MAR-2010 11:03
Client ID: RE46-10-12935
Sample Info: |2488630041|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

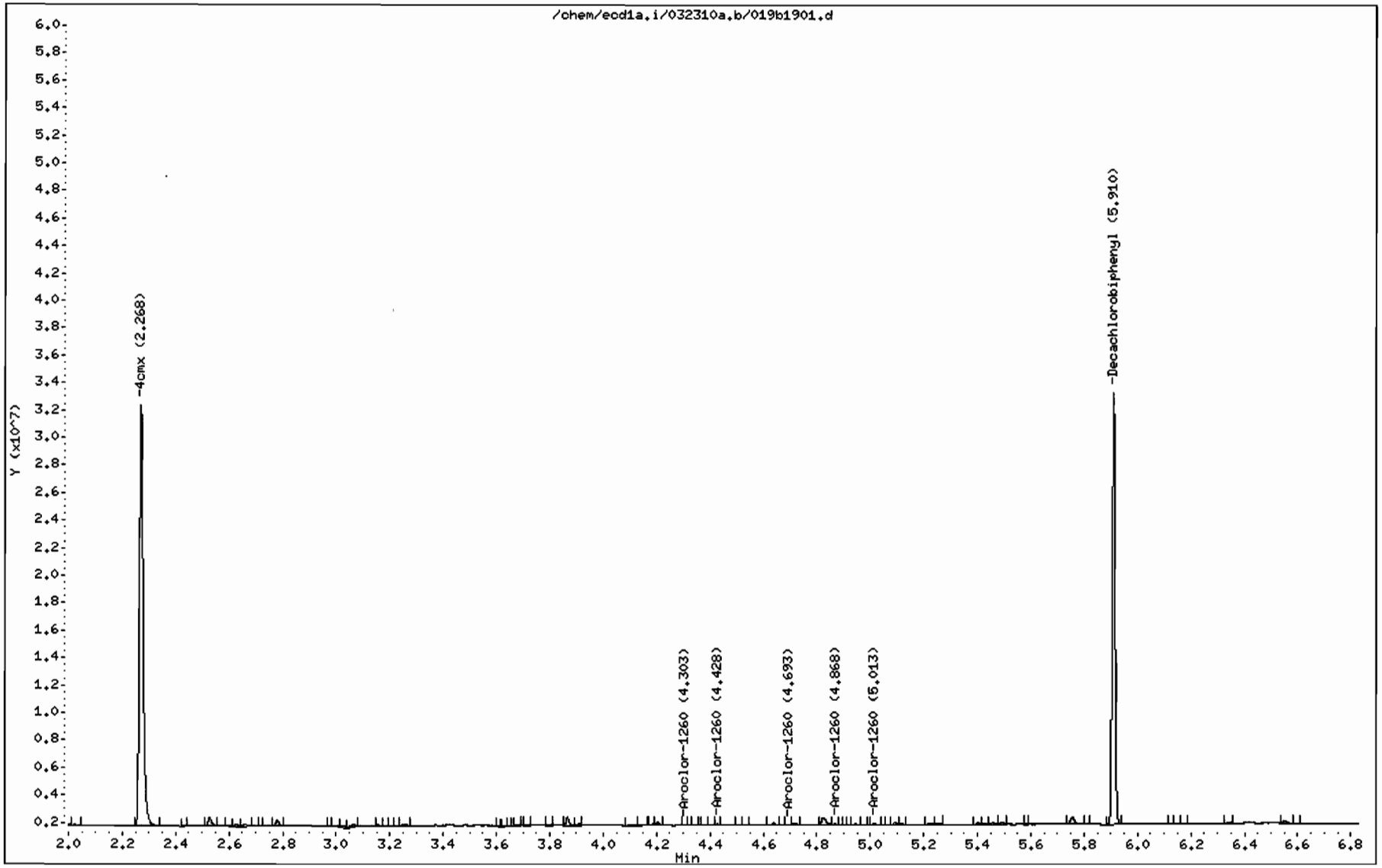

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248863001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12936**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 10:00**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**014f1401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	014b1401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.69	ug/kg	1.23	3.69	1
11104–28–2	Aroclor–1221	U	3.69	ug/kg	1.23	3.69	1
11141–16–5	Aroclor–1232	U	3.69	ug/kg	1.23	3.69	1
53469–21–9	Aroclor–1242	U	3.69	ug/kg	1.23	3.69	1
12672–29–6	Aroclor–1248	U	3.69	ug/kg	1.23	3.69	1
11097–69–1	Aroclor–1254	U	3.69	ug/kg	1.23	3.69	1
11096–82–5	Aroclor–1260	U	3.69	ug/kg	1.23	3.69	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/032310a.b/014f1401.d
Lab Smp Id: 248863001 Client Smp ID: RE46-10-12936
Inj Date : 23-MAR-2010 10:00
Operator : YS1 Inst ID: ecdla.i
Smp Info : |248863001|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-12936|||
Comment :
Method : /chem/ecdla.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	9.62660	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	43686585	112.154	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.217	5.217	0.000	36425565	122.674	4.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/014f1401.d

Page 1

Date : 23-MAR-2010 10:00

Client ID: RE46-10-12936

Instrument: ecd1a.i

Sample Info: |248863001|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

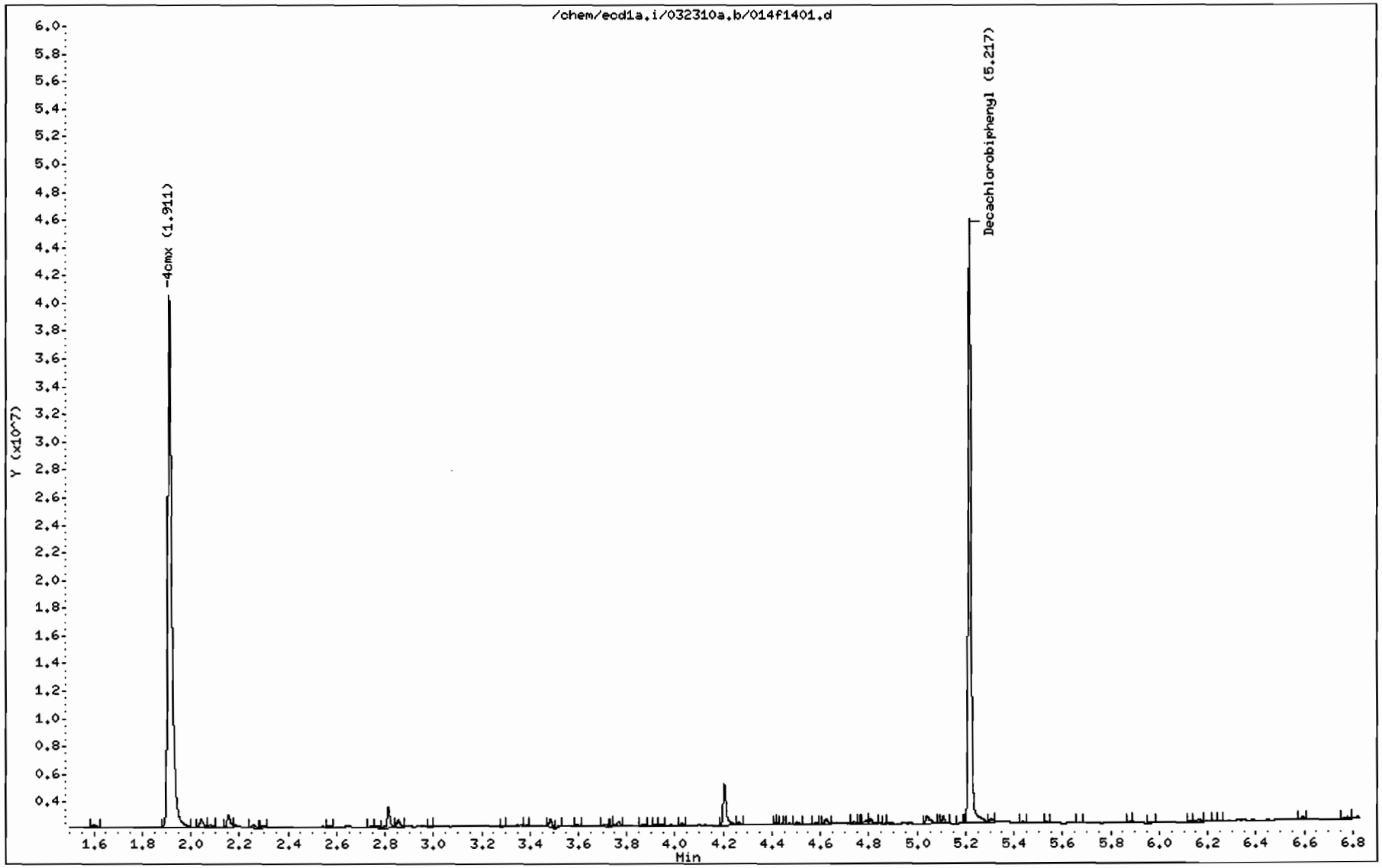

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/014b1401.d
Lab Smp Id: 248863001 Client Smp ID: RE46-10-12936
Inj Date : 23-MAR-2010 10:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248863001|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-12936|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:51 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	9.62660	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	28028917	106.845	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.912	5.912	0.000	21279354	113.688	4.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/014b1401.d
Date : 23-MAR-2010 10:00
Client ID: RE46-10-12936
Sample Info: |2488630011|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

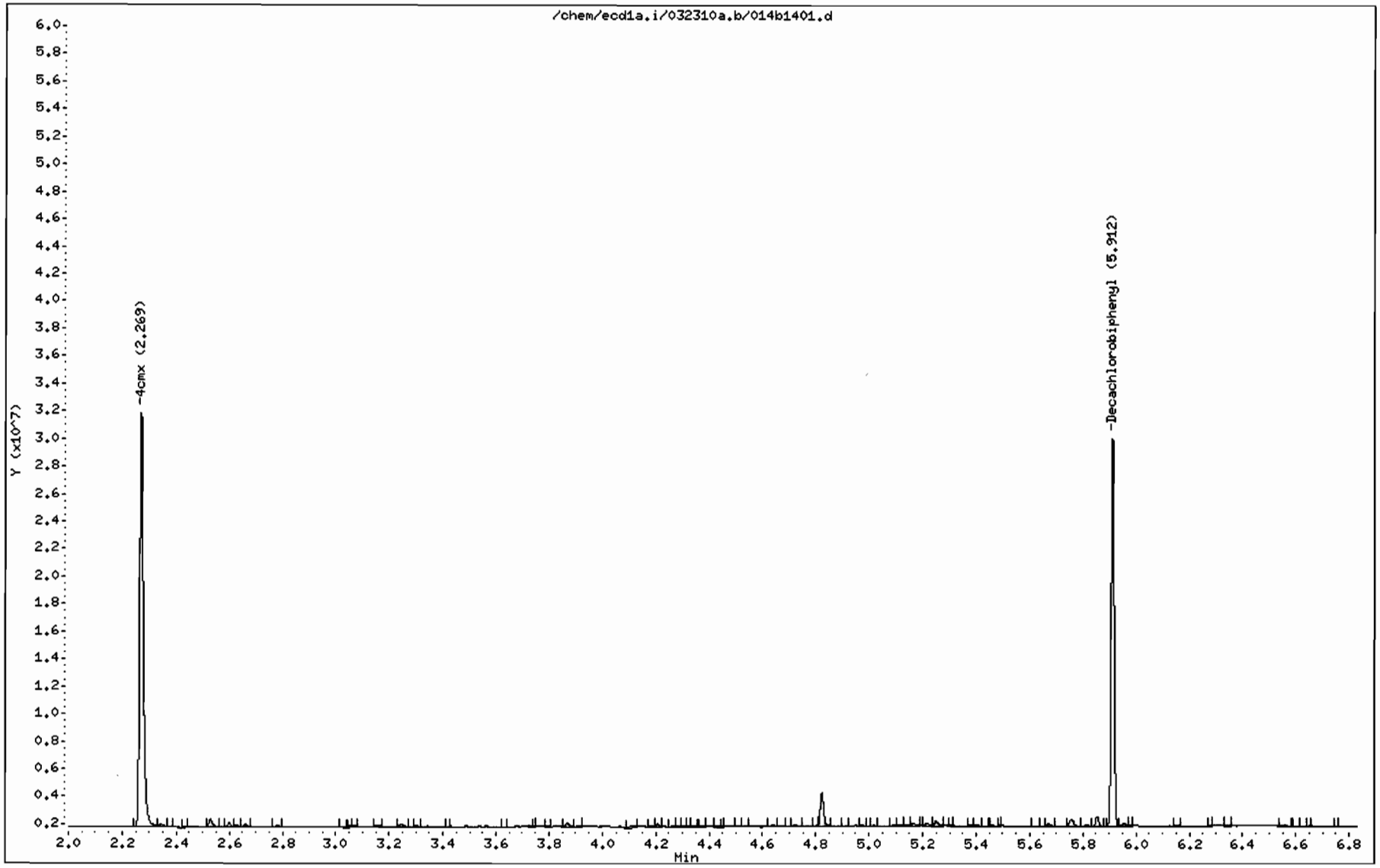

STANDARDS DATA

Report Date: 25-Mar-2010 05:51

Calibration History

Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032f3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029f2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023f2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017f1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033f3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030f3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024f2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018f1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034f3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031f3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025f2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019f1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035f3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032f3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026f2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020f2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014f1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009f0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008f0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007f0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010f1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036f3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033f3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027f2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021f2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 07:53	AR1660	/chem/ecd1a.i/032310a.b/002f0201.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 01:19	AR1660	/chem/ecd1a.i/032310a.b/087f8701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 23:38	AR1660	/chem/ecd1a.i/032310a.b/079f7901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 21:06	AR1660	/chem/ecd1a.i/032310a.b/067f6701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 18:35	AR1660	/chem/ecd1a.i/032310a.b/055f5501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:03	AR1660	/chem/ecd1a.i/032310a.b/048f4801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 15:17	AR1660	/chem/ecd1a.i/032310a.b/040f4001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:25	AR1660	/chem/ecd1a.i/032310a.b/031f3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:04	AR1660	/chem/ecd1a.i/032310a.b/029f2901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 11:28	AR1660	/chem/ecd1a.i/032310a.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:07	AR1262	/chem/ecd1a.i/032310a.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:56	AR1221	/chem/ecd1a.i/032310a.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:46	AR1232	/chem/ecd1a.i/032310a.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:35	AR1268	/chem/ecd1a.i/032310a.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:25	AR1248	/chem/ecd1a.i/032310a.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:14	AR1242	/chem/ecd1a.i/032310a.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:04	AR1254	/chem/ecd1a.i/032310a.b/003f0301.d

Report Date: 24-Mar-2010 08:34

Calibration History

Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029b2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023b2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017b1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030b3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024b2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018b1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031b3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025b2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019b1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032b3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026b2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020b2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014b1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009b0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008b0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007b0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010b1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033b3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027b2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021b2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 01:19	AR1660	/chem/ecd1a.i/032310a.b/087b8701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 23:38	AR1660	/chem/ecd1a.i/032310a.b/079b7901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 21:06	AR1660	/chem/ecd1a.i/032310a.b/067b6701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 18:35	AR1660	/chem/ecd1a.i/032310a.b/055b5501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:03	AR1660	/chem/ecd1a.i/032310a.b/048b4801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 15:17	AR1660	/chem/ecd1a.i/032310a.b/040b4001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:25	AR1660	/chem/ecd1a.i/032310a.b/031b3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:04	AR1660	/chem/ecd1a.i/032310a.b/029b2901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 11:28	AR1660	/chem/ecd1a.i/032310a.b/021b2101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:07	AR1262	/chem/ecd1a.i/032310a.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:56	AR1221	/chem/ecd1a.i/032310a.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:46	AR1232	/chem/ecd1a.i/032310a.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:35	AR1268	/chem/ecd1a.i/032310a.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:25	AR1248	/chem/ecd1a.i/032310a.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:14	AR1242	/chem/ecd1a.i/032310a.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:04	AR1254	/chem/ecd1a.i/032310a.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 07:53	AR1660	/chem/ecd1a.i/032310a.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Mar-2010 05:50 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.365	2.335-2.395	1.518e+04
	2.651	2.621-2.681	1.894e+04
	2.732	2.702-2.762	1.244e+04
	2.770	2.740-2.800	7.348e+03
	2.980	2.950-3.010	9.518e+03
63 4,4-DDD	3.888	3.868-3.908	3.140e+05
64 4,4-DDE	3.539	3.519-3.559	3.727e+05
62 4,4-DDT	4.052	4.032-4.072	2.363e+05
2 Aroclor-1221	2.025	1.994-2.054	4.466e+03
	2.117	2.087-2.147	2.447e+03
	2.143	2.113-2.173	1.083e+04
3 Aroclor-1232	2.364	2.334-2.394	6.667e+03
	2.651	2.621-2.681	8.344e+03
	2.731	2.701-2.761	5.531e+03
	2.845	2.816-2.876	2.649e+03
	3.232	3.202-3.262	3.555e+03
4 Aroclor-1242	2.364	2.334-2.394	1.233e+04
	2.652	2.622-2.682	1.490e+04
	2.769	2.739-2.799	5.896e+03
	2.979	2.949-3.009	7.735e+03
	3.233	3.203-3.263	7.285e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m

	Compound	RT	RT Window	RF
	5 Aroclor-1248	2.847	2.817-2.877	1.000e+04
		2.979	2.949-3.009	1.314e+04
		3.233	3.203-3.263	1.430e+04
		3.365	3.335-3.395	1.190e+04
		3.597	3.567-3.627	8.005e+03
	6 Aroclor-1254	3.208	3.178-3.238	1.326e+04
		3.363	3.333-3.393	1.783e+04
		3.597	3.567-3.627	2.237e+04
		3.759	3.729-3.789	1.649e+04
		3.868	3.838-3.898	1.596e+04
	7 Aroclor-1260	3.705	3.675-3.735	1.833e+04
		3.867	3.837-3.897	2.689e+04
		4.030	4.000-4.060	2.832e+04
		4.097	4.067-4.127	1.616e+04
		4.240	4.210-4.270	1.681e+04
	8 Aroclor-1262	3.704	3.674-3.734	1.423e+04
		3.866	3.836-3.896	1.874e+04
		4.097	4.067-4.127	2.315e+04
		4.239	4.209-4.269	2.110e+04
		4.418	4.388-4.448	4.350e+04
	9 Aroclor-1268	4.604	4.574-4.634	4.848e+04
		4.627	4.597-4.657	5.448e+04
		4.739	4.709-4.769	3.862e+04
		4.942	4.912-4.972	1.635e+04
		5.107	5.077-5.137	1.121e+05
M	10 Aroclor-Total	1.000	0.980-1.020	
	11 4cmx	1.913	1.883-1.943	3.895e+05
	12 Decachlorobiphenyl	5.217	5.187-5.247	2.969e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Mar-2010 06:13 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.165	3.135-3.195	1.258e+04
	3.248	3.218-3.278	8.634e+03
	3.311	3.281-3.341	5.287e+03
	3.538	3.508-3.568	6.893e+03
	3.614	3.584-3.644	6.423e+03
62 4,4-DDT	4.642	4.622-4.662	7.489e+04
63 4,4-DDE	4.111	4.091-4.131	2.469e+05
64 4,4-DDD	4.455	4.435-4.475	1.989e+05
2 Aroclor-1221	2.466	2.436-2.496	3.250e+03
	2.560	2.530-2.590	2.084e+03
	2.601	2.571-2.631	7.320e+03
3 Aroclor-1232	2.867	2.837-2.897	5.054e+03
	3.165	3.135-3.195	5.712e+03
	3.247	3.217-3.277	3.888e+03
	3.538	3.508-3.568	2.840e+03
	3.771	3.741-3.801	2.821e+03
4 Aroclor-1242	3.165	3.135-3.195	1.014e+04
	3.248	3.218-3.278	7.097e+03
	3.538	3.508-3.568	5.514e+03
	3.772	3.742-3.802	5.722e+03
	3.799	3.769-3.829	6.370e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.374	3.344-3.404	7.604e+03
	3.538	3.509-3.568	9.470e+03
	3.772	3.742-3.802	1.093e+04
	3.799	3.769-3.829	1.216e+04
	3.936	3.906-3.966	1.181e+04
6 Aroclor-1254	3.373	3.343-3.403	6.021e+03
	3.795	3.765-3.825	1.082e+04
	3.912	3.882-3.942	1.193e+04
	4.188	4.158-4.218	1.644e+04
	4.323	4.293-4.353	1.212e+04
7 Aroclor-1260	4.304	4.274-4.334	1.308e+04
	4.428	4.398-4.458	1.555e+04
	4.695	4.665-4.725	1.190e+04
	4.867	4.837-4.897	1.229e+04
	5.015	4.985-5.045	2.639e+04
8 Aroclor-1262	4.428	4.398-4.458	1.160e+04
	4.693	4.663-4.723	1.620e+04
	4.866	4.836-4.896	1.484e+04
	5.013	4.983-5.043	2.937e+04
	5.227	5.197-5.257	2.065e+04
9 Aroclor-1268	5.226	5.196-5.256	3.730e+04
	5.254	5.224-5.284	3.492e+04
	5.403	5.373-5.433	2.658e+04
	5.568	5.538-5.598	1.223e+04
	5.760	5.730-5.790	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.270	2.240-2.300	2.623e+05
$ 12 Decachlorobiphenyl	5.912	5.882-5.942	1.872e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Cal Date : 25-Mar-2010 05:50 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032f3201.d
Level 2: /chem/ecd1a.i/022210.b/033f3301.d
Level 3: /chem/ecd1a.i/022210.b/034f3401.d
Level 4: /chem/ecd1a.i/022210.b/035f3501.d
Level 5: /chem/ecd1a.i/022210.b/036f3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	___ RRF	% RSD
1 Aroclor-1016(1)	17517	15916	14941	14342	13168	15177	10.833
(2)	20378	19291	18809	18310	17891	18936	5.082
(3)	13830	13020	12255	11836	11271	12442	8.071
(4)	7957	7573	7201	7091	6919	7348	5.665
(5)	10680	9850	9332	8998	8729	9518	8.119
63 4,4-DDD	+++++	+++++	+++++	313980	+++++	313980	0.000
64 4,4-DDE	+++++	+++++	+++++	372684	+++++	372684	0.000
62 4,4-DDT	+++++	+++++	+++++	236265	+++++	236265	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4466	+++++	4466	0.000
(2)	+++++	+++++	+++++	2447	+++++	2447	0.000
(3)	+++++	+++++	+++++	10828	+++++	10828	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6667	+++++	6667	0.000
(2)	+++++	+++++	+++++	8344	+++++	8344	0.000
(3)	+++++	+++++	+++++	5531	+++++	5531	0.000
(4)	+++++	+++++	+++++	2649	+++++	2649	0.000
(5)	+++++	+++++	+++++	3555	+++++	3555	0.000
4 Aroclor-1242(1)	14179	12973	12200	11692	10617	12332	10.871
(2)	16141	15119	14927	14559	13766	14903	5.801
(3)	6352	6182	5816	5703	5424	5896	6.324
(4)	8823	8005	7582	7293	6975	7735	9.260
(5)	7955	7511	7149	7022	6787	7285	6.273
5 Aroclor-1248(1)	11183	10572	9738	9526	8980	10000	8.748
(2)	14876	13683	12753	12517	11873	13140	8.885
(3)	15448	14508	14083	13911	13564	14303	5.068
(4)	13161	12385	11501	11480	10960	11898	7.335
(5)	8649	8385	7955	7608	7427	8005	6.411

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Cal Date : 25-Mar-2010 05:50 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	15079	13757	12872	12576	12027	13262	8.998
(2)	20126	18408	17163	17147	16322	17833	8.313
(3)	24516	23104	21642	21571	21024	22371	6.372
(4)	18056	17097	15691	15840	15766	16490	6.365
(5)	18024	16683	15151	15091	14874	15964	8.504
7 Aroclor-1260(1)	20231	18737	18018	17739	16925	18330	6.792
(2)	29345	27114	26401	26314	25275	26890	5.656
(3)	30716	28501	27786	27176	27398	28315	5.062
(4)	17775	16311	15776	15627	15300	16158	6.034
(5)	18203	16850	16463	16434	16114	16813	4.876
8 Aroclor-1262(1)	+++++	+++++	+++++	14232	+++++	14232	0.000
(2)	+++++	+++++	+++++	18742	+++++	18742	0.000
(3)	+++++	+++++	+++++	23151	+++++	23151	0.000
(4)	+++++	+++++	+++++	21098	+++++	21098	0.000
(5)	+++++	+++++	+++++	43500	+++++	43500	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 4cmx	407603	391717	384007	385362	378927	389523	2.846
12 Decachlorobiphenyl	324859	292709	291687	292552	282844	296930	5.438

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Cal Date : 24-Mar-2010 06:13 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032b3201.d
Level 2: /chem/ecd1a.i/022210.b/033b3301.d
Level 3: /chem/ecd1a.i/022210.b/034b3401.d
Level 4: /chem/ecd1a.i/022210.b/035b3501.d
Level 5: /chem/ecd1a.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14376	12782	12025	12307	11436	12585	8.846
(2)	10090	9074	8445	8099	7462	8634	11.594
(3)	6137	5472	5151	4973	4701	5287	10.435
(4)	7962	7103	6817	6522	6060	6893	10.318
(5)	7497	6686	6263	5965	5703	6423	10.948
62 4,4-DDT	+++++	+++++	+++++	74891	+++++	74891	0.000
63 4,4-DDE	+++++	+++++	+++++	246875	+++++	246875	0.000
64 4,4-DDD	+++++	+++++	+++++	198885	+++++	198885	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3250	+++++	3250	0.000
(2)	+++++	+++++	+++++	2084	+++++	2084	0.000
(3)	+++++	+++++	+++++	7320	+++++	7320	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	5054	+++++	5054	0.000
(2)	+++++	+++++	+++++	5712	+++++	5712	0.000
(3)	+++++	+++++	+++++	3888	+++++	3888	0.000
(4)	+++++	+++++	+++++	2840	+++++	2840	0.000
(5)	+++++	+++++	+++++	2821	+++++	2821	0.000
4 Aroclor-1242(1)	11230	10514	10117	9526	9309	10139	7.634
(2)	8350	7546	6909	6642	6036	7097	12.487
(3)	6442	5836	5387	5177	4727	5514	11.868
(4)	6626	6011	5573	5400	4999	5722	10.877
(5)	7365	6655	6241	6005	5582	6370	10.658
5 Aroclor-1248(1)	9056	8166	7435	6980	6383	7604	13.684
(2)	11093	10088	9257	8814	8097	9470	12.242
(3)	12505	11602	10677	10284	9581	10930	10.466
(4)	13890	12873	11986	11379	10657	12157	10.405
(5)	13590	12468	11541	11009	10453	11812	10.502

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Cal Date : 24-Mar-2010 06:13 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7300	6493	5824	5480	5009	6021	14.886
(2)	12825	11548	10490	9974	9262	10820	12.909
(3)	14182	12643	11550	11031	10262	11934	12.788
(4)	19027	17317	15983	15442	14439	16442	10.826
(5)	14064	13049	11651	11174	10640	12116	11.634
7 Aroclor-1260(1)	15189	13569	12744	12369	11530	13080	10.610
(2)	17885	16016	15152	14853	13838	15549	9.776
(3)	13812	12250	11562	11271	10585	11896	10.311
(4)	14218	12635	11954	11625	11015	12289	9.981
(5)	29595	26825	25949	25629	23976	26395	7.824
8 Aroclor-1262(1)	+++++	+++++	+++++	11597	+++++	11597	0.000
(2)	+++++	+++++	+++++	16200	+++++	16200	0.000
(3)	+++++	+++++	+++++	14838	+++++	14838	0.000
(4)	+++++	+++++	+++++	29366	+++++	29366	0.000
(5)	+++++	+++++	+++++	20651	+++++	20651	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	286554	267083	258607	255362	244057	262333	6.044
$ 12 Decachlorobiphenyl	217815	191410	181026	177515	168101	187173	10.178

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2315

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 0753

Lab File ID: 002F0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14904.311	0.01	-1.8	15.0
(2)	18935.774	19020.222	0.01	0.4	15.0
(3)	12442.153	11642.076	0.01	-6.4	15.0
(4)	7348.319	7018.563	0.01	-4.5	15.0
(5)	9517.775	9050.523	0.01	-4.9	15.0
Aroclor-1260	18330.091	18974.465	0.01	3.5	15.0
(2)	26889.831	28338.651	0.01	5.4	15.0
(3)	28315.304	30220.802	0.01	6.7	15.0
(4)	16157.873	17084.332	0.01	5.7	15.0
(5)	16812.669	17877.750	0.01	6.3	15.0
4cmx	389523.02	413156.93	0.01	6.1	15.0
Decachlorobiphenyl	296930.38	316393.35	0.01	6.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2315

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 0753

Lab File ID: 002B0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11580.435	0.01	-8.0	15.0
(2)	8634.207	7799.455	0.01	-9.7	15.0
(3)	5286.637	4831.888	0.01	-8.6	15.0
(4)	6892.719	6341.985	0.01	-8.0	15.0
(5)	6422.564	5935.096	0.01	-7.6	15.0
Aroclor-1260	13080.231	12744.147	0.01	-2.6	15.0
(2)	15549.023	15548.972	0.01	-0.0	15.0
(3)	11896.069	11720.380	0.01	-1.5	15.0
(4)	12289.216	12237.561	0.01	-0.4	15.0
(5)	26394.638	27173.631	0.01	3.0	15.0
4cmx	262332.66	262353.40	0.01	0.0	15.0
Decachlorobiphenyl	187173.38	185867.43	0.01	-0.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2315

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 1128

Lab File ID: 021F2101 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14292.984	0.01	-5.8	15.0
(2)	18935.774	18014.083	0.01	-4.9	15.0
(3)	12442.153	11433.112	0.01	-8.1	15.0
(4)	7348.319	6916.561	0.01	-5.9	15.0
(5)	9517.775	8921.011	0.01	-6.3	15.0
Aroclor-1260	18330.091	18917.453	0.01	3.2	15.0
(2)	26889.831	27896.153	0.01	3.7	15.0
(3)	28315.304	29772.954	0.01	5.1	15.0
(4)	16157.873	16821.466	0.01	4.1	15.0
(5)	16812.669	17522.638	0.01	4.2	15.0
4cmx	389523.02	401450.50	0.01	3.1	15.0
Decachlorobiphenyl	296930.38	291093.56	0.01	-2.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2315

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 1128

Lab File ID: 021B2101 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11869.406	0.01	-5.7	15.0
(2)	8634.207	7752.072	0.01	-10.2	15.0
(3)	5286.637	4807.813	0.01	-9.0	15.0
(4)	6892.719	6307.203	0.01	-8.5	15.0
(5)	6422.564	5822.450	0.01	-9.3	15.0
Aroclor-1260	13080.231	12629.591	0.01	-3.4	15.0
(2)	15549.023	15357.793	0.01	-1.2	15.0
(3)	11896.069	11596.776	0.01	-2.5	15.0
(4)	12289.216	12072.542	0.01	-1.8	15.0
(5)	26394.638	26797.242	0.01	1.5	15.0
4cmx	262332.66	259327.12	0.01	-1.1	15.0
Decachlorobiphenyl	187173.38	181181.45	0.01	-3.2	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/002f0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 23-MAR-2010 07:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:52 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.913	0.000	41315693	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.217	5.217	0.000	31639335	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.365	2.365	0.000	14904311	1000.00	982	80.00- 120.00	100.00
2.651	2.651	0.000	19020221	1000.00	1000	107.62- 147.62	127.62
2.732	2.732	0.000	11642075	1000.00	936	58.11- 98.11	78.11
2.770	2.770	0.000	7018562	1000.00	955	27.09- 67.09	47.09
2.980	2.980	0.000	9050522	1000.00	951	40.72- 80.72	60.72
Average of Peak Amounts =					966		
7 Aroclor-1260					CAS #: 11096-82-5		
3.705	3.705	0.000	18974465	1000.00	1040	80.00- 120.00	100.00
3.867	3.867	0.000	28338650	1000.00	1050	129.35- 169.35	149.35
4.030	4.030	0.000	30220801	1000.00	1070	139.27- 179.27	159.27
4.097	4.097	0.000	17084331	1000.00	1060	70.04- 110.04	90.04
4.240	4.240	0.000	17877749	1000.00	1060	74.22- 114.22	94.22
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd1a.i/032310a.b/002f0201.d
Date : 23-MAR-2010 07:53
Client ID: AR166001
Sample Info: IWAR100222-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

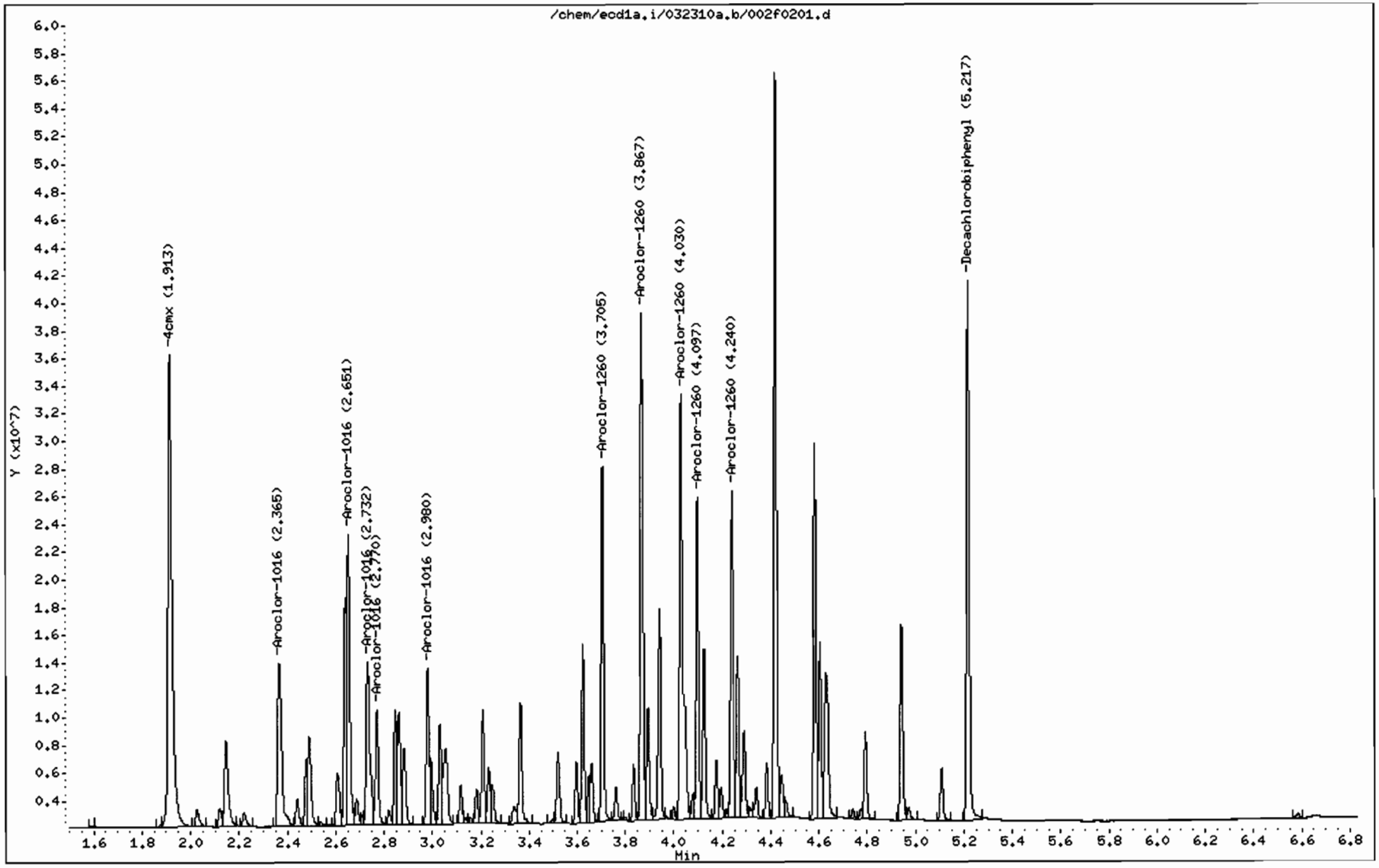

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/002b0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 23-MAR-2010 07:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	26235340	100.000	100	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.912	5.912	0.000	18586743	100.000	99.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.165	3.165	0.000	11580435	1000.00	920	80.00- 120.00	100.00(M)
3.248	3.248	0.000	7799455	1000.00	903	45.31- 85.31	67.35
3.311	3.311	0.000	4831888	1000.00	914	20.51- 60.51	41.72
3.538	3.538	0.000	6341985	1000.00	920	33.14- 73.14	54.76
3.614	3.614	0.000	5935096	1000.00	924	29.05- 69.05	51.25
Average of Peak Amounts =					916		
7 Aroclor-1260					CAS #: 11096-82-5		
4.304	4.304	0.000	12744147	1000.00	974	80.00- 120.00	100.00
4.428	4.428	0.000	15548972	1000.00	1000	101.60- 141.60	122.01
4.695	4.695	0.000	11720380	1000.00	985	71.82- 111.82	91.97
4.867	4.867	0.000	12237561	1000.00	996	75.59- 115.59	96.02
5.015	5.015	0.000	27173631	1000.00	1030	192.18- 232.18	213.22
Average of Peak Amounts =					997		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/002b0201.d
Date : 23-MAR-2010 07:53
Client ID: AR166001
Sample Info: IWAR100222-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

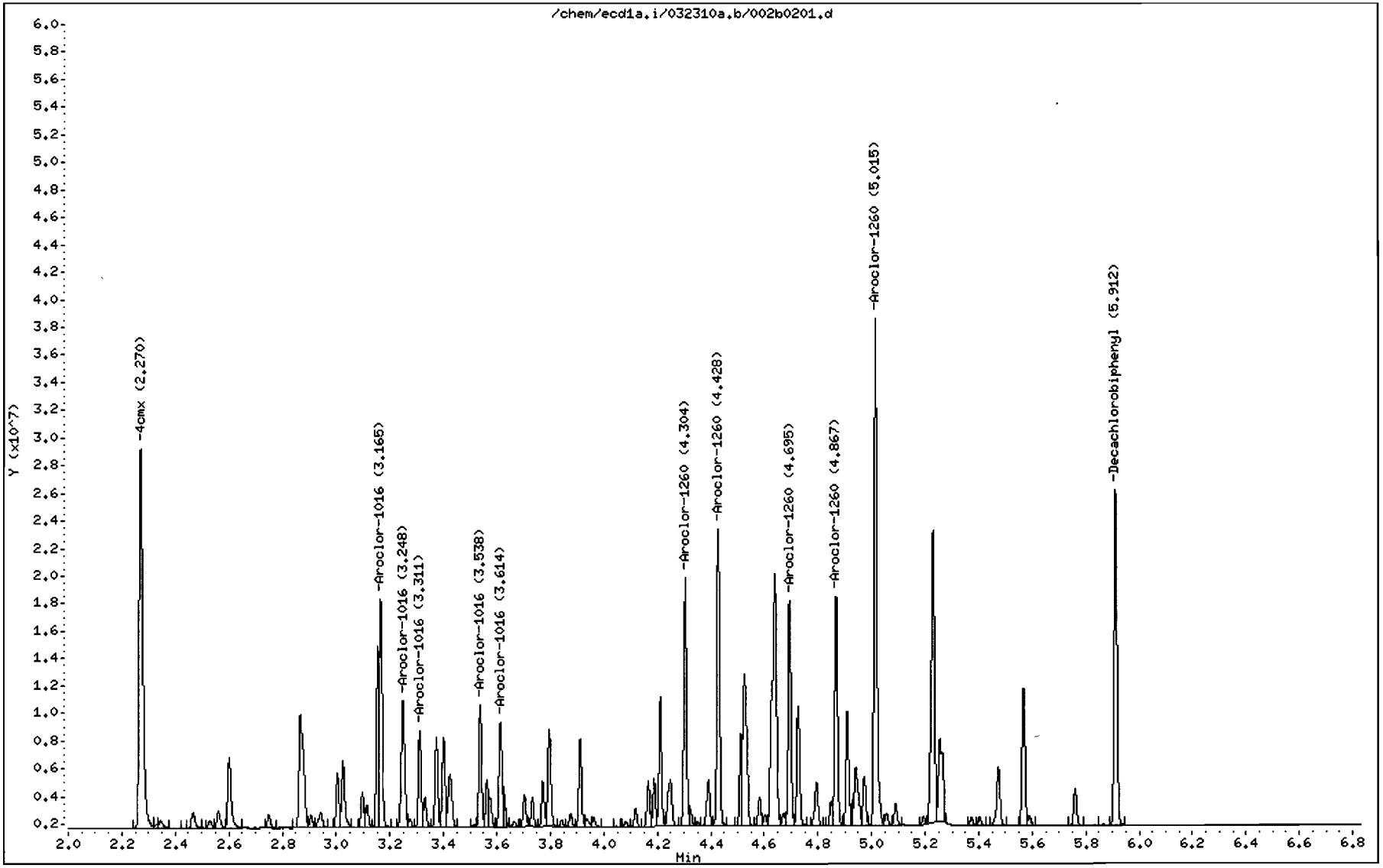

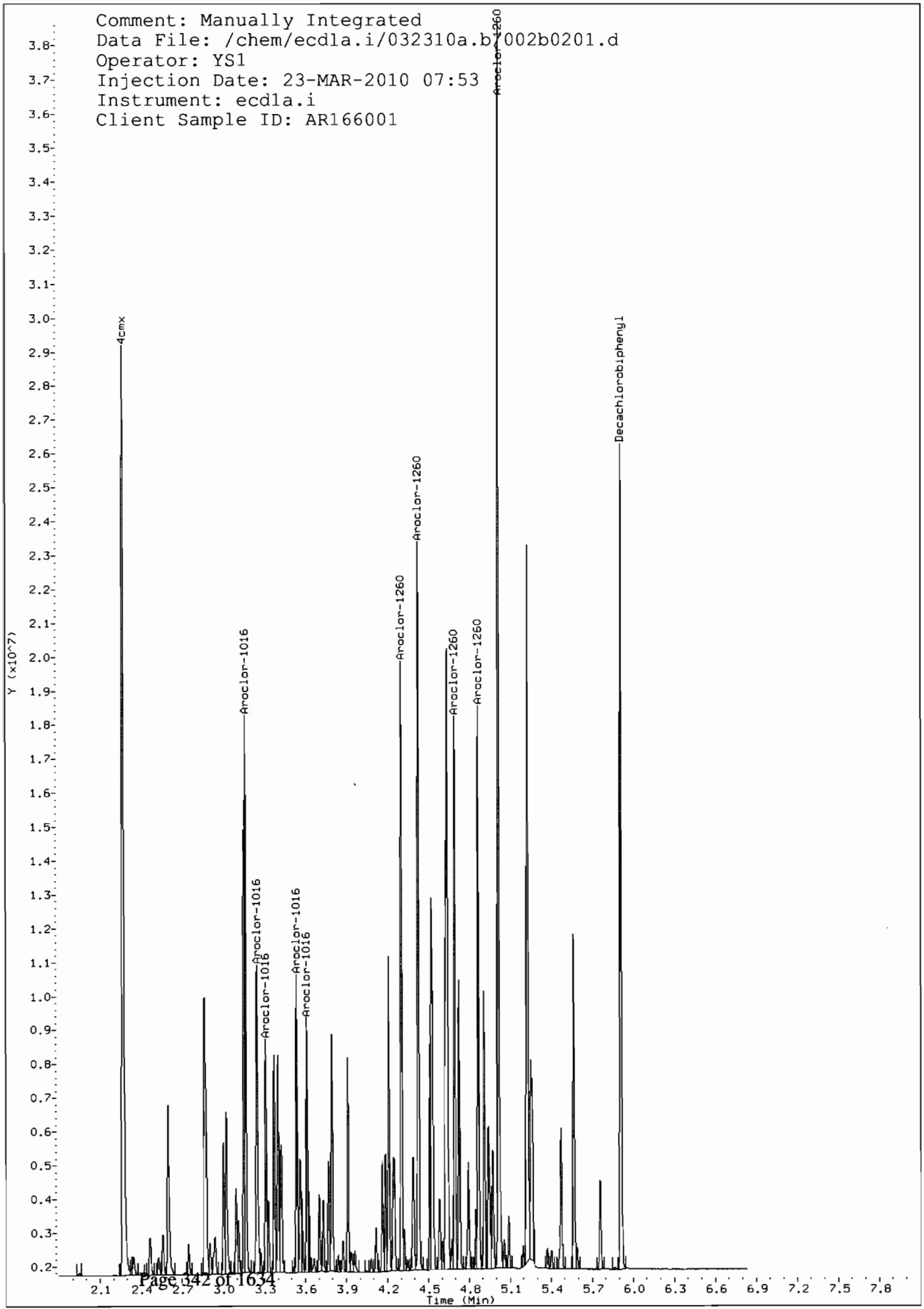
Comment: Manually Integrated
Data File: /chem/ecdla.i/032310a.b/002b0201.d
Operator: YS1
Injection Date: 23-MAR-2010 07:53
Instrument: ecdla.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

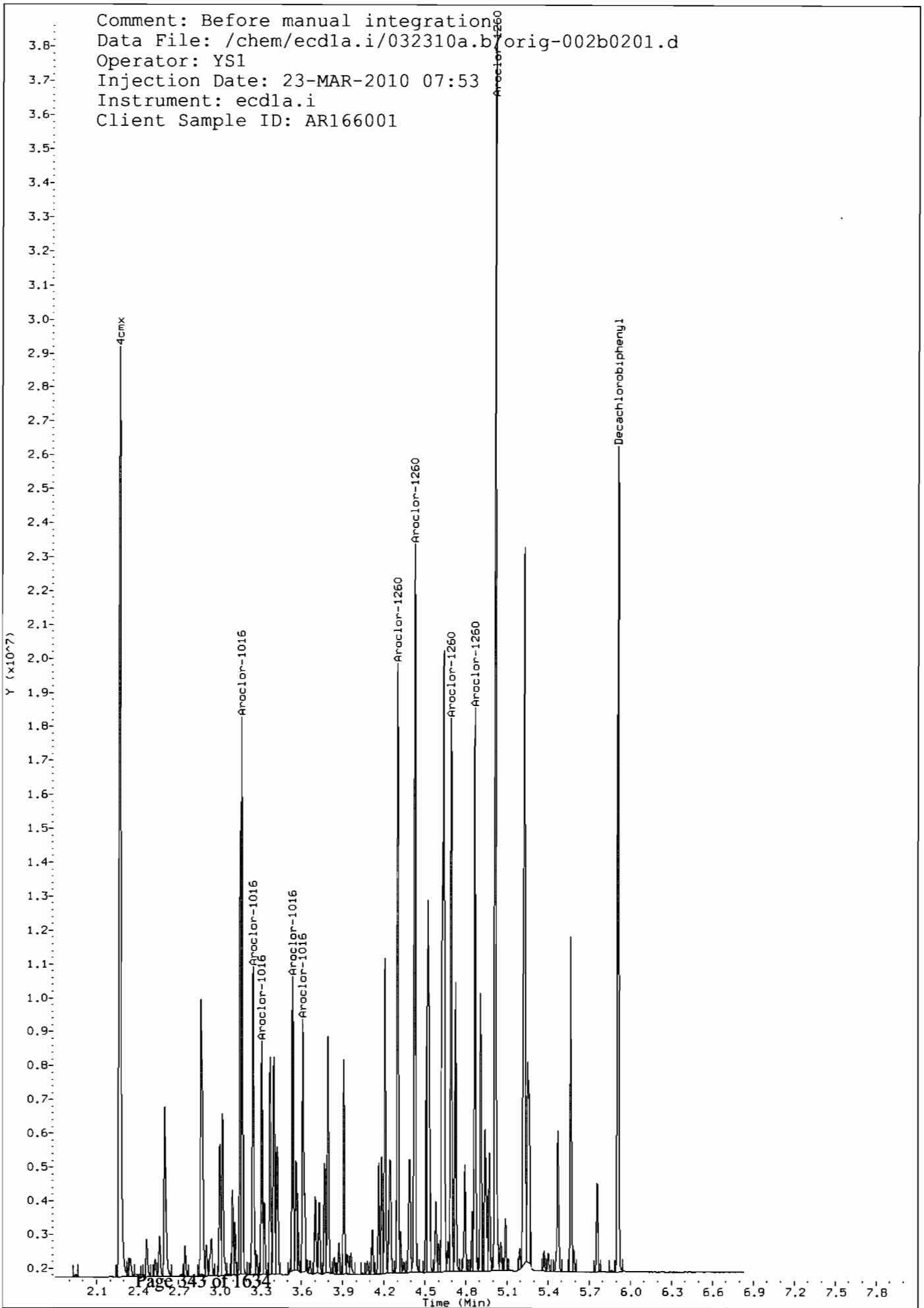
Comment: Before manual integration
Data File: /chem/ecd1a.i/032310a.b/orig-002b0201.d
Operator: YS1
Injection Date: 23-MAR-2010 07:53
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 23-MAR-2010 08:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.208	3.208	0.000	12967036	1000.00	978	80.00- 120.00	100.00
3.363	3.363	0.000	17361430	1000.00	974	113.89- 153.89	133.89
3.597	3.597	0.000	22829689	1000.00	1020	156.06- 196.06	176.06
3.759	3.759	0.000	16956788	1000.00	1030	110.77- 150.77	130.77
3.868	3.868	0.000	16896192	1000.00	1060	110.30- 150.30	130.30

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032310a.b/003f0301.d

Date : 23-MAR-2010 08:04

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

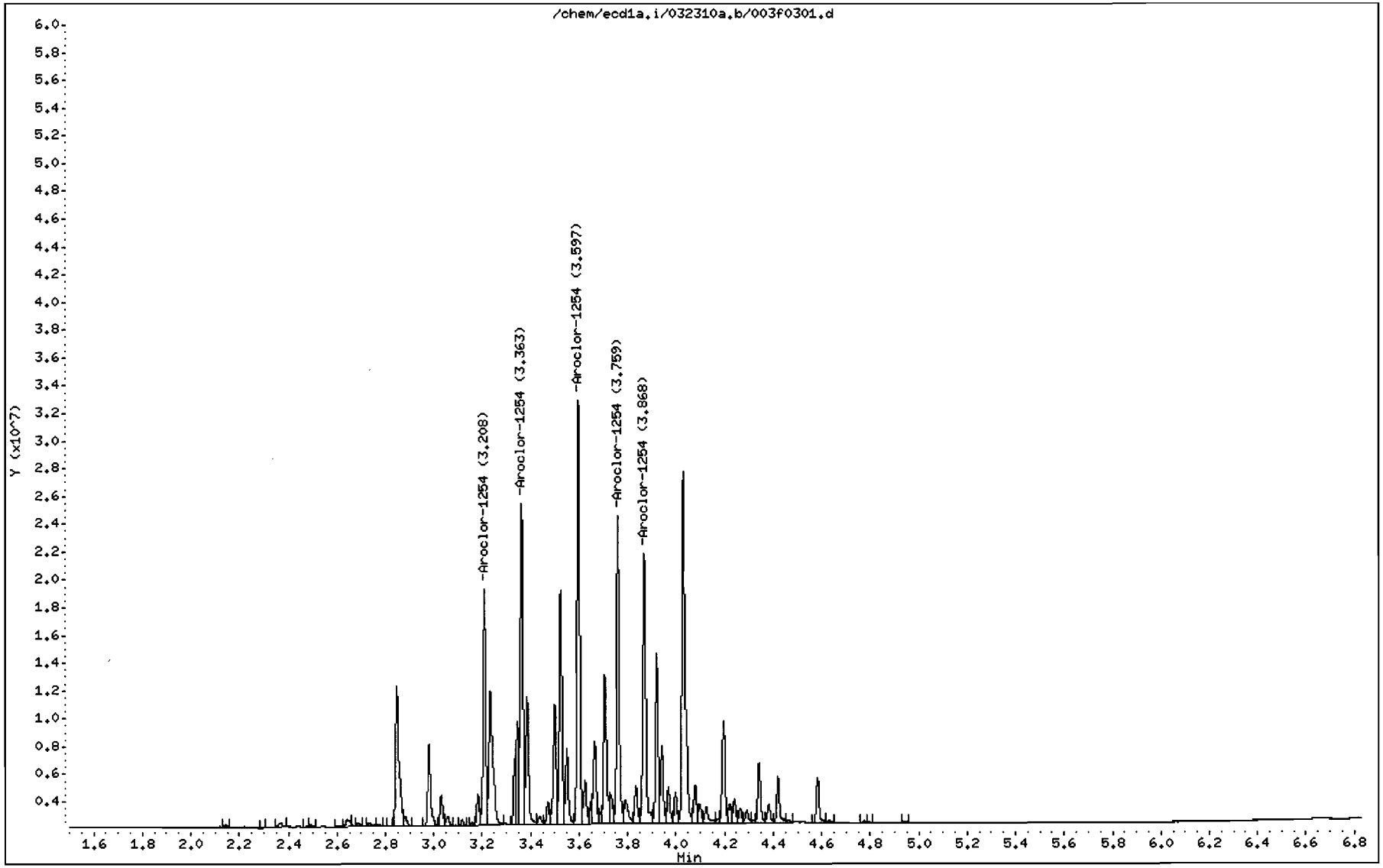

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 23-MAR-2010 08:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.373	3.373	0.000	5514362	1000.00	916	80.00- 120.00	100.00
3.795	3.795	0.000	10031897	1000.00	927	161.92- 201.92	181.92
3.912	3.912	0.000	11116209	1000.00	932	181.59- 221.59	201.59
4.188	4.188	0.000	15547782	1000.00	946	261.95- 301.95	281.95
4.323	4.323	0.000	11313436	1000.00	934	185.16- 225.16	205.16
Average of Peak Amounts =					931		

Data File: /chem/ecd1a.i/032310a.b/003b0301.d
Date : 23-MAR-2010 08:04
Client ID: AR125401
Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

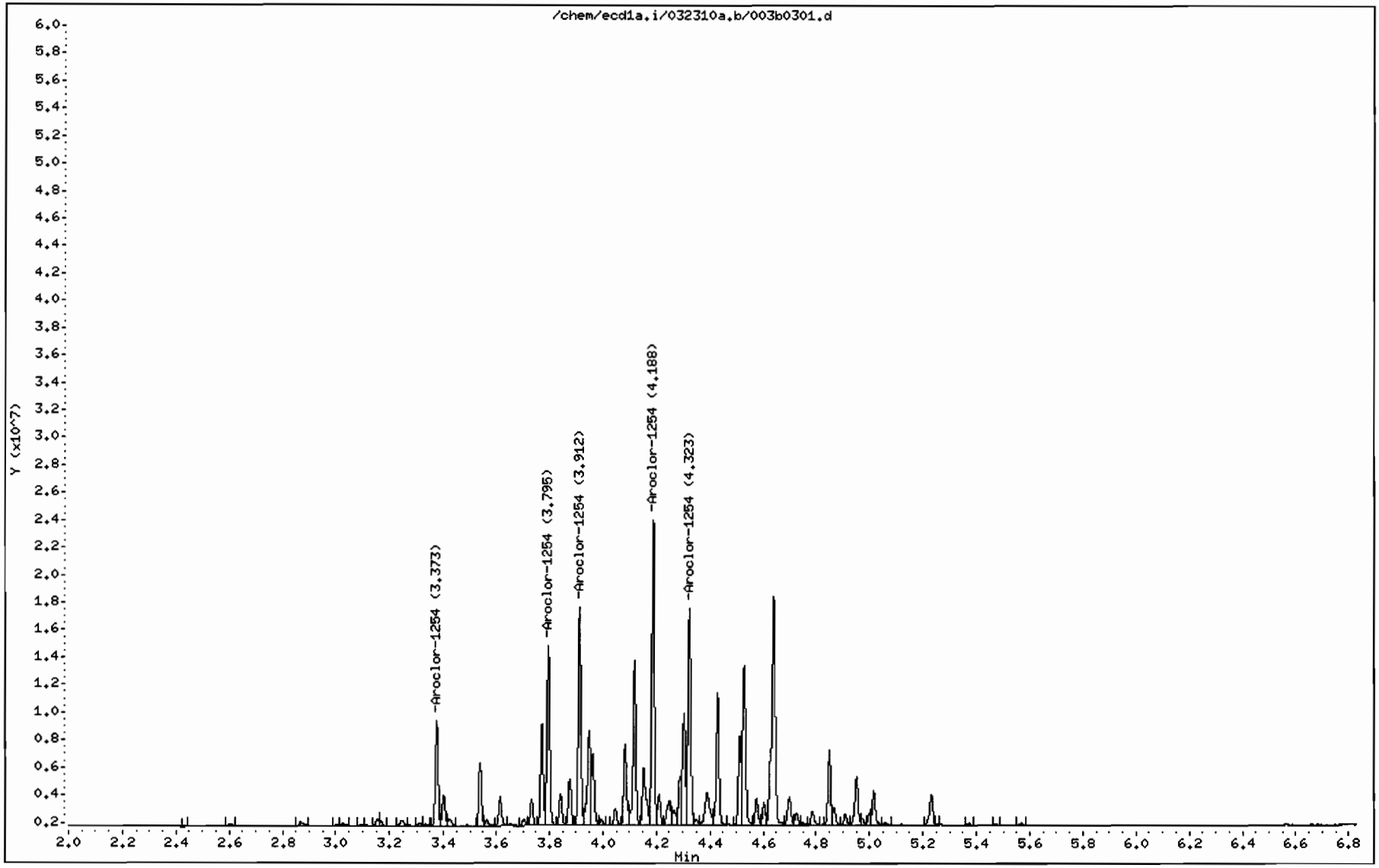

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/004f0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 23-MAR-2010 08:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.364	2.364	0.000	12529932	1000.00	1020	80.00- 120.00	100.00
2.652	2.652	0.000	15449624	1000.00	1040	103.30- 143.30	123.30
2.769	2.769	0.000	5907302	1000.00	1000	27.15- 67.15	47.15
2.979	2.979	0.000	7663511	1000.00	991	41.16- 81.16	61.16
3.233	3.233	0.000	7372131	1000.00	1010	38.84- 78.84	58.84

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032310a.b/004f0401.d

Date : 23-MAR-2010 08:14

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

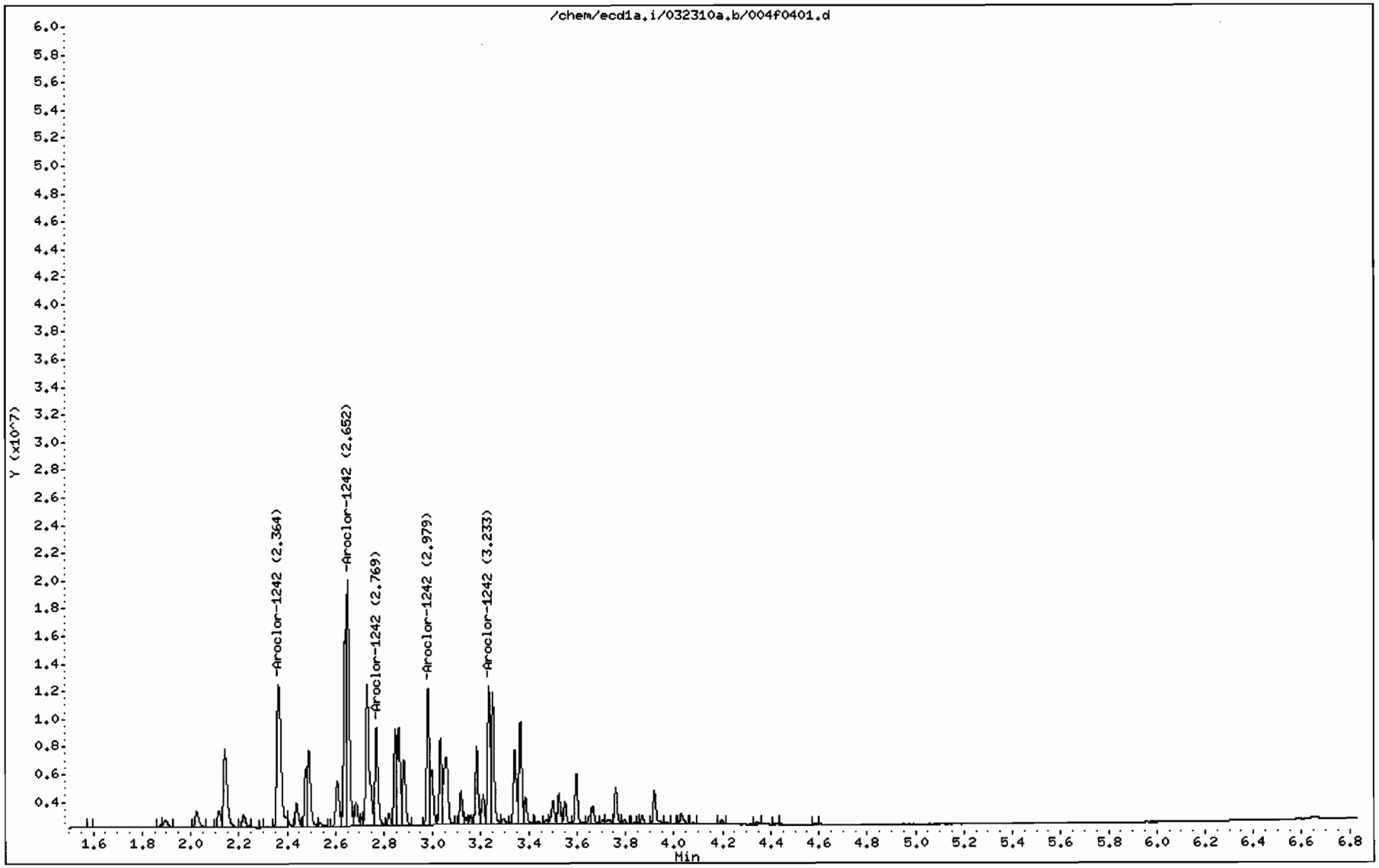

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/004b0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 23-MAR-2010 08:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.165	3.165	0.000	9989319	1000.00	985	80.00- 120.00	100.00
3.248	3.248	0.000	6594356	1000.00	929	46.01- 86.01	66.01
3.538	3.538	0.000	5227592	1000.00	948	32.33- 72.33	52.33
3.772	3.772	0.000	5504861	1000.00	962	35.11- 75.11	55.11
3.799	3.799	0.000	6141848	1000.00	964	41.48- 81.48	61.48
Average of Peak Amounts =					958		

Data File: /chem/ecd1a.i/032310a.b/004b0401.d

Date : 23-MAR-2010 08:14

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

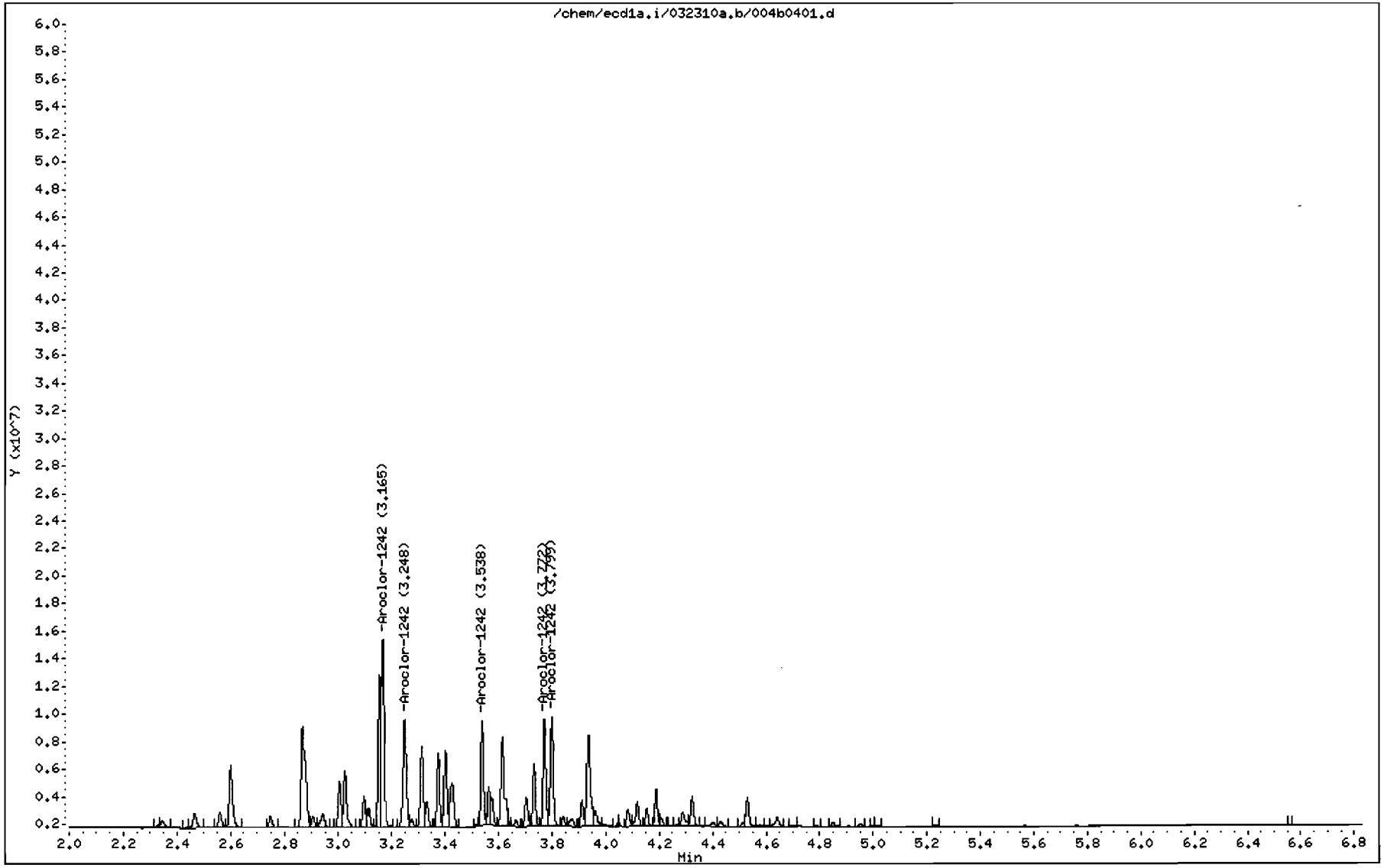

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 23-MAR-2010 08:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
2.847	2.847	0.000	10050677	1000.00	1000	80.00- 120.00	100.00
2.979	2.979	0.000	13265173	1000.00	1010	111.98- 151.98	131.98
3.233	3.233	0.000	14344935	1000.00	1000	122.73- 162.73	142.73
3.365	3.365	0.000	11923879	1000.00	1000	98.64- 138.64	118.64
3.597	3.597	0.000	7748802	1000.00	968	57.10- 97.10	77.10
Average of Peak Amounts =					998		

Data File: /chem/ecd1a.i/032310a.b/005f0501.d

Date : 23-MAR-2010 08:25

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

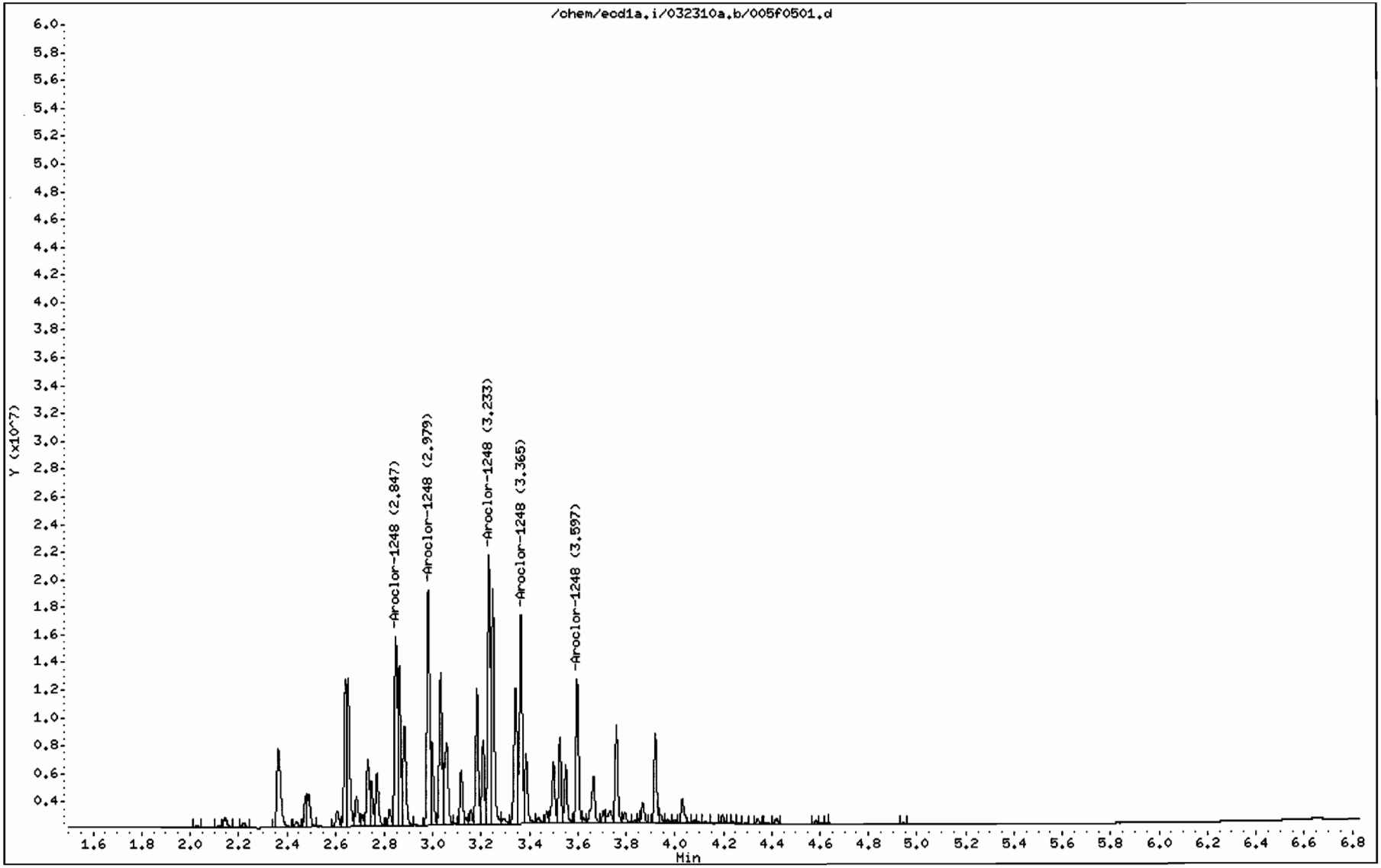

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 23-MAR-2010 08:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.374	3.374	0.000	7199782	1000.00	947	80.00- 120.00	100.00
3.538	3.538	0.000	9052406	1000.00	956	105.73- 145.73	125.73
3.772	3.772	0.000	10456838	1000.00	957	125.24- 165.24	145.24
3.799	3.799	0.000	11728900	1000.00	965	142.91- 182.91	162.91
3.936	3.936	0.000	11323085	1000.00	958	137.27- 177.27	157.27
Average of Peak Amounts =					957		

Data File: /chem/ecd1a.i/032310a.b/005b0501.d
Date : 23-MAR-2010 08:25
Client ID: AR124801
Sample Info: IWAR100223-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

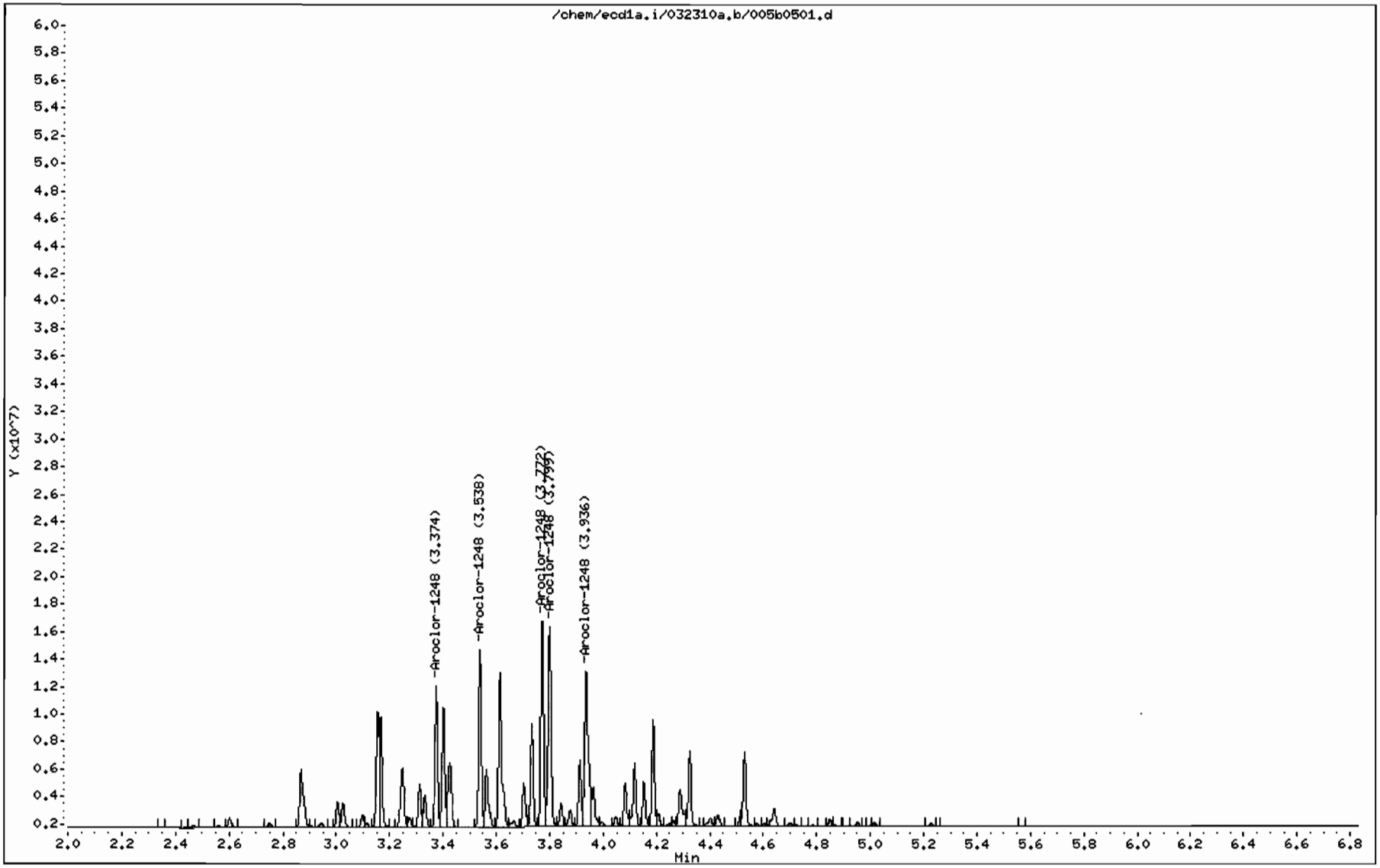

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/007f0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 23-MAR-2010 08:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.364	2.364	0.000	7062304	1000.00	1060	80.00- 120.00	100.00
2.651	2.651	0.000	9115443	1000.00	1090	109.07- 149.07	129.07
2.731	2.731	0.000	5834361	1000.00	1050	62.61- 102.61	82.61
2.845	2.845	0.000	2821856	1000.00	1060	19.96- 59.96	39.96
3.232	3.232	0.000	3909059	1000.00	1100	35.35- 75.35	55.35

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd1a.i/032310a.b/007f0701.d
Date : 23-MAR-2010 08:46
Client ID: AR123201
Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

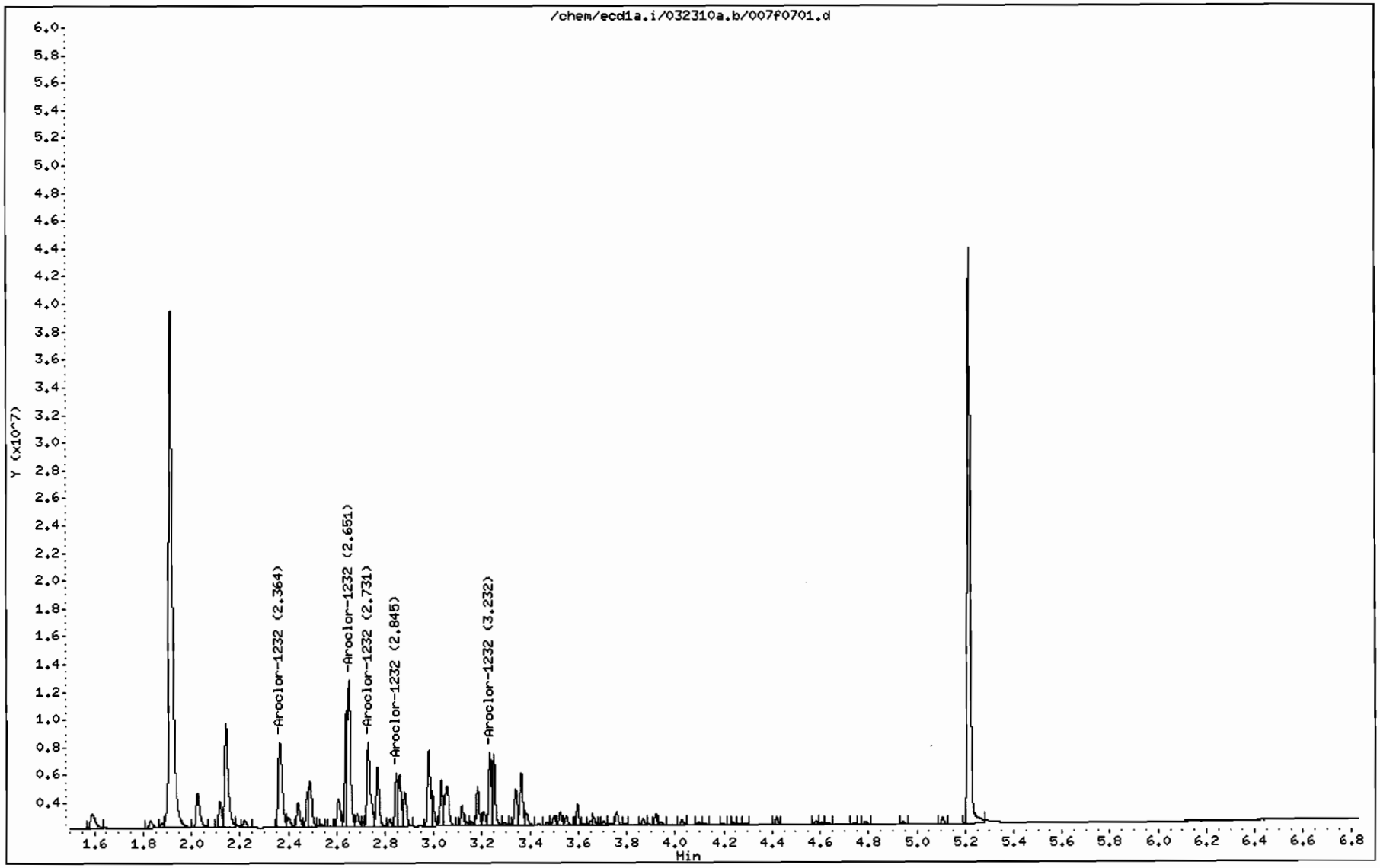

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/007b0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 23-MAR-2010 08:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.867	2.867	0.000	5247172	1000.00	1040	80.00- 120.00	100.00
3.165	3.165	0.000	5974577	1000.00	1040	93.86- 133.86	113.86
3.247	3.247	0.000	4031708	1000.00	1040	56.84- 96.84	76.84
3.538	3.538	0.000	3003761	1000.00	1060	37.25- 77.25	57.25
3.771	3.771	0.000	2991304	1000.00	1060	37.01- 77.01	57.01

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/032310a.b/007b0701.d
Date : 23-MAR-2010 08:46
Client ID: AR123201
Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

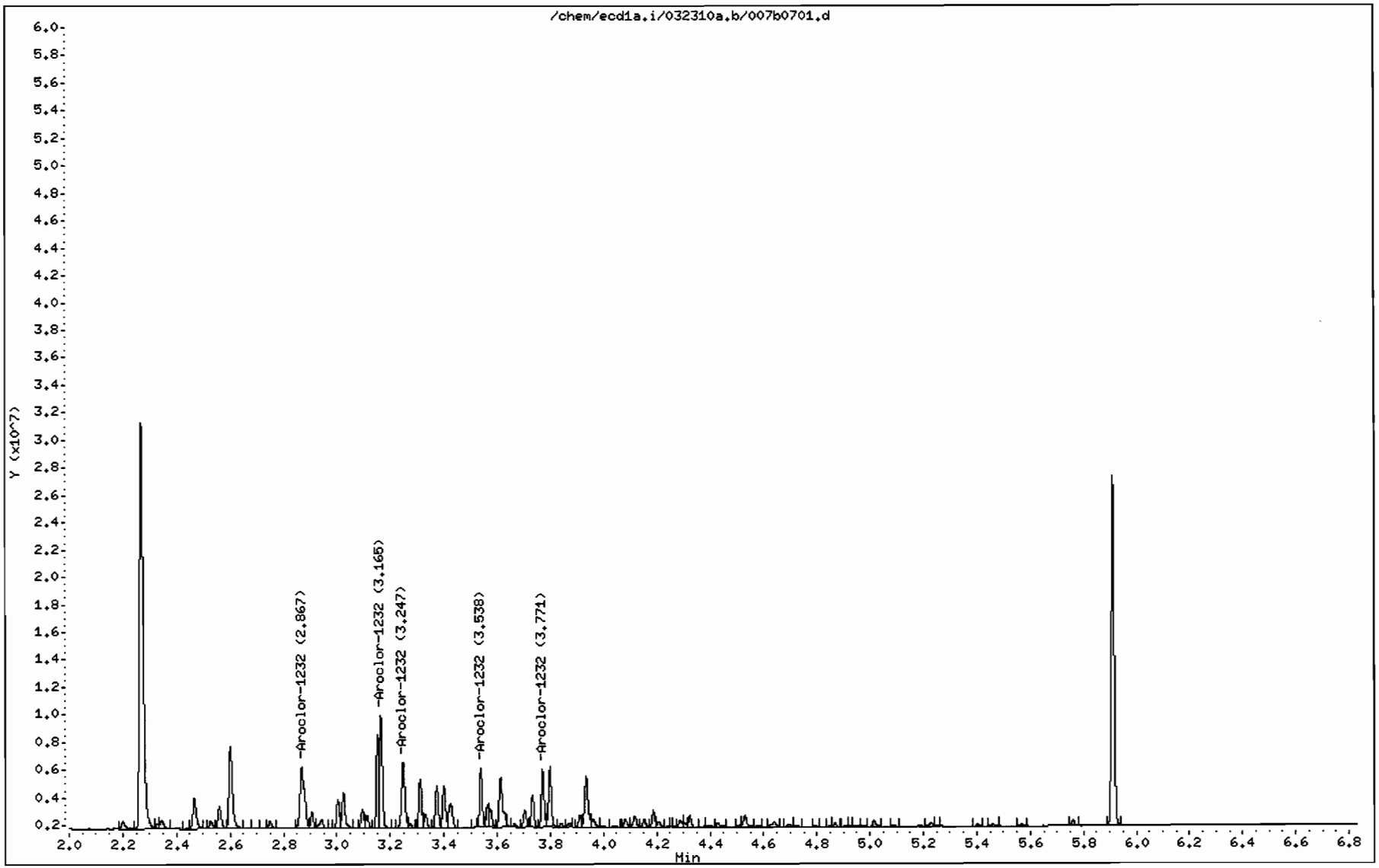

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/008f0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 23-MAR-2010 08:56
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.025	2.025	0.000	4670074	1000.00	1040	80.00- 120.00	100.00
2.117	2.117	0.000	2571490	1000.00	1050	35.06- 75.06	55.06
2.143	2.143	0.000	11386000	1000.00	1050	223.81- 263.81	243.81

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/032310a.b/008f0801.d

Date : 23-MAR-2010 08:56

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

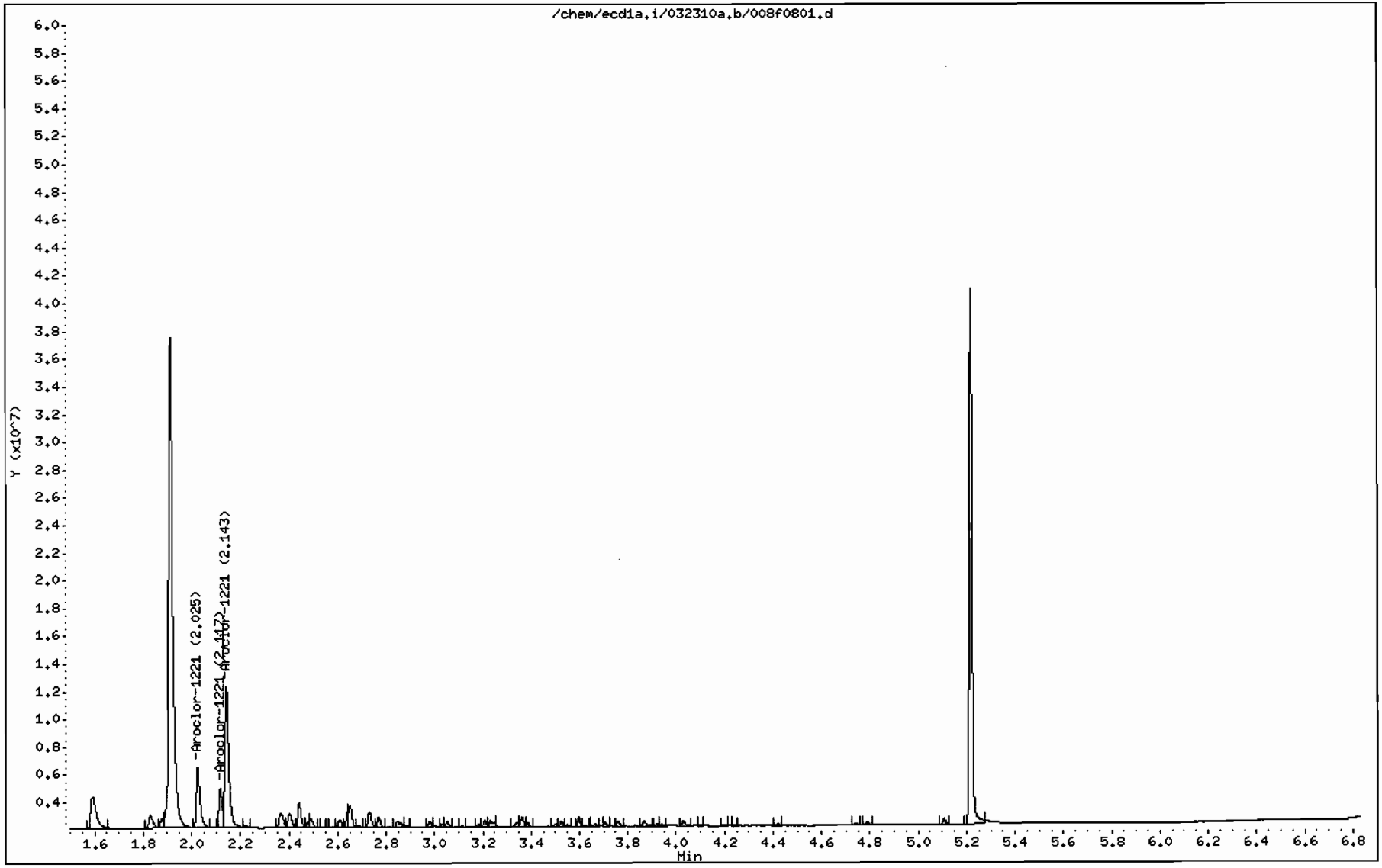

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/008b0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 23-MAR-2010 08:56
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.466	2.466	0.000	3437472	1000.00	1060	80.00- 120.00	100.00
2.560	2.560	0.000	2167005	1000.00	1040	43.04- 83.04	63.04
2.601	2.601	0.000	7383393	1000.00	1010	194.79- 234.79	214.79

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/032310a.b/008b0801.d

Date : 23-MAR-2010 08:56

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

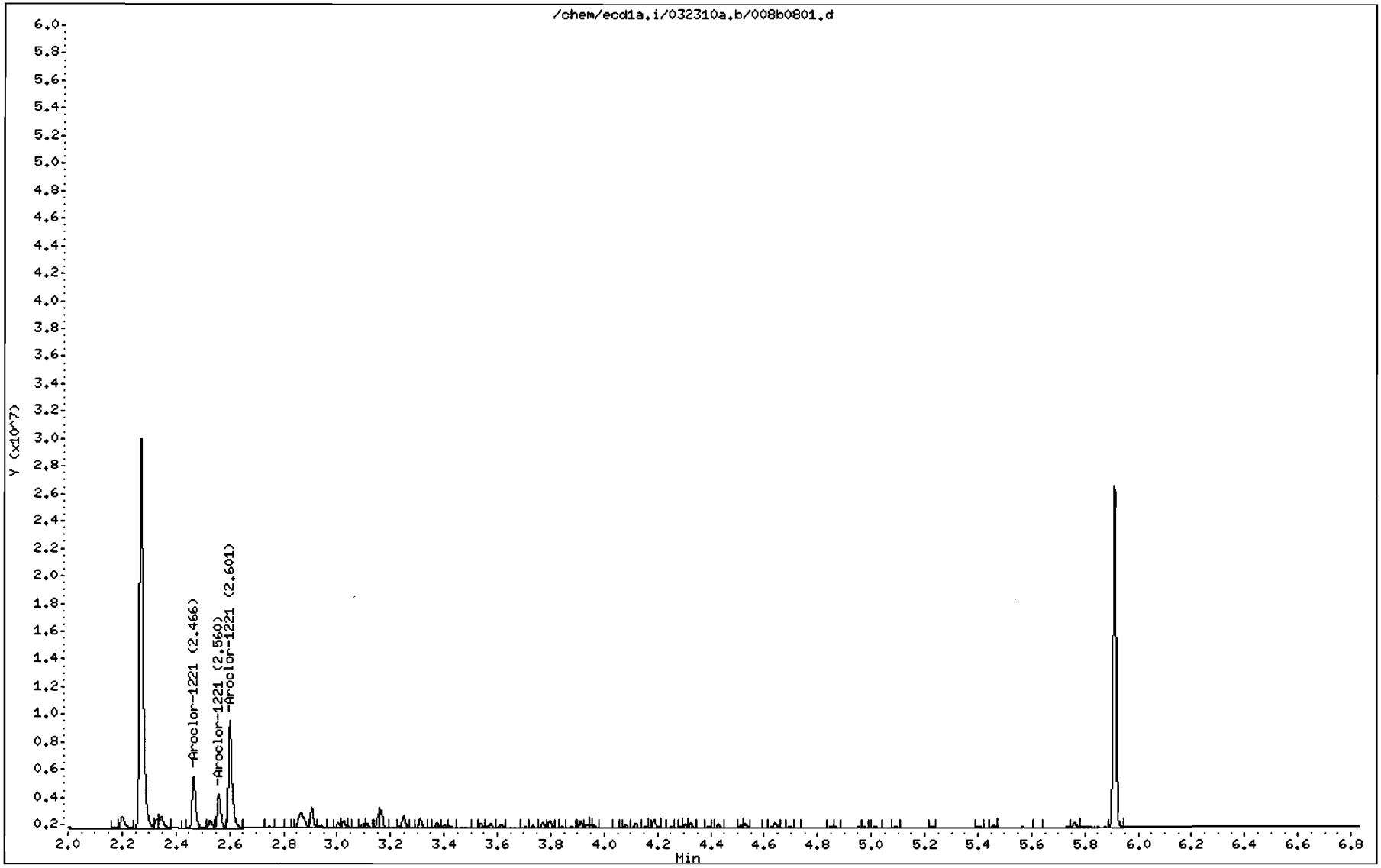

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/021f2101.d
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002
Inj Date : 23-MAR-2010 11:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:54 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	40145050	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	29109356	100.000	98.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.365	-0.001	14292984	1000.00	942	80.00- 120.00	100.00
2.650	2.651	-0.001	18014082	1000.00	951	106.03- 146.03	126.03
2.731	2.732	-0.001	11433112	1000.00	919	59.99- 99.99	79.99
2.768	2.770	-0.002	6916561	1000.00	941	28.39- 68.39	48.39
2.978	2.980	-0.002	8921011	1000.00	937	42.42- 82.42	62.42
Average of Peak Amounts =					938		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	18917452	1000.00	1030	80.00- 120.00	100.00
3.866	3.867	-0.001	27896153	1000.00	1040	127.46- 167.46	147.46
4.027	4.030	-0.003	29772954	1000.00	1050	137.38- 177.38	157.38
4.096	4.097	-0.001	16821466	1000.00	1040	68.92- 108.92	88.92
4.238	4.240	-0.002	17522638	1000.00	1040	72.63- 112.63	92.63
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd1a.i/032310a.b/021f2101.d
Date : 23-MAR-2010 11:28
Client ID: AR166002
Sample Info: IWAR100222-60 02
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

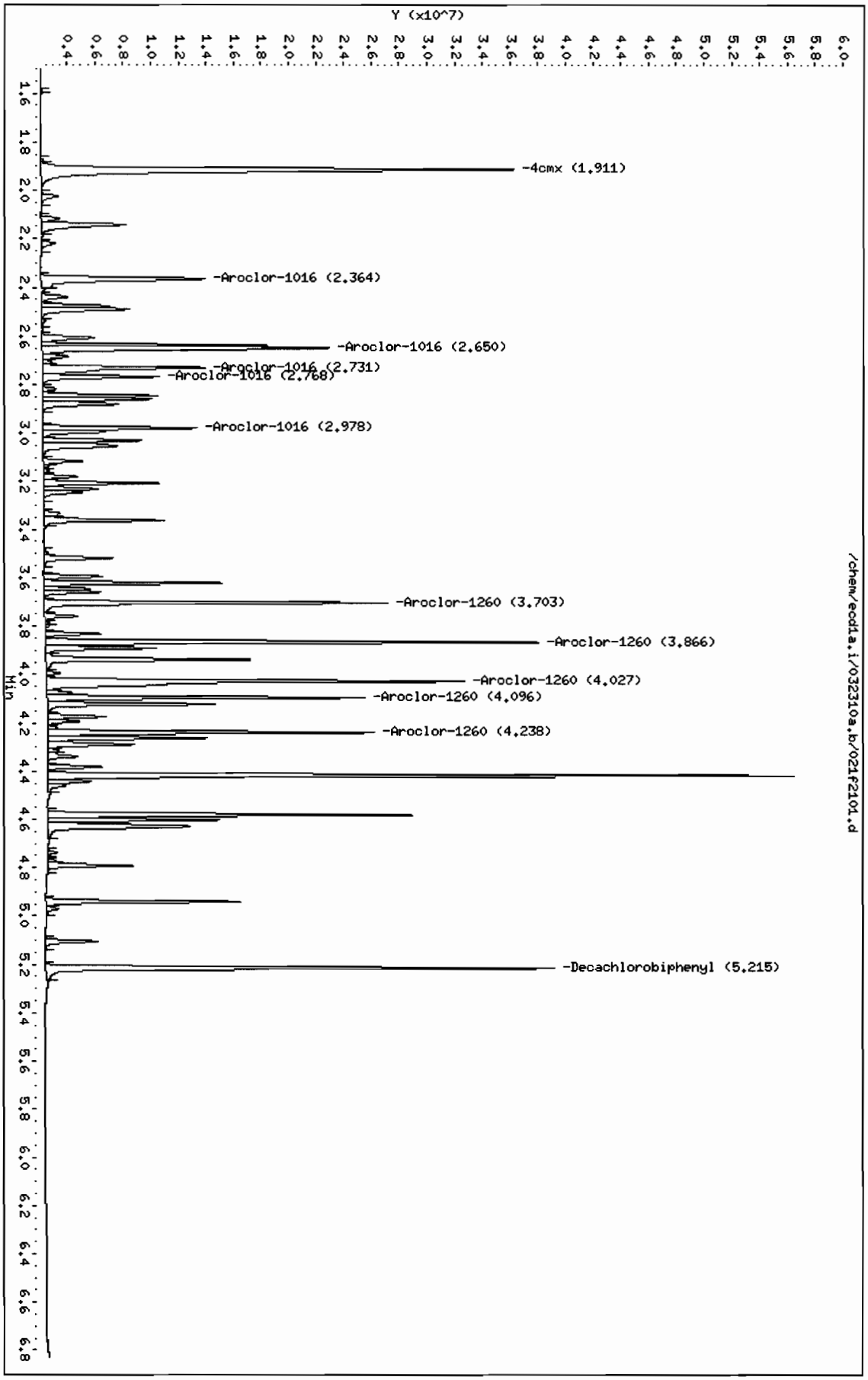

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/021b2101.d
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002
Inj Date : 23-MAR-2010 11:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	25932712	100.000	98.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	18118145	100.000	96.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	11869406	1000.00	943	80.00- 120.00	100.00(M)
3.247	3.248	-0.001	7752072	1000.00	898	45.31- 85.31	65.31
3.311	3.311	0.000	4807813	1000.00	909	20.51- 60.51	40.51
3.537	3.538	-0.001	6307202	1000.00	915	31.09- 71.09	53.14
3.612	3.614	-0.002	5822449	1000.00	906	37.88- 77.88	59.40
Average of Peak Amounts =					914		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	12629591	1000.00	966	80.00- 120.00	100.00
4.427	4.428	-0.001	15357793	1000.00	988	101.60- 141.60	121.60
4.693	4.695	-0.002	11596776	1000.00	975	71.82- 111.82	91.82
4.866	4.867	-0.001	12072542	1000.00	982	75.59- 115.59	95.59
5.013	5.015	-0.002	26797242	1000.00	1020	192.18- 232.18	212.18
Average of Peak Amounts =					985		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/021b2101.d
Date : 23-MAR-2010 11:28
Client ID: AR166002
Sample Info: IWAR100222-60 02
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

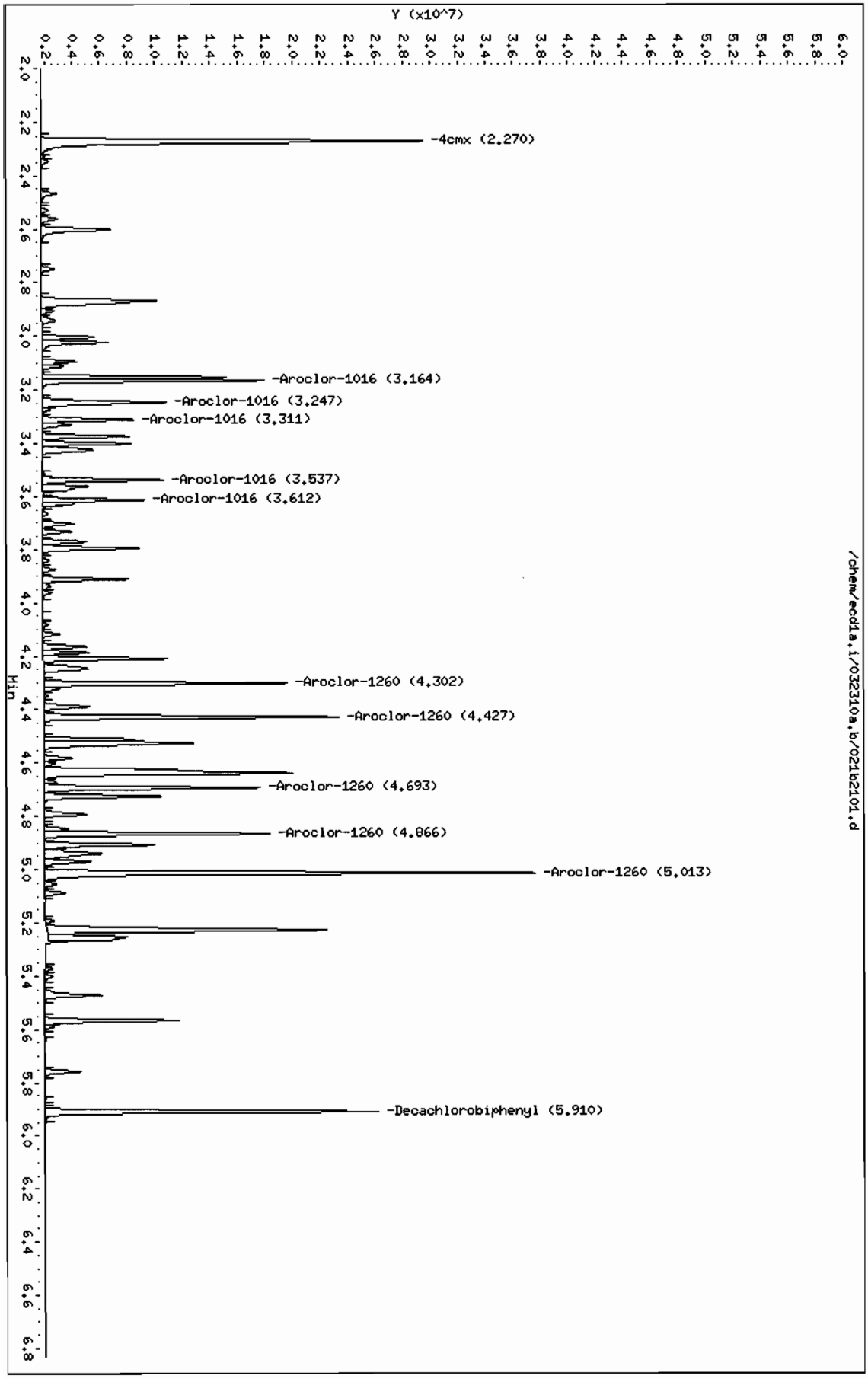

Page 1

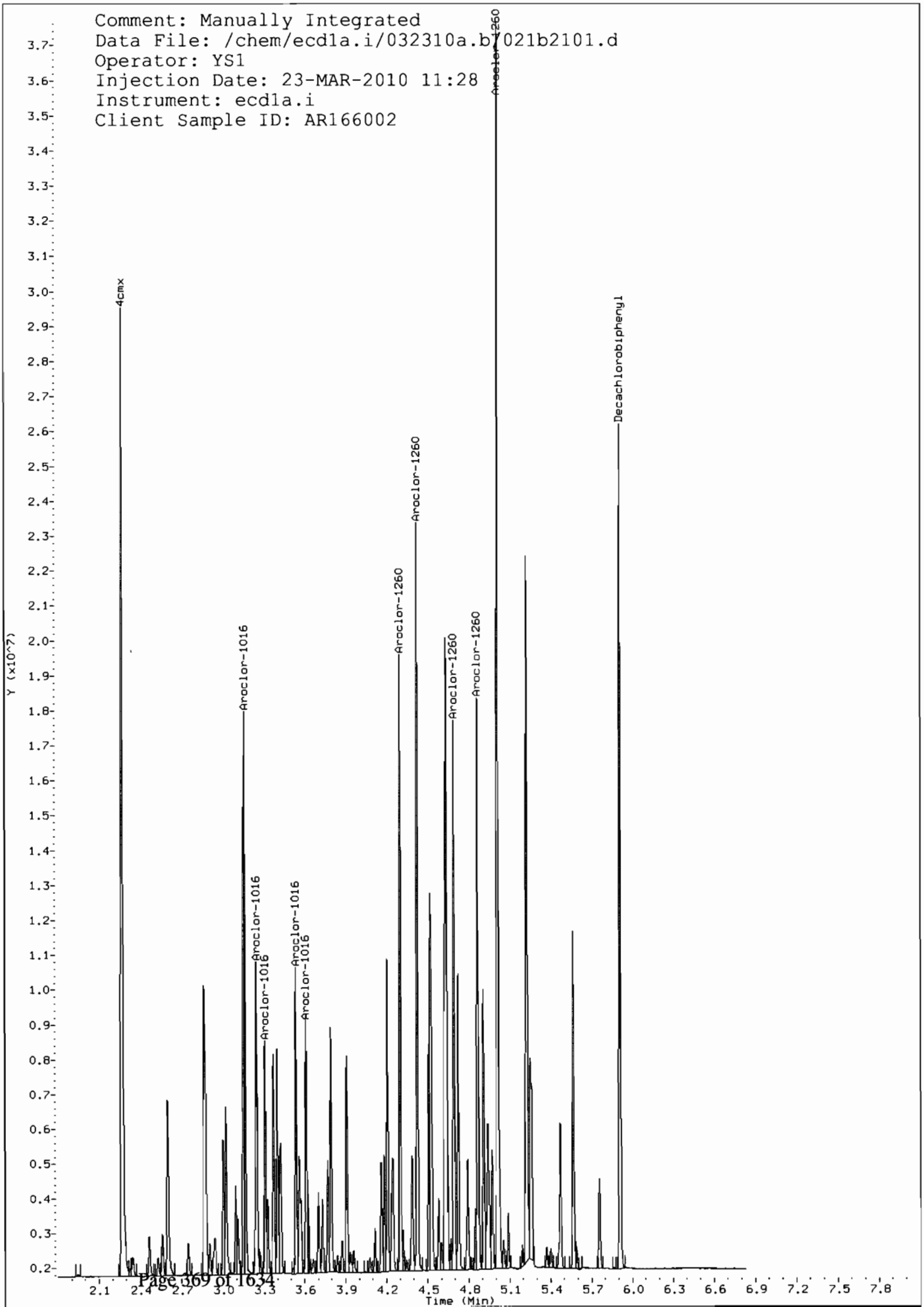
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/021b2101.d
Operator: YS1
Injection Date: 23-MAR-2010 11:28
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

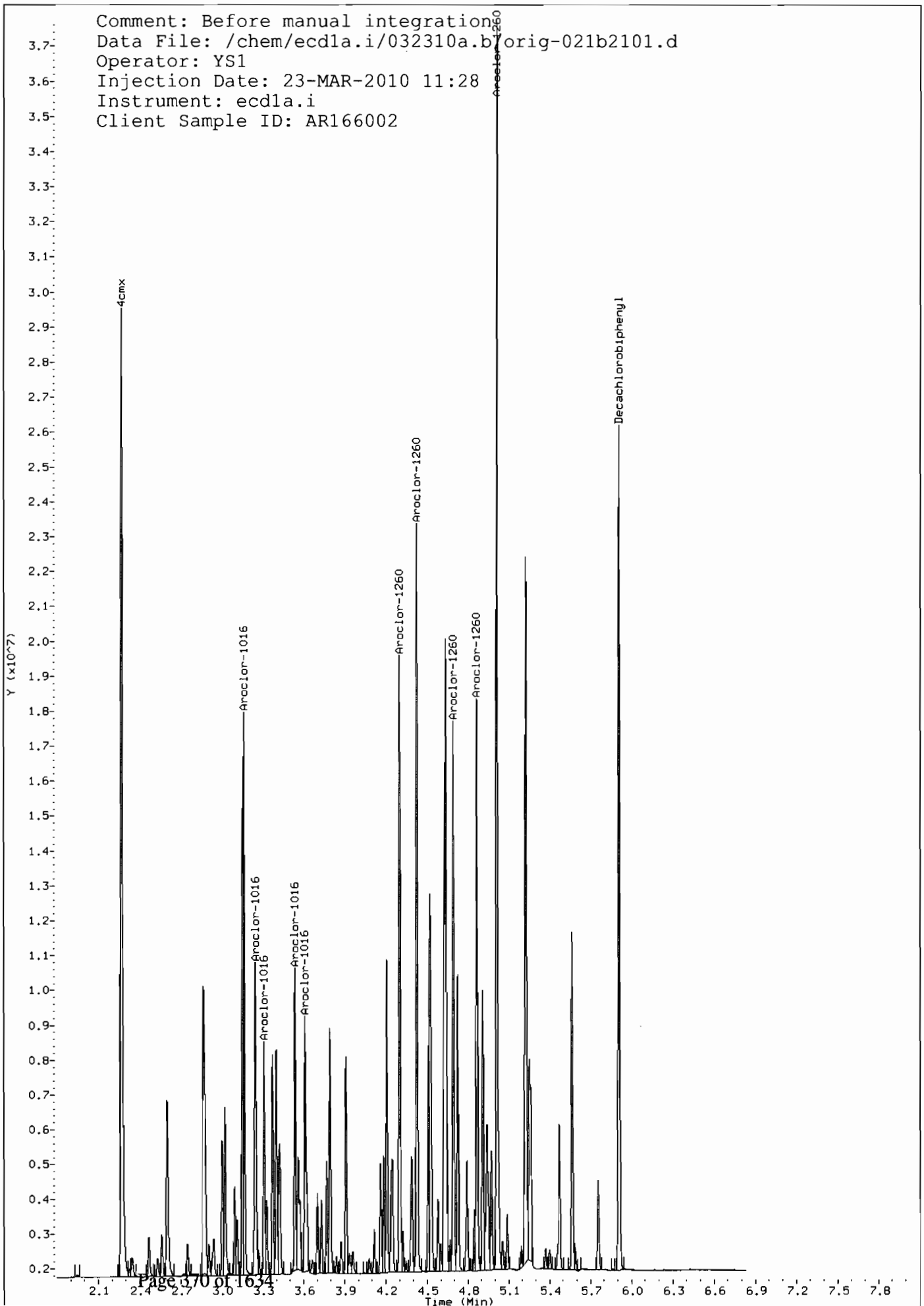
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Operator: YS1
Injection Date: 23-MAR-2010 11:28
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2315

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10	1446	1.91	5.23
02	AR166001DUSE	WAR100222-60	03/11/10	1456	1.92	5.22
03	AR125401	WAR100219-54	03/11/10	1507		
04	AR124201	WAR100219-42	03/11/10	1517		
05	AR124801	WAR100223-48	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	1.92	5.22
12	AR166002	WAR100311-02	03/11/10	1641	1.92	5.22
13	AR166003	WAR100311-03	03/11/10	1652	1.92	5.22
14	AR166004	WAR100311-04	03/11/10	1702	1.91	5.22
15	AR166005	IAR100311-01	03/11/10	1713	1.92	5.22
16	AR166001	WAR100222-60	03/11/10	1724	1.91	5.22
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2315

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	1.91	5.22
04	ZZZZZ	ZZZZZ	03/11/10	2054	1.92	5.22
05	ZZZZZ	ZZZZZ	03/11/10	2105	1.92	5.22
06	ZZZZZ	ZZZZZ	03/11/10	2115	1.92	5.22
07	ZZZZZ	ZZZZZ	03/11/10	2126	1.92	5.22
08	ZZZZZ	ZZZZZ	03/11/10	2136	1.92	5.22
09	ZZZZZ	ZZZZZ	03/11/10	2147	1.92	5.22
10	ZZZZZ	ZZZZZ	03/11/10	2157	1.92	5.22
11	ZZZZZ	ZZZZZ	03/11/10	2208	1.92	5.22
12	ZZZZZ	ZZZZZ	03/11/10	2218	1.92	5.22
13	ZZZZZ	ZZZZZ	03/11/10	2229	1.92	5.22
14	AR	WAR100222-60	03/11/10	2239	1.91	5.22
15	PIBLK03	WAR100219-99	03/11/10	2250	1.91	5.22
16	ZZZZZ	ZZZZZ	03/11/10	2300	1.90	5.23
17	ZZZZZ	ZZZZZ	03/11/10	2311	1.92	5.22
18	AR	WAR100219-99	03/11/10	2321	1.91	5.22
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2315

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10	1446	2.27	5.92
02	AR166001DUSE	WAR100222-60	03/11/10	1456	2.27	5.92
03	AR125401	WAR100219-54	03/11/10	1507		
04	AR124201	WAR100219-42	03/11/10	1517		
05	AR124801	WAR100223-48	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	2.27	5.92
12	AR166002	WAR100311-02	03/11/10	1641	2.27	5.92
13	AR166003	WAR100311-03	03/11/10	1652	2.27	5.92
14	AR166004	WAR100311-04	03/11/10	1702	2.27	5.92
15	AR166005	IAR100311-01	03/11/10	1713	2.27	5.92
16	AR166001	WAR100222-60	03/11/10	1724	2.27	5.92
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2315

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	2.27	5.92
04	ZZZZZ	ZZZZZ	03/11/10	2054	2.28	5.92
05	ZZZZZ	ZZZZZ	03/11/10	2105	2.28	5.92
06	ZZZZZ	ZZZZZ	03/11/10	2115	2.28	5.92
07	ZZZZZ	ZZZZZ	03/11/10	2126	2.28	5.92
08	ZZZZZ	ZZZZZ	03/11/10	2136	2.28	5.92
09	ZZZZZ	ZZZZZ	03/11/10	2147	2.28	5.92
10	ZZZZZ	ZZZZZ	03/11/10	2157	2.28	5.92
11	ZZZZZ	ZZZZZ	03/11/10	2208	2.28	5.92
12	ZZZZZ	ZZZZZ	03/11/10	2218	2.28	5.92
13	ZZZZZ	ZZZZZ	03/11/10	2229	2.28	5.92
14	AR166002	WAR100222-60	03/11/10	2239	2.27	5.92
15	PIBLK03	WAR100219-99	03/11/10	2250	2.27	5.92
16	ZZZZZ	ZZZZZ	03/11/10	2300		5.92
17	ZZZZZ	ZZZZZ	03/11/10	2311		5.23*
18	ZZZZZ	ZZZZZ	03/11/10	2321		
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2315

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/23/10	0743	1.91	5.22
02	AR166001	WAR100222-60	03/23/10	0753	1.91	5.22
03	AR125401	WAR100219-54	03/23/10	0804		
04	AR124201	WAR100219-42	03/23/10	0814		
05	AR124801	WAR100223-48	03/23/10	0825		
06	AR126801	WAR100107-68	03/23/10	0835		
07	AR123201	WAR100104-32	03/23/10	0846		
08	AR122101	WAR100104-21	03/23/10	0856		
09	AR126201	WAR100104-62	03/23/10	0907		
10	DDTANALOGSTD	WAR091219-DD	03/23/10	0918		
11	PIBLK02	WAR100219-99	03/23/10	0928	1.91	5.22
12	PBLK01	1202076363	03/23/10	0939	1.91	5.22
13	PBLK01LCS	1202076364	03/23/10	0949	1.91	5.22
14	RE46-10-12936	248863001	03/23/10	1000	1.91	5.22
15	RE46-10-12930	248863002	03/23/10	1012	1.91	5.22
16	RE46-10-12930MS	1202076365	03/23/10	1025	1.91	5.22
17	RE46-10-12930MSD	1202076366	03/23/10	1037	1.91	5.22
18	RE46-10-12929	248863003	03/23/10	1050	1.91	5.21
19	RE46-10-12935	248863004	03/23/10	1103	1.91	5.21
20	ZZZZZ	ZZZZZ	03/23/10	1115	1.91	5.21
21	AR166002	WAR100222-60	03/23/10	1128	1.91	5.21
22	PIBLK03	WAR100219-99	03/23/10	1138	1.91	5.22
23	ZZZZZ	ZZZZZ	03/23/10	1149	1.91	5.22
24	ZZZZZ	ZZZZZ	03/23/10	1201	1.91	5.21
25	ZZZZZ	ZZZZZ	03/23/10	1214	1.91	5.21
26	ZZZZZ	ZZZZZ	03/23/10	1226	1.91	5.21
27	ZZZZZ	ZZZZZ	03/23/10	1239	1.91	5.21
28	ZZZZZ	ZZZZZ	03/23/10	1252	1.91	5.21
29	AR166003	WAR100222-60	03/23/10	1304	1.91	5.21
30	PIBLK04	WAR100219-99	03/23/10	1315	1.91	5.22
31	AR166004	WAR100222-60	03/23/10	1325	1.91	5.22
32	PIBLK05	WAR100219-99	03/23/10	1336	1.91	5.22

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2315

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/23/10	0743	2.27	5.91
02	AR166001	WAR100222-60	03/23/10	0753	2.27	5.91
03	AR125401	WAR100219-54	03/23/10	0804		
04	AR124201	WAR100219-42	03/23/10	0814		
05	AR124801	WAR100223-48	03/23/10	0825		
06	AR126801	WAR100107-68	03/23/10	0835		
07	AR123201	WAR100104-32	03/23/10	0846		
08	AR122101	WAR100104-21	03/23/10	0856		
09	AR126201	WAR100104-62	03/23/10	0907		
10	DDTANALOGSTD	WAR091219-DD	03/23/10	0918		
11	PIBLK02	WAR100219-99	03/23/10	0928	2.27	5.91
12	PBLK01	1202076363	03/23/10	0939	2.27	5.91
13	PBLK01LCS	1202076364	03/23/10	0949	2.27	5.91
14	RE46-10-12936	248863001	03/23/10	1000	2.27	5.91
15	RE46-10-12930	248863002	03/23/10	1012	2.27	5.91
16	RE46-10-12930MS	1202076365	03/23/10	1025	2.27	5.91
17	RE46-10-12930MSD	1202076366	03/23/10	1037	2.27	5.91
18	RE46-10-12929	248863003	03/23/10	1050	2.27	5.91
19	RE46-10-12935	248863004	03/23/10	1103	2.27	5.91
20	ZZZZZ	ZZZZZ	03/23/10	1115	2.27	5.91
21	AR166002	WAR100222-60	03/23/10	1128	2.27	5.91
22	PIBLK03	WAR100219-99	03/23/10	1138	2.27	5.91
23	ZZZZZ	ZZZZZ	03/23/10	1149	2.27	5.91
24	ZZZZZ	ZZZZZ	03/23/10	1201	2.27	5.91
25	ZZZZZ	ZZZZZ	03/23/10	1214	2.27	5.91
26	ZZZZZ	ZZZZZ	03/23/10	1226	2.27	5.91
27	ZZZZZ	ZZZZZ	03/23/10	1239	2.27	5.91
28	ZZZZZ	ZZZZZ	03/23/10	1252	2.27	5.91
29	AR166003	WAR100222-60	03/23/10	1304	2.27	5.91
30	PIBLK04	WAR100219-99	03/23/10	1315	2.27	5.91
31	AR166004	WAR100222-60	03/23/10	1325	2.27	5.91
32	PIBLK05	WAR100219-99	03/23/10	1336	2.27	5.91

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10–2315 **Client ID:** LCS for batch 967399

Lab Sample ID: 1202076364

Data File:	013f1301.d	**Data File:**	013b1301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 09:49	**Analyzed:**	23–MAR–10 09:49

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							5.14
Column 1	1	2.36	2.33 – 2.39	24.4		ug/kg	
	2	2.65	2.62 – 2.68	24.3		ug/kg	
	3	2.73	2.7 – 2.76	23.2		ug/kg	
	4	2.77	2.74 – 2.8	23.4		ug/kg	
	5	2.98	2.95 – 3.01	23.7		ug/kg	
					23.8		
Column 2	1	3.17	3.13 – 3.19	23.3		ug/kg	
	2	3.25	3.22 – 3.28	22.5		ug/kg	
	3	3.31	3.28 – 3.34	21.3		ug/kg	
	4	3.54	3.51 – 3.57	23		ug/kg	
	5	3.61	3.58 – 3.64	22.9		ug/kg	
					22.6		
Aroclor–1260							5.4
Column 1	1	3.71	3.68 – 3.74	26.4		ug/kg	
	2	3.87	3.84 – 3.9	27.2		ug/kg	
	3	4.03	4 – 4.06	27.9		ug/kg	
	4	4.1	4.07 – 4.13	27.5		ug/kg	
	5	4.24	4.21 – 4.27	27.6		ug/kg	
					27.3		
Column 2	1	4.3	4.27 – 4.33	24.9		ug/kg	
	2	4.43	4.4 – 4.46	25.8		ug/kg	
	3	4.69	4.66 – 4.72	25.6		ug/kg	
	4	4.87	4.84 – 4.9	25.9		ug/kg	
	5	5.02	4.98 – 5.04	27		ug/kg	
					25.9		

Identification Summary

SDG Number: 10–2315 **Client ID:** RE46–10–12930MS

Lab Sample ID: 1202076365

Data File:	016f1601.d	**Data File:**	016b1601.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 10:25	**Analyzed:**	23–MAR–10 10:25

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							1.17
Column 1	1	2.36	2.33 – 2.39	17.8		ug/kg	
	2	2.65	2.62 – 2.68	19.3		ug/kg	
	3	2.73	2.7 – 2.76	18		ug/kg	
	4	2.77	2.74 – 2.8	18.2		ug/kg	
	5	2.98	2.95 – 3.01	16.8		ug/kg	
					18		
Column 2	1	3.16	3.13 – 3.19	18.6		ug/kg	
	2	3.25	3.22 – 3.28	18.2		ug/kg	
	3	3.31	3.28 – 3.34	18		ug/kg	
	4	3.54	3.51 – 3.57	18.1		ug/kg	
	5	3.61	3.58 – 3.64	16.1		ug/kg	
					17.8		
Aroclor–1260							2.81
Column 1	1	3.7	3.68 – 3.74	22.4		ug/kg	
	2	3.87	3.84 – 3.9	22.4		ug/kg	
	3	4.03	4 – 4.06	22.5		ug/kg	
	4	4.1	4.07 – 4.13	22.9		ug/kg	
	5	4.24	4.21 – 4.27	21.7		ug/kg	
					22.4		
Column 2	1	4.3	4.27 – 4.33	22.5		ug/kg	
	2	4.43	4.4 – 4.46	20.1		ug/kg	
	3	4.69	4.66 – 4.72	22		ug/kg	
	4	4.87	4.84 – 4.9	21.3		ug/kg	
	5	5.01	4.98 – 5.04	22.8		ug/kg	
					21.8		

Identification Summary

SDG Number: 10–2315 **Client ID:** RE46–10–12930MSD

Lab Sample ID: 1202076366

Data File:	017f1701.d	**Data File:**	017b1701.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 10:37	**Analyzed:**	23–MAR–10 10:37

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							1.54
Column 1	1	2.36	2.33 – 2.39	21.8		ug/kg	
	2	2.65	2.62 – 2.68	22.6		ug/kg	
	3	2.73	2.7 – 2.76	20.6		ug/kg	
	4	2.77	2.74 – 2.8	20.7		ug/kg	
	5	2.98	2.95 – 3.01	20.9		ug/kg	
					21.3		
Column 2	1	3.16	3.13 – 3.19	22.2		ug/kg	
	2	3.25	3.22 – 3.28	21.1		ug/kg	
	3	3.31	3.28 – 3.34	21		ug/kg	
	4	3.54	3.51 – 3.57	21		ug/kg	
	5	3.61	3.58 – 3.64	19.7		ug/kg	
					21		
Aroclor–1260							3.8
Column 1	1	3.7	3.68 – 3.74	25		ug/kg	
	2	3.87	3.84 – 3.9	26		ug/kg	
	3	4.03	4 – 4.06	26.4		ug/kg	
	4	4.1	4.07 – 4.13	26		ug/kg	
	5	4.24	4.21 – 4.27	25.9		ug/kg	
					25.9		
Column 2	1	4.3	4.27 – 4.33	24.3		ug/kg	
	2	4.43	4.4 – 4.46	24.8		ug/kg	
	3	4.69	4.66 – 4.72	24.8		ug/kg	
	4	4.87	4.84 – 4.9	24.7		ug/kg	
	5	5.01	4.98 – 5.04	25.9		ug/kg	
					24.9		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2315**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076363**				
Client Sample:	**QC for batch 967399**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 967399**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 09:39**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**012f1201–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	012b1201–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/012f1201.d
Lab Smp Id: 1202076363 Client Smp ID: PBLK01
Inj Date : 23-MAR-2010 09:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076363|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.913	0.000	55677539	142.938	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.216	5.217	-0.001	50797679	171.076	5.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/012f1201.d

Page 1

Date : 23-MAR-2010 09:39

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: |1202076363|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

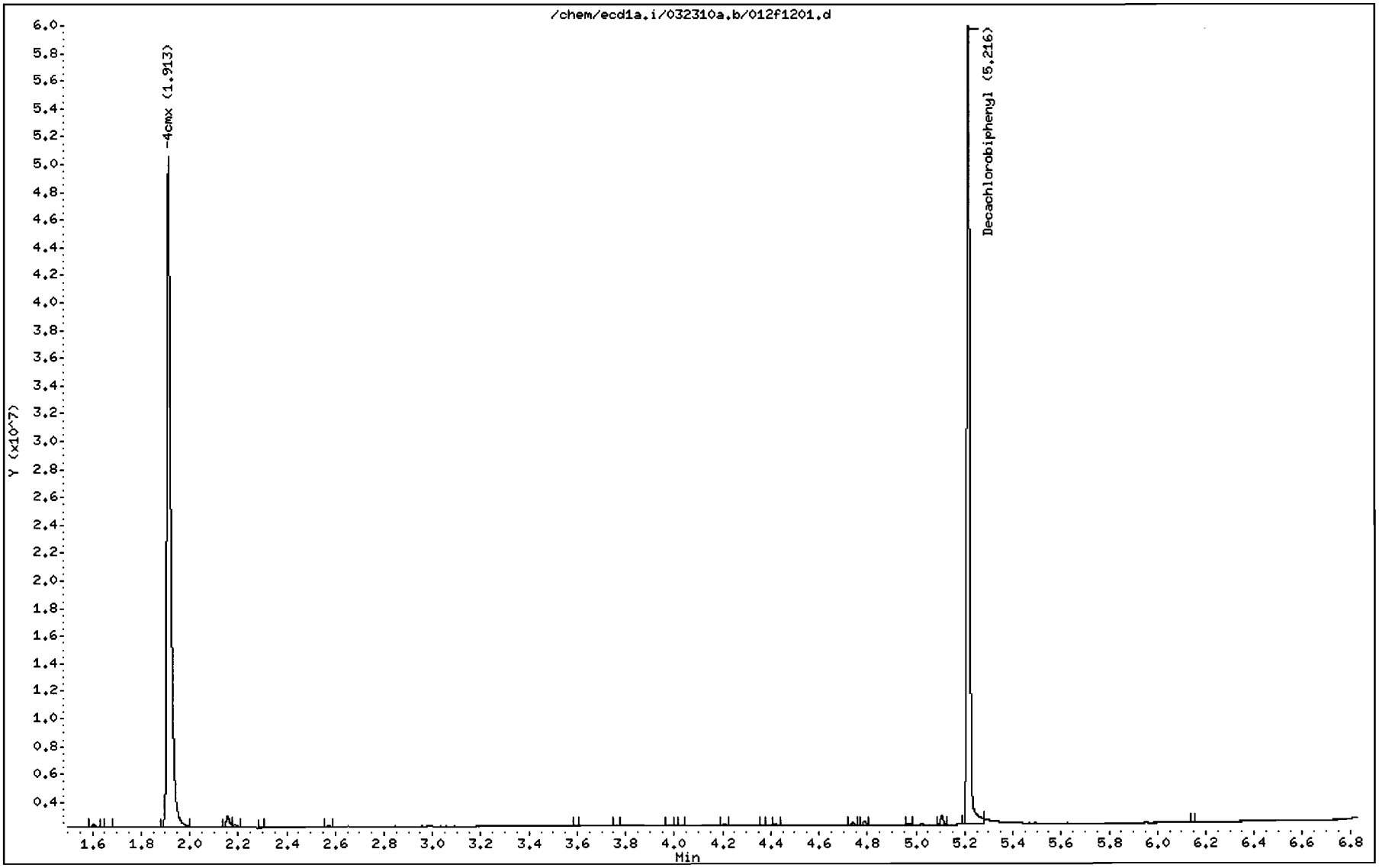

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/012b1201.d
Lab Smp Id: 1202076363 Client Smp ID: PBLK01
Inj Date : 23-MAR-2010 09:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076363|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:51 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	35680599	136.013	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.912	-0.001	29195098	155.979	5.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/012b1201.d
Date : 23-MAR-2010 09:39
Client ID: PBLK01
Sample Info: |1202076363|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

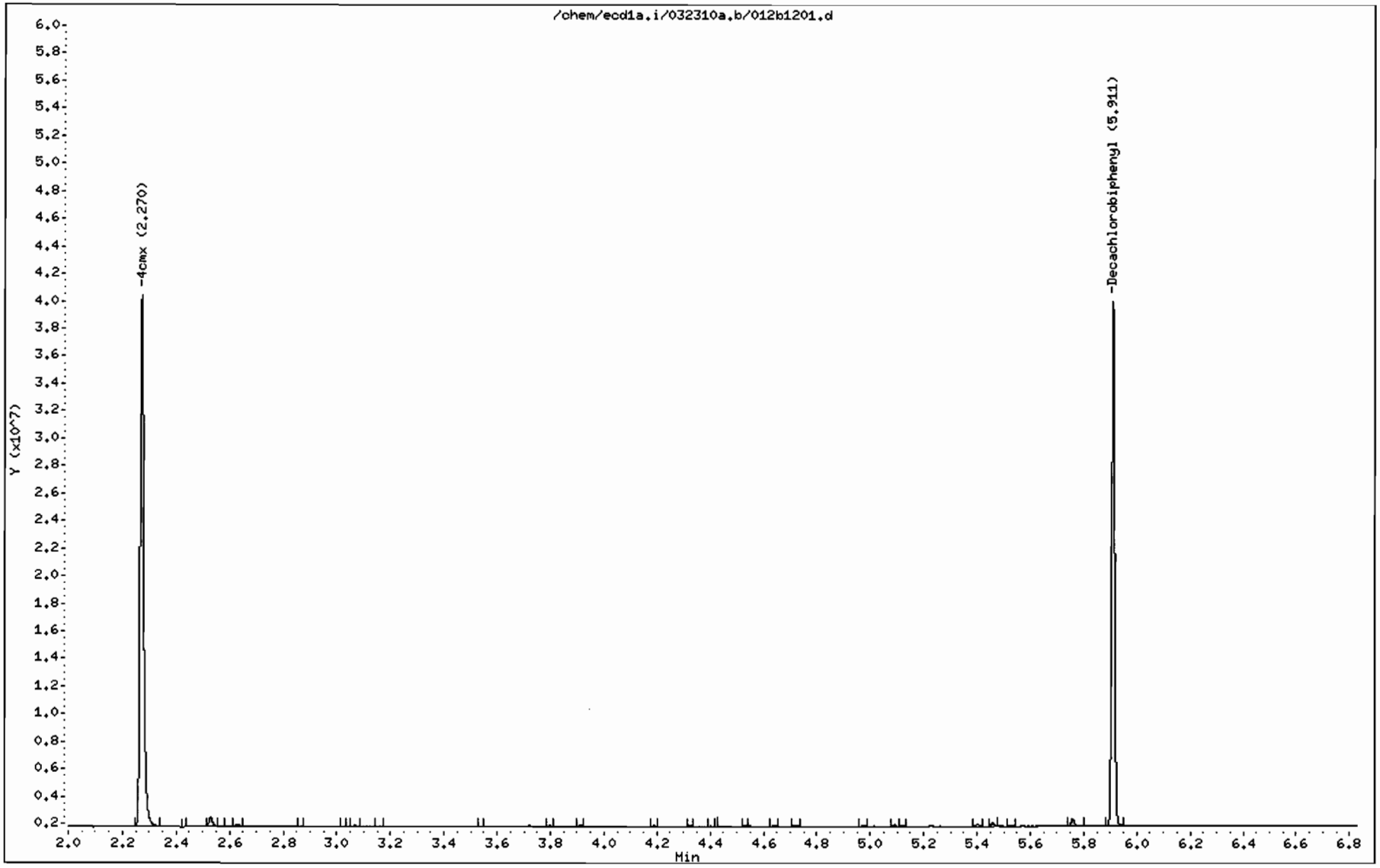

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2315**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076364**				
Client Sample:	**QC for batch 967399**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967399**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 09:49**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**013f1301–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	013b1301–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		23.8	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		27.3	ug/kg	1.11	3.33	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/013f1301.d
Lab Smp Id: 1202076364 Client Smp ID: PBLK01LCS
Inj Date : 23-MAR-2010 09:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076364|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.913	0.000	59940461	153.882	5.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.217	5.217	0.000	50553608	170.254	5.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.365	-0.001	11111108	732.111	24.4	80.00- 120.00	100.00
2.652	2.651	0.001	13777452	727.589	24.2	107.62- 147.62	124.00
2.732	2.732	0.000	8677264	697.409	23.2	58.11- 98.11	78.10
2.769	2.770	-0.001	5163605	702.692	23.4	27.09- 67.09	46.47

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.980	2.980	0.000	6764549	710.728	23.7	40.72- 80.72	60.88
Average of Peak Concentrations =					23.8		
7 Aroclor-1260					CAS #: 11096-82-5		
3.705	3.705	0.000	14522007	792.250	26.4	80.00- 120.00	100.00
3.868	3.867	0.001	21910267	814.816	27.2	129.35- 169.35	150.88
4.029	4.030	-0.001	23662778	835.689	27.8	139.27- 179.27	162.94
4.098	4.097	0.001	13316018	824.119	27.5	70.04- 110.04	91.70
4.240	4.240	0.000	13902474	826.905	27.6	74.22- 114.22	95.73
Average of Peak Concentrations =					27.3		

Data File: /chem/ecdia.i/032310a.b/013f1301.d
Date : 23-MAR-2010 09:49
Client ID: PBLK01LCS
Sample Info: 1120076364111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

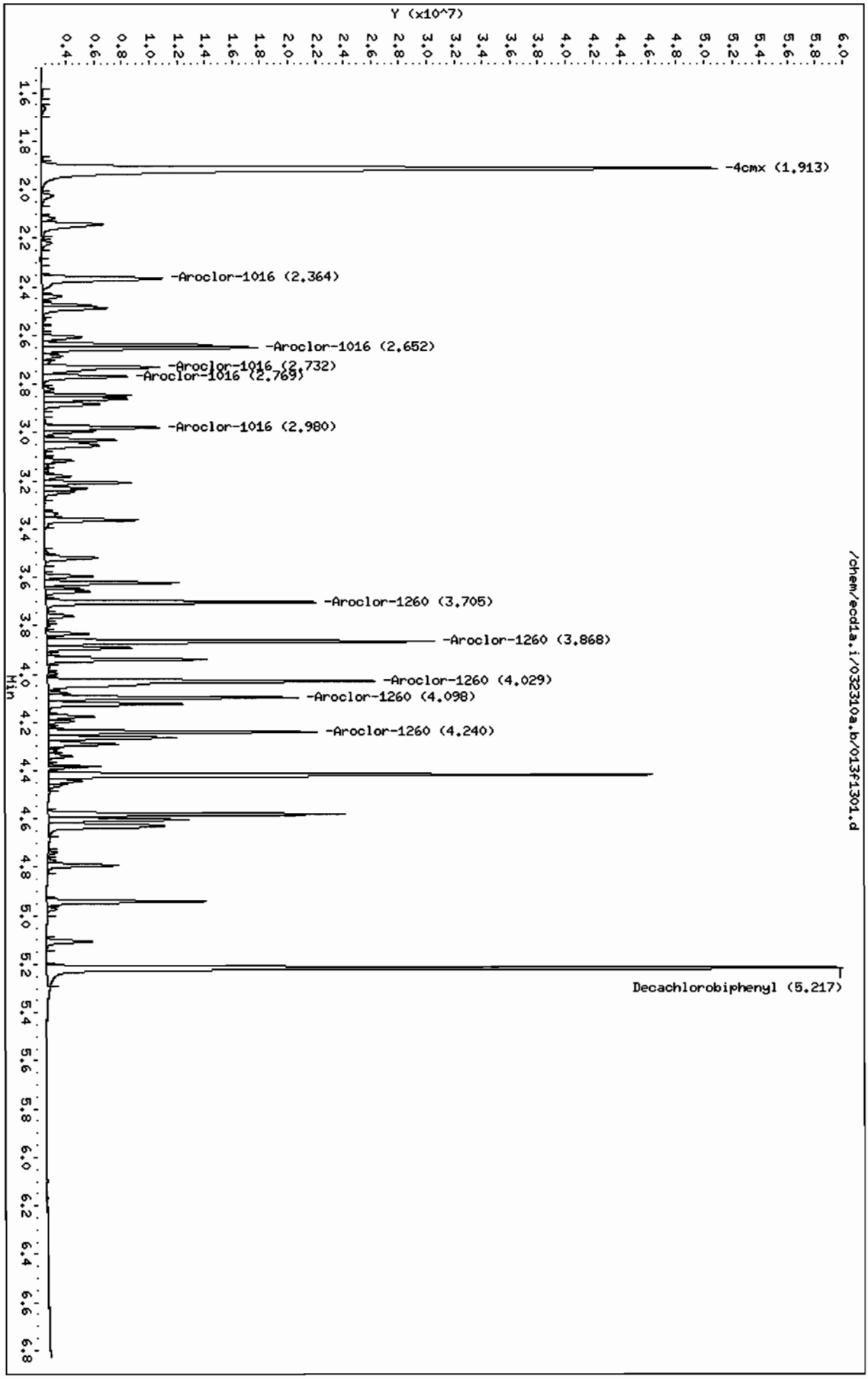

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/013b1301.d
Lab Smp Id: 1202076364 Client Smp ID: PBLK01LCS
Inj Date : 23-MAR-2010 09:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076364|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	38124510	145.329	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.912	5.912	0.000	29193722	155.972	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.165	3.165	0.000	8815970	700.515	23.4	80.00- 120.00	100.00(M)
3.248	3.248	0.000	5826181	674.779	22.5	45.31- 85.31	66.09
3.311	3.311	0.000	3380212	639.388	21.3	20.51- 60.51	38.34
3.538	3.538	0.000	4755018	689.861	23.0	31.09- 71.09	53.94

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.613	3.614	-0.001	4412224	686.988	22.9	37.88- 77.88	60.42
Average of Peak Concentrations =					22.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.303	4.304	-0.001	9774555	747.277	24.9	80.00- 120.00	100.00
4.428	4.428	0.000	12027985	773.552	25.8	101.60- 141.60	123.05
4.693	4.695	-0.002	9150944	769.241	25.6	71.82- 111.82	93.62
4.867	4.867	0.000	9545846	776.766	25.9	75.59- 115.59	97.66
5.015	5.015	0.000	21419564	811.512	27.0	192.18- 232.18	219.14
Average of Peak Concentrations =					25.8		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/013b1301.d
Date : 23-MAR-2010 09:49
Client ID: PBLK01LCS
Sample Info: |1202076364|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

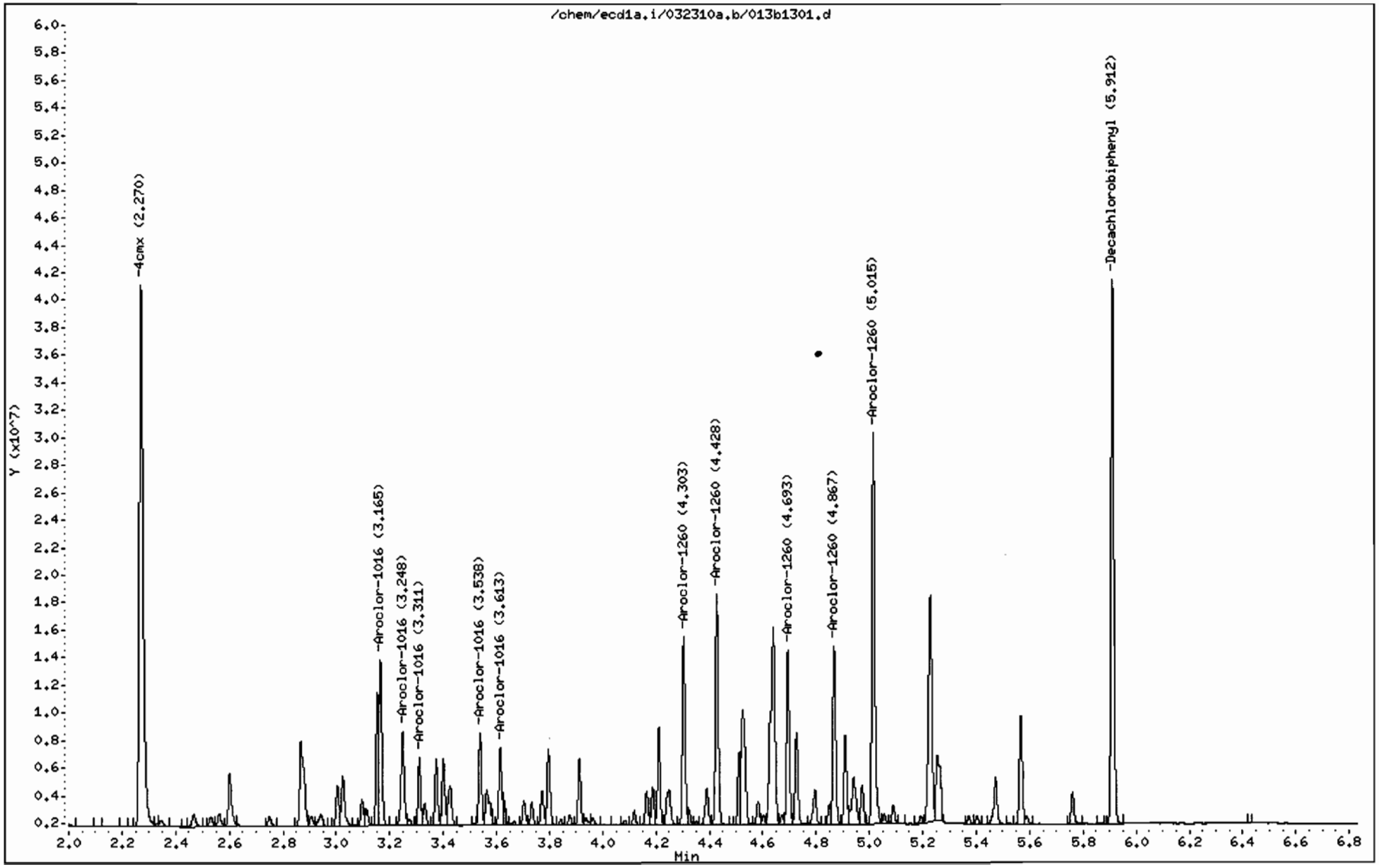

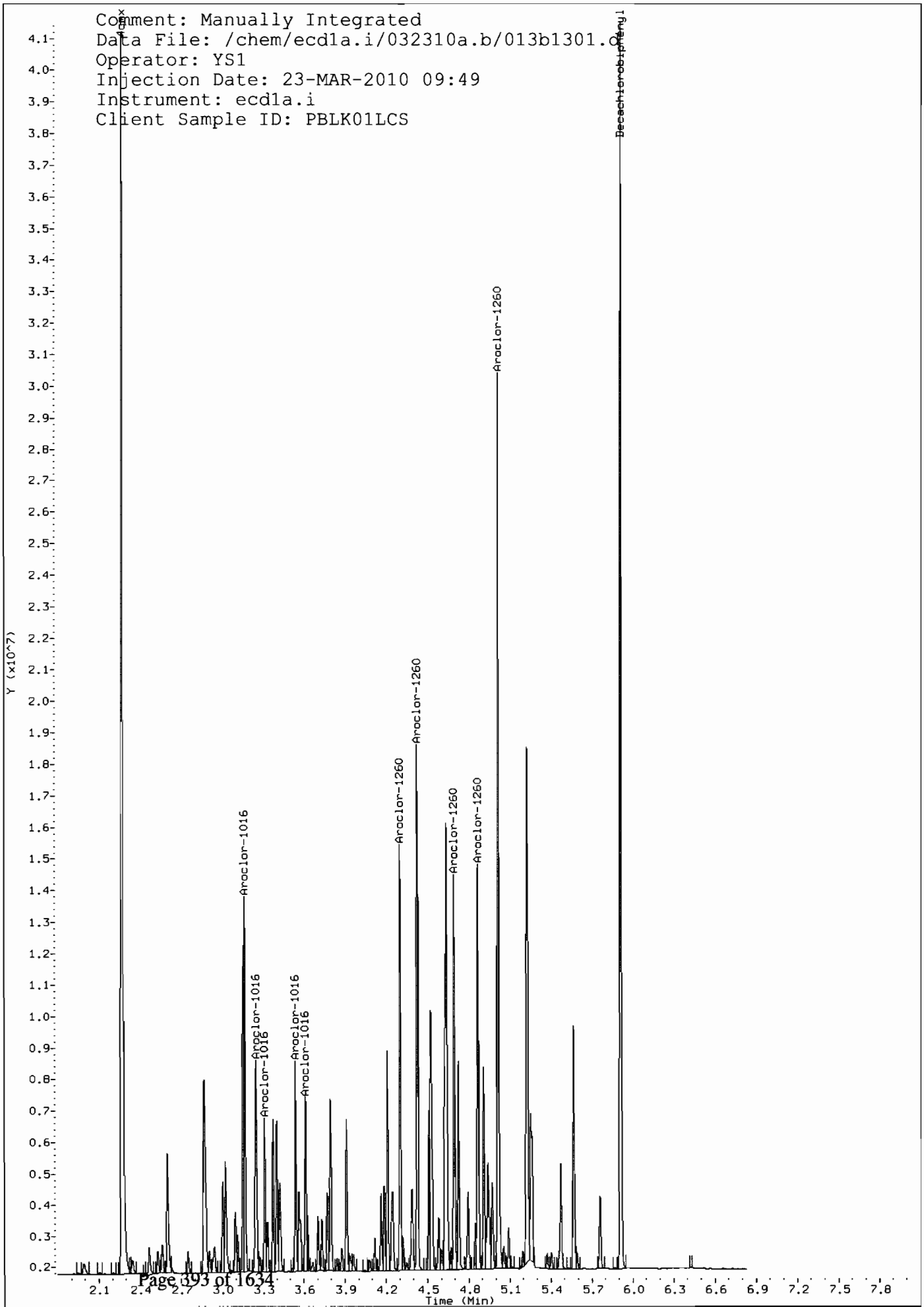
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/013b1301.d
Operator: YS1
Injection Date: 23-MAR-2010 09:49
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
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Y (x10^7)
Time (Min)

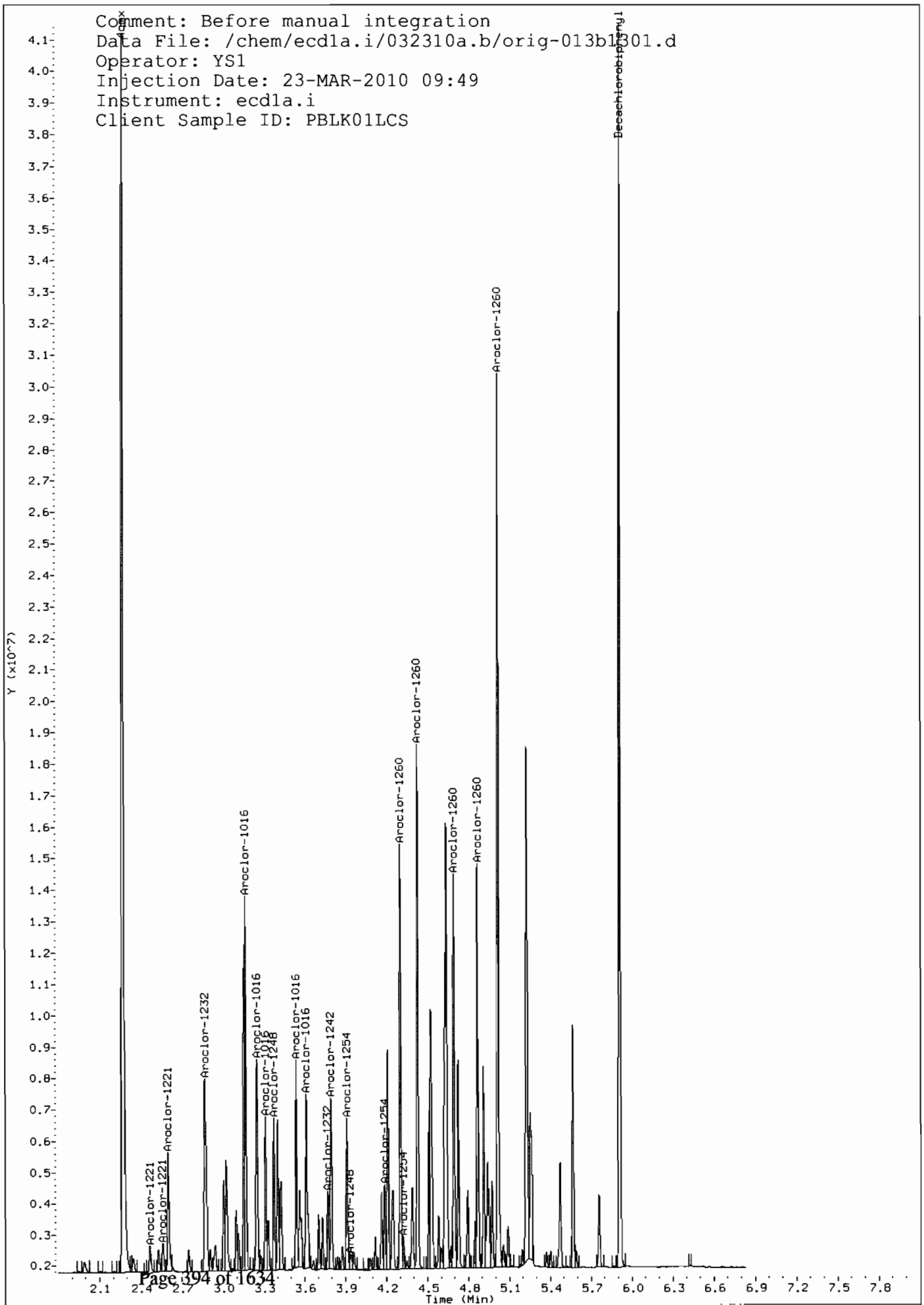
Comment: Before manual integration
Data File: /chem/ecd1a.i/032310a.b/orig-013b1301.d
Operator: YS1
Injection Date: 23-MAR-2010 09:49
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1232
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1232
Aroclor-1254
Aroclor-1248
Aroclor-1254
Aroclor-1254
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202076365**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**8.5**
Client Sample:	**QC for batch 967399**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46–10–12930MS**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 10:25**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**016f1601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	016b1601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		18.0	ug/kg	1.21	3.64	1
11104–28–2	Aroclor–1221	U	3.64	ug/kg	1.21	3.64	1
11141–16–5	Aroclor–1232	U	3.64	ug/kg	1.21	3.64	1
53469–21–9	Aroclor–1242	U	3.64	ug/kg	1.21	3.64	1
12672–29–6	Aroclor–1248	U	3.64	ug/kg	1.21	3.64	1
11097–69–1	Aroclor–1254	U	3.64	ug/kg	1.21	3.64	1
11096–82–5	Aroclor–1260		22.4	ug/kg	1.21	3.64	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/016f1601.d
Lab Smp Id: 1202076365 Client Smp ID: RE46-10-12930MS
Inj Date : 23-MAR-2010 10:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076365|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 16 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.913	-0.003	38311340	98.3545	3.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	33890889	114.137	4.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.365	-0.002	7409790	488.231	17.8	80.00- 120.00	100.00
2.650	2.651	-0.001	10039875	530.207	19.3	107.62- 147.62	135.49
2.730	2.732	-0.002	6163757	495.393	18.0	58.11- 98.11	83.18
2.768	2.770	-0.002	3669626	499.383	18.2	27.09- 67.09	49.52

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.978	2.980	-0.002	4381218	460.320	16.8	40.72- 80.72	59.13
Average of Peak Concentrations =					18.0		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	11269491	614.808	22.4	80.00- 120.00	100.00
3.865	3.867	-0.002	16550116	615.479	22.4	129.35- 169.35	146.86
4.027	4.030	-0.003	17484112	617.479	22.5	139.27- 179.27	155.15
4.095	4.097	-0.002	10164870	629.097	22.9	70.04- 110.04	90.20
4.238	4.240	-0.002	10013847	595.613	21.7	74.22- 114.22	88.86
Average of Peak Concentrations =					22.4		

Data File: /chem/ecd1a.i/032310a.b/016f1601.d
Date : 23-MAR-2010 10:25
Client ID: RE46-10-12930MS
Sample Info: |1202076365|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

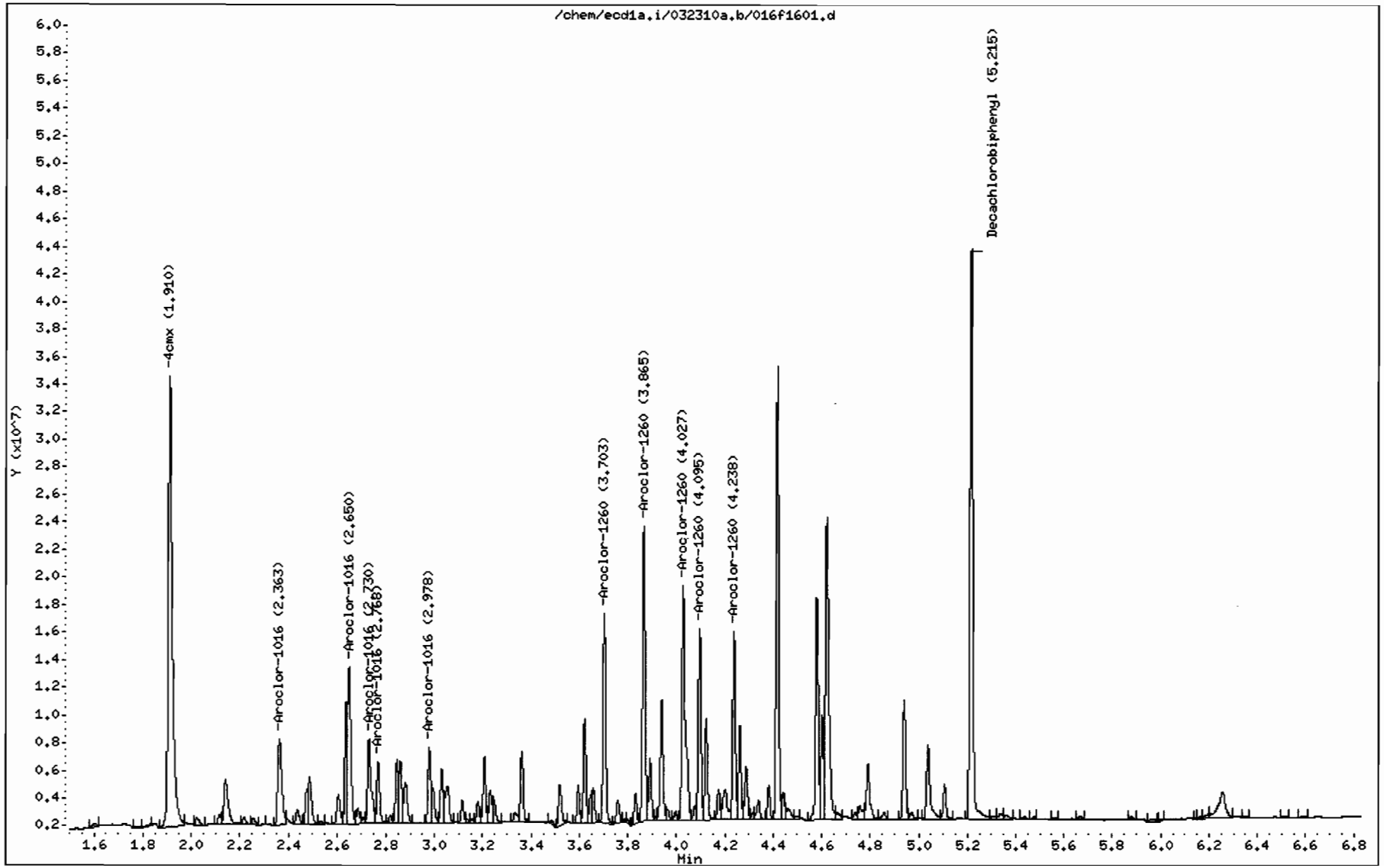

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/016b1601.d
Lab Smp Id: 1202076365 Client Smp ID: RE46-10-12930MS
Inj Date : 23-MAR-2010 10:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076365|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 16 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	23544458	89.7504	3.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.912	-0.001	21341456	114.020	4.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	6432404	511.118	18.6	80.00- 120.00'	100.00(M)
3.246	3.248	-0.002	4305536	498.660	18.2	45.31- 85.31	66.94
3.310	3.311	-0.001	2619092	495.417	18.0	20.51- 60.51	40.72
3.537	3.538	-0.001	3430764	497.737	18.1	31.09- 71.09	53.34

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.612	3.614	-0.002	2837720	441.836	16.1	37.88- 77.88	54.31
Average of Peak Concentrations =					17.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	8098250	619.121	22.5	80.00- 120.00	100.00(M)
4.427	4.428	-0.001	8587128	552.262	20.1	101.60- 141.60	106.04
4.693	4.695	-0.002	7202376	605.442	22.0	71.82- 111.82	88.94
4.866	4.867	-0.001	7186212	584.758	21.3	75.59- 115.59	88.74
5.014	5.015	-0.001	16513408	625.635	22.8	192.18- 232.18	203.91
Average of Peak Concentrations =					21.7		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/016b1601.d
Date : 23-MAR-2010 10:25
Client ID: RE46-10-12930MS
Sample Info: |1202076365|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

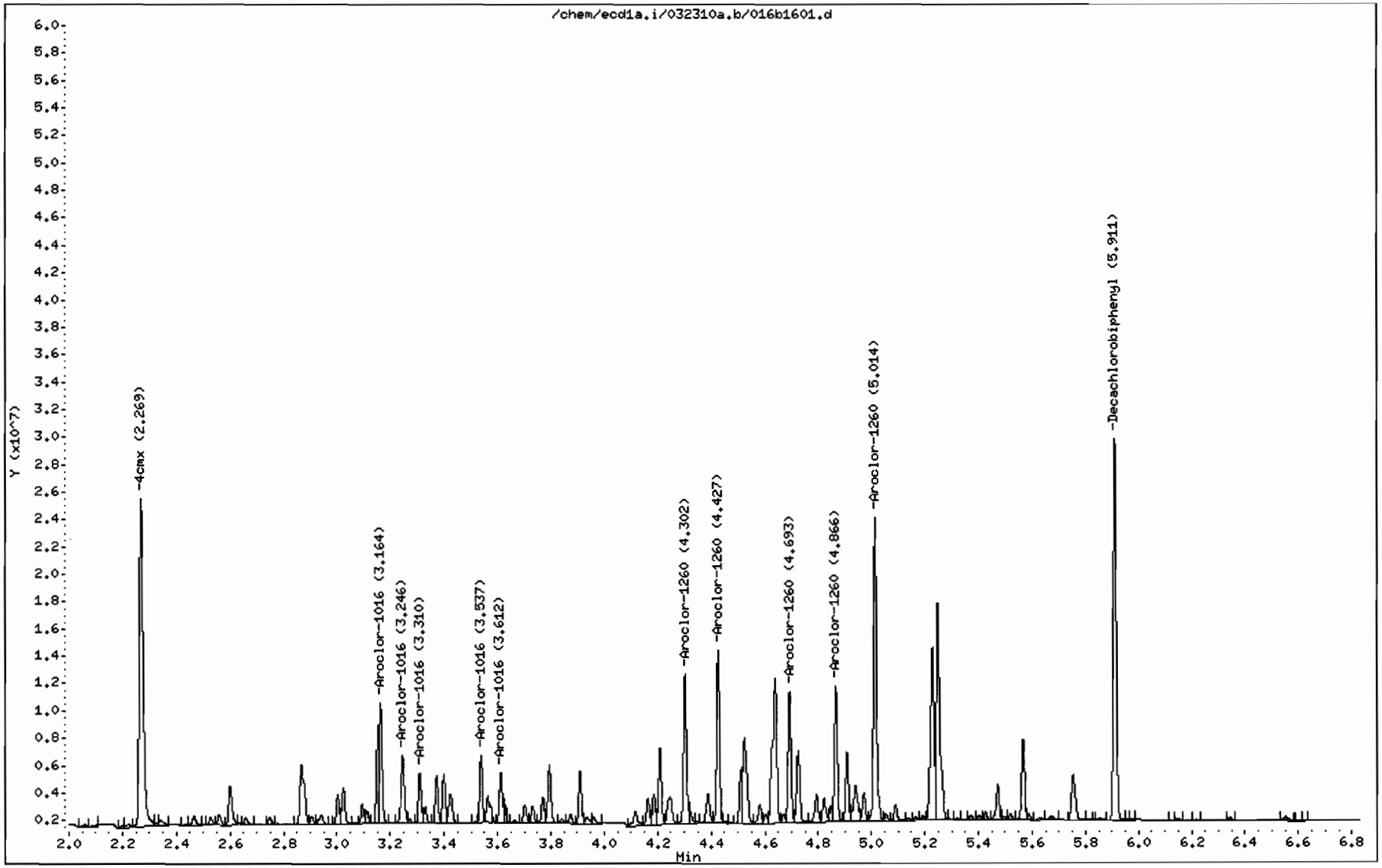

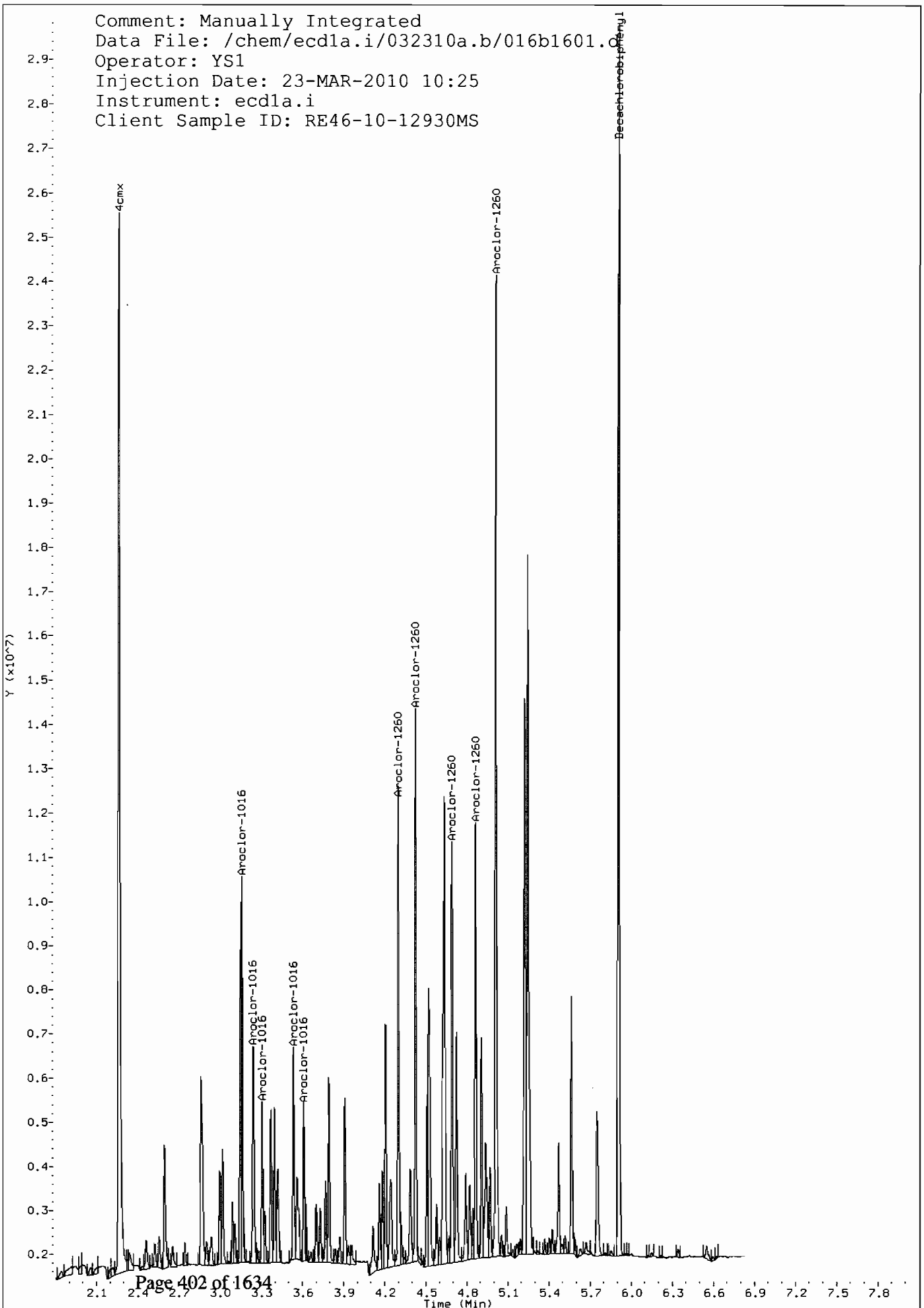
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/016b1601.d
Operator: YS1
Injection Date: 23-MAR-2010 10:25
Instrument: ecd1a.i
Client Sample ID: RE46-10-12930MS
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

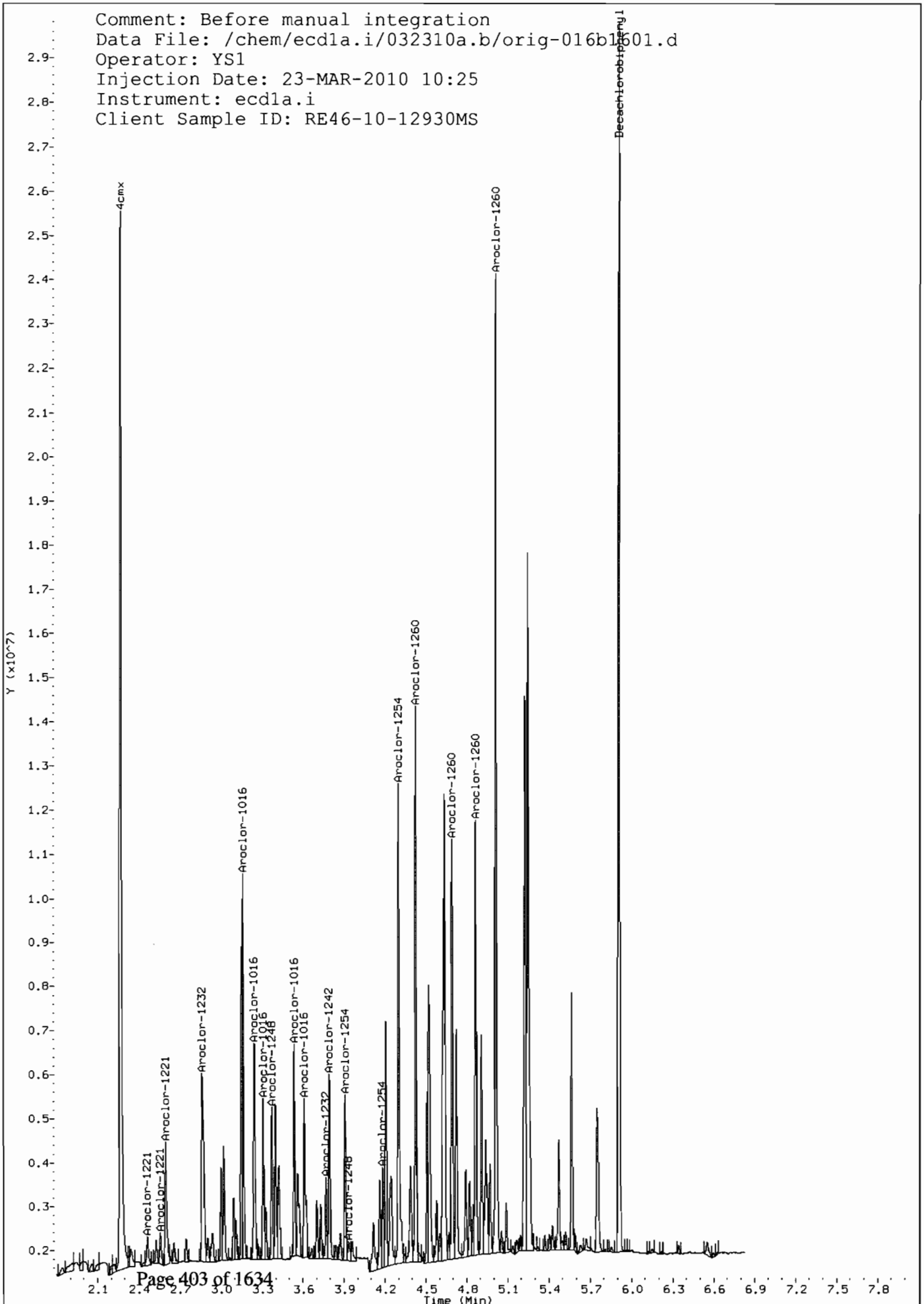
Comment: Before manual integration
Data File: /chem/ecd1a.i/032310a.b/orig-016b1801.d
Operator: YS1
Injection Date: 23-MAR-2010 10:25
Instrument: ecd1a.i
Client Sample ID: RE46-10-12930MS
4cmx
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1242
Aroclor-1254
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2315**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202076366**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**8.5**
Client Sample:	**QC for batch 967399**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46–10–12930MSD**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 10:37**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**017f1701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	017b1701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		21.3	ug/kg	1.21	3.64	1
11104–28–2	Aroclor–1221	U	3.64	ug/kg	1.21	3.64	1
11141–16–5	Aroclor–1232	U	3.64	ug/kg	1.21	3.64	1
53469–21–9	Aroclor–1242	U	3.64	ug/kg	1.21	3.64	1
12672–29–6	Aroclor–1248	U	3.64	ug/kg	1.21	3.64	1
11097–69–1	Aroclor–1254	U	3.64	ug/kg	1.21	3.64	1
11096–82–5	Aroclor–1260		25.9	ug/kg	1.21	3.64	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/017f1701.d
Lab Smp Id: 1202076366 Client Smp ID: RE46-10-12930MSD
Inj Date : 23-MAR-2010 10:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076366|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 17 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2244.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	47813392	122.749	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	43027538	144.908	5.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.365	-0.002	9107248	600.077	21.8	80.00- 120.00	100.00
2.650	2.651	-0.001	11740813	620.033	22.6	107.62- 147.62	128.92
2.730	2.732	-0.002	7057387	567.216	20.6	58.11- 98.11	77.49
2.768	2.770	-0.002	4170651	567.565	20.7	27.09- 67.09	45.79

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.978	2.980	-0.002	5475533	575.295	20.9	40.72- 80.72	60.12
Average of Peak Concentrations =					21.3		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	12582459	686.437	25.0	80.00- 120.00	100.00
3.865	3.867	-0.002	19194350	713.814	26.0	129.35- 169.35	152.55
4.028	4.030	-0.002	20553278	725.872	26.4	139.27- 179.27	163.35
4.095	4.097	-0.002	11550117	714.829	26.0	70.04- 110.04	91.80
4.238	4.240	-0.002	11954440	711.038	25.9	74.22- 114.22	95.01
Average of Peak Concentrations =					25.9		

Data File: /chem/ecd1a.i/032310a.b/017f1701.d
Date : 23-MAR-2010 10:37
Client ID: RE46-10-12930HSD
Sample Info: !120207636611!
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

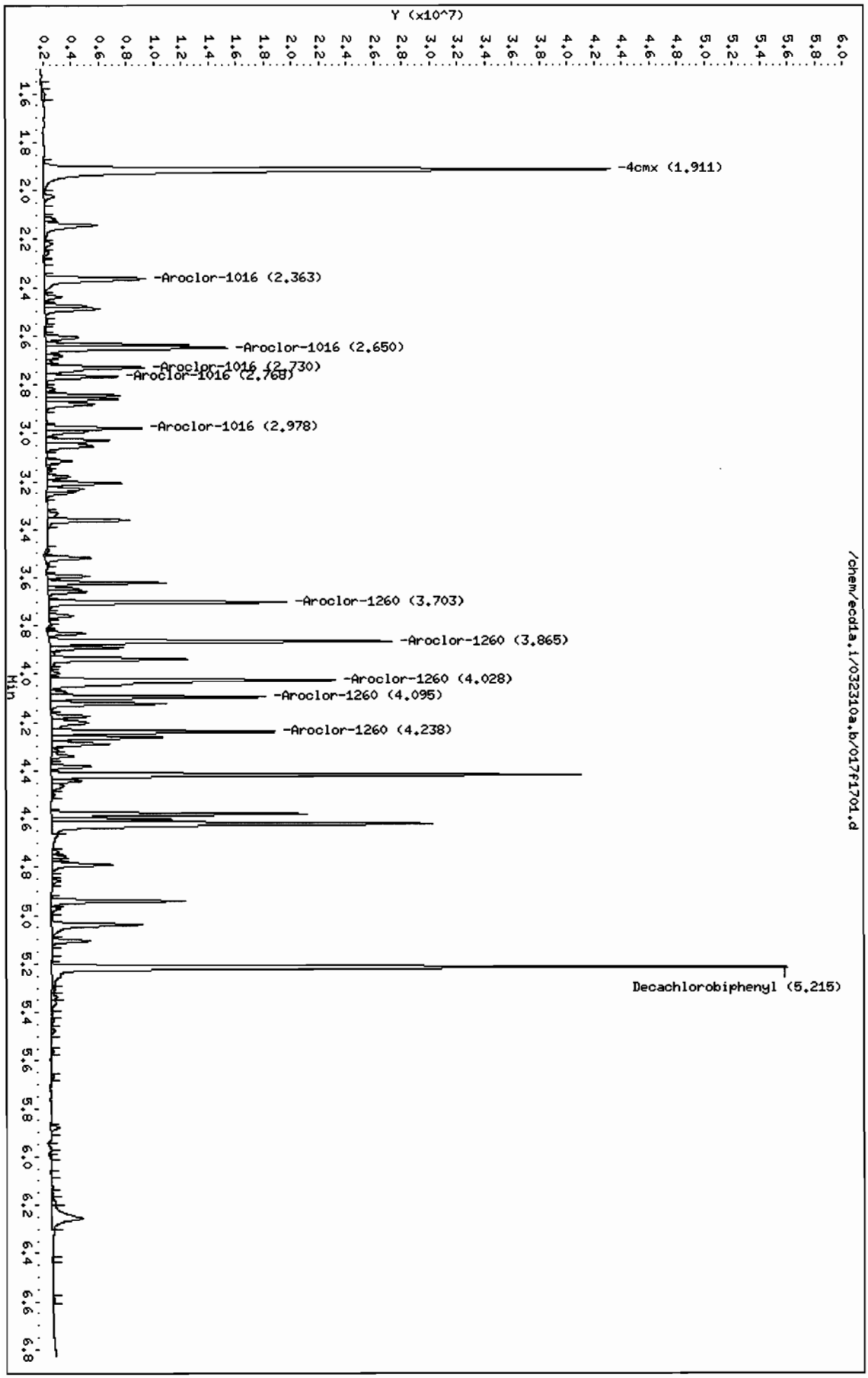

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/017b1701.d
Lab Smp Id: 1202076366 Client Smp ID: RE46-10-12930MSD
Inj Date : 23-MAR-2010 10:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076366|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 17 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	30645536	116.819	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	25077158	133.978	4.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	7682155	610.423	22.2	80.00- 120.00	100.00(M)
3.247	3.248	-0.001	5009387	580.179	21.1	45.31- 85.31	65.21
3.310	3.311	-0.001	3050696	577.058	21.0	20.51- 60.51	39.71
3.537	3.538	-0.001	3967793	575.650	21.0	31.09- 71.09	51.65

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.612	3.614	-0.002	3481107	542.012	19.7	37.88- 77.88	55.05
Average of Peak Concentrations =					21.0		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	8714119	666.205	24.2	80.00- 120.00	100.00
4.427	4.428	-0.001	10606333	682.122	24.8	101.60- 141.60	121.71
4.693	4.695	-0.002	8095314	680.503	24.8	71.82- 111.82	92.90
4.866	4.867	-0.001	8341264	678.747	24.7	75.59- 115.59	95.72
5.014	5.015	-0.001	18790623	711.911	25.9	192.18- 232.18	215.63
Average of Peak Concentrations =					24.9		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/017b1701.d
Date : 23-MAR-2010 10:37
Client ID: RE46-10-12930HSD
Sample Info: 1120207636611
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

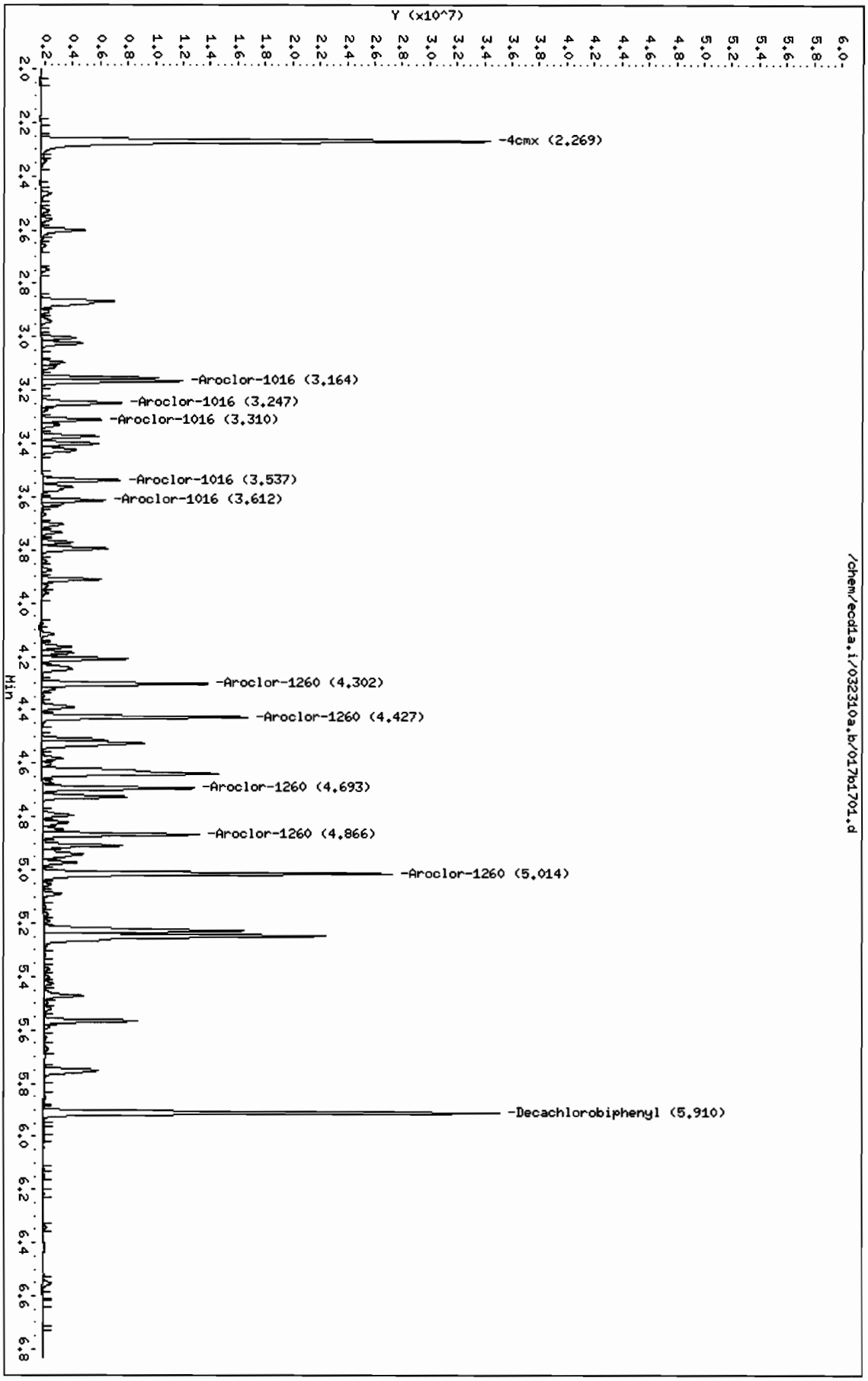

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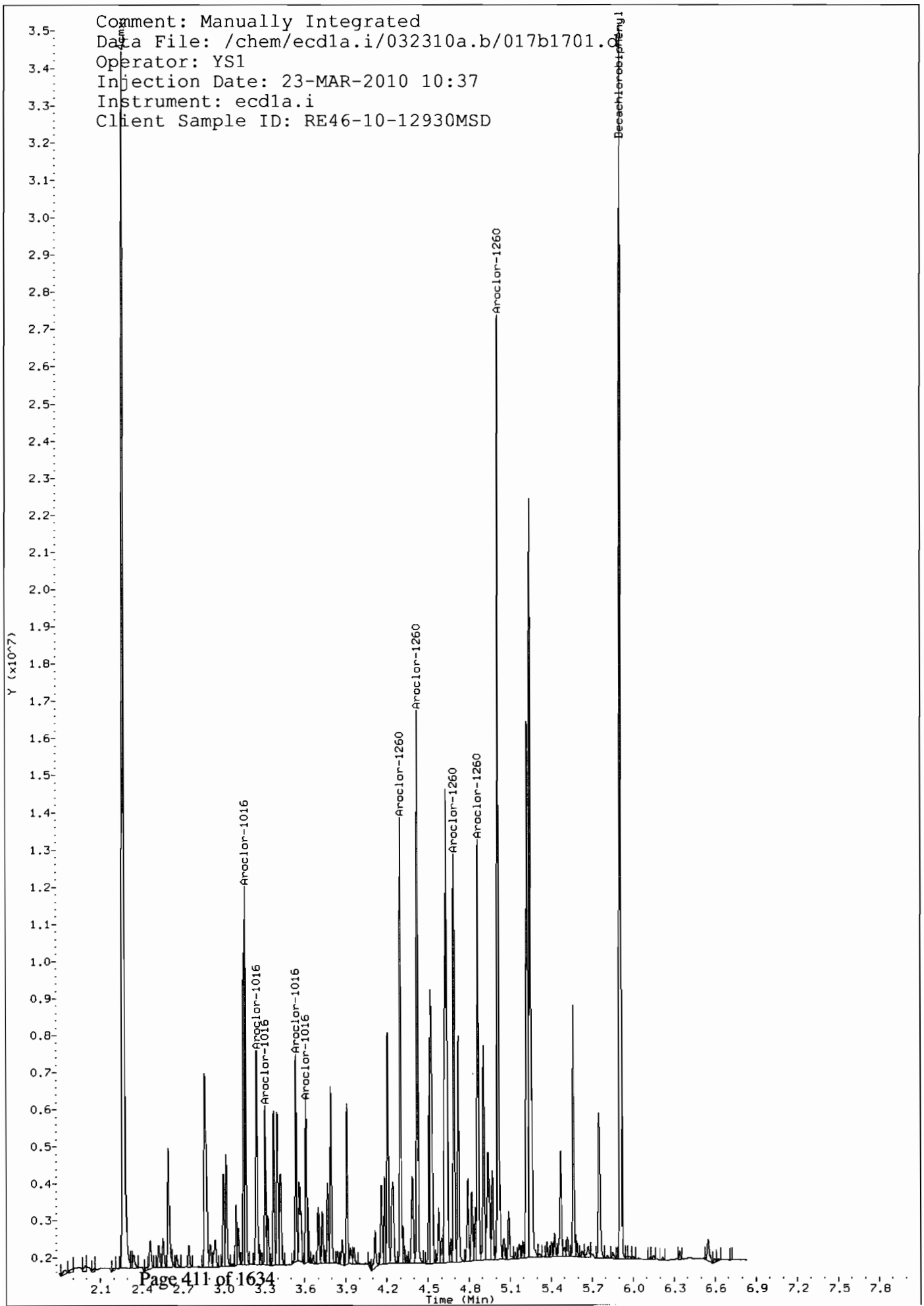
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/017b1701.d
Operator: YS1
Injection Date: 23-MAR-2010 10:37
Instrument: ecd1a.i
Client Sample ID: RE46-10-12930MSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^7)
Time (Min)

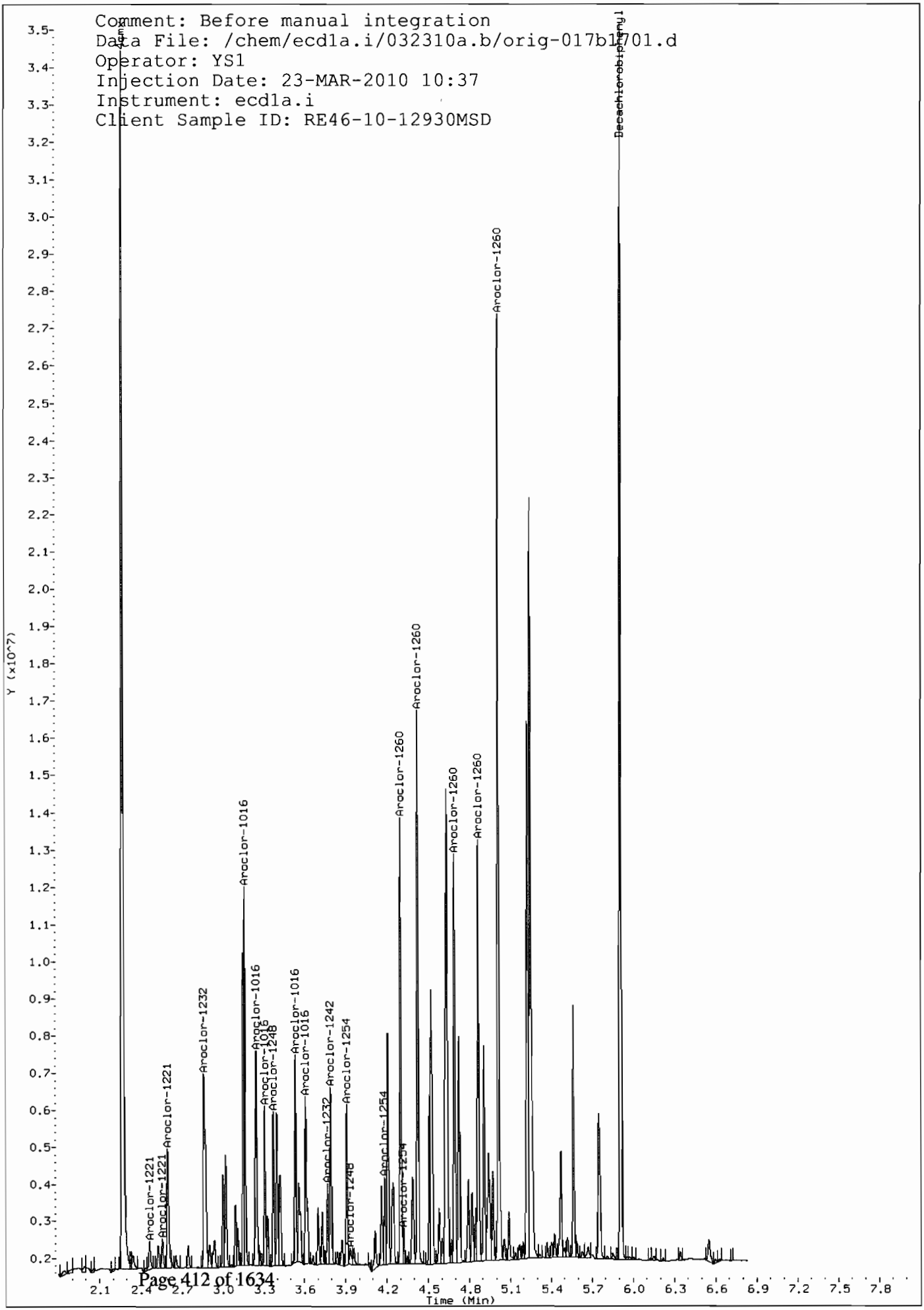
Comment: Before manual integration
Data File: /chem/ecd1a.i/032310a.b/orig-017b1701.d
Operator: YS1
Injection Date: 23-MAR-2010 10:37
Instrument: ecd1a.i
Client Sample ID: RE46-10-12930MSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/12/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/031110b.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	11-MAR-2010 14:46		031110b	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	11-MAR-2010 14:56		031110b	1.0		DUSE RE-ICAL
003f0301.d	WAR100219-54	YS1	11-MAR-2010 15:07		031110b	1.0		DUSE RE-ICAL
004f0401.d	WAR100219-42	YS1	11-MAR-2010 15:17		031110b	1.0		DUSE RE-ICAL
005f0501.d	WAR100223-48	YS1	11-MAR-2010 15:28		031110b	1.0		DUSE RE-ICAL
006f0601.d	WAR100107-68	YS1	11-MAR-2010 15:38		031110b	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	11-MAR-2010 15:49		031110b	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	11-MAR-2010 15:59		031110b	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	11-MAR-2010 16:10		031110b	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	11-MAR-2010 16:21		031110b	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100311-01	YS1	11-MAR-2010 16:31		031110b	1.0		AR1660 I-CAL LEVEL 1
012f1201.d	WAR100311-02	YS1	11-MAR-2010 16:41		031110b	1.0		AR1660 I-CAL LEVEL 2
013f1301.d	WAR100311-03	YS1	11-MAR-2010 16:52		031110b	1.0		AR1660 I-CAL LEVEL 3
014f1401.d	WAR100311-04	YS1	11-MAR-2010 17:02		031110b	1.0		AR1660 I-CAL LEVEL 4
015f1501.d	IAR100311-01	YS1	11-MAR-2010 17:13		031110b	1.0		AR1660 I-CAL LEVEL 5

Instrument Batch: /chem/ecd1a.i/031110b.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100222-60 01	YS1	11-MAR-2010 17:24		031110b		1.0	PASSED ON BOTH COLUMNS
017f1701.d	WAR100311-05	YS1	11-MAR-2010 17:34		031110b		1.0	AR1254 I-CAL LEVEL 1
018f1801.d	WAR100311-06	YS1	11-MAR-2010 17:45		031110b		1.0	AR1254 I-CAL LEVEL 2
019f1901.d	WAR100311-07	YS1	11-MAR-2010 17:55		031110b		1.0	AR1254 I-CAL LEVEL 3
020f2001.d	WAR100311-08	YS1	11-MAR-2010 18:06		031110b		1.0	AR1254 I-CAL LEVEL 4
021f2101.d	IAR100219-02	YS1	11-MAR-2010 18:16		031110b		1.0	AR1254 I-CAL LEVEL 5
022f2201.d	WAR100219-54	YS1	11-MAR-2010 18:27		031110b		1.0	PASSED ON BOTH COLUMNS
023f2301.d	WAR100311-09	YS1	11-MAR-2010 18:37		031110b		1.0	AR1242 I-CAL LEVEL 1
024f2401.d	WAR100311-10	YS1	11-MAR-2010 18:48		031110b		1.0	AR1242 I-CAL LEVEL 2
025f2501.d	WAR100311-11	YS1	11-MAR-2010 18:58		031110b		1.0	AR1242 I-CAL LEVEL 3
026f2601.d	WAR100311-12	YS1	11-MAR-2010 19:09		031110b		1.0	AR1242 I-CAL LEVEL 4
027f2701.d	IAR100219-01	YS1	11-MAR-2010 19:19		031110b		1.0	AR1242 I-CAL LEVEL 5
028f2801.d	WAR100219-42	YS1	11-MAR-2010 19:30		031110b		1.0	PASSED ON BOTH COLUMNS
029f2901.d	WAR100311-13	YS1	11-MAR-2010 19:40		031110b		1.0	AR1248 I-CAL LEVEL 1
030f3001.d	WAR100311-14	YS1	11-MAR-2010 19:51		031110b		1.0	AR1248 I-CAL LEVEL 2
031f3101.d	WAR100311-15	YS1	11-MAR-2010 20:01		031110b		1.0	AR1248 I-CAL LEVEL 3
032f3201.d	WAR100311-16	YS1	11-MAR-2010 20:12		031110b		1.0	AR1248 I-CAL LEVEL 4
033f3301.d	IAR100211-01	YS1	11-MAR-2010 20:22		031110b		1.0	AR1248 I-CAL LEVEL 5
034f3401.d	WAR100223-48	YS1	11-MAR-2010 20:33		031110b		1.0	PASSED ON BOTH COLUMNS
035f3501.d	WAR100219-99 02	YS1	11-MAR-2010 20:44		031110b		1.0	CLEAN

Instrument Batch: /chem/ecd1a.i/031110b.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202067743	YS1	11-MAR-2010 20:54	963869	246954	1.0	MB	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
037f3701.d	1202067744	YS1	11-MAR-2010 21:05	963869	246954	1.0	LCS	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
038f3801.d	246954003	YS1	11-MAR-2010 21:15	963869	246954	1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
039f3901.d	1202067745	YS1	11-MAR-2010 21:26	963869	246954	1.0	MS	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
040f4001.d	1202067746	YS1	11-MAR-2010 21:36	963869	246954	1.0	MSD	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT

041f4101.d	246954006	YS1	11-MAR-2010 21:47	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
042f4201.d	246954007	YS1	11-MAR-2010 21:57	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
043f4301.d	246954009	YS1	11-MAR-2010 22:08	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
044f4401.d	246954012	YS1	11-MAR-2010 22:18	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
045f4501.d	246954014	YS1	11-MAR-2010 22:29	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
046f4601.d	WAR100222-60 02	YS1	11-MAR-2010 22:39		031110b		1.0		PASSED ON BOTH COLUMNS
046f4901.d	WAR100222-60 03	YS1	11-MAR-2010 23:11		031110b		1.0		CLEAN
047f4701.d	WAR100219-99 03	YS1	11-MAR-2010 22:50		031210		1.0		
047f5001.d	WAR100219-99 04	YS1	11-MAR-2010 23:21		031110b		1.0		
048f4801.d	WE100311-07SCR	YS1	11-MAR-2010 23:00		031110b		1.0		LCS CSREEN FOR PREP

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/24/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/032310a.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	23-MAR-2010 07:43		032310a	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	23-MAR-2010 07:53		032310a	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YS1	23-MAR-2010 08:04		032310a	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YS1	23-MAR-2010 08:14		032310a	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR100223-48	YS1	23-MAR-2010 08:25		032310a	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100107-68	YS1	23-MAR-2010 08:35		032310a	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	23-MAR-2010 08:46		032310a	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	23-MAR-2010 08:56		032310a	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	23-MAR-2010 09:07		032310a	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	23-MAR-2010 09:18		032310a	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100219-99 02	YS1	23-MAR-2010 09:28		032310a	1.0		CLEAN
012f1201.d	1202076363	YS1	23-MAR-2010 09:39	967400	10-2315	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202076364	YS1	23-MAR-2010 09:49	967400	10-2315	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	248863001	YS1	23-MAR-2010 10:00	967400	10-2315	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	248863002	YS1	23-MAR-2010 10:12		032310a	1.0		UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/032310a.b Page: 1

| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments

016f1601.d	1202076365	YS1	23-MAR-2010 10:25	967400	10-2315	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
017f1701.d	1202076366	YS1	23-MAR-2010 10:37	967400	10-2315	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	248863003	YS1	23-MAR-2010 10:50	967400	10-2315	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	248863004	YS1	23-MAR-2010 11:03	967400	10-2315	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	248865001	YS1	23-MAR-2010 11:15	967400	10-2318	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	WAR100222-60 02	YS1	23-MAR-2010 11:28		032310a	1.0		PASSED ON BOTH COLUMNS
022f2201.d	WAR100219-99 03	YS1	23-MAR-2010 11:38		032310a	1.0		CLEAN
023f2301.d	248866001	YS1	23-MAR-2010 11:49	967400	10-2319	1.0	LANL	DUSE
024f2401.d	248866002	YS1	23-MAR-2010 12:01	967400	10-2319	1.0	LANL	DUSE RR
025f2501.d	248867001	YS1	23-MAR-2010 12:14	967400	10-2320	1.0	LANL	DUSE RR RE SURROGATE LOW
026f2601.d	248867002	YS1	23-MAR-2010 12:26	967400	10-2320	1.0	LANL	DUSE RR RE SURROGATE LOW
027f2701.d	248867003	YS1	23-MAR-2010 12:39	967400	10-2320	1.0	LANL	DUSE RR
028f2801.d	248867004	YS1	23-MAR-2010 12:52	967400	10-2320	1.0	LANL	DUSE RR
029f2901.d	WAR100222-60 03	YS1	23-MAR-2010 13:04		032310a	1.0		AR1016 LOW ON BACK
030f3001.d	WAR100219-99 04	YS1	23-MAR-2010 13:15		032310a	1.0		CLEAN
031f3101.d	WAR100222-60 05	YS1	23-MAR-2010 13:25		032310a	1.0		PASSED ON BOTH COLUMNS
032f3201.d	WAR100219-99 06	YS1	23-MAR-2010 13:36		032310a	1.0		CLEAN
033f3301.d	249180001	YS1	23-MAR-2010 13:46	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	249180002	YS1	23-MAR-2010 13:59	967400	10-2398	1.0	LANL	RE SURROGATE LOW
035f3501.d	249180003	YS1	23-MAR-2010 14:12	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/032310a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	249180004	YS1	23-MAR-2010 14:24	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	249180005	YS1	23-MAR-2010 14:37	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	249180006	YS1	23-MAR-2010 14:50	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	249180008	YS1	23-MAR-2010 15:02	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	WAR100222-60 05	YS1	23-MAR-2010 15:17		032310a	1.0		PASSED ON BOTH COLUMNS

041f4101.d	WAR100219-99 06	YS1	23-MAR-2010 15:27			032310a		1.0	CLEAN
042f4201.d	1202077651	YS1	23-MAR-2010 15:40	967870	249699			1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
043f4301.d	1202077652	YS1	23-MAR-2010 15:52	967870	249699			1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
044f4401.d	249572001	YS1	23-MAR-2010 16:05	967870	249572			10.0	ENRG	UPLOAD BOTH COLUMNS, USE FRONT
045f4501.d	249699001	YS1	23-MAR-2010 16:19	967870	249699			5.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
046f4601.d	1202077653	YS1	23-MAR-2010 16:34	967870	249699			5.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
047f4701.d	1202077654	YS1	23-MAR-2010 16:48	967870	249699			5.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
048f4801.d	WAR100222-60 06	YS1	23-MAR-2010 17:03			032310a		1.0		PASSED ON BOTH COLUMNS
049f4901.d	WAR100219-99 07	YS1	23-MAR-2010 17:15			032310a		1.0		CLEAN
050f5001.d	249699002	YS1	23-MAR-2010 17:28	967870	249699			1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
051f5101.d	249699003	YS1	23-MAR-2010 17:41	967870	249699			1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
052f5201.d	249699004	YS1	23-MAR-2010 17:53	967870	249699			1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
053f5301.d	249699005	YS1	23-MAR-2010 18:06	967870	249699			1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
054f5401.d	249699006	YS1	23-MAR-2010 18:20	967870	249699			1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
055f5501.d	WAR100222-60 07	YS1	23-MAR-2010 18:35			032310a		1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/032310a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	WAR100219-99 08	YS1	23-MAR-2010 18:47		032310a		1.0		CLEAN
057f5701.d	1202076035	YS1	23-MAR-2010 19:00	967272	10-2261		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	1202076036	YS1	23-MAR-2010 19:13	967272	10-2261		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	248689001	YS1	23-MAR-2010 19:25	967272	10-2261		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	1202076037	YS1	23-MAR-2010 19:38	967272	10-2261		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	1202076038	YS1	23-MAR-2010 19:50	967272	10-2261		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
062f6201.d	248689003	YS1	23-MAR-2010 20:03	967272	10-2261		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	248689005	YS1	23-MAR-2010 20:16	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	248689006	YS1	23-MAR-2010 20:28	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	248689007	YS1	23-MAR-2010 20:41	967272	10-2261		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	248689008	YS1	23-MAR-2010 20:54	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	WAR100222-60 08	YS1	23-MAR-2010 21:06		032310a		1.0		PASSED ON BOTH COLUMNS
068f6801.d	WAR100219-99 09	YS1	23-MAR-2010 21:19		032310a		1.0		CLEAN
069f6901.d	248689009	YS1	23-MAR-2010 21:32	967272	10-2261		50.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	248689010	YS1	23-MAR-2010 21:44	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	248689011	YS1	23-MAR-2010 21:57	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
072f7201.d	248689012	YS1	23-MAR-2010 22:09	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	248689013	YS1	23-MAR-2010 22:22	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	248689014	YS1	23-MAR-2010 22:35	967272	10-2261		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	248689015	YS1	23-MAR-2010 22:47	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	248689016	YS1	23-MAR-2010 23:00	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	248689017	YS1	23-MAR-2010 23:13	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	248689018	YS1	23-MAR-2010 23:25	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	WAR100222-60 09	YS1	23-MAR-2010 23:38		032310a	1.0		PASSED ON BOTH COLUMNS
080f8001.d	WAR100219-99 10	YS1	23-MAR-2010 23:50		032310a	1.0		CLEAN
081f8101.d	248866001	YS1	24-MAR-2010 00:03	967400	10-2319	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	248866002	YS1	24-MAR-2010 00:16	967400	10-2319	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
083f8301.d	248867001	YS1	24-MAR-2010 00:28	967400	10-2320	1.0	LANL	RE SURROGATE LOW
084f8401.d	248867002	YS1	24-MAR-2010 00:41	967400	10-2320	1.0	LANL	RE SURROGATE LOW
085f8501.d	248867003	YS1	24-MAR-2010 00:54	967400	10-2320	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	248867004	YS1	24-MAR-2010 01:06	967400	10-2320	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	WAR100222-60 10	YS1	24-MAR-2010 01:19		032310a	1.0		PASSED ON BOTH COLUMNS
088f8801.d	WAR100219-99 11	YS1	24-MAR-2010 01:31		032310a	1.0		CLEAN
089f8901.d		YS1	24-MAR-2010 02:42		032310a	1.0		DUSE SCREEN

090f9001.d		YS1	24-MAR-2010 03:52		032310a	1.0	DUSE SCREEN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 967399 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202076363 MB	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
1202076364 LCS	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
248863001	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
248863002	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
1202076365 MS (248863002)	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
1202076366 MSD (248863002)	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248863003	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
248863004	22-MAR-2010 11:11:00	30.04	H2SO4/KMnl		1	8	1	0.03329
248865001	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248866001	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248866002	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
248867001	22-MAR-2010 11:11:00	30.08	H2SO4/KMnl		1	8	1	0.03324
248867002	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248867003	22-MAR-2010 11:11:00	30.02	H2SO4/KMnl		1	8	1	0.03331
248867004	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
249180001	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
249180002	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
249180003	22-MAR-2010 11:11:00	30.07	H2SO4/KMnl		1	8	1	0.03326
249180004	22-MAR-2010 11:11:00	30.09	H2SO4/KMnl		1	8	1	0.03323
249180005	22-MAR-2010 11:11:00	30.09	H2SO4/KMnl		1	8	1	0.03323
249180006	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
249180008	22-MAR-2010 11:11:00	30.09	H2SO4/KMnl		1	8	1	0.03323

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202076364	PCB Laboratory Control	WE100311-07	1	mL
MS	1202076365	PCB Laboratory Control	WE100311-07	1	mL
MSD	1202076366	PCB Laboratory Control	WE100311-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100310-16	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1273823-B1	150	mL
REGNT	All	Hexane	1279341-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 03/22/2010
Clean up Initials: RWH
Verified By: JAM
Final Solvent: Hexane
Clean Up SOP: GL-OA-E-037

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2315

Sample Analysis

Sample ID	Client ID
248863001	RE46-10-12936
248863002	RE46-10-12930
248863003	RE46-10-12929
248863004	RE46-10-12935
1202068097	Method Blank (MB) **ICP**
1202092701	Method Blank (MB) **ICP**
1202068102	Laboratory Control Sample (LCS)
1202092702	Laboratory Control Sample (LCS)
1202068099	248860001(RE46-10-13782L) Serial Dilution (SD)
1202068098	248860001(RE46-10-13782D) Sample Duplicate (DUP)
1202068100	248860001(RE46-10-13782S) Matrix Spike (MS)
1202068101	248860001(RE46-10-13782SD) Matrix Spike Duplicate (MSD)
1202068103	Method Blank (MB) **ICP-MS**
1202068108	Laboratory Control Sample (LCS)
1202068105	248860001(RE46-10-13782L) Serial Dilution (SD)
1202068104	248860001(RE46-10-13782D) Sample Duplicate (DUP)
1202068106	248860001(RE46-10-13782S) Matrix Spike (MS)
1202068107	248860001(RE46-10-13782SD) Matrix Spike Duplicate (MSD)
1202078437	Method Blank (MB) **CVAA**
1202078438	Laboratory Control Sample (LCS)
1202078441	248867001(RE46-10-12931L) Serial Dilution (SD)
1202078439	248867001(RE46-10-12931D) Sample Duplicate (DUP)
1202078440	248867001(RE46-10-12931S) Matrix Spike (MS)
1202078442	248867001(RE46-10-12931SD) Matrix Spike Duplicate (MSD)

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

Method/Analysis Information

Analytical Batch:	964012, 974047, 964014 and 968185
Prep Batch :	964011, 974044, 964013 and 968184
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-009 REV# 20, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits with the exception of mercury that recovered outside of the advisory control limits of 70-130%.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS analyzed with this SDG met the acceptance criteria of percent recovery with the exception of antimony. Silver and/or antimony did not meet the recovery acceptance criteria for the LCS. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 248860001 (RE46-10-13782)-ICP and ICP-MS and 248867001 (RE46-10-12931)-CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, manganese, potassium and sodium as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable

analytes with the exceptions of aluminum, manganese, potassium, sodium and mercury as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of calcium and chromium as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D) with the exception of potassium as indicated by the "E" qualifier.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER ID 809015, 814416 and 816871. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
No additional comments were required for this SDG.

Certification Statement

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

Review Validation:

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

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

Reviewer: Nick-Cole A. Elmore **Date:** 5-20-10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2315 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248863001 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-12936 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 90.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1400000	ug/kg		7410	21800	21800	1	P	HSC	04/01/10 09:22	033110B-1	964012
7440-36-0	Antimony	1090	ug/kg	U	359	1090	1090	1	P	HSC	04/01/10 09:22	033110B-1	964012
7440-38-2	Arsenic	734	ug/kg	J	221	1110	1110	2	MS	BCD1	05/17/10 14:01	100517-3	964014
7440-39-3	Barium	11400	ug/kg		109	545	545	1	P	HSC	04/01/10 09:22	033110B-1	964012
7440-41-7	Beryllium	341	ug/kg		22.1	111	111	2	MS	PRB	05/17/10 20:37	100517-4	964014
7440-43-9	Cadmium	545	ug/kg	U	109	545	545	1	P	HSC	04/01/10 09:22	033110B-1	964012
7440-70-2	Calcium	480000	ug/kg		8270	25900	25900	1	P	LS	04/13/10 15:39	041310A-2	974047
7440-47-3	Chromium	2370	ug/kg		163	545	545	1	P	HSC	04/01/10 09:22	033110B-1	964012
7440-48-4	Cobalt	586	ug/kg		163	545	545	1	P	HSC	04/01/10 09:22	033110B-1	964012
7440-50-8	Copper	1260	ug/kg		327	1090	1090	1	P	HSC	04/01/10 09:22	033110B-1	964012
7439-89-6	Iron	5750000	ug/kg		8710	27200	27200	1	P	HSC	04/01/10 09:22	033110B-1	964012
7439-92-1	Lead	4050	ug/kg		272	1090	1090	1	P	HSC	04/01/10 09:22	033110B-1	964012
7439-95-4	Magnesium	253000	ug/kg		9260	32700	32700	1	P	HSC	04/01/10 09:22	033110B-1	964012
7439-96-5	Manganese	258000	ug/kg		218	1090	1090	1	P	HSC	04/01/10 09:22	033110B-1	964012
7439-97-6	Mercury	12.3	ug/kg	U	4.17	12.3	12.3	1	AV	JXL1	03/24/10 11:11	032410S1-5	968185
7440-02-0	Nickel	1570	ug/kg		111	443	443	2	MS	BCD1	05/17/10 14:01	100517-3	964014
7440-09-7	Potassium	383000	ug/kg		6970	27200	27200	1	P	HSC	04/01/10 09:22	033110B-1	964012
7782-49-2	Selenium	1110	ug/kg	U	553	1110	1110	2	MS	BCD1	05/17/10 14:01	100517-3	964014
7440-22-4	Silver	545	ug/kg	U	109	545	545	1	P	HSC	04/01/10 09:22	033110B-1	964012
7440-23-5	Sodium	253000	ug/kg		7620	27200	27200	1	P	HSC	04/01/10 09:22	033110B-1	964012
7440-28-0	Thallium	221	ug/kg	U	66.4	221	221	2	MS	BCD1	05/17/10 14:01	100517-3	964014
7440-62-2	Vanadium	2580	ug/kg		109	545	545	1	P	HSC	04/01/10 09:22	033110B-1	964012
7440-66-6	Zinc	21500	ug/kg		359	1090	1090	1	P	HSC	04/01/10 09:22	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.508	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.5	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.541	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.535	g	50	mL	04/12/10	BXA1

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2315 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248863002 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-12930 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 91.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1470000	ug/kg		7380	21700	21700	1	P	HSC	04/01/10 09:24	033110B-1	964012
7440-36-0	Antimony	1090	ug/kg	U	358	1090	1090	1	P	HSC	04/01/10 09:24	033110B-1	964012
7440-38-2	Arsenic	1060	ug/kg		198	990	990	2	MS	BCD1	05/17/10 14:06	100517-3	964014
7440-39-3	Barium	16200	ug/kg		109	543	543	1	P	HSC	04/01/10 09:24	033110B-1	964012
7440-41-7	Beryllium	312	ug/kg		19.8	99	99	2	MS	PRB	05/17/10 20:39	100517-4	964014
7440-43-9	Cadmium	543	ug/kg	U	109	543	543	1	P	HSC	04/01/10 09:24	033110B-1	964012
7440-70-2	Calcium	1500000	ug/kg		8490	26500	26500	1	P	LS	04/13/10 15:41	041310A-2	974047
7440-47-3	Chromium	16600	ug/kg		163	543	543	1	P	HSC	04/01/10 09:24	033110B-1	964012
7440-48-4	Cobalt	626	ug/kg		163	543	543	1	P	HSC	04/01/10 09:24	033110B-1	964012
7440-50-8	Copper	1320	ug/kg		326	1090	1090	1	P	HSC	04/01/10 09:24	033110B-1	964012
7439-89-6	Iron	5630000	ug/kg		8690	27100	27100	1	P	HSC	04/01/10 09:24	033110B-1	964012
7439-92-1	Lead	2300	ug/kg		271	1090	1090	1	P	HSC	04/01/10 09:24	033110B-1	964012
7439-95-4	Magnesium	407000	ug/kg		9230	32600	32600	1	P	HSC	04/01/10 09:24	033110B-1	964012
7439-96-5	Manganese	245000	ug/kg		217	1090	1090	1	P	HSC	04/01/10 09:24	033110B-1	964012
7439-97-6	Mercury	12	ug/kg		4	11.8	11.8	1	AV	JXL1	03/24/10 11:13	032410S1-5	968185
7440-02-0	Nickel	1720	ug/kg		99	396	396	2	MS	BCD1	05/17/10 14:06	100517-3	964014
7440-09-7	Potassium	405000	ug/kg		6950	27100	27100	1	P	HSC	04/01/10 09:24	033110B-1	964012
7782-49-2	Selenium	990	ug/kg	U	495	990	990	2	MS	BCD1	05/17/10 14:06	100517-3	964014
7440-22-4	Silver	543	ug/kg	U	109	543	543	1	P	HSC	04/01/10 09:24	033110B-1	964012
7440-23-5	Sodium	308000	ug/kg		7600	27100	27100	1	P	HSC	04/01/10 09:24	033110B-1	964012
7440-28-0	Thallium	198	ug/kg	U	59.4	198	198	2	MS	BCD1	05/17/10 14:06	100517-3	964014
7440-62-2	Vanadium	2440	ug/kg		109	543	543	1	P	HSC	04/01/10 09:24	033110B-1	964012
7440-66-6	Zinc	17900	ug/kg		358	1090	1090	1	P	HSC	04/01/10 09:24	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.503	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.552	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.557	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.515	g	50	mL	04/12/10	BXA1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2315 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248863003 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-12929 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2030000	ug/kg		7430	21900	21900	1	P	HSC	04/01/10 09:26	033110B-1	964012
7440-36-0	Antimony	1090	ug/kg	U	361	1090	1090	1	P	HSC	04/01/10 09:26	033110B-1	964012
7440-38-2	Arsenic	1040	ug/kg	J	232	1160	1160	2	MS	BCD1	05/17/10 14:18	100517-3	964014
7440-39-3	Barium	21600	ug/kg		109	547	547	1	P	HSC	04/01/10 09:26	033110B-1	964012
7440-41-7	Beryllium	341	ug/kg		23.2	116	116	2	MS	PRB	05/17/10 20:40	100517-4	964014
7440-43-9	Cadmium	547	ug/kg	U	109	547	547	1	P	HSC	04/01/10 09:26	033110B-1	964012
7440-70-2	Calcium	643000	ug/kg		9070	28400	28400	1	P	LS	04/13/10 15:43	041310A-2	974047
7440-47-3	Chromium	4960	ug/kg		164	547	547	1	P	HSC	04/01/10 09:26	033110B-1	964012
7440-48-4	Cobalt	746	ug/kg		164	547	547	1	P	HSC	04/01/10 09:26	033110B-1	964012
7440-50-8	Copper	1790	ug/kg		328	1090	1090	1	P	HSC	04/01/10 09:26	033110B-1	964012
7439-89-6	Iron	5600000	ug/kg		8740	27300	27300	1	P	HSC	04/01/10 09:26	033110B-1	964012
7439-92-1	Lead	4040	ug/kg		273	1090	1090	1	P	HSC	04/01/10 09:26	033110B-1	964012
7439-95-4	Magnesium	353000	ug/kg		9290	32800	32800	1	P	HSC	04/01/10 09:26	033110B-1	964012
7439-96-5	Manganese	210000	ug/kg		219	1090	1090	1	P	HSC	04/01/10 09:26	033110B-1	964012
7439-97-6	Mercury	19.8	ug/kg		4.72	13.9	13.9	1	AV	JXL1	03/24/10 11:14	032410S1-5	968185
7440-02-0	Nickel	1800	ug/kg		116	463	463	2	MS	BCD1	05/17/10 14:18	100517-3	964014
7440-09-7	Potassium	305000	ug/kg		7000	27300	27300	1	P	HSC	04/01/10 09:26	033110B-1	964012
7782-49-2	Selenium	1160	ug/kg	U	579	1160	1160	2	MS	BCD1	05/17/10 14:18	100517-3	964014
7440-22-4	Silver	547	ug/kg	U	109	547	547	1	P	HSC	04/01/10 09:26	033110B-1	964012
7440-23-5	Sodium	123000	ug/kg		7650	27300	27300	1	P	HSC	04/01/10 09:26	033110B-1	964012
7440-28-0	Thallium	232	ug/kg	U	69.5	232	232	2	MS	BCD1	05/17/10 14:18	100517-3	964014
7440-62-2	Vanadium	3510	ug/kg		109	547	547	1	P	HSC	04/01/10 09:26	033110B-1	964012
7440-66-6	Zinc	20500	ug/kg		361	1090	1090	1	P	HSC	04/01/10 09:26	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.553	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.522	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.523	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.533	g	50	mL	04/12/10	BXA1

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2315 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248863004 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-12935 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2510000	ug/kg		7640	22500	22500	1	P	HSC	04/01/10 09:28	033110B-1	964012
7440-36-0	Antimony	1120	ug/kg	U	371	1120	1120	1	P	HSC	04/01/10 09:28	033110B-1	964012
7440-38-2	Arsenic	912	ug/kg	J	214	1070	1070	2	MS	BCD1	05/17/10 14:22	100517-3	964014
7440-39-3	Barium	26700	ug/kg		112	561	561	1	P	HSC	04/01/10 09:28	033110B-1	964012
7440-41-7	Beryllium	361	ug/kg		21.4	107	107	2	MS	PRB	05/17/10 20:41	100517-4	964014
7440-43-9	Cadmium	561	ug/kg	U	112	561	561	1	P	HSC	04/01/10 09:28	033110B-1	964012
7440-70-2	Calcium	824000	ug/kg		8120	25400	25400	1	P	LS	04/13/10 15:45	041310A-2	974047
7440-47-3	Chromium	2140	ug/kg		168	561	561	1	P	HSC	04/01/10 09:28	033110B-1	964012
7440-48-4	Cobalt	1210	ug/kg		168	561	561	1	P	HSC	04/01/10 09:28	033110B-1	964012
7440-50-8	Copper	2160	ug/kg		337	1120	1120	1	P	HSC	04/01/10 09:28	033110B-1	964012
7439-89-6	Iron	6600000	ug/kg		8980	28100	28100	1	P	HSC	04/01/10 09:28	033110B-1	964012
7439-92-1	Lead	5040	ug/kg		281	1120	1120	1	P	HSC	04/01/10 09:28	033110B-1	964012
7439-95-4	Magnesium	447000	ug/kg		9540	33700	33700	1	P	HSC	04/01/10 09:28	033110B-1	964012
7439-96-5	Manganese	275000	ug/kg		225	1120	1120	1	P	HSC	04/01/10 09:28	033110B-1	964012
7439-97-6	Mercury	12.3	ug/kg	U	4.17	12.3	12.3	1	AV	JXL1	03/24/10 11:16	032410S1-5	968185
7440-02-0	Nickel	1990	ug/kg		107	427	427	2	MS	BCD1	05/17/10 14:22	100517-3	964014
7440-09-7	Potassium	467000	ug/kg		7190	28100	28100	1	P	HSC	04/01/10 09:28	033110B-1	964012
7782-49-2	Selenium	1070	ug/kg	U	534	1070	1070	2	MS	BCD1	05/17/10 14:22	100517-3	964014
7440-22-4	Silver	561	ug/kg	U	112	561	561	1	P	HSC	04/01/10 09:28	033110B-1	964012
7440-23-5	Sodium	132000	ug/kg		7860	28100	28100	1	P	HSC	04/01/10 09:28	033110B-1	964012
7440-28-0	Thallium	214	ug/kg	U	64.1	214	214	2	MS	BCD1	05/17/10 14:22	100517-3	964014
7440-62-2	Vanadium	4880	ug/kg		112	561	561	1	P	HSC	04/01/10 09:28	033110B-1	964012
7440-66-6	Zinc	23600	ug/kg		371	1120	1120	1	P	HSC	04/01/10 09:28	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.508	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.534	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.558	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.562	g	50	mL	04/12/10	BXA1

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.12	ug/L	5	ug/L	102.4	90.0 – 110.0	AV	24–MAR–10 09:36	032410S1–5
	Aluminum	5150	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Antimony	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Barium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Cadmium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Chromium	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Cobalt	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Copper	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Lead	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Magnesium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Manganese	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Potassium	2520	ug/L	2500	ug/L	100.7	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Silver	258	ug/L	250	ug/L	103.3	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Sodium	2510	ug/L	2500	ug/L	100.5	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Calcium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	13–APR–10 14:05	041310A–2
	Arsenic	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	17–MAY–10 12:10	100517–3
	Nickel	51.1	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	17–MAY–10 12:10	100517–3
	Selenium	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	17–MAY–10 12:10	100517–3
	Thallium	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	17–MAY–10 12:10	100517–3
	Beryllium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	17–MAY–10 19:19	100517–4
CCV01										
	Mercury	5.03	ug/L	5	ug/L	100.6	80.0 – 120.0	AV	24–MAR–10 09:41	032410S1–5
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Antimony	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Barium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Cadmium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Magnesium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Manganese	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Potassium	5700	ug/L	5000	ug/L	113.9	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Vanadium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Calcium	5190	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	13-APR-10 14:19	041310A-2
	Arsenic	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	17-MAY-10 12:30	100517-3
	Nickel	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	17-MAY-10 12:30	100517-3
	Selenium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	17-MAY-10 12:30	100517-3
	Thallium	48.5	ug/L	50	ug/L	96.9	90.0 – 110.0	MS	17-MAY-10 12:30	100517-3
	Beryllium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	17-MAY-10 19:27	100517-4
CCV02										
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 – 120.0	AV	24-MAR-10 10:01	032410S1-5
	Aluminum	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Antimony	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Barium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Cadmium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Chromium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Iron	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Lead	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Magnesium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Silver	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Zinc	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Calcium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	13–APR–10 14:26	041310A–2
	Arsenic	50	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	17–MAY–10 12:43	100517–3
	Nickel	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	17–MAY–10 12:43	100517–3
	Selenium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	17–MAY–10 12:43	100517–3
	Thallium	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	17–MAY–10 12:43	100517–3
	Beryllium	48	ug/L	50	ug/L	96	90.0 – 110.0	MS	17–MAY–10 19:32	100517–4
CCV03										
	Mercury	5.29	ug/L	5	ug/L	105.7	80.0 – 120.0	AV	24–MAR–10 10:21	032410S1–5
	Aluminum	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Antimony	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Barium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Cadmium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Chromium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Cobalt	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Iron	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Lead	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Potassium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Vanadium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Zinc	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Calcium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	13–APR–10 14:34	041310A–2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	50	ug/L	50	ug/L	100.1	90.0 - 110.0	MS	17-MAY-10 13:20	100517-3
	Nickel	49.9	ug/L	50	ug/L	99.7	90.0 - 110.0	MS	17-MAY-10 13:20	100517-3
	Selenium	50.3	ug/L	50	ug/L	100.7	90.0 - 110.0	MS	17-MAY-10 13:20	100517-3
	Thallium	49.5	ug/L	50	ug/L	99.1	90.0 - 110.0	MS	17-MAY-10 13:20	100517-3
	Beryllium	47.7	ug/L	50	ug/L	95.4	90.0 - 110.0	MS	17-MAY-10 19:53	100517-4
CCV04										
	Mercury	4.88	ug/L	5	ug/L	97.6	80.0 - 120.0	AV	24-MAR-10 10:41	032410S1-5
	Aluminum	4980	ug/L	5000	ug/L	99.5	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Antimony	486	ug/L	500	ug/L	97.1	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Barium	488	ug/L	500	ug/L	97.5	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Cadmium	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Chromium	485	ug/L	500	ug/L	97	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Cobalt	490	ug/L	500	ug/L	98	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Copper	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Iron	4880	ug/L	5000	ug/L	97.7	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Lead	490	ug/L	500	ug/L	98	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Magnesium	5000	ug/L	5000	ug/L	100	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Manganese	490	ug/L	500	ug/L	98	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Potassium	4870	ug/L	5000	ug/L	97.5	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Silver	489	ug/L	500	ug/L	97.7	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Sodium	9730	ug/L	10000	ug/L	97.3	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Vanadium	490	ug/L	500	ug/L	97.9	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Zinc	483	ug/L	500	ug/L	96.7	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Calcium	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	13-APR-10 15:11	041310A-2
	Arsenic	49.2	ug/L	50	ug/L	98.3	90.0 - 110.0	MS	17-MAY-10 14:10	100517-3
	Nickel	49.9	ug/L	50	ug/L	99.8	90.0 - 110.0	MS	17-MAY-10 14:10	100517-3
	Selenium	50.9	ug/L	50	ug/L	101.7	90.0 - 110.0	MS	17-MAY-10 14:10	100517-3
	Thallium	51.3	ug/L	50	ug/L	102.5	90.0 - 110.0	MS	17-MAY-10 14:10	100517-3
	Beryllium	48.7	ug/L	50	ug/L	97.5	90.0 - 110.0	MS	17-MAY-10 20:11	100517-4

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV05										
	Mercury	5.19	ug/L	5	ug/L	103.7	80.0 – 120.0	AV	24–MAR–10 11:01	032410S1–5
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Antimony	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Barium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Cadmium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Chromium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Copper	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Iron	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Lead	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Magnesium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Manganese	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Potassium	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Silver	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Sodium	9760	ug/L	10000	ug/L	97.6	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Vanadium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Zinc	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	13–APR–10 15:31	041310A–2
	Arsenic	49.3	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	17–MAY–10 14:31	100517–3
	Nickel	49.8	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	17–MAY–10 14:31	100517–3
	Selenium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	17–MAY–10 14:31	100517–3
	Thallium	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	17–MAY–10 14:31	100517–3
	Beryllium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	17–MAY–10 20:29	100517–4
CCV06										
	Mercury	5.2	ug/L	5	ug/L	104	80.0 – 120.0	AV	24–MAR–10 11:21	032410S1–5
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Antimony	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Barium	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Cadmium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Chromium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Copper	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Iron	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Lead	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Manganese	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Potassium	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Silver	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Sodium	9750	ug/L	10000	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Vanadium	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Zinc	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Calcium	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	13–APR–10 15:49	041310A–2
	Beryllium	51.7	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	17–MAY–10 20:43	100517–4
CCV07										
	Mercury	5.11	ug/L	5	ug/L	102.2	80.0 – 120.0	AV	24–MAR–10 11:41	032410S1–5
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Antimony	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Barium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Cadmium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Chromium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Copper	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Iron	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Manganese	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Silver	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Sodium	9770	ug/L	10000	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Vanadium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
CCV08										
	Aluminum	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Antimony	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Barium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Cadmium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Chromium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Cobalt	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Copper	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Iron	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Manganese	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Potassium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Silver	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Sodium	9710	ug/L	10000	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Vanadium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Zinc	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
CCV09										
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Antimony	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Barium	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Cadmium	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Chromium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Cobalt	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Iron	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Lead	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Magnesium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Manganese	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Silver	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Sodium	9660	ug/L	10000	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Vanadium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Zinc	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
CCV10										
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Antimony	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Cadmium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Chromium	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Cobalt	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Copper	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Iron	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Lead	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Magnesium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Manganese	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Silver	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Sodium	9610	ug/L	10000	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Vanadium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Zinc	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
CCV11										
	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Antimony	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Barium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Cadmium	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Chromium	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Cobalt	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Copper	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	4800	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Lead	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Magnesium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Manganese	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Potassium	4800	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Silver	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Sodium	9560	ug/L	10000	ug/L	95.6	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Vanadium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Zinc	472	ug/L	500	ug/L	94.5	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
CCV12										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Antimony	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Barium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Cadmium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Chromium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Cobalt	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Copper	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Lead	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Magnesium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Manganese	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Silver	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Sodium	9590	ug/L	10000	ug/L	95.9	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Vanadium	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Zinc	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
CCV13										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Antimony	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Chromium	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Iron	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Lead	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Magnesium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Manganese	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Potassium	4800	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Silver	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Sodium	9620	ug/L	10000	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Vanadium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Zinc	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
CCV14										
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Antimony	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Barium	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Cadmium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Chromium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Copper	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Lead	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Magnesium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Manganese	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Potassium	4790	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Silver	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Sodium	9600	ug/L	10000	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Vanadium	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Zinc	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV15										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Antimony	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Barium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Cadmium	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Chromium	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Cobalt	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Iron	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Lead	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Magnesium	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Manganese	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Silver	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Sodium	9580	ug/L	10000	ug/L	95.8	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Vanadium	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Zinc	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
CCV16										
	Aluminum	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Antimony	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Barium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Cadmium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Chromium	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Cobalt	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Lead	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Magnesium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Manganese	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Potassium	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Silver	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01–APR–10 00:18	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	9650	ug/L	10000	ug/L	96.5	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Vanadium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Zinc	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
CCV17										
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Antimony	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Barium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Cadmium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Chromium	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Cobalt	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Copper	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Iron	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Lead	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Magnesium	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Manganese	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Potassium	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Silver	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Sodium	9630	ug/L	10000	ug/L	96.3	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Vanadium	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Zinc	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
CCV18										
	Aluminum	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Antimony	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Cadmium	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Chromium	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Cobalt	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Copper	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Lead	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01–APR–10 01:06	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Manganese	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Potassium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Silver	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Sodium	9660	ug/L	10000	ug/L	96.6	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Vanadium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Zinc	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
CCV19										
	Aluminum	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	01–APR–10 01:30	033110B–1
	Antimony	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 01:30	033110B–1
	Barium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01–APR–10 01:30	033110B–1
	Cadmium	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01–APR–10 01:30	033110B–1
	Chromium	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01–APR–10 01:30	033110B–1
	Cobalt	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01–APR–10 01:30	033110B–1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01–APR–10 01:30	033110B–1
	Iron	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	01–APR–10 01:30	033110B–1
	Lead	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	01–APR–10 01:30	033110B–1
	Magnesium	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	01–APR–10 01:30	033110B–1
	Manganese	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 01:30	033110B–1
	Potassium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	01–APR–10 01:30	033110B–1
	Silver	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 01:30	033110B–1
	Sodium	9650	ug/L	10000	ug/L	96.5	90.0 – 110.0	P	01–APR–10 01:30	033110B–1
	Vanadium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01–APR–10 01:30	033110B–1
	Zinc	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01–APR–10 01:30	033110B–1
CCV20										
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Antimony	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Barium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Cadmium	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Chromium	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	01–APR–10 01:53	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Copper	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Iron	4810	ug/L	5000	ug/L	96.3	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Lead	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Magnesium	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Manganese	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Potassium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Silver	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Sodium	9700	ug/L	10000	ug/L	97	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Vanadium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Zinc	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
CCV21										
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Antimony	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Barium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Cadmium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Chromium	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Cobalt	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Iron	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Lead	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Magnesium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Manganese	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Potassium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Silver	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Sodium	9830	ug/L	10000	ug/L	98.3	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Vanadium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Zinc	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
CCV22										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	01–APR–10 02:47	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	475	ug/L	500	ug/L	95	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Barium	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Cadmium	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Chromium	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Cobalt	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Iron	4780	ug/L	5000	ug/L	95.5	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Lead	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Magnesium	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Manganese	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Potassium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Silver	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Sodium	11600	ug/L	10000	ug/L	115.7	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Vanadium	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Zinc	470	ug/L	500	ug/L	94.1	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
CCV23										
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Antimony	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Barium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Cadmium	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Chromium	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Cobalt	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Iron	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Lead	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Magnesium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Manganese	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Potassium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Silver	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Sodium	10300	ug/L	10000	ug/L	102.8	90.0 – 110.0	P	01–APR–10 03:13	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Zinc	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
CCV24										
	Aluminum	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Antimony	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Barium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Cadmium	475	ug/L	500	ug/L	95	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Chromium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Cobalt	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Iron	4790	ug/L	5000	ug/L	95.8	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Lead	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Magnesium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Manganese	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Potassium	4810	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Silver	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Vanadium	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Zinc	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
CCV25										
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Antimony	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Barium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Cadmium	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Chromium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Cobalt	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Copper	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Iron	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Lead	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Magnesium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	01–APR–10 05:03	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
	Potassium	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
	Silver	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
	Sodium	9800	ug/L	10000	ug/L	98	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
	Vanadium	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
	Zinc	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
CCV26										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Antimony	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Barium	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Cadmium	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Chromium	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Copper	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Iron	4810	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Lead	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Magnesium	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Manganese	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Potassium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Silver	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Sodium	9780	ug/L	10000	ug/L	97.8	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Vanadium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
	Zinc	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	01-APR-10 05:25	033110B-1
CCV27										
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Antimony	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Barium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Cadmium	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Chromium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Cobalt	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 05:48	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 05:48	033110B–1
	Iron	4800	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	01–APR–10 05:48	033110B–1
	Lead	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	01–APR–10 05:48	033110B–1
	Magnesium	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	01–APR–10 05:48	033110B–1
	Manganese	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 05:48	033110B–1
	Potassium	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	01–APR–10 05:48	033110B–1
	Silver	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01–APR–10 05:48	033110B–1
	Sodium	9740	ug/L	10000	ug/L	97.4	90.0 – 110.0	P	01–APR–10 05:48	033110B–1
	Vanadium	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 05:48	033110B–1
	Zinc	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01–APR–10 05:48	033110B–1
CCV28										
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	01–APR–10 06:04	033110B–1
	Antimony	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01–APR–10 06:04	033110B–1
	Barium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01–APR–10 06:04	033110B–1
	Cadmium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 06:04	033110B–1
	Chromium	475	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01–APR–10 06:04	033110B–1
	Cobalt	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 06:04	033110B–1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01–APR–10 06:04	033110B–1
	Iron	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	01–APR–10 06:04	033110B–1
	Lead	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	01–APR–10 06:04	033110B–1
	Magnesium	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	01–APR–10 06:04	033110B–1
	Manganese	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 06:04	033110B–1
	Potassium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	01–APR–10 06:04	033110B–1
	Silver	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 06:04	033110B–1
	Sodium	9740	ug/L	10000	ug/L	97.4	90.0 – 110.0	P	01–APR–10 06:04	033110B–1
	Vanadium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01–APR–10 06:04	033110B–1
	Zinc	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01–APR–10 06:04	033110B–1
CCV29										
	Aluminum	4810	ug/L	5000	ug/L	96.3	90.0 – 110.0	P	01–APR–10 06:27	033110B–1
	Antimony	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	01–APR–10 06:27	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	01–APR–10 06:27	033110B–1
	Cadmium	463	ug/L	500	ug/L	92.7	90.0 – 110.0	P	01–APR–10 06:27	033110B–1
	Chromium	463	ug/L	500	ug/L	92.6	90.0 – 110.0	P	01–APR–10 06:27	033110B–1
	Cobalt	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	01–APR–10 06:27	033110B–1
	Copper	467	ug/L	500	ug/L	93.5	90.0 – 110.0	P	01–APR–10 06:27	033110B–1
	Iron	4690	ug/L	5000	ug/L	93.7	90.0 – 110.0	P	01–APR–10 06:27	033110B–1
	Lead	470	ug/L	500	ug/L	94	90.0 – 110.0	P	01–APR–10 06:27	033110B–1
	Magnesium	4780	ug/L	5000	ug/L	95.5	90.0 – 110.0	P	01–APR–10 06:27	033110B–1
	Manganese	469	ug/L	500	ug/L	93.8	90.0 – 110.0	P	01–APR–10 06:27	033110B–1
	Potassium	4760	ug/L	5000	ug/L	95.3	90.0 – 110.0	P	01–APR–10 06:27	033110B–1
	Silver	466	ug/L	500	ug/L	93.1	90.0 – 110.0	P	01–APR–10 06:27	033110B–1
	Sodium	9490	ug/L	10000	ug/L	94.9	90.0 – 110.0	P	01–APR–10 06:27	033110B–1
	Vanadium	470	ug/L	500	ug/L	94	90.0 – 110.0	P	01–APR–10 06:27	033110B–1
	Zinc	461	ug/L	500	ug/L	92.2	90.0 – 110.0	P	01–APR–10 06:27	033110B–1
CCV30										
	Aluminum	4860	ug/L	5000	ug/L	97.2	90.0 – 110.0	P	01–APR–10 06:50	033110B–1
	Antimony	460	ug/L	500	ug/L	92.1	90.0 – 110.0	P	01–APR–10 06:50	033110B–1
	Barium	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	01–APR–10 06:50	033110B–1
	Cadmium	465	ug/L	500	ug/L	93	90.0 – 110.0	P	01–APR–10 06:50	033110B–1
	Chromium	464	ug/L	500	ug/L	92.8	90.0 – 110.0	P	01–APR–10 06:50	033110B–1
	Cobalt	470	ug/L	500	ug/L	94	90.0 – 110.0	P	01–APR–10 06:50	033110B–1
	Copper	468	ug/L	500	ug/L	93.5	90.0 – 110.0	P	01–APR–10 06:50	033110B–1
	Iron	4730	ug/L	5000	ug/L	94.5	90.0 – 110.0	P	01–APR–10 06:50	033110B–1
	Lead	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	01–APR–10 06:50	033110B–1
	Magnesium	4820	ug/L	5000	ug/L	96.3	90.0 – 110.0	P	01–APR–10 06:50	033110B–1
	Manganese	471	ug/L	500	ug/L	94.1	90.0 – 110.0	P	01–APR–10 06:50	033110B–1
	Potassium	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	01–APR–10 06:50	033110B–1
	Silver	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	01–APR–10 06:50	033110B–1
	Sodium	9560	ug/L	10000	ug/L	95.6	90.0 – 110.0	P	01–APR–10 06:50	033110B–1
	Vanadium	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	01–APR–10 06:50	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	461	ug/L	500	ug/L	92.3	90.0 – 110.0	P	01–APR–10 06:50	033110B–1
CCV31										
	Aluminum	4870	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	01–APR–10 07:15	033110B–1
	Antimony	458	ug/L	500	ug/L	91.6	90.0 – 110.0	P	01–APR–10 07:15	033110B–1
	Barium	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	01–APR–10 07:15	033110B–1
	Cadmium	462	ug/L	500	ug/L	92.4	90.0 – 110.0	P	01–APR–10 07:15	033110B–1
	Chromium	462	ug/L	500	ug/L	92.4	90.0 – 110.0	P	01–APR–10 07:15	033110B–1
	Cobalt	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	01–APR–10 07:15	033110B–1
	Copper	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	01–APR–10 07:15	033110B–1
	Iron	4710	ug/L	5000	ug/L	94.2	90.0 – 110.0	P	01–APR–10 07:15	033110B–1
	Lead	465	ug/L	500	ug/L	93	90.0 – 110.0	P	01–APR–10 07:15	033110B–1
	Magnesium	4770	ug/L	5000	ug/L	95.4	90.0 – 110.0	P	01–APR–10 07:15	033110B–1
	Manganese	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	01–APR–10 07:15	033110B–1
	Potassium	4840	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	01–APR–10 07:15	033110B–1
	Silver	464	ug/L	500	ug/L	92.9	90.0 – 110.0	P	01–APR–10 07:15	033110B–1
	Sodium	9480	ug/L	10000	ug/L	94.8	90.0 – 110.0	P	01–APR–10 07:15	033110B–1
	Vanadium	469	ug/L	500	ug/L	93.9	90.0 – 110.0	P	01–APR–10 07:15	033110B–1
	Zinc	459	ug/L	500	ug/L	91.7	90.0 – 110.0	P	01–APR–10 07:15	033110B–1
CCV32										
	Aluminum	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	01–APR–10 07:36	033110B–1
	Antimony	461	ug/L	500	ug/L	92.1	90.0 – 110.0	P	01–APR–10 07:36	033110B–1
	Barium	469	ug/L	500	ug/L	93.7	90.0 – 110.0	P	01–APR–10 07:36	033110B–1
	Cadmium	464	ug/L	500	ug/L	92.8	90.0 – 110.0	P	01–APR–10 07:36	033110B–1
	Chromium	464	ug/L	500	ug/L	92.8	90.0 – 110.0	P	01–APR–10 07:36	033110B–1
	Cobalt	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	01–APR–10 07:36	033110B–1
	Copper	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	01–APR–10 07:36	033110B–1
	Iron	4710	ug/L	5000	ug/L	94.2	90.0 – 110.0	P	01–APR–10 07:36	033110B–1
	Lead	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	01–APR–10 07:36	033110B–1
	Magnesium	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	01–APR–10 07:36	033110B–1
	Manganese	470	ug/L	500	ug/L	93.9	90.0 – 110.0	P	01–APR–10 07:36	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Silver	466	ug/L	500	ug/L	93.1	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Sodium	9500	ug/L	10000	ug/L	95	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Vanadium	470	ug/L	500	ug/L	94	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Zinc	460	ug/L	500	ug/L	92.1	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
CCV33										
	Aluminum	4900	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	01-APR-10 08:00	033110B-1
	Antimony	460	ug/L	500	ug/L	92	90.0 – 110.0	P	01-APR-10 08:00	033110B-1
	Barium	468	ug/L	500	ug/L	93.5	90.0 – 110.0	P	01-APR-10 08:00	033110B-1
	Cadmium	461	ug/L	500	ug/L	92.2	90.0 – 110.0	P	01-APR-10 08:00	033110B-1
	Chromium	462	ug/L	500	ug/L	92.5	90.0 – 110.0	P	01-APR-10 08:00	033110B-1
	Cobalt	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	01-APR-10 08:00	033110B-1
	Copper	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	01-APR-10 08:00	033110B-1
	Iron	4730	ug/L	5000	ug/L	94.5	90.0 – 110.0	P	01-APR-10 08:00	033110B-1
	Lead	464	ug/L	500	ug/L	92.7	90.0 – 110.0	P	01-APR-10 08:00	033110B-1
	Magnesium	4790	ug/L	5000	ug/L	95.8	90.0 – 110.0	P	01-APR-10 08:00	033110B-1
	Manganese	469	ug/L	500	ug/L	93.9	90.0 – 110.0	P	01-APR-10 08:00	033110B-1
	Potassium	4850	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	01-APR-10 08:00	033110B-1
	Silver	465	ug/L	500	ug/L	93	90.0 – 110.0	P	01-APR-10 08:00	033110B-1
	Sodium	9530	ug/L	10000	ug/L	95.3	90.0 – 110.0	P	01-APR-10 08:00	033110B-1
	Vanadium	471	ug/L	500	ug/L	94.1	90.0 – 110.0	P	01-APR-10 08:00	033110B-1
	Zinc	458	ug/L	500	ug/L	91.6	90.0 – 110.0	P	01-APR-10 08:00	033110B-1
CCV34										
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	01-APR-10 08:22	033110B-1
	Antimony	465	ug/L	500	ug/L	92.9	90.0 – 110.0	P	01-APR-10 08:22	033110B-1
	Barium	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	01-APR-10 08:22	033110B-1
	Cadmium	462	ug/L	500	ug/L	92.5	90.0 – 110.0	P	01-APR-10 08:22	033110B-1
	Chromium	463	ug/L	500	ug/L	92.6	90.0 – 110.0	P	01-APR-10 08:22	033110B-1
	Cobalt	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	01-APR-10 08:22	033110B-1
	Copper	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	01-APR-10 08:22	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	4750	ug/L	5000	ug/L	95.1	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Lead	468	ug/L	500	ug/L	93.5	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Magnesium	4770	ug/L	5000	ug/L	95.4	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Manganese	470	ug/L	500	ug/L	93.9	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Potassium	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Silver	465	ug/L	500	ug/L	93	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Sodium	9510	ug/L	10000	ug/L	95.1	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Vanadium	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Zinc	459	ug/L	500	ug/L	91.8	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
CCV35										
	Aluminum	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Antimony	463	ug/L	500	ug/L	92.5	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Barium	470	ug/L	500	ug/L	94	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Cadmium	464	ug/L	500	ug/L	92.9	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Chromium	465	ug/L	500	ug/L	92.9	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Cobalt	470	ug/L	500	ug/L	94	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Copper	470	ug/L	500	ug/L	93.9	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Iron	4730	ug/L	5000	ug/L	94.6	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Lead	469	ug/L	500	ug/L	93.8	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Magnesium	4850	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Manganese	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Potassium	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Silver	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Sodium	9550	ug/L	10000	ug/L	95.5	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Vanadium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Zinc	461	ug/L	500	ug/L	92.3	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
CCV36										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Antimony	462	ug/L	500	ug/L	92.3	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Barium	469	ug/L	500	ug/L	93.8	90.0 – 110.0	P	01–APR–10 09:15	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	464	ug/L	500	ug/L	92.8	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Chromium	465	ug/L	500	ug/L	93.1	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Cobalt	469	ug/L	500	ug/L	93.7	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Copper	469	ug/L	500	ug/L	93.8	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Iron	4740	ug/L	5000	ug/L	94.8	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Lead	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Magnesium	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Manganese	470	ug/L	500	ug/L	94	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Potassium	4840	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Silver	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Sodium	9530	ug/L	10000	ug/L	95.3	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Vanadium	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Zinc	461	ug/L	500	ug/L	92.2	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
CCV37										
	Aluminum	4840	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	01–APR–10 09:32	033110B–1
	Antimony	455	ug/L	500	ug/L	91.1	90.0 – 110.0	P	01–APR–10 09:32	033110B–1
	Barium	462	ug/L	500	ug/L	92.4	90.0 – 110.0	P	01–APR–10 09:32	033110B–1
	Cadmium	457	ug/L	500	ug/L	91.5	90.0 – 110.0	P	01–APR–10 09:32	033110B–1
	Chromium	457	ug/L	500	ug/L	91.5	90.0 – 110.0	P	01–APR–10 09:32	033110B–1
	Cobalt	461	ug/L	500	ug/L	92.3	90.0 – 110.0	P	01–APR–10 09:32	033110B–1
	Copper	462	ug/L	500	ug/L	92.4	90.0 – 110.0	P	01–APR–10 09:32	033110B–1
	Iron	4670	ug/L	5000	ug/L	93.4	90.0 – 110.0	P	01–APR–10 09:32	033110B–1
	Lead	461	ug/L	500	ug/L	92.2	90.0 – 110.0	P	01–APR–10 09:32	033110B–1
	Magnesium	4750	ug/L	5000	ug/L	95	90.0 – 110.0	P	01–APR–10 09:32	033110B–1
	Manganese	464	ug/L	500	ug/L	92.7	90.0 – 110.0	P	01–APR–10 09:32	033110B–1
	Potassium	4760	ug/L	5000	ug/L	95.1	90.0 – 110.0	P	01–APR–10 09:32	033110B–1
	Silver	460	ug/L	500	ug/L	92	90.0 – 110.0	P	01–APR–10 09:32	033110B–1
	Sodium	9410	ug/L	10000	ug/L	94.1	90.0 – 110.0	P	01–APR–10 09:32	033110B–1
	Vanadium	465	ug/L	500	ug/L	93	90.0 – 110.0	P	01–APR–10 09:32	033110B–1
	Zinc	454	ug/L	500	ug/L	90.7	90.0 – 110.0	P	01–APR–10 09:32	033110B–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.129	ug/L	.2	ug/L	64.5	70.0 – 130.0	AV	24–MAR–10 09:39	032410S1–5
	Nickel	2.4	ug/L	2	ug/L	119.8	70.0 – 130.0	MS	17–MAY–10 12:18	100517–3
	Thallium	1.25	ug/L	1	ug/L	124.7	70.0 – 130.0	MS	17–MAY–10 12:18	100517–3
	Arsenic	6.42	ug/L	5	ug/L	128.4	70.0 – 130.0	MS	17–MAY–10 12:18	100517–3
	Selenium	5.94	ug/L	5	ug/L	118.9	70.0 – 130.0	MS	17–MAY–10 12:18	100517–3
	Beryllium	.574	ug/L	.5	ug/L	114.8	70.0 – 130.0	MS	17–MAY–10 19:22	100517–4
PQL01										
	Aluminum	204	ug/L	200	ug/L	101.9	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Potassium	150	ug/L	150	ug/L	99.9	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Sodium	280	ug/L	300	ug/L	93.3	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Barium	4.99	ug/L	5	ug/L	99.9	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Zinc	10.1	ug/L	10	ug/L	101	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Vanadium	4.74	ug/L	5	ug/L	94.8	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Copper	10	ug/L	10	ug/L	100	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Cobalt	5.18	ug/L	5	ug/L	103.6	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Chromium	4.91	ug/L	5	ug/L	98.3	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Cadmium	5.05	ug/L	5	ug/L	101	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Antimony	9.66	ug/L	10	ug/L	96.6	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Silver	4.61	ug/L	5	ug/L	92.3	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Manganese	10.3	ug/L	10	ug/L	103.1	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Iron	102	ug/L	100	ug/L	102.4	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Lead	11.2	ug/L	10	ug/L	112	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Magnesium	311	ug/L	300	ug/L	103.7	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Calcium	209	ug/L	200	ug/L	104.7	70.0 – 130.0	P	13–APR–10 14:10	041310A–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	–0.078	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 09:37	032410S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 18:48	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 18:48	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 18:48	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 18:48	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 18:48	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	13–APR–10 14:07	041310A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	17–MAY–10 12:14	100517–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–MAY–10 12:14	100517–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	17–MAY–10 12:14	100517–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	17–MAY–10 12:14	100517–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–MAY–10 19:21	100517–4
CCB01										
	Mercury	–0.081	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 09:42	032410S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:01	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:01	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:01	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:01	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Potassium	298.29	+/–250		64.0	250	SOL	P	31–MAR–10 19:01	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Sodium	140.13	+/–250	J	70.0	250	SOL	P	31–MAR–10 19:01	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	13–APR–10 14:21	041310A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	17–MAY–10 12:35	100517–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–MAY–10 12:35	100517–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	17–MAY–10 12:35	100517–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	17–MAY–10 12:35	100517–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–MAY–10 19:29	100517–4
CCB02										
	Mercury	–0.081	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 10:02	032410S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:08	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:08	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:08	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Potassium	98.66	+/–250	J	64.0	250	SOL	P	31–MAR–10 19:08	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 19:08	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	13–APR–10 14:28	041310A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	17–MAY–10 12:47	100517–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–MAY–10 12:47	100517–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	17–MAY–10 12:47	100517–3
	Thallium	0.4	+/–1	J	0.3	1.0	SOL	MS	17–MAY–10 12:47	100517–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–MAY–10 19:34	100517–4
CCB03										
	Mercury	–0.077	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 10:22	032410S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:29	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:29	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:29	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 19:29	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 19:29	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	13–APR–10 14:36	041310A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	17–MAY–10 13:24	100517–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–MAY–10 13:24	100517–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	17–MAY–10 13:24	100517–3

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	17–MAY–10 13:24	100517–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–MAY–10 19:54	100517–4
CCB04										
	Mercury	–0.083	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 10:42	032410S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:50	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:50	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	13–APR–10 15:14	041310A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	17–MAY–10 14:14	100517–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–MAY–10 14:14	100517–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	17–MAY–10 14:14	100517–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	17–MAY–10 14:14	100517–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–MAY–10 20:13	100517–4
CCB05										
	Mercury	–0.084	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 11:03	032410S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 20:21	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 20:21	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Silver	–1.07	+/–5	J	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	13–APR–10 15:33	041310A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	17–MAY–10 14:35	100517–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–MAY–10 14:35	100517–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	17–MAY–10 14:35	100517–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	17–MAY–10 14:35	100517–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–MAY–10 20:30	100517–4
CCB06										
	Mercury	–0.09	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 11:23	032410S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 20:48	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 20:48	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	13–APR–10 15:51	041310A–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–MAY–10 20:45	100517–4
CCB07										
	Mercury	–0.088	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 11:43	032410S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 21:18	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:18	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 21:18	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 21:18	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 21:18	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:18	033110B–1
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 21:41	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:41	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 21:41	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 21:41	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 21:41	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:41	033110B–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 21:57	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 21:57	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:57	033110B–1
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 22:14	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:14	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 22:14	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 22:14	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 22:14	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:14	033110B–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 22:37	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:37	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 22:37	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 22:37	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 22:37	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:37	033110B–1
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 22:58	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 22:58	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:58	033110B–1
CCB13										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 23:20	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 23:20	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 23:20	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 23:20	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 23:20	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 23:20	033110B–1
CCB14										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 23:46	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 23:46	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 23:46	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 23:46	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 23:46	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 23:46	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 23:46	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 23:46	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 23:46	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 23:46	033110B–1
CCB15										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 00:04	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 00:04	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:04	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:04	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 00:04	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 00:04	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 00:04	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 00:04	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 00:04	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 00:04	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 00:04	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–APR–10 00:04	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:04	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 00:04	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:04	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 00:04	033110B–1
CCB16										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 00:20	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 00:20	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:20	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:20	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 00:20	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 00:20	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 00:20	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 00:20	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 00:20	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 00:20	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 00:20	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–APR–10 00:20	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:20	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 00:20	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:20	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 00:20	033110B–1
CCB17										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 00:45	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 00:45	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:45	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:45	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 00:45	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 00:45	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 00:45	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 00:45	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 00:45	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 00:45	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 00:45	033110B-1
	Potassium	130.01	+/-250	J	64.0	250	SOL	P	01-APR-10 00:45	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 00:45	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	01-APR-10 00:45	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 00:45	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 00:45	033110B-1
CCB18										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 01:09	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 01:09	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 01:09	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 01:09	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 01:09	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 01:09	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 01:09	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 01:09	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 01:09	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 01:09	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 01:09	033110B-1
	Potassium	195.24	+/-250	J	64.0	250	SOL	P	01-APR-10 01:09	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 01:09	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	01-APR-10 01:09	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 01:09	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 01:09	033110B-1
CCB19										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 01:32	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 01:32	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 01:32	033110B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:32	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 01:32	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 01:32	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 01:32	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 01:32	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 01:32	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 01:32	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 01:32	033110B–1
	Potassium	168.28	+/–250	J	64.0	250	SOL	P	01–APR–10 01:32	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:32	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 01:32	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:32	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 01:32	033110B–1
CCB20										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 01:55	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 01:55	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:55	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:55	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 01:55	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 01:55	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 01:55	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 01:55	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 01:55	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 01:55	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 01:55	033110B–1
	Potassium	90.72	+/–250	J	64.0	250	SOL	P	01–APR–10 01:55	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:55	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 01:55	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:55	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 01:55	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB21										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 02:21	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 02:21	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:21	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:21	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 02:21	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 02:21	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 02:21	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 02:21	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 02:21	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 02:21	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 02:21	033110B–1
	Potassium	135.28	+/–250	J	64.0	250	SOL	P	01–APR–10 02:21	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:21	033110B–1
	Sodium	101.82	+/–250	J	70.0	250	SOL	P	01–APR–10 02:21	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:21	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 02:21	033110B–1
CCB22										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 02:49	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 02:49	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:49	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:49	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 02:49	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 02:49	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 02:49	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 02:49	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 02:49	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 02:49	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 02:49	033110B–1
	Potassium	180.17	+/–250	J	64.0	250	SOL	P	01–APR–10 02:49	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:49	033110B–1
	Sodium	1333.6	+/–250		70.0	250	SOL	P	01–APR–10 02:49	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:49	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 02:49	033110B–1
CCB23										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 03:15	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 03:15	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 03:15	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 03:15	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 03:15	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 03:15	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 03:15	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 03:15	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 03:15	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 03:15	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 03:15	033110B–1
	Potassium	79.28	+/–250	J	64.0	250	SOL	P	01–APR–10 03:15	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 03:15	033110B–1
	Sodium	570.33	+/–250		70.0	250	SOL	P	01–APR–10 03:15	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 03:15	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 03:15	033110B–1
CCB24										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 04:41	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 04:41	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 04:41	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 04:41	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 04:41	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 04:41	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 04:41	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 04:41	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 04:41	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 04:41	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 04:41	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–APR–10 04:41	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 04:41	033110B–1
	Sodium	192.35	+/–250	J	70.0	250	SOL	P	01–APR–10 04:41	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 04:41	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 04:41	033110B–1
CCB25										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 05:05	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 05:05	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:05	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:05	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 05:05	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 05:05	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 05:05	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 05:05	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 05:05	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 05:05	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 05:05	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–APR–10 05:05	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:05	033110B–1
	Sodium	165.15	+/–250	J	70.0	250	SOL	P	01–APR–10 05:05	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:05	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 05:05	033110B–1
CCB26										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 05:27	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 05:27	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:27	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:27	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 05:27	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 05:27	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 05:27	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 05:27	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 05:27	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 05:27	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 05:27	033110B–1
	Potassium	94.5	+/–250	J	64.0	250	SOL	P	01–APR–10 05:27	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:27	033110B–1
	Sodium	132.11	+/–250	J	70.0	250	SOL	P	01–APR–10 05:27	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:27	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 05:27	033110B–1
CCB27										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 05:51	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 05:51	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:51	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:51	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 05:51	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 05:51	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 05:51	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 05:51	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 05:51	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 05:51	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 05:51	033110B–1
	Potassium	118.7	+/–250	J	64.0	250	SOL	P	01–APR–10 05:51	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:51	033110B–1
	Sodium	102.83	+/–250	J	70.0	250	SOL	P	01–APR–10 05:51	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:51	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 05:51	033110B–1
CCB28										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 06:06	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 06:06	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:06	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:06	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 06:06	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 06:06	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 06:06	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 06:06	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 06:06	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 06:06	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 06:06	033110B–1
	Potassium	99.52	+/–250	J	64.0	250	SOL	P	01–APR–10 06:06	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:06	033110B–1
	Sodium	93.82	+/–250	J	70.0	250	SOL	P	01–APR–10 06:06	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:06	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 06:06	033110B–1
CCB29										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 06:29	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 06:29	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:29	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:29	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 06:29	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 06:29	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 06:29	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 06:29	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 06:29	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 06:29	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 06:29	033110B–1
	Potassium	99.45	+/–250	J	64.0	250	SOL	P	01–APR–10 06:29	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:29	033110B–1
	Sodium	89.6	+/–250	J	70.0	250	SOL	P	01–APR–10 06:29	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:29	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 06:29	033110B–1
CCB30										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 06:52	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 06:52	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:52	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:52	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 06:52	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 06:52	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 06:52	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 06:52	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 06:52	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 06:52	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 06:52	033110B–1
	Potassium	95.07	+/–250	J	64.0	250	SOL	P	01–APR–10 06:52	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:52	033110B–1
	Sodium	72.63	+/–250	J	70.0	250	SOL	P	01–APR–10 06:52	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:52	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 06:52	033110B–1
CCB31										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 07:17	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 07:17	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:17	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:17	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 07:17	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 07:17	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 07:17	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 07:17	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 07:17	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 07:17	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 07:17	033110B–1
	Potassium	79.16	+/–250	J	64.0	250	SOL	P	01–APR–10 07:17	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:17	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 07:17	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:17	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 07:17	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB32										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 07:38	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 07:38	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:38	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:38	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 07:38	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 07:38	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 07:38	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 07:38	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 07:38	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 07:38	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 07:38	033110B–1
	Potassium	82.92	+/–250	J	64.0	250	SOL	P	01–APR–10 07:38	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:38	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 07:38	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:38	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 07:38	033110B–1
CCB33										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 08:02	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 08:02	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:02	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:02	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 08:02	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 08:02	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 08:02	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 08:02	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 08:02	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 08:02	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 08:02	033110B–1
	Potassium	103.22	+/–250	J	64.0	250	SOL	P	01–APR–10 08:02	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:02	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 08:02	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:02	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 08:02	033110B–1
CCB34										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 08:25	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 08:25	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:25	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:25	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 08:25	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 08:25	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 08:25	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 08:25	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 08:25	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 08:25	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 08:25	033110B–1
	Potassium	107.1	+/–250	J	64.0	250	SOL	P	01–APR–10 08:25	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:25	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 08:25	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:25	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 08:25	033110B–1
CCB35										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 08:58	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 08:58	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:58	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:58	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 08:58	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 08:58	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 08:58	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 08:58	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 08:58	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 08:58	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 08:58	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	103.04	+/–250	J	64.0	250	SOL	P	01–APR–10 08:58	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:58	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 08:58	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:58	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 08:58	033110B–1
CCB36										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 09:17	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 09:17	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:17	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:17	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 09:17	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 09:17	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 09:17	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 09:17	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 09:17	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 09:17	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 09:17	033110B–1
	Potassium	83.14	+/–250	J	64.0	250	SOL	P	01–APR–10 09:17	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:17	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 09:17	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:17	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 09:17	033110B–1
CCB37										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 09:34	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 09:34	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:34	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:34	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 09:34	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 09:34	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 09:34	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 09:34	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2315

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 09:34	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 09:34	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 09:34	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–APR–10 09:34	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:34	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 09:34	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:34	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 09:34	033110B–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2315

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202068097								
	Aluminum	7060	ug/kg	+/–19800	J	P	6750	19800
	Antimony	327	ug/kg	+/–992	U	P	327	992
	Barium	99.2	ug/kg	+/–496	U	P	99.2	496
	Cadmium	99.2	ug/kg	+/–496	U	P	99.2	496
	Chromium	149	ug/kg	+/–496	U	P	149	496
	Cobalt	149	ug/kg	+/–496	U	P	149	496
	Copper	298	ug/kg	+/–992	U	P	298	992
	Iron	7940	ug/kg	+/–24800	U	P	7940	24800
	Lead	248	ug/kg	+/–992	U	P	248	992
	Magnesium	8430	ug/kg	+/–29800	U	P	8430	29800
	Manganese	198	ug/kg	+/–992	U	P	198	992
	Potassium	8970	ug/kg	+/–24800	J	P	6350	24800
	Silver	99.2	ug/kg	+/–496	U	P	99.2	496
	Sodium	6940	ug/kg	+/–24800	U	P	6940	24800
	Vanadium	99.2	ug/kg	+/–496	U	P	99.2	496
	Zinc	327	ug/kg	+/–992	U	P	327	992
1202068103								
	Arsenic	194	ug/kg	+/–969	U	MS	194	969
	Beryllium	19.4	ug/kg	+/–96.9	U	MS	19.4	96.9
	Nickel	96.9	ug/kg	+/–388	U	MS	96.9	388
	Selenium	484	ug/kg	+/–969	U	MS	484	969
	Thallium	58.1	ug/kg	+/–194	U	MS	58.1	194
1202078437								
	Mercury	–4.37	ug/kg	+/–10.3	J	AV	3.5	10.3
1202092701								
	Calcium	7840	ug/kg	+/–24500	U	P	7840	24500

METALS
–4–
Interference Check Sample

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	502000	ug/L	500000	ug/L	100	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Antimony	0.296	ug/L					31–MAR–10 18:53	033110B–1
	Barium	0.205	ug/L					31–MAR–10 18:53	033110B–1
	Cadmium	–1.97	ug/L					31–MAR–10 18:53	033110B–1
	Chromium	1.07	ug/L					31–MAR–10 18:53	033110B–1
	Cobalt	–6.06	ug/L					31–MAR–10 18:53	033110B–1
	Copper	4.63	ug/L					31–MAR–10 18:53	033110B–1
	Iron	190000	ug/L	200000	ug/L	95	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Lead	–4.1	ug/L					31–MAR–10 18:53	033110B–1
	Magnesium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Manganese	3.58	ug/L					31–MAR–10 18:53	033110B–1
	Potassium	–119.0	ug/L					31–MAR–10 18:53	033110B–1
	Silver	–2.44	ug/L					31–MAR–10 18:53	033110B–1
	Sodium	38.8	ug/L					31–MAR–10 18:53	033110B–1
	Vanadium	–0.082	ug/L					31–MAR–10 18:53	033110B–1
	Zinc	8.58	ug/L					31–MAR–10 18:53	033110B–1
ICSAB01									
	Aluminum	507000	ug/L	500000	ug/L	101	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Antimony	504	ug/L	500	ug/L	101	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Barium	499	ug/L	500	ug/L	99.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Cadmium	476	ug/L	500	ug/L	95.3	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Chromium	484	ug/L	500	ug/L	96.7	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Cobalt	442	ug/L	500	ug/L	88.5	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Copper	542	ug/L	500	ug/L	108	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Iron	192000	ug/L	200000	ug/L	96	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Lead	464	ug/L	500	ug/L	92.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Magnesium	485000	ug/L	500000	ug/L	97	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Manganese	486	ug/L	500	ug/L	97.2	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Potassium	5550	ug/L	5000	ug/L	111	80.0 – 120.0	31–MAR–10 18:55	033110B–1

METALS
–4–
Interference Check Sample

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silver	267	ug/L	250	ug/L	107	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Sodium	5330	ug/L	5000	ug/L	107	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Vanadium	513	ug/L	500	ug/L	103	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Zinc	494	ug/L	500	ug/L	98.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1

METALS
-4-
Interference Check Sample

SDG No: 10-2315

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Calcium	487000	ug/L	500000	ug/L	97.4	80.0 - 120.0	13-APR-10 14:13	041310A-2
ICSAB01									
	Calcium	503000	ug/L	500000	ug/L	101	80.0 - 120.0	13-APR-10 14:15	041310A-2

METALS
–4–
Interference Check Sample

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.243	ug/L					17–MAY–10 12:22	100517–3
	Nickel	2.72	ug/L					17–MAY–10 12:22	100517–3
	Selenium	–0.603	ug/L					17–MAY–10 12:22	100517–3
	Thallium	0.071	ug/L					17–MAY–10 12:22	100517–3
ICSAB01									
	Arsenic	20.4	ug/L	20	ug/L	102	80.0 – 120.0	17–MAY–10 12:26	100517–3
	Nickel	21.2	ug/L	23.31	ug/L	90.9	80.0 – 120.0	17–MAY–10 12:26	100517–3
	Selenium	21.2	ug/L	20	ug/L	106	80.0 – 120.0	17–MAY–10 12:26	100517–3
	Thallium	17.3	ug/L	20	ug/L	86.6	80.0 – 120.0	17–MAY–10 12:26	100517–3

METALS
–4–
Interference Check Sample

SDG No: 10–2315

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS7

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.128	ug/L					17–MAY–10 19:24	100517–4
ICSAB01									
	Beryllium	21.6	ug/L	20	ug/L	108	80.0 – 120.0	17–MAY–10 19:26	100517–4

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–2315 **Client ID** RE46–10–13782S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 86

Sample ID: 248860001 **Spike ID:** 1202068100

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg	75–125	2750000		1080000		576000	291	N	P
Antimony	ug/kg	75–125	50500		379	U	57600	87.6		P
Barium	ug/kg	75–125	68400		10600		57600	100		P
Cadmium	ug/kg	75–125	53800		115	U	57600	93.3		P
Calcium	ug/kg	75–125	706000		167000		543000	99.1		P
Chromium	ug/kg	75–125	56800		3310		57600	92.7		P
Cobalt	ug/kg	75–125	53100		296	J	57600	91.6		P
Copper	ug/kg	75–125	58200		1090	J	57600	99.1		P
Iron	ug/kg		5590000		4290000		576000	225	N/A	P
Lead	ug/kg	75–125	56900		2650		57600	94.1		P
Magnesium	ug/kg	75–125	653000		52700		576000	104		P
Manganese	ug/kg	75–125	257000		180000		57600	133	N	P
Potassium	ug/kg	75–125	1230000		396000		576000	145	N	P
Silver	ug/kg	75–125	53300		115	U	57600	92.5		P
Sodium	ug/kg	75–125	1160000		345000		576000	142	N	P
Vanadium	ug/kg	75–125	54700		1020		57600	93.2		P
Zinc	ug/kg	75–125	69100		13700		57600	96.1		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2315 **Client ID** RE46–10–13782SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 86

Sample ID: 248860001 **Spike ID:** 1202068101

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg	75–125	2530000		1080000		571000	254	N	P
Antimony	ug/kg	75–125	49200		379	U	57100	86.3		P
Barium	ug/kg	75–125	64500		10600		57100	94.3		P
Cadmium	ug/kg	75–125	52400		115	U	57100	91.9		P
Calcium	ug/kg	75–125	759000		167000		542000	109		P
Chromium	ug/kg	75–125	55100		3310		57100	90.7		P
Cobalt	ug/kg	75–125	51800		296	J	57100	90.3		P
Copper	ug/kg	75–125	56900		1090	J	57100	97.7		P
Iron	ug/kg		5290000		4290000		571000	176	N/A	P
Lead	ug/kg	75–125	55400		2650		57100	92.4		P
Magnesium	ug/kg	75–125	640000		52700		571000	103		P
Manganese	ug/kg	75–125	259000		180000		57100	139	N	P
Potassium	ug/kg	75–125	1170000		396000		571000	135	N	P
Sodium	ug/kg	75–125	1100000		345000		571000	133	N	P
Vanadium	ug/kg	75–125	53700		1020		57100	92.3		P
Zinc	ug/kg	75–125	68400		13700		57100	95.9		P
Silver	ug/kg	75–125	51900		115	U	57100	90.9		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2315 **Client ID** RE46–10–13782S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 86

Sample ID: 248860001 **Spike ID:** 1202068106

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	8440		223	U	9220	89.3		MS
Beryllium	ug/kg	75–125	5540		181		5760	93		MS
Nickel	ug/kg	75–125	6150		756		5760	93.5		MS
Selenium	ug/kg	75–125	2100		556	U	2310	86.2		MS
Thallium	ug/kg	75–125	10200		87.2	J	11500	87.8		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2315 **Client ID** RE46–10–13782SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 86

Sample ID: 248860001 **Spike ID:** 1202068107

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	8520		223	U	9040	92		MS
Beryllium	ug/kg	75–125	5460		181		5650	93.4		MS
Nickel	ug/kg	75–125	5910		756		5650	91.2		MS
Selenium	ug/kg	75–125	2140		556	U	2260	89.8		MS
Thallium	ug/kg	75–125	10100		87.2	J	11300	88.4		MS

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–2315 **Client ID** RE46–10–12931S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 81

Sample ID: 248867001 **Spike ID:** 1202078440

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	370		231		128	109		AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO.	10–2315	**Client ID**	RE46–10–12931SD
Contract:	LANL01004	**Level:**	Low
Matrix:	SOIL	**% Solids:**	81
Sample ID:	248867001	**Spike ID:**	1202078442

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	411		231		138	130	N	AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13782D

Sample ID: 248860001 **Duplicate ID:** 1202068098 **Percent Solids for Dup:** 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	1080000		1060000		1.88		P
Antimony	ug/kg		379	U	370	U			P
Barium	ug/kg	+/–20%	10600		11000		2.94		P
Cadmium	ug/kg		115	U	112	U			P
Calcium	ug/kg	+/–20%	167000		623000		115	*	P
Chromium	ug/kg	+/–20%	3310		4210		23.8	*	P
Cobalt	ug/kg	+/–561	296	J	287	J	2.91		P
Copper	ug/kg	+/–1120	1090	J	1050	J	4.01		P
Iron	ug/kg	+/–20%	4290000		4240000		1.13		P
Lead	ug/kg	+/–1120	2650		2780		4.5		P
Magnesium	ug/kg	+/–33600	52700		63000		17.9		P
Manganese	ug/kg	+/–20%	180000		181000		.228		P
Potassium	ug/kg	+/–20%	396000		378000		4.63		P
Silver	ug/kg		115	U	112	U			P
Sodium	ug/kg	+/–20%	345000		336000		2.77		P
Vanadium	ug/kg	+/–561	1020		1150		12.1		P
Zinc	ug/kg	+/–20%	13700		13200		4.22		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13782SD

Sample ID: 1202068100 **Duplicate ID:** 1202068101 **Percent Solids for Dup:** 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	2750000		2530000		8.51		P
Antimony	ug/kg	+/–20	50500		49200		2.53		P
Barium	ug/kg	+/–20	68400		64500		5.92		P
Cadmium	ug/kg	+/–20	53800		52400		2.49		P
Calcium	ug/kg	+/–20	706000		759000		7.27		P
Chromium	ug/kg	+/–20	56800		55100		3		P
Cobalt	ug/kg	+/–20	53100		51800		2.34		P
Copper	ug/kg	+/–20	58200		56900		2.39		P
Iron	ug/kg	+/–20	5590000		5290000		5.41		P
Lead	ug/kg	+/–20	56900		55400		2.62		P
Magnesium	ug/kg	+/–20	653000		640000		2.12		P
Manganese	ug/kg	+/–20	257000		259000		.958		P
Potassium	ug/kg	+/–20	1230000		1170000		5.14		P
Silver	ug/kg	+/–20	53300		51900		2.73		P
Sodium	ug/kg	+/–20	1160000		1100000		5.06		P
Vanadium	ug/kg	+/–20	54700		53700		1.91		P
Zinc	ug/kg	+/–20	69100		68400		.987		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13782D

Sample ID: 248860001 **Duplicate ID:** 1202068104 **Percent Solids for Dup:** 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg		223	U	265	J	200		MS
Beryllium	ug/kg	+/–115	181		192		5.7		MS
Nickel	ug/kg	+/–458	756		1190		44.4		MS
Selenium	ug/kg		556	U	573	U			MS
Thallium	ug/kg		87.2	J	68.7	U	200		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13782SD

Sample ID: 1202068106 **Duplicate ID:** 1202068107 **Percent Solids for Dup:** 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	8440		8520		.936		MS
Beryllium	ug/kg	+/–20	5540		5460		1.47		MS
Nickel	ug/kg	+/–20	6150		5910		3.88		MS
Selenium	ug/kg	+/–20	2100		2140		2.03		MS
Thallium	ug/kg	+/–20	10200		10100		1.23		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12931D

Sample ID: 248867001 **Duplicate ID:** 1202078439 **Percent Solids for Dup:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20%	231		192		18.7		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2315

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12931SD

Sample ID: 1202078440 **Duplicate ID:** 1202078442 **Percent Solids for Dup:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	370		411		10.3		AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2315

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202068102								
	Aluminum	ug/kg	10500000	8440000		80.4	56–144	P
	Antimony	ug/kg	173000	109000		63.1	71–130	P
	Barium	ug/kg	198000	166000		83.9	80–120	P
	Cadmium	ug/kg	60700	54600		90	81–120	P
	Chromium	ug/kg	236000	224000		95	80–120	P
	Cobalt	ug/kg	91200	85500		93.8	81–120	P
	Copper	ug/kg	174000	168000		96.3	81–118	P
	Iron	ug/kg	18000000	17000000		94.2	51–149	P
	Lead	ug/kg	86000	73100		85	79–121	P
	Magnesium	ug/kg	4000000	3490000		87.3	79–122	P
	Manganese	ug/kg	558000	513000		92	81–119	P
	Potassium	ug/kg	4300000	3760000		87.4	74–127	P
	Silver	ug/kg	30100	26000		86.2	66–134	P
	Sodium	ug/kg	1020000	943000		92.4	74–127	P
	Vanadium	ug/kg	115000	111000		96.5	79–121	P
	Zinc	ug/kg	594000	532000		89.6	80–121	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2315

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202068108								
	Arsenic	ug/kg	104000	107000		103	78–123	MS
	Beryllium	ug/kg	77600	78900		102	84–116	MS
	Nickel	ug/kg	134000	154000		115	78–123	MS
	Selenium	ug/kg	286000	296000		103	77–123	MS
	Thallium	ug/kg	121000	123000		102	78–122	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2315

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202078438								
	Mercury	ug/kg	5150	5520		107	71.6–128.3	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2315

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202092702								
	Calcium	ug/kg	9870000	9750000		98.8	83–117	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2315 **Client ID** RE46–10–13782L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248860001 **Serial Dilution ID:** 1202068099

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	9400		9700		3.19		10	P
Antimony	3.3	U	16.5	U				P
Barium	92.7		92		.755		10	P
Cadmium	1	U	5	U				P
Calcium	1610		1690		4.97			P
Chromium	28.9		28.9		0			P
Cobalt	2.58	J	7.5	U	100			P
Copper	9.5	J	15	U	100			P
Iron	37300		37800		1.34		10	P
Lead	23.1		17.5	J	24.5			P
Magnesium	459		454	J	1.2			P
Manganese	1570		1580		.318		10	P
Potassium	3450		3830		10.9	E	10	P
Silver	1	U	5	U				P
Sodium	3010		3190		5.81			P
Vanadium	8.91		6.6	J	25.9			P
Zinc	120		117		2.5			P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2315 **Client ID** RE46–10–13782L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248860001 **Serial Dilution ID:** 1202068105

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	1	U	5	U				MS
Beryllium	.813		1.09	J	34.1			MS
Nickel	3.4		3.39	J	.441			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.392	J	1.5	U	100			MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2315 **Client ID** RE46–10–12931L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248867001 **Serial Dilution ID:** 1202078441

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	3.6		3.44		4.44		10	AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2315 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 964011							
1202068097	MB for batch 964011	MB	S	13–MAR–10	.504g	50mL	
1202068102	LCS for batch 964011	LCS	S	13–MAR–10	.506g	50mL	
1202068100	RE46–10–13782S	MS	S	13–MAR–10	.504g	50mL	
1202068101	RE46–10–13782SD	MSD	S	13–MAR–10	.509g	50mL	
1202068098	RE46–10–13782D	DUP	S	13–MAR–10	.518g	50mL	
248863001	RE46–10–12936	SAMPLE	S	13–MAR–10	.508g	50mL	
248863002	RE46–10–12930	SAMPLE	S	13–MAR–10	.503g	50mL	
248863003	RE46–10–12929	SAMPLE	S	13–MAR–10	.553g	50mL	
248863004	RE46–10–12935	SAMPLE	S	13–MAR–10	.508g	50mL	
Batch Number 974044							
1202092701	MB for batch 974044	MB	S	12–APR–10	.51g	50mL	
1202092702	LCS for batch 974044	LCS	S	12–APR–10	.509g	50mL	
1202068100	RE46–10–13782S	MS	S	12–APR–10	.535g	50mL	
1202068101	RE46–10–13782SD	MSD	S	12–APR–10	.536g	50mL	
1202068098	RE46–10–13782D	DUP	S	12–APR–10	.509g	50mL	
248863001	RE46–10–12936	SAMPLE	S	12–APR–10	.535g	50mL	
248863002	RE46–10–12930	SAMPLE	S	12–APR–10	.515g	50mL	
248863003	RE46–10–12929	SAMPLE	S	12–APR–10	.533g	50mL	
248863004	RE46–10–12935	SAMPLE	S	12–APR–10	.562g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2315 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 964013							
1202068103	MB for batch 964013	MB	S	13–MAR–10	.516g	50mL	
1202068108	LCS for batch 964013	LCS	S	13–MAR–10	.502g	50mL	
1202068106	RE46–10–13782S	MS	S	13–MAR–10	.504g	50mL	
1202068107	RE46–10–13782SD	MSD	S	13–MAR–10	.514g	50mL	
1202068104	RE46–10–13782D	DUP	S	13–MAR–10	.507g	50mL	
248863001	RE46–10–12936	SAMPLE	S	13–MAR–10	.5g	50mL	
248863002	RE46–10–12930	SAMPLE	S	13–MAR–10	.552g	50mL	
248863003	RE46–10–12929	SAMPLE	S	13–MAR–10	.522g	50mL	
248863004	RE46–10–12935	SAMPLE	S	13–MAR–10	.534g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2315 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	968184						
1202078437	MB for batch 968184	MB	S	23–MAR–10	.583g	30mL	
1202078438	LCS for batch 968184	LCS	S	23–MAR–10	.203g	30mL	
1202078440	RE46–10–12931S	MS	S	23–MAR–10	.578g	30mL	
1202078442	RE46–10–12931SD	MSD	S	23–MAR–10	.537g	30mL	
1202078439	RE46–10–12931D	DUP	S	23–MAR–10	.539g	30mL	
248863001	RE46–10–12936	SAMPLE	S	23–MAR–10	.541g	30mL	
248863002	RE46–10–12930	SAMPLE	S	23–MAR–10	.557g	30mL	
248863003	RE46–10–12929	SAMPLE	S	23–MAR–10	.523g	30mL	
248863004	RE46–10–12935	SAMPLE	S	23–MAR–10	.558g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 24–MAR–10 **End Date:** 24–MAR–10

Client Sdg: 10–2315
Method AV
Data File: 032410S1–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	09:26:00															X								
S0.2	1	09:27:00															X								
S0.5	1	09:29:00															X								
S2.0	1	09:31:00															X								
S5.0	1	09:32:00															X								
S10.0	1	09:34:00															X								
ICV01	1	09:36:00															X								
ICB01	1	09:37:00															X								
CRDL01	1	09:39:00															X								
CCV01	1	09:41:00															X								
CCB01	1	09:42:00															X								
ZZZZZZ	1	09:44:00																							
ZZZZZZ	10	09:46:00																							
ZZZZZZ	1	09:47:00																							
ZZZZZZ	1	09:49:00																							
ZZZZZZ	1	09:51:00																							
ZZZZZZ	1	09:52:00																							
ZZZZZZ	5	09:54:00																							
ZZZZZZ	1	09:56:00																							
ZZZZZZ	1	09:57:00																							
ZZZZZZ	1	09:59:00																							
CCV02	1	10:01:00															X								
CCB02	1	10:02:00															X								
ZZZZZZ	1	10:04:00																							
ZZZZZZ	1	10:06:00																							
ZZZZZZ	1	10:07:00																							
ZZZZZZ	1	10:09:00																							
ZZZZZZ	1	10:11:00																							
ZZZZZZ	1	10:12:00																							
ZZZZZZ	1	10:14:00																							
ZZZZZZ	1	10:16:00																							
ZZZZZZ	1	10:17:00																							
ZZZZZZ	10	10:19:00																							
CCV03	1	10:21:00															X								
CCB03	1	10:22:00															X								
ZZZZZZ	1	10:24:00																							
ZZZZZZ	1	10:26:00																							
ZZZZZZ	1	10:27:00																							
ZZZZZZ	1	10:29:00																							
ZZZZZZ	1	10:31:00																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	10:32:00																						
ZZZZZZ	1	10:34:00																						
ZZZZZZ	1	10:36:00																						
ZZZZZZ	5	10:37:00																						
ZZZZZZ	1	10:39:00																						
CCV04	1	10:41:00													X									
CCB04	1	10:42:00													X									
ZZZZZZ	1	10:44:00																						
ZZZZZZ	1	10:46:00																						
ZZZZZZ	1	10:47:00																						
1202078437	1	10:49:00													X									
1202078438	10	10:51:00													X									
ZZZZZZ	1	10:52:00																						
ZZZZZZ	1	10:54:00																						
ZZZZZZ	1	10:56:00																						
ZZZZZZ	1	10:58:00																						
ZZZZZZ	1	10:59:00																						
CCV05	1	11:01:00													X									
CCB05	1	11:03:00													X									
ZZZZZZ	1	11:04:00																						
ZZZZZZ	1	11:06:00																						
ZZZZZZ	1	11:08:00																						
ZZZZZZ	1	11:09:00																						
248863001	1	11:11:00													X									
248863002	1	11:13:00													X									
248863003	1	11:14:00													X									
248863004	1	11:16:00													X									
ZZZZZZ	1	11:18:00																						
ZZZZZZ	1	11:19:00																						
CCV06	1	11:21:00													X									
CCB06	1	11:23:00													X									
ZZZZZZ	1	11:24:00																						
1202078439	1	11:26:00													X									
1202078440	1	11:28:00													X									
1202078442	1	11:29:00													X									
1202078441	5	11:31:00													X									
ZZZZZZ	1	11:33:00																						
ZZZZZZ	1	11:34:00																						
ZZZZZZ	1	11:36:00																						
ZZZZZZ	1	11:38:00																						

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	11:39:00																							
CCV07	1	11:41:00															X								
CCB07	1	11:43:00															X								

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 31–MAR–10 **End Date:** 01–APR–10

Client Sdg: 10–2315
Method P
Data File: 033110B–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	18:36:30	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
S0.1	1	18:39:45		X		X		X		X	X	X		X		X			X		X			X	X
S0.5	1	18:41:56	X	X		X		X		X	X	X		X	X	X			X		X			X	X
SCAL	1	18:43:55	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
S10	1	18:45:59	X										X		X							X			
ICV01	1	18:47:03	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ICB01	1	18:48:09	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
PQL01	1	18:51:18	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ICSA01	1	18:53:20	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ICSAB01	1	18:55:20	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
LR01	1	18:56:26	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
LR02	1	18:57:44	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCV01	1	18:59:11	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB01	1	19:01:26	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCV02	1	19:06:03	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB02	1	19:08:04	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:11:15																							
ZZZZZZ	1	19:14:12																							
ZZZZZZ	1	19:16:26																							
ZZZZZZ	1	19:19:36																							
ZZZZZZ	1	19:22:32																							
ZZZZZZ	5	19:24:31																							
CCV03	1	19:27:41	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB03	1	19:29:42	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:32:54																							
ZZZZZZ	1	19:35:52																							
ZZZZZZ	1	19:38:50																							
ZZZZZZ	1	19:41:46																							
ZZZZZZ	1	19:44:56																							
CCV04	1	19:48:07	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB04	1	19:50:08	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:53:03																							
ZZZZZZ	1	19:56:16																							
ZZZZZZ	1	19:58:29																							
ZZZZZZ	1	20:01:35																							
ZZZZZZ	1	20:04:41																							
ZZZZZZ	1	20:06:41																							
ZZZZZZ	5	20:09:37																							
ZZZZZZ	1	20:12:33																							
ZZZZZZ	1	20:15:43																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
CCV05	1	20:18:48	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB05	1	20:21:03	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	20:23:58																							
ZZZZZZ	1	20:27:11																							
ZZZZZZ	1	20:29:10																							
ZZZZZZ	1	20:31:22																							
ZZZZZZ	1	20:33:33																							
ZZZZZZ	5	20:35:32																							
ZZZZZZ	1	20:37:44																							
ZZZZZZ	1	20:40:49																							
ZZZZZZ	1	20:43:41																							
CCV06	1	20:46:32	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB06	1	20:48:32	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	20:51:27																							
ZZZZZZ	1	20:54:35																							
ZZZZZZ	1	20:56:32																							
ZZZZZZ	1	20:59:23																							
ZZZZZZ	1	21:02:28																							
ZZZZZZ	1	21:04:25																							
ZZZZZZ	1	21:06:36																							
ZZZZZZ	1	21:08:29																							
ZZZZZZ	1	21:11:20																							
ZZZZZZ	1	21:13:18																							
CCV07	1	21:16:09	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB07	1	21:18:10	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	21:21:05																							
ZZZZZZ	1	21:24:03																							
ZZZZZZ	1	21:25:25																							
ZZZZZZ	1	21:27:23																							
ZZZZZZ	1	21:29:21																							
ZZZZZZ	1	21:31:35																							
ZZZZZZ	1	21:33:49																							
ZZZZZZ	5	21:36:00																							
ZZZZZZ	1	21:37:59																							
CCV08	1	21:39:57	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB08	1	21:41:59	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	21:45:10																							
ZZZZZZ	1	21:47:26																							
ZZZZZZ	1	21:49:39																							
ZZZZZZ	1	21:51:37																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	21:53:37																							
CCV09	1	21:55:36	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB09	1	21:57:52	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	22:00:49																							
ZZZZZZ	1	22:03:08																							
ZZZZZZ	1	22:04:17																							
ZZZZZZ	1	22:06:21																							
ZZZZZZ	1	22:08:25																							
ZZZZZZ	1	22:09:31																							
ZZZZZZ	5	22:10:38																							
CCV10	1	22:12:55	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB10	1	22:14:56	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	22:17:55																							
ZZZZZZ	1	22:20:16																							
ZZZZZZ	1	22:22:28																							
ZZZZZZ	1	22:24:31																							
ZZZZZZ	1	22:26:43																							
ZZZZZZ	1	22:28:56																							
ZZZZZZ	1	22:31:00																							
ZZZZZZ	1	22:33:18																							
CCV11	1	22:35:22	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB11	1	22:37:38	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	22:40:36																							
ZZZZZZ	1	22:42:56																							
ZZZZZZ	1	22:45:10																							
ZZZZZZ	1	22:47:27																							
ZZZZZZ	1	22:49:44																							
ZZZZZZ	1	22:52:02																							
ZZZZZZ	1	22:54:05																							
CCV12	1	22:56:09	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB12	1	22:58:10	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	23:01:21																							
ZZZZZZ	1	23:04:20																							
ZZZZZZ	1	23:05:42																							
ZZZZZZ	1	23:07:45																							
ZZZZZZ	1	23:09:49																							
ZZZZZZ	1	23:10:55																							
ZZZZZZ	5	23:12:15																							
ZZZZZZ	1	23:14:18																							
ZZZZZZ	1	23:16:21																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																							
CCV13	1	23:18:25	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB13	1	23:20:27	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	23:23:24																							
ZZZZZZ	1	23:25:39																							
ZZZZZZ	1	23:27:42																							
ZZZZZZ	1	23:29:46																							
ZZZZZZ	1	23:32:03																							
ZZZZZZ	1	23:34:01																							
ZZZZZZ	1	23:35:59																							
ZZZZZZ	1	23:38:03																							
ZZZZZZ	1	23:40:15																							
ZZZZZZ	1	23:42:14																							
CCV14	1	23:44:28	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB14	1	23:46:45	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	23:49:43																							
ZZZZZZ	1	23:52:03																							
ZZZZZZ	1	23:53:26																							
ZZZZZZ	1	23:55:39																							
ZZZZZZ	1	23:57:37																							
ZZZZZZ	1	23:58:56																							
ZZZZZZ	5	00:00:16																							
CCV15	1	00:02:20	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB15	1	00:04:36	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	00:07:33																							
ZZZZZZ	1	00:09:52																							
ZZZZZZ	1	00:11:51																							
ZZZZZZ	1	00:14:05																							
ZZZZZZ	1	00:16:18																							
CCV16	1	00:18:32	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB16	1	00:20:34	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	00:23:30																							
ZZZZZZ	1	00:25:35																							
ZZZZZZ	1	00:27:34																							
ZZZZZZ	1	00:29:47																							
ZZZZZZ	1	00:31:45																							
ZZZZZZ	1	00:32:52																							
ZZZZZZ	5	00:34:14																							
ZZZZZZ	1	00:36:32																							
ZZZZZZ	1	00:38:31																							
ZZZZZZ	1	00:40:31																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
CCV17	1	00:42:50	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB17	1	00:45:05	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	00:48:01																							
ZZZZZZ	1	00:50:02																							
ZZZZZZ	1	00:52:07																							
ZZZZZZ	1	00:54:13																							
ZZZZZZ	1	00:56:19																							
ZZZZZZ	1	00:58:24																							
ZZZZZZ	1	01:00:44																							
ZZZZZZ	1	01:02:48																							
ZZZZZZ	1	01:04:53																							
CCV18	1	01:06:58	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB18	1	01:09:13	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	01:12:23																							
ZZZZZZ	1	01:14:32																							
ZZZZZZ	1	01:16:37																							
ZZZZZZ	1	01:18:37																							
ZZZZZZ	1	01:20:36																							
ZZZZZZ	1	01:22:35																							
ZZZZZZ	1	01:24:54																							
ZZZZZZ	1	01:27:13																							
ZZZZZZ	1	01:29:14																							
CCV19	1	01:30:35	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB19	1	01:32:36	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	01:35:33																							
ZZZZZZ	1	01:38:33																							
ZZZZZZ	1	01:40:33																							
ZZZZZZ	1	01:43:44																							
ZZZZZZ	1	01:45:43																							
ZZZZZZ	1	01:48:35																							
ZZZZZZ	5	01:50:35																							
CCV20	1	01:53:27	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB20	1	01:55:42	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	01:58:53																							
ZZZZZZ	1	02:01:52																							
ZZZZZZ	1	02:03:52																							
ZZZZZZ	1	02:05:58																							
ZZZZZZ	1	02:08:18																							
ZZZZZZ	1	02:10:34																							
ZZZZZZ	5	02:12:46																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	02:15:05																							
ZZZZZZ	1	02:17:05																							
CCV21	1	02:19:04	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB21	1	02:21:19	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	02:24:16																							
ZZZZZZ	1	02:27:15																							
ZZZZZZ	1	02:29:15																							
ZZZZZZ	1	02:31:36																							
ZZZZZZ	1	02:33:57																							
ZZZZZZ	1	02:36:19																							
ZZZZZZ	5	02:38:32																							
ZZZZZZ	1	02:40:32																							
ZZZZZZ	1	02:43:48																							
CCV22	1	02:47:00	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB22	1	02:49:00	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	02:51:56																							
ZZZZZZ	1	02:55:08																							
ZZZZZZ	1	02:57:07																							
ZZZZZZ	1	02:59:05																							
ZZZZZZ	1	03:01:03																							
ZZZZZZ	1	03:03:16																							
ZZZZZZ	1	03:05:15																							
ZZZZZZ	5	03:07:15																							
ZZZZZZ	1	03:09:13																							
ZZZZZZ	1	03:11:11																							
CCV23	1	03:13:23	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB23	1	03:15:38	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCV24	1	04:39:15	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB24	1	04:41:28	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	10	04:59:03																							
ZZZZZZ	10	05:01:17																							
CCV25	1	05:03:28	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB25	1	05:05:28	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	05:08:37																							
ZZZZZZ	1	05:10:42																							
ZZZZZZ	1	05:12:05																							
ZZZZZZ	1	05:14:18																							
ZZZZZZ	1	05:16:31																							
ZZZZZZ	1	05:17:52																							
ZZZZZZ	5	05:18:59																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	05:21:10																							
ZZZZZZ	1	05:23:08																							
CCV26	1	05:25:20	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB26	1	05:27:22	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	05:30:31																							
ZZZZZZ	1	05:32:34																							
ZZZZZZ	1	05:34:39																							
ZZZZZZ	1	05:36:38																							
ZZZZZZ	1	05:38:37																							
ZZZZZZ	1	05:40:50																							
ZZZZZZ	1	05:42:48																							
ZZZZZZ	1	05:44:48																							
ZZZZZZ	1	05:46:47																							
CCV27	1	05:48:46	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB27	1	05:51:01	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	10	05:58:10																							
ZZZZZZ	10	06:00:24																							
ZZZZZZ	10	06:02:36																							
CCV28	1	06:04:33	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB28	1	06:06:33	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCV29	1	06:27:45	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB29	1	06:29:44	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	06:32:41																							
ZZZZZZ	1	06:35:40																							
ZZZZZZ	1	06:37:02																							
ZZZZZZ	1	06:39:05																							
ZZZZZZ	1	06:41:22																							
ZZZZZZ	1	06:42:29																							
ZZZZZZ	5	06:43:33																							
ZZZZZZ	1	06:45:50																							
ZZZZZZ	1	06:48:08																							
CCV30	1	06:50:12	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB30	1	06:52:13	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	06:55:08																							
ZZZZZZ	1	06:57:13																							
ZZZZZZ	1	06:59:12																							
ZZZZZZ	1	07:01:10																							
ZZZZZZ	1	07:03:08																							
ZZZZZZ	1	07:05:20																							
ZZZZZZ	1	07:07:23																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	07:09:21																							
ZZZZZZ	1	07:11:34																							
ZZZZZZ	1	07:13:32																							
CCV31	1	07:15:44	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB31	1	07:17:46	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	07:20:41																							
ZZZZZZ	1	07:22:59																							
ZZZZZZ	1	07:24:09																							
ZZZZZZ	1	07:26:13																							
ZZZZZZ	1	07:28:16																							
ZZZZZZ	1	07:29:20																							
ZZZZZZ	5	07:30:25																							
ZZZZZZ	1	07:32:28																							
ZZZZZZ	1	07:34:32																							
CCV32	1	07:36:36	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB32	1	07:38:37	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	07:41:46																							
ZZZZZZ	1	07:44:01																							
ZZZZZZ	1	07:46:06																							
ZZZZZZ	1	07:48:04																							
ZZZZZZ	1	07:50:23																							
ZZZZZZ	1	07:52:35																							
ZZZZZZ	1	07:54:33																							
ZZZZZZ	1	07:56:36																							
ZZZZZZ	1	07:58:53																							
CCV33	1	08:00:59	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB33	1	08:02:58	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	08:06:08																							
ZZZZZZ	1	08:08:22																							
ZZZZZZ	1	08:10:26																							
ZZZZZZ	1	08:12:38																							
ZZZZZZ	1	08:14:36																							
ZZZZZZ	1	08:16:34																							
ZZZZZZ	1	08:18:34																							
ZZZZZZ	1	08:20:47																							
CCV34	1	08:22:47	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB34	1	08:25:02	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
1202068097	1	08:40:59	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
1202068102	1	08:44:11	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	08:45:33																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
1202068098	1	08:47:45	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
1202068100	1	08:49:44	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
1202068101	1	08:51:44	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
1202068099	5	08:53:43	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCV35	1	08:55:59	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB35	1	08:58:01	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	09:00:56																							
ZZZZZZ	1	09:02:56																							
ZZZZZZ	1	09:04:54																							
ZZZZZZ	1	09:07:06																							
ZZZZZZ	1	09:09:05																							
ZZZZZZ	1	09:11:22																							
ZZZZZZ	1	09:13:20																							
CCV36	1	09:15:23	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB36	1	09:17:23	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	09:20:19																							
248863001	1	09:22:25	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
248863002	1	09:24:29	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
248863003	1	09:26:41	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
248863004	1	09:28:53	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	09:30:57																							
CCV37	1	09:32:56	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB37	1	09:34:57	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X

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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 13–APR–10 **End Date:** 13–APR–10

Client Sdg: 10–2315
Method P
Data File: 041310A–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	13:54:24							X																
S0.1	1	13:57:35																							
S0.5	1	13:59:33							X																
SCAL	1	14:01:45							X																
S10	1	14:04:02							X																
ICV01	1	14:05:06							X																
ICB01	1	14:07:19							X																
PQL01	1	14:10:15							X																
ICSA01	1	14:13:27							X																
ICSAB01	1	14:15:41							X																
LR01	1	14:17:01							X																
LR02	1	14:18:05							X																
CCV01	1	14:19:32							X																
CCB01	1	14:21:34							X																
CCV02	1	14:26:05							X																
CCB02	1	14:28:18							X																
LR03	1	14:31:14							X																
CCV03	1	14:34:12							X																
CCB03	1	14:36:13							X																
1202092701	1	14:56:34							X																
1202092702	1	14:59:33							X																
ZZZZZZ	1	15:00:56																							
1202068098	1	15:03:09							X																
1202068100	1	15:05:07							X																
1202068101	1	15:07:20							X																
1202068099	5	15:09:34							X																
CCV04	1	15:11:51							X																
CCB04	1	15:14:07							X																
ZZZZZZ	1	15:17:03																							
ZZZZZZ	1	15:19:04																							
ZZZZZZ	1	15:21:16																							
ZZZZZZ	1	15:23:14																							
ZZZZZZ	1	15:25:12																							
ZZZZZZ	1	15:27:30																							
ZZZZZZ	1	15:29:29																							
CCV05	1	15:31:46							X																
CCB05	1	15:33:46							X																
ZZZZZZ	1	15:36:56																							
248863001	1	15:39:16							X																
248863002	1	15:41:20							X																

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																							
248863003	1	15:43:19							X																
248863004	1	15:45:23							X																
ZZZZZZ	1	15:47:21																							
CCV06	1	15:49:39							X																
CCB06	1	15:51:40							X																

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS7
Start Date: 17–MAY–10 **End Date:** 17–MAY–10

Client Sdg: 10–2315
Method MS
Data File: 100517–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	19:14:26					X																		
S10	1	19:16:05					X																		
S100	1	19:17:45					X																		
ICV01	1	19:19:25					X																		
ICB01	1	19:21:06					X																		
CRDL01	1	19:22:47					X																		
ICSA01	1	19:24:27					X																		
ICSAB01	1	19:26:07					X																		
CCV01	1	19:27:48					X																		
CCB01	1	19:29:30					X																		
LR01	1	19:31:10					X																		
CCV02	1	19:32:50					X																		
CCB02	1	19:34:32					X																		
ZZZZZZ	2	19:38:01																							
ZZZZZZ	2	19:39:41																							
ZZZZZZ	1000	19:41:21																							
ZZZZZZ	1000	19:43:01																							
ZZZZZZ	1000	19:44:41																							
ZZZZZZ	1000	19:46:22																							
ZZZZZZ	5000	19:48:03																							
ZZZZZZ	1000	19:49:43																							
ZZZZZZ	1000	19:51:23																							
CCV03	1	19:53:04					X																		
CCB03	1	19:54:46					X																		
ZZZZZZ	1000	19:56:26																							
ZZZZZZ	100	19:58:06																							
ZZZZZZ	1000	19:59:46																							
ZZZZZZ	1000	20:01:27																							
ZZZZZZ	10000	20:03:08																							
ZZZZZZ	1000	20:04:48																							
ZZZZZZ	1000	20:06:29																							
ZZZZZZ	10000	20:08:09																							
ZZZZZZ	1000	20:09:49																							
CCV04	1	20:11:30					X																		
CCB04	1	20:13:12					X																		
1202068103	2	20:16:38					X																		
1202068108	40	20:17:52					X																		
ZZZZZZ	2	20:19:06																							
1202068104	2	20:20:20					X																		
1202068106	2	20:21:35					X																		

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																							
1202068107	2	20:22:49					X																		
1202068105	10	20:24:04					X																		
ZZZZZZ	2	20:25:18																							
ZZZZZZ	2	20:26:33																							
ZZZZZZ	2	20:27:47																							
CCV05	1	20:29:02					X																		
CCB05	1	20:30:19					X																		
ZZZZZZ	2	20:31:33																							
ZZZZZZ	2	20:32:47																							
ZZZZZZ	2	20:34:02																							
ZZZZZZ	2	20:35:17																							
ZZZZZZ	2	20:36:31																							
248863001	2	20:37:46					X																		
248863002	2	20:39:00					X																		
248863003	2	20:40:15					X																		
248863004	2	20:41:29					X																		
ZZZZZZ	2	20:42:44																							
CCV06	1	20:43:59					X																		
CCB06	1	20:45:15					X																		

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 17–MAY–10 **End Date:** 17–MAY–10

Client Sdg: 10–2315
Method MS
Data File: 100517–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	11:58:00			X													X		X			X		
S10	1	12:02:00			X													X		X			X		
S100	1	12:06:00			X													X		X			X		
ICV01	1	12:10:00			X													X		X			X		
ICB01	1	12:14:00			X													X		X			X		
CRDL01	1	12:18:00			X													X		X			X		
ICSA01	1	12:22:00			X													X		X			X		
ICSAB01	1	12:26:00			X													X		X			X		
CCV01	1	12:30:00			X													X		X			X		
CCB01	1	12:35:00			X													X		X			X		
LR01	1	12:39:00			X													X		X			X		
CCV02	1	12:43:00			X													X		X			X		
CCB02	1	12:47:00			X													X		X			X		
1202068103	2	12:51:00			X													X		X			X		
1202068108	40	12:55:00			X													X		X			X		
ZZZZZZ	2	12:59:00																							
1202068104	2	13:03:00			X													X		X			X		
1202068106	2	13:08:00			X													X		X			X		
1202068107	2	13:12:00			X													X		X			X		
1202068105	10	13:16:00			X													X		X			X		
CCV03	1	13:20:00			X													X		X			X		
CCB03	1	13:24:00			X													X		X			X		
ZZZZZZ	2	13:28:00																							
ZZZZZZ	2	13:32:00																							
ZZZZZZ	2	13:37:00																							
ZZZZZZ	2	13:41:00																							
ZZZZZZ	2	13:45:00																							
ZZZZZZ	2	13:49:00																							
ZZZZZZ	2	13:53:00																							
ZZZZZZ	2	13:57:00																							
248863001	2	14:01:00			X													X		X			X		
248863002	2	14:06:00			X													X		X			X		
CCV04	1	14:10:00			X													X		X			X		
CCB04	1	14:14:00			X													X		X			X		
248863003	2	14:18:00			X													X		X			X		
248863004	2	14:22:00			X													X		X			X		
ZZZZZZ	2	14:26:00																							
CCV05	1	14:31:00			X													X		X			X		
CCB05	1	14:35:00			X													X		X			X		

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2315

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2315

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2315

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2315
Contract: LANL01004
Instrument: OPTIMA4
Effective Dates: 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2315
Contract: LANL01004
Instrument: OPTIMA4
Effective Dates: 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Seleninm	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2315
Effective Dates: 22-MAR-10

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2315
Effective Dates: 22-MAR-10

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2315
Contract: LANL01004
Instrument: OPTIMA4
Effective Dates: 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-2315
Contract: LANL01004
Instrument: OPTIMA4 **Effective Dates:** 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–2315

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2315

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS7

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2315

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS4

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 051810

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

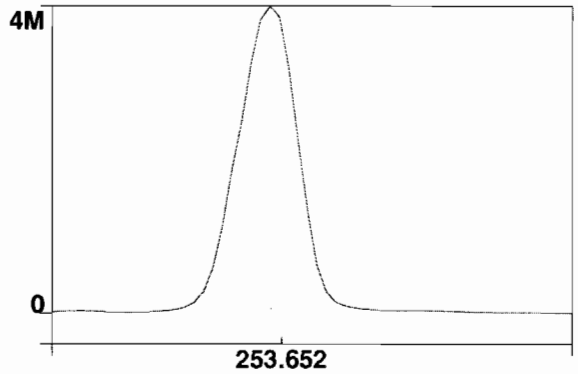

Intensity: 4417067.9 cps
Conc:

1

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Analysis Begun

Start Time: 3/31/2010 18:36:27 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/31/2010 18:36:30**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	146983.1	146983.1	101	%	18:37:03
1	Al 396.153Radial†	-46.6	-46.3	[0.00]	µg/L	18:37:23
1	Ca 317.933Radial†	562.9	558.9	[0.00]	µg/L	18:37:23
1	Fe 238.204 Radial†	148.8	147.8	[0.00]	µg/L	18:37:23
1	K 766.490 Radial†	1565.6	1554.3	[0.00]	µg/L	18:37:03
1	Mg 279.077 IEC†	207.4	205.9	[0.00]	µg/L	18:37:23
1	Na 589.592 Radial†	1216.0	1207.3	[0.00]	µg/L	18:37:03
1	Sr 421.552†	-110.9	-110.1	[0.00]	µg/L	18:37:03
1	Sc 361.383	1704607.6	1704607.6	99.208	%	18:38:25
1	Y 371.029	1018376.3	1018376.3	99.190	%	18:38:25
1	Ag 328.068†	3963.8	3995.4	[0.00]	µg/L	18:38:27
1	As 188.979†	-17.7	-17.9	[0.00]	µg/L	18:38:48
1	B 249.677†	3489.7	3517.5	[0.00]	µg/L	18:38:27
1	Ba 233.527†	-145.9	-147.0	[0.00]	µg/L	18:38:48
1	Be 313.107†	-965.4	-973.1	[0.00]	µg/L	18:38:27
1	Cd 226.502†	-106.0	-106.8	[0.00]	µg/L	18:38:48
1	Co 228.616†	-174.9	-176.3	[0.00]	µg/L	18:38:48
1	Cr 267.716†	129.8	130.8	[0.00]	µg/L	18:38:48
1	Cu 324.752†	2846.5	2869.3	[0.00]	µg/L	18:38:27
1	Mn 257.610†	253.9	255.9	[0.00]	µg/L	18:38:48
1	Mo 202.031†	-24.9	-25.1	[0.00]	µg/L	18:38:48
1	Ni 231.604†	-72.6	-73.1	[0.00]	µg/L	18:38:48
1	P 214.914†	-29.6	-29.8	[0.00]	µg/L	18:38:48
1	Pb 220.353†	106.5	107.4	[0.00]	µg/L	18:38:48
1	S 181.975 Axial†	102.6	103.4	[0.00]	µg/L	18:38:48
1	Sb 206.836†	81.9	82.6	[0.00]	µg/L	18:38:48
1	Se 196.026†	14.5	14.6	[0.00]	µg/L	18:38:48
1	SiO2†	1812.7	1827.1	[0.00]	µg/L	18:38:27
1	Si 251.611†	747.0	752.9	[0.00]	µg/L	18:38:27
1	Sn 189.927†	-6.9	-6.9	[0.00]	µg/L	18:38:48
1	Ti 334.940†	920.6	928.0	[0.00]	µg/L	18:38:27
1	Tl 190.801†	-108.2	-109.0	[0.00]	µg/L	18:38:48
1	U 409.014†	-161.2	-162.4	[0.00]	µg/L	18:38:27
1	V 292.402†	343.5	346.2	[0.00]	µg/L	18:38:27
1	Zn 213.857†	560.7	565.2	[0.00]	µg/L	18:38:48
2	Sc RADIAL	145077.9	145077.9	99.4	%	18:37:25
2	Al 396.153Radial†	-80.7	-81.2	[0.00]	µg/L	18:37:45
2	Ca 317.933Radial†	555.7	559.0	[0.00]	µg/L	18:37:45
2	Fe 238.204 Radial†	152.0	152.9	[0.00]	µg/L	18:37:45
2	K 766.490 Radial†	1581.8	1591.1	[0.00]	µg/L	18:37:25
2	Mg 279.077 IEC†	207.4	208.6	[0.00]	µg/L	18:37:45
2	Na 589.592 Radial†	1309.5	1317.2	[0.00]	µg/L	18:37:25
2	Sr 421.552†	-50.0	-50.3	[0.00]	µg/L	18:37:25
2	Sc 361.383	1730517.4	1730517.4	100.72	%	18:38:50
2	Y 371.029	1034150.1	1034150.1	100.73	%	18:38:50
2	Ag 328.068†	4314.8	4284.1	[0.00]	µg/L	18:38:52
2	As 188.979†	-23.3	-23.2	[0.00]	µg/L	18:39:12

2	B 249.677†	3487.4	3462.6	[0.00]	µg/L	18:38:52
2	Ba 233.527†	-138.3	-137.3	[0.00]	µg/L	18:39:12
2	Be 313.107†	-1181.9	-1173.5	[0.00]	µg/L	18:38:52
2	Cd 226.502†	-128.3	-127.3	[0.00]	µg/L	18:39:12
2	Co 228.616†	-207.1	-205.6	[0.00]	µg/L	18:39:12
2	Cr 267.716†	187.0	185.7	[0.00]	µg/L	18:39:12
2	Cu 324.752†	3037.7	3016.1	[0.00]	µg/L	18:38:52
2	Mn 257.610†	235.4	233.7	[0.00]	µg/L	18:39:12
2	Mo 202.031†	-14.8	-14.7	[0.00]	µg/L	18:39:12
2	Ni 231.604†	-77.5	-77.0	[0.00]	µg/L	18:39:12
2	P 214.914†	-7.1	-7.0	[0.00]	µg/L	18:39:12
2	Pb 220.353†	82.7	82.1	[0.00]	µg/L	18:39:12
2	S 181.975 Axial†	101.1	100.4	[0.00]	µg/L	18:39:12
2	Sb 206.836†	84.6	84.0	[0.00]	µg/L	18:39:12
2	Se 196.026†	9.6	9.5	[0.00]	µg/L	18:39:12
2	SiO2†	1764.6	1752.0	[0.00]	µg/L	18:38:52
2	Si 251.611†	909.0	902.5	[0.00]	µg/L	18:38:52
2	Sn 189.927†	4.1	4.0	[0.00]	µg/L	18:39:12
2	Ti 334.940†	1042.4	1035.0	[0.00]	µg/L	18:38:52
2	Tl 190.801†	-124.1	-123.3	[0.00]	µg/L	18:39:12
2	U 409.014†	-390.5	-387.7	[0.00]	µg/L	18:38:52
2	V 292.402†	355.1	352.6	[0.00]	µg/L	18:38:52
2	Zn 213.857†	564.8	560.8	[0.00]	µg/L	18:39:12
3	Sc RADIAL	145728.3	145728.3	99.9	%	18:37:47
3	Al 396.153Radial†	-62.0	-62.1	[0.00]	µg/L	18:38:07
3	Ca 317.933Radial†	563.1	563.9	[0.00]	µg/L	18:38:07
3	Fe 238.204 Radial†	143.5	143.7	[0.00]	µg/L	18:38:07
3	K 766.490 Radial†	1486.8	1488.8	[0.00]	µg/L	18:37:47
3	Mg 279.077 IEC†	157.4	157.6	[0.00]	µg/L	18:38:07
3	Na 589.592 Radial†	1346.0	1347.9	[0.00]	µg/L	18:37:47
3	Sr 421.552†	-245.1	-245.5	[0.00]	µg/L	18:37:47
3	Sc 361.383	1719527.8	1719527.8	100.08	%	18:39:14
3	Y 371.029	1027539.8	1027539.8	100.08	%	18:39:14
3	Ag 328.068†	3997.7	3994.6	[0.00]	µg/L	18:39:16
3	As 188.979†	-20.0	-20.0	[0.00]	µg/L	18:39:36
3	B 249.677†	3540.3	3537.6	[0.00]	µg/L	18:39:16
3	Ba 233.527†	-123.3	-123.2	[0.00]	µg/L	18:39:36
3	Be 313.107†	-1048.2	-1047.4	[0.00]	µg/L	18:39:16
3	Cd 226.502†	-120.5	-120.4	[0.00]	µg/L	18:39:36
3	Co 228.616†	-189.2	-189.0	[0.00]	µg/L	18:39:36
3	Cr 267.716†	219.3	219.2	[0.00]	µg/L	18:39:36
3	Cu 324.752†	3033.6	3031.3	[0.00]	µg/L	18:39:16
3	Mn 257.610†	222.3	222.2	[0.00]	µg/L	18:39:36
3	Mo 202.031†	-20.4	-20.4	[0.00]	µg/L	18:39:36
3	Ni 231.604†	-79.5	-79.4	[0.00]	µg/L	18:39:36
3	P 214.914†	-17.1	-17.1	[0.00]	µg/L	18:39:36
3	Pb 220.353†	69.7	69.7	[0.00]	µg/L	18:39:36
3	S 181.975 Axial†	111.4	111.3	[0.00]	µg/L	18:39:36
3	Sb 206.836†	76.0	76.0	[0.00]	µg/L	18:39:36
3	Se 196.026†	21.7	21.7	[0.00]	µg/L	18:39:36
3	SiO2†	1748.3	1747.0	[0.00]	µg/L	18:39:16
3	Si 251.611†	854.9	854.3	[0.00]	µg/L	18:39:16
3	Sn 189.927†	-0.5	-0.5	[0.00]	µg/L	18:39:36
3	Ti 334.940†	895.3	894.7	[0.00]	µg/L	18:39:16
3	Tl 190.801†	-117.8	-117.8	[0.00]	µg/L	18:39:36
3	U 409.014†	-259.7	-259.5	[0.00]	µg/L	18:39:16
3	V 292.402†	512.9	512.6	[0.00]	µg/L	18:39:16
3	Zn 213.857†	567.7	567.3	[0.00]	µg/L	18:39:36

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1718217.6	13004.50	0.76%	100.00	%
Sc RADIAL	145929.8	968.46	0.66%	100	%
Y 371.029	1026688.7	7921.26	0.77%	100.000	%
Ag 328.068†	4091.4	166.92	4.08%	[0.00]	µg/L
Al 396.153Radial†	-63.2	17.46	27.63%	[0.00]	µg/L
As 188.979†	-20.4	2.68	13.16%	[0.00]	µg/L
B 249.677†	3505.9	38.80	1.11%	[0.00]	µg/L
Ba 233.527†	-135.9	11.99	8.83%	[0.00]	µg/L

Be 313.107†	-1064.7	101.30	9.51%	[0.00]	µg/L
Ca 317.933Radial†	560.6	2.89	0.52%	[0.00]	µg/L
Cd 226.502†	-118.2	10.43	8.83%	[0.00]	µg/L
Co 228.616†	-190.3	14.72	7.73%	[0.00]	µg/L
Cr 267.716†	178.6	44.62	24.99%	[0.00]	µg/L
Cu 324.752†	2972.2	89.48	3.01%	[0.00]	µg/L
Fe 238.204 Radial†	148.1	4.61	3.11%	[0.00]	µg/L
K 766.490 Radial†	1544.8	51.81	3.35%	[0.00]	µg/L
Mg 279.077 IEC†	190.7	28.69	15.04%	[0.00]	µg/L
Mn 257.610†	237.3	17.14	7.23%	[0.00]	µg/L
Mo 202.031†	-20.1	5.18	25.80%	[0.00]	µg/L
Na 589.592 Radial†	1290.8	73.89	5.72%	[0.00]	µg/L
Ni 231.604†	-76.5	3.18	4.16%	[0.00]	µg/L
P 214.914†	-18.0	11.42	63.61%	[0.00]	µg/L
Pb 220.353†	86.4	19.23	22.27%	[0.00]	µg/L
S 181.975 Axial†	105.1	5.63	5.36%	[0.00]	µg/L
Sb 206.836†	80.8	4.27	5.29%	[0.00]	µg/L
Se 196.026†	15.3	6.14	40.18%	[0.00]	µg/L
SiO2†	1775.4	44.90	2.53%	[0.00]	µg/L
Si 251.611†	836.6	76.33	9.12%	[0.00]	µg/L
Sn 189.927†	-1.1	5.51	492.60%	[0.00]	µg/L
Sr 421.552†	-135.3	99.98	73.90%	[0.00]	µg/L
Ti 334.940†	952.5	73.33	7.70%	[0.00]	µg/L
Tl 190.801†	-116.7	7.17	6.15%	[0.00]	µg/L
U 409.014†	-269.9	113.01	41.87%	[0.00]	µg/L
V 292.402†	403.8	94.24	23.34%	[0.00]	µg/L
Zn 213.857†	564.4	3.32	0.59%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/31/2010 18:39:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	144945.8	144945.8	99.3	%	18:40:16
1	K 766.490 Radial†	4177.9	2661.5	[1000]	µg/L	18:40:16
1	Sr 421.552†	48790.2	49256.8	[100]	µg/L	18:40:16
1	Sc 361.383	1738207.5	1738207.5	101.16	%	18:40:38
1	Y 371.029	1035658.2	1035658.2	100.87	%	18:40:38
1	Ag 328.068†	31505.9	27052.2	[100]	µg/L	18:40:40
1	As 188.979†	319.4	336.1	[100]	µg/L	18:41:00
1	B 249.677†	10182.7	6559.7	[100]	µg/L	18:40:40
1	Ba 233.527†	25238.0	25083.6	[100]	µg/L	18:40:40
1	Be 313.107†	372065.7	368851.5	[100]	µg/L	18:40:38
1	Cd 226.502†	16206.1	16137.9	[100]	µg/L	18:40:40
1	Co 228.616†	8180.0	8276.3	[100]	µg/L	18:41:00
1	Cr 267.716†	13182.1	12852.0	[100]	µg/L	18:40:40
1	Cu 324.752†	28766.5	25463.5	[100]	µg/L	18:40:40
1	Mn 257.610†	84629.1	83418.6	[100]	µg/L	18:40:40
1	Mo 202.031†	3388.6	3369.7	[100]	µg/L	18:41:00
1	Ni 231.604†	8784.7	8760.2	[100]	µg/L	18:40:40
1	P 214.914†	2330.2	2321.4	[500]	µg/L	18:41:00
1	Pb 220.353†	1931.7	1823.1	[100]	µg/L	18:41:00
1	S 181.975 Axial†	386.6	277.1	[200]	µg/L	18:41:00
1	Sb 206.836†	932.6	841.0	[100]	µg/L	18:41:00
1	Se 196.026†	288.8	270.2	[100]	µg/L	18:41:00
1	SiO2†	12629.3	10708.7	[1069.5]	µg/L	18:40:40
1	Si 251.611†	34601.6	33367.1	[500]	µg/L	18:40:40
1	Sn 189.927†	1637.3	1619.6	[100]	µg/L	18:41:00
1	Ti 334.940†	108213.7	106016.7	[100]	µg/L	18:40:40
1	Tl 190.801†	724.1	832.5	[100]	µg/L	18:41:00
1	U 409.014†	1714.9	1965.0	[100]	µg/L	18:40:40
1	V 292.402†	20866.1	20222.4	[100]	µg/L	18:40:40
1	Zn 213.857†	18689.8	17910.4	[100]	µg/L	18:40:40
2	Sc RADIAL	144384.1	144384.1	98.9	%	18:40:18
2	K 766.490 Radial†	4099.7	2598.8	[1000]	µg/L	18:40:18
2	Sr 421.552†	48913.4	49572.3	[100]	µg/L	18:40:18
2	Sc 361.383	1718136.8	1718136.8	99.995	%	18:41:02
2	Y 371.029	1023615.0	1023615.0	99.701	%	18:41:02
2	Ag 328.068†	31474.0	27384.1	[100]	µg/L	18:41:04
2	As 188.979†	316.2	336.6	[100]	µg/L	18:41:24
2	B 249.677†	10249.3	6743.9	[100]	µg/L	18:41:04
2	Ba 233.527†	25403.3	25540.3	[100]	µg/L	18:41:04
2	Be 313.107†	368011.0	369093.1	[100]	µg/L	18:41:02
2	Cd 226.502†	16403.0	16522.0	[100]	µg/L	18:41:04
2	Co 228.616†	8194.1	8384.8	[100]	µg/L	18:41:24
2	Cr 267.716†	13299.6	13121.6	[100]	µg/L	18:41:04
2	Cu 324.752†	29042.8	26072.0	[100]	µg/L	18:41:04
2	Mn 257.610†	85481.9	85248.7	[100]	µg/L	18:41:04
2	Mo 202.031†	3415.9	3436.2	[100]	µg/L	18:41:24
2	Ni 231.604†	9104.3	9181.2	[100]	µg/L	18:41:04
2	P 214.914†	2327.9	2346.0	[500]	µg/L	18:41:24
2	Pb 220.353†	1943.3	1857.0	[100]	µg/L	18:41:24
2	S 181.975 Axial†	382.9	277.8	[200]	µg/L	18:41:24
2	Sb 206.836†	933.1	852.4	[100]	µg/L	18:41:24
2	Se 196.026†	282.7	267.4	[100]	µg/L	18:41:24
2	SiO2†	12728.6	10953.9	[1069.5]	µg/L	18:41:04
2	Si 251.611†	35105.7	34270.8	[500]	µg/L	18:41:04
2	Sn 189.927†	1643.4	1644.6	[100]	µg/L	18:41:24
2	Ti 334.940†	109258.0	108310.6	[100]	µg/L	18:41:04
2	Tl 190.801†	742.2	858.9	[100]	µg/L	18:41:24
2	U 409.014†	1747.4	2017.4	[100]	µg/L	18:41:04
2	V 292.402†	20863.1	20460.2	[100]	µg/L	18:41:04

2	Zn 213.857†	18913.1	18349.6	[100]	µg/L	18:41:04
3	Sc RADIAL	144888.2	144888.2	99.3	%	18:40:20
3	K 766.490 Radial†	4194.1	2679.5	[1000]	µg/L	18:40:20
3	Sr 421.552†	48878.7	49365.4	[100]	µg/L	18:40:20
3	Sc 361.383	1720712.1	1720712.1	100.15	%	18:41:26
3	Y 371.029	1025149.2	1025149.2	99.850	%	18:41:26
3	Ag 328.068†	30653.6	26517.7	[100]	µg/L	18:41:28
3	As 188.979†	311.4	331.3	[100]	µg/L	18:41:48
3	B 249.677†	10032.3	6511.9	[100]	µg/L	18:41:28
3	Ba 233.527†	24571.6	24671.8	[100]	µg/L	18:41:28
3	Be 313.107†	369363.0	369892.2	[100]	µg/L	18:41:26
3	Cd 226.502†	15800.2	15895.5	[100]	µg/L	18:41:28
3	Co 228.616†	7941.4	8120.2	[100]	µg/L	18:41:48
3	Cr 267.716†	12878.6	12681.3	[100]	µg/L	18:41:28
3	Cu 324.752†	28237.0	25223.9	[100]	µg/L	18:41:28
3	Mn 257.610†	82709.3	82352.2	[100]	µg/L	18:41:28
3	Mo 202.031†	3317.5	3332.8	[100]	µg/L	18:41:48
3	Ni 231.604†	8579.1	8643.1	[100]	µg/L	18:41:28
3	P 214.914†	2246.6	2261.3	[500]	µg/L	18:41:48
3	Pb 220.353†	1888.8	1799.7	[100]	µg/L	18:41:48
3	S 181.975 Axial†	370.3	264.7	[200]	µg/L	18:41:48
3	Sb 206.836†	914.8	832.6	[100]	µg/L	18:41:48
3	Se 196.026†	294.0	278.3	[100]	µg/L	18:41:48
3	SiO2†	12365.6	10572.3	[1069.5]	µg/L	18:41:28
3	Si 251.611†	33612.6	32727.3	[500]	µg/L	18:41:28
3	Sn 189.927†	1589.9	1588.8	[100]	µg/L	18:41:48
3	Ti 334.940†	106005.7	104899.5	[100]	µg/L	18:41:28
3	Tl 190.801†	699.9	815.6	[100]	µg/L	18:41:48
3	U 409.014†	1493.0	1760.7	[100]	µg/L	18:41:28
3	V 292.402†	20303.9	19870.7	[100]	µg/L	18:41:28
3	Zn 213.857†	18249.8	17659.0	[100]	µg/L	18:41:28

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1725685.5	10920.55	0.63%	100.43	%
Sc RADIAL	144739.3	309.02	0.21%	99.2	%
Y 371.029	1028140.8	6555.30	0.64%	100.14	%
Ag 328.068†	26984.7	437.11	1.62%	[100]	µg/L
As 188.979†	334.7	2.93	0.88%	[100]	µg/L
B 249.677†	6605.2	122.52	1.85%	[100]	µg/L
Ba 233.527†	25098.6	434.45	1.73%	[100]	µg/L
Be 313.107†	369278.9	544.69	0.15%	[100]	µg/L
Cd 226.502†	16185.1	315.91	1.95%	[100]	µg/L
Co 228.616†	8260.4	133.02	1.61%	[100]	µg/L
Cr 267.716†	12885.0	222.00	1.72%	[100]	µg/L
Cu 324.752†	25586.4	437.23	1.71%	[100]	µg/L
K 766.490 Radial†	2646.6	42.33	1.60%	[1000]	µg/L
Mn 257.610†	83673.1	1464.94	1.75%	[100]	µg/L
Mo 202.031†	3379.6	52.39	1.55%	[100]	µg/L
Ni 231.604†	8861.5	282.97	3.19%	[100]	µg/L
P 214.914†	2309.6	43.55	1.89%	[500]	µg/L
Pb 220.353†	1826.6	28.83	1.58%	[100]	µg/L
S 181.975 Axial†	273.2	7.39	2.70%	[200]	µg/L
Sb 206.836†	842.0	9.91	1.18%	[100]	µg/L
Se 196.026†	272.0	5.61	2.06%	[100]	µg/L
SiO2†	10744.9	193.37	1.80%	[1069.5]	µg/L
Si 251.611†	33455.1	775.50	2.32%	[500]	µg/L
Sn 189.927†	1617.7	27.99	1.73%	[100]	µg/L
Sr 421.552†	49398.1	160.32	0.32%	[100]	µg/L
Ti 334.940†	106408.9	1739.07	1.63%	[100]	µg/L
Tl 190.801†	835.7	21.85	2.61%	[100]	µg/L
U 409.014†	1914.4	135.63	7.09%	[100]	µg/L
V 292.402†	20184.4	296.62	1.47%	[100]	µg/L
Zn 213.857†	17973.0	349.52	1.94%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/31/2010 18:41:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139976.0	139976.0	95.9	%	18:42:27
1	Al 396.153Radial†	25919.4	27085.0	[5000]	µg/L	18:42:27
1	Ca 317.933Radial†	87385.1	90541.3	[5000]	µg/L	18:42:27
1	K 766.490 Radial†	14430.7	13499.7	[5000]	µg/L	18:42:27
1	Mg 279.077 IEC†	13338.9	13715.6	[5000]	µg/L	18:42:27
1	Sr 421.552†	229015.2	238891.4	[500]	µg/L	18:42:25
1	Sc 361.383	1645400.7	1645400.7	95.762	%	18:42:40
1	Y 371.029	975342.9	975342.9	94.999	%	18:42:40
1	Ag 328.068†	131294.3	133013.3	[500]	µg/L	18:42:40
1	As 188.979†	1571.6	1661.5	[500]	µg/L	18:43:00
1	B 249.677†	35172.1	33222.7	[500]	µg/L	18:42:40
1	Ba 233.527†	117348.5	122677.6	[500]	µg/L	18:42:40
1	Be 313.107†	1744827.1	1823108.9	[500]	µg/L	18:42:40
1	Cd 226.502†	75312.3	78763.4	[500]	µg/L	18:42:40
1	Co 228.616†	38245.0	40127.8	[500]	µg/L	18:42:40
1	Cr 267.716†	60545.4	63046.3	[500]	µg/L	18:42:40
1	Cu 324.752†	123884.9	126395.2	[500]	µg/L	18:42:40
1	Mn 257.610†	385575.1	402401.4	[500]	µg/L	18:42:40
1	Mo 202.031†	16410.2	17156.5	[500]	µg/L	18:43:00
1	Ni 231.604†	41126.2	43022.7	[500]	µg/L	18:42:40
1	P 214.914†	11303.9	11822.1	[2500]	µg/L	18:43:00
1	Pb 220.353†	8787.6	9090.2	[500]	µg/L	18:43:00
1	S 181.975 Axial†	1381.6	1337.7	[1000]	µg/L	18:43:00
1	Sb 206.836†	4130.5	4232.5	[500]	µg/L	18:43:00
1	Se 196.026†	1340.7	1384.8	[500]	µg/L	18:43:00
1	SiO2†	54250.1	54875.6	[5347.5]	µg/L	18:42:40
1	Si 251.611†	163679.1	170086.1	[2500]	µg/L	18:42:40
1	Sn 189.927†	7746.5	8090.4	[500]	µg/L	18:43:00
1	Ti 334.940†	510093.6	531715.2	[500]	µg/L	18:42:40
1	Tl 190.801†	3808.0	4093.2	[500]	µg/L	18:43:00
1	U 409.014†	6985.6	7564.6	[500]	µg/L	18:42:40
1	V 292.402†	96986.0	100874.3	[500]	µg/L	18:42:40
1	Zn 213.857†	84527.8	87704.2	[500]	µg/L	18:42:40
2	Sc RADIAL	141210.3	141210.3	96.8	%	18:42:31
2	Al 396.153Radial†	26176.8	27114.9	[5000]	µg/L	18:42:31
2	Ca 317.933Radial†	88277.8	90667.6	[5000]	µg/L	18:42:31
2	K 766.490 Radial†	14658.6	13603.8	[5000]	µg/L	18:42:31
2	Mg 279.077 IEC†	13508.7	13769.5	[5000]	µg/L	18:42:31
2	Sr 421.552†	232944.0	240864.6	[500]	µg/L	18:42:29
2	Sc 361.383	1687203.1	1687203.1	98.195	%	18:43:03
2	Y 371.029	998510.1	998510.1	97.255	%	18:43:03
2	Ag 328.068†	134607.0	132990.0	[500]	µg/L	18:43:03
2	As 188.979†	1586.5	1636.0	[500]	µg/L	18:43:23
2	B 249.677†	36433.6	33597.5	[500]	µg/L	18:43:03
2	Ba 233.527†	121232.8	123597.1	[500]	µg/L	18:43:03
2	Be 313.107†	1799842.1	1833991.9	[500]	µg/L	18:43:03
2	Cd 226.502†	78158.8	79713.7	[500]	µg/L	18:43:03
2	Co 228.616†	39721.5	40642.0	[500]	µg/L	18:43:03
2	Cr 267.716†	62227.1	63192.4	[500]	µg/L	18:43:03
2	Cu 324.752†	127576.9	126949.9	[500]	µg/L	18:43:03
2	Mn 257.610†	397913.1	404990.4	[500]	µg/L	18:43:03
2	Mo 202.031†	16475.5	16798.5	[500]	µg/L	18:43:23
2	Ni 231.604†	42320.9	43175.4	[500]	µg/L	18:43:03
2	P 214.914†	11321.5	11547.6	[2500]	µg/L	18:43:23
2	Pb 220.353†	8841.9	8918.0	[500]	µg/L	18:43:23
2	S 181.975 Axial†	1404.5	1325.2	[1000]	µg/L	18:43:23
2	Sb 206.836†	4150.6	4146.1	[500]	µg/L	18:43:23
2	Se 196.026†	1352.6	1362.2	[500]	µg/L	18:43:23
2	SiO2†	55913.1	55165.5	[5347.5]	µg/L	18:43:03

2	Si 251.611†	169027.8	171298.3	[2500]	µg/L	18:43:03
2	Sn 189.927†	7793.7	7938.1	[500]	µg/L	18:43:23
2	Ti 334.940†	524282.8	532967.8	[500]	µg/L	18:43:03
2	Tl 190.801†	3829.1	4016.1	[500]	µg/L	18:43:23
2	U 409.014†	7204.4	7606.8	[500]	µg/L	18:43:03
2	V 292.402†	99476.3	100901.1	[500]	µg/L	18:43:03
2	Zn 213.857†	87574.3	88619.7	[500]	µg/L	18:43:03
3	Sc RADIAL	139845.9	139845.9	95.8	%	18:42:35
3	Al 396.153Radial†	25970.7	27163.8	[5000]	µg/L	18:42:35
3	Ca 317.933Radial†	87048.7	90275.0	[5000]	µg/L	18:42:35
3	K 766.490 Radial†	14322.7	13401.0	[5000]	µg/L	18:42:35
3	Mg 279.077 IEC†	13177.9	13560.5	[5000]	µg/L	18:42:35
3	Sr 421.552†	232490.3	242739.9	[500]	µg/L	18:42:33
3	Sc 361.383	1671427.9	1671427.9	97.277	%	18:43:26
3	Y 371.029	990579.4	990579.4	96.483	%	18:43:26
3	Ag 328.068†	132744.3	132368.9	[500]	µg/L	18:43:26
3	As 188.979†	1563.8	1627.9	[500]	µg/L	18:43:46
3	B 249.677†	35824.9	33321.9	[500]	µg/L	18:43:26
3	Ba 233.527†	119283.9	122759.0	[500]	µg/L	18:43:26
3	Be 313.107†	1775117.0	1825874.0	[500]	µg/L	18:43:26
3	Cd 226.502†	77044.3	79319.2	[500]	µg/L	18:43:26
3	Co 228.616†	39106.1	40391.2	[500]	µg/L	18:43:26
3	Cr 267.716†	61510.3	63053.6	[500]	µg/L	18:43:26
3	Cu 324.752†	125724.5	126271.8	[500]	µg/L	18:43:26
3	Mn 257.610†	391730.1	402458.9	[500]	µg/L	18:43:26
3	Mo 202.031†	16447.7	16928.2	[500]	µg/L	18:43:46
3	Ni 231.604†	41833.4	43081.0	[500]	µg/L	18:43:26
3	P 214.914†	11306.9	11641.3	[2500]	µg/L	18:43:46
3	Pb 220.353†	8817.9	8978.4	[500]	µg/L	18:43:46
3	S 181.975 Axial†	1403.6	1337.8	[1000]	µg/L	18:43:46
3	Sb 206.836†	4107.1	4141.3	[500]	µg/L	18:43:46
3	Se 196.026†	1356.4	1379.1	[500]	µg/L	18:43:46
3	SiO2†	55098.9	54865.9	[5347.5]	µg/L	18:43:26
3	Si 251.611†	166541.0	170366.5	[2500]	µg/L	18:43:26
3	Sn 189.927†	7776.3	7995.1	[500]	µg/L	18:43:46
3	Ti 334.940†	517688.6	531228.1	[500]	µg/L	18:43:26
3	Tl 190.801†	3841.1	4065.3	[500]	µg/L	18:43:46
3	U 409.014†	7259.9	7733.0	[500]	µg/L	18:43:26
3	V 292.402†	98243.7	100590.2	[500]	µg/L	18:43:26
3	Zn 213.857†	86383.4	88237.2	[500]	µg/L	18:43:26

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1668010.6	21109.69	1.27%	97.078	%
Sc RADIAL	140344.1	753.01	0.54%	96.2	%
Y 371.029	988144.1	11774.03	1.19%	96.246	%
Ag 328.068†	132790.8	365.49	0.28%	[500]	µg/L
Al 396.153Radial†	27121.2	39.74	0.15%	[5000]	µg/L
As 188.979†	1641.8	17.55	1.07%	[500]	µg/L
B 249.677†	33380.7	194.18	0.58%	[500]	µg/L
Ba 233.527†	123011.2	509.04	0.41%	[500]	µg/L
Be 313.107†	1827658.3	5656.67	0.31%	[500]	µg/L
Ca 317.933Radial†	90494.7	200.40	0.22%	[5000]	µg/L
Cd 226.502†	79265.5	477.42	0.60%	[500]	µg/L
Co 228.616†	40387.0	257.10	0.64%	[500]	µg/L
Cr 267.716†	63097.4	82.35	0.13%	[500]	µg/L
Cu 324.752†	126538.9	361.18	0.29%	[500]	µg/L
K 766.490 Radial†	13501.5	101.39	0.75%	[5000]	µg/L
Mg 279.077 IEC†	13681.9	108.49	0.79%	[5000]	µg/L
Mn 257.610†	403283.6	1478.44	0.37%	[500]	µg/L
Mo 202.031†	16961.0	181.25	1.07%	[500]	µg/L
Ni 231.604†	43093.0	77.04	0.18%	[500]	µg/L
P 214.914†	11670.4	139.54	1.20%	[2500]	µg/L
Pb 220.353†	8995.5	87.32	0.97%	[500]	µg/L
S 181.975 Axial†	1333.6	7.24	0.54%	[1000]	µg/L
Sb 206.836†	4173.3	51.32	1.23%	[500]	µg/L
Se 196.026†	1375.4	11.73	0.85%	[500]	µg/L
SiO2†	54969.0	170.25	0.31%	[5347.5]	µg/L
Si 251.611†	170583.6	634.61	0.37%	[2500]	µg/L

Sn 189.927†	8007.9	76.96	0.96%	[500] µg/L
Sr 421.552†	240832.0	1924.44	0.80%	[500] µg/L
Ti 334.940†	531970.4	897.45	0.17%	[500] µg/L
Tl 190.801†	4058.2	39.03	0.96%	[500] µg/L
U 409.014†	7634.8	87.65	1.15%	[500] µg/L
V 292.402†	100788.5	172.29	0.17%	[500] µg/L
Zn 213.857†	88187.0	459.83	0.52%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/31/2010 18:43:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	140246.3	140246.3	96.1	%	18:44:26
1	Al 396.153Radial†	52689.3	54887.7	[10000]	µg/L	18:44:26
1	Ca 317.933Radial†	176157.7	182735.9	[10000]	µg/L	18:44:26
1	Fe 238.204 Radial†	157034.9	163250.7	[10000]	µg/L	18:44:26
1	K 766.490 Radial†	27864.8	27449.2	[10000]	µg/L	18:44:26
1	Mg 279.077 IEC†	26628.7	27517.1	[10000]	µg/L	18:44:26
1	Na 589.592 Radial†	71367.5	72968.9	[10000]	µg/L	18:44:26
1	Sr 421.552†	465887.4	484902.9	[1000]	µg/L	18:44:24
1	Sc 361.383	1660058.9	1660058.9	96.615	%	18:44:39
1	Y 371.029	978012.9	978012.9	95.259	%	18:44:39
1	Ag 328.068†	268618.1	273937.5	[1000]	µg/L	18:44:41
1	As 188.979†	3193.8	3326.1	[1000]	µg/L	18:45:01
1	B 249.677†	69762.5	68700.7	[1000]	µg/L	18:44:41
1	Ba 233.527†	242316.3	250941.5	[1000]	µg/L	18:44:41
1	Be 313.107†	3555578.2	3681209.5	[1000]	µg/L	18:44:39
1	Cd 226.502†	156604.8	162209.5	[1000]	µg/L	18:44:41
1	Co 228.616†	78951.1	81907.4	[1000]	µg/L	18:44:41
1	Cr 267.716†	125005.7	129206.6	[1000]	µg/L	18:44:41
1	Cu 324.752†	255303.1	261275.2	[1000]	µg/L	18:44:41
1	Mn 257.610†	781879.7	809034.9	[1000]	µg/L	18:44:39
1	Mo 202.031†	33228.9	34413.1	[1000]	µg/L	18:44:41
1	Ni 231.604†	84765.4	87811.6	[1000]	µg/L	18:44:41
1	P 214.914†	22636.2	23447.2	[5000]	µg/L	18:45:01
1	Pb 220.353†	17407.6	17931.0	[1000]	µg/L	18:45:01
1	S 181.975 Axial†	2706.2	2696.0	[2000]	µg/L	18:45:01
1	Sb 206.836†	8264.7	8473.4	[1000]	µg/L	18:45:01
1	Se 196.026†	2709.4	2789.0	[1000]	µg/L	18:45:01
1	SiO2†	108329.2	110349.0	[10695]	µg/L	18:44:41
1	Si 251.611†	331285.5	342055.2	[5000]	µg/L	18:44:41
1	Sn 189.927†	15541.6	16087.2	[1000]	µg/L	18:45:01
1	Ti 334.940†	1037686.9	1073088.8	[1000]	µg/L	18:44:39
1	Tl 190.801†	7778.7	8167.9	[1000]	µg/L	18:45:01
1	U 409.014†	16858.3	17718.8	[1000]	µg/L	18:44:41
1	V 292.402†	201478.5	208133.3	[1000]	µg/L	18:44:41
1	Zn 213.857†	174510.7	180060.2	[1000]	µg/L	18:44:41
2	Sc RADIAL	138844.4	138844.4	95.1	%	18:44:30
2	Al 396.153Radial†	52161.3	54886.4	[10000]	µg/L	18:44:30
2	Ca 317.933Radial†	173493.6	181786.6	[10000]	µg/L	18:44:30
2	Fe 238.204 Radial†	154887.4	162643.3	[10000]	µg/L	18:44:30
2	K 766.490 Radial†	27455.0	27311.3	[10000]	µg/L	18:44:30
2	Mg 279.077 IEC†	26420.5	27578.1	[10000]	µg/L	18:44:30
2	Na 589.592 Radial†	70508.9	72816.3	[10000]	µg/L	18:44:30
2	Sr 421.552†	460810.9	484461.8	[1000]	µg/L	18:44:28
2	Sc 361.383	1689699.6	1689699.6	98.340	%	18:45:04
2	Y 371.029	993860.1	993860.1	96.802	%	18:45:04
2	Ag 328.068†	266910.5	267323.9	[1000]	µg/L	18:45:06
2	As 188.979†	3218.4	3293.1	[1000]	µg/L	18:45:26
2	B 249.677†	69508.7	67175.9	[1000]	µg/L	18:45:06
2	Ba 233.527†	241134.5	245340.1	[1000]	µg/L	18:45:06
2	Be 313.107†	3627090.7	3689371.8	[1000]	µg/L	18:45:04
2	Cd 226.502†	155509.2	158252.0	[1000]	µg/L	18:45:06
2	Co 228.616†	78490.7	80005.8	[1000]	µg/L	18:45:06
2	Cr 267.716†	124369.4	126289.8	[1000]	µg/L	18:45:06
2	Cu 324.752†	253180.3	254481.2	[1000]	µg/L	18:45:06
2	Mn 257.610†	797903.6	811133.0	[1000]	µg/L	18:45:04
2	Mo 202.031†	33052.4	33630.3	[1000]	µg/L	18:45:06
2	Ni 231.604†	84350.1	85850.2	[1000]	µg/L	18:45:06
2	P 214.914†	22849.9	23253.5	[5000]	µg/L	18:45:26
2	Pb 220.353†	17581.2	17791.6	[1000]	µg/L	18:45:26

2	S 181.975 Axial†	2749.5	2690.8	[2000]	µg/L	18:45:26
2	Sb 206.836†	8294.0	8353.2	[1000]	µg/L	18:45:26
2	Se 196.026†	2710.1	2740.6	[1000]	µg/L	18:45:26
2	SiO2†	107785.0	107828.8	[10695]	µg/L	18:45:06
2	Si 251.611†	329317.5	334039.0	[5000]	µg/L	18:45:06
2	Sn 189.927†	15680.3	15946.1	[1000]	µg/L	18:45:26
2	Ti 334.940†	1057357.1	1074250.2	[1000]	µg/L	18:45:04
2	Tl 190.801†	7829.0	8077.8	[1000]	µg/L	18:45:26
2	U 409.014†	16641.8	17192.5	[1000]	µg/L	18:45:06
2	V 292.402†	200063.6	203036.4	[1000]	µg/L	18:45:06
2	Zn 213.857†	173774.1	176142.5	[1000]	µg/L	18:45:06
3	Sc RADIAL	142431.7	142431.7	97.6	%	18:44:34
3	Al 396.153Radial†	53146.2	54514.7	[10000]	µg/L	18:44:34
3	Ca 317.933Radial†	178392.5	182213.1	[10000]	µg/L	18:44:34
3	Fe 238.204 Radial†	159216.9	162979.1	[10000]	µg/L	18:44:34
3	K 766.490 Radial†	28289.6	27439.6	[10000]	µg/L	18:44:34
3	Mg 279.077 IEC†	27285.4	27764.8	[10000]	µg/L	18:44:34
3	Na 589.592 Radial†	72542.7	73033.5	[10000]	µg/L	18:44:34
3	Sr 421.552†	461335.7	472801.1	[1000]	µg/L	18:44:32
3	Sc 361.383	1671450.9	1671450.9	97.278	%	18:45:29
3	Y 371.029	984698.6	984698.6	95.910	%	18:45:29
3	Ag 328.068†	268839.9	272270.6	[1000]	µg/L	18:45:31
3	As 188.979†	3207.1	3317.1	[1000]	µg/L	18:45:51
3	B 249.677†	69920.1	68370.5	[1000]	µg/L	18:45:31
3	Ba 233.527†	242785.5	249714.4	[1000]	µg/L	18:45:31
3	Be 313.107†	3559181.4	3659831.0	[1000]	µg/L	18:45:29
3	Cd 226.502†	156473.3	160969.5	[1000]	µg/L	18:45:31
3	Co 228.616†	79020.9	81422.2	[1000]	µg/L	18:45:31
3	Cr 267.716†	125294.1	128621.2	[1000]	µg/L	18:45:31
3	Cu 324.752†	255275.0	259445.3	[1000]	µg/L	18:45:31
3	Mn 257.610†	783171.7	804847.3	[1000]	µg/L	18:45:29
3	Mo 202.031†	33174.1	34122.4	[1000]	µg/L	18:45:31
3	Ni 231.604†	84877.1	87328.4	[1000]	µg/L	18:45:31
3	P 214.914†	22811.2	23467.5	[5000]	µg/L	18:45:51
3	Pb 220.353†	17557.7	17962.6	[1000]	µg/L	18:45:51
3	S 181.975 Axial†	2739.9	2711.5	[2000]	µg/L	18:45:51
3	Sb 206.836†	8307.3	8458.9	[1000]	µg/L	18:45:51
3	Se 196.026†	2720.6	2781.4	[1000]	µg/L	18:45:51
3	SiO2†	108495.7	109756.0	[10695]	µg/L	18:45:31
3	Si 251.611†	331529.5	339969.0	[5000]	µg/L	18:45:31
3	Sn 189.927†	15666.1	16105.6	[1000]	µg/L	18:45:51
3	Ti 334.940†	1040566.4	1068728.6	[1000]	µg/L	18:45:29
3	Tl 190.801†	7842.2	8178.3	[1000]	µg/L	18:45:51
3	U 409.014†	16964.7	17709.3	[1000]	µg/L	18:45:31
3	V 292.402†	201223.5	206449.9	[1000]	µg/L	18:45:31
3	Zn 213.857†	174624.2	178945.7	[1000]	µg/L	18:45:31

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1673736.5	14951.98	0.89%	97.411	%
Sc RADIAL	140507.5	1807.88	1.29%	96.3	%
Y 371.029	985523.8	7955.77	0.81%	95.991	%
Ag 328.068†	271177.3	3439.65	1.27%	[1000]	µg/L
Al 396.153Radial†	54762.9	214.99	0.39%	[10000]	µg/L
As 188.979†	3312.1	17.04	0.51%	[1000]	µg/L
B 249.677†	68082.4	802.18	1.18%	[1000]	µg/L
Ba 233.527†	248665.4	2944.35	1.18%	[1000]	µg/L
Be 313.107†	3676804.1	15255.21	0.41%	[1000]	µg/L
Ca 317.933Radial†	182245.2	475.46	0.26%	[10000]	µg/L
Cd 226.502†	160477.0	2024.24	1.26%	[1000]	µg/L
Co 228.616†	81111.8	988.08	1.22%	[1000]	µg/L
Cr 267.716†	128039.2	1543.01	1.21%	[1000]	µg/L
Cu 324.752†	258400.5	3515.45	1.36%	[1000]	µg/L
Fe 238.204 Radial†	162957.7	304.26	0.19%	[10000]	µg/L
K 766.490 Radial†	27400.1	77.00	0.28%	[10000]	µg/L
Mg 279.077 IEC†	27620.0	129.06	0.47%	[10000]	µg/L
Mn 257.610†	808338.4	3200.20	0.40%	[1000]	µg/L
Mo 202.031†	34055.3	395.69	1.16%	[1000]	µg/L
Na 589.592 Radial†	72939.6	111.55	0.15%	[10000]	µg/L

Ni 231.604†	86996.7	1021.87	1.17%	[1000]	µg/L
P 214.914†	23389.4	118.12	0.51%	[5000]	µg/L
Pb 220.353†	17895.1	91.02	0.51%	[1000]	µg/L
S 181.975 Axial†	2699.4	10.77	0.40%	[2000]	µg/L
Sb 206.836†	8428.5	65.64	0.78%	[1000]	µg/L
Se 196.026†	2770.3	26.05	0.94%	[1000]	µg/L
SiO2†	109311.3	1317.66	1.21%	[10695]	µg/L
Si 251.611†	338687.7	4158.85	1.23%	[5000]	µg/L
Sn 189.927†	16046.3	87.25	0.54%	[1000]	µg/L
Sr 421.552†	480721.9	6863.20	1.43%	[1000]	µg/L
Ti 334.940†	1072022.5	2911.16	0.27%	[1000]	µg/L
Tl 190.801†	8141.3	55.30	0.68%	[1000]	µg/L
U 409.014†	17540.2	301.14	1.72%	[1000]	µg/L
V 292.402†	205873.2	2596.95	1.26%	[1000]	µg/L
Zn 213.857†	178382.8	2018.56	1.13%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/31/2010 18:45:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139343.3	139343.3	95.5	%	18:46:28
1	Al 396.153Radial†	256543.2	268732.8	[50000]	µg/L	18:46:28
1	Ca 317.933Radial†	856588.9	896517.6	[50000]	µg/L	18:46:28
1	Fe 238.204 Radial†	309603.0	324089.2	[20000]	µg/L	18:46:28
1	Mg 279.077 IEC†	128261.6	134133.6	[50000]	µg/L	18:46:28
1	Na 589.592 Radial†	141053.4	146429.9	[20000]	µg/L	18:46:28
1	Sc 361.383	1636602.8	1636602.8	95.250	%	18:46:50
1	Y 371.029	965973.5	965973.5	94.086	%	18:46:50
2	Sc RADIAL	137624.0	137624.0	94.3	%	18:46:30
2	Al 396.153Radial†	254363.4	269777.6	[50000]	µg/L	18:46:30
2	Ca 317.933Radial†	846244.8	896755.8	[50000]	µg/L	18:46:30
2	Fe 238.204 Radial†	305781.9	324087.9	[20000]	µg/L	18:46:30
2	Mg 279.077 IEC†	126264.9	133694.4	[50000]	µg/L	18:46:30
2	Na 589.592 Radial†	139489.2	146616.7	[20000]	µg/L	18:46:30
2	Sc 361.383	1622381.6	1622381.6	94.422	%	18:46:53
2	Y 371.029	956849.7	956849.7	93.198	%	18:46:53
3	Sc RADIAL	137980.0	137980.0	94.6	%	18:46:32
3	Al 396.153Radial†	255245.7	270015.0	[50000]	µg/L	18:46:32
3	Ca 317.933Radial†	849307.2	897679.9	[50000]	µg/L	18:46:32
3	Fe 238.204 Radial†	306725.7	324249.8	[20000]	µg/L	18:46:32
3	Mg 279.077 IEC†	127087.0	134218.4	[50000]	µg/L	18:46:32
3	Na 589.592 Radial†	139780.8	146543.6	[20000]	µg/L	18:46:32
3	Sc 361.383	1649813.3	1649813.3	96.019	%	18:46:56
3	Y 371.029	972430.3	972430.3	94.715	%	18:46:56

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1636265.9	13718.97	0.84%	95.230	%
Sc RADIAL	138315.8	907.47	0.66%	94.8	%
Y 371.029	965084.5	7828.26	0.81%	94.000	%
Al 396.153Radial†	269508.5	682.17	0.25%	[50000]	µg/L
Ca 317.933Radial†	896984.4	613.95	0.07%	[50000]	µg/L
Fe 238.204 Radial†	324142.3	93.07	0.03%	[20000]	µg/L
Mg 279.077 IEC†	134015.5	281.29	0.21%	[50000]	µg/L
Na 589.592 Radial†	146530.1	94.09	0.06%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	270.1	0.00000	0.999966	
Al 396.153Radial	3	Lin Thru 0	0.0	5.394	0.00000	0.999995	
As 188.979	3	Lin Thru 0	0.0	3.307	0.00000	0.999994	
B 249.677	3	Lin Thru 0	0.0	67.80	0.00000	0.999967	
Ba 233.527	3	Lin Thru 0	0.0	248.2	0.00000	0.999990	
Be 313.107	3	Lin Thru 0	0.0	3673	0.00000	0.999997	
Ca 317.933Radial	3	Lin Thru 0	0.0	17.95	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	160.1	0.00000	0.999988	
Co 228.616	3	Lin Thru 0	0.0	81.06	0.00000	0.999997	
Cr 267.716	3	Lin Thru 0	0.0	127.7	0.00000	0.999983	
Cu 324.752	3	Lin Thru 0	0.0	257.3	0.00000	0.999966	
Fe 238.204 Radia	2	Lin Thru 0	0.0	16.22	0.00000	0.999998	
K 766.490 Radial	3	Lin Thru 0	0.0	2.731	0.00000	0.999979	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.684	0.00000	0.999981	
Mn 257.610	3	Lin Thru 0	0.0	808.2	0.00000	0.999995	
Mo 202.031	3	Lin Thru 0	0.0	34.03	0.00000	0.999999	
Na 589.592 Radia	2	Lin Thru 0	0.0	7.320	0.00000	0.999998	

Ni 231.604	3	Lin Thru 0	0.0	86.85	0.00000	0.999991
P 214.914	3	Lin Thru 0	0.0	4.675	0.00000	0.999999
Pb 220.353	3	Lin Thru 0	0.0	17.92	0.00000	0.999996
S 181.975 Axial	3	Lin Thru 0	0.0	1.347	0.00000	0.999988
Sb 206.836	3	Lin Thru 0	0.0	8.412	0.00000	0.999992
Se 196.026	3	Lin Thru 0	0.0	2.766	0.00000	0.999995
SiO2	3	Lin Thru 0	0.0	10.23	0.00000	0.999996
Si 251.611	3	Lin Thru 0	0.0	67.83	0.00000	0.999995
Sn 189.927	3	Lin Thru 0	0.0	16.04	0.00000	0.999999
Sr 421.552	3	Lin Thru 0	0.0	481.0	0.00000	0.999997
Ti 334.940	3	Lin Thru 0	0.0	1070	0.00000	0.999995
Tl 190.801	3	Lin Thru 0	0.0	8.138	0.00000	0.999996
U 409.014	3	Lin Thru 0	0.0	17.10	0.00000	0.998547
V 292.402	3	Lin Thru 0	0.0	205.0	0.00000	0.999964
Zn 213.857	3	Lin Thru 0	0.0	178.0	0.00000	0.999990

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/31/2010 18:47:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142728.0	142728.0	97.8	%			18:47:35
1	Al 396.153Radial†	27196.1	27869.4	5141.6	µg/L	5141.6	ppb	18:47:35
1	Ca 317.933Radial†	89393.1	90837.9	5060.0	µg/L	5060.0	ppb	18:47:35
1	Fe 238.204 Radial†	80412.9	82068.7	5058.2	µg/L	5058.2	ppb	18:47:35
1	K 766.490 Radial†	8352.4	6995.0	2558.1	µg/L	2558.1	ppb	18:47:35
1	Mg 279.077 IEC†	14148.2	14274.9	5327.6	µg/L	5327.6	ppb	18:47:35
1	Na 589.592 Radial†	19150.9	18289.7	2496.3	µg/L	2496.3	ppb	18:47:35
1	Sr 421.552†	250356.1	256107.6	532.39	µg/L	532.39	ppb	18:47:33
1	Sc 361.383	1677195.1	1677195.1	97.612	%			18:47:48
1	Y 371.029	995806.6	995806.6	96.992	%			18:47:48
1	Ag 328.068†	70215.3	67841.3	257.54	µg/L	257.54	ppb	18:47:48
1	As 188.979†	1526.8	1584.5	486.58	µg/L	486.58	ppb	18:47:50
1	B 249.677†	37075.8	34476.8	506.67	µg/L	506.67	ppb	18:47:48
1	Ba 233.527†	122696.8	125833.7	507.50	µg/L	507.50	ppb	18:47:48
1	Be 313.107†	933729.3	957632.1	260.88	µg/L	260.88	ppb	18:47:48
1	Cd 226.502†	77657.9	79675.5	497.37	µg/L	497.37	ppb	18:47:48
1	Co 228.616†	40998.4	42191.5	520.85	µg/L	520.85	ppb	18:47:50
1	Cr 267.716†	62225.7	63569.1	497.75	µg/L	497.75	ppb	18:47:50
1	Cu 324.752†	130541.7	130762.4	509.73	µg/L	509.73	ppb	18:47:48
1	Mn 257.610†	407677.2	417411.4	516.24	µg/L	516.24	ppb	18:47:48
1	Mo 202.031†	18097.1	18559.8	545.92	µg/L	545.92	ppb	18:47:50
1	Ni 231.604†	43663.1	44807.6	515.93	µg/L	515.93	ppb	18:47:50
1	P 214.914†	11760.6	12066.2	2571.9	µg/L	2571.9	ppb	18:47:50
1	Pb 220.353†	9089.2	9225.1	516.68	µg/L	516.68	ppb	18:47:50
1	S 181.975 Axial†	3477.6	3457.6	2572.2	µg/L	2572.2	ppb	18:47:50
1	Sb 206.836†	4253.6	4276.8	510.30	µg/L	510.30	ppb	18:47:50
1	Se 196.026†	6905.2	7058.8	2550	µg/L	2550	ppb	18:47:50
1	SiO2†	106599.4	107431.3	10477	µg/L	10477	ppb	18:47:48
1	Si 251.611†	325209.4	332327.1	4888.6	µg/L	4888.6	ppb	18:47:48
1	Sn 189.927†	8509.6	8718.8	545.19	µg/L	545.19	ppb	18:47:50
1	Ti 334.940†	517306.5	529006.8	493.58	µg/L	493.58	ppb	18:47:48
1	Tl 190.801†	4208.4	4428.0	551.50	µg/L	551.50	ppb	18:47:50
1	U 409.014†	7246.7	7693.8	480.75	µg/L	480.75	ppb	18:47:48
1	V 292.402†	101371.8	103447.4	511.74	µg/L	511.74	ppb	18:47:48
1	Zn 213.857†	89039.6	90653.0	505.19	µg/L	505.19	ppb	18:47:48
2	Sc RADIAL	141472.3	141472.3	96.9	%			18:47:39
2	Al 396.153Radial†	26888.4	27798.8	5129.2	µg/L	5129.2	ppb	18:47:39
2	Ca 317.933Radial†	88063.7	90277.8	5028.8	µg/L	5028.8	ppb	18:47:39
2	Fe 238.204 Radial†	79583.4	81942.8	5050.5	µg/L	5050.5	ppb	18:47:39
2	K 766.490 Radial†	8113.5	6824.4	2495.6	µg/L	2495.6	ppb	18:47:39
2	Mg 279.077 IEC†	13969.8	14219.3	5306.5	µg/L	5306.5	ppb	18:47:39
2	Na 589.592 Radial†	19176.1	18489.5	2523.7	µg/L	2523.7	ppb	18:47:39
2	Sr 421.552†	244831.9	252681.3	525.27	µg/L	525.27	ppb	18:47:37
2	Sc 361.383	1698788.6	1698788.6	98.869	%			18:47:53
2	Y 371.029	1007373.3	1007373.3	98.119	%			18:47:53
2	Ag 328.068†	71291.0	68014.9	258.16	µg/L	258.16	ppb	18:47:53
2	As 188.979†	1532.9	1570.8	482.29	µg/L	482.29	ppb	18:47:55
2	B 249.677†	37726.0	34651.6	509.29	µg/L	509.29	ppb	18:47:53
2	Ba 233.527†	124221.9	125778.5	507.27	µg/L	507.27	ppb	18:47:53
2	Be 313.107†	946768.4	958661.3	261.16	µg/L	261.16	ppb	18:47:53
2	Cd 226.502†	78878.8	79899.1	498.76	µg/L	498.76	ppb	18:47:53
2	Co 228.616†	40427.2	41079.9	507.13	µg/L	507.13	ppb	18:47:55
2	Cr 267.716†	61613.4	62139.5	486.55	µg/L	486.55	ppb	18:47:55
2	Cu 324.752†	131991.8	130529.2	508.81	µg/L	508.81	ppb	18:47:53
2	Mn 257.610†	413215.3	417704.0	516.60	µg/L	516.60	ppb	18:47:53
2	Mo 202.031†	17824.6	18048.5	530.89	µg/L	530.89	ppb	18:47:55
2	Ni 231.604†	43042.2	43611.0	502.15	µg/L	502.15	ppb	18:47:55
2	P 214.914†	11581.1	11731.5	2500.3	µg/L	2500.3	ppb	18:47:55
2	Pb 220.353†	8959.4	8975.5	502.70	µg/L	502.70	ppb	18:47:55

2	S 181.975 Axial†	3387.2	3320.9	2470.5 µg/L	2470.5 ppb	18:47:55
2	Sb 206.836†	4183.4	4150.4	495.20 µg/L	495.20 ppb	18:47:55
2	Se 196.026†	6756.5	6818.5	2470 µg/L	2470 ppb	18:47:55
2	SiO2†	108026.4	107486.5	10483 µg/L	10483 ppb	18:47:53
2	Si 251.611†	330001.8	332939.4	4897.9 µg/L	4897.9 ppb	18:47:53
2	Sn 189.927†	8332.5	8429.0	527.12 µg/L	527.12 ppb	18:47:55
2	Ti 334.940†	523598.9	528634.8	493.24 µg/L	493.24 ppb	18:47:53
2	Tl 190.801†	4130.1	4294.0	535.11 µg/L	535.11 ppb	18:47:55
2	U 409.014†	7323.1	7676.7	479.70 µg/L	479.70 ppb	18:47:53
2	V 292.402†	102428.7	103196.4	510.32 µg/L	510.32 ppb	18:47:53
2	Zn 213.857†	90500.4	90971.0	507.07 µg/L	507.07 ppb	18:47:53
3	Sc RADIAL	141074.5	141074.5	96.7 %		18:47:43
3	Al 396.153Radial†	27024.0	28017.2	5169.9 µg/L	5169.9 ppb	18:47:43
3	Ca 317.933Radial†	88402.3	90884.2	5062.6 µg/L	5062.6 ppb	18:47:43
3	Fe 238.204 Radial†	79763.1	82360.1	5076.2 µg/L	5076.2 ppb	18:47:43
3	K 766.490 Radial†	8103.8	6838.0	2500.5 µg/L	2500.5 ppb	18:47:43
3	Mg 279.077 IEC†	14069.6	14363.2	5360.0 µg/L	5360.0 ppb	18:47:43
3	Na 589.592 Radial†	19066.5	18431.9	2515.8 µg/L	2515.8 ppb	18:47:43
3	Sr 421.552†	247012.7	255649.2	531.44 µg/L	531.44 ppb	18:47:41
3	Sc 361.383	1692022.5	1692022.5	98.475 %		18:47:58
3	Y 371.029	1004104.0	1004104.0	97.800 %		18:47:58
3	Ag 328.068†	71156.1	68166.3	258.74 µg/L	258.74 ppb	18:47:58
3	As 188.979†	1530.4	1574.5	483.34 µg/L	483.34 ppb	18:48:00
3	B 249.677†	37553.2	34628.7	508.97 µg/L	508.97 ppb	18:47:58
3	Ba 233.527†	123711.5	125762.6	507.21 µg/L	507.21 ppb	18:47:58
3	Be 313.107†	941930.7	957578.0	260.87 µg/L	260.87 ppb	18:47:58
3	Cd 226.502†	78415.4	79747.6	497.81 µg/L	497.81 ppb	18:47:58
3	Co 228.616†	39781.6	40587.8	501.06 µg/L	501.06 ppb	18:48:00
3	Cr 267.716†	60612.6	61372.4	480.54 µg/L	480.54 ppb	18:48:00
3	Cu 324.752†	131599.2	130664.3	509.34 µg/L	509.34 ppb	18:47:58
3	Mn 257.610†	411605.2	417740.2	516.64 µg/L	516.64 ppb	18:47:58
3	Mo 202.031†	17622.4	17915.3	526.98 µg/L	526.98 ppb	18:48:00
3	Ni 231.604†	42378.9	43111.5	496.40 µg/L	496.40 ppb	18:48:00
3	P 214.914†	11404.8	11599.3	2472.0 µg/L	2472.0 ppb	18:48:00
3	Pb 220.353†	8867.2	8918.1	499.49 µg/L	499.49 ppb	18:48:00
3	S 181.975 Axial†	3288.2	3234.1	2406.0 µg/L	2406.0 ppb	18:48:00
3	Sb 206.836†	4104.8	4087.6	487.75 µg/L	487.75 ppb	18:48:00
3	Se 196.026†	6722.3	6811.1	2460 µg/L	2460 ppb	18:48:00
3	SiO2†	107577.1	107467.2	10482 µg/L	10482 ppb	18:47:58
3	Si 251.611†	328691.1	332943.1	4898.1 µg/L	4898.1 ppb	18:47:58
3	Sn 189.927†	8196.6	8324.7	520.62 µg/L	520.62 ppb	18:48:00
3	Ti 334.940†	522557.7	529695.2	494.23 µg/L	494.23 ppb	18:47:58
3	Tl 190.801†	3987.3	4165.7	519.39 µg/L	519.39 ppb	18:48:00
3	U 409.014†	7372.3	7756.3	484.40 µg/L	484.40 ppb	18:47:58
3	V 292.402†	102179.3	103357.4	511.03 µg/L	511.03 ppb	18:47:58
3	Zn 213.857†	89790.3	90616.0	505.12 µg/L	505.12 ppb	18:47:58

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1689335.4	98.319	%	0.6428				0.65%
Sc RADIAL	141758.3	97.1	%	0.59				0.61%
Y 371.029	1002428.0	97.637	%	0.5808				0.59%
Ag 328.068†	68007.5	258.15	µg/L	0.601	258.15	ppb	0.601	0.23%
QC value within limits for Ag 328.068 Recovery = 103.26%								
Al 396.153Radial†	27895.2	5146.9	µg/L	20.85	5146.9	ppb	20.85	0.41%
QC value within limits for Al 396.153Radial Recovery = 102.94%								
As 188.979†	1576.6	484.07	µg/L	2.239	484.07	ppb	2.239	0.46%
QC value within limits for As 188.979 Recovery = 96.81%								
B 249.677†	34585.7	508.31	µg/L	1.434	508.31	ppb	1.434	0.28%
QC value within limits for B 249.677 Recovery = 101.66%								
Ba 233.527†	125791.6	507.32	µg/L	0.154	507.32	ppb	0.154	0.03%
QC value within limits for Ba 233.527 Recovery = 101.46%								
Be 313.107†	957957.1	260.97	µg/L	0.166	260.97	ppb	0.166	0.06%
QC value within limits for Be 313.107 Recovery = 104.39%								
Ca 317.933Radial†	90666.6	5050.5	µg/L	18.80	5050.5	ppb	18.80	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.01%								
Cd 226.502†	79774.1	497.98	µg/L	0.711	497.98	ppb	0.711	0.14%
QC value within limits for Cd 226.502 Recovery = 99.60%								
Co 228.616†	41286.4	509.68	µg/L	10.138	509.68	ppb	10.138	1.99%

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   QC value within limits for Co 228.616  Recovery = 101.94%
Cr 267.716†            62360.3      488.28 µg/L         8.733      488.28 ppb          8.733   1.79%
   QC value within limits for Cr 267.716  Recovery = 97.66%
Cu 324.752†           130652.0      509.29 µg/L         0.460      509.29 ppb          0.460   0.09%
   QC value within limits for Cu 324.752  Recovery = 101.86%
Fe 238.204 Radial†     82123.9      5061.6 µg/L         13.19      5061.6 ppb          13.19   0.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.23%
K 766.490 Radial†       6885.8      2518.1 µg/L         34.72      2518.1 ppb          34.72   1.38%
   QC value within limits for K 766.490 Radial  Recovery = 100.72%
Mg 279.077 IEC†        14285.8      5331.4 µg/L         26.95      5331.4 ppb          26.95   0.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.63%
Mn 257.610†           417618.5      516.49 µg/L         0.223      516.49 ppb          0.223   0.04%
   QC value within limits for Mn 257.610  Recovery = 103.30%
Mo 202.031†            18174.5      534.59 µg/L         9.999      534.59 ppb          9.999   1.87%
   QC value within limits for Mo 202.031  Recovery = 106.92%
Na 589.592 Radial†     18403.7      2511.9 µg/L         14.08      2511.9 ppb          14.08   0.56%
   QC value within limits for Na 589.592 Radial  Recovery = 100.48%
Ni 231.604†            43843.4      504.82 µg/L        10.036      504.82 ppb         10.036   1.99%
   QC value within limits for Ni 231.604  Recovery = 100.96%
P 214.914†             11799.0      2514.8 µg/L         51.47      2514.8 ppb          51.47   2.05%
   QC value within limits for P 214.914  Recovery = 100.59%
Pb 220.353†             9039.6      506.29 µg/L         9.140      506.29 ppb          9.140   1.81%
   QC value within limits for Pb 220.353  Recovery = 101.26%
S 181.975 Axial†        3337.5      2482.9 µg/L         83.76      2482.9 ppb          83.76   3.37%
   QC value within limits for S 181.975 Axial  Recovery = 99.32%
Sb 206.836†             4171.6      497.75 µg/L        11.489      497.75 ppb         11.489   2.31%
   QC value within limits for Sb 206.836  Recovery = 99.55%
Se 196.026†             6896.1        2500 µg/L          50.9        2500 ppb           50.9   2.04%
   QC value within limits for Se 196.026  Recovery = 99.81%
SiO2†                 107461.7       10481 µg/L           3.1       10481 ppb            3.1   0.03%
   QC value within limits for SiO2  Recovery = 98.00%
Si 251.611†           332736.6      4894.9 µg/L          5.44      4894.9 ppb           5.44   0.11%
   QC value within limits for Si 251.611  Recovery = 97.90%
Sn 189.927†             8490.8      530.98 µg/L        12.731      530.98 ppb         12.731   2.40%
   QC value within limits for Sn 189.927  Recovery = 106.20%
Sr 421.552†           254812.7      529.70 µg/L         3.867      529.70 ppb          3.867   0.73%
   QC value within limits for Sr 421.552  Recovery = 105.94%
Ti 334.940†           529112.2      493.68 µg/L         0.501      493.68 ppb          0.501   0.10%
   QC value within limits for Ti 334.940  Recovery = 98.74%
Tl 190.801†             4295.9      535.33 µg/L        16.060      535.33 ppb         16.060   3.00%
   QC value within limits for Tl 190.801  Recovery = 107.07%
U 409.014†              7709.0      481.62 µg/L         2.468      481.62 ppb          2.468   0.51%
   QC value within limits for U 409.014  Recovery = 96.32%
V 292.402†            103333.7      511.03 µg/L         0.714      511.03 ppb          0.714   0.14%
   QC value within limits for V 292.402  Recovery = 102.21%
Zn 213.857†            90746.7      505.79 µg/L         1.109      505.79 ppb          1.109   0.22%
   QC value within limits for Zn 213.857  Recovery = 101.16%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/31/2010 18:48:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141820.7	141820.7	97.2	%			18:48:38
1	Al 396.153Radial†	-23.3	39.2	7.2759	µg/L	7.2759	ppb	18:48:58
1	Ca 317.933Radial†	601.1	58.0	3.2284	µg/L	3.2284	ppb	18:48:58
1	Fe 238.204 Radial†	172.3	29.2	1.7975	µg/L	1.7975	ppb	18:48:58
1	K 766.490 Radial†	1651.6	154.7	56.635	µg/L	56.635	ppb	18:48:38
1	Mg 279.077 IEC†	178.4	-7.1	-2.6584	µg/L	-2.6584	ppb	18:48:58
1	Na 589.592 Radial†	1421.8	172.2	23.470	µg/L	23.470	ppb	18:48:38
1	Sr 421.552†	-137.1	-5.8	-0.0120	µg/L	-0.0120	ppb	18:48:38
1	Sc 361.383	1683915.8	1683915.8	98.004	%			18:50:00
1	Y 371.029	1008438.2	1008438.2	98.222	%			18:50:00
1	Ag 328.068†	3988.4	-21.8	-0.0966	µg/L	-0.0966	ppb	18:50:02
1	As 188.979†	-16.6	3.4	1.0196	µg/L	1.0196	ppb	18:50:22
1	B 249.677†	3689.5	258.8	3.8157	µg/L	3.8157	ppb	18:50:02
1	Ba 233.527†	-144.6	-11.7	-0.0475	µg/L	-0.0475	ppb	18:50:22
1	Be 313.107†	-835.0	212.7	0.0556	µg/L	0.0556	ppb	18:50:02
1	Cd 226.502†	-86.3	30.1	0.1877	µg/L	0.1877	ppb	18:50:22
1	Co 228.616†	-156.6	30.5	0.3761	µg/L	0.3761	ppb	18:50:22
1	Cr 267.716†	188.6	13.8	0.1142	µg/L	0.1142	ppb	18:50:22
1	Cu 324.752†	2866.9	-46.9	-0.1882	µg/L	-0.1882	ppb	18:50:02
1	Mn 257.610†	237.6	5.2	0.0065	µg/L	0.0065	ppb	18:50:22
1	Mo 202.031†	-20.5	-0.8	-0.0238	µg/L	-0.0238	ppb	18:50:22
1	Ni 231.604†	-85.2	-10.4	-0.1202	µg/L	-0.1202	ppb	18:50:22
1	P 214.914†	-19.5	-2.0	-0.4133	µg/L	-0.4133	ppb	18:50:22
1	Pb 220.353†	104.1	19.8	1.1130	µg/L	1.1130	ppb	18:50:22
1	S 181.975 Axial†	94.9	-8.2	-6.0991	µg/L	-6.0991	ppb	18:50:22
1	Sb 206.836†	83.0	3.9	0.4581	µg/L	0.4581	ppb	18:50:22
1	Se 196.026†	16.9	2.0	0.709	µg/L	0.709	ppb	18:50:22
1	SiO2†	1750.1	10.4	1.0001	µg/L	1.0001	ppb	18:50:22
1	Si 251.611†	692.5	-130.0	-1.9216	µg/L	-1.9216	ppb	18:50:02
1	Sn 189.927†	12.8	14.2	0.8842	µg/L	0.8842	ppb	18:50:22
1	Ti 334.940†	967.2	34.4	0.0355	µg/L	0.0355	ppb	18:50:02
1	Tl 190.801†	-113.3	1.1	0.1286	µg/L	0.1286	ppb	18:50:22
1	U 409.014†	-392.4	-130.5	-7.6641	µg/L	-7.6641	ppb	18:50:02
1	V 292.402†	288.2	-109.7	-0.5404	µg/L	-0.5404	ppb	18:50:02
1	Zn 213.857†	580.6	28.0	0.1584	µg/L	0.1584	ppb	18:50:22
2	Sc RADIAL	141475.5	141475.5	96.9	%			18:49:00
2	Al 396.153Radial†	-59.5	1.9	0.3293	µg/L	0.3293	ppb	18:49:20
2	Ca 317.933Radial†	582.6	40.4	2.2485	µg/L	2.2485	ppb	18:49:20
2	Fe 238.204 Radial†	177.4	34.9	2.1506	µg/L	2.1506	ppb	18:49:20
2	K 766.490 Radial†	1678.4	186.4	68.259	µg/L	68.259	ppb	18:49:00
2	Mg 279.077 IEC†	195.6	11.1	4.1266	µg/L	4.1266	ppb	18:49:20
2	Na 589.592 Radial†	1313.4	64.0	8.6800	µg/L	8.6800	ppb	18:49:00
2	Sr 421.552†	-263.2	-136.2	-0.2832	µg/L	-0.2832	ppb	18:49:00
2	Sc 361.383	1681105.0	1681105.0	97.840	%			18:50:24
2	Y 371.029	1006809.9	1006809.9	98.064	%			18:50:24
2	Ag 328.068†	3899.5	-105.8	-0.4010	µg/L	-0.4010	ppb	18:50:26
2	As 188.979†	-14.2	5.9	1.7810	µg/L	1.7810	ppb	18:50:47
2	B 249.677†	3479.7	50.7	0.7461	µg/L	0.7461	ppb	18:50:26
2	Ba 233.527†	-126.1	7.0	0.0284	µg/L	0.0284	ppb	18:50:47
2	Be 313.107†	-932.6	111.6	0.0281	µg/L	0.0281	ppb	18:50:26
2	Cd 226.502†	-94.6	21.5	0.1342	µg/L	0.1342	ppb	18:50:47
2	Co 228.616†	-159.1	27.7	0.3416	µg/L	0.3416	ppb	18:50:47
2	Cr 267.716†	205.7	31.7	0.2541	µg/L	0.2541	ppb	18:50:47
2	Cu 324.752†	2760.4	-150.9	-0.5921	µg/L	-0.5921	ppb	18:50:26
2	Mn 257.610†	248.9	17.1	0.0210	µg/L	0.0210	ppb	18:50:47
2	Mo 202.031†	-6.8	13.1	0.3848	µg/L	0.3848	ppb	18:50:47
2	Ni 231.604†	-77.1	-2.3	-0.0264	µg/L	-0.0264	ppb	18:50:47
2	P 214.914†	-8.5	9.3	1.9937	µg/L	1.9937	ppb	18:50:47
2	Pb 220.353†	88.9	4.5	0.2582	µg/L	0.2582	ppb	18:50:47

2	S 181.975 Axial†	97.2	-5.7	-4.2111 µg/L	-4.2111 ppb	18:50:47
2	Sb 206.836†	84.7	5.7	0.6836 µg/L	0.6836 ppb	18:50:47
2	Se 196.026†	31.5	16.9	6.11 µg/L	6.11 ppb	18:50:47
2	SiO2†	1754.7	18.0	1.7515 µg/L	1.7515 ppb	18:50:47
2	Si 251.611†	708.6	-112.3	-1.6605 µg/L	-1.6605 ppb	18:50:26
2	Sn 189.927†	-0.8	0.3	0.0171 µg/L	0.0171 ppb	18:50:47
2	Ti 334.940†	917.4	-14.9	-0.0112 µg/L	-0.0112 ppb	18:50:26
2	Tl 190.801†	-109.7	4.5	0.5537 µg/L	0.5537 ppb	18:50:47
2	U 409.014†	-392.0	-130.8	-7.6468 µg/L	-7.6468 ppb	18:50:26
2	V 292.402†	396.5	1.4	0.0068 µg/L	0.0068 ppb	18:50:26
2	Zn 213.857†	557.8	5.7	0.0323 µg/L	0.0323 ppb	18:50:47
3	Sc RADIAL	140788.0	140788.0	96.5 %		18:49:22
3	Al 396.153Radial†	-53.3	8.0	1.4950 µg/L	1.4950 ppb	18:49:42
3	Ca 317.933Radial†	570.5	30.7	1.7106 µg/L	1.7106 ppb	18:49:42
3	Fe 238.204 Radial†	153.8	11.4	0.7002 µg/L	0.7002 ppb	18:49:42
3	K 766.490 Radial†	1509.3	19.7	7.1988 µg/L	7.1988 ppb	18:49:22
3	Mg 279.077 IEC†	187.5	3.6	1.3339 µg/L	1.3339 ppb	18:49:42
3	Na 589.592 Radial†	1241.2	-4.3	-0.5891 µg/L	-0.5891 ppb	18:49:22
3	Sr 421.552†	-62.3	70.7	0.1469 µg/L	0.1469 ppb	18:49:22
3	Sc 361.383	1702475.2	1702475.2	99.084 %		18:50:49
3	Y 371.029	1019278.2	1019278.2	99.278 %		18:50:49
3	Ag 328.068†	3893.2	-162.2	-0.6047 µg/L	-0.6047 ppb	18:50:51
3	As 188.979†	-11.0	9.3	2.8073 µg/L	2.8073 ppb	18:51:11
3	B 249.677†	3493.6	20.0	0.2957 µg/L	0.2957 ppb	18:50:51
3	Ba 233.527†	-155.1	-20.7	-0.0837 µg/L	-0.0837 ppb	18:51:11
3	Be 313.107†	-918.7	137.5	0.0367 µg/L	0.0367 ppb	18:50:51
3	Cd 226.502†	-90.2	27.2	0.1697 µg/L	0.1697 ppb	18:51:11
3	Co 228.616†	-191.5	-3.0	-0.0369 µg/L	-0.0369 ppb	18:51:11
3	Cr 267.716†	192.8	16.1	0.1277 µg/L	0.1277 ppb	18:51:11
3	Cu 324.752†	2902.8	-42.6	-0.1675 µg/L	-0.1675 ppb	18:50:51
3	Mn 257.610†	221.1	-14.1	-0.0175 µg/L	-0.0175 ppb	18:51:11
3	Mo 202.031†	-27.6	-7.7	-0.2274 µg/L	-0.2274 ppb	18:51:11
3	Ni 231.604†	-80.3	-4.5	-0.0519 µg/L	-0.0519 ppb	18:51:11
3	P 214.914†	-10.6	7.3	1.5639 µg/L	1.5639 ppb	18:51:11
3	Pb 220.353†	87.5	1.9	0.1068 µg/L	0.1068 ppb	18:51:11
3	S 181.975 Axial†	108.2	4.2	3.0845 µg/L	3.0845 ppb	18:51:11
3	Sb 206.836†	65.7	-14.5	-1.7326 µg/L	-1.7326 ppb	18:51:11
3	Se 196.026†	1.4	-13.8	-5.00 µg/L	-5.00 ppb	18:51:11
3	SiO2†	1771.9	13.0	1.2622 µg/L	1.2622 ppb	18:51:11
3	Si 251.611†	804.4	-24.7	-0.3658 µg/L	-0.3658 ppb	18:50:51
3	Sn 189.927†	10.9	12.2	0.7583 µg/L	0.7583 ppb	18:51:11
3	Ti 334.940†	1048.8	105.9	0.0999 µg/L	0.0999 ppb	18:50:51
3	Tl 190.801†	-119.3	-3.7	-0.4558 µg/L	-0.4558 ppb	18:51:11
3	U 409.014†	-309.5	-42.5	-2.4891 µg/L	-2.4891 ppb	18:50:51
3	V 292.402†	382.0	-18.2	-0.0926 µg/L	-0.0926 ppb	18:50:51
3	Zn 213.857†	566.8	7.7	0.0435 µg/L	0.0435 ppb	18:51:11

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1689165.4	98.309	%	0.6758				0.69%
Sc RADIAL	141361.4	96.9	%	0.36				0.37%
Y 371.029	1011508.8	98.521	%	0.6601				0.67%
Ag 328.068†	-96.6	-0.3674	µg/L	0.25571	-0.3674	ppb	0.25571	69.60%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	16.4	3.0334	µg/L	3.72004	3.0334	ppb	3.72004	122.63%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	1.8693	µg/L	0.89713	1.8693	ppb	0.89713	47.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	109.8	1.6192	µg/L	1.91554	1.6192	ppb	1.91554	118.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.5	-0.0343	µg/L	0.05718	-0.0343	ppb	0.05718	166.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	153.9	0.0401	µg/L	0.01409	0.0401	ppb	0.01409	35.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	43.0	2.3958	µg/L	0.76955	2.3958	ppb	0.76955	32.12%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	26.3	0.1639	µg/L	0.02723	0.1639	ppb	0.02723	16.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.4	0.2269	µg/L	0.22917	0.2269	ppb	0.22917	100.99%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              20.5      0.1654 µg/L       0.07718      0.1654 ppb        0.07718  46.67%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -80.1     -0.3159 µg/L       0.23936     -0.3159 ppb        0.23936  75.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       25.1      1.5494 µg/L       0.75637      1.5494 ppb        0.75637  48.82%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       120.3      44.031 µg/L       32.4227      44.031 ppb        32.4227  73.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.5      0.9341 µg/L       3.41013      0.9341 ppb        3.41013 365.09%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               2.7      0.0033 µg/L       0.01944      0.0033 ppb        0.01944 582.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.5      0.0446 µg/L       0.31176      0.0446 ppb        0.31176 699.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       77.3      10.520 µg/L       12.1345      10.520 ppb        12.1345 115.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -5.7     -0.0661 µg/L       0.04849     -0.0661 ppb        0.04849  73.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                4.9      1.0481 µg/L       1.28372      1.0481 ppb        1.28372 122.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               8.7      0.4927 µg/L       0.54252      0.4927 ppb        0.54252 110.12%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -3.2     -2.4085 µg/L       4.84991     -2.4085 ppb        4.84991 201.36%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.6     -0.1970 µg/L       1.33468     -0.1970 ppb        1.33468 677.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.7       0.603 µg/L        5.5558       0.603 ppb         5.5558 920.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    13.8      1.3380 µg/L       0.38138      1.3380 ppb        0.38138  28.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -89.0     -1.3160 µg/L       0.83316     -1.3160 ppb        0.83316  63.31%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.9      0.5532 µg/L       0.46851      0.5532 ppb        0.46851  84.69%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -23.8     -0.0494 µg/L       0.21749     -0.0494 ppb        0.21749 439.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              41.8      0.0414 µg/L       0.05575      0.0414 ppb        0.05575 134.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.6      0.0755 µg/L       0.50686      0.0755 ppb        0.50686 671.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -101.3     -5.9334 µg/L       2.98281     -5.9334 ppb        2.98281  50.27%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -42.2     -0.2088 µg/L       0.29151     -0.2088 ppb        0.29151 139.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              13.8      0.0780 µg/L       0.06978      0.0780 ppb        0.06978  89.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 3/31/2010 18:51:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140861.4	140861.4	96.5	%			18:51:48
1	Al 396.153Radial†	987.6	1086.3	200.96	µg/L	200.96	ppb	18:51:50
1	Ca 317.933Radial†	4191.0	3781.2	210.63	µg/L	210.63	ppb	18:51:50
1	Fe 238.204 Radial†	1792.5	1708.9	105.32	µg/L	105.32	ppb	18:51:50
1	K 766.490 Radial†	1849.3	371.1	135.70	µg/L	135.70	ppb	18:51:48
1	Mg 279.077 IEC†	1004.6	850.0	316.85	µg/L	316.85	ppb	18:51:50
1	Na 589.592 Radial†	3218.7	2043.7	279.07	µg/L	279.07	ppb	18:51:50
1	Sr 421.552†	2356.1	2576.2	5.3541	µg/L	5.3541	ppb	18:51:50
1	Sc 361.383	1696993.3	1696993.3	98.765	%			18:52:02
1	Y 371.029	1016566.5	1016566.5	99.014	%			18:52:02
1	Ag 328.068†	5094.4	1066.7	4.0516	µg/L	4.0516	ppb	18:52:04
1	As 188.979†	82.8	104.2	31.603	µg/L	31.603	ppb	18:52:24
1	B 249.677†	6532.0	3107.8	45.816	µg/L	45.816	ppb	18:52:04
1	Ba 233.527†	1080.9	1230.2	4.9619	µg/L	4.9619	ppb	18:52:24
1	Be 313.107†	16638.5	17911.3	4.8913	µg/L	4.8913	ppb	18:52:04
1	Cd 226.502†	682.8	809.6	5.0479	µg/L	5.0479	ppb	18:52:24
1	Co 228.616†	230.9	424.1	5.2325	µg/L	5.2325	ppb	18:52:24
1	Cr 267.716†	759.8	590.7	4.5885	µg/L	4.5885	ppb	18:52:24
1	Cu 324.752†	5375.4	2470.4	9.6665	µg/L	9.6665	ppb	18:52:04
1	Mn 257.610†	8461.3	8329.9	10.294	µg/L	10.294	ppb	18:52:04
1	Mo 202.031†	297.2	321.0	9.4457	µg/L	9.4457	ppb	18:52:24
1	Ni 231.604†	359.2	440.2	5.0686	µg/L	5.0686	ppb	18:52:24
1	P 214.914†	662.2	688.4	147.09	µg/L	147.09	ppb	18:52:24
1	Pb 220.353†	275.6	192.6	10.753	µg/L	10.753	ppb	18:52:24
1	S 181.975 Axial†	231.8	129.7	96.360	µg/L	96.360	ppb	18:52:24
1	Sb 206.836†	150.3	71.3	8.5656	µg/L	8.5656	ppb	18:52:24
1	Se 196.026†	92.5	78.4	28.4	µg/L	28.4	ppb	18:52:24
1	SiO2†	3882.7	2155.9	210.31	µg/L	210.31	ppb	18:52:04
1	Si 251.611†	7564.5	6822.6	100.39	µg/L	100.39	ppb	18:52:04
1	Sn 189.927†	162.8	165.9	10.360	µg/L	10.360	ppb	18:52:24
1	Ti 334.940†	6150.6	5275.0	4.8870	µg/L	4.8870	ppb	18:52:04
1	Tl 190.801†	46.5	163.8	20.204	µg/L	20.204	ppb	18:52:24
1	U 409.014†	536.3	812.9	47.827	µg/L	47.827	ppb	18:52:04
1	V 292.402†	1270.3	882.4	4.4384	µg/L	4.4384	ppb	18:52:04
1	Zn 213.857†	2321.2	1785.9	9.9841	µg/L	9.9841	ppb	18:52:24
2	Sc RADIAL	140936.7	140936.7	96.6	%			18:51:52
2	Al 396.153Radial†	972.6	1070.3	198.01	µg/L	198.01	ppb	18:51:54
2	Ca 317.933Radial†	4253.2	3843.3	214.09	µg/L	214.09	ppb	18:51:54
2	Fe 238.204 Radial†	1742.6	1656.2	102.08	µg/L	102.08	ppb	18:51:54
2	K 766.490 Radial†	1908.6	431.4	157.79	µg/L	157.79	ppb	18:51:52
2	Mg 279.077 IEC†	969.9	813.6	303.26	µg/L	303.26	ppb	18:51:54
2	Na 589.592 Radial†	3291.7	2117.5	289.13	µg/L	289.13	ppb	18:51:54
2	Sr 421.552†	2245.5	2460.3	5.1132	µg/L	5.1132	ppb	18:51:54
2	Sc 361.383	1687966.3	1687966.3	98.239	%			18:52:26
2	Y 371.029	1011019.5	1011019.5	98.474	%			18:52:26
2	Ag 328.068†	5292.9	1296.4	4.8998	µg/L	4.8998	ppb	18:52:28
2	As 188.979†	83.0	104.8	31.803	µg/L	31.803	ppb	18:52:48
2	B 249.677†	6698.9	3313.0	48.843	µg/L	48.843	ppb	18:52:28
2	Ba 233.527†	1087.4	1242.7	5.0120	µg/L	5.0120	ppb	18:52:48
2	Be 313.107†	16507.3	17867.9	4.8796	µg/L	4.8796	ppb	18:52:28
2	Cd 226.502†	680.2	810.6	5.0545	µg/L	5.0545	ppb	18:52:48
2	Co 228.616†	236.4	430.9	5.3167	µg/L	5.3167	ppb	18:52:48
2	Cr 267.716†	835.7	672.2	5.2260	µg/L	5.2260	ppb	18:52:48
2	Cu 324.752†	5528.6	2655.4	10.385	µg/L	10.385	ppb	18:52:28
2	Mn 257.610†	8398.7	8312.0	10.272	µg/L	10.272	ppb	18:52:28
2	Mo 202.031†	283.2	308.3	9.0728	µg/L	9.0728	ppb	18:52:48
2	Ni 231.604†	357.6	440.5	5.0722	µg/L	5.0722	ppb	18:52:48
2	P 214.914†	662.1	691.9	147.84	µg/L	147.84	ppb	18:52:48
2	Pb 220.353†	294.5	213.4	11.913	µg/L	11.913	ppb	18:52:48

2	S 181.975 Axial†	239.0	138.2	102.73 µg/L	102.73 ppb	18:52:48
2	Sb 206.836†	162.6	84.7	10.140 µg/L	10.140 ppb	18:52:48
2	Se 196.026†	98.4	84.9	30.8 µg/L	30.8 ppb	18:52:48
2	SiO2†	3912.9	2207.6	215.37 µg/L	215.37 ppb	18:52:28
2	Si 251.611†	7475.2	6772.6	99.658 µg/L	99.658 ppb	18:52:28
2	Sn 189.927†	165.0	169.0	10.554 µg/L	10.554 ppb	18:52:48
2	Ti 334.940†	5906.4	5059.7	4.6867 µg/L	4.6867 ppb	18:52:28
2	Tl 190.801†	41.0	158.5	19.548 µg/L	19.548 ppb	18:52:48
2	U 409.014†	539.0	818.5	48.142 µg/L	48.142 ppb	18:52:28
2	V 292.402†	1219.4	837.5	4.2189 µg/L	4.2189 ppb	18:52:28
2	Zn 213.857†	2338.9	1816.4	10.155 µg/L	10.155 ppb	18:52:48
3	Sc RADIAL	141853.7	141853.7	97.2 %		18:51:56
3	Al 396.153Radial†	1054.0	1147.5	212.32 µg/L	212.32 ppb	18:51:58
3	Ca 317.933Radial†	4255.4	3817.1	212.63 µg/L	212.63 ppb	18:51:58
3	Fe 238.204 Radial†	1716.2	1617.5	99.690 µg/L	99.690 ppb	18:51:58
3	K 766.490 Radial†	1916.0	426.3	155.92 µg/L	155.92 ppb	18:51:56
3	Mg 279.077 IEC†	1001.3	839.3	312.86 µg/L	312.86 ppb	18:51:58
3	Na 589.592 Radial†	3186.5	1987.3	271.34 µg/L	271.34 ppb	18:51:58
3	Sr 421.552†	2248.0	2447.8	5.0873 µg/L	5.0873 ppb	18:51:58
3	Sc 361.383	1703589.6	1703589.6	99.149 %		18:52:50
3	Y 371.029	1020076.1	1020076.1	99.356 %		18:52:50
3	Ag 328.068†	5329.5	1283.9	4.8863 µg/L	4.8863 ppb	18:52:52
3	As 188.979†	68.9	89.8	27.263 µg/L	27.263 ppb	18:53:13
3	B 249.677†	6826.1	3378.8	49.814 µg/L	49.814 ppb	18:52:52
3	Ba 233.527†	1095.4	1240.7	5.0047 µg/L	5.0047 ppb	18:53:13
3	Be 313.107†	16765.5	17974.2	4.9127 µg/L	4.9127 ppb	18:52:52
3	Cd 226.502†	685.3	809.4	5.0473 µg/L	5.0473 ppb	18:53:13
3	Co 228.616†	212.4	404.5	4.9910 µg/L	4.9910 ppb	18:53:13
3	Cr 267.716†	807.3	635.7	4.9297 µg/L	4.9297 ppb	18:53:13
3	Cu 324.752†	5461.8	2536.5	9.9340 µg/L	9.9340 ppb	18:52:52
3	Mn 257.610†	8558.8	8395.0	10.374 µg/L	10.374 ppb	18:52:52
3	Mo 202.031†	286.1	308.6	9.0804 µg/L	9.0804 ppb	18:53:13
3	Ni 231.604†	341.2	420.7	4.8437 µg/L	4.8437 ppb	18:53:13
3	P 214.914†	668.0	691.7	147.81 µg/L	147.81 ppb	18:53:13
3	Pb 220.353†	280.1	196.2	10.941 µg/L	10.941 ppb	18:53:13
3	S 181.975 Axial†	229.3	126.2	93.811 µg/L	93.811 ppb	18:53:13
3	Sb 206.836†	165.2	85.8	10.280 µg/L	10.280 ppb	18:53:13
3	Se 196.026†	109.6	95.3	34.5 µg/L	34.5 ppb	18:53:13
3	SiO2†	3891.1	2149.2	209.66 µg/L	209.66 ppb	18:52:52
3	Si 251.611†	7576.0	6804.5	100.13 µg/L	100.13 ppb	18:52:52
3	Sn 189.927†	163.2	165.7	10.345 µg/L	10.345 ppb	18:53:13
3	Ti 334.940†	6177.6	5278.1	4.8843 µg/L	4.8843 ppb	18:52:52
3	Tl 190.801†	27.8	144.7	17.868 µg/L	17.868 ppb	18:53:13
3	U 409.014†	779.2	1055.8	62.094 µg/L	62.094 ppb	18:52:52
3	V 292.402†	1501.4	1110.5	5.5591 µg/L	5.5591 ppb	18:52:52
3	Zn 213.857†	2359.0	1814.8	10.149 µg/L	10.149 ppb	18:53:13

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1696183.1	98.718	%	0.4565				0.46%
Sc RADIAL	141217.3	96.8	%	0.38				0.39%
Y 371.029	1015887.4	98.948	%	0.4448				0.45%
Ag 328.068†	1215.7	4.6126	µg/L	0.48588	4.6126	ppb	0.48588	10.53%
QC value within limits for Ag 328.068 Recovery = 92.25%								
Al 396.153Radial†	1101.4	203.76	µg/L	7.553	203.76	ppb	7.553	3.71%
QC value within limits for Al 396.153Radial Recovery = 101.88%								
As 188.979†	99.6	30.223	µg/L	2.5657	30.223	ppb	2.5657	8.49%
QC value within limits for As 188.979 Recovery = 100.74%								
B 249.677†	3266.5	48.158	µg/L	2.0851	48.158	ppb	2.0851	4.33%
QC value within limits for B 249.677 Recovery = 96.32%								
Ba 233.527†	1237.9	4.9928	µg/L	0.02706	4.9928	ppb	0.02706	0.54%
QC value within limits for Ba 233.527 Recovery = 99.86%								
Be 313.107†	17917.8	4.8945	µg/L	0.01680	4.8945	ppb	0.01680	0.34%
QC value within limits for Be 313.107 Recovery = 97.89%								
Ca 317.933Radial†	3813.9	212.45	µg/L	1.736	212.45	ppb	1.736	0.82%
QC value within limits for Ca 317.933Radial Recovery = 106.22%								
Cd 226.502†	809.8	5.0499	µg/L	0.00397	5.0499	ppb	0.00397	0.08%
QC value within limits for Cd 226.502 Recovery = 101.00%								
Co 228.616†	419.8	5.1801	µg/L	0.16905	5.1801	ppb	0.16905	3.26%

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   QC value within limits for Co 228.616  Recovery = 103.60%
Cr 267.716†              632.8      4.9147 µg/L       0.31903      4.9147 ppb        0.31903   6.49%
   QC value within limits for Cr 267.716  Recovery = 98.29%
Cu 324.752†             2554.1      9.9952 µg/L       0.36319      9.9952 ppb        0.36319   3.63%
   QC value within limits for Cu 324.752  Recovery = 99.95%
Fe 238.204 Radial†      1660.8      102.36 µg/L         2.828      102.36 ppb          2.828   2.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.36%
K 766.490 Radial†        409.6      149.80 µg/L        12.246      149.80 ppb         12.246   8.17%
   QC value within limits for K 766.490 Radial  Recovery = 99.87%
Mg 279.077 IEC†          834.3      310.99 µg/L         6.984      310.99 ppb          6.984   2.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.66%
Mn 257.610†             8345.6      10.313 µg/L        0.0539      10.313 ppb         0.0539   0.52%
   QC value within limits for Mn 257.610  Recovery = 103.13%
Mo 202.031†              312.7      9.1996 µg/L       0.21314      9.1996 ppb        0.21314   2.32%
   QC value within limits for Mo 202.031  Recovery = 92.00%
Na 589.592 Radial†      2049.5      279.85 µg/L         8.919      279.85 ppb          8.919   3.19%
   QC value within limits for Na 589.592 Radial  Recovery = 93.28%
Ni 231.604†              433.8      4.9948 µg/L       0.13089      4.9948 ppb        0.13089   2.62%
   QC value within limits for Ni 231.604  Recovery = 99.90%
P 214.914†               690.7      147.58 µg/L         0.423      147.58 ppb          0.423   0.29%
   QC value within limits for P 214.914  Recovery = 98.39%
Pb 220.353†              200.7      11.202 µg/L        0.6223      11.202 ppb         0.6223   5.56%
   QC value within limits for Pb 220.353  Recovery = 112.02%
S 181.975 Axial†         131.4      97.634 µg/L        4.5940      97.634 ppb         4.5940   4.71%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†               80.6      9.6618 µg/L       0.95194      9.6618 ppb        0.95194   9.85%
   QC value within limits for Sb 206.836  Recovery = 96.62%
Se 196.026†               86.2        31.2 µg/L          3.09        31.2 ppb           3.09   9.88%
   QC value within limits for Se 196.026  Recovery = 104.17%
SiO2†                   2170.9      211.78 µg/L         3.127      211.78 ppb          3.127   1.48%
   QC value within limits for SiO2  Recovery = 99.43%
Si 251.611†             6799.9      100.06 µg/L         0.371      100.06 ppb          0.371   0.37%
   QC value within limits for Si 251.611  Recovery = 100.06%
Sn 189.927†              166.9      10.420 µg/L        0.1167      10.420 ppb         0.1167   1.12%
   QC value within limits for Sn 189.927  Recovery = 104.20%
Sr 421.552†             2494.8      5.1849 µg/L       0.14714      5.1849 ppb        0.14714   2.84%
   QC value within limits for Sr 421.552  Recovery = 103.70%
Ti 334.940†             5204.3      4.8193 µg/L       0.11489      4.8193 ppb        0.11489   2.38%
   QC value within limits for Ti 334.940  Recovery = 96.39%
Tl 190.801†              155.6      19.207 µg/L        1.2048      19.207 ppb         1.2048   6.27%
   QC value within limits for Tl 190.801  Recovery = 96.03%
U 409.014†               895.8      52.688 µg/L        8.1477      52.688 ppb         8.1477  15.46%
   QC value within limits for U 409.014  Recovery = 105.38%
V 292.402†               943.5      4.7388 µg/L       0.71883      4.7388 ppb        0.71883  15.17%
   QC value within limits for V 292.402  Recovery = 94.78%
Zn 213.857†             1805.7      10.096 µg/L        0.0971      10.096 ppb         0.0971   0.96%
   QC value within limits for Zn 213.857  Recovery = 100.96%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 3/31/2010 18:53:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	132242.6	132242.6	90.6	%			18:53:53
1	Al 396.153Radial†	2422897.8	2673731.8	495710	µg/L	495710	ppb	18:53:51
1	Ca 317.933Radial†	7691621.4	8487146.3	472770	µg/L	472770	ppb	18:53:51
1	Fe 238.204 Radial†	2755313.8	3040341.6	187390	µg/L	187390	ppb	18:53:51
1	K 766.490 Radial†	1640.2	265.2	-138.93	µg/L	-138.93	ppb	18:53:53
1	Mg 279.077 IEC†	1160629.2	1280564.0	476960	µg/L	476960	ppb	18:53:51
1	Na 589.592 Radial†	1484.0	346.8	47.294	µg/L	47.294	ppb	18:53:53
1	Sr 421.552†	1473.7	1761.6	-0.0382	µg/L	-0.0382	ppb	18:53:53
1	Sc 361.383	1517022.4	1517022.4	88.290	%			18:54:06
1	Y 371.029	894868.4	894868.4	87.161	%			18:54:06
1	Ag 328.068†	6255.0	2993.2	-1.9729	µg/L	-1.9729	ppb	18:54:06
1	As 188.979†	-100.1	-93.0	13.877	µg/L	13.877	ppb	18:54:26
1	B 249.677†	3380.9	323.4	4.7554	µg/L	4.7554	ppb	18:54:06
1	Ba 233.527†	434.1	627.6	0.1345	µg/L	0.1345	ppb	18:54:26
1	Be 313.107†	-1147.6	-235.1	-0.0621	µg/L	-0.0621	ppb	18:54:06
1	Cd 226.502†	2412.4	2850.5	-1.8998	µg/L	-1.8998	ppb	18:54:26
1	Co 228.616†	123.8	330.6	-5.6944	µg/L	-5.6944	ppb	18:54:26
1	Cr 267.716†	198.7	46.5	1.0479	µg/L	1.0479	ppb	18:54:26
1	Cu 324.752†	-5619.3	-9336.8	3.9046	µg/L	3.9046	ppb	18:54:06
1	Mn 257.610†	16860.5	18859.4	3.9217	µg/L	3.9217	ppb	18:54:06
1	Mo 202.031†	-556.1	-609.8	-1.7911	µg/L	-1.7911	ppb	18:54:26
1	Ni 231.604†	185.4	286.5	3.2984	µg/L	3.2984	ppb	18:54:26
1	P 214.914†	178.3	219.9	29.959	µg/L	29.959	ppb	18:54:26
1	Pb 220.353†	-392.3	-530.7	-4.9340	µg/L	-4.9340	ppb	18:54:26
1	S 181.975 Axial†	184.5	103.9	77.024	µg/L	77.024	ppb	18:54:26
1	Sb 206.836†	109.1	42.8	-0.8364	µg/L	-0.8364	ppb	18:54:26
1	Se 196.026†	-143.5	-177.8	0.756	µg/L	0.756	ppb	18:54:26
1	SiO2†	1661.3	106.3	10.857	µg/L	10.857	ppb	18:54:26
1	Si 251.611†	457.4	-318.5	-4.4771	µg/L	-4.4771	ppb	18:54:26
1	Sn 189.927†	41.8	48.5	3.1002	µg/L	3.1002	ppb	18:54:26
1	Ti 334.940†	22402.5	24421.1	-3.7208	µg/L	-3.7208	ppb	18:54:06
1	Tl 190.801†	-159.3	-63.8	-7.4175	µg/L	-7.4175	ppb	18:54:26
1	U 409.014†	-141.4	109.7	-14.558	µg/L	-14.558	ppb	18:54:06
1	V 292.402†	4081.9	4219.5	0.6141	µg/L	0.6141	ppb	18:54:06
1	Zn 213.857†	4369.0	4384.0	8.5615	µg/L	8.5615	ppb	18:54:26
2	Sc RADIAL	132040.0	132040.0	90.5	%			18:53:58
2	Al 396.153Radial†	2444947.4	2702202.7	500990	µg/L	500990	ppb	18:53:56
2	Ca 317.933Radial†	7800125.3	8620085.6	480170	µg/L	480170	ppb	18:53:56
2	Fe 238.204 Radial†	2791790.4	3085319.9	190160	µg/L	190160	ppb	18:53:56
2	K 766.490 Radial†	1740.8	379.1	-100.42	µg/L	-100.42	ppb	18:53:58
2	Mg 279.077 IEC†	1178560.0	1302345.9	485070	µg/L	485070	ppb	18:53:56
2	Na 589.592 Radial†	1410.4	267.9	36.479	µg/L	36.479	ppb	18:53:58
2	Sr 421.552†	1434.5	1720.7	-0.1811	µg/L	-0.1811	ppb	18:53:58
2	Sc 361.383	1500109.7	1500109.7	87.306	%			18:54:29
2	Y 371.029	884042.0	884042.0	86.106	%			18:54:29
2	Ag 328.068†	6203.9	3014.6	-2.1211	µg/L	-2.1211	ppb	18:54:29
2	As 188.979†	-119.9	-117.0	7.2444	µg/L	7.2444	ppb	18:54:49
2	B 249.677†	3505.1	508.8	7.4908	µg/L	7.4908	ppb	18:54:29
2	Ba 233.527†	482.5	688.5	0.3435	µg/L	0.3435	ppb	18:54:49
2	Be 313.107†	-1215.4	-327.4	-0.0902	µg/L	-0.0902	ppb	18:54:29
2	Cd 226.502†	2441.6	2914.8	-1.7901	µg/L	-1.7901	ppb	18:54:49
2	Co 228.616†	105.8	311.5	-6.0736	µg/L	-6.0736	ppb	18:54:49
2	Cr 267.716†	217.8	70.9	1.2432	µg/L	1.2432	ppb	18:54:49
2	Cu 324.752†	-5483.5	-9253.0	4.8451	µg/L	4.8451	ppb	18:54:29
2	Mn 257.610†	16639.0	18821.0	3.5450	µg/L	3.5450	ppb	18:54:29
2	Mo 202.031†	-590.4	-656.1	-2.8945	µg/L	-2.8945	ppb	18:54:49
2	Ni 231.604†	122.0	216.3	2.4904	µg/L	2.4904	ppb	18:54:49
2	P 214.914†	170.4	213.2	27.815	µg/L	27.815	ppb	18:54:49
2	Pb 220.353†	-391.2	-534.5	-4.9028	µg/L	-4.9028	ppb	18:54:49

2	S 181.975 Axial†	176.5	97.2	71.982 µg/L	71.982 ppb	18:54:49
2	Sb 206.836†	116.0	52.0	0.1714 µg/L	0.1714 ppb	18:54:49
2	Se 196.026†	-172.4	-212.7	-10.9 µg/L	-10.9 ppb	18:54:49
2	SiO2†	1633.2	95.3	9.7946 µg/L	9.7946 ppb	18:54:49
2	Si 251.611†	508.3	-254.3	-3.5215 µg/L	-3.5215 ppb	18:54:49
2	Sn 189.927†	60.8	70.8	4.4873 µg/L	4.4873 ppb	18:54:49
2	Ti 334.940†	21754.3	23964.7	-4.6112 µg/L	-4.6112 ppb	18:54:29
2	Tl 190.801†	-183.8	-93.9	-11.124 µg/L	-11.124 ppb	18:54:49
2	U 409.014†	-286.0	-57.7	-24.699 µg/L	-24.699 ppb	18:54:29
2	V 292.402†	3918.7	4084.7	-0.3553 µg/L	-0.3553 ppb	18:54:29
2	Zn 213.857†	4368.9	4439.7	8.6032 µg/L	8.6032 ppb	18:54:49
3	Sc RADIAL	128528.5	128528.5	88.1 %		18:54:02
3	Al 396.153Radial†	2425420.2	2753857.9	510560 µg/L	510560 ppb	18:54:00
3	Ca 317.933Radial†	7690261.2	8730875.1	486340 µg/L	486340 ppb	18:54:00
3	Fe 238.204 Radial†	2749581.2	3121695.4	192400 µg/L	192400 ppb	18:54:00
3	K 766.490 Radial†	1659.5	339.4	-118.61 µg/L	-118.61 ppb	18:54:02
3	Mg 279.077 IEC†	1158065.5	1314663.8	489660 µg/L	489660 ppb	18:54:00
3	Na 589.592 Radial†	1347.0	238.6	32.485 µg/L	32.485 ppb	18:54:02
3	Sr 421.552†	1492.5	1829.9	-0.0025 µg/L	-0.0025 ppb	18:54:02
3	Sc 361.383	1514195.4	1514195.4	88.126 %		18:54:52
3	Y 371.029	891947.3	891947.3	86.876 %		18:54:52
3	Ag 328.068†	6032.7	2754.1	-3.2379 µg/L	-3.2379 ppb	18:54:52
3	As 188.979†	-108.0	-102.2	12.211 µg/L	12.211 ppb	18:55:12
3	B 249.677†	3436.5	393.7	5.7936 µg/L	5.7936 ppb	18:54:52
3	Ba 233.527†	448.2	644.5	0.1380 µg/L	0.1380 ppb	18:55:12
3	Be 313.107†	-1158.8	-250.2	-0.0644 µg/L	-0.0644 ppb	18:54:52
3	Cd 226.502†	2438.6	2885.4	-2.2095 µg/L	-2.2095 ppb	18:55:12
3	Co 228.616†	90.0	292.5	-6.4255 µg/L	-6.4255 ppb	18:55:12
3	Cr 267.716†	181.2	27.0	0.9095 µg/L	0.9095 ppb	18:55:12
3	Cu 324.752†	-5570.7	-9293.5	5.1506 µg/L	5.1506 ppb	18:54:52
3	Mn 257.610†	16733.6	18751.0	3.2706 µg/L	3.2706 ppb	18:54:52
3	Mo 202.031†	-556.7	-611.6	-1.4146 µg/L	-1.4146 ppb	18:55:12
3	Ni 231.604†	136.4	231.3	2.6634 µg/L	2.6634 ppb	18:55:12
3	P 214.914†	188.3	231.6	32.331 µg/L	32.331 ppb	18:55:12
3	Pb 220.353†	-364.7	-500.2	-2.4766 µg/L	-2.4766 ppb	18:55:12
3	S 181.975 Axial†	176.2	94.9	70.345 µg/L	70.345 ppb	18:55:12
3	Sb 206.836†	127.8	64.2	1.5521 µg/L	1.5521 ppb	18:55:12
3	Se 196.026†	-157.0	-193.4	-3.16 µg/L	-3.16 ppb	18:55:12
3	SiO2†	1710.0	165.0	16.582 µg/L	16.582 ppb	18:55:12
3	Si 251.611†	438.9	-338.5	-4.7759 µg/L	-4.7759 ppb	18:55:12
3	Sn 189.927†	52.5	60.6	3.8554 µg/L	3.8554 ppb	18:55:12
3	Ti 334.940†	21892.4	23889.7	-4.9005 µg/L	-4.9005 ppb	18:54:52
3	Tl 190.801†	-161.6	-66.7	-7.7840 µg/L	-7.7840 ppb	18:55:12
3	U 409.014†	-54.1	208.5	-9.3710 µg/L	-9.3710 ppb	18:54:52
3	V 292.402†	3967.3	4098.1	-0.5042 µg/L	-0.5042 ppb	18:54:52
3	Zn 213.857†	4428.1	4460.3	8.5816 µg/L	8.5816 ppb	18:55:12

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1510442.5	87.908	%	0.5273				0.60%
Sc RADIAL	130937.0	89.7	%	1.43				1.59%
Y 371.029	890285.9	86.714	%	0.5456				0.63%
Ag 328.068†	2920.6	-2.4440	µg/L	0.69159	-2.4440	ppb	0.69159	28.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2709930.8	502420	µg/L	7530.6	502420	ppb	7530.6	1.50%
QC value within limits for Al 396.153Radial Recovery = 100.48%								
As 188.979†	-104.0	11.111	µg/L	3.4505	11.111	ppb	3.4505	31.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	408.6	6.0133	µg/L	1.38084	6.0133	ppb	1.38084	22.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	653.5	0.2053	µg/L	0.11966	0.2053	ppb	0.11966	58.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-270.9	-0.0722	µg/L	0.01558	-0.0722	ppb	0.01558	21.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8612702.4	479760	µg/L	6797.7	479760	ppb	6797.7	1.42%
QC value within limits for Ca 317.933Radial Recovery = 95.95%								
Cd 226.502†	2883.6	-1.9665	µg/L	0.21751	-1.9665	ppb	0.21751	11.06%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	311.5	-6.0645	µg/L	0.36562	-6.0645	ppb	0.36562	6.03%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              48.1      1.0668 µg/L      0.16765      1.0668 ppb       0.16765  15.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -9294.4      4.6334 µg/L      0.64943      4.6334 ppb       0.64943  14.02%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   3082452.3     189980 µg/L       2511.7      189980 ppb        2511.7   1.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.99%
K 766.490 Radial†        327.9     -119.32 µg/L       19.263     -119.32 ppb        19.263  16.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1299191.2     483900 µg/L       6431.4      483900 ppb        6431.4   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.78%
Mn 257.610†           18810.4      3.5791 µg/L      0.32691      3.5791 ppb       0.32691   9.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -625.9     -2.0334 µg/L      0.76912     -2.0334 ppb       0.76912  37.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       284.5      38.753 µg/L       7.6619      38.753 ppb        7.6619  19.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              244.7      2.8174 µg/L      0.42544      2.8174 ppb       0.42544  15.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               221.6      30.035 µg/L       2.2592      30.035 ppb        2.2592   7.52%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -521.8     -4.1045 µg/L      1.40989     -4.1045 ppb       1.40989  34.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          98.7      73.117 µg/L       3.4814      73.117 ppb        3.4814   4.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              53.0      0.2957 µg/L      1.19909      0.2957 ppb       1.19909 405.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -194.6       -4.44 µg/L        5.948       -4.44 ppb         5.948 133.85%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    122.2      12.411 µg/L       3.6511      12.411 ppb        3.6511  29.42%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            -303.8     -4.2582 µg/L      0.65524     -4.2582 ppb       0.65524  15.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              60.0      3.8143 µg/L      0.69446      3.8143 ppb       0.69446  18.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            1770.7     -0.0740 µg/L      0.09453     -0.0740 ppb       0.09453 127.80%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           24091.8     -4.4108 µg/L      0.61484     -4.4108 ppb       0.61484  13.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -74.8     -8.7751 µg/L      2.04236     -8.7751 ppb       2.04236  23.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               86.8     -16.209 µg/L       7.7964     -16.209 ppb        7.7964  48.10%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             4134.1     -0.0818 µg/L      0.60724     -0.0818 ppb       0.60724 742.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            4428.0      8.5821 µg/L      0.02081      8.5821 ppb       0.02081   0.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 3/31/2010 18:55:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128923.7	128923.7	88.3	%			18:55:52
1	Al 396.153Radial†	2441585.6	2763714.4	512370	µg/L	512370	ppb	18:55:50
1	Ca 317.933Radial†	7758514.8	8781367.4	489160	µg/L	489160	ppb	18:55:50
1	Fe 238.204 Radial†	2782554.2	3149448.4	194110	µg/L	194110	ppb	18:55:50
1	K 766.490 Radial†	15194.3	15653.8	5486.8	µg/L	5486.8	ppb	18:55:52
1	Mg 279.077 IEC†	1148118.0	1299373.7	483970	µg/L	483970	ppb	18:55:52
1	Na 589.592 Radial†	35618.0	39025.6	5326.3	µg/L	5326.3	ppb	18:55:52
1	Sr 421.552†	218553.1	247517.3	510.75	µg/L	510.75	ppb	18:55:52
1	Sc 361.383	1501848.4	1501848.4	87.407	%			18:56:05
1	Y 371.029	885934.6	885934.6	86.290	%			18:56:05
1	Ag 328.068†	68208.1	73943.4	266.87	µg/L	266.87	ppb	18:56:05
1	As 188.979†	1287.3	1493.1	500.98	µg/L	500.98	ppb	18:56:07
1	B 249.677†	33851.7	35222.8	517.92	µg/L	517.92	ppb	18:56:05
1	Ba 233.527†	108371.1	124119.8	498.16	µg/L	498.16	ppb	18:56:05
1	Be 313.107†	784555.4	898650.0	244.84	µg/L	244.84	ppb	18:56:05
1	Cd 226.502†	69032.6	79096.3	473.84	µg/L	473.84	ppb	18:56:05
1	Co 228.616†	31520.5	36252.0	437.70	µg/L	437.70	ppb	18:56:07
1	Cr 267.716†	53782.3	61352.1	481.07	µg/L	481.07	ppb	18:56:07
1	Cu 324.752†	114717.9	128272.9	540.53	µg/L	540.53	ppb	18:56:05
1	Mn 257.610†	356699.6	407851.6	484.93	µg/L	484.93	ppb	18:56:05
1	Mo 202.031†	13953.9	15984.3	486.45	µg/L	486.45	ppb	18:56:07
1	Ni 231.604†	34191.5	39194.0	451.29	µg/L	451.29	ppb	18:56:07
1	P 214.914†	10448.2	11971.4	2535.7	µg/L	2535.7	ppb	18:56:07
1	Pb 220.353†	6755.9	7642.9	453.53	µg/L	453.53	ppb	18:56:07
1	S 181.975 Axial†	3250.1	3613.3	2687.1	µg/L	2687.1	ppb	18:56:07
1	Sb 206.836†	3785.3	4249.8	500.40	µg/L	500.40	ppb	18:56:07
1	Se 196.026†	5624.0	6419.0	2390	µg/L	2390	ppb	18:56:07
1	SiO2†	99846.0	112455.3	10971	µg/L	10971	ppb	18:56:05
1	Si 251.611†	306352.4	349651.7	5145.5	µg/L	5145.5	ppb	18:56:05
1	Sn 189.927†	6636.1	7593.3	475.14	µg/L	475.14	ppb	18:56:07
1	Ti 334.940†	496139.0	566664.5	502.37	µg/L	502.37	ppb	18:56:05
1	Tl 190.801†	3058.5	3615.8	452.56	µg/L	452.56	ppb	18:56:07
1	U 409.014†	7410.9	8748.5	521.43	µg/L	521.43	ppb	18:56:05
1	V 292.402†	94726.2	107969.5	513.01	µg/L	513.01	ppb	18:56:05
1	Zn 213.857†	80178.7	91165.5	492.35	µg/L	492.35	ppb	18:56:05
2	Sc RADIAL	130306.5	130306.5	89.3	%			18:55:57
2	Al 396.153Radial†	2425762.3	2716664.8	503640	µg/L	503640	ppb	18:55:54
2	Ca 317.933Radial†	7696197.0	8618379.7	480080	µg/L	480080	ppb	18:55:54
2	Fe 238.204 Radial†	2760250.1	3091044.9	190510	µg/L	190510	ppb	18:55:54
2	K 766.490 Radial†	15576.4	15899.2	5580.2	µg/L	5580.2	ppb	18:55:57
2	Mg 279.077 IEC†	1163916.5	1303274.7	485430	µg/L	485430	ppb	18:55:57
2	Na 589.592 Radial†	35962.5	38983.4	5320.4	µg/L	5320.4	ppb	18:55:57
2	Sr 421.552†	221063.2	247703.0	511.20	µg/L	511.20	ppb	18:55:57
2	Sc 361.383	1503774.7	1503774.7	87.519	%			18:56:10
2	Y 371.029	887039.9	887039.9	86.398	%			18:56:10
2	Ag 328.068†	68293.1	73940.5	267.10	µg/L	267.10	ppb	18:56:10
2	As 188.979†	1349.3	1562.1	521.08	µg/L	521.08	ppb	18:56:12
2	B 249.677†	33920.1	35251.3	518.32	µg/L	518.32	ppb	18:56:10
2	Ba 233.527†	108643.6	124272.4	498.82	µg/L	498.82	ppb	18:56:10
2	Be 313.107†	786963.6	900251.8	245.27	µg/L	245.27	ppb	18:56:10
2	Cd 226.502†	69426.5	79445.1	476.40	µg/L	476.40	ppb	18:56:10
2	Co 228.616†	32044.4	36804.3	444.70	µg/L	444.70	ppb	18:56:12
2	Cr 267.716†	54375.8	61951.4	485.63	µg/L	485.63	ppb	18:56:12
2	Cu 324.752†	115372.1	128852.4	542.29	µg/L	542.29	ppb	18:56:10
2	Mn 257.610†	357810.4	408598.0	485.80	µg/L	485.80	ppb	18:56:10
2	Mo 202.031†	14059.7	16084.7	489.29	µg/L	489.29	ppb	18:56:12
2	Ni 231.604†	34695.4	39719.6	457.34	µg/L	457.34	ppb	18:56:12
2	P 214.914†	10657.1	12194.8	2584.0	µg/L	2584.0	ppb	18:56:12
2	Pb 220.353†	7007.7	7920.6	468.62	µg/L	468.62	ppb	18:56:12

2	S 181.975 Axial†	3226.8	3581.8	2663.8 µg/L	2663.8 ppb	18:56:12
2	Sb 206.836†	3801.0	4262.2	501.96 µg/L	501.96 ppb	18:56:12
2	Se 196.026†	5730.0	6531.8	2430 µg/L	2430 ppb	18:56:12
2	SiO2†	100449.1	112998.1	11024 µg/L	11024 ppb	18:56:10
2	Si 251.611†	307929.3	351004.4	5165.3 µg/L	5165.3 ppb	18:56:10
2	Sn 189.927†	6796.2	7766.5	485.94 µg/L	485.94 ppb	18:56:12
2	Ti 334.940†	498020.9	568087.6	503.35 µg/L	503.35 ppb	18:56:10
2	Tl 190.801†	3159.1	3726.2	466.12 µg/L	466.12 ppb	18:56:12
2	U 409.014†	7207.8	8505.6	507.68 µg/L	507.68 ppb	18:56:10
2	V 292.402†	94912.3	108043.3	513.79 µg/L	513.79 ppb	18:56:10
2	Zn 213.857†	80541.8	91462.8	494.31 µg/L	494.31 ppb	18:56:10
3	Sc RADIAL	130048.3	130048.3	89.1 %		18:56:01
3	Al 396.153Radial†	2433855.1	2731140.9	506330 µg/L	506330 ppb	18:55:59
3	Ca 317.933Radial†	7718645.4	8660686.5	482430 µg/L	482430 ppb	18:55:59
3	Fe 238.204 Radial†	2766938.5	3104689.2	191350 µg/L	191350 ppb	18:55:59
3	K 766.490 Radial†	15537.1	15889.7	5575.7 µg/L	5575.7 ppb	18:56:01
3	Mg 279.077 IEC†	1162812.5	1304624.6	485930 µg/L	485930 ppb	18:56:01
3	Na 589.592 Radial†	36095.8	39213.0	5351.8 µg/L	5351.8 ppb	18:56:01
3	Sr 421.552†	220343.8	247387.5	510.53 µg/L	510.53 ppb	18:56:01
3	Sc 361.383	1505253.1	1505253.1	87.605 %		18:56:15
3	Y 371.029	887796.9	887796.9	86.472 %		18:56:15
3	Ag 328.068†	68315.0	73888.9	266.85 µg/L	266.85 ppb	18:56:15
3	As 188.979†	1427.8	1650.2	547.91 µg/L	547.91 ppb	18:56:17
3	B 249.677†	34091.4	35408.8	520.64 µg/L	520.64 ppb	18:56:15
3	Ba 233.527†	108923.3	124469.7	499.60 µg/L	499.60 ppb	18:56:15
3	Be 313.107†	788697.2	901347.5	245.57 µg/L	245.57 ppb	18:56:15
3	Cd 226.502†	69816.9	79812.9	478.61 µg/L	478.61 ppb	18:56:15
3	Co 228.616†	32104.8	36837.3	445.06 µg/L	445.06 ppb	18:56:17
3	Cr 267.716†	54241.6	61737.2	483.97 µg/L	483.97 ppb	18:56:17
3	Cu 324.752†	115315.5	128658.2	541.67 µg/L	541.67 ppb	18:56:15
3	Mn 257.610†	358650.2	409155.1	486.47 µg/L	486.47 ppb	18:56:15
3	Mo 202.031†	13985.2	15983.9	486.37 µg/L	486.37 ppb	18:56:17
3	Ni 231.604†	34565.9	39532.8	455.19 µg/L	455.19 ppb	18:56:17
3	P 214.914†	10680.3	12209.4	2587.2 µg/L	2587.2 ppb	18:56:17
3	Pb 220.353†	7037.5	7946.8	470.21 µg/L	470.21 ppb	18:56:17
3	S 181.975 Axial†	3275.8	3634.2	2702.6 µg/L	2702.6 ppb	18:56:17
3	Sb 206.836†	3858.4	4323.5	509.22 µg/L	509.22 ppb	18:56:17
3	Se 196.026†	5760.2	6559.9	2440 µg/L	2440 ppb	18:56:17
3	SiO2†	100355.9	112779.0	11003 µg/L	11003 ppb	18:56:15
3	Si 251.611†	307749.7	350453.9	5157.2 µg/L	5157.2 ppb	18:56:15
3	Sn 189.927†	6900.6	7878.0	492.90 µg/L	492.90 ppb	18:56:17
3	Ti 334.940†	498757.3	568369.4	503.63 µg/L	503.63 ppb	18:56:15
3	Tl 190.801†	3121.0	3679.2	460.34 µg/L	460.34 ppb	18:56:17
3	U 409.014†	7255.1	8551.4	510.28 µg/L	510.28 ppb	18:56:15
3	V 292.402†	95008.3	108046.4	513.68 µg/L	513.68 ppb	18:56:15
3	Zn 213.857†	80688.3	91539.7	494.68 µg/L	494.68 ppb	18:56:15

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1503625.4	87.511	%	0.0994				0.11%
Sc RADIAL	129759.5	88.9	%	0.50				0.57%
Y 371.029	886923.8	86.387	%	0.0912				0.11%
Ag 328.068†	73924.3	266.94	µg/L	0.141	266.94	ppb	0.141	0.05%
QC value within limits for Ag 328.068 Recovery = 106.78%								
Al 396.153Radial†	2737173.4	507450	µg/L	4467.8	507450	ppb	4467.8	0.88%
QC value within limits for Al 396.153Radial Recovery = 101.49%								
As 188.979†	1568.5	523.32	µg/L	23.543	523.32	ppb	23.543	4.50%
QC value within limits for As 188.979 Recovery = 104.66%								
B 249.677†	35294.3	518.96	µg/L	1.468	518.96	ppb	1.468	0.28%
QC value within limits for B 249.677 Recovery = 103.79%								
Ba 233.527†	124287.3	498.86	µg/L	0.724	498.86	ppb	0.724	0.15%
QC value within limits for Ba 233.527 Recovery = 99.77%								
Be 313.107†	900083.1	245.23	µg/L	0.367	245.23	ppb	0.367	0.15%
QC value within limits for Be 313.107 Recovery = 98.09%								
Ca 317.933Radial†	8686811.2	483890	µg/L	4711.2	483890	ppb	4711.2	0.97%
QC value within limits for Ca 317.933Radial Recovery = 96.78%								
Cd 226.502†	79451.4	476.29	µg/L	2.386	476.29	ppb	2.386	0.50%
QC value within limits for Cd 226.502 Recovery = 95.26%								
Co 228.616†	36631.2	442.49	µg/L	4.152	442.49	ppb	4.152	0.94%

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   QC value within limits for Co 228.616  Recovery = 88.50%
Cr 267.716†            61680.2      483.56 µg/L        2.310      483.56 ppb         2.310   0.48%
   QC value within limits for Cr 267.716  Recovery = 96.71%
Cu 324.752†           128594.5      541.50 µg/L        0.893      541.50 ppb         0.893   0.16%
   QC value within limits for Cu 324.752  Recovery = 108.30%
Fe 238.204 Radial†   3115060.8      191990 µg/L       1883.0      191990 ppb        1883.0   0.98%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.00%
K 766.490 Radial†      15814.2      5547.6 µg/L        52.66      5547.6 ppb         52.66   0.95%
   QC value within limits for K 766.490 Radial  Recovery = 110.95%
Mg 279.077 IEC†      1302424.3      485110 µg/L       1017.4      485110 ppb        1017.4   0.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.02%
Mn 257.610†           408534.9      485.73 µg/L        0.774      485.73 ppb         0.774   0.16%
   QC value within limits for Mn 257.610  Recovery = 97.15%
Mo 202.031†            16017.6      487.37 µg/L        1.662      487.37 ppb         1.662   0.34%
   QC value within limits for Mo 202.031  Recovery = 97.47%
Na 589.592 Radial†     39074.0      5332.8 µg/L        16.68      5332.8 ppb         16.68   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 106.66%
Ni 231.604†            39482.1      454.61 µg/L        3.068      454.61 ppb         3.068   0.67%
   QC value within limits for Ni 231.604  Recovery = 90.92%
P 214.914†             12125.2      2569.0 µg/L        28.88      2569.0 ppb         28.88   1.12%
   QC value within limits for P 214.914  Recovery = 102.76%
Pb 220.353†             7836.8      464.12 µg/L        9.210      464.12 ppb         9.210   1.98%
   QC value within limits for Pb 220.353  Recovery = 92.82%
S 181.975 Axial†        3609.8      2684.5 µg/L        19.56      2684.5 ppb         19.56   0.73%
   QC value within limits for S 181.975 Axial  Recovery = 107.38%
Sb 206.836†             4278.5      503.86 µg/L        4.707      503.86 ppb         4.707   0.93%
   QC value within limits for Sb 206.836  Recovery = 100.77%
Se 196.026†             6503.6        2420 µg/L         26.4        2420 ppb          26.4   1.09%
   QC value within limits for Se 196.026  Recovery = 96.73%
SiO2†                 112744.1       10999 µg/L         26.6       10999 ppb          26.6   0.24%
   QC value within limits for SiO2  Recovery = 102.85%
Si 251.611†           350370.0      5156.0 µg/L         9.97      5156.0 ppb         9.97   0.19%
   QC value within limits for Si 251.611  Recovery = 103.12%
Sn 189.927†             7745.9      484.66 µg/L        8.948      484.66 ppb         8.948   1.85%
   QC value within limits for Sn 189.927  Recovery = 96.93%
Sr 421.552†           247536.0      510.83 µg/L        0.344      510.83 ppb         0.344   0.07%
   QC value within limits for Sr 421.552  Recovery = 102.17%
Ti 334.940†           567707.2      503.12 µg/L        0.662      503.12 ppb         0.662   0.13%
   QC value within limits for Ti 334.940  Recovery = 100.62%
Tl 190.801†             3673.7      459.67 µg/L        6.804      459.67 ppb         6.804   1.48%
   QC value within limits for Tl 190.801  Recovery = 91.93%
U 409.014†              8601.8      513.13 µg/L        7.307      513.13 ppb         7.307   1.42%
   QC value within limits for U 409.014  Recovery = 102.63%
V 292.402†            108019.7      513.49 µg/L        0.422      513.49 ppb         0.422   0.08%
   QC value within limits for V 292.402  Recovery = 102.70%
Zn 213.857†            91389.3      493.78 µg/L        1.251      493.78 ppb         1.251   0.25%
   QC value within limits for Zn 213.857  Recovery = 98.76%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 3/31/2010 18:56:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128043.7	128043.7	87.7	%			18:56:58
1	Al 396.153Radial†	2381304.8	2714005.3	503180	µg/L	503180	ppb	18:56:56
1	Ca 317.933Radial†	7611014.0	8673613.0	483150	µg/L	483150	ppb	18:56:56
1	Fe 238.204 Radial†	6523125.5	7434173.2	458200	µg/L	458200	ppb	18:56:56
1	K 766.490 Radial†	2256.7	1027.2	53.040	µg/L	53.040	ppb	18:56:58
1	Mg 279.077 IEC†	1139739.5	1298755.6	483500	µg/L	483500	ppb	18:56:56
1	Na 589.592 Radial†	3271680.6	3727401.1	509210	µg/L	509210	ppb	18:56:56
1	Sr 421.552†	5079.9	5924.8	8.5355	µg/L	8.5355	ppb	18:56:58
1	Sc 361.383	1451583.4	1451583.4	84.482	%			18:57:26
1	Y 371.029	852879.4	852879.4	83.071	%			18:57:26
1	Ag 328.068†	2264.1	-1411.5	-0.2309	µg/L	-0.2309	ppb	18:57:26
1	As 188.979†	-305.1	-340.8	-0.3436	µg/L	-0.3436	ppb	18:57:28
1	B 249.677†	4415.2	1720.3	25.330	µg/L	25.330	ppb	18:57:26
1	Ba 233.527†	738.1	1009.5	-1.7895	µg/L	-1.7895	ppb	18:57:28
1	Be 313.107†	-15542.1	-17332.3	0.1527	µg/L	0.1527	ppb	18:57:26
1	Cd 226.502†	6136.8	7382.3	-2.0728	µg/L	-2.0728	ppb	18:57:28
1	Co 228.616†	663.9	976.1	-11.855	µg/L	-11.855	ppb	18:57:28
1	Cr 267.716†	326.4	207.8	-1.0531	µg/L	-1.0531	ppb	18:57:28
1	Cu 324.752†	-15976.1	-21882.9	8.0863	µg/L	8.0863	ppb	18:57:26
1	Mn 257.610†	18213.2	21321.4	5.9920	µg/L	5.9920	ppb	18:57:26
1	Mo 202.031†	-937.6	-1089.8	-5.0578	µg/L	-5.0578	ppb	18:57:26
1	Ni 231.604†	147.8	251.5	2.8954	µg/L	2.8954	ppb	18:57:28
1	P 214.914†	945.2	1136.8	44.272	µg/L	44.272	ppb	18:57:28
1	Pb 220.353†	-112.1	-219.1	-7.8626	µg/L	-7.8626	ppb	18:57:28
1	S 181.975 Axial†	176.1	103.3	76.471	µg/L	76.471	ppb	18:57:28
1	Sb 206.836†	186.9	140.4	7.1485	µg/L	7.1485	ppb	18:57:28
1	Se 196.026†	-404.8	-494.4	-4.21	µg/L	-4.21	ppb	18:57:28
1	SiO2†	1963.2	548.4	54.447	µg/L	54.447	ppb	18:57:28
1	Si 251.611†	-2032.7	-3242.6	-47.410	µg/L	-47.410	ppb	18:57:28
1	Sn 189.927†	64.2	77.1	4.9002	µg/L	4.9002	ppb	18:57:28
1	Ti 334.940†	26623.1	30560.8	-4.8606	µg/L	-4.8606	ppb	18:57:26
1	Tl 190.801†	-158.4	-70.8	-8.1165	µg/L	-8.1165	ppb	18:57:28
1	U 409.014†	232638.7	275640.9	16036	µg/L	16036	ppb	18:57:26
1	V 292.402†	7227.0	8150.7	1.9065	µg/L	1.9065	ppb	18:57:28
1	Zn 213.857†	8608.4	9625.2	9.4603	µg/L	9.4603	ppb	18:57:28
2	Sc RADIAL	127587.1	127587.1	87.4	%			18:57:03
2	Al 396.153Radial†	2344707.9	2681859.2	497220	µg/L	497220	ppb	18:57:01
2	Ca 317.933Radial†	7463583.8	8536029.3	475490	µg/L	475490	ppb	18:57:01
2	Fe 238.204 Radial†	6391908.1	7310696.0	450590	µg/L	450590	ppb	18:57:01
2	K 766.490 Radial†	2390.9	1189.8	117.32	µg/L	117.32	ppb	18:57:03
2	Mg 279.077 IEC†	1114206.6	1274200.4	474360	µg/L	474360	ppb	18:57:01
2	Na 589.592 Radial†	3209939.6	3670127.4	501380	µg/L	501380	ppb	18:57:01
2	Sr 421.552†	5135.8	6009.4	8.7715	µg/L	8.7715	ppb	18:57:03
2	Sc 361.383	1456448.3	1456448.3	84.765	%			18:57:30
2	Y 371.029	856251.9	856251.9	83.399	%			18:57:30
2	Ag 328.068†	2013.8	-1715.7	-1.0926	µg/L	-1.0926	ppb	18:57:30
2	As 188.979†	-237.9	-260.3	22.297	µg/L	22.297	ppb	18:57:32
2	B 249.677†	4229.1	1483.4	21.834	µg/L	21.834	ppb	18:57:30
2	Ba 233.527†	835.0	1121.0	-1.2428	µg/L	-1.2428	ppb	18:57:32
2	Be 313.107†	-15397.0	-17099.7	0.2214	µg/L	0.2214	ppb	18:57:30
2	Cd 226.502†	6036.4	7239.5	-2.1644	µg/L	-2.1644	ppb	18:57:32
2	Co 228.616†	696.8	1012.4	-11.010	µg/L	-11.010	ppb	18:57:32
2	Cr 267.716†	355.9	241.2	-0.9572	µg/L	-0.9572	ppb	18:57:32
2	Cu 324.752†	-16236.3	-22126.7	5.7984	µg/L	5.7984	ppb	18:57:30
2	Mn 257.610†	18248.7	21291.3	6.3374	µg/L	6.3374	ppb	18:57:30
2	Mo 202.031†	-933.0	-1080.6	-5.2559	µg/L	-5.2559	ppb	18:57:30
2	Ni 231.604†	134.2	234.9	2.7046	µg/L	2.7046	ppb	18:57:32
2	P 214.914†	1061.2	1269.9	76.619	µg/L	76.619	ppb	18:57:32
2	Pb 220.353†	-99.7	-204.1	-7.1629	µg/L	-7.1629	ppb	18:57:32

2	S 181.975 Axial†	67.9	-24.9	-18.790 µg/L	-18.790 ppb	18:57:32
2	Sb 206.836†	102.8	40.5	-4.5964 µg/L	-4.5964 ppb	18:57:32
2	Se 196.026†	-406.6	-495.0	-7.05 µg/L	-7.05 ppb	18:57:32
2	SiO2†	1830.8	384.5	38.395 µg/L	38.395 ppb	18:57:32
2	Si 251.611†	-1934.6	-3118.9	-45.598 µg/L	-45.598 ppb	18:57:32
2	Sn 189.927†	82.4	98.3	6.2185 µg/L	6.2185 ppb	18:57:32
2	Ti 334.940†	25364.2	28970.4	-5.8085 µg/L	-5.8085 ppb	18:57:30
2	Tl 190.801†	-211.8	-133.2	-15.794 µg/L	-15.794 ppb	18:57:32
2	U 409.014†	233675.5	275944.1	16055 µg/L	16055 ppb	18:57:30
2	V 292.402†	7224.5	8119.2	2.5727 µg/L	2.5727 ppb	18:57:32
2	Zn 213.857†	8699.2	9698.3	10.651 µg/L	10.651 ppb	18:57:32
3	Sc RADIAL	127845.5	127845.5	87.6 %		18:57:07
3	Al 396.153Radial†	2359012.1	2692767.9	499240 µg/L	499240 ppb	18:57:05
3	Ca 317.933Radial†	7510342.6	8572152.9	477500 µg/L	477500 ppb	18:57:05
3	Fe 238.204 Radial†	6434548.4	7344595.4	452680 µg/L	452680 ppb	18:57:05
3	K 766.490 Radial†	2440.5	1241.0	134.70 µg/L	134.70 ppb	18:57:07
3	Mg 279.077 IEC†	1121897.2	1280403.8	476670 µg/L	476670 ppb	18:57:05
3	Na 589.592 Radial†	3229732.0	3685301.0	503460 µg/L	503460 ppb	18:57:05
3	Sr 421.552†	4859.4	5682.0	8.0751 µg/L	8.0751 ppb	18:57:07
3	Sc 361.383	1472435.6	1472435.6	85.696 %		18:57:35
3	Y 371.029	865581.1	865581.1	84.308 %		18:57:35
3	Ag 328.068†	2006.5	-1749.9	-1.2878 µg/L	-1.2878 ppb	18:57:35
3	As 188.979†	-242.4	-262.5	22.088 µg/L	22.088 ppb	18:57:37
3	B 249.677†	4311.3	1525.1	22.443 µg/L	22.443 ppb	18:57:35
3	Ba 233.527†	597.3	832.8	-2.4315 µg/L	-2.4315 ppb	18:57:37
3	Be 313.107†	-15503.1	-17026.2	0.2432 µg/L	0.2432 ppb	18:57:35
3	Cd 226.502†	5998.3	7117.7	-3.1440 µg/L	-3.1440 ppb	18:57:37
3	Co 228.616†	825.0	1153.0	-9.3850 µg/L	-9.3850 ppb	18:57:37
3	Cr 267.716†	265.1	130.8	-1.7837 µg/L	-1.7837 ppb	18:57:37
3	Cu 324.752†	-16427.6	-22141.9	6.1120 µg/L	6.1120 ppb	18:57:35
3	Mn 257.610†	18616.4	21486.6	6.4820 µg/L	6.4820 ppb	18:57:35
3	Mo 202.031†	-951.0	-1089.6	-5.3968 µg/L	-5.3968 ppb	18:57:35
3	Ni 231.604†	238.5	354.9	4.0862 µg/L	4.0862 ppb	18:57:37
3	P 214.914†	1053.2	1246.9	70.775 µg/L	70.775 ppb	18:57:37
3	Pb 220.353†	-34.4	-126.5	-2.7794 µg/L	-2.7794 ppb	18:57:37
3	S 181.975 Axial†	188.2	114.6	84.800 µg/L	84.800 ppb	18:57:37
3	Sb 206.836†	165.1	111.8	3.8601 µg/L	3.8601 ppb	18:57:37
3	Se 196.026†	-442.3	-531.4	-19.5 µg/L	-19.5 ppb	18:57:37
3	SiO2†	1893.1	433.7	43.156 µg/L	43.156 ppb	18:57:37
3	Si 251.611†	-1908.7	-3063.9	-44.810 µg/L	-44.810 ppb	18:57:37
3	Sn 189.927†	139.3	163.7	10.296 µg/L	10.296 ppb	18:57:37
3	Ti 334.940†	26025.3	29416.9	-5.5292 µg/L	-5.5292 ppb	18:57:35
3	Tl 190.801†	-218.6	-138.4	-16.446 µg/L	-16.446 ppb	18:57:37
3	U 409.014†	236329.7	276048.2	16061 µg/L	16061 ppb	18:57:35
3	V 292.402†	7144.2	7933.0	1.4413 µg/L	1.4413 ppb	18:57:37
3	Zn 213.857†	8714.2	9604.4	9.9077 µg/L	9.9077 ppb	18:57:37

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1460155.8	84.981	%	0.6349				0.75%
Sc RADIAL	127825.4	87.6	%	0.16				0.18%
Y 371.029	858237.5	83.593	%	0.6409				0.77%
Ag 328.068†	-1625.7	-0.8704	µg/L	0.56237	-0.8704	ppb	0.56237	64.61%
Al 396.153Radial†	2696210.8	499880	µg/L	3030.8	499880	ppb	3030.8	0.61%
QC value within limits for Al 396.153Radial Recovery = 99.98%								
As 188.979†	-287.9	14.680	µg/L	13.0115	14.680	ppb	13.0115	88.63%
B 249.677†	1576.2	23.202	µg/L	1.8679	23.202	ppb	1.8679	8.05%
Ba 233.527†	987.8	-1.8213	µg/L	0.59497	-1.8213	ppb	0.59497	32.67%
Be 313.107†	-17152.7	0.2058	µg/L	0.04725	0.2058	ppb	0.04725	22.96%
Ca 317.933Radial†	8593931.8	478720	µg/L	3973.4	478720	ppb	3973.4	0.83%
QC value within limits for Ca 317.933Radial Recovery = 95.74%								
Cd 226.502†	7246.5	-2.4604	µg/L	0.59380	-2.4604	ppb	0.59380	24.13%
Co 228.616†	1047.2	-10.750	µg/L	1.2554	-10.750	ppb	1.2554	11.68%
Cr 267.716†	193.3	-1.2647	µg/L	0.45201	-1.2647	ppb	0.45201	35.74%
Cu 324.752†	-22050.5	6.6655	µg/L	1.24035	6.6655	ppb	1.24035	18.61%
Fe 238.204 Radial†	7363154.9	453820	µg/L	3932.0	453820	ppb	3932.0	0.87%
QC value within limits for Fe 238.204 Radial Recovery = 90.76%								
K 766.490 Radial†	1152.7	101.69	µg/L	43.017	101.69	ppb	43.017	42.30%
Mg 279.077 IEC†	1284453.2	478180	µg/L	4754.0	478180	ppb	4754.0	0.99%

QC value within limits for Mg 279.077 IEC Recovery = 95.64%

Mn 257.610†	21366.4	6.2705 µg/L	0.25177	6.2705 ppb	0.25177	4.02%
Mo 202.031†	-1086.7	-5.2368 µg/L	0.17026	-5.2368 ppb	0.17026	3.25%
Na 589.592 Radial†	3694276.5	504680 µg/L	4053.7	504680 ppb	4053.7	0.80%

QC value within limits for Na 589.592 Radial Recovery = 100.94%

Ni 231.604†	280.4	3.2287 µg/L	0.74869	3.2287 ppb	0.74869	23.19%
P 214.914†	1217.9	63.889 µg/L	17.2380	63.889 ppb	17.2380	26.98%
Pb 220.353†	-183.2	-5.9350 µg/L	2.75510	-5.9350 ppb	2.75510	46.42%
S 181.975 Axial†	64.3	47.494 µg/L	57.5543	47.494 ppb	57.5543	121.18%
Sb 206.836†	97.6	2.1374 µg/L	6.05903	2.1374 ppb	6.05903	283.48%
Se 196.026†	-506.9	-10.3 µg/L	8.13	-10.3 ppb	8.13	79.29%
SiO2†	455.6	45.333 µg/L	8.2442	45.333 ppb	8.2442	18.19%
Si 251.611†	-3141.8	-45.939 µg/L	1.3330	-45.939 ppb	1.3330	2.90%
Sn 189.927†	113.0	7.1383 µg/L	2.81321	7.1383 ppb	2.81321	39.41%
Sr 421.552†	5872.1	8.4607 µg/L	0.35414	8.4607 ppb	0.35414	4.19%
Ti 334.940†	29649.4	-5.3994 µg/L	0.48710	-5.3994 ppb	0.48710	9.02%
Tl 190.801†	-114.1	-13.452 µg/L	4.6323	-13.452 ppb	4.6323	34.44%
U 409.014†	275877.8	16051 µg/L	13.0	16051 ppb	13.0	0.08%

QC value within limits for U 409.014 Recovery = 107.00%

V 292.402†	8067.6	1.9735 µg/L	0.56868	1.9735 ppb	0.56868	28.82%
Zn 213.857†	9642.6	10.006 µg/L	0.6012	10.006 ppb	0.6012	6.01%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 3/31/2010 18:57:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138428.5	138428.5	94.9	%			18:58:18
1	Al 396.153Radial†	2589.6	2793.1	65.979	µg/L	65.979	ppb	18:58:20
1	Ca 317.933Radial†	2182.0	1739.6	96.903	µg/L	96.903	ppb	18:58:20
1	Fe 238.204 Radial†	-202.3	-361.4	-22.274	µg/L	-22.274	ppb	18:58:20
1	K 766.490 Radial†	763320.3	803139.1	294040	µg/L	294040	ppb	18:58:18
1	Mg 279.077 IEC†	-318.7	-526.7	41.787	µg/L	41.787	ppb	18:58:20
1	Na 589.592 Radial†	4722.3	3687.4	242.24	µg/L	242.24	ppb	18:58:18
1	Sr 421.552†	4464241.5	4706289.3	9784.1	µg/L	9784.1	ppb	18:58:15
1	Sc 361.383	1644054.1	1644054.1	95.684	%			18:58:42
1	Y 371.029	958940.9	958940.9	93.401	%			18:58:42
1	Ag 328.068†	-28181.7	-33544.4	-7.2060	µg/L	-7.2060	ppb	18:58:44
1	As 188.979†	32117.0	33586.2	10409	µg/L	10409	ppb	18:58:44
1	B 249.677†	322787.1	333842.2	4891.3	µg/L	4891.3	ppb	18:58:42
1	Ba 233.527†	3263599.9	3410957.3	13754	µg/L	13754	ppb	18:58:42
1	Be 313.107†	10059777.2	10514640.1	2862.8	µg/L	2862.8	ppb	18:58:38
1	Cd 226.502†	1463937.1	1530093.7	9561.7	µg/L	9561.7	ppb	18:58:42
1	Co 228.616†	720309.4	752993.0	9307.6	µg/L	9307.6	ppb	18:58:42
1	Cr 267.716†	2891693.7	3021959.9	23671	µg/L	23671	ppb	18:58:42
1	Cu 324.752†	4894436.4	5112253.1	19872	µg/L	19872	ppb	18:58:42
1	Mn 257.610†	7191165.6	7515323.1	9298.7	µg/L	9298.7	ppb	18:58:42
1	Mo 202.031†	316742.4	331050.8	9732.5	µg/L	9732.5	ppb	18:58:44
1	Ni 231.604†	799875.1	836034.2	9626.3	µg/L	9626.3	ppb	18:58:42
1	P 214.914†	68547.5	71657.7	15093	µg/L	15093	ppb	18:58:44
1	Pb 220.353†	401154.4	419164.2	23428	µg/L	23428	ppb	18:58:42
1	S 181.975 Axial†	67316.5	70248.1	52247	µg/L	52247	ppb	18:58:44
1	Sb 206.836†	80773.2	84336.1	9841.1	µg/L	9841.1	ppb	18:58:44
1	Se 196.026†	26033.9	27193.0	9830	µg/L	9830	ppb	18:58:44
1	SiO2†	974638.1	1016828.8	98967	µg/L	98967	ppb	18:58:42
1	Si 251.611†	3010622.9	3145596.0	46180	µg/L	46180	ppb	18:58:42
1	Sn 189.927†	151635.6	158477.0	9912.7	µg/L	9912.7	ppb	18:58:44
1	Ti 334.940†	10132846.9	10588988.8	9885.3	µg/L	9885.3	ppb	18:58:38
1	Tl 190.801†	74051.0	77508.1	9673.9	µg/L	9673.9	ppb	18:58:44
1	U 409.014†	-10469.2	-10671.6	-21.061	µg/L	-21.061	ppb	18:58:44
1	V 292.402†	1944343.2	2031649.1	10104	µg/L	10104	ppb	18:58:42
1	Zn 213.857†	2422227.0	2530929.6	14143	µg/L	14143	ppb	18:58:42
2	Sc RADIAL	138489.8	138489.8	94.9	%			18:58:24
2	Al 396.153Radial†	2632.4	2837.1	80.052	µg/L	80.052	ppb	18:58:26
2	Ca 317.933Radial†	2111.9	1664.8	92.734	µg/L	92.734	ppb	18:58:26
2	Fe 238.204 Radial†	-168.1	-325.2	-20.046	µg/L	-20.046	ppb	18:58:26
2	K 766.490 Radial†	768501.7	808242.3	295910	µg/L	295910	ppb	18:58:24
2	Mg 279.077 IEC†	-343.1	-552.3	29.128	µg/L	29.128	ppb	18:58:26
2	Na 589.592 Radial†	4657.2	3616.6	230.89	µg/L	230.89	ppb	18:58:24
2	Sr 421.552†	4443237.9	4682072.2	9733.8	µg/L	9733.8	ppb	18:58:22
2	Sc 361.383	1654174.4	1654174.4	96.273	%			18:58:52
2	Y 371.029	964160.7	964160.7	93.910	%			18:58:52
2	Ag 328.068†	-27980.3	-33155.0	-5.4230	µg/L	-5.4230	ppb	18:58:54
2	As 188.979†	31657.2	32903.2	10204	µg/L	10204	ppb	18:58:54
2	B 249.677†	326358.6	335488.1	4915.4	µg/L	4915.4	ppb	18:58:52
2	Ba 233.527†	3296633.7	3424402.5	13809	µg/L	13809	ppb	18:58:52
2	Be 313.107†	10113068.4	10505672.2	2860.3	µg/L	2860.3	ppb	18:58:48
2	Cd 226.502†	1483425.3	1540976.0	9629.7	µg/L	9629.7	ppb	18:58:52
2	Co 228.616†	729085.8	757503.5	9363.3	µg/L	9363.3	ppb	18:58:52
2	Cr 267.716†	2922280.8	3035241.6	23775	µg/L	23775	ppb	18:58:52
2	Cu 324.752†	4934401.1	5122469.9	19912	µg/L	19912	ppb	18:58:52
2	Mn 257.610†	7264987.1	7546022.1	9336.7	µg/L	9336.7	ppb	18:58:52
2	Mo 202.031†	314514.5	326711.4	9605.0	µg/L	9605.0	ppb	18:58:54
2	Ni 231.604†	809217.8	840624.1	9679.2	µg/L	9679.2	ppb	18:58:52
2	P 214.914†	67979.1	70628.9	14873	µg/L	14873	ppb	18:58:54
2	Pb 220.353†	406432.6	422081.8	23591	µg/L	23591	ppb	18:58:52

2	S 181.975 Axial†	66600.5	69074.0	51374 µg/L	51374	ppb	18:58:54
2	Sb 206.836†	80074.2	83093.5	9689.8 µg/L	9689.8	ppb	18:58:54
2	Se 196.026†	25686.7	26665.9	9640 µg/L	9640	ppb	18:58:54
2	SiO2†	986400.6	1022814.9	99557 µg/L	99557	ppb	18:58:52
2	Si 251.611†	3046941.6	3164070.8	46455 µg/L	46455	ppb	18:58:52
2	Sn 189.927†	150469.1	156295.8	9776.7 µg/L	9776.7	ppb	18:58:54
2	Ti 334.940†	10189195.0	10582728.8	9879.4 µg/L	9879.4	ppb	18:58:48
2	Tl 190.801†	73611.8	76578.5	9559.6 µg/L	9559.6	ppb	18:58:54
2	U 409.014†	-10364.3	-10495.7	-9.0352 µg/L	-9.0352	ppb	18:58:54
2	V 292.402†	1961854.5	2037406.1	10131 µg/L	10131	ppb	18:58:52
2	Zn 213.857†	2448683.7	2542922.9	14210 µg/L	14210	ppb	18:58:52
3	Sc RADIAL	137437.4	137437.4	94.2 %			18:58:31
3	Al 396.153Radial†	2618.6	2843.6	77.986 µg/L	77.986	ppb	18:58:33
3	Ca 317.933Radial†	2227.5	1804.6	100.52 µg/L	100.52	ppb	18:58:33
3	Fe 238.204 Radial†	-164.9	-323.2	-19.923 µg/L	-19.923	ppb	18:58:33
3	K 766.490 Radial†	765491.4	811247.2	297010 µg/L	297010	ppb	18:58:31
3	Mg 279.077 IEC†	-295.0	-503.9	48.881 µg/L	48.881	ppb	18:58:33
3	Na 589.592 Radial†	4456.0	3440.6	205.87 µg/L	205.87	ppb	18:58:31
3	Sr 421.552†	4441067.4	4715621.3	9803.5 µg/L	9803.5	ppb	18:58:29
3	Sc 361.383	1660837.4	1660837.4	96.660 %			18:59:01
3	Y 371.029	967825.2	967825.2	94.267 %			18:59:01
3	Ag 328.068†	-28451.9	-33526.3	-6.5821 µg/L	-6.5821	ppb	18:59:04
3	As 188.979†	32300.2	33436.5	10365 µg/L	10365	ppb	18:59:04
3	B 249.677†	328722.2	336573.4	4931.3 µg/L	4931.3	ppb	18:59:01
3	Ba 233.527†	3317615.9	3432372.0	13841 µg/L	13841	ppb	18:59:01
3	Be 313.107†	10133998.6	10485182.6	2854.7 µg/L	2854.7	ppb	18:58:58
3	Cd 226.502†	1494854.9	1546618.8	9664.9 µg/L	9664.9	ppb	18:59:01
3	Co 228.616†	734092.5	759645.0	9389.8 µg/L	9389.8	ppb	18:59:01
3	Cr 267.716†	2940364.9	3041773.0	23826 µg/L	23826	ppb	18:59:01
3	Cu 324.752†	4964197.6	5132733.3	19952 µg/L	19952	ppb	18:59:01
3	Mn 257.610†	7309991.3	7562306.7	9356.8 µg/L	9356.8	ppb	18:59:01
3	Mo 202.031†	318101.3	329111.4	9675.5 µg/L	9675.5	ppb	18:59:04
3	Ni 231.604†	815203.0	843443.9	9711.6 µg/L	9711.6	ppb	18:59:01
3	P 214.914†	69129.8	71536.1	15067 µg/L	15067	ppb	18:59:04
3	Pb 220.353†	409679.7	423747.3	23684 µg/L	23684	ppb	18:59:01
3	S 181.975 Axial†	67967.3	70210.4	52219 µg/L	52219	ppb	18:59:04
3	Sb 206.836†	81066.4	83786.4	9772.6 µg/L	9772.6	ppb	18:59:04
3	Se 196.026†	26138.8	27026.6	9770 µg/L	9770	ppb	18:59:04
3	SiO2†	993772.6	1026331.1	99898 µg/L	99898	ppb	18:59:01
3	Si 251.611†	3070650.4	3175901.7	46628 µg/L	46628	ppb	18:59:01
3	Sn 189.927†	152708.7	157985.7	9882.0 µg/L	9882.0	ppb	18:59:04
3	Ti 334.940†	10211863.8	10563720.7	9861.6 µg/L	9861.6	ppb	18:58:58
3	Tl 190.801†	74486.4	77176.5	9633.0 µg/L	9633.0	ppb	18:59:04
3	U 409.014†	-10678.1	-10777.2	-24.287 µg/L	-24.287	ppb	18:59:04
3	V 292.402†	1973672.0	2041456.5	10152 µg/L	10152	ppb	18:59:01
3	Zn 213.857†	2465384.0	2549996.1	14250 µg/L	14250	ppb	18:59:01

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1653021.9	96.206	%	0.4918				0.51%
Sc RADIAL	138118.6	94.6	%	0.40				0.43%
Y 371.029	963642.3	93.859	%	0.4349				0.46%
Ag 328.068†	-33408.6	-6.4037	µg/L	0.90480	-6.4037	ppb	0.90480	14.13%
Al 396.153Radial†	2824.6	74.672	µg/L	7.5994	74.672	ppb	7.5994	10.18%
As 188.979†	33308.6	10326	µg/L	108.5	10326	ppb	108.5	1.05%
QC value within limits for As 188.979 Recovery = 103.26%								
B 249.677†	335301.2	4912.7	µg/L	20.14	4912.7	ppb	20.14	0.41%
QC value within limits for B 249.677 Recovery = 98.25%								
Ba 233.527†	3422577.3	13801	µg/L	43.6	13801	ppb	43.6	0.32%
QC value within limits for Ba 233.527 Recovery = 92.01%								
Be 313.107†	10501831.6	2859.3	µg/L	4.11	2859.3	ppb	4.11	0.14%
QC value within limits for Be 313.107 Recovery = 95.31%								
Ca 317.933Radial†	1736.3	96.720	µg/L	3.8970	96.720	ppb	3.8970	4.03%
Cd 226.502†	1539229.5	9618.8	µg/L	52.49	9618.8	ppb	52.49	0.55%
QC value within limits for Cd 226.502 Recovery = 96.19%								
Co 228.616†	756713.8	9353.6	µg/L	41.95	9353.6	ppb	41.95	0.45%
QC value within limits for Co 228.616 Recovery = 93.54%								
Cr 267.716†	3032991.5	23758	µg/L	79.1	23758	ppb	79.1	0.33%
QC value within limits for Cr 267.716 Recovery = 95.03%								

Cu 324.752†	5122485.4	19912 µg/L	39.8	19912 ppb	39.8	0.20%
QC value within limits for Cu 324.752 Recovery = 99.56%						
Fe 238.204 Radial†	-336.6	-20.748 µg/L	1.3234	-20.748 ppb	1.3234	6.38%
K 766.490 Radial†	807542.9	295650 µg/L	1500.7	295650 ppb	1500.7	0.51%
QC value within limits for K 766.490 Radial Recovery = 98.55%						
Mg 279.077 IEC†	-527.6	39.932 µg/L	10.0061	39.932 ppb	10.0061	25.06%
Mn 257.610†	7541217.3	9330.7 µg/L	29.52	9330.7 ppb	29.52	0.32%
QC value within limits for Mn 257.610 Recovery = 93.31%						
Mo 202.031†	328957.9	9671.0 µg/L	63.88	9671.0 ppb	63.88	0.66%
QC value within limits for Mo 202.031 Recovery = 96.71%						
Na 589.592 Radial†	3581.5	226.33 µg/L	18.607	226.33 ppb	18.607	8.22%
Ni 231.604†	840034.1	9672.4 µg/L	43.06	9672.4 ppb	43.06	0.45%
QC value within limits for Ni 231.604 Recovery = 96.72%						
P 214.914†	71274.3	15011 µg/L	120.3	15011 ppb	120.3	0.80%
QC value within limits for P 214.914 Recovery = 100.07%						
Pb 220.353†	421664.4	23568 µg/L	129.3	23568 ppb	129.3	0.55%
QC value within limits for Pb 220.353 Recovery = 94.27%						
S 181.975 Axial†	69844.2	51947 µg/L	496.0	51947 ppb	496.0	0.95%
QC value within limits for S 181.975 Axial Recovery = 103.89%						
Sb 206.836†	83738.7	9767.8 µg/L	75.75	9767.8 ppb	75.75	0.78%
QC value within limits for Sb 206.836 Recovery = 97.68%						
Se 196.026†	26961.8	9750 µg/L	97.4	9750 ppb	97.4	1.00%
QC value within limits for Se 196.026 Recovery = 97.47%						
SiO2†	1021991.6	99474 µg/L	471.0	99474 ppb	471.0	0.47%
QC value within limits for SiO2 Recovery = 92.97%						
Si 251.611†	3161856.2	46421 µg/L	225.8	46421 ppb	225.8	0.49%
QC value within limits for Si 251.611 Recovery = 92.84%						
Sn 189.927†	157586.2	9857.1 µg/L	71.32	9857.1 ppb	71.32	0.72%
QC value within limits for Sn 189.927 Recovery = 98.57%						
Sr 421.552†	4701327.6	9773.8 µg/L	36.00	9773.8 ppb	36.00	0.37%
QC value within limits for Sr 421.552 Recovery = 97.74%						
Ti 334.940†	10578479.4	9875.4 µg/L	12.32	9875.4 ppb	12.32	0.12%
QC value within limits for Ti 334.940 Recovery = 98.75%						
Tl 190.801†	77087.7	9622.1 µg/L	57.90	9622.1 ppb	57.90	0.60%
QC value within limits for Tl 190.801 Recovery = 96.22%						
U 409.014†	-10648.1	-18.128 µg/L	8.0380	-18.128 ppb	8.0380	44.34%
V 292.402†	2036837.3	10129 µg/L	24.0	10129 ppb	24.0	0.24%
QC value within limits for V 292.402 Recovery = 101.29%						
Zn 213.857†	2541282.9	14201 µg/L	53.8	14201 ppb	53.8	0.38%
QC value within limits for Zn 213.857 Recovery = 94.68%						

All analyte(s) passed QC.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 18:59:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142139.5	142139.5	97.4	%			18:59:45
1	Al 396.153Radial†	26433.8	27201.9	5020.1	µg/L	5020.1	ppb	18:59:45
1	Ca 317.933Radial†	88689.7	90494.1	5040.9	µg/L	5040.9	ppb	18:59:45
1	Fe 238.204 Radial†	79307.5	81274.2	5009.2	µg/L	5009.2	ppb	18:59:45
1	K 766.490 Radial†	16771.4	15673.9	5734.3	µg/L	5734.3	ppb	18:59:45
1	Mg 279.077 IEC†	13660.1	13833.7	5162.1	µg/L	5162.1	ppb	18:59:45
1	Na 589.592 Radial†	73293.1	73956.7	10098	µg/L	10098	ppb	18:59:45
1	Sr 421.552†	230485.0	236766.3	492.18	µg/L	492.18	ppb	18:59:42
1	Sc 361.383	1685039.5	1685039.5	98.069	%			19:00:11
1	Y 371.029	998501.4	998501.4	97.255	%			19:00:11
1	Ag 328.068†	132676.3	131197.3	491.97	µg/L	491.97	ppb	19:00:11
1	As 188.979†	1601.0	1652.9	507.06	µg/L	507.06	ppb	19:00:31
1	B 249.677†	36255.7	33463.6	491.81	µg/L	491.81	ppb	19:00:11
1	Ba 233.527†	119950.7	122448.3	493.83	µg/L	493.83	ppb	19:00:11
1	Be 313.107†	1777442.6	1813504.8	493.92	µg/L	493.92	ppb	19:00:11
1	Cd 226.502†	77121.2	78757.9	491.64	µg/L	491.64	ppb	19:00:11
1	Co 228.616†	39140.7	40101.7	495.05	µg/L	495.05	ppb	19:00:11
1	Cr 267.716†	61794.1	62832.3	491.97	µg/L	491.97	ppb	19:00:11
1	Cu 324.752†	126997.2	126525.5	493.24	µg/L	493.24	ppb	19:00:11
1	Mn 257.610†	392842.9	400340.6	495.12	µg/L	495.12	ppb	19:00:11
1	Mo 202.031†	16539.5	16885.3	496.69	µg/L	496.69	ppb	19:00:31
1	Ni 231.604†	41890.8	42792.1	492.72	µg/L	492.72	ppb	19:00:11
1	P 214.914†	11336.8	11578.0	2467.8	µg/L	2467.8	ppb	19:00:31
1	Pb 220.353†	8936.3	9025.8	505.42	µg/L	505.42	ppb	19:00:31
1	S 181.975 Axial†	1440.2	1363.5	1016.7	µg/L	1016.7	ppb	19:00:31
1	Sb 206.836†	4150.3	4151.2	494.66	µg/L	494.66	ppb	19:00:31
1	Se 196.026†	1355.8	1367.2	496	µg/L	496	ppb	19:00:31
1	SiO2†	55729.4	55051.3	5359.5	µg/L	5359.5	ppb	19:00:11
1	Si 251.611†	167770.7	170237.6	2499.9	µg/L	2499.9	ppb	19:00:11
1	Sn 189.927†	7832.4	7987.8	499.62	µg/L	499.62	ppb	19:00:31
1	Ti 334.940†	519447.4	528722.7	493.33	µg/L	493.33	ppb	19:00:11
1	Tl 190.801†	3833.0	4025.2	501.97	µg/L	501.97	ppb	19:00:31
1	U 409.014†	7396.5	7812.0	486.67	µg/L	486.67	ppb	19:00:11
1	V 292.402†	98795.4	100336.9	496.05	µg/L	496.05	ppb	19:00:11
1	Zn 213.857†	87637.0	88798.1	494.94	µg/L	494.94	ppb	19:00:11
2	Sc RADIAL	141405.1	141405.1	96.9	%			18:59:49
2	Al 396.153Radial†	26316.7	27222.0	5023.9	µg/L	5023.9	ppb	18:59:49
2	Ca 317.933Radial†	88132.2	90391.6	5035.2	µg/L	5035.2	ppb	18:59:49
2	Fe 238.204 Radial†	78428.2	80789.6	4979.4	µg/L	4979.4	ppb	18:59:49
2	K 766.490 Radial†	16577.4	15563.0	5693.7	µg/L	5693.7	ppb	18:59:49
2	Mg 279.077 IEC†	13417.4	13656.1	5095.9	µg/L	5095.9	ppb	18:59:49
2	Na 589.592 Radial†	72730.8	73767.2	10072	µg/L	10072	ppb	18:59:49
2	Sr 421.552†	231214.8	238748.4	496.30	µg/L	496.30	ppb	18:59:47
2	Sc 361.383	1693366.2	1693366.2	98.554	%			19:00:35
2	Y 371.029	1002117.3	1002117.3	97.607	%			19:00:35
2	Ag 328.068†	134028.3	131903.9	494.57	µg/L	494.57	ppb	19:00:35
2	As 188.979†	1592.6	1636.4	502.08	µg/L	502.08	ppb	19:00:55
2	B 249.677†	36515.2	33545.2	493.02	µg/L	493.02	ppb	19:00:35
2	Ba 233.527†	120680.2	122587.1	494.39	µg/L	494.39	ppb	19:00:35
2	Be 313.107†	1789722.9	1817053.1	494.89	µg/L	494.89	ppb	19:00:35
2	Cd 226.502†	77769.6	79029.1	493.33	µg/L	493.33	ppb	19:00:35
2	Co 228.616†	39338.4	40106.1	495.11	µg/L	495.11	ppb	19:00:35
2	Cr 267.716†	62316.9	63052.8	493.70	µg/L	493.70	ppb	19:00:35
2	Cu 324.752†	127673.8	126575.3	493.42	µg/L	493.42	ppb	19:00:35
2	Mn 257.610†	395604.2	401172.7	496.16	µg/L	496.16	ppb	19:00:35
2	Mo 202.031†	16605.0	16868.7	496.20	µg/L	496.20	ppb	19:00:55
2	Ni 231.604†	42250.6	42947.2	494.51	µg/L	494.51	ppb	19:00:35
2	P 214.914†	11392.0	11577.2	2467.6	µg/L	2467.6	ppb	19:00:55
2	Pb 220.353†	8993.4	9039.0	506.15	µg/L	506.15	ppb	19:00:55

2	S 181.975 Axial†	1441.0	1357.1	1011.9 µg/L	1011.9 ppb	19:00:55
2	Sb 206.836†	4173.3	4153.7	494.93 µg/L	494.93 ppb	19:00:55
2	Se 196.026†	1369.6	1374.4	499 µg/L	499 ppb	19:00:55
2	SiO2†	55740.1	54782.8	5333.3 µg/L	5333.3 ppb	19:00:35
2	Si 251.611†	168764.7	170404.9	2502.4 µg/L	2502.4 ppb	19:00:35
2	Sn 189.927†	7855.7	7972.1	498.64 µg/L	498.64 ppb	19:00:55
2	Ti 334.940†	522510.2	529225.9	493.80 µg/L	493.80 ppb	19:00:35
2	Tl 190.801†	3874.1	4047.6	504.73 µg/L	504.73 ppb	19:00:55
2	U 409.014†	7341.8	7719.4	481.23 µg/L	481.23 ppb	19:00:35
2	V 292.402†	99158.5	100210.0	495.43 µg/L	495.43 ppb	19:00:35
2	Zn 213.857†	88086.4	88814.8	495.03 µg/L	495.03 ppb	19:00:35
3	Sc RADIAL	143105.8	143105.8	98.1 %		18:59:53
3	Al 396.153Radial†	26546.6	27133.7	5007.7 µg/L	5007.7 ppb	18:59:53
3	Ca 317.933Radial†	89145.0	90343.6	5032.5 µg/L	5032.5 ppb	18:59:53
3	Fe 238.204 Radial†	79321.5	80738.7	4976.2 µg/L	4976.2 ppb	18:59:53
3	K 766.490 Radial†	16684.6	15469.1	5659.4 µg/L	5659.4 ppb	18:59:53
3	Mg 279.077 IEC†	13656.7	13735.5	5125.4 µg/L	5125.4 ppb	18:59:53
3	Na 589.592 Radial†	73452.5	73611.2	10051 µg/L	10051 ppb	18:59:53
3	Sr 421.552†	233202.1	237939.3	494.62 µg/L	494.62 ppb	18:59:51
3	Sc 361.383	1698557.6	1698557.6	98.856 %		19:00:58
3	Y 371.029	1005300.2	1005300.2	97.917 %		19:00:58
3	Ag 328.068†	134027.1	131487.0	493.03 µg/L	493.03 ppb	19:00:58
3	As 188.979†	1600.3	1639.2	502.90 µg/L	502.90 ppb	19:01:18
3	B 249.677†	36626.1	33544.1	493.00 µg/L	493.00 ppb	19:00:58
3	Ba 233.527†	120865.6	122400.4	493.64 µg/L	493.64 ppb	19:00:58
3	Be 313.107†	1794818.7	1816657.7	494.78 µg/L	494.78 ppb	19:00:58
3	Cd 226.502†	77952.7	78973.1	492.98 µg/L	492.98 ppb	19:00:58
3	Co 228.616†	39410.3	40056.7	494.50 µg/L	494.50 ppb	19:00:58
3	Cr 267.716†	62267.5	62809.6	491.79 µg/L	491.79 ppb	19:00:58
3	Cu 324.752†	127710.6	126216.6	492.03 µg/L	492.03 ppb	19:00:58
3	Mn 257.610†	396581.9	400934.9	495.86 µg/L	495.86 ppb	19:00:58
3	Mo 202.031†	16557.8	16769.5	493.29 µg/L	493.29 ppb	19:01:18
3	Ni 231.604†	42318.2	42884.5	493.78 µg/L	493.78 ppb	19:00:58
3	P 214.914†	11368.7	11518.2	2455.0 µg/L	2455.0 ppb	19:01:18
3	Pb 220.353†	8920.7	8937.6	500.48 µg/L	500.48 ppb	19:01:18
3	S 181.975 Axial†	1449.3	1361.0	1014.8 µg/L	1014.8 ppb	19:01:18
3	Sb 206.836†	4163.9	4131.2	492.23 µg/L	492.23 ppb	19:01:18
3	Se 196.026†	1367.7	1368.2	497 µg/L	497 ppb	19:01:18
3	SiO2†	55966.4	54838.9	5338.9 µg/L	5338.9 ppb	19:00:58
3	Si 251.611†	169027.1	170146.9	2498.6 µg/L	2498.6 ppb	19:00:58
3	Sn 189.927†	7816.0	7907.6	494.62 µg/L	494.62 ppb	19:01:18
3	Ti 334.940†	523522.3	528629.3	493.24 µg/L	493.24 ppb	19:00:58
3	Tl 190.801†	3828.1	3989.1	497.54 µg/L	497.54 ppb	19:01:18
3	U 409.014†	7431.2	7787.1	485.18 µg/L	485.18 ppb	19:00:58
3	V 292.402†	99434.0	100181.1	495.25 µg/L	495.25 ppb	19:00:58
3	Zn 213.857†	87848.2	88300.5	492.15 µg/L	492.15 ppb	19:00:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1692321.1	98.493	%	0.3969				0.40%
Sc RADIAL	142216.8	97.5	%	0.58				0.60%
Y 371.029	1001973.0	97.593	%	0.3313				0.34%
Ag 328.068†	131529.4	493.19	µg/L	1.309	493.19	ppb	1.309	0.27%
QC value within limits for Ag 328.068 Recovery = 98.64%								
Al 396.153Radial†	27185.9	5017.2	µg/L	8.50	5017.2	ppb	8.50	0.17%
QC value within limits for Al 396.153Radial Recovery = 100.34%								
As 188.979†	1642.8	504.02	µg/L	2.669	504.02	ppb	2.669	0.53%
QC value within limits for As 188.979 Recovery = 100.80%								
B 249.677†	33517.6	492.61	µg/L	0.690	492.61	ppb	0.690	0.14%
QC value within limits for B 249.677 Recovery = 98.52%								
Ba 233.527†	122478.6	493.95	µg/L	0.391	493.95	ppb	0.391	0.08%
QC value within limits for Ba 233.527 Recovery = 98.79%								
Be 313.107†	1815738.5	494.53	µg/L	0.529	494.53	ppb	0.529	0.11%
QC value within limits for Be 313.107 Recovery = 98.91%								
Ca 317.933Radial†	90409.8	5036.2	µg/L	4.28	5036.2	ppb	4.28	0.09%
QC value within limits for Ca 317.933Radial Recovery = 100.72%								
Cd 226.502†	78920.1	492.65	µg/L	0.896	492.65	ppb	0.896	0.18%
QC value within limits for Cd 226.502 Recovery = 98.53%								
Co 228.616†	40088.2	494.89	µg/L	0.337	494.89	ppb	0.337	0.07%

```
   QC value within limits for Co 228.616  Recovery = 98.98%
Cr 267.716†            62898.2      492.49 µg/L         1.054      492.49 ppb          1.054   0.21%
   QC value within limits for Cr 267.716  Recovery = 98.50%
Cu 324.752†           126439.1      492.90 µg/L         0.756      492.90 ppb          0.756   0.15%
   QC value within limits for Cu 324.752  Recovery = 98.58%
Fe 238.204 Radial†     80934.2      4988.3 µg/L         18.22      4988.3 ppb          18.22   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.77%
K 766.490 Radial†      15568.7      5695.8 µg/L         37.52      5695.8 ppb          37.52   0.66%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 113.92%
Mg 279.077 IEC†        13741.8      5127.8 µg/L         33.15      5127.8 ppb          33.15   0.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.56%
Mn 257.610†           400816.1      495.71 µg/L         0.532      495.71 ppb          0.532   0.11%
   QC value within limits for Mn 257.610  Recovery = 99.14%
Mo 202.031†            16841.2      495.39 µg/L         1.841      495.39 ppb          1.841   0.37%
   QC value within limits for Mo 202.031  Recovery = 99.08%
Na 589.592 Radial†     73778.4       10074 µg/L          23.6       10074 ppb           23.6   0.23%
   QC value within limits for Na 589.592 Radial  Recovery = 100.74%
Ni 231.604†            42874.6      493.67 µg/L         0.898      493.67 ppb          0.898   0.18%
   QC value within limits for Ni 231.604  Recovery = 98.73%
P 214.914†             11557.8      2463.5 µg/L          7.33      2463.5 ppb           7.33   0.30%
   QC value within limits for P 214.914  Recovery = 98.54%
Pb 220.353†             9000.8      504.02 µg/L         3.083      504.02 ppb          3.083   0.61%
   QC value within limits for Pb 220.353  Recovery = 100.80%
S 181.975 Axial†        1360.5      1014.5 µg/L          2.43      1014.5 ppb           2.43   0.24%
   QC value within limits for S 181.975 Axial  Recovery = 101.45%
Sb 206.836†             4145.4      493.94 µg/L         1.484      493.94 ppb          1.484   0.30%
   QC value within limits for Sb 206.836  Recovery = 98.79%
Se 196.026†             1370.0         497 µg/L           1.4         497 ppb            1.4   0.28%
   QC value within limits for Se 196.026  Recovery = 99.49%
SiO2†                  54891.0      5343.9 µg/L         13.80      5343.9 ppb          13.80   0.26%
   QC value within limits for SiO2  Recovery = 99.93%
Si 251.611†           170263.1      2500.3 µg/L          1.90      2500.3 ppb           1.90   0.08%
   QC value within limits for Si 251.611  Recovery = 100.01%
Sn 189.927†             7955.8      497.63 µg/L         2.649      497.63 ppb          2.649   0.53%
   QC value within limits for Sn 189.927  Recovery = 99.53%
Sr 421.552†           237818.0      494.37 µg/L         2.072      494.37 ppb          2.072   0.42%
   QC value within limits for Sr 421.552  Recovery = 98.87%
Ti 334.940†           528859.3      493.46 µg/L         0.302      493.46 ppb          0.302   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.69%
Tl 190.801†             4020.6      501.41 µg/L         3.629      501.41 ppb          3.629   0.72%
   QC value within limits for Tl 190.801  Recovery = 100.28%
U 409.014†              7772.9      484.36 µg/L         2.811      484.36 ppb          2.811   0.58%
   QC value within limits for U 409.014  Recovery = 96.87%
V 292.402†            100242.7      495.58 µg/L         0.417      495.58 ppb          0.417   0.08%
   QC value within limits for V 292.402  Recovery = 99.12%
Zn 213.857†            88637.8      494.04 µg/L         1.641      494.04 ppb          1.641   0.33%
   QC value within limits for Zn 213.857  Recovery = 98.81%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:01:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142576.4	142576.4	97.7	%			19:01:55
1	Al 396.153Radial†	57.6	122.1	22.616	µg/L	22.616	ppb	19:02:15
1	Ca 317.933Radial†	950.3	412.1	22.954	µg/L	22.954	ppb	19:02:15
1	Fe 238.204 Radial†	408.4	269.9	16.636	µg/L	16.636	ppb	19:02:15
1	K 766.490 Radial†	2351.3	861.8	315.49	µg/L	315.49	ppb	19:01:55
1	Mg 279.077 IEC†	256.3	71.6	26.675	µg/L	26.675	ppb	19:02:15
1	Na 589.592 Radial†	2324.7	1088.6	148.44	µg/L	148.44	ppb	19:01:55
1	Sr 421.552†	-47.4	86.8	0.1802	µg/L	0.1802	ppb	19:01:55
1	Sc 361.383	1712993.6	1712993.6	99.696	%			19:03:03
1	Y 371.029	1024574.5	1024574.5	99.794	%			19:03:03
1	Ag 328.068†	3862.6	-217.0	-0.8055	µg/L	-0.8055	ppb	19:03:05
1	As 188.979†	-11.7	8.6	2.6096	µg/L	2.6096	ppb	19:03:25
1	B 249.677†	3681.1	186.4	2.7486	µg/L	2.7486	ppb	19:03:05
1	Ba 233.527†	-102.8	32.7	0.1316	µg/L	0.1316	ppb	19:03:25
1	Be 313.107†	-845.8	216.4	0.0592	µg/L	0.0592	ppb	19:03:05
1	Cd 226.502†	-69.1	48.9	0.3038	µg/L	0.3038	ppb	19:03:25
1	Co 228.616†	-171.2	18.6	0.2289	µg/L	0.2289	ppb	19:03:25
1	Cr 267.716†	235.5	57.6	0.4508	µg/L	0.4508	ppb	19:03:25
1	Cu 324.752†	3139.9	177.3	0.6930	µg/L	0.6930	ppb	19:03:05
1	Mn 257.610†	387.8	151.7	0.1866	µg/L	0.1866	ppb	19:03:25
1	Mo 202.031†	-0.9	19.2	0.5643	µg/L	0.5643	ppb	19:03:25
1	Ni 231.604†	-84.9	-8.7	-0.0996	µg/L	-0.0996	ppb	19:03:25
1	P 214.914†	-24.3	-6.5	-1.3891	µg/L	-1.3891	ppb	19:03:25
1	Pb 220.353†	141.3	55.4	3.0911	µg/L	3.0911	ppb	19:03:25
1	S 181.975 Axial†	113.5	8.8	6.5060	µg/L	6.5060	ppb	19:03:25
1	Sb 206.836†	76.0	-4.6	-0.5451	µg/L	-0.5451	ppb	19:03:25
1	Se 196.026†	20.7	5.5	2.01	µg/L	2.01	ppb	19:03:25
1	SiO2†	1808.7	38.9	3.7615	µg/L	3.7615	ppb	19:03:25
1	Si 251.611†	1158.0	325.0	4.7734	µg/L	4.7734	ppb	19:03:05
1	Sn 189.927†	23.2	24.4	1.5199	µg/L	1.5199	ppb	19:03:25
1	Ti 334.940†	1109.4	160.3	0.1476	µg/L	0.1476	ppb	19:03:05
1	Tl 190.801†	-105.0	11.4	1.4002	µg/L	1.4002	ppb	19:03:25
1	U 409.014†	-251.8	17.3	0.9993	µg/L	0.9993	ppb	19:03:05
1	V 292.402†	359.4	-43.3	-0.2046	µg/L	-0.2046	ppb	19:03:05
1	Zn 213.857†	837.7	275.9	1.5483	µg/L	1.5483	ppb	19:03:25
2	Sc RADIAL	143802.6	143802.6	98.5	%			19:02:17
2	Al 396.153Radial†	-23.6	39.2	7.2646	µg/L	7.2646	ppb	19:02:37
2	Ca 317.933Radial†	724.5	174.6	9.7279	µg/L	9.7279	ppb	19:02:37
2	Fe 238.204 Radial†	241.4	96.9	5.9704	µg/L	5.9704	ppb	19:02:37
2	K 766.490 Radial†	2344.6	834.5	305.50	µg/L	305.50	ppb	19:02:17
2	Mg 279.077 IEC†	184.0	-4.0	-1.5026	µg/L	-1.5026	ppb	19:02:37
2	Na 589.592 Radial†	2222.6	964.7	131.52	µg/L	131.52	ppb	19:02:17
2	Sr 421.552†	-22.7	112.3	0.2333	µg/L	0.2333	ppb	19:02:17
2	Sc 361.383	1715539.4	1715539.4	99.844	%			19:03:27
2	Y 371.029	1025697.2	1025697.2	99.903	%			19:03:27
2	Ag 328.068†	4157.7	72.8	0.2757	µg/L	0.2757	ppb	19:03:30
2	As 188.979†	-16.7	3.7	1.1138	µg/L	1.1138	ppb	19:03:50
2	B 249.677†	3652.6	152.4	2.2465	µg/L	2.2465	ppb	19:03:30
2	Ba 233.527†	-103.8	31.9	0.1289	µg/L	0.1289	ppb	19:03:50
2	Be 313.107†	-800.4	263.0	0.0711	µg/L	0.0711	ppb	19:03:30
2	Cd 226.502†	-101.0	17.0	0.1059	µg/L	0.1059	ppb	19:03:50
2	Co 228.616†	-175.3	14.7	0.1813	µg/L	0.1813	ppb	19:03:50
2	Cr 267.716†	251.6	73.5	0.5772	µg/L	0.5772	ppb	19:03:50
2	Cu 324.752†	3073.4	105.9	0.4112	µg/L	0.4112	ppb	19:03:30
2	Mn 257.610†	351.3	114.6	0.1418	µg/L	0.1418	ppb	19:03:50
2	Mo 202.031†	-12.8	7.2	0.2126	µg/L	0.2126	ppb	19:03:50
2	Ni 231.604†	-67.1	9.3	0.1072	µg/L	0.1072	ppb	19:03:50
2	P 214.914†	-27.6	-9.7	-2.0622	µg/L	-2.0622	ppb	19:03:50
2	Pb 220.353†	95.6	9.4	0.5244	µg/L	0.5244	ppb	19:03:50

2	S 181.975 Axial†	105.7	0.8	0.6240 µg/L	0.6240 ppb	19:03:50
2	Sb 206.836†	85.0	4.3	0.5093 µg/L	0.5093 ppb	19:03:50
2	Se 196.026†	19.1	3.9	1.40 µg/L	1.40 ppb	19:03:50
2	SiO2†	1782.4	9.8	0.9335 µg/L	0.9335 ppb	19:03:50
2	Si 251.611†	944.9	109.8	1.6073 µg/L	1.6073 ppb	19:03:30
2	Sn 189.927†	21.6	22.8	1.4197 µg/L	1.4197 ppb	19:03:50
2	Ti 334.940†	960.9	9.8	0.0100 µg/L	0.0100 ppb	19:03:30
2	Tl 190.801†	-107.7	8.8	1.0828 µg/L	1.0828 ppb	19:03:50
2	U 409.014†	-298.4	-28.9	-1.6511 µg/L	-1.6511 ppb	19:03:30
2	V 292.402†	549.1	146.2	0.7161 µg/L	0.7161 ppb	19:03:30
2	Zn 213.857†	814.7	251.5	1.4114 µg/L	1.4114 ppb	19:03:50
3	Sc RADIAL	143637.2	143637.2	98.4 %		19:02:39
3	Al 396.153Radial†	-43.2	19.4	3.5840 µg/L	3.5840 ppb	19:03:00
3	Ca 317.933Radial†	715.6	166.4	9.2706 µg/L	9.2706 ppb	19:03:00
3	Fe 238.204 Radial†	242.5	98.3	6.0580 µg/L	6.0580 ppb	19:03:00
3	K 766.490 Radial†	2256.9	748.2	273.88 µg/L	273.88 ppb	19:02:39
3	Mg 279.077 IEC†	205.1	17.7	6.5824 µg/L	6.5824 ppb	19:03:00
3	Na 589.592 Radial†	2284.1	1029.7	140.43 µg/L	140.43 ppb	19:02:39
3	Sr 421.552†	11.7	147.2	0.3060 µg/L	0.3060 ppb	19:02:39
3	Sc 361.383	1722456.3	1722456.3	100.25 %		19:03:52
3	Y 371.029	1029533.6	1029533.6	100.28 %		19:03:52
3	Ag 328.068†	4007.1	-94.2	-0.3350 µg/L	-0.3350 ppb	19:03:54
3	As 188.979†	-18.8	1.6	0.4750 µg/L	0.4750 ppb	19:04:14
3	B 249.677†	3639.8	125.0	1.8421 µg/L	1.8421 ppb	19:03:54
3	Ba 233.527†	-117.1	19.1	0.0776 µg/L	0.0776 ppb	19:04:14
3	Be 313.107†	-721.4	345.0	0.0939 µg/L	0.0939 ppb	19:03:54
3	Cd 226.502†	-93.0	25.4	0.1581 µg/L	0.1581 ppb	19:04:14
3	Co 228.616†	-173.2	17.6	0.2167 µg/L	0.2167 ppb	19:04:14
3	Cr 267.716†	211.6	32.5	0.2552 µg/L	0.2552 ppb	19:04:14
3	Cu 324.752†	3092.5	112.7	0.4392 µg/L	0.4392 ppb	19:03:54
3	Mn 257.610†	342.1	104.0	0.1284 µg/L	0.1284 ppb	19:04:14
3	Mo 202.031†	-15.6	4.5	0.1336 µg/L	0.1336 ppb	19:04:14
3	Ni 231.604†	-90.2	-13.4	-0.1547 µg/L	-0.1547 ppb	19:04:14
3	P 214.914†	-22.3	-4.2	-0.9047 µg/L	-0.9047 ppb	19:04:14
3	Pb 220.353†	117.3	30.6	1.7079 µg/L	1.7079 ppb	19:04:14
3	S 181.975 Axial†	114.1	8.7	6.4890 µg/L	6.4890 ppb	19:04:14
3	Sb 206.836†	80.1	-1.0	-0.1107 µg/L	-0.1107 ppb	19:04:14
3	Se 196.026†	9.2	-6.1	-2.20 µg/L	-2.20 ppb	19:04:14
3	SiO2†	1811.5	31.7	3.0742 µg/L	3.0742 ppb	19:04:14
3	Si 251.611†	907.7	68.9	1.0043 µg/L	1.0043 ppb	19:03:54
3	Sn 189.927†	22.3	23.4	1.4577 µg/L	1.4577 ppb	19:04:14
3	Ti 334.940†	846.3	-108.3	-0.1015 µg/L	-0.1015 ppb	19:03:54
3	Tl 190.801†	-114.4	2.6	0.3215 µg/L	0.3215 ppb	19:04:14
3	U 409.014†	-270.6	-0.0	0.0667 µg/L	0.0667 ppb	19:03:54
3	V 292.402†	646.7	241.3	1.1790 µg/L	1.1790 ppb	19:03:54
3	Zn 213.857†	803.7	237.3	1.3332 µg/L	1.3332 ppb	19:04:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716996.5	99.929	%	0.2850				0.29%
Sc RADIAL	143338.8	98.2	%	0.46				0.46%
Y 371.029	1026601.8	99.992	%	0.2533				0.25%
Ag 328.068†	-79.5	-0.2883	µg/L	0.54213	-0.2883	ppb	0.54213	188.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	60.2	11.155	µg/L	10.0946	11.155	ppb	10.0946	90.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.6	1.3995	µg/L	1.09560	1.3995	ppb	1.09560	78.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	154.6	2.2791	µg/L	0.45415	2.2791	ppb	0.45415	19.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	27.9	0.1127	µg/L	0.03047	0.1127	ppb	0.03047	27.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	274.8	0.0748	µg/L	0.01765	0.0748	ppb	0.01765	23.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	251.0	13.984	µg/L	7.7715	13.984	ppb	7.7715	55.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	30.5	0.1893	µg/L	0.10254	0.1893	ppb	0.10254	54.18%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.0	0.2090	µg/L	0.02473	0.2090	ppb	0.02473	11.83%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              54.5      0.4277 µg/L      0.16226      0.4277 ppb        0.16226  37.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             132.0      0.5144 µg/L      0.15523      0.5144 ppb        0.15523  30.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      155.0      9.5549 µg/L      6.13280      9.5549 ppb        6.13280  64.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       814.8      298.29 µg/L       21.721      298.29 ppb         21.721   7.28%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          28.4      10.585 µg/L      14.5091      10.585 ppb        14.5091 137.07%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             123.4      0.1523 µg/L      0.03051      0.1523 ppb        0.03051  20.04%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.3      0.3035 µg/L      0.22930      0.3035 ppb        0.22930  75.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      1027.7      140.13 µg/L        8.461      140.13 ppb          8.461   6.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.3     -0.0490 µg/L      0.13810     -0.0490 ppb        0.13810 281.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -6.8     -1.4520 µg/L      0.58130     -1.4520 ppb        0.58130  40.03%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              31.8      1.7745 µg/L      1.28462      1.7745 ppb        1.28462  72.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.1      4.5397 µg/L      3.39110      4.5397 ppb        3.39110  74.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.4     -0.0489 µg/L      0.52991     -0.0489 ppb        0.52991 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.1       0.402 µg/L       2.2740       0.402 ppb         2.2740 564.97%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    26.8      2.5897 µg/L      1.47490      2.5897 ppb        1.47490  56.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             167.9      2.4617 µg/L      2.02458      2.4617 ppb        2.02458  82.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              23.5      1.4657 µg/L      0.05055      1.4657 ppb        0.05055   3.45%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             115.4      0.2398 µg/L      0.06313      0.2398 ppb        0.06313  26.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              20.6      0.0187 µg/L      0.12478      0.0187 ppb        0.12478 667.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.6      0.9348 µg/L      0.55437      0.9348 ppb        0.55437  59.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -3.9     -0.1950 µg/L      1.34448     -0.1950 ppb        1.34448 689.39%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              114.7      0.5635 µg/L      0.70433      0.5635 ppb        0.70433 125.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             254.9      1.4310 µg/L      0.10892      1.4310 ppb        0.10892   7.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

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Analysis Begun

Start Time: 3/31/2010 19:06:02 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 3/31/2010 18:15:19**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/31/2010 19:06:03**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142053.7	142053.7	97.3	%			19:06:36
1	Al 396.153Radial†	26187.8	26965.5	4976.4	µg/L	4976.4	ppb	19:06:36
1	Ca 317.933Radial†	87895.1	89732.8	4998.5	µg/L	4998.5	ppb	19:06:36
1	Fe 238.204 Radial†	78245.6	80232.5	4945.0	µg/L	4945.0	ppb	19:06:36

1	K 766.490 Radial†	15026.3	13891.5	5081.8 µg/L	5081.8 ppb	19:06:36
1	Mg 279.077 IEC†	13439.2	13615.2	5080.7 µg/L	5080.7 ppb	19:06:36
1	Na 589.592 Radial†	71676.4	72341.3	9878.2 µg/L	9878.2 ppb	19:06:36
1	Sr 421.552†	230855.8	237290.2	493.27 µg/L	493.27 ppb	19:06:34
1	Sc 361.383	1692635.7	1692635.7	98.511 %		19:06:49
1	Y 371.029	1002740.0	1002740.0	97.667 %		19:06:49
1	Ag 328.068†	133490.2	131416.3	492.76 µg/L	492.76 ppb	19:06:49
1	As 188.979†	1592.7	1637.1	502.26 µg/L	502.26 ppb	19:07:09
1	B 249.677†	36019.4	33057.9	485.83 µg/L	485.83 ppb	19:06:49
1	Ba 233.527†	119977.2	121926.4	491.73 µg/L	491.73 ppb	19:06:49
1	Be 313.107†	1788795.8	1816895.8	494.84 µg/L	494.84 ppb	19:06:49
1	Cd 226.502†	77305.4	78591.9	490.61 µg/L	490.61 ppb	19:06:49
1	Co 228.616†	39248.1	40031.6	494.19 µg/L	494.19 ppb	19:06:49
1	Cr 267.716†	61675.1	62428.6	488.81 µg/L	488.81 ppb	19:06:49
1	Cu 324.752†	126554.7	125495.2	489.22 µg/L	489.22 ppb	19:06:49
1	Mn 257.610†	394217.2	399938.0	494.63 µg/L	494.63 ppb	19:06:49
1	Mo 202.031†	16588.6	16859.4	495.93 µg/L	495.93 ppb	19:07:09
1	Ni 231.604†	41959.1	42669.8	491.31 µg/L	491.31 ppb	19:06:49
1	P 214.914†	11467.5	11658.8	2485.2 µg/L	2485.2 ppb	19:07:09
1	Pb 220.353†	8908.4	8956.6	501.56 µg/L	501.56 ppb	19:07:09
1	S 181.975 Axial†	1431.0	1347.6	1004.9 µg/L	1004.9 ppb	19:07:09
1	Sb 206.836†	4198.6	4181.2	498.27 µg/L	498.27 ppb	19:07:09
1	Se 196.026†	1378.4	1384.0	502 µg/L	502 ppb	19:07:09
1	SiO2†	55424.9	54487.2	5304.4 µg/L	5304.4 ppb	19:06:49
1	Si 251.611†	167452.8	169147.1	2483.8 µg/L	2483.8 ppb	19:06:49
1	Sn 189.927†	7877.5	7997.7	500.23 µg/L	500.23 ppb	19:07:09
1	Ti 334.940†	520670.2	527586.9	492.28 µg/L	492.28 ppb	19:06:49
1	Tl 190.801†	3872.9	4048.2	504.78 µg/L	504.78 ppb	19:07:09
1	U 409.014†	7291.5	7671.6	478.40 µg/L	478.40 ppb	19:06:49
1	V 292.402†	98968.4	100060.4	494.68 µg/L	494.68 ppb	19:06:49
1	Zn 213.857†	86928.5	87677.9	488.67 µg/L	488.67 ppb	19:06:49
2	Sc RADIAL	141682.9	141682.9	97.1 %		19:06:40
2	Al 396.153Radial†	26223.0	27072.3	4996.3 µg/L	4996.3 ppb	19:06:40
2	Ca 317.933Radial†	87546.1	89609.7	4991.6 µg/L	4991.6 ppb	19:06:40
2	Fe 238.204 Radial†	78166.5	80361.4	4953.0 µg/L	4953.0 ppb	19:06:40
2	K 766.490 Radial†	14890.1	13791.7	5045.3 µg/L	5045.3 ppb	19:06:40
2	Mg 279.077 IEC†	13407.1	13618.3	5081.7 µg/L	5081.7 ppb	19:06:40
2	Na 589.592 Radial†	71442.4	72293.1	9871.6 µg/L	9871.6 ppb	19:06:40
2	Sr 421.552†	234429.9	241592.0	502.22 µg/L	502.22 ppb	19:06:38
2	Sc 361.383	1693933.2	1693933.2	98.587 %		19:07:12
2	Y 371.029	1002754.3	1002754.3	97.669 %		19:07:12
2	Ag 328.068†	133887.2	131715.3	493.86 µg/L	493.86 ppb	19:07:12
2	As 188.979†	1584.7	1627.8	499.44 µg/L	499.44 ppb	19:07:32
2	B 249.677†	36086.4	33097.9	486.42 µg/L	486.42 ppb	19:07:12
2	Ba 233.527†	120244.1	122103.7	492.44 µg/L	492.44 ppb	19:07:12
2	Be 313.107†	1788194.1	1814894.6	494.30 µg/L	494.30 ppb	19:07:12
2	Cd 226.502†	77647.5	78878.9	492.40 µg/L	492.40 ppb	19:07:12
2	Co 228.616†	39316.5	40070.5	494.67 µg/L	494.67 ppb	19:07:12
2	Cr 267.716†	61922.8	62632.0	490.40 µg/L	490.40 ppb	19:07:12
2	Cu 324.752†	126725.3	125569.8	489.51 µg/L	489.51 ppb	19:07:12
2	Mn 257.610†	394218.9	399633.2	494.25 µg/L	494.25 ppb	19:07:12
2	Mo 202.031†	16463.2	16719.3	491.81 µg/L	491.81 ppb	19:07:32
2	Ni 231.604†	42154.2	42835.0	493.21 µg/L	493.21 ppb	19:07:12
2	P 214.914†	11314.3	11494.4	2450.0 µg/L	2450.0 ppb	19:07:32
2	Pb 220.353†	8825.1	8865.3	496.44 µg/L	496.44 ppb	19:07:32
2	S 181.975 Axial†	1411.2	1326.4	989.11 µg/L	989.11 ppb	19:07:32
2	Sb 206.836†	4167.4	4146.3	494.02 µg/L	494.02 ppb	19:07:32
2	Se 196.026†	1363.3	1367.5	497 µg/L	497 ppb	19:07:32
2	SiO2†	55444.1	54463.6	5302.3 µg/L	5302.3 ppb	19:07:12
2	Si 251.611†	167875.0	169445.1	2488.3 µg/L	2488.3 ppb	19:07:12
2	Sn 189.927†	7786.1	7898.8	494.07 µg/L	494.07 ppb	19:07:32
2	Ti 334.940†	520698.2	527210.5	491.92 µg/L	491.92 ppb	19:07:12
2	Tl 190.801†	3845.2	4017.0	500.93 µg/L	500.93 ppb	19:07:32
2	U 409.014†	7348.6	7723.9	481.39 µg/L	481.39 ppb	19:07:12
2	V 292.402†	98856.0	99869.4	493.71 µg/L	493.71 ppb	19:07:12
2	Zn 213.857†	87044.0	87727.5	488.93 µg/L	488.93 ppb	19:07:12
3	Sc RADIAL	140290.8	140290.8	96.1 %		19:06:44
3	Al 396.153Radial†	26121.4	27234.6	5026.5 µg/L	5026.5 ppb	19:06:44
3	Ca 317.933Radial†	86648.1	89570.3	4989.4 µg/L	4989.4 ppb	19:06:44
3	Fe 238.204 Radial†	77524.7	80492.7	4961.1 µg/L	4961.1 ppb	19:06:44
3	K 766.490 Radial†	14881.5	13934.9	5097.7 µg/L	5097.7 ppb	19:06:44

3	Mg 279.077 IEC†	13262.2	13604.5	5076.6 µg/L	5076.6 ppb	19:06:44
3	Na 589.592 Radial†	70817.9	72373.6	9882.6 µg/L	9882.6 ppb	19:06:44
3	Sr 421.552†	230738.3	240148.1	499.21 µg/L	499.21 ppb	19:06:42
3	Sc 361.383	1701566.9	1701566.9	99.031 %		19:07:35
3	Y 371.029	1007094.6	1007094.6	98.092 %		19:07:35
3	Ag 328.068†	134475.4	131699.9	493.82 µg/L	493.82 ppb	19:07:35
3	As 188.979†	1593.4	1629.4	499.91 µg/L	499.91 ppb	19:07:55
3	B 249.677†	36488.9	33340.1	489.99 µg/L	489.99 ppb	19:07:35
3	Ba 233.527†	120822.0	122140.2	492.59 µg/L	492.59 ppb	19:07:35
3	Be 313.107†	1801771.9	1820467.8	495.82 µg/L	495.82 ppb	19:07:35
3	Cd 226.502†	78139.4	79022.2	493.29 µg/L	493.29 ppb	19:07:35
3	Co 228.616†	39662.8	40241.2	496.77 µg/L	496.77 ppb	19:07:35
3	Cr 267.716†	62197.1	62627.2	490.36 µg/L	490.36 ppb	19:07:35
3	Cu 324.752†	127822.8	126101.4	491.58 µg/L	491.58 ppb	19:07:35
3	Mn 257.610†	397277.8	400928.1	495.85 µg/L	495.85 ppb	19:07:35
3	Mo 202.031†	16490.8	16672.2	490.43 µg/L	490.43 ppb	19:07:55
3	Ni 231.604†	42326.5	42817.2	493.01 µg/L	493.01 ppb	19:07:35
3	P 214.914†	11342.9	11471.9	2445.2 µg/L	2445.2 ppb	19:07:55
3	Pb 220.353†	8843.5	8843.7	495.23 µg/L	495.23 ppb	19:07:55
3	S 181.975 Axial†	1419.8	1328.6	990.72 µg/L	990.72 ppb	19:07:55
3	Sb 206.836†	4178.4	4138.4	493.07 µg/L	493.07 ppb	19:07:55
3	Se 196.026†	1363.2	1361.3	494 µg/L	494 ppb	19:07:55
3	SiO2†	56222.5	54997.3	5354.5 µg/L	5354.5 ppb	19:07:35
3	Si 251.611†	169502.3	170324.4	2501.3 µg/L	2501.3 ppb	19:07:35
3	Sn 189.927†	7808.9	7886.4	493.30 µg/L	493.30 ppb	19:07:55
3	Ti 334.940†	523661.8	527833.6	492.50 µg/L	492.50 ppb	19:07:35
3	Tl 190.801†	3856.9	4011.4	500.25 µg/L	500.25 ppb	19:07:55
3	U 409.014†	7413.7	7756.2	483.37 µg/L	483.37 ppb	19:07:35
3	V 292.402†	99576.3	100146.9	495.05 µg/L	495.05 ppb	19:07:35
3	Zn 213.857†	87808.2	88103.1	491.04 µg/L	491.04 ppb	19:07:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1696045.3	98.710	%	0.2809				0.28%
Sc RADIAL	141342.5	96.9	%	0.64				0.66%
Y 371.029	1004196.3	97.809	%	0.2445				0.25%
Ag 328.068†	131610.5	493.48	µg/L	0.624	493.48	ppb	0.624	0.13%
QC value within limits for Ag 328.068 Recovery = 98.70%								
Al 396.153Radial†	27090.8	4999.7	µg/L	25.24	4999.7	ppb	25.24	0.50%
QC value within limits for Al 396.153Radial Recovery = 99.99%								
As 188.979†	1631.4	500.54	µg/L	1.508	500.54	ppb	1.508	0.30%
QC value within limits for As 188.979 Recovery = 100.11%								
B 249.677†	33165.3	487.41	µg/L	2.247	487.41	ppb	2.247	0.46%
QC value within limits for B 249.677 Recovery = 97.48%								
Ba 233.527†	122056.8	492.25	µg/L	0.460	492.25	ppb	0.460	0.09%
QC value within limits for Ba 233.527 Recovery = 98.45%								
Be 313.107†	1817419.4	494.99	µg/L	0.769	494.99	ppb	0.769	0.16%
QC value within limits for Be 313.107 Recovery = 99.00%								
Ca 317.933Radial†	89637.6	4993.2	µg/L	4.72	4993.2	ppb	4.72	0.09%
QC value within limits for Ca 317.933Radial Recovery = 99.86%								
Cd 226.502†	78831.0	492.10	µg/L	1.368	492.10	ppb	1.368	0.28%
QC value within limits for Cd 226.502 Recovery = 98.42%								
Co 228.616†	40114.4	495.21	µg/L	1.376	495.21	ppb	1.376	0.28%
QC value within limits for Co 228.616 Recovery = 99.04%								
Cr 267.716†	62562.6	489.86	µg/L	0.907	489.86	ppb	0.907	0.19%
QC value within limits for Cr 267.716 Recovery = 97.97%								
Cu 324.752†	125722.1	490.10	µg/L	1.288	490.10	ppb	1.288	0.26%
QC value within limits for Cu 324.752 Recovery = 98.02%								
Fe 238.204 Radial†	80362.2	4953.0	µg/L	8.02	4953.0	ppb	8.02	0.16%
QC value within limits for Fe 238.204 Radial Recovery = 99.06%								
K 766.490 Radial†	13872.7	5074.9	µg/L	26.88	5074.9	ppb	26.88	0.53%
QC value within limits for K 766.490 Radial Recovery = 101.50%								
Mg 279.077 IEC†	13612.7	5079.7	µg/L	2.74	5079.7	ppb	2.74	0.05%
QC value within limits for Mg 279.077 IEC Recovery = 101.59%								
Mn 257.610†	400166.4	494.91	µg/L	0.838	494.91	ppb	0.838	0.17%
QC value within limits for Mn 257.610 Recovery = 98.98%								
Mo 202.031†	16750.3	492.72	µg/L	2.861	492.72	ppb	2.861	0.58%
QC value within limits for Mo 202.031 Recovery = 98.54%								
Na 589.592 Radial†	72336.0	9877.5	µg/L	5.51	9877.5	ppb	5.51	0.06%

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   QC value within limits for Na 589.592 Radial  Recovery = 98.77%
Ni 231.604†            42774.0      492.51 µg/L        1.044      492.51 ppb         1.044   0.21%
   QC value within limits for Ni 231.604  Recovery = 98.50%
P 214.914†             11541.7      2460.1 µg/L        21.83      2460.1 ppb         21.83   0.89%
   QC value within limits for P 214.914  Recovery = 98.40%
Pb 220.353†             8888.5      497.74 µg/L        3.356      497.74 ppb         3.356   0.67%
   QC value within limits for Pb 220.353  Recovery = 99.55%
S 181.975 Axial†        1334.2      994.90 µg/L        8.662      994.90 ppb         8.662   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 99.49%
Sb 206.836†             4155.3      495.12 µg/L        2.767      495.12 ppb         2.767   0.56%
   QC value within limits for Sb 206.836  Recovery = 99.02%
Se 196.026†             1370.9         498 µg/L          4.2         498 ppb           4.2   0.85%
   QC value within limits for Se 196.026  Recovery = 99.56%
SiO2†                  54649.4      5320.4 µg/L        29.56      5320.4 ppb         29.56   0.56%
   QC value within limits for SiO2  Recovery = 99.49%
Si 251.611†           169638.9      2491.1 µg/L         9.08      2491.1 ppb          9.08   0.36%
   QC value within limits for Si 251.611  Recovery = 99.65%
Sn 189.927†             7927.7      495.87 µg/L        3.802      495.87 ppb         3.802   0.77%
   QC value within limits for Sn 189.927  Recovery = 99.17%
Sr 421.552†           239676.8      498.23 µg/L        4.551      498.23 ppb         4.551   0.91%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           527543.7      492.23 µg/L        0.293      492.23 ppb         0.293   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.45%
Tl 190.801†             4025.5      501.99 µg/L        2.440      501.99 ppb         2.440   0.49%
   QC value within limits for Tl 190.801  Recovery = 100.40%
U 409.014†              7717.2      481.05 µg/L        2.502      481.05 ppb         2.502   0.52%
   QC value within limits for U 409.014  Recovery = 96.21%
V 292.402†            100025.5      494.48 µg/L        0.691      494.48 ppb         0.691   0.14%
   QC value within limits for V 292.402  Recovery = 98.90%
Zn 213.857†            87836.2      489.55 µg/L        1.301      489.55 ppb         1.301   0.27%
   QC value within limits for Zn 213.857  Recovery = 97.91%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:08:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143606.3	143606.3	98.4	%			19:08:33
1	Al 396.153Radial†	-40.6	21.9	4.0709	µg/L	4.0709	ppb	19:08:53
1	Ca 317.933Radial†	593.8	42.8	2.3863	µg/L	2.3863	ppb	19:08:53
1	Fe 238.204 Radial†	181.2	36.0	2.2211	µg/L	2.2211	ppb	19:08:53
1	K 766.490 Radial†	1807.5	291.9	106.87	µg/L	106.87	ppb	19:08:33
1	Mg 279.077 IEC†	167.1	-20.9	-7.7799	µg/L	-7.7799	ppb	19:08:53
1	Na 589.592 Radial†	1829.3	568.1	77.508	µg/L	77.508	ppb	19:08:33
1	Sr 421.552†	-159.2	-26.5	-0.0550	µg/L	-0.0550	ppb	19:08:33
1	Sc 361.383	1699498.0	1699498.0	98.911	%			19:09:55
1	Y 371.029	1016806.2	1016806.2	99.037	%			19:09:55
1	Ag 328.068†	3769.0	-280.8	-1.0378	µg/L	-1.0378	ppb	19:09:57
1	As 188.979†	-4.4	15.9	4.8042	µg/L	4.8042	ppb	19:10:17
1	B 249.677†	3588.4	122.0	1.7978	µg/L	1.7978	ppb	19:09:57
1	Ba 233.527†	-115.2	19.4	0.0783	µg/L	0.0783	ppb	19:10:17
1	Be 313.107†	-954.3	99.8	0.0273	µg/L	0.0273	ppb	19:09:57
1	Cd 226.502†	-91.5	25.7	0.1602	µg/L	0.1602	ppb	19:10:17
1	Co 228.616†	-158.7	29.9	0.3690	µg/L	0.3690	ppb	19:10:17
1	Cr 267.716†	173.6	-3.0	-0.0236	µg/L	-0.0236	ppb	19:10:17
1	Cu 324.752†	3195.6	258.6	1.0054	µg/L	1.0054	ppb	19:09:57
1	Mn 257.610†	286.5	52.4	0.0651	µg/L	0.0651	ppb	19:10:17
1	Mo 202.031†	-26.1	-6.3	-0.1854	µg/L	-0.1854	ppb	19:10:17
1	Ni 231.604†	-117.6	-42.4	-0.4885	µg/L	-0.4885	ppb	19:10:17
1	P 214.914†	-30.3	-12.6	-2.7014	µg/L	-2.7014	ppb	19:10:17
1	Pb 220.353†	88.8	3.4	0.1879	µg/L	0.1879	ppb	19:10:17
1	S 181.975 Axial†	97.0	-6.9	-5.1546	µg/L	-5.1546	ppb	19:10:17
1	Sb 206.836†	72.1	-8.0	-0.9474	µg/L	-0.9474	ppb	19:10:17
1	Se 196.026†	15.9	0.8	0.281	µg/L	0.281	ppb	19:10:17
1	SiO2†	1782.8	27.1	2.6348	µg/L	2.6348	ppb	19:09:57
1	Si 251.611†	842.6	15.3	0.2204	µg/L	0.2204	ppb	19:09:57
1	Sn 189.927†	17.4	18.7	1.1657	µg/L	1.1657	ppb	19:10:17
1	Ti 334.940†	982.6	40.9	0.0388	µg/L	0.0388	ppb	19:09:57
1	Tl 190.801†	-115.4	-0.0	-0.0031	µg/L	-0.0031	ppb	19:10:17
1	U 409.014†	-263.1	3.9	0.2381	µg/L	0.2381	ppb	19:09:57
1	V 292.402†	432.1	33.1	0.1592	µg/L	0.1592	ppb	19:09:57
1	Zn 213.857†	662.7	105.6	0.5956	µg/L	0.5956	ppb	19:10:17
2	Sc RADIAL	143906.0	143906.0	98.6	%			19:08:55
2	Al 396.153Radial†	-30.9	31.9	5.9210	µg/L	5.9210	ppb	19:09:15
2	Ca 317.933Radial†	576.5	24.0	1.3374	µg/L	1.3374	ppb	19:09:15
2	Fe 238.204 Radial†	194.8	49.4	3.0451	µg/L	3.0451	ppb	19:09:15
2	K 766.490 Radial†	1821.8	302.6	110.79	µg/L	110.79	ppb	19:08:55
2	Mg 279.077 IEC†	181.6	-6.5	-2.4285	µg/L	-2.4285	ppb	19:09:15
2	Na 589.592 Radial†	1674.8	407.6	55.585	µg/L	55.585	ppb	19:08:55
2	Sr 421.552†	-76.3	57.9	0.1204	µg/L	0.1204	ppb	19:08:55
2	Sc 361.383	1701303.0	1701303.0	99.016	%			19:10:20
2	Y 371.029	1018421.2	1018421.2	99.195	%			19:10:20
2	Ag 328.068†	4174.8	124.9	0.4507	µg/L	0.4507	ppb	19:10:22
2	As 188.979†	-9.4	10.9	3.3020	µg/L	3.3020	ppb	19:10:42
2	B 249.677†	3516.0	45.1	0.6647	µg/L	0.6647	ppb	19:10:22
2	Ba 233.527†	-149.1	-14.7	-0.0595	µg/L	-0.0595	ppb	19:10:42
2	Be 313.107†	-839.9	216.4	0.0569	µg/L	0.0569	ppb	19:10:22
2	Cd 226.502†	-102.1	15.1	0.0939	µg/L	0.0939	ppb	19:10:42
2	Co 228.616†	-188.6	-0.1	-0.0019	µg/L	-0.0019	ppb	19:10:42
2	Cr 267.716†	211.4	34.9	0.2788	µg/L	0.2788	ppb	19:10:42
2	Cu 324.752†	2916.8	-26.4	-0.1080	µg/L	-0.1080	ppb	19:10:22
2	Mn 257.610†	284.4	50.0	0.0619	µg/L	0.0619	ppb	19:10:42
2	Mo 202.031†	-25.0	-5.2	-0.1530	µg/L	-0.1530	ppb	19:10:42
2	Ni 231.604†	-103.9	-28.5	-0.3278	µg/L	-0.3278	ppb	19:10:42
2	P 214.914†	-33.0	-15.3	-3.2711	µg/L	-3.2711	ppb	19:10:42
2	Pb 220.353†	114.7	29.5	1.6503	µg/L	1.6503	ppb	19:10:42

2	S 181.975 Axial†	99.7	-4.4	-3.2387 µg/L	-3.2387 ppb	19:10:42
2	Sb 206.836†	76.2	-3.9	-0.4635 µg/L	-0.4635 ppb	19:10:42
2	Se 196.026†	16.5	1.4	0.491 µg/L	0.491 ppb	19:10:42
2	SiO2†	1763.9	6.1	0.5919 µg/L	0.5919 ppb	19:10:22
2	Si 251.611†	911.5	84.0	1.2359 µg/L	1.2359 ppb	19:10:22
2	Sn 189.927†	8.3	9.5	0.5950 µg/L	0.5950 ppb	19:10:42
2	Ti 334.940†	886.7	-57.0	-0.0503 µg/L	-0.0503 ppb	19:10:22
2	Tl 190.801†	-114.1	1.5	0.1759 µg/L	0.1759 ppb	19:10:42
2	U 409.014†	-383.3	-117.2	-6.8703 µg/L	-6.8703 ppb	19:10:22
2	V 292.402†	344.9	-55.5	-0.2761 µg/L	-0.2761 ppb	19:10:22
2	Zn 213.857†	648.7	90.7	0.5114 µg/L	0.5114 ppb	19:10:42
3	Sc RADIAL	142315.2	142315.2	97.5 %		19:09:17
3	Al 396.153Radial†	-52.2	9.6	1.7667 µg/L	1.7667 ppb	19:09:37
3	Ca 317.933Radial†	577.3	31.3	1.7458 µg/L	1.7458 ppb	19:09:37
3	Fe 238.204 Radial†	193.7	50.5	3.1105 µg/L	3.1105 ppb	19:09:37
3	K 766.490 Radial†	1715.2	213.9	78.318 µg/L	78.318 ppb	19:09:17
3	Mg 279.077 IEC†	194.2	8.4	3.1563 µg/L	3.1563 ppb	19:09:37
3	Na 589.592 Radial†	1682.9	434.8	59.332 µg/L	59.332 ppb	19:09:17
3	Sr 421.552†	-204.0	-73.9	-0.1537 µg/L	-0.1537 ppb	19:09:17
3	Sc 361.383	1707432.2	1707432.2	99.372 %		19:10:44
3	Y 371.029	1021900.0	1021900.0	99.534 %		19:10:44
3	Ag 328.068†	4053.2	-12.6	-0.0528 µg/L	-0.0528 ppb	19:10:46
3	As 188.979†	-2.3	18.1	5.4690 µg/L	5.4690 ppb	19:11:06
3	B 249.677†	3514.8	31.1	0.4591 µg/L	0.4591 ppb	19:10:46
3	Ba 233.527†	-138.9	-3.9	-0.0159 µg/L	-0.0159 ppb	19:11:06
3	Be 313.107†	-1076.7	-18.8	-0.0056 µg/L	-0.0056 ppb	19:10:46
3	Cd 226.502†	-100.3	17.3	0.1074 µg/L	0.1074 ppb	19:11:06
3	Co 228.616†	-200.8	-11.7	-0.1450 µg/L	-0.1450 ppb	19:11:06
3	Cr 267.716†	180.7	3.3	0.0269 µg/L	0.0269 ppb	19:11:06
3	Cu 324.752†	3029.2	76.1	0.2948 µg/L	0.2948 ppb	19:10:46
3	Mn 257.610†	296.9	61.5	0.0760 µg/L	0.0760 ppb	19:11:06
3	Mo 202.031†	-3.7	16.3	0.4802 µg/L	0.4802 ppb	19:11:06
3	Ni 231.604†	-90.5	-14.6	-0.1676 µg/L	-0.1676 ppb	19:11:06
3	P 214.914†	-14.2	3.7	0.7799 µg/L	0.7799 ppb	19:11:06
3	Pb 220.353†	92.0	6.2	0.3485 µg/L	0.3485 ppb	19:11:06
3	S 181.975 Axial†	108.0	3.6	2.6796 µg/L	2.6796 ppb	19:11:06
3	Sb 206.836†	87.9	7.6	0.9107 µg/L	0.9107 ppb	19:11:06
3	Se 196.026†	15.0	-0.2	-0.060 µg/L	-0.060 ppb	19:11:06
3	SiO2†	1735.7	-28.7	-2.8190 µg/L	-2.8190 ppb	19:10:46
3	Si 251.611†	790.1	-41.5	-0.6182 µg/L	-0.6182 ppb	19:10:46
3	Sn 189.927†	-1.2	-0.1	-0.0053 µg/L	-0.0053 ppb	19:11:06
3	Ti 334.940†	766.5	-181.2	-0.1688 µg/L	-0.1688 ppb	19:10:46
3	Tl 190.801†	-101.0	15.0	1.8436 µg/L	1.8436 ppb	19:11:06
3	U 409.014†	-295.6	-27.6	-1.6324 µg/L	-1.6324 ppb	19:10:46
3	V 292.402†	332.8	-68.9	-0.3322 µg/L	-0.3322 ppb	19:10:46
3	Zn 213.857†	625.3	64.8	0.3648 µg/L	0.3648 ppb	19:11:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1702744.4	99.099	%	0.2420				0.24%
Sc RADIAL	143275.8	98.2	%	0.58				0.59%
Y 371.029	1019042.5	99.255	%	0.2535				0.26%
Ag 328.068†	-56.2	-0.2133	µg/L	0.75716	-0.2133	ppb	0.75716	354.96%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	21.2	3.9195	µg/L	2.08128	3.9195	ppb	2.08128	53.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	15.0	4.5251	µg/L	1.11017	4.5251	ppb	1.11017	24.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	66.0	0.9738	µg/L	0.72094	0.9738	ppb	0.72094	74.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.3	0.0009	µg/L	0.07043	0.0009	ppb	0.07043	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	99.2	0.0262	µg/L	0.03124	0.0262	ppb	0.03124	119.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	32.7	1.8232	µg/L	0.52869	1.8232	ppb	0.52869	29.00%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.4	0.1205	µg/L	0.03504	0.1205	ppb	0.03504	29.08%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.0	0.0740	µg/L	0.26530	0.0740	ppb	0.26530	358.50%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              11.7      0.0940 µg/L       0.16198      0.0940 ppb        0.16198 172.24%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             102.8      0.3974 µg/L       0.56376      0.3974 ppb        0.56376 141.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       45.3      2.7923 µg/L       0.49571      2.7923 ppb        0.49571  17.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       269.5      98.660 µg/L       17.7254      98.660 ppb        17.7254  17.97%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -6.3     -2.3507 µg/L       5.46855     -2.3507 ppb        5.46855 232.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              54.6      0.0677 µg/L       0.00738      0.0677 ppb        0.00738  10.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.6      0.0473 µg/L       0.37526      0.0473 ppb        0.37526 793.90%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      470.2      64.142 µg/L       11.7262      64.142 ppb        11.7262  18.28%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -28.5     -0.3280 µg/L       0.16046     -0.3280 ppb        0.16046  48.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.1     -1.7309 µg/L       2.19296     -1.7309 ppb        2.19296 126.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              13.0      0.7289 µg/L       0.80200      0.7289 ppb        0.80200 110.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.6     -1.9046 µg/L       4.08395     -1.9046 ppb        4.08395 214.43%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.4     -0.1667 µg/L       0.96394     -0.1667 ppb        0.96394 578.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.7       0.238 µg/L        0.2782       0.238 ppb         0.2782 117.02%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     1.5      0.1359 µg/L       2.75534      0.1359 ppb        2.75534 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              19.3      0.2794 µg/L       0.92845      0.2794 ppb        0.92845 332.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.4      0.5851 µg/L       0.58554      0.5851 ppb        0.58554 100.07%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -14.1     -0.0294 µg/L       0.13885     -0.0294 ppb        0.13885 471.87%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -65.8     -0.0601 µg/L       0.10414     -0.0601 ppb        0.10414 173.25%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.5      0.6721 µg/L       1.01847      0.6721 ppb        1.01847 151.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -47.0     -2.7549 µg/L       3.68475     -2.7549 ppb        3.68475 133.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -30.4     -0.1497 µg/L       0.26898     -0.1497 ppb        0.26898 179.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              87.0      0.4906 µg/L       0.11682      0.4906 ppb        0.11682  23.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 19:27:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144745.8	144745.8	99.2	%			19:28:15
1	Al 396.153Radial†	26764.4	27046.5	4991.6	µg/L	4991.6	ppb	19:28:15
1	Ca 317.933Radial†	89467.8	89639.1	4993.2	µg/L	4993.2	ppb	19:28:15
1	Fe 238.204 Radial†	79722.2	80226.2	4944.7	µg/L	4944.7	ppb	19:28:15
1	K 766.490 Radial†	14982.5	13560.3	4960.6	µg/L	4960.6	ppb	19:28:15
1	Mg 279.077 IEC†	13759.9	13681.8	5105.4	µg/L	5105.4	ppb	19:28:15
1	Na 589.592 Radial†	72591.2	71894.2	9817.2	µg/L	9817.2	ppb	19:28:15
1	Sr 421.552†	234529.9	236583.6	491.80	µg/L	491.80	ppb	19:28:12
1	Sc 361.383	1725305.4	1725305.4	100.41	%			19:28:27
1	Y 371.029	1020728.0	1020728.0	99.419	%			19:28:27
1	Ag 328.068†	136300.1	131648.8	493.59	µg/L	493.59	ppb	19:28:27
1	As 188.979†	1633.4	1647.0	505.23	µg/L	505.23	ppb	19:28:47
1	B 249.677†	36849.8	33192.5	487.82	µg/L	487.82	ppb	19:28:27
1	Ba 233.527†	122221.5	121855.2	491.44	µg/L	491.44	ppb	19:28:27
1	Be 313.107†	1820741.4	1814326.2	494.14	µg/L	494.14	ppb	19:28:27
1	Cd 226.502†	78844.9	78639.2	490.90	µg/L	490.90	ppb	19:28:27
1	Co 228.616†	39847.3	39874.0	492.24	µg/L	492.24	ppb	19:28:27
1	Cr 267.716†	62843.9	62407.1	488.65	µg/L	488.65	ppb	19:28:27
1	Cu 324.752†	129009.2	125507.0	489.26	µg/L	489.26	ppb	19:28:27
1	Mn 257.610†	401352.4	399466.3	494.04	µg/L	494.04	ppb	19:28:27
1	Mo 202.031†	16754.7	16705.9	491.42	µg/L	491.42	ppb	19:28:47
1	Ni 231.604†	42787.5	42688.2	491.52	µg/L	491.52	ppb	19:28:27
1	P 214.914†	11575.7	11546.1	2461.1	µg/L	2461.1	ppb	19:28:47
1	Pb 220.353†	8987.5	8864.2	496.39	µg/L	496.39	ppb	19:28:47
1	S 181.975 Axial†	1425.3	1314.4	980.21	µg/L	980.21	ppb	19:28:47
1	Sb 206.836†	4236.7	4138.5	493.11	µg/L	493.11	ppb	19:28:47
1	Se 196.026†	1383.3	1362.3	495	µg/L	495	ppb	19:28:47
1	SiO2†	56481.4	54474.0	5303.3	µg/L	5303.3	ppb	19:28:27
1	Si 251.611†	170572.5	169035.2	2482.3	µg/L	2482.3	ppb	19:28:27
1	Sn 189.927†	7932.0	7900.5	494.17	µg/L	494.17	ppb	19:28:47
1	Ti 334.940†	529379.1	526251.8	491.03	µg/L	491.03	ppb	19:28:27
1	Tl 190.801†	3920.2	4020.8	501.40	µg/L	501.40	ppb	19:28:47
1	U 409.014†	7328.3	7568.1	472.22	µg/L	472.22	ppb	19:28:27
1	V 292.402†	100463.2	99646.7	492.61	µg/L	492.61	ppb	19:28:27
1	Zn 213.857†	88617.6	87689.1	488.73	µg/L	488.73	ppb	19:28:27
2	Sc RADIAL	143128.0	143128.0	98.1	%			19:28:19
2	Al 396.153Radial†	26390.4	26970.3	4977.5	µg/L	4977.5	ppb	19:28:19
2	Ca 317.933Radial†	88547.9	89720.6	4997.8	µg/L	4997.8	ppb	19:28:19
2	Fe 238.204 Radial†	78967.6	80365.3	4953.2	µg/L	4953.2	ppb	19:28:19
2	K 766.490 Radial†	14857.2	13603.3	4976.3	µg/L	4976.3	ppb	19:28:19
2	Mg 279.077 IEC†	13593.0	13668.4	5100.4	µg/L	5100.4	ppb	19:28:19
2	Na 589.592 Radial†	71676.1	71788.4	9802.7	µg/L	9802.7	ppb	19:28:19
2	Sr 421.552†	234348.1	239070.9	496.98	µg/L	496.98	ppb	19:28:17
2	Sc 361.383	1734628.6	1734628.6	100.96	%			19:28:51
2	Y 371.029	1025716.4	1025716.4	99.905	%			19:28:51
2	Ag 328.068†	136816.4	131430.6	492.82	µg/L	492.82	ppb	19:28:51
2	As 188.979†	1631.9	1636.9	502.17	µg/L	502.17	ppb	19:29:11
2	B 249.677†	37069.7	33213.1	488.12	µg/L	488.12	ppb	19:28:51
2	Ba 233.527†	122992.1	121964.3	491.88	µg/L	491.88	ppb	19:28:51
2	Be 313.107†	1838526.2	1822196.9	496.29	µg/L	496.29	ppb	19:28:51
2	Cd 226.502†	79892.7	79255.0	494.75	µg/L	494.75	ppb	19:28:51
2	Co 228.616†	40292.1	40101.3	495.05	µg/L	495.05	ppb	19:28:51
2	Cr 267.716†	63389.6	62611.4	490.23	µg/L	490.23	ppb	19:28:51
2	Cu 324.752†	129959.6	125757.9	490.25	µg/L	490.25	ppb	19:28:51
2	Mn 257.610†	404701.1	400635.0	495.49	µg/L	495.49	ppb	19:28:51
2	Mo 202.031†	16826.1	16687.0	490.86	µg/L	490.86	ppb	19:29:11
2	Ni 231.604†	43211.3	42879.0	493.72	µg/L	493.72	ppb	19:28:51
2	P 214.914†	11647.2	11554.9	2462.9	µg/L	2462.9	ppb	19:29:11
2	Pb 220.353†	9025.0	8853.2	495.76	µg/L	495.76	ppb	19:29:11

2	S 181.975 Axial†	1448.9	1330.1	991.87 µg/L	991.87 ppb	19:29:11
2	Sb 206.836†	4260.0	4138.9	493.13 µg/L	493.13 ppb	19:29:11
2	Se 196.026†	1384.1	1355.7	492 µg/L	492 ppb	19:29:11
2	SiO2†	56922.3	54608.4	5316.4 µg/L	5316.4 ppb	19:28:51
2	Si 251.611†	172250.5	169784.3	2493.3 µg/L	2493.3 ppb	19:28:51
2	Sn 189.927†	7982.8	7908.4	494.67 µg/L	494.67 ppb	19:29:11
2	Ti 334.940†	533116.5	527120.2	491.83 µg/L	491.83 ppb	19:28:51
2	Tl 190.801†	3941.1	4020.5	501.37 µg/L	501.37 ppb	19:29:11
2	U 409.014†	7625.6	7823.4	487.25 µg/L	487.25 ppb	19:28:51
2	V 292.402†	101346.4	99983.8	494.26 µg/L	494.26 ppb	19:28:51
2	Zn 213.857†	89423.9	88013.5	490.54 µg/L	490.54 ppb	19:28:51
3	Sc RADIAL	145496.7	145496.7	99.7 %		19:28:23
3	Al 396.153Radial†	26858.9	27002.0	4983.3 µg/L	4983.3 ppb	19:28:23
3	Ca 317.933Radial†	90156.6	89864.4	5005.8 µg/L	5005.8 ppb	19:28:23
3	Fe 238.204 Radial†	80315.1	80406.1	4955.7 µg/L	4955.7 ppb	19:28:23
3	K 766.490 Radial†	15083.0	13583.2	4968.9 µg/L	4968.9 ppb	19:28:23
3	Mg 279.077 IEC†	13878.0	13728.6	5122.9 µg/L	5122.9 ppb	19:28:23
3	Na 589.592 Radial†	72879.8	71805.9	9805.1 µg/L	9805.1 ppb	19:28:23
3	Sr 421.552†	234221.7	235054.0	488.62 µg/L	488.62 ppb	19:28:21
3	Sc 361.383	1725210.5	1725210.5	100.41 %		19:29:14
3	Y 371.029	1019973.4	1019973.4	99.346 %		19:29:14
3	Ag 328.068†	135997.1	131354.5	492.51 µg/L	492.51 ppb	19:29:14
3	As 188.979†	1616.1	1629.9	500.07 µg/L	500.07 ppb	19:29:34
3	B 249.677†	36719.7	33065.0	485.94 µg/L	485.94 ppb	19:29:14
3	Ba 233.527†	122082.7	121723.7	490.91 µg/L	490.91 ppb	19:29:14
3	Be 313.107†	1823924.9	1817596.6	495.03 µg/L	495.03 ppb	19:29:14
3	Cd 226.502†	79138.6	78936.0	492.75 µg/L	492.75 ppb	19:29:14
3	Co 228.616†	39917.6	39946.1	493.13 µg/L	493.13 ppb	19:29:14
3	Cr 267.716†	63023.3	62589.2	490.08 µg/L	490.08 ppb	19:29:14
3	Cu 324.752†	129255.3	125759.2	490.24 µg/L	490.24 ppb	19:29:14
3	Mn 257.610†	401870.3	400004.1	494.71 µg/L	494.71 ppb	19:29:14
3	Mo 202.031†	16781.3	16733.4	492.23 µg/L	492.23 ppb	19:29:34
3	Ni 231.604†	42953.4	42855.8	493.45 µg/L	493.45 ppb	19:29:14
3	P 214.914†	11608.1	11579.0	2468.1 µg/L	2468.1 ppb	19:29:34
3	Pb 220.353†	9009.0	8886.1	497.61 µg/L	497.61 ppb	19:29:34
3	S 181.975 Axial†	1440.9	1330.0	991.78 µg/L	991.78 ppb	19:29:34
3	Sb 206.836†	4230.2	4132.2	492.36 µg/L	492.36 ppb	19:29:34
3	Se 196.026†	1386.3	1365.4	496 µg/L	496 ppb	19:29:34
3	SiO2†	56734.1	54728.8	5328.1 µg/L	5328.1 ppb	19:29:14
3	Si 251.611†	171053.5	169523.6	2489.4 µg/L	2489.4 ppb	19:29:14
3	Sn 189.927†	7957.3	7926.1	495.77 µg/L	495.77 ppb	19:29:34
3	Ti 334.940†	529976.9	526876.1	491.61 µg/L	491.61 ppb	19:29:14
3	Tl 190.801†	3905.9	4006.8	499.68 µg/L	499.68 ppb	19:29:34
3	U 409.014†	7243.0	7483.6	467.35 µg/L	467.35 ppb	19:29:14
3	V 292.402†	100691.8	99879.9	493.76 µg/L	493.76 ppb	19:29:14
3	Zn 213.857†	88689.8	87765.9	489.15 µg/L	489.15 ppb	19:29:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1728381.5	100.59	%	0.315				0.31%
Sc RADIAL	144456.8	99.0	%	0.83				0.84%
Y 371.029	1022139.3	99.557	%	0.3040				0.31%
Ag 328.068†	131478.0	492.97	µg/L	0.557	492.97	ppb	0.557	0.11%
QC value within limits for Ag 328.068 Recovery = 98.59%								
Al 396.153Radial†	27006.3	4984.1	µg/L	7.09	4984.1	ppb	7.09	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.68%								
As 188.979†	1637.9	502.49	µg/L	2.596	502.49	ppb	2.596	0.52%
QC value within limits for As 188.979 Recovery = 100.50%								
B 249.677†	33156.9	487.29	µg/L	1.181	487.29	ppb	1.181	0.24%
QC value within limits for B 249.677 Recovery = 97.46%								
Ba 233.527†	121847.7	491.41	µg/L	0.486	491.41	ppb	0.486	0.10%
QC value within limits for Ba 233.527 Recovery = 98.28%								
Be 313.107†	1818039.9	495.15	µg/L	1.079	495.15	ppb	1.079	0.22%
QC value within limits for Be 313.107 Recovery = 99.03%								
Ca 317.933Radial†	89741.4	4998.9	µg/L	6.35	4998.9	ppb	6.35	0.13%
QC value within limits for Ca 317.933Radial Recovery = 99.98%								
Cd 226.502†	78943.4	492.80	µg/L	1.924	492.80	ppb	1.924	0.39%
QC value within limits for Cd 226.502 Recovery = 98.56%								
Co 228.616†	39973.8	493.47	µg/L	1.433	493.47	ppb	1.433	0.29%

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   QC value within limits for Co 228.616  Recovery = 98.69%
Cr 267.716†            62535.9      489.65 µg/L         0.875      489.65 ppb          0.875   0.18%
   QC value within limits for Cr 267.716  Recovery = 97.93%
Cu 324.752†           125674.7      489.91 µg/L         0.568      489.91 ppb          0.568   0.12%
   QC value within limits for Cu 324.752  Recovery = 97.98%
Fe 238.204 Radial†     80332.5      4951.2 µg/L          5.81      4951.2 ppb           5.81   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.02%
K 766.490 Radial†      13582.3      4968.6 µg/L          7.88      4968.6 ppb           7.88   0.16%
   QC value within limits for K 766.490 Radial  Recovery = 99.37%
Mg 279.077 IEC†        13692.9      5109.5 µg/L         11.80      5109.5 ppb          11.80   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.19%
Mn 257.610†           400035.1      494.75 µg/L         0.724      494.75 ppb          0.724   0.15%
   QC value within limits for Mn 257.610  Recovery = 98.95%
Mo 202.031†            16708.8      491.50 µg/L         0.686      491.50 ppb          0.686   0.14%
   QC value within limits for Mo 202.031  Recovery = 98.30%
Na 589.592 Radial†     71829.5      9808.4 µg/L          7.75      9808.4 ppb           7.75   0.08%
   QC value within limits for Na 589.592 Radial  Recovery = 98.08%
Ni 231.604†            42807.7      492.90 µg/L         1.199      492.90 ppb          1.199   0.24%
   QC value within limits for Ni 231.604  Recovery = 98.58%
P 214.914†             11560.0      2464.0 µg/L          3.63      2464.0 ppb           3.63   0.15%
   QC value within limits for P 214.914  Recovery = 98.56%
Pb 220.353†             8867.8      496.59 µg/L         0.942      496.59 ppb          0.942   0.19%
   QC value within limits for Pb 220.353  Recovery = 99.32%
S 181.975 Axial†        1324.9      987.95 µg/L         6.702      987.95 ppb          6.702   0.68%
   QC value within limits for S 181.975 Axial  Recovery = 98.80%
Sb 206.836†             4136.5      492.87 µg/L         0.436      492.87 ppb          0.436   0.09%
   QC value within limits for Sb 206.836  Recovery = 98.57%
Se 196.026†             1361.2         494 µg/L           1.8         494 ppb            1.8   0.36%
   QC value within limits for Se 196.026  Recovery = 98.85%
SiO2†                  54603.7      5315.9 µg/L         12.44      5315.9 ppb          12.44   0.23%
   QC value within limits for SiO2  Recovery = 99.41%
Si 251.611†           169447.7      2488.3 µg/L          5.61      2488.3 ppb           5.61   0.23%
   QC value within limits for Si 251.611  Recovery = 99.53%
Sn 189.927†             7911.7      494.87 µg/L         0.819      494.87 ppb          0.819   0.17%
   QC value within limits for Sn 189.927  Recovery = 98.97%
Sr 421.552†           236902.8      492.47 µg/L         4.215      492.47 ppb          4.215   0.86%
   QC value within limits for Sr 421.552  Recovery = 98.49%
Ti 334.940†           526749.4      491.49 µg/L         0.416      491.49 ppb          0.416   0.08%
   QC value within limits for Ti 334.940  Recovery = 98.30%
Tl 190.801†             4016.0      500.82 µg/L         0.981      500.82 ppb          0.981   0.20%
   QC value within limits for Tl 190.801  Recovery = 100.16%
U 409.014†              7625.0      475.61 µg/L        10.374      475.61 ppb         10.374   2.18%
   QC value within limits for U 409.014  Recovery = 95.12%
V 292.402†             99836.8      493.54 µg/L         0.847      493.54 ppb          0.847   0.17%
   QC value within limits for V 292.402  Recovery = 98.71%
Zn 213.857†            87822.9      489.47 µg/L         0.946      489.47 ppb          0.946   0.19%
   QC value within limits for Zn 213.857  Recovery = 97.89%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:29:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145475.6	145475.6	99.7	%			19:30:11
1	Al 396.153Radial†	-75.1	-12.2	-2.2232	µg/L	-2.2232	ppb	19:30:31
1	Ca 317.933Radial†	587.7	29.0	1.6154	µg/L	1.6154	ppb	19:30:31
1	Fe 238.204 Radial†	164.7	17.2	1.0571	µg/L	1.0571	ppb	19:30:31
1	K 766.490 Radial†	1612.2	72.5	26.524	µg/L	26.524	ppb	19:30:11
1	Mg 279.077 IEC†	187.3	-2.8	-1.0689	µg/L	-1.0689	ppb	19:30:31
1	Na 589.592 Radial†	1489.8	203.6	27.794	µg/L	27.794	ppb	19:30:11
1	Sr 421.552†	-307.3	-173.0	-0.3597	µg/L	-0.3597	ppb	19:30:11
1	Sc 361.383	1698492.9	1698492.9	98.852	%			19:31:33
1	Y 371.029	1016683.6	1016683.6	99.025	%			19:31:33
1	Ag 328.068†	3801.1	-246.1	-0.8975	µg/L	-0.8975	ppb	19:31:35
1	As 188.979†	-17.7	2.5	0.7531	µg/L	0.7531	ppb	19:31:55
1	B 249.677†	3427.3	-38.8	-0.5719	µg/L	-0.5719	ppb	19:31:35
1	Ba 233.527†	-135.5	-1.2	-0.0047	µg/L	-0.0047	ppb	19:31:55
1	Be 313.107†	-787.7	267.8	0.0745	µg/L	0.0745	ppb	19:31:35
1	Cd 226.502†	-126.1	-9.3	-0.0586	µg/L	-0.0586	ppb	19:31:55
1	Co 228.616†	-187.3	0.8	0.0098	µg/L	0.0098	ppb	19:31:55
1	Cr 267.716†	185.7	9.3	0.0694	µg/L	0.0694	ppb	19:31:55
1	Cu 324.752†	2920.3	-18.0	-0.0655	µg/L	-0.0655	ppb	19:31:35
1	Mn 257.610†	272.9	38.8	0.0481	µg/L	0.0481	ppb	19:31:55
1	Mo 202.031†	-42.5	-22.9	-0.6735	µg/L	-0.6735	ppb	19:31:55
1	Ni 231.604†	-89.8	-14.3	-0.1646	µg/L	-0.1646	ppb	19:31:55
1	P 214.914†	-7.3	10.6	2.2741	µg/L	2.2741	ppb	19:31:55
1	Pb 220.353†	105.5	20.3	1.1296	µg/L	1.1296	ppb	19:31:55
1	S 181.975 Axial†	107.5	3.7	2.7631	µg/L	2.7631	ppb	19:31:55
1	Sb 206.836†	82.4	2.5	0.2868	µg/L	0.2868	ppb	19:31:55
1	Se 196.026†	15.9	0.8	0.284	µg/L	0.284	ppb	19:31:55
1	SiO2†	1750.8	-4.2	-0.4021	µg/L	-0.4021	ppb	19:31:55
1	Si 251.611†	831.1	4.2	0.0667	µg/L	0.0667	ppb	19:31:35
1	Sn 189.927†	9.7	11.0	0.6833	µg/L	0.6833	ppb	19:31:55
1	Ti 334.940†	1069.9	129.8	0.1193	µg/L	0.1193	ppb	19:31:35
1	Tl 190.801†	-107.7	7.8	0.9584	µg/L	0.9584	ppb	19:31:55
1	U 409.014†	-179.0	88.9	5.2323	µg/L	5.2323	ppb	19:31:35
1	V 292.402†	528.0	130.3	0.6323	µg/L	0.6323	ppb	19:31:35
1	Zn 213.857†	590.7	33.1	0.1869	µg/L	0.1869	ppb	19:31:55
2	Sc RADIAL	144319.0	144319.0	98.9	%			19:30:33
2	Al 396.153Radial†	-78.7	-16.4	-3.0556	µg/L	-3.0556	ppb	19:30:53
2	Ca 317.933Radial†	611.2	57.5	3.2020	µg/L	3.2020	ppb	19:30:53
2	Fe 238.204 Radial†	171.3	25.1	1.5453	µg/L	1.5453	ppb	19:30:53
2	K 766.490 Radial†	1571.9	44.7	16.347	µg/L	16.347	ppb	19:30:33
2	Mg 279.077 IEC†	180.9	-7.8	-2.8873	µg/L	-2.8873	ppb	19:30:53
2	Na 589.592 Radial†	1390.8	115.6	15.771	µg/L	15.771	ppb	19:30:33
2	Sr 421.552†	-219.7	-86.8	-0.1805	µg/L	-0.1805	ppb	19:30:33
2	Sc 361.383	1734133.7	1734133.7	100.93	%			19:31:58
2	Y 371.029	1037702.6	1037702.6	101.07	%			19:31:58
2	Ag 328.068†	3823.7	-302.8	-1.1204	µg/L	-1.1204	ppb	19:32:00
2	As 188.979†	-14.9	5.6	1.6918	µg/L	1.6918	ppb	19:32:20
2	B 249.677†	3536.1	-2.3	-0.0340	µg/L	-0.0340	ppb	19:32:00
2	Ba 233.527†	-136.5	0.6	0.0024	µg/L	0.0024	ppb	19:32:20
2	Be 313.107†	-795.6	276.4	0.0756	µg/L	0.0756	ppb	19:32:00
2	Cd 226.502†	-86.6	32.4	0.2024	µg/L	0.2024	ppb	19:32:20
2	Co 228.616†	-173.2	18.7	0.2305	µg/L	0.2305	ppb	19:32:20
2	Cr 267.716†	178.6	-1.6	-0.0131	µg/L	-0.0131	ppb	19:32:20
2	Cu 324.752†	2720.4	-276.8	-1.0746	µg/L	-1.0746	ppb	19:32:00
2	Mn 257.610†	233.8	-5.6	-0.0068	µg/L	-0.0068	ppb	19:32:20
2	Mo 202.031†	-11.0	9.2	0.2711	µg/L	0.2711	ppb	19:32:20
2	Ni 231.604†	-67.5	9.6	0.1106	µg/L	0.1106	ppb	19:32:20
2	P 214.914†	-23.6	-5.5	-1.1584	µg/L	-1.1584	ppb	19:32:20
2	Pb 220.353†	95.4	8.1	0.4532	µg/L	0.4532	ppb	19:32:20

2	S 181.975 Axial†	102.0	-4.0	-2.9595 µg/L	-2.9595 ppb		19:32:20
2	Sb 206.836†	80.5	-1.1	-0.1231 µg/L	-0.1231 ppb		19:32:20
2	Se 196.026†	11.1	-4.2	-1.53 µg/L	-1.53 ppb		19:32:20
2	SiO2†	1780.0	-11.7	-1.1573 µg/L	-1.1573 ppb		19:32:20
2	Si 251.611†	833.5	-10.8	-0.1648 µg/L	-0.1648 ppb		19:32:00
2	Sn 189.927†	4.9	6.0	0.3748 µg/L	0.3748 ppb		19:32:20
2	Ti 334.940†	959.8	-1.5	-0.0015 µg/L	-0.0015 ppb		19:32:00
2	Tl 190.801†	-121.4	-3.6	-0.4439 µg/L	-0.4439 ppb		19:32:20
2	U 409.014†	-253.2	19.1	1.1109 µg/L	1.1109 ppb		19:32:00
2	V 292.402†	396.6	-10.8	-0.0495 µg/L	-0.0495 ppb		19:32:00
2	Zn 213.857†	608.7	38.7	0.2171 µg/L	0.2171 ppb		19:32:20
3	Sc RADIAL	143412.5	143412.5	98.3 %			19:30:55
3	Al 396.153Radial†	-61.2	0.9	0.1676 µg/L	0.1676 ppb		19:31:15
3	Ca 317.933Radial†	592.5	42.3	2.3561 µg/L	2.3561 ppb		19:31:15
3	Fe 238.204 Radial†	168.4	23.2	1.4324 µg/L	1.4324 ppb		19:31:15
3	K 766.490 Radial†	1616.9	100.5	36.805 µg/L	36.805 ppb		19:30:55
3	Mg 279.077 IEC†	171.0	-16.7	-6.2040 µg/L	-6.2040 ppb		19:31:15
3	Na 589.592 Radial†	1303.8	35.9	4.8761 µg/L	4.8761 ppb		19:30:55
3	Sr 421.552†	-236.1	-105.0	-0.2183 µg/L	-0.2183 ppb		19:30:55
3	Sc 361.383	1715805.0	1715805.0	99.860 %			19:32:22
3	Y 371.029	1026242.1	1026242.1	99.956 %			19:32:22
3	Ag 328.068†	4010.0	-75.8	-0.2851 µg/L	-0.2851 ppb		19:32:24
3	As 188.979†	-13.5	6.8	2.0688 µg/L	2.0688 ppb		19:32:44
3	B 249.677†	3513.5	12.5	0.1850 µg/L	0.1850 ppb		19:32:24
3	Ba 233.527†	-128.9	6.8	0.0274 µg/L	0.0274 ppb		19:32:44
3	Be 313.107†	-697.9	365.9	0.0986 µg/L	0.0986 ppb		19:32:24
3	Cd 226.502†	-106.1	12.0	0.0747 µg/L	0.0747 ppb		19:32:44
3	Co 228.616†	-189.4	0.6	0.0078 µg/L	0.0078 ppb		19:32:44
3	Cr 267.716†	196.4	18.1	0.1446 µg/L	0.1446 ppb		19:32:44
3	Cu 324.752†	2902.2	-65.9	-0.2591 µg/L	-0.2591 ppb		19:32:24
3	Mn 257.610†	273.8	36.9	0.0459 µg/L	0.0459 ppb		19:32:44
3	Mo 202.031†	-16.2	3.9	0.1137 µg/L	0.1137 ppb		19:32:44
3	Ni 231.604†	-88.7	-12.3	-0.1412 µg/L	-0.1412 ppb		19:32:44
3	P 214.914†	-24.0	-6.1	-1.2988 µg/L	-1.2988 ppb		19:32:44
3	Pb 220.353†	103.9	17.7	0.9897 µg/L	0.9897 ppb		19:32:44
3	S 181.975 Axial†	107.4	2.5	1.8491 µg/L	1.8491 ppb		19:32:44
3	Sb 206.836†	83.4	2.7	0.3244 µg/L	0.3244 ppb		19:32:44
3	Se 196.026†	19.7	4.5	1.61 µg/L	1.61 ppb		19:32:44
3	SiO2†	1808.2	35.4	3.4538 µg/L	3.4538 ppb		19:32:44
3	Si 251.611†	977.1	141.9	2.0894 µg/L	2.0894 ppb		19:32:24
3	Sn 189.927†	2.2	3.3	0.2061 µg/L	0.2061 ppb		19:32:44
3	Ti 334.940†	999.8	48.7	0.0474 µg/L	0.0474 ppb		19:32:24
3	Tl 190.801†	-111.5	5.0	0.6198 µg/L	0.6198 ppb		19:32:44
3	U 409.014†	-328.9	-59.4	-3.4761 µg/L	-3.4761 ppb		19:32:24
3	V 292.402†	400.2	-3.0	-0.0153 µg/L	-0.0153 ppb		19:32:24
3	Zn 213.857†	599.5	35.9	0.2028 µg/L	0.2028 ppb		19:32:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716143.9	99.879	%	1.0373				1.04%
Sc RADIAL	144402.4	99.0	%	0.71				0.72%
Y 371.029	1026876.1	100.02	%	1.025				1.02%
Ag 328.068†	-208.2	-0.7677	µg/L	0.43252	-0.7677	ppb	0.43252	56.34%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.2	-1.7037	µg/L	1.67317	-1.7037	ppb	1.67317	98.21%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.0	1.5046	µg/L	0.67750	1.5046	ppb	0.67750	45.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-9.5	-0.1403	µg/L	0.38951	-0.1403	ppb	0.38951	277.57%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0084	µg/L	0.01681	0.0084	ppb	0.01681	200.54%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	303.4	0.0829	µg/L	0.01359	0.0829	ppb	0.01359	16.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	42.9	2.3912	µg/L	0.79388	2.3912	ppb	0.79388	33.20%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.7	0.0728	µg/L	0.13050	0.0728	ppb	0.13050	179.15%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.7	0.0827	µg/L	0.12800	0.0827	ppb	0.12800	154.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.6      0.0669 µg/L       0.07889      0.0669 ppb        0.07889 117.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -120.3     -0.4664 µg/L       0.53553     -0.4664 ppb        0.53553 114.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         21.8      1.3449 µg/L       0.25554      1.3449 ppb        0.25554  19.00%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          72.5      26.559 µg/L       10.2293      26.559 ppb        10.2293  38.52%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -9.1     -3.3867 µg/L       2.60377     -3.3867 ppb        2.60377  76.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                23.4      0.0291 µg/L       0.03107      0.0291 ppb        0.03107 106.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.3     -0.0962 µg/L       0.50606     -0.0962 ppb        0.50606 525.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        118.4      16.147 µg/L       11.4636      16.147 ppb        11.4636  70.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.7     -0.0651 µg/L       0.15260     -0.0651 ppb        0.15260 234.56%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.3     -0.0611 µg/L       2.02349     -0.0611 ppb        2.02349 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.4      0.8575 µg/L       0.35710      0.8575 ppb        0.35710  41.64%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.7      0.5509 µg/L       3.07426      0.5509 ppb        3.07426 558.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.4      0.1627 µg/L       0.24819      0.1627 ppb        0.24819 152.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.3       0.122 µg/L        1.5761       0.122 ppb         1.5761 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       6.5      0.6315 µg/L       2.47323      0.6315 ppb        2.47323 391.67%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                45.1      0.6638 µg/L       1.24006      0.6638 ppb        1.24006 186.82%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.8      0.4214 µg/L       0.24200      0.4214 ppb        0.24200  57.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -121.6     -0.2528 µg/L       0.09445     -0.2528 ppb        0.09445  37.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                59.0      0.0550 µg/L       0.06076      0.0550 ppb        0.06076 110.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.1      0.3781 µg/L       0.73174      0.3781 ppb        0.73174 193.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 16.2      0.9557 µg/L       4.35630      0.9557 ppb        4.35630 455.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 38.8      0.1892 µg/L       0.38415      0.1892 ppb        0.38415 203.07%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                35.9      0.2023 µg/L       0.01507      0.2023 ppb        0.01507   7.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 19:48:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142074.6	142074.6	97.4	%			19:48:41
1	Al 396.153Radial†	26307.3	27084.3	4998.9	µg/L	4998.9	ppb	19:48:41
1	Ca 317.933Radial†	86883.3	88680.2	4939.8	µg/L	4939.8	ppb	19:48:41
1	Fe 238.204 Radial†	77361.0	79312.1	4888.3	µg/L	4888.3	ppb	19:48:41
1	K 766.490 Radial†	14600.0	13451.4	4920.7	µg/L	4920.7	ppb	19:48:41
1	Mg 279.077 IEC†	13319.4	13490.1	5033.8	µg/L	5033.8	ppb	19:48:41
1	Na 589.592 Radial†	70751.2	71380.2	9747.0	µg/L	9747.0	ppb	19:48:41
1	Sr 421.552†	226373.4	232651.3	483.63	µg/L	483.63	ppb	19:48:39
1	Sc 361.383	1707292.7	1707292.7	99.364	%			19:48:54
1	Y 371.029	1010159.7	1010159.7	98.390	%			19:48:54
1	Ag 328.068†	133110.0	129870.3	486.98	µg/L	486.98	ppb	19:48:54
1	As 188.979†	1576.3	1606.7	492.97	µg/L	492.97	ppb	19:49:14
1	B 249.677†	35756.1	32479.0	477.32	µg/L	477.32	ppb	19:48:54
1	Ba 233.527†	119643.5	120545.0	486.15	µg/L	486.15	ppb	19:48:54
1	Be 313.107†	1782114.7	1794583.1	488.77	µg/L	488.77	ppb	19:48:54
1	Cd 226.502†	76871.1	77481.2	483.67	µg/L	483.67	ppb	19:48:54
1	Co 228.616†	39104.8	39545.3	488.18	µg/L	488.18	ppb	19:48:54
1	Cr 267.716†	61488.3	61703.2	483.11	µg/L	483.11	ppb	19:48:54
1	Cu 324.752†	126677.7	124516.1	485.41	µg/L	485.41	ppb	19:48:54
1	Mn 257.610†	392328.2	394601.4	488.03	µg/L	488.03	ppb	19:48:54
1	Mo 202.031†	16345.9	16470.5	484.49	µg/L	484.49	ppb	19:49:14
1	Ni 231.604†	41875.3	42219.8	486.13	µg/L	486.13	ppb	19:48:54
1	P 214.914†	11193.1	11282.7	2404.8	µg/L	2404.8	ppb	19:49:14
1	Pb 220.353†	8730.4	8699.9	487.18	µg/L	487.18	ppb	19:49:14
1	S 181.975 Axial†	1383.4	1287.2	959.96	µg/L	959.96	ppb	19:49:14
1	Sb 206.836†	4107.0	4052.4	482.84	µg/L	482.84	ppb	19:49:14
1	Se 196.026†	1342.1	1335.4	485	µg/L	485	ppb	19:49:14
1	SiO2†	55335.6	53914.4	5248.9	µg/L	5248.9	ppb	19:48:54
1	Si 251.611†	167076.9	167309.4	2457.0	µg/L	2457.0	ppb	19:48:54
1	Sn 189.927†	7693.0	7743.4	484.36	µg/L	484.36	ppb	19:49:14
1	Ti 334.940†	519233.7	521603.7	486.68	µg/L	486.68	ppb	19:48:54
1	Tl 190.801†	3814.7	3955.8	493.34	µg/L	493.34	ppb	19:49:14
1	U 409.014†	7610.9	7929.5	493.08	µg/L	493.08	ppb	19:48:54
1	V 292.402†	98525.0	98751.7	488.17	µg/L	488.17	ppb	19:48:54
1	Zn 213.857†	86407.4	86395.9	481.51	µg/L	481.51	ppb	19:48:54
2	Sc RADIAL	141314.4	141314.4	96.8	%			19:48:45
2	Al 396.153Radial†	26070.1	26984.8	4980.3	µg/L	4980.3	ppb	19:48:45
2	Ca 317.933Radial†	86198.1	88452.8	4927.2	µg/L	4927.2	ppb	19:48:45
2	Fe 238.204 Radial†	76905.6	79269.3	4885.7	µg/L	4885.7	ppb	19:48:45
2	K 766.490 Radial†	14469.9	13397.8	4901.1	µg/L	4901.1	ppb	19:48:45
2	Mg 279.077 IEC†	13056.5	13292.2	4960.2	µg/L	4960.2	ppb	19:48:45
2	Na 589.592 Radial†	70248.5	71252.1	9729.5	µg/L	9729.5	ppb	19:48:45
2	Sr 421.552†	230623.8	238291.3	495.36	µg/L	495.36	ppb	19:48:43
2	Sc 361.383	1705432.9	1705432.9	99.256	%			19:49:17
2	Y 371.029	1009468.8	1009468.8	98.323	%			19:49:17
2	Ag 328.068†	133787.0	130698.5	490.05	µg/L	490.05	ppb	19:49:17
2	As 188.979†	1570.4	1602.5	491.73	µg/L	491.73	ppb	19:49:37
2	B 249.677†	35970.0	32733.8	481.06	µg/L	481.06	ppb	19:49:17
2	Ba 233.527†	120220.9	121258.0	489.03	µg/L	489.03	ppb	19:49:17
2	Be 313.107†	1787251.2	1801714.0	490.71	µg/L	490.71	ppb	19:49:17
2	Cd 226.502†	77339.1	78037.0	487.14	µg/L	487.14	ppb	19:49:17
2	Co 228.616†	39270.6	39755.3	490.78	µg/L	490.78	ppb	19:49:17
2	Cr 267.716†	61757.1	62041.5	485.78	µg/L	485.78	ppb	19:49:17
2	Cu 324.752†	126820.0	124798.5	486.50	µg/L	486.50	ppb	19:49:17
2	Mn 257.610†	394508.1	397228.3	491.28	µg/L	491.28	ppb	19:49:17
2	Mo 202.031†	16426.8	16570.0	487.42	µg/L	487.42	ppb	19:49:37
2	Ni 231.604†	41982.9	42374.1	487.91	µg/L	487.91	ppb	19:49:17
2	P 214.914†	11261.9	11364.3	2422.2	µg/L	2422.2	ppb	19:49:37
2	Pb 220.353†	8823.1	8802.9	492.95	µg/L	492.95	ppb	19:49:37

2	S 181.975 Axial†	1396.0	1301.4	970.49 µg/L	970.49 ppb	19:49:37
2	Sb 206.836†	4148.9	4099.2	488.41 µg/L	488.41 ppb	19:49:37
2	Se 196.026†	1355.8	1350.7	490 µg/L	490 ppb	19:49:37
2	SiO2†	55442.9	54083.1	5265.3 µg/L	5265.3 ppb	19:49:17
2	Si 251.611†	167481.5	167900.5	2465.6 µg/L	2465.6 ppb	19:49:17
2	Sn 189.927†	7735.0	7794.1	487.53 µg/L	487.53 ppb	19:49:37
2	Ti 334.940†	520412.2	523360.9	488.34 µg/L	488.34 ppb	19:49:17
2	Tl 190.801†	3830.1	3975.4	495.78 µg/L	495.78 ppb	19:49:37
2	U 409.014†	7376.5	7701.7	479.90 µg/L	479.90 ppb	19:49:17
2	V 292.402†	98853.0	99190.2	490.34 µg/L	490.34 ppb	19:49:17
2	Zn 213.857†	86774.5	86860.6	484.11 µg/L	484.11 ppb	19:49:17
3	Sc RADIAL	143116.0	143116.0	98.1 %		19:48:49
3	Al 396.153Radial†	26236.6	26815.6	4949.0 µg/L	4949.0 ppb	19:48:49
3	Ca 317.933Radial†	87307.0	88462.9	4927.7 µg/L	4927.7 ppb	19:48:49
3	Fe 238.204 Radial†	77796.7	79178.1	4880.1 µg/L	4880.1 ppb	19:48:49
3	K 766.490 Radial†	14380.3	13118.2	4798.8 µg/L	4798.8 ppb	19:48:49
3	Mg 279.077 IEC†	13346.6	13418.3	5007.1 µg/L	5007.1 ppb	19:48:49
3	Na 589.592 Radial†	71057.8	71164.1	9717.6 µg/L	9717.6 ppb	19:48:49
3	Sr 421.552†	230412.2	235077.6	488.67 µg/L	488.67 ppb	19:48:47
3	Sc 361.383	1721387.2	1721387.2	100.18 %		19:49:40
3	Y 371.029	1018897.4	1018897.4	99.241 %		19:49:40
3	Ag 328.068†	134640.8	130301.5	488.57 µg/L	488.57 ppb	19:49:40
3	As 188.979†	1609.9	1627.2	499.20 µg/L	499.20 ppb	19:50:00
3	B 249.677†	36341.2	32768.4	481.57 µg/L	481.57 ppb	19:49:40
3	Ba 233.527†	121012.1	120925.1	487.69 µg/L	487.69 ppb	19:49:40
3	Be 313.107†	1805276.3	1803016.9	491.06 µg/L	491.06 ppb	19:49:40
3	Cd 226.502†	78051.9	78026.4	487.08 µg/L	487.08 ppb	19:49:40
3	Co 228.616†	39637.9	39755.2	490.78 µg/L	490.78 ppb	19:49:40
3	Cr 267.716†	62404.8	62111.3	486.33 µg/L	486.33 ppb	19:49:40
3	Cu 324.752†	128037.0	124829.0	486.61 µg/L	486.61 ppb	19:49:40
3	Mn 257.610†	397828.4	396858.6	490.82 µg/L	490.82 ppb	19:49:40
3	Mo 202.031†	16520.4	16510.1	485.66 µg/L	485.66 ppb	19:50:00
3	Ni 231.604†	42275.1	42273.8	486.75 µg/L	486.75 ppb	19:49:40
3	P 214.914†	11329.3	11326.4	2414.1 µg/L	2414.1 ppb	19:50:00
3	Pb 220.353†	8851.7	8749.0	489.94 µg/L	489.94 ppb	19:50:00
3	S 181.975 Axial†	1397.8	1290.2	962.16 µg/L	962.16 ppb	19:50:00
3	Sb 206.836†	4164.3	4075.8	485.60 µg/L	485.60 ppb	19:50:00
3	Se 196.026†	1362.5	1344.7	488 µg/L	488 ppb	19:50:00
3	SiO2†	55884.7	54006.4	5257.8 µg/L	5257.8 ppb	19:49:40
3	Si 251.611†	169043.3	167895.4	2465.6 µg/L	2465.6 ppb	19:49:40
3	Sn 189.927†	7803.9	7790.6	487.31 µg/L	487.31 ppb	19:50:00
3	Ti 334.940†	525263.4	523343.7	488.32 µg/L	488.32 ppb	19:49:40
3	Tl 190.801†	3853.4	3963.0	494.25 µg/L	494.25 ppb	19:50:00
3	U 409.014†	7327.8	7584.2	473.02 µg/L	473.02 ppb	19:49:40
3	V 292.402†	99734.3	99146.8	490.11 µg/L	490.11 ppb	19:49:40
3	Zn 213.857†	87677.5	86951.6	484.63 µg/L	484.63 ppb	19:49:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1711370.9	99.602	%	0.5077				0.51%
Sc RADIAL	142168.3	97.4	%	0.62				0.64%
Y 371.029	1012841.9	98.651	%	0.5119				0.52%
Ag 328.068†	130290.1	488.54	µg/L	1.538	488.54	ppb	1.538	0.31%
QC value within limits for Ag 328.068 Recovery = 97.71%								
Al 396.153Radial†	26961.6	4976.1	µg/L	25.20	4976.1	ppb	25.20	0.51%
QC value within limits for Al 396.153Radial Recovery = 99.52%								
As 188.979†	1612.2	494.63	µg/L	4.004	494.63	ppb	4.004	0.81%
QC value within limits for As 188.979 Recovery = 98.93%								
B 249.677†	32660.4	479.98	µg/L	2.326	479.98	ppb	2.326	0.48%
QC value within limits for B 249.677 Recovery = 96.00%								
Ba 233.527†	120909.3	487.62	µg/L	1.439	487.62	ppb	1.439	0.30%
QC value within limits for Ba 233.527 Recovery = 97.52%								
Be 313.107†	1799771.3	490.18	µg/L	1.233	490.18	ppb	1.233	0.25%
QC value within limits for Be 313.107 Recovery = 98.04%								
Ca 317.933Radial†	88532.0	4931.6	µg/L	7.16	4931.6	ppb	7.16	0.15%
QC value within limits for Ca 317.933Radial Recovery = 98.63%								
Cd 226.502†	77848.2	485.96	µg/L	1.986	485.96	ppb	1.986	0.41%
QC value within limits for Cd 226.502 Recovery = 97.19%								
Co 228.616†	39685.3	489.91	µg/L	1.497	489.91	ppb	1.497	0.31%

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   QC value within limits for Co 228.616  Recovery = 97.98%
Cr 267.716†            61952.0      485.07 µg/L        1.718      485.07 ppb        1.718   0.35%
   QC value within limits for Cr 267.716  Recovery = 97.01%
Cu 324.752†           124714.6      486.17 µg/L        0.662      486.17 ppb        0.662   0.14%
   QC value within limits for Cu 324.752  Recovery = 97.23%
Fe 238.204 Radial†     79253.2      4884.7 µg/L         4.22      4884.7 ppb         4.22   0.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.69%
K 766.490 Radial†      13322.5      4873.5 µg/L        65.48      4873.5 ppb        65.48   1.34%
   QC value within limits for K 766.490 Radial  Recovery = 97.47%
Mg 279.077 IEC†        13400.2      5000.4 µg/L        37.28      5000.4 ppb        37.28   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.01%
Mn 257.610†           396229.4      490.04 µg/L        1.761      490.04 ppb        1.761   0.36%
   QC value within limits for Mn 257.610  Recovery = 98.01%
Mo 202.031†            16516.9      485.86 µg/L        1.472      485.86 ppb        1.472   0.30%
   QC value within limits for Mo 202.031  Recovery = 97.17%
Na 589.592 Radial†     71265.4      9731.4 µg/L        14.79      9731.4 ppb        14.79   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 97.31%
Ni 231.604†            42289.2      486.93 µg/L        0.902      486.93 ppb        0.902   0.19%
   QC value within limits for Ni 231.604  Recovery = 97.39%
P 214.914†             11324.5      2413.7 µg/L         8.72      2413.7 ppb         8.72   0.36%
   QC value within limits for P 214.914  Recovery = 96.55%
Pb 220.353†             8750.6      490.02 µg/L        2.885      490.02 ppb        2.885   0.59%
   QC value within limits for Pb 220.353  Recovery = 98.00%
S 181.975 Axial†        1292.9      964.20 µg/L        5.551      964.20 ppb        5.551   0.58%
   QC value within limits for S 181.975 Axial  Recovery = 96.42%
Sb 206.836†             4075.8      485.62 µg/L        2.784      485.62 ppb        2.784   0.57%
   QC value within limits for Sb 206.836  Recovery = 97.12%
Se 196.026†             1343.6         488 µg/L          2.8         488 ppb          2.8   0.57%
   QC value within limits for Se 196.026  Recovery = 97.58%
SiO2†                  54001.3      5257.4 µg/L         8.20      5257.4 ppb         8.20   0.16%
   QC value within limits for SiO2  Recovery = 98.31%
Si 251.611†           167701.8      2462.7 µg/L         4.98      2462.7 ppb         4.98   0.20%
   QC value within limits for Si 251.611  Recovery = 98.51%
Sn 189.927†             7776.0      486.40 µg/L        1.771      486.40 ppb        1.771   0.36%
   QC value within limits for Sn 189.927  Recovery = 97.28%
Sr 421.552†           235340.1      489.22 µg/L        5.882      489.22 ppb        5.882   1.20%
   QC value within limits for Sr 421.552  Recovery = 97.84%
Ti 334.940†           522769.4      487.78 µg/L        0.949      487.78 ppb        0.949   0.19%
   QC value within limits for Ti 334.940  Recovery = 97.56%
Tl 190.801†             3964.8      494.46 µg/L        1.233      494.46 ppb        1.233   0.25%
   QC value within limits for Tl 190.801  Recovery = 98.89%
U 409.014†              7738.5      482.00 µg/L       10.196      482.00 ppb       10.196   2.12%
   QC value within limits for U 409.014  Recovery = 96.40%
V 292.402†             99029.6      489.54 µg/L        1.192      489.54 ppb        1.192   0.24%
   QC value within limits for V 292.402  Recovery = 97.91%
Zn 213.857†            86736.0      483.41 µg/L        1.671      483.41 ppb        1.671   0.35%
   QC value within limits for Zn 213.857  Recovery = 96.68%
All analyte(s) passed QC.
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Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:50:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143600.6	143600.6	98.4	%			19:50:37
1	Al 396.153Radial†	-51.1	11.3	2.1044	µg/L	2.1044	ppb	19:50:57
1	Ca 317.933Radial†	586.6	35.5	1.9797	µg/L	1.9797	ppb	19:50:57
1	Fe 238.204 Radial†	144.0	-1.8	-0.1088	µg/L	-0.1088	ppb	19:50:57
1	K 766.490 Radial†	1486.8	-33.9	-12.412	µg/L	-12.412	ppb	19:50:37
1	Mg 279.077 IEC†	173.5	-14.4	-5.3870	µg/L	-5.3870	ppb	19:50:57
1	Na 589.592 Radial†	1458.3	191.2	26.130	µg/L	26.130	ppb	19:50:37
1	Sr 421.552†	-289.3	-158.8	-0.3301	µg/L	-0.3301	ppb	19:50:37
1	Sc 361.383	1727301.6	1727301.6	100.53	%			19:51:45
1	Y 371.029	1033229.5	1033229.5	100.64	%			19:51:45
1	Ag 328.068†	3918.0	-194.0	-0.7232	µg/L	-0.7232	ppb	19:51:47
1	As 188.979†	-11.4	9.0	2.7325	µg/L	2.7325	ppb	19:52:07
1	B 249.677†	3507.2	-17.2	-0.2546	µg/L	-0.2546	ppb	19:52:07
1	Ba 233.527†	-159.6	-22.9	-0.0923	µg/L	-0.0923	ppb	19:52:07
1	Be 313.107†	-960.5	109.3	0.0290	µg/L	0.0290	ppb	19:51:47
1	Cd 226.502†	-87.8	30.8	0.1926	µg/L	0.1926	ppb	19:52:07
1	Co 228.616†	-159.6	31.5	0.3887	µg/L	0.3887	ppb	19:52:07
1	Cr 267.716†	221.5	41.8	0.3292	µg/L	0.3292	ppb	19:52:07
1	Cu 324.752†	2909.7	-77.8	-0.3046	µg/L	-0.3046	ppb	19:51:47
1	Mn 257.610†	275.7	37.0	0.0460	µg/L	0.0460	ppb	19:52:07
1	Mo 202.031†	-30.5	-10.3	-0.3033	µg/L	-0.3033	ppb	19:52:07
1	Ni 231.604†	-82.7	-5.8	-0.0664	µg/L	-0.0664	ppb	19:52:07
1	P 214.914†	-17.8	0.3	0.0611	µg/L	0.0611	ppb	19:52:07
1	Pb 220.353†	92.7	5.8	0.3254	µg/L	0.3254	ppb	19:52:07
1	S 181.975 Axial†	92.1	-13.5	-10.016	µg/L	-10.016	ppb	19:52:07
1	Sb 206.836†	70.2	-11.0	-1.3187	µg/L	-1.3187	ppb	19:52:07
1	Se 196.026†	23.8	8.4	3.03	µg/L	3.03	ppb	19:52:07
1	SiO2†	1746.0	-38.6	-3.7620	µg/L	-3.7620	ppb	19:52:07
1	Si 251.611†	804.0	-36.7	-0.5381	µg/L	-0.5381	ppb	19:51:47
1	Sn 189.927†	-0.2	0.9	0.0546	µg/L	0.0546	ppb	19:52:07
1	Ti 334.940†	954.9	-2.7	-0.0011	µg/L	-0.0011	ppb	19:51:47
1	Tl 190.801†	-118.5	-1.2	-0.1445	µg/L	-0.1445	ppb	19:52:07
1	U 409.014†	-315.9	-44.3	-2.6009	µg/L	-2.6009	ppb	19:51:47
1	V 292.402†	377.6	-28.1	-0.1408	µg/L	-0.1408	ppb	19:51:47
1	Zn 213.857†	598.1	30.5	0.1719	µg/L	0.1719	ppb	19:52:07
2	Sc RADIAL	143131.7	143131.7	98.1	%			19:50:59
2	Al 396.153Radial†	-32.2	30.3	5.6296	µg/L	5.6296	ppb	19:51:19
2	Ca 317.933Radial†	576.7	27.4	1.5269	µg/L	1.5269	ppb	19:51:19
2	Fe 238.204 Radial†	158.7	13.7	0.8423	µg/L	0.8423	ppb	19:51:19
2	K 766.490 Radial†	1675.4	163.4	59.819	µg/L	59.819	ppb	19:50:59
2	Mg 279.077 IEC†	212.3	25.7	9.5785	µg/L	9.5785	ppb	19:51:19
2	Na 589.592 Radial†	1429.9	167.0	22.764	µg/L	22.764	ppb	19:50:59
2	Sr 421.552†	-273.0	-143.1	-0.2975	µg/L	-0.2975	ppb	19:50:59
2	Sc 361.383	1718494.8	1718494.8	100.02	%			19:52:09
2	Y 371.029	1028699.8	1028699.8	100.20	%			19:52:09
2	Ag 328.068†	4047.8	-44.2	-0.1507	µg/L	-0.1507	ppb	19:52:11
2	As 188.979†	-18.3	2.1	0.6206	µg/L	0.6206	ppb	19:52:32
2	B 249.677†	3519.8	13.3	0.1962	µg/L	0.1962	ppb	19:52:32
2	Ba 233.527†	-147.0	-11.2	-0.0449	µg/L	-0.0449	ppb	19:52:32
2	Be 313.107†	-767.5	297.4	0.0836	µg/L	0.0836	ppb	19:52:11
2	Cd 226.502†	-96.5	21.7	0.1357	µg/L	0.1357	ppb	19:52:32
2	Co 228.616†	-176.2	14.1	0.1739	µg/L	0.1739	ppb	19:52:32
2	Cr 267.716†	180.3	1.7	0.0063	µg/L	0.0063	ppb	19:52:32
2	Cu 324.752†	2889.0	-83.7	-0.3176	µg/L	-0.3176	ppb	19:52:11
2	Mn 257.610†	264.9	27.6	0.0338	µg/L	0.0338	ppb	19:52:32
2	Mo 202.031†	-22.6	-2.5	-0.0728	µg/L	-0.0728	ppb	19:52:32
2	Ni 231.604†	-57.5	19.1	0.2195	µg/L	0.2195	ppb	19:52:32
2	P 214.914†	4.9	22.9	4.9039	µg/L	4.9039	ppb	19:52:32
2	Pb 220.353†	90.9	4.5	0.2430	µg/L	0.2430	ppb	19:52:32

2	S 181.975 Axial†	92.8	-12.3	-9.1413 µg/L	-9.1413 ppb	19:52:32
2	Sb 206.836†	91.0	10.1	1.2060 µg/L	1.2060 ppb	19:52:32
2	Se 196.026†	23.4	8.1	2.95 µg/L	2.95 ppb	19:52:32
2	SiO2†	1770.3	-5.4	-0.5347 µg/L	-0.5347 ppb	19:52:32
2	Si 251.611†	816.5	-20.2	-0.3025 µg/L	-0.3025 ppb	19:52:11
2	Sn 189.927†	13.1	14.3	0.8887 µg/L	0.8887 ppb	19:52:32
2	Ti 334.940†	824.8	-127.9	-0.1238 µg/L	-0.1238 ppb	19:52:11
2	Tl 190.801†	-110.8	5.9	0.7247 µg/L	0.7247 ppb	19:52:32
2	U 409.014†	-118.9	151.0	8.8426 µg/L	8.8426 ppb	19:52:11
2	V 292.402†	441.7	37.8	0.1896 µg/L	0.1896 ppb	19:52:11
2	Zn 213.857†	569.1	4.5	0.0243 µg/L	0.0243 ppb	19:52:32
3	Sc RADIAL	142404.0	142404.0	97.6 %		19:51:21
3	Al 396.153Radial†	-37.8	24.5	4.5543 µg/L	4.5543 ppb	19:51:41
3	Ca 317.933Radial†	603.4	57.8	3.2194 µg/L	3.2194 ppb	19:51:41
3	Fe 238.204 Radial†	154.3	10.0	0.6188 µg/L	0.6188 ppb	19:51:41
3	K 766.490 Radial†	1584.3	78.7	28.824 µg/L	28.824 ppb	19:51:21
3	Mg 279.077 IEC†	168.4	-18.1	-6.7588 µg/L	-6.7588 ppb	19:51:41
3	Na 589.592 Radial†	1217.4	-43.3	-5.9413 µg/L	-5.9413 ppb	19:51:21
3	Sr 421.552†	-213.0	-83.0	-0.1726 µg/L	-0.1726 ppb	19:51:21
3	Sc 361.383	1725113.7	1725113.7	100.40 %		19:52:34
3	Y 371.029	1032434.0	1032434.0	100.56 %		19:52:34
3	Ag 328.068†	4136.4	28.4	0.1103 µg/L	0.1103 ppb	19:52:36
3	As 188.979†	-21.2	-0.8	-0.2286 µg/L	-0.2286 ppb	19:52:56
3	B 249.677†	3487.8	-32.0	-0.4730 µg/L	-0.4730 ppb	19:52:56
3	Ba 233.527†	-148.1	-11.7	-0.0471 µg/L	-0.0471 ppb	19:52:56
3	Be 313.107†	-958.9	109.7	0.0307 µg/L	0.0307 ppb	19:52:36
3	Cd 226.502†	-100.1	18.5	0.1156 µg/L	0.1156 ppb	19:52:56
3	Co 228.616†	-181.7	9.3	0.1151 µg/L	0.1151 ppb	19:52:56
3	Cr 267.716†	179.3	-0.0	-0.0022 µg/L	-0.0022 ppb	19:52:56
3	Cu 324.752†	2944.1	-39.9	-0.1527 µg/L	-0.1527 ppb	19:52:36
3	Mn 257.610†	258.6	20.3	0.0254 µg/L	0.0254 ppb	19:52:56
3	Mo 202.031†	-33.3	-13.1	-0.3839 µg/L	-0.3839 ppb	19:52:56
3	Ni 231.604†	-89.6	-12.8	-0.1471 µg/L	-0.1471 ppb	19:52:56
3	P 214.914†	-5.5	12.5	2.6899 µg/L	2.6899 ppb	19:52:56
3	Pb 220.353†	86.1	-0.6	-0.0367 µg/L	-0.0367 ppb	19:52:56
3	S 181.975 Axial†	105.1	-0.4	-0.3195 µg/L	-0.3195 ppb	19:52:56
3	Sb 206.836†	78.4	-2.7	-0.3234 µg/L	-0.3234 ppb	19:52:56
3	Se 196.026†	32.5	17.1	6.18 µg/L	6.18 ppb	19:52:56
3	SiO2†	1714.4	-67.8	-6.6340 µg/L	-6.6340 ppb	19:52:56
3	Si 251.611†	948.1	107.7	1.5850 µg/L	1.5850 ppb	19:52:36
3	Sn 189.927†	18.5	19.5	1.2178 µg/L	1.2178 ppb	19:52:56
3	Ti 334.940†	1054.7	98.0	0.0910 µg/L	0.0910 ppb	19:52:36
3	Tl 190.801†	-105.2	11.9	1.4675 µg/L	1.4675 ppb	19:52:56
3	U 409.014†	-221.6	49.1	2.8801 µg/L	2.8801 ppb	19:52:36
3	V 292.402†	431.8	26.3	0.1262 µg/L	0.1262 ppb	19:52:36
3	Zn 213.857†	567.6	1.0	0.0065 µg/L	0.0065 ppb	19:52:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1723636.7	100.32	%	0.267				0.27%
Sc RADIAL	143045.4	98.0	%	0.41				0.42%
Y 371.029	1031454.4	100.46	%	0.236				0.23%
Ag 328.068†	-69.9	-0.2546	µg/L	0.42634	-0.2546	ppb	0.42634	167.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	22.0	4.0961	µg/L	1.80672	4.0961	ppb	1.80672	44.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.4	1.0415	µg/L	1.52480	1.0415	ppb	1.52480	146.41%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-12.0	-0.1771	µg/L	0.34126	-0.1771	ppb	0.34126	192.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-15.2	-0.0614	µg/L	0.02676	-0.0614	ppb	0.02676	43.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	172.1	0.0478	µg/L	0.03107	0.0478	ppb	0.03107	65.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	40.2	2.2420	µg/L	0.87622	2.2420	ppb	0.87622	39.08%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.7	0.1480	µg/L	0.03996	0.1480	ppb	0.03996	27.01%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.3	0.2259	µg/L	0.14405	0.2259	ppb	0.14405	63.76%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.5      0.1111 µg/L       0.18892      0.1111 ppb        0.18892 170.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -67.1     -0.2583 µg/L       0.09167     -0.2583 ppb        0.09167  35.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        7.3      0.4508 µg/L       0.49733      0.4508 ppb        0.49733 110.33%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        69.4      25.411 µg/L       36.2364      25.411 ppb        36.2364 142.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.3     -0.8557 µg/L       9.06232     -0.8557 ppb        9.06232 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              28.3      0.0350 µg/L       0.01036      0.0350 ppb        0.01036  29.56%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -8.6     -0.2533 µg/L       0.16143     -0.2533 ppb        0.16143  63.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      105.0      14.318 µg/L       17.6253      14.318 ppb        17.6253 123.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.2      0.0020 µg/L       0.19262      0.0020 ppb        0.19262 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               11.9      2.5516 µg/L       2.42435      2.5516 ppb        2.42435  95.01%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               3.2      0.1772 µg/L       0.18975      0.1772 ppb        0.18975 107.07%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -8.7     -6.4924 µg/L       5.36374     -6.4924 ppb        5.36374  82.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.2     -0.1454 µg/L       1.27176     -0.1454 ppb        1.27176 874.71%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              11.2        4.05 µg/L         1.843        4.05 ppb          1.843  45.47%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -37.2     -3.6436 µg/L       3.05138     -3.6436 ppb        3.05138  83.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              16.9      0.2481 µg/L       1.16372      0.2481 ppb        1.16372 469.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              11.6      0.7204 µg/L       0.59961      0.7204 ppb        0.59961  83.23%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -128.3     -0.2667 µg/L       0.08309     -0.2667 ppb        0.08309  31.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -10.9     -0.0113 µg/L       0.10776     -0.0113 ppb        0.10776 953.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.6      0.6826 µg/L       0.80682      0.6826 ppb        0.80682 118.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               51.9      3.0406 µg/L       5.72342      3.0406 ppb        5.72342 188.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               12.0      0.0584 µg/L       0.17533      0.0584 ppb        0.17533 300.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              12.0      0.0676 µg/L       0.09081      0.0676 ppb        0.09081 134.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 20:18:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143153.1	143153.1	98.1	%			20:19:22
1	Al 396.153Radial†	26168.1	26738.9	4934.8	µg/L	4934.8	ppb	20:19:22
1	Ca 317.933Radial†	87812.2	88954.8	4955.1	µg/L	4955.1	ppb	20:19:22
1	Fe 238.204 Radial†	78188.9	79557.4	4903.4	µg/L	4903.4	ppb	20:19:22
1	K 766.490 Radial†	14678.9	13418.9	4908.8	µg/L	4908.8	ppb	20:19:22
1	Mg 279.077 IEC†	13438.9	13508.9	5040.9	µg/L	5040.9	ppb	20:19:22
1	Na 589.592 Radial†	71303.4	71395.6	9749.1	µg/L	9749.1	ppb	20:19:22
1	Sr 421.552†	231815.5	236447.2	491.52	µg/L	491.52	ppb	20:19:20
1	Sc 361.383	1733210.9	1733210.9	100.87	%			20:19:49
1	Y 371.029	1024566.6	1024566.6	99.793	%			20:19:49
1	Ag 328.068†	135811.2	130544.9	489.48	µg/L	489.48	ppb	20:19:49
1	As 188.979†	1620.4	1626.8	499.06	µg/L	499.06	ppb	20:20:09
1	B 249.677†	36886.7	33061.7	485.90	µg/L	485.90	ppb	20:19:49
1	Ba 233.527†	122122.4	121201.8	488.80	µg/L	488.80	ppb	20:19:49
1	Be 313.107†	1820796.8	1806110.5	491.91	µg/L	491.91	ppb	20:19:49
1	Cd 226.502†	79174.4	78607.7	490.71	µg/L	490.71	ppb	20:19:49
1	Co 228.616†	39967.4	39811.9	491.48	µg/L	491.48	ppb	20:19:49
1	Cr 267.716†	62802.0	62080.2	486.08	µg/L	486.08	ppb	20:19:49
1	Cu 324.752†	129193.6	125103.8	487.69	µg/L	487.69	ppb	20:19:49
1	Mn 257.610†	400949.3	397243.5	491.30	µg/L	491.30	ppb	20:19:49
1	Mo 202.031†	16640.3	16516.4	485.85	µg/L	485.85	ppb	20:20:09
1	Ni 231.604†	42932.4	42637.5	490.94	µg/L	490.94	ppb	20:19:49
1	P 214.914†	11516.5	11434.8	2437.3	µg/L	2437.3	ppb	20:20:09
1	Pb 220.353†	8939.2	8775.5	491.41	µg/L	491.41	ppb	20:20:09
1	S 181.975 Axial†	1432.0	1314.6	980.26	µg/L	980.26	ppb	20:20:09
1	Sb 206.836†	4200.0	4082.8	486.45	µg/L	486.45	ppb	20:20:09
1	Se 196.026†	1380.3	1353.0	491	µg/L	491	ppb	20:20:09
1	SiO2†	56585.0	54320.2	5288.5	µg/L	5288.5	ppb	20:19:49
1	Si 251.611†	171480.3	169160.3	2484.2	µg/L	2484.2	ppb	20:19:49
1	Sn 189.927†	7899.9	7832.7	489.93	µg/L	489.93	ppb	20:20:09
1	Ti 334.940†	528670.3	523144.4	488.13	µg/L	488.13	ppb	20:19:49
1	Tl 190.801†	3879.4	3962.5	494.19	µg/L	494.19	ppb	20:20:09
1	U 409.014†	7456.1	7661.5	477.56	µg/L	477.56	ppb	20:19:49
1	V 292.402†	100505.8	99232.6	490.53	µg/L	490.53	ppb	20:19:49
1	Zn 213.857†	88711.3	87379.4	487.00	µg/L	487.00	ppb	20:19:49
2	Sc RADIAL	145636.2	145636.2	99.8	%			20:19:26
2	Al 396.153Radial†	26516.1	26632.7	4915.0	µg/L	4915.0	ppb	20:19:26
2	Ca 317.933Radial†	89356.1	88975.7	4956.3	µg/L	4956.3	ppb	20:19:26
2	Fe 238.204 Radial†	79820.2	79833.0	4920.4	µg/L	4920.4	ppb	20:19:26
2	K 766.490 Radial†	14884.7	13369.9	4890.9	µg/L	4890.9	ppb	20:19:26
2	Mg 279.077 IEC†	13655.2	13492.0	5034.7	µg/L	5034.7	ppb	20:19:26
2	Na 589.592 Radial†	72574.2	71429.7	9753.8	µg/L	9753.8	ppb	20:19:26
2	Sr 421.552†	229556.2	230154.3	478.44	µg/L	478.44	ppb	20:19:24
2	Sc 361.383	1728845.1	1728845.1	100.62	%			20:20:12
2	Y 371.029	1022537.6	1022537.6	99.596	%			20:20:12
2	Ag 328.068†	135255.7	130332.9	488.71	µg/L	488.71	ppb	20:20:12
2	As 188.979†	1619.6	1630.0	500.04	µg/L	500.04	ppb	20:20:32
2	B 249.677†	36772.6	33040.7	485.59	µg/L	485.59	ppb	20:20:12
2	Ba 233.527†	121898.2	121284.8	489.14	µg/L	489.14	ppb	20:20:12
2	Be 313.107†	1814391.8	1804303.2	491.42	µg/L	491.42	ppb	20:20:12
2	Cd 226.502†	79019.6	78652.0	490.98	µg/L	490.98	ppb	20:20:12
2	Co 228.616†	39865.2	39810.5	491.46	µg/L	491.46	ppb	20:20:12
2	Cr 267.716†	62636.0	62072.4	486.01	µg/L	486.01	ppb	20:20:12
2	Cu 324.752†	128465.8	124703.9	486.15	µg/L	486.15	ppb	20:20:12
2	Mn 257.610†	400168.4	397471.3	491.58	µg/L	491.58	ppb	20:20:12
2	Mo 202.031†	16701.4	16618.8	488.86	µg/L	488.86	ppb	20:20:32
2	Ni 231.604†	42806.4	42619.8	490.74	µg/L	490.74	ppb	20:20:12
2	P 214.914†	11559.5	11506.4	2452.7	µg/L	2452.7	ppb	20:20:32
2	Pb 220.353†	8967.3	8825.8	494.22	µg/L	494.22	ppb	20:20:32

2	S 181.975 Axial†	1438.1	1324.2	987.46 µg/L	987.46 ppb	20:20:32
2	Sb 206.836†	4222.2	4115.5	490.38 µg/L	490.38 ppb	20:20:32
2	Se 196.026†	1378.4	1354.7	492 µg/L	492 ppb	20:20:32
2	SiO2†	56546.5	54423.5	5298.4 µg/L	5298.4 ppb	20:20:12
2	Si 251.611†	170798.4	168911.9	2480.5 µg/L	2480.5 ppb	20:20:12
2	Sn 189.927†	7975.7	7927.8	495.86 µg/L	495.86 ppb	20:20:32
2	Ti 334.940†	527695.2	523498.9	488.46 µg/L	488.46 ppb	20:20:12
2	Tl 190.801†	3917.6	4010.2	500.05 µg/L	500.05 ppb	20:20:32
2	U 409.014†	7647.3	7870.2	489.74 µg/L	489.74 ppb	20:20:12
2	V 292.402†	100177.9	99158.3	490.21 µg/L	490.21 ppb	20:20:12
2	Zn 213.857†	88577.4	87468.5	487.50 µg/L	487.50 ppb	20:20:12
3	Sc RADIAL	145946.5	145946.5	100 %		20:19:30
3	Al 396.153Radial†	26926.1	26986.3	4980.6 µg/L	4980.6 ppb	20:19:30
3	Ca 317.933Radial†	89888.2	89317.4	4975.3 µg/L	4975.3 ppb	20:19:30
3	Fe 238.204 Radial†	79999.4	79842.2	4921.0 µg/L	4921.0 ppb	20:19:30
3	K 766.490 Radial†	15067.7	13521.2	4946.3 µg/L	4946.3 ppb	20:19:30
3	Mg 279.077 IEC†	13820.0	13627.7	5085.2 µg/L	5085.2 ppb	20:19:30
3	Na 589.592 Radial†	72903.4	71604.2	9777.6 µg/L	9777.6 ppb	20:19:30
3	Sr 421.552†	233932.9	234041.4	486.52 µg/L	486.52 ppb	20:19:28
3	Sc 361.383	1729036.7	1729036.7	100.63 %		20:20:35
3	Y 371.029	1022141.3	1022141.3	99.557 %		20:20:35
3	Ag 328.068†	135415.2	130476.4	489.24 µg/L	489.24 ppb	20:20:35
3	As 188.979†	1624.2	1634.3	501.36 µg/L	501.36 ppb	20:20:55
3	B 249.677†	36712.7	32977.1	484.65 µg/L	484.65 ppb	20:20:35
3	Ba 233.527†	121713.3	121087.6	488.34 µg/L	488.34 ppb	20:20:35
3	Be 313.107†	1816122.4	1805823.1	491.83 µg/L	491.83 ppb	20:20:35
3	Cd 226.502†	78922.7	78547.0	490.33 µg/L	490.33 ppb	20:20:35
3	Co 228.616†	39794.6	39735.9	490.54 µg/L	490.54 ppb	20:20:35
3	Cr 267.716†	62716.2	62145.2	486.58 µg/L	486.58 ppb	20:20:35
3	Cu 324.752†	128635.8	124858.6	486.75 µg/L	486.75 ppb	20:20:35
3	Mn 257.610†	399725.7	396987.2	490.98 µg/L	490.98 ppb	20:20:35
3	Mo 202.031†	16642.9	16558.8	487.09 µg/L	487.09 ppb	20:20:55
3	Ni 231.604†	42654.8	42464.4	488.95 µg/L	488.95 ppb	20:20:35
3	P 214.914†	11489.1	11435.1	2437.4 µg/L	2437.4 ppb	20:20:55
3	Pb 220.353†	8938.2	8795.9	492.55 µg/L	492.55 ppb	20:20:55
3	S 181.975 Axial†	1425.7	1311.7	978.16 µg/L	978.16 ppb	20:20:55
3	Sb 206.836†	4196.0	4088.9	487.18 µg/L	487.18 ppb	20:20:55
3	Se 196.026†	1380.4	1356.5	493 µg/L	493 ppb	20:20:55
3	SiO2†	56405.9	54277.6	5284.2 µg/L	5284.2 ppb	20:20:35
3	Si 251.611†	170675.9	168771.4	2478.4 µg/L	2478.4 ppb	20:20:35
3	Sn 189.927†	7906.9	7858.6	491.55 µg/L	491.55 ppb	20:20:55
3	Ti 334.940†	526963.4	522713.5	487.72 µg/L	487.72 ppb	20:20:35
3	Tl 190.801†	3898.2	3990.5	497.62 µg/L	497.62 ppb	20:20:55
3	U 409.014†	7622.6	7844.8	488.24 µg/L	488.24 ppb	20:20:35
3	V 292.402†	100122.2	99092.0	489.87 µg/L	489.87 ppb	20:20:35
3	Zn 213.857†	88619.8	87500.9	487.69 µg/L	487.69 ppb	20:20:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1730364.2	100.71	%	0.144				0.14%
Sc RADIAL	144911.9	99.3	%	1.05				1.06%
Y 371.029	1023081.8	99.649	%	0.1267				0.13%
Ag 328.068†	130451.4	489.14	µg/L	0.396	489.14	ppb	0.396	0.08%
QC value within limits for Ag 328.068 Recovery = 97.83%								
Al 396.153Radial†	26786.0	4943.5	µg/L	33.66	4943.5	ppb	33.66	0.68%
QC value within limits for Al 396.153Radial Recovery = 98.87%								
As 188.979†	1630.4	500.15	µg/L	1.155	500.15	ppb	1.155	0.23%
QC value within limits for As 188.979 Recovery = 100.03%								
B 249.677†	33026.5	485.38	µg/L	0.648	485.38	ppb	0.648	0.13%
QC value within limits for B 249.677 Recovery = 97.08%								
Ba 233.527†	121191.4	488.76	µg/L	0.399	488.76	ppb	0.399	0.08%
QC value within limits for Ba 233.527 Recovery = 97.75%								
Be 313.107†	1805412.3	491.72	µg/L	0.263	491.72	ppb	0.263	0.05%
QC value within limits for Be 313.107 Recovery = 98.34%								
Ca 317.933Radial†	89082.6	4962.3	µg/L	11.34	4962.3	ppb	11.34	0.23%
QC value within limits for Ca 317.933Radial Recovery = 99.25%								
Cd 226.502†	78602.2	490.67	µg/L	0.330	490.67	ppb	0.330	0.07%
QC value within limits for Cd 226.502 Recovery = 98.13%								
Co 228.616†	39786.1	491.16	µg/L	0.537	491.16	ppb	0.537	0.11%

```
   QC value within limits for Co 228.616  Recovery = 98.23%
Cr 267.716†            62099.2      486.22 µg/L         0.311      486.22 ppb          0.311   0.06%
   QC value within limits for Cr 267.716  Recovery = 97.24%
Cu 324.752†           124888.8      486.86 µg/L         0.777      486.86 ppb          0.777   0.16%
   QC value within limits for Cu 324.752  Recovery = 97.37%
Fe 238.204 Radial†     79744.2      4914.9 µg/L          9.97      4914.9 ppb           9.97   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.30%
K 766.490 Radial†      13436.7      4915.3 µg/L         28.26      4915.3 ppb          28.26   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 98.31%
Mg 279.077 IEC†        13542.9      5053.6 µg/L         27.54      5053.6 ppb          27.54   0.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.07%
Mn 257.610†           397234.0      491.28 µg/L         0.301      491.28 ppb          0.301   0.06%
   QC value within limits for Mn 257.610  Recovery = 98.26%
Mo 202.031†            16564.7      487.26 µg/L         1.512      487.26 ppb          1.512   0.31%
   QC value within limits for Mo 202.031  Recovery = 97.45%
Na 589.592 Radial†     71476.5      9760.2 µg/L         15.27      9760.2 ppb          15.27   0.16%
   QC value within limits for Na 589.592 Radial  Recovery = 97.60%
Ni 231.604†            42573.9      490.21 µg/L         1.097      490.21 ppb          1.097   0.22%
   QC value within limits for Ni 231.604  Recovery = 98.04%
P 214.914†             11458.8      2442.5 µg/L          8.83      2442.5 ppb           8.83   0.36%
   QC value within limits for P 214.914  Recovery = 97.70%
Pb 220.353†             8799.1      492.73 µg/L         1.412      492.73 ppb          1.412   0.29%
   QC value within limits for Pb 220.353  Recovery = 98.55%
S 181.975 Axial†        1316.8      981.96 µg/L         4.877      981.96 ppb          4.877   0.50%
   QC value within limits for S 181.975 Axial  Recovery = 98.20%
Sb 206.836†             4095.7      488.00 µg/L         2.090      488.00 ppb          2.090   0.43%
   QC value within limits for Sb 206.836  Recovery = 97.60%
Se 196.026†             1354.7         492 µg/L           0.6         492 ppb            0.6   0.13%
   QC value within limits for Se 196.026  Recovery = 98.38%
SiO2†                  54340.4      5290.4 µg/L          7.26      5290.4 ppb           7.26   0.14%
   QC value within limits for SiO2  Recovery = 98.93%
Si 251.611†           168947.8      2481.0 µg/L          2.92      2481.0 ppb           2.92   0.12%
   QC value within limits for Si 251.611  Recovery = 99.24%
Sn 189.927†             7873.0      492.45 µg/L         3.064      492.45 ppb          3.064   0.62%
   QC value within limits for Sn 189.927  Recovery = 98.49%
Sr 421.552†           233547.6      485.49 µg/L         6.601      485.49 ppb          6.601   1.36%
   QC value within limits for Sr 421.552  Recovery = 97.10%
Ti 334.940†           523118.9      488.10 µg/L         0.369      488.10 ppb          0.369   0.08%
   QC value within limits for Ti 334.940  Recovery = 97.62%
Tl 190.801†             3987.7      497.29 µg/L         2.942      497.29 ppb          2.942   0.59%
   QC value within limits for Tl 190.801  Recovery = 99.46%
U 409.014†              7792.1      485.18 µg/L         6.641      485.18 ppb          6.641   1.37%
   QC value within limits for U 409.014  Recovery = 97.04%
V 292.402†             99160.9      490.20 µg/L         0.333      490.20 ppb          0.333   0.07%
   QC value within limits for V 292.402  Recovery = 98.04%
Zn 213.857†            87449.6      487.40 µg/L         0.359      487.40 ppb          0.359   0.07%
   QC value within limits for Zn 213.857  Recovery = 97.48%
All analyte(s) passed QC.
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Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 20:21:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146174.9	146174.9	100	%			20:21:32
1	Al 396.153Radial†	-79.4	-16.1	-2.9762	µg/L	-2.9762	ppb	20:21:52
1	Ca 317.933Radial†	607.9	46.3	2.5767	µg/L	2.5767	ppb	20:21:52
1	Fe 238.204 Radial†	175.5	27.1	1.6726	µg/L	1.6726	ppb	20:21:52
1	K 766.490 Radial†	1577.3	29.9	10.948	µg/L	10.948	ppb	20:21:32
1	Mg 279.077 IEC†	206.8	15.8	5.8733	µg/L	5.8733	ppb	20:21:52
1	Na 589.592 Radial†	1475.9	182.7	24.946	µg/L	24.946	ppb	20:21:32
1	Sr 421.552†	-270.2	-134.5	-0.2796	µg/L	-0.2796	ppb	20:21:32
1	Sc 361.383	1719316.1	1719316.1	100.06	%			20:22:40
1	Y 371.029	1027520.1	1027520.1	100.08	%			20:22:40
1	Ag 328.068†	3648.5	-445.2	-1.6556	µg/L	-1.6556	ppb	20:22:42
1	As 188.979†	-10.6	9.8	2.9605	µg/L	2.9605	ppb	20:23:02
1	B 249.677†	3416.1	-91.9	-1.3568	µg/L	-1.3568	ppb	20:22:42
1	Ba 233.527†	-134.2	1.8	0.0069	µg/L	0.0069	ppb	20:23:02
1	Be 313.107†	-785.4	279.8	0.0750	µg/L	0.0750	ppb	20:22:42
1	Cd 226.502†	-108.1	10.2	0.0635	µg/L	0.0635	ppb	20:23:02
1	Co 228.616†	-170.8	19.6	0.2418	µg/L	0.2418	ppb	20:23:02
1	Cr 267.716†	211.4	32.7	0.2593	µg/L	0.2593	ppb	20:23:02
1	Cu 324.752†	2952.3	-21.8	-0.0873	µg/L	-0.0873	ppb	20:22:42
1	Mn 257.610†	205.0	-32.4	-0.0403	µg/L	-0.0403	ppb	20:23:02
1	Mo 202.031†	-26.7	-6.6	-0.1949	µg/L	-0.1949	ppb	20:23:02
1	Ni 231.604†	-85.9	-9.3	-0.1075	µg/L	-0.1075	ppb	20:23:02
1	P 214.914†	-27.5	-9.5	-2.0307	µg/L	-2.0307	ppb	20:23:02
1	Pb 220.353†	49.6	-36.9	-2.0549	µg/L	-2.0549	ppb	20:23:02
1	S 181.975 Axial†	90.7	-14.4	-10.672	µg/L	-10.672	ppb	20:23:02
1	Sb 206.836†	90.3	9.4	1.1175	µg/L	1.1175	ppb	20:23:02
1	Se 196.026†	14.0	-1.3	-0.483	µg/L	-0.483	ppb	20:23:02
1	SiO2†	1815.4	38.8	3.7882	µg/L	3.7882	ppb	20:22:42
1	Si 251.611†	978.4	141.2	2.0787	µg/L	2.0787	ppb	20:22:42
1	Sn 189.927†	12.7	13.8	0.8612	µg/L	0.8612	ppb	20:23:02
1	Ti 334.940†	944.8	-8.3	-0.0067	µg/L	-0.0067	ppb	20:22:42
1	Tl 190.801†	-123.6	-6.9	-0.8478	µg/L	-0.8478	ppb	20:23:02
1	U 409.014†	-334.8	-64.7	-3.7948	µg/L	-3.7948	ppb	20:22:42
1	V 292.402†	364.6	-39.5	-0.1962	µg/L	-0.1962	ppb	20:22:42
1	Zn 213.857†	609.9	45.1	0.2536	µg/L	0.2536	ppb	20:23:02
2	Sc RADIAL	146261.6	146261.6	100	%			20:21:54
2	Al 396.153Radial†	-54.4	8.9	1.6620	µg/L	1.6620	ppb	20:22:14
2	Ca 317.933Radial†	618.8	56.9	3.1671	µg/L	3.1671	ppb	20:22:14
2	Fe 238.204 Radial†	170.1	21.6	1.3318	µg/L	1.3318	ppb	20:22:14
2	K 766.490 Radial†	1690.5	141.9	51.938	µg/L	51.938	ppb	20:21:54
2	Mg 279.077 IEC†	158.6	-32.4	-12.093	µg/L	-12.093	ppb	20:22:14
2	Na 589.592 Radial†	1436.5	142.5	19.415	µg/L	19.415	ppb	20:21:54
2	Sr 421.552†	-283.2	-147.2	-0.3061	µg/L	-0.3061	ppb	20:21:54
2	Sc 361.383	1736802.1	1736802.1	101.08	%			20:23:04
2	Y 371.029	1037454.3	1037454.3	101.05	%			20:23:04
2	Ag 328.068†	3948.2	-185.4	-0.6882	µg/L	-0.6882	ppb	20:23:06
2	As 188.979†	-24.7	-4.1	-1.2374	µg/L	-1.2374	ppb	20:23:27
2	B 249.677†	3576.8	32.6	0.4812	µg/L	0.4812	ppb	20:23:06
2	Ba 233.527†	-102.2	34.7	0.1396	µg/L	0.1396	ppb	20:23:27
2	Be 313.107†	-962.5	112.5	0.0317	µg/L	0.0317	ppb	20:23:06
2	Cd 226.502†	-108.2	11.1	0.0694	µg/L	0.0694	ppb	20:23:27
2	Co 228.616†	-196.2	-3.8	-0.0464	µg/L	-0.0464	ppb	20:23:27
2	Cr 267.716†	207.6	26.8	0.2073	µg/L	0.2073	ppb	20:23:27
2	Cu 324.752†	2974.7	-29.3	-0.1113	µg/L	-0.1113	ppb	20:23:06
2	Mn 257.610†	216.8	-22.8	-0.0277	µg/L	-0.0277	ppb	20:23:27
2	Mo 202.031†	-26.2	-5.9	-0.1726	µg/L	-0.1726	ppb	20:23:27
2	Ni 231.604†	-83.0	-5.6	-0.0648	µg/L	-0.0648	ppb	20:23:27
2	P 214.914†	-18.2	-0.1	-0.0033	µg/L	-0.0033	ppb	20:23:27
2	Pb 220.353†	96.9	9.5	0.5245	µg/L	0.5245	ppb	20:23:27

2	S 181.975 Axial†	101.1	-5.0	-3.7428 µg/L	-3.7428 ppb		20:23:27
2	Sb 206.836†	77.7	-4.0	-0.4743 µg/L	-0.4743 ppb		20:23:27
2	Se 196.026†	10.0	-5.3	-1.93 µg/L	-1.93 ppb		20:23:27
2	SiO2†	1822.3	27.5	2.6742 µg/L	2.6742 ppb		20:23:06
2	Si 251.611†	856.2	10.5	0.1497 µg/L	0.1497 ppb		20:23:06
2	Sn 189.927†	15.8	16.8	1.0464 µg/L	1.0464 ppb		20:23:27
2	Ti 334.940†	965.6	2.7	0.0021 µg/L	0.0021 ppb		20:23:06
2	Tl 190.801†	-105.1	12.7	1.5599 µg/L	1.5599 ppb		20:23:27
2	U 409.014†	-213.8	58.4	3.3839 µg/L	3.3839 ppb		20:23:06
2	V 292.402†	306.8	-100.3	-0.4881 µg/L	-0.4881 ppb		20:23:06
2	Zn 213.857†	601.0	30.1	0.1695 µg/L	0.1695 ppb		20:23:27
3	Sc RADIAL	145163.3	145163.3	99.5 %			20:22:16
3	Al 396.153Radial†	-66.5	-3.7	-0.6680 µg/L	-0.6680 ppb		20:22:36
3	Ca 317.933Radial†	599.5	42.1	2.3456 µg/L	2.3456 ppb		20:22:36
3	Fe 238.204 Radial†	160.3	13.1	0.8047 µg/L	0.8047 ppb		20:22:36
3	K 766.490 Radial†	1445.8	-91.3	-33.426 µg/L	-33.426 ppb		20:22:16
3	Mg 279.077 IEC†	163.3	-26.5	-9.9007 µg/L	-9.9007 ppb		20:22:36
3	Na 589.592 Radial†	1438.5	155.3	21.242 µg/L	21.242 ppb		20:22:16
3	Sr 421.552†	-217.7	-83.6	-0.1738 µg/L	-0.1738 ppb		20:22:16
3	Sc 361.383	1747018.8	1747018.8	101.68 %			20:23:29
3	Y 371.029	1043372.0	1043372.0	101.62 %			20:23:29
3	Ag 328.068†	3928.6	-227.6	-0.8550 µg/L	-0.8550 ppb		20:23:31
3	As 188.979†	-14.6	6.0	1.8114 µg/L	1.8114 ppb		20:23:51
3	B 249.677†	3628.2	62.5	0.9207 µg/L	0.9207 ppb		20:23:31
3	Ba 233.527†	-150.3	-11.9	-0.0482 µg/L	-0.0482 ppb		20:23:51
3	Be 313.107†	-1063.0	19.3	0.0023 µg/L	0.0023 ppb		20:23:31
3	Cd 226.502†	-104.1	15.8	0.0984 µg/L	0.0984 ppb		20:23:51
3	Co 228.616†	-183.5	9.9	0.1217 µg/L	0.1217 ppb		20:23:51
3	Cr 267.716†	179.0	-2.6	-0.0122 µg/L	-0.0122 ppb		20:23:51
3	Cu 324.752†	3108.9	85.4	0.3239 µg/L	0.3239 ppb		20:23:31
3	Mn 257.610†	215.7	-25.1	-0.0307 µg/L	-0.0307 ppb		20:23:51
3	Mo 202.031†	-32.3	-11.7	-0.3450 µg/L	-0.3450 ppb		20:23:51
3	Ni 231.604†	-84.7	-6.8	-0.0779 µg/L	-0.0779 ppb		20:23:51
3	P 214.914†	-27.0	-8.6	-1.8417 µg/L	-1.8417 ppb		20:23:51
3	Pb 220.353†	93.1	5.2	0.2966 µg/L	0.2966 ppb		20:23:51
3	S 181.975 Axial†	107.7	0.8	0.6238 µg/L	0.6238 ppb		20:23:51
3	Sb 206.836†	73.2	-8.8	-1.0551 µg/L	-1.0551 ppb		20:23:51
3	Se 196.026†	-3.4	-18.6	-6.74 µg/L	-6.74 ppb		20:23:51
3	SiO2†	1790.0	-14.9	-1.4424 µg/L	-1.4424 ppb		20:23:31
3	Si 251.611†	917.7	66.0	0.9787 µg/L	0.9787 ppb		20:23:31
3	Sn 189.927†	-2.4	-1.3	-0.0792 µg/L	-0.0792 ppb		20:23:51
3	Ti 334.940†	1230.7	257.8	0.2458 µg/L	0.2458 ppb		20:23:31
3	Tl 190.801†	-121.9	-3.2	-0.3892 µg/L	-0.3892 ppb		20:23:51
3	U 409.014†	-444.6	-167.4	-9.7866 µg/L	-9.7866 ppb		20:23:31
3	V 292.402†	407.2	-3.3	-0.0267 µg/L	-0.0267 ppb		20:23:31
3	Zn 213.857†	572.9	-1.0	-0.0054 µg/L	-0.0054 ppb		20:23:51

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1734379.0	100.94	%	0.815				0.81%
Sc RADIAL	145866.6	100.0	%	0.42				0.42%
Y 371.029	1036115.5	100.92	%	0.780				0.77%
Ag 328.068†	-286.1	-1.0663	µg/L	0.51712	-1.0663	ppb	0.51712	48.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.6	-0.6608	µg/L	2.31909	-0.6608	ppb	2.31909	350.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.9	1.1781	µg/L	2.16942	1.1781	ppb	2.16942	184.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1.0	0.0150	µg/L	1.20824	0.0150	ppb	1.20824	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.2	0.0328	µg/L	0.09650	0.0328	ppb	0.09650	294.60%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	137.2	0.0363	µg/L	0.03660	0.0363	ppb	0.03660	100.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	48.4	2.6965	µg/L	0.42361	2.6965	ppb	0.42361	15.71%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	12.4	0.0771	µg/L	0.01869	0.0771	ppb	0.01869	24.25%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.6	0.1057	µg/L	0.14474	0.1057	ppb	0.14474	136.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                19.0      0.1515 µg/L       0.14414      0.1515 ppb        0.14414  95.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                11.4      0.0418 µg/L       0.24463      0.0418 ppb        0.24463 585.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         20.6      1.2697 µg/L       0.43727      1.2697 ppb        0.43727  34.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          26.8      9.8201 µg/L      42.69298      9.8201 ppb       42.69298 434.75%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -14.4     -5.3735 µg/L       9.80148     -5.3735 ppb        9.80148 182.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -26.8     -0.0329 µg/L       0.00657     -0.0329 ppb        0.00657  19.97%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -8.1     -0.2375 µg/L       0.09374     -0.2375 ppb        0.09374  39.47%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        160.1      21.868 µg/L        2.8179      21.868 ppb         2.8179  12.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -7.2     -0.0834 µg/L       0.02187     -0.0834 ppb        0.02187  26.22%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.1     -1.2919 µg/L       1.11996     -1.2919 ppb        1.11996  86.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -7.4     -0.4112 µg/L       1.42800     -0.4112 ppb        1.42800 347.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -6.2     -4.5969 µg/L       5.69602     -4.5969 ppb        5.69602 123.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.1     -0.1373 µg/L       1.12485     -0.1373 ppb        1.12485 819.31%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -8.4      -3.05 µg/L         3.277       -3.05 ppb          3.277 107.40%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      17.1      1.6733 µg/L       2.75522      1.6733 ppb        2.75522 164.66%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                72.6      1.0690 µg/L       0.96766      1.0690 ppb        0.96766  90.52%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 9.8      0.6095 µg/L       0.60356      0.6095 ppb        0.60356  99.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -121.8     -0.2532 µg/L       0.06998     -0.2532 ppb        0.06998  27.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                84.1      0.0804 µg/L       0.14329      0.0804 ppb        0.14329 178.21%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.9      0.1076 µg/L       1.27840      0.1076 ppb        1.27840 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -57.9     -3.3992 µg/L       6.59417     -3.3992 ppb        6.59417 193.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -47.7     -0.2370 µg/L       0.23337     -0.2370 ppb        0.23337  98.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                24.7      0.1393 µg/L       0.13213      0.1393 ppb        0.13213  94.89%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 38
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 20:46:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142658.3	142658.3	97.8	%			20:47:06
1	Al 396.153Radial†	26173.0	26836.4	4953.1	µg/L	4953.1	ppb	20:47:06
1	Ca 317.933Radial†	86811.8	88242.0	4915.4	µg/L	4915.4	ppb	20:47:06
1	Fe 238.204 Radial†	77308.1	78932.9	4864.9	µg/L	4864.9	ppb	20:47:06
1	K 766.490 Radial†	14453.8	13240.4	4843.5	µg/L	4843.5	ppb	20:47:06
1	Mg 279.077 IEC†	13219.2	13331.7	4974.8	µg/L	4974.8	ppb	20:47:06
1	Na 589.592 Radial†	70981.3	71318.3	9738.6	µg/L	9738.6	ppb	20:47:06
1	Sr 421.552†	229479.6	234877.4	488.26	µg/L	488.26	ppb	20:47:04
1	Sc 361.383	1717986.8	1717986.8	99.987	%			20:47:18
1	Y 371.029	1016974.2	1016974.2	99.054	%			20:47:18
1	Ag 328.068†	133861.9	129788.4	486.66	µg/L	486.66	ppb	20:47:18
1	As 188.979†	1570.9	1591.4	488.31	µg/L	488.31	ppb	20:47:39
1	B 249.677†	35888.7	32387.7	475.97	µg/L	475.97	ppb	20:47:18
1	Ba 233.527†	120089.3	120241.3	484.93	µg/L	484.93	ppb	20:47:18
1	Be 313.107†	1788228.5	1789533.4	487.39	µg/L	487.39	ppb	20:47:18
1	Cd 226.502†	77187.6	77316.2	482.64	µg/L	482.64	ppb	20:47:18
1	Co 228.616†	39259.0	39454.6	487.07	µg/L	487.07	ppb	20:47:18
1	Cr 267.716†	61734.0	61563.8	482.03	µg/L	482.03	ppb	20:47:18
1	Cu 324.752†	127051.0	124095.8	483.76	µg/L	483.76	ppb	20:47:18
1	Mn 257.610†	394153.9	393969.6	487.25	µg/L	487.25	ppb	20:47:18
1	Mo 202.031†	16323.5	16345.7	480.82	µg/L	480.82	ppb	20:47:39
1	Ni 231.604†	42025.4	42107.6	484.84	µg/L	484.84	ppb	20:47:18
1	P 214.914†	11165.4	11184.8	2383.9	µg/L	2383.9	ppb	20:47:39
1	Pb 220.353†	8721.1	8635.9	483.61	µg/L	483.61	ppb	20:47:39
1	S 181.975 Axial†	1384.6	1279.7	954.32	µg/L	954.32	ppb	20:47:39
1	Sb 206.836†	4121.5	4041.3	481.48	µg/L	481.48	ppb	20:47:39
1	Se 196.026†	1330.1	1315.0	478	µg/L	478	ppb	20:47:39
1	SiO2†	55658.0	53890.1	5246.7	µg/L	5246.7	ppb	20:47:18
1	Si 251.611†	168475.5	167661.6	2462.2	µg/L	2462.2	ppb	20:47:18
1	Sn 189.927†	7694.7	7696.9	481.46	µg/L	481.46	ppb	20:47:39
1	Ti 334.940†	521521.0	520638.5	485.79	µg/L	485.79	ppb	20:47:18
1	Tl 190.801†	3795.7	3912.8	488.05	µg/L	488.05	ppb	20:47:39
1	U 409.014†	7470.6	7741.5	482.06	µg/L	482.06	ppb	20:47:18
1	V 292.402†	99032.8	98642.4	487.59	µg/L	487.59	ppb	20:47:18
1	Zn 213.857†	86847.2	86294.4	480.95	µg/L	480.95	ppb	20:47:18
2	Sc RADIAL	142003.0	142003.0	97.3	%			20:47:10
2	Al 396.153Radial†	25928.5	26708.7	4929.4	µg/L	4929.4	ppb	20:47:10
2	Ca 317.933Radial†	86471.0	88301.6	4918.7	µg/L	4918.7	ppb	20:47:10
2	Fe 238.204 Radial†	76877.1	78854.9	4860.1	µg/L	4860.1	ppb	20:47:10
2	K 766.490 Radial†	14481.3	13337.0	4878.8	µg/L	4878.8	ppb	20:47:10
2	Mg 279.077 IEC†	13250.2	13425.9	5009.9	µg/L	5009.9	ppb	20:47:10
2	Na 589.592 Radial†	70794.9	71461.8	9758.2	µg/L	9758.2	ppb	20:47:10
2	Sr 421.552†	230824.3	237342.5	493.38	µg/L	493.38	ppb	20:47:08
2	Sc 361.383	1705978.0	1705978.0	99.288	%			20:47:42
2	Y 371.029	1010151.3	1010151.3	98.389	%			20:47:42
2	Ag 328.068†	132428.5	129287.2	484.78	µg/L	484.78	ppb	20:47:42
2	As 188.979†	1571.4	1603.0	491.82	µg/L	491.82	ppb	20:48:02
2	B 249.677†	35678.8	32428.9	476.59	µg/L	476.59	ppb	20:47:42
2	Ba 233.527†	119061.0	120051.1	484.16	µg/L	484.16	ppb	20:47:42
2	Be 313.107†	1771852.0	1785628.8	486.33	µg/L	486.33	ppb	20:47:42
2	Cd 226.502†	76647.7	77315.8	482.64	µg/L	482.64	ppb	20:47:42
2	Co 228.616†	38849.5	39318.5	485.39	µg/L	485.39	ppb	20:47:42
2	Cr 267.716†	61408.7	61670.7	482.88	µg/L	482.88	ppb	20:47:42
2	Cu 324.752†	125575.7	123504.5	481.46	µg/L	481.46	ppb	20:47:42
2	Mn 257.610†	390410.2	392973.9	486.01	µg/L	486.01	ppb	20:47:42
2	Mo 202.031†	16220.6	16357.1	481.16	µg/L	481.16	ppb	20:48:02
2	Ni 231.604†	41645.6	42020.9	483.84	µg/L	483.84	ppb	20:47:42
2	P 214.914†	11149.7	11247.7	2397.4	µg/L	2397.4	ppb	20:48:02
2	Pb 220.353†	8713.0	8689.1	486.58	µg/L	486.58	ppb	20:48:02

2	S 181.975 Axial†	1386.6	1291.5	963.10 µg/L	963.10 ppb	20:48:02
2	Sb 206.836†	4077.2	4025.7	479.62 µg/L	479.62 ppb	20:48:02
2	Se 196.026†	1343.8	1338.2	486 µg/L	486 ppb	20:48:02
2	SiO2†	55264.2	53885.3	5246.2 µg/L	5246.2 ppb	20:47:42
2	Si 251.611†	166831.6	167191.9	2455.3 µg/L	2455.3 ppb	20:47:42
2	Sn 189.927†	7685.8	7742.0	484.27 µg/L	484.27 ppb	20:48:02
2	Ti 334.940†	517135.3	519893.0	485.10 µg/L	485.10 ppb	20:47:42
2	Tl 190.801†	3798.0	3941.9	491.62 µg/L	491.62 ppb	20:48:02
2	U 409.014†	7240.4	7562.3	471.53 µg/L	471.53 ppb	20:47:42
2	V 292.402†	98205.8	98506.6	486.93 µg/L	486.93 ppb	20:47:42
2	Zn 213.857†	85981.0	86033.4	479.49 µg/L	479.49 ppb	20:47:42
3	Sc RADIAL	143540.2	143540.2	98.4 %		20:47:14
3	Al 396.153Radial†	26297.7	26798.6	4945.9 µg/L	4945.9 ppb	20:47:14
3	Ca 317.933Radial†	87479.0	88374.7	4922.8 µg/L	4922.8 ppb	20:47:14
3	Fe 238.204 Radial†	77829.6	78977.1	4867.7 µg/L	4867.7 ppb	20:47:14
3	K 766.490 Radial†	14541.2	13238.5	4842.8 µg/L	4842.8 ppb	20:47:14
3	Mg 279.077 IEC†	13331.1	13362.3	4986.3 µg/L	4986.3 ppb	20:47:14
3	Na 589.592 Radial†	71517.8	71417.6	9752.2 µg/L	9752.2 ppb	20:47:14
3	Sr 421.552†	229529.4	233485.7	485.36 µg/L	485.36 ppb	20:47:12
3	Sc 361.383	1697774.9	1697774.9	98.810 %		20:48:05
3	Y 371.029	1005288.7	1005288.7	97.916 %		20:48:05
3	Ag 328.068†	132337.3	129839.4	486.83 µg/L	486.83 ppb	20:48:05
3	As 188.979†	1566.3	1605.5	492.60 µg/L	492.60 ppb	20:48:25
3	B 249.677†	35561.4	32483.7	477.39 µg/L	477.39 ppb	20:48:05
3	Ba 233.527†	118631.6	120195.8	484.75 µg/L	484.75 ppb	20:48:05
3	Be 313.107†	1768996.7	1791361.7	487.89 µg/L	487.89 ppb	20:48:05
3	Cd 226.502†	76298.6	77335.5	482.76 µg/L	482.76 ppb	20:48:05
3	Co 228.616†	38681.6	39337.6	485.62 µg/L	485.62 ppb	20:48:05
3	Cr 267.716†	61122.4	61679.8	482.95 µg/L	482.95 ppb	20:48:05
3	Cu 324.752†	125325.9	123862.7	482.85 µg/L	482.85 ppb	20:48:05
3	Mn 257.610†	389691.1	394146.1	487.47 µg/L	487.47 ppb	20:48:05
3	Mo 202.031†	16294.8	16511.0	485.68 µg/L	485.68 ppb	20:48:25
3	Ni 231.604†	41366.1	41940.7	482.92 µg/L	482.92 ppb	20:48:05
3	P 214.914†	11228.3	11381.4	2426.0 µg/L	2426.0 ppb	20:48:25
3	Pb 220.353†	8735.3	8754.1	490.22 µg/L	490.22 ppb	20:48:25
3	S 181.975 Axial†	1387.1	1298.7	968.51 µg/L	968.51 ppb	20:48:25
3	Sb 206.836†	4142.3	4111.4	489.88 µg/L	489.88 ppb	20:48:25
3	Se 196.026†	1325.9	1326.6	482 µg/L	482 ppb	20:48:25
3	SiO2†	55019.2	53906.4	5248.0 µg/L	5248.0 ppb	20:48:05
3	Si 251.611†	166054.7	167217.6	2455.6 µg/L	2455.6 ppb	20:48:05
3	Sn 189.927†	7713.9	7807.9	488.38 µg/L	488.38 ppb	20:48:25
3	Ti 334.940†	515323.4	520575.8	485.74 µg/L	485.74 ppb	20:48:05
3	Tl 190.801†	3789.8	3952.1	492.88 µg/L	492.88 ppb	20:48:25
3	U 409.014†	7240.2	7597.3	473.61 µg/L	473.61 ppb	20:48:05
3	V 292.402†	97793.8	98567.5	487.28 µg/L	487.28 ppb	20:48:05
3	Zn 213.857†	85880.1	86349.8	481.27 µg/L	481.27 ppb	20:48:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1707246.6	99.361	%	0.5916				0.60%
Sc RADIAL	142733.8	97.8	%	0.53				0.54%
Y 371.029	1010804.8	98.453	%	0.5717				0.58%
Ag 328.068†	129638.4	486.09	µg/L	1.137	486.09	ppb	1.137	0.23%
QC value within limits for Ag 328.068 Recovery = 97.22%								
Al 396.153Radial†	26781.2	4942.8	µg/L	12.14	4942.8	ppb	12.14	0.25%
QC value within limits for Al 396.153Radial Recovery = 98.86%								
As 188.979†	1600.0	490.91	µg/L	2.283	490.91	ppb	2.283	0.47%
QC value within limits for As 188.979 Recovery = 98.18%								
B 249.677†	32433.4	476.65	µg/L	0.713	476.65	ppb	0.713	0.15%
QC value within limits for B 249.677 Recovery = 95.33%								
Ba 233.527†	120162.7	484.61	µg/L	0.401	484.61	ppb	0.401	0.08%
QC value within limits for Ba 233.527 Recovery = 96.92%								
Be 313.107†	1788841.3	487.20	µg/L	0.798	487.20	ppb	0.798	0.16%
QC value within limits for Be 313.107 Recovery = 97.44%								
Ca 317.933Radial†	88306.1	4919.0	µg/L	3.70	4919.0	ppb	3.70	0.08%
QC value within limits for Ca 317.933Radial Recovery = 98.38%								
Cd 226.502†	77322.5	482.68	µg/L	0.070	482.68	ppb	0.070	0.01%
QC value within limits for Cd 226.502 Recovery = 96.54%								
Co 228.616†	39370.2	486.02	µg/L	0.909	486.02	ppb	0.909	0.19%

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   QC value within limits for Co 228.616  Recovery = 97.20%
Cr 267.716†            61638.1      482.62 µg/L         0.509      482.62 ppb          0.509   0.11%
   QC value within limits for Cr 267.716  Recovery = 96.52%
Cu 324.752†           123821.0      482.69 µg/L         1.162      482.69 ppb          1.162   0.24%
   QC value within limits for Cu 324.752  Recovery = 96.54%
Fe 238.204 Radial†     78921.6      4864.2 µg/L          3.82      4864.2 ppb           3.82   0.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.28%
K 766.490 Radial†      13272.0      4855.1 µg/L         20.61      4855.1 ppb          20.61   0.42%
   QC value within limits for K 766.490 Radial  Recovery = 97.10%
Mg 279.077 IEC†        13373.3      4990.3 µg/L         17.90      4990.3 ppb          17.90   0.36%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.81%
Mn 257.610†           393696.5      486.91 µg/L         0.783      486.91 ppb          0.783   0.16%
   QC value within limits for Mn 257.610  Recovery = 97.38%
Mo 202.031†            16404.6      482.56 µg/L         2.714      482.56 ppb          2.714   0.56%
   QC value within limits for Mo 202.031  Recovery = 96.51%
Na 589.592 Radial†     71399.2      9749.7 µg/L         10.02      9749.7 ppb          10.02   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 97.50%
Ni 231.604†            42023.1      483.87 µg/L         0.961      483.87 ppb          0.961   0.20%
   QC value within limits for Ni 231.604  Recovery = 96.77%
P 214.914†             11271.3      2402.4 µg/L         21.48      2402.4 ppb          21.48   0.89%
   QC value within limits for P 214.914  Recovery = 96.10%
Pb 220.353†             8693.1      486.80 µg/L         3.313      486.80 ppb          3.313   0.68%
   QC value within limits for Pb 220.353  Recovery = 97.36%
S 181.975 Axial†        1290.0      961.98 µg/L         7.160      961.98 ppb          7.160   0.74%
   QC value within limits for S 181.975 Axial  Recovery = 96.20%
Sb 206.836†             4059.4      483.66 µg/L         5.466      483.66 ppb          5.466   1.13%
   QC value within limits for Sb 206.836  Recovery = 96.73%
Se 196.026†             1326.6         482 µg/L           4.2         482 ppb            4.2   0.87%
   QC value within limits for Se 196.026  Recovery = 96.34%
SiO2†                  53893.9      5247.0 µg/L          0.96      5247.0 ppb           0.96   0.02%
   QC value within limits for SiO2  Recovery = 98.12%
Si 251.611†           167357.0      2457.7 µg/L          3.93      2457.7 ppb           3.93   0.16%
   QC value within limits for Si 251.611  Recovery = 98.31%
Sn 189.927†             7748.9      484.70 µg/L         3.480      484.70 ppb          3.480   0.72%
   QC value within limits for Sn 189.927  Recovery = 96.94%
Sr 421.552†           235235.2      489.00 µg/L         4.060      489.00 ppb          4.060   0.83%
   QC value within limits for Sr 421.552  Recovery = 97.80%
Ti 334.940†           520369.1      485.54 µg/L         0.386      485.54 ppb          0.386   0.08%
   QC value within limits for Ti 334.940  Recovery = 97.11%
Tl 190.801†             3935.6      490.85 µg/L         2.502      490.85 ppb          2.502   0.51%
   QC value within limits for Tl 190.801  Recovery = 98.17%
U 409.014†              7633.7      475.73 µg/L         5.576      475.73 ppb          5.576   1.17%
   QC value within limits for U 409.014  Recovery = 95.15%
V 292.402†             98572.2      487.27 µg/L         0.331      487.27 ppb          0.331   0.07%
   QC value within limits for V 292.402  Recovery = 97.45%
Zn 213.857†            86225.9      480.57 µg/L         0.949      480.57 ppb          0.949   0.20%
   QC value within limits for Zn 213.857  Recovery = 96.11%
All analyte(s) passed QC.
```

Sequence No.: 39
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 20:48:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143100.4	143100.4	98.1	%			20:49:01
1	Al 396.153Radial†	-68.2	-6.4	-1.1706	µg/L	-1.1706	ppb	20:49:21
1	Ca 317.933Radial†	633.3	85.2	4.7476	µg/L	4.7476	ppb	20:49:21
1	Fe 238.204 Radial†	162.0	17.1	1.0551	µg/L	1.0551	ppb	20:49:21
1	K 766.490 Radial†	1505.7	-9.3	-3.4148	µg/L	-3.4148	ppb	20:49:01
1	Mg 279.077 IEC†	188.6	1.6	0.6053	µg/L	0.6053	ppb	20:49:21
1	Na 589.592 Radial†	1635.8	377.3	51.550	µg/L	51.550	ppb	20:49:01
1	Sr 421.552†	-135.1	-2.5	-0.0052	µg/L	-0.0052	ppb	20:49:01
1	Sc 361.383	1714287.6	1714287.6	99.771	%			20:50:09
1	Y 371.029	1025603.7	1025603.7	99.894	%			20:50:09
1	Ag 328.068†	3929.0	-153.4	-0.5739	µg/L	-0.5739	ppb	20:50:11
1	As 188.979†	-14.7	5.7	1.7126	µg/L	1.7126	ppb	20:50:31
1	B 249.677†	3483.3	-14.6	-0.2161	µg/L	-0.2161	ppb	20:50:31
1	Ba 233.527†	-124.6	11.0	0.0445	µg/L	0.0445	ppb	20:50:31
1	Be 313.107†	-819.1	243.7	0.0640	µg/L	0.0640	ppb	20:50:11
1	Cd 226.502†	-96.3	21.7	0.1352	µg/L	0.1352	ppb	20:50:31
1	Co 228.616†	-181.4	8.5	0.1049	µg/L	0.1049	ppb	20:50:31
1	Cr 267.716†	159.9	-18.3	-0.1371	µg/L	-0.1371	ppb	20:50:31
1	Cu 324.752†	2837.6	-128.1	-0.5041	µg/L	-0.5041	ppb	20:50:11
1	Mn 257.610†	255.9	19.2	0.0238	µg/L	0.0238	ppb	20:50:31
1	Mo 202.031†	-30.3	-10.3	-0.3020	µg/L	-0.3020	ppb	20:50:31
1	Ni 231.604†	-89.5	-13.2	-0.1520	µg/L	-0.1520	ppb	20:50:31
1	P 214.914†	-14.0	3.9	0.8495	µg/L	0.8495	ppb	20:50:31
1	Pb 220.353†	127.8	41.7	2.3324	µg/L	2.3324	ppb	20:50:31
1	S 181.975 Axial†	105.4	0.6	0.4193	µg/L	0.4193	ppb	20:50:31
1	Sb 206.836†	61.7	-18.9	-2.2534	µg/L	-2.2534	ppb	20:50:31
1	Se 196.026†	16.8	1.6	0.564	µg/L	0.564	ppb	20:50:31
1	SiO2†	1750.1	-21.3	-2.0737	µg/L	-2.0737	ppb	20:50:31
1	Si 251.611†	904.3	69.8	1.0310	µg/L	1.0310	ppb	20:50:11
1	Sn 189.927†	3.7	4.9	0.3040	µg/L	0.3040	ppb	20:50:31
1	Ti 334.940†	1043.2	93.0	0.0902	µg/L	0.0902	ppb	20:50:11
1	Tl 190.801†	-125.6	-9.3	-1.1347	µg/L	-1.1347	ppb	20:50:31
1	U 409.014†	-400.9	-131.9	-7.6954	µg/L	-7.6954	ppb	20:50:11
1	V 292.402†	469.6	66.9	0.3171	µg/L	0.3171	ppb	20:50:11
1	Zn 213.857†	595.1	32.0	0.1811	µg/L	0.1811	ppb	20:50:31
2	Sc RADIAL	142884.5	142884.5	97.9	%			20:49:23
2	Al 396.153Radial†	-69.1	-7.4	-1.3818	µg/L	-1.3818	ppb	20:49:43
2	Ca 317.933Radial†	615.2	67.8	3.7747	µg/L	3.7747	ppb	20:49:43
2	Fe 238.204 Radial†	156.5	11.7	0.7231	µg/L	0.7231	ppb	20:49:43
2	K 766.490 Radial†	1609.8	99.3	36.354	µg/L	36.354	ppb	20:49:23
2	Mg 279.077 IEC†	180.2	-6.7	-2.4821	µg/L	-2.4821	ppb	20:49:43
2	Na 589.592 Radial†	1524.3	266.0	36.311	µg/L	36.311	ppb	20:49:23
2	Sr 421.552†	-167.8	-36.0	-0.0750	µg/L	-0.0750	ppb	20:49:23
2	Sc 361.383	1705708.0	1705708.0	99.272	%			20:50:33
2	Y 371.029	1021576.7	1021576.7	99.502	%			20:50:33
2	Ag 328.068†	3789.2	-274.4	-1.0230	µg/L	-1.0230	ppb	20:50:35
2	As 188.979†	-3.7	16.6	5.0206	µg/L	5.0206	ppb	20:50:56
2	B 249.677†	3504.5	24.3	0.3589	µg/L	0.3589	ppb	20:50:56
2	Ba 233.527†	-135.1	-0.3	-0.0007	µg/L	-0.0007	ppb	20:50:56
2	Be 313.107†	-1027.1	30.1	0.0056	µg/L	0.0056	ppb	20:50:35
2	Cd 226.502†	-117.9	-0.5	-0.0035	µg/L	-0.0035	ppb	20:50:56
2	Co 228.616†	-184.4	4.6	0.0565	µg/L	0.0565	ppb	20:50:56
2	Cr 267.716†	197.3	20.1	0.1648	µg/L	0.1648	ppb	20:50:56
2	Cu 324.752†	2986.4	36.0	0.1330	µg/L	0.1330	ppb	20:50:35
2	Mn 257.610†	208.3	-27.5	-0.0339	µg/L	-0.0339	ppb	20:50:56
2	Mo 202.031†	-10.1	9.9	0.2925	µg/L	0.2925	ppb	20:50:56
2	Ni 231.604†	-71.6	4.4	0.0504	µg/L	0.0504	ppb	20:50:56
2	P 214.914†	-25.7	-7.9	-1.7048	µg/L	-1.7048	ppb	20:50:56
2	Pb 220.353†	88.5	2.8	0.1610	µg/L	0.1610	ppb	20:50:56

2	S 181.975 Axial†	98.5	-5.8	-4.3120 µg/L	-4.3120 ppb	20:50:56
2	Sb 206.836†	86.1	5.9	0.7055 µg/L	0.7055 ppb	20:50:56
2	Se 196.026†	6.1	-9.2	-3.32 µg/L	-3.32 ppb	20:50:56
2	SiO2†	1800.3	38.1	3.7206 µg/L	3.7206 ppb	20:50:56
2	Si 251.611†	941.5	111.8	1.6453 µg/L	1.6453 ppb	20:50:35
2	Sn 189.927†	-2.9	-1.8	-0.1151 µg/L	-0.1151 ppb	20:50:56
2	Ti 334.940†	825.1	-121.4	-0.1096 µg/L	-0.1096 ppb	20:50:35
2	Tl 190.801†	-103.9	12.0	1.4793 µg/L	1.4793 ppb	20:50:56
2	U 409.014†	-414.7	-147.9	-8.6275 µg/L	-8.6275 ppb	20:50:35
2	V 292.402†	468.7	68.3	0.3311 µg/L	0.3311 ppb	20:50:35
2	Zn 213.857†	586.6	26.4	0.1479 µg/L	0.1479 ppb	20:50:56
3	Sc RADIAL	143556.4	143556.4	98.4 %		20:49:45
3	Al 396.153Radial†	-49.6	12.8	2.3684 µg/L	2.3684 ppb	20:50:05
3	Ca 317.933Radial†	619.9	69.5	3.8728 µg/L	3.8728 ppb	20:50:05
3	Fe 238.204 Radial†	160.9	15.5	0.9527 µg/L	0.9527 ppb	20:50:05
3	K 766.490 Radial†	1716.2	199.8	73.139 µg/L	73.139 ppb	20:49:45
3	Mg 279.077 IEC†	179.3	-8.5	-3.1618 µg/L	-3.1618 ppb	20:50:05
3	Na 589.592 Radial†	1571.2	306.3	41.786 µg/L	41.786 ppb	20:49:45
3	Sr 421.552†	-111.1	22.4	0.0465 µg/L	0.0465 ppb	20:49:45
3	Sc 361.383	1721625.0	1721625.0	100.20 %		20:50:58
3	Y 371.029	1030085.4	1030085.4	100.33 %		20:50:58
3	Ag 328.068†	3859.6	-239.4	-0.8861 µg/L	-0.8861 ppb	20:51:00
3	As 188.979†	-27.5	-7.1	-2.1453 µg/L	-2.1453 ppb	20:51:20
3	B 249.677†	3491.5	-21.3	-0.3158 µg/L	-0.3158 ppb	20:51:20
3	Ba 233.527†	-142.3	-6.2	-0.0248 µg/L	-0.0248 ppb	20:51:20
3	Be 313.107†	-950.3	116.3	0.0315 µg/L	0.0315 ppb	20:51:00
3	Cd 226.502†	-122.0	-3.6	-0.0224 µg/L	-0.0224 ppb	20:51:20
3	Co 228.616†	-167.0	23.7	0.2921 µg/L	0.2921 ppb	20:51:20
3	Cr 267.716†	146.9	-32.0	-0.2498 µg/L	-0.2498 ppb	20:51:20
3	Cu 324.752†	3019.8	41.6	0.1616 µg/L	0.1616 ppb	20:51:00
3	Mn 257.610†	238.8	1.0	0.0014 µg/L	0.0014 ppb	20:51:20
3	Mo 202.031†	-20.4	-0.3	-0.0095 µg/L	-0.0095 ppb	20:51:20
3	Ni 231.604†	-92.9	-16.2	-0.1861 µg/L	-0.1861 ppb	20:51:20
3	P 214.914†	-16.8	1.2	0.2638 µg/L	0.2638 ppb	20:51:20
3	Pb 220.353†	96.5	9.9	0.5545 µg/L	0.5545 ppb	20:51:20
3	S 181.975 Axial†	97.9	-7.4	-5.4692 µg/L	-5.4692 ppb	20:51:20
3	Sb 206.836†	70.1	-10.9	-1.2853 µg/L	-1.2853 ppb	20:51:20
3	Se 196.026†	24.0	8.7	3.13 µg/L	3.13 ppb	20:51:20
3	SiO2†	1761.3	-17.6	-1.7243 µg/L	-1.7243 ppb	20:51:20
3	Si 251.611†	890.7	52.3	0.7682 µg/L	0.7682 ppb	20:51:00
3	Sn 189.927†	7.5	8.6	0.5361 µg/L	0.5361 ppb	20:51:20
3	Ti 334.940†	901.9	-52.4	-0.0483 µg/L	-0.0483 ppb	20:51:00
3	Tl 190.801†	-111.0	5.9	0.7212 µg/L	0.7212 ppb	20:51:20
3	U 409.014†	-279.5	-9.1	-0.5238 µg/L	-0.5238 ppb	20:51:00
3	V 292.402†	424.3	19.7	0.0944 µg/L	0.0944 ppb	20:51:00
3	Zn 213.857†	577.4	11.9	0.0677 µg/L	0.0677 ppb	20:51:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1713873.5	99.747	%	0.4637				0.46%
Sc RADIAL	143180.4	98.1	%	0.24				0.24%
Y 371.029	1025755.3	99.909	%	0.4146				0.41%
Ag 328.068†	-222.4	-0.8276	µg/L	0.23017	-0.8276	ppb	0.23017	27.81%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.3	-0.0614	µg/L	2.10685	-0.0614	ppb	2.10685	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.1	1.5293	µg/L	3.58647	1.5293	ppb	3.58647	234.51%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-3.9	-0.0576	µg/L	0.36418	-0.0576	ppb	0.36418	631.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.5	0.0063	µg/L	0.03518	0.0063	ppb	0.03518	557.71%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	130.0	0.0337	µg/L	0.02929	0.0337	ppb	0.02929	86.91%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	74.2	4.1317	µg/L	0.53563	4.1317	ppb	0.53563	12.96%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.9	0.0364	µg/L	0.08602	0.0364	ppb	0.08602	236.18%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.3	0.1512	µg/L	0.12445	0.1512	ppb	0.12445	82.31%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -10.0     -0.0740 µg/L       0.21436     -0.0740 ppb        0.21436 289.62%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -16.8     -0.0698 µg/L       0.37636     -0.0698 ppb        0.37636 538.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        14.8      0.9103 µg/L       0.16999      0.9103 ppb        0.16999  18.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         96.6      35.359 µg/L       38.2865      35.359 ppb        38.2865 108.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -4.5     -1.6795 µg/L       2.00766     -1.6795 ppb        2.00766 119.54%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -2.4     -0.0029 µg/L       0.02906     -0.0029 ppb        0.02906 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.2     -0.0064 µg/L       0.29725     -0.0064 ppb        0.29725 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       316.6      43.216 µg/L        7.7194      43.216 ppb         7.7194  17.86%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -8.3     -0.0959 µg/L       0.12783     -0.0959 ppb        0.12783 133.28%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.9     -0.1972 µg/L       1.33806     -0.1972 ppb        1.33806 678.62%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               18.1      1.0159 µg/L       1.15693      1.0159 ppb        1.15693 113.88%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.2     -3.1206 µg/L       3.11977     -3.1206 ppb        3.11977  99.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -8.0     -0.9444 µg/L       1.50862     -0.9444 ppb        1.50862 159.74%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.4       0.124 µg/L        3.2508       0.124 ppb         3.2508 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -0.2     -0.0258 µg/L       3.24918     -0.0258 ppb        3.24918 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               78.0      1.1482 µg/L       0.45012      1.1482 ppb        0.45012  39.20%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.9      0.2417 µg/L       0.33003      0.2417 ppb        0.33003 136.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -5.4     -0.0112 µg/L       0.06093     -0.0112 ppb        0.06093 542.16%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -26.9     -0.0226 µg/L       0.10236     -0.0226 ppb        0.10236 453.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.9      0.3552 µg/L       1.34488      0.3552 ppb        1.34488 378.59%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -96.3     -5.6156 µg/L       4.43418     -5.6156 ppb        4.43418  78.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                51.6      0.2475 µg/L       0.13284      0.2475 ppb        0.13284  53.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               23.4      0.1323 µg/L       0.05829      0.1323 ppb        0.05829  44.08%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 50
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 21:16:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140518.4	140518.4	96.3	%			21:16:42
1	Al 396.153Radial†	25783.9	26840.0	4953.4	µg/L	4953.4	ppb	21:16:42
1	Ca 317.933Radial†	85524.3	88257.2	4916.3	µg/L	4916.3	ppb	21:16:42
1	Fe 238.204 Radial†	76323.1	79114.2	4876.1	µg/L	4876.1	ppb	21:16:42
1	K 766.490 Radial†	14404.9	13414.9	4907.4	µg/L	4907.4	ppb	21:16:42
1	Mg 279.077 IEC†	13081.5	13394.6	4998.4	µg/L	4998.4	ppb	21:16:42
1	Na 589.592 Radial†	70242.3	71656.5	9784.8	µg/L	9784.8	ppb	21:16:42
1	Sr 421.552†	226316.6	235167.3	488.86	µg/L	488.86	ppb	21:16:40
1	Sc 361.383	1669103.9	1669103.9	97.142	%			21:16:55
1	Y 371.029	989417.5	989417.5	96.370	%			21:16:55
1	Ag 328.068†	129569.0	129290.2	484.77	µg/L	484.77	ppb	21:16:55
1	As 188.979†	1551.4	1617.4	496.19	µg/L	496.19	ppb	21:17:15
1	B 249.677†	34680.4	32195.0	473.14	µg/L	473.14	ppb	21:16:55
1	Ba 233.527†	116237.8	119794.0	483.13	µg/L	483.13	ppb	21:16:55
1	Be 313.107†	1725182.2	1777010.7	483.98	µg/L	483.98	ppb	21:16:55
1	Cd 226.502†	74430.6	76738.9	479.03	µg/L	479.03	ppb	21:16:55
1	Co 228.616†	37838.5	39142.2	483.21	µg/L	483.21	ppb	21:16:55
1	Cr 267.716†	59798.9	61379.9	480.59	µg/L	480.59	ppb	21:16:55
1	Cu 324.752†	122989.1	123635.9	481.97	µg/L	481.97	ppb	21:16:55
1	Mn 257.610†	381507.5	392496.1	485.42	µg/L	485.42	ppb	21:16:55
1	Mo 202.031†	16149.2	16644.5	489.61	µg/L	489.61	ppb	21:17:15
1	Ni 231.604†	40427.6	41693.7	480.07	µg/L	480.07	ppb	21:16:55
1	P 214.914†	11040.4	11383.2	2426.3	µg/L	2426.3	ppb	21:17:15
1	Pb 220.353†	8616.0	8783.1	491.85	µg/L	491.85	ppb	21:17:15
1	S 181.975 Axial†	1370.2	1305.5	973.53	µg/L	973.53	ppb	21:17:15
1	Sb 206.836†	4075.4	4114.5	490.34	µg/L	490.34	ppb	21:17:15
1	Se 196.026†	1325.8	1349.6	490	µg/L	490	ppb	21:17:15
1	SiO2†	53789.9	53597.3	5217.7	µg/L	5217.7	ppb	21:16:55
1	Si 251.611†	162739.1	166691.2	2447.8	µg/L	2447.8	ppb	21:16:55
1	Sn 189.927†	7604.8	7829.7	489.73	µg/L	489.73	ppb	21:17:15
1	Ti 334.940†	504929.9	518835.1	484.11	µg/L	484.11	ppb	21:16:55
1	Tl 190.801†	3752.3	3979.4	496.21	µg/L	496.21	ppb	21:17:15
1	U 409.014†	7197.9	7679.6	478.26	µg/L	478.26	ppb	21:16:55
1	V 292.402†	95634.0	98044.3	484.76	µg/L	484.76	ppb	21:16:55
1	Zn 213.857†	83598.9	85494.4	476.49	µg/L	476.49	ppb	21:16:55
2	Sc RADIAL	141583.7	141583.7	97.0	%			21:16:47
2	Al 396.153Radial†	25881.7	26739.3	4934.9	µg/L	4934.9	ppb	21:16:47
2	Ca 317.933Radial†	85790.3	87863.1	4894.3	µg/L	4894.3	ppb	21:16:47
2	Fe 238.204 Radial†	76348.3	78543.7	4841.0	µg/L	4841.0	ppb	21:16:47
2	K 766.490 Radial†	14349.6	13245.3	4845.3	µg/L	4845.3	ppb	21:16:47
2	Mg 279.077 IEC†	13161.7	13375.0	4991.0	µg/L	4991.0	ppb	21:16:47
2	Na 589.592 Radial†	70371.9	71241.2	9728.1	µg/L	9728.1	ppb	21:16:47
2	Sr 421.552†	225549.9	232608.6	483.54	µg/L	483.54	ppb	21:16:44
2	Sc 361.383	1700896.9	1700896.9	98.992	%			21:17:18
2	Y 371.029	1006820.6	1006820.6	98.065	%			21:17:18
2	Ag 328.068†	132249.7	129505.0	485.59	µg/L	485.59	ppb	21:17:18
2	As 188.979†	1564.2	1600.5	491.07	µg/L	491.07	ppb	21:17:38
2	B 249.677†	35612.0	32468.8	477.17	µg/L	477.17	ppb	21:17:18
2	Ba 233.527†	119305.1	120655.9	486.60	µg/L	486.60	ppb	21:17:18
2	Be 313.107†	1771257.8	1790359.7	487.62	µg/L	487.62	ppb	21:17:18
2	Cd 226.502†	76605.7	77504.0	483.82	µg/L	483.82	ppb	21:17:18
2	Co 228.616†	38857.8	39443.8	486.94	µg/L	486.94	ppb	21:17:18
2	Cr 267.716†	61346.5	61792.6	483.83	µg/L	483.83	ppb	21:17:18
2	Cu 324.752†	126079.4	124391.1	484.90	µg/L	484.90	ppb	21:17:18
2	Mn 257.610†	390683.2	394424.4	487.81	µg/L	487.81	ppb	21:17:18
2	Mo 202.031†	16315.1	16501.3	485.39	µg/L	485.39	ppb	21:17:38
2	Ni 231.604†	41564.0	42063.8	484.33	µg/L	484.33	ppb	21:17:18
2	P 214.914†	11170.5	11302.2	2409.0	µg/L	2409.0	ppb	21:17:38
2	Pb 220.353†	8716.3	8718.6	488.24	µg/L	488.24	ppb	21:17:38

2	S 181.975 Axial†	1376.8	1285.7	958.84 µg/L	958.84 ppb	21:17:38
2	Sb 206.836†	4095.5	4056.4	483.32 µg/L	483.32 ppb	21:17:38
2	Se 196.026†	1341.9	1340.3	487 µg/L	487 ppb	21:17:38
2	SiO2†	55368.1	54156.5	5272.5 µg/L	5272.5 ppb	21:17:18
2	Si 251.611†	166631.9	167492.1	2459.6 µg/L	2459.6 ppb	21:17:18
2	Sn 189.927†	7705.9	7785.5	486.98 µg/L	486.98 ppb	21:17:38
2	Ti 334.940†	516370.1	520675.9	485.83 µg/L	485.83 ppb	21:17:18
2	Tl 190.801†	3799.4	3954.7	493.19 µg/L	493.19 ppb	21:17:38
2	U 409.014†	7223.0	7566.5	471.79 µg/L	471.79 ppb	21:17:18
2	V 292.402†	97908.7	98501.9	486.96 µg/L	486.96 ppb	21:17:18
2	Zn 213.857†	86115.5	86428.0	481.70 µg/L	481.70 ppb	21:17:18
3	Sc RADIAL	140610.0	140610.0	96.4 %		21:16:51
3	Al 396.153Radial†	25934.1	26978.5	4979.2 µg/L	4979.2 ppb	21:16:51
3	Ca 317.933Radial†	85400.8	88071.2	4905.9 µg/L	4905.9 ppb	21:16:51
3	Fe 238.204 Radial†	76011.3	78739.0	4853.0 µg/L	4853.0 ppb	21:16:51
3	K 766.490 Radial†	14473.0	13475.8	4929.7 µg/L	4929.7 ppb	21:16:51
3	Mg 279.077 IEC†	13077.3	13381.4	4993.4 µg/L	4993.4 ppb	21:16:51
3	Na 589.592 Radial†	70342.7	71713.3	9792.5 µg/L	9792.5 ppb	21:16:51
3	Sr 421.552†	223908.2	232514.8	483.35 µg/L	483.35 ppb	21:16:49
3	Sc 361.383	1690270.1	1690270.1	98.373 %		21:17:42
3	Y 371.029	1001275.7	1001275.7	97.525 %		21:17:42
3	Ag 328.068†	131972.5	130063.1	487.66 µg/L	487.66 ppb	21:17:42
3	As 188.979†	1560.3	1606.5	492.89 µg/L	492.89 ppb	21:18:02
3	B 249.677†	35493.5	32574.4	478.72 µg/L	478.72 ppb	21:17:42
3	Ba 233.527†	118281.0	120372.5	485.46 µg/L	485.46 ppb	21:17:42
3	Be 313.107†	1758207.7	1788343.2	487.07 µg/L	487.07 ppb	21:17:42
3	Cd 226.502†	76039.5	77415.0	483.26 µg/L	483.26 ppb	21:17:42
3	Co 228.616†	38697.3	39527.5	487.97 µg/L	487.97 ppb	21:17:42
3	Cr 267.716†	61022.9	61853.3	484.31 µg/L	484.31 ppb	21:17:42
3	Cu 324.752†	124975.7	124069.9	483.65 µg/L	483.65 ppb	21:17:42
3	Mn 257.610†	388217.6	394399.3	487.78 µg/L	487.78 ppb	21:17:42
3	Mo 202.031†	16264.5	16553.5	486.93 µg/L	486.93 ppb	21:18:02
3	Ni 231.604†	41303.6	42063.1	484.33 µg/L	484.33 ppb	21:17:42
3	P 214.914†	11171.7	11374.3	2424.5 µg/L	2424.5 ppb	21:18:02
3	Pb 220.353†	8697.8	8755.2	490.29 µg/L	490.29 ppb	21:18:02
3	S 181.975 Axial†	1394.3	1312.3	978.61 µg/L	978.61 ppb	21:18:02
3	Sb 206.836†	4104.7	4091.7	487.54 µg/L	487.54 ppb	21:18:02
3	Se 196.026†	1335.6	1342.4	487 µg/L	487 ppb	21:18:02
3	SiO2†	54853.9	53985.5	5255.7 µg/L	5255.7 ppb	21:17:42
3	Si 251.611†	165452.6	167351.7	2457.5 µg/L	2457.5 ppb	21:17:42
3	Sn 189.927†	7688.5	7816.7	488.93 µg/L	488.93 ppb	21:18:02
3	Ti 334.940†	512939.3	520467.8	485.64 µg/L	485.64 ppb	21:17:42
3	Tl 190.801†	3797.1	3976.5	495.87 µg/L	495.87 ppb	21:18:02
3	U 409.014†	7116.8	7504.3	468.21 µg/L	468.21 ppb	21:17:42
3	V 292.402†	97506.3	98714.7	488.01 µg/L	488.01 ppb	21:17:42
3	Zn 213.857†	85518.8	86368.4	481.37 µg/L	481.37 ppb	21:17:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1686757.0	98.169	%	0.9420				0.96%
Sc RADIAL	140904.0	96.6	%	0.40				0.42%
Y 371.029	999171.3	97.320	%	0.8659				0.89%
Ag 328.068†	129619.5	486.01	µg/L	1.489	486.01	ppb	1.489	0.31%
QC value within limits for Ag 328.068 Recovery = 97.20%								
Al 396.153Radial†	26852.6	4955.8	µg/L	22.23	4955.8	ppb	22.23	0.45%
QC value within limits for Al 396.153Radial Recovery = 99.12%								
As 188.979†	1608.1	493.38	µg/L	2.596	493.38	ppb	2.596	0.53%
QC value within limits for As 188.979 Recovery = 98.68%								
B 249.677†	32412.8	476.35	µg/L	2.879	476.35	ppb	2.879	0.60%
QC value within limits for B 249.677 Recovery = 95.27%								
Ba 233.527†	120274.1	485.06	µg/L	1.771	485.06	ppb	1.771	0.37%
QC value within limits for Ba 233.527 Recovery = 97.01%								
Be 313.107†	1785237.9	486.22	µg/L	1.958	486.22	ppb	1.958	0.40%
QC value within limits for Be 313.107 Recovery = 97.24%								
Ca 317.933Radial†	88063.9	4905.5	µg/L	10.98	4905.5	ppb	10.98	0.22%
QC value within limits for Ca 317.933Radial Recovery = 98.11%								
Cd 226.502†	77219.3	482.04	µg/L	2.617	482.04	ppb	2.617	0.54%
QC value within limits for Cd 226.502 Recovery = 96.41%								
Co 228.616†	39371.2	486.04	µg/L	2.502	486.04	ppb	2.502	0.51%

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   QC value within limits for Co 228.616  Recovery = 97.21%
Cr 267.716†            61675.3      482.91 µg/L         2.021      482.91 ppb          2.021   0.42%
   QC value within limits for Cr 267.716  Recovery = 96.58%
Cu 324.752†           124032.3      483.51 µg/L         1.468      483.51 ppb          1.468   0.30%
   QC value within limits for Cu 324.752  Recovery = 96.70%
Fe 238.204 Radial†     78799.0      4856.7 µg/L         17.87      4856.7 ppb          17.87   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.13%
K 766.490 Radial†      13378.7      4894.1 µg/L         43.71      4894.1 ppb          43.71   0.89%
   QC value within limits for K 766.490 Radial  Recovery = 97.88%
Mg 279.077 IEC†        13383.7      4994.3 µg/L          3.76      4994.3 ppb           3.76   0.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.89%
Mn 257.610†           393773.3      487.00 µg/L         1.369      487.00 ppb          1.369   0.28%
   QC value within limits for Mn 257.610  Recovery = 97.40%
Mo 202.031†            16566.4      487.31 µg/L         2.131      487.31 ppb          2.131   0.44%
   QC value within limits for Mo 202.031  Recovery = 97.46%
Na 589.592 Radial†     71537.0      9768.5 µg/L         35.17      9768.5 ppb          35.17   0.36%
   QC value within limits for Na 589.592 Radial  Recovery = 97.68%
Ni 231.604†            41940.2      482.91 µg/L         2.458      482.91 ppb          2.458   0.51%
   QC value within limits for Ni 231.604  Recovery = 96.58%
P 214.914†             11353.2      2419.9 µg/L          9.51      2419.9 ppb           9.51   0.39%
   QC value within limits for P 214.914  Recovery = 96.80%
Pb 220.353†             8752.3      490.13 µg/L         1.809      490.13 ppb          1.809   0.37%
   QC value within limits for Pb 220.353  Recovery = 98.03%
S 181.975 Axial†        1301.2      970.33 µg/L        10.267      970.33 ppb         10.267   1.06%
   QC value within limits for S 181.975 Axial  Recovery = 97.03%
Sb 206.836†             4087.6      487.07 µg/L         3.532      487.07 ppb          3.532   0.73%
   QC value within limits for Sb 206.836  Recovery = 97.41%
Se 196.026†             1344.1         488 µg/L           1.8         488 ppb            1.8   0.36%
   QC value within limits for Se 196.026  Recovery = 97.61%
SiO2†                  53913.1      5248.7 µg/L         28.09      5248.7 ppb          28.09   0.54%
   QC value within limits for SiO2  Recovery = 98.15%
Si 251.611†           167178.3      2455.0 µg/L          6.34      2455.0 ppb           6.34   0.26%
   QC value within limits for Si 251.611  Recovery = 98.20%
Sn 189.927†             7810.6      488.55 µg/L         1.414      488.55 ppb          1.414   0.29%
   QC value within limits for Sn 189.927  Recovery = 97.71%
Sr 421.552†           233430.2      485.25 µg/L         3.129      485.25 ppb          3.129   0.64%
   QC value within limits for Sr 421.552  Recovery = 97.05%
Ti 334.940†           519992.9      485.19 µg/L         0.943      485.19 ppb          0.943   0.19%
   QC value within limits for Ti 334.940  Recovery = 97.04%
Tl 190.801†             3970.2      495.09 µg/L         1.653      495.09 ppb          1.653   0.33%
   QC value within limits for Tl 190.801  Recovery = 99.02%
U 409.014†              7583.5      472.76 µg/L         5.091      472.76 ppb          5.091   1.08%
   QC value within limits for U 409.014  Recovery = 94.55%
V 292.402†             98420.3      486.58 µg/L         1.660      486.58 ppb          1.660   0.34%
   QC value within limits for V 292.402  Recovery = 97.32%
Zn 213.857†            86097.0      479.85 µg/L         2.921      479.85 ppb          2.921   0.61%
   QC value within limits for Zn 213.857  Recovery = 95.97%
All analyte(s) passed QC.
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Sequence No.: 51
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 21:18:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142340.5	142340.5	97.5	%			21:18:39
1	Al 396.153Radial†	-77.4	-16.2	-2.9808	µg/L	-2.9808	ppb	21:18:59
1	Ca 317.933Radial†	613.3	68.2	3.7996	µg/L	3.7996	ppb	21:18:59
1	Fe 238.204 Radial†	174.0	30.3	1.8673	µg/L	1.8673	ppb	21:18:59
1	K 766.490 Radial†	1617.0	113.0	41.366	µg/L	41.366	ppb	21:18:39
1	Mg 279.077 IEC†	173.7	-12.6	-4.7201	µg/L	-4.7201	ppb	21:18:59
1	Na 589.592 Radial†	1689.2	441.0	60.210	µg/L	60.210	ppb	21:18:39
1	Sr 421.552†	-87.4	45.7	0.0949	µg/L	0.0949	ppb	21:18:39
1	Sc 361.383	1691761.1	1691761.1	98.460	%			21:19:47
1	Y 371.029	1013835.9	1013835.9	98.748	%			21:19:47
1	Ag 328.068†	3999.1	-29.8	-0.1074	µg/L	-0.1074	ppb	21:19:49
1	As 188.979†	-10.2	10.0	3.0117	µg/L	3.0117	ppb	21:20:09
1	B 249.677†	3413.6	-39.0	-0.5756	µg/L	-0.5756	ppb	21:19:49
1	Ba 233.527†	-138.5	-4.8	-0.0197	µg/L	-0.0197	ppb	21:20:09
1	Be 313.107†	-974.4	75.0	0.0212	µg/L	0.0212	ppb	21:19:49
1	Cd 226.502†	-119.6	-3.3	-0.0208	µg/L	-0.0208	ppb	21:20:09
1	Co 228.616†	-162.5	25.3	0.3117	µg/L	0.3117	ppb	21:20:09
1	Cr 267.716†	206.6	31.2	0.2430	µg/L	0.2430	ppb	21:20:09
1	Cu 324.752†	2962.7	36.8	0.1452	µg/L	0.1452	ppb	21:19:49
1	Mn 257.610†	261.8	28.6	0.0356	µg/L	0.0356	ppb	21:20:09
1	Mo 202.031†	-32.6	-13.1	-0.3839	µg/L	-0.3839	ppb	21:20:09
1	Ni 231.604†	-104.8	-29.9	-0.3447	µg/L	-0.3447	ppb	21:20:09
1	P 214.914†	-11.4	6.4	1.3624	µg/L	1.3624	ppb	21:20:09
1	Pb 220.353†	75.5	-9.7	-0.5434	µg/L	-0.5434	ppb	21:20:09
1	S 181.975 Axial†	111.4	8.1	5.9955	µg/L	5.9955	ppb	21:20:09
1	Sb 206.836†	80.6	1.0	0.1122	µg/L	0.1122	ppb	21:20:09
1	Se 196.026†	3.3	-12.0	-4.33	µg/L	-4.33	ppb	21:20:09
1	SiO2†	1809.6	62.5	6.1130	µg/L	6.1130	ppb	21:20:09
1	Si 251.611†	946.2	124.4	1.8365	µg/L	1.8365	ppb	21:19:49
1	Sn 189.927†	4.9	6.1	0.3820	µg/L	0.3820	ppb	21:20:09
1	Ti 334.940†	770.9	-169.6	-0.1590	µg/L	-0.1590	ppb	21:19:49
1	Tl 190.801†	-120.5	-5.8	-0.7102	µg/L	-0.7102	ppb	21:20:09
1	U 409.014†	-225.3	41.0	2.4000	µg/L	2.4000	ppb	21:19:49
1	V 292.402†	398.1	0.6	0.0014	µg/L	0.0014	ppb	21:19:49
1	Zn 213.857†	596.3	41.2	0.2333	µg/L	0.2333	ppb	21:20:09
2	Sc RADIAL	140388.8	140388.8	96.2	%			21:19:01
2	Al 396.153Radial†	-40.1	21.6	4.0106	µg/L	4.0106	ppb	21:19:21
2	Ca 317.933Radial†	583.2	45.7	2.5430	µg/L	2.5430	ppb	21:19:21
2	Fe 238.204 Radial†	163.9	22.3	1.3738	µg/L	1.3738	ppb	21:19:21
2	K 766.490 Radial†	1756.0	280.5	102.70	µg/L	102.70	ppb	21:19:01
2	Mg 279.077 IEC†	185.4	2.0	0.7420	µg/L	0.7420	ppb	21:19:21
2	Na 589.592 Radial†	1757.4	535.9	73.122	µg/L	73.122	ppb	21:19:01
2	Sr 421.552†	-150.8	-21.5	-0.0447	µg/L	-0.0447	ppb	21:19:01
2	Sc 361.383	1725840.2	1725840.2	100.44	%			21:20:11
2	Y 371.029	1031661.1	1031661.1	100.48	%			21:20:11
2	Ag 328.068†	4128.5	18.9	0.0653	µg/L	0.0653	ppb	21:20:13
2	As 188.979†	-6.9	13.5	4.0841	µg/L	4.0841	ppb	21:20:34
2	B 249.677†	3476.1	-45.2	-0.6676	µg/L	-0.6676	ppb	21:20:13
2	Ba 233.527†	-122.5	13.9	0.0557	µg/L	0.0557	ppb	21:20:34
2	Be 313.107†	-1003.4	65.7	0.0171	µg/L	0.0171	ppb	21:20:13
2	Cd 226.502†	-100.9	17.7	0.1106	µg/L	0.1106	ppb	21:20:34
2	Co 228.616†	-165.4	25.6	0.3157	µg/L	0.3157	ppb	21:20:34
2	Cr 267.716†	175.4	-3.9	-0.0289	µg/L	-0.0289	ppb	21:20:34
2	Cu 324.752†	2951.3	-34.0	-0.1338	µg/L	-0.1338	ppb	21:20:13
2	Mn 257.610†	228.4	-9.9	-0.0123	µg/L	-0.0123	ppb	21:20:34
2	Mo 202.031†	-29.3	-9.0	-0.2659	µg/L	-0.2659	ppb	21:20:34
2	Ni 231.604†	-82.5	-5.6	-0.0645	µg/L	-0.0645	ppb	21:20:34
2	P 214.914†	-14.3	3.8	0.8123	µg/L	0.8123	ppb	21:20:34
2	Pb 220.353†	82.1	-4.7	-0.2595	µg/L	-0.2595	ppb	21:20:34

2	S 181.975 Axial†	91.3	-14.1	-10.498 µg/L	-10.498 ppb	21:20:34
2	Sb 206.836†	71.7	-9.4	-1.1204 µg/L	-1.1204 ppb	21:20:34
2	Se 196.026†	16.3	0.9	0.337 µg/L	0.337 ppb	21:20:34
2	SiO2†	1744.2	-38.9	-3.7990 µg/L	-3.7990 ppb	21:20:34
2	Si 251.611†	837.7	-2.5	-0.0368 µg/L	-0.0368 ppb	21:20:13
2	Sn 189.927†	6.2	7.3	0.4532 µg/L	0.4532 ppb	21:20:34
2	Ti 334.940†	756.2	-199.7	-0.1855 µg/L	-0.1855 ppb	21:20:13
2	Tl 190.801†	-123.1	-5.9	-0.7309 µg/L	-0.7309 ppb	21:20:34
2	U 409.014†	-314.2	-43.0	-2.5195 µg/L	-2.5195 ppb	21:20:13
2	V 292.402†	382.0	-23.5	-0.1192 µg/L	-0.1192 ppb	21:20:13
2	Zn 213.857†	586.1	19.1	0.1074 µg/L	0.1074 ppb	21:20:34
3	Sc RADIAL	142445.8	142445.8	97.6 %		21:19:23
3	Al 396.153Radial†	-90.2	-29.2	-5.4175 µg/L	-5.4175 ppb	21:19:43
3	Ca 317.933Radial†	593.8	47.8	2.6599 µg/L	2.6599 ppb	21:19:43
3	Fe 238.204 Radial†	167.0	23.0	1.4166 µg/L	1.4166 ppb	21:19:43
3	K 766.490 Radial†	1597.6	91.9	33.647 µg/L	33.647 ppb	21:19:23
3	Mg 279.077 IEC†	184.4	-1.8	-0.6658 µg/L	-0.6658 ppb	21:19:43
3	Na 589.592 Radial†	1758.3	510.5	69.717 µg/L	69.717 ppb	21:19:23
3	Sr 421.552†	-153.0	-21.4	-0.0445 µg/L	-0.0445 ppb	21:19:23
3	Sc 361.383	1713474.3	1713474.3	99.724 %		21:20:36
3	Y 371.029	1024068.4	1024068.4	99.745 %		21:20:36
3	Ag 328.068†	4150.2	70.3	0.2535 µg/L	0.2535 ppb	21:20:38
3	As 188.979†	-9.9	10.5	3.1681 µg/L	3.1681 ppb	21:20:58
3	B 249.677†	3600.1	104.2	1.5371 µg/L	1.5371 ppb	21:20:38
3	Ba 233.527†	-126.3	9.2	0.0373 µg/L	0.0373 ppb	21:20:58
3	Be 313.107†	-965.7	96.3	0.0240 µg/L	0.0240 ppb	21:20:38
3	Cd 226.502†	-105.6	12.3	0.0767 µg/L	0.0767 ppb	21:20:58
3	Co 228.616†	-193.8	-4.0	-0.0492 µg/L	-0.0492 ppb	21:20:58
3	Cr 267.716†	191.2	13.1	0.1087 µg/L	0.1087 ppb	21:20:58
3	Cu 324.752†	2975.4	11.4	0.0383 µg/L	0.0383 ppb	21:20:38
3	Mn 257.610†	236.4	-0.2	-0.0002 µg/L	-0.0002 ppb	21:20:58
3	Mo 202.031†	-19.1	0.9	0.0276 µg/L	0.0276 ppb	21:20:58
3	Ni 231.604†	-66.0	10.3	0.1188 µg/L	0.1188 ppb	21:20:58
3	P 214.914†	-5.2	12.7	2.7193 µg/L	2.7193 ppb	21:20:58
3	Pb 220.353†	57.4	-28.8	-1.6039 µg/L	-1.6039 ppb	21:20:58
3	S 181.975 Axial†	102.3	-2.4	-1.8005 µg/L	-1.8005 ppb	21:20:58
3	Sb 206.836†	78.7	-1.9	-0.2267 µg/L	-0.2267 ppb	21:20:58
3	Se 196.026†	18.0	2.8	0.995 µg/L	0.995 ppb	21:20:58
3	SiO2†	1745.8	-24.7	-2.4280 µg/L	-2.4280 ppb	21:20:58
3	Si 251.611†	1027.5	193.7	2.8516 µg/L	2.8516 ppb	21:20:38
3	Sn 189.927†	9.3	10.4	0.6506 µg/L	0.6506 ppb	21:20:58
3	Ti 334.940†	1090.0	140.5	0.1344 µg/L	0.1344 ppb	21:20:38
3	Tl 190.801†	-127.7	-11.4	-1.3953 µg/L	-1.3953 ppb	21:20:58
3	U 409.014†	-395.2	-126.4	-7.3813 µg/L	-7.3813 ppb	21:20:38
3	V 292.402†	441.4	38.8	0.1850 µg/L	0.1850 ppb	21:20:38
3	Zn 213.857†	582.7	19.9	0.1107 µg/L	0.1107 ppb	21:20:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1710358.5	99.543	%	1.0041				1.01%
Sc RADIAL	141725.0	97.1	%	0.79				0.82%
Y 371.029	1023188.4	99.659	%	0.8713				0.87%
Ag 328.068†	19.8	0.0705	µg/L	0.18052	0.0705	ppb	0.18052	256.19%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.9	-1.4626	µg/L	4.89399	-1.4626	ppb	4.89399	334.61%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.3	3.4213	µg/L	0.57932	3.4213	ppb	0.57932	16.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	6.7	0.0980	µg/L	1.24716	0.0980	ppb	1.24716	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.1	0.0244	µg/L	0.03927	0.0244	ppb	0.03927	160.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	79.0	0.0208	µg/L	0.00345	0.0208	ppb	0.00345	16.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	53.9	3.0008	µg/L	0.69420	3.0008	ppb	0.69420	23.13%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.9	0.0555	µg/L	0.06825	0.0555	ppb	0.06825	123.01%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	15.6	0.1927	µg/L	0.20954	0.1927	ppb	0.20954	108.73%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              13.5      0.1076 µg/L       0.13596      0.1076 ppb        0.13596 126.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               4.7      0.0166 µg/L       0.14075      0.0166 ppb        0.14075 850.04%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       25.2      1.5526 µg/L       0.27342      1.5526 ppb        0.27342  17.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       161.8      59.237 µg/L       37.8362      59.237 ppb        37.8362  63.87%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -4.1     -1.5480 µg/L       2.83593     -1.5480 ppb        2.83593 183.20%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               6.2      0.0077 µg/L       0.02490      0.0077 ppb        0.02490 322.21%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -7.1     -0.2074 µg/L       0.21190     -0.2074 ppb        0.21190 102.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      495.8      67.683 µg/L        6.6920      67.683 ppb         6.6920   9.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -8.4     -0.0968 µg/L       0.23339     -0.0968 ppb        0.23339 241.07%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                7.6      1.6313 µg/L       0.98157      1.6313 ppb        0.98157  60.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -14.4     -0.8023 µg/L       0.70858     -0.8023 ppb        0.70858  88.32%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.8     -2.1010 µg/L       8.25080     -2.1010 ppb        8.25080 392.71%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.4     -0.4117 µg/L       0.63677     -0.4117 ppb        0.63677 154.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.8      -0.998 µg/L        2.9005      -0.998 ppb         2.9005 290.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -0.4     -0.0380 µg/L       5.37088     -0.0380 ppb        5.37088 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             105.2      1.5504 µg/L       1.46530      1.5504 ppb        1.46530  94.51%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.9      0.4953 µg/L       0.13914      0.4953 ppb        0.13914  28.09%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               0.9      0.0019 µg/L       0.08056      0.0019 ppb        0.08056 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -76.2     -0.0700 µg/L       0.17755     -0.0700 ppb        0.17755 253.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -7.7     -0.9455 µg/L       0.38970     -0.9455 ppb        0.38970  41.22%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -42.8     -2.5003 µg/L       4.89065     -2.5003 ppb        4.89065 195.61%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                5.3      0.0224 µg/L       0.15317      0.0224 ppb        0.15317 684.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              26.7      0.1505 µg/L       0.07173      0.1505 ppb        0.07173  47.67%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 61
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 21:39:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143665.7	143665.7	98.4	%			21:40:31
1	Al 396.153Radial†	26354.7	26833.2	4952.4	µg/L	4952.4	ppb	21:40:31
1	Ca 317.933Radial†	87317.1	88132.5	4909.3	µg/L	4909.3	ppb	21:40:31
1	Fe 238.204 Radial†	78178.3	79262.3	4885.2	µg/L	4885.2	ppb	21:40:31
1	K 766.490 Radial†	14683.9	13370.5	4891.1	µg/L	4891.1	ppb	21:40:31
1	Mg 279.077 IEC†	13397.8	13418.2	5007.1	µg/L	5007.1	ppb	21:40:31
1	Na 589.592 Radial†	71164.9	70995.6	9694.5	µg/L	9694.5	ppb	21:40:31
1	Sr 421.552†	233220.3	237030.9	492.73	µg/L	492.73	ppb	21:40:29
1	Sc 361.383	1721068.9	1721068.9	100.17	%			21:40:44
1	Y 371.029	1018507.5	1018507.5	99.203	%			21:40:44
1	Ag 328.068†	133737.4	129424.5	485.29	µg/L	485.29	ppb	21:40:44
1	As 188.979†	1607.1	1624.8	498.43	µg/L	498.43	ppb	21:41:04
1	B 249.677†	35997.3	32431.8	476.62	µg/L	476.62	ppb	21:40:44
1	Ba 233.527†	120429.2	120365.5	485.43	µg/L	485.43	ppb	21:40:44
1	Be 313.107†	1795349.9	1793440.3	488.46	µg/L	488.46	ppb	21:40:44
1	Cd 226.502†	77524.8	77514.6	483.88	µg/L	483.88	ppb	21:40:44
1	Co 228.616†	39299.3	39424.5	486.69	µg/L	486.69	ppb	21:40:44
1	Cr 267.716†	61864.3	61583.2	482.19	µg/L	482.19	ppb	21:40:44
1	Cu 324.752†	127127.0	123944.2	483.17	µg/L	483.17	ppb	21:40:44
1	Mn 257.610†	395346.6	394454.4	487.85	µg/L	487.85	ppb	21:40:44
1	Mo 202.031†	16480.7	16473.5	484.58	µg/L	484.58	ppb	21:41:04
1	Ni 231.604†	41947.7	41954.7	483.08	µg/L	483.08	ppb	21:40:44
1	P 214.914†	11320.1	11319.3	2412.7	µg/L	2412.7	ppb	21:41:04
1	Pb 220.353†	8845.0	8744.0	489.65	µg/L	489.65	ppb	21:41:04
1	S 181.975 Axial†	1407.4	1300.0	969.45	µg/L	969.45	ppb	21:41:04
1	Sb 206.836†	4164.4	4076.7	485.74	µg/L	485.74	ppb	21:41:04
1	Se 196.026†	1354.0	1336.4	485	µg/L	485	ppb	21:41:04
1	SiO2†	55679.1	53811.5	5238.8	µg/L	5238.8	ppb	21:40:44
1	Si 251.611†	168734.5	167618.4	2461.5	µg/L	2461.5	ppb	21:40:44
1	Sn 189.927†	7779.1	7767.4	485.85	µg/L	485.85	ppb	21:41:04
1	Ti 334.940†	522596.2	520777.9	485.92	µg/L	485.92	ppb	21:40:44
1	Tl 190.801†	3874.4	3984.7	496.88	µg/L	496.88	ppb	21:41:04
1	U 409.014†	7407.3	7664.9	477.49	µg/L	477.49	ppb	21:40:44
1	V 292.402†	98914.4	98346.8	486.18	µg/L	486.18	ppb	21:40:44
1	Zn 213.857†	87152.2	86443.4	481.80	µg/L	481.80	ppb	21:40:44
2	Sc RADIAL	145456.2	145456.2	99.7	%			21:40:35
2	Al 396.153Radial†	26834.6	26985.2	4980.5	µg/L	4980.5	ppb	21:40:35
2	Ca 317.933Radial†	88881.4	88610.2	4935.9	µg/L	4935.9	ppb	21:40:35
2	Fe 238.204 Radial†	79662.0	79773.3	4916.7	µg/L	4916.7	ppb	21:40:35
2	K 766.490 Radial†	14845.0	13348.6	4883.1	µg/L	4883.1	ppb	21:40:35
2	Mg 279.077 IEC†	13510.7	13364.0	4986.9	µg/L	4986.9	ppb	21:40:35
2	Na 589.592 Radial†	72176.6	71120.8	9711.6	µg/L	9711.6	ppb	21:40:35
2	Sr 421.552†	230930.1	231817.3	481.90	µg/L	481.90	ppb	21:40:33
2	Sc 361.383	1718468.2	1718468.2	100.01	%			21:41:07
2	Y 371.029	1016391.1	1016391.1	98.997	%			21:41:07
2	Ag 328.068†	133896.2	129785.3	486.62	µg/L	486.62	ppb	21:41:07
2	As 188.979†	1611.9	1632.1	500.64	µg/L	500.64	ppb	21:41:27
2	B 249.677†	36060.3	32549.2	478.36	µg/L	478.36	ppb	21:41:07
2	Ba 233.527†	120340.6	120458.9	485.81	µg/L	485.81	ppb	21:41:07
2	Be 313.107†	1792650.3	1793453.6	488.45	µg/L	488.45	ppb	21:41:07
2	Cd 226.502†	77583.4	77690.3	484.97	µg/L	484.97	ppb	21:41:07
2	Co 228.616†	39213.4	39398.0	486.37	µg/L	486.37	ppb	21:41:07
2	Cr 267.716†	61991.1	61803.5	483.93	µg/L	483.93	ppb	21:41:07
2	Cu 324.752†	127061.9	124071.2	483.66	µg/L	483.66	ppb	21:41:07
2	Mn 257.610†	395040.3	394745.5	488.21	µg/L	488.21	ppb	21:41:07
2	Mo 202.031†	16505.0	16522.7	486.03	µg/L	486.03	ppb	21:41:27
2	Ni 231.604†	42190.5	42260.9	486.60	µg/L	486.60	ppb	21:41:07
2	P 214.914†	11360.6	11376.9	2425.0	µg/L	2425.0	ppb	21:41:27
2	Pb 220.353†	8840.9	8753.2	490.18	µg/L	490.18	ppb	21:41:27

2	S 181.975 Axial†	1398.8	1293.6	964.68 µg/L	964.68 ppb	21:41:27
2	Sb 206.836†	4174.1	4092.7	487.64 µg/L	487.64 ppb	21:41:27
2	Se 196.026†	1355.3	1339.8	486 µg/L	486 ppb	21:41:27
2	SiO2†	55809.3	54025.8	5259.7 µg/L	5259.7 ppb	21:41:07
2	Si 251.611†	168475.9	167614.8	2461.4 µg/L	2461.4 ppb	21:41:07
2	Sn 189.927†	7806.2	7806.1	488.27 µg/L	488.27 ppb	21:41:27
2	Ti 334.940†	521521.1	520492.6	485.66 µg/L	485.66 ppb	21:41:07
2	Tl 190.801†	3825.2	3941.3	491.55 µg/L	491.55 ppb	21:41:27
2	U 409.014†	7087.5	7356.3	459.54 µg/L	459.54 ppb	21:41:07
2	V 292.402†	99089.1	98670.9	487.77 µg/L	487.77 ppb	21:41:07
2	Zn 213.857†	87415.4	86838.2	483.99 µg/L	483.99 ppb	21:41:07
3	Sc RADIAL	143191.9	143191.9	98.1 %		21:40:39
3	Al 396.153Radial†	26557.8	27128.8	5007.1 µg/L	5007.1 ppb	21:40:39
3	Ca 317.933Radial†	87348.5	88458.0	4927.5 µg/L	4927.5 ppb	21:40:39
3	Fe 238.204 Radial†	78236.9	79584.7	4905.1 µg/L	4905.1 ppb	21:40:39
3	K 766.490 Radial†	14659.9	13395.4	4900.3 µg/L	4900.3 ppb	21:40:39
3	Mg 279.077 IEC†	13262.5	13325.4	4972.5 µg/L	4972.5 ppb	21:40:39
3	Na 589.592 Radial†	71088.0	71156.4	9716.5 µg/L	9716.5 ppb	21:40:39
3	Sr 421.552†	229311.5	233831.2	486.08 µg/L	486.08 ppb	21:40:37
3	Sc 361.383	1712233.1	1712233.1	99.652 %		21:41:30
3	Y 371.029	1012145.6	1012145.6	98.583 %		21:41:30
3	Ag 328.068†	133864.3	130240.8	488.35 µg/L	488.35 ppb	21:41:30
3	As 188.979†	1597.0	1622.9	497.89 µg/L	497.89 ppb	21:41:50
3	B 249.677†	36087.2	32707.4	480.68 µg/L	480.68 ppb	21:41:30
3	Ba 233.527†	120029.4	120584.8	486.32 µg/L	486.32 ppb	21:41:30
3	Be 313.107†	1789689.6	1797009.6	489.43 µg/L	489.43 ppb	21:41:30
3	Cd 226.502†	77607.6	77997.0	486.89 µg/L	486.89 ppb	21:41:30
3	Co 228.616†	39237.2	39564.7	488.42 µg/L	488.42 ppb	21:41:30
3	Cr 267.716†	61895.9	61933.7	484.93 µg/L	484.93 ppb	21:41:30
3	Cu 324.752†	126699.8	124170.4	484.06 µg/L	484.06 ppb	21:41:30
3	Mn 257.610†	394236.6	395377.2	488.99 µg/L	488.99 ppb	21:41:30
3	Mo 202.031†	16435.8	16513.3	485.75 µg/L	485.75 ppb	21:41:50
3	Ni 231.604†	42100.7	42324.4	487.33 µg/L	487.33 ppb	21:41:30
3	P 214.914†	11331.6	11389.1	2427.6 µg/L	2427.6 ppb	21:41:50
3	Pb 220.353†	8803.4	8747.8	489.86 µg/L	489.86 ppb	21:41:50
3	S 181.975 Axial†	1399.9	1299.7	969.26 µg/L	969.26 ppb	21:41:50
3	Sb 206.836†	4147.7	4081.4	486.29 µg/L	486.29 ppb	21:41:50
3	Se 196.026†	1361.2	1350.7	490 µg/L	490 ppb	21:41:50
3	SiO2†	55566.3	53985.2	5255.7 µg/L	5255.7 ppb	21:41:30
3	Si 251.611†	168537.6	168290.1	2471.4 µg/L	2471.4 ppb	21:41:30
3	Sn 189.927†	7783.2	7811.5	488.60 µg/L	488.60 ppb	21:41:50
3	Ti 334.940†	520012.8	520877.8	486.02 µg/L	486.02 ppb	21:41:30
3	Tl 190.801†	3855.0	3985.2	496.95 µg/L	496.95 ppb	21:41:50
3	U 409.014†	7438.0	7733.9	481.69 µg/L	481.69 ppb	21:41:30
3	V 292.402†	98978.3	98920.4	489.01 µg/L	489.01 ppb	21:41:30
3	Zn 213.857†	86968.8	86708.3	483.25 µg/L	483.25 ppb	21:41:30

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1717256.7	99.944	%	0.2643				0.26%
Sc RADIAL	144104.6	98.7	%	0.82				0.83%
Y 371.029	1015681.4	98.928	%	0.3156				0.32%
Ag 328.068†	129816.8	486.75	µg/L	1.535	486.75	ppb	1.535	0.32%
QC value within limits for Ag 328.068 Recovery = 97.35%								
Al 396.153Radial†	26982.4	4980.0	µg/L	27.38	4980.0	ppb	27.38	0.55%
QC value within limits for Al 396.153Radial Recovery = 99.60%								
As 188.979†	1626.6	498.99	µg/L	1.460	498.99	ppb	1.460	0.29%
QC value within limits for As 188.979 Recovery = 99.80%								
B 249.677†	32562.8	478.55	µg/L	2.037	478.55	ppb	2.037	0.43%
QC value within limits for B 249.677 Recovery = 95.71%								
Ba 233.527†	120469.8	485.85	µg/L	0.444	485.85	ppb	0.444	0.09%
QC value within limits for Ba 233.527 Recovery = 97.17%								
Be 313.107†	1794634.5	488.78	µg/L	0.562	488.78	ppb	0.562	0.12%
QC value within limits for Be 313.107 Recovery = 97.76%								
Ca 317.933Radial†	88400.3	4924.2	µg/L	13.59	4924.2	ppb	13.59	0.28%
QC value within limits for Ca 317.933Radial Recovery = 98.48%								
Cd 226.502†	77734.0	485.25	µg/L	1.525	485.25	ppb	1.525	0.31%
QC value within limits for Cd 226.502 Recovery = 97.05%								
Co 228.616†	39462.4	487.16	µg/L	1.106	487.16	ppb	1.106	0.23%

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   QC value within limits for Co 228.616  Recovery = 97.43%
Cr 267.716†            61773.5      483.68 µg/L         1.389      483.68 ppb          1.389   0.29%
   QC value within limits for Cr 267.716  Recovery = 96.74%
Cu 324.752†           124061.9      483.63 µg/L         0.443      483.63 ppb          0.443   0.09%
   QC value within limits for Cu 324.752  Recovery = 96.73%
Fe 238.204 Radial†     79540.1      4902.4 µg/L         15.93      4902.4 ppb          15.93   0.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.05%
K 766.490 Radial†      13371.5      4891.5 µg/L          8.58      4891.5 ppb           8.58   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 97.83%
Mg 279.077 IEC†        13369.2      4988.8 µg/L         17.36      4988.8 ppb          17.36   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.78%
Mn 257.610†           394859.0      488.35 µg/L         0.584      488.35 ppb          0.584   0.12%
   QC value within limits for Mn 257.610  Recovery = 97.67%
Mo 202.031†            16503.2      485.45 µg/L         0.769      485.45 ppb          0.769   0.16%
   QC value within limits for Mo 202.031  Recovery = 97.09%
Na 589.592 Radial†     71090.9      9707.5 µg/L         11.54      9707.5 ppb          11.54   0.12%
   QC value within limits for Na 589.592 Radial  Recovery = 97.08%
Ni 231.604†            42180.0      485.67 µg/L         2.276      485.67 ppb          2.276   0.47%
   QC value within limits for Ni 231.604  Recovery = 97.13%
P 214.914†             11361.8      2421.7 µg/L          7.97      2421.7 ppb           7.97   0.33%
   QC value within limits for P 214.914  Recovery = 96.87%
Pb 220.353†             8748.3      489.90 µg/L         0.268      489.90 ppb          0.268   0.05%
   QC value within limits for Pb 220.353  Recovery = 97.98%
S 181.975 Axial†        1297.8      967.80 µg/L         2.698      967.80 ppb          2.698   0.28%
   QC value within limits for S 181.975 Axial  Recovery = 96.78%
Sb 206.836†             4083.6      486.56 µg/L         0.979      486.56 ppb          0.979   0.20%
   QC value within limits for Sb 206.836  Recovery = 97.31%
Se 196.026†             1342.3         487 µg/L           2.7         487 ppb            2.7   0.55%
   QC value within limits for Se 196.026  Recovery = 97.48%
SiO2†                  53940.8      5251.4 µg/L         11.08      5251.4 ppb          11.08   0.21%
   QC value within limits for SiO2  Recovery = 98.20%
Si 251.611†           167841.1      2464.8 µg/L          5.72      2464.8 ppb           5.72   0.23%
   QC value within limits for Si 251.611  Recovery = 98.59%
Sn 189.927†             7795.0      487.58 µg/L         1.501      487.58 ppb          1.501   0.31%
   QC value within limits for Sn 189.927  Recovery = 97.52%
Sr 421.552†           234226.5      486.90 µg/L         5.466      486.90 ppb          5.466   1.12%
   QC value within limits for Sr 421.552  Recovery = 97.38%
Ti 334.940†           520716.1      485.87 µg/L         0.182      485.87 ppb          0.182   0.04%
   QC value within limits for Ti 334.940  Recovery = 97.17%
Tl 190.801†             3970.4      495.13 µg/L         3.095      495.13 ppb          3.095   0.63%
   QC value within limits for Tl 190.801  Recovery = 99.03%
U 409.014†              7585.0      472.91 µg/L        11.768      472.91 ppb         11.768   2.49%
   QC value within limits for U 409.014  Recovery = 94.58%
V 292.402†             98646.0      487.65 µg/L         1.415      487.65 ppb          1.415   0.29%
   QC value within limits for V 292.402  Recovery = 97.53%
Zn 213.857†            86663.3      483.01 µg/L         1.115      483.01 ppb          1.115   0.23%
   QC value within limits for Zn 213.857  Recovery = 96.60%
All analyte(s) passed QC.
```

Sequence No.: 62
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 21:41:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143435.3	143435.3	98.3	%			21:42:30
1	Al 396.153Radial†	-56.2	6.0	1.1301	µg/L	1.1301	ppb	21:42:50
1	Ca 317.933Radial†	581.9	31.5	1.7535	µg/L	1.7535	ppb	21:42:50
1	Fe 238.204 Radial†	220.1	75.9	4.6750	µg/L	4.6750	ppb	21:42:50
1	K 766.490 Radial†	1630.1	113.7	41.604	µg/L	41.604	ppb	21:42:30
1	Mg 279.077 IEC†	185.9	-1.6	-0.5986	µg/L	-0.5986	ppb	21:42:50
1	Na 589.592 Radial†	1456.5	191.1	26.064	µg/L	26.064	ppb	21:42:30
1	Sr 421.552†	-303.2	-173.2	-0.3600	µg/L	-0.3600	ppb	21:42:30
1	Sc 361.383	1716104.0	1716104.0	99.877	%			21:43:52
1	Y 371.029	1026337.9	1026337.9	99.966	%			21:43:52
1	Ag 328.068†	4103.4	17.0	0.0542	µg/L	0.0542	ppb	21:43:54
1	As 188.979†	-11.9	8.5	2.5574	µg/L	2.5574	ppb	21:44:14
1	B 249.677†	3527.0	25.5	0.3738	µg/L	0.3738	ppb	21:43:54
1	Ba 233.527†	-143.0	-7.3	-0.0298	µg/L	-0.0298	ppb	21:44:14
1	Be 313.107†	-770.0	293.7	0.0782	µg/L	0.0782	ppb	21:43:54
1	Cd 226.502†	-77.7	40.4	0.2520	µg/L	0.2520	ppb	21:44:14
1	Co 228.616†	-153.6	36.5	0.4505	µg/L	0.4505	ppb	21:44:14
1	Cr 267.716†	176.1	-2.3	-0.0133	µg/L	-0.0133	ppb	21:44:14
1	Cu 324.752†	3046.8	78.3	0.3006	µg/L	0.3006	ppb	21:43:54
1	Mn 257.610†	328.7	91.9	0.1137	µg/L	0.1137	ppb	21:44:14
1	Mo 202.031†	-27.4	-7.4	-0.2173	µg/L	-0.2173	ppb	21:44:14
1	Ni 231.604†	-77.8	-1.3	-0.0154	µg/L	-0.0154	ppb	21:44:14
1	P 214.914†	-3.8	14.1	3.0202	µg/L	3.0202	ppb	21:44:14
1	Pb 220.353†	91.6	5.4	0.3025	µg/L	0.3025	ppb	21:44:14
1	S 181.975 Axial†	84.3	-20.7	-15.370	µg/L	-15.370	ppb	21:44:14
1	Sb 206.836†	85.3	4.6	0.5436	µg/L	0.5436	ppb	21:44:14
1	Se 196.026†	18.7	3.4	1.24	µg/L	1.24	ppb	21:44:14
1	SiO2†	1789.6	16.4	1.6035	µg/L	1.6035	ppb	21:44:14
1	Si 251.611†	934.5	99.0	1.4600	µg/L	1.4600	ppb	21:43:54
1	Sn 189.927†	6.5	7.6	0.4757	µg/L	0.4757	ppb	21:44:14
1	Ti 334.940†	967.5	16.2	0.0175	µg/L	0.0175	ppb	21:43:54
1	Tl 190.801†	-127.3	-10.8	-1.3305	µg/L	-1.3305	ppb	21:44:14
1	U 409.014†	-367.5	-98.1	-5.7438	µg/L	-5.7438	ppb	21:43:54
1	V 292.402†	375.1	-28.2	-0.1442	µg/L	-0.1442	ppb	21:43:54
1	Zn 213.857†	580.1	16.4	0.0915	µg/L	0.0915	ppb	21:44:14
2	Sc RADIAL	141870.3	141870.3	97.2	%			21:42:52
2	Al 396.153Radial†	-65.2	-3.9	-0.6977	µg/L	-0.6977	ppb	21:43:12
2	Ca 317.933Radial†	617.6	74.7	4.1593	µg/L	4.1593	ppb	21:43:12
2	Fe 238.204 Radial†	216.5	74.5	4.5946	µg/L	4.5946	ppb	21:43:12
2	K 766.490 Radial†	1775.2	281.2	102.95	µg/L	102.95	ppb	21:42:52
2	Mg 279.077 IEC†	182.1	-3.4	-1.2877	µg/L	-1.2877	ppb	21:43:12
2	Na 589.592 Radial†	1482.8	234.5	31.940	µg/L	31.940	ppb	21:42:52
2	Sr 421.552†	-167.3	-36.8	-0.0764	µg/L	-0.0764	ppb	21:42:52
2	Sc 361.383	1723490.8	1723490.8	100.31	%			21:44:16
2	Y 371.029	1031447.1	1031447.1	100.46	%			21:44:16
2	Ag 328.068†	4201.6	97.3	0.3501	µg/L	0.3501	ppb	21:44:18
2	As 188.979†	-15.3	5.1	1.5573	µg/L	1.5573	ppb	21:44:38
2	B 249.677†	3665.3	148.2	2.1841	µg/L	2.1841	ppb	21:44:18
2	Ba 233.527†	-146.0	-9.7	-0.0400	µg/L	-0.0400	ppb	21:44:38
2	Be 313.107†	-1050.7	17.2	0.0045	µg/L	0.0045	ppb	21:44:18
2	Cd 226.502†	-111.8	6.7	0.0414	µg/L	0.0414	ppb	21:44:38
2	Co 228.616†	-164.6	26.2	0.3234	µg/L	0.3234	ppb	21:44:38
2	Cr 267.716†	226.4	47.1	0.3695	µg/L	0.3695	ppb	21:44:38
2	Cu 324.752†	2823.9	-156.9	-0.6096	µg/L	-0.6096	ppb	21:44:18
2	Mn 257.610†	284.0	45.8	0.0568	µg/L	0.0568	ppb	21:44:38
2	Mo 202.031†	-36.4	-16.2	-0.4763	µg/L	-0.4763	ppb	21:44:38
2	Ni 231.604†	-100.6	-23.8	-0.2736	µg/L	-0.2736	ppb	21:44:38
2	P 214.914†	-35.6	-17.5	-3.7362	µg/L	-3.7362	ppb	21:44:38
2	Pb 220.353†	84.0	-2.6	-0.1459	µg/L	-0.1459	ppb	21:44:38

2	S 181.975 Axial†	89.5	-15.8	-11.745 µg/L	-11.745 ppb		21:44:38
2	Sb 206.836†	89.4	8.3	0.9755 µg/L	0.9755 ppb		21:44:38
2	Se 196.026†	9.9	-5.4	-1.96 µg/L	-1.96 ppb		21:44:38
2	SiO2†	1777.4	-3.4	-0.3192 µg/L	-0.3192 ppb		21:44:38
2	Si 251.611†	834.3	-4.8	-0.0658 µg/L	-0.0658 ppb		21:44:18
2	Sn 189.927†	1.7	2.8	0.1770 µg/L	0.1770 ppb		21:44:38
2	Ti 334.940†	895.6	-59.6	-0.0554 µg/L	-0.0554 ppb		21:44:18
2	Tl 190.801†	-122.5	-5.4	-0.6750 µg/L	-0.6750 ppb		21:44:38
2	U 409.014†	-282.1	-11.3	-0.7096 µg/L	-0.7096 ppb		21:44:18
2	V 292.402†	242.6	-162.0	-0.7943 µg/L	-0.7943 ppb		21:44:18
2	Zn 213.857†	573.6	7.4	0.0434 µg/L	0.0434 ppb		21:44:38
3	Sc RADIAL	144958.5	144958.5	99.3 %			21:43:14
3	Al 396.153Radial†	-37.5	25.5	4.7369 µg/L	4.7369 ppb		21:43:34
3	Ca 317.933Radial†	583.6	27.0	1.5021 µg/L	1.5021 ppb		21:43:34
3	Fe 238.204 Radial†	192.7	45.8	2.8253 µg/L	2.8253 ppb		21:43:34
3	K 766.490 Radial†	1497.6	-37.2	-13.616 µg/L	-13.616 ppb		21:43:14
3	Mg 279.077 IEC†	178.6	-10.9	-4.0718 µg/L	-4.0718 ppb		21:43:34
3	Na 589.592 Radial†	1440.0	158.8	21.708 µg/L	21.708 ppb		21:43:14
3	Sr 421.552†	-197.6	-63.6	-0.1322 µg/L	-0.1322 ppb		21:43:14
3	Sc 361.383	1740188.5	1740188.5	101.28 %			21:44:40
3	Y 371.029	1039891.9	1039891.9	101.29 %			21:44:40
3	Ag 328.068†	3928.5	-212.5	-0.7881 µg/L	-0.7881 ppb		21:44:42
3	As 188.979†	-8.6	11.9	3.6004 µg/L	3.6004 ppb		21:45:02
3	B 249.677†	3552.8	2.1	0.0294 µg/L	0.0294 ppb		21:44:42
3	Ba 233.527†	-133.9	3.6	0.0140 µg/L	0.0140 ppb		21:45:02
3	Be 313.107†	-962.7	114.2	0.0329 µg/L	0.0329 ppb		21:44:42
3	Cd 226.502†	-89.8	29.5	0.1840 µg/L	0.1840 ppb		21:45:02
3	Co 228.616†	-162.5	29.8	0.3679 µg/L	0.3679 ppb		21:45:02
3	Cr 267.716†	179.3	-1.5	-0.0165 µg/L	-0.0165 ppb		21:45:02
3	Cu 324.752†	2942.1	-67.2	-0.2559 µg/L	-0.2559 ppb		21:44:42
3	Mn 257.610†	335.1	93.6	0.1159 µg/L	0.1159 ppb		21:45:02
3	Mo 202.031†	-28.8	-8.4	-0.2468 µg/L	-0.2468 ppb		21:45:02
3	Ni 231.604†	-82.6	-5.1	-0.0583 µg/L	-0.0583 ppb		21:45:02
3	P 214.914†	-27.4	-9.1	-1.9410 µg/L	-1.9410 ppb		21:45:02
3	Pb 220.353†	64.5	-22.7	-1.2712 µg/L	-1.2712 ppb		21:45:02
3	S 181.975 Axial†	101.1	-5.2	-3.8697 µg/L	-3.8697 ppb		21:45:02
3	Sb 206.836†	85.4	3.5	0.4065 µg/L	0.4065 ppb		21:45:02
3	Se 196.026†	13.5	-2.0	-0.710 µg/L	-0.710 ppb		21:45:02
3	SiO2†	1812.3	14.0	1.3744 µg/L	1.3744 ppb		21:45:02
3	Si 251.611†	970.3	121.4	1.7924 µg/L	1.7924 ppb		21:44:42
3	Sn 189.927†	1.9	3.0	0.1856 µg/L	0.1856 ppb		21:45:02
3	Ti 334.940†	941.7	-22.7	-0.0233 µg/L	-0.0233 ppb		21:44:42
3	Tl 190.801†	-117.2	1.0	0.1129 µg/L	0.1129 ppb		21:45:02
3	U 409.014†	-171.3	100.7	5.8492 µg/L	5.8492 ppb		21:44:42
3	V 292.402†	265.0	-142.2	-0.6925 µg/L	-0.6925 ppb		21:44:42
3	Zn 213.857†	580.1	8.4	0.0472 µg/L	0.0472 ppb		21:45:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726594.5	100.49	%	0.718				0.71%
Sc RADIAL	143421.3	98.3	%	1.06				1.08%
Y 371.029	1032559.0	100.57	%	0.667				0.66%
Ag 328.068†	-32.7	-0.1280	µg/L	0.59056	-0.1280	ppb	0.59056	461.54%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.2	1.7231	µg/L	2.76540	1.7231	ppb	2.76540	160.49%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.5	2.5717	µg/L	1.02165	2.5717	ppb	1.02165	39.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	58.6	0.8625	µg/L	1.15748	0.8625	ppb	1.15748	134.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.5	-0.0186	µg/L	0.02870	-0.0186	ppb	0.02870	154.38%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	141.7	0.0385	µg/L	0.03721	0.0385	ppb	0.03721	96.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	44.4	2.4716	µg/L	1.46699	2.4716	ppb	1.46699	59.35%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	25.6	0.1591	µg/L	0.10748	0.1591	ppb	0.10748	67.54%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	30.9	0.3806	µg/L	0.06452	0.3806	ppb	0.06452	16.95%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.5      0.1132 µg/L       0.22191      0.1132 ppb        0.22191 195.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -48.6     -0.1883 µg/L       0.45884     -0.1883 ppb        0.45884 243.64%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       65.4      4.0316 µg/L       1.04544      4.0316 ppb        1.04544  25.93%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       119.2      43.647 µg/L       58.3112      43.647 ppb        58.3112 133.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -5.3     -1.9860 µg/L       1.83888     -1.9860 ppb        1.83888  92.59%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              77.1      0.0955 µg/L       0.03352      0.0955 ppb        0.03352  35.12%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -10.7     -0.3135 µg/L       0.14177     -0.3135 ppb        0.14177  45.22%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      194.8      26.570 µg/L        5.1349      26.570 ppb         5.1349  19.33%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -10.1     -0.1158 µg/L       0.13833     -0.1158 ppb        0.13833 119.49%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.2     -0.8857 µg/L       3.49964     -0.8857 ppb        3.49964 395.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.6     -0.3715 µg/L       0.81072     -0.3715 ppb        0.81072 218.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -13.9     -10.328 µg/L        5.8795     -10.328 ppb         5.8795  56.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.5      0.6419 µg/L       0.29695      0.6419 ppb        0.29695  46.26%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.3      -0.475 µg/L        1.6120      -0.475 ppb         1.6120 339.40%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     9.0      0.8862 µg/L       1.05021      0.8862 ppb        1.05021 118.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              71.9      1.0622 µg/L       0.99095      1.0622 ppb        0.99095  93.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.5      0.2794 µg/L       0.17000      0.2794 ppb        0.17000  60.84%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -91.2     -0.1896 µg/L       0.15021     -0.1896 ppb        0.15021  79.25%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -22.1     -0.0204 µg/L       0.03654     -0.0204 ppb        0.03654 179.40%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -5.1     -0.6309 µg/L       0.72270     -0.6309 ppb        0.72270 114.55%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -2.9     -0.2014 µg/L       5.81317     -0.2014 ppb        5.81317 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -110.8     -0.5437 µg/L       0.34967     -0.5437 ppb        0.34967  64.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              10.7      0.0607 µg/L       0.02675      0.0607 ppb        0.02675  44.07%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 68
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 21:55:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142583.3	142583.3	97.7	%			21:56:11
1	Al 396.153Radial†	26125.5	26801.9	4946.6	µg/L	4946.6	ppb	21:56:11
1	Ca 317.933Radial†	86256.4	87720.3	4886.4	µg/L	4886.4	ppb	21:56:11
1	Fe 238.204 Radial†	77373.7	79041.6	4871.6	µg/L	4871.6	ppb	21:56:11
1	K 766.490 Radial†	14581.9	13379.4	4894.4	µg/L	4894.4	ppb	21:56:11
1	Mg 279.077 IEC†	13220.1	13339.7	4977.8	µg/L	4977.8	ppb	21:56:11
1	Na 589.592 Radial†	70221.6	70578.9	9637.6	µg/L	9637.6	ppb	21:56:11
1	Sr 421.552†	231094.9	236654.1	491.95	µg/L	491.95	ppb	21:56:08
1	Sc 361.383	1721792.2	1721792.2	100.21	%			21:56:38
1	Y 371.029	1018476.9	1018476.9	99.200	%			21:56:38
1	Ag 328.068†	132257.1	127891.1	479.55	µg/L	479.55	ppb	21:56:38
1	As 188.979†	1611.5	1628.5	499.47	µg/L	499.47	ppb	21:56:58
1	B 249.677†	35480.1	31900.5	468.81	µg/L	468.81	ppb	21:56:38
1	Ba 233.527†	119040.9	118929.6	479.64	µg/L	479.64	ppb	21:56:38
1	Be 313.107†	1767471.5	1764866.8	480.67	µg/L	480.67	ppb	21:56:38
1	Cd 226.502†	76426.9	76386.5	476.83	µg/L	476.83	ppb	21:56:38
1	Co 228.616†	38708.1	38818.0	479.20	µg/L	479.20	ppb	21:56:38
1	Cr 267.716†	61091.8	60786.4	475.95	µg/L	475.95	ppb	21:56:38
1	Cu 324.752†	125542.2	122309.4	476.81	µg/L	476.81	ppb	21:56:38
1	Mn 257.610†	389445.6	388399.8	480.36	µg/L	480.36	ppb	21:56:38
1	Mo 202.031†	16429.4	16415.4	482.87	µg/L	482.87	ppb	21:56:58
1	Ni 231.604†	41557.9	41548.1	478.40	µg/L	478.40	ppb	21:56:38
1	P 214.914†	11328.9	11323.4	2413.6	µg/L	2413.6	ppb	21:56:58
1	Pb 220.353†	8812.2	8707.5	487.61	µg/L	487.61	ppb	21:56:58
1	S 181.975 Axial†	1392.1	1284.2	957.66	µg/L	957.66	ppb	21:56:58
1	Sb 206.836†	4144.5	4055.1	483.24	µg/L	483.24	ppb	21:56:58
1	Se 196.026†	1364.7	1346.6	489	µg/L	489	ppb	21:56:58
1	SiO2†	55188.2	53298.2	5188.7	µg/L	5188.7	ppb	21:56:38
1	Si 251.611†	166961.4	165778.2	2434.4	µg/L	2434.4	ppb	21:56:38
1	Sn 189.927†	7776.6	7761.6	485.47	µg/L	485.47	ppb	21:56:58
1	Ti 334.940†	514606.5	512585.6	478.27	µg/L	478.27	ppb	21:56:38
1	Tl 190.801†	3826.9	3935.6	490.75	µg/L	490.75	ppb	21:56:58
1	U 409.014†	7289.4	7544.1	470.15	µg/L	470.15	ppb	21:56:38
1	V 292.402†	98070.8	97463.4	481.83	µg/L	481.83	ppb	21:56:38
1	Zn 213.857†	85920.7	85177.9	474.72	µg/L	474.72	ppb	21:56:38
2	Sc RADIAL	143543.2	143543.2	98.4	%			21:56:15
2	Al 396.153Radial†	26329.4	26830.4	4951.8	µg/L	4951.8	ppb	21:56:15
2	Ca 317.933Radial†	87214.1	88103.5	4907.7	µg/L	4907.7	ppb	21:56:15
2	Fe 238.204 Radial†	78175.0	79326.6	4889.2	µg/L	4889.2	ppb	21:56:15
2	K 766.490 Radial†	14759.5	13460.1	4923.9	µg/L	4923.9	ppb	21:56:15
2	Mg 279.077 IEC†	13306.4	13336.9	4976.8	µg/L	4976.8	ppb	21:56:15
2	Na 589.592 Radial†	70918.2	70806.4	9668.6	µg/L	9668.6	ppb	21:56:15
2	Sr 421.552†	232565.2	236567.1	491.77	µg/L	491.77	ppb	21:56:13
2	Sc 361.383	1725354.7	1725354.7	100.42	%			21:57:01
2	Y 371.029	1021259.3	1021259.3	99.471	%			21:57:01
2	Ag 328.068†	133310.0	128667.2	482.44	µg/L	482.44	ppb	21:57:01
2	As 188.979†	1621.3	1635.0	501.47	µg/L	501.47	ppb	21:57:21
2	B 249.677†	36007.3	32352.4	475.47	µg/L	475.47	ppb	21:57:01
2	Ba 233.527†	119720.2	119360.8	481.38	µg/L	481.38	ppb	21:57:01
2	Be 313.107†	1782951.5	1776640.9	483.88	µg/L	483.88	ppb	21:57:01
2	Cd 226.502†	77092.6	76891.9	479.99	µg/L	479.99	ppb	21:57:01
2	Co 228.616†	39093.6	39122.2	482.96	µg/L	482.96	ppb	21:57:01
2	Cr 267.716†	61575.2	61141.9	478.73	µg/L	478.73	ppb	21:57:01
2	Cu 324.752†	126592.7	123096.8	479.87	µg/L	479.87	ppb	21:57:01
2	Mn 257.610†	393017.2	391154.2	483.76	µg/L	483.76	ppb	21:57:01
2	Mo 202.031†	16523.6	16475.3	484.63	µg/L	484.63	ppb	21:57:21
2	Ni 231.604†	41848.9	41752.3	480.75	µg/L	480.75	ppb	21:57:01
2	P 214.914†	11396.2	11367.0	2422.9	µg/L	2422.9	ppb	21:57:21
2	Pb 220.353†	8867.2	8744.1	489.65	µg/L	489.65	ppb	21:57:21

2	S 181.975 Axial†	1408.6	1297.7	967.74 µg/L	967.74 ppb	21:57:21
2	Sb 206.836†	4160.8	4062.8	484.14 µg/L	484.14 ppb	21:57:21
2	Se 196.026†	1350.1	1329.2	483 µg/L	483 ppb	21:57:21
2	SiO2†	55415.3	53410.7	5199.6 µg/L	5199.6 ppb	21:57:01
2	Si 251.611†	167453.3	165924.1	2436.5 µg/L	2436.5 ppb	21:57:01
2	Sn 189.927†	7843.1	7811.7	488.60 µg/L	488.60 ppb	21:57:21
2	Ti 334.940†	518046.3	514950.8	480.48 µg/L	480.48 ppb	21:57:01
2	Tl 190.801†	3874.0	3974.7	495.58 µg/L	495.58 ppb	21:57:21
2	U 409.014†	7327.0	7566.6	471.56 µg/L	471.56 ppb	21:57:01
2	V 292.402†	98567.7	97756.1	483.29 µg/L	483.29 ppb	21:57:01
2	Zn 213.857†	86827.5	85903.9	478.78 µg/L	478.78 ppb	21:57:01
3	Sc RADIAL	146360.8	146360.8	100 %		21:56:19
3	Al 396.153Radial†	26877.7	26861.7	4957.8 µg/L	4957.8 ppb	21:56:19
3	Ca 317.933Radial†	89496.1	88672.0	4939.4 µg/L	4939.4 ppb	21:56:19
3	Fe 238.204 Radial†	80024.7	79640.9	4908.6 µg/L	4908.6 ppb	21:56:19
3	K 766.490 Radial†	15000.5	13411.5	4906.1 µg/L	4906.1 ppb	21:56:19
3	Mg 279.077 IEC†	13753.4	13522.1	5045.7 µg/L	5045.7 ppb	21:56:19
3	Na 589.592 Radial†	72413.6	70909.6	9682.7 µg/L	9682.7 ppb	21:56:19
3	Sr 421.552†	230747.3	230203.0	478.54 µg/L	478.54 ppb	21:56:17
3	Sc 361.383	1718966.4	1718966.4	100.04 %		21:57:24
3	Y 371.029	1017028.5	1017028.5	99.059 %		21:57:24
3	Ag 328.068†	132653.9	128504.7	481.80 µg/L	481.80 ppb	21:57:24
3	As 188.979†	1590.5	1610.2	493.94 µg/L	493.94 ppb	21:57:44
3	B 249.677†	35824.6	32303.1	474.74 µg/L	474.74 ppb	21:57:24
3	Ba 233.527†	119070.9	119154.9	480.55 µg/L	480.55 ppb	21:57:24
3	Be 313.107†	1772306.3	1772598.9	482.78 µg/L	482.78 ppb	21:57:24
3	Cd 226.502†	76616.2	76701.1	478.79 µg/L	478.79 ppb	21:57:24
3	Co 228.616†	38830.3	39003.7	481.49 µg/L	481.49 ppb	21:57:24
3	Cr 267.716†	61234.2	61029.0	477.86 µg/L	477.86 ppb	21:57:24
3	Cu 324.752†	125521.6	122494.7	477.53 µg/L	477.53 ppb	21:57:24
3	Mn 257.610†	389961.8	389554.7	481.78 µg/L	481.78 ppb	21:57:24
3	Mo 202.031†	16335.5	16348.5	480.91 µg/L	480.91 ppb	21:57:44
3	Ni 231.604†	41630.1	41688.5	480.01 µg/L	480.01 ppb	21:57:24
3	P 214.914†	11241.7	11254.8	2398.9 µg/L	2398.9 ppb	21:57:44
3	Pb 220.353†	8795.7	8705.5	487.50 µg/L	487.50 ppb	21:57:44
3	S 181.975 Axial†	1388.4	1282.7	956.57 µg/L	956.57 ppb	21:57:44
3	Sb 206.836†	4126.6	4043.9	481.85 µg/L	481.85 ppb	21:57:44
3	Se 196.026†	1345.6	1329.7	483 µg/L	483 ppb	21:57:44
3	SiO2†	54983.2	53183.9	5177.6 µg/L	5177.6 ppb	21:57:24
3	Si 251.611†	166469.4	165560.3	2431.2 µg/L	2431.2 ppb	21:57:24
3	Sn 189.927†	7725.1	7722.8	483.05 µg/L	483.05 ppb	21:57:44
3	Ti 334.940†	514909.1	513732.3	479.34 µg/L	479.34 ppb	21:57:24
3	Tl 190.801†	3822.2	3937.2	490.94 µg/L	490.94 ppb	21:57:44
3	U 409.014†	7179.0	7445.8	464.34 µg/L	464.34 ppb	21:57:24
3	V 292.402†	97706.1	97259.8	480.82 µg/L	480.82 ppb	21:57:24
3	Zn 213.857†	86111.6	85509.7	476.57 µg/L	476.57 ppb	21:57:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1722037.8	100.22	%	0.186				0.19%
Sc RADIAL	144162.4	98.8	%	1.35				1.36%
Y 371.029	1018921.6	99.243	%	0.2094				0.21%
Ag 328.068†	128354.3	481.26	µg/L	1.519	481.26	ppb	1.519	0.32%
QC value within limits for Ag 328.068 Recovery = 96.25%								
Al 396.153Radial†	26831.3	4952.1	µg/L	5.59	4952.1	ppb	5.59	0.11%
QC value within limits for Al 396.153Radial Recovery = 99.04%								
As 188.979†	1624.5	498.29	µg/L	3.898	498.29	ppb	3.898	0.78%
QC value within limits for As 188.979 Recovery = 99.66%								
B 249.677†	32185.3	473.01	µg/L	3.650	473.01	ppb	3.650	0.77%
QC value within limits for B 249.677 Recovery = 94.60%								
Ba 233.527†	119148.4	480.52	µg/L	0.870	480.52	ppb	0.870	0.18%
QC value within limits for Ba 233.527 Recovery = 96.10%								
Be 313.107†	1771368.9	482.44	µg/L	1.629	482.44	ppb	1.629	0.34%
QC value within limits for Be 313.107 Recovery = 96.49%								
Ca 317.933Radial†	88165.3	4911.2	µg/L	26.67	4911.2	ppb	26.67	0.54%
QC value within limits for Ca 317.933Radial Recovery = 98.22%								
Cd 226.502†	76659.8	478.54	µg/L	1.594	478.54	ppb	1.594	0.33%
QC value within limits for Cd 226.502 Recovery = 95.71%								
Co 228.616†	38981.3	481.22	µg/L	1.892	481.22	ppb	1.892	0.39%

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   QC value within limits for Co 228.616  Recovery = 96.24%
Cr 267.716†            60985.7      477.51 µg/L         1.423      477.51 ppb          1.423   0.30%
   QC value within limits for Cr 267.716  Recovery = 95.50%
Cu 324.752†           122633.6      478.07 µg/L         1.603      478.07 ppb          1.603   0.34%
   QC value within limits for Cu 324.752  Recovery = 95.61%
Fe 238.204 Radial†     79336.4      4889.8 µg/L         18.48      4889.8 ppb          18.48   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.80%
K 766.490 Radial†      13417.0      4908.2 µg/L         14.87      4908.2 ppb          14.87   0.30%
   QC value within limits for K 766.490 Radial  Recovery = 98.16%
Mg 279.077 IEC†        13399.6      5000.1 µg/L         39.49      5000.1 ppb          39.49   0.79%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.00%
Mn 257.610†           389702.9      481.97 µg/L         1.712      481.97 ppb          1.712   0.36%
   QC value within limits for Mn 257.610  Recovery = 96.39%
Mo 202.031†            16413.1      482.80 µg/L         1.864      482.80 ppb          1.864   0.39%
   QC value within limits for Mo 202.031  Recovery = 96.56%
Na 589.592 Radial†     70765.0      9663.0 µg/L         23.10      9663.0 ppb          23.10   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 96.63%
Ni 231.604†            41663.0      479.72 µg/L         1.203      479.72 ppb          1.203   0.25%
   QC value within limits for Ni 231.604  Recovery = 95.94%
P 214.914†             11315.0      2411.8 µg/L         12.10      2411.8 ppb          12.10   0.50%
   QC value within limits for P 214.914  Recovery = 96.47%
Pb 220.353†             8719.0      488.25 µg/L         1.215      488.25 ppb          1.215   0.25%
   QC value within limits for Pb 220.353  Recovery = 97.65%
S 181.975 Axial†        1288.2      960.66 µg/L         6.158      960.66 ppb          6.158   0.64%
   QC value within limits for S 181.975 Axial  Recovery = 96.07%
Sb 206.836†             4053.9      483.08 µg/L         1.155      483.08 ppb          1.155   0.24%
   QC value within limits for Sb 206.836  Recovery = 96.62%
Se 196.026†             1335.2         485 µg/L           3.6         485 ppb            3.6   0.74%
   QC value within limits for Se 196.026  Recovery = 96.96%
SiO2†                  53297.6      5188.7 µg/L         10.99      5188.7 ppb          10.99   0.21%
   QC value within limits for SiO2  Recovery = 97.03%
Si 251.611†           165754.2      2434.1 µg/L          2.66      2434.1 ppb           2.66   0.11%
   QC value within limits for Si 251.611  Recovery = 97.36%
Sn 189.927†             7765.4      485.71 µg/L         2.782      485.71 ppb          2.782   0.57%
   QC value within limits for Sn 189.927  Recovery = 97.14%
Sr 421.552†           234474.7      487.42 µg/L         7.692      487.42 ppb          7.692   1.58%
   QC value within limits for Sr 421.552  Recovery = 97.48%
Ti 334.940†           513756.2      479.37 µg/L         1.105      479.37 ppb          1.105   0.23%
   QC value within limits for Ti 334.940  Recovery = 95.87%
Tl 190.801†             3949.2      492.42 µg/L         2.733      492.42 ppb          2.733   0.56%
   QC value within limits for Tl 190.801  Recovery = 98.48%
U 409.014†              7518.8      468.68 µg/L         3.825      468.68 ppb          3.825   0.82%
   QC value within limits for U 409.014  Recovery = 93.74%
V 292.402†             97493.1      481.98 µg/L         1.241      481.98 ppb          1.241   0.26%
   QC value within limits for V 292.402  Recovery = 96.40%
Zn 213.857†            85530.5      476.69 µg/L         2.032      476.69 ppb          2.032   0.43%
   QC value within limits for Zn 213.857  Recovery = 95.34%
All analyte(s) passed QC.
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Sequence No.: 69
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 21:57:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143488.6	143488.6	98.3	%			21:58:23
1	Al 396.153Radial†	-31.2	31.5	5.8461	µg/L	5.8461	ppb	21:58:43
1	Ca 317.933Radial†	626.0	76.1	4.2401	µg/L	4.2401	ppb	21:58:43
1	Fe 238.204 Radial†	255.1	111.3	6.8602	µg/L	6.8602	ppb	21:58:43
1	K 766.490 Radial†	1658.0	141.4	51.764	µg/L	51.764	ppb	21:58:23
1	Mg 279.077 IEC†	183.2	-4.4	-1.6504	µg/L	-1.6504	ppb	21:58:43
1	Na 589.592 Radial†	1420.1	153.5	20.919	µg/L	20.919	ppb	21:58:23
1	Sr 421.552†	-123.6	9.6	0.0200	µg/L	0.0200	ppb	21:58:23
1	Sc 361.383	1741228.6	1741228.6	101.34	%			21:59:30
1	Y 371.029	1041005.9	1041005.9	101.39	%			21:59:30
1	Ag 328.068†	3951.0	-192.6	-0.7198	µg/L	-0.7198	ppb	21:59:33
1	As 188.979†	-17.3	3.3	0.9894	µg/L	0.9894	ppb	21:59:53
1	B 249.677†	3598.6	45.2	0.6651	µg/L	0.6651	ppb	21:59:33
1	Ba 233.527†	-97.3	39.9	0.1606	µg/L	0.1606	ppb	21:59:53
1	Be 313.107†	-658.8	414.6	0.1114	µg/L	0.1114	ppb	21:59:33
1	Cd 226.502†	-98.4	21.1	0.1311	µg/L	0.1311	ppb	21:59:53
1	Co 228.616†	-161.8	30.7	0.3780	µg/L	0.3780	ppb	21:59:53
1	Cr 267.716†	182.4	1.5	0.0155	µg/L	0.0155	ppb	21:59:53
1	Cu 324.752†	3144.1	130.4	0.5038	µg/L	0.5038	ppb	21:59:33
1	Mn 257.610†	336.5	94.8	0.1174	µg/L	0.1174	ppb	21:59:53
1	Mo 202.031†	-24.2	-3.8	-0.1104	µg/L	-0.1104	ppb	21:59:53
1	Ni 231.604†	-79.3	-1.7	-0.0200	µg/L	-0.0200	ppb	21:59:53
1	P 214.914†	-16.3	1.8	0.3858	µg/L	0.3858	ppb	21:59:53
1	Pb 220.353†	84.1	-3.4	-0.1849	µg/L	-0.1849	ppb	21:59:53
1	S 181.975 Axial†	105.7	-0.8	-0.5879	µg/L	-0.5879	ppb	21:59:53
1	Sb 206.836†	91.1	9.1	1.0753	µg/L	1.0753	ppb	21:59:53
1	Se 196.026†	16.7	1.2	0.419	µg/L	0.419	ppb	21:59:53
1	SiO2†	1811.1	11.8	1.1639	µg/L	1.1639	ppb	21:59:53
1	Si 251.611†	939.6	90.6	1.3388	µg/L	1.3388	ppb	21:59:33
1	Sn 189.927†	-4.7	-3.6	-0.2217	µg/L	-0.2217	ppb	21:59:53
1	Ti 334.940†	1178.8	210.6	0.1990	µg/L	0.1990	ppb	21:59:33
1	Tl 190.801†	-99.6	18.4	2.2591	µg/L	2.2591	ppb	21:59:53
1	U 409.014†	-357.9	-83.3	-4.8719	µg/L	-4.8719	ppb	21:59:33
1	V 292.402†	400.4	-8.7	-0.0477	µg/L	-0.0477	ppb	21:59:33
1	Zn 213.857†	586.5	14.3	0.0794	µg/L	0.0794	ppb	21:59:53
2	Sc RADIAL	142543.2	142543.2	97.7	%			21:58:45
2	Al 396.153Radial†	-54.4	7.5	1.4064	µg/L	1.4064	ppb	21:59:05
2	Ca 317.933Radial†	611.6	65.6	3.6535	µg/L	3.6535	ppb	21:59:05
2	Fe 238.204 Radial†	253.5	111.4	6.8653	µg/L	6.8653	ppb	21:59:05
2	K 766.490 Radial†	1678.4	173.5	63.518	µg/L	63.518	ppb	21:58:45
2	Mg 279.077 IEC†	176.5	-10.0	-3.7286	µg/L	-3.7286	ppb	21:59:05
2	Na 589.592 Radial†	1442.2	185.7	25.313	µg/L	25.313	ppb	21:58:45
2	Sr 421.552†	-245.0	-115.6	-0.2403	µg/L	-0.2403	ppb	21:58:45
2	Sc 361.383	1719454.2	1719454.2	100.07	%			21:59:55
2	Y 371.029	1027865.1	1027865.1	100.11	%			21:59:55
2	Ag 328.068†	4168.7	74.3	0.2835	µg/L	0.2835	ppb	21:59:57
2	As 188.979†	-13.3	7.1	2.1498	µg/L	2.1498	ppb	22:00:17
2	B 249.677†	3486.4	-22.0	-0.3249	µg/L	-0.3249	ppb	21:59:57
2	Ba 233.527†	-114.3	21.7	0.0871	µg/L	0.0871	ppb	22:00:17
2	Be 313.107†	-912.6	152.8	0.0438	µg/L	0.0438	ppb	21:59:57
2	Cd 226.502†	-107.0	11.3	0.0695	µg/L	0.0695	ppb	22:00:17
2	Co 228.616†	-180.3	10.1	0.1246	µg/L	0.1246	ppb	22:00:17
2	Cr 267.716†	201.1	22.4	0.1701	µg/L	0.1701	ppb	22:00:17
2	Cu 324.752†	3016.0	41.6	0.1688	µg/L	0.1688	ppb	21:59:57
2	Mn 257.610†	311.1	73.6	0.0912	µg/L	0.0912	ppb	22:00:17
2	Mo 202.031†	-34.1	-14.0	-0.4113	µg/L	-0.4113	ppb	22:00:17
2	Ni 231.604†	-98.0	-21.4	-0.2463	µg/L	-0.2463	ppb	22:00:17
2	P 214.914†	-36.4	-18.4	-3.9363	µg/L	-3.9363	ppb	22:00:17
2	Pb 220.353†	83.9	-2.5	-0.1482	µg/L	-0.1482	ppb	22:00:17

2	S 181.975 Axial†	99.2	-5.9	-4.3840 µg/L	-4.3840 ppb	22:00:17
2	Sb 206.836†	64.9	-16.0	-1.9121 µg/L	-1.9121 ppb	22:00:17
2	Se 196.026†	15.3	0.0	0.021 µg/L	0.021 ppb	22:00:17
2	SiO2†	1788.3	11.6	1.1476 µg/L	1.1476 ppb	22:00:17
2	Si 251.611†	930.7	93.5	1.3835 µg/L	1.3835 ppb	21:59:57
2	Sn 189.927†	-0.8	0.3	0.0189 µg/L	0.0189 ppb	22:00:17
2	Ti 334.940†	1073.2	119.9	0.1093 µg/L	0.1093 ppb	21:59:57
2	Tl 190.801†	-128.3	-11.5	-1.4187 µg/L	-1.4187 ppb	22:00:17
2	U 409.014†	-143.3	126.7	7.4052 µg/L	7.4052 ppb	21:59:57
2	V 292.402†	396.1	-8.0	-0.0385 µg/L	-0.0385 ppb	21:59:57
2	Zn 213.857†	572.5	7.7	0.0442 µg/L	0.0442 ppb	22:00:17
3	Sc RADIAL	144454.1	144454.1	99.0 %		21:59:07
3	Al 396.153Radial†	-50.8	11.9	2.2219 µg/L	2.2219 ppb	21:59:27
3	Ca 317.933Radial†	619.6	65.3	3.6394 µg/L	3.6394 ppb	21:59:27
3	Fe 238.204 Radial†	231.3	85.6	5.2750 µg/L	5.2750 ppb	21:59:27
3	K 766.490 Radial†	1512.1	-17.2	-6.3033 µg/L	-6.3033 ppb	21:59:07
3	Mg 279.077 IEC†	192.0	3.2	1.1976 µg/L	1.1976 ppb	21:59:27
3	Na 589.592 Radial†	1347.2	70.1	9.5868 µg/L	9.5868 ppb	21:59:07
3	Sr 421.552†	-129.4	4.5	0.0094 µg/L	0.0094 ppb	21:59:07
3	Sc 361.383	1726759.9	1726759.9	100.50 %		22:00:19
3	Y 371.029	1032580.6	1032580.6	100.57 %		22:00:19
3	Ag 328.068†	4194.8	82.6	0.3040 µg/L	0.3040 ppb	22:00:21
3	As 188.979†	-19.7	0.7	0.2129 µg/L	0.2129 ppb	22:00:41
3	B 249.677†	3651.6	127.6	1.8815 µg/L	1.8815 ppb	22:00:21
3	Ba 233.527†	-116.8	19.7	0.0794 µg/L	0.0794 ppb	22:00:41
3	Be 313.107†	-870.8	198.2	0.0524 µg/L	0.0524 ppb	22:00:21
3	Cd 226.502†	-85.6	33.0	0.2057 µg/L	0.2057 ppb	22:00:41
3	Co 228.616†	-171.1	20.1	0.2475 µg/L	0.2475 ppb	22:00:41
3	Cr 267.716†	156.8	-22.6	-0.1724 µg/L	-0.1724 ppb	22:00:41
3	Cu 324.752†	2930.7	-56.0	-0.2209 µg/L	-0.2209 ppb	22:00:21
3	Mn 257.610†	308.3	69.5	0.0859 µg/L	0.0859 ppb	22:00:41
3	Mo 202.031†	-28.4	-8.1	-0.2389 µg/L	-0.2389 ppb	22:00:41
3	Ni 231.604†	-67.6	9.2	0.1060 µg/L	0.1060 ppb	22:00:41
3	P 214.914†	-14.4	3.6	0.7813 µg/L	0.7813 ppb	22:00:41
3	Pb 220.353†	81.9	-4.8	-0.2670 µg/L	-0.2670 ppb	22:00:41
3	S 181.975 Axial†	100.0	-5.5	-4.1081 µg/L	-4.1081 ppb	22:00:41
3	Sb 206.836†	58.7	-22.4	-2.6589 µg/L	-2.6589 ppb	22:00:41
3	Se 196.026†	9.4	-5.9	-2.14 µg/L	-2.14 ppb	22:00:41
3	SiO2†	1781.8	-2.4	-0.2353 µg/L	-0.2353 ppb	22:00:41
3	Si 251.611†	974.4	133.0	1.9607 µg/L	1.9607 ppb	22:00:21
3	Sn 189.927†	6.8	7.8	0.4886 µg/L	0.4886 ppb	22:00:41
3	Ti 334.940†	1012.5	55.0	0.0535 µg/L	0.0535 ppb	22:00:21
3	Tl 190.801†	-115.8	1.4	0.1780 µg/L	0.1780 ppb	22:00:41
3	U 409.014†	-360.3	-88.6	-5.1619 µg/L	-5.1619 ppb	22:00:21
3	V 292.402†	483.1	77.0	0.3681 µg/L	0.3681 ppb	22:00:21
3	Zn 213.857†	572.8	5.5	0.0300 µg/L	0.0300 ppb	22:00:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729147.6	100.64	%	0.645				0.64%
Sc RADIAL	143495.3	98.3	%	0.65				0.67%
Y 371.029	1033817.2	100.69	%	0.648				0.64%
Ag 328.068†	-11.9	-0.0441	µg/L	0.58526	-0.0441	ppb	0.58526	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	17.0	3.1581	µg/L	2.36331	3.1581	ppb	2.36331	74.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.7	1.1173	µg/L	0.97478	1.1173	ppb	0.97478	87.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.3	0.7405	µg/L	1.10513	0.7405	ppb	1.10513	149.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	27.1	0.1090	µg/L	0.04480	0.1090	ppb	0.04480	41.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	255.2	0.0692	µg/L	0.03680	0.0692	ppb	0.03680	53.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	69.0	3.8443	µg/L	0.34280	3.8443	ppb	0.34280	8.92%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	21.8	0.1354	µg/L	0.06821	0.1354	ppb	0.06821	50.36%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.3	0.2500	µg/L	0.12669	0.2500	ppb	0.12669	50.67%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.4      0.0044 µg/L       0.17156      0.0044 ppb        0.17156 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               38.7      0.1505 µg/L       0.36269      0.1505 ppb        0.36269 240.92%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       102.8      6.3335 µg/L       0.91666      6.3335 ppb        0.91666  14.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         99.2     36.326 µg/L       37.3832     36.326 ppb        37.3832 102.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -3.7     -1.3938 µg/L       2.47310     -1.3938 ppb        2.47310 177.43%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               79.3      0.0982 µg/L       0.01685      0.0982 ppb        0.01685  17.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -8.6     -0.2535 µg/L       0.15099     -0.2535 ppb        0.15099  59.56%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       136.4     18.606 µg/L        8.1142     18.606 ppb         8.1142  43.61%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -4.6     -0.0534 µg/L       0.17854     -0.0534 ppb        0.17854 334.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.3     -0.9231 µg/L       2.61701     -0.9231 ppb        2.61701 283.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -3.6     -0.2000 µg/L       0.06080     -0.2000 ppb        0.06080  30.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.1     -3.0267 µg/L       2.11654     -3.0267 ppb        2.11654  69.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -9.8     -1.1652 µg/L       1.97594     -1.1652 ppb        1.97594 169.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -1.6      -0.566 µg/L        1.3761      -0.566 ppb         1.3761 243.25%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      7.0      0.6921 µg/L       0.80317      0.6921 ppb        0.80317 116.05%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              105.7      1.5610 µg/L       0.34690      1.5610 ppb        0.34690  22.22%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.5      0.0953 µg/L       0.36125      0.0953 ppb        0.36125 379.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -33.8     -0.0703 µg/L       0.14733     -0.0703 ppb        0.14733 209.53%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              128.5      0.1206 µg/L       0.07341      0.1206 ppb        0.07341  60.86%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.8      0.3394 µg/L       1.84422      0.3394 ppb        1.84422 543.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -15.1     -0.8762 µg/L       7.17337     -0.8762 ppb        7.17337 818.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                20.1      0.0940 µg/L       0.23744      0.0940 ppb        0.23744 252.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                9.2      0.0512 µg/L       0.02545      0.0512 ppb        0.02545  49.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 77
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 22:12:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144265.2	144265.2	98.9	%			22:13:29
1	Al 396.153Radial†	26382.4	26750.0	4937.0	µg/L	4937.0	ppb	22:13:29
1	Ca 317.933Radial†	86791.9	87232.7	4859.2	µg/L	4859.2	ppb	22:13:29
1	Fe 238.204 Radial†	77447.1	78192.6	4819.3	µg/L	4819.3	ppb	22:13:29
1	K 766.490 Radial†	14619.5	13243.4	4844.7	µg/L	4844.7	ppb	22:13:29
1	Mg 279.077 IEC†	13211.3	13173.0	4915.8	µg/L	4915.8	ppb	22:13:29
1	Na 589.592 Radial†	70822.8	70349.2	9606.2	µg/L	9606.2	ppb	22:13:29
1	Sr 421.552†	230249.1	233041.1	484.44	µg/L	484.44	ppb	22:13:27
1	Sc 361.383	1718218.3	1718218.3	100.00	%			22:13:42
1	Y 371.029	1017558.5	1017558.5	99.111	%			22:13:42
1	Ag 328.068†	131861.6	127770.2	479.08	µg/L	479.08	ppb	22:13:42
1	As 188.979†	1610.7	1631.1	500.23	µg/L	500.23	ppb	22:14:02
1	B 249.677†	35422.2	31916.3	469.05	µg/L	469.05	ppb	22:13:42
1	Ba 233.527†	118202.1	118337.9	477.26	µg/L	477.26	ppb	22:13:42
1	Be 313.107†	1762457.8	1763521.9	480.31	µg/L	480.31	ppb	22:13:42
1	Cd 226.502†	75826.8	75945.0	474.08	µg/L	474.08	ppb	22:13:42
1	Co 228.616†	38510.6	38700.9	477.76	µg/L	477.76	ppb	22:13:42
1	Cr 267.716†	60814.9	60636.3	474.77	µg/L	474.77	ppb	22:13:42
1	Cu 324.752†	125406.1	122433.9	477.29	µg/L	477.29	ppb	22:13:42
1	Mn 257.610†	388459.2	388221.8	480.14	µg/L	480.14	ppb	22:13:42
1	Mo 202.031†	16438.1	16458.2	484.12	µg/L	484.12	ppb	22:14:02
1	Ni 231.604†	41348.4	41424.9	476.98	µg/L	476.98	ppb	22:13:42
1	P 214.914†	11268.3	11286.3	2405.7	µg/L	2405.7	ppb	22:14:02
1	Pb 220.353†	8791.6	8705.2	487.48	µg/L	487.48	ppb	22:14:02
1	S 181.975 Axial†	1392.6	1287.6	960.21	µg/L	960.21	ppb	22:14:02
1	Sb 206.836†	4153.0	4072.2	485.30	µg/L	485.30	ppb	22:14:02
1	Se 196.026†	1350.2	1334.9	485	µg/L	485	ppb	22:14:02
1	SiO2†	54803.6	53028.2	5162.3	µg/L	5162.3	ppb	22:13:42
1	Si 251.611†	165311.8	164475.2	2415.2	µg/L	2415.2	ppb	22:13:42
1	Sn 189.927†	7742.7	7743.8	484.36	µg/L	484.36	ppb	22:14:02
1	Ti 334.940†	513691.3	512738.5	478.42	µg/L	478.42	ppb	22:13:42
1	Tl 190.801†	3841.3	3958.0	493.49	µg/L	493.49	ppb	22:14:02
1	U 409.014†	7369.5	7639.3	475.58	µg/L	475.58	ppb	22:13:42
1	V 292.402†	97334.2	96930.4	479.25	µg/L	479.25	ppb	22:13:42
1	Zn 213.857†	85434.2	84869.8	473.01	µg/L	473.01	ppb	22:13:42
2	Sc RADIAL	145847.8	145847.8	99.9	%			22:13:33
2	Al 396.153Radial†	26431.3	26509.4	4892.7	µg/L	4892.7	ppb	22:13:33
2	Ca 317.933Radial†	87616.4	87105.0	4852.1	µg/L	4852.1	ppb	22:13:33
2	Fe 238.204 Radial†	78290.7	78186.6	4818.9	µg/L	4818.9	ppb	22:13:33
2	K 766.490 Radial†	14711.5	13175.0	4819.6	µg/L	4819.6	ppb	22:13:33
2	Mg 279.077 IEC†	13383.0	13199.9	4925.6	µg/L	4925.6	ppb	22:13:33
2	Na 589.592 Radial†	71537.8	70287.2	9597.8	µg/L	9597.8	ppb	22:13:33
2	Sr 421.552†	230007.1	230271.7	478.68	µg/L	478.68	ppb	22:13:31
2	Sc 361.383	1739608.4	1739608.4	101.24	%			22:14:05
2	Y 371.029	1028848.9	1028848.9	100.21	%			22:14:05
2	Ag 328.068†	134324.7	128581.6	482.14	µg/L	482.14	ppb	22:14:05
2	As 188.979†	1606.6	1607.2	493.02	µg/L	493.02	ppb	22:14:25
2	B 249.677†	36291.4	32339.3	475.28	µg/L	475.28	ppb	22:14:05
2	Ba 233.527†	120672.3	119324.3	481.23	µg/L	481.23	ppb	22:14:05
2	Be 313.107†	1801555.4	1780467.6	484.92	µg/L	484.92	ppb	22:14:05
2	Cd 226.502†	77540.6	76705.4	478.83	µg/L	478.83	ppb	22:14:05
2	Co 228.616†	39324.4	39031.1	481.84	µg/L	481.84	ppb	22:14:05
2	Cr 267.716†	61962.6	61022.1	477.79	µg/L	477.79	ppb	22:14:05
2	Cu 324.752†	127723.3	123180.5	480.19	µg/L	480.19	ppb	22:14:05
2	Mn 257.610†	396691.5	391576.4	484.29	µg/L	484.29	ppb	22:14:05
2	Mo 202.031†	16408.8	16227.1	477.33	µg/L	477.33	ppb	22:14:25
2	Ni 231.604†	42066.6	41625.8	479.29	µg/L	479.29	ppb	22:14:05
2	P 214.914†	11256.1	11135.6	2373.5	µg/L	2373.5	ppb	22:14:25
2	Pb 220.353†	8760.6	8566.5	479.72	µg/L	479.72	ppb	22:14:25

2	S 181.975 Axial†	1379.1	1257.1	937.49 µg/L	937.49 ppb	22:14:25
2	Sb 206.836†	4126.7	3995.1	476.00 µg/L	476.00 ppb	22:14:25
2	Se 196.026†	1344.9	1313.1	477 µg/L	477 ppb	22:14:25
2	SiO2†	55878.0	53415.5	5200.4 µg/L	5200.4 ppb	22:14:05
2	Si 251.611†	168787.2	165875.2	2436.0 µg/L	2436.0 ppb	22:14:05
2	Sn 189.927†	7780.5	7685.9	480.76 µg/L	480.76 ppb	22:14:25
2	Ti 334.940†	523148.0	515762.7	481.24 µg/L	481.24 ppb	22:14:05
2	Tl 190.801†	3840.1	3909.5	487.59 µg/L	487.59 ppb	22:14:25
2	U 409.014†	7476.8	7654.7	476.77 µg/L	476.77 ppb	22:14:05
2	V 292.402†	99532.4	97904.8	483.95 µg/L	483.95 ppb	22:14:05
2	Zn 213.857†	87491.3	85851.1	478.50 µg/L	478.50 ppb	22:14:05
3	Sc RADIAL	145510.3	145510.3	99.7 %		22:13:37
3	Al 396.153Radial†	26649.3	26789.4	4944.6 µg/L	4944.6 ppb	22:13:37
3	Ca 317.933Radial†	87905.2	87598.0	4879.6 µg/L	4879.6 ppb	22:13:37
3	Fe 238.204 Radial†	78514.4	78592.6	4844.0 µg/L	4844.0 ppb	22:13:37
3	K 766.490 Radial†	14626.3	13123.7	4800.8 µg/L	4800.8 ppb	22:13:37
3	Mg 279.077 IEC†	13367.9	13215.7	4931.5 µg/L	4931.5 ppb	22:13:37
3	Na 589.592 Radial†	71662.6	70578.3	9637.6 µg/L	9637.6 ppb	22:13:37
3	Sr 421.552†	228923.8	229719.0	477.53 µg/L	477.53 ppb	22:13:35
3	Sc 361.383	1738267.6	1738267.6	101.17 %		22:14:28
3	Y 371.029	1027936.3	1027936.3	100.12 %		22:14:28
3	Ag 328.068†	134212.1	128572.7	482.09 µg/L	482.09 ppb	22:14:28
3	As 188.979†	1598.1	1600.0	490.84 µg/L	490.84 ppb	22:14:48
3	B 249.677†	36163.6	32240.6	473.82 µg/L	473.82 ppb	22:14:28
3	Ba 233.527†	120556.5	119301.7	481.14 µg/L	481.14 ppb	22:14:28
3	Be 313.107†	1796851.1	1777190.1	484.03 µg/L	484.03 ppb	22:14:28
3	Cd 226.502†	77464.7	76689.4	478.73 µg/L	478.73 ppb	22:14:28
3	Co 228.616†	39399.0	39134.9	483.12 µg/L	483.12 ppb	22:14:28
3	Cr 267.716†	61725.8	60835.3	476.33 µg/L	476.33 ppb	22:14:28
3	Cu 324.752†	127349.1	122907.9	479.13 µg/L	479.13 ppb	22:14:28
3	Mn 257.610†	395160.9	390365.7	482.79 µg/L	482.79 ppb	22:14:28
3	Mo 202.031†	16361.5	16192.8	476.33 µg/L	476.33 ppb	22:14:48
3	Ni 231.604†	41980.9	41573.2	478.68 µg/L	478.68 ppb	22:14:28
3	P 214.914†	11184.1	11073.0	2360.1 µg/L	2360.1 ppb	22:14:48
3	Pb 220.353†	8741.7	8554.5	479.05 µg/L	479.05 ppb	22:14:48
3	S 181.975 Axial†	1393.5	1272.4	948.88 µg/L	948.88 ppb	22:14:48
3	Sb 206.836†	4119.1	3990.8	475.48 µg/L	475.48 ppb	22:14:48
3	Se 196.026†	1344.8	1314.0	477 µg/L	477 ppb	22:14:48
3	SiO2†	55631.5	53214.4	5180.9 µg/L	5180.9 ppb	22:14:28
3	Si 251.611†	168426.4	165647.1	2432.6 µg/L	2432.6 ppb	22:14:28
3	Sn 189.927†	7707.1	7619.3	476.60 µg/L	476.60 ppb	22:14:48
3	Ti 334.940†	521295.0	514329.6	479.91 µg/L	479.91 ppb	22:14:28
3	Tl 190.801†	3816.8	3889.5	485.09 µg/L	485.09 ppb	22:14:48
3	U 409.014†	7397.3	7581.9	472.42 µg/L	472.42 ppb	22:14:28
3	V 292.402†	99170.7	97623.1	482.55 µg/L	482.55 ppb	22:14:28
3	Zn 213.857†	87280.4	85709.2	477.71 µg/L	477.71 ppb	22:14:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732031.4	100.80	%	0.697				0.69%
Sc RADIAL	145207.8	99.5	%	0.57				0.57%
Y 371.029	1024781.2	99.814	%	0.6109				0.61%
Ag 328.068†	128308.2	481.10	µg/L	1.752	481.10	ppb	1.752	0.36%
QC value within limits for Ag 328.068 Recovery = 96.22%								
Al 396.153Radial†	26682.9	4924.7	µg/L	28.05	4924.7	ppb	28.05	0.57%
QC value within limits for Al 396.153Radial Recovery = 98.49%								
As 188.979†	1612.8	494.70	µg/L	4.918	494.70	ppb	4.918	0.99%
QC value within limits for As 188.979 Recovery = 98.94%								
B 249.677†	32165.4	472.71	µg/L	3.255	472.71	ppb	3.255	0.69%
QC value within limits for B 249.677 Recovery = 94.54%								
Ba 233.527†	118988.0	479.88	µg/L	2.269	479.88	ppb	2.269	0.47%
QC value within limits for Ba 233.527 Recovery = 95.98%								
Be 313.107†	1773726.5	483.09	µg/L	2.447	483.09	ppb	2.447	0.51%
QC value within limits for Be 313.107 Recovery = 96.62%								
Ca 317.933Radial†	87311.9	4863.6	µg/L	14.25	4863.6	ppb	14.25	0.29%
QC value within limits for Ca 317.933Radial Recovery = 97.27%								
Cd 226.502†	76446.6	477.21	µg/L	2.714	477.21	ppb	2.714	0.57%
QC value within limits for Cd 226.502 Recovery = 95.44%								
Co 228.616†	38955.6	480.91	µg/L	2.798	480.91	ppb	2.798	0.58%

```
   QC value within limits for Co 228.616  Recovery = 96.18%
Cr 267.716†            60831.2      476.30 µg/L         1.512      476.30 ppb          1.512   0.32%
   QC value within limits for Cr 267.716  Recovery = 95.26%
Cu 324.752†           122840.8      478.87 µg/L         1.470      478.87 ppb          1.470   0.31%
   QC value within limits for Cu 324.752  Recovery = 95.77%
Fe 238.204 Radial†     78324.0      4827.4 µg/L         14.34      4827.4 ppb          14.34   0.30%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.55%
K 766.490 Radial†      13180.7      4821.7 µg/L         21.99      4821.7 ppb          21.99   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 96.43%
Mg 279.077 IEC†        13196.2      4924.3 µg/L          7.93      4924.3 ppb           7.93   0.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.49%
Mn 257.610†           390054.6      482.41 µg/L         2.102      482.41 ppb          2.102   0.44%
   QC value within limits for Mn 257.610  Recovery = 96.48%
Mo 202.031†            16292.7      479.26 µg/L         4.241      479.26 ppb          4.241   0.88%
   QC value within limits for Mo 202.031  Recovery = 95.85%
Na 589.592 Radial†     70404.9      9613.9 µg/L         20.97      9613.9 ppb          20.97   0.22%
   QC value within limits for Na 589.592 Radial  Recovery = 96.14%
Ni 231.604†            41541.3      478.32 µg/L         1.200      478.32 ppb          1.200   0.25%
   QC value within limits for Ni 231.604  Recovery = 95.66%
P 214.914†             11165.0      2379.7 µg/L         23.45      2379.7 ppb          23.45   0.99%
   QC value within limits for P 214.914  Recovery = 95.19%
Pb 220.353†             8608.8      482.08 µg/L         4.685      482.08 ppb          4.685   0.97%
   QC value within limits for Pb 220.353  Recovery = 96.42%
S 181.975 Axial†        1272.4      948.86 µg/L        11.360      948.86 ppb         11.360   1.20%
   QC value within limits for S 181.975 Axial  Recovery = 94.89%
Sb 206.836†             4019.3      478.92 µg/L         5.524      478.92 ppb          5.524   1.15%
   QC value within limits for Sb 206.836  Recovery = 95.78%
Se 196.026†             1320.7         480 µg/L           4.5         480 ppb            4.5   0.93%
   QC value within limits for Se 196.026  Recovery = 95.91%
SiO2†                  53219.4      5181.2 µg/L         19.05      5181.2 ppb          19.05   0.37%
   QC value within limits for SiO2  Recovery = 96.89%
Si 251.611†           165332.5      2427.9 µg/L         11.15      2427.9 ppb          11.15   0.46%
   QC value within limits for Si 251.611  Recovery = 97.12%
Sn 189.927†             7683.0      480.57 µg/L         3.879      480.57 ppb          3.879   0.81%
   QC value within limits for Sn 189.927  Recovery = 96.11%
Sr 421.552†           231010.6      480.22 µg/L         3.701      480.22 ppb          3.701   0.77%
   QC value within limits for Sr 421.552  Recovery = 96.04%
Ti 334.940†           514276.9      479.86 µg/L         1.412      479.86 ppb          1.412   0.29%
   QC value within limits for Ti 334.940  Recovery = 95.97%
Tl 190.801†             3919.0      488.72 µg/L         4.311      488.72 ppb          4.311   0.88%
   QC value within limits for Tl 190.801  Recovery = 97.74%
U 409.014†              7625.3      474.92 µg/L         2.247      474.92 ppb          2.247   0.47%
   QC value within limits for U 409.014  Recovery = 94.98%
V 292.402†             97486.1      481.92 µg/L         2.411      481.92 ppb          2.411   0.50%
   QC value within limits for V 292.402  Recovery = 96.38%
Zn 213.857†            85476.7      476.40 µg/L         2.970      476.40 ppb          2.970   0.62%
   QC value within limits for Zn 213.857  Recovery = 95.28%
All analyte(s) passed QC.
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Sequence No.: 78
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 22:14:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144616.5	144616.5	99.1	%			22:15:27
1	Al 396.153Radial†	-140.4	-78.5	-14.533	µg/L	-14.533	ppb	22:15:27
1	Ca 317.933Radial†	605.1	50.0	2.7853	µg/L	2.7853	ppb	22:15:47
1	Fe 238.204 Radial†	190.6	44.2	2.7255	µg/L	2.7255	ppb	22:15:47
1	K 766.490 Radial†	1690.5	161.1	58.992	µg/L	58.992	ppb	22:15:27
1	Mg 279.077 IEC†	189.8	0.8	0.2999	µg/L	0.2999	ppb	22:15:47
1	Na 589.592 Radial†	1316.3	37.4	5.0628	µg/L	5.0628	ppb	22:15:27
1	Sr 421.552†	-196.7	-63.2	-0.1315	µg/L	-0.1315	ppb	22:15:27
1	Sc 361.383	1731481.4	1731481.4	100.77	%			22:16:34
1	Y 371.029	1035707.2	1035707.2	100.88	%			22:16:34
1	Ag 328.068†	4207.6	84.0	0.3025	µg/L	0.3025	ppb	22:16:37
1	As 188.979†	-21.2	-0.7	-0.1971	µg/L	-0.1971	ppb	22:16:57
1	B 249.677†	3625.9	92.2	1.3590	µg/L	1.3590	ppb	22:16:37
1	Ba 233.527†	-157.7	-20.7	-0.0841	µg/L	-0.0841	ppb	22:16:57
1	Be 313.107†	-910.7	160.9	0.0444	µg/L	0.0444	ppb	22:16:37
1	Cd 226.502†	-114.4	4.7	0.0290	µg/L	0.0290	ppb	22:16:57
1	Co 228.616†	-176.3	15.4	0.1898	µg/L	0.1898	ppb	22:16:57
1	Cr 267.716†	195.1	15.0	0.1155	µg/L	0.1155	ppb	22:16:57
1	Cu 324.752†	2860.5	-133.6	-0.5170	µg/L	-0.5170	ppb	22:16:37
1	Mn 257.610†	321.7	82.0	0.1014	µg/L	0.1014	ppb	22:16:57
1	Mo 202.031†	-34.6	-14.3	-0.4198	µg/L	-0.4198	ppb	22:16:57
1	Ni 231.604†	-65.6	11.4	0.1312	µg/L	0.1312	ppb	22:16:57
1	P 214.914†	-28.4	-10.2	-2.1783	µg/L	-2.1783	ppb	22:16:57
1	Pb 220.353†	66.3	-20.6	-1.1536	µg/L	-1.1536	ppb	22:16:57
1	S 181.975 Axial†	101.3	-4.5	-3.3505	µg/L	-3.3505	ppb	22:16:57
1	Sb 206.836†	79.6	-1.9	-0.2288	µg/L	-0.2288	ppb	22:16:57
1	Se 196.026†	12.5	-2.8	-1.02	µg/L	-1.02	ppb	22:16:57
1	SiO2†	1786.4	-2.7	-0.2591	µg/L	-0.2591	ppb	22:16:57
1	Si 251.611†	1082.1	237.2	3.4988	µg/L	3.4988	ppb	22:16:37
1	Sn 189.927†	9.2	10.2	0.6390	µg/L	0.6390	ppb	22:16:57
1	Ti 334.940†	1075.1	114.3	0.1060	µg/L	0.1060	ppb	22:16:37
1	Tl 190.801†	-105.3	12.2	1.4953	µg/L	1.4953	ppb	22:16:57
1	U 409.014†	-238.6	33.2	1.8871	µg/L	1.8871	ppb	22:16:37
1	V 292.402†	220.7	-184.8	-0.9046	µg/L	-0.9046	ppb	22:16:37
1	Zn 213.857†	605.7	36.6	0.2048	µg/L	0.2048	ppb	22:16:57
2	Sc RADIAL	144344.2	144344.2	98.9	%			22:15:49
2	Al 396.153Radial†	-228.5	-167.8	-31.103	µg/L	-31.103	ppb	22:15:49
2	Ca 317.933Radial†	612.9	59.1	3.2922	µg/L	3.2922	ppb	22:16:09
2	Fe 238.204 Radial†	199.9	54.0	3.3254	µg/L	3.3254	ppb	22:16:09
2	K 766.490 Radial†	1458.2	-70.5	-25.815	µg/L	-25.815	ppb	22:15:49
2	Mg 279.077 IEC†	169.1	-19.8	-7.3659	µg/L	-7.3659	ppb	22:16:09
2	Na 589.592 Radial†	1297.4	20.8	2.8708	µg/L	2.8708	ppb	22:15:49
2	Sr 421.552†	-320.5	-188.8	-0.3925	µg/L	-0.3925	ppb	22:15:49
2	Sc 361.383	1722284.8	1722284.8	100.24	%			22:16:59
2	Y 371.029	1030621.8	1030621.8	100.38	%			22:16:59
2	Ag 328.068†	3896.9	-203.7	-0.7475	µg/L	-0.7475	ppb	22:17:01
2	As 188.979†	-7.9	12.5	3.7833	µg/L	3.7833	ppb	22:17:21
2	B 249.677†	3506.6	-7.6	-0.1120	µg/L	-0.1120	ppb	22:17:01
2	Ba 233.527†	-125.5	10.7	0.0428	µg/L	0.0428	ppb	22:17:21
2	Be 313.107†	-756.3	310.2	0.0866	µg/L	0.0866	ppb	22:17:01
2	Cd 226.502†	-110.8	7.7	0.0475	µg/L	0.0475	ppb	22:17:21
2	Co 228.616†	-191.9	-1.2	-0.0145	µg/L	-0.0145	ppb	22:17:21
2	Cr 267.716†	200.7	21.6	0.1639	µg/L	0.1639	ppb	22:17:21
2	Cu 324.752†	2989.4	10.2	0.0458	µg/L	0.0458	ppb	22:17:01
2	Mn 257.610†	314.3	76.3	0.0947	µg/L	0.0947	ppb	22:17:21
2	Mo 202.031†	-21.3	-1.1	-0.0337	µg/L	-0.0337	ppb	22:17:21
2	Ni 231.604†	-74.0	2.7	0.0313	µg/L	0.0313	ppb	22:17:21
2	P 214.914†	-16.7	1.3	0.2808	µg/L	0.2808	ppb	22:17:21
2	Pb 220.353†	91.3	4.7	0.2555	µg/L	0.2555	ppb	22:17:21

2	S 181.975 Axial†	95.8	-9.5	-7.0189 µg/L	-7.0189 ppb	22:17:21
2	Sb 206.836†	59.0	-22.0	-2.6184 µg/L	-2.6184 ppb	22:17:21
2	Se 196.026†	19.9	4.6	1.68 µg/L	1.68 ppb	22:17:21
2	SiO2†	1789.5	9.9	0.9655 µg/L	0.9655 ppb	22:17:21
2	Si 251.611†	1004.6	165.6	2.4397 µg/L	2.4397 ppb	22:17:01
2	Sn 189.927†	5.2	6.3	0.3919 µg/L	0.3919 ppb	22:17:21
2	Ti 334.940†	826.1	-128.4	-0.1222 µg/L	-0.1222 ppb	22:17:01
2	Tl 190.801†	-126.0	-9.1	-1.1150 µg/L	-1.1150 ppb	22:17:21
2	U 409.014†	-147.1	123.1	7.1898 µg/L	7.1898 ppb	22:17:01
2	V 292.402†	373.1	-31.5	-0.1489 µg/L	-0.1489 ppb	22:17:01
2	Zn 213.857†	593.5	27.6	0.1540 µg/L	0.1540 ppb	22:17:21
3	Sc RADIAL	145056.9	145056.9	99.4 %		22:16:11
3	Al 396.153Radial†	-231.1	-169.3	-31.367 µg/L	-31.367 ppb	22:16:11
3	Ca 317.933Radial†	599.6	42.6	2.3739 µg/L	2.3739 ppb	22:16:31
3	Fe 238.204 Radial†	195.6	48.6	2.9983 µg/L	2.9983 ppb	22:16:31
3	K 766.490 Radial†	1826.4	292.6	107.12 µg/L	107.12 ppb	22:16:11
3	Mg 279.077 IEC†	196.4	6.8	2.5372 µg/L	2.5372 ppb	22:16:31
3	Na 589.592 Radial†	1266.4	-16.8	-2.3909 µg/L	-2.3909 ppb	22:16:11
3	Sr 421.552†	-165.7	-31.4	-0.0654 µg/L	-0.0654 ppb	22:16:11
3	Sc 361.383	1742676.0	1742676.0	101.42 %		22:17:23
3	Y 371.029	1041139.7	1041139.7	101.41 %		22:17:23
3	Ag 328.068†	4264.5	113.3	0.4163 µg/L	0.4163 ppb	22:17:25
3	As 188.979†	-11.3	9.2	2.7834 µg/L	2.7834 ppb	22:17:45
3	B 249.677†	3554.8	-1.0	-0.0144 µg/L	-0.0144 ppb	22:17:25
3	Ba 233.527†	-135.5	2.2	0.0087 µg/L	0.0087 ppb	22:17:45
3	Be 313.107†	-714.6	360.1	0.0972 µg/L	0.0972 ppb	22:17:25
3	Cd 226.502†	-111.8	8.0	0.0493 µg/L	0.0493 ppb	22:17:45
3	Co 228.616†	-185.9	7.0	0.0867 µg/L	0.0867 ppb	22:17:45
3	Cr 267.716†	198.7	17.4	0.1382 µg/L	0.1382 ppb	22:17:45
3	Cu 324.752†	2855.8	-156.5	-0.6100 µg/L	-0.6100 ppb	22:17:25
3	Mn 257.610†	318.4	76.7	0.0948 µg/L	0.0948 ppb	22:17:45
3	Mo 202.031†	-37.1	-16.5	-0.4859 µg/L	-0.4859 ppb	22:17:45
3	Ni 231.604†	-94.7	-16.9	-0.1940 µg/L	-0.1940 ppb	22:17:45
3	P 214.914†	-18.0	0.2	0.0565 µg/L	0.0565 ppb	22:17:45
3	Pb 220.353†	70.5	-16.9	-0.9439 µg/L	-0.9439 ppb	22:17:45
3	S 181.975 Axial†	101.6	-4.9	-3.6429 µg/L	-3.6429 ppb	22:17:45
3	Sb 206.836†	72.7	-9.2	-1.0967 µg/L	-1.0967 ppb	22:17:45
3	Se 196.026†	9.5	-5.9	-2.14 µg/L	-2.14 ppb	22:17:45
3	SiO2†	1777.4	-22.9	-2.2297 µg/L	-2.2297 ppb	22:17:45
3	Si 251.611†	827.6	-20.5	-0.2986 µg/L	-0.2986 ppb	22:17:25
3	Sn 189.927†	4.4	5.4	0.3390 µg/L	0.3390 ppb	22:17:45
3	Ti 334.940†	1103.2	135.2	0.1273 µg/L	0.1273 ppb	22:17:25
3	Tl 190.801†	-112.8	5.5	0.6715 µg/L	0.6715 ppb	22:17:45
3	U 409.014†	-323.3	-48.8	-2.8536 µg/L	-2.8536 ppb	22:17:25
3	V 292.402†	418.1	8.4	0.0344 µg/L	0.0344 ppb	22:17:25
3	Zn 213.857†	602.9	30.0	0.1695 µg/L	0.1695 ppb	22:17:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732147.4	100.81	%	0.594				0.59%
Sc RADIAL	144672.5	99.1	%	0.25				0.25%
Y 371.029	1035822.9	100.89	%	0.512				0.51%
Ag 328.068†	-2.2	-0.0096	µg/L	0.64157	-0.0096	ppb	0.64157	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-138.5	-25.667	µg/L	9.6439	-25.667	ppb	9.6439	37.57%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	2.1232	µg/L	2.07069	2.1232	ppb	2.07069	97.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	27.9	0.4109	µg/L	0.82253	0.4109	ppb	0.82253	200.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.6	-0.0109	µg/L	0.06567	-0.0109	ppb	0.06567	605.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	277.1	0.0761	µg/L	0.02793	0.0761	ppb	0.02793	36.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	50.6	2.8171	µg/L	0.45995	2.8171	ppb	0.45995	16.33%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.8	0.0420	µg/L	0.01123	0.0420	ppb	0.01123	26.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.1	0.0873	µg/L	0.10216	0.0873	ppb	0.10216	116.98%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              18.0      0.1392 µg/L       0.02421      0.1392 ppb        0.02421  17.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -93.3     -0.3604 µg/L       0.35483     -0.3604 ppb        0.35483  98.44%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       48.9      3.0164 µg/L       0.30037      3.0164 ppb        0.30037   9.96%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       127.7     46.766 µg/L       67.3062     46.766 ppb        67.3062 143.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -4.0     -1.5096 µg/L       5.19362     -1.5096 ppb        5.19362 344.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              78.3      0.0969 µg/L       0.00386      0.0969 ppb        0.00386   3.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -10.7     -0.3132 µg/L       0.24424     -0.3132 ppb        0.24424  77.99%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       13.8      1.8476 µg/L       3.83078      1.8476 ppb        3.83078 207.34%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -0.9     -0.0105 µg/L       0.16660     -0.0105 ppb        0.16660 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.9     -0.6137 µg/L       1.35968     -0.6137 ppb        1.35968 221.57%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -10.9     -0.6140 µg/L       0.76029     -0.6140 ppb        0.76029 123.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -6.3     -4.6708 µg/L       2.03882     -4.6708 ppb        2.03882  43.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -11.0     -1.3147 µg/L       1.20959     -1.3147 ppb        1.20959  92.01%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.4      -0.495 µg/L        1.9625      -0.495 ppb         1.9625 396.16%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -5.2     -0.5078 µg/L       1.61206     -0.5078 ppb        1.61206 317.46%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             127.4      1.8800 µg/L       1.95958      1.8800 ppb        1.95958 104.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.3      0.4566 µg/L       0.16011      0.4566 ppb        0.16011  35.06%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -94.5     -0.1965 µg/L       0.17296     -0.1965 ppb        0.17296  88.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              40.4      0.0370 µg/L       0.13834      0.0370 ppb        0.13834 373.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.9      0.3506 µg/L       1.33442      0.3506 ppb        1.33442 380.62%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               35.8      2.0744 µg/L       5.02435      2.0744 ppb        5.02435 242.20%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -69.3     -0.3397 µg/L       0.49772     -0.3397 ppb        0.49772 146.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              31.4      0.1761 µg/L       0.02602      0.1761 ppb        0.02602  14.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 87
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 22:35:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146768.4	146768.4	101	%			22:35:57
1	Al 396.153Radial†	26541.6	26453.2	4882.0	µg/L	4882.0	ppb	22:35:57
1	Ca 317.933Radial†	87649.0	86587.6	4823.3	µg/L	4823.3	ppb	22:35:57
1	Fe 238.204 Radial†	78561.3	77964.3	4805.2	µg/L	4805.2	ppb	22:35:57
1	K 766.490 Radial†	14622.8	12994.5	4753.5	µg/L	4753.5	ppb	22:35:57
1	Mg 279.077 IEC†	13408.4	13141.1	4903.8	µg/L	4903.8	ppb	22:35:57
1	Na 589.592 Radial†	71672.4	69972.1	9554.8	µg/L	9554.8	ppb	22:35:57
1	Sr 421.552†	232413.6	231220.9	480.66	µg/L	480.66	ppb	22:35:55
1	Sc 361.383	1722923.1	1722923.1	100.27	%			22:36:24
1	Y 371.029	1019811.3	1019811.3	99.330	%			22:36:24
1	Ag 328.068†	132254.4	127801.8	479.17	µg/L	479.17	ppb	22:36:24
1	As 188.979†	1604.2	1620.1	496.89	µg/L	496.89	ppb	22:36:44
1	B 249.677†	35283.6	31681.3	465.60	µg/L	465.60	ppb	22:36:24
1	Ba 233.527†	118323.2	118135.9	476.44	µg/L	476.44	ppb	22:36:24
1	Be 313.107†	1761219.9	1757474.5	478.66	µg/L	478.66	ppb	22:36:24
1	Cd 226.502†	75730.6	75642.0	472.19	µg/L	472.19	ppb	22:36:24
1	Co 228.616†	38400.5	38485.9	475.11	µg/L	475.11	ppb	22:36:24
1	Cr 267.716†	60661.3	60317.0	472.27	µg/L	472.27	ppb	22:36:24
1	Cu 324.752†	125755.4	122439.8	477.30	µg/L	477.30	ppb	22:36:24
1	Mn 257.610†	387911.3	386614.6	478.15	µg/L	478.15	ppb	22:36:24
1	Mo 202.031†	16408.6	16383.8	481.94	µg/L	481.94	ppb	22:36:44
1	Ni 231.604†	41320.9	41284.6	475.36	µg/L	475.36	ppb	22:36:24
1	P 214.914†	11214.8	11202.1	2387.7	µg/L	2387.7	ppb	22:36:44
1	Pb 220.353†	8739.6	8629.4	483.24	µg/L	483.24	ppb	22:36:44
1	S 181.975 Axial†	1375.5	1266.7	944.65	µg/L	944.65	ppb	22:36:44
1	Sb 206.836†	4120.0	4027.9	480.04	µg/L	480.04	ppb	22:36:44
1	Se 196.026†	1343.5	1324.5	481	µg/L	481	ppb	22:36:44
1	SiO2†	54771.8	52846.8	5144.7	µg/L	5144.7	ppb	22:36:24
1	Si 251.611†	165253.5	163965.6	2407.7	µg/L	2407.7	ppb	22:36:24
1	Sn 189.927†	7717.2	7697.3	481.45	µg/L	481.45	ppb	22:36:44
1	Ti 334.940†	514309.0	511951.9	477.69	µg/L	477.69	ppb	22:36:24
1	Tl 190.801†	3827.4	3933.6	490.49	µg/L	490.49	ppb	22:36:44
1	U 409.014†	7235.3	7485.4	466.50	µg/L	466.50	ppb	22:36:24
1	V 292.402†	97370.2	96700.5	478.09	µg/L	478.09	ppb	22:36:24
1	Zn 213.857†	85150.2	84353.3	470.11	µg/L	470.11	ppb	22:36:24
2	Sc RADIAL	145116.2	145116.2	99.4	%			22:36:01
2	Al 396.153Radial†	26297.2	26507.8	4892.7	µg/L	4892.7	ppb	22:36:01
2	Ca 317.933Radial†	86940.1	86866.9	4838.8	µg/L	4838.8	ppb	22:36:01
2	Fe 238.204 Radial†	77803.3	78091.3	4813.1	µg/L	4813.1	ppb	22:36:01
2	K 766.490 Radial†	14545.6	13082.4	4785.7	µg/L	4785.7	ppb	22:36:01
2	Mg 279.077 IEC†	13274.5	13158.2	4909.9	µg/L	4909.9	ppb	22:36:01
2	Na 589.592 Radial†	70981.1	70088.2	9570.6	µg/L	9570.6	ppb	22:36:01
2	Sr 421.552†	232627.8	234067.2	486.57	µg/L	486.57	ppb	22:35:59
2	Sc 361.383	1750269.1	1750269.1	101.87	%			22:36:47
2	Y 371.029	1035573.7	1035573.7	100.87	%			22:36:47
2	Ag 328.068†	134676.3	128118.7	480.37	µg/L	480.37	ppb	22:36:47
2	As 188.979†	1582.5	1573.9	482.89	µg/L	482.89	ppb	22:37:07
2	B 249.677†	35971.3	31806.7	467.44	µg/L	467.44	ppb	22:36:47
2	Ba 233.527†	120638.2	118564.9	478.17	µg/L	478.17	ppb	22:36:47
2	Be 313.107†	1795938.6	1764115.6	480.47	µg/L	480.47	ppb	22:36:47
2	Cd 226.502†	77211.3	75915.5	473.90	µg/L	473.90	ppb	22:36:47
2	Co 228.616†	39183.6	38656.4	477.21	µg/L	477.21	ppb	22:36:47
2	Cr 267.716†	61805.5	60495.1	473.67	µg/L	473.67	ppb	22:36:47
2	Cu 324.752†	127636.0	122326.5	476.86	µg/L	476.86	ppb	22:36:47
2	Mn 257.610†	395566.1	388085.1	479.97	µg/L	479.97	ppb	22:36:47
2	Mo 202.031†	16264.4	15986.6	470.26	µg/L	470.26	ppb	22:37:07
2	Ni 231.604†	42110.5	41415.9	476.87	µg/L	476.87	ppb	22:36:47
2	P 214.914†	11123.1	10937.4	2331.1	µg/L	2331.1	ppb	22:37:07
2	Pb 220.353†	8695.2	8449.6	473.18	µg/L	473.18	ppb	22:37:07

2	S 181.975 Axial†	1380.2	1249.8	932.06 µg/L	932.06 ppb	22:37:07
2	Sb 206.836†	4108.8	3952.7	470.89 µg/L	470.89 ppb	22:37:07
2	Se 196.026†	1336.5	1296.8	471 µg/L	471 ppb	22:37:07
2	SiO2†	55876.6	53078.0	5167.8 µg/L	5167.8 ppb	22:36:47
2	Si 251.611†	168292.8	164374.4	2414.0 µg/L	2414.0 ppb	22:36:47
2	Sn 189.927†	7640.8	7502.0	469.28 µg/L	469.28 ppb	22:37:07
2	Ti 334.940†	522795.1	512268.9	477.98 µg/L	477.98 ppb	22:36:47
2	Tl 190.801†	3793.4	3840.6	479.07 µg/L	479.07 ppb	22:37:07
2	U 409.014†	7388.2	7522.7	468.79 µg/L	468.79 ppb	22:36:47
2	V 292.402†	99257.8	97036.4	479.62 µg/L	479.62 ppb	22:36:47
2	Zn 213.857†	87026.0	84867.9	472.99 µg/L	472.99 ppb	22:36:47
3	Sc RADIAL	145049.2	145049.2	99.4 %		22:36:05
3	Al 396.153Radial†	26335.5	26558.6	4901.9 µg/L	4901.9 ppb	22:36:05
3	Ca 317.933Radial†	86672.0	86637.6	4826.1 µg/L	4826.1 ppb	22:36:05
3	Fe 238.204 Radial†	77423.0	77745.0	4791.7 µg/L	4791.7 ppb	22:36:05
3	K 766.490 Radial†	14708.1	13252.7	4848.1 µg/L	4848.1 ppb	22:36:05
3	Mg 279.077 IEC†	13164.0	13053.2	4870.9 µg/L	4870.9 ppb	22:36:05
3	Na 589.592 Radial†	70826.5	69965.7	9553.9 µg/L	9553.9 ppb	22:36:05
3	Sr 421.552†	229385.5	230913.4	480.02 µg/L	480.02 ppb	22:36:03
3	Sc 361.383	1736886.0	1736886.0	101.09 %		22:37:10
3	Y 371.029	1026663.5	1026663.5	99.998 %		22:37:10
3	Ag 328.068†	133353.0	127828.3	479.31 µg/L	479.31 ppb	22:37:10
3	As 188.979†	1594.0	1597.2	489.96 µg/L	489.96 ppb	22:37:30
3	B 249.677†	35849.9	31958.7	469.68 µg/L	469.68 ppb	22:37:10
3	Ba 233.527†	119879.0	118726.4	478.82 µg/L	478.82 ppb	22:37:10
3	Be 313.107†	1785527.0	1767400.4	481.37 µg/L	481.37 ppb	22:37:10
3	Cd 226.502†	76637.4	75931.9	474.00 µg/L	474.00 ppb	22:37:10
3	Co 228.616†	38956.3	38727.9	478.10 µg/L	478.10 ppb	22:37:10
3	Cr 267.716†	61487.6	60648.2	474.86 µg/L	474.86 ppb	22:37:10
3	Cu 324.752†	126940.5	122603.9	477.95 µg/L	477.95 ppb	22:37:10
3	Mn 257.610†	392870.7	388410.8	480.37 µg/L	480.37 ppb	22:37:10
3	Mo 202.031†	16306.3	16151.1	475.10 µg/L	475.10 ppb	22:37:30
3	Ni 231.604†	41574.5	41204.2	474.44 µg/L	474.44 ppb	22:37:10
3	P 214.914†	11178.5	11076.3	2360.8 µg/L	2360.8 ppb	22:37:30
3	Pb 220.353†	8729.7	8549.5	478.76 µg/L	478.76 ppb	22:37:30
3	S 181.975 Axial†	1377.2	1257.3	937.66 µg/L	937.66 ppb	22:37:30
3	Sb 206.836†	4126.4	4001.2	476.72 µg/L	476.72 ppb	22:37:30
3	Se 196.026†	1332.7	1303.1	473 µg/L	473 ppb	22:37:30
3	SiO2†	55324.3	52954.3	5155.5 µg/L	5155.5 ppb	22:37:10
3	Si 251.611†	167461.4	164825.0	2420.5 µg/L	2420.5 ppb	22:37:10
3	Sn 189.927†	7692.4	7610.8	476.07 µg/L	476.07 ppb	22:37:30
3	Ti 334.940†	518784.6	512256.1	477.97 µg/L	477.97 ppb	22:37:10
3	Tl 190.801†	3813.8	3889.5	485.08 µg/L	485.08 ppb	22:37:30
3	U 409.014†	7519.5	7708.6	479.68 µg/L	479.68 ppb	22:37:10
3	V 292.402†	98557.8	97094.7	479.97 µg/L	479.97 ppb	22:37:10
3	Zn 213.857†	86550.8	85056.1	474.07 µg/L	474.07 ppb	22:37:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1736692.7	101.08	%	0.796				0.79%
Sc RADIAL	145644.6	99.8	%	0.67				0.67%
Y 371.029	1027349.5	100.06	%	0.770				0.77%
Ag 328.068†	127916.2	479.62	µg/L	0.654	479.62	ppb	0.654	0.14%
QC value within limits for Ag 328.068 Recovery = 95.92%								
Al 396.153Radial†	26506.5	4892.2	µg/L	9.94	4892.2	ppb	9.94	0.20%
QC value within limits for Al 396.153Radial Recovery = 97.84%								
As 188.979†	1597.1	489.91	µg/L	7.000	489.91	ppb	7.000	1.43%
QC value within limits for As 188.979 Recovery = 97.98%								
B 249.677†	31815.6	467.57	µg/L	2.043	467.57	ppb	2.043	0.44%
QC value within limits for B 249.677 Recovery = 93.51%								
Ba 233.527†	118475.7	477.81	µg/L	1.229	477.81	ppb	1.229	0.26%
QC value within limits for Ba 233.527 Recovery = 95.56%								
Be 313.107†	1762996.8	480.17	µg/L	1.379	480.17	ppb	1.379	0.29%
QC value within limits for Be 313.107 Recovery = 96.03%								
Ca 317.933Radial†	86697.4	4829.4	µg/L	8.30	4829.4	ppb	8.30	0.17%
QC value within limits for Ca 317.933Radial Recovery = 96.59%								
Cd 226.502†	75829.8	473.36	µg/L	1.017	473.36	ppb	1.017	0.21%
QC value within limits for Cd 226.502 Recovery = 94.67%								
Co 228.616†	38623.4	476.81	µg/L	1.535	476.81	ppb	1.535	0.32%

```
   QC value within limits for Co 228.616  Recovery = 95.36%
Cr 267.716†            60486.8      473.60 µg/L         1.293      473.60 ppb          1.293   0.27%
   QC value within limits for Cr 267.716  Recovery = 94.72%
Cu 324.752†           122456.7      477.37 µg/L         0.545      477.37 ppb          0.545   0.11%
   QC value within limits for Cu 324.752  Recovery = 95.47%
Fe 238.204 Radial†     77933.5      4803.3 µg/L         10.80      4803.3 ppb          10.80   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.07%
K 766.490 Radial†      13109.8      4795.8 µg/L         48.06      4795.8 ppb          48.06   1.00%
   QC value within limits for K 766.490 Radial  Recovery = 95.92%
Mg 279.077 IEC†        13117.5      4894.9 µg/L         20.99      4894.9 ppb          20.99   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.90%
Mn 257.610†           387703.5      479.50 µg/L         1.185      479.50 ppb          1.185   0.25%
   QC value within limits for Mn 257.610  Recovery = 95.90%
Mo 202.031†            16173.9      475.77 µg/L         5.865      475.77 ppb          5.865   1.23%
   QC value within limits for Mo 202.031  Recovery = 95.15%
Na 589.592 Radial†     70008.7      9559.8 µg/L          9.43      9559.8 ppb           9.43   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 95.60%
Ni 231.604†            41301.6      475.56 µg/L         1.231      475.56 ppb          1.231   0.26%
   QC value within limits for Ni 231.604  Recovery = 95.11%
P 214.914†             11071.9      2359.9 µg/L         28.31      2359.9 ppb          28.31   1.20%
   QC value within limits for P 214.914  Recovery = 94.39%
Pb 220.353†             8542.8      478.39 µg/L         5.044      478.39 ppb          5.044   1.05%
   QC value within limits for Pb 220.353  Recovery = 95.68%
S 181.975 Axial†        1257.9      938.13 µg/L         6.311      938.13 ppb          6.311   0.67%
   QC value within limits for S 181.975 Axial  Recovery = 93.81%
Sb 206.836†             3994.0      475.89 µg/L         4.631      475.89 ppb          4.631   0.97%
   QC value within limits for Sb 206.836  Recovery = 95.18%
Se 196.026†             1308.1         475 µg/L           5.3         475 ppb            5.3   1.11%
   QC value within limits for Se 196.026  Recovery = 95.00%
SiO2†                  52959.7      5156.0 µg/L         11.56      5156.0 ppb          11.56   0.22%
   QC value within limits for SiO2  Recovery = 96.42%
Si 251.611†           164388.3      2414.1 µg/L          6.40      2414.1 ppb           6.40   0.27%
   QC value within limits for Si 251.611  Recovery = 96.56%
Sn 189.927†             7603.3      475.60 µg/L         6.099      475.60 ppb          6.099   1.28%
   QC value within limits for Sn 189.927  Recovery = 95.12%
Sr 421.552†           232067.2      482.42 µg/L         3.615      482.42 ppb          3.615   0.75%
   QC value within limits for Sr 421.552  Recovery = 96.48%
Ti 334.940†           512159.0      477.88 µg/L         0.166      477.88 ppb          0.166   0.03%
   QC value within limits for Ti 334.940  Recovery = 95.58%
Tl 190.801†             3887.9      484.88 µg/L         5.710      484.88 ppb          5.710   1.18%
   QC value within limits for Tl 190.801  Recovery = 96.98%
U 409.014†              7572.3      471.66 µg/L         7.041      471.66 ppb          7.041   1.49%
   QC value within limits for U 409.014  Recovery = 94.33%
V 292.402†             96943.8      479.22 µg/L         0.996      479.22 ppb          0.996   0.21%
   QC value within limits for V 292.402  Recovery = 95.84%
Zn 213.857†            84759.1      472.39 µg/L         2.045      472.39 ppb          2.045   0.43%
   QC value within limits for Zn 213.857  Recovery = 94.48%
All analyte(s) passed QC.
```

Sequence No.: 88
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 22:37:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146107.1	146107.1	100	%			22:38:09
1	Al 396.153Radial†	-28.6	34.6	6.4326	µg/L	6.4326	ppb	22:38:29
1	Ca 317.933Radial†	565.6	4.4	0.2431	µg/L	0.2431	ppb	22:38:29
1	Fe 238.204 Radial†	221.6	73.2	4.5130	µg/L	4.5130	ppb	22:38:29
1	K 766.490 Radial†	1670.7	123.9	45.355	µg/L	45.355	ppb	22:38:09
1	Mg 279.077 IEC†	188.3	-2.7	-1.0050	µg/L	-1.0050	ppb	22:38:29
1	Na 589.592 Radial†	1308.8	16.4	2.2067	µg/L	2.2067	ppb	22:38:09
1	Sr 421.552†	-138.0	-2.6	-0.0053	µg/L	-0.0053	ppb	22:38:09
1	Sc 361.383	1751605.7	1751605.7	101.94	%			22:39:16
1	Y 371.029	1046872.7	1046872.7	101.97	%			22:39:16
1	Ag 328.068†	3943.9	-222.7	-0.8222	µg/L	-0.8222	ppb	22:39:19
1	As 188.979†	-21.0	-0.2	-0.0602	µg/L	-0.0602	ppb	22:39:39
1	B 249.677†	3436.3	-135.1	-1.9931	µg/L	-1.9931	ppb	22:39:19
1	Ba 233.527†	-130.5	7.8	0.0313	µg/L	0.0313	ppb	22:39:39
1	Be 313.107†	-714.8	363.6	0.1002	µg/L	0.1002	ppb	22:39:19
1	Cd 226.502†	-97.0	23.1	0.1438	µg/L	0.1438	ppb	22:39:39
1	Co 228.616†	-170.5	23.0	0.2839	µg/L	0.2839	ppb	22:39:39
1	Cr 267.716†	208.7	26.1	0.2018	µg/L	0.2018	ppb	22:39:39
1	Cu 324.752†	2943.0	-85.3	-0.3274	µg/L	-0.3274	ppb	22:39:19
1	Mn 257.610†	329.7	86.2	0.1066	µg/L	0.1066	ppb	22:39:39
1	Mo 202.031†	-31.9	-11.2	-0.3304	µg/L	-0.3304	ppb	22:39:39
1	Ni 231.604†	-81.9	-3.9	-0.0443	µg/L	-0.0443	ppb	22:39:39
1	P 214.914†	-23.2	-4.8	-1.0060	µg/L	-1.0060	ppb	22:39:39
1	Pb 220.353†	102.8	14.4	0.8016	µg/L	0.8016	ppb	22:39:39
1	S 181.975 Axial†	97.2	-9.7	-7.2332	µg/L	-7.2332	ppb	22:39:39
1	Sb 206.836†	61.0	-21.0	-2.4992	µg/L	-2.4992	ppb	22:39:39
1	Se 196.026†	8.3	-7.1	-2.58	µg/L	-2.58	ppb	22:39:39
1	SiO2†	1795.0	-14.6	-1.4272	µg/L	-1.4272	ppb	22:39:39
1	Si 251.611†	1014.2	158.3	2.3344	µg/L	2.3344	ppb	22:39:19
1	Sn 189.927†	9.8	10.8	0.6712	µg/L	0.6712	ppb	22:39:39
1	Ti 334.940†	912.7	-57.2	-0.0550	µg/L	-0.0550	ppb	22:39:19
1	Tl 190.801†	-104.8	13.9	1.7060	µg/L	1.7060	ppb	22:39:39
1	U 409.014†	-207.3	66.5	3.8783	µg/L	3.8783	ppb	22:39:19
1	V 292.402†	371.1	-39.7	-0.1942	µg/L	-0.1942	ppb	22:39:19
1	Zn 213.857†	603.0	27.1	0.1525	µg/L	0.1525	ppb	22:39:39
2	Sc RADIAL	143516.2	143516.2	98.3	%			22:38:31
2	Al 396.153Radial†	-59.7	2.6	0.4739	µg/L	0.4739	ppb	22:38:51
2	Ca 317.933Radial†	574.3	23.4	1.3043	µg/L	1.3043	ppb	22:38:51
2	Fe 238.204 Radial†	211.6	67.1	4.1330	µg/L	4.1330	ppb	22:38:51
2	K 766.490 Radial†	1530.2	11.2	4.0876	µg/L	4.0876	ppb	22:38:31
2	Mg 279.077 IEC†	186.7	-0.9	-0.3295	µg/L	-0.3295	ppb	22:38:51
2	Na 589.592 Radial†	1309.3	40.6	5.5370	µg/L	5.5370	ppb	22:38:31
2	Sr 421.552†	-195.1	-63.1	-0.1312	µg/L	-0.1312	ppb	22:38:31
2	Sc 361.383	1725150.1	1725150.1	100.40	%			22:39:41
2	Y 371.029	1031944.0	1031944.0	100.51	%			22:39:41
2	Ag 328.068†	3865.7	-241.3	-0.8900	µg/L	-0.8900	ppb	22:39:43
2	As 188.979†	-15.4	5.0	1.5151	µg/L	1.5151	ppb	22:40:03
2	B 249.677†	3665.2	144.6	2.1317	µg/L	2.1317	ppb	22:39:43
2	Ba 233.527†	-135.5	0.9	0.0032	µg/L	0.0032	ppb	22:40:03
2	Be 313.107†	-881.3	187.0	0.0526	µg/L	0.0526	ppb	22:39:43
2	Cd 226.502†	-123.0	-4.3	-0.0274	µg/L	-0.0274	ppb	22:40:03
2	Co 228.616†	-162.8	28.2	0.3479	µg/L	0.3479	ppb	22:40:03
2	Cr 267.716†	195.8	16.5	0.1246	µg/L	0.1246	ppb	22:40:03
2	Cu 324.752†	2834.1	-149.5	-0.5757	µg/L	-0.5757	ppb	22:39:43
2	Mn 257.610†	312.2	73.7	0.0911	µg/L	0.0911	ppb	22:40:03
2	Mo 202.031†	-20.8	-0.7	-0.0196	µg/L	-0.0196	ppb	22:40:03
2	Ni 231.604†	-63.9	12.8	0.1478	µg/L	0.1478	ppb	22:40:03
2	P 214.914†	-29.3	-11.2	-2.4036	µg/L	-2.4036	ppb	22:40:03
2	Pb 220.353†	74.7	-12.0	-0.6719	µg/L	-0.6719	ppb	22:40:03

2	S 181.975 Axial†	114.1	8.6	6.4080 µg/L	6.4080 ppb		22:40:03
2	Sb 206.836†	83.7	2.5	0.2984 µg/L	0.2984 ppb		22:40:03
2	Se 196.026†	7.4	-7.9	-2.83 µg/L	-2.83 ppb		22:40:03
2	SiO2†	1757.4	-25.0	-2.4389 µg/L	-2.4389 ppb		22:40:03
2	Si 251.611†	1016.3	175.6	2.5912 µg/L	2.5912 ppb		22:39:43
2	Sn 189.927†	-5.9	-4.8	-0.2983 µg/L	-0.2983 ppb		22:40:03
2	Ti 334.940†	1008.8	52.2	0.0465 µg/L	0.0465 ppb		22:39:43
2	Tl 190.801†	-108.8	8.3	1.0191 µg/L	1.0191 ppb		22:40:03
2	U 409.014†	-175.4	95.2	5.5468 µg/L	5.5468 ppb		22:39:43
2	V 292.402†	347.2	-58.0	-0.2792 µg/L	-0.2792 ppb		22:39:43
2	Zn 213.857†	581.3	14.6	0.0808 µg/L	0.0808 ppb		22:40:03
3	Sc RADIAL	142981.4	142981.4	98.0 %			22:38:53
3	Al 396.153Radial†	-63.0	-1.1	-0.2113 µg/L	-0.2113 ppb		22:39:13
3	Ca 317.933Radial†	581.1	32.5	1.8108 µg/L	1.8108 ppb		22:39:13
3	Fe 238.204 Radial†	194.5	50.4	3.1050 µg/L	3.1050 ppb		22:39:13
3	K 766.490 Radial†	1679.9	169.7	62.139 µg/L	62.139 ppb		22:38:53
3	Mg 279.077 IEC†	195.7	9.0	3.3615 µg/L	3.3615 ppb		22:39:13
3	Na 589.592 Radial†	1209.6	-56.3	-7.7449 µg/L	-7.7449 ppb		22:38:53
3	Sr 421.552†	-420.0	-293.4	-0.6100 µg/L	-0.6100 ppb		22:38:53
3	Sc 361.383	1753013.9	1753013.9	102.03 %			22:40:05
3	Y 371.029	1047401.1	1047401.1	102.02 %			22:40:05
3	Ag 328.068†	4060.3	-111.6	-0.4113 µg/L	-0.4113 ppb		22:40:07
3	As 188.979†	-11.1	9.5	2.8753 µg/L	2.8753 ppb		22:40:27
3	B 249.677†	3619.9	42.1	0.6207 µg/L	0.6207 ppb		22:40:07
3	Ba 233.527†	-139.2	-0.6	-0.0023 µg/L	-0.0023 ppb		22:40:27
3	Be 313.107†	-869.8	212.1	0.0585 µg/L	0.0585 ppb		22:40:07
3	Cd 226.502†	-85.5	34.4	0.2145 µg/L	0.2145 ppb		22:40:27
3	Co 228.616†	-181.0	12.9	0.1588 µg/L	0.1588 ppb		22:40:27
3	Cr 267.716†	175.3	-6.8	-0.0550 µg/L	-0.0550 ppb		22:40:27
3	Cu 324.752†	3044.4	11.7	0.0483 µg/L	0.0483 ppb		22:40:07
3	Mn 257.610†	307.5	64.2	0.0793 µg/L	0.0793 ppb		22:40:27
3	Mo 202.031†	-12.0	8.3	0.2441 µg/L	0.2441 ppb		22:40:27
3	Ni 231.604†	-69.0	8.9	0.1028 µg/L	0.1028 ppb		22:40:27
3	P 214.914†	-27.3	-8.8	-1.8805 µg/L	-1.8805 ppb		22:40:27
3	Pb 220.353†	81.8	-6.2	-0.3453 µg/L	-0.3453 ppb		22:40:27
3	S 181.975 Axial†	99.7	-7.4	-5.4573 µg/L	-5.4573 ppb		22:40:27
3	Sb 206.836†	92.0	9.3	1.1113 µg/L	1.1113 ppb		22:40:27
3	Se 196.026†	22.0	6.3	2.27 µg/L	2.27 ppb		22:40:27
3	SiO2†	1796.0	-15.0	-1.4822 µg/L	-1.4822 ppb		22:40:27
3	Si 251.611†	1008.2	151.7	2.2299 µg/L	2.2299 ppb		22:40:07
3	Sn 189.927†	5.8	6.8	0.4238 µg/L	0.4238 ppb		22:40:27
3	Ti 334.940†	774.2	-193.7	-0.1822 µg/L	-0.1822 ppb		22:40:07
3	Tl 190.801†	-131.2	-12.0	-1.4719 µg/L	-1.4719 ppb		22:40:27
3	U 409.014†	-231.1	43.4	2.5310 µg/L	2.5310 ppb		22:40:07
3	V 292.402†	394.8	-16.8	-0.0781 µg/L	-0.0781 ppb		22:40:07
3	Zn 213.857†	584.2	8.2	0.0446 µg/L	0.0446 ppb		22:40:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1743256.5	101.46	%	0.914				0.90%
Sc RADIAL	144201.5	98.8	%	1.15				1.16%
Y 371.029	1042072.6	101.50	%	0.855				0.84%
Ag 328.068†	-191.9	-0.7079	µg/L	0.25904	-0.7079	ppb	0.25904	36.59%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.0	2.2317	µg/L	3.65416	2.2317	ppb	3.65416	163.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.8	1.4434	µg/L	1.46904	1.4434	ppb	1.46904	101.78%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	17.2	0.2531	µg/L	2.08681	0.2531	ppb	2.08681	824.51%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.7	0.0107	µg/L	0.01797	0.0107	ppb	0.01797	167.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	254.2	0.0704	µg/L	0.02593	0.0704	ppb	0.02593	36.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	20.1	1.1194	µg/L	0.80006	1.1194	ppb	0.80006	71.47%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.7	0.1103	µg/L	0.12437	0.1103	ppb	0.12437	112.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	21.4	0.2635	µg/L	0.09616	0.2635	ppb	0.09616	36.49%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              11.9      0.0905 µg/L       0.13175      0.0905 ppb        0.13175 145.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -74.4     -0.2849 µg/L       0.31418     -0.2849 ppb        0.31418 110.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       63.6      3.9170 µg/L       0.72840      3.9170 ppb        0.72840  18.60%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       101.6     37.194 µg/L       29.8738     37.194 ppb        29.8738  80.32%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.8      0.6757 µg/L       2.35038      0.6757 ppb        2.35038 347.86%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              74.7      0.0923 µg/L       0.01373      0.0923 ppb        0.01373  14.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -1.2     -0.0353 µg/L       0.28757     -0.0353 ppb        0.28757 814.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        0.2     -0.0004 µg/L       6.91054     -0.0004 ppb        6.91054 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               6.0      0.0687 µg/L       0.10050      0.0687 ppb        0.10050 146.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.3     -1.7634 µg/L       0.70616     -1.7634 ppb        0.70616  40.05%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -1.2     -0.0719 µg/L       0.77383     -0.0719 ppb        0.77383 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.8     -2.0942 µg/L       7.41644     -2.0942 ppb        7.41644 354.14%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.0     -0.3632 µg/L       1.89399     -0.3632 ppb        1.89399 521.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.9       -1.05 µg/L         2.877       -1.05 ppb          2.877 275.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -18.2     -1.7828 µg/L       0.56893     -1.7828 ppb        0.56893  31.91%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             161.9      2.3852 µg/L       0.18594      2.3852 ppb        0.18594   7.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.3      0.2656 µg/L       0.50378      0.2656 ppb        0.50378 189.70%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -119.7     -0.2488 µg/L       0.31901     -0.2488 ppb        0.31901 128.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -66.2     -0.0636 µg/L       0.11461     -0.0636 ppb        0.11461 180.26%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.4      0.4177 µg/L       1.67214      0.4177 ppb        1.67214 400.28%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               68.3      3.9854 µg/L       1.51076      3.9854 ppb        1.51076  37.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -38.2     -0.1839 µg/L       0.10096     -0.1839 ppb        0.10096  54.91%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              16.6      0.0927 µg/L       0.05489      0.0927 ppb        0.05489  59.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 96
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 22:56:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145631.0	145631.0	99.8	%			22:56:43
1	Al 396.153Radial†	26317.9	26435.1	4879.0	µg/L	4879.0	ppb	22:56:43
1	Ca 317.933Radial†	87097.4	86715.5	4830.4	µg/L	4830.4	ppb	22:56:43
1	Fe 238.204 Radial†	78015.7	78027.6	4809.1	µg/L	4809.1	ppb	22:56:43
1	K 766.490 Radial†	14649.7	13135.0	4805.0	µg/L	4805.0	ppb	22:56:43
1	Mg 279.077 IEC†	13278.4	13115.0	4893.9	µg/L	4893.9	ppb	22:56:43
1	Na 589.592 Radial†	71207.1	70062.4	9567.1	µg/L	9567.1	ppb	22:56:43
1	Sr 421.552†	231874.1	232485.1	483.29	µg/L	483.29	ppb	22:56:41
1	Sc 361.383	1757611.7	1757611.7	102.29	%			22:56:56
1	Y 371.029	1039190.8	1039190.8	101.22	%			22:56:56
1	Ag 328.068†	134897.1	127782.2	479.15	µg/L	479.15	ppb	22:56:56
1	As 188.979†	1621.9	1605.9	492.61	µg/L	492.61	ppb	22:57:16
1	B 249.677†	36392.3	32070.7	471.32	µg/L	471.32	ppb	22:56:56
1	Ba 233.527†	121741.3	119148.6	480.52	µg/L	480.52	ppb	22:56:56
1	Be 313.107†	1813624.8	1774040.0	483.17	µg/L	483.17	ppb	22:56:56
1	Cd 226.502†	78396.2	76757.2	479.15	µg/L	479.15	ppb	22:56:56
1	Co 228.616†	39678.3	38979.3	481.20	µg/L	481.20	ppb	22:56:56
1	Cr 267.716†	62522.7	60942.8	477.17	µg/L	477.17	ppb	22:56:56
1	Cu 324.752†	128539.8	122686.5	478.27	µg/L	478.27	ppb	22:56:56
1	Mn 257.610†	399485.0	390293.9	482.70	µg/L	482.70	ppb	22:56:56
1	Mo 202.031†	16513.7	16163.7	475.47	µg/L	475.47	ppb	22:57:16
1	Ni 231.604†	42651.4	41771.9	480.97	µg/L	480.97	ppb	22:56:56
1	P 214.914†	11360.0	11123.4	2370.9	µg/L	2370.9	ppb	22:57:16
1	Pb 220.353†	8842.6	8558.1	479.24	µg/L	479.24	ppb	22:57:16
1	S 181.975 Axial†	1375.6	1239.7	924.58	µg/L	924.58	ppb	22:57:16
1	Sb 206.836†	4166.7	3992.4	475.65	µg/L	475.65	ppb	22:57:16
1	Se 196.026†	1353.0	1307.4	475	µg/L	475	ppb	22:57:16
1	SiO2†	56776.4	53728.4	5231.1	µg/L	5231.1	ppb	22:56:56
1	Si 251.611†	171826.2	167138.4	2454.6	µg/L	2454.6	ppb	22:56:56
1	Sn 189.927†	7798.3	7624.6	476.93	µg/L	476.93	ppb	22:57:16
1	Ti 334.940†	526436.4	513684.7	479.31	µg/L	479.31	ppb	22:56:56
1	Tl 190.801†	3828.8	3859.7	481.43	µg/L	481.43	ppb	22:57:16
1	U 409.014†	7470.8	7573.2	471.86	µg/L	471.86	ppb	22:56:56
1	V 292.402†	100068.8	97422.2	481.57	µg/L	481.57	ppb	22:56:56
1	Zn 213.857†	87978.3	85442.0	476.19	µg/L	476.19	ppb	22:56:56
2	Sc RADIAL	144482.4	144482.4	99.0	%			22:56:47
2	Al 396.153Radial†	26344.0	26671.1	4922.7	µg/L	4922.7	ppb	22:56:47
2	Ca 317.933Radial†	86633.5	86940.8	4842.9	µg/L	4842.9	ppb	22:56:47
2	Fe 238.204 Radial†	77683.1	78313.2	4826.7	µg/L	4826.7	ppb	22:56:47
2	K 766.490 Radial†	14601.3	13202.8	4829.8	µg/L	4829.8	ppb	22:56:47
2	Mg 279.077 IEC†	13248.2	13190.2	4922.0	µg/L	4922.0	ppb	22:56:47
2	Na 589.592 Radial†	70771.3	70189.4	9584.4	µg/L	9584.4	ppb	22:56:47
2	Sr 421.552†	233206.6	235678.1	489.92	µg/L	489.92	ppb	22:56:45
2	Sc 361.383	1751539.4	1751539.4	101.94	%			22:57:19
2	Y 371.029	1035412.0	1035412.0	100.85	%			22:57:19
2	Ag 328.068†	134751.3	128096.4	480.32	µg/L	480.32	ppb	22:57:19
2	As 188.979†	1631.1	1620.5	497.03	µg/L	497.03	ppb	22:57:39
2	B 249.677†	36471.6	32271.9	474.29	µg/L	474.29	ppb	22:57:19
2	Ba 233.527†	121221.0	119050.7	480.13	µg/L	480.13	ppb	22:57:19
2	Be 313.107†	1805248.5	1771969.6	482.61	µg/L	482.61	ppb	22:57:19
2	Cd 226.502†	78107.8	76740.0	479.04	µg/L	479.04	ppb	22:57:19
2	Co 228.616†	39424.5	38864.8	479.79	µg/L	479.79	ppb	22:57:19
2	Cr 267.716†	62345.8	60981.1	477.48	µg/L	477.48	ppb	22:57:19
2	Cu 324.752†	127964.1	122557.5	477.76	µg/L	477.76	ppb	22:57:19
2	Mn 257.610†	398107.9	390296.9	482.71	µg/L	482.71	ppb	22:57:19
2	Mo 202.031†	16505.0	16211.0	476.86	µg/L	476.86	ppb	22:57:39
2	Ni 231.604†	42337.4	41608.5	479.09	µg/L	479.09	ppb	22:57:19
2	P 214.914†	11365.0	11166.7	2380.1	µg/L	2380.1	ppb	22:57:39
2	Pb 220.353†	8862.8	8607.8	482.03	µg/L	482.03	ppb	22:57:39

2	S 181.975 Axial†	1404.8	1273.1	949.37 µg/L	949.37 ppb	22:57:39
2	Sb 206.836†	4167.5	4007.4	477.45 µg/L	477.45 ppb	22:57:39
2	Se 196.026†	1357.3	1316.2	478 µg/L	478 ppb	22:57:39
2	SiO2†	56527.9	53677.1	5226.0 µg/L	5226.0 ppb	22:57:19
2	Si 251.611†	170943.4	166854.8	2450.4 µg/L	2450.4 ppb	22:57:19
2	Sn 189.927†	7812.4	7664.9	479.44 µg/L	479.44 ppb	22:57:39
2	Ti 334.940†	524724.5	513789.4	479.40 µg/L	479.40 ppb	22:57:19
2	Tl 190.801†	3882.8	3925.7	489.55 µg/L	489.55 ppb	22:57:39
2	U 409.014†	7388.4	7517.7	468.65 µg/L	468.65 ppb	22:57:19
2	V 292.402†	99869.4	97565.6	482.28 µg/L	482.28 ppb	22:57:19
2	Zn 213.857†	87691.1	85458.4	476.30 µg/L	476.30 ppb	22:57:19
3	Sc RADIAL	144138.2	144138.2	98.8 %		22:56:51
3	Al 396.153Radial†	26172.1	26560.6	4902.1 µg/L	4902.1 ppb	22:56:51
3	Ca 317.933Radial†	86609.0	87124.9	4853.2 µg/L	4853.2 ppb	22:56:51
3	Fe 238.204 Radial†	77490.8	78305.8	4826.3 µg/L	4826.3 ppb	22:56:51
3	K 766.490 Radial†	14542.9	13178.9	4821.0 µg/L	4821.0 ppb	22:56:51
3	Mg 279.077 IEC†	13135.4	13108.0	4891.4 µg/L	4891.4 ppb	22:56:51
3	Na 589.592 Radial†	70800.9	70390.1	9611.9 µg/L	9611.9 ppb	22:56:51
3	Sr 421.552†	232137.5	235158.2	488.84 µg/L	488.84 ppb	22:56:49
3	Sc 361.383	1748212.6	1748212.6	101.75 %		22:57:42
3	Y 371.029	1033770.3	1033770.3	100.69 %		22:57:42
3	Ag 328.068†	134805.9	128401.6	481.45 µg/L	481.45 ppb	22:57:42
3	As 188.979†	1610.5	1603.2	491.81 µg/L	491.81 ppb	22:58:02
3	B 249.677†	36492.0	32359.9	475.58 µg/L	475.58 ppb	22:57:42
3	Ba 233.527†	121511.9	119562.9	482.19 µg/L	482.19 ppb	22:57:42
3	Be 313.107†	1811861.4	1781839.1	485.29 µg/L	485.29 ppb	22:57:42
3	Cd 226.502†	78364.1	77137.8	481.53 µg/L	481.53 ppb	22:57:42
3	Co 228.616†	39460.6	38973.8	481.13 µg/L	481.13 ppb	22:57:42
3	Cr 267.716†	62297.9	61050.5	478.02 µg/L	478.02 ppb	22:57:42
3	Cu 324.752†	128147.5	122976.6	479.39 µg/L	479.39 ppb	22:57:42
3	Mn 257.610†	398765.2	391686.1	484.43 µg/L	484.43 ppb	22:57:42
3	Mo 202.031†	16552.7	16288.7	479.14 µg/L	479.14 ppb	22:58:02
3	Ni 231.604†	42492.4	41839.9	481.76 µg/L	481.76 ppb	22:57:42
3	P 214.914†	11389.8	11212.3	2389.9 µg/L	2389.9 ppb	22:58:02
3	Pb 220.353†	8877.9	8639.2	483.79 µg/L	483.79 ppb	22:58:02
3	S 181.975 Axial†	1392.1	1263.1	942.01 µg/L	942.01 ppb	22:58:02
3	Sb 206.836†	4168.0	4015.6	478.46 µg/L	478.46 ppb	22:58:02
3	Se 196.026†	1374.8	1335.9	485 µg/L	485 ppb	22:58:02
3	SiO2†	56586.5	53840.3	5241.9 µg/L	5241.9 ppb	22:57:42
3	Si 251.611†	171481.5	167702.7	2462.9 µg/L	2462.9 ppb	22:57:42
3	Sn 189.927†	7818.8	7685.8	480.75 µg/L	480.75 ppb	22:58:02
3	Ti 334.940†	524855.7	514897.9	480.44 µg/L	480.44 ppb	22:57:42
3	Tl 190.801†	3874.8	3925.0	489.48 µg/L	489.48 ppb	22:58:02
3	U 409.014†	7274.8	7419.8	462.99 µg/L	462.99 ppb	22:57:42
3	V 292.402†	99852.2	97735.2	483.13 µg/L	483.13 ppb	22:57:42
3	Zn 213.857†	87879.4	85807.2	478.24 µg/L	478.24 ppb	22:57:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1752454.6	101.99	%	0.277				0.27%
Sc RADIAL	144750.5	99.2	%	0.54				0.54%
Y 371.029	1036124.4	100.92	%	0.271				0.27%
Ag 328.068†	128093.4	480.30	µg/L	1.150	480.30	ppb	1.150	0.24%
QC value within limits for Ag 328.068 Recovery = 96.06%								
Al 396.153Radial†	26555.6	4901.2	µg/L	21.86	4901.2	ppb	21.86	0.45%
QC value within limits for Al 396.153Radial Recovery = 98.02%								
As 188.979†	1609.8	493.81	µg/L	2.810	493.81	ppb	2.810	0.57%
QC value within limits for As 188.979 Recovery = 98.76%								
B 249.677†	32234.2	473.73	µg/L	2.187	473.73	ppb	2.187	0.46%
QC value within limits for B 249.677 Recovery = 94.75%								
Ba 233.527†	119254.1	480.95	µg/L	1.096	480.95	ppb	1.096	0.23%
QC value within limits for Ba 233.527 Recovery = 96.19%								
Be 313.107†	1775949.6	483.69	µg/L	1.416	483.69	ppb	1.416	0.29%
QC value within limits for Be 313.107 Recovery = 96.74%								
Ca 317.933Radial†	86927.1	4842.2	µg/L	11.42	4842.2	ppb	11.42	0.24%
QC value within limits for Ca 317.933Radial Recovery = 96.84%								
Cd 226.502†	76878.3	479.91	µg/L	1.404	479.91	ppb	1.404	0.29%
QC value within limits for Cd 226.502 Recovery = 95.98%								
Co 228.616†	38939.3	480.71	µg/L	0.798	480.71	ppb	0.798	0.17%

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   QC value within limits for Co 228.616  Recovery = 96.14%
Cr 267.716†            60991.5      477.56 µg/L         0.432      477.56 ppb          0.432   0.09%
   QC value within limits for Cr 267.716  Recovery = 95.51%
Cu 324.752†           122740.2      478.47 µg/L         0.832      478.47 ppb          0.832   0.17%
   QC value within limits for Cu 324.752  Recovery = 95.69%
Fe 238.204 Radial†     78215.5      4820.7 µg/L         10.03      4820.7 ppb          10.03   0.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.41%
K 766.490 Radial†      13172.2      4818.6 µg/L         12.58      4818.6 ppb          12.58   0.26%
   QC value within limits for K 766.490 Radial  Recovery = 96.37%
Mg 279.077 IEC†        13137.7      4902.4 µg/L         16.98      4902.4 ppb          16.98   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.05%
Mn 257.610†           390759.0      483.28 µg/L         0.994      483.28 ppb          0.994   0.21%
   QC value within limits for Mn 257.610  Recovery = 96.66%
Mo 202.031†            16221.2      477.16 µg/L         1.856      477.16 ppb          1.856   0.39%
   QC value within limits for Mo 202.031  Recovery = 95.43%
Na 589.592 Radial†     70214.0      9587.8 µg/L         22.57      9587.8 ppb          22.57   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 95.88%
Ni 231.604†            41740.1      480.61 µg/L         1.369      480.61 ppb          1.369   0.28%
   QC value within limits for Ni 231.604  Recovery = 96.12%
P 214.914†             11167.5      2380.3 µg/L          9.50      2380.3 ppb           9.50   0.40%
   QC value within limits for P 214.914  Recovery = 95.21%
Pb 220.353†             8601.7      481.69 µg/L         2.292      481.69 ppb          2.292   0.48%
   QC value within limits for Pb 220.353  Recovery = 96.34%
S 181.975 Axial†        1258.6      938.65 µg/L        12.730      938.65 ppb         12.730   1.36%
   QC value within limits for S 181.975 Axial  Recovery = 93.87%
Sb 206.836†             4005.1      477.19 µg/L         1.420      477.19 ppb          1.420   0.30%
   QC value within limits for Sb 206.836  Recovery = 95.44%
Se 196.026†             1319.8         479 µg/L           5.3         479 ppb            5.3   1.10%
   QC value within limits for Se 196.026  Recovery = 95.85%
SiO2†                  53748.6      5233.0 µg/L          8.10      5233.0 ppb           8.10   0.15%
   QC value within limits for SiO2  Recovery = 97.86%
Si 251.611†           167232.0      2456.0 µg/L          6.34      2456.0 ppb           6.34   0.26%
   QC value within limits for Si 251.611  Recovery = 98.24%
Sn 189.927†             7658.4      479.04 µg/L         1.940      479.04 ppb          1.940   0.41%
   QC value within limits for Sn 189.927  Recovery = 95.81%
Sr 421.552†           234440.5      487.35 µg/L         3.562      487.35 ppb          3.562   0.73%
   QC value within limits for Sr 421.552  Recovery = 97.47%
Ti 334.940†           514124.0      479.72 µg/L         0.631      479.72 ppb          0.631   0.13%
   QC value within limits for Ti 334.940  Recovery = 95.94%
Tl 190.801†             3903.4      486.82 µg/L         4.666      486.82 ppb          4.666   0.96%
   QC value within limits for Tl 190.801  Recovery = 97.36%
U 409.014†              7503.6      467.83 µg/L         4.493      467.83 ppb          4.493   0.96%
   QC value within limits for U 409.014  Recovery = 93.57%
V 292.402†             97574.3      482.33 µg/L         0.781      482.33 ppb          0.781   0.16%
   QC value within limits for V 292.402  Recovery = 96.47%
Zn 213.857†            85569.2      476.91 µg/L         1.152      476.91 ppb          1.152   0.24%
   QC value within limits for Zn 213.857  Recovery = 95.38%
All analyte(s) passed QC.
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Sequence No.: 97
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 22:58:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141781.4	141781.4	97.2	%			22:58:41
1	Al 396.153Radial†	-65.9	-4.6	-0.8469	µg/L	-0.8469	ppb	22:59:01
1	Ca 317.933Radial†	606.5	63.7	3.5473	µg/L	3.5473	ppb	22:59:01
1	Fe 238.204 Radial†	221.5	79.9	4.9227	µg/L	4.9227	ppb	22:59:01
1	K 766.490 Radial†	1686.2	190.7	69.835	µg/L	69.835	ppb	22:58:41
1	Mg 279.077 IEC†	181.6	-3.8	-1.4362	µg/L	-1.4362	ppb	22:59:01
1	Na 589.592 Radial†	1287.3	34.2	4.6057	µg/L	4.6057	ppb	22:58:41
1	Sr 421.552†	-190.2	-60.5	-0.1257	µg/L	-0.1257	ppb	22:58:41
1	Sc 361.383	1743048.5	1743048.5	101.45	%			23:00:02
1	Y 371.029	1041073.0	1041073.0	101.40	%			23:00:02
1	Ag 328.068†	4154.9	4.3	0.0197	µg/L	0.0197	ppb	23:00:05
1	As 188.979†	-19.4	1.2	0.3644	µg/L	0.3644	ppb	23:00:25
1	B 249.677†	3572.5	15.7	0.2315	µg/L	0.2315	ppb	23:00:05
1	Ba 233.527†	-115.3	22.2	0.0893	µg/L	0.0893	ppb	23:00:25
1	Be 313.107†	-922.1	155.7	0.0428	µg/L	0.0428	ppb	23:00:05
1	Cd 226.502†	-111.2	8.6	0.0533	µg/L	0.0533	ppb	23:00:25
1	Co 228.616†	-179.8	13.1	0.1612	µg/L	0.1612	ppb	23:00:25
1	Cr 267.716†	180.6	-0.5	-0.0052	µg/L	-0.0052	ppb	23:00:25
1	Cu 324.752†	2865.9	-147.1	-0.5698	µg/L	-0.5698	ppb	23:00:05
1	Mn 257.610†	329.0	87.1	0.1078	µg/L	0.1078	ppb	23:00:25
1	Mo 202.031†	-23.8	-3.4	-0.1000	µg/L	-0.1000	ppb	23:00:25
1	Ni 231.604†	-90.2	-12.4	-0.1430	µg/L	-0.1430	ppb	23:00:25
1	P 214.914†	-18.9	-0.7	-0.1360	µg/L	-0.1360	ppb	23:00:25
1	Pb 220.353†	97.7	10.0	0.5542	µg/L	0.5542	ppb	23:00:25
1	S 181.975 Axial†	106.4	-0.2	-0.1288	µg/L	-0.1288	ppb	23:00:25
1	Sb 206.836†	101.1	18.9	2.2415	µg/L	2.2415	ppb	23:00:25
1	Se 196.026†	15.2	-0.3	-0.115	µg/L	-0.115	ppb	23:00:25
1	SiO2†	1920.2	117.5	11.486	µg/L	11.486	ppb	23:00:25
1	Si 251.611†	1352.7	496.8	7.3252	µg/L	7.3252	ppb	23:00:05
1	Sn 189.927†	0.5	1.6	0.0974	µg/L	0.0974	ppb	23:00:25
1	Ti 334.940†	839.4	-125.1	-0.1173	µg/L	-0.1173	ppb	23:00:05
1	Tl 190.801†	-111.8	6.4	0.7917	µg/L	0.7917	ppb	23:00:25
1	U 409.014†	-248.6	24.8	1.4614	µg/L	1.4614	ppb	23:00:05
1	V 292.402†	448.0	37.9	0.1842	µg/L	0.1842	ppb	23:00:05
1	Zn 213.857†	592.5	19.7	0.1113	µg/L	0.1113	ppb	23:00:25
2	Sc RADIAL	145003.3	145003.3	99.4	%			22:59:03
2	Al 396.153Radial†	-37.6	25.3	4.6756	µg/L	4.6756	ppb	22:59:23
2	Ca 317.933Radial†	575.8	18.9	1.0553	µg/L	1.0553	ppb	22:59:23
2	Fe 238.204 Radial†	212.8	66.1	4.0710	µg/L	4.0710	ppb	22:59:23
2	K 766.490 Radial†	1744.9	211.3	77.353	µg/L	77.353	ppb	22:59:03
2	Mg 279.077 IEC†	193.4	3.9	1.4593	µg/L	1.4593	ppb	22:59:23
2	Na 589.592 Radial†	1264.0	-18.7	-2.6277	µg/L	-2.6277	ppb	22:59:03
2	Sr 421.552†	-251.3	-117.6	-0.2446	µg/L	-0.2446	ppb	22:59:03
2	Sc 361.383	1760622.4	1760622.4	102.47	%			23:00:27
2	Y 371.029	1051993.8	1051993.8	102.46	%			23:00:27
2	Ag 328.068†	3995.9	-191.7	-0.7159	µg/L	-0.7159	ppb	23:00:29
2	As 188.979†	-7.1	13.4	4.0498	µg/L	4.0498	ppb	23:00:49
2	B 249.677†	3525.8	-65.0	-0.9588	µg/L	-0.9588	ppb	23:00:29
2	Ba 233.527†	-156.5	-16.9	-0.0684	µg/L	-0.0684	ppb	23:00:49
2	Be 313.107†	-952.5	135.1	0.0377	µg/L	0.0377	ppb	23:00:29
2	Cd 226.502†	-136.2	-14.7	-0.0924	µg/L	-0.0924	ppb	23:00:49
2	Co 228.616†	-206.8	-11.5	-0.1422	µg/L	-0.1422	ppb	23:00:49
2	Cr 267.716†	203.7	20.2	0.1559	µg/L	0.1559	ppb	23:00:49
2	Cu 324.752†	2945.2	-98.0	-0.3777	µg/L	-0.3777	ppb	23:00:29
2	Mn 257.610†	295.4	51.0	0.0631	µg/L	0.0631	ppb	23:00:49
2	Mo 202.031†	-5.0	15.2	0.4464	µg/L	0.4464	ppb	23:00:49
2	Ni 231.604†	-100.3	-21.4	-0.2461	µg/L	-0.2461	ppb	23:00:49
2	P 214.914†	-24.8	-6.2	-1.3412	µg/L	-1.3412	ppb	23:00:49
2	Pb 220.353†	104.7	15.8	0.8832	µg/L	0.8832	ppb	23:00:49

2	S 181.975 Axial†	95.9	-11.5	-8.5333	µg/L	-8.5333 ppb	23:00:49
2	Sb 206.836†	88.7	5.7	0.6835	µg/L	0.6835 ppb	23:00:49
2	Se 196.026†	21.7	5.9	2.15	µg/L	2.15 ppb	23:00:49
2	SiO2†	1898.9	77.8	7.5925	µg/L	7.5925 ppb	23:00:49
2	Si 251.611†	1381.8	512.0	7.5445	µg/L	7.5445 ppb	23:00:29
2	Sn 189.927†	-7.0	-5.7	-0.3531	µg/L	-0.3531 ppb	23:00:49
2	Ti 334.940†	1192.4	211.2	0.1959	µg/L	0.1959 ppb	23:00:29
2	Tl 190.801†	-124.7	-5.0	-0.6143	µg/L	-0.6143 ppb	23:00:49
2	U 409.014†	-223.7	51.6	2.9674	µg/L	2.9674 ppb	23:00:29
2	V 292.402†	244.3	-165.3	-0.7998	µg/L	-0.7998 ppb	23:00:29
2	Zn 213.857†	583.4	4.9	0.0292	µg/L	0.0292 ppb	23:00:49
3	Sc RADIAL	144406.4	144406.4	99.0	%		22:59:25
3	Al 396.153Radial†	-65.2	-2.7	-0.5137	µg/L	-0.5137 ppb	22:59:45
3	Ca 317.933Radial†	603.1	48.9	2.7231	µg/L	2.7231 ppb	22:59:45
3	Fe 238.204 Radial†	209.2	63.3	3.9000	µg/L	3.9000 ppb	22:59:45
3	K 766.490 Radial†	1469.9	-59.4	-21.748	µg/L	-21.748 ppb	22:59:25
3	Mg 279.077 IEC†	181.9	-6.9	-2.5712	µg/L	-2.5712 ppb	22:59:45
3	Na 589.592 Radial†	1182.1	-96.2	-13.128	µg/L	-13.128 ppb	22:59:25
3	Sr 421.552†	-255.8	-123.2	-0.2561	µg/L	-0.2561 ppb	22:59:25
3	Sc 361.383	1746264.7	1746264.7	101.63	%		23:00:51
3	Y 371.029	1044189.6	1044189.6	101.70	%		23:00:51
3	Ag 328.068†	4224.2	64.9	0.2383	µg/L	0.2383 ppb	23:00:53
3	As 188.979†	-13.6	7.0	2.1128	µg/L	2.1128 ppb	23:01:13
3	B 249.677†	3523.5	-39.0	-0.5757	µg/L	-0.5757 ppb	23:00:53
3	Ba 233.527†	-133.8	4.2	0.0170	µg/L	0.0170 ppb	23:01:13
3	Be 313.107†	-788.4	289.0	0.0783	µg/L	0.0783 ppb	23:00:53
3	Cd 226.502†	-90.0	29.6	0.1844	µg/L	0.1844 ppb	23:01:13
3	Co 228.616†	-170.7	22.4	0.2760	µg/L	0.2760 ppb	23:01:13
3	Cr 267.716†	211.8	29.8	0.2347	µg/L	0.2347 ppb	23:01:13
3	Cu 324.752†	2885.9	-132.7	-0.5161	µg/L	-0.5161 ppb	23:00:53
3	Mn 257.610†	381.2	137.9	0.1707	µg/L	0.1707 ppb	23:01:13
3	Mo 202.031†	-12.3	8.0	0.2345	µg/L	0.2345 ppb	23:01:13
3	Ni 231.604†	-88.3	-10.3	-0.1190	µg/L	-0.1190 ppb	23:01:13
3	P 214.914†	-16.7	1.5	0.3230	µg/L	0.3230 ppb	23:01:13
3	Pb 220.353†	101.8	13.8	0.7699	µg/L	0.7699 ppb	23:01:13
3	S 181.975 Axial†	95.5	-11.1	-8.2190	µg/L	-8.2190 ppb	23:01:13
3	Sb 206.836†	89.0	6.7	0.8032	µg/L	0.8032 ppb	23:01:13
3	Se 196.026†	12.4	-3.0	-1.09	µg/L	-1.09 ppb	23:01:13
3	SiO2†	1870.7	65.3	6.3610	µg/L	6.3610 ppb	23:01:13
3	Si 251.611†	1192.8	337.1	4.9610	µg/L	4.9610 ppb	23:00:53
3	Sn 189.927†	11.3	12.3	0.7657	µg/L	0.7657 ppb	23:01:13
3	Ti 334.940†	1019.6	50.7	0.0482	µg/L	0.0482 ppb	23:00:53
3	Tl 190.801†	-120.0	-1.4	-0.1679	µg/L	-0.1679 ppb	23:01:13
3	U 409.014†	-299.5	-24.8	-1.4500	µg/L	-1.4500 ppb	23:00:53
3	V 292.402†	406.4	-3.9	-0.0172	µg/L	-0.0172 ppb	23:00:53
3	Zn 213.857†	589.9	16.1	0.0909	µg/L	0.0909 ppb	23:01:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1749978.5	101.85	%	0.545				0.53%
Sc RADIAL	143730.4	98.5	%	1.17				1.19%
Y 371.029	1045752.1	101.86	%	0.548				0.54%
Ag 328.068†	-40.8	-0.1526	µg/L	0.49988	-0.1526	ppb	0.49988	327.49%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.0	1.1050	µg/L	3.09673	1.1050	ppb	3.09673	280.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.2	2.1757	µg/L	1.84349	2.1757	ppb	1.84349	84.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-29.4	-0.4343	µg/L	0.60762	-0.4343	ppb	0.60762	139.91%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.2	0.0126	µg/L	0.07891	0.0126	ppb	0.07891	623.91%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.3	0.0529	µg/L	0.02208	0.0529	ppb	0.02208	41.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	43.8	2.4419	µg/L	1.26955	2.4419	ppb	1.26955	51.99%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.8	0.0484	µg/L	0.13846	0.0484	ppb	0.13846	286.00%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.0	0.0983	µg/L	0.21607	0.0983	ppb	0.21607	219.74%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              16.5      0.1285 µg/L       0.12227      0.1285 ppb        0.12227  95.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -125.9     -0.4879 µg/L       0.09911     -0.4879 ppb        0.09911  20.31%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       69.7      4.2979 µg/L       0.54779      4.2979 ppb        0.54779  12.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       114.2      41.813 µg/L       55.1735      41.813 ppb        55.1735 131.95%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.3     -0.8494 µg/L       2.07835     -0.8494 ppb        2.07835 244.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              92.0      0.1138 µg/L       0.05404      0.1138 ppb        0.05404  47.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.6      0.1936 µg/L       0.27547      0.1936 ppb        0.27547 142.26%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -26.9     -3.7166 µg/L       8.91683     -3.7166 ppb        8.91683 239.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -14.7     -0.1693 µg/L       0.06752     -0.1693 ppb        0.06752  39.87%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.8     -0.3847 µg/L       0.85955     -0.3847 ppb        0.85955 223.42%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              13.2      0.7358 µg/L       0.16715      0.7358 ppb        0.16715  22.72%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -7.6     -5.6270 µg/L       4.76418     -5.6270 ppb        4.76418  84.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              10.4      1.2427 µg/L       0.86705      1.2427 ppb        0.86705  69.77%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.9       0.315 µg/L        1.6662       0.315 ppb         1.6662 528.34%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    86.8      8.4797 µg/L       2.67504      8.4797 ppb        2.67504  31.55%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             448.6      6.6103 µg/L       1.43246      6.6103 ppb        1.43246  21.67%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.7      0.1700 µg/L       0.56292      0.1700 ppb        0.56292 331.12%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -100.4     -0.2088 µg/L       0.07220     -0.2088 ppb        0.07220  34.57%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              45.6      0.0423 µg/L       0.15668      0.0423 ppb        0.15668 370.64%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.0      0.0032 µg/L       0.71841      0.0032 ppb        0.71841 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               17.2      0.9930 µg/L       2.24566      0.9930 ppb        2.24566 226.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -43.8     -0.2109 µg/L       0.51982     -0.2109 ppb        0.51982 246.42%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              13.5      0.0771 µg/L       0.04274      0.0771 ppb        0.04274  55.43%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 107
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 23:18:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144621.4	144621.4	99.1	%			23:18:59
1	Al 396.153Radial†	26323.5	26624.9	4914.2	µg/L	4914.2	ppb	23:18:59
1	Ca 317.933Radial†	86890.8	87116.3	4852.7	µg/L	4852.7	ppb	23:18:59
1	Fe 238.204 Radial†	77681.3	78236.0	4822.0	µg/L	4822.0	ppb	23:18:59
1	K 766.490 Radial†	14559.5	13146.4	4809.1	µg/L	4809.1	ppb	23:18:59
1	Mg 279.077 IEC†	13260.2	13189.4	4921.6	µg/L	4921.6	ppb	23:18:59
1	Na 589.592 Radial†	71065.1	70417.2	9615.6	µg/L	9615.6	ppb	23:18:59
1	Sr 421.552†	226802.4	228989.5	476.02	µg/L	476.02	ppb	23:18:57
1	Sc 361.383	1740302.6	1740302.6	101.29	%			23:19:12
1	Y 371.029	1028952.4	1028952.4	100.22	%			23:19:12
1	Ag 328.068†	133614.5	127827.5	479.30	µg/L	479.30	ppb	23:19:12
1	As 188.979†	1600.2	1600.2	490.89	µg/L	490.89	ppb	23:19:32
1	B 249.677†	35788.1	31828.1	467.74	µg/L	467.74	ppb	23:19:12
1	Ba 233.527†	120219.9	118830.1	479.24	µg/L	479.24	ppb	23:19:12
1	Be 313.107†	1792744.0	1771058.2	482.36	µg/L	482.36	ppb	23:19:12
1	Cd 226.502†	77213.0	76351.3	476.62	µg/L	476.62	ppb	23:19:12
1	Co 228.616†	39286.0	38977.8	481.18	µg/L	481.18	ppb	23:19:12
1	Cr 267.716†	61813.7	60850.7	476.45	µg/L	476.45	ppb	23:19:12
1	Cu 324.752†	127063.4	122478.8	477.46	µg/L	477.46	ppb	23:19:12
1	Mn 257.610†	394634.0	389388.7	481.58	µg/L	481.58	ppb	23:19:12
1	Mo 202.031†	16315.2	16128.2	474.43	µg/L	474.43	ppb	23:19:32
1	Ni 231.604†	42026.4	41569.6	478.64	µg/L	478.64	ppb	23:19:12
1	P 214.914†	11190.5	11066.4	2358.7	µg/L	2358.7	ppb	23:19:32
1	Pb 220.353†	8740.7	8543.3	478.42	µg/L	478.42	ppb	23:19:32
1	S 181.975 Axial†	1377.8	1255.2	936.10	µg/L	936.10	ppb	23:19:32
1	Sb 206.836†	4144.7	4011.3	477.89	µg/L	477.89	ppb	23:19:32
1	Se 196.026†	1340.6	1308.3	475	µg/L	475	ppb	23:19:32
1	SiO2†	55627.7	53146.4	5174.3	µg/L	5174.3	ppb	23:19:12
1	Si 251.611†	168264.2	165292.3	2427.4	µg/L	2427.4	ppb	23:19:12
1	Sn 189.927†	7681.2	7584.9	474.45	µg/L	474.45	ppb	23:19:32
1	Ti 334.940†	520666.2	513106.3	478.76	µg/L	478.76	ppb	23:19:12
1	Tl 190.801†	3808.4	3876.8	483.51	µg/L	483.51	ppb	23:19:32
1	U 409.014†	7415.2	7590.9	472.81	µg/L	472.81	ppb	23:19:12
1	V 292.402†	98786.7	97129.3	480.13	µg/L	480.13	ppb	23:19:12
1	Zn 213.857†	87000.0	85331.6	475.59	µg/L	475.59	ppb	23:19:12
2	Sc RADIAL	142472.1	142472.1	97.6	%			23:19:03
2	Al 396.153Radial†	25927.4	26619.8	4913.0	µg/L	4913.0	ppb	23:19:03
2	Ca 317.933Radial†	85608.6	87125.7	4853.2	µg/L	4853.2	ppb	23:19:03
2	Fe 238.204 Radial†	76614.2	78325.4	4827.5	µg/L	4827.5	ppb	23:19:03
2	K 766.490 Radial†	14271.1	13072.6	4782.1	µg/L	4782.1	ppb	23:19:03
2	Mg 279.077 IEC†	13162.7	13291.5	4959.8	µg/L	4959.8	ppb	23:19:03
2	Na 589.592 Radial†	70188.6	70601.3	9640.7	µg/L	9640.7	ppb	23:19:03
2	Sr 421.552†	229468.1	235172.4	488.87	µg/L	488.87	ppb	23:19:01
2	Sc 361.383	1723519.2	1723519.2	100.31	%			23:19:35
2	Y 371.029	1019447.3	1019447.3	99.295	%			23:19:35
2	Ag 328.068†	132544.4	128045.3	480.11	µg/L	480.11	ppb	23:19:35
2	As 188.979†	1616.7	1632.0	500.53	µg/L	500.53	ppb	23:19:55
2	B 249.677†	35773.7	32157.7	472.61	µg/L	472.61	ppb	23:19:35
2	Ba 233.527†	119609.8	119377.7	481.45	µg/L	481.45	ppb	23:19:35
2	Be 313.107†	1778804.5	1774397.6	483.27	µg/L	483.27	ppb	23:19:35
2	Cd 226.502†	76467.8	76350.8	476.61	µg/L	476.61	ppb	23:19:35
2	Co 228.616†	38765.7	38836.8	479.44	µg/L	479.44	ppb	23:19:35
2	Cr 267.716†	61178.2	60811.4	476.15	µg/L	476.15	ppb	23:19:35
2	Cu 324.752†	126162.4	122802.1	478.71	µg/L	478.71	ppb	23:19:35
2	Mn 257.610†	391126.3	389685.9	481.95	µg/L	481.95	ppb	23:19:35
2	Mo 202.031†	16388.5	16358.2	481.19	µg/L	481.19	ppb	23:19:55
2	Ni 231.604†	41688.5	41636.7	479.42	µg/L	479.42	ppb	23:19:35
2	P 214.914†	11227.5	11210.9	2389.5	µg/L	2389.5	ppb	23:19:55
2	Pb 220.353†	8752.6	8639.3	483.80	µg/L	483.80	ppb	23:19:55

2	S 181.975 Axial†	1387.2	1277.9	952.97 µg/L	952.97 ppb	23:19:55
2	Sb 206.836†	4153.3	4059.7	483.76 µg/L	483.76 ppb	23:19:55
2	Se 196.026†	1345.0	1325.6	481 µg/L	481 ppb	23:19:55
2	SiO2†	55194.2	53249.1	5184.0 µg/L	5184.0 ppb	23:19:35
2	Si 251.611†	166652.6	165303.4	2427.5 µg/L	2427.5 ppb	23:19:35
2	Sn 189.927†	7721.4	7698.8	481.56 µg/L	481.56 ppb	23:19:55
2	Ti 334.940†	516481.7	513940.5	479.54 µg/L	479.54 ppb	23:19:35
2	Tl 190.801†	3825.6	3930.5	490.14 µg/L	490.14 ppb	23:19:55
2	U 409.014†	7186.2	7434.0	463.72 µg/L	463.72 ppb	23:19:35
2	V 292.402†	98156.4	97450.7	481.75 µg/L	481.75 ppb	23:19:35
2	Zn 213.857†	86133.5	85304.1	475.43 µg/L	475.43 ppb	23:19:35
3	Sc RADIAL	143809.9	143809.9	98.5 %		23:19:07
3	Al 396.153Radial†	26240.2	26690.2	4926.1 µg/L	4926.1 ppb	23:19:07
3	Ca 317.933Radial†	86148.8	86858.1	4838.3 µg/L	4838.3 ppb	23:19:07
3	Fe 238.204 Radial†	77300.3	78291.6	4825.4 µg/L	4825.4 ppb	23:19:07
3	K 766.490 Radial†	14495.5	13164.4	4815.7 µg/L	4815.7 ppb	23:19:07
3	Mg 279.077 IEC†	13104.6	13107.1	4891.0 µg/L	4891.0 ppb	23:19:07
3	Na 589.592 Radial†	70560.3	70309.6	9600.9 µg/L	9600.9 ppb	23:19:07
3	Sr 421.552†	228660.9	232166.8	482.62 µg/L	482.62 ppb	23:19:05
3	Sc 361.383	1735011.3	1735011.3	100.98 %		23:19:58
3	Y 371.029	1026280.7	1026280.7	99.960 %		23:19:58
3	Ag 328.068†	133432.9	128050.0	480.14 µg/L	480.14 ppb	23:19:58
3	As 188.979†	1602.2	1607.1	492.96 µg/L	492.96 ppb	23:20:18
3	B 249.677†	35929.6	32076.0	471.40 µg/L	471.40 ppb	23:19:58
3	Ba 233.527†	120028.3	119002.3	479.93 µg/L	479.93 ppb	23:19:58
3	Be 313.107†	1790709.1	1774441.1	483.28 µg/L	483.28 ppb	23:19:58
3	Cd 226.502†	76990.5	76363.5	476.69 µg/L	476.69 ppb	23:19:58
3	Co 228.616†	38992.1	38805.0	479.05 µg/L	479.05 ppb	23:19:58
3	Cr 267.716†	61553.2	60778.9	475.89 µg/L	475.89 ppb	23:19:58
3	Cu 324.752†	126757.9	122558.7	477.77 µg/L	477.77 ppb	23:19:58
3	Mn 257.610†	393545.3	389498.8	481.72 µg/L	481.72 ppb	23:19:58
3	Mo 202.031†	16392.4	16253.8	478.12 µg/L	478.12 ppb	23:20:18
3	Ni 231.604†	41888.6	41559.7	478.53 µg/L	478.53 ppb	23:19:58
3	P 214.914†	11251.6	11160.7	2378.8 µg/L	2378.8 ppb	23:20:18
3	Pb 220.353†	8767.6	8596.3	481.39 µg/L	481.39 ppb	23:20:18
3	S 181.975 Axial†	1362.8	1244.5	928.19 µg/L	928.19 ppb	23:20:18
3	Sb 206.836†	4134.8	4013.9	478.27 µg/L	478.27 ppb	23:20:18
3	Se 196.026†	1346.5	1318.2	479 µg/L	479 ppb	23:20:18
3	SiO2†	55432.8	53120.9	5171.6 µg/L	5171.6 ppb	23:19:58
3	Si 251.611†	167686.3	165226.7	2426.4 µg/L	2426.4 ppb	23:19:58
3	Sn 189.927†	7743.2	7669.3	479.72 µg/L	479.72 ppb	23:20:18
3	Ti 334.940†	520000.5	514014.7	479.61 µg/L	479.61 ppb	23:19:58
3	Tl 190.801†	3827.1	3906.8	487.22 µg/L	487.22 ppb	23:20:18
3	U 409.014†	7368.8	7567.3	471.52 µg/L	471.52 ppb	23:19:58
3	V 292.402†	98829.1	97468.7	481.82 µg/L	481.82 ppb	23:19:58
3	Zn 213.857†	86772.4	85368.1	475.79 µg/L	475.79 ppb	23:19:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732944.4	100.86	%	0.499				0.50%
Sc RADIAL	143634.5	98.4	%	0.74				0.76%
Y 371.029	1024893.5	99.825	%	0.4775				0.48%
Ag 328.068†	127974.3	479.85	µg/L	0.478	479.85	ppb	0.478	0.10%
QC value within limits for Ag 328.068 Recovery = 95.97%								
Al 396.153Radial†	26645.0	4917.8	µg/L	7.28	4917.8	ppb	7.28	0.15%
QC value within limits for Al 396.153Radial Recovery = 98.36%								
As 188.979†	1613.1	494.79	µg/L	5.073	494.79	ppb	5.073	1.03%
QC value within limits for As 188.979 Recovery = 98.96%								
B 249.677†	32020.6	470.58	µg/L	2.536	470.58	ppb	2.536	0.54%
QC value within limits for B 249.677 Recovery = 94.12%								
Ba 233.527†	119070.1	480.21	µg/L	1.130	480.21	ppb	1.130	0.24%
QC value within limits for Ba 233.527 Recovery = 96.04%								
Be 313.107†	1773298.9	482.97	µg/L	0.528	482.97	ppb	0.528	0.11%
QC value within limits for Be 313.107 Recovery = 96.59%								
Ca 317.933Radial†	87033.4	4848.1	µg/L	8.46	4848.1	ppb	8.46	0.17%
QC value within limits for Ca 317.933Radial Recovery = 96.96%								
Cd 226.502†	76355.2	476.64	µg/L	0.045	476.64	ppb	0.045	0.01%
QC value within limits for Cd 226.502 Recovery = 95.33%								
Co 228.616†	38873.2	479.89	µg/L	1.134	479.89	ppb	1.134	0.24%

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   QC value within limits for Co 228.616  Recovery = 95.98%
Cr 267.716†            60813.7      476.16 µg/L         0.280      476.16 ppb          0.280   0.06%
   QC value within limits for Cr 267.716  Recovery = 95.23%
Cu 324.752†           122613.2      477.98 µg/L         0.651      477.98 ppb          0.651   0.14%
   QC value within limits for Cu 324.752  Recovery = 95.60%
Fe 238.204 Radial†     78284.3      4825.0 µg/L          2.78      4825.0 ppb           2.78   0.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.50%
K 766.490 Radial†      13127.8      4802.3 µg/L         17.82      4802.3 ppb          17.82   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 96.05%
Mg 279.077 IEC†        13196.0      4924.2 µg/L         34.46      4924.2 ppb          34.46   0.70%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.48%
Mn 257.610†           389524.5      481.75 µg/L         0.185      481.75 ppb          0.185   0.04%
   QC value within limits for Mn 257.610  Recovery = 96.35%
Mo 202.031†            16246.8      477.91 µg/L         3.385      477.91 ppb          3.385   0.71%
   QC value within limits for Mo 202.031  Recovery = 95.58%
Na 589.592 Radial†     70442.7      9619.1 µg/L         20.17      9619.1 ppb          20.17   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 96.19%
Ni 231.604†            41588.7      478.86 µg/L         0.483      478.86 ppb          0.483   0.10%
   QC value within limits for Ni 231.604  Recovery = 95.77%
P 214.914†             11146.0      2375.7 µg/L         15.67      2375.7 ppb          15.67   0.66%
   QC value within limits for P 214.914  Recovery = 95.03%
Pb 220.353†             8593.0      481.20 µg/L         2.697      481.20 ppb          2.697   0.56%
   QC value within limits for Pb 220.353  Recovery = 96.24%
S 181.975 Axial†        1259.2      939.09 µg/L        12.659      939.09 ppb         12.659   1.35%
   QC value within limits for S 181.975 Axial  Recovery = 93.91%
Sb 206.836†             4028.3      479.97 µg/L         3.284      479.97 ppb          3.284   0.68%
   QC value within limits for Sb 206.836  Recovery = 95.99%
Se 196.026†             1317.4         478 µg/L           3.1         478 ppb            3.1   0.65%
   QC value within limits for Se 196.026  Recovery = 95.67%
SiO2†                  53172.1      5176.6 µg/L          6.53      5176.6 ppb           6.53   0.13%
   QC value within limits for SiO2  Recovery = 96.80%
Si 251.611†           165274.1      2427.1 µg/L          0.62      2427.1 ppb           0.62   0.03%
   QC value within limits for Si 251.611  Recovery = 97.08%
Sn 189.927†             7651.0      478.58 µg/L         3.688      478.58 ppb          3.688   0.77%
   QC value within limits for Sn 189.927  Recovery = 95.72%
Sr 421.552†           232109.6      482.50 µg/L         6.428      482.50 ppb          6.428   1.33%
   QC value within limits for Sr 421.552  Recovery = 96.50%
Ti 334.940†           513687.1      479.31 µg/L         0.472      479.31 ppb          0.472   0.10%
   QC value within limits for Ti 334.940  Recovery = 95.86%
Tl 190.801†             3904.7      486.96 µg/L         3.327      486.96 ppb          3.327   0.68%
   QC value within limits for Tl 190.801  Recovery = 97.39%
U 409.014†              7530.7      469.35 µg/L         4.918      469.35 ppb          4.918   1.05%
   QC value within limits for U 409.014  Recovery = 93.87%
V 292.402†             97349.6      481.23 µg/L         0.958      481.23 ppb          0.958   0.20%
   QC value within limits for V 292.402  Recovery = 96.25%
Zn 213.857†            85334.6      475.60 µg/L         0.184      475.60 ppb          0.184   0.04%
   QC value within limits for Zn 213.857  Recovery = 95.12%
All analyte(s) passed QC.
```

Sequence No.: 108
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 23:20:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144721.0	144721.0	99.2	%			23:20:58
1	Al 396.153Radial†	-83.6	-21.0	-3.8947	µg/L	-3.8947	ppb	23:21:18
1	Ca 317.933Radial†	580.4	24.7	1.3750	µg/L	1.3750	ppb	23:21:18
1	Fe 238.204 Radial†	196.1	49.7	3.0605	µg/L	3.0605	ppb	23:21:18
1	K 766.490 Radial†	1602.1	70.7	25.883	µg/L	25.883	ppb	23:20:58
1	Mg 279.077 IEC†	205.0	16.0	5.9406	µg/L	5.9406	ppb	23:21:18
1	Na 589.592 Radial†	1213.9	-66.8	-9.1423	µg/L	-9.1423	ppb	23:20:58
1	Sr 421.552†	-55.9	78.9	0.1640	µg/L	0.1640	ppb	23:20:58
1	Sc 361.383	1740172.6	1740172.6	101.28	%			23:22:05
1	Y 371.029	1040560.6	1040560.6	101.35	%			23:22:05
1	Ag 328.068†	3851.9	-288.0	-1.0737	µg/L	-1.0737	ppb	23:22:08
1	As 188.979†	-3.9	16.5	4.9867	µg/L	4.9867	ppb	23:22:28
1	B 249.677†	3520.7	-29.6	-0.4370	µg/L	-0.4370	ppb	23:22:08
1	Ba 233.527†	-128.4	9.1	0.0366	µg/L	0.0366	ppb	23:22:28
1	Be 313.107†	-942.4	134.2	0.0343	µg/L	0.0343	ppb	23:22:08
1	Cd 226.502†	-109.3	10.3	0.0637	µg/L	0.0637	ppb	23:22:28
1	Co 228.616†	-168.6	23.8	0.2936	µg/L	0.2936	ppb	23:22:28
1	Cr 267.716†	186.3	5.4	0.0484	µg/L	0.0484	ppb	23:22:28
1	Cu 324.752†	2967.4	-42.3	-0.1696	µg/L	-0.1696	ppb	23:22:08
1	Mn 257.610†	341.2	99.6	0.1230	µg/L	0.1230	ppb	23:22:28
1	Mo 202.031†	-26.0	-5.6	-0.1652	µg/L	-0.1652	ppb	23:22:28
1	Ni 231.604†	-86.6	-8.9	-0.1030	µg/L	-0.1030	ppb	23:22:28
1	P 214.914†	2.1	20.0	4.2896	µg/L	4.2896	ppb	23:22:28
1	Pb 220.353†	89.4	1.9	0.1123	µg/L	0.1123	ppb	23:22:28
1	S 181.975 Axial†	95.7	-10.5	-7.8226	µg/L	-7.8226	ppb	23:22:28
1	Sb 206.836†	91.9	9.9	1.1769	µg/L	1.1769	ppb	23:22:28
1	Se 196.026†	23.5	7.9	2.85	µg/L	2.85	ppb	23:22:28
1	SiO2†	1814.1	15.9	1.5390	µg/L	1.5390	ppb	23:22:28
1	Si 251.611†	917.6	69.4	1.0187	µg/L	1.0187	ppb	23:22:08
1	Sn 189.927†	16.5	17.4	1.0880	µg/L	1.0880	ppb	23:22:28
1	Ti 334.940†	1176.4	209.1	0.1979	µg/L	0.1979	ppb	23:22:08
1	Tl 190.801†	-110.5	7.6	0.9307	µg/L	0.9307	ppb	23:22:28
1	U 409.014†	-401.5	-126.5	-7.3869	µg/L	-7.3869	ppb	23:22:08
1	V 292.402†	444.8	35.4	0.1657	µg/L	0.1657	ppb	23:22:08
1	Zn 213.857†	587.2	15.4	0.0869	µg/L	0.0869	ppb	23:22:28
2	Sc RADIAL	144189.3	144189.3	98.8	%			23:21:20
2	Al 396.153Radial†	-42.6	20.1	3.7335	µg/L	3.7335	ppb	23:21:40
2	Ca 317.933Radial†	605.6	52.4	2.9175	µg/L	2.9175	ppb	23:21:40
2	Fe 238.204 Radial†	235.5	90.2	5.5587	µg/L	5.5587	ppb	23:21:40
2	K 766.490 Radial†	1804.3	281.3	102.99	µg/L	102.99	ppb	23:21:20
2	Mg 279.077 IEC†	185.5	-3.0	-1.1298	µg/L	-1.1298	ppb	23:21:40
2	Na 589.592 Radial†	1392.4	118.4	16.088	µg/L	16.088	ppb	23:21:20
2	Sr 421.552†	-172.0	-38.8	-0.0807	µg/L	-0.0807	ppb	23:21:20
2	Sc 361.383	1750632.4	1750632.4	101.89	%			23:22:30
2	Y 371.029	1045632.3	1045632.3	101.85	%			23:22:30
2	Ag 328.068†	3884.1	-279.2	-1.0517	µg/L	-1.0517	ppb	23:22:32
2	As 188.979†	-9.6	10.9	3.2935	µg/L	3.2935	ppb	23:22:52
2	B 249.677†	3509.8	-61.1	-0.9032	µg/L	-0.9032	ppb	23:22:32
2	Ba 233.527†	-114.7	23.2	0.0931	µg/L	0.0931	ppb	23:22:52
2	Be 313.107†	-767.6	311.3	0.0822	µg/L	0.0822	ppb	23:22:32
2	Cd 226.502†	-108.6	11.6	0.0718	µg/L	0.0718	ppb	23:22:52
2	Co 228.616†	-145.0	48.0	0.5919	µg/L	0.5919	ppb	23:22:52
2	Cr 267.716†	155.6	-25.9	-0.1960	µg/L	-0.1960	ppb	23:22:52
2	Cu 324.752†	2910.6	-115.5	-0.4545	µg/L	-0.4545	ppb	23:22:32
2	Mn 257.610†	337.8	94.3	0.1167	µg/L	0.1167	ppb	23:22:52
2	Mo 202.031†	-28.0	-7.4	-0.2186	µg/L	-0.2186	ppb	23:22:52
2	Ni 231.604†	-82.4	-4.3	-0.0499	µg/L	-0.0499	ppb	23:22:52
2	P 214.914†	-26.2	-7.8	-1.6582	µg/L	-1.6582	ppb	23:22:52
2	Pb 220.353†	84.8	-3.2	-0.1707	µg/L	-0.1707	ppb	23:22:52

2	S 181.975 Axial†	94.4	-12.4	-9.1963 µg/L	-9.1963 ppb	23:22:52
2	Sb 206.836†	90.2	7.7	0.9179 µg/L	0.9179 ppb	23:22:52
2	Se 196.026†	18.0	2.4	0.844 µg/L	0.844 ppb	23:22:52
2	SiO2†	1787.8	-20.7	-2.0247 µg/L	-2.0247 ppb	23:22:52
2	Si 251.611†	881.0	28.1	0.4136 µg/L	0.4136 ppb	23:22:32
2	Sn 189.927†	7.3	8.3	0.5186 µg/L	0.5186 ppb	23:22:52
2	Ti 334.940†	950.4	-19.7	-0.0148 µg/L	-0.0148 ppb	23:22:32
2	Tl 190.801†	-105.4	13.3	1.6208 µg/L	1.6208 ppb	23:22:52
2	U 409.014†	-420.2	-142.5	-8.3714 µg/L	-8.3714 ppb	23:22:32
2	V 292.402†	279.7	-129.3	-0.6400 µg/L	-0.6400 ppb	23:22:32
2	Zn 213.857†	564.2	-10.7	-0.0598 µg/L	-0.0598 ppb	23:22:52
3	Sc RADIAL	144369.9	144369.9	98.9 %		23:21:42
3	Al 396.153Radial†	-72.5	-10.1	-1.8730 µg/L	-1.8730 ppb	23:22:02
3	Ca 317.933Radial†	584.3	30.1	1.6744 µg/L	1.6744 ppb	23:22:02
3	Fe 238.204 Radial†	204.0	58.1	3.5807 µg/L	3.5807 ppb	23:22:02
3	K 766.490 Radial†	1674.9	148.2	54.270 µg/L	54.270 ppb	23:21:42
3	Mg 279.077 IEC†	184.9	-3.8	-1.4254 µg/L	-1.4254 ppb	23:22:02
3	Na 589.592 Radial†	1285.3	8.4	1.0985 µg/L	1.0985 ppb	23:21:42
3	Sr 421.552†	-188.2	-55.0	-0.1143 µg/L	-0.1143 ppb	23:21:42
3	Sc 361.383	1741492.2	1741492.2	101.35 %		23:22:54
3	Y 371.029	1040823.4	1040823.4	101.38 %		23:22:54
3	Ag 328.068†	4356.2	206.6	0.7527 µg/L	0.7527 ppb	23:22:56
3	As 188.979†	-10.3	10.2	3.0901 µg/L	3.0901 ppb	23:23:16
3	B 249.677†	3495.4	-57.2	-0.8448 µg/L	-0.8448 ppb	23:22:56
3	Ba 233.527†	-104.9	32.3	0.1301 µg/L	0.1301 ppb	23:23:16
3	Be 313.107†	-758.4	316.4	0.0840 µg/L	0.0840 ppb	23:22:56
3	Cd 226.502†	-93.1	26.3	0.1638 µg/L	0.1638 ppb	23:23:16
3	Co 228.616†	-177.9	14.8	0.1826 µg/L	0.1826 ppb	23:23:16
3	Cr 267.716†	215.5	34.0	0.2721 µg/L	0.2721 ppb	23:23:16
3	Cu 324.752†	2926.0	-85.3	-0.3369 µg/L	-0.3369 ppb	23:22:56
3	Mn 257.610†	318.8	77.2	0.0956 µg/L	0.0956 ppb	23:23:16
3	Mo 202.031†	-22.0	-1.7	-0.0489 µg/L	-0.0489 ppb	23:23:16
3	Ni 231.604†	-129.1	-50.8	-0.5854 µg/L	-0.5854 ppb	23:23:16
3	P 214.914†	-27.8	-9.5	-2.0268 µg/L	-2.0268 ppb	23:23:16
3	Pb 220.353†	99.2	11.4	0.6440 µg/L	0.6440 ppb	23:23:16
3	S 181.975 Axial†	104.2	-2.2	-1.6435 µg/L	-1.6435 ppb	23:23:16
3	Sb 206.836†	80.2	-1.7	-0.2024 µg/L	-0.2024 ppb	23:23:16
3	Se 196.026†	-2.8	-18.0	-6.52 µg/L	-6.52 ppb	23:23:16
3	SiO2†	1785.7	-13.5	-1.3191 µg/L	-1.3191 ppb	23:23:16
3	Si 251.611†	942.5	93.3	1.3760 µg/L	1.3760 ppb	23:22:56
3	Sn 189.927†	-0.1	1.0	0.0628 µg/L	0.0628 ppb	23:23:16
3	Ti 334.940†	1040.9	74.5	0.0726 µg/L	0.0726 ppb	23:22:56
3	Tl 190.801†	-122.9	-4.6	-0.5664 µg/L	-0.5664 ppb	23:23:16
3	U 409.014†	-398.4	-123.1	-7.2165 µg/L	-7.2165 ppb	23:22:56
3	V 292.402†	352.1	-56.4	-0.2799 µg/L	-0.2799 ppb	23:22:56
3	Zn 213.857†	592.9	20.6	0.1194 µg/L	0.1194 ppb	23:23:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1744099.1	101.51	%	0.332				0.33%
Sc RADIAL	144426.7	99.0	%	0.19				0.19%
Y 371.029	1042338.8	101.52	%	0.278				0.27%
Ag 328.068†	-120.2	-0.4576	µg/L	1.04821	-0.4576	ppb	1.04821	229.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.7	-0.6781	µg/L	3.95199	-0.6781	ppb	3.95199	582.82%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	12.5	3.7901	µg/L	1.04128	3.7901	ppb	1.04128	27.47%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-49.3	-0.7283	µg/L	0.25394	-0.7283	ppb	0.25394	34.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	21.5	0.0866	µg/L	0.04706	0.0866	ppb	0.04706	54.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	254.0	0.0668	µg/L	0.02820	0.0668	ppb	0.02820	42.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	35.7	1.9890	µg/L	0.81790	1.9890	ppb	0.81790	41.12%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.1	0.0998	µg/L	0.05561	0.0998	ppb	0.05561	55.74%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	28.9	0.3560	µg/L	0.21172	0.3560	ppb	0.21172	59.47%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                4.5      0.0415 µg/L       0.23416      0.0415 ppb        0.23416 564.27%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -81.0     -0.3203 µg/L       0.14318     -0.3203 ppb        0.14318  44.70%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        66.0      4.0666 µg/L       1.31807      4.0666 ppb        1.31807  32.41%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        166.7     61.047 µg/L       38.9970     61.047 ppb        38.9970  63.88%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            3.0      1.1285 µg/L       4.17006      1.1285 ppb        4.17006 369.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               90.4      0.1118 µg/L       0.01435      0.1118 ppb        0.01435  12.84%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -4.9     -0.1442 µg/L       0.08677     -0.1442 ppb        0.08677  60.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        20.0      2.6814 µg/L      12.68942      2.6814 ppb       12.68942 473.24%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -21.4     -0.2461 µg/L       0.29505     -0.2461 ppb        0.29505 119.90%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.9      0.2015 µg/L       3.54518      0.2015 ppb        3.54518 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                3.4      0.1952 µg/L       0.41363      0.1952 ppb        0.41363 211.92%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -8.4     -6.2208 µg/L       4.02315     -6.2208 ppb        4.02315  64.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.3      0.6308 µg/L       0.73310      0.6308 ppb        0.73310 116.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.6      -0.941 µg/L        4.9356      -0.941 ppb         4.9356 524.57%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -6.1     -0.6016 µg/L       1.88709     -0.6016 ppb        1.88709 313.69%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               63.6      0.9361 µg/L       0.48651      0.9361 ppb        0.48651  51.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                8.9      0.5565 µg/L       0.51367      0.5565 ppb        0.51367  92.31%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -5.0     -0.0103 µg/L       0.15190     -0.0103 ppb        0.15190 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               87.9      0.0852 µg/L       0.10689      0.0852 ppb        0.10689 125.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.4      0.6617 µg/L       1.11813      0.6617 ppb        1.11813 168.98%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -130.7     -7.6583 µg/L       0.62345     -7.6583 ppb        0.62345   8.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -50.1     -0.2514 µg/L       0.40359     -0.2514 ppb        0.40359 160.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                8.4      0.0488 µg/L       0.09550      0.0488 ppb        0.09550 195.59%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 119
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 23:44:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144132.6	144132.6	98.8	%			23:45:03
1	Al 396.153Radial†	26296.2	26687.3	4925.8	µg/L	4925.8	ppb	23:45:03
1	Ca 317.933Radial†	86285.0	86800.3	4835.1	µg/L	4835.1	ppb	23:45:03
1	Fe 238.204 Radial†	77336.8	78153.0	4816.9	µg/L	4816.9	ppb	23:45:03
1	K 766.490 Radial†	14372.8	13007.2	4758.2	µg/L	4758.2	ppb	23:45:03
1	Mg 279.077 IEC†	13164.6	13138.1	4902.5	µg/L	4902.5	ppb	23:45:03
1	Na 589.592 Radial†	70648.2	70238.4	9591.2	µg/L	9591.2	ppb	23:45:03
1	Sr 421.552†	230039.5	233043.2	484.45	µg/L	484.45	ppb	23:45:01
1	Sc 361.383	1743955.0	1743955.0	101.50	%			23:45:30
1	Y 371.029	1030705.1	1030705.1	100.39	%			23:45:30
1	Ag 328.068†	134389.6	128314.9	481.13	µg/L	481.13	ppb	23:45:30
1	As 188.979†	1617.5	1614.0	495.08	µg/L	495.08	ppb	23:45:50
1	B 249.677†	36323.2	32281.3	474.42	µg/L	474.42	ppb	23:45:30
1	Ba 233.527†	120941.4	119292.4	481.10	µg/L	481.10	ppb	23:45:30
1	Be 313.107†	1804931.8	1779359.2	484.62	µg/L	484.62	ppb	23:45:30
1	Cd 226.502†	77856.9	76826.1	479.58	µg/L	479.58	ppb	23:45:30
1	Co 228.616†	39432.5	39040.8	481.96	µg/L	481.96	ppb	23:45:30
1	Cr 267.716†	62111.2	61016.0	477.74	µg/L	477.74	ppb	23:45:30
1	Cu 324.752†	127832.7	122973.9	479.39	µg/L	479.39	ppb	23:45:30
1	Mn 257.610†	396902.5	390807.7	483.34	µg/L	483.34	ppb	23:45:30
1	Mo 202.031†	16367.7	16146.2	474.96	µg/L	474.96	ppb	23:45:50
1	Ni 231.604†	42121.9	41576.8	478.73	µg/L	478.73	ppb	23:45:30
1	P 214.914†	11245.4	11097.4	2365.3	µg/L	2365.3	ppb	23:45:50
1	Pb 220.353†	8777.1	8561.2	479.42	µg/L	479.42	ppb	23:45:50
1	S 181.975 Axial†	1374.9	1249.5	931.87	µg/L	931.87	ppb	23:45:50
1	Sb 206.836†	4133.7	3991.9	475.58	µg/L	475.58	ppb	23:45:50
1	Se 196.026†	1363.1	1327.7	482	µg/L	482	ppb	23:45:50
1	SiO2†	56167.1	53562.8	5214.9	µg/L	5214.9	ppb	23:45:30
1	Si 251.611†	170045.6	166699.5	2448.2	µg/L	2448.2	ppb	23:45:30
1	Sn 189.927†	7739.8	7626.7	477.06	µg/L	477.06	ppb	23:45:50
1	Ti 334.940†	523080.4	514408.2	479.98	µg/L	479.98	ppb	23:45:30
1	Tl 190.801†	3815.6	3875.9	483.43	µg/L	483.43	ppb	23:45:50
1	U 409.014†	7450.4	7610.3	474.06	µg/L	474.06	ppb	23:45:30
1	V 292.402†	99368.6	97498.3	481.94	µg/L	481.94	ppb	23:45:30
1	Zn 213.857†	87576.9	85720.0	477.77	µg/L	477.77	ppb	23:45:30
2	Sc RADIAL	143500.3	143500.3	98.3	%			23:45:07
2	Al 396.153Radial†	26117.8	26623.2	4913.8	µg/L	4913.8	ppb	23:45:07
2	Ca 317.933Radial†	85980.2	86875.2	4839.3	µg/L	4839.3	ppb	23:45:07
2	Fe 238.204 Radial†	77018.6	78174.4	4818.2	µg/L	4818.2	ppb	23:45:07
2	K 766.490 Radial†	14350.9	13049.0	4773.5	µg/L	4773.5	ppb	23:45:07
2	Mg 279.077 IEC†	13097.3	13128.4	4899.0	µg/L	4899.0	ppb	23:45:07
2	Na 589.592 Radial†	70405.7	70306.9	9600.5	µg/L	9600.5	ppb	23:45:07
2	Sr 421.552†	230191.6	234224.0	486.90	µg/L	486.90	ppb	23:45:05
2	Sc 361.383	1741142.3	1741142.3	101.33	%			23:45:53
2	Y 371.029	1028976.3	1028976.3	100.22	%			23:45:53
2	Ag 328.068†	133876.6	128022.6	480.04	µg/L	480.04	ppb	23:45:53
2	As 188.979†	1611.4	1610.6	494.02	µg/L	494.02	ppb	23:46:13
2	B 249.677†	36111.0	32129.7	472.20	µg/L	472.20	ppb	23:45:53
2	Ba 233.527†	120384.6	118935.4	479.66	µg/L	479.66	ppb	23:45:53
2	Be 313.107†	1798241.9	1775630.2	483.61	µg/L	483.61	ppb	23:45:53
2	Cd 226.502†	77471.2	76569.4	477.98	µg/L	477.98	ppb	23:45:53
2	Co 228.616†	39116.7	38792.0	478.89	µg/L	478.89	ppb	23:45:53
2	Cr 267.716†	61760.5	60768.7	475.81	µg/L	475.81	ppb	23:45:53
2	Cu 324.752†	127313.2	122664.7	478.18	µg/L	478.18	ppb	23:45:53
2	Mn 257.610†	395198.2	389757.6	482.04	µg/L	482.04	ppb	23:45:53
2	Mo 202.031†	16425.2	16229.0	477.39	µg/L	477.39	ppb	23:46:13
2	Ni 231.604†	42030.8	41554.0	478.46	µg/L	478.46	ppb	23:45:53
2	P 214.914†	11285.9	11155.2	2377.7	µg/L	2377.7	ppb	23:46:13
2	Pb 220.353†	8805.0	8602.7	481.74	µg/L	481.74	ppb	23:46:13

2	S 181.975 Axial†	1386.2	1262.9	941.84 µg/L	941.84 ppb	23:46:13
2	Sb 206.836†	4124.1	3989.0	475.29 µg/L	475.29 ppb	23:46:13
2	Se 196.026†	1357.9	1324.8	481 µg/L	481 ppb	23:46:13
2	SiO2†	55814.1	53303.9	5189.5 µg/L	5189.5 ppb	23:45:53
2	Si 251.611†	169030.5	165968.4	2437.3 µg/L	2437.3 ppb	23:45:53
2	Sn 189.927†	7760.3	7659.3	479.09 µg/L	479.09 ppb	23:46:13
2	Ti 334.940†	520780.4	512971.1	478.64 µg/L	478.64 ppb	23:45:53
2	Tl 190.801†	3842.4	3908.4	487.42 µg/L	487.42 ppb	23:46:13
2	U 409.014†	7450.4	7622.2	474.73 µg/L	474.73 ppb	23:45:53
2	V 292.402†	99152.5	97443.2	481.69 µg/L	481.69 ppb	23:45:53
2	Zn 213.857†	86966.1	85256.7	475.17 µg/L	475.17 ppb	23:45:53
3	Sc RADIAL	141926.1	141926.1	97.3 %		23:45:11
3	Al 396.153Radial†	25922.6	26717.1	4931.1 µg/L	4931.1 ppb	23:45:11
3	Ca 317.933Radial†	85061.3	86900.2	4840.7 µg/L	4840.7 ppb	23:45:11
3	Fe 238.204 Radial†	76232.3	78234.7	4821.9 µg/L	4821.9 ppb	23:45:11
3	K 766.490 Radial†	14404.4	13266.0	4852.9 µg/L	4852.9 ppb	23:45:11
3	Mg 279.077 IEC†	13020.1	13196.7	4924.4 µg/L	4924.4 ppb	23:45:11
3	Na 589.592 Radial†	69631.1	70304.6	9600.1 µg/L	9600.1 ppb	23:45:11
3	Sr 421.552†	231949.9	238628.3	496.06 µg/L	496.06 ppb	23:45:09
3	Sc 361.383	1729820.2	1729820.2	100.68 %		23:46:16
3	Y 371.029	1022158.2	1022158.2	99.559 %		23:46:16
3	Ag 328.068†	132876.1	127893.4	479.56 µg/L	479.56 ppb	23:46:16
3	As 188.979†	1593.5	1603.2	491.79 µg/L	491.79 ppb	23:46:36
3	B 249.677†	35994.3	32247.0	473.92 µg/L	473.92 ppb	23:46:16
3	Ba 233.527†	119768.8	119101.4	480.33 µg/L	480.33 ppb	23:46:16
3	Be 313.107†	1786026.7	1775111.9	483.47 µg/L	483.47 ppb	23:46:16
3	Cd 226.502†	76950.6	76552.6	477.87 µg/L	477.87 ppb	23:46:16
3	Co 228.616†	38889.1	38818.6	479.22 µg/L	479.22 ppb	23:46:16
3	Cr 267.716†	61424.2	60833.7	476.31 µg/L	476.31 ppb	23:46:16
3	Cu 324.752†	126247.1	122428.1	477.27 µg/L	477.27 ppb	23:46:16
3	Mn 257.610†	392394.3	389525.1	481.75 µg/L	481.75 ppb	23:46:16
3	Mo 202.031†	16372.3	16282.5	478.96 µg/L	478.96 ppb	23:46:36
3	Ni 231.604†	41712.3	41509.0	477.95 µg/L	477.95 ppb	23:46:16
3	P 214.914†	11238.3	11180.9	2383.2 µg/L	2383.2 ppb	23:46:36
3	Pb 220.353†	8781.7	8636.4	483.62 µg/L	483.62 ppb	23:46:36
3	S 181.975 Axial†	1376.5	1262.2	941.29 µg/L	941.29 ppb	23:46:36
3	Sb 206.836†	4136.7	4028.2	479.97 µg/L	479.97 ppb	23:46:36
3	Se 196.026†	1358.7	1334.3	485 µg/L	485 ppb	23:46:36
3	SiO2†	55649.6	53501.0	5208.7 µg/L	5208.7 ppb	23:46:16
3	Si 251.611†	167782.3	165820.3	2435.1 µg/L	2435.1 ppb	23:46:16
3	Sn 189.927†	7733.5	7682.7	480.55 µg/L	480.55 ppb	23:46:36
3	Ti 334.940†	517675.9	513251.1	478.89 µg/L	478.89 ppb	23:46:16
3	Tl 190.801†	3823.0	3914.0	488.10 µg/L	488.10 ppb	23:46:36
3	U 409.014†	7497.8	7717.4	480.25 µg/L	480.25 ppb	23:46:16
3	V 292.402†	98366.1	97302.5	481.02 µg/L	481.02 ppb	23:46:16
3	Zn 213.857†	86593.9	85448.7	476.25 µg/L	476.25 ppb	23:46:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1738305.8	101.17	%	0.435				0.43%
Sc RADIAL	143186.3	98.1	%	0.78				0.79%
Y 371.029	1027279.9	100.06	%	0.440				0.44%
Ag 328.068†	128076.9	480.24	µg/L	0.801	480.24	ppb	0.801	0.17%
QC value within limits for Ag 328.068 Recovery = 96.05%								
Al 396.153Radial†	26675.9	4923.5	µg/L	8.88	4923.5	ppb	8.88	0.18%
QC value within limits for Al 396.153Radial Recovery = 98.47%								
As 188.979†	1609.3	493.63	µg/L	1.680	493.63	ppb	1.680	0.34%
QC value within limits for As 188.979 Recovery = 98.73%								
B 249.677†	32219.3	473.51	µg/L	1.168	473.51	ppb	1.168	0.25%
QC value within limits for B 249.677 Recovery = 94.70%								
Ba 233.527†	119109.7	480.37	µg/L	0.719	480.37	ppb	0.719	0.15%
QC value within limits for Ba 233.527 Recovery = 96.07%								
Be 313.107†	1776700.4	483.90	µg/L	0.630	483.90	ppb	0.630	0.13%
QC value within limits for Be 313.107 Recovery = 96.78%								
Ca 317.933Radial†	86858.6	4838.4	µg/L	2.90	4838.4	ppb	2.90	0.06%
QC value within limits for Ca 317.933Radial Recovery = 96.77%								
Cd 226.502†	76649.4	478.48	µg/L	0.958	478.48	ppb	0.958	0.20%
QC value within limits for Cd 226.502 Recovery = 95.70%								
Co 228.616†	38883.8	480.02	µg/L	1.687	480.02	ppb	1.687	0.35%

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   QC value within limits for Co 228.616  Recovery = 96.00%
Cr 267.716†          60872.8      476.62 µg/L        1.005      476.62 ppb        1.005   0.21%
   QC value within limits for Cr 267.716  Recovery = 95.32%
Cu 324.752†         122688.9      478.28 µg/L        1.061      478.28 ppb        1.061   0.22%
   QC value within limits for Cu 324.752  Recovery = 95.66%
Fe 238.204 Radial†   78187.4      4819.0 µg/L         2.61      4819.0 ppb         2.61   0.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.38%
K 766.490 Radial†    13107.4      4794.9 µg/L        50.84      4794.9 ppb        50.84   1.06%
   QC value within limits for K 766.490 Radial  Recovery = 95.90%
Mg 279.077 IEC†      13154.4      4908.6 µg/L        13.80      4908.6 ppb        13.80   0.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.17%
Mn 257.610†         390030.2      482.38 µg/L        0.846      482.38 ppb        0.846   0.18%
   QC value within limits for Mn 257.610  Recovery = 96.48%
Mo 202.031†          16219.2      477.10 µg/L        2.018      477.10 ppb        2.018   0.42%
   QC value within limits for Mo 202.031  Recovery = 95.42%
Na 589.592 Radial†   70283.3      9597.3 µg/L         5.29      9597.3 ppb         5.29   0.06%
   QC value within limits for Na 589.592 Radial  Recovery = 95.97%
Ni 231.604†          41546.6      478.38 µg/L        0.397      478.38 ppb        0.397   0.08%
   QC value within limits for Ni 231.604  Recovery = 95.68%
P 214.914†           11144.5      2375.4 µg/L         9.15      2375.4 ppb         9.15   0.39%
   QC value within limits for P 214.914  Recovery = 95.02%
Pb 220.353†           8600.1      481.59 µg/L        2.106      481.59 ppb        2.106   0.44%
   QC value within limits for Pb 220.353  Recovery = 96.32%
S 181.975 Axial†      1258.2      938.33 µg/L        5.605      938.33 ppb        5.605   0.60%
   QC value within limits for S 181.975 Axial  Recovery = 93.83%
Sb 206.836†           4003.0      476.94 µg/L        2.622      476.94 ppb        2.622   0.55%
   QC value within limits for Sb 206.836  Recovery = 95.39%
Se 196.026†           1329.0         483 µg/L          1.8         483 ppb          1.8   0.37%
   QC value within limits for Se 196.026  Recovery = 96.51%
SiO2†                53455.9      5204.4 µg/L        13.25      5204.4 ppb        13.25   0.25%
   QC value within limits for SiO2  Recovery = 97.32%
Si 251.611†         166162.8      2440.2 µg/L         6.98      2440.2 ppb         6.98   0.29%
   QC value within limits for Si 251.611  Recovery = 97.61%
Sn 189.927†           7656.2      478.90 µg/L        1.752      478.90 ppb        1.752   0.37%
   QC value within limits for Sn 189.927  Recovery = 95.78%
Sr 421.552†         235298.5      489.13 µg/L        6.119      489.13 ppb        6.119   1.25%
   QC value within limits for Sr 421.552  Recovery = 97.83%
Ti 334.940†         513543.5      479.17 µg/L        0.712      479.17 ppb        0.712   0.15%
   QC value within limits for Ti 334.940  Recovery = 95.83%
Tl 190.801†           3899.5      486.32 µg/L        2.525      486.32 ppb        2.525   0.52%
   QC value within limits for Tl 190.801  Recovery = 97.26%
U 409.014†            7650.0      476.34 µg/L        3.400      476.34 ppb        3.400   0.71%
   QC value within limits for U 409.014  Recovery = 95.27%
V 292.402†           97414.7      481.55 µg/L        0.473      481.55 ppb        0.473   0.10%
   QC value within limits for V 292.402  Recovery = 96.31%
Zn 213.857†          85475.1      476.40 µg/L        1.307      476.40 ppb        1.307   0.27%
   QC value within limits for Zn 213.857  Recovery = 95.28%
All analyte(s) passed QC.
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Sequence No.: 120
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 23:46:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143139.1	143139.1	98.1	%			23:47:16
1	Al 396.153Radial†	-44.4	17.9	3.3413	µg/L	3.3413	ppb	23:47:36
1	Ca 317.933Radial†	582.0	32.8	1.8256	µg/L	1.8256	ppb	23:47:36
1	Fe 238.204 Radial†	254.9	111.7	6.8857	µg/L	6.8857	ppb	23:47:36
1	K 766.490 Radial†	1616.9	103.6	37.929	µg/L	37.929	ppb	23:47:16
1	Mg 279.077 IEC†	177.5	-9.8	-3.6543	µg/L	-3.6543	ppb	23:47:36
1	Na 589.592 Radial†	1371.1	107.0	14.589	µg/L	14.589	ppb	23:47:16
1	Sr 421.552†	-218.3	-87.3	-0.1815	µg/L	-0.1815	ppb	23:47:16
1	Sc 361.383	1721067.2	1721067.2	100.17	%			23:48:23
1	Y 371.029	1029992.5	1029992.5	100.32	%			23:48:23
1	Ag 328.068†	4263.3	164.8	0.5898	µg/L	0.5898	ppb	23:48:26
1	As 188.979†	-17.1	3.3	0.9838	µg/L	0.9838	ppb	23:48:46
1	B 249.677†	3587.8	76.0	1.1202	µg/L	1.1202	ppb	23:48:26
1	Ba 233.527†	-139.7	-3.6	-0.0153	µg/L	-0.0153	ppb	23:48:46
1	Be 313.107†	-1283.0	-216.2	-0.0609	µg/L	-0.0609	ppb	23:48:26
1	Cd 226.502†	-112.6	5.8	0.0354	µg/L	0.0354	ppb	23:48:46
1	Co 228.616†	-173.9	16.7	0.2052	µg/L	0.2052	ppb	23:48:46
1	Cr 267.716†	180.0	1.2	0.0142	µg/L	0.0142	ppb	23:48:46
1	Cu 324.752†	2926.2	-50.8	-0.2020	µg/L	-0.2020	ppb	23:48:26
1	Mn 257.610†	341.1	103.2	0.1279	µg/L	0.1279	ppb	23:48:46
1	Mo 202.031†	-33.0	-12.8	-0.3775	µg/L	-0.3775	ppb	23:48:46
1	Ni 231.604†	-84.7	-8.0	-0.0923	µg/L	-0.0923	ppb	23:48:46
1	P 214.914†	-12.9	5.1	1.1019	µg/L	1.1019	ppb	23:48:46
1	Pb 220.353†	98.0	11.4	0.6420	µg/L	0.6420	ppb	23:48:46
1	S 181.975 Axial†	101.0	-4.2	-3.1438	µg/L	-3.1438	ppb	23:48:46
1	Sb 206.836†	91.8	10.9	1.2860	µg/L	1.2860	ppb	23:48:46
1	Se 196.026†	14.8	-0.5	-0.177	µg/L	-0.177	ppb	23:48:46
1	SiO2†	1836.2	57.8	5.6538	µg/L	5.6538	ppb	23:48:46
1	Si 251.611†	1107.2	268.8	3.9640	µg/L	3.9640	ppb	23:48:26
1	Sn 189.927†	7.5	8.6	0.5360	µg/L	0.5360	ppb	23:48:46
1	Ti 334.940†	947.2	-6.9	-0.0034	µg/L	-0.0034	ppb	23:48:26
1	Tl 190.801†	-108.0	8.8	1.0752	µg/L	1.0752	ppb	23:48:46
1	U 409.014†	-383.9	-113.4	-6.6898	µg/L	-6.6898	ppb	23:48:26
1	V 292.402†	195.1	-209.0	-1.0288	µg/L	-1.0288	ppb	23:48:26
1	Zn 213.857†	592.8	27.4	0.1540	µg/L	0.1540	ppb	23:48:46
2	Sc RADIAL	142955.7	142955.7	98.0	%			23:47:38
2	Al 396.153Radial†	-78.4	-16.8	-3.1397	µg/L	-3.1397	ppb	23:47:58
2	Ca 317.933Radial†	568.8	20.0	1.1154	µg/L	1.1154	ppb	23:47:58
2	Fe 238.204 Radial†	246.3	103.3	6.3692	µg/L	6.3692	ppb	23:47:58
2	K 766.490 Radial†	1462.0	-52.3	-19.161	µg/L	-19.161	ppb	23:47:38
2	Mg 279.077 IEC†	183.1	-3.8	-1.4109	µg/L	-1.4109	ppb	23:47:58
2	Na 589.592 Radial†	1236.3	-28.8	-3.9154	µg/L	-3.9154	ppb	23:47:38
2	Sr 421.552†	-279.2	-149.7	-0.3112	µg/L	-0.3112	ppb	23:47:38
2	Sc 361.383	1746509.7	1746509.7	101.65	%			23:48:48
2	Y 371.029	1042959.8	1042959.8	101.58	%			23:48:48
2	Ag 328.068†	4265.0	104.5	0.3736	µg/L	0.3736	ppb	23:48:50
2	As 188.979†	-11.7	8.8	2.6655	µg/L	2.6655	ppb	23:49:10
2	B 249.677†	3506.2	-56.5	-0.8332	µg/L	-0.8332	ppb	23:48:50
2	Ba 233.527†	-121.9	16.0	0.0640	µg/L	0.0640	ppb	23:49:10
2	Be 313.107†	-723.9	352.5	0.0944	µg/L	0.0944	ppb	23:48:50
2	Cd 226.502†	-117.5	2.6	0.0156	µg/L	0.0156	ppb	23:49:10
2	Co 228.616†	-180.5	12.8	0.1572	µg/L	0.1572	ppb	23:49:10
2	Cr 267.716†	177.3	-4.1	-0.0284	µg/L	-0.0284	ppb	23:49:10
2	Cu 324.752†	3022.2	1.1	0.0009	µg/L	0.0009	ppb	23:48:50
2	Mn 257.610†	312.9	70.6	0.0874	µg/L	0.0874	ppb	23:49:10
2	Mo 202.031†	-8.4	11.8	0.3482	µg/L	0.3482	ppb	23:49:10
2	Ni 231.604†	-112.1	-33.8	-0.3893	µg/L	-0.3893	ppb	23:49:10
2	P 214.914†	-28.4	-10.0	-2.1529	µg/L	-2.1529	ppb	23:49:10
2	Pb 220.353†	61.6	-25.8	-1.4338	µg/L	-1.4338	ppb	23:49:10

2	S 181.975 Axial†	110.6	3.7	2.7632	µg/L	2.7632 ppb	23:49:10
2	Sb 206.836†	80.8	-1.3	-0.1519	µg/L	-0.1519 ppb	23:49:10
2	Se 196.026†	7.2	-8.2	-2.97	µg/L	-2.97 ppb	23:49:10
2	SiO2†	1816.0	11.2	1.0819	µg/L	1.0819 ppb	23:49:10
2	Si 251.611†	1081.7	227.6	3.3494	µg/L	3.3494 ppb	23:48:50
2	Sn 189.927†	2.0	3.1	0.1923	µg/L	0.1923 ppb	23:49:10
2	Ti 334.940†	932.7	-34.9	-0.0304	µg/L	-0.0304 ppb	23:48:50
2	Tl 190.801†	-106.3	12.1	1.4842	µg/L	1.4842 ppb	23:49:10
2	U 409.014†	-364.3	-88.6	-5.2117	µg/L	-5.2117 ppb	23:48:50
2	V 292.402†	290.2	-118.3	-0.5776	µg/L	-0.5776 ppb	23:48:50
2	Zn 213.857†	597.7	23.6	0.1343	µg/L	0.1343 ppb	23:49:10
3	Sc RADIAL	142060.8	142060.8	97.3	%		23:48:00
3	Al 396.153Radial†	-74.7	-13.5	-2.5097	µg/L	-2.5097 ppb	23:48:20
3	Ca 317.933Radial†	575.1	30.2	1.6799	µg/L	1.6799 ppb	23:48:20
3	Fe 238.204 Radial†	223.1	81.1	4.9991	µg/L	4.9991 ppb	23:48:20
3	K 766.490 Radial†	1632.6	132.3	48.447	µg/L	48.447 ppb	23:48:00
3	Mg 279.077 IEC†	208.7	23.7	8.8315	µg/L	8.8315 ppb	23:48:20
3	Na 589.592 Radial†	1308.6	53.4	7.2507	µg/L	7.2507 ppb	23:48:00
3	Sr 421.552†	-258.5	-130.3	-0.2709	µg/L	-0.2709 ppb	23:48:00
3	Sc 361.383	1726289.1	1726289.1	100.47	%		23:49:12
3	Y 371.029	1031437.7	1031437.7	100.46	%		23:49:12
3	Ag 328.068†	4170.2	59.3	0.2058	µg/L	0.2058 ppb	23:49:14
3	As 188.979†	-17.6	2.8	0.8598	µg/L	0.8598 ppb	23:49:34
3	B 249.677†	3575.5	52.9	0.7802	µg/L	0.7802 ppb	23:49:14
3	Ba 233.527†	-111.6	24.8	0.0994	µg/L	0.0994 ppb	23:49:34
3	Be 313.107†	-874.1	194.7	0.0518	µg/L	0.0518 ppb	23:49:14
3	Cd 226.502†	-142.0	-23.1	-0.1448	µg/L	-0.1448 ppb	23:49:34
3	Co 228.616†	-193.8	-2.6	-0.0317	µg/L	-0.0317 ppb	23:49:34
3	Cr 267.716†	191.0	11.5	0.0933	µg/L	0.0933 ppb	23:49:34
3	Cu 324.752†	2976.0	-10.1	-0.0417	µg/L	-0.0417 ppb	23:49:14
3	Mn 257.610†	330.2	91.4	0.1127	µg/L	0.1127 ppb	23:49:34
3	Mo 202.031†	-17.5	2.7	0.0796	µg/L	0.0796 ppb	23:49:34
3	Ni 231.604†	-80.8	-3.9	-0.0446	µg/L	-0.0446 ppb	23:49:34
3	P 214.914†	-31.6	-13.5	-2.8878	µg/L	-2.8878 ppb	23:49:34
3	Pb 220.353†	72.3	-14.4	-0.8013	µg/L	-0.8013 ppb	23:49:34
3	S 181.975 Axial†	108.9	3.3	2.4479	µg/L	2.4479 ppb	23:49:34
3	Sb 206.836†	90.6	9.4	1.1111	µg/L	1.1111 ppb	23:49:34
3	Se 196.026†	27.8	12.4	4.47	µg/L	4.47 ppb	23:49:34
3	SiO2†	1848.9	64.9	6.3403	µg/L	6.3403 ppb	23:49:34
3	Si 251.611†	1214.9	372.7	5.4917	µg/L	5.4917 ppb	23:49:14
3	Sn 189.927†	3.0	4.1	0.2558	µg/L	0.2558 ppb	23:49:34
3	Ti 334.940†	1155.8	197.9	0.1859	µg/L	0.1859 ppb	23:49:14
3	Tl 190.801†	-94.9	22.3	2.7336	µg/L	2.7336 ppb	23:49:34
3	U 409.014†	-341.4	-69.9	-4.1301	µg/L	-4.1301 ppb	23:49:14
3	V 292.402†	256.5	-148.5	-0.7266	µg/L	-0.7266 ppb	23:49:14
3	Zn 213.857†	589.1	22.0	0.1232	µg/L	0.1232 ppb	23:49:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1731288.6	100.76	%	0.782				0.78%
Sc RADIAL	142718.5	97.8	%	0.40				0.40%
Y 371.029	1034796.7	100.79	%	0.692				0.69%
Ag 328.068†	109.5	0.3897	µg/L	0.19255	0.3897	ppb	0.19255	49.40%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.1	-0.7694	µg/L	3.57387	-0.7694	ppb	3.57387	464.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.0	1.5030	µg/L	1.00867	1.5030	ppb	1.00867	67.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	24.1	0.3557	µg/L	1.04358	0.3557	ppb	1.04358	293.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.4	0.0494	µg/L	0.05873	0.0494	ppb	0.05873	118.93%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	110.4	0.0284	µg/L	0.08023	0.0284	ppb	0.08023	282.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	27.7	1.5403	µg/L	0.37512	1.5403	ppb	0.37512	24.35%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-4.9	-0.0313	µg/L	0.09882	-0.0313	ppb	0.09882	315.68%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.0	0.1102	µg/L	0.12522	0.1102	ppb	0.12522	113.62%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                2.9      0.0263 µg/L       0.06173      0.0263 ppb        0.06173 234.26%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -20.0     -0.0809 µg/L       0.10696     -0.0809 ppb        0.10696 132.15%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        98.7      6.0847 µg/L       0.97498      6.0847 ppb        0.97498  16.02%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         61.2      22.405 µg/L       36.3791      22.405 ppb        36.3791 162.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            3.4      1.2555 µg/L       6.65627      1.2555 ppb        6.65627 530.18%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               88.4      0.1093 µg/L       0.02047      0.1093 ppb        0.02047  18.73%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                0.6      0.0168 µg/L       0.36692      0.0168 ppb        0.36692 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        43.9      5.9749 µg/L       9.31815      5.9749 ppb        9.31815 155.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -15.2     -0.1754 µg/L       0.18674     -0.1754 ppb        0.18674 106.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -6.1     -1.3129 µg/L       2.12332     -1.3129 ppb        2.12332 161.72%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -9.6     -0.5310 µg/L       1.06398     -0.5310 ppb        1.06398 200.37%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.9      0.6891 µg/L       3.32317      0.6891 ppb        3.32317 482.25%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                6.3      0.7484 µg/L       0.78460      0.7484 ppb        0.78460 104.84%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.2       0.441 µg/L        3.7613       0.441 ppb         3.7613 853.72%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     44.6      4.3586 µg/L       2.85844      4.3586 ppb        2.85844  65.58%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              289.7      4.2683 µg/L       1.10310      4.2683 ppb        1.10310  25.84%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.3      0.3280 µg/L       0.18288      0.3280 ppb        0.18288  55.75%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -122.4     -0.2545 µg/L       0.06637     -0.2545 ppb        0.06637  26.08%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               52.0      0.0507 µg/L       0.11782      0.0507 ppb        0.11782 232.33%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               14.4      1.7643 µg/L       0.86396      1.7643 ppb        0.86396  48.97%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -90.6     -5.3439 µg/L       1.28496     -5.3439 ppb        1.28496  24.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -158.6     -0.7777 µg/L       0.22990     -0.7777 ppb        0.22990  29.56%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               24.3      0.1372 µg/L       0.01563      0.1372 ppb        0.01563  11.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 128
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/1/2010 0:02:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142272.6	142272.6	97.5	%			00:02:55
1	Al 396.153Radial†	25834.9	26562.2	4902.5	µg/L	4902.5	ppb	00:02:55
1	Ca 317.933Radial†	85088.7	86715.4	4830.4	µg/L	4830.4	ppb	00:02:55
1	Fe 238.204 Radial†	76256.0	78068.0	4811.6	µg/L	4811.6	ppb	00:02:55
1	K 766.490 Radial†	14327.9	13151.4	4811.0	µg/L	4811.0	ppb	00:02:55
1	Mg 279.077 IEC†	13155.4	13302.9	4964.0	µg/L	4964.0	ppb	00:02:55
1	Na 589.592 Radial†	69875.1	70380.5	9610.5	µg/L	9610.5	ppb	00:02:55
1	Sr 421.552†	226540.9	232499.5	483.31	µg/L	483.31	ppb	00:02:53
1	Sc 361.383	1723344.7	1723344.7	100.30	%			00:03:22
1	Y 371.029	1018123.7	1018123.7	99.166	%			00:03:22
1	Ag 328.068†	131945.7	127461.8	477.92	µg/L	477.92	ppb	00:03:22
1	As 188.979†	1604.1	1619.7	496.75	µg/L	496.75	ppb	00:03:42
1	B 249.677†	35591.1	31979.3	469.98	µg/L	469.98	ppb	00:03:22
1	Ba 233.527†	118724.6	118507.2	477.94	µg/L	477.94	ppb	00:03:22
1	Be 313.107†	1771703.0	1767496.7	481.39	µg/L	481.39	ppb	00:03:22
1	Cd 226.502†	76335.7	76226.8	475.84	µg/L	475.84	ppb	00:03:22
1	Co 228.616†	38760.4	38835.4	479.42	µg/L	479.42	ppb	00:03:22
1	Cr 267.716†	60900.3	60540.6	474.03	µg/L	474.03	ppb	00:03:22
1	Cu 324.752†	125251.0	121906.2	475.23	µg/L	475.23	ppb	00:03:22
1	Mn 257.610†	389076.6	387681.8	479.47	µg/L	479.47	ppb	00:03:22
1	Mo 202.031†	16257.1	16228.8	477.38	µg/L	477.38	ppb	00:03:42
1	Ni 231.604†	41472.4	41425.6	476.99	µg/L	476.99	ppb	00:03:22
1	P 214.914†	11164.5	11149.2	2376.4	µg/L	2376.4	ppb	00:03:42
1	Pb 220.353†	8662.0	8549.9	478.80	µg/L	478.80	ppb	00:03:42
1	S 181.975 Axial†	1361.8	1252.7	934.24	µg/L	934.24	ppb	00:03:42
1	Sb 206.836†	4090.1	3997.1	476.28	µg/L	476.28	ppb	00:03:42
1	Se 196.026†	1338.2	1318.9	479	µg/L	479	ppb	00:03:42
1	SiO2†	54668.7	52730.7	5133.5	µg/L	5133.5	ppb	00:03:22
1	Si 251.611†	165532.9	164203.9	2411.3	µg/L	2411.3	ppb	00:03:22
1	Sn 189.927†	7662.0	7640.4	477.90	µg/L	477.90	ppb	00:03:42
1	Ti 334.940†	512908.7	510430.3	476.26	µg/L	476.26	ppb	00:03:22
1	Tl 190.801†	3797.9	3903.2	486.73	µg/L	486.73	ppb	00:03:42
1	U 409.014†	7179.6	7428.1	463.23	µg/L	463.23	ppb	00:03:22
1	V 292.402†	97641.8	96947.5	479.26	µg/L	479.26	ppb	00:03:22
1	Zn 213.857†	85689.4	84870.1	473.01	µg/L	473.01	ppb	00:03:22
2	Sc RADIAL	141674.6	141674.6	97.1	%			00:02:59
2	Al 396.153Radial†	25757.6	26594.5	4908.2	µg/L	4908.2	ppb	00:02:59
2	Ca 317.933Radial†	84226.0	86195.1	4801.4	µg/L	4801.4	ppb	00:02:59
2	Fe 238.204 Radial†	75439.4	77557.1	4780.1	µg/L	4780.1	ppb	00:02:59
2	K 766.490 Radial†	14248.6	13131.7	4803.8	µg/L	4803.8	ppb	00:02:59
2	Mg 279.077 IEC†	12899.8	13096.5	4887.2	µg/L	4887.2	ppb	00:02:59
2	Na 589.592 Radial†	69141.1	69926.9	9548.6	µg/L	9548.6	ppb	00:02:59
2	Sr 421.552†	226612.3	233553.9	485.51	µg/L	485.51	ppb	00:02:57
2	Sc 361.383	1708258.8	1708258.8	99.420	%			00:03:45
2	Y 371.029	1010097.1	1010097.1	98.384	%			00:03:45
2	Ag 328.068†	130950.0	127622.0	478.53	µg/L	478.53	ppb	00:03:45
2	As 188.979†	1596.3	1626.0	498.65	µg/L	498.65	ppb	00:04:05
2	B 249.677†	35330.7	32030.8	470.74	µg/L	470.74	ppb	00:03:45
2	Ba 233.527†	117712.3	118534.4	478.05	µg/L	478.05	ppb	00:03:45
2	Be 313.107†	1753739.6	1765028.3	480.72	µg/L	480.72	ppb	00:03:45
2	Cd 226.502†	75285.2	75842.3	473.44	µg/L	473.44	ppb	00:03:45
2	Co 228.616†	38223.9	38637.1	476.98	µg/L	476.98	ppb	00:03:45
2	Cr 267.716†	60168.0	60340.2	472.45	µg/L	472.45	ppb	00:03:45
2	Cu 324.752†	124409.3	122162.4	476.22	µg/L	476.22	ppb	00:03:45
2	Mn 257.610†	385236.3	387244.9	478.93	µg/L	478.93	ppb	00:03:45
2	Mo 202.031†	16271.7	16386.7	482.02	µg/L	482.02	ppb	00:04:05
2	Ni 231.604†	41015.7	41331.3	475.90	µg/L	475.90	ppb	00:03:45
2	P 214.914†	11176.6	11259.7	2400.0	µg/L	2400.0	ppb	00:04:05
2	Pb 220.353†	8757.4	8722.1	488.42	µg/L	488.42	ppb	00:04:05

2	S 181.975 Axial†	1369.4	1272.3	948.85 µg/L	948.85 ppb	00:04:05
2	Sb 206.836†	4104.3	4047.4	482.36 µg/L	482.36 ppb	00:04:05
2	Se 196.026†	1334.2	1326.7	482 µg/L	482 ppb	00:04:05
2	SiO2†	54367.2	52908.8	5150.7 µg/L	5150.7 ppb	00:03:45
2	Si 251.611†	164236.7	164357.7	2413.5 µg/L	2413.5 ppb	00:03:45
2	Sn 189.927†	7684.5	7730.4	483.52 µg/L	483.52 ppb	00:04:05
2	Ti 334.940†	509083.5	511098.8	476.89 µg/L	476.89 ppb	00:03:45
2	Tl 190.801†	3778.4	3917.1	488.46 µg/L	488.46 ppb	00:04:05
2	U 409.014†	7230.8	7542.9	469.95 µg/L	469.95 ppb	00:03:45
2	V 292.402†	96807.6	96968.1	479.41 µg/L	479.41 ppb	00:03:45
2	Zn 213.857†	85025.4	84956.7	473.50 µg/L	473.50 ppb	00:03:45
3	Sc RADIAL	141547.4	141547.4	97.0 %		00:03:03
3	Al 396.153Radial†	25657.4	26515.0	4893.6 µg/L	4893.6 ppb	00:03:03
3	Ca 317.933Radial†	84401.5	86454.0	4815.8 µg/L	4815.8 ppb	00:03:03
3	Fe 238.204 Radial†	75869.9	78070.8	4811.8 µg/L	4811.8 ppb	00:03:03
3	K 766.490 Radial†	14363.1	13263.0	4851.8 µg/L	4851.8 ppb	00:03:03
3	Mg 279.077 IEC†	13049.5	13262.8	4949.1 µg/L	4949.1 ppb	00:03:03
3	Na 589.592 Radial†	69248.3	70101.5	9572.4 µg/L	9572.4 ppb	00:03:03
3	Sr 421.552†	225485.7	232602.1	483.53 µg/L	483.53 ppb	00:03:01
3	Sc 361.383	1723903.5	1723903.5	100.33 %		00:04:08
3	Y 371.029	1019569.4	1019569.4	99.307 %		00:04:08
3	Ag 328.068†	132444.2	127916.0	479.62 µg/L	479.62 ppb	00:04:08
3	As 188.979†	1613.5	1628.6	499.46 µg/L	499.46 ppb	00:04:28
3	B 249.677†	35582.2	31958.9	469.67 µg/L	469.67 ppb	00:04:08
3	Ba 233.527†	119047.5	118790.7	479.08 µg/L	479.08 ppb	00:04:08
3	Be 313.107†	1772270.1	1767489.4	481.39 µg/L	481.39 ppb	00:04:08
3	Cd 226.502†	76487.5	76353.5	476.63 µg/L	476.63 ppb	00:04:08
3	Co 228.616†	38833.9	38896.2	480.17 µg/L	480.17 ppb	00:04:08
3	Cr 267.716†	61033.0	60653.2	474.91 µg/L	474.91 ppb	00:04:08
3	Cu 324.752†	125468.6	122082.6	475.91 µg/L	475.91 ppb	00:04:08
3	Mn 257.610†	389266.3	387745.1	479.55 µg/L	479.55 ppb	00:04:08
3	Mo 202.031†	16339.7	16305.9	479.65 µg/L	479.65 ppb	00:04:28
3	Ni 231.604†	41581.8	41521.1	478.09 µg/L	478.09 ppb	00:04:08
3	P 214.914†	11255.6	11236.5	2395.1 µg/L	2395.1 ppb	00:04:28
3	Pb 220.353†	8754.3	8639.1	483.78 µg/L	483.78 ppb	00:04:28
3	S 181.975 Axial†	1381.4	1271.8	948.44 µg/L	948.44 ppb	00:04:28
3	Sb 206.836†	4114.1	4019.7	478.99 µg/L	478.99 ppb	00:04:28
3	Se 196.026†	1349.5	1329.8	483 µg/L	483 ppb	00:04:28
3	SiO2†	54853.6	52897.3	5149.7 µg/L	5149.7 ppb	00:04:08
3	Si 251.611†	165883.5	164499.8	2415.6 µg/L	2415.6 ppb	00:04:08
3	Sn 189.927†	7726.9	7702.6	481.78 µg/L	481.78 ppb	00:04:28
3	Ti 334.940†	513749.8	511102.8	476.89 µg/L	476.89 ppb	00:04:08
3	Tl 190.801†	3835.7	3939.7	491.22 µg/L	491.22 ppb	00:04:28
3	U 409.014†	7224.4	7470.4	465.75 µg/L	465.75 ppb	00:04:08
3	V 292.402†	97852.6	97126.1	480.16 µg/L	480.16 ppb	00:04:08
3	Zn 213.857†	85877.0	85029.4	473.89 µg/L	473.89 ppb	00:04:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1718502.3	100.02	%	0.517				0.52%
Sc RADIAL	141831.6	97.2	%	0.27				0.27%
Y 371.029	1015930.0	98.952	%	0.4970				0.50%
Ag 328.068†	127666.6	478.69	µg/L	0.860	478.69	ppb	0.860	0.18%
QC value within limits for Ag 328.068 Recovery = 95.74%								
Al 396.153Radial†	26557.2	4901.4	µg/L	7.37	4901.4	ppb	7.37	0.15%
QC value within limits for Al 396.153Radial Recovery = 98.03%								
As 188.979†	1624.7	498.29	µg/L	1.393	498.29	ppb	1.393	0.28%
QC value within limits for As 188.979 Recovery = 99.66%								
B 249.677†	31989.7	470.13	µg/L	0.552	470.13	ppb	0.552	0.12%
QC value within limits for B 249.677 Recovery = 94.03%								
Ba 233.527†	118610.7	478.35	µg/L	0.631	478.35	ppb	0.631	0.13%
QC value within limits for Ba 233.527 Recovery = 95.67%								
Be 313.107†	1766671.5	481.16	µg/L	0.387	481.16	ppb	0.387	0.08%
QC value within limits for Be 313.107 Recovery = 96.23%								
Ca 317.933Radial†	86454.8	4815.9	µg/L	14.49	4815.9	ppb	14.49	0.30%
QC value within limits for Ca 317.933Radial Recovery = 96.32%								
Cd 226.502†	76140.8	475.30	µg/L	1.661	475.30	ppb	1.661	0.35%
QC value within limits for Cd 226.502 Recovery = 95.06%								
Co 228.616†	38789.5	478.86	µg/L	1.671	478.86	ppb	1.671	0.35%

```
   QC value within limits for Co 228.616  Recovery = 95.77%
Cr 267.716†            60511.3      473.80 µg/L         1.244      473.80 ppb          1.244   0.26%
   QC value within limits for Cr 267.716  Recovery = 94.76%
Cu 324.752†           122050.4      475.79 µg/L         0.509      475.79 ppb          0.509   0.11%
   QC value within limits for Cu 324.752  Recovery = 95.16%
Fe 238.204 Radial†     77898.6      4801.2 µg/L         18.23      4801.2 ppb          18.23   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.02%
K 766.490 Radial†      13182.1      4822.2 µg/L         25.92      4822.2 ppb          25.92   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 96.44%
Mg 279.077 IEC†        13220.7      4933.4 µg/L         40.70      4933.4 ppb          40.70   0.82%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.67%
Mn 257.610†           387557.3      479.32 µg/L         0.335      479.32 ppb          0.335   0.07%
   QC value within limits for Mn 257.610  Recovery = 95.86%
Mo 202.031†            16307.1      479.68 µg/L         2.318      479.68 ppb          2.318   0.48%
   QC value within limits for Mo 202.031  Recovery = 95.94%
Na 589.592 Radial†     70136.3      9577.2 µg/L         31.25      9577.2 ppb          31.25   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 95.77%
Ni 231.604†            41426.0      476.99 µg/L         1.093      476.99 ppb          1.093   0.23%
   QC value within limits for Ni 231.604  Recovery = 95.40%
P 214.914†             11215.1      2390.5 µg/L         12.46      2390.5 ppb          12.46   0.52%
   QC value within limits for P 214.914  Recovery = 95.62%
Pb 220.353†             8637.0      483.66 µg/L         4.812      483.66 ppb          4.812   0.99%
   QC value within limits for Pb 220.353  Recovery = 96.73%
S 181.975 Axial†        1265.6      943.84 µg/L         8.319      943.84 ppb          8.319   0.88%
   QC value within limits for S 181.975 Axial  Recovery = 94.38%
Sb 206.836†             4021.4      479.21 µg/L         3.045      479.21 ppb          3.045   0.64%
   QC value within limits for Sb 206.836  Recovery = 95.84%
Se 196.026†             1325.1         481 µg/L           2.0         481 ppb            2.0   0.42%
   QC value within limits for Se 196.026  Recovery = 96.23%
SiO2†                  52845.6      5144.6 µg/L          9.64      5144.6 ppb           9.64   0.19%
   QC value within limits for SiO2  Recovery = 96.21%
Si 251.611†           164353.8      2413.5 µg/L          2.15      2413.5 ppb           2.15   0.09%
   QC value within limits for Si 251.611  Recovery = 96.54%
Sn 189.927†             7691.1      481.07 µg/L         2.875      481.07 ppb          2.875   0.60%
   QC value within limits for Sn 189.927  Recovery = 96.21%
Sr 421.552†           232885.1      484.12 µg/L         1.209      484.12 ppb          1.209   0.25%
   QC value within limits for Sr 421.552  Recovery = 96.82%
Ti 334.940†           510877.3      476.68 µg/L         0.363      476.68 ppb          0.363   0.08%
   QC value within limits for Ti 334.940  Recovery = 95.34%
Tl 190.801†             3920.0      488.80 µg/L         2.267      488.80 ppb          2.267   0.46%
   QC value within limits for Tl 190.801  Recovery = 97.76%
U 409.014†              7480.5      466.31 µg/L         3.394      466.31 ppb          3.394   0.73%
   QC value within limits for U 409.014  Recovery = 93.26%
V 292.402†             97013.9      479.61 µg/L         0.482      479.61 ppb          0.482   0.10%
   QC value within limits for V 292.402  Recovery = 95.92%
Zn 213.857†            84952.0      473.47 µg/L         0.445      473.47 ppb          0.445   0.09%
   QC value within limits for Zn 213.857  Recovery = 94.69%
All analyte(s) passed QC.
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Sequence No.: 129
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/1/2010 0:04:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143892.3	143892.3	98.6	%			00:05:07
1	Al 396.153Radial†	-53.6	8.8	1.6408	µg/L	1.6408	ppb	00:05:27
1	Ca 317.933Radial†	596.6	44.5	2.4784	µg/L	2.4784	ppb	00:05:27
1	Fe 238.204 Radial†	205.5	60.3	3.7183	µg/L	3.7183	ppb	00:05:27
1	K 766.490 Radial†	1617.6	95.8	35.061	µg/L	35.061	ppb	00:05:07
1	Mg 279.077 IEC†	160.3	-28.1	-10.484	µg/L	-10.484	ppb	00:05:27
1	Na 589.592 Radial†	1235.1	-38.2	-5.2555	µg/L	-5.2555	ppb	00:05:07
1	Sr 421.552†	-186.7	-54.0	-0.1123	µg/L	-0.1123	ppb	00:05:07
1	Sc 361.383	1744559.9	1744559.9	101.53	%			00:06:14
1	Y 371.029	1042741.7	1042741.7	101.56	%			00:06:14
1	Ag 328.068†	4186.7	32.1	0.1193	µg/L	0.1193	ppb	00:06:17
1	As 188.979†	-18.7	2.0	0.5980	µg/L	0.5980	ppb	00:06:37
1	B 249.677†	3571.6	11.8	0.1730	µg/L	0.1730	ppb	00:06:17
1	Ba 233.527†	-139.2	-1.2	-0.0046	µg/L	-0.0046	ppb	00:06:37
1	Be 313.107†	-1043.9	36.6	0.0085	µg/L	0.0085	ppb	00:06:17
1	Cd 226.502†	-108.8	11.0	0.0685	µg/L	0.0685	ppb	00:06:37
1	Co 228.616†	-174.1	18.9	0.2327	µg/L	0.2327	ppb	00:06:37
1	Cr 267.716†	183.3	2.0	0.0199	µg/L	0.0199	ppb	00:06:37
1	Cu 324.752†	3077.4	58.7	0.2245	µg/L	0.2245	ppb	00:06:17
1	Mn 257.610†	338.8	96.5	0.1197	µg/L	0.1197	ppb	00:06:37
1	Mo 202.031†	-20.8	-0.4	-0.0123	µg/L	-0.0123	ppb	00:06:37
1	Ni 231.604†	-93.1	-15.2	-0.1747	µg/L	-0.1747	ppb	00:06:37
1	P 214.914†	-36.4	-17.9	-3.8259	µg/L	-3.8259	ppb	00:06:37
1	Pb 220.353†	57.3	-30.0	-1.6686	µg/L	-1.6686	ppb	00:06:37
1	S 181.975 Axial†	88.1	-18.3	-13.601	µg/L	-13.601	ppb	00:06:37
1	Sb 206.836†	79.5	-2.5	-0.2998	µg/L	-0.2998	ppb	00:06:37
1	Se 196.026†	9.3	-6.1	-2.21	µg/L	-2.21	ppb	00:06:37
1	SiO2†	1791.0	-11.4	-1.1250	µg/L	-1.1250	ppb	00:06:37
1	Si 251.611†	1010.1	158.3	2.3292	µg/L	2.3292	ppb	00:06:17
1	Sn 189.927†	11.2	12.2	0.7593	µg/L	0.7593	ppb	00:06:37
1	Ti 334.940†	1000.8	33.1	0.0339	µg/L	0.0339	ppb	00:06:17
1	Tl 190.801†	-110.0	8.4	1.0319	µg/L	1.0319	ppb	00:06:37
1	U 409.014†	-359.2	-83.8	-4.8714	µg/L	-4.8714	ppb	00:06:17
1	V 292.402†	522.7	111.1	0.5380	µg/L	0.5380	ppb	00:06:17
1	Zn 213.857†	593.2	19.8	0.1119	µg/L	0.1119	ppb	00:06:37
2	Sc RADIAL	143483.1	143483.1	98.3	%			00:05:29
2	Al 396.153Radial†	-16.6	46.3	8.5924	µg/L	8.5924	ppb	00:05:49
2	Ca 317.933Radial†	577.4	26.6	1.4835	µg/L	1.4835	ppb	00:05:49
2	Fe 238.204 Radial†	204.6	60.0	3.6989	µg/L	3.6989	ppb	00:05:49
2	K 766.490 Radial†	1704.3	188.6	69.053	µg/L	69.053	ppb	00:05:29
2	Mg 279.077 IEC†	189.1	1.6	0.6009	µg/L	0.6009	ppb	00:05:49
2	Na 589.592 Radial†	1220.1	-49.9	-6.8835	µg/L	-6.8835	ppb	00:05:29
2	Sr 421.552†	-161.7	-29.2	-0.0607	µg/L	-0.0607	ppb	00:05:29
2	Sc 361.383	1736410.2	1736410.2	101.06	%			00:06:39
2	Y 371.029	1038399.6	1038399.6	101.14	%			00:06:39
2	Ag 328.068†	4135.3	0.6	-0.0060	µg/L	-0.0060	ppb	00:06:41
2	As 188.979†	-19.2	1.4	0.4208	µg/L	0.4208	ppb	00:07:01
2	B 249.677†	3492.1	-50.3	-0.7427	µg/L	-0.7427	ppb	00:06:41
2	Ba 233.527†	-117.3	19.8	0.0792	µg/L	0.0792	ppb	00:07:01
2	Be 313.107†	-747.8	324.8	0.0886	µg/L	0.0886	ppb	00:06:41
2	Cd 226.502†	-105.9	13.4	0.0831	µg/L	0.0831	ppb	00:07:01
2	Co 228.616†	-184.9	7.4	0.0911	µg/L	0.0911	ppb	00:07:01
2	Cr 267.716†	192.3	11.7	0.0910	µg/L	0.0910	ppb	00:07:01
2	Cu 324.752†	2966.8	-36.5	-0.1408	µg/L	-0.1408	ppb	00:06:41
2	Mn 257.610†	298.6	58.2	0.0720	µg/L	0.0720	ppb	00:07:01
2	Mo 202.031†	-25.8	-5.5	-0.1614	µg/L	-0.1614	ppb	00:07:01
2	Ni 231.604†	-94.3	-16.8	-0.1933	µg/L	-0.1933	ppb	00:07:01
2	P 214.914†	-43.0	-24.6	-5.2673	µg/L	-5.2673	ppb	00:07:01
2	Pb 220.353†	50.6	-36.3	-2.0267	µg/L	-2.0267	ppb	00:07:01

2	S 181.975 Axial†	98.0	-8.1	-5.9976 µg/L	-5.9976 ppb	00:07:01
2	Sb 206.836†	73.1	-8.5	-1.0121 µg/L	-1.0121 ppb	00:07:01
2	Se 196.026†	7.4	-8.0	-2.88 µg/L	-2.88 ppb	00:07:01
2	SiO2†	1801.8	7.6	0.7460 µg/L	0.7460 ppb	00:07:01
2	Si 251.611†	1048.9	201.3	2.9711 µg/L	2.9711 ppb	00:06:41
2	Sn 189.927†	-3.4	-2.2	-0.1383 µg/L	-0.1383 ppb	00:07:01
2	Ti 334.940†	957.4	-5.2	-0.0051 µg/L	-0.0051 ppb	00:06:41
2	Tl 190.801†	-118.7	-0.7	-0.0961 µg/L	-0.0961 ppb	00:07:01
2	U 409.014†	-264.8	7.9	0.4182 µg/L	0.4182 ppb	00:06:41
2	V 292.402†	254.9	-151.6	-0.7409 µg/L	-0.7409 ppb	00:06:41
2	Zn 213.857†	612.2	41.4	0.2335 µg/L	0.2335 ppb	00:07:01
3	Sc RADIAL	142535.7	142535.7	97.7 %		00:05:51
3	Al 396.153Radial†	-83.5	-22.3	-4.1548 µg/L	-4.1548 ppb	00:06:11
3	Ca 317.933Radial†	597.4	51.0	2.8434 µg/L	2.8434 ppb	00:06:11
3	Fe 238.204 Radial†	191.0	47.4	2.9218 µg/L	2.9218 ppb	00:06:11
3	K 766.490 Radial†	1524.6	16.2	5.9151 µg/L	5.9151 ppb	00:05:51
3	Mg 279.077 IEC†	219.6	34.1	12.715 µg/L	12.715 ppb	00:06:11
3	Na 589.592 Radial†	1205.9	-56.2	-7.6775 µg/L	-7.6775 ppb	00:05:51
3	Sr 421.552†	-165.9	-34.5	-0.0718 µg/L	-0.0718 ppb	00:05:51
3	Sc 361.383	1751391.9	1751391.9	101.93 %		00:07:03
3	Y 371.029	1047163.4	1047163.4	101.99 %		00:07:03
3	Ag 328.068†	4086.1	-82.7	-0.3037 µg/L	-0.3037 ppb	00:07:05
3	As 188.979†	-20.4	0.3	0.0989 µg/L	0.0989 ppb	00:07:25
3	B 249.677†	3537.9	-35.0	-0.5172 µg/L	-0.5172 ppb	00:07:05
3	Ba 233.527†	-136.9	1.6	0.0063 µg/L	0.0063 ppb	00:07:25
3	Be 313.107†	-940.8	141.7	0.0400 µg/L	0.0400 ppb	00:07:05
3	Cd 226.502†	-99.2	20.8	0.1299 µg/L	0.1299 ppb	00:07:25
3	Co 228.616†	-163.1	30.3	0.3737 µg/L	0.3737 ppb	00:07:25
3	Cr 267.716†	180.0	-1.9	-0.0191 µg/L	-0.0191 ppb	00:07:25
3	Cu 324.752†	2988.8	-40.1	-0.1508 µg/L	-0.1508 ppb	00:07:05
3	Mn 257.610†	300.0	57.1	0.0701 µg/L	0.0701 ppb	00:07:25
3	Mo 202.031†	-9.2	11.0	0.3249 µg/L	0.3249 ppb	00:07:25
3	Ni 231.604†	-68.4	9.4	0.1086 µg/L	0.1086 ppb	00:07:25
3	P 214.914†	-25.2	-6.8	-1.4485 µg/L	-1.4485 ppb	00:07:25
3	Pb 220.353†	102.3	13.9	0.7747 µg/L	0.7747 ppb	00:07:25
3	S 181.975 Axial†	101.0	-6.0	-4.4167 µg/L	-4.4167 ppb	00:07:25
3	Sb 206.836†	94.0	11.4	1.3649 µg/L	1.3649 ppb	00:07:25
3	Se 196.026†	14.1	-1.5	-0.521 µg/L	-0.521 ppb	00:07:25
3	SiO2†	1807.8	-1.8	-0.1882 µg/L	-0.1882 ppb	00:07:25
3	Si 251.611†	933.4	79.1	1.1603 µg/L	1.1603 ppb	00:07:05
3	Sn 189.927†	4.0	5.0	0.3117 µg/L	0.3117 ppb	00:07:25
3	Ti 334.940†	864.7	-104.2	-0.1002 µg/L	-0.1002 ppb	00:07:05
3	Tl 190.801†	-114.3	4.5	0.5538 µg/L	0.5538 ppb	00:07:25
3	U 409.014†	-194.1	79.5	4.6318 µg/L	4.6318 ppb	00:07:05
3	V 292.402†	357.1	-53.4	-0.2545 µg/L	-0.2545 ppb	00:07:05
3	Zn 213.857†	596.1	20.4	0.1133 µg/L	0.1133 ppb	00:07:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1744120.7	101.51	%	0.437				0.43%
Sc RADIAL	143303.7	98.2	%	0.48				0.49%
Y 371.029	1042768.2	101.57	%	0.427				0.42%
Ag 328.068†	-16.6	-0.0635	µg/L	0.21725	-0.0635	ppb	0.21725	342.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.9	2.0261	µg/L	6.38236	2.0261	ppb	6.38236	315.00%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	0.3726	µg/L	0.25303	0.3726	ppb	0.25303	67.91%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-24.5	-0.3623	µg/L	0.47710	-0.3623	ppb	0.47710	131.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.7	0.0270	µg/L	0.04553	0.0270	ppb	0.04553	168.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	167.7	0.0457	µg/L	0.04035	0.0457	ppb	0.04035	88.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	40.7	2.2684	µg/L	0.70382	2.2684	ppb	0.70382	31.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	15.1	0.0938	µg/L	0.03210	0.0938	ppb	0.03210	34.21%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.9	0.2325	µg/L	0.14130	0.2325	ppb	0.14130	60.78%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                3.9      0.0306 µg/L       0.05579      0.0306 ppb        0.05579 182.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -5.9     -0.0224 µg/L       0.21387     -0.0224 ppb        0.21387 955.96%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        55.9      3.4463 µg/L       0.45435      3.4463 ppb        0.45435  13.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        100.2      36.676 µg/L       31.5999      36.676 ppb        31.5999  86.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.5      0.9439 µg/L      11.60357      0.9439 ppb       11.60357 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               70.6      0.0873 µg/L       0.02814      0.0873 ppb        0.02814  32.24%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.7      0.0504 µg/L       0.24911      0.0504 ppb        0.24911 494.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -48.1     -6.6055 µg/L       1.23471     -6.6055 ppb        1.23471  18.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -7.5     -0.0864 µg/L       0.16920     -0.0864 ppb        0.16920 195.76%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -16.4     -3.5139 µg/L       1.92839     -3.5139 ppb        1.92839  54.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -17.4     -0.9735 µg/L       1.52458     -0.9735 ppb        1.52458 156.60%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -10.8     -8.0052 µg/L       4.91049     -8.0052 ppb        4.91049  61.34%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                0.1      0.0176 µg/L       1.21991      0.0176 ppb        1.21991 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -5.2       -1.87 µg/L         1.214       -1.87 ppb          1.214  64.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -1.9     -0.1891 µg/L       0.93549     -0.1891 ppb        0.93549 494.80%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              146.3      2.1535 µg/L       0.91811      2.1535 ppb        0.91811  42.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.0      0.3109 µg/L       0.44879      0.3109 ppb        0.44879 144.35%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -39.2     -0.0816 µg/L       0.02715     -0.0816 ppb        0.02715  33.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -25.4     -0.0238 µg/L       0.06900     -0.0238 ppb        0.06900 289.80%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.1      0.4965 µg/L       0.56617      0.4965 ppb        0.56617 114.03%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 1.2      0.0595 µg/L       4.76174      0.0595 ppb        4.76174 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -31.3     -0.1525 µg/L       0.64551     -0.1525 ppb        0.64551 423.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               27.2      0.1529 µg/L       0.06978      0.1529 ppb        0.06978  45.64%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 135
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 0:18:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143693.3	143693.3	98.5	%			00:19:06
1	Al 396.153Radial†	26289.1	26761.5	4939.5	µg/L	4939.5	ppb	00:19:06
1	Ca 317.933Radial†	86223.9	87005.4	4846.5	µg/L	4846.5	ppb	00:19:06
1	Fe 238.204 Radial†	77323.2	78378.5	4830.8	µg/L	4830.8	ppb	00:19:06
1	K 766.490 Radial†	14642.3	13325.5	4874.7	µg/L	4874.7	ppb	00:19:06
1	Mg 279.077 IEC†	13274.7	13290.6	4959.3	µg/L	4959.3	ppb	00:19:06
1	Na 589.592 Radial†	70897.3	70710.0	9655.5	µg/L	9655.5	ppb	00:19:06
1	Sr 421.552†	232660.3	236416.7	491.46	µg/L	491.46	ppb	00:19:04
1	Sc 361.383	1732669.7	1732669.7	100.84	%			00:19:19
1	Y 371.029	1023558.0	1023558.0	99.695	%			00:19:19
1	Ag 328.068†	133158.4	127956.3	479.77	µg/L	479.77	ppb	00:19:19
1	As 188.979†	1602.0	1609.0	493.54	µg/L	493.54	ppb	00:19:39
1	B 249.677†	35761.2	31957.0	469.65	µg/L	469.65	ppb	00:19:19
1	Ba 233.527†	119556.3	118694.9	478.69	µg/L	478.69	ppb	00:19:19
1	Be 313.107†	1785943.3	1772111.6	482.65	µg/L	482.65	ppb	00:19:19
1	Cd 226.502†	76830.5	76307.9	476.34	µg/L	476.34	ppb	00:19:19
1	Co 228.616†	38954.2	38819.6	479.23	µg/L	479.23	ppb	00:19:19
1	Cr 267.716†	61438.6	60747.5	475.65	µg/L	475.65	ppb	00:19:19
1	Cu 324.752†	126552.0	122524.2	477.63	µg/L	477.63	ppb	00:19:19
1	Mn 257.610†	392610.6	389098.6	481.22	µg/L	481.22	ppb	00:19:19
1	Mo 202.031†	16258.5	16143.0	474.86	µg/L	474.86	ppb	00:19:39
1	Ni 231.604†	41699.2	41427.9	477.01	µg/L	477.01	ppb	00:19:19
1	P 214.914†	11155.2	11080.1	2361.6	µg/L	2361.6	ppb	00:19:39
1	Pb 220.353†	8723.1	8564.0	479.58	µg/L	479.58	ppb	00:19:39
1	S 181.975 Axial†	1371.1	1254.6	935.65	µg/L	935.65	ppb	00:19:39
1	Sb 206.836†	4108.1	3993.0	475.73	µg/L	475.73	ppb	00:19:39
1	Se 196.026†	1329.1	1302.7	473	µg/L	473	ppb	00:19:39
1	SiO2†	54892.2	52659.0	5126.6	µg/L	5126.6	ppb	00:19:19
1	Si 251.611†	165952.1	163731.3	2404.4	µg/L	2404.4	ppb	00:19:19
1	Sn 189.927†	7677.7	7614.8	476.32	µg/L	476.32	ppb	00:19:39
1	Ti 334.940†	518688.0	513409.1	479.05	µg/L	479.05	ppb	00:19:19
1	Tl 190.801†	3776.5	3861.7	481.67	µg/L	481.67	ppb	00:19:39
1	U 409.014†	7234.1	7443.7	464.23	µg/L	464.23	ppb	00:19:19
1	V 292.402†	98487.7	97262.4	480.77	µg/L	480.77	ppb	00:19:19
1	Zn 213.857†	86132.8	84849.9	472.89	µg/L	472.89	ppb	00:19:19
2	Sc RADIAL	143019.1	143019.1	98.0	%			00:19:11
2	Al 396.153Radial†	26072.5	26666.3	4922.0	µg/L	4922.0	ppb	00:19:11
2	Ca 317.933Radial†	85527.1	86707.1	4829.9	µg/L	4829.9	ppb	00:19:11
2	Fe 238.204 Radial†	76547.8	77957.5	4804.8	µg/L	4804.8	ppb	00:19:11
2	K 766.490 Radial†	14325.9	13072.7	4782.1	µg/L	4782.1	ppb	00:19:11
2	Mg 279.077 IEC†	13110.0	13186.1	4920.4	µg/L	4920.4	ppb	00:19:11
2	Na 589.592 Radial†	70292.2	70432.0	9617.6	µg/L	9617.6	ppb	00:19:11
2	Sr 421.552†	230289.2	235111.2	488.74	µg/L	488.74	ppb	00:19:08
2	Sc 361.383	1739470.1	1739470.1	101.24	%			00:19:42
2	Y 371.029	1026926.3	1026926.3	100.02	%			00:19:42
2	Ag 328.068†	133611.7	127887.8	479.55	µg/L	479.55	ppb	00:19:42
2	As 188.979†	1611.8	1612.5	494.58	µg/L	494.58	ppb	00:20:03
2	B 249.677†	36044.8	32098.6	471.73	µg/L	471.73	ppb	00:19:42
2	Ba 233.527†	120143.8	118811.8	479.16	µg/L	479.16	ppb	00:19:42
2	Be 313.107†	1795420.8	1774549.5	483.31	µg/L	483.31	ppb	00:19:42
2	Cd 226.502†	77193.5	76368.5	476.73	µg/L	476.73	ppb	00:19:42
2	Co 228.616†	39216.7	38927.8	480.56	µg/L	480.56	ppb	00:19:42
2	Cr 267.716†	61736.3	60803.5	476.08	µg/L	476.08	ppb	00:19:42
2	Cu 324.752†	127273.9	122746.7	478.50	µg/L	478.50	ppb	00:19:42
2	Mn 257.610†	394321.6	389266.6	481.43	µg/L	481.43	ppb	00:19:42
2	Mo 202.031†	16252.9	16074.4	472.85	µg/L	472.85	ppb	00:20:03
2	Ni 231.604†	41949.4	41513.4	478.00	µg/L	478.00	ppb	00:19:42
2	P 214.914†	11147.1	11028.9	2350.7	µg/L	2350.7	ppb	00:20:03
2	Pb 220.353†	8700.2	8507.6	476.42	µg/L	476.42	ppb	00:20:03

2	S 181.975 Axial†	1373.5	1251.6	933.42 µg/L	933.42 ppb	00:20:03
2	Sb 206.836†	4110.6	3979.5	474.09 µg/L	474.09 ppb	00:20:03
2	Se 196.026†	1335.2	1303.6	473 µg/L	473 ppb	00:20:03
2	SiO2†	55200.8	52751.0	5135.7 µg/L	5135.7 ppb	00:19:42
2	Si 251.611†	166801.0	163926.5	2407.3 µg/L	2407.3 ppb	00:19:42
2	Sn 189.927†	7667.4	7574.8	473.83 µg/L	473.83 ppb	00:20:03
2	Ti 334.940†	521126.8	513807.3	479.42 µg/L	479.42 ppb	00:19:42
2	Tl 190.801†	3808.6	3878.7	483.77 µg/L	483.77 ppb	00:20:03
2	U 409.014†	7502.8	7681.0	478.15 µg/L	478.15 ppb	00:19:42
2	V 292.402†	99014.7	97401.2	481.44 µg/L	481.44 ppb	00:19:42
2	Zn 213.857†	86840.8	85215.4	474.94 µg/L	474.94 ppb	00:19:42
3	Sc RADIAL	143471.6	143471.6	98.3 %		00:19:15
3	Al 396.153Radial†	26187.7	26699.6	4927.9 µg/L	4927.9 ppb	00:19:15
3	Ca 317.933Radial†	86128.1	87043.2	4848.6 µg/L	4848.6 ppb	00:19:15
3	Fe 238.204 Radial†	76980.1	78150.9	4816.7 µg/L	4816.7 ppb	00:19:15
3	K 766.490 Radial†	14484.8	13188.2	4824.4 µg/L	4824.4 ppb	00:19:15
3	Mg 279.077 IEC†	13105.7	13139.6	4903.2 µg/L	4903.2 ppb	00:19:15
3	Na 589.592 Radial†	70971.5	70896.7	9681.1 µg/L	9681.1 ppb	00:19:15
3	Sr 421.552†	228010.1	232051.9	482.38 µg/L	482.38 ppb	00:19:13
3	Sc 361.383	1723745.5	1723745.5	100.32 %		00:20:06
3	Y 371.029	1018567.1	1018567.1	99.209 %		00:20:06
3	Ag 328.068†	132594.6	128078.0	480.26 µg/L	480.26 ppb	00:20:06
3	As 188.979†	1613.1	1628.3	499.38 µg/L	499.38 ppb	00:20:26
3	B 249.677†	35759.3	32138.8	472.33 µg/L	472.33 ppb	00:20:06
3	Ba 233.527†	118916.1	118670.6	478.60 µg/L	478.60 ppb	00:20:06
3	Be 313.107†	1776332.6	1771700.7	482.54 µg/L	482.54 ppb	00:20:06
3	Cd 226.502†	76456.3	76329.3	476.48 µg/L	476.48 ppb	00:20:06
3	Co 228.616†	38757.5	38823.5	479.27 µg/L	479.27 ppb	00:20:06
3	Cr 267.716†	61060.8	60686.4	475.16 µg/L	475.16 ppb	00:20:06
3	Cu 324.752†	125991.6	122615.4	477.99 µg/L	477.99 ppb	00:20:06
3	Mn 257.610†	390315.2	388826.2	480.89 µg/L	480.89 ppb	00:20:06
3	Mo 202.031†	16307.2	16275.0	478.74 µg/L	478.74 ppb	00:20:26
3	Ni 231.604†	41420.9	41364.6	476.28 µg/L	476.28 ppb	00:20:06
3	P 214.914†	11239.1	11221.0	2391.8 µg/L	2391.8 ppb	00:20:26
3	Pb 220.353†	8736.0	8621.6	482.80 µg/L	482.80 ppb	00:20:26
3	S 181.975 Axial†	1373.7	1264.3	942.85 µg/L	942.85 ppb	00:20:26
3	Sb 206.836†	4128.8	4034.7	480.77 µg/L	480.77 ppb	00:20:26
3	Se 196.026†	1340.4	1320.9	480 µg/L	480 ppb	00:20:26
3	SiO2†	54541.9	52591.7	5119.8 µg/L	5119.8 ppb	00:20:06
3	Si 251.611†	164960.5	163595.0	2402.3 µg/L	2402.3 ppb	00:20:06
3	Sn 189.927†	7724.8	7701.2	481.70 µg/L	481.70 ppb	00:20:26
3	Ti 334.940†	516519.7	513910.8	479.51 µg/L	479.51 ppb	00:20:06
3	Tl 190.801†	3789.6	3894.1	485.67 µg/L	485.67 ppb	00:20:26
3	U 409.014†	7419.9	7666.0	477.31 µg/L	477.31 ppb	00:20:06
3	V 292.402†	98262.8	97543.9	482.19 µg/L	482.19 ppb	00:20:06
3	Zn 213.857†	86081.7	85241.2	475.10 µg/L	475.10 ppb	00:20:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1731961.8	100.80	%	0.459				0.46%
Sc RADIAL	143394.7	98.3	%	0.24				0.24%
Y 371.029	1023017.1	99.642	%	0.4096				0.41%
Ag 328.068†	127974.1	479.86	µg/L	0.363	479.86	ppb	0.363	0.08%
QC value within limits for Ag 328.068 Recovery = 95.97%								
Al 396.153Radial†	26709.1	4929.8	µg/L	8.93	4929.8	ppb	8.93	0.18%
QC value within limits for Al 396.153Radial Recovery = 98.60%								
As 188.979†	1616.6	495.84	µg/L	3.115	495.84	ppb	3.115	0.63%
QC value within limits for As 188.979 Recovery = 99.17%								
B 249.677†	32064.8	471.24	µg/L	1.407	471.24	ppb	1.407	0.30%
QC value within limits for B 249.677 Recovery = 94.25%								
Ba 233.527†	118725.8	478.82	µg/L	0.303	478.82	ppb	0.303	0.06%
QC value within limits for Ba 233.527 Recovery = 95.76%								
Be 313.107†	1772787.2	482.83	µg/L	0.420	482.83	ppb	0.420	0.09%
QC value within limits for Be 313.107 Recovery = 96.57%								
Ca 317.933Radial†	86918.5	4841.7	µg/L	10.25	4841.7	ppb	10.25	0.21%
QC value within limits for Ca 317.933Radial Recovery = 96.83%								
Cd 226.502†	76335.3	476.52	µg/L	0.194	476.52	ppb	0.194	0.04%
QC value within limits for Cd 226.502 Recovery = 95.30%								
Co 228.616†	38857.0	479.69	µg/L	0.758	479.69	ppb	0.758	0.16%

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   QC value within limits for Co 228.616  Recovery = 95.94%
Cr 267.716†            60745.8      475.63 µg/L         0.458      475.63 ppb          0.458   0.10%
   QC value within limits for Cr 267.716  Recovery = 95.13%
Cu 324.752†           122628.7      478.04 µg/L         0.438      478.04 ppb          0.438   0.09%
   QC value within limits for Cu 324.752  Recovery = 95.61%
Fe 238.204 Radial†     78162.3      4817.4 µg/L         12.99      4817.4 ppb          12.99   0.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.35%
K 766.490 Radial†      13195.4      4827.1 µg/L         46.33      4827.1 ppb          46.33   0.96%
   QC value within limits for K 766.490 Radial  Recovery = 96.54%
Mg 279.077 IEC†        13205.4      4927.6 µg/L         28.77      4927.6 ppb          28.77   0.58%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.55%
Mn 257.610†           389063.8      481.18 µg/L         0.275      481.18 ppb          0.275   0.06%
   QC value within limits for Mn 257.610  Recovery = 96.24%
Mo 202.031†            16164.1      475.48 µg/L         2.996      475.48 ppb          2.996   0.63%
   QC value within limits for Mo 202.031  Recovery = 95.10%
Na 589.592 Radial†     70679.5      9651.4 µg/L         31.92      9651.4 ppb          31.92   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 96.51%
Ni 231.604†            41435.3      477.10 µg/L         0.860      477.10 ppb          0.860   0.18%
   QC value within limits for Ni 231.604  Recovery = 95.42%
P 214.914†             11110.0      2368.0 µg/L         21.28      2368.0 ppb          21.28   0.90%
   QC value within limits for P 214.914  Recovery = 94.72%
Pb 220.353†             8564.4      479.60 µg/L         3.191      479.60 ppb          3.191   0.67%
   QC value within limits for Pb 220.353  Recovery = 95.92%
S 181.975 Axial†        1256.8      937.31 µg/L         4.928      937.31 ppb          4.928   0.53%
   QC value within limits for S 181.975 Axial  Recovery = 93.73%
Sb 206.836†             4002.4      476.86 µg/L         3.479      476.86 ppb          3.479   0.73%
   QC value within limits for Sb 206.836  Recovery = 95.37%
Se 196.026†             1309.1         475 µg/L           3.7         475 ppb            3.7   0.78%
   QC value within limits for Se 196.026  Recovery = 95.07%
SiO2†                  52667.2      5127.4 µg/L          7.96      5127.4 ppb           7.96   0.16%
   QC value within limits for SiO2  Recovery = 95.88%
Si 251.611†           163751.0      2404.7 µg/L          2.52      2404.7 ppb           2.52   0.10%
   QC value within limits for Si 251.611  Recovery = 96.19%
Sn 189.927†             7630.3      477.28 µg/L         4.026      477.28 ppb          4.026   0.84%
   QC value within limits for Sn 189.927  Recovery = 95.46%
Sr 421.552†           234526.6      487.53 µg/L         4.658      487.53 ppb          4.658   0.96%
   QC value within limits for Sr 421.552  Recovery = 97.51%
Ti 334.940†           513709.0      479.33 µg/L         0.247      479.33 ppb          0.247   0.05%
   QC value within limits for Ti 334.940  Recovery = 95.87%
Tl 190.801†             3878.2      483.70 µg/L         1.997      483.70 ppb          1.997   0.41%
   QC value within limits for Tl 190.801  Recovery = 96.74%
U 409.014†              7596.9      473.23 µg/L         7.805      473.23 ppb          7.805   1.65%
   QC value within limits for U 409.014  Recovery = 94.65%
V 292.402†             97402.5      481.47 µg/L         0.711      481.47 ppb          0.711   0.15%
   QC value within limits for V 292.402  Recovery = 96.29%
Zn 213.857†            85102.2      474.31 µg/L         1.230      474.31 ppb          1.230   0.26%
   QC value within limits for Zn 213.857  Recovery = 94.86%
All analyte(s) passed QC.
```

Sequence No.: 136
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 0:20:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143009.9	143009.9	98.0	%			00:21:03
1	Al 396.153Radial†	-51.4	10.8	1.9902	µg/L	1.9902	ppb	00:21:23
1	Ca 317.933Radial†	642.8	95.4	5.3133	µg/L	5.3133	ppb	00:21:23
1	Fe 238.204 Radial†	242.1	99.0	6.0996	µg/L	6.0996	ppb	00:21:23
1	K 766.490 Radial†	1742.8	233.6	85.512	µg/L	85.512	ppb	00:21:03
1	Mg 279.077 IEC†	198.4	11.8	4.3899	µg/L	4.3899	ppb	00:21:23
1	Na 589.592 Radial†	1320.5	56.6	7.6578	µg/L	7.6578	ppb	00:21:03
1	Sr 421.552†	-179.2	-47.6	-0.0989	µg/L	-0.0989	ppb	00:21:03
1	Sc 361.383	1732574.4	1732574.4	100.84	%			00:22:11
1	Y 371.029	1034944.7	1034944.7	100.80	%			00:22:11
1	Ag 328.068†	3967.9	-156.4	-0.6012	µg/L	-0.6012	ppb	00:22:13
1	As 188.979†	-22.3	-1.8	-0.5282	µg/L	-0.5282	ppb	00:22:33
1	B 249.677†	3471.6	-63.1	-0.9312	µg/L	-0.9312	ppb	00:22:13
1	Ba 233.527†	-105.4	31.3	0.1257	µg/L	0.1257	ppb	00:22:33
1	Be 313.107†	-924.2	148.2	0.0371	µg/L	0.0371	ppb	00:22:13
1	Cd 226.502†	-101.6	17.5	0.1086	µg/L	0.1086	ppb	00:22:33
1	Co 228.616†	-161.2	30.5	0.3758	µg/L	0.3758	ppb	00:22:33
1	Cr 267.716†	181.5	1.4	0.0194	µg/L	0.0194	ppb	00:22:33
1	Cu 324.752†	2984.5	-12.4	-0.0561	µg/L	-0.0561	ppb	00:22:13
1	Mn 257.610†	353.9	113.7	0.1405	µg/L	0.1405	ppb	00:22:33
1	Mo 202.031†	-15.2	5.0	0.1471	µg/L	0.1471	ppb	00:22:33
1	Ni 231.604†	-82.1	-4.9	-0.0564	µg/L	-0.0564	ppb	00:22:33
1	P 214.914†	-21.6	-3.4	-0.7405	µg/L	-0.7405	ppb	00:22:33
1	Pb 220.353†	58.7	-28.2	-1.5645	µg/L	-1.5645	ppb	00:22:33
1	S 181.975 Axial†	95.1	-10.7	-7.9545	µg/L	-7.9545	ppb	00:22:33
1	Sb 206.836†	91.5	9.9	1.1817	µg/L	1.1817	ppb	00:22:33
1	Se 196.026†	8.6	-6.7	-2.43	µg/L	-2.43	ppb	00:22:33
1	SiO2†	1790.8	0.6	0.0484	µg/L	0.0484	ppb	00:22:13
1	Si 251.611†	1020.2	175.2	2.5808	µg/L	2.5808	ppb	00:22:13
1	Sn 189.927†	0.3	1.4	0.0914	µg/L	0.0914	ppb	00:22:33
1	Ti 334.940†	1320.8	357.3	0.3381	µg/L	0.3381	ppb	00:22:13
1	Tl 190.801†	-122.8	-5.1	-0.6310	µg/L	-0.6310	ppb	00:22:33
1	U 409.014†	-460.1	-186.4	-10.938	µg/L	-10.938	ppb	00:22:13
1	V 292.402†	259.1	-146.8	-0.7228	µg/L	-0.7228	ppb	00:22:13
1	Zn 213.857†	639.8	70.1	0.3935	µg/L	0.3935	ppb	00:22:33
2	Sc RADIAL	145208.1	145208.1	99.5	%			00:21:25
2	Al 396.153Radial†	-65.6	-2.7	-0.5302	µg/L	-0.5302	ppb	00:21:45
2	Ca 317.933Radial†	617.9	60.4	3.3625	µg/L	3.3625	ppb	00:21:45
2	Fe 238.204 Radial†	235.5	88.5	5.4567	µg/L	5.4567	ppb	00:21:45
2	K 766.490 Radial†	1643.3	106.7	39.066	µg/L	39.066	ppb	00:21:25
2	Mg 279.077 IEC†	181.7	-8.1	-2.9996	µg/L	-2.9996	ppb	00:21:45
2	Na 589.592 Radial†	1254.4	-30.2	-4.1540	µg/L	-4.1540	ppb	00:21:25
2	Sr 421.552†	-222.0	-87.8	-0.1826	µg/L	-0.1826	ppb	00:21:25
2	Sc 361.383	1746141.6	1746141.6	101.63	%			00:22:35
2	Y 371.029	1043093.8	1043093.8	101.60	%			00:22:35
2	Ag 328.068†	4083.1	-73.6	-0.2839	µg/L	-0.2839	ppb	00:22:37
2	As 188.979†	-16.6	4.0	1.2226	µg/L	1.2226	ppb	00:22:58
2	B 249.677†	3623.9	60.1	0.8842	µg/L	0.8842	ppb	00:22:37
2	Ba 233.527†	-136.2	1.9	0.0073	µg/L	0.0073	ppb	00:22:58
2	Be 313.107†	-917.5	161.8	0.0425	µg/L	0.0425	ppb	00:22:37
2	Cd 226.502†	-112.9	7.1	0.0435	µg/L	0.0435	ppb	00:22:58
2	Co 228.616†	-155.9	36.9	0.4553	µg/L	0.4553	ppb	00:22:58
2	Cr 267.716†	191.2	9.5	0.0788	µg/L	0.0788	ppb	00:22:58
2	Cu 324.752†	3030.9	10.2	0.0363	µg/L	0.0363	ppb	00:22:37
2	Mn 257.610†	340.6	97.9	0.1212	µg/L	0.1212	ppb	00:22:58
2	Mo 202.031†	-3.6	16.6	0.4868	µg/L	0.4868	ppb	00:22:58
2	Ni 231.604†	-126.7	-48.2	-0.5549	µg/L	-0.5549	ppb	00:22:58
2	P 214.914†	-18.2	0.0	-0.0021	µg/L	-0.0021	ppb	00:22:58
2	Pb 220.353†	80.1	-7.6	-0.4191	µg/L	-0.4191	ppb	00:22:58

2	S 181.975 Axial†	92.6	-14.0	-10.355 µg/L	-10.355 ppb	00:22:58
2	Sb 206.836†	74.8	-7.3	-0.8573 µg/L	-0.8573 ppb	00:22:58
2	Se 196.026†	29.6	13.8	5.00 µg/L	5.00 ppb	00:22:58
2	SiO2†	1807.1	2.8	0.2551 µg/L	0.2551 ppb	00:22:37
2	Si 251.611†	912.7	61.5	0.8976 µg/L	0.8976 ppb	00:22:37
2	Sn 189.927†	5.4	6.4	0.3994 µg/L	0.3994 ppb	00:22:58
2	Ti 334.940†	911.5	-55.7	-0.0496 µg/L	-0.0496 ppb	00:22:37
2	Tl 190.801†	-107.6	10.8	1.3219 µg/L	1.3219 ppb	00:22:58
2	U 409.014†	-364.0	-88.2	-5.1839 µg/L	-5.1839 ppb	00:22:37
2	V 292.402†	324.6	-84.4	-0.4104 µg/L	-0.4104 ppb	00:22:37
2	Zn 213.857†	602.5	28.4	0.1627 µg/L	0.1627 ppb	00:22:58
3	Sc RADIAL	142939.6	142939.6	98.0 %		00:21:47
3	Al 396.153Radial†	-66.5	-4.7	-0.8930 µg/L	-0.8930 ppb	00:22:07
3	Ca 317.933Radial†	598.8	50.7	2.8256 µg/L	2.8256 ppb	00:22:07
3	Fe 238.204 Radial†	216.5	73.0	4.4964 µg/L	4.4964 ppb	00:22:07
3	K 766.490 Radial†	1593.8	82.4	30.155 µg/L	30.155 ppb	00:21:47
3	Mg 279.077 IEC†	176.4	-10.6	-3.9486 µg/L	-3.9486 ppb	00:22:07
3	Na 589.592 Radial†	1336.7	73.9	10.067 µg/L	10.067 ppb	00:21:47
3	Sr 421.552†	-79.1	54.6	0.1134 µg/L	0.1134 ppb	00:21:47
3	Sc 361.383	1720285.6	1720285.6	100.12 %		00:23:00
3	Y 371.029	1027937.7	1027937.7	100.12 %		00:23:00
3	Ag 328.068†	3952.7	-143.5	-0.5516 µg/L	-0.5516 ppb	00:23:02
3	As 188.979†	-14.9	5.5	1.6581 µg/L	1.6581 ppb	00:23:22
3	B 249.677†	3577.4	67.2	0.9901 µg/L	0.9901 ppb	00:23:02
3	Ba 233.527†	-138.9	-2.8	-0.0116 µg/L	-0.0116 ppb	00:23:22
3	Be 313.107†	-853.9	211.9	0.0539 µg/L	0.0539 ppb	00:23:02
3	Cd 226.502†	-97.9	20.4	0.1268 µg/L	0.1268 ppb	00:23:22
3	Co 228.616†	-169.6	20.9	0.2575 µg/L	0.2575 ppb	00:23:22
3	Cr 267.716†	194.2	15.4	0.1307 µg/L	0.1307 ppb	00:23:22
3	Cu 324.752†	2897.3	-78.4	-0.3143 µg/L	-0.3143 ppb	00:23:02
3	Mn 257.610†	316.9	79.2	0.0982 µg/L	0.0982 ppb	00:23:22
3	Mo 202.031†	-2.4	17.7	0.5206 µg/L	0.5206 ppb	00:23:22
3	Ni 231.604†	-79.7	-3.1	-0.0357 µg/L	-0.0357 ppb	00:23:22
3	P 214.914†	-14.8	3.1	0.6703 µg/L	0.6703 ppb	00:23:22
3	Pb 220.353†	65.3	-21.2	-1.1703 µg/L	-1.1703 ppb	00:23:22
3	S 181.975 Axial†	96.4	-8.8	-6.5340 µg/L	-6.5340 ppb	00:23:22
3	Sb 206.836†	95.7	14.7	1.7585 µg/L	1.7585 ppb	00:23:22
3	Se 196.026†	27.8	12.5	4.51 µg/L	4.51 ppb	00:23:22
3	SiO2†	1722.4	-55.0	-5.4009 µg/L	-5.4009 ppb	00:23:02
3	Si 251.611†	906.7	69.0	1.0061 µg/L	1.0061 ppb	00:23:02
3	Sn 189.927†	9.3	10.4	0.6455 µg/L	0.6455 ppb	00:23:22
3	Ti 334.940†	750.5	-203.0	-0.1841 µg/L	-0.1841 ppb	00:23:02
3	Tl 190.801†	-113.2	3.6	0.4390 µg/L	0.4390 ppb	00:23:22
3	U 409.014†	-484.4	-213.9	-12.531 µg/L	-12.531 ppb	00:23:02
3	V 292.402†	320.4	-83.8	-0.4117 µg/L	-0.4117 ppb	00:23:02
3	Zn 213.857†	604.4	39.2	0.2202 µg/L	0.2202 ppb	00:23:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733000.6	100.86	%	0.753				0.75%
Sc RADIAL	143719.2	98.5	%	0.88				0.90%
Y 371.029	1035325.4	100.84	%	0.739				0.73%
Ag 328.068†	-124.5	-0.4789	µg/L	0.17068	-0.4789	ppb	0.17068	35.64%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.1	0.1890	µg/L	1.57038	0.1890	ppb	1.57038	830.86%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.6	0.7841	µg/L	1.15723	0.7841	ppb	1.15723	147.58%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	21.4	0.3144	µg/L	1.08004	0.3144	ppb	1.08004	343.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.1	0.0405	µg/L	0.07440	0.0405	ppb	0.07440	183.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	174.0	0.0445	µg/L	0.00860	0.0445	ppb	0.00860	19.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	68.8	3.8338	µg/L	1.30912	3.8338	ppb	1.30912	34.15%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	15.0	0.0930	µg/L	0.04379	0.0930	ppb	0.04379	47.11%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	29.4	0.3629	µg/L	0.09956	0.3629	ppb	0.09956	27.44%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.8      0.0763 µg/L       0.05570      0.0763 ppb        0.05570  73.02%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -26.9     -0.1114 µg/L       0.18174     -0.1114 ppb        0.18174 163.21%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         86.8      5.3509 µg/L       0.80679      5.3509 ppb        0.80679  15.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         140.9      51.578 µg/L       29.7235      51.578 ppb        29.7235  57.63%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.3     -0.8527 µg/L       4.56498     -0.8527 ppb        4.56498 535.33%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                96.9      0.1200 µg/L       0.02117      0.1200 ppb        0.02117  17.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.1      0.3848 µg/L       0.20656      0.3848 ppb        0.20656  53.68%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         33.4      4.5235 µg/L       7.61088      4.5235 ppb        7.61088 168.25%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -18.7     -0.2157 µg/L       0.29398     -0.2157 ppb        0.29398 136.32%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.1     -0.0241 µg/L       0.70567     -0.0241 ppb        0.70567 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -19.0     -1.0513 µg/L       0.58190     -1.0513 ppb        0.58190  55.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -11.2     -8.2812 µg/L       1.93130     -8.2812 ppb        1.93130  23.32%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.8      0.6943 µg/L       1.37431      0.6943 ppb        1.37431 197.94%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.5         2.36 µg/L         4.154         2.36 ppb          4.154 176.05%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -17.2     -1.6992 µg/L       3.20748     -1.6992 ppb        3.20748 188.77%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               101.9      1.4948 µg/L       0.94203      1.4948 ppb        0.94203  63.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.1      0.3788 µg/L       0.27765      0.3788 ppb        0.27765  73.30%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -26.9     -0.0560 µg/L       0.15260     -0.0560 ppb        0.15260 272.31%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                32.9      0.0348 µg/L       0.27113      0.0348 ppb        0.27113 779.57%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.1      0.3767 µg/L       0.97795      0.3767 ppb        0.97795 259.64%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -162.8     -9.5509 µg/L       3.86489     -9.5509 ppb        3.86489  40.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -105.0     -0.5150 µg/L       0.18000     -0.5150 ppb        0.18000  34.95%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                45.9      0.2588 µg/L       0.12016      0.2588 ppb        0.12016  46.42%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 147
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 0:42:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145422.4	145422.4	99.7	%			00:43:24
1	Al 396.153Radial†	26455.2	26610.7	4911.5	µg/L	4911.5	ppb	00:43:24
1	Ca 317.933Radial†	86831.3	86573.7	4822.5	µg/L	4822.5	ppb	00:43:24
1	Fe 238.204 Radial†	77746.7	77869.8	4799.4	µg/L	4799.4	ppb	00:43:24
1	K 766.490 Radial†	15151.4	13659.4	4997.0	µg/L	4997.0	ppb	00:43:24
1	Mg 279.077 IEC†	13235.9	13091.4	4885.2	µg/L	4885.2	ppb	00:43:24
1	Na 589.592 Radial†	71616.2	70575.3	9637.0	µg/L	9637.0	ppb	00:43:24
1	Sr 421.552†	232582.8	233529.5	485.46	µg/L	485.46	ppb	00:43:22
1	Sc 361.383	1743598.2	1743598.2	101.48	%			00:43:51
1	Y 371.029	1031066.0	1031066.0	100.43	%			00:43:51
1	Ag 328.068†	133467.0	127432.8	477.84	µg/L	477.84	ppb	00:43:51
1	As 188.979†	1622.1	1618.8	496.49	µg/L	496.49	ppb	00:44:11
1	B 249.677†	35840.6	31813.0	467.53	µg/L	467.53	ppb	00:43:51
1	Ba 233.527†	120186.4	118572.7	478.20	µg/L	478.20	ppb	00:43:51
1	Be 313.107†	1790824.1	1765820.8	480.94	µg/L	480.94	ppb	00:43:51
1	Cd 226.502†	76550.4	75554.3	471.64	µg/L	471.64	ppb	00:43:51
1	Co 228.616†	38943.5	38566.9	476.11	µg/L	476.11	ppb	00:43:51
1	Cr 267.716†	61701.1	60624.4	474.67	µg/L	474.67	ppb	00:43:51
1	Cu 324.752†	126928.7	122108.9	476.02	µg/L	476.02	ppb	00:43:51
1	Mn 257.610†	393495.6	387530.4	479.28	µg/L	479.28	ppb	00:43:51
1	Mo 202.031†	16401.2	16182.5	476.02	µg/L	476.02	ppb	00:44:11
1	Ni 231.604†	41723.3	41192.5	474.30	µg/L	474.30	ppb	00:43:51
1	P 214.914†	11221.8	11076.4	2360.8	µg/L	2360.8	ppb	00:44:11
1	Pb 220.353†	8738.0	8524.4	477.36	µg/L	477.36	ppb	00:44:11
1	S 181.975 Axial†	1370.2	1245.2	928.69	µg/L	928.69	ppb	00:44:11
1	Sb 206.836†	4135.6	3994.6	475.95	µg/L	475.95	ppb	00:44:11
1	Se 196.026†	1352.3	1317.3	478	µg/L	478	ppb	00:44:11
1	SiO2†	55049.3	52472.6	5108.4	µg/L	5108.4	ppb	00:43:51
1	Si 251.611†	166176.8	162921.3	2392.5	µg/L	2392.5	ppb	00:43:51
1	Sn 189.927†	7712.3	7601.2	475.47	µg/L	475.47	ppb	00:44:11
1	Ti 334.940†	521331.2	512790.0	478.47	µg/L	478.47	ppb	00:43:51
1	Tl 190.801†	3813.4	3874.6	483.26	µg/L	483.26	ppb	00:44:11
1	U 409.014†	7540.1	7700.2	479.18	µg/L	479.18	ppb	00:43:51
1	V 292.402†	98936.9	97093.0	479.96	µg/L	479.96	ppb	00:43:51
1	Zn 213.857†	85977.6	84161.6	469.05	µg/L	469.05	ppb	00:43:51
2	Sc RADIAL	145725.8	145725.8	99.9	%			00:43:28
2	Al 396.153Radial†	26577.9	26678.3	4924.3	µg/L	4924.3	ppb	00:43:28
2	Ca 317.933Radial†	86949.3	86510.4	4819.0	µg/L	4819.0	ppb	00:43:28
2	Fe 238.204 Radial†	77908.9	77869.8	4799.4	µg/L	4799.4	ppb	00:43:28
2	K 766.490 Radial†	15116.5	13592.9	4972.6	µg/L	4972.6	ppb	00:43:28
2	Mg 279.077 IEC†	13204.2	13032.0	4862.9	µg/L	4862.9	ppb	00:43:28
2	Na 589.592 Radial†	71600.4	70409.8	9614.4	µg/L	9614.4	ppb	00:43:28
2	Sr 421.552†	232081.7	232541.8	483.40	µg/L	483.40	ppb	00:43:26
2	Sc 361.383	1761627.7	1761627.7	102.53	%			00:44:14
2	Y 371.029	1041782.4	1041782.4	101.47	%			00:44:14
2	Ag 328.068†	135437.6	128008.7	479.98	µg/L	479.98	ppb	00:44:14
2	As 188.979†	1618.9	1599.4	490.58	µg/L	490.58	ppb	00:44:34
2	B 249.677†	36451.8	32047.6	470.98	µg/L	470.98	ppb	00:44:14
2	Ba 233.527†	121402.3	118546.6	478.09	µg/L	478.09	ppb	00:44:14
2	Be 313.107†	1815831.0	1772149.9	482.66	µg/L	482.66	ppb	00:44:14
2	Cd 226.502†	77854.0	76053.7	474.76	µg/L	474.76	ppb	00:44:14
2	Co 228.616†	39625.6	38839.4	479.47	µg/L	479.47	ppb	00:44:14
2	Cr 267.716†	62161.5	60451.1	473.32	µg/L	473.32	ppb	00:44:14
2	Cu 324.752†	128573.2	122432.6	477.28	µg/L	477.28	ppb	00:44:14
2	Mn 257.610†	398371.0	388317.0	480.26	µg/L	480.26	ppb	00:44:14
2	Mo 202.031†	16410.2	16025.9	471.42	µg/L	471.42	ppb	00:44:34
2	Ni 231.604†	42364.7	41397.3	476.66	µg/L	476.66	ppb	00:44:14
2	P 214.914†	11239.3	10980.3	2340.3	µg/L	2340.3	ppb	00:44:34
2	Pb 220.353†	8812.8	8509.3	476.51	µg/L	476.51	ppb	00:44:34

2	S 181.975 Axial†	1368.5	1229.8	917.16 µg/L	917.16 ppb	00:44:34
2	Sb 206.836†	4132.0	3949.3	470.52 µg/L	470.52 ppb	00:44:34
2	Se 196.026†	1324.7	1276.8	464 µg/L	464 ppb	00:44:34
2	SiO2†	55692.7	52545.0	5115.6 µg/L	5115.6 ppb	00:44:14
2	Si 251.611†	168404.8	163418.4	2399.9 µg/L	2399.9 ppb	00:44:14
2	Sn 189.927†	7723.1	7533.9	471.28 µg/L	471.28 ppb	00:44:34
2	Ti 334.940†	526897.4	512961.1	478.63 µg/L	478.63 ppb	00:44:14
2	Tl 190.801†	3822.8	3845.3	479.65 µg/L	479.65 ppb	00:44:34
2	U 409.014†	7487.3	7572.7	471.77 µg/L	471.77 ppb	00:44:14
2	V 292.402†	100123.8	97252.7	480.69 µg/L	480.69 ppb	00:44:14
2	Zn 213.857†	87731.8	85005.5	473.77 µg/L	473.77 ppb	00:44:14
3	Sc RADIAL	145384.0	145384.0	99.6 %		00:43:32
3	Al 396.153Radial†	26816.5	26980.4	4980.1 µg/L	4980.1 ppb	00:43:32
3	Ca 317.933Radial†	87178.4	86945.1	4843.2 µg/L	4843.2 ppb	00:43:32
3	Fe 238.204 Radial†	78269.7	78415.4	4833.0 µg/L	4833.0 ppb	00:43:32
3	K 766.490 Radial†	15108.8	13620.7	4982.8 µg/L	4982.8 ppb	00:43:32
3	Mg 279.077 IEC†	13407.1	13266.7	4950.4 µg/L	4950.4 ppb	00:43:32
3	Na 589.592 Radial†	71569.6	70547.5	9633.2 µg/L	9633.2 ppb	00:43:32
3	Sr 421.552†	232881.6	233891.1	486.21 µg/L	486.21 ppb	00:43:30
3	Sc 361.383	1742785.1	1742785.1	101.43 %		00:44:37
3	Y 371.029	1031123.9	1031123.9	100.43 %		00:44:37
3	Ag 328.068†	133463.3	127490.6	478.04 µg/L	478.04 ppb	00:44:37
3	As 188.979†	1602.4	1600.2	490.85 µg/L	490.85 ppb	00:44:57
3	B 249.677†	35982.1	31968.9	469.83 µg/L	469.83 ppb	00:44:37
3	Ba 233.527†	120198.2	118639.6	478.47 µg/L	478.47 ppb	00:44:37
3	Be 313.107†	1793841.1	1769618.6	481.97 µg/L	481.97 ppb	00:44:37
3	Cd 226.502†	76743.1	75779.4	473.04 µg/L	473.04 ppb	00:44:37
3	Co 228.616†	39088.6	38727.9	478.09 µg/L	478.09 ppb	00:44:37
3	Cr 267.716†	61579.9	60533.3	473.97 µg/L	473.97 ppb	00:44:37
3	Cu 324.752†	127002.6	122240.1	476.52 µg/L	476.52 ppb	00:44:37
3	Mn 257.610†	393720.4	387932.9	479.78 µg/L	479.78 ppb	00:44:37
3	Mo 202.031†	16368.1	16157.5	475.29 µg/L	475.29 ppb	00:44:57
3	Ni 231.604†	41714.9	41203.3	474.43 µg/L	474.43 ppb	00:44:37
3	P 214.914†	11213.9	11073.8	2360.3 µg/L	2360.3 ppb	00:44:57
3	Pb 220.353†	8765.9	8556.0	479.14 µg/L	479.14 ppb	00:44:57
3	S 181.975 Axial†	1369.3	1244.9	928.45 µg/L	928.45 ppb	00:44:57
3	Sb 206.836†	4132.6	3993.6	475.83 µg/L	475.83 ppb	00:44:57
3	Se 196.026†	1350.4	1316.1	478 µg/L	478 ppb	00:44:57
3	SiO2†	54988.6	52438.1	5105.0 µg/L	5105.0 ppb	00:44:37
3	Si 251.611†	166378.2	163196.2	2396.5 µg/L	2396.5 ppb	00:44:37
3	Sn 189.927†	7736.3	7628.4	477.16 µg/L	477.16 ppb	00:44:57
3	Ti 334.940†	521282.1	512981.2	478.65 µg/L	478.65 ppb	00:44:37
3	Tl 190.801†	3826.1	3888.8	485.00 µg/L	485.00 ppb	00:44:57
3	U 409.014†	7233.1	7401.1	461.69 µg/L	461.69 ppb	00:44:37
3	V 292.402†	98911.9	97113.8	480.04 µg/L	480.04 ppb	00:44:37
3	Zn 213.857†	86546.2	84761.8	472.42 µg/L	472.42 ppb	00:44:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1749337.0	101.81	%	0.620				0.61%
Sc RADIAL	145510.7	99.7	%	0.13				0.13%
Y 371.029	1034657.4	100.78	%	0.601				0.60%
Ag 328.068†	127644.0	478.62	µg/L	1.180	478.62	ppb	1.180	0.25%
QC value within limits for Ag 328.068 Recovery = 95.72%								
Al 396.153Radial†	26756.5	4938.6	µg/L	36.47	4938.6	ppb	36.47	0.74%
QC value within limits for Al 396.153Radial Recovery = 98.77%								
As 188.979†	1606.1	492.64	µg/L	3.336	492.64	ppb	3.336	0.68%
QC value within limits for As 188.979 Recovery = 98.53%								
B 249.677†	31943.2	469.45	µg/L	1.755	469.45	ppb	1.755	0.37%
QC value within limits for B 249.677 Recovery = 93.89%								
Ba 233.527†	118586.3	478.25	µg/L	0.193	478.25	ppb	0.193	0.04%
QC value within limits for Ba 233.527 Recovery = 95.65%								
Be 313.107†	1769196.4	481.85	µg/L	0.866	481.85	ppb	0.866	0.18%
QC value within limits for Be 313.107 Recovery = 96.37%								
Ca 317.933Radial†	86676.4	4828.2	µg/L	13.08	4828.2	ppb	13.08	0.27%
QC value within limits for Ca 317.933Radial Recovery = 96.56%								
Cd 226.502†	75795.8	473.15	µg/L	1.563	473.15	ppb	1.563	0.33%
QC value within limits for Cd 226.502 Recovery = 94.63%								
Co 228.616†	38711.4	477.89	µg/L	1.690	477.89	ppb	1.690	0.35%

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   QC value within limits for Co 228.616  Recovery = 95.58%
Cr 267.716†            60536.3      473.99 µg/L         0.676      473.99 ppb          0.676   0.14%
   QC value within limits for Cr 267.716  Recovery = 94.80%
Cu 324.752†           122260.5      476.61 µg/L         0.631      476.61 ppb          0.631   0.13%
   QC value within limits for Cu 324.752  Recovery = 95.32%
Fe 238.204 Radial†     78051.7      4810.6 µg/L         19.41      4810.6 ppb          19.41   0.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.21%
K 766.490 Radial†      13624.4      4984.1 µg/L         12.24      4984.1 ppb          12.24   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 99.68%
Mg 279.077 IEC†        13130.0      4899.5 µg/L         45.49      4899.5 ppb          45.49   0.93%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.99%
Mn 257.610†           387926.8      479.77 µg/L         0.487      479.77 ppb          0.487   0.10%
   QC value within limits for Mn 257.610  Recovery = 95.95%
Mo 202.031†            16121.9      474.24 µg/L         2.474      474.24 ppb          2.474   0.52%
   QC value within limits for Mo 202.031  Recovery = 94.85%
Na 589.592 Radial†     70510.9      9628.2 µg/L         12.09      9628.2 ppb          12.09   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 96.28%
Ni 231.604†            41264.4      475.13 µg/L         1.327      475.13 ppb          1.327   0.28%
   QC value within limits for Ni 231.604  Recovery = 95.03%
P 214.914†             11043.5      2353.8 µg/L         11.71      2353.8 ppb          11.71   0.50%
   QC value within limits for P 214.914  Recovery = 94.15%
Pb 220.353†             8529.9      477.67 µg/L         1.340      477.67 ppb          1.340   0.28%
   QC value within limits for Pb 220.353  Recovery = 95.53%
S 181.975 Axial†        1240.0      924.77 µg/L         6.587      924.77 ppb          6.587   0.71%
   QC value within limits for S 181.975 Axial  Recovery = 92.48%
Sb 206.836†             3979.2      474.10 µg/L         3.102      474.10 ppb          3.102   0.65%
   QC value within limits for Sb 206.836  Recovery = 94.82%
Se 196.026†             1303.4         473 µg/L           8.3         473 ppb            8.3   1.76%
   QC value within limits for Se 196.026  Recovery = 94.66%
SiO2†                  52485.2      5109.7 µg/L          5.44      5109.7 ppb           5.44   0.11%
   QC value within limits for SiO2  Recovery = 95.55%
Si 251.611†           163178.7      2396.3 µg/L          3.71      2396.3 ppb           3.71   0.15%
   QC value within limits for Si 251.611  Recovery = 95.85%
Sn 189.927†             7587.8      474.63 µg/L         3.030      474.63 ppb          3.030   0.64%
   QC value within limits for Sn 189.927  Recovery = 94.93%
Sr 421.552†           233320.8      485.02 µg/L         1.452      485.02 ppb          1.452   0.30%
   QC value within limits for Sr 421.552  Recovery = 97.00%
Ti 334.940†           512910.7      478.58 µg/L         0.100      478.58 ppb          0.100   0.02%
   QC value within limits for Ti 334.940  Recovery = 95.72%
Tl 190.801†             3869.6      482.64 µg/L         2.728      482.64 ppb          2.728   0.57%
   QC value within limits for Tl 190.801  Recovery = 96.53%
U 409.014†              7558.0      470.88 µg/L         8.779      470.88 ppb          8.779   1.86%
   QC value within limits for U 409.014  Recovery = 94.18%
V 292.402†             97153.2      480.23 µg/L         0.396      480.23 ppb          0.396   0.08%
   QC value within limits for V 292.402  Recovery = 96.05%
Zn 213.857†            84643.0      471.74 µg/L         2.432      471.74 ppb          2.432   0.52%
   QC value within limits for Zn 213.857  Recovery = 94.35%
All analyte(s) passed QC.
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Sequence No.: 148
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 0:45:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145813.7	145813.7	99.9	%			00:45:34
1	Al 396.153Radial†	-21.5	41.7	7.7141	µg/L	7.7141	ppb	00:45:54
1	Ca 317.933Radial†	660.7	100.6	5.6043	µg/L	5.6043	ppb	00:45:54
1	Fe 238.204 Radial†	255.4	107.5	6.6275	µg/L	6.6275	ppb	00:45:54
1	K 766.490 Radial†	1930.6	387.4	141.83	µg/L	141.83	ppb	00:45:34
1	Mg 279.077 IEC†	169.2	-21.4	-7.9590	µg/L	-7.9590	ppb	00:45:54
1	Na 589.592 Radial†	1419.6	130.0	17.627	µg/L	17.627	ppb	00:45:34
1	Sr 421.552†	-123.1	12.1	0.0251	µg/L	0.0251	ppb	00:45:34
1	Sc 361.383	1750408.8	1750408.8	101.87	%			00:46:42
1	Y 371.029	1046340.0	1046340.0	101.91	%			00:46:42
1	Ag 328.068†	4173.7	5.5	0.0313	µg/L	0.0313	ppb	00:46:44
1	As 188.979†	-12.6	8.0	2.4214	µg/L	2.4214	ppb	00:47:04
1	B 249.677†	3555.6	-15.7	-0.2323	µg/L	-0.2323	ppb	00:47:04
1	Ba 233.527†	-101.3	36.4	0.1474	µg/L	0.1474	ppb	00:47:04
1	Be 313.107†	-795.6	283.7	0.0772	µg/L	0.0772	ppb	00:46:44
1	Cd 226.502†	-95.6	24.3	0.1514	µg/L	0.1514	ppb	00:47:04
1	Co 228.616†	-179.6	14.0	0.1728	µg/L	0.1728	ppb	00:47:04
1	Cr 267.716†	177.0	-4.8	-0.0365	µg/L	-0.0365	ppb	00:47:04
1	Cu 324.752†	2909.7	-116.1	-0.4503	µg/L	-0.4503	ppb	00:46:44
1	Mn 257.610†	386.8	142.4	0.1765	µg/L	0.1765	ppb	00:47:04
1	Mo 202.031†	-2.5	17.7	0.5193	µg/L	0.5193	ppb	00:47:04
1	Ni 231.604†	-67.3	10.4	0.1201	µg/L	0.1201	ppb	00:47:04
1	P 214.914†	-26.0	-7.6	-1.6208	µg/L	-1.6208	ppb	00:47:04
1	Pb 220.353†	94.4	6.3	0.3548	µg/L	0.3548	ppb	00:47:04
1	S 181.975 Axial†	101.3	-5.6	-4.1728	µg/L	-4.1728	ppb	00:47:04
1	Sb 206.836†	78.6	-3.7	-0.4248	µg/L	-0.4248	ppb	00:47:04
1	Se 196.026†	14.9	-0.6	-0.221	µg/L	-0.221	ppb	00:47:04
1	SiO2†	1836.9	27.8	2.6939	µg/L	2.6939	ppb	00:47:04
1	Si 251.611†	938.9	85.0	1.2435	µg/L	1.2435	ppb	00:46:44
1	Sn 189.927†	6.9	7.9	0.4933	µg/L	0.4933	ppb	00:47:04
1	Ti 334.940†	1245.9	270.5	0.2536	µg/L	0.2536	ppb	00:46:44
1	Tl 190.801†	-106.7	11.9	1.4748	µg/L	1.4748	ppb	00:47:04
1	U 409.014†	-279.4	-4.3	-0.1987	µg/L	-0.1987	ppb	00:46:44
1	V 292.402†	610.8	195.8	0.9591	µg/L	0.9591	ppb	00:46:44
1	Zn 213.857†	602.2	26.7	0.1490	µg/L	0.1490	ppb	00:47:04
2	Sc RADIAL	145033.3	145033.3	99.4	%			00:45:56
2	Al 396.153Radial†	-65.1	-2.3	-0.4158	µg/L	-0.4158	ppb	00:46:16
2	Ca 317.933Radial†	657.9	101.4	5.6466	µg/L	5.6466	ppb	00:46:16
2	Fe 238.204 Radial†	255.9	109.4	6.7397	µg/L	6.7397	ppb	00:46:16
2	K 766.490 Radial†	1898.9	365.8	133.93	µg/L	133.93	ppb	00:45:56
2	Mg 279.077 IEC†	184.6	-5.0	-1.8665	µg/L	-1.8665	ppb	00:46:16
2	Na 589.592 Radial†	1425.5	143.5	19.480	µg/L	19.480	ppb	00:45:56
2	Sr 421.552†	-181.0	-46.9	-0.0975	µg/L	-0.0975	ppb	00:45:56
2	Sc 361.383	1733689.5	1733689.5	100.90	%			00:47:06
2	Y 371.029	1035932.6	1035932.6	100.90	%			00:47:06
2	Ag 328.068†	4170.2	41.6	0.1255	µg/L	0.1255	ppb	00:47:08
2	As 188.979†	-26.8	-6.2	-1.8781	µg/L	-1.8781	ppb	00:47:28
2	B 249.677†	3534.2	-3.2	-0.0484	µg/L	-0.0484	ppb	00:47:28
2	Ba 233.527†	-142.6	-5.5	-0.0225	µg/L	-0.0225	ppb	00:47:28
2	Be 313.107†	-653.6	416.9	0.1076	µg/L	0.1076	ppb	00:47:08
2	Cd 226.502†	-96.3	22.8	0.1415	µg/L	0.1415	ppb	00:47:28
2	Co 228.616†	-179.3	12.7	0.1558	µg/L	0.1558	ppb	00:47:28
2	Cr 267.716†	198.6	18.3	0.1585	µg/L	0.1585	ppb	00:47:28
2	Cu 324.752†	3088.6	88.8	0.3301	µg/L	0.3301	ppb	00:47:08
2	Mn 257.610†	332.3	92.1	0.1140	µg/L	0.1140	ppb	00:47:28
2	Mo 202.031†	-28.0	-7.7	-0.2262	µg/L	-0.2262	ppb	00:47:28
2	Ni 231.604†	-93.8	-16.5	-0.1899	µg/L	-0.1899	ppb	00:47:28
2	P 214.914†	-21.8	-3.7	-0.7885	µg/L	-0.7885	ppb	00:47:28
2	Pb 220.353†	61.7	-25.2	-1.3944	µg/L	-1.3944	ppb	00:47:28

2	S 181.975 Axial†	90.5	-15.4	-11.437 µg/L	-11.437 ppb		00:47:28
2	Sb 206.836†	79.2	-2.4	-0.2858 µg/L	-0.2858 ppb		00:47:28
2	Se 196.026†	19.9	4.4	1.59 µg/L	1.59 ppb		00:47:28
2	SiO2†	1761.9	-29.2	-2.8510 µg/L	-2.8510 ppb		00:47:28
2	Si 251.611†	952.2	107.2	1.5818 µg/L	1.5818 ppb		00:47:08
2	Sn 189.927†	1.6	2.7	0.1708 µg/L	0.1708 ppb		00:47:28
2	Ti 334.940†	1138.7	176.0	0.1727 µg/L	0.1727 ppb		00:47:08
2	Tl 190.801†	-112.9	4.8	0.5868 µg/L	0.5868 ppb		00:47:28
2	U 409.014†	-610.9	-335.5	-19.639 µg/L	-19.639 ppb		00:47:08
2	V 292.402†	335.6	-71.2	-0.3633 µg/L	-0.3633 ppb		00:47:08
2	Zn 213.857†	609.0	39.1	0.2201 µg/L	0.2201 ppb		00:47:28
3	Sc RADIAL	144640.1	144640.1	99.1 %			00:46:18
3	Al 396.153Radial†	-16.5	46.5	8.6229 µg/L	8.6229 ppb		00:46:38
3	Ca 317.933Radial†	641.2	86.3	4.8083 µg/L	4.8083 ppb		00:46:38
3	Fe 238.204 Radial†	234.4	88.4	5.4482 µg/L	5.4482 ppb		00:46:38
3	K 766.490 Radial†	1840.5	312.1	114.26 µg/L	114.26 ppb		00:46:18
3	Mg 279.077 IEC†	179.1	-10.0	-3.7407 µg/L	-3.7407 ppb		00:46:38
3	Na 589.592 Radial†	1296.3	17.0	2.2230 µg/L	2.2230 ppb		00:46:18
3	Sr 421.552†	-133.6	0.5	0.0010 µg/L	0.0010 ppb		00:46:18
3	Sc 361.383	1767241.8	1767241.8	102.85 %			00:47:31
3	Y 371.029	1055815.3	1055815.3	102.84 %			00:47:31
3	Ag 328.068†	4233.0	24.2	0.0732 µg/L	0.0732 ppb		00:47:33
3	As 188.979†	-18.4	2.5	0.7561 µg/L	0.7561 ppb		00:47:53
3	B 249.677†	3514.8	-88.6	-1.3075 µg/L	-1.3075 ppb		00:47:53
3	Ba 233.527†	-120.1	19.1	0.0763 µg/L	0.0763 ppb		00:47:53
3	Be 313.107†	-970.1	121.5	0.0322 µg/L	0.0322 ppb		00:47:33
3	Cd 226.502†	-78.9	41.4	0.2583 µg/L	0.2583 ppb		00:47:53
3	Co 228.616†	-184.4	11.0	0.1355 µg/L	0.1355 ppb		00:47:53
3	Cr 267.716†	190.1	6.2	0.0509 µg/L	0.0509 ppb		00:47:53
3	Cu 324.752†	2968.8	-85.8	-0.3350 µg/L	-0.3350 ppb		00:47:33
3	Mn 257.610†	335.2	88.6	0.1098 µg/L	0.1098 ppb		00:47:53
3	Mo 202.031†	-18.5	2.1	0.0614 µg/L	0.0614 ppb		00:47:53
3	Ni 231.604†	-69.8	8.6	0.0995 µg/L	0.0995 ppb		00:47:53
3	P 214.914†	-21.0	-2.5	-0.5265 µg/L	-0.5265 ppb		00:47:53
3	Pb 220.353†	70.5	-17.8	-0.9923 µg/L	-0.9923 ppb		00:47:53
3	S 181.975 Axial†	109.4	1.3	0.9740 µg/L	0.9740 ppb		00:47:53
3	Sb 206.836†	82.2	-0.9	-0.1044 µg/L	-0.1044 ppb		00:47:53
3	Se 196.026†	22.8	6.9	2.49 µg/L	2.49 ppb		00:47:53
3	SiO2†	1817.9	-7.9	-0.7787 µg/L	-0.7787 ppb		00:47:53
3	Si 251.611†	954.5	91.5	1.3450 µg/L	1.3450 ppb		00:47:33
3	Sn 189.927†	5.8	6.8	0.4211 µg/L	0.4211 ppb		00:47:53
3	Ti 334.940†	1018.9	38.1	0.0372 µg/L	0.0372 ppb		00:47:33
3	Tl 190.801†	-118.1	1.9	0.2233 µg/L	0.2233 ppb		00:47:53
3	U 409.014†	-329.7	-50.7	-3.0245 µg/L	-3.0245 ppb		00:47:33
3	V 292.402†	193.7	-215.4	-1.0528 µg/L	-1.0528 ppb		00:47:33
3	Zn 213.857†	612.8	31.3	0.1753 µg/L	0.1753 ppb		00:47:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1750446.7	101.88	%	0.976				0.96%
Sc RADIAL	145162.4	99.5	%	0.41				0.41%
Y 371.029	1046029.3	101.88	%	0.969				0.95%
Ag 328.068†	23.8	0.0767	µg/L	0.04716	0.0767	ppb	0.04716	61.52%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	28.7	5.3071	µg/L	4.97697	5.3071	ppb	4.97697	93.78%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.4	0.4331	µg/L	2.16790	0.4331	ppb	2.16790	500.51%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-35.9	-0.5294	µg/L	0.68010	-0.5294	ppb	0.68010	128.47%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.7	0.0671	µg/L	0.08530	0.0671	ppb	0.08530	127.20%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	274.1	0.0723	µg/L	0.03793	0.0723	ppb	0.03793	52.45%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	96.1	5.3530	µg/L	0.47226	5.3530	ppb	0.47226	8.82%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	29.5	0.1837	µg/L	0.06479	0.1837	ppb	0.06479	35.27%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.6	0.1547	µg/L	0.01867	0.1547	ppb	0.01867	12.07%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                6.6      0.0576 µg/L       0.09767      0.0576 ppb        0.09767 169.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -37.7     -0.1518 µg/L       0.42126     -0.1518 ppb        0.42126 277.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       101.8      6.2718 µg/L       0.71549      6.2718 ppb        0.71549  11.41%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        355.1      130.01 µg/L        14.197      130.01 ppb         14.197  10.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -12.1     -4.5221 µg/L       3.12050     -4.5221 ppb        3.12050  69.01%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              107.7      0.1334 µg/L       0.03737      0.1334 ppb        0.03737  28.01%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.0      0.1182 µg/L       0.37600      0.1182 ppb        0.37600 318.18%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        96.8      13.110 µg/L        9.4739      13.110 ppb         9.4739  72.26%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                0.9      0.0099 µg/L       0.17332      0.0099 ppb        0.17332 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.6     -0.9786 µg/L       0.57141     -0.9786 ppb        0.57141  58.39%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -12.3     -0.6773 µg/L       0.91616     -0.6773 ppb        0.91616 135.26%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -6.6     -4.8786 µg/L       6.23561     -4.8786 ppb        6.23561 127.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.3     -0.2716 µg/L       0.16066     -0.2716 ppb        0.16066  59.14%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.6        1.28 µg/L         1.379        1.28 ppb          1.379 107.38%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -3.1     -0.3119 µg/L       2.80175     -0.3119 ppb        2.80175 898.16%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               94.6      1.3901 µg/L       0.17359      1.3901 ppb        0.17359  12.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.8      0.3617 µg/L       0.16924      0.3617 ppb        0.16924  46.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -11.4     -0.0238 µg/L       0.06494     -0.0238 ppb        0.06494 273.03%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              161.5      0.1545 µg/L       0.10934      0.1545 ppb        0.10934  70.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.2      0.7616 µg/L       0.64382      0.7616 ppb        0.64382  84.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -130.2     -7.6208 µg/L      10.50370     -7.6208 ppb       10.50370 137.83%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -30.3     -0.1523 µg/L       1.02242     -0.1523 ppb        1.02242 671.32%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               32.4      0.1815 µg/L       0.03598      0.1815 ppb        0.03598  19.83%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 158
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 1:06:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146522.6	146522.6	100	%			01:07:32
1	Al 396.153Radial†	26773.8	26728.7	4933.4	µg/L	4933.4	ppb	01:07:32
1	Ca 317.933Radial†	87529.0	86614.3	4824.8	µg/L	4824.8	ppb	01:07:32
1	Fe 238.204 Radial†	78541.6	78075.8	4812.1	µg/L	4812.1	ppb	01:07:32
1	K 766.490 Radial†	15525.2	13917.7	5091.5	µg/L	5091.5	ppb	01:07:32
1	Mg 279.077 IEC†	13414.6	13169.6	4914.3	µg/L	4914.3	ppb	01:07:32
1	Na 589.592 Radial†	72095.2	70512.7	9628.4	µg/L	9628.4	ppb	01:07:32
1	Sr 421.552†	235357.5	234540.5	487.56	µg/L	487.56	ppb	01:07:30
1	Sc 361.383	1762084.8	1762084.8	102.55	%			01:07:59
1	Y 371.029	1041330.1	1041330.1	101.43	%			01:07:59
1	Ag 328.068†	134973.9	127522.4	478.16	µg/L	478.16	ppb	01:07:59
1	As 188.979†	1631.3	1611.1	494.16	µg/L	494.16	ppb	01:08:19
1	B 249.677†	36407.7	31995.5	470.22	µg/L	470.22	ppb	01:07:59
1	Ba 233.527†	121835.6	118938.4	479.67	µg/L	479.67	ppb	01:07:59
1	Be 313.107†	1812562.4	1768503.2	481.66	µg/L	481.66	ppb	01:07:59
1	Cd 226.502†	77806.6	75987.8	474.35	µg/L	474.35	ppb	01:07:59
1	Co 228.616†	39537.1	38743.2	478.28	µg/L	478.28	ppb	01:07:59
1	Cr 267.716†	62417.9	60685.5	475.17	µg/L	475.17	ppb	01:07:59
1	Cu 324.752†	128335.3	122168.2	476.24	µg/L	476.24	ppb	01:07:59
1	Mn 257.610†	398229.3	388078.1	479.96	µg/L	479.96	ppb	01:07:59
1	Mo 202.031†	16581.6	16188.8	476.21	µg/L	476.21	ppb	01:08:19
1	Ni 231.604†	42325.1	41347.9	476.09	µg/L	476.09	ppb	01:07:59
1	P 214.914†	11363.6	11098.7	2365.6	µg/L	2365.6	ppb	01:08:19
1	Pb 220.353†	8809.5	8503.8	476.23	µg/L	476.23	ppb	01:08:19
1	S 181.975 Axial†	1388.1	1248.5	931.12	µg/L	931.12	ppb	01:08:19
1	Sb 206.836†	4172.3	3987.6	475.12	µg/L	475.12	ppb	01:08:19
1	Se 196.026†	1355.6	1306.5	474	µg/L	474	ppb	01:08:19
1	SiO2†	55579.1	52420.1	5103.2	µg/L	5103.2	ppb	01:07:59
1	Si 251.611†	167664.3	162653.7	2388.5	µg/L	2388.5	ppb	01:07:59
1	Sn 189.927†	7816.4	7622.9	476.82	µg/L	476.82	ppb	01:08:19
1	Ti 334.940†	526571.2	512509.7	478.21	µg/L	478.21	ppb	01:07:59
1	Tl 190.801†	3871.8	3892.1	485.40	µg/L	485.40	ppb	01:08:19
1	U 409.014†	7269.4	7358.4	459.25	µg/L	459.25	ppb	01:07:59
1	V 292.402†	100190.2	97292.2	480.93	µg/L	480.93	ppb	01:07:59
1	Zn 213.857†	87537.1	84793.4	472.58	µg/L	472.58	ppb	01:07:59
2	Sc RADIAL	146791.9	146791.9	101	%			01:07:36
2	Al 396.153Radial†	27048.5	26952.8	4975.0	µg/L	4975.0	ppb	01:07:36
2	Ca 317.933Radial†	87767.1	86691.0	4829.0	µg/L	4829.0	ppb	01:07:36
2	Fe 238.204 Radial†	78690.1	78079.8	4812.4	µg/L	4812.4	ppb	01:07:36
2	K 766.490 Radial†	15502.6	13866.8	5072.9	µg/L	5072.9	ppb	01:07:36
2	Mg 279.077 IEC†	13437.6	13167.9	4913.6	µg/L	4913.6	ppb	01:07:36
2	Na 589.592 Radial†	72405.6	70689.6	9652.5	µg/L	9652.5	ppb	01:07:36
2	Sr 421.552†	234136.0	232896.1	484.14	µg/L	484.14	ppb	01:07:34
2	Sc 361.383	1778604.4	1778604.4	103.51	%			01:08:22
2	Y 371.029	1050375.8	1050375.8	102.31	%			01:08:22
2	Ag 328.068†	136891.1	128152.0	480.51	µg/L	480.51	ppb	01:08:22
2	As 188.979†	1644.9	1609.4	493.66	µg/L	493.66	ppb	01:08:42
2	B 249.677†	36899.1	32140.4	472.35	µg/L	472.35	ppb	01:08:22
2	Ba 233.527†	123076.9	119034.1	480.06	µg/L	480.06	ppb	01:08:22
2	Be 313.107†	1839423.0	1778036.1	484.26	µg/L	484.26	ppb	01:08:22
2	Cd 226.502†	78945.9	76383.7	476.82	µg/L	476.82	ppb	01:08:22
2	Co 228.616†	40112.8	38941.2	480.73	µg/L	480.73	ppb	01:08:22
2	Cr 267.716†	63218.4	60893.4	476.79	µg/L	476.79	ppb	01:08:22
2	Cu 324.752†	130086.8	122697.9	478.30	µg/L	478.30	ppb	01:08:22
2	Mn 257.610†	403480.0	389543.9	481.77	µg/L	481.77	ppb	01:08:22
2	Mo 202.031†	16656.0	16110.6	473.91	µg/L	473.91	ppb	01:08:42
2	Ni 231.604†	42857.3	41478.7	477.60	µg/L	477.60	ppb	01:08:22
2	P 214.914†	11457.7	11086.6	2363.0	µg/L	2363.0	ppb	01:08:42
2	Pb 220.353†	8947.0	8556.9	479.18	µg/L	479.18	ppb	01:08:42

2	S 181.975 Axial†	1398.9	1246.4	929.54 µg/L	929.54 ppb	01:08:42
2	Sb 206.836†	4203.2	3979.6	474.11 µg/L	474.11 ppb	01:08:42
2	Se 196.026†	1349.5	1288.4	468 µg/L	468 ppb	01:08:42
2	SiO2†	56478.7	52785.7	5139.0 µg/L	5139.0 ppb	01:08:22
2	Si 251.611†	170057.2	163446.9	2400.2 µg/L	2400.2 ppb	01:08:22
2	Sn 189.927†	7878.0	7611.7	476.13 µg/L	476.13 ppb	01:08:42
2	Ti 334.940†	533494.1	514428.5	480.00 µg/L	480.00 ppb	01:08:22
2	Tl 190.801†	3890.7	3875.3	483.36 µg/L	483.36 ppb	01:08:42
2	U 409.014†	7435.4	7452.8	464.82 µg/L	464.82 ppb	01:08:22
2	V 292.402†	101287.4	97444.7	481.66 µg/L	481.66 ppb	01:08:22
2	Zn 213.857†	88719.7	85143.1	474.54 µg/L	474.54 ppb	01:08:22
3	Sc RADIAL	146092.3	146092.3	100 %		01:07:40
3	Al 396.153Radial†	26892.5	26925.8	4970.0 µg/L	4970.0 ppb	01:07:40
3	Ca 317.933Radial†	87875.3	87217.0	4858.3 µg/L	4858.3 ppb	01:07:40
3	Fe 238.204 Radial†	78732.4	78496.7	4838.1 µg/L	4838.1 ppb	01:07:40
3	K 766.490 Radial†	15647.7	14085.6	5152.9 µg/L	5152.9 ppb	01:07:40
3	Mg 279.077 IEC†	13491.9	13286.2	4957.7 µg/L	4957.7 ppb	01:07:40
3	Na 589.592 Radial†	72348.8	70977.5	9691.8 µg/L	9691.8 ppb	01:07:40
3	Sr 421.552†	235009.5	234883.4	488.27 µg/L	488.27 ppb	01:07:38
3	Sc 361.383	1770348.4	1770348.4	103.03 %		01:08:45
3	Y 371.029	1045407.1	1045407.1	101.82 %		01:08:45
3	Ag 328.068†	136122.4	128022.6	480.04 µg/L	480.04 ppb	01:08:45
3	As 188.979†	1638.1	1610.2	493.91 µg/L	493.91 ppb	01:09:05
3	B 249.677†	36651.5	32066.4	471.25 µg/L	471.25 ppb	01:08:45
3	Ba 233.527†	122673.9	119197.4	480.72 µg/L	480.72 ppb	01:08:45
3	Be 313.107†	1829445.6	1776639.3	483.88 µg/L	483.88 ppb	01:08:45
3	Cd 226.502†	78812.0	76609.4	478.23 µg/L	478.23 ppb	01:08:45
3	Co 228.616†	40059.1	39069.8	482.31 µg/L	482.31 ppb	01:08:45
3	Cr 267.716†	62827.7	60799.1	476.05 µg/L	476.05 ppb	01:08:45
3	Cu 324.752†	129210.5	122433.4	477.28 µg/L	477.28 ppb	01:08:45
3	Mn 257.610†	402215.3	390134.2	482.50 µg/L	482.50 ppb	01:08:45
3	Mo 202.031†	16594.4	16125.8	474.36 µg/L	474.36 ppb	01:09:05
3	Ni 231.604†	42691.2	41510.6	477.96 µg/L	477.96 ppb	01:08:45
3	P 214.914†	11386.0	11068.7	2359.2 µg/L	2359.2 ppb	01:09:05
3	Pb 220.353†	8898.6	8550.2	478.81 µg/L	478.81 ppb	01:09:05
3	S 181.975 Axial†	1408.3	1261.7	940.94 µg/L	940.94 ppb	01:09:05
3	Sb 206.836†	4205.9	4001.2	476.70 µg/L	476.70 ppb	01:09:05
3	Se 196.026†	1357.9	1302.6	473 µg/L	473 ppb	01:09:05
3	SiO2†	56197.3	52767.1	5137.2 µg/L	5137.2 ppb	01:08:45
3	Si 251.611†	169573.7	163743.8	2404.6 µg/L	2404.6 ppb	01:08:45
3	Sn 189.927†	7850.8	7620.8	476.69 µg/L	476.69 ppb	01:09:05
3	Ti 334.940†	530475.4	513902.1	479.51 µg/L	479.51 ppb	01:08:45
3	Tl 190.801†	3897.8	3899.7	486.34 µg/L	486.34 ppb	01:09:05
3	U 409.014†	7446.2	7496.8	467.41 µg/L	467.41 ppb	01:08:45
3	V 292.402†	100857.9	97484.1	481.85 µg/L	481.85 ppb	01:08:45
3	Zn 213.857†	88341.1	85175.3	474.71 µg/L	474.71 ppb	01:08:45

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1770345.9	103.03	%	0.481				0.47%
Sc RADIAL	146468.9	100	%	0.2				0.24%
Y 371.029	1045704.3	101.85	%	0.441				0.43%
Ag 328.068†	127899.0	479.57	µg/L	1.241	479.57	ppb	1.241	0.26%
QC value within limits for Ag 328.068 Recovery = 95.91%								
Al 396.153Radial†	26869.1	4959.5	µg/L	22.74	4959.5	ppb	22.74	0.46%
QC value within limits for Al 396.153Radial Recovery = 99.19%								
As 188.979†	1610.2	493.91	µg/L	0.253	493.91	ppb	0.253	0.05%
QC value within limits for As 188.979 Recovery = 98.78%								
B 249.677†	32067.4	471.27	µg/L	1.065	471.27	ppb	1.065	0.23%
QC value within limits for B 249.677 Recovery = 94.25%								
Ba 233.527†	119056.6	480.15	µg/L	0.528	480.15	ppb	0.528	0.11%
QC value within limits for Ba 233.527 Recovery = 96.03%								
Be 313.107†	1774392.9	483.27	µg/L	1.403	483.27	ppb	1.403	0.29%
QC value within limits for Be 313.107 Recovery = 96.65%								
Ca 317.933Radial†	86840.8	4837.4	µg/L	18.28	4837.4	ppb	18.28	0.38%
QC value within limits for Ca 317.933Radial Recovery = 96.75%								
Cd 226.502†	76327.0	476.46	µg/L	1.965	476.46	ppb	1.965	0.41%
QC value within limits for Cd 226.502 Recovery = 95.29%								
Co 228.616†	38918.0	480.44	µg/L	2.030	480.44	ppb	2.030	0.42%

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   QC value within limits for Co 228.616  Recovery = 96.09%
Cr 267.716†            60792.6      476.00 µg/L         0.813      476.00 ppb          0.813   0.17%
   QC value within limits for Cr 267.716  Recovery = 95.20%
Cu 324.752†           122433.2      477.28 µg/L         1.032      477.28 ppb          1.032   0.22%
   QC value within limits for Cu 324.752  Recovery = 95.46%
Fe 238.204 Radial†     78217.4      4820.8 µg/L         14.91      4820.8 ppb          14.91   0.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.42%
K 766.490 Radial†      13956.7      5105.8 µg/L         41.90      5105.8 ppb          41.90   0.82%
   QC value within limits for K 766.490 Radial  Recovery = 102.12%
Mg 279.077 IEC†        13207.9      4928.5 µg/L         25.24      4928.5 ppb          25.24   0.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.57%
Mn 257.610†           389252.0      481.41 µg/L         1.309      481.41 ppb          1.309   0.27%
   QC value within limits for Mn 257.610  Recovery = 96.28%
Mo 202.031†            16141.8      474.83 µg/L         1.219      474.83 ppb          1.219   0.26%
   QC value within limits for Mo 202.031  Recovery = 94.97%
Na 589.592 Radial†     70726.6      9657.6 µg/L         32.02      9657.6 ppb          32.02   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 96.58%
Ni 231.604†            41445.7      477.22 µg/L         0.992      477.22 ppb          0.992   0.21%
   QC value within limits for Ni 231.604  Recovery = 95.44%
P 214.914†             11084.6      2362.6 µg/L          3.23      2362.6 ppb           3.23   0.14%
   QC value within limits for P 214.914  Recovery = 94.50%
Pb 220.353†             8537.0      478.07 µg/L         1.609      478.07 ppb          1.609   0.34%
   QC value within limits for Pb 220.353  Recovery = 95.61%
S 181.975 Axial†        1252.2      933.87 µg/L         6.179      933.87 ppb          6.179   0.66%
   QC value within limits for S 181.975 Axial  Recovery = 93.39%
Sb 206.836†             3989.5      475.31 µg/L         1.305      475.31 ppb          1.305   0.27%
   QC value within limits for Sb 206.836  Recovery = 95.06%
Se 196.026†             1299.2         472 µg/L           3.5         472 ppb            3.5   0.73%
   QC value within limits for Se 196.026  Recovery = 94.36%
SiO2†                  52657.7      5126.5 µg/L         20.17      5126.5 ppb          20.17   0.39%
   QC value within limits for SiO2  Recovery = 95.87%
Si 251.611†           163281.5      2397.8 µg/L          8.32      2397.8 ppb           8.32   0.35%
   QC value within limits for Si 251.611  Recovery = 95.91%
Sn 189.927†             7618.4      476.55 µg/L         0.370      476.55 ppb          0.370   0.08%
   QC value within limits for Sn 189.927  Recovery = 95.31%
Sr 421.552†           234106.7      486.66 µg/L         2.208      486.66 ppb          2.208   0.45%
   QC value within limits for Sr 421.552  Recovery = 97.33%
Ti 334.940†           513613.4      479.24 µg/L         0.924      479.24 ppb          0.924   0.19%
   QC value within limits for Ti 334.940  Recovery = 95.85%
Tl 190.801†             3889.0      485.03 µg/L         1.526      485.03 ppb          1.526   0.31%
   QC value within limits for Tl 190.801  Recovery = 97.01%
U 409.014†              7436.0      463.82 µg/L         4.171      463.82 ppb          4.171   0.90%
   QC value within limits for U 409.014  Recovery = 92.76%
V 292.402†             97407.0      481.48 µg/L         0.487      481.48 ppb          0.487   0.10%
   QC value within limits for V 292.402  Recovery = 96.30%
Zn 213.857†            85037.3      473.94 µg/L         1.182      473.94 ppb          1.182   0.25%
   QC value within limits for Zn 213.857  Recovery = 94.79%
All analyte(s) passed QC.
```

Sequence No.: 159 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/1/2010 1:09:13**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146128.5	146128.5	100	%			01:09:42
1	Al 396.153Radial†	21.7	84.8	15.716	µg/L	15.716	ppb	01:10:02
1	Ca 317.933Radial†	736.1	174.5	9.7222	µg/L	9.7222	ppb	01:10:02
1	Fe 238.204 Radial†	312.8	164.3	10.127	µg/L	10.127	ppb	01:10:02
1	K 766.490 Radial†	2113.9	566.2	207.29	µg/L	207.29	ppb	01:09:42
1	Mg 279.077 IEC†	213.9	22.9	8.5204	µg/L	8.5204	ppb	01:10:02
1	Na 589.592 Radial†	1401.2	108.5	14.644	µg/L	14.644	ppb	01:09:42
1	Sr 421.552†	-140.7	-5.2	-0.0110	µg/L	-0.0110	ppb	01:09:42
1	Sc 361.383	1779002.1	1779002.1	103.54	%			01:11:04
1	Y 371.029	1062055.8	1062055.8	103.44	%			01:11:04
1	Ag 328.068†	4011.9	-216.6	-0.7870	µg/L	-0.7870	ppb	01:11:06
1	As 188.979†	-3.3	17.2	5.2109	µg/L	5.2109	ppb	01:11:26
1	B 249.677†	3579.4	-48.7	-0.7204	µg/L	-0.7204	ppb	01:11:06
1	Ba 233.527†	-100.8	38.5	0.1554	µg/L	0.1554	ppb	01:11:26
1	Be 313.107†	-912.4	183.5	0.0524	µg/L	0.0524	ppb	01:11:06
1	Cd 226.502†	-113.0	9.1	0.0554	µg/L	0.0554	ppb	01:11:26
1	Co 228.616†	-162.1	33.7	0.4158	µg/L	0.4158	ppb	01:11:26
1	Cr 267.716†	218.6	32.5	0.2490	µg/L	0.2490	ppb	01:11:26
1	Cu 324.752†	2858.4	-211.5	-0.8135	µg/L	-0.8135	ppb	01:11:06
1	Mn 257.610†	394.6	143.8	0.1776	µg/L	0.1776	ppb	01:11:26
1	Mo 202.031†	-10.8	9.7	0.2849	µg/L	0.2849	ppb	01:11:26
1	Ni 231.604†	-102.3	-22.3	-0.2566	µg/L	-0.2566	ppb	01:11:26
1	P 214.914†	-11.8	6.6	1.4104	µg/L	1.4104	ppb	01:11:26
1	Pb 220.353†	58.5	-29.9	-1.6702	µg/L	-1.6702	ppb	01:11:26
1	S 181.975 Axial†	94.9	-13.4	-9.9448	µg/L	-9.9448	ppb	01:11:26
1	Sb 206.836†	73.9	-9.4	-1.1181	µg/L	-1.1181	ppb	01:11:26
1	Se 196.026†	3.0	-12.4	-4.47	µg/L	-4.47	ppb	01:11:26
1	SiO2†	1673.9	-158.6	-15.514	µg/L	-15.514	ppb	01:11:06
1	Si 251.611†	875.4	8.9	0.1281	µg/L	0.1281	ppb	01:11:06
1	Sn 189.927†	-1.0	0.1	0.0104	µg/L	0.0104	ppb	01:11:26
1	Ti 334.940†	1332.9	334.8	0.3090	µg/L	0.3090	ppb	01:11:06
1	Tl 190.801†	-105.0	15.3	1.8866	µg/L	1.8866	ppb	01:11:26
1	U 409.014†	-139.3	135.4	7.9422	µg/L	7.9422	ppb	01:11:06
1	V 292.402†	520.5	98.9	0.4905	µg/L	0.4905	ppb	01:11:06
1	Zn 213.857†	599.7	14.8	0.0844	µg/L	0.0844	ppb	01:11:26
2	Sc RADIAL	146813.6	146813.6	101	%			01:10:04
2	Al 396.153Radial†	-26.8	36.6	6.7739	µg/L	6.7739	ppb	01:10:24
2	Ca 317.933Radial†	799.6	234.2	13.044	µg/L	13.044	ppb	01:10:24
2	Fe 238.204 Radial†	380.9	230.5	14.206	µg/L	14.206	ppb	01:10:24
2	K 766.490 Radial†	2016.0	459.1	168.07	µg/L	168.07	ppb	01:10:04
2	Mg 279.077 IEC†	199.3	7.4	2.7300	µg/L	2.7300	ppb	01:10:24
2	Na 589.592 Radial†	1532.0	232.0	31.539	µg/L	31.539	ppb	01:10:04
2	Sr 421.552†	-276.0	-139.1	-0.2892	µg/L	-0.2892	ppb	01:10:04
2	Sc 361.383	1772846.3	1772846.3	103.18	%			01:11:28
2	Y 371.029	1058367.3	1058367.3	103.09	%			01:11:28
2	Ag 328.068†	3953.0	-260.2	-0.9687	µg/L	-0.9687	ppb	01:11:30
2	As 188.979†	-11.1	9.6	2.9020	µg/L	2.9020	ppb	01:11:51
2	B 249.677†	3504.7	-109.2	-1.6118	µg/L	-1.6118	ppb	01:11:30
2	Ba 233.527†	-93.1	45.6	0.1835	µg/L	0.1835	ppb	01:11:51
2	Be 313.107†	-921.0	172.1	0.0458	µg/L	0.0458	ppb	01:11:30
2	Cd 226.502†	-118.2	3.6	0.0212	µg/L	0.0212	ppb	01:11:51
2	Co 228.616†	-173.4	22.3	0.2745	µg/L	0.2745	ppb	01:11:51
2	Cr 267.716†	185.2	0.9	0.0101	µg/L	0.0101	ppb	01:11:51
2	Cu 324.752†	2984.8	-79.4	-0.3090	µg/L	-0.3090	ppb	01:11:30
2	Mn 257.610†	358.6	110.3	0.1363	µg/L	0.1363	ppb	01:11:51
2	Mo 202.031†	-18.5	2.1	0.0628	µg/L	0.0628	ppb	01:11:51
2	Ni 231.604†	-79.0	-0.0	-0.0005	µg/L	-0.0005	ppb	01:11:51
2	P 214.914†	-17.7	0.8	0.1744	µg/L	0.1744	ppb	01:11:51
2	Pb 220.353†	91.7	2.4	0.1393	µg/L	0.1393	ppb	01:11:51

2	S 181.975 Axial†	93.2	-14.7	-10.902 µg/L	-10.902 ppb	01:11:51
2	Sb 206.836†	88.1	4.5	0.5418 µg/L	0.5418 ppb	01:11:51
2	Se 196.026†	30.0	13.8	4.99 µg/L	4.99 ppb	01:11:51
2	SiO2†	1856.5	23.9	2.3278 µg/L	2.3278 ppb	01:11:30
2	Si 251.611†	711.9	-146.6	-2.1655 µg/L	-2.1655 ppb	01:11:30
2	Sn 189.927†	7.1	8.0	0.4985 µg/L	0.4985 ppb	01:11:51
2	Ti 334.940†	1070.6	85.1	0.0810 µg/L	0.0810 ppb	01:11:30
2	Tl 190.801†	-109.4	10.7	1.3129 µg/L	1.3129 ppb	01:11:51
2	U 409.014†	-338.3	-58.0	-3.3954 µg/L	-3.3954 ppb	01:11:30
2	V 292.402†	407.5	-8.8	-0.0463 µg/L	-0.0463 ppb	01:11:30
2	Zn 213.857†	608.7	25.6	0.1424 µg/L	0.1424 ppb	01:11:51
3	Sc RADIAL	143813.7	143813.7	98.5 %		01:10:26
3	Al 396.153Radial†	-37.9	24.7	4.5852 µg/L	4.5852 ppb	01:10:46
3	Ca 317.933Radial†	675.0	124.4	6.9283 µg/L	6.9283 ppb	01:10:46
3	Fe 238.204 Radial†	268.6	124.4	7.6689 µg/L	7.6689 ppb	01:10:46
3	K 766.490 Radial†	2088.7	574.6	210.37 µg/L	210.37 ppb	01:10:26
3	Mg 279.077 IEC†	196.5	8.7	3.2166 µg/L	3.2166 ppb	01:10:46
3	Na 589.592 Radial†	1456.5	187.1	25.377 µg/L	25.377 ppb	01:10:26
3	Sr 421.552†	-185.3	-52.7	-0.1097 µg/L	-0.1097 ppb	01:10:26
3	Sc 361.383	1766720.8	1766720.8	102.82 %		01:11:53
3	Y 371.029	1055436.7	1055436.7	102.80 %		01:11:53
3	Ag 328.068†	4141.9	-63.2	-0.2377 µg/L	-0.2377 ppb	01:11:55
3	As 188.979†	-13.9	6.9	2.0745 µg/L	2.0745 ppb	01:12:15
3	B 249.677†	3478.7	-122.7	-1.8116 µg/L	-1.8116 ppb	01:11:55
3	Ba 233.527†	-110.8	28.1	0.1129 µg/L	0.1129 ppb	01:12:15
3	Be 313.107†	-876.4	212.4	0.0574 µg/L	0.0574 ppb	01:11:55
3	Cd 226.502†	-103.6	17.5	0.1084 µg/L	0.1084 ppb	01:12:15
3	Co 228.616†	-163.0	31.7	0.3914 µg/L	0.3914 ppb	01:12:15
3	Cr 267.716†	182.9	-0.6	-0.0038 µg/L	-0.0038 ppb	01:12:15
3	Cu 324.752†	2678.2	-367.6	-1.4282 µg/L	-1.4282 ppb	01:11:55
3	Mn 257.610†	398.1	149.9	0.1853 µg/L	0.1853 ppb	01:12:15
3	Mo 202.031†	-22.2	-1.5	-0.0432 µg/L	-0.0432 ppb	01:12:15
3	Ni 231.604†	-66.6	11.8	0.1354 µg/L	0.1354 ppb	01:12:15
3	P 214.914†	-21.4	-2.9	-0.5979 µg/L	-0.5979 ppb	01:12:15
3	Pb 220.353†	84.0	-4.7	-0.2620 µg/L	-0.2620 ppb	01:12:15
3	S 181.975 Axial†	104.4	-3.6	-2.6485 µg/L	-2.6485 ppb	01:12:15
3	Sb 206.836†	79.6	-3.4	-0.4028 µg/L	-0.4028 ppb	01:12:15
3	Se 196.026†	9.2	-6.3	-2.29 µg/L	-2.29 ppb	01:12:15
3	SiO2†	1792.3	-32.2	-3.1590 µg/L	-3.1590 ppb	01:11:55
3	Si 251.611†	915.0	53.3	0.7827 µg/L	0.7827 ppb	01:11:55
3	Sn 189.927†	8.6	9.4	0.5891 µg/L	0.5891 ppb	01:12:15
3	Ti 334.940†	1052.9	71.4	0.0672 µg/L	0.0672 ppb	01:11:55
3	Tl 190.801†	-98.3	21.1	2.5907 µg/L	2.5907 ppb	01:12:15
3	U 409.014†	-302.2	-24.1	-1.4147 µg/L	-1.4147 ppb	01:11:55
3	V 292.402†	386.4	-28.0	-0.1388 µg/L	-0.1388 ppb	01:11:55
3	Zn 213.857†	594.9	14.1	0.0789 µg/L	0.0789 ppb	01:12:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1772856.4	103.18	%	0.357				0.35%
Sc RADIAL	145585.3	99.8	%	1.08				1.08%
Y 371.029	1058619.9	103.11	%	0.323				0.31%
Ag 328.068†	-180.0	-0.6645	µg/L	0.38057	-0.6645	ppb	0.38057	57.27%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	48.7	9.0249	µg/L	5.89678	9.0249	ppb	5.89678	65.34%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.2	3.3958	µg/L	1.62548	3.3958	ppb	1.62548	47.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-93.6	-1.3813	µg/L	0.58098	-1.3813	ppb	0.58098	42.06%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	37.4	0.1506	µg/L	0.03553	0.1506	ppb	0.03553	23.59%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	189.3	0.0519	µg/L	0.00580	0.0519	ppb	0.00580	11.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	177.7	9.8982	µg/L	3.06173	9.8982	ppb	3.06173	30.93%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.1	0.0617	µg/L	0.04391	0.0617	ppb	0.04391	71.22%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	29.3	0.3606	µg/L	0.07550	0.3606	ppb	0.07550	20.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              10.9      0.0851 µg/L       0.14212      0.0851 ppb        0.14212 167.04%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -219.5     -0.8502 µg/L       0.56051     -0.8502 ppb        0.56051  65.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      173.1      10.667 µg/L        3.3019      10.667 ppb         3.3019  30.95%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       533.3      195.24 µg/L        23.585      195.24 ppb         23.585  12.08%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          13.0      4.8223 µg/L       3.21185      4.8223 ppb        3.21185  66.60%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             134.7      0.1664 µg/L       0.02633      0.1664 ppb        0.02633  15.82%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               3.4      0.1015 µg/L       0.16744      0.1015 ppb        0.16744 165.00%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      175.9      23.853 µg/L        8.5497      23.853 ppb         8.5497  35.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -3.5     -0.0406 µg/L       0.19901     -0.0406 ppb        0.19901 490.53%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                1.5      0.3289 µg/L       1.01302      0.3289 ppb        1.01302 307.97%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -10.7     -0.5976 µg/L       0.95031     -0.5976 ppb        0.95031 159.02%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -10.5     -7.8319 µg/L       4.51438     -7.8319 ppb        4.51438  57.64%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.8     -0.3264 µg/L       0.83261     -0.3264 ppb        0.83261 255.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.6      -0.590 µg/L        4.9553      -0.590 ppb         4.9553 839.18%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -55.7     -5.4482 µg/L       9.13833     -5.4482 ppb        9.13833 167.73%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -28.1     -0.4183 µg/L       1.54819     -0.4183 ppb        1.54819 370.16%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               5.9      0.3660 µg/L       0.31130      0.3660 ppb        0.31130  85.06%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -65.7     -0.1366 µg/L       0.14107     -0.1366 ppb        0.14107 103.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             163.8      0.1524 µg/L       0.13582      0.1524 ppb        0.13582  89.12%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              15.7      1.9301 µg/L       0.63996      1.9301 ppb        0.63996  33.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               17.8      1.0440 µg/L       6.05550      1.0440 ppb        6.05550 580.00%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               20.7      0.1018 µg/L       0.33976      0.1018 ppb        0.33976 333.78%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              18.2      0.1019 µg/L       0.03517      0.1019 ppb        0.03517  34.52%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 169
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 1:30:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142269.6	142269.6	97.5	%			01:31:08
1	Al 396.153Radial†	26265.9	27004.9	4984.5	µg/L	4984.5	ppb	01:31:08
1	Ca 317.933Radial†	85749.5	87395.0	4868.2	µg/L	4868.2	ppb	01:31:08
1	Fe 238.204 Radial†	76157.7	77968.9	4805.5	µg/L	4805.5	ppb	01:31:08
1	K 766.490 Radial†	14863.6	13701.2	5012.2	µg/L	5012.2	ppb	01:31:08
1	Mg 279.077 IEC†	13087.6	13233.6	4938.2	µg/L	4938.2	ppb	01:31:08
1	Na 589.592 Radial†	70110.3	70623.2	9643.5	µg/L	9643.5	ppb	01:31:08
1	Sr 421.552†	227619.3	233610.5	485.62	µg/L	485.62	ppb	01:31:06
1	Sc 361.383	1737460.4	1737460.4	101.12	%			01:31:21
1	Y 371.029	1026728.3	1026728.3	100.00	%			01:31:21
1	Ag 328.068†	133485.2	127915.4	479.59	µg/L	479.59	ppb	01:31:21
1	As 188.979†	1620.0	1622.4	497.58	µg/L	497.58	ppb	01:31:41
1	B 249.677†	35927.2	32023.4	470.63	µg/L	470.63	ppb	01:31:21
1	Ba 233.527†	119703.8	118513.9	477.96	µg/L	477.96	ppb	01:31:21
1	Be 313.107†	1789882.8	1771124.1	482.37	µg/L	482.37	ppb	01:31:21
1	Cd 226.502†	77069.2	76333.9	476.51	µg/L	476.51	ppb	01:31:21
1	Co 228.616†	38976.7	38735.3	478.19	µg/L	478.19	ppb	01:31:21
1	Cr 267.716†	61508.0	60648.2	474.88	µg/L	474.88	ppb	01:31:21
1	Cu 324.752†	126624.4	122249.8	476.55	µg/L	476.55	ppb	01:31:21
1	Mn 257.610†	392973.5	388384.0	480.34	µg/L	480.34	ppb	01:31:21
1	Mo 202.031†	16410.6	16248.9	477.97	µg/L	477.97	ppb	01:31:41
1	Ni 231.604†	41598.2	41214.0	474.55	µg/L	474.55	ppb	01:31:21
1	P 214.914†	11285.5	11178.5	2382.7	µg/L	2382.7	ppb	01:31:41
1	Pb 220.353†	8747.8	8564.6	479.64	µg/L	479.64	ppb	01:31:41
1	S 181.975 Axial†	1374.4	1254.1	935.33	µg/L	935.33	ppb	01:31:41
1	Sb 206.836†	4142.8	4016.1	478.53	µg/L	478.53	ppb	01:31:41
1	Se 196.026†	1343.3	1313.1	477	µg/L	477	ppb	01:31:41
1	SiO2†	54906.9	52523.5	5113.2	µg/L	5113.2	ppb	01:31:21
1	Si 251.611†	165514.0	162844.3	2391.3	µg/L	2391.3	ppb	01:31:21
1	Sn 189.927†	7741.6	7657.0	478.94	µg/L	478.94	ppb	01:31:41
1	Ti 334.940†	519154.2	512451.9	478.16	µg/L	478.16	ppb	01:31:21
1	Tl 190.801†	3844.3	3918.4	488.62	µg/L	488.62	ppb	01:31:41
1	U 409.014†	7036.4	7228.4	451.59	µg/L	451.59	ppb	01:31:21
1	V 292.402†	98555.4	97060.1	479.81	µg/L	479.81	ppb	01:31:21
1	Zn 213.857†	86480.2	84958.0	473.52	µg/L	473.52	ppb	01:31:21
2	Sc RADIAL	145492.3	145492.3	99.7	%			01:31:12
2	Al 396.153Radial†	26699.5	26843.0	4954.3	µg/L	4954.3	ppb	01:31:12
2	Ca 317.933Radial†	88239.7	87944.4	4898.8	µg/L	4898.8	ppb	01:31:12
2	Fe 238.204 Radial†	78454.6	78542.4	4840.9	µg/L	4840.9	ppb	01:31:12
2	K 766.490 Radial†	15155.4	13656.2	4995.8	µg/L	4995.8	ppb	01:31:12
2	Mg 279.077 IEC†	13542.7	13392.7	4997.5	µg/L	4997.5	ppb	01:31:12
2	Na 589.592 Radial†	71767.1	70692.1	9653.0	µg/L	9653.0	ppb	01:31:12
2	Sr 421.552†	228188.0	229009.4	476.06	µg/L	476.06	ppb	01:31:10
2	Sc 361.383	1723000.0	1723000.0	100.28	%			01:31:44
2	Y 371.029	1017920.8	1017920.8	99.146	%			01:31:44
2	Ag 328.068†	131837.8	127380.5	477.62	µg/L	477.62	ppb	01:31:44
2	As 188.979†	1612.3	1628.2	499.35	µg/L	499.35	ppb	01:32:04
2	B 249.677†	35506.1	31901.7	468.84	µg/L	468.84	ppb	01:31:44
2	Ba 233.527†	118538.3	118345.2	477.28	µg/L	477.28	ppb	01:31:44
2	Be 313.107†	1770416.1	1766566.8	481.14	µg/L	481.14	ppb	01:31:44
2	Cd 226.502†	75820.7	75728.5	472.72	µg/L	472.72	ppb	01:31:44
2	Co 228.616†	38468.3	38551.9	475.92	µg/L	475.92	ppb	01:31:44
2	Cr 267.716†	60774.3	60427.1	473.14	µg/L	473.14	ppb	01:31:44
2	Cu 324.752†	125187.6	121867.9	475.08	µg/L	475.08	ppb	01:31:44
2	Mn 257.610†	388045.5	386731.2	478.29	µg/L	478.29	ppb	01:31:44
2	Mo 202.031†	16407.0	16381.6	481.87	µg/L	481.87	ppb	01:32:04
2	Ni 231.604†	41306.7	41268.5	475.18	µg/L	475.18	ppb	01:31:44
2	P 214.914†	11273.6	11260.3	2400.2	µg/L	2400.2	ppb	01:32:04
2	Pb 220.353†	8792.2	8681.5	486.15	µg/L	486.15	ppb	01:32:04

2	S 181.975 Axial†	1379.3	1270.4	947.45 µg/L	947.45 ppb	01:32:04
2	Sb 206.836†	4139.2	4046.9	482.29 µg/L	482.29 ppb	01:32:04
2	Se 196.026†	1342.4	1323.4	481 µg/L	481 ppb	01:32:04
2	SiO2†	54127.5	52201.9	5081.6 µg/L	5081.6 ppb	01:31:44
2	Si 251.611†	163587.2	162296.6	2383.1 µg/L	2383.1 ppb	01:31:44
2	Sn 189.927†	7748.5	7728.1	483.38 µg/L	483.38 ppb	01:32:04
2	Ti 334.940†	513666.6	511288.3	477.06 µg/L	477.06 ppb	01:31:44
2	Tl 190.801†	3848.1	3954.1	493.00 µg/L	493.00 ppb	01:32:04
2	U 409.014†	7224.9	7474.7	465.94 µg/L	465.94 ppb	01:31:44
2	V 292.402†	97625.8	96951.0	479.31 µg/L	479.31 ppb	01:31:44
2	Zn 213.857†	85297.5	84496.3	470.92 µg/L	470.92 ppb	01:31:44
3	Sc RADIAL	144017.2	144017.2	98.7 %		01:31:16
3	Al 396.153Radial†	26612.6	27029.2	4989.1 µg/L	4989.1 ppb	01:31:16
3	Ca 317.933Radial†	87344.0	87943.4	4898.8 µg/L	4898.8 ppb	01:31:16
3	Fe 238.204 Radial†	77641.1	78524.1	4839.7 µg/L	4839.7 ppb	01:31:16
3	K 766.490 Radial†	15113.2	13769.2	5037.1 µg/L	5037.1 ppb	01:31:16
3	Mg 279.077 IEC†	13475.2	13463.5	5023.8 µg/L	5023.8 ppb	01:31:16
3	Na 589.592 Radial†	71081.3	70734.5	9658.7 µg/L	9658.7 ppb	01:31:16
3	Sr 421.552†	230195.4	233387.7	485.16 µg/L	485.16 ppb	01:31:14
3	Sc 361.383	1737670.0	1737670.0	101.13 %		01:32:07
3	Y 371.029	1026144.0	1026144.0	99.947 %		01:32:07
3	Ag 328.068†	133325.2	127741.3	478.98 µg/L	478.98 ppb	01:32:07
3	As 188.979†	1614.3	1616.6	495.84 µg/L	495.84 ppb	01:32:27
3	B 249.677†	36063.6	32154.0	472.55 µg/L	472.55 ppb	01:32:07
3	Ba 233.527†	119791.6	118586.4	478.26 µg/L	478.26 ppb	01:32:07
3	Be 313.107†	1794420.6	1775397.7	483.54 µg/L	483.54 ppb	01:32:07
3	Cd 226.502†	76706.1	75965.7	474.21 µg/L	474.21 ppb	01:32:07
3	Co 228.616†	39092.4	38845.1	479.54 µg/L	479.54 ppb	01:32:07
3	Cr 267.716†	61552.9	60685.3	475.16 µg/L	475.16 ppb	01:32:07
3	Cu 324.752†	126672.9	122282.6	476.70 µg/L	476.70 ppb	01:32:07
3	Mn 257.610†	392785.8	388151.5	480.05 µg/L	480.05 ppb	01:32:07
3	Mo 202.031†	16368.2	16205.0	476.69 µg/L	476.69 ppb	01:32:27
3	Ni 231.604†	41743.6	41352.8	476.15 µg/L	476.15 ppb	01:32:07
3	P 214.914†	11241.9	11134.0	2373.1 µg/L	2373.1 ppb	01:32:27
3	Pb 220.353†	8768.9	8584.4	480.73 µg/L	480.73 ppb	01:32:27
3	S 181.975 Axial†	1366.4	1246.1	929.32 µg/L	929.32 ppb	01:32:27
3	Sb 206.836†	4129.1	4002.1	476.84 µg/L	476.84 ppb	01:32:27
3	Se 196.026†	1336.5	1306.3	474 µg/L	474 ppb	01:32:27
3	SiO2†	54817.6	52428.6	5104.0 µg/L	5104.0 ppb	01:32:07
3	Si 251.611†	165658.0	162967.0	2393.1 µg/L	2393.1 ppb	01:32:07
3	Sn 189.927†	7715.6	7630.3	477.28 µg/L	477.28 ppb	01:32:27
3	Ti 334.940†	519188.2	512423.6	478.12 µg/L	478.12 ppb	01:32:07
3	Tl 190.801†	3815.9	3889.9	485.12 µg/L	485.12 ppb	01:32:27
3	U 409.014†	7283.4	7471.8	465.86 µg/L	465.86 ppb	01:32:07
3	V 292.402†	98744.6	97235.4	480.66 µg/L	480.66 ppb	01:32:07
3	Zn 213.857†	86568.5	85035.0	473.94 µg/L	473.94 ppb	01:32:07

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732710.1	100.84	%	0.489				0.49%
Sc RADIAL	143926.4	98.6	%	1.11				1.12%
Y 371.029	1023597.7	99.699	%	0.4797				0.48%
Ag 328.068†	127679.1	478.73	µg/L	1.007	478.73	ppb	1.007	0.21%
QC value within limits for Ag 328.068 Recovery = 95.75%								
Al 396.153Radial†	26959.0	4976.0	µg/L	18.89	4976.0	ppb	18.89	0.38%
QC value within limits for Al 396.153Radial Recovery = 99.52%								
As 188.979†	1622.4	497.59	µg/L	1.754	497.59	ppb	1.754	0.35%
QC value within limits for As 188.979 Recovery = 99.52%								
B 249.677†	32026.3	470.67	µg/L	1.854	470.67	ppb	1.854	0.39%
QC value within limits for B 249.677 Recovery = 94.13%								
Ba 233.527†	118481.8	477.83	µg/L	0.498	477.83	ppb	0.498	0.10%
QC value within limits for Ba 233.527 Recovery = 95.57%								
Be 313.107†	1771029.5	482.35	µg/L	1.202	482.35	ppb	1.202	0.25%
QC value within limits for Be 313.107 Recovery = 96.47%								
Ca 317.933Radial†	87760.9	4888.6	µg/L	17.65	4888.6	ppb	17.65	0.36%
QC value within limits for Ca 317.933Radial Recovery = 97.77%								
Cd 226.502†	76009.3	474.48	µg/L	1.907	474.48	ppb	1.907	0.40%
QC value within limits for Cd 226.502 Recovery = 94.90%								
Co 228.616†	38710.8	477.88	µg/L	1.828	477.88	ppb	1.828	0.38%

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   QC value within limits for Co 228.616  Recovery = 95.58%
Cr 267.716†            60586.9      474.39 µg/L         1.096      474.39 ppb          1.096   0.23%
   QC value within limits for Cr 267.716  Recovery = 94.88%
Cu 324.752†           122133.4      476.11 µg/L         0.893      476.11 ppb          0.893   0.19%
   QC value within limits for Cu 324.752  Recovery = 95.22%
Fe 238.204 Radial†     78345.1      4828.7 µg/L         20.09      4828.7 ppb          20.09   0.42%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.57%
K 766.490 Radial†      13708.9      5015.0 µg/L         20.81      5015.0 ppb          20.81   0.42%
   QC value within limits for K 766.490 Radial  Recovery = 100.30%
Mg 279.077 IEC†        13363.2      4986.5 µg/L         43.85      4986.5 ppb          43.85   0.88%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.73%
Mn 257.610†           387755.6      479.56 µg/L         1.108      479.56 ppb          1.108   0.23%
   QC value within limits for Mn 257.610  Recovery = 95.91%
Mo 202.031†            16278.5      478.84 µg/L         2.702      478.84 ppb          2.702   0.56%
   QC value within limits for Mo 202.031  Recovery = 95.77%
Na 589.592 Radial†     70683.3      9651.7 µg/L          7.67      9651.7 ppb           7.67   0.08%
   QC value within limits for Na 589.592 Radial  Recovery = 96.52%
Ni 231.604†            41278.5      475.29 µg/L         0.805      475.29 ppb          0.805   0.17%
   QC value within limits for Ni 231.604  Recovery = 95.06%
P 214.914†             11190.9      2385.3 µg/L         13.71      2385.3 ppb          13.71   0.57%
   QC value within limits for P 214.914  Recovery = 95.41%
Pb 220.353†             8610.1      482.17 µg/L         3.492      482.17 ppb          3.492   0.72%
   QC value within limits for Pb 220.353  Recovery = 96.43%
S 181.975 Axial†        1256.9      937.36 µg/L         9.234      937.36 ppb          9.234   0.99%
   QC value within limits for S 181.975 Axial  Recovery = 93.74%
Sb 206.836†             4021.7      479.22 µg/L         2.786      479.22 ppb          2.786   0.58%
   QC value within limits for Sb 206.836  Recovery = 95.84%
Se 196.026†             1314.3         477 µg/L           3.1         477 ppb            3.1   0.65%
   QC value within limits for Se 196.026  Recovery = 95.45%
SiO2†                  52384.6      5099.6 µg/L         16.25      5099.6 ppb          16.25   0.32%
   QC value within limits for SiO2  Recovery = 95.36%
Si 251.611†           162702.6      2389.2 µg/L          5.32      2389.2 ppb           5.32   0.22%
   QC value within limits for Si 251.611  Recovery = 95.57%
Sn 189.927†             7671.8      479.87 µg/L         3.150      479.87 ppb          3.150   0.66%
   QC value within limits for Sn 189.927  Recovery = 95.97%
Sr 421.552†           232002.6      482.28 µg/L         5.394      482.28 ppb          5.394   1.12%
   QC value within limits for Sr 421.552  Recovery = 96.46%
Ti 334.940†           512054.6      477.78 µg/L         0.622      477.78 ppb          0.622   0.13%
   QC value within limits for Ti 334.940  Recovery = 95.56%
Tl 190.801†             3920.8      488.92 µg/L         3.950      488.92 ppb          3.950   0.81%
   QC value within limits for Tl 190.801  Recovery = 97.78%
U 409.014†              7391.6      461.13 µg/L         8.265      461.13 ppb          8.265   1.79%
   QC value within limits for U 409.014  Recovery = 92.23%
V 292.402†             97082.1      479.92 µg/L         0.679      479.92 ppb          0.679   0.14%
   QC value within limits for V 292.402  Recovery = 95.98%
Zn 213.857†            84829.8      472.79 µg/L         1.636      472.79 ppb          1.636   0.35%
   QC value within limits for Zn 213.857  Recovery = 94.56%
All analyte(s) passed QC.
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Sequence No.: 170
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 1:32:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144650.2	144650.2	99.1	%			01:33:05
1	Al 396.153Radial†	55.6	119.3	22.113	µg/L	22.113	ppb	01:33:25
1	Ca 317.933Radial†	1021.9	470.4	26.200	µg/L	26.200	ppb	01:33:25
1	Fe 238.204 Radial†	306.2	160.8	9.9101	µg/L	9.9101	ppb	01:33:25
1	K 766.490 Radial†	1926.7	399.0	146.05	µg/L	146.05	ppb	01:33:05
1	Mg 279.077 IEC†	254.5	66.1	24.617	µg/L	24.617	ppb	01:33:25
1	Na 589.592 Radial†	1387.7	109.2	14.783	µg/L	14.783	ppb	01:33:05
1	Sr 421.552†	-207.2	-73.8	-0.1536	µg/L	-0.1536	ppb	01:33:05
1	Sc 361.383	1731773.4	1731773.4	100.79	%			01:34:13
1	Y 371.029	1034993.2	1034993.2	100.81	%			01:34:13
1	Ag 328.068†	4219.4	95.0	0.3480	µg/L	0.3480	ppb	01:34:15
1	As 188.979†	-14.9	5.6	1.6865	µg/L	1.6865	ppb	01:34:35
1	B 249.677†	3568.7	34.9	0.5127	µg/L	0.5127	ppb	01:34:15
1	Ba 233.527†	-137.0	-0.1	-0.0009	µg/L	-0.0009	ppb	01:34:35
1	Be 313.107†	-780.2	290.6	0.0800	µg/L	0.0800	ppb	01:34:15
1	Cd 226.502†	-91.2	27.8	0.1726	µg/L	0.1726	ppb	01:34:35
1	Co 228.616†	-160.4	31.2	0.3844	µg/L	0.3844	ppb	01:34:35
1	Cr 267.716†	211.8	31.6	0.2451	µg/L	0.2451	ppb	01:34:35
1	Cu 324.752†	2967.0	-28.5	-0.1059	µg/L	-0.1059	ppb	01:34:15
1	Mn 257.610†	310.1	70.4	0.0862	µg/L	0.0862	ppb	01:34:35
1	Mo 202.031†	-19.2	1.0	0.0313	µg/L	0.0313	ppb	01:34:35
1	Ni 231.604†	-38.5	38.4	0.4416	µg/L	0.4416	ppb	01:34:35
1	P 214.914†	-26.9	-8.7	-1.8628	µg/L	-1.8628	ppb	01:34:35
1	Pb 220.353†	65.3	-21.6	-1.2051	µg/L	-1.2051	ppb	01:34:35
1	S 181.975 Axial†	106.1	0.2	0.1331	µg/L	0.1331	ppb	01:34:35
1	Sb 206.836†	73.4	-8.0	-0.9578	µg/L	-0.9578	ppb	01:34:35
1	Se 196.026†	15.6	0.2	0.068	µg/L	0.068	ppb	01:34:35
1	SiO2†	1796.3	6.8	0.6595	µg/L	0.6595	ppb	01:34:35
1	Si 251.611†	840.5	-2.6	-0.0425	µg/L	-0.0425	ppb	01:34:15
1	Sn 189.927†	7.4	8.4	0.5243	µg/L	0.5243	ppb	01:34:35
1	Ti 334.940†	956.0	-4.0	-0.0063	µg/L	-0.0063	ppb	01:34:15
1	Tl 190.801†	-113.8	3.8	0.4619	µg/L	0.4619	ppb	01:34:35
1	U 409.014†	-221.8	49.8	2.8783	µg/L	2.8783	ppb	01:34:15
1	V 292.402†	291.0	-115.1	-0.5590	µg/L	-0.5590	ppb	01:34:15
1	Zn 213.857†	611.2	42.0	0.2323	µg/L	0.2323	ppb	01:34:35
2	Sc RADIAL	143480.2	143480.2	98.3	%			01:33:27
2	Al 396.153Radial†	35.4	99.2	18.400	µg/L	18.400	ppb	01:33:47
2	Ca 317.933Radial†	923.3	378.5	21.086	µg/L	21.086	ppb	01:33:47
2	Fe 238.204 Radial†	279.8	136.5	8.4133	µg/L	8.4133	ppb	01:33:47
2	K 766.490 Radial†	2033.7	523.6	191.70	µg/L	191.70	ppb	01:33:27
2	Mg 279.077 IEC†	230.6	43.8	16.325	µg/L	16.325	ppb	01:33:47
2	Na 589.592 Radial†	1388.8	121.8	16.463	µg/L	16.463	ppb	01:33:27
2	Sr 421.552†	-108.3	25.1	0.0520	µg/L	0.0520	ppb	01:33:27
2	Sc 361.383	1749816.9	1749816.9	101.84	%			01:34:37
2	Y 371.029	1045017.7	1045017.7	101.79	%			01:34:37
2	Ag 328.068†	4151.7	-14.6	-0.0529	µg/L	-0.0529	ppb	01:34:40
2	As 188.979†	-13.8	6.8	2.0524	µg/L	2.0524	ppb	01:35:00
2	B 249.677†	3626.5	55.1	0.8113	µg/L	0.8113	ppb	01:34:40
2	Ba 233.527†	-104.2	33.5	0.1349	µg/L	0.1349	ppb	01:35:00
2	Be 313.107†	-899.2	181.7	0.0507	µg/L	0.0507	ppb	01:34:40
2	Cd 226.502†	-104.7	15.4	0.0953	µg/L	0.0953	ppb	01:35:00
2	Co 228.616†	-169.5	23.9	0.2945	µg/L	0.2945	ppb	01:35:00
2	Cr 267.716†	201.1	18.9	0.1446	µg/L	0.1446	ppb	01:35:00
2	Cu 324.752†	2829.6	-193.8	-0.7479	µg/L	-0.7479	ppb	01:34:40
2	Mn 257.610†	297.6	54.9	0.0673	µg/L	0.0673	ppb	01:35:00
2	Mo 202.031†	-24.5	-4.0	-0.1177	µg/L	-0.1177	ppb	01:35:00
2	Ni 231.604†	-90.3	-12.1	-0.1396	µg/L	-0.1396	ppb	01:35:00
2	P 214.914†	-13.7	4.5	0.9779	µg/L	0.9779	ppb	01:35:00
2	Pb 220.353†	69.0	-18.6	-1.0426	µg/L	-1.0426	ppb	01:35:00

2	S 181.975 Axial†	90.5	-16.2	-12.038 µg/L	-12.038 ppb	01:35:00
2	Sb 206.836†	72.9	-9.3	-1.1038 µg/L	-1.1038 ppb	01:35:00
2	Se 196.026†	26.1	10.3	3.74 µg/L	3.74 ppb	01:35:00
2	SiO2†	1690.9	-115.0	-11.246 µg/L	-11.246 ppb	01:35:00
2	Si 251.611†	970.1	116.0	1.7095 µg/L	1.7095 ppb	01:34:40
2	Sn 189.927†	4.5	5.5	0.3461 µg/L	0.3461 ppb	01:35:00
2	Ti 334.940†	1033.1	61.9	0.0554 µg/L	0.0554 ppb	01:34:40
2	Tl 190.801†	-109.0	9.6	1.1795 µg/L	1.1795 ppb	01:35:00
2	U 409.014†	-207.0	66.6	3.8786 µg/L	3.8786 ppb	01:34:40
2	V 292.402†	361.7	-48.6	-0.2362 µg/L	-0.2362 ppb	01:34:40
2	Zn 213.857†	609.4	34.0	0.1917 µg/L	0.1917 ppb	01:35:00
3	Sc RADIAL	144046.9	144046.9	98.7 %		01:33:49
3	Al 396.153Radial†	17.0	80.4	14.927 µg/L	14.927 ppb	01:34:10
3	Ca 317.933Radial†	885.2	336.2	18.727 µg/L	18.727 ppb	01:34:10
3	Fe 238.204 Radial†	250.9	106.1	6.5367 µg/L	6.5367 ppb	01:34:10
3	K 766.490 Radial†	1975.4	456.4	167.09 µg/L	167.09 ppb	01:33:49
3	Mg 279.077 IEC†	216.2	28.3	10.536 µg/L	10.536 ppb	01:34:10
3	Na 589.592 Radial†	1284.3	10.3	1.2517 µg/L	1.2517 ppb	01:33:49
3	Sr 421.552†	-129.3	4.3	0.0087 µg/L	0.0087 ppb	01:33:49
3	Sc 361.383	1747720.5	1747720.5	101.72 %		01:35:02
3	Y 371.029	1042519.0	1042519.0	101.54 %		01:35:02
3	Ag 328.068†	4083.2	-77.1	-0.2760 µg/L	-0.2760 ppb	01:35:04
3	As 188.979†	-23.1	-2.4	-0.7100 µg/L	-0.7100 ppb	01:35:24
3	B 249.677†	3447.3	-116.8	-1.7241 µg/L	-1.7241 ppb	01:35:04
3	Ba 233.527†	-100.7	36.9	0.1482 µg/L	0.1482 ppb	01:35:24
3	Be 313.107†	-1007.0	74.7	0.0236 µg/L	0.0236 ppb	01:35:04
3	Cd 226.502†	-108.8	11.3	0.0697 µg/L	0.0697 ppb	01:35:24
3	Co 228.616†	-158.9	34.1	0.4206 µg/L	0.4206 ppb	01:35:24
3	Cr 267.716†	198.6	16.7	0.1225 µg/L	0.1225 ppb	01:35:24
3	Cu 324.752†	2971.0	-51.4	-0.1894 µg/L	-0.1894 ppb	01:35:04
3	Mn 257.610†	275.0	33.1	0.0405 µg/L	0.0405 ppb	01:35:24
3	Mo 202.031†	-29.3	-8.8	-0.2571 µg/L	-0.2571 ppb	01:35:24
3	Ni 231.604†	-102.1	-23.9	-0.2749 µg/L	-0.2749 ppb	01:35:24
3	P 214.914†	-27.0	-8.6	-1.8213 µg/L	-1.8213 ppb	01:35:24
3	Pb 220.353†	72.1	-15.5	-0.8740 µg/L	-0.8740 ppb	01:35:24
3	S 181.975 Axial†	95.4	-11.3	-8.3648 µg/L	-8.3648 ppb	01:35:24
3	Sb 206.836†	83.3	1.1	0.1275 µg/L	0.1275 ppb	01:35:24
3	Se 196.026†	15.1	-0.5	-0.158 µg/L	-0.158 ppb	01:35:24
3	SiO2†	1778.9	-26.5	-2.5941 µg/L	-2.5941 ppb	01:35:24
3	Si 251.611†	839.8	-10.9	-0.1611 µg/L	-0.1611 ppb	01:35:04
3	Sn 189.927†	6.7	7.7	0.4774 µg/L	0.4774 ppb	01:35:24
3	Ti 334.940†	921.8	-46.3	-0.0480 µg/L	-0.0480 ppb	01:35:04
3	Tl 190.801†	-117.9	0.8	0.0949 µg/L	0.0949 ppb	01:35:24
3	U 409.014†	-88.3	183.1	10.689 µg/L	10.689 ppb	01:35:04
3	V 292.402†	353.6	-56.1	-0.2694 µg/L	-0.2694 ppb	01:35:04
3	Zn 213.857†	615.1	40.3	0.2274 µg/L	0.2274 ppb	01:35:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1743103.6	101.45	%	0.574				0.57%
Sc RADIAL	144059.1	98.7	%	0.40				0.41%
Y 371.029	1040843.3	101.38	%	0.508				0.50%
Ag 328.068†	1.1	0.0064	µg/L	0.31617	0.0064	ppb	0.31617	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	99.6	18.480	µg/L	3.5934	18.480	ppb	3.5934	19.45%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.3	1.0096	µg/L	1.50042	1.0096	ppb	1.50042	148.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-9.0	-0.1334	µg/L	1.38566	-0.1334	ppb	1.38566	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	23.4	0.0941	µg/L	0.08251	0.0941	ppb	0.08251	87.72%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	182.3	0.0514	µg/L	0.02823	0.0514	ppb	0.02823	54.91%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	395.0	22.004	µg/L	3.8206	22.004	ppb	3.8206	17.36%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	18.2	0.1125	µg/L	0.05357	0.1125	ppb	0.05357	47.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	29.7	0.3665	µg/L	0.06493	0.3665	ppb	0.06493	17.72%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              22.4      0.1708 µg/L       0.06537      0.1708 ppb        0.06537  38.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -91.2     -0.3477 µg/L       0.34907     -0.3477 ppb        0.34907 100.39%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      134.5      8.2867 µg/L       1.69027      8.2867 ppb        1.69027  20.40%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       459.7      168.28 µg/L        22.848      168.28 ppb         22.848  13.58%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          46.1      17.159 µg/L        7.0777      17.159 ppb         7.0777  41.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              52.8      0.0647 µg/L       0.02293      0.0647 ppb        0.02293  35.46%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -3.9     -0.1145 µg/L       0.14420     -0.1145 ppb        0.14420 125.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       80.4      10.833 µg/L        8.3397      10.833 ppb         8.3397  76.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.8      0.0091 µg/L       0.38069      0.0091 ppb        0.38069 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.3     -0.9020 µg/L       1.62822     -0.9020 ppb        1.62822 180.50%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -18.6     -1.0406 µg/L       0.16556     -1.0406 ppb        0.16556  15.91%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -9.1     -6.7567 µg/L       6.24300     -6.7567 ppb        6.24300  92.40%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -5.4     -0.6447 µg/L       0.67274     -0.6447 ppb        0.67274 104.35%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.3        1.22 µg/L         2.190        1.22 ppb          2.190 179.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -44.9     -4.3935 µg/L       6.15338     -4.3935 ppb        6.15338 140.06%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              34.1      0.5020 µg/L       1.04746      0.5020 ppb        1.04746 208.67%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.2      0.4493 µg/L       0.09239      0.4493 ppb        0.09239  20.57%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -14.8     -0.0310 µg/L       0.10839     -0.0310 ppb        0.10839 350.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               3.9      0.0003 µg/L       0.05203      0.0003 ppb        0.05203 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               4.7      0.5788 µg/L       0.55162      0.5788 ppb        0.55162  95.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               99.8      5.8153 µg/L       4.25029      5.8153 ppb        4.25029  73.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -73.3     -0.3549 µg/L       0.17756     -0.3549 ppb        0.17756  50.04%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              38.8      0.2171 µg/L       0.02218      0.2171 ppb        0.02218  10.22%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 178
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 1:53:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144889.1	144889.1	99.3	%			01:54:01
1	Al 396.153Radial†	26444.1	26697.2	4927.6	µg/L	4927.6	ppb	01:54:01
1	Ca 317.933Radial†	86941.0	87004.9	4846.5	µg/L	4846.5	ppb	01:54:01
1	Fe 238.204 Radial†	77758.3	78168.7	4817.8	µg/L	4817.8	ppb	01:54:01
1	K 766.490 Radial†	14897.6	13459.8	4923.9	µg/L	4923.9	ppb	01:54:01
1	Mg 279.077 IEC†	13366.3	13271.6	4952.3	µg/L	4952.3	ppb	01:54:01
1	Na 589.592 Radial†	71709.3	70933.5	9686.0	µg/L	9686.0	ppb	01:54:01
1	Sr 421.552†	230601.0	232392.6	483.09	µg/L	483.09	ppb	01:53:59
1	Sc 361.383	1732100.0	1732100.0	100.81	%			01:54:28
1	Y 371.029	1023099.6	1023099.6	99.650	%			01:54:28
1	Ag 328.068†	133137.6	127979.1	479.85	µg/L	479.85	ppb	01:54:28
1	As 188.979†	1612.3	1619.7	496.76	µg/L	496.76	ppb	01:54:48
1	B 249.677†	35874.9	32081.5	471.48	µg/L	471.48	ppb	01:54:28
1	Ba 233.527†	119611.7	118788.9	479.07	µg/L	479.07	ppb	01:54:28
1	Be 313.107†	1788545.3	1775275.2	483.50	µg/L	483.50	ppb	01:54:28
1	Cd 226.502†	76870.4	76372.5	476.75	µg/L	476.75	ppb	01:54:28
1	Co 228.616†	38991.6	38869.4	479.84	µg/L	479.84	ppb	01:54:28
1	Cr 267.716†	61212.0	60542.8	474.05	µg/L	474.05	ppb	01:54:28
1	Cu 324.752†	126385.1	122399.9	477.14	µg/L	477.14	ppb	01:54:28
1	Mn 257.610†	391844.9	388467.0	480.44	µg/L	480.44	ppb	01:54:28
1	Mo 202.031†	16253.3	16143.1	474.86	µg/L	474.86	ppb	01:54:48
1	Ni 231.604†	41701.3	41443.5	477.19	µg/L	477.19	ppb	01:54:28
1	P 214.914†	11179.5	11107.9	2367.6	µg/L	2367.6	ppb	01:54:48
1	Pb 220.353†	8738.5	8582.1	480.59	µg/L	480.59	ppb	01:54:48
1	S 181.975 Axial†	1413.8	1297.4	967.45	µg/L	967.45	ppb	01:54:48
1	Sb 206.836†	4129.4	4015.5	478.42	µg/L	478.42	ppb	01:54:48
1	Se 196.026†	1321.4	1295.6	470	µg/L	470	ppb	01:54:48
1	SiO2†	54758.0	52543.7	5115.3	µg/L	5115.3	ppb	01:54:28
1	Si 251.611†	165491.5	163328.5	2398.5	µg/L	2398.5	ppb	01:54:28
1	Sn 189.927†	7680.8	7620.3	476.66	µg/L	476.66	ppb	01:54:48
1	Ti 334.940†	517868.9	512765.7	478.45	µg/L	478.45	ppb	01:54:28
1	Tl 190.801†	3805.2	3891.4	485.31	µg/L	485.31	ppb	01:54:48
1	U 409.014†	7130.8	7343.6	458.38	µg/L	458.38	ppb	01:54:28
1	V 292.402†	98453.8	97260.9	480.75	µg/L	480.75	ppb	01:54:28
1	Zn 213.857†	86275.4	85019.5	473.84	µg/L	473.84	ppb	01:54:28
2	Sc RADIAL	144090.9	144090.9	98.7	%			01:54:05
2	Al 396.153Radial†	26312.9	26711.9	4930.1	µg/L	4930.1	ppb	01:54:05
2	Ca 317.933Radial†	86199.8	86739.3	4831.7	µg/L	4831.7	ppb	01:54:05
2	Fe 238.204 Radial†	77277.1	78115.2	4814.5	µg/L	4814.5	ppb	01:54:05
2	K 766.490 Radial†	14795.3	13439.4	4916.4	µg/L	4916.4	ppb	01:54:05
2	Mg 279.077 IEC†	13254.1	13232.5	4937.8	µg/L	4937.8	ppb	01:54:05
2	Na 589.592 Radial†	71224.5	70842.7	9673.6	µg/L	9673.6	ppb	01:54:05
2	Sr 421.552†	226568.0	229594.7	477.28	µg/L	477.28	ppb	01:54:03
2	Sc 361.383	1743024.7	1743024.7	101.44	%			01:54:51
2	Y 371.029	1028485.3	1028485.3	100.17	%			01:54:51
2	Ag 328.068†	133695.0	127700.8	478.84	µg/L	478.84	ppb	01:54:51
2	As 188.979†	1633.2	1630.3	499.98	µg/L	499.98	ppb	01:55:11
2	B 249.677†	35991.2	31973.1	469.88	µg/L	469.88	ppb	01:54:51
2	Ba 233.527†	120399.9	118822.2	479.21	µg/L	479.21	ppb	01:54:51
2	Be 313.107†	1803686.2	1779080.5	484.55	µg/L	484.55	ppb	01:54:51
2	Cd 226.502†	77645.9	76659.1	478.54	µg/L	478.54	ppb	01:54:51
2	Co 228.616†	39225.9	38858.0	479.70	µg/L	479.70	ppb	01:54:51
2	Cr 267.716†	61891.8	60832.4	476.31	µg/L	476.31	ppb	01:54:51
2	Cu 324.752†	127393.6	122608.3	477.96	µg/L	477.96	ppb	01:54:51
2	Mn 257.610†	395069.2	389209.2	481.36	µg/L	481.36	ppb	01:54:51
2	Mo 202.031†	16503.6	16288.8	479.15	µg/L	479.15	ppb	01:55:11
2	Ni 231.604†	41973.3	41452.5	477.30	µg/L	477.30	ppb	01:54:51
2	P 214.914†	11383.8	11239.8	2395.8	µg/L	2395.8	ppb	01:55:11
2	Pb 220.353†	8825.3	8613.3	482.34	µg/L	482.34	ppb	01:55:11

2	S 181.975 Axial†	1446.2	1320.5	984.64 µg/L	984.64 ppb	01:55:11
2	Sb 206.836†	4171.5	4031.4	480.35 µg/L	480.35 ppb	01:55:11
2	Se 196.026†	1358.8	1324.1	481 µg/L	481 ppb	01:55:11
2	SiO2†	55126.8	52566.8	5117.4 µg/L	5117.4 ppb	01:54:51
2	Si 251.611†	166831.3	163620.3	2402.7 µg/L	2402.7 ppb	01:54:51
2	Sn 189.927†	7808.6	7698.6	481.54 µg/L	481.54 ppb	01:55:11
2	Ti 334.940†	521492.7	513118.1	478.77 µg/L	478.77 ppb	01:54:51
2	Tl 190.801†	3856.9	3918.7	488.67 µg/L	488.67 ppb	01:55:11
2	U 409.014†	7461.6	7625.3	474.87 µg/L	474.87 ppb	01:54:51
2	V 292.402†	99126.3	97311.7	481.07 µg/L	481.07 ppb	01:54:51
2	Zn 213.857†	86941.8	85140.0	474.52 µg/L	474.52 ppb	01:54:51
3	Sc RADIAL	143189.9	143189.9	98.1 %		01:54:09
3	Al 396.153Radial†	26288.8	26855.0	4956.7 µg/L	4956.7 ppb	01:54:09
3	Ca 317.933Radial†	85899.6	86982.7	4845.3 µg/L	4845.3 ppb	01:54:09
3	Fe 238.204 Radial†	76674.9	77993.9	4807.1 µg/L	4807.1 ppb	01:54:09
3	K 766.490 Radial†	14694.1	13430.5	4913.1 µg/L	4913.1 ppb	01:54:09
3	Mg 279.077 IEC†	13109.4	13169.5	4914.3 µg/L	4914.3 ppb	01:54:09
3	Na 589.592 Radial†	71187.8	71259.1	9730.5 µg/L	9730.5 ppb	01:54:09
3	Sr 421.552†	229587.3	234115.6	486.67 µg/L	486.67 ppb	01:54:07
3	Sc 361.383	1732756.5	1732756.5	100.85 %		01:55:14
3	Y 371.029	1023226.1	1023226.1	99.663 %		01:55:14
3	Ag 328.068†	132868.9	127662.6	478.70 µg/L	478.70 ppb	01:55:14
3	As 188.979†	1613.1	1619.9	496.83 µg/L	496.83 ppb	01:55:34
3	B 249.677†	36177.8	32368.3	475.71 µg/L	475.71 ppb	01:55:14
3	Ba 233.527†	119703.3	118834.8	479.26 µg/L	479.26 ppb	01:55:14
3	Be 313.107†	1791615.1	1777647.1	484.16 µg/L	484.16 ppb	01:55:14
3	Cd 226.502†	76911.2	76384.1	476.82 µg/L	476.82 ppb	01:55:14
3	Co 228.616†	38990.6	38853.8	479.65 µg/L	479.65 ppb	01:55:14
3	Cr 267.716†	61496.0	60801.5	476.06 µg/L	476.06 ppb	01:55:14
3	Cu 324.752†	126455.9	122422.6	477.24 µg/L	477.24 ppb	01:55:14
3	Mn 257.610†	392850.6	389317.1	481.49 µg/L	481.49 ppb	01:55:14
3	Mo 202.031†	16363.5	16246.3	477.90 µg/L	477.90 ppb	01:55:34
3	Ni 231.604†	41768.3	41494.4	477.78 µg/L	477.78 ppb	01:55:14
3	P 214.914†	11227.0	11150.7	2376.7 µg/L	2376.7 ppb	01:55:34
3	Pb 220.353†	8769.4	8609.4	482.12 µg/L	482.12 ppb	01:55:34
3	S 181.975 Axial†	1409.8	1292.9	964.13 µg/L	964.13 ppb	01:55:34
3	Sb 206.836†	4149.1	4033.4	480.58 µg/L	480.58 ppb	01:55:34
3	Se 196.026†	1348.9	1322.3	480 µg/L	480 ppb	01:55:34
3	SiO2†	54793.8	52558.7	5116.7 µg/L	5116.7 ppb	01:55:14
3	Si 251.611†	165958.9	163729.8	2404.3 µg/L	2404.3 ppb	01:55:14
3	Sn 189.927†	7740.4	7676.6	480.17 µg/L	480.17 ppb	01:55:34
3	Ti 334.940†	518815.4	513509.7	479.14 µg/L	479.14 ppb	01:55:14
3	Tl 190.801†	3816.6	3901.3	486.54 µg/L	486.54 ppb	01:55:34
3	U 409.014†	7409.2	7616.9	474.38 µg/L	474.38 ppb	01:55:14
3	V 292.402†	98541.2	97310.6	481.05 µg/L	481.05 ppb	01:55:14
3	Zn 213.857†	86396.5	85107.2	474.34 µg/L	474.34 ppb	01:55:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1735960.4	101.03	%	0.357				0.35%
Sc RADIAL	144056.6	98.7	%	0.58				0.59%
Y 371.029	1024937.0	99.829	%	0.2994				0.30%
Ag 328.068†	127780.9	479.13	µg/L	0.627	479.13	ppb	0.627	0.13%
QC value within limits for Ag 328.068 Recovery = 95.83%								
Al 396.153Radial†	26754.7	4938.1	µg/L	16.14	4938.1	ppb	16.14	0.33%
QC value within limits for Al 396.153Radial Recovery = 98.76%								
As 188.979†	1623.3	497.86	µg/L	1.841	497.86	ppb	1.841	0.37%
QC value within limits for As 188.979 Recovery = 99.57%								
B 249.677†	32141.0	472.36	µg/L	3.012	472.36	ppb	3.012	0.64%
QC value within limits for B 249.677 Recovery = 94.47%								
Ba 233.527†	118815.3	479.18	µg/L	0.096	479.18	ppb	0.096	0.02%
QC value within limits for Ba 233.527 Recovery = 95.84%								
Be 313.107†	1777334.3	484.07	µg/L	0.526	484.07	ppb	0.526	0.11%
QC value within limits for Be 313.107 Recovery = 96.81%								
Ca 317.933Radial†	86909.0	4841.2	µg/L	8.21	4841.2	ppb	8.21	0.17%
QC value within limits for Ca 317.933Radial Recovery = 96.82%								
Cd 226.502†	76471.9	477.37	µg/L	1.013	477.37	ppb	1.013	0.21%
QC value within limits for Cd 226.502 Recovery = 95.47%								
Co 228.616†	38860.4	479.73	µg/L	0.099	479.73	ppb	0.099	0.02%

```
   QC value within limits for Co 228.616  Recovery = 95.95%
Cr 267.716†            60725.6      475.47 µg/L         1.238      475.47 ppb          1.238   0.26%
   QC value within limits for Cr 267.716  Recovery = 95.09%
Cu 324.752†           122476.9      477.45 µg/L         0.449      477.45 ppb          0.449   0.09%
   QC value within limits for Cu 324.752  Recovery = 95.49%
Fe 238.204 Radial†     78092.6      4813.1 µg/L          5.52      4813.1 ppb           5.52   0.11%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.26%
K 766.490 Radial†      13443.2      4917.8 µg/L          5.50      4917.8 ppb           5.50   0.11%
   QC value within limits for K 766.490 Radial  Recovery = 98.36%
Mg 279.077 IEC†        13224.5      4934.8 µg/L         19.15      4934.8 ppb          19.15   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.70%
Mn 257.610†           388997.8      481.10 µg/L         0.573      481.10 ppb          0.573   0.12%
   QC value within limits for Mn 257.610  Recovery = 96.22%
Mo 202.031†            16226.1      477.30 µg/L         2.201      477.30 ppb          2.201   0.46%
   QC value within limits for Mo 202.031  Recovery = 95.46%
Na 589.592 Radial†     71011.8      9696.7 µg/L         29.92      9696.7 ppb          29.92   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 96.97%
Ni 231.604†            41463.5      477.42 µg/L         0.312      477.42 ppb          0.312   0.07%
   QC value within limits for Ni 231.604  Recovery = 95.48%
P 214.914†             11166.1      2380.0 µg/L         14.38      2380.0 ppb          14.38   0.60%
   QC value within limits for P 214.914  Recovery = 95.20%
Pb 220.353†             8601.6      481.68 µg/L         0.950      481.68 ppb          0.950   0.20%
   QC value within limits for Pb 220.353  Recovery = 96.34%
S 181.975 Axial†        1303.6      972.07 µg/L        11.009      972.07 ppb         11.009   1.13%
   QC value within limits for S 181.975 Axial  Recovery = 97.21%
Sb 206.836†             4026.7      479.79 µg/L         1.184      479.79 ppb          1.184   0.25%
   QC value within limits for Sb 206.836  Recovery = 95.96%
Se 196.026†             1314.0         477 µg/L           5.8         477 ppb            5.8   1.21%
   QC value within limits for Se 196.026  Recovery = 95.43%
SiO2†                  52556.4      5116.5 µg/L          1.05      5116.5 ppb           1.05   0.02%
   QC value within limits for SiO2  Recovery = 95.68%
Si 251.611†           163559.6      2401.8 µg/L          3.02      2401.8 ppb           3.02   0.13%
   QC value within limits for Si 251.611  Recovery = 96.07%
Sn 189.927†             7665.2      479.46 µg/L         2.517      479.46 ppb          2.517   0.53%
   QC value within limits for Sn 189.927  Recovery = 95.89%
Sr 421.552†           232034.3      482.35 µg/L         4.743      482.35 ppb          4.743   0.98%
   QC value within limits for Sr 421.552  Recovery = 96.47%
Ti 334.940†           513131.2      478.79 µg/L         0.346      478.79 ppb          0.346   0.07%
   QC value within limits for Ti 334.940  Recovery = 95.76%
Tl 190.801†             3903.8      486.84 µg/L         1.702      486.84 ppb          1.702   0.35%
   QC value within limits for Tl 190.801  Recovery = 97.37%
U 409.014†              7528.6      469.21 µg/L         9.385      469.21 ppb          9.385   2.00%
   QC value within limits for U 409.014  Recovery = 93.84%
V 292.402†             97294.4      480.96 µg/L         0.176      480.96 ppb          0.176   0.04%
   QC value within limits for V 292.402  Recovery = 96.19%
Zn 213.857†            85088.9      474.23 µg/L         0.349      474.23 ppb          0.349   0.07%
   QC value within limits for Zn 213.857  Recovery = 94.85%
All analyte(s) passed QC.
```

Sequence No.: 179
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 1:55:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145551.6	145551.6	99.7	%			01:56:11
1	Al 396.153Radial†	-65.8	-2.8	-0.5143	µg/L	-0.5143	ppb	01:56:31
1	Ca 317.933Radial†	666.6	107.8	6.0037	µg/L	6.0037	ppb	01:56:31
1	Fe 238.204 Radial†	142.8	-5.0	-0.3060	µg/L	-0.3060	ppb	01:56:31
1	K 766.490 Radial†	1839.3	299.3	109.59	µg/L	109.59	ppb	01:56:11
1	Mg 279.077 IEC†	181.2	-9.0	-3.3548	µg/L	-3.3548	ppb	01:56:31
1	Na 589.592 Radial†	1588.0	301.3	41.070	µg/L	41.070	ppb	01:56:11
1	Sr 421.552†	-333.1	-198.7	-0.4132	µg/L	-0.4132	ppb	01:56:11
1	Sc 361.383	1751779.3	1751779.3	101.95	%			01:57:33
1	Y 371.029	1045514.8	1045514.8	101.83	%			01:57:33
1	Ag 328.068†	4128.8	-41.7	-0.1593	µg/L	-0.1593	ppb	01:57:35
1	As 188.979†	-12.8	7.8	2.3692	µg/L	2.3692	ppb	01:57:55
1	B 249.677†	3541.5	-32.3	-0.4767	µg/L	-0.4767	ppb	01:57:35
1	Ba 233.527†	-108.9	29.0	0.1170	µg/L	0.1170	ppb	01:57:55
1	Be 313.107†	-1073.9	11.4	0.0014	µg/L	0.0014	ppb	01:57:35
1	Cd 226.502†	-112.0	8.4	0.0522	µg/L	0.0522	ppb	01:57:55
1	Co 228.616†	-179.5	14.2	0.1753	µg/L	0.1753	ppb	01:57:55
1	Cr 267.716†	181.7	-0.3	0.0020	µg/L	0.0020	ppb	01:57:55
1	Cu 324.752†	3003.9	-25.8	-0.1050	µg/L	-0.1050	ppb	01:57:35
1	Mn 257.610†	273.3	30.8	0.0383	µg/L	0.0383	ppb	01:57:55
1	Mo 202.031†	-22.7	-2.2	-0.0633	µg/L	-0.0633	ppb	01:57:55
1	Ni 231.604†	-96.5	-18.1	-0.2088	µg/L	-0.2088	ppb	01:57:55
1	P 214.914†	-18.3	0.0	0.0166	µg/L	0.0166	ppb	01:57:55
1	Pb 220.353†	65.4	-22.2	-1.2353	µg/L	-1.2353	ppb	01:57:55
1	S 181.975 Axial†	114.5	7.3	5.3871	µg/L	5.3871	ppb	01:57:55
1	Sb 206.836†	62.6	-19.4	-2.3048	µg/L	-2.3048	ppb	01:57:55
1	Se 196.026†	0.8	-14.5	-5.25	µg/L	-5.25	ppb	01:57:55
1	SiO2†	1800.8	-9.1	-0.8957	µg/L	-0.8957	ppb	01:57:35
1	Si 251.611†	889.3	35.7	0.5242	µg/L	0.5242	ppb	01:57:35
1	Sn 189.927†	7.5	8.5	0.5302	µg/L	0.5302	ppb	01:57:55
1	Ti 334.940†	969.2	-1.9	0.0010	µg/L	0.0010	ppb	01:57:35
1	Tl 190.801†	-112.3	6.6	0.8079	µg/L	0.8079	ppb	01:57:55
1	U 409.014†	-372.7	-95.6	-5.5813	µg/L	-5.5813	ppb	01:57:35
1	V 292.402†	449.1	36.7	0.1747	µg/L	0.1747	ppb	01:57:35
1	Zn 213.857†	603.1	27.2	0.1540	µg/L	0.1540	ppb	01:57:55
2	Sc RADIAL	142463.2	142463.2	97.6	%			01:56:33
2	Al 396.153Radial†	-76.0	-14.7	-2.7386	µg/L	-2.7386	ppb	01:56:53
2	Ca 317.933Radial†	631.4	86.2	4.8021	µg/L	4.8021	ppb	01:56:53
2	Fe 238.204 Radial†	165.0	20.9	1.2889	µg/L	1.2889	ppb	01:56:53
2	K 766.490 Radial†	1754.3	252.2	92.343	µg/L	92.343	ppb	01:56:33
2	Mg 279.077 IEC†	178.3	-8.0	-2.9828	µg/L	-2.9828	ppb	01:56:53
2	Na 589.592 Radial†	1488.6	234.0	31.890	µg/L	31.890	ppb	01:56:33
2	Sr 421.552†	-267.3	-138.5	-0.2880	µg/L	-0.2880	ppb	01:56:33
2	Sc 361.383	1744511.1	1744511.1	101.53	%			01:57:57
2	Y 371.029	1040880.2	1040880.2	101.38	%			01:57:57
2	Ag 328.068†	4095.8	-57.3	-0.2333	µg/L	-0.2333	ppb	01:58:00
2	As 188.979†	-19.9	0.8	0.2405	µg/L	0.2405	ppb	01:58:20
2	B 249.677†	3689.6	128.1	1.8892	µg/L	1.8892	ppb	01:58:00
2	Ba 233.527†	-127.7	10.1	0.0404	µg/L	0.0404	ppb	01:58:20
2	Be 313.107†	-779.7	296.7	0.0769	µg/L	0.0769	ppb	01:58:00
2	Cd 226.502†	-116.8	3.2	0.0196	µg/L	0.0196	ppb	01:58:20
2	Co 228.616†	-181.5	11.6	0.1430	µg/L	0.1430	ppb	01:58:20
2	Cr 267.716†	210.9	29.2	0.2383	µg/L	0.2383	ppb	01:58:20
2	Cu 324.752†	3046.1	27.9	0.0982	µg/L	0.0982	ppb	01:58:00
2	Mn 257.610†	284.4	42.8	0.0531	µg/L	0.0531	ppb	01:58:20
2	Mo 202.031†	-4.2	15.9	0.4681	µg/L	0.4681	ppb	01:58:20
2	Ni 231.604†	-89.6	-11.8	-0.1354	µg/L	-0.1354	ppb	01:58:20
2	P 214.914†	-29.1	-10.7	-2.2834	µg/L	-2.2834	ppb	01:58:20
2	Pb 220.353†	83.5	-4.1	-0.2188	µg/L	-0.2188	ppb	01:58:20

2	S 181.975 Axial†	133.9	26.8	19.886 µg/L	19.886 ppb		01:58:20
2	Sb 206.836†	67.1	-14.7	-1.7443 µg/L	-1.7443 ppb		01:58:20
2	Se 196.026†	24.1	8.4	3.04 µg/L	3.04 ppb		01:58:20
2	SiO2†	1798.4	-4.0	-0.4169 µg/L	-0.4169 ppb		01:58:00
2	Si 251.611†	966.5	115.4	1.6906 µg/L	1.6906 ppb		01:58:00
2	Sn 189.927†	9.5	10.5	0.6536 µg/L	0.6536 ppb		01:58:20
2	Ti 334.940†	894.2	-71.8	-0.0616 µg/L	-0.0616 ppb		01:58:00
2	Tl 190.801†	-110.7	7.6	0.9340 µg/L	0.9340 ppb		01:58:20
2	U 409.014†	-495.6	-218.2	-12.786 µg/L	-12.786 ppb		01:58:00
2	V 292.402†	320.0	-88.6	-0.4349 µg/L	-0.4349 ppb		01:58:00
2	Zn 213.857†	606.1	32.5	0.1834 µg/L	0.1834 ppb		01:58:20
3	Sc RADIAL	143784.8	143784.8	98.5 %			01:56:55
3	Al 396.153Radial†	-72.4	-10.2	-1.8918 µg/L	-1.8918 ppb		01:57:15
3	Ca 317.933Radial†	626.3	75.1	4.1820 µg/L	4.1820 ppb		01:57:15
3	Fe 238.204 Radial†	157.5	11.8	0.7268 µg/L	0.7268 ppb		01:57:15
3	K 766.490 Radial†	1711.0	191.8	70.214 µg/L	70.214 ppb		01:56:55
3	Mg 279.077 IEC†	214.1	26.6	9.9191 µg/L	9.9191 ppb		01:57:15
3	Na 589.592 Radial†	1356.1	85.6	11.626 µg/L	11.626 ppb		01:56:55
3	Sr 421.552†	-269.5	-138.2	-0.2874 µg/L	-0.2874 ppb		01:56:55
3	Sc 361.383	1767911.3	1767911.3	102.89 %			01:58:22
3	Y 371.029	1054011.1	1054011.1	102.66 %			01:58:22
3	Ag 328.068†	4196.4	-13.0	-0.0637 µg/L	-0.0637 ppb		01:58:24
3	As 188.979†	-5.7	14.8	4.4830 µg/L	4.4830 ppb		01:58:44
3	B 249.677†	3663.7	54.9	0.8087 µg/L	0.8087 ppb		01:58:24
3	Ba 233.527†	-114.6	24.5	0.0982 µg/L	0.0982 ppb		01:58:44
3	Be 313.107†	-1093.4	2.1	-0.0012 µg/L	-0.0012 ppb		01:58:24
3	Cd 226.502†	-92.8	28.0	0.1751 µg/L	0.1751 ppb		01:58:44
3	Co 228.616†	-185.7	9.8	0.1208 µg/L	0.1208 ppb		01:58:44
3	Cr 267.716†	201.6	17.3	0.1401 µg/L	0.1401 ppb		01:58:44
3	Cu 324.752†	2911.8	-142.3	-0.5572 µg/L	-0.5572 ppb		01:58:24
3	Mn 257.610†	263.8	19.2	0.0233 µg/L	0.0233 ppb		01:58:44
3	Mo 202.031†	-26.6	-5.8	-0.1698 µg/L	-0.1698 ppb		01:58:44
3	Ni 231.604†	-69.8	8.7	0.0998 µg/L	0.0998 ppb		01:58:44
3	P 214.914†	-16.2	2.2	0.4867 µg/L	0.4867 ppb		01:58:44
3	Pb 220.353†	83.9	-4.8	-0.2669 µg/L	-0.2669 ppb		01:58:44
3	S 181.975 Axial†	120.1	11.7	8.6560 µg/L	8.6560 ppb		01:58:44
3	Sb 206.836†	85.7	2.5	0.2913 µg/L	0.2913 ppb		01:58:44
3	Se 196.026†	9.9	-5.6	-2.04 µg/L	-2.04 ppb		01:58:44
3	SiO2†	1848.3	21.0	2.0528 µg/L	2.0528 ppb		01:58:24
3	Si 251.611†	874.0	12.9	0.1899 µg/L	0.1899 ppb		01:58:24
3	Sn 189.927†	4.6	5.5	0.3453 µg/L	0.3453 ppb		01:58:44
3	Ti 334.940†	814.2	-161.2	-0.1490 µg/L	-0.1490 ppb		01:58:24
3	Tl 190.801†	-128.8	-8.5	-1.0474 µg/L	-1.0474 ppb		01:58:44
3	U 409.014†	-381.6	-101.0	-5.9442 µg/L	-5.9442 ppb		01:58:24
3	V 292.402†	270.2	-141.1	-0.6936 µg/L	-0.6936 ppb		01:58:24
3	Zn 213.857†	596.7	15.5	0.0866 µg/L	0.0866 ppb		01:58:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1754733.9	102.13	%	0.697				0.68%
Sc RADIAL	143933.2	98.6	%	1.06				1.08%
Y 371.029	1046802.0	101.96	%	0.649				0.64%
Ag 328.068†	-37.3	-0.1521	µg/L	0.08501	-0.1521	ppb	0.08501	55.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.2	-1.7149	µg/L	1.12269	-1.7149	ppb	1.12269	65.47%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.8	2.3642	µg/L	2.12124	2.3642	ppb	2.12124	89.72%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.2	0.7404	µg/L	1.18445	0.7404	ppb	1.18445	159.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	21.2	0.0852	µg/L	0.03992	0.0852	ppb	0.03992	46.87%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	103.4	0.0257	µg/L	0.04438	0.0257	ppb	0.04438	172.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	89.7	4.9959	µg/L	0.92619	4.9959	ppb	0.92619	18.54%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	13.2	0.0823	µg/L	0.08201	0.0823	ppb	0.08201	99.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.9	0.1464	µg/L	0.02744	0.1464	ppb	0.02744	18.74%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              15.4      0.1268 µg/L       0.11872      0.1268 ppb        0.11872  93.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -46.7     -0.1880 µg/L       0.33551     -0.1880 ppb        0.33551 178.43%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        9.2      0.5699 µg/L       0.80892      0.5699 ppb        0.80892 141.94%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       247.8      90.715 µg/L       19.7374      90.715 ppb        19.7374  21.76%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.2      1.1938 µg/L       7.55858      1.1938 ppb        7.55858 633.14%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              30.9      0.0382 µg/L       0.01490      0.0382 ppb        0.01490  38.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.7      0.0783 µg/L       0.34173      0.0783 ppb        0.34173 436.17%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      207.0      28.195 µg/L       15.0656      28.195 ppb        15.0656  53.43%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -7.1     -0.0815 µg/L       0.16123     -0.0815 ppb        0.16123 197.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.8     -0.5934 µg/L       1.48237     -0.5934 ppb        1.48237 249.82%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -10.4     -0.5737 µg/L       0.57348     -0.5737 ppb        0.57348  99.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         15.2      11.310 µg/L        7.6051      11.310 ppb         7.6051  67.24%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -10.5     -1.2526 µg/L       1.36613     -1.2526 ppb        1.36613 109.06%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.9       -1.42 µg/L         4.177       -1.42 ppb          4.177 294.77%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     2.6      0.2467 µg/L       1.58234      0.2467 ppb        1.58234 641.29%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              54.7      0.8015 µg/L       0.78785      0.8015 ppb        0.78785  98.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.2      0.5097 µg/L       0.15517      0.5097 ppb        0.15517  30.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -158.5     -0.3295 µg/L       0.07245     -0.3295 ppb        0.07245  21.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -78.3     -0.0699 µg/L       0.07531     -0.0699 ppb        0.07531 107.82%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.9      0.2315 µg/L       1.10938      0.2315 ppb        1.10938 479.17%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -138.3     -8.1038 µg/L       4.05883     -8.1038 ppb        4.05883  50.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -64.3     -0.3180 µg/L       0.44583     -0.3180 ppb        0.44583 140.21%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              25.1      0.1413 µg/L       0.04962      0.1413 ppb        0.04962  35.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 189 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/1/2010 2:19:04**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142482.1	142482.1	97.6	%			02:19:37
1	Al 396.153Radial†	25864.4	26553.4	4900.9	µg/L	4900.9	ppb	02:19:37
1	Ca 317.933Radial†	85331.9	86836.1	4837.1	µg/L	4837.1	ppb	02:19:37
1	Fe 238.204 Radial†	75728.7	77413.1	4771.3	µg/L	4771.3	ppb	02:19:37
1	K 766.490 Radial†	14888.6	13704.1	5013.3	µg/L	5013.3	ppb	02:19:37
1	Mg 279.077 IEC†	12988.0	13111.5	4892.7	µg/L	4892.7	ppb	02:19:37
1	Na 589.592 Radial†	71527.5	71967.5	9827.2	µg/L	9827.2	ppb	02:19:37
1	Sr 421.552†	227636.6	233280.1	484.94	µg/L	484.94	ppb	02:19:35
1	Sc 361.383	1730429.7	1730429.7	100.71	%			02:20:04
1	Y 371.029	1022608.2	1022608.2	99.603	%			02:20:04
1	Ag 328.068†	131919.2	126896.9	475.83	µg/L	475.83	ppb	02:20:04
1	As 188.979†	1608.5	1617.5	496.07	µg/L	496.07	ppb	02:20:24
1	B 249.677†	35428.5	31672.6	465.47	µg/L	465.47	ppb	02:20:04
1	Ba 233.527†	118521.9	117821.3	475.17	µg/L	475.17	ppb	02:20:04
1	Be 313.107†	1771161.4	1759726.5	479.27	µg/L	479.27	ppb	02:20:04
1	Cd 226.502†	75681.8	75265.9	469.84	µg/L	469.84	ppb	02:20:04
1	Co 228.616†	38563.9	38482.0	475.06	µg/L	475.06	ppb	02:20:04
1	Cr 267.716†	60790.8	60183.2	471.23	µg/L	471.23	ppb	02:20:04
1	Cu 324.752†	125721.3	121861.9	475.05	µg/L	475.05	ppb	02:20:04
1	Mn 257.610†	388444.5	385465.8	476.73	µg/L	476.73	ppb	02:20:04
1	Mo 202.031†	16270.9	16176.2	475.83	µg/L	475.83	ppb	02:20:24
1	Ni 231.604†	41269.7	41054.9	472.72	µg/L	472.72	ppb	02:20:04
1	P 214.914†	11152.5	11091.7	2364.2	µg/L	2364.2	ppb	02:20:24
1	Pb 220.353†	8708.1	8560.3	479.37	µg/L	479.37	ppb	02:20:24
1	S 181.975 Axial†	1839.5	1721.4	1282.3	µg/L	1282.3	ppb	02:20:24
1	Sb 206.836†	4096.9	3987.2	475.12	µg/L	475.12	ppb	02:20:24
1	Se 196.026†	1319.7	1295.1	470	µg/L	470	ppb	02:20:24
1	SiO2†	54111.4	51954.2	5057.7	µg/L	5057.7	ppb	02:20:04
1	Si 251.611†	163829.4	161836.7	2376.5	µg/L	2376.5	ppb	02:20:04
1	Sn 189.927†	7696.6	7643.4	478.09	µg/L	478.09	ppb	02:20:24
1	Ti 334.940†	514200.9	509619.5	475.51	µg/L	475.51	ppb	02:20:04
1	Tl 190.801†	3756.8	3847.0	479.82	µg/L	479.82	ppb	02:20:24
1	U 409.014†	7265.9	7484.6	466.47	µg/L	466.47	ppb	02:20:04
1	V 292.402†	97858.9	96764.5	478.34	µg/L	478.34	ppb	02:20:04
1	Zn 213.857†	85251.2	84085.2	468.63	µg/L	468.63	ppb	02:20:04
2	Sc RADIAL	143417.3	143417.3	98.3	%			02:19:41
2	Al 396.153Radial†	26013.9	26532.9	4897.2	µg/L	4897.2	ppb	02:19:41
2	Ca 317.933Radial†	85954.2	86899.4	4840.6	µg/L	4840.6	ppb	02:19:41
2	Fe 238.204 Radial†	76353.0	77542.5	4779.2	µg/L	4779.2	ppb	02:19:41
2	K 766.490 Radial†	14792.4	13506.7	4941.0	µg/L	4941.0	ppb	02:19:41
2	Mg 279.077 IEC†	13150.5	13190.2	4921.9	µg/L	4921.9	ppb	02:19:41
2	Na 589.592 Radial†	72142.5	72115.6	9847.5	µg/L	9847.5	ppb	02:19:41
2	Sr 421.552†	229319.1	233471.7	485.34	µg/L	485.34	ppb	02:19:39
2	Sc 361.383	1743349.5	1743349.5	101.46	%			02:20:27
2	Y 371.029	1028716.5	1028716.5	100.20	%			02:20:27
2	Ag 328.068†	133300.6	127287.6	477.31	µg/L	477.31	ppb	02:20:27
2	As 188.979†	1596.4	1593.8	488.89	µg/L	488.89	ppb	02:20:47
2	B 249.677†	35997.3	31972.5	469.88	µg/L	469.88	ppb	02:20:27
2	Ba 233.527†	120018.6	118424.3	477.60	µg/L	477.60	ppb	02:20:27
2	Be 313.107†	1796503.1	1771669.7	482.53	µg/L	482.53	ppb	02:20:27
2	Cd 226.502†	77106.3	76113.0	475.13	µg/L	475.13	ppb	02:20:27
2	Co 228.616†	39051.0	38678.3	477.48	µg/L	477.48	ppb	02:20:27
2	Cr 267.716†	61466.3	60401.6	472.94	µg/L	472.94	ppb	02:20:27
2	Cu 324.752†	126763.9	121964.2	475.45	µg/L	475.45	ppb	02:20:27
2	Mn 257.610†	393146.3	387241.5	478.93	µg/L	478.93	ppb	02:20:27
2	Mo 202.031†	16303.2	16088.2	473.25	µg/L	473.25	ppb	02:20:47
2	Ni 231.604†	41851.6	41324.8	475.83	µg/L	475.83	ppb	02:20:27
2	P 214.914†	11183.1	11039.8	2353.0	µg/L	2353.0	ppb	02:20:47
2	Pb 220.353†	8703.6	8491.7	475.54	µg/L	475.54	ppb	02:20:47

2	S 181.975 Axial†	1799.8	1668.8	1243.2 µg/L	1243.2 ppb	02:20:47
2	Sb 206.836†	4122.9	3982.7	474.52 µg/L	474.52 ppb	02:20:47
2	Se 196.026†	1342.9	1308.3	475 µg/L	475 ppb	02:20:47
2	SiO2†	55076.9	52507.6	5111.9 µg/L	5111.9 ppb	02:20:27
2	Si 251.611†	165962.8	162733.8	2389.7 µg/L	2389.7 ppb	02:20:27
2	Sn 189.927†	7680.9	7571.3	473.60 µg/L	473.60 ppb	02:20:47
2	Ti 334.940†	519896.2	511448.9	477.22 µg/L	477.22 ppb	02:20:27
2	Tl 190.801†	3764.8	3827.2	477.42 µg/L	477.42 ppb	02:20:47
2	U 409.014†	7312.8	7477.3	466.23 µg/L	466.23 ppb	02:20:27
2	V 292.402†	99237.6	97403.3	481.44 µg/L	481.44 ppb	02:20:27
2	Zn 213.857†	86569.5	84757.1	472.38 µg/L	472.38 ppb	02:20:27
3	Sc RADIAL	142522.4	142522.4	97.7 %		02:19:45
3	Al 396.153Radial†	26049.5	26735.5	4934.6 µg/L	4934.6 ppb	02:19:45
3	Ca 317.933Radial†	85524.1	87008.2	4846.7 µg/L	4846.7 ppb	02:19:45
3	Fe 238.204 Radial†	76071.6	77742.2	4791.5 µg/L	4791.5 ppb	02:19:45
3	K 766.490 Radial†	14775.5	13584.0	4969.3 µg/L	4969.3 ppb	02:19:45
3	Mg 279.077 IEC†	13130.2	13253.4	4945.6 µg/L	4945.6 ppb	02:19:45
3	Na 589.592 Radial†	71535.5	71954.9	9825.5 µg/L	9825.5 ppb	02:19:45
3	Sr 421.552†	230430.6	236074.9	490.75 µg/L	490.75 ppb	02:19:43
3	Sc 361.383	1739029.7	1739029.7	101.21 %		02:20:50
3	Y 371.029	1026889.1	1026889.1	100.02 %		02:20:50
3	Ag 328.068†	133069.1	127385.2	477.66 µg/L	477.66 ppb	02:20:50
3	As 188.979†	1625.4	1626.3	498.73 µg/L	498.73 ppb	02:21:10
3	B 249.677†	35984.4	32047.9	470.99 µg/L	470.99 ppb	02:20:50
3	Ba 233.527†	119885.1	118586.2	478.26 µg/L	478.26 ppb	02:20:50
3	Be 313.107†	1792265.9	1771881.4	482.58 µg/L	482.58 ppb	02:20:50
3	Cd 226.502†	76820.8	76019.6	474.55 µg/L	474.55 ppb	02:20:50
3	Co 228.616†	39099.9	38822.3	479.26 µg/L	479.26 ppb	02:20:50
3	Cr 267.716†	61364.7	60451.8	473.33 µg/L	473.33 ppb	02:20:50
3	Cu 324.752†	126363.1	121878.6	475.12 µg/L	475.12 ppb	02:20:50
3	Mn 257.610†	392632.0	387695.9	479.49 µg/L	479.49 ppb	02:20:50
3	Mo 202.031†	16380.6	16204.6	476.67 µg/L	476.67 ppb	02:21:10
3	Ni 231.604†	41859.0	41434.6	477.09 µg/L	477.09 ppb	02:20:50
3	P 214.914†	11258.2	11141.4	2374.8 µg/L	2374.8 ppb	02:21:10
3	Pb 220.353†	8758.8	8567.6	479.78 µg/L	479.78 ppb	02:21:10
3	S 181.975 Axial†	1801.3	1674.7	1247.6 µg/L	1247.6 ppb	02:21:10
3	Sb 206.836†	4138.4	4008.0	477.59 µg/L	477.59 ppb	02:21:10
3	Se 196.026†	1350.9	1319.5	479 µg/L	479 ppb	02:21:10
3	SiO2†	54848.5	52416.7	5102.8 µg/L	5102.8 ppb	02:20:50
3	Si 251.611†	165580.0	162761.9	2390.1 µg/L	2390.1 ppb	02:20:50
3	Sn 189.927†	7757.7	7666.0	479.50 µg/L	479.50 ppb	02:21:10
3	Ti 334.940†	519132.4	511967.1	477.70 µg/L	477.70 ppb	02:20:50
3	Tl 190.801†	3760.5	3832.2	478.02 µg/L	478.02 ppb	02:21:10
3	U 409.014†	7409.7	7590.9	472.81 µg/L	472.81 ppb	02:20:50
3	V 292.402†	98761.8	97176.0	480.37 µg/L	480.37 ppb	02:20:50
3	Zn 213.857†	86374.1	84776.0	472.48 µg/L	472.48 ppb	02:20:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1737602.9	101.13	%	0.383				0.38%
Sc RADIAL	142807.3	97.9	%	0.36				0.37%
Y 371.029	1026071.2	99.940	%	0.3054				0.31%
Ag 328.068†	127189.9	476.93	µg/L	0.975	476.93	ppb	0.975	0.20%
QC value within limits for Ag 328.068 Recovery = 95.39%								
Al 396.153Radial†	26607.3	4910.9	µg/L	20.62	4910.9	ppb	20.62	0.42%
QC value within limits for Al 396.153Radial Recovery = 98.22%								
As 188.979†	1612.5	494.56	µg/L	5.091	494.56	ppb	5.091	1.03%
QC value within limits for As 188.979 Recovery = 98.91%								
B 249.677†	31897.6	468.78	µg/L	2.921	468.78	ppb	2.921	0.62%
QC value within limits for B 249.677 Recovery = 93.76%								
Ba 233.527†	118277.3	477.01	µg/L	1.625	477.01	ppb	1.625	0.34%
QC value within limits for Ba 233.527 Recovery = 95.40%								
Be 313.107†	1767759.2	481.46	µg/L	1.895	481.46	ppb	1.895	0.39%
QC value within limits for Be 313.107 Recovery = 96.29%								
Ca 317.933Radial†	86914.6	4841.5	µg/L	4.85	4841.5	ppb	4.85	0.10%
QC value within limits for Ca 317.933Radial Recovery = 96.83%								
Cd 226.502†	75799.5	473.17	µg/L	2.901	473.17	ppb	2.901	0.61%
QC value within limits for Cd 226.502 Recovery = 94.63%								
Co 228.616†	38660.9	477.27	µg/L	2.108	477.27	ppb	2.108	0.44%

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   QC value within limits for Co 228.616  Recovery = 95.45%
Cr 267.716†          60345.5      472.50 µg/L        1.117      472.50 ppb        1.117   0.24%
   QC value within limits for Cr 267.716  Recovery = 94.50%
Cu 324.752†         121901.6      475.21 µg/L        0.213      475.21 ppb        0.213   0.04%
   QC value within limits for Cu 324.752  Recovery = 95.04%
Fe 238.204 Radial†   77565.9      4780.7 µg/L        10.22      4780.7 ppb        10.22   0.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.61%
K 766.490 Radial†    13598.3      4974.5 µg/L        36.41      4974.5 ppb        36.41   0.73%
   QC value within limits for K 766.490 Radial  Recovery = 99.49%
Mg 279.077 IEC†      13185.0      4920.1 µg/L        26.48      4920.1 ppb        26.48   0.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.40%
Mn 257.610†         386801.1      478.38 µg/L        1.457      478.38 ppb        1.457   0.30%
   QC value within limits for Mn 257.610  Recovery = 95.68%
Mo 202.031†          16156.3      475.25 µg/L        1.783      475.25 ppb        1.783   0.38%
   QC value within limits for Mo 202.031  Recovery = 95.05%
Na 589.592 Radial†   72012.7      9833.4 µg/L        12.23      9833.4 ppb        12.23   0.12%
   QC value within limits for Na 589.592 Radial  Recovery = 98.33%
Ni 231.604†          41271.4      475.21 µg/L        2.249      475.21 ppb        2.249   0.47%
   QC value within limits for Ni 231.604  Recovery = 95.04%
P 214.914†           11091.0      2364.0 µg/L        10.88      2364.0 ppb        10.88   0.46%
   QC value within limits for P 214.914  Recovery = 94.56%
Pb 220.353†           8539.8      478.23 µg/L        2.340      478.23 ppb        2.340   0.49%
   QC value within limits for Pb 220.353  Recovery = 95.65%
S 181.975 Axial†      1688.3      1257.7 µg/L        21.41      1257.7 ppb        21.41   1.70%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = 125.77%
Sb 206.836†           3992.6      475.74 µg/L        1.625      475.74 ppb        1.625   0.34%
   QC value within limits for Sb 206.836  Recovery = 95.15%
Se 196.026†           1307.6         475 µg/L          4.4         475 ppb          4.4   0.93%
   QC value within limits for Se 196.026  Recovery = 94.96%
SiO2†                52292.8      5090.8 µg/L        29.05      5090.8 ppb        29.05   0.57%
   QC value within limits for SiO2  Recovery = 95.20%
Si 251.611†         162444.1      2385.4 µg/L         7.77      2385.4 ppb         7.77   0.33%
   QC value within limits for Si 251.611  Recovery = 95.42%
Sn 189.927†           7626.9      477.06 µg/L        3.084      477.06 ppb        3.084   0.65%
   QC value within limits for Sn 189.927  Recovery = 95.41%
Sr 421.552†         234275.6      487.01 µg/L        3.246      487.01 ppb        3.246   0.67%
   QC value within limits for Sr 421.552  Recovery = 97.40%
Ti 334.940†         511011.8      476.81 µg/L        1.149      476.81 ppb        1.149   0.24%
   QC value within limits for Ti 334.940  Recovery = 95.36%
Tl 190.801†           3835.5      478.42 µg/L        1.250      478.42 ppb        1.250   0.26%
   QC value within limits for Tl 190.801  Recovery = 95.68%
U 409.014†            7517.6      468.51 µg/L        3.732      468.51 ppb        3.732   0.80%
   QC value within limits for U 409.014  Recovery = 93.70%
V 292.402†           97114.6      480.05 µg/L        1.572      480.05 ppb        1.572   0.33%
   QC value within limits for V 292.402  Recovery = 96.01%
Zn 213.857†          84539.4      471.17 µg/L        2.196      471.17 ppb        2.196   0.47%
   QC value within limits for Zn 213.857  Recovery = 94.23%
QC Failed.  Continue with analysis.
```

Sequence No.: 190
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 2:21:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142533.7	142533.7	97.7	%			02:21:48
1	Al 396.153Radial†	-46.3	15.8	2.9384	µg/L	2.9384	ppb	02:22:08
1	Ca 317.933Radial†	812.0	270.8	15.085	µg/L	15.085	ppb	02:22:08
1	Fe 238.204 Radial†	148.9	4.3	0.2664	µg/L	0.2664	ppb	02:22:08
1	K 766.490 Radial†	1893.6	393.9	144.21	µg/L	144.21	ppb	02:21:48
1	Mg 279.077 IEC†	191.4	5.2	1.9452	µg/L	1.9452	ppb	02:22:08
1	Na 589.592 Radial†	2030.7	788.2	107.55	µg/L	107.55	ppb	02:21:48
1	Sr 421.552†	35.6	171.7	0.3569	µg/L	0.3569	ppb	02:21:48
1	Sc 361.383	1757302.0	1757302.0	102.27	%			02:22:56
1	Y 371.029	1047691.3	1047691.3	102.05	%			02:22:56
1	Ag 328.068†	4173.8	-10.5	-0.0333	µg/L	-0.0333	ppb	02:22:58
1	As 188.979†	-24.8	-3.9	-1.1733	µg/L	-1.1733	ppb	02:23:18
1	B 249.677†	3656.0	68.8	1.0136	µg/L	1.0136	ppb	02:22:58
1	Ba 233.527†	-145.3	-6.2	-0.0251	µg/L	-0.0251	ppb	02:23:18
1	Be 313.107†	-953.7	132.2	0.0373	µg/L	0.0373	ppb	02:22:58
1	Cd 226.502†	-109.3	11.3	0.0707	µg/L	0.0707	ppb	02:23:18
1	Co 228.616†	-176.7	17.5	0.2164	µg/L	0.2164	ppb	02:23:18
1	Cr 267.716†	172.3	-10.1	-0.0824	µg/L	-0.0824	ppb	02:23:18
1	Cu 324.752†	2966.4	-71.8	-0.2751	µg/L	-0.2751	ppb	02:22:58
1	Mn 257.610†	287.6	44.0	0.0543	µg/L	0.0543	ppb	02:23:18
1	Mo 202.031†	-24.1	-3.5	-0.1021	µg/L	-0.1021	ppb	02:23:18
1	Ni 231.604†	-64.1	13.9	0.1596	µg/L	0.1596	ppb	02:23:18
1	P 214.914†	-11.1	7.1	1.5277	µg/L	1.5277	ppb	02:23:18
1	Pb 220.353†	81.6	-6.6	-0.3717	µg/L	-0.3717	ppb	02:23:18
1	S 181.975 Axial†	419.7	305.3	226.72	µg/L	226.72	ppb	02:23:18
1	Sb 206.836†	83.6	0.9	0.1126	µg/L	0.1126	ppb	02:23:18
1	Se 196.026†	22.7	6.9	2.50	µg/L	2.50	ppb	02:23:18
1	SiO2†	1807.8	-7.8	-0.7674	µg/L	-0.7674	ppb	02:23:18
1	Si 251.611†	1015.5	156.3	2.3014	µg/L	2.3014	ppb	02:22:58
1	Sn 189.927†	11.0	11.9	0.7393	µg/L	0.7393	ppb	02:23:18
1	Ti 334.940†	1008.0	33.1	0.0294	µg/L	0.0294	ppb	02:22:58
1	Tl 190.801†	-73.5	44.8	5.5056	µg/L	5.5056	ppb	02:23:18
1	U 409.014†	-199.5	74.9	4.3804	µg/L	4.3804	ppb	02:22:58
1	V 292.402†	420.5	7.4	0.0374	µg/L	0.0374	ppb	02:22:58
1	Zn 213.857†	628.6	50.2	0.2812	µg/L	0.2812	ppb	02:23:18
2	Sc RADIAL	140995.2	140995.2	96.6	%			02:22:10
2	Al 396.153Radial†	-49.6	11.8	2.2042	µg/L	2.2042	ppb	02:22:30
2	Ca 317.933Radial†	775.8	242.4	13.501	µg/L	13.501	ppb	02:22:30
2	Fe 238.204 Radial†	150.8	8.0	0.4928	µg/L	0.4928	ppb	02:22:30
2	K 766.490 Radial†	1849.8	369.8	135.37	µg/L	135.37	ppb	02:22:10
2	Mg 279.077 IEC†	181.9	-2.5	-0.9202	µg/L	-0.9202	ppb	02:22:30
2	Na 589.592 Radial†	2008.5	787.9	107.52	µg/L	107.52	ppb	02:22:10
2	Sr 421.552†	-96.1	35.9	0.0745	µg/L	0.0745	ppb	02:22:10
2	Sc 361.383	1746876.6	1746876.6	101.67	%			02:23:21
2	Y 371.029	1042581.7	1042581.7	101.55	%			02:23:21
2	Ag 328.068†	4096.2	-62.4	-0.2478	µg/L	-0.2478	ppb	02:23:23
2	As 188.979†	-17.8	2.8	0.8504	µg/L	0.8504	ppb	02:23:43
2	B 249.677†	3611.1	45.9	0.6766	µg/L	0.6766	ppb	02:23:23
2	Ba 233.527†	-113.1	24.6	0.0985	µg/L	0.0985	ppb	02:23:43
2	Be 313.107†	-508.9	564.1	0.1524	µg/L	0.1524	ppb	02:23:23
2	Cd 226.502†	-89.1	30.5	0.1906	µg/L	0.1906	ppb	02:23:43
2	Co 228.616†	-178.9	14.3	0.1770	µg/L	0.1770	ppb	02:23:43
2	Cr 267.716†	186.9	5.3	0.0438	µg/L	0.0438	ppb	02:23:43
2	Cu 324.752†	2747.0	-270.3	-1.0536	µg/L	-1.0536	ppb	02:23:23
2	Mn 257.610†	273.0	31.2	0.0387	µg/L	0.0387	ppb	02:23:43
2	Mo 202.031†	-29.7	-9.1	-0.2682	µg/L	-0.2682	ppb	02:23:43
2	Ni 231.604†	-105.3	-27.1	-0.3115	µg/L	-0.3115	ppb	02:23:43
2	P 214.914†	-22.0	-3.6	-0.7656	µg/L	-0.7656	ppb	02:23:43
2	Pb 220.353†	78.2	-9.5	-0.5265	µg/L	-0.5265	ppb	02:23:43

2	S 181.975 Axial†	415.2	303.3	225.21 µg/L	225.21 ppb	02:23:43
2	Sb 206.836†	72.3	-9.7	-1.1644 µg/L	-1.1644 ppb	02:23:43
2	Se 196.026†	13.2	-2.3	-0.833 µg/L	-0.833 ppb	02:23:43
2	SiO2†	1822.3	17.1	1.6785 µg/L	1.6785 ppb	02:23:43
2	Si 251.611†	1063.6	209.5	3.0940 µg/L	3.0940 ppb	02:23:23
2	Sn 189.927†	-4.2	-3.0	-0.1854 µg/L	-0.1854 ppb	02:23:43
2	Ti 334.940†	904.9	-62.5	-0.0564 µg/L	-0.0564 ppb	02:23:23
2	Tl 190.801†	-70.1	47.7	5.8552 µg/L	5.8552 ppb	02:23:43
2	U 409.014†	-342.8	-67.3	-3.9879 µg/L	-3.9879 ppb	02:23:23
2	V 292.402†	211.0	-196.3	-0.9629 µg/L	-0.9629 ppb	02:23:23
2	Zn 213.857†	601.6	27.3	0.1562 µg/L	0.1562 ppb	02:23:43
3	Sc RADIAL	142382.8	142382.8	97.6 %		02:22:32
3	Al 396.153Radial†	-56.5	5.3	0.9959 µg/L	0.9959 ppb	02:22:53
3	Ca 317.933Radial†	740.0	197.9	11.024 µg/L	11.024 ppb	02:22:53
3	Fe 238.204 Radial†	137.9	-6.8	-0.4201 µg/L	-0.4201 ppb	02:22:53
3	K 766.490 Radial†	1843.8	344.9	126.26 µg/L	126.26 ppb	02:22:32
3	Mg 279.077 IEC†	185.6	-0.4	-0.1653 µg/L	-0.1653 ppb	02:22:53
3	Na 589.592 Radial†	1905.7	662.4	90.378 µg/L	90.378 ppb	02:22:32
3	Sr 421.552†	-190.5	-59.9	-0.1247 µg/L	-0.1247 ppb	02:22:32
3	Sc 361.383	1733759.3	1733759.3	100.90 %		02:23:45
3	Y 371.029	1035483.6	1035483.6	100.86 %		02:23:45
3	Ag 328.068†	3971.4	-155.6	-0.5722 µg/L	-0.5722 ppb	02:23:47
3	As 188.979†	-15.3	5.2	1.5781 µg/L	1.5781 ppb	02:24:07
3	B 249.677†	3495.0	-42.2	-0.6226 µg/L	-0.6226 ppb	02:23:47
3	Ba 233.527†	-129.0	8.0	0.0318 µg/L	0.0318 ppb	02:24:07
3	Be 313.107†	-783.0	288.7	0.0811 µg/L	0.0811 ppb	02:23:47
3	Cd 226.502†	-94.8	24.2	0.1513 µg/L	0.1513 ppb	02:24:07
3	Co 228.616†	-199.6	-7.5	-0.0925 µg/L	-0.0925 ppb	02:24:07
3	Cr 267.716†	165.2	-14.9	-0.1233 µg/L	-0.1233 ppb	02:24:07
3	Cu 324.752†	3082.5	82.7	0.3282 µg/L	0.3282 ppb	02:23:47
3	Mn 257.610†	277.9	38.1	0.0471 µg/L	0.0471 ppb	02:24:07
3	Mo 202.031†	-27.7	-7.4	-0.2175 µg/L	-0.2175 ppb	02:24:07
3	Ni 231.604†	-100.3	-22.8	-0.2630 µg/L	-0.2630 ppb	02:24:07
3	P 214.914†	3.0	20.9	4.4747 µg/L	4.4747 ppb	02:24:07
3	Pb 220.353†	86.0	-1.2	-0.0714 µg/L	-0.0714 ppb	02:24:07
3	S 181.975 Axial†	402.3	293.6	218.02 µg/L	218.02 ppb	02:24:07
3	Sb 206.836†	82.0	0.5	0.0548 µg/L	0.0548 ppb	02:24:07
3	Se 196.026†	21.9	6.5	2.35 µg/L	2.35 ppb	02:24:07
3	SiO2†	1796.2	4.7	0.4621 µg/L	0.4621 ppb	02:24:07
3	Si 251.611†	1001.5	155.9	2.2994 µg/L	2.2994 ppb	02:23:47
3	Sn 189.927†	4.7	5.8	0.3603 µg/L	0.3603 ppb	02:24:07
3	Ti 334.940†	986.8	25.4	0.0207 µg/L	0.0207 ppb	02:23:47
3	Tl 190.801†	-44.3	72.8	8.9372 µg/L	8.9372 ppb	02:24:07
3	U 409.014†	-127.6	143.4	8.3576 µg/L	8.3576 ppb	02:23:47
3	V 292.402†	301.5	-105.0	-0.5092 µg/L	-0.5092 ppb	02:23:47
3	Zn 213.857†	581.7	12.1	0.0693 µg/L	0.0693 ppb	02:24:07

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1745979.3	101.62	%	0.687				0.68%
Sc RADIAL	141970.6	97.3	%	0.58				0.60%
Y 371.029	1041918.9	101.48	%	0.597				0.59%
Ag 328.068†	-76.2	-0.2844	µg/L	0.27132	-0.2844	ppb	0.27132	95.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.0	2.0462	µg/L	0.98085	2.0462	ppb	0.98085	47.94%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.4	0.4184	µg/L	1.42565	0.4184	ppb	1.42565	340.75%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	24.2	0.3559	µg/L	0.86394	0.3559	ppb	0.86394	242.77%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.8	0.0350	µg/L	0.06186	0.0350	ppb	0.06186	176.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	328.3	0.0903	µg/L	0.05810	0.0903	ppb	0.05810	64.34%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	237.0	13.203	µg/L	2.0466	13.203	ppb	2.0466	15.50%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	22.0	0.1375	µg/L	0.06111	0.1375	ppb	0.06111	44.43%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.1	0.1003	µg/L	0.16815	0.1003	ppb	0.16815	167.65%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -6.6     -0.0540 µg/L       0.08710     -0.0540 ppb        0.08710 161.40%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -86.5     -0.3335 µg/L       0.69273     -0.3335 ppb        0.69273 207.71%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.8      0.1130 µg/L       0.47541      0.1130 ppb        0.47541 420.63%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       369.6      135.28 µg/L         8.974      135.28 ppb          8.974   6.63%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.8      0.2866 µg/L       1.48517      0.2866 ppb        1.48517 518.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              37.8      0.0467 µg/L       0.00782      0.0467 ppb        0.00782  16.75%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -6.7     -0.1959 µg/L       0.08513     -0.1959 ppb        0.08513  43.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      746.2      101.82 µg/L         9.907      101.82 ppb          9.907   9.73%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -12.0     -0.1383 µg/L       0.25912     -0.1383 ppb        0.25912 187.35%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                8.1      1.7456 µg/L       2.62689      1.7456 ppb        2.62689 150.49%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -5.7     -0.3232 µg/L       0.23141     -0.3232 ppb        0.23141  71.60%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        300.7      223.31 µg/L         4.649      223.31 ppb          4.649   2.08%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.8     -0.3323 µg/L       0.72115     -0.3323 ppb        0.72115 217.00%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.7        1.34 µg/L         1.882        1.34 ppb          1.882 140.61%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     4.7      0.4577 µg/L       1.22296      0.4577 ppb        1.22296 267.19%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             173.9      2.5649 µg/L       0.45818      2.5649 ppb        0.45818  17.86%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.9      0.3047 µg/L       0.46487      0.3047 ppb        0.46487 152.55%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              49.2      0.1022 µg/L       0.24199      0.1022 ppb        0.24199 236.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -1.3     -0.0021 µg/L       0.04720     -0.0021 ppb        0.04720 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              55.1      6.7660 µg/L       1.88839      6.7660 ppb        1.88839  27.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               50.3      2.9167 µg/L       6.30153      2.9167 ppb        6.30153 216.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -98.0     -0.4782 µg/L       0.50087     -0.4782 ppb        0.50087 104.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              29.9      0.1689 µg/L       0.10651      0.1689 ppb        0.10651  63.06%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 200
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 2:47:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144350.1	144350.1	98.9	%			02:47:33
1	Al 396.153Radial†	26228.7	26578.9	4905.8	µg/L	4905.8	ppb	02:47:33
1	Ca 317.933Radial†	86007.1	86387.7	4812.1	µg/L	4812.1	ppb	02:47:33
1	Fe 238.204 Radial†	76839.4	77532.2	4778.6	µg/L	4778.6	ppb	02:47:33
1	K 766.490 Radial†	15343.0	13966.1	5108.9	µg/L	5108.9	ppb	02:47:33
1	Mg 279.077 IEC†	13163.3	13116.7	4894.5	µg/L	4894.5	ppb	02:47:33
1	Na 589.592 Radial†	85523.5	85168.6	11631	µg/L	11631	ppb	02:47:33
1	Sr 421.552†	229491.2	232137.9	482.56	µg/L	482.56	ppb	02:47:31
1	Sc 361.383	1735080.7	1735080.7	100.98	%			02:47:46
1	Y 371.029	1023835.7	1023835.7	99.722	%			02:47:46
1	Ag 328.068†	132112.4	126737.1	475.24	µg/L	475.24	ppb	02:47:46
1	As 188.979†	1600.3	1605.1	492.29	µg/L	492.29	ppb	02:48:06
1	B 249.677†	35710.3	31857.4	468.19	µg/L	468.19	ppb	02:47:46
1	Ba 233.527†	119099.4	118077.7	476.20	µg/L	476.20	ppb	02:47:46
1	Be 313.107†	1782783.3	1766521.3	481.13	µg/L	481.13	ppb	02:47:46
1	Cd 226.502†	75967.8	75347.7	470.35	µg/L	470.35	ppb	02:47:46
1	Co 228.616†	38757.3	38570.9	476.16	µg/L	476.16	ppb	02:47:46
1	Cr 267.716†	60943.8	60172.9	471.14	µg/L	471.14	ppb	02:47:46
1	Cu 324.752†	126054.9	121857.5	475.04	µg/L	475.04	ppb	02:47:46
1	Mn 257.610†	390617.1	386583.5	478.11	µg/L	478.11	ppb	02:47:46
1	Mo 202.031†	16192.2	16054.9	472.27	µg/L	472.27	ppb	02:48:06
1	Ni 231.604†	41343.1	41017.9	472.29	µg/L	472.29	ppb	02:47:46
1	P 214.914†	11104.9	11015.0	2347.7	µg/L	2347.7	ppb	02:48:06
1	Pb 220.353†	8631.3	8461.0	473.82	µg/L	473.82	ppb	02:48:06
1	S 181.975 Axial†	1898.0	1774.5	1321.7	µg/L	1321.7	ppb	02:48:06
1	Sb 206.836†	4090.9	3970.4	473.06	µg/L	473.06	ppb	02:48:06
1	Se 196.026†	1334.9	1306.7	474	µg/L	474	ppb	02:48:06
1	SiO2†	54695.2	52388.2	5100.2	µg/L	5100.2	ppb	02:47:46
1	Si 251.611†	165090.7	162649.7	2388.5	µg/L	2388.5	ppb	02:47:46
1	Sn 189.927†	7654.2	7581.0	474.20	µg/L	474.20	ppb	02:48:06
1	Ti 334.940†	517218.9	511239.5	477.02	µg/L	477.02	ppb	02:47:46
1	Tl 190.801†	3732.0	3812.4	475.58	µg/L	475.58	ppb	02:48:06
1	U 409.014†	7426.6	7624.3	474.65	µg/L	474.65	ppb	02:47:46
1	V 292.402†	98126.3	96768.8	478.33	µg/L	478.33	ppb	02:47:46
1	Zn 213.857†	85631.0	84234.3	469.47	µg/L	469.47	ppb	02:47:46
2	Sc RADIAL	143197.9	143197.9	98.1	%			02:47:37
2	Al 396.153Radial†	26070.2	26630.7	4915.4	µg/L	4915.4	ppb	02:47:37
2	Ca 317.933Radial†	85328.2	86395.4	4812.6	µg/L	4812.6	ppb	02:47:37
2	Fe 238.204 Radial†	76209.4	77515.2	4777.6	µg/L	4777.6	ppb	02:47:37
2	K 766.490 Radial†	15238.0	13983.9	5115.5	µg/L	5115.5	ppb	02:47:37
2	Mg 279.077 IEC†	12996.4	13053.6	4871.0	µg/L	4871.0	ppb	02:47:37
2	Na 589.592 Radial†	84353.8	84672.3	11563	µg/L	11563	ppb	02:47:37
2	Sr 421.552†	228444.9	232938.2	484.23	µg/L	484.23	ppb	02:47:35
2	Sc 361.383	1729977.8	1729977.8	100.68	%			02:48:09
2	Y 371.029	1021138.1	1021138.1	99.459	%			02:48:09
2	Ag 328.068†	132255.3	127264.8	477.20	µg/L	477.20	ppb	02:48:09
2	As 188.979†	1600.4	1609.8	493.75	µg/L	493.75	ppb	02:48:29
2	B 249.677†	35924.0	32173.9	472.86	µg/L	472.86	ppb	02:48:09
2	Ba 233.527†	118874.7	118202.5	476.71	µg/L	476.71	ppb	02:48:09
2	Be 313.107†	1779803.9	1768769.7	481.74	µg/L	481.74	ppb	02:48:09
2	Cd 226.502†	76106.7	75707.5	472.60	µg/L	472.60	ppb	02:48:09
2	Co 228.616†	38701.0	38628.3	476.87	µg/L	476.87	ppb	02:48:09
2	Cr 267.716†	61014.5	60421.2	473.09	µg/L	473.09	ppb	02:48:09
2	Cu 324.752†	126154.1	122324.3	476.85	µg/L	476.85	ppb	02:48:09
2	Mn 257.610†	389925.2	387037.3	478.68	µg/L	478.68	ppb	02:48:09
2	Mo 202.031†	16171.0	16081.2	473.04	µg/L	473.04	ppb	02:48:29
2	Ni 231.604†	41427.6	41222.5	474.65	µg/L	474.65	ppb	02:48:09
2	P 214.914†	11099.7	11042.2	2353.5	µg/L	2353.5	ppb	02:48:29
2	Pb 220.353†	8601.5	8456.6	473.58	µg/L	473.58	ppb	02:48:29

2	S 181.975 Axial†	1845.1	1727.5	1286.8 µg/L	1286.8 ppb	02:48:29
2	Sb 206.836†	4100.2	3991.5	475.56 µg/L	475.56 ppb	02:48:29
2	Se 196.026†	1327.8	1303.5	473 µg/L	473 ppb	02:48:29
2	SiO2†	54326.1	52181.4	5080.0 µg/L	5080.0 ppb	02:48:09
2	Si 251.611†	164905.6	162948.1	2392.9 µg/L	2392.9 ppb	02:48:09
2	Sn 189.927†	7653.3	7602.4	475.54 µg/L	475.54 ppb	02:48:29
2	Ti 334.940†	516285.7	511823.6	477.57 µg/L	477.57 ppb	02:48:09
2	Tl 190.801†	3663.6	3755.4	468.58 µg/L	468.58 ppb	02:48:29
2	U 409.014†	7377.7	7597.4	473.10 µg/L	473.10 ppb	02:48:09
2	V 292.402†	97929.6	96860.1	478.79 µg/L	478.79 ppb	02:48:09
2	Zn 213.857†	85635.6	84489.1	470.89 µg/L	470.89 ppb	02:48:09
3	Sc RADIAL	145242.2	145242.2	99.5 %		02:47:41
3	Al 396.153Radial†	26268.1	26455.7	4882.8 µg/L	4882.8 ppb	02:47:41
3	Ca 317.933Radial†	86324.1	86172.1	4800.1 µg/L	4800.1 ppb	02:47:41
3	Fe 238.204 Radial†	77185.1	77402.4	4770.6 µg/L	4770.6 ppb	02:47:41
3	K 766.490 Radial†	15378.8	13906.8	5087.2 µg/L	5087.2 ppb	02:47:41
3	Mg 279.077 IEC†	13138.0	13009.5	4854.7 µg/L	4854.7 ppb	02:47:41
3	Na 589.592 Radial†	85226.4	84339.0	11517 µg/L	11517 ppb	02:47:41
3	Sr 421.552†	228321.6	229537.8	477.16 µg/L	477.16 ppb	02:47:39
3	Sc 361.383	1722897.8	1722897.8	100.27 %		02:48:32
3	Y 371.029	1017279.7	1017279.7	99.084 %		02:48:32
3	Ag 328.068†	131579.2	127130.4	476.70 µg/L	476.70 ppb	02:48:32
3	As 188.979†	1572.0	1588.0	487.15 µg/L	487.15 ppb	02:48:52
3	B 249.677†	35666.5	32063.7	471.23 µg/L	471.23 ppb	02:48:32
3	Ba 233.527†	118266.8	118081.4	476.22 µg/L	476.22 ppb	02:48:32
3	Be 313.107†	1769881.6	1766138.5	481.02 µg/L	481.02 ppb	02:48:32
3	Cd 226.502†	75739.9	75652.3	472.25 µg/L	472.25 ppb	02:48:32
3	Co 228.616†	38545.9	38631.5	476.90 µg/L	476.90 ppb	02:48:32
3	Cr 267.716†	60533.7	60190.7	471.28 µg/L	471.28 ppb	02:48:32
3	Cu 324.752†	125338.4	122025.7	475.69 µg/L	475.69 ppb	02:48:32
3	Mn 257.610†	387950.9	386659.8	478.21 µg/L	478.21 ppb	02:48:32
3	Mo 202.031†	16180.5	16156.6	475.26 µg/L	475.26 ppb	02:48:52
3	Ni 231.604†	41057.6	41022.6	472.35 µg/L	472.35 ppb	02:48:32
3	P 214.914†	11090.2	11078.0	2361.2 µg/L	2361.2 ppb	02:48:52
3	Pb 220.353†	8596.5	8486.8	475.26 µg/L	475.26 ppb	02:48:52
3	S 181.975 Axial†	1808.3	1698.3	1265.1 µg/L	1265.1 ppb	02:48:52
3	Sb 206.836†	4086.2	3994.3	475.96 µg/L	475.96 ppb	02:48:52
3	Se 196.026†	1329.9	1311.0	476 µg/L	476 ppb	02:48:52
3	SiO2†	54093.6	52171.3	5078.9 µg/L	5078.9 ppb	02:48:32
3	Si 251.611†	163851.5	162569.8	2387.3 µg/L	2387.3 ppb	02:48:32
3	Sn 189.927†	7645.7	7626.1	477.02 µg/L	477.02 ppb	02:48:52
3	Ti 334.940†	513965.1	511616.4	477.38 µg/L	477.38 ppb	02:48:32
3	Tl 190.801†	3647.7	3754.5	468.47 µg/L	468.47 ppb	02:48:52
3	U 409.014†	7387.3	7637.1	475.41 µg/L	475.41 ppb	02:48:32
3	V 292.402†	97466.6	96798.1	478.51 µg/L	478.51 ppb	02:48:32
3	Zn 213.857†	85311.1	84515.0	471.05 µg/L	471.05 ppb	02:48:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729318.8	100.65	%	0.356				0.35%
Sc RADIAL	144263.4	98.9	%	0.70				0.71%
Y 371.029	1020751.1	99.422	%	0.3209				0.32%
Ag 328.068†	127044.1	476.38	µg/L	1.017	476.38	ppb	1.017	0.21%
QC value within limits for Ag 328.068 Recovery = 95.28%								
Al 396.153Radial†	26555.1	4901.3	µg/L	16.73	4901.3	ppb	16.73	0.34%
QC value within limits for Al 396.153Radial Recovery = 98.03%								
As 188.979†	1601.0	491.06	µg/L	3.468	491.06	ppb	3.468	0.71%
QC value within limits for As 188.979 Recovery = 98.21%								
B 249.677†	32031.7	470.76	µg/L	2.368	470.76	ppb	2.368	0.50%
QC value within limits for B 249.677 Recovery = 94.15%								
Ba 233.527†	118120.5	476.38	µg/L	0.286	476.38	ppb	0.286	0.06%
QC value within limits for Ba 233.527 Recovery = 95.28%								
Be 313.107†	1767143.2	481.30	µg/L	0.387	481.30	ppb	0.387	0.08%
QC value within limits for Be 313.107 Recovery = 96.26%								
Ca 317.933Radial†	86318.4	4808.3	µg/L	7.06	4808.3	ppb	7.06	0.15%
QC value within limits for Ca 317.933Radial Recovery = 96.17%								
Cd 226.502†	75569.2	471.73	µg/L	1.211	471.73	ppb	1.211	0.26%
QC value within limits for Cd 226.502 Recovery = 94.35%								
Co 228.616†	38610.2	476.64	µg/L	0.421	476.64	ppb	0.421	0.09%

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   QC value within limits for Co 228.616  Recovery = 95.33%
Cr 267.716†            60261.6      471.83 µg/L         1.086      471.83 ppb          1.086   0.23%
   QC value within limits for Cr 267.716  Recovery = 94.37%
Cu 324.752†           122069.2      475.86 µg/L         0.918      475.86 ppb          0.918   0.19%
   QC value within limits for Cu 324.752  Recovery = 95.17%
Fe 238.204 Radial†     77483.3      4775.6 µg/L          4.35      4775.6 ppb           4.35   0.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.51%
K 766.490 Radial†      13952.3      5103.9 µg/L         14.77      5103.9 ppb          14.77   0.29%
   QC value within limits for K 766.490 Radial  Recovery = 102.08%
Mg 279.077 IEC†        13059.9      4873.4 µg/L         20.02      4873.4 ppb          20.02   0.41%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.47%
Mn 257.610†           386760.2      478.33 µg/L         0.301      478.33 ppb          0.301   0.06%
   QC value within limits for Mn 257.610  Recovery = 95.67%
Mo 202.031†            16097.6      473.52 µg/L         1.551      473.52 ppb          1.551   0.33%
   QC value within limits for Mo 202.031  Recovery = 94.70%
Na 589.592 Radial†     84726.6       11570 µg/L          57.0       11570 ppb           57.0   0.49%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 115.70%
Ni 231.604†            41087.6      473.09 µg/L         1.345      473.09 ppb          1.345   0.28%
   QC value within limits for Ni 231.604  Recovery = 94.62%
P 214.914†             11045.1      2354.2 µg/L          6.76      2354.2 ppb           6.76   0.29%
   QC value within limits for P 214.914  Recovery = 94.17%
Pb 220.353†             8468.1      474.22 µg/L         0.911      474.22 ppb          0.911   0.19%
   QC value within limits for Pb 220.353  Recovery = 94.84%
S 181.975 Axial†        1733.4      1291.2 µg/L         28.53      1291.2 ppb          28.53   2.21%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = 129.12%
Sb 206.836†             3985.4      474.86 µg/L         1.568      474.86 ppb          1.568   0.33%
   QC value within limits for Sb 206.836  Recovery = 94.97%
Se 196.026†             1307.1         475 µg/L           1.4         475 ppb            1.4   0.29%
   QC value within limits for Se 196.026  Recovery = 94.93%
SiO2†                  52247.0      5086.4 µg/L         12.02      5086.4 ppb          12.02   0.24%
   QC value within limits for SiO2  Recovery = 95.12%
Si 251.611†           162722.5      2389.6 µg/L          2.95      2389.6 ppb           2.95   0.12%
   QC value within limits for Si 251.611  Recovery = 95.58%
Sn 189.927†             7603.1      475.58 µg/L         1.408      475.58 ppb          1.408   0.30%
   QC value within limits for Sn 189.927  Recovery = 95.12%
Sr 421.552†           231538.0      481.32 µg/L         3.696      481.32 ppb          3.696   0.77%
   QC value within limits for Sr 421.552  Recovery = 96.26%
Ti 334.940†           511559.8      477.32 µg/L         0.278      477.32 ppb          0.278   0.06%
   QC value within limits for Ti 334.940  Recovery = 95.46%
Tl 190.801†             3774.1      470.88 µg/L         4.075      470.88 ppb          4.075   0.87%
   QC value within limits for Tl 190.801  Recovery = 94.18%
U 409.014†              7619.6      474.39 µg/L         1.174      474.39 ppb          1.174   0.25%
   QC value within limits for U 409.014  Recovery = 94.88%
V 292.402†             96809.0      478.54 µg/L         0.232      478.54 ppb          0.232   0.05%
   QC value within limits for V 292.402  Recovery = 95.71%
Zn 213.857†            84412.8      470.47 µg/L         0.867      470.47 ppb          0.867   0.18%
   QC value within limits for Zn 213.857  Recovery = 94.09%
QC Failed.  Continue with analysis.
```

Sequence No.: 201
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 2:49:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143285.4	143285.4	98.2	%			02:49:29
1	Al 396.153Radial†	-71.7	-9.8	-1.8058	µg/L	-1.8058	ppb	02:49:49
1	Ca 317.933Radial†	595.1	45.5	2.5347	µg/L	2.5347	ppb	02:49:49
1	Fe 238.204 Radial†	146.6	1.2	0.0760	µg/L	0.0760	ppb	02:49:49
1	K 766.490 Radial†	1934.3	425.2	155.46	µg/L	155.46	ppb	02:49:29
1	Mg 279.077 IEC†	167.1	-20.5	-7.6406	µg/L	-7.6406	ppb	02:49:49
1	Na 589.592 Radial†	11220.6	10136.9	1384.7	µg/L	1384.7	ppb	02:49:29
1	Sr 421.552†	-193.9	-62.2	-0.1292	µg/L	-0.1292	ppb	02:49:29
1	Sc 361.383	1752326.8	1752326.8	101.99	%			02:50:37
1	Y 371.029	1044520.1	1044520.1	101.74	%			02:50:37
1	Ag 328.068†	3984.9	-184.1	-0.6824	µg/L	-0.6824	ppb	02:50:39
1	As 188.979†	-14.0	6.6	1.9969	µg/L	1.9969	ppb	02:50:59
1	B 249.677†	3624.3	47.8	0.7042	µg/L	0.7042	ppb	02:50:39
1	Ba 233.527†	-123.5	14.7	0.0593	µg/L	0.0593	ppb	02:50:59
1	Be 313.107†	-829.9	251.0	0.0684	µg/L	0.0684	ppb	02:50:39
1	Cd 226.502†	-84.0	35.8	0.2237	µg/L	0.2237	ppb	02:50:59
1	Co 228.616†	-162.6	30.8	0.3804	µg/L	0.3804	ppb	02:50:59
1	Cr 267.716†	186.9	4.7	0.0364	µg/L	0.0364	ppb	02:50:59
1	Cu 324.752†	2988.3	-42.0	-0.1631	µg/L	-0.1631	ppb	02:50:39
1	Mn 257.610†	271.5	29.0	0.0361	µg/L	0.0361	ppb	02:50:59
1	Mo 202.031†	-30.2	-9.6	-0.2810	µg/L	-0.2810	ppb	02:50:59
1	Ni 231.604†	-95.4	-17.1	-0.1966	µg/L	-0.1966	ppb	02:50:59
1	P 214.914†	-38.5	-19.8	-4.2327	µg/L	-4.2327	ppb	02:50:59
1	Pb 220.353†	75.5	-12.4	-0.6917	µg/L	-0.6917	ppb	02:50:59
1	S 181.975 Axial†	433.7	320.2	237.80	µg/L	237.80	ppb	02:50:59
1	Sb 206.836†	88.2	5.6	0.6633	µg/L	0.6633	ppb	02:50:59
1	Se 196.026†	18.1	2.5	0.898	µg/L	0.898	ppb	02:50:59
1	SiO2†	1786.4	-23.7	-2.3127	µg/L	-2.3127	ppb	02:50:59
1	Si 251.611†	933.6	78.8	1.1640	µg/L	1.1640	ppb	02:50:39
1	Sn 189.927†	3.6	4.6	0.2882	µg/L	0.2882	ppb	02:50:59
1	Ti 334.940†	1101.4	127.4	0.1196	µg/L	0.1196	ppb	02:50:39
1	Tl 190.801†	-18.8	98.2	12.068	µg/L	12.068	ppb	02:50:59
1	U 409.014†	-269.8	5.3	0.3076	µg/L	0.3076	ppb	02:50:39
1	V 292.402†	393.5	-18.0	-0.0903	µg/L	-0.0903	ppb	02:50:39
1	Zn 213.857†	640.1	63.2	0.3564	µg/L	0.3564	ppb	02:50:59
2	Sc RADIAL	142448.9	142448.9	97.6	%			02:49:51
2	Al 396.153Radial†	-80.1	-18.9	-3.4987	µg/L	-3.4987	ppb	02:50:11
2	Ca 317.933Radial†	604.0	58.1	3.2391	µg/L	3.2391	ppb	02:50:11
2	Fe 238.204 Radial†	136.7	-8.1	-0.4962	µg/L	-0.4962	ppb	02:50:11
2	K 766.490 Radial†	1971.5	474.9	173.64	µg/L	173.64	ppb	02:49:51
2	Mg 279.077 IEC†	181.3	-4.9	-1.8347	µg/L	-1.8347	ppb	02:50:11
2	Na 589.592 Radial†	11007.1	9985.3	1364.0	µg/L	1364.0	ppb	02:49:51
2	Sr 421.552†	-296.7	-168.7	-0.3506	µg/L	-0.3506	ppb	02:49:51
2	Sc 361.383	1743448.5	1743448.5	101.47	%			02:51:01
2	Y 371.029	1039864.1	1039864.1	101.28	%			02:51:01
2	Ag 328.068†	4186.0	34.1	0.0996	µg/L	0.0996	ppb	02:51:04
2	As 188.979†	-18.5	2.2	0.6509	µg/L	0.6509	ppb	02:51:24
2	B 249.677†	3669.2	110.2	1.6256	µg/L	1.6256	ppb	02:51:04
2	Ba 233.527†	-125.5	12.1	0.0485	µg/L	0.0485	ppb	02:51:24
2	Be 313.107†	-764.5	311.2	0.0800	µg/L	0.0800	ppb	02:51:04
2	Cd 226.502†	-111.8	8.0	0.0499	µg/L	0.0499	ppb	02:51:24
2	Co 228.616†	-195.5	-2.4	-0.0291	µg/L	-0.0291	ppb	02:51:24
2	Cr 267.716†	178.0	-3.1	-0.0126	µg/L	-0.0126	ppb	02:51:24
2	Cu 324.752†	3031.4	15.3	0.0464	µg/L	0.0464	ppb	02:51:04
2	Mn 257.610†	270.9	29.7	0.0368	µg/L	0.0368	ppb	02:51:24
2	Mo 202.031†	-18.7	1.6	0.0481	µg/L	0.0481	ppb	02:51:24
2	Ni 231.604†	-92.0	-14.2	-0.1629	µg/L	-0.1629	ppb	02:51:24
2	P 214.914†	-21.9	-3.6	-0.7804	µg/L	-0.7804	ppb	02:51:24
2	Pb 220.353†	94.2	6.4	0.3702	µg/L	0.3702	ppb	02:51:24

2	S 181.975 Axial†	418.8	307.7	228.47 µg/L	228.47 ppb		02:51:24
2	Sb 206.836†	71.8	-10.1	-1.1978 µg/L	-1.1978 ppb		02:51:24
2	Se 196.026†	10.4	-5.0	-1.84 µg/L	-1.84 ppb		02:51:24
2	SiO2†	1814.8	13.2	1.2903 µg/L	1.2903 ppb		02:51:24
2	Si 251.611†	895.5	45.9	0.6794 µg/L	0.6794 ppb		02:51:04
2	Sn 189.927†	-7.6	-6.4	-0.3979 µg/L	-0.3979 ppb		02:51:24
2	Ti 334.940†	806.3	-157.9	-0.1409 µg/L	-0.1409 ppb		02:51:04
2	Tl 190.801†	-3.5	113.3	13.912 µg/L	13.912 ppb		02:51:24
2	U 409.014†	-544.2	-266.5	-15.615 µg/L	-15.615 ppb		02:51:04
2	V 292.402†	282.2	-125.7	-0.6229 µg/L	-0.6229 ppb		02:51:04
2	Zn 213.857†	590.2	17.3	0.0980 µg/L	0.0980 ppb		02:51:24
3	Sc RADIAL	145771.5	145771.5	99.9 %			02:50:13
3	Al 396.153Radial†	-87.3	-24.2	-4.4567 µg/L	-4.4567 ppb		02:50:33
3	Ca 317.933Radial†	622.8	62.9	3.5055 µg/L	3.5055 ppb		02:50:33
3	Fe 238.204 Radial†	153.4	5.5	0.3375 µg/L	0.3375 ppb		02:50:33
3	K 766.490 Radial†	2120.5	578.0	211.41 µg/L	211.41 ppb		02:50:13
3	Mg 279.077 IEC†	197.6	7.1	2.6404 µg/L	2.6404 ppb		02:50:33
3	Na 589.592 Radial†	10446.1	9166.6	1252.1 µg/L	1252.1 ppb		02:50:13
3	Sr 421.552†	-272.9	-137.9	-0.2867 µg/L	-0.2867 ppb		02:50:13
3	Sc 361.383	1749649.9	1749649.9	101.83 %			02:51:26
3	Y 371.029	1043874.1	1043874.1	101.67 %			02:51:26
3	Ag 328.068†	3981.6	-181.3	-0.6631 µg/L	-0.6631 ppb		02:51:28
3	As 188.979†	-17.4	3.3	0.9850 µg/L	0.9850 ppb		02:51:48
3	B 249.677†	3525.0	-44.2	-0.6527 µg/L	-0.6527 ppb		02:51:28
3	Ba 233.527†	-136.8	1.5	0.0057 µg/L	0.0057 ppb		02:51:48
3	Be 313.107†	-989.5	93.0	0.0288 µg/L	0.0288 ppb		02:51:28
3	Cd 226.502†	-106.6	13.6	0.0847 µg/L	0.0847 ppb		02:51:48
3	Co 228.616†	-172.6	20.8	0.2569 µg/L	0.2569 ppb		02:51:48
3	Cr 267.716†	208.9	26.6	0.1986 µg/L	0.1986 ppb		02:51:48
3	Cu 324.752†	2628.4	-391.1	-1.5098 µg/L	-1.5098 ppb		02:51:28
3	Mn 257.610†	274.5	32.3	0.0398 µg/L	0.0398 ppb		02:51:48
3	Mo 202.031†	-38.7	-17.9	-0.5273 µg/L	-0.5273 ppb		02:51:48
3	Ni 231.604†	-80.2	-2.2	-0.0256 µg/L	-0.0256 ppb		02:51:48
3	P 214.914†	-9.6	8.5	1.8368 µg/L	1.8368 ppb		02:51:48
3	Pb 220.353†	66.4	-21.2	-1.1913 µg/L	-1.1913 ppb		02:51:48
3	S 181.975 Axial†	404.6	292.3	217.02 µg/L	217.02 ppb		02:51:48
3	Sb 206.836†	87.9	5.5	0.6461 µg/L	0.6461 ppb		02:51:48
3	Se 196.026†	5.0	-10.4	-3.73 µg/L	-3.73 ppb		02:51:48
3	SiO2†	1783.0	-24.4	-2.3667 µg/L	-2.3667 ppb		02:51:48
3	Si 251.611†	951.4	97.7	1.4500 µg/L	1.4500 ppb		02:51:28
3	Sn 189.927†	-5.8	-4.6	-0.2885 µg/L	-0.2885 ppb		02:51:48
3	Ti 334.940†	790.5	-176.3	-0.1697 µg/L	-0.1697 ppb		02:51:28
3	Tl 190.801†	34.7	150.7	18.513 µg/L	18.513 ppb		02:51:48
3	U 409.014†	-71.7	199.5	11.634 µg/L	11.634 ppb		02:51:28
3	V 292.402†	308.0	-101.3	-0.4907 µg/L	-0.4907 ppb		02:51:28
3	Zn 213.857†	628.3	52.6	0.2965 µg/L	0.2965 ppb		02:51:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1748475.0	101.76	%	0.265				0.26%
Sc RADIAL	143835.3	98.6	%	1.18				1.20%
Y 371.029	1042752.8	101.56	%	0.246				0.24%
Ag 328.068†	-110.4	-0.4153	µg/L	0.44602	-0.4153	ppb	0.44602	107.40%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-17.6	-3.2537	µg/L	1.34234	-3.2537	ppb	1.34234	41.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.0	1.2109	µg/L	0.70088	1.2109	ppb	0.70088	57.88%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	38.0	0.5590	µg/L	1.14606	0.5590	ppb	1.14606	205.01%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.5	0.0379	µg/L	0.02832	0.0379	ppb	0.02832	74.82%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	218.4	0.0591	µg/L	0.02684	0.0591	ppb	0.02684	45.41%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	55.5	3.0931	µg/L	0.50159	3.0931	ppb	0.50159	16.22%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.1	0.1194	µg/L	0.09196	0.1194	ppb	0.09196	77.00%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	16.4	0.2027	µg/L	0.21008	0.2027	ppb	0.21008	103.62%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.4      0.0741 µg/L       0.11055      0.0741 ppb        0.11055 149.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -139.3     -0.5421 µg/L       0.84454     -0.5421 ppb        0.84454 155.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.4     -0.0276 µg/L       0.42641     -0.0276 ppb        0.42641 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         492.7      180.17 µg/L        28.541      180.17 ppb         28.541  15.84%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -6.1     -2.2783 µg/L       5.15483     -2.2783 ppb        5.15483 226.26%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                30.3      0.0376 µg/L       0.00196      0.0376 ppb        0.00196   5.21%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -8.6     -0.2534 µg/L       0.28865     -0.2534 ppb        0.28865 113.92%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       9762.9      1333.6 µg/L         71.33      1333.6 ppb          71.33   5.35%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -11.2     -0.1284 µg/L       0.09057     -0.1284 ppb        0.09057  70.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -5.0     -1.0588 µg/L       3.04432     -1.0588 ppb        3.04432 287.53%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -9.0     -0.5043 µg/L       0.79745     -0.5043 ppb        0.79745 158.14%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         306.7      227.76 µg/L        10.409      227.76 ppb         10.409   4.57%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.4      0.0372 µg/L       1.06958      0.0372 ppb        1.06958 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.3       -1.56 µg/L         2.327       -1.56 ppb          2.327 149.47%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -11.7     -1.1297 µg/L       2.09595     -1.1297 ppb        2.09595 185.53%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                74.2      1.0978 µg/L       0.38957      1.0978 ppb        0.38957  35.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.1     -0.1327 µg/L       0.36862     -0.1327 ppb        0.36862 277.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -122.9     -0.2555 µg/L       0.11395     -0.2555 ppb        0.11395  44.59%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -68.9     -0.0636 µg/L       0.15935     -0.0636 ppb        0.15935 250.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               120.7      14.831 µg/L        3.3194      14.831 ppb         3.3194  22.38%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -20.6     -1.2243 µg/L      13.68877     -1.2243 ppb       13.68877 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -81.6     -0.4013 µg/L       0.27732     -0.4013 ppb        0.27732  69.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                44.4      0.2503 µg/L       0.13524      0.2503 ppb        0.13524  54.03%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 212
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 3:13:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141609.9	141609.9	97.0	%			03:13:57
1	Al 396.153Radial†	25900.5	26753.8	4938.0	µg/L	4938.0	ppb	03:13:57
1	Ca 317.933Radial†	84686.8	86709.6	4830.1	µg/L	4830.1	ppb	03:13:57
1	Fe 238.204 Radial†	75392.8	77544.5	4779.4	µg/L	4779.4	ppb	03:13:57
1	K 766.490 Radial†	14527.6	13426.0	4911.4	µg/L	4911.4	ppb	03:13:57
1	Mg 279.077 IEC†	12920.6	13124.0	4897.4	µg/L	4897.4	ppb	03:13:57
1	Na 589.592 Radial†	74132.9	75103.5	10256	µg/L	10256	ppb	03:13:57
1	Sr 421.552†	227259.6	234327.5	487.12	µg/L	487.12	ppb	03:13:55
1	Sc 361.383	1724519.1	1724519.1	100.37	%			03:14:24
1	Y 371.029	1016919.2	1016919.2	99.048	%			03:14:24
1	Ag 328.068†	131759.4	127186.5	476.91	µg/L	476.91	ppb	03:14:24
1	As 188.979†	1617.4	1631.9	500.43	µg/L	500.43	ppb	03:14:44
1	B 249.677†	35573.7	31937.8	469.37	µg/L	469.37	ppb	03:14:24
1	Ba 233.527†	118495.9	118198.7	476.69	µg/L	476.69	ppb	03:14:24
1	Be 313.107†	1772888.7	1767475.2	481.39	µg/L	481.39	ppb	03:14:24
1	Cd 226.502†	76042.0	75882.4	473.69	µg/L	473.69	ppb	03:14:24
1	Co 228.616†	38682.7	38731.7	478.14	µg/L	478.14	ppb	03:14:24
1	Cr 267.716†	60883.2	60482.1	473.56	µg/L	473.56	ppb	03:14:24
1	Cu 324.752†	125481.8	122051.1	475.79	µg/L	475.79	ppb	03:14:24
1	Mn 257.610†	388799.5	387141.5	478.80	µg/L	478.80	ppb	03:14:24
1	Mo 202.031†	16283.3	16243.8	477.82	µg/L	477.82	ppb	03:14:44
1	Ni 231.604†	41425.2	41350.3	476.12	µg/L	476.12	ppb	03:14:24
1	P 214.914†	11209.4	11186.4	2384.4	µg/L	2384.4	ppb	03:14:44
1	Pb 220.353†	8704.1	8585.9	480.80	µg/L	480.80	ppb	03:14:44
1	S 181.975 Axial†	1493.0	1382.4	1030.6	µg/L	1030.6	ppb	03:14:44
1	Sb 206.836†	4161.7	4065.7	484.45	µg/L	484.45	ppb	03:14:44
1	Se 196.026†	1343.1	1322.9	480	µg/L	480	ppb	03:14:44
1	SiO2†	54169.2	52195.9	5081.2	µg/L	5081.2	ppb	03:14:24
1	Si 251.611†	163798.3	162363.2	2384.2	µg/L	2384.2	ppb	03:14:24
1	Sn 189.927†	7708.8	7681.8	480.49	µg/L	480.49	ppb	03:14:44
1	Ti 334.940†	514144.0	511312.8	477.09	µg/L	477.09	ppb	03:14:24
1	Tl 190.801†	3782.7	3885.5	484.56	µg/L	484.56	ppb	03:14:44
1	U 409.014†	7391.9	7634.8	475.26	µg/L	475.26	ppb	03:14:24
1	V 292.402†	97528.5	96768.3	478.40	µg/L	478.40	ppb	03:14:24
1	Zn 213.857†	85289.7	84413.7	470.45	µg/L	470.45	ppb	03:14:24
2	Sc RADIAL	143935.9	143935.9	98.6	%			03:14:01
2	Al 396.153Radial†	26331.1	26759.0	4939.2	µg/L	4939.2	ppb	03:14:01
2	Ca 317.933Radial†	86594.3	87233.3	4859.2	µg/L	4859.2	ppb	03:14:01
2	Fe 238.204 Radial†	76913.8	77831.2	4797.0	µg/L	4797.0	ppb	03:14:01
2	K 766.490 Radial†	14816.5	13476.9	4930.0	µg/L	4930.0	ppb	03:14:01
2	Mg 279.077 IEC†	13220.5	13212.9	4930.4	µg/L	4930.4	ppb	03:14:01
2	Na 589.592 Radial†	75550.6	75306.4	10283	µg/L	10283	ppb	03:14:01
2	Sr 421.552†	228497.8	231798.4	481.86	µg/L	481.86	ppb	03:13:59
2	Sc 361.383	1738137.6	1738137.6	101.16	%			03:14:47
2	Y 371.029	1025437.7	1025437.7	99.878	%			03:14:47
2	Ag 328.068†	132376.0	126767.5	475.37	µg/L	475.37	ppb	03:14:47
2	As 188.979†	1591.5	1593.6	488.85	µg/L	488.85	ppb	03:15:07
2	B 249.677†	35851.5	31934.8	469.33	µg/L	469.33	ppb	03:14:47
2	Ba 233.527†	119360.5	118128.5	476.41	µg/L	476.41	ppb	03:14:47
2	Be 313.107†	1783349.2	1763975.7	480.43	µg/L	480.43	ppb	03:14:47
2	Cd 226.502†	76462.8	75704.7	472.58	µg/L	472.58	ppb	03:14:47
2	Co 228.616†	38867.0	38611.9	476.66	µg/L	476.66	ppb	03:14:47
2	Cr 267.716†	61200.5	60320.6	472.29	µg/L	472.29	ppb	03:14:47
2	Cu 324.752†	126080.6	121663.5	474.29	µg/L	474.29	ppb	03:14:47
2	Mn 257.610†	391256.7	386535.4	478.05	µg/L	478.05	ppb	03:14:47
2	Mo 202.031†	16230.4	16064.5	472.55	µg/L	472.55	ppb	03:15:07
2	Ni 231.604†	41463.0	41064.4	472.83	µg/L	472.83	ppb	03:14:47
2	P 214.914†	11143.5	11033.8	2351.8	µg/L	2351.8	ppb	03:15:07
2	Pb 220.353†	8645.1	8459.7	473.74	µg/L	473.74	ppb	03:15:07

2	S 181.975 Axial†	1480.0	1357.9	1012.4 µg/L	1012.4 ppb	03:15:07
2	Sb 206.836†	4116.5	3988.5	475.20 µg/L	475.20 ppb	03:15:07
2	Se 196.026†	1336.1	1305.6	474 µg/L	474 ppb	03:15:07
2	SiO2†	54693.6	52291.4	5090.8 µg/L	5090.8 ppb	03:14:47
2	Si 251.611†	165270.6	162539.9	2386.9 µg/L	2386.9 ppb	03:14:47
2	Sn 189.927†	7648.8	7562.3	473.03 µg/L	473.03 ppb	03:15:07
2	Ti 334.940†	517308.4	510427.2	476.26 µg/L	476.26 ppb	03:14:47
2	Tl 190.801†	3752.9	3826.6	477.32 µg/L	477.32 ppb	03:15:07
2	U 409.014†	7552.0	7735.3	481.16 µg/L	481.16 ppb	03:14:47
2	V 292.402†	98376.4	96845.2	478.71 µg/L	478.71 ppb	03:14:47
2	Zn 213.857†	86281.1	84727.8	472.24 µg/L	472.24 ppb	03:14:47
3	Sc RADIAL	140443.4	140443.4	96.2 %		03:14:05
3	Al 396.153Radial†	25676.7	26743.0	4936.2 µg/L	4936.2 ppb	03:14:05
3	Ca 317.933Radial†	83864.4	86579.9	4822.8 µg/L	4822.8 ppb	03:14:05
3	Fe 238.204 Radial†	74604.1	77370.4	4768.6 µg/L	4768.6 ppb	03:14:05
3	K 766.490 Radial†	14449.6	13469.3	4927.2 µg/L	4927.2 ppb	03:14:05
3	Mg 279.077 IEC†	12779.0	13087.5	4883.7 µg/L	4883.7 ppb	03:14:05
3	Na 589.592 Radial†	73771.5	75362.6	10291 µg/L	10291 ppb	03:14:05
3	Sr 421.552†	229430.1	238528.0	495.85 µg/L	495.85 ppb	03:14:03
3	Sc 361.383	1744274.4	1744274.4	101.52 %		03:15:10
3	Y 371.029	1028879.6	1028879.6	100.21 %		03:15:10
3	Ag 328.068†	133589.1	127502.1	478.11 µg/L	478.11 ppb	03:15:10
3	As 188.979†	1613.5	1609.8	493.74 µg/L	493.74 ppb	03:15:30
3	B 249.677†	36166.0	32119.8	472.05 µg/L	472.05 ppb	03:15:10
3	Ba 233.527†	120009.6	118352.7	477.31 µg/L	477.31 ppb	03:15:10
3	Be 313.107†	1795578.5	1769820.0	482.02 µg/L	482.02 ppb	03:15:10
3	Cd 226.502†	77434.5	76396.0	476.90 µg/L	476.90 ppb	03:15:10
3	Co 228.616†	39130.1	38735.9	478.19 µg/L	478.19 ppb	03:15:10
3	Cr 267.716†	61711.0	60610.6	474.57 µg/L	474.57 ppb	03:15:10
3	Cu 324.752†	126753.5	121887.8	475.15 µg/L	475.15 ppb	03:15:10
3	Mn 257.610†	393731.0	387612.0	479.39 µg/L	479.39 ppb	03:15:10
3	Mo 202.031†	16276.7	16053.6	472.23 µg/L	472.23 ppb	03:15:30
3	Ni 231.604†	41761.2	41213.9	474.55 µg/L	474.55 ppb	03:15:10
3	P 214.914†	11200.9	11051.6	2355.6 µg/L	2355.6 ppb	03:15:30
3	Pb 220.353†	8718.4	8501.8	476.10 µg/L	476.10 ppb	03:15:30
3	S 181.975 Axial†	1486.9	1359.7	1013.6 µg/L	1013.6 ppb	03:15:30
3	Sb 206.836†	4107.0	3964.8	472.37 µg/L	472.37 ppb	03:15:30
3	Se 196.026†	1339.3	1304.0	474 µg/L	474 ppb	03:15:30
3	SiO2†	55056.5	52458.7	5107.1 µg/L	5107.1 ppb	03:15:10
3	Si 251.611†	166125.1	162806.9	2390.8 µg/L	2390.8 ppb	03:15:10
3	Sn 189.927†	7727.3	7613.0	476.20 µg/L	476.20 ppb	03:15:30
3	Ti 334.940†	520001.8	511281.2	477.06 µg/L	477.06 ppb	03:15:10
3	Tl 190.801†	3778.8	3839.0	478.87 µg/L	478.87 ppb	03:15:30
3	U 409.014†	7370.2	7530.0	469.31 µg/L	469.31 ppb	03:15:10
3	V 292.402†	99255.0	97368.5	481.27 µg/L	481.27 ppb	03:15:10
3	Zn 213.857†	86767.5	84906.9	473.24 µg/L	473.24 ppb	03:15:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1735643.7	101.01	%	0.588				0.58%
Sc RADIAL	141996.4	97.3	%	1.22				1.25%
Y 371.029	1023745.5	99.713	%	0.5997				0.60%
Ag 328.068†	127152.0	476.79	µg/L	1.372	476.79	ppb	1.372	0.29%
QC value within limits for Ag 328.068 Recovery = 95.36%								
Al 396.153Radial†	26751.9	4937.8	µg/L	1.49	4937.8	ppb	1.49	0.03%
QC value within limits for Al 396.153Radial Recovery = 98.76%								
As 188.979†	1611.8	494.34	µg/L	5.814	494.34	ppb	5.814	1.18%
QC value within limits for As 188.979 Recovery = 98.87%								
B 249.677†	31997.5	470.25	µg/L	1.562	470.25	ppb	1.562	0.33%
QC value within limits for B 249.677 Recovery = 94.05%								
Ba 233.527†	118226.6	476.81	µg/L	0.463	476.81	ppb	0.463	0.10%
QC value within limits for Ba 233.527 Recovery = 95.36%								
Be 313.107†	1767090.3	481.28	µg/L	0.799	481.28	ppb	0.799	0.17%
QC value within limits for Be 313.107 Recovery = 96.26%								
Ca 317.933Radial†	86840.9	4837.4	µg/L	19.27	4837.4	ppb	19.27	0.40%
QC value within limits for Ca 317.933Radial Recovery = 96.75%								
Cd 226.502†	75994.4	474.39	µg/L	2.244	474.39	ppb	2.244	0.47%
QC value within limits for Cd 226.502 Recovery = 94.88%								
Co 228.616†	38693.1	477.67	µg/L	0.870	477.67	ppb	0.870	0.18%

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   QC value within limits for Co 228.616  Recovery = 95.53%
Cr 267.716†            60471.1      473.47 µg/L         1.143      473.47 ppb          1.143   0.24%
   QC value within limits for Cr 267.716  Recovery = 94.69%
Cu 324.752†           121867.4      475.08 µg/L         0.752      475.08 ppb          0.752   0.16%
   QC value within limits for Cu 324.752  Recovery = 95.02%
Fe 238.204 Radial†     77582.0      4781.7 µg/L         14.34      4781.7 ppb          14.34   0.30%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.63%
K 766.490 Radial†      13457.4      4922.9 µg/L         10.06      4922.9 ppb          10.06   0.20%
   QC value within limits for K 766.490 Radial  Recovery = 98.46%
Mg 279.077 IEC†        13141.5      4903.8 µg/L         24.00      4903.8 ppb          24.00   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.08%
Mn 257.610†           387096.3      478.75 µg/L         0.669      478.75 ppb          0.669   0.14%
   QC value within limits for Mn 257.610  Recovery = 95.75%
Mo 202.031†            16120.7      474.20 µg/L         3.139      474.20 ppb          3.139   0.66%
   QC value within limits for Mo 202.031  Recovery = 94.84%
Na 589.592 Radial†     75257.5       10277 µg/L          18.6       10277 ppb           18.6   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 102.77%
Ni 231.604†            41209.5      474.50 µg/L         1.647      474.50 ppb          1.647   0.35%
   QC value within limits for Ni 231.604  Recovery = 94.90%
P 214.914†             11090.6      2363.9 µg/L         17.85      2363.9 ppb          17.85   0.75%
   QC value within limits for P 214.914  Recovery = 94.56%
Pb 220.353†             8515.8      476.88 µg/L         3.596      476.88 ppb          3.596   0.75%
   QC value within limits for Pb 220.353  Recovery = 95.38%
S 181.975 Axial†        1366.7      1018.9 µg/L         10.18      1018.9 ppb          10.18   1.00%
   QC value within limits for S 181.975 Axial  Recovery = 101.89%
Sb 206.836†             4006.3      477.34 µg/L         6.318      477.34 ppb          6.318   1.32%
   QC value within limits for Sb 206.836  Recovery = 95.47%
Se 196.026†             1310.8         476 µg/L           3.8         476 ppb            3.8   0.80%
   QC value within limits for Se 196.026  Recovery = 95.20%
SiO2†                  52315.3      5093.0 µg/L         13.10      5093.0 ppb          13.10   0.26%
   QC value within limits for SiO2  Recovery = 95.24%
Si 251.611†           162570.0      2387.3 µg/L          3.34      2387.3 ppb           3.34   0.14%
   QC value within limits for Si 251.611  Recovery = 95.49%
Sn 189.927†             7619.0      476.57 µg/L         3.740      476.57 ppb          3.740   0.78%
   QC value within limits for Sn 189.927  Recovery = 95.31%
Sr 421.552†           234884.6      488.27 µg/L         7.067      488.27 ppb          7.067   1.45%
   QC value within limits for Sr 421.552  Recovery = 97.65%
Ti 334.940†           511007.1      476.80 µg/L         0.473      476.80 ppb          0.473   0.10%
   QC value within limits for Ti 334.940  Recovery = 95.36%
Tl 190.801†             3850.4      480.25 µg/L         3.815      480.25 ppb          3.815   0.79%
   QC value within limits for Tl 190.801  Recovery = 96.05%
U 409.014†              7633.4      475.24 µg/L         5.925      475.24 ppb          5.925   1.25%
   QC value within limits for U 409.014  Recovery = 95.05%
V 292.402†             96994.0      479.46 µg/L         1.574      479.46 ppb          1.574   0.33%
   QC value within limits for V 292.402  Recovery = 95.89%
Zn 213.857†            84682.8      471.98 µg/L         1.410      471.98 ppb          1.410   0.30%
   QC value within limits for Zn 213.857  Recovery = 94.40%
All analyte(s) passed QC.
```

Sequence No.: 213
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 3:15:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146013.2	146013.2	100	%			03:16:07
1	Al 396.153Radial†	-89.2	-25.9	-4.8031	µg/L	-4.8031	ppb	03:16:27
1	Ca 317.933Radial†	761.2	200.2	11.150	µg/L	11.150	ppb	03:16:27
1	Fe 238.204 Radial†	162.9	14.7	0.9060	µg/L	0.9060	ppb	03:16:27
1	K 766.490 Radial†	1654.3	108.5	39.646	µg/L	39.646	ppb	03:16:07
1	Mg 279.077 IEC†	192.8	2.0	0.7445	µg/L	0.7445	ppb	03:16:27
1	Na 589.592 Radial†	5426.7	4132.8	564.56	µg/L	564.56	ppb	03:16:07
1	Sr 421.552†	-218.9	-83.4	-0.1736	µg/L	-0.1736	ppb	03:16:07
1	Sc 361.383	1755516.5	1755516.5	102.17	%			03:17:15
1	Y 371.029	1046303.4	1046303.4	101.91	%			03:17:15
1	Ag 328.068†	4349.4	165.6	0.6100	µg/L	0.6100	ppb	03:17:17
1	As 188.979†	-32.6	-11.5	-3.4798	µg/L	-3.4798	ppb	03:17:37
1	B 249.677†	3627.4	44.4	0.6533	µg/L	0.6533	ppb	03:17:17
1	Ba 233.527†	-142.6	-3.7	-0.0155	µg/L	-0.0155	ppb	03:17:37
1	Be 313.107†	-765.9	315.0	0.0874	µg/L	0.0874	ppb	03:17:17
1	Cd 226.502†	-98.0	22.3	0.1390	µg/L	0.1390	ppb	03:17:37
1	Co 228.616†	-150.7	42.8	0.5276	µg/L	0.5276	ppb	03:17:37
1	Cr 267.716†	198.5	15.7	0.1183	µg/L	0.1183	ppb	03:17:37
1	Cu 324.752†	3047.8	10.9	0.0471	µg/L	0.0471	ppb	03:17:17
1	Mn 257.610†	326.4	82.2	0.1017	µg/L	0.1017	ppb	03:17:37
1	Mo 202.031†	-26.4	-5.8	-0.1704	µg/L	-0.1704	ppb	03:17:37
1	Ni 231.604†	-110.3	-31.4	-0.3616	µg/L	-0.3616	ppb	03:17:37
1	P 214.914†	-26.0	-7.5	-1.5967	µg/L	-1.5967	ppb	03:17:37
1	Pb 220.353†	82.4	-5.8	-0.3262	µg/L	-0.3262	ppb	03:17:37
1	S 181.975 Axial†	207.3	97.8	72.634	µg/L	72.634	ppb	03:17:37
1	Sb 206.836†	77.7	-4.8	-0.5732	µg/L	-0.5732	ppb	03:17:37
1	Se 196.026†	14.9	-0.7	-0.237	µg/L	-0.237	ppb	03:17:37
1	SiO2†	1831.7	17.5	1.7076	µg/L	1.7076	ppb	03:17:37
1	Si 251.611†	802.8	-50.8	-0.7486	µg/L	-0.7486	ppb	03:17:17
1	Sn 189.927†	3.5	4.5	0.2809	µg/L	0.2809	ppb	03:17:37
1	Ti 334.940†	712.4	-255.3	-0.2405	µg/L	-0.2405	ppb	03:17:17
1	Tl 190.801†	-96.0	22.8	2.7858	µg/L	2.7858	ppb	03:17:37
1	U 409.014†	-181.9	91.8	5.3242	µg/L	5.3242	ppb	03:17:17
1	V 292.402†	247.6	-161.5	-0.7853	µg/L	-0.7853	ppb	03:17:17
1	Zn 213.857†	614.2	36.7	0.2080	µg/L	0.2080	ppb	03:17:37
2	Sc RADIAL	141829.3	141829.3	97.2	%			03:16:29
2	Al 396.153Radial†	-77.3	-16.3	-3.0254	µg/L	-3.0254	ppb	03:16:49
2	Ca 317.933Radial†	693.9	153.4	8.5423	µg/L	8.5423	ppb	03:16:49
2	Fe 238.204 Radial†	133.5	-10.7	-0.6592	µg/L	-0.6592	ppb	03:16:49
2	K 766.490 Radial†	1842.1	350.6	128.27	µg/L	128.27	ppb	03:16:29
2	Mg 279.077 IEC†	213.2	28.7	10.681	µg/L	10.681	ppb	03:16:49
2	Na 589.592 Radial†	5347.1	4210.9	575.15	µg/L	575.15	ppb	03:16:29
2	Sr 421.552†	-126.7	4.9	0.0101	µg/L	0.0101	ppb	03:16:29
2	Sc 361.383	1757358.9	1757358.9	102.28	%			03:17:39
2	Y 371.029	1047817.2	1047817.2	102.06	%			03:17:39
2	Ag 328.068†	4203.5	18.4	0.0721	µg/L	0.0721	ppb	03:17:42
2	As 188.979†	-7.7	12.8	3.8720	µg/L	3.8720	ppb	03:18:02
2	B 249.677†	3621.3	34.7	0.5123	µg/L	0.5123	ppb	03:17:42
2	Ba 233.527†	-113.1	25.3	0.1018	µg/L	0.1018	ppb	03:18:02
2	Be 313.107†	-827.3	255.9	0.0718	µg/L	0.0718	ppb	03:17:42
2	Cd 226.502†	-109.0	11.6	0.0724	µg/L	0.0724	ppb	03:18:02
2	Co 228.616†	-206.5	-11.6	-0.1430	µg/L	-0.1430	ppb	03:18:02
2	Cr 267.716†	179.5	-3.1	-0.0299	µg/L	-0.0299	ppb	03:18:02
2	Cu 324.752†	2992.6	-46.2	-0.1738	µg/L	-0.1738	ppb	03:17:42
2	Mn 257.610†	319.5	75.1	0.0925	µg/L	0.0925	ppb	03:18:02
2	Mo 202.031†	-17.2	3.2	0.0951	µg/L	0.0951	ppb	03:18:02
2	Ni 231.604†	-94.1	-15.5	-0.1782	µg/L	-0.1782	ppb	03:18:02
2	P 214.914†	-17.1	1.3	0.2745	µg/L	0.2745	ppb	03:18:02
2	Pb 220.353†	67.0	-20.9	-1.1697	µg/L	-1.1697	ppb	03:18:02

2	S 181.975 Axial†	199.8	90.3	67.037 µg/L	67.037 ppb	03:18:02
2	Sb 206.836†	85.0	2.3	0.2720 µg/L	0.2720 ppb	03:18:02
2	Se 196.026†	11.9	-3.7	-1.31 µg/L	-1.31 ppb	03:18:02
2	SiO2†	1802.0	-13.5	-1.3278 µg/L	-1.3278 ppb	03:18:02
2	Si 251.611†	853.5	-2.1	-0.0332 µg/L	-0.0332 ppb	03:17:42
2	Sn 189.927†	2.7	3.8	0.2351 µg/L	0.2351 ppb	03:18:02
2	Ti 334.940†	1024.2	48.8	0.0421 µg/L	0.0421 ppb	03:17:42
2	Tl 190.801†	-77.9	40.5	4.9714 µg/L	4.9714 ppb	03:18:02
2	U 409.014†	-154.4	118.9	6.9321 µg/L	6.9321 ppb	03:17:42
2	V 292.402†	333.3	-77.9	-0.3746 µg/L	-0.3746 ppb	03:17:42
2	Zn 213.857†	602.9	25.1	0.1422 µg/L	0.1422 ppb	03:18:02
3	Sc RADIAL	143153.6	143153.6	98.1 %		03:16:51
3	Al 396.153Radial†	-75.1	-13.4	-2.4564 µg/L	-2.4564 ppb	03:17:11
3	Ca 317.933Radial†	714.7	168.0	9.3594 µg/L	9.3594 ppb	03:17:11
3	Fe 238.204 Radial†	146.0	0.7	0.0418 µg/L	0.0418 ppb	03:17:11
3	K 766.490 Radial†	1703.0	191.3	69.930 µg/L	69.930 ppb	03:16:51
3	Mg 279.077 IEC†	177.5	-9.7	-3.6301 µg/L	-3.6301 ppb	03:17:11
3	Na 589.592 Radial†	5368.9	4182.2	571.28 µg/L	571.28 ppb	03:16:51
3	Sr 421.552†	-157.6	-25.4	-0.0529 µg/L	-0.0529 ppb	03:16:51
3	Sc 361.383	1742509.2	1742509.2	101.41 %		03:18:04
3	Y 371.029	1039202.5	1039202.5	101.22 %		03:18:04
3	Ag 328.068†	4021.3	-126.2	-0.4729 µg/L	-0.4729 ppb	03:18:06
3	As 188.979†	-17.7	2.9	0.8639 µg/L	0.8639 ppb	03:18:26
3	B 249.677†	3474.3	-80.0	-1.1801 µg/L	-1.1801 ppb	03:18:06
3	Ba 233.527†	-135.7	2.0	0.0074 µg/L	0.0074 ppb	03:18:26
3	Be 313.107†	-1003.8	74.8	0.0214 µg/L	0.0214 ppb	03:18:06
3	Cd 226.502†	-66.8	52.3	0.3269 µg/L	0.3269 ppb	03:18:26
3	Co 228.616†	-182.8	10.1	0.1245 µg/L	0.1245 ppb	03:18:26
3	Cr 267.716†	178.6	-2.5	-0.0225 µg/L	-0.0225 ppb	03:18:26
3	Cu 324.752†	2996.2	-17.8	-0.0665 µg/L	-0.0665 ppb	03:18:06
3	Mn 257.610†	303.6	62.1	0.0770 µg/L	0.0770 ppb	03:18:26
3	Mo 202.031†	-36.1	-15.6	-0.4577 µg/L	-0.4577 ppb	03:18:26
3	Ni 231.604†	-76.5	1.0	0.0119 µg/L	0.0119 ppb	03:18:26
3	P 214.914†	-26.3	-8.0	-1.7122 µg/L	-1.7122 ppb	03:18:26
3	Pb 220.353†	16.7	-69.9	-3.9062 µg/L	-3.9062 ppb	03:18:26
3	S 181.975 Axial†	199.1	91.3	67.801 µg/L	67.801 ppb	03:18:26
3	Sb 206.836†	75.6	-6.2	-0.7491 µg/L	-0.7491 ppb	03:18:26
3	Se 196.026†	21.3	5.7	2.07 µg/L	2.07 ppb	03:18:26
3	SiO2†	1802.2	1.7	0.1875 µg/L	0.1875 ppb	03:18:26
3	Si 251.611†	978.5	128.3	1.8991 µg/L	1.8991 ppb	03:18:06
3	Sn 189.927†	-5.2	-4.0	-0.2499 µg/L	-0.2499 ppb	03:18:26
3	Ti 334.940†	957.8	-8.1	-0.0083 µg/L	-0.0083 ppb	03:18:06
3	Tl 190.801†	-79.3	38.5	4.7229 µg/L	4.7229 ppb	03:18:26
3	U 409.014†	-215.9	57.0	3.2904 µg/L	3.2904 ppb	03:18:06
3	V 292.402†	245.3	-161.9	-0.7924 µg/L	-0.7924 ppb	03:18:06
3	Zn 213.857†	594.0	21.4	0.1198 µg/L	0.1198 ppb	03:18:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1751794.9	101.95	%	0.471				0.46%
Sc RADIAL	143665.3	98.4	%	1.47				1.49%
Y 371.029	1044441.0	101.73	%	0.448				0.44%
Ag 328.068†	19.3	0.0697	µg/L	0.54146	0.0697	ppb	0.54146	776.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-18.5	-3.4283	µg/L	1.22412	-3.4283	ppb	1.22412	35.71%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.4	0.4187	µg/L	3.69605	0.4187	ppb	3.69605	882.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-0.3	-0.0048	µg/L	1.02026	-0.0048	ppb	1.02026	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.9	0.0312	µg/L	0.06218	0.0312	ppb	0.06218	199.06%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	215.2	0.0602	µg/L	0.03450	0.0602	ppb	0.03450	57.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	173.8	9.6837	µg/L	1.33353	9.6837	ppb	1.33353	13.77%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	28.7	0.1794	µg/L	0.13199	0.1794	ppb	0.13199	73.56%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	13.8	0.1697	µg/L	0.33756	0.1697	ppb	0.33756	198.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                3.4      0.0219 µg/L       0.08351      0.0219 ppb        0.08351 380.68%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -17.7     -0.0644 µg/L       0.11047     -0.0644 ppb        0.11047 171.52%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.6      0.0962 µg/L       0.78405      0.0962 ppb        0.78405 815.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        216.8      79.281 µg/L       45.0446      79.281 ppb        45.0446  56.82%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            7.0      2.5984 µg/L       7.33330      2.5984 ppb        7.33330 282.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               73.1      0.0904 µg/L       0.01246      0.0904 ppb        0.01246  13.78%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -6.0     -0.1777 µg/L       0.27645     -0.1777 ppb        0.27645 155.60%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      4175.3      570.33 µg/L         5.360      570.33 ppb          5.360   0.94%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -15.3     -0.1760 µg/L       0.18678     -0.1760 ppb        0.18678 106.15%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.7     -1.0115 µg/L       1.11516     -1.0115 ppb        1.11516 110.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -32.2     -1.8007 µg/L       1.87157     -1.8007 ppb        1.87157 103.93%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          93.1      69.157 µg/L        3.0351      69.157 ppb         3.0351   4.39%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.9     -0.3501 µg/L       0.54589     -0.3501 ppb        0.54589 155.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.5       0.172 µg/L        1.7265       0.172 ppb         1.7265 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      1.9      0.1891 µg/L       1.51771      0.1891 ppb        1.51771 802.57%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               25.1      0.3725 µg/L       1.36967      0.3725 ppb        1.36967 367.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.4      0.0887 µg/L       0.29412      0.0887 ppb        0.29412 331.60%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -34.7     -0.0721 µg/L       0.09333     -0.0721 ppb        0.09333 129.40%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -71.5     -0.0689 µg/L       0.15073     -0.0689 ppb        0.15073 218.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               33.9      4.1600 µg/L       1.19656      4.1600 ppb        1.19656  28.76%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                89.3      5.1822 µg/L       1.82498      5.1822 ppb        1.82498  35.22%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -133.8     -0.6508 µg/L       0.23918     -0.6508 ppb        0.23918  36.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               27.7      0.1566 µg/L       0.04589      0.1566 ppb        0.04589  29.30%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
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Analysis Begun

Start Time: 4/1/2010 4:39:11 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/1/2010 4:39:15**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143287.7	143287.7	98.2	%			04:39:48
1	Al 396.153Radial†	26097.1	26641.5	4917.1	µg/L	4917.1	ppb	04:39:48
1	Ca 317.933Radial†	85617.7	86635.8	4826.0	µg/L	4826.0	ppb	04:39:48
1	Fe 238.204 Radial†	76602.7	77867.1	4799.3	µg/L	4799.3	ppb	04:39:48
1	K 766.490 Radial†	14400.8	13121.5	4800.0	µg/L	4800.0	ppb	04:39:48
1	Mg 279.077 IEC†	13124.0	13175.3	4916.5	µg/L	4916.5	ppb	04:39:48
1	Na 589.592 Radial†	72250.3	72291.7	9871.7	µg/L	9871.7	ppb	04:39:48
1	Sr 421.552†	228422.2	232769.3	483.88	µg/L	483.88	ppb	04:39:46
1	Sc 361.383	1726307.9	1726307.9	100.47	%			04:40:15
1	Y 371.029	1017838.7	1017838.7	99.138	%			04:40:15
1	Ag 328.068†	131459.1	126751.6	475.29	µg/L	475.29	ppb	04:40:15
1	As 188.979†	1615.7	1628.5	499.42	µg/L	499.42	ppb	04:40:35
1	B 249.677†	35679.8	32006.7	470.38	µg/L	470.38	ppb	04:40:15
1	Ba 233.527†	118546.6	118126.9	476.40	µg/L	476.40	ppb	04:40:15
1	Be 313.107†	1779033.6	1771761.0	482.55	µg/L	482.55	ppb	04:40:15
1	Cd 226.502†	76138.3	75899.6	473.80	µg/L	473.80	ppb	04:40:15
1	Co 228.616†	38752.8	38761.5	478.51	µg/L	478.51	ppb	04:40:15
1	Cr 267.716†	60891.1	60427.2	473.15	µg/L	473.15	ppb	04:40:15
1	Cu 324.752†	125489.3	121928.9	475.31	µg/L	475.31	ppb	04:40:15
1	Mn 257.610†	389201.0	387139.7	478.80	µg/L	478.80	ppb	04:40:15
1	Mo 202.031†	16304.5	16248.1	477.95	µg/L	477.95	ppb	04:40:35
1	Ni 231.604†	41496.9	41378.9	476.45	µg/L	476.45	ppb	04:40:15
1	P 214.914†	11260.2	11225.4	2392.7	µg/L	2392.7	ppb	04:40:35
1	Pb 220.353†	8733.2	8605.9	481.93	µg/L	481.93	ppb	04:40:35
1	S 181.975 Axial†	1431.2	1319.5	983.83	µg/L	983.83	ppb	04:40:35
1	Sb 206.836†	4117.8	4017.7	478.76	µg/L	478.76	ppb	04:40:35
1	Se 196.026†	1330.5	1309.0	475	µg/L	475	ppb	04:40:35
1	SiO2†	54190.9	52161.5	5077.8	µg/L	5077.8	ppb	04:40:15
1	Si 251.611†	164264.5	162658.1	2388.5	µg/L	2388.5	ppb	04:40:15
1	Sn 189.927†	7744.6	7709.4	482.20	µg/L	482.20	ppb	04:40:35
1	Ti 334.940†	513495.3	510136.3	476.00	µg/L	476.00	ppb	04:40:15
1	Tl 190.801†	3787.9	3886.8	484.71	µg/L	484.71	ppb	04:40:35
1	U 409.014†	7087.0	7323.7	457.14	µg/L	457.14	ppb	04:40:15
1	V 292.402†	97888.5	97025.9	479.64	µg/L	479.64	ppb	04:40:15
1	Zn 213.857†	85804.6	84838.1	472.83	µg/L	472.83	ppb	04:40:15
2	Sc RADIAL	142551.2	142551.2	97.7	%			04:39:52
2	Al 396.153Radial†	25918.7	26596.2	4908.8	µg/L	4908.8	ppb	04:39:52
2	Ca 317.933Radial†	85143.9	86601.2	4824.0	µg/L	4824.0	ppb	04:39:52
2	Fe 238.204 Radial†	76012.3	77665.7	4786.8	µg/L	4786.8	ppb	04:39:52
2	K 766.490 Radial†	14216.0	13008.1	4758.5	µg/L	4758.5	ppb	04:39:52
2	Mg 279.077 IEC†	13129.0	13249.5	4944.1	µg/L	4944.1	ppb	04:39:52
2	Na 589.592 Radial†	71942.3	72356.6	9880.6	µg/L	9880.6	ppb	04:39:52
2	Sr 421.552†	228072.6	233613.4	485.63	µg/L	485.63	ppb	04:39:50
2	Sc 361.383	1732601.9	1732601.9	100.84	%			04:40:38
2	Y 371.029	1021854.8	1021854.8	99.529	%			04:40:38
2	Ag 328.068†	132036.8	126849.2	475.64	µg/L	475.64	ppb	04:40:38
2	As 188.979†	1613.9	1620.8	497.09	µg/L	497.09	ppb	04:40:58

2	B 249.677†	35753.7	31951.0	469.56 µg/L	469.56 ppb	04:40:38
2	Ba 233.527†	119080.4	118227.7	476.81 µg/L	476.81 ppb	04:40:38
2	Be 313.107†	1784759.1	1771006.5	482.34 µg/L	482.34 ppb	04:40:38
2	Cd 226.502†	76654.3	76136.1	475.28 µg/L	475.28 ppb	04:40:38
2	Co 228.616†	38853.1	38720.8	478.01 µg/L	478.01 ppb	04:40:38
2	Cr 267.716†	61138.8	60452.7	473.35 µg/L	473.35 ppb	04:40:38
2	Cu 324.752†	125614.8	121599.7	474.02 µg/L	474.02 ppb	04:40:38
2	Mn 257.610†	390618.9	387138.6	478.80 µg/L	478.80 ppb	04:40:38
2	Mo 202.031†	16345.0	16229.4	477.40 µg/L	477.40 ppb	04:40:58
2	Ni 231.604†	41628.9	41359.8	476.23 µg/L	476.23 ppb	04:40:38
2	P 214.914†	11287.1	11211.3	2389.8 µg/L	2389.8 ppb	04:40:58
2	Pb 220.353†	8756.9	8597.8	481.48 µg/L	481.48 ppb	04:40:58
2	S 181.975 Axial†	1433.6	1316.6	981.73 µg/L	981.73 ppb	04:40:58
2	Sb 206.836†	4163.7	4048.4	482.39 µg/L	482.39 ppb	04:40:58
2	Se 196.026†	1356.8	1330.3	483 µg/L	483 ppb	04:40:58
2	SiO2†	54513.7	52285.8	5090.0 µg/L	5090.0 ppb	04:40:38
2	Si 251.611†	164749.7	162545.4	2386.9 µg/L	2386.9 ppb	04:40:38
2	Sn 189.927†	7762.2	7698.9	481.55 µg/L	481.55 ppb	04:40:58
2	Ti 334.940†	515261.7	510031.4	475.90 µg/L	475.90 ppb	04:40:38
2	Tl 190.801†	3793.6	3878.7	483.72 µg/L	483.72 ppb	04:40:58
2	U 409.014†	6995.8	7207.6	450.31 µg/L	450.31 ppb	04:40:38
2	V 292.402†	98077.2	96859.1	478.82 µg/L	478.82 ppb	04:40:38
2	Zn 213.857†	86253.0	84972.5	473.59 µg/L	473.59 ppb	04:40:38
3	Sc RADIAL	145083.0	145083.0	99.4 %		04:39:56
3	Al 396.153Radial†	26230.8	26447.1	4880.9 µg/L	4880.9 ppb	04:39:56
3	Ca 317.933Radial†	86647.7	86592.8	4823.6 µg/L	4823.6 ppb	04:39:56
3	Fe 238.204 Radial†	77399.8	77703.5	4789.2 µg/L	4789.2 ppb	04:39:56
3	K 766.490 Radial†	14738.6	13279.9	4858.0 µg/L	4858.0 ppb	04:39:56
3	Mg 279.077 IEC†	13305.7	13192.7	4923.1 µg/L	4923.1 ppb	04:39:56
3	Na 589.592 Radial†	73184.6	72321.0	9875.6 µg/L	9875.6 ppb	04:39:56
3	Sr 421.552†	226923.1	228382.9	474.76 µg/L	474.76 ppb	04:39:54
3	Sc 361.383	1715600.7	1715600.7	99.848 %		04:41:01
3	Y 371.029	1011465.9	1011465.9	98.517 %		04:41:01
3	Ag 328.068†	131101.9	127210.5	477.01 µg/L	477.01 ppb	04:41:01
3	As 188.979†	1621.5	1644.3	504.20 µg/L	504.20 ppb	04:41:21
3	B 249.677†	35572.5	32120.8	472.07 µg/L	472.07 ppb	04:41:01
3	Ba 233.527†	117882.9	118198.6	476.69 µg/L	476.69 ppb	04:41:01
3	Be 313.107†	1768142.0	1771903.7	482.59 µg/L	482.59 ppb	04:41:01
3	Cd 226.502†	76042.9	76277.0	476.16 µg/L	476.16 ppb	04:41:01
3	Co 228.616†	38526.8	38775.8	478.69 µg/L	478.69 ppb	04:41:01
3	Cr 267.716†	60518.3	60432.1	473.17 µg/L	473.17 ppb	04:41:01
3	Cu 324.752†	124833.7	122051.9	475.80 µg/L	475.80 ppb	04:41:01
3	Mn 257.610†	387412.1	387765.8	479.57 µg/L	479.57 ppb	04:41:01
3	Mo 202.031†	16333.0	16378.0	481.77 µg/L	481.77 ppb	04:41:21
3	Ni 231.604†	41283.4	41422.9	476.95 µg/L	476.95 ppb	04:41:01
3	P 214.914†	11331.2	11366.5	2422.9 µg/L	2422.9 ppb	04:41:21
3	Pb 220.353†	8778.6	8705.6	487.49 µg/L	487.49 ppb	04:41:21
3	S 181.975 Axial†	1431.3	1328.5	990.54 µg/L	990.54 ppb	04:41:21
3	Sb 206.836†	4139.6	4065.1	484.45 µg/L	484.45 ppb	04:41:21
3	Se 196.026†	1365.1	1351.9	491 µg/L	491 ppb	04:41:21
3	SiO2†	53906.3	52213.2	5082.7 µg/L	5082.7 ppb	04:41:01
3	Si 251.611†	163125.7	162537.9	2386.7 µg/L	2386.7 ppb	04:41:01
3	Sn 189.927†	7757.8	7770.8	486.03 µg/L	486.03 ppb	04:41:21
3	Ti 334.940†	510802.1	510628.7	476.45 µg/L	476.45 ppb	04:41:01
3	Tl 190.801†	3813.8	3936.3	490.80 µg/L	490.80 ppb	04:41:21
3	U 409.014†	7313.0	7594.1	472.95 µg/L	472.95 ppb	04:41:01
3	V 292.402†	97247.2	96991.7	479.52 µg/L	479.52 ppb	04:41:01
3	Zn 213.857†	85421.1	84987.0	473.67 µg/L	473.67 ppb	04:41:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1724836.8	100.39	%	0.500				0.50%
Sc RADIAL	143640.6	98.4	%	0.89				0.91%
Y 371.029	1017053.1	99.061	%	0.5103				0.52%
Ag 328.068†	126937.1	475.98	µg/L	0.908	475.98	ppb	0.908	0.19%
QC value within limits for Ag 328.068 Recovery = 95.20%								
Al 396.153Radial†	26561.6	4902.3	µg/L	18.96	4902.3	ppb	18.96	0.39%
QC value within limits for Al 396.153Radial Recovery = 98.05%								
As 188.979†	1631.2	500.24	µg/L	3.626	500.24	ppb	3.626	0.72%

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   QC value within limits for As 188.979  Recovery = 100.05%
B 249.677†            32026.2      470.67 µg/L        1.276      470.67 ppb         1.276   0.27%
   QC value within limits for B 249.677  Recovery = 94.13%
Ba 233.527†          118184.4      476.64 µg/L        0.209      476.64 ppb         0.209   0.04%
   QC value within limits for Ba 233.527  Recovery = 95.33%
Be 313.107†         1771557.1      482.49 µg/L        0.134      482.49 ppb         0.134   0.03%
   QC value within limits for Be 313.107  Recovery = 96.50%
Ca 317.933Radial†     86610.0      4824.5 µg/L         1.27      4824.5 ppb          1.27   0.03%
   QC value within limits for Ca 317.933Radial  Recovery = 96.49%
Cd 226.502†           76104.3      475.08 µg/L        1.192      475.08 ppb         1.192   0.25%
   QC value within limits for Cd 226.502  Recovery = 95.02%
Co 228.616†           38752.7      478.40 µg/L        0.352      478.40 ppb         0.352   0.07%
   QC value within limits for Co 228.616  Recovery = 95.68%
Cr 267.716†           60437.3      473.22 µg/L        0.111      473.22 ppb         0.111   0.02%
   QC value within limits for Cr 267.716  Recovery = 94.64%
Cu 324.752†          121860.2      475.04 µg/L        0.917      475.04 ppb         0.917   0.19%
   QC value within limits for Cu 324.752  Recovery = 95.01%
Fe 238.204 Radial†    77745.4      4791.8 µg/L         6.60      4791.8 ppb          6.60   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.84%
K 766.490 Radial†     13136.5      4805.5 µg/L        49.98      4805.5 ppb         49.98   1.04%
   QC value within limits for K 766.490 Radial  Recovery = 96.11%
Mg 279.077 IEC†       13205.8      4927.9 µg/L        14.43      4927.9 ppb         14.43   0.29%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.56%
Mn 257.610†          387348.0      479.06 µg/L        0.448      479.06 ppb         0.448   0.09%
   QC value within limits for Mn 257.610  Recovery = 95.81%
Mo 202.031†           16285.2      479.04 µg/L        2.378      479.04 ppb         2.378   0.50%
   QC value within limits for Mo 202.031  Recovery = 95.81%
Na 589.592 Radial†    72323.1      9875.9 µg/L         4.46      9875.9 ppb          4.46   0.05%
   QC value within limits for Na 589.592 Radial  Recovery = 98.76%
Ni 231.604†           41387.2      476.54 µg/L        0.373      476.54 ppb         0.373   0.08%
   QC value within limits for Ni 231.604  Recovery = 95.31%
P 214.914†            11267.7      2401.8 µg/L        18.34      2401.8 ppb         18.34   0.76%
   QC value within limits for P 214.914  Recovery = 96.07%
Pb 220.353†            8636.4      483.63 µg/L        3.350      483.63 ppb         3.350   0.69%
   QC value within limits for Pb 220.353  Recovery = 96.73%
S 181.975 Axial†       1321.5      985.37 µg/L        4.601      985.37 ppb         4.601   0.47%
   QC value within limits for S 181.975 Axial  Recovery = 98.54%
Sb 206.836†            4043.7      481.86 µg/L        2.883      481.86 ppb         2.883   0.60%
   QC value within limits for Sb 206.836  Recovery = 96.37%
Se 196.026†            1330.4         483 µg/L          7.8         483 ppb           7.8   1.61%
   QC value within limits for Se 196.026  Recovery = 96.61%
SiO2†                 52220.2      5083.5 µg/L         6.12      5083.5 ppb          6.12   0.12%
   QC value within limits for SiO2  Recovery = 95.06%
Si 251.611†          162580.5      2387.3 µg/L         1.01      2387.3 ppb          1.01   0.04%
   QC value within limits for Si 251.611  Recovery = 95.49%
Sn 189.927†            7726.3      483.26 µg/L        2.422      483.26 ppb         2.422   0.50%
   QC value within limits for Sn 189.927  Recovery = 96.65%
Sr 421.552†          231588.5      481.42 µg/L        5.838      481.42 ppb         5.838   1.21%
   QC value within limits for Sr 421.552  Recovery = 96.28%
Ti 334.940†          510265.5      476.11 µg/L        0.294      476.11 ppb         0.294   0.06%
   QC value within limits for Ti 334.940  Recovery = 95.22%
Tl 190.801†            3900.6      486.41 µg/L        3.834      486.41 ppb         3.834   0.79%
   QC value within limits for Tl 190.801  Recovery = 97.28%
U 409.014†             7375.1      460.13 µg/L       11.614      460.13 ppb        11.614   2.52%
   QC value within limits for U 409.014  Recovery = 92.03%
V 292.402†            96958.9      479.33 µg/L        0.445      479.33 ppb         0.445   0.09%
   QC value within limits for V 292.402  Recovery = 95.87%
Zn 213.857†           84932.5      473.36 µg/L        0.461      473.36 ppb         0.461   0.10%
   QC value within limits for Zn 213.857  Recovery = 94.67%
All analyte(s) passed QC.
```

Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/1/2010 4:41:28**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143373.6	143373.6	98.2	%			04:41:57
1	Al 396.153Radial†	-59.0	3.2	0.6063	µg/L	0.6063	ppb	04:42:17
1	Ca 317.933Radial†	610.3	60.6	3.3742	µg/L	3.3742	ppb	04:42:17
1	Fe 238.204 Radial†	143.9	-1.6	-0.1011	µg/L	-0.1011	ppb	04:42:17
1	K 766.490 Radial†	1628.1	112.4	41.110	µg/L	41.110	ppb	04:41:57
1	Mg 279.077 IEC†	185.8	-1.6	-0.5987	µg/L	-0.5987	ppb	04:42:17
1	Na 589.592 Radial†	2734.6	1492.5	203.86	µg/L	203.86	ppb	04:41:57
1	Sr 421.552†	-214.3	-82.8	-0.1722	µg/L	-0.1722	ppb	04:41:57
1	Sc 361.383	1732099.1	1732099.1	100.81	%			04:43:19
1	Y 371.029	1032748.2	1032748.2	100.59	%			04:43:19
1	Ag 328.068†	4008.6	-114.9	-0.4361	µg/L	-0.4361	ppb	04:43:21
1	As 188.979†	-17.1	3.4	1.0343	µg/L	1.0343	ppb	04:43:41
1	B 249.677†	3528.4	-5.8	-0.0861	µg/L	-0.0861	ppb	04:43:41
1	Ba 233.527†	-146.5	-9.4	-0.0381	µg/L	-0.0381	ppb	04:43:41
1	Be 313.107†	-845.1	226.4	0.0592	µg/L	0.0592	ppb	04:43:21
1	Cd 226.502†	-90.7	28.2	0.1764	µg/L	0.1764	ppb	04:43:41
1	Co 228.616†	-169.3	22.3	0.2757	µg/L	0.2757	ppb	04:43:41
1	Cr 267.716†	178.0	-2.0	-0.0096	µg/L	-0.0096	ppb	04:43:41
1	Cu 324.752†	2996.2	-0.0	-0.0066	µg/L	-0.0066	ppb	04:43:21
1	Mn 257.610†	282.8	43.2	0.0535	µg/L	0.0535	ppb	04:43:41
1	Mo 202.031†	-29.9	-9.5	-0.2805	µg/L	-0.2805	ppb	04:43:41
1	Ni 231.604†	-73.9	3.2	0.0369	µg/L	0.0369	ppb	04:43:41
1	P 214.914†	-36.9	-18.6	-3.9857	µg/L	-3.9857	ppb	04:43:41
1	Pb 220.353†	70.2	-16.8	-0.9308	µg/L	-0.9308	ppb	04:43:41
1	S 181.975 Axial†	133.9	27.8	20.636	µg/L	20.636	ppb	04:43:41
1	Sb 206.836†	78.1	-3.3	-0.3983	µg/L	-0.3983	ppb	04:43:41
1	Se 196.026†	32.9	17.4	6.28	µg/L	6.28	ppb	04:43:41
1	SiO2†	1779.2	-10.4	-1.0120	µg/L	-1.0120	ppb	04:43:41
1	Si 251.611†	845.5	2.1	0.0358	µg/L	0.0358	ppb	04:43:21
1	Sn 189.927†	-2.5	-1.4	-0.0870	µg/L	-0.0870	ppb	04:43:41
1	Ti 334.940†	882.6	-77.0	-0.0685	µg/L	-0.0685	ppb	04:43:21
1	Tl 190.801†	-105.8	11.7	1.4409	µg/L	1.4409	ppb	04:43:41
1	U 409.014†	-411.3	-138.2	-8.0813	µg/L	-8.0813	ppb	04:43:21
1	V 292.402†	394.9	-12.0	-0.0670	µg/L	-0.0670	ppb	04:43:21
1	Zn 213.857†	593.5	24.3	0.1361	µg/L	0.1361	ppb	04:43:41
2	Sc RADIAL	143802.0	143802.0	98.5	%			04:42:19
2	Al 396.153Radial†	-54.2	8.2	1.5220	µg/L	1.5220	ppb	04:42:39
2	Ca 317.933Radial†	610.8	59.2	3.2991	µg/L	3.2991	ppb	04:42:39
2	Fe 238.204 Radial†	141.6	-4.4	-0.2687	µg/L	-0.2687	ppb	04:42:39
2	K 766.490 Radial†	1509.8	-12.6	-4.6466	µg/L	-4.6466	ppb	04:42:19
2	Mg 279.077 IEC†	191.0	3.1	1.1672	µg/L	1.1672	ppb	04:42:39
2	Na 589.592 Radial†	2525.6	1272.1	173.79	µg/L	173.79	ppb	04:42:19
2	Sr 421.552†	-133.7	-0.4	-0.0008	µg/L	-0.0008	ppb	04:42:19
2	Sc 361.383	1725107.0	1725107.0	100.40	%			04:43:43
2	Y 371.029	1028743.2	1028743.2	100.20	%			04:43:43
2	Ag 328.068†	4338.9	230.2	0.8513	µg/L	0.8513	ppb	04:43:45
2	As 188.979†	-24.2	-3.8	-1.1405	µg/L	-1.1405	ppb	04:44:06
2	B 249.677†	3556.5	36.4	0.5369	µg/L	0.5369	ppb	04:44:06
2	Ba 233.527†	-138.7	-2.3	-0.0093	µg/L	-0.0093	ppb	04:44:06
2	Be 313.107†	-958.2	110.3	0.0305	µg/L	0.0305	ppb	04:43:45
2	Cd 226.502†	-124.6	-5.9	-0.0369	µg/L	-0.0369	ppb	04:44:06
2	Co 228.616†	-183.4	7.7	0.0945	µg/L	0.0945	ppb	04:44:06
2	Cr 267.716†	193.1	13.7	0.1062	µg/L	0.1062	ppb	04:44:06
2	Cu 324.752†	2935.8	-48.1	-0.1859	µg/L	-0.1859	ppb	04:43:45
2	Mn 257.610†	275.2	36.8	0.0455	µg/L	0.0455	ppb	04:44:06
2	Mo 202.031†	-24.3	-4.1	-0.1207	µg/L	-0.1207	ppb	04:44:06
2	Ni 231.604†	-96.5	-19.6	-0.2260	µg/L	-0.2260	ppb	04:44:06
2	P 214.914†	-28.9	-10.9	-2.3173	µg/L	-2.3173	ppb	04:44:06
2	Pb 220.353†	68.9	-17.7	-0.9902	µg/L	-0.9902	ppb	04:44:06

2	S 181.975 Axial†	144.6	39.0	28.959 µg/L	28.959 ppb	04:44:06
2	Sb 206.836†	82.8	1.6	0.1930 µg/L	0.1930 ppb	04:44:06
2	Se 196.026†	13.2	-2.1	-0.772 µg/L	-0.772 ppb	04:44:06
2	SiO2†	1774.3	-8.1	-0.7975 µg/L	-0.7975 ppb	04:44:06
2	Si 251.611†	687.2	-152.1	-2.2442 µg/L	-2.2442 ppb	04:43:45
2	Sn 189.927†	7.2	8.3	0.5190 µg/L	0.5190 ppb	04:44:06
2	Ti 334.940†	945.0	-11.3	-0.0112 µg/L	-0.0112 ppb	04:43:45
2	Tl 190.801†	-90.8	26.2	3.2215 µg/L	3.2215 ppb	04:44:06
2	U 409.014†	-245.8	25.1	1.4530 µg/L	1.4530 ppb	04:43:45
2	V 292.402†	358.7	-46.5	-0.2265 µg/L	-0.2265 ppb	04:43:45
2	Zn 213.857†	578.1	11.4	0.0658 µg/L	0.0658 ppb	04:44:06
3	Sc RADIAL	141813.5	141813.5	97.2 %		04:42:41
3	Al 396.153Radial†	-65.8	-4.5	-0.8345 µg/L	-0.8345 ppb	04:43:01
3	Ca 317.933Radial†	618.1	75.5	4.2049 µg/L	4.2049 ppb	04:43:01
3	Fe 238.204 Radial†	142.6	-1.4	-0.0853 µg/L	-0.0853 ppb	04:43:01
3	K 766.490 Radial†	1729.0	234.4	85.796 µg/L	85.796 ppb	04:42:41
3	Mg 279.077 IEC†	198.0	13.1	4.8715 µg/L	4.8715 ppb	04:43:01
3	Na 589.592 Radial†	2673.4	1460.2	199.40 µg/L	199.40 ppb	04:42:41
3	Sr 421.552†	-143.1	-12.0	-0.0250 µg/L	-0.0250 ppb	04:42:41
3	Sc 361.383	1732501.7	1732501.7	100.83 %		04:44:08
3	Y 371.029	1032645.9	1032645.9	100.58 %		04:44:08
3	Ag 328.068†	3993.4	-130.9	-0.4838 µg/L	-0.4838 ppb	04:44:10
3	As 188.979†	-18.1	2.4	0.7230 µg/L	0.7230 ppb	04:44:30
3	B 249.677†	3533.8	-1.3	-0.0196 µg/L	-0.0196 ppb	04:44:30
3	Ba 233.527†	-129.6	7.4	0.0296 µg/L	0.0296 ppb	04:44:30
3	Be 313.107†	-1067.5	6.0	0.0021 µg/L	0.0021 ppb	04:44:10
3	Cd 226.502†	-108.9	10.2	0.0637 µg/L	0.0637 ppb	04:44:30
3	Co 228.616†	-170.6	21.1	0.2607 µg/L	0.2607 ppb	04:44:30
3	Cr 267.716†	195.5	15.4	0.1189 µg/L	0.1189 ppb	04:44:30
3	Cu 324.752†	2879.6	-116.3	-0.4504 µg/L	-0.4504 ppb	04:44:10
3	Mn 257.610†	262.7	23.2	0.0286 µg/L	0.0286 ppb	04:44:30
3	Mo 202.031†	-19.1	1.1	0.0321 µg/L	0.0321 ppb	04:44:30
3	Ni 231.604†	-96.0	-18.7	-0.2148 µg/L	-0.2148 ppb	04:44:30
3	P 214.914†	-20.0	-1.8	-0.3852 µg/L	-0.3852 ppb	04:44:30
3	Pb 220.353†	56.6	-30.2	-1.6887 µg/L	-1.6887 ppb	04:44:30
3	S 181.975 Axial†	141.1	34.9	25.923 µg/L	25.923 ppb	04:44:30
3	Sb 206.836†	81.1	-0.4	-0.0510 µg/L	-0.0510 ppb	04:44:30
3	Se 196.026†	12.9	-2.5	-0.899 µg/L	-0.899 ppb	04:44:30
3	SiO2†	1779.3	-10.8	-1.0593 µg/L	-1.0593 ppb	04:44:30
3	Si 251.611†	861.9	18.2	0.2649 µg/L	0.2649 ppb	04:44:10
3	Sn 189.927†	5.8	6.8	0.4260 µg/L	0.4260 ppb	04:44:30
3	Ti 334.940†	938.4	-21.9	-0.0215 µg/L	-0.0215 ppb	04:44:10
3	Tl 190.801†	-79.9	37.4	4.5956 µg/L	4.5956 ppb	04:44:30
3	U 409.014†	-243.8	28.1	1.6356 µg/L	1.6356 ppb	04:44:10
3	V 292.402†	389.1	-17.9	-0.0856 µg/L	-0.0856 ppb	04:44:10
3	Zn 213.857†	585.6	16.3	0.0935 µg/L	0.0935 ppb	04:44:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729902.6	100.68	%	0.242				0.24%
Sc RADIAL	142996.4	98.0	%	0.72				0.73%
Y 371.029	1031379.1	100.46	%	0.222				0.22%
Ag 328.068†	-5.2	-0.0229	µg/L	0.75745	-0.0229	ppb	0.75745	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.3	0.4313	µg/L	1.18793	0.4313	ppb	1.18793	275.45%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.7	0.2056	µg/L	1.17610	0.2056	ppb	1.17610	571.96%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	9.8	0.1437	µg/L	0.34209	0.1437	ppb	0.34209	237.99%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.4	-0.0059	µg/L	0.03400	-0.0059	ppb	0.03400	572.37%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	114.2	0.0306	µg/L	0.02853	0.0306	ppb	0.02853	93.24%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	65.1	3.6261	µg/L	0.50270	3.6261	ppb	0.50270	13.86%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.9	0.0678	µg/L	0.10671	0.0678	ppb	0.10671	157.49%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.0	0.2103	µg/L	0.10057	0.2103	ppb	0.10057	47.83%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                9.0      0.0718 µg/L       0.07083      0.0718 ppb        0.07083  98.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -54.8     -0.2143 µg/L       0.22327     -0.2143 ppb        0.22327 104.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.5     -0.1517 µg/L       0.10163     -0.1517 ppb        0.10163  67.00%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        111.4      40.753 µg/L       45.2224      40.753 ppb        45.2224 110.97%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            4.9      1.8133 µg/L       2.79173      1.8133 ppb        2.79173 153.96%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               34.4      0.0425 µg/L       0.01273      0.0425 ppb        0.01273  29.95%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -4.2     -0.1230 µg/L       0.15627     -0.1230 ppb        0.15627 127.01%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      1408.3      192.35 µg/L        16.225      192.35 ppb         16.225   8.43%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -11.7     -0.1346 µg/L       0.14863     -0.1346 ppb        0.14863 110.41%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -10.5     -2.2294 µg/L       1.80186     -2.2294 ppb        1.80186  80.82%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -21.6     -1.2032 µg/L       0.42148     -1.2032 ppb        0.42148  35.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          33.9      25.173 µg/L        4.2121      25.173 ppb         4.2121  16.73%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.7     -0.0854 µg/L       0.29713     -0.0854 ppb        0.29713 347.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.3        1.54 µg/L         4.109        1.54 ppb          4.109 267.42%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -9.8     -0.9563 µg/L       0.13954     -0.9563 ppb        0.13954  14.59%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -43.9     -0.6479 µg/L       1.38724     -0.6479 ppb        1.38724 214.13%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                4.6      0.2860 µg/L       0.32637      0.2860 ppb        0.32637 114.11%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -31.7     -0.0660 µg/L       0.09279     -0.0660 ppb        0.09279 140.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -36.7     -0.0337 µg/L       0.03052     -0.0337 ppb        0.03052  90.51%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               25.1      3.0860 µg/L       1.58170      3.0860 ppb        1.58170  51.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -28.3     -1.6643 µg/L       5.55810     -1.6643 ppb        5.55810 333.97%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -25.5     -0.1264 µg/L       0.08722     -0.1264 ppb        0.08722  69.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               17.4      0.0985 µg/L       0.03542      0.0985 ppb        0.03542  35.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/1/2010 5:03:28**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142807.7	142807.7	97.9	%			05:04:01
1	Al 396.153Radial†	25827.6	26455.4	4882.8	µg/L	4882.8	ppb	05:04:01
1	Ca 317.933Radial†	85131.8	86432.4	4814.6	µg/L	4814.6	ppb	05:04:01
1	Fe 238.204 Radial†	76139.6	77656.0	4786.2	µg/L	4786.2	ppb	05:04:01
1	K 766.490 Radial†	14464.3	13235.7	4841.8	µg/L	4841.8	ppb	05:04:01
1	Mg 279.077 IEC†	13031.2	13125.4	4897.8	µg/L	4897.8	ppb	05:04:01
1	Na 589.592 Radial†	71380.8	71650.5	9784.0	µg/L	9784.0	ppb	05:04:01
1	Sr 421.552†	227350.2	232455.8	483.22	µg/L	483.22	ppb	05:03:59
1	Sc 361.383	1717799.5	1717799.5	99.976	%			05:04:14
1	Y 371.029	1012953.8	1012953.8	98.662	%			05:04:14
1	Ag 328.068†	130945.5	126886.0	475.82	µg/L	475.82	ppb	05:04:14
1	As 188.979†	1607.9	1628.6	499.44	µg/L	499.44	ppb	05:04:34
1	B 249.677†	35595.1	32097.9	471.73	µg/L	471.73	ppb	05:04:14
1	Ba 233.527†	118233.7	118398.3	477.50	µg/L	477.50	ppb	05:04:14
1	Be 313.107†	1774199.8	1775696.3	483.62	µg/L	483.62	ppb	05:04:14
1	Cd 226.502†	76081.9	76218.6	475.79	µg/L	475.79	ppb	05:04:14
1	Co 228.616†	38613.8	38813.5	479.15	µg/L	479.15	ppb	05:04:14
1	Cr 267.716†	60590.4	60426.6	473.13	µg/L	473.13	ppb	05:04:14
1	Cu 324.752†	125518.0	122576.4	477.83	µg/L	477.83	ppb	05:04:14
1	Mn 257.610†	388744.5	388601.9	480.61	µg/L	480.61	ppb	05:04:14
1	Mo 202.031†	16098.9	16122.9	474.27	µg/L	474.27	ppb	05:04:34
1	Ni 231.604†	41299.4	41386.0	476.53	µg/L	476.53	ppb	05:04:14
1	P 214.914†	11164.5	11185.1	2384.1	µg/L	2384.1	ppb	05:04:34
1	Pb 220.353†	8658.1	8573.8	480.12	µg/L	480.12	ppb	05:04:34
1	S 181.975 Axial†	1400.4	1295.7	966.14	µg/L	966.14	ppb	05:04:34
1	Sb 206.836†	4069.8	3989.9	475.40	µg/L	475.40	ppb	05:04:34
1	Se 196.026†	1337.9	1323.0	480	µg/L	480	ppb	05:04:34
1	SiO2†	54209.1	52446.9	5105.9	µg/L	5105.9	ppb	05:04:14
1	Si 251.611†	164159.3	163362.7	2399.0	µg/L	2399.0	ppb	05:04:14
1	Sn 189.927†	7642.2	7645.2	478.20	µg/L	478.20	ppb	05:04:34
1	Ti 334.940†	511471.4	510643.4	476.46	µg/L	476.46	ppb	05:04:14
1	Tl 190.801†	3776.4	3894.0	485.62	µg/L	485.62	ppb	05:04:34
1	U 409.014†	7331.2	7602.9	473.54	µg/L	473.54	ppb	05:04:14
1	V 292.402†	97611.9	97231.8	480.62	µg/L	480.62	ppb	05:04:14
1	Zn 213.857†	85344.1	84800.5	472.62	µg/L	472.62	ppb	05:04:14
2	Sc RADIAL	142177.1	142177.1	97.4	%			05:04:05
2	Al 396.153Radial†	25933.0	26680.7	4924.5	µg/L	4924.5	ppb	05:04:05
2	Ca 317.933Radial†	84882.8	86562.6	4821.9	µg/L	4821.9	ppb	05:04:05
2	Fe 238.204 Radial†	75981.4	77838.8	4797.5	µg/L	4797.5	ppb	05:04:05
2	K 766.490 Radial†	14617.1	13458.2	4923.2	µg/L	4923.2	ppb	05:04:05
2	Mg 279.077 IEC†	13046.8	13200.5	4925.8	µg/L	4925.8	ppb	05:04:05
2	Na 589.592 Radial†	71119.0	71705.3	9791.4	µg/L	9791.4	ppb	05:04:05
2	Sr 421.552†	226461.7	232574.3	483.47	µg/L	483.47	ppb	05:04:03
2	Sc 361.383	1718896.3	1718896.3	100.04	%			05:04:37
2	Y 371.029	1012872.8	1012872.8	98.654	%			05:04:37
2	Ag 328.068†	131183.7	127040.5	476.38	µg/L	476.38	ppb	05:04:37
2	As 188.979†	1601.5	1621.2	497.20	µg/L	497.20	ppb	05:04:57
2	B 249.677†	35702.0	32182.0	472.96	µg/L	472.96	ppb	05:04:37
2	Ba 233.527†	118547.9	118637.0	478.46	µg/L	478.46	ppb	05:04:37
2	Be 313.107†	1777707.2	1778070.0	484.27	µg/L	484.27	ppb	05:04:37
2	Cd 226.502†	76355.4	76443.4	477.19	µg/L	477.19	ppb	05:04:37
2	Co 228.616†	38719.9	38894.9	480.16	µg/L	480.16	ppb	05:04:37
2	Cr 267.716†	60616.0	60413.5	473.03	µg/L	473.03	ppb	05:04:37
2	Cu 324.752†	125459.3	122437.5	477.29	µg/L	477.29	ppb	05:04:37
2	Mn 257.610†	388816.5	388425.7	480.39	µg/L	480.39	ppb	05:04:37
2	Mo 202.031†	16138.4	16152.1	475.13	µg/L	475.13	ppb	05:04:57
2	Ni 231.604†	41418.0	41478.1	477.59	µg/L	477.59	ppb	05:04:37
2	P 214.914†	11169.5	11183.1	2383.7	µg/L	2383.7	ppb	05:04:57
2	Pb 220.353†	8675.4	8585.6	480.78	µg/L	480.78	ppb	05:04:57

2	S 181.975 Axial†	1419.5	1313.8	979.63 µg/L	979.63 ppb	05:04:57
2	Sb 206.836†	4079.9	3997.5	476.31 µg/L	476.31 ppb	05:04:57
2	Se 196.026†	1332.5	1316.7	478 µg/L	478 ppb	05:04:57
2	SiO2†	54300.2	52503.4	5111.4 µg/L	5111.4 ppb	05:04:37
2	Si 251.611†	164532.5	163631.0	2402.9 µg/L	2402.9 ppb	05:04:37
2	Sn 189.927†	7645.3	7643.4	478.09 µg/L	478.09 ppb	05:04:57
2	Ti 334.940†	511854.9	510700.3	476.52 µg/L	476.52 ppb	05:04:37
2	Tl 190.801†	3771.1	3886.3	484.66 µg/L	484.66 ppb	05:04:57
2	U 409.014†	7189.9	7456.9	465.01 µg/L	465.01 ppb	05:04:37
2	V 292.402†	97709.7	97267.3	480.79 µg/L	480.79 ppb	05:04:37
2	Zn 213.857†	85652.3	85054.1	474.04 µg/L	474.04 ppb	05:04:37
3	Sc RADIAL	142516.5	142516.5	97.7 %		05:04:10
3	Al 396.153Radial†	26016.1	26702.4	4928.5 µg/L	4928.5 ppb	05:04:10
3	Ca 317.933Radial†	85309.6	86792.2	4834.7 µg/L	4834.7 ppb	05:04:10
3	Fe 238.204 Radial†	76361.8	78042.5	4810.1 µg/L	4810.1 ppb	05:04:10
3	K 766.490 Radial†	14534.2	13337.5	4879.1 µg/L	4879.1 ppb	05:04:10
3	Mg 279.077 IEC†	13094.3	13217.2	4932.1 µg/L	4932.1 ppb	05:04:10
3	Na 589.592 Radial†	71498.7	71920.3	9820.8 µg/L	9820.8 ppb	05:04:10
3	Sr 421.552†	226956.2	232527.1	483.37 µg/L	483.37 ppb	05:04:07
3	Sc 361.383	1715888.7	1715888.7	99.864 %		05:05:00
3	Y 371.029	1012085.0	1012085.0	98.578 %		05:05:00
3	Ag 328.068†	130932.7	127019.0	476.29 µg/L	476.29 ppb	05:05:00
3	As 188.979†	1600.5	1623.0	497.74 µg/L	497.74 ppb	05:05:21
3	B 249.677†	35703.4	32246.0	473.91 µg/L	473.91 ppb	05:05:00
3	Ba 233.527†	118252.2	118548.6	478.10 µg/L	478.10 ppb	05:05:00
3	Be 313.107†	1772238.1	1775708.2	483.62 µg/L	483.62 ppb	05:05:00
3	Cd 226.502†	75982.3	76203.6	475.70 µg/L	475.70 ppb	05:05:00
3	Co 228.616†	38592.7	38835.4	479.42 µg/L	479.42 ppb	05:05:00
3	Cr 267.716†	60479.0	60382.5	472.79 µg/L	472.79 ppb	05:05:00
3	Cu 324.752†	125163.3	122361.0	476.99 µg/L	476.99 ppb	05:05:00
3	Mn 257.610†	387741.8	388030.8	479.90 µg/L	479.90 ppb	05:05:00
3	Mo 202.031†	16166.2	16208.2	476.78 µg/L	476.78 ppb	05:05:21
3	Ni 231.604†	41397.3	41530.0	478.19 µg/L	478.19 ppb	05:05:00
3	P 214.914†	11229.6	11262.8	2400.7 µg/L	2400.7 ppb	05:05:21
3	Pb 220.353†	8666.5	8591.9	481.14 µg/L	481.14 ppb	05:05:21
3	S 181.975 Axial†	1402.0	1298.8	968.50 µg/L	968.50 ppb	05:05:21
3	Sb 206.836†	4079.3	4004.1	477.12 µg/L	477.12 ppb	05:05:21
3	Se 196.026†	1348.8	1335.4	485 µg/L	485 ppb	05:05:21
3	SiO2†	54197.4	52495.6	5110.5 µg/L	5110.5 ppb	05:05:00
3	Si 251.611†	164034.6	163420.6	2399.8 µg/L	2399.8 ppb	05:05:00
3	Sn 189.927†	7674.5	7686.0	480.75 µg/L	480.75 ppb	05:05:21
3	Ti 334.940†	510082.1	509821.9	475.70 µg/L	475.70 ppb	05:05:00
3	Tl 190.801†	3787.1	3908.9	487.43 µg/L	487.43 ppb	05:05:21
3	U 409.014†	7110.7	7390.3	461.07 µg/L	461.07 ppb	05:05:00
3	V 292.402†	97399.7	97128.1	480.12 µg/L	480.12 ppb	05:05:00
3	Zn 213.857†	85456.2	85007.8	473.77 µg/L	473.77 ppb	05:05:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1717528.2	99.960	%	0.0886				0.09%
Sc RADIAL	142500.4	97.7	%	0.22				0.22%
Y 371.029	1012637.2	98.631	%	0.0467				0.05%
Ag 328.068†	126981.9	476.17	µg/L	0.302	476.17	ppb	0.302	0.06%
QC value within limits for Ag 328.068 Recovery = 95.23%								
Al 396.153Radial†	26612.8	4911.9	µg/L	25.30	4911.9	ppb	25.30	0.52%
QC value within limits for Al 396.153Radial Recovery = 98.24%								
As 188.979†	1624.3	498.13	µg/L	1.168	498.13	ppb	1.168	0.23%
QC value within limits for As 188.979 Recovery = 99.63%								
B 249.677†	32175.3	472.87	µg/L	1.095	472.87	ppb	1.095	0.23%
QC value within limits for B 249.677 Recovery = 94.57%								
Ba 233.527†	118528.0	478.02	µg/L	0.486	478.02	ppb	0.486	0.10%
QC value within limits for Ba 233.527 Recovery = 95.60%								
Be 313.107†	1776491.5	483.84	µg/L	0.372	483.84	ppb	0.372	0.08%
QC value within limits for Be 313.107 Recovery = 96.77%								
Ca 317.933Radial†	86595.7	4823.7	µg/L	10.15	4823.7	ppb	10.15	0.21%
QC value within limits for Ca 317.933Radial Recovery = 96.47%								
Cd 226.502†	76288.5	476.23	µg/L	0.839	476.23	ppb	0.839	0.18%
QC value within limits for Cd 226.502 Recovery = 95.25%								
Co 228.616†	38847.9	479.58	µg/L	0.520	479.58	ppb	0.520	0.11%

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   QC value within limits for Co 228.616  Recovery = 95.92%
Cr 267.716†            60407.5      472.98 µg/L        0.173      472.98 ppb          0.173   0.04%
   QC value within limits for Cr 267.716  Recovery = 94.60%
Cu 324.752†           122458.3      477.37 µg/L        0.427      477.37 ppb          0.427   0.09%
   QC value within limits for Cu 324.752  Recovery = 95.47%
Fe 238.204 Radial†     77845.8      4797.9 µg/L        11.92      4797.9 ppb          11.92   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.96%
K 766.490 Radial†      13343.8      4881.4 µg/L        40.76      4881.4 ppb          40.76   0.83%
   QC value within limits for K 766.490 Radial  Recovery = 97.63%
Mg 279.077 IEC†        13181.0      4918.5 µg/L        18.24      4918.5 ppb          18.24   0.37%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.37%
Mn 257.610†           388352.8      480.30 µg/L        0.362      480.30 ppb          0.362   0.08%
   QC value within limits for Mn 257.610  Recovery = 96.06%
Mo 202.031†            16161.0      475.39 µg/L        1.275      475.39 ppb          1.275   0.27%
   QC value within limits for Mo 202.031  Recovery = 95.08%
Na 589.592 Radial†     71758.7      9798.8 µg/L        19.47      9798.8 ppb          19.47   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 97.99%
Ni 231.604†            41464.7      477.44 µg/L        0.840      477.44 ppb          0.840   0.18%
   QC value within limits for Ni 231.604  Recovery = 95.49%
P 214.914†             11210.3      2389.5 µg/L         9.72      2389.5 ppb           9.72   0.41%
   QC value within limits for P 214.914  Recovery = 95.58%
Pb 220.353†             8583.8      480.68 µg/L        0.522      480.68 ppb          0.522   0.11%
   QC value within limits for Pb 220.353  Recovery = 96.14%
S 181.975 Axial†        1302.8      971.42 µg/L        7.208      971.42 ppb          7.208   0.74%
   QC value within limits for S 181.975 Axial  Recovery = 97.14%
Sb 206.836†             3997.2      476.28 µg/L        0.861      476.28 ppb          0.861   0.18%
   QC value within limits for Sb 206.836  Recovery = 95.26%
Se 196.026†             1325.0         481 µg/L          3.4         481 ppb            3.4   0.71%
   QC value within limits for Se 196.026  Recovery = 96.22%
SiO2†                  52482.0      5109.3 µg/L         2.96      5109.3 ppb           2.96   0.06%
   QC value within limits for SiO2  Recovery = 95.54%
Si 251.611†           163471.4      2400.6 µg/L         2.08      2400.6 ppb           2.08   0.09%
   QC value within limits for Si 251.611  Recovery = 96.02%
Sn 189.927†             7658.2      479.01 µg/L        1.501      479.01 ppb          1.501   0.31%
   QC value within limits for Sn 189.927  Recovery = 95.80%
Sr 421.552†           232519.1      483.36 µg/L        0.124      483.36 ppb          0.124   0.03%
   QC value within limits for Sr 421.552  Recovery = 96.67%
Ti 334.940†           510388.5      476.23 µg/L        0.458      476.23 ppb          0.458   0.10%
   QC value within limits for Ti 334.940  Recovery = 95.25%
Tl 190.801†             3896.4      485.90 µg/L        1.405      485.90 ppb          1.405   0.29%
   QC value within limits for Tl 190.801  Recovery = 97.18%
U 409.014†              7483.4      466.54 µg/L        6.373      466.54 ppb          6.373   1.37%
   QC value within limits for U 409.014  Recovery = 93.31%
V 292.402†             97209.1      480.51 µg/L        0.345      480.51 ppb          0.345   0.07%
   QC value within limits for V 292.402  Recovery = 96.10%
Zn 213.857†            84954.1      473.48 µg/L        0.754      473.48 ppb          0.754   0.16%
   QC value within limits for Zn 213.857  Recovery = 94.70%
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 5:05:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145743.0	145743.0	99.9	%			05:05:57
1	Al 396.153Radial†	-25.5	37.7	6.9946	µg/L	6.9946	ppb	05:06:17
1	Ca 317.933Radial†	624.7	64.9	3.6148	µg/L	3.6148	ppb	05:06:17
1	Fe 238.204 Radial†	160.3	12.4	0.7656	µg/L	0.7656	ppb	05:06:17
1	K 766.490 Radial†	1619.2	76.5	27.962	µg/L	27.962	ppb	05:05:57
1	Mg 279.077 IEC†	177.4	-13.0	-4.8668	µg/L	-4.8668	ppb	05:06:17
1	Na 589.592 Radial†	2580.0	1292.5	176.54	µg/L	176.54	ppb	05:05:57
1	Sr 421.552†	-206.7	-71.7	-0.1490	µg/L	-0.1490	ppb	05:05:57
1	Sc 361.383	1758359.3	1758359.3	102.34	%			05:07:19
1	Y 371.029	1047204.1	1047204.1	102.00	%			05:07:19
1	Ag 328.068†	4319.7	129.7	0.4450	µg/L	0.4450	ppb	05:07:21
1	As 188.979†	-5.9	14.6	4.3999	µg/L	4.3999	ppb	05:07:41
1	B 249.677†	3629.0	40.2	0.5931	µg/L	0.5931	ppb	05:07:21
1	Ba 233.527†	-169.9	-30.2	-0.1218	µg/L	-0.1218	ppb	05:07:41
1	Be 313.107†	-1022.3	65.7	0.0101	µg/L	0.0101	ppb	05:07:21
1	Cd 226.502†	-89.3	30.9	0.1929	µg/L	0.1929	ppb	05:07:41
1	Co 228.616†	-193.1	1.7	0.0204	µg/L	0.0204	ppb	05:07:41
1	Cr 267.716†	166.1	-16.3	-0.1072	µg/L	-0.1072	ppb	05:07:41
1	Cu 324.752†	2915.1	-123.7	-0.5021	µg/L	-0.5021	ppb	05:07:21
1	Mn 257.610†	289.9	46.0	0.0571	µg/L	0.0571	ppb	05:07:41
1	Mo 202.031†	-26.5	-5.8	-0.1707	µg/L	-0.1707	ppb	05:07:41
1	Ni 231.604†	-96.2	-17.5	-0.2015	µg/L	-0.2015	ppb	05:07:41
1	P 214.914†	-38.6	-19.8	-4.2211	µg/L	-4.2211	ppb	05:07:41
1	Pb 220.353†	57.3	-30.4	-1.6754	µg/L	-1.6754	ppb	05:07:41
1	S 181.975 Axial†	137.0	28.8	21.413	µg/L	21.413	ppb	05:07:41
1	Sb 206.836†	81.3	-1.4	-0.1639	µg/L	-0.1639	ppb	05:07:41
1	Se 196.026†	14.5	-1.1	-0.428	µg/L	-0.428	ppb	05:07:41
1	SiO2†	1795.9	-20.4	-2.0072	µg/L	-2.0072	ppb	05:07:41
1	Si 251.611†	842.2	-13.6	-0.2043	µg/L	-0.2043	ppb	05:07:21
1	Sn 189.927†	14.5	15.3	0.9535	µg/L	0.9535	ppb	05:07:41
1	Ti 334.940†	896.1	-76.9	-0.0607	µg/L	-0.0607	ppb	05:07:21
1	Tl 190.801†	-107.4	11.8	1.4419	µg/L	1.4419	ppb	05:07:41
1	U 409.014†	-728.7	-442.1	-25.868	µg/L	-25.868	ppb	05:07:21
1	V 292.402†	356.0	-55.9	-0.2924	µg/L	-0.2924	ppb	05:07:21
1	Zn 213.857†	611.8	33.4	0.1892	µg/L	0.1892	ppb	05:07:41
2	Sc RADIAL	143898.7	143898.7	98.6	%			05:06:19
2	Al 396.153Radial†	-55.8	6.7	1.2330	µg/L	1.2330	ppb	05:06:39
2	Ca 317.933Radial†	606.4	54.4	3.0284	µg/L	3.0284	ppb	05:06:39
2	Fe 238.204 Radial†	158.8	12.9	0.7968	µg/L	0.7968	ppb	05:06:39
2	K 766.490 Radial†	1417.0	-107.8	-39.494	µg/L	-39.494	ppb	05:06:19
2	Mg 279.077 IEC†	183.4	-4.7	-1.7523	µg/L	-1.7523	ppb	05:06:39
2	Na 589.592 Radial†	2345.9	1088.2	148.69	µg/L	148.69	ppb	05:06:19
2	Sr 421.552†	-178.6	-45.8	-0.0953	µg/L	-0.0953	ppb	05:06:19
2	Sc 361.383	1742400.7	1742400.7	101.41	%			05:07:43
2	Y 371.029	1037760.1	1037760.1	101.08	%			05:07:43
2	Ag 328.068†	4154.9	5.9	0.0126	µg/L	0.0126	ppb	05:07:46
2	As 188.979†	-12.6	8.0	2.4108	µg/L	2.4108	ppb	05:08:06
2	B 249.677†	3668.4	111.6	1.6444	µg/L	1.6444	ppb	05:07:46
2	Ba 233.527†	-119.9	17.6	0.0702	µg/L	0.0702	ppb	05:08:06
2	Be 313.107†	-953.3	124.6	0.0347	µg/L	0.0347	ppb	05:07:46
2	Cd 226.502†	-98.5	21.1	0.1314	µg/L	0.1314	ppb	05:08:06
2	Co 228.616†	-169.6	23.1	0.2846	µg/L	0.2846	ppb	05:08:06
2	Cr 267.716†	210.1	28.6	0.2214	µg/L	0.2214	ppb	05:08:06
2	Cu 324.752†	3022.7	8.5	0.0356	µg/L	0.0356	ppb	05:07:46
2	Mn 257.610†	280.0	38.8	0.0481	µg/L	0.0481	ppb	05:08:06
2	Mo 202.031†	-19.8	0.6	0.0163	µg/L	0.0163	ppb	05:08:06
2	Ni 231.604†	-119.3	-41.2	-0.4741	µg/L	-0.4741	ppb	05:08:06
2	P 214.914†	-19.4	-1.2	-0.2554	µg/L	-0.2554	ppb	05:08:06
2	Pb 220.353†	78.8	-8.6	-0.4842	µg/L	-0.4842	ppb	05:08:06

2	S 181.975 Axial†	123.0	16.3	12.075 µg/L	12.075 ppb	05:08:06
2	Sb 206.836†	74.6	-7.2	-0.8639 µg/L	-0.8639 ppb	05:08:06
2	Se 196.026†	21.6	6.0	2.19 µg/L	2.19 ppb	05:08:06
2	SiO2†	1761.0	-38.8	-3.8022 µg/L	-3.8022 ppb	05:08:06
2	Si 251.611†	806.3	-41.5	-0.6147 µg/L	-0.6147 ppb	05:07:46
2	Sn 189.927†	5.9	6.9	0.4326 µg/L	0.4326 ppb	05:08:06
2	Ti 334.940†	926.6	-38.8	-0.0372 µg/L	-0.0372 ppb	05:07:46
2	Tl 190.801†	-119.0	-0.7	-0.0930 µg/L	-0.0930 ppb	05:08:06
2	U 409.014†	-227.2	45.8	2.6178 µg/L	2.6178 ppb	05:07:46
2	V 292.402†	193.5	-213.0	-1.0360 µg/L	-1.0360 ppb	05:07:46
2	Zn 213.857†	609.0	36.1	0.2058 µg/L	0.2058 ppb	05:08:06
3	Sc RADIAL	142638.4	142638.4	97.7 %		05:06:41
3	Al 396.153Radial†	-22.0	40.7	7.5557 µg/L	7.5557 ppb	05:07:01
3	Ca 317.933Radial†	630.0	84.0	4.6771 µg/L	4.6771 ppb	05:07:01
3	Fe 238.204 Radial†	132.8	-12.2	-0.7538 µg/L	-0.7538 ppb	05:07:01
3	K 766.490 Radial†	1613.6	106.1	38.801 µg/L	38.801 ppb	05:06:41
3	Mg 279.077 IEC†	175.0	-11.7	-4.3601 µg/L	-4.3601 ppb	05:07:01
3	Na 589.592 Radial†	2479.7	1246.1	170.20 µg/L	170.20 ppb	05:06:41
3	Sr 421.552†	-208.4	-77.9	-0.1620 µg/L	-0.1620 ppb	05:06:41
3	Sc 361.383	1738163.3	1738163.3	101.16 %		05:08:08
3	Y 371.029	1035970.5	1035970.5	100.90 %		05:08:08
3	Ag 328.068†	4302.8	162.0	0.5833 µg/L	0.5833 ppb	05:08:10
3	As 188.979†	-21.8	-1.2	-0.3610 µg/L	-0.3610 ppb	05:08:30
3	B 249.677†	3574.8	27.9	0.4114 µg/L	0.4114 ppb	05:08:10
3	Ba 233.527†	-149.0	-11.4	-0.0465 µg/L	-0.0465 ppb	05:08:30
3	Be 313.107†	-873.2	201.5	0.0526 µg/L	0.0526 ppb	05:08:10
3	Cd 226.502†	-120.0	-0.4	-0.0024 µg/L	-0.0024 ppb	05:08:30
3	Co 228.616†	-182.7	9.7	0.1193 µg/L	0.1193 ppb	05:08:30
3	Cr 267.716†	174.3	-6.2	-0.0433 µg/L	-0.0433 ppb	05:08:30
3	Cu 324.752†	2971.9	-34.4	-0.1402 µg/L	-0.1402 ppb	05:08:10
3	Mn 257.610†	245.6	5.5	0.0070 µg/L	0.0070 ppb	05:08:30
3	Mo 202.031†	-34.6	-14.1	-0.4150 µg/L	-0.4150 ppb	05:08:30
3	Ni 231.604†	-92.5	-15.0	-0.1724 µg/L	-0.1724 ppb	05:08:30
3	P 214.914†	-13.5	4.6	0.9950 µg/L	0.9950 ppb	05:08:30
3	Pb 220.353†	106.1	18.5	1.0399 µg/L	1.0399 ppb	05:08:30
3	S 181.975 Axial†	143.8	37.1	27.534 µg/L	27.534 ppb	05:08:30
3	Sb 206.836†	58.1	-23.4	-2.7867 µg/L	-2.7867 ppb	05:08:30
3	Se 196.026†	4.1	-11.2	-4.05 µg/L	-4.05 ppb	05:08:30
3	SiO2†	1756.7	-38.8	-3.7752 µg/L	-3.7752 ppb	05:08:30
3	Si 251.611†	899.3	52.4	0.7804 µg/L	0.7804 ppb	05:08:10
3	Sn 189.927†	-7.1	-5.9	-0.3704 µg/L	-0.3704 ppb	05:08:30
3	Ti 334.940†	1084.8	119.8	0.1155 µg/L	0.1155 ppb	05:08:10
3	Tl 190.801†	-119.1	-1.1	-0.1349 µg/L	-0.1349 ppb	05:08:30
3	U 409.014†	-403.1	-128.6	-7.5533 µg/L	-7.5533 ppb	05:08:10
3	V 292.402†	284.4	-122.7	-0.6080 µg/L	-0.6080 ppb	05:08:10
3	Zn 213.857†	580.8	9.7	0.0558 µg/L	0.0558 ppb	05:08:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1746307.8	101.63	%	0.620				0.61%
Sc RADIAL	144093.4	98.7	%	1.07				1.08%
Y 371.029	1040311.6	101.33	%	0.588				0.58%
Ag 328.068†	99.2	0.3470	µg/L	0.29770	0.3470	ppb	0.29770	85.80%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	28.3	5.2611	µg/L	3.49970	5.2611	ppb	3.49970	66.52%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.1	2.1499	µg/L	2.39113	2.1499	ppb	2.39113	111.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	59.9	0.8830	µg/L	0.66564	0.8830	ppb	0.66564	75.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.0	-0.0327	µg/L	0.09673	-0.0327	ppb	0.09673	295.93%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	130.6	0.0325	µg/L	0.02135	0.0325	ppb	0.02135	65.76%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	67.7	3.7735	µg/L	0.83573	3.7735	ppb	0.83573	22.15%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.2	0.1073	µg/L	0.09986	0.1073	ppb	0.09986	93.05%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.5	0.1414	µg/L	0.13348	0.1414	ppb	0.13348	94.37%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 2.0      0.0236 µg/L       0.17422      0.0236 ppb        0.17422 737.23%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -49.9     -0.2022 µg/L       0.27414     -0.2022 ppb        0.27414 135.56%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          4.4      0.2695 µg/L       0.88639      0.2695 ppb        0.88639 328.85%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          24.9      9.0894 µg/L      42.42237      9.0894 ppb       42.42237 466.72%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -9.8     -3.6597 µg/L       1.67122     -3.6597 ppb        1.67122  45.67%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                30.1      0.0374 µg/L       0.02669      0.0374 ppb        0.02669  71.39%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -6.4     -0.1898 µg/L       0.21627     -0.1898 ppb        0.21627 113.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       1208.9      165.15 µg/L        14.597      165.15 ppb         14.597   8.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -24.5     -0.2827 µg/L       0.16642     -0.2827 ppb        0.16642  58.87%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -5.5     -1.1605 µg/L       2.72331     -1.1605 ppb        2.72331 234.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.8     -0.3732 µg/L       1.36106     -0.3732 ppb        1.36106 364.65%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           27.4      20.340 µg/L        7.7851      20.340 ppb         7.7851  38.27%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -10.7     -1.2715 µg/L       1.35806     -1.2715 ppb        1.35806 106.81%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.1      -0.764 µg/L        3.1328      -0.764 ppb         3.1328 410.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -32.7     -3.1949 µg/L       1.02864     -3.1949 ppb        1.02864  32.20%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                -0.9     -0.0129 µg/L       0.71695     -0.0129 ppb        0.71695 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.4      0.3386 µg/L       0.66691      0.3386 ppb        0.66691 196.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -65.1     -0.1354 µg/L       0.03536     -0.1354 ppb        0.03536  26.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 1.4      0.0059 µg/L       0.09568      0.0059 ppb        0.09568 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.3      0.4047 µg/L       0.89852      0.4047 ppb        0.89852 222.02%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -175.0     -10.268 µg/L       14.4354     -10.268 ppb        14.4354 140.59%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -130.5     -0.6455 µg/L       0.37319     -0.6455 ppb        0.37319  57.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                26.4      0.1503 µg/L       0.08227      0.1503 ppb        0.08227  54.74%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 5:25:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142109.2	142109.2	97.4	%			05:25:54
1	Al 396.153Radial†	25776.4	26532.6	4897.2	µg/L	4897.2	ppb	05:25:54
1	Ca 317.933Radial†	84821.4	86541.3	4820.7	µg/L	4820.7	ppb	05:25:54
1	Fe 238.204 Radial†	76100.5	77998.3	4807.3	µg/L	4807.3	ppb	05:25:54
1	K 766.490 Radial†	14457.5	13301.4	4865.9	µg/L	4865.9	ppb	05:25:54
1	Mg 279.077 IEC†	12927.9	13084.8	4882.6	µg/L	4882.6	ppb	05:25:54
1	Na 589.592 Radial†	70953.9	71570.7	9773.1	µg/L	9773.1	ppb	05:25:54
1	Sr 421.552†	225114.8	231302.2	480.83	µg/L	480.83	ppb	05:25:52
1	Sc 361.383	1720021.0	1720021.0	100.10	%			05:26:07
1	Y 371.029	1014640.3	1014640.3	98.826	%			05:26:07
1	Ag 328.068†	131353.4	127124.2	476.69	µg/L	476.69	ppb	05:26:07
1	As 188.979†	1548.2	1566.9	480.79	µg/L	480.79	ppb	05:26:27
1	B 249.677†	35677.1	32133.8	472.25	µg/L	472.25	ppb	05:26:07
1	Ba 233.527†	118456.3	118468.0	477.78	µg/L	477.78	ppb	05:26:07
1	Be 313.107†	1773301.1	1772506.5	482.75	µg/L	482.75	ppb	05:26:07
1	Cd 226.502†	76144.4	76182.7	475.57	µg/L	475.57	ppb	05:26:07
1	Co 228.616†	38814.2	38963.8	481.01	µg/L	481.01	ppb	05:26:07
1	Cr 267.716†	60767.8	60525.5	473.92	µg/L	473.92	ppb	05:26:07
1	Cu 324.752†	125732.9	122628.8	478.03	µg/L	478.03	ppb	05:26:07
1	Mn 257.610†	389049.0	388403.8	480.37	µg/L	480.37	ppb	05:26:07
1	Mo 202.031†	16074.3	16077.5	472.94	µg/L	472.94	ppb	05:26:27
1	Ni 231.604†	41434.5	41467.6	477.47	µg/L	477.47	ppb	05:26:07
1	P 214.914†	11070.6	11076.9	2360.9	µg/L	2360.9	ppb	05:26:27
1	Pb 220.353†	8624.5	8529.0	477.63	µg/L	477.63	ppb	05:26:27
1	S 181.975 Axial†	1382.5	1276.0	951.51	µg/L	951.51	ppb	05:26:27
1	Sb 206.836†	4042.7	3957.6	471.52	µg/L	471.52	ppb	05:26:27
1	Se 196.026†	1318.0	1301.4	473	µg/L	473	ppb	05:26:27
1	SiO2†	54725.0	52892.3	5149.5	µg/L	5149.5	ppb	05:26:07
1	Si 251.611†	165361.4	164351.5	2413.6	µg/L	2413.6	ppb	05:26:07
1	Sn 189.927†	7550.2	7543.4	471.86	µg/L	471.86	ppb	05:26:27
1	Ti 334.940†	512626.4	511136.4	476.93	µg/L	476.93	ppb	05:26:07
1	Tl 190.801†	3775.0	3887.7	484.84	µg/L	484.84	ppb	05:26:27
1	U 409.014†	7058.9	7321.4	457.10	µg/L	457.10	ppb	05:26:07
1	V 292.402†	97846.4	97340.0	481.12	µg/L	481.12	ppb	05:26:07
1	Zn 213.857†	85664.4	85010.2	473.79	µg/L	473.79	ppb	05:26:07
2	Sc RADIAL	141199.5	141199.5	96.8	%			05:25:58
2	Al 396.153Radial†	25565.2	26484.9	4888.2	µg/L	4888.2	ppb	05:25:58
2	Ca 317.933Radial†	84361.1	86626.7	4825.4	µg/L	4825.4	ppb	05:25:58
2	Fe 238.204 Radial†	75494.7	77875.7	4799.8	µg/L	4799.8	ppb	05:25:58
2	K 766.490 Radial†	14378.9	13315.8	4871.1	µg/L	4871.1	ppb	05:25:58
2	Mg 279.077 IEC†	12864.9	13105.1	4890.3	µg/L	4890.3	ppb	05:25:58
2	Na 589.592 Radial†	70502.5	71573.6	9773.5	µg/L	9773.5	ppb	05:25:58
2	Sr 421.552†	225485.6	233174.7	484.72	µg/L	484.72	ppb	05:25:56
2	Sc 361.383	1714706.6	1714706.6	99.796	%			05:26:30
2	Y 371.029	1012156.1	1012156.1	98.585	%			05:26:30
2	Ag 328.068†	130751.1	126927.5	475.95	µg/L	475.95	ppb	05:26:30
2	As 188.979†	1581.6	1605.2	492.35	µg/L	492.35	ppb	05:26:50
2	B 249.677†	35530.5	32097.4	471.72	µg/L	471.72	ppb	05:26:30
2	Ba 233.527†	118013.0	118390.5	477.47	µg/L	477.47	ppb	05:26:30
2	Be 313.107†	1765713.5	1770393.6	482.18	µg/L	482.18	ppb	05:26:30
2	Cd 226.502†	75961.6	76235.3	475.89	µg/L	475.89	ppb	05:26:30
2	Co 228.616†	38581.1	38850.4	479.61	µg/L	479.61	ppb	05:26:30
2	Cr 267.716†	60576.5	60522.0	473.88	µg/L	473.88	ppb	05:26:30
2	Cu 324.752†	125190.1	122474.3	477.44	µg/L	477.44	ppb	05:26:30
2	Mn 257.610†	388016.0	388573.2	480.57	µg/L	480.57	ppb	05:26:30
2	Mo 202.031†	16143.1	16196.2	476.42	µg/L	476.42	ppb	05:26:50
2	Ni 231.604†	41114.6	41275.3	475.25	µg/L	475.25	ppb	05:26:30
2	P 214.914†	11143.5	11184.3	2383.9	µg/L	2383.9	ppb	05:26:50
2	Pb 220.353†	8667.0	8598.3	481.49	µg/L	481.49	ppb	05:26:50

2	S 181.975 Axial†	1406.7	1304.5	972.73 µg/L	972.73 ppb	05:26:50
2	Sb 206.836†	4072.2	3999.7	476.57 µg/L	476.57 ppb	05:26:50
2	Se 196.026†	1332.7	1320.2	479 µg/L	479 ppb	05:26:50
2	SiO2†	54308.5	52644.4	5125.1 µg/L	5125.1 ppb	05:26:30
2	Si 251.611†	164475.8	163976.0	2408.0 µg/L	2408.0 ppb	05:26:30
2	Sn 189.927†	7621.3	7638.0	477.75 µg/L	477.75 ppb	05:26:50
2	Ti 334.940†	510463.7	510556.4	476.39 µg/L	476.39 ppb	05:26:30
2	Tl 190.801†	3772.9	3897.3	486.00 µg/L	486.00 ppb	05:26:50
2	U 409.014†	7234.6	7519.3	468.54 µg/L	468.54 ppb	05:26:30
2	V 292.402†	97054.2	96849.2	478.77 µg/L	478.77 ppb	05:26:30
2	Zn 213.857†	85259.7	84869.8	473.02 µg/L	473.02 ppb	05:26:30
3	Sc RADIAL	140766.0	140766.0	96.5 %		05:26:03
3	Al 396.153Radial†	25588.2	26590.1	4907.9 µg/L	4907.9 ppb	05:26:03
3	Ca 317.933Radial†	83962.6	86482.1	4817.4 µg/L	4817.4 ppb	05:26:03
3	Fe 238.204 Radial†	75418.7	78037.2	4809.7 µg/L	4809.7 ppb	05:26:03
3	K 766.490 Radial†	14639.8	13632.1	4986.9 µg/L	4986.9 ppb	05:26:03
3	Mg 279.077 IEC†	12762.5	13040.0	4865.9 µg/L	4865.9 ppb	05:26:03
3	Na 589.592 Radial†	70478.6	71773.2	9800.7 µg/L	9800.7 ppb	05:26:03
3	Sr 421.552†	226456.8	234899.3	488.30 µg/L	488.30 ppb	05:26:01
3	Sc 361.383	1728398.3	1728398.3	100.59 %		05:26:54
3	Y 371.029	1020054.8	1020054.8	99.354 %		05:26:54
3	Ag 328.068†	131808.1	126940.3	475.98 µg/L	475.98 ppb	05:26:54
3	As 188.979†	1576.6	1587.7	487.06 µg/L	487.06 ppb	05:27:14
3	B 249.677†	35623.6	31907.9	468.93 µg/L	468.93 ppb	05:26:54
3	Ba 233.527†	118888.6	118324.1	477.20 µg/L	477.20 ppb	05:26:54
3	Be 313.107†	1775775.0	1766380.0	481.08 µg/L	481.08 ppb	05:26:54
3	Cd 226.502†	76473.6	76141.3	475.31 µg/L	475.31 ppb	05:26:54
3	Co 228.616†	38807.3	38769.0	478.60 µg/L	478.60 ppb	05:26:54
3	Cr 267.716†	60978.6	60440.9	473.26 µg/L	473.26 ppb	05:26:54
3	Cu 324.752†	125716.1	122003.4	475.59 µg/L	475.59 ppb	05:26:54
3	Mn 257.610†	390074.1	387539.2	479.30 µg/L	479.30 ppb	05:26:54
3	Mo 202.031†	16123.4	16048.6	472.08 µg/L	472.08 ppb	05:27:14
3	Ni 231.604†	41447.0	41279.4	475.30 µg/L	475.30 ppb	05:26:54
3	P 214.914†	11104.3	11056.9	2356.7 µg/L	2356.7 ppb	05:27:14
3	Pb 220.353†	8630.8	8493.6	475.65 µg/L	475.65 ppb	05:27:14
3	S 181.975 Axial†	1393.5	1280.2	954.65 µg/L	954.65 ppb	05:27:14
3	Sb 206.836†	4077.0	3972.1	473.24 µg/L	473.24 ppb	05:27:14
3	Se 196.026†	1316.6	1293.6	470 µg/L	470 ppb	05:27:14
3	SiO2†	54892.1	52793.4	5139.9 µg/L	5139.9 ppb	05:26:54
3	Si 251.611†	165940.5	164126.5	2410.3 µg/L	2410.3 ppb	05:26:54
3	Sn 189.927†	7579.1	7535.6	471.37 µg/L	471.37 ppb	05:27:14
3	Ti 334.940†	513415.9	509439.2	475.35 µg/L	475.35 ppb	05:26:54
3	Tl 190.801†	3764.6	3859.1	481.31 µg/L	481.31 ppb	05:27:14
3	U 409.014†	7012.8	7241.4	452.32 µg/L	452.32 ppb	05:26:54
3	V 292.402†	97958.8	96978.0	479.34 µg/L	479.34 ppb	05:26:54
3	Zn 213.857†	85992.9	84922.0	473.31 µg/L	473.31 ppb	05:26:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1721042.0	100.16	%	0.402				0.40%
Sc RADIAL	141358.2	96.9	%	0.47				0.48%
Y 371.029	1015617.1	98.922	%	0.3934				0.40%
Ag 328.068†	126997.3	476.21	µg/L	0.419	476.21	ppb	0.419	0.09%
QC value within limits for Ag 328.068 Recovery = 95.24%								
Al 396.153Radial†	26535.9	4897.7	µg/L	9.87	4897.7	ppb	9.87	0.20%
QC value within limits for Al 396.153Radial Recovery = 97.95%								
As 188.979†	1586.6	486.74	µg/L	5.788	486.74	ppb	5.788	1.19%
QC value within limits for As 188.979 Recovery = 97.35%								
B 249.677†	32046.4	470.96	µg/L	1.785	470.96	ppb	1.785	0.38%
QC value within limits for B 249.677 Recovery = 94.19%								
Ba 233.527†	118394.2	477.48	µg/L	0.291	477.48	ppb	0.291	0.06%
QC value within limits for Ba 233.527 Recovery = 95.50%								
Be 313.107†	1769760.0	482.00	µg/L	0.848	482.00	ppb	0.848	0.18%
QC value within limits for Be 313.107 Recovery = 96.40%								
Ca 317.933Radial†	86550.0	4821.2	µg/L	4.05	4821.2	ppb	4.05	0.08%
QC value within limits for Ca 317.933Radial Recovery = 96.42%								
Cd 226.502†	76186.5	475.59	µg/L	0.295	475.59	ppb	0.295	0.06%
QC value within limits for Cd 226.502 Recovery = 95.12%								
Co 228.616†	38861.1	479.74	µg/L	1.208	479.74	ppb	1.208	0.25%

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   QC value within limits for Co 228.616  Recovery = 95.95%
Cr 267.716†            60496.1      473.68 µg/L         0.370      473.68 ppb          0.370   0.08%
   QC value within limits for Cr 267.716  Recovery = 94.74%
Cu 324.752†           122368.8      477.02 µg/L         1.270      477.02 ppb          1.270   0.27%
   QC value within limits for Cu 324.752  Recovery = 95.40%
Fe 238.204 Radial†     77970.4      4805.6 µg/L          5.20      4805.6 ppb           5.20   0.11%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.11%
K 766.490 Radial†      13416.5      4908.0 µg/L         68.42      4908.0 ppb          68.42   1.39%
   QC value within limits for K 766.490 Radial  Recovery = 98.16%
Mg 279.077 IEC†        13076.6      4879.6 µg/L         12.46      4879.6 ppb          12.46   0.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.59%
Mn 257.610†           388172.1      480.08 µg/L         0.686      480.08 ppb          0.686   0.14%
   QC value within limits for Mn 257.610  Recovery = 96.02%
Mo 202.031†            16107.4      473.81 µg/L         2.300      473.81 ppb          2.300   0.49%
   QC value within limits for Mo 202.031  Recovery = 94.76%
Na 589.592 Radial†     71639.1      9782.4 µg/L         15.80      9782.4 ppb          15.80   0.16%
   QC value within limits for Na 589.592 Radial  Recovery = 97.82%
Ni 231.604†            41340.7      476.01 µg/L         1.265      476.01 ppb          1.265   0.27%
   QC value within limits for Ni 231.604  Recovery = 95.20%
P 214.914†             11106.0      2367.2 µg/L         14.66      2367.2 ppb          14.66   0.62%
   QC value within limits for P 214.914  Recovery = 94.69%
Pb 220.353†             8540.3      478.26 µg/L         2.974      478.26 ppb          2.974   0.62%
   QC value within limits for Pb 220.353  Recovery = 95.65%
S 181.975 Axial†        1286.9      959.63 µg/L        11.455      959.63 ppb         11.455   1.19%
   QC value within limits for S 181.975 Axial  Recovery = 95.96%
Sb 206.836†             3976.5      473.78 µg/L         2.571      473.78 ppb          2.571   0.54%
   QC value within limits for Sb 206.836  Recovery = 94.76%
Se 196.026†             1305.0         474 µg/L           5.0         474 ppb            5.0   1.05%
   QC value within limits for Se 196.026  Recovery = 94.78%
SiO2†                  52776.7      5138.2 µg/L         12.30      5138.2 ppb          12.30   0.24%
   QC value within limits for SiO2  Recovery = 96.09%
Si 251.611†           164151.3      2410.6 µg/L          2.83      2410.6 ppb           2.83   0.12%
   QC value within limits for Si 251.611  Recovery = 96.43%
Sn 189.927†             7572.3      473.66 µg/L         3.553      473.66 ppb          3.553   0.75%
   QC value within limits for Sn 189.927  Recovery = 94.73%
Sr 421.552†           233125.4      484.62 µg/L         3.740      484.62 ppb          3.740   0.77%
   QC value within limits for Sr 421.552  Recovery = 96.92%
Ti 334.940†           510377.3      476.22 µg/L         0.804      476.22 ppb          0.804   0.17%
   QC value within limits for Ti 334.940  Recovery = 95.24%
Tl 190.801†             3881.4      484.05 µg/L         2.444      484.05 ppb          2.444   0.50%
   QC value within limits for Tl 190.801  Recovery = 96.81%
U 409.014†              7360.7      459.32 µg/L         8.335      459.32 ppb          8.335   1.81%
   QC value within limits for U 409.014  Recovery = 91.86%
V 292.402†             97055.7      479.74 µg/L         1.225      479.74 ppb          1.225   0.26%
   QC value within limits for V 292.402  Recovery = 95.95%
Zn 213.857†            84934.0      473.37 µg/L         0.390      473.37 ppb          0.390   0.08%
   QC value within limits for Zn 213.857  Recovery = 94.67%
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 5:27:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145094.0	145094.0	99.4	%			05:27:51
1	Al 396.153Radial†	-59.9	3.0	0.5652	µg/L	0.5652	ppb	05:28:11
1	Ca 317.933Radial†	628.5	71.6	3.9876	µg/L	3.9876	ppb	05:28:11
1	Fe 238.204 Radial†	231.1	84.3	5.1988	µg/L	5.1988	ppb	05:28:11
1	K 766.490 Radial†	1820.3	286.0	104.68	µg/L	104.68	ppb	05:27:51
1	Mg 279.077 IEC†	165.9	-23.8	-8.8786	µg/L	-8.8786	ppb	05:28:11
1	Na 589.592 Radial†	2325.2	1047.8	143.05	µg/L	143.05	ppb	05:27:51
1	Sr 421.552†	-266.7	-132.9	-0.2764	µg/L	-0.2764	ppb	05:27:51
1	Sc 361.383	1722926.7	1722926.7	100.27	%			05:29:12
1	Y 371.029	1027333.0	1027333.0	100.06	%			05:29:12
1	Ag 328.068†	4191.9	89.0	0.3300	µg/L	0.3300	ppb	05:29:14
1	As 188.979†	-14.3	6.1	1.8420	µg/L	1.8420	ppb	05:29:35
1	B 249.677†	3542.8	27.2	0.3995	µg/L	0.3995	ppb	05:29:14
1	Ba 233.527†	-162.8	-26.5	-0.1069	µg/L	-0.1069	ppb	05:29:35
1	Be 313.107†	-852.4	214.6	0.0591	µg/L	0.0591	ppb	05:29:14
1	Cd 226.502†	-86.1	32.3	0.2010	µg/L	0.2010	ppb	05:29:35
1	Co 228.616†	-156.4	34.4	0.4236	µg/L	0.4236	ppb	05:29:35
1	Cr 267.716†	203.5	24.4	0.1896	µg/L	0.1896	ppb	05:29:35
1	Cu 324.752†	2961.9	-18.5	-0.0692	µg/L	-0.0692	ppb	05:29:14
1	Mn 257.610†	392.9	154.6	0.1916	µg/L	0.1916	ppb	05:29:35
1	Mo 202.031†	-28.3	-8.1	-0.2386	µg/L	-0.2386	ppb	05:29:35
1	Ni 231.604†	-88.9	-12.2	-0.1403	µg/L	-0.1403	ppb	05:29:35
1	P 214.914†	-15.1	2.9	0.6266	µg/L	0.6266	ppb	05:29:35
1	Pb 220.353†	85.7	-0.9	-0.0513	µg/L	-0.0513	ppb	05:29:35
1	S 181.975 Axial†	131.0	25.6	19.013	µg/L	19.013	ppb	05:29:35
1	Sb 206.836†	80.9	-0.1	-0.0219	µg/L	-0.0219	ppb	05:29:35
1	Se 196.026†	19.7	4.3	1.57	µg/L	1.57	ppb	05:29:35
1	SiO2†	1905.1	124.5	12.167	µg/L	12.167	ppb	05:29:35
1	Si 251.611†	1275.1	435.1	6.4120	µg/L	6.4120	ppb	05:29:14
1	Sn 189.927†	11.4	12.5	0.7792	µg/L	0.7792	ppb	05:29:35
1	Ti 334.940†	919.0	-36.1	-0.0338	µg/L	-0.0338	ppb	05:29:14
1	Tl 190.801†	-127.5	-10.5	-1.2909	µg/L	-1.2909	ppb	05:29:35
1	U 409.014†	-235.2	35.4	2.0582	µg/L	2.0582	ppb	05:29:14
1	V 292.402†	370.1	-34.7	-0.1702	µg/L	-0.1702	ppb	05:29:14
1	Zn 213.857†	634.8	68.7	0.3862	µg/L	0.3862	ppb	05:29:35
2	Sc RADIAL	144080.7	144080.7	98.7	%			05:28:13
2	Al 396.153Radial†	-53.3	9.2	1.7250	µg/L	1.7250	ppb	05:28:33
2	Ca 317.933Radial†	591.5	38.5	2.1464	µg/L	2.1464	ppb	05:28:33
2	Fe 238.204 Radial†	210.0	64.6	3.9798	µg/L	3.9798	ppb	05:28:33
2	K 766.490 Radial†	1746.6	224.2	82.066	µg/L	82.066	ppb	05:28:13
2	Mg 279.077 IEC†	193.0	4.8	1.7636	µg/L	1.7636	ppb	05:28:33
2	Na 589.592 Radial†	2300.1	1038.8	141.84	µg/L	141.84	ppb	05:28:13
2	Sr 421.552†	-165.2	-32.0	-0.0666	µg/L	-0.0666	ppb	05:28:13
2	Sc 361.383	1740859.5	1740859.5	101.32	%			05:29:37
2	Y 371.029	1036711.8	1036711.8	100.98	%			05:29:37
2	Ag 328.068†	4348.9	200.9	0.7572	µg/L	0.7572	ppb	05:29:39
2	As 188.979†	-20.1	0.5	0.1512	µg/L	0.1512	ppb	05:29:59
2	B 249.677†	3481.8	-69.4	-1.0237	µg/L	-1.0237	ppb	05:29:39
2	Ba 233.527†	-139.2	-1.6	-0.0061	µg/L	-0.0061	ppb	05:29:59
2	Be 313.107†	-922.0	154.7	0.0434	µg/L	0.0434	ppb	05:29:39
2	Cd 226.502†	-72.0	47.2	0.2941	µg/L	0.2941	ppb	05:29:59
2	Co 228.616†	-175.5	17.1	0.2107	µg/L	0.2107	ppb	05:29:59
2	Cr 267.716†	196.7	15.6	0.1188	µg/L	0.1188	ppb	05:29:59
2	Cu 324.752†	2833.0	-176.1	-0.6798	µg/L	-0.6798	ppb	05:29:39
2	Mn 257.610†	379.8	137.6	0.1701	µg/L	0.1701	ppb	05:29:59
2	Mo 202.031†	-32.1	-11.6	-0.3419	µg/L	-0.3419	ppb	05:29:59
2	Ni 231.604†	-73.2	4.3	0.0493	µg/L	0.0493	ppb	05:29:59
2	P 214.914†	-25.7	-7.4	-1.5832	µg/L	-1.5832	ppb	05:29:59
2	Pb 220.353†	91.3	3.7	0.2019	µg/L	0.2019	ppb	05:29:59

2	S 181.975 Axial†	123.5	16.9	12.513 µg/L	12.513 ppb	05:29:59
2	Sb 206.836†	64.2	-17.5	-2.0852 µg/L	-2.0852 ppb	05:29:59
2	Se 196.026†	10.7	-4.7	-1.68 µg/L	-1.68 ppb	05:29:59
2	SiO2†	1876.6	76.9	7.5240 µg/L	7.5240 ppb	05:29:59
2	Si 251.611†	1432.5	577.3	8.5170 µg/L	8.5170 ppb	05:29:39
2	Sn 189.927†	-4.1	-2.9	-0.1802 µg/L	-0.1802 ppb	05:29:59
2	Ti 334.940†	871.5	-92.4	-0.0882 µg/L	-0.0882 ppb	05:29:39
2	Tl 190.801†	-105.4	12.6	1.5543 µg/L	1.5543 ppb	05:29:59
2	U 409.014†	-197.5	74.9	4.4195 µg/L	4.4195 ppb	05:29:39
2	V 292.402†	546.5	135.6	0.6611 µg/L	0.6611 ppb	05:29:39
2	Zn 213.857†	610.3	38.0	0.2130 µg/L	0.2130 ppb	05:29:59
3	Sc RADIAL	142537.5	142537.5	97.7 %		05:28:35
3	Al 396.153Radial†	-60.6	1.2	0.2221 µg/L	0.2221 ppb	05:28:55
3	Ca 317.933Radial†	625.4	79.7	4.4403 µg/L	4.4403 ppb	05:28:55
3	Fe 238.204 Radial†	216.0	73.0	4.4993 µg/L	4.4993 ppb	05:28:55
3	K 766.490 Radial†	1767.0	264.3	96.750 µg/L	96.750 ppb	05:28:35
3	Mg 279.077 IEC†	187.3	1.1	0.4011 µg/L	0.4011 ppb	05:28:55
3	Na 589.592 Radial†	2058.1	816.3	111.43 µg/L	111.43 ppb	05:28:35
3	Sr 421.552†	-153.3	-21.6	-0.0450 µg/L	-0.0450 ppb	05:28:35
3	Sc 361.383	1734315.4	1734315.4	100.94 %		05:30:01
3	Y 371.029	1034008.1	1034008.1	100.71 %		05:30:01
3	Ag 328.068†	3960.1	-168.1	-0.6218 µg/L	-0.6218 ppb	05:30:03
3	As 188.979†	-1.8	18.5	5.6093 µg/L	5.6093 ppb	05:30:23
3	B 249.677†	3485.6	-52.6	-0.7772 µg/L	-0.7772 ppb	05:30:03
3	Ba 233.527†	-157.6	-20.3	-0.0820 µg/L	-0.0820 ppb	05:30:23
3	Be 313.107†	-656.4	414.4	0.1129 µg/L	0.1129 ppb	05:30:03
3	Cd 226.502†	-113.8	5.5	0.0337 µg/L	0.0337 ppb	05:30:23
3	Co 228.616†	-169.5	22.4	0.2758 µg/L	0.2758 ppb	05:30:23
3	Cr 267.716†	226.0	45.3	0.3548 µg/L	0.3548 ppb	05:30:23
3	Cu 324.752†	2923.9	-75.5	-0.2921 µg/L	-0.2921 ppb	05:30:03
3	Mn 257.610†	366.0	125.3	0.1550 µg/L	0.1550 ppb	05:30:23
3	Mo 202.031†	-25.2	-4.9	-0.1429 µg/L	-0.1429 ppb	05:30:23
3	Ni 231.604†	-101.4	-24.0	-0.2758 µg/L	-0.2758 ppb	05:30:23
3	P 214.914†	-13.1	5.0	1.0675 µg/L	1.0675 ppb	05:30:23
3	Pb 220.353†	64.9	-22.1	-1.2346 µg/L	-1.2346 ppb	05:30:23
3	S 181.975 Axial†	129.8	23.6	17.494 µg/L	17.494 ppb	05:30:23
3	Sb 206.836†	87.0	5.4	0.6334 µg/L	0.6334 ppb	05:30:23
3	Se 196.026†	10.7	-4.7	-1.70 µg/L	-1.70 ppb	05:30:23
3	SiO2†	1882.5	89.6	8.7541 µg/L	8.7541 ppb	05:30:23
3	Si 251.611†	1382.2	532.8	7.8517 µg/L	7.8517 ppb	05:30:03
3	Sn 189.927†	11.8	12.8	0.7982 µg/L	0.7982 ppb	05:30:23
3	Ti 334.940†	879.1	-81.6	-0.0764 µg/L	-0.0764 ppb	05:30:03
3	Tl 190.801†	-116.9	0.8	0.1011 µg/L	0.1011 ppb	05:30:23
3	U 409.014†	-266.9	5.4	0.3199 µg/L	0.3199 ppb	05:30:03
3	V 292.402†	413.0	5.4	0.0263 µg/L	0.0263 ppb	05:30:03
3	Zn 213.857†	613.4	43.3	0.2445 µg/L	0.2445 ppb	05:30:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732700.5	100.84	%	0.528				0.52%
Sc RADIAL	143904.1	98.6	%	0.88				0.89%
Y 371.029	1032684.3	100.58	%	0.470				0.47%
Ag 328.068†	40.6	0.1551	µg/L	0.70592	0.1551	ppb	0.70592	455.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.5	0.8374	µg/L	0.78760	0.8374	ppb	0.78760	94.05%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.4	2.5342	µg/L	2.79413	2.5342	ppb	2.79413	110.26%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-31.6	-0.4672	µg/L	0.76060	-0.4672	ppb	0.76060	162.81%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-16.1	-0.0650	µg/L	0.05251	-0.0650	ppb	0.05251	80.77%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	261.2	0.0718	µg/L	0.03646	0.0718	ppb	0.03646	50.77%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	63.3	3.5248	µg/L	1.21495	3.5248	ppb	1.21495	34.47%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	28.3	0.1763	µg/L	0.13198	0.1763	ppb	0.13198	74.87%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	24.6	0.3034	µg/L	0.10911	0.3034	ppb	0.10911	35.97%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              28.4      0.2211 µg/L       0.12108      0.2211 ppb        0.12108  54.77%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -90.0     -0.3471 µg/L       0.30898     -0.3471 ppb        0.30898  89.03%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       74.0      4.5593 µg/L       0.61170      4.5593 ppb        0.61170  13.42%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       258.2      94.499 µg/L       11.4743      94.499 ppb        11.4743  12.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -6.0     -2.2380 µg/L       5.79119     -2.2380 ppb        5.79119 258.77%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             139.1      0.1722 µg/L       0.01838      0.1722 ppb        0.01838  10.67%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -8.2     -0.2411 µg/L       0.09951     -0.2411 ppb        0.09951  41.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      967.6      132.11 µg/L        17.919      132.11 ppb         17.919  13.56%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -10.6     -0.1222 µg/L       0.16331     -0.1222 ppb        0.16331 133.60%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.1      0.0370 µg/L       1.42036      0.0370 ppb        1.42036 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.4     -0.3613 µg/L       0.76677     -0.3613 ppb        0.76677 212.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         22.0      16.340 µg/L        3.4002      16.340 ppb         3.4002  20.81%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.1     -0.4912 µg/L       1.41878     -0.4912 ppb        1.41878 288.83%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.7      -0.603 µg/L        1.8834      -0.603 ppb         1.8834 312.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    97.0      9.4816 µg/L       2.40526      9.4816 ppb        2.40526  25.37%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             515.1      7.5935 µg/L       1.07596      7.5935 ppb        1.07596  14.17%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.5      0.4657 µg/L       0.55945      0.4657 ppb        0.55945 120.12%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -62.2     -0.1293 µg/L       0.12779     -0.1293 ppb        0.12779  98.81%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -70.0     -0.0661 µg/L       0.02865     -0.0661 ppb        0.02865  43.32%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.0      0.1215 µg/L       1.42267      0.1215 ppb        1.42267 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               38.6      2.2659 µg/L       2.05768      2.2659 ppb        2.05768  90.81%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               35.4      0.1724 µg/L       0.43447      0.1724 ppb        0.43447 252.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              50.0      0.2812 µg/L       0.09229      0.2812 ppb        0.09229  32.82%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 5:48:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143412.4	143412.4	98.3	%			05:49:20
1	Al 396.153Radial†	26401.8	26928.4	4970.4	µg/L	4970.4	ppb	05:49:20
1	Ca 317.933Radial†	85354.2	86291.8	4806.8	µg/L	4806.8	ppb	05:49:20
1	Fe 238.204 Radial†	76673.8	77871.6	4799.5	µg/L	4799.5	ppb	05:49:20
1	K 766.490 Radial†	14895.1	13611.7	4979.5	µg/L	4979.5	ppb	05:49:20
1	Mg 279.077 IEC†	13059.8	13098.4	4887.8	µg/L	4887.8	ppb	05:49:20
1	Na 589.592 Radial†	71028.8	70984.7	9692.9	µg/L	9692.9	ppb	05:49:20
1	Sr 421.552†	229178.2	233336.3	485.05	µg/L	485.05	ppb	05:49:18
1	Sc 361.383	1730211.6	1730211.6	100.70	%			05:49:47
1	Y 371.029	1019921.2	1019921.2	99.341	%			05:49:47
1	Ag 328.068†	132371.2	127362.2	477.57	µg/L	477.57	ppb	05:49:47
1	As 188.979†	1580.3	1589.7	487.69	µg/L	487.69	ppb	05:50:07
1	B 249.677†	35992.5	32237.1	473.77	µg/L	473.77	ppb	05:49:47
1	Ba 233.527†	119122.3	118432.3	477.63	µg/L	477.63	ppb	05:49:47
1	Be 313.107†	1783529.6	1772230.7	482.68	µg/L	482.68	ppb	05:49:47
1	Cd 226.502†	76519.0	76106.7	475.09	µg/L	475.09	ppb	05:49:47
1	Co 228.616†	39087.0	39006.3	481.53	µg/L	481.53	ppb	05:49:47
1	Cr 267.716†	61067.6	60465.7	473.44	µg/L	473.44	ppb	05:49:47
1	Cu 324.752†	126249.6	122402.2	477.15	µg/L	477.15	ppb	05:49:47
1	Mn 257.610†	390842.1	387895.4	479.74	µg/L	479.74	ppb	05:49:47
1	Mo 202.031†	16272.1	16179.3	475.93	µg/L	475.93	ppb	05:50:07
1	Ni 231.604†	41554.3	41342.8	476.03	µg/L	476.03	ppb	05:49:47
1	P 214.914†	11229.3	11169.4	2380.7	µg/L	2380.7	ppb	05:50:07
1	Pb 220.353†	8733.4	8586.5	480.84	µg/L	480.84	ppb	05:50:07
1	S 181.975 Axial†	1425.4	1310.4	977.11	µg/L	977.11	ppb	05:50:07
1	Sb 206.836†	4105.8	3996.5	476.20	µg/L	476.20	ppb	05:50:07
1	Se 196.026†	1349.6	1324.9	481	µg/L	481	ppb	05:50:07
1	SiO2†	54887.0	52731.2	5133.6	µg/L	5133.6	ppb	05:49:47
1	Si 251.611†	166441.0	164450.6	2415.0	µg/L	2415.0	ppb	05:49:47
1	Sn 189.927†	7680.6	7628.5	477.17	µg/L	477.17	ppb	05:50:07
1	Ti 334.940†	515593.8	511067.1	476.86	µg/L	476.86	ppb	05:49:47
1	Tl 190.801†	3810.3	3900.6	486.41	µg/L	486.41	ppb	05:50:07
1	U 409.014†	7255.0	7474.6	465.99	µg/L	465.99	ppb	05:49:47
1	V 292.402†	98177.3	97092.9	479.95	µg/L	479.95	ppb	05:49:47
1	Zn 213.857†	86203.6	85041.6	473.98	µg/L	473.98	ppb	05:49:47
2	Sc RADIAL	142196.1	142196.1	97.4	%			05:49:24
2	Al 396.153Radial†	26051.6	26798.8	4946.2	µg/L	4946.2	ppb	05:49:24
2	Ca 317.933Radial†	84815.3	86481.7	4817.4	µg/L	4817.4	ppb	05:49:24
2	Fe 238.204 Radial†	76151.2	78002.6	4807.6	µg/L	4807.6	ppb	05:49:24
2	K 766.490 Radial†	14651.7	13491.6	4935.5	µg/L	4935.5	ppb	05:49:24
2	Mg 279.077 IEC†	12902.3	13050.4	4870.0	µg/L	4870.0	ppb	05:49:24
2	Na 589.592 Radial†	70951.4	71523.6	9766.6	µg/L	9766.6	ppb	05:49:24
2	Sr 421.552†	226963.0	233057.6	484.48	µg/L	484.48	ppb	05:49:22
2	Sc 361.383	1711422.3	1711422.3	99.605	%			05:50:10
2	Y 371.029	1009637.8	1009637.8	98.339	%			05:50:10
2	Ag 328.068†	130850.2	127278.3	477.22	µg/L	477.22	ppb	05:50:10
2	As 188.979†	1598.7	1625.4	498.49	µg/L	498.49	ppb	05:50:30
2	B 249.677†	35154.5	31788.2	467.16	µg/L	467.16	ppb	05:50:10
2	Ba 233.527†	117404.2	118006.2	475.92	µg/L	475.92	ppb	05:50:10
2	Be 313.107†	1756284.2	1764322.3	480.52	µg/L	480.52	ppb	05:50:10
2	Cd 226.502†	75197.1	75613.9	472.01	µg/L	472.01	ppb	05:50:10
2	Co 228.616†	38365.9	38708.5	477.85	µg/L	477.85	ppb	05:50:10
2	Cr 267.716†	60355.4	60416.4	473.07	µg/L	473.07	ppb	05:50:10
2	Cu 324.752†	124533.5	122055.7	475.79	µg/L	475.79	ppb	05:50:10
2	Mn 257.610†	385706.8	387001.0	478.63	µg/L	478.63	ppb	05:50:10
2	Mo 202.031†	16262.3	16346.9	480.85	µg/L	480.85	ppb	05:50:30
2	Ni 231.604†	41042.2	41281.7	475.33	µg/L	475.33	ppb	05:50:10
2	P 214.914†	11266.0	11328.7	2414.8	µg/L	2414.8	ppb	05:50:30
2	Pb 220.353†	8729.0	8677.3	485.93	µg/L	485.93	ppb	05:50:30

2	S 181.975 Axial†	1419.3	1319.9	984.19 µg/L	984.19 ppb	05:50:30
2	Sb 206.836†	4110.4	4045.9	482.15 µg/L	482.15 ppb	05:50:30
2	Se 196.026†	1329.1	1319.1	479 µg/L	479 ppb	05:50:30
2	SiO2†	54209.3	52649.2	5125.4 µg/L	5125.4 ppb	05:50:10
2	Si 251.611†	164109.6	163924.7	2407.1 µg/L	2407.1 ppb	05:50:10
2	Sn 189.927†	7715.7	7747.5	484.58 µg/L	484.58 ppb	05:50:30
2	Ti 334.940†	508781.4	509849.0	475.74 µg/L	475.74 ppb	05:50:10
2	Tl 190.801†	3813.9	3945.7	491.95 µg/L	491.95 ppb	05:50:30
2	U 409.014†	6854.2	7151.3	447.01 µg/L	447.01 ppb	05:50:10
2	V 292.402†	96859.0	96839.8	478.75 µg/L	478.75 ppb	05:50:10
2	Zn 213.857†	84794.5	84566.7	471.31 µg/L	471.31 ppb	05:50:10
3	Sc RADIAL	141335.7	141335.7	96.9 %		05:49:28
3	Al 396.153Radial†	26120.4	27032.6	4989.8 µg/L	4989.8 ppb	05:49:28
3	Ca 317.933Radial†	84304.0	86483.7	4817.5 µg/L	4817.5 ppb	05:49:28
3	Fe 238.204 Radial†	75608.4	77917.9	4802.4 µg/L	4802.4 ppb	05:49:28
3	K 766.490 Radial†	14536.3	13464.0	4925.4 µg/L	4925.4 ppb	05:49:28
3	Mg 279.077 IEC†	12814.7	13040.5	4866.2 µg/L	4866.2 ppb	05:49:28
3	Na 589.592 Radial†	70539.5	71541.6	9769.1 µg/L	9769.1 ppb	05:49:28
3	Sr 421.552†	227249.7	234771.7	488.04 µg/L	488.04 ppb	05:49:26
3	Sc 361.383	1733201.8	1733201.8	100.87 %		05:50:33
3	Y 371.029	1022663.1	1022663.1	99.608 %		05:50:33
3	Ag 328.068†	132633.2	127395.2	477.67 µg/L	477.67 ppb	05:50:33
3	As 188.979†	1582.5	1589.2	487.52 µg/L	487.52 ppb	05:50:53
3	B 249.677†	36094.1	32276.2	474.35 µg/L	474.35 ppb	05:50:33
3	Ba 233.527†	119057.4	118163.9	476.55 µg/L	476.55 ppb	05:50:33
3	Be 313.107†	1787762.0	1773370.8	482.99 µg/L	482.99 ppb	05:50:33
3	Cd 226.502†	76586.0	76042.1	474.69 µg/L	474.69 ppb	05:50:33
3	Co 228.616†	38990.5	38843.7	479.52 µg/L	479.52 ppb	05:50:33
3	Cr 267.716†	61083.4	60376.7	472.75 µg/L	472.75 ppb	05:50:33
3	Cu 324.752†	126318.2	122253.9	476.57 µg/L	476.57 ppb	05:50:33
3	Mn 257.610†	391061.7	387443.6	479.18 µg/L	479.18 ppb	05:50:33
3	Mo 202.031†	16268.9	16148.3	475.02 µg/L	475.02 ppb	05:50:53
3	Ni 231.604†	41668.5	41384.8	476.52 µg/L	476.52 ppb	05:50:33
3	P 214.914†	11230.7	11151.6	2376.9 µg/L	2376.9 ppb	05:50:53
3	Pb 220.353†	8738.5	8576.5	480.29 µg/L	480.29 ppb	05:50:53
3	S 181.975 Axial†	1428.3	1310.9	977.43 µg/L	977.43 ppb	05:50:53
3	Sb 206.836†	4099.1	3982.8	474.57 µg/L	474.57 ppb	05:50:53
3	Se 196.026†	1336.9	1310.1	476 µg/L	476 ppb	05:50:53
3	SiO2†	55101.1	52849.4	5145.2 µg/L	5145.2 ppb	05:50:33
3	Si 251.611†	166788.7	164510.2	2415.9 µg/L	2415.9 ppb	05:50:33
3	Sn 189.927†	7690.0	7624.6	476.92 µg/L	476.92 ppb	05:50:53
3	Ti 334.940†	516020.5	510606.7	476.44 µg/L	476.44 ppb	05:50:33
3	Tl 190.801†	3800.5	3884.3	484.40 µg/L	484.40 ppb	05:50:53
3	U 409.014†	7160.9	7368.9	459.75 µg/L	459.75 ppb	05:50:33
3	V 292.402†	98149.4	96897.1	478.98 µg/L	478.98 ppb	05:50:33
3	Zn 213.857†	86284.5	84974.1	473.60 µg/L	473.60 ppb	05:50:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1724945.2	100.39	%	0.687				0.68%
Sc RADIAL	142314.7	97.5	%	0.72				0.73%
Y 371.029	1017407.4	99.096	%	0.6688				0.67%
Ag 328.068†	127345.2	477.49	µg/L	0.237	477.49	ppb	0.237	0.05%
QC value within limits for Ag 328.068 Recovery = 95.50%								
Al 396.153Radial†	26919.9	4968.8	µg/L	21.86	4968.8	ppb	21.86	0.44%
QC value within limits for Al 396.153Radial Recovery = 99.38%								
As 188.979†	1601.5	491.23	µg/L	6.288	491.23	ppb	6.288	1.28%
QC value within limits for As 188.979 Recovery = 98.25%								
B 249.677†	32100.5	471.76	µg/L	3.994	471.76	ppb	3.994	0.85%
QC value within limits for B 249.677 Recovery = 94.35%								
Ba 233.527†	118200.8	476.70	µg/L	0.868	476.70	ppb	0.868	0.18%
QC value within limits for Ba 233.527 Recovery = 95.34%								
Be 313.107†	1769974.6	482.06	µg/L	1.344	482.06	ppb	1.344	0.28%
QC value within limits for Be 313.107 Recovery = 96.41%								
Ca 317.933Radial†	86419.1	4813.9	µg/L	6.14	4813.9	ppb	6.14	0.13%
QC value within limits for Ca 317.933Radial Recovery = 96.28%								
Cd 226.502†	75920.9	473.93	µg/L	1.674	473.93	ppb	1.674	0.35%
QC value within limits for Cd 226.502 Recovery = 94.79%								
Co 228.616†	38852.9	479.64	µg/L	1.841	479.64	ppb	1.841	0.38%

```
   QC value within limits for Co 228.616  Recovery = 95.93%
Cr 267.716†            60419.6      473.09 µg/L         0.346      473.09 ppb          0.346   0.07%
   QC value within limits for Cr 267.716  Recovery = 94.62%
Cu 324.752†           122237.3      476.51 µg/L         0.684      476.51 ppb          0.684   0.14%
   QC value within limits for Cu 324.752  Recovery = 95.30%
Fe 238.204 Radial†     77930.7      4803.2 µg/L          4.09      4803.2 ppb           4.09   0.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.06%
K 766.490 Radial†      13522.5      4946.8 µg/L         28.77      4946.8 ppb          28.77   0.58%
   QC value within limits for K 766.490 Radial  Recovery = 98.94%
Mg 279.077 IEC†        13063.1      4874.6 µg/L         11.52      4874.6 ppb          11.52   0.24%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.49%
Mn 257.610†           387446.7      479.18 µg/L         0.553      479.18 ppb          0.553   0.12%
   QC value within limits for Mn 257.610  Recovery = 95.84%
Mo 202.031†            16224.9      477.27 µg/L         3.139      477.27 ppb          3.139   0.66%
   QC value within limits for Mo 202.031  Recovery = 95.45%
Na 589.592 Radial†     71350.0      9742.9 µg/L         43.25      9742.9 ppb          43.25   0.44%
   QC value within limits for Na 589.592 Radial  Recovery = 97.43%
Ni 231.604†            41336.4      475.96 µg/L         0.597      475.96 ppb          0.597   0.13%
   QC value within limits for Ni 231.604  Recovery = 95.19%
P 214.914†             11216.5      2390.8 µg/L         20.86      2390.8 ppb          20.86   0.87%
   QC value within limits for P 214.914  Recovery = 95.63%
Pb 220.353†             8613.4      482.35 µg/L         3.112      482.35 ppb          3.112   0.65%
   QC value within limits for Pb 220.353  Recovery = 96.47%
S 181.975 Axial†        1313.7      979.57 µg/L         4.000      979.57 ppb          4.000   0.41%
   QC value within limits for S 181.975 Axial  Recovery = 97.96%
Sb 206.836†             4008.4      477.64 µg/L         3.993      477.64 ppb          3.993   0.84%
   QC value within limits for Sb 206.836  Recovery = 95.53%
Se 196.026†             1318.0         479 µg/L           2.7         479 ppb            2.7   0.56%
   QC value within limits for Se 196.026  Recovery = 95.72%
SiO2†                  52743.2      5134.7 µg/L          9.97      5134.7 ppb           9.97   0.19%
   QC value within limits for SiO2  Recovery = 96.02%
Si 251.611†           164295.2      2412.7 µg/L          4.82      2412.7 ppb           4.82   0.20%
   QC value within limits for Si 251.611  Recovery = 96.51%
Sn 189.927†             7666.9      479.55 µg/L         4.353      479.55 ppb          4.353   0.91%
   QC value within limits for Sn 189.927  Recovery = 95.91%
Sr 421.552†           233721.9      485.86 µg/L         1.912      485.86 ppb          1.912   0.39%
   QC value within limits for Sr 421.552  Recovery = 97.17%
Ti 334.940†           510507.6      476.35 µg/L         0.570      476.35 ppb          0.570   0.12%
   QC value within limits for Ti 334.940  Recovery = 95.27%
Tl 190.801†             3910.2      487.59 µg/L         3.906      487.59 ppb          3.906   0.80%
   QC value within limits for Tl 190.801  Recovery = 97.52%
U 409.014†              7331.6      457.58 µg/L         9.674      457.58 ppb          9.674   2.11%
   QC value within limits for U 409.014  Recovery = 91.52%
V 292.402†             96943.2      479.23 µg/L         0.636      479.23 ppb          0.636   0.13%
   QC value within limits for V 292.402  Recovery = 95.85%
Zn 213.857†            84860.8      472.96 µg/L         1.440      472.96 ppb          1.440   0.30%
   QC value within limits for Zn 213.857  Recovery = 94.59%
All analyte(s) passed QC.
```

Sequence No.: 26 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/1/2010 5:51:01**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143857.1	143857.1	98.6	%			05:51:30
1	Al 396.153Radial†	-190.3	-129.8	-24.073	µg/L	-24.073	ppb	05:51:30
1	Ca 317.933Radial†	662.4	111.4	6.2040	µg/L	6.2040	ppb	05:51:50
1	Fe 238.204 Radial†	240.6	95.9	5.9120	µg/L	5.9120	ppb	05:51:50
1	K 766.490 Radial†	1827.4	309.0	113.10	µg/L	113.10	ppb	05:51:30
1	Mg 279.077 IEC†	175.4	-12.8	-4.7672	µg/L	-4.7672	ppb	05:51:50
1	Na 589.592 Radial†	2010.1	748.3	102.12	µg/L	102.12	ppb	05:51:30
1	Sr 421.552†	-121.3	12.2	0.0254	µg/L	0.0254	ppb	05:51:30
1	Sc 361.383	1744647.3	1744647.3	101.54	%			05:52:38
1	Y 371.029	1039852.7	1039852.7	101.28	%			05:52:38
1	Ag 328.068†	4231.3	75.8	0.2964	µg/L	0.2964	ppb	05:52:40
1	As 188.979†	-7.4	13.0	3.9399	µg/L	3.9399	ppb	05:53:00
1	B 249.677†	3576.6	16.5	0.2423	µg/L	0.2423	ppb	05:52:40
1	Ba 233.527†	-119.0	18.7	0.0755	µg/L	0.0755	ppb	05:53:00
1	Be 313.107†	-677.2	397.7	0.1113	µg/L	0.1113	ppb	05:52:40
1	Cd 226.502†	-106.3	13.5	0.0838	µg/L	0.0838	ppb	05:53:00
1	Co 228.616†	-169.0	23.9	0.2944	µg/L	0.2944	ppb	05:53:00
1	Cr 267.716†	182.7	1.3	0.0029	µg/L	0.0029	ppb	05:53:00
1	Cu 324.752†	2933.5	-83.2	-0.3139	µg/L	-0.3139	ppb	05:52:40
1	Mn 257.610†	360.3	117.6	0.1457	µg/L	0.1457	ppb	05:53:00
1	Mo 202.031†	-13.1	7.1	0.2103	µg/L	0.2103	ppb	05:53:00
1	Ni 231.604†	-81.2	-3.4	-0.0393	µg/L	-0.0393	ppb	05:53:00
1	P 214.914†	-3.1	15.0	3.1893	µg/L	3.1893	ppb	05:53:00
1	Pb 220.353†	103.2	15.2	0.8412	µg/L	0.8412	ppb	05:53:00
1	S 181.975 Axial†	129.0	22.0	16.316	µg/L	16.316	ppb	05:53:00
1	Sb 206.836†	84.3	2.2	0.2646	µg/L	0.2646	ppb	05:53:00
1	Se 196.026†	21.1	5.5	2.01	µg/L	2.01	ppb	05:53:00
1	SiO2†	1943.3	138.5	13.536	µg/L	13.536	ppb	05:52:40
1	Si 251.611†	1317.1	460.6	6.7875	µg/L	6.7875	ppb	05:52:40
1	Sn 189.927†	-1.7	-0.6	-0.0361	µg/L	-0.0361	ppb	05:53:00
1	Ti 334.940†	1048.3	79.9	0.0710	µg/L	0.0710	ppb	05:52:40
1	Tl 190.801†	-113.2	5.2	0.6447	µg/L	0.6447	ppb	05:53:00
1	U 409.014†	-98.4	172.9	10.129	µg/L	10.129	ppb	05:52:40
1	V 292.402†	473.1	62.1	0.3114	µg/L	0.3114	ppb	05:52:40
1	Zn 213.857†	651.9	77.6	0.4356	µg/L	0.4356	ppb	05:53:00
2	Sc RADIAL	142277.4	142277.4	97.5	%			05:51:52
2	Al 396.153Radial†	-195.3	-137.1	-25.405	µg/L	-25.405	ppb	05:51:52
2	Ca 317.933Radial†	631.6	87.2	4.8601	µg/L	4.8601	ppb	05:52:12
2	Fe 238.204 Radial†	243.7	101.8	6.2746	µg/L	6.2746	ppb	05:52:12
2	K 766.490 Radial†	1831.8	334.1	122.30	µg/L	122.30	ppb	05:51:52
2	Mg 279.077 IEC†	198.1	12.5	4.6598	µg/L	4.6598	ppb	05:52:12
2	Na 589.592 Radial†	1973.8	733.7	100.12	µg/L	100.12	ppb	05:51:52
2	Sr 421.552†	-198.1	-68.0	-0.1413	µg/L	-0.1413	ppb	05:51:52
2	Sc 361.383	1755613.8	1755613.8	102.18	%			05:53:02
2	Y 371.029	1045342.2	1045342.2	101.82	%			05:53:02
2	Ag 328.068†	4084.8	-93.6	-0.3512	µg/L	-0.3512	ppb	05:53:05
2	As 188.979†	-11.6	9.0	2.7333	µg/L	2.7333	ppb	05:53:25
2	B 249.677†	3520.0	-60.9	-0.8996	µg/L	-0.8996	ppb	05:53:05
2	Ba 233.527†	-151.0	-11.9	-0.0485	µg/L	-0.0485	ppb	05:53:25
2	Be 313.107†	-734.9	345.5	0.0944	µg/L	0.0944	ppb	05:53:05
2	Cd 226.502†	-81.7	38.3	0.2382	µg/L	0.2382	ppb	05:53:25
2	Co 228.616†	-166.1	27.8	0.3426	µg/L	0.3426	ppb	05:53:25
2	Cr 267.716†	197.3	14.5	0.1126	µg/L	0.1126	ppb	05:53:25
2	Cu 324.752†	2823.4	-209.0	-0.8098	µg/L	-0.8098	ppb	05:53:05
2	Mn 257.610†	296.5	52.9	0.0653	µg/L	0.0653	ppb	05:53:25
2	Mo 202.031†	-26.0	-5.3	-0.1565	µg/L	-0.1565	ppb	05:53:25
2	Ni 231.604†	-104.8	-26.1	-0.3005	µg/L	-0.3005	ppb	05:53:25
2	P 214.914†	-27.4	-8.8	-1.8872	µg/L	-1.8872	ppb	05:53:25
2	Pb 220.353†	67.2	-20.6	-1.1524	µg/L	-1.1524	ppb	05:53:25

2	S 181.975 Axial†	133.6	25.7	19.101 µg/L	19.101 ppb	05:53:25
2	Sb 206.836†	85.0	2.4	0.2820 µg/L	0.2820 ppb	05:53:25
2	Se 196.026†	5.0	-10.4	-3.75 µg/L	-3.75 ppb	05:53:25
2	SiO2†	1920.1	103.8	10.144 µg/L	10.144 ppb	05:53:05
2	Si 251.611†	1212.7	350.3	5.1635 µg/L	5.1635 ppb	05:53:05
2	Sn 189.927†	6.6	7.5	0.4712 µg/L	0.4712 ppb	05:53:25
2	Ti 334.940†	1263.1	283.7	0.2643 µg/L	0.2643 ppb	05:53:05
2	Tl 190.801†	-114.3	4.8	0.5878 µg/L	0.5878 ppb	05:53:25
2	U 409.014†	-255.6	19.7	1.1243 µg/L	1.1243 ppb	05:53:05
2	V 292.402†	308.3	-102.1	-0.4992 µg/L	-0.4992 ppb	05:53:05
2	Zn 213.857†	622.2	44.6	0.2519 µg/L	0.2519 ppb	05:53:25
3	Sc RADIAL	143992.1	143992.1	98.7 %		05:52:14
3	Al 396.153Radial†	-137.4	-76.1	-14.103 µg/L	-14.103 ppb	05:52:14
3	Ca 317.933Radial†	645.0	93.1	5.1853 µg/L	5.1853 ppb	05:52:34
3	Fe 238.204 Radial†	216.1	70.9	4.3718 µg/L	4.3718 ppb	05:52:34
3	K 766.490 Radial†	1849.6	329.7	120.69 µg/L	120.69 ppb	05:52:14
3	Mg 279.077 IEC†	181.7	-6.5	-2.4380 µg/L	-2.4380 ppb	05:52:34
3	Na 589.592 Radial†	2041.7	778.4	106.23 µg/L	106.23 ppb	05:52:14
3	Sr 421.552†	-161.6	-28.5	-0.0593 µg/L	-0.0593 ppb	05:52:14
3	Sc 361.383	1751304.2	1751304.2	101.93 %		05:53:27
3	Y 371.029	1043123.9	1043123.9	101.60 %		05:53:27
3	Ag 328.068†	4042.1	-125.7	-0.4738 µg/L	-0.4738 ppb	05:53:29
3	As 188.979†	-14.7	5.9	1.7883 µg/L	1.7883 ppb	05:53:49
3	B 249.677†	3573.4	-0.0	-0.0007 µg/L	-0.0007 ppb	05:53:29
3	Ba 233.527†	-123.8	14.4	0.0582 µg/L	0.0582 ppb	05:53:49
3	Be 313.107†	-862.8	218.2	0.0565 µg/L	0.0565 ppb	05:53:29
3	Cd 226.502†	-104.2	16.0	0.0993 µg/L	0.0993 ppb	05:53:49
3	Co 228.616†	-189.1	4.8	0.0589 µg/L	0.0589 ppb	05:53:49
3	Cr 267.716†	233.6	50.6	0.4042 µg/L	0.4042 ppb	05:53:49
3	Cu 324.752†	2978.5	-50.0	-0.2016 µg/L	-0.2016 ppb	05:53:29
3	Mn 257.610†	332.2	88.6	0.1098 µg/L	0.1098 ppb	05:53:49
3	Mo 202.031†	-22.9	-2.4	-0.0712 µg/L	-0.0712 ppb	05:53:49
3	Ni 231.604†	-83.0	-4.9	-0.0567 µg/L	-0.0567 ppb	05:53:49
3	P 214.914†	-31.5	-13.0	-2.7749 µg/L	-2.7749 ppb	05:53:49
3	Pb 220.353†	87.3	-0.8	-0.0374 µg/L	-0.0374 ppb	05:53:49
3	S 181.975 Axial†	135.1	27.5	20.442 µg/L	20.442 ppb	05:53:49
3	Sb 206.836†	71.7	-10.5	-1.2527 µg/L	-1.2527 ppb	05:53:49
3	Se 196.026†	24.8	9.1	3.28 µg/L	3.28 ppb	05:53:49
3	SiO2†	1960.3	147.9	14.451 µg/L	14.451 ppb	05:53:29
3	Si 251.611†	1381.3	518.6	7.6414 µg/L	7.6414 ppb	05:53:29
3	Sn 189.927†	11.5	12.4	0.7700 µg/L	0.7700 ppb	05:53:49
3	Ti 334.940†	924.1	-45.9	-0.0388 µg/L	-0.0388 ppb	05:53:29
3	Tl 190.801†	-113.9	4.9	0.6058 µg/L	0.6058 ppb	05:53:49
3	U 409.014†	-442.0	-163.8	-9.5606 µg/L	-9.5606 ppb	05:53:29
3	V 292.402†	473.5	60.7	0.2903 µg/L	0.2903 ppb	05:53:29
3	Zn 213.857†	619.3	43.1	0.2421 µg/L	0.2421 ppb	05:53:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1750521.8	101.88	%	0.322				0.32%
Sc RADIAL	143375.5	98.2	%	0.65				0.66%
Y 371.029	1042772.9	101.57	%	0.269				0.26%
Ag 328.068†	-47.8	-0.1762	µg/L	0.41384	-0.1762	ppb	0.41384	234.86%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-114.3	-21.194	µg/L	6.1769	-21.194	ppb	6.1769	29.14%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.3	2.8205	µg/L	1.07844	2.8205	ppb	1.07844	38.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-14.8	-0.2194	µg/L	0.60155	-0.2194	ppb	0.60155	274.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.1	0.0284	µg/L	0.06714	0.0284	ppb	0.06714	236.17%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	320.5	0.0874	µg/L	0.02807	0.0874	ppb	0.02807	32.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	97.2	5.4165	µg/L	0.70116	5.4165	ppb	0.70116	12.94%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	22.6	0.1404	µg/L	0.08503	0.1404	ppb	0.08503	60.56%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.8	0.2320	µg/L	0.15179	0.2320	ppb	0.15179	65.44%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              22.2      0.1732 µg/L       0.20743      0.1732 ppb        0.20743 119.74%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -114.0     -0.4418 µg/L       0.32363     -0.4418 ppb        0.32363  73.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       89.6      5.5195 µg/L       1.01034      5.5195 ppb        1.01034  18.30%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       324.2      118.70 µg/L         4.914      118.70 ppb          4.914   4.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.3     -0.8485 µg/L       4.91038     -0.8485 ppb        4.91038 578.73%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              86.4      0.1069 µg/L       0.04026      0.1069 ppb        0.04026  37.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -0.2     -0.0058 µg/L       0.19198     -0.0058 ppb        0.19198 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      753.5      102.83 µg/L         3.115      102.83 ppb          3.115   3.03%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -11.5     -0.1322 µg/L       0.14601     -0.1322 ppb        0.14601 110.48%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.3     -0.4909 µg/L       3.21789     -0.4909 ppb        3.21789 655.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -2.1     -0.1162 µg/L       0.99914     -0.1162 ppb        0.99914 859.83%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         25.1      18.620 µg/L        2.1044      18.620 ppb         2.1044  11.30%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.0     -0.2354 µg/L       0.88107     -0.2354 ppb        0.88107 374.30%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.4       0.512 µg/L        3.7435       0.512 ppb         3.7435 730.53%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   130.1      12.710 µg/L        2.2688      12.710 ppb         2.2688  17.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             443.2      6.5308 µg/L       1.25874      6.5308 ppb        1.25874  19.27%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.4      0.4017 µg/L       0.40750      0.4017 ppb        0.40750 101.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -28.1     -0.0584 µg/L       0.08335     -0.0584 ppb        0.08335 142.66%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             105.9      0.0989 µg/L       0.15342      0.0989 ppb        0.15342 155.20%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.0      0.6127 µg/L       0.02907      0.6127 ppb        0.02907   4.74%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                9.6      0.5642 µg/L       9.85669      0.5642 ppb        9.85669 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                6.9      0.0342 µg/L       0.46201      0.0342 ppb        0.46201 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              55.1      0.3099 µg/L       0.10900      0.3099 ppb        0.10900  35.18%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 6:04:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142848.8	142848.8	97.9	%			06:05:06
1	Al 396.153Radial†	26284.1	26914.2	4967.7	µg/L	4967.7	ppb	06:05:06
1	Ca 317.933Radial†	85756.1	87045.1	4848.8	µg/L	4848.8	ppb	06:05:06
1	Fe 238.204 Radial†	76615.7	78120.0	4814.8	µg/L	4814.8	ppb	06:05:06
1	K 766.490 Radial†	14635.7	13406.6	4904.4	µg/L	4904.4	ppb	06:05:06
1	Mg 279.077 IEC†	13109.8	13201.8	4926.4	µg/L	4926.4	ppb	06:05:06
1	Na 589.592 Radial†	71209.9	71454.9	9757.2	µg/L	9757.2	ppb	06:05:06
1	Sr 421.552†	229336.0	234417.5	487.30	µg/L	487.30	ppb	06:05:04
1	Sc 361.383	1722533.9	1722533.9	100.25	%			06:05:19
1	Y 371.029	1016004.9	1016004.9	98.959	%			06:05:19
1	Ag 328.068†	131502.2	127081.2	476.52	µg/L	476.52	ppb	06:05:19
1	As 188.979†	1603.1	1619.4	496.68	µg/L	496.68	ppb	06:05:39
1	B 249.677†	35665.3	32070.0	471.31	µg/L	471.31	ppb	06:05:19
1	Ba 233.527†	118687.8	118526.2	478.01	µg/L	478.01	ppb	06:05:19
1	Be 313.107†	1774677.2	1771294.9	482.42	µg/L	482.42	ppb	06:05:19
1	Cd 226.502†	76426.8	76353.5	476.63	µg/L	476.63	ppb	06:05:19
1	Co 228.616†	38731.3	38824.5	479.29	µg/L	479.29	ppb	06:05:19
1	Cr 267.716†	61003.8	60672.4	475.06	µg/L	475.06	ppb	06:05:19
1	Cu 324.752†	125233.2	121947.2	475.39	µg/L	475.39	ppb	06:05:19
1	Mn 257.610†	388434.4	387223.8	478.90	µg/L	478.90	ppb	06:05:19
1	Mo 202.031†	16274.4	16253.7	478.11	µg/L	478.11	ppb	06:05:39
1	Ni 231.604†	41552.7	41525.1	478.13	µg/L	478.13	ppb	06:05:19
1	P 214.914†	11262.8	11252.5	2398.5	µg/L	2398.5	ppb	06:05:39
1	Pb 220.353†	8749.1	8640.8	483.88	µg/L	483.88	ppb	06:05:39
1	S 181.975 Axial†	1398.8	1290.2	962.13	µg/L	962.13	ppb	06:05:39
1	Sb 206.836†	4130.9	4039.7	481.34	µg/L	481.34	ppb	06:05:39
1	Se 196.026†	1348.3	1329.7	483	µg/L	483	ppb	06:05:39
1	SiO2†	54482.6	52570.7	5117.8	µg/L	5117.8	ppb	06:05:19
1	Si 251.611†	165149.6	163899.2	2406.8	µg/L	2406.8	ppb	06:05:19
1	Sn 189.927†	7696.2	7678.0	480.25	µg/L	480.25	ppb	06:05:39
1	Ti 334.940†	511528.2	509293.9	475.20	µg/L	475.20	ppb	06:05:19
1	Tl 190.801†	3814.7	3921.9	489.01	µg/L	489.01	ppb	06:05:39
1	U 409.014†	7216.3	7468.1	465.59	µg/L	465.59	ppb	06:05:19
1	V 292.402†	97722.3	97073.6	479.89	µg/L	479.89	ppb	06:05:19
1	Zn 213.857†	85933.0	85153.3	474.59	µg/L	474.59	ppb	06:05:19
2	Sc RADIAL	143157.1	143157.1	98.1	%			06:05:11
2	Al 396.153Radial†	26258.8	26830.6	4952.3	µg/L	4952.3	ppb	06:05:11
2	Ca 317.933Radial†	85806.3	86907.6	4841.1	µg/L	4841.1	ppb	06:05:11
2	Fe 238.204 Radial†	76698.8	78036.1	4809.7	µg/L	4809.7	ppb	06:05:11
2	K 766.490 Radial†	14842.8	13585.5	4969.9	µg/L	4969.9	ppb	06:05:11
2	Mg 279.077 IEC†	13118.0	13181.3	4918.7	µg/L	4918.7	ppb	06:05:11
2	Na 589.592 Radial†	71063.7	71149.2	9715.4	µg/L	9715.4	ppb	06:05:11
2	Sr 421.552†	227333.3	231871.5	482.01	µg/L	482.01	ppb	06:05:08
2	Sc 361.383	1723631.7	1723631.7	100.32	%			06:05:42
2	Y 371.029	1016796.5	1016796.5	99.036	%			06:05:42
2	Ag 328.068†	131746.9	127241.7	477.09	µg/L	477.09	ppb	06:05:42
2	As 188.979†	1596.7	1612.1	494.45	µg/L	494.45	ppb	06:06:03
2	B 249.677†	35726.6	32108.4	471.89	µg/L	471.89	ppb	06:05:42
2	Ba 233.527†	118582.9	118346.3	477.29	µg/L	477.29	ppb	06:05:42
2	Be 313.107†	1774613.3	1770103.8	482.09	µg/L	482.09	ppb	06:05:42
2	Cd 226.502†	76324.6	76203.0	475.69	µg/L	475.69	ppb	06:05:42
2	Co 228.616†	38620.9	38689.9	477.62	µg/L	477.62	ppb	06:05:42
2	Cr 267.716†	60898.2	60528.3	473.95	µg/L	473.95	ppb	06:05:42
2	Cu 324.752†	125590.6	122223.9	476.44	µg/L	476.44	ppb	06:05:42
2	Mn 257.610†	388871.4	387412.6	479.14	µg/L	479.14	ppb	06:05:42
2	Mo 202.031†	16208.5	16177.7	475.88	µg/L	475.88	ppb	06:06:03
2	Ni 231.604†	41345.4	41292.0	475.45	µg/L	475.45	ppb	06:05:42
2	P 214.914†	11244.3	11227.0	2393.1	µg/L	2393.1	ppb	06:06:03
2	Pb 220.353†	8700.1	8586.4	480.84	µg/L	480.84	ppb	06:06:03

2	S 181.975 Axial†	1408.7	1299.2	968.77 µg/L	968.77 ppb	06:06:03
2	Sb 206.836†	4113.4	4019.6	478.94 µg/L	478.94 ppb	06:06:03
2	Se 196.026†	1341.4	1321.9	480 µg/L	480 ppb	06:06:03
2	SiO2†	54603.8	52657.0	5126.3 µg/L	5126.3 ppb	06:05:42
2	Si 251.611†	165044.8	163689.8	2403.8 µg/L	2403.8 ppb	06:05:42
2	Sn 189.927†	7680.7	7657.7	478.98 µg/L	478.98 ppb	06:06:03
2	Ti 334.940†	512566.6	510004.0	475.88 µg/L	475.88 ppb	06:05:42
2	Tl 190.801†	3806.4	3911.1	487.71 µg/L	487.71 ppb	06:06:03
2	U 409.014†	6895.7	7144.0	446.60 µg/L	446.60 ppb	06:05:42
2	V 292.402†	97622.9	96912.5	479.06 µg/L	479.06 ppb	06:05:42
2	Zn 213.857†	85650.2	84816.7	472.72 µg/L	472.72 ppb	06:05:42
3	Sc RADIAL	141046.6	141046.6	96.7 %		06:05:15
3	Al 396.153Radial†	25865.4	26824.1	4951.0 µg/L	4951.0 ppb	06:05:15
3	Ca 317.933Radial†	84124.5	86476.5	4817.1 µg/L	4817.1 ppb	06:05:15
3	Fe 238.204 Radial†	75443.5	77907.3	4801.7 µg/L	4801.7 ppb	06:05:15
3	K 766.490 Radial†	14628.9	13590.6	4971.7 µg/L	4971.7 ppb	06:05:15
3	Mg 279.077 IEC†	12956.9	13214.8	4931.2 µg/L	4931.2 ppb	06:05:15
3	Na 589.592 Radial†	70294.6	71437.4	9754.8 µg/L	9754.8 ppb	06:05:15
3	Sr 421.552†	227562.4	235576.2	489.71 µg/L	489.71 ppb	06:05:13
3	Sc 361.383	1728559.5	1728559.5	100.60 %		06:06:06
3	Y 371.029	1019765.4	1019765.4	99.326 %		06:06:06
3	Ag 328.068†	131608.2	126729.4	475.23 µg/L	475.23 ppb	06:06:06
3	As 188.979†	1615.5	1626.2	498.73 µg/L	498.73 ppb	06:06:26
3	B 249.677†	35907.2	32186.5	473.03 µg/L	473.03 ppb	06:06:06
3	Ba 233.527†	118992.7	118416.6	477.57 µg/L	477.57 ppb	06:06:06
3	Be 313.107†	1782275.3	1772676.8	482.80 µg/L	482.80 ppb	06:06:06
3	Cd 226.502†	76844.3	76502.7	477.56 µg/L	477.56 ppb	06:06:06
3	Co 228.616†	38816.6	38774.7	478.67 µg/L	478.67 ppb	06:06:06
3	Cr 267.716†	61167.4	60622.9	474.68 µg/L	474.68 ppb	06:06:06
3	Cu 324.752†	125851.5	122126.3	476.08 µg/L	476.08 ppb	06:06:06
3	Mn 257.610†	390603.4	388029.2	479.90 µg/L	479.90 ppb	06:06:06
3	Mo 202.031†	16349.4	16271.6	478.64 µg/L	478.64 ppb	06:06:26
3	Ni 231.604†	41595.0	41422.7	476.95 µg/L	476.95 ppb	06:06:06
3	P 214.914†	11332.2	11282.4	2404.9 µg/L	2404.9 ppb	06:06:26
3	Pb 220.353†	8802.7	8663.7	485.16 µg/L	485.16 ppb	06:06:26
3	S 181.975 Axial†	1418.6	1305.1	973.15 µg/L	973.15 ppb	06:06:26
3	Sb 206.836†	4127.2	4021.6	479.21 µg/L	479.21 ppb	06:06:26
3	Se 196.026†	1358.4	1335.0	485 µg/L	485 ppb	06:06:26
3	SiO2†	55113.6	53008.4	5160.6 µg/L	5160.6 ppb	06:06:06
3	Si 251.611†	165801.1	163972.6	2407.9 µg/L	2407.9 ppb	06:06:06
3	Sn 189.927†	7751.7	7706.5	482.02 µg/L	482.02 ppb	06:06:26
3	Ti 334.940†	514213.3	510184.3	476.04 µg/L	476.04 ppb	06:06:06
3	Tl 190.801†	3835.7	3929.4	489.97 µg/L	489.97 ppb	06:06:26
3	U 409.014†	7159.6	7386.7	460.91 µg/L	460.91 ppb	06:06:06
3	V 292.402†	98291.0	97299.1	480.99 µg/L	480.99 ppb	06:06:06
3	Zn 213.857†	86223.5	85143.2	474.54 µg/L	474.54 ppb	06:06:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1724908.4	100.39	%	0.187				0.19%
Sc RADIAL	142350.8	97.5	%	0.78				0.80%
Y 371.029	1017522.3	99.107	%	0.1931				0.19%
Ag 328.068†	127017.5	476.28	µg/L	0.952	476.28	ppb	0.952	0.20%
QC value within limits for Ag 328.068 Recovery = 95.26%								
Al 396.153Radial†	26856.3	4957.0	µg/L	9.30	4957.0	ppb	9.30	0.19%
QC value within limits for Al 396.153Radial Recovery = 99.14%								
As 188.979†	1619.2	496.62	µg/L	2.139	496.62	ppb	2.139	0.43%
QC value within limits for As 188.979 Recovery = 99.32%								
B 249.677†	32121.6	472.08	µg/L	0.876	472.08	ppb	0.876	0.19%
QC value within limits for B 249.677 Recovery = 94.42%								
Ba 233.527†	118429.7	477.62	µg/L	0.366	477.62	ppb	0.366	0.08%
QC value within limits for Ba 233.527 Recovery = 95.52%								
Be 313.107†	1771358.5	482.44	µg/L	0.353	482.44	ppb	0.353	0.07%
QC value within limits for Be 313.107 Recovery = 96.49%								
Ca 317.933Radial†	86809.7	4835.6	µg/L	16.53	4835.6	ppb	16.53	0.34%
QC value within limits for Ca 317.933Radial Recovery = 96.71%								
Cd 226.502†	76353.1	476.63	µg/L	0.937	476.63	ppb	0.937	0.20%
QC value within limits for Cd 226.502 Recovery = 95.33%								
Co 228.616†	38763.0	478.53	µg/L	0.840	478.53	ppb	0.840	0.18%

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   QC value within limits for Co 228.616  Recovery = 95.71%
Cr 267.716†            60607.9      474.56 µg/L        0.566      474.56 ppb          0.566   0.12%
   QC value within limits for Cr 267.716  Recovery = 94.91%
Cu 324.752†           122099.1      475.97 µg/L        0.537      475.97 ppb          0.537   0.11%
   QC value within limits for Cu 324.752  Recovery = 95.19%
Fe 238.204 Radial†     78021.2      4808.7 µg/L         6.60      4808.7 ppb           6.60   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.17%
K 766.490 Radial†      13527.5      4948.6 µg/L        38.37      4948.6 ppb          38.37   0.78%
   QC value within limits for K 766.490 Radial  Recovery = 98.97%
Mg 279.077 IEC†        13199.3      4925.4 µg/L         6.33      4925.4 ppb           6.33   0.13%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.51%
Mn 257.610†           387555.2      479.31 µg/L        0.521      479.31 ppb          0.521   0.11%
   QC value within limits for Mn 257.610  Recovery = 95.86%
Mo 202.031†            16234.3      477.55 µg/L        1.466      477.55 ppb          1.466   0.31%
   QC value within limits for Mo 202.031  Recovery = 95.51%
Na 589.592 Radial†     71347.2      9742.5 µg/L        23.47      9742.5 ppb          23.47   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 97.42%
Ni 231.604†            41413.3      476.84 µg/L        1.345      476.84 ppb          1.345   0.28%
   QC value within limits for Ni 231.604  Recovery = 95.37%
P 214.914†             11254.0      2398.8 µg/L         5.93      2398.8 ppb           5.93   0.25%
   QC value within limits for P 214.914  Recovery = 95.95%
Pb 220.353†             8630.3      483.29 µg/L        2.215      483.29 ppb          2.215   0.46%
   QC value within limits for Pb 220.353  Recovery = 96.66%
S 181.975 Axial†        1298.2      968.01 µg/L        5.544      968.01 ppb          5.544   0.57%
   QC value within limits for S 181.975 Axial  Recovery = 96.80%
Sb 206.836†             4027.0      479.83 µg/L        1.314      479.83 ppb          1.314   0.27%
   QC value within limits for Sb 206.836  Recovery = 95.97%
Se 196.026†             1328.8         482 µg/L          2.4         482 ppb            2.4   0.50%
   QC value within limits for Se 196.026  Recovery = 96.50%
SiO2†                  52745.4      5134.9 µg/L        22.63      5134.9 ppb          22.63   0.44%
   QC value within limits for SiO2  Recovery = 96.02%
Si 251.611†           163853.8      2406.2 µg/L         2.13      2406.2 ppb           2.13   0.09%
   QC value within limits for Si 251.611  Recovery = 96.25%
Sn 189.927†             7680.7      480.42 µg/L        1.529      480.42 ppb          1.529   0.32%
   QC value within limits for Sn 189.927  Recovery = 96.08%
Sr 421.552†           233955.1      486.34 µg/L        3.940      486.34 ppb          3.940   0.81%
   QC value within limits for Sr 421.552  Recovery = 97.27%
Ti 334.940†           509827.4      475.71 µg/L        0.442      475.71 ppb          0.442   0.09%
   QC value within limits for Ti 334.940  Recovery = 95.14%
Tl 190.801†             3920.8      488.90 µg/L        1.135      488.90 ppb          1.135   0.23%
   QC value within limits for Tl 190.801  Recovery = 97.78%
U 409.014†              7332.9      457.70 µg/L        9.895      457.70 ppb          9.895   2.16%
   QC value within limits for U 409.014  Recovery = 91.54%
V 292.402†             97095.1      479.98 µg/L        0.967      479.98 ppb          0.967   0.20%
   QC value within limits for V 292.402  Recovery = 96.00%
Zn 213.857†            85037.8      473.95 µg/L        1.068      473.95 ppb          1.068   0.23%
   QC value within limits for Zn 213.857  Recovery = 94.79%
All analyte(s) passed QC.
```

Sequence No.: 5
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 6:06:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141464.9	141464.9	96.9	%			06:07:02
1	Al 396.153Radial†	-69.9	-8.9	-1.6257	µg/L	-1.6257	ppb	06:07:22
1	Ca 317.933Radial†	620.8	79.8	4.4479	µg/L	4.4479	ppb	06:07:22
1	Fe 238.204 Radial†	188.4	46.2	2.8471	µg/L	2.8471	ppb	06:07:22
1	K 766.490 Radial†	1672.9	180.9	66.223	µg/L	66.223	ppb	06:07:02
1	Mg 279.077 IEC†	181.5	-3.5	-1.3105	µg/L	-1.3105	ppb	06:07:22
1	Na 589.592 Radial†	2015.0	787.8	107.57	µg/L	107.57	ppb	06:07:02
1	Sr 421.552†	-160.4	-30.2	-0.0629	µg/L	-0.0629	ppb	06:07:02
1	Sc 361.383	1739256.7	1739256.7	101.22	%			06:08:10
1	Y 371.029	1037512.8	1037512.8	101.05	%			06:08:10
1	Ag 328.068†	4217.1	74.7	0.2549	µg/L	0.2549	ppb	06:08:12
1	As 188.979†	-29.9	-9.2	-2.7714	µg/L	-2.7714	ppb	06:08:32
1	B 249.677†	3555.1	6.2	0.0910	µg/L	0.0910	ppb	06:08:12
1	Ba 233.527†	-107.8	29.4	0.1178	µg/L	0.1178	ppb	06:08:32
1	Be 313.107†	-895.9	179.7	0.0448	µg/L	0.0448	ppb	06:08:12
1	Cd 226.502†	-119.8	-0.2	-0.0016	µg/L	-0.0016	ppb	06:08:32
1	Co 228.616†	-192.4	0.3	0.0035	µg/L	0.0035	ppb	06:08:32
1	Cr 267.716†	247.4	65.8	0.5261	µg/L	0.5261	ppb	06:08:32
1	Cu 324.752†	2980.0	-28.3	-0.1208	µg/L	-0.1208	ppb	06:08:12
1	Mn 257.610†	284.9	44.2	0.0548	µg/L	0.0548	ppb	06:08:32
1	Mo 202.031†	-36.1	-15.6	-0.4591	µg/L	-0.4591	ppb	06:08:32
1	Ni 231.604†	-102.1	-24.4	-0.2804	µg/L	-0.2804	ppb	06:08:32
1	P 214.914†	-26.6	-8.3	-1.7798	µg/L	-1.7798	ppb	06:08:32
1	Pb 220.353†	103.2	15.6	0.8803	µg/L	0.8803	ppb	06:08:32
1	S 181.975 Axial†	117.0	10.5	7.8121	µg/L	7.8121	ppb	06:08:32
1	Sb 206.836†	71.9	-9.8	-1.1826	µg/L	-1.1826	ppb	06:08:32
1	Se 196.026†	30.7	15.1	5.45	µg/L	5.45	ppb	06:08:32
1	SiO2†	1811.8	14.5	1.4364	µg/L	1.4364	ppb	06:08:32
1	Si 251.611†	1024.9	175.9	2.6015	µg/L	2.6015	ppb	06:08:12
1	Sn 189.927†	-6.3	-5.1	-0.3193	µg/L	-0.3193	ppb	06:08:32
1	Ti 334.940†	984.3	19.9	0.0242	µg/L	0.0242	ppb	06:08:12
1	Tl 190.801†	-119.7	-1.6	-0.1978	µg/L	-0.1978	ppb	06:08:32
1	U 409.014†	-508.9	-232.9	-13.640	µg/L	-13.640	ppb	06:08:12
1	V 292.402†	323.8	-83.9	-0.4213	µg/L	-0.4213	ppb	06:08:12
1	Zn 213.857†	596.6	24.9	0.1416	µg/L	0.1416	ppb	06:08:32
2	Sc RADIAL	141541.1	141541.1	97.0	%			06:07:24
2	Al 396.153Radial†	-92.5	-32.2	-5.9364	µg/L	-5.9364	ppb	06:07:44
2	Ca 317.933Radial†	647.1	106.6	5.9380	µg/L	5.9380	ppb	06:07:44
2	Fe 238.204 Radial†	166.0	23.1	1.4211	µg/L	1.4211	ppb	06:07:44
2	K 766.490 Radial†	1883.9	397.6	145.54	µg/L	145.54	ppb	06:07:24
2	Mg 279.077 IEC†	188.4	3.5	1.2984	µg/L	1.2984	ppb	06:07:44
2	Na 589.592 Radial†	1902.0	670.2	91.429	µg/L	91.429	ppb	06:07:24
2	Sr 421.552†	-162.1	-31.8	-0.0662	µg/L	-0.0662	ppb	06:07:24
2	Sc 361.383	1753065.4	1753065.4	102.03	%			06:08:34
2	Y 371.029	1044680.5	1044680.5	101.75	%			06:08:34
2	Ag 328.068†	4104.7	-68.3	-0.2518	µg/L	-0.2518	ppb	06:08:36
2	As 188.979†	-5.8	14.7	4.4380	µg/L	4.4380	ppb	06:08:57
2	B 249.677†	3555.2	-21.3	-0.3162	µg/L	-0.3162	ppb	06:08:36
2	Ba 233.527†	-108.8	29.2	0.1173	µg/L	0.1173	ppb	06:08:57
2	Be 313.107†	-992.9	91.6	0.0261	µg/L	0.0261	ppb	06:08:36
2	Cd 226.502†	-129.6	-8.8	-0.0553	µg/L	-0.0553	ppb	06:08:57
2	Co 228.616†	-159.5	34.0	0.4197	µg/L	0.4197	ppb	06:08:57
2	Cr 267.716†	159.1	-22.7	-0.1807	µg/L	-0.1807	ppb	06:08:57
2	Cu 324.752†	2960.7	-70.3	-0.2696	µg/L	-0.2696	ppb	06:08:36
2	Mn 257.610†	249.8	7.6	0.0093	µg/L	0.0093	ppb	06:08:57
2	Mo 202.031†	-38.7	-17.9	-0.5247	µg/L	-0.5247	ppb	06:08:57
2	Ni 231.604†	-95.8	-17.4	-0.2000	µg/L	-0.2000	ppb	06:08:57
2	P 214.914†	-25.9	-7.4	-1.5857	µg/L	-1.5857	ppb	06:08:57
2	Pb 220.353†	91.9	3.7	0.2024	µg/L	0.2024	ppb	06:08:57

2	S 181.975 Axial†	117.0	9.6	7.1513 µg/L	7.1513 ppb	06:08:57
2	Sb 206.836†	80.1	-2.3	-0.2809 µg/L	-0.2809 ppb	06:08:57
2	Se 196.026†	9.0	-6.4	-2.31 µg/L	-2.31 ppb	06:08:57
2	SiO2†	1834.9	23.0	2.2679 µg/L	2.2679 ppb	06:08:57
2	Si 251.611†	1128.6	269.6	3.9822 µg/L	3.9822 ppb	06:08:36
2	Sn 189.927†	-1.4	-0.3	-0.0169 µg/L	-0.0169 ppb	06:08:57
2	Ti 334.940†	1073.2	99.3	0.0913 µg/L	0.0913 ppb	06:08:36
2	Tl 190.801†	-124.6	-5.4	-0.6669 µg/L	-0.6669 ppb	06:08:57
2	U 409.014†	-207.9	66.1	3.8481 µg/L	3.8481 ppb	06:08:36
2	V 292.402†	352.2	-58.6	-0.2898 µg/L	-0.2898 ppb	06:08:36
2	Zn 213.857†	609.0	32.5	0.1836 µg/L	0.1836 ppb	06:08:57
3	Sc RADIAL	144453.8	144453.8	99.0 %		06:07:46
3	Al 396.153Radial†	-42.6	20.2	3.7469 µg/L	3.7469 ppb	06:08:06
3	Ca 317.933Radial†	626.5	72.3	4.0283 µg/L	4.0283 ppb	06:08:06
3	Fe 238.204 Radial†	173.7	27.3	1.6854 µg/L	1.6854 ppb	06:08:06
3	K 766.490 Radial†	1763.8	237.1	86.784 µg/L	86.784 ppb	06:07:46
3	Mg 279.077 IEC†	167.7	-21.3	-7.9299 µg/L	-7.9299 ppb	06:08:06
3	Na 589.592 Radial†	1875.8	604.1	82.457 µg/L	82.457 ppb	06:07:46
3	Sr 421.552†	-228.9	-96.0	-0.1996 µg/L	-0.1996 ppb	06:07:46
3	Sc 361.383	1745062.4	1745062.4	101.56 %		06:08:59
3	Y 371.029	1040171.5	1040171.5	101.31 %		06:08:59
3	Ag 328.068†	4134.6	-20.3	-0.0602 µg/L	-0.0602 ppb	06:09:01
3	As 188.979†	-25.0	-4.3	-1.2996 µg/L	-1.2996 ppb	06:09:21
3	B 249.677†	3548.1	-12.4	-0.1830 µg/L	-0.1830 ppb	06:09:01
3	Ba 233.527†	-155.6	-17.4	-0.0701 µg/L	-0.0701 ppb	06:09:21
3	Be 313.107†	-930.2	148.8	0.0443 µg/L	0.0443 ppb	06:09:01
3	Cd 226.502†	-114.6	5.4	0.0333 µg/L	0.0333 ppb	06:09:21
3	Co 228.616†	-195.2	-1.9	-0.0238 µg/L	-0.0238 ppb	06:09:21
3	Cr 267.716†	183.3	1.9	0.0050 µg/L	0.0050 ppb	06:09:21
3	Cu 324.752†	2946.5	-71.0	-0.2656 µg/L	-0.2656 ppb	06:09:01
3	Mn 257.610†	289.0	47.2	0.0588 µg/L	0.0588 ppb	06:09:21
3	Mo 202.031†	-22.9	-2.5	-0.0730 µg/L	-0.0730 ppb	06:09:21
3	Ni 231.604†	-82.4	-4.6	-0.0527 µg/L	-0.0527 ppb	06:09:21
3	P 214.914†	-14.4	3.8	0.8236 µg/L	0.8236 ppb	06:09:21
3	Pb 220.353†	97.7	9.8	0.5376 µg/L	0.5376 ppb	06:09:21
3	S 181.975 Axial†	113.1	6.3	4.7120 µg/L	4.7120 ppb	06:09:21
3	Sb 206.836†	70.8	-11.2	-1.3260 µg/L	-1.3260 ppb	06:09:21
3	Se 196.026†	8.7	-6.7	-2.39 µg/L	-2.39 ppb	06:09:21
3	SiO2†	1871.0	66.8	6.5242 µg/L	6.5242 ppb	06:09:21
3	Si 251.611†	887.7	37.5	0.5500 µg/L	0.5500 ppb	06:09:01
3	Sn 189.927†	7.2	8.2	0.5133 µg/L	0.5133 ppb	06:09:21
3	Ti 334.940†	729.6	-234.2	-0.2232 µg/L	-0.2232 ppb	06:09:01
3	Tl 190.801†	-130.3	-11.6	-1.4299 µg/L	-1.4299 ppb	06:09:21
3	U 409.014†	-56.7	214.0	12.514 µg/L	12.514 ppb	06:09:01
3	V 292.402†	408.3	-1.8	-0.0011 µg/L	-0.0011 ppb	06:09:01
3	Zn 213.857†	612.1	38.3	0.2153 µg/L	0.2153 ppb	06:09:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1745794.8	101.60	%	0.404				0.40%
Sc RADIAL	142486.6	97.6	%	1.17				1.20%
Y 371.029	1040788.3	101.37	%	0.353				0.35%
Ag 328.068†	-4.6	-0.0190	µg/L	0.25586	-0.0190	ppb	0.25586	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.9	-1.2717	µg/L	4.85131	-1.2717	ppb	4.85131	381.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.4	0.1223	µg/L	3.80923	0.1223	ppb	3.80923	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-9.2	-0.1361	µg/L	0.20761	-0.1361	ppb	0.20761	152.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.7	0.0550	µg/L	0.10831	0.0550	ppb	0.10831	196.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	140.0	0.0384	µg/L	0.01065	0.0384	ppb	0.01065	27.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	86.3	4.8047	µg/L	1.00363	4.8047	ppb	1.00363	20.89%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-1.2	-0.0078	µg/L	0.04462	-0.0078	ppb	0.04462	568.50%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.8	0.1331	µg/L	0.24853	0.1331	ppb	0.24853	186.69%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              15.0      0.1168 µg/L       0.36641      0.1168 ppb        0.36641 313.73%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -56.5     -0.2187 µg/L       0.08480     -0.2187 ppb        0.08480  38.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       32.2      1.9846 µg/L       0.75860      1.9846 ppb        0.75860  38.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       271.9      99.516 µg/L       41.1633      99.516 ppb        41.1633  41.36%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -7.1     -2.6474 µg/L       4.75720     -2.6474 ppb        4.75720 179.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              33.0      0.0409 µg/L       0.02746      0.0409 ppb        0.02746  67.07%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -12.0     -0.3523 µg/L       0.24406     -0.3523 ppb        0.24406  69.28%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      687.4      93.818 µg/L       12.7246      93.818 ppb        12.7246  13.56%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -15.4     -0.1777 µg/L       0.11551     -0.1777 ppb        0.11551  65.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.0     -0.8473 µg/L       1.45028     -0.8473 ppb        1.45028 171.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               9.7      0.5401 µg/L       0.33897      0.5401 ppb        0.33897  62.76%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          8.8      6.5585 µg/L       1.63285      6.5585 ppb        1.63285  24.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -7.8     -0.9298 µg/L       0.56654     -0.9298 ppb        0.56654  60.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.7       0.246 µg/L        4.5033       0.246 ppb         4.5033 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    34.8      3.4095 µg/L       2.72927      3.4095 ppb        2.72927  80.05%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             161.0      2.3779 µg/L       1.72699      2.3779 ppb        1.72699  72.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.9      0.0591 µg/L       0.42147      0.0591 ppb        0.42147 713.75%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -52.7     -0.1095 µg/L       0.07802     -0.1095 ppb        0.07802  71.22%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -38.3     -0.0359 µg/L       0.16561     -0.0359 ppb        0.16561 461.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -6.2     -0.7649 µg/L       0.62189     -0.7649 ppb        0.62189  81.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               15.8      0.9074 µg/L      13.32231      0.9074 ppb       13.32231 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -48.1     -0.2374 µg/L       0.21493     -0.2374 ppb        0.21493  90.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              31.9      0.1802 µg/L       0.03700      0.1802 ppb        0.03700  20.54%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/1/2010 6:27:43 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/1/2010 6:27:45**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142254.8	142254.8	97.5	%			06:28:17
1	Al 396.153Radial†	25351.8	26070.0	4811.6	µg/L	4811.6	ppb	06:28:17
1	Ca 317.933Radial†	82833.4	84412.8	4702.1	µg/L	4702.1	ppb	06:28:17
1	Fe 238.204 Radial†	74224.8	75994.2	4683.8	µg/L	4683.8	ppb	06:28:17
1	K 766.490 Radial†	14203.4	13025.6	4765.0	µg/L	4765.0	ppb	06:28:17
1	Mg 279.077 IEC†	12729.5	12867.6	4801.7	µg/L	4801.7	ppb	06:28:17
1	Na 589.592 Radial†	69060.0	69553.3	9497.6	µg/L	9497.6	ppb	06:28:17
1	Sr 421.552†	223018.1	228914.8	475.86	µg/L	475.86	ppb	06:28:15
1	Sc 361.383	1709225.5	1709225.5	99.477	%			06:28:30
1	Y 371.029	1008536.9	1008536.9	98.232	%			06:28:30
1	Ag 328.068†	127499.0	124078.4	465.29	µg/L	465.29	ppb	06:28:30
1	As 188.979†	1559.7	1588.3	487.09	µg/L	487.09	ppb	06:28:50
1	B 249.677†	34379.1	31054.0	456.37	µg/L	456.37	ppb	06:28:30
1	Ba 233.527†	114708.8	115448.1	465.60	µg/L	465.60	ppb	06:28:30
1	Be 313.107†	1722557.3	1732684.2	471.91	µg/L	471.91	ppb	06:28:30
1	Cd 226.502†	73453.0	73957.6	461.67	µg/L	461.67	ppb	06:28:30
1	Co 228.616†	37435.6	37822.8	466.92	µg/L	466.92	ppb	06:28:30
1	Cr 267.716†	58912.5	59043.9	462.30	µg/L	462.30	ppb	06:28:30
1	Cu 324.752†	121839.3	119508.1	465.88	µg/L	465.88	ppb	06:28:30
1	Mn 257.610†	376566.3	378310.1	467.88	µg/L	467.88	ppb	06:28:30
1	Mo 202.031†	15809.6	15912.8	468.09	µg/L	468.09	ppb	06:28:50
1	Ni 231.604†	40079.7	40367.1	464.80	µg/L	464.80	ppb	06:28:30
1	P 214.914†	10882.7	10957.9	2335.7	µg/L	2335.7	ppb	06:28:50
1	Pb 220.353†	8419.0	8376.9	469.10	µg/L	469.10	ppb	06:28:50
1	S 181.975 Axial†	1354.7	1256.8	937.21	µg/L	937.21	ppb	06:28:50
1	Sb 206.836†	3976.4	3916.5	466.71	µg/L	466.71	ppb	06:28:50
1	Se 196.026†	1296.0	1287.5	468	µg/L	468	ppb	06:28:50
1	SiO2†	51445.1	49940.4	4861.2	µg/L	4861.2	ppb	06:28:30
1	Si 251.611†	155651.5	155633.8	2285.2	µg/L	2285.2	ppb	06:28:30
1	Sn 189.927†	7454.8	7495.1	468.81	µg/L	468.81	ppb	06:28:50
1	Ti 334.940†	496730.0	498390.7	465.03	µg/L	465.03	ppb	06:28:30
1	Tl 190.801†	3688.4	3824.5	476.91	µg/L	476.91	ppb	06:28:50
1	U 409.014†	7196.3	7504.0	467.06	µg/L	467.06	ppb	06:28:30
1	V 292.402†	94845.1	94940.3	469.34	µg/L	469.34	ppb	06:28:30
1	Zn 213.857†	82623.8	82494.0	459.76	µg/L	459.76	ppb	06:28:30
2	Sc RADIAL	142096.3	142096.3	97.4	%			06:28:21
2	Al 396.153Radial†	25425.8	26174.9	4831.2	µg/L	4831.2	ppb	06:28:21
2	Ca 317.933Radial†	82979.4	84657.4	4715.8	µg/L	4715.8	ppb	06:28:21
2	Fe 238.204 Radial†	74308.8	76165.4	4694.4	µg/L	4694.4	ppb	06:28:21
2	K 766.490 Radial†	14267.2	13107.3	4794.9	µg/L	4794.9	ppb	06:28:21
2	Mg 279.077 IEC†	12650.1	12800.7	4776.7	µg/L	4776.7	ppb	06:28:21
2	Na 589.592 Radial†	68986.7	69557.0	9498.1	µg/L	9498.1	ppb	06:28:21
2	Sr 421.552†	223055.3	229208.2	476.47	µg/L	476.47	ppb	06:28:19
2	Sc 361.383	1720198.8	1720198.8	100.12	%			06:28:53
2	Y 371.029	1013824.9	1013824.9	98.747	%			06:28:53
2	Ag 328.068†	128161.3	123922.3	464.69	µg/L	464.69	ppb	06:28:53
2	As 188.979†	1572.8	1591.3	488.02	µg/L	488.02	ppb	06:29:13

2	B 249.677†	34759.1	31213.1	458.71 µg/L	458.71 ppb	06:28:53
2	Ba 233.527†	115738.2	115740.7	466.78 µg/L	466.78 ppb	06:28:53
2	Be 313.107†	1738612.5	1737674.9	473.26 µg/L	473.26 ppb	06:28:53
2	Cd 226.502†	74240.3	74273.0	463.64 µg/L	463.64 ppb	06:28:53
2	Co 228.616†	37829.3	37976.1	468.81 µg/L	468.81 ppb	06:28:53
2	Cr 267.716†	59360.9	59114.0	462.86 µg/L	462.86 ppb	06:28:53
2	Cu 324.752†	123058.6	119944.7	467.56 µg/L	467.56 ppb	06:28:53
2	Mn 257.610†	379406.8	378732.6	468.40 µg/L	468.40 ppb	06:28:53
2	Mo 202.031†	15799.9	15801.8	464.82 µg/L	464.82 ppb	06:29:13
2	Ni 231.604†	40270.8	40300.9	464.04 µg/L	464.04 ppb	06:28:53
2	P 214.914†	10903.0	10908.4	2325.1 µg/L	2325.1 ppb	06:29:13
2	Pb 220.353†	8483.6	8387.5	469.70 µg/L	469.70 ppb	06:29:13
2	S 181.975 Axial†	1349.2	1242.6	926.62 µg/L	926.62 ppb	06:29:13
2	Sb 206.836†	3983.6	3898.2	464.48 µg/L	464.48 ppb	06:29:13
2	Se 196.026†	1289.4	1272.6	462 µg/L	462 ppb	06:29:13
2	SiO2†	52137.7	50302.3	4896.7 µg/L	4896.7 ppb	06:28:53
2	Si 251.611†	157050.5	156033.0	2291.1 µg/L	2291.1 ppb	06:28:53
2	Sn 189.927†	7489.7	7482.2	468.01 µg/L	468.01 ppb	06:29:13
2	Ti 334.940†	500704.0	499174.8	465.77 µg/L	465.77 ppb	06:28:53
2	Tl 190.801†	3707.3	3819.7	476.32 µg/L	476.32 ppb	06:29:13
2	U 409.014†	6877.2	7139.1	445.73 µg/L	445.73 ppb	06:28:53
2	V 292.402†	95466.4	94952.6	469.36 µg/L	469.36 ppb	06:28:53
2	Zn 213.857†	83420.7	82760.2	461.25 µg/L	461.25 ppb	06:28:53
3	Sc RADIAL	142990.0	142990.0	98.0 %		06:28:25
3	Al 396.153Radial†	25399.8	25985.2	4795.9 µg/L	4795.9 ppb	06:28:25
3	Ca 317.933Radial†	83117.4	84265.6	4693.9 µg/L	4693.9 ppb	06:28:25
3	Fe 238.204 Radial†	74586.1	75971.4	4682.4 µg/L	4682.4 ppb	06:28:25
3	K 766.490 Radial†	14192.8	12939.8	4733.6 µg/L	4733.6 ppb	06:28:25
3	Mg 279.077 IEC†	12667.0	12736.8	4753.0 µg/L	4753.0 ppb	06:28:25
3	Na 589.592 Radial†	69339.7	69474.5	9486.8 µg/L	9486.8 ppb	06:28:25
3	Sr 421.552†	223827.0	228564.0	475.13 µg/L	475.13 ppb	06:28:23
3	Sc 361.383	1705034.2	1705034.2	99.233 %		06:29:16
3	Y 371.029	1005547.4	1005547.4	97.941 %		06:29:16
3	Ag 328.068†	127662.0	124557.7	467.06 µg/L	467.06 ppb	06:29:16
3	As 188.979†	1560.2	1592.6	488.42 µg/L	488.42 ppb	06:29:36
3	B 249.677†	34496.6	31257.5	459.37 µg/L	459.37 ppb	06:29:16
3	Ba 233.527†	115151.6	116177.8	468.54 µg/L	468.54 ppb	06:29:16
3	Be 313.107†	1725198.8	1739602.9	473.79 µg/L	473.79 ppb	06:29:16
3	Cd 226.502†	73700.4	74388.4	464.37 µg/L	464.37 ppb	06:29:16
3	Co 228.616†	37478.0	37958.1	468.59 µg/L	468.59 ppb	06:29:16
3	Cr 267.716†	59005.2	59282.8	464.19 µg/L	464.19 ppb	06:29:16
3	Cu 324.752†	122158.9	120131.2	468.28 µg/L	468.28 ppb	06:29:16
3	Mn 257.610†	377644.3	380327.0	470.38 µg/L	470.38 ppb	06:29:16
3	Mo 202.031†	15792.1	15934.3	468.72 µg/L	468.72 ppb	06:29:36
3	Ni 231.604†	40233.2	40620.8	467.72 µg/L	467.72 ppb	06:29:16
3	P 214.914†	10905.3	11007.5	2346.3 µg/L	2346.3 ppb	06:29:36
3	Pb 220.353†	8444.2	8423.1	471.70 µg/L	471.70 ppb	06:29:36
3	S 181.975 Axial†	1340.7	1246.0	929.22 µg/L	929.22 ppb	06:29:36
3	Sb 206.836†	3978.4	3928.4	468.11 µg/L	468.11 ppb	06:29:36
3	Se 196.026†	1276.1	1270.7	461 µg/L	461 ppb	06:29:36
3	SiO2†	51678.2	50302.4	4896.5 µg/L	4896.5 ppb	06:29:16
3	Si 251.611†	156314.3	156686.4	2300.7 µg/L	2300.7 ppb	06:29:16
3	Sn 189.927†	7464.4	7523.3	470.57 µg/L	470.57 ppb	06:29:36
3	Ti 334.940†	497732.0	500628.0	467.13 µg/L	467.13 ppb	06:29:16
3	Tl 190.801†	3700.1	3845.4	479.51 µg/L	479.51 ppb	06:29:36
3	U 409.014†	6783.9	7106.3	443.92 µg/L	443.92 ppb	06:29:16
3	V 292.402†	94974.4	95304.9	471.12 µg/L	471.12 ppb	06:29:16
3	Zn 213.857†	82842.8	82918.9	462.12 µg/L	462.12 ppb	06:29:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1711486.1	99.608	%	0.4558				0.46%
Sc RADIAL	142447.0	97.6	%	0.33				0.33%
Y 371.029	1009303.1	98.307	%	0.4083				0.42%
Ag 328.068†	124186.1	465.68	µg/L	1.232	465.68	ppb	1.232	0.26%
QC value within limits for Ag 328.068 Recovery = 93.14%								
Al 396.153Radial†	26076.7	4812.9	µg/L	17.71	4812.9	ppb	17.71	0.37%
QC value within limits for Al 396.153Radial Recovery = 96.26%								
As 188.979†	1590.7	487.84	µg/L	0.680	487.84	ppb	0.680	0.14%

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   QC value within limits for As 188.979  Recovery = 97.57%
B 249.677†            31174.9      458.15 µg/L        1.574      458.15 ppb          1.574   0.34%
   QC value within limits for B 249.677  Recovery = 91.63%
Ba 233.527†          115788.9      466.97 µg/L        1.481      466.97 ppb          1.481   0.32%
   QC value within limits for Ba 233.527  Recovery = 93.39%
Be 313.107†         1736654.0      472.99 µg/L        0.968      472.99 ppb          0.968   0.20%
   QC value within limits for Be 313.107  Recovery = 94.60%
Ca 317.933Radial†      84445.3      4703.9 µg/L        11.02      4703.9 ppb          11.02   0.23%
   QC value within limits for Ca 317.933Radial  Recovery = 94.08%
Cd 226.502†            74206.4      463.23 µg/L        1.393      463.23 ppb          1.393   0.30%
   QC value within limits for Cd 226.502  Recovery = 92.65%
Co 228.616†            37919.0      468.11 µg/L        1.035      468.11 ppb          1.035   0.22%
   QC value within limits for Co 228.616  Recovery = 93.62%
Cr 267.716†            59146.9      463.12 µg/L        0.970      463.12 ppb          0.970   0.21%
   QC value within limits for Cr 267.716  Recovery = 92.62%
Cu 324.752†           119861.3      467.24 µg/L        1.232      467.24 ppb          1.232   0.26%
   QC value within limits for Cu 324.752  Recovery = 93.45%
Fe 238.204 Radial†     76043.7      4686.9 µg/L         6.54      4686.9 ppb           6.54   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.74%
K 766.490 Radial†      13024.2      4764.5 µg/L        30.66      4764.5 ppb          30.66   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 95.29%
Mg 279.077 IEC†        12801.7      4777.1 µg/L        24.37      4777.1 ppb          24.37   0.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.54%
Mn 257.610†           379123.2      468.89 µg/L        1.317      468.89 ppb          1.317   0.28%
   QC value within limits for Mn 257.610  Recovery = 93.78%
Mo 202.031†            15882.9      467.21 µg/L        2.090      467.21 ppb          2.090   0.45%
   QC value within limits for Mo 202.031  Recovery = 93.44%
Na 589.592 Radial†     69528.3      9494.2 µg/L         6.34      9494.2 ppb           6.34   0.07%
   QC value within limits for Na 589.592 Radial  Recovery = 94.94%
Ni 231.604†            40429.6      465.52 µg/L        1.944      465.52 ppb          1.944   0.42%
   QC value within limits for Ni 231.604  Recovery = 93.10%
P 214.914†             10957.9      2335.7 µg/L        10.59      2335.7 ppb          10.59   0.45%
   QC value within limits for P 214.914  Recovery = 93.43%
Pb 220.353†             8395.9      470.17 µg/L        1.361      470.17 ppb          1.361   0.29%
   QC value within limits for Pb 220.353  Recovery = 94.03%
S 181.975 Axial†        1248.5      931.02 µg/L        5.521      931.02 ppb          5.521   0.59%
   QC value within limits for S 181.975 Axial  Recovery = 93.10%
Sb 206.836†             3914.3      466.43 µg/L        1.834      466.43 ppb          1.834   0.39%
   QC value within limits for Sb 206.836  Recovery = 93.29%
Se 196.026†             1277.0         464 µg/L          3.3         464 ppb            3.3   0.72%
   QC value within limits for Se 196.026  Recovery = 92.74%
SiO2†                  50181.7      4884.8 µg/L        20.44      4884.8 ppb          20.44   0.42%
   QC value within limits for SiO2  Recovery = 91.35%
Si 251.611†           156117.7      2292.3 µg/L         7.82      2292.3 ppb           7.82   0.34%
   QC value within limits for Si 251.611  Recovery = 91.69%
Sn 189.927†             7500.2      469.13 µg/L        1.312      469.13 ppb          1.312   0.28%
   QC value within limits for Sn 189.927  Recovery = 93.83%
Sr 421.552†           228895.7      475.82 µg/L        0.670      475.82 ppb          0.670   0.14%
   QC value within limits for Sr 421.552  Recovery = 95.16%
Ti 334.940†           499397.8      465.98 µg/L        1.066      465.98 ppb          1.066   0.23%
   QC value within limits for Ti 334.940  Recovery = 93.20%
Tl 190.801†             3829.9      477.58 µg/L        1.698      477.58 ppb          1.698   0.36%
   QC value within limits for Tl 190.801  Recovery = 95.52%
U 409.014†              7249.8      452.24 µg/L       12.870      452.24 ppb         12.870   2.85%
   QC value within limits for U 409.014  Recovery = 90.45%
V 292.402†             95066.0      469.94 µg/L        1.022      469.94 ppb          1.022   0.22%
   QC value within limits for V 292.402  Recovery = 93.99%
Zn 213.857†            82724.4      461.04 µg/L        1.197      461.04 ppb          1.197   0.26%
   QC value within limits for Zn 213.857  Recovery = 92.21%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 6:29:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142437.0	142437.0	97.6	%			06:30:13
1	Al 396.153Radial†	-264.5	-207.8	-38.519	µg/L	-38.519	ppb	06:30:13
1	Ca 317.933Radial†	646.6	101.9	5.6752	µg/L	5.6752	ppb	06:30:33
1	Fe 238.204 Radial†	170.0	26.1	1.6062	µg/L	1.6062	ppb	06:30:33
1	K 766.490 Radial†	1709.6	206.7	75.676	µg/L	75.676	ppb	06:30:13
1	Mg 279.077 IEC†	178.7	-7.7	-2.8591	µg/L	-2.8591	ppb	06:30:33
1	Na 589.592 Radial†	1934.1	690.7	94.296	µg/L	94.296	ppb	06:30:13
1	Sr 421.552†	-70.7	62.8	0.1305	µg/L	0.1305	ppb	06:30:13
1	Sc 361.383	1727133.1	1727133.1	100.52	%			06:31:21
1	Y 371.029	1029243.1	1029243.1	100.25	%			06:31:21
1	Ag 328.068†	4082.8	-29.6	-0.1055	µg/L	-0.1055	ppb	06:31:23
1	As 188.979†	-17.7	2.7	0.8318	µg/L	0.8318	ppb	06:31:43
1	B 249.677†	3469.9	-53.9	-0.7957	µg/L	-0.7957	ppb	06:31:23
1	Ba 233.527†	-140.5	-3.9	-0.0161	µg/L	-0.0161	ppb	06:31:43
1	Be 313.107†	-798.9	270.0	0.0757	µg/L	0.0757	ppb	06:31:23
1	Cd 226.502†	-112.3	6.5	0.0401	µg/L	0.0401	ppb	06:31:43
1	Co 228.616†	-180.6	10.7	0.1314	µg/L	0.1314	ppb	06:31:43
1	Cr 267.716†	197.5	17.9	0.1345	µg/L	0.1345	ppb	06:31:43
1	Cu 324.752†	3041.8	53.9	0.2156	µg/L	0.2156	ppb	06:31:23
1	Mn 257.610†	261.0	22.4	0.0278	µg/L	0.0278	ppb	06:31:43
1	Mo 202.031†	-23.5	-3.3	-0.0969	µg/L	-0.0969	ppb	06:31:43
1	Ni 231.604†	-113.3	-36.2	-0.4169	µg/L	-0.4169	ppb	06:31:43
1	P 214.914†	-25.7	-7.6	-1.6214	µg/L	-1.6214	ppb	06:31:43
1	Pb 220.353†	75.0	-11.7	-0.6633	µg/L	-0.6633	ppb	06:31:43
1	S 181.975 Axial†	112.8	7.2	5.3207	µg/L	5.3207	ppb	06:31:43
1	Sb 206.836†	71.6	-9.6	-1.1441	µg/L	-1.1441	ppb	06:31:43
1	Se 196.026†	22.4	7.0	2.55	µg/L	2.55	ppb	06:31:43
1	SiO2†	1753.3	-31.1	-3.0512	µg/L	-3.0512	ppb	06:31:43
1	Si 251.611†	758.7	-81.8	-1.2113	µg/L	-1.2113	ppb	06:31:23
1	Sn 189.927†	14.5	15.5	0.9660	µg/L	0.9660	ppb	06:31:43
1	Ti 334.940†	832.4	-124.4	-0.1189	µg/L	-0.1189	ppb	06:31:23
1	Tl 190.801†	-134.3	-16.9	-2.0804	µg/L	-2.0804	ppb	06:31:43
1	U 409.014†	-144.5	126.1	7.3508	µg/L	7.3508	ppb	06:31:23
1	V 292.402†	324.9	-80.6	-0.3886	µg/L	-0.3886	ppb	06:31:23
1	Zn 213.857†	590.9	23.5	0.1334	µg/L	0.1334	ppb	06:31:43
2	Sc RADIAL	142082.4	142082.4	97.4	%			06:30:35
2	Al 396.153Radial†	-251.5	-195.1	-36.147	µg/L	-36.147	ppb	06:30:35
2	Ca 317.933Radial†	615.4	71.5	3.9821	µg/L	3.9821	ppb	06:30:55
2	Fe 238.204 Radial†	161.6	17.9	1.1031	µg/L	1.1031	ppb	06:30:55
2	K 766.490 Radial†	1860.0	365.6	133.83	µg/L	133.83	ppb	06:30:35
2	Mg 279.077 IEC†	190.9	5.4	2.0027	µg/L	2.0027	ppb	06:30:55
2	Na 589.592 Radial†	2043.7	808.3	110.30	µg/L	110.30	ppb	06:30:35
2	Sr 421.552†	-138.2	-6.7	-0.0139	µg/L	-0.0139	ppb	06:30:35
2	Sc 361.383	1744201.5	1744201.5	101.51	%			06:31:46
2	Y 371.029	1039175.9	1039175.9	101.22	%			06:31:46
2	Ag 328.068†	4330.8	174.9	0.6455	µg/L	0.6455	ppb	06:31:48
2	As 188.979†	-1.2	19.1	5.7890	µg/L	5.7890	ppb	06:32:08
2	B 249.677†	3476.4	-81.3	-1.1995	µg/L	-1.1995	ppb	06:31:48
2	Ba 233.527†	-110.4	27.1	0.1090	µg/L	0.1090	ppb	06:32:08
2	Be 313.107†	-822.7	254.2	0.0692	µg/L	0.0692	ppb	06:31:48
2	Cd 226.502†	-100.5	19.2	0.1197	µg/L	0.1197	ppb	06:32:08
2	Co 228.616†	-173.6	19.3	0.2384	µg/L	0.2384	ppb	06:32:08
2	Cr 267.716†	196.6	15.1	0.1180	µg/L	0.1180	ppb	06:32:08
2	Cu 324.752†	2788.4	-225.4	-0.8755	µg/L	-0.8755	ppb	06:31:48
2	Mn 257.610†	300.8	59.0	0.0729	µg/L	0.0729	ppb	06:32:08
2	Mo 202.031†	-33.8	-13.2	-0.3873	µg/L	-0.3873	ppb	06:32:08
2	Ni 231.604†	-73.8	3.8	0.0442	µg/L	0.0442	ppb	06:32:08
2	P 214.914†	-28.1	-9.7	-2.0766	µg/L	-2.0766	ppb	06:32:08
2	Pb 220.353†	86.9	-0.8	-0.0481	µg/L	-0.0481	ppb	06:32:08

2	S 181.975 Axial†	99.7	-6.8	-5.0788 µg/L	-5.0788 ppb	06:32:08
2	Sb 206.836†	68.8	-13.0	-1.5530 µg/L	-1.5530 ppb	06:32:08
2	Se 196.026†	19.9	4.3	1.57 µg/L	1.57 ppb	06:32:08
2	SiO2†	1780.5	-21.4	-2.0759 µg/L	-2.0759 ppb	06:32:08
2	Si 251.611†	990.9	139.5	2.0624 µg/L	2.0624 ppb	06:31:48
2	Sn 189.927†	-1.2	-0.1	-0.0044 µg/L	-0.0044 ppb	06:32:08
2	Ti 334.940†	899.3	-66.7	-0.0624 µg/L	-0.0624 ppb	06:31:48
2	Tl 190.801†	-123.0	-4.5	-0.5578 µg/L	-0.5578 ppb	06:32:08
2	U 409.014†	-273.1	0.9	0.0412 µg/L	0.0412 ppb	06:31:48
2	V 292.402†	373.6	-35.8	-0.1780 µg/L	-0.1780 ppb	06:31:48
2	Zn 213.857†	599.5	26.2	0.1467 µg/L	0.1467 ppb	06:32:08
3	Sc RADIAL	142957.2	142957.2	98.0 %		06:30:57
3	Al 396.153Radial†	-270.8	-213.2	-39.533 µg/L	-39.533 ppb	06:30:57
3	Ca 317.933Radial†	645.8	98.6	5.4929 µg/L	5.4929 ppb	06:31:18
3	Fe 238.204 Radial†	151.9	6.9	0.4263 µg/L	0.4263 ppb	06:31:18
3	K 766.490 Radial†	1751.1	242.7	88.850 µg/L	88.850 ppb	06:30:57
3	Mg 279.077 IEC†	199.0	12.4	4.6386 µg/L	4.6386 ppb	06:31:18
3	Na 589.592 Radial†	1725.5	470.6	64.209 µg/L	64.209 ppb	06:30:57
3	Sr 421.552†	-148.0	-15.8	-0.0329 µg/L	-0.0329 ppb	06:30:57
3	Sc 361.383	1746609.7	1746609.7	101.65 %		06:32:10
3	Y 371.029	1040286.8	1040286.8	101.32 %		06:32:10
3	Ag 328.068†	3940.8	-214.7	-0.7963 µg/L	-0.7963 ppb	06:32:12
3	As 188.979†	-11.6	9.0	2.7184 µg/L	2.7184 ppb	06:32:32
3	B 249.677†	3585.2	21.1	0.3100 µg/L	0.3100 ppb	06:32:12
3	Ba 233.527†	-118.6	19.2	0.0770 µg/L	0.0770 ppb	06:32:32
3	Be 313.107†	-993.1	87.8	0.0252 µg/L	0.0252 ppb	06:32:12
3	Cd 226.502†	-88.0	31.6	0.1970 µg/L	0.1970 ppb	06:32:32
3	Co 228.616†	-178.2	15.0	0.1849 µg/L	0.1849 ppb	06:32:32
3	Cr 267.716†	188.9	7.3	0.0532 µg/L	0.0532 ppb	06:32:32
3	Cu 324.752†	3035.3	13.7	0.0571 µg/L	0.0571 ppb	06:32:12
3	Mn 257.610†	265.0	23.4	0.0287 µg/L	0.0287 ppb	06:32:32
3	Mo 202.031†	-15.5	4.8	0.1409 µg/L	0.1409 ppb	06:32:32
3	Ni 231.604†	-130.8	-52.2	-0.6005 µg/L	-0.6005 ppb	06:32:32
3	P 214.914†	-23.0	-4.6	-0.9969 µg/L	-0.9969 ppb	06:32:32
3	Pb 220.353†	60.4	-26.9	-1.5089 µg/L	-1.5089 ppb	06:32:32
3	S 181.975 Axial†	111.8	4.9	3.6683 µg/L	3.6683 ppb	06:32:32
3	Sb 206.836†	67.9	-14.1	-1.6687 µg/L	-1.6687 ppb	06:32:32
3	Se 196.026†	16.3	0.7	0.275 µg/L	0.275 ppb	06:32:32
3	SiO2†	1774.8	-29.4	-2.8940 µg/L	-2.8940 ppb	06:32:32
3	Si 251.611†	970.8	118.5	1.7392 µg/L	1.7392 ppb	06:32:12
3	Sn 189.927†	12.6	13.5	0.8437 µg/L	0.8437 ppb	06:32:32
3	Ti 334.940†	940.4	-27.4	-0.0276 µg/L	-0.0276 ppb	06:32:12
3	Tl 190.801†	-115.7	2.9	0.3509 µg/L	0.3509 ppb	06:32:32
3	U 409.014†	-199.4	73.7	4.2787 µg/L	4.2787 ppb	06:32:12
3	V 292.402†	297.6	-111.1	-0.5373 µg/L	-0.5373 ppb	06:32:12
3	Zn 213.857†	584.0	10.1	0.0598 µg/L	0.0598 ppb	06:32:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1739314.8	101.23	%	0.618				0.61%
Sc RADIAL	142492.2	97.6	%	0.30				0.31%
Y 371.029	1036235.3	100.93	%	0.592				0.59%
Ag 328.068†	-23.1	-0.0854	µg/L	0.72113	-0.0854	ppb	0.72113	844.11%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-205.4	-38.066	µg/L	1.7374	-38.066	ppb	1.7374	4.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	10.3	3.1131	µg/L	2.50205	3.1131	ppb	2.50205	80.37%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-38.0	-0.5618	µg/L	0.78148	-0.5618	ppb	0.78148	139.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	14.1	0.0567	µg/L	0.06498	0.0567	ppb	0.06498	114.71%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	204.0	0.0567	µg/L	0.02749	0.0567	ppb	0.02749	48.47%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	90.7	5.0501	µg/L	0.92933	5.0501	ppb	0.92933	18.40%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.1	0.1190	µg/L	0.07846	0.1190	ppb	0.07846	65.95%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	15.0	0.1849	µg/L	0.05350	0.1849	ppb	0.05350	28.93%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                13.4      0.1019 µg/L       0.04297      0.1019 ppb        0.04297  42.19%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -52.6     -0.2009 µg/L       0.58952     -0.2009 ppb        0.58952 293.42%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         17.0      1.0452 µg/L       0.59209      1.0452 ppb        0.59209  56.65%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         271.7      99.450 µg/L       30.4895      99.450 ppb        30.4895  30.66%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            3.4      1.2607 µg/L       3.80350      1.2607 ppb        3.80350 301.69%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                34.9      0.0432 µg/L       0.02579      0.0432 ppb        0.02579  59.72%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.9     -0.1145 µg/L       0.26452     -0.1145 ppb        0.26452 231.11%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        656.5      89.602 µg/L       23.4021      89.602 ppb        23.4021  26.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -28.2     -0.3244 µg/L       0.33218     -0.3244 ppb        0.33218 102.39%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.3     -1.5650 µg/L       0.54207     -1.5650 ppb        0.54207  34.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -13.2     -0.7401 µg/L       0.73343     -0.7401 ppb        0.73343  99.10%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.8      1.3034 µg/L       5.58858      1.3034 ppb        5.58858 428.77%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -12.2     -1.4553 µg/L       0.27561     -1.4553 ppb        0.27561  18.94%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.0       1.46 µg/L         1.139        1.46 ppb          1.139  77.90%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -27.3     -2.6737 µg/L       0.52363     -2.6737 ppb        0.52363  19.58%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                58.7      0.8634 µg/L       1.80402      0.8634 ppb        1.80402 208.94%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 9.7      0.6018 µg/L       0.52852      0.6018 ppb        0.52852  87.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                13.4      0.0279 µg/L       0.08939      0.0279 ppb        0.08939 320.26%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -72.8     -0.0696 µg/L       0.04609     -0.0696 ppb        0.04609  66.18%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -6.2     -0.7624 µg/L       1.22852     -0.7624 ppb        1.22852 161.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 66.9      3.8902 µg/L       3.67023      3.8902 ppb        3.67023  94.34%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -75.8     -0.3679 µg/L       0.18055     -0.3679 ppb        0.18055  49.07%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                19.9      0.1133 µg/L       0.04681      0.1133 ppb        0.04681  41.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 6:50:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143844.4	143844.4	98.6	%			06:50:47
1	Al 396.153Radial†	25788.9	26226.0	4840.9	µg/L	4840.9	ppb	06:50:47
1	Ca 317.933Radial†	84255.8	84916.7	4730.2	µg/L	4730.2	ppb	06:50:47
1	Fe 238.204 Radial†	75761.9	76712.2	4728.1	µg/L	4728.1	ppb	06:50:47
1	K 766.490 Radial†	14566.5	13232.9	4840.9	µg/L	4840.9	ppb	06:50:47
1	Mg 279.077 IEC†	12924.3	12920.9	4821.4	µg/L	4821.4	ppb	06:50:47
1	Na 589.592 Radial†	70314.2	70042.8	9564.4	µg/L	9564.4	ppb	06:50:47
1	Sr 421.552†	225416.9	228820.2	475.67	µg/L	475.67	ppb	06:50:44
1	Sc 361.383	1738802.7	1738802.7	101.20	%			06:50:59
1	Y 371.029	1024681.2	1024681.2	99.804	%			06:50:59
1	Ag 328.068†	129631.3	124005.2	465.02	µg/L	465.02	ppb	06:50:59
1	As 188.979†	1581.0	1582.6	485.39	µg/L	485.39	ppb	06:51:19
1	B 249.677†	35075.1	31154.0	457.84	µg/L	457.84	ppb	06:50:59
1	Ba 233.527†	117058.2	115808.2	467.05	µg/L	467.05	ppb	06:50:59
1	Be 313.107†	1762033.6	1742238.2	474.51	µg/L	474.51	ppb	06:50:59
1	Cd 226.502†	75208.7	74436.5	464.66	µg/L	464.66	ppb	06:50:59
1	Co 228.616†	38308.7	38045.5	469.67	µg/L	469.67	ppb	06:50:59
1	Cr 267.716†	60115.1	59224.8	463.73	µg/L	463.73	ppb	06:50:59
1	Cu 324.752†	124300.0	119856.3	467.23	µg/L	467.23	ppb	06:50:59
1	Mn 257.610†	385186.9	380389.5	470.45	µg/L	470.45	ppb	06:50:59
1	Mo 202.031†	15845.4	15677.9	461.18	µg/L	461.18	ppb	06:51:19
1	Ni 231.604†	40875.3	40467.9	465.96	µg/L	465.96	ppb	06:50:59
1	P 214.914†	10897.9	10786.9	2299.1	µg/L	2299.1	ppb	06:51:19
1	Pb 220.353†	8501.2	8314.1	465.59	µg/L	465.59	ppb	06:51:19
1	S 181.975 Axial†	1349.3	1228.3	916.01	µg/L	916.01	ppb	06:51:19
1	Sb 206.836†	3999.9	3871.7	461.25	µg/L	461.25	ppb	06:51:19
1	Se 196.026†	1285.5	1255.0	456	µg/L	456	ppb	06:51:19
1	SiO2†	52927.4	50525.5	4918.7	µg/L	4918.7	ppb	06:50:59
1	Si 251.611†	159817.6	157089.0	2306.8	µg/L	2306.8	ppb	06:50:59
1	Sn 189.927†	7465.8	7378.6	461.55	µg/L	461.55	ppb	06:51:19
1	Ti 334.940†	507519.3	500558.4	467.06	µg/L	467.06	ppb	06:50:59
1	Tl 190.801†	3702.1	3775.0	470.84	µg/L	470.84	ppb	06:51:19
1	U 409.014†	7100.0	7285.8	454.39	µg/L	454.39	ppb	06:50:59
1	V 292.402†	96772.7	95223.2	470.64	µg/L	470.64	ppb	06:50:59
1	Zn 213.857†	84427.7	82863.8	461.82	µg/L	461.82	ppb	06:50:59
2	Sc RADIAL	142781.7	142781.7	97.8	%			06:50:51
2	Al 396.153Radial†	25806.6	26438.8	4880.2	µg/L	4880.2	ppb	06:50:51
2	Ca 317.933Radial†	83572.5	84854.5	4726.7	µg/L	4726.7	ppb	06:50:51
2	Fe 238.204 Radial†	75153.5	76662.4	4725.0	µg/L	4725.0	ppb	06:50:51
2	K 766.490 Radial†	14406.6	13179.5	4821.3	µg/L	4821.3	ppb	06:50:51
2	Mg 279.077 IEC†	12796.4	12887.8	4809.1	µg/L	4809.1	ppb	06:50:51
2	Na 589.592 Radial†	69989.1	70241.4	9591.5	µg/L	9591.5	ppb	06:50:51
2	Sr 421.552†	227567.6	232720.4	483.78	µg/L	483.78	ppb	06:50:49
2	Sc 361.383	1732312.8	1732312.8	100.82	%			06:51:23
2	Y 371.029	1021720.9	1021720.9	99.516	%			06:51:23
2	Ag 328.068†	129719.1	124572.2	467.10	µg/L	467.10	ppb	06:51:23
2	As 188.979†	1588.2	1595.6	489.32	µg/L	489.32	ppb	06:51:43
2	B 249.677†	35156.8	31364.8	460.95	µg/L	460.95	ppb	06:51:23
2	Ba 233.527†	116694.9	115881.2	467.35	µg/L	467.35	ppb	06:51:23
2	Be 313.107†	1753037.6	1739838.5	473.85	µg/L	473.85	ppb	06:51:23
2	Cd 226.502†	74807.8	74317.3	463.92	µg/L	463.92	ppb	06:51:23
2	Co 228.616†	38055.2	37935.8	468.31	µg/L	468.31	ppb	06:51:23
2	Cr 267.716†	59835.7	59170.3	463.31	µg/L	463.31	ppb	06:51:23
2	Cu 324.752†	123823.7	119844.0	467.18	µg/L	467.18	ppb	06:51:23
2	Mn 257.610†	383468.0	380110.6	470.11	µg/L	470.11	ppb	06:51:23
2	Mo 202.031†	15844.0	15735.2	462.87	µg/L	462.87	ppb	06:51:43
2	Ni 231.604†	40639.5	40385.3	465.01	µg/L	465.01	ppb	06:51:23
2	P 214.914†	10909.8	10839.0	2310.2	µg/L	2310.2	ppb	06:51:43
2	Pb 220.353†	8480.2	8324.8	466.20	µg/L	466.20	ppb	06:51:43

2	S 181.975 Axial†	1346.9	1230.9	917.91 µg/L	917.91 ppb	06:51:43
2	Sb 206.836†	3980.2	3867.0	460.73 µg/L	460.73 ppb	06:51:43
2	Se 196.026†	1300.3	1274.5	463 µg/L	463 ppb	06:51:43
2	SiO2†	52827.4	50622.2	4928.0 µg/L	4928.0 ppb	06:51:23
2	Si 251.611†	159326.9	157194.0	2308.3 µg/L	2308.3 ppb	06:51:23
2	Sn 189.927†	7476.6	7416.8	463.94 µg/L	463.94 ppb	06:51:43
2	Ti 334.940†	505139.1	500076.4	466.61 µg/L	466.61 ppb	06:51:23
2	Tl 190.801†	3698.1	3784.7	472.04 µg/L	472.04 ppb	06:51:43
2	U 409.014†	6942.0	7155.4	446.72 µg/L	446.72 ppb	06:51:23
2	V 292.402†	96267.9	95080.8	469.96 µg/L	469.96 ppb	06:51:23
2	Zn 213.857†	83720.5	82474.9	459.64 µg/L	459.64 ppb	06:51:23
3	Sc RADIAL	143836.3	143836.3	98.6 %		06:50:55
3	Al 396.153Radial†	25907.3	26347.6	4863.4 µg/L	4863.4 ppb	06:50:55
3	Ca 317.933Radial†	84074.3	84737.4	4720.2 µg/L	4720.2 ppb	06:50:55
3	Fe 238.204 Radial†	75677.4	76630.7	4723.0 µg/L	4723.0 ppb	06:50:55
3	K 766.490 Radial†	14497.0	13163.2	4815.3 µg/L	4815.3 ppb	06:50:55
3	Mg 279.077 IEC†	12916.7	12914.0	4818.8 µg/L	4818.8 ppb	06:50:55
3	Na 589.592 Radial†	70095.9	69825.3	9534.7 µg/L	9534.7 ppb	06:50:55
3	Sr 421.552†	224937.6	228346.7	474.68 µg/L	474.68 ppb	06:50:53
3	Sc 361.383	1745167.1	1745167.1	101.57 %		06:51:46
3	Y 371.029	1027608.6	1027608.6	100.09 %		06:51:46
3	Ag 328.068†	130622.1	124513.6	466.91 µg/L	466.91 ppb	06:51:46
3	As 188.979†	1580.0	1575.9	483.36 µg/L	483.36 ppb	06:52:06
3	B 249.677†	35677.0	31620.2	464.70 µg/L	464.70 ppb	06:51:46
3	Ba 233.527†	117945.5	116260.0	468.87 µg/L	468.87 ppb	06:51:46
3	Be 313.107†	1774480.0	1748142.5	476.11 µg/L	476.11 ppb	06:51:46
3	Cd 226.502†	75852.8	74799.7	466.93 µg/L	466.93 ppb	06:51:46
3	Co 228.616†	38673.3	38266.4	472.39 µg/L	472.39 ppb	06:51:46
3	Cr 267.716†	60484.3	59371.7	464.88 µg/L	464.88 ppb	06:51:46
3	Cu 324.752†	125032.7	120129.7	468.29 µg/L	468.29 ppb	06:51:46
3	Mn 257.610†	387230.7	381013.6	471.22 µg/L	471.22 ppb	06:51:46
3	Mo 202.031†	15902.9	15677.4	461.17 µg/L	461.17 ppb	06:52:06
3	Ni 231.604†	41266.5	40705.8	468.70 µg/L	468.70 ppb	06:51:46
3	P 214.914†	10969.1	10817.6	2305.7 µg/L	2305.7 ppb	06:52:06
3	Pb 220.353†	8529.9	8311.8	465.47 µg/L	465.47 ppb	06:52:06
3	S 181.975 Axial†	1357.3	1231.3	918.20 µg/L	918.20 ppb	06:52:06
3	Sb 206.836†	3998.4	3855.8	459.36 µg/L	459.36 ppb	06:52:06
3	Se 196.026†	1305.2	1269.7	461 µg/L	461 ppb	06:52:06
3	SiO2†	53325.5	50726.6	4938.3 µg/L	4938.3 ppb	06:51:46
3	Si 251.611†	161035.0	157711.7	2315.9 µg/L	2315.9 ppb	06:51:46
3	Sn 189.927†	7518.0	7403.0	463.08 µg/L	463.08 ppb	06:52:06
3	Ti 334.940†	510430.4	501595.6	468.03 µg/L	468.03 ppb	06:51:46
3	Tl 190.801†	3716.0	3775.3	470.89 µg/L	470.89 ppb	06:52:06
3	U 409.014†	7028.8	7190.1	448.87 µg/L	448.87 ppb	06:51:46
3	V 292.402†	97382.5	95474.9	471.87 µg/L	471.87 ppb	06:51:46
3	Zn 213.857†	84926.8	83050.9	462.85 µg/L	462.85 ppb	06:51:46

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1738760.9	101.20	%	0.374				0.37%
Sc RADIAL	143487.5	98.3	%	0.42				0.43%
Y 371.029	1024670.2	99.803	%	0.2867				0.29%
Ag 328.068†	124363.7	466.34	µg/L	1.151	466.34	ppb	1.151	0.25%
QC value within limits for Ag 328.068 Recovery = 93.27%								
Al 396.153Radial†	26337.5	4861.5	µg/L	19.75	4861.5	ppb	19.75	0.41%
QC value within limits for Al 396.153Radial Recovery = 97.23%								
As 188.979†	1584.7	486.02	µg/L	3.027	486.02	ppb	3.027	0.62%
QC value within limits for As 188.979 Recovery = 97.20%								
B 249.677†	31379.7	461.16	µg/L	3.438	461.16	ppb	3.438	0.75%
QC value within limits for B 249.677 Recovery = 92.23%								
Ba 233.527†	115983.2	467.76	µg/L	0.978	467.76	ppb	0.978	0.21%
QC value within limits for Ba 233.527 Recovery = 93.55%								
Be 313.107†	1743406.4	474.83	µg/L	1.164	474.83	ppb	1.164	0.25%
QC value within limits for Be 313.107 Recovery = 94.97%								
Ca 317.933Radial†	84836.2	4725.7	µg/L	5.07	4725.7	ppb	5.07	0.11%
QC value within limits for Ca 317.933Radial Recovery = 94.51%								
Cd 226.502†	74517.8	465.17	µg/L	1.570	465.17	ppb	1.570	0.34%
QC value within limits for Cd 226.502 Recovery = 93.03%								
Co 228.616†	38082.6	470.13	µg/L	2.078	470.13	ppb	2.078	0.44%

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   QC value within limits for Co 228.616  Recovery = 94.03%
Cr 267.716†          59255.6      463.97 µg/L        0.816      463.97 ppb        0.816   0.18%
   QC value within limits for Cr 267.716  Recovery = 92.79%
Cu 324.752†         119943.3      467.57 µg/L        0.628      467.57 ppb        0.628   0.13%
   QC value within limits for Cu 324.752  Recovery = 93.51%
Fe 238.204 Radial†   76668.4      4725.4 µg/L         2.53      4725.4 ppb         2.53   0.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.51%
K 766.490 Radial†    13191.9      4825.8 µg/L        13.36      4825.8 ppb        13.36   0.28%
   QC value within limits for K 766.490 Radial  Recovery = 96.52%
Mg 279.077 IEC†      12907.6      4816.4 µg/L         6.48      4816.4 ppb         6.48   0.13%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.33%
Mn 257.610†         380504.6      470.59 µg/L        0.572      470.59 ppb        0.572   0.12%
   QC value within limits for Mn 257.610  Recovery = 94.12%
Mo 202.031†          15696.8      461.74 µg/L        0.976      461.74 ppb        0.976   0.21%
   QC value within limits for Mo 202.031  Recovery = 92.35%
Na 589.592 Radial†   70036.5      9563.5 µg/L        28.43      9563.5 ppb        28.43   0.30%
   QC value within limits for Na 589.592 Radial  Recovery = 95.64%
Ni 231.604†          40519.7      466.55 µg/L        1.916      466.55 ppb        1.916   0.41%
   QC value within limits for Ni 231.604  Recovery = 93.31%
P 214.914†           10814.5      2305.0 µg/L         5.61      2305.0 ppb         5.61   0.24%
   QC value within limits for P 214.914  Recovery = 92.20%
Pb 220.353†           8316.9      465.75 µg/L        0.390      465.75 ppb        0.390   0.08%
   QC value within limits for Pb 220.353  Recovery = 93.15%
S 181.975 Axial†      1230.1      917.38 µg/L        1.192      917.38 ppb        1.192   0.13%
   QC value within limits for S 181.975 Axial  Recovery = 91.74%
Sb 206.836†           3864.8      460.45 µg/L        0.981      460.45 ppb        0.981   0.21%
   QC value within limits for Sb 206.836  Recovery = 92.09%
Se 196.026†           1266.4         460 µg/L          3.7         460 ppb          3.7   0.80%
   QC value within limits for Se 196.026  Recovery = 91.98%
SiO2†                50624.8      4928.3 µg/L         9.82      4928.3 ppb         9.82   0.20%
   QC value within limits for SiO2  Recovery = 92.16%
Si 251.611†         157331.5      2310.3 µg/L         4.92      2310.3 ppb         4.92   0.21%
   QC value within limits for Si 251.611  Recovery = 92.41%
Sn 189.927†           7399.5      462.85 µg/L        1.208      462.85 ppb        1.208   0.26%
   QC value within limits for Sn 189.927  Recovery = 92.57%
Sr 421.552†         229962.4      478.04 µg/L        4.990      478.04 ppb        4.990   1.04%
   QC value within limits for Sr 421.552  Recovery = 95.61%
Ti 334.940†         500743.5      467.23 µg/L        0.725      467.23 ppb        0.725   0.16%
   QC value within limits for Ti 334.940  Recovery = 93.45%
Tl 190.801†           3778.3      471.26 µg/L        0.677      471.26 ppb        0.677   0.14%
   QC value within limits for Tl 190.801  Recovery = 94.25%
U 409.014†            7210.4      449.99 µg/L        3.955      449.99 ppb        3.955   0.88%
   QC value less than the lower limit for U 409.014  Recovery = 90.00%
V 292.402†           95259.6      470.83 µg/L        0.969      470.83 ppb        0.969   0.21%
   QC value within limits for V 292.402  Recovery = 94.17%
Zn 213.857†          82796.5      461.44 µg/L        1.639      461.44 ppb        1.639   0.36%
   QC value within limits for Zn 213.857  Recovery = 92.29%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 6:52:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144633.2	144633.2	99.1	%			06:52:42
1	Al 396.153Radial†	-68.4	-5.8	-1.0604	µg/L	-1.0604	ppb	06:53:02
1	Ca 317.933Radial†	627.1	72.2	4.0193	µg/L	4.0193	ppb	06:53:02
1	Fe 238.204 Radial†	233.5	87.5	5.3928	µg/L	5.3928	ppb	06:53:02
1	K 766.490 Radial†	1744.4	215.2	78.786	µg/L	78.786	ppb	06:52:42
1	Mg 279.077 IEC†	179.5	-9.6	-3.5729	µg/L	-3.5729	ppb	06:53:02
1	Na 589.592 Radial†	1752.6	477.5	65.161	µg/L	65.161	ppb	06:52:42
1	Sr 421.552†	-155.4	-21.5	-0.0447	µg/L	-0.0447	ppb	06:52:42
1	Sc 361.383	1733964.7	1733964.7	100.92	%			06:53:50
1	Y 371.029	1033335.7	1033335.7	100.65	%			06:53:50
1	Ag 328.068†	3981.0	-146.5	-0.5452	µg/L	-0.5452	ppb	06:53:52
1	As 188.979†	-23.1	-2.6	-0.7719	µg/L	-0.7719	ppb	06:54:12
1	B 249.677†	3532.8	-5.2	-0.0776	µg/L	-0.0776	ppb	06:54:12
1	Ba 233.527†	-131.9	5.2	0.0210	µg/L	0.0210	ppb	06:54:12
1	Be 313.107†	-928.7	144.4	0.0373	µg/L	0.0373	ppb	06:53:52
1	Cd 226.502†	-128.3	-9.0	-0.0567	µg/L	-0.0567	ppb	06:54:12
1	Co 228.616†	-169.5	22.4	0.2756	µg/L	0.2756	ppb	06:54:12
1	Cr 267.716†	204.4	24.0	0.1936	µg/L	0.1936	ppb	06:54:12
1	Cu 324.752†	2997.4	-2.1	-0.0126	µg/L	-0.0126	ppb	06:53:52
1	Mn 257.610†	376.2	135.5	0.1678	µg/L	0.1678	ppb	06:54:12
1	Mo 202.031†	-28.0	-7.7	-0.2256	µg/L	-0.2256	ppb	06:54:12
1	Ni 231.604†	-89.9	-12.5	-0.1442	µg/L	-0.1442	ppb	06:54:12
1	P 214.914†	-16.5	1.6	0.3492	µg/L	0.3492	ppb	06:54:12
1	Pb 220.353†	87.5	0.3	0.0206	µg/L	0.0206	ppb	06:54:12
1	S 181.975 Axial†	110.0	3.9	2.9188	µg/L	2.9188	ppb	06:54:12
1	Sb 206.836†	75.8	-5.7	-0.6867	µg/L	-0.6867	ppb	06:54:12
1	Se 196.026†	7.0	-8.4	-3.02	µg/L	-3.02	ppb	06:54:12
1	SiO2†	1830.0	38.1	3.7253	µg/L	3.7253	ppb	06:54:12
1	Si 251.611†	1070.4	224.1	3.3062	µg/L	3.3062	ppb	06:53:52
1	Sn 189.927†	-0.2	0.9	0.0580	µg/L	0.0580	ppb	06:54:12
1	Ti 334.940†	1176.4	213.2	0.2022	µg/L	0.2022	ppb	06:53:52
1	Tl 190.801†	-127.5	-9.7	-1.1871	µg/L	-1.1871	ppb	06:54:12
1	U 409.014†	-385.9	-112.5	-6.5491	µg/L	-6.5491	ppb	06:53:52
1	V 292.402†	504.0	95.6	0.4597	µg/L	0.4597	ppb	06:53:52
1	Zn 213.857†	627.6	57.5	0.3235	µg/L	0.3235	ppb	06:54:12
2	Sc RADIAL	144549.4	144549.4	99.1	%			06:53:04
2	Al 396.153Radial†	-66.1	-3.6	-0.6440	µg/L	-0.6440	ppb	06:53:24
2	Ca 317.933Radial†	630.2	75.6	4.2130	µg/L	4.2130	ppb	06:53:24
2	Fe 238.204 Radial†	209.7	63.5	3.9168	µg/L	3.9168	ppb	06:53:24
2	K 766.490 Radial†	1826.5	299.2	109.53	µg/L	109.53	ppb	06:53:04
2	Mg 279.077 IEC†	186.3	-2.6	-0.9787	µg/L	-0.9787	ppb	06:53:24
2	Na 589.592 Radial†	1914.4	641.9	87.598	µg/L	87.598	ppb	06:53:04
2	Sr 421.552†	-167.6	-33.9	-0.0705	µg/L	-0.0705	ppb	06:53:04
2	Sc 361.383	1749772.9	1749772.9	101.84	%			06:54:14
2	Y 371.029	1042212.3	1042212.3	101.51	%			06:54:14
2	Ag 328.068†	4047.6	-116.8	-0.4517	µg/L	-0.4517	ppb	06:54:16
2	As 188.979†	-10.3	10.2	3.0888	µg/L	3.0888	ppb	06:54:37
2	B 249.677†	3499.3	-69.7	-1.0282	µg/L	-1.0282	ppb	06:54:37
2	Ba 233.527†	-107.2	30.6	0.1230	µg/L	0.1230	ppb	06:54:37
2	Be 313.107†	-1027.0	56.2	0.0118	µg/L	0.0118	ppb	06:54:16
2	Cd 226.502†	-124.9	-4.4	-0.0280	µg/L	-0.0280	ppb	06:54:37
2	Co 228.616†	-180.8	12.8	0.1577	µg/L	0.1577	ppb	06:54:37
2	Cr 267.716†	221.6	39.0	0.3148	µg/L	0.3148	ppb	06:54:37
2	Cu 324.752†	2983.5	-42.5	-0.1744	µg/L	-0.1744	ppb	06:54:16
2	Mn 257.610†	338.1	94.7	0.1173	µg/L	0.1173	ppb	06:54:37
2	Mo 202.031†	-32.1	-11.5	-0.3367	µg/L	-0.3367	ppb	06:54:37
2	Ni 231.604†	-88.8	-10.7	-0.1227	µg/L	-0.1227	ppb	06:54:37
2	P 214.914†	-17.5	0.7	0.1629	µg/L	0.1629	ppb	06:54:37
2	Pb 220.353†	69.6	-18.0	-0.9973	µg/L	-0.9973	ppb	06:54:37

2	S 181.975 Axial†	96.6	-10.2	-7.5881 µg/L	-7.5881 ppb	06:54:37
2	Sb 206.836†	74.0	-8.1	-0.9755 µg/L	-0.9755 ppb	06:54:37
2	Se 196.026†	13.5	-2.0	-0.745 µg/L	-0.745 ppb	06:54:37
2	SiO2†	1845.3	36.6	3.5813 µg/L	3.5813 ppb	06:54:37
2	Si 251.611†	1001.8	147.2	2.1707 µg/L	2.1707 ppb	06:54:16
2	Sn 189.927†	7.7	8.6	0.5383 µg/L	0.5383 ppb	06:54:37
2	Ti 334.940†	1051.0	79.5	0.0792 µg/L	0.0792 ppb	06:54:16
2	Tl 190.801†	-106.8	11.8	1.4462 µg/L	1.4462 ppb	06:54:37
2	U 409.014†	-479.7	-201.2	-11.784 µg/L	-11.784 ppb	06:54:16
2	V 292.402†	330.2	-79.6	-0.3988 µg/L	-0.3988 ppb	06:54:16
2	Zn 213.857†	607.0	31.7	0.1784 µg/L	0.1784 ppb	06:54:37
3	Sc RADIAL	142441.9	142441.9	97.6 %		06:53:26
3	Al 396.153Radial†	-51.7	10.2	1.9232 µg/L	1.9232 ppb	06:53:46
3	Ca 317.933Radial†	620.5	75.1	4.1845 µg/L	4.1845 ppb	06:53:46
3	Fe 238.204 Radial†	216.2	73.4	4.5263 µg/L	4.5263 ppb	06:53:46
3	K 766.490 Radial†	1766.2	264.7	96.906 µg/L	96.906 ppb	06:53:26
3	Mg 279.077 IEC†	171.5	-15.0	-5.6050 µg/L	-5.6050 ppb	06:53:46
3	Na 589.592 Radial†	1726.0	477.4	65.136 µg/L	65.136 ppb	06:53:26
3	Sr 421.552†	-147.2	-15.5	-0.0323 µg/L	-0.0323 ppb	06:53:26
3	Sc 361.383	1739482.2	1739482.2	101.24 %		06:54:39
3	Y 371.029	1036358.4	1036358.4	100.94 %		06:54:39
3	Ag 328.068†	4348.3	203.8	0.7416 µg/L	0.7416 ppb	06:54:41
3	As 188.979†	-11.6	8.8	2.6733 µg/L	2.6733 ppb	06:55:01
3	B 249.677†	3500.3	-48.4	-0.7140 µg/L	-0.7140 ppb	06:55:01
3	Ba 233.527†	-129.2	8.3	0.0326 µg/L	0.0326 ppb	06:55:01
3	Be 313.107†	-933.4	142.7	0.0379 µg/L	0.0379 ppb	06:54:41
3	Cd 226.502†	-123.7	-4.0	-0.0256 µg/L	-0.0256 ppb	06:55:01
3	Co 228.616†	-184.7	7.9	0.0972 µg/L	0.0972 ppb	06:55:01
3	Cr 267.716†	159.4	-21.1	-0.1630 µg/L	-0.1630 ppb	06:55:01
3	Cu 324.752†	3020.7	11.5	0.0429 µg/L	0.0429 ppb	06:54:41
3	Mn 257.610†	327.3	86.0	0.1066 µg/L	0.1066 ppb	06:55:01
3	Mo 202.031†	-39.0	-18.5	-0.5424 µg/L	-0.5424 ppb	06:55:01
3	Ni 231.604†	-116.1	-38.2	-0.4397 µg/L	-0.4397 ppb	06:55:01
3	P 214.914†	-19.9	-1.7	-0.3559 µg/L	-0.3559 ppb	06:55:01
3	Pb 220.353†	78.3	-9.1	-0.5065 µg/L	-0.5065 ppb	06:55:01
3	S 181.975 Axial†	111.6	5.2	3.8338 µg/L	3.8338 ppb	06:55:01
3	Sb 206.836†	81.6	-0.2	-0.0275 µg/L	-0.0275 ppb	06:55:01
3	Se 196.026†	5.2	-10.2	-3.68 µg/L	-3.68 ppb	06:55:01
3	SiO2†	1803.0	5.6	0.5590 µg/L	0.5590 ppb	06:55:01
3	Si 251.611†	1132.3	281.9	4.1624 µg/L	4.1624 ppb	06:54:41
3	Sn 189.927†	0.1	1.2	0.0775 µg/L	0.0775 ppb	06:55:01
3	Ti 334.940†	1053.6	88.1	0.0842 µg/L	0.0842 ppb	06:54:41
3	Tl 190.801†	-105.8	12.2	1.4893 µg/L	1.4893 ppb	06:55:01
3	U 409.014†	-325.3	-51.5	-3.0531 µg/L	-3.0531 ppb	06:54:41
3	V 292.402†	251.0	-155.8	-0.7691 µg/L	-0.7691 ppb	06:54:41
3	Zn 213.857†	649.7	77.3	0.4369 µg/L	0.4369 ppb	06:55:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1741073.3	101.33	%	0.467				0.46%
Sc RADIAL	143874.8	98.6	%	0.85				0.86%
Y 371.029	1037302.1	101.03	%	0.440				0.44%
Ag 328.068†	-19.8	-0.0851	µg/L	0.71750	-0.0851	ppb	0.71750	843.15%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.3	0.0729	µg/L	1.61581	0.0729	ppb	1.61581	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.5	1.6634	µg/L	2.11924	1.6634	ppb	2.11924	127.41%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-41.1	-0.6066	µg/L	0.48430	-0.6066	ppb	0.48430	79.84%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	14.7	0.0589	µg/L	0.05582	0.0589	ppb	0.05582	94.82%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	114.4	0.0290	µg/L	0.01494	0.0290	ppb	0.01494	51.51%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	74.3	4.1389	µg/L	0.10460	4.1389	ppb	0.10460	2.53%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-5.8	-0.0368	µg/L	0.01731	-0.0368	ppb	0.01731	47.05%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	14.3	0.1768	µg/L	0.09071	0.1768	ppb	0.09071	51.30%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.0      0.1151 µg/L       0.24835      0.1151 ppb        0.24835 215.69%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -11.0     -0.0480 µg/L       0.11290     -0.0480 ppb        0.11290 235.07%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       74.8      4.6120 µg/L       0.74173      4.6120 ppb        0.74173  16.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       259.7     95.073 µg/L       15.4520     95.073 ppb        15.4520  16.25%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -9.1     -3.3855 µg/L       2.31885     -3.3855 ppb        2.31885  68.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             105.4      0.1306 µg/L       0.03271      0.1306 ppb        0.03271  25.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -12.5     -0.3682 µg/L       0.16075     -0.3682 ppb        0.16075  43.65%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      532.3     72.632 µg/L       12.9611     72.632 ppb        12.9611  17.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -20.5     -0.2356 µg/L       0.17715     -0.2356 ppb        0.17715  75.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.2      0.0521 µg/L       0.36541      0.0521 ppb        0.36541 701.97%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -8.9     -0.4944 µg/L       0.50904     -0.4944 ppb        0.50904 102.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -0.4     -0.2785 µg/L       6.34683     -0.2785 ppb        6.34683 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.7     -0.5632 µg/L       0.48593     -0.5632 ppb        0.48593  86.28%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -6.9      -2.48 µg/L         1.540       -2.48 ppb          1.540  62.03%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    26.8      2.6219 µg/L       1.78796      2.6219 ppb        1.78796  68.19%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             217.7      3.2131 µg/L       0.99909      3.2131 ppb        0.99909  31.09%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.6      0.2246 µg/L       0.27185      0.2246 ppb        0.27185 121.04%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -23.6     -0.0492 µg/L       0.01953     -0.0492 ppb        0.01953  39.72%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             127.0      0.1219 µg/L       0.06963      0.1219 ppb        0.06963  57.13%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               4.8      0.5828 µg/L       1.53292      0.5828 ppb        1.53292 263.02%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -121.7     -7.1289 µg/L       4.39443     -7.1289 ppb        4.39443  61.64%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -46.6     -0.2361 µg/L       0.63031     -0.2361 ppb        0.63031 267.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              55.5      0.3129 µg/L       0.12957      0.3129 ppb        0.12957  41.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 7:15:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143231.7	143231.7	98.2	%			07:16:18
1	Al 396.153Radial†	25811.0	26360.4	4865.8	µg/L	4865.8	ppb	07:16:18
1	Ca 317.933Radial†	83249.0	84256.6	4693.4	µg/L	4693.4	ppb	07:16:18
1	Fe 238.204 Radial†	75045.0	76310.5	4703.3	µg/L	4703.3	ppb	07:16:18
1	K 766.490 Radial†	14476.5	13204.4	4830.5	µg/L	4830.5	ppb	07:16:18
1	Mg 279.077 IEC†	12766.9	12816.7	4782.5	µg/L	4782.5	ppb	07:16:18
1	Na 589.592 Radial†	69514.8	69533.5	9494.8	µg/L	9494.8	ppb	07:16:18
1	Sr 421.552†	225787.8	230176.3	478.49	µg/L	478.49	ppb	07:16:16
1	Sc 361.383	1750472.3	1750472.3	101.88	%			07:16:31
1	Y 371.029	1032081.8	1032081.8	100.53	%			07:16:31
1	Ag 328.068†	130816.8	124315.0	466.14	µg/L	466.14	ppb	07:16:31
1	As 188.979†	1591.5	1582.5	485.34	µg/L	485.34	ppb	07:16:51
1	B 249.677†	35273.1	31117.3	457.31	µg/L	457.31	ppb	07:16:31
1	Ba 233.527†	117743.1	115709.4	466.65	µg/L	466.65	ppb	07:16:31
1	Be 313.107†	1769884.6	1738336.9	473.44	µg/L	473.44	ppb	07:16:31
1	Cd 226.502†	75237.5	73969.4	461.75	µg/L	461.75	ppb	07:16:31
1	Co 228.616†	38300.7	37785.3	466.46	µg/L	466.46	ppb	07:16:31
1	Cr 267.716†	60334.7	59044.4	462.32	µg/L	462.32	ppb	07:16:31
1	Cu 324.752†	124729.7	119459.2	465.67	µg/L	465.67	ppb	07:16:31
1	Mn 257.610†	386052.5	378701.8	468.37	µg/L	468.37	ppb	07:16:31
1	Mo 202.031†	15962.9	15688.8	461.50	µg/L	461.50	ppb	07:16:51
1	Ni 231.604†	41025.4	40346.0	464.56	µg/L	464.56	ppb	07:16:31
1	P 214.914†	10932.1	10748.7	2290.9	µg/L	2290.9	ppb	07:16:51
1	Pb 220.353†	8545.2	8301.4	464.89	µg/L	464.89	ppb	07:16:51
1	S 181.975 Axial†	1344.3	1214.5	905.73	µg/L	905.73	ppb	07:16:51
1	Sb 206.836†	4008.2	3853.5	459.12	µg/L	459.12	ppb	07:16:51
1	Se 196.026†	1297.1	1257.9	457	µg/L	457	ppb	07:16:51
1	SiO2†	52974.9	50223.4	4889.2	µg/L	4889.2	ppb	07:16:31
1	Si 251.611†	160634.4	156838.0	2303.1	µg/L	2303.1	ppb	07:16:31
1	Sn 189.927†	7507.2	7370.0	461.01	µg/L	461.01	ppb	07:16:51
1	Ti 334.940†	509488.3	499147.7	465.74	µg/L	465.74	ppb	07:16:31
1	Tl 190.801†	3735.0	3782.9	471.81	µg/L	471.81	ppb	07:16:51
1	U 409.014†	7000.5	7141.4	445.88	µg/L	445.88	ppb	07:16:31
1	V 292.402†	97221.7	95026.5	469.68	µg/L	469.68	ppb	07:16:31
1	Zn 213.857†	84347.9	82229.2	458.27	µg/L	458.27	ppb	07:16:31
2	Sc RADIAL	143830.0	143830.0	98.6	%			07:16:22
2	Al 396.153Radial†	25997.1	26439.8	4880.6	µg/L	4880.6	ppb	07:16:22
2	Ca 317.933Radial†	83529.5	84188.4	4689.6	µg/L	4689.6	ppb	07:16:22
2	Fe 238.204 Radial†	75506.4	76460.6	4712.6	µg/L	4712.6	ppb	07:16:22
2	K 766.490 Radial†	14487.3	13154.1	4812.0	µg/L	4812.0	ppb	07:16:22
2	Mg 279.077 IEC†	12725.8	12720.9	4746.8	µg/L	4746.8	ppb	07:16:22
2	Na 589.592 Radial†	69625.8	69351.5	9470.0	µg/L	9470.0	ppb	07:16:22
2	Sr 421.552†	226337.7	229777.2	477.66	µg/L	477.66	ppb	07:16:20
2	Sc 361.383	1752200.8	1752200.8	101.98	%			07:16:54
2	Y 371.029	1031083.0	1031083.0	100.43	%			07:16:54
2	Ag 328.068†	130131.1	123515.9	463.20	µg/L	463.20	ppb	07:16:54
2	As 188.979†	1570.4	1560.3	478.61	µg/L	478.61	ppb	07:17:14
2	B 249.677†	35303.3	31112.7	457.24	µg/L	457.24	ppb	07:16:54
2	Ba 233.527†	117702.2	115555.3	466.03	µg/L	466.03	ppb	07:16:54
2	Be 313.107†	1772824.2	1739505.8	473.77	µg/L	473.77	ppb	07:16:54
2	Cd 226.502†	75437.4	74092.5	462.51	µg/L	462.51	ppb	07:16:54
2	Co 228.616†	38435.2	37880.0	467.63	µg/L	467.63	ppb	07:16:54
2	Cr 267.716†	60494.4	59142.5	463.07	µg/L	463.07	ppb	07:16:54
2	Cu 324.752†	125065.3	119667.5	466.50	µg/L	466.50	ppb	07:16:54
2	Mn 257.610†	386854.1	379114.0	468.88	µg/L	468.88	ppb	07:16:54
2	Mo 202.031†	15890.6	15602.5	458.97	µg/L	458.97	ppb	07:17:14
2	Ni 231.604†	40997.7	40279.1	463.78	µg/L	463.78	ppb	07:16:54
2	P 214.914†	10932.4	10738.3	2288.7	µg/L	2288.7	ppb	07:17:14
2	Pb 220.353†	8481.9	8231.0	460.94	µg/L	460.94	ppb	07:17:14

2	S 181.975 Axial†	1343.4	1212.2	904.05 µg/L	904.05 ppb	07:17:14
2	Sb 206.836†	3985.9	3827.7	456.01 µg/L	456.01 ppb	07:17:14
2	Se 196.026†	1302.9	1262.3	458 µg/L	458 ppb	07:17:14
2	SiO2†	53203.1	50395.9	4906.1 µg/L	4906.1 ppb	07:16:54
2	Si 251.611†	160563.7	156613.1	2299.8 µg/L	2299.8 ppb	07:16:54
2	Sn 189.927†	7505.7	7361.2	460.47 µg/L	460.47 ppb	07:17:14
2	Ti 334.940†	509577.5	498741.9	465.36 µg/L	465.36 ppb	07:16:54
2	Tl 190.801†	3714.7	3759.3	468.90 µg/L	468.90 ppb	07:17:14
2	U 409.014†	7323.9	7451.8	464.00 µg/L	464.00 ppb	07:16:54
2	V 292.402†	97209.2	94920.0	469.15 µg/L	469.15 ppb	07:16:54
2	Zn 213.857†	84688.5	82481.6	459.69 µg/L	459.69 ppb	07:16:54
3	Sc RADIAL	145082.6	145082.6	99.4 %		07:16:26
3	Al 396.153Radial†	26074.1	26289.6	4852.5 µg/L	4852.5 ppb	07:16:26
3	Ca 317.933Radial†	84338.7	84270.6	4694.2 µg/L	4694.2 ppb	07:16:26
3	Fe 238.204 Radial†	76184.1	76480.8	4713.8 µg/L	4713.8 ppb	07:16:26
3	K 766.490 Radial†	14759.8	13301.2	4865.9 µg/L	4865.9 ppb	07:16:26
3	Mg 279.077 IEC†	12907.4	12792.0	4773.4 µg/L	4773.4 ppb	07:16:26
3	Na 589.592 Radial†	70316.5	69436.3	9481.5 µg/L	9481.5 ppb	07:16:26
3	Sr 421.552†	225883.1	227337.3	472.58 µg/L	472.58 ppb	07:16:24
3	Sc 361.383	1740208.6	1740208.6	101.28 %		07:17:17
3	Y 371.029	1024774.2	1024774.2	99.814 %		07:17:17
3	Ag 328.068†	129441.3	123714.1	463.91 µg/L	463.91 ppb	07:17:17
3	As 188.979†	1581.9	1582.2	485.25 µg/L	485.25 ppb	07:17:37
3	B 249.677†	35141.2	31191.2	458.40 µg/L	458.40 ppb	07:17:17
3	Ba 233.527†	116769.3	115429.5	465.53 µg/L	465.53 ppb	07:17:17
3	Be 313.107†	1754966.8	1733854.0	472.22 µg/L	472.22 ppb	07:17:17
3	Cd 226.502†	74790.7	73963.8	461.71 µg/L	461.71 ppb	07:17:17
3	Co 228.616†	37989.5	37699.7	465.40 µg/L	465.40 ppb	07:17:17
3	Cr 267.716†	59786.0	58851.9	460.81 µg/L	460.81 ppb	07:17:17
3	Cu 324.752†	124076.7	119536.5	465.97 µg/L	465.97 ppb	07:17:17
3	Mn 257.610†	383042.2	377964.4	467.45 µg/L	467.45 ppb	07:17:17
3	Mo 202.031†	15970.9	15789.2	464.45 µg/L	464.45 ppb	07:17:37
3	Ni 231.604†	40665.5	40228.1	463.20 µg/L	463.20 ppb	07:17:17
3	P 214.914†	10982.3	10861.5	2315.0 µg/L	2315.0 ppb	07:17:37
3	Pb 220.353†	8559.5	8364.9	468.44 µg/L	468.44 ppb	07:17:37
3	S 181.975 Axial†	1355.7	1233.5	919.92 µg/L	919.92 ppb	07:17:37
3	Sb 206.836†	3981.6	3850.4	458.82 µg/L	458.82 ppb	07:17:37
3	Se 196.026†	1286.4	1254.8	456 µg/L	456 ppb	07:17:37
3	SiO2†	52793.3	50350.8	4901.5 µg/L	4901.5 ppb	07:17:17
3	Si 251.611†	159252.9	156403.8	2296.6 µg/L	2296.6 ppb	07:17:17
3	Sn 189.927†	7511.8	7418.0	464.00 µg/L	464.00 ppb	07:17:37
3	Ti 334.940†	505621.1	498279.0	464.94 µg/L	464.94 ppb	07:17:17
3	Tl 190.801†	3705.1	3775.0	470.82 µg/L	470.82 ppb	07:17:37
3	U 409.014†	6917.7	7100.1	443.43 µg/L	443.43 ppb	07:17:17
3	V 292.402†	96535.4	94911.7	469.14 µg/L	469.14 ppb	07:17:17
3	Zn 213.857†	83785.0	82161.8	457.90 µg/L	457.90 ppb	07:17:17

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1747627.2	101.71	%	0.377				0.37%
Sc RADIAL	144048.1	98.7	%	0.65				0.66%
Y 371.029	1029313.0	100.26	%	0.386				0.38%
Ag 328.068†	123848.3	464.42	µg/L	1.536	464.42	ppb	1.536	0.33%
QC value within limits for Ag 328.068 Recovery = 92.88%								
Al 396.153Radial†	26363.3	4866.3	µg/L	14.06	4866.3	ppb	14.06	0.29%
QC value within limits for Al 396.153Radial Recovery = 97.33%								
As 188.979†	1575.0	483.07	µg/L	3.863	483.07	ppb	3.863	0.80%
QC value within limits for As 188.979 Recovery = 96.61%								
B 249.677†	31140.4	457.65	µg/L	0.653	457.65	ppb	0.653	0.14%
QC value within limits for B 249.677 Recovery = 91.53%								
Ba 233.527†	115564.7	466.07	µg/L	0.565	466.07	ppb	0.565	0.12%
QC value within limits for Ba 233.527 Recovery = 93.21%								
Be 313.107†	1737232.2	473.14	µg/L	0.815	473.14	ppb	0.815	0.17%
QC value within limits for Be 313.107 Recovery = 94.63%								
Ca 317.933Radial†	84238.5	4692.4	µg/L	2.45	4692.4	ppb	2.45	0.05%
QC value within limits for Ca 317.933Radial Recovery = 93.85%								
Cd 226.502†	74008.6	461.99	µg/L	0.454	461.99	ppb	0.454	0.10%
QC value within limits for Cd 226.502 Recovery = 92.40%								
Co 228.616†	37788.3	466.49	µg/L	1.113	466.49	ppb	1.113	0.24%

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   QC value within limits for Co 228.616  Recovery = 93.30%
Cr 267.716†            59013.0      462.07 µg/L        1.151      462.07 ppb          1.151   0.25%
   QC value within limits for Cr 267.716  Recovery = 92.41%
Cu 324.752†           119554.4      466.05 µg/L        0.418      466.05 ppb          0.418   0.09%
   QC value within limits for Cu 324.752  Recovery = 93.21%
Fe 238.204 Radial†     76417.3      4709.9 µg/L         5.74      4709.9 ppb           5.74   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.20%
K 766.490 Radial†      13219.9      4836.1 µg/L        27.38      4836.1 ppb          27.38   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 96.72%
Mg 279.077 IEC†        12776.5      4767.6 µg/L        18.58      4767.6 ppb          18.58   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.35%
Mn 257.610†           378593.4      468.23 µg/L        0.721      468.23 ppb          0.721   0.15%
   QC value within limits for Mn 257.610  Recovery = 93.65%
Mo 202.031†            15693.5      461.64 µg/L        2.746      461.64 ppb          2.746   0.59%
   QC value within limits for Mo 202.031  Recovery = 92.33%
Na 589.592 Radial†     69440.4      9482.1 µg/L        12.43      9482.1 ppb          12.43   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 94.82%
Ni 231.604†            40284.4      463.85 µg/L        0.681      463.85 ppb          0.681   0.15%
   QC value within limits for Ni 231.604  Recovery = 92.77%
P 214.914†             10782.8      2298.2 µg/L        14.60      2298.2 ppb          14.60   0.64%
   QC value within limits for P 214.914  Recovery = 91.93%
Pb 220.353†             8299.1      464.75 µg/L        3.754      464.75 ppb          3.754   0.81%
   QC value within limits for Pb 220.353  Recovery = 92.95%
S 181.975 Axial†        1220.1      909.90 µg/L        8.718      909.90 ppb          8.718   0.96%
   QC value within limits for S 181.975 Axial  Recovery = 90.99%
Sb 206.836†             3843.9      457.98 µg/L        1.718      457.98 ppb          1.718   0.38%
   QC value within limits for Sb 206.836  Recovery = 91.60%
Se 196.026†             1258.3         457 µg/L          1.4         457 ppb            1.4   0.30%
   QC value within limits for Se 196.026  Recovery = 91.39%
SiO2†                  50323.4      4898.9 µg/L         8.76      4898.9 ppb           8.76   0.18%
   QC value within limits for SiO2  Recovery = 91.61%
Si 251.611†           156618.3      2299.8 µg/L         3.23      2299.8 ppb           3.23   0.14%
   QC value within limits for Si 251.611  Recovery = 91.99%
Sn 189.927†             7383.1      461.83 µg/L        1.904      461.83 ppb          1.904   0.41%
   QC value within limits for Sn 189.927  Recovery = 92.37%
Sr 421.552†           229097.0      476.24 µg/L        3.195      476.24 ppb          3.195   0.67%
   QC value within limits for Sr 421.552  Recovery = 95.25%
Ti 334.940†           498722.9      465.35 µg/L        0.405      465.35 ppb          0.405   0.09%
   QC value within limits for Ti 334.940  Recovery = 93.07%
Tl 190.801†             3772.4      470.51 µg/L        1.479      470.51 ppb          1.479   0.31%
   QC value within limits for Tl 190.801  Recovery = 94.10%
U 409.014†              7231.1      451.10 µg/L       11.236      451.10 ppb         11.236   2.49%
   QC value within limits for U 409.014  Recovery = 90.22%
V 292.402†             94952.7      469.32 µg/L        0.308      469.32 ppb          0.308   0.07%
   QC value within limits for V 292.402  Recovery = 93.86%
Zn 213.857†            82290.9      458.62 µg/L        0.946      458.62 ppb          0.946   0.21%
   QC value within limits for Zn 213.857  Recovery = 91.72%
All analyte(s) passed QC.
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Sequence No.: 25
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 7:17:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144894.0	144894.0	99.3	%			07:18:15
1	Al 396.153Radial†	-60.2	2.5	0.4745	µg/L	0.4745	ppb	07:18:35
1	Ca 317.933Radial†	650.2	94.2	5.2485	µg/L	5.2485	ppb	07:18:35
1	Fe 238.204 Radial†	260.9	114.7	7.0666	µg/L	7.0666	ppb	07:18:35
1	K 766.490 Radial†	1743.9	211.6	77.460	µg/L	77.460	ppb	07:18:15
1	Mg 279.077 IEC†	168.3	-21.2	-7.8905	µg/L	-7.8905	ppb	07:18:35
1	Na 589.592 Radial†	1784.9	506.9	69.180	µg/L	69.180	ppb	07:18:15
1	Sr 421.552†	-213.5	-79.7	-0.1658	µg/L	-0.1658	ppb	07:18:15
1	Sc 361.383	1770863.5	1770863.5	103.06	%			07:19:23
1	Y 371.029	1054490.2	1054490.2	102.71	%			07:19:23
1	Ag 328.068†	4158.3	-56.7	-0.2179	µg/L	-0.2179	ppb	07:19:25
1	As 188.979†	-13.5	7.3	2.2031	µg/L	2.2031	ppb	07:19:45
1	B 249.677†	3391.4	-215.3	-3.1773	µg/L	-3.1773	ppb	07:19:25
1	Ba 233.527†	-132.3	7.5	0.0299	µg/L	0.0299	ppb	07:19:45
1	Be 313.107†	-856.5	233.6	0.0622	µg/L	0.0622	ppb	07:19:25
1	Cd 226.502†	-126.3	-4.4	-0.0280	µg/L	-0.0280	ppb	07:19:45
1	Co 228.616†	-166.9	28.3	0.3493	µg/L	0.3493	ppb	07:19:45
1	Cr 267.716†	189.8	5.6	0.0481	µg/L	0.0481	ppb	07:19:45
1	Cu 324.752†	3068.4	4.9	0.0163	µg/L	0.0163	ppb	07:19:25
1	Mn 257.610†	366.1	117.9	0.1462	µg/L	0.1462	ppb	07:19:45
1	Mo 202.031†	-24.1	-3.4	-0.0984	µg/L	-0.0984	ppb	07:19:45
1	Ni 231.604†	-96.2	-16.9	-0.1942	µg/L	-0.1942	ppb	07:19:45
1	P 214.914†	-30.9	-12.1	-2.5847	µg/L	-2.5847	ppb	07:19:45
1	Pb 220.353†	45.1	-42.6	-2.3754	µg/L	-2.3754	ppb	07:19:45
1	S 181.975 Axial†	97.2	-10.7	-7.9562	µg/L	-7.9562	ppb	07:19:45
1	Sb 206.836†	73.2	-9.8	-1.1686	µg/L	-1.1686	ppb	07:19:45
1	Se 196.026†	23.2	7.3	2.62	µg/L	2.62	ppb	07:19:45
1	SiO2†	1871.6	40.6	3.9693	µg/L	3.9693	ppb	07:19:45
1	Si 251.611†	1059.6	191.5	2.8238	µg/L	2.8238	ppb	07:19:25
1	Sn 189.927†	0.3	1.4	0.0884	µg/L	0.0884	ppb	07:19:45
1	Ti 334.940†	1196.8	208.7	0.1977	µg/L	0.1977	ppb	07:19:25
1	Tl 190.801†	-120.5	-0.2	-0.0259	µg/L	-0.0259	ppb	07:19:45
1	U 409.014†	-361.9	-81.3	-4.7620	µg/L	-4.7620	ppb	07:19:25
1	V 292.402†	384.8	-30.5	-0.1536	µg/L	-0.1536	ppb	07:19:25
1	Zn 213.857†	611.3	28.7	0.1616	µg/L	0.1616	ppb	07:19:45
2	Sc RADIAL	145521.1	145521.1	99.7	%			07:18:37
2	Al 396.153Radial†	-35.2	27.9	5.1474	µg/L	5.1474	ppb	07:18:57
2	Ca 317.933Radial†	623.9	65.1	3.6261	µg/L	3.6261	ppb	07:18:57
2	Fe 238.204 Radial†	222.2	74.7	4.6055	µg/L	4.6055	ppb	07:18:57
2	K 766.490 Radial†	1793.6	253.9	92.936	µg/L	92.936	ppb	07:18:37
2	Mg 279.077 IEC†	165.1	-25.1	-9.3623	µg/L	-9.3623	ppb	07:18:57
2	Na 589.592 Radial†	1538.6	252.1	34.354	µg/L	34.354	ppb	07:18:37
2	Sr 421.552†	-146.5	-11.7	-0.0243	µg/L	-0.0243	ppb	07:18:37
2	Sc 361.383	1759397.0	1759397.0	102.40	%			07:19:47
2	Y 371.029	1047911.7	1047911.7	102.07	%			07:19:47
2	Ag 328.068†	4258.3	67.2	0.2316	µg/L	0.2316	ppb	07:19:49
2	As 188.979†	-12.7	7.9	2.4012	µg/L	2.4012	ppb	07:20:10
2	B 249.677†	3505.2	-82.7	-1.2213	µg/L	-1.2213	ppb	07:19:49
2	Ba 233.527†	-104.4	33.9	0.1364	µg/L	0.1364	ppb	07:20:10
2	Be 313.107†	-1051.8	37.5	0.0076	µg/L	0.0076	ppb	07:19:49
2	Cd 226.502†	-125.2	-4.0	-0.0256	µg/L	-0.0256	ppb	07:20:10
2	Co 228.616†	-173.0	21.4	0.2638	µg/L	0.2638	ppb	07:20:10
2	Cr 267.716†	207.8	24.3	0.1972	µg/L	0.1972	ppb	07:20:10
2	Cu 324.752†	2833.5	-205.0	-0.8032	µg/L	-0.8032	ppb	07:19:49
2	Mn 257.610†	340.4	95.2	0.1182	µg/L	0.1182	ppb	07:20:10
2	Mo 202.031†	-4.2	16.0	0.4695	µg/L	0.4695	ppb	07:20:10
2	Ni 231.604†	-70.6	7.6	0.0871	µg/L	0.0871	ppb	07:20:10
2	P 214.914†	-18.2	0.2	0.0525	µg/L	0.0525	ppb	07:20:10
2	Pb 220.353†	52.6	-35.0	-1.9478	µg/L	-1.9478	ppb	07:20:10

2	S 181.975 Axial†	114.5	6.7	5.0067 µg/L	5.0067 ppb	07:20:10
2	Sb 206.836†	82.8	0.0	0.0059 µg/L	0.0059 ppb	07:20:10
2	Se 196.026†	17.9	2.2	0.800 µg/L	0.800 ppb	07:20:10
2	SiO2†	1868.1	49.0	4.7661 µg/L	4.7661 ppb	07:20:10
2	Si 251.611†	1373.5	504.8	7.4316 µg/L	7.4316 ppb	07:19:49
2	Sn 189.927†	9.6	10.5	0.6533 µg/L	0.6533 ppb	07:20:10
2	Ti 334.940†	1069.2	91.6	0.0899 µg/L	0.0899 ppb	07:19:49
2	Tl 190.801†	-122.3	-2.7	-0.3381 µg/L	-0.3381 ppb	07:20:10
2	U 409.014†	-424.3	-144.5	-8.4800 µg/L	-8.4800 ppb	07:19:49
2	V 292.402†	294.1	-116.6	-0.5692 µg/L	-0.5692 ppb	07:19:49
2	Zn 213.857†	656.8	77.0	0.4324 µg/L	0.4324 ppb	07:20:10
3	Sc RADIAL	146586.0	146586.0	100 %		07:18:59
3	Al 396.153Radial†	-94.7	-31.1	-5.7709 µg/L	-5.7709 ppb	07:19:19
3	Ca 317.933Radial†	627.7	64.3	3.5843 µg/L	3.5843 ppb	07:19:19
3	Fe 238.204 Radial†	209.2	60.2	3.7093 µg/L	3.7093 ppb	07:19:19
3	K 766.490 Radial†	1735.8	183.3	67.094 µg/L	67.094 ppb	07:18:59
3	Mg 279.077 IEC†	202.0	10.4	3.8715 µg/L	3.8715 ppb	07:19:19
3	Na 589.592 Radial†	1601.1	303.1	41.345 µg/L	41.345 ppb	07:18:59
3	Sr 421.552†	-166.1	-30.0	-0.0625 µg/L	-0.0625 ppb	07:18:59
3	Sc 361.383	1760888.9	1760888.9	102.48 %		07:20:12
3	Y 371.029	1048920.3	1048920.3	102.17 %		07:20:12
3	Ag 328.068†	4208.1	14.8	0.0389 µg/L	0.0389 ppb	07:20:14
3	As 188.979†	-5.2	15.3	4.6193 µg/L	4.6193 ppb	07:20:34
3	B 249.677†	3595.2	2.2	0.0320 µg/L	0.0320 ppb	07:20:14
3	Ba 233.527†	-113.4	25.2	0.1014 µg/L	0.1014 ppb	07:20:34
3	Be 313.107†	-831.8	253.1	0.0658 µg/L	0.0658 ppb	07:20:14
3	Cd 226.502†	-79.9	40.2	0.2505 µg/L	0.2505 ppb	07:20:34
3	Co 228.616†	-186.7	8.2	0.1004 µg/L	0.1004 ppb	07:20:34
3	Cr 267.716†	164.0	-18.5	-0.1369 µg/L	-0.1369 ppb	07:20:34
3	Cu 324.752†	2963.0	-81.0	-0.3227 µg/L	-0.3227 ppb	07:20:14
3	Mn 257.610†	342.7	97.2	0.1201 µg/L	0.1201 ppb	07:20:34
3	Mo 202.031†	-17.0	3.5	0.1023 µg/L	0.1023 ppb	07:20:34
3	Ni 231.604†	-117.2	-37.8	-0.4353 µg/L	-0.4353 ppb	07:20:34
3	P 214.914†	-46.5	-27.4	-5.8531 µg/L	-5.8531 ppb	07:20:34
3	Pb 220.353†	64.1	-23.8	-1.3218 µg/L	-1.3218 ppb	07:20:34
3	S 181.975 Axial†	98.0	-9.4	-6.9851 µg/L	-6.9851 ppb	07:20:34
3	Sb 206.836†	75.4	-7.2	-0.8539 µg/L	-0.8539 ppb	07:20:34
3	Se 196.026†	23.0	7.1	2.57 µg/L	2.57 ppb	07:20:34
3	SiO2†	1939.7	117.3	11.456 µg/L	11.456 ppb	07:20:34
3	Si 251.611†	1281.6	414.0	6.0982 µg/L	6.0982 ppb	07:20:14
3	Sn 189.927†	8.6	9.5	0.5921 µg/L	0.5921 ppb	07:20:34
3	Ti 334.940†	988.0	11.5	0.0148 µg/L	0.0148 ppb	07:20:14
3	Tl 190.801†	-115.0	4.5	0.5455 µg/L	0.5455 ppb	07:20:34
3	U 409.014†	-457.5	-176.5	-10.337 µg/L	-10.337 ppb	07:20:14
3	V 292.402†	360.5	-52.1	-0.2609 µg/L	-0.2609 ppb	07:20:14
3	Zn 213.857†	610.0	30.8	0.1755 µg/L	0.1755 ppb	07:20:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1763716.4	102.65	%	0.363				0.35%
Sc RADIAL	145667.0	99.8	%	0.59				0.59%
Y 371.029	1050440.7	102.31	%	0.345				0.34%
Ag 328.068†	8.4	0.0175	µg/L	0.22552	0.0175	ppb	0.22552	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.2	-0.0497	µg/L	5.47798	-0.0497	ppb	5.47798	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	10.2	3.0745	µg/L	1.34146	3.0745	ppb	1.34146	43.63%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-98.6	-1.4555	µg/L	1.61740	-1.4555	ppb	1.61740	111.12%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	22.2	0.0892	µg/L	0.05424	0.0892	ppb	0.05424	60.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	174.7	0.0452	µg/L	0.03257	0.0452	ppb	0.03257	72.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	74.6	4.1530	µg/L	0.94897	4.1530	ppb	0.94897	22.85%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.6	0.0656	µg/L	0.16011	0.0656	ppb	0.16011	244.04%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	19.3	0.2378	µg/L	0.12645	0.2378	ppb	0.12645	53.17%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 3.8      0.0361 µg/L       0.16737      0.0361 ppb        0.16737 462.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -93.7     -0.3699 µg/L       0.41180     -0.3699 ppb        0.41180 111.34%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         83.2      5.1271 µg/L       1.73839      5.1271 ppb        1.73839  33.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         216.2      79.163 µg/L       13.0045      79.163 ppb        13.0045  16.43%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -12.0     -4.4604 µg/L       7.25307     -4.4604 ppb        7.25307 162.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               103.4      0.1281 µg/L       0.01567      0.1281 ppb        0.01567  12.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.4      0.1578 µg/L       0.28799      0.1578 ppb        0.28799 182.51%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        354.0      48.293 µg/L       18.4231      48.293 ppb        18.4231  38.15%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -15.7     -0.1808 µg/L       0.26146     -0.1808 ppb        0.26146 144.62%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -13.1     -2.7951 µg/L       2.95840     -2.7951 ppb        2.95840 105.84%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -33.8     -1.8816 µg/L       0.52992     -1.8816 ppb        0.52992  28.16%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.5     -3.3115 µg/L       7.22011     -3.3115 ppb        7.22011 218.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -5.7     -0.6722 µg/L       0.60798     -0.6722 ppb        0.60798  90.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.5        2.00 µg/L         1.038        2.00 ppb          1.038  51.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      69.0      6.7304 µg/L       4.11166      6.7304 ppb        4.11166  61.09%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               370.1      5.4512 µg/L       2.37108      5.4512 ppb        2.37108  43.50%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.1      0.4446 µg/L       0.30998      0.4446 ppb        0.30998  69.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -40.5     -0.0842 µg/L       0.07323     -0.0842 ppb        0.07323  86.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               103.9      0.1008 µg/L       0.09194      0.1008 ppb        0.09194  91.24%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.5      0.0605 µg/L       0.44806      0.0605 ppb        0.44806 740.90%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -134.1     -7.8596 µg/L       2.83865     -7.8596 ppb        2.83865  36.12%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -66.4     -0.3279 µg/L       0.21579     -0.3279 ppb        0.21579  65.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                45.5      0.2565 µg/L       0.15245      0.2565 ppb        0.15245  59.43%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 35
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 7:36:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146332.2	146332.2	100	%			07:37:10
1	Al 396.153Radial†	26483.2	26473.6	4886.8	µg/L	4886.8	ppb	07:37:10
1	Ca 317.933Radial†	85410.3	84614.8	4713.4	µg/L	4713.4	ppb	07:37:10
1	Fe 238.204 Radial†	76905.7	76546.1	4717.8	µg/L	4717.8	ppb	07:37:10
1	K 766.490 Radial†	14725.5	13140.2	4806.9	µg/L	4806.9	ppb	07:37:10
1	Mg 279.077 IEC†	13076.5	12849.9	4794.9	µg/L	4794.9	ppb	07:37:10
1	Na 589.592 Radial†	70949.5	69463.5	9485.3	µg/L	9485.3	ppb	07:37:10
1	Sr 421.552†	227490.4	227000.0	471.88	µg/L	471.88	ppb	07:37:08
1	Sc 361.383	1755231.6	1755231.6	102.15	%			07:37:23
1	Y 371.029	1032858.8	1032858.8	100.60	%			07:37:23
1	Ag 328.068†	131287.2	124427.2	466.57	µg/L	466.57	ppb	07:37:23
1	As 188.979†	1606.3	1592.8	488.46	µg/L	488.46	ppb	07:37:43
1	B 249.677†	35587.4	31331.1	460.45	µg/L	460.45	ppb	07:37:23
1	Ba 233.527†	118532.4	116168.7	468.50	µg/L	468.50	ppb	07:37:23
1	Be 313.107†	1788909.7	1752250.2	477.23	µg/L	477.23	ppb	07:37:23
1	Cd 226.502†	76081.4	74595.2	465.65	µg/L	465.65	ppb	07:37:23
1	Co 228.616†	38631.1	38006.8	469.19	µg/L	469.19	ppb	07:37:23
1	Cr 267.716†	60873.7	59411.5	465.19	µg/L	465.19	ppb	07:37:23
1	Cu 324.752†	125667.5	120045.2	467.96	µg/L	467.96	ppb	07:37:23
1	Mn 257.610†	389098.7	380656.2	470.78	µg/L	470.78	ppb	07:37:23
1	Mo 202.031†	15951.4	15635.1	459.93	µg/L	459.93	ppb	07:37:43
1	Ni 231.604†	41430.3	40633.1	467.86	µg/L	467.86	ppb	07:37:23
1	P 214.914†	10955.5	10742.4	2289.6	µg/L	2289.6	ppb	07:37:43
1	Pb 220.353†	8573.3	8306.1	465.15	µg/L	465.15	ppb	07:37:43
1	S 181.975 Axial†	1341.1	1207.7	900.72	µg/L	900.72	ppb	07:37:43
1	Sb 206.836†	3999.7	3834.5	456.79	µg/L	456.79	ppb	07:37:43
1	Se 196.026†	1291.4	1248.9	454	µg/L	454	ppb	07:37:43
1	SiO2†	53486.7	50583.4	4924.4	µg/L	4924.4	ppb	07:37:23
1	Si 251.611†	161279.1	157041.5	2306.1	µg/L	2306.1	ppb	07:37:23
1	Sn 189.927†	7483.5	7326.8	458.32	µg/L	458.32	ppb	07:37:43
1	Ti 334.940†	511921.3	500173.5	466.70	µg/L	466.70	ppb	07:37:23
1	Tl 190.801†	3750.3	3787.9	472.43	µg/L	472.43	ppb	07:37:43
1	U 409.014†	7033.0	7154.6	446.72	µg/L	446.72	ppb	07:37:23
1	V 292.402†	97690.8	95226.9	470.65	µg/L	470.65	ppb	07:37:23
1	Zn 213.857†	85107.7	82748.5	461.16	µg/L	461.16	ppb	07:37:23
2	Sc RADIAL	144707.9	144707.9	99.2	%			07:37:14
2	Al 396.153Radial†	26071.0	26354.4	4864.4	µg/L	4864.4	ppb	07:37:14
2	Ca 317.933Radial†	84110.0	84259.6	4693.6	µg/L	4693.6	ppb	07:37:14
2	Fe 238.204 Radial†	75848.7	76341.0	4705.2	µg/L	4705.2	ppb	07:37:14
2	K 766.490 Radial†	14646.3	13225.2	4838.1	µg/L	4838.1	ppb	07:37:14
2	Mg 279.077 IEC†	12854.6	12772.4	4766.2	µg/L	4766.2	ppb	07:37:14
2	Na 589.592 Radial†	70049.9	69350.6	9469.8	µg/L	9469.8	ppb	07:37:14
2	Sr 421.552†	225976.1	228019.4	474.00	µg/L	474.00	ppb	07:37:12
2	Sc 361.383	1732373.4	1732373.4	100.82	%			07:37:46
2	Y 371.029	1019781.4	1019781.4	99.327	%			07:37:46
2	Ag 328.068†	128939.1	123794.1	464.22	µg/L	464.22	ppb	07:37:46
2	As 188.979†	1606.1	1613.3	494.68	µg/L	494.68	ppb	07:38:06
2	B 249.677†	34981.4	31189.6	458.37	µg/L	458.37	ppb	07:37:46
2	Ba 233.527†	116962.9	116143.0	468.40	µg/L	468.40	ppb	07:37:46
2	Be 313.107†	1757200.1	1743906.2	474.96	µg/L	474.96	ppb	07:37:46
2	Cd 226.502†	74602.4	74111.0	462.63	µg/L	462.63	ppb	07:37:46
2	Co 228.616†	37925.3	37805.7	466.71	µg/L	466.71	ppb	07:37:46
2	Cr 267.716†	59873.6	59205.8	463.58	µg/L	463.58	ppb	07:37:46
2	Cu 324.752†	123849.5	119865.3	467.26	µg/L	467.26	ppb	07:37:46
2	Mn 257.610†	382644.8	379280.8	469.08	µg/L	469.08	ppb	07:37:46
2	Mo 202.031†	15964.6	15854.2	466.36	µg/L	466.36	ppb	07:38:06
2	Ni 231.604†	40667.9	40412.1	465.32	µg/L	465.32	ppb	07:37:46
2	P 214.914†	10979.6	10907.8	2324.9	µg/L	2324.9	ppb	07:38:06
2	Pb 220.353†	8578.3	8421.9	471.62	µg/L	471.62	ppb	07:38:06

2	S 181.975 Axial†	1356.5	1240.4	925.03 µg/L	925.03 ppb	07:38:06
2	Sb 206.836†	4023.2	3909.5	465.83 µg/L	465.83 ppb	07:38:06
2	Se 196.026†	1307.9	1282.0	466 µg/L	466 ppb	07:38:06
2	SiO2†	52465.9	50261.8	4892.7 µg/L	4892.7 ppb	07:37:46
2	Si 251.611†	158344.0	156213.6	2293.7 µg/L	2293.7 ppb	07:37:46
2	Sn 189.927†	7531.9	7471.5	467.34 µg/L	467.34 ppb	07:38:06
2	Ti 334.940†	504721.3	499644.5	466.21 µg/L	466.21 ppb	07:37:46
2	Tl 190.801†	3747.8	3833.9	478.07 µg/L	478.07 ppb	07:38:06
2	U 409.014†	6972.2	7185.1	448.44 µg/L	448.44 ppb	07:37:46
2	V 292.402†	96211.2	95021.2	469.71 µg/L	469.71 ppb	07:37:46
2	Zn 213.857†	83793.7	82544.6	460.03 µg/L	460.03 ppb	07:37:46
3	Sc RADIAL	141223.7	141223.7	96.8 %		07:37:18
3	Al 396.153Radial†	25588.7	26504.6	4892.4 µg/L	4892.4 ppb	07:37:18
3	Ca 317.933Radial†	81996.3	84168.1	4688.5 µg/L	4688.5 ppb	07:37:18
3	Fe 238.204 Radial†	74078.2	76398.7	4708.7 µg/L	4708.7 ppb	07:37:18
3	K 766.490 Radial†	14283.7	13215.0	4834.3 µg/L	4834.3 ppb	07:37:18
3	Mg 279.077 IEC†	12579.8	12808.3	4779.5 µg/L	4779.5 ppb	07:37:18
3	Na 589.592 Radial†	68912.4	69918.0	9547.3 µg/L	9547.3 ppb	07:37:18
3	Sr 421.552†	225704.2	233360.7	485.11 µg/L	485.11 ppb	07:37:16
3	Sc 361.383	1737200.3	1737200.3	101.10 %		07:38:09
3	Y 371.029	1023000.6	1023000.6	99.641 %		07:38:09
3	Ag 328.068†	129804.6	124294.8	466.08 µg/L	466.08 ppb	07:38:09
3	As 188.979†	1584.4	1587.5	486.86 µg/L	486.86 ppb	07:38:29
3	B 249.677†	35144.5	31254.5	459.33 µg/L	459.33 ppb	07:38:09
3	Ba 233.527†	117342.7	116196.3	468.62 µg/L	468.62 ppb	07:38:09
3	Be 313.107†	1762901.5	1744702.7	475.18 µg/L	475.18 ppb	07:38:09
3	Cd 226.502†	74911.5	74211.1	463.25 µg/L	463.25 ppb	07:38:09
3	Co 228.616†	38084.9	37859.1	467.37 µg/L	467.37 ppb	07:38:09
3	Cr 267.716†	60063.8	59228.9	463.76 µg/L	463.76 ppb	07:38:09
3	Cu 324.752†	123874.8	119549.0	466.03 µg/L	466.03 ppb	07:38:09
3	Mn 257.610†	383642.9	379213.5	469.00 µg/L	469.00 ppb	07:38:09
3	Mo 202.031†	15929.7	15775.7	464.06 µg/L	464.06 ppb	07:38:29
3	Ni 231.604†	40689.2	40321.1	464.27 µg/L	464.27 ppb	07:38:09
3	P 214.914†	10943.5	10841.9	2310.9 µg/L	2310.9 ppb	07:38:29
3	Pb 220.353†	8527.3	8347.7	467.48 µg/L	467.48 ppb	07:38:29
3	S 181.975 Axial†	1341.1	1221.4	910.88 µg/L	910.88 ppb	07:38:29
3	Sb 206.836†	3977.1	3852.9	459.06 µg/L	459.06 ppb	07:38:29
3	Se 196.026†	1304.9	1275.4	463 µg/L	463 ppb	07:38:29
3	SiO2†	52742.2	50390.5	4905.4 µg/L	4905.4 ppb	07:38:09
3	Si 251.611†	159183.6	156607.6	2299.6 µg/L	2299.6 ppb	07:38:09
3	Sn 189.927†	7518.9	7437.9	465.24 µg/L	465.24 ppb	07:38:29
3	Ti 334.940†	505645.2	499167.4	465.76 µg/L	465.76 ppb	07:38:09
3	Tl 190.801†	3722.8	3798.8	473.75 µg/L	473.75 ppb	07:38:29
3	U 409.014†	7129.1	7321.1	456.39 µg/L	456.39 ppb	07:38:09
3	V 292.402†	96480.4	95022.4	469.70 µg/L	469.70 ppb	07:38:09
3	Zn 213.857†	83941.5	82459.8	459.57 µg/L	459.57 ppb	07:38:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1741601.8	101.36	%	0.701				0.69%
Sc RADIAL	144087.9	98.7	%	1.79				1.81%
Y 371.029	1025213.6	99.856	%	0.6637				0.66%
Ag 328.068†	124172.0	465.62	µg/L	1.242	465.62	ppb	1.242	0.27%
QC value within limits for Ag 328.068 Recovery = 93.12%								
Al 396.153Radial†	26444.2	4881.2	µg/L	14.80	4881.2	ppb	14.80	0.30%
QC value within limits for Al 396.153Radial Recovery = 97.62%								
As 188.979†	1597.9	490.00	µg/L	4.134	490.00	ppb	4.134	0.84%
QC value within limits for As 188.979 Recovery = 98.00%								
B 249.677†	31258.4	459.38	µg/L	1.040	459.38	ppb	1.040	0.23%
QC value within limits for B 249.677 Recovery = 91.88%								
Ba 233.527†	116169.3	468.51	µg/L	0.107	468.51	ppb	0.107	0.02%
QC value within limits for Ba 233.527 Recovery = 93.70%								
Be 313.107†	1746953.0	475.79	µg/L	1.253	475.79	ppb	1.253	0.26%
QC value within limits for Be 313.107 Recovery = 95.16%								
Ca 317.933Radial†	84347.5	4698.5	µg/L	13.15	4698.5	ppb	13.15	0.28%
QC value within limits for Ca 317.933Radial Recovery = 93.97%								
Cd 226.502†	74305.8	463.85	µg/L	1.597	463.85	ppb	1.597	0.34%
QC value within limits for Cd 226.502 Recovery = 92.77%								
Co 228.616†	37890.5	467.76	µg/L	1.285	467.76	ppb	1.285	0.27%

```
   QC value within limits for Co 228.616  Recovery = 93.55%
Cr 267.716†            59282.1      464.18 µg/L        0.885      464.18 ppb         0.885   0.19%
   QC value within limits for Cr 267.716  Recovery = 92.84%
Cu 324.752†           119819.8      467.08 µg/L        0.973      467.08 ppb         0.973   0.21%
   QC value within limits for Cu 324.752  Recovery = 93.42%
Fe 238.204 Radial†     76428.6      4710.6 µg/L         6.52      4710.6 ppb          6.52   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.21%
K 766.490 Radial†      13193.5      4826.4 µg/L        16.99      4826.4 ppb         16.99   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 96.53%
Mg 279.077 IEC†        12810.2      4780.2 µg/L        14.35      4780.2 ppb         14.35   0.30%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.60%
Mn 257.610†           379716.8      469.62 µg/L        1.007      469.62 ppb         1.007   0.21%
   QC value within limits for Mn 257.610  Recovery = 93.92%
Mo 202.031†            15755.0      463.45 µg/L        3.262      463.45 ppb         3.262   0.70%
   QC value within limits for Mo 202.031  Recovery = 92.69%
Na 589.592 Radial†     69577.4      9500.8 µg/L        41.02      9500.8 ppb         41.02   0.43%
   QC value within limits for Na 589.592 Radial  Recovery = 95.01%
Ni 231.604†            40455.5      465.82 µg/L        1.848      465.82 ppb         1.848   0.40%
   QC value within limits for Ni 231.604  Recovery = 93.16%
P 214.914†             10830.7      2308.5 µg/L        17.82      2308.5 ppb         17.82   0.77%
   QC value within limits for P 214.914  Recovery = 92.34%
Pb 220.353†             8358.6      468.08 µg/L        3.280      468.08 ppb         3.280   0.70%
   QC value within limits for Pb 220.353  Recovery = 93.62%
S 181.975 Axial†        1223.2      912.21 µg/L       12.211      912.21 ppb        12.211   1.34%
   QC value within limits for S 181.975 Axial  Recovery = 91.22%
Sb 206.836†             3865.6      460.56 µg/L        4.702      460.56 ppb         4.702   1.02%
   QC value within limits for Sb 206.836  Recovery = 92.11%
Se 196.026†             1268.7         461 µg/L          6.3         461 ppb           6.3   1.37%
   QC value within limits for Se 196.026  Recovery = 92.15%
SiO2†                  50411.9      4907.5 µg/L        15.98      4907.5 ppb         15.98   0.33%
   QC value within limits for SiO2  Recovery = 91.77%
Si 251.611†           156620.9      2299.8 µg/L         6.18      2299.8 ppb          6.18   0.27%
   QC value within limits for Si 251.611  Recovery = 91.99%
Sn 189.927†             7412.1      463.64 µg/L        4.721      463.64 ppb         4.721   1.02%
   QC value within limits for Sn 189.927  Recovery = 92.73%
Sr 421.552†           229460.1      477.00 µg/L        7.102      477.00 ppb         7.102   1.49%
   QC value within limits for Sr 421.552  Recovery = 95.40%
Ti 334.940†           499661.8      466.22 µg/L        0.472      466.22 ppb         0.472   0.10%
   QC value within limits for Ti 334.940  Recovery = 93.24%
Tl 190.801†             3806.8      474.75 µg/L        2.949      474.75 ppb         2.949   0.62%
   QC value within limits for Tl 190.801  Recovery = 94.95%
U 409.014†              7220.3      450.52 µg/L        5.160      450.52 ppb         5.160   1.15%
   QC value within limits for U 409.014  Recovery = 90.10%
V 292.402†             95090.2      470.02 µg/L        0.547      470.02 ppb         0.547   0.12%
   QC value within limits for V 292.402  Recovery = 94.00%
Zn 213.857†            82584.3      460.25 µg/L        0.820      460.25 ppb         0.820   0.18%
   QC value within limits for Zn 213.857  Recovery = 92.05%
All analyte(s) passed QC.
```

Sequence No.: 36 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/1/2010 7:38:37**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144865.0	144865.0	99.3	%			07:39:06
1	Al 396.153Radial†	-66.2	-3.5	-0.6374	µg/L	-0.6374	ppb	07:39:26
1	Ca 317.933Radial†	646.3	90.4	5.0369	µg/L	5.0369	ppb	07:39:26
1	Fe 238.204 Radial†	209.7	63.1	3.8916	µg/L	3.8916	ppb	07:39:26
1	K 766.490 Radial†	1684.9	152.5	55.831	µg/L	55.831	ppb	07:39:06
1	Mg 279.077 IEC†	193.5	4.2	1.5669	µg/L	1.5669	ppb	07:39:26
1	Na 589.592 Radial†	1877.6	600.6	82.000	µg/L	82.000	ppb	07:39:06
1	Sr 421.552†	-73.3	61.5	0.1277	µg/L	0.1277	ppb	07:39:06
1	Sc 361.383	1773972.1	1773972.1	103.24	%			07:40:28
1	Y 371.029	1054718.2	1054718.2	102.73	%			07:40:28
1	Ag 328.068†	4048.7	-169.9	-0.6302	µg/L	-0.6302	ppb	07:40:30
1	As 188.979†	-24.0	-2.9	-0.8728	µg/L	-0.8728	ppb	07:40:50
1	B 249.677†	3528.9	-87.9	-1.2976	µg/L	-1.2976	ppb	07:40:30
1	Ba 233.527†	-121.1	18.6	0.0744	µg/L	0.0744	ppb	07:40:50
1	Be 313.107†	-1294.9	-189.5	-0.0502	µg/L	-0.0502	ppb	07:40:30
1	Cd 226.502†	-130.2	-7.9	-0.0499	µg/L	-0.0499	ppb	07:40:50
1	Co 228.616†	-161.9	33.5	0.4127	µg/L	0.4127	ppb	07:40:50
1	Cr 267.716†	184.3	-0.1	-0.0047	µg/L	-0.0047	ppb	07:40:50
1	Cu 324.752†	2904.6	-158.9	-0.6127	µg/L	-0.6127	ppb	07:40:30
1	Mn 257.610†	324.4	76.9	0.0951	µg/L	0.0951	ppb	07:40:50
1	Mo 202.031†	-23.3	-2.5	-0.0725	µg/L	-0.0725	ppb	07:40:50
1	Ni 231.604†	-135.9	-55.1	-0.6345	µg/L	-0.6345	ppb	07:40:50
1	P 214.914†	-41.1	-21.9	-4.6744	µg/L	-4.6744	ppb	07:40:50
1	Pb 220.353†	68.5	-20.0	-1.1214	µg/L	-1.1214	ppb	07:40:50
1	S 181.975 Axial†	100.6	-7.6	-5.6585	µg/L	-5.6585	ppb	07:40:50
1	Sb 206.836†	68.4	-14.6	-1.7404	µg/L	-1.7404	ppb	07:40:50
1	Se 196.026†	18.3	2.5	0.908	µg/L	0.908	ppb	07:40:50
1	SiO2†	1820.7	-11.9	-1.1560	µg/L	-1.1560	ppb	07:40:50
1	Si 251.611†	1068.4	198.3	2.9249	µg/L	2.9249	ppb	07:40:30
1	Sn 189.927†	-3.3	-2.1	-0.1293	µg/L	-0.1293	ppb	07:40:50
1	Ti 334.940†	988.4	4.8	0.0025	µg/L	0.0025	ppb	07:40:30
1	Tl 190.801†	-106.3	13.7	1.6801	µg/L	1.6801	ppb	07:40:50
1	U 409.014†	-194.8	81.2	4.7170	µg/L	4.7170	ppb	07:40:30
1	V 292.402†	299.5	-113.7	-0.5526	µg/L	-0.5526	ppb	07:40:30
1	Zn 213.857†	620.0	36.1	0.2071	µg/L	0.2071	ppb	07:40:50
2	Sc RADIAL	144677.4	144677.4	99.1	%			07:39:28
2	Al 396.153Radial†	-26.2	36.8	6.7962	µg/L	6.7962	ppb	07:39:48
2	Ca 317.933Radial†	616.3	61.0	3.3989	µg/L	3.3989	ppb	07:39:48
2	Fe 238.204 Radial†	188.1	41.6	2.5644	µg/L	2.5644	ppb	07:39:48
2	K 766.490 Radial†	1793.5	264.2	96.730	µg/L	96.730	ppb	07:39:28
2	Mg 279.077 IEC†	186.7	-2.4	-0.8687	µg/L	-0.8687	ppb	07:39:48
2	Na 589.592 Radial†	1666.4	390.0	53.197	µg/L	53.197	ppb	07:39:28
2	Sr 421.552†	-22.1	112.9	0.2348	µg/L	0.2348	ppb	07:39:28
2	Sc 361.383	1735344.8	1735344.8	101.00	%			07:40:52
2	Y 371.029	1033478.9	1033478.9	100.66	%			07:40:52
2	Ag 328.068†	4113.3	-18.7	-0.0838	µg/L	-0.0838	ppb	07:40:54
2	As 188.979†	-13.0	7.5	2.2661	µg/L	2.2661	ppb	07:41:15
2	B 249.677†	3521.9	-18.8	-0.2777	µg/L	-0.2777	ppb	07:40:54
2	Ba 233.527†	-142.6	-5.3	-0.0217	µg/L	-0.0217	ppb	07:41:15
2	Be 313.107†	-1309.9	-232.3	-0.0650	µg/L	-0.0650	ppb	07:40:54
2	Cd 226.502†	-113.5	5.9	0.0362	µg/L	0.0362	ppb	07:41:15
2	Co 228.616†	-176.9	15.2	0.1873	µg/L	0.1873	ppb	07:41:15
2	Cr 267.716†	160.2	-20.0	-0.1524	µg/L	-0.1524	ppb	07:41:15
2	Cu 324.752†	2852.4	-148.0	-0.5794	µg/L	-0.5794	ppb	07:40:54
2	Mn 257.610†	315.5	75.1	0.0930	µg/L	0.0930	ppb	07:41:15
2	Mo 202.031†	-7.2	12.9	0.3792	µg/L	0.3792	ppb	07:41:15
2	Ni 231.604†	-99.6	-22.1	-0.2540	µg/L	-0.2540	ppb	07:41:15
2	P 214.914†	-15.0	3.1	0.6539	µg/L	0.6539	ppb	07:41:15
2	Pb 220.353†	70.7	-16.4	-0.9094	µg/L	-0.9094	ppb	07:41:15

2	S 181.975 Axial†	109.8	3.6	2.7121 µg/L	2.7121 ppb	07:41:15
2	Sb 206.836†	77.7	-3.8	-0.4510 µg/L	-0.4510 ppb	07:41:15
2	Se 196.026†	17.9	2.5	0.895 µg/L	0.895 ppb	07:41:15
2	SiO2†	1835.6	42.1	4.1047 µg/L	4.1047 ppb	07:41:15
2	Si 251.611†	942.4	96.6	1.4199 µg/L	1.4199 ppb	07:40:54
2	Sn 189.927†	-4.2	-3.0	-0.1897 µg/L	-0.1897 ppb	07:41:15
2	Ti 334.940†	926.0	-35.7	-0.0308 µg/L	-0.0308 ppb	07:40:54
2	Tl 190.801†	-106.4	11.4	1.3896 µg/L	1.3896 ppb	07:41:15
2	U 409.014†	-370.7	-97.2	-5.7184 µg/L	-5.7184 ppb	07:40:54
2	V 292.402†	279.0	-127.6	-0.6232 µg/L	-0.6232 ppb	07:40:54
2	Zn 213.857†	604.2	33.8	0.1918 µg/L	0.1918 ppb	07:41:15
3	Sc RADIAL	144023.3	144023.3	98.7 %		07:39:50
3	Al 396.153Radial†	-82.0	-19.8	-3.6906 µg/L	-3.6906 ppb	07:40:10
3	Ca 317.933Radial†	602.8	50.2	2.7958 µg/L	2.7958 ppb	07:40:10
3	Fe 238.204 Radial†	180.4	34.7	2.1375 µg/L	2.1375 ppb	07:40:10
3	K 766.490 Radial†	1784.0	262.8	96.205 µg/L	96.205 ppb	07:39:50
3	Mg 279.077 IEC†	175.6	-12.7	-4.7423 µg/L	-4.7423 ppb	07:40:10
3	Na 589.592 Radial†	1732.1	464.3	63.340 µg/L	63.340 ppb	07:39:50
3	Sr 421.552†	-195.2	-62.5	-0.1299 µg/L	-0.1299 ppb	07:39:50
3	Sc 361.383	1741408.4	1741408.4	101.35 %		07:41:17
3	Y 371.029	1036750.9	1036750.9	100.98 %		07:41:17
3	Ag 328.068†	4133.8	-12.7	-0.0489 µg/L	-0.0489 ppb	07:41:19
3	As 188.979†	-23.0	-2.3	-0.6982 µg/L	-0.6982 ppb	07:41:39
3	B 249.677†	3567.6	14.2	0.2094 µg/L	0.2094 ppb	07:41:19
3	Ba 233.527†	-111.8	25.5	0.1031 µg/L	0.1031 ppb	07:41:39
3	Be 313.107†	-1058.7	20.1	0.0047 µg/L	0.0047 ppb	07:41:19
3	Cd 226.502†	-95.9	23.6	0.1471 µg/L	0.1471 ppb	07:41:39
3	Co 228.616†	-177.4	15.3	0.1888 µg/L	0.1888 ppb	07:41:39
3	Cr 267.716†	169.4	-11.4	-0.0874 µg/L	-0.0874 ppb	07:41:39
3	Cu 324.752†	2962.9	-48.8	-0.1916 µg/L	-0.1916 ppb	07:41:19
3	Mn 257.610†	307.6	66.3	0.0822 µg/L	0.0822 ppb	07:41:39
3	Mo 202.031†	-10.0	10.2	0.3008 µg/L	0.3008 ppb	07:41:39
3	Ni 231.604†	-92.4	-14.6	-0.1686 µg/L	-0.1686 ppb	07:41:39
3	P 214.914†	-29.9	-11.6	-2.4772 µg/L	-2.4772 ppb	07:41:39
3	Pb 220.353†	85.8	-1.7	-0.0930 µg/L	-0.0930 ppb	07:41:39
3	S 181.975 Axial†	103.2	-3.3	-2.4139 µg/L	-2.4139 ppb	07:41:39
3	Sb 206.836†	82.0	0.1	0.0120 µg/L	0.0120 ppb	07:41:39
3	Se 196.026†	16.4	0.9	0.318 µg/L	0.318 ppb	07:41:39
3	SiO2†	1798.2	-1.1	-0.1172 µg/L	-0.1172 ppb	07:41:39
3	Si 251.611†	1068.4	217.6	3.2043 µg/L	3.2043 ppb	07:41:19
3	Sn 189.927†	-2.9	-1.8	-0.1096 µg/L	-0.1096 ppb	07:41:39
3	Ti 334.940†	1014.3	48.3	0.0467 µg/L	0.0467 ppb	07:41:19
3	Tl 190.801†	-117.5	0.7	0.0900 µg/L	0.0900 ppb	07:41:39
3	U 409.014†	-319.9	-45.8	-2.6697 µg/L	-2.6697 ppb	07:41:19
3	V 292.402†	434.4	24.9	0.1219 µg/L	0.1219 ppb	07:41:19
3	Zn 213.857†	631.5	58.7	0.3307 µg/L	0.3307 ppb	07:41:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1750241.8	101.86	%	1.209				1.19%
Sc RADIAL	144521.9	99.0	%	0.30				0.31%
Y 371.029	1041649.4	101.46	%	1.114				1.10%
Ag 328.068†	-67.1	-0.2543	µg/L	0.32602	-0.2543	ppb	0.32602	128.19%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.5	0.8227	µg/L	5.39375	0.8227	ppb	5.39375	655.58%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.8	0.2317	µg/L	1.76401	0.2317	ppb	1.76401	761.32%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-30.8	-0.4553	µg/L	0.76905	-0.4553	ppb	0.76905	168.90%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.9	0.0519	µg/L	0.06535	0.0519	ppb	0.06535	125.85%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-133.9	-0.0368	µg/L	0.03667	-0.0368	ppb	0.03667	99.59%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	67.2	3.7438	µg/L	1.15972	3.7438	ppb	1.15972	30.98%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.2	0.0445	µg/L	0.09877	0.0445	ppb	0.09877	222.10%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	21.3	0.2629	µg/L	0.12972	0.2629	ppb	0.12972	49.34%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -10.5     -0.0815 µg/L       0.07399     -0.0815 ppb        0.07399  90.79%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -118.6     -0.4613 µg/L       0.23410     -0.4613 ppb        0.23410  50.75%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        46.5      2.8645 µg/L       0.91478      2.8645 ppb        0.91478  31.94%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        226.5     82.922 µg/L       23.4629     82.922 ppb        23.4629  28.30%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -3.6     -1.3480 µg/L       3.18177     -1.3480 ppb        3.18177 236.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               72.8      0.0901 µg/L       0.00694      0.0901 ppb        0.00694   7.70%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                6.9      0.2025 µg/L       0.24136      0.2025 ppb        0.24136 119.21%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       485.0     66.179 µg/L       14.6100     66.179 ppb        14.6100  22.08%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -30.6     -0.3524 µg/L       0.24803     -0.3524 ppb        0.24803  70.39%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -10.1     -2.1659 µg/L       2.67771     -2.1659 ppb        2.67771 123.63%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -12.7     -0.7079 µg/L       0.54301     -0.7079 ppb        0.54301  76.70%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.4     -1.7867 µg/L       4.22040     -1.7867 ppb        4.22040 236.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -6.1     -0.7264 µg/L       0.90810     -0.7264 ppb        0.90810 125.01%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.0      0.707 µg/L        0.3367      0.707 ppb         0.3367  47.63%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      9.7      0.9439 µg/L       2.78623      0.9439 ppb        2.78623 295.20%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              170.8      2.5163 µg/L       0.95980      2.5163 ppb        0.95980  38.14%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -2.3     -0.1429 µg/L       0.04173     -0.1429 ppb        0.04173  29.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               37.3      0.0775 µg/L       0.18746      0.0775 ppb        0.18746 241.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                5.8      0.0061 µg/L       0.03889      0.0061 ppb        0.03889 633.97%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.6      1.0532 µg/L       0.84670      1.0532 ppb        0.84670  80.39%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -20.6     -1.2237 µg/L       5.36587     -1.2237 ppb        5.36587 438.49%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -72.1     -0.3513 µg/L       0.41132     -0.3513 ppb        0.41132 117.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               42.9      0.2432 µg/L       0.07619      0.2432 ppb        0.07619  31.33%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 46
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 8:00:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145715.3	145715.3	99.9	%			08:01:32
1	Al 396.153Radial†	26381.9	26484.0	4888.7	µg/L	4888.7	ppb	08:01:32
1	Ca 317.933Radial†	85101.3	84666.0	4716.2	µg/L	4716.2	ppb	08:01:32
1	Fe 238.204 Radial†	76948.8	76914.0	4740.5	µg/L	4740.5	ppb	08:01:32
1	K 766.490 Radial†	14844.0	13321.1	4873.1	µg/L	4873.1	ppb	08:01:32
1	Mg 279.077 IEC†	13019.7	12848.2	4794.2	µg/L	4794.2	ppb	08:01:32
1	Na 589.592 Radial†	71029.4	69843.2	9537.1	µg/L	9537.1	ppb	08:01:32
1	Sr 421.552†	226733.7	227202.7	472.30	µg/L	472.30	ppb	08:01:30
1	Sc 361.383	1733278.7	1733278.7	100.88	%			08:01:44
1	Y 371.029	1020878.7	1020878.7	99.434	%			08:01:44
1	Ag 328.068†	128877.0	123665.7	463.80	µg/L	463.80	ppb	08:01:44
1	As 188.979†	1571.7	1578.4	484.08	µg/L	484.08	ppb	08:02:05
1	B 249.677†	34899.0	31089.9	456.91	µg/L	456.91	ppb	08:01:44
1	Ba 233.527†	116754.5	115875.8	467.32	µg/L	467.32	ppb	08:01:44
1	Be 313.107†	1755392.5	1741204.0	474.24	µg/L	474.24	ppb	08:01:44
1	Cd 226.502†	74106.8	73581.0	459.31	µg/L	459.31	ppb	08:01:44
1	Co 228.616†	37838.7	37700.2	465.41	µg/L	465.41	ppb	08:01:44
1	Cr 267.716†	59758.3	59060.5	462.42	µg/L	462.42	ppb	08:01:44
1	Cu 324.752†	124172.2	120121.0	468.28	µg/L	468.28	ppb	08:01:44
1	Mn 257.610†	383112.4	379546.1	469.41	µg/L	469.41	ppb	08:01:44
1	Mo 202.031†	15799.6	15682.4	461.32	µg/L	461.32	ppb	08:02:05
1	Ni 231.604†	40408.5	40133.9	462.11	µg/L	462.11	ppb	08:01:44
1	P 214.914†	10759.6	10684.0	2277.0	µg/L	2277.0	ppb	08:02:05
1	Pb 220.353†	8394.7	8235.4	461.17	µg/L	461.17	ppb	08:02:05
1	S 181.975 Axial†	1311.6	1195.1	891.37	µg/L	891.37	ppb	08:02:05
1	Sb 206.836†	3976.3	3860.9	459.99	µg/L	459.99	ppb	08:02:05
1	Se 196.026†	1284.2	1257.8	457	µg/L	457	ppb	08:02:05
1	SiO2†	52555.6	50323.5	4899.0	µg/L	4899.0	ppb	08:01:44
1	Si 251.611†	158981.4	156763.4	2302.0	µg/L	2302.0	ppb	08:01:44
1	Sn 189.927†	7415.3	7352.0	459.90	µg/L	459.90	ppb	08:02:05
1	Ti 334.940†	506659.0	501304.0	467.74	µg/L	467.74	ppb	08:01:44
1	Tl 190.801†	3686.3	3771.0	470.38	µg/L	470.38	ppb	08:02:05
1	U 409.014†	7619.8	7823.5	485.81	µg/L	485.81	ppb	08:01:44
1	V 292.402†	96428.5	95186.8	470.48	µg/L	470.48	ppb	08:01:44
1	Zn 213.857†	83338.3	82049.7	457.27	µg/L	457.27	ppb	08:01:44
2	Sc RADIAL	142027.8	142027.8	97.3	%			08:01:36
2	Al 396.153Radial†	25747.8	26518.3	4894.9	µg/L	4894.9	ppb	08:01:36
2	Ca 317.933Radial†	82471.3	84176.5	4689.0	µg/L	4689.0	ppb	08:01:36
2	Fe 238.204 Radial†	74613.7	76515.5	4715.9	µg/L	4715.9	ppb	08:01:36
2	K 766.490 Radial†	14349.4	13198.9	4828.4	µg/L	4828.4	ppb	08:01:36
2	Mg 279.077 IEC†	12706.1	12864.4	4800.4	µg/L	4800.4	ppb	08:01:36
2	Na 589.592 Radial†	69331.4	69945.4	9551.1	µg/L	9551.1	ppb	08:01:36
2	Sr 421.552†	226873.5	233241.8	484.86	µg/L	484.86	ppb	08:01:34
2	Sc 361.383	1733104.6	1733104.6	100.87	%			08:02:08
2	Y 371.029	1021120.9	1021120.9	99.458	%			08:02:08
2	Ag 328.068†	129426.2	124223.1	465.82	µg/L	465.82	ppb	08:02:08
2	As 188.979†	1592.6	1599.3	490.42	µg/L	490.42	ppb	08:02:28
2	B 249.677†	35033.3	31226.5	458.92	µg/L	458.92	ppb	08:02:08
2	Ba 233.527†	116849.2	115981.4	467.75	µg/L	467.75	ppb	08:02:08
2	Be 313.107†	1758090.3	1744053.5	475.00	µg/L	475.00	ppb	08:02:08
2	Cd 226.502†	74443.5	73922.3	461.45	µg/L	461.45	ppb	08:02:08
2	Co 228.616†	37979.7	37843.7	467.18	µg/L	467.18	ppb	08:02:08
2	Cr 267.716†	59778.2	59086.2	462.64	µg/L	462.64	ppb	08:02:08
2	Cu 324.752†	124226.8	120187.5	468.52	µg/L	468.52	ppb	08:02:08
2	Mn 257.610†	383186.5	379657.8	469.55	µg/L	469.55	ppb	08:02:08
2	Mo 202.031†	15940.4	15823.5	465.46	µg/L	465.46	ppb	08:02:28
2	Ni 231.604†	40586.3	40314.2	464.19	µg/L	464.19	ppb	08:02:08
2	P 214.914†	10880.3	10804.8	2302.9	µg/L	2302.9	ppb	08:02:28
2	Pb 220.353†	8511.6	8352.1	467.72	µg/L	467.72	ppb	08:02:28

2	S 181.975 Axial†	1348.0	1231.4	918.34 µg/L	918.34 ppb	08:02:28
2	Sb 206.836†	4000.0	3884.8	462.89 µg/L	462.89 ppb	08:02:28
2	Se 196.026†	1293.9	1267.5	460 µg/L	460 ppb	08:02:28
2	SiO2†	52562.2	50335.3	4900.0 µg/L	4900.0 ppb	08:02:08
2	Si 251.611†	159042.6	156839.9	2303.0 µg/L	2303.0 ppb	08:02:08
2	Sn 189.927†	7463.6	7400.6	462.92 µg/L	462.92 ppb	08:02:28
2	Ti 334.940†	506039.5	500740.2	467.23 µg/L	467.23 ppb	08:02:08
2	Tl 190.801†	3699.3	3784.2	471.98 µg/L	471.98 ppb	08:02:28
2	U 409.014†	7125.9	7334.6	457.19 µg/L	457.19 ppb	08:02:08
2	V 292.402†	96287.2	95056.4	469.87 µg/L	469.87 ppb	08:02:08
2	Zn 213.857†	83549.5	82267.4	458.48 µg/L	458.48 ppb	08:02:08
3	Sc RADIAL	143341.2	143341.2	98.2 %		08:01:40
3	Al 396.153Radial†	26044.6	26578.1	4906.2 µg/L	4906.2 ppb	08:01:40
3	Ca 317.933Radial†	83104.8	84044.9	4681.6 µg/L	4681.6 ppb	08:01:40
3	Fe 238.204 Radial†	75412.0	76625.7	4722.7 µg/L	4722.7 ppb	08:01:40
3	K 766.490 Radial†	14496.9	13214.0	4833.9 µg/L	4833.9 ppb	08:01:40
3	Mg 279.077 IEC†	12748.0	12787.5	4771.6 µg/L	4771.6 ppb	08:01:40
3	Na 589.592 Radial†	69624.2	69590.7	9502.6 µg/L	9502.6 ppb	08:01:40
3	Sr 421.552†	225785.0	229997.6	478.11 µg/L	478.11 ppb	08:01:38
3	Sc 361.383	1744356.0	1744356.0	101.52 %		08:02:31
3	Y 371.029	1026919.1	1026919.1	100.02 %		08:02:31
3	Ag 328.068†	130072.0	124031.6	465.13 µg/L	465.13 ppb	08:02:31
3	As 188.979†	1587.7	1584.3	485.87 µg/L	485.87 ppb	08:02:51
3	B 249.677†	35315.9	31280.9	459.71 µg/L	459.71 ppb	08:02:31
3	Ba 233.527†	117642.8	116015.8	467.89 µg/L	467.89 ppb	08:02:31
3	Be 313.107†	1771054.6	1745580.9	475.42 µg/L	475.42 ppb	08:02:31
3	Cd 226.502†	74986.7	73981.3	461.82 µg/L	461.82 ppb	08:02:31
3	Co 228.616†	38300.5	37916.9	468.08 µg/L	468.08 ppb	08:02:31
3	Cr 267.716†	60087.1	59008.1	462.03 µg/L	462.03 ppb	08:02:31
3	Cu 324.752†	125055.9	120209.8	468.61 µg/L	468.61 ppb	08:02:31
3	Mn 257.610†	385650.6	379634.5	469.52 µg/L	469.52 ppb	08:02:31
3	Mo 202.031†	15861.8	15644.2	460.19 µg/L	460.19 ppb	08:02:51
3	Ni 231.604†	40921.5	40384.8	465.00 µg/L	465.00 ppb	08:02:31
3	P 214.914†	10852.0	10707.3	2282.0 µg/L	2282.0 ppb	08:02:51
3	Pb 220.353†	8455.9	8242.8	461.61 µg/L	461.61 ppb	08:02:51
3	S 181.975 Axial†	1319.7	1194.9	891.17 µg/L	891.17 ppb	08:02:51
3	Sb 206.836†	3977.3	3836.9	457.12 µg/L	457.12 ppb	08:02:51
3	Se 196.026†	1290.9	1256.3	456 µg/L	456 ppb	08:02:51
3	SiO2†	52909.6	50341.4	4900.8 µg/L	4900.8 ppb	08:02:31
3	Si 251.611†	160085.1	156849.7	2303.3 µg/L	2303.3 ppb	08:02:31
3	Sn 189.927†	7427.1	7317.0	457.71 µg/L	457.71 ppb	08:02:51
3	Ti 334.940†	509665.6	501076.0	467.54 µg/L	467.54 ppb	08:02:31
3	Tl 190.801†	3698.9	3760.1	469.03 µg/L	469.03 ppb	08:02:51
3	U 409.014†	7194.6	7356.7	458.58 µg/L	458.58 ppb	08:02:31
3	V 292.402†	97277.5	95416.1	471.57 µg/L	471.57 ppb	08:02:31
3	Zn 213.857†	84150.2	82324.8	458.80 µg/L	458.80 ppb	08:02:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1736913.1	101.09	%	0.375				0.37%
Sc RADIAL	143694.8	98.5	%	1.28				1.30%
Y 371.029	1022972.9	99.638	%	0.3331				0.33%
Ag 328.068†	123973.4	464.92	µg/L	1.028	464.92	ppb	1.028	0.22%
QC value within limits for Ag 328.068 Recovery = 92.98%								
Al 396.153Radial†	26526.8	4896.6	µg/L	8.88	4896.6	ppb	8.88	0.18%
QC value within limits for Al 396.153Radial Recovery = 97.93%								
As 188.979†	1587.3	486.79	µg/L	3.266	486.79	ppb	3.266	0.67%
QC value within limits for As 188.979 Recovery = 97.36%								
B 249.677†	31199.1	458.51	µg/L	1.446	458.51	ppb	1.446	0.32%
QC value within limits for B 249.677 Recovery = 91.70%								
Ba 233.527†	115957.7	467.65	µg/L	0.294	467.65	ppb	0.294	0.06%
QC value within limits for Ba 233.527 Recovery = 93.53%								
Be 313.107†	1743612.8	474.89	µg/L	0.600	474.89	ppb	0.600	0.13%
QC value within limits for Be 313.107 Recovery = 94.98%								
Ca 317.933Radial†	84295.8	4695.6	µg/L	18.23	4695.6	ppb	18.23	0.39%
QC value within limits for Ca 317.933Radial Recovery = 93.91%								
Cd 226.502†	73828.2	460.86	µg/L	1.352	460.86	ppb	1.352	0.29%
QC value within limits for Cd 226.502 Recovery = 92.17%								
Co 228.616†	37820.3	466.89	µg/L	1.360	466.89	ppb	1.360	0.29%

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   QC value within limits for Co 228.616  Recovery = 93.38%
Cr 267.716†            59051.6      462.36 µg/L        0.309      462.36 ppb          0.309   0.07%
   QC value within limits for Cr 267.716  Recovery = 92.47%
Cu 324.752†           120172.8      468.47 µg/L        0.166      468.47 ppb          0.166   0.04%
   QC value within limits for Cu 324.752  Recovery = 93.69%
Fe 238.204 Radial†     76685.1      4726.4 µg/L       12.68      4726.4 ppb          12.68   0.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.53%
K 766.490 Radial†      13244.6      4845.2 µg/L       24.40      4845.2 ppb          24.40   0.50%
   QC value within limits for K 766.490 Radial  Recovery = 96.90%
Mg 279.077 IEC†        12833.4      4788.8 µg/L       15.15      4788.8 ppb          15.15   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.78%
Mn 257.610†           379612.8      469.49 µg/L        0.073      469.49 ppb          0.073   0.02%
   QC value within limits for Mn 257.610  Recovery = 93.90%
Mo 202.031†            15716.7      462.32 µg/L        2.775      462.32 ppb          2.775   0.60%
   QC value within limits for Mo 202.031  Recovery = 92.46%
Na 589.592 Radial†     69793.1      9530.3 µg/L       24.94      9530.3 ppb          24.94   0.26%
   QC value within limits for Na 589.592 Radial  Recovery = 95.30%
Ni 231.604†            40277.6      463.77 µg/L        1.490      463.77 ppb          1.490   0.32%
   QC value within limits for Ni 231.604  Recovery = 92.75%
P 214.914†             10732.1      2287.3 µg/L       13.70      2287.3 ppb          13.70   0.60%
   QC value within limits for P 214.914  Recovery = 91.49%
Pb 220.353†             8276.8      463.50 µg/L        3.661      463.50 ppb          3.661   0.79%
   QC value within limits for Pb 220.353  Recovery = 92.70%
S 181.975 Axial†        1207.1      900.29 µg/L       15.630      900.29 ppb         15.630   1.74%
   QC value within limits for S 181.975 Axial  Recovery = 90.03%
Sb 206.836†             3860.9      460.00 µg/L        2.884      460.00 ppb          2.884   0.63%
   QC value within limits for Sb 206.836  Recovery = 92.00%
Se 196.026†             1260.5         458 µg/L          2.2         458 ppb            2.2   0.48%
   QC value within limits for Se 196.026  Recovery = 91.55%
SiO2†                  50333.4      4899.9 µg/L       0.91      4899.9 ppb           0.91   0.02%
   QC value within limits for SiO2  Recovery = 91.63%
Si 251.611†           156817.7      2302.8 µg/L       0.69      2302.8 ppb           0.69   0.03%
   QC value within limits for Si 251.611  Recovery = 92.11%
Sn 189.927†             7356.5      460.18 µg/L        2.617      460.18 ppb          2.617   0.57%
   QC value within limits for Sn 189.927  Recovery = 92.04%
Sr 421.552†           230147.4      478.43 µg/L        6.283      478.43 ppb          6.283   1.31%
   QC value within limits for Sr 421.552  Recovery = 95.69%
Ti 334.940†           501040.1      467.50 µg/L        0.260      467.50 ppb          0.260   0.06%
   QC value within limits for Ti 334.940  Recovery = 93.50%
Tl 190.801†             3771.8      470.46 µg/L        1.474      470.46 ppb          1.474   0.31%
   QC value within limits for Tl 190.801  Recovery = 94.09%
U 409.014†              7504.9      467.19 µg/L       16.134      467.19 ppb         16.134   3.45%
   QC value within limits for U 409.014  Recovery = 93.44%
V 292.402†             95219.8      470.64 µg/L        0.860      470.64 ppb          0.860   0.18%
   QC value within limits for V 292.402  Recovery = 94.13%
Zn 213.857†            82214.0      458.18 µg/L        0.807      458.18 ppb          0.807   0.18%
   QC value within limits for Zn 213.857  Recovery = 91.64%
All analyte(s) passed QC.
```

Sequence No.: 47
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 8:02:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145628.2	145628.2	99.8	%			08:03:27
1	Al 396.153Radial†	-41.4	21.8	4.0267	µg/L	4.0267	ppb	08:03:47
1	Ca 317.933Radial†	662.1	102.9	5.7304	µg/L	5.7304	ppb	08:03:47
1	Fe 238.204 Radial†	220.3	72.7	4.4780	µg/L	4.4780	ppb	08:03:47
1	K 766.490 Radial†	1855.8	314.9	115.28	µg/L	115.28	ppb	08:03:27
1	Mg 279.077 IEC†	185.7	-4.6	-1.7242	µg/L	-1.7242	ppb	08:03:47
1	Na 589.592 Radial†	1645.9	358.5	48.877	µg/L	48.877	ppb	08:03:27
1	Sr 421.552†	-216.0	-81.2	-0.1688	µg/L	-0.1688	ppb	08:03:27
1	Sc 361.383	1772962.4	1772962.4	103.19	%			08:04:49
1	Y 371.029	1055359.7	1055359.7	102.79	%			08:04:49
1	Ag 328.068†	3845.9	-364.2	-1.3449	µg/L	-1.3449	ppb	08:04:51
1	As 188.979†	-19.6	1.4	0.4131	µg/L	0.4131	ppb	08:05:11
1	B 249.677†	3453.9	-158.7	-2.3413	µg/L	-2.3413	ppb	08:05:11
1	Ba 233.527†	-154.1	-13.5	-0.0539	µg/L	-0.0539	ppb	08:05:11
1	Be 313.107†	-982.1	112.9	0.0301	µg/L	0.0301	ppb	08:04:51
1	Cd 226.502†	-101.4	19.9	0.1238	µg/L	0.1238	ppb	08:05:11
1	Co 228.616†	-169.9	25.6	0.3161	µg/L	0.3161	ppb	08:05:11
1	Cr 267.716†	209.9	24.9	0.1968	µg/L	0.1968	ppb	08:05:11
1	Cu 324.752†	2963.7	-100.0	-0.3898	µg/L	-0.3898	ppb	08:04:51
1	Mn 257.610†	342.0	94.2	0.1166	µg/L	0.1166	ppb	08:05:11
1	Mo 202.031†	-15.5	5.0	0.1485	µg/L	0.1485	ppb	08:05:11
1	Ni 231.604†	-76.3	2.6	0.0298	µg/L	0.0298	ppb	08:05:11
1	P 214.914†	-34.8	-15.8	-3.3664	µg/L	-3.3664	ppb	08:05:11
1	Pb 220.353†	88.2	-0.9	-0.0505	µg/L	-0.0505	ppb	08:05:11
1	S 181.975 Axial†	106.5	-1.8	-1.3434	µg/L	-1.3434	ppb	08:05:11
1	Sb 206.836†	82.2	-1.2	-0.1403	µg/L	-0.1403	ppb	08:05:11
1	Se 196.026†	9.5	-6.1	-2.19	µg/L	-2.19	ppb	08:05:11
1	SiO2†	1849.6	17.1	1.6601	µg/L	1.6601	ppb	08:05:11
1	Si 251.611†	1439.7	558.6	8.2303	µg/L	8.2303	ppb	08:04:51
1	Sn 189.927†	8.5	9.4	0.5836	µg/L	0.5836	ppb	08:05:11
1	Ti 334.940†	1110.7	123.9	0.1168	µg/L	0.1168	ppb	08:04:51
1	Tl 190.801†	-120.9	-0.5	-0.0523	µg/L	-0.0523	ppb	08:05:11
1	U 409.014†	-317.2	-37.5	-2.1586	µg/L	-2.1586	ppb	08:04:51
1	V 292.402†	536.8	116.5	0.5684	µg/L	0.5684	ppb	08:04:51
1	Zn 213.857†	622.5	38.8	0.2178	µg/L	0.2178	ppb	08:05:11
2	Sc RADIAL	144736.8	144736.8	99.2	%			08:03:49
2	Al 396.153Radial†	-5.4	57.8	10.716	µg/L	10.716	ppb	08:04:09
2	Ca 317.933Radial†	638.8	83.5	4.6507	µg/L	4.6507	ppb	08:04:09
2	Fe 238.204 Radial†	199.0	52.5	3.2358	µg/L	3.2358	ppb	08:04:09
2	K 766.490 Radial†	1832.5	302.9	110.87	µg/L	110.87	ppb	08:03:49
2	Mg 279.077 IEC†	172.3	-17.0	-6.3459	µg/L	-6.3459	ppb	08:04:09
2	Na 589.592 Radial†	1559.6	281.7	38.384	µg/L	38.384	ppb	08:03:49
2	Sr 421.552†	-158.9	-25.0	-0.0520	µg/L	-0.0520	ppb	08:03:49
2	Sc 361.383	1755862.9	1755862.9	102.19	%			08:05:13
2	Y 371.029	1046433.4	1046433.4	101.92	%			08:05:13
2	Ag 328.068†	4113.9	-65.7	-0.2519	µg/L	-0.2519	ppb	08:05:15
2	As 188.979†	-10.1	10.4	3.1568	µg/L	3.1568	ppb	08:05:36
2	B 249.677†	3507.8	-73.3	-1.0826	µg/L	-1.0826	ppb	08:05:36
2	Ba 233.527†	-110.8	27.5	0.1103	µg/L	0.1103	ppb	08:05:36
2	Be 313.107†	-1103.6	-15.2	-0.0050	µg/L	-0.0050	ppb	08:05:15
2	Cd 226.502†	-117.5	3.3	0.0199	µg/L	0.0199	ppb	08:05:36
2	Co 228.616†	-168.0	25.9	0.3197	µg/L	0.3197	ppb	08:05:36
2	Cr 267.716†	175.1	-7.2	-0.0542	µg/L	-0.0542	ppb	08:05:36
2	Cu 324.752†	3054.7	17.0	0.0642	µg/L	0.0642	ppb	08:05:15
2	Mn 257.610†	329.2	84.8	0.1052	µg/L	0.1052	ppb	08:05:36
2	Mo 202.031†	-20.1	0.4	0.0130	µg/L	0.0130	ppb	08:05:36
2	Ni 231.604†	-91.7	-13.2	-0.1524	µg/L	-0.1524	ppb	08:05:36
2	P 214.914†	-21.8	-3.3	-0.7117	µg/L	-0.7117	ppb	08:05:36
2	Pb 220.353†	84.3	-3.9	-0.2136	µg/L	-0.2136	ppb	08:05:36

2	S 181.975 Axial†	104.3	-3.0	-2.2411 µg/L	-2.2411 ppb	08:05:36
2	Sb 206.836†	89.8	7.0	0.8387 µg/L	0.8387 ppb	08:05:36
2	Se 196.026†	1.4	-13.9	-5.02 µg/L	-5.02 ppb	08:05:36
2	SiO2†	1846.4	31.5	3.0716 µg/L	3.0716 ppb	08:05:36
2	Si 251.611†	1143.4	282.3	4.1596 µg/L	4.1596 ppb	08:05:15
2	Sn 189.927†	4.4	5.4	0.3386 µg/L	0.3386 ppb	08:05:36
2	Ti 334.940†	1120.6	144.0	0.1364 µg/L	0.1364 ppb	08:05:15
2	Tl 190.801†	-106.6	12.4	1.5171 µg/L	1.5171 ppb	08:05:36
2	U 409.014†	-325.4	-48.5	-2.8597 µg/L	-2.8597 ppb	08:05:15
2	V 292.402†	323.4	-87.3	-0.4283 µg/L	-0.4283 ppb	08:05:15
2	Zn 213.857†	622.8	45.0	0.2539 µg/L	0.2539 ppb	08:05:36
3	Sc RADIAL	145477.8	145477.8	99.7 %		08:04:11
3	Al 396.153Radial†	-77.3	-14.3	-2.6373 µg/L	-2.6373 ppb	08:04:31
3	Ca 317.933Radial†	622.0	63.4	3.5300 µg/L	3.5300 ppb	08:04:31
3	Fe 238.204 Radial†	209.6	62.1	3.8302 µg/L	3.8302 ppb	08:04:31
3	K 766.490 Radial†	1767.4	228.1	83.522 µg/L	83.522 ppb	08:04:11
3	Mg 279.077 IEC†	189.8	-0.3	-0.1200 µg/L	-0.1200 ppb	08:04:31
3	Na 589.592 Radial†	1542.1	256.1	34.912 µg/L	34.912 ppb	08:04:11
3	Sr 421.552†	-247.0	-112.5	-0.2339 µg/L	-0.2339 ppb	08:04:11
3	Sc 361.383	1757498.0	1757498.0	102.29 %		08:05:38
3	Y 371.029	1046163.2	1046163.2	101.90 %		08:05:38
3	Ag 328.068†	4081.5	-101.1	-0.3861 µg/L	-0.3861 ppb	08:05:40
3	As 188.979†	-21.7	-0.9	-0.2729 µg/L	-0.2729 ppb	08:06:00
3	B 249.677†	3497.6	-86.4	-1.2757 µg/L	-1.2757 ppb	08:06:00
3	Ba 233.527†	-117.5	20.9	0.0838 µg/L	0.0838 ppb	08:06:00
3	Be 313.107†	-1224.2	-132.1	-0.0374 µg/L	-0.0374 ppb	08:05:40
3	Cd 226.502†	-120.6	0.3	0.0016 µg/L	0.0016 ppb	08:06:00
3	Co 228.616†	-167.5	26.5	0.3275 µg/L	0.3275 ppb	08:06:00
3	Cr 267.716†	212.2	28.9	0.2299 µg/L	0.2299 ppb	08:06:00
3	Cu 324.752†	2960.9	-77.5	-0.3044 µg/L	-0.3044 ppb	08:05:40
3	Mn 257.610†	341.8	96.9	0.1199 µg/L	0.1199 ppb	08:06:00
3	Mo 202.031†	-35.9	-15.0	-0.4404 µg/L	-0.4404 ppb	08:06:00
3	Ni 231.604†	-80.0	-1.7	-0.0190 µg/L	-0.0190 ppb	08:06:00
3	P 214.914†	-29.9	-11.3	-2.4030 µg/L	-2.4030 ppb	08:06:00
3	Pb 220.353†	74.9	-13.1	-0.7302 µg/L	-0.7302 ppb	08:06:00
3	S 181.975 Axial†	96.2	-11.0	-8.1599 µg/L	-8.1599 ppb	08:06:00
3	Sb 206.836†	86.8	4.0	0.4695 µg/L	0.4695 ppb	08:06:00
3	Se 196.026†	25.3	9.5	3.43 µg/L	3.43 ppb	08:06:00
3	SiO2†	1863.2	46.2	4.5164 µg/L	4.5164 ppb	08:06:00
3	Si 251.611†	1191.6	328.4	4.8443 µg/L	4.8443 ppb	08:05:40
3	Sn 189.927†	7.1	8.1	0.5052 µg/L	0.5052 ppb	08:06:00
3	Ti 334.940†	1016.0	40.7	0.0401 µg/L	0.0401 ppb	08:05:40
3	Tl 190.801†	-114.6	4.6	0.5612 µg/L	0.5612 ppb	08:06:00
3	U 409.014†	-360.8	-82.8	-4.8696 µg/L	-4.8696 ppb	08:05:40
3	V 292.402†	312.2	-98.5	-0.4880 µg/L	-0.4880 ppb	08:05:40
3	Zn 213.857†	619.5	41.2	0.2313 µg/L	0.2313 ppb	08:06:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1762107.8	102.55	%	0.549				0.54%
Sc RADIAL	145280.9	99.6	%	0.33				0.33%
Y 371.029	1049318.7	102.20	%	0.510				0.50%
Ag 328.068†	-177.0	-0.6610	µg/L	0.59608	-0.6610	ppb	0.59608	90.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	21.7	4.0352	µg/L	6.67681	4.0352	ppb	6.67681	165.46%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.6	1.0990	µg/L	1.81480	1.0990	ppb	1.81480	165.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-106.1	-1.5665	µg/L	0.67790	-1.5665	ppb	0.67790	43.27%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.6	0.0468	µg/L	0.08818	0.0468	ppb	0.08818	188.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-11.5	-0.0041	µg/L	0.03377	-0.0041	ppb	0.03377	820.09%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	83.2	4.6370	µg/L	1.10025	4.6370	ppb	1.10025	23.73%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.8	0.0484	µg/L	0.06589	0.0484	ppb	0.06589	136.09%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	26.0	0.3211	µg/L	0.00580	0.3211	ppb	0.00580	1.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                15.5      0.1242 µg/L       0.15538      0.1242 ppb        0.15538 125.13%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -53.5     -0.2100 µg/L       0.24125     -0.2100 ppb        0.24125 114.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         62.4      3.8480 µg/L       0.62128      3.8480 ppb        0.62128  16.15%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         282.0      103.22 µg/L        17.204      103.22 ppb         17.204  16.67%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -7.3     -2.7300 µg/L       3.23251     -2.7300 ppb        3.23251 118.41%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                92.0      0.1139 µg/L       0.00772      0.1139 ppb        0.00772   6.77%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.2     -0.0930 µg/L       0.30846     -0.0930 ppb        0.30846 331.79%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        298.8      40.725 µg/L        7.2706      40.725 ppb         7.2706  17.85%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -4.1     -0.0472 µg/L       0.09431     -0.0472 ppb        0.09431 199.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -10.1     -2.1604 µg/L       1.34386     -2.1604 ppb        1.34386  62.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.0     -0.3314 µg/L       0.35480     -0.3314 ppb        0.35480 107.05%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -5.3     -3.9148 µg/L       3.70368     -3.9148 ppb        3.70368  94.61%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.3      0.3893 µg/L       0.49436      0.3893 ppb        0.49436 126.99%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.5       -1.26 µg/L         4.304       -1.26 ppb          4.304 341.67%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      31.6      3.0827 µg/L       1.42818      3.0827 ppb        1.42818  46.33%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               389.8      5.7447 µg/L       2.17958      5.7447 ppb        2.17958  37.94%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.6      0.4758 µg/L       0.12512      0.4758 ppb        0.12512  26.30%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -72.9     -0.1515 µg/L       0.09218     -0.1515 ppb        0.09218  60.83%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               102.9      0.0978 µg/L       0.05090      0.0978 ppb        0.05090  52.07%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.5      0.6753 µg/L       0.79088      0.6753 ppb        0.79088 117.11%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -56.3     -3.2960 µg/L       1.40720     -3.2960 ppb        1.40720  42.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -23.1     -0.1160 µg/L       0.59344     -0.1160 ppb        0.59344 511.79%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                41.7      0.2343 µg/L       0.01822      0.2343 ppb        0.01822   7.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 56
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 8:22:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145023.7	145023.7	99.4	%			08:23:21
1	Al 396.153Radial†	26605.8	26835.2	4953.8	µg/L	4953.8	ppb	08:23:21
1	Ca 317.933Radial†	84755.5	84724.4	4719.5	µg/L	4719.5	ppb	08:23:21
1	Fe 238.204 Radial†	77816.7	78154.8	4817.0	µg/L	4817.0	ppb	08:23:21
1	K 766.490 Radial†	14700.0	13247.0	4846.0	µg/L	4846.0	ppb	08:23:21
1	Mg 279.077 IEC†	12943.9	12834.1	4788.9	µg/L	4788.9	ppb	08:23:21
1	Na 589.592 Radial†	70170.3	69317.9	9465.4	µg/L	9465.4	ppb	08:23:21
1	Sr 421.552†	226954.7	228507.9	475.02	µg/L	475.02	ppb	08:23:19
1	Sc 361.383	1749033.4	1749033.4	101.79	%			08:23:48
1	Y 371.029	1029735.6	1029735.6	100.30	%			08:23:48
1	Ag 328.068†	130447.0	124057.3	465.21	µg/L	465.21	ppb	08:23:48
1	As 188.979†	1579.9	1572.5	482.32	µg/L	482.32	ppb	08:24:08
1	B 249.677†	35292.3	31164.6	458.00	µg/L	458.00	ppb	08:23:48
1	Ba 233.527†	118145.5	116199.8	468.63	µg/L	468.63	ppb	08:23:48
1	Be 313.107†	1777066.9	1746821.9	475.75	µg/L	475.75	ppb	08:23:48
1	Cd 226.502†	75442.6	74231.6	463.37	µg/L	463.37	ppb	08:23:48
1	Co 228.616†	38412.6	37926.1	468.19	µg/L	468.19	ppb	08:23:48
1	Cr 267.716†	60277.2	59036.6	462.26	µg/L	462.26	ppb	08:23:48
1	Cu 324.752†	125110.5	119934.0	467.54	µg/L	467.54	ppb	08:23:48
1	Mn 257.610†	386877.6	379824.1	469.75	µg/L	469.75	ppb	08:23:48
1	Mo 202.031†	15949.4	15688.4	461.50	µg/L	461.50	ppb	08:24:08
1	Ni 231.604†	40898.3	40254.3	463.50	µg/L	463.50	ppb	08:23:48
1	P 214.914†	10941.0	10766.2	2294.6	µg/L	2294.6	ppb	08:24:08
1	Pb 220.353†	8516.9	8280.5	463.72	µg/L	463.72	ppb	08:24:08
1	S 181.975 Axial†	1334.7	1206.2	899.56	µg/L	899.56	ppb	08:24:08
1	Sb 206.836†	4023.3	3871.6	461.28	µg/L	461.28	ppb	08:24:08
1	Se 196.026†	1307.6	1269.3	461	µg/L	461	ppb	08:24:08
1	SiO2†	53301.9	50587.4	4924.7	µg/L	4924.7	ppb	08:23:48
1	Si 251.611†	160785.6	157116.2	2307.2	µg/L	2307.2	ppb	08:23:48
1	Sn 189.927†	7513.4	7382.2	461.78	µg/L	461.78	ppb	08:24:08
1	Ti 334.940†	510901.2	500947.2	467.43	µg/L	467.43	ppb	08:23:48
1	Tl 190.801†	3716.2	3767.4	469.92	µg/L	469.92	ppb	08:24:08
1	U 409.014†	7026.6	7172.7	447.77	µg/L	447.77	ppb	08:23:48
1	V 292.402†	97429.9	95309.5	471.05	µg/L	471.05	ppb	08:23:48
1	Zn 213.857†	84520.6	82467.0	459.60	µg/L	459.60	ppb	08:23:48
2	Sc RADIAL	143346.3	143346.3	98.2	%			08:23:25
2	Al 396.153Radial†	26087.0	26620.4	4913.7	µg/L	4913.7	ppb	08:23:25
2	Ca 317.933Radial†	83586.5	84532.3	4708.8	µg/L	4708.8	ppb	08:23:25
2	Fe 238.204 Radial†	75427.7	76638.9	4723.6	µg/L	4723.6	ppb	08:23:25
2	K 766.490 Radial†	14587.0	13305.1	4867.3	µg/L	4867.3	ppb	08:23:25
2	Mg 279.077 IEC†	12683.7	12721.6	4747.3	µg/L	4747.3	ppb	08:23:25
2	Na 589.592 Radial†	69837.0	69804.9	9531.9	µg/L	9531.9	ppb	08:23:25
2	Sr 421.552†	226513.3	230730.9	479.64	µg/L	479.64	ppb	08:23:23
2	Sc 361.383	1731973.2	1731973.2	100.80	%			08:24:11
2	Y 371.029	1020279.7	1020279.7	99.376	%			08:24:11
2	Ag 328.068†	129413.4	124294.2	466.09	µg/L	466.09	ppb	08:24:11
2	As 188.979†	1610.6	1618.1	496.13	µg/L	496.13	ppb	08:24:31
2	B 249.677†	35094.6	31310.0	460.14	µg/L	460.14	ppb	08:24:11
2	Ba 233.527†	117004.6	116211.2	468.68	µg/L	468.68	ppb	08:24:11
2	Be 313.107†	1761232.0	1748308.7	476.16	µg/L	476.16	ppb	08:24:11
2	Cd 226.502†	74492.8	74019.4	462.06	µg/L	462.06	ppb	08:24:11
2	Co 228.616†	38028.9	37917.2	468.09	µg/L	468.09	ppb	08:24:11
2	Cr 267.716†	59832.9	59179.1	463.37	µg/L	463.37	ppb	08:24:11
2	Cu 324.752†	124054.0	120096.5	468.16	µg/L	468.16	ppb	08:24:11
2	Mn 257.610†	383564.9	380281.3	470.32	µg/L	470.32	ppb	08:24:11
2	Mo 202.031†	16033.2	15925.9	468.47	µg/L	468.47	ppb	08:24:31
2	Ni 231.604†	40607.5	40361.5	464.73	µg/L	464.73	ppb	08:24:11
2	P 214.914†	10972.8	10903.6	2324.0	µg/L	2324.0	ppb	08:24:31
2	Pb 220.353†	8523.2	8369.1	468.69	µg/L	468.69	ppb	08:24:31

2	S 181.975 Axial†	1342.3	1226.6	914.79 µg/L	914.79 ppb	08:24:31
2	Sb 206.836†	4035.3	3922.4	467.40 µg/L	467.40 ppb	08:24:31
2	Se 196.026†	1310.9	1285.2	467 µg/L	467 ppb	08:24:31
2	SiO2†	52742.2	50547.9	4920.6 µg/L	4920.6 ppb	08:24:11
2	Si 251.611†	159439.6	157336.7	2310.3 µg/L	2310.3 ppb	08:24:11
2	Sn 189.927†	7564.4	7505.5	469.46 µg/L	469.46 ppb	08:24:31
2	Ti 334.940†	505818.2	500848.4	467.34 µg/L	467.34 ppb	08:24:11
2	Tl 190.801†	3743.1	3830.0	477.62 µg/L	477.62 ppb	08:24:31
2	U 409.014†	6991.6	7206.0	449.76 µg/L	449.76 ppb	08:24:11
2	V 292.402†	96520.6	95350.2	471.34 µg/L	471.34 ppb	08:24:11
2	Zn 213.857†	83581.5	82353.3	458.96 µg/L	458.96 ppb	08:24:11
3	Sc RADIAL	144444.1	144444.1	99.0 %		08:23:29
3	Al 396.153Radial†	26227.0	26560.0	4902.5 µg/L	4902.5 ppb	08:23:29
3	Ca 317.933Radial†	84057.6	84361.6	4699.3 µg/L	4699.3 ppb	08:23:29
3	Fe 238.204 Radial†	75889.7	76522.2	4716.4 µg/L	4716.4 ppb	08:23:29
3	K 766.490 Radial†	14794.5	13401.9	4902.7 µg/L	4902.7 ppb	08:23:29
3	Mg 279.077 IEC†	12835.8	12777.1	4767.9 µg/L	4767.9 ppb	08:23:29
3	Na 589.592 Radial†	70359.5	69792.3	9530.1 µg/L	9530.1 ppb	08:23:29
3	Sr 421.552†	226221.0	228683.1	475.38 µg/L	475.38 ppb	08:23:27
3	Sc 361.383	1743351.1	1743351.1	101.46 %		08:24:34
3	Y 371.029	1026255.2	1026255.2	99.958 %		08:24:34
3	Ag 328.068†	129719.8	123758.3	464.11 µg/L	464.11 ppb	08:24:34
3	As 188.979†	1630.0	1626.9	498.78 µg/L	498.78 ppb	08:24:54
3	B 249.677†	35324.2	31309.0	460.13 µg/L	460.13 ppb	08:24:34
3	Ba 233.527†	117524.8	115966.4	467.69 µg/L	467.69 ppb	08:24:34
3	Be 313.107†	1769070.4	1744630.9	475.16 µg/L	475.16 ppb	08:24:34
3	Cd 226.502†	74950.5	73988.1	461.86 µg/L	461.86 ppb	08:24:34
3	Co 228.616†	38305.8	37943.9	468.41 µg/L	468.41 ppb	08:24:34
3	Cr 267.716†	60179.9	59133.7	463.01 µg/L	463.01 ppb	08:24:34
3	Cu 324.752†	124985.9	120211.8	468.61 µg/L	468.61 ppb	08:24:34
3	Mn 257.610†	384879.8	379093.8	468.85 µg/L	468.85 ppb	08:24:34
3	Mo 202.031†	16125.2	15912.8	468.09 µg/L	468.09 ppb	08:24:54
3	Ni 231.604†	40765.7	40254.5	463.50 µg/L	463.50 ppb	08:24:34
3	P 214.914†	11079.6	10937.8	2331.3 µg/L	2331.3 ppb	08:24:54
3	Pb 220.353†	8613.8	8403.2	470.58 µg/L	470.58 ppb	08:24:54
3	S 181.975 Axial†	1358.6	1234.0	920.26 µg/L	920.26 ppb	08:24:54
3	Sb 206.836†	4040.8	3901.7	464.95 µg/L	464.95 ppb	08:24:54
3	Se 196.026†	1297.8	1263.8	459 µg/L	459 ppb	08:24:54
3	SiO2†	52914.0	50375.8	4903.7 µg/L	4903.7 ppb	08:24:34
3	Si 251.611†	159915.1	156773.1	2302.0 µg/L	2302.0 ppb	08:24:34
3	Sn 189.927†	7612.7	7504.1	469.37 µg/L	469.37 ppb	08:24:54
3	Ti 334.940†	508439.6	500157.0	466.68 µg/L	466.68 ppb	08:24:34
3	Tl 190.801†	3764.4	3826.9	477.21 µg/L	477.21 ppb	08:24:54
3	U 409.014†	7195.6	7361.8	458.81 µg/L	458.81 ppb	08:24:34
3	V 292.402†	96989.0	95186.9	470.54 µg/L	470.54 ppb	08:24:34
3	Zn 213.857†	84147.5	82370.0	459.06 µg/L	459.06 ppb	08:24:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1741452.6	101.35	%	0.506				0.50%
Sc RADIAL	144271.4	98.9	%	0.58				0.59%
Y 371.029	1025423.5	99.877	%	0.4658				0.47%
Ag 328.068†	124036.6	465.14	µg/L	0.993	465.14	ppb	0.993	0.21%
QC value within limits for Ag 328.068 Recovery = 93.03%								
Al 396.153Radial†	26671.9	4923.3	µg/L	27.00	4923.3	ppb	27.00	0.55%
QC value within limits for Al 396.153Radial Recovery = 98.47%								
As 188.979†	1605.8	492.41	µg/L	8.838	492.41	ppb	8.838	1.79%
QC value within limits for As 188.979 Recovery = 98.48%								
B 249.677†	31261.2	459.42	µg/L	1.234	459.42	ppb	1.234	0.27%
QC value within limits for B 249.677 Recovery = 91.88%								
Ba 233.527†	116125.8	468.33	µg/L	0.556	468.33	ppb	0.556	0.12%
QC value within limits for Ba 233.527 Recovery = 93.67%								
Be 313.107†	1746587.1	475.69	µg/L	0.502	475.69	ppb	0.502	0.11%
QC value within limits for Be 313.107 Recovery = 95.14%								
Ca 317.933Radial†	84539.4	4709.2	µg/L	10.11	4709.2	ppb	10.11	0.21%
QC value within limits for Ca 317.933Radial Recovery = 94.18%								
Cd 226.502†	74079.7	462.43	µg/L	0.821	462.43	ppb	0.821	0.18%
QC value within limits for Cd 226.502 Recovery = 92.49%								
Co 228.616†	37929.1	468.23	µg/L	0.168	468.23	ppb	0.168	0.04%

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   QC value within limits for Co 228.616  Recovery = 93.65%
Cr 267.716†            59116.5      462.88 µg/L         0.567      462.88 ppb          0.567   0.12%
   QC value within limits for Cr 267.716  Recovery = 92.58%
Cu 324.752†           120080.8      468.10 µg/L         0.539      468.10 ppb          0.539   0.12%
   QC value within limits for Cu 324.752  Recovery = 93.62%
Fe 238.204 Radial†     77105.3      4752.3 µg/L         56.13      4752.3 ppb          56.13   1.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.05%
K 766.490 Radial†      13318.0      4872.0 µg/L         28.65      4872.0 ppb          28.65   0.59%
   QC value within limits for K 766.490 Radial  Recovery = 97.44%
Mg 279.077 IEC†        12777.6      4768.0 µg/L         20.83      4768.0 ppb          20.83   0.44%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.36%
Mn 257.610†           379733.1      469.64 µg/L         0.741      469.64 ppb          0.741   0.16%
   QC value within limits for Mn 257.610  Recovery = 93.93%
Mo 202.031†            15842.4      466.02 µg/L         3.920      466.02 ppb          3.920   0.84%
   QC value within limits for Mo 202.031  Recovery = 93.20%
Na 589.592 Radial†     69638.4      9509.1 µg/L         37.90      9509.1 ppb          37.90   0.40%
   QC value within limits for Na 589.592 Radial  Recovery = 95.09%
Ni 231.604†            40290.1      463.91 µg/L         0.712      463.91 ppb          0.712   0.15%
   QC value within limits for Ni 231.604  Recovery = 92.78%
P 214.914†             10869.2      2316.7 µg/L         19.45      2316.7 ppb          19.45   0.84%
   QC value within limits for P 214.914  Recovery = 92.67%
Pb 220.353†             8350.9      467.66 µg/L         3.541      467.66 ppb          3.541   0.76%
   QC value within limits for Pb 220.353  Recovery = 93.53%
S 181.975 Axial†        1222.2      911.54 µg/L        10.724      911.54 ppb         10.724   1.18%
   QC value within limits for S 181.975 Axial  Recovery = 91.15%
Sb 206.836†             3898.6      464.54 µg/L         3.085      464.54 ppb          3.085   0.66%
   QC value within limits for Sb 206.836  Recovery = 92.91%
Se 196.026†             1272.7         462 µg/L           4.0         462 ppb            4.0   0.87%
   QC value within limits for Se 196.026  Recovery = 92.44%
SiO2†                  50503.7      4916.3 µg/L         11.11      4916.3 ppb          11.11   0.23%
   QC value within limits for SiO2  Recovery = 91.94%
Si 251.611†           157075.3      2306.5 µg/L          4.20      2306.5 ppb           4.20   0.18%
   QC value within limits for Si 251.611  Recovery = 92.26%
Sn 189.927†             7463.9      466.87 µg/L         4.413      466.87 ppb          4.413   0.95%
   QC value within limits for Sn 189.927  Recovery = 93.37%
Sr 421.552†           229307.3      476.68 µg/L         2.570      476.68 ppb          2.570   0.54%
   QC value within limits for Sr 421.552  Recovery = 95.34%
Ti 334.940†           500650.9      467.15 µg/L         0.405      467.15 ppb          0.405   0.09%
   QC value within limits for Ti 334.940  Recovery = 93.43%
Tl 190.801†             3808.1      474.92 µg/L         4.331      474.92 ppb          4.331   0.91%
   QC value within limits for Tl 190.801  Recovery = 94.98%
U 409.014†              7246.8      452.11 µg/L         5.885      452.11 ppb          5.885   1.30%
   QC value within limits for U 409.014  Recovery = 90.42%
V 292.402†             95282.2      470.97 µg/L         0.402      470.97 ppb          0.402   0.09%
   QC value within limits for V 292.402  Recovery = 94.19%
Zn 213.857†            82396.7      459.21 µg/L         0.343      459.21 ppb          0.343   0.07%
   QC value within limits for Zn 213.857  Recovery = 91.84%
All analyte(s) passed QC.
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Sequence No.: 57
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 8:25:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144745.7	144745.7	99.2	%			08:25:31
1	Al 396.153Radial†	-27.7	35.3	6.5646	µg/L	6.5646	ppb	08:25:51
1	Ca 317.933Radial†	686.9	132.0	7.3520	µg/L	7.3520	ppb	08:25:51
1	Fe 238.204 Radial†	256.6	110.6	6.8188	µg/L	6.8188	ppb	08:25:51
1	K 766.490 Radial†	1924.7	395.7	144.85	µg/L	144.85	ppb	08:25:31
1	Mg 279.077 IEC†	168.4	-20.9	-7.7958	µg/L	-7.7958	ppb	08:25:51
1	Na 589.592 Radial†	1474.1	195.3	26.557	µg/L	26.557	ppb	08:25:31
1	Sr 421.552†	-51.7	83.1	0.1727	µg/L	0.1727	ppb	08:25:31
1	Sc 361.383	1769762.7	1769762.7	103.00	%			08:26:53
1	Y 371.029	1053390.5	1053390.5	102.60	%			08:26:53
1	Ag 328.068†	4618.3	392.4	1.4458	µg/L	1.4458	ppb	08:26:55
1	As 188.979†	-14.6	6.2	1.8706	µg/L	1.8706	ppb	08:27:15
1	B 249.677†	3508.6	-99.5	-1.4694	µg/L	-1.4694	ppb	08:27:15
1	Ba 233.527†	-137.1	2.8	0.0105	µg/L	0.0105	ppb	08:27:15
1	Be 313.107†	-1055.8	39.6	0.0111	µg/L	0.0111	ppb	08:26:55
1	Cd 226.502†	-122.4	-0.7	-0.0050	µg/L	-0.0050	ppb	08:27:15
1	Co 228.616†	-156.4	38.4	0.4739	µg/L	0.4739	ppb	08:27:15
1	Cr 267.716†	199.8	15.4	0.1201	µg/L	0.1201	ppb	08:27:15
1	Cu 324.752†	3018.4	-41.7	-0.1604	µg/L	-0.1604	ppb	08:26:55
1	Mn 257.610†	318.5	71.9	0.0893	µg/L	0.0893	ppb	08:27:15
1	Mo 202.031†	-35.0	-13.9	-0.4098	µg/L	-0.4098	ppb	08:27:15
1	Ni 231.604†	-100.7	-21.2	-0.2445	µg/L	-0.2445	ppb	08:27:15
1	P 214.914†	-26.8	-8.1	-1.7258	µg/L	-1.7258	ppb	08:27:15
1	Pb 220.353†	73.7	-14.8	-0.8297	µg/L	-0.8297	ppb	08:27:15
1	S 181.975 Axial†	91.9	-15.9	-11.791	µg/L	-11.791	ppb	08:27:15
1	Sb 206.836†	77.0	-6.0	-0.7256	µg/L	-0.7256	ppb	08:27:15
1	Se 196.026†	21.8	5.9	2.14	µg/L	2.14	ppb	08:27:15
1	SiO2†	1841.7	12.7	1.2473	µg/L	1.2473	ppb	08:27:15
1	Si 251.611†	1073.9	206.1	3.0429	µg/L	3.0429	ppb	08:26:55
1	Sn 189.927†	0.3	1.4	0.0868	µg/L	0.0868	ppb	08:27:15
1	Ti 334.940†	935.5	-44.3	-0.0410	µg/L	-0.0410	ppb	08:26:55
1	Tl 190.801†	-104.0	15.7	1.9265	µg/L	1.9265	ppb	08:27:15
1	U 409.014†	-261.3	16.2	0.9099	µg/L	0.9099	ppb	08:26:55
1	V 292.402†	273.6	-138.1	-0.6776	µg/L	-0.6776	ppb	08:26:55
1	Zn 213.857†	628.6	45.8	0.2585	µg/L	0.2585	ppb	08:27:15
2	Sc RADIAL	144804.5	144804.5	99.2	%			08:25:53
2	Al 396.153Radial†	-75.9	-13.2	-2.4545	µg/L	-2.4545	ppb	08:26:13
2	Ca 317.933Radial†	627.1	71.4	3.9763	µg/L	3.9763	ppb	08:26:13
2	Fe 238.204 Radial†	218.2	71.7	4.4221	µg/L	4.4221	ppb	08:26:13
2	K 766.490 Radial†	1766.9	235.9	86.349	µg/L	86.349	ppb	08:25:53
2	Mg 279.077 IEC†	149.5	-40.0	-14.917	µg/L	-14.917	ppb	08:26:13
2	Na 589.592 Radial†	1524.4	245.5	33.460	µg/L	33.460	ppb	08:25:53
2	Sr 421.552†	-211.2	-77.6	-0.1613	µg/L	-0.1613	ppb	08:25:53
2	Sc 361.383	1768953.0	1768953.0	102.95	%			08:27:17
2	Y 371.029	1052168.6	1052168.6	102.48	%			08:27:17
2	Ag 328.068†	4066.8	-141.2	-0.5193	µg/L	-0.5193	ppb	08:27:19
2	As 188.979†	-10.9	9.8	2.9563	µg/L	2.9563	ppb	08:27:39
2	B 249.677†	3510.5	-96.1	-1.4180	µg/L	-1.4180	ppb	08:27:39
2	Ba 233.527†	-145.8	-5.8	-0.0233	µg/L	-0.0233	ppb	08:27:39
2	Be 313.107†	-1214.9	-115.4	-0.0305	µg/L	-0.0305	ppb	08:27:19
2	Cd 226.502†	-104.8	16.4	0.1019	µg/L	0.1019	ppb	08:27:39
2	Co 228.616†	-188.7	7.1	0.0870	µg/L	0.0870	ppb	08:27:39
2	Cr 267.716†	203.0	18.6	0.1441	µg/L	0.1441	ppb	08:27:39
2	Cu 324.752†	3044.7	-14.8	-0.0549	µg/L	-0.0549	ppb	08:27:19
2	Mn 257.610†	318.6	72.2	0.0899	µg/L	0.0899	ppb	08:27:39
2	Mo 202.031†	-21.7	-1.0	-0.0303	µg/L	-0.0303	ppb	08:27:39
2	Ni 231.604†	-90.0	-10.9	-0.1258	µg/L	-0.1258	ppb	08:27:39
2	P 214.914†	-33.3	-14.4	-3.0832	µg/L	-3.0832	ppb	08:27:39
2	Pb 220.353†	78.5	-10.2	-0.5691	µg/L	-0.5691	ppb	08:27:39

2	S 181.975 Axial†	107.6	-0.5	-0.3868 µg/L	-0.3868 ppb	08:27:39
2	Sb 206.836†	91.7	8.2	0.9770 µg/L	0.9770 ppb	08:27:39
2	Se 196.026†	16.8	1.1	0.394 µg/L	0.394 ppb	08:27:39
2	SiO2†	1854.5	26.0	2.5390 µg/L	2.5390 ppb	08:27:39
2	Si 251.611†	1065.5	198.4	2.9257 µg/L	2.9257 ppb	08:27:19
2	Sn 189.927†	-2.7	-1.5	-0.0929 µg/L	-0.0929 ppb	08:27:39
2	Ti 334.940†	1005.0	23.6	0.0221 µg/L	0.0221 ppb	08:27:19
2	Tl 190.801†	-112.9	7.0	0.8619 µg/L	0.8619 ppb	08:27:39
2	U 409.014†	-227.1	49.3	2.8851 µg/L	2.8851 ppb	08:27:19
2	V 292.402†	420.7	4.9	0.0256 µg/L	0.0256 ppb	08:27:19
2	Zn 213.857†	625.3	42.9	0.2415 µg/L	0.2415 ppb	08:27:39
3	Sc RADIAL	144272.3	144272.3	98.9 %		08:26:15
3	Al 396.153Radial†	-71.2	-8.8	-1.6381 µg/L	-1.6381 ppb	08:26:35
3	Ca 317.933Radial†	630.6	77.2	4.3029 µg/L	4.3029 ppb	08:26:35
3	Fe 238.204 Radial†	172.8	26.7	1.6431 µg/L	1.6431 ppb	08:26:35
3	K 766.490 Radial†	1770.5	246.1	90.098 µg/L	90.098 ppb	08:26:15
3	Mg 279.077 IEC†	185.3	-3.3	-1.2328 µg/L	-1.2328 ppb	08:26:35
3	Na 589.592 Radial†	1475.1	201.2	27.407 µg/L	27.407 ppb	08:26:15
3	Sr 421.552†	-177.7	-44.5	-0.0925 µg/L	-0.0925 ppb	08:26:15
3	Sc 361.383	1768766.0	1768766.0	102.94 %		08:27:41
3	Y 371.029	1051479.0	1051479.0	102.41 %		08:27:41
3	Ag 328.068†	4233.5	21.2	0.0627 µg/L	0.0627 ppb	08:27:43
3	As 188.979†	-7.1	13.5	4.0791 µg/L	4.0791 ppb	08:28:04
3	B 249.677†	3482.5	-122.9	-1.8145 µg/L	-1.8145 ppb	08:28:04
3	Ba 233.527†	-134.9	4.8	0.0196 µg/L	0.0196 ppb	08:28:04
3	Be 313.107†	-1281.6	-180.3	-0.0533 µg/L	-0.0533 ppb	08:27:43
3	Cd 226.502†	-88.4	32.4	0.2018 µg/L	0.2018 ppb	08:28:04
3	Co 228.616†	-167.4	27.7	0.3422 µg/L	0.3422 ppb	08:28:04
3	Cr 267.716†	208.1	23.6	0.1956 µg/L	0.1956 ppb	08:28:04
3	Cu 324.752†	2964.7	-92.2	-0.3696 µg/L	-0.3696 ppb	08:27:43
3	Mn 257.610†	336.0	89.1	0.1103 µg/L	0.1103 ppb	08:28:04
3	Mo 202.031†	-17.3	3.3	0.0976 µg/L	0.0976 ppb	08:28:04
3	Ni 231.604†	-105.3	-25.8	-0.2966 µg/L	-0.2966 ppb	08:28:04
3	P 214.914†	-67.2	-47.3	-10.108 µg/L	-10.108 ppb	08:28:04
3	Pb 220.353†	51.8	-36.1	-2.0017 µg/L	-2.0017 ppb	08:28:04
3	S 181.975 Axial†	100.5	-7.5	-5.5440 µg/L	-5.5440 ppb	08:28:04
3	Sb 206.836†	75.8	-7.2	-0.8535 µg/L	-0.8535 ppb	08:28:04
3	Se 196.026†	20.7	4.8	1.72 µg/L	1.72 ppb	08:28:04
3	SiO2†	1863.3	34.7	3.3872 µg/L	3.3872 ppb	08:28:04
3	Si 251.611†	1029.6	163.6	2.4093 µg/L	2.4093 ppb	08:27:43
3	Sn 189.927†	2.0	3.1	0.1911 µg/L	0.1911 ppb	08:28:04
3	Ti 334.940†	930.6	-48.6	-0.0395 µg/L	-0.0395 ppb	08:27:43
3	Tl 190.801†	-112.4	7.5	0.9172 µg/L	0.9172 ppb	08:28:04
3	U 409.014†	-524.4	-239.5	-13.996 µg/L	-13.996 ppb	08:27:43
3	V 292.402†	446.7	30.1	0.1391 µg/L	0.1391 ppb	08:27:43
3	Zn 213.857†	632.8	50.3	0.2847 µg/L	0.2847 ppb	08:28:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769160.5	102.96	%	0.031				0.03%
Sc RADIAL	144607.5	99.1	%	0.20				0.20%
Y 371.029	1052346.0	102.50	%	0.094				0.09%
Ag 328.068†	90.8	0.3297	µg/L	1.00938	0.3297	ppb	1.00938	306.14%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.4	0.8240	µg/L	4.98825	0.8240	ppb	4.98825	605.37%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.8	2.9687	µg/L	1.10430	2.9687	ppb	1.10430	37.20%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-106.2	-1.5673	µg/L	0.21560	-1.5673	ppb	0.21560	13.76%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.6	0.0023	µg/L	0.02260	0.0023	ppb	0.02260	993.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-85.4	-0.0243	µg/L	0.03266	-0.0243	ppb	0.03266	134.56%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	93.5	5.2104	µg/L	1.86189	5.2104	ppb	1.86189	35.73%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.0	0.0996	µg/L	0.10342	0.0996	ppb	0.10342	103.86%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	24.4	0.3010	µg/L	0.19673	0.3010	ppb	0.19673	65.35%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.2      0.1532 µg/L       0.03857      0.1532 ppb        0.03857  25.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -49.6     -0.1950 µg/L       0.16021     -0.1950 ppb        0.16021  82.18%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       69.7      4.2947 µg/L       2.59021      4.2947 ppb        2.59021  60.31%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       292.5      107.10 µg/L        32.747      107.10 ppb         32.747  30.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -21.4     -7.9817 µg/L       6.84380     -7.9817 ppb        6.84380  85.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              77.7      0.0965 µg/L       0.01199      0.0965 ppb        0.01199  12.42%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -3.9     -0.1142 µg/L       0.26387     -0.1142 ppb        0.26387 231.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      214.0      29.141 µg/L        3.7642      29.141 ppb         3.7642  12.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -19.3     -0.2223 µg/L       0.08755     -0.2223 ppb        0.08755  39.38%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -23.3     -4.9725 µg/L       4.49935     -4.9725 ppb        4.49935  90.49%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -20.3     -1.1335 µg/L       0.76307     -1.1335 ppb        0.76307  67.32%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -8.0     -5.9073 µg/L       5.71085     -5.9073 ppb        5.71085  96.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.7     -0.2007 µg/L       1.02189     -0.2007 ppb        1.02189 509.13%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.9        1.42 µg/L         0.912        1.42 ppb          0.912  64.28%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    24.4      2.3912 µg/L       1.07760      2.3912 ppb        1.07760  45.07%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             189.3      2.7926 µg/L       0.33713      2.7926 ppb        0.33713  12.07%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.0      0.0616 µg/L       0.14369      0.0616 ppb        0.14369 233.07%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -13.0     -0.0270 µg/L       0.17639     -0.0270 ppb        0.17639 652.33%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -23.1     -0.0194 µg/L       0.03603     -0.0194 ppb        0.03603 185.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              10.1      1.2352 µg/L       0.59930      1.2352 ppb        0.59930  48.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -58.0     -3.4005 µg/L       9.22934     -3.4005 ppb        9.22934 271.41%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -34.4     -0.1710 µg/L       0.44239     -0.1710 ppb        0.44239 258.77%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              46.4      0.2616 µg/L       0.02175      0.2616 ppb        0.02175   8.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/1/2010 8:40:55 Plasma On Time: 3/29/2010 18:07:58
Logged In Analyst: optima4 Technique: ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 Autosampler Location: 301
Sample ID: 1202068097|964012|1 Date Collected: 4/1/2010 8:40:59
Analyst: HSC Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: 1202068097|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140881.9	140881.9	96.5	%			08:41:30
1	Al 396.153Radial†	367.0	443.4	82.224	µg/L	82.224	ppb	08:41:30
1	Ca 317.933Radial†	4206.8	3797.0	211.51	µg/L	211.51	ppb	08:41:51
1	Fe 238.204 Radial†	526.4	397.1	24.476	µg/L	24.476	ppb	08:41:51
1	K 766.490 Radial†	1730.6	247.8	90.665	µg/L	90.665	ppb	08:41:30
1	Mg 279.077 IEC†	192.3	8.4	3.1108	µg/L	3.1108	ppb	08:41:51
1	Na 589.592 Radial†	1709.5	479.9	65.485	µg/L	65.485	ppb	08:41:30
1	Sr 421.552†	708.6	869.3	1.8056	µg/L	1.8056	ppb	08:41:30
1	Sc 361.383	1729701.0	1729701.0	100.67	%			08:42:52
1	Y 371.029	1026851.4	1026851.4	100.02	%			08:42:52
1	Ag 328.068†	4245.6	126.1	0.4491	µg/L	0.4491	ppb	08:42:54
1	As 188.979†	-20.5	-0.0	-0.0052	µg/L	-0.0052	ppb	08:43:15
1	B 249.677†	4090.3	557.3	8.2173	µg/L	8.2173	ppb	08:42:54
1	Ba 233.527†	-34.7	101.3	0.4078	µg/L	0.4078	ppb	08:43:15
1	Be 313.107†	-946.1	124.9	0.0317	µg/L	0.0317	ppb	08:42:54
1	Cd 226.502†	-100.3	18.6	0.1133	µg/L	0.1133	ppb	08:43:15
1	Co 228.616†	-160.5	30.9	0.3807	µg/L	0.3807	ppb	08:43:15
1	Cr 267.716†	229.2	49.1	0.3907	µg/L	0.3907	ppb	08:43:15
1	Cu 324.752†	3162.4	169.2	0.6551	µg/L	0.6551	ppb	08:42:54
1	Mn 257.610†	807.0	564.4	0.6981	µg/L	0.6981	ppb	08:43:15
1	Mo 202.031†	-35.4	-15.1	-0.4438	µg/L	-0.4438	ppb	08:43:15
1	Ni 231.604†	-101.6	-24.4	-0.2809	µg/L	-0.2809	ppb	08:43:15
1	P 214.914†	-5.4	12.6	2.7088	µg/L	2.7088	ppb	08:43:15
1	Pb 220.353†	64.9	-21.9	-1.2155	µg/L	-1.2155	ppb	08:43:15
1	S 181.975 Axial†	118.0	12.1	8.9957	µg/L	8.9957	ppb	08:43:15
1	Sb 206.836†	65.7	-15.6	-1.8604	µg/L	-1.8604	ppb	08:43:15
1	Se 196.026†	-0.7	-16.0	-5.78	µg/L	-5.78	ppb	08:43:15
1	SiO2†	2178.9	389.0	38.022	µg/L	38.022	ppb	08:42:54
1	Si 251.611†	2264.9	1413.3	20.835	µg/L	20.835	ppb	08:42:54
1	Sn 189.927†	16.8	17.8	1.1137	µg/L	1.1137	ppb	08:43:15
1	Ti 334.940†	1413.2	451.3	0.4298	µg/L	0.4298	ppb	08:42:54
1	Tl 190.801†	-118.1	-0.6	-0.0774	µg/L	-0.0774	ppb	08:43:15
1	U 409.014†	-400.5	-127.9	-7.4849	µg/L	-7.4849	ppb	08:42:54
1	V 292.402†	359.5	-46.7	-0.2386	µg/L	-0.2386	ppb	08:42:54
1	Zn 213.857†	779.1	209.5	1.1752	µg/L	1.1752	ppb	08:43:15
2	Sc RADIAL	142756.2	142756.2	97.8	%			08:41:53
2	Al 396.153Radial†	294.0	363.8	67.454	µg/L	67.454	ppb	08:41:53
2	Ca 317.933Radial†	4232.7	3766.2	209.79	µg/L	209.79	ppb	08:42:13
2	Fe 238.204 Radial†	549.3	413.4	25.477	µg/L	25.477	ppb	08:42:13
2	K 766.490 Radial†	1883.2	380.3	139.18	µg/L	139.18	ppb	08:41:53
2	Mg 279.077 IEC†	199.1	12.8	4.7364	µg/L	4.7364	ppb	08:42:13
2	Na 589.592 Radial†	1534.1	277.5	37.779	µg/L	37.779	ppb	08:41:53
2	Sr 421.552†	724.0	875.4	1.8182	µg/L	1.8182	ppb	08:41:53
2	Sc 361.383	1747084.4	1747084.4	101.68	%			08:43:17
2	Y 371.029	1036479.7	1036479.7	100.95	%			08:43:17
2	Ag 328.068†	4325.6	162.7	0.5983	µg/L	0.5983	ppb	08:43:19
2	As 188.979†	-15.3	5.3	1.6012	µg/L	1.6012	ppb	08:43:39

2	B 249.677†	4207.4	632.0	9.3198	µg/L	9.3198	ppb	08:43:19
2	Ba 233.527†	-1.9	134.0	0.5398	µg/L	0.5398	ppb	08:43:39
2	Be 313.107†	-1233.5	-148.5	-0.0403	µg/L	-0.0403	ppb	08:43:19
2	Cd 226.502†	-145.5	-24.9	-0.1585	µg/L	-0.1585	ppb	08:43:39
2	Co 228.616†	-169.1	24.0	0.2954	µg/L	0.2954	ppb	08:43:39
2	Cr 267.716†	203.1	21.2	0.1662	µg/L	0.1662	ppb	08:43:39
2	Cu 324.752†	3192.4	167.4	0.6549	µg/L	0.6549	ppb	08:43:19
2	Mn 257.610†	820.7	569.8	0.7048	µg/L	0.7048	ppb	08:43:39
2	Mo 202.031†	-26.4	-5.9	-0.1729	µg/L	-0.1729	ppb	08:43:39
2	Ni 231.604†	-82.4	-4.5	-0.0520	µg/L	-0.0520	ppb	08:43:39
2	P 214.914†	-10.9	7.3	1.5597	µg/L	1.5597	ppb	08:43:39
2	Pb 220.353†	72.7	-14.9	-0.8280	µg/L	-0.8280	ppb	08:43:39
2	S 181.975 Axial†	114.5	7.6	5.6329	µg/L	5.6329	ppb	08:43:39
2	Sb 206.836†	61.3	-20.5	-2.4404	µg/L	-2.4404	ppb	08:43:39
2	Se 196.026†	10.1	-5.3	-1.91	µg/L	-1.91	ppb	08:43:39
2	SiO2†	2234.6	422.3	41.266	µg/L	41.266	ppb	08:43:19
2	Si 251.611†	2303.2	1428.6	21.057	µg/L	21.057	ppb	08:43:19
2	Sn 189.927†	17.4	18.3	1.1397	µg/L	1.1397	ppb	08:43:39
2	Ti 334.940†	1216.3	243.7	0.2326	µg/L	0.2326	ppb	08:43:19
2	Tl 190.801†	-108.5	10.0	1.2275	µg/L	1.2275	ppb	08:43:39
2	U 409.014†	-269.2	5.1	0.3120	µg/L	0.3120	ppb	08:43:19
2	V 292.402†	428.5	17.6	0.0823	µg/L	0.0823	ppb	08:43:19
2	Zn 213.857†	789.5	212.0	1.1874	µg/L	1.1874	ppb	08:43:39
3	Sc RADIAL	141970.3	141970.3	97.3	%			08:42:15
3	Al 396.153Radial†	274.1	344.9	63.952	µg/L	63.952	ppb	08:42:15
3	Ca 317.933Radial†	4185.5	3741.6	208.42	µg/L	208.42	ppb	08:42:35
3	Fe 238.204 Radial†	546.3	413.4	25.479	µg/L	25.479	ppb	08:42:35
3	K 766.490 Radial†	1613.2	113.4	41.449	µg/L	41.449	ppb	08:42:15
3	Mg 279.077 IEC†	212.6	27.8	10.346	µg/L	10.346	ppb	08:42:35
3	Na 589.592 Radial†	1464.9	214.9	29.326	µg/L	29.326	ppb	08:42:15
3	Sr 421.552†	608.0	760.2	1.5788	µg/L	1.5788	ppb	08:42:15
3	Sc 361.383	1738671.6	1738671.6	101.19	%			08:43:41
3	Y 371.029	1032012.1	1032012.1	100.52	%			08:43:41
3	Ag 328.068†	4025.3	-113.4	-0.4197	µg/L	-0.4197	ppb	08:43:43
3	As 188.979†	-13.0	7.5	2.2760	µg/L	2.2760	ppb	08:44:03
3	B 249.677†	4068.0	514.3	7.5838	µg/L	7.5838	ppb	08:43:43
3	Ba 233.527†	-35.7	100.6	0.4043	µg/L	0.4043	ppb	08:44:03
3	Be 313.107†	-1120.4	-42.5	-0.0076	µg/L	-0.0076	ppb	08:43:43
3	Cd 226.502†	-123.8	-4.1	-0.0283	µg/L	-0.0283	ppb	08:44:03
3	Co 228.616†	-171.1	21.2	0.2611	µg/L	0.2611	ppb	08:44:03
3	Cr 267.716†	160.9	-19.6	-0.1635	µg/L	-0.1635	ppb	08:44:03
3	Cu 324.752†	3046.5	38.5	0.1646	µg/L	0.1646	ppb	08:43:43
3	Mn 257.610†	814.3	567.4	0.7016	µg/L	0.7016	ppb	08:44:03
3	Mo 202.031†	-21.2	-0.9	-0.0253	µg/L	-0.0253	ppb	08:44:03
3	Ni 231.604†	-74.9	2.5	0.0285	µg/L	0.0285	ppb	08:44:03
3	P 214.914†	-30.6	-12.3	-2.6310	µg/L	-2.6310	ppb	08:44:03
3	Pb 220.353†	70.9	-16.3	-0.9147	µg/L	-0.9147	ppb	08:44:03
3	S 181.975 Axial†	109.1	2.8	2.0663	µg/L	2.0663	ppb	08:44:03
3	Sb 206.836†	64.2	-17.4	-2.0663	µg/L	-2.0663	ppb	08:44:03
3	Se 196.026†	10.7	-4.7	-1.67	µg/L	-1.67	ppb	08:44:03
3	SiO2†	2285.4	483.2	47.227	µg/L	47.227	ppb	08:43:43
3	Si 251.611†	2295.2	1431.6	21.107	µg/L	21.107	ppb	08:43:43
3	Sn 189.927†	-1.6	-0.5	-0.0278	µg/L	-0.0278	ppb	08:44:03
3	Ti 334.940†	1353.1	384.6	0.3586	µg/L	0.3586	ppb	08:43:43
3	Tl 190.801†	-119.6	-1.6	-0.1929	µg/L	-0.1929	ppb	08:44:03
3	U 409.014†	-45.6	224.8	13.105	µg/L	13.105	ppb	08:43:43
3	V 292.402†	231.4	-175.1	-0.8494	µg/L	-0.8494	ppb	08:43:43
3	Zn 213.857†	752.6	179.3	1.0034	µg/L	1.0034	ppb	08:44:03

Mean Data: 1202068097|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1738485.7	101.18	%	0.506				0.50%
Sc RADIAL	141869.5	97.2	%	0.64				0.66%
Y 371.029	1031781.1	100.50	%	0.469				0.47%
Ag 328.068†	58.5	0.2093	µg/L	0.54976	0.2093	ppb	0.54976	262.73%
Al 396.153Radial†	384.0	71.210	µg/L	9.6975	71.210	ppb	9.6975	13.62%
As 188.979†	4.2	1.2906	µg/L	1.17185	1.2906	ppb	1.17185	90.80%
B 249.677†	567.8	8.3736	µg/L	0.87846	8.3736	ppb	0.87846	10.49%
Ba 233.527†	112.0	0.4506	µg/L	0.07721	0.4506	ppb	0.07721	17.14%

Be 313.107†	-22.0	-0.0054	µg/L	0.03609	-0.0054	ppb	0.03609	669.04%
Ca 317.933Radial†	3768.3	209.91	µg/L	1.545	209.91	ppb	1.545	0.74%
Cd 226.502†	-3.5	-0.0245	µg/L	0.13593	-0.0245	ppb	0.13593	554.43%
Co 228.616†	25.4	0.3124	µg/L	0.06158	0.3124	ppb	0.06158	19.71%
Cr 267.716†	16.9	0.1312	µg/L	0.27876	0.1312	ppb	0.27876	212.52%
Cu 324.752†	125.0	0.4915	µg/L	0.28317	0.4915	ppb	0.28317	57.61%
Fe 238.204 Radial†	408.0	25.144	µg/L	0.5783	25.144	ppb	0.5783	2.30%
K 766.490 Radial†	247.2	90.432	µg/L	48.8668	90.432	ppb	48.8668	54.04%
Mg 279.077 IEC†	16.3	6.0645	µg/L	3.79613	6.0645	ppb	3.79613	62.60%
Mn 257.610†	567.2	0.7015	µg/L	0.00336	0.7015	ppb	0.00336	0.48%
Mo 202.031†	-7.3	-0.2140	µg/L	0.21225	-0.2140	ppb	0.21225	99.16%
Na 589.592 Radial†	324.1	44.197	µg/L	18.9144	44.197	ppb	18.9144	42.80%
Ni 231.604†	-8.8	-0.1014	µg/L	0.16051	-0.1014	ppb	0.16051	158.24%
P 214.914†	2.5	0.5458	µg/L	2.81057	0.5458	ppb	2.81057	514.95%
Pb 220.353†	-17.7	-0.9860	µg/L	0.20338	-0.9860	ppb	0.20338	20.63%
S 181.975 Axial†	7.5	5.5649	µg/L	3.46518	5.5649	ppb	3.46518	62.27%
Sb 206.836†	-17.8	-2.1224	µg/L	0.29403	-2.1224	ppb	0.29403	13.85%
Se 196.026†	-8.7	-3.12	µg/L	2.307	-3.12	ppb	2.307	73.90%
SiO2†	431.5	42.172	µg/L	4.6689	42.172	ppb	4.6689	11.07%
Si 251.611†	1424.5	21.000	µg/L	0.1445	21.000	ppb	0.1445	0.69%
Sn 189.927†	11.9	0.7419	µg/L	0.66672	0.7419	ppb	0.66672	89.87%
Sr 421.552†	835.0	1.7342	µg/L	0.13474	1.7342	ppb	0.13474	7.77%
Ti 334.940†	359.9	0.3403	µg/L	0.09989	0.3403	ppb	0.09989	29.35%
Tl 190.801†	2.6	0.3191	µg/L	0.78885	0.3191	ppb	0.78885	247.22%
U 409.014†	34.0	1.9774	µg/L	10.39559	1.9774	ppb	10.39559	525.71%
V 292.402†	-68.1	-0.3353	µg/L	0.47331	-0.3353	ppb	0.47331	141.18%
Zn 213.857†	200.3	1.1220	µg/L	0.10286	1.1220	ppb	0.10286	9.17%

Sequence No.: 2
Sample ID: 1202068102|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 302
Date Collected: 4/1/2010 8:44:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068102|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	147882.7	147882.7	101	%			08:44:43
1	Al 396.153Radial†	466410.4	460314.2	85320	µg/L	85320	ppb	08:44:43
1	Ca 317.933Radial†	1641174.1	1618940.3	90181	µg/L	90181	ppb	08:44:43
1	Fe 238.204 Radial†	2807372.1	2770150.0	170740	µg/L	170740	ppb	08:44:41
1	K 766.490 Radial†	107267.1	104305.8	38147	µg/L	38147	ppb	08:44:43
1	Mg 279.077 IEC†	97099.7	95626.7	35494	µg/L	35494	ppb	08:44:43
1	Na 589.592 Radial†	72389.3	70142.5	9548.4	µg/L	9548.4	ppb	08:44:43
1	Sr 421.552†	1054328.6	1040540.5	2162.5	µg/L	2162.5	ppb	08:44:41
1	Sc 361.383	1735657.8	1735657.8	101.02	%			08:45:12
1	Y 371.029	1095765.7	1095765.7	106.73	%			08:45:12
1	Ag 328.068†	73282.1	68454.4	262.00	µg/L	262.00	ppb	08:45:12
1	As 188.979†	3215.1	3203.1	1029.8	µg/L	1029.8	ppb	08:45:14
1	B 249.677†	97494.9	93009.4	1368.7	µg/L	1368.7	ppb	08:45:12
1	Ba 233.527†	421234.9	417138.2	1679.6	µg/L	1679.6	ppb	08:45:12
1	Be 313.107†	2695087.1	2669071.1	726.66	µg/L	726.66	ppb	08:45:12
1	Cd 226.502†	91838.5	91033.9	551.26	µg/L	551.26	ppb	08:45:12
1	Co 228.616†	71074.2	70550.4	863.55	µg/L	863.55	ppb	08:45:12
1	Cr 267.716†	291669.9	288560.6	2265.0	µg/L	2265.0	ppb	08:45:12
1	Cu 324.752†	436514.9	429156.5	1693.9	µg/L	1693.9	ppb	08:45:12
1	Mn 257.610†	4239189.9	4196356.5	5190.3	µg/L	5190.3	ppb	08:45:12
1	Mo 202.031†	16037.6	15896.5	474.96	µg/L	474.96	ppb	08:45:14
1	Ni 231.604†	111368.4	110325.8	1270.3	µg/L	1270.3	ppb	08:45:12
1	P 214.914†	34284.4	33957.9	7150.5	µg/L	7150.5	ppb	08:45:14
1	Pb 220.353†	13468.3	13246.5	747.05	µg/L	747.05	ppb	08:45:14
1	S 181.975 Axial†	4832.9	4679.2	3478.7	µg/L	3478.7	ppb	08:45:14
1	Sb 206.836†	9749.7	9570.9	1111.2	µg/L	1111.2	ppb	08:45:14
1	Se 196.026†	7329.5	7240.6	2680	µg/L	2680	ppb	08:45:14
1	SiO2†	851669.3	841336.2	82207	µg/L	82207	ppb	08:45:12
1	Si 251.611†	2627414.7	2600177.5	38322	µg/L	38322	ppb	08:45:12
1	Sn 189.927†	14682.7	14536.3	924.06	µg/L	924.06	ppb	08:45:14
1	Ti 334.940†	5734138.2	5675568.1	5301.3	µg/L	5301.3	ppb	08:45:12
1	Tl 190.801†	8391.5	8423.8	1105.7	µg/L	1105.7	ppb	08:45:14
1	U 409.014†	-4752.5	-4434.8	-198.12	µg/L	-198.12	ppb	08:45:12
1	V 292.402†	234745.0	231982.5	1123.1	µg/L	1123.1	ppb	08:45:12
1	Zn 213.857†	971639.6	961312.0	5376.1	µg/L	5376.1	ppb	08:45:12
2	Sc RADIAL	145546.6	145546.6	99.7	%			08:44:47
2	Al 396.153Radial†	459435.9	460708.6	85393	µg/L	85393	ppb	08:44:47
2	Ca 317.933Radial†	1608481.5	1612155.1	89803	µg/L	89803	ppb	08:44:47
2	Fe 238.204 Radial†	2816807.6	2824074.6	174060	µg/L	174060	ppb	08:44:45
2	K 766.490 Radial†	104941.0	103672.5	37916	µg/L	37916	ppb	08:44:47
2	Mg 279.077 IEC†	94894.3	94953.4	35240	µg/L	35240	ppb	08:44:47
2	Na 589.592 Radial†	71208.6	70105.3	9543.5	µg/L	9543.5	ppb	08:44:47
2	Sr 421.552†	1057843.8	1060763.7	2204.6	µg/L	2204.6	ppb	08:44:45
2	Sc 361.383	1738154.5	1738154.5	101.16	%			08:45:18
2	Y 371.029	1096947.8	1096947.8	106.84	%			08:45:18
2	Ag 328.068†	73717.7	68780.7	263.19	µg/L	263.19	ppb	08:45:18
2	As 188.979†	3201.6	3185.2	1025.1	µg/L	1025.1	ppb	08:45:20
2	B 249.677†	97962.8	93333.3	1373.5	µg/L	1373.5	ppb	08:45:18
2	Ba 233.527†	422259.3	417551.8	1681.2	µg/L	1681.2	ppb	08:45:18
2	Be 313.107†	2702352.1	2672420.4	727.57	µg/L	727.57	ppb	08:45:18
2	Cd 226.502†	92134.6	91196.0	551.92	µg/L	551.92	ppb	08:45:18
2	Co 228.616†	71513.6	70883.7	867.49	µg/L	867.49	ppb	08:45:18
2	Cr 267.716†	292492.3	288958.8	2268.2	µg/L	2268.2	ppb	08:45:18
2	Cu 324.752†	437598.9	429607.3	1696.1	µg/L	1696.1	ppb	08:45:18
2	Mn 257.610†	4248676.8	4199706.6	5194.4	µg/L	5194.4	ppb	08:45:18
2	Mo 202.031†	15992.3	15829.0	473.10	µg/L	473.10	ppb	08:45:20
2	Ni 231.604†	111268.0	110068.2	1267.4	µg/L	1267.4	ppb	08:45:18
2	P 214.914†	34199.6	33825.3	7119.8	µg/L	7119.8	ppb	08:45:20
2	Pb 220.353†	13360.0	13120.4	739.91	µg/L	739.91	ppb	08:45:20

2	S 181.975 Axial†	4815.9	4655.6	3461.1 µg/L	3461.1 ppb		08:45:20
2	Sb 206.836†	9758.3	9565.6	1110.4 µg/L	1110.4 ppb		08:45:20
2	Se 196.026†	7399.5	7299.3	2700 µg/L	2700 ppb		08:45:20
2	SiO2†	853125.7	841564.8	82230 µg/L	82230 ppb		08:45:18
2	Si 251.611†	2632554.4	2601522.0	38342 µg/L	38342 ppb		08:45:18
2	Sn 189.927†	14481.2	14316.3	910.36 µg/L	910.36 ppb		08:45:20
2	Ti 334.940†	5746503.4	5679637.6	5305.1 µg/L	5305.1 ppb		08:45:18
2	Tl 190.801†	8412.2	8432.4	1106.8 µg/L	1106.8 ppb		08:45:20
2	U 409.014†	-4922.6	-4596.2	-208.32 µg/L	-208.32 ppb		08:45:18
2	V 292.402†	235044.1	231944.3	1122.6 µg/L	1122.6 ppb		08:45:18
2	Zn 213.857†	973785.5	962051.6	5379.9 µg/L	5379.9 ppb		08:45:18
3	Sc RADIAL	146634.7	146634.7	100 %			08:44:52
3	Al 396.153Radial†	464178.7	462010.3	85635 µg/L	85635 ppb		08:44:52
3	Ca 317.933Radial†	1621868.2	1613510.4	89879 µg/L	89879 ppb		08:44:52
3	Fe 238.204 Radial†	2774875.2	2761386.8	170190 µg/L	170190 ppb		08:44:50
3	K 766.490 Radial†	105966.9	103912.7	38004 µg/L	38004 ppb		08:44:52
3	Mg 279.077 IEC†	95784.9	95133.7	35311 µg/L	35311 ppb		08:44:52
3	Na 589.592 Radial†	71672.1	70036.7	9534.0 µg/L	9534.0 ppb		08:44:52
3	Sr 421.552†	1044840.8	1039953.0	2161.3 µg/L	2161.3 ppb		08:44:50
3	Sc 361.383	1760918.8	1760918.8	102.49 %			08:45:24
3	Y 371.029	1111557.7	1111557.7	108.27 %			08:45:24
3	Ag 328.068†	74591.7	68691.5	262.90 µg/L	262.90 ppb		08:45:24
3	As 188.979†	3224.2	3166.3	1018.6 µg/L	1018.6 ppb		08:45:26
3	B 249.677†	99450.3	93532.8	1376.4 µg/L	1376.4 ppb		08:45:24
3	Ba 233.527†	428621.3	418363.3	1684.6 µg/L	1684.6 ppb		08:45:24
3	Be 313.107†	2742809.3	2677362.6	728.92 µg/L	728.92 ppb		08:45:24
3	Cd 226.502†	93779.7	91623.8	555.00 µg/L	555.00 ppb		08:45:24
3	Co 228.616†	72315.0	70751.7	866.06 µg/L	866.06 ppb		08:45:24
3	Cr 267.716†	296746.8	289372.4	2271.3 µg/L	2271.3 ppb		08:45:24
3	Cu 324.752†	443355.5	429632.2	1695.7 µg/L	1695.7 ppb		08:45:24
3	Mn 257.610†	4310290.7	4205531.7	5201.6 µg/L	5201.6 ppb		08:45:24
3	Mo 202.031†	16014.0	15645.8	467.57 µg/L	467.57 ppb		08:45:26
3	Ni 231.604†	113011.5	110347.6	1270.6 µg/L	1270.6 ppb		08:45:24
3	P 214.914†	34484.9	33666.6	7088.6 µg/L	7088.6 ppb		08:45:26
3	Pb 220.353†	13379.2	12968.3	731.56 µg/L	731.56 ppb		08:45:26
3	S 181.975 Axial†	4838.6	4616.2	3431.8 µg/L	3431.8 ppb		08:45:26
3	Sb 206.836†	9748.7	9431.5	1094.4 µg/L	1094.4 ppb		08:45:26
3	Se 196.026†	7349.3	7155.8	2650 µg/L	2650 ppb		08:45:26
3	SiO2†	865980.4	843205.6	82390 µg/L	82390 ppb		08:45:24
3	Si 251.611†	2673142.9	2607484.4	38430 µg/L	38430 ppb		08:45:24
3	Sn 189.927†	14639.2	14285.3	908.45 µg/L	908.45 ppb		08:45:26
3	Ti 334.940†	5829113.7	5686808.9	5311.8 µg/L	5311.8 ppb		08:45:24
3	Tl 190.801†	8379.1	8292.6	1089.7 µg/L	1089.7 ppb		08:45:26
3	U 409.014†	-4968.8	-4578.4	-206.23 µg/L	-206.23 ppb		08:45:24
3	V 292.402†	238575.3	232386.2	1125.1 µg/L	1125.1 ppb		08:45:24
3	Zn 213.857†	989404.0	964847.2	5396.0 µg/L	5396.0 ppb		08:45:24

Mean Data: 1202068102|964012|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1744910.4	101.55	%	0.810				0.80%
Sc RADIAL	146688.0	101	%	0.8				0.80%
Y 371.029	1101423.7	107.28	%	0.857				0.80%
Ag 328.068†	68642.2	262.70	µg/L	0.617	262.70	ppb	0.617	0.23%
Al 396.153Radial†	461011.0	85449	µg/L	164.7	85449	ppb	164.7	0.19%
As 188.979†	3184.9	1024.5	µg/L	5.63	1024.5	ppb	5.63	0.55%
B 249.677†	93291.8	1372.9	µg/L	3.89	1372.9	ppb	3.89	0.28%
Ba 233.527†	417684.4	1681.8	µg/L	2.52	1681.8	ppb	2.52	0.15%
Be 313.107†	2672951.4	727.72	µg/L	1.135	727.72	ppb	1.135	0.16%
Ca 317.933Radial†	1614868.6	89955	µg/L	200.0	89955	ppb	200.0	0.22%
Cd 226.502†	91284.6	552.73	µg/L	1.997	552.73	ppb	1.997	0.36%
Co 228.616†	70728.6	865.70	µg/L	1.995	865.70	ppb	1.995	0.23%
Cr 267.716†	288963.9	2268.2	µg/L	3.17	2268.2	ppb	3.17	0.14%
Cu 324.752†	429465.4	1695.2	µg/L	1.17	1695.2	ppb	1.17	0.07%
Fe 238.204 Radial†	2785203.8	171660	µg/L	2092.3	171660	ppb	2092.3	1.22%
K 766.490 Radial†	103963.7	38022	µg/L	117.0	38022	ppb	117.0	0.31%
Mg 279.077 IEC†	95237.9	35348	µg/L	131.0	35348	ppb	131.0	0.37%
Mn 257.610†	4200531.6	5195.5	µg/L	5.75	5195.5	ppb	5.75	0.11%
Mo 202.031†	15790.4	471.88	µg/L	3.845	471.88	ppb	3.845	0.81%
Na 589.592 Radial†	70094.8	9542.0	µg/L	7.28	9542.0	ppb	7.28	0.08%

Ni 231.604†	110247.2	1269.4	µg/L	1.79	1269.4	ppb	1.79	0.14%
P 214.914†	33816.6	7119.6	µg/L	30.97	7119.6	ppb	30.97	0.43%
Pb 220.353†	13111.8	739.51	µg/L	7.754	739.51	ppb	7.754	1.05%
S 181.975 Axial†	4650.4	3457.2	µg/L	23.66	3457.2	ppb	23.66	0.68%
Sb 206.836†	9522.7	1105.3	µg/L	9.48	1105.3	ppb	9.48	0.86%
Se 196.026†	7231.9	2670	µg/L	26.7	2670	ppb	26.7	1.00%
SiO2†	842035.5	82276	µg/L	99.9	82276	ppb	99.9	0.12%
Si 251.611†	2603061.3	38365	µg/L	57.4	38365	ppb	57.4	0.15%
Sn 189.927†	14379.3	914.29	µg/L	8.516	914.29	ppb	8.516	0.93%
Sr 421.552†	1047085.7	2176.1	µg/L	24.63	2176.1	ppb	24.63	1.13%
Ti 334.940†	5680671.5	5306.1	µg/L	5.32	5306.1	ppb	5.32	0.10%
Tl 190.801†	8383.0	1100.8	µg/L	9.56	1100.8	ppb	9.56	0.87%
U 409.014†	-4536.5	-204.22	µg/L	5.387	-204.22	ppb	5.387	2.64%
Concentration less than lower limit for U 409.014.								
V 292.402†	232104.3	1123.6	µg/L	1.32	1123.6	ppb	1.32	0.12%
Zn 213.857†	962736.9	5384.0	µg/L	10.57	5384.0	ppb	10.57	0.20%

Sequence No.: 4
Sample ID: 1202068098|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 304
Date Collected: 4/1/2010 8:47:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068098|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144572.7	144572.7	99.1	%			08:48:15
1	Al 396.153Radial†	50331.4	50867.1	9428.9	µg/L	9428.9	ppb	08:48:15
1	Ca 317.933Radial†	26205.3	25890.7	1442.2	µg/L	1442.2	ppb	08:48:17
1	Fe 238.204 Radial†	607116.8	612667.3	37761	µg/L	37761	ppb	08:48:15
1	K 766.490 Radial†	10794.4	9350.9	3420.6	µg/L	3420.6	ppb	08:48:15
1	Mg 279.077 IEC†	1708.0	1533.4	539.87	µg/L	539.87	ppb	08:48:17
1	Na 589.592 Radial†	23041.3	21966.7	2997.9	µg/L	2997.9	ppb	08:48:15
1	Sr 421.552†	31149.4	31577.1	65.636	µg/L	65.636	ppb	08:48:15
1	Sc 361.383	1741548.7	1741548.7	101.36	%			08:48:30
1	Y 371.029	1203345.8	1203345.8	117.21	%			08:48:30
1	Ag 328.068†	3716.2	-424.9	-2.4124	µg/L	-2.4124	ppb	08:48:30
1	As 188.979†	3.5	23.8	16.137	µg/L	16.137	ppb	08:48:50
1	B 249.677†	3731.4	175.6	2.5731	µg/L	2.5731	ppb	08:48:30
1	Ba 233.527†	24767.3	24571.4	98.552	µg/L	98.552	ppb	08:48:50
1	Be 313.107†	8535.5	9485.9	2.5118	µg/L	2.5118	ppb	08:48:30
1	Cd 226.502†	503.4	614.8	-0.1215	µg/L	-0.1215	ppb	08:48:50
1	Co 228.616†	189.3	377.0	2.7859	µg/L	2.7859	ppb	08:48:50
1	Cr 267.716†	4934.9	4690.2	37.826	µg/L	37.826	ppb	08:48:50
1	Cu 324.752†	4178.2	1150.1	9.7927	µg/L	9.7927	ppb	08:48:30
1	Mn 257.610†	1316224.5	1298354.1	1606.3	µg/L	1606.3	ppb	08:48:30
1	Mo 202.031†	1314.2	1316.6	40.202	µg/L	40.202	ppb	08:48:50
1	Ni 231.604†	1580.9	1636.2	18.840	µg/L	18.840	ppb	08:48:50
1	P 214.914†	1845.2	1838.4	369.22	µg/L	369.22	ppb	08:48:50
1	Pb 220.353†	546.7	453.0	25.820	µg/L	25.820	ppb	08:48:50
1	S 181.975 Axial†	805.8	690.0	512.68	µg/L	512.68	ppb	08:48:50
1	Sb 206.836†	81.4	-0.5	-0.5718	µg/L	-0.5718	ppb	08:48:50
1	Se 196.026†	-23.2	-38.1	-0.907	µg/L	-0.907	ppb	08:48:50
1	SiO2†	405305.5	398100.4	38910	µg/L	38910	ppb	08:48:30
1	Si 251.611†	1249967.5	1232385.4	18168	µg/L	18168	ppb	08:48:30
1	Sn 189.927†	118.5	118.0	9.6276	µg/L	9.6276	ppb	08:48:50
1	Ti 334.940†	731337.3	720587.2	673.30	µg/L	673.30	ppb	08:48:30
1	Tl 190.801†	-227.7	-108.0	-2.2781	µg/L	-2.2781	ppb	08:48:50
1	U 409.014†	-4347.1	-4019.0	-232.31	µg/L	-232.31	ppb	08:48:30
1	V 292.402†	3433.4	2983.6	10.347	µg/L	10.347	ppb	08:48:50
1	Zn 213.857†	22643.7	21775.9	118.64	µg/L	118.64	ppb	08:48:50
2	Sc RADIAL	144917.8	144917.8	99.3	%			08:48:19
2	Al 396.153Radial†	50640.9	51057.7	9464.2	µg/L	9464.2	ppb	08:48:19
2	Ca 317.933Radial†	25898.1	25518.4	1421.5	µg/L	1421.5	ppb	08:48:21
2	Fe 238.204 Radial†	609936.7	614047.6	37846	µg/L	37846	ppb	08:48:19
2	K 766.490 Radial†	10612.8	9142.1	3344.2	µg/L	3344.2	ppb	08:48:19
2	Mg 279.077 IEC†	1749.6	1571.1	553.87	µg/L	553.87	ppb	08:48:21
2	Na 589.592 Radial†	23158.4	22029.3	3006.5	µg/L	3006.5	ppb	08:48:19
2	Sr 421.552†	31143.6	31496.3	65.468	µg/L	65.468	ppb	08:48:19
2	Sc 361.383	1762837.7	1762837.7	102.60	%			08:48:52
2	Y 371.029	1216152.3	1216152.3	118.45	%			08:48:52
2	Ag 328.068†	3953.1	-238.3	-1.7342	µg/L	-1.7342	ppb	08:48:52
2	As 188.979†	-5.0	15.4	13.613	µg/L	13.613	ppb	08:49:12
2	B 249.677†	3638.7	40.7	0.5852	µg/L	0.5852	ppb	08:48:52
2	Ba 233.527†	24773.6	24282.4	97.386	µg/L	97.386	ppb	08:49:12
2	Be 313.107†	8496.0	9345.7	2.4713	µg/L	2.4713	ppb	08:48:52
2	Cd 226.502†	514.4	619.6	-0.1009	µg/L	-0.1009	ppb	08:49:12
2	Co 228.616†	171.5	357.5	2.5390	µg/L	2.5390	ppb	08:49:12
2	Cr 267.716†	4932.0	4628.6	37.350	µg/L	37.350	ppb	08:49:12
2	Cu 324.752†	4077.0	1001.6	9.2223	µg/L	9.2223	ppb	08:48:52
2	Mn 257.610†	1337760.1	1303662.1	1612.9	µg/L	1612.9	ppb	08:48:52
2	Mo 202.031†	1335.0	1321.3	40.343	µg/L	40.343	ppb	08:49:12
2	Ni 231.604†	1554.4	1591.5	18.325	µg/L	18.325	ppb	08:49:12
2	P 214.914†	1876.5	1847.0	371.01	µg/L	371.01	ppb	08:49:12
2	Pb 220.353†	513.3	413.9	23.648	µg/L	23.648	ppb	08:49:12

2	S 181.975 Axial†	798.7	673.4	500.38 µg/L	500.38 ppb	08:49:12
2	Sb 206.836†	77.7	-5.1	-1.1099 µg/L	-1.1099 ppb	08:49:12
2	Se 196.026†	-29.1	-43.6	-2.87 µg/L	-2.87 ppb	08:49:12
2	SiO2†	411439.7	399250.1	39022 µg/L	39022 ppb	08:48:52
2	Si 251.611†	1268544.7	1235599.3	18216 µg/L	18216 ppb	08:48:52
2	Sn 189.927†	125.7	123.6	9.9833 µg/L	9.9833 ppb	08:49:12
2	Ti 334.940†	741889.0	722158.1	674.77 µg/L	674.77 ppb	08:48:52
2	Tl 190.801†	-229.3	-106.8	-2.1037 µg/L	-2.1037 ppb	08:49:12
2	U 409.014†	-4532.2	-4147.6	-239.82 µg/L	-239.82 ppb	08:48:52
2	V 292.402†	3448.2	2957.1	10.202 µg/L	10.202 ppb	08:49:12
2	Zn 213.857†	22602.8	21466.2	116.89 µg/L	116.89 ppb	08:49:12
3	Sc RADIAL	147208.9	147208.9	101 %		08:48:23
3	Al 396.153Radial†	51303.5	50920.9	9438.9 µg/L	9438.9 ppb	08:48:23
3	Ca 317.933Radial†	25997.8	25211.3	1404.4 µg/L	1404.4 ppb	08:48:25
3	Fe 238.204 Radial†	618847.9	613322.3	37801 µg/L	37801 ppb	08:48:23
3	K 766.490 Radial†	10817.9	9179.2	3357.7 µg/L	3357.7 ppb	08:48:23
3	Mg 279.077 IEC†	1882.5	1675.4	592.76 µg/L	592.76 ppb	08:48:25
3	Na 589.592 Radial†	23349.5	21855.8	2982.8 µg/L	2982.8 ppb	08:48:23
3	Sr 421.552†	31653.6	31513.8	65.504 µg/L	65.504 ppb	08:48:23
3	Sc 361.383	1764846.5	1764846.5	102.71 %		08:49:15
3	Y 371.029	1218363.0	1218363.0	118.67 %		08:49:15
3	Ag 328.068†	4125.6	-74.8	-1.1417 µg/L	-1.1417 ppb	08:49:15
3	As 188.979†	-4.3	16.2	13.827 µg/L	13.827 ppb	08:49:35
3	B 249.677†	3766.7	161.3	2.3635 µg/L	2.3635 ppb	08:49:15
3	Ba 233.527†	24760.4	24242.0	97.225 µg/L	97.225 ppb	08:49:35
3	Be 313.107†	8440.6	9282.3	2.4503 µg/L	2.4503 ppb	08:49:15
3	Cd 226.502†	490.7	596.0	-0.2439 µg/L	-0.2439 ppb	08:49:35
3	Co 228.616†	157.1	343.2	2.3653 µg/L	2.3653 ppb	08:49:35
3	Cr 267.716†	4951.1	4641.7	37.461 µg/L	37.461 ppb	08:49:35
3	Cu 324.752†	4027.2	948.6	9.0003 µg/L	9.0003 ppb	08:49:15
3	Mn 257.610†	1339048.3	1303432.1	1612.6 µg/L	1612.6 ppb	08:49:15
3	Mo 202.031†	1338.9	1323.6	40.410 µg/L	40.410 ppb	08:49:35
3	Ni 231.604†	1563.7	1598.9	18.410 µg/L	18.410 ppb	08:49:35
3	P 214.914†	1875.5	1843.9	370.39 µg/L	370.39 ppb	08:49:35
3	Pb 220.353†	534.3	433.8	24.770 µg/L	24.770 ppb	08:49:35
3	S 181.975 Axial†	791.9	665.9	494.84 µg/L	494.84 ppb	08:49:35
3	Sb 206.836†	82.0	-1.0	-0.6196 µg/L	-0.6196 ppb	08:49:35
3	Se 196.026†	-37.3	-51.6	-5.77 µg/L	-5.77 ppb	08:49:35
3	SiO2†	413589.5	400886.7	39182 µg/L	39182 ppb	08:49:15
3	Si 251.611†	1274675.8	1240161.1	18283 µg/L	18283 ppb	08:49:15
3	Sn 189.927†	129.5	127.2	10.203 µg/L	10.203 ppb	08:49:35
3	Ti 334.940†	743130.3	722543.5	675.13 µg/L	675.13 ppb	08:49:15
3	Tl 190.801†	-252.2	-128.8	-4.8027 µg/L	-4.8027 ppb	08:49:35
3	U 409.014†	-4756.7	-4361.1	-252.28 µg/L	-252.28 ppb	08:49:15
3	V 292.402†	3478.8	2983.1	10.326 µg/L	10.326 ppb	08:49:35
3	Zn 213.857†	22574.8	21413.9	116.60 µg/L	116.60 ppb	08:49:35

Mean Data: 1202068098|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1756411.0	102.22	%	0.751				0.74%
Sc RADIAL	145566.5	99.8	%	0.98				0.98%
Y 371.029	1212620.3	118.11	%	0.790				0.67%
Ag 328.068†	-246.0	-1.7628	µg/L	0.63586	-1.7628	ppb	0.63586	36.07%
Al 396.153Radial†	50948.6	9444.0	µg/L	18.22	9444.0	ppb	18.22	0.19%
As 188.979†	18.5	14.526	µg/L	1.3996	14.526	ppb	1.3996	9.64%
B 249.677†	125.8	1.8406	µg/L	1.09222	1.8406	ppb	1.09222	59.34%
Ba 233.527†	24365.3	97.721	µg/L	0.7243	97.721	ppb	0.7243	0.74%
Be 313.107†	9371.3	2.4778	µg/L	0.03125	2.4778	ppb	0.03125	1.26%
Ca 317.933Radial†	25540.1	1422.7	µg/L	18.95	1422.7	ppb	18.95	1.33%
Cd 226.502†	610.1	-0.1555	µg/L	0.07731	-0.1555	ppb	0.07731	49.73%
Co 228.616†	359.3	2.5634	µg/L	0.21138	2.5634	ppb	0.21138	8.25%
Cr 267.716†	4653.5	37.546	µg/L	0.2490	37.546	ppb	0.2490	0.66%
Cu 324.752†	1033.4	9.3384	µg/L	0.40878	9.3384	ppb	0.40878	4.38%
Fe 238.204 Radial†	613345.7	37803	µg/L	42.6	37803	ppb	42.6	0.11%
K 766.490 Radial†	9224.1	3374.2	µg/L	40.80	3374.2	ppb	40.80	1.21%
Mg 279.077 IEC†	1593.3	562.17	µg/L	27.402	562.17	ppb	27.402	4.87%
Mn 257.610†	1301816.1	1610.6	µg/L	3.71	1610.6	ppb	3.71	0.23%
Mo 202.031†	1320.5	40.319	µg/L	0.1061	40.319	ppb	0.1061	0.26%
Na 589.592 Radial†	21950.6	2995.7	µg/L	12.01	2995.7	ppb	12.01	0.40%

Ni 231.604†	1608.9	18.525	µg/L	0.2757	18.525	ppb	0.2757	1.49%
P 214.914†	1843.1	370.21	µg/L	0.908	370.21	ppb	0.908	0.25%
Pb 220.353†	433.6	24.746	µg/L	1.0859	24.746	ppb	1.0859	4.39%
S 181.975 Axial†	676.4	502.63	µg/L	9.132	502.63	ppb	9.132	1.82%
Sb 206.836†	-2.2	-0.7671	µg/L	0.29786	-0.7671	ppb	0.29786	38.83%
Se 196.026†	-44.4	-3.18	µg/L	2.448	-3.18	ppb	2.448	76.89%
SiO2†	399412.4	39038	µg/L	136.9	39038	ppb	136.9	0.35%
Si 251.611†	1236048.6	18222	µg/L	57.6	18222	ppb	57.6	0.32%
Sn 189.927†	122.9	9.9380	µg/L	0.29034	9.9380	ppb	0.29034	2.92%
Sr 421.552†	31529.1	65.536	µg/L	0.0882	65.536	ppb	0.0882	0.13%
Ti 334.940†	721762.9	674.40	µg/L	0.970	674.40	ppb	0.970	0.14%
Tl 190.801†	-114.5	-3.0615	µg/L	1.51045	-3.0615	ppb	1.51045	49.34%
U 409.014†	-4175.9	-241.47	µg/L	10.089	-241.47	ppb	10.089	4.18%
Concentration less than lower limit for U 409.014.								
V 292.402†	2974.6	10.292	µg/L	0.0785	10.292	ppb	0.0785	0.76%
Zn 213.857†	21552.0	117.38	µg/L	1.100	117.38	ppb	1.100	0.94%

Sequence No.: 5
Sample ID: 1202068100|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 305
Date Collected: 4/1/2010 8:49:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068100|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144122.6	144122.6	98.8	%			08:50:16
1	Al 396.153Radial†	127172.0	128829.9	23861	µg/L	23861	ppb	08:50:16
1	Ca 317.933Radial†	113853.8	114720.8	6390.4	µg/L	6390.4	ppb	08:50:16
1	Fe 238.204 Radial†	783501.0	793177.4	48887	µg/L	48887	ppb	08:50:14
1	K 766.490 Radial†	30481.3	29318.7	10725	µg/L	10725	ppb	08:50:16
1	Mg 279.077 IEC†	15371.5	15373.5	5698.6	µg/L	5698.6	ppb	08:50:16
1	Na 589.592 Radial†	74373.2	74015.0	10102	µg/L	10102	ppb	08:50:16
1	Sr 421.552†	271936.6	275481.8	572.66	µg/L	572.66	ppb	08:50:14
1	Sc 361.383	1721634.6	1721634.6	100.20	%			08:50:29
1	Y 371.029	1228026.2	1228026.2	119.61	%			08:50:29
1	Ag 328.068†	128263.8	123917.8	463.67	µg/L	463.67	ppb	08:50:29
1	As 188.979†	1611.0	1628.1	509.46	µg/L	509.46	ppb	08:50:49
1	B 249.677†	35510.8	31934.4	469.38	µg/L	469.38	ppb	08:50:29
1	Ba 233.527†	147168.5	147012.2	592.25	µg/L	592.25	ppb	08:50:29
1	Be 313.107†	1798691.7	1796186.5	489.12	µg/L	489.12	ppb	08:50:29
1	Cd 226.502†	75374.5	75343.1	465.69	µg/L	465.69	ppb	08:50:29
1	Co 228.616†	37297.4	37413.7	459.70	µg/L	459.70	ppb	08:50:29
1	Cr 267.716†	62920.6	62617.2	491.59	µg/L	491.59	ppb	08:50:29
1	Cu 324.752†	131261.8	128029.1	505.23	µg/L	505.23	ppb	08:50:29
1	Mn 257.610†	1804263.3	1800445.1	2227.3	µg/L	2227.3	ppb	08:50:29
1	Mo 202.031†	17479.2	17464.6	515.46	µg/L	515.46	ppb	08:50:49
1	Ni 231.604†	41941.2	41934.5	482.85	µg/L	482.85	ppb	08:50:29
1	P 214.914†	4715.3	4723.9	975.63	µg/L	975.63	ppb	08:50:49
1	Pb 220.353†	8892.9	8788.8	493.73	µg/L	493.73	ppb	08:50:49
1	S 181.975 Axial†	7851.6	7731.0	5745.2	µg/L	5745.2	ppb	08:50:49
1	Sb 206.836†	3773.8	3685.5	438.80	µg/L	438.80	ppb	08:50:49
1	Se 196.026†	1284.1	1266.3	475	µg/L	475	ppb	08:50:49
1	SiO2†	756898.8	753621.2	73639	µg/L	73639	ppb	08:50:29
1	Si 251.611†	2323681.1	2318232.7	34168	µg/L	34168	ppb	08:50:29
1	Sn 189.927†	7465.4	7451.7	470.07	µg/L	470.07	ppb	08:50:49
1	Ti 334.940†	1762704.1	1758253.1	1642.1	µg/L	1642.1	ppb	08:50:29
1	Tl 190.801†	3537.3	3646.9	471.55	µg/L	471.55	ppb	08:50:49
1	U 409.014†	2502.1	2767.0	192.08	µg/L	192.08	ppb	08:50:29
1	V 292.402†	97680.6	97082.9	474.45	µg/L	474.45	ppb	08:50:29
1	Zn 213.857†	108539.6	107759.7	597.74	µg/L	597.74	ppb	08:50:29
2	Sc RADIAL	142988.3	142988.3	98.0	%			08:50:20
2	Al 396.153Radial†	126525.6	129191.6	23928	µg/L	23928	ppb	08:50:20
2	Ca 317.933Radial†	112419.9	114171.9	6359.8	µg/L	6359.8	ppb	08:50:20
2	Fe 238.204 Radial†	765603.6	781205.0	48149	µg/L	48149	ppb	08:50:18
2	K 766.490 Radial†	29907.4	28977.8	10601	µg/L	10601	ppb	08:50:20
2	Mg 279.077 IEC†	15131.1	15251.6	5653.7	µg/L	5653.7	ppb	08:50:20
2	Na 589.592 Radial†	73498.3	73719.4	10062	µg/L	10062	ppb	08:50:20
2	Sr 421.552†	267577.4	273217.1	567.95	µg/L	567.95	ppb	08:50:18
2	Sc 361.383	1745857.4	1745857.4	101.61	%			08:50:52
2	Y 371.029	1244503.2	1244503.2	121.22	%			08:50:52
2	Ag 328.068†	129377.7	123238.1	461.15	µg/L	461.15	ppb	08:50:52
2	As 188.979†	1622.9	1617.5	506.10	µg/L	506.10	ppb	08:51:12
2	B 249.677†	36076.9	31999.8	470.33	µg/L	470.33	ppb	08:50:52
2	Ba 233.527†	149527.9	147296.5	593.40	µg/L	593.40	ppb	08:50:52
2	Be 313.107†	1825285.3	1797452.7	489.46	µg/L	489.46	ppb	08:50:52
2	Cd 226.502†	76611.0	75516.3	466.85	µg/L	466.85	ppb	08:50:52
2	Co 228.616†	37940.4	37530.0	461.17	µg/L	461.17	ppb	08:50:52
2	Cr 267.716†	64040.9	62848.5	493.38	µg/L	493.38	ppb	08:50:52
2	Cu 324.752†	133116.6	128036.9	505.14	µg/L	505.14	ppb	08:50:52
2	Mn 257.610†	1833461.8	1804197.8	2232.0	µg/L	2232.0	ppb	08:50:52
2	Mo 202.031†	17607.6	17348.9	512.03	µg/L	512.03	ppb	08:51:12
2	Ni 231.604†	42733.9	42133.9	485.14	µg/L	485.14	ppb	08:50:52
2	P 214.914†	4763.8	4706.3	972.42	µg/L	972.42	ppb	08:51:12
2	Pb 220.353†	8960.2	8732.0	490.58	µg/L	490.58	ppb	08:51:12

2	S 181.975 Axial†	7925.2	7694.6	5718.2 µg/L	5718.2 ppb	08:51:12
2	Sb 206.836†	3805.0	3663.9	436.17 µg/L	436.17 ppb	08:51:12
2	Se 196.026†	1274.0	1238.6	465 µg/L	465 ppb	08:51:12
2	SiO2†	769065.7	755114.8	73785 µg/L	73785 ppb	08:50:52
2	Si 251.611†	2359565.5	2321373.1	34214 µg/L	34214 ppb	08:50:52
2	Sn 189.927†	7541.8	7423.5	468.32 µg/L	468.32 ppb	08:51:12
2	Ti 334.940†	1788157.3	1758895.3	1642.8 µg/L	1642.8 ppb	08:50:52
2	Tl 190.801†	3549.7	3610.2	467.05 µg/L	467.05 ppb	08:51:12
2	U 409.014†	2468.8	2699.6	188.34 µg/L	188.34 ppb	08:50:52
2	V 292.402†	99082.5	97110.1	474.63 µg/L	474.63 ppb	08:50:52
2	Zn 213.857†	110591.0	108275.8	600.70 µg/L	600.70 ppb	08:50:52
3	Sc RADIAL	144517.9	144517.9	99.0 %		08:50:24
3	Al 396.153Radial†	127748.6	129059.9	23904 µg/L	23904 ppb	08:50:24
3	Ca 317.933Radial†	114060.8	114614.6	6384.5 µg/L	6384.5 ppb	08:50:24
3	Fe 238.204 Radial†	777262.7	784708.2	48365 µg/L	48365 ppb	08:50:22
3	K 766.490 Radial†	30429.4	29181.9	10675 µg/L	10675 ppb	08:50:24
3	Mg 279.077 IEC†	15285.9	15244.5	5651.0 µg/L	5651.0 ppb	08:50:24
3	Na 589.592 Radial†	74366.6	73802.4	10073 µg/L	10073 ppb	08:50:24
3	Sr 421.552†	271449.3	274236.6	570.07 µg/L	570.07 ppb	08:50:22
3	Sc 361.383	1734240.9	1734240.9	100.93 %		08:51:15
3	Y 371.029	1237174.5	1237174.5	120.50 %		08:51:15
3	Ag 328.068†	129090.7	123806.6	463.26 µg/L	463.26 ppb	08:51:15
3	As 188.979†	1609.4	1614.9	505.34 µg/L	505.34 ppb	08:51:35
3	B 249.677†	35857.6	32020.4	470.64 µg/L	470.64 ppb	08:51:15
3	Ba 233.527†	148743.7	147505.3	594.24 µg/L	594.24 ppb	08:51:15
3	Be 313.107†	1812583.6	1796901.1	489.31 µg/L	489.31 ppb	08:51:15
3	Cd 226.502†	76098.4	75513.5	466.81 µg/L	466.81 ppb	08:51:15
3	Co 228.616†	37601.0	37443.9	460.10 µg/L	460.10 ppb	08:51:15
3	Cr 267.716†	63480.7	62715.6	492.34 µg/L	492.34 ppb	08:51:15
3	Cu 324.752†	132229.2	128035.3	505.17 µg/L	505.17 ppb	08:51:15
3	Mn 257.610†	1819647.2	1802597.5	2230.0 µg/L	2230.0 ppb	08:51:15
3	Mo 202.031†	17665.1	17521.9	517.12 µg/L	517.12 ppb	08:51:35
3	Ni 231.604†	42420.4	42105.0	484.81 µg/L	484.81 ppb	08:51:15
3	P 214.914†	4771.8	4745.6	980.67 µg/L	980.67 ppb	08:51:35
3	Pb 220.353†	8990.9	8821.4	495.58 µg/L	495.58 ppb	08:51:35
3	S 181.975 Axial†	8003.9	7824.9	5815.0 µg/L	5815.0 ppb	08:51:35
3	Sb 206.836†	3808.5	3692.5	439.66 µg/L	439.66 ppb	08:51:35
3	Se 196.026†	1301.4	1274.1	478 µg/L	478 ppb	08:51:35
3	SiO2†	763417.7	754588.8	73733 µg/L	73733 ppb	08:51:15
3	Si 251.611†	2342280.0	2319802.2	34191 µg/L	34191 ppb	08:51:15
3	Sn 189.927†	7590.3	7521.3	474.42 µg/L	474.42 ppb	08:51:35
3	Ti 334.940†	1777102.7	1759730.8	1643.5 µg/L	1643.5 ppb	08:51:15
3	Tl 190.801†	3546.0	3629.9	469.48 µg/L	469.48 ppb	08:51:35
3	U 409.014†	2474.9	2721.9	189.61 µg/L	189.61 ppb	08:51:15
3	V 292.402†	98519.9	97205.9	475.12 µg/L	475.12 ppb	08:51:15
3	Zn 213.857†	109774.4	108195.8	600.23 µg/L	600.23 ppb	08:51:15

Mean Data: 1202068100|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733911.0	100.91	%	0.705				0.70%
Sc RADIAL	143876.2	98.6	%	0.54				0.55%
Y 371.029	1236568.0	120.44	%	0.804				0.67%
Ag 328.068†	123654.2	462.69	µg/L	1.351	462.69	ppb	1.351	0.29%
Al 396.153Radial†	129027.1	23898	µg/L	34.0	23898	ppb	34.0	0.14%
As 188.979†	1620.2	506.97	µg/L	2.194	506.97	ppb	2.194	0.43%
B 249.677†	31984.9	470.12	µg/L	0.661	470.12	ppb	0.661	0.14%
Ba 233.527†	147271.3	593.30	µg/L	1.001	593.30	ppb	1.001	0.17%
Be 313.107†	1796846.8	489.30	µg/L	0.172	489.30	ppb	0.172	0.04%
Ca 317.933Radial†	114502.4	6378.2	µg/L	16.22	6378.2	ppb	16.22	0.25%
Cd 226.502†	75457.6	466.45	µg/L	0.659	466.45	ppb	0.659	0.14%
Co 228.616†	37462.5	460.32	µg/L	0.763	460.32	ppb	0.763	0.17%
Cr 267.716†	62727.1	492.44	µg/L	0.898	492.44	ppb	0.898	0.18%
Cu 324.752†	128033.8	505.18	µg/L	0.041	505.18	ppb	0.041	0.01%
Fe 238.204 Radial†	786363.5	48467	µg/L	379.4	48467	ppb	379.4	0.78%
K 766.490 Radial†	29159.5	10667	µg/L	62.8	10667	ppb	62.8	0.59%
Mg 279.077 IEC†	15289.9	5667.7	µg/L	26.72	5667.7	ppb	26.72	0.47%
Mn 257.610†	1802413.5	2229.8	µg/L	2.33	2229.8	ppb	2.33	0.10%
Mo 202.031†	17445.2	514.87	µg/L	2.597	514.87	ppb	2.597	0.50%
Na 589.592 Radial†	73845.6	10079	µg/L	20.8	10079	ppb	20.8	0.21%

Ni 231.604†	42057.8	484.26	µg/L	1.241	484.26	ppb	1.241	0.26%
P 214.914†	4725.3	976.24	µg/L	4.160	976.24	ppb	4.160	0.43%
Pb 220.353†	8780.7	493.30	µg/L	2.528	493.30	ppb	2.528	0.51%
S 181.975 Axial†	7750.2	5759.5	µg/L	49.95	5759.5	ppb	49.95	0.87%
Sb 206.836†	3680.7	438.21	µg/L	1.822	438.21	ppb	1.822	0.42%
Se 196.026†	1259.7	472	µg/L	6.8	472	ppb	6.8	1.45%
SiO2†	754441.6	73719	µg/L	74.1	73719	ppb	74.1	0.10%
Si 251.611†	2319802.7	34191	µg/L	23.2	34191	ppb	23.2	0.07%
Sn 189.927†	7465.5	470.94	µg/L	3.138	470.94	ppb	3.138	0.67%
Sr 421.552†	274311.8	570.23	µg/L	2.358	570.23	ppb	2.358	0.41%
Ti 334.940†	1758959.7	1642.8	µg/L	0.69	1642.8	ppb	0.69	0.04%
Tl 190.801†	3629.0	469.36	µg/L	2.251	469.36	ppb	2.251	0.48%
U 409.014†	2729.5	190.01	µg/L	1.902	190.01	ppb	1.902	1.00%
V 292.402†	97133.0	474.73	µg/L	0.348	474.73	ppb	0.348	0.07%
Zn 213.857†	108077.1	599.56	µg/L	1.593	599.56	ppb	1.593	0.27%

Sequence No.: 6
Sample ID: 1202068101|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 306
Date Collected: 4/1/2010 8:51:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068101|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144627.7	144627.7	99.1	%			08:52:16
1	Al 396.153Radial†	118364.8	119493.7	22130	µg/L	22130	ppb	08:52:16
1	Ca 317.933Radial†	114064.7	114531.0	6379.8	µg/L	6379.8	ppb	08:52:16
1	Fe 238.204 Radial†	745919.6	752487.0	46379	µg/L	46379	ppb	08:52:14
1	K 766.490 Radial†	29283.9	28002.7	10244	µg/L	10244	ppb	08:52:16
1	Mg 279.077 IEC†	15163.4	15109.2	5602.2	µg/L	5602.2	ppb	08:52:16
1	Na 589.592 Radial†	71571.4	70924.9	9680.1	µg/L	9680.1	ppb	08:52:16
1	Sr 421.552†	257498.7	259952.3	540.38	µg/L	540.38	ppb	08:52:14
1	Sc 361.383	1720973.6	1720973.6	100.16	%			08:52:29
1	Y 371.029	1265170.3	1265170.3	123.23	%			08:52:29
1	Ag 328.068†	125768.7	121475.9	454.45	µg/L	454.45	ppb	08:52:29
1	As 188.979†	1590.0	1607.8	502.66	µg/L	502.66	ppb	08:52:49
1	B 249.677†	34837.4	31275.8	459.68	µg/L	459.68	ppb	08:52:29
1	Ba 233.527†	140249.1	140160.4	564.67	µg/L	564.67	ppb	08:52:29
1	Be 313.107†	1770057.5	1768287.6	481.49	µg/L	481.49	ppb	08:52:29
1	Cd 226.502†	74083.7	74083.3	458.08	µg/L	458.08	ppb	08:52:29
1	Co 228.616†	36806.9	36938.2	453.93	µg/L	453.93	ppb	08:52:29
1	Cr 267.716†	61662.1	61384.8	481.91	µg/L	481.91	ppb	08:52:29
1	Cu 324.752†	129416.4	126237.0	497.81	µg/L	497.81	ppb	08:52:29
1	Mn 257.610†	1838865.6	1835683.5	2270.9	µg/L	2270.9	ppb	08:52:29
1	Mo 202.031†	17344.0	17336.3	511.58	µg/L	511.58	ppb	08:52:49
1	Ni 231.604†	41361.1	41371.3	476.36	µg/L	476.36	ppb	08:52:29
1	P 214.914†	4579.6	4590.2	948.45	µg/L	948.45	ppb	08:52:49
1	Pb 220.353†	8735.6	8635.2	485.33	µg/L	485.33	ppb	08:52:49
1	S 181.975 Axial†	7364.7	7247.9	5386.4	µg/L	5386.4	ppb	08:52:49
1	Sb 206.836†	3714.7	3627.9	432.08	µg/L	432.08	ppb	08:52:49
1	Se 196.026†	1263.4	1246.1	467	µg/L	467	ppb	08:52:49
1	SiO2†	710745.2	707831.6	69164	µg/L	69164	ppb	08:52:29
1	Si 251.611†	2181881.7	2177551.0	32094	µg/L	32094	ppb	08:52:29
1	Sn 189.927†	7406.9	7396.1	466.94	µg/L	466.94	ppb	08:52:49
1	Ti 334.940†	1866575.2	1862633.5	1739.7	µg/L	1739.7	ppb	08:52:29
1	Tl 190.801†	3447.9	3559.1	461.84	µg/L	461.84	ppb	08:52:49
1	U 409.014†	828.9	1097.4	95.030	µg/L	95.030	ppb	08:52:29
1	V 292.402†	96604.9	96046.4	469.42	µg/L	469.42	ppb	08:52:29
1	Zn 213.857†	108543.8	107805.5	598.33	µg/L	598.33	ppb	08:52:29
2	Sc RADIAL	144273.4	144273.4	98.9	%			08:52:20
2	Al 396.153Radial†	118216.6	119637.0	22157	µg/L	22157	ppb	08:52:20
2	Ca 317.933Radial†	113255.8	113995.4	6350.0	µg/L	6350.0	ppb	08:52:20
2	Fe 238.204 Radial†	744740.0	753142.0	46419	µg/L	46419	ppb	08:52:18
2	K 766.490 Radial†	29142.8	27932.6	10218	µg/L	10218	ppb	08:52:20
2	Mg 279.077 IEC†	15105.5	15088.2	5594.2	µg/L	5594.2	ppb	08:52:20
2	Na 589.592 Radial†	71259.6	70786.9	9661.3	µg/L	9661.3	ppb	08:52:20
2	Sr 421.552†	257202.8	260290.9	541.08	µg/L	541.08	ppb	08:52:18
2	Sc 361.383	1738077.6	1738077.6	101.16	%			08:52:52
2	Y 371.029	1277546.9	1277546.9	124.43	%			08:52:52
2	Ag 328.068†	126862.2	121321.2	453.89	µg/L	453.89	ppb	08:52:52
2	As 188.979†	1594.1	1596.2	499.14	µg/L	499.14	ppb	08:53:12
2	B 249.677†	35547.2	31635.1	464.98	µg/L	464.98	ppb	08:52:52
2	Ba 233.527†	141553.0	140071.4	564.31	µg/L	564.31	ppb	08:52:52
2	Be 313.107†	1787887.8	1768523.3	481.56	µg/L	481.56	ppb	08:52:52
2	Cd 226.502†	75224.1	74482.8	460.57	µg/L	460.57	ppb	08:52:52
2	Co 228.616†	37118.9	36885.1	453.28	µg/L	453.28	ppb	08:52:52
2	Cr 267.716†	62349.7	61458.7	482.49	µg/L	482.49	ppb	08:52:52
2	Cu 324.752†	130708.2	126242.5	497.84	µg/L	497.84	ppb	08:52:52
2	Mn 257.610†	1857946.9	1836479.9	2271.9	µg/L	2271.9	ppb	08:52:52
2	Mo 202.031†	17391.2	17212.6	507.95	µg/L	507.95	ppb	08:53:12
2	Ni 231.604†	41848.8	41447.2	477.23	µg/L	477.23	ppb	08:52:52
2	P 214.914†	4547.6	4513.6	932.05	µg/L	932.05	ppb	08:53:12
2	Pb 220.353†	8762.0	8575.5	481.97	µg/L	481.97	ppb	08:53:12

2	S 181.975 Axial†	7405.3	7215.6	5362.5	µg/L	5362.5 ppb	08:53:12
2	Sb 206.836†	3721.6	3598.2	428.48	µg/L	428.48 ppb	08:53:12
2	Se 196.026†	1274.7	1244.8	466	µg/L	466 ppb	08:53:12
2	SiO2†	718233.6	708251.4	69205	µg/L	69205 ppb	08:52:52
2	Si 251.611†	2205107.6	2179074.5	32116	µg/L	32116 ppb	08:52:52
2	Sn 189.927†	7423.3	7339.6	463.40	µg/L	463.40 ppb	08:53:12
2	Ti 334.940†	1882328.8	1859868.0	1737.1	µg/L	1737.1 ppb	08:52:52
2	Tl 190.801†	3460.1	3537.2	459.14	µg/L	459.14 ppb	08:53:12
2	U 409.014†	963.3	1222.2	102.36	µg/L	102.36 ppb	08:52:52
2	V 292.402†	97705.3	96185.1	470.06	µg/L	470.06 ppb	08:52:52
2	Zn 213.857†	109914.0	108093.6	599.94	µg/L	599.94 ppb	08:52:52
3	Sc RADIAL	144620.3	144620.3	99.1	%		08:52:24
3	Al 396.153Radial†	118782.3	119921.0	22209	µg/L	22209 ppb	08:52:24
3	Ca 317.933Radial†	114006.3	114478.0	6376.9	µg/L	6376.9 ppb	08:52:24
3	Fe 238.204 Radial†	744839.1	751435.1	46314	µg/L	46314 ppb	08:52:22
3	K 766.490 Radial†	29262.3	27982.5	10237	µg/L	10237 ppb	08:52:24
3	Mg 279.077 IEC†	15197.1	15144.0	5615.2	µg/L	5615.2 ppb	08:52:24
3	Na 589.592 Radial†	71619.1	70976.8	9687.2	µg/L	9687.2 ppb	08:52:24
3	Sr 421.552†	257537.6	260004.8	540.48	µg/L	540.48 ppb	08:52:22
3	Sc 361.383	1719136.9	1719136.9	100.05	%		08:53:15
3	Y 371.029	1264930.2	1264930.2	123.20	%		08:53:15
3	Ag 328.068†	125973.7	121814.9	455.75	µg/L	455.75 ppb	08:53:15
3	As 188.979†	1602.0	1621.5	506.80	µg/L	506.80 ppb	08:53:35
3	B 249.677†	34961.9	31437.3	462.06	µg/L	462.06 ppb	08:53:15
3	Ba 233.527†	140229.2	140290.1	565.19	µg/L	565.19 ppb	08:53:15
3	Be 313.107†	1770173.4	1770291.5	482.04	µg/L	482.04 ppb	08:53:15
3	Cd 226.502†	74280.9	74359.3	459.81	µg/L	459.81 ppb	08:53:15
3	Co 228.616†	36871.9	37042.5	455.22	µg/L	455.22 ppb	08:53:15
3	Cr 267.716†	61801.3	61589.7	483.50	µg/L	483.50 ppb	08:53:15
3	Cu 324.752†	129524.3	126482.8	498.77	µg/L	498.77 ppb	08:53:15
3	Mn 257.610†	1842663.8	1841441.2	2278.1	µg/L	2278.1 ppb	08:53:15
3	Mo 202.031†	17421.0	17431.8	514.39	µg/L	514.39 ppb	08:53:35
3	Ni 231.604†	41569.2	41623.5	479.26	µg/L	479.26 ppb	08:53:15
3	P 214.914†	4587.2	4602.7	951.17	µg/L	951.17 ppb	08:53:35
3	Pb 220.353†	8786.5	8695.4	488.69	µg/L	488.69 ppb	08:53:35
3	S 181.975 Axial†	7416.3	7307.3	5430.6	µg/L	5430.6 ppb	08:53:35
3	Sb 206.836†	3726.7	3643.9	434.00	µg/L	434.00 ppb	08:53:35
3	Se 196.026†	1273.3	1257.4	471	µg/L	471 ppb	08:53:35
3	SiO2†	711342.1	709186.4	69296	µg/L	69296 ppb	08:53:15
3	Si 251.611†	2184351.2	2182346.6	32164	µg/L	32164 ppb	08:53:15
3	Sn 189.927†	7445.7	7442.8	469.85	µg/L	469.85 ppb	08:53:35
3	Ti 334.940†	1866347.2	1864396.7	1741.4	µg/L	1741.4 ppb	08:53:15
3	Tl 190.801†	3491.6	3606.4	467.70	µg/L	467.70 ppb	08:53:35
3	U 409.014†	1200.5	1469.7	116.99	µg/L	116.99 ppb	08:53:15
3	V 292.402†	96956.3	96500.6	471.69	µg/L	471.69 ppb	08:53:15
3	Zn 213.857†	108797.0	108174.4	600.39	µg/L	600.39 ppb	08:53:15

Mean Data: 1202068101|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726062.7	100.46	%	0.608				0.61%
Sc RADIAL	144507.1	99.0	%	0.14				0.14%
Y 371.029	1269215.8	123.62	%	0.703				0.57%
Ag 328.068†	121537.3	454.70	µg/L	0.956	454.70	ppb	0.956	0.21%
Al 396.153Radial†	119683.9	22166	µg/L	40.2	22166	ppb	40.2	0.18%
As 188.979†	1608.5	502.86	µg/L	3.834	502.86	ppb	3.834	0.76%
B 249.677†	31449.4	462.24	µg/L	2.656	462.24	ppb	2.656	0.57%
Ba 233.527†	140174.0	564.72	µg/L	0.445	564.72	ppb	0.445	0.08%
Be 313.107†	1769034.1	481.70	µg/L	0.301	481.70	ppb	0.301	0.06%
Ca 317.933Radial†	114334.8	6368.9	µg/L	16.44	6368.9	ppb	16.44	0.26%
Cd 226.502†	74308.5	459.49	µg/L	1.277	459.49	ppb	1.277	0.28%
Co 228.616†	36955.3	454.14	µg/L	0.992	454.14	ppb	0.992	0.22%
Cr 267.716†	61477.7	482.63	µg/L	0.802	482.63	ppb	0.802	0.17%
Cu 324.752†	126320.8	498.14	µg/L	0.548	498.14	ppb	0.548	0.11%
Fe 238.204 Radial†	752354.7	46371	µg/L	53.1	46371	ppb	53.1	0.11%
K 766.490 Radial†	27972.6	10233	µg/L	13.2	10233	ppb	13.2	0.13%
Mg 279.077 IEC†	15113.8	5603.9	µg/L	10.62	5603.9	ppb	10.62	0.19%
Mn 257.610†	1837868.2	2273.6	µg/L	3.86	2273.6	ppb	3.86	0.17%
Mo 202.031†	17326.9	511.31	µg/L	3.228	511.31	ppb	3.228	0.63%
Na 589.592 Radial†	70896.2	9676.2	µg/L	13.39	9676.2	ppb	13.39	0.14%

Ni 231.604†	41480.7	477.62	µg/L	1.490	477.62	ppb	1.490	0.31%
P 214.914†	4568.8	943.89	µg/L	10.346	943.89	ppb	10.346	1.10%
Pb 220.353†	8635.4	485.33	µg/L	3.357	485.33	ppb	3.357	0.69%
S 181.975 Axial†	7256.9	5393.2	µg/L	34.55	5393.2	ppb	34.55	0.64%
Sb 206.836†	3623.4	431.52	µg/L	2.802	431.52	ppb	2.802	0.65%
Se 196.026†	1249.4	468	µg/L	2.5	468	ppb	2.5	0.53%
SiO2†	708423.1	69221	µg/L	67.7	69221	ppb	67.7	0.10%
Si 251.611†	2179657.4	32125	µg/L	36.1	32125	ppb	36.1	0.11%
Sn 189.927†	7392.8	466.73	µg/L	3.230	466.73	ppb	3.230	0.69%
Sr 421.552†	260082.7	540.65	µg/L	0.379	540.65	ppb	0.379	0.07%
Ti 334.940†	1862299.4	1739.4	µg/L	2.13	1739.4	ppb	2.13	0.12%
Tl 190.801†	3567.6	462.89	µg/L	4.379	462.89	ppb	4.379	0.95%
U 409.014†	1263.1	104.79	µg/L	11.179	104.79	ppb	11.179	10.67%
V 292.402†	96244.0	470.39	µg/L	1.171	470.39	ppb	1.171	0.25%
Zn 213.857†	108024.5	599.56	µg/L	1.083	599.56	ppb	1.083	0.18%

Sequence No.: 7
Sample ID: 1202068099|964012|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 307
Date Collected: 4/1/2010 8:53:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068099|964012|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146112.6	146112.6	100	%			08:54:13
1	Al 396.153Radial†	10325.4	10375.7	1923.3	µg/L	1923.3	ppb	08:54:15
1	Ca 317.933Radial†	5239.5	4672.4	260.27	µg/L	260.27	ppb	08:54:15
1	Fe 238.204 Radial†	122805.2	122503.5	7550.4	µg/L	7550.4	ppb	08:54:13
1	K 766.490 Radial†	3659.2	2109.9	771.86	µg/L	771.86	ppb	08:54:13
1	Mg 279.077 IEC†	496.4	305.0	107.36	µg/L	107.36	ppb	08:54:15
1	Na 589.592 Radial†	5969.8	4671.5	637.50	µg/L	637.50	ppb	08:54:13
1	Sr 421.552†	6158.7	6286.3	13.067	µg/L	13.067	ppb	08:54:15
1	Sc 361.383	1771041.6	1771041.6	103.07	%			08:54:41
1	Y 371.029	1082796.1	1082796.1	105.46	%			08:54:41
1	Ag 328.068†	4205.4	-11.4	-0.2071	µg/L	-0.2071	ppb	08:54:43
1	As 188.979†	-7.2	13.4	5.8066	µg/L	5.8066	ppb	08:55:03
1	B 249.677†	3502.9	-107.5	-1.5888	µg/L	-1.5888	ppb	08:54:43
1	Ba 233.527†	4587.0	4586.0	18.387	µg/L	18.387	ppb	08:55:03
1	Be 313.107†	1083.4	2115.8	0.5644	µg/L	0.5644	ppb	08:54:43
1	Cd 226.502†	27.4	144.8	0.1119	µg/L	0.1119	ppb	08:55:03
1	Co 228.616†	-110.0	83.6	0.6571	µg/L	0.6571	ppb	08:55:03
1	Cr 267.716†	913.8	707.9	5.7578	µg/L	5.7578	ppb	08:55:03
1	Cu 324.752†	3300.4	229.7	1.9642	µg/L	1.9642	ppb	08:54:43
1	Mn 257.610†	261210.9	253182.6	313.24	µg/L	313.24	ppb	08:54:43
1	Mo 202.031†	240.5	253.4	7.7488	µg/L	7.7488	ppb	08:55:03
1	Ni 231.604†	198.8	269.4	3.1014	µg/L	3.1014	ppb	08:55:03
1	P 214.914†	317.7	326.2	64.991	µg/L	64.991	ppb	08:55:03
1	Pb 220.353†	150.0	59.1	3.3995	µg/L	3.3995	ppb	08:55:03
1	S 181.975 Axial†	243.3	131.0	97.319	µg/L	97.319	ppb	08:55:03
1	Sb 206.836†	70.2	-12.7	-1.5944	µg/L	-1.5944	ppb	08:55:03
1	Se 196.026†	19.6	3.7	3.92	µg/L	3.92	ppb	08:55:03
1	SiO2†	80771.6	76587.1	7485.5	µg/L	7485.5	ppb	08:54:43
1	Si 251.611†	244391.1	236265.2	3483.1	µg/L	3483.1	ppb	08:54:43
1	Sn 189.927†	35.6	35.7	2.6712	µg/L	2.6712	ppb	08:55:03
1	Ti 334.940†	147623.6	142268.0	132.93	µg/L	132.93	ppb	08:54:43
1	Tl 190.801†	-132.7	-12.1	0.6681	µg/L	0.6681	ppb	08:55:03
1	U 409.014†	-957.3	-658.9	-38.090	µg/L	-38.090	ppb	08:54:43
1	V 292.402†	845.9	416.9	1.1887	µg/L	1.1887	ppb	08:54:43
1	Zn 213.857†	5006.9	4293.1	23.384	µg/L	23.384	ppb	08:55:03
2	Sc RADIAL	143732.6	143732.6	98.5	%			08:54:17
2	Al 396.153Radial†	10355.2	10576.7	1960.6	µg/L	1960.6	ppb	08:54:19
2	Ca 317.933Radial†	5249.9	4769.6	265.68	µg/L	265.68	ppb	08:54:19
2	Fe 238.204 Radial†	121146.4	122850.2	7571.7	µg/L	7571.7	ppb	08:54:17
2	K 766.490 Radial†	3621.9	2132.5	780.13	µg/L	780.13	ppb	08:54:17
2	Mg 279.077 IEC†	403.0	218.4	75.065	µg/L	75.065	ppb	08:54:19
2	Na 589.592 Radial†	5934.4	4734.3	646.07	µg/L	646.07	ppb	08:54:17
2	Sr 421.552†	6349.5	6581.9	13.681	µg/L	13.681	ppb	08:54:19
2	Sc 361.383	1776012.9	1776012.9	103.36	%			08:55:05
2	Y 371.029	1085468.2	1085468.2	105.73	%			08:55:05
2	Ag 328.068†	4316.9	85.0	0.1566	µg/L	0.1566	ppb	08:55:07
2	As 188.979†	-9.0	11.6	5.2922	µg/L	5.2922	ppb	08:55:27
2	B 249.677†	3581.0	-41.4	-0.6154	µg/L	-0.6154	ppb	08:55:07
2	Ba 233.527†	4618.0	4603.5	18.457	µg/L	18.457	ppb	08:55:27
2	Be 313.107†	625.6	1669.9	0.4444	µg/L	0.4444	ppb	08:55:07
2	Cd 226.502†	17.5	135.1	0.0489	µg/L	0.0489	ppb	08:55:27
2	Co 228.616†	-96.2	97.3	0.8242	µg/L	0.8242	ppb	08:55:27
2	Cr 267.716†	909.5	701.3	5.7033	µg/L	5.7033	ppb	08:55:27
2	Cu 324.752†	3279.3	200.4	1.8564	µg/L	1.8564	ppb	08:55:07
2	Mn 257.610†	263303.0	254497.3	314.87	µg/L	314.87	ppb	08:55:07
2	Mo 202.031†	240.4	252.7	7.7267	µg/L	7.7267	ppb	08:55:27
2	Ni 231.604†	177.4	248.2	2.8575	µg/L	2.8575	ppb	08:55:27
2	P 214.914†	320.3	327.8	65.334	µg/L	65.334	ppb	08:55:27
2	Pb 220.353†	169.9	78.0	4.4530	µg/L	4.4530	ppb	08:55:27

2	S 181.975 Axial†	243.5	130.5	96.951 µg/L	96.951 ppb		08:55:27
2	Sb 206.836†	80.5	-2.9	-0.4250 µg/L	-0.4250 ppb		08:55:27
2	Se 196.026†	21.4	5.4	4.56 µg/L	4.56 ppb		08:55:27
2	SiO2†	81545.2	77116.2	7537.2 µg/L	7537.2 ppb		08:55:07
2	Si 251.611†	246568.9	237708.5	3504.4 µg/L	3504.4 ppb		08:55:07
2	Sn 189.927†	30.7	30.8	2.3717 µg/L	2.3717 ppb		08:55:27
2	Ti 334.940†	149078.5	143274.6	133.87 µg/L	133.87 ppb		08:55:07
2	Tl 190.801†	-117.6	2.9	2.5182 µg/L	2.5182 ppb		08:55:27
2	U 409.014†	-878.5	-580.0	-33.463 µg/L	-33.463 ppb		08:55:07
2	V 292.402†	878.4	446.0	1.3303 µg/L	1.3303 ppb		08:55:07
2	Zn 213.857†	5007.2	4279.8	23.310 µg/L	23.310 ppb		08:55:27
3	Sc RADIAL	145017.0	145017.0	99.4 %			08:54:21
3	Al 396.153Radial†	10355.8	10484.2	1943.4 µg/L	1943.4 ppb		08:54:23
3	Ca 317.933Radial†	5246.8	4719.3	262.88 µg/L	262.88 ppb		08:54:23
3	Fe 238.204 Radial†	122110.4	122730.9	7564.4 µg/L	7564.4 ppb		08:54:21
3	K 766.490 Radial†	3557.3	2034.9	744.41 µg/L	744.41 ppb		08:54:21
3	Mg 279.077 IEC†	445.7	257.8	89.757 µg/L	89.757 ppb		08:54:23
3	Na 589.592 Radial†	5848.7	4594.7	627.03 µg/L	627.03 ppb		08:54:21
3	Sr 421.552†	6345.6	6520.8	13.554 µg/L	13.554 ppb		08:54:23
3	Sc 361.383	1760867.1	1760867.1	102.48 %			08:55:29
3	Y 371.029	1075239.5	1075239.5	104.73 %			08:55:29
3	Ag 328.068†	4100.4	-90.3	-0.5049 µg/L	-0.5049 ppb		08:55:31
3	As 188.979†	-5.5	15.0	6.3018 µg/L	6.3018 ppb		08:55:52
3	B 249.677†	3522.7	-68.5	-1.0142 µg/L	-1.0142 ppb		08:55:31
3	Ba 233.527†	4569.7	4594.8	18.423 µg/L	18.423 ppb		08:55:52
3	Be 313.107†	764.2	1810.4	0.4795 µg/L	0.4795 ppb		08:55:31
3	Cd 226.502†	24.2	141.8	0.0919 µg/L	0.0919 ppb		08:55:52
3	Co 228.616†	-108.1	84.8	0.6711 µg/L	0.6711 ppb		08:55:52
3	Cr 267.716†	924.4	723.4	5.8834 µg/L	5.8834 ppb		08:55:52
3	Cu 324.752†	3296.6	244.6	2.0186 µg/L	2.0186 ppb		08:55:31
3	Mn 257.610†	262916.7	256311.4	317.11 µg/L	317.11 ppb		08:55:31
3	Mo 202.031†	239.1	253.4	7.7489 µg/L	7.7489 ppb		08:55:52
3	Ni 231.604†	175.1	247.4	2.8483 µg/L	2.8483 ppb		08:55:52
3	P 214.914†	337.3	347.1	69.443 µg/L	69.443 ppb		08:55:52
3	Pb 220.353†	134.6	44.9	2.6148 µg/L	2.6148 ppb		08:55:52
3	S 181.975 Axial†	248.0	137.0	101.78 µg/L	101.78 ppb		08:55:52
3	Sb 206.836†	64.3	-18.0	-2.2253 µg/L	-2.2253 ppb		08:55:52
3	Se 196.026†	9.6	-5.9	0.456 µg/L	0.456 ppb		08:55:52
3	SiO2†	81266.5	77522.8	7577.0 µg/L	7577.0 ppb		08:55:31
3	Si 251.611†	245617.8	238832.2	3521.0 µg/L	3521.0 ppb		08:55:31
3	Sn 189.927†	28.9	29.3	2.2803 µg/L	2.2803 ppb		08:55:52
3	Ti 334.940†	148265.0	143721.4	134.29 µg/L	134.29 ppb		08:55:31
3	Tl 190.801†	-128.8	-9.0	1.0731 µg/L	1.0731 ppb		08:55:52
3	U 409.014†	-1054.6	-759.2	-43.920 µg/L	-43.920 ppb		08:55:31
3	V 292.402†	894.2	468.7	1.4355 µg/L	1.4355 ppb		08:55:31
3	Zn 213.857†	4995.0	4309.6	23.478 µg/L	23.478 ppb		08:55:52

Mean Data: 1202068099|964012|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769307.2	102.97	%	0.449				0.44%
Sc RADIAL	144954.1	99.3	%	0.82				0.82%
Y 371.029	1081168.0	105.31	%	0.517				0.49%
Ag 328.068†	-5.6	-0.1852	µg/L	0.33130	-0.1852	ppb	0.33130	178.91%
Al 396.153Radial†	10478.9	1942.4	µg/L	18.66	1942.4	ppb	18.66	0.96%
As 188.979†	13.3	5.8002	µg/L	0.50485	5.8002	ppb	0.50485	8.70%
B 249.677†	-72.5	-1.0728	µg/L	0.48936	-1.0728	ppb	0.48936	45.62%
Ba 233.527†	4594.8	18.422	µg/L	0.0352	18.422	ppb	0.0352	0.19%
Be 313.107†	1865.4	0.4961	µg/L	0.06170	0.4961	ppb	0.06170	12.44%
Ca 317.933Radial†	4720.4	262.95	µg/L	2.707	262.95	ppb	2.707	1.03%
Cd 226.502†	140.6	0.0842	µg/L	0.03222	0.0842	ppb	0.03222	38.26%
Co 228.616†	88.6	0.7174	µg/L	0.09269	0.7174	ppb	0.09269	12.92%
Cr 267.716†	710.9	5.7815	µg/L	0.09236	5.7815	ppb	0.09236	1.60%
Cu 324.752†	224.9	1.9464	µg/L	0.08255	1.9464	ppb	0.08255	4.24%
Fe 238.204 Radial†	122694.9	7562.2	µg/L	10.86	7562.2	ppb	10.86	0.14%
K 766.490 Radial†	2092.4	765.47	µg/L	18.700	765.47	ppb	18.700	2.44%
Mg 279.077 IEC†	260.4	90.728	µg/L	16.1705	90.728	ppb	16.1705	17.82%
Mn 257.610†	254663.8	315.07	µg/L	1.944	315.07	ppb	1.944	0.62%
Mo 202.031†	253.2	7.7415	µg/L	0.01279	7.7415	ppb	0.01279	0.17%
Na 589.592 Radial†	4666.8	636.87	µg/L	9.539	636.87	ppb	9.539	1.50%

Ni 231.604†	255.0	2.9357	µg/L	0.14354	2.9357	ppb	0.14354	4.89%
P 214.914†	333.7	66.590	µg/L	2.4774	66.590	ppb	2.4774	3.72%
Pb 220.353†	60.7	3.4891	µg/L	0.92235	3.4891	ppb	0.92235	26.44%
S 181.975 Axial†	132.8	98.682	µg/L	2.6861	98.682	ppb	2.6861	2.72%
Sb 206.836†	-11.2	-1.4149	µg/L	0.91345	-1.4149	ppb	0.91345	64.56%
Se 196.026†	1.1	2.98	µg/L	2.210	2.98	ppb	2.210	74.13%
SiO2†	77075.4	7533.3	µg/L	45.86	7533.3	ppb	45.86	0.61%
Si 251.611†	237602.0	3502.8	µg/L	18.97	3502.8	ppb	18.97	0.54%
Sn 189.927†	31.9	2.4411	µg/L	0.20450	2.4411	ppb	0.20450	8.38%
Sr 421.552†	6463.0	13.434	µg/L	0.3244	13.434	ppb	0.3244	2.41%
Ti 334.940†	143088.0	133.70	µg/L	0.697	133.70	ppb	0.697	0.52%
Tl 190.801†	-6.1	1.4198	µg/L	0.97254	1.4198	ppb	0.97254	68.50%
U 409.014†	-666.0	-38.491	µg/L	5.2401	-38.491	ppb	5.2401	13.61%
V 292.402†	443.9	1.3182	µg/L	0.12386	1.3182	ppb	0.12386	9.40%
Zn 213.857†	4294.2	23.391	µg/L	0.0842	23.391	ppb	0.0842	0.36%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 8:55:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142758.4	142758.4	97.8	%			08:56:33
1	Al 396.153Radial†	26037.1	26678.7	4924.6	µg/L	4924.6	ppb	08:56:33
1	Ca 317.933Radial†	83414.9	84707.3	4718.5	µg/L	4718.5	ppb	08:56:33
1	Fe 238.204 Radial†	75141.2	76662.3	4725.0	µg/L	4725.0	ppb	08:56:33
1	K 766.490 Radial†	14448.8	13225.0	4837.9	µg/L	4837.9	ppb	08:56:33
1	Mg 279.077 IEC†	12884.9	12980.4	4843.6	µg/L	4843.6	ppb	08:56:33
1	Na 589.592 Radial†	69489.9	69742.8	9523.4	µg/L	9523.4	ppb	08:56:33
1	Sr 421.552†	225279.1	230418.9	478.99	µg/L	478.99	ppb	08:56:31
1	Sc 361.383	1736865.2	1736865.2	101.09	%			08:56:46
1	Y 371.029	1021299.3	1021299.3	99.475	%			08:56:46
1	Ag 328.068†	129678.1	124194.4	465.73	µg/L	465.73	ppb	08:56:46
1	As 188.979†	1613.2	1616.2	495.56	µg/L	495.56	ppb	08:57:06
1	B 249.677†	35118.2	31235.3	459.04	µg/L	459.04	ppb	08:56:46
1	Ba 233.527†	117499.9	116374.2	469.33	µg/L	469.33	ppb	08:56:46
1	Be 313.107†	1772385.8	1754421.6	477.82	µg/L	477.82	ppb	08:56:46
1	Cd 226.502†	75369.9	74678.9	466.18	µg/L	466.18	ppb	08:56:46
1	Co 228.616†	38275.3	38054.7	469.78	µg/L	469.78	ppb	08:56:46
1	Cr 267.716†	60119.5	59295.4	464.29	µg/L	464.29	ppb	08:56:46
1	Cu 324.752†	124618.6	120308.4	468.98	µg/L	468.98	ppb	08:56:46
1	Mn 257.610†	384855.7	380486.5	470.57	µg/L	470.57	ppb	08:56:46
1	Mo 202.031†	15949.5	15798.3	464.72	µg/L	464.72	ppb	08:57:06
1	Ni 231.604†	40956.4	40593.2	467.40	µg/L	467.40	ppb	08:56:46
1	P 214.914†	10966.3	10866.6	2316.1	µg/L	2316.1	ppb	08:57:06
1	Pb 220.353†	8549.0	8370.9	468.78	µg/L	468.78	ppb	08:57:06
1	S 181.975 Axial†	1332.1	1212.7	904.46	µg/L	904.46	ppb	08:57:06
1	Sb 206.836†	4000.5	3876.7	461.90	µg/L	461.90	ppb	08:57:06
1	Se 196.026†	1301.9	1272.6	462	µg/L	462	ppb	08:57:06
1	SiO2†	52811.2	50468.9	4913.0	µg/L	4913.0	ppb	08:56:46
1	Si 251.611†	159310.8	156763.8	2301.9	µg/L	2301.9	ppb	08:56:46
1	Sn 189.927†	7502.2	7422.8	464.31	µg/L	464.31	ppb	08:57:06
1	Ti 334.940†	507828.8	501424.1	467.87	µg/L	467.87	ppb	08:56:46
1	Tl 190.801†	3732.9	3809.5	475.11	µg/L	475.11	ppb	08:57:06
1	U 409.014†	6941.1	7136.5	445.78	µg/L	445.78	ppb	08:56:46
1	V 292.402†	97091.4	95645.2	472.74	µg/L	472.74	ppb	08:56:46
1	Zn 213.857†	84330.7	82860.9	461.79	µg/L	461.79	ppb	08:56:46
2	Sc RADIAL	142316.2	142316.2	97.5	%			08:56:37
2	Al 396.153Radial†	25957.0	26679.3	4924.7	µg/L	4924.7	ppb	08:56:37
2	Ca 317.933Radial†	83031.6	84579.3	4711.4	µg/L	4711.4	ppb	08:56:37
2	Fe 238.204 Radial†	74954.1	76709.2	4727.9	µg/L	4727.9	ppb	08:56:37
2	K 766.490 Radial†	14483.4	13306.4	4867.8	µg/L	4867.8	ppb	08:56:37
2	Mg 279.077 IEC†	12823.3	12958.2	4835.3	µg/L	4835.3	ppb	08:56:37
2	Na 589.592 Radial†	69443.9	69916.4	9547.1	µg/L	9547.1	ppb	08:56:37
2	Sr 421.552†	222074.4	227848.5	473.65	µg/L	473.65	ppb	08:56:35
2	Sc 361.383	1723774.9	1723774.9	100.32	%			08:57:09
2	Y 371.029	1014397.5	1014397.5	98.803	%			08:57:09
2	Ag 328.068†	129022.9	124515.6	466.94	µg/L	466.94	ppb	08:57:09
2	As 188.979†	1594.1	1609.3	493.46	µg/L	493.46	ppb	08:57:29
2	B 249.677†	34910.7	31292.3	459.88	µg/L	459.88	ppb	08:57:09
2	Ba 233.527†	116857.7	116616.8	470.31	µg/L	470.31	ppb	08:57:09
2	Be 313.107†	1759791.1	1755182.4	478.03	µg/L	478.03	ppb	08:57:09
2	Cd 226.502†	74536.3	74414.2	464.52	µg/L	464.52	ppb	08:57:09
2	Co 228.616†	38007.8	38075.6	470.04	µg/L	470.04	ppb	08:57:09
2	Cr 267.716†	59624.3	59253.5	463.95	µg/L	463.95	ppb	08:57:09
2	Cu 324.752†	123935.8	120564.0	469.98	µg/L	469.98	ppb	08:57:09
2	Mn 257.610†	382421.3	380951.1	471.15	µg/L	471.15	ppb	08:57:09
2	Mo 202.031†	15844.9	15813.9	465.18	µg/L	465.18	ppb	08:57:29
2	Ni 231.604†	40730.4	40675.6	468.35	µg/L	468.35	ppb	08:57:09
2	P 214.914†	10855.5	10838.5	2310.1	µg/L	2310.1	ppb	08:57:29
2	Pb 220.353†	8464.3	8350.6	467.65	µg/L	467.65	ppb	08:57:29

2	S 181.975 Axial†	1335.2	1225.8	914.18 µg/L	914.18 ppb	08:57:29
2	Sb 206.836†	3961.1	3867.5	460.82 µg/L	460.82 ppb	08:57:29
2	Se 196.026†	1293.6	1274.1	463 µg/L	463 ppb	08:57:29
2	SiO2†	52498.1	50553.5	4921.2 µg/L	4921.2 ppb	08:57:09
2	Si 251.611†	158264.8	156918.0	2304.2 µg/L	2304.2 ppb	08:57:09
2	Sn 189.927†	7462.3	7439.4	465.35 µg/L	465.35 ppb	08:57:29
2	Ti 334.940†	504432.3	501853.5	468.27 µg/L	468.27 ppb	08:57:09
2	Tl 190.801†	3696.4	3801.1	474.09 µg/L	474.09 ppb	08:57:29
2	U 409.014†	7016.2	7263.5	453.22 µg/L	453.22 ppb	08:57:09
2	V 292.402†	96420.7	95706.1	473.04 µg/L	473.04 ppb	08:57:09
2	Zn 213.857†	83533.9	82700.2	460.89 µg/L	460.89 ppb	08:57:09
3	Sc RADIAL	144044.7	144044.7	98.7 %		08:56:41
3	Al 396.153Radial†	26298.2	26705.5	4929.4 µg/L	4929.4 ppb	08:56:41
3	Ca 317.933Radial†	84427.4	84971.7	4733.3 µg/L	4733.3 ppb	08:56:41
3	Fe 238.204 Radial†	76105.5	76953.4	4742.9 µg/L	4742.9 ppb	08:56:41
3	K 766.490 Radial†	14773.4	13421.9	4910.0 µg/L	4910.0 ppb	08:56:41
3	Mg 279.077 IEC†	13042.0	13022.0	4859.2 µg/L	4859.2 ppb	08:56:41
3	Na 589.592 Radial†	70484.3	70115.9	9574.3 µg/L	9574.3 ppb	08:56:41
3	Sr 421.552†	225421.9	228507.3	475.02 µg/L	475.02 ppb	08:56:39
3	Sc 361.383	1719340.6	1719340.6	100.07 %		08:57:32
3	Y 371.029	1012837.9	1012837.9	98.651 %		08:57:32
3	Ag 328.068†	128605.2	124429.8	466.60 µg/L	466.60 ppb	08:57:32
3	As 188.979†	1599.4	1618.7	496.33 µg/L	496.33 ppb	08:57:52
3	B 249.677†	35086.4	31557.5	463.79 µg/L	463.79 ppb	08:57:32
3	Ba 233.527†	116420.3	116480.1	469.76 µg/L	469.76 ppb	08:57:32
3	Be 313.107†	1754836.1	1754754.7	477.91 µg/L	477.91 ppb	08:57:32
3	Cd 226.502†	74057.1	74126.9	462.73 µg/L	462.73 ppb	08:57:32
3	Co 228.616†	37888.8	38054.4	469.78 µg/L	469.78 ppb	08:57:32
3	Cr 267.716†	59664.2	59446.7	465.48 µg/L	465.48 ppb	08:57:32
3	Cu 324.752†	123575.4	120522.5	469.81 µg/L	469.81 ppb	08:57:32
3	Mn 257.610†	381528.1	381041.7	471.26 µg/L	471.26 ppb	08:57:32
3	Mo 202.031†	15924.6	15934.3	468.72 µg/L	468.72 ppb	08:57:52
3	Ni 231.604†	40602.7	40652.7	468.09 µg/L	468.09 ppb	08:57:32
3	P 214.914†	10951.6	10962.4	2336.6 µg/L	2336.6 ppb	08:57:52
3	Pb 220.353†	8480.3	8388.4	469.77 µg/L	469.77 ppb	08:57:52
3	S 181.975 Axial†	1330.4	1224.5	913.23 µg/L	913.23 ppb	08:57:52
3	Sb 206.836†	3987.6	3904.2	465.22 µg/L	465.22 ppb	08:57:52
3	Se 196.026†	1290.5	1274.4	463 µg/L	463 ppb	08:57:52
3	SiO2†	52263.4	50453.9	4911.3 µg/L	4911.3 ppb	08:57:32
3	Si 251.611†	158147.4	157207.5	2308.4 µg/L	2308.4 ppb	08:57:32
3	Sn 189.927†	7514.1	7510.4	469.77 µg/L	469.77 ppb	08:57:52
3	Ti 334.940†	503747.9	502466.3	468.84 µg/L	468.84 ppb	08:57:32
3	Tl 190.801†	3711.9	3826.1	477.17 µg/L	477.17 ppb	08:57:52
3	U 409.014†	6796.9	7062.4	441.47 µg/L	441.47 ppb	08:57:32
3	V 292.402†	96194.9	95728.3	473.18 µg/L	473.18 ppb	08:57:32
3	Zn 213.857†	83451.1	82832.1	461.63 µg/L	461.63 ppb	08:57:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726660.2	100.49	%	0.530				0.53%
Sc RADIAL	143039.8	98.0	%	0.62				0.63%
Y 371.029	1016178.3	98.976	%	0.4386				0.44%
Ag 328.068†	124379.9	466.42	µg/L	0.621	466.42	ppb	0.621	0.13%
QC value within limits for Ag 328.068 Recovery = 93.28%								
Al 396.153Radial†	26687.9	4926.3	µg/L	2.74	4926.3	ppb	2.74	0.06%
QC value within limits for Al 396.153Radial Recovery = 98.53%								
As 188.979†	1614.7	495.12	µg/L	1.486	495.12	ppb	1.486	0.30%
QC value within limits for As 188.979 Recovery = 99.02%								
B 249.677†	31361.7	460.90	µg/L	2.537	460.90	ppb	2.537	0.55%
QC value within limits for B 249.677 Recovery = 92.18%								
Ba 233.527†	116490.4	469.80	µg/L	0.490	469.80	ppb	0.490	0.10%
QC value within limits for Ba 233.527 Recovery = 93.96%								
Be 313.107†	1754786.2	477.92	µg/L	0.105	477.92	ppb	0.105	0.02%
QC value within limits for Be 313.107 Recovery = 95.58%								
Ca 317.933Radial†	84752.8	4721.1	µg/L	11.15	4721.1	ppb	11.15	0.24%
QC value within limits for Ca 317.933Radial Recovery = 94.42%								
Cd 226.502†	74406.7	464.48	µg/L	1.725	464.48	ppb	1.725	0.37%
QC value within limits for Cd 226.502 Recovery = 92.90%								
Co 228.616†	38061.6	469.87	µg/L	0.150	469.87	ppb	0.150	0.03%

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   QC value within limits for Co 228.616  Recovery = 93.97%
Cr 267.716†            59331.9      464.57 µg/L         0.800      464.57 ppb          0.800   0.17%
   QC value within limits for Cr 267.716  Recovery = 92.91%
Cu 324.752†           120465.0      469.59 µg/L         0.535      469.59 ppb          0.535   0.11%
   QC value within limits for Cu 324.752  Recovery = 93.92%
Fe 238.204 Radial†     76775.0      4731.9 µg/L          9.63      4731.9 ppb           9.63   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.64%
K 766.490 Radial†      13317.8      4871.9 µg/L         36.22      4871.9 ppb          36.22   0.74%
   QC value within limits for K 766.490 Radial  Recovery = 97.44%
Mg 279.077 IEC†        12986.9      4846.0 µg/L         12.12      4846.0 ppb          12.12   0.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.92%
Mn 257.610†           380826.4      470.99 µg/L         0.368      470.99 ppb          0.368   0.08%
   QC value within limits for Mn 257.610  Recovery = 94.20%
Mo 202.031†            15848.8      466.21 µg/L         2.187      466.21 ppb          2.187   0.47%
   QC value within limits for Mo 202.031  Recovery = 93.24%
Na 589.592 Radial†     69925.0      9548.3 µg/L         25.47      9548.3 ppb          25.47   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 95.48%
Ni 231.604†            40640.5      467.95 µg/L         0.489      467.95 ppb          0.489   0.10%
   QC value within limits for Ni 231.604  Recovery = 93.59%
P 214.914†             10889.2      2320.9 µg/L         13.90      2320.9 ppb          13.90   0.60%
   QC value within limits for P 214.914  Recovery = 92.84%
Pb 220.353†             8370.0      468.73 µg/L         1.063      468.73 ppb          1.063   0.23%
   QC value within limits for Pb 220.353  Recovery = 93.75%
S 181.975 Axial†        1221.0      910.63 µg/L         5.357      910.63 ppb          5.357   0.59%
   QC value within limits for S 181.975 Axial  Recovery = 91.06%
Sb 206.836†             3882.8      462.65 µg/L         2.290      462.65 ppb          2.290   0.49%
   QC value within limits for Sb 206.836  Recovery = 92.53%
Se 196.026†             1273.7         463 µg/L           0.4         463 ppb            0.4   0.08%
   QC value within limits for Se 196.026  Recovery = 92.51%
SiO2†                  50492.1      4915.2 µg/L          5.30      4915.2 ppb           5.30   0.11%
   QC value within limits for SiO2  Recovery = 91.92%
Si 251.611†           156963.1      2304.8 µg/L          3.27      2304.8 ppb           3.27   0.14%
   QC value within limits for Si 251.611  Recovery = 92.19%
Sn 189.927†             7457.5      466.48 µg/L         2.901      466.48 ppb          2.901   0.62%
   QC value within limits for Sn 189.927  Recovery = 93.30%
Sr 421.552†           228924.9      475.88 µg/L         2.776      475.88 ppb          2.776   0.58%
   QC value within limits for Sr 421.552  Recovery = 95.18%
Ti 334.940†           501914.7      468.32 µg/L         0.490      468.32 ppb          0.490   0.10%
   QC value within limits for Ti 334.940  Recovery = 93.66%
Tl 190.801†             3812.3      475.45 µg/L         1.570      475.45 ppb          1.570   0.33%
   QC value within limits for Tl 190.801  Recovery = 95.09%
U 409.014†              7154.1      446.82 µg/L         5.947      446.82 ppb          5.947   1.33%
   QC value less than the lower limit for U 409.014  Recovery = 89.36%
V 292.402†             95693.2      472.99 µg/L         0.228      472.99 ppb          0.228   0.05%
   QC value within limits for V 292.402  Recovery = 94.60%
Zn 213.857†            82797.7      461.44 µg/L         0.484      461.44 ppb          0.484   0.10%
   QC value within limits for Zn 213.857  Recovery = 92.29%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 8:58:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144930.6	144930.6	99.3	%			08:58:30
1	Al 396.153Radial†	-70.5	-7.7	-1.4357	µg/L	-1.4357	ppb	08:58:50
1	Ca 317.933Radial†	780.8	225.6	12.567	µg/L	12.567	ppb	08:58:50
1	Fe 238.204 Radial†	181.0	34.2	2.1059	µg/L	2.1059	ppb	08:58:50
1	K 766.490 Radial†	1768.7	236.1	86.440	µg/L	86.440	ppb	08:58:30
1	Mg 279.077 IEC†	163.7	-25.9	-9.6408	µg/L	-9.6408	ppb	08:58:50
1	Na 589.592 Radial†	1511.7	231.3	31.523	µg/L	31.523	ppb	08:58:30
1	Sr 421.552†	-121.9	12.5	0.0259	µg/L	0.0259	ppb	08:58:30
1	Sc 361.383	1734239.5	1734239.5	100.93	%			08:59:38
1	Y 371.029	1032662.2	1032662.2	100.58	%			08:59:38
1	Ag 328.068†	4230.2	99.7	0.3770	µg/L	0.3770	ppb	08:59:40
1	As 188.979†	-3.2	17.2	5.1896	µg/L	5.1896	ppb	09:00:00
1	B 249.677†	3559.4	20.6	0.3032	µg/L	0.3032	ppb	09:00:00
1	Ba 233.527†	-110.7	26.1	0.1052	µg/L	0.1052	ppb	09:00:00
1	Be 313.107†	-798.6	273.5	0.0770	µg/L	0.0770	ppb	08:59:40
1	Cd 226.502†	-95.0	24.1	0.1502	µg/L	0.1502	ppb	09:00:00
1	Co 228.616†	-184.5	7.5	0.0931	µg/L	0.0931	ppb	09:00:00
1	Cr 267.716†	178.8	-1.5	-0.0180	µg/L	-0.0180	ppb	09:00:00
1	Cu 324.752†	3034.1	33.8	0.1385	µg/L	0.1385	ppb	08:59:40
1	Mn 257.610†	285.9	46.0	0.0573	µg/L	0.0573	ppb	09:00:00
1	Mo 202.031†	-20.1	0.2	0.0044	µg/L	0.0044	ppb	09:00:00
1	Ni 231.604†	-106.1	-28.6	-0.3297	µg/L	-0.3297	ppb	09:00:00
1	P 214.914†	-24.6	-6.4	-1.3686	µg/L	-1.3686	ppb	09:00:00
1	Pb 220.353†	52.5	-34.3	-1.9233	µg/L	-1.9233	ppb	09:00:00
1	S 181.975 Axial†	102.4	-3.6	-2.6753	µg/L	-2.6753	ppb	09:00:00
1	Sb 206.836†	83.0	1.4	0.1638	µg/L	0.1638	ppb	09:00:00
1	Se 196.026†	13.8	-1.6	-0.580	µg/L	-0.580	ppb	09:00:00
1	SiO2†	1844.8	52.4	5.1107	µg/L	5.1107	ppb	09:00:00
1	Si 251.611†	1042.4	196.2	2.8879	µg/L	2.8879	ppb	08:59:40
1	Sn 189.927†	11.4	12.4	0.7749	µg/L	0.7749	ppb	09:00:00
1	Ti 334.940†	1136.3	173.3	0.1596	µg/L	0.1596	ppb	08:59:40
1	Tl 190.801†	-103.8	13.8	1.6944	µg/L	1.6944	ppb	09:00:00
1	U 409.014†	-126.4	144.7	8.4502	µg/L	8.4502	ppb	08:59:40
1	V 292.402†	368.8	-38.4	-0.1818	µg/L	-0.1818	ppb	08:59:40
1	Zn 213.857†	603.6	33.6	0.1905	µg/L	0.1905	ppb	09:00:00
2	Sc RADIAL	143298.2	143298.2	98.2	%			08:58:52
2	Al 396.153Radial†	-36.0	26.6	4.9237	µg/L	4.9237	ppb	08:59:12
2	Ca 317.933Radial†	760.9	214.3	11.937	µg/L	11.937	ppb	08:59:12
2	Fe 238.204 Radial†	181.4	36.6	2.2582	µg/L	2.2582	ppb	08:59:12
2	K 766.490 Radial†	1814.5	303.1	110.94	µg/L	110.94	ppb	08:58:52
2	Mg 279.077 IEC†	184.9	-2.4	-0.8854	µg/L	-0.8854	ppb	08:59:12
2	Na 589.592 Radial†	1507.7	244.6	33.316	µg/L	33.316	ppb	08:58:52
2	Sr 421.552†	-138.9	-6.2	-0.0129	µg/L	-0.0129	ppb	08:58:52
2	Sc 361.383	1755637.6	1755637.6	102.18	%			09:00:02
2	Y 371.029	1044668.6	1044668.6	101.75	%			09:00:02
2	Ag 328.068†	4265.9	83.6	0.2998	µg/L	0.2998	ppb	09:00:04
2	As 188.979†	-18.0	2.7	0.8170	µg/L	0.8170	ppb	09:00:25
2	B 249.677†	3550.1	-31.5	-0.4644	µg/L	-0.4644	ppb	09:00:25
2	Ba 233.527†	-152.7	-13.6	-0.0555	µg/L	-0.0555	ppb	09:00:25
2	Be 313.107†	-922.1	162.2	0.0443	µg/L	0.0443	ppb	09:00:04
2	Cd 226.502†	-90.8	29.3	0.1829	µg/L	0.1829	ppb	09:00:25
2	Co 228.616†	-184.8	9.5	0.1166	µg/L	0.1166	ppb	09:00:25
2	Cr 267.716†	176.9	-5.4	-0.0430	µg/L	-0.0430	ppb	09:00:25
2	Cu 324.752†	3080.0	42.1	0.1643	µg/L	0.1643	ppb	09:00:04
2	Mn 257.610†	291.6	48.1	0.0595	µg/L	0.0595	ppb	09:00:25
2	Mo 202.031†	-18.4	2.1	0.0615	µg/L	0.0615	ppb	09:00:25
2	Ni 231.604†	-96.5	-18.0	-0.2070	µg/L	-0.2070	ppb	09:00:25
2	P 214.914†	-30.1	-11.5	-2.4673	µg/L	-2.4673	ppb	09:00:25
2	Pb 220.353†	51.5	-36.0	-2.0082	µg/L	-2.0082	ppb	09:00:25

2	S 181.975 Axial†	103.0	-4.2	-3.1525 µg/L	-3.1525 ppb	09:00:25
2	Sb 206.836†	76.9	-5.6	-0.6645 µg/L	-0.6645 ppb	09:00:25
2	Se 196.026†	22.4	6.6	2.40 µg/L	2.40 ppb	09:00:25
2	SiO2†	1832.3	17.9	1.7405 µg/L	1.7405 ppb	09:00:25
2	Si 251.611†	1016.9	158.7	2.3376 µg/L	2.3376 ppb	09:00:04
2	Sn 189.927†	1.7	2.8	0.1731 µg/L	0.1731 ppb	09:00:25
2	Ti 334.940†	983.2	9.7	0.0093 µg/L	0.0093 ppb	09:00:04
2	Tl 190.801†	-108.1	10.9	1.3283 µg/L	1.3283 ppb	09:00:25
2	U 409.014†	-268.6	7.0	0.3616 µg/L	0.3616 ppb	09:00:04
2	V 292.402†	242.0	-166.9	-0.8139 µg/L	-0.8139 ppb	09:00:04
2	Zn 213.857†	616.0	38.5	0.2172 µg/L	0.2172 ppb	09:00:25
3	Sc RADIAL	144059.2	144059.2	98.7 %		08:59:14
3	Al 396.153Radial†	-54.2	8.3	1.5281 µg/L	1.5281 ppb	08:59:34
3	Ca 317.933Radial†	777.7	227.2	12.655 µg/L	12.655 ppb	08:59:34
3	Fe 238.204 Radial†	170.3	24.4	1.5063 µg/L	1.5063 ppb	08:59:34
3	K 766.490 Radial†	1826.2	305.2	111.72 µg/L	111.72 ppb	08:59:14
3	Mg 279.077 IEC†	166.7	-21.8	-8.1304 µg/L	-8.1304 ppb	08:59:34
3	Na 589.592 Radial†	1416.4	144.0	19.578 µg/L	19.578 ppb	08:59:14
3	Sr 421.552†	-137.6	-4.1	-0.0087 µg/L	-0.0087 ppb	08:59:14
3	Sc 361.383	1737927.9	1737927.9	101.15 %		09:00:27
3	Y 371.029	1034400.0	1034400.0	100.75 %		09:00:27
3	Ag 328.068†	4118.6	-19.5	-0.0696 µg/L	-0.0696 ppb	09:00:29
3	As 188.979†	-12.6	7.9	2.3767 µg/L	2.3767 ppb	09:00:49
3	B 249.677†	3549.0	2.9	0.0430 µg/L	0.0430 ppb	09:00:49
3	Ba 233.527†	-111.2	25.9	0.1043 µg/L	0.1043 ppb	09:00:49
3	Be 313.107†	-1094.4	-17.3	-0.0034 µg/L	-0.0034 ppb	09:00:29
3	Cd 226.502†	-96.1	23.2	0.1446 µg/L	0.1446 ppb	09:00:49
3	Co 228.616†	-197.4	-4.8	-0.0594 µg/L	-0.0594 ppb	09:00:49
3	Cr 267.716†	181.1	0.4	0.0000 µg/L	0.0000 ppb	09:00:49
3	Cu 324.752†	2911.1	-94.1	-0.3622 µg/L	-0.3622 ppb	09:00:29
3	Mn 257.610†	288.2	47.7	0.0593 µg/L	0.0593 ppb	09:00:49
3	Mo 202.031†	-17.9	2.4	0.0695 µg/L	0.0695 ppb	09:00:49
3	Ni 231.604†	-109.0	-31.2	-0.3597 µg/L	-0.3597 ppb	09:00:49
3	P 214.914†	-40.2	-21.8	-4.6518 µg/L	-4.6518 ppb	09:00:49
3	Pb 220.353†	90.8	3.4	0.1890 µg/L	0.1890 ppb	09:00:49
3	S 181.975 Axial†	93.2	-12.9	-9.5726 µg/L	-9.5726 ppb	09:00:49
3	Sb 206.836†	63.6	-17.9	-2.1311 µg/L	-2.1311 ppb	09:00:49
3	Se 196.026†	9.0	-6.4	-2.31 µg/L	-2.31 ppb	09:00:49
3	SiO2†	1828.5	32.4	3.1530 µg/L	3.1530 ppb	09:00:49
3	Si 251.611†	1188.2	338.2	4.9816 µg/L	4.9816 ppb	09:00:29
3	Sn 189.927†	7.9	8.9	0.5579 µg/L	0.5579 ppb	09:00:49
3	Ti 334.940†	1294.5	327.3	0.3050 µg/L	0.3050 ppb	09:00:29
3	Tl 190.801†	-105.5	12.4	1.5213 µg/L	1.5213 ppb	09:00:49
3	U 409.014†	-197.6	74.5	4.3458 µg/L	4.3458 ppb	09:00:29
3	V 292.402†	365.2	-42.8	-0.2055 µg/L	-0.2055 ppb	09:00:29
3	Zn 213.857†	602.8	31.5	0.1797 µg/L	0.1797 ppb	09:00:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1742601.6	101.42	%	0.666				0.66%
Sc RADIAL	144096.0	98.7	%	0.56				0.57%
Y 371.029	1037243.6	101.03	%	0.632				0.63%
Ag 328.068†	54.6	0.2024	µg/L	0.23871	0.2024	ppb	0.23871	117.95%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.0	1.6720	µg/L	3.18216	1.6720	ppb	3.18216	190.32%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.2	2.7944	µg/L	2.21605	2.7944	ppb	2.21605	79.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-2.7	-0.0394	µg/L	0.39040	-0.0394	ppb	0.39040	991.25%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.8	0.0513	µg/L	0.09252	0.0513	ppb	0.09252	180.23%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	139.5	0.0393	µg/L	0.04044	0.0393	ppb	0.04044	102.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	222.4	12.386	µg/L	0.3917	12.386	ppb	0.3917	3.16%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	25.6	0.1592	µg/L	0.02071	0.1592	ppb	0.02071	13.01%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.1	0.0501	µg/L	0.09556	0.0501	ppb	0.09556	190.87%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.1     -0.0203 µg/L      0.02164     -0.0203 ppb       0.02164 106.44%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -6.1     -0.0198 µg/L      0.29681     -0.0198 ppb       0.29681 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       31.7      1.9568 µg/L      0.39753      1.9568 ppb       0.39753  20.32%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       281.4      103.04 µg/L       14.377      103.04 ppb        14.377  13.95%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -16.7     -6.2189 µg/L      4.68028     -6.2189 ppb       4.68028  75.26%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              47.3      0.0587 µg/L      0.00122      0.0587 ppb       0.00122   2.08%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.5      0.0451 µg/L      0.03552      0.0451 ppb       0.03552  78.75%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      206.6      28.139 µg/L       7.4683      28.139 ppb        7.4683  26.54%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -26.0     -0.2988 µg/L      0.08092     -0.2988 ppb       0.08092  27.08%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -13.2     -2.8292 µg/L      1.67125     -2.8292 ppb       1.67125  59.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -22.3     -1.2475 µg/L      1.24474     -1.2475 ppb       1.24474  99.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -6.9     -5.1335 µg/L      3.85183     -5.1335 ppb       3.85183  75.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -7.4     -0.8773 µg/L      1.16217     -0.8773 ppb       1.16217 132.47%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.5      -0.161 µg/L       2.3844      -0.161 ppb        2.3844 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    34.2      3.3348 µg/L      1.69244      3.3348 ppb       1.69244  50.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             231.0      3.4023 µg/L      1.39504      3.4023 ppb       1.39504  41.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.0      0.5020 µg/L      0.30478      0.5020 ppb       0.30478  60.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               0.7      0.0015 µg/L      0.02132      0.0015 ppb       0.02132 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             170.1      0.1579 µg/L      0.14787      0.1579 ppb       0.14787  93.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              12.3      1.5146 µg/L      0.18313      1.5146 ppb       0.18313  12.09%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               75.4      4.3859 µg/L      4.04447      4.3859 ppb       4.04447  92.22%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -82.7     -0.4004 µg/L      0.35829     -0.4004 ppb       0.35829  89.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              34.5      0.1958 µg/L      0.01928      0.1958 ppb       0.01928   9.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 9:15:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142720.5	142720.5	97.8	%			09:15:56
1	Al 396.153Radial†	25914.7	26560.7	4902.9	µg/L	4902.9	ppb	09:15:56
1	Ca 317.933Radial†	83000.0	84305.8	4696.2	µg/L	4696.2	ppb	09:15:56
1	Fe 238.204 Radial†	75111.1	76652.0	4724.4	µg/L	4724.4	ppb	09:15:56
1	K 766.490 Radial†	14402.9	13182.0	4822.2	µg/L	4822.2	ppb	09:15:56
1	Mg 279.077 IEC†	12808.8	12906.1	4815.9	µg/L	4815.9	ppb	09:15:56
1	Na 589.592 Radial†	69346.9	69615.4	9506.0	µg/L	9506.0	ppb	09:15:56
1	Sr 421.552†	227631.5	232885.3	484.12	µg/L	484.12	ppb	09:15:54
1	Sc 361.383	1739182.8	1739182.8	101.22	%			09:16:09
1	Y 371.029	1023647.0	1023647.0	99.704	%			09:16:09
1	Ag 328.068†	130007.3	124348.7	466.29	µg/L	466.29	ppb	09:16:09
1	As 188.979†	1619.6	1620.5	496.84	µg/L	496.84	ppb	09:16:29
1	B 249.677†	35111.7	31182.5	458.26	µg/L	458.26	ppb	09:16:09
1	Ba 233.527†	117413.7	116134.2	468.36	µg/L	468.36	ppb	09:16:09
1	Be 313.107†	1772413.9	1752112.9	477.20	µg/L	477.20	ppb	09:16:09
1	Cd 226.502†	75069.8	74283.1	463.70	µg/L	463.70	ppb	09:16:09
1	Co 228.616†	38210.7	37940.3	468.37	µg/L	468.37	ppb	09:16:09
1	Cr 267.716†	60298.5	59393.0	465.04	µg/L	465.04	ppb	09:16:09
1	Cu 324.752†	124427.2	119955.1	467.61	µg/L	467.61	ppb	09:16:09
1	Mn 257.610†	384985.1	380107.0	470.10	µg/L	470.10	ppb	09:16:09
1	Mo 202.031†	15882.6	15711.2	462.16	µg/L	462.16	ppb	09:16:29
1	Ni 231.604†	40915.0	40498.3	466.31	µg/L	466.31	ppb	09:16:09
1	P 214.914†	10897.8	10784.4	2298.5	µg/L	2298.5	ppb	09:16:29
1	Pb 220.353†	8501.1	8312.3	465.49	µg/L	465.49	ppb	09:16:29
1	S 181.975 Axial†	1329.6	1208.6	901.35	µg/L	901.35	ppb	09:16:29
1	Sb 206.836†	3997.2	3868.2	460.84	µg/L	460.84	ppb	09:16:29
1	Se 196.026†	1283.3	1252.5	455	µg/L	455	ppb	09:16:29
1	SiO2†	52757.6	50346.2	4901.1	µg/L	4901.1	ppb	09:16:09
1	Si 251.611†	159563.6	156803.6	2302.5	µg/L	2302.5	ppb	09:16:09
1	Sn 189.927†	7475.3	7386.3	462.03	µg/L	462.03	ppb	09:16:29
1	Ti 334.940†	507312.8	500244.8	466.76	µg/L	466.76	ppb	09:16:09
1	Tl 190.801†	3705.7	3777.7	471.18	µg/L	471.18	ppb	09:16:29
1	U 409.014†	7101.8	7286.1	454.41	µg/L	454.41	ppb	09:16:09
1	V 292.402†	96822.7	95251.7	470.80	µg/L	470.80	ppb	09:16:09
1	Zn 213.857†	84223.8	82644.1	460.58	µg/L	460.58	ppb	09:16:09
2	Sc RADIAL	143698.7	143698.7	98.5	%			09:16:00
2	Al 396.153Radial†	26180.7	26650.4	4919.4	µg/L	4919.4	ppb	09:16:00
2	Ca 317.933Radial†	83645.8	84384.0	4700.5	µg/L	4700.5	ppb	09:16:00
2	Fe 238.204 Radial†	75952.4	76983.6	4744.8	µg/L	4744.8	ppb	09:16:00
2	K 766.490 Radial†	14556.8	13238.0	4842.7	µg/L	4842.7	ppb	09:16:00
2	Mg 279.077 IEC†	12951.4	12961.8	4836.6	µg/L	4836.6	ppb	09:16:00
2	Na 589.592 Radial†	69801.9	69594.9	9503.2	µg/L	9503.2	ppb	09:16:00
2	Sr 421.552†	225333.1	228967.0	475.97	µg/L	475.97	ppb	09:15:58
2	Sc 361.383	1731776.9	1731776.9	100.79	%			09:16:32
2	Y 371.029	1018706.8	1018706.8	99.223	%			09:16:32
2	Ag 328.068†	129384.6	124280.2	466.07	µg/L	466.07	ppb	09:16:32
2	As 188.979†	1598.7	1606.6	492.65	µg/L	492.65	ppb	09:16:52
2	B 249.677†	35227.6	31445.9	462.15	µg/L	462.15	ppb	09:16:32
2	Ba 233.527†	117106.0	116324.9	469.13	µg/L	469.13	ppb	09:16:32
2	Be 313.107†	1765692.9	1752932.8	477.42	µg/L	477.42	ppb	09:16:32
2	Cd 226.502†	74778.6	74311.3	463.88	µg/L	463.88	ppb	09:16:32
2	Co 228.616†	38104.8	37996.8	469.07	µg/L	469.07	ppb	09:16:32
2	Cr 267.716†	60129.2	59479.9	465.72	µg/L	465.72	ppb	09:16:32
2	Cu 324.752†	124214.9	120270.1	468.84	µg/L	468.84	ppb	09:16:32
2	Mn 257.610†	383158.7	379921.4	469.87	µg/L	469.87	ppb	09:16:32
2	Mo 202.031†	15866.4	15762.2	463.66	µg/L	463.66	ppb	09:16:52
2	Ni 231.604†	40717.2	40474.9	466.04	µg/L	466.04	ppb	09:16:32
2	P 214.914†	10914.4	10846.9	2311.9	µg/L	2311.9	ppb	09:16:52
2	Pb 220.353†	8495.6	8342.7	467.19	µg/L	467.19	ppb	09:16:52

2	S 181.975 Axial†	1322.2	1206.8	900.03 µg/L	900.03 ppb	09:16:52
2	Sb 206.836†	3971.5	3859.6	459.83 µg/L	459.83 ppb	09:16:52
2	Se 196.026†	1292.9	1267.5	460 µg/L	460 ppb	09:16:52
2	SiO2†	52661.0	50473.3	4913.5 µg/L	4913.5 ppb	09:16:32
2	Si 251.611†	158766.1	156686.4	2300.8 µg/L	2300.8 ppb	09:16:32
2	Sn 189.927†	7490.6	7433.1	464.95 µg/L	464.95 ppb	09:16:52
2	Ti 334.940†	505365.8	500456.4	466.96 µg/L	466.96 ppb	09:16:32
2	Tl 190.801†	3703.0	3790.7	472.79 µg/L	472.79 ppb	09:16:52
2	U 409.014†	7111.9	7326.1	456.86 µg/L	456.86 ppb	09:16:32
2	V 292.402†	96842.9	95680.9	472.91 µg/L	472.91 ppb	09:16:32
2	Zn 213.857†	83738.0	82518.0	459.87 µg/L	459.87 ppb	09:16:32
3	Sc RADIAL	142406.1	142406.1	97.6 %		09:16:04
3	Al 396.153Radial†	26011.2	26718.0	4931.9 µg/L	4931.9 ppb	09:16:04
3	Ca 317.933Radial†	83220.8	84719.4	4719.2 µg/L	4719.2 ppb	09:16:04
3	Fe 238.204 Radial†	75398.1	77115.7	4752.9 µg/L	4752.9 ppb	09:16:04
3	K 766.490 Radial†	14496.2	13310.1	4869.1 µg/L	4869.1 ppb	09:16:04
3	Mg 279.077 IEC†	12824.0	12950.6	4832.5 µg/L	4832.5 ppb	09:16:04
3	Na 589.592 Radial†	69646.3	70078.8	9569.3 µg/L	9569.3 ppb	09:16:04
3	Sr 421.552†	224502.5	230192.8	478.52 µg/L	478.52 ppb	09:16:02
3	Sc 361.383	1731150.1	1731150.1	100.75 %		09:16:55
3	Y 371.029	1018095.1	1018095.1	99.163 %		09:16:55
3	Ag 328.068†	129601.7	124542.1	467.03 µg/L	467.03 ppb	09:16:55
3	As 188.979†	1607.1	1615.4	495.34 µg/L	495.34 ppb	09:17:15
3	B 249.677†	35255.6	31486.3	462.74 µg/L	462.74 ppb	09:16:55
3	Ba 233.527†	117171.4	116431.9	469.57 µg/L	469.57 ppb	09:16:55
3	Be 313.107†	1771145.4	1758978.9	479.07 µg/L	479.07 ppb	09:16:55
3	Cd 226.502†	74795.8	74355.2	464.15 µg/L	464.15 ppb	09:16:55
3	Co 228.616†	38018.1	37924.4	468.17 µg/L	468.17 ppb	09:16:55
3	Cr 267.716†	60018.6	59391.7	465.04 µg/L	465.04 ppb	09:16:55
3	Cu 324.752†	124565.0	120662.2	470.36 µg/L	470.36 ppb	09:16:55
3	Mn 257.610†	383611.7	380508.7	470.60 µg/L	470.60 ppb	09:16:55
3	Mo 202.031†	15941.9	15842.9	466.04 µg/L	466.04 ppb	09:17:15
3	Ni 231.604†	40762.3	40534.3	466.72 µg/L	466.72 ppb	09:16:55
3	P 214.914†	10932.7	10869.0	2316.6 µg/L	2316.6 ppb	09:17:15
3	Pb 220.353†	8511.1	8361.1	468.23 µg/L	468.23 ppb	09:17:15
3	S 181.975 Axial†	1334.9	1219.8	909.74 µg/L	909.74 ppb	09:17:15
3	Sb 206.836†	4006.7	3896.0	464.20 µg/L	464.20 ppb	09:17:15
3	Se 196.026†	1301.5	1276.5	464 µg/L	464 ppb	09:17:15
3	SiO2†	52640.5	50471.8	4913.2 µg/L	4913.2 ppb	09:16:55
3	Si 251.611†	159281.3	157254.8	2309.1 µg/L	2309.1 ppb	09:16:55
3	Sn 189.927†	7523.3	7468.2	467.14 µg/L	467.14 ppb	09:17:15
3	Ti 334.940†	506629.5	501892.2	468.30 µg/L	468.30 ppb	09:16:55
3	Tl 190.801†	3714.2	3803.1	474.33 µg/L	474.33 ppb	09:17:15
3	U 409.014†	7013.0	7230.5	451.28 µg/L	451.28 ppb	09:16:55
3	V 292.402†	96801.7	95674.8	472.90 µg/L	472.90 ppb	09:16:55
3	Zn 213.857†	84088.5	82895.9	461.99 µg/L	461.99 ppb	09:16:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1734036.6	100.92	%	0.260				0.26%
Sc RADIAL	142941.8	98.0	%	0.46				0.47%
Y 371.029	1020149.6	99.363	%	0.2965				0.30%
Ag 328.068†	124390.4	466.46	µg/L	0.503	466.46	ppb	0.503	0.11%
QC value within limits for Ag 328.068 Recovery = 93.29%								
Al 396.153Radial†	26643.0	4918.1	µg/L	14.55	4918.1	ppb	14.55	0.30%
QC value within limits for Al 396.153Radial Recovery = 98.36%								
As 188.979†	1614.2	494.95	µg/L	2.124	494.95	ppb	2.124	0.43%
QC value within limits for As 188.979 Recovery = 98.99%								
B 249.677†	31371.6	461.05	µg/L	2.433	461.05	ppb	2.433	0.53%
QC value within limits for B 249.677 Recovery = 92.21%								
Ba 233.527†	116297.0	469.02	µg/L	0.609	469.02	ppb	0.609	0.13%
QC value within limits for Ba 233.527 Recovery = 93.80%								
Be 313.107†	1754674.8	477.89	µg/L	1.020	477.89	ppb	1.020	0.21%
QC value within limits for Be 313.107 Recovery = 95.58%								
Ca 317.933Radial†	84469.7	4705.3	µg/L	12.24	4705.3	ppb	12.24	0.26%
QC value within limits for Ca 317.933Radial Recovery = 94.11%								
Cd 226.502†	74316.5	463.91	µg/L	0.226	463.91	ppb	0.226	0.05%
QC value within limits for Cd 226.502 Recovery = 92.78%								
Co 228.616†	37953.8	468.54	µg/L	0.469	468.54	ppb	0.469	0.10%

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   QC value within limits for Co 228.616  Recovery = 93.71%
Cr 267.716†            59421.5      465.27 µg/L         0.394      465.27 ppb          0.394   0.08%
   QC value within limits for Cr 267.716  Recovery = 93.05%
Cu 324.752†           120295.8      468.94 µg/L         1.377      468.94 ppb          1.377   0.29%
   QC value within limits for Cu 324.752  Recovery = 93.79%
Fe 238.204 Radial†     76917.1      4740.7 µg/L         14.72      4740.7 ppb          14.72   0.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.81%
K 766.490 Radial†      13243.4      4844.7 µg/L         23.50      4844.7 ppb          23.50   0.48%
   QC value within limits for K 766.490 Radial  Recovery = 96.89%
Mg 279.077 IEC†        12939.5      4828.3 µg/L         10.99      4828.3 ppb          10.99   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.57%
Mn 257.610†           380179.0      470.19 µg/L         0.371      470.19 ppb          0.371   0.08%
   QC value within limits for Mn 257.610  Recovery = 94.04%
Mo 202.031†            15772.1      463.95 µg/L         1.952      463.95 ppb          1.952   0.42%
   QC value within limits for Mo 202.031  Recovery = 92.79%
Na 589.592 Radial†     69763.0      9526.2 µg/L         37.36      9526.2 ppb          37.36   0.39%
   QC value within limits for Na 589.592 Radial  Recovery = 95.26%
Ni 231.604†            40502.5      466.36 µg/L         0.344      466.36 ppb          0.344   0.07%
   QC value within limits for Ni 231.604  Recovery = 93.27%
P 214.914†             10833.5      2309.0 µg/L          9.37      2309.0 ppb           9.37   0.41%
   QC value within limits for P 214.914  Recovery = 92.36%
Pb 220.353†             8338.7      466.97 µg/L         1.384      466.97 ppb          1.384   0.30%
   QC value within limits for Pb 220.353  Recovery = 93.39%
S 181.975 Axial†        1211.7      903.71 µg/L         5.268      903.71 ppb          5.268   0.58%
   QC value within limits for S 181.975 Axial  Recovery = 90.37%
Sb 206.836†             3874.6      461.62 µg/L         2.290      461.62 ppb          2.290   0.50%
   QC value within limits for Sb 206.836  Recovery = 92.32%
Se 196.026†             1265.5         460 µg/L           4.4         460 ppb            4.4   0.95%
   QC value within limits for Se 196.026  Recovery = 91.91%
SiO2†                  50430.5      4909.3 µg/L          7.05      4909.3 ppb           7.05   0.14%
   QC value within limits for SiO2  Recovery = 91.80%
Si 251.611†           156914.9      2304.1 µg/L          4.39      2304.1 ppb           4.39   0.19%
   QC value within limits for Si 251.611  Recovery = 92.17%
Sn 189.927†             7429.2      464.71 µg/L         2.564      464.71 ppb          2.564   0.55%
   QC value within limits for Sn 189.927  Recovery = 92.94%
Sr 421.552†           230681.7      479.54 µg/L         4.167      479.54 ppb          4.167   0.87%
   QC value within limits for Sr 421.552  Recovery = 95.91%
Ti 334.940†           500864.5      467.34 µg/L         0.838      467.34 ppb          0.838   0.18%
   QC value within limits for Ti 334.940  Recovery = 93.47%
Tl 190.801†             3790.5      472.77 µg/L         1.579      472.77 ppb          1.579   0.33%
   QC value within limits for Tl 190.801  Recovery = 94.55%
U 409.014†              7280.9      454.18 µg/L         2.800      454.18 ppb          2.800   0.62%
   QC value within limits for U 409.014  Recovery = 90.84%
V 292.402†             95535.8      472.20 µg/L         1.215      472.20 ppb          1.215   0.26%
   QC value within limits for V 292.402  Recovery = 94.44%
Zn 213.857†            82686.0      460.82 µg/L         1.078      460.82 ppb          1.078   0.23%
   QC value within limits for Zn 213.857  Recovery = 92.16%
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 9:17:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146508.3	146508.3	100	%			09:17:52
1	Al 396.153Radial†	-42.1	21.3	3.9436	µg/L	3.9436	ppb	09:18:12
1	Ca 317.933Radial†	770.8	207.2	11.540	µg/L	11.540	ppb	09:18:12
1	Fe 238.204 Radial†	236.5	87.5	5.3919	µg/L	5.3919	ppb	09:18:12
1	K 766.490 Radial†	1742.2	190.6	69.763	µg/L	69.763	ppb	09:17:52
1	Mg 279.077 IEC†	163.8	-27.5	-10.261	µg/L	-10.261	ppb	09:18:12
1	Na 589.592 Radial†	1317.5	21.5	2.8763	µg/L	2.8763	ppb	09:17:52
1	Sr 421.552†	-320.3	-183.7	-0.3821	µg/L	-0.3821	ppb	09:17:52
1	Sc 361.383	1765466.2	1765466.2	102.75	%			09:19:00
1	Y 371.029	1051106.2	1051106.2	102.38	%			09:19:00
1	Ag 328.068†	4296.1	89.7	0.3320	µg/L	0.3320	ppb	09:19:02
1	As 188.979†	-16.4	4.4	1.3323	µg/L	1.3323	ppb	09:19:22
1	B 249.677†	3441.7	-156.3	-2.3076	µg/L	-2.3076	ppb	09:19:02
1	Ba 233.527†	-137.3	2.2	0.0087	µg/L	0.0087	ppb	09:19:22
1	Be 313.107†	-1040.7	51.9	0.0154	µg/L	0.0154	ppb	09:19:02
1	Cd 226.502†	-99.2	21.7	0.1345	µg/L	0.1345	ppb	09:19:22
1	Co 228.616†	-147.6	46.6	0.5751	µg/L	0.5751	ppb	09:19:22
1	Cr 267.716†	155.6	-27.1	-0.2157	µg/L	-0.2157	ppb	09:19:22
1	Cu 324.752†	2956.0	-95.3	-0.3661	µg/L	-0.3661	ppb	09:19:02
1	Mn 257.610†	322.1	76.2	0.0947	µg/L	0.0947	ppb	09:19:22
1	Mo 202.031†	-22.1	-1.5	-0.0429	µg/L	-0.0429	ppb	09:19:22
1	Ni 231.604†	-123.3	-43.5	-0.5009	µg/L	-0.5009	ppb	09:19:22
1	P 214.914†	-51.4	-32.0	-6.8406	µg/L	-6.8406	ppb	09:19:22
1	Pb 220.353†	92.0	3.1	0.1709	µg/L	0.1709	ppb	09:19:22
1	S 181.975 Axial†	109.2	1.2	0.8829	µg/L	0.8829	ppb	09:19:22
1	Sb 206.836†	84.0	0.9	0.1132	µg/L	0.1132	ppb	09:19:22
1	Se 196.026†	6.8	-8.7	-3.12	µg/L	-3.12	ppb	09:19:22
1	SiO2†	1821.1	-3.0	-0.3026	µg/L	-0.3026	ppb	09:19:22
1	Si 251.611†	995.9	132.7	1.9521	µg/L	1.9521	ppb	09:19:02
1	Sn 189.927†	11.5	12.4	0.7701	µg/L	0.7701	ppb	09:19:22
1	Ti 334.940†	1022.8	42.9	0.0396	µg/L	0.0396	ppb	09:19:02
1	Tl 190.801†	-107.5	12.0	1.4741	µg/L	1.4741	ppb	09:19:22
1	U 409.014†	-205.5	69.9	4.0612	µg/L	4.0612	ppb	09:19:02
1	V 292.402†	329.3	-83.3	-0.4056	µg/L	-0.4056	ppb	09:19:02
1	Zn 213.857†	621.3	40.2	0.2288	µg/L	0.2288	ppb	09:19:22
2	Sc RADIAL	145418.6	145418.6	99.6	%			09:18:14
2	Al 396.153Radial†	-47.7	15.3	2.8430	µg/L	2.8430	ppb	09:18:34
2	Ca 317.933Radial†	761.0	203.1	11.314	µg/L	11.314	ppb	09:18:34
2	Fe 238.204 Radial†	223.6	76.3	4.7037	µg/L	4.7037	ppb	09:18:34
2	K 766.490 Radial†	1827.8	289.5	105.98	µg/L	105.98	ppb	09:18:14
2	Mg 279.077 IEC†	168.3	-21.8	-8.1364	µg/L	-8.1364	ppb	09:18:34
2	Na 589.592 Radial†	1409.7	123.8	16.822	µg/L	16.822	ppb	09:18:14
2	Sr 421.552†	-215.8	-81.2	-0.1690	µg/L	-0.1690	ppb	09:18:14
2	Sc 361.383	1771445.2	1771445.2	103.10	%			09:19:24
2	Y 371.029	1053904.6	1053904.6	102.65	%			09:19:24
2	Ag 328.068†	4214.4	-3.6	0.0007	µg/L	0.0007	ppb	09:19:27
2	As 188.979†	-7.8	12.8	3.8773	µg/L	3.8773	ppb	09:19:47
2	B 249.677†	3468.6	-141.6	-2.0893	µg/L	-2.0893	ppb	09:19:27
2	Ba 233.527†	-90.8	47.8	0.1926	µg/L	0.1926	ppb	09:19:47
2	Be 313.107†	-1022.4	73.0	0.0227	µg/L	0.0227	ppb	09:19:27
2	Cd 226.502†	-113.7	7.9	0.0487	µg/L	0.0487	ppb	09:19:47
2	Co 228.616†	-160.0	35.1	0.4327	µg/L	0.4327	ppb	09:19:47
2	Cr 267.716†	178.6	-5.4	-0.0490	µg/L	-0.0490	ppb	09:19:47
2	Cu 324.752†	3045.6	-18.1	-0.0621	µg/L	-0.0621	ppb	09:19:27
2	Mn 257.610†	298.5	52.3	0.0650	µg/L	0.0650	ppb	09:19:47
2	Mo 202.031†	-20.0	0.7	0.0209	µg/L	0.0209	ppb	09:19:47
2	Ni 231.604†	-121.1	-41.0	-0.4719	µg/L	-0.4719	ppb	09:19:47
2	P 214.914†	-40.3	-21.2	-4.5321	µg/L	-4.5321	ppb	09:19:47
2	Pb 220.353†	68.6	-19.9	-1.1170	µg/L	-1.1170	ppb	09:19:47

2	S 181.975 Axial†	98.3	-9.7	-7.1956 µg/L	-7.1956 ppb		09:19:47
2	Sb 206.836†	77.5	-5.7	-0.6711 µg/L	-0.6711 ppb		09:19:47
2	Se 196.026†	23.8	7.8	2.82 µg/L	2.82 ppb		09:19:47
2	SiO2†	1844.0	13.2	1.2917 µg/L	1.2917 ppb		09:19:47
2	Si 251.611†	937.2	72.5	1.0700 µg/L	1.0700 ppb		09:19:27
2	Sn 189.927†	-5.6	-4.3	-0.2703 µg/L	-0.2703 ppb		09:19:47
2	Ti 334.940†	905.9	-73.9	-0.0719 µg/L	-0.0719 ppb		09:19:27
2	Tl 190.801†	-109.5	10.5	1.2907 µg/L	1.2907 ppb		09:19:47
2	U 409.014†	-114.4	158.9	9.3055 µg/L	9.3055 ppb		09:19:27
2	V 292.402†	469.3	51.4	0.2568 µg/L	0.2568 ppb		09:19:27
2	Zn 213.857†	618.7	35.7	0.2030 µg/L	0.2030 ppb		09:19:47
3	Sc RADIAL	142887.6	142887.6	97.9 %			09:18:36
3	Al 396.153Radial†	-59.9	2.0	0.3551 µg/L	0.3551 ppb		09:18:56
3	Ca 317.933Radial†	748.3	203.7	11.345 µg/L	11.345 ppb		09:18:56
3	Fe 238.204 Radial†	192.3	48.3	2.9782 µg/L	2.9782 ppb		09:18:56
3	K 766.490 Radial†	1709.6	201.2	73.665 µg/L	73.665 ppb		09:18:36
3	Mg 279.077 IEC†	166.8	-20.3	-7.5569 µg/L	-7.5569 ppb		09:18:56
3	Na 589.592 Radial†	1256.8	-7.3	-1.0567 µg/L	-1.0567 ppb		09:18:36
3	Sr 421.552†	-290.8	-161.7	-0.3362 µg/L	-0.3362 ppb		09:18:36
3	Sc 361.383	1771549.2	1771549.2	103.10 %			09:19:49
3	Y 371.029	1053491.0	1053491.0	102.61 %			09:19:49
3	Ag 328.068†	4216.0	-2.3	-0.0293 µg/L	-0.0293 ppb		09:19:51
3	As 188.979†	-22.6	-1.5	-0.4584 µg/L	-0.4584 ppb		09:20:11
3	B 249.677†	3542.6	-70.0	-1.0335 µg/L	-1.0335 ppb		09:19:51
3	Ba 233.527†	-108.8	30.3	0.1223 µg/L	0.1223 ppb		09:20:11
3	Be 313.107†	-1076.7	20.4	-0.0001 µg/L	-0.0001 ppb		09:19:51
3	Cd 226.502†	-114.8	6.9	0.0425 µg/L	0.0425 ppb		09:20:11
3	Co 228.616†	-165.3	30.0	0.3696 µg/L	0.3696 ppb		09:20:11
3	Cr 267.716†	182.3	-1.8	0.0011 µg/L	0.0011 ppb		09:20:11
3	Cu 324.752†	3066.6	2.1	-0.0069 µg/L	-0.0069 ppb		09:19:51
3	Mn 257.610†	295.4	49.2	0.0612 µg/L	0.0612 ppb		09:20:11
3	Mo 202.031†	-5.8	14.5	0.4253 µg/L	0.4253 ppb		09:20:11
3	Ni 231.604†	-95.8	-16.4	-0.1892 µg/L	-0.1892 ppb		09:20:11
3	P 214.914†	-48.0	-28.6	-6.1161 µg/L	-6.1161 ppb		09:20:11
3	Pb 220.353†	95.0	5.7	0.3355 µg/L	0.3355 ppb		09:20:11
3	S 181.975 Axial†	105.8	-2.5	-1.8176 µg/L	-1.8176 ppb		09:20:11
3	Sb 206.836†	69.2	-13.7	-1.6256 µg/L	-1.6256 ppb		09:20:11
3	Se 196.026†	27.0	10.9	3.93 µg/L	3.93 ppb		09:20:11
3	SiO2†	1819.3	-10.8	-1.0719 µg/L	-1.0719 ppb		09:20:11
3	Si 251.611†	940.3	75.4	1.1059 µg/L	1.1059 ppb		09:19:51
3	Sn 189.927†	-1.5	-0.3	-0.0187 µg/L	-0.0187 ppb		09:20:11
3	Ti 334.940†	1117.6	131.4	0.1313 µg/L	0.1313 ppb		09:19:51
3	Tl 190.801†	-110.7	9.4	1.1507 µg/L	1.1507 ppb		09:20:11
3	U 409.014†	-606.9	-318.8	-18.627 µg/L	-18.627 ppb		09:19:51
3	V 292.402†	462.7	45.0	0.2108 µg/L	0.2108 ppb		09:19:51
3	Zn 213.857†	594.2	11.9	0.0679 µg/L	0.0679 ppb		09:20:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769486.9	102.98	%	0.203				0.20%
Sc RADIAL	144938.2	99.3	%	1.27				1.28%
Y 371.029	1052833.9	102.55	%	0.147				0.14%
Ag 328.068†	27.9	0.1011	µg/L	0.20048	0.1011	ppb	0.20048	198.24%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.9	2.3806	µg/L	1.83843	2.3806	ppb	1.83843	77.23%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.2	1.5838	µg/L	2.17878	1.5838	ppb	2.17878	137.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-122.6	-1.8101	µg/L	0.68138	-1.8101	ppb	0.68138	37.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	26.8	0.1079	µg/L	0.09277	0.1079	ppb	0.09277	86.00%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	48.4	0.0127	µg/L	0.01162	0.0127	ppb	0.01162	91.82%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	204.7	11.400	µg/L	0.1226	11.400	ppb	0.1226	1.08%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	12.1	0.0752	µg/L	0.05140	0.0752	ppb	0.05140	68.32%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	37.2	0.4591	µg/L	0.10528	0.4591	ppb	0.10528	22.93%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -11.4     -0.0879 µg/L       0.11351     -0.0879 ppb        0.11351 129.15%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -37.1     -0.1450 µg/L       0.19343     -0.1450 ppb        0.19343 133.37%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        70.7      4.3579 µg/L       1.24344      4.3579 ppb        1.24344  28.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        227.1     83.136 µg/L       19.8802     83.136 ppb        19.8802  23.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -23.2     -8.6515 µg/L       1.42383     -8.6515 ppb        1.42383  16.46%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               59.3      0.0736 µg/L       0.01835      0.0736 ppb        0.01835  24.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.6      0.1344 µg/L       0.25391      0.1344 ppb        0.25391 188.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        46.0      6.2138 µg/L       9.39480      6.2138 ppb        9.39480 151.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -33.6     -0.3873 µg/L       0.17217     -0.3873 ppb        0.17217  44.45%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -27.3     -5.8296 µg/L       1.18065     -5.8296 ppb        1.18065  20.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -3.7     -0.2035 µg/L       0.79535     -0.2035 ppb        0.79535 390.74%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.7     -2.7101 µg/L       4.11255     -2.7101 ppb        4.11255 151.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -6.2     -0.7278 µg/L       0.87080     -0.7278 ppb        0.87080 119.65%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.3       1.21 µg/L         3.790        1.21 ppb          3.790 313.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -0.2     -0.0276 µg/L       1.20554     -0.0276 ppb        1.20554 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               93.5      1.3760 µg/L       0.49927      1.3760 ppb        0.49927  36.28%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.6      0.1604 µg/L       0.54277      0.1604 ppb        0.54277 338.42%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -142.2     -0.2958 µg/L       0.11215     -0.2958 ppb        0.11215  37.92%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               33.5      0.0330 µg/L       0.10174      0.0330 ppb        0.10174 308.06%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               10.6      1.3051 µg/L       0.16220      1.3051 ppb        0.16220  12.43%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -30.0     -1.7535 µg/L      14.84641     -1.7535 ppb       14.84641 846.67%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 4.4      0.0207 µg/L       0.36987      0.0207 ppb        0.36987 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               29.3      0.1666 µg/L       0.08640      0.1666 ppb        0.08640  51.87%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: 248863001|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 316
Date Collected: 4/1/2010 9:22:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248863001|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	147034.4	147034.4	101	%			09:22:55
1	Al 396.153Radial†	69524.4	69065.3	12804	µg/L	12804	ppb	09:22:55
1	Ca 317.933Radial†	76721.3	75584.3	4210.3	µg/L	4210.3	ppb	09:22:57
1	Fe 238.204 Radial†	864483.7	857840.9	52872	µg/L	52872	ppb	09:22:55
1	K 766.490 Radial†	11236.4	9607.3	3513.2	µg/L	3513.2	ppb	09:22:57
1	Mg 279.077 IEC†	6605.7	6365.4	2326.4	µg/L	2326.4	ppb	09:22:57
1	Na 589.592 Radial†	18430.5	17001.3	2319.4	µg/L	2319.4	ppb	09:22:57
1	Sr 421.552†	14641.0	14666.3	30.457	µg/L	30.457	ppb	09:22:57
1	Sc 361.383	1782717.0	1782717.0	103.75	%			09:23:09
1	Y 371.029	1306930.4	1306930.4	127.30	%			09:23:09
1	Ag 328.068†	4271.0	25.1	-1.0282	µg/L	-1.0282	ppb	09:23:11
1	As 188.979†	23.7	43.2	25.124	µg/L	25.124	ppb	09:23:31
1	B 249.677†	3820.6	176.5	2.5739	µg/L	2.5739	ppb	09:23:11
1	Ba 233.527†	27045.2	26202.5	104.93	µg/L	104.93	ppb	09:23:11
1	Be 313.107†	12802.1	13403.6	3.5576	µg/L	3.5576	ppb	09:23:11
1	Cd 226.502†	732.8	824.5	-0.4018	µg/L	-0.4018	ppb	09:23:31
1	Co 228.616†	493.7	666.2	5.5685	µg/L	5.5685	ppb	09:23:31
1	Cr 267.716†	2937.4	2652.5	22.240	µg/L	22.240	ppb	09:23:11
1	Cu 324.752†	4171.0	1047.9	11.590	µg/L	11.590	ppb	09:23:11
1	Mn 257.610†	1985190.5	1913128.3	2366.9	µg/L	2366.9	ppb	09:23:09
1	Mo 202.031†	118.6	134.4	6.0941	µg/L	6.0941	ppb	09:23:31
1	Ni 231.604†	1457.7	1481.4	17.058	µg/L	17.058	ppb	09:23:31
1	P 214.914†	1623.7	1583.0	305.45	µg/L	305.45	ppb	09:23:31
1	Pb 220.353†	766.9	652.8	37.206	µg/L	37.206	ppb	09:23:31
1	S 181.975 Axial†	200.0	87.7	65.144	µg/L	65.144	ppb	09:23:31
1	Sb 206.836†	79.4	-4.3	-1.4490	µg/L	-1.4490	ppb	09:23:31
1	Se 196.026†	-52.5	-65.9	-5.76	µg/L	-5.76	ppb	09:23:31
1	SiO2†	471833.0	452986.5	44276	µg/L	44276	ppb	09:23:09
1	Si 251.611†	1454786.4	1401315.1	20659	µg/L	20659	ppb	09:23:09
1	Sn 189.927†	158.6	154.0	13.285	µg/L	13.285	ppb	09:23:31
1	Ti 334.940†	1215314.8	1170391.7	1093.5	µg/L	1093.5	ppb	09:23:09
1	Tl 190.801†	-292.8	-165.5	-3.0705	µg/L	-3.0705	ppb	09:23:31
1	U 409.014†	-5679.0	-5203.6	-299.05	µg/L	-299.05	ppb	09:23:09
1	V 292.402†	6817.9	6167.5	23.420	µg/L	23.420	ppb	09:23:11
1	Zn 213.857†	37983.7	36045.0	197.43	µg/L	197.43	ppb	09:23:11
2	Sc RADIAL	147782.8	147782.8	101	%			09:22:59
2	Al 396.153Radial†	69793.5	68981.6	12789	µg/L	12789	ppb	09:22:59
2	Ca 317.933Radial†	76243.1	74726.6	4162.6	µg/L	4162.6	ppb	09:23:01
2	Fe 238.204 Radial†	867045.1	856025.4	52760	µg/L	52760	ppb	09:22:59
2	K 766.490 Radial†	11457.5	9769.1	3572.4	µg/L	3572.4	ppb	09:23:01
2	Mg 279.077 IEC†	6587.3	6314.0	2307.3	µg/L	2307.3	ppb	09:23:01
2	Na 589.592 Radial†	18374.8	16853.6	2299.2	µg/L	2299.2	ppb	09:23:01
2	Sr 421.552†	14582.5	14535.0	30.185	µg/L	30.185	ppb	09:23:01
2	Sc 361.383	1784853.9	1784853.9	103.88	%			09:23:34
2	Y 371.029	1308324.6	1308324.6	127.43	%			09:23:34
2	Ag 328.068†	4302.9	50.9	-0.9540	µg/L	-0.9540	ppb	09:23:36
2	As 188.979†	27.4	46.7	26.155	µg/L	26.155	ppb	09:23:56
2	B 249.677†	3714.2	69.7	0.9998	µg/L	0.9998	ppb	09:23:36
2	Ba 233.527†	26861.9	25994.9	104.10	µg/L	104.10	ppb	09:23:36
2	Be 313.107†	12770.3	13358.2	3.5379	µg/L	3.5379	ppb	09:23:36
2	Cd 226.502†	782.3	871.3	-0.0981	µg/L	-0.0981	ppb	09:23:56
2	Co 228.616†	475.8	648.4	5.3533	µg/L	5.3533	ppb	09:23:56
2	Cr 267.716†	2774.0	2491.8	20.995	µg/L	20.995	ppb	09:23:36
2	Cu 324.752†	4108.2	982.6	11.300	µg/L	11.300	ppb	09:23:36
2	Mn 257.610†	1992397.7	1917775.7	2372.6	µg/L	2372.6	ppb	09:23:34
2	Mo 202.031†	108.8	124.8	5.8088	µg/L	5.8088	ppb	09:23:56
2	Ni 231.604†	1452.2	1474.5	16.978	µg/L	16.978	ppb	09:23:56
2	P 214.914†	1617.0	1574.6	303.73	µg/L	303.73	ppb	09:23:56
2	Pb 220.353†	757.9	643.2	36.694	µg/L	36.694	ppb	09:23:56

2	S 181.975 Axial†	215.1	102.0	75.756	µg/L	75.756	ppb	09:23:56
2	Sb 206.836†	68.4	-15.0	-2.7069	µg/L	-2.7069	ppb	09:23:56
2	Se 196.026†	-32.1	-46.2	1.28	µg/L	1.28	ppb	09:23:56
2	SiO2†	473594.3	454137.6	44388	µg/L	44388	ppb	09:23:34
2	Si 251.611†	1460099.9	1404751.6	20710	µg/L	20710	ppb	09:23:34
2	Sn 189.927†	159.8	154.9	13.351	µg/L	13.351	ppb	09:23:56
2	Ti 334.940†	1218878.6	1172420.1	1095.4	µg/L	1095.4	ppb	09:23:34
2	Tl 190.801†	-308.2	-180.0	-4.8107	µg/L	-4.8107	ppb	09:23:56
2	U 409.014†	-6114.1	-5615.9	-323.06	µg/L	-323.06	ppb	09:23:34
2	V 292.402†	6973.2	6309.1	24.097	µg/L	24.097	ppb	09:23:36
2	Zn 213.857†	38000.8	36017.6	197.29	µg/L	197.29	ppb	09:23:36
3	Sc RADIAL	147665.2	147665.2	101	%			09:23:03
3	Al 396.153Radial†	70287.5	69524.7	12890	µg/L	12890	ppb	09:23:03
3	Ca 317.933Radial†	77108.4	75641.6	4213.5	µg/L	4213.5	ppb	09:23:05
3	Fe 238.204 Radial†	864781.7	854470.3	52664	µg/L	52664	ppb	09:23:03
3	K 766.490 Radial†	11159.7	9483.8	3467.9	µg/L	3467.9	ppb	09:23:05
3	Mg 279.077 IEC†	6668.4	6399.3	2339.2	µg/L	2339.2	ppb	09:23:05
3	Na 589.592 Radial†	18639.4	17129.5	2337.0	µg/L	2337.0	ppb	09:23:05
3	Sr 421.552†	14742.9	14705.0	30.538	µg/L	30.538	ppb	09:23:05
3	Sc 361.383	1800734.2	1800734.2	104.80	%			09:23:58
3	Y 371.029	1320114.4	1320114.4	128.58	%			09:23:58
3	Ag 328.068†	4379.9	87.8	-0.8148	µg/L	-0.8148	ppb	09:24:00
3	As 188.979†	22.8	42.1	24.762	µg/L	24.762	ppb	09:24:20
3	B 249.677†	3757.5	79.5	1.1445	µg/L	1.1445	ppb	09:24:00
3	Ba 233.527†	27269.7	26156.0	104.75	µg/L	104.75	ppb	09:24:00
3	Be 313.107†	13063.7	13529.8	3.5869	µg/L	3.5869	ppb	09:24:00
3	Cd 226.502†	754.5	838.1	-0.2951	µg/L	-0.2951	ppb	09:24:20
3	Co 228.616†	467.9	636.8	5.2167	µg/L	5.2167	ppb	09:24:20
3	Cr 267.716†	2945.7	2632.2	22.085	µg/L	22.085	ppb	09:24:00
3	Cu 324.752†	4285.4	1116.8	11.814	µg/L	11.814	ppb	09:24:00
3	Mn 257.610†	2009918.2	1917578.8	2372.4	µg/L	2372.4	ppb	09:23:58
3	Mo 202.031†	98.3	113.9	5.4829	µg/L	5.4829	ppb	09:24:20
3	Ni 231.604†	1454.4	1464.3	16.860	µg/L	16.860	ppb	09:24:20
3	P 214.914†	1629.3	1572.6	303.38	µg/L	303.38	ppb	09:24:20
3	Pb 220.353†	783.7	661.4	37.717	µg/L	37.717	ppb	09:24:20
3	S 181.975 Axial†	204.3	89.9	66.800	µg/L	66.800	ppb	09:24:20
3	Sb 206.836†	80.6	-3.9	-1.4099	µg/L	-1.4099	ppb	09:24:20
3	Se 196.026†	-43.5	-56.8	-2.56	µg/L	-2.56	ppb	09:24:20
3	SiO2†	478235.7	454545.8	44428	µg/L	44428	ppb	09:23:58
3	Si 251.611†	1473266.4	1404919.1	20712	µg/L	20712	ppb	09:23:58
3	Sn 189.927†	149.6	143.8	12.662	µg/L	12.662	ppb	09:24:20
3	Ti 334.940†	1230409.3	1173074.7	1096.0	µg/L	1096.0	ppb	09:23:58
3	Tl 190.801†	-303.2	-172.7	-3.9026	µg/L	-3.9026	ppb	09:24:20
3	U 409.014†	-6033.5	-5487.1	-315.53	µg/L	-315.53	ppb	09:23:58
3	V 292.402†	6925.8	6204.6	23.603	µg/L	23.603	ppb	09:24:00
3	Zn 213.857†	38401.0	36076.9	197.64	µg/L	197.64	ppb	09:24:00

Mean Data: 248863001|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1789435.0	104.14	%	0.573				0.55%
Sc RADIAL	147494.1	101	%	0.3				0.27%
Y 371.029	1311789.8	127.77	%	0.705				0.55%
Ag 328.068†	54.6	-0.9323	µg/L	0.10835	-0.9323	ppb	0.10835	11.62%
Al 396.153Radial†	69190.5	12828	µg/L	54.2	12828	ppb	54.2	0.42%
As 188.979†	44.0	25.347	µg/L	0.7229	25.347	ppb	0.7229	2.85%
B 249.677†	108.5	1.5727	µg/L	0.87005	1.5727	ppb	0.87005	55.32%
Ba 233.527†	26117.8	104.59	µg/L	0.439	104.59	ppb	0.439	0.42%
Be 313.107†	13430.5	3.5608	µg/L	0.02465	3.5608	ppb	0.02465	0.69%
Ca 317.933Radial†	75317.5	4195.5	µg/L	28.55	4195.5	ppb	28.55	0.68%
Cd 226.502†	844.6	-0.2650	µg/L	0.15410	-0.2650	ppb	0.15410	58.15%
Co 228.616†	650.5	5.3795	µg/L	0.17734	5.3795	ppb	0.17734	3.30%
Cr 267.716†	2592.2	21.773	µg/L	0.6782	21.773	ppb	0.6782	3.11%
Cu 324.752†	1049.1	11.568	µg/L	0.2579	11.568	ppb	0.2579	2.23%
Fe 238.204 Radial†	856112.2	52766	µg/L	104.0	52766	ppb	104.0	0.20%
K 766.490 Radial†	9620.0	3517.8	µg/L	52.40	3517.8	ppb	52.40	1.49%
Mg 279.077 IEC†	6359.6	2324.3	µg/L	16.03	2324.3	ppb	16.03	0.69%
Mn 257.610†	1916160.9	2370.6	µg/L	3.25	2370.6	ppb	3.25	0.14%
Mo 202.031†	124.4	5.7952	µg/L	0.30582	5.7952	ppb	0.30582	5.28%
Na 589.592 Radial†	16994.8	2318.6	µg/L	18.91	2318.6	ppb	18.91	0.82%

Ni 231.604†	1473.4	16.965	µg/L	0.0994	16.965	ppb	0.0994	0.59%
P 214.914†	1576.7	304.19	µg/L	1.106	304.19	ppb	1.106	0.36%
Pb 220.353†	652.5	37.206	µg/L	0.5113	37.206	ppb	0.5113	1.37%
S 181.975 Axial†	93.2	69.234	µg/L	5.7091	69.234	ppb	5.7091	8.25%
Sb 206.836†	-7.7	-1.8553	µg/L	0.73782	-1.8553	ppb	0.73782	39.77%
Se 196.026†	-56.3	-2.35	µg/L	3.526	-2.35	ppb	3.526	150.23%
SiO2†	453890.0	44364	µg/L	79.0	44364	ppb	79.0	0.18%
Si 251.611†	1403661.9	20694	µg/L	30.0	20694	ppb	30.0	0.14%
Sn 189.927†	150.9	13.099	µg/L	0.3800	13.099	ppb	0.3800	2.90%
Sr 421.552†	14635.4	30.393	µg/L	0.1850	30.393	ppb	0.1850	0.61%
Ti 334.940†	1171962.2	1095.0	µg/L	1.31	1095.0	ppb	1.31	0.12%
Tl 190.801†	-172.7	-3.9280	µg/L	0.87039	-3.9280	ppb	0.87039	22.16%
U 409.014†	-5435.6	-312.55	µg/L	12.277	-312.55	ppb	12.277	3.93%
Concentration less than lower limit for U 409.014.								
V 292.402†	6227.1	23.707	µg/L	0.3498	23.707	ppb	0.3498	1.48%
Zn 213.857†	36046.5	197.46	µg/L	0.174	197.46	ppb	0.174	0.09%

Sequence No.: 21
Sample ID: 248863002|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 317
Date Collected: 4/1/2010 9:24:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248863002|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144952.2	144952.2	99.3	%			09:24:59
1	Al 396.153Radial†	72346.5	72897.6	13515	µg/L	13515	ppb	09:24:59
1	Ca 317.933Radial†	236015.4	237046.4	13204	µg/L	13204	ppb	09:24:59
1	Fe 238.204 Radial†	834197.5	839675.0	51752	µg/L	51752	ppb	09:24:59
1	K 766.490 Radial†	11872.1	10407.4	3804.0	µg/L	3804.0	ppb	09:25:01
1	Mg 279.077 IEC†	10448.8	10328.6	3804.1	µg/L	3804.1	ppb	09:25:01
1	Na 589.592 Radial†	22174.8	21033.6	2870.1	µg/L	2870.1	ppb	09:25:01
1	Sr 421.552†	28778.4	29107.8	60.410	µg/L	60.410	ppb	09:25:01
1	Sc 361.383	1793644.1	1793644.1	104.39	%			09:25:28
1	Y 371.029	1252952.2	1252952.2	122.04	%			09:25:28
1	Ag 328.068†	4301.3	29.1	-1.2479	µg/L	-1.2479	ppb	09:25:28
1	As 188.979†	18.9	38.4	24.684	µg/L	24.684	ppb	09:25:48
1	B 249.677†	3975.4	302.3	4.4296	µg/L	4.4296	ppb	09:25:28
1	Ba 233.527†	38739.8	37246.6	149.45	µg/L	149.45	ppb	09:25:28
1	Be 313.107†	12428.4	12970.5	3.4318	µg/L	3.4318	ppb	09:25:28
1	Cd 226.502†	742.9	829.9	-0.2210	µg/L	-0.2210	ppb	09:25:48
1	Co 228.616†	502.1	671.3	5.7576	µg/L	5.7576	ppb	09:25:48
1	Cr 267.716†	20193.9	19166.1	151.57	µg/L	151.57	ppb	09:25:48
1	Cu 324.752†	4373.9	1217.8	12.106	µg/L	12.106	ppb	09:25:28
1	Mn 257.610†	1901574.6	1821372.1	2253.3	µg/L	2253.3	ppb	09:25:28
1	Mo 202.031†	238.6	248.6	9.4326	µg/L	9.4326	ppb	09:25:48
1	Ni 231.604†	7004.7	6786.6	78.143	µg/L	78.143	ppb	09:25:48
1	P 214.914†	688.3	677.3	112.61	µg/L	112.61	ppb	09:25:48
1	Pb 220.353†	476.8	370.3	21.582	µg/L	21.582	ppb	09:25:48
1	S 181.975 Axial†	250.7	135.1	100.41	µg/L	100.41	ppb	09:25:48
1	Sb 206.836†	105.7	20.4	-0.4002	µg/L	-0.4002	ppb	09:25:48
1	Se 196.026†	-38.3	-51.9	-1.14	µg/L	-1.14	ppb	09:25:48
1	SiO2†	557319.1	532107.3	52009	µg/L	52009	ppb	09:25:28
1	Si 251.611†	1717288.8	1644236.6	24241	µg/L	24241	ppb	09:25:28
1	Sn 189.927†	144.4	139.4	12.457	µg/L	12.457	ppb	09:25:48
1	Ti 334.940†	1247918.6	1194488.4	1116.1	µg/L	1116.1	ppb	09:25:28
1	Tl 190.801†	-275.0	-146.8	-0.8414	µg/L	-0.8414	ppb	09:25:48
1	U 409.014†	-6178.1	-5648.4	-325.40	µg/L	-325.40	ppb	09:25:28
1	V 292.402†	6492.5	5815.7	22.375	µg/L	22.375	ppb	09:25:48
1	Zn 213.857†	32256.7	30335.9	165.02	µg/L	165.02	ppb	09:25:28
2	Sc RADIAL	146390.1	146390.1	100	%			09:25:03
2	Al 396.153Radial†	73160.2	72993.3	13533	µg/L	13533	ppb	09:25:03
2	Ca 317.933Radial†	238934.5	237622.5	13237	µg/L	13237	ppb	09:25:03
2	Fe 238.204 Radial†	844857.4	842052.5	51899	µg/L	51899	ppb	09:25:03
2	K 766.490 Radial†	11686.6	10105.1	3693.3	µg/L	3693.3	ppb	09:25:05
2	Mg 279.077 IEC†	10384.8	10161.4	3741.7	µg/L	3741.7	ppb	09:25:05
2	Na 589.592 Radial†	22210.0	20849.3	2845.0	µg/L	2845.0	ppb	09:25:05
2	Sr 421.552†	28546.6	28592.1	59.338	µg/L	59.338	ppb	09:25:05
2	Sc 361.383	1784154.3	1784154.3	103.84	%			09:25:51
2	Y 371.029	1246638.1	1246638.1	121.42	%			09:25:51
2	Ag 328.068†	4282.3	32.7	-1.2209	µg/L	-1.2209	ppb	09:25:51
2	As 188.979†	-0.1	20.3	19.227	µg/L	19.227	ppb	09:26:11
2	B 249.677†	4035.6	380.5	5.5839	µg/L	5.5839	ppb	09:25:51
2	Ba 233.527†	38602.2	37311.5	149.71	µg/L	149.71	ppb	09:25:51
2	Be 313.107†	12278.4	12889.3	3.4131	µg/L	3.4131	ppb	09:25:51
2	Cd 226.502†	740.6	831.4	-0.2264	µg/L	-0.2264	ppb	09:26:11
2	Co 228.616†	493.4	665.5	5.6783	µg/L	5.6783	ppb	09:26:11
2	Cr 267.716†	20263.2	19335.7	152.89	µg/L	152.89	ppb	09:26:11
2	Cu 324.752†	4249.4	1120.1	11.755	µg/L	11.755	ppb	09:25:51
2	Mn 257.610†	1890816.4	1820700.5	2252.5	µg/L	2252.5	ppb	09:25:51
2	Mo 202.031†	234.1	245.5	9.3464	µg/L	9.3464	ppb	09:26:11
2	Ni 231.604†	7026.0	6842.8	78.790	µg/L	78.790	ppb	09:26:11
2	P 214.914†	681.7	674.5	111.93	µg/L	111.93	ppb	09:26:11
2	Pb 220.353†	450.1	347.1	20.274	µg/L	20.274	ppb	09:26:11

2	S 181.975 Axial†	253.1	138.7	103.07 µg/L	103.07 ppb		09:26:11
2	Sb 206.836†	102.9	18.2	-0.6819 µg/L	-0.6819 ppb		09:26:11
2	Se 196.026†	-30.7	-44.8	1.50 µg/L	1.50 ppb		09:26:11
2	SiO2†	555021.7	532734.5	52070 µg/L	52070 ppb		09:25:51
2	Si 251.611†	1707737.9	1643788.7	24234 µg/L	24234 ppb		09:25:51
2	Sn 189.927†	150.2	145.8	12.851 µg/L	12.851 ppb		09:26:11
2	Ti 334.940†	1241179.2	1194356.6	1116.0 µg/L	1116.0 ppb		09:25:51
2	Tl 190.801†	-290.8	-163.3	-2.8810 µg/L	-2.8810 ppb		09:26:11
2	U 409.014†	-5946.9	-5457.2	-314.26 µg/L	-314.26 ppb		09:25:51
2	V 292.402†	6481.7	5838.4	22.483 µg/L	22.483 ppb		09:26:11
2	Zn 213.857†	32015.2	30267.6	164.61 µg/L	164.61 ppb		09:25:51
3	Sc RADIAL	148112.7	148112.7	101 %			09:25:07
3	Al 396.153Radial†	73990.2	72962.9	13527 µg/L	13527 ppb		09:25:07
3	Ca 317.933Radial†	241059.3	236945.9	13199 µg/L	13199 ppb		09:25:07
3	Fe 238.204 Radial†	852423.8	839712.3	51755 µg/L	51755 ppb		09:25:07
3	K 766.490 Radial†	11810.3	10091.4	3688.4 µg/L	3688.4 ppb		09:25:09
3	Mg 279.077 IEC†	10399.5	10055.6	3702.3 µg/L	3702.3 ppb		09:25:09
3	Na 589.592 Radial†	22098.4	20481.9	2794.8 µg/L	2794.8 ppb		09:25:09
3	Sr 421.552†	28297.9	28016.1	58.140 µg/L	58.140 ppb		09:25:09
3	Sc 361.383	1773057.4	1773057.4	103.19 %			09:26:14
3	Y 371.029	1239930.8	1239930.8	120.77 %			09:26:14
3	Ag 328.068†	4161.9	-58.2	-1.5550 µg/L	-1.5550 ppb		09:26:14
3	As 188.979†	12.7	32.7	22.968 µg/L	22.968 ppb		09:26:34
3	B 249.677†	4044.8	413.8	6.0733 µg/L	6.0733 ppb		09:26:14
3	Ba 233.527†	38293.5	37244.9	149.44 µg/L	149.44 ppb		09:26:14
3	Be 313.107†	12316.5	13000.2	3.4434 µg/L	3.4434 ppb		09:26:14
3	Cd 226.502†	749.0	844.0	-0.1326 µg/L	-0.1326 ppb		09:26:34
3	Co 228.616†	504.3	679.0	5.8528 µg/L	5.8528 ppb		09:26:34
3	Cr 267.716†	20259.5	19454.3	153.82 µg/L	153.82 ppb		09:26:34
3	Cu 324.752†	4456.3	1346.3	12.612 µg/L	12.612 ppb		09:26:14
3	Mn 257.610†	1880457.9	1822059.0	2254.1 µg/L	2254.1 ppb		09:26:14
3	Mo 202.031†	208.6	222.3	8.6564 µg/L	8.6564 ppb		09:26:34
3	Ni 231.604†	7014.5	6874.1	79.150 µg/L	79.150 ppb		09:26:34
3	P 214.914†	685.6	682.4	113.70 µg/L	113.70 ppb		09:26:34
3	Pb 220.353†	474.4	373.4	21.742 µg/L	21.742 ppb		09:26:34
3	S 181.975 Axial†	245.6	133.0	98.785 µg/L	98.785 ppb		09:26:34
3	Sb 206.836†	100.4	16.4	-0.9161 µg/L	-0.9161 ppb		09:26:34
3	Se 196.026†	-31.4	-45.7	1.12 µg/L	1.12 ppb		09:26:34
3	SiO2†	551333.0	532505.2	52048 µg/L	52048 ppb		09:26:14
3	Si 251.611†	1697935.3	1644582.5	24246 µg/L	24246 ppb		09:26:14
3	Sn 189.927†	149.4	145.9	12.862 µg/L	12.862 ppb		09:26:34
3	Ti 334.940†	1235141.6	1195986.8	1117.5 µg/L	1117.5 ppb		09:26:14
3	Tl 190.801†	-303.7	-177.7	-4.6219 µg/L	-4.6219 ppb		09:26:34
3	U 409.014†	-5905.0	-5452.4	-313.94 µg/L	-313.94 ppb		09:26:14
3	V 292.402†	6450.2	5846.9	22.535 µg/L	22.535 ppb		09:26:34
3	Zn 213.857†	31840.0	30290.7	164.76 µg/L	164.76 ppb		09:26:14

Mean Data: 248863002|964012|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783618.6	103.81	%	0.600				0.58%
Sc RADIAL	146485.0	100	%	1.1				1.08%
Y 371.029	1246507.0	121.41	%	0.634				0.52%
Ag 328.068†	1.2	-1.3413	µg/L	0.18558	-1.3413	ppb	0.18558	13.84%
Al 396.153Radial†	72951.3	13525	µg/L	9.1	13525	ppb	9.1	0.07%
As 188.979†	30.5	22.293	µg/L	2.7902	22.293	ppb	2.7902	12.52%
B 249.677†	365.5	5.3623	µg/L	0.84396	5.3623	ppb	0.84396	15.74%
Ba 233.527†	37267.7	149.53	µg/L	0.152	149.53	ppb	0.152	0.10%
Be 313.107†	12953.3	3.4294	µg/L	0.01528	3.4294	ppb	0.01528	0.45%
Ca 317.933Radial†	237204.9	13213	µg/L	20.3	13213	ppb	20.3	0.15%
Cd 226.502†	835.1	-0.1933	µg/L	0.05268	-0.1933	ppb	0.05268	27.25%
Co 228.616†	671.9	5.7629	µg/L	0.08737	5.7629	ppb	0.08737	1.52%
Cr 267.716†	19318.7	152.76	µg/L	1.131	152.76	ppb	1.131	0.74%
Cu 324.752†	1228.1	12.158	µg/L	0.4309	12.158	ppb	0.4309	3.54%
Fe 238.204 Radial†	840479.9	51802	µg/L	83.9	51802	ppb	83.9	0.16%
K 766.490 Radial†	10201.3	3728.6	µg/L	65.39	3728.6	ppb	65.39	1.75%
Mg 279.077 IEC†	10181.9	3749.3	µg/L	51.31	3749.3	ppb	51.31	1.37%
Mn 257.610†	1821377.2	2253.3	µg/L	0.84	2253.3	ppb	0.84	0.04%
Mo 202.031†	238.8	9.1451	µg/L	0.42544	9.1451	ppb	0.42544	4.65%
Na 589.592 Radial†	20788.3	2836.6	µg/L	38.32	2836.6	ppb	38.32	1.35%

Ni 231.604†	6834.5	78.694	µg/L	0.5104	78.694	ppb	0.5104	0.65%
P 214.914†	678.1	112.75	µg/L	0.896	112.75	ppb	0.896	0.79%
Pb 220.353†	363.6	21.200	µg/L	0.8056	21.200	ppb	0.8056	3.80%
S 181.975 Axial†	135.6	100.76	µg/L	2.165	100.76	ppb	2.165	2.15%
Sb 206.836†	18.4	-0.6661	µg/L	0.25832	-0.6661	ppb	0.25832	38.78%
Se 196.026†	-47.5	0.494	µg/L	1.4264	0.494	ppb	1.4264	288.83%
SiO2†	532449.0	52042	µg/L	31.0	52042	ppb	31.0	0.06%
Si 251.611†	1644202.6	24240	µg/L	5.9	24240	ppb	5.9	0.02%
Sn 189.927†	143.7	12.723	µg/L	0.2311	12.723	ppb	0.2311	1.82%
Sr 421.552†	28572.0	59.296	µg/L	1.1354	59.296	ppb	1.1354	1.91%
Ti 334.940†	1194943.9	1116.5	µg/L	0.85	1116.5	ppb	0.85	0.08%
Tl 190.801†	-162.6	-2.7814	µg/L	1.89220	-2.7814	ppb	1.89220	68.03%
U 409.014†	-5519.3	-317.87	µg/L	6.530	-317.87	ppb	6.530	2.05%
Concentration less than lower limit for U 409.014.								
V 292.402†	5833.7	22.464	µg/L	0.0816	22.464	ppb	0.0816	0.36%
Zn 213.857†	30298.1	164.79	µg/L	0.204	164.79	ppb	0.204	0.12%

Sequence No.: 22
Sample ID: 248863003|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 318
Date Collected: 4/1/2010 9:26:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248863003|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146672.0	146672.0	101	%			09:27:11
1	Al 396.153Radial†	100795.6	100348.8	18604	µg/L	18604	ppb	09:27:11
1	Ca 317.933Radial†	127182.2	125978.0	7017.5	µg/L	7017.5	ppb	09:27:13
1	Fe 238.204 Radial†	834648.8	830277.2	51173	µg/L	51173	ppb	09:27:11
1	K 766.490 Radial†	9392.3	7800.0	2849.8	µg/L	2849.8	ppb	09:27:13
1	Mg 279.077 IEC†	9163.8	8926.7	3282.2	µg/L	3282.2	ppb	09:27:13
1	Na 589.592 Radial†	9677.9	8338.1	1136.5	µg/L	1136.5	ppb	09:27:13
1	Sr 421.552†	21303.0	21330.5	44.290	µg/L	44.290	ppb	09:27:13
1	Sc 361.383	1774012.5	1774012.5	103.25	%			09:27:40
1	Y 371.029	1219876.3	1219876.3	118.82	%			09:27:40
1	Ag 328.068†	4223.3	-0.9	-0.9422	µg/L	-0.9422	ppb	09:27:40
1	As 188.979†	21.3	41.0	24.308	µg/L	24.308	ppb	09:28:00
1	B 249.677†	4050.3	417.0	6.1184	µg/L	6.1184	ppb	09:27:40
1	Ba 233.527†	51028.1	49559.1	199.08	µg/L	199.08	ppb	09:27:40
1	Be 313.107†	13959.4	14585.1	3.8832	µg/L	3.8832	ppb	09:27:40
1	Cd 226.502†	763.5	857.7	-0.0095	µg/L	-0.0095	ppb	09:28:00
1	Co 228.616†	568.5	740.9	6.6757	µg/L	6.6757	ppb	09:28:00
1	Cr 267.716†	5965.5	5599.3	45.352	µg/L	45.352	ppb	09:28:00
1	Cu 324.752†	5541.7	2395.2	16.615	µg/L	16.615	ppb	09:27:40
1	Mn 257.610†	1611018.5	1560112.7	1930.1	µg/L	1930.1	ppb	09:27:40
1	Mo 202.031†	143.1	158.7	6.7620	µg/L	6.7620	ppb	09:28:00
1	Ni 231.604†	2622.2	2616.3	30.124	µg/L	30.124	ppb	09:28:00
1	P 214.914†	1369.4	1344.3	256.76	µg/L	256.76	ppb	09:28:00
1	Pb 220.353†	743.4	633.6	36.439	µg/L	36.439	ppb	09:28:00
1	S 181.975 Axial†	287.1	173.0	128.54	µg/L	128.54	ppb	09:28:00
1	Sb 206.836†	93.6	9.9	-0.1071	µg/L	-0.1071	ppb	09:28:00
1	Se 196.026†	-47.5	-61.3	-4.69	µg/L	-4.69	ppb	09:28:00
1	SiO2†	553352.5	534173.6	52211	µg/L	52211	ppb	09:27:40
1	Si 251.611†	1703643.0	1649224.7	24314	µg/L	24314	ppb	09:27:40
1	Sn 189.927†	145.8	142.3	12.299	µg/L	12.299	ppb	09:28:00
1	Ti 334.940†	1123486.0	1087198.5	1015.8	µg/L	1015.8	ppb	09:27:40
1	Tl 190.801†	-273.6	-148.3	-2.7978	µg/L	-2.7978	ppb	09:28:00
1	U 409.014†	-5422.9	-4982.4	-287.97	µg/L	-287.97	ppb	09:27:40
1	V 292.402†	8618.1	7943.2	32.450	µg/L	32.450	ppb	09:28:00
1	Zn 213.857†	35959.8	34264.4	187.57	µg/L	187.57	ppb	09:27:40
2	Sc RADIAL	147337.7	147337.7	101	%			09:27:15
2	Al 396.153Radial†	100860.3	99959.7	18532	µg/L	18532	ppb	09:27:15
2	Ca 317.933Radial†	125499.9	123740.1	6892.8	µg/L	6892.8	ppb	09:27:17
2	Fe 238.204 Radial†	837924.3	829769.1	51142	µg/L	51142	ppb	09:27:15
2	K 766.490 Radial†	9224.7	7591.8	2773.6	µg/L	2773.6	ppb	09:27:17
2	Mg 279.077 IEC†	9021.6	8744.7	3214.4	µg/L	3214.4	ppb	09:27:17
2	Na 589.592 Radial†	9692.5	8309.1	1132.6	µg/L	1132.6	ppb	09:27:17
2	Sr 421.552†	21031.6	20965.9	43.533	µg/L	43.533	ppb	09:27:17
2	Sc 361.383	1778285.0	1778285.0	103.50	%			09:28:03
2	Y 371.029	1222283.7	1222283.7	119.05	%			09:28:03
2	Ag 328.068†	4094.4	-135.3	-1.4267	µg/L	-1.4267	ppb	09:28:03
2	As 188.979†	10.4	30.4	21.103	µg/L	21.103	ppb	09:28:23
2	B 249.677†	4113.4	468.6	6.8783	µg/L	6.8783	ppb	09:28:03
2	Ba 233.527†	50658.9	49083.6	197.16	µg/L	197.16	ppb	09:28:03
2	Be 313.107†	13996.0	14588.0	3.8871	µg/L	3.8871	ppb	09:28:03
2	Cd 226.502†	746.4	839.4	-0.1207	µg/L	-0.1207	ppb	09:28:23
2	Co 228.616†	587.1	757.6	6.8813	µg/L	6.8813	ppb	09:28:23
2	Cr 267.716†	5979.5	5599.0	45.342	µg/L	45.342	ppb	09:28:23
2	Cu 324.752†	5363.4	2210.1	15.898	µg/L	15.898	ppb	09:28:03
2	Mn 257.610†	1609513.0	1554909.2	1923.6	µg/L	1923.6	ppb	09:28:03
2	Mo 202.031†	138.1	153.5	6.6057	µg/L	6.6057	ppb	09:28:23
2	Ni 231.604†	2599.9	2588.6	29.806	µg/L	29.806	ppb	09:28:23
2	P 214.914†	1366.8	1338.6	255.56	µg/L	255.56	ppb	09:28:23
2	Pb 220.353†	759.3	647.2	37.184	µg/L	37.184	ppb	09:28:23

2	S 181.975 Axial†	294.6	179.6	133.43 µg/L	133.43 ppb	09:28:23
2	Sb 206.836†	109.8	25.3	1.7200 µg/L	1.7200 ppb	09:28:23
2	Se 196.026†	-27.3	-41.6	2.42 µg/L	2.42 ppb	09:28:23
2	SiO2†	552985.4	532531.2	52050 µg/L	52050 ppb	09:28:03
2	Si 251.611†	1703038.6	1644676.4	24247 µg/L	24247 ppb	09:28:03
2	Sn 189.927†	146.7	142.9	12.322 µg/L	12.322 ppb	09:28:23
2	Ti 334.940†	1122382.3	1083517.7	1012.3 µg/L	1012.3 ppb	09:28:03
2	Tl 190.801†	-263.7	-138.1	-1.6075 µg/L	-1.6075 ppb	09:28:23
2	U 409.014†	-5255.3	-4807.9	-277.83 µg/L	-277.83 ppb	09:28:03
2	V 292.402†	8555.9	7863.1	32.070 µg/L	32.070 ppb	09:28:23
2	Zn 213.857†	35871.6	34095.5	186.63 µg/L	186.63 ppb	09:28:03
3	Sc RADIAL	148219.2	148219.2	102 %		09:27:19
3	Al 396.153Radial†	101629.5	100122.8	18562 µg/L	18562 ppb	09:27:19
3	Ca 317.933Radial†	125257.5	122762.1	6838.3 µg/L	6838.3 ppb	09:27:21
3	Fe 238.204 Radial†	845501.1	832293.0	51297 µg/L	51297 ppb	09:27:19
3	K 766.490 Radial†	9232.3	7544.9	2756.5 µg/L	2756.5 ppb	09:27:21
3	Mg 279.077 IEC†	9007.0	8677.1	3189.1 µg/L	3189.1 ppb	09:27:21
3	Na 589.592 Radial†	9534.0	8095.9	1103.5 µg/L	1103.5 ppb	09:27:21
3	Sr 421.552†	20936.4	20748.3	43.081 µg/L	43.081 ppb	09:27:21
3	Sc 361.383	1780120.1	1780120.1	103.60 %		09:28:26
3	Y 371.029	1223695.6	1223695.6	119.19 %		09:28:26
3	Ag 328.068†	3702.6	-517.6	-2.8499 µg/L	-2.8499 ppb	09:28:26
3	As 188.979†	23.2	42.7	24.858 µg/L	24.858 ppb	09:28:46
3	B 249.677†	4126.9	477.5	7.0103 µg/L	7.0103 ppb	09:28:26
3	Ba 233.527†	50893.8	49259.9	197.87 µg/L	197.87 ppb	09:28:26
3	Be 313.107†	13902.5	14483.8	3.8571 µg/L	3.8571 ppb	09:28:26
3	Cd 226.502†	768.0	859.5	-0.0115 µg/L	-0.0115 ppb	09:28:46
3	Co 228.616†	591.2	761.0	6.9155 µg/L	6.9155 ppb	09:28:46
3	Cr 267.716†	6008.4	5620.9	45.524 µg/L	45.524 ppb	09:28:46
3	Cu 324.752†	5519.6	2355.5	16.481 µg/L	16.481 ppb	09:28:26
3	Mn 257.610†	1610389.2	1554151.8	1922.7 µg/L	1922.7 ppb	09:28:26
3	Mo 202.031†	146.0	161.0	6.8312 µg/L	6.8312 ppb	09:28:46
3	Ni 231.604†	2596.3	2582.5	29.736 µg/L	29.736 ppb	09:28:46
3	P 214.914†	1377.8	1347.8	257.42 µg/L	257.42 ppb	09:28:46
3	Pb 220.353†	761.5	648.6	37.264 µg/L	37.264 ppb	09:28:46
3	S 181.975 Axial†	310.7	194.8	144.73 µg/L	144.73 ppb	09:28:46
3	Sb 206.836†	85.0	1.3	-1.1360 µg/L	-1.1360 ppb	09:28:46
3	Se 196.026†	-27.7	-42.0	2.35 µg/L	2.35 ppb	09:28:46
3	SiO2†	553091.6	532082.9	52007 µg/L	52007 ppb	09:28:26
3	Si 251.611†	1702385.6	1642349.7	24213 µg/L	24213 ppb	09:28:26
3	Sn 189.927†	132.0	128.6	11.430 µg/L	11.430 ppb	09:28:46
3	Ti 334.940†	1123930.8	1083894.3	1012.7 µg/L	1012.7 ppb	09:28:26
3	Tl 190.801†	-284.9	-158.4	-4.0919 µg/L	-4.0919 ppb	09:28:46
3	U 409.014†	-5353.1	-4897.1	-283.10 µg/L	-283.10 ppb	09:28:26
3	V 292.402†	8532.2	7831.7	31.900 µg/L	31.900 ppb	09:28:46
3	Zn 213.857†	36057.2	34238.9	187.42 µg/L	187.42 ppb	09:28:26

Mean Data: 248863003|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1777472.5	103.45	%	0.182				0.18%
Sc RADIAL	147409.6	101	%	0.5				0.53%
Y 371.029	1221951.9	119.02	%	0.188				0.16%
Ag 328.068†	-217.9	-1.7396	µg/L	0.99162	-1.7396	ppb	0.99162	57.00%
Al 396.153Radial†	100143.8	18566	µg/L	36.2	18566	ppb	36.2	0.20%
As 188.979†	38.0	23.423	µg/L	2.0276	23.423	ppb	2.0276	8.66%
B 249.677†	454.4	6.6690	µg/L	0.48138	6.6690	ppb	0.48138	7.22%
Ba 233.527†	49300.8	198.04	µg/L	0.969	198.04	ppb	0.969	0.49%
Be 313.107†	14552.3	3.8758	µg/L	0.01629	3.8758	ppb	0.01629	0.42%
Ca 317.933Radial†	124160.1	6916.2	µg/L	91.83	6916.2	ppb	91.83	1.33%
Cd 226.502†	852.2	-0.0472	µg/L	0.06366	-0.0472	ppb	0.06366	134.77%
Co 228.616†	753.2	6.8242	µg/L	0.12970	6.8242	ppb	0.12970	1.90%
Cr 267.716†	5606.4	45.406	µg/L	0.1021	45.406	ppb	0.1021	0.22%
Cu 324.752†	2320.2	16.331	µg/L	0.3812	16.331	ppb	0.3812	2.33%
Fe 238.204 Radial†	830779.7	51204	µg/L	82.3	51204	ppb	82.3	0.16%
K 766.490 Radial†	7645.6	2793.3	µg/L	49.67	2793.3	ppb	49.67	1.78%
Mg 279.077 IEC†	8782.9	3228.6	µg/L	48.14	3228.6	ppb	48.14	1.49%
Mn 257.610†	1556391.2	1925.5	µg/L	4.01	1925.5	ppb	4.01	0.21%
Mo 202.031†	157.7	6.7330	µg/L	0.11551	6.7330	ppb	0.11551	1.72%
Na 589.592 Radial†	8247.7	1124.2	µg/L	18.04	1124.2	ppb	18.04	1.60%

Ni 231.604†	2595.8	29.889	µg/L	0.2071	29.889	ppb	0.2071	0.69%
P 214.914†	1343.6	256.58	µg/L	0.943	256.58	ppb	0.943	0.37%
Pb 220.353†	643.2	36.962	µg/L	0.4550	36.962	ppb	0.4550	1.23%
S 181.975 Axial†	182.5	135.56	µg/L	8.305	135.56	ppb	8.305	6.13%
Sb 206.836†	12.1	0.1590	µg/L	1.44647	0.1590	ppb	1.44647	909.77%
Se 196.026†	-48.3	0.025	µg/L	4.0833	0.025	ppb	4.0833	>999.9%
SiO2†	532929.2	52089	µg/L	107.6	52089	ppb	107.6	0.21%
Si 251.611†	1645416.9	24258	µg/L	51.6	24258	ppb	51.6	0.21%
Sn 189.927†	137.9	12.017	µg/L	0.5087	12.017	ppb	0.5087	4.23%
Sr 421.552†	21014.9	43.635	µg/L	0.6108	43.635	ppb	0.6108	1.40%
Ti 334.940†	1084870.2	1013.6	µg/L	1.89	1013.6	ppb	1.89	0.19%
Tl 190.801†	-148.3	-2.8324	µg/L	1.24253	-2.8324	ppb	1.24253	43.87%
U 409.014†	-4895.8	-282.97	µg/L	5.074	-282.97	ppb	5.074	1.79%
Concentration less than lower limit for U 409.014.								
V 292.402†	7879.3	32.140	µg/L	0.2813	32.140	ppb	0.2813	0.88%
Zn 213.857†	34199.6	187.21	µg/L	0.507	187.21	ppb	0.507	0.27%

Sequence No.: 23
Sample ID: 248863004|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 319
Date Collected: 4/1/2010 9:28:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248863004|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144331.7	144331.7	98.9	%			09:29:23
1	Al 396.153Radial†	119121.4	120503.6	22341	µg/L	22341	ppb	09:29:23
1	Ca 317.933Radial†	103987.2	104578.0	5825.4	µg/L	5825.4	ppb	09:29:25
1	Fe 238.204 Radial†	940056.6	950317.1	58572	µg/L	58572	ppb	09:29:23
1	K 766.490 Radial†	12975.0	11573.9	4230.8	µg/L	4230.8	ppb	09:29:25
1	Mg 279.077 IEC†	11046.9	10978.5	4040.2	µg/L	4040.2	ppb	09:29:25
1	Na 589.592 Radial†	10050.6	8871.1	1208.1	µg/L	1208.1	ppb	09:29:25
1	Sr 421.552†	22154.0	22534.6	46.802	µg/L	46.802	ppb	09:29:25
1	Sc 361.383	1777356.7	1777356.7	103.44	%			09:29:37
1	Y 371.029	1248560.3	1248560.3	121.61	%			09:29:37
1	Ag 328.068†	4339.4	103.6	-0.5668	µg/L	-0.5668	ppb	09:29:39
1	As 188.979†	17.1	36.9	24.475	µg/L	24.475	ppb	09:29:59
1	B 249.677†	4020.9	381.2	5.5736	µg/L	5.5736	ppb	09:29:39
1	Ba 233.527†	61736.1	59817.8	240.33	µg/L	240.33	ppb	09:29:39
1	Be 313.107†	16277.2	16800.3	4.4871	µg/L	4.4871	ppb	09:29:39
1	Cd 226.502†	842.7	932.8	-0.3232	µg/L	-0.3232	ppb	09:29:59
1	Co 228.616†	962.0	1120.3	11.006	µg/L	11.006	ppb	09:29:59
1	Cr 267.716†	2574.4	2310.1	19.712	µg/L	19.712	ppb	09:29:39
1	Cu 324.752†	5965.3	2794.6	19.270	µg/L	19.270	ppb	09:29:39
1	Mn 257.610†	2048851.4	1980441.5	2450.1	µg/L	2450.1	ppb	09:29:37
1	Mo 202.031†	35.3	54.2	3.9998	µg/L	3.9998	ppb	09:29:59
1	Ni 231.604†	1744.3	1762.8	20.297	µg/L	20.297	ppb	09:29:59
1	P 214.914†	2301.3	2242.6	444.70	µg/L	444.70	ppb	09:29:59
1	Pb 220.353†	895.2	779.0	44.872	µg/L	44.872	ppb	09:29:59
1	S 181.975 Axial†	248.4	135.1	100.32	µg/L	100.32	ppb	09:29:59
1	Sb 206.836†	102.3	18.1	1.1119	µg/L	1.1119	ppb	09:29:59
1	Se 196.026†	-30.1	-44.4	4.00	µg/L	4.00	ppb	09:29:59
1	SiO2†	602605.7	580779.5	56766	µg/L	56766	ppb	09:29:37
1	Si 251.611†	1853854.7	1791333.7	26409	µg/L	26409	ppb	09:29:37
1	Sn 189.927†	108.9	106.4	10.903	µg/L	10.903	ppb	09:29:59
1	Ti 334.940†	1403984.7	1356316.5	1267.1	µg/L	1267.1	ppb	09:29:37
1	Tl 190.801†	-300.3	-173.6	-1.9730	µg/L	-1.9730	ppb	09:29:59
1	U 409.014†	-5389.0	-4939.8	-283.09	µg/L	-283.09	ppb	09:29:37
1	V 292.402†	11290.9	10511.4	43.823	µg/L	43.823	ppb	09:29:39
1	Zn 213.857†	40633.1	38716.6	212.05	µg/L	212.05	ppb	09:29:39
2	Sc RADIAL	146619.8	146619.8	100	%			09:29:27
2	Al 396.153Radial†	121499.9	120991.3	22432	µg/L	22432	ppb	09:29:27
2	Ca 317.933Radial†	103757.9	102709.1	5721.3	µg/L	5721.3	ppb	09:29:29
2	Fe 238.204 Radial†	962197.6	957521.3	59016	µg/L	59016	ppb	09:29:27
2	K 766.490 Radial†	12826.7	11221.6	4101.8	µg/L	4101.8	ppb	09:29:29
2	Mg 279.077 IEC†	11066.6	10823.8	3982.2	µg/L	3982.2	ppb	09:29:29
2	Na 589.592 Radial†	9844.8	8507.6	1158.6	µg/L	1158.6	ppb	09:29:29
2	Sr 421.552†	21981.0	22012.8	45.719	µg/L	45.719	ppb	09:29:29
2	Sc 361.383	1777015.9	1777015.9	103.42	%			09:30:02
2	Y 371.029	1248458.0	1248458.0	121.60	%			09:30:02
2	Ag 328.068†	4037.4	-187.6	-1.6718	µg/L	-1.6718	ppb	09:30:04
2	As 188.979†	15.6	35.5	24.145	µg/L	24.145	ppb	09:30:24
2	B 249.677†	3955.0	318.2	4.6462	µg/L	4.6462	ppb	09:30:04
2	Ba 233.527†	61183.2	59294.6	238.21	µg/L	238.21	ppb	09:30:04
2	Be 313.107†	16041.8	16575.7	4.4197	µg/L	4.4197	ppb	09:30:04
2	Cd 226.502†	874.0	963.3	-0.1799	µg/L	-0.1799	ppb	09:30:24
2	Co 228.616†	941.9	1101.1	10.744	µg/L	10.744	ppb	09:30:24
2	Cr 267.716†	2536.9	2274.4	19.466	µg/L	19.466	ppb	09:30:04
2	Cu 324.752†	6012.3	2841.1	19.497	µg/L	19.497	ppb	09:30:04
2	Mn 257.610†	2042172.2	1974363.1	2442.6	µg/L	2442.6	ppb	09:30:02
2	Mo 202.031†	54.4	72.7	4.5617	µg/L	4.5617	ppb	09:30:24
2	Ni 231.604†	1723.7	1743.2	20.072	µg/L	20.072	ppb	09:30:24
2	P 214.914†	2347.2	2287.5	454.00	µg/L	454.00	ppb	09:30:24
2	Pb 220.353†	872.5	757.2	43.661	µg/L	43.661	ppb	09:30:24

2	S 181.975 Axial†	250.7	137.4	102.02 µg/L	102.02 ppb	09:30:24
2	Sb 206.836†	70.8	-12.4	-2.5043 µg/L	-2.5043 ppb	09:30:24
2	Se 196.026†	-49.0	-62.7	-2.48 µg/L	-2.48 ppb	09:30:24
2	SiO2†	600927.7	579268.7	56619 µg/L	56619 ppb	09:30:02
2	Si 251.611†	1848128.5	1786140.6	26333 µg/L	26333 ppb	09:30:02
2	Sn 189.927†	97.3	95.2	10.204 µg/L	10.204 ppb	09:30:24
2	Ti 334.940†	1402361.7	1355007.5	1265.9 µg/L	1265.9 ppb	09:30:02
2	Tl 190.801†	-327.7	-200.2	-5.2733 µg/L	-5.2733 ppb	09:30:24
2	U 409.014†	-5756.9	-5296.5	-304.12 µg/L	-304.12 ppb	09:30:02
2	V 292.402†	11233.3	10457.8	43.507 µg/L	43.507 ppb	09:30:04
2	Zn 213.857†	40528.4	38622.9	211.48 µg/L	211.48 ppb	09:30:04
3	Sc RADIAL	145917.2	145917.2	100.0 %		09:29:31
3	Al 396.153Radial†	120442.9	120516.4	22344 µg/L	22344 ppb	09:29:31
3	Ca 317.933Radial†	102915.6	102363.9	5702.1 µg/L	5702.1 ppb	09:29:33
3	Fe 238.204 Radial†	953056.9	952990.9	58737 µg/L	58737 ppb	09:29:31
3	K 766.490 Radial†	12887.2	11343.6	4146.5 µg/L	4146.5 ppb	09:29:33
3	Mg 279.077 IEC†	10867.3	10677.5	3927.9 µg/L	3927.9 ppb	09:29:33
3	Na 589.592 Radial†	9889.2	8599.3	1171.1 µg/L	1171.1 ppb	09:29:33
3	Sr 421.552†	21793.4	21930.6	45.548 µg/L	45.548 ppb	09:29:33
3	Sc 361.383	1800507.3	1800507.3	104.79 %		09:30:26
3	Y 371.029	1264112.0	1264112.0	123.13 %		09:30:26
3	Ag 328.068†	4307.2	18.9	-0.8932 µg/L	-0.8932 ppb	09:30:28
3	As 188.979†	20.2	39.6	25.323 µg/L	25.323 ppb	09:30:48
3	B 249.677†	4128.3	433.7	6.3498 µg/L	6.3498 ppb	09:30:28
3	Ba 233.527†	61181.6	58521.2	235.10 µg/L	235.10 ppb	09:30:28
3	Be 313.107†	16025.1	16357.4	4.3650 µg/L	4.3650 ppb	09:30:28
3	Cd 226.502†	858.9	937.8	-0.3093 µg/L	-0.3093 ppb	09:30:48
3	Co 228.616†	937.2	1084.6	10.552 µg/L	10.552 ppb	09:30:48
3	Cr 267.716†	2394.3	2106.3	18.125 µg/L	18.125 ppb	09:30:28
3	Cu 324.752†	5941.4	2697.6	18.910 µg/L	18.910 ppb	09:30:28
3	Mn 257.610†	2078569.0	1983333.6	2453.7 µg/L	2453.7 ppb	09:30:26
3	Mo 202.031†	26.5	45.3	3.7442 µg/L	3.7442 ppb	09:30:48
3	Ni 231.604†	1731.5	1728.9	19.907 µg/L	19.907 ppb	09:30:48
3	P 214.914†	2322.2	2234.0	442.74 µg/L	442.74 ppb	09:30:48
3	Pb 220.353†	930.1	801.2	46.106 µg/L	46.106 ppb	09:30:48
3	S 181.975 Axial†	267.0	149.7	111.21 µg/L	111.21 ppb	09:30:48
3	Sb 206.836†	76.8	-7.5	-1.9184 µg/L	-1.9184 ppb	09:30:48
3	Se 196.026†	-39.0	-52.5	1.12 µg/L	1.12 ppb	09:30:48
3	SiO2†	611811.2	582073.8	56893 µg/L	56893 ppb	09:30:26
3	Si 251.611†	1881525.2	1794696.1	26459 µg/L	26459 ppb	09:30:26
3	Sn 189.927†	103.8	100.2	10.520 µg/L	10.520 ppb	09:30:48
3	Ti 334.940†	1422684.1	1356709.7	1267.5 µg/L	1267.5 ppb	09:30:26
3	Tl 190.801†	-304.3	-173.7	-1.9741 µg/L	-1.9741 ppb	09:30:48
3	U 409.014†	-5550.0	-5026.5	-288.21 µg/L	-288.21 ppb	09:30:26
3	V 292.402†	11301.7	10381.4	43.158 µg/L	43.158 ppb	09:30:28
3	Zn 213.857†	40308.1	37901.5	207.46 µg/L	207.46 ppb	09:30:28

Mean Data: 248863004|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1784960.0	103.88	%	0.784				0.75%
Sc RADIAL	145622.9	99.8	%	0.80				0.80%
Y 371.029	1253710.1	122.11	%	0.877				0.72%
Ag 328.068†	-21.7	-1.0439	µg/L	0.56775	-1.0439	ppb	0.56775	54.39%
Al 396.153Radial†	120670.4	22372	µg/L	51.5	22372	ppb	51.5	0.23%
As 188.979†	37.3	24.648	µg/L	0.6079	24.648	ppb	0.6079	2.47%
B 249.677†	377.7	5.5232	µg/L	0.85288	5.5232	ppb	0.85288	15.44%
Ba 233.527†	59211.2	237.88	µg/L	2.629	237.88	ppb	2.629	1.11%
Be 313.107†	16577.8	4.4239	µg/L	0.06117	4.4239	ppb	0.06117	1.38%
Ca 317.933Radial†	103217.0	5749.6	µg/L	66.36	5749.6	ppb	66.36	1.15%
Cd 226.502†	944.6	-0.2708	µg/L	0.07904	-0.2708	ppb	0.07904	29.19%
Co 228.616†	1102.0	10.767	µg/L	0.2278	10.767	ppb	0.2278	2.12%
Cr 267.716†	2230.3	19.101	µg/L	0.8540	19.101	ppb	0.8540	4.47%
Cu 324.752†	2777.8	19.226	µg/L	0.2960	19.226	ppb	0.2960	1.54%
Fe 238.204 Radial†	953609.8	58775	µg/L	224.5	58775	ppb	224.5	0.38%
K 766.490 Radial†	11379.7	4159.7	µg/L	65.49	4159.7	ppb	65.49	1.57%
Mg 279.077 IEC†	10826.6	3983.5	µg/L	56.16	3983.5	ppb	56.16	1.41%
Mn 257.610†	1979379.4	2448.8	µg/L	5.67	2448.8	ppb	5.67	0.23%
Mo 202.031†	57.4	4.1019	µg/L	0.41821	4.1019	ppb	0.41821	10.20%
Na 589.592 Radial†	8659.3	1179.3	µg/L	25.77	1179.3	ppb	25.77	2.18%

Ni 231.604†	1745.0	20.092	µg/L	0.1957	20.092	ppb	0.1957	0.97%
P 214.914†	2254.7	447.15	µg/L	6.012	447.15	ppb	6.012	1.34%
Pb 220.353†	779.1	44.880	µg/L	1.2225	44.880	ppb	1.2225	2.72%
S 181.975 Axial†	140.7	104.52	µg/L	5.856	104.52	ppb	5.856	5.60%
Sb 206.836†	-0.6	-1.1036	µg/L	1.94092	-1.1036	ppb	1.94092	175.88%
Se 196.026†	-53.2	0.879	µg/L	3.2484	0.879	ppb	3.2484	369.48%
SiO2†	580707.3	56759	µg/L	137.2	56759	ppb	137.2	0.24%
Si 251.611†	1790723.5	26400	µg/L	63.6	26400	ppb	63.6	0.24%
Sn 189.927†	100.6	10.542	µg/L	0.3500	10.542	ppb	0.3500	3.32%
Sr 421.552†	22159.3	46.023	µg/L	0.6804	46.023	ppb	0.6804	1.48%
Ti 334.940†	1356011.3	1266.8	µg/L	0.83	1266.8	ppb	0.83	0.07%
Tl 190.801†	-182.5	-3.0735	µg/L	1.90508	-3.0735	ppb	1.90508	61.98%
U 409.014†	-5087.6	-291.81	µg/L	10.965	-291.81	ppb	10.965	3.76%
Concentration less than lower limit for U 409.014.								
V 292.402†	10450.2	43.496	µg/L	0.3326	43.496	ppb	0.3326	0.76%
Zn 213.857†	38413.7	210.33	µg/L	2.504	210.33	ppb	2.504	1.19%

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 9:32:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144284.4	144284.4	98.9	%			09:33:30
1	Al 396.153Radial†	25868.7	26226.9	4841.2	µg/L	4841.2	ppb	09:33:30
1	Ca 317.933Radial†	83006.9	83392.9	4645.3	µg/L	4645.3	ppb	09:33:30
1	Fe 238.204 Radial†	75153.4	75862.3	4675.7	µg/L	4675.7	ppb	09:33:30
1	K 766.490 Radial†	14402.7	13022.2	4763.8	µg/L	4763.8	ppb	09:33:30
1	Mg 279.077 IEC†	12789.4	12744.5	4755.6	µg/L	4755.6	ppb	09:33:30
1	Na 589.592 Radial†	69255.5	68754.5	9388.5	µg/L	9388.5	ppb	09:33:30
1	Sr 421.552†	226479.8	229197.7	476.45	µg/L	476.45	ppb	09:33:28
1	Sc 361.383	1757367.8	1757367.8	102.28	%			09:33:43
1	Y 371.029	1034784.4	1034784.4	100.79	%			09:33:43
1	Ag 328.068†	129687.4	122706.9	460.14	µg/L	460.14	ppb	09:33:43
1	As 188.979†	1594.8	1579.6	484.39	µg/L	484.39	ppb	09:34:03
1	B 249.677†	34967.2	30682.3	450.91	µg/L	450.91	ppb	09:33:43
1	Ba 233.527†	116792.1	114326.1	461.07	µg/L	461.07	ppb	09:33:43
1	Be 313.107†	1761591.0	1723411.5	469.38	µg/L	469.38	ppb	09:33:43
1	Cd 226.502†	74712.8	73166.5	456.73	µg/L	456.73	ppb	09:33:43
1	Co 228.616†	38020.4	37363.7	461.25	µg/L	461.25	ppb	09:33:43
1	Cr 267.716†	59806.0	58295.1	456.45	µg/L	456.45	ppb	09:33:43
1	Cu 324.752†	124199.5	118460.4	461.79	µg/L	461.79	ppb	09:33:43
1	Mn 257.610†	383646.4	374862.3	463.62	µg/L	463.62	ppb	09:33:43
1	Mo 202.031†	15894.4	15560.4	457.72	µg/L	457.72	ppb	09:34:03
1	Ni 231.604†	40665.3	39835.9	458.68	µg/L	458.68	ppb	09:33:43
1	P 214.914†	10910.6	10685.5	2277.5	µg/L	2277.5	ppb	09:34:03
1	Pb 220.353†	8497.3	8221.6	460.42	µg/L	460.42	ppb	09:34:03
1	S 181.975 Axial†	1332.6	1197.8	893.35	µg/L	893.35	ppb	09:34:03
1	Sb 206.836†	3985.5	3815.9	454.67	µg/L	454.67	ppb	09:34:03
1	Se 196.026†	1284.2	1240.3	450	µg/L	450	ppb	09:34:03
1	SiO2†	52572.0	49625.5	4830.9	µg/L	4830.9	ppb	09:33:43
1	Si 251.611†	159167.2	154784.7	2272.9	µg/L	2272.9	ppb	09:33:43
1	Sn 189.927†	7490.1	7324.4	458.15	µg/L	458.15	ppb	09:34:03
1	Ti 334.940†	506158.2	493929.6	460.87	µg/L	460.87	ppb	09:33:43
1	Tl 190.801†	3716.5	3750.4	467.74	µg/L	467.74	ppb	09:34:03
1	U 409.014†	7061.9	7174.5	447.54	µg/L	447.54	ppb	09:33:43
1	V 292.402†	96679.8	94122.2	465.21	µg/L	465.21	ppb	09:33:43
1	Zn 213.857†	83757.1	81326.7	453.24	µg/L	453.24	ppb	09:33:43
2	Sc RADIAL	145148.3	145148.3	99.5	%			09:33:34
2	Al 396.153Radial†	26106.1	26309.8	4856.7	µg/L	4856.7	ppb	09:33:34
2	Ca 317.933Radial†	83440.2	83328.8	4641.7	µg/L	4641.7	ppb	09:33:34
2	Fe 238.204 Radial†	75493.5	75751.9	4668.9	µg/L	4668.9	ppb	09:33:34
2	K 766.490 Radial†	14468.2	13001.4	4756.1	µg/L	4756.1	ppb	09:33:34
2	Mg 279.077 IEC†	12865.7	12744.3	4755.4	µg/L	4755.4	ppb	09:33:34
2	Na 589.592 Radial†	69910.1	68995.7	9421.4	µg/L	9421.4	ppb	09:33:34
2	Sr 421.552†	226154.4	227507.4	472.94	µg/L	472.94	ppb	09:33:32
2	Sc 361.383	1768675.2	1768675.2	102.94	%			09:34:06
2	Y 371.029	1041358.1	1041358.1	101.43	%			09:34:06
2	Ag 328.068†	130392.7	122581.4	459.68	µg/L	459.68	ppb	09:34:06
2	As 188.979†	1600.0	1574.7	482.91	µg/L	482.91	ppb	09:34:26
2	B 249.677†	35432.1	30915.3	454.35	µg/L	454.35	ppb	09:34:06
2	Ba 233.527†	117919.7	114691.4	462.55	µg/L	462.55	ppb	09:34:06
2	Be 313.107†	1775807.2	1726210.8	470.14	µg/L	470.14	ppb	09:34:06
2	Cd 226.502†	75331.9	73301.0	457.57	µg/L	457.57	ppb	09:34:06
2	Co 228.616†	38237.7	37337.1	460.93	µg/L	460.93	ppb	09:34:06
2	Cr 267.716†	60351.6	58451.3	457.67	µg/L	457.67	ppb	09:34:06
2	Cu 324.752†	124942.0	118405.3	461.57	µg/L	461.57	ppb	09:34:06
2	Mn 257.610†	386118.6	374866.0	463.62	µg/L	463.62	ppb	09:34:06
2	Mo 202.031†	15926.5	15492.2	455.72	µg/L	455.72	ppb	09:34:26
2	Ni 231.604†	40762.5	39676.2	456.84	µg/L	456.84	ppb	09:34:06
2	P 214.914†	10965.1	10670.2	2274.2	µg/L	2274.2	ppb	09:34:26
2	Pb 220.353†	8518.0	8188.6	458.57	µg/L	458.57	ppb	09:34:26

2	S 181.975 Axial†	1308.6	1166.2	869.87 µg/L	869.87 ppb	09:34:26
2	Sb 206.836†	3992.2	3797.5	452.43 µg/L	452.43 ppb	09:34:26
2	Se 196.026†	1300.0	1247.6	453 µg/L	453 ppb	09:34:26
2	SiO2†	53013.2	49725.4	4840.7 µg/L	4840.7 ppb	09:34:06
2	Si 251.611†	160550.7	155133.9	2278.0 µg/L	2278.0 ppb	09:34:06
2	Sn 189.927†	7495.0	7282.3	455.53 µg/L	455.53 ppb	09:34:26
2	Ti 334.940†	509208.8	493729.3	460.68 µg/L	460.68 ppb	09:34:06
2	Tl 190.801†	3729.1	3739.4	466.39 µg/L	466.39 ppb	09:34:26
2	U 409.014†	7164.7	7230.2	450.79 µg/L	450.79 ppb	09:34:06
2	V 292.402†	97270.4	94091.6	465.05 µg/L	465.05 ppb	09:34:06
2	Zn 213.857†	84440.2	81466.8	454.04 µg/L	454.04 ppb	09:34:06
3	Sc RADIAL	145019.7	145019.7	99.4 %		09:33:38
3	Al 396.153Radial†	25971.4	26197.5	4835.7 µg/L	4835.7 ppb	09:33:38
3	Ca 317.933Radial†	83466.1	83429.3	4647.3 µg/L	4647.3 ppb	09:33:38
3	Fe 238.204 Radial†	75479.4	75804.9	4672.2 µg/L	4672.2 ppb	09:33:38
3	K 766.490 Radial†	14442.9	12988.8	4751.5 µg/L	4751.5 ppb	09:33:38
3	Mg 279.077 IEC†	12807.6	12697.3	4738.0 µg/L	4738.0 ppb	09:33:38
3	Na 589.592 Radial†	69801.6	68948.9	9415.0 µg/L	9415.0 ppb	09:33:38
3	Sr 421.552†	224811.3	226357.4	470.55 µg/L	470.55 ppb	09:33:36
3	Sc 361.383	1752639.0	1752639.0	102.00 %		09:34:29
3	Y 371.029	1031380.4	1031380.4	100.46 %		09:34:29
3	Ag 328.068†	129209.1	122580.1	459.67 µg/L	459.67 ppb	09:34:29
3	As 188.979†	1612.6	1601.3	490.96 µg/L	490.96 ppb	09:34:49
3	B 249.677†	35166.6	30970.0	455.15 µg/L	455.15 ppb	09:34:29
3	Ba 233.527†	116882.3	114722.6	462.67 µg/L	462.67 ppb	09:34:29
3	Be 313.107†	1760064.8	1726562.3	470.24 µg/L	470.24 ppb	09:34:29
3	Cd 226.502†	74628.5	73281.0	457.45 µg/L	457.45 ppb	09:34:29
3	Co 228.616†	37960.2	37405.0	461.76 µg/L	461.76 ppb	09:34:29
3	Cr 267.716†	59855.8	58501.7	458.07 µg/L	458.07 ppb	09:34:29
3	Cu 324.752†	124052.1	118643.6	462.49 µg/L	462.49 ppb	09:34:29
3	Mn 257.610†	382427.8	374679.8	463.39 µg/L	463.39 ppb	09:34:29
3	Mo 202.031†	15911.0	15618.6	459.44 µg/L	459.44 ppb	09:34:49
3	Ni 231.604†	40417.4	39700.1	457.12 µg/L	457.12 ppb	09:34:29
3	P 214.914†	10956.0	10758.8	2293.2 µg/L	2293.2 ppb	09:34:49
3	Pb 220.353†	8527.2	8273.3	463.31 µg/L	463.31 ppb	09:34:49
3	S 181.975 Axial†	1336.3	1205.0	898.67 µg/L	898.67 ppb	09:34:49
3	Sb 206.836†	4014.3	3854.6	459.28 µg/L	459.28 ppb	09:34:49
3	Se 196.026†	1287.9	1247.3	453 µg/L	453 ppb	09:34:49
3	SiO2†	52528.5	49721.5	4840.1 µg/L	4840.1 ppb	09:34:29
3	Si 251.611†	158492.5	154543.2	2269.3 µg/L	2269.3 ppb	09:34:29
3	Sn 189.927†	7522.2	7375.6	461.34 µg/L	461.34 ppb	09:34:49
3	Ti 334.940†	504141.1	493287.3	460.28 µg/L	460.28 ppb	09:34:29
3	Tl 190.801†	3732.6	3776.0	470.88 µg/L	470.88 ppb	09:34:49
3	U 409.014†	6944.9	7078.4	441.92 µg/L	441.92 ppb	09:34:29
3	V 292.402†	96426.9	94129.3	465.27 µg/L	465.27 ppb	09:34:29
3	Zn 213.857†	83611.1	81404.6	453.69 µg/L	453.69 ppb	09:34:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1759560.7	102.41	%	0.480				0.47%
Sc RADIAL	144817.4	99.2	%	0.32				0.32%
Y 371.029	1035841.0	100.89	%	0.494				0.49%
Ag 328.068†	122622.8	459.83	µg/L	0.271	459.83	ppb	0.271	0.06%
QC value within limits for Ag 328.068 Recovery = 91.97%								
Al 396.153Radial†	26244.8	4844.5	µg/L	10.88	4844.5	ppb	10.88	0.22%
QC value within limits for Al 396.153Radial Recovery = 96.89%								
As 188.979†	1585.2	486.09	µg/L	4.288	486.09	ppb	4.288	0.88%
QC value within limits for As 188.979 Recovery = 97.22%								
B 249.677†	30855.9	453.47	µg/L	2.253	453.47	ppb	2.253	0.50%
QC value within limits for B 249.677 Recovery = 90.69%								
Ba 233.527†	114580.0	462.10	µg/L	0.889	462.10	ppb	0.889	0.19%
QC value within limits for Ba 233.527 Recovery = 92.42%								
Be 313.107†	1725394.9	469.92	µg/L	0.470	469.92	ppb	0.470	0.10%
QC value within limits for Be 313.107 Recovery = 93.98%								
Ca 317.933Radial†	83383.7	4644.8	µg/L	2.83	4644.8	ppb	2.83	0.06%
QC value within limits for Ca 317.933Radial Recovery = 92.90%								
Cd 226.502†	73249.5	457.25	µg/L	0.453	457.25	ppb	0.453	0.10%
QC value within limits for Cd 226.502 Recovery = 91.45%								
Co 228.616†	37368.6	461.31	µg/L	0.422	461.31	ppb	0.422	0.09%

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   QC value within limits for Co 228.616  Recovery = 92.26%
Cr 267.716†            58416.0      457.40 µg/L        0.845      457.40 ppb          0.845   0.18%
   QC value within limits for Cr 267.716  Recovery = 91.48%
Cu 324.752†           118503.1      461.95 µg/L        0.481      461.95 ppb          0.481   0.10%
   QC value within limits for Cu 324.752  Recovery = 92.39%
Fe 238.204 Radial†     75806.4      4672.2 µg/L         3.40      4672.2 ppb           3.40   0.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.44%
K 766.490 Radial†      13004.1      4757.1 µg/L         6.18      4757.1 ppb           6.18   0.13%
   QC value within limits for K 766.490 Radial  Recovery = 95.14%
Mg 279.077 IEC†        12728.7      4749.7 µg/L        10.10      4749.7 ppb          10.10   0.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 94.99%
Mn 257.610†           374802.7      463.54 µg/L        0.131      463.54 ppb          0.131   0.03%
   QC value within limits for Mn 257.610  Recovery = 92.71%
Mo 202.031†            15557.1      457.63 µg/L        1.859      457.63 ppb          1.859   0.41%
   QC value within limits for Mo 202.031  Recovery = 91.53%
Na 589.592 Radial†     68899.7      9408.3 µg/L        17.48      9408.3 ppb          17.48   0.19%
   QC value within limits for Na 589.592 Radial  Recovery = 94.08%
Ni 231.604†            39737.4      457.55 µg/L        0.992      457.55 ppb          0.992   0.22%
   QC value within limits for Ni 231.604  Recovery = 91.51%
P 214.914†             10704.8      2281.6 µg/L        10.13      2281.6 ppb          10.13   0.44%
   QC value within limits for P 214.914  Recovery = 91.27%
Pb 220.353†             8227.9      460.77 µg/L        2.391      460.77 ppb          2.391   0.52%
   QC value within limits for Pb 220.353  Recovery = 92.15%
S 181.975 Axial†        1189.7      887.30 µg/L       15.326      887.30 ppb         15.326   1.73%
   QC value less than the lower limit for S 181.975 Axial  Recovery = 88.73%
Sb 206.836†             3822.6      455.46 µg/L        3.494      455.46 ppb          3.494   0.77%
   QC value within limits for Sb 206.836  Recovery = 91.09%
Se 196.026†             1245.1         452 µg/L          1.5         452 ppb            1.5   0.33%
   QC value within limits for Se 196.026  Recovery = 90.43%
SiO2†                  49690.8      4837.2 µg/L         5.54      4837.2 ppb           5.54   0.11%
   QC value within limits for SiO2  Recovery = 90.46%
Si 251.611†           154820.6      2273.4 µg/L         4.42      2273.4 ppb           4.42   0.19%
   QC value within limits for Si 251.611  Recovery = 90.94%
Sn 189.927†             7327.4      458.34 µg/L        2.913      458.34 ppb          2.913   0.64%
   QC value within limits for Sn 189.927  Recovery = 91.67%
Sr 421.552†           227687.5      473.31 µg/L        2.970      473.31 ppb          2.970   0.63%
   QC value within limits for Sr 421.552  Recovery = 94.66%
Ti 334.940†           493648.8      460.61 µg/L        0.305      460.61 ppb          0.305   0.07%
   QC value within limits for Ti 334.940  Recovery = 92.12%
Tl 190.801†             3755.2      468.34 µg/L        2.300      468.34 ppb          2.300   0.49%
   QC value within limits for Tl 190.801  Recovery = 93.67%
U 409.014†              7161.0      446.75 µg/L        4.487      446.75 ppb          4.487   1.00%
   QC value less than the lower limit for U 409.014  Recovery = 89.35%
V 292.402†             94114.4      465.18 µg/L        0.113      465.18 ppb          0.113   0.02%
   QC value within limits for V 292.402  Recovery = 93.04%
Zn 213.857†            81399.4      453.66 µg/L        0.401      453.66 ppb          0.401   0.09%
   QC value within limits for Zn 213.857  Recovery = 90.73%
QC Failed.  Continue with analysis.
```

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 9:34:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	149117.0	149117.0	102	%			09:35:26
1	Al 396.153Radial†	-36.5	27.4	5.0602	µg/L	5.0602	ppb	09:35:46
1	Ca 317.933Radial†	796.3	218.7	12.185	µg/L	12.185	ppb	09:35:46
1	Fe 238.204 Radial†	216.1	63.3	3.9041	µg/L	3.9041	ppb	09:35:46
1	K 766.490 Radial†	1658.1	77.9	28.516	µg/L	28.516	ppb	09:35:26
1	Mg 279.077 IEC†	184.1	-10.5	-3.9161	µg/L	-3.9161	ppb	09:35:46
1	Na 589.592 Radial†	1406.0	85.1	11.604	µg/L	11.604	ppb	09:35:26
1	Sr 421.552†	-178.4	-39.3	-0.0818	µg/L	-0.0818	ppb	09:35:26
1	Sc 361.383	1778233.5	1778233.5	103.49	%			09:36:34
1	Y 371.029	1058361.6	1058361.6	103.08	%			09:36:34
1	Ag 328.068†	4263.2	28.0	0.1004	µg/L	0.1004	ppb	09:36:36
1	As 188.979†	-9.8	10.9	3.3043	µg/L	3.3043	ppb	09:36:56
1	B 249.677†	3582.7	-44.1	-0.6507	µg/L	-0.6507	ppb	09:36:36
1	Ba 233.527†	-102.3	37.0	0.1490	µg/L	0.1490	ppb	09:36:56
1	Be 313.107†	-868.8	225.2	0.0624	µg/L	0.0624	ppb	09:36:36
1	Cd 226.502†	-91.2	30.0	0.1873	µg/L	0.1873	ppb	09:36:56
1	Co 228.616†	-191.5	5.2	0.0646	µg/L	0.0646	ppb	09:36:56
1	Cr 267.716†	214.5	28.7	0.2220	µg/L	0.2220	ppb	09:36:56
1	Cu 324.752†	2913.6	-157.0	-0.6065	µg/L	-0.6065	ppb	09:36:36
1	Mn 257.610†	318.7	70.7	0.0876	µg/L	0.0876	ppb	09:36:56
1	Mo 202.031†	0.4	20.5	0.6017	µg/L	0.6017	ppb	09:36:56
1	Ni 231.604†	-73.9	5.2	0.0594	µg/L	0.0594	ppb	09:36:56
1	P 214.914†	-41.3	-22.0	-4.7003	µg/L	-4.7003	ppb	09:36:56
1	Pb 220.353†	73.1	-15.7	-0.8788	µg/L	-0.8788	ppb	09:36:56
1	S 181.975 Axial†	86.2	-21.7	-16.141	µg/L	-16.141	ppb	09:36:56
1	Sb 206.836†	88.8	5.0	0.5927	µg/L	0.5927	ppb	09:36:56
1	Se 196.026†	12.6	-3.1	-1.10	µg/L	-1.10	ppb	09:36:56
1	SiO2†	1819.9	-16.9	-1.6687	µg/L	-1.6687	ppb	09:36:56
1	Si 251.611†	962.0	93.0	1.3641	µg/L	1.3641	ppb	09:36:36
1	Sn 189.927†	-3.7	-2.4	-0.1523	µg/L	-0.1523	ppb	09:36:56
1	Ti 334.940†	834.6	-146.1	-0.1374	µg/L	-0.1374	ppb	09:36:36
1	Tl 190.801†	-121.9	-1.1	-0.1417	µg/L	-0.1417	ppb	09:36:56
1	U 409.014†	-214.6	62.5	3.6191	µg/L	3.6191	ppb	09:36:36
1	V 292.402†	288.2	-125.3	-0.6019	µg/L	-0.6019	ppb	09:36:36
1	Zn 213.857†	611.2	26.1	0.1465	µg/L	0.1465	ppb	09:36:56
2	Sc RADIAL	147555.0	147555.0	101	%			09:35:48
2	Al 396.153Radial†	-77.3	-13.3	-2.4699	µg/L	-2.4699	ppb	09:36:08
2	Ca 317.933Radial†	790.4	221.1	12.318	µg/L	12.318	ppb	09:36:08
2	Fe 238.204 Radial†	202.1	51.8	3.1929	µg/L	3.1929	ppb	09:36:08
2	K 766.490 Radial†	1679.3	116.0	42.464	µg/L	42.464	ppb	09:35:48
2	Mg 279.077 IEC†	198.2	5.3	1.9713	µg/L	1.9713	ppb	09:36:08
2	Na 589.592 Radial†	1402.5	96.3	13.116	µg/L	13.116	ppb	09:35:48
2	Sr 421.552†	-157.4	-20.4	-0.0424	µg/L	-0.0424	ppb	09:35:48
2	Sc 361.383	1774778.8	1774778.8	103.29	%			09:36:58
2	Y 371.029	1055168.7	1055168.7	102.77	%			09:36:58
2	Ag 328.068†	4285.2	57.2	0.2215	µg/L	0.2215	ppb	09:37:00
2	As 188.979†	-18.5	2.4	0.7410	µg/L	0.7410	ppb	09:37:21
2	B 249.677†	3525.0	-93.3	-1.3758	µg/L	-1.3758	ppb	09:37:00
2	Ba 233.527†	-111.8	27.7	0.1117	µg/L	0.1117	ppb	09:37:21
2	Be 313.107†	-969.6	126.0	0.0358	µg/L	0.0358	ppb	09:37:00
2	Cd 226.502†	-105.2	16.4	0.1018	µg/L	0.1018	ppb	09:37:21
2	Co 228.616†	-193.7	2.7	0.0339	µg/L	0.0339	ppb	09:37:21
2	Cr 267.716†	196.8	11.9	0.0898	µg/L	0.0898	ppb	09:37:21
2	Cu 324.752†	2966.7	-100.1	-0.3843	µg/L	-0.3843	ppb	09:37:00
2	Mn 257.610†	328.5	80.8	0.0999	µg/L	0.0999	ppb	09:37:21
2	Mo 202.031†	-15.1	5.5	0.1615	µg/L	0.1615	ppb	09:37:21
2	Ni 231.604†	-102.4	-22.7	-0.2609	µg/L	-0.2609	ppb	09:37:21
2	P 214.914†	-44.2	-24.9	-5.3206	µg/L	-5.3206	ppb	09:37:21
2	Pb 220.353†	60.3	-28.0	-1.5643	µg/L	-1.5643	ppb	09:37:21

2	S 181.975 Axial†	95.5	-12.6	-9.3834	µg/L	-9.3834 ppb	09:37:21
2	Sb 206.836†	84.0	0.5	0.0616	µg/L	0.0616 ppb	09:37:21
2	Se 196.026†	4.3	-11.1	-4.01	µg/L	-4.01 ppb	09:37:21
2	SiO2†	1831.8	-1.9	-0.1945	µg/L	-0.1945 ppb	09:37:21
2	Si 251.611†	838.5	-24.8	-0.3680	µg/L	-0.3680 ppb	09:37:00
2	Sn 189.927†	0.8	1.9	0.1157	µg/L	0.1157 ppb	09:37:21
2	Ti 334.940†	945.4	-37.2	-0.0366	µg/L	-0.0366 ppb	09:37:00
2	Tl 190.801†	-113.4	6.9	0.8453	µg/L	0.8453 ppb	09:37:21
2	U 409.014†	-192.8	83.3	4.8881	µg/L	4.8881 ppb	09:37:00
2	V 292.402†	488.3	68.9	0.3413	µg/L	0.3413 ppb	09:37:00
2	Zn 213.857†	598.2	14.7	0.0841	µg/L	0.0841 ppb	09:37:21
3	Sc RADIAL	146214.0	146214.0	100	%		09:36:10
3	Al 396.153Radial†	-83.9	-20.5	-3.8025	µg/L	-3.8025 ppb	09:36:30
3	Ca 317.933Radial†	767.4	205.3	11.436	µg/L	11.436 ppb	09:36:30
3	Fe 238.204 Radial†	214.9	66.4	4.0916	µg/L	4.0916 ppb	09:36:30
3	K 766.490 Radial†	1638.4	90.5	33.126	µg/L	33.126 ppb	09:36:10
3	Mg 279.077 IEC†	176.3	-14.8	-5.5119	µg/L	-5.5119 ppb	09:36:30
3	Na 589.592 Radial†	1342.5	49.1	6.6742	µg/L	6.6742 ppb	09:36:10
3	Sr 421.552†	-105.5	30.0	0.0623	µg/L	0.0623 ppb	09:36:10
3	Sc 361.383	1792756.9	1792756.9	104.34	%		09:37:23
3	Y 371.029	1066361.6	1066361.6	103.86	%		09:37:23
3	Ag 328.068†	4459.8	183.0	0.6718	µg/L	0.6718 ppb	09:37:25
3	As 188.979†	-13.5	7.5	2.2576	µg/L	2.2576 ppb	09:37:45
3	B 249.677†	3753.0	91.1	1.3413	µg/L	1.3413 ppb	09:37:25
3	Ba 233.527†	-125.5	15.6	0.0619	µg/L	0.0619 ppb	09:37:45
3	Be 313.107†	-1179.8	-66.0	-0.0155	µg/L	-0.0155 ppb	09:37:25
3	Cd 226.502†	-117.6	5.5	0.0336	µg/L	0.0336 ppb	09:37:45
3	Co 228.616†	-151.3	45.3	0.5582	µg/L	0.5582 ppb	09:37:45
3	Cr 267.716†	227.6	39.5	0.3027	µg/L	0.3027 ppb	09:37:45
3	Cu 324.752†	3132.4	29.9	0.1238	µg/L	0.1238 ppb	09:37:25
3	Mn 257.610†	311.7	61.5	0.0763	µg/L	0.0763 ppb	09:37:45
3	Mo 202.031†	-19.0	1.8	0.0535	µg/L	0.0535 ppb	09:37:45
3	Ni 231.604†	-95.5	-15.0	-0.1726	µg/L	-0.1726 ppb	09:37:45
3	P 214.914†	-30.2	-11.0	-2.3458	µg/L	-2.3458 ppb	09:37:45
3	Pb 220.353†	50.8	-37.7	-2.1112	µg/L	-2.1112 ppb	09:37:45
3	S 181.975 Axial†	103.2	-6.2	-4.5862	µg/L	-4.5862 ppb	09:37:45
3	Sb 206.836†	70.9	-12.8	-1.5311	µg/L	-1.5311 ppb	09:37:45
3	Se 196.026†	1.1	-14.2	-5.14	µg/L	-5.14 ppb	09:37:45
3	SiO2†	1809.5	-41.1	-4.0229	µg/L	-4.0229 ppb	09:37:45
3	Si 251.611†	1160.5	275.7	4.0613	µg/L	4.0613 ppb	09:37:25
3	Sn 189.927†	3.6	4.6	0.2847	µg/L	0.2847 ppb	09:37:45
3	Ti 334.940†	915.1	-75.5	-0.0732	µg/L	-0.0732 ppb	09:37:25
3	Tl 190.801†	-103.2	17.8	2.1686	µg/L	2.1686 ppb	09:37:45
3	U 409.014†	-136.3	139.2	8.0654	µg/L	8.0654 ppb	09:37:25
3	V 292.402†	144.3	-265.5	-1.2880	µg/L	-1.2880 ppb	09:37:25
3	Zn 213.857†	597.5	8.3	0.0468	µg/L	0.0468 ppb	09:37:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1781923.0	103.71	%	0.555				0.54%
Sc RADIAL	147628.7	101	%	1.0				0.98%
Y 371.029	1059964.0	103.24	%	0.562				0.54%
Ag 328.068†	89.4	0.3312	µg/L	0.30109	0.3312	ppb	0.30109	90.90%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.1	-0.4040	µg/L	4.77889	-0.4040	ppb	4.77889	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.9	2.1010	µg/L	1.28878	2.1010	ppb	1.28878	61.34%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-15.4	-0.2284	µg/L	1.40692	-0.2284	ppb	1.40692	615.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	26.8	0.1075	µg/L	0.04372	0.1075	ppb	0.04372	40.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	95.1	0.0276	µg/L	0.03961	0.0276	ppb	0.03961	143.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	215.1	11.980	µg/L	0.4755	11.980	ppb	0.4755	3.97%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.3	0.1076	µg/L	0.07700	0.1076	ppb	0.07700	71.58%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.7	0.2189	µg/L	0.29426	0.2189	ppb	0.29426	134.42%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              26.7      0.2048 µg/L       0.10750      0.2048 ppb        0.10750  52.48%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -75.7     -0.2890 µg/L       0.37440     -0.2890 ppb        0.37440 129.55%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       60.5      3.7295 µg/L       0.47411      3.7295 ppb        0.47411  12.71%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        94.8      34.702 µg/L        7.1067      34.702 ppb         7.1067  20.48%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -6.7     -2.4856 µg/L       3.94138     -2.4856 ppb        3.94138 158.57%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              71.0      0.0879 µg/L       0.01179      0.0879 ppb        0.01179  13.41%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.3      0.2723 µg/L       0.29040      0.2723 ppb        0.29040 106.67%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       76.8      10.464 µg/L        3.3684      10.464 ppb         3.3684  32.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -10.8     -0.1247 µg/L       0.16543     -0.1247 ppb        0.16543 132.62%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -19.3     -4.1222 µg/L       1.56938     -4.1222 ppb        1.56938  38.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -27.1     -1.5181 µg/L       0.61750     -1.5181 ppb        0.61750  40.68%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -13.5     -10.037 µg/L        5.8049     -10.037 ppb         5.8049  57.84%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.5     -0.2923 µg/L       1.10521     -0.2923 ppb        1.10521 378.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -9.5       -3.41 µg/L         2.083       -3.41 ppb          2.083  61.03%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -20.0     -1.9621 µg/L       1.93100     -1.9621 ppb        1.93100  98.42%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             114.6      1.6858 µg/L       2.23212      1.6858 ppb        2.23212 132.41%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.3      0.0827 µg/L       0.22033      0.0827 ppb        0.22033 266.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -9.9     -0.0207 µg/L       0.07448     -0.0207 ppb        0.07448 360.50%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -86.3     -0.0824 µg/L       0.05103     -0.0824 ppb        0.05103  61.90%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.8      0.9574 µg/L       1.15922      0.9574 ppb        1.15922 121.09%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               95.0      5.5242 µg/L       2.29040      5.5242 ppb        2.29040  41.46%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -107.3     -0.5162 µg/L       0.81806     -0.5162 ppb        0.81806 158.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              16.4      0.0925 µg/L       0.05035      0.0925 ppb        0.05035  54.44%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/13/2010 13:54:23 **Plasma On Time:** 3/29/2010 18:07:58
Logged In Analyst: optima4 **Technique:** ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 077C0022701 **Autosampler Model:** AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\041310.SIF
Batch ID:
Results Data Set: 041310A
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location:** 8
Sample ID: S0 **Date Collected:** 4/13/2010 13:54:24
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	114598.4	114598.4	100	%	13:54:54
1	Al 396.153Radial†	-66.9	-66.8	[0.00]	µg/L	13:55:14
1	Ca 317.933Radial†	458.7	457.8	[0.00]	µg/L	13:55:14
1	Fe 238.204 Radial†	131.0	130.8	[0.00]	µg/L	13:55:14
1	K 766.490 Radial†	1394.5	1391.9	[0.00]	µg/L	13:54:54
1	Mg 279.077 IEC†	158.0	157.7	[0.00]	µg/L	13:55:14
1	Na 589.592 Radial†	845.2	843.7	[0.00]	µg/L	13:54:54
1	Sr 421.552†	-40.2	-40.1	[0.00]	µg/L	13:54:54
1	Sc 361.383	1709992.4	1709992.4	101.05	%	13:56:16
1	Y 371.029	967471.1	967471.1	101.09	%	13:56:16
1	Ag 328.068†	5143.2	5089.9	[0.00]	µg/L	13:56:18
1	As 188.979†	-12.9	-12.8	[0.00]	µg/L	13:56:38
1	B 249.677†	4108.0	4065.4	[0.00]	µg/L	13:56:18
1	Ba 233.527†	-146.3	-144.8	[0.00]	µg/L	13:56:38
1	Be 313.107†	-1019.9	-1009.3	[0.00]	µg/L	13:56:18
1	Cd 226.502†	-63.8	-63.1	[0.00]	µg/L	13:56:38
1	Co 228.616†	-230.4	-228.0	[0.00]	µg/L	13:56:38
1	Cr 267.716†	339.5	336.0	[0.00]	µg/L	13:56:38
1	Cu 324.752†	3232.7	3199.2	[0.00]	µg/L	13:56:18
1	Mn 257.610†	213.2	210.9	[0.00]	µg/L	13:56:38
1	Mo 202.031†	-15.1	-14.9	[0.00]	µg/L	13:56:38
1	Ni 231.604†	-59.0	-58.3	[0.00]	µg/L	13:56:38
1	P 214.914†	-15.3	-15.2	[0.00]	µg/L	13:56:38
1	Pb 220.353†	116.6	115.4	[0.00]	µg/L	13:56:38
1	S 181.975 Axial†	105.8	104.7	[0.00]	µg/L	13:56:38
1	Sb 206.836†	86.3	85.4	[0.00]	µg/L	13:56:38
1	Se 196.026†	25.6	25.3	[0.00]	µg/L	13:56:38
1	SiO2†	1749.7	1731.5	[0.00]	µg/L	13:56:18
1	Si 251.611†	784.1	776.0	[0.00]	µg/L	13:56:18
1	Sn 189.927†	10.7	10.6	[0.00]	µg/L	13:56:38
1	Ti 334.940†	888.1	878.8	[0.00]	µg/L	13:56:18
1	Tl 190.801†	-116.5	-115.3	[0.00]	µg/L	13:56:38
1	U 409.014†	-496.6	-491.4	[0.00]	µg/L	13:56:18
1	V 292.402†	543.2	537.6	[0.00]	µg/L	13:56:18
1	Zn 213.857†	623.7	617.2	[0.00]	µg/L	13:56:38
2	Sc RADIAL	115518.6	115518.6	101	%	13:55:16
2	Al 396.153Radial†	-88.5	-87.6	[0.00]	µg/L	13:55:36
2	Ca 317.933Radial†	446.9	442.5	[0.00]	µg/L	13:55:36
2	Fe 238.204 Radial†	117.0	115.8	[0.00]	µg/L	13:55:36
2	K 766.490 Radial†	1437.5	1423.4	[0.00]	µg/L	13:55:16
2	Mg 279.077 IEC†	153.1	151.6	[0.00]	µg/L	13:55:36
2	Na 589.592 Radial†	860.2	851.8	[0.00]	µg/L	13:55:16
2	Sr 421.552†	-48.4	-48.0	[0.00]	µg/L	13:55:16
2	Sc 361.383	1687736.4	1687736.4	99.732	%	13:56:40
2	Y 371.029	953891.3	953891.3	99.672	%	13:56:40
2	Ag 328.068†	5113.5	5127.2	[0.00]	µg/L	13:56:42
2	As 188.979†	-6.3	-6.3	[0.00]	µg/L	13:57:02

2	B 249.677†	4025.8	4036.6	[0.00]	µg/L	13:56:42
2	Ba 233.527†	-138.6	-139.0	[0.00]	µg/L	13:57:02
2	Be 313.107†	-1228.5	-1231.8	[0.00]	µg/L	13:56:42
2	Cd 226.502†	-61.5	-61.7	[0.00]	µg/L	13:57:02
2	Co 228.616†	-211.1	-211.6	[0.00]	µg/L	13:57:02
2	Cr 267.716†	324.0	324.9	[0.00]	µg/L	13:57:02
2	Cu 324.752†	3236.0	3244.7	[0.00]	µg/L	13:56:42
2	Mn 257.610†	221.5	222.1	[0.00]	µg/L	13:57:02
2	Mo 202.031†	-20.1	-20.2	[0.00]	µg/L	13:57:02
2	Ni 231.604†	-71.5	-71.7	[0.00]	µg/L	13:57:02
2	P 214.914†	-10.5	-10.5	[0.00]	µg/L	13:57:02
2	Pb 220.353†	123.7	124.0	[0.00]	µg/L	13:57:02
2	S 181.975 Axial†	100.6	100.8	[0.00]	µg/L	13:57:02
2	Sb 206.836†	68.9	69.1	[0.00]	µg/L	13:57:02
2	Se 196.026†	22.7	22.8	[0.00]	µg/L	13:57:02
2	SiO2†	1685.1	1689.6	[0.00]	µg/L	13:56:42
2	Si 251.611†	850.1	852.4	[0.00]	µg/L	13:56:42
2	Sn 189.927†	13.0	13.0	[0.00]	µg/L	13:57:02
2	Ti 334.940†	885.7	888.1	[0.00]	µg/L	13:56:42
2	Tl 190.801†	-111.5	-111.8	[0.00]	µg/L	13:57:02
2	U 409.014†	-313.9	-314.7	[0.00]	µg/L	13:56:42
2	V 292.402†	467.8	469.0	[0.00]	µg/L	13:56:42
2	Zn 213.857†	621.3	623.0	[0.00]	µg/L	13:57:02
3	Sc RADIAL	113047.2	113047.2	98.8	%	13:55:38
3	Al 396.153Radial†	-99.4	-100.5	[0.00]	µg/L	13:55:58
3	Ca 317.933Radial†	464.4	469.9	[0.00]	µg/L	13:55:58
3	Fe 238.204 Radial†	124.8	126.3	[0.00]	µg/L	13:55:58
3	K 766.490 Radial†	1396.0	1412.5	[0.00]	µg/L	13:55:38
3	Mg 279.077 IEC†	160.8	162.7	[0.00]	µg/L	13:55:58
3	Na 589.592 Radial†	801.0	810.5	[0.00]	µg/L	13:55:38
3	Sr 421.552†	-110.8	-112.1	[0.00]	µg/L	13:55:38
3	Sc 361.383	1679067.9	1679067.9	99.220	%	13:57:04
3	Y 371.029	949726.9	949726.9	99.237	%	13:57:04
3	Ag 328.068†	5052.1	5091.8	[0.00]	µg/L	13:57:06
3	As 188.979†	-21.0	-21.1	[0.00]	µg/L	13:57:26
3	B 249.677†	4200.8	4233.8	[0.00]	µg/L	13:57:06
3	Ba 233.527†	-152.7	-153.9	[0.00]	µg/L	13:57:26
3	Be 313.107†	-730.2	-735.9	[0.00]	µg/L	13:57:06
3	Cd 226.502†	-68.4	-68.9	[0.00]	µg/L	13:57:26
3	Co 228.616†	-239.7	-241.5	[0.00]	µg/L	13:57:26
3	Cr 267.716†	325.5	328.0	[0.00]	µg/L	13:57:26
3	Cu 324.752†	3254.3	3279.9	[0.00]	µg/L	13:57:06
3	Mn 257.610†	211.4	213.1	[0.00]	µg/L	13:57:26
3	Mo 202.031†	-29.5	-29.7	[0.00]	µg/L	13:57:26
3	Ni 231.604†	-90.9	-91.7	[0.00]	µg/L	13:57:26
3	P 214.914†	-31.7	-32.0	[0.00]	µg/L	13:57:26
3	Pb 220.353†	111.3	112.2	[0.00]	µg/L	13:57:26
3	S 181.975 Axial†	99.4	100.2	[0.00]	µg/L	13:57:26
3	Sb 206.836†	77.5	78.1	[0.00]	µg/L	13:57:26
3	Se 196.026†	11.7	11.8	[0.00]	µg/L	13:57:26
3	SiO2†	1632.7	1645.5	[0.00]	µg/L	13:57:06
3	Si 251.611†	725.5	731.2	[0.00]	µg/L	13:57:06
3	Sn 189.927†	1.7	1.7	[0.00]	µg/L	13:57:26
3	Ti 334.940†	884.4	891.3	[0.00]	µg/L	13:57:06
3	Tl 190.801†	-117.7	-118.6	[0.00]	µg/L	13:57:26
3	U 409.014†	-424.2	-427.6	[0.00]	µg/L	13:57:06
3	V 292.402†	477.7	481.5	[0.00]	µg/L	13:57:06
3	Zn 213.857†	612.9	617.7	[0.00]	µg/L	13:57:26

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1692265.5	15951.98	0.94%	100.00	%
Sc RADIAL	114388.1	1249.02	1.09%	100	%
Y 371.029	957029.8	9279.07	0.97%	100.00	%
Ag 328.068†	5103.0	21.01	0.41%	[0.00]	µg/L
Al 396.153Radial†	-85.0	17.03	20.04%	[0.00]	µg/L
As 188.979†	-13.4	7.42	55.27%	[0.00]	µg/L
B 249.677†	4111.9	106.52	2.59%	[0.00]	µg/L
Ba 233.527†	-145.9	7.51	5.15%	[0.00]	µg/L

Be 313.107†	-992.3	248.35	25.03%	[0.00]	µg/L
Ca 317.933Radial†	456.7	13.71	3.00%	[0.00]	µg/L
Cd 226.502†	-64.6	3.83	5.93%	[0.00]	µg/L
Co 228.616†	-227.1	14.98	6.60%	[0.00]	µg/L
Cr 267.716†	329.6	5.76	1.75%	[0.00]	µg/L
Cu 324.752†	3241.3	40.46	1.25%	[0.00]	µg/L
Fe 238.204 Radial†	124.3	7.65	6.16%	[0.00]	µg/L
K 766.490 Radial†	1409.3	16.00	1.13%	[0.00]	µg/L
Mg 279.077 IEC†	157.3	5.56	3.53%	[0.00]	µg/L
Mn 257.610†	215.4	5.91	2.74%	[0.00]	µg/L
Mo 202.031†	-21.6	7.51	34.73%	[0.00]	µg/L
Na 589.592 Radial†	835.3	21.89	2.62%	[0.00]	µg/L
Ni 231.604†	-73.9	16.76	22.68%	[0.00]	µg/L
P 214.914†	-19.2	11.29	58.79%	[0.00]	µg/L
Pb 220.353†	117.2	6.12	5.22%	[0.00]	µg/L
S 181.975 Axial†	101.9	2.43	2.38%	[0.00]	µg/L
Sb 206.836†	77.5	8.16	10.52%	[0.00]	µg/L
Se 196.026†	20.0	7.17	35.86%	[0.00]	µg/L
SiO2†	1688.9	43.02	2.55%	[0.00]	µg/L
Si 251.611†	786.5	61.28	7.79%	[0.00]	µg/L
Sn 189.927†	8.4	5.97	70.92%	[0.00]	µg/L
Sr 421.552†	-66.7	39.51	59.22%	[0.00]	µg/L
Ti 334.940†	886.1	6.48	0.73%	[0.00]	µg/L
Tl 190.801†	-115.2	3.39	2.94%	[0.00]	µg/L
U 409.014†	-411.2	89.46	21.75%	[0.00]	µg/L
V 292.402†	496.0	36.51	7.36%	[0.00]	µg/L
Zn 213.857†	619.3	3.19	0.52%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 4/13/2010 13:57:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	115662.7	115662.7	101	%	13:58:06
1	K 766.490 Radial†	4010.8	2557.3	[1000]	µg/L	13:58:06
1	Sr 421.552†	40565.9	40185.6	[100]	µg/L	13:58:06
1	Sc 361.383	1679936.2	1679936.2	99.271	%	13:58:14
1	Y 371.029	946833.3	946833.3	98.935	%	13:58:14
1	Ag 328.068†	29744.5	24859.8	[100]	µg/L	13:58:16
1	As 188.979†	270.5	285.9	[100]	µg/L	13:58:36
1	B 249.677†	10722.8	6689.5	[100]	µg/L	13:58:16
1	Ba 233.527†	22383.5	22693.6	[100]	µg/L	13:58:16
1	Be 313.107†	348195.3	351743.1	[100]	µg/L	13:58:14
1	Cd 226.502†	15347.5	15524.8	[100]	µg/L	13:58:16
1	Co 228.616†	7541.4	7823.8	[100]	µg/L	13:58:36
1	Cr 267.716†	11924.3	11682.2	[100]	µg/L	13:58:16
1	Cu 324.752†	27630.0	24591.5	[100]	µg/L	13:58:16
1	Mn 257.610†	80028.7	80400.7	[100]	µg/L	13:58:16
1	Mo 202.031†	2918.0	2961.0	[100]	µg/L	13:58:36
1	Ni 231.604†	8218.6	8352.8	[100]	µg/L	13:58:16
1	P 214.914†	2141.9	2176.9	[500]	µg/L	13:58:36
1	Pb 220.353†	1756.2	1651.8	[100]	µg/L	13:58:36
1	S 181.975 Axial†	331.2	231.7	[200]	µg/L	13:58:36
1	Sb 206.836†	853.1	781.9	[100]	µg/L	13:58:36
1	Se 196.026†	269.7	251.7	[100]	µg/L	13:58:36
1	SiO2†	12030.0	10429.4	[1069.5]	µg/L	13:58:16
1	Si 251.611†	33399.6	32858.2	[500]	µg/L	13:58:16
1	Sn 189.927†	1452.7	1454.9	[100]	µg/L	13:58:36
1	Ti 334.940†	96021.2	95839.9	[100]	µg/L	13:58:16
1	Tl 190.801†	609.2	728.9	[100]	µg/L	13:58:36
1	U 409.014†	1131.7	1551.2	[100]	µg/L	13:58:16
1	V 292.402†	20487.6	20142.0	[100]	µg/L	13:58:16
1	Zn 213.857†	18222.9	17737.3	[100]	µg/L	13:58:16
2	Sc RADIAL	115417.9	115417.9	101	%	13:58:08
2	K 766.490 Radial†	4085.6	2639.9	[1000]	µg/L	13:58:08
2	Sr 421.552†	40433.3	40139.3	[100]	µg/L	13:58:08
2	Sc 361.383	1665766.3	1665766.3	98.434	%	13:58:38
2	Y 371.029	939221.7	939221.7	98.139	%	13:58:38
2	Ag 328.068†	29804.6	25175.7	[100]	µg/L	13:58:40
2	As 188.979†	273.7	291.5	[100]	µg/L	13:59:00
2	B 249.677†	10828.6	6889.0	[100]	µg/L	13:58:40
2	Ba 233.527†	22233.6	22733.2	[100]	µg/L	13:58:40
2	Be 313.107†	345908.5	352403.6	[100]	µg/L	13:58:38
2	Cd 226.502†	15193.5	15499.8	[100]	µg/L	13:58:40
2	Co 228.616†	7524.7	7871.4	[100]	µg/L	13:59:00
2	Cr 267.716†	11768.2	11625.8	[100]	µg/L	13:58:40
2	Cu 324.752†	27135.9	24326.3	[100]	µg/L	13:58:40
2	Mn 257.610†	79277.8	80323.6	[100]	µg/L	13:58:40
2	Mo 202.031†	2925.7	2993.8	[100]	µg/L	13:59:00
2	Ni 231.604†	8098.9	8301.6	[100]	µg/L	13:58:40
2	P 214.914†	2130.2	2183.3	[500]	µg/L	13:59:00
2	Pb 220.353†	1725.2	1635.4	[100]	µg/L	13:59:00
2	S 181.975 Axial†	331.6	234.9	[200]	µg/L	13:59:00
2	Sb 206.836†	876.9	813.4	[100]	µg/L	13:59:00
2	Se 196.026†	275.3	259.7	[100]	µg/L	13:59:00
2	SiO2†	11946.9	10448.0	[1069.5]	µg/L	13:58:40
2	Si 251.611†	33198.3	32939.9	[500]	µg/L	13:58:40
2	Sn 189.927†	1454.5	1469.2	[100]	µg/L	13:59:00
2	Ti 334.940†	95388.0	96019.4	[100]	µg/L	13:58:40
2	Tl 190.801†	607.6	732.5	[100]	µg/L	13:59:00
2	U 409.014†	1595.3	2031.9	[100]	µg/L	13:58:40
2	V 292.402†	20527.6	20358.1	[100]	µg/L	13:58:40

2	Zn 213.857†	18003.3	17670.4	[100]	µg/L	13:58:40
3	Sc RADIAL	114124.7	114124.7	99.8	%	13:58:10
3	K 766.490 Radial†	4003.4	2603.4	[1000]	µg/L	13:58:10
3	Sr 421.552†	40289.2	40448.9	[100]	µg/L	13:58:10
3	Sc 361.383	1688518.0	1688518.0	99.779	%	13:59:02
3	Y 371.029	951515.1	951515.1	99.424	%	13:59:02
3	Ag 328.068†	29717.6	24680.6	[100]	µg/L	13:59:04
3	As 188.979†	276.0	290.0	[100]	µg/L	13:59:24
3	B 249.677†	10763.6	6675.6	[100]	µg/L	13:59:04
3	Ba 233.527†	22593.3	22789.3	[100]	µg/L	13:59:04
3	Be 313.107†	349199.9	350967.2	[100]	µg/L	13:59:02
3	Cd 226.502†	15385.6	15484.3	[100]	µg/L	13:59:04
3	Co 228.616†	7604.2	7848.1	[100]	µg/L	13:59:24
3	Cr 267.716†	11907.6	11604.4	[100]	µg/L	13:59:04
3	Cu 324.752†	27488.5	24308.2	[100]	µg/L	13:59:04
3	Mn 257.610†	80200.2	80162.8	[100]	µg/L	13:59:04
3	Mo 202.031†	2935.2	2963.4	[100]	µg/L	13:59:24
3	Ni 231.604†	8386.7	8479.2	[100]	µg/L	13:59:04
3	P 214.914†	2144.7	2168.6	[500]	µg/L	13:59:24
3	Pb 220.353†	1733.5	1620.1	[100]	µg/L	13:59:24
3	S 181.975 Axial†	335.2	234.0	[200]	µg/L	13:59:24
3	Sb 206.836†	869.2	793.6	[100]	µg/L	13:59:24
3	Se 196.026†	288.3	269.0	[100]	µg/L	13:59:24
3	SiO2†	12124.5	10462.6	[1069.5]	µg/L	13:59:04
3	Si 251.611†	33644.8	32932.9	[500]	µg/L	13:59:04
3	Sn 189.927†	1470.0	1464.9	[100]	µg/L	13:59:24
3	Ti 334.940†	96832.1	96160.9	[100]	µg/L	13:59:04
3	Tl 190.801†	594.0	710.5	[100]	µg/L	13:59:24
3	U 409.014†	1362.6	1776.9	[100]	µg/L	13:59:04
3	V 292.402†	20719.6	20269.6	[100]	µg/L	13:59:04
3	Zn 213.857†	18019.5	17440.2	[100]	µg/L	13:59:04

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1678073.5	11489.66	0.68%	99.161	%
Sc RADIAL	115068.4	826.39	0.72%	101	%
Y 371.029	945856.7	6204.61	0.66%	98.833	%
Ag 328.068†	24905.4	250.71	1.01%	[100]	µg/L
As 188.979†	289.1	2.89	1.00%	[100]	µg/L
B 249.677†	6751.4	119.37	1.77%	[100]	µg/L
Ba 233.527†	22738.7	48.10	0.21%	[100]	µg/L
Be 313.107†	351704.7	718.98	0.20%	[100]	µg/L
Cd 226.502†	15503.0	20.42	0.13%	[100]	µg/L
Co 228.616†	7847.8	23.82	0.30%	[100]	µg/L
Cr 267.716†	11637.5	40.19	0.35%	[100]	µg/L
Cu 324.752†	24408.7	158.60	0.65%	[100]	µg/L
K 766.490 Radial†	2600.2	41.39	1.59%	[1000]	µg/L
Mn 257.610†	80295.7	121.34	0.15%	[100]	µg/L
Mo 202.031†	2972.7	18.29	0.62%	[100]	µg/L
Ni 231.604†	8377.9	91.40	1.09%	[100]	µg/L
P 214.914†	2176.3	7.35	0.34%	[500]	µg/L
Pb 220.353†	1635.8	15.87	0.97%	[100]	µg/L
S 181.975 Axial†	233.5	1.67	0.72%	[200]	µg/L
Sb 206.836†	796.3	15.92	2.00%	[100]	µg/L
Se 196.026†	260.1	8.67	3.33%	[100]	µg/L
SiO2†	10446.7	16.63	0.16%	[1069.5]	µg/L
Si 251.611†	32910.4	45.29	0.14%	[500]	µg/L
Sn 189.927†	1463.0	7.34	0.50%	[100]	µg/L
Sr 421.552†	40257.9	167.00	0.41%	[100]	µg/L
Ti 334.940†	96006.7	160.89	0.17%	[100]	µg/L
Tl 190.801†	724.0	11.79	1.63%	[100]	µg/L
U 409.014†	1786.7	240.48	13.46%	[100]	µg/L
V 292.402†	20256.6	108.66	0.54%	[100]	µg/L
Zn 213.857†	17616.0	155.82	0.88%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 4/13/2010 13:59:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	113312.7	113312.7	99.1	%	14:00:04
1	Al 396.153Radial†	21478.4	21767.2	[5000]	µg/L	14:00:04
1	Ca 317.933Radial†	61609.5	61737.4	[5000]	µg/L	14:00:04
1	K 766.490 Radial†	13916.9	12639.7	[5000]	µg/L	14:00:04
1	Mg 279.077 IEC†	9455.7	9388.1	[5000]	µg/L	14:00:04
1	Sr 421.552†	193082.9	194982.0	[500]	µg/L	14:00:02
1	Sc 361.383	1682640.5	1682640.5	99.431	%	14:00:31
1	Y 371.029	940830.0	940830.0	98.307	%	14:00:31
1	Ag 328.068†	124557.5	120167.1	[500]	µg/L	14:00:31
1	As 188.979†	1423.2	1444.7	[500]	µg/L	14:00:51
1	B 249.677†	37136.1	33236.5	[500]	µg/L	14:00:31
1	Ba 233.527†	109569.2	110341.8	[500]	µg/L	14:00:31
1	Be 313.107†	1752248.6	1763264.1	[500]	µg/L	14:00:31
1	Cd 226.502†	75136.1	75630.5	[500]	µg/L	14:00:31
1	Co 228.616†	37848.6	38292.1	[500]	µg/L	14:00:31
1	Cr 267.716†	56766.7	56761.8	[500]	µg/L	14:00:31
1	Cu 324.752†	122552.8	120012.6	[500]	µg/L	14:00:31
1	Mn 257.610†	381154.0	383119.0	[500]	µg/L	14:00:31
1	Mo 202.031†	14608.3	14713.5	[500]	µg/L	14:00:51
1	Ni 231.604†	39990.8	40293.5	[500]	µg/L	14:00:31
1	P 214.914†	10778.1	10859.0	[2500]	µg/L	14:00:51
1	Pb 220.353†	8037.0	7965.8	[500]	µg/L	14:00:51
1	S 181.975 Axial†	1254.8	1160.1	[1000]	µg/L	14:00:51
1	Sb 206.836†	3937.2	3882.2	[500]	µg/L	14:00:51
1	Se 196.026†	1285.1	1272.5	[500]	µg/L	14:00:51
1	SiO2†	52983.6	51597.8	[5347.5]	µg/L	14:00:31
1	Si 251.611†	163127.4	163274.0	[2500]	µg/L	14:00:31
1	Sn 189.927†	7126.0	7158.4	[500]	µg/L	14:00:51
1	Ti 334.940†	474216.5	476043.0	[500]	µg/L	14:00:31
1	Tl 190.801†	3404.2	3538.9	[500]	µg/L	14:00:51
1	U 409.014†	6934.6	7385.5	[500]	µg/L	14:00:31
1	V 292.402†	99950.1	100025.9	[500]	µg/L	14:00:31
1	Zn 213.857†	86546.3	86422.0	[500]	µg/L	14:00:31
2	Sc RADIAL	113273.4	113273.4	99.0	%	14:00:08
2	Al 396.153Radial†	21386.1	21681.6	[5000]	µg/L	14:00:08
2	Ca 317.933Radial†	61198.7	61344.2	[5000]	µg/L	14:00:08
2	K 766.490 Radial†	13915.4	12643.1	[5000]	µg/L	14:00:08
2	Mg 279.077 IEC†	9306.8	9241.0	[5000]	µg/L	14:00:08
2	Sr 421.552†	195960.0	197955.1	[500]	µg/L	14:00:06
2	Sc 361.383	1675433.5	1675433.5	99.005	%	14:00:54
2	Y 371.029	936252.4	936252.4	97.829	%	14:00:54
2	Ag 328.068†	124128.4	120272.4	[500]	µg/L	14:00:54
2	As 188.979†	1427.9	1455.6	[500]	µg/L	14:01:14
2	B 249.677†	37314.9	33577.9	[500]	µg/L	14:00:54
2	Ba 233.527†	109487.2	110733.0	[500]	µg/L	14:00:54
2	Be 313.107†	1745681.0	1764211.1	[500]	µg/L	14:00:54
2	Cd 226.502†	74829.2	75645.6	[500]	µg/L	14:00:54
2	Co 228.616†	37636.5	38241.7	[500]	µg/L	14:00:54
2	Cr 267.716†	56528.9	56767.1	[500]	µg/L	14:00:54
2	Cu 324.752†	121959.0	119943.0	[500]	µg/L	14:00:54
2	Mn 257.610†	379591.3	383189.4	[500]	µg/L	14:00:54
2	Mo 202.031†	14759.8	14929.7	[500]	µg/L	14:01:14
2	Ni 231.604†	39870.3	40344.7	[500]	µg/L	14:00:54
2	P 214.914†	10917.2	11046.1	[2500]	µg/L	14:01:14
2	Pb 220.353†	8142.4	8107.0	[500]	µg/L	14:01:14
2	S 181.975 Axial†	1271.8	1182.6	[1000]	µg/L	14:01:14
2	Sb 206.836†	3982.4	3944.8	[500]	µg/L	14:01:14
2	Se 196.026†	1314.2	1307.4	[500]	µg/L	14:01:14
2	SiO2†	52951.0	51794.1	[5347.5]	µg/L	14:00:54

2	Si 251.611†	163146.3	163998.8	[2500]	µg/L	14:00:54
2	Sn 189.927†	7224.3	7288.5	[500]	µg/L	14:01:14
2	Ti 334.940†	471991.2	475846.9	[500]	µg/L	14:00:54
2	Tl 190.801†	3433.8	3583.5	[500]	µg/L	14:01:14
2	U 409.014†	7090.3	7572.7	[500]	µg/L	14:00:54
2	V 292.402†	99867.3	100374.6	[500]	µg/L	14:00:54
2	Zn 213.857†	86594.2	86844.9	[500]	µg/L	14:00:54
3	Sc RADIAL	114467.9	114467.9	100	%	14:00:12
3	Al 396.153Radial†	21684.8	21754.6	[5000]	µg/L	14:00:12
3	Ca 317.933Radial†	61887.3	61387.4	[5000]	µg/L	14:00:12
3	K 766.490 Radial†	13951.7	12532.7	[5000]	µg/L	14:00:12
3	Mg 279.077 IEC†	9385.5	9221.6	[5000]	µg/L	14:00:12
3	Sr 421.552†	196872.3	196801.7	[500]	µg/L	14:00:10
3	Sc 361.383	1678505.5	1678505.5	99.187	%	14:01:17
3	Y 371.029	938771.8	938771.8	98.092	%	14:01:17
3	Ag 328.068†	124457.9	120375.2	[500]	µg/L	14:01:17
3	As 188.979†	1426.5	1451.6	[500]	µg/L	14:01:37
3	B 249.677†	37334.9	33529.0	[500]	µg/L	14:01:17
3	Ba 233.527†	109657.9	110702.7	[500]	µg/L	14:01:17
3	Be 313.107†	1753559.4	1768927.0	[500]	µg/L	14:01:17
3	Cd 226.502†	75192.1	75873.1	[500]	µg/L	14:01:17
3	Co 228.616†	37823.5	38360.6	[500]	µg/L	14:01:17
3	Cr 267.716†	56711.6	56846.9	[500]	µg/L	14:01:17
3	Cu 324.752†	122644.2	120408.3	[500]	µg/L	14:01:17
3	Mn 257.610†	381725.4	384639.3	[500]	µg/L	14:01:17
3	Mo 202.031†	14814.5	14957.6	[500]	µg/L	14:01:37
3	Ni 231.604†	40081.7	40484.2	[500]	µg/L	14:01:17
3	P 214.914†	10959.6	11068.6	[2500]	µg/L	14:01:37
3	Pb 220.353†	8165.6	8115.3	[500]	µg/L	14:01:37
3	S 181.975 Axial†	1266.2	1174.7	[1000]	µg/L	14:01:37
3	Sb 206.836†	4002.3	3957.6	[500]	µg/L	14:01:37
3	Se 196.026†	1319.2	1310.0	[500]	µg/L	14:01:37
3	SiO2†	53297.9	52046.0	[5347.5]	µg/L	14:01:17
3	Si 251.611†	163951.7	164509.2	[2500]	µg/L	14:01:17
3	Sn 189.927†	7245.9	7296.9	[500]	µg/L	14:01:37
3	Ti 334.940†	474632.8	477637.6	[500]	µg/L	14:01:17
3	Tl 190.801†	3427.0	3570.4	[500]	µg/L	14:01:37
3	U 409.014†	7331.9	7803.3	[500]	µg/L	14:01:17
3	V 292.402†	100178.9	100504.2	[500]	µg/L	14:01:17
3	Zn 213.857†	86822.2	86914.6	[500]	µg/L	14:01:17

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1678859.8	3616.52	0.22%	99.208	%
Sc RADIAL	113684.6	678.57	0.60%	99.4	%
Y 371.029	938618.1	2292.64	0.24%	98.076	%
Ag 328.068†	120271.5	104.06	0.09%	[500]	µg/L
Al 396.153Radial†	21734.5	46.26	0.21%	[5000]	µg/L
As 188.979†	1450.7	5.52	0.38%	[500]	µg/L
B 249.677†	33447.8	184.58	0.55%	[500]	µg/L
Ba 233.527†	110592.5	217.65	0.20%	[500]	µg/L
Be 313.107†	1765467.4	3033.28	0.17%	[500]	µg/L
Ca 317.933Radial†	61489.7	215.62	0.35%	[5000]	µg/L
Cd 226.502†	75716.4	135.93	0.18%	[500]	µg/L
Co 228.616†	38298.2	59.70	0.16%	[500]	µg/L
Cr 267.716†	56792.0	47.66	0.08%	[500]	µg/L
Cu 324.752†	120121.3	251.00	0.21%	[500]	µg/L
K 766.490 Radial†	12605.1	62.79	0.50%	[5000]	µg/L
Mg 279.077 IEC†	9283.6	91.05	0.98%	[5000]	µg/L
Mn 257.610†	383649.2	858.14	0.22%	[500]	µg/L
Mo 202.031†	14866.9	133.60	0.90%	[500]	µg/L
Ni 231.604†	40374.1	98.68	0.24%	[500]	µg/L
P 214.914†	10991.2	115.10	1.05%	[2500]	µg/L
Pb 220.353†	8062.7	84.03	1.04%	[500]	µg/L
S 181.975 Axial†	1172.5	11.44	0.98%	[1000]	µg/L
Sb 206.836†	3928.2	40.35	1.03%	[500]	µg/L
Se 196.026†	1296.6	20.96	1.62%	[500]	µg/L
SiO2†	51812.6	224.66	0.43%	[5347.5]	µg/L
Si 251.611†	163927.3	620.73	0.38%	[2500]	µg/L

Sn 189.927†	7247.9	77.66	1.07%	[500] µg/L
Sr 421.552†	196579.6	1498.94	0.76%	[500] µg/L
Ti 334.940†	476509.2	982.14	0.21%	[500] µg/L
Tl 190.801†	3564.3	22.94	0.64%	[500] µg/L
U 409.014†	7587.2	209.27	2.76%	[500] µg/L
V 292.402†	100301.5	247.37	0.25%	[500] µg/L
Zn 213.857†	86727.2	266.57	0.31%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 4/13/2010 14:01:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	114834.2	114834.2	100	%	14:02:16
1	Al 396.153Radial†	43192.0	43109.1	[10000]	µg/L	14:02:16
1	Ca 317.933Radial†	123466.7	122530.3	[10000]	µg/L	14:02:16
1	Fe 238.204 Radial†	118908.2	118321.9	[10000]	µg/L	14:02:16
1	K 766.490 Radial†	26527.9	25015.6	[10000]	µg/L	14:02:16
1	Mg 279.077 IEC†	18679.8	18449.9	[10000]	µg/L	14:02:16
1	Na 589.592 Radial†	63912.5	62828.9	[10000]	µg/L	14:02:16
1	Sr 421.552†	390369.6	388919.6	[1000]	µg/L	14:02:14
1	Sc 361.383	1667730.2	1667730.2	98.550	%	14:02:43
1	Y 371.029	928107.5	928107.5	96.978	%	14:02:43
1	Ag 328.068†	244379.5	242871.8	[1000]	µg/L	14:02:45
1	As 188.979†	2863.0	2918.5	[1000]	µg/L	14:03:05
1	B 249.677†	70534.4	67460.1	[1000]	µg/L	14:02:45
1	Ba 233.527†	217804.1	221154.3	[1000]	µg/L	14:02:45
1	Be 313.107†	3473218.5	3525308.1	[1000]	µg/L	14:02:43
1	Cd 226.502†	149111.1	151369.4	[1000]	µg/L	14:02:45
1	Co 228.616†	74990.8	76321.1	[1000]	µg/L	14:02:45
1	Cr 267.716†	112900.0	114231.3	[1000]	µg/L	14:02:45
1	Cu 324.752†	241770.1	242085.7	[1000]	µg/L	14:02:45
1	Mn 257.610†	754879.3	765769.5	[1000]	µg/L	14:02:45
1	Mo 202.031†	29200.7	29651.9	[1000]	µg/L	14:03:05
1	Ni 231.604†	79120.1	80358.1	[1000]	µg/L	14:02:45
1	P 214.914†	21724.9	22063.7	[5000]	µg/L	14:03:05
1	Pb 220.353†	15920.8	16037.8	[1000]	µg/L	14:03:05
1	S 181.975 Axial†	2437.8	2371.7	[2000]	µg/L	14:03:05
1	Sb 206.836†	7823.2	7860.7	[1000]	µg/L	14:03:05
1	Se 196.026†	2601.2	2619.5	[1000]	µg/L	14:03:05
1	SiO2†	103588.9	103424.0	[10695]	µg/L	14:02:45
1	Si 251.611†	323493.7	327466.3	[5000]	µg/L	14:02:45
1	Sn 189.927†	14228.2	14429.1	[1000]	µg/L	14:03:05
1	Ti 334.940†	939664.2	952602.2	[1000]	µg/L	14:02:43
1	Tl 190.801†	6919.0	7136.0	[1000]	µg/L	14:03:05
1	U 409.014†	16041.0	16688.3	[1000]	µg/L	14:02:45
1	V 292.402†	200113.4	202561.4	[1000]	µg/L	14:02:45
1	Zn 213.857†	171446.6	173349.5	[1000]	µg/L	14:02:45
2	Sc RADIAL	115211.8	115211.8	101	%	14:02:20
2	Al 396.153Radial†	43071.5	42848.6	[10000]	µg/L	14:02:20
2	Ca 317.933Radial†	123899.3	122556.7	[10000]	µg/L	14:02:20
2	Fe 238.204 Radial†	118997.4	118022.3	[10000]	µg/L	14:02:20
2	K 766.490 Radial†	26508.9	24910.1	[10000]	µg/L	14:02:20
2	Mg 279.077 IEC†	18832.1	18540.1	[10000]	µg/L	14:02:20
2	Na 589.592 Radial†	63795.8	62504.4	[10000]	µg/L	14:02:20
2	Sr 421.552†	388119.6	385411.3	[1000]	µg/L	14:02:18
2	Sc 361.383	1697269.8	1697269.8	100.30	%	14:03:08
2	Y 371.029	943343.3	943343.3	98.570	%	14:03:08
2	Ag 328.068†	247249.1	241417.1	[1000]	µg/L	14:03:10
2	As 188.979†	2848.8	2853.8	[1000]	µg/L	14:03:30
2	B 249.677†	71633.5	67310.4	[1000]	µg/L	14:03:10
2	Ba 233.527†	219971.1	219468.4	[1000]	µg/L	14:03:10
2	Be 313.107†	3539239.2	3529796.4	[1000]	µg/L	14:03:08
2	Cd 226.502†	150771.2	150391.3	[1000]	µg/L	14:03:10
2	Co 228.616†	75690.7	75694.6	[1000]	µg/L	14:03:10
2	Cr 267.716†	113953.4	113287.8	[1000]	µg/L	14:03:10
2	Cu 324.752†	244569.6	240607.2	[1000]	µg/L	14:03:10
2	Mn 257.610†	762356.7	759893.6	[1000]	µg/L	14:03:10
2	Mo 202.031†	29156.4	29092.1	[1000]	µg/L	14:03:30
2	Ni 231.604†	79920.1	79758.4	[1000]	µg/L	14:03:10
2	P 214.914†	21661.3	21616.6	[5000]	µg/L	14:03:30
2	Pb 220.353†	15908.6	15744.5	[1000]	µg/L	14:03:30

2	S 181.975 Axial†	2422.7	2313.6	[2000]	µg/L	14:03:30
2	Sb 206.836†	7816.3	7715.7	[1000]	µg/L	14:03:30
2	Se 196.026†	2569.9	2542.3	[1000]	µg/L	14:03:30
2	SiO2†	105093.2	103094.5	[10695]	µg/L	14:03:10
2	Si 251.611†	327910.7	326157.4	[5000]	µg/L	14:03:10
2	Sn 189.927†	14249.2	14198.8	[1000]	µg/L	14:03:30
2	Ti 334.940†	955746.6	952042.6	[1000]	µg/L	14:03:08
2	Tl 190.801†	6944.7	7039.5	[1000]	µg/L	14:03:30
2	U 409.014†	16268.4	16631.7	[1000]	µg/L	14:03:10
2	V 292.402†	202015.2	200923.5	[1000]	µg/L	14:03:10
2	Zn 213.857†	173209.0	172079.0	[1000]	µg/L	14:03:10
3	Sc RADIAL	113957.9	113957.9	99.6	%	14:02:25
3	Al 396.153Radial†	42520.9	42766.4	[10000]	µg/L	14:02:25
3	Ca 317.933Radial†	121747.8	121750.6	[10000]	µg/L	14:02:25
3	Fe 238.204 Radial†	117098.8	117416.5	[10000]	µg/L	14:02:25
3	K 766.490 Radial†	26132.1	24821.5	[10000]	µg/L	14:02:25
3	Mg 279.077 IEC†	18381.6	18293.7	[10000]	µg/L	14:02:25
3	Na 589.592 Radial†	62818.0	62219.8	[10000]	µg/L	14:02:25
3	Sr 421.552†	388706.1	390240.0	[1000]	µg/L	14:02:22
3	Sc 361.383	1677848.1	1677848.1	99.148	%	14:03:32
3	Y 371.029	933166.9	933166.9	97.507	%	14:03:32
3	Ag 328.068†	246276.8	243290.0	[1000]	µg/L	14:03:35
3	As 188.979†	2843.5	2881.4	[1000]	µg/L	14:03:55
3	B 249.677†	71177.6	67677.3	[1000]	µg/L	14:03:35
3	Ba 233.527†	219681.3	221714.8	[1000]	µg/L	14:03:35
3	Be 313.107†	3510497.3	3541654.7	[1000]	µg/L	14:03:32
3	Cd 226.502†	150345.4	151701.8	[1000]	µg/L	14:03:35
3	Co 228.616†	75675.0	76552.3	[1000]	µg/L	14:03:35
3	Cr 267.716†	113544.7	114190.7	[1000]	µg/L	14:03:35
3	Cu 324.752†	244032.2	242887.9	[1000]	µg/L	14:03:35
3	Mn 257.610†	760280.3	766597.9	[1000]	µg/L	14:03:35
3	Mo 202.031†	29145.7	29417.8	[1000]	µg/L	14:03:55
3	Ni 231.604†	80008.0	80769.5	[1000]	µg/L	14:03:35
3	P 214.914†	21689.6	21895.2	[5000]	µg/L	14:03:55
3	Pb 220.353†	15950.0	15969.8	[1000]	µg/L	14:03:55
3	S 181.975 Axial†	2451.9	2371.0	[2000]	µg/L	14:03:55
3	Sb 206.836†	7791.6	7781.1	[1000]	µg/L	14:03:55
3	Se 196.026†	2588.0	2590.2	[1000]	µg/L	14:03:55
3	SiO2†	104932.5	104145.3	[10695]	µg/L	14:03:35
3	Si 251.611†	327564.2	329592.4	[5000]	µg/L	14:03:35
3	Sn 189.927†	14229.7	14343.6	[1000]	µg/L	14:03:55
3	Ti 334.940†	948984.7	956253.1	[1000]	µg/L	14:03:32
3	Tl 190.801†	6907.2	7081.8	[1000]	µg/L	14:03:55
3	U 409.014†	16373.1	16925.1	[1000]	µg/L	14:03:35
3	V 292.402†	201146.7	202379.1	[1000]	µg/L	14:03:35
3	Zn 213.857†	172995.9	173863.1	[1000]	µg/L	14:03:35

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1680949.4	15011.98	0.89%	99.331	%
Sc RADIAL	114668.0	643.26	0.56%	100	%
Y 371.029	934872.6	7759.83	0.83%	97.685	%
Ag 328.068†	242526.3	983.06	0.41%	[1000]	µg/L
Al 396.153Radial†	42908.0	178.94	0.42%	[10000]	µg/L
As 188.979†	2884.6	32.48	1.13%	[1000]	µg/L
B 249.677†	67482.6	184.46	0.27%	[1000]	µg/L
Ba 233.527†	220779.2	1169.24	0.53%	[1000]	µg/L
Be 313.107†	3532253.1	8445.67	0.24%	[1000]	µg/L
Ca 317.933Radial†	122279.2	457.93	0.37%	[10000]	µg/L
Cd 226.502†	151154.2	681.27	0.45%	[1000]	µg/L
Co 228.616†	76189.3	443.74	0.58%	[1000]	µg/L
Cr 267.716†	113903.3	533.40	0.47%	[1000]	µg/L
Cu 324.752†	241860.3	1156.93	0.48%	[1000]	µg/L
Fe 238.204 Radial†	117920.2	461.25	0.39%	[10000]	µg/L
K 766.490 Radial†	24915.7	97.19	0.39%	[10000]	µg/L
Mg 279.077 IEC†	18427.9	124.69	0.68%	[10000]	µg/L
Mn 257.610†	764087.0	3655.15	0.48%	[1000]	µg/L
Mo 202.031†	29387.3	281.18	0.96%	[1000]	µg/L
Na 589.592 Radial†	62517.7	304.76	0.49%	[10000]	µg/L

Ni 231.604†	80295.3	508.46	0.63%	[1000]	µg/L
P 214.914†	21858.5	225.78	1.03%	[5000]	µg/L
Pb 220.353†	15917.4	153.49	0.96%	[1000]	µg/L
S 181.975 Axial†	2352.1	33.35	1.42%	[2000]	µg/L
Sb 206.836†	7785.8	72.62	0.93%	[1000]	µg/L
Se 196.026†	2584.0	38.96	1.51%	[1000]	µg/L
SiO2†	103554.6	537.46	0.52%	[10695]	µg/L
Si 251.611†	327738.7	1733.61	0.53%	[5000]	µg/L
Sn 189.927†	14323.8	116.43	0.81%	[1000]	µg/L
Sr 421.552†	388190.3	2495.56	0.64%	[1000]	µg/L
Ti 334.940†	953632.6	2286.56	0.24%	[1000]	µg/L
Tl 190.801†	7085.8	48.40	0.68%	[1000]	µg/L
U 409.014†	16748.3	155.65	0.93%	[1000]	µg/L
V 292.402†	201954.7	897.63	0.44%	[1000]	µg/L
Zn 213.857†	173097.2	918.45	0.53%	[1000]	µg/L

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S10 **Date Collected: 4/13/2010 14:04:02**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	111326.0	111326.0	97.3	%	14:04:31
1	Al 396.153Radial†	205248.7	210979.2	[50000]	µg/L	14:04:31
1	Ca 317.933Radial†	590258.0	606036.7	[50000]	µg/L	14:04:31
1	Fe 238.204 Radial†	227697.9	233836.5	[20000]	µg/L	14:04:31
1	Mg 279.077 IEC†	87919.7	90180.7	[50000]	µg/L	14:04:31
1	Na 589.592 Radial†	122439.7	124972.2	[20000]	µg/L	14:04:31
1	Sc 361.383	1627528.8	1627528.8	96.175	%	14:04:53
1	Y 371.029	906736.0	906736.0	94.745	%	14:04:53
2	Sc RADIAL	110554.8	110554.8	96.6	%	14:04:33
2	Al 396.153Radial†	205614.2	212828.4	[50000]	µg/L	14:04:33
2	Ca 317.933Radial†	589278.4	609253.6	[50000]	µg/L	14:04:33
2	Fe 238.204 Radial†	227105.1	234855.2	[20000]	µg/L	14:04:33
2	Mg 279.077 IEC†	87634.1	90515.3	[50000]	µg/L	14:04:33
2	Na 589.592 Radial†	122793.8	126216.1	[20000]	µg/L	14:04:33
2	Sc 361.383	1632835.1	1632835.1	96.488	%	14:04:56
2	Y 371.029	909755.9	909755.9	95.060	%	14:04:56
3	Sc RADIAL	112055.6	112055.6	98.0	%	14:04:35
3	Al 396.153Radial†	207380.3	211781.8	[50000]	µg/L	14:04:35
3	Ca 317.933Radial†	593806.8	605710.0	[50000]	µg/L	14:04:35
3	Fe 238.204 Radial†	228996.4	233638.6	[20000]	µg/L	14:04:35
3	Mg 279.077 IEC†	88565.6	90251.7	[50000]	µg/L	14:04:35
3	Na 589.592 Radial†	123354.3	125086.6	[20000]	µg/L	14:04:35
3	Sc 361.383	1631104.2	1631104.2	96.386	%	14:04:59
3	Y 371.029	908829.1	908829.1	94.964	%	14:04:59

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1630489.4	2706.03	0.17%	96.349	%
Sc RADIAL	111312.1	750.51	0.67%	97.3	%
Y 371.029	908440.3	1547.02	0.17%	94.923	%
Al 396.153Radial†	211863.1	927.26	0.44%	[50000]	µg/L
Ca 317.933Radial†	607000.1	1958.42	0.32%	[50000]	µg/L
Fe 238.204 Radial†	234110.1	652.83	0.28%	[20000]	µg/L
Mg 279.077 IEC†	90315.9	176.28	0.20%	[50000]	µg/L
Na 589.592 Radial†	125425.0	687.53	0.55%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	242.2	0.00000	0.999991	
Al 396.153Radial	3	Lin Thru 0	0.0	4.240	0.00000	0.999994	
As 188.979	3	Lin Thru 0	0.0	2.888	0.00000	0.999997	
B 249.677	3	Lin Thru 0	0.0	67.37	0.00000	0.999994	
Ba 233.527	3	Lin Thru 0	0.0	220.9	0.00000	0.999996	
Be 313.107	3	Lin Thru 0	0.0	3532	0.00000	1.000000	
Ca 317.933Radial	3	Lin Thru 0	0.0	12.14	0.00000	0.999998	
Cd 226.502	3	Lin Thru 0	0.0	151.2	0.00000	0.999997	
Co 228.616	3	Lin Thru 0	0.0	76.29	0.00000	0.999994	
Cr 267.716	3	Lin Thru 0	0.0	113.9	0.00000	0.999997	
Cu 324.752	3	Lin Thru 0	0.0	241.6	0.00000	0.999996	
Fe 238.204 Radia	2	Lin Thru 0	0.0	11.72	0.00000	0.999996	
K 766.490 Radial	3	Lin Thru 0	0.0	2.498	0.00000	0.999982	
Mg 279.077 IEC	3	Lin Thru 0	0.0	1.808	0.00000	0.999989	
Mn 257.610	3	Lin Thru 0	0.0	765.0	0.00000	0.999989	
Mo 202.031	3	Lin Thru 0	0.0	29.46	0.00000	0.999989	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.267	0.00000	0.999999	

Ni 231.604	3	Lin Thru 0	0.0	80.41	0.00000	0.999990
P 214.914	3	Lin Thru 0	0.0	4.376	0.00000	0.999997
Pb 220.353	3	Lin Thru 0	0.0	15.96	0.00000	0.999984
S 181.975 Axial	3	Lin Thru 0	0.0	1.175	0.00000	0.999999
Sb 206.836	3	Lin Thru 0	0.0	7.801	0.00000	0.999992
Se 196.026	3	Lin Thru 0	0.0	2.586	0.00000	0.999999
SiO2	3	Lin Thru 0	0.0	9.685	0.00000	1.000000
Si 251.611	3	Lin Thru 0	0.0	65.55	0.00000	1.000000
Sn 189.927	3	Lin Thru 0	0.0	14.36	0.00000	0.999987
Sr 421.552	3	Lin Thru 0	0.0	389.3	0.00000	0.999982
Ti 334.940	3	Lin Thru 0	0.0	953.6	0.00000	1.000000
Tl 190.801	3	Lin Thru 0	0.0	7.095	0.00000	0.999995
U 409.014	3	Lin Thru 0	0.0	16.44	0.00000	0.999244
V 292.402	3	Lin Thru 0	0.0	201.7	0.00000	0.999996
Zn 213.857	3	Lin Thru 0	0.0	173.2	0.00000	0.999998

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 4/13/2010 14:05:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114679.5	114679.5	100	%			14:05:38
1	Al 396.153Radial†	22571.7	22599.3	5304.0	µg/L	5304.0	ppb	14:05:38
1	Ca 317.933Radial†	63687.7	63069.1	5193.1	µg/L	5193.1	ppb	14:05:38
1	Fe 238.204 Radial†	60965.6	60686.4	5176.8	µg/L	5176.8	ppb	14:05:38
1	K 766.490 Radial†	8120.2	6690.3	2675.0	µg/L	2675.0	ppb	14:05:38
1	Mg 279.077 IEC†	9930.8	9748.2	5400.2	µg/L	5400.2	ppb	14:05:38
1	Na 589.592 Radial†	16770.8	15892.9	2533.4	µg/L	2533.4	ppb	14:05:38
1	Sr 421.552†	213677.5	213201.3	547.63	µg/L	547.63	ppb	14:05:36
1	Sc 361.383	1688876.0	1688876.0	99.800	%			14:06:05
1	Y 371.029	946580.4	946580.4	98.908	%			14:06:05
1	Ag 328.068†	67855.6	62888.8	266.10	µg/L	266.10	ppb	14:06:05
1	As 188.979†	1375.4	1391.6	489.41	µg/L	489.41	ppb	14:06:25
1	B 249.677†	40096.8	36065.3	533.51	µg/L	533.51	ppb	14:06:05
1	Ba 233.527†	114762.7	115138.8	521.63	µg/L	521.63	ppb	14:06:05
1	Be 313.107†	932024.2	934887.1	264.84	µg/L	264.84	ppb	14:06:05
1	Cd 226.502†	77949.4	78170.4	516.56	µg/L	516.56	ppb	14:06:05
1	Co 228.616†	40261.9	40569.7	532.13	µg/L	532.13	ppb	14:06:05
1	Cr 267.716†	57854.0	57640.5	506.11	µg/L	506.11	ppb	14:06:05
1	Cu 324.752†	129322.9	126341.2	524.63	µg/L	524.63	ppb	14:06:05
1	Mn 257.610†	400247.6	400835.6	523.72	µg/L	523.72	ppb	14:06:05
1	Mo 202.031†	16189.4	16243.5	551.88	µg/L	551.88	ppb	14:06:25
1	Ni 231.604†	40843.7	40999.6	509.86	µg/L	509.86	ppb	14:06:05
1	P 214.914†	11171.5	11213.1	2553.0	µg/L	2553.0	ppb	14:06:25
1	Pb 220.353†	8354.8	8254.3	518.94	µg/L	518.94	ppb	14:06:25
1	S 181.975 Axial†	3060.5	2964.7	2527.2	µg/L	2527.2	ppb	14:06:25
1	Sb 206.836†	4037.3	3967.9	510.49	µg/L	510.49	ppb	14:06:25
1	Se 196.026†	6624.7	6618.0	2560	µg/L	2560	ppb	14:06:25
1	SiO2†	103682.7	102201.9	10530	µg/L	10530	ppb	14:06:05
1	Si 251.611†	322867.9	322729.4	4912.1	µg/L	4912.1	ppb	14:06:05
1	Sn 189.927†	7746.8	7754.0	541.65	µg/L	541.65	ppb	14:06:25
1	Ti 334.940†	480246.9	480324.6	503.05	µg/L	503.05	ppb	14:06:05
1	Tl 190.801†	3708.5	3831.2	547.46	µg/L	547.46	ppb	14:06:25
1	U 409.014†	7137.8	7563.4	491.28	µg/L	491.28	ppb	14:06:05
1	V 292.402†	103677.1	103389.1	519.79	µg/L	519.79	ppb	14:06:05
1	Zn 213.857†	90749.6	90312.4	517.37	µg/L	517.37	ppb	14:06:05
2	Sc RADIAL	114636.8	114636.8	100	%			14:05:42
2	Al 396.153Radial†	22462.2	22498.4	5280.2	µg/L	5280.2	ppb	14:05:42
2	Ca 317.933Radial†	63786.8	63191.7	5203.2	µg/L	5203.2	ppb	14:05:42
2	Fe 238.204 Radial†	61338.3	61080.9	5210.4	µg/L	5210.4	ppb	14:05:42
2	K 766.490 Radial†	7948.7	6522.2	2607.7	µg/L	2607.7	ppb	14:05:42
2	Mg 279.077 IEC†	10015.9	9836.8	5449.2	µg/L	5449.2	ppb	14:05:42
2	Na 589.592 Radial†	17084.5	16212.2	2584.4	µg/L	2584.4	ppb	14:05:42
2	Sr 421.552†	211595.0	211202.6	542.49	µg/L	542.49	ppb	14:05:40
2	Sc 361.383	1686369.4	1686369.4	99.652	%			14:06:28
2	Y 371.029	945099.5	945099.5	98.753	%			14:06:28
2	Ag 328.068†	68737.2	63874.5	270.15	µg/L	270.15	ppb	14:06:28
2	As 188.979†	1366.7	1384.9	487.07	µg/L	487.07	ppb	14:06:48
2	B 249.677†	40112.6	36141.0	534.63	µg/L	534.63	ppb	14:06:28
2	Ba 233.527†	114539.2	115085.6	521.39	µg/L	521.39	ppb	14:06:28
2	Be 313.107†	931472.8	935721.9	265.07	µg/L	265.07	ppb	14:06:28
2	Cd 226.502†	77546.0	77881.7	514.65	µg/L	514.65	ppb	14:06:28
2	Co 228.616†	40235.3	40603.0	532.57	µg/L	532.57	ppb	14:06:28
2	Cr 267.716†	57690.5	57562.5	505.42	µg/L	505.42	ppb	14:06:28
2	Cu 324.752†	129289.7	126500.4	525.29	µg/L	525.29	ppb	14:06:28
2	Mn 257.610†	399527.2	400708.7	523.55	µg/L	523.55	ppb	14:06:28
2	Mo 202.031†	16173.8	16252.0	552.17	µg/L	552.17	ppb	14:06:48
2	Ni 231.604†	40988.7	41205.9	512.43	µg/L	512.43	ppb	14:06:28
2	P 214.914†	11159.0	11217.2	2553.9	µg/L	2553.9	ppb	14:06:48
2	Pb 220.353†	8355.7	8267.7	519.78	µg/L	519.78	ppb	14:06:48

2	S 181.975 Axial†	3046.5	2955.2	2519.1 µg/L	2519.1 ppb	14:06:48
2	Sb 206.836†	4038.6	3975.2	511.43 µg/L	511.43 ppb	14:06:48
2	Se 196.026†	6613.8	6617.0	2560 µg/L	2560 ppb	14:06:48
2	SiO2†	103340.4	102012.9	10510 µg/L	10510 ppb	14:06:28
2	Si 251.611†	322880.2	323222.6	4919.7 µg/L	4919.7 ppb	14:06:28
2	Sn 189.927†	7743.2	7761.9	542.20 µg/L	542.20 ppb	14:06:48
2	Ti 334.940†	479937.5	480729.5	503.48 µg/L	503.48 ppb	14:06:28
2	Tl 190.801†	3722.2	3850.4	550.17 µg/L	550.17 ppb	14:06:48
2	U 409.014†	7060.5	7496.5	487.11 µg/L	487.11 ppb	14:06:28
2	V 292.402†	103192.9	103057.7	518.14 µg/L	518.14 ppb	14:06:28
2	Zn 213.857†	90838.9	90537.1	518.65 µg/L	518.65 ppb	14:06:28
3	Sc RADIAL	114430.7	114430.7	100 %		14:05:46
3	Al 396.153Radial†	22424.7	22501.3	5280.7 µg/L	5280.7 ppb	14:05:46
3	Ca 317.933Radial†	63949.3	63468.7	5226.0 µg/L	5226.0 ppb	14:05:46
3	Fe 238.204 Radial†	61429.3	61282.2	5227.6 µg/L	5227.6 ppb	14:05:46
3	K 766.490 Radial†	8032.3	6620.1	2646.8 µg/L	2646.8 ppb	14:05:46
3	Mg 279.077 IEC†	9978.9	9817.9	5438.8 µg/L	5438.8 ppb	14:05:46
3	Na 589.592 Radial†	17114.3	16272.6	2594.1 µg/L	2594.1 ppb	14:05:46
3	Sr 421.552†	214292.0	214278.9	550.39 µg/L	550.39 ppb	14:05:44
3	Sc 361.383	1674918.8	1674918.8	98.975 %		14:06:51
3	Y 371.029	939425.7	939425.7	98.161 %		14:06:51
3	Ag 328.068†	67277.9	62871.7	265.99 µg/L	265.99 ppb	14:06:51
3	As 188.979†	1367.5	1395.1	490.63 µg/L	490.63 ppb	14:07:11
3	B 249.677†	39754.0	36053.8	533.34 µg/L	533.34 ppb	14:06:51
3	Ba 233.527†	113771.7	115095.9	521.44 µg/L	521.44 ppb	14:06:51
3	Be 313.107†	923054.0	933606.2	264.48 µg/L	264.48 ppb	14:06:51
3	Cd 226.502†	77072.1	77934.9	515.00 µg/L	515.00 ppb	14:06:51
3	Co 228.616†	39880.0	40520.0	531.48 µg/L	531.48 ppb	14:06:51
3	Cr 267.716†	57292.2	57555.9	505.37 µg/L	505.37 ppb	14:06:51
3	Cu 324.752†	128101.8	126187.2	524.00 µg/L	524.00 ppb	14:06:51
3	Mn 257.610†	395412.4	399292.2	521.70 µg/L	521.70 ppb	14:06:51
3	Mo 202.031†	16159.2	16348.2	555.43 µg/L	555.43 ppb	14:07:11
3	Ni 231.604†	40472.1	40965.2	509.44 µg/L	509.44 ppb	14:06:51
3	P 214.914†	11108.8	11243.1	2559.8 µg/L	2559.8 ppb	14:07:11
3	Pb 220.353†	8339.6	8308.7	522.36 µg/L	522.36 ppb	14:07:11
3	S 181.975 Axial†	3051.0	2980.7	2540.8 µg/L	2540.8 ppb	14:07:11
3	Sb 206.836†	4026.5	3990.7	513.47 µg/L	513.47 ppb	14:07:11
3	Se 196.026†	6591.2	6639.5	2570 µg/L	2570 ppb	14:07:11
3	SiO2†	102622.4	101996.4	10508 µg/L	10508 ppb	14:06:51
3	Si 251.611†	320030.8	322558.8	4909.5 µg/L	4909.5 ppb	14:06:51
3	Sn 189.927†	7712.8	7784.2	543.76 µg/L	543.76 ppb	14:07:11
3	Ti 334.940†	475445.5	479483.5	502.17 µg/L	502.17 ppb	14:06:51
3	Tl 190.801†	3705.9	3859.5	551.42 µg/L	551.42 ppb	14:07:11
3	U 409.014†	7019.8	7503.7	487.47 µg/L	487.47 ppb	14:06:51
3	V 292.402†	102240.5	102803.4	516.91 µg/L	516.91 ppb	14:06:51
3	Zn 213.857†	89776.9	90087.4	516.07 µg/L	516.07 ppb	14:06:51

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1683388.1	99.475	%	0.4397				0.44%
Sc RADIAL	114582.3	100	%	0.1				0.12%
Y 371.029	943701.9	98.607	%	0.3946				0.40%
Ag 328.068†	63211.7	267.41	µg/L	2.368	267.41	ppb	2.368	0.89%
QC value within limits for Ag 328.068 Recovery = 106.96%								
Al 396.153Radial†	22533.0	5288.3	µg/L	13.59	5288.3	ppb	13.59	0.26%
QC value within limits for Al 396.153Radial Recovery = 105.77%								
As 188.979†	1390.5	489.04	µg/L	1.806	489.04	ppb	1.806	0.37%
QC value within limits for As 188.979 Recovery = 97.81%								
B 249.677†	36086.7	533.83	µg/L	0.701	533.83	ppb	0.701	0.13%
QC value within limits for B 249.677 Recovery = 106.77%								
Ba 233.527†	115106.8	521.49	µg/L	0.129	521.49	ppb	0.129	0.02%
QC value within limits for Ba 233.527 Recovery = 104.30%								
Be 313.107†	934738.4	264.80	µg/L	0.302	264.80	ppb	0.302	0.11%
QC value within limits for Be 313.107 Recovery = 105.92%								
Ca 317.933Radial†	63243.2	5207.4	µg/L	16.86	5207.4	ppb	16.86	0.32%
QC value within limits for Ca 317.933Radial Recovery = 104.15%								
Cd 226.502†	77995.7	515.41	µg/L	1.018	515.41	ppb	1.018	0.20%
QC value within limits for Cd 226.502 Recovery = 103.08%								
Co 228.616†	40564.3	532.06	µg/L	0.548	532.06	ppb	0.548	0.10%

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   QC value within limits for Co 228.616  Recovery = 106.41%
Cr 267.716†            57586.3      505.63 µg/L        0.411      505.63 ppb          0.411   0.08%
   QC value within limits for Cr 267.716  Recovery = 101.13%
Cu 324.752†           126342.9      524.64 µg/L        0.647      524.64 ppb          0.647   0.12%
   QC value within limits for Cu 324.752  Recovery = 104.93%
Fe 238.204 Radial†     61016.5      5204.9 µg/L       25.85      5204.9 ppb          25.85   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.10%
K 766.490 Radial†       6610.8      2643.2 µg/L       33.79      2643.2 ppb          33.79   1.28%
   QC value within limits for K 766.490 Radial  Recovery = 105.73%
Mg 279.077 IEC†         9800.9      5429.4 µg/L       25.81      5429.4 ppb          25.81   0.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.59%
Mn 257.610†           400278.8      522.99 µg/L        1.120      522.99 ppb          1.120   0.21%
   QC value within limits for Mn 257.610  Recovery = 104.60%
Mo 202.031†            16281.2      553.16 µg/L        1.974      553.16 ppb          1.974   0.36%
   QC value greater than the upper limit for Mo 202.031  Recovery = 110.63%
Na 589.592 Radial†     16125.9      2570.6 µg/L       32.57      2570.6 ppb          32.57   1.27%
   QC value within limits for Na 589.592 Radial  Recovery = 102.83%
Ni 231.604†            41056.9      510.58 µg/L        1.619      510.58 ppb          1.619   0.32%
   QC value within limits for Ni 231.604  Recovery = 102.12%
P 214.914†             11224.5      2555.6 µg/L        3.69      2555.6 ppb           3.69   0.14%
   QC value within limits for P 214.914  Recovery = 102.22%
Pb 220.353†             8276.9      520.36 µg/L        1.781      520.36 ppb          1.781   0.34%
   QC value within limits for Pb 220.353  Recovery = 104.07%
S 181.975 Axial†        2966.9      2529.1 µg/L       10.97      2529.1 ppb          10.97   0.43%
   QC value within limits for S 181.975 Axial  Recovery = 101.16%
Sb 206.836†             3977.9      511.79 µg/L        1.524      511.79 ppb          1.524   0.30%
   QC value within limits for Sb 206.836  Recovery = 102.36%
Se 196.026†             6624.8        2560 µg/L          4.9        2560 ppb            4.9   0.19%
   QC value within limits for Se 196.026  Recovery = 102.56%
SiO2†                 102070.4       10516 µg/L         11.8       10516 ppb           11.8   0.11%
   QC value within limits for SiO2  Recovery = 98.33%
Si 251.611†           322836.9      4913.8 µg/L         5.28      4913.8 ppb           5.28   0.11%
   QC value within limits for Si 251.611  Recovery = 98.28%
Sn 189.927†             7766.7      542.54 µg/L        1.092      542.54 ppb          1.092   0.20%
   QC value within limits for Sn 189.927  Recovery = 108.51%
Sr 421.552†           212894.3      546.84 µg/L        4.010      546.84 ppb          4.010   0.73%
   QC value within limits for Sr 421.552  Recovery = 109.37%
Ti 334.940†           480179.2      502.90 µg/L        0.666      502.90 ppb          0.666   0.13%
   QC value within limits for Ti 334.940  Recovery = 100.58%
Tl 190.801†             3847.0      549.69 µg/L        2.024      549.69 ppb          2.024   0.37%
   QC value within limits for Tl 190.801  Recovery = 109.94%
U 409.014†              7521.2      488.62 µg/L        2.313      488.62 ppb          2.313   0.47%
   QC value within limits for U 409.014  Recovery = 97.72%
V 292.402†            103083.4      518.28 µg/L        1.444      518.28 ppb          1.444   0.28%
   QC value within limits for V 292.402  Recovery = 103.66%
Zn 213.857†            90312.3      517.36 µg/L        1.289      517.36 ppb          1.289   0.25%
   QC value within limits for Zn 213.857  Recovery = 103.47%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 4/13/2010 14:07:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114752.6	114752.6	100	%			14:07:48
1	Al 396.153Radial†	-96.4	-11.1	-2.6301	µg/L	-2.6301	ppb	14:08:08
1	Ca 317.933Radial†	472.7	14.4	1.1879	µg/L	1.1879	ppb	14:08:08
1	Fe 238.204 Radial†	117.5	-7.1	-0.6073	µg/L	-0.6073	ppb	14:08:08
1	K 766.490 Radial†	1351.1	-62.5	-25.010	µg/L	-25.010	ppb	14:07:48
1	Mg 279.077 IEC†	148.2	-9.7	-5.3294	µg/L	-5.3294	ppb	14:08:08
1	Na 589.592 Radial†	797.3	-40.6	-6.4518	µg/L	-6.4518	ppb	14:07:48
1	Sr 421.552†	41.2	107.8	0.2770	µg/L	0.2770	ppb	14:07:48
1	Sc 361.383	1690118.5	1690118.5	99.873	%			14:08:56
1	Y 371.029	956294.5	956294.5	99.923	%			14:08:56
1	Ag 328.068†	5093.0	-3.5	-0.0196	µg/L	-0.0196	ppb	14:08:58
1	As 188.979†	-8.7	4.7	1.6152	µg/L	1.6152	ppb	14:09:18
1	B 249.677†	4278.5	172.0	2.5526	µg/L	2.5526	ppb	14:08:58
1	Ba 233.527†	-140.1	5.6	0.0252	µg/L	0.0252	ppb	14:09:18
1	Be 313.107†	-703.0	288.4	0.0821	µg/L	0.0821	ppb	14:08:58
1	Cd 226.502†	-36.2	28.3	0.1876	µg/L	0.1876	ppb	14:09:18
1	Co 228.616†	-224.7	2.0	0.0268	µg/L	0.0268	ppb	14:09:18
1	Cr 267.716†	311.9	-17.4	-0.1538	µg/L	-0.1538	ppb	14:09:18
1	Cu 324.752†	3170.8	-66.4	-0.2739	µg/L	-0.2739	ppb	14:08:58
1	Mn 257.610†	179.3	-35.8	-0.0466	µg/L	-0.0466	ppb	14:09:18
1	Mo 202.031†	-10.7	10.9	0.3702	µg/L	0.3702	ppb	14:09:18
1	Ni 231.604†	-56.8	17.0	0.2117	µg/L	0.2117	ppb	14:09:18
1	P 214.914†	-17.8	1.4	0.3160	µg/L	0.3160	ppb	14:09:18
1	Pb 220.353†	140.6	23.5	1.4747	µg/L	1.4747	ppb	14:09:18
1	S 181.975 Axial†	102.2	0.4	0.3564	µg/L	0.3564	ppb	14:09:18
1	Sb 206.836†	91.6	14.2	1.8263	µg/L	1.8263	ppb	14:09:18
1	Se 196.026†	30.5	10.6	4.09	µg/L	4.09	ppb	14:09:18
1	SiO2†	1732.4	45.7	4.7038	µg/L	4.7038	ppb	14:08:58
1	Si 251.611†	790.9	5.3	0.0730	µg/L	0.0730	ppb	14:08:58
1	Sn 189.927†	16.3	7.9	0.5464	µg/L	0.5464	ppb	14:09:18
1	Ti 334.940†	673.9	-211.3	-0.2217	µg/L	-0.2217	ppb	14:08:58
1	Tl 190.801†	-91.2	24.0	3.3695	µg/L	3.3695	ppb	14:09:18
1	U 409.014†	-386.7	24.0	1.4281	µg/L	1.4281	ppb	14:08:58
1	V 292.402†	378.6	-116.9	-0.5753	µg/L	-0.5753	ppb	14:08:58
1	Zn 213.857†	620.9	2.4	0.0125	µg/L	0.0125	ppb	14:09:18
2	Sc RADIAL	115224.8	115224.8	101	%			14:08:10
2	Al 396.153Radial†	-102.3	-16.6	-3.9252	µg/L	-3.9252	ppb	14:08:30
2	Ca 317.933Radial†	446.7	-13.3	-1.0910	µg/L	-1.0910	ppb	14:08:30
2	Fe 238.204 Radial†	120.7	-4.4	-0.3793	µg/L	-0.3793	ppb	14:08:30
2	K 766.490 Radial†	1465.3	45.4	18.171	µg/L	18.171	ppb	14:08:10
2	Mg 279.077 IEC†	146.3	-12.1	-6.6654	µg/L	-6.6654	ppb	14:08:30
2	Na 589.592 Radial†	1001.0	158.4	25.263	µg/L	25.263	ppb	14:08:10
2	Sr 421.552†	8.3	75.0	0.1926	µg/L	0.1926	ppb	14:08:10
2	Sc 361.383	1699339.5	1699339.5	100.42	%			14:09:20
2	Y 371.029	960943.9	960943.9	100.41	%			14:09:20
2	Ag 328.068†	5151.2	26.8	0.1058	µg/L	0.1058	ppb	14:09:22
2	As 188.979†	-15.4	-1.9	-0.6530	µg/L	-0.6530	ppb	14:09:42
2	B 249.677†	4295.4	165.6	2.4585	µg/L	2.4585	ppb	14:09:22
2	Ba 233.527†	-146.8	-0.3	-0.0013	µg/L	-0.0013	ppb	14:09:42
2	Be 313.107†	-932.7	63.5	0.0169	µg/L	0.0169	ppb	14:09:22
2	Cd 226.502†	-71.0	-6.1	-0.0403	µg/L	-0.0403	ppb	14:09:42
2	Co 228.616†	-241.1	-13.0	-0.1706	µg/L	-0.1706	ppb	14:09:42
2	Cr 267.716†	292.6	-38.2	-0.3329	µg/L	-0.3329	ppb	14:09:42
2	Cu 324.752†	3256.0	1.2	0.0017	µg/L	0.0017	ppb	14:09:22
2	Mn 257.610†	232.7	16.3	0.0216	µg/L	0.0216	ppb	14:09:42
2	Mo 202.031†	-12.9	8.8	0.2980	µg/L	0.2980	ppb	14:09:42
2	Ni 231.604†	-80.4	-6.1	-0.0761	µg/L	-0.0761	ppb	14:09:42
2	P 214.914†	9.3	28.5	6.5043	µg/L	6.5043	ppb	14:09:42
2	Pb 220.353†	121.4	3.7	0.2341	µg/L	0.2341	ppb	14:09:42

2	S 181.975 Axial†	100.9	-1.4	-1.2155 µg/L	-1.2155 ppb	14:09:42
2	Sb 206.836†	87.8	9.9	1.2793 µg/L	1.2793 ppb	14:09:42
2	Se 196.026†	32.1	12.0	4.64 µg/L	4.64 ppb	14:09:42
2	SiO2†	1730.1	34.0	3.4978 µg/L	3.4978 ppb	14:09:22
2	Si 251.611†	838.8	48.8	0.7359 µg/L	0.7359 ppb	14:09:22
2	Sn 189.927†	16.9	8.4	0.5846 µg/L	0.5846 ppb	14:09:42
2	Ti 334.940†	606.9	-281.7	-0.2934 µg/L	-0.2934 ppb	14:09:22
2	Tl 190.801†	-101.3	14.3	2.0167 µg/L	2.0167 ppb	14:09:42
2	U 409.014†	-470.4	-57.2	-3.4824 µg/L	-3.4824 ppb	14:09:22
2	V 292.402†	488.4	-9.6	-0.0482 µg/L	-0.0482 ppb	14:09:22
2	Zn 213.857†	596.9	-24.9	-0.1432 µg/L	-0.1432 ppb	14:09:42
3	Sc RADIAL	115162.2	115162.2	101 %		14:08:32
3	Al 396.153Radial†	-84.8	0.8	0.1725 µg/L	0.1725 ppb	14:08:52
3	Ca 317.933Radial†	466.4	6.5	0.5356 µg/L	0.5356 ppb	14:08:52
3	Fe 238.204 Radial†	108.8	-16.2	-1.3812 µg/L	-1.3812 ppb	14:08:52
3	K 766.490 Radial†	1435.6	16.7	6.6830 µg/L	6.6830 ppb	14:08:32
3	Mg 279.077 IEC†	149.6	-8.7	-4.8230 µg/L	-4.8230 ppb	14:08:52
3	Na 589.592 Radial†	785.9	-54.6	-8.7235 µg/L	-8.7235 ppb	14:08:32
3	Sr 421.552†	-180.5	-112.6	-0.2893 µg/L	-0.2893 ppb	14:08:32
3	Sc 361.383	1681677.0	1681677.0	99.374 %		14:09:45
3	Y 371.029	951126.6	951126.6	99.383 %		14:09:45
3	Ag 328.068†	5160.5	90.0	0.3715 µg/L	0.3715 ppb	14:09:47
3	As 188.979†	-11.6	1.7	0.6009 µg/L	0.6009 ppb	14:10:07
3	B 249.677†	4146.2	60.3	0.8958 µg/L	0.8958 ppb	14:09:47
3	Ba 233.527†	-168.9	-24.1	-0.1094 µg/L	-0.1094 ppb	14:10:07
3	Be 313.107†	-758.5	229.0	0.0662 µg/L	0.0662 ppb	14:09:47
3	Cd 226.502†	-56.0	8.3	0.0547 µg/L	0.0547 ppb	14:10:07
3	Co 228.616†	-231.7	-6.1	-0.0798 µg/L	-0.0798 ppb	14:10:07
3	Cr 267.716†	301.6	-26.2	-0.2334 µg/L	-0.2334 ppb	14:10:07
3	Cu 324.752†	3110.9	-110.8	-0.4556 µg/L	-0.4556 ppb	14:09:47
3	Mn 257.610†	215.0	1.0	0.0015 µg/L	0.0015 ppb	14:10:07
3	Mo 202.031†	-15.6	6.0	0.2022 µg/L	0.2022 ppb	14:10:07
3	Ni 231.604†	-81.9	-8.5	-0.1052 µg/L	-0.1052 ppb	14:10:07
3	P 214.914†	-9.5	9.6	2.2032 µg/L	2.2032 ppb	14:10:07
3	Pb 220.353†	118.0	1.5	0.0910 µg/L	0.0910 ppb	14:10:07
3	S 181.975 Axial†	105.4	4.2	3.5347 µg/L	3.5347 ppb	14:10:07
3	Sb 206.836†	85.9	8.9	1.1434 µg/L	1.1434 ppb	14:10:07
3	Se 196.026†	20.0	0.1	0.045 µg/L	0.045 ppb	14:10:07
3	SiO2†	1865.0	187.8	19.385 µg/L	19.385 ppb	14:09:47
3	Si 251.611†	680.5	-101.7	-1.5566 µg/L	-1.5566 ppb	14:09:47
3	Sn 189.927†	14.0	5.7	0.3944 µg/L	0.3944 ppb	14:10:07
3	Ti 334.940†	827.1	-53.8	-0.0577 µg/L	-0.0577 ppb	14:09:47
3	Tl 190.801†	-105.3	9.2	1.2991 µg/L	1.2991 ppb	14:10:07
3	U 409.014†	-336.9	72.2	4.3643 µg/L	4.3643 ppb	14:09:47
3	V 292.402†	402.5	-90.9	-0.4466 µg/L	-0.4466 ppb	14:09:47
3	Zn 213.857†	594.5	-21.1	-0.1205 µg/L	-0.1205 ppb	14:10:07

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1690378.3	99.888	%	0.5220				0.52%
Sc RADIAL	115046.5	101	%	0.2				0.22%
Y 371.029	956121.7	99.905	%	0.5131				0.51%
Ag 328.068†	37.8	0.1526	µg/L	0.19970	0.1526	ppb	0.19970	130.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.0	-2.1276	µg/L	2.09452	-2.1276	ppb	2.09452	98.45%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.5	0.5210	µg/L	1.13621	0.5210	ppb	1.13621	218.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	132.6	1.9690	µg/L	0.93057	1.9690	ppb	0.93057	47.26%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.3	-0.0285	µg/L	0.07128	-0.0285	ppb	0.07128	250.30%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.7	0.0551	µg/L	0.03397	0.0551	ppb	0.03397	61.69%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.6	0.2108	µg/L	1.17364	0.2108	ppb	1.17364	556.76%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.2	0.0673	µg/L	0.11443	0.0673	ppb	0.11443	169.97%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-5.7	-0.0745	µg/L	0.09879	-0.0745	ppb	0.09879	132.58%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -27.2     -0.2400 µg/L       0.08975     -0.2400 ppb        0.08975  37.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -58.7     -0.2426 µg/L       0.23027     -0.2426 ppb        0.23027  94.92%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -9.3     -0.7893 µg/L       0.52511     -0.7893 ppb        0.52511  66.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -0.1     -0.0519 µg/L      22.36431     -0.0519 ppb       22.36431 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -10.2     -5.6059 µg/L       0.95179     -5.6059 ppb        0.95179  16.98%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -6.2     -0.0078 µg/L       0.03504     -0.0078 ppb        0.03504 447.36%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                8.6      0.2901 µg/L       0.08425      0.2901 ppb        0.08425  29.04%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        21.1      3.3625 µg/L      19.00019      3.3625 ppb       19.00019 565.06%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                0.8      0.0101 µg/L       0.17516      0.0101 ppb        0.17516 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                13.1      3.0078 µg/L       3.17165      3.0078 ppb        3.17165 105.45%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                9.6      0.5999 µg/L       0.76094      0.5999 ppb        0.76094 126.84%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.0      0.8919 µg/L       2.41996      0.8919 ppb        2.41996 271.33%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               11.0      1.4163 µg/L       0.36149      1.4163 ppb        0.36149  25.52%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                7.6        2.92 µg/L         2.507        2.92 ppb          2.507  85.78%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     89.2      9.1955 µg/L       8.84473      9.1955 ppb        8.84473  96.19%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -15.9     -0.2492 µg/L       1.17974     -0.2492 ppb        1.17974 473.37%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                7.3      0.5085 µg/L       0.10059      0.5085 ppb        0.10059  19.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               23.4      0.0601 µg/L       0.30548      0.0601 ppb        0.30548 508.19%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -182.3     -0.1909 µg/L       0.12080     -0.1909 ppb        0.12080  63.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               15.8      2.2284 µg/L       1.05127      2.2284 ppb        1.05127  47.18%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                13.0      0.7700 µg/L       3.96451      0.7700 ppb        3.96451 514.87%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -72.5     -0.3567 µg/L       0.27480     -0.3567 ppb        0.27480  77.04%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -14.5     -0.0837 µg/L       0.08412     -0.0837 ppb        0.08412 100.47%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 4/13/2010 14:10:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	115870.6	115870.6	101	%			14:10:45
1	Al 396.153Radial†	810.3	884.9	208.26	µg/L	208.26	ppb	14:11:05
1	Ca 317.933Radial†	3005.7	2510.5	206.72	µg/L	206.72	ppb	14:11:05
1	Fe 238.204 Radial†	1327.6	1186.3	101.20	µg/L	101.20	ppb	14:11:05
1	K 766.490 Radial†	1865.8	432.7	173.03	µg/L	173.03	ppb	14:10:45
1	Mg 279.077 IEC†	734.6	567.9	314.21	µg/L	314.21	ppb	14:11:05
1	Na 589.592 Radial†	2899.0	2026.6	323.20	µg/L	323.20	ppb	14:10:45
1	Sr 421.552†	1997.7	2038.9	5.2358	µg/L	5.2358	ppb	14:10:45
1	Sc 361.383	1663979.2	1663979.2	98.328	%			14:12:07
1	Y 371.029	940482.1	940482.1	98.271	%			14:12:07
1	Ag 328.068†	6281.2	1285.0	5.4473	µg/L	5.4473	ppb	14:12:09
1	As 188.979†	77.0	91.8	31.866	µg/L	31.866	ppb	14:12:29
1	B 249.677†	7449.1	3463.8	51.400	µg/L	51.400	ppb	14:12:09
1	Ba 233.527†	997.0	1159.8	5.2549	µg/L	5.2549	ppb	14:12:29
1	Be 313.107†	16414.0	17685.4	5.0292	µg/L	5.0292	ppb	14:12:09
1	Cd 226.502†	694.9	771.3	5.0916	µg/L	5.0916	ppb	14:12:29
1	Co 228.616†	150.7	380.3	4.9857	µg/L	4.9857	ppb	14:12:29
1	Cr 267.716†	871.9	557.1	4.8352	µg/L	4.8352	ppb	14:12:29
1	Cu 324.752†	5546.8	2399.8	10.021	µg/L	10.021	ppb	14:12:09
1	Mn 257.610†	8170.6	8094.2	10.567	µg/L	10.567	ppb	14:12:09
1	Mo 202.031†	246.2	272.0	9.2460	µg/L	9.2460	ppb	14:12:29
1	Ni 231.604†	310.8	390.0	4.8505	µg/L	4.8505	ppb	14:12:29
1	P 214.914†	654.2	684.5	156.27	µg/L	156.27	ppb	14:12:29
1	Pb 220.353†	292.0	179.7	11.245	µg/L	11.245	ppb	14:12:29
1	S 181.975 Axial†	233.2	135.2	115.12	µg/L	115.12	ppb	14:12:29
1	Sb 206.836†	145.2	70.1	9.0722	µg/L	9.0722	ppb	14:12:29
1	Se 196.026†	105.9	87.7	34.0	µg/L	34.0	ppb	14:12:29
1	SiO2†	3856.6	2233.3	230.19	µg/L	230.19	ppb	14:12:09
1	Si 251.611†	7085.3	6419.3	97.730	µg/L	97.730	ppb	14:12:09
1	Sn 189.927†	157.2	151.4	10.562	µg/L	10.562	ppb	14:12:29
1	Ti 334.940†	5444.4	4650.9	4.8259	µg/L	4.8259	ppb	14:12:09
1	Tl 190.801†	37.7	153.6	21.740	µg/L	21.740	ppb	14:12:29
1	U 409.014†	766.1	1190.4	72.728	µg/L	72.728	ppb	14:12:09
1	V 292.402†	1492.2	1021.6	5.2151	µg/L	5.2151	ppb	14:12:09
1	Zn 213.857†	2410.7	1832.3	10.533	µg/L	10.533	ppb	14:12:29
2	Sc RADIAL	114830.0	114830.0	100	%			14:11:07
2	Al 396.153Radial†	801.1	883.0	207.77	µg/L	207.77	ppb	14:11:27
2	Ca 317.933Radial†	3001.9	2533.6	208.61	µg/L	208.61	ppb	14:11:27
2	Fe 238.204 Radial†	1321.5	1192.1	101.69	µg/L	101.69	ppb	14:11:27
2	K 766.490 Radial†	1794.4	378.2	151.23	µg/L	151.23	ppb	14:11:07
2	Mg 279.077 IEC†	716.3	556.2	307.76	µg/L	307.76	ppb	14:11:27
2	Na 589.592 Radial†	2678.4	1832.8	292.30	µg/L	292.30	ppb	14:11:07
2	Sr 421.552†	1964.0	2023.2	5.1955	µg/L	5.1955	ppb	14:11:07
2	Sc 361.383	1688831.4	1688831.4	99.797	%			14:12:31
2	Y 371.029	954649.8	954649.8	99.751	%			14:12:31
2	Ag 328.068†	6438.1	1348.2	5.6926	µg/L	5.6926	ppb	14:12:33
2	As 188.979†	69.6	83.2	28.900	µg/L	28.900	ppb	14:12:54
2	B 249.677†	7355.1	3258.2	48.348	µg/L	48.348	ppb	14:12:33
2	Ba 233.527†	982.1	1130.0	5.1198	µg/L	5.1198	ppb	14:12:54
2	Be 313.107†	16510.6	17536.5	4.9848	µg/L	4.9848	ppb	14:12:33
2	Cd 226.502†	697.0	763.0	5.0369	µg/L	5.0369	ppb	14:12:54
2	Co 228.616†	147.7	375.1	4.9173	µg/L	4.9173	ppb	14:12:54
2	Cr 267.716†	877.7	549.9	4.7778	µg/L	4.7778	ppb	14:12:54
2	Cu 324.752†	5271.6	2041.0	8.5292	µg/L	8.5292	ppb	14:12:33
2	Mn 257.610†	8117.5	7918.7	10.338	µg/L	10.338	ppb	14:12:33
2	Mo 202.031†	277.7	299.8	10.189	µg/L	10.189	ppb	14:12:54
2	Ni 231.604†	328.3	402.8	5.0097	µg/L	5.0097	ppb	14:12:54
2	P 214.914†	622.9	643.3	146.87	µg/L	146.87	ppb	14:12:54
2	Pb 220.353†	276.3	159.7	9.9965	µg/L	9.9965	ppb	14:12:54

2	S 181.975 Axial†	242.7	141.3	120.32 µg/L	120.32 ppb	14:12:54
2	Sb 206.836†	142.1	64.8	8.4020 µg/L	8.4020 ppb	14:12:54
2	Se 196.026†	103.9	84.1	32.6 µg/L	32.6 ppb	14:12:54
2	SiO2†	3818.6	2137.5	220.27 µg/L	220.27 ppb	14:12:33
2	Si 251.611†	7271.2	6499.4	98.941 µg/L	98.941 ppb	14:12:33
2	Sn 189.927†	158.2	150.1	10.468 µg/L	10.468 ppb	14:12:54
2	Ti 334.940†	5403.6	4528.5	4.7012 µg/L	4.7012 ppb	14:12:33
2	Tl 190.801†	23.4	138.7	19.626 µg/L	19.626 ppb	14:12:54
2	U 409.014†	654.1	1066.7	65.171 µg/L	65.171 ppb	14:12:33
2	V 292.402†	1405.2	912.0	4.6765 µg/L	4.6765 ppb	14:12:33
2	Zn 213.857†	2428.9	1814.5	10.430 µg/L	10.430 ppb	14:12:54
3	Sc RADIAL	114031.0	114031.0	99.7 %		14:11:29
3	Al 396.153Radial†	807.5	895.0	210.59 µg/L	210.59 ppb	14:11:49
3	Ca 317.933Radial†	3028.5	2581.3	212.54 µg/L	212.54 ppb	14:11:49
3	Fe 238.204 Radial†	1319.5	1199.4	102.31 µg/L	102.31 ppb	14:11:49
3	K 766.490 Radial†	1896.1	492.8	197.09 µg/L	197.09 ppb	14:11:29
3	Mg 279.077 IEC†	715.3	560.2	310.00 µg/L	310.00 ppb	14:11:49
3	Na 589.592 Radial†	2713.5	1886.7	300.87 µg/L	300.87 ppb	14:11:29
3	Sr 421.552†	2035.6	2108.7	5.4150 µg/L	5.4150 ppb	14:11:29
3	Sc 361.383	1694447.3	1694447.3	100.13 %		14:12:56
3	Y 371.029	958144.4	958144.4	100.12 %		14:12:56
3	Ag 328.068†	6291.5	1180.4	5.0125 µg/L	5.0125 ppb	14:12:58
3	As 188.979†	77.2	90.5	31.426 µg/L	31.426 ppb	14:13:18
3	B 249.677†	7438.9	3317.4	49.225 µg/L	49.225 ppb	14:12:58
3	Ba 233.527†	994.9	1139.5	5.1631 µg/L	5.1631 ppb	14:13:18
3	Be 313.107†	16605.4	17576.3	4.9982 µg/L	4.9982 ppb	14:12:58
3	Cd 226.502†	684.7	748.4	4.9403 µg/L	4.9403 ppb	14:13:18
3	Co 228.616†	182.6	409.4	5.3676 µg/L	5.3676 ppb	14:13:18
3	Cr 267.716†	877.9	547.1	4.7481 µg/L	4.7481 ppb	14:13:18
3	Cu 324.752†	5461.0	2212.7	9.2462 µg/L	9.2462 ppb	14:12:58
3	Mn 257.610†	8073.1	7847.3	10.245 µg/L	10.245 ppb	14:12:58
3	Mo 202.031†	282.0	303.3	10.306 µg/L	10.306 ppb	14:13:18
3	Ni 231.604†	315.2	388.7	4.8338 µg/L	4.8338 ppb	14:13:18
3	P 214.914†	631.4	649.8	148.34 µg/L	148.34 ppb	14:13:18
3	Pb 220.353†	277.3	159.8	9.9974 µg/L	9.9974 ppb	14:13:18
3	S 181.975 Axial†	238.8	136.6	116.33 µg/L	116.33 ppb	14:13:18
3	Sb 206.836†	169.0	91.2	11.788 µg/L	11.788 ppb	14:13:18
3	Se 196.026†	98.9	78.8	30.6 µg/L	30.6 ppb	14:13:18
3	SiO2†	3732.9	2039.2	210.12 µg/L	210.12 ppb	14:12:58
3	Si 251.611†	7118.1	6322.4	96.240 µg/L	96.240 ppb	14:12:58
3	Sn 189.927†	156.5	147.8	10.311 µg/L	10.311 ppb	14:13:18
3	Ti 334.940†	5380.9	4487.9	4.6557 µg/L	4.6557 ppb	14:12:58
3	Tl 190.801†	26.0	141.2	19.976 µg/L	19.976 ppb	14:13:18
3	U 409.014†	772.8	1183.0	72.265 µg/L	72.265 ppb	14:12:58
3	V 292.402†	1482.3	984.4	5.0412 µg/L	5.0412 ppb	14:12:58
3	Zn 213.857†	2419.2	1796.8	10.328 µg/L	10.328 ppb	14:13:18

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1682419.3	99.418	%	0.9582				0.96%
Sc RADIAL	114910.5	100	%	0.8				0.80%
Y 371.029	951092.1	99.380	%	0.9773				0.98%
Ag 328.068†	1271.2	5.3841	µg/L	0.34441	5.3841	ppb	0.34441	6.40%
QC value within limits for Ag 328.068 Recovery = 107.68%								
Al 396.153Radial†	887.6	208.87	µg/L	1.506	208.87	ppb	1.506	0.72%
QC value within limits for Al 396.153Radial Recovery = 104.44%								
As 188.979†	88.5	30.731	µg/L	1.6006	30.731	ppb	1.6006	5.21%
QC value within limits for As 188.979 Recovery = 102.44%								
B 249.677†	3346.4	49.658	µg/L	1.5711	49.658	ppb	1.5711	3.16%
QC value within limits for B 249.677 Recovery = 99.32%								
Ba 233.527†	1143.1	5.1793	µg/L	0.06899	5.1793	ppb	0.06899	1.33%
QC value within limits for Ba 233.527 Recovery = 103.59%								
Be 313.107†	17599.4	5.0041	µg/L	0.02279	5.0041	ppb	0.02279	0.46%
QC value within limits for Be 313.107 Recovery = 100.08%								
Ca 317.933Radial†	2541.8	209.29	µg/L	2.970	209.29	ppb	2.970	1.42%
QC value within limits for Ca 317.933Radial Recovery = 104.64%								
Cd 226.502†	760.9	5.0229	µg/L	0.07662	5.0229	ppb	0.07662	1.53%
QC value within limits for Cd 226.502 Recovery = 100.46%								
Co 228.616†	388.3	5.0902	µg/L	0.24268	5.0902	ppb	0.24268	4.77%

```
   QC value within limits for Co 228.616  Recovery = 101.80%
Cr 267.716†              551.4      4.7870 µg/L       0.04428      4.7870 ppb        0.04428   0.93%
   QC value within limits for Cr 267.716  Recovery = 95.74%
Cu 324.752†             2217.9      9.2654 µg/L       0.74600      9.2654 ppb        0.74600   8.05%
   QC value within limits for Cu 324.752  Recovery = 92.65%
Fe 238.204 Radial†      1192.6      101.74 µg/L         0.557      101.74 ppb          0.557   0.55%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.74%
K 766.490 Radial†        434.6      173.78 µg/L        22.940      173.78 ppb         22.940  13.20%
   QC value within limits for K 766.490 Radial  Recovery = 115.86%
Mg 279.077 IEC†          561.4      310.66 µg/L         3.277      310.66 ppb          3.277   1.05%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.55%
Mn 257.610†             7953.4      10.384 µg/L        0.1659      10.384 ppb         0.1659   1.60%
   QC value within limits for Mn 257.610  Recovery = 103.84%
Mo 202.031†              291.7      9.9140 µg/L       0.58139      9.9140 ppb        0.58139   5.86%
   QC value within limits for Mo 202.031  Recovery = 99.14%
Na 589.592 Radial†      1915.4      305.46 µg/L        15.955      305.46 ppb         15.955   5.22%
   QC value within limits for Na 589.592 Radial  Recovery = 101.82%
Ni 231.604†              393.9      4.8980 µg/L       0.09710      4.8980 ppb        0.09710   1.98%
   QC value within limits for Ni 231.604  Recovery = 97.96%
P 214.914†               659.2      150.49 µg/L         5.057      150.49 ppb          5.057   3.36%
   QC value within limits for P 214.914  Recovery = 100.33%
Pb 220.353†              166.4      10.413 µg/L        0.7206      10.413 ppb         0.7206   6.92%
   QC value within limits for Pb 220.353  Recovery = 104.13%
S 181.975 Axial†         137.7      117.26 µg/L         2.721      117.26 ppb          2.721   2.32%
   QC value within limits for S 181.975 Axial  Recovery = 117.26%
Sb 206.836†               75.4      9.7541 µg/L       1.79307      9.7541 ppb        1.79307  18.38%
   QC value within limits for Sb 206.836  Recovery = 97.54%
Se 196.026†               83.5        32.4 µg/L          1.73        32.4 ppb           1.73   5.33%
   QC value within limits for Se 196.026  Recovery = 108.02%
SiO2†                   2136.7      220.19 µg/L        10.036      220.19 ppb         10.036   4.56%
   QC value within limits for SiO2  Recovery = 103.38%
Si 251.611†             6413.7      97.637 µg/L        1.3527      97.637 ppb         1.3527   1.39%
   QC value within limits for Si 251.611  Recovery = 97.64%
Sn 189.927†              149.8      10.447 µg/L        0.1268      10.447 ppb         0.1268   1.21%
   QC value within limits for Sn 189.927  Recovery = 104.47%
Sr 421.552†             2056.9      5.2821 µg/L       0.11685      5.2821 ppb        0.11685   2.21%
   QC value within limits for Sr 421.552  Recovery = 105.64%
Ti 334.940†             4555.8      4.7276 µg/L       0.08810      4.7276 ppb        0.08810   1.86%
   QC value within limits for Ti 334.940  Recovery = 94.55%
Tl 190.801†              144.5      20.447 µg/L        1.1328      20.447 ppb         1.1328   5.54%
   QC value within limits for Tl 190.801  Recovery = 102.24%
U 409.014†              1146.7      70.054 µg/L        4.2359      70.054 ppb         4.2359   6.05%
   QC value greater than the upper limit for U 409.014  Recovery = 140.11%
V 292.402†               972.7      4.9776 µg/L       0.27486      4.9776 ppb        0.27486   5.52%
   QC value within limits for V 292.402  Recovery = 99.55%
Zn 213.857†             1814.6      10.430 µg/L        0.1024      10.430 ppb         0.1024   0.98%
   QC value within limits for Zn 213.857  Recovery = 104.30%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 4/13/2010 14:13:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	106980.2	106980.2	93.5	%			14:14:00
1	Al 396.153Radial†	1974515.2	2111326.5	497910	µg/L	497910	ppb	14:13:58
1	Ca 317.933Radial†	5511724.5	5892930.0	485220	µg/L	485220	ppb	14:13:58
1	Fe 238.204 Radial†	2083707.3	2227870.4	190050	µg/L	190050	ppb	14:13:58
1	K 766.490 Radial†	1431.2	121.0	-190.93	µg/L	-190.93	ppb	14:14:00
1	Mg 279.077 IEC†	817510.7	873962.4	483170	µg/L	483170	ppb	14:13:58
1	Na 589.592 Radial†	1341.8	599.4	95.592	µg/L	95.592	ppb	14:14:00
1	Sr 421.552†	4406.5	4778.3	8.4766	µg/L	8.4766	ppb	14:14:00
1	Sc 361.383	1501217.1	1501217.1	88.710	%			14:14:28
1	Y 371.029	836125.4	836125.4	87.367	%			14:14:28
1	Ag 328.068†	7406.8	3246.4	0.0494	µg/L	0.0494	ppb	14:14:28
1	As 188.979†	-102.7	-102.3	7.1552	µg/L	7.1552	ppb	14:14:48
1	B 249.677†	4385.1	831.3	12.327	µg/L	12.327	ppb	14:14:28
1	Ba 233.527†	413.6	612.1	0.3432	µg/L	0.3432	ppb	14:14:48
1	Be 313.107†	-419.2	519.8	0.1518	µg/L	0.1518	ppb	14:14:28
1	Cd 226.502†	2374.7	2741.5	-1.8569	µg/L	-1.8569	ppb	14:14:48
1	Co 228.616†	45.4	278.2	-6.2642	µg/L	-6.2642	ppb	14:14:48
1	Cr 267.716†	304.1	13.2	0.8100	µg/L	0.8100	ppb	14:14:48
1	Cu 324.752†	-5786.3	-9763.9	0.3302	µg/L	0.3302	ppb	14:14:28
1	Mn 257.610†	15583.3	17351.1	3.0137	µg/L	3.0137	ppb	14:14:28
1	Mo 202.031†	-519.5	-564.0	-2.7952	µg/L	-2.7952	ppb	14:14:48
1	Ni 231.604†	131.5	222.1	2.7621	µg/L	2.7621	ppb	14:14:48
1	P 214.914†	142.2	179.6	22.694	µg/L	22.694	ppb	14:14:48
1	Pb 220.353†	-267.1	-418.3	-1.4748	µg/L	-1.4748	ppb	14:14:48
1	S 181.975 Axial†	153.8	71.4	60.596	µg/L	60.596	ppb	14:14:48
1	Sb 206.836†	98.4	33.4	-1.7007	µg/L	-1.7007	ppb	14:14:48
1	Se 196.026†	-138.2	-175.7	-2.00	µg/L	-2.00	ppb	14:14:48
1	SiO2†	1629.1	147.6	15.727	µg/L	15.727	ppb	14:14:48
1	Si 251.611†	537.5	-180.7	-2.5260	µg/L	-2.5260	ppb	14:14:48
1	Sn 189.927†	56.6	55.4	3.9424	µg/L	3.9424	ppb	14:14:48
1	Ti 334.940†	21752.9	23635.1	-1.9360	µg/L	-1.9360	ppb	14:14:28
1	Tl 190.801†	-180.2	-88.0	-11.939	µg/L	-11.939	ppb	14:14:48
1	U 409.014†	-140.2	253.2	-5.5257	µg/L	-5.5257	ppb	14:14:28
1	V 292.402†	4511.8	4590.0	2.4975	µg/L	2.4975	ppb	14:14:28
1	Zn 213.857†	4310.5	4239.8	8.0554	µg/L	8.0554	ppb	14:14:48
2	Sc RADIAL	105749.8	105749.8	92.4	%			14:14:05
2	Al 396.153Radial†	1957961.1	2117984.4	499480	µg/L	499480	ppb	14:14:03
2	Ca 317.933Radial†	5463069.9	5908870.5	486530	µg/L	486530	ppb	14:14:03
2	Fe 238.204 Radial†	2063257.0	2231672.3	190370	µg/L	190370	ppb	14:14:03
2	K 766.490 Radial†	1385.7	89.6	-204.14	µg/L	-204.14	ppb	14:14:05
2	Mg 279.077 IEC†	809012.1	874939.8	483710	µg/L	483710	ppb	14:14:03
2	Na 589.592 Radial†	1120.4	376.7	60.070	µg/L	60.070	ppb	14:14:05
2	Sr 421.552†	4367.7	4791.2	8.4993	µg/L	8.4993	ppb	14:14:05
2	Sc 361.383	1502151.4	1502151.4	88.766	%			14:14:51
2	Y 371.029	836238.7	836238.7	87.379	%			14:14:51
2	Ag 328.068†	7339.1	3165.0	-0.3144	µg/L	-0.3144	ppb	14:14:51
2	As 188.979†	-92.5	-90.8	11.218	µg/L	11.218	ppb	14:15:11
2	B 249.677†	4347.8	786.1	11.656	µg/L	11.656	ppb	14:14:51
2	Ba 233.527†	461.5	665.8	0.5828	µg/L	0.5828	ppb	14:15:11
2	Be 313.107†	-147.4	826.3	0.2389	µg/L	0.2389	ppb	14:14:51
2	Cd 226.502†	2372.9	2737.8	-1.9158	µg/L	-1.9158	ppb	14:15:11
2	Co 228.616†	67.0	302.5	-5.9628	µg/L	-5.9628	ppb	14:15:11
2	Cr 267.716†	242.5	-56.4	0.2028	µg/L	0.2028	ppb	14:15:11
2	Cu 324.752†	-5737.3	-9704.7	0.6382	µg/L	0.6382	ppb	14:14:51
2	Mn 257.610†	15652.7	17418.4	3.0793	µg/L	3.0793	ppb	14:14:51
2	Mo 202.031†	-518.3	-562.3	-2.7154	µg/L	-2.7154	ppb	14:15:11
2	Ni 231.604†	75.7	159.2	1.9803	µg/L	1.9803	ppb	14:15:11
2	P 214.914†	92.8	123.7	10.060	µg/L	10.060	ppb	14:15:11
2	Pb 220.353†	-260.1	-410.2	-0.8817	µg/L	-0.8817	ppb	14:15:11

2	S 181.975 Axial†	167.0	86.2	73.204 µg/L	73.204 ppb	14:15:11
2	Sb 206.836†	104.9	40.6	-0.7717 µg/L	-0.7717 ppb	14:15:11
2	Se 196.026†	-140.3	-178.0	-2.78 µg/L	-2.78 ppb	14:15:11
2	SiO2†	1573.8	84.1	9.1730 µg/L	9.1730 ppb	14:15:11
2	Si 251.611†	544.9	-172.6	-2.4035 µg/L	-2.4035 ppb	14:15:11
2	Sn 189.927†	55.8	54.5	3.8774 µg/L	3.8774 ppb	14:15:11
2	Ti 334.940†	21661.2	23516.5	-2.0703 µg/L	-2.0703 ppb	14:14:51
2	Tl 190.801†	-143.0	-45.8	-6.0016 µg/L	-6.0016 ppb	14:15:11
2	U 409.014†	-127.5	267.6	-4.6328 µg/L	-4.6328 ppb	14:14:51
2	V 292.402†	4621.3	4710.1	3.0578 µg/L	3.0578 ppb	14:14:51
2	Zn 213.857†	4373.3	4307.5	8.4302 µg/L	8.4302 ppb	14:15:11
3	Sc RADIAL	106552.2	106552.2	93.1 %		14:14:09
3	Al 396.153Radial†	1980421.5	2126147.6	501410 µg/L	501410 ppb	14:14:07
3	Ca 317.933Radial†	5539384.4	5946296.6	489610 µg/L	489610 ppb	14:14:07
3	Fe 238.204 Radial†	2093288.7	2247105.9	191690 µg/L	191690 ppb	14:14:07
3	K 766.490 Radial†	1556.6	261.8	-136.50 µg/L	-136.50 ppb	14:14:09
3	Mg 279.077 IEC†	821065.1	881289.2	487220 µg/L	487220 ppb	14:14:07
3	Na 589.592 Radial†	1396.2	663.6	105.79 µg/L	105.79 ppb	14:14:09
3	Sr 421.552†	4358.3	4745.5	8.3579 µg/L	8.3579 ppb	14:14:09
3	Sc 361.383	1510747.3	1510747.3	89.274 %		14:15:14
3	Y 371.029	840652.7	840652.7	87.840 %		14:15:14
3	Ag 328.068†	7646.6	3462.4	0.8299 µg/L	0.8299 ppb	14:15:14
3	As 188.979†	-92.6	-90.3	11.685 µg/L	11.685 ppb	14:15:34
3	B 249.677†	4303.9	709.0	10.512 µg/L	10.512 ppb	14:15:14
3	Ba 233.527†	452.0	652.2	0.5050 µg/L	0.5050 ppb	14:15:34
3	Be 313.107†	-465.6	470.7	0.1372 µg/L	0.1372 ppb	14:15:14
3	Cd 226.502†	2368.8	2718.0	-2.1851 µg/L	-2.1851 ppb	14:15:34
3	Co 228.616†	58.5	292.6	-6.1615 µg/L	-6.1615 ppb	14:15:34
3	Cr 267.716†	290.3	-4.4	0.6654 µg/L	0.6654 ppb	14:15:34
3	Cu 324.752†	-5845.0	-9788.6	0.5747 µg/L	0.5747 ppb	14:15:14
3	Mn 257.610†	15773.6	17453.4	2.9824 µg/L	2.9824 ppb	14:15:14
3	Mo 202.031†	-488.1	-525.1	-1.3367 µg/L	-1.3367 ppb	14:15:34
3	Ni 231.604†	120.6	209.0	2.5989 µg/L	2.5989 ppb	14:15:34
3	P 214.914†	134.9	170.3	20.221 µg/L	20.221 ppb	14:15:34
3	Pb 220.353†	-269.2	-418.8	-1.3372 µg/L	-1.3372 ppb	14:15:34
3	S 181.975 Axial†	166.9	85.0	72.199 µg/L	72.199 ppb	14:15:34
3	Sb 206.836†	124.6	62.0	1.9474 µg/L	1.9474 ppb	14:15:34
3	Se 196.026†	-137.9	-174.5	-0.951 µg/L	-0.951 ppb	14:15:34
3	SiO2†	1588.1	90.0	9.7554 µg/L	9.7554 ppb	14:15:34
3	Si 251.611†	625.6	-85.8	-1.0907 µg/L	-1.0907 ppb	14:15:34
3	Sn 189.927†	47.0	44.3	3.1666 µg/L	3.1666 ppb	14:15:34
3	Ti 334.940†	21809.0	23543.3	-2.2467 µg/L	-2.2467 ppb	14:15:14
3	Tl 190.801†	-146.7	-49.1	-6.4553 µg/L	-6.4553 ppb	14:15:34
3	U 409.014†	-176.6	213.4	-8.0552 µg/L	-8.0552 ppb	14:15:14
3	V 292.402†	4764.3	4840.7	3.5789 µg/L	3.5789 ppb	14:15:14
3	Zn 213.857†	4371.9	4277.8	8.1187 µg/L	8.1187 ppb	14:15:34

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1504705.3	88.917	%	0.3104				0.35%
Sc RADIAL	106427.4	93.0	%	0.55				0.59%
Y 371.029	837672.3	87.528	%	0.2698				0.31%
Ag 328.068†	3291.2	0.1883	µg/L	0.58464	0.1883	ppb	0.58464	310.52%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2118486.2	499600	µg/L	1750.6	499600	ppb	1750.6	0.35%
QC value within limits for Al 396.153Radial Recovery = 99.92%								
As 188.979†	-94.5	10.019	µg/L	2.4913	10.019	ppb	2.4913	24.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	775.5	11.498	µg/L	0.9177	11.498	ppb	0.9177	7.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	643.4	0.4770	µg/L	0.12224	0.4770	ppb	0.12224	25.63%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	605.6	0.1760	µg/L	0.05496	0.1760	ppb	0.05496	31.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5916032.3	487120	µg/L	2255.7	487120	ppb	2255.7	0.46%
QC value within limits for Ca 317.933Radial Recovery = 97.42%								
Cd 226.502†	2732.5	-1.9859	µg/L	0.17496	-1.9859	ppb	0.17496	8.81%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	291.1	-6.1295	µg/L	0.15323	-6.1295	ppb	0.15323	2.50%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -15.9      0.5594 µg/L       0.31719      0.5594 ppb        0.31719  56.70%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -9752.4      0.5144 µg/L       0.16258      0.5144 ppb        0.16258  31.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2235549.5      190700 µg/L         869.0      190700 ppb          869.0   0.46%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.35%
K 766.490 Radial†        157.5     -177.19 µg/L        35.852     -177.19 ppb         35.852  20.23%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       876730.5      484700 µg/L        2199.3      484700 ppb         2199.3   0.45%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.94%
Mn 257.610†            17407.7      3.0252 µg/L       0.04945      3.0252 ppb        0.04945   1.63%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -550.5     -2.2825 µg/L       0.82000     -2.2825 ppb        0.82000  35.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       546.6      87.152 µg/L       24.0022      87.152 ppb        24.0022  27.54%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              196.8      2.4471 µg/L       0.41242      2.4471 ppb        0.41242  16.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               157.9      17.658 µg/L        6.6952      17.658 ppb         6.6952  37.92%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -415.8     -1.2312 µg/L       0.31047     -1.2312 ppb        0.31047  25.22%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          80.9      68.666 µg/L        7.0067      68.666 ppb         7.0067  10.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               45.3     -0.1750 µg/L       1.89585     -0.1750 ppb        1.89585 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -176.1       -1.91 µg/L         0.919       -1.91 ppb          0.919  48.09%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   107.2      11.552 µg/L        3.6274      11.552 ppb         3.6274  31.40%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -146.3     -2.0067 µg/L       0.79569     -2.0067 ppb        0.79569  39.65%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               51.4      3.6621 µg/L       0.43038      3.6621 ppb        0.43038  11.75%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             4771.7      8.4446 µg/L       0.07591      8.4446 ppb        0.07591   0.90%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            23565.0     -2.0843 µg/L       0.15584     -2.0843 ppb        0.15584   7.48%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -61.0     -8.1318 µg/L       3.30453     -8.1318 ppb        3.30453  40.64%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               244.7     -6.0713 µg/L       1.77524     -6.0713 ppb        1.77524  29.24%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              4713.6      3.0447 µg/L       0.54079      3.0447 ppb        0.54079  17.76%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             4275.0      8.2014 µg/L       0.20064      8.2014 ppb        0.20064   2.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 4/13/2010 14:15:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	106223.0	106223.0	92.9	%			14:16:13
1	Al 396.153Radial†	2010708.9	2165350.9	510630	µg/L	510630	ppb	14:16:11
1	Ca 317.933Radial†	5642547.1	6075815.7	500280	µg/L	500280	ppb	14:16:11
1	Fe 238.204 Radial†	2137562.5	2301746.0	196350	µg/L	196350	ppb	14:16:11
1	K 766.490 Radial†	14643.5	14359.8	5500.8	µg/L	5500.8	ppb	14:16:13
1	Mg 279.077 IEC†	838133.6	902401.1	498910	µg/L	498910	ppb	14:16:13
1	Na 589.592 Radial†	32516.1	34180.3	5448.6	µg/L	5448.6	ppb	14:16:13
1	Sr 421.552†	192158.4	206995.7	527.81	µg/L	527.81	ppb	14:16:13
1	Sc 361.383	1499397.8	1499397.8	88.603	%			14:16:41
1	Y 371.029	834580.4	834580.4	87.205	%			14:16:41
1	Ag 328.068†	64997.7	68255.4	274.70	µg/L	274.70	ppb	14:16:41
1	As 188.979†	1188.4	1354.7	519.25	µg/L	519.25	ppb	14:16:43
1	B 249.677†	35482.5	35934.7	531.78	µg/L	531.78	ppb	14:16:41
1	Ba 233.527†	99053.3	111940.4	504.70	µg/L	504.70	ppb	14:16:41
1	Be 313.107†	774060.6	874620.5	247.79	µg/L	247.79	ppb	14:16:41
1	Cd 226.502†	68029.3	76844.5	487.67	µg/L	487.67	ppb	14:16:41
1	Co 228.616†	31628.9	35924.4	461.25	µg/L	461.25	ppb	14:16:43
1	Cr 267.716†	50218.9	56349.0	495.36	µg/L	495.36	ppb	14:16:43
1	Cu 324.752†	111159.8	122217.0	548.72	µg/L	548.72	ppb	14:16:41
1	Mn 257.610†	347052.2	391478.2	491.41	µg/L	491.41	ppb	14:16:41
1	Mo 202.031†	12828.2	14499.9	509.27	µg/L	509.27	ppb	14:16:43
1	Ni 231.604†	33045.9	37370.5	464.73	µg/L	464.73	ppb	14:16:43
1	P 214.914†	10271.0	11611.3	2626.2	µg/L	2626.2	ppb	14:16:43
1	Pb 220.353†	6372.2	7074.7	470.08	µg/L	470.08	ppb	14:16:43
1	S 181.975 Axial†	3008.4	3293.4	2806.4	µg/L	2806.4	ppb	14:16:43
1	Sb 206.836†	3712.3	4112.3	522.47	µg/L	522.47	ppb	14:16:43
1	Se 196.026†	5453.3	6134.8	2440	µg/L	2440	ppb	14:16:43
1	SiO2†	98016.0	108934.9	11227	µg/L	11227	ppb	14:16:41
1	Si 251.611†	307173.4	345898.6	5266.7	µg/L	5266.7	ppb	14:16:41
1	Sn 189.927†	6249.0	7044.4	492.37	µg/L	492.37	ppb	14:16:43
1	Ti 334.940†	459015.3	517172.4	514.39	µg/L	514.39	ppb	14:16:41
1	Tl 190.801†	2863.0	3346.5	480.00	µg/L	480.00	ppb	14:16:43
1	U 409.014†	6834.9	8125.4	504.59	µg/L	504.59	ppb	14:16:41
1	V 292.402†	96422.1	108328.9	523.44	µg/L	523.44	ppb	14:16:41
1	Zn 213.857†	81315.3	91155.5	506.04	µg/L	506.04	ppb	14:16:41
2	Sc RADIAL	103812.5	103812.5	90.8	%			14:16:18
2	Al 396.153Radial†	2013692.9	2218916.0	523260	µg/L	523260	ppb	14:16:16
2	Ca 317.933Radial†	5613708.1	6185128.6	509280	µg/L	509280	ppb	14:16:16
2	Fe 238.204 Radial†	2127616.4	2344235.8	199970	µg/L	199970	ppb	14:16:16
2	K 766.490 Radial†	14393.8	14450.8	5532.7	µg/L	5532.7	ppb	14:16:18
2	Mg 279.077 IEC†	818451.0	901670.6	498500	µg/L	498500	ppb	14:16:18
2	Na 589.592 Radial†	31974.8	34396.8	5483.1	µg/L	5483.1	ppb	14:16:18
2	Sr 421.552†	188508.5	207778.9	529.75	µg/L	529.75	ppb	14:16:18
2	Sc 361.383	1503602.0	1503602.0	88.851	%			14:16:46
2	Y 371.029	837931.6	837931.6	87.555	%			14:16:46
2	Ag 328.068†	64380.0	67355.0	270.71	µg/L	270.71	ppb	14:16:46
2	As 188.979†	1246.7	1416.6	541.50	µg/L	541.50	ppb	14:16:48
2	B 249.677†	35491.5	35832.8	530.27	µg/L	530.27	ppb	14:16:46
2	Ba 233.527†	98724.7	111258.0	501.56	µg/L	501.56	ppb	14:16:46
2	Be 313.107†	770311.0	867957.7	245.91	µg/L	245.91	ppb	14:16:46
2	Cd 226.502†	67739.4	76303.5	483.72	µg/L	483.72	ppb	14:16:46
2	Co 228.616†	31720.8	35928.0	461.11	µg/L	461.11	ppb	14:16:48
2	Cr 267.716†	50544.1	56556.5	497.29	µg/L	497.29	ppb	14:16:48
2	Cu 324.752†	110774.3	121432.3	546.02	µg/L	546.02	ppb	14:16:46
2	Mn 257.610†	345757.6	388925.9	488.08	µg/L	488.08	ppb	14:16:46
2	Mo 202.031†	12857.4	14492.3	509.15	µg/L	509.15	ppb	14:16:48
2	Ni 231.604†	33216.1	37457.8	465.82	µg/L	465.82	ppb	14:16:48
2	P 214.914†	10155.5	11448.9	2589.5	µg/L	2589.5	ppb	14:16:48
2	Pb 220.353†	6566.8	7273.6	483.18	µg/L	483.18	ppb	14:16:48

2	S 181.975 Axial†	3053.9	3335.1	2841.9 µg/L	2841.9 ppb	14:16:48
2	Sb 206.836†	3723.7	4113.4	522.45 µg/L	522.45 ppb	14:16:48
2	Se 196.026†	5491.7	6160.7	2450 µg/L	2450 ppb	14:16:48
2	SiO2†	97214.6	107723.7	11102 µg/L	11102 ppb	14:16:46
2	Si 251.611†	305391.7	342924.1	5221.3 µg/L	5221.3 ppb	14:16:46
2	Sn 189.927†	6321.2	7105.9	496.65 µg/L	496.65 ppb	14:16:48
2	Ti 334.940†	458296.4	514914.8	512.27 µg/L	512.27 ppb	14:16:46
2	Tl 190.801†	2846.1	3318.4	475.97 µg/L	475.97 ppb	14:16:48
2	U 409.014†	7352.7	8686.5	537.97 µg/L	537.97 ppb	14:16:46
2	V 292.402†	95810.2	107335.9	518.16 µg/L	518.16 ppb	14:16:46
2	Zn 213.857†	80624.4	90121.4	499.80 µg/L	499.80 ppb	14:16:46
3	Sc RADIAL	104466.8	104466.8	91.3 %		14:16:22
3	Al 396.153Radial†	1989321.2	2178332.6	513690 µg/L	513690 ppb	14:16:20
3	Ca 317.933Radial†	5538632.9	6064181.9	499320 µg/L	499320 ppb	14:16:20
3	Fe 238.204 Radial†	2098275.3	2297424.9	195980 µg/L	195980 ppb	14:16:20
3	K 766.490 Radial†	14671.2	14655.2	5618.4 µg/L	5618.4 ppb	14:16:22
3	Mg 279.077 IEC†	826093.4	904390.4	500010 µg/L	500010 ppb	14:16:22
3	Na 589.592 Radial†	32061.2	34270.8	5462.9 µg/L	5462.9 ppb	14:16:22
3	Sr 421.552†	189860.8	207958.6	530.29 µg/L	530.29 ppb	14:16:22
3	Sc 361.383	1505306.3	1505306.3	88.952 %		14:16:51
3	Y 371.029	838292.0	838292.0	87.593 %		14:16:51
3	Ag 328.068†	64553.7	67468.3	271.49 µg/L	271.49 ppb	14:16:51
3	As 188.979†	1216.9	1381.5	528.40 µg/L	528.40 ppb	14:16:53
3	B 249.677†	35439.6	35729.2	528.76 µg/L	528.76 ppb	14:16:51
3	Ba 233.527†	98763.8	111176.1	501.24 µg/L	501.24 ppb	14:16:51
3	Be 313.107†	770732.2	867449.6	245.77 µg/L	245.77 ppb	14:16:51
3	Cd 226.502†	67691.8	76163.7	483.21 µg/L	483.21 ppb	14:16:51
3	Co 228.616†	31338.1	35457.3	455.14 µg/L	455.14 ppb	14:16:53
3	Cr 267.716†	50152.5	56051.9	492.70 µg/L	492.70 ppb	14:16:53
3	Cu 324.752†	110966.1	121506.8	545.79 µg/L	545.79 ppb	14:16:51
3	Mn 257.610†	345610.7	388320.3	487.24 µg/L	487.24 ppb	14:16:51
3	Mo 202.031†	12702.0	14301.2	502.53 µg/L	502.53 ppb	14:16:53
3	Ni 231.604†	32767.5	36911.1	459.02 µg/L	459.02 ppb	14:16:53
3	P 214.914†	10142.4	11421.3	2583.9 µg/L	2583.9 ppb	14:16:53
3	Pb 220.353†	6507.1	7198.1	477.97 µg/L	477.97 ppb	14:16:53
3	S 181.975 Axial†	2928.8	3190.6	2718.9 µg/L	2718.9 ppb	14:16:53
3	Sb 206.836†	3702.7	4085.0	518.91 µg/L	518.91 ppb	14:16:53
3	Se 196.026†	5437.6	6092.9	2420 µg/L	2420 ppb	14:16:53
3	SiO2†	97419.6	107830.3	11113 µg/L	11113 ppb	14:16:51
3	Si 251.611†	305460.1	342611.7	5216.6 µg/L	5216.6 ppb	14:16:51
3	Sn 189.927†	6336.5	7115.1	497.28 µg/L	497.28 ppb	14:16:53
3	Ti 334.940†	457676.9	513634.3	510.55 µg/L	510.55 ppb	14:16:51
3	Tl 190.801†	2846.1	3314.8	475.50 µg/L	475.50 ppb	14:16:53
3	U 409.014†	7374.8	8702.0	539.52 µg/L	539.52 ppb	14:16:51
3	V 292.402†	96330.4	107798.7	520.79 µg/L	520.79 ppb	14:16:51
3	Zn 213.857†	80758.3	90169.2	500.48 µg/L	500.48 ppb	14:16:51

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1502768.7	88.802	%	0.1797				0.20%
Sc RADIAL	104834.1	91.6	%	1.09				1.19%
Y 371.029	836934.7	87.451	%	0.2139				0.24%
Ag 328.068†	67692.9	272.30	µg/L	2.114	272.30	ppb	2.114	0.78%
QC value within limits for Ag 328.068 Recovery = 108.92%								
Al 396.153Radial†	2187533.2	515860	µg/L	6589.7	515860	ppb	6589.7	1.28%
QC value within limits for Al 396.153Radial Recovery = 103.17%								
As 188.979†	1384.3	529.71	µg/L	11.182	529.71	ppb	11.182	2.11%
QC value within limits for As 188.979 Recovery = 105.94%								
B 249.677†	35832.3	530.27	µg/L	1.514	530.27	ppb	1.514	0.29%
QC value within limits for B 249.677 Recovery = 106.05%								
Ba 233.527†	111458.2	502.50	µg/L	1.911	502.50	ppb	1.911	0.38%
QC value within limits for Ba 233.527 Recovery = 100.50%								
Be 313.107†	870009.2	246.49	µg/L	1.127	246.49	ppb	1.127	0.46%
QC value within limits for Be 313.107 Recovery = 98.59%								
Ca 317.933Radial†	6108375.4	502960	µg/L	5494.0	502960	ppb	5494.0	1.09%
QC value within limits for Ca 317.933Radial Recovery = 100.59%								
Cd 226.502†	76437.2	484.87	µg/L	2.445	484.87	ppb	2.445	0.50%
QC value within limits for Cd 226.502 Recovery = 96.97%								
Co 228.616†	35769.9	459.17	µg/L	3.485	459.17	ppb	3.485	0.76%

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   QC value within limits for Co 228.616  Recovery = 91.83%
Cr 267.716†            56319.1      495.12 µg/L        2.304      495.12 ppb         2.304   0.47%
   QC value within limits for Cr 267.716  Recovery = 99.02%
Cu 324.752†           121718.7      546.84 µg/L        1.633      546.84 ppb         1.633   0.30%
   QC value within limits for Cu 324.752  Recovery = 109.37%
Fe 238.204 Radial†   2314468.9      197430 µg/L       2206.7      197430 ppb        2206.7   1.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.72%
K 766.490 Radial†      14488.6      5550.6 µg/L        60.84      5550.6 ppb         60.84   1.10%
   QC value within limits for K 766.490 Radial  Recovery = 111.01%
Mg 279.077 IEC†       902820.7      499140 µg/L        779.8      499140 ppb         779.8   0.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.83%
Mn 257.610†           389574.8      488.91 µg/L        2.206      488.91 ppb         2.206   0.45%
   QC value within limits for Mn 257.610  Recovery = 97.78%
Mo 202.031†            14431.1      506.98 µg/L        3.857      506.98 ppb         3.857   0.76%
   QC value within limits for Mo 202.031  Recovery = 101.40%
Na 589.592 Radial†     34282.6      5464.9 µg/L        17.34      5464.9 ppb         17.34   0.32%
   QC value within limits for Na 589.592 Radial  Recovery = 109.30%
Ni 231.604†            37246.4      463.19 µg/L        3.652      463.19 ppb         3.652   0.79%
   QC value within limits for Ni 231.604  Recovery = 92.64%
P 214.914†             11493.9      2599.9 µg/L        22.99      2599.9 ppb         22.99   0.88%
   QC value within limits for P 214.914  Recovery = 104.00%
Pb 220.353†             7182.1      477.08 µg/L        6.595      477.08 ppb         6.595   1.38%
   QC value within limits for Pb 220.353  Recovery = 95.42%
S 181.975 Axial†        3273.1      2789.1 µg/L        63.30      2789.1 ppb         63.30   2.27%
   QC value within limits for S 181.975 Axial  Recovery = 111.56%
Sb 206.836†             4103.6      521.27 µg/L        2.052      521.27 ppb         2.052   0.39%
   QC value within limits for Sb 206.836  Recovery = 104.25%
Se 196.026†             6129.5        2440 µg/L         13.9        2440 ppb          13.9   0.57%
   QC value within limits for Se 196.026  Recovery = 97.57%
SiO2†                 108162.9       11148 µg/L         69.2       11148 ppb         69.2   0.62%
   QC value within limits for SiO2  Recovery = 104.23%
Si 251.611†           343811.5      5234.9 µg/L        27.66      5234.9 ppb         27.66   0.53%
   QC value within limits for Si 251.611  Recovery = 104.70%
Sn 189.927†             7088.5      495.43 µg/L        2.669      495.43 ppb         2.669   0.54%
   QC value within limits for Sn 189.927  Recovery = 99.09%
Sr 421.552†           207577.7      529.28 µg/L        1.305      529.28 ppb         1.305   0.25%
   QC value within limits for Sr 421.552  Recovery = 105.86%
Ti 334.940†           515240.5      512.40 µg/L        1.923      512.40 ppb         1.923   0.38%
   QC value within limits for Ti 334.940  Recovery = 102.48%
Tl 190.801†             3326.6      477.16 µg/L        2.471      477.16 ppb         2.471   0.52%
   QC value within limits for Tl 190.801  Recovery = 95.43%
U 409.014†              8504.6      527.36 µg/L       19.736      527.36 ppb        19.736   3.74%
   QC value within limits for U 409.014  Recovery = 105.47%
V 292.402†            107821.2      520.80 µg/L        2.638      520.80 ppb         2.638   0.51%
   QC value within limits for V 292.402  Recovery = 104.16%
Zn 213.857†            90482.0      502.11 µg/L        3.421      502.11 ppb         3.421   0.68%
   QC value within limits for Zn 213.857  Recovery = 100.42%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 4/13/2010 14:17:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	101618.4	101618.4	88.8	%			14:17:33
1	Al 396.153Radial†	1943210.1	2187483.6	515880	µg/L	515880	ppb	14:17:31
1	Ca 317.933Radial†	5408483.1	6087669.7	501260	µg/L	501260	ppb	14:17:31
1	Fe 238.204 Radial†	4964166.3	5587851.5	476660	µg/L	476660	ppb	14:17:31
1	K 766.490 Radial†	1644.8	442.2	-155.17	µg/L	-155.17	ppb	14:17:33
1	Mg 279.077 IEC†	785677.1	884249.9	488620	µg/L	488620	ppb	14:17:33
1	Na 589.592 Radial†	2921118.1	3287357.7	524520	µg/L	524520	ppb	14:17:31
1	Sr 421.552†	4353.4	4967.2	8.8363	µg/L	8.8363	ppb	14:17:33
1	Sc 361.383	1451048.9	1451048.9	85.746	%			14:17:46
1	Y 371.029	805183.5	805183.5	84.134	%			14:17:46
1	Ag 328.068†	4051.2	-378.3	3.1073	µg/L	3.1073	ppb	14:17:46
1	As 188.979†	-228.7	-253.3	19.155	µg/L	19.155	ppb	14:17:48
1	B 249.677†	4969.3	1683.5	24.945	µg/L	24.945	ppb	14:17:46
1	Ba 233.527†	806.8	1086.8	-1.1700	µg/L	-1.1700	ppb	14:17:48
1	Be 313.107†	-15029.4	-16535.5	0.2344	µg/L	0.2344	ppb	14:17:46
1	Cd 226.502†	5903.4	6949.3	-4.1753	µg/L	-4.1753	ppb	14:17:48
1	Co 228.616†	637.5	970.6	-12.137	µg/L	-12.137	ppb	14:17:48
1	Cr 267.716†	504.9	259.2	0.0608	µg/L	0.0608	ppb	14:17:48
1	Cu 324.752†	-16422.5	-22393.8	3.3698	µg/L	3.3698	ppb	14:17:46
1	Mn 257.610†	17552.6	20255.1	5.8354	µg/L	5.8354	ppb	14:17:46
1	Mo 202.031†	-785.2	-894.1	-2.5554	µg/L	-2.5554	ppb	14:17:48
1	Ni 231.604†	234.8	347.7	4.3240	µg/L	4.3240	ppb	14:17:48
1	P 214.914†	968.2	1148.4	53.892	µg/L	53.892	ppb	14:17:48
1	Pb 220.353†	134.0	39.0	6.8944	µg/L	6.8944	ppb	14:17:48
1	S 181.975 Axial†	183.6	112.1	95.158	µg/L	95.158	ppb	14:17:48
1	Sb 206.836†	114.4	55.9	-2.6688	µg/L	-2.6688	ppb	14:17:48
1	Se 196.026†	-375.8	-458.2	3.88	µg/L	3.88	ppb	14:17:48
1	SiO2†	1940.8	574.5	60.057	µg/L	60.057	ppb	14:17:48
1	Si 251.611†	-2012.3	-3133.3	-47.449	µg/L	-47.449	ppb	14:17:48
1	Sn 189.927†	113.8	124.3	8.7464	µg/L	8.7464	ppb	14:17:48
1	Ti 334.940†	22993.9	25930.2	-6.2256	µg/L	-6.2256	ppb	14:17:46
1	Tl 190.801†	-239.8	-164.5	-22.560	µg/L	-22.560	ppb	14:17:48
1	U 409.014†	228975.2	267450.4	16179	µg/L	16179	ppb	14:17:46
1	V 292.402†	8387.4	9285.7	6.3554	µg/L	6.3554	ppb	14:17:48
1	Zn 213.857†	8658.3	9478.3	8.1931	µg/L	8.1931	ppb	14:17:48
2	Sc RADIAL	102321.2	102321.2	89.5	%			14:17:38
2	Al 396.153Radial†	1946639.3	2176294.8	513240	µg/L	513240	ppb	14:17:36
2	Ca 317.933Radial†	5403416.6	6040193.8	497350	µg/L	497350	ppb	14:17:36
2	Fe 238.204 Radial†	4952835.0	5536806.9	472310	µg/L	472310	ppb	14:17:36
2	K 766.490 Radial†	1697.8	488.7	-134.37	µg/L	-134.37	ppb	14:17:38
2	Mg 279.077 IEC†	789460.4	882405.5	487600	µg/L	487600	ppb	14:17:38
2	Na 589.592 Radial†	2914785.7	3257696.0	519790	µg/L	519790	ppb	14:17:36
2	Sr 421.552†	4392.5	4977.2	8.8926	µg/L	8.8926	ppb	14:17:38
2	Sc 361.383	1443441.1	1443441.1	85.296	%			14:17:51
2	Y 371.029	800939.8	800939.8	83.690	%			14:17:51
2	Ag 328.068†	4124.8	-267.2	3.7115	µg/L	3.7115	ppb	14:17:51
2	As 188.979†	-226.0	-251.6	18.808	µg/L	18.808	ppb	14:17:53
2	B 249.677†	5172.5	1952.2	28.930	µg/L	28.930	ppb	14:17:51
2	Ba 233.527†	727.0	998.2	-1.5148	µg/L	-1.5148	ppb	14:17:53
2	Be 313.107†	-15035.4	-16635.0	0.2078	µg/L	0.2078	ppb	14:17:51
2	Cd 226.502†	5968.0	7061.3	-2.9762	µg/L	-2.9762	ppb	14:17:53
2	Co 228.616†	732.9	1086.3	-10.393	µg/L	-10.393	ppb	14:17:53
2	Cr 267.716†	613.1	389.1	1.0597	µg/L	1.0597	ppb	14:17:53
2	Cu 324.752†	-16257.3	-22301.1	3.0973	µg/L	3.0973	ppb	14:17:51
2	Mn 257.610†	17311.8	20080.7	5.6594	µg/L	5.6594	ppb	14:17:51
2	Mo 202.031†	-773.8	-885.6	-2.4578	µg/L	-2.4578	ppb	14:17:53
2	Ni 231.604†	307.5	434.4	5.4020	µg/L	5.4020	ppb	14:17:53
2	P 214.914†	838.3	1002.1	22.793	µg/L	22.793	ppb	14:17:53
2	Pb 220.353†	-74.9	-205.0	-8.4162	µg/L	-8.4162	ppb	14:17:53

2	S 181.975 Axial†	172.1	99.8	84.675 µg/L	84.675 ppb		14:17:53
2	Sb 206.836†	130.0	74.9	-0.1769 µg/L	-0.1769 ppb		14:17:53
2	Se 196.026†	-357.8	-439.5	9.62 µg/L	9.62 ppb		14:17:53
2	SiO2†	1907.5	547.5	57.320 µg/L	57.320 ppb		14:17:53
2	Si 251.611†	-1844.0	-2948.4	-44.606 µg/L	-44.606 ppb		14:17:53
2	Sn 189.927†	63.4	65.9	4.6843 µg/L	4.6843 ppb		14:17:53
2	Ti 334.940†	23049.9	26137.2	-6.0299 µg/L	-6.0299 ppb		14:17:51
2	Tl 190.801†	-252.7	-181.0	-24.888 µg/L	-24.888 ppb		14:17:53
2	U 409.014†	227848.4	267536.8	16185 µg/L	16185 ppb		14:17:51
2	V 292.402†	8499.3	9468.4	7.7317 µg/L	7.7317 ppb		14:17:53
2	Zn 213.857†	8749.4	9638.3	9.5633 µg/L	9.5633 ppb		14:17:53
3	Sc RADIAL	102776.7	102776.7	89.8 %			14:17:42
3	Al 396.153Radial†	1944918.6	2164733.5	510510 µg/L	510510 ppb		14:17:40
3	Ca 317.933Radial†	5395053.8	6004110.7	494370 µg/L	494370 ppb		14:17:40
3	Fe 238.204 Radial†	4944761.9	5503278.9	469450 µg/L	469450 ppb		14:17:40
3	K 766.490 Radial†	1556.1	322.6	-199.36 µg/L	-199.36 ppb		14:17:42
3	Mg 279.077 IEC†	792672.2	882068.1	487420 µg/L	487420 ppb		14:17:42
3	Na 589.592 Radial†	2915975.4	3244576.5	517690 µg/L	517690 ppb		14:17:40
3	Sr 421.552†	4386.8	4949.1	8.8437 µg/L	8.8437 ppb		14:17:42
3	Sc 361.383	1441855.7	1441855.7	85.203 %			14:17:56
3	Y 371.029	800135.8	800135.8	83.606 %			14:17:56
3	Ag 328.068†	3930.4	-490.0	2.9115 µg/L	2.9115 ppb		14:17:56
3	As 188.979†	-223.7	-249.1	19.005 µg/L	19.005 ppb		14:17:58
3	B 249.677†	4889.6	1626.9	24.105 µg/L	24.105 ppb		14:17:56
3	Ba 233.527†	656.6	916.5	-1.8485 µg/L	-1.8485 ppb		14:17:58
3	Be 313.107†	-15019.5	-16635.6	0.2128 µg/L	0.2128 ppb		14:17:56
3	Cd 226.502†	5902.7	6992.4	-3.1320 µg/L	-3.1320 ppb		14:17:58
3	Co 228.616†	655.4	996.2	-11.425 µg/L	-11.425 ppb		14:17:58
3	Cr 267.716†	510.7	269.7	-0.0990 µg/L	-0.0990 ppb		14:17:58
3	Cu 324.752†	-16176.0	-22226.5	2.9978 µg/L	2.9978 ppb		14:17:56
3	Mn 257.610†	17396.2	20202.0	5.8328 µg/L	5.8328 ppb		14:17:56
3	Mo 202.031†	-835.6	-959.1	-5.0674 µg/L	-5.0674 ppb		14:17:58
3	Ni 231.604†	214.2	325.3	4.0460 µg/L	4.0460 ppb		14:17:58
3	P 214.914†	771.2	924.4	6.4274 µg/L	6.4274 ppb		14:17:58
3	Pb 220.353†	47.6	-61.4	0.4844 µg/L	0.4844 ppb		14:17:58
3	S 181.975 Axial†	146.3	69.7	59.070 µg/L	59.070 ppb		14:17:58
3	Sb 206.836†	223.3	184.6	13.925 µg/L	13.925 ppb		14:17:58
3	Se 196.026†	-446.7	-544.2	-31.9 µg/L	-31.9 ppb		14:17:58
3	SiO2†	1948.9	598.5	62.609 µg/L	62.609 ppb		14:17:58
3	Si 251.611†	-1800.7	-2899.9	-43.856 µg/L	-43.856 ppb		14:17:58
3	Sn 189.927†	106.8	117.0	8.2367 µg/L	8.2367 ppb		14:17:58
3	Ti 334.940†	22940.7	26038.8	-6.2021 µg/L	-6.2021 ppb		14:17:56
3	Tl 190.801†	-163.9	-77.1	-10.240 µg/L	-10.240 ppb		14:17:58
3	U 409.014†	227839.0	267819.5	16203 µg/L	16203 ppb		14:17:56
3	V 292.402†	8559.5	9550.0	8.4195 µg/L	8.4195 ppb		14:17:58
3	Zn 213.857†	8617.8	9495.1	9.0308 µg/L	9.0308 ppb		14:17:58

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1445448.6	85.415	%	0.2904				0.34%
Sc RADIAL	102238.8	89.4	%	0.51				0.57%
Y 371.029	802086.4	83.810	%	0.2834				0.34%
Ag 328.068†	-378.5	3.2434	µg/L	0.41706	3.2434	ppb	0.41706	12.86%
Al 396.153Radial†	2176170.6	513210	µg/L	2682.7	513210	ppb	2682.7	0.52%
QC value within limits for Al 396.153Radial Recovery = 102.64%								
As 188.979†	-251.3	18.989	µg/L	0.1741	18.989	ppb	0.1741	0.92%
B 249.677†	1754.2	25.993	µg/L	2.5778	25.993	ppb	2.5778	9.92%
Ba 233.527†	1000.5	-1.5111	µg/L	0.33925	-1.5111	ppb	0.33925	22.45%
Be 313.107†	-16602.0	0.2184	µg/L	0.01411	0.2184	ppb	0.01411	6.46%
Ca 317.933Radial†	6043991.4	497660	µg/L	3450.7	497660	ppb	3450.7	0.69%
QC value within limits for Ca 317.933Radial Recovery = 99.53%								
Cd 226.502†	7001.0	-3.4278	µg/L	0.65201	-3.4278	ppb	0.65201	19.02%
Co 228.616†	1017.7	-11.319	µg/L	0.8771	-11.319	ppb	0.8771	7.75%
Cr 267.716†	306.0	0.3405	µg/L	0.62793	0.3405	ppb	0.62793	184.42%
Cu 324.752†	-22307.2	3.1550	µg/L	0.19260	3.1550	ppb	0.19260	6.10%
Fe 238.204 Radial†	5542645.8	472810	µg/L	3632.9	472810	ppb	3632.9	0.77%
QC value within limits for Fe 238.204 Radial Recovery = 94.56%								
K 766.490 Radial†	417.8	-162.97	µg/L	33.187	-162.97	ppb	33.187	20.36%
Mg 279.077 IEC†	882907.8	487880	µg/L	646.5	487880	ppb	646.5	0.13%

QC value within limits for Mg 279.077 IEC Recovery = 97.58%

Mn 257.610†	20179.3	5.7759	µg/L	0.10089	5.7759	ppb	0.10089	1.75%
Mo 202.031†	-912.9	-3.3602	µg/L	1.47930	-3.3602	ppb	1.47930	44.02%
Na 589.592 Radial†	3263210.1	520670	µg/L	3497.0	520670	ppb	3497.0	0.67%

QC value within limits for Na 589.592 Radial Recovery = 104.13%

Ni 231.604†	369.1	4.5907	µg/L	0.71624	4.5907	ppb	0.71624	15.60%
P 214.914†	1024.9	27.704	µg/L	24.1102	27.704	ppb	24.1102	87.03%
Pb 220.353†	-75.8	-0.3458	µg/L	7.68897	-0.3458	ppb	7.68897	>999.9%
S 181.975 Axial†	93.9	79.634	µg/L	18.5646	79.634	ppb	18.5646	23.31%
Sb 206.836†	105.1	3.6930	µg/L	8.94807	3.6930	ppb	8.94807	242.30%
Se 196.026†	-480.7	-6.12	µg/L	22.477	-6.12	ppb	22.477	367.13%
SiO2†	573.5	59.995	µg/L	2.6451	59.995	ppb	2.6451	4.41%
Si 251.611†	-2993.9	-45.304	µg/L	1.8957	-45.304	ppb	1.8957	4.18%
Sn 189.927†	102.4	7.2225	µg/L	2.21285	7.2225	ppb	2.21285	30.64%
Sr 421.552†	4964.5	8.8575	µg/L	0.03063	8.8575	ppb	0.03063	0.35%
Ti 334.940†	26035.4	-6.1525	µg/L	0.10684	-6.1525	ppb	0.10684	1.74%
Tl 190.801†	-140.8	-19.230	µg/L	7.8717	-19.230	ppb	7.8717	40.94%
U 409.014†	267602.2	16189	µg/L	12.4	16189	ppb	12.4	0.08%

QC value within limits for U 409.014 Recovery = 107.93%

V 292.402†	9434.7	7.5022	µg/L	1.05102	7.5022	ppb	1.05102	14.01%
Zn 213.857†	9537.2	8.9291	µg/L	0.69073	8.9291	ppb	0.69073	7.74%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 4/13/2010 14:18:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113057.1	113057.1	98.8	%			14:18:39
1	Al 396.153Radial†	1979.7	2088.0	28.253	µg/L	28.253	ppb	14:18:41
1	Ca 317.933Radial†	1178.8	735.9	60.595	µg/L	60.595	ppb	14:18:41
1	Fe 238.204 Radial†	-386.1	-514.9	-43.927	µg/L	-43.927	ppb	14:18:41
1	K 766.490 Radial†	740197.3	747501.7	299210	µg/L	299210	ppb	14:18:39
1	Mg 279.077 IEC†	-269.8	-430.4	6.5176	µg/L	6.5176	ppb	14:18:41
1	Na 589.592 Radial†	2408.3	1601.3	-10.601	µg/L	-10.601	ppb	14:18:41
1	Sr 421.552†	3757575.8	3801877.0	9766.2	µg/L	9766.2	ppb	14:18:37
1	Sc 361.383	1627056.1	1627056.1	96.147	%			14:19:03
1	Y 371.029	896254.3	896254.3	93.650	%			14:19:03
1	Ag 328.068†	-21181.0	-27132.8	7.9518	µg/L	7.9518	ppb	14:19:05
1	As 188.979†	27513.5	28629.6	10175	µg/L	10175	ppb	14:19:05
1	B 249.677†	332796.8	342022.7	5043.2	µg/L	5043.2	ppb	14:19:03
1	Ba 233.527†	2731023.6	2840624.0	12868	µg/L	12868	ppb	14:19:03
1	Be 313.107†	10023230.3	10425935.4	2951.9	µg/L	2951.9	ppb	14:18:59
1	Cd 226.502†	1438589.6	1496310.2	9898.4	µg/L	9898.4	ppb	14:19:03
1	Co 228.616†	713699.8	742530.6	9750.4	µg/L	9750.4	ppb	14:19:03
1	Cr 267.716†	2691360.1	2798895.3	24585	µg/L	24585	ppb	14:19:03
1	Cu 324.752†	4756253.5	4943634.1	20471	µg/L	20471	ppb	14:19:03
1	Mn 257.610†	7004818.2	7285343.2	9522.9	µg/L	9522.9	ppb	14:19:03
1	Mo 202.031†	283045.3	294410.8	9997.4	µg/L	9997.4	ppb	14:19:05
1	Ni 231.604†	767548.0	798383.8	9928.6	µg/L	9928.6	ppb	14:19:03
1	P 214.914†	64525.6	67130.9	15097	µg/L	15097	ppb	14:19:05
1	Pb 220.353†	369576.8	384271.6	24108	µg/L	24108	ppb	14:19:03
1	S 181.975 Axial†	59080.3	61346.2	52281	µg/L	52281	ppb	14:19:05
1	Sb 206.836†	76097.6	79070.0	9941.6	µg/L	9941.6	ppb	14:19:05
1	Se 196.026†	24505.6	25467.8	9850	µg/L	9850	ppb	14:19:05
1	SiO2†	957701.9	994395.9	102250	µg/L	102250	ppb	14:19:03
1	Si 251.611†	3023960.8	3144369.1	47767	µg/L	47767	ppb	14:19:03
1	Sn 189.927†	137061.4	142546.1	9961.0	µg/L	9961.0	ppb	14:19:05
1	Ti 334.940†	9419561.6	9796194.4	10265	µg/L	10265	ppb	14:18:59
1	Tl 190.801†	65725.3	68474.7	9804.0	µg/L	9804.0	ppb	14:19:05
1	U 409.014†	-5128.7	-4923.0	316.31	µg/L	316.31	ppb	14:19:05
1	V 292.402†	1964093.0	2042314.2	10325	µg/L	10325	ppb	14:19:03
1	Zn 213.857†	2451285.7	2548909.5	14639	µg/L	14639	ppb	14:19:03
2	Sc RADIAL	111791.4	111791.4	97.7	%			14:18:45
2	Al 396.153Radial†	1955.0	2085.4	26.986	µg/L	26.986	ppb	14:18:47
2	Ca 317.933Radial†	993.7	560.0	46.110	µg/L	46.110	ppb	14:18:47
2	Fe 238.204 Radial†	-493.4	-629.1	-53.668	µg/L	-53.668	ppb	14:18:47
2	K 766.490 Radial†	738179.0	753915.8	301770	µg/L	301770	ppb	14:18:45
2	Mg 279.077 IEC†	-354.4	-520.0	-42.678	µg/L	-42.678	ppb	14:18:47
2	Na 589.592 Radial†	2259.9	1477.1	-32.705	µg/L	-32.705	ppb	14:18:47
2	Sr 421.552†	3820347.3	3909151.0	10042	µg/L	10042	ppb	14:18:43
2	Sc 361.383	1633949.6	1633949.6	96.554	%			14:19:13
2	Y 371.029	900415.6	900415.6	94.084	%			14:19:13
2	Ag 328.068†	-21328.4	-27192.6	7.1208	µg/L	7.1208	ppb	14:19:15
2	As 188.979†	27764.9	28769.3	10223	µg/L	10223	ppb	14:19:15
2	B 249.677†	332666.5	340427.5	5019.7	µg/L	5019.7	ppb	14:19:13
2	Ba 233.527†	2729926.4	2827503.9	12809	µg/L	12809	ppb	14:19:13
2	Be 313.107†	9898126.5	10252384.9	2902.7	µg/L	2902.7	ppb	14:19:09
2	Cd 226.502†	1435333.2	1486625.1	9834.3	µg/L	9834.3	ppb	14:19:13
2	Co 228.616†	711992.2	737630.4	9686.1	µg/L	9686.1	ppb	14:19:13
2	Cr 267.716†	2688281.6	2783897.3	24453	µg/L	24453	ppb	14:19:13
2	Cu 324.752†	4752584.8	4918964.2	20369	µg/L	20369	ppb	14:19:13
2	Mn 257.610†	6997905.1	7247446.3	9473.4	µg/L	9473.4	ppb	14:19:13
2	Mo 202.031†	284646.2	294826.9	10012	µg/L	10012	ppb	14:19:15
2	Ni 231.604†	766144.9	793562.6	9868.6	µg/L	9868.6	ppb	14:19:13
2	P 214.914†	64919.2	67255.4	15127	µg/L	15127	ppb	14:19:15
2	Pb 220.353†	368356.6	381386.1	23928	µg/L	23928	ppb	14:19:13

2	S 181.975 Axial†	59321.7	61337.0	52274	µg/L	52274	ppb	14:19:15
2	Sb 206.836†	76388.8	79037.6	9939.6	µg/L	9939.6	ppb	14:19:15
2	Se 196.026†	24615.4	25473.9	9850	µg/L	9850	ppb	14:19:15
2	SiO2†	958315.6	990829.1	101880	µg/L	101880	ppb	14:19:13
2	Si 251.611†	3025752.0	3132955.2	47592	µg/L	47592	ppb	14:19:13
2	Sn 189.927†	138059.0	142977.9	9990.5	µg/L	9990.5	ppb	14:19:15
2	Ti 334.940†	9311775.6	9643228.6	10105	µg/L	10105	ppb	14:19:09
2	Tl 190.801†	65883.1	68349.7	9784.6	µg/L	9784.6	ppb	14:19:15
2	U 409.014†	-5181.6	-4955.2	311.35	µg/L	311.35	ppb	14:19:15
2	V 292.402†	1962839.4	2032397.5	10276	µg/L	10276	ppb	14:19:13
2	Zn 213.857†	2447290.1	2534015.0	14554	µg/L	14554	ppb	14:19:13
3	Sc RADIAL	111474.3	111474.3	97.5	%			14:18:52
3	Al 396.153Radial†	2221.8	2364.8	85.955	µg/L	85.955	ppb	14:18:54
3	Ca 317.933Radial†	1483.9	1066.0	87.771	µg/L	87.771	ppb	14:18:54
3	Fe 238.204 Radial†	-45.9	-171.4	-14.618	µg/L	-14.618	ppb	14:18:54
3	K 766.490 Radial†	741039.7	759000.3	303810	µg/L	303810	ppb	14:18:52
3	Mg 279.077 IEC†	-288.4	-453.3	-2.2053	µg/L	-2.2053	ppb	14:18:54
3	Na 589.592 Radial†	2434.6	1662.9	-4.8658	µg/L	-4.8658	ppb	14:18:54
3	Sr 421.552†	3806040.0	3905592.2	10033	µg/L	10033	ppb	14:18:50
3	Sc 361.383	1616630.6	1616630.6	95.531	%			14:19:22
3	Y 371.029	890258.4	890258.4	93.023	%			14:19:22
3	Ag 328.068†	-22052.3	-28187.0	3.2889	µg/L	3.2889	ppb	14:19:25
3	As 188.979†	28082.0	29409.2	10445	µg/L	10445	ppb	14:19:25
3	B 249.677†	330052.1	341381.9	5033.8	µg/L	5033.8	ppb	14:19:22
3	Ba 233.527†	2708661.7	2835533.8	12845	µg/L	12845	ppb	14:19:22
3	Be 313.107†	9845255.5	10306863.5	2918.2	µg/L	2918.2	ppb	14:19:19
3	Cd 226.502†	1421588.9	1488163.3	9844.5	µg/L	9844.5	ppb	14:19:22
3	Co 228.616†	706473.4	739753.2	9714.0	µg/L	9714.0	ppb	14:19:22
3	Cr 267.716†	2665538.6	2789917.7	24506	µg/L	24506	ppb	14:19:22
3	Cu 324.752†	4720530.1	4938141.5	20449	µg/L	20449	ppb	14:19:22
3	Mn 257.610†	6940639.6	7265145.9	9496.5	µg/L	9496.5	ppb	14:19:22
3	Mo 202.031†	285828.6	299222.8	10161	µg/L	10161	ppb	14:19:25
3	Ni 231.604†	758915.0	794495.1	9880.2	µg/L	9880.2	ppb	14:19:22
3	P 214.914†	65258.4	68330.8	15372	µg/L	15372	ppb	14:19:25
3	Pb 220.353†	365201.9	382170.9	23977	µg/L	23977	ppb	14:19:22
3	S 181.975 Axial†	59689.8	62380.5	53163	µg/L	53163	ppb	14:19:25
3	Sb 206.836†	76727.7	80239.9	10095	µg/L	10095	ppb	14:19:25
3	Se 196.026†	24687.4	25822.5	9990	µg/L	9990	ppb	14:19:25
3	SiO2†	952195.5	995055.6	102310	µg/L	102310	ppb	14:19:22
3	Si 251.611†	3007396.0	3147312.2	47808	µg/L	47808	ppb	14:19:22
3	Sn 189.927†	138667.0	145146.2	10142	µg/L	10142	ppb	14:19:25
3	Ti 334.940†	9266032.1	9698662.5	10163	µg/L	10163	ppb	14:19:19
3	Tl 190.801†	66198.5	69410.9	9934.8	µg/L	9934.8	ppb	14:19:25
3	U 409.014†	-4988.6	-4810.8	321.48	µg/L	321.48	ppb	14:19:25
3	V 292.402†	1946274.3	2036835.8	10300	µg/L	10300	ppb	14:19:22
3	Zn 213.857†	2427801.1	2540767.8	14593	µg/L	14593	ppb	14:19:22

Mean Data: LR2

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1625878.7	96.077	%	0.5152				0.54%
Sc RADIAL	112107.6	98.0	%	0.73				0.75%
Y 371.029	895642.8	93.586	%	0.5335				0.57%
Ag 328.068†	-27504.1	6.1205	µg/L	2.48720	6.1205	ppb	2.48720	40.64%
Al 396.153Radial†	2179.4	47.065	µg/L	33.6857	47.065	ppb	33.6857	71.57%
As 188.979†	28936.0	10281	µg/L	144.0	10281	ppb	144.0	1.40%
QC value within limits for As 188.979 Recovery = 102.81%								
B 249.677†	341277.3	5032.3	µg/L	11.81	5032.3	ppb	11.81	0.23%
QC value within limits for B 249.677 Recovery = 100.65%								
Ba 233.527†	2834553.9	12841	µg/L	30.0	12841	ppb	30.0	0.23%
QC value less than the lower limit for Ba 233.527 Recovery = 85.61%								
Be 313.107†	10328394.6	2924.3	µg/L	25.13	2924.3	ppb	25.13	0.86%
QC value within limits for Be 313.107 Recovery = 97.48%								
Ca 317.933Radial†	787.3	64.825	µg/L	21.1501	64.825	ppb	21.1501	32.63%
Cd 226.502†	1490366.2	9859.1	µg/L	34.43	9859.1	ppb	34.43	0.35%
QC value within limits for Cd 226.502 Recovery = 98.59%								
Co 228.616†	739971.4	9716.8	µg/L	32.25	9716.8	ppb	32.25	0.33%
QC value within limits for Co 228.616 Recovery = 97.17%								
Cr 267.716†	2790903.4	24514	µg/L	66.3	24514	ppb	66.3	0.27%
QC value within limits for Cr 267.716 Recovery = 98.06%								

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Cu 324.752†          4933579.9       20430 µg/L          53.6       20430 ppb          53.6   0.26%
   QC value within limits for Cu 324.752  Recovery = 102.15%
Fe 238.204 Radial†      -438.5     -37.404 µg/L       20.3260     -37.404 ppb       20.3260  54.34%
K 766.490 Radial†     753472.6      301600 µg/L        2306.4      301600 ppb        2306.4   0.76%
   QC value within limits for K 766.490 Radial  Recovery = 100.53%
Mg 279.077 IEC†         -467.9     -12.789 µg/L       26.2498     -12.789 ppb       26.2498 205.26%
Mn 257.610†          7265978.4      9497.6 µg/L         24.79      9497.6 ppb         24.79   0.26%
   QC value within limits for Mn 257.610  Recovery = 94.98%
Mo 202.031†           296153.5       10057 µg/L          90.5       10057 ppb          90.5   0.90%
   QC value within limits for Mo 202.031  Recovery = 100.57%
Na 589.592 Radial†      1580.5     -16.057 µg/L       14.6997     -16.057 ppb       14.6997  91.54%
Ni 231.604†           795480.5      9892.5 µg/L         31.80      9892.5 ppb         31.80   0.32%
   QC value within limits for Ni 231.604  Recovery = 98.92%
P 214.914†             67572.3       15199 µg/L         150.5       15199 ppb         150.5   0.99%
   QC value within limits for P 214.914  Recovery = 101.32%
Pb 220.353†           382609.5       24004 µg/L          93.5       24004 ppb          93.5   0.39%
   QC value within limits for Pb 220.353  Recovery = 96.02%
S 181.975 Axial†       61687.9       52573 µg/L         511.1       52573 ppb         511.1   0.97%
   QC value within limits for S 181.975 Axial  Recovery = 105.15%
Sb 206.836†            79449.2      9992.2 µg/L         89.34      9992.2 ppb         89.34   0.89%
   QC value within limits for Sb 206.836  Recovery = 99.92%
Se 196.026†            25588.1        9890 µg/L          78.5        9890 ppb          78.5   0.79%
   QC value within limits for Se 196.026  Recovery = 98.95%
SiO2†                 993426.9      102150 µg/L         232.7      102150 ppb         232.7   0.23%
   QC value within limits for SiO2  Recovery = 95.47%
Si 251.611†          3141545.5       47723 µg/L         114.6       47723 ppb         114.6   0.24%
   QC value within limits for Si 251.611  Recovery = 95.45%
Sn 189.927†           143556.7       10031 µg/L          96.9       10031 ppb          96.9   0.97%
   QC value within limits for Sn 189.927  Recovery = 100.31%
Sr 421.552†          3872206.7      9946.8 µg/L        156.52      9946.8 ppb        156.52   1.57%
   QC value within limits for Sr 421.552  Recovery = 99.47%
Ti 334.940†          9712695.1       10178 µg/L          81.2       10178 ppb          81.2   0.80%
   QC value within limits for Ti 334.940  Recovery = 101.78%
Tl 190.801†            68745.1      9841.2 µg/L         81.71      9841.2 ppb         81.71   0.83%
   QC value within limits for Tl 190.801  Recovery = 98.41%
U 409.014†             -4896.3      316.38 µg/L         5.066      316.38 ppb         5.066   1.60%
V 292.402†           2037182.5       10300 µg/L          24.7       10300 ppb          24.7   0.24%
   QC value within limits for V 292.402  Recovery = 103.00%
Zn 213.857†          2541230.8       14595 µg/L          42.9       14595 ppb          42.9   0.29%
   QC value within limits for Zn 213.857  Recovery = 97.30%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/13/2010 14:19:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	112203.8	112203.8	98.1	%			14:20:06
1	Al 396.153Radial†	21489.9	21993.2	5162.9	µg/L	5162.9	ppb	14:20:06
1	Ca 317.933Radial†	61613.2	62355.9	5134.3	µg/L	5134.3	ppb	14:20:06
1	Fe 238.204 Radial†	59068.1	60093.7	5126.2	µg/L	5126.2	ppb	14:20:06
1	K 766.490 Radial†	15049.0	13932.7	5572.7	µg/L	5572.7	ppb	14:20:06
1	Mg 279.077 IEC†	9386.0	9411.4	5213.0	µg/L	5213.0	ppb	14:20:06
1	Na 589.592 Radial†	64068.9	64480.9	10283	µg/L	10283	ppb	14:20:04
1	Sr 421.552†	196127.7	200012.4	513.75	µg/L	513.75	ppb	14:20:04
1	Sc 361.383	1663650.0	1663650.0	98.309	%			14:20:19
1	Y 371.029	930876.1	930876.1	97.267	%			14:20:19
1	Ag 328.068†	125303.2	122355.5	511.54	µg/L	511.54	ppb	14:20:19
1	As 188.979†	1417.3	1455.1	511.27	µg/L	511.27	ppb	14:20:39
1	B 249.677†	38223.4	34769.0	514.34	µg/L	514.34	ppb	14:20:19
1	Ba 233.527†	110371.5	112415.8	509.29	µg/L	509.29	ppb	14:20:19
1	Be 313.107†	1754134.0	1785298.2	505.62	µg/L	505.62	ppb	14:20:19
1	Cd 226.502†	76017.7	77389.8	511.41	µg/L	511.41	ppb	14:20:19
1	Co 228.616†	38086.1	38968.3	511.13	µg/L	511.13	ppb	14:20:19
1	Cr 267.716†	57242.2	57897.1	508.36	µg/L	508.36	ppb	14:20:19
1	Cu 324.752†	124009.6	122901.4	510.36	µg/L	510.36	ppb	14:20:19
1	Mn 257.610†	383714.0	390098.7	509.69	µg/L	509.69	ppb	14:20:19
1	Mo 202.031†	14766.9	15042.5	511.10	µg/L	511.10	ppb	14:20:39
1	Ni 231.604†	40209.4	40974.9	509.56	µg/L	509.56	ppb	14:20:19
1	P 214.914†	10884.8	11091.3	2525.5	µg/L	2525.5	ppb	14:20:39
1	Pb 220.353†	8325.6	8351.6	524.93	µg/L	524.93	ppb	14:20:39
1	S 181.975 Axial†	1314.8	1235.5	1055.6	µg/L	1055.6	ppb	14:20:39
1	Sb 206.836†	3971.7	3962.5	509.12	µg/L	509.12	ppb	14:20:39
1	Se 196.026†	1332.0	1334.9	518	µg/L	518	ppb	14:20:39
1	SiO2†	53455.9	52686.4	5418.3	µg/L	5418.3	ppb	14:20:19
1	Si 251.611†	165269.8	167326.0	2542.3	µg/L	2542.3	ppb	14:20:19
1	Sn 189.927†	7215.1	7330.8	512.20	µg/L	512.20	ppb	14:20:39
1	Ti 334.940†	478219.0	485558.5	508.56	µg/L	508.56	ppb	14:20:19
1	Tl 190.801†	3441.0	3615.4	517.12	µg/L	517.12	ppb	14:20:39
1	U 409.014†	7002.5	7534.2	488.93	µg/L	488.93	ppb	14:20:19
1	V 292.402†	100424.5	101655.8	510.78	µg/L	510.78	ppb	14:20:19
1	Zn 213.857†	87874.3	88766.5	508.47	µg/L	508.47	ppb	14:20:19
2	Sc RADIAL	111485.0	111485.0	97.5	%			14:20:10
2	Al 396.153Radial†	21686.2	22335.9	5244.0	µg/L	5244.0	ppb	14:20:10
2	Ca 317.933Radial†	62036.2	63194.9	5203.4	µg/L	5203.4	ppb	14:20:10
2	Fe 238.204 Radial†	59099.2	60513.8	5162.1	µg/L	5162.1	ppb	14:20:10
2	K 766.490 Radial†	15114.4	14098.7	5639.1	µg/L	5639.1	ppb	14:20:10
2	Mg 279.077 IEC†	9440.1	9528.6	5277.6	µg/L	5277.6	ppb	14:20:10
2	Na 589.592 Radial†	63223.6	64034.7	10212	µg/L	10212	ppb	14:20:08
2	Sr 421.552†	193487.6	198592.8	510.10	µg/L	510.10	ppb	14:20:08
2	Sc 361.383	1684649.2	1684649.2	99.550	%			14:20:42
2	Y 371.029	942088.8	942088.8	98.439	%			14:20:42
2	Ag 328.068†	126565.4	122034.6	510.21	µg/L	510.21	ppb	14:20:42
2	As 188.979†	1414.0	1433.8	503.88	µg/L	503.88	ppb	14:21:02
2	B 249.677†	38415.8	34477.6	510.02	µg/L	510.02	ppb	14:20:42
2	Ba 233.527†	111543.9	112194.1	508.28	µg/L	508.28	ppb	14:20:42
2	Be 313.107†	1772159.3	1781163.6	504.45	µg/L	504.45	ppb	14:20:42
2	Cd 226.502†	76829.4	77241.3	510.42	µg/L	510.42	ppb	14:20:42
2	Co 228.616†	38456.0	38856.9	509.67	µg/L	509.67	ppb	14:20:42
2	Cr 267.716†	57736.0	57667.4	506.34	µg/L	506.34	ppb	14:20:42
2	Cu 324.752†	124574.4	121896.3	506.21	µg/L	506.21	ppb	14:20:42
2	Mn 257.610†	387164.3	388699.3	507.86	µg/L	507.86	ppb	14:20:42
2	Mo 202.031†	14777.1	14865.5	505.09	µg/L	505.09	ppb	14:21:02
2	Ni 231.604†	40823.3	41081.8	510.89	µg/L	510.89	ppb	14:20:42
2	P 214.914†	10900.2	10968.7	2497.5	µg/L	2497.5	ppb	14:21:02
2	Pb 220.353†	8257.1	8177.2	513.98	µg/L	513.98	ppb	14:21:02

2	S 181.975 Axial†	1299.2	1203.2	1028.0 µg/L	1028.0 ppb	14:21:02
2	Sb 206.836†	3974.3	3914.7	502.92 µg/L	502.92 ppb	14:21:02
2	Se 196.026†	1306.9	1292.8	502 µg/L	502 ppb	14:21:02
2	SiO2†	53943.0	52498.0	5399.2 µg/L	5399.2 ppb	14:20:42
2	Si 251.611†	166874.4	166842.3	2535.0 µg/L	2535.0 ppb	14:20:42
2	Sn 189.927†	7194.7	7218.9	504.40 µg/L	504.40 ppb	14:21:02
2	Ti 334.940†	481648.5	482939.9	505.80 µg/L	505.80 ppb	14:20:42
2	Tl 190.801†	3446.2	3577.0	511.67 µg/L	511.67 ppb	14:21:02
2	U 409.014†	7194.5	7638.3	495.19 µg/L	495.19 ppb	14:20:42
2	V 292.402†	101490.1	101452.9	509.71 µg/L	509.71 ppb	14:20:42
2	Zn 213.857†	88574.5	88355.7	506.08 µg/L	506.08 ppb	14:20:42
3	Sc RADIAL	111168.9	111168.9	97.2 %		14:20:14
3	Al 396.153Radial†	21699.3	22412.6	5261.7 µg/L	5261.7 ppb	14:20:14
3	Ca 317.933Radial†	62059.5	63399.8	5220.3 µg/L	5220.3 ppb	14:20:14
3	Fe 238.204 Radial†	59000.9	60585.2	5168.1 µg/L	5168.1 ppb	14:20:14
3	K 766.490 Radial†	14976.1	14000.5	5599.8 µg/L	5599.8 ppb	14:20:14
3	Mg 279.077 IEC†	9531.8	9650.4	5345.2 µg/L	5345.2 ppb	14:20:14
3	Na 589.592 Radial†	64449.2	65480.2	10443 µg/L	10443 ppb	14:20:12
3	Sr 421.552†	197345.4	203126.8	521.75 µg/L	521.75 ppb	14:20:12
3	Sc 361.383	1667850.3	1667850.3	98.557 %		14:21:05
3	Y 371.029	933777.1	933777.1	97.570 %		14:21:05
3	Ag 328.068†	124700.3	121422.8	507.67 µg/L	507.67 ppb	14:21:05
3	As 188.979†	1421.1	1455.3	511.33 µg/L	511.33 ppb	14:21:25
3	B 249.677†	37695.1	34135.0	504.94 µg/L	504.94 ppb	14:21:05
3	Ba 233.527†	109824.4	111578.0	505.49 µg/L	505.49 ppb	14:21:05
3	Be 313.107†	1748485.2	1775073.2	502.73 µg/L	502.73 ppb	14:21:05
3	Cd 226.502†	75160.0	76324.8	504.36 µg/L	504.36 ppb	14:21:05
3	Co 228.616†	37938.9	38721.3	507.89 µg/L	507.89 ppb	14:21:05
3	Cr 267.716†	56714.7	57215.3	502.36 µg/L	502.36 ppb	14:21:05
3	Cu 324.752†	122905.3	121463.2	504.43 µg/L	504.43 ppb	14:21:05
3	Mn 257.610†	382135.2	387513.8	506.31 µg/L	506.31 ppb	14:21:05
3	Mo 202.031†	14861.6	15100.8	513.08 µg/L	513.08 ppb	14:21:25
3	Ni 231.604†	40100.8	40761.7	506.91 µg/L	506.91 ppb	14:21:05
3	P 214.914†	10963.3	11143.0	2537.4 µg/L	2537.4 ppb	14:21:25
3	Pb 220.353†	8289.4	8293.5	521.29 µg/L	521.29 ppb	14:21:25
3	S 181.975 Axial†	1308.9	1226.1	1047.6 µg/L	1047.6 ppb	14:21:25
3	Sb 206.836†	3998.2	3979.2	511.37 µg/L	511.37 ppb	14:21:25
3	Se 196.026†	1335.5	1335.0	519 µg/L	519 ppb	14:21:25
3	SiO2†	53112.4	52201.0	5368.2 µg/L	5368.2 ppb	14:21:05
3	Si 251.611†	164521.7	166143.6	2524.2 µg/L	2524.2 ppb	14:21:05
3	Sn 189.927†	7246.9	7344.5	513.15 µg/L	513.15 ppb	14:21:25
3	Ti 334.940†	475815.9	481895.2	504.70 µg/L	504.70 ppb	14:21:05
3	Tl 190.801†	3458.7	3624.5	518.35 µg/L	518.35 ppb	14:21:25
3	U 409.014†	7277.3	7795.1	504.58 µg/L	504.58 ppb	14:21:05
3	V 292.402†	99997.8	100965.6	507.36 µg/L	507.36 ppb	14:21:05
3	Zn 213.857†	87256.3	87914.3	503.56 µg/L	503.56 ppb	14:21:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1672049.8	98.805	%	0.6566				0.66%
Sc RADIAL	111619.2	97.6	%	0.46				0.48%
Y 371.029	935580.6	97.759	%	0.6081				0.62%
Ag 328.068†	121937.6	509.81	µg/L	1.969	509.81	ppb	1.969	0.39%
QC value within limits for Ag 328.068 Recovery = 101.96%								
Al 396.153Radial†	22247.2	5222.9	µg/L	52.68	5222.9	ppb	52.68	1.01%
QC value within limits for Al 396.153Radial Recovery = 104.46%								
As 188.979†	1448.1	508.83	µg/L	4.283	508.83	ppb	4.283	0.84%
QC value within limits for As 188.979 Recovery = 101.77%								
B 249.677†	34460.5	509.77	µg/L	4.705	509.77	ppb	4.705	0.92%
QC value within limits for B 249.677 Recovery = 101.95%								
Ba 233.527†	112062.6	507.69	µg/L	1.966	507.69	ppb	1.966	0.39%
QC value within limits for Ba 233.527 Recovery = 101.54%								
Be 313.107†	1780511.7	504.27	µg/L	1.454	504.27	ppb	1.454	0.29%
QC value within limits for Be 313.107 Recovery = 100.85%								
Ca 317.933Radial†	62983.5	5186.0	µg/L	45.54	5186.0	ppb	45.54	0.88%
QC value within limits for Ca 317.933Radial Recovery = 103.72%								
Cd 226.502†	76985.3	508.73	µg/L	3.816	508.73	ppb	3.816	0.75%
QC value within limits for Cd 226.502 Recovery = 101.75%								
Co 228.616†	38848.8	509.56	µg/L	1.625	509.56	ppb	1.625	0.32%

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   QC value within limits for Co 228.616  Recovery = 101.91%
Cr 267.716†            57593.3      505.69 µg/L        3.054      505.69 ppb          3.054   0.60%
   QC value within limits for Cr 267.716  Recovery = 101.14%
Cu 324.752†           122087.0      507.00 µg/L        3.044      507.00 ppb          3.044   0.60%
   QC value within limits for Cu 324.752  Recovery = 101.40%
Fe 238.204 Radial†     60397.6      5152.1 µg/L       22.65      5152.1 ppb          22.65   0.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.04%
K 766.490 Radial†      14010.6      5603.9 µg/L       33.39      5603.9 ppb          33.39   0.60%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 112.08%
Mg 279.077 IEC†         9530.1      5278.6 µg/L       66.11      5278.6 ppb          66.11   1.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.57%
Mn 257.610†           388770.6      507.95 µg/L        1.694      507.95 ppb          1.694   0.33%
   QC value within limits for Mn 257.610  Recovery = 101.59%
Mo 202.031†            15002.9      509.76 µg/L        4.159      509.76 ppb          4.159   0.82%
   QC value within limits for Mo 202.031  Recovery = 101.95%
Na 589.592 Radial†     64665.2       10313 µg/L      118.1       10313 ppb         118.1   1.15%
   QC value within limits for Na 589.592 Radial  Recovery = 103.13%
Ni 231.604†            40939.5      509.12 µg/L        2.026      509.12 ppb          2.026   0.40%
   QC value within limits for Ni 231.604  Recovery = 101.82%
P 214.914†             11067.7      2520.1 µg/L       20.46      2520.1 ppb          20.46   0.81%
   QC value within limits for P 214.914  Recovery = 100.81%
Pb 220.353†             8274.1      520.07 µg/L        5.576      520.07 ppb          5.576   1.07%
   QC value within limits for Pb 220.353  Recovery = 104.01%
S 181.975 Axial†        1221.6      1043.7 µg/L       14.19      1043.7 ppb          14.19   1.36%
   QC value within limits for S 181.975 Axial  Recovery = 104.37%
Sb 206.836†             3952.1      507.80 µg/L        4.375      507.80 ppb          4.375   0.86%
   QC value within limits for Sb 206.836  Recovery = 101.56%
Se 196.026†             1320.9         513 µg/L         9.4         513 ppb            9.4   1.83%
   QC value within limits for Se 196.026  Recovery = 102.61%
SiO2†                  52461.8      5395.2 µg/L       25.33      5395.2 ppb          25.33   0.47%
   QC value within limits for SiO2  Recovery = 100.89%
Si 251.611†           166770.6      2533.9 µg/L        9.09      2533.9 ppb           9.09   0.36%
   QC value within limits for Si 251.611  Recovery = 101.35%
Sn 189.927†             7298.0      509.92 µg/L        4.801      509.92 ppb          4.801   0.94%
   QC value within limits for Sn 189.927  Recovery = 101.98%
Sr 421.552†           200577.3      515.20 µg/L        5.957      515.20 ppb          5.957   1.16%
   QC value within limits for Sr 421.552  Recovery = 103.04%
Ti 334.940†           483464.5      506.35 µg/L        1.985      506.35 ppb          1.985   0.39%
   QC value within limits for Ti 334.940  Recovery = 101.27%
Tl 190.801†             3605.7      515.71 µg/L        3.553      515.71 ppb          3.553   0.69%
   QC value within limits for Tl 190.801  Recovery = 103.14%
U 409.014†              7655.9      496.23 µg/L        7.875      496.23 ppb          7.875   1.59%
   QC value within limits for U 409.014  Recovery = 99.25%
V 292.402†            101358.1      509.28 µg/L        1.748      509.28 ppb          1.748   0.34%
   QC value within limits for V 292.402  Recovery = 101.86%
Zn 213.857†            88345.5      506.04 µg/L        2.452      506.04 ppb          2.452   0.48%
   QC value within limits for Zn 213.857  Recovery = 101.21%
QC Failed.  Continue with analysis.
```

Sequence No.: 14 | **Autosampler Location: 8**
Sample ID: CCB | **Date Collected: 4/13/2010 14:21:34**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114703.5	114703.5	100	%			14:22:03
1	Al 396.153Radial†	-66.8	18.4	4.2925	µg/L	4.2925	ppb	14:22:23
1	Ca 317.933Radial†	516.1	58.0	4.7733	µg/L	4.7733	ppb	14:22:23
1	Fe 238.204 Radial†	198.0	73.2	6.2429	µg/L	6.2429	ppb	14:22:23
1	K 766.490 Radial†	1866.6	452.2	180.99	µg/L	180.99	ppb	14:22:03
1	Mg 279.077 IEC†	177.2	19.3	10.704	µg/L	10.704	ppb	14:22:23
1	Na 589.592 Radial†	1301.1	462.2	73.587	µg/L	73.587	ppb	14:22:03
1	Sr 421.552†	9.1	75.8	0.1947	µg/L	0.1947	ppb	14:22:03
1	Sc 361.383	1686563.7	1686563.7	99.663	%			14:23:25
1	Y 371.029	953976.9	953976.9	99.681	%			14:23:25
1	Ag 328.068†	5099.1	13.4	0.0513	µg/L	0.0513	ppb	14:23:27
1	As 188.979†	-11.8	1.6	0.5453	µg/L	0.5453	ppb	14:23:47
1	B 249.677†	4361.4	264.2	3.9223	µg/L	3.9223	ppb	14:23:27
1	Ba 233.527†	-147.4	-2.1	-0.0092	µg/L	-0.0092	ppb	14:23:47
1	Be 313.107†	-565.2	425.2	0.1195	µg/L	0.1195	ppb	14:23:27
1	Cd 226.502†	26.6	91.3	0.6031	µg/L	0.6031	ppb	14:23:47
1	Co 228.616†	-231.0	-4.8	-0.0628	µg/L	-0.0628	ppb	14:23:47
1	Cr 267.716†	333.6	5.1	0.0475	µg/L	0.0475	ppb	14:23:47
1	Cu 324.752†	3305.5	75.4	0.3108	µg/L	0.3108	ppb	14:23:27
1	Mn 257.610†	298.5	84.1	0.1095	µg/L	0.1095	ppb	14:23:47
1	Mo 202.031†	1.8	23.4	0.7964	µg/L	0.7964	ppb	14:23:47
1	Ni 231.604†	-56.3	17.4	0.2161	µg/L	0.2161	ppb	14:23:47
1	P 214.914†	-34.6	-15.5	-3.5505	µg/L	-3.5505	ppb	14:23:47
1	Pb 220.353†	170.2	53.5	3.3582	µg/L	3.3582	ppb	14:23:47
1	S 181.975 Axial†	110.4	8.8	7.5339	µg/L	7.5339	ppb	14:23:47
1	Sb 206.836†	85.6	8.3	1.0810	µg/L	1.0810	ppb	14:23:47
1	Se 196.026†	41.2	21.4	8.27	µg/L	8.27	ppb	14:23:47
1	SiO2†	1827.2	144.5	14.891	µg/L	14.891	ppb	14:23:27
1	Si 251.611†	811.8	28.0	0.4115	µg/L	0.4115	ppb	14:23:27
1	Sn 189.927†	19.5	11.1	0.7738	µg/L	0.7738	ppb	14:23:47
1	Ti 334.940†	787.1	-96.3	-0.1005	µg/L	-0.1005	ppb	14:23:27
1	Tl 190.801†	-112.7	2.1	0.2993	µg/L	0.2993	ppb	14:23:47
1	U 409.014†	-459.7	-50.0	-3.0405	µg/L	-3.0405	ppb	14:23:27
1	V 292.402†	492.6	-1.8	-0.0030	µg/L	-0.0030	ppb	14:23:27
1	Zn 213.857†	773.5	156.8	0.9032	µg/L	0.9032	ppb	14:23:47
2	Sc RADIAL	113535.1	113535.1	99.3	%			14:22:25
2	Al 396.153Radial†	-73.2	11.2	2.6255	µg/L	2.6255	ppb	14:22:45
2	Ca 317.933Radial†	474.8	21.6	1.7819	µg/L	1.7819	ppb	14:22:45
2	Fe 238.204 Radial†	158.2	35.1	2.9908	µg/L	2.9908	ppb	14:22:45
2	K 766.490 Radial†	1863.5	468.2	187.41	µg/L	187.41	ppb	14:22:25
2	Mg 279.077 IEC†	144.2	-12.0	-6.6399	µg/L	-6.6399	ppb	14:22:45
2	Na 589.592 Radial†	1342.9	517.7	82.435	µg/L	82.435	ppb	14:22:25
2	Sr 421.552†	317.3	386.4	0.9927	µg/L	0.9927	ppb	14:22:25
2	Sc 361.383	1678691.8	1678691.8	99.198	%			14:23:50
2	Y 371.029	949781.6	949781.6	99.243	%			14:23:50
2	Ag 328.068†	5150.1	88.8	0.3809	µg/L	0.3809	ppb	14:23:52
2	As 188.979†	-9.8	3.5	1.2170	µg/L	1.2170	ppb	14:24:12
2	B 249.677†	4385.0	308.5	4.5810	µg/L	4.5810	ppb	14:23:52
2	Ba 233.527†	-128.9	15.9	0.0720	µg/L	0.0720	ppb	14:24:12
2	Be 313.107†	-506.1	482.1	0.1409	µg/L	0.1409	ppb	14:23:52
2	Cd 226.502†	23.9	88.7	0.5863	µg/L	0.5863	ppb	14:24:12
2	Co 228.616†	-244.8	-19.8	-0.2592	µg/L	-0.2592	ppb	14:24:12
2	Cr 267.716†	351.3	24.5	0.2038	µg/L	0.2038	ppb	14:24:12
2	Cu 324.752†	3267.9	53.0	0.2316	µg/L	0.2316	ppb	14:23:52
2	Mn 257.610†	264.5	51.3	0.0673	µg/L	0.0673	ppb	14:24:12
2	Mo 202.031†	-6.8	14.8	0.5025	µg/L	0.5025	ppb	14:24:12
2	Ni 231.604†	-75.1	-1.8	-0.0218	µg/L	-0.0218	ppb	14:24:12
2	P 214.914†	-22.7	-3.7	-0.8446	µg/L	-0.8446	ppb	14:24:12
2	Pb 220.353†	148.1	32.1	2.0019	µg/L	2.0019	ppb	14:24:12

2	S 181.975 Axial†	124.7	23.7	20.202 µg/L	20.202 ppb	14:24:12
2	Sb 206.836†	74.9	-2.0	-0.2562 µg/L	-0.2562 ppb	14:24:12
2	Se 196.026†	25.1	5.3	2.05 µg/L	2.05 ppb	14:24:12
2	SiO2†	1694.8	19.6	1.9987 µg/L	1.9987 ppb	14:23:52
2	Si 251.611†	1040.9	262.8	3.9963 µg/L	3.9963 ppb	14:23:52
2	Sn 189.927†	21.7	13.4	0.9346 µg/L	0.9346 ppb	14:24:12
2	Ti 334.940†	968.2	89.9	0.0888 µg/L	0.0888 ppb	14:23:52
2	Tl 190.801†	-122.2	-7.9	-1.1202 µg/L	-1.1202 ppb	14:24:12
2	U 409.014†	-168.6	241.3	14.655 µg/L	14.655 ppb	14:23:52
2	V 292.402†	429.6	-62.9	-0.2963 µg/L	-0.2963 ppb	14:23:52
2	Zn 213.857†	744.1	130.8	0.7553 µg/L	0.7553 ppb	14:24:12
3	Sc RADIAL	114385.5	114385.5	100.0 %		14:22:47
3	Al 396.153Radial†	-107.4	-22.4	-5.3267 µg/L	-5.3267 ppb	14:23:07
3	Ca 317.933Radial†	470.3	13.5	1.1156 µg/L	1.1156 ppb	14:23:07
3	Fe 238.204 Radial†	162.0	37.8	3.2207 µg/L	3.2207 ppb	14:23:07
3	K 766.490 Radial†	1913.3	504.1	201.77 µg/L	201.77 ppb	14:22:47
3	Mg 279.077 IEC†	155.6	-1.7	-0.9201 µg/L	-0.9201 ppb	14:23:07
3	Na 589.592 Radial†	1169.8	334.5	53.199 µg/L	53.199 ppb	14:22:47
3	Sr 421.552†	-78.5	-11.8	-0.0303 µg/L	-0.0303 ppb	14:22:47
3	Sc 361.383	1694798.9	1694798.9	100.15 %		14:24:14
3	Y 371.029	957606.3	957606.3	100.06 %		14:24:14
3	Ag 328.068†	5225.0	114.2	0.4742 µg/L	0.4742 ppb	14:24:16
3	As 188.979†	-7.3	6.2	2.1422 µg/L	2.1422 ppb	14:24:36
3	B 249.677†	4280.2	161.9	2.4017 µg/L	2.4017 ppb	14:24:16
3	Ba 233.527†	-129.6	16.5	0.0744 µg/L	0.0744 ppb	14:24:36
3	Be 313.107†	-705.8	287.6	0.0837 µg/L	0.0837 ppb	14:24:16
3	Cd 226.502†	-2.6	61.9	0.4093 µg/L	0.4093 ppb	14:24:36
3	Co 228.616†	-195.8	31.5	0.4132 µg/L	0.4132 ppb	14:24:36
3	Cr 267.716†	361.8	31.7	0.2720 µg/L	0.2720 ppb	14:24:36
3	Cu 324.752†	3303.6	57.4	0.2445 µg/L	0.2445 ppb	14:24:16
3	Mn 257.610†	252.2	36.4	0.0476 µg/L	0.0476 ppb	14:24:36
3	Mo 202.031†	8.9	30.5	1.0349 µg/L	1.0349 ppb	14:24:36
3	Ni 231.604†	-63.0	11.0	0.1366 µg/L	0.1366 ppb	14:24:36
3	P 214.914†	-13.2	6.0	1.3698 µg/L	1.3698 ppb	14:24:36
3	Pb 220.353†	168.9	51.5	3.2211 µg/L	3.2211 ppb	14:24:36
3	S 181.975 Axial†	105.4	3.3	2.8487 µg/L	2.8487 ppb	14:24:36
3	Sb 206.836†	86.0	8.4	1.0838 µg/L	1.0838 ppb	14:24:36
3	Se 196.026†	26.6	6.5	2.54 µg/L	2.54 ppb	14:24:36
3	SiO2†	1763.2	71.7	7.3576 µg/L	7.3576 ppb	14:24:16
3	Si 251.611†	889.8	101.9	1.5353 µg/L	1.5353 ppb	14:24:16
3	Sn 189.927†	20.6	12.2	0.8482 µg/L	0.8482 ppb	14:24:36
3	Ti 334.940†	698.1	-189.1	-0.2013 µg/L	-0.2013 ppb	14:24:16
3	Tl 190.801†	-114.9	0.5	0.0599 µg/L	0.0599 ppb	14:24:36
3	U 409.014†	-288.5	123.1	7.4564 µg/L	7.4564 ppb	14:24:16
3	V 292.402†	386.7	-109.9	-0.5283 µg/L	-0.5283 ppb	14:24:16
3	Zn 213.857†	736.4	116.0	0.6683 µg/L	0.6683 ppb	14:24:36

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1686684.8	99.670	%	0.4759				0.48%
Sc RADIAL	114208.0	99.8	%	0.53				0.53%
Y 371.029	953788.3	99.661	%	0.4092				0.41%
Ag 328.068†	72.1	0.3021	µg/L	0.22217	0.3021	ppb	0.22217	73.53%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.4	0.5304	µg/L	5.14048	0.5304	ppb	5.14048	969.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.7	1.3015	µg/L	0.80181	1.3015	ppb	0.80181	61.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	244.9	3.6350	µg/L	1.11768	3.6350	ppb	1.11768	30.75%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.1	0.0458	µg/L	0.04757	0.0458	ppb	0.04757	103.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	398.3	0.1147	µg/L	0.02892	0.1147	ppb	0.02892	25.22%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	31.1	2.5569	µg/L	1.94812	2.5569	ppb	1.94812	76.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	80.7	0.5329	µg/L	0.10738	0.5329	ppb	0.10738	20.15%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.3	0.0304	µg/L	0.34576	0.0304	ppb	0.34576	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              20.4      0.1745 µg/L      0.11508      0.1745 ppb       0.11508  65.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              61.9      0.2623 µg/L      0.04249      0.2623 ppb       0.04249  16.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       48.7      4.1515 µg/L      1.81490      4.1515 ppb       1.81490  43.72%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       474.8      190.05 µg/L       10.640      190.05 ppb        10.640   5.60%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.9      1.0481 µg/L      8.83794      1.0481 ppb       8.83794 843.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              57.3      0.0748 µg/L      0.03162      0.0748 ppb       0.03162  42.26%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              22.9      0.7779 µg/L      0.26667      0.7779 ppb       0.26667  34.28%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      438.1      69.740 µg/L      14.9928      69.740 ppb       14.9928  21.50%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               8.9      0.1103 µg/L      0.12111      0.1103 ppb       0.12111 109.81%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.4     -1.0084 µg/L      2.46419     -1.0084 ppb       2.46419 244.36%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              45.7      2.8604 µg/L      0.74666      2.8604 ppb       0.74666  26.10%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         12.0      10.195 µg/L       8.9773      10.195 ppb        8.9773  88.06%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.9      0.6362 µg/L      0.77281      0.6362 ppb       0.77281 121.47%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              11.1        4.29 µg/L        3.458        4.29 ppb         3.458  80.65%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    78.6      8.0823 µg/L      6.47643      8.0823 ppb       6.47643  80.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             130.9      1.9810 µg/L      1.83351      1.9810 ppb       1.83351  92.55%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              12.2      0.8522 µg/L      0.08043      0.8522 ppb       0.08043   9.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             150.2      0.3857 µg/L      0.53757      0.3857 ppb       0.53757 139.38%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -65.2     -0.0710 µg/L      0.14728     -0.0710 ppb       0.14728 207.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -1.8     -0.2537 µg/L      0.75993     -0.2537 ppb       0.75993 299.58%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              104.8      6.3569 µg/L      8.89875      6.3569 ppb       8.89875 139.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -58.2     -0.2759 µg/L      0.26326     -0.2759 ppb       0.26326  95.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             134.6      0.7756 µg/L      0.11877      0.7756 ppb       0.11877  15.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

==========

Analysis Begun

Start Time: 4/13/2010 14:26:03 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\041310.SIF
Batch ID:
Results Data Set: 041310A
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 4/13/2010 13:42:53**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/13/2010 14:26:05**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114153.9	114153.9	99.8	%			14:26:37
1	Al 396.153Radial†	21542.4	21671.6	5087.5	µg/L	5087.5	ppb	14:26:37
1	Ca 317.933Radial†	62108.9	61779.5	5086.9	µg/L	5086.9	ppb	14:26:37
1	Fe 238.204 Radial†	59230.2	59227.4	5052.3	µg/L	5052.3	ppb	14:26:37

1	K 766.490 Radial†	14338.0	12958.2	5182.7 µg/L	5182.7 ppb	14:26:37
1	Mg 279.077 IEC†	9390.1	9252.0	5124.7 µg/L	5124.7 ppb	14:26:37
1	Na 589.592 Radial†	63653.4	62948.7	10039 µg/L	10039 ppb	14:26:35
1	Sr 421.552†	195196.4	195663.5	502.58 µg/L	502.58 ppb	14:26:35
1	Sc 361.383	1680728.7	1680728.7	99.318 %		14:27:04
1	Y 371.029	940068.0	940068.0	98.228 %		14:27:04
1	Ag 328.068†	125006.2	120761.3	504.94 µg/L	504.94 ppb	14:27:04
1	As 188.979†	1400.3	1423.3	500.19 µg/L	500.19 ppb	14:27:24
1	B 249.677†	37688.3	33835.1	500.49 µg/L	500.49 ppb	14:27:04
1	Ba 233.527†	110370.8	111274.3	504.12 µg/L	504.12 ppb	14:27:04
1	Be 313.107†	1757092.2	1770145.6	501.33 µg/L	501.33 ppb	14:27:04
1	Cd 226.502†	75941.1	76526.9	505.71 µg/L	505.71 ppb	14:27:04
1	Co 228.616†	38191.1	38680.3	507.35 µg/L	507.35 ppb	14:27:04
1	Cr 267.716†	57170.7	57233.5	502.52 µg/L	502.52 ppb	14:27:04
1	Cu 324.752†	123330.3	120935.6	502.22 µg/L	502.22 ppb	14:27:04
1	Mn 257.610†	383314.1	385729.9	503.98 µg/L	503.98 ppb	14:27:04
1	Mo 202.031†	14655.4	14777.6	502.10 µg/L	502.10 ppb	14:27:24
1	Ni 231.604†	40419.2	40770.6	507.02 µg/L	507.02 ppb	14:27:04
1	P 214.914†	10885.8	10979.7	2500.1 µg/L	2500.1 ppb	14:27:24
1	Pb 220.353†	8089.9	8028.3	504.63 µg/L	504.63 ppb	14:27:24
1	S 181.975 Axial†	1276.5	1183.3	1011.1 µg/L	1011.1 ppb	14:27:24
1	Sb 206.836†	3950.5	3900.1	501.06 µg/L	501.06 ppb	14:27:24
1	Se 196.026†	1309.4	1298.4	504 µg/L	504 ppb	14:27:24
1	SiO2†	53281.1	51957.9	5343.5 µg/L	5343.5 ppb	14:27:04
1	Si 251.611†	164820.3	165165.2	2509.5 µg/L	2509.5 ppb	14:27:04
1	Sn 189.927†	7145.8	7186.4	502.13 µg/L	502.13 ppb	14:27:24
1	Ti 334.940†	476912.6	479300.1	502.00 µg/L	502.00 ppb	14:27:04
1	Tl 190.801†	3402.9	3541.5	506.62 µg/L	506.62 ppb	14:27:24
1	U 409.014†	7275.3	7736.5	501.04 µg/L	501.04 ppb	14:27:04
1	V 292.402†	100833.2	101029.3	507.58 µg/L	507.58 ppb	14:27:04
1	Zn 213.857†	87704.1	87686.8	502.26 µg/L	502.26 ppb	14:27:04
2	Sc RADIAL	112326.9	112326.9	98.2 %		14:26:41
2	Al 396.153Radial†	21299.4	21775.2	5111.9 µg/L	5111.9 ppb	14:26:41
2	Ca 317.933Radial†	60862.5	61522.5	5065.7 µg/L	5065.7 ppb	14:26:41
2	Fe 238.204 Radial†	58178.2	59121.5	5043.3 µg/L	5043.3 ppb	14:26:41
2	K 766.490 Radial†	14076.1	12925.1	5169.5 µg/L	5169.5 ppb	14:26:41
2	Mg 279.077 IEC†	9290.6	9303.8	5153.3 µg/L	5153.3 ppb	14:26:41
2	Na 589.592 Radial†	63507.0	63837.0	10181 µg/L	10181 ppb	14:26:39
2	Sr 421.552†	194064.0	197691.7	507.79 µg/L	507.79 ppb	14:26:39
2	Sc 361.383	1680636.9	1680636.9	99.313 %		14:27:27
2	Y 371.029	940462.8	940462.8	98.269 %		14:27:27
2	Ag 328.068†	124086.1	119841.7	501.07 µg/L	501.07 ppb	14:27:27
2	As 188.979†	1411.5	1434.7	504.10 µg/L	504.10 ppb	14:27:47
2	B 249.677†	37543.1	33690.9	498.37 µg/L	498.37 ppb	14:27:27
2	Ba 233.527†	109743.9	110649.1	501.29 µg/L	501.29 ppb	14:27:27
2	Be 313.107†	1744655.1	1757719.0	497.81 µg/L	497.81 ppb	14:27:27
2	Cd 226.502†	75364.7	75950.8	501.90 µg/L	501.90 ppb	14:27:27
2	Co 228.616†	37791.4	38280.0	502.10 µg/L	502.10 ppb	14:27:27
2	Cr 267.716†	56795.3	56858.7	499.24 µg/L	499.24 ppb	14:27:27
2	Cu 324.752†	122589.2	120196.1	499.14 µg/L	499.14 ppb	14:27:27
2	Mn 257.610†	381076.0	383497.4	501.07 µg/L	501.07 ppb	14:27:27
2	Mo 202.031†	14700.0	14823.3	503.65 µg/L	503.65 ppb	14:27:47
2	Ni 231.604†	40042.7	40393.7	502.33 µg/L	502.33 ppb	14:27:27
2	P 214.914†	10884.7	10979.2	2500.1 µg/L	2500.1 ppb	14:27:47
2	Pb 220.353†	8154.4	8093.6	508.74 µg/L	508.74 ppb	14:27:47
2	S 181.975 Axial†	1290.7	1197.7	1023.4 µg/L	1023.4 ppb	14:27:47
2	Sb 206.836†	3962.4	3912.3	502.70 µg/L	502.70 ppb	14:27:47
2	Se 196.026†	1300.3	1289.3	501 µg/L	501 ppb	14:27:47
2	SiO2†	53006.4	51684.3	5315.2 µg/L	5315.2 ppb	14:27:27
2	Si 251.611†	164171.7	164521.1	2499.7 µg/L	2499.7 ppb	14:27:27
2	Sn 189.927†	7176.2	7217.4	504.28 µg/L	504.28 ppb	14:27:47
2	Ti 334.940†	473648.0	476039.1	498.58 µg/L	498.58 ppb	14:27:27
2	Tl 190.801†	3418.2	3557.1	508.76 µg/L	508.76 ppb	14:27:47
2	U 409.014†	7080.4	7540.6	488.82 µg/L	488.82 ppb	14:27:27
2	V 292.402†	99806.2	100000.8	502.48 µg/L	502.48 ppb	14:27:27
2	Zn 213.857†	86958.5	86940.8	497.99 µg/L	497.99 ppb	14:27:27
3	Sc RADIAL	113750.4	113750.4	99.4 %		14:26:45
3	Al 396.153Radial†	21522.5	21728.1	5100.4 µg/L	5100.4 ppb	14:26:45
3	Ca 317.933Radial†	61905.3	61795.6	5088.2 µg/L	5088.2 ppb	14:26:45
3	Fe 238.204 Radial†	59117.3	59324.4	5060.6 µg/L	5060.6 ppb	14:26:45
3	K 766.490 Radial†	14210.4	12880.8	5151.7 µg/L	5151.7 ppb	14:26:45

3	Mg 279.077 IEC†	9384.7	9279.9	5140.3 µg/L	5140.3 ppb	14:26:45
3	Na 589.592 Radial†	63260.5	62779.8	10012 µg/L	10012 ppb	14:26:43
3	Sr 421.552†	193682.0	194834.4	500.45 µg/L	500.45 ppb	14:26:43
3	Sc 361.383	1659399.4	1659399.4	98.058 %		14:27:50
3	Y 371.029	929182.0	929182.0	97.090 %		14:27:50
3	Ag 328.068†	123376.4	120717.0	504.69 µg/L	504.69 ppb	14:27:50
3	As 188.979†	1423.0	1464.6	514.48 µg/L	514.48 ppb	14:28:10
3	B 249.677†	36938.4	33558.1	496.39 µg/L	496.39 ppb	14:27:50
3	Ba 233.527†	108243.4	110533.2	500.76 µg/L	500.76 ppb	14:27:50
3	Be 313.107†	1723993.9	1759131.7	498.21 µg/L	498.21 ppb	14:27:50
3	Cd 226.502†	74111.9	75644.3	499.87 µg/L	499.87 ppb	14:27:50
3	Co 228.616†	37422.5	38390.7	503.55 µg/L	503.55 ppb	14:27:50
3	Cr 267.716†	56111.8	56893.5	499.55 µg/L	499.55 ppb	14:27:50
3	Cu 324.752†	121113.6	120271.1	499.45 µg/L	499.45 ppb	14:27:50
3	Mn 257.610†	376644.0	383888.5	501.58 µg/L	501.58 ppb	14:27:50
3	Mo 202.031†	14749.0	15062.8	511.78 µg/L	511.78 ppb	14:28:10
3	Ni 231.604†	39678.3	40538.1	504.12 µg/L	504.12 ppb	14:27:50
3	P 214.914†	10878.7	11113.4	2530.7 µg/L	2530.7 ppb	14:28:10
3	Pb 220.353†	8131.7	8175.6	513.90 µg/L	513.90 ppb	14:28:10
3	S 181.975 Axial†	1272.6	1195.9	1021.9 µg/L	1021.9 ppb	14:28:10
3	Sb 206.836†	3962.5	3963.4	509.37 µg/L	509.37 ppb	14:28:10
3	Se 196.026†	1304.8	1310.6	509 µg/L	509 ppb	14:28:10
3	SiO2†	52670.9	52025.2	5350.1 µg/L	5350.1 ppb	14:27:50
3	Si 251.611†	162195.0	164621.0	2501.0 µg/L	2501.0 ppb	14:27:50
3	Sn 189.927†	7186.8	7320.7	511.47 µg/L	511.47 ppb	14:28:10
3	Ti 334.940†	468396.3	476787.2	499.37 µg/L	499.37 ppb	14:27:50
3	Tl 190.801†	3428.1	3611.2	516.39 µg/L	516.39 ppb	14:28:10
3	U 409.014†	6949.2	7498.1	486.28 µg/L	486.28 ppb	14:27:50
3	V 292.402†	98715.7	100174.9	503.42 µg/L	503.42 ppb	14:27:50
3	Zn 213.857†	85685.9	86763.7	496.95 µg/L	496.95 ppb	14:27:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1673588.4	98.896	%	0.7261				0.73%
Sc RADIAL	113410.4	99.1	%	0.84				0.85%
Y 371.029	936570.9	97.862	%	0.6690				0.68%
Ag 328.068†	120440.0	503.57	µg/L	2.166	503.57	ppb	2.166	0.43%
QC value within limits for Ag 328.068 Recovery = 100.71%								
Al 396.153Radial†	21725.0	5099.9	µg/L	12.18	5099.9	ppb	12.18	0.24%
QC value within limits for Al 396.153Radial Recovery = 102.00%								
As 188.979†	1440.9	506.26	µg/L	7.384	506.26	ppb	7.384	1.46%
QC value within limits for As 188.979 Recovery = 101.25%								
B 249.677†	33694.7	498.42	µg/L	2.050	498.42	ppb	2.050	0.41%
QC value within limits for B 249.677 Recovery = 99.68%								
Ba 233.527†	110818.9	502.06	µg/L	1.805	502.06	ppb	1.805	0.36%
QC value within limits for Ba 233.527 Recovery = 100.41%								
Be 313.107†	1762332.1	499.12	µg/L	1.929	499.12	ppb	1.929	0.39%
QC value within limits for Be 313.107 Recovery = 99.82%								
Ca 317.933Radial†	61699.2	5080.3	µg/L	12.62	5080.3	ppb	12.62	0.25%
QC value within limits for Ca 317.933Radial Recovery = 101.61%								
Cd 226.502†	76040.7	502.49	µg/L	2.964	502.49	ppb	2.964	0.59%
QC value within limits for Cd 226.502 Recovery = 100.50%								
Co 228.616†	38450.3	504.34	µg/L	2.711	504.34	ppb	2.711	0.54%
QC value within limits for Co 228.616 Recovery = 100.87%								
Cr 267.716†	56995.2	500.43	µg/L	1.814	500.43	ppb	1.814	0.36%
QC value within limits for Cr 267.716 Recovery = 100.09%								
Cu 324.752†	120467.6	500.27	µg/L	1.693	500.27	ppb	1.693	0.34%
QC value within limits for Cu 324.752 Recovery = 100.05%								
Fe 238.204 Radial†	59224.4	5052.1	µg/L	8.66	5052.1	ppb	8.66	0.17%
QC value within limits for Fe 238.204 Radial Recovery = 101.04%								
K 766.490 Radial†	12921.4	5168.0	µg/L	15.55	5168.0	ppb	15.55	0.30%
QC value within limits for K 766.490 Radial Recovery = 103.36%								
Mg 279.077 IEC†	9278.6	5139.4	µg/L	14.37	5139.4	ppb	14.37	0.28%
QC value within limits for Mg 279.077 IEC Recovery = 102.79%								
Mn 257.610†	384371.9	502.21	µg/L	1.559	502.21	ppb	1.559	0.31%
QC value within limits for Mn 257.610 Recovery = 100.44%								
Mo 202.031†	14887.9	505.84	µg/L	5.199	505.84	ppb	5.199	1.03%
QC value within limits for Mo 202.031 Recovery = 101.17%								
Na 589.592 Radial†	63188.5	10078	µg/L	90.6	10078	ppb	90.6	0.90%

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   QC value within limits for Na 589.592 Radial  Recovery = 100.78%
Ni 231.604†            40567.4      504.49 µg/L        2.365      504.49 ppb        2.365   0.47%
   QC value within limits for Ni 231.604  Recovery = 100.90%
P 214.914†             11024.1      2510.3 µg/L       17.66      2510.3 ppb        17.66   0.70%
   QC value within limits for P 214.914  Recovery = 100.41%
Pb 220.353†             8099.2      509.09 µg/L        4.643      509.09 ppb        4.643   0.91%
   QC value within limits for Pb 220.353  Recovery = 101.82%
S 181.975 Axial†        1192.3      1018.8 µg/L         6.70      1018.8 ppb         6.70   0.66%
   QC value within limits for S 181.975 Axial  Recovery = 101.88%
Sb 206.836†             3925.3      504.37 µg/L        4.400      504.37 ppb        4.400   0.87%
   QC value within limits for Sb 206.836  Recovery = 100.87%
Se 196.026†             1299.5         505 µg/L          4.1         505 ppb          4.1   0.82%
   QC value within limits for Se 196.026  Recovery = 100.94%
SiO2†                  51889.1      5336.3 µg/L       18.54      5336.3 ppb        18.54   0.35%
   QC value within limits for SiO2  Recovery = 99.79%
Si 251.611†           164769.1      2503.4 µg/L        5.34      2503.4 ppb         5.34   0.21%
   QC value within limits for Si 251.611  Recovery = 100.14%
Sn 189.927†             7241.5      505.96 µg/L        4.894      505.96 ppb        4.894   0.97%
   QC value within limits for Sn 189.927  Recovery = 101.19%
Sr 421.552†           196063.2      503.60 µg/L        3.776      503.60 ppb        3.776   0.75%
   QC value within limits for Sr 421.552  Recovery = 100.72%
Ti 334.940†           477375.5      499.98 µg/L        1.789      499.98 ppb        1.789   0.36%
   QC value within limits for Ti 334.940  Recovery = 100.00%
Tl 190.801†             3569.9      510.59 µg/L        5.138      510.59 ppb        5.138   1.01%
   QC value within limits for Tl 190.801  Recovery = 102.12%
U 409.014†              7591.7      492.04 µg/L        7.890      492.04 ppb        7.890   1.60%
   QC value within limits for U 409.014  Recovery = 98.41%
V 292.402†            100401.6      504.49 µg/L        2.714      504.49 ppb        2.714   0.54%
   QC value within limits for V 292.402  Recovery = 100.90%
Zn 213.857†            87130.5      499.06 µg/L        2.814      499.06 ppb        2.814   0.56%
   QC value within limits for Zn 213.857  Recovery = 99.81%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/13/2010 14:28:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113653.9	113653.9	99.4	%			14:28:47
1	Al 396.153Radial†	-78.8	5.7	1.3199	µg/L	1.3199	ppb	14:29:07
1	Ca 317.933Radial†	504.0	50.5	4.1564	µg/L	4.1564	ppb	14:29:07
1	Fe 238.204 Radial†	149.0	25.7	2.1885	µg/L	2.1885	ppb	14:29:07
1	K 766.490 Radial†	1703.2	304.9	122.04	µg/L	122.04	ppb	14:28:47
1	Mg 279.077 IEC†	143.6	-12.8	-7.0943	µg/L	-7.0943	ppb	14:29:07
1	Na 589.592 Radial†	1200.5	373.0	59.404	µg/L	59.404	ppb	14:28:47
1	Sr 421.552†	-110.5	-44.5	-0.1143	µg/L	-0.1143	ppb	14:28:47
1	Sc 361.383	1691399.3	1691399.3	99.949	%			14:29:55
1	Y 371.029	955660.1	955660.1	99.857	%			14:29:55
1	Ag 328.068†	5157.4	57.0	0.2550	µg/L	0.2550	ppb	14:29:57
1	As 188.979†	-19.1	-5.7	-1.9797	µg/L	-1.9797	ppb	14:30:17
1	B 249.677†	4226.1	116.4	1.7282	µg/L	1.7282	ppb	14:29:57
1	Ba 233.527†	-138.3	7.4	0.0343	µg/L	0.0343	ppb	14:30:17
1	Be 313.107†	-633.9	358.1	0.1041	µg/L	0.1041	ppb	14:29:57
1	Cd 226.502†	-12.0	52.5	0.3472	µg/L	0.3472	ppb	14:30:17
1	Co 228.616†	-241.2	-14.2	-0.1868	µg/L	-0.1868	ppb	14:30:17
1	Cr 267.716†	340.6	11.1	0.0911	µg/L	0.0911	ppb	14:30:17
1	Cu 324.752†	3251.9	12.2	0.0580	µg/L	0.0580	ppb	14:29:57
1	Mn 257.610†	244.9	29.7	0.0391	µg/L	0.0391	ppb	14:30:17
1	Mo 202.031†	-8.7	12.9	0.4380	µg/L	0.4380	ppb	14:30:17
1	Ni 231.604†	-66.3	7.6	0.0947	µg/L	0.0947	ppb	14:30:17
1	P 214.914†	-32.7	-13.5	-3.0902	µg/L	-3.0902	ppb	14:30:17
1	Pb 220.353†	143.2	26.1	1.6291	µg/L	1.6291	ppb	14:30:17
1	S 181.975 Axial†	108.8	6.9	5.8886	µg/L	5.8886	ppb	14:30:17
1	Sb 206.836†	85.2	7.7	0.9911	µg/L	0.9911	ppb	14:30:17
1	Se 196.026†	23.1	3.2	1.23	µg/L	1.23	ppb	14:30:17
1	SiO2†	1706.4	18.4	1.8818	µg/L	1.8818	ppb	14:30:17
1	Si 251.611†	806.1	20.0	0.2965	µg/L	0.2965	ppb	14:29:57
1	Sn 189.927†	15.3	6.8	0.4769	µg/L	0.4769	ppb	14:30:17
1	Ti 334.940†	1107.9	222.4	0.2303	µg/L	0.2303	ppb	14:29:57
1	Tl 190.801†	-125.7	-10.5	-1.4720	µg/L	-1.4720	ppb	14:30:17
1	U 409.014†	-266.7	144.4	8.8224	µg/L	8.8224	ppb	14:29:57
1	V 292.402†	645.7	150.0	0.7543	µg/L	0.7543	ppb	14:29:57
1	Zn 213.857†	685.2	66.2	0.3815	µg/L	0.3815	ppb	14:30:17
2	Sc RADIAL	114946.2	114946.2	100	%			14:29:09
2	Al 396.153Radial†	-81.0	4.4	1.0084	µg/L	1.0084	ppb	14:29:29
2	Ca 317.933Radial†	441.3	-17.6	-1.4487	µg/L	-1.4487	ppb	14:29:29
2	Fe 238.204 Radial†	130.8	5.9	0.5048	µg/L	0.5048	ppb	14:29:29
2	K 766.490 Radial†	1720.0	302.4	121.05	µg/L	121.05	ppb	14:29:09
2	Mg 279.077 IEC†	144.7	-13.4	-7.3721	µg/L	-7.3721	ppb	14:29:29
2	Na 589.592 Radial†	1078.3	237.8	37.831	µg/L	37.831	ppb	14:29:09
2	Sr 421.552†	-183.0	-115.4	-0.2965	µg/L	-0.2965	ppb	14:29:09
2	Sc 361.383	1694824.4	1694824.4	100.15	%			14:30:19
2	Y 371.029	958260.6	958260.6	100.13	%			14:30:19
2	Ag 328.068†	5167.4	56.6	0.2464	µg/L	0.2464	ppb	14:30:21
2	As 188.979†	-12.8	0.7	0.2335	µg/L	0.2335	ppb	14:30:42
2	B 249.677†	4238.5	120.1	1.7822	µg/L	1.7822	ppb	14:30:21
2	Ba 233.527†	-144.3	1.7	0.0085	µg/L	0.0085	ppb	14:30:42
2	Be 313.107†	-637.9	355.4	0.1020	µg/L	0.1020	ppb	14:30:21
2	Cd 226.502†	-21.5	43.1	0.2848	µg/L	0.2848	ppb	14:30:42
2	Co 228.616†	-202.8	24.6	0.3219	µg/L	0.3219	ppb	14:30:42
2	Cr 267.716†	344.8	14.6	0.1250	µg/L	0.1250	ppb	14:30:42
2	Cu 324.752†	3314.5	68.2	0.2864	µg/L	0.2864	ppb	14:30:21
2	Mn 257.610†	263.1	47.3	0.0622	µg/L	0.0622	ppb	14:30:42
2	Mo 202.031†	-2.6	19.0	0.6453	µg/L	0.6453	ppb	14:30:42
2	Ni 231.604†	-75.6	-1.6	-0.0194	µg/L	-0.0194	ppb	14:30:42
2	P 214.914†	-11.8	7.5	1.7053	µg/L	1.7053	ppb	14:30:42
2	Pb 220.353†	124.6	7.2	0.4465	µg/L	0.4465	ppb	14:30:42

2	S 181.975 Axial†	113.2	11.1	9.4905 µg/L	9.4905 ppb	14:30:42
2	Sb 206.836†	87.2	9.5	1.2273 µg/L	1.2273 ppb	14:30:42
2	Se 196.026†	19.2	-0.8	-0.305 µg/L	-0.305 ppb	14:30:42
2	SiO2†	1686.0	-5.5	-0.5965 µg/L	-0.5965 ppb	14:30:42
2	Si 251.611†	780.4	-7.3	-0.1263 µg/L	-0.1263 ppb	14:30:21
2	Sn 189.927†	22.5	14.1	0.9778 µg/L	0.9778 ppb	14:30:42
2	Ti 334.940†	578.7	-308.3	-0.3247 µg/L	-0.3247 ppb	14:30:21
2	Tl 190.801†	-109.3	6.1	0.8535 µg/L	0.8535 ppb	14:30:42
2	U 409.014†	-335.4	76.4	4.6772 µg/L	4.6772 ppb	14:30:21
2	V 292.402†	613.5	116.6	0.5885 µg/L	0.5885 ppb	14:30:21
2	Zn 213.857†	688.5	68.1	0.3931 µg/L	0.3931 ppb	14:30:42
3	Sc RADIAL	114071.3	114071.3	99.7 %		14:29:31
3	Al 396.153Radial†	-105.0	-20.4	-4.7958 µg/L	-4.7958 ppb	14:29:51
3	Ca 317.933Radial†	458.4	2.9	0.2383 µg/L	0.2383 ppb	14:29:51
3	Fe 238.204 Radial†	142.9	19.1	1.6257 µg/L	1.6257 ppb	14:29:51
3	K 766.490 Radial†	1673.9	269.3	107.79 µg/L	107.79 ppb	14:29:31
3	Mg 279.077 IEC†	170.0	13.2	7.2865 µg/L	7.2865 ppb	14:29:51
3	Na 589.592 Radial†	1145.1	313.0	49.846 µg/L	49.846 ppb	14:29:31
3	Sr 421.552†	-23.5	43.2	0.1109 µg/L	0.1109 ppb	14:29:31
3	Sc 361.383	1677977.5	1677977.5	99.156 %		14:30:44
3	Y 371.029	949652.6	949652.6	99.229 %		14:30:44
3	Ag 328.068†	5147.0	87.8	0.3793 µg/L	0.3793 ppb	14:30:46
3	As 188.979†	-13.3	-0.0	-0.0053 µg/L	-0.0053 ppb	14:31:06
3	B 249.677†	4303.7	228.4	3.3902 µg/L	3.3902 ppb	14:30:46
3	Ba 233.527†	-122.1	22.7	0.1025 µg/L	0.1025 ppb	14:31:06
3	Be 313.107†	-774.5	211.3	0.0647 µg/L	0.0647 ppb	14:30:46
3	Cd 226.502†	13.9	78.6	0.5195 µg/L	0.5195 ppb	14:31:06
3	Co 228.616†	-207.1	18.2	0.2389 µg/L	0.2389 ppb	14:31:06
3	Cr 267.716†	368.5	42.0	0.3558 µg/L	0.3558 ppb	14:31:06
3	Cu 324.752†	3039.3	-176.1	-0.7150 µg/L	-0.7150 ppb	14:30:46
3	Mn 257.610†	305.4	92.7	0.1208 µg/L	0.1208 ppb	14:31:06
3	Mo 202.031†	-25.0	-3.6	-0.1211 µg/L	-0.1211 ppb	14:31:06
3	Ni 231.604†	-69.4	3.9	0.0490 µg/L	0.0490 ppb	14:31:06
3	P 214.914†	-5.5	13.6	3.1240 µg/L	3.1240 ppb	14:31:06
3	Pb 220.353†	129.4	13.3	0.8185 µg/L	0.8185 ppb	14:31:06
3	S 181.975 Axial†	110.5	9.5	8.0980 µg/L	8.0980 ppb	14:31:06
3	Sb 206.836†	89.8	13.0	1.6662 µg/L	1.6662 ppb	14:31:06
3	Se 196.026†	41.7	22.1	8.56 µg/L	8.56 ppb	14:31:06
3	SiO2†	1725.4	51.2	5.2768 µg/L	5.2768 ppb	14:31:06
3	Si 251.611†	790.8	11.0	0.1656 µg/L	0.1656 ppb	14:30:46
3	Sn 189.927†	17.5	9.2	0.6409 µg/L	0.6409 ppb	14:31:06
3	Ti 334.940†	911.4	33.1	0.0273 µg/L	0.0273 ppb	14:30:46
3	Tl 190.801†	-118.5	-4.2	-0.6001 µg/L	-0.6001 ppb	14:31:06
3	U 409.014†	-144.4	265.7	16.139 µg/L	16.139 ppb	14:30:46
3	V 292.402†	439.4	-52.9	-0.2511 µg/L	-0.2511 ppb	14:30:46
3	Zn 213.857†	677.0	63.4	0.3662 µg/L	0.3662 ppb	14:31:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1688067.1	99.752	%	0.5262				0.53%
Sc RADIAL	114223.8	99.9	%	0.58				0.58%
Y 371.029	954524.4	99.738	%	0.4613				0.46%
Ag 328.068†	67.1	0.2936	µg/L	0.07436	0.2936	ppb	0.07436	25.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.4	-0.8225	µg/L	3.44451	-0.8225	ppb	3.44451	418.78%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.7	-0.5838	µg/L	1.21477	-0.5838	ppb	1.21477	208.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	155.0	2.3002	µg/L	0.94435	2.3002	ppb	0.94435	41.06%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.6	0.0484	µg/L	0.04856	0.0484	ppb	0.04856	100.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	308.3	0.0903	µg/L	0.02216	0.0903	ppb	0.02216	24.55%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	11.9	0.9820	µg/L	2.87562	0.9820	ppb	2.87562	292.83%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	58.1	0.3839	µg/L	0.12156	0.3839	ppb	0.12156	31.67%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.5	0.1247	µg/L	0.27290	0.1247	ppb	0.27290	218.93%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                22.6      0.1906 µg/L       0.14402      0.1906 ppb        0.14402  75.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -31.9     -0.1236 µg/L       0.52482     -0.1236 ppb        0.52482 424.74%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         16.9      1.4397 µg/L       0.85709      1.4397 ppb        0.85709  59.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         292.2      116.96 µg/L         7.954      116.96 ppb          7.954   6.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.3     -2.3933 µg/L       8.38409     -2.3933 ppb        8.38409 350.32%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                56.6      0.0740 µg/L       0.04215      0.0740 ppb        0.04215  56.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.4      0.3208 µg/L       0.39644      0.3208 ppb        0.39644 123.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        307.9      49.027 µg/L       10.8096      49.027 ppb        10.8096  22.05%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 3.3      0.0414 µg/L       0.05744      0.0414 ppb        0.05744 138.60%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.5      0.5797 µg/L       3.25644      0.5797 ppb        3.25644 561.75%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.5      0.9647 µg/L       0.60471      0.9647 ppb        0.60471  62.68%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            9.2      7.8257 µg/L       1.81633      7.8257 ppb        1.81633  23.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                10.1      1.2949 µg/L       0.34256      1.2949 ppb        0.34256  26.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 8.1        3.16 µg/L         4.738        3.16 ppb          4.738 149.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      21.4      2.1874 µg/L       2.94855      2.1874 ppb        2.94855 134.80%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                 7.9      0.1119 µg/L       0.21646      0.1119 ppb        0.21646 193.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.0      0.6985 µg/L       0.25539      0.6985 ppb        0.25539  36.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -38.9     -0.1000 µg/L       0.20411     -0.1000 ppb        0.20411 204.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -17.6     -0.0224 µg/L       0.28080     -0.0224 ppb        0.28080 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.9     -0.4062 µg/L       1.17482     -0.4062 ppb        1.17482 289.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                162.1      9.8795 µg/L       5.80355      9.8795 ppb        5.80355  58.74%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 71.2      0.3639 µg/L       0.53902      0.3639 ppb        0.53902 148.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                65.9      0.3803 µg/L       0.01351      0.3803 ppb        0.01351   3.55%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: LR2
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 125
Date Collected: 4/13/2010 14:31:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113995.2	113995.2	99.7	%			14:31:45
1	Al 396.153Radial†	-48.5	36.3	8.5687	µg/L	8.5687	ppb	14:32:05
1	Ca 317.933Radial†	459.8	4.6	0.3828	µg/L	0.3828	ppb	14:32:05
1	Fe 238.204 Radial†	141.9	18.1	1.5472	µg/L	1.5472	ppb	14:32:05
1	K 766.490 Radial†	1600.8	197.0	78.848	µg/L	78.848	ppb	14:31:45
1	Mg 279.077 IEC†	156.9	0.1	0.0497	µg/L	0.0497	ppb	14:32:05
1	Na 589.592 Radial†	1081.4	249.9	39.797	µg/L	39.797	ppb	14:31:45
1	Sr 421.552†	-104.7	-38.4	-0.0986	µg/L	-0.0986	ppb	14:31:45
1	Sc 361.383	1699694.8	1699694.8	100.44	%			14:32:53
1	Y 371.029	963460.8	963460.8	100.67	%			14:32:53
1	Ag 328.068†	5291.1	165.0	0.6869	µg/L	0.6869	ppb	14:32:55
1	As 188.979†	-14.5	-1.0	-0.3431	µg/L	-0.3431	ppb	14:33:15
1	B 249.677†	4312.4	181.6	2.7310	µg/L	2.7310	ppb	14:32:55
1	Ba 233.527†	2284321.0	2274482.3	10296	µg/L	10296	ppb	14:32:53
1	Be 313.107†	-859.9	136.2	0.0410	µg/L	0.0410	ppb	14:32:55
1	Cd 226.502†	-51.0	13.8	0.0914	µg/L	0.0914	ppb	14:33:15
1	Co 228.616†	-994.6	-763.2	0.1239	µg/L	0.1239	ppb	14:33:15
1	Cr 267.716†	358.3	27.1	0.2314	µg/L	0.2314	ppb	14:33:15
1	Cu 324.752†	3312.8	57.0	0.2368	µg/L	0.2368	ppb	14:32:55
1	Mn 257.610†	253.1	36.6	0.0479	µg/L	0.0479	ppb	14:33:15
1	Mo 202.031†	-30.2	-8.4	-0.2866	µg/L	-0.2866	ppb	14:33:15
1	Ni 231.604†	3.9	77.8	0.9681	µg/L	0.9681	ppb	14:33:15
1	P 214.914†	-4.6	14.7	3.3583	µg/L	3.3583	ppb	14:33:15
1	Pb 220.353†	104.7	-13.0	-0.8211	µg/L	-0.8211	ppb	14:33:15
1	S 181.975 Axial†	107.8	5.4	4.5652	µg/L	4.5652	ppb	14:33:15
1	Sb 206.836†	63.6	-14.2	-1.8239	µg/L	-1.8239	ppb	14:33:15
1	Se 196.026†	30.9	10.8	4.18	µg/L	4.18	ppb	14:33:15
1	SiO2†	1567.4	-128.3	-13.245	µg/L	-13.245	ppb	14:32:55
1	Si 251.611†	600.5	-188.6	-2.8753	µg/L	-2.8753	ppb	14:32:55
1	Sn 189.927†	12.0	3.5	0.2414	µg/L	0.2414	ppb	14:33:15
1	Ti 334.940†	565.5	-323.0	-0.3421	µg/L	-0.3421	ppb	14:32:55
1	Tl 190.801†	-125.3	-9.5	-1.2914	µg/L	-1.2914	ppb	14:33:15
1	U 409.014†	-281.1	131.4	7.9683	µg/L	7.9683	ppb	14:32:55
1	V 292.402†	430.8	-67.1	-0.3293	µg/L	-0.3293	ppb	14:32:55
1	Zn 213.857†	693.0	70.6	0.4023	µg/L	0.4023	ppb	14:33:15
2	Sc RADIAL	113980.1	113980.1	99.6	%			14:32:07
2	Al 396.153Radial†	-79.3	5.4	1.2671	µg/L	1.2671	ppb	14:32:27
2	Ca 317.933Radial†	487.1	32.1	2.6449	µg/L	2.6449	ppb	14:32:27
2	Fe 238.204 Radial†	133.1	9.3	0.7949	µg/L	0.7949	ppb	14:32:27
2	K 766.490 Radial†	1637.7	234.3	93.793	µg/L	93.793	ppb	14:32:07
2	Mg 279.077 IEC†	158.1	1.4	0.7486	µg/L	0.7486	ppb	14:32:27
2	Na 589.592 Radial†	1005.0	173.3	27.562	µg/L	27.562	ppb	14:32:07
2	Sr 421.552†	-242.4	-176.5	-0.4534	µg/L	-0.4534	ppb	14:32:07
2	Sc 361.383	1697722.2	1697722.2	100.32	%			14:33:17
2	Y 371.029	962224.7	962224.7	100.54	%			14:33:17
2	Ag 328.068†	5133.7	14.2	0.0650	µg/L	0.0650	ppb	14:33:20
2	As 188.979†	-11.0	2.4	0.8425	µg/L	0.8425	ppb	14:33:40
2	B 249.677†	4297.7	171.9	2.5877	µg/L	2.5877	ppb	14:33:20
2	Ba 233.527†	2287183.7	2279978.4	10321	µg/L	10321	ppb	14:33:17
2	Be 313.107†	-928.2	67.1	0.0206	µg/L	0.0206	ppb	14:33:20
2	Cd 226.502†	-38.2	26.5	0.1757	µg/L	0.1757	ppb	14:33:40
2	Co 228.616†	-1014.8	-784.5	-0.1308	µg/L	-0.1308	ppb	14:33:40
2	Cr 267.716†	339.6	8.9	0.0736	µg/L	0.0736	ppb	14:33:40
2	Cu 324.752†	3107.4	-143.9	-0.5972	µg/L	-0.5972	ppb	14:33:20
2	Mn 257.610†	253.8	37.6	0.0492	µg/L	0.0492	ppb	14:33:40
2	Mo 202.031†	-21.4	0.3	0.0113	µg/L	0.0113	ppb	14:33:40
2	Ni 231.604†	-3.1	70.9	0.8813	µg/L	0.8813	ppb	14:33:40
2	P 214.914†	-22.7	-3.4	-0.7802	µg/L	-0.7802	ppb	14:33:40
2	Pb 220.353†	130.8	13.1	0.8184	µg/L	0.8184	ppb	14:33:40

2	S 181.975 Axial†	111.5	9.2	7.8098 µg/L	7.8098 ppb		14:33:40
2	Sb 206.836†	70.4	-7.4	-0.9458 µg/L	-0.9458 ppb		14:33:40
2	Se 196.026†	20.6	0.5	0.201 µg/L	0.201 ppb		14:33:40
2	SiO2†	1638.9	-55.2	-5.7026 µg/L	-5.7026 ppb		14:33:20
2	Si 251.611†	602.4	-186.0	-2.8385 µg/L	-2.8385 ppb		14:33:20
2	Sn 189.927†	9.4	0.9	0.0639 µg/L	0.0639 ppb		14:33:40
2	Ti 334.940†	840.7	-48.1	-0.0527 µg/L	-0.0527 ppb		14:33:20
2	Tl 190.801†	-116.1	-0.5	-0.0209 µg/L	-0.0209 ppb		14:33:40
2	U 409.014†	-324.3	88.0	5.3509 µg/L	5.3509 ppb		14:33:20
2	V 292.402†	495.1	-2.5	-0.0085 µg/L	-0.0085 ppb		14:33:20
2	Zn 213.857†	696.4	74.8	0.4279 µg/L	0.4279 ppb		14:33:40
3	Sc RADIAL	114281.6	114281.6	99.9 %			14:32:29
3	Al 396.153Radial†	-76.5	8.4	1.9890 µg/L	1.9890 ppb		14:32:49
3	Ca 317.933Radial†	458.5	2.2	0.1815 µg/L	0.1815 ppb		14:32:49
3	Fe 238.204 Radial†	124.3	0.2	0.0129 µg/L	0.0129 ppb		14:32:49
3	K 766.490 Radial†	1651.9	244.2	97.733 µg/L	97.733 ppb		14:32:29
3	Mg 279.077 IEC†	156.6	-0.6	-0.3222 µg/L	-0.3222 ppb		14:32:49
3	Na 589.592 Radial†	1055.9	221.6	35.274 µg/L	35.274 ppb		14:32:29
3	Sr 421.552†	44.9	111.7	0.2869 µg/L	0.2869 ppb		14:32:29
3	Sc 361.383	1680656.7	1680656.7	99.314 %			14:33:42
3	Y 371.029	953102.5	953102.5	99.590 %			14:33:42
3	Ag 328.068†	5323.8	257.6	1.0587 µg/L	1.0587 ppb		14:33:44
3	As 188.979†	9.0	22.5	7.7981 µg/L	7.7981 ppb		14:34:04
3	B 249.677†	4123.2	39.8	0.6267 µg/L	0.6267 ppb		14:33:44
3	Ba 233.527†	2255056.1	2270778.3	10279 µg/L	10279 ppb		14:33:42
3	Be 313.107†	-1010.1	-24.7	-0.0092 µg/L	-0.0092 ppb		14:33:44
3	Cd 226.502†	-59.6	4.5	0.0303 µg/L	0.0303 ppb		14:34:04
3	Co 228.616†	-1009.0	-789.0	-0.2305 µg/L	-0.2305 ppb		14:34:04
3	Cr 267.716†	330.2	2.8	0.0306 µg/L	0.0306 ppb		14:34:04
3	Cu 324.752†	3098.9	-121.0	-0.5130 µg/L	-0.5130 ppb		14:33:44
3	Mn 257.610†	250.6	37.0	0.0484 µg/L	0.0484 ppb		14:34:04
3	Mo 202.031†	-21.7	-0.2	-0.0078 µg/L	-0.0078 ppb		14:34:04
3	Ni 231.604†	-2.9	71.0	0.8829 µg/L	0.8829 ppb		14:34:04
3	P 214.914†	-21.9	-2.8	-0.6280 µg/L	-0.6280 ppb		14:34:04
3	Pb 220.353†	109.5	-7.0	-0.4308 µg/L	-0.4308 ppb		14:34:04
3	S 181.975 Axial†	105.6	4.4	3.7180 µg/L	3.7180 ppb		14:34:04
3	Sb 206.836†	67.8	-9.3	-1.1919 µg/L	-1.1919 ppb		14:34:04
3	Se 196.026†	17.1	-2.8	-1.08 µg/L	-1.08 ppb		14:34:04
3	SiO2†	1714.9	37.9	3.9024 µg/L	3.9024 ppb		14:33:44
3	Si 251.611†	591.0	-191.4	-2.9244 µg/L	-2.9244 ppb		14:33:44
3	Sn 189.927†	17.8	9.5	0.6586 µg/L	0.6586 ppb		14:34:04
3	Ti 334.940†	660.1	-221.4	-0.2292 µg/L	-0.2292 ppb		14:33:44
3	Tl 190.801†	-110.3	4.2	0.6391 µg/L	0.6391 ppb		14:34:04
3	U 409.014†	-526.8	-119.2	-7.2308 µg/L	-7.2308 ppb		14:33:44
3	V 292.402†	562.0	69.9	0.3418 µg/L	0.3418 ppb		14:33:44
3	Zn 213.857†	686.6	72.0	0.4117 µg/L	0.4117 ppb		14:34:04

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1692691.2	100.03	%	0.619				0.62%
Sc RADIAL	114085.6	99.7	%	0.15				0.15%
Y 371.029	959596.0	100.27	%	0.591				0.59%
Ag 328.068†	145.6	0.6036	µg/L	0.50207	0.6036	ppb	0.50207	83.19%
Al 396.153Radial†	16.7	3.9416	µg/L	4.02338	3.9416	ppb	4.02338	102.07%
As 188.979†	8.0	2.7658	µg/L	4.39825	2.7658	ppb	4.39825	159.02%
B 249.677†	131.1	1.9818	µg/L	1.17574	1.9818	ppb	1.17574	59.33%
Ba 233.527†	2275079.7	10299	µg/L	21.0	10299	ppb	21.0	0.20%
Be 313.107†	59.5	0.0175	µg/L	0.02524	0.0175	ppb	0.02524	144.48%
Ca 317.933Radial†	13.0	1.0697	µg/L	1.36783	1.0697	ppb	1.36783	127.87%
Cd 226.502†	14.9	0.0991	µg/L	0.07300	0.0991	ppb	0.07300	73.64%
Co 228.616†	-778.9	-0.0791	µg/L	0.18275	-0.0791	ppb	0.18275	231.04%
Cr 267.716†	12.9	0.1119	µg/L	0.10572	0.1119	ppb	0.10572	94.50%
Cu 324.752†	-69.3	-0.2912	µg/L	0.45915	-0.2912	ppb	0.45915	157.69%
Fe 238.204 Radial†	9.2	0.7850	µg/L	0.76722	0.7850	ppb	0.76722	97.74%
K 766.490 Radial†	225.2	90.125	µg/L	9.9622	90.125	ppb	9.9622	11.05%
Mg 279.077 IEC†	0.3	0.1587	µg/L	0.54368	0.1587	ppb	0.54368	342.54%
Mn 257.610†	37.1	0.0485	µg/L	0.00066	0.0485	ppb	0.00066	1.36%
Mo 202.031†	-2.8	-0.0944	µg/L	0.16671	-0.0944	ppb	0.16671	176.66%
Na 589.592 Radial†	214.9	34.211	µg/L	6.1864	34.211	ppb	6.1864	18.08%

Ni 231.604†	73.2	0.9107	µg/L	0.04966	0.9107	ppb	0.04966 5.45%
P 214.914†	2.8	0.6500	µg/L	2.34663	0.6500	ppb	2.34663 361.01%
Pb 220.353†	-2.3	-0.1445	µg/L	0.85646	-0.1445	ppb	0.85646 592.62%
S 181.975 Axial†	6.3	5.3644	µg/L	2.15979	5.3644	ppb	2.15979 40.26%
Sb 206.836†	-10.3	-1.3205	µg/L	0.45298	-1.3205	ppb	0.45298 34.30%
Se 196.026†	2.8	1.10	µg/L	2.742	1.10	ppb	2.742 249.22%
SiO2†	-48.5	-5.0149	µg/L	8.59419	-5.0149	ppb	8.59419 171.37%
Si 251.611†	-188.7	-2.8794	µg/L	0.04309	-2.8794	ppb	0.04309 1.50%
Sn 189.927†	4.6	0.3213	µg/L	0.30527	0.3213	ppb	0.30527 95.01%
Sr 421.552†	-34.4	-0.0884	µg/L	0.37026	-0.0884	ppb	0.37026 418.94%
Ti 334.940†	-197.5	-0.2080	µg/L	0.14588	-0.2080	ppb	0.14588 70.14%
Tl 190.801†	-1.9	-0.2244	µg/L	0.98117	-0.2244	ppb	0.98117 437.26%
U 409.014†	33.4	2.0295	µg/L	8.12569	2.0295	ppb	8.12569 400.39%
V 292.402†	0.1	0.0013	µg/L	0.33566	0.0013	ppb	0.33566 >999.9%
Zn 213.857†	72.5	0.4140	µg/L	0.01295	0.4140	ppb	0.01295 3.13%

Sequence No.: 4
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/13/2010 14:34:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113240.2	113240.2	99.0	%			14:34:45
1	Al 396.153Radial†	21302.7	21603.6	5071.5	µg/L	5071.5	ppb	14:34:45
1	Ca 317.933Radial†	61422.1	61587.9	5071.1	µg/L	5071.1	ppb	14:34:45
1	Fe 238.204 Radial†	58690.8	59161.5	5046.7	µg/L	5046.7	ppb	14:34:45
1	K 766.490 Radial†	13960.5	12692.7	5076.5	µg/L	5076.5	ppb	14:34:45
1	Mg 279.077 IEC†	9324.1	9261.3	5129.8	µg/L	5129.8	ppb	14:34:45
1	Na 589.592 Radial†	63353.4	63160.3	10073	µg/L	10073	ppb	14:34:43
1	Sr 421.552†	194495.8	196534.1	504.81	µg/L	504.81	ppb	14:34:43
1	Sc 361.383	1695901.3	1695901.3	100.21	%			14:34:58
1	Y 371.029	949027.3	949027.3	99.164	%			14:34:58
1	Ag 328.068†	126474.9	121100.8	506.32	µg/L	506.32	ppb	14:34:58
1	As 188.979†	1404.7	1415.1	497.33	µg/L	497.33	ppb	14:35:18
1	B 249.677†	37905.0	33711.8	498.66	µg/L	498.66	ppb	14:34:58
1	Ba 233.527†	111594.7	111501.3	505.14	µg/L	505.14	ppb	14:34:58
1	Be 313.107†	1775252.9	1772439.3	501.98	µg/L	501.98	ppb	14:34:58
1	Cd 226.502†	76648.7	76549.0	505.86	µg/L	505.86	ppb	14:34:58
1	Co 228.616†	38628.4	38772.6	508.56	µg/L	508.56	ppb	14:34:58
1	Cr 267.716†	57693.6	57240.2	502.58	µg/L	502.58	ppb	14:34:58
1	Cu 324.752†	124309.8	120802.1	501.66	µg/L	501.66	ppb	14:34:58
1	Mn 257.610†	387113.8	386068.5	504.43	µg/L	504.43	ppb	14:34:58
1	Mo 202.031†	14749.3	14739.3	500.80	µg/L	500.80	ppb	14:35:18
1	Ni 231.604†	40806.7	40793.2	507.30	µg/L	507.30	ppb	14:34:58
1	P 214.914†	10894.1	10890.0	2479.6	µg/L	2479.6	ppb	14:35:18
1	Pb 220.353†	8132.9	7998.2	502.75	µg/L	502.75	ppb	14:35:18
1	S 181.975 Axial†	1275.7	1171.1	1000.6	µg/L	1000.6	ppb	14:35:18
1	Sb 206.836†	3973.0	3887.0	499.35	µg/L	499.35	ppb	14:35:18
1	Se 196.026†	1303.3	1280.5	497	µg/L	497	ppb	14:35:18
1	SiO2†	53534.3	51730.6	5320.1	µg/L	5320.1	ppb	14:34:58
1	Si 251.611†	166249.2	165106.3	2508.6	µg/L	2508.6	ppb	14:34:58
1	Sn 189.927†	7192.8	7169.0	500.91	µg/L	500.91	ppb	14:35:18
1	Ti 334.940†	481280.4	479362.5	502.06	µg/L	502.06	ppb	14:34:58
1	Tl 190.801†	3429.0	3536.9	505.95	µg/L	505.95	ppb	14:35:18
1	U 409.014†	7261.9	7657.6	496.16	µg/L	496.16	ppb	14:34:58
1	V 292.402†	101442.3	100728.8	506.07	µg/L	506.07	ppb	14:34:58
1	Zn 213.857†	88554.0	87744.9	502.59	µg/L	502.59	ppb	14:34:58
2	Sc RADIAL	113959.5	113959.5	99.6	%			14:34:49
2	Al 396.153Radial†	21595.0	21761.2	5108.1	µg/L	5108.1	ppb	14:34:49
2	Ca 317.933Radial†	62072.1	61848.8	5092.6	µg/L	5092.6	ppb	14:34:49
2	Fe 238.204 Radial†	59433.7	59532.9	5078.4	µg/L	5078.4	ppb	14:34:49
2	K 766.490 Radial†	14016.3	12659.7	5063.3	µg/L	5063.3	ppb	14:34:49
2	Mg 279.077 IEC†	9458.8	9337.1	5172.0	µg/L	5172.0	ppb	14:34:49
2	Na 589.592 Radial†	63402.7	62805.9	10017	µg/L	10017	ppb	14:34:47
2	Sr 421.552†	193642.2	194437.2	499.43	µg/L	499.43	ppb	14:34:47
2	Sc 361.383	1659159.7	1659159.7	98.044	%			14:35:21
2	Y 371.029	928632.1	928632.1	97.033	%			14:35:21
2	Ag 328.068†	123758.6	121125.0	506.42	µg/L	506.42	ppb	14:35:21
2	As 188.979†	1414.2	1455.8	511.45	µg/L	511.45	ppb	14:35:41
2	B 249.677†	37102.0	33730.4	498.95	µg/L	498.95	ppb	14:35:21
2	Ba 233.527†	108638.7	110952.3	502.66	µg/L	502.66	ppb	14:35:21
2	Be 313.107†	1728125.6	1763599.8	499.48	µg/L	499.48	ppb	14:35:21
2	Cd 226.502†	74439.6	75989.5	502.15	µg/L	502.15	ppb	14:35:21
2	Co 228.616†	37438.4	38412.5	503.84	µg/L	503.84	ppb	14:35:21
2	Cr 267.716†	56224.0	57016.2	500.62	µg/L	500.62	ppb	14:35:21
2	Cu 324.752†	121370.3	120550.7	500.62	µg/L	500.62	ppb	14:35:21
2	Mn 257.610†	377917.9	385243.3	503.35	µg/L	503.35	ppb	14:35:21
2	Mo 202.031†	14788.7	15105.4	513.23	µg/L	513.23	ppb	14:35:41
2	Ni 231.604†	39745.1	40612.1	505.04	µg/L	505.04	ppb	14:35:21
2	P 214.914†	10959.6	11197.5	2549.9	µg/L	2549.9	ppb	14:35:41
2	Pb 220.353†	8172.5	8218.3	516.58	µg/L	516.58	ppb	14:35:41

2	S 181.975 Axial†	1280.9	1204.5	1029.2 µg/L	1029.2 ppb	14:35:41
2	Sb 206.836†	3988.3	3990.4	512.84 µg/L	512.84 ppb	14:35:41
2	Se 196.026†	1316.8	1323.0	514 µg/L	514 ppb	14:35:41
2	SiO2†	52510.8	51869.7	5333.9 µg/L	5333.9 ppb	14:35:21
2	Si 251.611†	162146.2	164595.0	2500.6 µg/L	2500.6 ppb	14:35:21
2	Sn 189.927†	7244.4	7380.5	515.64 µg/L	515.64 ppb	14:35:41
2	Ti 334.940†	469830.8	478319.4	500.97 µg/L	500.97 ppb	14:35:21
2	Tl 190.801†	3456.2	3640.4	520.55 µg/L	520.55 ppb	14:35:41
2	U 409.014†	7058.0	7610.1	493.28 µg/L	493.28 ppb	14:35:21
2	V 292.402†	99337.5	100823.6	506.66 µg/L	506.66 ppb	14:35:21
2	Zn 213.857†	86193.0	87293.5	500.00 µg/L	500.00 ppb	14:35:21
3	Sc RADIAL	113378.4	113378.4	99.1 %		14:34:53
3	Al 396.153Radial†	21480.8	21757.0	5107.5 µg/L	5107.5 ppb	14:34:53
3	Ca 317.933Radial†	61309.5	61398.8	5055.5 µg/L	5055.5 ppb	14:34:53
3	Fe 238.204 Radial†	58726.0	59124.6	5043.6 µg/L	5043.6 ppb	14:34:53
3	K 766.490 Radial†	13911.3	12625.9	5049.7 µg/L	5049.7 ppb	14:34:53
3	Mg 279.077 IEC†	9449.6	9376.4	5193.5 µg/L	5193.5 ppb	14:34:53
3	Na 589.592 Radial†	62979.6	62705.2	10001 µg/L	10001 ppb	14:34:51
3	Sr 421.552†	193250.1	195037.8	500.97 µg/L	500.97 ppb	14:34:51
3	Sc 361.383	1675612.4	1675612.4	99.016 %		14:35:44
3	Y 371.029	937898.4	937898.4	98.001 %		14:35:44
3	Ag 328.068†	124647.8	120783.6	505.01 µg/L	505.01 ppb	14:35:44
3	As 188.979†	1412.0	1439.4	505.75 µg/L	505.75 ppb	14:36:04
3	B 249.677†	37336.7	33595.8	496.94 µg/L	496.94 ppb	14:35:44
3	Ba 233.527†	109746.1	110982.7	502.80 µg/L	502.80 ppb	14:35:44
3	Be 313.107†	1746684.2	1765036.0	499.89 µg/L	499.89 ppb	14:35:44
3	Cd 226.502†	75488.7	76303.5	504.23 µg/L	504.23 ppb	14:35:44
3	Co 228.616†	37977.1	38581.6	506.06 µg/L	506.06 ppb	14:35:44
3	Cr 267.716†	56895.0	57130.8	501.62 µg/L	501.62 ppb	14:35:44
3	Cu 324.752†	122865.7	120845.5	501.85 µg/L	501.85 ppb	14:35:44
3	Mn 257.610†	382222.8	385806.2	504.08 µg/L	504.08 ppb	14:35:44
3	Mo 202.031†	14702.0	14869.8	505.23 µg/L	505.23 ppb	14:36:04
3	Ni 231.604†	40137.0	40609.8	505.02 µg/L	505.02 ppb	14:35:44
3	P 214.914†	10894.1	11021.6	2509.7 µg/L	2509.7 ppb	14:36:04
3	Pb 220.353†	8151.7	8115.5	510.11 µg/L	510.11 ppb	14:36:04
3	S 181.975 Axial†	1286.4	1197.2	1022.9 µg/L	1022.9 ppb	14:36:04
3	Sb 206.836†	3964.2	3926.1	504.46 µg/L	504.46 ppb	14:36:04
3	Se 196.026†	1323.1	1316.2	511 µg/L	511 ppb	14:36:04
3	SiO2†	53036.6	51874.8	5334.8 µg/L	5334.8 ppb	14:35:44
3	Si 251.611†	163924.4	164767.1	2503.4 µg/L	2503.4 ppb	14:35:44
3	Sn 189.927†	7190.9	7254.0	506.83 µg/L	506.83 ppb	14:36:04
3	Ti 334.940†	474934.0	478768.1	501.43 µg/L	501.43 ppb	14:35:44
3	Tl 190.801†	3431.8	3581.1	512.19 µg/L	512.19 ppb	14:36:04
3	U 409.014†	7271.0	7754.5	502.03 µg/L	502.03 ppb	14:35:44
3	V 292.402†	100159.4	100658.9	505.77 µg/L	505.77 ppb	14:35:44
3	Zn 213.857†	87194.3	87441.6	500.86 µg/L	500.86 ppb	14:35:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1676891.2	99.091	%	1.0875				1.10%
Sc RADIAL	113526.0	99.2	%	0.33				0.34%
Y 371.029	938519.2	98.066	%	1.0670				1.09%
Ag 328.068†	121003.1	505.92	µg/L	0.785	505.92	ppb	0.785	0.16%
QC value within limits for Ag 328.068 Recovery = 101.18%								
Al 396.153Radial†	21707.3	5095.7	µg/L	20.95	5095.7	ppb	20.95	0.41%
QC value within limits for Al 396.153Radial Recovery = 101.91%								
As 188.979†	1436.8	504.85	µg/L	7.105	504.85	ppb	7.105	1.41%
QC value within limits for As 188.979 Recovery = 100.97%								
B 249.677†	33679.3	498.18	µg/L	1.083	498.18	ppb	1.083	0.22%
QC value within limits for B 249.677 Recovery = 99.64%								
Ba 233.527†	111145.4	503.54	µg/L	1.395	503.54	ppb	1.395	0.28%
QC value within limits for Ba 233.527 Recovery = 100.71%								
Be 313.107†	1767025.0	500.45	µg/L	1.343	500.45	ppb	1.343	0.27%
QC value within limits for Be 313.107 Recovery = 100.09%								
Ca 317.933Radial†	61611.8	5073.1	µg/L	18.61	5073.1	ppb	18.61	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.46%								
Cd 226.502†	76280.6	504.08	µg/L	1.857	504.08	ppb	1.857	0.37%
QC value within limits for Cd 226.502 Recovery = 100.82%								
Co 228.616†	38588.9	506.15	µg/L	2.364	506.15	ppb	2.364	0.47%

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   QC value within limits for Co 228.616  Recovery = 101.23%
Cr 267.716†            57129.1      501.61 µg/L         0.982      501.61 ppb          0.982   0.20%
   QC value within limits for Cr 267.716  Recovery = 100.32%
Cu 324.752†           120732.8      501.38 µg/L         0.660      501.38 ppb          0.660   0.13%
   QC value within limits for Cu 324.752  Recovery = 100.28%
Fe 238.204 Radial†     59273.0      5056.2 µg/L         19.26      5056.2 ppb          19.26   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.12%
K 766.490 Radial†      12659.5      5063.2 µg/L         13.36      5063.2 ppb          13.36   0.26%
   QC value within limits for K 766.490 Radial  Recovery = 101.26%
Mg 279.077 IEC†         9324.9      5165.1 µg/L         32.42      5165.1 ppb          32.42   0.63%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.30%
Mn 257.610†           385706.0      503.95 µg/L         0.552      503.95 ppb          0.552   0.11%
   QC value within limits for Mn 257.610  Recovery = 100.79%
Mo 202.031†            14904.8      506.42 µg/L         6.300      506.42 ppb          6.300   1.24%
   QC value within limits for Mo 202.031  Recovery = 101.28%
Na 589.592 Radial†     62890.5       10030 µg/L          38.1       10030 ppb           38.1   0.38%
   QC value within limits for Na 589.592 Radial  Recovery = 100.30%
Ni 231.604†            40671.7      505.79 µg/L         1.308      505.79 ppb          1.308   0.26%
   QC value within limits for Ni 231.604  Recovery = 101.16%
P 214.914†             11036.3      2513.1 µg/L         35.25      2513.1 ppb          35.25   1.40%
   QC value within limits for P 214.914  Recovery = 100.52%
Pb 220.353†             8110.7      509.81 µg/L         6.918      509.81 ppb          6.918   1.36%
   QC value within limits for Pb 220.353  Recovery = 101.96%
S 181.975 Axial†        1190.9      1017.6 µg/L         15.02      1017.6 ppb          15.02   1.48%
   QC value within limits for S 181.975 Axial  Recovery = 101.76%
Sb 206.836†             3934.5      505.55 µg/L         6.809      505.55 ppb          6.809   1.35%
   QC value within limits for Sb 206.836  Recovery = 101.11%
Se 196.026†             1306.6         507 µg/L           8.8         507 ppb            8.8   1.74%
   QC value within limits for Se 196.026  Recovery = 101.49%
SiO2†                  51825.0      5329.6 µg/L          8.23      5329.6 ppb          8.23   0.15%
   QC value within limits for SiO2  Recovery = 99.67%
Si 251.611†           164822.8      2504.2 µg/L          4.09      2504.2 ppb          4.09   0.16%
   QC value within limits for Si 251.611  Recovery = 100.17%
Sn 189.927†             7267.8      507.79 µg/L         7.410      507.79 ppb          7.410   1.46%
   QC value within limits for Sn 189.927  Recovery = 101.56%
Sr 421.552†           195336.4      501.74 µg/L         2.774      501.74 ppb          2.774   0.55%
   QC value within limits for Sr 421.552  Recovery = 100.35%
Ti 334.940†           478816.6      501.49 µg/L         0.550      501.49 ppb          0.550   0.11%
   QC value within limits for Ti 334.940  Recovery = 100.30%
Tl 190.801†             3586.1      512.90 µg/L         7.324      512.90 ppb          7.324   1.43%
   QC value within limits for Tl 190.801  Recovery = 102.58%
U 409.014†              7674.1      497.16 µg/L         4.457      497.16 ppb          4.457   0.90%
   QC value within limits for U 409.014  Recovery = 99.43%
V 292.402†            100737.1      506.17 µg/L         0.451      506.17 ppb          0.451   0.09%
   QC value within limits for V 292.402  Recovery = 101.23%
Zn 213.857†            87493.3      501.15 µg/L         1.321      501.15 ppb          1.321   0.26%
   QC value within limits for Zn 213.857  Recovery = 100.23%
All analyte(s) passed QC.
```

Sequence No.: 5
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/13/2010 14:36:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114242.2	114242.2	99.9	%			14:36:42
1	Al 396.153Radial†	-88.0	-3.1	-0.7468	µg/L	-0.7468	ppb	14:37:02
1	Ca 317.933Radial†	474.8	18.6	1.5333	µg/L	1.5333	ppb	14:37:02
1	Fe 238.204 Radial†	138.6	14.4	1.2323	µg/L	1.2323	ppb	14:37:02
1	K 766.490 Radial†	1539.7	132.4	52.981	µg/L	52.981	ppb	14:36:42
1	Mg 279.077 IEC†	166.2	9.1	5.0516	µg/L	5.0516	ppb	14:37:02
1	Na 589.592 Radial†	961.9	127.8	20.345	µg/L	20.345	ppb	14:36:42
1	Sr 421.552†	14.8	81.5	0.2093	µg/L	0.2093	ppb	14:36:42
1	Sc 361.383	1691996.5	1691996.5	99.984	%			14:37:50
1	Y 371.029	957245.2	957245.2	100.02	%			14:37:50
1	Ag 328.068†	5292.0	189.8	0.7895	µg/L	0.7895	ppb	14:37:52
1	As 188.979†	-14.6	-1.1	-0.3903	µg/L	-0.3903	ppb	14:38:12
1	B 249.677†	4150.5	39.2	0.5812	µg/L	0.5812	ppb	14:37:52
1	Ba 233.527†	-127.0	18.8	0.0851	µg/L	0.0851	ppb	14:38:12
1	Be 313.107†	-962.6	29.6	0.0111	µg/L	0.0111	ppb	14:37:52
1	Cd 226.502†	-40.8	23.7	0.1568	µg/L	0.1568	ppb	14:38:12
1	Co 228.616†	-217.9	9.1	0.1199	µg/L	0.1199	ppb	14:38:12
1	Cr 267.716†	353.1	23.5	0.1992	µg/L	0.1992	ppb	14:38:12
1	Cu 324.752†	3176.8	-64.0	-0.2569	µg/L	-0.2569	ppb	14:37:52
1	Mn 257.610†	237.3	22.0	0.0286	µg/L	0.0286	ppb	14:38:12
1	Mo 202.031†	-10.9	10.7	0.3643	µg/L	0.3643	ppb	14:38:12
1	Ni 231.604†	-67.8	6.1	0.0753	µg/L	0.0753	ppb	14:38:12
1	P 214.914†	-11.4	7.8	1.7830	µg/L	1.7830	ppb	14:38:12
1	Pb 220.353†	158.8	41.6	2.6032	µg/L	2.6032	ppb	14:38:12
1	S 181.975 Axial†	99.1	-2.8	-2.4037	µg/L	-2.4037	ppb	14:38:12
1	Sb 206.836†	69.9	-7.6	-0.9701	µg/L	-0.9701	ppb	14:38:12
1	Se 196.026†	22.2	2.3	0.885	µg/L	0.885	ppb	14:38:12
1	SiO2†	1774.0	85.4	8.8083	µg/L	8.8083	ppb	14:37:52
1	Si 251.611†	665.0	-121.5	-1.8588	µg/L	-1.8588	ppb	14:37:52
1	Sn 189.927†	11.1	2.7	0.1856	µg/L	0.1856	ppb	14:38:12
1	Ti 334.940†	711.8	-174.1	-0.1868	µg/L	-0.1868	ppb	14:37:52
1	Tl 190.801†	-106.2	9.0	1.2653	µg/L	1.2653	ppb	14:38:12
1	U 409.014†	-261.4	149.8	9.0823	µg/L	9.0823	ppb	14:37:52
1	V 292.402†	403.2	-92.8	-0.4492	µg/L	-0.4492	ppb	14:37:52
1	Zn 213.857†	672.2	53.0	0.3056	µg/L	0.3056	ppb	14:38:12
2	Sc RADIAL	113917.7	113917.7	99.6	%			14:37:04
2	Al 396.153Radial†	-95.9	-11.3	-2.6826	µg/L	-2.6826	ppb	14:37:24
2	Ca 317.933Radial†	464.2	9.4	0.7740	µg/L	0.7740	ppb	14:37:24
2	Fe 238.204 Radial†	140.5	16.8	1.4295	µg/L	1.4295	ppb	14:37:24
2	K 766.490 Radial†	1689.6	287.3	115.00	µg/L	115.00	ppb	14:37:04
2	Mg 279.077 IEC†	147.8	-8.9	-4.9025	µg/L	-4.9025	ppb	14:37:24
2	Na 589.592 Radial†	1049.9	219.0	34.836	µg/L	34.836	ppb	14:37:04
2	Sr 421.552†	20.2	87.0	0.2234	µg/L	0.2234	ppb	14:37:04
2	Sc 361.383	1731059.2	1731059.2	102.29	%			14:38:14
2	Y 371.029	978761.8	978761.8	102.27	%			14:38:14
2	Ag 328.068†	5131.6	-86.3	-0.3506	µg/L	-0.3506	ppb	14:38:16
2	As 188.979†	-20.7	-6.8	-2.3539	µg/L	-2.3539	ppb	14:38:37
2	B 249.677†	4408.6	197.8	2.9359	µg/L	2.9359	ppb	14:38:16
2	Ba 233.527†	-104.8	43.4	0.1953	µg/L	0.1953	ppb	14:38:37
2	Be 313.107†	-908.3	104.4	0.0369	µg/L	0.0369	ppb	14:38:16
2	Cd 226.502†	-59.3	6.6	0.0431	µg/L	0.0431	ppb	14:38:37
2	Co 228.616†	-212.5	19.4	0.2538	µg/L	0.2538	ppb	14:38:37
2	Cr 267.716†	325.8	-11.1	-0.1177	µg/L	-0.1177	ppb	14:38:37
2	Cu 324.752†	3037.6	-271.8	-1.1048	µg/L	-1.1048	ppb	14:38:16
2	Mn 257.610†	235.2	14.6	0.0193	µg/L	0.0193	ppb	14:38:37
2	Mo 202.031†	-8.0	13.8	0.4674	µg/L	0.4674	ppb	14:38:37
2	Ni 231.604†	-97.0	-20.9	-0.2604	µg/L	-0.2604	ppb	14:38:37
2	P 214.914†	-8.3	11.1	2.5432	µg/L	2.5432	ppb	14:38:37
2	Pb 220.353†	95.1	-24.3	-1.5387	µg/L	-1.5387	ppb	14:38:37

2	S 181.975 Axial†	108.5	4.2	3.5409 µg/L	3.5409 ppb		14:38:37
2	Sb 206.836†	81.2	1.8	0.2409 µg/L	0.2409 ppb		14:38:37
2	Se 196.026†	36.3	15.5	6.04 µg/L	6.04 ppb		14:38:37
2	SiO2†	1745.7	17.7	1.8049 µg/L	1.8049 ppb		14:38:16
2	Si 251.611†	800.6	-3.8	-0.0680 µg/L	-0.0680 ppb		14:38:16
2	Sn 189.927†	16.1	7.3	0.5070 µg/L	0.5070 ppb		14:38:37
2	Ti 334.940†	800.5	-103.5	-0.1180 µg/L	-0.1180 ppb		14:38:16
2	Tl 190.801†	-102.4	15.2	2.1215 µg/L	2.1215 ppb		14:38:37
2	U 409.014†	-13.0	398.6	24.120 µg/L	24.120 ppb		14:38:16
2	V 292.402†	94.3	-403.9	-1.9818 µg/L	-1.9818 ppb		14:38:16
2	Zn 213.857†	673.2	38.8	0.2266 µg/L	0.2266 ppb		14:38:37
3	Sc RADIAL	114950.9	114950.9	100 %			14:37:26
3	Al 396.153Radial†	-101.6	-16.1	-3.8179 µg/L	-3.8179 ppb		14:37:46
3	Ca 317.933Radial†	468.0	9.0	0.7384 µg/L	0.7384 ppb		14:37:46
3	Fe 238.204 Radial†	137.6	12.7	1.0798 µg/L	1.0798 ppb		14:37:46
3	K 766.490 Radial†	1513.9	97.3	38.928 µg/L	38.928 ppb		14:37:26
3	Mg 279.077 IEC†	138.9	-19.1	-10.566 µg/L	-10.566 ppb		14:37:46
3	Na 589.592 Radial†	894.1	54.4	8.6531 µg/L	8.6531 ppb		14:37:26
3	Sr 421.552†	-96.9	-29.7	-0.0764 µg/L	-0.0764 ppb		14:37:26
3	Sc 361.383	1707197.9	1707197.9	100.88 %			14:38:39
3	Y 371.029	965197.5	965197.5	100.85 %			14:38:39
3	Ag 328.068†	5056.5	-90.7	-0.3684 µg/L	-0.3684 ppb		14:38:41
3	As 188.979†	-19.0	-5.4	-1.8561 µg/L	-1.8561 ppb		14:39:01
3	B 249.677†	4249.9	100.8	1.4959 µg/L	1.4959 ppb		14:38:41
3	Ba 233.527†	-122.1	24.8	0.1122 µg/L	0.1122 ppb		14:39:01
3	Be 313.107†	-636.6	361.3	0.1042 µg/L	0.1042 ppb		14:38:41
3	Cd 226.502†	-46.6	18.4	0.1215 µg/L	0.1215 ppb		14:39:01
3	Co 228.616†	-231.6	-2.5	-0.0333 µg/L	-0.0333 ppb		14:39:01
3	Cr 267.716†	354.3	21.6	0.1847 µg/L	0.1847 ppb		14:39:01
3	Cu 324.752†	3086.5	-181.8	-0.7475 µg/L	-0.7475 ppb		14:38:41
3	Mn 257.610†	254.4	36.8	0.0485 µg/L	0.0485 ppb		14:39:01
3	Mo 202.031†	-12.9	8.9	0.3007 µg/L	0.3007 ppb		14:39:01
3	Ni 231.604†	-79.3	-4.6	-0.0578 µg/L	-0.0578 ppb		14:39:01
3	P 214.914†	-7.6	11.7	2.6690 µg/L	2.6690 ppb		14:39:01
3	Pb 220.353†	131.3	13.0	0.8074 µg/L	0.8074 ppb		14:39:01
3	S 181.975 Axial†	97.1	-5.7	-4.8574 µg/L	-4.8574 ppb		14:39:01
3	Sb 206.836†	85.6	7.4	0.9467 µg/L	0.9467 ppb		14:39:01
3	Se 196.026†	23.1	2.9	1.12 µg/L	1.12 ppb		14:39:01
3	SiO2†	1790.4	85.8	8.8474 µg/L	8.8474 ppb		14:38:41
3	Si 251.611†	819.1	25.4	0.3816 µg/L	0.3816 ppb		14:38:41
3	Sn 189.927†	13.3	4.7	0.3296 µg/L	0.3296 ppb		14:39:01
3	Ti 334.940†	927.8	33.6	0.0334 µg/L	0.0334 ppb		14:38:41
3	Tl 190.801†	-118.6	-2.3	-0.3241 µg/L	-0.3241 ppb		14:39:01
3	U 409.014†	-308.3	105.6	6.4152 µg/L	6.4152 ppb		14:38:41
3	V 292.402†	471.5	-28.7	-0.1341 µg/L	-0.1341 ppb		14:38:41
3	Zn 213.857†	654.5	29.4	0.1707 µg/L	0.1707 ppb		14:39:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1710084.5	101.05	%	1.164				1.15%
Sc RADIAL	114370.3	100.0	%	0.46				0.46%
Y 371.029	967068.2	101.05	%	1.137				1.13%
Ag 328.068†	4.3	0.0235	µg/L	0.66345	0.0235	ppb	0.66345	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.2	-2.4158	µg/L	1.55284	-2.4158	ppb	1.55284	64.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.4	-1.5334	µg/L	1.02077	-1.5334	ppb	1.02077	66.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	112.6	1.6710	µg/L	1.18706	1.6710	ppb	1.18706	71.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	29.0	0.1309	µg/L	0.05743	0.1309	ppb	0.05743	43.88%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	165.1	0.0508	µg/L	0.04808	0.0508	ppb	0.04808	94.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	12.3	1.0153	µg/L	0.44900	1.0153	ppb	0.44900	44.23%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.2	0.1072	µg/L	0.05820	0.1072	ppb	0.05820	54.31%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.6	0.1134	µg/L	0.14364	0.1134	ppb	0.14364	126.62%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              11.3      0.0887 µg/L       0.17894      0.0887 ppb        0.17894 201.70%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -172.5     -0.7031 µg/L       0.42567     -0.7031 ppb        0.42567  60.55%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       14.6      1.2472 µg/L       0.17536      1.2472 ppb        0.17536  14.06%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       172.3     68.969 µg/L       40.4762     68.969 ppb        40.4762  58.69%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -6.3     -3.4723 µg/L       7.90644     -3.4723 ppb        7.90644 227.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              24.5      0.0321 µg/L       0.01496      0.0321 ppb        0.01496  46.58%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              11.1      0.3775 µg/L       0.08413      0.3775 ppb        0.08413  22.29%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      133.7     21.278 µg/L       13.1164     21.278 ppb        13.1164  61.64%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -6.5     -0.0809 µg/L       0.16906     -0.0809 ppb        0.16906 208.86%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               10.2      2.3317 µg/L       0.47937      2.3317 ppb        0.47937  20.56%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              10.1      0.6240 µg/L       2.07705      0.6240 ppb        2.07705 332.88%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.5     -1.2401 µg/L       4.31838     -1.2401 ppb        4.31838 348.24%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.5      0.0725 µg/L       0.96945      0.0725 ppb        0.96945 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               6.9        2.68 µg/L         2.908        2.68 ppb          2.908 108.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    63.0      6.4869 µg/L       4.05478      6.4869 ppb        4.05478  62.51%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -33.3     -0.5151 µg/L       1.18521     -0.5151 ppb        1.18521 230.12%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.9      0.3407 µg/L       0.16097      0.3407 ppb        0.16097  47.24%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              46.2      0.1188 µg/L       0.16919      0.1188 ppb        0.16919 142.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -81.4     -0.0905 µg/L       0.11265     -0.0905 ppb        0.11265 124.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.3      1.0209 µg/L       1.24097      1.0209 ppb        1.24097 121.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              218.0     13.206 µg/L        9.5459     13.206 ppb         9.5459  72.28%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -175.1     -0.8550 µg/L       0.98845     -0.8550 ppb        0.98845 115.61%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              40.4      0.2343 µg/L       0.06773      0.2343 ppb        0.06773  28.91%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/13/2010 14:56:32 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\041310B.SIF
Batch ID:
Results Data Set: 041310A
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 301**
Sample ID: 1202092701|974047|1 **Date Collected: 4/13/2010 14:56:34**
Analyst: LS **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202092701|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	112304.8	112304.8	98.2	%			14:57:06
1	Al 396.153Radial†	-89.6	-6.3	-1.4898	µg/L	-1.4898	ppb	14:57:26
1	Ca 317.933Radial†	661.6	217.1	17.879	µg/L	17.879	ppb	14:57:26
1	Fe 238.204 Radial†	750.5	640.1	54.604	µg/L	54.604	ppb	14:57:26
1	K 766.490 Radial†	1559.5	179.1	71.691	µg/L	71.691	ppb	14:57:06
1	Mg 279.077 IEC†	168.3	14.1	7.7447	µg/L	7.7447	ppb	14:57:26
1	Na 589.592 Radial†	1066.2	250.7	39.935	µg/L	39.935	ppb	14:57:06
1	Sr 421.552†	-5.8	60.9	0.1562	µg/L	0.1562	ppb	14:57:06
1	Sc 361.383	1661156.9	1661156.9	98.162	%			14:58:13
1	Y 371.029	935087.0	935087.0	97.707	%			14:58:13
1	Ag 328.068†	5401.5	399.7	1.6339	µg/L	1.6339	ppb	14:58:16
1	As 188.979†	-10.0	3.3	1.1662	µg/L	1.1662	ppb	14:58:36
1	B 249.677†	4127.2	92.5	1.3740	µg/L	1.3740	ppb	14:58:16
1	Ba 233.527†	-65.2	79.5	0.3588	µg/L	0.3588	ppb	14:58:36
1	Be 313.107†	-993.1	-19.4	-0.0085	µg/L	-0.0085	ppb	14:58:16
1	Cd 226.502†	-69.7	-6.4	-0.0476	µg/L	-0.0476	ppb	14:58:36
1	Co 228.616†	-239.2	-16.7	-0.2207	µg/L	-0.2207	ppb	14:58:36
1	Cr 267.716†	569.4	250.4	2.2086	µg/L	2.2086	ppb	14:58:36
1	Cu 324.752†	3147.0	-35.3	-0.1464	µg/L	-0.1464	ppb	14:58:16
1	Mn 257.610†	877.4	678.5	0.8864	µg/L	0.8864	ppb	14:58:36
1	Mo 202.031†	-20.8	0.4	0.0170	µg/L	0.0170	ppb	14:58:36
1	Ni 231.604†	-12.0	61.6	0.7666	µg/L	0.7666	ppb	14:58:36
1	P 214.914†	12.6	32.1	7.3102	µg/L	7.3102	ppb	14:58:36
1	Pb 220.353†	133.3	18.6	1.1724	µg/L	1.1724	ppb	14:58:36
1	S 181.975 Axial†	120.6	20.9	17.816	µg/L	17.816	ppb	14:58:36
1	Sb 206.836†	73.9	-2.3	-0.3226	µg/L	-0.3226	ppb	14:58:36
1	Se 196.026†	5.0	-14.8	-5.73	µg/L	-5.73	ppb	14:58:36
1	SiO2†	2288.2	642.2	66.282	µg/L	66.282	ppb	14:58:16
1	Si 251.611†	2425.1	1684.0	25.674	µg/L	25.674	ppb	14:58:16
1	Sn 189.927†	38.0	30.3	2.1133	µg/L	2.1133	ppb	14:58:36
1	Ti 334.940†	1185.1	321.2	0.3399	µg/L	0.3399	ppb	14:58:16
1	Tl 190.801†	-128.9	-16.0	-2.2569	µg/L	-2.2569	ppb	14:58:36
1	U 409.014†	-562.2	-161.5	-9.8471	µg/L	-9.8471	ppb	14:58:16
1	V 292.402†	427.7	-60.3	-0.3021	µg/L	-0.3021	ppb	14:58:16
1	Zn 213.857†	900.4	298.0	1.7096	µg/L	1.7096	ppb	14:58:36
2	Sc RADIAL	112380.0	112380.0	98.2	%			14:57:28
2	Al 396.153Radial†	-57.6	26.4	6.2159	µg/L	6.2159	ppb	14:57:48
2	Ca 317.933Radial†	635.2	189.8	15.629	µg/L	15.629	ppb	14:57:48
2	Fe 238.204 Radial†	764.0	653.3	55.732	µg/L	55.732	ppb	14:57:48
2	K 766.490 Radial†	1445.6	62.1	24.859	µg/L	24.859	ppb	14:57:28
2	Mg 279.077 IEC†	178.6	24.4	13.451	µg/L	13.451	ppb	14:57:48
2	Na 589.592 Radial†	896.2	77.0	12.256	µg/L	12.256	ppb	14:57:28
2	Sr 421.552†	-83.8	-18.6	-0.0479	µg/L	-0.0479	ppb	14:57:28
2	Sc 361.383	1661153.8	1661153.8	98.162	%			14:58:38
2	Y 371.029	935237.7	935237.7	97.723	%			14:58:38
2	Ag 328.068†	5191.1	185.4	0.7581	µg/L	0.7581	ppb	14:58:40
2	As 188.979†	-23.4	-10.4	-3.5851	µg/L	-3.5851	ppb	14:59:00

2	B 249.677†	4174.0	140.2	2.0813	µg/L	2.0813 ppb	14:58:40
2	Ba 233.527†	-59.4	85.3	0.3855	µg/L	0.3855 ppb	14:59:00
2	Be 313.107†	-621.0	359.7	0.1009	µg/L	0.1009 ppb	14:58:40
2	Cd 226.502†	-71.0	-7.8	-0.0572	µg/L	-0.0572 ppb	14:59:00
2	Co 228.616†	-218.8	4.2	0.0528	µg/L	0.0528 ppb	14:59:00
2	Cr 267.716†	504.7	184.5	1.6248	µg/L	1.6248 ppb	14:59:00
2	Cu 324.752†	3154.0	-28.2	-0.1109	µg/L	-0.1109 ppb	14:58:40
2	Mn 257.610†	849.3	649.8	0.8488	µg/L	0.8488 ppb	14:59:00
2	Mo 202.031†	-20.3	0.9	0.0331	µg/L	0.0331 ppb	14:59:00
2	Ni 231.604†	-69.0	3.6	0.0448	µg/L	0.0448 ppb	14:59:00
2	P 214.914†	-0.7	18.5	4.2206	µg/L	4.2206 ppb	14:59:00
2	Pb 220.353†	145.0	30.4	1.9088	µg/L	1.9088 ppb	14:59:00
2	S 181.975 Axial†	105.9	6.0	5.0814	µg/L	5.0814 ppb	14:59:00
2	Sb 206.836†	88.3	12.4	1.5719	µg/L	1.5719 ppb	14:59:00
2	Se 196.026†	27.6	8.1	3.15	µg/L	3.15 ppb	14:59:00
2	SiO2†	2284.9	638.8	65.929	µg/L	65.929 ppb	14:58:40
2	Si 251.611†	2569.7	1831.3	27.922	µg/L	27.922 ppb	14:58:40
2	Sn 189.927†	38.2	30.5	2.1223	µg/L	2.1223 ppb	14:59:00
2	Ti 334.940†	925.8	57.0	0.0599	µg/L	0.0599 ppb	14:58:40
2	Tl 190.801†	-120.1	-7.1	-1.0056	µg/L	-1.0056 ppb	14:59:00
2	U 409.014†	-456.0	-53.3	-3.2616	µg/L	-3.2616 ppb	14:58:40
2	V 292.402†	447.3	-40.3	-0.2006	µg/L	-0.2006 ppb	14:58:40
2	Zn 213.857†	898.4	295.9	1.7023	µg/L	1.7023 ppb	14:59:00
3	Sc RADIAL	110505.9	110505.9	96.6	%		14:57:50
3	Al 396.153Radial†	-84.0	-2.0	-0.4739	µg/L	-0.4739 ppb	14:58:10
3	Ca 317.933Radial†	679.5	246.6	20.307	µg/L	20.307 ppb	14:58:10
3	Fe 238.204 Radial†	792.0	695.6	59.336	µg/L	59.336 ppb	14:58:10
3	K 766.490 Radial†	1698.8	349.2	139.78	µg/L	139.78 ppb	14:57:50
3	Mg 279.077 IEC†	155.5	3.6	1.9453	µg/L	1.9453 ppb	14:58:10
3	Na 589.592 Radial†	950.2	148.3	23.542	µg/L	23.542 ppb	14:57:50
3	Sr 421.552†	13.5	80.6	0.2070	µg/L	0.2070 ppb	14:57:50
3	Sc 361.383	1668480.8	1668480.8	98.595	%		14:59:02
3	Y 371.029	939209.7	939209.7	98.138	%		14:59:02
3	Ag 328.068†	5410.1	384.2	1.5863	µg/L	1.5863 ppb	14:59:04
3	As 188.979†	-22.9	-9.8	-3.3472	µg/L	-3.3472 ppb	14:59:24
3	B 249.677†	4126.6	73.5	1.0918	µg/L	1.0918 ppb	14:59:04
3	Ba 233.527†	-63.1	81.8	0.3695	µg/L	0.3695 ppb	14:59:24
3	Be 313.107†	-716.4	265.7	0.0771	µg/L	0.0771 ppb	14:59:04
3	Cd 226.502†	-59.2	4.5	0.0238	µg/L	0.0238 ppb	14:59:24
3	Co 228.616†	-225.4	-1.5	-0.0225	µg/L	-0.0225 ppb	14:59:24
3	Cr 267.716†	535.0	213.0	1.8673	µg/L	1.8673 ppb	14:59:24
3	Cu 324.752†	3409.7	217.0	0.9122	µg/L	0.9122 ppb	14:59:04
3	Mn 257.610†	843.4	640.0	0.8364	µg/L	0.8364 ppb	14:59:24
3	Mo 202.031†	-15.1	6.3	0.2176	µg/L	0.2176 ppb	14:59:24
3	Ni 231.604†	-46.1	27.1	0.3372	µg/L	0.3372 ppb	14:59:24
3	P 214.914†	-10.0	9.1	2.0451	µg/L	2.0451 ppb	14:59:24
3	Pb 220.353†	145.4	30.3	1.8922	µg/L	1.8922 ppb	14:59:24
3	S 181.975 Axial†	121.1	20.9	17.783	µg/L	17.783 ppb	14:59:24
3	Sb 206.836†	68.6	-8.0	-1.0440	µg/L	-1.0440 ppb	14:59:24
3	Se 196.026†	13.3	-6.5	-2.49	µg/L	-2.49 ppb	14:59:24
3	SiO2†	2424.7	770.4	79.508	µg/L	79.508 ppb	14:59:04
3	Si 251.611†	2469.2	1717.9	26.189	µg/L	26.189 ppb	14:59:04
3	Sn 189.927†	39.0	31.2	2.1700	µg/L	2.1700 ppb	14:59:24
3	Ti 334.940†	850.9	-23.1	-0.0270	µg/L	-0.0270 ppb	14:59:04
3	Tl 190.801†	-114.8	-1.2	-0.1661	µg/L	-0.1661 ppb	14:59:24
3	U 409.014†	-304.9	102.0	6.1585	µg/L	6.1585 ppb	14:59:04
3	V 292.402†	374.8	-115.9	-0.5664	µg/L	-0.5664 ppb	14:59:04
3	Zn 213.857†	886.5	279.8	1.6058	µg/L	1.6058 ppb	14:59:24

Mean Data: 1202092701|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1663597.2	98.306	%	0.2499				0.25%
Sc RADIAL	111730.2	97.7	%	0.93				0.95%
Y 371.029	936511.5	97.856	%	0.2443				0.25%
Ag 328.068†	323.1	1.3261	µg/L	0.49248	1.3261	ppb	0.49248	37.14%
Al 396.153Radial†	6.0	1.4174	µg/L	4.18655	1.4174	ppb	4.18655	295.37%
As 188.979†	-5.6	-1.9220	µg/L	2.67710	-1.9220	ppb	2.67710	139.28%
B 249.677†	102.1	1.5157	µg/L	0.50975	1.5157	ppb	0.50975	33.63%
Ba 233.527†	82.2	0.3713	µg/L	0.01341	0.3713	ppb	0.01341	3.61%

Be 313.107†	202.0	0.0565	µg/L	0.05750	0.0565	ppb	0.05750 101.76%
Ca 317.933Radial†	217.9	17.938	µg/L	2.3396	17.938	ppb	2.3396 13.04%
Cd 226.502†	-3.2	-0.0270	µg/L	0.04426	-0.0270	ppb	0.04426 163.90%
Co 228.616†	-4.7	-0.0634	µg/L	0.14126	-0.0634	ppb	0.14126 222.66%
Cr 267.716†	216.0	1.9002	µg/L	0.29328	1.9002	ppb	0.29328 15.43%
Cu 324.752†	51.2	0.2183	µg/L	0.60119	0.2183	ppb	0.60119 275.36%
Fe 238.204 Radial†	663.0	56.557	µg/L	2.4714	56.557	ppb	2.4714 4.37%
K 766.490 Radial†	196.8	78.777	µg/L	57.7877	78.777	ppb	57.7877 73.36%
Mg 279.077 IEC†	14.0	7.7138	µg/L	5.75303	7.7138	ppb	5.75303 74.58%
Mn 257.610†	656.1	0.8572	µg/L	0.02606	0.8572	ppb	0.02606 3.04%
Mo 202.031†	2.6	0.0892	µg/L	0.11146	0.0892	ppb	0.11146 124.96%
Na 589.592 Radial†	158.7	25.245	µg/L	13.9179	25.245	ppb	13.9179 55.13%
Ni 231.604†	30.8	0.3828	µg/L	0.36304	0.3828	ppb	0.36304 94.82%
P 214.914†	19.9	4.5253	µg/L	2.64574	4.5253	ppb	2.64574 58.47%
Pb 220.353†	26.5	1.6578	µg/L	0.42044	1.6578	ppb	0.42044 25.36%
S 181.975 Axial†	15.9	13.560	µg/L	7.3430	13.560	ppb	7.3430 54.15%
Sb 206.836†	0.7	0.0684	µg/L	1.35111	0.0684	ppb	1.35111 >999.9%
Se 196.026†	-4.4	-1.69	µg/L	4.492	-1.69	ppb	4.492 265.47%
SiO2†	683.8	70.573	µg/L	7.7400	70.573	ppb	7.7400 10.97%
Si 251.611†	1744.4	26.595	µg/L	1.1775	26.595	ppb	1.1775 4.43%
Sn 189.927†	30.7	2.1352	µg/L	0.03051	2.1352	ppb	0.03051 1.43%
Sr 421.552†	41.0	0.1051	µg/L	0.13489	0.1051	ppb	0.13489 128.32%
Ti 334.940†	118.4	0.1243	µg/L	0.19174	0.1243	ppb	0.19174 154.30%
Tl 190.801†	-8.1	-1.1428	µg/L	1.05216	-1.1428	ppb	1.05216 92.06%
U 409.014†	-37.6	-2.3167	µg/L	8.04454	-2.3167	ppb	8.04454 347.23%
V 292.402†	-72.2	-0.3563	µg/L	0.18881	-0.3563	ppb	0.18881 52.99%
Zn 213.857†	291.2	1.6726	µg/L	0.05791	1.6726	ppb	0.05791 3.46%

Sequence No.: 2
Sample ID: 1202092702|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 302
Date Collected: 4/13/2010 14:59:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202092702|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	118063.9	118063.9	103	%			15:00:05
1	Al 396.153Radial†	416733.7	403843.9	95214	µg/L	95214	ppb	15:00:03
1	Ca 317.933Radial†	1244203.2	1205008.9	99220	µg/L	99220	ppb	15:00:03
1	Fe 238.204 Radial†	2430978.1	2355166.7	200900	µg/L	200900	ppb	15:00:03
1	K 766.490 Radial†	113706.5	108757.1	43488	µg/L	43488	ppb	15:00:05
1	Mg 279.077 IEC†	74214.6	71746.6	39520	µg/L	39520	ppb	15:00:05
1	Na 589.592 Radial†	64287.1	61450.3	9766.1	µg/L	9766.1	ppb	15:00:05
1	Sr 421.552†	939814.1	910620.3	2338.4	µg/L	2338.4	ppb	15:00:03
1	Sc 361.383	1696759.5	1696759.5	100.27	%			15:00:34
1	Y 371.029	1020817.5	1020817.5	106.67	%			15:00:34
1	Ag 328.068†	80564.3	75247.9	320.34	µg/L	320.34	ppb	15:00:34
1	As 188.979†	2963.3	2968.9	1097.7	µg/L	1097.7	ppb	15:00:36
1	B 249.677†	108102.4	103704.1	1536.1	µg/L	1536.1	ppb	15:00:34
1	Ba 233.527†	425662.8	424681.2	1920.8	µg/L	1920.8	ppb	15:00:34
1	Be 313.107†	2866497.3	2859897.6	809.68	µg/L	809.68	ppb	15:00:34
1	Cd 226.502†	94777.7	94591.2	604.98	µg/L	604.98	ppb	15:00:34
1	Co 228.616†	73558.7	73590.9	956.50	µg/L	956.50	ppb	15:00:34
1	Cr 267.716†	277875.9	276810.3	2437.0	µg/L	2437.0	ppb	15:00:34
1	Cu 324.752†	449415.4	444983.8	1872.9	µg/L	1872.9	ppb	15:00:34
1	Mn 257.610†	4145723.4	4134527.9	5402.3	µg/L	5402.3	ppb	15:00:34
1	Mo 202.031†	15807.5	15787.3	545.01	µg/L	545.01	ppb	15:00:36
1	Ni 231.604†	111180.4	110959.8	1379.9	µg/L	1379.9	ppb	15:00:34
1	P 214.914†	36948.8	36870.2	8292.7	µg/L	8292.7	ppb	15:00:36
1	Pb 220.353†	13482.7	13329.8	843.81	µg/L	843.81	ppb	15:00:36
1	S 181.975 Axial†	4893.6	4778.7	4070.5	µg/L	4070.5	ppb	15:00:36
1	Sb 206.836†	16192.7	16072.3	2032.1	µg/L	2032.1	ppb	15:00:36
1	Se 196.026†	7475.2	7435.4	2940	µg/L	2940	ppb	15:00:36
1	SiO2†	204862.5	202631.0	20892	µg/L	20892	ppb	15:00:34
1	Si 251.611†	643583.8	641092.7	9765.3	µg/L	9765.3	ppb	15:00:34
1	Sn 189.927†	15438.4	15389.1	1092.7	µg/L	1092.7	ppb	15:00:36
1	Ti 334.940†	5979964.1	5963239.8	6252.3	µg/L	6252.3	ppb	15:00:34
1	Tl 190.801†	8283.6	8376.9	1261.8	µg/L	1261.8	ppb	15:00:36
1	U 409.014†	-3935.8	-3514.1	-150.45	µg/L	-150.45	ppb	15:00:34
1	V 292.402†	255170.7	253998.8	1248.2	µg/L	1248.2	ppb	15:00:34
1	Zn 213.857†	1047605.3	1044211.4	6001.1	µg/L	6001.1	ppb	15:00:34
2	Sc RADIAL	116835.2	116835.2	102	%			15:00:09
2	Al 396.153Radial†	415633.0	407012.5	95960	µg/L	95960	ppb	15:00:07
2	Ca 317.933Radial†	1237997.8	1211610.9	99763	µg/L	99763	ppb	15:00:07
2	Fe 238.204 Radial†	2419111.7	2368318.5	202030	µg/L	202030	ppb	15:00:07
2	K 766.490 Radial†	112779.1	109007.6	43588	µg/L	43588	ppb	15:00:09
2	Mg 279.077 IEC†	73204.5	71513.9	39390	µg/L	39390	ppb	15:00:09
2	Na 589.592 Radial†	63886.5	61713.1	9808.0	µg/L	9808.0	ppb	15:00:09
2	Sr 421.552†	934943.3	915427.4	2350.7	µg/L	2350.7	ppb	15:00:07
2	Sc 361.383	1668991.0	1668991.0	98.625	%			15:00:40
2	Y 371.029	1004287.3	1004287.3	104.94	%			15:00:40
2	Ag 328.068†	79440.8	75445.6	321.11	µg/L	321.11	ppb	15:00:40
2	As 188.979†	2975.5	3030.4	1119.3	µg/L	1119.3	ppb	15:00:42
2	B 249.677†	106145.2	103513.4	1533.2	µg/L	1533.2	ppb	15:00:40
2	Ba 233.527†	418296.4	424275.5	1918.9	µg/L	1918.9	ppb	15:00:40
2	Be 313.107†	2817224.1	2857503.3	809.00	µg/L	809.00	ppb	15:00:40
2	Cd 226.502†	92760.7	94118.8	601.73	µg/L	601.73	ppb	15:00:40
2	Co 228.616†	72350.7	73586.7	956.39	µg/L	956.39	ppb	15:00:40
2	Cr 267.716†	273051.8	276529.9	2434.6	µg/L	2434.6	ppb	15:00:40
2	Cu 324.752†	443086.8	446024.5	1877.3	µg/L	1877.3	ppb	15:00:40
2	Mn 257.610†	4076376.0	4133006.8	5400.3	µg/L	5400.3	ppb	15:00:40
2	Mo 202.031†	15771.8	16013.3	552.72	µg/L	552.72	ppb	15:00:42
2	Ni 231.604†	109113.6	110709.2	1376.8	µg/L	1376.8	ppb	15:00:40
2	P 214.914†	37163.5	37700.9	8482.1	µg/L	8482.1	ppb	15:00:42
2	Pb 220.353†	13402.6	13472.3	852.78	µg/L	852.78	ppb	15:00:42

2	S 181.975 Axial†	4951.1	4918.2	4189.3 µg/L	4189.3 ppb		15:00:42
2	Sb 206.836†	16268.0	16417.3	2076.5 µg/L	2076.5 ppb		15:00:42
2	Se 196.026†	7362.8	7445.4	2950 µg/L	2950 ppb		15:00:42
2	SiO2†	200916.1	202029.1	20830 µg/L	20830 ppb		15:00:40
2	Si 251.611†	632313.2	640344.4	9753.6 µg/L	9753.6 ppb		15:00:40
2	Sn 189.927†	15681.0	15891.2	1127.7 µg/L	1127.7 ppb		15:00:42
2	Ti 334.940†	5889768.8	5971017.1	6260.5 µg/L	6260.5 ppb		15:00:40
2	Tl 190.801†	8306.8	8537.9	1284.5 µg/L	1284.5 ppb		15:00:42
2	U 409.014†	-3892.5	-3535.6	-152.09 µg/L	-152.09 ppb		15:00:40
2	V 292.402†	250663.3	253662.8	1246.5 µg/L	1246.5 ppb		15:00:40
2	Zn 213.857†	1027517.0	1041226.6	5983.7 µg/L	5983.7 ppb		15:00:40
3	Sc RADIAL	116048.7	116048.7	101 %			15:00:14
3	Al 396.153Radial†	408327.4	402569.4	94913 µg/L	94913 ppb		15:00:12
3	Ca 317.933Radial†	1218484.6	1200591.9	98856 µg/L	98856 ppb		15:00:12
3	Fe 238.204 Radial†	2380917.1	2346723.0	200180 µg/L	200180 ppb		15:00:12
3	K 766.490 Radial†	111734.5	108726.4	43476 µg/L	43476 ppb		15:00:14
3	Mg 279.077 IEC†	72221.1	71030.3	39124 µg/L	39124 ppb		15:00:14
3	Na 589.592 Radial†	63261.0	61520.4	9777.3 µg/L	9777.3 ppb		15:00:14
3	Sr 421.552†	924479.7	911317.6	2340.2 µg/L	2340.2 ppb		15:00:12
3	Sc 361.383	1691894.2	1691894.2	99.978 %			15:00:46
3	Y 371.029	1018061.2	1018061.2	106.38 %			15:00:46
3	Ag 328.068†	80367.0	75281.7	320.47 µg/L	320.47 ppb		15:00:46
3	As 188.979†	2944.4	2958.4	1093.9 µg/L	1093.9 ppb		15:00:48
3	B 249.677†	107534.9	103446.6	1532.2 µg/L	1532.2 ppb		15:00:46
3	Ba 233.527†	422921.6	423160.3	1913.9 µg/L	1913.9 ppb		15:00:46
3	Be 313.107†	2847449.8	2849067.1	806.61 µg/L	806.61 ppb		15:00:46
3	Cd 226.502†	94138.5	94223.7	602.62 µg/L	602.62 ppb		15:00:46
3	Co 228.616†	73231.2	73474.4	955.00 µg/L	955.00 ppb		15:00:46
3	Cr 267.716†	276276.8	276007.8	2430.0 µg/L	2430.0 ppb		15:00:46
3	Cu 324.752†	446886.2	443743.0	1867.6 µg/L	1867.6 ppb		15:00:46
3	Mn 257.610†	4121383.9	4122073.2	5386.0 µg/L	5386.0 ppb		15:00:46
3	Mo 202.031†	15676.4	15701.4	542.06 µg/L	542.06 ppb		15:00:48
3	Ni 231.604†	110527.7	110625.9	1375.7 µg/L	1375.7 ppb		15:00:46
3	P 214.914†	36922.2	36949.5	8311.3 µg/L	8311.3 ppb		15:00:48
3	Pb 220.353†	13479.4	13365.1	846.00 µg/L	846.00 ppb		15:00:48
3	S 181.975 Axial†	4873.4	4772.5	4065.2 µg/L	4065.2 ppb		15:00:48
3	Sb 206.836†	16175.3	16101.3	2035.9 µg/L	2035.9 ppb		15:00:48
3	Se 196.026†	7439.1	7420.8	2940 µg/L	2940 ppb		15:00:48
3	SiO2†	203543.2	201899.0	20817 µg/L	20817 ppb		15:00:46
3	Si 251.611†	640316.9	639670.9	9743.6 µg/L	9743.6 ppb		15:00:46
3	Sn 189.927†	15455.2	15450.2	1096.9 µg/L	1096.9 ppb		15:00:48
3	Ti 334.940†	5950613.7	5951033.7	6239.5 µg/L	6239.5 ppb		15:00:46
3	Tl 190.801†	8209.1	8326.1	1254.4 µg/L	1254.4 ppb		15:00:48
3	U 409.014†	-3716.5	-3306.1	-137.96 µg/L	-137.96 ppb		15:00:46
3	V 292.402†	253708.5	253268.2	1244.6 µg/L	1244.6 ppb		15:00:46
3	Zn 213.857†	1040858.2	1040467.4	5979.5 µg/L	5979.5 ppb		15:00:46

Mean Data: 1202092702|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1685881.6	99.623	%	0.8763				0.88%
Sc RADIAL	116982.6	102	%	0.9				0.87%
Y 371.029	1014388.7	105.99	%	0.925				0.87%
Ag 328.068†	75325.1	320.64	µg/L	0.415	320.64	ppb	0.415	0.13%
Al 396.153Radial†	404475.2	95362	µg/L	539.3	95362	ppb	539.3	0.57%
As 188.979†	2985.9	1103.6	µg/L	13.70	1103.6	ppb	13.70	1.24%
B 249.677†	103554.7	1533.8	µg/L	1.98	1533.8	ppb	1.98	0.13%
Ba 233.527†	424039.0	1917.9	µg/L	3.56	1917.9	ppb	3.56	0.19%
Be 313.107†	2855489.4	808.43	µg/L	1.609	808.43	ppb	1.609	0.20%
Ca 317.933Radial†	1205737.2	99280	µg/L	456.6	99280	ppb	456.6	0.46%
Cd 226.502†	94311.2	603.11	µg/L	1.676	603.11	ppb	1.676	0.28%
Co 228.616†	73550.7	955.96	µg/L	0.834	955.96	ppb	0.834	0.09%
Cr 267.716†	276449.3	2433.9	µg/L	3.60	2433.9	ppb	3.60	0.15%
Cu 324.752†	444917.1	1872.6	µg/L	4.86	1872.6	ppb	4.86	0.26%
Fe 238.204 Radial†	2356736.1	201040	µg/L	928.4	201040	ppb	928.4	0.46%
K 766.490 Radial†	108830.3	43517	µg/L	61.5	43517	ppb	61.5	0.14%
Mg 279.077 IEC†	71430.3	39345	µg/L	201.7	39345	ppb	201.7	0.51%
Mn 257.610†	4129869.3	5396.2	µg/L	8.87	5396.2	ppb	8.87	0.16%
Mo 202.031†	15834.0	546.60	µg/L	5.508	546.60	ppb	5.508	1.01%
Na 589.592 Radial†	61561.3	9783.8	µg/L	21.66	9783.8	ppb	21.66	0.22%

Ni 231.604†	110765.0	1377.5	µg/L	2.16	1377.5	ppb	2.16	0.16%
P 214.914†	37173.5	8362.0	µg/L	104.38	8362.0	ppb	104.38	1.25%
Pb 220.353†	13389.1	847.53	µg/L	4.677	847.53	ppb	4.677	0.55%
S 181.975 Axial†	4823.1	4108.4	µg/L	70.15	4108.4	ppb	70.15	1.71%
Sb 206.836†	16197.0	2048.2	µg/L	24.62	2048.2	ppb	24.62	1.20%
Se 196.026†	7433.9	2940	µg/L	5.1	2940	ppb	5.1	0.17%
SiO2†	202186.4	20846	µg/L	40.5	20846	ppb	40.5	0.19%
Si 251.611†	640369.4	9754.2	µg/L	10.85	9754.2	ppb	10.85	0.11%
Sn 189.927†	15576.8	1105.8	µg/L	19.10	1105.8	ppb	19.10	1.73%
Sr 421.552†	912455.1	2343.1	µg/L	6.67	2343.1	ppb	6.67	0.28%
Ti 334.940†	5961763.5	6250.7	µg/L	10.57	6250.7	ppb	10.57	0.17%
Tl 190.801†	8413.6	1266.9	µg/L	15.69	1266.9	ppb	15.69	1.24%
U 409.014†	-3451.9	-146.83	µg/L	7.730	-146.83	ppb	7.730	5.26%
Concentration less than lower limit for U 409.014.								
V 292.402†	253643.3	1246.4	µg/L	1.79	1246.4	ppb	1.79	0.14%
Zn 213.857†	1041968.5	5988.1	µg/L	11.41	5988.1	ppb	11.41	0.19%

Sequence No.: 4
Sample ID: 1202068098|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 304
Date Collected: 4/13/2010 15:03:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068098|974047|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114710.1	114710.1	100	%			15:03:39
1	Al 396.153Radial†	26669.2	26679.4	6289.3	µg/L	6289.3	ppb	15:03:39
1	Ca 317.933Radial†	66332.5	65689.5	5408.8	µg/L	5408.8	ppb	15:03:41
1	Fe 238.204 Radial†	499674.4	498147.4	42494	µg/L	42494	ppb	15:03:39
1	K 766.490 Radial†	5791.5	4366.0	1744.9	µg/L	1744.9	ppb	15:03:39
1	Mg 279.077 IEC†	1137.6	977.1	505.25	µg/L	505.25	ppb	15:03:41
1	Na 589.592 Radial†	9308.2	8446.7	1346.2	µg/L	1346.2	ppb	15:03:39
1	Sr 421.552†	28908.6	28894.2	74.180	µg/L	74.180	ppb	15:03:39
1	Sc 361.383	1687045.2	1687045.2	99.692	%			15:03:53
1	Y 371.029	1143745.3	1143745.3	119.51	%			15:03:53
1	Ag 328.068†	5010.5	-77.0	-1.3589	µg/L	-1.3589	ppb	15:03:53
1	As 188.979†	6.6	20.0	16.908	µg/L	16.908	ppb	15:04:14
1	B 249.677†	4428.0	329.8	4.8792	µg/L	4.8792	ppb	15:03:53
1	Ba 233.527†	21324.4	21536.3	96.972	µg/L	96.972	ppb	15:04:14
1	Be 313.107†	11162.6	12189.5	3.3649	µg/L	3.3649	ppb	15:03:53
1	Cd 226.502†	566.5	632.9	-0.2764	µg/L	-0.2764	ppb	15:04:14
1	Co 228.616†	137.5	365.0	2.6692	µg/L	2.6692	ppb	15:04:14
1	Cr 267.716†	3903.6	3586.0	32.755	µg/L	32.755	ppb	15:04:14
1	Cu 324.752†	4527.4	1300.1	11.352	µg/L	11.352	ppb	15:03:53
1	Mn 257.610†	1339304.6	1343233.6	1755.7	µg/L	1755.7	ppb	15:03:53
1	Mo 202.031†	1559.3	1585.8	55.527	µg/L	55.527	ppb	15:04:14
1	Ni 231.604†	1200.0	1277.7	15.889	µg/L	15.889	ppb	15:04:14
1	P 214.914†	2058.7	2084.3	448.22	µg/L	448.22	ppb	15:04:14
1	Pb 220.353†	418.5	302.6	19.552	µg/L	19.552	ppb	15:04:14
1	S 181.975 Axial†	821.9	722.5	615.19	µg/L	615.19	ppb	15:04:14
1	Sb 206.836†	83.4	6.2	0.5442	µg/L	0.5442	ppb	15:04:14
1	Se 196.026†	-12.6	-32.7	1.84	µg/L	1.84	ppb	15:04:14
1	SiO2†	116454.9	115126.3	11886	µg/L	11886	ppb	15:03:53
1	Si 251.611†	363981.1	364320.8	5556.7	µg/L	5556.7	ppb	15:03:53
1	Sn 189.927†	146.1	138.1	12.708	µg/L	12.708	ppb	15:04:14
1	Ti 334.940†	872074.8	873887.2	916.65	µg/L	916.65	ppb	15:03:53
1	Tl 190.801†	-243.0	-128.5	-4.2667	µg/L	-4.2667	ppb	15:04:14
1	U 409.014†	-5097.5	-4702.0	-283.01	µg/L	-283.01	ppb	15:03:53
1	V 292.402†	3996.5	3512.9	12.584	µg/L	12.584	ppb	15:04:14
1	Zn 213.857†	23299.9	22752.6	127.23	µg/L	127.23	ppb	15:04:14
2	Sc RADIAL	115144.3	115144.3	101	%			15:03:43
2	Al 396.153Radial†	26891.7	26800.1	6317.7	µg/L	6317.7	ppb	15:03:43
2	Ca 317.933Radial†	66945.5	66049.0	5438.4	µg/L	5438.4	ppb	15:03:45
2	Fe 238.204 Radial†	502509.8	499085.0	42574	µg/L	42574	ppb	15:03:43
2	K 766.490 Radial†	5957.4	4509.0	1802.1	µg/L	1802.1	ppb	15:03:43
2	Mg 279.077 IEC†	1132.4	967.7	499.97	µg/L	499.97	ppb	15:03:45
2	Na 589.592 Radial†	9525.8	8628.0	1375.0	µg/L	1375.0	ppb	15:03:43
2	Sr 421.552†	28915.6	28792.4	73.919	µg/L	73.919	ppb	15:03:43
2	Sc 361.383	1662112.5	1662112.5	98.218	%			15:04:16
2	Y 371.029	1127332.2	1127332.2	117.79	%			15:04:16
2	Ag 328.068†	4961.3	-51.6	-1.2774	µg/L	-1.2774	ppb	15:04:16
2	As 188.979†	-2.7	10.6	13.693	µg/L	13.693	ppb	15:04:36
2	B 249.677†	4225.9	190.6	2.8141	µg/L	2.8141	ppb	15:04:16
2	Ba 233.527†	21356.5	21889.8	98.571	µg/L	98.571	ppb	15:04:36
2	Be 313.107†	11393.0	12592.0	3.4728	µg/L	3.4728	ppb	15:04:16
2	Cd 226.502†	550.9	625.5	-0.3333	µg/L	-0.3333	ppb	15:04:36
2	Co 228.616†	119.8	349.0	2.4574	µg/L	2.4574	ppb	15:04:36
2	Cr 267.716†	3863.0	3603.4	32.927	µg/L	32.927	ppb	15:04:36
2	Cu 324.752†	4333.5	1170.8	10.812	µg/L	10.812	ppb	15:04:16
2	Mn 257.610†	1319052.0	1342766.1	1755.0	µg/L	1755.0	ppb	15:04:16
2	Mo 202.031†	1555.3	1605.2	56.188	µg/L	56.188	ppb	15:04:36
2	Ni 231.604†	1233.6	1329.9	16.538	µg/L	16.538	ppb	15:04:36
2	P 214.914†	2049.7	2106.1	453.14	µg/L	453.14	ppb	15:04:36
2	Pb 220.353†	408.6	298.8	19.325	µg/L	19.325	ppb	15:04:36

2	S 181.975 Axial†	817.9	730.8	622.25 µg/L	622.25 ppb	15:04:36
2	Sb 206.836†	70.2	-6.1	-1.0183 µg/L	-1.0183 ppb	15:04:36
2	Se 196.026†	-23.5	-43.9	-2.49 µg/L	-2.49 ppb	15:04:36
2	SiO2†	115528.0	115935.0	11969 µg/L	11969 ppb	15:04:16
2	Si 251.611†	361025.1	366788.0	5594.4 µg/L	5594.4 ppb	15:04:16
2	Sn 189.927†	137.0	131.1	12.208 µg/L	12.208 ppb	15:04:36
2	Ti 334.940†	855790.0	870429.1	913.03 µg/L	913.03 ppb	15:04:16
2	Tl 190.801†	-235.1	-124.1	-3.6858 µg/L	-3.6858 ppb	15:04:36
2	U 409.014†	-5343.9	-5029.6	-302.94 µg/L	-302.94 ppb	15:04:16
2	V 292.402†	3975.3	3551.4	12.764 µg/L	12.764 ppb	15:04:36
2	Zn 213.857†	23286.6	23089.8	129.16 µg/L	129.16 ppb	15:04:36
3	Sc RADIAL	112602.4	112602.4	98.4 %		15:03:47
3	Al 396.153Radial†	26242.8	26744.0	6304.5 µg/L	6304.5 ppb	15:03:47
3	Ca 317.933Radial†	66531.8	67130.1	5527.5 µg/L	5527.5 ppb	15:03:49
3	Fe 238.204 Radial†	490470.9	498124.7	42492 µg/L	42492 ppb	15:03:47
3	K 766.490 Radial†	5878.3	4562.3	1823.5 µg/L	1823.5 ppb	15:03:47
3	Mg 279.077 IEC†	1175.5	1036.8	538.25 µg/L	538.25 ppb	15:03:49
3	Na 589.592 Radial†	9019.4	8327.1	1327.0 µg/L	1327.0 ppb	15:03:47
3	Sr 421.552†	28544.5	29063.9	74.615 µg/L	74.615 ppb	15:03:47
3	Sc 361.383	1668281.2	1668281.2	98.583 %		15:04:39
3	Y 371.029	1131970.0	1131970.0	118.28 %		15:04:39
3	Ag 328.068†	4866.8	-166.2	-1.7480 µg/L	-1.7480 ppb	15:04:39
3	As 188.979†	9.4	23.0	17.932 µg/L	17.932 ppb	15:04:59
3	B 249.677†	4395.6	346.9	5.1321 µg/L	5.1321 ppb	15:04:39
3	Ba 233.527†	21235.9	21687.1	97.654 µg/L	97.654 ppb	15:04:59
3	Be 313.107†	11159.1	12311.9	3.3957 µg/L	3.3957 ppb	15:04:39
3	Cd 226.502†	561.1	633.8	-0.2699 µg/L	-0.2699 ppb	15:04:59
3	Co 228.616†	138.4	367.4	2.7018 µg/L	2.7018 ppb	15:04:59
3	Cr 267.716†	3833.5	3559.0	32.528 µg/L	32.528 ppb	15:04:59
3	Cu 324.752†	4274.8	1095.0	10.493 µg/L	10.493 ppb	15:04:39
3	Mn 257.610†	1320075.4	1338838.3	1749.9 µg/L	1749.9 ppb	15:04:39
3	Mo 202.031†	1534.3	1577.9	55.261 µg/L	55.261 ppb	15:04:59
3	Ni 231.604†	1226.5	1318.0	16.391 µg/L	16.391 ppb	15:04:59
3	P 214.914†	2044.6	2093.2	450.28 µg/L	450.28 ppb	15:04:59
3	Pb 220.353†	451.1	340.3	21.917 µg/L	21.917 ppb	15:04:59
3	S 181.975 Axial†	814.3	724.1	616.58 µg/L	616.58 ppb	15:04:59
3	Sb 206.836†	66.8	-9.8	-1.4980 µg/L	-1.4980 ppb	15:04:59
3	Se 196.026†	3.3	-16.6	8.02 µg/L	8.02 ppb	15:04:59
3	SiO2†	116223.8	116205.8	11997 µg/L	11997 ppb	15:04:39
3	Si 251.611†	363371.4	367809.0	5610.0 µg/L	5610.0 ppb	15:04:39
3	Sn 189.927†	146.2	139.8	12.805 µg/L	12.805 ppb	15:04:59
3	Ti 334.940†	855951.2	867370.9	909.82 µg/L	909.82 ppb	15:04:39
3	Tl 190.801†	-242.0	-130.2	-4.6011 µg/L	-4.6011 ppb	15:04:59
3	U 409.014†	-5243.4	-4907.5	-295.55 µg/L	-295.55 ppb	15:04:39
3	V 292.402†	3885.9	3445.8	12.246 µg/L	12.246 ppb	15:04:59
3	Zn 213.857†	23159.4	22873.0	127.91 µg/L	127.91 ppb	15:04:59

Mean Data: 1202068098|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1672479.6	98.831	%	0.7674				0.78%
Sc RADIAL	114152.3	99.8	%	1.19				1.19%
Y 371.029	1134349.2	118.53	%	0.884				0.75%
Ag 328.068†	-98.3	-1.4615	µg/L	0.25152	-1.4615	ppb	0.25152	17.21%
Al 396.153Radial†	26741.1	6303.9	µg/L	14.23	6303.9	ppb	14.23	0.23%
As 188.979†	17.9	16.177	µg/L	2.2120	16.177	ppb	2.2120	13.67%
B 249.677†	289.1	4.2752	µg/L	1.27159	4.2752	ppb	1.27159	29.74%
Ba 233.527†	21704.4	97.732	µg/L	0.8027	97.732	ppb	0.8027	0.82%
Be 313.107†	12364.5	3.4111	µg/L	0.05560	3.4111	ppb	0.05560	1.63%
Ca 317.933Radial†	66289.6	5458.2	µg/L	61.74	5458.2	ppb	61.74	1.13%
Cd 226.502†	630.7	-0.2932	µg/L	0.03487	-0.2932	ppb	0.03487	11.89%
Co 228.616†	360.5	2.6095	µg/L	0.13268	2.6095	ppb	0.13268	5.08%
Cr 267.716†	3582.8	32.737	µg/L	0.1999	32.737	ppb	0.1999	0.61%
Cu 324.752†	1188.6	10.886	µg/L	0.4343	10.886	ppb	0.4343	3.99%
Fe 238.204 Radial†	498452.4	42520	µg/L	46.7	42520	ppb	46.7	0.11%
K 766.490 Radial†	4479.1	1790.2	µg/L	40.62	1790.2	ppb	40.62	2.27%
Mg 279.077 IEC†	993.8	514.49	µg/L	20.746	514.49	ppb	20.746	4.03%
Mn 257.610†	1341612.7	1753.5	µg/L	3.16	1753.5	ppb	3.16	0.18%
Mo 202.031†	1589.6	55.659	µg/L	0.4770	55.659	ppb	0.4770	0.86%
Na 589.592 Radial†	8467.3	1349.4	µg/L	24.18	1349.4	ppb	24.18	1.79%

Ni 231.604†	1308.5	16.272	µg/L	0.3405	16.272	ppb	0.3405	2.09%
P 214.914†	2094.5	450.55	µg/L	2.473	450.55	ppb	2.473	0.55%
Pb 220.353†	313.9	20.265	µg/L	1.4356	20.265	ppb	1.4356	7.08%
S 181.975 Axial†	725.8	618.01	µg/L	3.737	618.01	ppb	3.737	0.60%
Sb 206.836†	-3.2	-0.6574	µg/L	1.06789	-0.6574	ppb	1.06789	162.45%
Se 196.026†	-31.1	2.45	µg/L	5.283	2.45	ppb	5.283	215.38%
SiO2†	115755.7	11951	µg/L	58.0	11951	ppb	58.0	0.49%
Si 251.611†	366306.0	5587.0	µg/L	27.36	5587.0	ppb	27.36	0.49%
Sn 189.927†	136.4	12.574	µg/L	0.3207	12.574	ppb	0.3207	2.55%
Sr 421.552†	28916.8	74.238	µg/L	0.3520	74.238	ppb	0.3520	0.47%
Ti 334.940†	870562.4	913.17	µg/L	3.416	913.17	ppb	3.416	0.37%
Tl 190.801†	-127.6	-4.1845	µg/L	0.46317	-4.1845	ppb	0.46317	11.07%
U 409.014†	-4879.7	-293.83	µg/L	10.078	-293.83	ppb	10.078	3.43%
Concentration less than lower limit for U 409.014.								
V 292.402†	3503.4	12.531	µg/L	0.2633	12.531	ppb	0.2633	2.10%
Zn 213.857†	22905.1	128.10	µg/L	0.980	128.10	ppb	0.980	0.76%

Sequence No.: 5
Sample ID: 1202068100|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 305
Date Collected: 4/13/2010 15:05:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068100|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	112245.5	112245.5	98.1	%			15:05:39
1	Al 396.153Radial†	63565.5	64863.8	15270	µg/L	15270	ppb	15:05:37
1	Ca 317.933Radial†	77815.4	78844.0	6492.0	µg/L	6492.0	ppb	15:05:39
1	Fe 238.204 Radial†	544884.2	555160.8	47357	µg/L	47357	ppb	15:05:37
1	K 766.490 Radial†	19198.6	18155.8	7261.2	µg/L	7261.2	ppb	15:05:39
1	Mg 279.077 IEC†	10498.2	10541.3	5803.1	µg/L	5803.1	ppb	15:05:39
1	Na 589.592 Radial†	40699.5	40641.1	6478.1	µg/L	6478.1	ppb	15:05:39
1	Sr 421.552†	233359.6	237880.7	611.01	µg/L	611.01	ppb	15:05:37
1	Sc 361.383	1661815.0	1661815.0	98.201	%			15:06:06
1	Y 371.029	1124210.4	1124210.4	117.47	%			15:06:06
1	Ag 328.068†	123198.0	120352.4	502.25	µg/L	502.25	ppb	15:06:06
1	As 188.979†	1386.4	1425.2	510.92	µg/L	510.92	ppb	15:06:26
1	B 249.677†	37740.7	34320.3	507.70	µg/L	507.70	ppb	15:06:06
1	Ba 233.527†	134369.6	136977.6	619.95	µg/L	619.95	ppb	15:06:06
1	Be 313.107†	1765737.0	1799084.1	509.45	µg/L	509.45	ppb	15:06:06
1	Cd 226.502†	74698.3	76131.6	498.65	µg/L	498.65	ppb	15:06:06
1	Co 228.616†	37664.9	38582.1	503.98	µg/L	503.98	ppb	15:06:06
1	Cr 267.716†	61199.8	61991.6	545.53	µg/L	545.53	ppb	15:06:06
1	Cu 324.752†	127651.3	126749.1	532.26	µg/L	532.26	ppb	15:06:06
1	Mn 257.610†	1679280.4	1709835.6	2234.6	µg/L	2234.6	ppb	15:06:06
1	Mo 202.031†	16496.3	16820.1	573.12	µg/L	573.12	ppb	15:06:26
1	Ni 231.604†	41192.0	42020.7	522.56	µg/L	522.56	ppb	15:06:06
1	P 214.914†	4385.1	4484.7	988.59	µg/L	988.59	ppb	15:06:26
1	Pb 220.353†	8233.1	8266.8	520.85	µg/L	520.85	ppb	15:06:26
1	S 181.975 Axial†	7208.3	7238.5	6163.7	µg/L	6163.7	ppb	15:06:26
1	Sb 206.836†	3843.9	3836.8	492.71	µg/L	492.71	ppb	15:06:26
1	Se 196.026†	1262.1	1265.2	506	µg/L	506	ppb	15:06:26
1	SiO2†	247615.4	250463.7	25839	µg/L	25839	ppb	15:06:06
1	Si 251.611†	779788.0	793290.1	12090	µg/L	12090	ppb	15:06:06
1	Sn 189.927†	7116.2	7238.2	509.91	µg/L	509.91	ppb	15:06:26
1	Ti 334.940†	1632000.9	1661019.0	1741.3	µg/L	1741.3	ppb	15:06:06
1	Tl 190.801†	3247.8	3422.6	506.82	µg/L	506.82	ppb	15:06:26
1	U 409.014†	3244.5	3715.2	258.52	µg/L	258.52	ppb	15:06:06
1	V 292.402†	101072.6	102428.6	509.64	µg/L	509.64	ppb	15:06:06
1	Zn 213.857†	115329.9	116823.8	666.65	µg/L	666.65	ppb	15:06:06
2	Sc RADIAL	112975.4	112975.4	98.8	%			15:05:43
2	Al 396.153Radial†	63374.0	64251.4	15126	µg/L	15126	ppb	15:05:41
2	Ca 317.933Radial†	78325.3	78848.0	6492.3	µg/L	6492.3	ppb	15:05:43
2	Fe 238.204 Radial†	544213.9	550894.7	46993	µg/L	46993	ppb	15:05:41
2	K 766.490 Radial†	19448.7	18282.6	7312.0	µg/L	7312.0	ppb	15:05:43
2	Mg 279.077 IEC†	10652.5	10628.4	5851.4	µg/L	5851.4	ppb	15:05:43
2	Na 589.592 Radial†	41168.1	40847.5	6511.0	µg/L	6511.0	ppb	15:05:43
2	Sr 421.552†	233886.8	236878.2	608.44	µg/L	608.44	ppb	15:05:41
2	Sc 361.383	1678885.1	1678885.1	99.209	%			15:06:29
2	Y 371.029	1135406.7	1135406.7	118.64	%			15:06:29
2	Ag 328.068†	123803.4	119687.1	499.45	µg/L	499.45	ppb	15:06:29
2	As 188.979†	1404.6	1429.2	512.20	µg/L	512.20	ppb	15:06:49
2	B 249.677†	37850.0	34039.8	503.54	µg/L	503.54	ppb	15:06:29
2	Ba 233.527†	135581.2	136807.6	619.19	µg/L	619.19	ppb	15:06:29
2	Be 313.107†	1779877.3	1795054.9	508.30	µg/L	508.30	ppb	15:06:29
2	Cd 226.502†	75565.0	76231.8	499.35	µg/L	499.35	ppb	15:06:29
2	Co 228.616†	37953.8	38483.3	502.70	µg/L	502.70	ppb	15:06:29
2	Cr 267.716†	61695.8	61857.9	544.37	µg/L	544.37	ppb	15:06:29
2	Cu 324.752†	128402.7	126184.8	529.85	µg/L	529.85	ppb	15:06:29
2	Mn 257.610†	1692264.9	1705536.5	2229.0	µg/L	2229.0	ppb	15:06:29
2	Mo 202.031†	16499.7	16652.8	567.43	µg/L	567.43	ppb	15:06:49
2	Ni 231.604†	41395.9	41799.8	519.81	µg/L	519.81	ppb	15:06:29
2	P 214.914†	4356.6	4410.6	971.91	µg/L	971.91	ppb	15:06:49
2	Pb 220.353†	8202.0	8150.2	513.55	µg/L	513.55	ppb	15:06:49

2	S 181.975 Axial†	7216.5	7172.1	6107.3 µg/L	6107.3 ppb	15:06:49
2	Sb 206.836†	3855.8	3809.0	489.08 µg/L	489.08 ppb	15:06:49
2	Se 196.026†	1235.3	1225.1	490 µg/L	490 ppb	15:06:49
2	SiO2†	249685.4	249986.5	25790 µg/L	25790 ppb	15:06:29
2	Si 251.611†	787076.5	792562.8	12079 µg/L	12079 ppb	15:06:29
2	Sn 189.927†	7101.2	7149.3	503.70 µg/L	503.70 ppb	15:06:49
2	Ti 334.940†	1641608.6	1653805.8	1733.8 µg/L	1733.8 ppb	15:06:29
2	Tl 190.801†	3226.4	3367.4	498.95 µg/L	498.95 ppb	15:06:49
2	U 409.014†	2739.8	3172.9	225.50 µg/L	225.50 ppb	15:06:29
2	V 292.402†	101822.1	102137.6	508.15 µg/L	508.15 ppb	15:06:29
2	Zn 213.857†	116178.9	116485.5	664.74 µg/L	664.74 ppb	15:06:29
3	Sc RADIAL	113773.0	113773.0	99.5 %		15:05:47
3	Al 396.153Radial†	63158.7	63585.2	14969 µg/L	14969 ppb	15:05:45
3	Ca 317.933Radial†	79101.9	79072.8	6510.8 µg/L	6510.8 ppb	15:05:47
3	Fe 238.204 Radial†	541868.2	544673.5	46463 µg/L	46463 ppb	15:05:45
3	K 766.490 Radial†	19473.4	18169.4	7266.7 µg/L	7266.7 ppb	15:05:47
3	Mg 279.077 IEC†	10698.0	10598.5	5835.5 µg/L	5835.5 ppb	15:05:47
3	Na 589.592 Radial†	41331.2	40719.4	6490.6 µg/L	6490.6 ppb	15:05:47
3	Sr 421.552†	233071.3	234398.1	602.07 µg/L	602.07 ppb	15:05:45
3	Sc 361.383	1667431.9	1667431.9	98.533 %		15:06:52
3	Y 371.029	1127480.6	1127480.6	117.81 %		15:06:52
3	Ag 328.068†	122832.4	119558.8	498.95 µg/L	498.95 ppb	15:06:52
3	As 188.979†	1398.3	1432.6	513.25 µg/L	513.25 ppb	15:07:13
3	B 249.677†	37665.5	34114.5	504.65 µg/L	504.65 ppb	15:06:52
3	Ba 233.527†	134815.4	136969.1	619.93 µg/L	619.93 ppb	15:06:52
3	Be 313.107†	1768465.2	1795795.9	508.52 µg/L	508.52 ppb	15:06:52
3	Cd 226.502†	74990.3	76171.7	499.01 µg/L	499.01 ppb	15:06:52
3	Co 228.616†	37591.1	38378.0	501.35 µg/L	501.35 ppb	15:06:52
3	Cr 267.716†	61186.9	61768.6	543.54 µg/L	543.54 ppb	15:06:52
3	Cu 324.752†	127923.5	126587.4	531.46 µg/L	531.46 ppb	15:06:52
3	Mn 257.610†	1681468.1	1706295.4	2230.0 µg/L	2230.0 ppb	15:06:52
3	Mo 202.031†	16568.9	16837.3	573.67 µg/L	573.67 ppb	15:07:13
3	Ni 231.604†	41096.8	41782.8	519.60 µg/L	519.60 ppb	15:06:52
3	P 214.914†	4381.1	4465.5	984.76 µg/L	984.76 ppb	15:07:13
3	Pb 220.353†	8256.3	8262.1	520.55 µg/L	520.55 ppb	15:07:13
3	S 181.975 Axial†	7256.0	7262.1	6183.9 µg/L	6183.9 ppb	15:07:13
3	Sb 206.836†	3840.9	3820.6	490.68 µg/L	490.68 ppb	15:07:13
3	Se 196.026†	1245.9	1244.5	498 µg/L	498 ppb	15:07:13
3	SiO2†	249342.8	251367.5	25932 µg/L	25932 ppb	15:06:52
3	Si 251.611†	785029.7	795934.9	12131 µg/L	12131 ppb	15:06:52
3	Sn 189.927†	7140.1	7238.1	509.86 µg/L	509.86 ppb	15:07:13
3	Ti 334.940†	1626406.6	1649743.2	1729.5 µg/L	1729.5 ppb	15:06:52
3	Tl 190.801†	3248.4	3412.0	505.20 µg/L	505.20 ppb	15:07:13
3	U 409.014†	3216.1	3675.3	256.14 µg/L	256.14 ppb	15:06:52
3	V 292.402†	100995.3	102003.5	507.63 µg/L	507.63 ppb	15:06:52
3	Zn 213.857†	115610.2	116712.7	666.11 µg/L	666.11 ppb	15:06:52

Mean Data: 1202068100|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1669377.4	98.647	%	0.5141				0.52%
Sc RADIAL	112997.9	98.8	%	0.67				0.68%
Y 371.029	1129032.6	117.97	%	0.602				0.51%
Ag 328.068†	119866.1	500.22	µg/L	1.778	500.22	ppb	1.778	0.36%
Al 396.153Radial†	64233.5	15122	µg/L	150.8	15122	ppb	150.8	1.00%
As 188.979†	1429.0	512.12	µg/L	1.166	512.12	ppb	1.166	0.23%
B 249.677†	34158.2	505.30	µg/L	2.154	505.30	ppb	2.154	0.43%
Ba 233.527†	136918.1	619.69	µg/L	0.435	619.69	ppb	0.435	0.07%
Be 313.107†	1796644.9	508.76	µg/L	0.611	508.76	ppb	0.611	0.12%
Ca 317.933Radial†	78921.6	6498.4	µg/L	10.78	6498.4	ppb	10.78	0.17%
Cd 226.502†	76178.4	499.01	µg/L	0.350	499.01	ppb	0.350	0.07%
Co 228.616†	38481.1	502.68	µg/L	1.314	502.68	ppb	1.314	0.26%
Cr 267.716†	61872.7	544.48	µg/L	0.999	544.48	ppb	0.999	0.18%
Cu 324.752†	126507.1	531.19	µg/L	1.230	531.19	ppb	1.230	0.23%
Fe 238.204 Radial†	550243.0	46938	µg/L	449.9	46938	ppb	449.9	0.96%
K 766.490 Radial†	18202.6	7280.0	µg/L	27.87	7280.0	ppb	27.87	0.38%
Mg 279.077 IEC†	10589.4	5830.0	µg/L	24.64	5830.0	ppb	24.64	0.42%
Mn 257.610†	1707222.5	2231.2	µg/L	3.00	2231.2	ppb	3.00	0.13%
Mo 202.031†	16770.1	571.41	µg/L	3.457	571.41	ppb	3.457	0.61%
Na 589.592 Radial†	40736.0	6493.2	µg/L	16.61	6493.2	ppb	16.61	0.26%

Ni 231.604†	41867.8	520.66	µg/L	1.651	520.66	ppb	1.651	0.32%
P 214.914†	4453.6	981.75	µg/L	8.738	981.75	ppb	8.738	0.89%
Pb 220.353†	8226.3	518.32	µg/L	4.132	518.32	ppb	4.132	0.80%
S 181.975 Axial†	7224.2	6151.6	µg/L	39.73	6151.6	ppb	39.73	0.65%
Sb 206.836†	3822.1	490.82	µg/L	1.820	490.82	ppb	1.820	0.37%
Se 196.026†	1244.9	498	µg/L	7.8	498	ppb	7.8	1.57%
SiO2†	250605.9	25854	µg/L	72.3	25854	ppb	72.3	0.28%
Si 251.611†	793929.3	12100	µg/L	27.0	12100	ppb	27.0	0.22%
Sn 189.927†	7208.5	507.82	µg/L	3.573	507.82	ppb	3.573	0.70%
Sr 421.552†	236385.7	607.17	µg/L	4.605	607.17	ppb	4.605	0.76%
Ti 334.940†	1654856.0	1734.9	µg/L	5.99	1734.9	ppb	5.99	0.35%
Tl 190.801†	3400.6	503.66	µg/L	4.157	503.66	ppb	4.157	0.83%
U 409.014†	3521.1	246.72	µg/L	18.414	246.72	ppb	18.414	7.46%
V 292.402†	102189.9	508.47	µg/L	1.041	508.47	ppb	1.041	0.20%
Zn 213.857†	116674.0	665.83	µg/L	0.980	665.83	ppb	0.980	0.15%

Sequence No.: 6
Sample ID: 1202068101|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 306
Date Collected: 4/13/2010 15:07:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068101|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113245.6	113245.6	99.0	%			15:07:52
1	Al 396.153Radial†	67091.9	67853.7	15975	µg/L	15975	ppb	15:07:50
1	Ca 317.933Radial†	85148.7	85550.9	7044.2	µg/L	7044.2	ppb	15:07:52
1	Fe 238.204 Radial†	603823.9	609790.9	52017	µg/L	52017	ppb	15:07:50
1	K 766.490 Radial†	19485.5	18272.8	7307.7	µg/L	7307.7	ppb	15:07:52
1	Mg 279.077 IEC†	11209.5	11165.3	6144.4	µg/L	6144.4	ppb	15:07:52
1	Na 589.592 Radial†	40761.0	40336.9	6429.5	µg/L	6429.5	ppb	15:07:52
1	Sr 421.552†	230394.5	232785.4	597.92	µg/L	597.92	ppb	15:07:50
1	Sc 361.383	1664504.7	1664504.7	98.360	%			15:08:19
1	Y 371.029	1145694.2	1145694.2	119.71	%			15:08:19
1	Ag 328.068†	123793.5	120755.2	503.82	µg/L	503.82	ppb	15:08:19
1	As 188.979†	1419.9	1457.0	523.08	µg/L	523.08	ppb	15:08:39
1	B 249.677†	37937.3	34458.1	509.74	µg/L	509.74	ppb	15:08:19
1	Ba 233.527†	135755.8	138165.8	625.28	µg/L	625.28	ppb	15:08:19
1	Be 313.107†	1777939.9	1808585.0	512.13	µg/L	512.13	ppb	15:08:19
1	Cd 226.502†	75613.7	76939.4	503.51	µg/L	503.51	ppb	15:08:19
1	Co 228.616†	37878.3	38737.1	505.78	µg/L	505.78	ppb	15:08:19
1	Cr 267.716†	62003.1	62707.5	551.95	µg/L	551.95	ppb	15:08:19
1	Cu 324.752†	128750.6	127656.6	536.68	µg/L	536.68	ppb	15:08:19
1	Mn 257.610†	1842028.6	1872534.9	2447.3	µg/L	2447.3	ppb	15:08:19
1	Mo 202.031†	16810.4	17112.4	583.24	µg/L	583.24	ppb	15:08:39
1	Ni 231.604†	41196.9	41957.9	521.78	µg/L	521.78	ppb	15:08:19
1	P 214.914†	4957.0	5058.9	1116.7	µg/L	1116.7	ppb	15:08:39
1	Pb 220.353†	8379.5	8402.0	529.37	µg/L	529.37	ppb	15:08:39
1	S 181.975 Axial†	7339.8	7360.3	6267.5	µg/L	6267.5	ppb	15:08:39
1	Sb 206.836†	3889.4	3876.8	497.83	µg/L	497.83	ppb	15:08:39
1	Se 196.026†	1244.6	1245.3	500	µg/L	500	ppb	15:08:39
1	SiO2†	224154.0	226203.6	23333	µg/L	23333	ppb	15:08:19
1	Si 251.611†	705285.1	716261.4	10915	µg/L	10915	ppb	15:08:19
1	Sn 189.927†	7188.2	7299.6	514.44	µg/L	514.44	ppb	15:08:39
1	Ti 334.940†	1704412.9	1731953.3	1815.7	µg/L	1815.7	ppb	15:08:19
1	Tl 190.801†	3274.0	3443.9	511.15	µg/L	511.15	ppb	15:08:39
1	U 409.014†	2652.1	3107.5	222.17	µg/L	222.17	ppb	15:08:19
1	V 292.402†	102186.5	103394.7	513.97	µg/L	513.97	ppb	15:08:19
1	Zn 213.857†	118208.2	119560.4	681.99	µg/L	681.99	ppb	15:08:19
2	Sc RADIAL	113889.8	113889.8	99.6	%			15:07:56
2	Al 396.153Radial†	66268.6	66643.5	15690	µg/L	15690	ppb	15:07:54
2	Ca 317.933Radial†	84948.8	84863.8	6987.6	µg/L	6987.6	ppb	15:07:56
2	Fe 238.204 Radial†	592076.4	594542.5	50717	µg/L	50717	ppb	15:07:54
2	K 766.490 Radial†	19748.9	18426.1	7369.2	µg/L	7369.2	ppb	15:07:56
2	Mg 279.077 IEC†	11235.9	11127.7	6124.7	µg/L	6124.7	ppb	15:07:56
2	Na 589.592 Radial†	40865.3	40208.8	6409.0	µg/L	6409.0	ppb	15:07:56
2	Sr 421.552†	227770.5	228833.7	587.77	µg/L	587.77	ppb	15:07:54
2	Sc 361.383	1671103.9	1671103.9	98.750	%			15:08:42
2	Y 371.029	1150278.9	1150278.9	120.19	%			15:08:42
2	Ag 328.068†	124193.1	120662.8	503.44	µg/L	503.44	ppb	15:08:42
2	As 188.979†	1415.5	1446.8	519.23	µg/L	519.23	ppb	15:09:02
2	B 249.677†	38034.9	34404.6	508.94	µg/L	508.94	ppb	15:08:42
2	Ba 233.527†	136062.3	137931.2	624.23	µg/L	624.23	ppb	15:08:42
2	Be 313.107†	1787877.4	1811510.0	512.96	µg/L	512.96	ppb	15:08:42
2	Cd 226.502†	75996.6	77023.6	504.20	µg/L	504.20	ppb	15:08:42
2	Co 228.616†	38127.3	38837.2	507.15	µg/L	507.15	ppb	15:08:42
2	Cr 267.716†	62129.3	62586.4	550.84	µg/L	550.84	ppb	15:08:42
2	Cu 324.752†	129226.0	127621.1	536.34	µg/L	536.34	ppb	15:08:42
2	Mn 257.610†	1850368.5	1873584.8	2448.6	µg/L	2448.6	ppb	15:08:42
2	Mo 202.031†	16800.2	17034.5	580.54	µg/L	580.54	ppb	15:09:02
2	Ni 231.604†	41365.4	41963.1	521.85	µg/L	521.85	ppb	15:08:42
2	P 214.914†	4935.9	5017.6	1108.1	µg/L	1108.1	ppb	15:09:02
2	Pb 220.353†	8376.8	8365.6	527.11	µg/L	527.11	ppb	15:09:02

2	S 181.975 Axial†	7328.3	7319.2	6232.5 µg/L	6232.5 ppb	15:09:02
2	Sb 206.836†	3917.6	3889.7	499.48 µg/L	499.48 ppb	15:09:02
2	Se 196.026†	1246.7	1242.5	498 µg/L	498 ppb	15:09:02
2	SiO2†	222788.8	223921.2	23098 µg/L	23098 ppb	15:08:42
2	Si 251.611†	700304.9	708386.5	10795 µg/L	10795 ppb	15:08:42
2	Sn 189.927†	7173.2	7255.7	511.38 µg/L	511.38 ppb	15:09:02
2	Ti 334.940†	1712426.4	1733225.2	1817.1 µg/L	1817.1 ppb	15:08:42
2	Tl 190.801†	3259.9	3416.5	507.29 µg/L	507.29 ppb	15:09:02
2	U 409.014†	2662.0	3107.0	222.41 µg/L	222.41 ppb	15:08:42
2	V 292.402†	102487.9	103289.7	513.55 µg/L	513.55 ppb	15:08:42
2	Zn 213.857†	118938.5	119825.4	683.65 µg/L	683.65 ppb	15:08:42
3	Sc RADIAL	114659.6	114659.6	100 %		15:08:00
3	Al 396.153Radial†	68224.5	68147.9	16045 µg/L	16045 ppb	15:07:58
3	Ca 317.933Radial†	85348.8	84689.9	6973.3 µg/L	6973.3 ppb	15:08:00
3	Fe 238.204 Radial†	610093.2	608524.0	51909 µg/L	51909 ppb	15:07:58
3	K 766.490 Radial†	19694.0	18238.1	7293.9 µg/L	7293.9 ppb	15:08:00
3	Mg 279.077 IEC†	11308.7	11124.6	6121.9 µg/L	6121.9 ppb	15:08:00
3	Na 589.592 Radial†	41088.5	40155.9	6400.7 µg/L	6400.7 ppb	15:08:00
3	Sr 421.552†	233394.1	232908.0	598.23 µg/L	598.23 ppb	15:07:58
3	Sc 361.383	1690841.3	1690841.3	99.916 %		15:09:05
3	Y 371.029	1163950.6	1163950.6	121.62 %		15:09:05
3	Ag 328.068†	125845.5	120848.5	504.22 µg/L	504.22 ppb	15:09:05
3	As 188.979†	1428.8	1443.5	518.33 µg/L	518.33 ppb	15:09:25
3	B 249.677†	38624.4	34545.0	511.02 µg/L	511.02 ppb	15:09:05
3	Ba 233.527†	138099.7	138361.9	626.17 µg/L	626.17 ppb	15:09:05
3	Be 313.107†	1814531.5	1817052.3	514.53 µg/L	514.53 ppb	15:09:05
3	Cd 226.502†	77356.6	77486.3	507.13 µg/L	507.13 ppb	15:09:05
3	Co 228.616†	38531.5	38791.1	506.49 µg/L	506.49 ppb	15:09:05
3	Cr 267.716†	62946.3	62669.7	551.62 µg/L	551.62 ppb	15:09:05
3	Cu 324.752†	130846.4	127715.3	536.90 µg/L	536.90 ppb	15:09:05
3	Mn 257.610†	1876771.4	1878136.9	2454.6 µg/L	2454.6 ppb	15:09:05
3	Mo 202.031†	16835.9	16871.7	575.06 µg/L	575.06 ppb	15:09:25
3	Ni 231.604†	42016.9	42126.2	523.87 µg/L	523.87 ppb	15:09:05
3	P 214.914†	4975.5	4998.9	1103.1 µg/L	1103.1 ppb	15:09:25
3	Pb 220.353†	8427.5	8317.4	524.06 µg/L	524.06 ppb	15:09:25
3	S 181.975 Axial†	7342.6	7246.8	6170.9 µg/L	6170.9 ppb	15:09:25
3	Sb 206.836†	3906.3	3832.1	491.98 µg/L	491.98 ppb	15:09:25
3	Se 196.026†	1247.9	1228.9	493 µg/L	493 ppb	15:09:25
3	SiO2†	228319.2	226822.6	23398 µg/L	23398 ppb	15:09:05
3	Si 251.611†	718829.7	718648.7	10952 µg/L	10952 ppb	15:09:05
3	Sn 189.927†	7195.7	7193.4	507.06 µg/L	507.06 ppb	15:09:25
3	Ti 334.940†	1735091.0	1735666.4	1819.6 µg/L	1819.6 ppb	15:09:05
3	Tl 190.801†	3277.0	3395.0	504.32 µg/L	504.32 ppb	15:09:25
3	U 409.014†	2656.9	3070.4	220.03 µg/L	220.03 ppb	15:09:05
3	V 292.402†	103970.2	103561.8	514.72 µg/L	514.72 ppb	15:09:05
3	Zn 213.857†	120765.6	120248.0	685.96 µg/L	685.96 ppb	15:09:05

Mean Data: 1202068101|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1675483.3	99.008	%	0.8098				0.82%
Sc RADIAL	113931.7	99.6	%	0.62				0.62%
Y 371.029	1153307.9	120.51	%	0.992				0.82%
Ag 328.068†	120755.5	503.83	µg/L	0.386	503.83	ppb	0.386	0.08%
Al 396.153Radial†	67548.4	15903	µg/L	188.1	15903	ppb	188.1	1.18%
As 188.979†	1449.1	520.21	µg/L	2.520	520.21	ppb	2.520	0.48%
B 249.677†	34469.2	509.90	µg/L	1.053	509.90	ppb	1.053	0.21%
Ba 233.527†	138153.0	625.23	µg/L	0.968	625.23	ppb	0.968	0.15%
Be 313.107†	1812382.5	513.21	µg/L	1.217	513.21	ppb	1.217	0.24%
Ca 317.933Radial†	85034.9	7001.7	µg/L	37.49	7001.7	ppb	37.49	0.54%
Cd 226.502†	77149.7	504.95	µg/L	1.926	504.95	ppb	1.926	0.38%
Co 228.616†	38788.4	506.47	µg/L	0.689	506.47	ppb	0.689	0.14%
Cr 267.716†	62654.6	551.47	µg/L	0.569	551.47	ppb	0.569	0.10%
Cu 324.752†	127664.4	536.64	µg/L	0.283	536.64	ppb	0.283	0.05%
Fe 238.204 Radial†	604285.8	51548	µg/L	721.8	51548	ppb	721.8	1.40%
K 766.490 Radial†	18312.3	7323.6	µg/L	40.08	7323.6	ppb	40.08	0.55%
Mg 279.077 IEC†	11139.2	6130.3	µg/L	12.30	6130.3	ppb	12.30	0.20%
Mn 257.610†	1874752.2	2450.2	µg/L	3.89	2450.2	ppb	3.89	0.16%
Mo 202.031†	17006.2	579.61	µg/L	4.166	579.61	ppb	4.166	0.72%
Na 589.592 Radial†	40233.9	6413.1	µg/L	14.85	6413.1	ppb	14.85	0.23%

Ni 231.604†	42015.7	522.50 µg/L	1.190	522.50 ppb	1.190	0.23%
P 214.914†	5025.1	1109.3 µg/L	6.87	1109.3 ppb	6.87	0.62%
Pb 220.353†	8361.7	526.85 µg/L	2.665	526.85 ppb	2.665	0.51%
S 181.975 Axial†	7308.8	6223.6 µg/L	48.90	6223.6 ppb	48.90	0.79%
Sb 206.836†	3866.2	496.43 µg/L	3.940	496.43 ppb	3.940	0.79%
Se 196.026†	1238.9	497 µg/L	3.3	497 ppb	3.3	0.67%
SiO2†	225649.1	23276 µg/L	157.9	23276 ppb	157.9	0.68%
Si 251.611†	714432.2	10887 µg/L	81.9	10887 ppb	81.9	0.75%
Sn 189.927†	7249.6	510.96 µg/L	3.712	510.96 ppb	3.712	0.73%
Sr 421.552†	231509.1	594.64 µg/L	5.954	594.64 ppb	5.954	1.00%
Ti 334.940†	1733615.0	1817.5 µg/L	1.98	1817.5 ppb	1.98	0.11%
Tl 190.801†	3418.5	507.59 µg/L	3.424	507.59 ppb	3.424	0.67%
U 409.014†	3095.0	221.54 µg/L	1.311	221.54 ppb	1.311	0.59%
V 292.402†	103415.4	514.08 µg/L	0.590	514.08 ppb	0.590	0.11%
Zn 213.857†	119877.9	683.87 µg/L	1.994	683.87 ppb	1.994	0.29%

Sequence No.: 7
Sample ID: 1202068099|974047|5
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 307
Date Collected: 4/13/2010 15:09:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068099|974047|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	116443.9	116443.9	102	%			15:10:04
1	Al 396.153Radial†	7084.6	7044.5	1660.8	µg/L	1660.8	ppb	15:10:06
1	Ca 317.933Radial†	4734.8	4194.5	345.37	µg/L	345.37	ppb	15:10:06
1	Fe 238.204 Radial†	126635.5	124275.4	10601	µg/L	10601	ppb	15:10:04
1	K 766.490 Radial†	2594.4	1139.3	455.54	µg/L	455.54	ppb	15:10:04
1	Mg 279.077 IEC†	444.4	279.2	145.63	µg/L	145.63	ppb	15:10:06
1	Na 589.592 Radial†	2877.5	1991.4	317.34	µg/L	317.34	ppb	15:10:06
1	Sr 421.552†	7792.9	7722.1	19.834	µg/L	19.834	ppb	15:10:06
1	Sc 361.383	1707083.7	1707083.7	100.88	%			15:10:32
1	Y 371.029	1001496.5	1001496.5	104.65	%			15:10:32
1	Ag 328.068†	5078.6	-68.5	-0.4956	µg/L	-0.4956	ppb	15:10:34
1	As 188.979†	-11.0	2.5	3.3456	µg/L	3.3456	ppb	15:10:54
1	B 249.677†	4232.6	84.0	1.2425	µg/L	1.2425	ppb	15:10:34
1	Ba 233.527†	5551.7	5649.3	25.443	µg/L	25.443	ppb	15:10:54
1	Be 313.107†	2281.0	3253.5	0.9054	µg/L	0.9054	ppb	15:10:34
1	Cd 226.502†	124.3	187.8	0.1289	µg/L	0.1289	ppb	15:10:54
1	Co 228.616†	-143.2	85.1	0.5891	µg/L	0.5891	ppb	15:10:54
1	Cr 267.716†	1135.0	795.5	7.2844	µg/L	7.2844	ppb	15:10:54
1	Cu 324.752†	3386.0	115.3	1.9831	µg/L	1.9831	ppb	15:10:34
1	Mn 257.610†	343069.3	339876.0	444.23	µg/L	444.23	ppb	15:10:34
1	Mo 202.031†	321.4	340.2	11.972	µg/L	11.972	ppb	15:10:54
1	Ni 231.604†	229.6	301.5	3.7493	µg/L	3.7493	ppb	15:10:54
1	P 214.914†	492.6	507.5	109.02	µg/L	109.02	ppb	15:10:54
1	Pb 220.353†	194.1	75.2	4.8036	µg/L	4.8036	ppb	15:10:54
1	S 181.975 Axial†	262.0	157.8	134.40	µg/L	134.40	ppb	15:10:54
1	Sb 206.836†	63.6	-14.5	-1.9349	µg/L	-1.9349	ppb	15:10:54
1	Se 196.026†	-1.8	-21.8	-4.79	µg/L	-4.79	ppb	15:10:54
1	SiO2†	29895.3	27946.9	2885.4	µg/L	2885.4	ppb	15:10:34
1	Si 251.611†	90312.6	88742.1	1353.5	µg/L	1353.5	ppb	15:10:34
1	Sn 189.927†	35.3	26.5	2.5075	µg/L	2.5075	ppb	15:10:54
1	Ti 334.940†	188875.3	186349.6	195.44	µg/L	195.44	ppb	15:10:34
1	Tl 190.801†	-156.0	-39.5	-2.4257	µg/L	-2.4257	ppb	15:10:54
1	U 409.014†	-1280.8	-858.4	-51.476	µg/L	-51.476	ppb	15:10:34
1	V 292.402†	1378.1	870.1	3.1287	µg/L	3.1287	ppb	15:10:34
1	Zn 213.857†	6327.2	5653.0	31.600	µg/L	31.600	ppb	15:10:54
2	Sc RADIAL	115218.5	115218.5	101	%			15:10:08
2	Al 396.153Radial†	7027.0	7061.3	1664.7	µg/L	1664.7	ppb	15:10:10
2	Ca 317.933Radial†	4625.1	4135.0	340.47	µg/L	340.47	ppb	15:10:10
2	Fe 238.204 Radial†	125912.4	124880.5	10653	µg/L	10653	ppb	15:10:08
2	K 766.490 Radial†	2747.0	1317.9	527.02	µg/L	527.02	ppb	15:10:08
2	Mg 279.077 IEC†	455.0	294.4	153.96	µg/L	153.96	ppb	15:10:10
2	Na 589.592 Radial†	2870.6	2014.6	320.97	µg/L	320.97	ppb	15:10:10
2	Sr 421.552†	7655.3	7666.8	19.692	µg/L	19.692	ppb	15:10:10
2	Sc 361.383	1712555.5	1712555.5	101.20	%			15:10:56
2	Y 371.029	1005032.5	1005032.5	105.02	%			15:10:56
2	Ag 328.068†	5253.8	88.5	0.1486	µg/L	0.1486	ppb	15:10:58
2	As 188.979†	1.1	14.5	7.5275	µg/L	7.5275	ppb	15:11:18
2	B 249.677†	4335.5	172.2	2.5515	µg/L	2.5515	ppb	15:10:58
2	Ba 233.527†	5557.1	5637.1	25.387	µg/L	25.387	ppb	15:11:18
2	Be 313.107†	2219.4	3185.4	0.8875	µg/L	0.8875	ppb	15:10:58
2	Cd 226.502†	126.0	189.1	0.1316	µg/L	0.1316	ppb	15:11:18
2	Co 228.616†	-124.8	103.7	0.8298	µg/L	0.8298	ppb	15:11:18
2	Cr 267.716†	1133.9	790.8	7.2414	µg/L	7.2414	ppb	15:11:18
2	Cu 324.752†	3501.3	218.6	2.4221	µg/L	2.4221	ppb	15:10:58
2	Mn 257.610†	340911.5	336657.1	440.02	µg/L	440.02	ppb	15:10:58
2	Mo 202.031†	335.2	352.8	12.402	µg/L	12.402	ppb	15:11:18
2	Ni 231.604†	194.4	266.0	3.3078	µg/L	3.3078	ppb	15:11:18
2	P 214.914†	494.4	507.7	109.03	µg/L	109.03	ppb	15:11:18
2	Pb 220.353†	161.1	42.0	2.7159	µg/L	2.7159	ppb	15:11:18

2	S 181.975 Axial†	260.8	155.8	132.67	µg/L	132.67 ppb	15:11:18
2	Sb 206.836†	83.7	5.2	0.5996	µg/L	0.5996 ppb	15:11:18
2	Se 196.026†	10.8	-9.3	0.060	µg/L	0.060 ppb	15:11:18
2	SiO2†	29937.0	27893.4	2879.8	µg/L	2879.8 ppb	15:10:58
2	Si 251.611†	90107.9	88253.8	1346.1	µg/L	1346.1 ppb	15:10:58
2	Sn 189.927†	50.3	41.3	3.5297	µg/L	3.5297 ppb	15:11:18
2	Ti 334.940†	187844.1	184732.5	193.74	µg/L	193.74 ppb	15:10:58
2	Tl 190.801†	-150.1	-33.0	-1.5575	µg/L	-1.5575 ppb	15:11:18
2	U 409.014†	-1207.3	-781.7	-46.903	µg/L	-46.903 ppb	15:10:58
2	V 292.402†	1194.8	684.6	2.2128	µg/L	2.2128 ppb	15:10:58
2	Zn 213.857†	6301.2	5607.2	31.332	µg/L	31.332 ppb	15:11:18
3	Sc RADIAL	115822.7	115822.7	101	%		15:10:12
3	Al 396.153Radial†	6837.8	6838.1	1612.1	µg/L	1612.1 ppb	15:10:14
3	Ca 317.933Radial†	4503.6	3991.1	328.62	µg/L	328.62 ppb	15:10:14
3	Fe 238.204 Radial†	126016.9	124331.8	10606	µg/L	10606 ppb	15:10:12
3	K 766.490 Radial†	2635.2	1193.3	477.18	µg/L	477.18 ppb	15:10:12
3	Mg 279.077 IEC†	418.0	255.5	132.47	µg/L	132.47 ppb	15:10:14
3	Na 589.592 Radial†	2825.0	1954.7	311.46	µg/L	311.46 ppb	15:10:14
3	Sr 421.552†	7617.8	7590.1	19.495	µg/L	19.495 ppb	15:10:14
3	Sc 361.383	1729193.8	1729193.8	102.18	%		15:11:20
3	Y 371.029	1014001.4	1014001.4	105.95	%		15:11:20
3	Ag 328.068†	5160.9	-52.3	-0.4331	µg/L	-0.4331 ppb	15:11:22
3	As 188.979†	6.7	20.0	9.4107	µg/L	9.4107 ppb	15:11:42
3	B 249.677†	4258.9	56.1	0.8284	µg/L	0.8284 ppb	15:11:22
3	Ba 233.527†	5585.9	5612.5	25.277	µg/L	25.277 ppb	15:11:42
3	Be 313.107†	2400.1	3341.2	0.9286	µg/L	0.9286 ppb	15:11:22
3	Cd 226.502†	104.5	166.9	-0.0103	µg/L	-0.0103 ppb	15:11:42
3	Co 228.616†	-149.1	81.1	0.5367	µg/L	0.5367 ppb	15:11:42
3	Cr 267.716†	1158.6	804.2	7.3667	µg/L	7.3667 ppb	15:11:42
3	Cu 324.752†	3446.7	131.8	2.0471	µg/L	2.0471 ppb	15:11:22
3	Mn 257.610†	342193.2	334670.0	437.43	µg/L	437.43 ppb	15:11:22
3	Mo 202.031†	330.5	345.0	12.135	µg/L	12.135 ppb	15:11:42
3	Ni 231.604†	207.6	277.1	3.4456	µg/L	3.4456 ppb	15:11:42
3	P 214.914†	473.4	482.5	103.29	µg/L	103.29 ppb	15:11:42
3	Pb 220.353†	200.4	78.9	5.0327	µg/L	5.0327 ppb	15:11:42
3	S 181.975 Axial†	266.2	158.6	135.06	µg/L	135.06 ppb	15:11:42
3	Sb 206.836†	83.4	4.1	0.4545	µg/L	0.4545 ppb	15:11:42
3	Se 196.026†	10.7	-9.5	-0.047	µg/L	-0.047 ppb	15:11:42
3	SiO2†	29257.7	26944.0	2781.8	µg/L	2781.8 ppb	15:11:22
3	Si 251.611†	88510.6	85833.9	1309.2	µg/L	1309.2 ppb	15:11:22
3	Sn 189.927†	52.0	42.5	3.6117	µg/L	3.6117 ppb	15:11:42
3	Ti 334.940†	190038.4	185093.9	194.13	µg/L	194.13 ppb	15:11:22
3	Tl 190.801†	-140.5	-22.2	-0.0294	µg/L	-0.0294 ppb	15:11:42
3	U 409.014†	-1387.8	-946.9	-56.901	µg/L	-56.901 ppb	15:11:22
3	V 292.402†	1391.8	866.1	3.1080	µg/L	3.1080 ppb	15:11:22
3	Zn 213.857†	6280.3	5526.9	30.872	µg/L	30.872 ppb	15:11:42

Mean Data: 1202068099|974047|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716277.7	101.42	%	0.680				0.67%
Sc RADIAL	115828.4	101	%	0.5				0.53%
Y 371.029	1006843.4	105.21	%	0.674				0.64%
Ag 328.068†	-10.7	-0.2600	µg/L	0.35526	-0.2600	ppb	0.35526	136.64%
Al 396.153Radial†	6981.3	1645.9	µg/L	29.31	1645.9	ppb	29.31	1.78%
As 188.979†	12.4	6.7612	µg/L	3.10430	6.7612	ppb	3.10430	45.91%
B 249.677†	104.1	1.5408	µg/L	0.89944	1.5408	ppb	0.89944	58.38%
Ba 233.527†	5633.0	25.369	µg/L	0.0848	25.369	ppb	0.0848	0.33%
Be 313.107†	3260.0	0.9072	µg/L	0.02059	0.9072	ppb	0.02059	2.27%
Ca 317.933Radial†	4106.8	338.16	µg/L	8.611	338.16	ppb	8.611	2.55%
Cd 226.502†	181.3	0.0834	µg/L	0.08116	0.0834	ppb	0.08116	97.31%
Co 228.616†	90.0	0.6519	µg/L	0.15630	0.6519	ppb	0.15630	23.98%
Cr 267.716†	796.8	7.2975	µg/L	0.06363	7.2975	ppb	0.06363	0.87%
Cu 324.752†	155.2	2.1508	µg/L	0.23715	2.1508	ppb	0.23715	11.03%
Fe 238.204 Radial†	124495.9	10620	µg/L	28.5	10620	ppb	28.5	0.27%
K 766.490 Radial†	1216.8	486.58	µg/L	36.655	486.58	ppb	36.655	7.53%
Mg 279.077 IEC†	276.4	144.02	µg/L	10.837	144.02	ppb	10.837	7.52%
Mn 257.610†	337067.7	440.56	µg/L	3.434	440.56	ppb	3.434	0.78%
Mo 202.031†	346.0	12.170	µg/L	0.2171	12.170	ppb	0.2171	1.78%
Na 589.592 Radial†	1986.9	316.59	µg/L	4.799	316.59	ppb	4.799	1.52%

Ni 231.604†	281.5	3.5009	µg/L	0.22590	3.5009	ppb	0.22590	6.45%
P 214.914†	499.2	107.11	µg/L	3.314	107.11	ppb	3.314	3.09%
Pb 220.353†	65.4	4.1840	µg/L	1.27663	4.1840	ppb	1.27663	30.51%
S 181.975 Axial†	157.4	134.04	µg/L	1.232	134.04	ppb	1.232	0.92%
Sb 206.836†	-1.7	-0.2936	µg/L	1.42324	-0.2936	ppb	1.42324	484.74%
Se 196.026†	-13.5	-1.59	µg/L	2.768	-1.59	ppb	2.768	173.94%
SiO2†	27594.8	2849.0	µg/L	58.27	2849.0	ppb	58.27	2.05%
Si 251.611†	87610.0	1336.3	µg/L	23.76	1336.3	ppb	23.76	1.78%
Sn 189.927†	36.8	3.2163	µg/L	0.61520	3.2163	ppb	0.61520	19.13%
Sr 421.552†	7659.7	19.673	µg/L	0.1701	19.673	ppb	0.1701	0.86%
Ti 334.940†	185392.0	194.44	µg/L	0.891	194.44	ppb	0.891	0.46%
Tl 190.801†	-31.6	-1.3375	µg/L	1.21317	-1.3375	ppb	1.21317	90.70%
U 409.014†	-862.3	-51.760	µg/L	5.0050	-51.760	ppb	5.0050	9.67%
Concentration less than lower limit for U 409.014.								
V 292.402†	806.9	2.8165	µg/L	0.52293	2.8165	ppb	0.52293	18.57%
Zn 213.857†	5595.7	31.268	µg/L	0.3679	31.268	ppb	0.3679	1.18%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/13/2010 15:11:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113827.0	113827.0	99.5	%			15:12:25
1	Al 396.153Radial†	21500.0	21690.9	5092.1	µg/L	5092.1	ppb	15:12:25
1	Ca 317.933Radial†	61893.6	61742.0	5083.8	µg/L	5083.8	ppb	15:12:25
1	Fe 238.204 Radial†	59191.9	59359.3	5063.6	µg/L	5063.6	ppb	15:12:25
1	K 766.490 Radial†	14025.7	12685.6	5073.6	µg/L	5073.6	ppb	15:12:25
1	Mg 279.077 IEC†	9443.3	9332.5	5169.1	µg/L	5169.1	ppb	15:12:25
1	Na 589.592 Radial†	64016.8	63497.1	10127	µg/L	10127	ppb	15:12:23
1	Sr 421.552†	196718.6	197754.9	507.95	µg/L	507.95	ppb	15:12:23
1	Sc 361.383	1690317.5	1690317.5	99.885	%			15:12:52
1	Y 371.029	946754.9	946754.9	98.926	%			15:12:52
1	Ag 328.068†	125179.7	120221.0	502.66	µg/L	502.66	ppb	15:12:52
1	As 188.979†	1390.9	1405.9	494.13	µg/L	494.13	ppb	15:13:12
1	B 249.677†	37332.3	33263.4	492.02	µg/L	492.02	ppb	15:12:52
1	Ba 233.527†	110310.6	110583.6	500.99	µg/L	500.99	ppb	15:12:52
1	Be 313.107†	1755738.9	1758754.7	498.11	µg/L	498.11	ppb	15:12:52
1	Cd 226.502†	75268.4	75419.8	498.39	µg/L	498.39	ppb	15:12:52
1	Co 228.616†	37998.6	38269.5	501.96	µg/L	501.96	ppb	15:12:52
1	Cr 267.716†	57050.2	56786.4	498.60	µg/L	498.60	ppb	15:12:52
1	Cu 324.752†	123249.9	120150.6	498.96	µg/L	498.96	ppb	15:12:52
1	Mn 257.610†	383997.1	384224.2	502.01	µg/L	502.01	ppb	15:12:52
1	Mo 202.031†	14722.9	14761.5	501.56	µg/L	501.56	ppb	15:13:12
1	Ni 231.604†	40180.9	40301.1	501.18	µg/L	501.18	ppb	15:12:52
1	P 214.914†	10888.5	10920.2	2486.6	µg/L	2486.6	ppb	15:13:12
1	Pb 220.353†	8076.5	7968.6	500.90	µg/L	500.90	ppb	15:13:12
1	S 181.975 Axial†	1272.5	1172.1	1001.5	µg/L	1001.5	ppb	15:13:12
1	Sb 206.836†	3961.2	3888.3	499.59	µg/L	499.59	ppb	15:13:12
1	Se 196.026†	1301.8	1283.3	498	µg/L	498	ppb	15:13:12
1	SiO2†	53272.9	51645.4	5311.3	µg/L	5311.3	ppb	15:12:52
1	Si 251.611†	164568.5	163971.6	2491.3	µg/L	2491.3	ppb	15:12:52
1	Sn 189.927†	7159.8	7159.6	500.26	µg/L	500.26	ppb	15:13:12
1	Ti 334.940†	477785.5	477450.0	500.06	µg/L	500.06	ppb	15:12:52
1	Tl 190.801†	3427.6	3546.8	507.34	µg/L	507.34	ppb	15:13:12
1	U 409.014†	7099.1	7518.5	487.59	µg/L	487.59	ppb	15:12:52
1	V 292.402†	100768.0	100388.1	504.37	µg/L	504.37	ppb	15:12:52
1	Zn 213.857†	87253.0	86734.2	496.80	µg/L	496.80	ppb	15:12:52
2	Sc RADIAL	113900.0	113900.0	99.6	%			15:12:29
2	Al 396.153Radial†	21398.2	21574.8	5064.8	µg/L	5064.8	ppb	15:12:29
2	Ca 317.933Radial†	61412.5	61218.9	5040.7	µg/L	5040.7	ppb	15:12:29
2	Fe 238.204 Radial†	58755.9	58883.4	5023.0	µg/L	5023.0	ppb	15:12:29
2	K 766.490 Radial†	13875.1	12525.3	5009.4	µg/L	5009.4	ppb	15:12:29
2	Mg 279.077 IEC†	9351.8	9234.5	5115.0	µg/L	5115.0	ppb	15:12:29
2	Na 589.592 Radial†	64201.6	63641.4	10150	µg/L	10150	ppb	15:12:27
2	Sr 421.552†	197257.8	198169.7	509.01	µg/L	509.01	ppb	15:12:27
2	Sc 361.383	1694008.1	1694008.1	100.10	%			15:13:15
2	Y 371.029	948333.9	948333.9	99.091	%			15:13:15
2	Ag 328.068†	125608.6	120376.4	503.30	µg/L	503.30	ppb	15:13:15
2	As 188.979†	1409.8	1421.8	499.60	µg/L	499.60	ppb	15:13:35
2	B 249.677†	37663.0	33512.3	495.71	µg/L	495.71	ppb	15:13:15
2	Ba 233.527†	110639.4	110671.4	501.39	µg/L	501.39	ppb	15:13:15
2	Be 313.107†	1758697.9	1757881.1	497.86	µg/L	497.86	ppb	15:13:15
2	Cd 226.502†	75729.3	75716.0	500.35	µg/L	500.35	ppb	15:13:15
2	Co 228.616†	38205.7	38393.5	503.59	µg/L	503.59	ppb	15:13:15
2	Cr 267.716†	57193.5	56805.0	498.76	µg/L	498.76	ppb	15:13:15
2	Cu 324.752†	123481.1	120112.8	498.80	µg/L	498.80	ppb	15:13:15
2	Mn 257.610†	384870.4	384259.1	502.06	µg/L	502.06	ppb	15:13:15
2	Mo 202.031†	14696.2	14702.7	499.55	µg/L	499.55	ppb	15:13:35
2	Ni 231.604†	40433.1	40465.5	503.22	µg/L	503.22	ppb	15:13:15
2	P 214.914†	10820.7	10828.8	2465.7	µg/L	2465.7	ppb	15:13:35
2	Pb 220.353†	8060.9	7935.4	498.81	µg/L	498.81	ppb	15:13:35

2	S 181.975 Axial†	1262.4	1159.2	990.49 µg/L	990.49 ppb	15:13:35
2	Sb 206.836†	3956.7	3875.1	497.87 µg/L	497.87 ppb	15:13:35
2	Se 196.026†	1298.2	1276.9	496 µg/L	496 ppb	15:13:35
2	SiO2†	53538.4	51794.5	5326.8 µg/L	5326.8 ppb	15:13:15
2	Si 251.611†	165310.8	164354.2	2497.2 µg/L	2497.2 ppb	15:13:15
2	Sn 189.927†	7164.3	7148.5	499.48 µg/L	499.48 ppb	15:13:35
2	Ti 334.940†	478631.0	477252.5	499.85 µg/L	499.85 ppb	15:13:15
2	Tl 190.801†	3409.6	3521.3	503.74 µg/L	503.74 ppb	15:13:35
2	U 409.014†	7182.2	7586.1	491.69 µg/L	491.69 ppb	15:13:15
2	V 292.402†	100943.1	100343.2	504.13 µg/L	504.13 ppb	15:13:15
2	Zn 213.857†	87600.5	86891.1	497.69 µg/L	497.69 ppb	15:13:15
3	Sc RADIAL	115279.9	115279.9	101 %		15:12:33
3	Al 396.153Radial†	21637.1	21554.7	5060.0 µg/L	5060.0 ppb	15:12:33
3	Ca 317.933Radial†	62333.6	61394.6	5055.2 µg/L	5055.2 ppb	15:12:33
3	Fe 238.204 Radial†	59573.9	58988.8	5032.0 µg/L	5032.0 ppb	15:12:33
3	K 766.490 Radial†	14274.5	12754.8	5101.3 µg/L	5101.3 ppb	15:12:33
3	Mg 279.077 IEC†	9515.5	9284.6	5142.7 µg/L	5142.7 ppb	15:12:33
3	Na 589.592 Radial†	64324.4	62991.5	10046 µg/L	10046 ppb	15:12:31
3	Sr 421.552†	197592.9	196131.1	503.78 µg/L	503.78 ppb	15:12:31
3	Sc 361.383	1693105.0	1693105.0	100.05 %		15:13:38
3	Y 371.029	946341.5	946341.5	98.883 %		15:13:38
3	Ag 328.068†	125984.3	120818.9	505.13 µg/L	505.13 ppb	15:13:38
3	As 188.979†	1398.8	1411.6	496.09 µg/L	496.09 ppb	15:13:58
3	B 249.677†	37768.6	33637.9	497.57 µg/L	497.57 ppb	15:13:38
3	Ba 233.527†	110664.0	110755.0	501.77 µg/L	501.77 ppb	15:13:38
3	Be 313.107†	1766246.1	1766362.8	500.26 µg/L	500.26 ppb	15:13:38
3	Cd 226.502†	76043.8	76070.7	502.69 µg/L	502.69 ppb	15:13:38
3	Co 228.616†	38292.3	38500.4	504.99 µg/L	504.99 ppb	15:13:38
3	Cr 267.716†	57378.9	57020.9	500.65 µg/L	500.65 ppb	15:13:38
3	Cu 324.752†	124234.8	120931.9	502.20 µg/L	502.20 ppb	15:13:38
3	Mn 257.610†	385821.5	385414.9	503.57 µg/L	503.57 ppb	15:13:38
3	Mo 202.031†	14755.5	14769.8	501.83 µg/L	501.83 ppb	15:13:58
3	Ni 231.604†	40482.0	40535.8	504.10 µg/L	504.10 ppb	15:13:38
3	P 214.914†	10851.3	10865.1	2473.9 µg/L	2473.9 ppb	15:13:58
3	Pb 220.353†	8084.1	7962.9	500.54 µg/L	500.54 ppb	15:13:58
3	S 181.975 Axial†	1275.6	1173.0	1002.3 µg/L	1002.3 ppb	15:13:58
3	Sb 206.836†	3958.0	3878.5	498.31 µg/L	498.31 ppb	15:13:58
3	Se 196.026†	1296.0	1275.3	495 µg/L	495 ppb	15:13:58
3	SiO2†	53963.0	52247.4	5373.4 µg/L	5373.4 ppb	15:13:38
3	Si 251.611†	166503.5	165634.4	2516.7 µg/L	2516.7 ppb	15:13:38
3	Sn 189.927†	7176.7	7164.7	500.61 µg/L	500.61 ppb	15:13:58
3	Ti 334.940†	480124.9	479000.8	501.68 µg/L	501.68 ppb	15:13:38
3	Tl 190.801†	3427.1	3540.7	506.48 µg/L	506.48 ppb	15:13:58
3	U 409.014†	7265.8	7673.4	497.00 µg/L	497.00 ppb	15:13:38
3	V 292.402†	100847.3	100301.3	503.96 µg/L	503.96 ppb	15:13:38
3	Zn 213.857†	88039.7	87376.8	500.49 µg/L	500.49 ppb	15:13:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1692476.8	100.01	%	0.114				0.11%
Sc RADIAL	114335.6	100.0	%	0.72				0.72%
Y 371.029	947143.5	98.967	%	0.1099				0.11%
Ag 328.068†	120472.1	503.70	µg/L	1.284	503.70	ppb	1.284	0.25%
QC value within limits for Ag 328.068 Recovery = 100.74%								
Al 396.153Radial†	21606.8	5072.3	µg/L	17.32	5072.3	ppb	17.32	0.34%
QC value within limits for Al 396.153Radial Recovery = 101.45%								
As 188.979†	1413.1	496.61	µg/L	2.774	496.61	ppb	2.774	0.56%
QC value within limits for As 188.979 Recovery = 99.32%								
B 249.677†	33471.2	495.10	µg/L	2.824	495.10	ppb	2.824	0.57%
QC value within limits for B 249.677 Recovery = 99.02%								
Ba 233.527†	110670.0	501.38	µg/L	0.388	501.38	ppb	0.388	0.08%
QC value within limits for Ba 233.527 Recovery = 100.28%								
Be 313.107†	1760999.5	498.74	µg/L	1.322	498.74	ppb	1.322	0.27%
QC value within limits for Be 313.107 Recovery = 99.75%								
Ca 317.933Radial†	61451.8	5059.9	µg/L	21.92	5059.9	ppb	21.92	0.43%
QC value within limits for Ca 317.933Radial Recovery = 101.20%								
Cd 226.502†	75735.5	500.48	µg/L	2.157	500.48	ppb	2.157	0.43%
QC value within limits for Cd 226.502 Recovery = 100.10%								
Co 228.616†	38387.8	503.52	µg/L	1.516	503.52	ppb	1.516	0.30%

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   QC value within limits for Co 228.616  Recovery = 100.70%
Cr 267.716†            56870.7      499.34 µg/L         1.141      499.34 ppb          1.141   0.23%
   QC value within limits for Cr 267.716  Recovery = 99.87%
Cu 324.752†           120398.4      499.98 µg/L         1.918      499.98 ppb          1.918   0.38%
   QC value within limits for Cu 324.752  Recovery = 100.00%
Fe 238.204 Radial†     59077.2      5039.5 µg/L         21.32      5039.5 ppb          21.32   0.42%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.79%
K 766.490 Radial†      12655.2      5061.4 µg/L         47.12      5061.4 ppb          47.12   0.93%
   QC value within limits for K 766.490 Radial  Recovery = 101.23%
Mg 279.077 IEC†         9283.9      5142.3 µg/L         27.10      5142.3 ppb          27.10   0.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.85%
Mn 257.610†           384632.8      502.55 µg/L         0.886      502.55 ppb          0.886   0.18%
   QC value within limits for Mn 257.610  Recovery = 100.51%
Mo 202.031†            14744.7      500.98 µg/L         1.243      500.98 ppb          1.243   0.25%
   QC value within limits for Mo 202.031  Recovery = 100.20%
Na 589.592 Radial†     63376.7       10108 µg/L          54.5       10108 ppb           54.5   0.54%
   QC value within limits for Na 589.592 Radial  Recovery = 101.08%
Ni 231.604†            40434.1      502.83 µg/L         1.498      502.83 ppb          1.498   0.30%
   QC value within limits for Ni 231.604  Recovery = 100.57%
P 214.914†             10871.4      2475.4 µg/L         10.51      2475.4 ppb          10.51   0.42%
   QC value within limits for P 214.914  Recovery = 99.02%
Pb 220.353†             7955.6      500.08 µg/L         1.116      500.08 ppb          1.116   0.22%
   QC value within limits for Pb 220.353  Recovery = 100.02%
S 181.975 Axial†        1168.1      998.09 µg/L         6.593      998.09 ppb          6.593   0.66%
   QC value within limits for S 181.975 Axial  Recovery = 99.81%
Sb 206.836†             3880.6      498.59 µg/L         0.893      498.59 ppb          0.893   0.18%
   QC value within limits for Sb 206.836  Recovery = 99.72%
Se 196.026†             1278.5         497 µg/L           1.6         497 ppb            1.6   0.33%
   QC value within limits for Se 196.026  Recovery = 99.32%
SiO2†                  51895.7      5337.2 µg/L         32.35      5337.2 ppb          32.35   0.61%
   QC value within limits for SiO2  Recovery = 99.81%
Si 251.611†           164653.4      2501.7 µg/L         13.28      2501.7 ppb          13.28   0.53%
   QC value within limits for Si 251.611  Recovery = 100.07%
Sn 189.927†             7157.6      500.12 µg/L         0.580      500.12 ppb          0.580   0.12%
   QC value within limits for Sn 189.927  Recovery = 100.02%
Sr 421.552†           197351.9      506.91 µg/L         2.768      506.91 ppb          2.768   0.55%
   QC value within limits for Sr 421.552  Recovery = 101.38%
Ti 334.940†           477901.1      500.53 µg/L         1.002      500.53 ppb          1.002   0.20%
   QC value within limits for Ti 334.940  Recovery = 100.11%
Tl 190.801†             3536.3      505.85 µg/L         1.878      505.85 ppb          1.878   0.37%
   QC value within limits for Tl 190.801  Recovery = 101.17%
U 409.014†              7592.7      492.09 µg/L         4.717      492.09 ppb          4.717   0.96%
   QC value within limits for U 409.014  Recovery = 98.42%
V 292.402†            100344.2      504.15 µg/L         0.206      504.15 ppb          0.206   0.04%
   QC value within limits for V 292.402  Recovery = 100.83%
Zn 213.857†            87000.7      498.33 µg/L         1.926      498.33 ppb          1.926   0.39%
   QC value within limits for Zn 213.857  Recovery = 99.67%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/13/2010 15:14:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113500.1	113500.1	99.2	%			15:14:36
1	Al 396.153Radial†	-82.4	1.9	0.4328	µg/L	0.4328	ppb	15:14:56
1	Ca 317.933Radial†	460.4	7.2	0.5952	µg/L	0.5952	ppb	15:14:56
1	Fe 238.204 Radial†	139.4	16.2	1.3857	µg/L	1.3857	ppb	15:14:56
1	K 766.490 Radial†	1535.2	137.9	55.208	µg/L	55.208	ppb	15:14:36
1	Mg 279.077 IEC†	139.6	-16.6	-9.1930	µg/L	-9.1930	ppb	15:14:56
1	Na 589.592 Radial†	955.3	127.4	20.285	µg/L	20.285	ppb	15:14:36
1	Sr 421.552†	-63.6	2.6	0.0067	µg/L	0.0067	ppb	15:14:36
1	Sc 361.383	1693791.6	1693791.6	100.09	%			15:15:44
1	Y 371.029	958031.9	958031.9	100.10	%			15:15:44
1	Ag 328.068†	5169.2	61.6	0.2654	µg/L	0.2654	ppb	15:15:46
1	As 188.979†	-17.0	-3.6	-1.2485	µg/L	-1.2485	ppb	15:16:06
1	B 249.677†	4109.8	-5.8	-0.0865	µg/L	-0.0865	ppb	15:15:46
1	Ba 233.527†	-143.0	3.0	0.0139	µg/L	0.0139	ppb	15:16:06
1	Be 313.107†	-729.9	263.1	0.0762	µg/L	0.0762	ppb	15:15:46
1	Cd 226.502†	-41.6	23.0	0.1519	µg/L	0.1519	ppb	15:16:06
1	Co 228.616†	-228.0	-0.8	-0.0100	µg/L	-0.0100	ppb	15:16:06
1	Cr 267.716†	327.1	-2.8	-0.0289	µg/L	-0.0289	ppb	15:16:06
1	Cu 324.752†	3104.4	-139.7	-0.5738	µg/L	-0.5738	ppb	15:15:46
1	Mn 257.610†	254.6	39.0	0.0514	µg/L	0.0514	ppb	15:16:06
1	Mo 202.031†	-6.1	15.5	0.5271	µg/L	0.5271	ppb	15:16:06
1	Ni 231.604†	-55.3	18.7	0.2327	µg/L	0.2327	ppb	15:16:06
1	P 214.914†	-22.4	-3.1	-0.7152	µg/L	-0.7152	ppb	15:16:06
1	Pb 220.353†	145.9	28.6	1.7877	µg/L	1.7877	ppb	15:16:06
1	S 181.975 Axial†	111.5	9.5	8.0906	µg/L	8.0906	ppb	15:16:06
1	Sb 206.836†	56.6	-21.0	-2.6776	µg/L	-2.6776	ppb	15:16:06
1	Se 196.026†	24.8	4.8	1.87	µg/L	1.87	ppb	15:16:06
1	SiO2†	1713.5	23.1	2.3649	µg/L	2.3649	ppb	15:15:46
1	Si 251.611†	798.5	11.2	0.1643	µg/L	0.1643	ppb	15:15:46
1	Sn 189.927†	8.7	0.2	0.0159	µg/L	0.0159	ppb	15:16:06
1	Ti 334.940†	811.5	-75.4	-0.0806	µg/L	-0.0806	ppb	15:15:46
1	Tl 190.801†	-129.9	-14.6	-2.0488	µg/L	-2.0488	ppb	15:16:06
1	U 409.014†	-318.7	92.9	5.6673	µg/L	5.6673	ppb	15:15:46
1	V 292.402†	568.5	72.0	0.3658	µg/L	0.3658	ppb	15:15:46
1	Zn 213.857†	621.6	1.7	0.0086	µg/L	0.0086	ppb	15:16:06
2	Sc RADIAL	114112.5	114112.5	99.8	%			15:14:58
2	Al 396.153Radial†	-86.5	-1.7	-0.4209	µg/L	-0.4209	ppb	15:15:18
2	Ca 317.933Radial†	456.6	1.0	0.0813	µg/L	0.0813	ppb	15:15:18
2	Fe 238.204 Radial†	146.1	22.2	1.8909	µg/L	1.8909	ppb	15:15:18
2	K 766.490 Radial†	1472.3	66.6	26.640	µg/L	26.640	ppb	15:14:58
2	Mg 279.077 IEC†	138.1	-18.9	-10.424	µg/L	-10.424	ppb	15:15:18
2	Na 589.592 Radial†	1025.7	192.8	30.747	µg/L	30.747	ppb	15:14:58
2	Sr 421.552†	-72.7	-6.1	-0.0158	µg/L	-0.0158	ppb	15:14:58
2	Sc 361.383	1706699.4	1706699.4	100.85	%			15:16:08
2	Y 371.029	965414.3	965414.3	100.88	%			15:16:08
2	Ag 328.068†	4917.1	-227.4	-0.9462	µg/L	-0.9462	ppb	15:16:10
2	As 188.979†	-10.2	3.3	1.1430	µg/L	1.1430	ppb	15:16:31
2	B 249.677†	4215.8	68.2	1.0120	µg/L	1.0120	ppb	15:16:10
2	Ba 233.527†	-121.9	25.0	0.1132	µg/L	0.1132	ppb	15:16:31
2	Be 313.107†	-642.5	355.2	0.0993	µg/L	0.0993	ppb	15:16:10
2	Cd 226.502†	-53.4	11.6	0.0766	µg/L	0.0766	ppb	15:16:31
2	Co 228.616†	-211.1	17.7	0.2319	µg/L	0.2319	ppb	15:16:31
2	Cr 267.716†	370.1	37.4	0.3317	µg/L	0.3317	ppb	15:16:31
2	Cu 324.752†	3129.6	-138.1	-0.5752	µg/L	-0.5752	ppb	15:16:10
2	Mn 257.610†	285.9	68.2	0.0895	µg/L	0.0895	ppb	15:16:31
2	Mo 202.031†	-15.1	6.7	0.2257	µg/L	0.2257	ppb	15:16:31
2	Ni 231.604†	-104.2	-29.4	-0.3660	µg/L	-0.3660	ppb	15:16:31
2	P 214.914†	-33.6	-14.1	-3.2103	µg/L	-3.2103	ppb	15:16:31
2	Pb 220.353†	115.2	-2.9	-0.1807	µg/L	-0.1807	ppb	15:16:31

2	S 181.975 Axial†	102.9	0.1	0.0601 µg/L	0.0601 ppb		15:16:31
2	Sb 206.836†	94.4	16.1	2.0627 µg/L	2.0627 ppb		15:16:31
2	Se 196.026†	26.1	5.9	2.29 µg/L	2.29 ppb		15:16:31
2	SiO2†	1707.9	4.6	0.4717 µg/L	0.4717 ppb		15:16:10
2	Si 251.611†	743.4	-49.4	-0.7556 µg/L	-0.7556 ppb		15:16:10
2	Sn 189.927†	7.4	-1.1	-0.0757 µg/L	-0.0757 ppb		15:16:31
2	Ti 334.940†	1033.8	139.0	0.1482 µg/L	0.1482 ppb		15:16:10
2	Tl 190.801†	-116.1	0.2	0.0213 µg/L	0.0213 ppb		15:16:31
2	U 409.014†	-484.1	-68.8	-4.1938 µg/L	-4.1938 ppb		15:16:10
2	V 292.402†	466.6	-33.3	-0.1647 µg/L	-0.1647 ppb		15:16:10
2	Zn 213.857†	653.1	28.2	0.1658 µg/L	0.1658 ppb		15:16:31
3	Sc RADIAL	114670.2	114670.2	100 %			15:15:20
3	Al 396.153Radial†	-126.7	-41.4	-9.7734 µg/L	-9.7734 ppb		15:15:40
3	Ca 317.933Radial†	450.9	-6.9	-0.5714 µg/L	-0.5714 ppb		15:15:40
3	Fe 238.204 Radial†	136.2	11.6	0.9862 µg/L	0.9862 ppb		15:15:40
3	K 766.490 Radial†	1327.7	-84.8	-33.960 µg/L	-33.960 ppb		15:15:20
3	Mg 279.077 IEC†	159.6	1.8	1.0207 µg/L	1.0207 ppb		15:15:40
3	Na 589.592 Radial†	867.6	30.1	4.8405 µg/L	4.8405 ppb		15:15:20
3	Sr 421.552†	-41.8	25.0	0.0642 µg/L	0.0642 ppb		15:15:20
3	Sc 361.383	1711395.5	1711395.5	101.13 %			15:16:33
3	Y 371.029	967520.8	967520.8	101.10 %			15:16:33
3	Ag 328.068†	5244.7	83.1	0.3380 µg/L	0.3380 ppb		15:16:35
3	As 188.979†	-22.1	-8.4	-2.9176 µg/L	-2.9176 ppb		15:16:55
3	B 249.677†	4214.0	55.0	0.8161 µg/L	0.8161 ppb		15:16:35
3	Ba 233.527†	-140.0	7.4	0.0337 µg/L	0.0337 ppb		15:16:55
3	Be 313.107†	-598.3	400.7	0.1122 µg/L	0.1122 ppb		15:16:35
3	Cd 226.502†	-47.0	18.1	0.1196 µg/L	0.1196 ppb		15:16:55
3	Co 228.616†	-231.0	-1.4	-0.0180 µg/L	-0.0180 ppb		15:16:55
3	Cr 267.716†	349.7	16.1	0.1449 µg/L	0.1449 ppb		15:16:55
3	Cu 324.752†	2995.5	-279.3	-1.1595 µg/L	-1.1595 ppb		15:16:35
3	Mn 257.610†	302.7	84.0	0.1097 µg/L	0.1097 ppb		15:16:55
3	Mo 202.031†	-13.6	8.1	0.2760 µg/L	0.2760 ppb		15:16:55
3	Ni 231.604†	-67.6	7.1	0.0885 µg/L	0.0885 ppb		15:16:55
3	P 214.914†	-0.4	18.8	4.3128 µg/L	4.3128 ppb		15:16:55
3	Pb 220.353†	131.7	13.1	0.8218 µg/L	0.8218 ppb		15:16:55
3	S 181.975 Axial†	113.3	10.1	8.6167 µg/L	8.6167 ppb		15:16:55
3	Sb 206.836†	91.8	13.3	1.7045 µg/L	1.7045 ppb		15:16:55
3	Se 196.026†	17.1	-3.1	-1.20 µg/L	-1.20 ppb		15:16:55
3	SiO2†	1684.8	-22.9	-2.3847 µg/L	-2.3847 ppb		15:16:35
3	Si 251.611†	750.1	-44.8	-0.6931 µg/L	-0.6931 ppb		15:16:35
3	Sn 189.927†	22.7	14.0	0.9753 µg/L	0.9753 ppb		15:16:55
3	Ti 334.940†	852.7	-42.9	-0.0434 µg/L	-0.0434 ppb		15:16:35
3	Tl 190.801†	-124.2	-7.6	-1.0678 µg/L	-1.0678 ppb		15:16:55
3	U 409.014†	-486.3	-69.6	-4.2337 µg/L	-4.2337 ppb		15:16:35
3	V 292.402†	500.1	-1.5	-0.0070 µg/L	-0.0070 ppb		15:16:35
3	Zn 213.857†	645.9	19.3	0.1117 µg/L	0.1117 ppb		15:16:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1703962.1	100.69	%	0.539				0.53%
Sc RADIAL	114094.3	99.7	%	0.51				0.51%
Y 371.029	963655.7	100.69	%	0.521				0.52%
Ag 328.068†	-27.6	-0.1143	µg/L	0.72138	-0.1143	ppb	0.72138	631.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.7	-3.2538	µg/L	5.66220	-3.2538	ppb	5.66220	174.02%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.9	-1.0077	µg/L	2.04099	-1.0077	ppb	2.04099	202.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	39.1	0.5805	µg/L	0.58593	0.5805	ppb	0.58593	100.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.8	0.0536	µg/L	0.05256	0.0536	ppb	0.05256	98.00%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	339.7	0.0959	µg/L	0.01823	0.0959	ppb	0.01823	19.01%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.4	0.0350	µg/L	0.58468	0.0350	ppb	0.58468	>999.9%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.6	0.1160	µg/L	0.03779	0.1160	ppb	0.03779	32.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.2	0.0680	µg/L	0.14206	0.0680	ppb	0.14206	209.00%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              16.9      0.1492 µg/L       0.18032      0.1492 ppb        0.18032 120.83%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -185.7     -0.7695 µg/L       0.33775     -0.7695 ppb        0.33775  43.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       16.7      1.4210 µg/L       0.45338      1.4210 ppb        0.45338  31.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        39.9      15.962 µg/L       45.5331      15.962 ppb        45.5331 285.25%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -11.2     -6.1989 µg/L       6.28254     -6.1989 ppb        6.28254 101.35%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              63.7      0.0835 µg/L       0.02963      0.0835 ppb        0.02963  35.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.1      0.3429 µg/L       0.16148      0.3429 ppb        0.16148  47.09%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      116.8      18.624 µg/L       13.0327      18.624 ppb        13.0327  69.98%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -1.2     -0.0149 µg/L       0.31248     -0.0149 ppb        0.31248 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.5      0.1291 µg/L       3.83196      0.1291 ppb        3.83196 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              12.9      0.8096 µg/L       0.98425      0.8096 ppb        0.98425 121.58%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.6      5.5891 µg/L       4.79547      5.5891 ppb        4.79547  85.80%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.8      0.3632 µg/L       2.63947      0.3632 ppb        2.63947 726.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.6       0.987 µg/L        1.9020       0.987 ppb         1.9020 192.69%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     1.6      0.1506 µg/L       2.39104      0.1506 ppb        2.39104 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -27.6     -0.4281 µg/L       0.51403     -0.4281 ppb        0.51403 120.06%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.4      0.3052 µg/L       0.58217      0.3052 ppb        0.58217 190.76%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               7.2      0.0184 µg/L       0.04122      0.0184 ppb        0.04122 224.33%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               6.9      0.0081 µg/L       0.12277      0.0081 ppb        0.12277 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -7.3     -1.0318 µg/L       1.03554     -1.0318 ppb        1.03554 100.37%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -15.2     -0.9201 µg/L       5.70483     -0.9201 ppb        5.70483 620.03%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               12.4      0.0647 µg/L       0.27242      0.0647 ppb        0.27242 420.86%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              16.4      0.0954 µg/L       0.07984      0.0954 ppb        0.07984  83.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/13/2010 15:31:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	115943.5	115943.5	101	%			15:32:19
1	Al 396.153Radial†	21784.9	21577.6	5065.3	µg/L	5065.3	ppb	15:32:19
1	Ca 317.933Radial†	63085.9	61782.8	5087.2	µg/L	5087.2	ppb	15:32:19
1	Fe 238.204 Radial†	60474.9	59539.3	5078.9	µg/L	5078.9	ppb	15:32:19
1	K 766.490 Radial†	14088.3	12490.1	4995.3	µg/L	4995.3	ppb	15:32:19
1	Mg 279.077 IEC†	9545.4	9260.1	5129.1	µg/L	5129.1	ppb	15:32:19
1	Na 589.592 Radial†	64872.2	63166.6	10074	µg/L	10074	ppb	15:32:17
1	Sr 421.552†	200154.8	197536.3	507.39	µg/L	507.39	ppb	15:32:17
1	Sc 361.383	1701873.6	1701873.6	100.57	%			15:32:32
1	Y 371.029	953824.9	953824.9	99.665	%			15:32:32
1	Ag 328.068†	125653.4	119841.0	501.07	µg/L	501.07	ppb	15:32:32
1	As 188.979†	1409.7	1415.2	497.33	µg/L	497.33	ppb	15:32:52
1	B 249.677†	37252.4	32930.1	487.07	µg/L	487.07	ppb	15:32:32
1	Ba 233.527†	110849.7	110369.8	500.02	µg/L	500.02	ppb	15:32:32
1	Be 313.107†	1761453.1	1752501.0	496.34	µg/L	496.34	ppb	15:32:32
1	Cd 226.502†	75766.7	75403.6	498.28	µg/L	498.28	ppb	15:32:32
1	Co 228.616†	38361.7	38372.1	503.31	µg/L	503.31	ppb	15:32:32
1	Cr 267.716†	57392.4	56738.7	498.18	µg/L	498.18	ppb	15:32:32
1	Cu 324.752†	123993.5	120052.2	498.55	µg/L	498.55	ppb	15:32:32
1	Mn 257.610†	385995.4	383600.8	501.20	µg/L	501.20	ppb	15:32:32
1	Mo 202.031†	14870.9	14808.6	503.15	µg/L	503.15	ppb	15:32:52
1	Ni 231.604†	40490.9	40336.2	501.61	µg/L	501.61	ppb	15:32:32
1	P 214.914†	10942.7	10900.1	2481.9	µg/L	2481.9	ppb	15:32:52
1	Pb 220.353†	8151.9	7988.7	502.16	µg/L	502.16	ppb	15:32:52
1	S 181.975 Axial†	1285.0	1175.8	1004.7	µg/L	1004.7	ppb	15:32:52
1	Sb 206.836†	4008.0	3907.8	502.12	µg/L	502.12	ppb	15:32:52
1	Se 196.026†	1307.0	1279.6	497	µg/L	497	ppb	15:32:52
1	SiO2†	53459.6	51468.9	5293.1	µg/L	5293.1	ppb	15:32:32
1	Si 251.611†	165036.7	163318.5	2481.4	µg/L	2481.4	ppb	15:32:32
1	Sn 189.927†	7186.1	7137.1	498.69	µg/L	498.69	ppb	15:32:52
1	Ti 334.940†	480935.9	477334.7	499.94	µg/L	499.94	ppb	15:32:32
1	Tl 190.801†	3459.7	3555.4	508.54	µg/L	508.54	ppb	15:32:52
1	U 409.014†	7205.5	7576.1	490.99	µg/L	490.99	ppb	15:32:32
1	V 292.402†	101144.6	100077.6	502.85	µg/L	502.85	ppb	15:32:32
1	Zn 213.857†	87614.4	86500.4	495.44	µg/L	495.44	ppb	15:32:32
2	Sc RADIAL	114403.2	114403.2	100	%			15:32:23
2	Al 396.153Radial†	21832.2	21914.2	5144.6	µg/L	5144.6	ppb	15:32:23
2	Ca 317.933Radial†	62078.7	61613.8	5073.2	µg/L	5073.2	ppb	15:32:23
2	Fe 238.204 Radial†	59597.5	59465.3	5072.6	µg/L	5072.6	ppb	15:32:23
2	K 766.490 Radial†	14097.9	12686.8	5074.1	µg/L	5074.1	ppb	15:32:23
2	Mg 279.077 IEC†	9453.6	9295.0	5148.5	µg/L	5148.5	ppb	15:32:23
2	Na 589.592 Radial†	63824.1	62980.3	10044	µg/L	10044	ppb	15:32:21
2	Sr 421.552†	196583.2	196623.9	505.04	µg/L	505.04	ppb	15:32:21
2	Sc 361.383	1691683.2	1691683.2	99.966	%			15:32:55
2	Y 371.029	947869.3	947869.3	99.043	%			15:32:55
2	Ag 328.068†	125396.8	120337.0	503.11	µg/L	503.11	ppb	15:32:55
2	As 188.979†	1410.9	1424.8	500.64	µg/L	500.64	ppb	15:33:15
2	B 249.677†	37277.6	33178.5	490.77	µg/L	490.77	ppb	15:32:55
2	Ba 233.527†	110068.0	110251.8	499.49	µg/L	499.49	ppb	15:32:55
2	Be 313.107†	1746376.7	1747970.2	495.05	µg/L	495.05	ppb	15:32:55
2	Cd 226.502†	75233.2	75323.7	497.75	µg/L	497.75	ppb	15:32:55
2	Co 228.616†	37973.6	38213.8	501.23	µg/L	501.23	ppb	15:32:55
2	Cr 267.716†	56860.8	56550.7	496.53	µg/L	496.53	ppb	15:32:55
2	Cu 324.752†	123027.2	119828.3	497.63	µg/L	497.63	ppb	15:32:55
2	Mn 257.610†	383905.7	383822.5	501.49	µg/L	501.49	ppb	15:32:55
2	Mo 202.031†	14835.9	14862.6	504.99	µg/L	504.99	ppb	15:33:15
2	Ni 231.604†	40197.5	40285.2	500.98	µg/L	500.98	ppb	15:32:55
2	P 214.914†	10963.8	10986.7	2501.8	µg/L	2501.8	ppb	15:33:15
2	Pb 220.353†	8127.7	8013.3	503.71	µg/L	503.71	ppb	15:33:15

2	S 181.975 Axial†	1279.2	1177.7	1006.3 µg/L	1006.3 ppb	15:33:15
2	Sb 206.836†	3989.4	3913.2	502.87 µg/L	502.87 ppb	15:33:15
2	Se 196.026†	1307.2	1287.6	500 µg/L	500 ppb	15:33:15
2	SiO2†	53195.0	51524.4	5298.7 µg/L	5298.7 ppb	15:32:55
2	Si 251.611†	164561.6	163831.7	2489.1 µg/L	2489.1 ppb	15:32:55
2	Sn 189.927†	7220.7	7214.8	504.09 µg/L	504.09 ppb	15:33:15
2	Ti 334.940†	477243.2	476521.4	499.09 µg/L	499.09 ppb	15:32:55
2	Tl 190.801†	3454.9	3571.3	510.77 µg/L	510.77 ppb	15:33:15
2	U 409.014†	7180.5	7594.2	492.03 µg/L	492.03 ppb	15:32:55
2	V 292.402†	100292.9	99831.4	501.64 µg/L	501.64 ppb	15:32:55
2	Zn 213.857†	87223.1	86633.8	496.22 µg/L	496.22 ppb	15:32:55
3	Sc RADIAL	115565.4	115565.4	101 %		15:32:27
3	Al 396.153Radial†	21693.1	21557.1	5060.6 µg/L	5060.6 ppb	15:32:27
3	Ca 317.933Radial†	62348.6	61256.7	5043.8 µg/L	5043.8 ppb	15:32:27
3	Fe 238.204 Radial†	59765.5	59032.3	5035.7 µg/L	5035.7 ppb	15:32:27
3	K 766.490 Radial†	14118.7	12565.6	5025.6 µg/L	5025.6 ppb	15:32:27
3	Mg 279.077 IEC†	9418.3	9165.0	5076.5 µg/L	5076.5 ppb	15:32:27
3	Na 589.592 Radial†	63686.5	62202.4	9920.4 µg/L	9920.4 ppb	15:32:25
3	Sr 421.552†	195926.5	193997.2	498.30 µg/L	498.30 ppb	15:32:25
3	Sc 361.383	1714077.6	1714077.6	101.29 %		15:33:18
3	Y 371.029	959082.2	959082.2	100.21 %		15:33:18
3	Ag 328.068†	127424.9	120700.4	504.63 µg/L	504.63 ppb	15:33:18
3	As 188.979†	1405.4	1401.0	492.40 µg/L	492.40 ppb	15:33:38
3	B 249.677†	38032.6	33436.7	494.59 µg/L	494.59 ppb	15:33:18
3	Ba 233.527†	112015.2	110735.6	501.68 µg/L	501.68 ppb	15:33:18
3	Be 313.107†	1780228.7	1758567.3	498.05 µg/L	498.05 ppb	15:33:18
3	Cd 226.502†	76729.0	75817.2	501.02 µg/L	501.02 ppb	15:33:18
3	Co 228.616†	38739.6	38473.7	504.64 µg/L	504.64 ppb	15:33:18
3	Cr 267.716†	57886.5	56820.2	498.90 µg/L	498.90 ppb	15:33:18
3	Cu 324.752†	125228.6	120393.8	499.96 µg/L	499.96 ppb	15:33:18
3	Mn 257.610†	389981.8	384803.9	502.78 µg/L	502.78 ppb	15:33:18
3	Mo 202.031†	14878.3	14710.6	499.82 µg/L	499.82 ppb	15:33:38
3	Ni 231.604†	40973.3	40525.8	503.97 µg/L	503.97 ppb	15:33:18
3	P 214.914†	10941.3	10821.3	2463.9 µg/L	2463.9 ppb	15:33:38
3	Pb 220.353†	8147.1	7926.2	498.24 µg/L	498.24 ppb	15:33:38
3	S 181.975 Axial†	1283.1	1164.8	995.31 µg/L	995.31 ppb	15:33:38
3	Sb 206.836†	4005.5	3877.0	498.11 µg/L	498.11 ppb	15:33:38
3	Se 196.026†	1325.6	1288.7	501 µg/L	501 ppb	15:33:38
3	SiO2†	54369.8	51989.1	5346.9 µg/L	5346.9 ppb	15:33:18
3	Si 251.611†	168387.2	165458.0	2514.0 µg/L	2514.0 ppb	15:33:18
3	Sn 189.927†	7220.1	7119.8	497.49 µg/L	497.49 ppb	15:33:38
3	Ti 334.940†	485030.3	477972.0	500.61 µg/L	500.61 ppb	15:33:18
3	Tl 190.801†	3462.8	3534.0	505.53 µg/L	505.53 ppb	15:33:38
3	U 409.014†	7172.3	7492.2	485.98 µg/L	485.98 ppb	15:33:18
3	V 292.402†	102126.6	100331.0	504.07 µg/L	504.07 ppb	15:33:18
3	Zn 213.857†	88685.1	86937.2	497.95 µg/L	497.95 ppb	15:33:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1702544.8	100.61	%	0.663				0.66%
Sc RADIAL	115304.0	101	%	0.7				0.70%
Y 371.029	953592.2	99.641	%	0.5862				0.59%
Ag 328.068†	120292.8	502.94	µg/L	1.785	502.94	ppb	1.785	0.35%
QC value within limits for Ag 328.068 Recovery = 100.59%								
Al 396.153Radial†	21683.0	5090.2	µg/L	47.20	5090.2	ppb	47.20	0.93%
QC value within limits for Al 396.153Radial Recovery = 101.80%								
As 188.979†	1413.6	496.79	µg/L	4.147	496.79	ppb	4.147	0.83%
QC value within limits for As 188.979 Recovery = 99.36%								
B 249.677†	33181.8	490.81	µg/L	3.758	490.81	ppb	3.758	0.77%
QC value within limits for B 249.677 Recovery = 98.16%								
Ba 233.527†	110452.4	500.39	µg/L	1.142	500.39	ppb	1.142	0.23%
QC value within limits for Ba 233.527 Recovery = 100.08%								
Be 313.107†	1753012.8	496.48	µg/L	1.504	496.48	ppb	1.504	0.30%
QC value within limits for Be 313.107 Recovery = 99.30%								
Ca 317.933Radial†	61551.1	5068.1	µg/L	22.12	5068.1	ppb	22.12	0.44%
QC value within limits for Ca 317.933Radial Recovery = 101.36%								
Cd 226.502†	75514.8	499.01	µg/L	1.755	499.01	ppb	1.755	0.35%
QC value within limits for Cd 226.502 Recovery = 99.80%								
Co 228.616†	38353.2	503.06	µg/L	1.719	503.06	ppb	1.719	0.34%

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   QC value within limits for Co 228.616  Recovery = 100.61%
Cr 267.716†            56703.2      497.87 µg/L         1.217      497.87 ppb          1.217   0.24%
   QC value within limits for Cr 267.716  Recovery = 99.57%
Cu 324.752†           120091.4      498.71 µg/L         1.173      498.71 ppb          1.173   0.24%
   QC value within limits for Cu 324.752  Recovery = 99.74%
Fe 238.204 Radial†     59345.6      5062.4 µg/L         23.36      5062.4 ppb          23.36   0.46%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.25%
K 766.490 Radial†      12580.8      5031.7 µg/L         39.71      5031.7 ppb          39.71   0.79%
   QC value within limits for K 766.490 Radial  Recovery = 100.63%
Mg 279.077 IEC†         9240.0      5118.0 µg/L         37.25      5118.0 ppb          37.25   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.36%
Mn 257.610†           384075.7      501.82 µg/L         0.838      501.82 ppb          0.838   0.17%
   QC value within limits for Mn 257.610  Recovery = 100.36%
Mo 202.031†            14793.9      502.65 µg/L         2.618      502.65 ppb          2.618   0.52%
   QC value within limits for Mo 202.031  Recovery = 100.53%
Na 589.592 Radial†     62783.1       10013 µg/L          81.6       10013 ppb           81.6   0.82%
   QC value within limits for Na 589.592 Radial  Recovery = 100.13%
Ni 231.604†            40382.4      502.19 µg/L         1.577      502.19 ppb          1.577   0.31%
   QC value within limits for Ni 231.604  Recovery = 100.44%
P 214.914†             10902.7      2482.5 µg/L         18.92      2482.5 ppb          18.92   0.76%
   QC value within limits for P 214.914  Recovery = 99.30%
Pb 220.353†             7976.0      501.37 µg/L         2.819      501.37 ppb          2.819   0.56%
   QC value within limits for Pb 220.353  Recovery = 100.27%
S 181.975 Axial†        1172.8      1002.1 µg/L          5.93      1002.1 ppb           5.93   0.59%
   QC value within limits for S 181.975 Axial  Recovery = 100.21%
Sb 206.836†             3899.3      501.03 µg/L         2.558      501.03 ppb          2.558   0.51%
   QC value within limits for Sb 206.836  Recovery = 100.21%
Se 196.026†             1285.3         499 µg/L           1.9         499 ppb            1.9   0.38%
   QC value within limits for Se 196.026  Recovery = 99.85%
SiO2†                  51660.8      5312.9 µg/L         29.59      5312.9 ppb          29.59   0.56%
   QC value within limits for SiO2  Recovery = 99.35%
Si 251.611†           164202.7      2494.8 µg/L         17.08      2494.8 ppb          17.08   0.68%
   QC value within limits for Si 251.611  Recovery = 99.79%
Sn 189.927†             7157.3      500.09 µg/L         3.520      500.09 ppb          3.520   0.70%
   QC value within limits for Sn 189.927  Recovery = 100.02%
Sr 421.552†           196052.5      503.58 µg/L         4.720      503.58 ppb          4.720   0.94%
   QC value within limits for Sr 421.552  Recovery = 100.72%
Ti 334.940†           477276.0      499.88 µg/L         0.766      499.88 ppb          0.766   0.15%
   QC value within limits for Ti 334.940  Recovery = 99.98%
Tl 190.801†             3553.6      508.28 µg/L         2.627      508.28 ppb          2.627   0.52%
   QC value within limits for Tl 190.801  Recovery = 101.66%
U 409.014†              7554.2      489.67 µg/L         3.234      489.67 ppb          3.234   0.66%
   QC value within limits for U 409.014  Recovery = 97.93%
V 292.402†            100080.0      502.85 µg/L         1.216      502.85 ppb          1.216   0.24%
   QC value within limits for V 292.402  Recovery = 100.57%
Zn 213.857†            86690.5      496.54 µg/L         1.285      496.54 ppb          1.285   0.26%
   QC value within limits for Zn 213.857  Recovery = 99.31%
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/13/2010 15:33:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114111.8	114111.8	99.8	%			15:34:15
1	Al 396.153Radial†	-71.7	13.1	3.0730	µg/L	3.0730	ppb	15:34:35
1	Ca 317.933Radial†	472.5	16.9	1.3890	µg/L	1.3890	ppb	15:34:35
1	Fe 238.204 Radial†	152.1	28.2	2.4040	µg/L	2.4040	ppb	15:34:35
1	K 766.490 Radial†	1512.4	106.8	42.758	µg/L	42.758	ppb	15:34:15
1	Mg 279.077 IEC†	166.9	10.0	5.5128	µg/L	5.5128	ppb	15:34:35
1	Na 589.592 Radial†	963.4	130.5	20.779	µg/L	20.779	ppb	15:34:15
1	Sr 421.552†	-60.1	6.4	0.0166	µg/L	0.0166	ppb	15:34:15
1	Sc 361.383	1707720.4	1707720.4	100.91	%			15:35:37
1	Y 371.029	966443.9	966443.9	100.98	%			15:35:37
1	Ag 328.068†	4995.8	-152.4	-0.6221	µg/L	-0.6221	ppb	15:35:39
1	As 188.979†	-10.7	2.8	0.9603	µg/L	0.9603	ppb	15:35:59
1	B 249.677†	4169.6	19.9	0.2949	µg/L	0.2949	ppb	15:35:39
1	Ba 233.527†	-150.5	-3.2	-0.0145	µg/L	-0.0145	ppb	15:35:59
1	Be 313.107†	-328.9	666.4	0.1902	µg/L	0.1902	ppb	15:35:39
1	Cd 226.502†	-44.2	20.8	0.1372	µg/L	0.1372	ppb	15:35:59
1	Co 228.616†	-215.9	13.1	0.1715	µg/L	0.1715	ppb	15:35:59
1	Cr 267.716†	321.2	-11.3	-0.1035	µg/L	-0.1035	ppb	15:35:59
1	Cu 324.752†	3054.7	-214.2	-0.8822	µg/L	-0.8822	ppb	15:35:39
1	Mn 257.610†	429.9	210.6	0.2751	µg/L	0.2751	ppb	15:35:59
1	Mo 202.031†	-13.9	7.8	0.2656	µg/L	0.2656	ppb	15:35:59
1	Ni 231.604†	-71.9	2.7	0.0337	µg/L	0.0337	ppb	15:35:59
1	P 214.914†	-3.2	16.0	3.6742	µg/L	3.6742	ppb	15:35:59
1	Pb 220.353†	98.7	-19.4	-1.2192	µg/L	-1.2192	ppb	15:35:59
1	S 181.975 Axial†	103.4	0.5	0.4655	µg/L	0.4655	ppb	15:35:59
1	Sb 206.836†	81.6	3.3	0.4295	µg/L	0.4295	ppb	15:35:59
1	Se 196.026†	34.6	14.3	5.55	µg/L	5.55	ppb	15:35:59
1	SiO2†	1849.8	144.2	14.870	µg/L	14.870	ppb	15:35:39
1	Si 251.611†	1034.4	238.5	3.6292	µg/L	3.6292	ppb	15:35:39
1	Sn 189.927†	21.8	13.2	0.9199	µg/L	0.9199	ppb	15:35:59
1	Ti 334.940†	923.4	28.9	0.0279	µg/L	0.0279	ppb	15:35:39
1	Tl 190.801†	-112.2	4.1	0.5725	µg/L	0.5725	ppb	15:35:59
1	U 409.014†	-333.8	80.5	4.9007	µg/L	4.9007	ppb	15:35:39
1	V 292.402†	524.8	24.1	0.1247	µg/L	0.1247	ppb	15:35:39
1	Zn 213.857†	634.8	9.7	0.0562	µg/L	0.0562	ppb	15:35:59
2	Sc RADIAL	114949.9	114949.9	100	%			15:34:37
2	Al 396.153Radial†	-94.9	-9.5	-2.2533	µg/L	-2.2533	ppb	15:34:57
2	Ca 317.933Radial†	480.4	21.3	1.7515	µg/L	1.7515	ppb	15:34:57
2	Fe 238.204 Radial†	203.3	78.0	6.6560	µg/L	6.6560	ppb	15:34:57
2	K 766.490 Radial†	1603.2	186.1	74.491	µg/L	74.491	ppb	15:34:37
2	Mg 279.077 IEC†	168.7	10.6	5.8444	µg/L	5.8444	ppb	15:34:57
2	Na 589.592 Radial†	918.0	78.3	12.420	µg/L	12.420	ppb	15:34:37
2	Sr 421.552†	-201.1	-133.4	-0.3428	µg/L	-0.3428	ppb	15:34:37
2	Sc 361.383	1709598.0	1709598.0	101.02	%			15:36:02
2	Y 371.029	967704.1	967704.1	101.12	%			15:36:02
2	Ag 328.068†	5012.4	-141.4	-0.5720	µg/L	-0.5720	ppb	15:36:04
2	As 188.979†	-16.7	-3.1	-1.0627	µg/L	-1.0627	ppb	15:36:24
2	B 249.677†	4199.1	44.6	0.6626	µg/L	0.6626	ppb	15:36:04
2	Ba 233.527†	-140.5	6.8	0.0308	µg/L	0.0308	ppb	15:36:24
2	Be 313.107†	-794.1	206.3	0.0609	µg/L	0.0609	ppb	15:36:04
2	Cd 226.502†	-56.6	8.6	0.0562	µg/L	0.0562	ppb	15:36:24
2	Co 228.616†	-228.2	1.2	0.0150	µg/L	0.0150	ppb	15:36:24
2	Cr 267.716†	342.7	9.6	0.0784	µg/L	0.0784	ppb	15:36:24
2	Cu 324.752†	2957.2	-314.1	-1.2925	µg/L	-1.2925	ppb	15:36:04
2	Mn 257.610†	327.0	108.3	0.1413	µg/L	0.1413	ppb	15:36:24
2	Mo 202.031†	-11.0	10.7	0.3643	µg/L	0.3643	ppb	15:36:24
2	Ni 231.604†	-47.6	26.8	0.3330	µg/L	0.3330	ppb	15:36:24
2	P 214.914†	-5.4	13.9	3.1806	µg/L	3.1806	ppb	15:36:24
2	Pb 220.353†	148.8	30.1	1.8777	µg/L	1.8777	ppb	15:36:24

2	S 181.975 Axial†	111.4	8.4	7.1453 µg/L	7.1453 ppb	15:36:24
2	Sb 206.836†	79.5	1.2	0.1581 µg/L	0.1581 ppb	15:36:24
2	Se 196.026†	19.7	-0.5	-0.182 µg/L	-0.182 ppb	15:36:24
2	SiO2†	1754.6	48.0	4.9360 µg/L	4.9360 ppb	15:36:04
2	Si 251.611†	955.5	159.3	2.4224 µg/L	2.4224 ppb	15:36:04
2	Sn 189.927†	13.8	5.3	0.3665 µg/L	0.3665 ppb	15:36:24
2	Ti 334.940†	836.3	-58.2	-0.0648 µg/L	-0.0648 ppb	15:36:04
2	Tl 190.801†	-107.0	9.3	1.3185 µg/L	1.3185 ppb	15:36:24
2	U 409.014†	-280.7	133.4	8.1178 µg/L	8.1178 ppb	15:36:04
2	V 292.402†	532.9	31.5	0.1649 µg/L	0.1649 ppb	15:36:04
2	Zn 213.857†	640.2	14.4	0.0811 µg/L	0.0811 ppb	15:36:24
3	Sc RADIAL	115878.1	115878.1	101 %		15:34:59
3	Al 396.153Radial†	-65.3	20.6	4.8310 µg/L	4.8310 ppb	15:35:19
3	Ca 317.933Radial†	462.0	-0.7	-0.0547 µg/L	-0.0547 ppb	15:35:19
3	Fe 238.204 Radial†	200.7	73.9	6.3023 µg/L	6.3023 ppb	15:35:19
3	K 766.490 Radial†	1521.7	92.8	37.160 µg/L	37.160 ppb	15:34:59
3	Mg 279.077 IEC†	159.9	0.5	0.3002 µg/L	0.3002 ppb	15:35:19
3	Na 589.592 Radial†	965.1	117.4	18.701 µg/L	18.701 ppb	15:34:59
3	Sr 421.552†	-232.8	-163.1	-0.4188 µg/L	-0.4188 ppb	15:34:59
3	Sc 361.383	1713556.7	1713556.7	101.26 %		15:36:26
3	Y 371.029	969829.7	969829.7	101.34 %		15:36:26
3	Ag 328.068†	5031.8	-133.7	-0.5364 µg/L	-0.5364 ppb	15:36:28
3	As 188.979†	-11.4	2.2	0.7499 µg/L	0.7499 ppb	15:36:48
3	B 249.677†	4023.7	-138.2	-2.0514 µg/L	-2.0514 ppb	15:36:28
3	Ba 233.527†	-168.6	-20.7	-0.0933 µg/L	-0.0933 ppb	15:36:48
3	Be 313.107†	-485.1	513.3	0.1482 µg/L	0.1482 ppb	15:36:28
3	Cd 226.502†	-54.4	10.8	0.0708 µg/L	0.0708 ppb	15:36:48
3	Co 228.616†	-240.9	-10.9	-0.1430 µg/L	-0.1430 ppb	15:36:48
3	Cr 267.716†	340.3	6.4	0.0493 µg/L	0.0493 ppb	15:36:48
3	Cu 324.752†	3137.5	-142.8	-0.5825 µg/L	-0.5825 ppb	15:36:28
3	Mn 257.610†	327.9	108.5	0.1418 µg/L	0.1418 ppb	15:36:48
3	Mo 202.031†	-10.6	11.1	0.3782 µg/L	0.3782 ppb	15:36:48
3	Ni 231.604†	-74.9	-0.1	-0.0007 µg/L	-0.0007 ppb	15:36:48
3	P 214.914†	-14.6	4.8	1.1059 µg/L	1.1059 ppb	15:36:48
3	Pb 220.353†	121.7	3.0	0.1811 µg/L	0.1811 ppb	15:36:48
3	S 181.975 Axial†	105.1	1.9	1.5787 µg/L	1.5787 ppb	15:36:48
3	Sb 206.836†	80.9	2.3	0.3037 µg/L	0.3037 ppb	15:36:48
3	Se 196.026†	13.4	-6.8	-2.60 µg/L	-2.60 ppb	15:36:48
3	SiO2†	1879.5	167.3	17.253 µg/L	17.253 ppb	15:36:28
3	Si 251.611†	1041.1	241.6	3.6761 µg/L	3.6761 ppb	15:36:28
3	Sn 189.927†	19.4	10.8	0.7490 µg/L	0.7490 ppb	15:36:48
3	Ti 334.940†	826.3	-70.1	-0.0774 µg/L	-0.0774 ppb	15:36:28
3	Tl 190.801†	-101.7	14.8	2.0824 µg/L	2.0824 ppb	15:36:48
3	U 409.014†	-260.2	154.2	9.3985 µg/L	9.3985 ppb	15:36:28
3	V 292.402†	571.6	68.4	0.3492 µg/L	0.3492 ppb	15:36:28
3	Zn 213.857†	634.2	7.0	0.0403 µg/L	0.0403 ppb	15:36:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1710291.7	101.07	%	0.176				0.17%
Sc RADIAL	114979.9	101	%	0.8				0.77%
Y 371.029	967992.6	101.15	%	0.179				0.18%
Ag 328.068†	-142.5	-0.5768	µg/L	0.04303	-0.5768	ppb	0.04303	7.46%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.1	1.8835	µg/L	3.68888	1.8835	ppb	3.68888	195.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.6	0.2158	µg/L	1.11219	0.2158	ppb	1.11219	515.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-24.6	-0.3646	µg/L	1.47232	-0.3646	ppb	1.47232	403.79%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.7	-0.0257	µg/L	0.06282	-0.0257	ppb	0.06282	244.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	462.0	0.1331	µg/L	0.06596	0.1331	ppb	0.06596	49.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	12.5	1.0286	µg/L	0.95553	1.0286	ppb	0.95553	92.90%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	13.4	0.0881	µg/L	0.04318	0.0881	ppb	0.04318	49.04%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.1	0.0145	µg/L	0.15726	0.0145	ppb	0.15726	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                1.6      0.0081 µg/L       0.09770      0.0081 ppb        0.09770 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -223.7     -0.9191 µg/L       0.35640     -0.9191 ppb        0.35640  38.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         60.0      5.1208 µg/L       2.35941      5.1208 ppb        2.35941  46.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         128.6      51.470 µg/L       20.1323      51.470 ppb        20.1323  39.11%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            7.0      3.8858 µg/L       3.10964      3.8858 ppb        3.10964  80.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               142.5      0.1861 µg/L       0.07707      0.1861 ppb        0.07707  41.42%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.9      0.3361 µg/L       0.06139      0.3361 ppb        0.06139  18.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        108.7      17.300 µg/L        4.3521      17.300 ppb         4.3521  25.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                9.8      0.1220 µg/L       0.18352      0.1220 ppb        0.18352 150.45%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                11.6      2.6536 µg/L       1.36284      2.6536 ppb        1.36284  51.36%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                4.5      0.2799 µg/L       1.55080      0.2799 ppb        1.55080 554.13%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           3.6      3.0632 µg/L       3.57877      3.0632 ppb        3.57877 116.83%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                2.3      0.2971 µg/L       0.13579      0.2971 ppb        0.13579  45.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.4       0.923 µg/L        4.1854       0.923 ppb         4.1854 453.68%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     119.8      12.353 µg/L        6.5328      12.353 ppb         6.5328  52.88%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               213.2      3.2426 µg/L       0.71066      3.2426 ppb        0.71066  21.92%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                9.7      0.6785 µg/L       0.28335      0.6785 ppb        0.28335  41.76%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -96.7     -0.2484 µg/L       0.23255     -0.2484 ppb        0.23255  93.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -33.1     -0.0381 µg/L       0.05752     -0.0381 ppb        0.05752 151.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                9.4      1.3244 µg/L       0.75497      1.3244 ppb        0.75497  57.00%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                122.7      7.4723 µg/L       2.31734      7.4723 ppb        2.31734  31.01%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 41.3      0.2129 µg/L       0.11973      0.2129 ppb        0.11973  56.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                10.4      0.0592 µg/L       0.02059      0.0592 ppb        0.02059  34.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: 248863001|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 316
Date Collected: 4/13/2010 15:39:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248863001|974047|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	115103.2	115103.2	101	%			15:39:48
1	Al 396.153Radial†	47927.9	47715.1	11252	µg/L	11252	ppb	15:39:48
1	Ca 317.933Radial†	57328.3	56515.4	4653.4	µg/L	4653.4	ppb	15:39:48
1	Fe 238.204 Radial†	703771.4	699274.7	59651	µg/L	59651	ppb	15:39:46
1	K 766.490 Radial†	7458.1	6002.5	2398.9	µg/L	2398.9	ppb	15:39:48
1	Mg 279.077 IEC†	4678.6	4492.2	2433.4	µg/L	2433.4	ppb	15:39:48
1	Na 589.592 Radial†	8229.7	7343.3	1169.5	µg/L	1169.5	ppb	15:39:48
1	Sr 421.552†	15793.0	15761.6	40.452	µg/L	40.452	ppb	15:39:48
1	Sc 361.383	1678455.8	1678455.8	99.184	%			15:40:01
1	Y 371.029	1189890.9	1189890.9	124.33	%			15:40:01
1	Ag 328.068†	5324.0	264.9	-0.1567	µg/L	-0.1567	ppb	15:40:03
1	As 188.979†	15.1	28.7	23.520	µg/L	23.520	ppb	15:40:23
1	B 249.677†	4322.7	246.3	3.6253	µg/L	3.6253	ppb	15:40:03
1	Ba 233.527†	24704.4	25053.6	112.67	µg/L	112.67	ppb	15:40:03
1	Be 313.107†	15627.6	16748.5	4.6376	µg/L	4.6376	ppb	15:40:03
1	Cd 226.502†	800.2	871.4	-0.5033	µg/L	-0.5033	ppb	15:40:23
1	Co 228.616†	447.1	677.8	5.8886	µg/L	5.8886	ppb	15:40:23
1	Cr 267.716†	2560.2	2251.6	21.437	µg/L	21.437	ppb	15:40:03
1	Cu 324.752†	4434.0	1229.2	13.563	µg/L	13.563	ppb	15:40:03
1	Mn 257.610†	2012975.7	2029322.4	2652.3	µg/L	2652.3	ppb	15:40:01
1	Mo 202.031†	155.4	178.3	8.4689	µg/L	8.4689	ppb	15:40:23
1	Ni 231.604†	1265.4	1349.8	16.785	µg/L	16.785	ppb	15:40:23
1	P 214.914†	1841.0	1875.3	390.40	µg/L	390.40	ppb	15:40:23
1	Pb 220.353†	746.0	634.9	40.485	µg/L	40.485	ppb	15:40:23
1	S 181.975 Axial†	207.1	106.8	90.956	µg/L	90.956	ppb	15:40:23
1	Sb 206.836†	71.8	-5.1	-1.6210	µg/L	-1.6210	ppb	15:40:23
1	Se 196.026†	-14.3	-34.5	7.04	µg/L	7.04	ppb	15:40:23
1	SiO2†	163683.6	163341.5	16866	µg/L	16866	ppb	15:40:03
1	Si 251.611†	514828.0	518277.3	7905.9	µg/L	7905.9	ppb	15:40:01
1	Sn 189.927†	149.4	142.3	14.136	µg/L	14.136	ppb	15:40:23
1	Ti 334.940†	1187300.3	1196182.9	1254.5	µg/L	1254.5	ppb	15:40:01
1	Tl 190.801†	-293.8	-180.9	-5.8439	µg/L	-5.8439	ppb	15:40:23
1	U 409.014†	-6049.2	-5687.7	-340.05	µg/L	-340.05	ppb	15:40:01
1	V 292.402†	7459.5	7024.8	27.288	µg/L	27.288	ppb	15:40:03
1	Zn 213.857†	36169.4	35847.7	201.24	µg/L	201.24	ppb	15:40:03
2	Sc RADIAL	114251.5	114251.5	99.9	%			15:39:52
2	Al 396.153Radial†	47591.1	47732.9	11257	µg/L	11257	ppb	15:39:52
2	Ca 317.933Radial†	56698.4	56309.5	4636.5	µg/L	4636.5	ppb	15:39:52
2	Fe 238.204 Radial†	688220.2	688918.4	58767	µg/L	58767	ppb	15:39:50
2	K 766.490 Radial†	7417.5	6017.1	2404.7	µg/L	2404.7	ppb	15:39:52
2	Mg 279.077 IEC†	4657.7	4505.9	2441.7	µg/L	2441.7	ppb	15:39:52
2	Na 589.592 Radial†	8340.3	7515.0	1196.9	µg/L	1196.9	ppb	15:39:52
2	Sr 421.552†	15831.2	15916.8	40.851	µg/L	40.851	ppb	15:39:52
2	Sc 361.383	1680003.7	1680003.7	99.275	%			15:40:25
2	Y 371.029	1190559.7	1190559.7	124.40	%			15:40:25
2	Ag 328.068†	5317.7	253.6	-0.1994	µg/L	-0.1994	ppb	15:40:27
2	As 188.979†	24.8	38.4	26.678	µg/L	26.678	ppb	15:40:47
2	B 249.677†	4409.8	330.1	4.8701	µg/L	4.8701	ppb	15:40:27
2	Ba 233.527†	24493.3	24817.9	111.61	µg/L	111.61	ppb	15:40:27
2	Be 313.107†	15420.0	16524.9	4.5727	µg/L	4.5727	ppb	15:40:27
2	Cd 226.502†	785.8	856.2	-0.5107	µg/L	-0.5107	ppb	15:40:47
2	Co 228.616†	412.6	642.7	5.4729	µg/L	5.4729	ppb	15:40:47
2	Cr 267.716†	2628.5	2318.1	21.998	µg/L	21.998	ppb	15:40:27
2	Cu 324.752†	4481.0	1272.5	13.609	µg/L	13.609	ppb	15:40:27
2	Mn 257.610†	2005382.3	2019803.6	2639.9	µg/L	2639.9	ppb	15:40:25
2	Mo 202.031†	147.6	170.3	8.1623	µg/L	8.1623	ppb	15:40:47
2	Ni 231.604†	1300.2	1383.6	17.206	µg/L	17.206	ppb	15:40:47
2	P 214.914†	1826.4	1858.9	387.26	µg/L	387.26	ppb	15:40:47
2	Pb 220.353†	783.5	672.0	42.834	µg/L	42.834	ppb	15:40:47

2	S 181.975 Axial†	210.2	109.8	93.473	µg/L	93.473 ppb	15:40:47
2	Sb 206.836†	52.7	-24.4	-4.0898	µg/L	-4.0898 ppb	15:40:47
2	Se 196.026†	-30.4	-50.6	0.480	µg/L	0.480 ppb	15:40:47
2	SiO2†	162656.8	162155.1	16743	µg/L	16743 ppb	15:40:27
2	Si 251.611†	509798.9	512733.3	7821.3	µg/L	7821.3 ppb	15:40:25
2	Sn 189.927†	157.1	149.8	14.647	µg/L	14.647 ppb	15:40:47
2	Ti 334.940†	1183562.2	1191314.5	1249.4	µg/L	1249.4 ppb	15:40:25
2	Tl 190.801†	-294.3	-181.2	-5.9572	µg/L	-5.9572 ppb	15:40:47
2	U 409.014†	-6138.5	-5772.0	-345.06	µg/L	-345.06 ppb	15:40:25
2	V 292.402†	7476.8	7035.4	27.435	µg/L	27.435 ppb	15:40:27
2	Zn 213.857†	35687.4	35328.5	198.33	µg/L	198.33 ppb	15:40:27
3	Sc RADIAL	113886.1	113886.1	99.6	%		15:39:57
3	Al 396.153Radial†	47391.2	47685.1	11245	µg/L	11245 ppb	15:39:57
3	Ca 317.933Radial†	56377.2	56169.0	4624.9	µg/L	4624.9 ppb	15:39:57
3	Fe 238.204 Radial†	700324.4	703286.9	59993	µg/L	59993 ppb	15:39:55
3	K 766.490 Radial†	7377.3	6000.5	2398.1	µg/L	2398.1 ppb	15:39:57
3	Mg 279.077 IEC†	4589.3	4452.2	2410.9	µg/L	2410.9 ppb	15:39:57
3	Na 589.592 Radial†	8335.0	7536.5	1200.4	µg/L	1200.4 ppb	15:39:57
3	Sr 421.552†	15697.1	15833.0	40.635	µg/L	40.635 ppb	15:39:57
3	Sc 361.383	1689438.1	1689438.1	99.833	%		15:40:50
3	Y 371.029	1195640.9	1195640.9	124.93	%		15:40:50
3	Ag 328.068†	4899.8	-195.0	-2.0478	µg/L	-2.0478 ppb	15:40:52
3	As 188.979†	23.6	37.0	26.493	µg/L	26.493 ppb	15:41:12
3	B 249.677†	4334.1	229.4	3.3754	µg/L	3.3754 ppb	15:40:52
3	Ba 233.527†	24772.4	24959.7	112.24	µg/L	112.24 ppb	15:40:52
3	Be 313.107†	15474.3	16492.5	4.5658	µg/L	4.5658 ppb	15:40:52
3	Cd 226.502†	803.9	869.8	-0.5496	µg/L	-0.5496 ppb	15:41:12
3	Co 228.616†	440.5	668.2	5.7448	µg/L	5.7448 ppb	15:41:12
3	Cr 267.716†	2576.1	2250.8	21.444	µg/L	21.444 ppb	15:40:52
3	Cu 324.752†	4193.6	959.3	12.497	µg/L	12.497 ppb	15:40:52
3	Mn 257.610†	2016468.2	2019627.6	2639.7	µg/L	2639.7 ppb	15:40:50
3	Mo 202.031†	154.7	176.6	8.4238	µg/L	8.4238 ppb	15:41:12
3	Ni 231.604†	1259.7	1335.8	16.611	µg/L	16.611 ppb	15:41:12
3	P 214.914†	1833.4	1855.6	385.69	µg/L	385.69 ppb	15:41:12
3	Pb 220.353†	755.6	639.7	40.764	µg/L	40.764 ppb	15:41:12
3	S 181.975 Axial†	220.1	118.6	100.94	µg/L	100.94 ppb	15:41:12
3	Sb 206.836†	63.3	-14.1	-2.7699	µg/L	-2.7699 ppb	15:41:12
3	Se 196.026†	-11.0	-31.0	8.51	µg/L	8.51 ppb	15:41:12
3	SiO2†	164844.3	163431.3	16875	µg/L	16875 ppb	15:40:52
3	Si 251.611†	518400.8	518481.9	7909.0	µg/L	7909.0 ppb	15:40:50
3	Sn 189.927†	157.4	149.2	14.603	µg/L	14.603 ppb	15:41:12
3	Ti 334.940†	1189770.4	1190875.5	1248.9	µg/L	1248.9 ppb	15:40:50
3	Tl 190.801†	-304.6	-189.8	-7.1855	µg/L	-7.1855 ppb	15:41:12
3	U 409.014†	-6049.8	-5648.7	-337.83	µg/L	-337.83 ppb	15:40:50
3	V 292.402†	7550.3	7066.9	27.467	µg/L	27.467 ppb	15:40:52
3	Zn 213.857†	36108.0	35549.1	199.48	µg/L	199.48 ppb	15:40:52

Mean Data: 248863001|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1682632.5	99.431	%	0.3513				0.35%
Sc RADIAL	114413.6	100	%	0.5				0.55%
Y 371.029	1192030.5	124.56	%	0.329				0.26%
Ag 328.068†	107.8	-0.8013	µg/L	1.07969	-0.8013	ppb	1.07969	134.75%
Al 396.153Radial†	47711.1	11251	µg/L	5.7	11251	ppb	5.7	0.05%
As 188.979†	34.7	25.564	µg/L	1.7727	25.564	ppb	1.7727	6.93%
B 249.677†	268.6	3.9569	µg/L	0.80065	3.9569	ppb	0.80065	20.23%
Ba 233.527†	24943.7	112.17	µg/L	0.531	112.17	ppb	0.531	0.47%
Be 313.107†	16588.6	4.5920	µg/L	0.03960	4.5920	ppb	0.03960	0.86%
Ca 317.933Radial†	56331.3	4638.3	µg/L	14.35	4638.3	ppb	14.35	0.31%
Cd 226.502†	865.8	-0.5212	µg/L	0.02487	-0.5212	ppb	0.02487	4.77%
Co 228.616†	662.9	5.7021	µg/L	0.21110	5.7021	ppb	0.21110	3.70%
Cr 267.716†	2273.5	21.626	µg/L	0.3217	21.626	ppb	0.3217	1.49%
Cu 324.752†	1153.7	13.223	µg/L	0.6292	13.223	ppb	0.6292	4.76%
Fe 238.204 Radial†	697160.0	59470	µg/L	632.4	59470	ppb	632.4	1.06%
K 766.490 Radial†	6006.7	2400.6	µg/L	3.62	2400.6	ppb	3.62	0.15%
Mg 279.077 IEC†	4483.4	2428.7	µg/L	15.92	2428.7	ppb	15.92	0.66%
Mn 257.610†	2022917.9	2644.0	µg/L	7.25	2644.0	ppb	7.25	0.27%
Mo 202.031†	175.1	8.3517	µg/L	0.16555	8.3517	ppb	0.16555	1.98%
Na 589.592 Radial†	7464.9	1188.9	µg/L	16.89	1188.9	ppb	16.89	1.42%

Ni 231.604†	1356.4	16.868	µg/L	0.3056	16.868	ppb	0.3056	1.81%
P 214.914†	1863.3	387.78	µg/L	2.399	387.78	ppb	2.399	0.62%
Pb 220.353†	648.9	41.361	µg/L	1.2835	41.361	ppb	1.2835	3.10%
S 181.975 Axial†	111.7	95.123	µg/L	5.1933	95.123	ppb	5.1933	5.46%
Sb 206.836†	-14.5	-2.8269	µg/L	1.23539	-2.8269	ppb	1.23539	43.70%
Se 196.026†	-38.7	5.34	µg/L	4.275	5.34	ppb	4.275	80.01%
SiO2†	162975.9	16828	µg/L	73.6	16828	ppb	73.6	0.44%
Si 251.611†	516497.5	7878.8	µg/L	49.75	7878.8	ppb	49.75	0.63%
Sn 189.927†	147.1	14.462	µg/L	0.2831	14.462	ppb	0.2831	1.96%
Sr 421.552†	15837.2	40.646	µg/L	0.1996	40.646	ppb	0.1996	0.49%
Ti 334.940†	1192791.0	1250.9	µg/L	3.09	1250.9	ppb	3.09	0.25%
Tl 190.801†	-184.0	-6.3289	µg/L	0.74404	-6.3289	ppb	0.74404	11.76%
U 409.014†	-5702.8	-340.98	µg/L	3.702	-340.98	ppb	3.702	1.09%
Concentration less than lower limit for U 409.014.								
V 292.402†	7042.4	27.397	µg/L	0.0952	27.397	ppb	0.0952	0.35%
Zn 213.857†	35575.1	199.68	µg/L	1.465	199.68	ppb	1.465	0.73%

Sequence No.: 21
Sample ID: 248863002|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 317
Date Collected: 4/13/2010 15:41:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248863002|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	112459.6	112459.6	98.3	%			15:41:52
1	Al 396.153Radial†	46910.0	47799.3	11272	µg/L	11272	ppb	15:41:52
1	Ca 317.933Radial†	169596.9	172048.4	14166	µg/L	14166	ppb	15:41:52
1	Fe 238.204 Radial†	695478.4	707280.0	60334	µg/L	60334	ppb	15:41:50
1	K 766.490 Radial†	6621.7	5326.0	2126.2	µg/L	2126.2	ppb	15:41:52
1	Mg 279.077 IEC†	6944.1	6905.9	3767.7	µg/L	3767.7	ppb	15:41:52
1	Na 589.592 Radial†	9235.5	8558.5	1363.7	µg/L	1363.7	ppb	15:41:52
1	Sr 421.552†	23809.4	24284.4	62.270	µg/L	62.270	ppb	15:41:52
1	Sc 361.383	1695369.3	1695369.3	100.18	%			15:42:05
1	Y 371.029	1149474.9	1149474.9	120.11	%			15:42:05
1	Ag 328.068†	5086.9	-25.4	-1.5743	µg/L	-1.5743	ppb	15:42:05
1	As 188.979†	24.7	38.1	27.543	µg/L	27.543	ppb	15:42:25
1	B 249.677†	4672.9	552.4	8.1705	µg/L	8.1705	ppb	15:42:05
1	Ba 233.527†	38675.5	38750.6	174.66	µg/L	174.66	ppb	15:42:05
1	Be 313.107†	15549.0	16512.9	4.5652	µg/L	4.5652	ppb	15:42:05
1	Cd 226.502†	818.7	881.8	-0.4908	µg/L	-0.4908	ppb	15:42:25
1	Co 228.616†	432.3	658.6	5.6734	µg/L	5.6734	ppb	15:42:25
1	Cr 267.716†	9915.2	9567.4	85.728	µg/L	85.728	ppb	15:42:25
1	Cu 324.752†	4222.6	973.5	12.624	µg/L	12.624	ppb	15:42:05
1	Mn 257.610†	1987415.4	1983561.6	2592.5	µg/L	2592.5	ppb	15:42:05
1	Mo 202.031†	238.5	259.7	11.283	µg/L	11.283	ppb	15:42:25
1	Ni 231.604†	3837.1	3904.0	48.549	µg/L	48.549	ppb	15:42:25
1	P 214.914†	815.3	833.1	151.77	µg/L	151.77	ppb	15:42:25
1	Pb 220.353†	380.0	262.1	17.293	µg/L	17.293	ppb	15:42:25
1	S 181.975 Axial†	228.5	126.1	107.41	µg/L	107.41	ppb	15:42:25
1	Sb 206.836†	75.7	-2.0	-2.1454	µg/L	-2.1454	ppb	15:42:25
1	Se 196.026†	-30.2	-50.1	1.21	µg/L	1.21	ppb	15:42:25
1	SiO2†	164728.7	162738.2	16804	µg/L	16804	ppb	15:42:05
1	Si 251.611†	516427.4	514695.4	7851.2	µg/L	7851.2	ppb	15:42:05
1	Sn 189.927†	152.2	143.5	14.639	µg/L	14.639	ppb	15:42:25
1	Ti 334.940†	1316594.2	1313297.8	1377.4	µg/L	1377.4	ppb	15:42:05
1	Tl 190.801†	-313.0	-197.2	-7.0327	µg/L	-7.0327	ppb	15:42:25
1	U 409.014†	-6418.5	-5995.5	-358.83	µg/L	-358.83	ppb	15:42:05
1	V 292.402†	8044.7	7534.0	29.919	µg/L	29.919	ppb	15:42:25
1	Zn 213.857†	34647.2	33964.4	190.06	µg/L	190.06	ppb	15:42:05
2	Sc RADIAL	113894.1	113894.1	99.6	%			15:41:56
2	Al 396.153Radial†	47466.7	47757.5	11262	µg/L	11262	ppb	15:41:56
2	Ca 317.933Radial†	171187.0	171472.6	14119	µg/L	14119	ppb	15:41:56
2	Fe 238.204 Radial†	696855.3	699753.3	59692	µg/L	59692	ppb	15:41:54
2	K 766.490 Radial†	6683.0	5302.7	2116.9	µg/L	2116.9	ppb	15:41:56
2	Mg 279.077 IEC†	6948.9	6821.7	3721.7	µg/L	3721.7	ppb	15:41:56
2	Na 589.592 Radial†	9473.3	8679.1	1382.9	µg/L	1382.9	ppb	15:41:56
2	Sr 421.552†	24084.4	24255.5	62.197	µg/L	62.197	ppb	15:41:56
2	Sc 361.383	1705879.8	1705879.8	100.80	%			15:42:27
2	Y 371.029	1155683.8	1155683.8	120.76	%			15:42:27
2	Ag 328.068†	5093.0	-50.6	-1.6670	µg/L	-1.6670	ppb	15:42:27
2	As 188.979†	16.9	30.2	24.681	µg/L	24.681	ppb	15:42:48
2	B 249.677†	4677.6	528.4	7.8142	µg/L	7.8142	ppb	15:42:27
2	Ba 233.527†	38500.6	38339.2	172.81	µg/L	172.81	ppb	15:42:27
2	Be 313.107†	15483.6	16352.4	4.5199	µg/L	4.5199	ppb	15:42:27
2	Cd 226.502†	836.7	894.6	-0.3384	µg/L	-0.3384	ppb	15:42:48
2	Co 228.616†	410.5	634.3	5.3869	µg/L	5.3869	ppb	15:42:48
2	Cr 267.716†	9939.5	9530.5	85.388	µg/L	85.388	ppb	15:42:48
2	Cu 324.752†	4276.0	1000.6	12.642	µg/L	12.642	ppb	15:42:27
2	Mn 257.610†	1982740.7	1966701.5	2570.4	µg/L	2570.4	ppb	15:42:27
2	Mo 202.031†	238.5	258.2	11.207	µg/L	11.207	ppb	15:42:48
2	Ni 231.604†	3849.3	3892.5	48.407	µg/L	48.407	ppb	15:42:48
2	P 214.914†	819.1	831.8	151.92	µg/L	151.92	ppb	15:42:48
2	Pb 220.353†	423.6	303.0	19.863	µg/L	19.863	ppb	15:42:48

2	S 181.975 Axial†	223.3	119.6	101.82 µg/L	101.82 ppb		15:42:48
2	Sb 206.836†	79.1	1.0	-1.7538 µg/L	-1.7538 ppb		15:42:48
2	Se 196.026†	-30.1	-49.8	1.09 µg/L	1.09 ppb		15:42:48
2	SiO2†	162309.5	159325.3	16451 µg/L	16451 ppb		15:42:27
2	Si 251.611†	509562.9	504709.6	7698.9 µg/L	7698.9 ppb		15:42:27
2	Sn 189.927†	149.2	139.6	14.334 µg/L	14.334 ppb		15:42:48
2	Ti 334.940†	1315246.5	1303863.7	1367.5 µg/L	1367.5 ppb		15:42:27
2	Tl 190.801†	-309.0	-191.3	-6.3631 µg/L	-6.3631 ppb		15:42:48
2	U 409.014†	-6448.9	-5986.2	-358.27 µg/L	-358.27 ppb		15:42:27
2	V 292.402†	8082.5	7522.0	29.935 µg/L	29.935 ppb		15:42:48
2	Zn 213.857†	34571.9	33676.6	188.47 µg/L	188.47 ppb		15:42:27
3	Sc RADIAL	113527.7	113527.7	99.2 %			15:42:00
3	Al 396.153Radial†	46912.4	47352.9	11167 µg/L	11167 ppb		15:42:00
3	Ca 317.933Radial†	169913.2	170744.1	14059 µg/L	14059 ppb		15:42:00
3	Fe 238.204 Radial†	694359.3	699497.1	59670 µg/L	59670 ppb		15:41:58
3	K 766.490 Radial†	6665.9	5307.1	2118.7 µg/L	2118.7 ppb		15:42:00
3	Mg 279.077 IEC†	6990.8	6886.4	3757.5 µg/L	3757.5 ppb		15:42:00
3	Na 589.592 Radial†	9388.4	8624.2	1374.2 µg/L	1374.2 ppb		15:42:00
3	Sr 421.552†	23892.6	24140.3	61.901 µg/L	61.901 ppb		15:42:00
3	Sc 361.383	1681124.4	1681124.4	99.342 %			15:42:50
3	Y 371.029	1140942.2	1140942.2	119.22 %			15:42:50
3	Ag 328.068†	4765.8	-305.6	-2.7089 µg/L	-2.7089 ppb		15:42:50
3	As 188.979†	10.8	24.3	22.629 µg/L	22.629 ppb		15:43:10
3	B 249.677†	4708.7	627.9	9.2913 µg/L	9.2913 ppb		15:42:50
3	Ba 233.527†	38455.9	38856.6	175.15 µg/L	175.15 ppb		15:42:50
3	Be 313.107†	15495.8	16590.8	4.5900 µg/L	4.5900 ppb		15:42:50
3	Cd 226.502†	810.8	880.7	-0.4276 µg/L	-0.4276 ppb		15:43:10
3	Co 228.616†	427.7	657.5	5.6953 µg/L	5.6953 ppb		15:43:10
3	Cr 267.716†	10000.5	9737.2	87.188 µg/L	87.188 ppb		15:43:10
3	Cu 324.752†	4126.6	912.7	12.283 µg/L	12.283 ppb		15:42:50
3	Mn 257.610†	1977714.7	1990606.0	2601.7 µg/L	2601.7 ppb		15:42:50
3	Mo 202.031†	262.6	286.0	12.150 µg/L	12.150 ppb		15:43:10
3	Ni 231.604†	3891.8	3991.5	49.637 µg/L	49.637 ppb		15:43:10
3	P 214.914†	820.2	844.9	154.90 µg/L	154.90 ppb		15:43:10
3	Pb 220.353†	427.5	313.1	20.508 µg/L	20.508 ppb		15:43:10
3	S 181.975 Axial†	243.1	142.8	121.58 µg/L	121.58 ppb		15:43:10
3	Sb 206.836†	75.0	-2.1	-2.1559 µg/L	-2.1559 ppb		15:43:10
3	Se 196.026†	-22.1	-42.3	4.02 µg/L	4.02 ppb		15:43:10
3	SiO2†	164676.3	164078.8	16942 µg/L	16942 ppb		15:42:50
3	Si 251.611†	516086.2	518719.9	7912.6 µg/L	7912.6 ppb		15:42:50
3	Sn 189.927†	146.9	139.4	14.371 µg/L	14.371 ppb		15:43:10
3	Ti 334.940†	1310312.2	1318109.8	1382.5 µg/L	1382.5 ppb		15:42:50
3	Tl 190.801†	-301.0	-187.7	-5.6216 µg/L	-5.6216 ppb		15:43:10
3	U 409.014†	-6215.6	-5845.6	-349.48 µg/L	-349.48 ppb		15:42:50
3	V 292.402†	8091.3	7648.9	30.576 µg/L	30.576 ppb		15:43:10
3	Zn 213.857†	34584.6	34194.5	191.46 µg/L	191.46 ppb		15:42:50

Mean Data: 248863002|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1694124.5	100.11	%	0.734				0.73%
Sc RADIAL	113293.8	99.0	%	0.65				0.66%
Y 371.029	1148700.3	120.03	%	0.773				0.64%
Ag 328.068†	-127.2	-1.9834	µg/L	0.63001	-1.9834	ppb	0.63001	31.76%
Al 396.153Radial†	47636.6	11234	µg/L	58.2	11234	ppb	58.2	0.52%
As 188.979†	30.9	24.951	µg/L	2.4685	24.951	ppb	2.4685	9.89%
B 249.677†	569.6	8.4253	µg/L	0.77085	8.4253	ppb	0.77085	9.15%
Ba 233.527†	38648.8	174.21	µg/L	1.236	174.21	ppb	1.236	0.71%
Be 313.107†	16485.4	4.5584	µg/L	0.03554	4.5584	ppb	0.03554	0.78%
Ca 317.933Radial†	171421.7	14115	µg/L	53.8	14115	ppb	53.8	0.38%
Cd 226.502†	885.7	-0.4189	µg/L	0.07661	-0.4189	ppb	0.07661	18.29%
Co 228.616†	650.1	5.5852	µg/L	0.17208	5.5852	ppb	0.17208	3.08%
Cr 267.716†	9611.7	86.101	µg/L	0.9561	86.101	ppb	0.9561	1.11%
Cu 324.752†	962.3	12.516	µg/L	0.2025	12.516	ppb	0.2025	1.62%
Fe 238.204 Radial†	702176.8	59898	µg/L	377.2	59898	ppb	377.2	0.63%
K 766.490 Radial†	5312.0	2120.6	µg/L	4.94	2120.6	ppb	4.94	0.23%
Mg 279.077 IEC†	6871.3	3749.0	µg/L	24.15	3749.0	ppb	24.15	0.64%
Mn 257.610†	1980289.7	2588.2	µg/L	16.06	2588.2	ppb	16.06	0.62%
Mo 202.031†	268.0	11.547	µg/L	0.5240	11.547	ppb	0.5240	4.54%
Na 589.592 Radial†	8620.6	1373.6	µg/L	9.64	1373.6	ppb	9.64	0.70%

Ni 231.604†	3929.3	48.864	µg/L	0.6731	48.864	ppb	0.6731	1.38%
P 214.914†	836.6	152.86	µg/L	1.763	152.86	ppb	1.763	1.15%
Pb 220.353†	292.8	19.221	µg/L	1.7009	19.221	ppb	1.7009	8.85%
S 181.975 Axial†	129.5	110.27	µg/L	10.188	110.27	ppb	10.188	9.24%
Sb 206.836†	-1.0	-2.0184	µg/L	0.22920	-2.0184	ppb	0.22920	11.36%
Se 196.026†	-47.4	2.11	µg/L	1.656	2.11	ppb	1.656	78.66%
SiO2†	162047.4	16732	µg/L	253.1	16732	ppb	253.1	1.51%
Si 251.611†	512708.3	7820.9	µg/L	110.03	7820.9	ppb	110.03	1.41%
Sn 189.927†	140.9	14.448	µg/L	0.1666	14.448	ppb	0.1666	1.15%
Sr 421.552†	24226.8	62.123	µg/L	0.1954	62.123	ppb	0.1954	0.31%
Ti 334.940†	1311757.1	1375.8	µg/L	7.60	1375.8	ppb	7.60	0.55%
Tl 190.801†	-192.1	-6.3391	µg/L	0.70583	-6.3391	ppb	0.70583	11.13%
U 409.014†	-5942.4	-355.53	µg/L	5.245	-355.53	ppb	5.245	1.48%
Concentration less than lower limit for U 409.014.								
V 292.402†	7568.3	30.143	µg/L	0.3747	30.143	ppb	0.3747	1.24%
Zn 213.857†	33945.2	189.99	µg/L	1.496	189.99	ppb	1.496	0.79%

Sequence No.: 22
Sample ID: 248863003|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 318
Date Collected: 4/13/2010 15:43:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248863003|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	114825.3	114825.3	100	%			15:43:51
1	Al 396.153Radial†	64386.6	64226.4	15146	µg/L	15146	ppb	15:43:49
1	Ca 317.933Radial†	69552.1	68830.5	5667.5	µg/L	5667.5	ppb	15:43:51
1	Fe 238.204 Radial†	614024.7	611562.4	52169	µg/L	52169	ppb	15:43:49
1	K 766.490 Radial†	6535.4	5101.2	2037.1	µg/L	2037.1	ppb	15:43:51
1	Mg 279.077 IEC†	5053.4	4876.8	2652.5	µg/L	2652.5	ppb	15:43:51
1	Na 589.592 Radial†	5135.1	4280.3	681.13	µg/L	681.13	ppb	15:43:51
1	Sr 421.552†	12960.1	12977.4	33.292	µg/L	33.292	ppb	15:43:51
1	Sc 361.383	1714869.3	1714869.3	101.34	%			15:44:03
1	Y 371.029	1129589.6	1129589.6	118.03	%			15:44:03
1	Ag 328.068†	5262.2	89.9	-0.5453	µg/L	-0.5453	ppb	15:44:05
1	As 188.979†	18.4	31.5	22.932	µg/L	22.932	ppb	15:44:25
1	B 249.677†	4577.3	405.0	5.9845	µg/L	5.9845	ppb	15:44:05
1	Ba 233.527†	38574.4	38211.8	172.33	µg/L	172.33	ppb	15:44:05
1	Be 313.107†	14802.2	15599.4	4.3454	µg/L	4.3454	ppb	15:44:05
1	Cd 226.502†	725.1	780.1	-0.3167	µg/L	-0.3167	ppb	15:44:25
1	Co 228.616†	390.6	612.5	5.4836	µg/L	5.4836	ppb	15:44:25
1	Cr 267.716†	3931.3	3549.9	32.641	µg/L	32.641	ppb	15:44:05
1	Cu 324.752†	4979.1	1672.2	14.403	µg/L	14.403	ppb	15:44:05
1	Mn 257.610†	1594109.9	1572882.5	2055.7	µg/L	2055.7	ppb	15:44:03
1	Mo 202.031†	125.7	145.6	7.0673	µg/L	7.0673	ppb	15:44:25
1	Ni 231.604†	1855.0	1904.5	23.683	µg/L	23.683	ppb	15:44:25
1	P 214.914†	1342.0	1343.5	274.83	µg/L	274.83	ppb	15:44:25
1	Pb 220.353†	581.9	457.0	29.498	µg/L	29.498	ppb	15:44:25
1	S 181.975 Axial†	223.6	118.7	101.07	µg/L	101.07	ppb	15:44:25
1	Sb 206.836†	94.8	16.0	0.9720	µg/L	0.9720	ppb	15:44:25
1	Se 196.026†	-25.6	-45.3	0.358	µg/L	0.358	ppb	15:44:25
1	SiO2†	186377.3	182231.8	18817	µg/L	18817	ppb	15:44:05
1	Si 251.611†	593973.9	585358.2	8929.2	µg/L	8929.2	ppb	15:44:03
1	Sn 189.927†	150.9	140.5	13.404	µg/L	13.404	ppb	15:44:25
1	Ti 334.940†	1038549.5	1023974.2	1073.9	µg/L	1073.9	ppb	15:44:03
1	Tl 190.801†	-271.0	-152.2	-5.1411	µg/L	-5.1411	ppb	15:44:25
1	U 409.014†	-4352.1	-3883.5	-232.43	µg/L	-232.43	ppb	15:44:05
1	V 292.402†	7780.1	7181.5	29.133	µg/L	29.133	ppb	15:44:05
1	Zn 213.857†	33296.3	32238.1	181.13	µg/L	181.13	ppb	15:44:05
2	Sc RADIAL	114447.6	114447.6	100	%			15:43:55
2	Al 396.153Radial†	64995.7	65046.8	15340	µg/L	15340	ppb	15:43:53
2	Ca 317.933Radial†	69425.0	68932.1	5675.8	µg/L	5675.8	ppb	15:43:55
2	Fe 238.204 Radial†	619916.3	619469.3	52843	µg/L	52843	ppb	15:43:53
2	K 766.490 Radial†	6634.1	5221.4	2085.2	µg/L	2085.2	ppb	15:43:55
2	Mg 279.077 IEC†	5074.2	4914.3	2672.6	µg/L	2672.6	ppb	15:43:55
2	Na 589.592 Radial†	5257.6	4419.6	703.31	µg/L	703.31	ppb	15:43:55
2	Sr 421.552†	12992.4	13052.4	33.484	µg/L	33.484	ppb	15:43:55
2	Sc 361.383	1705989.4	1705989.4	100.81	%			15:44:28
2	Y 371.029	1124375.8	1124375.8	117.49	%			15:44:28
2	Ag 328.068†	5114.5	-29.6	-1.0401	µg/L	-1.0401	ppb	15:44:30
2	As 188.979†	23.1	36.4	24.778	µg/L	24.778	ppb	15:44:50
2	B 249.677†	4549.4	400.8	5.9236	µg/L	5.9236	ppb	15:44:30
2	Ba 233.527†	38929.8	38762.5	174.81	µg/L	174.81	ppb	15:44:30
2	Be 313.107†	15110.1	15980.8	4.4495	µg/L	4.4495	ppb	15:44:30
2	Cd 226.502†	739.8	798.4	-0.2666	µg/L	-0.2666	ppb	15:44:50
2	Co 228.616†	357.6	581.8	5.0488	µg/L	5.0488	ppb	15:44:50
2	Cr 267.716†	4172.6	3809.4	34.958	µg/L	34.958	ppb	15:44:30
2	Cu 324.752†	4792.3	1512.5	13.830	µg/L	13.830	ppb	15:44:30
2	Mn 257.610†	1572807.6	1559939.8	2038.8	µg/L	2038.8	ppb	15:44:28
2	Mo 202.031†	137.8	158.3	7.5247	µg/L	7.5247	ppb	15:44:50
2	Ni 231.604†	1820.9	1880.2	23.382	µg/L	23.382	ppb	15:44:50
2	P 214.914†	1346.3	1354.7	276.95	µg/L	276.95	ppb	15:44:50
2	Pb 220.353†	571.3	449.5	29.020	µg/L	29.020	ppb	15:44:50

2	S 181.975 Axial†	220.4	116.7	99.312 µg/L	99.312 ppb		15:44:50
2	Sb 206.836†	81.1	2.9	-0.7401 µg/L	-0.7401 ppb		15:44:50
2	Se 196.026†	-28.4	-48.2	-0.543 µg/L	-0.543 ppb		15:44:50
2	SiO2†	188033.2	184831.7	19085 µg/L	19085 ppb		15:44:30
2	Si 251.611†	586567.4	581062.3	8863.7 µg/L	8863.7 ppb		15:44:28
2	Sn 189.927†	139.3	129.8	12.633 µg/L	12.633 ppb		15:44:50
2	Ti 334.940†	1025297.9	1016163.8	1065.7 µg/L	1065.7 ppb		15:44:28
2	Tl 190.801†	-265.5	-148.2	-4.6822 µg/L	-4.6822 ppb		15:44:50
2	U 409.014†	-4541.7	-4093.9	-245.42 µg/L	-245.42 ppb		15:44:30
2	V 292.402†	7979.2	7419.0	30.253 µg/L	30.253 ppb		15:44:30
2	Zn 213.857†	33614.7	32725.0	183.87 µg/L	183.87 ppb		15:44:30
3	Sc RADIAL	115321.4	115321.4	101 %			15:43:59
3	Al 396.153Radial†	66381.5	65929.2	15548 µg/L	15548 ppb		15:43:57
3	Ca 317.933Radial†	69821.5	68799.7	5664.9 µg/L	5664.9 ppb		15:43:59
3	Fe 238.204 Radial†	633537.7	628286.0	53595 µg/L	53595 ppb		15:43:57
3	K 766.490 Radial†	6621.2	5158.3	2059.9 µg/L	2059.9 ppb		15:43:59
3	Mg 279.077 IEC†	5097.1	4898.5	2663.2 µg/L	2663.2 ppb		15:43:59
3	Na 589.592 Radial†	5170.7	4293.6	683.23 µg/L	683.23 ppb		15:43:59
3	Sr 421.552†	13139.9	13100.3	33.607 µg/L	33.607 ppb		15:43:59
3	Sc 361.383	1696547.4	1696547.4	100.25 %			15:44:52
3	Y 371.029	1118861.6	1118861.6	116.91 %			15:44:52
3	Ag 328.068†	5149.4	33.4	-0.7813 µg/L	-0.7813 ppb		15:44:54
3	As 188.979†	15.2	28.6	22.238 µg/L	22.238 ppb		15:45:14
3	B 249.677†	4550.7	427.2	6.3136 µg/L	6.3136 ppb		15:44:54
3	Ba 233.527†	38811.7	38859.6	175.24 µg/L	175.24 ppb		15:44:54
3	Be 313.107†	15212.3	16166.2	4.5045 µg/L	4.5045 ppb		15:44:54
3	Cd 226.502†	741.3	804.0	-0.3082 µg/L	-0.3082 ppb		15:45:14
3	Co 228.616†	397.2	623.2	5.5527 µg/L	5.5527 ppb		15:45:14
3	Cr 267.716†	4001.8	3662.1	33.680 µg/L	33.680 ppb		15:44:54
3	Cu 324.752†	4881.0	1627.4	14.422 µg/L	14.422 ppb		15:44:54
3	Mn 257.610†	1575111.3	1570920.7	2053.2 µg/L	2053.2 ppb		15:44:52
3	Mo 202.031†	119.5	140.8	6.9600 µg/L	6.9600 ppb		15:45:14
3	Ni 231.604†	1856.2	1925.5	23.945 µg/L	23.945 ppb		15:45:14
3	P 214.914†	1344.9	1360.8	277.88 µg/L	277.88 ppb		15:45:14
3	Pb 220.353†	616.2	497.4	32.014 µg/L	32.014 ppb		15:45:14
3	S 181.975 Axial†	216.7	114.2	97.210 µg/L	97.210 ppb		15:45:14
3	Sb 206.836†	84.9	7.1	-0.2018 µg/L	-0.2018 ppb		15:45:14
3	Se 196.026†	-32.8	-52.7	-2.00 µg/L	-2.00 ppb		15:45:14
3	SiO2†	184429.9	182275.5	18821 µg/L	18821 ppb		15:44:54
3	Si 251.611†	585810.5	583545.5	8901.6 µg/L	8901.6 ppb		15:44:52
3	Sn 189.927†	130.5	121.7	12.101 µg/L	12.101 ppb		15:45:14
3	Ti 334.940†	1027977.5	1024496.9	1074.4 µg/L	1074.4 ppb		15:44:52
3	Tl 190.801†	-260.5	-144.6	-4.0562 µg/L	-4.0562 ppb		15:45:14
3	U 409.014†	-4381.6	-3959.3	-237.33 µg/L	-237.33 ppb		15:44:54
3	V 292.402†	7884.2	7368.3	29.908 µg/L	29.908 ppb		15:44:54
3	Zn 213.857†	33301.7	32598.4	183.07 µg/L	183.07 ppb		15:44:54

Mean Data: 248863003|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1705802.0	100.80	%	0.541				0.54%
Sc RADIAL	114864.8	100	%	0.4				0.38%
Y 371.029	1124275.6	117.48	%	0.561				0.48%
Ag 328.068†	31.2	-0.7889	µg/L	0.24747	-0.7889	ppb	0.24747	31.37%
Al 396.153Radial†	65067.5	15345	µg/L	200.8	15345	ppb	200.8	1.31%
As 188.979†	32.2	23.316	µg/L	1.3125	23.316	ppb	1.3125	5.63%
B 249.677†	411.0	6.0739	µg/L	0.20979	6.0739	ppb	0.20979	3.45%
Ba 233.527†	38611.3	174.13	µg/L	1.573	174.13	ppb	1.573	0.90%
Be 313.107†	15915.5	4.4331	µg/L	0.08080	4.4331	ppb	0.08080	1.82%
Ca 317.933Radial†	68854.1	5669.4	µg/L	5.70	5669.4	ppb	5.70	0.10%
Cd 226.502†	794.2	-0.2971	µg/L	0.02680	-0.2971	ppb	0.02680	9.02%
Co 228.616†	605.9	5.3617	µg/L	0.27318	5.3617	ppb	0.27318	5.09%
Cr 267.716†	3673.8	33.760	µg/L	1.1606	33.760	ppb	1.1606	3.44%
Cu 324.752†	1604.0	14.218	µg/L	0.3364	14.218	ppb	0.3364	2.37%
Fe 238.204 Radial†	619772.6	52869	µg/L	713.6	52869	ppb	713.6	1.35%
K 766.490 Radial†	5160.3	2060.7	µg/L	24.04	2060.7	ppb	24.04	1.17%
Mg 279.077 IEC†	4896.5	2662.8	µg/L	10.08	2662.8	ppb	10.08	0.38%
Mn 257.610†	1567914.3	2049.2	µg/L	9.12	2049.2	ppb	9.12	0.44%
Mo 202.031†	148.2	7.1840	µg/L	0.29986	7.1840	ppb	0.29986	4.17%
Na 589.592 Radial†	4331.1	689.23	µg/L	12.244	689.23	ppb	12.244	1.78%

Ni 231.604†	1903.4	23.670	µg/L	0.2816	23.670	ppb	0.2816	1.19%
P 214.914†	1353.0	276.55	µg/L	1.562	276.55	ppb	1.562	0.56%
Pb 220.353†	468.0	30.177	µg/L	1.6084	30.177	ppb	1.6084	5.33%
S 181.975 Axial†	116.5	99.197	µg/L	1.9311	99.197	ppb	1.9311	1.95%
Sb 206.836†	8.7	0.0100	µg/L	0.87546	0.0100	ppb	0.87546	>999.9%
Se 196.026†	-48.7	-0.730	µg/L	1.1918	-0.730	ppb	1.1918	163.32%
SiO2†	183113.0	18908	µg/L	153.7	18908	ppb	153.7	0.81%
Si 251.611†	583322.0	8898.1	µg/L	32.90	8898.1	ppb	32.90	0.37%
Sn 189.927†	130.7	12.712	µg/L	0.6548	12.712	ppb	0.6548	5.15%
Sr 421.552†	13043.4	33.461	µg/L	0.1591	33.461	ppb	0.1591	0.48%
Ti 334.940†	1021545.0	1071.3	µg/L	4.89	1071.3	ppb	4.89	0.46%
Tl 190.801†	-148.3	-4.6265	µg/L	0.54458	-4.6265	ppb	0.54458	11.77%
U 409.014†	-3978.9	-238.39	µg/L	6.561	-238.39	ppb	6.561	2.75%
Concentration less than lower limit for U 409.014.								
V 292.402†	7322.9	29.764	µg/L	0.5734	29.764	ppb	0.5734	1.93%
Zn 213.857†	32520.5	182.69	µg/L	1.409	182.69	ppb	1.409	0.77%

Sequence No.: 23
Sample ID: 248863004|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 319
Date Collected: 4/13/2010 15:45:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248863004|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	116285.4	116285.4	102	%			15:45:55
1	Al 396.153Radial†	109841.2	108133.9	25501	µg/L	25501	ppb	15:45:53
1	Ca 317.933Radial†	100923.7	98820.3	8136.8	µg/L	8136.8	ppb	15:45:55
1	Fe 238.204 Radial†	889743.3	875101.6	74649	µg/L	74649	ppb	15:45:53
1	K 766.490 Radial†	13963.6	12326.5	4926.3	µg/L	4926.3	ppb	15:45:55
1	Mg 279.077 IEC†	9724.9	9408.9	5139.6	µg/L	5139.6	ppb	15:45:55
1	Na 589.592 Radial†	6209.4	5272.8	836.93	µg/L	836.93	ppb	15:45:55
1	Sr 421.552†	21826.8	21537.4	55.261	µg/L	55.261	ppb	15:45:55
1	Sc 361.383	1684152.8	1684152.8	99.521	%			15:46:08
1	Y 371.029	1172207.6	1172207.6	122.48	%			15:46:08
1	Ag 328.068†	5186.4	108.4	-0.6365	µg/L	-0.6365	ppb	15:46:08
1	As 188.979†	19.1	32.6	28.334	µg/L	28.334	ppb	15:46:28
1	B 249.677†	4676.4	587.0	8.6553	µg/L	8.6553	ppb	15:46:08
1	Ba 233.527†	66136.8	66601.2	300.57	µg/L	300.57	ppb	15:46:08
1	Be 313.107†	21564.4	22660.6	6.3079	µg/L	6.3079	ppb	15:46:08
1	Cd 226.502†	1077.6	1147.3	-0.2492	µg/L	-0.2492	ppb	15:46:28
1	Co 228.616†	1056.4	1288.6	13.299	µg/L	13.299	ppb	15:46:28
1	Cr 267.716†	3540.5	3227.9	30.439	µg/L	30.439	ppb	15:46:28
1	Cu 324.752†	6464.2	3254.1	24.198	µg/L	24.198	ppb	15:46:08
1	Mn 257.610†	2285618.6	2296413.3	3001.3	µg/L	3001.3	ppb	15:46:08
1	Mo 202.031†	90.2	112.2	6.8818	µg/L	6.8818	ppb	15:46:28
1	Ni 231.604†	2351.2	2436.5	30.300	µg/L	30.300	ppb	15:46:28
1	P 214.914†	4429.9	4470.4	976.23	µg/L	976.23	ppb	15:46:28
1	Pb 220.353†	962.0	849.4	54.807	µg/L	54.807	ppb	15:46:28
1	S 181.975 Axial†	278.9	178.3	151.74	µg/L	151.74	ppb	15:46:28
1	Sb 206.836†	67.7	-9.5	-2.5691	µg/L	-2.5691	ppb	15:46:28
1	Se 196.026†	-39.3	-59.5	2.55	µg/L	2.55	ppb	15:46:28
1	SiO2†	211943.0	211275.1	21816	µg/L	21816	ppb	15:46:08
1	Si 251.611†	665523.7	667943.1	10189	µg/L	10189	ppb	15:46:08
1	Sn 189.927†	107.5	99.6	12.399	µg/L	12.399	ppb	15:46:28
1	Ti 334.940†	1539081.1	1545608.9	1620.8	µg/L	1620.8	ppb	15:46:08
1	Tl 190.801†	-337.7	-224.1	-7.0963	µg/L	-7.0963	ppb	15:46:28
1	U 409.014†	-6263.5	-5882.5	-350.67	µg/L	-350.67	ppb	15:46:08
1	V 292.402†	15267.4	14844.9	64.144	µg/L	64.144	ppb	15:46:28
1	Zn 213.857†	47169.6	46777.5	263.05	µg/L	263.05	ppb	15:46:08
2	Sc RADIAL	115767.8	115767.8	101	%			15:45:59
2	Al 396.153Radial†	110084.2	108857.1	25672	µg/L	25672	ppb	15:45:57
2	Ca 317.933Radial†	100694.4	99037.6	8154.7	µg/L	8154.7	ppb	15:45:59
2	Fe 238.204 Radial†	891968.7	881213.5	75171	µg/L	75171	ppb	15:45:57
2	K 766.490 Radial†	13919.2	12344.1	4933.3	µg/L	4933.3	ppb	15:45:59
2	Mg 279.077 IEC†	9632.7	9360.5	5112.4	µg/L	5112.4	ppb	15:45:59
2	Na 589.592 Radial†	6069.4	5161.8	819.21	µg/L	819.21	ppb	15:45:59
2	Sr 421.552†	21754.3	21561.7	55.323	µg/L	55.323	ppb	15:45:59
2	Sc 361.383	1712312.2	1712312.2	101.18	%			15:46:31
2	Y 371.029	1190404.8	1190404.8	124.39	%			15:46:31
2	Ag 328.068†	5095.8	-66.8	-1.3692	µg/L	-1.3692	ppb	15:46:31
2	As 188.979†	21.1	34.3	29.018	µg/L	29.018	ppb	15:46:51
2	B 249.677†	4687.5	520.7	7.6713	µg/L	7.6713	ppb	15:46:31
2	Ba 233.527†	66831.8	66195.2	298.73	µg/L	298.73	ppb	15:46:31
2	Be 313.107†	21752.9	22490.5	6.2616	µg/L	6.2616	ppb	15:46:31
2	Cd 226.502†	1071.4	1123.5	-0.4625	µg/L	-0.4625	ppb	15:46:51
2	Co 228.616†	1065.2	1279.8	13.154	µg/L	13.154	ppb	15:46:51
2	Cr 267.716†	3547.3	3176.1	30.001	µg/L	30.001	ppb	15:46:51
2	Cu 324.752†	6541.0	3223.1	24.150	µg/L	24.150	ppb	15:46:31
2	Mn 257.610†	2313013.4	2285718.7	2987.3	µg/L	2987.3	ppb	15:46:31
2	Mo 202.031†	92.6	113.2	6.9332	µg/L	6.9332	ppb	15:46:51
2	Ni 231.604†	2303.6	2350.6	29.232	µg/L	29.232	ppb	15:46:51
2	P 214.914†	4416.1	4383.6	956.08	µg/L	956.08	ppb	15:46:51
2	Pb 220.353†	983.7	855.0	55.131	µg/L	55.131	ppb	15:46:51

2	S 181.975 Axial†	270.0	165.0	140.39	µg/L	140.39	ppb	15:46:51
2	Sb 206.836†	83.8	5.3	-0.6751	µg/L	-0.6751	ppb	15:46:51
2	Se 196.026†	-26.6	-46.3	7.84	µg/L	7.84	ppb	15:46:51
2	SiO2†	213159.9	208975.5	21578	µg/L	21578	ppb	15:46:31
2	Si 251.611†	670261.9	661628.3	10093	µg/L	10093	ppb	15:46:31
2	Sn 189.927†	119.4	109.6	13.060	µg/L	13.060	ppb	15:46:51
2	Ti 334.940†	1554641.6	1535554.7	1610.3	µg/L	1610.3	ppb	15:46:31
2	Tl 190.801†	-350.6	-231.2	-8.2544	µg/L	-8.2544	ppb	15:46:51
2	U 409.014†	-6266.4	-5781.8	-344.84	µg/L	-344.84	ppb	15:46:31
2	V 292.402†	15232.6	14558.2	62.680	µg/L	62.680	ppb	15:46:51
2	Zn 213.857†	47734.2	46556.1	261.72	µg/L	261.72	ppb	15:46:31
3	Sc RADIAL	115168.1	115168.1	101	%			15:46:03
3	Al 396.153Radial†	111112.3	110444.7	26046	µg/L	26046	ppb	15:46:01
3	Ca 317.933Radial†	99188.3	98059.8	8074.2	µg/L	8074.2	ppb	15:46:03
3	Fe 238.204 Radial†	898986.4	892773.0	76157	µg/L	76157	ppb	15:46:01
3	K 766.490 Radial†	13825.7	12322.8	4924.7	µg/L	4924.7	ppb	15:46:03
3	Mg 279.077 IEC†	9533.7	9311.8	5084.6	µg/L	5084.6	ppb	15:46:03
3	Na 589.592 Radial†	6091.9	5215.4	827.76	µg/L	827.76	ppb	15:46:03
3	Sr 421.552†	21490.3	21411.5	54.938	µg/L	54.938	ppb	15:46:03
3	Sc 361.383	1691023.9	1691023.9	99.927	%			15:46:54
3	Y 371.029	1177511.1	1177511.1	123.04	%			15:46:54
3	Ag 328.068†	5109.4	10.1	-1.0553	µg/L	-1.0553	ppb	15:46:54
3	As 188.979†	10.7	24.1	25.719	µg/L	25.719	ppb	15:47:14
3	B 249.677†	4497.4	388.8	5.7124	µg/L	5.7124	ppb	15:46:54
3	Ba 233.527†	66396.5	66591.1	300.51	µg/L	300.51	ppb	15:46:54
3	Be 313.107†	22041.1	23049.6	6.4179	µg/L	6.4179	ppb	15:46:54
3	Cd 226.502†	1049.6	1114.9	-0.6225	µg/L	-0.6225	ppb	15:47:14
3	Co 228.616†	1063.9	1291.8	13.262	µg/L	13.262	ppb	15:47:14
3	Cr 267.716†	3557.7	3230.6	30.514	µg/L	30.514	ppb	15:47:14
3	Cu 324.752†	6542.8	3306.3	24.632	µg/L	24.632	ppb	15:46:54
3	Mn 257.610†	2298803.4	2300275.9	3006.4	µg/L	3006.4	ppb	15:46:54
3	Mo 202.031†	76.3	98.0	6.4575	µg/L	6.4575	ppb	15:47:14
3	Ni 231.604†	2306.5	2382.1	29.624	µg/L	29.624	ppb	15:47:14
3	P 214.914†	4387.7	4410.2	961.56	µg/L	961.56	ppb	15:47:14
3	Pb 220.353†	946.1	829.6	53.554	µg/L	53.554	ppb	15:47:14
3	S 181.975 Axial†	275.2	173.4	147.61	µg/L	147.61	ppb	15:47:14
3	Sb 206.836†	53.8	-23.7	-4.4092	µg/L	-4.4092	ppb	15:47:14
3	Se 196.026†	-38.7	-58.8	3.36	µg/L	3.36	ppb	15:47:14
3	SiO2†	212125.3	210592.2	21745	µg/L	21745	ppb	15:46:54
3	Si 251.611†	666753.6	666456.6	10166	µg/L	10166	ppb	15:46:54
3	Sn 189.927†	118.3	109.9	13.124	µg/L	13.124	ppb	15:47:14
3	Ti 334.940†	1546455.8	1546705.2	1622.0	µg/L	1622.0	ppb	15:46:54
3	Tl 190.801†	-340.8	-225.8	-7.3175	µg/L	-7.3175	ppb	15:47:14
3	U 409.014†	-6295.8	-5889.2	-351.41	µg/L	-351.41	ppb	15:46:54
3	V 292.402†	15274.7	14789.9	63.706	µg/L	63.706	ppb	15:47:14
3	Zn 213.857†	47365.4	46780.9	262.93	µg/L	262.93	ppb	15:46:54

Mean Data: 248863004|974047|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1695829.6	100.21	%	0.868				0.87%
Sc RADIAL	115740.5	101	%	0.5				0.48%
Y 371.029	1180041.2	123.30	%	0.978				0.79%
Ag 328.068†	17.2	-1.0203	µg/L	0.36757	-1.0203	ppb	0.36757	36.02%
Al 396.153Radial†	109145.2	25740	µg/L	278.8	25740	ppb	278.8	1.08%
As 188.979†	30.4	27.690	µg/L	1.7413	27.690	ppb	1.7413	6.29%
B 249.677†	498.8	7.3463	µg/L	1.49811	7.3463	ppb	1.49811	20.39%
Ba 233.527†	66462.5	299.94	µg/L	1.047	299.94	ppb	1.047	0.35%
Be 313.107†	22733.6	6.3291	µg/L	0.08030	6.3291	ppb	0.08030	1.27%
Ca 317.933Radial†	98639.2	8121.9	µg/L	42.28	8121.9	ppb	42.28	0.52%
Cd 226.502†	1128.6	-0.4448	µg/L	0.18728	-0.4448	ppb	0.18728	42.11%
Co 228.616†	1286.7	13.238	µg/L	0.0750	13.238	ppb	0.0750	0.57%
Cr 267.716†	3211.6	30.318	µg/L	0.2775	30.318	ppb	0.2775	0.92%
Cu 324.752†	3261.2	24.327	µg/L	0.2656	24.327	ppb	0.2656	1.09%
Fe 238.204 Radial†	883029.4	75326	µg/L	765.6	75326	ppb	765.6	1.02%
K 766.490 Radial†	12331.1	4928.1	µg/L	4.57	4928.1	ppb	4.57	0.09%
Mg 279.077 IEC†	9360.4	5112.2	µg/L	27.51	5112.2	ppb	27.51	0.54%
Mn 257.610†	2294136.0	2998.3	µg/L	9.86	2998.3	ppb	9.86	0.33%
Mo 202.031†	107.8	6.7575	µg/L	0.26110	6.7575	ppb	0.26110	3.86%
Na 589.592 Radial†	5216.7	827.97	µg/L	8.862	827.97	ppb	8.862	1.07%

Ni 231.604†	2389.7	29.718	µg/L	0.5404	29.718	ppb	0.5404	1.82%
P 214.914†	4421.4	964.62	µg/L	10.418	964.62	ppb	10.418	1.08%
Pb 220.353†	844.7	54.498	µg/L	0.8331	54.498	ppb	0.8331	1.53%
S 181.975 Axial†	172.2	146.58	µg/L	5.746	146.58	ppb	5.746	3.92%
Sb 206.836†	-9.3	-2.5511	µg/L	1.86711	-2.5511	ppb	1.86711	73.19%
Se 196.026†	-54.9	4.58	µg/L	2.851	4.58	ppb	2.851	62.24%
SiO2†	210280.9	21713	µg/L	122.0	21713	ppb	122.0	0.56%
Si 251.611†	665342.7	10149	µg/L	50.4	10149	ppb	50.4	0.50%
Sn 189.927†	106.3	12.861	µg/L	0.4016	12.861	ppb	0.4016	3.12%
Sr 421.552†	21503.5	55.174	µg/L	0.2068	55.174	ppb	0.2068	0.37%
Ti 334.940†	1542622.9	1617.7	µg/L	6.45	1617.7	ppb	6.45	0.40%
Tl 190.801†	-227.0	-7.5561	µg/L	0.61482	-7.5561	ppb	0.61482	8.14%
U 409.014†	-5851.2	-348.97	µg/L	3.599	-348.97	ppb	3.599	1.03%
Concentration less than lower limit for U 409.014.								
V 292.402†	14731.0	63.510	µg/L	0.7515	63.510	ppb	0.7515	1.18%
Zn 213.857†	46704.8	262.57	µg/L	0.734	262.57	ppb	0.734	0.28%

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/13/2010 15:49:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114198.9	114198.9	99.8	%			15:50:13
1	Al 396.153Radial†	21668.7	21789.6	5115.3	µg/L	5115.3	ppb	15:50:13
1	Ca 317.933Radial†	62362.3	62008.9	5105.8	µg/L	5105.8	ppb	15:50:13
1	Fe 238.204 Radial†	60169.5	60144.9	5130.6	µg/L	5130.6	ppb	15:50:13
1	K 766.490 Radial†	14195.5	12809.7	5123.3	µg/L	5123.3	ppb	15:50:13
1	Mg 279.077 IEC†	9472.1	9330.4	5168.0	µg/L	5168.0	ppb	15:50:13
1	Na 589.592 Radial†	63931.5	63202.1	10080	µg/L	10080	ppb	15:50:11
1	Sr 421.552†	196962.7	197355.7	506.92	µg/L	506.92	ppb	15:50:11
1	Sc 361.383	1691811.1	1691811.1	99.973	%			15:50:26
1	Y 371.029	947452.4	947452.4	98.999	%			15:50:26
1	Ag 328.068†	126209.9	121140.8	506.51	µg/L	506.51	ppb	15:50:26
1	As 188.979†	1396.6	1410.4	495.72	µg/L	495.72	ppb	15:50:46
1	B 249.677†	37486.6	33384.7	493.81	µg/L	493.81	ppb	15:50:26
1	Ba 233.527†	110833.5	111009.1	502.92	µg/L	502.92	ppb	15:50:26
1	Be 313.107†	1759299.1	1760764.0	498.68	µg/L	498.68	ppb	15:50:26
1	Cd 226.502†	75902.2	75987.1	502.13	µg/L	502.13	ppb	15:50:26
1	Co 228.616†	38325.1	38562.5	505.80	µg/L	505.80	ppb	15:50:26
1	Cr 267.716†	57420.7	57106.4	501.40	µg/L	501.40	ppb	15:50:26
1	Cu 324.752†	124399.5	121191.7	503.30	µg/L	503.30	ppb	15:50:26
1	Mn 257.610†	387036.4	386925.0	505.54	µg/L	505.54	ppb	15:50:26
1	Mo 202.031†	14769.0	14794.6	502.68	µg/L	502.68	ppb	15:50:46
1	Ni 231.604†	40584.5	40669.3	505.76	µg/L	505.76	ppb	15:50:26
1	P 214.914†	10843.4	10865.6	2474.0	µg/L	2474.0	ppb	15:50:46
1	Pb 220.353†	8096.3	7981.2	501.68	µg/L	501.68	ppb	15:50:46
1	S 181.975 Axial†	1259.2	1157.6	989.17	µg/L	989.17	ppb	15:50:46
1	Sb 206.836†	3983.4	3906.9	501.95	µg/L	501.95	ppb	15:50:46
1	Se 196.026†	1300.9	1281.3	498	µg/L	498	ppb	15:50:46
1	SiO2†	53634.4	51959.9	5343.8	µg/L	5343.8	ppb	15:50:26
1	Si 251.611†	165839.5	165097.5	2508.5	µg/L	2508.5	ppb	15:50:26
1	Sn 189.927†	7148.8	7142.2	499.06	µg/L	499.06	ppb	15:50:46
1	Ti 334.940†	480930.0	480173.0	502.90	µg/L	502.90	ppb	15:50:26
1	Tl 190.801†	3434.9	3551.1	507.98	µg/L	507.98	ppb	15:50:46
1	U 409.014†	7491.1	7904.3	511.19	µg/L	511.19	ppb	15:50:26
1	V 292.402†	101334.0	100865.2	506.76	µg/L	506.76	ppb	15:50:26
1	Zn 213.857†	88041.6	87445.9	500.87	µg/L	500.87	ppb	15:50:26
2	Sc RADIAL	114000.1	114000.1	99.7	%			15:50:17
2	Al 396.153Radial†	21602.4	21760.9	5108.2	µg/L	5108.2	ppb	15:50:17
2	Ca 317.933Radial†	61953.6	61707.7	5081.0	µg/L	5081.0	ppb	15:50:17
2	Fe 238.204 Radial†	59601.2	59679.7	5090.9	µg/L	5090.9	ppb	15:50:17
2	K 766.490 Radial†	14059.0	12697.6	5078.4	µg/L	5078.4	ppb	15:50:17
2	Mg 279.077 IEC†	9394.9	9269.5	5134.5	µg/L	5134.5	ppb	15:50:17
2	Na 589.592 Radial†	63296.0	62676.1	9995.9	µg/L	9995.9	ppb	15:50:15
2	Sr 421.552†	194813.1	195542.8	502.27	µg/L	502.27	ppb	15:50:15
2	Sc 361.383	1668820.4	1668820.4	98.615	%			15:50:49
2	Y 371.029	935630.4	935630.4	97.764	%			15:50:49
2	Ag 328.068†	124594.7	121242.2	506.91	µg/L	506.91	ppb	15:50:49
2	As 188.979†	1386.4	1419.2	498.80	µg/L	498.80	ppb	15:51:09
2	B 249.677†	37079.2	33488.2	495.35	µg/L	495.35	ppb	15:50:49
2	Ba 233.527†	109489.2	111173.2	503.66	µg/L	503.66	ppb	15:50:49
2	Be 313.107†	1733975.4	1759328.1	498.27	µg/L	498.27	ppb	15:50:49
2	Cd 226.502†	74876.5	75993.0	502.18	µg/L	502.18	ppb	15:50:49
2	Co 228.616†	37806.7	38564.8	505.84	µg/L	505.84	ppb	15:50:49
2	Cr 267.716†	56774.2	57242.1	502.60	µg/L	502.60	ppb	15:50:49
2	Cu 324.752†	122458.1	120937.2	502.22	µg/L	502.22	ppb	15:50:49
2	Mn 257.610†	381294.2	386435.6	504.91	µg/L	504.91	ppb	15:50:49
2	Mo 202.031†	14767.1	14996.2	509.52	µg/L	509.52	ppb	15:51:09
2	Ni 231.604†	40035.1	40671.5	505.78	µg/L	505.78	ppb	15:50:49
2	P 214.914†	10891.1	11063.3	2519.2	µg/L	2519.2	ppb	15:51:09
2	Pb 220.353†	8097.6	8094.1	508.79	µg/L	508.79	ppb	15:51:09

2	S 181.975 Axial†	1266.0	1181.8	1009.9 µg/L	1009.9 ppb	15:51:09
2	Sb 206.836†	3998.0	3976.6	510.98 µg/L	510.98 ppb	15:51:09
2	Se 196.026†	1299.7	1298.0	504 µg/L	504 ppb	15:51:09
2	SiO2†	53035.3	52091.5	5357.0 µg/L	5357.0 ppb	15:50:49
2	Si 251.611†	163571.3	165082.7	2508.1 µg/L	2508.1 ppb	15:50:49
2	Sn 189.927†	7177.9	7270.3	507.97 µg/L	507.97 ppb	15:51:09
2	Ti 334.940†	474367.8	480146.1	502.89 µg/L	502.89 ppb	15:50:49
2	Tl 190.801†	3439.3	3602.8	515.27 µg/L	515.27 ppb	15:51:09
2	U 409.014†	7077.9	7588.6	492.01 µg/L	492.01 ppb	15:50:49
2	V 292.402†	100009.6	100918.6	507.10 µg/L	507.10 ppb	15:50:49
2	Zn 213.857†	86526.3	87122.6	499.01 µg/L	499.01 ppb	15:50:49
3	Sc RADIAL	113895.8	113895.8	99.6 %		15:50:21
3	Al 396.153Radial†	21539.7	21717.8	5098.5 µg/L	5098.5 ppb	15:50:21
3	Ca 317.933Radial†	62184.2	61996.2	5104.7 µg/L	5104.7 ppb	15:50:21
3	Fe 238.204 Radial†	59787.7	59921.8	5111.6 µg/L	5111.6 ppb	15:50:21
3	K 766.490 Radial†	14019.9	12671.2	5067.8 µg/L	5067.8 ppb	15:50:21
3	Mg 279.077 IEC†	9474.1	9357.7	5183.0 µg/L	5183.0 ppb	15:50:21
3	Na 589.592 Radial†	63709.3	63149.3	10071 µg/L	10071 ppb	15:50:19
3	Sr 421.552†	195444.3	196355.6	504.35 µg/L	504.35 ppb	15:50:19
3	Sc 361.383	1698609.9	1698609.9	100.37 %		15:51:12
3	Y 371.029	951230.2	951230.2	99.394 %		15:51:12
3	Ag 328.068†	126547.3	120971.6	505.78 µg/L	505.78 ppb	15:51:12
3	As 188.979†	1376.5	1384.7	486.81 µg/L	486.81 ppb	15:51:32
3	B 249.677†	37633.2	33380.7	493.76 µg/L	493.76 ppb	15:51:12
3	Ba 233.527†	111204.6	110935.1	502.58 µg/L	502.58 ppb	15:51:12
3	Be 313.107†	1764224.4	1758627.3	498.07 µg/L	498.07 ppb	15:51:12
3	Cd 226.502†	76044.9	75825.5	501.07 µg/L	501.07 ppb	15:51:12
3	Co 228.616†	38379.2	38462.9	504.50 µg/L	504.50 ppb	15:51:12
3	Cr 267.716†	57539.6	56995.0	500.43 µg/L	500.43 ppb	15:51:12
3	Cu 324.752†	124404.7	120698.7	501.25 µg/L	501.25 ppb	15:51:12
3	Mn 257.610†	386861.2	385200.9	503.29 µg/L	503.29 ppb	15:51:12
3	Mo 202.031†	14771.7	14738.1	500.76 µg/L	500.76 ppb	15:51:32
3	Ni 231.604†	40755.9	40677.6	505.86 µg/L	505.86 ppb	15:51:12
3	P 214.914†	10869.4	10848.1	2470.0 µg/L	2470.0 ppb	15:51:32
3	Pb 220.353†	8088.2	7940.8	499.14 µg/L	499.14 ppb	15:51:32
3	S 181.975 Axial†	1275.0	1168.3	998.25 µg/L	998.25 ppb	15:51:32
3	Sb 206.836†	3977.2	3884.8	499.11 µg/L	499.11 ppb	15:51:32
3	Se 196.026†	1287.9	1263.1	491 µg/L	491 ppb	15:51:32
3	SiO2†	54075.6	52184.7	5367.0 µg/L	5367.0 ppb	15:51:12
3	Si 251.611†	166698.4	165289.3	2511.4 µg/L	2511.4 ppb	15:51:12
3	Sn 189.927†	7174.2	7139.0	498.82 µg/L	498.82 ppb	15:51:32
3	Ti 334.940†	481718.8	479033.4	501.71 µg/L	501.71 ppb	15:51:12
3	Tl 190.801†	3435.3	3537.7	506.08 µg/L	506.08 ppb	15:51:32
3	U 409.014†	7395.7	7779.4	503.48 µg/L	503.48 ppb	15:51:12
3	V 292.402†	101401.5	100526.7	505.06 µg/L	505.06 ppb	15:51:12
3	Zn 213.857†	88323.3	87374.1	500.46 µg/L	500.46 ppb	15:51:12

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1686413.8	99.654	%	0.9225				0.93%
Sc RADIAL	114031.6	99.7	%	0.13				0.13%
Y 371.029	944771.0	98.719	%	0.8504				0.86%
Ag 328.068†	121118.2	506.40	µg/L	0.571	506.40	ppb	0.571	0.11%
QC value within limits for Ag 328.068 Recovery = 101.28%								
Al 396.153Radial†	21756.1	5107.3	µg/L	8.46	5107.3	ppb	8.46	0.17%
QC value within limits for Al 396.153Radial Recovery = 102.15%								
As 188.979†	1404.8	493.78	µg/L	6.229	493.78	ppb	6.229	1.26%
QC value within limits for As 188.979 Recovery = 98.76%								
B 249.677†	33417.9	494.31	µg/L	0.903	494.31	ppb	0.903	0.18%
QC value within limits for B 249.677 Recovery = 98.86%								
Ba 233.527†	111039.2	503.05	µg/L	0.554	503.05	ppb	0.554	0.11%
QC value within limits for Ba 233.527 Recovery = 100.61%								
Be 313.107†	1759573.1	498.34	µg/L	0.310	498.34	ppb	0.310	0.06%
QC value within limits for Be 313.107 Recovery = 99.67%								
Ca 317.933Radial†	61904.3	5097.2	µg/L	14.03	5097.2	ppb	14.03	0.28%
QC value within limits for Ca 317.933Radial Recovery = 101.94%								
Cd 226.502†	75935.2	501.79	µg/L	0.629	501.79	ppb	0.629	0.13%
QC value within limits for Cd 226.502 Recovery = 100.36%								
Co 228.616†	38530.1	505.38	µg/L	0.764	505.38	ppb	0.764	0.15%

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   QC value within limits for Co 228.616  Recovery = 101.08%
Cr 267.716†            57114.5      501.48 µg/L         1.092      501.48 ppb          1.092   0.22%
   QC value within limits for Cr 267.716  Recovery = 100.30%
Cu 324.752†           120942.5      502.26 µg/L         1.025      502.26 ppb          1.025   0.20%
   QC value within limits for Cu 324.752  Recovery = 100.45%
Fe 238.204 Radial†     59915.5      5111.0 µg/L         19.85      5111.0 ppb          19.85   0.39%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.22%
K 766.490 Radial†      12726.2      5089.8 µg/L         29.44      5089.8 ppb          29.44   0.58%
   QC value within limits for K 766.490 Radial  Recovery = 101.80%
Mg 279.077 IEC†         9319.2      5161.8 µg/L         24.85      5161.8 ppb          24.85   0.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.24%
Mn 257.610†           386187.2      504.58 µg/L         1.162      504.58 ppb          1.162   0.23%
   QC value within limits for Mn 257.610  Recovery = 100.92%
Mo 202.031†            14843.0      504.32 µg/L         4.605      504.32 ppb          4.605   0.91%
   QC value within limits for Mo 202.031  Recovery = 100.86%
Na 589.592 Radial†     63009.2       10049 µg/L          46.2       10049 ppb           46.2   0.46%
   QC value within limits for Na 589.592 Radial  Recovery = 100.49%
Ni 231.604†            40672.8      505.80 µg/L         0.054      505.80 ppb          0.054   0.01%
   QC value within limits for Ni 231.604  Recovery = 101.16%
P 214.914†             10925.7      2487.7 µg/L         27.33      2487.7 ppb          27.33   1.10%
   QC value within limits for P 214.914  Recovery = 99.51%
Pb 220.353†             8005.4      503.20 µg/L         4.999      503.20 ppb          4.999   0.99%
   QC value within limits for Pb 220.353  Recovery = 100.64%
S 181.975 Axial†        1169.2      999.09 µg/L        10.370      999.09 ppb         10.370   1.04%
   QC value within limits for S 181.975 Axial  Recovery = 99.91%
Sb 206.836†             3922.8      504.01 µg/L         6.200      504.01 ppb          6.200   1.23%
   QC value within limits for Sb 206.836  Recovery = 100.80%
Se 196.026†             1280.8         498 µg/L           6.7         498 ppb            6.7   1.36%
   QC value within limits for Se 196.026  Recovery = 99.50%
SiO2†                  52078.7      5355.9 µg/L         11.68      5355.9 ppb          11.68   0.22%
   QC value within limits for SiO2  Recovery = 100.16%
Si 251.611†           165156.5      2509.4 µg/L          1.82      2509.4 ppb           1.82   0.07%
   QC value within limits for Si 251.611  Recovery = 100.37%
Sn 189.927†             7183.9      501.95 µg/L         5.217      501.95 ppb          5.217   1.04%
   QC value within limits for Sn 189.927  Recovery = 100.39%
Sr 421.552†           196418.0      504.51 µg/L         2.333      504.51 ppb          2.333   0.46%
   QC value within limits for Sr 421.552  Recovery = 100.90%
Ti 334.940†           479784.2      502.50 µg/L         0.683      502.50 ppb          0.683   0.14%
   QC value within limits for Ti 334.940  Recovery = 100.50%
Tl 190.801†             3563.9      509.78 µg/L         4.854      509.78 ppb          4.854   0.95%
   QC value within limits for Tl 190.801  Recovery = 101.96%
U 409.014†              7757.4      502.23 µg/L         9.653      502.23 ppb          9.653   1.92%
   QC value within limits for U 409.014  Recovery = 100.45%
V 292.402†            100770.2      506.31 µg/L         1.093      506.31 ppb          1.093   0.22%
   QC value within limits for V 292.402  Recovery = 101.26%
Zn 213.857†            87314.2      500.11 µg/L         0.978      500.11 ppb          0.978   0.20%
   QC value within limits for Zn 213.857  Recovery = 100.02%
All analyte(s) passed QC.
```

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/13/2010 15:51:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	112743.2	112743.2	98.6	%			15:52:09
1	Al 396.153Radial†	-75.9	8.0	1.8688	µg/L	1.8688	ppb	15:52:29
1	Ca 317.933Radial†	483.0	33.3	2.7390	µg/L	2.7390	ppb	15:52:29
1	Fe 238.204 Radial†	190.0	68.5	5.8393	µg/L	5.8393	ppb	15:52:29
1	K 766.490 Radial†	1403.3	14.5	5.8111	µg/L	5.8111	ppb	15:52:09
1	Mg 279.077 IEC†	162.9	8.0	4.4175	µg/L	4.4175	ppb	15:52:29
1	Na 589.592 Radial†	985.9	165.0	26.315	µg/L	26.315	ppb	15:52:09
1	Sr 421.552†	-32.4	33.9	0.0870	µg/L	0.0870	ppb	15:52:09
1	Sc 361.383	1680509.1	1680509.1	99.305	%			15:53:17
1	Y 371.029	952089.9	952089.9	99.484	%			15:53:17
1	Ag 328.068†	4812.8	-256.5	-1.0336	µg/L	-1.0336	ppb	15:53:19
1	As 188.979†	-7.7	5.6	1.9569	µg/L	1.9569	ppb	15:53:39
1	B 249.677†	4126.6	43.5	0.6472	µg/L	0.6472	ppb	15:53:19
1	Ba 233.527†	-136.8	8.1	0.0365	µg/L	0.0365	ppb	15:53:39
1	Be 313.107†	-592.8	395.3	0.1193	µg/L	0.1193	ppb	15:53:19
1	Cd 226.502†	-58.9	5.3	0.0343	µg/L	0.0343	ppb	15:53:39
1	Co 228.616†	-252.3	-27.0	-0.3545	µg/L	-0.3545	ppb	15:53:39
1	Cr 267.716†	366.5	39.4	0.3272	µg/L	0.3272	ppb	15:53:39
1	Cu 324.752†	2931.9	-288.9	-1.1749	µg/L	-1.1749	ppb	15:53:19
1	Mn 257.610†	289.8	76.4	0.0997	µg/L	0.0997	ppb	15:53:39
1	Mo 202.031†	-9.0	12.5	0.4259	µg/L	0.4259	ppb	15:53:39
1	Ni 231.604†	-66.3	7.1	0.0884	µg/L	0.0884	ppb	15:53:39
1	P 214.914†	-4.1	15.1	3.4565	µg/L	3.4565	ppb	15:53:39
1	Pb 220.353†	122.3	5.9	0.3533	µg/L	0.3533	ppb	15:53:39
1	S 181.975 Axial†	110.4	9.2	7.8567	µg/L	7.8567	ppb	15:53:39
1	Sb 206.836†	92.9	16.0	2.0569	µg/L	2.0569	ppb	15:53:39
1	Se 196.026†	2.3	-17.7	-6.82	µg/L	-6.82	ppb	15:53:39
1	SiO2†	1640.9	-36.5	-3.7876	µg/L	-3.7876	ppb	15:53:19
1	Si 251.611†	770.5	-10.6	-0.1697	µg/L	-0.1697	ppb	15:53:19
1	Sn 189.927†	12.4	4.1	0.2849	µg/L	0.2849	ppb	15:53:39
1	Ti 334.940†	753.2	-127.6	-0.1442	µg/L	-0.1442	ppb	15:53:19
1	Tl 190.801†	-126.1	-11.8	-1.6586	µg/L	-1.6586	ppb	15:53:39
1	U 409.014†	-9.6	401.6	24.400	µg/L	24.400	ppb	15:53:19
1	V 292.402†	420.7	-72.3	-0.3368	µg/L	-0.3368	ppb	15:53:19
1	Zn 213.857†	633.1	18.2	0.1047	µg/L	0.1047	ppb	15:53:39
2	Sc RADIAL	113250.6	113250.6	99.0	%			15:52:31
2	Al 396.153Radial†	-90.8	-6.7	-1.6008	µg/L	-1.6008	ppb	15:52:51
2	Ca 317.933Radial†	468.3	16.2	1.3361	µg/L	1.3361	ppb	15:52:51
2	Fe 238.204 Radial†	134.7	11.8	1.0037	µg/L	1.0037	ppb	15:52:51
2	K 766.490 Radial†	1371.0	-24.5	-9.7867	µg/L	-9.7867	ppb	15:52:31
2	Mg 279.077 IEC†	160.6	4.9	2.7058	µg/L	2.7058	ppb	15:52:51
2	Na 589.592 Radial†	790.9	-36.5	-5.8144	µg/L	-5.8144	ppb	15:52:31
2	Sr 421.552†	-146.4	-81.2	-0.2085	µg/L	-0.2085	ppb	15:52:31
2	Sc 361.383	1684012.1	1684012.1	99.512	%			15:53:41
2	Y 371.029	953509.5	953509.5	99.632	%			15:53:41
2	Ag 328.068†	4964.5	-114.2	-0.4598	µg/L	-0.4598	ppb	15:53:44
2	As 188.979†	-4.5	8.9	3.0905	µg/L	3.0905	ppb	15:54:04
2	B 249.677†	3967.8	-124.7	-1.8526	µg/L	-1.8526	ppb	15:53:44
2	Ba 233.527†	-157.1	-12.0	-0.0542	µg/L	-0.0542	ppb	15:54:04
2	Be 313.107†	-715.0	273.8	0.0811	µg/L	0.0811	ppb	15:53:44
2	Cd 226.502†	-77.6	-13.4	-0.0886	µg/L	-0.0886	ppb	15:54:04
2	Co 228.616†	-196.0	30.1	0.3940	µg/L	0.3940	ppb	15:54:04
2	Cr 267.716†	326.4	-1.6	-0.0238	µg/L	-0.0238	ppb	15:54:04
2	Cu 324.752†	2934.5	-292.4	-1.2004	µg/L	-1.2004	ppb	15:53:44
2	Mn 257.610†	277.6	63.6	0.0830	µg/L	0.0830	ppb	15:54:04
2	Mo 202.031†	-15.3	6.3	0.2123	µg/L	0.2123	ppb	15:54:04
2	Ni 231.604†	-93.4	-19.9	-0.2475	µg/L	-0.2475	ppb	15:54:04
2	P 214.914†	-8.3	10.9	2.5060	µg/L	2.5060	ppb	15:54:04
2	Pb 220.353†	114.1	-2.5	-0.1651	µg/L	-0.1651	ppb	15:54:04

2	S 181.975 Axial†	109.6	8.3	7.0278 µg/L	7.0278 ppb		15:54:04
2	Sb 206.836†	88.4	11.3	1.4476 µg/L	1.4476 ppb		15:54:04
2	Se 196.026†	23.2	3.3	1.29 µg/L	1.29 ppb		15:54:04
2	SiO2†	1756.0	75.7	7.8027 µg/L	7.8027 ppb		15:53:44
2	Si 251.611†	791.6	8.9	0.1299 µg/L	0.1299 ppb		15:53:44
2	Sn 189.927†	16.5	8.2	0.5709 µg/L	0.5709 ppb		15:54:04
2	Ti 334.940†	754.0	-128.4	-0.1396 µg/L	-0.1396 ppb		15:53:44
2	Tl 190.801†	-119.3	-4.7	-0.6651 µg/L	-0.6651 ppb		15:54:04
2	U 409.014†	-217.4	192.8	11.710 µg/L	11.710 ppb		15:53:44
2	V 292.402†	447.2	-46.7	-0.2213 µg/L	-0.2213 ppb		15:53:44
2	Zn 213.857†	640.6	24.4	0.1431 µg/L	0.1431 ppb		15:54:04
3	Sc RADIAL	114599.6	114599.6	100 %			15:52:53
3	Al 396.153Radial†	-71.4	13.7	3.2003 µg/L	3.2003 ppb		15:53:13
3	Ca 317.933Radial†	464.5	6.9	0.5688 µg/L	0.5688 ppb		15:53:13
3	Fe 238.204 Radial†	134.5	10.0	0.8519 µg/L	0.8519 ppb		15:53:13
3	K 766.490 Radial†	1419.1	7.2	2.8938 µg/L	2.8938 ppb		15:52:53
3	Mg 279.077 IEC†	163.5	5.9	3.2605 µg/L	3.2605 ppb		15:53:13
3	Na 589.592 Radial†	817.2	-19.6	-3.1289 µg/L	-3.1289 ppb		15:52:53
3	Sr 421.552†	-19.5	47.2	0.1213 µg/L	0.1213 ppb		15:52:53
3	Sc 361.383	1692860.9	1692860.9	100.04 %			15:54:06
3	Y 371.029	958440.2	958440.2	100.15 %			15:54:06
3	Ag 328.068†	4930.1	-174.6	-0.7260 µg/L	-0.7260 ppb		15:54:08
3	As 188.979†	-6.7	6.7	2.3325 µg/L	2.3325 ppb		15:54:28
3	B 249.677†	4241.2	127.7	1.8954 µg/L	1.8954 ppb		15:54:08
3	Ba 233.527†	-158.5	-12.6	-0.0567 µg/L	-0.0567 ppb		15:54:28
3	Be 313.107†	-731.8	260.8	0.0728 µg/L	0.0728 ppb		15:54:08
3	Cd 226.502†	-60.1	4.5	0.0298 µg/L	0.0298 ppb		15:54:28
3	Co 228.616†	-214.0	13.1	0.1723 µg/L	0.1723 ppb		15:54:28
3	Cr 267.716†	364.5	34.7	0.3074 µg/L	0.3074 ppb		15:54:28
3	Cu 324.752†	3056.7	-185.6	-0.7708 µg/L	-0.7708 ppb		15:54:08
3	Mn 257.610†	293.0	77.6	0.1013 µg/L	0.1013 ppb		15:54:28
3	Mo 202.031†	-7.8	13.8	0.4677 µg/L	0.4677 ppb		15:54:28
3	Ni 231.604†	-55.6	18.3	0.2274 µg/L	0.2274 ppb		15:54:28
3	P 214.914†	7.1	26.3	6.0261 µg/L	6.0261 ppb		15:54:28
3	Pb 220.353†	130.2	12.9	0.8118 µg/L	0.8118 ppb		15:54:28
3	S 181.975 Axial†	100.5	-1.4	-1.2192 µg/L	-1.2192 ppb		15:54:28
3	Sb 206.836†	85.9	8.3	1.0700 µg/L	1.0700 ppb		15:54:28
3	Se 196.026†	24.4	4.4	1.69 µg/L	1.69 ppb		15:54:28
3	SiO2†	1735.5	46.0	4.7311 µg/L	4.7311 ppb		15:54:08
3	Si 251.611†	883.6	96.8	1.4659 µg/L	1.4659 ppb		15:54:08
3	Sn 189.927†	18.4	10.0	0.6950 µg/L	0.6950 ppb		15:54:28
3	Ti 334.940†	694.5	-191.8	-0.2002 µg/L	-0.2002 ppb		15:54:08
3	Tl 190.801†	-109.3	6.0	0.8435 µg/L	0.8435 ppb		15:54:28
3	U 409.014†	-465.7	-54.3	-3.3072 µg/L	-3.3072 ppb		15:54:08
3	V 292.402†	480.9	-15.3	-0.0716 µg/L	-0.0716 ppb		15:54:08
3	Zn 213.857†	614.2	-5.3	-0.0317 µg/L	-0.0317 ppb		15:54:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1685794.0	99.618	%	0.3762				0.38%
Sc RADIAL	113531.2	99.3	%	0.84				0.85%
Y 371.029	954679.9	99.754	%	0.3483				0.35%
Ag 328.068†	-181.8	-0.7398	µg/L	0.28718	-0.7398	ppb	0.28718	38.82%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.0	1.1561	µg/L	2.47862	1.1561	ppb	2.47862	214.39%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.1	2.4600	µg/L	0.57742	2.4600	ppb	0.57742	23.47%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	15.5	0.2300	µg/L	1.90854	0.2300	ppb	1.90854	829.76%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.5	-0.0248	µg/L	0.05310	-0.0248	ppb	0.05310	213.81%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	310.0	0.0911	µg/L	0.02480	0.0911	ppb	0.02480	27.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	18.8	1.5480	µg/L	1.10049	1.5480	ppb	1.10049	71.09%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-1.2	-0.0081	µg/L	0.06970	-0.0081	ppb	0.06970	857.00%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.4	0.0706	µg/L	0.38449	0.0706	ppb	0.38449	544.69%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              24.2      0.2036 µg/L       0.19715      0.2036 ppb        0.19715  96.83%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -255.6     -1.0487 µg/L       0.24099     -1.0487 ppb        0.24099  22.98%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       30.1      2.5650 µg/L       2.83671      2.5650 ppb        2.83671 110.59%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -0.9     -0.3606 µg/L       8.29253     -0.3606 ppb        8.29253 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           6.2      3.4613 µg/L       0.87335      3.4613 ppb        0.87335  25.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              72.5      0.0947 µg/L       0.01011      0.0947 ppb        0.01011  10.68%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.9      0.3686 µg/L       0.13698      0.3686 ppb        0.13698  37.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       36.3      5.7907 µg/L      17.82560      5.7907 ppb       17.82560 307.83%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               1.8      0.0228 µg/L       0.24419      0.0228 ppb        0.24419 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               17.4      3.9962 µg/L       1.82106      3.9962 ppb        1.82106  45.57%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               5.4      0.3333 µg/L       0.48877      0.3333 ppb        0.48877 146.63%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          5.3      4.5551 µg/L       5.01786      4.5551 ppb        5.01786 110.16%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              11.9      1.5248 µg/L       0.49800      1.5248 ppb        0.49800  32.66%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.3       -1.28 µg/L         4.799       -1.28 ppb          4.799 374.76%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    28.4      2.9154 µg/L       6.00468      2.9154 ppb        6.00468 205.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              31.7      0.4754 µg/L       0.87084      0.4754 ppb        0.87084 183.19%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.4      0.5170 µg/L       0.21032      0.5170 ppb        0.21032  40.68%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -0.0     -0.0001 µg/L       0.18133     -0.0001 ppb        0.18133 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -149.3     -0.1614 µg/L       0.03371     -0.1614 ppb        0.03371  20.89%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -3.5     -0.4934 µg/L       1.25982     -0.4934 ppb        1.25982 255.33%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              180.0      10.934 µg/L       13.8701      10.934 ppb        13.8701 126.85%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -44.8     -0.2099 µg/L       0.13298     -0.2099 ppb        0.13298  63.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              12.4      0.0720 µg/L       0.09184      0.0720 ppb        0.09184 127.47%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, May 17, 2010 11:48:24
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.1013
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1117.8	1117.844	44.525	4.0
	Mg	24.0	20310.2	20310.229	233.625	1.2
	Co	58.9	57428.2	57428.211	680.981	1.2
	Rh	102.9	100655.3	100655.253	1862.310	1.9
	In	114.9	111401.8	111401.799	2109.154	1.9
	Pb	208.0	41823.5	41823.534	183.549	0.4
⌈>	Ba	137.9	103306.7	103306.711	1183.412	1.1
⌊	Ba++	69.0	1819.1	0.018	0.000	1.8
⌈>	Ce	139.9	123182.8	123182.820	601.913	0.5
⌊	CeO	155.9	1934.6	0.016	0.000	2.1
	Bkgd	220.0	10.1	10.100	2.903	28.7

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.30	Lens Voltage
1000.00	ICP RF Power
-1800.00	Analog Stage Voltage
1200.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	5.5	1151.7
Co	59	17	6.8	44063.2
In	115	17	8.0	94714.3

ICPMS #4 TUNING REPORT

File Name: 100517.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	605	2080	0.621
Be	9.0	9.0	2043	2080	0.604
Mg	24.0	24.0	5669	2100	0.597
Mg	25.0	25.0	5954	2100	0.632
Mg	26.0	26.0	6144	2120	0.619
Co	58.9	58.9	14163	2150	0.651
Rh	102.9	102.9	24868	2240	0.658
In	114.9	114.9	27760	2275	0.635
Ce	139.9	139.9	33842	2310	0.679
Pb	206.0	206.0	49931	2485	0.686
Pb	207.0	207.0	50101	2400	0.648
Pb	208.0	208.0	50448	2510	0.683
U	238.1	238.0	57684	2520	0.643

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, May 17, 2010 11:58:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		8	
>	Sc	45		ug/L		668864	
	Ni	60		ug/L		108	
>	Ge	74		ug/L		280595	
	As	75		ug/L		379	
	Se	77		ug/L		5709	
	Se	82		ug/L		18	
	Kr	83		ug/L		67	
>	Lu	175		ug/L		122735	
	Tl	205		ug/L		174	
	U	238		ug/L		340	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Simple Linear	
Ni	60	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, May 17, 2010 12:02:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	2.600	1477	0.002
>	Sc	45		ug/L		684394	684393.607
	Ni	60	10.000	ug/L	1.356	11535	0.017
>	Ge	74		ug/L		288843	288843.387
	As	75	10.000	ug/L	4.386	8859	0.029
	Se	77		ug/L		7519	0.006
	Se	82	10.000	ug/L	4.591	751	0.003
	Kr	83		ug/L		67	-0.000
>	Lu	175		ug/L		124497	124496.719
	Tl	205	10.000	ug/L	1.033	22076	0.176
	U	238	10.000	ug/L	0.975	95159	0.762

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, May 17, 2010 12:06:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.881**	**ug/L**	2.203	13483	0.019
>	Sc	45		**ug/L**		703435	703435.144
	Ni	60	**99.997**	**ug/L**	1.011	117244	0.167
>	Ge	74		**ug/L**		296006	296006.239
	As	75	**100.006**	**ug/L**	0.963	87757	0.295
	Se	77		**ug/L**		12723	0.023
	Se	82	**100.007**	**ug/L**	1.218	7590	0.026
	Kr	83		**ug/L**		81	0.000
>	Lu	175		**ug/L**		128574	128574.052
	Tl	205	**99.986**	**ug/L**	2.892	223101	1.734
	U	238	**99.964**	**ug/L**	1.408	944901	7.347

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, May 17, 2010 12:10:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.257**	**ug/L**	1.011	6970	0.010
>	Sc	45		**ug/L**		722183	722183.130
	Ni	60	**51.131**	**ug/L**	1.125	61615	0.085
>	Ge	74		**ug/L**		295888	295887.827
	As	75	**51.356**	**ug/L**	1.444	45240	0.152
	Se	77		**ug/L**		10243	0.014
	Se	82	**51.285**	**ug/L**	2.078	3900	0.013
	Kr	83		**ug/L**		77	0.000
>	Lu	175		**ug/L**		126974	126974.327
	Tl	205	**50.232**	**ug/L**	2.363	110768	0.871
	U	238	**53.898**	**ug/L**	2.176	503173	3.962

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	100.513				
>	Sc	45		108.0			
	Ni	60	102.261				
>	Ge	74		105.5			
	As	75	102.712				
	Se	77					
	Se	82	102.570				
	Kr	83					
>	Lu	175		103.5			
	Tl	205	100.465				
	U	238	107.796				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, May 17, 2010 12:14:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.011**	**ug/L**	74.699	10	0.000
>	Sc	45		**ug/L**		711887	711886.573
	Ni	60	**0.004**	**ug/L**	204.973	120	0.000
>	Ge	74		**ug/L**		296627	296626.984
	As	75	**0.033**	**ug/L**	1779.047	427	0.000
	Se	77		**ug/L**		7277	0.004
	Se	82	**0.119**	**ug/L**	130.901	28	0.000
	Kr	83		**ug/L**		72	0.000
>	Lu	175		**ug/L**		124741	124741.228
	Tl	205	**0.201**	**ug/L**	3.986	611	0.003
	U	238	**-0.017**	**ug/L**	1.924	193	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		106.4			
	Ni	60					
>	Ge	74		105.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, May 17, 2010 12:18:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.653**	ug/L	0.547	98	0.000
|>	Sc	45		ug/L		717000	717000.088
⌊	Ni	60	**2.396**	ug/L	1.520	2977	0.004
⌈>	Ge	74		ug/L		298862	298862.120
|	As	75	**6.419**	ug/L	5.752	6061	0.019
|	Se	77		ug/L		8236	0.007
|	Se	82	**5.943**	ug/L	11.664	473	0.002
⌊	Kr	83		ug/L		75	0.000
⌈>	Lu	175		ug/L		125510	125510.287
|	Tl	205	**1.247**	ug/L	2.467	2893	0.022
⌊	U	238	**0.311**	ug/L	0.408	3218	0.023

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	130.536				
|>	Sc	45		107.2			
⌊	Ni	60	119.824				
⌈>	Ge	74		106.5			
|	As	75	128.380				
|	Se	77					
|	Se	82	118.851				
⌊	Kr	83					
⌈>	Lu	175		102.3			
|	Tl	205	124.721				
⌊	U	238	155.578				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Be	9	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, May 17, 2010 12:22:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.080**	**ug/L**	49.467	19	0.000
>	Sc	45		**ug/L**		697106	697106.019
	Ni	60	**2.724**	**ug/L**	4.387	3274	0.005
>	Ge	74		**ug/L**		286731	286731.102
	As	75	**0.243**	**ug/L**	136.723	595	0.001
	Se	77		**ug/L**		8982	0.011
	Se	82	**-0.603**	**ug/L**	71.581	-26	-0.000
	Kr	83		**ug/L**		164	0.000
>	Lu	175		**ug/L**		126302	126302.171
	Tl	205	**0.071**	**ug/L**	12.522	334	0.001
	U	238	**-0.029**	**ug/L**	8.519	83	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		104.2			
	Ni	60	82.283				
>	Ge	74		102.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, May 17, 2010 12:26:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**22.745**	**ug/L**	2.167	2960	0.004
|>	Sc	45		**ug/L**		676646	676646.240
⌊	Ni	60	**21.183**	**ug/L**	2.019	23978	0.035
⌈>	Ge	74		**ug/L**		278447	278446.868
|	As	75	**20.418**	**ug/L**	0.397	17153	0.060
|	Se	77		**ug/L**		8960	0.012
|	Se	82	**21.201**	**ug/L**	3.099	1528	0.005
⌊	Kr	83		**ug/L**		142	0.000
⌈>	Lu	175		**ug/L**		121299	121299.401
|	Tl	205	**17.316**	**ug/L**	0.622	36604	0.300
⌊	U	238	**19.870**	**ug/L**	1.337	177488	1.460

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	113.724				
|>	Sc	45		101.2			
⌊	Ni	60	90.873				
⌈>	Ge	74		99.2			
|	As	75	102.091				
|	Se	77					
|	Se	82	106.003				
⌊	Kr	83					
⌈>	Lu	175		98.8			
|	Tl	205	86.581				
⌊	U	238	99.351				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 12:30:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**56.941**	**ug/L**	1.272	7629	0.011
>	Sc	45		**ug/L**		697769	697769.371
	Ni	60	**50.911**	**ug/L**	0.487	59271	0.085
>	Ge	74		**ug/L**		292247	292246.863
	As	75	**50.601**	**ug/L**	1.228	44031	0.149
	Se	77		**ug/L**		9826	0.013
	Se	82	**50.778**	**ug/L**	1.473	3814	0.013
	Kr	83		**ug/L**		80	0.000
>	Lu	175		**ug/L**		123965	123965.442
	Tl	205	**48.454**	**ug/L**	1.730	104364	0.840
	U	238	**51.738**	**ug/L**	1.201	471742	3.803

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	113.882				
>	Sc	45		104.3			
	Ni	60	101.822				
>	Ge	74		104.2			
	As	75	101.201				
	Se	77					
	Se	82	101.555				
	Kr	83					
>	Lu	175		101.0			
	Tl	205	96.907				
	U	238	103.475				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 12:35:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.014**	**ug/L**	240.980	10	0.000
>	Sc	45		**ug/L**		682770	682769.605
	Ni	60	**0.001**	**ug/L**	1455.646	112	0.000
>	Ge	74		**ug/L**		289012	289011.662
	As	75	**0.704**	**ug/L**	60.380	994	0.002
	Se	77		**ug/L**		6540	0.002
	Se	82	**0.011**	**ug/L**	2368.680	19	0.000
	Kr	83		**ug/L**		83	0.000
>	Lu	175		**ug/L**		119235	119234.535
	Tl	205	**0.198**	**ug/L**	6.184	578	0.003
	U	238	**-0.008**	**ug/L**	207.969	259	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		102.1			
	Ni	60					
>	Ge	74		103.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Monday, May 17, 2010 12:39:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 10.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1159.827**	**ug/L**	0.650	143199	0.222
>	Sc	45		**ug/L**		643663	643662.726
	Ni	60	**891.573**	**ug/L**	0.601	955774	1.485
>	Ge	74		**ug/L**		269860	269860.164
	As	75	**941.281**	**ug/L**	2.228	749726	2.778
	Se	77		**ug/L**		31926	0.098
	Se	82	**478.383**	**ug/L**	3.246	33023	0.122
	Kr	83		**ug/L**		96	0.000
>	Lu	175		**ug/L**		120018	120017.608
	Tl	205	**439.441**	**ug/L**	2.322	914839	7.622
	U	238	**4845.832**	**ug/L**	0.521	42746267	356.173

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	115.983				
>	Sc	45		96.2			
	Ni	60	89.157				
>	Ge	74		96.2			
	As	75	94.128				
	Se	77					
	Se	82	95.677				
	Kr	83					
>	Lu	175		97.8			
	Tl	205	87.888				
	U	238	96.917				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Be	9	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Tl	205	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Monday, May 17, 2010 12:43:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 11.012

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**61.381**	**ug/L**	1.594	7971	0.012
>	Sc	45		**ug/L**		676460	676459.733
	Ni	60	**51.403**	**ug/L**	1.331	58007	0.086
>	Ge	74		**ug/L**		288853	288853.124
	As	75	**50.028**	**ug/L**	2.957	43023	0.148
	Se	77		**ug/L**		9441	0.012
	Se	82	**50.477**	**ug/L**	1.874	3748	0.013
	Kr	83		**ug/L**		78	0.000
>	Lu	175		**ug/L**		120978	120977.671
	Tl	205	**50.451**	**ug/L**	1.857	106026	0.875
	U	238	**53.063**	**ug/L**	1.022	472135	3.900

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	122.762				
>	Sc	45		101.1			
	Ni	60	102.805				
>	Ge	74		102.9			
	As	75	100.057				
	Se	77					
	Se	82	100.954				
	Kr	83					
>	Lu	175		98.6			
	Tl	205	100.902				
	U	238	106.126				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Monday, May 17, 2010 12:47:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 12.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.056**	**ug/L**	76.224	15	0.000
>	Sc	45		**ug/L**		674221	674220.677
	Ni	60	**0.026**	**ug/L**	84.050	138	0.000
>	Ge	74		**ug/L**		290459	290458.783
	As	75	**0.118**	**ug/L**	519.993	494	0.000
	Se	77		**ug/L**		6580	0.002
	Se	82	**0.369**	**ug/L**	38.724	46	0.000
	Kr	83		**ug/L**		72	0.000
>	Lu	175		**ug/L**		118996	118995.843
	Tl	205	**0.400**	**ug/L**	2.105	994	0.007
	U	238	**0.076**	**ug/L**	7.348	990	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		100.8			
	Ni	60					
>	Ge	74		103.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202068103
Sample Date/Time: Monday, May 17, 2010 12:51:35
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\1202068103.014

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.011**	**ug/L**	62.891	10	0.000
>	Sc	45		**ug/L**		705960	705959.802
	Ni	60	**-0.021**	**ug/L**	49.379	90	-0.000
>	Ge	74		**ug/L**		294072	294071.836
	As	75	**-0.032**	**ug/L**	427.170	369	-0.000
	Se	77		**ug/L**		5014	-0.003
	Se	82	**-0.065**	**ug/L**	93.662	14	-0.000
	Kr	83		**ug/L**		74	0.000
>	Lu	175		**ug/L**		124810	124809.771
	Tl	205	**0.207**	**ug/L**	7.497	624	0.004
	U	238	**0.011**	**ug/L**	65.794	444	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		105.5			
	Ni	60					
>	Ge	74		104.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202068108
Sample Date/Time: Monday, May 17, 2010 12:55:42
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 964014|40|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\1202068108.015

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**25.603**	**ug/L**	2.549	3292	0.005
>	Sc	45		**ug/L**		668877	668876.686
	Ni	60	**38.733**	**ug/L**	3.038	43240	0.065
>	Ge	74		**ug/L**		290440	290439.608
	As	75	**26.808**	**ug/L**	3.682	23367	0.079
	Se	77		**ug/L**		10644	0.016
	Se	82	**74.254**	**ug/L**	3.056	5534	0.019
	Kr	83		**ug/L**		70	-0.000
>	Lu	175		**ug/L**		120483	120482.817
	Tl	205	**30.915**	**ug/L**	1.310	64776	0.536
	U	238	**0.472**	**ug/L**	3.546	4514	0.035

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		100.0			
	Ni	60					
>	Ge	74		103.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202068104
Sample Date/Time: Monday, May 17, 2010 13:03:57
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\1202068104.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**1.090**	ug/L	3.924	149	0.000
|>	Sc	45		ug/L		672563	672562.921
⌊	Ni	60	**5.182**	ug/L	1.187	5913	0.009
⌈>	Ge	74		ug/L		274727	274727.386
|	As	75	**1.156**	ug/L	40.744	1309	0.003
|	Se	77		ug/L		3636	-0.007
|	Se	82	**0.406**	ug/L	97.754	46	0.000
⌊	Kr	83		ug/L		130	0.000
⌈>	Lu	175		ug/L		130699	130698.526
|	Tl	205	**0.228**	ug/L	5.108	703	0.004
⌊	U	238	**3.259**	ug/L	3.557	31664	0.240

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		100.6			
⌊	Ni	60					
⌈>	Ge	74		97.9			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		106.5			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202068106
Sample Date/Time: Monday, May 17, 2010 13:08:05
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\1202068106.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**31.521**	**ug/L**	3.729	3938	0.006
>	Sc	45		**ug/L**		650123	650123.077
	Ni	60	**26.659**	**ug/L**	0.663	28968	0.044
>	Ge	74		**ug/L**		263677	263676.678
	As	75	**36.598**	**ug/L**	1.522	28830	0.108
	Se	77		**ug/L**		3876	-0.006
	Se	82	**9.092**	**ug/L**	0.289	630	0.002
	Kr	83		**ug/L**		136	0.000
>	Lu	175		**ug/L**		130726	130726.427
	Tl	205	**44.269**	**ug/L**	2.666	100551	0.768
	U	238	**27.658**	**ug/L**	1.165	266101	2.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		97.2			
	Ni	60					
>	Ge	74		94.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		106.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202068107
Sample Date/Time: Monday, May 17, 2010 13:12:14
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\1202068107.019

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**32.371**	**ug/L**	2.697	3919	0.006
>	Sc	45		**ug/L**		630053	630053.185
	Ni	60	**26.152**	**ug/L**	1.273	27539	0.044
>	Ge	74		**ug/L**		253547	253546.752
	As	75	**37.675**	**ug/L**	1.163	28529	0.111
	Se	77		**ug/L**		3581	-0.006
	Se	82	**9.463**	**ug/L**	4.459	630	0.002
	Kr	83		**ug/L**		125	0.000
>	Lu	175		**ug/L**		129562	129561.670
	Tl	205	**44.595**	**ug/L**	2.169	100372	0.774
	U	238	**28.522**	**ug/L**	3.922	271823	2.096

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		94.2			
	Ni	60					
>	Ge	74		90.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		105.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202068105
Sample Date/Time: Monday, May 17, 2010 13:16:23
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 964014|10|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\1202068105.020

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.194	ug/L	7.947	29	0.000
>	Sc	45		ug/L		588723	588723.040
	Ni	60	0.677	ug/L	1.257	759	0.001
>	Ge	74		ug/L		248175	248174.644
	As	75	0.418	ug/L	19.781	641	0.001
	Se	77		ug/L		4172	-0.004
	Se	82	-0.006	ug/L	1617.375	15	-0.000
	Kr	83		ug/L		79	0.000
>	Lu	175		ug/L		120379	120378.609
	Tl	205	0.099	ug/L	13.981	377	0.002
	U	238	0.694	ug/L	1.895	6473	0.051

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		88.0			
	Ni	60					
>	Ge	74		88.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 13:20:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.021

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**67.865**	**ug/L**	2.191	7728	0.013
|>	Sc	45		**ug/L**		593223	593223.152
⌊	Ni	60	**49.872**	**ug/L**	2.485	49356	0.083
⌈>	Ge	74		**ug/L**		251538	251538.005
|	As	75	**50.025**	**ug/L**	1.413	37468	0.148
|	Se	77		**ug/L**		7420	0.009
|	Se	82	**50.330**	**ug/L**	0.939	3254	0.013
⌊	Kr	83		**ug/L**		62	0.000
⌈>	Lu	175		**ug/L**		116636	116636.415
|	Tl	205	**49.531**	**ug/L**	0.952	100366	0.859
⌊	U	238	**53.524**	**ug/L**	1.786	459161	3.934

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	135.731				
|>	Sc	45		88.7			
⌊	Ni	60	99.744				
⌈>	Ge	74		89.6			
|	As	75	100.049				
|	Se	77					
|	Se	82	100.661				
⌊	Kr	83					
⌈>	Lu	175		95.0			
|	Tl	205	99.062				
⌊	U	238	107.047				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 13:24:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.022

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.031**	**ug/L**	93.313	11	0.000
>	Sc	45		**ug/L**		598803	598802.884
	Ni	60	**0.010**	**ug/L**	62.042	107	0.000
>	Ge	74		**ug/L**		253671	253670.927
	As	75	**0.068**	**ug/L**	481.179	392	0.000
	Se	77		**ug/L**		4733	-0.002
	Se	82	**-0.137**	**ug/L**	154.970	7	-0.000
	Kr	83		**ug/L**		62	0.000
>	Lu	175		**ug/L**		114891	114891.032
	Tl	205	**0.184**	**ug/L**	5.706	529	0.003
	U	238	**0.013**	**ug/L**	16.971	426	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		89.5			
	Ni	60					
>	Ge	74		90.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		93.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 248863001
Sample Date/Time: Monday, May 17, 2010 14:01:57
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\248863001.031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.106**	**ug/L**	7.051	251	0.000
>	Sc	45		**ug/L**		602637	602637.339
	Ni	60	**7.108**	**ug/L**	1.609	7231	0.012
>	Ge	74		**ug/L**		236206	236206.103
	As	75	**3.318**	**ug/L**	1.891	2631	0.010
	Se	77		**ug/L**		2746	-0.009
	Se	82	**0.871**	**ug/L**	0.812	68	0.000
	Kr	83		**ug/L**		128	0.000
>	Lu	175		**ug/L**		129830	129830.080
	Tl	205	**0.130**	**ug/L**	11.908	477	0.002
	U	238	**2.722**	**ug/L**	3.400	26327	0.200

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		90.1			
	Ni	60					
>	Ge	74		84.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		105.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 248863002
Sample Date/Time: Monday, May 17, 2010 14:06:05
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\248863002.032

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.025**	**ug/L**	3.882	244	0.000
>	Sc	45		**ug/L**		608406	608406.487
	Ni	60	**8.688**	**ug/L**	0.917	8902	0.014
>	Ge	74		**ug/L**		239019	239019.136
	As	75	**5.338**	**ug/L**	4.451	4086	0.016
	Se	77		**ug/L**		2707	-0.009
	Se	82	**0.698**	**ug/L**	10.667	58	0.000
	Kr	83		**ug/L**		144	0.000
>	Lu	175		**ug/L**		129066	129066.033
	Tl	205	**0.208**	**ug/L**	8.605	647	0.004
	U	238	**2.911**	**ug/L**	0.614	27970	0.214

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		91.0			
	Ni	60					
>	Ge	74		85.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		105.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 14:10:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**69.979**	**ug/L**	1.690	7687	0.013
>	Sc	45		**ug/L**		572221	572220.779
	Ni	60	**49.882**	**ug/L**	1.024	47629	0.083
>	Ge	74		**ug/L**		243990	243989.723
	As	75	**49.162**	**ug/L**	2.259	35723	0.145
	Se	77		**ug/L**		6512	0.006
	Se	82	**50.852**	**ug/L**	1.964	3189	0.013
	Kr	83		**ug/L**		57	-0.000
>	Lu	175		**ug/L**		116590	116589.683
	Tl	205	**51.254**	**ug/L**	1.223	103812	0.889
	U	238	**54.011**	**ug/L**	0.827	463142	3.970

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	139.958				
>	Sc	45		85.6			
	Ni	60	99.765				
>	Ge	74		87.0			
	As	75	98.324				
	Se	77					
	Se	82	101.704				
	Kr	83					
>	Lu	175		95.0			
	Tl	205	102.509				
	U	238	108.021				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 14:14:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.034

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.023**	**ug/L**	128.213	9	0.000
>	Sc	45		**ug/L**		568627	568627.349
	Ni	60	**-0.003**	**ug/L**	170.524	89	-0.000
>	Ge	74		**ug/L**		245876	245875.926
	As	75	**0.174**	**ug/L**	78.715	458	0.001
	Se	77		**ug/L**		3848	-0.005
	Se	82	**-0.025**	**ug/L**	1003.662	14	-0.000
	Kr	83		**ug/L**		65	0.000
>	Lu	175		**ug/L**		115982	115981.826
	Tl	205	**0.114**	**ug/L**	13.313	395	0.002
	U	238	**0.001**	**ug/L**	209.526	334	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		85.0			
	Ni	60					
>	Ge	74		87.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 248863003
Sample Date/Time: Monday, May 17, 2010 14:18:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\248863003.035

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.984**	**ug/L**	3.988	235	0.000
>	Sc	45		**ug/L**		597817	597817.314
	Ni	60	**7.753**	**ug/L**	1.420	7815	0.013
>	Ge	74		**ug/L**		237370	237369.886
	As	75	**4.475**	**ug/L**	5.078	3454	0.013
	Se	77		**ug/L**		2659	-0.009
	Se	82	**0.602**	**ug/L**	65.246	52	0.000
	Kr	83		**ug/L**		119	0.000
>	Lu	175		**ug/L**		128001	128000.508
	Tl	205	**0.236**	**ug/L**	3.053	704	0.004
	U	238	**2.207**	**ug/L**	2.778	21115	0.162

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		89.4			
	Ni	60					
>	Ge	74		84.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 248863004
Sample Date/Time: Monday, May 17, 2010 14:22:41
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\248863004.036

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**2.449**	**ug/L**	6.903	287	0.000
|>	Sc	45		**ug/L**		595811	595811.106
⌊	Ni	60	**9.317**	**ug/L**	0.765	9341	0.016
⌈>	Ge	74		**ug/L**		233229	233228.591
|	As	75	**4.270**	**ug/L**	5.091	3253	0.013
|	Se	77		**ug/L**		2633	-0.009
|	Se	82	**0.581**	**ug/L**	71.074	50	0.000
⌊	Kr	83		**ug/L**		128	0.000
⌈>	Lu	175		**ug/L**		128411	128410.976
|	Tl	205	**0.204**	**ug/L**	9.592	635	0.004
⌊	U	238	**2.890**	**ug/L**	2.784	27622	0.212

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		89.1			
⌊	Ni	60					
⌈>	Ge	74		83.1			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		104.6			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 14:31:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**69.790**	**ug/L**	1.226	7634	0.013
>	Sc	45		**ug/L**		569787	569786.610
	Ni	60	**49.826**	**ug/L**	2.277	47370	0.083
>	Ge	74		**ug/L**		240492	240491.820
	As	75	**49.259**	**ug/L**	0.868	35284	0.145
	Se	77		**ug/L**		6393	0.006
	Se	82	**51.687**	**ug/L**	2.182	3194	0.013
	Kr	83		**ug/L**		60	0.000
>	Lu	175		**ug/L**		118767	118766.935
	Tl	205	**51.386**	**ug/L**	3.036	105992	0.891
	U	238	**53.606**	**ug/L**	2.817	468131	3.940

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	139.581				
>	Sc	45			85.2		
	Ni	60	99.652				
>	Ge	74			85.7		
	As	75	98.517				
	Se	77					
	Se	82	103.374				
	Kr	83					
>	Lu	175			96.8		
	Tl	205	102.773				
	U	238	107.212				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 14:35:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.026**	**ug/L**	43.214	10	0.000
>	Sc	45		**ug/L**		569920	569919.700
	Ni	60	**-0.012**	**ug/L**	92.122	81	-0.000
>	Ge	74		**ug/L**		243591	243590.996
	As	75	**0.286**	**ug/L**	184.911	535	0.001
	Se	77		**ug/L**		3752	-0.005
	Se	82	**-0.010**	**ug/L**	1443.292	15	-0.000
	Kr	83		**ug/L**		61	0.000
>	Lu	175		**ug/L**		117315	117314.974
	Tl	205	**0.128**	**ug/L**	9.973	426	0.002
	U	238	**0.002**	**ug/L**	77.695	342	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		85.2			
	Ni	60					
>	Ge	74		86.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #7 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, May 17, 2010 11:11:51
Sample Description:
Method File: C:\elandata\Method\daily2.mth
Dataset File: C:\elandata\Dataset\default\Sample.549
Tuning File: C:\elandata\Tuning\Default.tun
Optimization File: C:\elandata\Optimize\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 80
Current Dead Time (ns): 80

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1543.6	1543.591	19.519	1.3
	Mg	24.0	21761.4	21761.438	545.643	2.5
	Co	58.9	65762.6	65762.589	597.892	0.9
	Rh	102.9	104925.5	104925.512	1227.139	1.2
	In	114.9	122602.1	122602.055	730.862	0.6
	Pb	208.0	75108.0	75108.025	602.402	0.8
⌈>	Ba	137.9	111138.0	111138.003	804.294	0.7
⌊	Ba++	69.0	1939.1	0.017	0.000	1.6
⌈>	Ce	139.9	139600.9	139600.892	795.223	0.6
⌊	CeO	155.9	2565.3	0.018	0.001	3.2
	Bkgd	220.0	11.5	11.500	1.696	14.7

Current Optimization File Data

Current Value	Description
0.95	Nebulizer Gas Flow
5.75	Lens Voltage
1000.00	ICP RF Power
-1525.00	Analog Stage Voltage
750.00	Pulse Stage Voltage
14.00	Discriminator Threshold
-3.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	33	5.0	3910.2
Co	59	33	6.0	92923.7
In	115	33	7.0	151737.9

Instrument #7 Tuning Report

File Name: 100517.tun
File Path: C:\Elandata\Tuning\100517.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	566	2064	0.691
Be	9.0	9.0	2009	2060	0.660
Mg	24.0	24.0	5687	2080	0.640
Mg	25.0	25.0	5880	2070	0.560
Mg	26.0	26.0	6184	2070	0.601
Co	58.9	58.9	14157	2040	0.680
Rh	102.9	102.9	24855	2030	0.669
In	114.9	114.9	27787	2033	0.651
Ce	139.9	140.0	33870	2020	0.666
Pb	206.0	205.9	49930	1980	0.720
Pb	207.0	207.0	50179	2000	0.690
Pb	208.0	208.1	50458	1990	0.670
U	238.1	238.1	57747	1980	0.709

ICPMS#7 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, May 17, 2010 19:14:26
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\Blank.227

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		10	
>	Sc	45		ug/L		691240	
	Ni	60		ug/L		52	
	Cu	63		ug/L		191	
	Cu	65		ug/L		94	
	Zn	66		ug/L		153	
	Zn	67		ug/L		3139	
	Zn	68		ug/L		301	
>	Ge	74		ug/L		222804	
>	Lu	175		ug/L		158670	
	Pb	208		ug/L		841	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
>	Lu	175					
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, May 17, 2010 19:16:05
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\Standard 1.228

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.000**	**ug/L**	8.431	1453	0.002
>	Sc	45		**ug/L**		684508	684507.665
	Ni	60	**10.000**	**ug/L**	2.417	9835	0.014
	Cu	63		**ug/L**		22323	0.032
	Cu	65	**10.000**	**ug/L**	2.511	10510	0.015
	Zn	66	**10.000**	**ug/L**	1.545	5462	0.024
	Zn	67		**ug/L**		4447	0.006
	Zn	68		**ug/L**		3994	0.017
>	Ge	74		**ug/L**		221069	221068.813
>	Lu	175		**ug/L**		157682	157682.029
	Pb	208	**10.000**	**ug/L**	1.949	90870	0.571

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
>	Lu	175					
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, May 17, 2010 19:17:45
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\Standard 2.229

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.937**	**ug/L**	4.794	13428	0.020
>	Sc	45		**ug/L**		677233	677232.779
	Ni	60	**99.955**	**ug/L**	3.301	92568	0.137
	Cu	63		**ug/L**		206143	0.304
	Cu	65	**99.938**	**ug/L**	3.560	97009	0.143
	Zn	66	**99.931**	**ug/L**	3.310	49100	0.225
	Zn	67		**ug/L**		11565	0.039
	Zn	68		**ug/L**		35466	0.161
>	Ge	74		**ug/L**		218175	218174.647
>	Lu	175		**ug/L**		156335	156334.718
	Pb	208	**99.955**	**ug/L**	2.095	854741	5.464

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
>	Lu	175					
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, May 17, 2010 19:19:25
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 1.230

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.576**	**ug/L**	5.107	6874	0.010
>	Sc	45		**ug/L**		671371	671370.632
	Ni	60	**51.933**	**ug/L**	3.327	47704	0.071
	Cu	63		**ug/L**		105757	0.157
	Cu	65	**51.228**	**ug/L**	4.159	49330	0.073
	Zn	66	**49.891**	**ug/L**	3.920	24705	0.112
	Zn	67		**ug/L**		7638	0.021
	Zn	68		**ug/L**		18031	0.081
>	Ge	74		**ug/L**		219229	219229.377
>	Lu	175		**ug/L**		156772	156772.069
	Pb	208	**50.251**	**ug/L**	3.571	431153	2.747

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	103.152				
>	Sc	45			97.1		
	Ni	60	103.865				
	Cu	63					
	Cu	65	102.456				
	Zn	66	99.783				
	Zn	67					
	Zn	68					
>	Ge	74			98.4		
>	Lu	175			98.8		
	Pb	208	100.502				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, May 17, 2010 19:21:06
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 2.231

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.021**	**ug/L**	72.128	12	0.000
>	Sc	45		**ug/L**		656568	656568.194
	Ni	60	**-0.002**	**ug/L**	197.747	48	-0.000
	Cu	63		**ug/L**		183	0.000
	Cu	65	**0.005**	**ug/L**	309.126	94	0.000
	Zn	66	**0.014**	**ug/L**	337.368	152	0.000
	Zn	67		**ug/L**		3849	0.004
	Zn	68		**ug/L**		328	0.000
>	Ge	74		**ug/L**		212623	212622.975
>	Lu	175		**ug/L**		153730	153730.480
	Pb	208	**0.005**	**ug/L**	121.353	859	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		95.0			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.4			
>	Lu	175		96.9			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, May 17, 2010 19:22:47
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 3.232

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.574**	**ug/L**	11.565	88	0.000
>	Sc	45		**ug/L**		685667	685666.712
	Ni	60	**2.324**	**ug/L**	1.857	2231	0.003
	Cu	63		**ug/L**		2758	0.004
	Cu	65	**1.185**	**ug/L**	1.064	1258	0.002
	Zn	66	**11.706**	**ug/L**	2.386	6026	0.026
	Zn	67		**ug/L**		4693	0.007
	Zn	68		**ug/L**		4373	0.018
>	Ge	74		**ug/L**		223280	223279.648
>	Lu	175		**ug/L**		161644	161643.737
	Pb	208	**2.249**	**ug/L**	3.376	20723	0.123

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	114.766				
>	Sc	45		99.2			
	Ni	60	116.198				
	Cu	63					
	Cu	65	118.485				
	Zn	66	117.059				
	Zn	67					
	Zn	68					
>	Ge	74		100.2			
>	Lu	175		101.9			
	Pb	208	112.474				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, May 17, 2010 19:24:27
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 4.233

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.128**	**ug/L**	5.447	27	0.000
|>	Sc	45		**ug/L**		670009	670008.979
|	Ni	60	**2.702**	**ug/L**	1.459	2527	0.004
|	Cu	63		**ug/L**		4596	0.007
⌊	Cu	65	**2.405**	**ug/L**	2.411	2399	0.003
⌈	Zn	66	**3.700**	**ug/L**	2.251	1872	0.008
|	Zn	67		**ug/L**		4416	0.007
|	Zn	68		**ug/L**		774	0.002
⌊>	Ge	74		**ug/L**		208133	208132.660
⌈>	Lu	175		**ug/L**		154157	154156.965
⌊	Pb	208	**0.200**	**ug/L**	3.102	2498	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45			96.9		
|	Ni	60	81.636				
|	Cu	63					
⌊	Cu	65	71.991				
⌈	Zn	66	98.401				
|	Zn	67					
|	Zn	68					
⌊>	Ge	74			93.4		
⌈>	Lu	175			97.2		
⌊	Pb	208	105.582				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, May 17, 2010 19:26:07
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 5.234

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**21.608**	**ug/L**	4.538	2906	0.004
>	Sc	45		**ug/L**		675896	675895.835
	Ni	60	**21.301**	**ug/L**	1.434	19738	0.029
	Cu	63		**ug/L**		42313	0.062
	Cu	65	**20.600**	**ug/L**	2.216	20038	0.030
	Zn	66	**22.879**	**ug/L**	4.118	10940	0.051
	Zn	67		**ug/L**		5826	0.014
	Zn	68		**ug/L**		7242	0.033
>	Ge	74		**ug/L**		210185	210184.659
>	Lu	175		**ug/L**		155661	155661.073
	Pb	208	**18.782**	**ug/L**	2.603	160554	1.027

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	108.039				
>	Sc	45			97.8		
	Ni	60	91.380				
	Cu	63					
	Cu	65	88.261				
	Zn	66	96.293				
	Zn	67					
	Zn	68					
>	Ge	74			94.3		
>	Lu	175			98.1		
	Pb	208	93.030				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 19:27:48
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.235

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.790**	ug/L	3.513	6852	0.010
>	Sc	45		ug/L		679093	679093.039
	Ni	60	**50.479**	ug/L	1.951	46926	0.069
	Cu	63		ug/L		103892	0.153
	Cu	65	**49.870**	ug/L	3.283	48606	0.071
	Zn	66	**51.970**	ug/L	2.460	25579	0.117
	Zn	67		ug/L		7934	0.022
	Zn	68		ug/L		18236	0.082
>	Ge	74		ug/L		217839	217839.394
>	Lu	175		ug/L		160223	160223.155
	Pb	208	**49.787**	ug/L	2.261	436729	2.721

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	101.581				
>	Sc	45		98.2			
	Ni	60	100.957				
	Cu	63					
	Cu	65	99.741				
	Zn	66	103.940				
	Zn	67					
	Zn	68					
>	Ge	74		97.8			
>	Lu	175		101.0			
	Pb	208	99.573				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 19:29:30
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.236

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.001	ug/L	2819.688	10	-0.000
>	Sc	45		ug/L		675510	675509.526
	Ni	60	-0.005	ug/L	98.992	47	-0.000
	Cu	63		ug/L		175	-0.000
	Cu	65	0.019	ug/L	36.413	110	0.000
	Zn	66	0.008	ug/L	325.207	151	0.000
	Zn	67		ug/L		3903	0.004
	Zn	68		ug/L		320	0.000
>	Ge	74		ug/L		215388	215388.309
>	Lu	175		ug/L		156753	156752.748
	Pb	208	0.007	ug/L	100.884	888	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		97.7			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.7			
>	Lu	175		98.8			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Monday, May 17, 2010 19:31:10
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 10.237

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**990.110**	**ug/L**	5.366	129200	0.197
>	Sc	45		**ug/L**		657851	657851.118
	Ni	60	**919.268**	**ug/L**	2.831	826891	1.257
	Cu	63		**ug/L**		1843341	2.803
	Cu	65	**913.077**	**ug/L**	2.804	860602	1.309
	Zn	66	**2331.763**	**ug/L**	3.844	1098364	5.239
	Zn	67		**ug/L**		171876	0.806
	Zn	68		**ug/L**		773399	3.689
>	Ge	74		**ug/L**		209761	209761.447
>	Lu	175		**ug/L**		156503	156502.533
	Pb	208	**4471.484**	**ug/L**	3.113	38242113	244.421

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	99.011				
>	Sc	45		95.2			
	Ni	60	91.927				
	Cu	63					
	Cu	65	91.308				
	Zn	66	93.271				
	Zn	67					
	Zn	68					
>	Ge	74		94.1			
>	Lu	175		98.6			
	Pb	208	89.430				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Pb	208	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Monday, May 17, 2010 19:32:50
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 11.238

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.022**	**ug/L**	2.078	6311	0.010
>	Sc	45		**ug/L**		661110	661109.797
	Ni	60	**49.600**	**ug/L**	0.659	44897	0.068
	Cu	63		**ug/L**		99396	0.150
	Cu	65	**49.514**	**ug/L**	1.469	46997	0.071
	Zn	66	**49.367**	**ug/L**	0.584	24084	0.111
	Zn	67		**ug/L**		7686	0.022
	Zn	68		**ug/L**		17468	0.080
>	Ge	74		**ug/L**		215792	215792.038
>	Lu	175		**ug/L**		160211	160211.147
	Pb	208	**48.694**	**ug/L**	1.116	427268	2.662

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	96.044				
>	Sc	45		95.6			
	Ni	60	99.200				
	Cu	63					
	Cu	65	99.027				
	Zn	66	98.734				
	Zn	67					
	Zn	68					
>	Ge	74		96.9			
>	Lu	175		101.0			
	Pb	208	97.388				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Monday, May 17, 2010 19:34:32
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 12.239

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.040**	**ug/L**	28.062	15	0.000
>	Sc	45		**ug/L**		652420	652419.659
	Ni	60	**0.024**	**ug/L**	56.334	70	0.000
	Cu	63		**ug/L**		251	0.000
	Cu	65	**0.046**	**ug/L**	19.970	132	0.000
	Zn	66	**0.034**	**ug/L**	90.203	162	0.000
	Zn	67		**ug/L**		3934	0.004
	Zn	68		**ug/L**		371	0.000
>	Ge	74		**ug/L**		212069	212069.288
>	Lu	175		**ug/L**		156839	156839.300
	Pb	208	**0.071**	**ug/L**	22.845	1437	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		94.4			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.2			
>	Lu	175		98.8			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 19:53:04
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.249

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.697**	**ug/L**	0.700	6451	0.009
>	Sc	45		**ug/L**		680462	680461.914
	Ni	60	**48.685**	**ug/L**	1.315	45359	0.067
	Cu	63		**ug/L**		100989	0.148
	Cu	65	**48.311**	**ug/L**	1.646	47200	0.069
	Zn	66	**50.387**	**ug/L**	1.616	24334	0.113
	Zn	67		**ug/L**		7656	0.022
	Zn	68		**ug/L**		17416	0.080
>	Ge	74		**ug/L**		213659	213658.654
>	Lu	175		**ug/L**		157614	157614.309
	Pb	208	**49.000**	**ug/L**	1.095	422995	2.678

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	95.394				
>	Sc	45		98.4			
	Ni	60	97.370				
	Cu	63					
	Cu	65	96.623				
	Zn	66	100.773				
	Zn	67					
	Zn	68					
>	Ge	74		95.9			
>	Lu	175		99.3			
	Pb	208	98.000				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 19:54:46
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.250

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.024**	**ug/L**	116.261	13	0.000
>	Sc	45		**ug/L**		660970	660970.038
	Ni	60	**0.001**	**ug/L**	844.290	51	0.000
	Cu	63		**ug/L**		205	0.000
	Cu	65	**0.011**	**ug/L**	166.081	100	0.000
	Zn	66	**0.005**	**ug/L**	273.895	148	0.000
	Zn	67		**ug/L**		4015	0.005
	Zn	68		**ug/L**		348	0.000
>	Ge	74		**ug/L**		212328	212328.433
>	Lu	175		**ug/L**		155125	155125.005
	Pb	208	**0.008**	**ug/L**	31.296	888	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		95.6			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.3			
>	Lu	175		97.8			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 20:11:30
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.260

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.743**	**ug/L**	2.459	6542	0.010
>	Sc	45		**ug/L**		675375	675375.490
	Ni	60	**48.522**	**ug/L**	1.896	44863	0.066
	Cu	63		**ug/L**		100860	0.149
	Cu	65	**48.654**	**ug/L**	2.941	47167	0.070
	Zn	66	**50.171**	**ug/L**	3.326	24536	0.113
	Zn	67		**ug/L**		7610	0.021
	Zn	68		**ug/L**		17616	0.080
>	Ge	74		**ug/L**		216416	216415.745
>	Lu	175		**ug/L**		157494	157494.336
	Pb	208	**48.125**	**ug/L**	2.186	415138	2.631

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	97.487				
>	Sc	45			97.7		
	Ni	60	97.044				
	Cu	63					
	Cu	65	97.307				
	Zn	66	100.341				
	Zn	67					
	Zn	68					
>	Ge	74			97.1		
>	Lu	175			99.3		
	Pb	208	96.250				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 20:13:12
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.261

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.009**	**ug/L**	135.331	11	0.000
>	Sc	45		**ug/L**		674877	674877.269
	Ni	60	**0.007**	**ug/L**	55.908	58	0.000
	Cu	63		**ug/L**		419	0.000
	Cu	65	**0.131**	**ug/L**	3.012	218	0.000
	Zn	66	**-0.010**	**ug/L**	192.270	141	-0.000
	Zn	67		**ug/L**		3991	0.005
	Zn	68		**ug/L**		360	0.000
>	Ge	74		**ug/L**		212925	212924.549
>	Lu	175		**ug/L**		152086	152086.309
	Pb	208	**0.000**	**ug/L**	852.898	811	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		97.6			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.6			
>	Lu	175		95.9			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068103
Sample Date/Time: Monday, May 17, 2010 20:16:38
Sample Type: Sample
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\1202068103.262

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.046**	**ug/L**	107.716	16	0.000
>	Sc	45		**ug/L**		668043	668043.314
	Ni	60	**0.037**	**ug/L**	38.010	84	0.000
	Cu	63		**ug/L**		1752	0.002
	Cu	65	**0.771**	**ug/L**	3.341	829	0.001
	Zn	66	**0.511**	**ug/L**	11.165	384	0.001
	Zn	67		**ug/L**		3387	0.002
	Zn	68		**ug/L**		482	0.001
>	Ge	74		**ug/L**		209758	209758.271
>	Lu	175		**ug/L**		159684	159683.976
	Pb	208	**0.064**	**ug/L**	16.512	1405	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		96.6			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.1			
>	Lu	175		100.6			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068108
Sample Date/Time: Monday, May 17, 2010 20:17:52
Sample Type: Sample
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 964014|40|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\1202068108.263

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.812**	**ug/L**	2.752	2747	0.004
>	Sc	45		**ug/L**		696019	696018.942
	Ni	60	**37.529**	**ug/L**	1.637	35779	0.051
	Cu	63		**ug/L**		96451	0.138
	Cu	65	**45.735**	**ug/L**	1.140	45713	0.066
	Zn	66	**159.287**	**ug/L**	1.914	79622	0.358
	Zn	67		**ug/L**		15528	0.056
	Zn	68		**ug/L**		56742	0.254
>	Ge	74		**ug/L**		222068	222068.494
>	Lu	175		**ug/L**		160192	160191.668
	Pb	208	**20.719**	**ug/L**	2.501	182198	1.133

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		100.7			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.7			
>	Lu	175		101.0			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068104
Sample Date/Time: Monday, May 17, 2010 20:20:20
Sample Type: Sample
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\1202068104.265

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.836**	**ug/L**	9.269	134	0.000
>	Sc	45		**ug/L**		741935	741934.646
	Ni	60	**4.975**	**ug/L**	6.523	5094	0.007
	Cu	63		**ug/L**		7914	0.010
	Cu	65	**3.484**	**ug/L**	6.022	3798	0.005
	Zn	66	**22.305**	**ug/L**	4.909	11392	0.050
	Zn	67		**ug/L**		4625	0.007
	Zn	68		**ug/L**		8587	0.037
>	Ge	74		**ug/L**		224462	224462.073
>	Lu	175		**ug/L**		177302	177301.725
	Pb	208	**12.585**	**ug/L**	4.973	122794	0.688

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			107.3		
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			100.7		
>	Lu	175			111.7		
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068106
Sample Date/Time: Monday, May 17, 2010 20:21:35
Sample Type: Sample
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\1202068106.266

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**24.025**	**ug/L**	0.875	3450	0.005
>	Sc	45		**ug/L**		721369	721368.573
	Ni	60	**26.268**	**ug/L**	3.081	25964	0.036
	Cu	63		**ug/L**		57933	0.080
	Cu	65	**26.492**	**ug/L**	1.629	27481	0.038
	Zn	66	**45.878**	**ug/L**	1.529	22693	0.103
	Zn	67		**ug/L**		6383	0.015
	Zn	68		**ug/L**		17152	0.077
>	Ge	74		**ug/L**		218715	218714.678
>	Lu	175		**ug/L**		171389	171389.256
	Pb	208	**101.537**	**ug/L**	1.662	952104	5.550

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		104.4			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.2			
>	Lu	175		108.0			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068107
Sample Date/Time: Monday, May 17, 2010 20:22:49
Sample Type: Sample
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\1202068107.267

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**24.144**	**ug/L**	2.157	3512	0.005
>	Sc	45		**ug/L**		730752	730751.672
	Ni	60	**25.698**	**ug/L**	2.143	25736	0.035
	Cu	63		**ug/L**		60154	0.082
	Cu	65	**26.930**	**ug/L**	3.047	28295	0.039
	Zn	66	**43.148**	**ug/L**	2.707	21585	0.097
	Zn	67		**ug/L**		5997	0.013
	Zn	68		**ug/L**		16027	0.071
>	Ge	74		**ug/L**		221099	221098.527
>	Lu	175		**ug/L**		169714	169713.977
	Pb	208	**103.947**	**ug/L**	1.655	965086	5.682

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		105.7			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.2			
>	Lu	175		107.0			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068105
Sample Date/Time: Monday, May 17, 2010 20:24:04
Sample Type: Sample
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 964014|10|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\1202068105.268

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.218**	ug/L	20.555	43	0.000
|>	Sc	45		ug/L		741721	741720.690
|	Ni	60	**0.651**	ug/L	2.258	717	0.001
|	Cu	63		ug/L		1891	0.002
⌊	Cu	65	**0.753**	ug/L	5.272	901	0.001
⌈	Zn	66	**4.759**	ug/L	2.264	2617	0.011
|	Zn	67		ug/L		3159	-0.000
|	Zn	68		ug/L		2131	0.008
⌊>	Ge	74		ug/L		230023	230022.683
⌈>	Lu	175		ug/L		165161	165161.397
⌊	Pb	208	**2.864**	ug/L	1.669	26733	0.157

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		107.3			
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
⌊>	Ge	74		103.2			
⌈>	Lu	175		104.1			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 20:29:02
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.272

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.893**	**ug/L**	2.332	7040	0.010
>	Sc	45		**ug/L**		709882	709882.251
	Ni	60	**46.053**	**ug/L**	1.503	44767	0.063
	Cu	63		**ug/L**		100512	0.141
	Cu	65	**46.298**	**ug/L**	0.977	47196	0.066
	Zn	66	**47.927**	**ug/L**	2.199	24229	0.108
	Zn	67		**ug/L**		6741	0.016
	Zn	68		**ug/L**		17518	0.077
>	Ge	74		**ug/L**		223589	223589.116
>	Lu	175		**ug/L**		160628	160628.351
	Pb	208	**47.655**	**ug/L**	1.528	419243	2.605

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	99.786				
>	Sc	45		102.7			
	Ni	60	92.106				
	Cu	63					
	Cu	65	92.596				
	Zn	66	95.854				
	Zn	67					
	Zn	68					
>	Ge	74		100.4			
>	Lu	175		101.2			
	Pb	208	95.309				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 20:30:19
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.273

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.058**	**ug/L**	60.516	19	0.000
>	Sc	45		**ug/L**		716290	716290.397
	Ni	60	**0.029**	**ug/L**	121.155	83	0.000
	Cu	63		**ug/L**		336	0.000
	Cu	65	**0.062**	**ug/L**	62.917	162	0.000
	Zn	66	**-0.015**	**ug/L**	54.991	145	-0.000
	Zn	67		**ug/L**		3164	0.000
	Zn	68		**ug/L**		281	-0.000
>	Ge	74		**ug/L**		223004	223004.149
>	Lu	175		**ug/L**		159216	159216.358
	Pb	208	**0.070**	**ug/L**	60.918	1451	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		103.6			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.1			
>	Lu	175		100.3			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248863001
Sample Date/Time: Monday, May 17, 2010 20:37:46
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\248863001.279

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.539**	**ug/L**	9.940	243	0.000
>	Sc	45		**ug/L**		758074	758074.272
	Ni	60	**6.827**	**ug/L**	3.647	7134	0.009
	Cu	63		**ug/L**		11004	0.014
	Cu	65	**4.731**	**ug/L**	3.362	5242	0.007
	Zn	66	**57.748**	**ug/L**	3.087	28695	0.130
	Zn	67		**ug/L**		6706	0.016
	Zn	68		**ug/L**		20694	0.093
>	Ge	74		**ug/L**		220037	220037.045
>	Lu	175		**ug/L**		175831	175831.260
	Pb	208	**18.329**	**ug/L**	3.807	177041	1.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		109.7			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.8			
>	Lu	175		110.8			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248863002
Sample Date/Time: Monday, May 17, 2010 20:39:00
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\248863002.280

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.576**	**ug/L**	9.446	247	0.000
>	Sc	45		**ug/L**		755859	755859.277
	Ni	60	**8.442**	**ug/L**	3.542	8780	0.012
	Cu	63		**ug/L**		11296	0.015
	Cu	65	**4.797**	**ug/L**	2.380	5298	0.007
	Zn	66	**38.074**	**ug/L**	4.011	18911	0.086
	Zn	67		**ug/L**		5328	0.010
	Zn	68		**ug/L**		14011	0.063
>	Ge	74		**ug/L**		219435	219434.902
>	Lu	175		**ug/L**		177113	177112.722
	Pb	208	**9.425**	**ug/L**	2.422	92170	0.515

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		109.3			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.5			
>	Lu	175		111.6			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248863003
Sample Date/Time: Monday, May 17, 2010 20:40:15
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\248863003.281

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**1.472**	**ug/L**	9.361	236	0.000
|>	Sc	45		**ug/L**		769172	769171.936
|	Ni	60	**7.315**	**ug/L**	2.305	7752	0.010
|	Cu	63		**ug/L**		15398	0.020
⌊	Cu	65	**6.544**	**ug/L**	3.192	7317	0.009
⌈	Zn	66	**56.386**	**ug/L**	1.118	28394	0.127
|	Zn	67		**ug/L**		6799	0.016
|	Zn	68		**ug/L**		21060	0.093
⌊>	Ge	74		**ug/L**		222931	222931.063
⌈>	Lu	175		**ug/L**		177383	177383.472
⌊	Pb	208	**13.982**	**ug/L**	1.013	136502	0.764

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		111.3			
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
⌊>	Ge	74		100.1			
⌈>	Lu	175		111.8			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248863004
Sample Date/Time: Monday, May 17, 2010 20:41:29
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\248863004.282

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.691**	**ug/L**	3.786	279	0.000
>	Sc	45		**ug/L**		798609	798608.704
	Ni	60	**8.483**	**ug/L**	6.478	9313	0.012
	Cu	63		**ug/L**		17777	0.022
	Cu	65	**7.403**	**ug/L**	4.314	8573	0.011
	Zn	66	**63.499**	**ug/L**	6.009	33074	0.143
	Zn	67		**ug/L**		7406	0.018
	Zn	68		**ug/L**		24188	0.103
>	Ge	74		**ug/L**		231047	231046.759
>	Lu	175		**ug/L**		183257	183257.450
	Pb	208	**17.729**	**ug/L**	4.418	178423	0.969

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		115.5			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.7			
>	Lu	175		115.5			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 20:43:59
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.284

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.668**	**ug/L**	6.105	7512	0.010
>	Sc	45		**ug/L**		732456	732455.819
	Ni	60	**45.013**	**ug/L**	3.065	45119	0.062
	Cu	63		**ug/L**		101239	0.138
	Cu	65	**44.916**	**ug/L**	3.846	47207	0.064
	Zn	66	**48.307**	**ug/L**	3.539	24520	0.109
	Zn	67		**ug/L**		6537	0.015
	Zn	68		**ug/L**		17649	0.077
>	Ge	74		**ug/L**		224639	224638.571
>	Lu	175		**ug/L**		165276	165276.048
	Pb	208	**48.152**	**ug/L**	3.638	435622	2.632

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	103.335				
>	Sc	45		106.0			
	Ni	60	90.026				
	Cu	63					
	Cu	65	89.833				
	Zn	66	96.613				
	Zn	67					
	Zn	68					
>	Ge	74		100.8			
>	Lu	175		104.2			
	Pb	208	96.303				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Cu	65	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 20:45:15
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.285

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.043**	**ug/L**	129.443	16	0.000
>	Sc	45		**ug/L**		720366	720365.869
	Ni	60	**0.029**	**ug/L**	106.685	82	0.000
	Cu	63		**ug/L**		260	0.000
	Cu	65	**0.029**	**ug/L**	115.540	127	0.000
	Zn	66	**-0.037**	**ug/L**	81.828	133	-0.000
	Zn	67		**ug/L**		2936	-0.001
	Zn	68		**ug/L**		268	-0.000
>	Ge	74		**ug/L**		221544	221544.133
>	Lu	175		**ug/L**		161945	161944.859
	Pb	208	**0.081**	**ug/L**	50.325	1571	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		104.2			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.4			
>	Lu	175		102.1			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\032410S1.SIF
Batch ID:
Results Data Set: 032410S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 3/16/2010 09:36:57**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/24/2010 09:24:39**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0007	0.0033	0.0007	09:25:32	Yes
2		[0.00]	0.0006	0.0026	0.0006	09:26:02	Yes
Mean:		[0.00]	0.0006				
SD:		0.00	0.0001				
%RSD:		0.00	7.96				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/24/2010 09:26:20**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0025	0.0155	0.0031	09:27:11	Yes
2		[0.2]	0.0025	0.0156	0.0031	09:27:40	Yes
Mean:		[0.2]	0.0025				
SD:		0.0	0.0000				
%RSD:		0.0	0.38				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01232 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/24/2010 09:28:00**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0064	0.0356	0.0070	09:28:51	Yes
2		[0.5]	0.0063	0.0345	0.0069	09:29:21	Yes
Mean:		[0.5]	0.0063				
SD:		0.0	0.0001				
%RSD:		0.0	1.27				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999934 Slope: 0.01265 Intercept: -0.00003

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/24/2010 09:29:40**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0258	0.1358	0.0265	09:30:31	Yes
2		[2.0]	0.0256	0.1334	0.0262	09:31:01	Yes
Mean:		[2.0]	0.0257				
SD:		0.0	0.0002				
%RSD:		0.0	0.65				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999988 Slope: 0.01288 Intercept: -0.00007

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/24/2010 09:31:21**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0621	0.3243	0.0627	09:32:13	Yes
2		[5.0]	0.0616	0.3190	0.0622	09:32:43	Yes
Mean:		[5.0]	0.0618				
SD:		0.0	0.0004				
%RSD:		0.0	0.58				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999865 Slope: 0.01238 Intercept: 0.00019

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/24/2010 09:33:03**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1178	0.6163	0.1185	09:33:54	Yes
2		[10.0]	0.1194	0.6216	0.1201	09:34:23	Yes
Mean:		[10.0]	0.1186				
SD:		0.0	0.0011				
%RSD:		0.0	0.95				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999718 Slope: 0.01189 Intercept: 0.00075

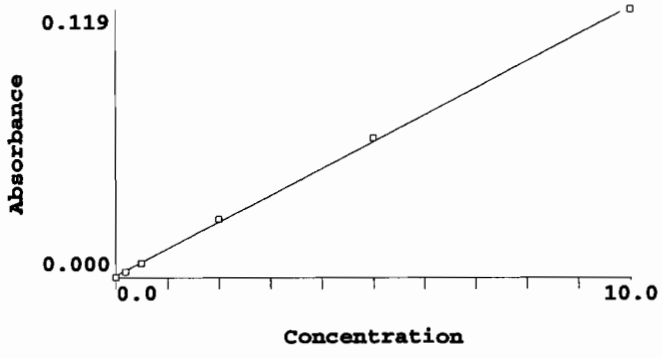

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.063	0.00	8.0
S0.2	0.0025	0.2	0.144	0.00	0.4
S0.5	0.0063	0.5	0.469	0.00	1.3
S2.0	0.0257	2.0	2.099	0.00	0.6

S5.0	0.0618	5.0	5.136	0.00	0.6
S10.0	0.1186	10.0	9.915	0.00	1.0

Correlation Coef.: 0.999718 Slope: 0.01189 Intercept: 0.00075

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/24/2010 09:34:42**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.181	5.181	0.0623	0.3260	0.0630	09:35:34	Yes
2	5.062	5.062	0.0609	0.3154	0.0616	09:36:04	Yes
Mean:	5.122	5.122	0.0616				
SD:	0.084	0.084	0.0010				
%RSD:	1.634	1.634	1.61				

QC value within limits for Hg 253.7 Recovery = 102.43%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/24/2010 09:36:23**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.079	-0.079	-0.0002	0.0016	0.0004	09:37:14	Yes
2	-0.077	-0.077	-0.0002	0.0018	0.0005	09:37:44	Yes
Mean:	-0.078	-0.078	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	2.384	2.384	12.14				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/24/2010 09:38:04**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.132	0.132	0.0023	0.0144	0.0030	09:38:55	Yes
2	0.126	0.126	0.0022	0.0144	0.0029	09:39:25	Yes
Mean:	0.129	0.129	0.0023				
SD:	0.005	0.005	0.0001				
%RSD:	3.623	3.623	2.44				

QC value within limits for Hg 253.7 Recovery = 64.54%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 09:39:45**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.060	5.060	0.0609	0.3200	0.0615	09:40:36	Yes
2	4.996	4.996	0.0601	0.3122	0.0608	09:41:06	Yes
Mean:	5.028	5.028	0.0605				
SD:	0.045	0.045	0.0005				
%RSD:	0.902	0.902	0.89				

QC value within limits for Hg 253.7 Recovery = 100.56%
All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 09:41:25**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.081	-0.081	-0.0002	0.0018	0.0004	09:42:15	Yes
2	-0.081	-0.081	-0.0002	0.0019	0.0004	09:42:45	Yes
Mean:	-0.081	-0.081	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.212	0.212	0.95				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202076821|967600|1 **Date Collected: 3/24/2010 09:43:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076821|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.082	-0.082	-0.0002	0.0017	0.0004	09:43:56	Yes
2	-0.085	-0.085	-0.0003	0.0016	0.0004	09:44:26	Yes
Mean:	-0.083	-0.083	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	2.755	2.755	11.15				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202076822|967600|10 **Date Collected: 3/24/2010 09:44:46**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076822|967600|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.136	3.136	0.0380	0.1988	0.0387	09:45:38	Yes
2	3.174	3.174	0.0385	0.2027	0.0391	09:46:08	Yes
Mean:	3.155	3.155	0.0383				
SD:	0.027	0.027	0.0003				
%RSD:	0.857	0.857	0.84				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 248834001|967600|1 **Date Collected: 3/24/2010 09:46:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834001|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.044	-0.044	0.0002	0.0040	0.0009	09:47:19	Yes
2	-0.050	-0.050	0.0002	0.0033	0.0008	09:47:49	Yes
Mean:	-0.047	-0.047	0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	8.317	8.317	25.32				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202076823|967600|1 **Date Collected: 3/24/2010 09:48:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076823|967600|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 248834003|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.322	0.322	0.0046	0.0264	0.0052	09:57:16	Yes
2	0.319	0.319	0.0045	0.0264	0.0052	09:57:45	Yes
Mean:	0.320	0.320	0.0046				
SD:	0.002	0.002	0.0000				
%RSD:	0.753	0.753	0.63				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 248834004|967600|1 **Date Collected: 3/24/2010 09:58:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834004|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.065	-0.065	-0.0000	0.0032	0.0006	09:58:56	Yes
2	-0.066	-0.066	-0.0000	0.0035	0.0006	09:59:26	Yes
Mean:	-0.066	-0.066	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	0.765	0.765	17.62				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 09:59:46**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.192	5.192	0.0625	0.3277	0.0631	10:00:36	Yes
2	5.091	5.091	0.0613	0.3179	0.0619	10:01:06	Yes
Mean:	5.141	5.141	0.0619				
SD:	0.072	0.072	0.0009				
%RSD:	1.399	1.399	1.38				

QC value within limits for Hg 253.7 Recovery = 102.83%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 10:01:25**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.081	-0.081	-0.0002	0.0021	0.0004	10:02:16	Yes
2	-0.082	-0.082	-0.0002	0.0023	0.0004	10:02:46	Yes
Mean:	-0.081	-0.081	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.458	0.458	2.00				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 248834005|967600|1 **Date Collected: 3/24/2010 10:03:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834005|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.910	5.910	0.0710	0.3730	0.0716	10:03:57	Yes
2	5.838	5.838	0.0702	0.3674	0.0708	10:04:27	Yes

SD:	0.060	0.060	0.0007
%RSD:	1.687	1.687	1.66

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 10:19:49**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.300	5.300	0.0638	0.3306	0.0644	10:20:39	Yes
2	5.271	5.271	0.0634	0.3268	0.0640	10:21:09	Yes
Mean:	5.286	5.286	0.0636				
SD:	0.021	0.021	0.0003				
%RSD:	0.398	0.398	0.39				

QC value within limits for Hg 253.7 Recovery = 105.71%
All analyte(s) passed QC.

==========

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 10:21:27**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.077	-0.077	-0.0002	0.0019	0.0005	10:22:19	Yes
2	-0.077	-0.077	-0.0002	0.0018	0.0005	10:22:49	Yes
Mean:	-0.077	-0.077	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.039	0.039	0.21				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 249072002|967577|1 **Date Collected: 3/24/2010 10:23:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 249072002|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.230	0.230	0.0035	0.0213	0.0041	10:23:59	Yes
2	0.239	0.239	0.0036	0.0212	0.0042	10:24:29	Yes
Mean:	0.235	0.235	0.0035				
SD:	0.006	0.006	0.0001				
%RSD:	2.731	2.731	2.16				

==========

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 249072003|967577|1 **Date Collected: 3/24/2010 10:24:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 249072003|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.306	0.306	0.0044	0.0257	0.0050	10:25:39	Yes
2	0.311	0.311	0.0044	0.0259	0.0051	10:26:09	Yes
Mean:	0.309	0.309	0.0044				
SD:	0.004	0.004	0.0000				
%RSD:	1.245	1.245	1.03				

==========

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 249072004|967577|1 **Date Collected: 3/24/2010 10:26:29**
Analyst: JXL **Data Type: Original**

Sequence No.: 43
Sample ID: 1202076769|967577|1
Analyst: JXL
Autosampler Location: 39
Date Collected: 3/24/2010 10:34:55
Data Type: Original

Replicate Data: 1202076769|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.162	2.162	0.0264	0.1380	0.0271	10:35:46	Yes
2	2.193	2.193	0.0268	0.1399	0.0275	10:36:16	Yes
Mean:	2.178	2.178	0.0266				
SD:	0.023	0.023	0.0003				
%RSD:	1.037	1.037	1.01				

Sequence No.: 44
Sample ID: 1202076768|967577|5
Analyst: JXL
Autosampler Location: 40
Date Collected: 3/24/2010 10:36:36
Data Type: Original

Replicate Data: 1202076768|967577|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.074	-0.074	-0.0001	0.0026	0.0005	10:37:26	Yes
2	-0.074	-0.074	-0.0001	0.0028	0.0005	10:37:56	Yes
Mean:	-0.074	-0.074	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.631	0.631	4.13				

Sequence No.: 45
Sample ID: 249102003|967577|1
Analyst: JXL
Autosampler Location: 41
Date Collected: 3/24/2010 10:38:15
Data Type: Original

Replicate Data: 249102003|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.047	-0.047	0.0002	0.0045	0.0008	10:39:07	Yes
2	-0.051	-0.051	0.0001	0.0041	0.0008	10:39:37	Yes
Mean:	-0.049	-0.049	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	5.014	5.014	17.75				

Sequence No.: 46
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 3/24/2010 10:39:56
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.819	4.819	0.0580	0.2999	0.0587	10:40:46	Yes
2	4.944	4.944	0.0595	0.3056	0.0602	10:41:16	Yes
Mean:	4.881	4.881	0.0588				
SD:	0.089	0.089	0.0011				
%RSD:	1.819	1.819	1.80				

QC value within limits for Hg 253.7 Recovery = 97.63%
All analyte(s) passed QC.

Sequence No.: 47
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 3/24/2010 10:41:35
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	-0.083	-0.083	-0.0002	0.0019	0.0004	10:42:26	Yes
2	-0.082	-0.082	-0.0002	0.0022	0.0004	10:42:56	Yes
Mean:	-0.083	-0.083	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.048	1.048	4.33				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 48 **Autosampler Location: 42**
Sample ID: 249102004|967577|1 **Date Collected: 3/24/2010 10:43:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102004|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.075	0.075	0.0016	0.0115	0.0023	10:44:06	Yes
2	0.080	0.080	0.0017	0.0119	0.0023	10:44:36	Yes
Mean:	0.078	0.078	0.0017				
SD:	0.004	0.004	0.0000				
%RSD:	4.576	4.576	2.53				

==========

Sequence No.: 49 **Autosampler Location: 43**
Sample ID: 249102005|967577|1 **Date Collected: 3/24/2010 10:44:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102005|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.048	-0.048	0.0002	0.0043	0.0008	10:45:46	Yes
2	-0.049	-0.049	0.0002	0.0041	0.0008	10:46:16	Yes
Mean:	-0.049	-0.049	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.335	0.335	1.14				

==========

Sequence No.: 50 **Autosampler Location: 44**
Sample ID: 249102006|967577|1 **Date Collected: 3/24/2010 10:46:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102006|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.052	-0.052	0.0001	0.0037	0.0008	10:47:26	Yes
2	-0.051	-0.051	0.0001	0.0038	0.0008	10:47:56	Yes
Mean:	-0.052	-0.052	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	1.201	1.201	5.52				

==========

Sequence No.: 51 **Autosampler Location: 45**
Sample ID: 1202078437|968185|1 **Date Collected: 3/24/2010 10:48:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078437|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.085	-0.085	-0.0003	0.0019	0.0004	10:49:06	Yes
2	-0.085	-0.085	-0.0003	0.0019	0.0004	10:49:36	Yes
Mean:	-0.085	-0.085	-0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	0.593	0.593	2.27				

==========

Sequence No.: 52 **Autosampler Location: 46**
Sample ID: 1202078438|968185|10 **Date Collected: 3/24/2010 10:49:55**

Analyst: JXL Data Type: Original

Replicate Data: 1202078438|968185|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.834	3.834	0.0463	0.2373	0.0470	10:50:47	Yes
2	3.642	3.642	0.0440	0.2262	0.0447	10:51:16	Yes
Mean:	3.738	3.738	0.0452				
SD:	0.136	0.136	0.0016				
%RSD:	3.635	3.635	3.57				

Sequence No.: 53 Autosampler Location: 47
Sample ID: 248860001|968185|1 Date Collected: 3/24/2010 10:51:36
Analyst: JXL Data Type: Original

Replicate Data: 248860001|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.062	0.062	0.0015	0.0106	0.0021	10:52:28	Yes
2	0.059	0.059	0.0014	0.0106	0.0021	10:52:58	Yes
Mean:	0.060	0.060	0.0015				
SD:	0.002	0.002	0.0000				
%RSD:	3.523	3.523	1.73				

Sequence No.: 54 Autosampler Location: 48
Sample ID: 248860002|968185|1 Date Collected: 3/24/2010 10:53:18
Analyst: JXL Data Type: Original

Replicate Data: 248860002|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.882	0.882	0.0112	0.0601	0.0119	10:54:09	Yes
2	0.908	0.908	0.0115	0.0620	0.0122	10:54:39	Yes
Mean:	0.895	0.895	0.0114				
SD:	0.018	0.018	0.0002				
%RSD:	2.040	2.040	1.91				

Sequence No.: 55 Autosampler Location: 49
Sample ID: 248860003|968185|1 Date Collected: 3/24/2010 10:54:59
Analyst: JXL Data Type: Original

Replicate Data: 248860003|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.173	0.173	0.0028	0.0176	0.0034	10:55:51	Yes
2	0.170	0.170	0.0028	0.0170	0.0034	10:56:21	Yes
Mean:	0.171	0.171	0.0028				
SD:	0.003	0.003	0.0000				
%RSD:	1.626	1.626	1.19				

Sequence No.: 56 Autosampler Location: 50
Sample ID: 248860004|968185|1 Date Collected: 3/24/2010 10:56:41
Analyst: JXL Data Type: Original

Replicate Data: 248860004|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.262	0.262	0.0039	0.0225	0.0045	10:57:32	Yes
2	0.259	0.259	0.0038	0.0225	0.0045	10:58:02	Yes
Mean:	0.260	0.260	0.0038				
SD:	0.002	0.002-	0.0000				
%RSD:	0.878	0.878	0.71				

Sequence No.: 57 **Autosampler Location: 51**
Sample ID: 248860005|968185|1 **Date Collected: 3/24/2010 10:58:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 248860005|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.190	0.190	0.0030	0.0183	0.0036	10:59:13	Yes
2	0.196	0.196	0.0031	0.0188	0.0037	10:59:43	Yes
Mean:	0.193	0.193	0.0030				
SD:	0.005	0.005	0.0001				
%RSD:	2.435	2.435	1.84				

Sequence No.: 58 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 11:00:03**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.182	5.182	0.0624	0.3187	0.0630	11:00:53	Yes
2	5.191	5.191	0.0625	0.3195	0.0631	11:01:23	Yes
Mean:	5.187	5.187	0.0624				
SD:	0.007	0.007	0.0001				
%RSD:	0.129	0.129	0.13				

QC value within limits for Hg 253.7 Recovery = 103.73%
All analyte(s) passed QC.

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 11:01:42**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.085	-0.085	-0.0003	0.0019	0.0004	11:02:32	Yes
2	-0.084	-0.084	-0.0003	0.0019	0.0004	11:03:02	Yes
Mean:	-0.084	-0.084	-0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	0.839	0.839	3.27				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 60 **Autosampler Location: 52**
Sample ID: 248860006|968185|1 **Date Collected: 3/24/2010 11:03:21**
Analyst: JXL **Data Type: Original**

Replicate Data: 248860006|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.644	1.644	0.0203	0.1066	0.0209	11:04:13	Yes
2	1.649	1.649	0.0203	0.1060	0.0210	11:04:43	Yes
Mean:	1.647	1.647	0.0203				
SD:	0.003	0.003	0.0000				
%RSD:	0.188	0.188	0.18				

Sequence No.: 61 **Autosampler Location: 53**
Sample ID: 248860007|968185|1 **Date Collected: 3/24/2010 11:05:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 248860007|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.368	0.368	0.0051	0.0290	0.0058	11:05:53	Yes
2	0.352	0.352	0.0049	0.0278	0.0056	11:06:23	Yes
Mean:	0.360	0.360	0.0050				
SD:	0.011	0.011	0.0001				
%RSD:	3.158	3.158	2.69				

==========

Sequence No.: 62 Autosampler Location: 54
Sample ID: 248860008|968185|1 Date Collected: 3/24/2010 11:06:43
Analyst: JXL Data Type: Original

Replicate Data: 248860008|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.020	-0.020	0.0005	0.0054	0.0011	11:07:33	Yes
2	-0.020	-0.020	0.0005	0.0055	0.0011	11:08:03	Yes
Mean:	-0.020	-0.020	0.0005				
SD:	0.000	0.000	0.0000				
%RSD:	0.391	0.391	0.18				

==========

Sequence No.: 63 Autosampler Location: 55
Sample ID: 248860009|968185|1 Date Collected: 3/24/2010 11:08:23
Analyst: JXL Data Type: Original

Replicate Data: 248860009|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.015	-0.015	0.0006	0.0060	0.0012	11:09:14	Yes
2	-0.018	-0.018	0.0005	0.0056	0.0012	11:09:43	Yes
Mean:	-0.016	-0.016	0.0006				
SD:	0.003	0.003	0.0000				
%RSD:	15.33	15.33	5.39				

==========

Sequence No.: 64 Autosampler Location: 56
Sample ID: 248863001|968185|1 Date Collected: 3/24/2010 11:10:03
Analyst: JXL Data Type: Original

Replicate Data: 248863001|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0010	0.0078	0.0016	11:10:54	Yes
2	0.012	0.012	0.0009	0.0075	0.0015	11:11:24	Yes
Mean:	0.015	0.015	0.0009				
SD:	0.004	0.004	0.0001				
%RSD:	27.74	27.74	5.44				

==========

Sequence No.: 65 Autosampler Location: 57
Sample ID: 248863002|968185|1 Date Collected: 3/24/2010 11:11:43
Analyst: JXL Data Type: Original

Replicate Data: 248863002|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.207	0.207	0.0032	0.0193	0.0038	11:12:34	Yes
2	0.201	0.201	0.0031	0.0188	0.0038	11:13:04	Yes
Mean:	0.204	0.204	0.0032				
SD:	0.005	0.005	0.0001				
%RSD:	2.291	2.291	1.75				

==========

Sequence No.: 66 Autosampler Location: 58

Sample ID: 248863003|968185|1 Date Collected: 3/24/2010 11:13:23
Analyst: JXL Data Type: Original

Replicate Data: 248863003|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.287	0.287	0.0042	0.0244	0.0048	11:14:15	Yes
2	0.286	0.286	0.0042	0.0240	0.0048	11:14:45	Yes
Mean:	0.286	0.286	0.0042				
SD:	0.000	0.000	0.0000				
%RSD:	0.048	0.048	0.04				

Sequence No.: 67 Autosampler Location: 59
Sample ID: 248863004|968185|1 Date Collected: 3/24/2010 11:15:05
Analyst: JXL Data Type: Original

Replicate Data: 248863004|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0011	0.0089	0.0018	11:15:56	Yes
2	0.028	0.028	0.0011	0.0086	0.0017	11:16:26	Yes
Mean:	0.031	0.031	0.0011				
SD:	0.004	0.004	0.0000				
%RSD:	12.64	12.64	4.14				

Sequence No.: 68 Autosampler Location: 60
Sample ID: 248866001|968185|1 Date Collected: 3/24/2010 11:16:46
Analyst: JXL Data Type: Original

Replicate Data: 248866001|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.508	1.508	0.0187	0.0974	0.0193	11:17:38	Yes
2	1.505	1.505	0.0186	0.0967	0.0193	11:18:07	Yes
Mean:	1.506	1.506	0.0187				
SD:	0.002	0.002	0.0000				
%RSD:	0.161	0.161	0.15				

Sequence No.: 69 Autosampler Location: 61
Sample ID: 248866002|968185|1 Date Collected: 3/24/2010 11:18:28
Analyst: JXL Data Type: Original

Replicate Data: 248866002|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0011	0.0085	0.0017	11:19:19	Yes
2	0.028	0.028	0.0011	0.0086	0.0017	11:19:49	Yes
Mean:	0.028	0.028	0.0011				
SD:	0.001	0.001	0.0000				
%RSD:	2.614	2.614	0.81				

Sequence No.: 70 Autosampler Location: 7
Sample ID: CCV Date Collected: 3/24/2010 11:20:09
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.300	5.300	0.0638	0.3270	0.0644	11:21:00	Yes
2	5.102	5.102	0.0614	0.3147	0.0620	11:21:29	Yes
Mean:	5.201	5.201	0.0626				
SD:	0.140	0.140	0.0017				

%RSD: 2.687 2.687 2.66
QC value within limits for Hg 253.7 Recovery = 104.02%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 11:21:48**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.089	-0.089	-0.0003	0.0015	0.0003	11:22:40	Yes
2	-0.092	-0.092	-0.0003	0.0012	0.0003	11:23:09	Yes
Mean:	-0.090	-0.090	-0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	2.647	2.647	8.70				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 72 **Autosampler Location: 62**
Sample ID: 248867001|968185|1 **Date Collected: 3/24/2010 11:23:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 248867001|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.609	3.609	0.0437	0.2267	0.0443	11:24:20	Yes
2	3.588	3.588	0.0434	0.2255	0.0440	11:24:50	Yes
Mean:	3.598	3.598	0.0435				
SD:	0.015	0.015	0.0002				
%RSD:	0.408	0.408	0.40				

==========

Sequence No.: 73 **Autosampler Location: 63**
Sample ID: 1202078439|968185|1 **Date Collected: 3/24/2010 11:25:10**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078439|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.811	2.811	0.0342	0.1764	0.0348	11:26:01	Yes
2	2.779	2.779	0.0338	0.1738	0.0344	11:26:31	Yes
Mean:	2.795	2.795	0.0340				
SD:	0.023	0.023	0.0003				
%RSD:	0.808	0.808	0.79				

==========

Sequence No.: 74 **Autosampler Location: 64**
Sample ID: 1202078440|968185|1 **Date Collected: 3/24/2010 11:26:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078440|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.813	5.813	0.0699	0.3587	0.0705	11:27:41	Yes
2	5.767	5.767	0.0693	0.3561	0.0699	11:28:11	Yes
Mean:	5.790	5.790	0.0696				
SD:	0.033	0.033	0.0004				
%RSD:	0.567	0.567	0.56				

==========

Sequence No.: 75 **Autosampler Location: 65**
Sample ID: 1202078442|968185|1 **Date Collected: 3/24/2010 11:28:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078442|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.960	5.960	0.0716	0.3690	0.0722	11:29:22	Yes
2	5.970	5.970	0.0717	0.3668	0.0724	11:29:52	Yes
Mean:	5.965	5.965	0.0717				
SD:	0.007	0.007	0.0001				
%RSD:	0.119	0.119	0.12				

Sequence No.: 76 **Autosampler Location: 66**
Sample ID: 1202078441|968185|5 **Date Collected: 3/24/2010 11:30:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078441|968185|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.692	0.692	0.0090	0.0482	0.0096	11:31:03	Yes
2	0.685	0.685	0.0089	0.0480	0.0095	11:31:33	Yes
Mean:	0.688	0.688	0.0089				
SD:	0.005	0.005	0.0001				
%RSD:	0.674	0.674	0.62				

Sequence No.: 77 **Autosampler Location: 67**
Sample ID: 248867002|968185|1 **Date Collected: 3/24/2010 11:31:53**
Analyst: JXL **Data Type: Original**

Replicate Data: 248867002|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.779	2.779	0.0338	0.1735	0.0344	11:32:45	Yes
2	2.746	2.746	0.0334	0.1716	0.0340	11:33:14	Yes
Mean:	2.762	2.762	0.0336				
SD:	0.023	0.023	0.0003				
%RSD:	0.844	0.844	0.83				

Sequence No.: 78 **Autosampler Location: 68**
Sample ID: 248867003|968185|1 **Date Collected: 3/24/2010 11:33:34**
Analyst: JXL **Data Type: Original**

Replicate Data: 248867003|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.577	3.577	0.0433	0.2227	0.0439	11:34:26	Yes
2	3.537	3.537	0.0428	0.2181	0.0434	11:34:56	Yes
Mean:	3.557	3.557	0.0430				
SD:	0.028	0.028	0.0003				
%RSD:	0.798	0.798	0.78				

Sequence No.: 79 **Autosampler Location: 69**
Sample ID: 248867004|968185|1 **Date Collected: 3/24/2010 11:35:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 248867004|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	12.72	12.72	0.1520	0.7783	0.1526	11:36:07	Yes
Sample concentration is greater than that of the highest standard.							
2	12.26	12.26	0.1466	0.7462	0.1472	11:36:37	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	12.49	12.49	0.1493				
SD:	0.322	0.322	0.0038				
%RSD:	2.574	2.574	2.56				

Sample concentration is greater than that of the highest standard.

==========

Sequence No.: 80 **Autosampler Location: 70**
Sample ID: 1202076742|967570|1 **Date Collected: 3/24/2010 11:36:57**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076742|967570|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.089	-0.089	-0.0003	0.0009	0.0003	11:37:48	Yes
2	-0.086	-0.086	-0.0003	0.0015	0.0004	11:38:18	Yes
Mean:	-0.088	-0.088	-0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	2.030	2.030	7.16				

==========

Sequence No.: 81 **Autosampler Location: 71**
Sample ID: 1202076743|967570|1 **Date Collected: 3/24/2010 11:38:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076743|967570|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.182	2.182	0.0267	0.1380	0.0273	11:39:29	Yes
2	2.193	2.193	0.0268	0.1380	0.0275	11:39:59	Yes
Mean:	2.187	2.187	0.0268				
SD:	0.008	0.008	0.0001				
%RSD:	0.356	0.356	0.35				

==========

Sequence No.: 82 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 11:40:19**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.125	5.125	0.0617	0.3141	0.0623	11:41:09	Yes
2	5.096	5.096	0.0613	0.3103	0.0620	11:41:39	Yes
Mean:	5.111	5.111	0.0615				
SD:	0.021	0.021	0.0002				
%RSD:	0.401	0.401	0.40				

QC value within limits for Hg 253.7 Recovery = 102.21%
All analyte(s) passed QC.

==========

Sequence No.: 83 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 11:41:58**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.090	-0.090	-0.0003	0.0012	0.0003	11:42:48	Yes
2	-0.085	-0.085	-0.0003	0.0016	0.0004	11:43:18	Yes
Mean:	-0.088	-0.088	-0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	3.961	3.961	13.86				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 84 **Autosampler Location: 72**
Sample ID: 249476001|967570|1 **Date Collected: 3/24/2010 11:43:38**
Analyst: JXL **Data Type: Original**

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 964013.0 **Verified by:** _____
Analyst: Anthony Green
Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19
Instrument: Sartorius Balance B-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202068103 MB	13-MAR-2010 03:00:00	0.516	50	96.89922	
1202068108 LCS	13-MAR-2010 03:00:00	0.502	50	99.60159	
248860001	13-MAR-2010 03:00:00	0.522	50	95.78544	
1202068104 DUP (248860001)	13-MAR-2010 03:00:00	0.507	50	98.61933	
1202068105 SDILT (248860001)	13-MAR-2010 03:00:00	0.522	50	95.78544	
1202068106 MS (248860001)	13-MAR-2010 03:00:00	0.504	50	99.20635	
1202068107 MSD (248860001)	13-MAR-2010 03:00:00	0.514	50	97.27626	
248860002	13-MAR-2010 03:00:00	0.511	50	97.84736	
248860003	13-MAR-2010 03:00:00	0.506	50	98.81423	
248860004	13-MAR-2010 03:00:00	0.534	50	93.63296	
248860005	13-MAR-2010 03:00:00	0.51	50	98.03922	
248860006	13-MAR-2010 03:00:00	0.53	50	94.33962	
248860007	13-MAR-2010 03:00:00	0.514	50	97.27626	
248860008	13-MAR-2010 03:00:00	0.5	50	100	
248860009	13-MAR-2010 03:00:00	0.511	50	97.84736	
248863001	13-MAR-2010 03:00:00	0.5	50	100	
248863002	13-MAR-2010 03:00:00	0.552	50	90.57971	
248863003	13-MAR-2010 03:00:00	0.522	50	95.78544	
248863004	13-MAR-2010 03:00:00	0.534	50	93.63296	
248865001	13-MAR-2010 03:00:00	0.531	50	94.16196	

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202068108	Metals Soil LCS SRM ICPMS	UI062540-MS	.502	g
MS	1202068106	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MS	1202068106	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
MSD	1202068107	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MSD	1202068107	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1282566	5	mL

Comments:

Sample 248860001 consist of gray soil.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **974044.0** Verified by: _____

Analyst: Barry Audain

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202092702	Metals Soil LCS SRM ICP/Hg	U1062540-I	.509	g
MS	1202068100	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202068100	Metals Spike Mix II	UI1286774-06	.25	mL
MSD	1202068101	Metals Spike Mix I	UI1286772-01	.25	mL
MSD	1202068101	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202092701 MB	12-APR-2010 22:34:00	Soil	0.51	50	98.03922	
1202092702 LCS	12-APR-2010 22:34:00	Soil	0.509	50	98.23183	
248860001 - 2	12-APR-2010 22:34:00	Soil	0.559	50	89.44544	
1202068098 - 2 DUP (248860001)	12-APR-2010 22:34:00	Soil	0.509	50	98.23183	
1202068099 - 2 SDILT (248860001)	12-APR-2010 22:34:00	Soil	0.559	50	89.44544	
1202068100 - 2 MS (248860001)	12-APR-2010 22:34:00	Soil	0.535	50	93.45794	
1202068101 - 2 MSD (248860001)	12-APR-2010 22:34:00	Soil	0.536	50	93.28358	
248860002 - 2	12-APR-2010 22:34:00	Soil	0.513	50	97.46589	
248860003 - 2	12-APR-2010 22:34:00	Soil	0.559	50	89.44544	
248860004 - 2	12-APR-2010 22:34:00	Soil	0.527	50	94.87666	
248860005 - 2	12-APR-2010 22:34:00	Soil	0.527	50	94.87666	
248860006 - 2	12-APR-2010 22:34:00	Soil	0.52	50	96.15385	
248860007 - 2	12-APR-2010 22:34:00	Soil	0.559	50	89.44544	
248860008 - 2	12-APR-2010 22:34:00	Soil	0.514	50	97.27626	
248860009 - 2	12-APR-2010 22:34:00	Soil	0.521	50	95.96929	
248863001 - 2	12-APR-2010 22:34:00	Soil	0.535	50	93.45794	
248863002 - 2	12-APR-2010 22:34:00	Soil	0.515	50	97.08738	
248863003 - 2	12-APR-2010 22:34:00	Soil	0.533	50	93.80863	
248863004 - 2	12-APR-2010 22:34:00	Soil	0.562	50	88.96797	
248865001 - 2	12-APR-2010 22:34:00	Soil	0.522	50	95.78544	

Reagent/Solvent Lot ID	Description	Amount
I282564	HYDROCHLORIC ACID	10 mL

Comments:

sample#248860001 is a brown, medium soil.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **964011.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202068102	Metals Soil LCS SRM ICP/Hg	UI062540-I	.506	g
MS	1202068100	Metals Spike Mix I	UI1268741-01	.25	mL
MS	1202068100	Metals Spike Mix II	UI1268744-06	.25	mL
MSD	1202068101	Metals Spike Mix I	UI1268741-01	.25	mL
MSD	1202068101	Metals Spike Mix II	UI1268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202068097 MB	13-MAR-2010 03:00:00	Soil	0.504	50	99.20635	
1202068102 LCS	13-MAR-2010 03:00:00	Soil	0.506	50	98.81423	
248860001	13-MAR-2010 03:00:00	Soil	0.506	50	98.81423	
1202068098 DUP (248860001)	13-MAR-2010 03:00:00	Soil	0.518	50	96.5251	
1202068099 SDILT (248860001)	13-MAR-2010 03:00:00	Soil	0.509	50	98.23183	
1202068100 MS (248860001)	13-MAR-2010 03:00:00	Soil	0.504	50	99.20635	
1202068101 MSD (248860001)	13-MAR-2010 03:00:00	Soil	0.509	50	98.23183	
248860002	13-MAR-2010 03:00:00	Soil	0.503	50	99.40358	
248860003	13-MAR-2010 03:00:00	Soil	0.528	50	94.69697	
248860004	13-MAR-2010 03:00:00	Soil	0.51	50	98.03922	
248860005	13-MAR-2010 03:00:00	Soil	0.519	50	96.33911	
248860006	13-MAR-2010 03:00:00	Soil	0.514	50	97.27626	
248860007	13-MAR-2010 03:00:00	Soil	0.502	50	99.60159	
248860008	13-MAR-2010 03:00:00	Soil	0.547	50	91.40768	
248860009	13-MAR-2010 03:00:00	Soil	0.507	50	98.61933	
248863001	13-MAR-2010 03:00:00	Soil	0.508	50	98.4252	
248863002	13-MAR-2010 03:00:00	Soil	0.503	50	99.40358	
248863003	13-MAR-2010 03:00:00	Soil	0.553	50	90.41591	
248863004	13-MAR-2010 03:00:00	Soil	0.508	50	98.4252	
248865001	13-MAR-2010 03:00:00	Soil	0.525	50	95.2381	

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL

Comments:

Sample 248860001 consist of gray, soil.

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **968184.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202078438	Metals LCS Soil SRM	UI031809A	.203	g
MS	1202078440	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL
MSD	1202078442	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202078437 MB	23-MAR-2010 14:45:00	Soil	0.583	30	51.45798	
1202078438 LCS	23-MAR-2010 14:45:00	Soil	0.203	30	147.78325	
248860001	23-MAR-2010 14:45:00	Soil	0.592	30	50.67568	
248860002	23-MAR-2010 14:45:00	Soil	0.549	30	54.64481	
248860003	23-MAR-2010 14:45:00	Soil	0.517	30	58.02708	
248860004	23-MAR-2010 14:45:00	Soil	0.511	30	58.70841	
248860005	23-MAR-2010 14:45:00	Soil	0.525	30	57.14286	
248860006	23-MAR-2010 14:45:00	Soil	0.502	30	59.76096	
248860007	23-MAR-2010 14:45:00	Soil	0.568	30	52.8169	
248860008	23-MAR-2010 14:45:00	Soil	0.578	30	51.90311	
248860009	23-MAR-2010 14:45:00	Soil	0.545	30	55.04587	
248863001	23-MAR-2010 14:45:00	Soil	0.541	30	55.45287	
248863002	23-MAR-2010 14:45:00	Soil	0.557	30	53.85996	
248863003	23-MAR-2010 14:45:00	Soil	0.523	30	57.36138	
248863004	23-MAR-2010 14:45:00	Soil	0.558	30	53.76344	
248866001	23-MAR-2010 14:45:00	Soil	0.522	30	57.47126	
248866002	23-MAR-2010 14:45:00	Soil	0.555	30	54.05405	
248867001	23-MAR-2010 14:45:00	Soil	0.575	30	52.17391	
1202078439 DUP (248867001)	23-MAR-2010 14:45:00	Soil	0.539	30	55.65863	
1202078440 MS (248867001)	23-MAR-2010 14:45:00	Soil	0.578	30	51.90311	
1202078442 MSD (248867001)	23-MAR-2010 14:45:00	Soil	0.537	30	55.86592	
1202078441 SDILT (248867001)	23-MAR-2010 14:45:00	Soil	0.575	30	52.17391	
248867002	23-MAR-2010 14:45:00	Soil	0.565	30	53.09735	
248867003	23-MAR-2010 14:45:00	Soil	0.518	30	57.91506	
248867004	23-MAR-2010 14:45:00	Soil	0.535	30	56.07477	

Reagent/Solvent Lot ID	Description	Amount

Prep Logbook

Batch ID: **968184.0** Verified by:
Analyst: Tara Griffin
Method: SW846 7471A Prep
Lab SOP: GL-MA-E-010 REV# 23
Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202078438	Metals LCS Soil SRM	UI031809A	.203	g
MS	1202078440	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL
MSD	1202078442	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1

Reagent/Solvent Lot ID	Description	Amount
1255532-C	Hg reducing agent	2 mL
1274391-1	NITRIC ACID	.375 mL
1277235-A	Hydrochloric Acid Conc.	1.125 mL
1277238-C	5% KMnO4 solution	7.5 mL
WHG100323-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL
WHG100323-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL
WHG100323-09	Mercury Working 1st Source CAL S 2.0	300 uL
WHG100323-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL
WHG100323-11	Mercury Working 1st Source CAL S 10.0	1.5 mL
WHG100323-12	Mercury Working 2nd Source S 5.0/ICV	750 uL

Comments:

Sample 248867001 is a rocky brown soil.

Digestion Start Date: 23-MAR-10 14:45

Digestion End Date: 23-MAR-10 15:15

DER Report No.: 809015
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
MERCURY	SW846 7471A	Solid	LANL
Batch ID:	**Sample Numbers:**		
968185	See Below		

Potentially affected work order(s)(SDG): 248860(10-2313),248863(10-2315),248866(10-2319),248867(10-2320)

Application Issues:

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MSD/PSD: QC 1202078442MSD	1. The matrix spike recovery failed outside of the control limits for Hg due to possible matrix interferences and/or non-homogeneity. Sample is a rocky, brown soil. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Jason Loy 24-MAR-10

Data Validator/Group Leader:

Eric Lawson 25-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
06-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
964012	See Below		

Potentially affected work order(s)(SDG): 248860(10-2313),248863(10-2315),248865(10-2318)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for LCS/LCSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202068100MS 2. Failed RPD for DUP: QC 1202068098DUP 3. Failed Recovery for LCS/LCSD: QC 1202068102LCS 4. Failed Recovery for MSD/PSD: QC 1202068101MSD	1./4. The matrix spike and matrix spike duplicate recovery failed outside of the control limits for aluminum,manganese,potassium and sodium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for chromium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. Silver and/or antimony did not meet the recovery acceptance criteria for the LCS. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures.

Originator's Name:
Helen Camello 09-APR-10

Data Validator/Group Leader:
Christopher Louviere 12-APR-10

DER Report No.: 816871
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
13-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
974047	See Below		

Potentially affected work order(s)(SDG): 248860(10-2313),248863(10-2315),248865(10-2318)

Application Issues:

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202068098DUP	1. The sample and sample duplicate % RPD failed outside the control limits for calcium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Christopher Louviere 13-APR-10

Data Validator/Group Leader:

Louise Smith 14-APR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Cesium	1.68 mg/kg	Chromium	236 mg/kg
Cobalt	91.2 mg/kg	Copper	174 mg/kg
Iron	18000 mg/kg	Lead	86 mg/kg
Lithium	10.6 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	755 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silver	30.1 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	1020 mg/kg	Strontium	227 mg/kg
Thallium	121 mg/kg	Thorium	9.84 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Uranium	2.13 mg/kg	Uranium-235	.0153 mg/kg
Uranium-238	2.11 mg/kg	Vanadium	92.4 mg/kg
Zinc	594 mg/kg	Zirconium	10.6 mg/kg

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 22-APR-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	30 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	30 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	100 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	3 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	5 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090827-A **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 27-AUG-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090827-B **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 27-AUG-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L

Analyte	Concentration	Analyte	Concentration
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100310-49.13 **Opened:** 31-MAR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 01-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L

Analyte	Concentration	Analyte	Concentration
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100317-06 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-MAR-10 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019161
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI100317-07 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-MAR-10 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019162
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

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Serial ID: UI100317-08 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-MAR-10 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019163
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI100325-41 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100329-40 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008325
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L

Analyte	Concentration	Analyte	Concentration
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI100329-41 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008323
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI100329-42 **Opened:** 01-APR-10 **Amount :** 200 mL
Name: SILICON **Received:** 29-MAR-10 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 01-APR-11 **Lot Number :** 1004838
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100331-42 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 31-MAR-10 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 08-APR-11 **Lot Number :** 1019414
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100401-48 **Opened:** 02-APR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-APR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 16-APR-10 **Lot Number :** 1019463
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100405-40 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100405-41 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100407-49.3 **Opened:** 13-APR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 08-APR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 14-APR-10 **Lot Number :** 1019511
Employee: Louise Smith **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L

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Analyte	Concentration	Analyte	Concentration
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100509-11 **Opened:** 09-MAY-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 09-MAY-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 09-MAY-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100515-60 **Opened:** 15-MAY-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 15-MAY-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 15-MAY-11 **Lot Number :** 1019850
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L

Analyte	Concentration	Analyte	Concentration
Zinc	250 mg/L		

Serial ID: UI100515-61 **Opened:** 15-MAY-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 15-MAY-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 15-MAY-11 **Lot Number :** 1019850
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI1268741-01 **Opened:** 11-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1268744-06 **Opened:** 11-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI1286772-01 **Opened:** 16-MAR-10 **Lot Number :** 1019097
Name: METALSPIKE-1 **Received:** 16-MAR-10
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1286774-06 **Opened:** 16-MAR-10 **Lot Number :** 1018913
Name: METALSPIKE-2 **Received:** 16-MAR-10
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

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Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100415-03 **Opened:** 15-APR-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Standard Logbook

Serial ID: IHG100323-01 **Opened:** 23-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 23-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 24-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100323-02 **Opened:** 23-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 24-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100323-07 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100323-08 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Standard Logbook

Serial ID: WHG100323-09 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100323-10 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100323-11 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100323-12 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: WHG100323-14 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100331-42 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100331-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100331-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100331-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100331-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100331-43 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100331-44 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1293083
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100331-45 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100331-46 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1293083
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100331-47 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL &1%HNO3-1293083
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100413-42 **Opened:** 13-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 14-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1300128
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100413-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100413-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100413-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100413-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100413-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100413-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100413-43 **Opened:** 13-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 14-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1300128
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI100329-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI100329-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100331-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L

Standard Logbook

Serial ID: WI100413-44 **Opened:** 13-APR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 14-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1300128
Employee: Louise Smith
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI100329-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100331-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Standard Logbook

Serial ID: WI100413-45 **Opened:** 13-APR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 14-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1300128
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100413-46 **Opened:** 13-APR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 14-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1300128
Employee: Louise Smith
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100329-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI100329-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100413-47 **Opened:** 13-APR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 14-APR-10 **Solvent :** 3%HCL &1%HNO3-1300128
Employee: Louise Smith
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100517-04 **Opened:** 17-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 17-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 18-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1339608
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100517-04A **Opened:** 17-MAY-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 17-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100517-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100517-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100517-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100517-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100517-05 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 17-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100517-06 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 17-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	30 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	200 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100517-07 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 17-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 18-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1339608
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100517-08 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 17-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100517-70 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 17-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100515-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100515-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100515-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100515-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100515-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100515-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100515-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100515-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100515-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100515-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100515-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100515-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100515-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100515-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100515-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100515-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100515-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100515-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-08
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Standard Logbook

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1277235-A **Opened:** 01-MAR-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 01-MAR-11
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1282564 **Opened:** 09-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 09-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID

Comments: None

Serial ID: 1282566 **Opened:** 09-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 09-MAR-10
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1291278 **Opened:** 25-MAR-10 **Lot Number :** J 08035 L
Name: I-HNO3 **Received:** 25-MAR-10
Type: Reagent/Solvent **Expires:** 25-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1293083 **Opened:** 29-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 29-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 04-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1300128 **Opened:** 12-APR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 02-APR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 18-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1302252 **Opened:** 15-APR-10 **Lot Number :** J 10027 L
Name: I-HNO3 **Received:** 15-APR-10
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1338237 **Opened:** 13-MAY-10 **Lot Number :** J11034
Name: I-HCL **Received:** 13-MAY-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 13-MAY-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1339608 **Opened:** 17-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 17-MAY-10
Type: Reagent/Solvent **Expires:** 24-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1338237	I-HCL	36.5-38.0	80 mL	8 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2315

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	962256	**Method:**	SW9012A Cyanide and Total
Prep Batch :	962255	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
248863001	RE46-10-12936
248863002	RE46-10-12930
248863003	RE46-10-12929
248863004	RE46-10-12935
1202064125	Method Blank (MB)
1202064126	248660002(WST36-10-8929) Sample Duplicate (DUP)
1202064127	248776001(RE11-10-1678) Sample Duplicate (DUP)
1202064128	248660002(WST36-10-8929) Matrix Spike (MS)
1202064129	248776001(RE11-10-1678) Matrix Spike (MS)
1202064130	248660002(WST36-10-8929) Matrix Spike Duplicate (MSD)
1202064131	248776001(RE11-10-1678) Matrix Spike Duplicate (MSD)
1202064132	Laboratory Control Sample (LCS)

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

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 248660002 (WST36-10-8929) and 248776001 (RE11-10-1678).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202064126 (WST36-10-8929) and 1202064127 (RE11-10-1678).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202064132 (LCS).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

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

Review Validation:

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

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

Reviewer: Nicki Cole A. Elmore **Date:** 3.29.10

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-2315 GEL Work Order: 248863

The Qualifiers in this report are defined as follows:

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

** Indicates the analyte is a surrogate compound.

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

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

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

Reviewed by Nicki Cole A. Elmore 3.29.10

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2315

Client Sample ID:	RE46-10-12936	Project:	LANL01004
Sample ID:	248863001	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	9.63%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	67.2	247	ug/kg	1	AXC2 03/12/10	1414	962256	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1239	962255

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2315

Client Sample ID:	RE46-10-12930	Project:	LANL01004
Sample ID:	248863002	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	8.46%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.8	268	ug/kg	1	AXC2 03/12/10	1414	962256	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1239	962255

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2315

Client Sample ID:	RE46-10-12929	Project:	LANL01004
Sample ID:	248863003	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	17.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.6	285	ug/kg	1	AXC2 03/12/10	1415	962256	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1239	962255

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2315

Client Sample ID:	RE46-10-12935	Project:	LANL01004
Sample ID:	248863004	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	12.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.6	285	ug/kg	1	AXC2 03/12/10	1416	962256	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1239	962255

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 27, 2010
Page 1 of 2

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

Contact: Ms. Joylene Valdez

Workorder: 248863

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 962256										
QC1202064126 248660002 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	03/12/10 13:48
QC1202064127 248776001 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A				03/12/10 14:00
QC1202064132 LCS										
Cyanide, Total	67900			81300	ug/kg		120	(32%-157%)		03/12/10 13:46
QC1202064125 MB										
Cyanide, Total			U	250	ug/kg					03/12/10 13:45
QC1202064128 248660002 MS										
Cyanide, Total	5800 U	ND		5970	ug/kg		103	(26%-158%)		03/12/10 13:49
QC1202064129 248776001 MS										
Cyanide, Total	4850 U	ND		5040	ug/kg		104	(26%-158%)		03/12/10 14:01
QC1202064130 248660002 MSD										
Cyanide, Total	5370 U	ND		5480	ug/kg	8.67	102	(0%-30%)		03/12/10 13:50
QC1202064131 248776001 MSD										
Cyanide, Total	5420 U	ND		6020	ug/kg	17.6	111	(0%-30%)		03/12/10 14:02

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based

QC Summary

Workorder: 248863

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

	on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

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

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

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 27-MAR-2010 13:12

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2315

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**12-MAR-2010 13:40:12**	**OM_3-12-2010_13-32-06**	**147**	**150**	**98**	**(90%-110%)**	**Yes**
CCV	12-MAR-2010 13:54:29	OM_3-12-2010_13-32-06	107	100	107	(90%-110%)	Yes
CCV	12-MAR-2010 14:06:54	OM_3-12-2010_13-32-06	108	100	108	(90%-110%)	Yes
CCV	12-MAR-2010 14:17:34	OM_3-12-2010_13-32-06	108	100	108	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**12-MAR-2010 13:42:03**	**OM_3-12-2010_13-32-06**	**-1.46**	**10**	**Yes**
CCB	12-MAR-2010 13:56:19	OM_3-12-2010_13-32-06	-1.44	10	Yes
CCB	12-MAR-2010 14:08:45	OM_3-12-2010_13-32-06	-1.38	10	Yes
CCB	12-MAR-2010 14:19:24	OM_3-12-2010_13-32-06	-1.72	10	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **962255.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010C Distillation SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064132	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202064128	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064129	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064130	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064131	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202064125 MB	12-MAR-2010 12:39:00	Soil	0.5	25	50	>12
1202064132 LCS	12-MAR-2010 12:39:00	Soil	0.25	25	100	>12
248660002	12-MAR-2010 12:39:00	Soil	0.5	25	50	>12
1202064126 DUP (248660002)	12-MAR-2010 12:39:00	Soil	0.51	25	49.01961	>12
1202064128 MS (248660002)	12-MAR-2010 12:39:00	Soil	0.5	25	50	>12
1202064130 MSD (248660002)	12-MAR-2010 12:39:00	Soil	0.54	25	46.2963	>12
248682001	12-MAR-2010 12:39:00	Soil	0.53	25	47.16981	>12
248682002	12-MAR-2010 12:39:00	Soil	0.5	25	50	>12
248682003	12-MAR-2010 12:39:00	Soil	0.52	25	48.07692	>12
248702001	12-MAR-2010 12:39:00	Soil	0.54	25	46.2963	>12
248702002	12-MAR-2010 12:39:00	Soil	0.56	25	44.64286	>12
248728001	12-MAR-2010 12:39:00	Solid	0.58	25	43.10345	>12
248776001	12-MAR-2010 12:39:00	Soil	0.5	25	50	>12
1202064127 DUP (248776001)	12-MAR-2010 12:39:00	Soil	0.51	25	49.01961	>12
1202064129 MS (248776001)	12-MAR-2010 12:39:00	Soil	0.57	25	43.85965	>12
1202064131 MSD (248776001)	12-MAR-2010 12:39:00	Soil	0.51	25	49.01961	>12
248776002	12-MAR-2010 12:39:00	Soil	0.57	25	43.85965	>12
248776003	12-MAR-2010 12:39:00	Soil	0.54	25	46.2963	>12
248776004	12-MAR-2010 12:39:00	Soil	0.57	25	43.85965	>12
248776005	12-MAR-2010 12:39:00	Soil	0.58	25	43.10345	>12
248793001	12-MAR-2010 12:39:00	Soil	0.59	25	42.37288	>12

Prep Logbook

Batch ID: **962255.0** Verified by:
Analyst: Alan Stanley
Method: SW846 9010C Distillation SW846 9010B Prep
Lab SOP: GL-GC-E-067 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064132	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202064128	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064129	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064130	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064131	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
248793002	12-MAR-2010 12:39:00	Soil	0.51	25	49.01961	>12
248793003	12-MAR-2010 12:39:00	Soil	0.54	25	46.2963	>12
248793004	12-MAR-2010 12:39:00	Soil	0.59	25	42.37288	>12
248863001	12-MAR-2010 12:39:00	Soil	0.56	25	44.64286	>12
248863002	12-MAR-2010 12:39:00	Soil	0.51	25	49.01961	>12
248863003	12-MAR-2010 12:39:00	Soil	0.53	25	47.16981	>12
248863004	12-MAR-2010 12:39:00	Soil	0.5	25	50	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100311-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/12/2010 13:33:03	OM_3-12-2010_13-32-06
150 ppb		1	axc2	3/12/2010 13:33:55	OM_3-12-2010_13-32-06
100 ppb		1	axc2	3/12/2010 13:34:47	OM_3-12-2010_13-32-06
50 ppb		1	axc2	3/12/2010 13:35:40	OM_3-12-2010_13-32-06
10 ppb		1	axc2	3/12/2010 13:36:34	OM_3-12-2010_13-32-06
CRDL 5.0 ppb		1	axc2	3/12/2010 13:37:27	OM_3-12-2010_13-32-06
ICAL-00		1	axc2	3/12/2010 13:38:22	OM_3-12-2010_13-32-06
ICV		1	axc2	3/12/2010 13:40:12	OM_3-12-2010_13-32-06
ICB		1	axc2	3/12/2010 13:42:03	OM_3-12-2010_13-32-06
CRDL		1	axc2	3/12/2010 13:43:53	OM_3-12-2010_13-32-06
1202064125	962256	1	axc2	3/12/2010 13:45:42	OM_3-12-2010_13-32-06
1202064132	962256	25	axc2	3/12/2010 13:46:35	OM_3-12-2010_13-32-06
248660002	962256	1	axc2	3/12/2010 13:47:28	OM_3-12-2010_13-32-06
1202064126	962256	1	axc2	3/12/2010 13:48:22	OM_3-12-2010_13-32-06
1202064128	962256	1	axc2	3/12/2010 13:49:14	OM_3-12-2010_13-32-06
1202064130	962256	1	axc2	3/12/2010 13:50:07	OM_3-12-2010_13-32-06
248682001	962256	1	axc2	3/12/2010 13:51:00	OM_3-12-2010_13-32-06
248682002	962256	1	axc2	3/12/2010 13:51:52	OM_3-12-2010_13-32-06
248682003	962256	1	axc2	3/12/2010 13:52:45	OM_3-12-2010_13-32-06
248702001	962256	1	axc2	3/12/2010 13:53:37	OM_3-12-2010_13-32-06
CCV		1	axc2	3/12/2010 13:54:29	OM_3-12-2010_13-32-06
CCB		1	axc2	3/12/2010 13:56:19	OM_3-12-2010_13-32-06
248702002	962256	1	axc2	3/12/2010 13:58:08	OM_3-12-2010_13-32-06
248728001	962256	1	axc2	3/12/2010 13:59:00	OM_3-12-2010_13-32-06
248776001	962256	1	axc2	3/12/2010 13:59:52	OM_3-12-2010_13-32-06
1202064127	962256	1	axc2	3/12/2010 14:00:44	OM_3-12-2010_13-32-06
1202064129	962256	1	axc2	3/12/2010 14:01:35	OM_3-12-2010_13-32-06
1202064131	962256	1	axc2	3/12/2010 14:02:29	OM_3-12-2010_13-32-06
248776002	962256	1	axc2	3/12/2010 14:03:22	OM_3-12-2010_13-32-06
248776003	962256	1	axc2	3/12/2010 14:04:16	OM_3-12-2010_13-32-06
248776004	962256	1	axc2	3/12/2010 14:05:09	OM_3-12-2010_13-32-06
248776005	962256	1	axc2	3/12/2010 14:06:02	OM_3-12-2010_13-32-06
CCV		1	axc2	3/12/2010 14:06:54	OM_3-12-2010_13-32-06
CCB		1	axc2	3/12/2010 14:08:45	OM_3-12-2010_13-32-06
248793001	962256	1	axc2	3/12/2010 14:10:34	OM_3-12-2010_13-32-06
248793002	962256	1	axc2	3/12/2010 14:11:27	OM_3-12-2010_13-32-06
248793003	962256	1	axc2	3/12/2010 14:12:19	OM_3-12-2010_13-32-06
248793004	962256	1	axc2	3/12/2010 14:13:12	OM_3-12-2010_13-32-06
248863001	962256	1	axc2	3/12/2010 14:14:05	OM_3-12-2010_13-32-06
248863002	962256	1	axc2	3/12/2010 14:14:57	OM_3-12-2010_13-32-06
248863003	962256	1	axc2	3/12/2010 14:15:49	OM_3-12-2010_13-32-06
248863004	962256	1	axc2	3/12/2010 14:16:41	OM_3-12-2010_13-32-06
CCV		1	axc2	3/12/2010 14:17:34	OM_3-12-2010_13-32-06
CCB		1	axc2	3/12/2010 14:19:24	OM_3-12-2010_13-32-06

Author: axc2 Date : 3/12/2010

Original Run Filename: OM_3-12-2010_13-32-06.OMN created 3/12/2010 13:32:06
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-12-2010_13-32-06.OMN last modified 3/12/2010 14:20:28
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100312-01	1	S1	200	10.7	3/12/2010@13:33:03			200 ppb
WCN100312-02	1	S2	150	7.88	3/12/2010@13:33:55			150 ppb
WCN100312-03	1	S3	100	5.47	3/12/2010@13:34:47			100 ppb
WCN100312-04	1	S4	50.0	2.82	3/12/2010@13:35:40			50 ppb
WCN100312-05	1	S5	10.0	0.717	3/12/2010@13:36:34			10 ppb
WCN100312-06	1	S6	5.00	0.426	3/12/2010@13:37:27			CRDL 5.0 ppb
WCN100312-08	1	S7	0.00	0.0751	3/12/2010@13:38:22			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99983 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100312-07	1	S8	147	7.85	3/12/2010@13:40:12			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-2.0 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.0 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100312-08	1	S7	-1.46	0.0807	3/12/2010@13:42:03			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.46 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.46 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100312-06	1	S6	5.06	0.422	3/12/2010@13:43:53			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.06 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.06 > 2.50					
		Message	Pass					
		Action	None					
1202064125|962256|MB	1	1	-2.23	0.0404	3/12/2010@13:45:42			
1202064132||LCS	1	2	32.5	1.86	3/12/2010@13:46:35		25.00	
248660002	1	3	-2.55	0.0237	3/12/2010@13:47:28			
1202064126||DUP	1	4	-1.90	0.0576	3/12/2010@13:48:22			
1202064128||MS	1	5	103	5.55	3/12/2010@13:49:14			
1202064130||MSD	1	6	102	5.49	3/12/2010@13:50:07			
248682001	1	7	-1.86	0.0593	3/12/2010@13:51:00			
248682002	1	8	-1.13	0.0976	3/12/2010@13:51:52			
248682003	1	9	-2.38	0.0325	3/12/2010@13:52:45			
248702001	1	10	-1.44	0.0814	3/12/2010@13:53:37			
WCN100312-03	1	S3	107	5.76	3/12/2010@13:54:29			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.9 < 10.0					

		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	6.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100312-08	1	S7	-1.44	0.0816	3/12/2010@13:56:19			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.44 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.44 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248702002	1	11	-1.65	0.0707	3/12/2010@13:58:08			
248728001	1	12	4.14	0.374	3/12/2010@13:59:00			
248776001	1	13	-0.741	0.118	3/12/2010@13:59:52			
1202064127|DUP	1	14	-1.55	0.0758	3/12/2010@14:00:44			
1202064129|MS	1	15	104	5.61	3/12/2010@14:01:35			
1202064131|MSD	1	16	111	5.98	3/12/2010@14:02:29			
248776002	1	17	-0.517	0.130	3/12/2010@14:03:22			
248776003	1	18	-1.89	0.0582	3/12/2010@14:04:16			
248776004	1	19	-1.84	0.0607	3/12/2010@14:05:09			
248776005	1	20	-1.39	0.0841	3/12/2010@14:06:02			
WCN100312-03	1	S3	108	5.81	3/12/2010@14:06:54			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	7.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	7.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100312-08	1	S7	-1.38	0.0849	3/12/2010@14:08:45			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.38 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.38 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248793001	1	21	-2.40	0.0313	3/12/2010@14:10:34			
248793002	1	22	-2.49	0.0267	3/12/2010@14:11:27			
248793003	1	23	-2.02	0.0512	3/12/2010@14:12:19			
248793004	1	24	-2.37	0.0327	3/12/2010@14:13:12			
248863001	1	25	-1.94	0.0555	3/12/2010@14:14:05			
248863002	1	26	-2.25	0.0390	3/12/2010@14:14:57			
248863003	1	27	-1.66	0.0701	3/12/2010@14:15:49			
248863004	1	28	-1.51	0.0781	3/12/2010@14:16:41			
WCN100312-03	1	S3	108	5.83	3/12/2010@14:17:34			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	8.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	8.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100312-08	1	S7	-1.72	0.0667	3/12/2010@14:19:24			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.72 < 5.00					

Message	CCB Passed					
Action	Continue					
DQM Test: < - Concentration Limit						
Result:	-1.72 > -5.00					
Message	CCB Passed					
Action	Continue					

Analyte Properties Table for OM_3-12-2010_13-32-06.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

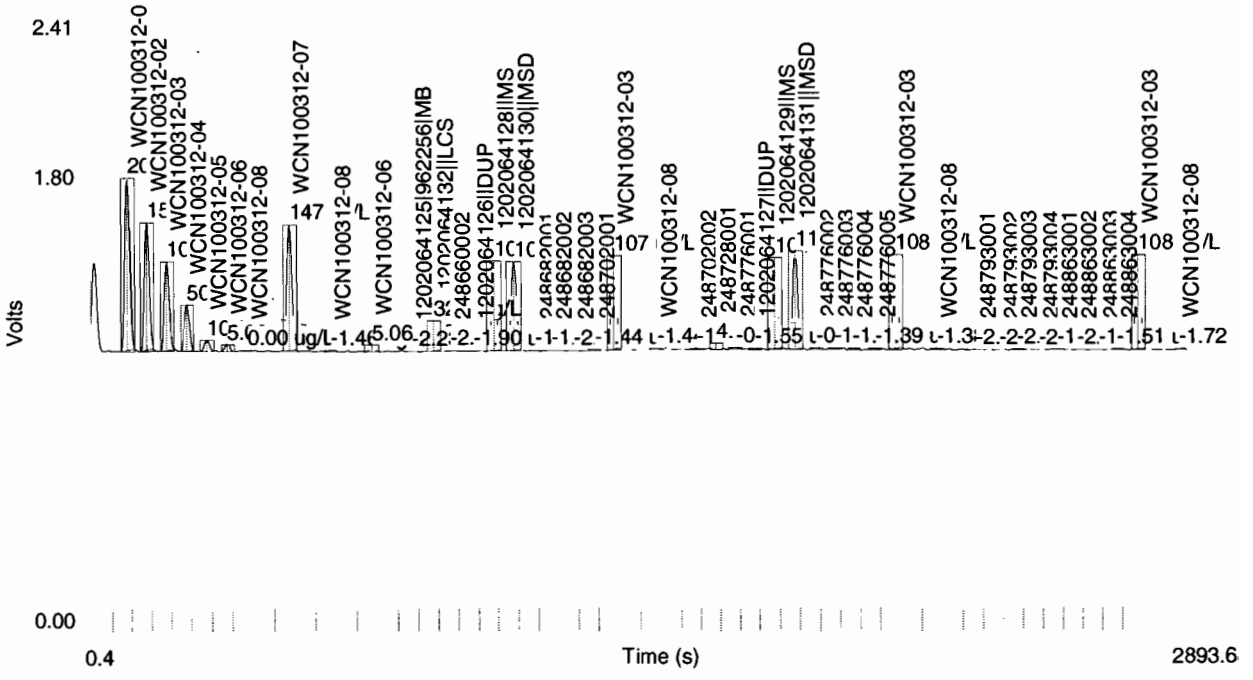

Author: axc2 Date : 3/12/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.7	0.699	-0.4	3/12/2010	13:34:06
2	150	1	7.88	0.517	1.6	3/12/2010	13:34:58
3	100	1	5.47	0.360	-1.5	3/12/2010	13:35:50
4	50.0	1	2.82	0.186	-1.7	3/12/2010	13:36:43
5	10.0	1	0.717	0.0456	-5.2	3/12/2010	13:37:37
6	5.00	1	0.426	0.0257	-1.3	3/12/2010	13:38:30
7	0.00	1	0.0751	0.00390		3/12/2010	13:39:25

Figure 1: TCYANIDE

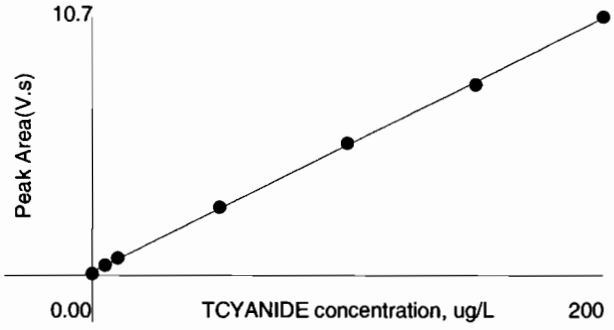

Area = 0.0523 * Conc + 0.158
Conc = 19.1 * Area - 3.00
Correlation Coefficient (r) = 0.99983

No Weighting

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2315

Method/Analysis Information

Procedure:	**Dry Weight-Percent Moisture**
Analytical Method:	Dry Soil Prep
Analytical Batch Number:	962369

Sample ID	Client ID
248863001	RE46-10-12936
248863002	RE46-10-12930
248863003	RE46-10-12929
248863004	RE46-10-12935
1202064417	248800001(RE11-10-1756) Sample Duplicate (DUP)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

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

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 248800001 (RE11-10-1756). The QC was from LANL work order 248800.

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

CSU

Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

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

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

Miscellaneous Information:

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

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

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962716
Prep Batch Number:	962369

Sample ID	Client ID
248863001	RE46-10-12936
248863002	RE46-10-12930
248863003	RE46-10-12929
248863004	RE46-10-12935
1202065371	Method Blank (MB)
1202065372	248866001(RE46-10-11885) Sample Duplicate (DUP)
1202065373	Laboratory Control Sample (LCS)

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

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

Calibration Information:

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

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

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

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202065371 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248866001 (RE46-10-11885). The QC was from LANL work order 248866.

QC Information
Refer to Data Exception Report (DER).

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

Technical Information:

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

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

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG:
DER 809656 was generated due to Result is more negative than the three sigma TPU. 1. The Am-241 results for Duplicate Sample 1202065372 is more negative than three sigma TPU. 1. The Quality

Control Sample 248866001 does not have a high Am-241 negative result. There is no reportable Am-241 activity in either of the samples. Reporting results.

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

Additional Comments
The MDCs are calculated using a blank population.

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

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962718
Prep Batch Number:	962369

Sample ID	Client ID
248863001	RE46-10-12936
248863002	RE46-10-12930
248863003	RE46-10-12929
248863004	RE46-10-12935
1202065378	Method Blank (MB)
1202065379	248866001(RE46-10-11885) Sample Duplicate (DUP)
1202065380	Laboratory Control Sample (LCS)

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

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

Calibration Information:

Calibration Information

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

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

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

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202065378 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248866001 (RE46-10-11885). The QC was from LANL work order 248866.

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

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

Technical Information:

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

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

Miscellaneous Information:

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

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

Additional Comments
The MDCs are calculated using a blank population.

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

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOTH**
Analytical Method:	DOE EML HASL-300, Th-01-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965814
Prep Batch Number:	962369

Sample ID	Client ID
248863001	RE46-10-12936
248863002	RE46-10-12930
248863003	RE46-10-12929
248863004	RE46-10-12935
1202072528	Method Blank (MB)
1202072529	248867001(RE46-10-12931) Sample Duplicate (DUP)
1202072530	Laboratory Control Sample (LCS)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-038 REV# 12.

Calibration Information:

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

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

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

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202072528 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248867001 (RE46-10-12931). The QC was from LANL work order 248867.

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

CSU
The Th230 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

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

Sample Re-prep/Re-analysis
Samples were recounted due to high relative percent difference/relative error ratio.

Miscellaneous Information:

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

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

Additional Comments
The MDCs are calculated using a blank population.

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

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962721
Prep Batch Number:	962369

Sample ID	Client ID
248863001	RE46-10-12936
248863002	RE46-10-12930
248863003	RE46-10-12929
248863004	RE46-10-12935
1202065398	Method Blank (MB)
1202065399	248866001(RE46-10-11885) Sample Duplicate (DUP)
1202065400	Laboratory Control Sample (LCS)

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

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

Calibration Information:

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

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

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

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202065398 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248866001 (RE46-10-11885). The QC was from LANL work order 248866.

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

CSU
The U233/234 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

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

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

Miscellaneous Information:

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

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

Additional Comments
The MDCs are calculated using a blank population.

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

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962633
Prep Batch Number:	962369

Sample ID	Client ID
248863001	RE46-10-12936
248863002	RE46-10-12930
248863003	RE46-10-12929
248863004	RE46-10-12935
1202065188	Method Blank (MB)
1202065189	248867001(RE46-10-12931) Sample Duplicate (DUP)
1202065190	Laboratory Control Sample (LCS)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 19.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in May 2009, June 2009, July 2009, December 2009 and February 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

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

Quality Control (QC) Information:

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

Designated QC
The following sample was used for QC: 248867001 (RE46-10-12931). The QC was from LANL work order 248867.

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

CSU
The blank, 1202065188 (MB), results for Co-60 and Ra-224 are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

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

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

Miscellaneous Information:

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

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

Blank Decision Level
The blank, 1202065188 (MB), results for Co-60 and Ra-224 are greater than the decision level but less than the MDC.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	248863001	RE46-10-12936
			248863002	RE46-10-12930
			248863003	RE46-10-12929
			248863004	RE46-10-12935
			1202065189	RE46-10-12931(248867001DUP)
		Cadmium-109	248863001	RE46-10-12936
			248863002	RE46-10-12930
			248863003	RE46-10-12929
			248863004	RE46-10-12935
			1202065189	RE46-10-12931(248867001DUP)
		Mercury-203	248863004	RE46-10-12935
		Radium-224	248863001	RE46-10-12936
			248863002	RE46-10-12930
			248863003	RE46-10-12929
			248863004	RE46-10-12935
			1202065189	RE46-10-12931(248867001DUP)
UI	Data rejected due to low abundance.	Cesium-134	248863002	RE46-10-12930
			1202065189	RE46-10-12931(248867001DUP)
		Strontium-85	248863001	RE46-10-12936
			248863002	RE46-10-12930
			248863004	RE46-10-12935

Certification Statement

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

Review Validation:

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

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

Reviewer/Date: Pamela Walker 3/31/10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
25-MAR-10	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ALPHA SPECTROMETER	DOE EML HASL-300, Am-05-RC Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
962716	See Below		

Potentially affected work order(s)(SDG): 248800(10-2290),248863(10-2315),248865(10-2318),248866(10-2319)

Application Issues:

Result is more negative than the three sigma TPU

Specification and Requirements Exception Description:	DER Disposition:
1. The Am-241 results for Duplicate Sample 1202065372 is more negative than three sigma TPU.	1. The Quality Control Sample 248866001 does not have a high Am-241 negative result. There is no reportable Am-241 activity in either of the samples. Reporting results.

Originator's Name:		Data Validator/Group Leader:	
Jessica Downey	25-MAR-10	Kate Gellatly	25-MAR-10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-2315 GEL Work Order: 248863

The Qualifiers in this report are defined as follows:

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

** Indicates the analyte is a surrogate compound.

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

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

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

Reviewed by _____

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 30, 2010

Client Sample ID:	RE46-10-12936	Project:	LANL01004
Sample ID:	248863001	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	9.63%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00357	0.0237	+/-0.0037	0.050	pCi/g		MXE1	03/24/10	0804	962716	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00531	0.0235	+/-0.00308	0.050	pCi/g		MXE1	03/24/10	1631	962718	3
Plutonium-239/240	U	0.00	0.0199	+/-0.00177	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.84	0.184	+/-0.186	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
Thorium-230		1.11	0.232	+/-0.127	0.100	pCi/g						
Thorium-232		1.77	0.0987	+/-0.178	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.824	0.109	+/-0.0821	0.100	pCi/g		MXE1	03/24/10	1155	962721	6
Uranium-235/236	U	0.0383	0.0667	+/-0.0154	0.100	pCi/g						
Uranium-238		0.848	0.0767	+/-0.0839	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.206	0.550	+/-0.163	0.200	pCi/g		MXR1	03/24/10	1828	962633	7
Bismuth-211	UI	4.47	0.446	+/-0.340		pCi/g						
Bismuth-214		1.51	0.151	+/-0.130	0.200	pCi/g						
Cadmium-109	UI	2.88	1.93	+/-0.769		pCi/g						
Cerium-139	U	0.00164	0.0693	+/-0.0215	0.050	pCi/g						
Cesium-134	U	0.0977	0.120	+/-0.0454	0.100	pCi/g						
Cesium-137	U	-0.0591	0.0717	+/-0.0234	0.100	pCi/g						
Cobalt-60	U	0.0273	0.0837	+/-0.0243	0.100	pCi/g						
Europium-152	U	0.000349	0.223	+/-0.076	0.200	pCi/g						
Lanthanum-140	U	-0.0326	0.246	+/-0.0752		pCi/g						
Lead-212		2.09	0.123	+/-0.147	0.100	pCi/g						
Lead-214		1.62	0.164	+/-0.131	0.100	pCi/g						
Mercury-203	U	0.0466	0.103	+/-0.0292	0.100	pCi/g						
Potassium-40		38.5	0.698	+/-2.21	1.00	pCi/g						
Radium-223	U	0.289	1.50	+/-0.501		pCi/g						

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: March 30, 2010

Client Sample ID: RE46-10-12936
Sample ID: 248863001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-224	UI	6.64	1.32	+/-0.986		pCi/g						
Radium-226		1.51	0.151	+/-0.130		pCi/g						
Radium-228		2.30	0.282	+/-0.233	0.500	pCi/g						
Ruthenium-106	U	-0.175	0.691	+/-0.219	0.800	pCi/g						
Sodium-22	U	-0.0347	0.0959	+/-0.0314	0.080	pCi/g						
Strontium-85	UI	0.153	0.106	+/-0.0314		pCi/g						
Thallium-208		0.622	0.0805	+/-0.0592	0.080	pCi/g						
Thorium-227	U	0.0656	0.575	+/-0.166		pCi/g						
Thorium-231	U	0.289	1.50	+/-0.501		pCi/g						
Thorium-234	U	1.35	4.58	+/-1.31	2.00	pCi/g						
Tin-113	U	-0.052	0.0996	+/-0.0313	0.100	pCi/g						
Uranium-235	U	0.295	0.496	+/-0.148	0.500	pCi/g						
Yttrium-88	U	0.00731	0.0708	+/-0.021	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.1	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	84.3	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	78.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	87.9	(50%-105%)

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

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

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

Report Date: March 30, 2010

Client Sample ID: RE46-10-12936
Sample ID: 248863001

Project: LANL01004
Client ID: LANL010

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

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12930
Sample ID: 248863002
Matrix: S
Collect Date: 04-MAR-10
Receive Date: 06-MAR-10
Collector: Client
Moisture: 8.46%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00419	0.0251	+/-0.0033	0.050	pCi/g		MXE1	03/23/10	1335	962716	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00355	0.0236	+/-0.00252	0.050	pCi/g		MXE1	03/24/10	1631	962718	3
Plutonium-239/240	U	-0.00383	0.0199	+/-0.00284	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.76	0.169	+/-0.174	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
Thorium-230		1.17	0.213	+/-0.128	0.100	pCi/g						
Thorium-232		1.89	0.0906	+/-0.182	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.713	0.106	+/-0.0735	0.100	pCi/g		MXE1	03/24/10	1155	962721	6
Uranium-235/236	U	0.0606	0.065	+/-0.0186	0.100	pCi/g						
Uranium-238		0.755	0.0748	+/-0.0765	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.209	0.245	+/-0.0748	0.200	pCi/g		MXR1	03/24/10	1828	962633	7
Bismuth-211	UI	3.91	0.304	+/-0.301		pCi/g						
Bismuth-214		1.31	0.105	+/-0.105	0.200	pCi/g						
Cadmium-109	UI	2.15	1.27	+/-0.530		pCi/g						
Cerium-139	U	0.0247	0.0541	+/-0.0154	0.050	pCi/g						
Cesium-134	UI	0.147	0.0906	+/-0.0348	0.100	pCi/g						
Cesium-137	U	0.00475	0.0613	+/-0.0184	0.100	pCi/g						
Cobalt-60	U	0.00834	0.0643	+/-0.0192	0.100	pCi/g						
Europium-152	U	0.0287	0.149	+/-0.0526	0.200	pCi/g						
Lanthanum-140	U	-0.302	0.152	+/-0.0641		pCi/g						
Lead-212		2.10	0.0976	+/-0.150	0.100	pCi/g						
Lead-214		1.42	0.113	+/-0.116	0.100	pCi/g						
Mercury-203	U	0.0535	0.0759	+/-0.0225	0.100	pCi/g						
Potassium-40		39.5	0.487	+/-1.99	1.00	pCi/g						
Radium-223	U	0.318	1.08	+/-0.355		pCi/g						
Radium-224	UI	5.03	1.05	+/-0.741		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12930
Sample ID: 248863002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-226		1.31	0.105	+/-0.105		pCi/g						
Radium-228		2.11	0.243	+/-0.207	0.500	pCi/g						
Ruthenium-106	U	-0.0264	0.495	+/-0.149	0.800	pCi/g						
Sodium-22	U	-0.0203	0.0719	+/-0.0224	0.080	pCi/g						
Strontium-85	UI	0.156	0.0809	+/-0.0229		pCi/g						
Thallium-208		0.687	0.0543	+/-0.0545	0.080	pCi/g						
Thorium-227	U	-0.0664	0.442	+/-0.136		pCi/g						
Thorium-231	U	0.318	1.08	+/-0.355		pCi/g						
Thorium-234		3.36	2.02	+/-0.965	2.00	pCi/g						
Tin-113	U	0.00321	0.0741	+/-0.0221	0.100	pCi/g						
Uranium-235	U	0.101	0.365	+/-0.106	0.500	pCi/g						
Yttrium-88	U	0.00422	0.0526	+/-0.0158	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	74.5	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	84.8	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	84.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	90.2	(50%-105%)

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

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

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Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12930
Sample ID: 248863002

Project: LANL01004
Client ID: LANL010

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

A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12929
Sample ID: 248863003
Matrix: S
Collect Date: 04-MAR-10
Receive Date: 06-MAR-10
Collector: Client
Moisture: 17.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0021	0.0257	+/-0.00192	0.050	pCi/g		MXE1	03/23/10	1335	962716	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00488	0.0253	+/-0.00429	0.050	pCi/g		MXE1	03/24/10	1126	962718	3
Plutonium-239/240	U	0.00762	0.0214	+/-0.00384	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.94	0.161	+/-0.184	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
Thorium-230		1.10	0.202	+/-0.119	0.100	pCi/g						
Thorium-232		1.83	0.0863	+/-0.174	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.861	0.105	+/-0.0844	0.100	pCi/g		MXE1	03/24/10	1155	962721	6
Uranium-235/236	U	0.0369	0.0642	+/-0.0148	0.100	pCi/g						
Uranium-238		0.749	0.0739	+/-0.0756	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.066	0.388	+/-0.125	0.200	pCi/g		MXR1	03/24/10	1829	962633	7
Bismuth-211	UI	4.45	0.408	+/-0.290		pCi/g						
Bismuth-214		1.23	0.144	+/-0.115	0.200	pCi/g						
Cadmium-109	UI	3.20	1.65	+/-0.634		pCi/g						
Cerium-139	U	-0.0204	0.0611	+/-0.019	0.050	pCi/g						
Cesium-134	U	0.0732	0.103	+/-0.028	0.100	pCi/g						
Cesium-137	U	0.065	0.086	+/-0.024	0.100	pCi/g						
Cobalt-60	U	0.00632	0.0846	+/-0.0257	0.100	pCi/g						
Europium-152	U	0.00388	0.194	+/-0.0691	0.200	pCi/g						
Lanthanum-140	U	-0.0971	0.150	+/-0.0546		pCi/g						
Lead-212		2.10	0.114	+/-0.102	0.100	pCi/g						
Lead-214		1.62	0.148	+/-0.114	0.100	pCi/g						
Mercury-203	U	-0.000595	0.0861	+/-0.025	0.100	pCi/g						
Potassium-40		34.1	0.482	+/-1.64	1.00	pCi/g						
Radium-223	U	-0.612	1.27	+/-0.457		pCi/g						
Radium-224	UI	4.88	1.22	+/-0.777		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12929
Sample ID: 248863003
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-226		1.23	0.144	+/-0.115		pCi/g						
Radium-228		2.28	0.267	+/-0.249	0.500	pCi/g						
Ruthenium-106	U	0.255	0.667	+/-0.194	0.800	pCi/g						
Sodium-22	U	-0.0109	0.0848	+/-0.0266	0.080	pCi/g						
Strontium-85	U	0.059	0.0843	+/-0.0266		pCi/g						
Thallium-208		0.609	0.0714	+/-0.0499	0.080	pCi/g						
Thorium-227	U	0.121	0.524	+/-0.158		pCi/g						
Thorium-231	U	-0.612	1.27	+/-0.457		pCi/g						
Thorium-234		4.33	3.14	+/-1.02	2.00	pCi/g						
Tin-113	U	-0.0504	0.0935	+/-0.0292	0.100	pCi/g						
Uranium-235	U	0.243	0.391	+/-0.129	0.500	pCi/g						
Yttrium-88	U	0.00256	0.0523	+/-0.0156	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	73.1	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	79.4	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	90.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	90.7	(50%-105%)

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

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

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Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12929
Sample ID: 248863003

Project: LANL01004
Client ID: LANL010

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

A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID:	RE46-10-12935	Project:	LANL01004
Sample ID:	248863004	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	12.3%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00411	0.0287	+/-0.00472	0.050	pCi/g		MXE1	03/23/10	1335	962716	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00601	0.0266	+/-0.00349	0.050	pCi/g		MXE1	03/24/10	1126	962718	3
Plutonium-239/240	U	0.00312	0.0225	+/-0.00402	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.71	0.205	+/-0.181	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
Thorium-230		1.47	0.257	+/-0.160	0.100	pCi/g						
Thorium-232		1.69	0.110	+/-0.178	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.915	0.114	+/-0.0904	0.100	pCi/g		MXE1	03/24/10	1155	962721	6
Uranium-235/236		0.0747	0.0694	+/-0.0224	0.100	pCi/g						
Uranium-238		0.886	0.0799	+/-0.0881	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.121	0.415	+/-0.115	0.200	pCi/g		MXR1	03/24/10	2031	962633	7
Bismuth-211	UI	4.24	0.354	+/-0.280		pCi/g						
Bismuth-214		1.38	0.113	+/-0.102	0.200	pCi/g						
Cadmium-109	UI	4.33	1.44	+/-0.634		pCi/g						
Cerium-139	U	-0.0317	0.0496	+/-0.0156	0.050	pCi/g						
Cesium-134	U	0.0939	0.096	+/-0.0399	0.100	pCi/g						
Cesium-137	U	-0.0453	0.0697	+/-0.0217	0.100	pCi/g						
Cobalt-60	U	0.00426	0.0686	+/-0.0203	0.100	pCi/g						
Europium-152	U	-0.0186	0.168	+/-0.0568	0.200	pCi/g						
Lanthanum-140	U	-0.0182	0.194	+/-0.0606		pCi/g						
Lead-212		1.98	0.0926	+/-0.101	0.100	pCi/g						
Lead-214		1.54	0.129	+/-0.110	0.100	pCi/g						
Mercury-203	UI	0.089	0.0686	+/-0.0408	0.100	pCi/g						
Potassium-40		34.5	0.516	+/-1.58	1.00	pCi/g						
Radium-223	U	-0.24	1.03	+/-0.351		pCi/g						
Radium-224	UI	5.46	0.993	+/-0.809		pCi/g						

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Certificate of Analysis

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

Report Date: March 30, 2010

Client Sample ID: RE46-10-12935
Sample ID: 248863004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-226		1.38	0.113	+/-0.102		pCi/g						
Radium-228		2.23	0.255	+/-0.209	0.500	pCi/g						
Ruthenium-106	U	-0.0815	0.514	+/-0.162	0.800	pCi/g						
Sodium-22	U	-0.019	0.0766	+/-0.0238	0.080	pCi/g						
Strontium-85	UI	0.113	0.0858	+/-0.0251		pCi/g						
Thallium-208		0.658	0.0572	+/-0.0486	0.080	pCi/g						
Thorium-227	U	0.137	0.456	+/-0.128		pCi/g						
Thorium-231	U	-0.24	1.03	+/-0.351		pCi/g						
Thorium-234	U	-0.491	3.22	+/-0.946	2.00	pCi/g						
Tin-113	U	-0.0363	0.075	+/-0.0235	0.100	pCi/g						
Uranium-235	U	0.0581	0.344	+/-0.102	0.500	pCi/g						
Yttrium-88	U	-0.0197	0.0484	+/-0.0173	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	65.6	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	71.6	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	73.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	84.6	(50%-105%)

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

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

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Certificate of Analysis

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

Report Date: March 30, 2010

Client Sample ID: RE46-10-12935
Sample ID: 248863004

Project: LANL01004
Client ID: LANL010

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

A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 30, 2010

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

Contact: Ms. Joylene Valdez

Workorder: 248863

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 962716										
QC1202065372 248866001 DUP										
Americium-241	U	-0.00278	U	-0.0205	pCi/g	1.21		(0-1)	MXE1	03/23/1013:35
	TPU:	+/-0.00232		+/-0.00501						
	Yield:	67.2		85.4						
QC1202065373 LCS										
Americium-241	33.1			30.0	pCi/g		90.5	(75%-125%)		03/23/1009:05
	TPU:			+/-2.30						
	Yield:			87.6						
QC1202065371 MB										
Americium-241			U	-0.00672	pCi/g					03/23/1013:34
	TPU:			+/-0.0036						
	Yield:			80.3						
Batch 962718										
QC1202065379 248866001 DUP										
Plutonium-238	U	0.00212	U	0.00361	pCi/g	0.104		(0-1)	MXE1	03/24/1010:20
	TPU:	+/-0.00263		+/-0.00453						
	Yield:	87.1		84.3						
Plutonium-239/240	U	0.00661	U	0.0051	pCi/g	0.120		(0-1)		
	TPU:	+/-0.00333		+/-0.00296						
	Yield:	87.1		84.3						
QC1202065380 LCS										
Plutonium-238				4.61	pCi/g			(75%-125%)		
	TPU:			+/-0.431						
	Yield:			81.4						
Plutonium-239/240	41.8			38.6	pCi/g		92.4	(75%-125%)		
	TPU:			+/-2.68						
	Yield:			81.4						
QC1202065378 MB										
Plutonium-238			U	-0.000958	pCi/g					
	TPU:			+/-0.00311						
	Yield:			87.7						
Plutonium-239/240			U	-0.00253	pCi/g					
	TPU:			+/-0.00348						
	Yield:			87.7						
Batch 962721										
QC1202065399 248866001 DUP										
Uranium-233/234		0.963		0.758	pCi/g	0.615		(0-1)	MXE1	03/24/1011:55
	TPU:	+/-0.0913		+/-0.075						
	Yield:	94.3		76.8						
Uranium-235/236	U	0.0178	U	0.0389	pCi/g	0.377		(0-1)		
	TPU:	+/-0.011		+/-0.017						
	Yield:	94.3		76.8						
Uranium-238		0.906		0.843	pCi/g	0.187		(0-1)		
	TPU:	+/-0.0869		+/-0.0812						

QC Summary

Workorder: 248863

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 962721										
Yield:		94.3		76.8						
QC1202065400 LCS										
Uranium-233/234				5.99	pCi/g					
TPU:				+/-0.541						
Yield:				87.8						
Uranium-235/236			U	0.208	pCi/g					
TPU:				+/-0.0668						
Yield:				87.8						
Uranium-238	5.75			5.05	pCi/g		87.9	(75%-125%)		
TPU:				+/-0.468						
Yield:				87.8						
QC1202065398 MB										
Uranium-233/234			U	0.0138	pCi/g					
TPU:				+/-0.00662						
Yield:				82.0						
Uranium-235/236			U	0.00652	pCi/g					
TPU:				+/-0.00488						
Yield:				82.0						
Uranium-238			U	-0.00352	pCi/g					
TPU:				+/-0.00498						
Yield:				82.0						
Batch 965814										
QC1202072529 248867001 DUP										
Thorium-228		1.53		1.98	pCi/g	0.649		(0-1)	AYB1	03/29/1017:06
TPU:		+/-0.159		+/-0.188						
Yield:		85.0		88.3						
Thorium-230		0.881		1.24	pCi/g	0.762		(0-1)		
TPU:		+/-0.105		+/-0.132						
Yield:		85.0		88.3						
Thorium-232		1.36		1.62	pCi/g	0.429		(0-1)		
TPU:		+/-0.143		+/-0.159						
Yield:		85.0		88.3						
QC1202072530 LCS										
Thorium-228				1.33	pCi/g					03/29/1017:06
TPU:				+/-0.201						
Yield:				86.8						
Thorium-230	25.6			26.3	pCi/g		103	(75%-125%)		
TPU:				+/-2.12						
Yield:				86.8						
Thorium-232				1.10	pCi/g			(75%-125%)		
TPU:				+/-0.172						
Yield:				86.8						
QC1202072528 MB										
Thorium-228			U	-0.000358	pCi/g					03/29/1017:06
TPU:				+/-0.00567						
Yield:				93.1						
Thorium-230			U	0.00587	pCi/g					
TPU:				+/-0.00328						
Yield:				93.1						
Thorium-232			U	0.00141	pCi/g					

QC Summary

Workorder: 248863

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965814										
	TPU:			+/-0.00301						
	Yield:			93.1						
Rad Gamma Spec										
Batch 962633										
QC1202065189 248867001 DUP										
Americium-241	U	-0.0252	U	-0.0361	pCi/g	0.0477		(0-1)	MXR1	03/24/1023:00
	TPU:	+/-0.0965		+/-0.0183						
Bismuth-211	UI	3.83	UI	3.94	pCi/g	0.0946		(0-1)		
	TPU:	+/-0.303		+/-0.247						
Bismuth-214		1.17		1.48	pCi/g	0.715		(0-1)		
	TPU:	+/-0.103		+/-0.116						
Cadmium-109	UI	2.48	UI	4.66	pCi/g	1.14		(0-1)		
	TPU:	+/-0.596		+/-0.357						
Cerium-139	U	0.00997	U	-0.00147	pCi/g	0.207		(0-1)		
	TPU:	+/-0.0185		+/-0.00912						
Cesium-134	UI	0.141	UI	0.110	pCi/g	0.204		(0-1)		
	TPU:	+/-0.0479		+/-0.0293						
Cesium-137	UI	0.126		0.113	pCi/g	0.118		(0-1)		
	TPU:	+/-0.0246		+/-0.0324						
Cobalt-60	U	-0.0193	U	-0.000883	pCi/g	0.241		(0-1)		
	TPU:	+/-0.0213		+/-0.0169						
Europium-152	U	0.00124	U	0.0619	pCi/g	0.297		(0-1)		
	TPU:	+/-0.0666		+/-0.0356						
Lanthanum-140	U	-0.056	U	0.0733	pCi/g	0.559		(0-1)		
	TPU:	+/-0.0648		+/-0.0509						
Lead-212		1.84		1.91	pCi/g	0.165		(0-1)		
	TPU:	+/-0.111		+/-0.105						
Lead-214		1.39		1.43	pCi/g	0.0887		(0-1)		
	TPU:	+/-0.117		+/-0.0978						
Mercury-203	U	0.028	U	0.0029	pCi/g	0.308		(0-1)		
	TPU:	+/-0.0246		+/-0.0161						
Potassium-40		35.2		33.1	pCi/g	0.282		(0-1)		
	TPU:	+/-2.16		+/-1.65						
Radium-223	U	0.0653	U	0.0788	pCi/g	0.010		(0-1)		
	TPU:	+/-0.415		+/-0.260						
Radium-224	UI	4.78	UI	4.63	pCi/g	0.0588		(0-1)		
	TPU:	+/-0.778		+/-0.473						
Radium-226		1.17		1.48	pCi/g	0.715		(0-1)		
	TPU:	+/-0.103		+/-0.116						
Radium-228		1.69		1.98	pCi/g	0.356		(0-1)		
	TPU:	+/-0.213		+/-0.186						
Ruthenium-106	U	-0.102	U	0.201	pCi/g	0.492		(0-1)		
	TPU:	+/-0.172		+/-0.136						
Sodium-22	U	-0.0499	U	-0.00156	pCi/g	0.536		(0-1)		
	TPU:	+/-0.024		+/-0.0211						
Strontium-85	U	-0.18	U	0.0208	pCi/g	2.02		(0-1)		
	TPU:	+/-0.0321		+/-0.0177						
Thallium-208		0.586		0.584	pCi/g	0.0121		(0-1)		
	TPU:	+/-0.0518		+/-0.0471						
Thorium-227	U	0.00176	U	-0.102	pCi/g	0.224		(0-1)		

QC Summary

Workorder: 248863

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962633										
	TPU:	+/-0.142		+/-0.0906						
Thorium-231	U	0.0653	U	0.0788	pCi/g	0.010		(0-1)		
	TPU:	+/-0.415		+/-0.260						
Thorium-234	U	0.746		1.78	pCi/g	0.428		(0-1)		
	TPU:	+/-0.855		+/-0.350						
Tin-113	U	0.0304	U	-0.0268	pCi/g	0.631		(0-1)		
	TPU:	+/-0.0265		+/-0.0188						
Uranium-235	U	0.341	U	0.110	pCi/g	0.573		(0-1)		
	TPU:	+/-0.134		+/-0.0669						
Yttrium-88	U	-0.0065	U	0.0289	pCi/g	0.481		(0-1)		
	TPU:	+/-0.0191		+/-0.0177						
QC1202065190 LCS										
Americium-241	16.3			13.9	pCi/g		85.2	(75%-125%)		03/25/1009:16
	TPU:			+/-0.638						
Bismuth-211				3.46	pCi/g					
	TPU:			+/-0.367						
Bismuth-214				0.890	pCi/g					
	TPU:			+/-0.108						
Cadmium-109				35.4	pCi/g					
	TPU:			+/-2.11						
Cerium-139			U	0.0101	pCi/g					
	TPU:			+/-0.0215						
Cesium-134			U	0.071	pCi/g					
	TPU:			+/-0.0385						
Cesium-137	5.69			5.89	pCi/g		104	(75%-125%)		
	TPU:			+/-0.331						
Cobalt-60	6.49			6.90	pCi/g		106	(75%-125%)		
	TPU:			+/-0.337						
Europium-152			U	0.0108	pCi/g					
	TPU:			+/-0.0883						
Lanthanum-140			U	-0.0747	pCi/g					
	TPU:			+/-0.0628						
Lead-212				1.43	pCi/g					
	TPU:			+/-0.119						
Lead-214				1.26	pCi/g					
	TPU:			+/-0.138						
Mercury-203			U	-0.0163	pCi/g					
	TPU:			+/-0.0331						
Potassium-40				1.02	pCi/g					
	TPU:			+/-0.254						
Radium-223			U	-0.894	pCi/g					
	TPU:			+/-0.541						
Radium-224				2.93	pCi/g					
	TPU:			+/-0.863						
Radium-226				0.890	pCi/g					
	TPU:			+/-0.108						
Radium-228				1.59	pCi/g					
	TPU:			+/-0.301						
Ruthenium-106			U	-0.181	pCi/g					
	TPU:			+/-0.248						
Sodium-22			U	0.0353	pCi/g					

QC Summary

Workorder: 248863

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962633										
	TPU:			+/-0.0239						
Strontium-85			U	-0.0677	pCi/g					
	TPU:			+/-0.0364						
Thallium-208				0.427	pCi/g					
	TPU:			+/-0.054						
Thorium-227			U	-0.0226	pCi/g					
	TPU:			+/-0.208						
Thorium-231			U	-0.894	pCi/g					
	TPU:			+/-0.541						
Thorium-234			U	-0.854	pCi/g					
	TPU:			+/-0.967						
Tin-113			U	-0.0231	pCi/g					
	TPU:			+/-0.0386						
Uranium-235			U	-0.147	pCi/g					
	TPU:			+/-0.135						
Yttrium-88			U	0.0459	pCi/g					
	TPU:			+/-0.0238						
QC1202065188 MB										
Americium-241			U	-0.0948	pCi/g					03/24/1022:59
	TPU:			+/-0.0289						
Bismuth-211			U	0.0297	pCi/g					
	TPU:			+/-0.0459						
Bismuth-214			U	-0.0119	pCi/g					
	TPU:			+/-0.0183						
Cadmium-109			U	-0.612	pCi/g					
	TPU:			+/-0.169						
Cerium-139			U	-0.0106	pCi/g					
	TPU:			+/-0.00641						
Cesium-134			U	-0.00286	pCi/g					
	TPU:			+/-0.00786						
Cesium-137			U	-0.00571	pCi/g					
	TPU:			+/-0.00718						
Cobalt-60			U	0.0175	pCi/g					
	TPU:			+/-0.00761						
Europium-152			U	-0.017	pCi/g					
	TPU:			+/-0.0203						
Lanthanum-140			U	0.0232	pCi/g					
	TPU:			+/-0.0181						
Lead-212			U	-0.0174	pCi/g					
	TPU:			+/-0.0172						
Lead-214			U	0.0115	pCi/g					
	TPU:			+/-0.0166						
Mercury-203			U	-0.0075	pCi/g					
	TPU:			+/-0.00762						
Potassium-40			U	-0.0404	pCi/g					
	TPU:			+/-0.105						
Radium-223			U	-0.0221	pCi/g					
	TPU:			+/-0.128						
Radium-224			U	0.304	pCi/g					
	TPU:			+/-0.137						
Radium-226			U	-0.0119	pCi/g					

QC Summary

Workorder: 248863

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962633										
	TPU:			+/-0.0183						
Radium-228			U	-0.0353	pCi/g					
	TPU:			+/-0.0343						
Ruthenium-106			U	-0.0657	pCi/g					
	TPU:			+/-0.0658						
Sodium-22			U	-2.09E-06	pCi/g					
	TPU:			+/-0.00745						
Strontium-85			U	-0.0416	pCi/g					
	TPU:			+/-0.0134						
Thallium-208			U	0.00936	pCi/g					
	TPU:			+/-0.00937						
Thorium-227			U	0.0445	pCi/g					
	TPU:			+/-0.0518						
Thorium-231			U	-0.0221	pCi/g					
	TPU:			+/-0.128						
Thorium-234			U	0.199	pCi/g					
	TPU:			+/-0.296						
Tin-113			U	-0.00326	pCi/g					
	TPU:			+/-0.00929						
Uranium-235			U	-0.0127	pCi/g					
	TPU:			+/-0.0458						
Yttrium-88			U	-0.0106	pCi/g					
	TPU:			+/-0.00801						

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

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.

QC Summary

Workorder: 248863

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

ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

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

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

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 962716 Product: AM Date: 3/25/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	✓		DER# 809686
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	✓		DER# 809686
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/25/10

Secondary Review Performed By: [signature] 3/25/10

3/16 - 3/26

LAW

Am/Cm Que Sheet

08-MAR-10

Batch #: 962716 | Analyst: MXE1 | First Client Due Date: 26-MAR-10 | Internal Due Date: 16-MAR-10 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-VV | Expiration Date: 3/9/11 | Vol: 0.1

LCS Isotope(s): Am241/Cm244 | LCS Code(s): / 03/25/10 / 03/25/10 | Expiration Date: / 03/25/10 / 03/25/10 | Vol(s): / / 03/25/10

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

Prep Date: 3/18/10 | Initials: ML | Pipet ID: 291/058 | Balance ID: 50410272 | Witness: JEH 3-18-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #
248800001-1	RE11-10-1756	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	1	1	1.251	228
248800002-1	RE11-10-1762	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	2	2	1.244	229
248800003-1	RE11-10-1764	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	3	3	1.246	230
248800004-1	RE11-10-1776	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	4	4	1.241	271
248800005-1	RE11-10-1766	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	5	5	1.249	232
248800006-1	RE11-10-1763	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	6	6	1.248	233
248800007-1	RE11-10-1761	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	7	7	1.243	234
248800008-1	RE11-10-1765	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	8	8	1.252	209
248800009-1	RE11-10-1768	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	9	9	1.250	210
248800010-1	RE11-10-1767	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	10	10	1.249	211
248800011-1	RE11-10-1769	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	11	11	1.238	216
248800012-1	RE11-10-1770	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	12	12	1.250	217
248863001-1	RE46-10-12936	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	13	13	1.240	218
248863002-1	RE46-10-12930	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	14	14	1.249	239
248863003-1	RE46-10-12929	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	15	15	1.263	240
248863004-1	RE46-10-12935	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	16	16	1.238	241
248865001-1	RE46-10-11924	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	17	17	1.246	242
248866001-1	RE46-10-11885	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	18	18	1.246	235
248866002-1	RE46-10-11886	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	19	19	1.262	236
1202065371-1	MB for batch 962716	MB		.05 pCi/g	SOIL	QC ACCOUNT		20	20	1.00	237
1202065372-1	RE46-10-11885(248866001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	04-MAR-10	21	21	1.256	238
1202065373-1	LCS for batch 962716	LCS		.05 pCi/g	SOIL	QC ACCOUNT		22	22	0.106	234

SRM 0244-B exp 4/30/20

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

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

Data Reviewed By: 03/25/10

Blank Correction Report

Batch ID 962716

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202065372	DUP	Americium-241	1.26 g	-0.0205	0.00501	0.0213	-.00533333	pCi/g	NO
1202065373	LCS	Americium-241	0.106 g	30.0	2.30	0.249	-.06339623	pCi/g	NO
1202065371	MB	Americium-241	1.00 g	-0.00672	0.0036	0.0278	-.00672	pCi/g	NO
248800001	RE11-10-1756	Americium-241	1.25 g	-0.00142	0.00184	0.0269	-.005376	pCi/g	NO
248800002	RE11-10-1762	Americium-241	1.24 g	0.000279	0.00171	0.0251	-.00541935	pCi/g	NO
248800003	RE11-10-1764	Americium-241	1.25 g	-0.00271	0.00219	0.026	-.005376	pCi/g	NO
248800004	RE11-10-1776	Americium-241	1.24 g	-0.00143	0.00181	0.0264	-.00541935	pCi/g	NO
248800005	RE11-10-1766	Americium-241	1.25 g	0.000633	0.00423	0.0269	-.005376	pCi/g	NO
248800006	RE11-10-1763	Americium-241	1.25 g	0.00739	0.00364	0.0258	-.005376	pCi/g	NO
248800007	RE11-10-1761	Americium-241	1.24 g	-0.00143	0.00169	0.0247	-.00541935	pCi/g	NO
248800008	RE11-10-1765	Americium-241	1.25 g	0.000668	0.0021	0.0239	-.005376	pCi/g	NO
248800009	RE11-10-1768	Americium-241	1.25 g	0.00435	0.00252	0.0212	-.005376	pCi/g	NO
248800010	RE11-10-1767	Americium-241	1.25 g	0.00846	0.00414	0.029	-.005376	pCi/g	NO
248800011	RE11-10-1769	Americium-241	1.24 g	0.00125	0.00308	0.0252	-.00541935	pCi/g	NO
248800012	RE11-10-1770	Americium-241	1.25 g	-0.0022	0.0025	0.0257	-.005376	pCi/g	NO
248863001	RE46-10-12936	Americium-241	1.24 g	-0.00357	0.0037	0.0237	-.00541935	pCi/g	NO
248863002	RE46-10-12930	Americium-241	1.25 g	0.00419	0.0033	0.0251	-.005376	pCi/g	NO
248863003	RE46-10-12929	Americium-241	1.26 g	0.0021	0.00192	0.0257	-.00533333	pCi/g	NO
248863004	RE46-10-12935	Americium-241	1.24 g	0.00411	0.00472	0.0287	-.00541935	pCi/g	NO
248865001	RE46-10-11924	Americium-241	1.24 g	0.0108	0.00542	0.0274	-.00541935	pCi/g	NO
248866001	RE46-10-11885	Americium-241	1.25 g	-0.00278	0.00232	0.0276	-.005376	pCi/g	NO
248866002	RE46-10-11886	Americium-241	1.26 g	0.00345	0.00237	0.0237	-.00533333	pCi/g	NO

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

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962716
SAMPLE ID : S0248863001_AM
SAMPLE QTY : 1.240 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 79.143

CHAMBER : 218
DETECTOR S/N : 79411
AVERAGE %EFFICIENCY : 39.3974
COUNT DATE : 24-MAR-2010 08:04:44
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B218.CNF;91
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W218.CNF;30
CAL DATE : 28-FEB-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.8008E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3151E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3151E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5460.906	128.596	3.000	-2.207	4.320	2.7707	99.94000	-3.57E-03	3.70E-03	9.68E-03	2.37E-02	3.70E-03
AM243	5270.000	5285.746	46.194	514.000	509.680	4.320	2.0785	99.78000	8.27E-01	6.71E-02	7.27E-03	1.89E-02	3.69E-02
CM-242	6102.000	6046.815	64.298	5.000	5.000	0.000	4.0092	100.0000	8.83E-03	3.99E-03	1.40E-02	3.24E-02	3.95E-03
CM-3/4	5795.020	5771.390	178.056	4.000	2.560	1.440	4.8510	100.0000	4.15E-03	3.65E-03	1.69E-02	3.83E-02	3.64E-03
CM-5/6	5386.000	5376.517	0.000	10.000	10.000	0.000	6.1294	86.09000	1.88E-02	6.08E-03	2.49E-02	5.48E-02	5.94E-03
CM-247	4946.000	4900.482	143.434	7.000	4.840	2.160	6.3427	79.30000	9.88E-03	6.01E-03	2.79E-02	6.14E-02	5.97E-03
CM-248	5078.600	5083.953	0.000	8.000	8.000	0.000	11.0244	91.00000	1.42E-02	5.12E-03	4.23E-02	8.94E-02	5.03E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

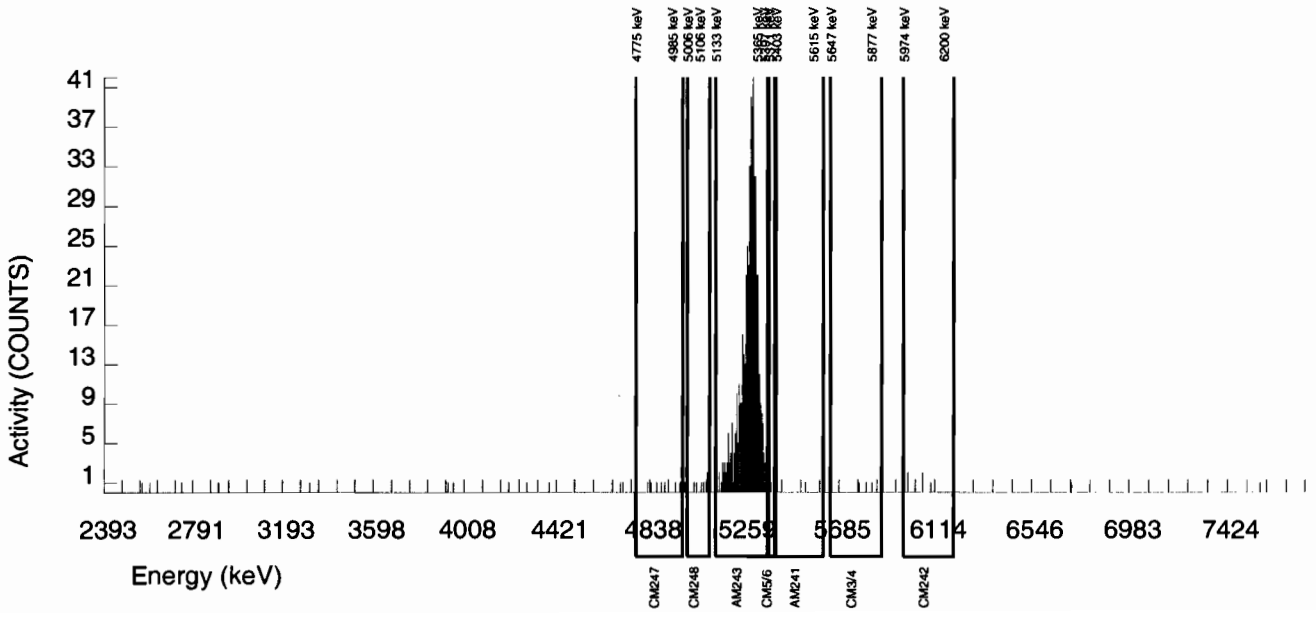

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962716
SAMPLE ID : S0248863002_AM
SAMPLE QTY : 1.249 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 74.483

CHAMBER : 239
DETECTOR S/N : 79432
AVERAGE %EFFICIENCY : 39.3422
COUNT DATE : 23-MAR-2010 13:35:05
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B239.CNF;91
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W239.CNF;30
CAL DATE : 28-FEB-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.6947E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3151E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3151E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5484.731	4.929	4.000	2.447	0.720	2.7707	99.94000	4.18E-03	3.30E-03	1.02E-02	2.51E-02	3.28E-03
AM243	5270.000	5278.394	45.497	479.000	479.000	0.000	0.0000	99.78000	8.21E-01	6.76E-02	0.00E+00	4.64E-03	3.75E-02
CM-242	6102.000	6070.155	39.432	4.000	4.000	0.000	4.0092	100.0000	7.44E-03	3.75E-03	1.48E-02	3.42E-02	3.72E-03
CM-3/4	5795.020	5780.924	4.929	6.000	6.000	0.000	4.8510	100.0000	1.03E-02	4.25E-03	1.79E-02	4.04E-02	4.20E-03
CM-5/6	5386.000	5377.647	0.000	5.000	5.000	0.000	6.1294	86.09000	9.93E-03	4.49E-03	2.63E-02	5.79E-02	4.44E-03
CM-247	4946.000	4872.214	108.438	6.000	5.280	0.720	6.3427	79.30000	1.14E-02	5.56E-03	2.95E-02	6.48E-02	5.50E-03
CM-248	5078.600	5056.273	34.092	13.000	11.560	1.440	11.0244	91.00000	2.17E-02	7.19E-03	4.47E-02	9.44E-02	7.04E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

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

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

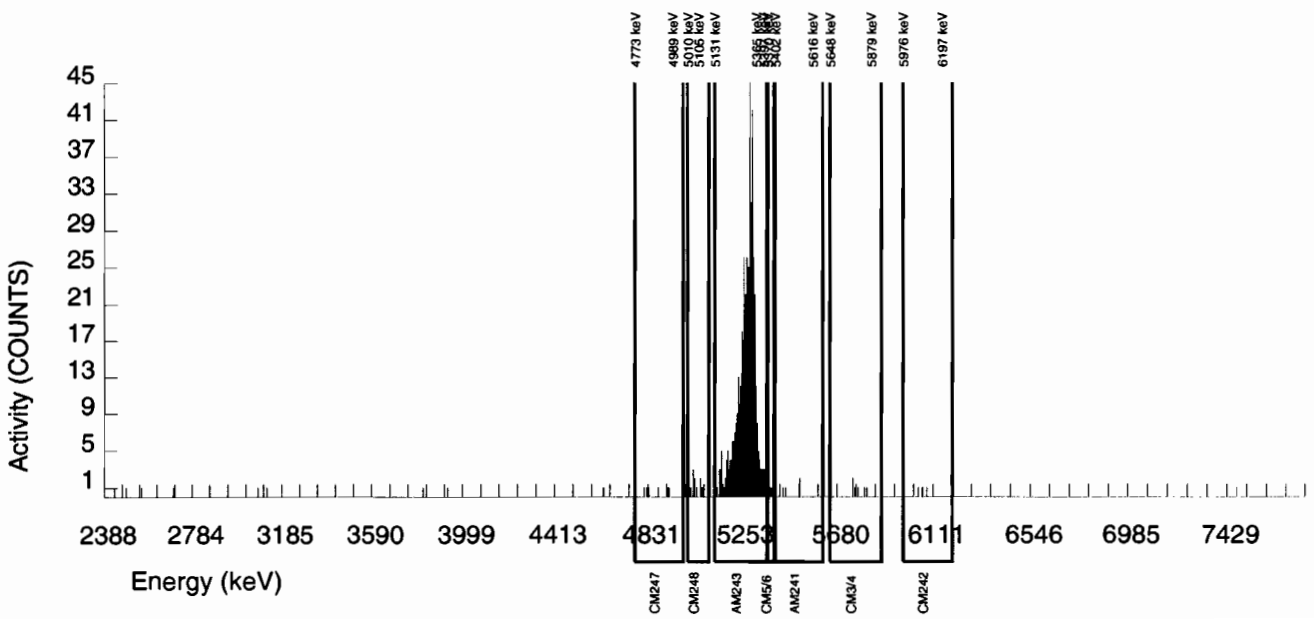

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962716
SAMPLE ID : S0248863003_AM
SAMPLE QTY : 1.263 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 73.067

CHAMBER : 240
DETECTOR S/N : 79433
AVERAGE %EFFICIENCY : 38.7048
COUNT DATE : 23-MAR-2010 13:35:08
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B240.CNF;91
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W240.CNF;30
CAL DATE : 28-FEB-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.6625E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3151E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3151E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5488.658	117.698	2.000	1.196	0.000	2.7707	99.94000	2.10E-03	1.92E-03	1.05E-02	2.57E-02	1.92E-03
AM243	5270.000	5279.846	48.466	463.000	462.280	0.720	0.8485	99.78000	8.11E-01	6.77E-02	3.21E-03	1.12E-02	3.78E-02
CM-242	6102.000	6017.664	68.657	5.000	5.000	0.000	4.0092	100.0000	9.53E-03	4.31E-03	1.51E-02	3.50E-02	4.26E-03
CM-3/4	5795.020	5727.870	0.000	5.000	5.000	0.000	4.8510	100.0000	8.78E-03	3.97E-03	1.83E-02	4.14E-02	3.92E-03
CM-5/6	5386.000	5381.203	0.000	6.000	6.000	0.000	6.1294	86.09000	1.22E-02	5.05E-03	2.69E-02	5.93E-02	4.98E-03
CM-247	4946.000	4920.949	161.835	6.000	4.560	1.440	6.3427	79.30000	1.01E-02	5.90E-03	3.02E-02	6.64E-02	5.86E-03
CM-248	5078.600	5056.172	78.465	3.000	2.280	0.720	11.0244	91.00000	4.39E-03	3.62E-03	4.58E-02	9.68E-02	3.61E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

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

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

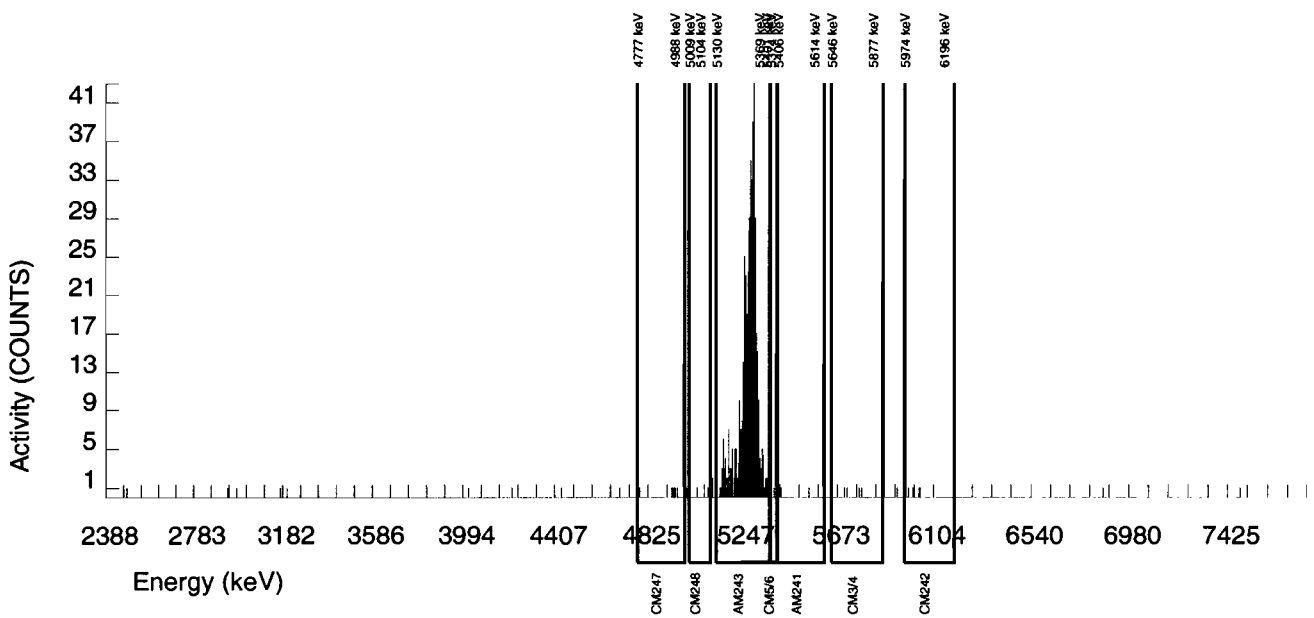

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962716
SAMPLE ID : S0248863004_AM
SAMPLE QTY : 1.238 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 65.649

CHAMBER : 241
DETECTOR S/N : 79434
AVERAGE %EFFICIENCY : 39.4182
COUNT DATE : 23-MAR-2010 13:35:10
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B241.CNF;91
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W241.CNF;30
CAL DATE : 28-FEB-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.4937E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3151E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3151E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5510.332	4.917	5.000	2.104	2.160	2.7707	99.94000	4.11E-03	4.72E-03	1.17E-02	2.87E-02	4.71E-03
AM243	5270.000	5273.431	64.591	423.000	423.000	0.000	0.0000	99.78000	8.28E-01	7.09E-02	0.00E+00	5.30E-03	4.03E-02
CM-242	6102.000	6052.665	4.917	6.000	6.000	0.000	4.0092	100.0000	1.27E-02	5.28E-03	1.69E-02	3.91E-02	5.20E-03
CM-3/4	5795.020	5753.785	98.331	6.000	5.280	0.720	4.8510	100.0000	1.03E-02	5.05E-03	2.04E-02	4.62E-02	5.00E-03
CM-5/6	5386.000	5379.533	6.474	9.000	9.000	0.000	6.1294	86.09000	2.04E-02	6.96E-03	3.00E-02	6.61E-02	6.81E-03
CM-247	4946.000	4906.587	0.000	4.000	3.280	0.720	6.3427	79.30000	8.08E-03	5.27E-03	3.37E-02	7.41E-02	5.23E-03
CM-248	5078.600	5049.654	58.999	6.000	5.280	0.720	11.0244	91.00000	1.13E-02	5.54E-03	5.10E-02	1.08E-01	5.48E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

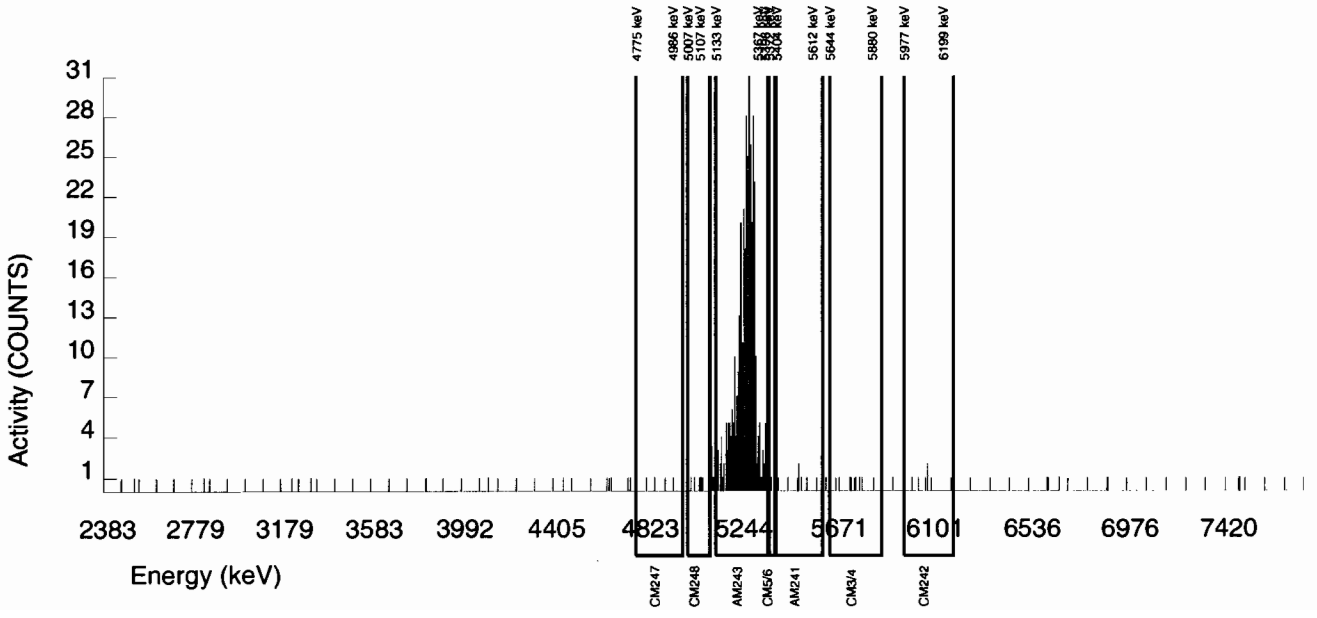

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962716
SAMPLE ID : S0248866001_AM
SAMPLE QTY : 1.246 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 67.155

CHAMBER : 235
DETECTOR S/N : 79428
AVERAGE %EFFICIENCY : 39.7692
COUNT DATE : 23-MAR-2010 13:34:51
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B235.CNF;91
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W235.CNF;30
CAL DATE : 28-FEB-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.5280E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3151E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3151E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5509.341	0.000	0.000	-1.480	0.720	2.7707	99.94000	-2.78E-03	2.32E-03	1.12E-02	2.76E-02	2.32E-03
AM243	5270.000	5277.514	39.621	438.000	436.560	1.440	1.2000	99.78000	8.23E-01	6.99E-02	4.88E-03	1.49E-02	3.95E-02
CM-242	6102.000	6068.685	19.645	2.000	2.000	0.000	4.0092	100.0000	4.09E-03	2.91E-03	1.63E-02	3.76E-02	2.89E-03
CM-3/4	5795.020	5817.650	63.845	3.000	-1.320	4.320	4.8510	100.0000	-2.49E-03	4.66E-03	1.97E-02	4.44E-02	4.66E-03
CM-5/6	5386.000	5386.670	0.000	4.000	4.000	0.000	6.1294	86.09000	8.74E-03	4.41E-03	2.89E-02	6.37E-02	4.37E-03
CM-247	4946.000	4826.137	29.467	2.000	2.000	0.000	6.3427	79.30000	4.74E-03	3.37E-03	3.24E-02	7.13E-02	3.35E-03
CM-248	5078.600	5059.530	53.920	11.000	11.000	0.000	11.0244	91.00000	2.27E-02	7.04E-03	4.91E-02	1.04E-01	6.85E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

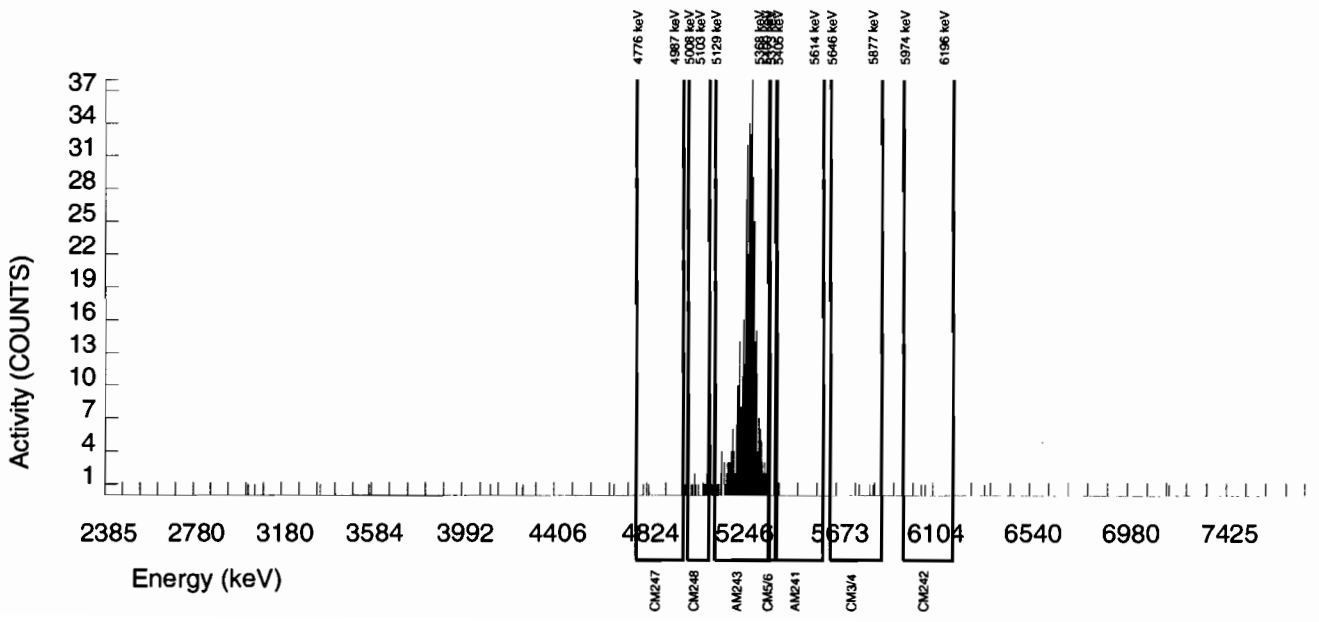

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962716
SAMPLE ID : S1202065371_AM
SAMPLE QTY : 1.000 G
SAMPLE DATE : 18-MAR-2010 00:00:00
ANALYST : MXE1
% YIELD : 80.317

CHAMBER : 237
DETECTOR S/N : 79430
AVERAGE %EFFICIENCY : 41.0426
COUNT DATE : 23-MAR-2010 13:34:58
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B237.CNF;91
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W237.CNF;30
CAL DATE : 28-FEB-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.8275E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3149E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3149E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5489.086	4.935	1.000	-3.538	3.600	2.7707	99.94000	-6.72E-03	3.60E-03	1.14E-02	2.78E-02	3.60E-03
AM243	5270.000	5280.875	53.401	541.000	538.840	2.160	1.4697	99.78000	1.02E+00	8.17E-02	6.03E-03	1.72E-02	4.43E-02
CM-242	6102.000	6076.652	113.495	4.000	4.000	0.000	4.0092	100.0000	7.78E-03	3.93E-03	1.64E-02	3.80E-02	3.89E-03
CM-3/4	5795.020	5788.000	133.233	9.000	9.000	0.000	4.8510	100.0000	1.71E-02	5.81E-03	1.99E-02	4.49E-02	5.70E-03
CM-5/6	5386.000	5382.614	0.000	9.000	8.280	0.720	6.1294	86.09000	1.83E-02	6.91E-03	2.92E-02	6.43E-02	6.80E-03
CM-247	4946.000	4910.235	83.887	3.000	2.280	0.720	6.3427	79.30000	5.46E-03	4.50E-03	3.27E-02	7.20E-02	4.49E-03
CM-248	5078.600	5067.409	6.117	8.000	8.000	0.000	11.0244	91.00000	1.67E-02	6.00E-03	4.96E-02	1.05E-01	5.90E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

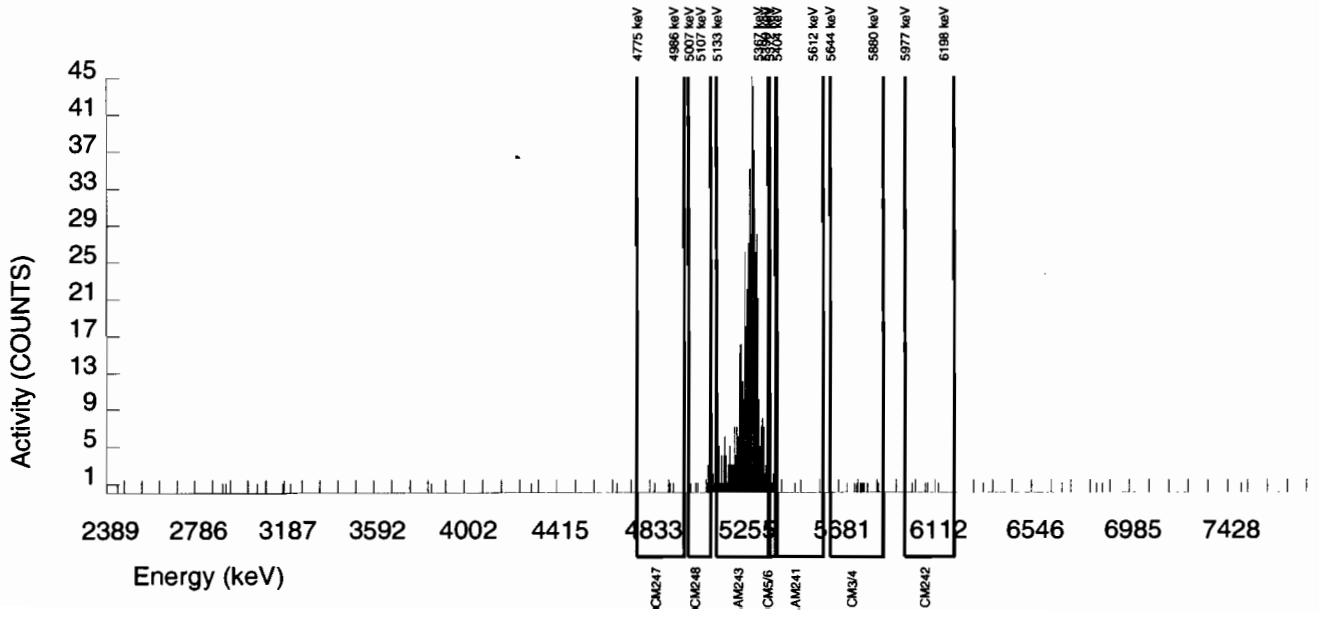

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962716
SAMPLE ID : S1202065372_AM
SAMPLE QTY : 1.256 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 85.430

CHAMBER : 238
DETECTOR S/N : 79431
AVERAGE %EFFICIENCY : 40.1819
COUNT DATE : 23-MAR-2010 13:35:01
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B238.CNF;93
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W238.CNF;32
CAL DATE : 28-FEB-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.9438E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3151E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3151E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5521.792	142.251	2.000	-14.096	15.120	2.7707	99.94000	-2.05E-02	5.01E-03	8.68E-03	2.13E-02	5.01E-03
AM243	5270.000	5273.047	38.901	564.000	561.120	2.880	1.6971	99.78000	8.16E-01	6.43E-02	5.32E-03	1.46E-02	3.46E-02
CM-242	6102.000	6021.360	63.768	4.000	4.000	0.000	4.0092	100.0000	6.31E-03	3.19E-03	1.26E-02	2.90E-02	3.16E-03
CM-3/4	5795.020	5762.755	4.905	1.000	1.000	0.000	4.8510	100.0000	1.45E-03	1.46E-03	1.52E-02	3.43E-02	1.45E-03
CM-5/6	5386.000	5383.220	0.000	3.000	2.280	0.720	6.1294	86.09000	3.84E-03	3.17E-03	2.23E-02	4.91E-02	3.16E-03
CM-247	4946.000	4925.201	58.862	12.000	11.280	0.720	6.3427	79.30000	2.06E-02	6.62E-03	2.50E-02	5.50E-02	6.47E-03
CM-248	5078.600	5056.569	49.052	17.000	16.280	0.720	11.0244	91.00000	2.60E-02	6.89E-03	3.79E-02	8.02E-02	6.67E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

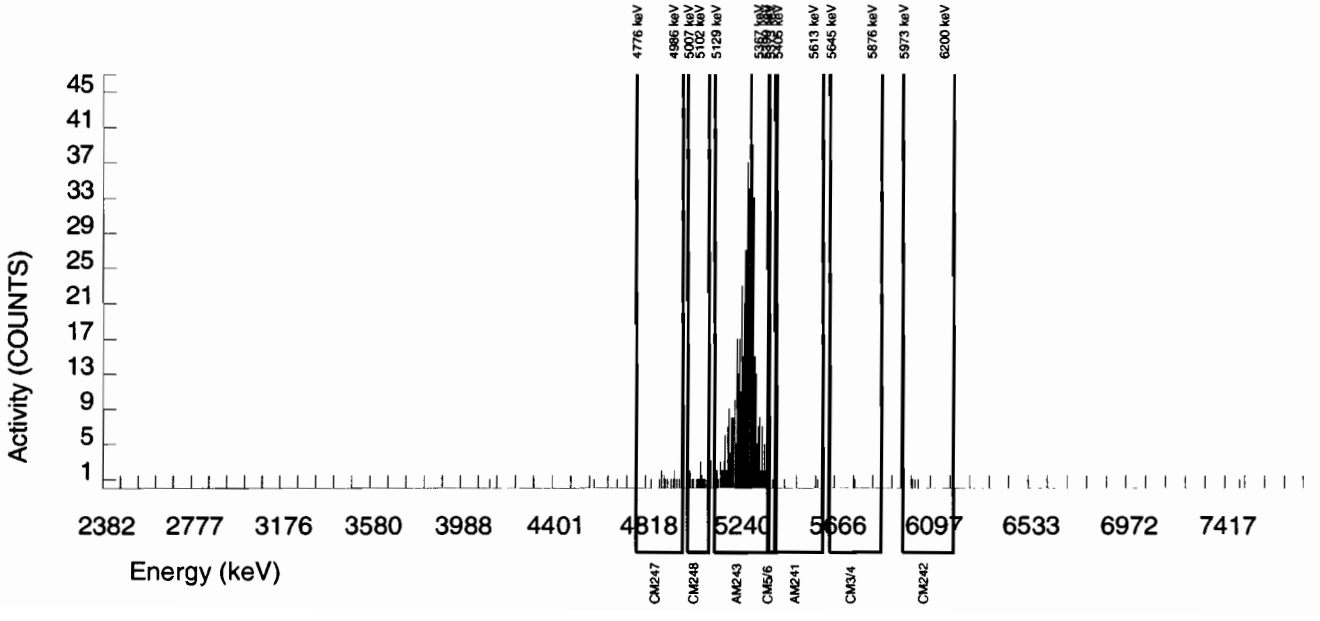

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962716
SAMPLE ID : S1202065373_AM
SAMPLE QTY : 0.106 G
SAMPLE DATE : 18-MAR-2010 00:00:00
ANALYST : MXE1
% YIELD : 87.596

CHAMBER : 234
DETECTOR S/N : 79427
AVERAGE %EFFICIENCY : 39.7384
COUNT DATE : 23-MAR-2010 09:05:42
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B234.CNF;92
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W234.CNF;30
CAL DATE : 28-FEB-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.9931E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3149E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3149E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5505.154	45.988	1769.000	1768.010	0.000	2.7707	99.94000	3.00E+01	2.30E+00	1.01E-01	2.49E-01	7.13E-01
AM243	5270.000	5283.462	32.436	569.000	569.000	0.000	0.0000	99.78000	9.67E+00	8.12E-01	0.00E+00	4.61E-02	4.05E-01
CM-242	6102.000	6041.672	83.537	7.000	7.000	0.000	4.0092	100.0000	1.22E-01	4.68E-02	1.47E-01	3.39E-01	4.59E-02
CM-3/4	5795.020	5735.781	156.632	8.000	7.280	0.720	4.8510	100.0000	1.24E-01	5.03E-02	1.77E-01	4.01E-01	4.95E-02
CM-5/6	5386.000	5387.921	0.000	43.000	43.000	0.000	6.1294	86.09000	8.47E-01	1.43E-01	2.60E-01	5.74E-01	1.29E-01
CM-247	4946.000	4897.436	167.075	5.000	3.560	1.440	6.3427	79.30000	7.61E-02	5.28E-02	2.93E-01	6.43E-01	5.25E-02
CM-248	5078.600	5054.535	44.226	10.000	10.000	0.000	11.0244	91.00000	1.86E-01	6.05E-02	4.43E-01	9.37E-01	5.89E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

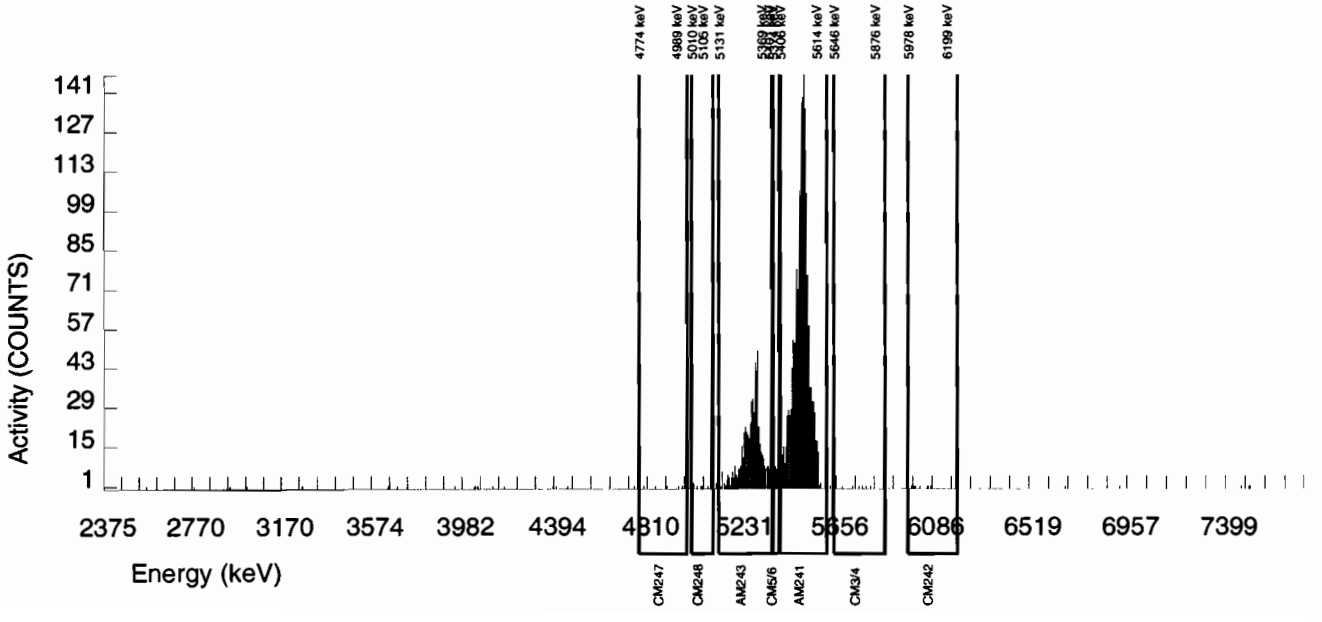

Radiochemistry Batch Checklist, Rev10

Batch# 962718 Product: Pu Date: 3/25/10

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

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 3/25/10

Secondary Review Performed By: [illegible] 3/25/10

OP 3/25/10 3/25 3/26

LANL

pL

Plutonium Que Sheet

08-MAR-10

Batch #: 962718 Pu-236 Analyst: MXE1 First Client Due Date: 26-MAR-10 Internal Due Date: 16-MAR-10

Tracer Isotope(s): ~~Pu-242/Pu-238~~ Tracer Code: 1430-C Expiration Date: 3/4/11 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: NA Expiration Date: NA Vol: NA

Spike Isotope(s): Pu-239/Pu-238 Spike Code: / Expiration Date: / Vol: /

Prep Date: 3/18/10 Initials: ll Pipet ID: 29710558 Balance ID: 50410272 Witness: JEH 3-18-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/ Dry Aliquot (g) (l / f)	Pu Det #
248800001-1	RE11-10-1756	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	1	1	1.251	13
248800002-1	RE11-10-1762	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	2	2	1.244	14
248800003-1	RE11-10-1764	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	3	3	1.246	16
248800004-1	RE11-10-1776	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	4	4	1.241	17
248800005-1	RE11-10-1766	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	5	5	1.249	18
248800006-1	RE11-10-1763	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	6	6	1.248	19
248800007-1	RE11-10-1761	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	7	7	1.243	20
248800008-1	RE11-10-1765	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	8	8	1.252	22
248800009-1	RE11-10-1768	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	9	9	1.250	23
248800010-1	RE11-10-1767	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	10	10	1.249	24
248800011-1	RE11-10-1769	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	11	11	1.238	101
248800012-1	RE11-10-1770	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	12	12	1.250	102
248863001-1	RE46-10-12936	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	13	13	1.240	103
248863002-1	RE46-10-12930	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	14	14	1.249	105
248863003-1	RE46-10-12929	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	15	15	1.263	107
248863004-1	RE46-10-12935	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	16	16	1.238	108
248865001-1	RE46-10-11924	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	17	17	1.240	109
248866001-1	RE46-10-11885	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	18	18	1.246	111
248866002-1	RE46-10-11886	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	19	19	1.262	112
1202065378-1	MB for batch 962718	MB		.05 pCi/g	SOIL	QC ACCOUNT		20	20	1.0	96
1202065379-1	RE46-10-11885(248866001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	04-MAR-10	21	21	1.256	97
1202065380-1	LCS for batch 962718	LCS		.05 pCi/g	SOIL	QC ACCOUNT		22	22	0.106	98

SRM 0244-B exp 4/30/20

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by LEACH or DIGESTION Circle One

Data Reviewed By: [illegible] - 3/25/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 962718

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202065379	DUP	Plutonium-238	1.26 g	0.00361	0.00453	0.0226	-.00076032	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0051	0.00296	0.0191	-.00200794	pCi/g	NO
1202065380	LCS	Plutonium-238	0.106 g	4.61	0.431	0.271	-.00903774	pCi/g	NO
		Plutonium-239/240	0.106 g	38.6	2.68	0.229	-.02386792	pCi/g	NO
1202065378	MB	Plutonium-238	1.00 g	-0.000958	0.00311	0.0289	-.000958	pCi/g	NO
		Plutonium-239/240	1.00 g	-0.00253	0.00348	0.0244	-.00253	pCi/g	NO
248800001	RE11-10-1756	Plutonium-238	1.25 g	0.0205	0.00787	0.0227	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00493	0.003	0.0192	-.002024	pCi/g	NO
248800002	RE11-10-1762	Plutonium-238	1.24 g	0.0119	0.0109	0.0244	-.00077258	pCi/g	NO
		Plutonium-239/240	1.24 g	-0.000589	0.00491	0.0207	-.00204032	pCi/g	NO
248800003	RE11-10-1764	Plutonium-238	1.25 g	0.0199	0.0069	0.025	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00135	0.00232	0.0211	-.002024	pCi/g	NO
248800004	RE11-10-1776	Plutonium-238	1.24 g	0.00218	0.00705	0.0301	-.00077258	pCi/g	NO
		Plutonium-239/240	1.24 g	0.0029	0.00361	0.0255	-.00204032	pCi/g	NO
248800005	RE11-10-1766	Plutonium-238	1.25 g	0.00236	0.00699	0.023	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00396	0.00326	0.0195	-.002024	pCi/g	NO
248800006	RE11-10-1763	Plutonium-238	1.25 g	0.00317	0.0094	0.031	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0326	0.00896	0.0262	-.002024	pCi/g	NO
248800007	RE11-10-1761	Plutonium-238	1.24 g	0.0123	0.00709	0.0226	-.00077258	pCi/g	NO
		Plutonium-239/240	1.24 g	0.00218	0.00271	0.0191	-.00204032	pCi/g	NO
248800008	RE11-10-1765	Plutonium-238	1.25 g	-0.0164	0.00926	0.0295	-.0007664	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0152	0.00728	0.0249	-.002024	pCi/g	NO
248800009	RE11-10-1768	Plutonium-238	1.25 g	0.00984	0.00623	0.0242	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0156	0.00612	0.0204	-.002024	pCi/g	NO
248800010	RE11-10-1767	Plutonium-238	1.25 g	0.0027	0.00633	0.0236	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0419	0.00939	0.0199	-.002024	pCi/g	NO
248800011	RE11-10-1769	Plutonium-238	1.24 g	0.00241	0.00299	0.025	-.00077258	pCi/g	NO
		Plutonium-239/240	1.24 g	0.0231	0.00706	0.0211	-.00204032	pCi/g	NO
248800012	RE11-10-1770	Plutonium-238	1.25 g	0.00332	0.00236	0.022	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00	0.00166	0.0186	-.002024	pCi/g	NO
248863001	RE46-10-12936	Plutonium-238	1.24 g	0.00531	0.00308	0.0235	-.00077258	pCi/g	NO
		Plutonium-239/240	1.24 g	0.00	0.00177	0.0199	-.00204032	pCi/g	NO
248863002	RE46-10-12930	Plutonium-238	1.25 g	0.00355	0.00252	0.0236	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00383	0.00284	0.0199	-.002024	pCi/g	NO
248863003	RE46-10-12929	Plutonium-238	1.26 g	0.00488	0.00429	0.0253	-.00076032	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00762	0.00384	0.0214	-.00200794	pCi/g	NO
248863004	RE46-10-12935	Plutonium-238	1.24 g	0.00601	0.00349	0.0266	-.00077258	pCi/g	NO
		Plutonium-239/240	1.24 g	0.00312	0.00402	0.0225	-.00204032	pCi/g	NO
248865001	RE46-10-11924	Plutonium-238	1.24 g	0.00392	0.00323	0.0228	-.00077258	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248865001	RE46-10-11924	Plutonium-239/240	1.24 g	0.00192	0.00423	0.0193	-.00204032	pCi/g	NO
248866001	RE46-10-11885	Plutonium-238	1.25 g	0.00212	0.00263	0.022	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00661	0.00333	0.0186	-.002024	pCi/g	NO
248866002	RE46-10-11886	Plutonium-238	1.26 g	0.00231	0.00287	0.024	-.00076032	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00412	0.0034	0.0203	-.00200794	pCi/g	NO

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

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962718
SAMPLE ID : S0248863001_PU
SAMPLE QTY : 1.240 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 84.342

CHAMBER : 103
DETECTOR S/N : 79461
AVERAGE %EFFICIENCY : 33.8341
COUNT DATE : 24-MAR-2010 16:31:07
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B103.CNF;696
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W103.CNF;200
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 3.0020E+00 dpm
RESULTS : 2.5319E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5768.501	40.676	609.000	608.280	0.720	0.8485	100.0000	1.09E+00	7.74E-02	3.24E-03	1.13E-02	4.43E-02
PU-238	5499.000	5436.390	63.715	3.000	3.000	0.000	2.4495	99.90000	5.31E-03	3.08E-03	9.35E-03	2.35E-02	3.07E-03
PU-9/0	5155.000	5117.274	0.000	0.000	0.000	0.000	1.9732	99.90000	0.00E+00	1.77E-03	7.53E-03	1.99E-02	1.77E-03
PU242	4890.000	4800.733	259.761	3.000	2.280	0.720	*******	100.0000	4.03E-03	3.32E-03	4.75E-01	9.56E-01	3.32E-03
PU-244	4589.000	4524.894	0.000	0.000	-0.720	0.720	6.4609	99.90000	-1.27E-03	2.18E-03	2.47E-02	5.41E-02	2.18E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

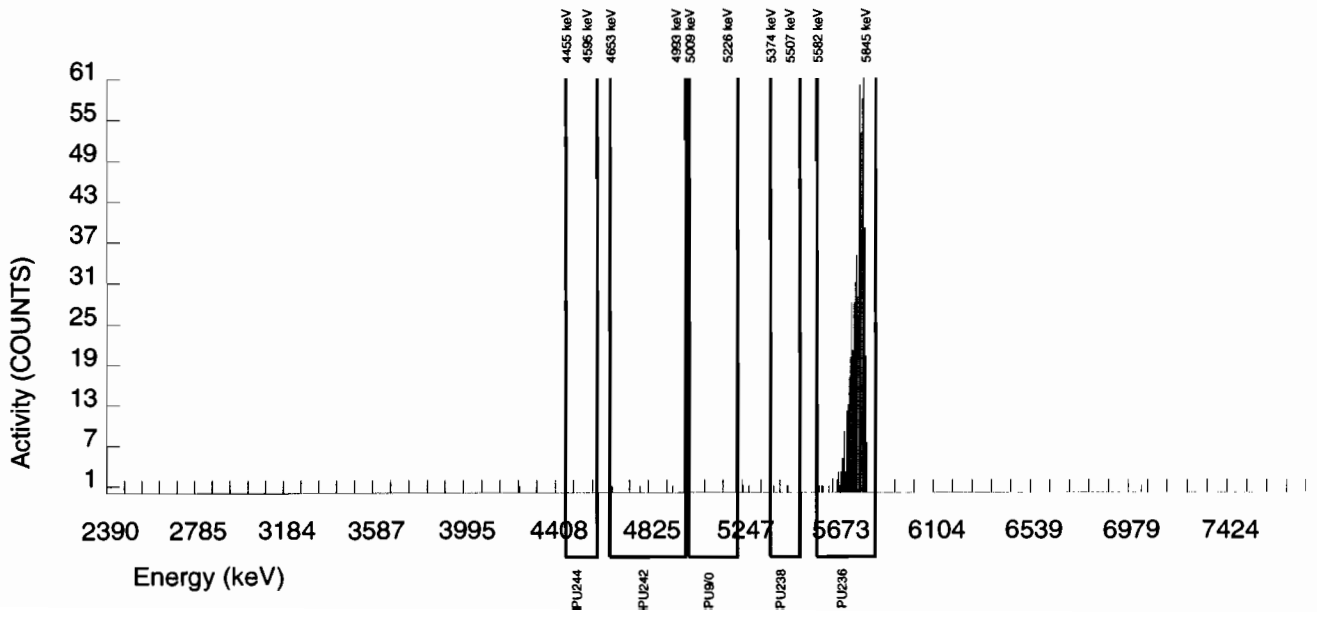

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962718
SAMPLE ID : S0248863002_PU
SAMPLE QTY : 1.249 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 84.822

CHAMBER : 105
DETECTOR S/N : 78777
AVERAGE %EFFICIENCY : 33.3263
COUNT DATE : 24-MAR-2010 16:31:07
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B105.CNF;694
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W105.CNF;177
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 3.0020E+00 dpm
RESULTS : 2.5464E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5758.955	37.907	604.000	602.560	1.440	1.2000	100.0000	1.08E+00	7.71E-02	4.59E-03	1.40E-02	4.42E-02
PU-238	5499.000	5435.248	34.203	2.000	2.000	0.000	2.4495	99.90000	3.55E-03	2.52E-03	9.37E-03	2.36E-02	2.51E-03
PU-9/0	5155.000	5118.546	0.000	0.000	-2.160	2.160	1.9732	99.90000	-3.83E-03	2.84E-03	7.55E-03	1.99E-02	2.84E-03
PU242	4890.000	4799.096	190.557	5.000	3.560	1.440	*******	100.0000	6.31E-03	4.37E-03	4.76E-01	9.58E-01	4.35E-03
PU-244	4589.000	4513.256	4.886	1.000	1.000	0.000	6.4609	99.90000	1.77E-03	1.78E-03	2.47E-02	5.43E-02	1.77E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

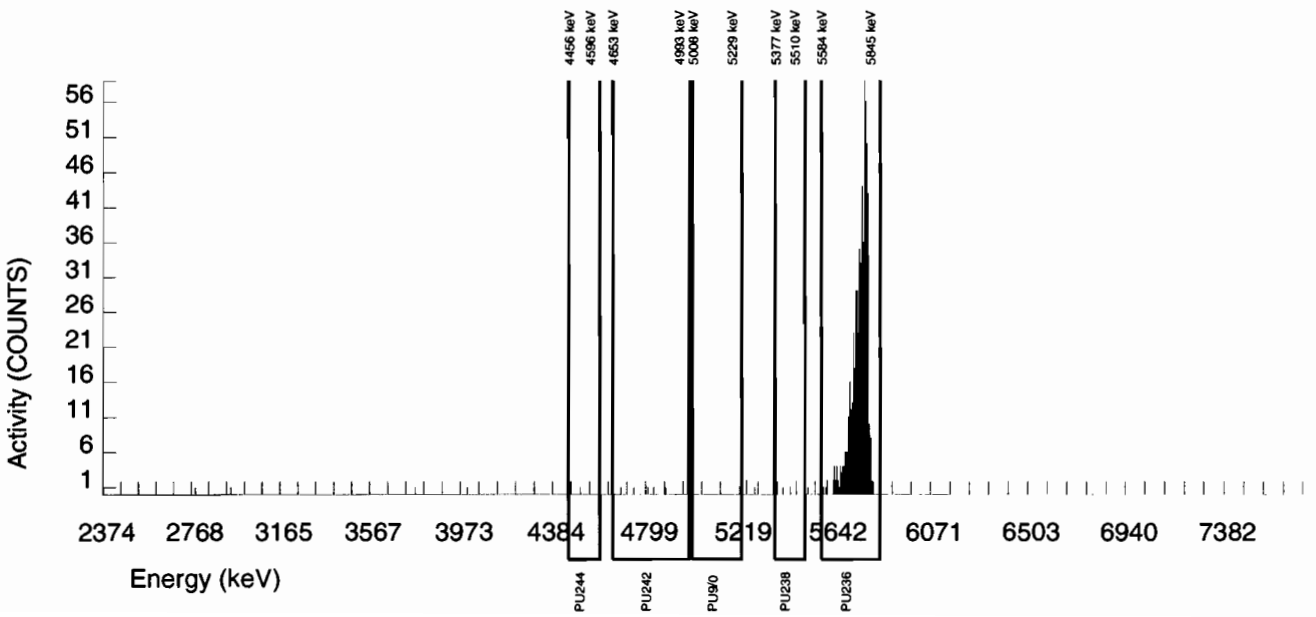

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962718
SAMPLE ID : S0248863003_PU
SAMPLE QTY : 1.263 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 79.403

CHAMBER : 107
DETECTOR S/N : 67578
AVERAGE %EFFICIENCY : 32.7767
COUNT DATE : 24-MAR-2010 11:26:40
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B107.CNF;695
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W107.CNF;234
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 3.0020E+00 dpm
RESULTS : 2.3837E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5771.599	24.051	557.000	554.840	2.160	1.4697	100.0000	1.07E+00	7.85E-02	6.03E-03	1.72E-02	4.56E-02
PU-238	5499.000	5454.107	53.943	4.000	2.560	1.440	2.4495	99.90000	4.88E-03	4.29E-03	1.01E-02	2.53E-02	4.28E-03
PU-9/0	5155.000	5188.484	7.285	4.000	4.000	0.000	1.9732	99.90000	7.62E-03	3.84E-03	8.11E-03	2.14E-02	3.81E-03
PU242	4890.000	4809.151	267.853	3.000	0.840	2.160	*******	100.0000	1.60E-03	4.06E-03	5.12E-01	1.03E+00	4.06E-03
PU-244	4589.000	4521.736	74.404	2.000	1.280	0.720	6.4609	99.90000	2.44E-03	3.03E-03	2.66E-02	5.83E-02	3.02E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

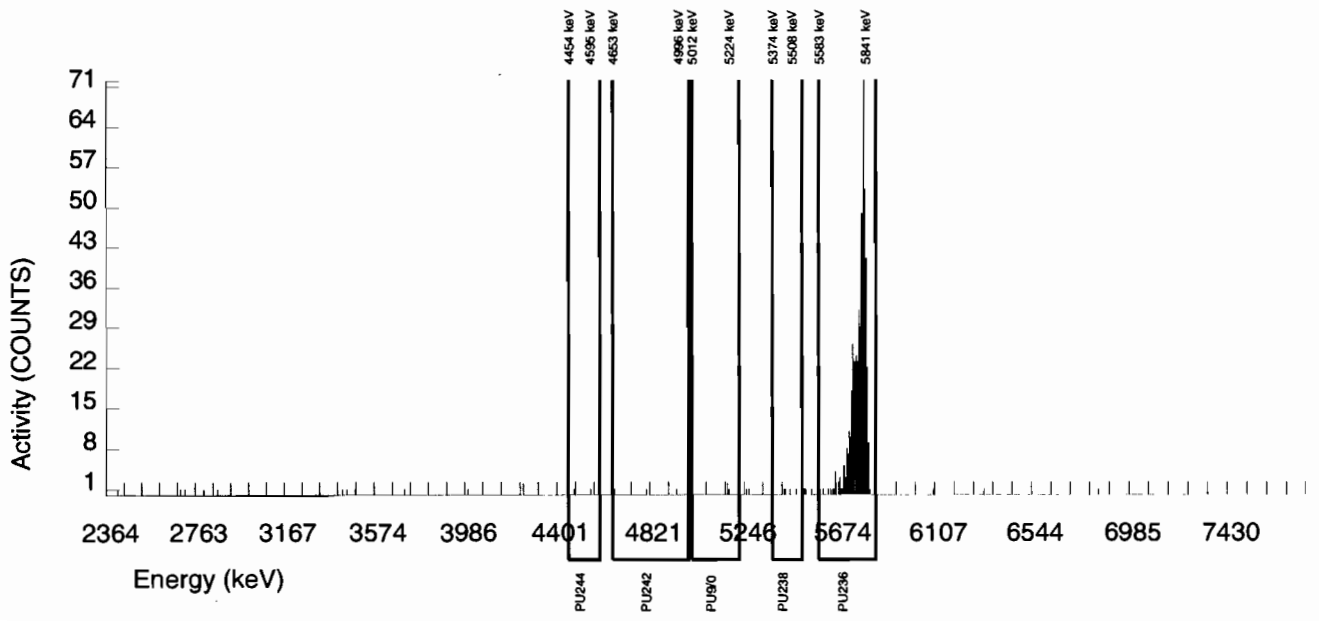

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962718
SAMPLE ID : S0248863004_PU
SAMPLE QTY : 1.238 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 71.588

CHAMBER : 108
DETECTOR S/N : 78778
AVERAGE %EFFICIENCY : 35.3171
COUNT DATE : 24-MAR-2010 11:26:40
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B108.CNF;693
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W108.CNF;215
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 3.0020E+00 dpm
RESULTS : 2.1491E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5765.096	47.936	539.000	539.000	0.000	0.0000	100.0000	1.09E+00	8.07E-02	0.00E+00	5.42E-03	4.70E-02
PU-238	5499.000	5450.468	23.725	3.000	3.000	0.000	2.4495	99.90000	6.01E-03	3.49E-03	1.06E-02	2.66E-02	3.47E-03
PU-9/0	5155.000	5114.633	4.867	3.000	1.560	1.440	1.9732	99.90000	3.12E-03	4.02E-03	8.52E-03	2.25E-02	4.02E-03
PU242	4890.000	4720.098	38.933	2.000	-0.880	2.880	*******	100.0000	-1.76E-03	4.04E-03	5.37E-01	1.08E+00	4.03E-03
PU-244	4589.000	4473.948	4.867	1.000	1.000	0.000	6.4609	99.90000	2.00E-03	2.00E-03	2.79E-02	6.12E-02	2.00E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

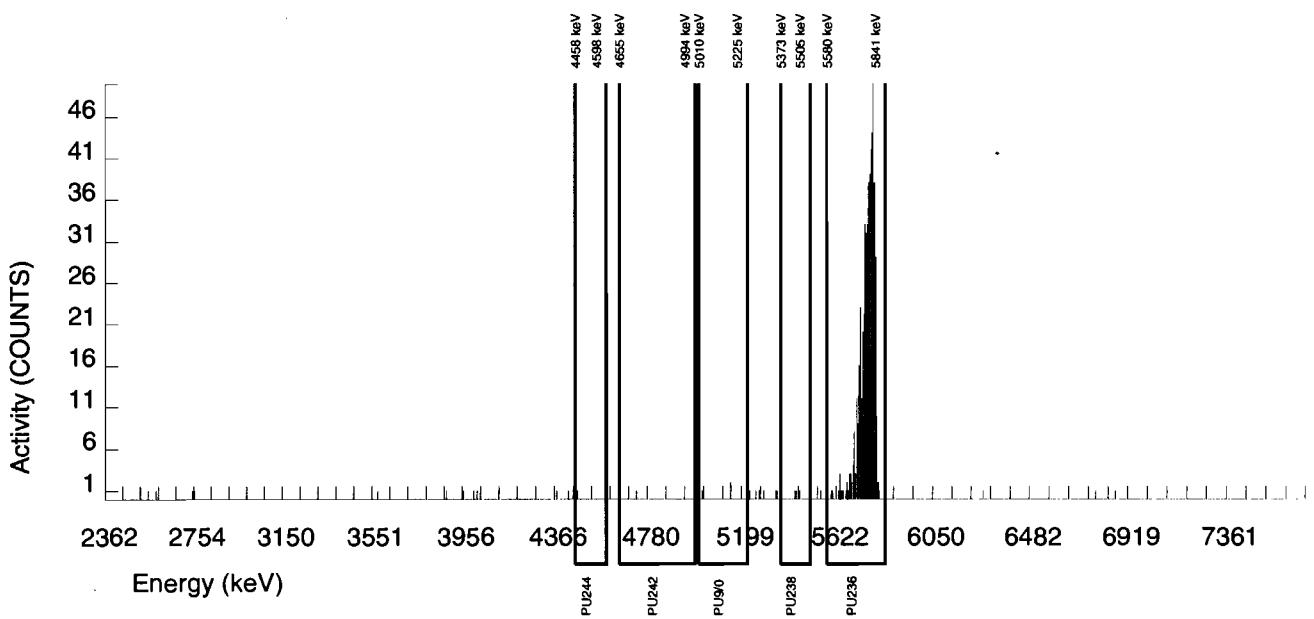

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962718
SAMPLE ID : S0248866001_PU
SAMPLE QTY : 1.246 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 87.054

CHAMBER : 111
DETECTOR S/N : 79462
AVERAGE %EFFICIENCY : 34.9158
COUNT DATE : 24-MAR-2010 11:26:40
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B111.CNF;690
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W111.CNF;211
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 3.0020E+00 dpm
RESULTS : 2.6134E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5766.549	43.903	648.000	648.000	0.000	0.0000	100.0000	1.09E+00	7.54E-02	0.00E+00	4.48E-03	4.26E-02
PU-238	5499.000	5422.754	29.720	2.000	1.280	0.720	2.4495	99.90000	2.12E-03	2.63E-03	8.74E-03	2.20E-02	2.63E-03
PU-9/0	5155.000	5130.161	4.953	4.000	4.000	0.000	1.9732	99.90000	6.61E-03	3.33E-03	7.04E-03	1.86E-02	3.31E-03
PU242	4890.000	4806.607	188.230	4.000	1.120	2.880	*******	100.0000	1.85E-03	4.07E-03	4.44E-01	8.93E-01	4.07E-03
PU-244	4589.000	4560.380	4.953	1.000	1.000	0.000	6.4609	99.90000	1.65E-03	1.66E-03	2.30E-02	5.06E-02	1.65E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

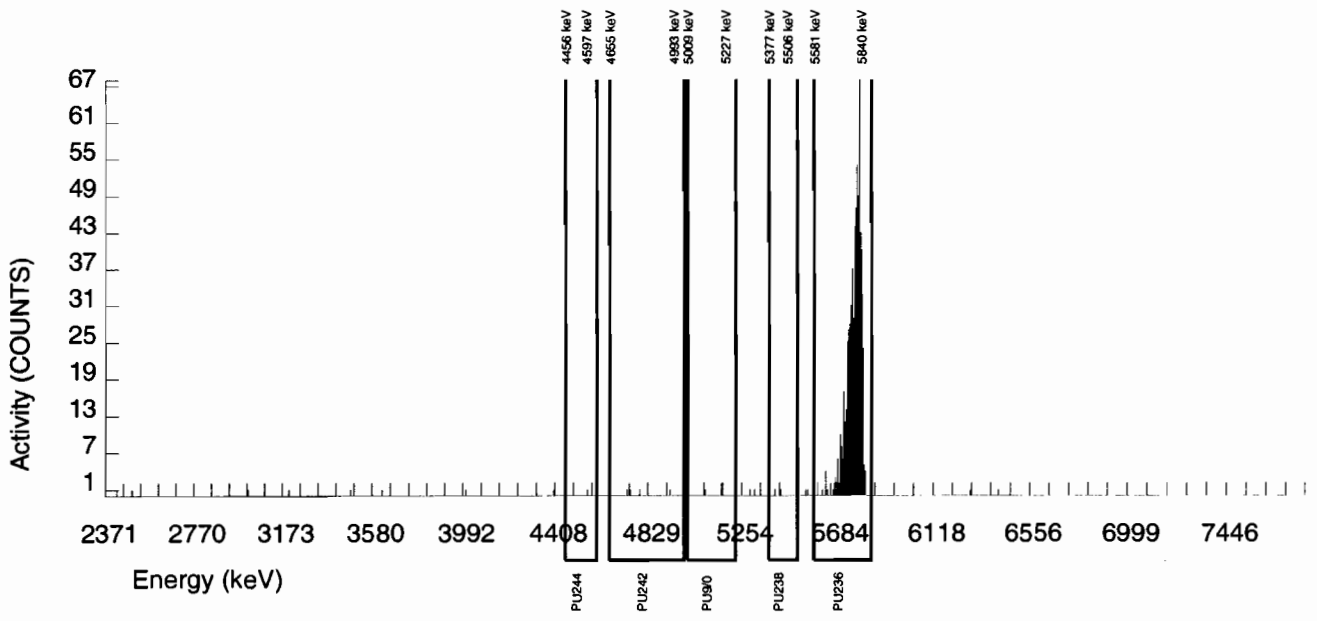

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962718
SAMPLE ID : S1202065378_PU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 18-MAR-2010 00:00:00
ANALYST : MXE1
% YIELD : 87.670

CHAMBER : 096
DETECTOR S/N : 80016
AVERAGE %EFFICIENCY : 32.7970
COUNT DATE : 24-MAR-2010 10:20:39
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B096.CNF;689
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W096.CNF;181
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9742E+00 dpm
RESULTS : 2.6075E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5772.466	28.919	613.000	613.000	0.000	0.0000	100.0000	1.34E+00	9.49E-02	0.00E+00	5.90E-03	5.41E-02
PU-238	5499.000	5399.575	4.925	1.000	-0.440	1.440	2.4495	99.90000	-9.58E-04	3.11E-03	1.15E-02	2.89E-02	3.11E-03
PU-9/0	5155.000	5112.762	4.925	1.000	-1.160	2.160	1.9732	99.90000	-2.53E-03	3.48E-03	9.27E-03	2.44E-02	3.48E-03
PU242	4890.000	4825.302	0.000	0.000	-2.880	2.880	*******	100.0000	-6.27E-03	3.82E-03	5.85E-01	1.18E+00	3.81E-03
PU-244	4589.000	4526.814	0.000	0.000	-0.720	0.720	6.4609	99.90000	-1.57E-03	2.69E-03	3.04E-02	6.66E-02	2.68E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

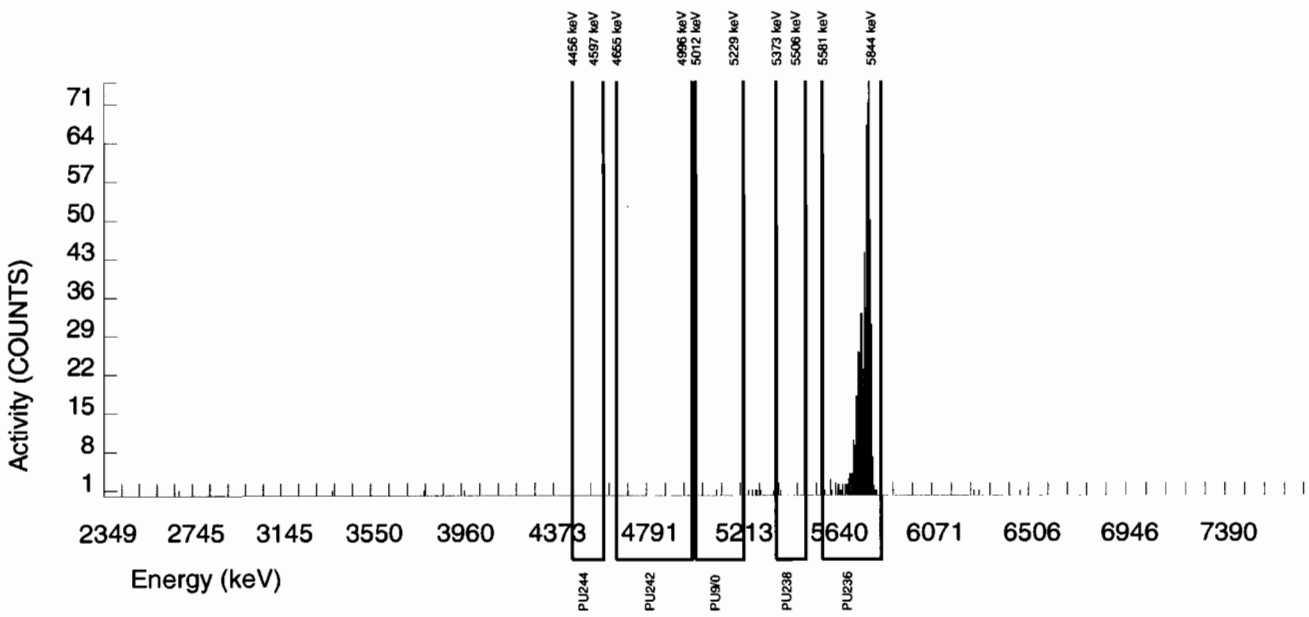

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962718
SAMPLE ID : S1202065379_PU
SAMPLE QTY : 1.256 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 84.320

CHAMBER : 097
DETECTOR S/N : 67599
AVERAGE %EFFICIENCY : 34.7742
COUNT DATE : 24-MAR-2010 10:20:39
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B097.CNF;686
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W097.CNF;195
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 3.0020E+00 dpm
RESULTS : 2.5313E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5775.399	53.625	628.000	625.120	2.880	1.6971	100.0000	1.08E+00	7.59E-02	6.22E-03	1.70E-02	4.32E-02
PU-238	5499.000	5468.490	29.576	5.000	2.120	2.880	2.4495	99.90000	3.61E-03	4.53E-03	8.99E-03	2.26E-02	4.52E-03
PU-9/0	5155.000	5162.713	59.152	3.000	3.000	0.000	1.9732	99.90000	5.10E-03	2.96E-03	7.24E-03	1.91E-02	2.95E-03
PU242	4890.000	4891.467	197.174	4.000	-1.040	5.040	*******	100.0000	-1.77E-03	4.69E-03	4.57E-01	9.18E-01	4.69E-03
PU-244	4589.000	4538.821	103.516	4.000	4.000	0.000	6.4609	99.90000	6.80E-03	3.42E-03	2.37E-02	5.20E-02	3.40E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

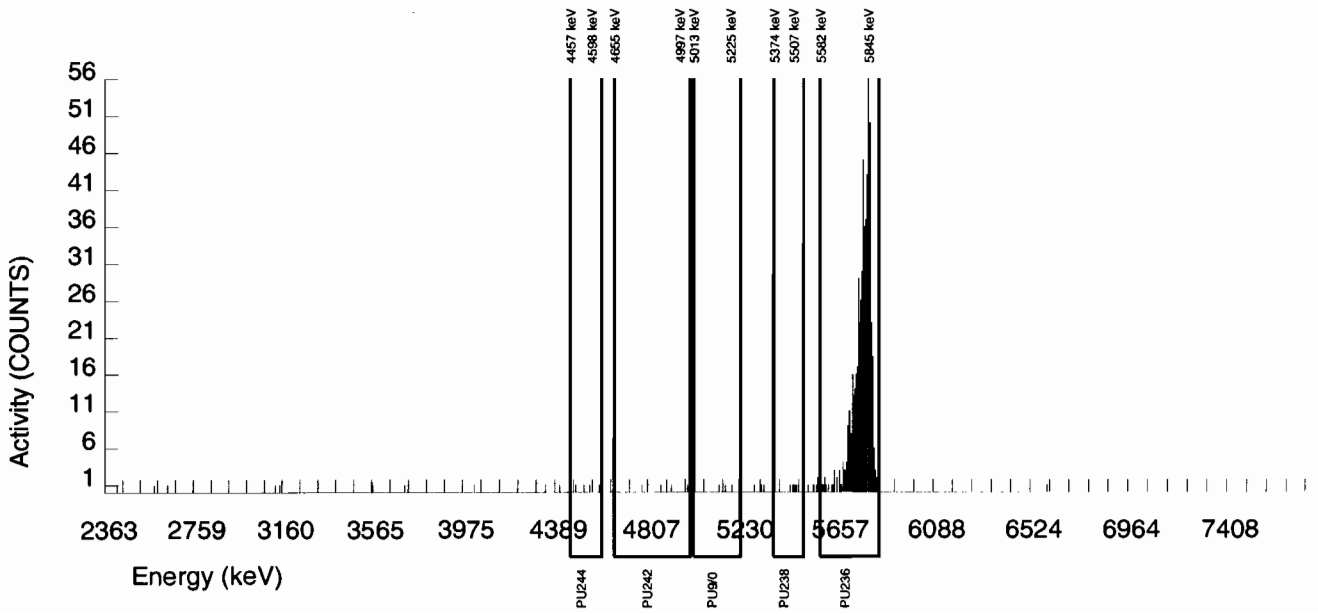

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962718
SAMPLE ID : S1202065380_PU
SAMPLE QTY : 0.106 G
SAMPLE DATE : 18-MAR-2010 00:00:00
ANALYST : MXE1
% YIELD : 81.351

CHAMBER : 098
DETECTOR S/N : 80017
AVERAGE %EFFICIENCY : 35.6488
COUNT DATE : 24-MAR-2010 10:20:39
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B098.CNF;692
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W098.CNF;200
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9742E+00 dpm
RESULTS : 2.4195E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5764.159	31.897	619.000	618.280	0.720	0.8485	100.0000	1.26E+01	9.71E-01	3.73E-02	1.30E-01	5.09E-01
PU-238	5499.000	5471.833	0.000	227.000	226.280	0.720	2.4495	99.90000	4.61E+00	4.31E-01	1.08E-01	2.71E-01	3.07E-01
PU-9/0	5155.000	5147.091	39.185	1895.000	1894.280	0.720	1.9732	99.90000	3.86E+01	2.68E+00	8.67E-02	2.29E-01	8.87E-01
PU242	4890.000	4889.764	62.747	41.000	40.280	0.720	*******	100.0000	8.20E-01	1.42E-01	5.47E+00	1.10E+01	1.31E-01
PU-244	4589.000	4547.598	0.000	5.000	4.280	0.720	6.4609	99.90000	8.72E-02	4.82E-02	2.84E-01	6.23E-01	4.79E-02

NOTES:
* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)
* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

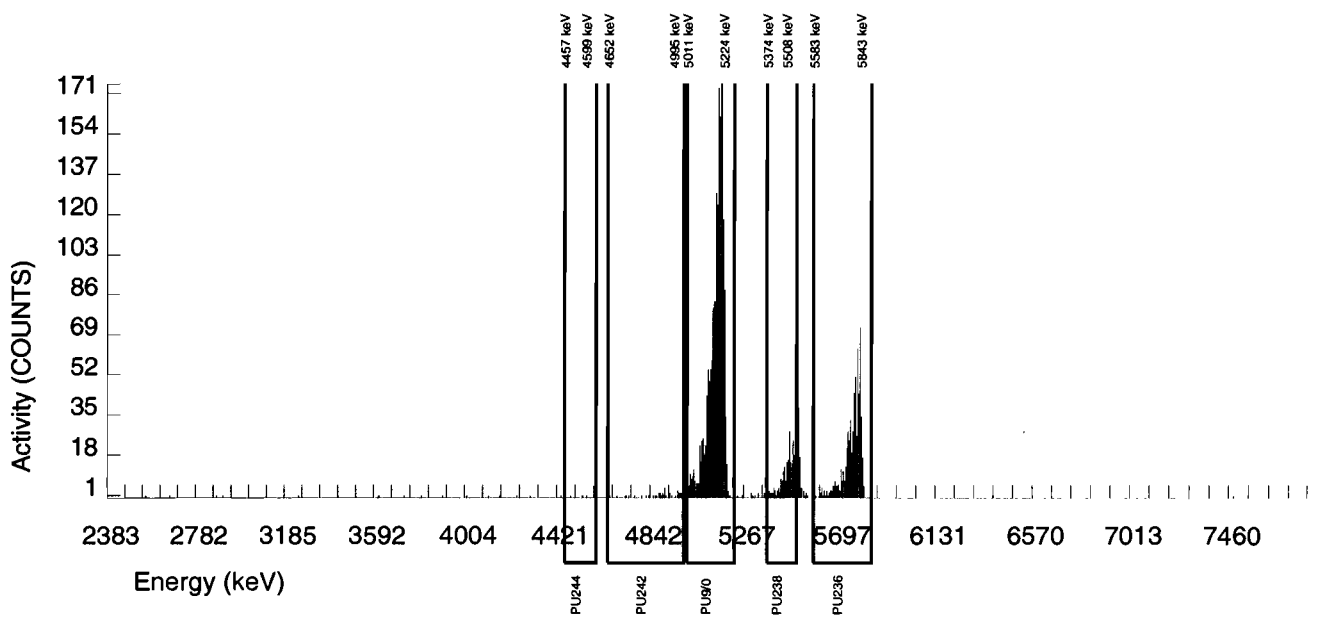

Radiochemistry Batch Checklist, Rev10

Batch# 962721 Product: U Date: 3/25/10

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

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 3/25/10

Secondary Review Performed By: [illegible] 3/25/10

3/26

LANL

PV

Uranium Que Sheet

08-MAR-10

Batch #: 962721 **Analyst:** MXE1 **First Client Due Date:** 26-MAR-10 **Internal Due Date:** 16-MAR-10

Tracer Isotope: U-232/U-236 **Tracer Code:** 1283-H **Expiration Date:** 12/9/10 **Vol:** 0.1 **Analyzed Sequentially with Pu**

LCS Isotope: U-238 **LCS Code:** / **Expiration Date:** / **Vol:** /

Spike Isotope: U-238 **Spike Code:** NA **Expiration Date:** NA **Vol:** NA **Pu-236 ID:** / **Vol.:** N/A

Prep Date: 3/18/10 **Initials:** ME **Pipet ID:** 2971058 **Balance ID:** 50410212 **Witness:** JEH 3-18-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (E/1/1)	U Det #
248800001-1	RE11-10-1756	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	1	1	0.501	115
248800002-1	RE11-10-1762	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	2	2	0.497	116
248800003-1	RE11-10-1764	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	3	3	0.501	145
248800004-1	RE11-10-1776	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	4	4	0.492	146
248800005-1	RE11-10-1766	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	5	5	0.499	147
248800006-1	RE11-10-1763	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	6	6	0.490	148
248800007-1	RE11-10-1761	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	7	7	0.494	149
248800008-1	RE11-10-1765	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	8	8	0.498	150
248800009-1	RE11-10-1768	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	9	9	0.504	151
248800010-1	RE11-10-1767	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	10	10	0.493	152
248800011-1	RE11-10-1769	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	11	11	0.494	153
248800012-1	RE11-10-1770	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	12	12	0.499	154
248863001-1	RE46-10-12936	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	13	13	0.492	155
248863002-1	RE46-10-12930	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	14	14	0.513	156
248863003-1	RE46-10-12929	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	15	15	0.515	157
248863004-1	RE46-10-12935	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	16	16	0.516	158
248865001-1	RE46-10-11924	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	17	17	0.527	159
248866001-1	RE46-10-11885	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	18	18	0.513	160
248866002-1	RE46-10-11886	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	19	19	0.511	3
1202065398-1	MB for batch 962721	MB		.1 pCi/g	SOIL	QC ACCOUNT		20	20	1.0	4
1202065399-1	RE46-10-11885(248866001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	04-MAR-10	21	21	0.500	5
1202065400-1	LCS for batch 962721	LCS		.1 pCi/g	SOIL	QC ACCOUNT		22	22	0.114	6

SRM 0244-A exp 10/31/20

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: JaLM 3/25/10

Blank Correction Report

Batch ID 962721

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202065399	DUP	Uranium-233/234	0.500 g	0.758	0.075	0.0986	.0276	pCi/g	NO
		Uranium-235/236	0.500 g	0.0389	0.017	0.0602	.01304	pCi/g	YES
		Uranium-238	0.500 g	0.843	0.0812	0.0693	-.00704	pCi/g	NO
1202065400	LCS	Uranium-233/234	0.114 g	5.99	0.541	0.396	.121052632	pCi/g	NO
		Uranium-235/236	0.114 g	0.208	0.0668	0.242	.057192982	pCi/g	YES
		Uranium-238	0.114 g	5.05	0.468	0.278	-.03087719	pCi/g	NO
1202065398	MB	Uranium-233/234	1.00 g	0.0138	0.00662	0.0496	.0138	pCi/g	YES
		Uranium-235/236	1.00 g	0.00652	0.00488	0.0303	.00652	pCi/g	YES
		Uranium-238	1.00 g	-0.00352	0.00498	0.0349	-.00352	pCi/g	NO
248800001	RE11-10-1756	Uranium-233/234	0.501 g	0.973	0.0931	0.108	.027544910	pCi/g	NO
		Uranium-235/236	0.501 g	0.0618	0.0177	0.0662	.013013972	pCi/g	YES
		Uranium-238	0.501 g	1.03	0.0972	0.0762	-.00702595	pCi/g	NO
248800002	RE11-10-1762	Uranium-233/234	0.497 g	0.842	0.0839	0.112	.027766600	pCi/g	NO
		Uranium-235/236	0.497 g	0.0196	0.00988	0.0681	.013118712	pCi/g	YES
		Uranium-238	0.497 g	0.803	0.0809	0.0784	-.00708249	pCi/g	NO
248800003	RE11-10-1764	Uranium-233/234	0.501 g	0.834	0.0867	0.126	.027544910	pCi/g	NO
		Uranium-235/236	0.501 g	0.0717	0.022	0.0768	.013013972	pCi/g	NO
		Uranium-238	0.501 g	0.861	0.0887	0.0884	-.00702595	pCi/g	NO
248800004	RE11-10-1776	Uranium-233/234	0.492 g	1.10	0.113	0.154	.028048780	pCi/g	NO
		Uranium-235/236	0.492 g	0.0542	0.0196	0.0944	.013252033	pCi/g	YES
		Uranium-238	0.492 g	1.08	0.112	0.109	-.00715447	pCi/g	NO
248800005	RE11-10-1766	Uranium-233/234	0.499 g	0.637	0.0657	0.0962	.027655311	pCi/g	NO
		Uranium-235/236	0.499 g	0.0295	0.0114	0.0587	.013066132	pCi/g	YES
		Uranium-238	0.499 g	0.627	0.0648	0.0676	-.00705411	pCi/g	NO
248800006	RE11-10-1763	Uranium-233/234	0.490 g	1.84	0.161	0.122	.028163265	pCi/g	NO
		Uranium-235/236	0.490 g	0.0855	0.0247	0.0744	.013306122	pCi/g	NO
		Uranium-238	0.490 g	1.82	0.159	0.0857	-.00718367	pCi/g	NO
248800007	RE11-10-1761	Uranium-233/234	0.494 g	1.03	0.102	0.130	.027935223	pCi/g	NO
		Uranium-235/236	0.494 g	0.0625	0.0194	0.0792	.013198381	pCi/g	YES
		Uranium-238	0.494 g	1.06	0.105	0.0912	-.00712551	pCi/g	NO
248800008	RE11-10-1765	Uranium-233/234	0.498 g	1.34	0.127	0.131	.027710843	pCi/g	NO
		Uranium-235/236	0.498 g	0.0403	0.0155	0.0803	.013092369	pCi/g	YES
		Uranium-238	0.498 g	1.35	0.127	0.0924	-.00706827	pCi/g	NO
248800009	RE11-10-1768	Uranium-233/234	0.504 g	0.772	0.0825	0.129	.027380952	pCi/g	NO
		Uranium-235/236	0.504 g	0.0284	0.0129	0.0791	.012936508	pCi/g	YES
		Uranium-238	0.504 g	0.831	0.0872	0.091	-.00698413	pCi/g	NO
248800010	RE11-10-1767	Uranium-233/234	0.493 g	2.56	0.223	0.145	.027991886	pCi/g	NO
		Uranium-235/236	0.493 g	0.146	0.0324	0.0886	.013225152	pCi/g	NO
		Uranium-238	0.493 g	2.69	0.232	0.102	-.00713996	pCi/g	NO
248800011	RE11-10-1769	Uranium-233/234	0.494 g	2.38	0.204	0.130	.027935223	pCi/g	NO
		Uranium-235/236	0.494 g	0.103	0.0253	0.0794	.013198381	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248800011	RE11-10-1769	Uranium-238	0.494 g	2.38	0.204	0.0914	-.00712551	pCi/g	NO
248800012	RE11-10-1770	Uranium-233/234	0.499 g	0.757	0.0753	0.101	.027655311	pCi/g	NO
		Uranium-235/236	0.499 g	0.0265	0.0126	0.0616	.013066132	pCi/g	YES
		Uranium-238	0.499 g	0.783	0.0772	0.0709	-.00705411	pCi/g	NO
248863001	RE46-10-12936	Uranium-233/234	0.492 g	0.824	0.0821	0.109	.028048780	pCi/g	NO
		Uranium-235/236	0.492 g	0.0383	0.0154	0.0667	.013252033	pCi/g	YES
		Uranium-238	0.492 g	0.848	0.0839	0.0767	-.00715447	pCi/g	NO
248863002	RE46-10-12930	Uranium-233/234	0.513 g	0.713	0.0735	0.106	.026900585	pCi/g	NO
		Uranium-235/236	0.513 g	0.0606	0.0186	0.065	.012709552	pCi/g	YES
		Uranium-238	0.513 g	0.755	0.0765	0.0748	-.00686160	pCi/g	NO
248863003	RE46-10-12929	Uranium-233/234	0.515 g	0.861	0.0844	0.105	.026796117	pCi/g	NO
		Uranium-235/236	0.515 g	0.0369	0.0148	0.0642	.012660194	pCi/g	YES
		Uranium-238	0.515 g	0.749	0.0756	0.0739	-.00683495	pCi/g	NO
248863004	RE46-10-12935	Uranium-233/234	0.516 g	0.915	0.0904	0.114	.026744186	pCi/g	NO
		Uranium-235/236	0.516 g	0.0747	0.0224	0.0694	.012635659	pCi/g	NO
		Uranium-238	0.516 g	0.886	0.0881	0.0799	-.00682171	pCi/g	NO
248865001	RE46-10-11924	Uranium-233/234	0.527 g	0.865	0.0842	0.104	.026185958	pCi/g	NO
		Uranium-235/236	0.527 g	0.050	0.0155	0.0634	.012371917	pCi/g	YES
		Uranium-238	0.527 g	0.865	0.0844	0.073	-.00667932	pCi/g	NO
248866001	RE46-10-11885	Uranium-233/234	0.513 g	0.963	0.0913	0.102	.026900585	pCi/g	NO
		Uranium-235/236	0.513 g	0.0178	0.011	0.0621	.012709552	pCi/g	YES
		Uranium-238	0.513 g	0.906	0.0869	0.0715	-.00686160	pCi/g	NO
248866002	RE46-10-11886	Uranium-233/234	0.511 g	0.812	0.0752	0.0819	.027005871	pCi/g	NO
		Uranium-235/236	0.511 g	0.0323	0.0121	0.050	.012759295	pCi/g	YES
		Uranium-238	0.511 g	0.688	0.0661	0.0576	-.00688845	pCi/g	NO

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

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962721
SAMPLE ID : S0248863001_UU
SAMPLE QTY : 0.492 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 87.860

CHAMBER : 155
DETECTOR S/N : 75553
AVERAGE %EFFICIENCY : 26.9160
COUNT DATE : 24-MAR-2010 11:55:29
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B155.CNF;408
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W155.CNF;119
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5018E+00 dpm
RESULTS : 3.9553E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5313.719	27.987	1068.000	1064.000	4.000	2.0000	100.0000	4.12E+00	3.24E-01	1.80E-02	4.65E-02	1.27E-01
U-3/4	4763.020	4769.617	34.760	214.000	212.922	0.000	5.4790	100.0000	8.24E-01	8.21E-02	4.93E-02	1.09E-01	5.65E-02
U-235	4391.000	4403.134	49.670	9.000	8.000	1.000	2.4127	80.90000	3.83E-02	1.54E-02	2.69E-02	6.67E-02	1.51E-02
U-238	4184.730	4196.853	23.814	219.000	219.000	0.000	3.6781	100.0000	8.48E-01	8.39E-02	3.31E-02	7.67E-02	5.73E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

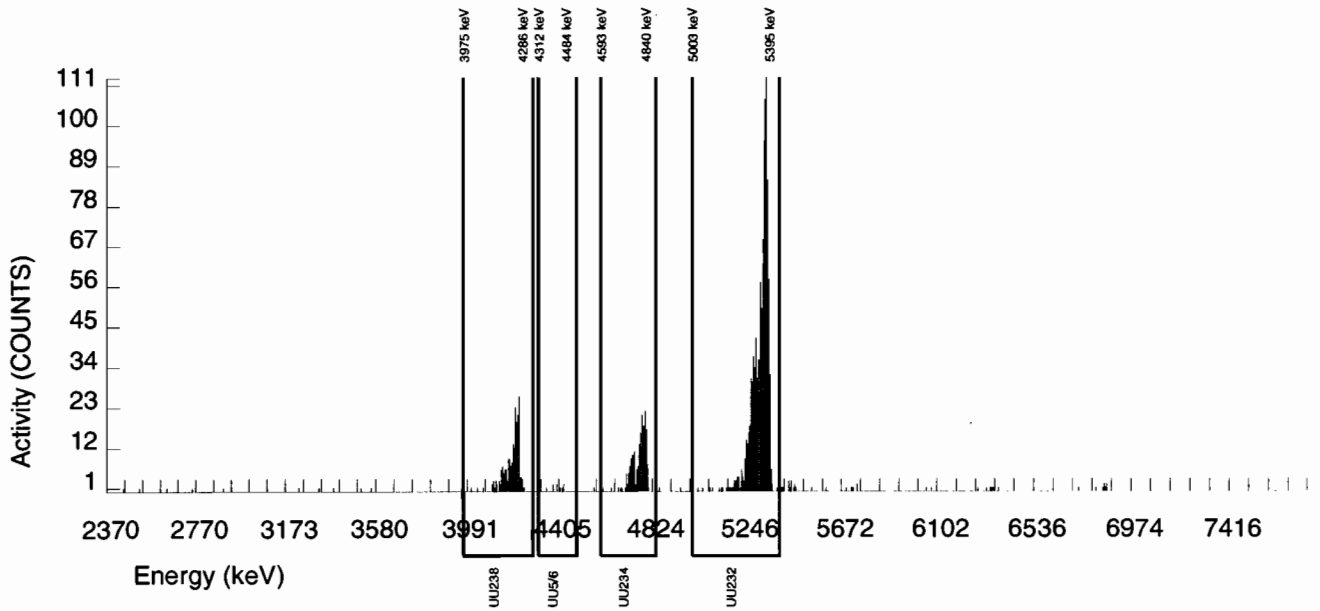

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962721
SAMPLE ID : S0248863002_UU
SAMPLE QTY : 0.513 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 90.194

CHAMBER : 156
DETECTOR S/N : 75554
AVERAGE %EFFICIENCY : 25.8005
COUNT DATE : 24-MAR-2010 11:55:32
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B156.CNF;409
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W156.CNF;123
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5018E+00 dpm
RESULTS : 4.0604E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5308.681	61.566	1054.000	1047.000	7.000	2.6458	100.0000	3.95E+00	3.11E-01	2.32E-02	5.67E-02	1.23E-01
U-3/4	4763.020	4762.913	33.450	192.000	188.939	2.000	5.4790	100.0000	7.13E-01	7.35E-02	4.81E-02	1.06E-01	5.24E-02
U-235	4391.000	4404.417	7.318	14.000	13.000	1.000	2.4127	80.90000	6.06E-02	1.86E-02	2.62E-02	6.50E-02	1.81E-02
U-238	4184.730	4184.689	62.109	201.000	200.000	1.000	3.6781	100.0000	7.55E-01	7.65E-02	3.23E-02	7.48E-02	5.36E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

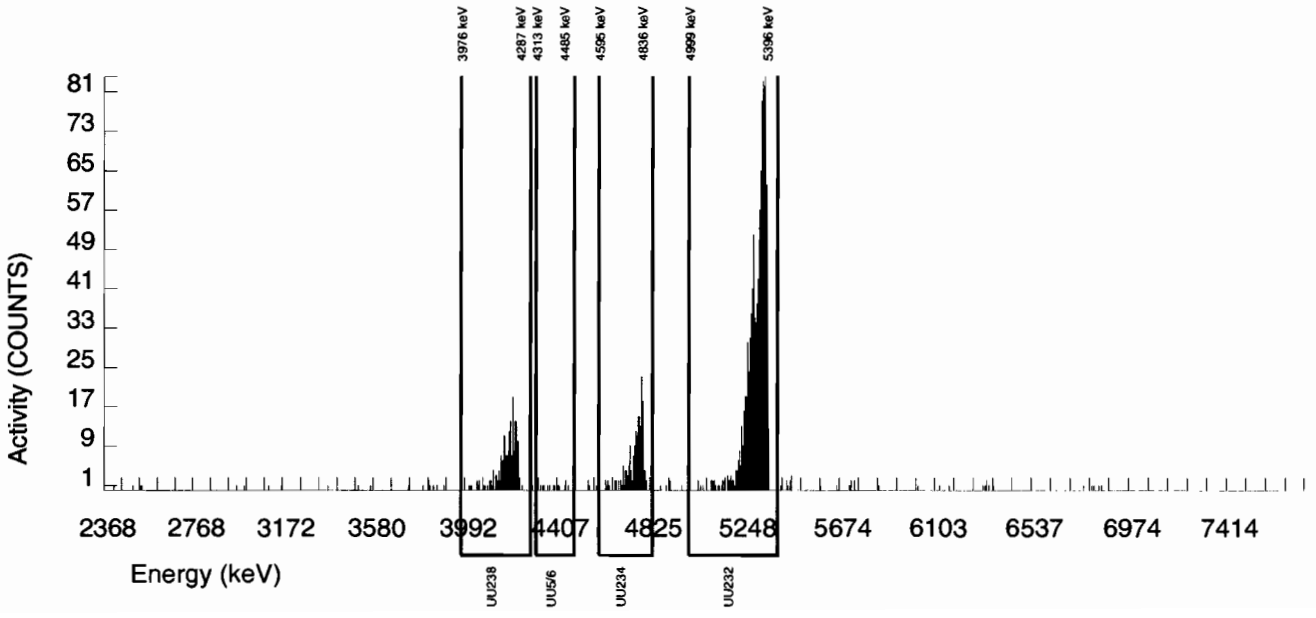

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962721
SAMPLE ID : S0248863003_UU
SAMPLE QTY : 0.515 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 90.736

CHAMBER : 157
DETECTOR S/N : 75555
AVERAGE %EFFICIENCY : 25.8668
COUNT DATE : 24-MAR-2010 11:55:35
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B157.CNF;409
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W157.CNF;113
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5018E+00 dpm
RESULTS : 4.0848E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5309.744	29.077	1061.000	1056.000	5.000	2.2361	100.0000	3.94E+00	3.09E-01	1.94E-02	4.89E-02	1.22E-01
U-3/4	4763.020	4763.145	36.722	234.000	230.930	2.000	5.4790	100.0000	8.61E-01	8.44E-02	4.75E-02	1.05E-01	5.71E-02
U-235	4391.000	4411.910	124.012	9.000	8.000	1.000	2.4127	80.90000	3.69E-02	1.48E-02	2.59E-02	6.42E-02	1.46E-02
U-238	4184.730	4190.456	37.337	201.000	201.000	0.000	3.6781	100.0000	7.49E-01	7.56E-02	3.19E-02	7.39E-02	5.28E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

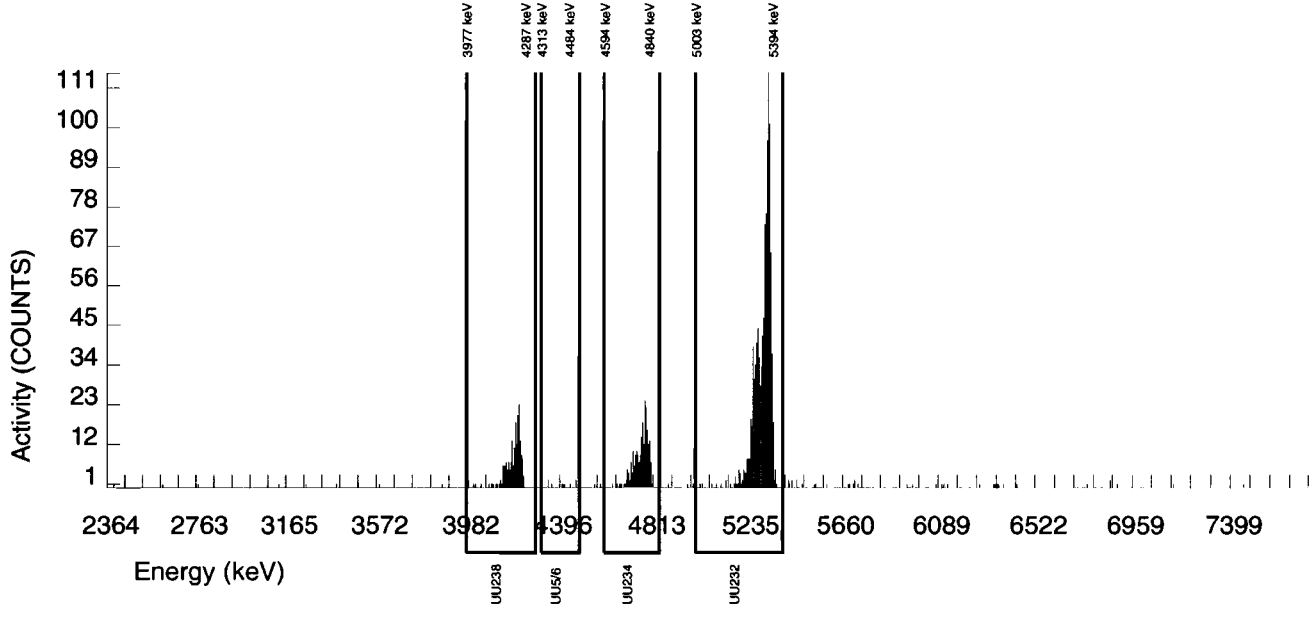

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962721
SAMPLE ID : S0248863004_UU
SAMPLE QTY : 0.516 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 84.632

CHAMBER : 158
DETECTOR S/N : 80007
AVERAGE %EFFICIENCY : 25.6053
COUNT DATE : 24-MAR-2010 11:55:37
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B158.CNF;410
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W158.CNF;118
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5018E+00 dpm
RESULTS : 3.8100E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.318	30.762	976.000	975.000	1.000	1.0000	100.0000	3.93E+00	3.12E-01	9.37E-03	2.97E-02	1.26E-01
U-3/4	4763.020	4763.056	51.724	230.000	227.012	2.000	5.4790	100.0000	9.14E-01	9.04E-02	5.13E-02	1.14E-01	6.12E-02
U-235	4391.000	4419.097	18.978	17.000	15.000	2.000	2.4127	80.90000	7.47E-02	2.24E-02	2.79E-02	6.94E-02	2.17E-02
U-238	4184.730	4194.827	26.828	221.000	220.000	1.000	3.6781	100.0000	8.86E-01	8.81E-02	3.45E-02	7.99E-02	6.00E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

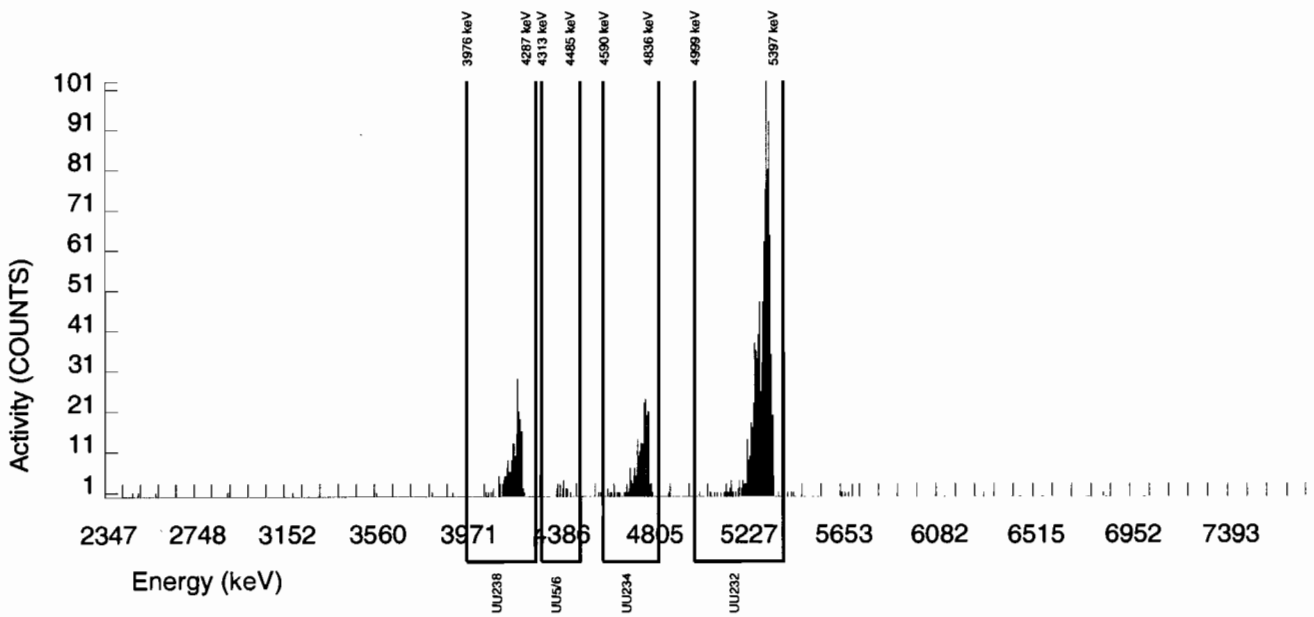

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962721
SAMPLE ID : S0248866001_UU
SAMPLE QTY : 0.513 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 94.337

CHAMBER : 160
DETECTOR S/N : 79994
AVERAGE %EFFICIENCY : 25.7982
COUNT DATE : 24-MAR-2010 11:55:42
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B160.CNF;385
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W160.CNF;120
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5018E+00 dpm
RESULTS : 4.2469E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5308.451	32.656	1099.000	1095.000	4.000	2.0000	100.0000	3.95E+00	3.09E-01	1.68E-02	4.34E-02	1.20E-01
U-3/4	4763.020	4762.850	33.995	270.000	266.891	2.000	5.4790	100.0000	9.63E-01	9.13E-02	4.60E-02	1.02E-01	5.94E-02
U-235	4391.000	4398.664	7.332	5.000	4.000	1.000	2.4127	80.90000	1.78E-02	1.10E-02	2.50E-02	6.21E-02	1.09E-02
U-238	4184.730	4191.603	31.843	252.000	251.000	1.000	3.6781	100.0000	9.06E-01	8.69E-02	3.09E-02	7.15E-02	5.74E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

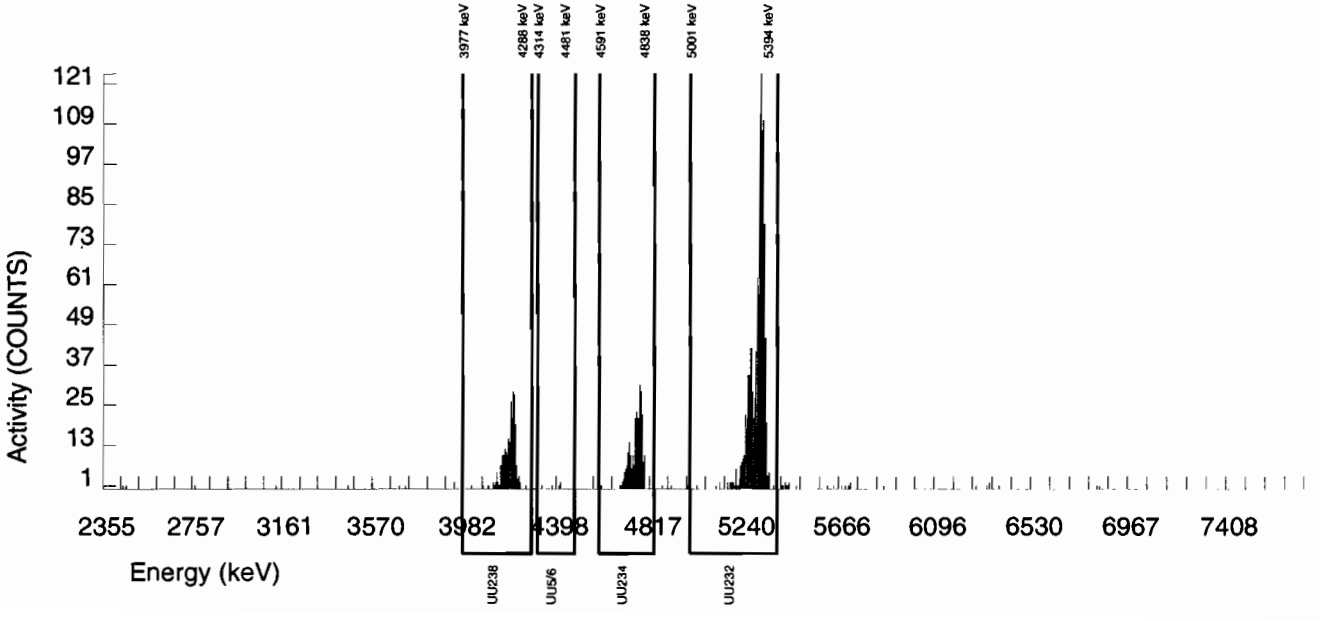

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962721
SAMPLE ID : S1202065398_UU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 18-MAR-2010 00:00:00
ANALYST : MXE1
% YIELD : 82.042

CHAMBER : 004
DETECTOR S/N : 68548
AVERAGE %EFFICIENCY : 31.2086
COUNT DATE : 24-MAR-2010 11:55:16
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_UU
BKG FILE : B004.CNF;1129
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W004.CNF;332
CAL DATE : 4-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5001E+00 dpm
RESULTS : 3.6920E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5273.533	36.911	1158.000	1152.000	6.000	2.4495	100.0000	2.03E+00	1.57E-01	1.00E-02	2.48E-02	6.00E-02
U-3/4	4763.020	4702.550	214.003	12.000	7.833	3.000	5.4790	100.0000	1.38E-02	6.62E-03	2.24E-02	4.96E-02	6.54E-03
U-235	4391.000	4366.312	92.410	4.000	3.000	1.000	2.4127	80.90000	6.52E-03	4.88E-03	1.22E-02	3.03E-02	4.86E-03
U-238	4184.730	4108.434	131.320	3.000	-2.000	5.000	3.6781	100.0000	-3.52E-03	4.98E-03	1.51E-02	3.49E-02	4.98E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

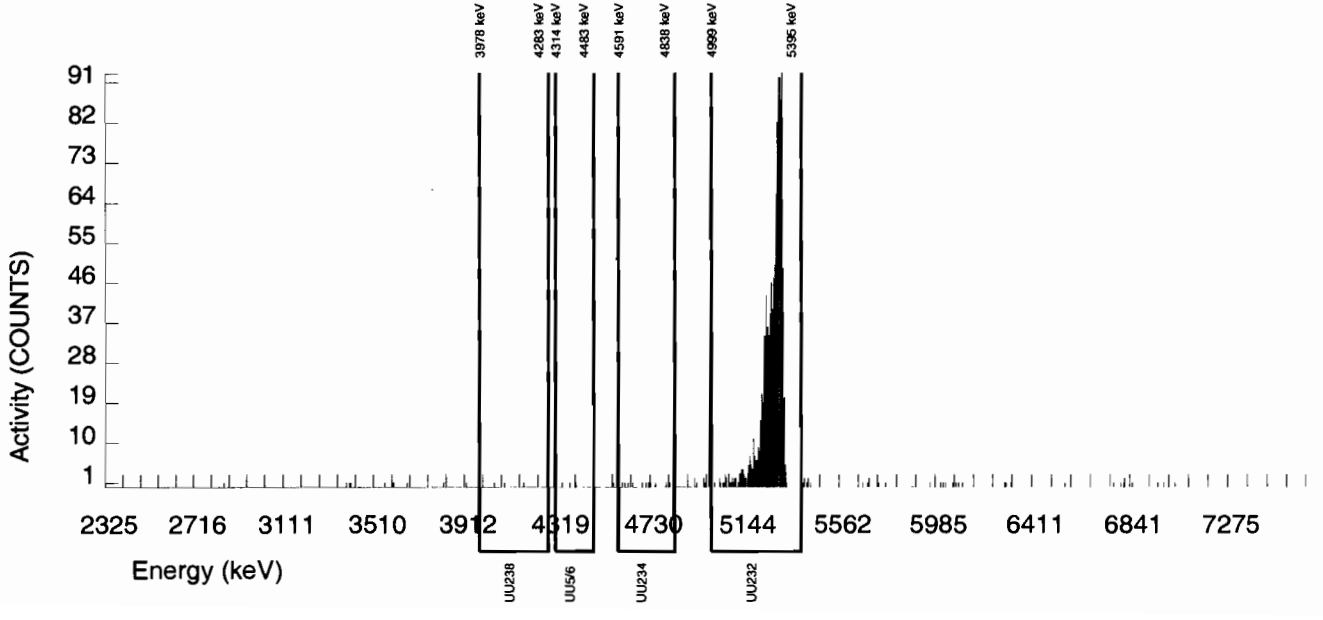

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962721
SAMPLE ID : S1202065399_UU
SAMPLE QTY : 0.500 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 76.788

CHAMBER : 005
DETECTOR S/N : 79454
AVERAGE %EFFICIENCY : 33.5469
COUNT DATE : 24-MAR-2010 11:55:16
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_UU
BKG FILE : B005.CNF;1115
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W005.CNF;339
CAL DATE : 4-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5018E+00 dpm
RESULTS : 3.4568E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5273.021	34.245	1164.000	1159.000	5.000	2.2361	100.0000	4.06E+00	3.14E-01	1.82E-02	4.59E-02	1.20E-01
U-3/4	4763.020	4727.656	76.853	219.000	216.826	1.000	5.4790	100.0000	7.58E-01	7.50E-02	4.46E-02	9.86E-02	5.17E-02
U-235	4391.000	4409.247	63.380	12.000	9.000	3.000	2.4127	80.90000	3.89E-02	1.70E-02	2.43E-02	6.02E-02	1.67E-02
U-238	4184.730	4162.262	36.103	241.000	241.000	0.000	3.6781	100.0000	8.43E-01	8.12E-02	2.99E-02	6.93E-02	5.43E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

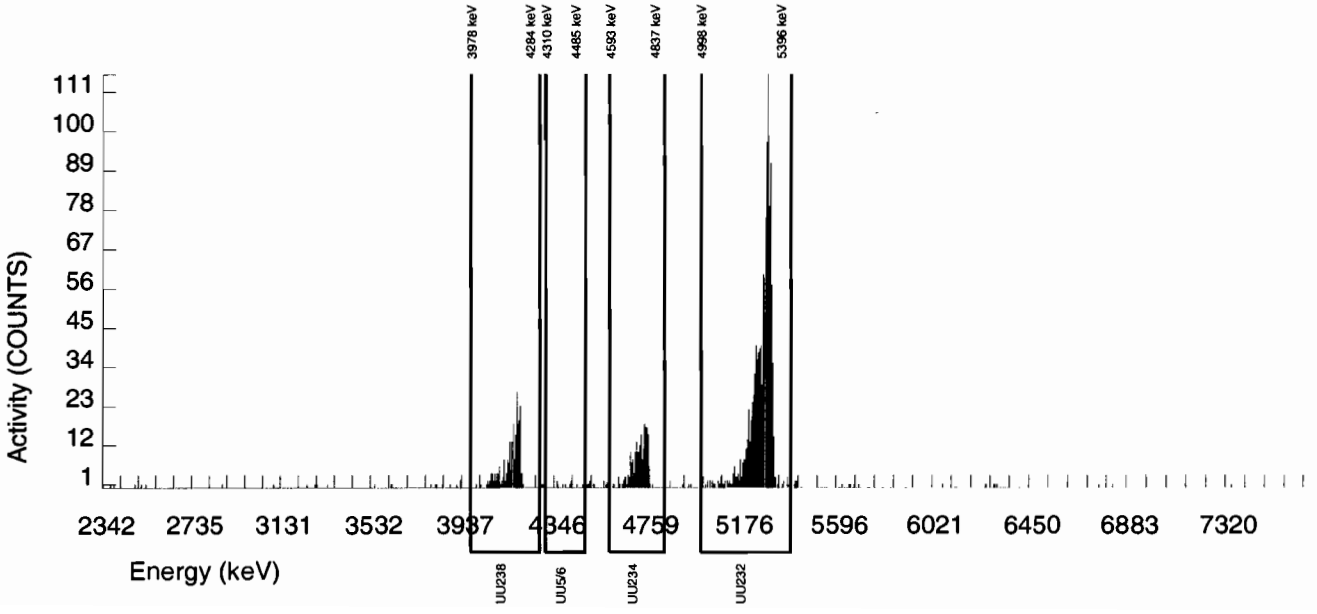

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962721
SAMPLE ID : S1202065400_UU
SAMPLE QTY : 0.114 G
SAMPLE DATE : 18-MAR-2010 00:00:00
ANALYST : MXE1
% YIELD : 87.817

CHAMBER : 006
DETECTOR S/N : 79455
AVERAGE %EFFICIENCY : 32.0671
COUNT DATE : 24-MAR-2010 11:55:16
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_UU
BKG FILE : B006.CNF;1128
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W006.CNF;363
CAL DATE : 4-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5001E+00 dpm
RESULTS : 3.9518E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.930	33.478	1268.000	1267.000	1.000	1.0000	100.0000	1.78E+01	1.44E+00	3.26E-02	1.03E-01	5.00E-01
U-3/4	4763.020	4763.992	54.364	430.000	426.716	2.000	5.4790	100.0000	5.99E+00	5.41E-01	1.79E-01	3.96E-01	2.91E-01
U-235	4391.000	4395.259	48.288	13.000	12.000	1.000	2.4127	80.90000	2.08E-01	6.68E-02	9.74E-02	2.42E-01	6.49E-02
U-238	4184.730	4188.036	45.857	360.000	360.000	0.000	3.6781	100.0000	5.05E+00	4.68E-01	1.20E-01	2.78E-01	2.66E-01

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

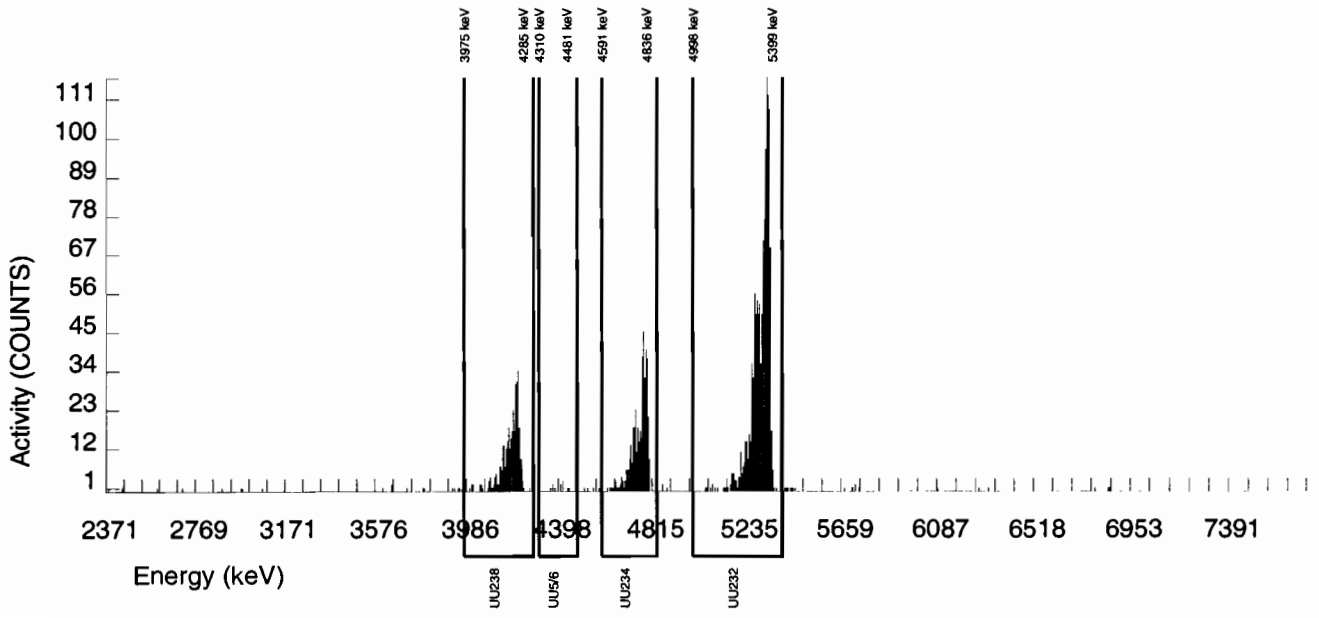

Radiochemistry Batch Checklist, Rev10

Batch# 965814 Product: Th Date: 3/30/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.		✓	DER 811473
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time	✓		
Sample was correctly preserved if required			N/A
Smears Taken for Radioactive batches			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
CC data entered into CC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	✓		DER 811473
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	✓		DER 811473
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JoLM L- 3/30/10

Secondary Review Performed By: [signature] 3/30/10

4/2

Thorium Que Sheet

26-MAR-10

Batch #: 965814 Analyst: AYB1 First Client Due Date:02-APR-10 Internal Due Date:22-MAR-10

Tracer Isotope: Th-229 Tracer Code: 0934-L Expiration Date: 03/9/11 Vol: 0.1

LCS Isotope: Th-230 LCS Code: Expiration Date: Vol:

Spike Isotope: Th-230 Spike Code: Expiration Date: Vol:

Prep Date: 3/25/10 Initials: AYB Pipet ID: 16423/9 Balance ID: 19350208 Witness: AM 3/25/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/ Dry Aliquot (g / l / f)	Th Det #
248824001-1	RE46-10-11926	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	1	1	0.251	173
248824002-1	RE46-10-11925	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	2	2	0.250	174
248863001-1	RE46-10-12936	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	3	3	0.258	177
248863002-1	RE46-10-12930	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	4	4	0.259	178
248863003-1	RE46-10-12929	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	5	5	0.258	179
248863004-1	RE46-10-12935	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	6	6	0.257	180
248865001-1	RE46-10-11924	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	7	7	0.251	181
248867001-1	RE46-10-12931	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	8	8	0.250	182
248867002-1	RE46-10-12932	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	9	9	0.251	183
248867003-1	RE46-10-12934	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	10	10	0.256	184
248867004-1	RE46-10-12933	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	11	11	0.253	185
249179001-1	RE46-10-13437	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	12	12	0.252	186
249179002-1	RE46-10-13436	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	13	13	0.256	187
249179003-1	RE46-10-13434	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	14	14	0.259	188
249179004-1	RE46-10-13438	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	15	15	0.257	189
249179005-1	RE46-10-13435	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	16	16	0.251	190
249179006-1	RE46-10-13439	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	17	17	0.253	191
249179007-1	RE46-10-13463	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	18	18	0.251	192
1202072528-1	MB for batch 965814	MB		.1 pCi/g	SOIL	QC ACCOUNT		19	19		193
1202072529-1	RE46-10-12931(248867001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	05-MAR-10	20	20	0.259	194
1202072530-1	LCS for batch 965814	LCS		.1 pCi/g	SOIL	QC ACCOUNT		21	21	0.108	195

Data Reviewed By: JDLM 3/30/10

GEL Laboratories LLC, Radiochemistry Division

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

Choose SOP Used: GL-RAD-A-032, GL-RAD-A-038, GL-RAD-A-043

Blank Correction Report

Batch ID 965814

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202072529	DUP	Thorium-228	0.259 g	1.98	0.188	0.164	-.00138224	pCi/g	NO
		Thorium-230	0.259 g	1.24	0.132	0.206	.022664093	pCi/g	NO
		Thorium-232	0.259 g	1.62	0.159	0.0878	.005444015	pCi/g	NO
1202072530	LCS	Thorium-228	0.108 g	1.33	0.201	0.378	-.00331481	pCi/g	NO
		Thorium-230	0.108 g	26.3	2.12	0.474	.054351852	pCi/g	NO
		Thorium-232	0.108 g	1.10	0.172	0.202	.013055556	pCi/g	NO
1202072528	MB	Thorium-228	1.00 g	-0.000358	0.00567	0.0395	-.000358	pCi/g	NO
		Thorium-230	1.00 g	0.00587	0.00328	0.0496	.00587	pCi/g	YES
		Thorium-232	1.00 g	0.00141	0.00301	0.0212	.00141	pCi/g	YES
248824001	RE46-10-11926	Thorium-228	0.251 g	1.55	0.162	0.178	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	1.18	0.129	0.223	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.72	0.171	0.0951	.005617530	pCi/g	NO
248824002	RE46-10-11925	Thorium-228	0.250 g	2.22	0.205	0.165	-.001432	pCi/g	NO
		Thorium-230	0.250 g	1.08	0.119	0.207	.02348	pCi/g	NO
		Thorium-232	0.250 g	1.95	0.184	0.0884	.00564	pCi/g	NO
248863001	RE46-10-12936	Thorium-228	0.258 g	1.84	0.186	0.184	-.00138760	pCi/g	NO
		Thorium-230	0.258 g	1.11	0.127	0.232	.022751938	pCi/g	NO
		Thorium-232	0.258 g	1.77	0.178	0.0987	.005465116	pCi/g	NO
248863002	RE46-10-12930	Thorium-228	0.259 g	1.76	0.174	0.169	-.00138224	pCi/g	NO
		Thorium-230	0.259 g	1.17	0.128	0.213	.022664093	pCi/g	NO
		Thorium-232	0.259 g	1.89	0.182	0.0906	.005444015	pCi/g	NO
248863003	RE46-10-12929	Thorium-228	0.258 g	1.94	0.184	0.161	-.00138760	pCi/g	NO
		Thorium-230	0.258 g	1.10	0.119	0.202	.022751938	pCi/g	NO
		Thorium-232	0.258 g	1.83	0.174	0.0863	.005465116	pCi/g	NO
248863004	RE46-10-12935	Thorium-228	0.257 g	1.71	0.181	0.205	-.00139300	pCi/g	NO
		Thorium-230	0.257 g	1.47	0.160	0.257	.022840467	pCi/g	NO
		Thorium-232	0.257 g	1.69	0.178	0.110	.005486381	pCi/g	NO
248865001	RE46-10-11924	Thorium-228	0.251 g	1.83	0.190	0.198	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	1.13	0.131	0.249	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.68	0.174	0.106	.005617530	pCi/g	NO
248867001	RE46-10-12931	Thorium-228	0.258 g	1.53	0.159	0.174	-.00138760	pCi/g	NO
		Thorium-230	0.258 g	0.881	0.105	0.218	.022751938	pCi/g	NO
		Thorium-232	0.258 g	1.36	0.143	0.093	.005465116	pCi/g	NO
248867002	RE46-10-12932	Thorium-228	0.251 g	1.26	0.133	0.162	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	0.971	0.110	0.203	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.21	0.128	0.0865	.005617530	pCi/g	NO
248867003	RE46-10-12934	Thorium-228	0.256 g	0.0354	0.0303	0.158	-.00139844	pCi/g	NO
		Thorium-230	0.256 g	0.00981	0.0132	0.198	.022929688	pCi/g	YES
		Thorium-232	0.256 g	-0.00151	0.0072	0.0844	.005507813	pCi/g	YES
248867004	RE46-10-12933	Thorium-228	0.253 g	1.54	0.156	0.168	-.00141502	pCi/g	NO
		Thorium-230	0.253 g	0.916	0.107	0.210	.023201581	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248867004	RE46-10-12933	Thorium-232	0.253 g	1.25	0.133	0.0897	.005573123	pCi/g	NO
249179001	RE46-10-13437	Thorium-228	0.252 g	1.83	0.190	0.203	-.00142063	pCi/g	NO
		Thorium-230	0.252 g	0.970	0.119	0.255	.023293651	pCi/g	NO
		Thorium-232	0.252 g	1.64	0.174	0.109	.005595238	pCi/g	NO
249179002	RE46-10-13436	Thorium-228	0.256 g	2.25	0.237	0.237	-.00139844	pCi/g	NO
		Thorium-230	0.256 g	2.26	0.234	0.298	.022929688	pCi/g	NO
		Thorium-232	0.256 g	1.60	0.180	0.127	.005507813	pCi/g	NO
249179003	RE46-10-13434	Thorium-228	0.259 g	2.24	0.237	0.235	-.00138224	pCi/g	NO
		Thorium-230	0.259 g	2.74	0.272	0.294	.022664093	pCi/g	NO
		Thorium-232	0.259 g	1.90	0.204	0.126	.005444015	pCi/g	NO
249179004	RE46-10-13438	Thorium-228	0.257 g	2.04	0.198	0.179	-.00139300	pCi/g	NO
		Thorium-230	0.257 g	1.31	0.141	0.224	.022840467	pCi/g	NO
		Thorium-232	0.257 g	1.91	0.186	0.0956	.005486381	pCi/g	NO
249179005	RE46-10-13435	Thorium-228	0.251 g	2.00	0.195	0.178	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	1.39	0.146	0.223	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.54	0.158	0.0953	.005617530	pCi/g	NO
249179006	RE46-10-13439	Thorium-228	0.253 g	2.04	0.201	0.186	-.00141502	pCi/g	NO
		Thorium-230	0.253 g	1.60	0.165	0.233	.023201581	pCi/g	NO
		Thorium-232	0.253 g	1.94	0.190	0.0994	.005573123	pCi/g	NO
249179007	RE46-10-13463	Thorium-228	0.251 g	2.05	0.200	0.179	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	1.14	0.127	0.224	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.81	0.179	0.0956	.005617530	pCi/g	NO

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

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814
SAMPLE ID : S0248863001_TH
SAMPLE QTY : 0.258 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : AYB1
% YIELD : 78.349

CHAMBER : 177
DETECTOR S/N : 74435
AVERAGE %EFFICIENCY : 26.5132
COUNT DATE : 29-MAR-2010 17:05:28
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B177.CNF;185
BKG DATE : 28-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W177.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.7320E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6033.157	0.000	40.000	32.000	8.000	2.0641	57.44000	1.23E+00	2.81E-01	7.03E-02	1.80E-01	2.67E-01
TH-228	5363.000	5401.028	95.215	218.000	212.836	5.000	4.1318	99.94000	1.84E+00	1.86E-01	8.08E-02	1.84E-01	1.29E-01
TH229	4900.000	4898.697	86.747	461.000	457.000	4.000	2.0000	99.52000	3.86E+00	3.35E-01	3.93E-02	1.01E-01	1.82E-01
TH-230	4671.390	4651.487	62.968	138.000	132.220	1.000	5.3214	99.70000	1.11E+00	1.27E-01	1.04E-01	2.32E-01	9.77E-02
TH-232	3972.000	3996.147	78.710	212.000	210.822	1.000	1.9427	100.0000	1.77E+00	1.78E-01	3.80E-02	9.87E-02	1.23E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

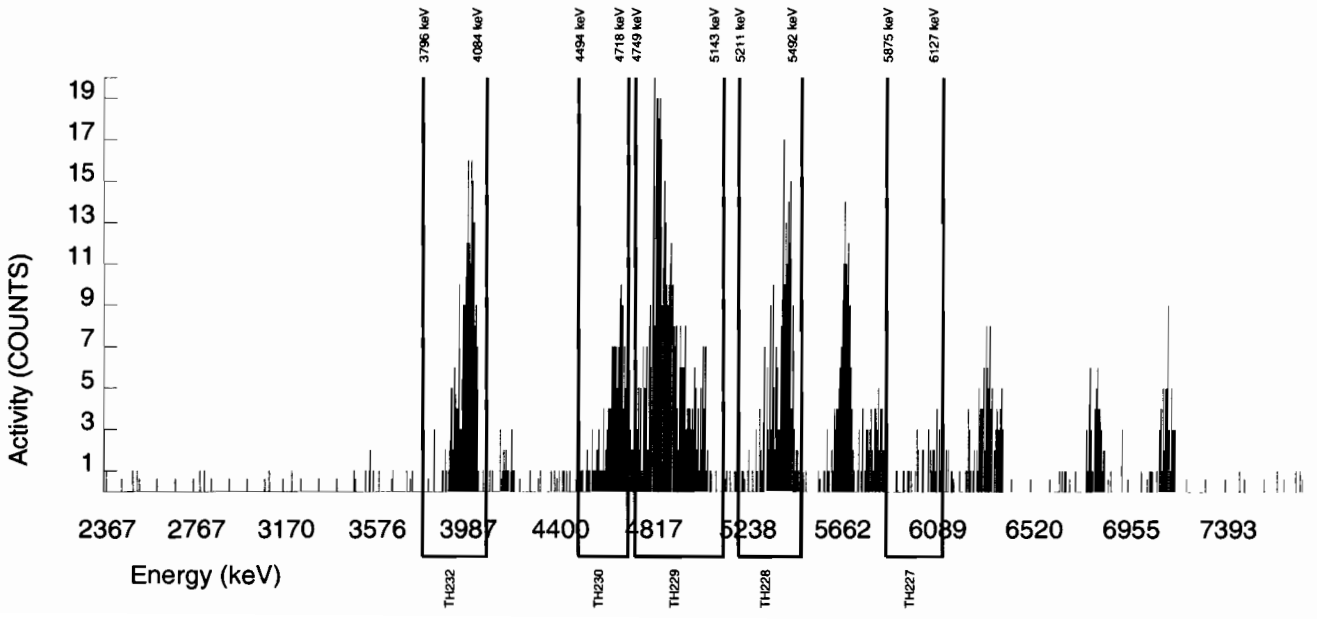

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814
SAMPLE ID : S0248863002_TH
SAMPLE QTY : 0.259 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : AYB1
% YIELD : 84.640

CHAMBER : 178
DETECTOR S/N : 74436
AVERAGE %EFFICIENCY : 26.6368
COUNT DATE : 29-MAR-2010 17:05:31
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B178.CNF;185
BKG DATE : 28-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W178.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.8711E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6017.297	93.805	46.000	31.000	15.000	2.0641	57.44000	1.09E+00	2.87E-01	6.45E-02	1.65E-01	2.76E-01
TH-228	5363.000	5392.706	61.925	227.000	221.822	5.000	4.1318	99.94000	1.76E+00	1.74E-01	7.42E-02	1.69E-01	1.21E-01
TH229	4900.000	4889.523	79.742	498.000	496.000	2.000	1.4142	99.52000	3.84E+00	3.25E-01	2.55E-02	7.20E-02	1.73E-01
TH-230	4671.390	4647.590	84.398	158.000	151.812	1.000	5.3214	99.70000	1.17E+00	1.28E-01	9.58E-02	2.13E-01	9.60E-02
TH-232	3972.000	3992.046	55.063	246.000	244.806	1.000	1.9427	100.0000	1.89E+00	1.82E-01	3.49E-02	9.06E-02	1.21E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

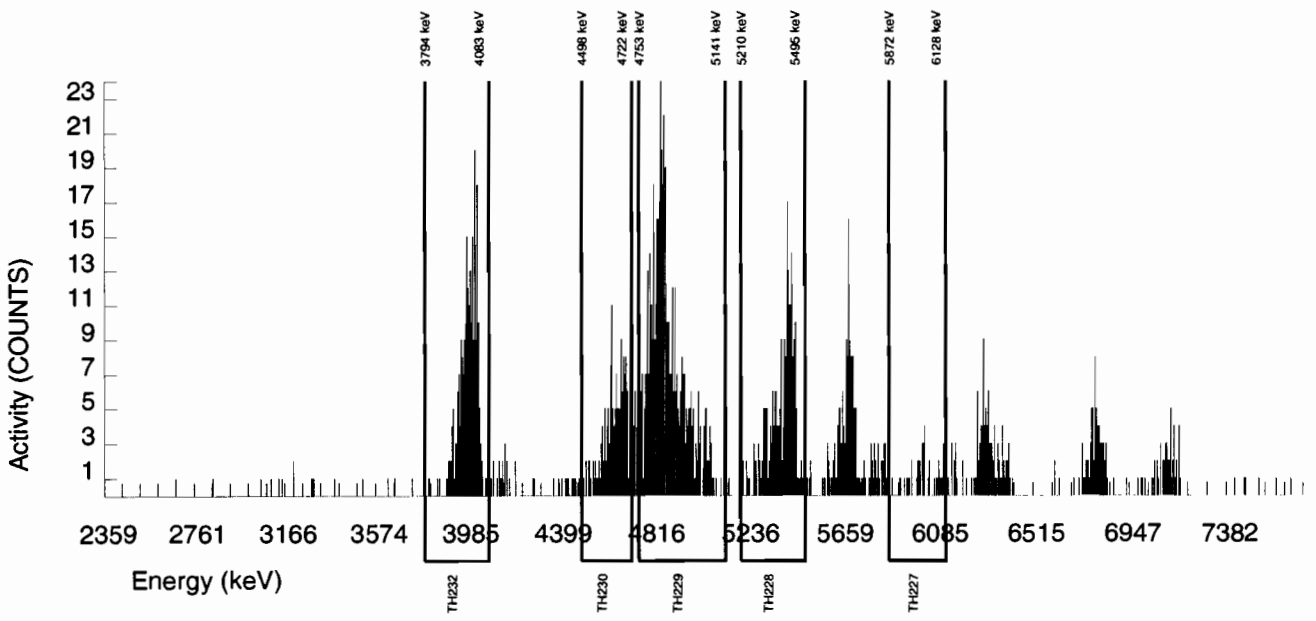

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814
SAMPLE ID : S0248863003_TH
SAMPLE QTY : 0.258 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : AYB1
% YIELD : 90.101

CHAMBER : 179
DETECTOR S/N : 74437
AVERAGE %EFFICIENCY : 26.3847
COUNT DATE : 29-MAR-2010 17:05:34
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B179.CNF;184
BKG DATE : 28-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W179.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.9918E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6012.764	93.339	34.000	29.000	5.000	2.0641	57.44000	9.75E-01	2.21E-01	6.14E-02	1.57E-01	2.10E-01
TH-228	5363.000	5395.747	87.427	261.000	256.812	4.000	4.1318	99.94000	1.94E+00	1.84E-01	7.06E-02	1.61E-01	1.23E-01
TH229	4900.000	4896.024	91.213	526.000	523.000	3.000	1.7321	99.52000	3.86E+00	3.22E-01	2.97E-02	7.95E-02	1.70E-01
TH-230	4671.390	4658.803	68.473	155.000	149.529	0.000	5.3214	99.70000	1.10E+00	1.19E-01	9.12E-02	2.02E-01	9.01E-02
TH-232	3972.000	3998.654	30.665	249.000	248.796	0.000	1.9427	100.0000	1.83E+00	1.74E-01	3.32E-02	8.63E-02	1.16E-01

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

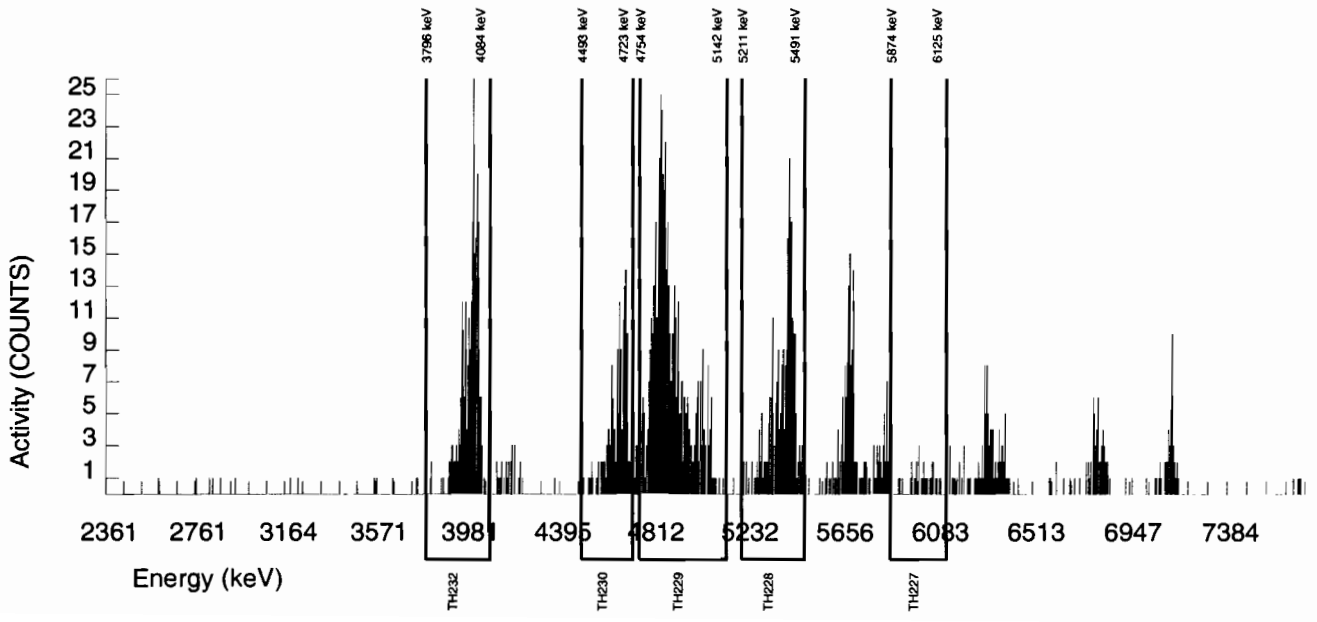

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814
SAMPLE ID : S0248863004_TH
SAMPLE QTY : 0.257 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : AYB1
% YIELD : 73.584

CHAMBER : 180
DETECTOR S/N : 74438
AVERAGE %EFFICIENCY : 25.5122
COUNT DATE : 29-MAR-2010 17:05:37
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B180.CNF;186
BKG DATE : 28-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W180.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.6267E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6003.198	0.000	36.000	30.000	6.000	2.0641	57.44000	1.28E+00	2.93E-01	7.81E-02	2.00E-01	2.77E-01
TH-228	5363.000	5385.107	91.066	180.000	177.852	2.000	4.1318	99.94000	1.71E+00	1.81E-01	8.98E-02	2.05E-01	1.29E-01
TH229	4900.000	4880.858	141.770	416.000	413.000	3.000	1.7321	99.52000	3.87E+00	3.47E-01	3.78E-02	1.01E-01	1.92E-01
TH-230	4671.390	4641.661	0.000	161.000	156.680	0.000	5.3214	99.70000	1.47E+00	1.60E-01	1.16E-01	2.57E-01	1.17E-01
TH-232	3972.000	3964.737	96.958	181.000	180.839	0.000	1.9427	100.0000	1.69E+00	1.78E-01	4.22E-02	1.10E-01	1.26E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

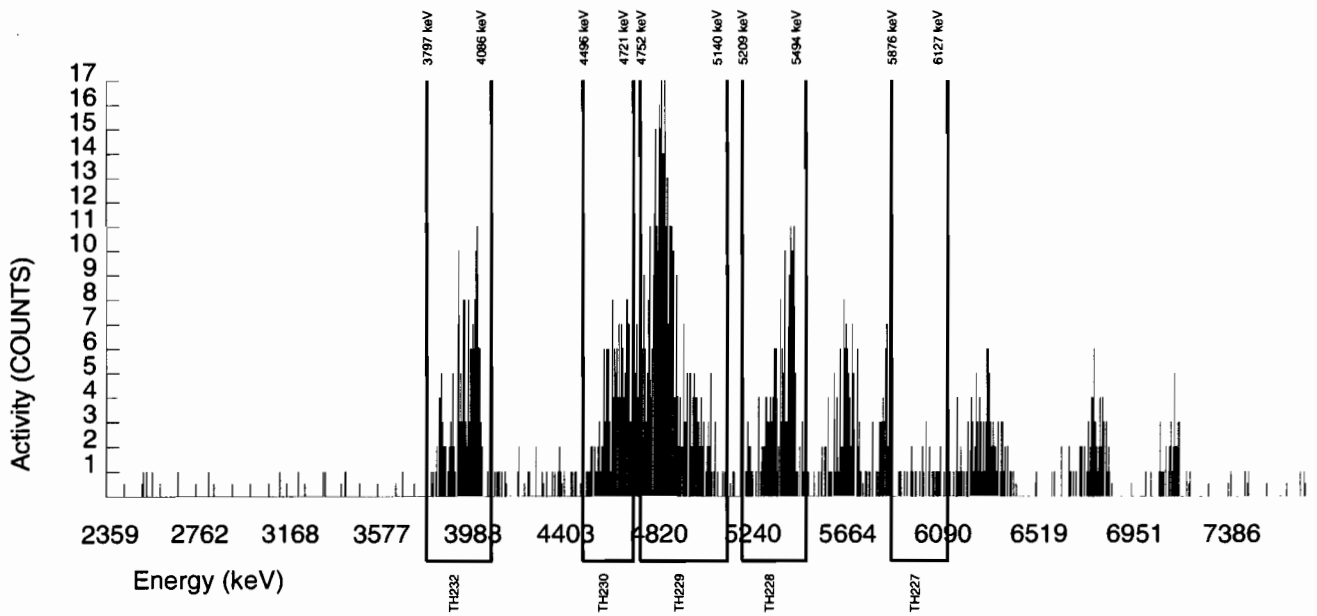

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814
SAMPLE ID : S0248867001_TH
SAMPLE QTY : 0.258 G
SAMPLE DATE : 5-MAR-2010 00:00:00.
ANALYST : AYB1
% YIELD : 85.016

CHAMBER : 182
DETECTOR S/N : 74440
AVERAGE %EFFICIENCY : 25.9311
COUNT DATE : 29-MAR-2010 17:05:41
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B182.CNF;184
BKG DATE : 28-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W182.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.8794E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5993.047	0.000	16.000	8.000	8.000	2.0641	57.44000	2.80E-01	1.72E-01	6.62E-02	1.70E-01	1.71E-01
TH-228	5363.000	5404.155	39.178	195.000	187.826	7.000	4.1318	99.94000	1.53E+00	1.59E-01	7.62E-02	1.74E-01	1.15E-01
TH229	4900.000	4902.941	66.033	486.000	485.000	1.000	1.0000	99.52000	3.86E+00	3.28E-01	1.85E-02	5.86E-02	1.76E-01
TH-230	4671.390	4665.209	17.769	116.000	110.927	0.000	5.3214	99.70000	8.81E-01	1.05E-01	9.83E-02	2.18E-01	8.37E-02
TH-232	3972.000	3994.840	84.512	173.000	171.811	1.000	1.9427	100.0000	1.36E+00	1.43E-01	3.58E-02	9.30E-02	1.04E-01

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

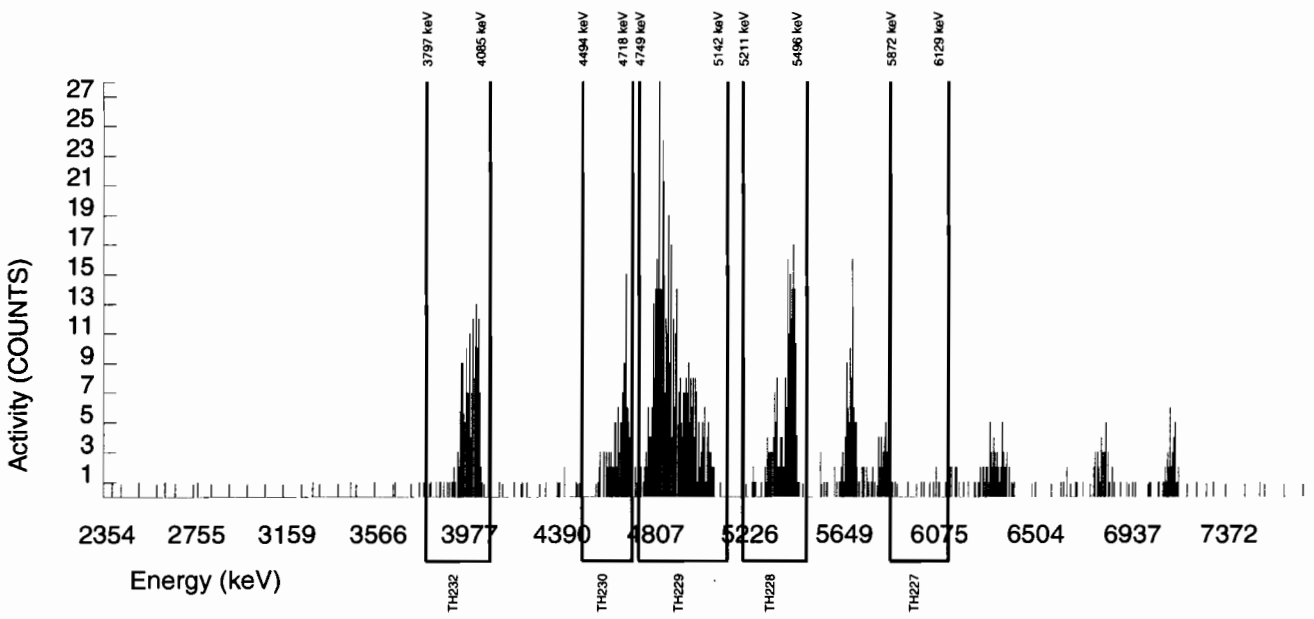

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814
SAMPLE ID : S1202072528_TH
SAMPLE QTY : 1.000 G
SAMPLE DATE : 25-MAR-2010 00:00:00
ANALYST : AYB1
% YIELD : 93.112

CHAMBER : 193
DETECTOR S/N : 68627
AVERAGE %EFFICIENCY : 26.8495
COUNT DATE : 29-MAR-2010 17:06:07
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B193.CNF;168
BKG DATE : 28-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W193.CNF;56
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 2.0583E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5991.142	0.000	7.000	4.000	3.000	2.0641	57.44000	1.51E-02	1.20E-02	1.51E-02	3.86E-02	1.20E-02
TH-228	5363.000	5346.354	231.470	5.000	-0.198	5.000	4.1318	99.94000	-3.58E-04	5.67E-03	1.73E-02	3.95E-02	5.67E-03
TH229	4900.000	4900.657	36.674	558.000	550.000	8.000	2.8284	99.52000	9.96E-01	8.15E-02	1.19E-02	2.87E-02	4.31E-02
TH-230	4671.390	4682.640	33.859	9.000	3.247	0.000	5.3214	99.70000	5.87E-03	3.28E-03	2.24E-02	4.96E-02	3.26E-03
TH-232	3972.000	4057.201	44.324	2.000	0.785	1.000	1.9427	100.0000	1.41E-03	3.01E-03	8.14E-03	2.12E-02	3.01E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

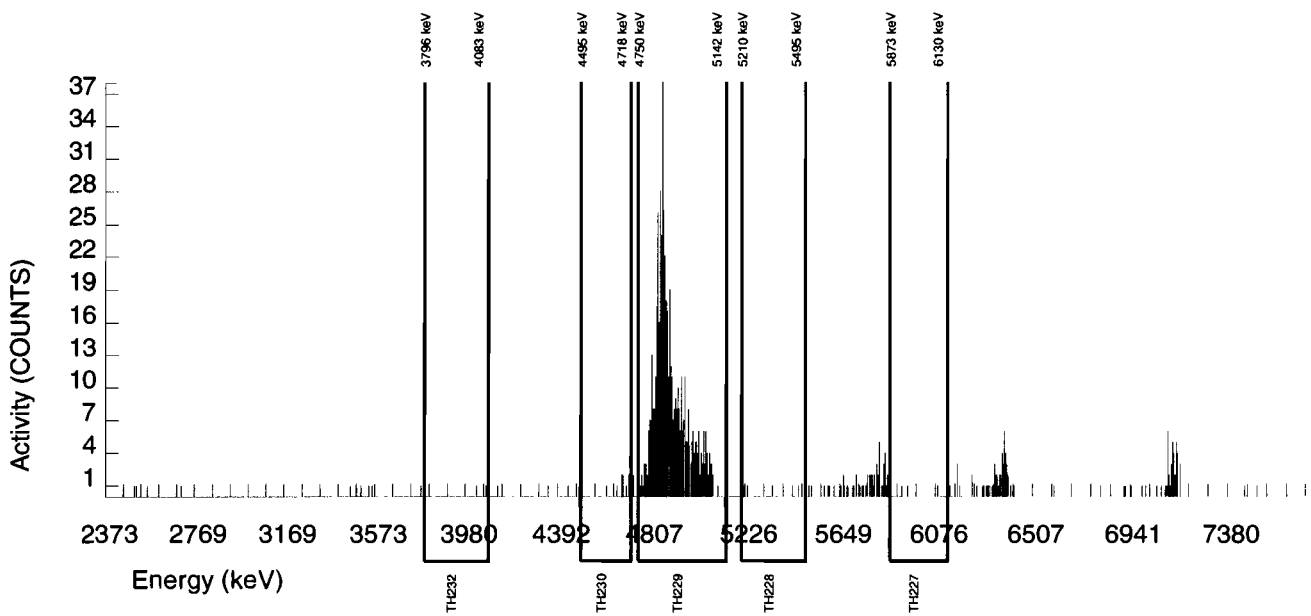

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814
SAMPLE ID : S1202072529_TH
SAMPLE QTY : 0.259 G
SAMPLE DATE : 5-MAR-2010 00:00:00.
ANALYST : AYB1
% YIELD : 88.265

CHAMBER : 194
DETECTOR S/N : 68635
AVERAGE %EFFICIENCY : 26.3668
COUNT DATE : 29-MAR-2010 17:06:09
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B194.CNF;166
BKG DATE : 28-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W194.CNF;57
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.9512E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6000.047	0.000	54.000	47.000	7.000	2.0641	57.44000	1.55E+00	2.80E-01	6.25E-02	1.60E-01	2.58E-01
TH-228	5363.000	5391.808	43.595	262.000	257.816	4.000	4.1318	99.94000	1.98E+00	1.88E-01	7.19E-02	1.64E-01	1.25E-01
TH229	4900.000	4894.379	86.369	512.000	512.000	0.000	0.0000	99.52000	3.84E+00	3.22E-01	0.00E+00	2.03E-02	1.70E-01
TH-230	4671.390	4656.261	78.749	173.000	165.644	2.000	5.3214	99.70000	1.24E+00	1.32E-01	9.28E-02	2.06E-01	9.76E-02
TH-232	3972.000	3986.583	94.920	217.000	216.800	0.000	1.9427	100.0000	1.62E+00	1.59E-01	3.38E-02	8.78E-02	1.10E-01

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

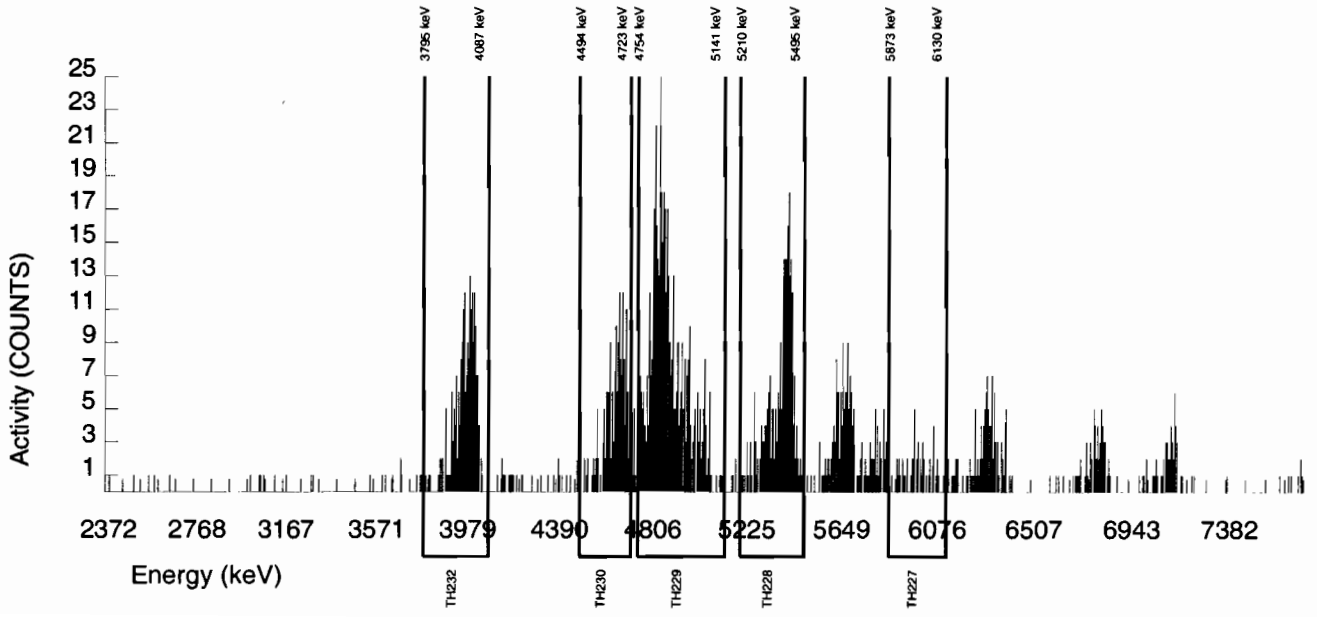

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814
SAMPLE ID : S1202072530_TH
SAMPLE QTY : 0.108 G
SAMPLE DATE : 25-MAR-2010 00:00:00
ANALYST : AYB1
% YIELD : 86.814

CHAMBER : 195
DETECTOR S/N : 68636
AVERAGE %EFFICIENCY : 27.9072
COUNT DATE : 29-MAR-2010 17:06:12
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B195.CNF;173
BKG DATE : 28-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W195.CNF;56
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.9191E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5997.009	225.079	24.000	17.000	7.000	2.0641	57.44000	6.15E-01	2.07E-01	1.44E-01	3.69E-01	2.01E-01
TH-228	5363.000	5408.161	87.704	89.000	76.808	12.000	4.1318	99.94000	1.33E+00	2.01E-01	1.66E-01	3.78E-01	1.74E-01
TH229	4900.000	4905.651	44.507	549.000	533.000	16.000	4.0000	99.52000	9.22E+00	8.15E-01	1.61E-01	3.69E-01	4.11E-01
TH-230	4671.390	4669.708	35.287	1545.000	1523.425	16.000	5.3214	99.70000	2.63E+01	2.12E+00	2.14E-01	4.74E-01	6.81E-01
TH-232	3972.000	3997.294	80.579	70.000	63.792	6.000	1.9427	100.0000	1.10E+00	1.72E-01	7.78E-02	2.02E-01	1.50E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

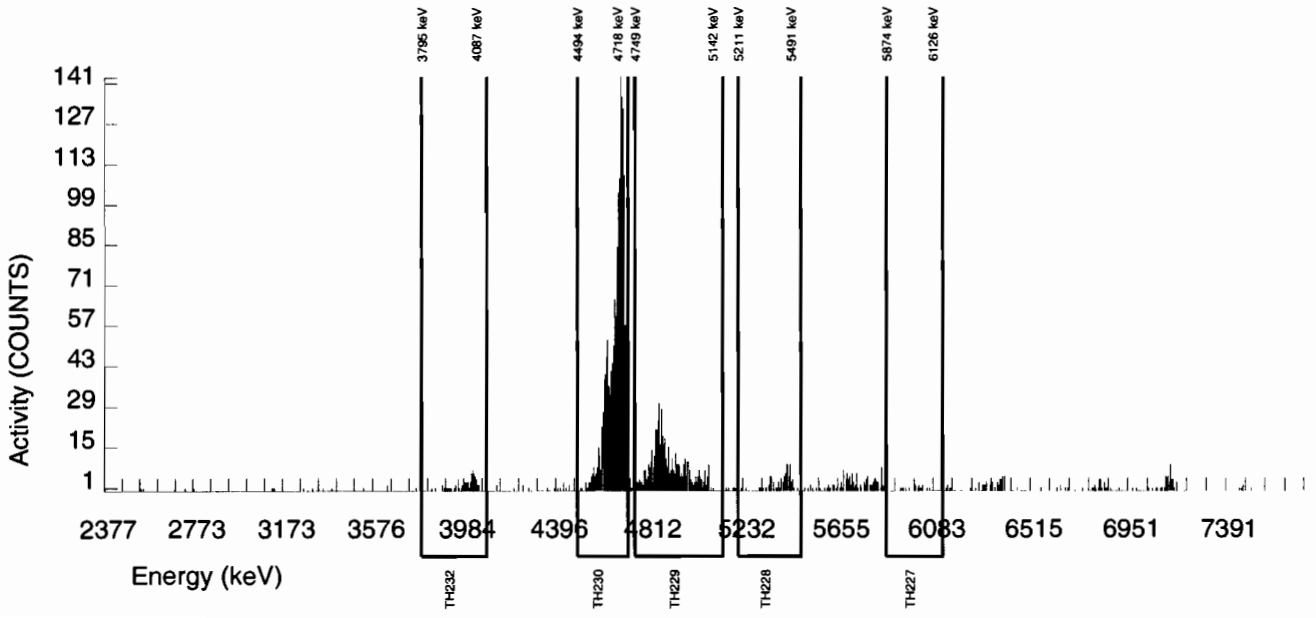

Radiochemistry Batch Checklist, Rev10

Batch# 962633 **Product:** Gamma Solid **Date:** 03/26/10

LANL

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

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 3/26/10

Secondary Review Performed By: HStamper 3/29/10

4/3

Gamma Spec Que Sheet 1.G.- 3/16/10

03/08/2010

Batch #:962633 **Analyst: MXR1** **First Client DueDate04/03/2010** **Internal Due Date: 03/23/2010**

Gamma Spike Isotope: Mixed Gamma **Spike Code:** Na **Expiration Date:** Na **Vol:** Na **Nominal Concentration:** Na

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 10 mL **Nominal Concentration:** Cs137-5.685 Co60-6.485 Am241-16.29

Initials: MS **Prep Date:** 3/9/10 **Library:** SOLID **Witness:** Na

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Wet/Dry Aliquot (1/0/F)	Detector	Sealing Date/Time (if Applicable)
248860001-1	RE46-10-13782	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF	can	125.52	15	3/9/10
248860002-1	RE46-10-13783	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		124.16	18	
248860003-1	RE46-10-13777	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		133.02	22	
248860004-1	RE46-10-13775	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		143.70	23	
248860005-1	RE46-10-13776	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		127.04	25	
248860006-1	RE46-10-13781	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		132.12	2	
248860007-1	RE46-10-13779	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		129.80	5	
248860008-1	RE46-10-13780	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		129.23	10	
248860009-1	RE46-10-13778	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		143.35	12	
248863001-1	RE46-10-12936	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		125.19	15	
248863002-1	RE46-10-12930	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		123.50	22	
248863003-1	RE46-10-12929	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		122.05	23	
248863004-1	RE46-10-12935	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		126.96	4	
248865001-1	RE46-10-11924	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 K		125.14	7	
248866001-1	RE46-10-11885	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		133.00	15	
248866002-1	RE46-10-11886	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		115.19	17	
248867001-1	RE46-10-12931	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		122.07	29	
248867002-1	RE46-10-12932	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		143.48	22	
248867003-1	RE46-10-12934	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		112.39	5	
248867004-1	RE46-10-12933	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		121.04	15	
1202065188-1	MB	MB		QC ACCOUNT	SOIL	3/9/10 K		143.70	29	
1202065189-1	DUP RE46-10-12931(248867001)	DUP		QC ACCOUNT	SOIL	05-MAR-10 12:00:00 K		122.07	21	
1202065190-1	LCS	LCS		QC ACCOUNT	SOIL	3/9/10 RF		151.73	22	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: [signature] 3/26/10

M Stamps 3/29/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
962633	248860001	SAMPLE	24-MAR-10		Americium-241	-0.3988	0.5503	0.200
					Cerium-139	-0.0071	0.0713	0.050
					Europium-152	0.06987	0.2181	0.200
					Sodium-22	0.02774	0.101	0.080
					Thorium-234	0.3111	4.547	2.00
962633	248860002	SAMPLE	24-MAR-10		Americium-241	0.1165	0.3079	0.200
					Thorium-234	1.922	2.747	2.00
962633	248860003	SAMPLE	24-MAR-10		Americium-241	-0.02836	0.2157	0.200
					Thorium-234	0.6605	2.082	2.00
962633	248860004	SAMPLE	24-MAR-10		Americium-241	-0.15	0.3195	0.200
					Cerium-139	-0.01747	0.05093	0.050
					Thorium-234	1.76	2.867	2.00
962633	248860005	SAMPLE	24-MAR-10		Sodium-22	0.01003	0.09245	0.080
962633	248860006	SAMPLE	24-MAR-10		Americium-241	-0.1191	0.3087	0.200
					Cerium-139	-0.01638	0.0569	0.050
					Thorium-234	1.156	3.073	2.00
962633	248860007	SAMPLE	24-MAR-10		Cerium-139	-0.00892	0.05761	0.050
					Cesium-134	0.08795	0.1079	0.100
					Europium-152	0.1143	0.2013	0.200
					Sodium-22	0.00767	0.09701	0.080
962633	248860008	SAMPLE	24-MAR-10		Americium-241	0.02648	0.392	0.200
					Cerium-139	0.00647	0.05278	0.050
					Sodium-22	-0.02702	0.08143	0.080
					Thorium-234	1.437	3.271	2.00
962633	248860009	SAMPLE	24-MAR-10		Americium-241	0.08355	0.2671	0.200
					Cerium-139	-0.01125	0.05385	0.050
					Thorium-234	0.6321	2.451	2.00
962633	248863001	SAMPLE	24-MAR-10		Americium-241	-0.2062	0.5504	0.200
					Cerium-139	0.00164	0.06933	0.050
					Cesium-134	0.09766	0.1196	0.100
					Europium-152	0.00035	0.2226	0.200
					Mercury-203	0.0466	0.1027	0.100
					Sodium-22	-0.03472	0.09586	0.080
					Thorium-234	1.347	4.581	2.00
962633	248863002	SAMPLE	24-MAR-10		Americium-241	0.2093	0.245	0.200
					Cerium-139	0.02473	0.05406	0.050
962633	248863003	SAMPLE	24-MAR-10		Americium-241	0.06604	0.3876	0.200
					Cerium-139	-0.0204	0.06107	0.050
					Cesium-134	0.07323	0.1031	0.100
					Sodium-22	-0.01091	0.08483	0.080
962633	248863004	SAMPLE	24-MAR-10		Americium-241	0.1208	0.4152	0.200
					Thorium-234	-0.4912	3.22	2.00
962633	248865001	SAMPLE	24-MAR-10		Cerium-139	-0.00785	0.05556	0.050
					Sodium-22	0.01389	0.08378	0.080

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
962633	248866001	SAMPLE	24-MAR-10		Americium-241	-0.3335	0.5114	0.200
					Cerium-139	0.00101	0.06824	0.050
					Europium-152	-0.05316	0.2073	0.200
					Sodium-22	0.00914	0.09725	0.080
					Thorium-234	2.229	4.463	2.00
					Tin-113	0.02021	0.1026	0.100
962633	248866002	SAMPLE	24-MAR-10		Cerium-139	0.00257	0.05962	0.050
					Cobalt-60	0.04517	0.1039	0.100
					Sodium-22	-0.03833	0.1005	0.080
					Yttrium-88	0.0586	0.1006	0.100
962633	248867001	SAMPLE	24-MAR-10		Americium-241	-0.02518	0.3301	0.200
					Cerium-139	0.00997	0.06152	0.050
					Thorium-234	0.7463	2.926	2.00
962633	248867002	SAMPLE	24-MAR-10					
962633	248867003	SAMPLE	24-MAR-10		Cerium-139	-0.00662	0.06122	0.050
					Cesium-134	0.103	0.1249	0.100
					Sodium-22	0.02208	0.1114	0.080
962633	248867004	SAMPLE	24-MAR-10		Americium-241	-0.1815	0.3894	0.200
					Thorium-234	1.582	3.174	2.00
962633	1202065188	MB	24-MAR-10					
962633	1202065189	DUP	24-MAR-10					
962633	1202065190	LCS	25-MAR-10		Cerium-139	0.01006	0.07681	0.050
					Cesium-134	0.07098	0.1333	0.100
					Europium-152	0.01084	0.2676	0.200
					Mercury-203	-0.0163	0.1102	0.100
					Ruthenium-106	-0.1807	0.8255	0.800
					Sodium-22	0.0353	0.08544	0.080
					Thorium-234	-0.8535	3.134	2.00
					Tin-113	-0.02312	0.1307	0.100

Gamma Review Report based on Result > MDA for Batch:962633

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860001	04-MAR-10 12:00	24-MAR-10 16:15	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.904	0.2344	pCi/g	0.3102	N	911.2	3	1.685	IDENTIFIED	10.72	☐	
Annihilation Rad.		0.2352	0.04407	pCi/g	0.06345	N	510.6	1	1.904	IDENTIFIED	18.23	☐	
Bismuth-211	int	4.727	0.3554	pCi/g	0.4474	Y	352.1	2	1.367	IDENTIFIED	5.644	☐ ui	
Bismuth-212	HE	2.345	0.5085	pCi/g	1.505	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.243	0.1128	pCi/g	0.1403	0.200	609.4	3	1.637	IDENTIFIED	7.585	☐	
Cadmium-109	int	2.31	0.7012	pCi/g	1.92	Y	87.42	3	1.229	IDENTIFIED	29.73	☐ ui	
Cerium-143		13160	2149	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.195	0.04362	pCi/g	0.121	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		11.45	1.686	pCi/g	4.76	N		0				☐	
Iodine-135		1.74E+21	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.027	0.1428	pCi/g	0.1271	0.100	238.8	2	1.375	IDENTIFIED	3.727	☐	
Lead-214	✓	1.716	0.1374	pCi/g	0.1601	0.100	352.1	2	1.367	IDENTIFIED	5.644	☐	
Neptunium-237	HE	0.6685	0.2147	pCi/g	0.5708	N	87.42	3	1.229	IDENTIFIED	29.73	☐	
Niobium-95m	HE	0.4874	0.1088	pCi/g	0.3509	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40	✓	39.73	2.271	pCi/g	0.7555	1.00	1460	1	2.215	IDENTIFIED	2.922	☐	
Promethium-149		656.2	302.6	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Radium-224	int	3.765	0.8432	pCi/g	1.362	Y	241.8	1	1.802	IDENTIFIED	21.71	☐ ui	
Radium-226	✓	1.243	0.1128	pCi/g	0.1403	Y	609.4	3	1.637	IDENTIFIED	7.585	☐	
Radium-228	✓	1.904	0.2344	pCi/g	0.3102	0.500	911.2	3	1.685	IDENTIFIED	10.72	☐	
Strontium-85	la	0.124	0.03193	pCi/g	0.1041	Y	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.5989	0.05573	pCi/g	0.06969	0.080	583.1	1	1.569	IDENTIFIED	8.104	☐	
Thorium-228	nr	2.027	0.1428	pCi/g	0.1271	N	238.8	2	1.375	IDENTIFIED	3.727	☐	
Thorium-230	nr	1.243	0.108	pCi/g	0.1403	N	609.4	3	1.637	IDENTIFIED	7.585	☐	
Thorium-232	nr	1.904	0.2344	pCi/g	0.3102	N	911.2	3	1.685	IDENTIFIED	10.72	☐	
Tin-126	HE	0.224	0.06803	pCi/g	0.1877	N	87.42	3	1.229	IDENTIFIED	29.73	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860002	04-MAR-10 12:00	24-MAR-10 16:15	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.74	0.1822	pCi/g	0.1998	N	910.8	3	1.832	IDENTIFIED	7.983	☐	
Annihilation Rad.		0.1382	0.03062	pCi/g	0.03685	N	510.4	1	2.172	IDENTIFIED	21.9	☐	
Bismuth-211	int	3.582	0.2284	pCi/g	0.278	Y	351.8	2	1.441	IDENTIFIED	5.509	☐ ui	
Bismuth-212	la nr	1.929	0.4139	pCi/g	1.053	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.181	0.08634	pCi/g	0.1063	0.200	609	3	1.456	IDENTIFIED	5.765	☐	
Cadmium-109	int	2.394	0.5305	pCi/g	1.314	Y	87.35	3	1.24	IDENTIFIED	21.68	☐ ui	
Cadmium-115	HE	28.61	22.72	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cerium-143		9978	1438	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.08997	0.027	pCi/g	0.0759	0.100	0	8	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.

Gross Gamma		9.864	1.2	pCi/g	2.367	N		0				☐	
Iodine-133	HE	1.16E+05	1.38E+05	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.801	0.08331	pCi/g	0.08423	0.100	238.7	2	1.157	IDENTIFIED	2.899	☐	
Lead-214 ✔		1.3	0.09032	pCi/g	0.1011	0.100	351.8	2	1.441	IDENTIFIED	5.509	☐	
Mercury-203	la	0.06698	0.02051	pCi/g	0.06549	0.100	0	8	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Neptunium-237	HE	0.693	0.1699	pCi/g	0.4016	N	87.35	3	1.24	IDENTIFIED	21.68	☐	
Potassium-40 ✔		34.42	1.533	pCi/g	0.4415	1.00	1460	1	2.198	IDENTIFIED	2.329	☐	
Promethium-149	HE	48.72	188.4	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Radium-224	int	3.793	0.5787	pCi/g	0.9015	Y	241.6	1	1.767	IDENTIFIED	15	☐	ui
Radium-226 ✔		1.181	0.08634	pCi/g	0.1063	Y	609	3	1.456	IDENTIFIED	5.765	☐	
Radium-228 ✔		1.74	0.1822	pCi/g	0.1998	0.500	910.8	3	1.832	IDENTIFIED	7.983	☐	
Strontium-85	la	0.09479	0.01855	pCi/g	0.06299	Y	0	8	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208 ✔		0.5245	0.04041	pCi/g	0.04889	0.080	583	1	1.629	IDENTIFIED	6.637	☐	
Thorium-228	nr	1.801	0.08331	pCi/g	0.08423	N	238.7	2	1.157	IDENTIFIED	2.899	☐	
Thorium-230	nr	1.181	0.08052	pCi/g	0.1063	N	609	3	1.456	IDENTIFIED	5.765	☐	
Thorium-232	nr	1.74	0.1822	pCi/g	0.1998	N	910.8	3	1.832	IDENTIFIED	7.983	☐	
Tin-126	HE	0.2322	0.05146	pCi/g	0.1381	N	87.35	3	1.24	IDENTIFIED	21.68	☐	
Total Uranium		5.7742	2.32E-06	ug/g	4.0899	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860003	04-MAR-10 12:00	24-MAR-10 16:15	20.2	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.839	0.1776	pCi/g	0.2121	N	911.3	3	2.042	IDENTIFIED	6.886	☐	
Annihilation Rad.	HE	0.1044	0.03447	pCi/g	0.04102	N	511	1	2.195	IDENTIFIED	32.63	☐	
Bismuth-211	int	3.859	0.3032	pCi/g	0.3037	Y	352.1	2	1.506	IDENTIFIED	5.289	☐	ui
Bismuth-212	HE	1.705	0.4014	pCi/g	0.9792	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		0.9632	0.09305	pCi/g	0.1009	0.200	609.3	3	1.751	IDENTIFIED	7.699	☐	
Cadmium-109	int	3.638	0.5037	pCi/g	1.089	Y	87.18	3	1.26	IDENTIFIED	13.02	☐	ui
Cerium-143		9254	1550	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1052	0.027	pCi/g	0.07901	0.100	0	8	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Cesium-135	HE	0.2809	0.08439	pCi/g	0.26	N	0	8	0	NOT_IDENTI	0	☐	
Gross Gamma		9.716	1.217	pCi/g	2.534	N		0				☐	
Iodine-135		1.38E+21	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.649	0.12	pCi/g	0.08777	0.100	238.8	2	1.174	IDENTIFIED	3.016	☐	
Lead-214 ✔		1.401	0.1166	pCi/g	0.1104	0.100	352.1	2	1.506	IDENTIFIED	5.289	☐	
Mercury-203	int	0.1122	0.03255	pCi/g	0.05885	0.100	278.3	1	1.976	IDENTIFIED	28.15	☐	ui
Neptunium-237	int nr	1.053	0.1829	pCi/g	0.3199	N	87.18	3	1.26	IDENTIFIED	13.02	☐	
Niobium-95	HE	0.08004	0.02241	pCi/g	0.07112	N	0	8	0	NOT_IDENTI	0	☐	
Potassium-40 ✔		34.36	1.767	pCi/g	0.4769	1.00	1461	1	2.677	IDENTIFIED	2.342	☐	
Promethium-149	HE	84.07	214.9	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Radium-224	int	4.464	0.6253	pCi/g	0.9396	Y	241.8	1	1.789	IDENTIFIED	12.53	☐	ui
Radium-226 ✔		0.9632	0.09305	pCi/g	0.1009	Y	609.3	3	1.751	IDENTIFIED	7.699	☐	
Radium-228 ✔		1.839	0.1776	pCi/g	0.2121	0.500	911.3	3	2.042	IDENTIFIED	6.886	☐	
Strontium-85	la	0.1674	0.02235	pCi/g	0.07408	Y	0	8	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208 ✔		0.4779	0.04318	pCi/g	0.05092	0.080	583.3	1	1.71	IDENTIFIED	7.231	☐	
Thorium-228	nr	1.649	0.12	pCi/g	0.08777	N	238.8	2	1.174	IDENTIFIED	3.016	☐	

Thorium-230	nr	0.9632	0.08951	pCi/g	0.1009	N	609.3	3	1.751	IDENTIFIED	7.699	☐
Thorium-232	nr	1.839	0.1776	pCi/g	0.2121	N	911.3	3	2.042	IDENTIFIED	6.886	☐
Tin-126	int nr	0.3529	0.04886	pCi/g	0.1061	N	87.18	3	1.26	IDENTIFIED	13.02	☐

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860004	04-MAR-10 12:00	24-MAR-10 16:16	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.307	0.1527	pCi/g	0.2158	N	910.1	3	1.418	IDENTIFIED	11.68	☐		
Annihilation Rad.		0.132	0.03179	pCi/g	0.04806	N	510.4	1	2.075	IDENTIFIED	24.07	☐		
Bismuth-211	int	3.065	0.2289	pCi/g	0.3357	Y	351.4	2	1.328	IDENTIFIED	7.467	☐	ui	
Bismuth-212	HE	1.668	0.4443	pCi/g	1.148	N	0	6	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	0.9447	0.07533	pCi/g	0.1276	0.200	608.6	3	1.596	IDENTIFIED	7.974	☐		
Cadmium-109	int	1.94	0.6161	pCi/g	1.444	Y	87.22	3	1.215	IDENTIFIED	31.76	☐	ui	
Cadmium-115	HE	6.572	27.39	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Cerium-143		12840	1419	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Gross Gamma		7.395	1.154	pCi/g	2.608	N		0				☐		
Lead-212	✓	1.503	0.05399	pCi/g	0.09129	0.100	238.3	2	1.214	IDENTIFIED	3.592	☐		
Lead-214	✓	1.112	0.08306	pCi/g	0.1234	0.100	351.4	2	1.328	IDENTIFIED	7.467	☐		
Neptunium-237	HE	0.5616	0.1783	pCi/g	0.4624	N	87.22	3	1.215	IDENTIFIED	31.76	☐		
Niobium-95m	la nr	0.8159	0.08629	pCi/g	0.3138	N	0	6	0	NOT_IDENTI	0	☐		
Potassium-40	✓	26.89	0.8756	pCi/g	0.6185	1.00	1459	1	2.233	IDENTIFIED	3.257	☐		
Promethium-149	HE	269.5	213.1	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Radium-224	int	3.749	0.4822	pCi/g	0.9783	Y	241.2	1	1.878	IDENTIFIED	12.86	☐	ui	
Radium-226	✓	0.9447	0.07533	pCi/g	0.1276	Y	608.6	3	1.596	IDENTIFIED	7.974	☐		
Radium-228	✓	1.307	0.1527	pCi/g	0.2158	0.500	910.1	3	1.418	IDENTIFIED	11.68	☐		
Technetium-99m		4.99E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.4531	0.03396	pCi/g	0.05076	0.080	582.5	1	1.607	IDENTIFIED	7.495	☐		
Thorium-228	nr	1.503	0.05399	pCi/g	0.09129	N	238.3	2	1.214	IDENTIFIED	3.592	☐		
Thorium-230	nr	0.9447	0.07533	pCi/g	0.1276	N	608.6	3	1.596	IDENTIFIED	7.974	☐		
Thorium-232	nr	1.307	0.1527	pCi/g	0.2158	N	910.1	3	1.418	IDENTIFIED	11.68	☐		
Tin-126	HE	0.1882	0.05977	pCi/g	0.1409	N	87.22	3	1.215	IDENTIFIED	31.76	☐		

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860005	04-MAR-10 12:00	24-MAR-10 16:16	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	2.189	0.2087	pCi/g	0.2453	N	911.2	3	1.726	IDENTIFIED	7.317	☐		
Americium-241	la	0.08707	0.0264	pCi/g	0.08642	0.200	0	6	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Annihilation Rad.		0.1253	0.03652	pCi/g	0.04992	N	510.7	1	1.386	IDENTIFIED	28.69	☐		
Bismuth-211	int	4.83	0.3333	pCi/g	0.332	Y	352	2	1.168	IDENTIFIED	4.468	☐	ui	
Bismuth-212	nr	2.414	0.4645	pCi/g	0.8466	N	727.2	1	1.246	IDENTIFIED	17.9	☐		
Bismuth-214	✓	1.424	0.1184	pCi/g	0.1131	0.200	609.4	3	1.291	IDENTIFIED	5.706	☐		
Cadmium-109	int	4.738	0.4677	pCi/g	0.7387	Y	87.32	3	1.325	IDENTIFIED	8.292	☐	ui	
Cerium-143		6943	1254	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1669	0.03531	pCi/g	0.1057	0.100	0	6	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-135	HE	0.3926	0.1399	pCi/g	0.2203	N	269.6	1	1.081	IDENTIFIED	35.12	☐		

Gadolinium-153	HE	0.1342	0.05165	pCi/g	0.09547	N	0	6	0	FAIL_ABUND	0	☐	
Gross Gamma		12.02	1.601	pCi/g	3.667	N		0				☐	
Lead-210	HE	0.884	0.3691	pCi/g	0.6106	N	46.63	1	0.7942	IDENTIFIED	41.43	☐	
Lead-212 ✔		2.029	0.13	pCi/g	0.08538	0.100	238.7	2	1.016	IDENTIFIED	2.899	☐	
Lead-214 ✔		1.753	0.1303	pCi/g	0.1159	0.100	352	2	1.168	IDENTIFIED	4.468	☐	
Neptunium-237	int nr	1.371	0.1975	pCi/g	0.2124	N	87.32	3	1.325	IDENTIFIED	8.292	☐	
Potassium-40 ✔		39.4	1.97	pCi/g	0.573	1.00	1461	1	2.056	IDENTIFIED	2.618	☐	
Promethium-149	HE	2.832	217.6	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Radium-224	int	5.003	0.6121	pCi/g	0.9162	Y	241.6	1	1.463	IDENTIFIED	11.04	☐	ui
Radium-226 ✔		1.424	0.1184	pCi/g	0.1131	Y	609.4	3	1.291	IDENTIFIED	5.706	☐	
Radium-228 ✔		2.189	0.2087	pCi/g	0.2453	0.500	911.2	3	1.726	IDENTIFIED	7.317	☐	
Technetium-99m		2.93E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208 ✔		0.6192	0.05549	pCi/g	0.05957	0.080	583.3	1	1.447	IDENTIFIED	6.971	☐	
Thorium-228	nr	2.029	0.13	pCi/g	0.08538	N	238.7	2	1.016	IDENTIFIED	2.899	☐	
Thorium-230	nr	1.424	0.1123	pCi/g	0.1131	N	609.4	3	1.291	IDENTIFIED	5.706	☐	
Thorium-232	nr	2.189	0.2087	pCi/g	0.2453	N	911.2	3	1.726	IDENTIFIED	7.317	☐	
Thorium-234 ✔		1.433	0.4637	pCi/g	0.8081	2.00	63.31	2	0.8813	IDENTIFIED	30.94	☐	
Tin-126	int nr	0.4596	0.04537	pCi/g	0.07151	N	87.32	3	1.325	IDENTIFIED	8.292	☐	
Total Uranium		4.314	1.38E-06	ug/g	1.2049	N		0				☐	
Uranium-238	HE	1.433	0.4637	pCi/g	0.8081	N	63.31	2	0.8813	IDENTIFIED	30.94	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860006	04-MAR-10 12:00	24-MAR-10 16:27	20.2	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.96	0.2006	pCi/g	0.2775	N	910.5	3	1.802	IDENTIFIED	7.993	☐		
Annihilation Rad.		0.1713	0.03991	pCi/g	0.05218	N	510	1	1.672	IDENTIFIED	22.76	☐		
Bismuth-211	int	4.181	0.3398	pCi/g	0.3571	Y	351.6	2	1.288	IDENTIFIED	5.729	☐	ui	
Bismuth-212	HE	2.312	0.5498	pCi/g	1.334	N	0	8	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔	비정상적이	1.149	0.116	pCi/g	0.1318	0.200	608.8	3	1.333	IDENTIFIED	8.582	☐		
Cadmium-109	int LA	3.86	0.4886	pCi/g	1.775	Y	0	8	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Cerium-143		18790	2819	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Cesium-135	HE	0.3571	0.1005	pCi/g	0.3325	N	0	8	0	NOT_IDENTI	0	☐		
Gross Gamma		10.24	1.458	pCi/g	3.354	N		0				☐		
Iodine-135		4.33E+20	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Lead-212 ✔		1.772	0.1361	pCi/g	0.1357	0.100	238.3	2	1.13	IDENTIFIED	4.377	☐		
Lead-214 ✔		1.517	0.1302	pCi/g	0.1299	0.100	351.6	2	1.288	IDENTIFIED	5.729	☐		
Neptunium-237		1.188	0.1916	pCi/g	0.5291	N	0	8	0	NOT_IDENTI	0	☐		
Potassium-40 ✔		36.4	2.012	pCi/g	0.5121	1.00	1460	1	1.98	IDENTIFIED	2.82	☐		
Radium-224	int	3.311	0.5362	pCi/g	1.455	Y	241.4	1	1.377	IDENTIFIED	15.08	☐	ui	
Radium-226 ✔		1.149	0.116	pCi/g	0.1318	Y	608.8	3	1.333	IDENTIFIED	8.582	☐		
Radium-228 ✔		1.96	0.2006	pCi/g	0.2775	0.500	910.5	3	1.802	IDENTIFIED	7.993	☐		
Sodium-24	HE	2.04E+07	1.04E+08	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Thallium-208 ✔		0.6008	0.05471	pCi/g	0.06371	0.080	582.7	1	1.59	IDENTIFIED	7.608	☐		
Thorium-228	nr	1.772	0.1361	pCi/g	0.1357	N	238.3	2	1.13	IDENTIFIED	4.377	☐		
Thorium-230	nr	1.149	0.112	pCi/g	0.1318	N	608.8	3	1.333	IDENTIFIED	8.582	☐		
Thorium-232	nr	1.96	0.2006	pCi/g	0.2775	N	910.5	3	1.802	IDENTIFIED	7.993	☐		

Tin-126	int nr	0.3885	0.04805	pCi/g	0.1744	N	0	8	0	NOT_IDENTI	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860007	04-MAR-10 12:00	24-MAR-10 16:27	20.2	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.851	0.2352	pCi/g	0.3028	N	910.8	3	1.702	IDENTIFIED	11.01	☐		
Annihilation Rad.	HE	0.1229	0.04146	pCi/g	0.0584	N	510.3	1	1.356	IDENTIFIED	33.57	☐		
Bismuth-211	int	4.042	0.2985	pCi/g	0.3679	Y	351.4	2	1.228	IDENTIFIED	6.235	☐	ui	
Bismuth-212	HE	2.491	0.6333	pCi/g	1.563	N	0	7	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔		1.406	0.106	pCi/g	0.1447	0.200	608.8	3	1.56	IDENTIFIED	6.246	☐		
Cadmium-109	int	4.826	0.462	pCi/g	1.027	Y	86.88	3	1.323	IDENTIFIED	8.78	☐	ui	
Cadmium-115	HE	21.34	33.84	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cerium-143		13840	2131	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-135	HE	0.5718	0.1563	pCi/g	0.2743	N	269.6	1	1.231	IDENTIFIED	26.81	☐		
Gross Gamma		10.74	1.451	pCi/g	4.519	N		0				☐		
Iodine-135		2.73E+21	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-212 ✔		1.883	0.1194	pCi/g	0.104	0.100	238.3	2	1.262	IDENTIFIED	3.302	☐		
Lead-214 ✔		1.467	0.1156	pCi/g	0.1351	0.100	351.4	2	1.228	IDENTIFIED	6.235	☐		
Neptunium-237	int nr	1.397	0.1983	pCi/g	0.2959	N	86.88	3	1.323	IDENTIFIED	8.78	☐		
Niobium-95m		1.082	0.1142	pCi/g	0.3633	N	0	7	0	NOT_IDENTI	0	☐		
Potassium-40 ✔		34.04	1.456	pCi/g	0.6049	1.00	1460	1	1.982	IDENTIFIED	2.936	☐		
Radium-224	int	5.411	0.7124	pCi/g	1.115	Y	241.2	1	1.859	IDENTIFIED	12.22	☐	ui	
Radium-226 ✔		1.406	0.106	pCi/g	0.1447	Y	608.8	3	1.56	IDENTIFIED	6.246	☐		
Radium-228 ✔		1.851	0.2352	pCi/g	0.3028	0.500	910.8	3	1.702	IDENTIFIED	11.01	☐		
Sodium-24		2.35E+08	1.05E+08	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Strontium-85	la	0.1105	0.02791	pCi/g	0.09269	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔		0.5723	0.04943	pCi/g	0.0694	0.080	582.9	1	1.626	IDENTIFIED	7.818	☐		
Thorium-228	nr	1.883	0.1194	pCi/g	0.104	N	238.3	2	1.262	IDENTIFIED	3.302	☐		
Thorium-230	nr	1.406	0.0993	pCi/g	0.1447	N	608.8	3	1.56	IDENTIFIED	6.246	☐		
Thorium-232	nr	1.851	0.2352	pCi/g	0.3028	N	910.8	3	1.702	IDENTIFIED	11.01	☐		
Thorium-234 ✔		1.606	0.5638	pCi/g	1.225	2.00	63.1	2	1.33	IDENTIFIED	33.92	☐		
Tin-126	int nr	0.4682	0.04481	pCi/g	0.09946	N	86.88	3	1.323	IDENTIFIED	8.78	☐		
Total Uranium		4.8301	1.68E-06	ug/g	1.8262	N		0				☐		
Uranium-238	HE	1.606	0.5638	pCi/g	1.225	N	63.1	2	1.33	IDENTIFIED	33.92	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860008	04-MAR-10 12:00	24-MAR-10 16:28	20.2	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.839	0.2138	pCi/g	0.2279	N	911.8	3	2.139	IDENTIFIED	9.826	☐		
Annihilation Rad.		0.1607	0.0345	pCi/g	0.04849	N	511.1	1	1.823	IDENTIFIED	21.04	☐		
Bismuth-211	int	3.837	0.2991	pCi/g	0.3394	Y	352	2	1.295	IDENTIFIED	6.223	☐	ui	
Bismuth-212	la nr	2.497	0.573	pCi/g	1.274	N	0	5	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔		1.253	0.1004	pCi/g	0.1119	0.200	609.7	3	1.494	IDENTIFIED	6.328	☐		
Cadmium-109	int	2.881	0.5392	pCi/g	1.243	Y	87.04	3	1.09	IDENTIFIED	17.85	☐	ui	
Cadmium-115	HE	23.34	26.35	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		

Cerium-143	7307	1349	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		
Cesium-134 la	0.1338	0.03914	pCi/g	0.1022	0.100	0	5	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	10.4	1.353	pCi/g	3.147	N		0				☐		
Lead-212 ✔	1.839	0.1159	pCi/g	0.1016	0.100	238.7	2	1.148	IDENTIFIED	3.269	☐		
Lead-214 ✔	1.393	0.1151	pCi/g	0.1234	0.100	352	2	1.295	IDENTIFIED	6.223	☐		
Neptunium-237 HE	0.8341	0.1789	pCi/g	0.4888	N	87.04	3	1.09	IDENTIFIED	17.85	☐		
Potassium-40 ✔	37.51	2.057	pCi/g	0.5285	1.00	1462	1	2.353	IDENTIFIED	2.722	☐		
Radium-224 int	3.197	0.6352	pCi/g	1.089	Y	241.5	1	1.647	IDENTIFIED	19.26	☐	ui	
Radium-226 ✔	1.253	0.1004	pCi/g	0.1119	Y	609.7	3	1.494	IDENTIFIED	6.328	☐		
Radium-228 ✔	1.839	0.2138	pCi/g	0.2279	0.500	911.8	3	2.139	IDENTIFIED	9.826	☐		
Strontium-85 la	0.0929	0.02327	pCi/g	0.07764	Y	0	5	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔	0.552	0.05048	pCi/g	0.05923	0.080	583.7	1	1.375	IDENTIFIED	7.959	☐		
Thorium-228 nr	1.839	0.1159	pCi/g	0.1016	N	238.7	2	1.148	IDENTIFIED	3.269	☐		
Thorium-230 nr	1.253	0.09484	pCi/g	0.1119	N	609.7	3	1.494	IDENTIFIED	6.328	☐		
Thorium-232 nr	1.839	0.2138	pCi/g	0.2279	N	911.8	3	2.139	IDENTIFIED	9.826	☐		
Tin-126 int nr	0.2795	0.05231	pCi/g	0.1561	N	87.04	3	1.09	IDENTIFIED	17.85	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860009	04-MAR-10 12:00	24-MAR-10 16:28	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228 nr	1.824	0.205	pCi/g	0.2429	N	911.2	3	1.378	IDENTIFIED	9.227	☐		
Annihilation Rad.	0.1539	0.03762	pCi/g	0.04647	N	511.1	1	1.847	IDENTIFIED	24.05	☐		
Bismuth-211 int	4.1	0.293	pCi/g	0.3092	Y	351.9	2	1.073	IDENTIFIED	5.589	☐	ui	
Bismuth-212 la nr	2.37	0.4223	pCi/g	1.289	N	0	6	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔	1.188	0.1032	pCi/g	0.1096	0.200	609.3	3	1.578	IDENTIFIED	6.964	☐		
Cadmium-109 int	3.444	0.5209	pCi/g	1.185	Y	87.24	3	1.139	IDENTIFIED	14.39	☐	ui	
Cerium-143	7884	1423	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Gross Gamma	10.01	1.343	pCi/g	2.889	N		0				☐		
Iodine-135	5.18E+20	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Lead-212 ✔	1.615	0.1079	pCi/g	0.112	0.100	238.5	2	1.116	IDENTIFIED	4.604	☐		
Lead-214 ✔	1.488	0.114	pCi/g	0.1125	0.100	351.9	2	1.073	IDENTIFIED	5.589	☐		
Neptunium-237 int nr	0.9969	0.1835	pCi/g	0.3484	N	87.24	3	1.139	IDENTIFIED	14.39	☐		
Potassium-40 ✔	37.08	1.96	pCi/g	0.5342	1.00	1461	1	2.152	IDENTIFIED	2.716	☐		
Radium-224 int	2.52	0.5512	pCi/g	1.49	Y	241.5	1	2.313	IDENTIFIED	21.45	☐	ui	
Radium-226 ✔	1.188	0.1032	pCi/g	0.1096	Y	609.3	3	1.578	IDENTIFIED	6.964	☐		
Radium-228 ✔	1.824	0.205	pCi/g	0.2429	0.500	911.2	3	1.378	IDENTIFIED	9.227	☐		
Sodium-24 HE	9.62E+07	1.07E+08	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Strontium-85 la	0.1023	0.02298	pCi/g	0.08026	Y	0	6	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Technetium-99m	5.12E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Thallium-208 ✔	0.5606	0.04946	pCi/g	0.05463	0.080	583.3	1	1.432	IDENTIFIED	7.431	☐		
Thorium-228 nr	1.615	0.1079	pCi/g	0.112	N	238.5	2	1.116	IDENTIFIED	4.604	☐		
Thorium-230 nr	1.188	0.0983	pCi/g	0.1096	N	609.3	3	1.578	IDENTIFIED	6.964	☐		
Thorium-232 nr	1.824	0.205	pCi/g	0.2429	N	911.2	3	1.378	IDENTIFIED	9.227	☐		
Tin-126 int nr	0.3341	0.05053	pCi/g	0.1154	N	87.24	3	1.139	IDENTIFIED	14.39	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863001	04-MAR-10 12:00	24-MAR-10 18:28	20.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.295	0.2334	pCi/g	0.2823	N	911.2	3	1.541	IDENTIFIED	8.168	☐	
Annihilation Rad. HE	0.09426	0.0428	pCi/g	0.06554	N	510.9	1	2.12	IDENTIFIED	45.2	☐	
Bismuth-211 int	4.466	0.34	pCi/g	0.4462	Y	352	2	1.664	IDENTIFIED	5.768	☐ ui	
Bismuth-212 HE	2.245	0.4752	pCi/g	1.542	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓	1.511	0.1301	pCi/g	0.151	0.200	609.3	3	1.345	IDENTIFIED	7.027	☐	
Cadmium-109 int	2.884	0.7692	pCi/g	1.933	Y	87.6	3	1.29	IDENTIFIED	25.94	☐ ui	
Cerium-143	13780	2286	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma	11.54	1.75	pCi/g	4.932	N		0				☐	
Iodine-135	2.74E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212 ✓	2.086	0.1469	pCi/g	0.1232	0.100	238.8	2	1.488	IDENTIFIED	3.73	☐	
Lead-214 ✓	1.621	0.1313	pCi/g	0.1639	0.100	352	2	1.664	IDENTIFIED	5.768	☐	
Neptunium-237 HE	0.8348	0.2392	pCi/g	0.6099	N	87.6	3	1.29	IDENTIFIED	25.94	☐	
Niobium-95m la nr	0.6273	0.1117	pCi/g	0.3616	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40 ✓	38.47	2.205	pCi/g	0.6976	1.00	1461	1	2.099	IDENTIFIED	2.951	☐	
Promethium-149 HE	217.2	311.1	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Radium-224 int	6.639	0.9857	pCi/g	1.32	Y	241.7	1	2.04	IDENTIFIED	13.78	☐ ui	
Radium-226 ✓	1.511	0.1301	pCi/g	0.151	Y	609.3	3	1.345	IDENTIFIED	7.027	☐	
Radium-228 ✓	2.295	0.2334	pCi/g	0.2823	0.500	911.2	3	1.541	IDENTIFIED	8.168	☐	
Strontium-85 la	0.153	0.03144	pCi/g	0.1055	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓	0.6224	0.05917	pCi/g	0.08054	0.080	583.2	1	1.616	IDENTIFIED	8.335	☐	
Thorium-228 nr	2.086	0.1469	pCi/g	0.1232	N	238.8	2	1.488	IDENTIFIED	3.73	☐	
Thorium-230 nr	1.511	0.1239	pCi/g	0.151	N	609.3	3	1.345	IDENTIFIED	7.027	☐	
Thorium-232 nr	2.295	0.2334	pCi/g	0.2823	N	911.2	3	1.541	IDENTIFIED	8.168	☐	
Tin-126 nr HE	0.2798	0.07461	pCi/g	0.1889	N	87.6	3	1.29	IDENTIFIED	25.94	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863002	04-MAR-10 12:00	24-MAR-10 18:28	20.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.113	0.2065	pCi/g	0.2426	N	911.2	3	2.069	IDENTIFIED	7.046	☐	
Annihilation Rad.	0.169	0.03745	pCi/g	0.04468	N	511.1	1	2.131	IDENTIFIED	21.58	☐	
Bismuth-211 int	3.909	0.3008	pCi/g	0.3038	Y	352	2	1.434	IDENTIFIED	5.043	☐ ui	
Bismuth-212 la nr	1.9	0.383	pCi/g	1.083	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓	1.306	0.1045	pCi/g	0.1051	0.200	609.4	3	1.681	IDENTIFIED	5.469	☐	
Cadmium-109 int	2.152	0.5302	pCi/g	1.269	Y	87.14	3	0.9491	IDENTIFIED	24.18	☐ ui	
Cadmium-115 HE	24.47	25.62	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cerium-143	10480	1752	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1472	0.03475	pCi/g	0.09059	0.100	0	9	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135 HE	0.3588	0.09591	pCi/g	0.2922	N	0	9	0	NOT_IDENTI	0	☐	
Gross Gamma	11.2	1.329	pCi/g	2.337	N		0				☐	
Iodine-133 HE	23700	1.68E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212 ✓	2.103	0.1502	pCi/g	0.0976	0.100	238.7	2	1.25	IDENTIFIED	2.668	☐	
Lead-214 ✓	1.419	0.116	pCi/g	0.1125	0.100	352	2	1.434	IDENTIFIED	5.043	☐	

Neptunium-237	HE	0.623	0.1668	pCi/g	0.3903	N	87.14	3	0.9491	IDENTIFIED	24.18	☐	
Potassium-40		39.51	1.987	pCi/g	0.4874	1.00	1461	1	2.669	IDENTIFIED	2.076	☐	
Promethium-149	HE	201.7	237.1	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Radium-224	int	5.025	0.7407	pCi/g	1.045	Y	241.6	1	1.886	IDENTIFIED	13.34	☐	ui
Radium-226		1.306	0.1045	pCi/g	0.1051	Y	609.4	3	1.681	IDENTIFIED	5.469	☐	
Radium-228		2.113	0.2065	pCi/g	0.2426	0.500	911.2	3	2.069	IDENTIFIED	7.046	☐	
Sodium-24	HE	1.10E+07	1.07E+08	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Strontium-85	la	0.1556	0.02288	pCi/g	0.08092	Y	0	9	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208		0.687	0.05449	pCi/g	0.05431	0.080	583.4	1	1.605	IDENTIFIED	5.793	☐	
Thorium-228	nr	2.103	0.1502	pCi/g	0.0976	N	238.7	2	1.25	IDENTIFIED	2.668	☐	
Thorium-230	nr	1.306	0.09861	pCi/g	0.1051	N	609.4	3	1.681	IDENTIFIED	5.469	☐	
Thorium-232	nr	2.113	0.2065	pCi/g	0.2426	N	911.2	3	2.069	IDENTIFIED	7.046	☐	
Thorium-234		3.361	0.9648	pCi/g	2.018	2.00	63.36	2	1.167	IDENTIFIED	27.29	☐	
Tin-126	HE	0.2088	0.05143	pCi/g	0.138	N	87.14	3	0.9491	IDENTIFIED	24.18	☐	
Total Uranium		10.045	2.87E-06	ug/g	3.0045	N		0				☐	
Uranium-238	HE	3.361	0.9648	pCi/g	2.018	N	63.36	2	1.167	IDENTIFIED	27.29	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863003	04-MAR-10 12:00	24-MAR-10 18:29	20.3	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	2.279	0.249	pCi/g	0.2666	N	910.4	3	2.049	IDENTIFIED	9.166	☐	
Annihilation Rad.		0.1521	0.04186	pCi/g	0.05416	N	510.2	1	1.559	IDENTIFIED	27.38	☐	
Bismuth-211	int	4.45	0.2897	pCi/g	0.4075	Y	351.4	2	1.394	IDENTIFIED	5.636	☐	ui
Bismuth-212	HE	2.434	0.5602	pCi/g	1.454	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214		1.226	0.1147	pCi/g	0.1442	0.200	608.5	3	1.533	IDENTIFIED	8.547	☐	
Cadmium-109	int	3.195	0.6337	pCi/g	1.648	Y	87.07	3	1.23	IDENTIFIED	19.23	☐	ui
Cerium-143		18850	2639	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.3625	0.1148	pCi/g	0.3585	N	0	5	0	NOT_IDENTI	0	☐	
Gross Gamma		10.62	1.587	pCi/g	3.815	N		0				☐	
Lead-212		2.101	0.1019	pCi/g	0.1141	0.100	238.3	2	1.185	IDENTIFIED	3.219	☐	
Lead-214		1.615	0.1142	pCi/g	0.1482	0.100	351.4	2	1.394	IDENTIFIED	5.636	☐	
Neptunium-237	int nr	0.9248	0.2075	pCi/g	0.5089	N	87.07	3	1.23	IDENTIFIED	19.23	☐	
Niobium-95m	la nr	0.9859	0.1132	pCi/g	0.3754	N	0	5	0	NOT_IDENTI	0	☐	
Potassium-40		34.11	1.641	pCi/g	0.4822	1.00	1459	1	2.423	IDENTIFIED	3.026	☐	
Radium-224	int	4.879	0.7766	pCi/g	1.223	Y	241.2	1	1.774	IDENTIFIED	15.66	☐	ui
Radium-226		1.226	0.1147	pCi/g	0.1442	Y	608.5	3	1.533	IDENTIFIED	8.547	☐	
Radium-228		2.279	0.249	pCi/g	0.2666	0.500	910.4	3	2.049	IDENTIFIED	9.166	☐	
Sodium-24	HE	1.03E+07	1.39E+08	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Thallium-208		0.6091	0.04992	pCi/g	0.07139	0.080	582.5	1	1.854	IDENTIFIED	7.528	☐	
Thorium-228	nr	2.101	0.1019	pCi/g	0.1141	N	238.3	2	1.185	IDENTIFIED	3.219	☐	
Thorium-230	nr	1.226	0.11	pCi/g	0.1442	N	608.5	3	1.533	IDENTIFIED	8.547	☐	
Thorium-232	nr	2.279	0.249	pCi/g	0.2666	N	910.4	3	2.049	IDENTIFIED	9.166	☐	
Thorium-234		4.332	1.024	pCi/g	3.141	2.00	63.12	2	1.288	IDENTIFIED	21.77	☐	
Tin-126	int nr	0.3099	0.06147	pCi/g	0.1609	N	87.07	3	1.23	IDENTIFIED	19.23	☐	
Total Uranium		13.001	3.05E-06	ug/g	4.6757	N		0				☐	
Uranium-238	HE	4.332	1.024	pCi/g	3.141	N	63.12	2	1.288	IDENTIFIED	21.77	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863004	04-MAR-10 12:00	24-MAR-10 20:31	20.4	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.23	0.2094	pCi/g	0.2551	N	911.8	3	1.771	IDENTIFIED	7.513	☐	
Annihilation Rad.	0.1789	0.03649	pCi/g	0.05063	N	511.2	1	1.886	IDENTIFIED	20.2	☐	
Bismuth-211 int	4.243	0.2798	pCi/g	0.3539	Y	352	2	1.26	IDENTIFIED	5.667	☐ ui	
Bismuth-212 HE	2.31	0.5131	pCi/g	1.349	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔	1.375	0.1023	pCi/g	0.1131	0.200	609.8	3	1.531	IDENTIFIED	6.452	☐	
Cadmium-109 int	4.326	0.6342	pCi/g	1.438	Y	87.22	3	1.161	IDENTIFIED	13.38	☐ ui	
Cadmium-115 HE	17.78	29.88	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cerium-143	6255	1239	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma	11.01	1.531	pCi/g	3.912	N		0				☐	
Iodine-135	2.60E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212 ✔	1.979	0.1013	pCi/g	0.09264	0.100	238.7	2	1.087	IDENTIFIED	3.135	☐	
Lead-214 ✔	1.54	0.1101	pCi/g	0.1287	0.100	352	2	1.26	IDENTIFIED	5.667	☐	
Mercury-203 int	0.08901	0.0408	pCi/g	0.06855	0.100	279.1	1	0.7118	IDENTIFIED	45.71	☐ ui	
Neptunium-237 int nr	1.252	0.2256	pCi/g	0.4558	N	87.22	3	1.161	IDENTIFIED	13.38	☐	
Potassium-40 ✔	34.49	1.583	pCi/g	0.5163	1.00	1462	1	2.074	IDENTIFIED	2.907	☐	
Radium-224 int	5.46	0.8092	pCi/g	0.9931	Y	241.7	1	2.05	IDENTIFIED	14.44	☐ ui	
Radium-226 ✔	1.375	0.1023	pCi/g	0.1131	Y	609.8	3	1.531	IDENTIFIED	6.452	☐	
Radium-228 ✔	2.23	0.2094	pCi/g	0.2551	0.500	911.8	3	1.771	IDENTIFIED	7.513	☐	
Strontium-85 la	0.1127	0.02507	pCi/g	0.08577	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	3.34E+22	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208 ✔	0.6579	0.04856	pCi/g	0.05717	0.080	583.6	1	1.335	IDENTIFIED	6.682	☐	
Thorium-228 nr	1.979	0.1013	pCi/g	0.09264	N	238.7	2	1.087	IDENTIFIED	3.135	☐	
Thorium-230 nr	1.375	0.09565	pCi/g	0.1131	N	609.8	3	1.531	IDENTIFIED	6.452	☐	
Thorium-232 nr	2.23	0.2094	pCi/g	0.2551	N	911.8	3	1.771	IDENTIFIED	7.513	☐	
Tin-126 int nr	0.4195	0.0615	pCi/g	0.1405	N	87.22	3	1.161	IDENTIFIED	13.38	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248865001	03-MAR-10 12:00	24-MAR-10 20:31	21.4	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.33	0.2122	pCi/g	0.2403	N	911.5	3	1.892	IDENTIFIED	6.858	☐	
Annihilation Rad.	0.2517	0.04297	pCi/g	0.04807	N	511	1	2.055	IDENTIFIED	16.48	☐	
Bismuth-211 int	4.974	0.3277	pCi/g	0.3796	Y	352.1	2	1.28	IDENTIFIED	4.828	☐ ui	
Bismuth-212 HE	2.531	0.6066	pCi/g	1.427	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔	1.445	0.1124	pCi/g	0.14	0.200	609.6	3	1.273	IDENTIFIED	5.794	☐	
Cadmium-109 int	4.636	0.498	pCi/g	1.163	Y	87.28	3	1.063	IDENTIFIED	9.675	☐ ui	
Cadmium-115 HE	43.87	40.62	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cerium-143	13920	2558	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1857	0.03922	pCi/g	0.1211	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	12.04	1.565	pCi/g	4.152	N		0				☐	
Iodine-135	6.99E+22	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212 ✔	2.145	0.1214	pCi/g	0.1	0.100	238.8	2	1.049	IDENTIFIED	2.984	☐	

Lead-214 ✔		1.805	0.1289	pCi/g	0.1366	0.100	352.1	2	1.28	IDENTIFIED	4.828	☐		
Neptunium-237	int nr	1.34	0.2011	pCi/g	0.3388	N	87.28	3	1.063	IDENTIFIED	9.675	☐		
Potassium-40 ✔		37.59	1.901	pCi/g	0.5494	1.00	1461	1	2.019	IDENTIFIED	2.673	☐		
Radium-224	int	4.759	0.5883	pCi/g	1.072	Y	241.8	1	1.512	IDENTIFIED	11.62	☐	ui	
Radium-226 ✔		1.445	0.1124	pCi/g	0.14	Y	609.6	3	1.273	IDENTIFIED	5.794	☐		
Radium-228 ✔		2.33	0.2122	pCi/g	0.2403	0.500	911.5	3	1.892	IDENTIFIED	6.858	☐		
Sodium-24	HE	2.98E+08	4.15E+08	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Strontium-85	la	0.0982	0.02275	pCi/g	0.08554	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔		0.7326	0.06078	pCi/g	0.06242	0.080	583.3	1	1.502	IDENTIFIED	6.783	☐		
Thorium-228	nr	2.145	0.1214	pCi/g	0.1	N	238.8	2	1.049	IDENTIFIED	2.984	☐		
Thorium-230	nr	1.445	0.1058	pCi/g	0.14	N	609.6	3	1.273	IDENTIFIED	5.794	☐		
Thorium-232	nr	2.33	0.2122	pCi/g	0.2403	N	911.5	3	1.892	IDENTIFIED	6.858	☐		
Thorium-234 ✔		3.259	0.9134	pCi/g	1.741	2.00	62.62	2	1.194	IDENTIFIED	26.58	☐		
Tin-126	int nr	0.4489	0.04822	pCi/g	0.1129	N	87.28	3	1.063	IDENTIFIED	9.675	☐		
Total Uranium		9.682	2.72E-06	ug/g	2.5922	N		0				☐		
Uranium-238	HE	3.259	0.9134	pCi/g	1.741	N	62.62	2	1.194	IDENTIFIED	26.58	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248866001	04-MAR-10 12:00	24-MAR-10 20:32	20.4	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.963	0.2172	pCi/g	0.2879	N	911.3	3	1.686	IDENTIFIED	9.257	☐		
Annihilation Rad.	HE	0.1031	0.04332	pCi/g	0.06023	N	510.6	1	1.637	IDENTIFIED	41.78	☐		
Bismuth-211	int	4.116	0.3332	pCi/g	0.4596	Y	352	2	1.459	IDENTIFIED	6.393	☐	ui	
Bismuth-212	HE	2.104	0.5701	pCi/g	1.439	N	0	6	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔		1.397	0.1121	pCi/g	0.1472	0.200	609.3	3	1.5	IDENTIFIED	6.291	☐		
Cadmium-109	int	2.358	0.7274	pCi/g	2.198	Y	87.63	3	1.088	IDENTIFIED	30.22	☐	ui	
Cerium-143		12370	2167	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1276	0.03245	pCi/g	0.1081	0.100	0	6	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cobalt-58	HE	0.08646	0.03537	pCi/g	0.07687	N	809.9	1	2.813	IDENTIFIED	40.66	☐		
Gross Gamma		10.63	1.7	pCi/g	3.871	N		0				☐		
Lead-212 ✔		2.046	0.142	pCi/g	0.1263	0.100	238.8	2	1.34	IDENTIFIED	3.533	☐		
Lead-214 ✔		1.494	0.1278	pCi/g	0.1599	0.100	352	2	1.459	IDENTIFIED	6.393	☐		
Neptunium-237	HE	0.6824	0.2223	pCi/g	0.6171	N	87.63	3	1.088	IDENTIFIED	30.22	☐		
Niobium-95	HE	0.1123	0.03211	pCi/g	0.1078	N	0	6	0	NOT_IDENTI	0	☐		
Niobium-95m	HE	0.3981	0.1048	pCi/g	0.3382	N	0	6	0	NOT_IDENTI	0	☐		
Potassium-40 ✔		35.88	2.056	pCi/g	0.4818	1.00	1461	1	2.163	IDENTIFIED	2.948	☐		
Radium-224	int	5.583	0.942	pCi/g	1.353	Y	241.7	1	2.04	IDENTIFIED	15.95	☐	ui	
Radium-226 ✔		1.397	0.1121	pCi/g	0.1472	Y	609.3	3	1.5	IDENTIFIED	6.291	☐		
Radium-228 ✔		1.963	0.2172	pCi/g	0.2879	0.500	911.3	3	1.686	IDENTIFIED	9.257	☐		
Strontium-85	la	0.1346	0.0313	pCi/g	0.1033	Y	0	6	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔		0.5766	0.05722	pCi/g	0.06778	0.080	583.5	1	1.522	IDENTIFIED	8.807	☐		
Thorium-228	nr	2.046	0.142	pCi/g	0.1263	N	238.8	2	1.34	IDENTIFIED	3.533	☐		
Thorium-230	nr	1.396	0.1058	pCi/g	0.1472	N	609.3	3	1.5	IDENTIFIED	6.291	☐		
Thorium-232	nr	1.963	0.2172	pCi/g	0.2879	N	911.3	3	1.686	IDENTIFIED	9.257	☐		
Tin-126	HE	0.2287	0.07054	pCi/g	0.2142	N	87.63	3	1.088	IDENTIFIED	30.22	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248866002	04-MAR-10 12:00	24-MAR-10 20:32	20.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.304	0.2798	pCi/g	0.3232	N	911.2	3	1.767	IDENTIFIED	10.65	☐	
Annihilation Rad. HE	0.1405	0.04642	pCi/g	0.06209	N	511	1	1.263	IDENTIFIED	32.74	☐	
Bismuth-211 int	4.864	0.3573	pCi/g	0.397	Y	352	2	1.222	IDENTIFIED	5.676	☐ ui	
Bismuth-212 HE	1.957	0.6148	pCi/g	1.699	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓	1.652	0.1359	pCi/g	0.158	0.200	609.3	3	1.451	IDENTIFIED	6.446	☐	
Cadmium-109 int	3.853	0.5148	pCi/g	1.55	Y	87.31	3	1.019	IDENTIFIED	12.44	☐ ui	
Cerium-143	7260	1441	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1403	0.05076	pCi/g	0.1296	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	11.4	1.597	pCi/g	3.988	N		0				☐	
Lead-210 HE	1.308	0.4664	pCi/g	0.9292	N	46.62	1	0.882	IDENTIFIED	35.25	☐	
Lead-212 ✓	2.053	0.1268	pCi/g	0.1101	0.100	238.7	2	1.063	IDENTIFIED	3.534	☐	
Lead-214 ✓	1.765	0.1385	pCi/g	0.1462	0.100	352	2	1.222	IDENTIFIED	5.676	☐	
Neptunium-237 int nr	1.115	0.1894	pCi/g	0.4356	N	87.31	3	1.019	IDENTIFIED	12.44	☐	
Potassium-40 ✓	37.4	2.091	pCi/g	0.8153	1.00	1461	1	2.013	IDENTIFIED	3.398	☐	
Promethium-149 HE	410.7	267.3	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Radium-224 int	5.782	0.8164	pCi/g	1.181	Y	241.7	1	1.685	IDENTIFIED	13.37	☐ ui	
Radium-226 ✓	1.652	0.1359	pCi/g	0.158	Y	609.3	3	1.451	IDENTIFIED	6.446	☐	
Radium-228 ✓	2.304	0.2798	pCi/g	0.3232	0.500	911.2	3	1.767	IDENTIFIED	10.65	☐	
Thallium-208 ✓	0.6501	0.06073	pCi/g	0.08923	0.080	583.3	1	1.376	IDENTIFIED	8.06	☐	
Thorium-228 nr	2.053	0.1268	pCi/g	0.1101	N	238.7	2	1.063	IDENTIFIED	3.534	☐	
Thorium-230 nr	1.652	0.1287	pCi/g	0.158	N	609.3	3	1.451	IDENTIFIED	6.446	☐	
Thorium-232 nr	2.304	0.2798	pCi/g	0.3232	N	911.2	3	1.767	IDENTIFIED	10.65	☐	
Thorium-234 ✓	2.082	0.6011	pCi/g	1.25	2.00	63.29	2	1.032	IDENTIFIED	27.26	☐	
Tin-126 int nr	0.3737	0.04993	pCi/g	0.1501	N	87.31	3	1.019	IDENTIFIED	12.44	☐	
Total Uranium	6.2503	1.79E-06	ug/g	1.8624	N		0				☐	
Uranium-238 HE	2.082	0.6011	pCi/g	1.25	N	63.29	2	1.032	IDENTIFIED	27.26	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867001	05-MAR-10 12:00	24-MAR-10 20:33	19.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	1.693	0.2131	pCi/g	0.2795	N	911.3	3	1.621	IDENTIFIED	10.02	☐	
Annihilation Rad. HE	0.12	0.02722	pCi/g	0.1023	N	0	10	0	NOT_IDENTI	0	☐	
Barium-137m HE	0.1196	0.02324	pCi/g	0.08773	N	0	10	0	NOT_IDENTI	0	☐	
Bismuth-211 int	3.834	0.3032	pCi/g	0.3984	Y	351.8	2	1.235	IDENTIFIED	6.295	☐ ui	
Bismuth-212 nr	1.882	0.4297	pCi/g	0.8862	N	727.4	1	1.236	IDENTIFIED	21.88	☐	
Bismuth-214 ✓	1.167	0.1025	pCi/g	0.1397	0.200	609.3	3	1.276	IDENTIFIED	7.183	☐	
Cadmium-109 int	2.483	0.5959	pCi/g	1.883	Y	86.89	3	1.116	IDENTIFIED	23.54	☐ ui	
Cadmium-115 HE	5.067	24.22	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cerium-143	9059	1384	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1411	0.04788	pCi/g	0.1011	0.100	0	10	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135 HE	0.3862	0.1115	pCi/g	0.3567	N	0	10	0	NOT_IDENTI	0	☐	
Cesium-137 la	0.1263	0.02456	pCi/g	0.09268	0.100	0	10	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	10.33	1.575	pCi/g	4.849	N		0				☐	

Iodine-133	HE	79750	1.04E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Lead-212 ✔		1.839	0.1106	pCi/g	0.1166	0.100	238.5	2	1.068	IDENTIFIED	3.363	☐		
Lead-214 ✔		1.391	0.1165	pCi/g	0.1459	0.100	351.8	2	1.235	IDENTIFIED	6.295	☐		
Neptunium-237	HE	0.7197	0.1885	pCi/g	0.5047	N	86.89	3	1.116	IDENTIFIED	23.54	☐		
Niobium-95m	la nr	0.6736	0.09957	pCi/g	0.3253	N	0	10	0	NOT_IDENTI	0	☐		
Potassium-40 ✔		35.23	2.162	pCi/g	0.5852	1.00	1461	1	1.745	IDENTIFIED	2.847	☐		
Promethium-149	HE	209.8	200.8	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Radium-224	int	4.777	0.778	pCi/g	1.248	Y	241.4	1	1.769	IDENTIFIED	15.67	☐	ui	
Radium-226 ✔		1.167	0.1025	pCi/g	0.1397	Y	609.3	3	1.276	IDENTIFIED	7.183	☐		
Radium-228 ✔		1.693	0.2131	pCi/g	0.2795	0.500	911.3	3	1.621	IDENTIFIED	10.02	☐		
Thallium-208 ✔		0.5863	0.05179	pCi/g	0.06836	0.080	583	1	1.469	IDENTIFIED	7.489	☐		
Thorium-228	nr	1.839	0.1106	pCi/g	0.1166	N	238.5	2	1.068	IDENTIFIED	3.363	☐		
Thorium-230	nr	1.167	0.09777	pCi/g	0.1397	N	609.3	3	1.276	IDENTIFIED	7.183	☐		
Thorium-232	nr	1.693	0.2131	pCi/g	0.2795	N	911.3	3	1.621	IDENTIFIED	10.02	☐		
Tin-126	HE	0.2412	0.05788	pCi/g	0.1881	N	86.89	3	1.116	IDENTIFIED	23.54	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867002	05-MAR-10 12:00	24-MAR-10 20:37	19.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.652	0.1636	pCi/g	0.1826	N	911.5	3	1.896	IDENTIFIED	7.223	☐		
Annihilation Rad.		0.1421	0.03004	pCi/g	0.03846	N	511.6	1	2.19	IDENTIFIED	20.54	☐		
Bismuth-211	int	3.234	0.2646	pCi/g	0.2742	Y	352	2	1.328	IDENTIFIED	5.756	☐	ui	
Bismuth-212	HE	1.511	0.3782	pCi/g	0.943	N	0	10	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔		1.118	0.08867	pCi/g	0.09313	0.200	609.4	3	1.568	IDENTIFIED	5.371	☐		
Cadmium-109	int	2.836	0.3944	pCi/g	1.036	Y	87.18	3	1.122	IDENTIFIED	13.09	☐	ui	
Cadmium-115	HE	6.266	16.61	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Cerium-143		5744	947.6	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.08554	0.01966	pCi/g	0.07097	0.100	0	10	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Cesium-135	HE	0.2682	0.07661	pCi/g	0.2394	N	0	10	0	NOT_IDENTI	0	☐		
Gross Gamma		8.782	1.158	pCi/g	2.306	N		0				☐		
Iodine-135		5.73E+19	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Lead-212 ✔		1.625	0.1181	pCi/g	0.07933	0.100	238.7	2	1.262	IDENTIFIED	2.989	☐		
Lead-214 ✔		1.174	0.1013	pCi/g	0.1005	0.100	352	2	1.328	IDENTIFIED	5.756	☐		
Neptunium-237	int nr	0.8219	0.1431	pCi/g	0.3497	N	87.18	3	1.122	IDENTIFIED	13.09	☐		
Niobium-95m	HE	0.2345	0.06596	pCi/g	0.2072	N	0	10	0	NOT_IDENTI	0	☐		
Potassium-40 ✔		29.16	1.485	pCi/g	0.456	1.00	1461	1	2.847	IDENTIFIED	2.228	☐		
Promethium-149	HE	69.31	146.6	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Radium-224	int	4.236	0.6252	pCi/g	0.8492	Y	241.6	1	1.886	IDENTIFIED	13.36	☐	ui	
Radium-226 ✔		1.118	0.08867	pCi/g	0.09313	Y	609.4	3	1.568	IDENTIFIED	5.371	☐		
Radium-228 ✔		1.652	0.1636	pCi/g	0.1826	0.500	911.5	3	1.896	IDENTIFIED	7.223	☐		
Sodium-24	HE	2.66E+07	3.27E+07	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Strontium-85	la	0.144	0.01975	pCi/g	0.07095	Y	0	10	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔		0.487	0.03971	pCi/g	0.04867	0.080	583.4	1	1.765	IDENTIFIED	6.094	☐		
Thorium-228	nr	1.625	0.1181	pCi/g	0.07933	N	238.7	2	1.262	IDENTIFIED	2.989	☐		
Thorium-230	nr	1.118	0.08362	pCi/g	0.09313	N	609.4	3	1.568	IDENTIFIED	5.371	☐		
Thorium-232	nr	1.652	0.1636	pCi/g	0.1826	N	911.5	3	1.896	IDENTIFIED	7.223	☐		

Thorium-234 ✔		1.881	0.9198	pCi/g	1.667	2.00	63.04	2	1.13	IDENTIFIED	48.08	☐	
Tin-126	int nr	0.2755	0.03831	pCi/g	0.1125	N	87.18	3	1.122	IDENTIFIED	13.09	☐	
Total Uranium		5.674	2.74E-06	ug/g	2.4817	N		0				☐	
Uranium-238	HE	1.881	0.9198	pCi/g	1.667	N	63.04	2	1.13	IDENTIFIED	48.08	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867003	05-MAR-10 12:00	24-MAR-10 20:51	19.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.575	0.2171	pCi/g	0.3616	N	911	3	1.703	IDENTIFIED	12.24	☐		
Annihilation Rad.		0.1776	0.03803	pCi/g	0.06258	N	510.2	1	1.938	IDENTIFIED	21.17	☐		
Bismuth-211	int	4.376	0.3127	pCi/g	0.4462	Y	351.6	2	1.404	IDENTIFIED	5.953	☐	ui	
Bismuth-212	HE	1.72	0.7059	pCi/g	1.543	N	0	6	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔		1.334	0.1238	pCi/g	0.1637	0.200	609	3	1.417	IDENTIFIED	8.263	☐		
Cadmium-109	int	2.228	0.6204	pCi/g	1.323	Y	87.14	3	1.33	IDENTIFIED	27.58	☐	ui	
Cerium-143		11830	1907	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Gross Gamma		10.54	1.528	pCi/g	4.223	N		0				☐		
Iodine-133	HE	80310	1.20E+05	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Lead-210	nr	2.127	0.5158	pCi/g	0.9645	N	45.94	1	1.211	IDENTIFIED	23.94	☐		
Lead-212 ✔		1.93	0.1255	pCi/g	0.1149	0.100	238.3	2	1.266	IDENTIFIED	3.599	☐		
Lead-214 ✔		1.588	0.1217	pCi/g	0.1574	0.100	351.6	2	1.404	IDENTIFIED	5.953	☐		
Neptunium-237	HE	0.6457	0.1921	pCi/g	0.4396	N	87.14	3	1.33	IDENTIFIED	27.58	☐		
Niobium-95	HE	0.1457	0.03373	pCi/g	0.126	N	0	6	0	NOT_IDENTI	0	☐		
Niobium-95m	la nr	1.086	0.1247	pCi/g	0.3938	N	0	6	0	NOT_IDENTI	0	☐		
Potassium-40 ✔		34.38	1.518	pCi/g	0.6877	1.00	1460	1	1.972	IDENTIFIED	3.134	☐		
Promethium-149	HE	335.9	216.6	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Radium-224	int	4.226	0.7754	pCi/g	1.231	Y	241.3	1	1.784	IDENTIFIED	17.69	☐	ui	
Radium-226 ✔		1.334	0.1238	pCi/g	0.1637	Y	609	3	1.417	IDENTIFIED	8.263	☐		
Radium-228 ✔		1.575	0.2171	pCi/g	0.3616	0.500	911	3	1.703	IDENTIFIED	12.24	☐		
Thallium-208 ✔		0.5497	0.05356	pCi/g	0.08389	0.080	582.8	1	1.312	IDENTIFIED	9.026	☐		
Thorium-228	nr	1.93	0.1255	pCi/g	0.1149	N	238.3	2	1.266	IDENTIFIED	3.599	☐		
Thorium-230	nr	1.334	0.1187	pCi/g	0.1637	N	609	3	1.417	IDENTIFIED	8.263	☐		
Thorium-232	nr	1.575	0.2171	pCi/g	0.3616	N	911	3	1.703	IDENTIFIED	12.24	☐		
Tin-126	HE	0.2164	0.06025	pCi/g	0.1283	N	87.14	3	1.33	IDENTIFIED	27.58	☐		
Total Uranium		3.9374	1.85E-06	ug/g	1.8648	N		0				☐		
Uranium-235	nvp	0.505	0.1393	pCi/g	0.4593	0.500	92.57	1	1.299	IDENTIFIED	14.7	☐	ui	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867004	05-MAR-10 12:00	24-MAR-10 22:58	19.5	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	2.029	0.1939	pCi/g	0.2151	N	911.2	3	1.785	IDENTIFIED	7.388	☐		
Annihilation Rad.		0.1353	0.03352	pCi/g	0.04351	N	511	1	2.293	IDENTIFIED	24.39	☐		
Bismuth-211	int	4.541	0.3077	pCi/g	0.3307	Y	352.1	2	1.416	IDENTIFIED	4.61	☐	ui	
Bismuth-212	HE	1.488	0.402	pCi/g	1.033	N	0	7	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔		1.385	0.1061	pCi/g	0.1032	0.200	609.3	3	1.555	IDENTIFIED	5.818	☐		
Cadmium-109	int	4.474	0.6052	pCi/g	1.276	Y	87.39	3	1.575	IDENTIFIED	12.04	☐	ui	

Cerium-143		8611	1279	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.118	0.02485	pCi/g	0.08056	0.100	0	7	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-135	HE	0.3367	0.08958	pCi/g	0.2804	N	0	7	0	NOT_IDENTI	0	☐		
Gross Gamma		11.16	1.43	pCi/g	3.744	N		0				☐		
Iodine-133	HE	23680	86680	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-212		1.98	0.1308	pCi/g	0.08567	0.100	238.8	2	1.431	IDENTIFIED	2.821	☐		
Lead-214		1.648	0.1206	pCi/g	0.1174	0.100	352.1	2	1.416	IDENTIFIED	4.61	☐		
Neptunium-237	int nr	1.296	0.2219	pCi/g	0.3797	N	87.39	3	1.575	IDENTIFIED	12.04	☐		
Niobium-95m	la nr	0.5469	0.07934	pCi/g	0.2455	N	0	7	0	NOT_IDENTI	0	☐		
Potassium-40		35.67	1.924	pCi/g	0.5141	1.00	1461	1	2.08	IDENTIFIED	2.226	☐		
Radium-224	int	4.578	0.6137	pCi/g	0.9179	Y	241.7	1	1.678	IDENTIFIED	12.22	☐	ui	
Radium-226		1.385	0.1061	pCi/g	0.1032	Y	609.3	3	1.555	IDENTIFIED	5.818	☐		
Radium-228		2.029	0.1939	pCi/g	0.2151	0.500	911.2	3	1.785	IDENTIFIED	7.388	☐		
Strontium-85	la	0.1884	0.02288	pCi/g	0.07659	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208		0.5801	0.04755	pCi/g	0.05345	0.080	583.3	1	1.669	IDENTIFIED	6.803	☐		
Thorium-228	nr	1.98	0.1308	pCi/g	0.08567	N	238.8	2	1.431	IDENTIFIED	2.821	☐		
Thorium-230	nr	1.385	0.09958	pCi/g	0.1032	N	609.3	3	1.555	IDENTIFIED	5.818	☐		
Thorium-232	nr	2.029	0.1939	pCi/g	0.2151	N	911.2	3	1.785	IDENTIFIED	7.388	☐		
Tin-126	int nr	0.4344	0.05877	pCi/g	0.1249	N	87.39	3	1.575	IDENTIFIED	12.04	☐		
Total Uranium		4.7481	2.80E-06	ug/g	4.7247	N		0				☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065188		24-MAR-10 22:59	0	MB	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Cerium-143	93.1	39.91	pCi/g	0	N	0	2	0	SHORT_HLIF	0	☐	
Iodine-135	1.18E+15	0	pCi/g	0	N	0	2	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065189	05-MAR-10 12:00	24-MAR-10 23:00	19.5	DUP	LOAD	1		LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.977	0.1855	pCi/g	0.2107	N	911.1	3	1.489	IDENTIFIED	7.342	☐	
Annihilation Rad.		0.1489	0.03314	pCi/g	0.03984	N	510.8	1	1.525	IDENTIFIED	21.74	☐	
Barium-137m	HE	0.1069	0.0307	pCi/g	0.0573	N	661.7	2	1.357	IDENTIFIED	28.18	☐	
Bismuth-211	int	3.938	0.2465	pCi/g	0.2469	Y	351.9	2	1.131	IDENTIFIED	4.341	☐	ui
Bismuth-212	la nr	2.347	0.4101	pCi/g	1.124	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214		1.48	0.1164	pCi/g	0.1012	0.200	609.1	3	1.302	IDENTIFIED	5.174	☐	
Cadmium-109	int	4.658	0.3566	pCi/g	0.5224	Y	87.3	3	1.213	IDENTIFIED	6.062	☐	ui
Cadmium-115	HE	7.571	17.53	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cerium-143		1929	529.2	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1096	0.02929	pCi/g	0.08081	0.100	0	7	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137		0.1129	0.03243	pCi/g	0.06053	0.100	661.7	2	1.357	IDENTIFIED	28.18	☐	
Europium-155	HE	0.1071	0.02887	pCi/g	0.09983	N	0	7	0	FAIL_ABUND	0	☐	
Gross Gamma		10.99	1.251	pCi/g	3.798	N		0				☐	
Iodine-135		4.59E+20	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-210	nr	2.719	0.2845	pCi/g	0.4671	N	46.64	1	0.6556	IDENTIFIED	9.337	☐	

Lead-212	1.91	0.1048	pCi/g	0.06247	0.100	238.5	2	0.8926	IDENTIFIED	2.271	☐	
Lead-214	1.429	0.09776	pCi/g	0.08987	0.100	351.9	2	1.131	IDENTIFIED	4.341	☐	
Neptunium-237 int nr	1.35	0.1752	pCi/g	0.1505	N	87.3	3	1.213	IDENTIFIED	6.062	☐	
Potassium-40	33.08	1.65	pCi/g	0.4812	1.00	1461	1	1.975	IDENTIFIED	2.582	☐	
Radium-224 int	4.63	0.4727	pCi/g	0.6714	Y	241.5	1	1.734	IDENTIFIED	9.192	☐	ui
Radium-226	1.48	0.1164	pCi/g	0.1012	Y	609.1	3	1.302	IDENTIFIED	5.174	☐	
Radium-228	1.977	0.1855	pCi/g	0.2107	0.500	911.1	3	1.489	IDENTIFIED	7.342	☐	
Technetium-99m	1.51E+21	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-208	0.5839	0.04711	pCi/g	0.04622	0.080	583.1	1	1.224	IDENTIFIED	5.957	☐	
Thorium-228 nr	1.91	0.1048	pCi/g	0.06247	N	238.5	2	0.8926	IDENTIFIED	2.271	☐	
Thorium-230 nr	1.479	0.1097	pCi/g	0.1011	N	609.1	3	1.302	IDENTIFIED	5.174	☐	
Thorium-232 nr	1.977	0.1855	pCi/g	0.2107	N	911.1	3	1.489	IDENTIFIED	7.342	☐	
Thorium-234	1.778	0.3504	pCi/g	0.58	2.00	63.32	2	0.7981	IDENTIFIED	17.52	☐	
Tin-126 int nr	0.4523	0.03463	pCi/g	0.05064	N	87.3	3	1.213	IDENTIFIED	6.062	☐	
Total Uranium	5.3397	1.04E-06	ug/g	0.86471	N		0				☐	
Uranium-238 nr	1.778	0.3504	pCi/g	0.58	N	63.32	2	0.7981	IDENTIFIED	17.52	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065190		25-MAR-10 09:16	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	1.589	0.3005	pCi/g	0.4709	N	911.5	3	2.202	IDENTIFIED	17.65	☐	
Americium-241	13.88	0.6378	pCi/g	0.4687	0.200	59.48	1	1.075	IDENTIFIED	2.418	☐ 85.2%	
Barium-137m	5.58	0.3133	pCi/g	0.08739	N	661.7	2	1.696	IDENTIFIED	1.93	☐	
Bismuth-211	3.464	0.3672	pCi/g	0.5321	Y	351.9	2	1.399	IDENTIFIED	8.86	☐	
Bismuth-214	0.8897	0.1076	pCi/g	0.1724	0.200	609.4	3	1.786	IDENTIFIED	10.6	☐	
Cadmium-109	35.43	2.107	pCi/g	1.99	Y	88.09	2	1.148	IDENTIFIED	3.59	☐	
Cerium-143	688.5	238.6	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-137	5.894	0.3313	pCi/g	0.09232	0.100	661.7	2	1.696	IDENTIFIED	1.93	☐ 107.7%	
Cobalt-57	0.2454	0.03596	pCi/g	0.06108	N	122	1	1.08	IDENTIFIED	14.06	☐	
Cobalt-60	6.898	0.337	pCi/g	0.07391	0.100	1333	1	2.484	IDENTIFIED	1.998	☐ 106.4%	
Gross Gamma	28.98	2.749	pCi/g	3.013	N		0				☐	
Iodine-135	1.47E+17	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	1.427	0.119	pCi/g	0.1487	0.100	238.7	2	1.322	IDENTIFIED	5.07	☐	
Lead-214	1.257	0.1377	pCi/g	0.1935	0.100	351.9	2	1.399	IDENTIFIED	8.86	☐	
Neptunium-237	4.949	0.6238	pCi/g	1.033	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	1.02	0.254	pCi/g	1.017	1.00	0	6	0	NOT_IDENTI	0	☐	
Radium-224	2.93	0.8629	pCi/g	1.592	Y	241.6	1	1.823	IDENTIFIED	28.78	☐	
Radium-226	0.8897	0.1076	pCi/g	0.1724	Y	609.4	3	1.786	IDENTIFIED	10.6	☐	
Radium-228	1.589	0.3005	pCi/g	0.4709	0.500	911.5	3	2.202	IDENTIFIED	17.65	☐	
Silver-110m	0.713	0.0596	pCi/g	0.1823	N	0	6	0	NOT_IDENTI	0	☐	
Technetium-99m	6.93E+12	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208	0.4272	0.05399	pCi/g	0.09842	0.080	583.4	1	1.159	IDENTIFIED	11.42	☐	
Thorium-228	1.427	0.119	pCi/g	0.1487	N	238.7	2	1.322	IDENTIFIED	5.07	☐	
Thorium-230	0.8897	0.105	pCi/g	0.1724	N	609.4	3	1.786	IDENTIFIED	10.6	☐	
Thorium-232	1.589	0.3005	pCi/g	0.4709	N	911.5	3	2.202	IDENTIFIED	17.65	☐	
Tin-126	3.456	0.2056	pCi/g	0.195	N	88.09	2	1.148	IDENTIFIED	3.59	☐	

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

MS 3/29/10

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
962633	248867003	SAMPLE	24-MAR-10	Cerium-143	11830	1907	pCi/g	0	N
				Cesium-134	0.103	0.03425	pCi/g	0.06249	0.100
				Gross Gamma	10.54	1.528	pCi/g	2.063	N
				Iodine-133	80310	1.20E+05	pCi/g	0	N
				Lead-212	1.93	0.1255	pCi/g	0.05748	0.100
				Lead-214	1.588	0.1217	pCi/g	0.07875	0.100
				Potassium-40	34.38	1.518	pCi/g	0.3441	1.00
				Promethium-149	335.9	216.6	pCi/g	0	N
				Radium-224	4.226	0.7754	pCi/g	0.6161	Y
				Radium-226	1.334	0.1238	pCi/g	0.08192	Y
				Radium-228	1.575	0.2171	pCi/g	0.1809	0.500
				Strontium-85	0.08679	0.02844	pCi/g	0.04588	Y
				Thallium-208	0.5497	0.05356	pCi/g	0.04197	0.080
				Thorium-234	1.245	0.6213	pCi/g	0.6258	2.00
				Uranium-235	0.505	0.1393	pCi/g	0.2298	0.500
962633	248867004	SAMPLE	24-MAR-10	Bismuth-211	4.541	0.3077	pCi/g	0.1655	Y
				Bismuth-214	1.385	0.1061	pCi/g	0.05161	0.200
				Cadmium-109	4.474	0.6052	pCi/g	0.6383	Y
				Cerium-143	8611	1279	pCi/g	0	N
				Cesium-134	0.118	0.02485	pCi/g	0.0403	0.100
				Gross Gamma	11.16	1.43	pCi/g	1.834	N
				Iodine-133	23680	86680	pCi/g	0	N
				Lead-212	1.98	0.1308	pCi/g	0.04286	0.100
				Lead-214	1.648	0.1206	pCi/g	0.05875	0.100
				Potassium-40	35.67	1.924	pCi/g	0.2572	1.00
				Protactinium-234m	5.523	2.229	pCi/g	3.777	N
				Radium-224	4.578	0.6137	pCi/g	0.4592	Y
				Radium-226	1.385	0.1061	pCi/g	0.05161	Y
				Radium-228	2.029	0.1939	pCi/g	0.1076	0.500
				Strontium-85	0.1884	0.02288	pCi/g	0.03832	Y
				Thallium-208	0.5801	0.04755	pCi/g	0.02674	0.080
				Thorium-227	0.2363	0.1211	pCi/g	0.211	Y
962633	1202065188	MB	24-MAR-10	Cerium-143	93.1	39.91	pCi/g	0	N
				Cobalt-60	0.01748	0.00761	pCi/g	0.01444	0.100
				Iodine-135	1.18E+15	0	pCi/g	0	N
				Radium-224	0.3042	0.1365	pCi/g	0.2493	
962633	1202065189	DUP	24-MAR-10	Bismuth-211	3.938	0.2465	pCi/g	0.1235	Y

MS 3/29/10

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 20:28:55.74

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863001.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 18:28:22
Sample ID         : G248863001           Sample quantity  : 1.25190E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.39  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	6	74.88*	306	501	1.51	148.69	144	20	4.25E-02	14.9	2.63E+00
2	6	77.21*	543	540	1.72	153.35	144	20	7.54E-02	9.6	
3	1	87.60	154	533	1.29	174.13	170	21	2.14E-02	25.9	3.00E+00
4	1	93.15*	197	451	1.49	185.23	170	21	2.74E-02	22.7	
5	0	186.12*	205	388	1.57	371.14	366	11	2.84E-02	20.6	
6	0	209.47	165	361	1.49	417.84	412	12	2.29E-02	24.4	
7	3	238.77*	1248	232	1.49	476.45	469	21	1.73E-01	3.7	1.39E+00
8	3	241.70*	370	255	2.04	482.31	469	21	5.14E-02	13.8	
9	0	270.24	151	298	2.51	539.38	533	14	2.10E-02	25.5	
10	0	295.38*	363	249	1.22	589.67	583	13	5.04E-02	10.6	
11	0	301.79*	147	222	1.62	602.47	596	15	2.05E-02	24.2	
12	0	328.00	72	160	0.97	654.91	651	9	9.98E-03	34.0	
13	0	338.53	264	223	1.36	675.95	670	14	3.67E-02	13.4	
14	0	352.00*	604	148	1.66	702.90	698	11	8.39E-02	5.8	
15	0	463.10	79	114	1.35	925.09	921	10	1.09E-02	27.8	
16	0	510.93*	76	184	2.12	1020.77	1013	15	1.06E-02	45.2	
17	0	583.18*	387	138	1.62	1165.27	1160	13	5.37E-02	8.3	
18	0	609.33*	485	135	1.34	1217.58	1210	15	6.74E-02	7.0	
19	0	727.14*	91	65	1.84	1453.22	1448	10	1.27E-02	20.2	
20	0	769.53	72	93	1.47	1538.01	1530	16	1.00E-02	32.1	
21	0	795.25	42	76	1.84	1589.45	1581	13	5.78E-03	46.3	
22	0	860.68*	61	45	0.70	1720.33	1714	12	8.51E-03	26.1	
23	0	911.19*	295	50	1.54	1821.36	1814	16	4.10E-02	8.2	
24	1	964.66	47	62	2.20	1928.33	1918	29	6.55E-03	38.1	1.19E+00
25	1	968.85	146	57	2.13	1936.70	1918	29	2.03E-02	13.8	
26	0	1121.25	86	124	2.08	2241.57	2231	22	1.19E-02	35.1	
27	0	1378.32	25	32	1.51	2755.85	2749	15	3.54E-03	53.2	
28	0	1460.62*	1321	29	2.10	2920.50	2911	20	1.84E-01	3.0	
29	0	1495.93	14	6	4.31	2991.14	2984	12	1.94E-03	44.0	
30	0	1510.39	15	12	1.04	3020.08	3013	13	2.08E-03	55.5	
31	0	1764.25*	104	0	2.12	3527.98	3517	21	1.44E-02	10.5	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 20:28:59

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 4-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 18:28:22
Sample ID : G248863001 Sample quantity : 125.19 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.39 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.847E+01	4.409E+00	6.982E-01	6.861E-02	55.091
CD-109	+	88.03	*	2.884E+00	1.538E+00	1.860E+00	2.309E-01	1.551
SN-126		64.28		2.718E-01	9.570E-01	1.595E+00	2.701E-01	0.170
	+	86.94		1.163E+00	7.786E-01	8.234E-01	3.481E-01	1.413
	+	87.57	*	2.798E-01	1.492E-01	1.818E-01	2.249E-02	1.539
TL-208		277.37		8.458E-01	5.824E-01	9.373E-01	1.325E-01	0.902
	+	583.19	*	6.224E-01	1.183E-01	7.955E-02	7.276E-03	7.824
	+	860.56		9.323E-01	4.954E-01	4.940E-01	4.830E-02	1.887
BI-211		72.87		1.494E+01	6.008E+00	9.245E+00	1.059E+00	1.616
	+	351.06	*	4.466E+00	6.801E-01	4.377E-01	4.359E-02	10.205
PB-212	+	74.82		2.760E+00	9.209E-01	9.142E-01	1.377E-01	3.019
	+	77.11		2.722E+00	6.120E-01	5.099E-01	5.911E-02	5.339
	+	238.63	*	2.086E+00	2.939E-01	1.202E-01	1.436E-02	17.353
		300.09		2.220E+00	1.696E+00	1.946E+00	2.369E-01	1.141
BI-214	+	609.32	*	1.511E+00	2.603E-01	1.493E-01	1.487E-02	10.123
	+	1120.29		1.408E+00	9.989E-01	5.701E-01	6.174E-02	2.470
	+	1764.49		2.375E+00	5.398E-01	3.367E-01	2.952E-02	7.054
PB-214	+	74.82		4.892E+00	1.609E+00	1.620E+00	2.264E-01	3.019
	+	77.11		4.799E+00	1.149E+00	8.989E-01	1.279E-01	5.339
	+	242.00		3.755E+00	1.136E+00	7.309E-01	9.105E-02	5.137
	+	295.22		1.665E+00	4.086E-01	2.801E-01	3.492E-02	5.945
	+	351.93	*	1.621E+00	2.625E-01	1.607E-01	1.827E-02	10.086
RA-224	+	240.99	*	6.639E+00	1.971E+00	1.288E+00	1.421E-01	5.154
RA-226	+	609.32	*	1.511E+00	2.603E-01	1.493E-01	1.487E-02	10.123
	+	1120.29		1.408E+00	9.989E-01	5.701E-01	6.174E-02	2.470
	+	1764.49		2.375E+00	5.398E-01	3.367E-01	2.952E-02	7.054
AC-228	+	338.32		2.179E+00	1.086E+00	5.301E-01	2.226E-01	4.111
	+	911.20	*	2.295E+00	4.667E-01	2.806E-01	3.399E-02	8.178
	+	968.97		1.964E+00	7.256E-01	4.645E-01	1.141E-01	4.228
RA-228	+	338.32		2.179E+00	1.086E+00	5.301E-01	2.226E-01	4.111
	+	911.20	*	2.295E+00	4.667E-01	2.806E-01	3.399E-02	8.178
	+	968.97		1.964E+00	7.256E-01	4.645E-01	1.141E-01	4.228
TH-228	+	74.82		2.760E+00	8.815E-01	9.142E-01	1.057E-01	3.019
	+	77.11		2.722E+00	6.120E-01	5.099E-01	5.911E-02	5.339

Sample ID : G248863001 Acquisition date : 24-MAR-2010 18:28:22

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	2.086E+00	2.939E-01	1.202E-01	1.436E-02	17.353
		300.09		2.220E+00	2.161E+00	1.946E+00	1.197E+00	1.141
TH-230	+	609.32	*	1.511E+00	2.478E-01	1.493E-01	1.261E-02	10.122
	+	1120.29		1.408E+00	9.944E-01	5.701E-01	4.849E-02	2.470
	+	1764.49		2.375E+00	5.398E-01	3.367E-01	2.952E-02	7.054
TH-232	+	338.32		2.179E+00	6.233E-01	5.301E-01	5.226E-02	4.111
	+	911.20	*	2.295E+00	4.667E-01	2.806E-01	3.399E-02	8.178
	+	968.97		1.964E+00	7.256E-01	4.645E-01	1.141E-01	4.228
NP-237	+	86.48	*	8.348E-01	4.784E-01	5.868E-01	1.425E-01	1.423
		95.86		-7.547E-01	1.550E+00	2.154E+00	5.392E-01	-0.350
ANH-511	+	511.00	*	9.426E-02	8.559E-02	6.462E-02	5.583E-03	1.459

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.060E-01	4.590E-01	7.597E-01	7.061E-02	0.140
NA-22		1274.54	*	-3.472E-02	6.275E-02	9.575E-02	8.698E-03	-0.363
NA-24		1368.63	*	-4.239E+01	6.275E-02	Half-Life too short		
SC-46		889.28	*	-7.501E-02	5.078E-02	7.098E-02	6.596E-03	-1.057
	+	1120.55		2.485E-01	1.755E-01	1.745E-01	1.484E-02	1.424
V-48		944.13		2.615E-01	1.459E+00	2.438E+00	2.254E-01	0.107
		983.53	*	3.002E-02	1.076E-01	1.813E-01	1.658E-02	0.166
		1312.11		4.899E-02	1.339E-01	2.245E-01	2.115E-02	0.218
CR-51		320.08	*	2.740E-01	5.606E-01	9.525E-01	1.011E-01	0.288
MN-54		834.85	*	-1.088E-02	4.928E-02	8.029E-02	7.286E-03	-0.136
CO-56		846.77	*	-2.536E-02	5.067E-02	8.013E-02	7.312E-03	-0.316
		1037.84		-4.755E-01	4.148E-01	5.966E-01	5.594E-02	-0.797
		1238.28		2.513E-01	1.364E-01	2.468E-01	2.218E-02	1.018
		1771.35		-1.210E-01	3.398E-01	4.260E-01	3.721E-02	-0.284
CO-57		122.06	*	-4.369E-03	3.604E-02	5.759E-02	5.801E-03	-0.076
		136.47		-1.068E-01	2.808E-01	4.474E-01	4.754E-02	-0.239
CO-58		810.76	*	9.714E-04	5.158E-02	8.577E-02	7.711E-03	0.011
FE-59		1099.45	*	5.148E-02	1.446E-01	2.426E-01	2.263E-02	0.212
		1291.59		-6.686E-02	1.750E-01	2.704E-01	2.793E-02	-0.247
CO-60		1173.23		-6.422E-02	6.269E-02	9.202E-02	7.491E-03	-0.698
		1332.49	*	2.732E-02	4.860E-02	8.368E-02	8.044E-03	0.326
ZN-65		1115.54	*	-1.378E-01	1.548E-01	1.915E-01	1.637E-02	-0.719
SE-75		121.12		-1.681E-01	1.903E-01	2.929E-01	3.587E-02	-0.574
		136.00		-3.117E-02	5.480E-02	8.655E-02	8.762E-03	-0.360
		264.66	*	5.441E-02	7.128E-02	1.084E-01	1.189E-02	0.502
		279.54		8.971E-02	1.566E-01	2.673E-01	2.960E-02	0.336
		400.66		-1.126E-01	3.471E-01	5.592E-01	6.127E-02	-0.201
SR-85		514.00	*	1.530E-01	6.287E-02	1.040E-01	8.989E-03	1.471
Y-88		898.04		-1.162E-02	5.536E-02	8.971E-02	8.401E-03	-0.129
		1836.06	*	7.311E-03	4.191E-02	7.106E-02	5.985E-03	0.103
Y-91		1204.77	*	2.515E+01	3.144E+01	5.428E+01	4.575E+00	0.463
NB-94		702.65	*	2.304E-02	4.406E-02	7.620E-02	6.433E-03	0.302
		871.09		-6.768E-03	4.410E-02	6.989E-02	6.446E-03	-0.097

Sample ID : G248863001 Acquisition date : 24-MAR-2010 18:28:22

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	9.344E-02	6.795E-02	1.097E-01	9.614E-03	0.852
NB-95M		235.69	*	6.273E-01	2.235E-01	3.527E-01	4.249E-02	1.779
ZR-95		724.19		6.034E-02	1.564E-01	2.332E-01	2.165E-02	0.259
		756.73	*	6.231E-02	9.072E-02	1.591E-01	1.529E-02	0.392
MO-99		140.51		-1.232E+02	1.204E+02	1.778E+02	4.326E+01	-0.693
		181.07		2.598E+01	9.965E+01	1.414E+02	2.810E+01	0.184
		366.42		-9.242E+01	4.817E+02	7.863E+02	7.205E+01	-0.118
		739.50	*	2.997E+01	5.729E+01	9.899E+01	1.560E+01	0.303
		777.92		-2.006E+02	1.700E+02	2.269E+02	2.001E+01	-0.884
TC-99M		140.51	*	-8.827E+16	1.700E+02	Half-Life too short		
RU-103		497.08	*	1.508E-02	5.707E-02	9.450E-02	1.321E-02	0.160
	+	610.33		1.708E+01	3.670E+00	3.986E+00	6.481E-01	4.284
RH-106		621.93	*	-1.747E-01	4.384E-01	6.828E-01	8.956E-02	-0.256
		1050.41		-1.129E+00	3.360E+00	5.319E+00	4.727E-01	-0.212
RU-106		621.93	*	-1.747E-01	4.380E-01	6.828E-01	5.738E-02	-0.256
		1050.41		-1.129E+00	3.360E+00	5.319E+00	4.727E-01	-0.212
AG-108M		433.94	*	-5.045E-02	4.132E-02	6.211E-02	5.489E-03	-0.812
		614.28		1.031E-02	5.515E-02	7.795E-02	6.799E-03	0.132
		722.91		-3.377E-02	5.768E-02	7.793E-02	6.879E-03	-0.433
AG-110M		657.76	*	-1.705E-02	4.287E-02	6.982E-02	5.942E-03	-0.244
		677.62		8.503E-02	3.958E-01	6.734E-01	5.768E-02	0.126
		706.68		-7.371E-02	2.768E-01	4.541E-01	3.958E-02	-0.162
		763.94		1.577E-01	2.236E-01	3.455E-01	3.105E-02	0.456
		884.68		3.970E-02	5.947E-02	1.040E-01	9.917E-03	0.382
		937.49		-9.036E-02	1.572E-01	2.348E-01	2.242E-02	-0.385
		1384.29		4.148E-02	1.875E-01	2.811E-01	2.767E-02	0.148
		1505.03		-2.341E-02	3.273E-01	4.568E-01	4.365E-02	-0.051
SN-113		391.69	*	-5.201E-02	6.262E-02	9.778E-02	8.493E-03	-0.532
CD-115		260.90		-8.896E-04	6.262E-02	Half-Life too short		
		492.35		6.063E-05	6.262E-02	Half-Life too short		
		527.90	*	-5.180E-05	6.262E-02	Half-Life too short		
SN-117M		156.02		-1.431E+00	4.203E+00	6.682E+00	6.964E-01	-0.214
		158.56	*	1.376E-02	1.003E-01	1.625E-01	1.704E-02	0.085
TE-123M		159.00	*	1.288E-02	4.089E-02	6.668E-02	7.026E-03	0.193
SB-124		602.73		-3.212E-02	6.856E-02	9.077E-02	7.693E-03	-0.354
		645.85		-7.758E-02	6.758E-01	1.074E+00	9.470E-02	-0.072
		722.78		-3.699E-01	6.142E-01	8.282E-01	7.244E-02	-0.447
		1690.97	*	2.001E-02	7.712E-02	1.346E-01	1.268E-02	0.149
SB-125		427.87	*	4.909E-03	1.227E-01	2.016E-01	1.755E-02	0.024
	+	463.37		8.731E-01	4.930E-01	7.230E-01	6.698E-02	1.208
		600.60		3.019E-01	2.701E-01	4.426E-01	4.040E-02	0.682
		635.95		-2.091E-01	3.503E-01	5.336E-01	4.838E-02	-0.392
TE-125M		109.28	*	-2.192E+00	1.494E+01	2.423E+01	2.881E+00	-0.090
I-126		388.63		3.810E-02	3.089E-01	5.120E-01	4.357E-02	0.074
		666.33	*	2.810E-01	3.745E-01	6.582E-01	5.428E-02	0.427
		753.82		-2.310E+00	2.822E+00	4.368E+00	3.802E-01	-0.529
SB-126		414.70		-3.116E-02	1.316E-01	2.129E-01	1.809E-02	-0.146
		666.50		1.025E-01	1.306E-01	2.300E-01	1.897E-02	0.446
		695.00		1.024E-01	1.351E-01	2.371E-01	1.992E-02	0.432

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		697.00		5.241E-02	4.714E-01	7.948E-01	6.686E-02	0.066
		720.70	*	-3.468E-03	3.089E-01	4.444E-01	3.794E-02	-0.008
		856.80		-4.896E-01	8.966E-01	1.184E+00	1.085E-01	-0.414
SB-127		252.40		8.683E-01	1.424E+01	2.391E+01	1.018E+01	0.036
		473.00		-1.546E+00	5.346E+00	8.540E+00	1.217E+00	-0.181
		685.70	*	4.473E+00	4.448E+00	7.888E+00	1.012E+00	0.567
		783.70		1.824E+01	1.110E+01	2.023E+01	2.836E+00	0.902
I-131		80.19		-1.770E+00	1.066E+01	1.743E+01	2.062E+00	-0.102
		284.31		-5.030E-01	3.144E+00	5.204E+00	5.802E-01	-0.097
		364.49	*	4.466E-02	2.388E-01	3.984E-01	3.861E-02	0.112
		636.99		-1.155E+00	3.120E+00	4.852E+00	4.315E-01	-0.238
TE-132		49.72		-9.263E+01	1.784E+02	2.893E+02	4.745E+01	-0.320
		111.76		-2.633E+01	1.460E+02	2.363E+02	3.239E+01	-0.111
		116.30		1.060E+02	1.225E+02	2.044E+02	2.788E+01	0.519
		228.16	*	3.604E+00	3.177E+00	5.453E+00	9.979E-01	0.661
BA-133		81.00		-2.159E-01	1.692E-01	2.237E-01	3.913E-02	-0.965
		276.40		8.375E-01	5.584E-01	8.640E-01	1.345E-01	0.969
	+	302.85		6.926E-01	3.493E-01	3.411E-01	4.908E-02	2.031
		356.01	*	-1.004E-02	6.240E-02	8.823E-02	1.192E-02	-0.114
		383.85		9.981E-03	4.002E-01	6.602E-01	8.220E-02	0.015
I-133		529.87	*	-1.845E-01	4.002E-01	Half-Life too short		
		875.33		1.741E+00	4.002E-01	Half-Life too short		
		1298.22		9.762E+00	4.002E-01	Half-Life too short		
CS-134		563.25		1.690E-01	4.481E-01	7.451E-01	6.454E-02	0.227
		569.33		6.358E-02	2.560E-01	4.212E-01	3.658E-02	0.151
		604.72		-2.914E-02	5.501E-02	7.228E-02	6.136E-03	-0.403
	+	795.86	*	9.766E-02	9.086E-02	1.187E-01	1.064E-02	0.823
		801.95		-1.198E-01	5.907E-01	9.034E-01	8.110E-02	-0.133
		1365.19		-1.203E+00	1.584E+00	2.394E+00	2.391E-01	-0.502
CS-135		268.22	*	1.908E-01	2.608E-01	3.939E-01	4.726E-02	0.484
I-135		546.56		1.431E+15	2.608E-01	Half-Life too short		
		836.80		2.751E+15	2.608E-01	Half-Life too short		
		1038.76		-9.358E+15	2.608E-01	Half-Life too short		
		1131.51		-3.269E+15	2.608E-01	Half-Life too short		
		1260.41	*	2.736E+15	2.608E-01	Half-Life too short		
		1457.56		5.723E+17	2.608E-01	Half-Life too short		
		1678.03		7.583E+14	2.608E-01	Half-Life too short		
		1791.20		2.191E+15	2.608E-01	Half-Life too short		
CS-136		153.25		1.172E+00	1.589E+00	2.625E+00	3.090E-01	0.447
		176.60		-1.533E-01	8.913E-01	1.420E+00	1.631E-01	-0.108
		273.65		-1.308E+00	1.132E+00	1.514E+00	1.735E-01	-0.864
		340.55		1.042E+00	3.517E-01	5.610E-01	5.668E-02	1.857
		818.51		1.131E-02	1.188E-01	1.988E-01	1.793E-02	0.057
		1048.07	*	-8.141E-02	1.833E-01	2.869E-01	2.655E-02	-0.284
		1235.36		1.581E-01	1.127E+00	1.843E+00	2.181E-01	0.086
BA-137M		661.66	*	-5.595E-02	4.438E-02	6.717E-02	5.522E-03	-0.833
CS-137		661.66	*	-5.910E-02	4.689E-02	7.096E-02	5.846E-03	-0.833
CE-139		165.86	*	1.639E-03	4.296E-02	6.730E-02	7.184E-03	0.024
BA-140		162.66		8.121E-01	1.482E+00	2.434E+00	2.693E-01	0.334

---- Non-Identified Nuclides ----

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		304.85		1.661E+00	2.618E+00	3.891E+00	1.162E+00	0.427
		423.72		1.350E-01	3.321E+00	5.459E+00	1.795E+00	0.025
		537.26	*	-1.881E-02	4.489E-01	7.253E-01	2.460E-01	-0.026
LA-140	+	328.76		9.713E-01	6.680E-01	9.796E-01	1.027E-01	0.992
		487.02		2.090E-02	2.467E-01	4.041E-01	3.706E-02	0.052
		815.77		4.868E-02	5.366E-01	8.973E-01	8.942E-02	0.054
		1596.21	*	-3.263E-02	1.504E-01	2.464E-01	2.310E-02	-0.132
CE-141		145.44	*	1.487E-01	1.006E-01	1.695E-01	1.752E-02	0.877
CE-143		57.36		-8.561E-03	1.006E-01	Half-Life too short		
		293.27	*	1.378E-02	1.006E-01	Half-Life too short		
		664.57		1.569E-02	1.006E-01	Half-Life too short		
		721.93		-4.348E-03	1.006E-01	Half-Life too short		
CE-144		80.12		2.598E-02	3.764E+00	6.191E+00	7.277E-01	0.004
		133.52	*	-3.266E-01	2.888E-01	4.284E-01	6.913E-02	-0.762
PM-144		476.78		2.512E-02	8.522E-02	1.417E-01	1.328E-02	0.177
		618.01		-7.398E-03	4.582E-02	7.074E-02	6.132E-03	-0.105
		696.49	*	3.336E-02	4.456E-02	7.819E-02	6.580E-03	0.427
PR-144		696.51	*	2.257E+00	3.357E+00	5.863E+00	4.931E-01	0.385
		1489.16		-6.861E+00	1.781E+01	2.305E+01	2.208E+00	-0.298
PM-146		453.88	*	3.699E-02	5.761E-02	9.767E-02	1.033E-02	0.379
		633.25		-1.842E-01	1.767E+00	2.813E+00	1.073E+00	-0.065
		735.93		-5.501E-02	1.893E-01	3.081E-01	8.634E-02	-0.179
		747.24		1.840E-01	1.197E-01	2.178E-01	3.183E-02	0.845
ND-147		91.11		1.790E+00	6.005E-01	9.981E-01	1.236E-01	1.794
		319.41		1.923E+00	6.154E+00	1.037E+01	1.063E+00	0.185
		531.02	*	4.819E-02	1.011E+00	1.645E+00	2.460E-01	0.029
PM-149		285.90	*	2.172E-04	1.011E+00	Half-Life too short		
EU-152		121.78		-4.099E-02	1.014E-01	1.599E-01	1.789E-02	-0.256
		244.70		5.600E-01	4.925E-01	7.621E-01	8.400E-02	0.735
		344.28	*	3.488E-04	1.520E-01	2.183E-01	2.222E-02	0.002
		778.90		-1.381E-01	3.115E-01	4.862E-01	4.290E-02	-0.284
	+	964.08		6.839E-01	5.243E-01	7.120E-01	6.549E-02	0.960
		1085.87		2.229E-01	4.780E-01	8.152E-01	7.098E-02	0.273
		1112.07		1.420E-01	4.776E-01	6.922E-01	5.923E-02	0.205
		1408.01		1.670E-01	2.615E-01	4.635E-01	4.466E-02	0.360
GD-153		69.67		-2.956E-02	3.324E+00	4.813E+00	5.494E-01	-0.006
		97.43	*	1.249E-01	1.353E-01	2.020E-01	2.229E-02	0.618
		103.18		-4.777E-02	1.594E-01	2.573E-01	2.720E-02	-0.186
EU-154		123.07		5.069E-02	7.221E-02	1.200E-01	1.497E-02	0.423
		723.31		-1.613E-01	2.676E-01	3.613E-01	3.407E-02	-0.447
		873.19		-1.188E-02	3.493E-01	5.759E-01	7.109E-02	-0.021
		996.26		-8.567E-02	4.996E-01	8.075E-01	1.430E-01	-0.106
		1004.73		-2.086E-01	2.841E-01	4.329E-01	5.184E-02	-0.482
		1274.44	*	-7.572E-02	1.746E-01	2.696E-01	3.162E-02	-0.281
EU-155	+	86.55		3.399E-01	1.814E-01	2.714E-01	3.347E-02	1.253
		105.31	*	1.064E-01	1.485E-01	2.480E-01	2.612E-02	0.429
TB-160	+	86.79		9.456E-01	5.044E-01	7.521E-01	9.248E-02	1.257
		197.04		-5.511E-01	8.254E-01	1.278E+00	1.393E-01	-0.431
		215.65		2.227E-01	1.167E+00	1.809E+00	1.990E-01	0.123

---- Non-Identified Nuclides ----

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		298.57		4.583E-01	2.490E-01	2.955E-01	3.127E-02	1.551
		879.36	*	-7.187E-02	1.866E-01	2.977E-01	2.755E-02	-0.241
		962.29		1.297E+00	7.211E-01	1.329E+00	1.223E-01	0.975
	+	966.15		5.016E-01	3.845E-01	6.890E-01	6.333E-02	0.728
		1177.93		1.290E-01	5.264E-01	8.727E-01	7.141E-02	0.148
		1271.85		-2.188E-01	1.035E+00	1.638E+00	1.482E-01	-0.134
HO-166M		80.57		-4.252E-01	4.693E-01	6.448E-01	7.597E-02	-0.659
		184.41		1.673E-01	5.941E-02	9.071E-02	9.808E-03	1.844
		280.46		-1.143E-01	1.180E-01	1.872E-01	2.022E-02	-0.610
		410.95		1.279E-01	3.218E-01	5.405E-01	4.588E-02	0.237
		711.68	*	-4.733E-02	7.639E-02	1.216E-01	1.033E-02	-0.389
		752.31		-2.920E-01	3.340E-01	5.152E-01	4.480E-02	-0.567
		810.29		-1.483E-02	7.402E-02	1.208E-01	1.084E-02	-0.123
TA-182		67.75		-8.975E-02	2.077E-01	3.332E-01	3.803E-02	-0.269
		100.11		8.122E-02	2.593E-01	4.283E-01	4.623E-02	0.190
		152.43		4.582E-01	5.016E-01	8.342E-01	8.627E-02	0.549
		222.11		2.740E-01	4.922E-01	8.448E-01	9.309E-02	0.324
	+	1121.30		6.807E-01	4.808E-01	4.712E-01	4.005E-02	1.445
		1189.05		7.803E-02	4.345E-01	7.161E-01	5.933E-02	0.109
		1221.41	*	1.367E-01	2.931E-01	4.921E-01	4.224E-02	0.278
		1231.02		-4.391E-01	7.357E-01	1.134E+00	9.837E-02	-0.387
IR-192	+	295.96		1.293E+00	3.060E-01	3.875E-01	4.134E-02	3.336
		308.46		-1.344E-01	1.554E-01	2.088E-01	2.185E-02	-0.644
		316.51	*	-4.161E-02	4.861E-02	7.678E-02	7.916E-03	-0.542
		468.07		2.232E-02	1.030E-01	1.484E-01	1.373E-02	0.150
HG-203		70.83		-3.776E-01	2.676E+00	3.846E+00	6.817E-01	-0.098
		72.87		4.015E+00	1.696E+00	2.485E+00	4.292E-01	1.616
		279.20	*	4.660E-02	5.839E-02	1.004E-01	1.103E-02	0.464
BI-207		72.81		8.062E-01	3.433E-01	5.280E-01	6.046E-02	1.527
	+	74.97		7.958E-01	2.540E-01	3.676E-01	4.231E-02	2.165
		569.70		4.232E-03	3.981E-02	6.484E-02	5.554E-03	0.065
		1063.66	*	-6.803E-02	7.621E-02	1.144E-01	1.010E-02	-0.595
		1770.23		-1.023E-01	6.182E-01	8.240E-01	7.203E-02	-0.124
PB-210		46.54	*	3.779E+00	1.346E+01	2.234E+01	2.750E+00	0.169
PB-211		404.85	*	-3.771E-01	1.008E+00	1.594E+00	7.707E-01	-0.237
		427.09		-1.820E+00	2.247E+00	3.229E+00	1.494E+00	-0.564
		832.01		9.037E-03	1.252E+00	2.078E+00	1.079E+00	0.004
BI-212	+	727.33	*	2.245E+00	9.503E-01	1.528E+00	1.898E-01	1.470
		785.37		1.154E+00	4.032E+00	6.713E+00	5.944E-01	0.172
		1620.50		2.286E+00	2.919E+00	5.360E+00	4.989E-01	0.426
RN-219	+	271.23		1.113E+00	5.842E-01	6.285E-01	7.680E-02	1.771
		401.81	*	3.034E-01	5.317E-01	9.002E-01	1.330E-01	0.337
RA-223		81.07		-4.969E-01	3.774E-01	5.049E-01	5.966E-02	-0.984
		83.79		-1.027E-02	3.013E-01	3.090E-01	3.715E-02	-0.033
		94.87		1.709E+00	7.900E-01	1.204E+00	1.363E-01	1.419
		144.24		1.358E+00	9.806E-01	1.626E+00	1.796E-01	0.835
		154.21		4.136E-01	5.454E-01	9.021E-01	9.991E-02	0.458
	+	269.46		8.647E-01	4.516E-01	4.867E-01	5.371E-02	1.776
		323.87	*	2.892E-01	1.001E+00	1.470E+00	2.668E-01	0.197

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	+	338.28		8.646E+00	2.579E+00	3.059E+00	3.972E-01	2.827
AC-227		79.69		2.252E+00	1.984E+00	3.300E+00	6.263E-01	0.682
		235.96		1.205E+00	2.964E-01	4.529E-01	5.627E-02	2.662
		256.23	*	6.559E-02	3.323E-01	5.612E-01	7.766E-02	0.117
		299.98		2.486E+00	1.875E+00	2.146E+00	3.025E-01	1.158
		304.50		1.670E+00	2.367E+00	3.570E+00	6.275E-01	0.468
		334.37		2.349E+00	2.861E+00	3.854E+00	6.304E-01	0.610
TH-227		79.80		1.949E+00	2.559E+00	4.241E+00	9.835E-01	0.460
		235.96		1.205E+00	2.936E-01	4.529E-01	5.409E-02	2.662
		256.23	*	6.559E-02	3.323E-01	5.612E-01	8.536E-02	0.117
		299.98		2.486E+00	1.875E+00	2.146E+00	3.025E-01	1.158
		304.50		1.670E+00	2.367E+00	3.570E+00	6.275E-01	0.468
		334.37		2.349E+00	2.861E+00	3.854E+00	6.304E-01	0.610
TH-229		85.43		6.428E-01	4.241E-01	5.506E-01	6.699E-02	1.167
	+	88.47		4.313E-01	2.301E-01	3.418E-01	4.213E-02	1.262
		193.51	*	-5.065E-01	7.219E-01	1.115E+00	1.213E-01	-0.454
	+	210.85		3.916E+00	1.955E+00	2.292E+00	2.517E-01	1.709
PA-231		283.69	*	-3.839E-01	1.963E+00	3.242E+00	5.171E-01	-0.118
	+	301.36		2.708E+00	1.360E+00	1.404E+00	1.907E-01	1.929
TH-231		81.07		-4.969E-01	3.774E-01	5.049E-01	5.966E-02	-0.984
		83.79		-1.027E-02	3.013E-01	3.090E-01	3.715E-02	-0.033
		94.87		1.709E+00	7.900E-01	1.204E+00	1.363E-01	1.419
		144.24		1.358E+00	9.806E-01	1.626E+00	1.796E-01	0.835
		154.21		4.136E-01	5.454E-01	9.021E-01	9.991E-02	0.458
	+	269.46		8.647E-01	4.516E-01	4.867E-01	5.371E-02	1.776
		323.87	*	2.892E-01	1.001E+00	1.470E+00	2.668E-01	0.197
	+	338.28		8.646E+00	2.579E+00	3.059E+00	3.972E-01	2.827
PA-233		300.13		1.098E+00	8.516E-01	9.677E-01	1.551E-01	1.135
		311.90	*	4.501E-02	8.311E-02	1.418E-01	1.500E-02	0.318
		340.48		3.550E+00	1.401E+00	1.845E+00	4.523E-01	1.924
PA-234		94.67		8.943E-01	3.039E-01	4.496E-01	6.488E-02	1.989
		98.44		2.267E-01	1.909E-01	2.202E-01	1.238E-01	1.029
		111.00		9.346E-02	2.599E-01	4.286E-01	5.689E-02	0.218
		131.20		8.515E-02	1.485E-01	2.455E-01	2.464E-02	0.347
		569.50		6.468E-02	3.515E-01	5.757E-01	4.931E-02	0.112
		733.00		-2.334E-01	5.727E-01	7.842E-01	1.740E-01	-0.298
		880.51		-1.232E-01	3.483E-01	5.568E-01	5.156E-02	-0.221
		883.24		2.570E-01	3.886E-01	6.127E-01	4.124E-01	0.419
		926.50		1.352E-01	2.342E-01	4.005E-01	1.022E-01	0.338
		946.00	*	1.905E-01	3.910E-01	6.680E-01	1.273E-01	0.285
		949.00		-1.369E-02	5.889E-01	9.670E-01	8.930E-02	-0.014
PA-234M		766.42		2.456E+01	2.141E+01	2.827E+01	1.435E+01	0.869
		1001.03	*	5.039E+00	6.227E+00	1.082E+01	1.121E+00	0.466
TH-234		63.29	*	1.347E+00	2.623E+00	4.389E+00	8.703E-01	0.307
	+	92.59		2.885E+00	1.472E+00	1.842E+00	4.314E-01	1.566
U-235		89.96		2.421E+00	1.369E+00	2.112E+00	5.494E-01	1.146
	+	93.35		2.179E+00	1.122E+00	1.373E+00	3.341E-01	1.586
		143.76	*	2.954E-01	2.950E-01	4.806E-01	8.553E-02	0.615
		163.33		1.736E-01	6.257E-01	9.906E-01	1.881E-01	0.175

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	185.72		2.209E-01	9.413E-02	1.202E-01	1.300E-02	1.839
		205.31		-3.731E-01	7.967E-01	1.064E+00	2.060E-01	-0.351
U-238		63.29	*	1.347E+00	2.623E+00	4.389E+00	8.703E-01	0.307
	+	92.59		2.885E+00	1.351E+00	1.842E+00	2.141E-01	1.566
NP-239		99.53		2.448E-01	2.386E-01	3.898E-01	4.227E-02	0.628
		103.37		5.407E-02	1.403E-01	2.323E-01	2.453E-02	0.233
		106.12		1.217E-02	1.181E-01	1.935E-01	2.014E-02	0.063
		117.23	*	-6.376E-02	5.542E-01	8.976E-01	9.060E-02	-0.071
		228.18		3.502E-01	3.040E-01	5.292E-01	5.838E-02	0.662
		277.60		4.252E-01	2.634E-01	4.298E-01	4.654E-02	0.989
AM-241		59.54	*	-2.062E-01	3.267E-01	5.270E-01	6.186E-02	-0.391
CM-247		278.00		1.515E+00	1.098E+00	1.830E+00	1.981E-01	0.828
		287.50		1.305E-01	1.788E+00	2.826E+00	3.030E-01	0.046
		402.40	*	3.693E-02	4.944E-02	8.460E-02	7.154E-03	0.437
CF-249		252.80		-4.440E-01	1.253E+00	2.064E+00	2.269E-01	-0.215
		333.37		2.717E-01	3.771E-01	4.020E-01	4.006E-02	0.676
		388.16	*	3.367E-02	5.521E-02	9.381E-02	7.997E-03	0.359
CF-251		177.52	*	-1.568E-01	1.788E-01	2.748E-01	2.957E-02	-0.571
		227.38		2.815E-01	5.040E-01	8.637E-01	9.527E-02	0.326
		285.41		1.806E+00	2.918E+00	4.996E+00	5.369E-01	0.361

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863001      *
* Acquisition date : 24-MAR-2010 18:28:22 Detector SN#     :               *
* Detector ID        : GAM15               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.39      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        :  4-MAR-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G248863001           Analyst initials: MXR1          *
* Batch Number       : 962633               Sample Quantity : 1.2519E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.847E+01	4.321E+00	6.976E-01	0.000E+00
CD-109	2.884E+00	1.508E+00	1.933E+00	0.000E+00
SN-126	2.798E-01	1.462E-01	1.889E-01	0.000E+00
TL-208	6.224E-01	1.160E-01	8.054E-02	0.000E+00
BI-211	4.466E+00	6.665E-01	4.462E-01	0.000E+00
PB-212	2.086E+00	2.880E-01	1.232E-01	0.000E+00
BI-214	1.511E+00	2.551E-01	1.510E-01	0.000E+00
PB-214	1.621E+00	2.573E-01	1.639E-01	0.000E+00
RA-224	6.639E+00	1.932E+00	1.320E+00	0.000E+00
RA-226	1.511E+00	2.551E-01	1.510E-01	0.000E+00
AC-228	2.295E+00	4.574E-01	2.823E-01	0.000E+00
RA-228	2.295E+00	4.574E-01	2.823E-01	0.000E+00
TH-228	2.086E+00	2.880E-01	1.232E-01	0.000E+00
TH-230	1.511E+00	2.428E-01	1.510E-01	0.000E+00
TH-232	2.295E+00	4.574E-01	2.823E-01	0.000E+00
NP-237	8.348E-01	4.689E-01	6.099E-01	0.000E+00
ANH-511	9.426E-02	8.388E-02	6.554E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.060E-01	4.499E-01	7.712E-01	0.000E+00	NOT IDENT.
NA-22	-3.472E-02	6.149E-02	9.586E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.789E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-7.501E-02	4.976E-02	7.143E-02	0.000E+00	FAIL ABUN
V-48	3.002E-02	1.054E-01	1.822E-01	0.000E+00	NOT IDENT.
CR-51	2.740E-01	5.494E-01	9.725E-01	0.000E+00	NOT IDENT.
MN-54	-1.088E-02	4.830E-02	8.087E-02	0.000E+00	NOT IDENT.
CO-56	-2.536E-02	4.966E-02	8.070E-02	0.000E+00	NOT IDENT.
CO-57	-4.369E-03	3.532E-02	5.957E-02	0.000E+00	NOT IDENT.
CO-58	9.714E-04	5.055E-02	8.643E-02	0.000E+00	NOT IDENT.

FE-59	5.148E-02	1.417E-01	2.434E-01	0.000E+00	NOT IDENT.
CO-60	2.732E-02	4.763E-02	8.372E-02	0.000E+00	NOT IDENT.
ZN-65	-1.378E-01	1.517E-01	1.921E-01	0.000E+00	NOT IDENT.
SE-75	5.441E-02	6.986E-02	1.110E-01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	6.161E-02	1.055E-01	0.000E+00	NOT IDENT.
Y-88	7.311E-03	4.108E-02	7.077E-02	0.000E+00	NOT IDENT.
Y-91	2.515E+01	3.081E+01	5.438E+01	0.000E+00	NOT IDENT.
NB-94	2.304E-02	4.318E-02	7.694E-02	0.000E+00	NOT IDENT.
NB-95	9.344E-02	6.659E-02	1.107E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.190E-01	3.616E-01	0.000E+00	NOT IDENT.
ZR-95	6.231E-02	8.890E-02	1.604E-01	0.000E+00	NOT IDENT.
MO-99	2.997E+01	5.614E+01	9.988E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.844E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.508E-02	5.593E-02	9.589E-02	0.000E+00	FAIL ABUN
RH-106	-1.747E-01	4.296E-01	6.907E-01	0.000E+00	NOT IDENT.
RU-106	-1.747E-01	4.293E-01	6.907E-01	0.000E+00	NOT IDENT.
AG-108M	-5.045E-02	4.050E-02	6.314E-02	0.000E+00	NOT IDENT.
AG-110M	-1.705E-02	4.201E-02	7.056E-02	0.000E+00	NOT IDENT.
SN-113	-5.201E-02	6.137E-02	9.955E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	7.437E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	1.376E-02	9.830E-02	1.675E-01	0.000E+00	NOT IDENT.
TE-123M	1.288E-02	4.007E-02	6.873E-02	0.000E+00	NOT IDENT.
SB-124	2.001E-02	7.557E-02	1.342E-01	0.000E+00	NOT IDENT.
SB-125	4.909E-03	1.202E-01	2.050E-01	0.000E+00	FAIL ABUN
TE-125M	-2.192E+00	1.464E+01	2.510E+01	0.000E+00	NOT IDENT.
I-126	2.810E-01	3.670E-01	6.651E-01	0.000E+00	NOT IDENT.
SB-126	-3.468E-03	3.027E-01	4.485E-01	0.000E+00	NOT IDENT.
SB-127	4.473E+00	4.359E+00	7.968E+00	0.000E+00	NOT IDENT.
I-131	4.466E-02	2.341E-01	4.060E-01	0.000E+00	NOT IDENT.
TE-132	3.604E+00	3.113E+00	5.594E+00	0.000E+00	NOT IDENT.
BA-133	-1.004E-02	6.115E-02	8.994E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	4.799E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	9.766E-02	8.905E-02	1.196E-01	0.000E+00	FAIL ABUN
CS-135	1.908E-01	2.556E-01	4.031E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.043E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-8.141E-02	1.796E-01	2.880E-01	0.000E+00	NOT IDENT.
BA-137M	-5.595E-02	4.350E-02	6.788E-02	0.000E+00	NOT IDENT.
CS-137	-5.910E-02	4.595E-02	7.171E-02	0.000E+00	NOT IDENT.
CE-139	1.639E-03	4.210E-02	6.933E-02	0.000E+00	NOT IDENT.
BA-140	-1.881E-02	4.399E-01	7.352E-01	0.000E+00	NOT IDENT.
LA-140	-3.263E-02	1.474E-01	2.459E-01	0.000E+00	FAIL ABUN
CE-141	1.487E-01	9.861E-02	1.749E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.480E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.266E-01	2.830E-01	4.426E-01	0.000E+00	NOT IDENT.
PM-144	3.336E-02	4.367E-02	7.896E-02	0.000E+00	NOT IDENT.
PR-144	2.257E+00	3.290E+00	5.921E+00	0.000E+00	NOT IDENT.
PM-146	3.699E-02	5.646E-02	9.923E-02	0.000E+00	NOT IDENT.
ND-147	4.819E-02	9.903E-01	1.667E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	6.097E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	3.488E-04	1.490E-01	2.226E-01	0.000E+00	FAIL ABUN
GD-153	1.249E-01	1.326E-01	2.096E-01	0.000E+00	NOT IDENT.
EU-154	-7.572E-02	1.711E-01	2.699E-01	0.000E+00	NOT IDENT.
EU-155	1.064E-01	1.455E-01	2.571E-01	0.000E+00	FAIL ABUN
TB-160	-7.187E-02	1.829E-01	2.996E-01	0.000E+00	FAIL ABUN
HO-166M	-4.733E-02	7.486E-02	1.228E-01	0.000E+00	NOT IDENT.
TA-182	1.367E-01	2.873E-01	4.930E-01	0.000E+00	FAIL ABUN
IR-192	-4.161E-02	4.764E-02	7.840E-02	0.000E+00	FAIL ABUN
HG-203	4.660E-02	5.722E-02	1.027E-01	0.000E+00	NOT IDENT.
BI-207	-6.803E-02	7.468E-02	1.149E-01	0.000E+00	FAIL ABUN
PB-210	3.779E+00	1.319E+01	2.341E+01	0.000E+00	NOT IDENT.
PB-211	-3.771E-01	9.877E-01	1.622E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	9.313E-01	1.542E+00	0.000E+00	FAIL ABUN
RN-219	3.034E-01	5.211E-01	9.162E-01	0.000E+00	FAIL ABUN
RA-223	2.892E-01	9.813E-01	1.501E+00	0.000E+00	FAIL ABUN
AC-227	6.559E-02	3.256E-01	5.747E-01	0.000E+00	NOT IDENT.
TH-227	6.559E-02	3.257E-01	5.747E-01	0.000E+00	NOT IDENT.
TH-229	-5.065E-01	7.075E-01	1.146E+00	0.000E+00	FAIL ABUN
PA-231	-3.839E-01	1.923E+00	3.316E+00	0.000E+00	FAIL ABUN
TH-231	2.892E-01	9.813E-01	1.501E+00	0.000E+00	FAIL ABUN
PA-233	4.501E-02	8.145E-02	1.448E-01	0.000E+00	NOT IDENT.
PA-234	1.905E-01	3.832E-01	6.716E-01	0.000E+00	NOT IDENT.
PA-234M	5.039E+00	6.103E+00	1.087E+01	0.000E+00	NOT IDENT.
TH-234	1.347E+00	2.570E+00	4.581E+00	0.000E+00	FAIL ABUN
U-235	2.954E-01	2.891E-01	4.961E-01	0.000E+00	FAIL ABUN
U-238	1.347E+00	2.570E+00	4.581E+00	0.000E+00	FAIL ABUN
NP-239	-6.376E-02	5.431E-01	9.291E-01	0.000E+00	NOT IDENT.
AM-241	-2.062E-01	3.202E-01	5.504E-01	0.000E+00	NOT IDENT.
CM-247	3.693E-02	4.845E-02	8.609E-02	0.000E+00	NOT IDENT.

CF-249	3.367E-02	5.410E-02	9.552E-02	0.000E+00 NOT IDENT.
CF-251	-1.568E-01	1.753E-01	2.828E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 20:28:56.77

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863001.CNF;1
Sample date      : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 18:28:22
Sample ID        : G248863001           Sample quantity  : 1.25190E+02 GRAM
Detector name    : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:01.39  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 962633               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1321	10.66*	9.662E-01	3.847E+01	3.847E+01	11.46
CD-109	88.03	154	3.70*	4.468E+00	2.798E+00	2.884E+00	53.34
SN-126	64.28	------	9.60	1.941E+00	------ Line Not Found		------
	86.94	154	8.90	4.468E+00	1.163E+00	1.163E+00	66.94
	87.57	154	37.00*	4.468E+00	2.798E-01	2.798E-01	53.34
TL-208	277.37	------	6.60	3.705E+00	------ Line Not Found		------
	583.19	387	85.00*	2.191E+00	6.224E-01	6.224E-01	19.01
	860.56	61	12.50	1.576E+00	9.323E-01	9.323E-01	53.13
BI-211	72.87	------	1.23	3.001E+00	------ Line Not Found		------
	351.06	604	12.92*	3.140E+00	4.466E+00	4.466E+00	15.23
PB-212	74.82	306	10.28	3.236E+00	2.760E+00	2.760E+00	33.36
	77.11	543	17.10	3.496E+00	2.722E+00	2.722E+00	22.48
	238.63	1248	43.60*	4.114E+00	2.086E+00	2.086E+00	14.09
	300.09	------	3.30	3.507E+00	------ Line Not Found		------
BI-214	609.32	485	45.49*	2.117E+00	1.511E+00	1.511E+00	17.23
	1120.29	86	14.92	1.225E+00	1.408E+00	1.408E+00	70.94
	1764.49	104	15.30	8.554E-01	2.375E+00	2.375E+00	22.73
PB-214	74.82	306	5.80	3.236E+00	4.892E+00	4.892E+00	32.89
	77.11	543	9.70	3.496E+00	4.799E+00	4.799E+00	23.95
	242.00	370	7.25	4.079E+00	3.755E+00	3.755E+00	30.25
	295.22	363	18.42	3.546E+00	1.665E+00	1.665E+00	24.53
	351.93	604	35.60*	3.140E+00	1.621E+00	1.621E+00	16.19
RA-224	240.99	370	4.10*	4.079E+00	6.639E+00	6.639E+00	29.69
RA-226	609.32	485	45.49*	2.117E+00	1.511E+00	1.511E+00	17.23
	1120.29	86	14.92	1.225E+00	1.408E+00	1.408E+00	70.94
	1764.49	104	15.30	8.554E-01	2.375E+00	2.375E+00	22.73
AC-228	338.32	264	11.27	3.226E+00	2.179E+00	2.179E+00	49.84
	911.20	295	25.80*	1.494E+00	2.295E+00	2.295E+00	20.34
	968.97	146	15.80	1.410E+00	1.964E+00	1.964E+00	36.94
RA-228	338.32	264	11.27	3.226E+00	2.179E+00	2.179E+00	49.84
	911.20	295	25.80*	1.494E+00	2.295E+00	2.295E+00	20.34
	968.97	146	15.80	1.410E+00	1.964E+00	1.964E+00	36.94

Sample ID : G248863001 Acquisition date : 24-MAR-2010 18:28:22

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	306	10.28	3.236E+00	2.760E+00	2.760E+00	31.94
	77.11	543	17.10	3.496E+00	2.722E+00	2.722E+00	22.48
	238.63	1248	43.60*	4.114E+00	2.086E+00	2.086E+00	14.09
	300.09	------	3.30	3.507E+00	------	Line Not Found	------
TH-230	609.32	485	45.49*	2.117E+00	1.511E+00	1.511E+00	16.40
	1120.29	86	14.92	1.225E+00	1.408E+00	1.408E+00	70.63
	1764.49	104	15.30	8.554E-01	2.375E+00	2.375E+00	22.73
TH-232	338.32	264	11.27	3.226E+00	2.179E+00	2.179E+00	28.61
	911.20	295	25.80*	1.494E+00	2.295E+00	2.295E+00	20.34
	968.97	146	15.80	1.410E+00	1.964E+00	1.964E+00	36.94
NP-237	86.48	154	12.40*	4.468E+00	8.348E-01	8.348E-01	57.31
	95.86	------	2.68	5.004E+00	------	Line Not Found	------
ANH-511	511.00	76	100.00*	2.419E+00	9.426E-02	9.426E-02	90.81

Flag: "*" = Keyline

Sample ID : G248863001 Acquisition date : 24-MAR-2010 18:28:22

Total number of lines in spectrum 31
Number of unidentified lines 4
Number of lines tentatively identified by NID 27 87.10%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.847E+01	3.847E+01	0.441E+01	11.46	
CD-109	461.40D	1.03	2.798E+00	2.884E+00	1.538E+00	53.34	
SN-126	2.30E+05Y	1.00	2.798E-01	2.798E-01	1.492E-01	53.34	
TL-208	1.41E+10Y	1.00	6.224E-01	6.224E-01	1.183E-01	19.01	
BI-211	7.04E+08Y	1.00	4.466E+00	4.466E+00	0.680E+00	15.23	
PB-212	1.41E+10Y	1.00	2.086E+00	2.086E+00	0.294E+00	14.09	
BI-214	1600.00Y	1.00	1.511E+00	1.511E+00	0.260E+00	17.23	
PB-214	1600.00Y	1.00	1.621E+00	1.621E+00	0.263E+00	16.19	
RA-224	1.41E+10Y	1.00	6.639E+00	6.639E+00	1.971E+00	29.69	
RA-226	1600.00Y	1.00	1.511E+00	1.511E+00	0.260E+00	17.23	
AC-228	1.41E+10Y	1.00	2.295E+00	2.295E+00	0.467E+00	20.34	
RA-228	1.41E+10Y	1.00	2.295E+00	2.295E+00	0.467E+00	20.34	
TH-228	1.41E+10Y	1.00	2.086E+00	2.086E+00	0.294E+00	14.09	
TH-230	7.54E+04Y	1.00	1.511E+00	1.511E+00	0.248E+00	16.40	
TH-232	1.41E+10Y	1.00	2.295E+00	2.295E+00	0.467E+00	20.34	
NP-237	2.14E+06Y	1.00	8.348E-01	8.348E-01	4.784E-01	57.31	
ANH-511	1.00E+09Y	1.00	9.426E-02	9.426E-02	8.559E-02	90.81	
	Total Activity :		7.141E+01	7.150E+01			

Grand Total Activity : 7.141E+01 7.150E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248863001 Acquisition date : 24-MAR-2010 18:28:22

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	93.15	197	451	1.49	185.23	170	21	2.74E-02	45.4	4.85E+00	T
0	186.12	205	388	1.57	371.14	366	11	2.84E-02	41.2	4.86E+00	T
0	209.47	165	361	1.49	417.84	412	12	2.29E-02	48.7	4.50E+00	T
0	270.24	151	298	2.51	539.38	533	14	2.10E-02	51.0	3.77E+00	T
0	301.79	147	222	1.62	602.47	596	15	2.05E-02	48.3	3.49E+00	T
0	328.00	72	160	0.97	654.91	651	9	9.98E-03	68.0	3.30E+00	T
0	463.10	79	114	1.35	925.09	921	10	1.09E-02	55.7	2.60E+00	T
0	727.14	91	65	1.84	1453.22	1448	10	1.27E-02	40.5	1.83E+00	T
0	769.53	72	93	1.47	1538.01	1530	16	1.00E-02	64.1	1.74E+00	
0	795.25	42	76	1.84	1589.45	1581	13	5.78E-03	92.6	1.69E+00	T
1	964.66	47	62	2.20	1928.33	1918	29	6.55E-03	76.1	1.42E+00	T
0	1378.32	25	32	1.51	2755.85	2749	15	3.54E-03	****	1.01E+00	
0	1495.93	14	6	4.31	2991.14	2984	12	1.94E-03	88.1	9.48E-01	
0	1510.39	15	12	1.04	3020.08	3013	13	2.08E-03	****	9.42E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 20:29:04.28

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                 DETECTOR DATA                               *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863001.CNF;1   *
* Acquisition date  : 24-MAR-2010 18:28:22  Detector SN#     :                *
* Detector ID       : GAM15                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.39          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 4-MAR-2010 12:00:00.  Nuclide Library : SOLID           *
* Sample ID         : G248863001            Analyst initials: MXR1            *
* Batch Number      : 962633                Sample Quantity : 1.25190E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                    QC DATA                                  *
*                                                                             *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                  *
* MSD ID           :                      MSD Isotope     :                  *
* LCS ID           : 1032-A               LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.847E+01	4.409E+00	6.982E-01	6.861E-02	55.091
CD-109	2.884E+00	1.538E+00	1.860E+00	2.309E-01	1.551
SN-126	2.798E-01	1.492E-01	1.818E-01	2.249E-02	1.539
TL-208	6.224E-01	1.183E-01	7.955E-02	7.276E-03	7.824
BI-211	4.466E+00	6.801E-01	4.377E-01	4.359E-02	10.205
PB-212	2.086E+00	2.939E-01	1.202E-01	1.436E-02	17.353
BI-214	1.511E+00	2.603E-01	1.493E-01	1.487E-02	10.123
PB-214	1.621E+00	2.625E-01	1.607E-01	1.827E-02	10.086
RA-224	6.639E+00	1.971E+00	1.288E+00	1.421E-01	5.154
RA-226	1.511E+00	2.603E-01	1.493E-01	1.487E-02	10.123
AC-228	2.295E+00	4.667E-01	2.806E-01	3.399E-02	8.178
RA-228	2.295E+00	4.667E-01	2.806E-01	3.399E-02	8.178
TH-228	2.086E+00	2.939E-01	1.202E-01	1.436E-02	17.353
TH-230	1.511E+00	2.478E-01	1.493E-01	1.261E-02	10.122
TH-232	2.295E+00	4.667E-01	2.806E-01	3.399E-02	8.178
NP-237	8.348E-01	4.784E-01	5.868E-01	1.425E-01	1.423
ANH-511	9.426E-02	8.559E-02	6.462E-02	5.583E-03	1.459

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.060E-01		4.590E-01	7.597E-01	7.061E-02	0.140

Sample ID : G248863001 Acquisition date : 24-MAR-2010 18:28:22

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	-3.472E-02		6.275E-02	9.575E-02	8.698E-03	-0.363
NA-24	-4.239E+01		1.423E+02	Half-Life too short		
SC-46	-7.501E-02		5.078E-02	7.098E-02	6.596E-03	-1.057
V-48	3.002E-02		1.076E-01	1.813E-01	1.658E-02	0.166
CR-51	2.740E-01		5.606E-01	9.525E-01	1.011E-01	0.288
MN-54	-1.088E-02		4.928E-02	8.029E-02	7.286E-03	-0.136
CO-56	-2.536E-02		5.067E-02	8.013E-02	7.312E-03	-0.316
CO-57	-4.369E-03		3.604E-02	5.759E-02	5.801E-03	-0.076
CO-58	9.714E-04		5.158E-02	8.577E-02	7.711E-03	0.011
FE-59	5.148E-02		1.446E-01	2.426E-01	2.263E-02	0.212
CO-60	2.732E-02		4.860E-02	8.368E-02	8.044E-03	0.326
ZN-65	-1.378E-01		1.548E-01	1.915E-01	1.637E-02	-0.719
SE-75	5.441E-02		7.128E-02	1.084E-01	1.189E-02	0.502
SR-85	1.530E-01		6.287E-02	1.040E-01	8.989E-03	1.471
Y-88	7.311E-03		4.191E-02	7.106E-02	5.985E-03	0.103
Y-91	2.515E+01		3.144E+01	5.428E+01	4.575E+00	0.463
NB-94	2.304E-02		4.406E-02	7.620E-02	6.433E-03	0.302
NB-95	9.344E-02		6.795E-02	1.097E-01	9.614E-03	0.852
NB-95M	6.273E-01		2.235E-01	3.527E-01	4.249E-02	1.779
ZR-95	6.231E-02		9.072E-02	1.591E-01	1.529E-02	0.392
MO-99	2.997E+01		5.729E+01	9.899E+01	1.560E+01	0.303
TC-99M	-8.827E+16		4.512E+16	Half-Life too short		
RU-103	1.508E-02		5.707E-02	9.450E-02	1.321E-02	0.160
RH-106	-1.747E-01		4.384E-01	6.828E-01	8.956E-02	-0.256
RU-106	-1.747E-01		4.380E-01	6.828E-01	5.738E-02	-0.256
AG-108M	-5.045E-02		4.132E-02	6.211E-02	5.489E-03	-0.812
AG-110M	-1.705E-02		4.287E-02	6.982E-02	5.942E-03	-0.244
SN-113	-5.201E-02		6.262E-02	9.778E-02	8.493E-03	-0.532
CD-115	-5.180E-05		3.794E-05	Half-Life too short		
SN-117M	1.376E-02		1.003E-01	1.625E-01	1.704E-02	0.085
TE-123M	1.288E-02		4.089E-02	6.668E-02	7.026E-03	0.193
SB-124	2.001E-02		7.712E-02	1.346E-01	1.268E-02	0.149
SB-125	4.909E-03		1.227E-01	2.016E-01	1.755E-02	0.024
TE-125M	-2.192E+00		1.494E+01	2.423E+01	2.881E+00	-0.090
I-126	2.810E-01		3.745E-01	6.582E-01	5.428E-02	0.427
SB-126	-3.468E-03		3.089E-01	4.444E-01	3.794E-02	-0.008
SB-127	4.473E+00		4.448E+00	7.888E+00	1.012E+00	0.567
I-131	4.466E-02		2.388E-01	3.984E-01	3.861E-02	0.112
TE-132	3.604E+00		3.177E+00	5.453E+00	9.979E-01	0.661
BA-133	-1.004E-02		6.240E-02	8.823E-02	1.192E-02	-0.114
I-133	-1.845E-01		2.448E-01	Half-Life too short		
CS-134	9.766E-02	+	9.086E-02	1.187E-01	1.064E-02	0.823
CS-135	1.908E-01		2.608E-01	3.939E-01	4.726E-02	0.484
I-135	2.736E+15		2.063E+15	Half-Life too short		
CS-136	-8.141E-02		1.833E-01	2.869E-01	2.655E-02	-0.284
BA-137M	-5.595E-02		4.438E-02	6.717E-02	5.522E-03	-0.833
CS-137	-5.910E-02		4.689E-02	7.096E-02	5.846E-03	-0.833
CE-139	1.639E-03		4.296E-02	6.730E-02	7.184E-03	0.024

Sample ID : G248863001 Acquisition date : 24-MAR-2010 18:28:22

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-140	-1.881E-02		4.489E-01	7.253E-01	2.460E-01	-0.026
LA-140	-3.263E-02		1.504E-01	2.464E-01	2.310E-02	-0.132
CE-141	1.487E-01		1.006E-01	1.695E-01	1.752E-02	0.877
CE-143	1.378E-02		2.286E-03	Half-Life too short		
CE-144	-3.266E-01		2.888E-01	4.284E-01	6.913E-02	-0.762
PM-144	3.336E-02		4.456E-02	7.819E-02	6.580E-03	0.427
PR-144	2.257E+00		3.357E+00	5.863E+00	4.931E-01	0.385
PM-146	3.699E-02		5.761E-02	9.767E-02	1.033E-02	0.379
ND-147	4.819E-02		1.011E+00	1.645E+00	2.460E-01	0.029
PM-149	2.172E-04		3.111E-04	Half-Life too short		
EU-152	3.488E-04		1.520E-01	2.183E-01	2.222E-02	0.002
GD-153	1.249E-01		1.353E-01	2.020E-01	2.229E-02	0.618
EU-154	-7.572E-02		1.746E-01	2.696E-01	3.162E-02	-0.281
EU-155	1.064E-01		1.485E-01	2.480E-01	2.612E-02	0.429
TB-160	-7.187E-02		1.866E-01	2.977E-01	2.755E-02	-0.241
HO-166M	-4.733E-02		7.639E-02	1.216E-01	1.033E-02	-0.389
TA-182	1.367E-01		2.931E-01	4.921E-01	4.224E-02	0.278
IR-192	-4.161E-02		4.861E-02	7.678E-02	7.916E-03	-0.542
HG-203	4.660E-02		5.839E-02	1.004E-01	1.103E-02	0.464
BI-207	-6.803E-02		7.621E-02	1.144E-01	1.010E-02	-0.595
PB-210	3.779E+00		1.346E+01	2.234E+01	2.750E+00	0.169
PB-211	-3.771E-01		1.008E+00	1.594E+00	7.707E-01	-0.237
BI-212	2.245E+00	+	9.503E-01	1.528E+00	1.898E-01	1.470
RN-219	3.034E-01		5.317E-01	9.002E-01	1.330E-01	0.337
RA-223	2.892E-01		1.001E+00	1.470E+00	2.668E-01	0.197
AC-227	6.559E-02		3.323E-01	5.612E-01	7.766E-02	0.117
TH-227	6.559E-02		3.323E-01	5.612E-01	8.536E-02	0.117
TH-229	-5.065E-01		7.219E-01	1.115E+00	1.213E-01	-0.454
PA-231	-3.839E-01		1.963E+00	3.242E+00	5.171E-01	-0.118
TH-231	2.892E-01		1.001E+00	1.470E+00	2.668E-01	0.197
PA-233	4.501E-02		8.311E-02	1.418E-01	1.500E-02	0.318
PA-234	1.905E-01		3.910E-01	6.680E-01	1.273E-01	0.285
PA-234M	5.039E+00		6.227E+00	1.082E+01	1.121E+00	0.466
TH-234	1.347E+00		2.623E+00	4.389E+00	8.703E-01	0.307
U-235	2.954E-01		2.950E-01	4.806E-01	8.553E-02	0.615
U-238	1.347E+00		2.623E+00	4.389E+00	8.703E-01	0.307
NP-239	-6.376E-02		5.542E-01	8.976E-01	9.060E-02	-0.071
AM-241	-2.062E-01		3.267E-01	5.270E-01	6.186E-02	-0.391
CM-247	3.693E-02		4.944E-02	8.460E-02	7.154E-03	0.437
CF-249	3.367E-02		5.521E-02	9.381E-02	7.997E-03	0.359
CF-251	-1.568E-01		1.788E-01	2.748E-01	2.957E-02	-0.571

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248863001           *
* Acquisition date  : 24-MAR-2010 18:28:22 Detector SN#     :               *
* Detector ID       : GAM15                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.39      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  4-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248863001           Analyst initials: MXR1           *
* Batch Number      : 962633               Sample Quantity : 1.2519E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.847E+01	4.321E+00	3.490E-01	2.205E+00
CD-109	2.884E+00	1.508E+00	9.669E-01	7.692E-01
SN-126	2.798E-01	1.462E-01	9.451E-02	7.461E-02
TL-208	6.224E-01	1.160E-01	4.029E-02	5.917E-02
BI-211	4.466E+00	6.665E-01	2.233E-01	3.400E-01
PB-212	2.086E+00	2.880E-01	6.166E-02	1.469E-01
BI-214	1.511E+00	2.551E-01	7.555E-02	1.301E-01
PB-214	1.621E+00	2.573E-01	8.199E-02	1.313E-01
RA-224	6.639E+00	1.932E+00	6.606E-01	9.857E-01
RA-226	1.511E+00	2.551E-01	7.555E-02	1.301E-01
AC-228	2.295E+00	4.574E-01	1.412E-01	2.334E-01
RA-228	2.295E+00	4.574E-01	1.412E-01	2.334E-01
TH-228	2.086E+00	2.880E-01	6.166E-02	1.469E-01
TH-230	1.511E+00	2.428E-01	7.555E-02	1.239E-01
TH-232	2.295E+00	4.574E-01	1.412E-01	2.334E-01
NP-237	8.348E-01	4.689E-01	3.051E-01	2.392E-01
ANH-511	9.426E-02	8.388E-02	3.279E-02	4.280E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.060E-01	4.499E-01	3.859E-01	2.295E-01	NOT IDENT.
NA-22	-3.472E-02	6.149E-02	4.796E-02	3.137E-02	NOT IDENT.
NA-24	-4.239E+07	2.789E+08	0.000E+00	1.423E+08	SHORT HLIF
SC-46	-7.501E-02	4.976E-02	3.574E-02	2.539E-02	FAIL ABUN
V-48	3.002E-02	1.054E-01	9.116E-02	5.379E-02	NOT IDENT.
CR-51	2.740E-01	5.494E-01	4.865E-01	2.803E-01	NOT IDENT.
MN-54	-1.088E-02	4.830E-02	4.046E-02	2.464E-02	NOT IDENT.
CO-56	-2.536E-02	4.966E-02	4.037E-02	2.534E-02	NOT IDENT.
CO-57	-4.369E-03	3.532E-02	2.980E-02	1.802E-02	NOT IDENT.
CO-58	9.714E-04	5.055E-02	4.324E-02	2.579E-02	NOT IDENT.

FE-59	5.148E-02	1.417E-01	1.218E-01	7.229E-02	NOT IDENT.
CO-60	2.732E-02	4.763E-02	4.189E-02	2.430E-02	NOT IDENT.
ZN-65	-1.378E-01	1.517E-01	9.612E-02	7.739E-02	NOT IDENT.
SE-75	5.441E-02	6.986E-02	5.552E-02	3.564E-02	NOT IDENT.
SR-85	1.530E-01	6.161E-02	5.279E-02	3.144E-02	NOT IDENT.
Y-88	7.311E-03	4.108E-02	3.540E-02	2.096E-02	NOT IDENT.
Y-91	2.515E+01	3.081E+01	2.721E+01	1.572E+01	NOT IDENT.
NB-94	2.304E-02	4.318E-02	3.849E-02	2.203E-02	NOT IDENT.
NB-95	9.344E-02	6.659E-02	5.536E-02	3.398E-02	NOT IDENT.
NB-95M	6.273E-01	2.190E-01	1.809E-01	1.117E-01	NOT IDENT.
ZR-95	6.231E-02	8.890E-02	8.026E-02	4.536E-02	NOT IDENT.
MO-99	2.997E+01	5.614E+01	4.997E+01	2.865E+01	NOT IDENT.
TC-99M	-8.827E+22	8.844E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.508E-02	5.593E-02	4.797E-02	2.854E-02	FAIL ABUN
RH-106	-1.747E-01	4.296E-01	3.455E-01	2.192E-01	NOT IDENT.
RU-106	-1.747E-01	4.293E-01	3.455E-01	2.190E-01	NOT IDENT.
AG-108M	-5.045E-02	4.050E-02	3.159E-02	2.066E-02	NOT IDENT.
AG-110M	-1.705E-02	4.201E-02	3.530E-02	2.144E-02	NOT IDENT.
SN-113	-5.201E-02	6.137E-02	4.981E-02	3.131E-02	NOT IDENT.
CD-115	-5.180E+01	7.437E+01	0.000E+00	3.794E+01	SHORT HLIF
SN-117M	1.376E-02	9.830E-02	8.380E-02	5.016E-02	NOT IDENT.
TE-123M	1.288E-02	4.007E-02	3.439E-02	2.045E-02	NOT IDENT.
SB-124	2.001E-02	7.557E-02	6.715E-02	3.856E-02	NOT IDENT.
SB-125	4.909E-03	1.202E-01	1.025E-01	6.135E-02	FAIL ABUN
TE-125M	-2.192E+00	1.464E+01	1.256E+01	7.470E+00	NOT IDENT.
I-126	2.810E-01	3.670E-01	3.327E-01	1.872E-01	NOT IDENT.
SB-126	-3.468E-03	3.027E-01	2.244E-01	1.544E-01	NOT IDENT.
SB-127	4.473E+00	4.359E+00	3.986E+00	2.224E+00	NOT IDENT.
I-131	4.466E-02	2.341E-01	2.031E-01	1.194E-01	NOT IDENT.
TE-132	3.604E+00	3.113E+00	2.798E+00	1.588E+00	NOT IDENT.
BA-133	-1.004E-02	6.115E-02	4.500E-02	3.120E-02	FAIL ABUN
I-133	-1.845E+05	4.799E+05	0.000E+00	2.448E+05	SHORT HLIF
CS-134	9.766E-02	8.905E-02	5.985E-02	4.543E-02	FAIL ABUN
CS-135	1.908E-01	2.556E-01	2.017E-01	1.304E-01	NOT IDENT.
I-135	2.736E+21	4.043E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-8.141E-02	1.796E-01	1.441E-01	9.163E-02	NOT IDENT.
BA-137M	-5.595E-02	4.350E-02	3.396E-02	2.219E-02	NOT IDENT.
CS-137	-5.910E-02	4.595E-02	3.587E-02	2.344E-02	NOT IDENT.
CE-139	1.639E-03	4.210E-02	3.469E-02	2.148E-02	NOT IDENT.
BA-140	-1.881E-02	4.399E-01	3.678E-01	2.245E-01	NOT IDENT.
LA-140	-3.263E-02	1.474E-01	1.230E-01	7.519E-02	FAIL ABUN
CE-141	1.487E-01	9.861E-02	8.751E-02	5.031E-02	NOT IDENT.
CE-143	1.378E+04	4.480E+03	0.000E+00	2.286E+03	SHORT HLIF
CE-144	-3.266E-01	2.830E-01	2.214E-01	1.444E-01	NOT IDENT.
PM-144	3.336E-02	4.367E-02	3.950E-02	2.228E-02	NOT IDENT.
PR-144	2.257E+00	3.290E+00	2.962E+00	1.679E+00	NOT IDENT.
PM-146	3.699E-02	5.646E-02	4.964E-02	2.880E-02	NOT IDENT.
ND-147	4.819E-02	9.903E-01	8.341E-01	5.053E-01	NOT IDENT.
PM-149	2.172E+02	6.097E+02	0.000E+00	3.111E+02	SHORT HLIF
EU-152	3.488E-04	1.490E-01	1.114E-01	7.601E-02	FAIL ABUN
GD-153	1.249E-01	1.326E-01	1.049E-01	6.764E-02	NOT IDENT.
EU-154	-7.572E-02	1.711E-01	1.350E-01	8.730E-02	NOT IDENT.
EU-155	1.064E-01	1.455E-01	1.286E-01	7.424E-02	FAIL ABUN
TB-160	-7.187E-02	1.829E-01	1.499E-01	9.329E-02	FAIL ABUN
HO-166M	-4.733E-02	7.486E-02	6.144E-02	3.819E-02	NOT IDENT.
TA-182	1.367E-01	2.873E-01	2.466E-01	1.466E-01	FAIL ABUN
IR-192	-4.161E-02	4.764E-02	3.922E-02	2.430E-02	FAIL ABUN
HG-203	4.660E-02	5.722E-02	5.139E-02	2.919E-02	NOT IDENT.
BI-207	-6.803E-02	7.468E-02	5.746E-02	3.810E-02	FAIL ABUN
PB-210	3.779E+00	1.319E+01	1.171E+01	6.731E+00	NOT IDENT.
PB-211	-3.771E-01	9.877E-01	8.113E-01	5.039E-01	NOT IDENT.
BI-212	2.245E+00	9.313E-01	7.714E-01	4.752E-01	FAIL ABUN
RN-219	3.034E-01	5.211E-01	4.584E-01	2.658E-01	FAIL ABUN
RA-223	2.892E-01	9.813E-01	7.508E-01	5.007E-01	FAIL ABUN
AC-227	6.559E-02	3.256E-01	2.875E-01	1.661E-01	NOT IDENT.
TH-227	6.559E-02	3.257E-01	2.875E-01	1.662E-01	NOT IDENT.
TH-229	-5.065E-01	7.075E-01	5.736E-01	3.610E-01	FAIL ABUN
PA-231	-3.839E-01	1.923E+00	1.659E+00	9.813E-01	FAIL ABUN
TH-231	2.892E-01	9.813E-01	7.508E-01	5.007E-01	FAIL ABUN
PA-233	4.501E-02	8.145E-02	7.244E-02	4.156E-02	NOT IDENT.
PA-234	1.905E-01	3.832E-01	3.360E-01	1.955E-01	NOT IDENT.
PA-234M	5.039E+00	6.103E+00	5.436E+00	3.114E+00	NOT IDENT.
TH-234	1.347E+00	2.570E+00	2.292E+00	1.311E+00	FAIL ABUN
U-235	2.954E-01	2.891E-01	2.482E-01	1.475E-01	FAIL ABUN
U-238	1.347E+00	2.570E+00	2.292E+00	1.311E+00	FAIL ABUN
NP-239	-6.376E-02	5.431E-01	4.648E-01	2.771E-01	NOT IDENT.
AM-241	-2.062E-01	3.202E-01	2.754E-01	1.634E-01	NOT IDENT.
CM-247	3.693E-02	4.845E-02	4.307E-02	2.472E-02	NOT IDENT.

CF-249	3.367E-02	5.410E-02	4.779E-02	2.760E-02	NOT IDENT.
CF-251	-1.568E-01	1.753E-01	1.415E-01	8.942E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	300.5914
49.72	319.4478
57.36	0.0000
59.54	379.8529
63.29	380.9951
63.29	380.9951
64.28	400.1306
67.75	441.4346
69.67	424.2792
70.83	439.1701
72.81	415.0039
72.87	415.0367
72.87	415.0367
74.82	473.4882
74.82	473.4882
74.82	473.4882
74.97	473.5828
77.11	474.9074
77.11	474.9074
77.11	474.9074
79.69	476.4814
79.80	476.5487
80.12	476.7416
80.19	476.7835
80.57	518.4139
81.00	544.3092
81.07	544.3569
81.07	544.3569
83.79	514.0742
83.79	514.0742
85.43	485.5960
86.48	522.2108
86.55	522.2562
86.79	522.4045
86.94	538.6281
87.57	463.9903
88.03	464.2465
88.47	464.4904
89.96	465.3117
91.11	465.9416
92.59	466.7453
92.59	466.7453
93.35	467.1559
94.67	393.8216
94.87	431.3496
94.87	431.3496
95.86	462.7983
97.43	347.7149
98.44	325.2285
99.53	351.8040
100.11	379.6599
103.18	398.3948
103.37	366.6405
105.31	362.2628
106.12	384.2073
109.28	414.4323
111.00	381.0091
111.76	412.3945
116.30	342.4828
117.23	366.7692
121.12	367.1425
121.78	354.8208
122.06	355.9660
123.07	345.8363
131.20	374.9368
133.52	389.5063
136.00	353.2663

136.47	350.2348
140.51	411.1675
140.51	0.0000
143.76	349.3311
144.24	334.5159
144.24	334.5159
145.44	350.9174
152.43	340.1306
153.25	357.6006
154.21	349.2680
154.21	349.2680
156.02	386.5096
158.56	351.6279
159.00	339.8488
162.66	325.6783
163.33	337.8049
165.86	322.1714
176.60	315.0449
177.52	335.0411
181.07	303.1332
184.41	326.8732
185.72	352.6202
193.51	314.6376
197.04	334.3964
205.31	322.9233
210.85	300.1628
215.65	295.5627
222.11	274.9488
227.38	294.1263
228.16	266.9458
228.18	266.9494
235.69	263.9859
235.96	264.0316
235.96	264.0316
238.63	239.4114
238.63	239.4114
240.99	239.7715
242.00	239.9260
244.70	224.0675
252.40	219.2843
252.80	228.5926
256.23	216.0903
256.23	216.0903
260.90	0.0000
264.66	206.6273
268.22	255.3291
269.46	236.5081
269.46	236.5081
271.23	236.7551
273.65	301.4408
276.40	195.5465
277.37	201.2460
277.60	195.9074
278.00	209.0365
279.20	221.8752
279.54	221.9184
280.46	251.2023
283.69	215.8476
284.31	214.0401
285.41	191.5292
285.90	0.0000
287.50	211.3580
293.27	0.0000
295.22	172.3483
295.96	156.6010
298.57	156.8286
299.98	156.9494
299.98	156.9494
300.09	156.9595
300.09	156.9595
300.13	156.9635
301.36	158.6548
302.85	158.7850
304.50	162.1060
304.50	162.1060
304.85	162.1371
308.46	197.4938
311.90	158.9259

316.51	193.8677
319.41	171.0968
320.08	168.2709
323.87	183.0582
323.87	183.0582
328.76	181.9146
333.37	145.2319
334.37	152.5724
334.37	152.5724
338.28	191.2165
338.28	191.2165
338.32	191.2213
338.32	191.2213
338.32	191.2213
340.48	186.2480
340.55	186.2538
344.28	175.2451
351.06	162.8133
351.93	166.1401
356.01	155.0495
364.49	146.5136
366.42	155.5081
383.85	154.8117
388.16	148.1615
388.63	162.1165
391.69	167.3253
400.66	149.0109
401.81	130.0762
402.40	131.1119
404.85	165.3243
410.95	136.6392
414.70	137.8730
423.72	126.2955
427.09	154.8116
427.87	134.6203
433.94	161.3582
453.88	120.7627
463.37	120.2092
468.07	109.8021
473.00	117.5862
476.78	109.5014
477.60	115.7365
487.02	117.2099
492.35	0.0000
497.08	105.1771
511.00	125.6375
514.00	97.8297
527.90	0.0000
529.87	0.0000
531.02	100.2185
537.26	97.2783
546.56	0.0000
563.25	86.4600
569.33	96.2754
569.50	97.3518
569.70	99.4982
583.19	112.8699
600.60	104.0891
602.73	133.4746
604.72	131.7600
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609.32	106.2951
609.32	106.2951
610.33	115.7370
614.28	105.0259
618.01	105.1580
621.93	106.7473
621.93	106.7473
633.25	80.9086
635.95	91.9222
636.99	87.5762
645.85	86.7322
657.76	89.0864
661.66	106.6685
661.66	106.6685
664.57	0.0000
666.33	85.6454
666.50	85.6511

677.62	82.2551
685.70	79.6837
695.00	85.4882
696.49	83.6682
696.51	85.5275
697.00	97.6279
702.65	91.2769
706.68	96.0533
711.68	93.3960
720.70	102.7500
721.93	0.0000
722.78	106.0254
722.91	106.0300
723.31	110.8640
724.19	106.0714
727.33	85.3921
733.00	93.4591
735.93	87.4921
739.50	72.5165
747.24	51.9150
752.31	84.1328
753.82	79.4404
756.73	61.5247
763.94	66.6665
765.81	78.0904
766.42	82.9853
777.92	79.9924
778.90	70.6623
783.70	53.4160
785.37	74.9563
795.86	68.9136
801.95	83.0926
810.29	72.0734
810.76	69.1992
815.77	65.4447
818.51	62.6051
832.01	72.5021
834.85	85.1336
836.80	0.0000
846.77	69.8789
856.80	71.7346
860.56	48.7050
871.09	62.5156
873.19	61.5721
875.33	0.0000
879.36	68.5246
880.51	64.6277
883.24	49.9749
884.68	48.0330
889.28	75.5713
898.04	68.8550
911.20	60.2045
911.20	60.2045
911.20	60.2045
926.50	59.4458
937.49	73.5182
944.13	63.6875
946.00	57.7428
949.00	66.7533
962.29	54.9754
964.08	55.0000
966.15	55.0269
968.97	55.0649
968.97	55.0649
968.97	55.0649
983.53	50.2350
996.26	73.5659
1001.03	52.4623
1004.73	73.7129
1037.84	69.1953
1038.76	0.0000
1048.07	64.2587
1050.41	63.2740
1050.41	63.2740
1063.66	83.9352
1085.87	47.3214
1099.45	71.1956
1112.07	62.0825

1115.54	92.3058
1120.29	55.9731
1120.29	55.9731
1120.29	55.9731
1120.55	55.9775
1121.30	55.9863
1131.51	0.0000
1173.23	83.8672
1177.93	69.2603
1189.05	68.3695
1204.77	63.3154
1221.41	78.3570
1231.02	101.8516
1235.36	98.7557
1238.28	69.0625
1260.41	0.0000
1271.85	58.8314
1274.44	63.1412
1274.54	66.3543
1291.59	50.4692
1298.22	0.0000
1312.11	40.9688
1332.49	29.2236
1365.19	39.2065
1368.63	0.0000
1384.29	19.6729
1408.01	36.6958
1457.56	0.0000
1460.82	26.5986
1489.16	23.3909
1505.03	16.7542
1596.21	25.2818
1620.50	15.6205
1678.03	0.0000
1690.97	7.8998
1764.49	9.9895
1764.49	9.9895
1764.49	9.9895
1770.23	13.9976
1771.35	15.7500
1791.20	0.0000
1836.06	12.1184

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248863001

Total Uranium Activity	4.1444E+00	ug/g
Total Uranium Counting Unc.	7.6472E+00	ug/g
Total Uranium Tpu	3.9016E-06	ug/g
Total Uranium Mda	6.8188E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248863001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM15            *
*   SAMPLE DATE   :  4-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 18:28:22.14    SAMPLE ALQT:  125.190 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.154E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.750E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 4.932E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.402E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 20:29:46.59

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863002.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 18:28:53
Sample ID         : G248863002           Sample quantity  : 1.23500E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.39  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.36*	178	624	1.17	126.97	123	9	2.47E-02	27.3	
2	3	74.84	528	575	1.08	149.90	145	16	7.34E-02	8.3	7.32E-01
3	3	77.15*	884	528	1.00	154.52	145	16	1.23E-01	5.4	
4	0	83.94*	77	517	0.90	168.09	166	6	1.07E-02	48.6	
5	0	87.14	190	701	0.95	174.49	172	7	2.64E-02	24.2	
6	4	89.91	147	437	0.81	180.03	178	13	2.05E-02	22.5	4.75E-01
7	4	92.87*	346	713	1.56	185.94	178	13	4.80E-02	15.9	
8	0	185.83*	312	646	1.26	371.67	366	13	4.33E-02	18.3	
9	0	209.26	232	434	1.26	418.48	414	11	3.22E-02	18.6	
10	3	238.69*	2024	273	1.25	477.30	470	19	2.81E-01	2.7	1.38E+00
11	3	241.57	452	391	1.89	483.06	470	19	6.28E-02	13.3	
12	0	270.29	187	334	1.54	540.44	536	10	2.59E-02	19.8	
13	0	295.32*	508	298	1.39	590.46	586	10	7.05E-02	7.9	
14	0	299.74	98	282	1.47	599.29	596	9	1.36E-02	32.4	
15	0	327.79	107	237	1.52	655.36	651	9	1.48E-02	27.7	
16	0	338.53*	414	289	1.24	676.80	672	12	5.75E-02	9.8	
17	0	352.03*	897	292	1.43	703.79	698	11	1.25E-01	5.0	
18	0	463.56	125	206	1.80	926.69	921	12	1.74E-02	24.8	
19	0	511.13*	239	296	2.13	1021.77	1011	23	3.32E-02	21.6	
20	0	583.42*	755	198	1.61	1166.26	1157	18	1.05E-01	5.8	
21	0	609.36*	745	178	1.68	1218.11	1212	14	1.03E-01	5.5	
22	0	727.47*	139	123	1.71	1454.19	1448	12	1.93E-02	18.9	
23	0	794.74	114	120	1.56	1588.68	1580	15	1.58E-02	22.9	
24	0	861.27	109	123	1.69	1721.69	1714	15	1.51E-02	24.3	
25	0	911.25*	500	121	2.07	1821.61	1813	19	6.95E-02	7.0	
26	0	969.27*	294	132	2.04	1937.62	1932	13	4.08E-02	10.4	
27	0	1120.89*	164	133	2.04	2240.80	2232	18	2.27E-02	18.8	
28	0	1239.09*	99	144	1.81	2477.18	2469	19	1.37E-02	31.5	
29	0	1461.06*	2645	52	2.67	2921.14	2908	23	3.67E-01	2.1	
30	0	1764.94*	190	10	2.81	3529.08	3519	20	2.63E-02	9.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 20:29:49

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 4-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 18:28:53
Sample ID : G248863002 Sample quantity : 123.50 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.39 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.951E+01	3.973E+00	4.881E-01	4.471E-02	80.943
CD-109	+	88.03	*	2.152E+00	1.060E+00	1.224E+00	1.162E-01	1.758
SN-126	+	64.28		1.295E+00	7.315E-01	7.461E-01	1.084E-01	1.736
	+	86.94		8.679E-01	5.533E-01	5.223E-01	2.169E-01	1.662
	+	87.57	*	2.088E-01	1.029E-01	1.331E-01	1.257E-02	1.568
TL-208		277.37		7.248E-01	4.170E-01	6.853E-01	1.140E-01	1.058
	+	583.19	*	6.870E-01	1.090E-01	5.371E-02	5.819E-03	12.791
	+	860.56		9.032E-01	4.517E-01	4.271E-01	4.976E-02	2.115
BI-211		72.87		3.820E+00	3.429E+00	5.219E+00	4.178E-01	0.732
	+	351.06	*	3.909E+00	6.017E-01	2.985E-01	3.483E-02	13.098
PB-212	+	74.82		2.533E+00	5.298E-01	5.322E-01	6.759E-02	4.759
	+	77.11		2.429E+00	3.338E-01	3.065E-01	2.563E-02	7.925
	+	238.63	*	2.103E+00	3.004E-01	9.539E-02	1.264E-02	22.043
	+	300.09		1.526E+00	1.013E+00	1.180E+00	1.731E-01	1.293
BI-214	+	609.32	*	1.306E+00	2.089E-01	1.040E-01	1.214E-02	12.555
	+	1120.29		1.423E+00	5.589E-01	4.490E-01	4.983E-02	3.169
	+	1764.49		2.195E+00	4.397E-01	2.510E-01	2.091E-02	8.746
PB-214	+	74.82		4.489E+00	9.043E-01	9.433E-01	1.074E-01	4.759
	+	77.11		4.282E+00	6.863E-01	5.404E-01	6.347E-02	7.925
	+	242.00		2.842E+00	8.538E-01	5.793E-01	8.011E-02	4.905
	+	295.22		1.404E+00	3.059E-01	2.234E-01	3.351E-02	6.286
	+	351.93	*	1.419E+00	2.320E-01	1.105E-01	1.422E-02	12.840
RA-224	+	240.99	*	5.025E+00	1.481E+00	1.021E+00	1.279E-01	4.919
RA-226	+	609.32	*	1.306E+00	2.089E-01	1.040E-01	1.214E-02	12.555
	+	1120.29		1.423E+00	5.589E-01	4.490E-01	4.983E-02	3.169
	+	1764.49		2.195E+00	4.397E-01	2.510E-01	2.091E-02	8.746
AC-228	+	338.32		2.020E+00	9.452E-01	3.619E-01	1.539E-01	5.583
	+	911.20	*	2.113E+00	4.131E-01	2.414E-01	3.270E-02	8.755
	+	968.97		2.133E+00	6.959E-01	4.462E-01	1.122E-01	4.781
RA-228	+	338.32		2.020E+00	9.452E-01	3.619E-01	1.539E-01	5.583
	+	911.20	*	2.113E+00	4.131E-01	2.414E-01	3.270E-02	8.755
	+	968.97		2.133E+00	6.959E-01	4.462E-01	1.122E-01	4.781
TH-228	+	74.82		2.533E+00	4.699E-01	5.322E-01	4.389E-02	4.759
	+	77.11		2.429E+00	3.338E-01	3.065E-01	2.563E-02	7.925

Sample ID : G248863002 Acquisition date : 24-MAR-2010 18:28:53

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	2.103E+00	3.004E-01	9.539E-02	1.264E-02	22.043
	+	300.09		1.526E+00	1.368E+00	1.180E+00	7.325E-01	1.293
TH-229	+	85.43		2.218E-01	2.164E-01	3.209E-01	2.952E-02	0.691
	+	88.47		3.219E-01	1.586E-01	1.824E-01	1.723E-02	1.765
		193.51	*	-2.646E-01	5.486E-01	8.884E-01	9.548E-02	-0.298
		210.85		1.624E+00	1.037E+00	1.573E+00	1.790E-01	1.033
TH-230	+	609.32	*	1.306E+00	1.972E-01	1.040E-01	1.083E-02	12.555
	+	1120.29		1.423E+00	5.506E-01	4.490E-01	3.971E-02	3.169
	+	1764.49		2.195E+00	4.397E-01	2.510E-01	2.091E-02	8.746
TH-232	+	338.32		2.020E+00	4.617E-01	3.619E-01	4.304E-02	5.583
	+	911.20	*	2.113E+00	4.131E-01	2.414E-01	3.270E-02	8.755
	+	968.97		2.133E+00	6.959E-01	4.462E-01	1.122E-01	4.781
TH-234	+	63.29	*	3.361E+00	1.930E+00	1.939E+00	3.450E-01	1.733
	+	92.59		3.156E+00	1.223E+00	9.340E-01	2.080E-01	3.379
U-235	+	89.96		1.679E+00	8.624E-01	1.452E+00	3.610E-01	1.157
	+	93.35		2.384E+00	9.380E-01	7.023E-01	1.633E-01	3.395
		143.76	*	1.008E-01	2.117E-01	3.542E-01	6.054E-02	0.285
		163.33		-1.894E-01	4.388E-01	7.201E-01	1.332E-01	-0.263
	+	185.72		2.176E-01	8.292E-02	6.553E-02	6.862E-03	3.321
		205.31		4.633E-01	5.395E-01	7.983E-01	1.556E-01	0.580
NP-237	+	86.48	*	6.230E-01	3.336E-01	3.765E-01	8.639E-02	1.655
		95.86		-5.624E-01	9.888E-01	1.370E+00	3.299E-01	-0.411
U-238	+	63.29	*	3.361E+00	1.930E+00	1.939E+00	3.450E-01	1.733
	+	92.59		3.156E+00	1.042E+00	9.340E-01	8.496E-02	3.379
ANH-511	+	511.00	*	1.690E-01	7.490E-02	4.411E-02	4.420E-03	3.832

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	7.217E-02	3.393E-01	5.543E-01	5.784E-02	0.130
NA-22		1274.54	*	-2.031E-02	4.474E-02	7.181E-02	6.189E-03	-0.283
NA-24		1368.63	*	1.100E+01	4.474E-02	Half-Life too short		
SC-46		889.28	*	-1.705E-02	4.047E-02	6.532E-02	7.312E-03	-0.261
	+	1120.55		2.512E-01	9.720E-02	1.217E-01	1.075E-02	2.065
V-48		944.13		-3.555E-01	1.100E+00	1.777E+00	1.927E-01	-0.200
		983.53	*	1.791E-02	8.762E-02	1.458E-01	1.529E-02	0.123
		1312.11		9.695E-02	9.624E-02	1.697E-01	1.495E-02	0.571
CR-51		320.08	*	3.833E-01	4.153E-01	7.153E-01	9.259E-02	0.536
MN-54		834.85	*	6.333E-03	3.713E-02	6.251E-02	6.944E-03	0.101
CO-56		846.77	*	6.996E-03	3.946E-02	6.643E-02	7.395E-03	0.105
		1037.84		-3.437E-02	3.045E-01	4.936E-01	5.085E-02	-0.070
	+	1238.28		2.493E-01	1.586E-01	1.746E-01	1.513E-02	1.428
		1771.35		1.652E-01	2.331E-01	3.697E-01	3.072E-02	0.447
CO-57		122.06	*	-4.985E-03	2.672E-02	4.205E-02	3.468E-03	-0.119
		136.47		-1.452E-01	2.002E-01	3.299E-01	3.057E-02	-0.440
CO-58		810.76	*	-2.564E-02	3.897E-02	6.248E-02	6.918E-03	-0.410
FE-59		1099.45	*	-1.319E-01	1.036E-01	1.529E-01	1.498E-02	-0.863
		1291.59		1.063E-01	1.289E-01	2.244E-01	2.212E-02	0.474

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-60		1173.23		-1.177E-05	4.392E-02	7.328E-02	5.893E-03	0.000
		1332.49	*	8.337E-03	3.838E-02	6.428E-02	5.732E-03	0.130
ZN-65		1115.54	*	-3.052E-02	1.079E-01	1.448E-01	1.292E-02	-0.211
SE-75		121.12		-4.770E-02	1.409E-01	2.205E-01	2.381E-02	-0.216
		136.00		-2.319E-02	3.893E-02	6.449E-02	5.597E-03	-0.360
		264.66	*	-2.459E-02	5.501E-02	7.497E-02	1.009E-02	-0.328
		279.54		1.060E-01	1.198E-01	1.971E-01	2.798E-02	0.538
		400.66		4.734E-02	2.594E-01	4.293E-01	5.014E-02	0.110
SR-85		514.00	*	1.556E-01	4.576E-02	7.989E-02	8.016E-03	1.948
Y-88		898.04		-2.646E-02	4.287E-02	6.822E-02	7.664E-03	-0.388
		1836.06	*	4.216E-03	3.162E-02	5.282E-02	4.270E-03	0.080
Y-91		1204.77	*	8.707E+00	2.314E+01	3.929E+01	3.230E+00	0.222
NB-94		702.65	*	2.373E-02	3.340E-02	5.646E-02	6.050E-03	0.420
		871.09		2.045E-02	3.358E-02	5.678E-02	6.343E-03	0.360
NB-95		765.81	*	5.597E-02	4.449E-02	7.633E-02	8.347E-03	0.733
NB-95M		235.69	*	2.047E-01	1.559E-01	2.318E-01	3.067E-02	0.883
ZR-95		724.19		1.392E-01	1.131E-01	1.710E-01	1.948E-02	0.814
		756.73	*	2.657E-02	7.527E-02	1.245E-01	1.448E-02	0.213
MO-99		140.51		-3.978E+01	8.104E+01	1.338E+02	3.184E+01	-0.297
		181.07		8.749E+00	7.175E+01	1.050E+02	2.061E+01	0.083
		366.42		-2.383E+02	3.484E+02	5.566E+02	5.904E+01	-0.428
		739.50	*	-2.577E+01	4.520E+01	7.054E+01	1.205E+01	-0.365
		777.92		-1.790E+02	1.339E+02	1.956E+02	2.146E+01	-0.915
TC-99M		140.51	*	-2.852E+16	1.339E+02	Half-Life too short		
RU-103		497.08	*	-2.455E-02	4.190E-02	6.491E-02	9.623E-03	-0.378
	+	610.33		1.476E+01	3.029E+00	2.824E+00	4.902E-01	5.228
RH-106		621.93	*	-2.638E-02	2.983E-01	4.901E-01	7.112E-02	-0.054
		1050.41		9.863E-02	2.530E+00	4.140E+00	4.041E-01	0.024
RU-106		621.93	*	-2.638E-02	2.983E-01	4.901E-01	5.120E-02	-0.054
		1050.41		9.863E-02	2.530E+00	4.140E+00	4.041E-01	0.024
AG-108M		433.94	*	1.530E-02	2.809E-02	4.701E-02	4.626E-03	0.326
		614.28		3.453E-02	3.582E-02	5.460E-02	5.820E-03	0.632
		722.91		1.515E-02	4.146E-02	5.953E-02	6.557E-03	0.254
AG-110M		657.76	*	-1.171E-02	3.350E-02	5.389E-02	5.792E-03	-0.217
		677.62		1.998E-01	3.004E-01	5.096E-01	5.513E-02	0.392
		706.68		6.372E-02	2.158E-01	3.576E-01	3.909E-02	0.178
		763.94		-5.362E-02	1.668E-01	2.650E-01	2.946E-02	-0.202
		884.68		3.358E-03	5.021E-02	8.365E-02	9.539E-03	0.040
		937.49		7.945E-02	1.161E-01	1.986E-01	2.214E-02	0.400
		1384.29		-2.033E-01	1.576E-01	2.273E-01	2.083E-02	-0.894
		1505.03		-3.455E-01	2.897E-01	4.143E-01	3.684E-02	-0.834
SN-113		391.69	*	3.213E-03	4.413E-02	7.284E-02	6.956E-03	0.044
CD-115		260.90		9.758E-05	4.413E-02	Half-Life too short		
		492.35		-1.560E-04	4.413E-02	Half-Life too short		
		527.90	*	2.447E-05	4.413E-02	Half-Life too short		
SN-117M		156.02		3.566E+00	3.009E+00	5.190E+00	4.865E-01	0.687
		158.56	*	-4.788E-02	7.267E-02	1.188E-01	1.127E-02	-0.403
TE-123M		159.00	*	-1.266E-02	2.961E-02	4.881E-02	4.661E-03	-0.259
SB-124		602.73		-1.458E-02	4.174E-02	5.769E-02	5.993E-03	-0.253

Sample ID : G248863002 Acquisition date : 24-MAR-2010 18:28:53

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		645.85		-3.029E-01	4.826E-01	7.625E-01	8.326E-02	-0.397
		722.78		1.504E-01	4.414E-01	6.326E-01	6.927E-02	0.238
		1690.97	*	8.427E-03	7.103E-02	1.194E-01	1.064E-02	0.071
SB-125		427.87	*	-1.267E-02	8.798E-02	1.425E-01	1.382E-02	-0.089
	+	463.37		7.978E-01	4.040E-01	5.214E-01	5.394E-02	1.530
		600.60		2.090E-02	1.618E-01	2.642E-01	2.884E-02	0.079
		635.95		-9.524E-02	2.564E-01	4.131E-01	4.572E-02	-0.231
TE-125M		109.28	*	-1.205E+01	1.119E+01	1.682E+01	1.732E+00	-0.716
I-126		388.63		-3.258E-03	2.163E-01	3.557E-01	3.368E-02	-0.009
		666.33	*	1.095E-01	2.888E-01	4.829E-01	5.103E-02	0.227
		753.82		2.283E+00	2.370E+00	4.038E+00	4.400E-01	0.565
SB-126		414.70		-4.268E-02	9.976E-02	1.598E-01	1.512E-02	-0.267
		666.50		4.439E-02	1.008E-01	1.690E-01	1.786E-02	0.263
		695.00		-1.338E-02	9.651E-02	1.564E-01	1.671E-02	-0.086
		697.00		-1.348E-01	3.411E-01	5.440E-01	5.817E-02	-0.248
		720.70	*	1.011E-01	2.159E-01	3.121E-01	3.366E-02	0.324
		856.80		4.560E-01	6.803E-01	1.023E+00	1.141E-01	0.446
SB-127		252.40		1.071E+01	1.237E+01	1.920E+01	8.274E+00	0.558
		473.00		-4.320E+00	3.904E+00	5.821E+00	8.735E-01	-0.742
		685.70	*	-1.809E-01	3.097E+00	5.049E+00	7.287E-01	-0.036
		783.70		1.242E+01	8.829E+00	1.510E+01	2.335E+00	0.822
I-131		80.19		5.150E+00	8.698E+00	1.040E+01	9.098E-01	0.495
		284.31		-4.532E-01	2.411E+00	3.817E+00	5.405E-01	-0.119
		364.49	*	4.109E-02	1.745E-01	2.918E-01	3.243E-02	0.141
		636.99		-1.571E+00	2.374E+00	3.754E+00	4.104E-01	-0.418
TE-132		49.72		-7.688E-01	4.786E+01	8.033E+01	9.779E+00	-0.010
		111.76		-6.768E+01	1.093E+02	1.702E+02	2.108E+01	-0.398
		116.30		5.097E+01	9.457E+01	1.530E+02	1.889E+01	0.333
		228.16	*	-1.377E-01	2.269E+00	3.684E+00	6.969E-01	-0.037
BA-133		81.00		4.317E-02	1.141E-01	1.343E-01	2.093E-02	0.321
		276.40		2.467E-01	4.058E-01	6.139E-01	1.095E-01	0.402
		302.85		1.266E-01	1.472E-01	2.239E-01	3.695E-02	0.565
		356.01	*	1.861E-03	4.561E-02	6.582E-02	9.691E-03	0.028
		383.85		8.642E-02	2.935E-01	4.896E-01	6.469E-02	0.177
I-133		529.87	*	2.370E-02	2.935E-01	Half-Life too short		
		875.33		-1.832E+00	2.935E-01	Half-Life too short		
		1298.22		-1.779E+01	2.935E-01	Half-Life too short		
CS-134		563.25		5.581E-01	3.657E-01	6.451E-01	6.655E-02	0.865
		569.33		-1.801E-01	2.017E-01	3.128E-01	3.244E-02	-0.576
		604.72		2.810E-03	3.416E-02	4.896E-02	5.097E-03	0.057
	+	795.86	*	1.472E-01	6.949E-02	8.996E-02	9.958E-03	1.637
		801.95		-3.501E-01	4.636E-01	6.117E-01	6.774E-02	-0.572
		1365.19		-1.133E-01	1.149E+00	1.871E+00	1.744E-01	-0.061
CS-135		268.22	*	3.588E-01	1.918E-01	2.860E-01	4.137E-02	1.255
I-135		546.56		-2.211E+15	1.918E-01	Half-Life too short		
		836.80		3.588E+15	1.918E-01	Half-Life too short		
		1038.76		-7.533E+15	1.918E-01	Half-Life too short		
		1131.51		2.383E+15	1.918E-01	Half-Life too short		
		1260.41	*	-2.894E+15	1.918E-01	Half-Life too short		

Sample ID : G248863002 Acquisition date : 24-MAR-2010 18:28:53

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1457.56		6.676E+17	1.918E-01	Half-Life too short		
		1678.03		-2.321E+15	1.918E-01	Half-Life too short		
		1791.20		-1.685E+15	1.918E-01	Half-Life too short		
CS-136		153.25		1.250E-01	1.138E+00	1.914E+00	2.070E-01	0.065
		176.60		-4.901E-02	6.596E-01	1.092E+00	1.194E-01	-0.045
		273.65		-1.426E+00	8.468E-01	1.033E+00	1.473E-01	-1.380
		340.55		1.199E+00	2.710E-01	4.131E-01	4.974E-02	2.902
		818.51		6.076E-02	9.093E-02	1.576E-01	1.747E-02	0.386
		1048.07	*	-6.598E-02	1.391E-01	2.195E-01	2.221E-02	-0.301
		1235.36		1.541E+00	8.689E-01	1.368E+00	1.588E-01	1.126
BA-137M		661.66	*	4.494E-03	3.475E-02	5.746E-02	6.059E-03	0.078
CS-137		661.66	*	4.748E-03	3.671E-02	6.070E-02	6.409E-03	0.078
CE-139		165.86	*	2.473E-02	3.084E-02	5.259E-02	5.158E-03	0.470
BA-140		162.66		-7.559E-02	1.069E+00	1.781E+00	1.814E-01	-0.042
		304.85		-9.293E-02	1.864E+00	2.717E+00	8.404E-01	-0.034
		423.72		-1.615E+00	2.518E+00	3.885E+00	1.287E+00	-0.416
		537.26	*	1.651E-01	3.259E-01	5.513E-01	1.893E-01	0.299
LA-140	+	328.76		8.583E-01	4.874E-01	7.048E-01	8.908E-02	1.218
		487.02		2.172E-01	1.821E-01	3.098E-01	3.212E-02	0.701
		815.77		1.091E-01	4.098E-01	6.956E-01	8.259E-02	0.157
		1596.21	*	-3.023E-01	1.281E-01	1.520E-01	1.332E-02	-1.989
CE-141		145.44	*	1.190E-01	7.278E-02	1.269E-01	1.155E-02	0.938
CE-143		57.36		3.216E-03	7.278E-02	Half-Life too short		
		293.27	*	1.048E-02	7.278E-02	Half-Life too short		
		664.57		6.659E-03	7.278E-02	Half-Life too short		
		721.93		8.876E-03	7.278E-02	Half-Life too short		
CE-144		80.12		1.877E+00	3.054E+00	3.656E+00	3.160E-01	0.513
		133.52	*	-8.846E-02	1.933E-01	3.218E-01	4.905E-02	-0.275
PM-144		476.78		-2.287E-02	6.406E-02	1.014E-01	1.066E-02	-0.225
		618.01		-2.735E-02	3.220E-02	4.776E-02	5.080E-03	-0.573
		696.49	*	-1.684E-03	3.289E-02	5.357E-02	5.730E-03	-0.031
PR-144		696.51	*	-1.208E-01	2.468E+00	4.021E+00	4.299E-01	-0.030
		1489.16		-8.509E+00	1.200E+01	1.800E+01	1.603E+00	-0.473
PM-146		453.88	*	3.411E-02	4.071E-02	6.864E-02	7.892E-03	0.497
		633.25		-4.767E-01	1.344E+00	2.149E+00	8.308E-01	-0.222
		735.93		-7.223E-04	1.470E-01	2.335E-01	6.720E-02	-0.003
		747.24		-7.744E-03	9.490E-02	1.532E-01	2.455E-02	-0.051
ND-147	+	91.11		7.530E-01	3.465E-01	6.927E-01	6.849E-02	1.087
		319.41		7.906E-01	4.573E+00	7.703E+00	9.752E-01	0.103
		531.02	*	-5.984E-02	7.186E-01	1.198E+00	1.900E-01	-0.050
PM-149		285.90	*	2.017E-04	7.186E-01	Half-Life too short		
EU-152		121.78		-2.770E-02	7.591E-02	1.186E-01	1.136E-02	-0.233
		244.70		2.635E-01	3.702E-01	5.417E-01	6.859E-02	0.486
		344.28	*	2.869E-02	1.052E-01	1.463E-01	1.758E-02	0.196
		778.90		-2.971E-01	2.634E-01	3.921E-01	4.303E-02	-0.758
		964.08		8.156E-01	3.407E-01	5.492E-01	5.860E-02	1.485
		1085.87		2.310E-01	3.789E-01	6.404E-01	5.966E-02	0.361
		1112.07		6.105E-02	3.543E-01	4.966E-01	4.450E-02	0.123
		1408.01		5.700E-02	1.801E-01	3.026E-01	2.706E-02	0.188

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153		69.67		7.516E-02	1.835E+00	2.709E+00	2.102E-01	0.028
		97.43	*	-2.205E-02	9.267E-02	1.315E-01	1.156E-02	-0.168
		103.18		-1.364E-01	1.125E-01	1.715E-01	1.466E-02	-0.795
EU-154		123.07		-8.205E-03	5.324E-02	8.385E-02	9.291E-03	-0.098
		723.31		1.815E-02	1.952E-01	2.741E-01	3.153E-02	0.066
		873.19		1.130E-01	2.761E-01	4.693E-01	6.503E-02	0.241
		996.26		-1.576E-01	3.297E-01	5.207E-01	9.576E-02	-0.303
		1004.73		1.265E-01	2.083E-01	3.536E-01	4.565E-02	0.358
		1274.44	*	-5.823E-02	1.264E-01	2.028E-01	2.305E-02	-0.287
EU-155	+	86.55		2.537E-01	1.250E-01	1.800E-01	1.693E-02	1.409
		105.31	*	1.502E-01	1.068E-01	1.784E-01	1.531E-02	0.842
TB-160	+	86.79		7.057E-01	3.477E-01	5.006E-01	4.682E-02	1.410
		197.04		-2.846E-01	6.473E-01	1.029E+00	1.119E-01	-0.277
		215.65		1.055E+00	8.709E-01	1.373E+00	1.587E-01	0.768
	+	298.57		2.257E-01	1.492E-01	2.082E-01	2.790E-02	1.084
		879.36	*	-1.616E-02	1.585E-01	2.497E-01	2.792E-02	-0.065
		962.29		8.663E-01	6.142E-01	9.524E-01	1.018E-01	0.910
		966.15		1.779E+00	3.471E-01	5.541E-01	5.902E-02	3.211
		1177.93		5.616E-02	3.775E-01	6.349E-01	5.123E-02	0.088
		1271.85		-3.450E-01	.7.566E-01	1.214E+00	1.044E-01	-0.284
HO-166M		80.57		1.660E-01	3.274E-01	3.892E-01	3.381E-02	0.427
	+	184.41		1.729E-01	6.588E-02	6.763E-02	7.051E-03	2.556
		280.46		-9.019E-02	9.224E-02	1.401E-01	1.956E-02	-0.644
		410.95		1.584E-01	2.425E-01	4.082E-01	3.853E-02	0.388
		711.68	*	-2.008E-02	5.760E-02	9.189E-02	9.879E-03	-0.219
		752.31		1.575E-01	2.699E-01	4.520E-01	4.923E-02	0.349
		810.29		-3.121E-02	5.552E-02	8.961E-02	9.907E-03	-0.348
TA-182		67.75		-1.413E-01	1.236E-01	1.731E-01	1.320E-02	-0.816
		100.11		1.505E-01	1.733E-01	2.868E-01	2.485E-02	0.525
		152.43		-2.813E-01	3.614E-01	5.901E-01	5.445E-02	-0.477
		222.11		-8.956E-02	3.675E-01	5.936E-01	7.005E-02	-0.151
	+	1121.30		6.879E-01	2.662E-01	3.346E-01	2.955E-02	2.056
		1189.05		8.840E-02	3.203E-01	5.418E-01	4.406E-02	0.163
		1221.41	*	4.749E-02	2.001E-01	3.368E-01	2.801E-02	0.141
		1231.02		-1.868E-01	5.488E-01	7.523E-01	6.296E-02	-0.248
IR-192	+	295.96		1.090E+00	2.268E-01	2.808E-01	3.799E-02	3.881
		308.46		-5.243E-02	9.385E-02	1.533E-01	2.007E-02	-0.342
		316.51	*	-3.572E-04	3.508E-02	5.873E-02	7.506E-03	-0.006
		468.07		4.731E-02	7.273E-02	1.067E-01	1.104E-02	0.444
HG-203		70.83		1.699E+00	1.521E+00	2.301E+00	3.603E-01	0.738
		72.87		1.027E+00	9.312E-01	1.403E+00	2.133E-01	0.732
		279.20	*	5.348E-02	4.494E-02	7.431E-02	1.051E-02	0.720
BI-207		72.81		1.805E-01	1.963E-01	2.973E-01	2.378E-02	0.607
	+	74.97		7.302E-01	1.352E-01	2.191E-01	1.792E-02	3.332
		569.70		-1.330E-02	3.049E-02	4.857E-02	4.989E-03	-0.274
		1063.66	*	-3.761E-02	5.357E-02	8.306E-02	7.974E-03	-0.453
		1770.23		1.341E+00	5.567E-01	1.029E+00	8.551E-02	1.304
PB-210		46.54	*	-5.335E-01	3.003E+00	4.912E+00	4.524E-01	-0.109
PB-211		404.85	*	-4.111E-01	7.544E-01	1.163E+00	5.643E-01	-0.354

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.09		-4.994E-02	1.496E+00	2.438E+00	1.132E+00	-0.020
		832.01		1.672E-01	9.427E-01	1.583E+00	8.282E-01	0.106
BI-212	+	727.33	*	1.900E+00	7.661E-01	1.074E+00	1.510E-01	1.769
		785.37		3.851E+00	3.328E+00	5.342E+00	5.871E-01	0.721
		1620.50		1.837E+00	2.159E+00	3.881E+00	3.383E-01	0.473
RN-219	+	271.23		8.372E-01	3.531E-01	4.569E-01	6.751E-02	1.832
		401.81	*	4.151E-01	3.968E-01	6.743E-01	1.033E-01	0.616
RA-223		81.07		8.951E-02	2.576E-01	3.031E-01	2.649E-02	0.295
	+	83.79		1.320E-01	1.288E-01	1.969E-01	1.776E-02	0.670
		94.87		1.516E+00	4.890E-01	7.697E-01	6.882E-02	1.969
		144.24		8.204E-01	7.112E-01	1.209E+00	1.194E-01	0.679
		154.21		3.391E-01	3.963E-01	6.791E-01	6.837E-02	0.499
	+	269.46		6.505E-01	2.722E-01	3.544E-01	4.866E-02	1.835
		323.87	*	3.178E-01	7.108E-01	1.056E+00	2.064E-01	0.301
	+	338.28		8.018E+00	1.954E+00	2.318E+00	3.382E-01	3.459
AC-227		79.69		1.163E+00	1.322E+00	1.819E+00	3.134E-01	0.639
		235.96		6.774E-01	2.113E-01	3.107E-01	4.221E-02	2.180
		256.23	*	-6.635E-02	2.711E-01	4.323E-01	6.735E-02	-0.153
	+	299.98		1.678E+00	1.121E+00	1.554E+00	2.533E-01	1.080
		304.50		6.805E-02	1.713E+00	2.512E+00	4.852E-01	0.027
		334.37		-9.016E-01	1.985E+00	2.621E+00	4.645E-01	-0.344
TH-227		79.80		1.484E+00	1.751E+00	2.392E+00	5.210E-01	0.620
		235.96		6.774E-01	2.100E-01	3.107E-01	4.084E-02	2.180
		256.23	*	-6.635E-02	2.711E-01	4.323E-01	7.267E-02	-0.153
	+	299.98		1.678E+00	1.121E+00	1.554E+00	2.533E-01	1.080
		304.50		6.805E-02	1.713E+00	2.512E+00	4.852E-01	0.027
		334.37		-9.016E-01	1.985E+00	2.621E+00	4.645E-01	-0.344
PA-231		283.69	*	-1.351E+00	1.540E+00	2.334E+00	4.245E-01	-0.579
		301.36		1.377E+00	6.536E-01	1.006E+00	1.592E-01	1.368
TH-231		81.07		8.951E-02	2.576E-01	3.031E-01	2.649E-02	0.295
	+	83.79		1.320E-01	1.288E-01	1.969E-01	1.776E-02	0.670
		94.87		1.516E+00	4.890E-01	7.697E-01	6.882E-02	1.969
		144.24		8.204E-01	7.112E-01	1.209E+00	1.194E-01	0.679
		154.21		3.391E-01	3.963E-01	6.791E-01	6.837E-02	0.499
	+	269.46		6.505E-01	2.722E-01	3.544E-01	4.866E-02	1.835
		323.87	*	3.178E-01	7.108E-01	1.056E+00	2.064E-01	0.301
	+	338.28		8.018E+00	1.954E+00	2.318E+00	3.382E-01	3.459
PA-233	+	300.13		7.595E-01	5.104E-01	7.061E-01	1.271E-01	1.076
		311.90	*	5.089E-03	6.040E-02	1.016E-01	1.331E-02	0.050
		340.48		4.125E+00	1.290E+00	1.366E+00	3.467E-01	3.020
PA-234		94.67		6.826E-01	1.944E-01	2.915E-01	3.683E-02	2.342
		98.44		6.536E-02	9.472E-02	1.445E-01	8.066E-02	0.452
		111.00		-1.233E-01	1.998E-01	3.065E-01	3.645E-02	-0.402
		131.20		5.805E-03	1.039E-01	1.765E-01	1.495E-02	0.033
		569.50		-9.117E-02	2.686E-01	4.300E-01	4.416E-02	-0.212
		733.00		1.916E-01	4.200E-01	6.046E-01	1.399E-01	0.317
		880.51		5.907E-02	3.010E-01	4.821E-01	5.391E-02	0.123
		883.24		2.160E-01	3.218E-01	4.968E-01	3.358E-01	0.435
		926.50		-1.371E-01	1.795E-01	2.765E-01	7.238E-02	-0.496

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	2.990E-02	2.957E-01	4.906E-01	9.751E-02	0.061
		949.00		1.331E-01	4.284E-01	7.196E-01	7.775E-02	0.185
PA-234M		766.42		1.511E+01	1.361E+01	1.946E+01	9.960E+00	0.776
		1001.03	*	-8.431E-01	4.667E+00	7.439E+00	8.525E-01	-0.113
NP-239		99.53		2.555E-01	1.568E-01	2.645E-01	2.299E-02	0.966
		103.37		-6.846E-02	9.960E-02	1.555E-01	1.328E-02	-0.440
		106.12		1.501E-02	8.705E-02	1.403E-01	1.186E-02	0.107
		117.23	*	3.015E-01	4.243E-01	6.906E-01	5.707E-02	0.437
		228.18		-1.145E-02	2.202E-01	3.577E-01	4.303E-02	-0.032
		277.60		3.732E-01	1.899E-01	3.161E-01	4.406E-02	1.181
AM-241		59.54	*	2.093E-01	1.496E-01	2.352E-01	1.838E-02	0.890
CM-247		278.00		1.390E+00	7.969E-01	1.326E+00	1.851E-01	1.048
		287.50		-1.711E-01	1.287E+00	2.042E+00	2.809E-01	-0.084
		402.40	*	3.298E-02	3.648E-02	6.213E-02	5.828E-03	0.531
CF-249		252.80		1.162E+00	1.023E+00	1.706E+00	2.213E-01	0.681
		333.37		1.368E-01	2.356E-01	2.835E-01	3.431E-02	0.483
		388.16	*	9.247E-03	3.953E-02	6.574E-02	6.241E-03	0.141
CF-251		177.52	*	2.874E-02	1.301E-01	2.174E-01	2.215E-02	0.132
		227.38		-1.153E-01	3.636E-01	5.843E-01	7.012E-02	-0.197
		285.41		3.999E-01	2.243E+00	3.609E+00	4.987E-01	0.111

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863002       *
* Acquisition date : 24-MAR-2010 18:28:53 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.39     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  4-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248863002           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.2350E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.951E+01	3.894E+00	4.874E-01	0.000E+00
CD-109	2.152E+00	1.039E+00	1.269E+00	0.000E+00
SN-126	2.088E-01	1.008E-01	1.380E-01	0.000E+00
TL-208	6.870E-01	1.068E-01	5.431E-02	0.000E+00
BI-211	3.909E+00	5.897E-01	3.038E-01	0.000E+00
PB-212	2.103E+00	2.944E-01	9.760E-02	0.000E+00
BI-214	1.306E+00	2.047E-01	1.051E-01	0.000E+00
PB-214	1.419E+00	2.273E-01	1.125E-01	0.000E+00
RA-224	5.025E+00	1.452E+00	1.045E+00	0.000E+00
RA-226	1.306E+00	2.047E-01	1.051E-01	0.000E+00
AC-228	2.113E+00	4.048E-01	2.426E-01	0.000E+00
RA-228	2.113E+00	4.048E-01	2.426E-01	0.000E+00
TH-228	2.103E+00	2.944E-01	9.760E-02	0.000E+00
TH-229	-2.646E-01	5.376E-01	9.115E-01	0.000E+00
TH-230	1.306E+00	1.933E-01	1.051E-01	0.000E+00
TH-232	2.113E+00	4.048E-01	2.426E-01	0.000E+00
TH-234	3.361E+00	1.891E+00	2.018E+00	0.000E+00
U-235	1.008E-01	2.075E-01	3.648E-01	0.000E+00
NP-237	6.230E-01	3.269E-01	3.903E-01	0.000E+00
U-238	3.361E+00	1.891E+00	2.018E+00	0.000E+00
ANH-511	1.690E-01	7.340E-02	4.468E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	7.217E-02		3.325E-01	5.620E-01	0.000E+00	NOT IDENT.
NA-22	-2.031E-02		4.384E-02	7.185E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		2.088E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-1.705E-02		3.966E-02	6.567E-02	0.000E+00	FAIL ABUN
V-48	1.791E-02		8.586E-02	1.464E-01	0.000E+00	NOT IDENT.
CR-51	3.833E-01		4.070E-01	7.291E-01	0.000E+00	NOT IDENT.

MN-54	6.333E-03	3.638E-02	6.290E-02	0.000E+00	NOT IDENT.
CO-56	6.996E-03	3.867E-02	6.683E-02	0.000E+00	FAIL ABUN
CO-57	-4.985E-03	2.618E-02	4.340E-02	0.000E+00	NOT IDENT.
CO-58	-2.564E-02	3.819E-02	6.290E-02	0.000E+00	NOT IDENT.
FE-59	-1.319E-01	1.016E-01	1.533E-01	0.000E+00	NOT IDENT.
CO-60	8.337E-03	3.761E-02	6.427E-02	0.000E+00	NOT IDENT.
ZN-65	-3.052E-02	1.058E-01	1.451E-01	0.000E+00	NOT IDENT.
SE-75	-2.459E-02	5.391E-02	7.660E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.484E-02	8.092E-02	0.000E+00	NOT IDENT.
Y-88	4.216E-03	3.099E-02	5.258E-02	0.000E+00	NOT IDENT.
Y-91	8.707E+00	2.268E+01	3.934E+01	0.000E+00	NOT IDENT.
NB-94	2.373E-02	3.274E-02	5.694E-02	0.000E+00	NOT IDENT.
NB-95	5.597E-02	4.360E-02	7.690E-02	0.000E+00	NOT IDENT.
NB-95M	2.047E-01	1.528E-01	2.372E-01	0.000E+00	NOT IDENT.
ZR-95	2.657E-02	7.377E-02	1.254E-01	0.000E+00	NOT IDENT.
MO-99	-2.577E+01	4.430E+01	7.110E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.756E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.455E-02	4.106E-02	6.577E-02	0.000E+00	FAIL ABUN
RH-106	-2.638E-02	2.924E-01	4.952E-01	0.000E+00	NOT IDENT.
RU-106	-2.638E-02	2.924E-01	4.952E-01	0.000E+00	NOT IDENT.
AG-108M	1.530E-02	2.753E-02	4.772E-02	0.000E+00	NOT IDENT.
AG-110M	-1.171E-02	3.283E-02	5.440E-02	0.000E+00	NOT IDENT.
SN-113	3.213E-03	4.325E-02	7.405E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	5.022E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-4.788E-02	7.121E-02	1.222E-01	0.000E+00	NOT IDENT.
TE-123M	-1.266E-02	2.901E-02	5.020E-02	0.000E+00	NOT IDENT.
SB-124	8.427E-03	6.961E-02	1.190E-01	0.000E+00	NOT IDENT.
SB-125	-1.267E-02	8.622E-02	1.447E-01	0.000E+00	FAIL ABUN
TE-125M	-1.205E+01	1.096E+01	1.739E+01	0.000E+00	NOT IDENT.
I-126	1.095E-01	2.830E-01	4.874E-01	0.000E+00	NOT IDENT.
SB-126	1.011E-01	2.116E-01	3.147E-01	0.000E+00	NOT IDENT.
SB-127	-1.809E-01	3.035E+00	5.094E+00	0.000E+00	NOT IDENT.
I-131	4.109E-02	1.710E-01	2.969E-01	0.000E+00	NOT IDENT.
TE-132	-1.377E-01	2.224E+00	3.772E+00	0.000E+00	NOT IDENT.
BA-133	1.861E-03	4.470E-02	6.699E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.287E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.810E-02	9.059E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.880E-01	2.922E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.166E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.598E-02	1.363E-01	2.202E-01	0.000E+00	NOT IDENT.
BA-137M	4.494E-03	3.406E-02	5.800E-02	0.000E+00	NOT IDENT.
CS-137	4.748E-03	3.598E-02	6.127E-02	0.000E+00	NOT IDENT.
CE-139	2.473E-02	3.022E-02	5.406E-02	0.000E+00	NOT IDENT.
BA-140	1.651E-01	3.194E-01	5.581E-01	0.000E+00	NOT IDENT.
LA-140	-3.023E-01	1.256E-01	1.516E-01	0.000E+00	FAIL ABUN
CE-141	1.190E-01	7.133E-02	1.307E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.433E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-8.846E-02	1.895E-01	3.318E-01	0.000E+00	NOT IDENT.
PM-144	-1.684E-03	3.223E-02	5.404E-02	0.000E+00	NOT IDENT.
PR-144	-1.208E-01	2.419E+00	4.056E+00	0.000E+00	NOT IDENT.
PM-146	3.411E-02	3.990E-02	6.964E-02	0.000E+00	NOT IDENT.
ND-147	-5.984E-02	7.042E-01	1.213E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	4.648E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	2.869E-02	1.031E-01	1.490E-01	0.000E+00	NOT IDENT.
GD-153	-2.205E-02	9.082E-02	1.361E-01	0.000E+00	NOT IDENT.
EU-154	-5.823E-02	1.239E-01	2.029E-01	0.000E+00	NOT IDENT.
EU-155	1.502E-01	1.047E-01	1.845E-01	0.000E+00	FAIL ABUN
TB-160	-1.616E-02	1.554E-01	2.511E-01	0.000E+00	FAIL ABUN
HO-166M	-2.008E-02	5.645E-02	9.267E-02	0.000E+00	FAIL ABUN
TA-182	4.749E-02	1.961E-01	3.372E-01	0.000E+00	FAIL ABUN
IR-192	-3.572E-04	3.438E-02	5.987E-02	0.000E+00	FAIL ABUN
HG-203	5.348E-02	4.405E-02	7.588E-02	0.000E+00	NOT IDENT.
BI-207	-3.761E-02	5.250E-02	8.331E-02	0.000E+00	FAIL ABUN
PB-210	-5.335E-01	2.943E+00	5.132E+00	0.000E+00	NOT IDENT.
PB-211	-4.111E-01	7.393E-01	1.181E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.507E-01	1.083E+00	0.000E+00	FAIL ABUN
RN-219	4.151E-01	3.889E-01	6.852E-01	0.000E+00	FAIL ABUN
RA-223	3.178E-01	6.966E-01	1.076E+00	0.000E+00	FAIL ABUN
AC-227	-6.635E-02	2.657E-01	4.419E-01	0.000E+00	FAIL ABUN
TH-227	-6.635E-02	2.657E-01	4.419E-01	0.000E+00	FAIL ABUN
PA-231	-1.351E+00	1.509E+00	2.383E+00	0.000E+00	NOT IDENT.
TH-231	3.178E-01	6.966E-01	1.076E+00	0.000E+00	FAIL ABUN
PA-233	5.089E-03	5.919E-02	1.036E-01	0.000E+00	FAIL ABUN
PA-234	2.990E-02	2.898E-01	4.928E-01	0.000E+00	NOT IDENT.
PA-234M	-8.431E-01	4.574E+00	7.467E+00	0.000E+00	NOT IDENT.
NP-239	3.015E-01	4.158E-01	7.132E-01	0.000E+00	NOT IDENT.
AM-241	2.093E-01	1.466E-01	2.450E-01	0.000E+00	NOT IDENT.
CM-247	3.298E-02	3.575E-02	6.314E-02	0.000E+00	NOT IDENT.

CF-249	9.247E-03	3.874E-02	6.683E-02	0.000E+00 NOT IDENT.
CF-251	2.874E-02	1.275E-01	2.233E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 20:29:47.58

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863002.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 18:28:53
Sample ID         : G248863002           Sample quantity  : 1.23500E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.39  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	2645	10.66*	1.909E+00	3.951E+01	3.951E+01	10.06
CD-109	88.03	190	3.70*	7.474E+00	2.088E+00	2.152E+00	49.27
SN-126	64.28	178	9.60	4.347E+00	1.295E+00	1.295E+00	56.48
	86.94	190	8.90	7.474E+00	8.679E-01	8.679E-01	63.75
	87.57	190	37.00*	7.474E+00	2.088E-01	2.088E-01	49.27
TL-208	277.37	------	6.60	6.182E+00	------ Line Not Found		------
	583.19	755	85.00*	3.929E+00	6.870E-01	6.870E-01	15.86
	860.56	109	12.50	2.921E+00	9.032E-01	9.032E-01	50.01
BI-211	72.87	------	1.23	5.897E+00	------ Line Not Found		------
	351.06	897	12.92*	5.400E+00	3.909E+00	3.909E+00	15.39
PB-212	74.82	528	10.28	6.169E+00	2.533E+00	2.533E+00	20.92
	77.11	884	17.10	6.466E+00	2.429E+00	2.429E+00	13.74
	238.63	2024	43.60*	6.709E+00	2.103E+00	2.103E+00	14.28
	300.09	98	3.30	5.920E+00	1.526E+00	1.526E+00	66.38
BI-214	609.32	745	45.49*	3.811E+00	1.306E+00	1.306E+00	15.99
	1120.29	164	14.92	2.345E+00	1.423E+00	1.423E+00	39.28
	1764.49	190	15.30	1.716E+00	2.195E+00	2.195E+00	20.03
PB-214	74.82	528	5.80	6.169E+00	4.489E+00	4.489E+00	20.14
	77.11	884	9.70	6.466E+00	4.282E+00	4.282E+00	16.03
	242.00	452	7.25	6.666E+00	2.842E+00	2.842E+00	30.05
	295.22	508	18.42	5.969E+00	1.404E+00	1.404E+00	21.78
	351.93	897	35.60*	5.400E+00	1.419E+00	1.419E+00	16.35
RA-224	240.99	452	4.10*	6.666E+00	5.025E+00	5.025E+00	29.48
RA-226	609.32	745	45.49*	3.811E+00	1.306E+00	1.306E+00	15.99
	1120.29	164	14.92	2.345E+00	1.423E+00	1.423E+00	39.28
	1764.49	190	15.30	1.716E+00	2.195E+00	2.195E+00	20.03
AC-228	338.32	414	11.27	5.524E+00	2.020E+00	2.020E+00	46.78
	911.20	500	25.80*	2.788E+00	2.113E+00	2.113E+00	19.55
	968.97	294	15.80	2.648E+00	2.133E+00	2.133E+00	32.62
RA-228	338.32	414	11.27	5.524E+00	2.020E+00	2.020E+00	46.78
	911.20	500	25.80*	2.788E+00	2.113E+00	2.113E+00	19.55
	968.97	294	15.80	2.648E+00	2.133E+00	2.133E+00	32.62

Sample ID : G248863002 Acquisition date : 24-MAR-2010 18:28:53

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	528	10.28	6.169E+00	2.533E+00	2.533E+00	18.55
	77.11	884	17.10	6.466E+00	2.429E+00	2.429E+00	13.74
	238.63	2024	43.60*	6.709E+00	2.103E+00	2.103E+00	14.28
	300.09	98	3.30	5.920E+00	1.526E+00	1.526E+00	89.68
TH-229	85.43	77	14.70	7.198E+00	2.218E-01	2.218E-01	97.58
	88.47	190	24.00	7.474E+00	3.219E-01	3.219E-01	49.27
	193.51	------	4.41*	7.465E+00	------ Line Not Found		------
	210.85	------	2.80	7.157E+00	------ Line Not Found		------
TH-230	609.32	745	45.49*	3.811E+00	1.306E+00	1.306E+00	15.10
	1120.29	164	14.92	2.345E+00	1.423E+00	1.423E+00	38.70
	1764.49	190	15.30	1.716E+00	2.195E+00	2.195E+00	20.03
TH-232	338.32	414	11.27	5.524E+00	2.020E+00	2.020E+00	22.85
	911.20	500	25.80*	2.788E+00	2.113E+00	2.113E+00	19.55
	968.97	294	15.80	2.648E+00	2.133E+00	2.133E+00	32.62
TH-234	63.29	178	3.70*	4.347E+00	3.361E+00	3.361E+00	57.42
	92.59	346	4.23	7.870E+00	3.156E+00	3.156E+00	38.76
U-235	89.96	147	3.47	7.680E+00	1.679E+00	1.679E+00	51.35
	93.35	346	5.60	7.870E+00	2.384E+00	2.384E+00	39.34
	143.76	------	10.96*	8.364E+00	------ Line Not Found		------
	163.33	------	5.08	8.031E+00	------ Line Not Found		------
	185.72	312	57.20	7.608E+00	2.176E-01	2.176E-01	38.11
	205.31	------	5.01	7.253E+00	------ Line Not Found		------
NP-237	86.48	190	12.40*	7.474E+00	6.230E-01	6.230E-01	53.55
	95.86	------	2.68	8.032E+00	------ Line Not Found		------
U-238	63.29	178	3.70*	4.347E+00	3.361E+00	3.361E+00	57.42
	92.59	346	4.23	7.870E+00	3.156E+00	3.156E+00	33.00
ANH-511	511.00	239	100.00*	4.297E+00	1.690E-01	1.690E-01	44.31

Flag: "*" = Keyline

Sample ID : G248863002 Acquisition date : 24-MAR-2010 18:28:53

Total number of lines in spectrum 30
Number of unidentified lines 1
Number of lines tentatively identified by NID 29 96.67%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.951E+01	3.951E+01	0.397E+01	10.06	
CD-109	461.40D	1.03	2.088E+00	2.152E+00	1.060E+00	49.27	
SN-126	2.30E+05Y	1.00	2.088E-01	2.088E-01	1.029E-01	49.27	
TL-208	1.41E+10Y	1.00	6.870E-01	6.870E-01	1.090E-01	15.86	
BI-211	7.04E+08Y	1.00	3.909E+00	3.909E+00	0.602E+00	15.39	
PB-212	1.41E+10Y	1.00	2.103E+00	2.103E+00	0.300E+00	14.28	
BI-214	1600.00Y	1.00	1.306E+00	1.306E+00	0.209E+00	15.99	
PB-214	1600.00Y	1.00	1.419E+00	1.419E+00	0.232E+00	16.35	
RA-224	1.41E+10Y	1.00	5.025E+00	5.025E+00	1.481E+00	29.48	
RA-226	1600.00Y	1.00	1.306E+00	1.306E+00	0.209E+00	15.99	
AC-228	1.41E+10Y	1.00	2.113E+00	2.113E+00	0.413E+00	19.55	
RA-228	1.41E+10Y	1.00	2.113E+00	2.113E+00	0.413E+00	19.55	
TH-228	1.41E+10Y	1.00	2.103E+00	2.103E+00	0.300E+00	14.28	
TH-229	7340.00Y	1.00	3.219E-01	3.219E-01	1.586E-01	49.27	K
TH-230	7.54E+04Y	1.00	1.306E+00	1.306E+00	0.197E+00	15.10	
TH-232	1.41E+10Y	1.00	2.113E+00	2.113E+00	0.413E+00	19.55	
TH-234	4.47E+09Y	1.00	3.361E+00	3.361E+00	1.930E+00	57.42	
U-235	7.04E+08Y	1.00	2.176E-01	2.176E-01	0.829E-01	38.11	K
NP-237	2.14E+06Y	1.00	6.230E-01	6.230E-01	3.336E-01	53.55	
U-238	4.47E+09Y	1.00	3.361E+00	3.361E+00	1.930E+00	57.42	
ANH-511	1.00E+09Y	1.00	1.690E-01	1.690E-01	0.749E-01	44.31	
	Total Activity :		7.536E+01	7.542E+01			

Grand Total Activity : 7.536E+01 7.542E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248863002 Acquisition date : 24-MAR-2010 18:28:53

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.26	232	434	1.26	418.48	414	11	3.22E-02	37.1	7.18E+00	
0	270.29	187	334	1.54	540.44	536	10	2.59E-02	39.5	6.27E+00	T
0	327.79	107	237	1.52	655.36	651	9	1.48E-02	55.4	5.63E+00	T
0	463.56	125	206	1.80	926.69	921	12	1.74E-02	49.6	4.58E+00	T
0	727.47	139	123	1.71	1454.19	1448	12	1.93E-02	37.8	3.34E+00	T
0	794.74	114	120	1.56	1588.68	1580	15	1.58E-02	45.9	3.12E+00	T
0	1239.09	99	144	1.81	2477.18	2469	19	1.37E-02	63.0	2.16E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 20:29:53.91

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863002.CNF;1  *
* Acquisition date : 24-MAR-2010 18:28:53  Detector SN#     :               *
* Detector ID      : GAM22                 Sensitivity      : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:02.39         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 4-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248863002            Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.23500E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.951E+01	3.973E+00	4.881E-01	4.471E-02	80.943
CD-109	2.152E+00	1.060E+00	1.224E+00	1.162E-01	1.758
SN-126	2.088E-01	1.029E-01	1.331E-01	1.257E-02	1.568
TL-208	6.870E-01	1.090E-01	5.371E-02	5.819E-03	12.791
BI-211	3.909E+00	6.017E-01	2.985E-01	3.483E-02	13.098
PB-212	2.103E+00	3.004E-01	9.539E-02	1.264E-02	22.043
BI-214	1.306E+00	2.089E-01	1.040E-01	1.214E-02	12.555
PB-214	1.419E+00	2.320E-01	1.105E-01	1.422E-02	12.840
RA-224	5.025E+00	1.481E+00	1.021E+00	1.279E-01	4.919
RA-226	1.306E+00	2.089E-01	1.040E-01	1.214E-02	12.555
AC-228	2.113E+00	4.131E-01	2.414E-01	3.270E-02	8.755
RA-228	2.113E+00	4.131E-01	2.414E-01	3.270E-02	8.755
TH-228	2.103E+00	3.004E-01	9.539E-02	1.264E-02	22.043
TH-229	3.219E-01	1.586E-01	8.884E-01	9.548E-02	0.362
TH-230	1.306E+00	1.972E-01	1.040E-01	1.083E-02	12.555
TH-232	2.113E+00	4.131E-01	2.414E-01	3.270E-02	8.755
TH-234	3.361E+00	1.930E+00	1.939E+00	3.450E-01	1.733
U-235	2.176E-01	8.292E-02	3.542E-01	6.054E-02	0.614

Sample ID : G248863002 Acquisition date : 24-MAR-2010 18:28:53

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	6.230E-01	3.336E-01	3.765E-01	8.639E-02	1.655
U-238	3.361E+00	1.930E+00	1.939E+00	3.450E-01	1.733
ANH-511	1.690E-01	7.490E-02	4.411E-02	4.420E-03	3.832

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	7.217E-02		3.393E-01	5.543E-01	5.784E-02	0.130
NA-22	-2.031E-02		4.474E-02	7.181E-02	6.189E-03	-0.283
NA-24	1.100E+01		1.066E+02	Half-Life too short		
SC-46	-1.705E-02		4.047E-02	6.532E-02	7.312E-03	-0.261
V-48	1.791E-02		8.762E-02	1.458E-01	1.529E-02	0.123
CR-51	3.833E-01		4.153E-01	7.153E-01	9.259E-02	0.536
MN-54	6.333E-03		3.713E-02	6.251E-02	6.944E-03	0.101
CO-56	6.996E-03		3.946E-02	6.643E-02	7.395E-03	0.105
CO-57	-4.985E-03		2.672E-02	4.205E-02	3.468E-03	-0.119
CO-58	-2.564E-02		3.897E-02	6.248E-02	6.918E-03	-0.410
FE-59	-1.319E-01		1.036E-01	1.529E-01	1.498E-02	-0.863
CO-60	8.337E-03		3.838E-02	6.428E-02	5.732E-03	0.130
ZN-65	-3.052E-02		1.079E-01	1.448E-01	1.292E-02	-0.211
SE-75	-2.459E-02		5.501E-02	7.497E-02	1.009E-02	-0.328
SR-85	1.556E-01		4.576E-02	7.989E-02	8.016E-03	1.948
Y-88	4.216E-03		3.162E-02	5.282E-02	4.270E-03	0.080
Y-91	8.707E+00		2.314E+01	3.929E+01	3.230E+00	0.222
NB-94	2.373E-02		3.340E-02	5.646E-02	6.050E-03	0.420
NB-95	5.597E-02		4.449E-02	7.633E-02	8.347E-03	0.733
NB-95M	2.047E-01		1.559E-01	2.318E-01	3.067E-02	0.883
ZR-95	2.657E-02		7.527E-02	1.245E-01	1.448E-02	0.213
MO-99	-2.577E+01		4.520E+01	7.054E+01	1.205E+01	-0.365
TC-99M	-2.852E+16		2.937E+16	Half-Life too short		
RU-103	-2.455E-02		4.190E-02	6.491E-02	9.623E-03	-0.378
RH-106	-2.638E-02		2.983E-01	4.901E-01	7.112E-02	-0.054
RU-106	-2.638E-02		2.983E-01	4.901E-01	5.120E-02	-0.054
AG-108M	1.530E-02		2.809E-02	4.701E-02	4.626E-03	0.326
AG-110M	-1.171E-02		3.350E-02	5.389E-02	5.792E-03	-0.217
SN-113	3.213E-03		4.413E-02	7.284E-02	6.956E-03	0.044
CD-115	2.447E-05		2.562E-05	Half-Life too short		
SN-117M	-4.788E-02		7.267E-02	1.188E-01	1.127E-02	-0.403
TE-123M	-1.266E-02		2.961E-02	4.881E-02	4.661E-03	-0.259
SB-124	8.427E-03		7.103E-02	1.194E-01	1.064E-02	0.071
SB-125	-1.267E-02		8.798E-02	1.425E-01	1.382E-02	-0.089
TE-125M	-1.205E+01		1.119E+01	1.682E+01	1.732E+00	-0.716
I-126	1.095E-01		2.888E-01	4.829E-01	5.103E-02	0.227
SB-126	1.011E-01		2.159E-01	3.121E-01	3.366E-02	0.324
SB-127	-1.809E-01		3.097E+00	5.049E+00	7.287E-01	-0.036
I-131	4.109E-02		1.745E-01	2.918E-01	3.243E-02	0.141
TE-132	-1.377E-01		2.269E+00	3.684E+00	6.969E-01	-0.037

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-133	1.861E-03		4.561E-02	6.582E-02	9.691E-03	0.028
I-133	2.370E-02		1.677E-01	Half-Life too short		
CS-134	1.472E-01	+	6.949E-02	8.996E-02	9.958E-03	1.637
CS-135	3.588E-01		1.918E-01	2.860E-01	4.137E-02	1.255
I-135	-2.894E+15		1.615E+15	Half-Life too short		
CS-136	-6.598E-02		1.391E-01	2.195E-01	2.221E-02	-0.301
BA-137M	4.494E-03		3.475E-02	5.746E-02	6.059E-03	0.078
CS-137	4.748E-03		3.671E-02	6.070E-02	6.409E-03	0.078
CE-139	2.473E-02		3.084E-02	5.259E-02	5.158E-03	0.470
BA-140	1.651E-01		3.259E-01	5.513E-01	1.893E-01	0.299
LA-140	-3.023E-01		1.281E-01	1.520E-01	1.332E-02	-1.989
CE-141	1.190E-01		7.278E-02	1.269E-01	1.155E-02	0.938
CE-143	1.048E-02		1.752E-03	Half-Life too short		
CE-144	-8.846E-02		1.933E-01	3.218E-01	4.905E-02	-0.275
PM-144	-1.684E-03		3.289E-02	5.357E-02	5.730E-03	-0.031
PR-144	-1.208E-01		2.468E+00	4.021E+00	4.299E-01	-0.030
PM-146	3.411E-02		4.071E-02	6.864E-02	7.892E-03	0.497
ND-147	-5.984E-02		7.186E-01	1.198E+00	1.900E-01	-0.050
PM-149	2.017E-04		2.371E-04	Half-Life too short		
EU-152	2.869E-02		1.052E-01	1.463E-01	1.758E-02	0.196
GD-153	-2.205E-02		9.267E-02	1.315E-01	1.156E-02	-0.168
EU-154	-5.823E-02		1.264E-01	2.028E-01	2.305E-02	-0.287
EU-155	1.502E-01		1.068E-01	1.784E-01	1.531E-02	0.842
TB-160	-1.616E-02		1.585E-01	2.497E-01	2.792E-02	-0.065
HO-166M	-2.008E-02		5.760E-02	9.189E-02	9.879E-03	-0.219
TA-182	4.749E-02		2.001E-01	3.368E-01	2.801E-02	0.141
IR-192	-3.572E-04		3.508E-02	5.873E-02	7.506E-03	-0.006
HG-203	5.348E-02		4.494E-02	7.431E-02	1.051E-02	0.720
BI-207	-3.761E-02		5.357E-02	8.306E-02	7.974E-03	-0.453
PB-210	-5.335E-01		3.003E+00	4.912E+00	4.524E-01	-0.109
PB-211	-4.111E-01		7.544E-01	1.163E+00	5.643E-01	-0.354
BI-212	1.900E+00	+	7.661E-01	1.074E+00	1.510E-01	1.769
RN-219	4.151E-01		3.968E-01	6.743E-01	1.033E-01	0.616
RA-223	3.178E-01		7.108E-01	1.056E+00	2.064E-01	0.301
AC-227	-6.635E-02		2.711E-01	4.323E-01	6.735E-02	-0.153
TH-227	-6.635E-02		2.711E-01	4.323E-01	7.267E-02	-0.153
PA-231	-1.351E+00		1.540E+00	2.334E+00	4.245E-01	-0.579
TH-231	3.178E-01		7.108E-01	1.056E+00	2.064E-01	0.301
PA-233	5.089E-03		6.040E-02	1.016E-01	1.331E-02	0.050
PA-234	2.990E-02		2.957E-01	4.906E-01	9.751E-02	0.061
PA-234M	-8.431E-01		4.667E+00	7.439E+00	8.525E-01	-0.113
NP-239	3.015E-01		4.243E-01	6.906E-01	5.707E-02	0.437
AM-241	2.093E-01		1.496E-01	2.352E-01	1.838E-02	0.890
CM-247	3.298E-02		3.648E-02	6.213E-02	5.828E-03	0.531
CF-249	9.247E-03		3.953E-02	6.574E-02	6.241E-03	0.141
CF-251	2.874E-02		1.301E-01	2.174E-01	2.215E-02	0.132

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248863002           *
* Acquisition date  : 24-MAR-2010 18:28:53 Detector SN#     :               *
* Detector ID       : GAM22                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.39      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  4-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248863002           Analyst initials: MXR1           *
* Batch Number      : 962633               Sample Quantity : 1.2350E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.951E+01	3.894E+00	2.438E-01	1.987E+00
CD-109	2.152E+00	1.039E+00	6.348E-01	5.302E-01
SN-126	2.088E-01	1.008E-01	6.904E-02	5.143E-02
TL-208	6.870E-01	1.068E-01	2.717E-02	5.449E-02
BI-211	3.909E+00	5.897E-01	1.520E-01	3.008E-01
PB-212	2.103E+00	2.944E-01	4.883E-02	1.502E-01
BI-214	1.306E+00	2.047E-01	5.260E-02	1.045E-01
PB-214	1.419E+00	2.273E-01	5.628E-02	1.160E-01
RA-224	5.025E+00	1.452E+00	5.228E-01	7.407E-01
RA-226	1.306E+00	2.047E-01	5.260E-02	1.045E-01
AC-228	2.113E+00	4.048E-01	1.214E-01	2.065E-01
RA-228	2.113E+00	4.048E-01	1.214E-01	2.065E-01
TH-228	2.103E+00	2.944E-01	4.883E-02	1.502E-01
TH-229	-2.646E-01	5.376E-01	4.560E-01	2.743E-01
TH-230	1.306E+00	1.933E-01	5.260E-02	9.861E-02
TH-232	2.113E+00	4.048E-01	1.214E-01	2.065E-01
TH-234	3.361E+00	1.891E+00	1.010E+00	9.648E-01
U-235	1.008E-01	2.075E-01	1.825E-01	1.059E-01
NP-237	6.230E-01	3.269E-01	1.953E-01	1.668E-01
U-238	3.361E+00	1.891E+00	1.010E+00	9.648E-01
ANH-511	1.690E-01	7.340E-02	2.235E-02	3.745E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	7.217E-02	3.325E-01	2.812E-01	1.697E-01	NOT IDENT.
NA-22	-2.031E-02	4.384E-02	3.595E-02	2.237E-02	NOT IDENT.
NA-24	1.100E+07	2.088E+08	0.000E+00	1.066E+08	SHORT HLIF
SC-46	-1.705E-02	3.966E-02	3.286E-02	2.023E-02	FAIL ABUN
V-48	1.791E-02	8.586E-02	7.322E-02	4.381E-02	NOT IDENT.
CR-51	3.833E-01	4.070E-01	3.648E-01	2.077E-01	NOT IDENT.

MN-54	6.333E-03	3.638E-02	3.147E-02	1.856E-02	NOT IDENT.
CO-56	6.996E-03	3.867E-02	3.344E-02	1.973E-02	FAIL ABUN
CO-57	-4.985E-03	2.618E-02	2.171E-02	1.336E-02	NOT IDENT.
CO-58	-2.564E-02	3.819E-02	3.147E-02	1.948E-02	NOT IDENT.
FE-59	-1.319E-01	1.016E-01	7.668E-02	5.181E-02	NOT IDENT.
CO-60	8.337E-03	3.761E-02	3.215E-02	1.919E-02	NOT IDENT.
ZN-65	-3.052E-02	1.058E-01	7.261E-02	5.397E-02	NOT IDENT.
SE-75	-2.459E-02	5.391E-02	3.832E-02	2.750E-02	NOT IDENT.
SR-85	1.556E-01	4.484E-02	4.048E-02	2.288E-02	NOT IDENT.
Y-88	4.216E-03	3.099E-02	2.631E-02	1.581E-02	NOT IDENT.
Y-91	8.707E+00	2.268E+01	1.968E+01	1.157E+01	NOT IDENT.
NB-94	2.373E-02	3.274E-02	2.849E-02	1.670E-02	NOT IDENT.
NB-95	5.597E-02	4.360E-02	3.847E-02	2.225E-02	NOT IDENT.
NB-95M	2.047E-01	1.528E-01	1.187E-01	7.794E-02	NOT IDENT.
ZR-95	2.657E-02	7.377E-02	6.275E-02	3.764E-02	NOT IDENT.
MO-99	-2.577E+01	4.430E+01	3.557E+01	2.260E+01	NOT IDENT.
TC-99M	-2.852E+22	5.756E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.455E-02	4.106E-02	3.291E-02	2.095E-02	FAIL ABUN
RH-106	-2.638E-02	2.924E-01	2.477E-01	1.492E-01	NOT IDENT.
RU-106	-2.638E-02	2.924E-01	2.477E-01	1.492E-01	NOT IDENT.
AG-108M	1.530E-02	2.753E-02	2.387E-02	1.405E-02	NOT IDENT.
AG-110M	-1.171E-02	3.283E-02	2.722E-02	1.675E-02	NOT IDENT.
SN-113	3.213E-03	4.325E-02	3.704E-02	2.207E-02	NOT IDENT.
CD-115	2.447E+01	5.022E+01	0.000E+00	2.562E+01	SHORT HLIF
SN-117M	-4.788E-02	7.121E-02	6.114E-02	3.633E-02	NOT IDENT.
TE-123M	-1.266E-02	2.901E-02	2.512E-02	1.480E-02	NOT IDENT.
SB-124	8.427E-03	6.961E-02	5.952E-02	3.552E-02	NOT IDENT.
SB-125	-1.267E-02	8.622E-02	7.240E-02	4.399E-02	FAIL ABUN
TE-125M	-1.205E+01	1.096E+01	8.699E+00	5.594E+00	NOT IDENT.
I-126	1.095E-01	2.830E-01	2.439E-01	1.444E-01	NOT IDENT.
SB-126	1.011E-01	2.116E-01	1.575E-01	1.079E-01	NOT IDENT.
SB-127	-1.809E-01	3.035E+00	2.548E+00	1.548E+00	NOT IDENT.
I-131	4.109E-02	1.710E-01	1.485E-01	8.726E-02	NOT IDENT.
TE-132	-1.377E-01	2.224E+00	1.887E+00	1.135E+00	NOT IDENT.
BA-133	1.861E-03	4.470E-02	3.351E-02	2.280E-02	NOT IDENT.
I-133	2.370E+04	3.287E+05	0.000E+00	1.677E+05	SHORT HLIF
CS-134	1.472E-01	6.810E-02	4.532E-02	3.475E-02	FAIL ABUN
CS-135	3.588E-01	1.880E-01	1.462E-01	9.591E-02	NOT IDENT.
I-135	-2.894E+21	3.166E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.598E-02	1.363E-01	1.102E-01	6.955E-02	NOT IDENT.
BA-137M	4.494E-03	3.406E-02	2.902E-02	1.738E-02	NOT IDENT.
CS-137	4.748E-03	3.598E-02	3.065E-02	1.836E-02	NOT IDENT.
CE-139	2.473E-02	3.022E-02	2.705E-02	1.542E-02	NOT IDENT.
BA-140	1.651E-01	3.194E-01	2.792E-01	1.630E-01	NOT IDENT.
LA-140	-3.023E-01	1.256E-01	7.585E-02	6.407E-02	FAIL ABUN
CE-141	1.190E-01	7.133E-02	6.538E-02	3.639E-02	NOT IDENT.
CE-143	1.048E+04	3.433E+03	0.000E+00	1.752E+03	SHORT HLIF
CE-144	-8.846E-02	1.895E-01	1.660E-01	9.666E-02	NOT IDENT.
PM-144	-1.684E-03	3.223E-02	2.704E-02	1.644E-02	NOT IDENT.
PR-144	-1.208E-01	2.419E+00	2.029E+00	1.234E+00	NOT IDENT.
PM-146	3.411E-02	3.990E-02	3.484E-02	2.036E-02	NOT IDENT.
ND-147	-5.984E-02	7.042E-01	6.069E-01	3.593E-01	FAIL ABUN
PM-149	2.017E+02	4.648E+02	0.000E+00	2.371E+02	SHORT HLIF
EU-152	2.869E-02	1.031E-01	7.453E-02	5.261E-02	NOT IDENT.
GD-153	-2.205E-02	9.082E-02	6.809E-02	4.634E-02	NOT IDENT.
EU-154	-5.823E-02	1.239E-01	1.015E-01	6.322E-02	NOT IDENT.
EU-155	1.502E-01	1.047E-01	9.229E-02	5.341E-02	FAIL ABUN
TB-160	-1.616E-02	1.554E-01	1.256E-01	7.926E-02	FAIL ABUN
HO-166M	-2.008E-02	5.645E-02	4.636E-02	2.880E-02	FAIL ABUN
TA-182	4.749E-02	1.961E-01	1.687E-01	1.000E-01	FAIL ABUN
IR-192	-3.572E-04	3.438E-02	2.995E-02	1.754E-02	FAIL ABUN
HG-203	5.348E-02	4.405E-02	3.796E-02	2.247E-02	NOT IDENT.
BI-207	-3.761E-02	5.250E-02	4.168E-02	2.678E-02	FAIL ABUN
PB-210	-5.335E-01	2.943E+00	2.568E+00	1.501E+00	NOT IDENT.
PB-211	-4.111E-01	7.393E-01	5.910E-01	3.772E-01	NOT IDENT.
BI-212	1.900E+00	7.507E-01	5.416E-01	3.830E-01	FAIL ABUN
RN-219	4.151E-01	3.889E-01	3.428E-01	1.984E-01	FAIL ABUN
RA-223	3.178E-01	6.966E-01	5.385E-01	3.554E-01	FAIL ABUN
AC-227	-6.635E-02	2.657E-01	2.211E-01	1.355E-01	FAIL ABUN
TH-227	-6.635E-02	2.657E-01	2.211E-01	1.356E-01	FAIL ABUN
PA-231	-1.351E+00	1.509E+00	1.192E+00	7.700E-01	NOT IDENT.
TH-231	3.178E-01	6.966E-01	5.385E-01	3.554E-01	FAIL ABUN
PA-233	5.089E-03	5.919E-02	5.183E-02	3.020E-02	FAIL ABUN
PA-234	2.990E-02	2.898E-01	2.466E-01	1.479E-01	NOT IDENT.
PA-234M	-8.431E-01	4.574E+00	3.736E+00	2.333E+00	NOT IDENT.
NP-239	3.015E-01	4.158E-01	3.568E-01	2.121E-01	NOT IDENT.
AM-241	2.093E-01	1.466E-01	1.226E-01	7.480E-02	NOT IDENT.
CM-247	3.298E-02	3.575E-02	3.159E-02	1.824E-02	NOT IDENT.

CF-249	9.247E-03	3.874E-02	3.344E-02	1.976E-02 NOT IDENT.
CF-251	2.874E-02	1.275E-01	1.117E-01	6.505E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	348.6915
49.72	363.9611
57.36	0.0000
59.54	382.7756
63.29	483.9145
63.29	483.9145
64.28	522.7152
67.75	566.4059
69.67	558.3973
70.83	532.2672
72.81	626.2471
72.87	626.3772
72.87	626.3772
74.82	569.8979
74.82	569.8979
74.82	569.8979
74.97	570.1848
77.11	574.2382
77.11	574.2382
77.11	574.2382
79.69	459.9583
79.80	460.1201
80.12	465.7300
80.19	465.8337
80.57	466.3959
81.00	463.9389
81.07	464.0419
81.07	464.0419
83.79	516.3516
83.79	516.3516
85.43	598.9034
86.48	600.8036
86.55	600.9290
86.79	601.3603
86.94	601.6343
87.57	684.8168
88.03	549.8672
88.47	550.5840
89.96	750.0408
91.11	479.9094
92.59	481.9509
92.59	481.9509
93.35	482.9935
94.67	384.9378
94.87	385.1530
94.87	385.1530
95.86	475.0965
97.43	441.4542
98.44	403.6149
99.53	364.5456
100.11	381.4631
103.18	477.9849
103.37	455.1372
105.31	403.2993
106.12	469.4692
109.28	515.6660
111.00	504.4327
111.76	518.8594
116.30	461.0266
117.23	438.1497
121.12	437.5760
121.78	443.9958
122.06	439.6785
123.07	430.3175
131.20	466.9808
133.52	442.7643
136.00	434.4277

136.47	441.9884
140.51	487.9676
140.51	0.0000
143.76	481.2686
144.24	456.3809
144.24	456.3809
145.44	447.5034
152.43	489.5973
153.25	474.7028
154.21	451.5692
154.21	451.5692
156.02	432.7460
158.56	477.6577
159.00	462.2073
162.66	440.9585
163.33	457.4691
165.86	413.3384
176.60	429.8972
177.52	414.2004
181.07	407.7880
184.41	408.5147
185.72	407.2552
193.51	456.9455
197.04	457.5223
205.31	365.8962
210.85	390.0908
215.65	365.5829
222.11	389.3220
227.38	392.2328
228.16	378.0798
228.18	378.0909
235.69	395.7048
235.96	411.0113
235.96	411.0113
238.63	389.8863
238.63	389.8863
240.99	391.1222
242.00	391.6487
244.70	327.2250
252.40	326.0038
252.80	322.9408
256.23	365.4442
256.23	365.4442
260.90	0.0000
264.66	337.4202
268.22	296.7567
269.46	288.4134
269.46	288.4134
271.23	290.7964
273.65	411.8400
276.40	332.5104
277.37	294.0572
277.60	288.5843
278.00	292.0546
279.20	315.8252
279.54	315.9509
280.46	373.0923
283.69	339.8523
284.31	314.3670
285.41	299.0876
285.90	0.0000
287.50	313.2875
293.27	0.0000
295.22	302.0874
295.96	258.5004
298.57	259.2589
299.98	267.2585
299.98	267.2585
300.09	265.7755
300.09	265.7755
300.13	258.1924
301.36	260.0660
302.85	245.2603
304.50	262.4966
304.50	262.4966
304.85	259.5447
308.46	264.8637
311.90	252.9282

316.51	266.2387
319.41	275.4368
320.08	253.2801
323.87	261.7720
323.87	261.7720
328.76	292.8609
333.37	229.7350
334.37	277.8501
334.37	277.8501
338.28	254.2827
338.28	254.2827
338.32	254.2957
338.32	254.2957
338.32	254.2957
340.48	228.2197
340.55	228.2373
344.28	211.9054
351.06	217.8097
351.93	226.0096
356.01	236.5602
364.49	227.7758
366.42	245.7462
383.85	237.8408
388.16	234.7872
388.63	236.8757
391.69	222.5536
400.66	232.3676
401.81	202.3937
402.40	210.5563
404.85	264.5138
410.95	225.3089
414.70	236.2112
423.72	219.5407
427.09	215.0133
427.87	208.9745
433.94	184.1535
453.88	177.6542
463.37	183.2064
468.07	155.8817
473.00	196.2951
476.78	198.9964
477.60	190.5547
487.02	167.1018
492.35	0.0000
497.08	185.7141
511.00	179.8995
514.00	180.2809
527.90	0.0000
529.87	0.0000
531.02	169.6376
537.26	153.6032
546.56	0.0000
563.25	165.7537
569.33	200.6415
569.50	178.7897
569.70	183.5683
583.19	161.1743
600.60	154.4704
602.73	161.4817
604.72	158.3477
609.32	162.8311
609.32	162.8311
609.32	162.8311
610.33	180.6341
614.28	134.1239
618.01	176.4331
621.93	158.1797
621.93	158.1797
633.25	157.2661
635.95	157.5184
636.99	171.4901
645.85	155.4382
657.76	162.5240
661.66	166.9085
661.66	166.9085
664.57	0.0000
666.33	168.3557
666.50	168.3727

677.62	137.9728
685.70	142.6632
695.00	153.6316
696.49	158.8819
696.51	158.8851
697.00	166.1034
702.65	160.4402
706.68	166.9702
711.68	155.0140
720.70	137.0649
721.93	0.0000
722.78	149.6895
722.91	149.6982
723.31	165.7730
724.19	153.3645
727.33	153.1699
733.00	137.9458
735.93	149.5731
739.50	161.4788
747.24	146.3272
752.31	138.2627
753.82	134.1417
756.73	142.8030
763.94	178.3530
765.81	145.5792
766.42	148.8098
777.92	171.0384
778.90	168.9840
783.70	122.2104
785.37	127.3170
795.86	105.3721
801.95	141.1387
810.29	140.5382
810.76	143.3625
815.77	125.9716
818.51	113.9878
832.01	134.4515
834.85	154.3992
836.80	0.0000
846.77	128.7404
856.80	118.1549
860.56	121.9263
871.09	115.4348
873.19	122.6161
875.33	0.0000
879.36	139.2803
880.51	130.7017
883.24	121.2363
884.68	132.8669
889.28	136.9930
898.04	145.2628
911.20	150.9563
911.20	150.9563
911.20	150.9563
926.50	143.1179
937.49	129.9904
944.13	133.3120
946.00	123.5330
949.00	115.7697
962.29	114.9099
964.08	123.7040
966.15	120.3204
968.97	174.5758
968.97	174.5758
968.97	174.5758
983.53	118.4054
996.26	113.9616
1001.03	117.2077
1004.73	112.3182
1037.84	109.6646
1038.76	0.0000
1048.07	126.5520
1050.41	117.3955
1050.41	117.3955
1063.66	137.6387
1085.87	105.3821
1099.45	155.1853
1112.07	121.6593

1115.54	143.9553
1120.29	123.5984
1120.29	123.5984
1120.29	123.5984
1120.55	123.6106
1121.30	123.6433
1131.51	0.0000
1173.23	134.6385
1177.93	138.6290
1189.05	141.0425
1204.77	144.6431
1221.41	146.3978
1231.02	150.1615
1235.36	131.5793
1238.28	147.0986
1260.41	0.0000
1271.85	123.5118
1274.44	125.5593
1274.54	125.5632
1291.59	86.1174
1298.22	0.0000
1312.11	74.8473
1332.49	79.2798
1365.19	64.0508
1368.63	0.0000
1384.29	87.5602
1408.01	69.9265
1457.56	0.0000
1460.82	49.3799
1489.16	54.9522
1505.03	77.0600
1596.21	88.1890
1620.50	36.2590
1678.03	0.0000
1690.97	29.1325
1764.49	21.7440
1764.49	21.7440
1764.49	21.7440
1770.23	21.3773
1771.35	21.3832
1791.20	0.0000
1836.06	28.1360

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248863002

Total Uranium Activity	1.0045E+01	ug/g
Total Uranium Counting Unc.	5.6263E+00	ug/g
Total Uranium Tpu	2.8706E-06	ug/g
Total Uranium Mda	3.0045E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248863002       *
*   ANALYST       : MXR1                      DETECTOR   : GAM22            *
*   SAMPLE DATE   :  4-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 18:28:53.09    SAMPLE ALQT:  123.500 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.120E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.329E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 2.337E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.139E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 20:30:35.99

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863003.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 18:29:41
Sample ID         : G248863003           Sample quantity  : 1.22050E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.82  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	63.12*	134	273	1.29	126.23	123	11	1.86E-02	21.8	3.07E+00
2	3	64.78	84	357	1.38	129.57	123	11	1.17E-02	42.6	
3	3	74.66*	361	466	1.14	149.33	143	16	5.01E-02	11.3	1.27E+00
4	3	76.96	598	378	0.97	153.92	143	16	8.31E-02	6.7	
5	3	87.07	194	489	1.23	174.14	170	22	2.70E-02	19.2	1.51E+00
6	3	89.74	132	374	1.02	179.48	170	22	1.83E-02	24.5	
7	3	92.79*	256	422	1.33	185.59	170	22	3.55E-02	16.5	
8	0	143.39*	54	241	1.69	286.78	284	7	7.44E-03	52.6	
9	0	185.69*	230	397	1.26	371.37	366	12	3.19E-02	19.1	
10	0	208.86	147	315	1.24	417.71	413	10	2.04E-02	24.0	
11	2	238.30*	1382	201	1.19	476.59	470	19	1.92E-01	3.2	1.66E+00
12	2	241.22	299	281	1.77	482.44	470	19	4.15E-02	15.7	
13	0	269.83	82	200	1.46	539.66	536	9	1.14E-02	33.0	
14	3	294.76*	375	159	1.33	589.53	582	22	5.21E-02	7.9	1.78E+00
15	3	299.69	108	169	1.82	599.37	582	22	1.50E-02	23.6	
16	0	326.57	64	195	3.44	653.13	647	12	8.84E-03	45.7	
17	0	337.94	231	208	1.21	675.89	669	13	3.21E-02	14.5	
18	0	351.38*	643	155	1.39	702.75	697	13	8.94E-02	5.6	
19	0	461.45	38	136	1.48	922.90	920	11	5.21E-03	61.7	
20	0	510.17*	126	170	1.56	1020.34	1012	17	1.75E-02	27.4	
21	0	582.54*	383	100	1.85	1165.08	1159	13	5.33E-02	7.5	
22	0	608.51*	398	158	1.53	1217.03	1211	15	5.53E-02	8.5	
23	0	726.67	99	86	2.14	1453.34	1446	14	1.38E-02	22.4	
24	0	860.02	48	55	1.58	1720.04	1713	11	6.68E-03	33.2	
25	0	910.41*	292	66	2.05	1820.83	1814	18	4.05E-02	9.2	
26	2	963.80	68	58	2.34	1927.60	1917	25	9.47E-03	26.5	9.96E-01
27	2	968.13	164	31	1.85	1936.26	1917	25	2.28E-02	10.8	
28	0	1119.36	83	80	1.93	2238.72	2231	16	1.15E-02	26.5	
29	0	1459.39*	1179	14	2.42	2918.77	2909	19	1.64E-01	3.0	
30	0	1763.70	74	12	3.34	3527.40	3519	20	1.03E-02	17.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 20:30:39

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863003.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 4-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 18:29:41
Sample ID : G248863003 Sample quantity : 122.05 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA23 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.82 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.411E+01	3.283E+00	4.831E-01	3.614E-02	70.601
CD-109	+	88.03	*	3.195E+00	1.267E+00	1.594E+00	1.556E-01	2.005
SN-126	+	64.28		9.652E-01	8.359E-01	1.109E+00	1.688E-01	0.870
	+	86.94		1.288E+00	7.299E-01	6.522E-01	2.713E-01	1.976
	+	87.57	*	3.099E-01	1.229E-01	1.555E-01	1.514E-02	1.993
TL-208		277.37		3.135E-01	4.843E-01	7.964E-01	8.593E-02	0.394
	+	583.19	*	6.091E-01	9.984E-02	7.068E-02	4.577E-03	8.618
	+	860.56		7.347E-01	4.919E-01	5.851E-01	5.288E-02	1.256
BI-211		72.87		1.620E+01	5.099E+00	8.087E+00	7.133E-01	2.003
	+	351.06	*	4.450E+00	5.794E-01	4.008E-01	2.612E-02	11.102
PB-212	+	74.82		2.672E+00	6.997E-01	7.527E-01	9.921E-02	3.549
	+	77.11		2.506E+00	4.025E-01	4.266E-01	3.839E-02	5.875
	+	238.63	*	2.101E+00	2.038E-01	1.117E-01	8.106E-03	18.804
	+	300.09		2.577E+00	1.237E+00	1.371E+00	1.158E-01	1.879
BI-214	+	609.32	*	1.226E+00	2.293E-01	1.429E-01	1.083E-02	8.582
	+	1120.29		1.359E+00	7.310E-01	6.473E-01	6.052E-02	2.100
	+	1764.49		1.708E+00	5.931E-01	3.646E-01	2.267E-02	4.683
PB-214	+	74.82		4.735E+00	1.211E+00	1.334E+00	1.590E-01	3.549
	+	77.11		4.419E+00	7.978E-01	7.521E-01	9.180E-02	5.875
	+	242.00		2.759E+00	8.928E-01	6.797E-01	5.495E-02	4.060
	+	295.22		1.585E+00	2.850E-01	2.641E-01	2.315E-02	6.002
	+	351.93	*	1.615E+00	2.284E-01	1.458E-01	1.245E-02	11.078
RA-224	+	240.99	*	4.879E+00	1.553E+00	1.198E+00	6.748E-02	4.074
RA-226	+	609.32	*	1.226E+00	2.293E-01	1.429E-01	1.083E-02	8.582
	+	1120.29		1.359E+00	7.310E-01	6.473E-01	6.052E-02	2.100
	+	1764.49		1.708E+00	5.931E-01	3.646E-01	2.267E-02	4.683
AC-228	+	338.32		1.776E+00	8.946E-01	4.435E-01	1.829E-01	4.006
	+	911.20	*	2.279E+00	4.979E-01	2.654E-01	3.153E-02	8.587
	+	968.97		2.215E+00	7.204E-01	4.281E-01	1.041E-01	5.174
RA-228	+	338.32		1.776E+00	8.946E-01	4.435E-01	1.829E-01	4.006
	+	911.20	*	2.279E+00	4.979E-01	2.654E-01	3.153E-02	8.587
	+	968.97		2.215E+00	7.204E-01	4.281E-01	1.041E-01	5.174
TH-228	+	74.82		2.672E+00	6.504E-01	7.527E-01	6.751E-02	3.549
	+	77.11		2.506E+00	4.025E-01	4.266E-01	3.839E-02	5.875

Sample ID : G248863003 Acquisition date : 24-MAR-2010 18:29:41

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	2.101E+00	2.038E-01	1.117E-01	8.106E-03	18.804
	+	300.09		2.577E+00	1.986E+00	1.371E+00	8.351E-01	1.879
TH-230	+	609.32	*	1.226E+00	2.200E-01	1.429E-01	7.779E-03	8.582
	+	1120.29		1.359E+00	7.253E-01	6.473E-01	4.220E-02	2.100
	+	1764.49		1.708E+00	5.931E-01	3.646E-01	2.267E-02	4.683
TH-232	+	338.32		1.776E+00	5.240E-01	4.435E-01	2.619E-02	4.006
	+	911.20	*	2.279E+00	4.979E-01	2.654E-01	3.153E-02	8.587
	+	968.97		2.215E+00	7.204E-01	4.281E-01	1.041E-01	5.174
TH-234	+	63.29	*	4.332E+00	2.048E+00	3.025E+00	5.565E-01	1.432
	+	92.59		3.327E+00	1.321E+00	1.284E+00	2.850E-01	2.590
U-235	+	89.96		2.158E+00	1.186E+00	1.610E+00	4.007E-01	1.341
	+	93.35		2.513E+00	1.012E+00	9.630E-01	2.230E-01	2.609
	+	143.76	*	2.426E-01	2.581E-01	3.803E-01	5.921E-02	0.638
		163.33		3.738E-01	5.193E-01	8.646E-01	1.432E-01	0.432
	+	185.72		2.252E-01	8.670E-02	7.621E-02	3.990E-03	2.956
		205.31		-2.392E-01	6.852E-01	9.447E-01	1.592E-01	-0.253
NP-237	+	86.48	*	9.248E-01	4.149E-01	4.921E-01	1.135E-01	1.879
		95.86		-1.429E-01	1.251E+00	1.809E+00	4.326E-01	-0.079
U-238	+	63.29	*	4.332E+00	2.048E+00	3.025E+00	5.565E-01	1.432
	+	92.59		3.327E+00	1.135E+00	1.284E+00	1.143E-01	2.590
ANH-511	+	511.00	*	1.521E-01	8.373E-02	5.353E-02	3.109E-03	2.841

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	2.339E-02	4.151E-01	6.862E-01	4.662E-02	0.034
NA-22		1274.54	*	-1.091E-02	5.326E-02	8.483E-02	5.697E-03	-0.129
NA-24		1368.63	*	1.027E+01	5.326E-02	Half-Life too short		
SC-46		889.28	*	-2.086E-03	5.431E-02	9.021E-02	8.060E-03	-0.023
	+	1120.55		2.399E-01	1.280E-01	1.577E-01	1.027E-02	1.522
V-48		944.13		5.298E-01	1.474E+00	2.518E+00	2.194E-01	0.210
		983.53	*	-3.504E-02	1.068E-01	1.713E-01	1.425E-02	-0.205
		1312.11		5.526E-03	1.334E-01	2.179E-01	1.551E-02	0.025
CR-51		320.08	*	3.735E-01	5.691E-01	8.700E-01	5.696E-02	0.429
MN-54		834.85	*	1.310E-02	4.697E-02	8.019E-02	6.350E-03	0.163
CO-56		846.77	*	-3.380E-02	4.911E-02	7.574E-02	6.162E-03	-0.446
		1037.84		5.525E-01	4.389E-01	7.960E-01	6.517E-02	0.694
		1238.28		1.918E-01	1.381E-01	2.460E-01	1.636E-02	0.780
		1771.35		-1.161E-02	3.291E-01	4.613E-01	2.854E-02	-0.025
CO-57		122.06	*	9.444E-03	3.225E-02	5.360E-02	3.160E-03	0.176
		136.47		8.389E-02	2.511E-01	4.168E-01	2.705E-02	0.201
CO-58		810.76	*	-2.915E-02	5.097E-02	8.124E-02	6.103E-03	-0.359
FE-59		1099.45	*	8.108E-03	1.304E-01	2.158E-01	1.661E-02	0.038
		1291.59		-1.407E-01	1.700E-01	2.502E-01	2.077E-02	-0.562
CO-60		1173.23		7.255E-02	6.159E-02	1.103E-01	6.224E-03	0.658
		1332.49	*	6.320E-03	5.133E-02	8.460E-02	6.211E-03	0.075
ZN-65		1115.54	*	2.765E-02	1.447E-01	2.087E-01	1.379E-02	0.132
SE-75		121.12		1.015E-01	1.695E-01	2.846E-01	2.608E-02	0.357

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		136.00		-4.677E-03	4.930E-02	8.050E-02	4.548E-03	-0.058
		264.66	*	-9.598E-03	6.537E-02	9.006E-02	5.244E-03	-0.107
		279.54		-3.900E-02	1.356E-01	2.257E-01	1.421E-02	-0.173
		400.66		-1.083E-01	3.420E-01	5.578E-01	5.057E-02	-0.194
SR-85		514.00	*	5.899E-02	5.323E-02	8.335E-02	4.837E-03	0.708
Y-88		898.04		-8.852E-03	5.748E-02	9.452E-02	8.642E-03	-0.094
		1836.06	*	2.564E-03	3.116E-02	5.258E-02	3.096E-03	0.049
Y-91		1204.77	*	1.429E+00	3.085E+01	5.066E+01	3.021E+00	0.028
NB-94		702.65	*	3.441E-02	4.440E-02	7.573E-02	4.327E-03	0.454
		871.09		-2.975E-02	4.378E-02	6.864E-02	5.895E-03	-0.433
NB-95		765.81	*	4.662E-02	5.662E-02	9.678E-02	6.504E-03	0.482
NB-95M		235.69	*	9.859E-01	2.263E-01	3.674E-01	2.720E-02	2.683
ZR-95		724.19		3.853E-01	1.468E-01	2.544E-01	1.792E-02	1.514
		756.73	*	-1.514E-03	9.047E-02	1.451E-01	1.119E-02	-0.010
MO-99		140.51		-4.423E+01	1.092E+02	1.525E+02	3.475E+01	-0.290
		181.07		1.221E+01	8.634E+01	1.235E+02	2.160E+01	0.099
		366.42		-1.786E+01	4.295E+02	7.020E+02	4.115E+01	-0.025
		739.50	*	-4.199E+00	5.263E+01	8.400E+01	1.228E+01	-0.050
		777.92		-1.023E+02	1.609E+02	2.559E+02	1.772E+01	-0.400
TC-99M		140.51	*	-3.176E+16	1.609E+02	Half-Life too short		
RU-103		497.08	*	-5.024E-02	5.182E-02	7.833E-02	9.745E-03	-0.641
		610.33		1.280E+01	2.606E+00	3.519E+00	5.249E-01	3.638
RH-106		621.93	*	2.554E-01	3.878E-01	6.609E-01	7.543E-02	0.386
		1050.41		-1.320E+00	3.085E+00	4.868E+00	3.662E-01	-0.271
RU-106		621.93	*	2.554E-01	3.869E-01	6.609E-01	3.551E-02	0.386
		1050.41		-1.320E+00	3.085E+00	4.868E+00	3.662E-01	-0.271
AG-108M		433.94	*	-1.466E-02	3.706E-02	5.979E-02	3.737E-03	-0.245
		614.28		-1.269E-02	5.027E-02	6.858E-02	4.017E-03	-0.185
		722.91		3.691E-02	5.374E-02	8.046E-02	5.164E-03	0.459
AG-110M		657.76	*	-3.023E-02	4.478E-02	6.844E-02	3.804E-03	-0.442
		677.62		-1.119E-02	3.989E-01	6.434E-01	3.688E-02	-0.017
		706.68		-4.509E-02	2.825E-01	4.498E-01	2.762E-02	-0.100
		763.94		-2.717E-02	2.086E-01	3.312E-01	2.315E-02	-0.082
		884.68		-3.403E-02	6.559E-02	1.044E-01	9.518E-03	-0.326
		937.49		-4.431E-02	1.473E-01	2.384E-01	2.165E-02	-0.186
		1384.29		1.152E-01	2.104E-01	3.634E-01	2.751E-02	0.317
		1505.03		1.854E-02	2.889E-01	4.709E-01	3.344E-02	0.039
SN-113		391.69	*	-5.043E-02	5.838E-02	9.213E-02	5.676E-03	-0.547
CD-115		260.90		-3.513E-04	5.838E-02	Half-Life too short		
		492.35		1.672E-04	5.838E-02	Half-Life too short		
		527.90	*	-5.344E-05	5.838E-02	Half-Life too short		
SN-117M		156.02		2.912E+00	3.640E+00	6.114E+00	3.199E-01	0.476
		158.56	*	5.295E-02	8.837E-02	1.474E-01	7.659E-03	0.359
TE-123M		159.00	*	2.637E-03	3.624E-02	5.926E-02	3.127E-03	0.045
SB-124		602.73		2.467E-02	5.855E-02	8.589E-02	4.709E-03	0.287
		645.85		-3.477E-01	6.494E-01	1.005E+00	6.033E-02	-0.346
		722.78		3.287E-01	5.683E-01	8.419E-01	5.309E-02	0.390
		1690.97	*	2.706E-02	8.491E-02	1.500E-01	1.050E-02	0.180
SB-125		427.87	*	1.127E-02	1.113E-01	1.855E-01	1.127E-02	0.061

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		463.37		5.639E-01	4.069E-01	6.454E-01	4.374E-02	0.874
		600.60		-3.468E-03	2.301E-01	3.639E-01	2.346E-02	-0.010
		635.95		-5.032E-02	3.447E-01	5.527E-01	3.517E-02	-0.091
TE-125M		109.28	*	2.506E+00	1.265E+01	2.102E+01	1.916E+00	0.119
I-126		388.63		4.591E-02	2.695E-01	4.524E-01	2.617E-02	0.101
		666.33	*	-2.275E-01	3.645E-01	5.592E-01	2.894E-02	-0.407
		753.82		1.846E+00	2.691E+00	4.602E+00	3.002E-01	0.401
SB-126		414.70		7.947E-02	1.276E-01	2.189E-01	1.274E-02	0.363
		666.50		-9.417E-02	1.280E-01	1.945E-01	1.007E-02	-0.484
		695.00		-9.382E-02	1.333E-01	2.026E-01	1.134E-02	-0.463
		697.00		-2.639E-01	4.636E-01	7.134E-01	4.015E-02	-0.370
		720.70	*	1.224E-02	2.699E-01	3.768E-01	2.258E-02	0.032
		856.80		1.214E+00	8.556E-01	1.429E+00	1.189E-01	0.849
SB-127		252.40		-4.005E+00	1.368E+01	2.141E+01	8.887E+00	-0.187
		473.00		4.332E-01	5.051E+00	8.369E+00	1.068E+00	0.052
		685.70	*	-3.037E+00	4.201E+00	6.341E+00	7.082E-01	-0.479
		783.70		1.627E+01	1.094E+01	2.000E+01	2.590E+00	0.814
I-131		80.19		-1.658E-01	1.001E+01	1.465E+01	1.357E+00	-0.011
		284.31		-6.060E-01	2.703E+00	4.506E+00	2.942E-01	-0.135
		364.49	*	5.214E-02	2.116E-01	3.516E-01	2.316E-02	0.148
		636.99		1.339E+00	3.043E+00	5.109E+00	3.124E-01	0.262
TE-132		49.72		-5.629E+01	9.774E+01	1.607E+02	1.997E+01	-0.350
		111.76		-3.633E+01	1.237E+02	2.017E+02	2.285E+01	-0.180
		116.30		-2.620E+01	1.063E+02	1.734E+02	1.928E+01	-0.151
		228.16	*	-5.726E-01	2.786E+00	4.436E+00	6.928E-01	-0.129
BA-133		81.00		-1.801E-01	1.511E-01	1.898E-01	3.010E-02	-0.949
		276.40		2.751E-01	4.640E-01	7.358E-01	9.266E-02	0.374
		302.85		6.868E-02	1.743E-01	2.624E-01	3.004E-02	0.262
		356.01	*	1.991E-02	5.366E-02	7.886E-02	8.926E-03	0.252
		383.85		1.384E-01	3.549E-01	6.031E-01	6.432E-02	0.229
I-133		529.87	*	-1.102E-01	3.549E-01	Half-Life too short		
		875.33		8.345E+00	3.549E-01	Half-Life too short		
		1298.22		9.549E+00	3.549E-01	Half-Life too short		
CS-134		563.25		3.185E-01	4.572E-01	7.826E-01	4.527E-02	0.407
		569.33		-1.523E-01	2.444E-01	3.798E-01	2.208E-02	-0.401
		604.72		1.682E-02	5.095E-02	7.389E-02	4.067E-03	0.228
		795.86	*	7.323E-02	5.590E-02	1.024E-01	7.482E-03	0.715
		801.95		-9.006E-02	4.749E-01	7.782E-01	5.752E-02	-0.116
		1365.19		-7.723E-01	1.598E+00	2.422E+00	1.885E-01	-0.319
CS-135		268.22	*	3.625E-01	2.297E-01	3.514E-01	2.685E-02	1.032
I-135		546.56		4.913E+15	2.297E-01	Half-Life too short		
		836.80		1.301E+16	2.297E-01	Half-Life too short		
		1038.76		1.257E+16	2.297E-01	Half-Life too short		
		1131.51		4.349E+15	2.297E-01	Half-Life too short		
		1260.41	*	-2.084E+15	2.297E-01	Half-Life too short		
		1457.56		7.588E+17	2.297E-01	Half-Life too short		
		1678.03		-4.380E+15	2.297E-01	Half-Life too short		
		1791.20		8.389E+13	2.297E-01	Half-Life too short		
CS-136		153.25		-4.864E-01	1.369E+00	2.202E+00	1.692E-01	-0.221

Sample ID : G248863003 Acquisition date : 24-MAR-2010 18:29:41

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		176.60		-7.723E-02	7.930E-01	1.283E+00	8.406E-02	-0.060
		273.65		-7.157E-01	9.826E-01	1.292E+00	8.846E-02	-0.554
		340.55		4.032E-01	2.516E-01	4.056E-01	2.588E-02	0.994
		818.51		-3.157E-02	1.185E-01	1.938E-01	1.481E-02	-0.163
		1048.07	*	-6.620E-02	1.673E-01	2.650E-01	2.112E-02	-0.250
		1235.36		1.316E+00	1.100E+00	1.934E+00	1.970E-01	0.681
BA-137M		661.66	*	6.155E-02	4.534E-02	8.069E-02	4.122E-03	0.763
CS-137		661.66	*	6.502E-02	4.789E-02	8.524E-02	4.378E-03	0.763
CE-139		165.86	*	-2.040E-02	3.797E-02	5.951E-02	3.034E-03	-0.343
BA-140		162.66		-4.284E-01	1.303E+00	2.094E+00	1.270E-01	-0.205
		304.85		1.825E-01	2.181E+00	3.212E+00	9.182E-01	0.057
		423.72		-1.138E+00	3.107E+00	4.990E+00	1.611E+00	-0.228
		537.26	*	5.067E-02	4.256E-01	7.023E-01	2.339E-01	0.072
LA-140		328.76		5.121E-01	5.580E-01	8.624E-01	5.698E-02	0.594
		487.02		-5.264E-02	2.171E-01	3.509E-01	2.317E-02	-0.150
		815.77		4.048E-01	5.162E-01	9.181E-01	7.996E-02	0.441
		1596.21	*	-9.706E-02	1.092E-01	1.499E-01	1.028E-02	-0.648
CE-141		145.44	*	5.663E-02	9.610E-02	1.419E-01	8.006E-03	0.399
CE-143		57.36		2.944E-03	9.610E-02	Half-Life too short		
	+	293.27	*	1.885E-02	9.610E-02	Half-Life too short		
		664.57		-9.499E-03	9.610E-02	Half-Life too short		
		721.93		-5.503E-03	9.610E-02	Half-Life too short		
CE-144		80.12		-5.154E-03	3.516E+00	5.147E+00	4.718E-01	-0.001
		133.52	*	-1.898E-01	2.452E-01	3.877E-01	5.355E-02	-0.490
PM-144		476.78		4.775E-02	7.817E-02	1.339E-01	9.249E-03	0.357
		618.01		-3.261E-02	4.118E-02	6.265E-02	3.619E-03	-0.521
		696.49	*	-2.337E-02	4.451E-02	6.873E-02	3.869E-03	-0.340
PR-144		696.51	*	-1.734E+00	3.341E+00	5.163E+00	2.902E-01	-0.336
		1489.16		-4.884E+00	1.415E+01	2.136E+01	1.524E+00	-0.229
PM-146		453.88	*	-2.536E-03	5.184E-02	8.530E-02	7.247E-03	-0.030
		633.25		-1.359E-01	1.777E+00	2.865E+00	1.077E+00	-0.047
		735.93		-1.206E-01	1.775E-01	2.620E-01	7.176E-02	-0.460
		747.24		-1.871E-02	1.149E-01	1.818E-01	2.437E-02	-0.103
ND-147	+	91.11		9.677E-01	4.837E-01	9.343E-01	9.191E-02	1.036
		319.41		4.218E+00	5.838E+00	9.640E+00	5.698E-01	0.438
		531.02	*	-2.068E-02	8.772E-01	1.434E+00	1.937E-01	-0.014
PM-149		285.90	*	-2.933E-04	8.772E-01	Half-Life too short		
EU-152		121.78		3.637E-02	9.206E-02	1.535E-01	1.176E-02	0.237
		244.70		4.382E-02	4.398E-01	6.194E-01	3.504E-02	0.071
		344.28	*	3.884E-03	1.383E-01	1.903E-01	1.261E-02	0.020
		778.90		-4.262E-02	3.108E-01	5.160E-01	3.581E-02	-0.083
	+	964.08		9.916E-01	5.324E-01	8.014E-01	6.828E-02	1.237
		1085.87		3.055E-01	4.803E-01	8.370E-01	5.889E-02	0.365
		1112.07		2.301E-01	4.330E-01	6.548E-01	4.352E-02	0.351
		1408.01		-1.580E-02	2.253E-01	3.613E-01	2.628E-02	-0.044
GD-153		69.67		-2.229E+00	3.236E+00	3.842E+00	3.356E-01	-0.580
		97.43	*	8.089E-02	1.154E-01	1.736E-01	1.418E-02	0.466
		103.18		4.842E-03	1.388E-01	2.297E-01	1.716E-02	0.021
EU-154		123.07		-1.877E-02	6.581E-02	1.070E-01	1.009E-02	-0.175

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		723.31		3.137E-01	2.516E-01	3.955E-01	2.859E-02	0.793
		873.19		1.809E-01	3.495E-01	6.072E-01	7.227E-02	0.298
		996.26		-1.112E-01	4.389E-01	7.084E-01	1.222E-01	-0.157
		1004.73		4.580E-02	2.526E-01	4.250E-01	4.780E-02	0.108
		1274.44	*	-2.765E-02	1.508E-01	2.408E-01	2.410E-02	-0.115
EU-155	+	86.55		3.766E-01	1.494E-01	2.395E-01	2.328E-02	1.572
		105.31	*	8.479E-02	1.313E-01	2.217E-01	1.634E-02	0.382
TB-160	+	86.79		1.048E+00	4.155E-01	6.587E-01	6.364E-02	1.590
		197.04		1.008E-01	7.366E-01	1.188E+00	6.322E-02	0.085
		215.65		6.725E-02	9.692E-01	1.567E+00	8.563E-02	0.043
	+	298.57		3.812E-01	1.815E-01	2.590E-01	1.522E-02	1.472
		879.36	*	-1.185E-01	1.865E-01	2.933E-01	2.565E-02	-0.404
		962.29		2.009E+00	7.718E-01	1.473E+00	1.257E-01	1.364
		966.15		2.088E+00	4.095E-01	7.821E-01	6.648E-02	2.670
		1177.93		-1.609E-01	5.293E-01	8.448E-01	4.806E-02	-0.190
		1271.85		-7.862E-01	9.708E-01	1.444E+00	9.636E-02	-0.545
HO-166M		80.57		-4.012E-01	3.921E-01	5.455E-01	5.016E-02	-0.736
	+	184.41		1.790E-01	6.888E-02	8.245E-02	4.309E-03	2.170
		280.46		1.902E-02	1.019E-01	1.732E-01	1.009E-02	0.110
		410.95		-3.559E-02	3.017E-01	4.970E-01	2.889E-02	-0.072
		711.68	*	-4.496E-02	7.736E-02	1.185E-01	6.933E-03	-0.380
		752.31		-2.045E-02	3.202E-01	5.114E-01	3.323E-02	-0.040
		810.29		-2.945E-02	7.203E-02	1.165E-01	8.713E-03	-0.253
TA-182		67.75		-8.780E-02	1.867E-01	2.495E-01	2.173E-02	-0.352
		100.11		-8.260E-02	2.231E-01	3.640E-01	2.848E-02	-0.227
		152.43		-3.822E-02	4.345E-01	7.070E-01	3.736E-02	-0.054
		222.11		-1.391E-01	4.596E-01	7.298E-01	4.021E-02	-0.191
		1121.30		5.989E-01	2.411E-01	4.213E-01	2.739E-02	1.422
		1189.05		1.656E-01	4.338E-01	7.325E-01	4.250E-02	0.226
		1221.41	*	-1.677E-01	2.834E-01	4.403E-01	2.702E-02	-0.381
		1231.02		-1.030E+00	7.246E-01	1.045E+00	6.520E-02	-0.986
IR-192	+	295.96		1.230E+00	2.066E-01	3.570E-01	2.129E-02	3.445
		308.46		6.396E-03	1.130E-01	1.903E-01	1.134E-02	0.034
		316.51	*	-1.830E-02	4.360E-02	7.155E-02	4.245E-03	-0.256
		468.07		1.044E-02	9.730E-02	1.404E-01	9.473E-03	0.074
HG-203		70.83		5.965E-01	2.157E+00	3.205E+00	5.171E-01	0.186
		72.87		4.354E+00	1.482E+00	2.174E+00	3.402E-01	2.003
		279.20	*	-5.949E-04	5.008E-02	8.442E-02	5.185E-03	-0.007
BI-207		72.81		8.726E-01	2.909E-01	4.608E-01	4.064E-02	1.894
	+	74.97		7.702E-01	1.873E-01	3.245E-01	2.887E-02	2.374
		569.70		-2.408E-02	3.755E-02	5.824E-02	3.281E-03	-0.414
		1063.66	*	5.627E-04	6.452E-02	1.065E-01	7.821E-03	0.005
		1770.23		-1.132E-01	6.415E-01	8.636E-01	5.347E-02	-0.131
PB-210		46.54	*	-1.812E+00	6.356E+00	1.048E+01	8.098E-01	-0.173
PB-211		404.85	*	-2.991E-01	9.478E-01	1.528E+00	7.329E-01	-0.196
		427.09		5.118E-01	1.855E+00	3.099E+00	1.420E+00	0.165
		832.01		3.935E-01	1.176E+00	1.992E+00	1.031E+00	0.198
BI-212	+	727.33	*	2.434E+00	1.120E+00	1.443E+00	1.568E-01	1.686
		785.37		2.281E+00	3.899E+00	6.819E+00	4.806E-01	0.334

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		3.446E+00	2.848E+00	5.531E+00	3.751E-01	0.623
RN-219	+	271.23		5.528E-01	3.673E-01	5.249E-01	4.212E-02	1.053
		401.81	*	4.075E-01	5.216E-01	8.982E-01	1.207E-01	0.454
RA-223		81.07		-4.018E-01	3.377E-01	4.299E-01	3.967E-02	-0.935
		83.79		-3.304E-02	1.793E-01	2.600E-01	2.450E-02	-0.127
		94.87		1.184E+00	6.380E-01	9.942E-01	8.487E-02	1.191
	+	144.24		8.132E-01	8.576E-01	1.386E+00	9.560E-02	0.587
		154.21		-2.466E-02	4.754E-01	7.743E-01	5.051E-02	-0.032
	+	269.46		4.295E-01	2.845E-01	4.100E-01	2.474E-02	1.048
		323.87	*	-6.115E-01	9.132E-01	1.246E+00	2.012E-01	-0.491
	+	338.28		7.049E+00	2.163E+00	2.762E+00	2.847E-01	2.552
AC-227		79.69		9.899E-01	1.717E+00	2.566E+00	4.490E-01	0.386
		235.96		2.042E+00	3.163E-01	4.998E-01	4.000E-02	4.086
		256.23	*	1.205E-01	3.151E-01	5.138E-01	5.230E-02	0.235
	+	299.98		2.834E+00	1.375E+00	1.941E+00	2.141E-01	1.461
		304.50		6.720E-01	1.943E+00	2.917E+00	4.459E-01	0.230
		334.37		-9.484E-01	2.367E+00	3.340E+00	4.765E-01	-0.284
TH-227		79.80		1.267E+00	2.265E+00	3.375E+00	7.422E-01	0.375
		235.96		2.042E+00	3.085E-01	4.998E-01	3.614E-02	4.086
		256.23	*	1.205E-01	3.151E-01	5.138E-01	6.155E-02	0.235
	+	299.98		2.834E+00	1.375E+00	1.941E+00	2.141E-01	1.461
		304.50		6.720E-01	1.943E+00	2.917E+00	4.459E-01	0.230
		334.37		-9.484E-01	2.367E+00	3.340E+00	4.765E-01	-0.284
TH-229		85.43		8.541E-01	3.146E-01	4.929E-01	4.707E-02	1.733
	+	88.47		3.121E-01	1.556E-01	3.080E-01	2.978E-02	1.013
		193.51	*	-1.071E-01	6.297E-01	1.012E+00	5.358E-02	-0.106
		210.85		2.138E+00	1.239E+00	1.912E+00	1.038E-01	1.118
PA-231		283.69	*	-6.330E-01	1.707E+00	2.822E+00	3.706E-01	-0.224
		301.36		1.729E+00	7.570E-01	1.242E+00	1.290E-01	1.392
TH-231		81.07		-4.018E-01	3.377E-01	4.299E-01	3.967E-02	-0.935
		83.79		-3.304E-02	1.793E-01	2.600E-01	2.450E-02	-0.127
		94.87		1.184E+00	6.380E-01	9.942E-01	8.487E-02	1.191
	+	144.24		8.132E-01	8.576E-01	1.386E+00	9.560E-02	0.587
		154.21		-2.466E-02	4.754E-01	7.743E-01	5.051E-02	-0.032
	+	269.46		4.295E-01	2.845E-01	4.100E-01	2.474E-02	1.048
		323.87	*	-6.115E-01	9.132E-01	1.246E+00	2.012E-01	-0.491
	+	338.28		7.049E+00	2.163E+00	2.762E+00	2.847E-01	2.552
PA-233	+	300.13		1.283E+00	6.300E-01	8.821E-01	1.184E-01	1.454
		311.90	*	2.146E-02	7.372E-02	1.256E-01	7.856E-03	0.171
		340.48		1.542E+00	8.994E-01	1.356E+00	3.150E-01	1.137
PA-234		94.67		5.668E-01	2.450E-01	3.774E-01	4.667E-02	1.502
		98.44		5.796E-02	1.291E-01	1.861E-01	1.036E-01	0.311
		111.00		-1.481E-01	2.257E-01	3.623E-01	3.919E-02	-0.409
		131.20		4.045E-02	1.286E-01	2.135E-01	1.207E-02	0.189
		569.50		-2.171E-01	3.348E-01	5.191E-01	2.924E-02	-0.418
		733.00		6.191E-01	4.933E-01	7.720E-01	1.650E-01	0.802
		880.51		-3.132E-01	3.560E-01	5.456E-01	4.783E-02	-0.574
		883.24		2.153E-01	3.857E-01	6.260E-01	4.210E-01	0.344
		926.50		-5.885E-02	2.274E-01	3.686E-01	9.350E-02	-0.160

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	1.960E-01	4.043E-01	6.949E-01	1.306E-01	0.282
		949.00		-3.095E-01	6.057E-01	9.615E-01	8.333E-02	-0.322
PA-234M		766.42		1.688E-01	1.496E+01	2.403E+01	1.213E+01	0.007
		1001.03	*	3.439E+00	5.544E+00	9.801E+00	9.352E-01	0.351
NP-239		99.53		1.779E-02	2.050E-01	3.290E-01	2.598E-02	0.054
		103.37		7.512E-02	1.228E-01	2.072E-01	1.544E-02	0.363
		106.12		3.187E-02	1.039E-01	1.735E-01	1.244E-02	0.184
		117.23	*	-4.401E-01	4.845E-01	7.684E-01	4.783E-02	-0.573
		228.18		-5.485E-02	2.702E-01	4.304E-01	2.390E-02	-0.127
		277.60		1.151E-01	2.226E-01	3.643E-01	2.118E-02	0.316
AM-241		59.54	*	6.604E-02	2.495E-01	3.731E-01	3.471E-02	0.177
CM-247		278.00		5.429E-01	8.922E-01	1.544E+00	8.978E-02	0.352
		287.50		7.505E-02	1.658E+00	2.442E+00	1.428E-01	0.031
		402.40	*	6.653E-02	4.749E-02	8.456E-02	4.901E-03	0.787
CF-249		252.80		-3.432E-01	1.200E+00	1.893E+00	1.079E-01	-0.181
		333.37		-2.069E-01	2.945E-01	3.486E-01	2.060E-02	-0.593
		388.16	*	1.886E-02	4.886E-02	8.301E-02	4.803E-03	0.227
CF-251		177.52	*	1.182E-01	1.556E-01	2.606E-01	1.349E-02	0.454
		227.38		-1.367E-01	4.494E-01	7.126E-01	3.953E-02	-0.192
		285.41		-2.778E+00	2.579E+00	4.110E+00	2.401E-01	-0.676

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
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*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863003     *
* Acquisition date : 24-MAR-2010 18:29:41 Detector SN#     :               *
* Detector ID        : GAM23               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.82     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        :  4-MAR-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G248863003           Analyst initials: MXR1          *
* Batch Number       : 962633               Sample Quantity : 1.2205E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.411E+01	3.217E+00	4.822E-01	0.000E+00
CD-109	3.195E+00	1.242E+00	1.648E+00	0.000E+00
SN-126	3.099E-01	1.205E-01	1.609E-01	0.000E+00
TL-208	6.091E-01	9.784E-02	7.139E-02	0.000E+00
BI-211	4.450E+00	5.678E-01	4.075E-01	0.000E+00
PB-212	2.101E+00	1.997E-01	1.141E-01	0.000E+00
BI-214	1.226E+00	2.247E-01	1.442E-01	0.000E+00
PB-214	1.615E+00	2.238E-01	1.482E-01	0.000E+00
RA-224	4.879E+00	1.522E+00	1.223E+00	0.000E+00
RA-226	1.226E+00	2.247E-01	1.442E-01	0.000E+00
AC-228	2.279E+00	4.880E-01	2.666E-01	0.000E+00
RA-228	2.279E+00	4.880E-01	2.666E-01	0.000E+00
TH-228	2.101E+00	1.997E-01	1.141E-01	0.000E+00
TH-230	1.226E+00	2.156E-01	1.442E-01	0.000E+00
TH-232	2.279E+00	4.880E-01	2.666E-01	0.000E+00
TH-234	4.332E+00	2.007E+00	3.141E+00	0.000E+00
U-235	2.426E-01	2.530E-01	3.909E-01	0.000E+00
NP-237	9.248E-01	4.066E-01	5.089E-01	0.000E+00
U-238	4.332E+00	2.007E+00	3.141E+00	0.000E+00
ANH-511	1.521E-01	8.205E-02	5.416E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	2.339E-02	4.068E-01	6.949E-01	0.000E+00	NOT IDENT.
NA-22	-1.091E-02	5.219E-02	8.483E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.724E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.086E-03	5.323E-02	9.063E-02	0.000E+00	FAIL ABUN
V-48	-3.504E-02	1.047E-01	1.718E-01	0.000E+00	NOT IDENT.
CR-51	3.735E-01	5.577E-01	8.855E-01	0.000E+00	NOT IDENT.
MN-54	1.310E-02	4.603E-02	8.063E-02	0.000E+00	NOT IDENT.

CO-56	-3.380E-02	4.813E-02	7.614E-02	0.000E+00	NOT IDENT.
CO-57	9.444E-03	3.161E-02	5.521E-02	0.000E+00	NOT IDENT.
CO-58	-2.915E-02	4.995E-02	8.171E-02	0.000E+00	NOT IDENT.
FE-59	8.108E-03	1.278E-01	2.162E-01	0.000E+00	NOT IDENT.
CO-60	6.320E-03	5.031E-02	8.455E-02	0.000E+00	NOT IDENT.
ZN-65	2.765E-02	1.418E-01	2.091E-01	0.000E+00	NOT IDENT.
SE-75	-9.598E-03	6.407E-02	9.188E-02	0.000E+00	NOT IDENT.
SR-85	5.899E-02	5.216E-02	8.433E-02	0.000E+00	NOT IDENT.
Y-88	2.564E-03	3.054E-02	5.233E-02	0.000E+00	NOT IDENT.
Y-91	1.429E+00	3.023E+01	5.069E+01	0.000E+00	NOT IDENT.
NB-94	3.441E-02	4.351E-02	7.631E-02	0.000E+00	NOT IDENT.
NB-95	4.662E-02	5.549E-02	9.742E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.218E-01	3.754E-01	0.000E+00	NOT IDENT.
ZR-95	-1.514E-03	8.866E-02	1.461E-01	0.000E+00	NOT IDENT.
MO-99	-4.199E+00	5.158E+01	8.459E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	7.742E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-5.024E-02	5.078E-02	7.928E-02	0.000E+00	NOT IDENT.
RH-106	2.554E-01	3.800E-01	6.670E-01	0.000E+00	NOT IDENT.
RU-106	2.554E-01	3.792E-01	6.670E-01	0.000E+00	NOT IDENT.
AG-108M	-1.466E-02	3.632E-02	6.062E-02	0.000E+00	NOT IDENT.
AG-110M	-3.023E-02	4.388E-02	6.902E-02	0.000E+00	NOT IDENT.
SN-113	-5.043E-02	5.721E-02	9.353E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	6.475E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	5.295E-02	8.660E-02	1.513E-01	0.000E+00	NOT IDENT.
TE-123M	2.637E-03	3.552E-02	6.084E-02	0.000E+00	NOT IDENT.
SB-124	2.706E-02	8.321E-02	1.495E-01	0.000E+00	NOT IDENT.
SB-125	1.127E-02	1.091E-01	1.881E-01	0.000E+00	NOT IDENT.
TE-125M	2.506E+00	1.240E+01	2.168E+01	0.000E+00	NOT IDENT.
I-126	-2.275E-01	3.572E-01	5.639E-01	0.000E+00	NOT IDENT.
SB-126	1.224E-02	2.645E-01	3.796E-01	0.000E+00	NOT IDENT.
SB-127	-3.037E+00	4.117E+00	6.391E+00	0.000E+00	NOT IDENT.
I-131	5.214E-02	2.073E-01	3.573E-01	0.000E+00	NOT IDENT.
TE-132	-5.726E-01	2.730E+00	4.534E+00	0.000E+00	NOT IDENT.
BA-133	1.991E-02	5.259E-02	8.016E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.073E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.323E-02	5.478E-02	1.031E-01	0.000E+00	NOT IDENT.
CS-135	0.000E+00	2.251E-01	3.585E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.357E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.620E-02	1.640E-01	2.656E-01	0.000E+00	NOT IDENT.
BA-137M	6.155E-02	4.443E-02	8.137E-02	0.000E+00	NOT IDENT.
CS-137	6.502E-02	4.694E-02	8.596E-02	0.000E+00	NOT IDENT.
CE-139	-2.040E-02	3.721E-02	6.107E-02	0.000E+00	NOT IDENT.
BA-140	5.067E-02	4.171E-01	7.101E-01	0.000E+00	NOT IDENT.
LA-140	-9.706E-02	1.071E-01	1.495E-01	0.000E+00	NOT IDENT.
CE-141	5.663E-02	9.418E-02	1.459E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.172E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.898E-01	2.403E-01	3.989E-01	0.000E+00	NOT IDENT.
PM-144	-2.337E-02	4.362E-02	6.927E-02	0.000E+00	NOT IDENT.
PR-144	-1.734E+00	3.274E+00	5.203E+00	0.000E+00	NOT IDENT.
PM-146	-2.536E-03	5.080E-02	8.644E-02	0.000E+00	NOT IDENT.
ND-147	-2.068E-02	8.597E-01	1.450E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	5.285E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	3.884E-03	1.355E-01	1.935E-01	0.000E+00	FAIL ABUN
GD-153	8.089E-02	1.131E-01	1.793E-01	0.000E+00	NOT IDENT.
EU-154	-2.765E-02	1.478E-01	2.408E-01	0.000E+00	NOT IDENT.
EU-155	8.479E-02	1.287E-01	2.288E-01	0.000E+00	FAIL ABUN
TB-160	-1.185E-01	1.828E-01	2.947E-01	0.000E+00	FAIL ABUN
HO-166M	-4.496E-02	7.581E-02	1.193E-01	0.000E+00	FAIL ABUN
TA-182	-1.677E-01	2.777E-01	4.405E-01	0.000E+00	NOT IDENT.
IR-192	-1.830E-02	4.273E-02	7.283E-02	0.000E+00	FAIL ABUN
HG-203	-5.949E-04	4.908E-02	8.606E-02	0.000E+00	NOT IDENT.
BI-207	5.627E-04	6.323E-02	1.067E-01	0.000E+00	FAIL ABUN
PB-210	-1.812E+00	6.229E+00	1.092E+01	0.000E+00	NOT IDENT.
PB-211	-2.991E-01	9.288E-01	1.550E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.098E+00	1.454E+00	0.000E+00	FAIL ABUN
RN-219	4.075E-01	5.111E-01	9.115E-01	0.000E+00	FAIL ABUN
RA-223	-6.115E-01	8.950E-01	1.267E+00	0.000E+00	FAIL ABUN
AC-227	1.205E-01	3.088E-01	5.244E-01	0.000E+00	FAIL ABUN
TH-227	1.205E-01	3.088E-01	5.244E-01	0.000E+00	FAIL ABUN
TH-229	-1.071E-01	6.171E-01	1.036E+00	0.000E+00	FAIL ABUN
PA-231	-6.330E-01	1.673E+00	2.877E+00	0.000E+00	NOT IDENT.
TH-231	-6.115E-01	8.950E-01	1.267E+00	0.000E+00	FAIL ABUN
PA-233	2.146E-02	7.225E-02	1.279E-01	0.000E+00	FAIL ABUN
PA-234	1.960E-01	3.962E-01	6.975E-01	0.000E+00	NOT IDENT.
PA-234M	3.439E+00	5.433E+00	9.832E+00	0.000E+00	NOT IDENT.
NP-239	-4.401E-01	4.748E-01	7.919E-01	0.000E+00	NOT IDENT.
AM-241	6.604E-02	2.445E-01	3.876E-01	0.000E+00	NOT IDENT.
CM-247	6.653E-02	4.654E-02	8.582E-02	0.000E+00	NOT IDENT.

CF-249	1.886E-02	4.788E-02	8.428E-02	0.000E+00 NOT IDENT.
CF-251	1.182E-01	1.525E-01	2.672E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 20:30:36.91

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863003.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 18:29:41
Sample ID         : G248863003           Sample quantity  : 1.22050E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.82  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1179	10.66*	9.974E-01	3.411E+01	3.411E+01	9.62
CD-109	88.03	194	3.70*	5.215E+00	3.099E+00	3.195E+00	39.67
SN-126	64.28	84	9.60	2.791E+00	9.652E-01	9.652E-01	86.60
	86.94	194	8.90	5.215E+00	1.288E+00	1.288E+00	56.65
	87.57	194	37.00*	5.215E+00	3.099E-01	3.099E-01	39.67
TL-208	277.37	------	6.60	4.139E+00	------	Line Not Found	------
	583.19	383	85.00*	2.278E+00	6.091E-01	6.091E-01	16.39
	860.56	48	12.50	1.610E+00	7.347E-01	7.347E-01	66.96
BI-211	72.87	------	1.23	3.829E+00	------	Line Not Found	------
	351.06	643	12.92*	3.442E+00	4.450E+00	4.450E+00	13.02
PB-212	74.82	361	10.28	4.039E+00	2.672E+00	2.672E+00	26.19
	77.11	598	17.10	4.293E+00	2.506E+00	2.506E+00	16.06
	238.63	1382	43.60*	4.639E+00	2.101E+00	2.101E+00	9.70
	300.09	108	3.30	3.900E+00	2.577E+00	2.577E+00	48.00
BI-214	609.32	398	45.49*	2.194E+00	1.226E+00	1.226E+00	18.70
	1120.29	83	14.92	1.259E+00	1.359E+00	1.359E+00	53.78
	1764.49	74	15.30	8.742E-01	1.708E+00	1.708E+00	34.73
PB-214	74.82	361	5.80	4.039E+00	4.735E+00	4.735E+00	25.58
	77.11	598	9.70	4.293E+00	4.419E+00	4.419E+00	18.05
	242.00	299	7.25	4.597E+00	2.759E+00	2.759E+00	32.35
	295.22	375	18.42	3.950E+00	1.585E+00	1.585E+00	17.99
	351.93	643	35.60*	3.442E+00	1.615E+00	1.615E+00	14.14
RA-224	240.99	299	4.10*	4.597E+00	4.879E+00	4.879E+00	31.83
RA-226	609.32	398	45.49*	2.194E+00	1.226E+00	1.226E+00	18.70
	1120.29	83	14.92	1.259E+00	1.359E+00	1.359E+00	53.78
	1764.49	74	15.30	8.742E-01	1.708E+00	1.708E+00	34.73
AC-228	338.32	231	11.27	3.550E+00	1.776E+00	1.776E+00	50.36
	911.20	292	25.80*	1.527E+00	2.279E+00	2.279E+00	21.85
	968.97	164	15.80	1.441E+00	2.215E+00	2.215E+00	32.52
RA-228	338.32	231	11.27	3.550E+00	1.776E+00	1.776E+00	50.36
	911.20	292	25.80*	1.527E+00	2.279E+00	2.279E+00	21.85
	968.97	164	15.80	1.441E+00	2.215E+00	2.215E+00	32.52

Sample ID : G248863003 Acquisition date : 24-MAR-2010 18:29:41

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	361	10.28	4.039E+00	2.672E+00	2.672E+00	24.34
	77.11	598	17.10	4.293E+00	2.506E+00	2.506E+00	16.06
	238.63	1382	43.60*	4.639E+00	2.101E+00	2.101E+00	9.70
	300.09	108	3.30	3.900E+00	2.577E+00	2.577E+00	77.08
TH-230	609.32	398	45.49*	2.194E+00	1.226E+00	1.226E+00	17.94
	1120.29	83	14.92	1.259E+00	1.359E+00	1.359E+00	53.36
	1764.49	74	15.30	8.742E-01	1.708E+00	1.708E+00	34.73
TH-232	338.32	231	11.27	3.550E+00	1.776E+00	1.776E+00	29.50
	911.20	292	25.80*	1.527E+00	2.279E+00	2.279E+00	21.85
	968.97	164	15.80	1.441E+00	2.215E+00	2.215E+00	32.52
TH-234	63.29	134	3.70*	2.566E+00	4.332E+00	4.332E+00	47.27
	92.59	256	4.23	5.593E+00	3.327E+00	3.327E+00	39.72
U-235	89.96	132	3.47	5.404E+00	2.158E+00	2.158E+00	54.93
	93.35	256	5.60	5.593E+00	2.513E+00	2.513E+00	40.29
	143.76	54	10.96*	6.194E+00	2.426E-01	2.426E-01	106.38
	163.33	------	5.08	5.887E+00	------ Line Not Found		------
	185.72	230	57.20	5.490E+00	2.252E-01	2.252E-01	38.49
	205.31	------	5.01	5.150E+00	------ Line Not Found		------
NP-237	86.48	194	12.40*	5.215E+00	9.248E-01	9.248E-01	44.87
	95.86	------	2.68	5.757E+00	------ Line Not Found		------
U-238	63.29	134	3.70*	2.566E+00	4.332E+00	4.332E+00	47.27
	92.59	256	4.23	5.593E+00	3.327E+00	3.327E+00	34.12
ANH-511	511.00	126	100.00*	2.547E+00	1.521E-01	1.521E-01	55.07

Flag: "*" = Keyline

Sample ID : G248863003 Acquisition date : 24-MAR-2010 18:29:41

Total number of lines in spectrum 30
Number of unidentified lines 3
Number of lines tentatively identified by NID 27 90.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.411E+01	3.411E+01	0.328E+01	9.62	
CD-109	461.40D	1.03	3.099E+00	3.195E+00	1.267E+00	39.67	
SN-126	2.30E+05Y	1.00	3.099E-01	3.099E-01	1.229E-01	39.67	
TL-208	1.41E+10Y	1.00	6.091E-01	6.091E-01	0.998E-01	16.39	
BI-211	7.04E+08Y	1.00	4.450E+00	4.450E+00	0.579E+00	13.02	
PB-212	1.41E+10Y	1.00	2.101E+00	2.101E+00	0.204E+00	9.70	
BI-214	1600.00Y	1.00	1.226E+00	1.226E+00	0.229E+00	18.70	
PB-214	1600.00Y	1.00	1.615E+00	1.615E+00	0.228E+00	14.14	
RA-224	1.41E+10Y	1.00	4.879E+00	4.879E+00	1.553E+00	31.83	
RA-226	1600.00Y	1.00	1.226E+00	1.226E+00	0.229E+00	18.70	
AC-228	1.41E+10Y	1.00	2.279E+00	2.279E+00	0.498E+00	21.85	
RA-228	1.41E+10Y	1.00	2.279E+00	2.279E+00	0.498E+00	21.85	
TH-228	1.41E+10Y	1.00	2.101E+00	2.101E+00	0.204E+00	9.70	
TH-230	7.54E+04Y	1.00	1.226E+00	1.226E+00	0.220E+00	17.94	
TH-232	1.41E+10Y	1.00	2.279E+00	2.279E+00	0.498E+00	21.85	
TH-234	4.47E+09Y	1.00	4.332E+00	4.332E+00	2.048E+00	47.27	
U-235	7.04E+08Y	1.00	2.426E-01	2.426E-01	2.581E-01	106.38	
NP-237	2.14E+06Y	1.00	9.248E-01	9.248E-01	4.149E-01	44.87	
U-238	4.47E+09Y	1.00	4.332E+00	4.332E+00	2.048E+00	47.27	
ANH-511	1.00E+09Y	1.00	1.521E-01	1.521E-01	0.837E-01	55.07	
	Total Activity :		7.377E+01	7.387E+01			

Grand Total Activity : 7.377E+01 7.387E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248863003 Acquisition date : 24-MAR-2010 18:29:41

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	208.86	147	315	1.24	417.71	413	10	2.04E-02	48.1	5.09E+00	
0	269.83	82	200	1.46	539.66	536	9	1.14E-02	66.0	4.23E+00	T
0	326.57	64	195	3.44	653.13	647	12	8.84E-03	91.3	3.65E+00	
0	461.45	38	136	1.48	922.90	920	11	5.21E-03	****	2.77E+00	
0	726.67	99	86	2.14	1453.34	1446	14	1.38E-02	44.7	1.88E+00	T
2	963.80	68	58	2.34	1927.60	1917	25	9.47E-03	53.0	1.45E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 20:30:41.22

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863003.CNF;1  *
* Acquisition date : 24-MAR-2010 18:29:41  Detector SN#    :                *
* Detector ID      : GAM23                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.82         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 4-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248863003            Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.22050E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-JUN-2009 11:17:00.62MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.411E+01	3.283E+00	4.831E-01	3.614E-02	70.601
CD-109	3.195E+00	1.267E+00	1.594E+00	1.556E-01	2.005
SN-126	3.099E-01	1.229E-01	1.555E-01	1.514E-02	1.993
TL-208	6.091E-01	9.984E-02	7.068E-02	4.577E-03	8.618
BI-211	4.450E+00	5.794E-01	4.008E-01	2.612E-02	11.102
PB-212	2.101E+00	2.038E-01	1.117E-01	8.106E-03	18.804
BI-214	1.226E+00	2.293E-01	1.429E-01	1.083E-02	8.582
PB-214	1.615E+00	2.284E-01	1.458E-01	1.245E-02	11.078
RA-224	4.879E+00	1.553E+00	1.198E+00	6.748E-02	4.074
RA-226	1.226E+00	2.293E-01	1.429E-01	1.083E-02	8.582
AC-228	2.279E+00	4.979E-01	2.654E-01	3.153E-02	8.587
RA-228	2.279E+00	4.979E-01	2.654E-01	3.153E-02	8.587
TH-228	2.101E+00	2.038E-01	1.117E-01	8.106E-03	18.804
TH-230	1.226E+00	2.200E-01	1.429E-01	7.779E-03	8.582
TH-232	2.279E+00	4.979E-01	2.654E-01	3.153E-02	8.587
TH-234	4.332E+00	2.048E+00	3.025E+00	5.565E-01	1.432
U-235	2.426E-01	2.581E-01	3.803E-01	5.921E-02	0.638
NP-237	9.248E-01	4.149E-01	4.921E-01	1.135E-01	1.879

Sample ID : G248863003 Acquisition date : 24-MAR-2010 18:29:41

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-238	4.332E+00	2.048E+00	3.025E+00	5.565E-01	1.432
ANH-511	1.521E-01	8.373E-02	5.353E-02	3.109E-03	2.841

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.339E-02		4.151E-01	6.862E-01	4.662E-02	0.034
NA-22	-1.091E-02		5.326E-02	8.483E-02	5.697E-03	-0.129
NA-24	1.027E+01		1.390E+02	Half-Life too short		
SC-46	-2.086E-03		5.431E-02	9.021E-02	8.060E-03	-0.023
V-48	-3.504E-02		1.068E-01	1.713E-01	1.425E-02	-0.205
CR-51	3.735E-01		5.691E-01	8.700E-01	5.696E-02	0.429
MN-54	1.310E-02		4.697E-02	8.019E-02	6.350E-03	0.163
CO-56	-3.380E-02		4.911E-02	7.574E-02	6.162E-03	-0.446
CO-57	9.444E-03		3.225E-02	5.360E-02	3.160E-03	0.176
CO-58	-2.915E-02		5.097E-02	8.124E-02	6.103E-03	-0.359
FE-59	8.108E-03		1.304E-01	2.158E-01	1.661E-02	0.038
CO-60	6.320E-03		5.133E-02	8.460E-02	6.211E-03	0.075
ZN-65	2.765E-02		1.447E-01	2.087E-01	1.379E-02	0.132
SE-75	-9.598E-03		6.537E-02	9.006E-02	5.244E-03	-0.107
SR-85	5.899E-02		5.323E-02	8.335E-02	4.837E-03	0.708
Y-88	2.564E-03		3.116E-02	5.258E-02	3.096E-03	0.049
Y-91	1.429E+00		3.085E+01	5.066E+01	3.021E+00	0.028
NB-94	3.441E-02		4.440E-02	7.573E-02	4.327E-03	0.454
NB-95	4.662E-02		5.662E-02	9.678E-02	6.504E-03	0.482
NB-95M	9.859E-01		2.263E-01	3.674E-01	2.720E-02	2.683
ZR-95	-1.514E-03		9.047E-02	1.451E-01	1.119E-02	-0.010
MO-99	-4.199E+00		5.263E+01	8.400E+01	1.228E+01	-0.050
TC-99M	-3.176E+16		3.950E+16	Half-Life too short		
RU-103	-5.024E-02		5.182E-02	7.833E-02	9.745E-03	-0.641
RH-106	2.554E-01		3.878E-01	6.609E-01	7.543E-02	0.386
RU-106	2.554E-01		3.869E-01	6.609E-01	3.551E-02	0.386
AG-108M	-1.466E-02		3.706E-02	5.979E-02	3.737E-03	-0.245
AG-110M	-3.023E-02		4.478E-02	6.844E-02	3.804E-03	-0.442
SN-113	-5.043E-02		5.838E-02	9.213E-02	5.676E-03	-0.547
CD-115	-5.344E-05		3.304E-05	Half-Life too short		
SN-117M	5.295E-02		8.837E-02	1.474E-01	7.659E-03	0.359
TE-123M	2.637E-03		3.624E-02	5.926E-02	3.127E-03	0.045
SB-124	2.706E-02		8.491E-02	1.500E-01	1.050E-02	0.180
SB-125	1.127E-02		1.113E-01	1.855E-01	1.127E-02	0.061
TE-125M	2.506E+00		1.265E+01	2.102E+01	1.916E+00	0.119
I-126	-2.275E-01		3.645E-01	5.592E-01	2.894E-02	-0.407
SB-126	1.224E-02		2.699E-01	3.768E-01	2.258E-02	0.032
SB-127	-3.037E+00		4.201E+00	6.341E+00	7.082E-01	-0.479
I-131	5.214E-02		2.116E-01	3.516E-01	2.316E-02	0.148
TE-132	-5.726E-01		2.786E+00	4.436E+00	6.928E-01	-0.129
BA-133	1.991E-02		5.366E-02	7.886E-02	8.926E-03	0.252

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	-1.102E-01		2.078E-01	Half-Life too short		
CS-134	7.323E-02		5.590E-02	1.024E-01	7.482E-03	0.715
CS-135	3.625E-01		2.297E-01	3.514E-01	2.685E-02	1.032
I-135	-2.084E+15		2.223E+15	Half-Life too short		
CS-136	-6.620E-02		1.673E-01	2.650E-01	2.112E-02	-0.250
BA-137M	6.155E-02		4.534E-02	8.069E-02	4.122E-03	0.763
CS-137	6.502E-02		4.789E-02	8.524E-02	4.378E-03	0.763
CE-139	-2.040E-02		3.797E-02	5.951E-02	3.034E-03	-0.343
BA-140	5.067E-02		4.256E-01	7.023E-01	2.339E-01	0.072
LA-140	-9.706E-02		1.092E-01	1.499E-01	1.028E-02	-0.648
CE-141	5.663E-02		9.610E-02	1.419E-01	8.006E-03	0.399
CE-143	1.885E-02	+	2.639E-03	Half-Life too short		
CE-144	-1.898E-01		2.452E-01	3.877E-01	5.355E-02	-0.490
PM-144	-2.337E-02		4.451E-02	6.873E-02	3.869E-03	-0.340
PR-144	-1.734E+00		3.341E+00	5.163E+00	2.902E-01	-0.336
PM-146	-2.536E-03		5.184E-02	8.530E-02	7.247E-03	-0.030
ND-147	-2.068E-02		8.772E-01	1.434E+00	1.937E-01	-0.014
PM-149	-2.933E-04		2.696E-04	Half-Life too short		
EU-152	3.884E-03		1.383E-01	1.903E-01	1.261E-02	0.020
GD-153	8.089E-02		1.154E-01	1.736E-01	1.418E-02	0.466
EU-154	-2.765E-02		1.508E-01	2.408E-01	2.410E-02	-0.115
EU-155	8.479E-02		1.313E-01	2.217E-01	1.634E-02	0.382
TB-160	-1.185E-01		1.865E-01	2.933E-01	2.565E-02	-0.404
HO-166M	-4.496E-02		7.736E-02	1.185E-01	6.933E-03	-0.380
TA-182	-1.677E-01		2.834E-01	4.403E-01	2.702E-02	-0.381
IR-192	-1.830E-02		4.360E-02	7.155E-02	4.245E-03	-0.256
HG-203	-5.949E-04		5.008E-02	8.442E-02	5.185E-03	-0.007
BI-207	5.627E-04		6.452E-02	1.065E-01	7.821E-03	0.005
PB-210	-1.812E+00		6.356E+00	1.048E+01	8.098E-01	-0.173
PB-211	-2.991E-01		9.478E-01	1.528E+00	7.329E-01	-0.196
BI-212	2.434E+00	+	1.120E+00	1.443E+00	1.568E-01	1.686
RN-219	4.075E-01		5.216E-01	8.982E-01	1.207E-01	0.454
RA-223	-6.115E-01		9.132E-01	1.246E+00	2.012E-01	-0.491
AC-227	1.205E-01		3.151E-01	5.138E-01	5.230E-02	0.235
TH-227	1.205E-01		3.151E-01	5.138E-01	6.155E-02	0.235
TH-229	-1.071E-01		6.297E-01	1.012E+00	5.358E-02	-0.106
PA-231	-6.330E-01		1.707E+00	2.822E+00	3.706E-01	-0.224
TH-231	-6.115E-01		9.132E-01	1.246E+00	2.012E-01	-0.491
PA-233	2.146E-02		7.372E-02	1.256E-01	7.856E-03	0.171
PA-234	1.960E-01		4.043E-01	6.949E-01	1.306E-01	0.282
PA-234M	3.439E+00		5.544E+00	9.801E+00	9.352E-01	0.351
NP-239	-4.401E-01		4.845E-01	7.684E-01	4.783E-02	-0.573
AM-241	6.604E-02		2.495E-01	3.731E-01	3.471E-02	0.177
CM-247	6.653E-02		4.749E-02	8.456E-02	4.901E-03	0.787
CF-249	1.886E-02		4.886E-02	8.301E-02	4.803E-03	0.227
CF-251	1.182E-01		1.556E-01	2.606E-01	1.349E-02	0.454

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248863003            *
* Acquisition date : 24-MAR-2010 18:29:41 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.82     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  4-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248863003           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.2205E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.411E+01	3.217E+00	2.413E-01	1.641E+00
CD-109	3.195E+00	1.242E+00	8.247E-01	6.337E-01
SN-126	3.099E-01	1.205E-01	8.048E-02	6.147E-02
TL-208	6.091E-01	9.784E-02	3.572E-02	4.992E-02
BI-211	4.450E+00	5.678E-01	2.038E-01	2.897E-01
PB-212	2.101E+00	1.997E-01	5.710E-02	1.019E-01
BI-214	1.226E+00	2.247E-01	7.216E-02	1.147E-01
PB-214	1.615E+00	2.238E-01	7.414E-02	1.142E-01
RA-224	4.879E+00	1.522E+00	6.120E-01	7.766E-01
RA-226	1.226E+00	2.247E-01	7.216E-02	1.147E-01
AC-228	2.279E+00	4.880E-01	1.334E-01	2.490E-01
RA-228	2.279E+00	4.880E-01	1.334E-01	2.490E-01
TH-228	2.101E+00	1.997E-01	5.710E-02	1.019E-01
TH-230	1.226E+00	2.156E-01	7.216E-02	1.100E-01
TH-232	2.279E+00	4.880E-01	1.334E-01	2.490E-01
TH-234	4.332E+00	2.007E+00	1.571E+00	1.024E+00
U-235	2.426E-01	2.530E-01	1.956E-01	1.291E-01
NP-237	9.248E-01	4.066E-01	2.546E-01	2.075E-01
U-238	4.332E+00	2.007E+00	1.571E+00	1.024E+00
ANH-511	1.521E-01	8.205E-02	2.709E-02	4.186E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	2.339E-02	4.068E-01	3.477E-01	2.076E-01	NOT IDENT.
NA-22	-1.091E-02	5.219E-02	4.244E-02	2.663E-02	NOT IDENT.
NA-24	1.027E+07	2.724E+08	0.000E+00	1.390E+08	SHORT HLIF
SC-46	-2.086E-03	5.323E-02	4.534E-02	2.716E-02	FAIL ABUN
V-48	-3.504E-02	1.047E-01	8.596E-02	5.341E-02	NOT IDENT.
CR-51	3.735E-01	5.577E-01	4.430E-01	2.845E-01	NOT IDENT.
MN-54	1.310E-02	4.603E-02	4.034E-02	2.348E-02	NOT IDENT.

CO-56	-3.380E-02	4.813E-02	3.809E-02	2.455E-02	NOT IDENT.
CO-57	9.444E-03	3.161E-02	2.762E-02	1.613E-02	NOT IDENT.
CO-58	-2.915E-02	4.995E-02	4.088E-02	2.548E-02	NOT IDENT.
FE-59	8.108E-03	1.278E-01	1.082E-01	6.522E-02	NOT IDENT.
CO-60	6.320E-03	5.031E-02	4.230E-02	2.567E-02	NOT IDENT.
ZN-65	2.765E-02	1.418E-01	1.046E-01	7.233E-02	NOT IDENT.
SE-75	-9.598E-03	6.407E-02	4.597E-02	3.269E-02	NOT IDENT.
SR-85	5.899E-02	5.216E-02	4.219E-02	2.661E-02	NOT IDENT.
Y-88	2.564E-03	3.054E-02	2.618E-02	1.558E-02	NOT IDENT.
Y-91	1.429E+00	3.023E+01	2.536E+01	1.543E+01	NOT IDENT.
NB-94	3.441E-02	4.351E-02	3.818E-02	2.220E-02	NOT IDENT.
NB-95	4.662E-02	5.549E-02	4.874E-02	2.831E-02	NOT IDENT.
NB-95M	9.859E-01	2.218E-01	1.878E-01	1.132E-01	NOT IDENT.
ZR-95	-1.514E-03	8.866E-02	7.307E-02	4.523E-02	NOT IDENT.
MO-99	-4.199E+00	5.158E+01	4.232E+01	2.632E+01	NOT IDENT.
TC-99M	-3.176E+22	7.742E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-5.024E-02	5.078E-02	3.966E-02	2.591E-02	NOT IDENT.
RH-106	2.554E-01	3.800E-01	3.337E-01	1.939E-01	NOT IDENT.
RU-106	2.554E-01	3.792E-01	3.337E-01	1.935E-01	NOT IDENT.
AG-108M	-1.466E-02	3.632E-02	3.033E-02	1.853E-02	NOT IDENT.
AG-110M	-3.023E-02	4.388E-02	3.453E-02	2.239E-02	NOT IDENT.
SN-113	-5.043E-02	5.721E-02	4.679E-02	2.919E-02	NOT IDENT.
CD-115	-5.344E+01	6.475E+01	0.000E+00	3.304E+01	SHORT HLIF
SN-117M	5.295E-02	8.660E-02	7.570E-02	4.419E-02	NOT IDENT.
TE-123M	2.637E-03	3.552E-02	3.044E-02	1.812E-02	NOT IDENT.
SB-124	2.706E-02	8.321E-02	7.478E-02	4.246E-02	NOT IDENT.
SB-125	1.127E-02	1.091E-01	9.411E-02	5.567E-02	NOT IDENT.
TE-125M	2.506E+00	1.240E+01	1.085E+01	6.325E+00	NOT IDENT.
I-126	-2.275E-01	3.572E-01	2.821E-01	1.822E-01	NOT IDENT.
SB-126	1.224E-02	2.645E-01	1.899E-01	1.350E-01	NOT IDENT.
SB-127	-3.037E+00	4.117E+00	3.198E+00	2.101E+00	NOT IDENT.
I-131	5.214E-02	2.073E-01	1.788E-01	1.058E-01	NOT IDENT.
TE-132	-5.726E-01	2.730E+00	2.268E+00	1.393E+00	NOT IDENT.
BA-133	1.991E-02	5.259E-02	4.010E-02	2.683E-02	NOT IDENT.
I-133	-1.102E+05	4.073E+05	0.000E+00	2.078E+05	SHORT HLIF
CS-134	7.323E-02	5.478E-02	5.156E-02	2.795E-02	NOT IDENT.
CS-135	3.625E-01	2.251E-01	1.793E-01	1.148E-01	NOT IDENT.
I-135	-2.084E+21	4.357E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.620E-02	1.640E-01	1.329E-01	8.367E-02	NOT IDENT.
BA-137M	6.155E-02	4.443E-02	4.071E-02	2.267E-02	NOT IDENT.
CS-137	6.502E-02	4.694E-02	4.301E-02	2.395E-02	NOT IDENT.
CE-139	-2.040E-02	3.721E-02	3.055E-02	1.898E-02	NOT IDENT.
BA-140	5.067E-02	4.171E-01	3.553E-01	2.128E-01	NOT IDENT.
LA-140	-9.706E-02	1.071E-01	7.477E-02	5.462E-02	NOT IDENT.
CE-141	5.663E-02	9.418E-02	7.298E-02	4.805E-02	NOT IDENT.
CE-143	1.885E+04	5.172E+03	0.000E+00	2.639E+03	SHORT HLIF
CE-144	-1.898E-01	2.403E-01	1.996E-01	1.226E-01	NOT IDENT.
PM-144	-2.337E-02	4.362E-02	3.465E-02	2.225E-02	NOT IDENT.
PR-144	-1.734E+00	3.274E+00	2.603E+00	1.671E+00	NOT IDENT.
PM-146	-2.536E-03	5.080E-02	4.324E-02	2.592E-02	NOT IDENT.
ND-147	-2.068E-02	8.597E-01	7.256E-01	4.386E-01	FAIL ABUN
PM-149	-2.933E+02	5.285E+02	0.000E+00	2.696E+02	SHORT HLIF
EU-152	3.884E-03	1.355E-01	9.682E-02	6.914E-02	FAIL ABUN
GD-153	8.089E-02	1.131E-01	8.971E-02	5.771E-02	NOT IDENT.
EU-154	-2.765E-02	1.478E-01	1.205E-01	7.542E-02	NOT IDENT.
EU-155	8.479E-02	1.287E-01	1.145E-01	6.567E-02	FAIL ABUN
TB-160	-1.185E-01	1.828E-01	1.475E-01	9.326E-02	FAIL ABUN
HO-166M	-4.496E-02	7.581E-02	5.971E-02	3.868E-02	FAIL ABUN
TA-182	-1.677E-01	2.777E-01	2.204E-01	1.417E-01	NOT IDENT.
IR-192	-1.830E-02	4.273E-02	3.644E-02	2.180E-02	FAIL ABUN
HG-203	-5.949E-04	4.908E-02	4.306E-02	2.504E-02	NOT IDENT.
BI-207	5.627E-04	6.323E-02	5.338E-02	3.226E-02	FAIL ABUN
PB-210	-1.812E+00	6.229E+00	5.465E+00	3.178E+00	NOT IDENT.
PB-211	-2.991E-01	9.288E-01	7.756E-01	4.739E-01	NOT IDENT.
BI-212	2.434E+00	1.098E+00	7.273E-01	5.602E-01	FAIL ABUN
RN-219	4.075E-01	5.111E-01	4.560E-01	2.608E-01	FAIL ABUN
RA-223	-6.115E-01	8.950E-01	6.341E-01	4.566E-01	FAIL ABUN
AC-227	1.205E-01	3.088E-01	2.623E-01	1.575E-01	FAIL ABUN
TH-227	1.205E-01	3.088E-01	2.623E-01	1.576E-01	FAIL ABUN
TH-229	-1.071E-01	6.171E-01	5.183E-01	3.149E-01	FAIL ABUN
PA-231	-6.330E-01	1.673E+00	1.439E+00	8.533E-01	NOT IDENT.
TH-231	-6.115E-01	8.950E-01	6.341E-01	4.566E-01	FAIL ABUN
PA-233	2.146E-02	7.225E-02	6.399E-02	3.686E-02	FAIL ABUN
PA-234	1.960E-01	3.962E-01	3.490E-01	2.021E-01	NOT IDENT.
PA-234M	3.439E+00	5.433E+00	4.919E+00	2.772E+00	NOT IDENT.
NP-239	-4.401E-01	4.748E-01	3.962E-01	2.422E-01	NOT IDENT.
AM-241	6.604E-02	2.445E-01	1.939E-01	1.247E-01	NOT IDENT.
CM-247	6.653E-02	4.654E-02	4.293E-02	2.375E-02	NOT IDENT.

CF-249	1.886E-02	4.788E-02	4.217E-02	2.443E-02 NOT IDENT.
CF-251	1.182E-01	1.525E-01	1.337E-01	7.782E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	340.6179
49.72	365.2786
57.36	0.0000
59.54	363.5347
63.29	410.6171
63.29	410.6171
64.28	411.2338
67.75	443.2829
69.67	500.1648
70.83	459.9114
72.81	461.1983
72.87	461.2375
72.87	461.2375
74.82	481.7572
74.82	481.7572
74.82	481.7572
74.97	481.8565
77.11	483.2650
77.11	483.2650
77.11	483.2650
79.69	430.5472
79.80	430.6094
80.12	462.7595
80.19	462.8022
80.57	525.4828
81.00	542.9247
81.07	542.9747
81.07	542.9747
83.79	507.8056
83.79	507.8056
85.43	456.7563
86.48	486.5246
86.55	486.5691
86.79	446.2187
86.94	446.3038
87.57	446.6568
88.03	446.9140
88.47	447.1588
89.96	447.9836
91.11	448.6169
92.59	449.4240
92.59	449.4240
93.35	449.8373
94.67	392.2195
94.87	384.5604
94.87	384.5604
95.86	388.1180
97.43	332.8442
98.44	348.8092
99.53	358.6057
100.11	375.4229
103.18	371.8490
103.37	346.4810
105.31	358.0270
106.12	366.2043
109.28	360.5856
111.00	382.9765
111.76	370.4481
116.30	351.3964
117.23	365.6500
121.12	339.1920
121.78	356.3913
122.06	356.4934
123.07	382.8495
131.20	352.7023
133.52	365.6153
136.00	340.1631

136.47	326.1370
140.51	328.6002
140.51	0.0000
143.76	325.3083
144.24	313.2092
144.24	313.2092
145.44	331.7335
152.43	342.2554
153.25	356.9013
154.21	349.9973
154.21	349.9973
156.02	327.8720
158.56	324.4641
159.00	335.9572
162.66	333.9026
163.33	290.5145
165.86	329.6077
176.60	307.3581
177.52	278.1922
181.07	286.3521
184.41	278.6631
185.72	280.0057
193.51	287.0089
197.04	298.4335
205.31	310.5657
210.85	260.1340
215.65	274.4251
222.11	286.5264
227.38	278.8555
228.16	267.0155
228.18	267.0192
235.69	273.4171
235.96	273.4666
235.96	273.4666
238.63	249.1489
238.63	249.1489
240.99	249.5386
242.00	249.7048
244.70	218.6302
252.40	225.9218
252.80	228.1949
256.23	208.7110
256.23	208.7110
260.90	0.0000
264.66	207.1376
268.22	198.6442
269.46	198.7946
269.46	198.7946
271.23	220.5262
273.65	244.1924
276.40	205.5441
277.37	203.5753
277.60	209.2273
278.00	205.2278
279.20	215.2838
279.54	219.8323
280.46	205.5284
283.69	200.5046
284.31	192.4462
285.41	214.2692
285.90	0.0000
287.50	187.0747
293.27	0.0000
295.22	180.0369
295.96	180.1143
298.57	180.3825
299.98	151.9592
299.98	151.9592
300.09	151.9694
300.09	151.9694
300.13	151.9735
301.36	145.9961
302.85	152.2074
304.50	137.1149
304.50	137.1149
304.85	147.8090
308.46	152.9950
311.90	153.2886

316.51	178.5240
319.41	155.5355
320.08	153.6723
323.87	187.8674
323.87	187.8674
328.76	176.0098
333.37	192.6949
334.37	182.7305
334.37	182.7305
338.28	153.6260
338.28	153.6260
338.32	153.6281
338.32	153.6281
338.32	153.6281
340.48	142.9283
340.55	142.9339
344.28	151.3055
351.06	155.5845
351.93	155.6534
356.01	117.4530
364.49	123.6185
366.42	132.2378
383.85	132.4199
388.16	135.5570
388.63	139.4075
391.69	166.3854
400.66	163.2515
401.81	137.3966
402.40	124.9409
404.85	165.4933
410.95	143.7690
414.70	130.4846
423.72	128.1086
427.09	117.6102
427.87	122.5132
433.94	133.5700
453.88	118.0181
463.37	115.2041
468.07	108.8372
473.00	109.0627
476.78	95.3309
477.60	105.2974
487.02	102.7146
492.35	0.0000
497.08	109.1437
511.00	90.6202
514.00	92.4080
527.90	0.0000
529.87	0.0000
531.02	81.1836
537.26	90.5319
546.56	0.0000
563.25	90.3934
569.33	103.9787
569.50	103.9861
569.70	102.9639
583.19	91.3978
600.60	98.3297
602.73	92.0362
604.72	107.7381
609.32	99.2096
609.32	99.2096
609.32	99.2096
610.33	97.5033
614.28	95.8942
618.01	101.6061
621.93	73.4231
621.93	73.4231
633.25	84.2363
635.95	86.4223
636.99	75.9094
645.85	87.7680
657.76	94.4864
661.66	70.1588
661.66	70.1588
664.57	0.0000
666.33	93.6891
666.50	96.8875

677.62	81.2102
685.70	87.8497
695.00	96.7083
696.49	94.6043
696.51	94.6043
697.00	96.7698
702.65	82.9385
706.68	91.6718
711.68	88.5764
720.70	72.2152
721.93	0.0000
722.78	72.2607
722.91	72.2640
723.31	70.4669
724.19	57.8346
727.33	75.9814
733.00	45.3054
735.93	74.0048
739.50	63.1897
747.24	65.5225
752.31	63.4347
753.82	51.4281
756.73	64.6148
763.94	82.3132
765.81	72.4759
766.42	92.2585
777.92	78.9803
778.90	70.7353
783.70	55.1953
785.37	69.9481
795.86	56.3126
801.95	63.8101
810.29	71.3776
810.76	75.0954
815.77	52.9203
818.51	66.8979
832.01	58.7587
834.85	71.8726
836.80	0.0000
846.77	59.9349
856.80	46.6850
860.56	67.6816
871.09	73.5313
873.19	55.6510
875.33	0.0000
879.36	71.8051
880.51	73.7185
883.24	54.8553
884.68	73.7994
889.28	70.1007
898.04	74.0613
911.20	53.3568
911.20	53.3568
911.20	53.3568
926.50	66.9609
937.49	70.9859
944.13	63.4192
946.00	62.4887
949.00	76.9678
962.29	52.1268
964.08	52.1499
966.15	52.1774
968.97	46.4121
968.97	46.4121
968.97	46.4121
983.53	56.2843
996.26	58.4070
1001.03	44.8311
1004.73	50.7241
1037.84	50.1450
1038.76	0.0000
1048.07	54.2078
1050.41	55.2253
1050.41	55.2253
1063.66	53.4177
1085.87	46.7323
1099.45	61.8360
1112.07	49.7244

1115.54	72.0703
1120.29	72.1494
1120.29	72.1494
1120.29	72.1494
1120.55	72.1523
1121.30	54.9821
1131.51	0.0000
1173.23	56.7725
1177.93	78.1405
1189.05	67.1387
1204.77	71.4441
1221.41	88.0821
1231.02	111.8652
1235.36	80.1233
1238.28	81.1987
1260.41	0.0000
1271.85	58.9923
1274.44	46.5967
1274.54	46.5985
1291.59	52.9922
1298.22	0.0000
1312.11	44.8634
1332.49	37.7124
1365.19	35.8442
1368.63	0.0000
1384.29	29.6270
1408.01	30.8231
1457.56	0.0000
1460.82	12.8799
1489.16	19.4194
1505.03	16.2286
1596.21	18.8449
1620.50	12.2999
1678.03	0.0000
1690.97	9.5728
1764.49	11.6237
1764.49	11.6237
1764.49	11.6237
1770.23	15.2699
1771.35	13.5757
1791.20	0.0000
1836.06	6.8564

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248863003

Total Uranium Activity	1.3001E+01	ug/g
Total Uranium Counting Unc.	5.9721E+00	ug/g
Total Uranium Tpu	3.0470E-06	ug/g
Total Uranium Mda	4.6757E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                  SAMPLE ID   : G248863003        *
*   ANALYST       : MXR1                    DETECTOR    : GAM23             *
*   SAMPLE DATE   :  4-MAR-2010 12:00:00.00 COUNT TIME  :    0 02:00:00.00  *
*   ANALYSIS DATE: 24-MAR-2010 18:29:41.86  SAMPLE ALQT:  122.050 GRAM      *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.062E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.587E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 3.815E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.858E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:31:47.58

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863004.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:31:19
Sample ID         : G248863004           Sample quantity  : 1.26960E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.37  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	74.86	259	396	0.85	149.75	146	19	3.60E-02	12.5	1.70E+00
2	3	77.20*	576	372	0.93	154.44	146	19	8.00E-02	6.9	
3	4	87.22	263	373	1.16	174.49	171	20	3.66E-02	13.4	9.26E-01
4	4	89.97	134	350	1.16	179.99	171	20	1.87E-02	24.6	
5	4	93.05*	211	377	1.32	186.15	171	20	2.93E-02	18.2	
6	0	186.01*	229	350	1.31	372.08	367	11	3.18E-02	17.4	
7	0	209.73	232	319	1.79	419.52	415	12	3.22E-02	16.9	
8	6	238.75*	1408	168	1.09	477.57	470	20	1.95E-01	3.1	1.82E+00
9	6	241.68*	362	242	2.05	483.43	470	20	5.03E-02	14.4	
10	0	270.30	146	201	1.04	540.67	536	10	2.03E-02	20.1	
11	0	279.13	78	264	0.71	558.34	551	14	1.08E-02	45.7	
12	0	295.31*	396	206	1.41	590.71	585	11	5.50E-02	8.8	
13	0	300.06	53	181	1.11	600.20	597	8	7.30E-03	46.4	
14	0	327.83	82	156	1.11	655.74	651	10	1.14E-02	30.5	
15	0	338.51*	302	174	1.23	677.10	672	12	4.20E-02	10.5	
16	0	352.00*	672	177	1.26	704.09	698	13	9.34E-02	5.7	
17	0	463.25	112	120	0.80	926.58	921	12	1.55E-02	21.8	
18	0	511.17*	165	162	1.89	1022.43	1016	15	2.29E-02	20.2	
19	0	583.60	464	117	1.33	1167.30	1162	13	6.44E-02	6.7	
20	0	609.85*	500	99	1.53	1219.79	1214	15	6.95E-02	6.5	
21	0	727.66*	106	94	1.29	1455.40	1449	13	1.47E-02	21.6	
22	0	768.67	41	75	0.74	1537.42	1532	11	5.72E-03	43.5	
23	0	795.57	45	75	1.12	1591.21	1585	13	6.24E-03	42.4	
24	0	861.43	84	81	2.15	1722.92	1716	17	1.16E-02	26.9	
25	0	911.79*	321	50	1.77	1823.64	1818	16	4.46E-02	7.5	
26	0	935.00	41	43	1.30	1870.07	1865	10	5.72E-03	34.0	
27	1	965.50	41	73	1.87	1931.05	1925	20	5.67E-03	40.8	2.03E+00
28	1	969.41*	146	57	1.72	1938.88	1925	20	2.02E-02	13.1	
29	0	1121.63*	77	113	1.70	2243.27	2235	18	1.07E-02	34.5	
30	0	1378.82	50	19	2.24	2757.56	2750	15	6.93E-03	24.8	
31	0	1461.81*	1335	30	2.07	2923.51	2916	16	1.85E-01	2.9	
32	0	1510.27	24	3	0.98	3020.41	3016	11	3.30E-03	24.7	
33	0	1730.48	34	2	2.44	3460.71	3454	11	4.70E-03	19.5	
34	0	1765.60*	97	17	1.64	3530.93	3523	17	1.35E-02	14.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 22:31:50

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863004.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 4-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 20:31:19
Sample ID : G248863004 Sample quantity : 126.96 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA4 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.37 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.449E+01	3.167E+00	5.165E-01	3.671E-02	66.777
CD-109	+	88.03	*	4.326E+00	1.268E+00	1.380E+00	1.658E-01	3.135
SN-126		64.28		2.013E-01	6.815E-01	1.131E+00	1.948E-01	0.178
	+	86.94		1.744E+00	8.713E-01	5.667E-01	2.390E-01	3.078
	+	87.57	*	4.195E-01	1.230E-01	1.349E-01	1.617E-02	3.111
HG-203		70.83		-6.641E-01	2.009E+00	2.985E+00	5.307E-01	-0.222
		72.87		8.162E-01	1.168E+00	1.806E+00	3.120E-01	0.452
	+	279.20	*	8.901E-02	8.161E-02	6.690E-02	4.637E-03	1.331
TL-208		277.37		3.615E-01	3.820E-01	6.703E-01	7.550E-02	0.539
	+	583.19	*	6.579E-01	9.712E-02	5.640E-02	3.539E-03	11.664
	+	860.56		1.137E+00	6.195E-01	3.956E-01	3.299E-02	2.873
BI-211		72.87		3.032E+00	4.322E+00	6.709E+00	7.692E-01	0.452
	+	351.06	*	4.243E+00	5.596E-01	3.465E-01	2.342E-02	12.244
PB-212	+	74.82		2.047E+00	5.961E-01	6.834E-01	1.027E-01	2.996
	+	77.11		2.529E+00	4.536E-01	3.816E-01	4.378E-02	6.627
	+	238.63	*	1.979E+00	2.025E-01	9.019E-02	7.296E-03	21.940
	+	300.09		1.153E+00	1.075E+00	1.324E+00	1.183E-01	0.871
BI-214	+	609.32	*	1.375E+00	2.046E-01	1.116E-01	8.275E-03	12.317
	+	1120.29		1.130E+00	7.857E-01	5.111E-01	4.791E-02	2.210
	+	1764.49		1.976E+00	5.799E-01	2.181E-01	1.330E-02	9.059
PB-214	+	74.82		3.629E+00	1.037E+00	1.211E+00	1.687E-01	2.996
	+	77.11		4.458E+00	8.802E-01	6.727E-01	9.506E-02	6.627
	+	242.00		3.088E+00	9.326E-01	5.488E-01	4.847E-02	5.627
	+	295.22		1.538E+00	3.050E-01	2.115E-01	1.960E-02	7.273
	+	351.93	*	1.540E+00	2.202E-01	1.260E-01	1.099E-02	12.218
RA-224	+	240.99	*	5.460E+00	1.618E+00	9.670E-01	6.447E-02	5.647
RA-226	+	609.32	*	1.375E+00	2.046E-01	1.116E-01	8.275E-03	12.317
	+	1120.29		1.130E+00	7.857E-01	5.111E-01	4.791E-02	2.210
	+	1764.49		1.976E+00	5.799E-01	2.181E-01	1.330E-02	9.059
AC-228	+	338.32		2.125E+00	9.850E-01	3.846E-01	1.588E-01	5.525
	+	911.20	*	2.230E+00	4.188E-01	2.534E-01	2.853E-02	8.802
	+	968.97		1.750E+00	6.227E-01	4.106E-01	9.895E-02	4.262
RA-228	+	338.32		2.125E+00	9.850E-01	3.846E-01	1.588E-01	5.525
	+	911.20	*	2.230E+00	4.188E-01	2.534E-01	2.853E-02	8.802

Sample ID : G248863004 Acquisition date : 24-MAR-2010 20:31:19

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		1.750E+00	6.227E-01	4.106E-01	9.895E-02	4.262
TH-228	+	74.82		2.047E+00	5.624E-01	6.834E-01	7.867E-02	2.996
	+	77.11		2.529E+00	4.536E-01	3.816E-01	4.378E-02	6.627
	+	238.63	*	1.979E+00	2.025E-01	9.019E-02	7.296E-03	21.940
	+	300.09		1.153E+00	1.280E+00	1.324E+00	8.073E-01	0.871
TH-230	+	609.32	*	1.375E+00	1.913E-01	1.116E-01	5.813E-03	12.317
	+	1120.29		1.130E+00	7.820E-01	5.111E-01	3.349E-02	2.210
	+	1764.49		1.976E+00	5.799E-01	2.181E-01	1.330E-02	9.059
TH-232	+	338.32		2.125E+00	4.668E-01	3.846E-01	2.418E-02	5.525
	+	911.20	*	2.230E+00	4.188E-01	2.534E-01	2.853E-02	8.802
	+	968.97		1.750E+00	6.227E-01	4.106E-01	9.895E-02	4.262
U-235	+	89.96		2.178E+00	1.210E+00	1.385E+00	3.566E-01	1.573
	+	93.35		2.030E+00	8.841E-01	8.206E-01	1.963E-01	2.473
		143.76	*	5.812E-02	2.043E-01	3.320E-01	5.308E-02	0.175
		163.33		1.112E-01	4.350E-01	7.121E-01	1.209E-01	0.156
	+	185.72		2.078E-01	7.342E-02	6.428E-02	4.145E-03	3.234
		205.31		1.686E-01	5.593E-01	8.099E-01	1.398E-01	0.208
NP-237	+	86.48	*	1.252E+00	4.512E-01	4.374E-01	1.055E-01	2.862
		95.86		-1.425E-01	1.002E+00	1.480E+00	3.636E-01	-0.096
ANH-511	+	511.00	*	1.789E-01	7.298E-02	4.984E-02	2.788E-03	3.589

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.481E-01	3.638E-01	6.103E-01	4.041E-02	0.243
NA-22		1274.54	*	-1.903E-02	4.759E-02	7.645E-02	4.998E-03	-0.249
NA-24		1368.63	*	-2.827E+01	4.759E-02	Half-Life too short		
SC-46		889.28	*	-1.643E-02	4.790E-02	7.495E-02	6.062E-03	-0.219
	+	1120.55		1.996E-01	1.381E-01	1.519E-01	9.952E-03	1.314
V-48		944.13		-8.401E-01	1.189E+00	1.824E+00	1.458E-01	-0.461
		983.53	*	1.084E-01	9.843E-02	1.766E-01	1.368E-02	0.614
		1312.11		8.435E-03	1.147E-01	1.929E-01	1.300E-02	0.044
CR-51		320.08	*	-5.472E-02	4.364E-01	7.253E-01	5.101E-02	-0.075
MN-54		834.85	*	3.042E-02	4.209E-02	7.347E-02	5.317E-03	0.414
CO-56		846.77	*	3.789E-02	4.673E-02	8.220E-02	6.099E-03	0.461
		1037.84		-1.120E-01	3.508E-01	5.515E-01	4.335E-02	-0.203
		1238.28		9.393E-02	1.087E-01	1.932E-01	1.286E-02	0.486
		1771.35		1.827E-01	2.751E-01	4.558E-01	2.767E-02	0.401
CO-57		122.06	*	2.892E-03	2.555E-02	4.154E-02	2.883E-03	0.070
		136.47		9.719E-02	2.070E-01	3.452E-01	2.564E-02	0.282
CO-58		810.76	*	-6.666E-02	4.371E-02	6.165E-02	4.256E-03	-1.081
FE-59		1099.45	*	3.005E-02	1.129E-01	1.874E-01	1.432E-02	0.160
		1291.59		5.243E-04	1.409E-01	2.356E-01	1.904E-02	0.002
CO-60		1173.23		7.392E-03	5.415E-02	8.824E-02	5.248E-03	0.084
		1332.49	*	4.263E-03	4.057E-02	6.848E-02	4.693E-03	0.062
ZN-65		1115.54	*	-2.825E-02	1.367E-01	1.859E-01	1.230E-02	-0.152
SE-75		121.12		-9.551E-02	1.356E-01	2.154E-01	2.130E-02	-0.443
		136.00		1.290E-02	4.090E-02	6.777E-02	4.544E-03	0.190

Sample ID : G248863004 Acquisition date : 24-MAR-2010 20:31:19

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		264.66	*	-1.916E-02	4.767E-02	7.308E-02	4.917E-03	-0.262
	+	279.54		2.413E-01	2.213E-01	1.942E-01	1.372E-02	1.243
		400.66		-1.517E-01	2.604E-01	4.120E-01	3.696E-02	-0.368
SR-85		514.00	*	1.127E-01	5.014E-02	8.445E-02	4.717E-03	1.334
Y-88		898.04		-2.646E-02	4.852E-02	7.580E-02	6.272E-03	-0.349
		1836.06	*	-1.971E-02	3.467E-02	4.861E-02	2.836E-03	-0.405
Y-91		1204.77	*	1.090E+01	2.571E+01	4.294E+01	2.631E+00	0.254
NB-94		702.65	*	1.014E-02	3.675E-02	6.279E-02	3.383E-03	0.162
		871.09		-3.233E-02	3.495E-02	5.005E-02	3.903E-03	-0.646
NB-95		765.81	*	-2.018E-02	5.125E-02	7.063E-02	4.402E-03	-0.286
NB-95M		235.69	*	-8.368E-02	1.576E-01	2.137E-01	1.759E-02	-0.392
ZR-95		724.19		5.770E-02	1.146E-01	1.756E-01	1.181E-02	0.329
		756.73	*	1.244E-02	7.669E-02	1.296E-01	9.492E-03	0.096
MO-99		140.51		3.759E+01	8.130E+01	1.336E+02	3.084E+01	0.281
		181.07		2.299E+01	7.324E+01	1.070E+02	1.914E+01	0.215
		366.42		-8.407E+01	3.834E+02	6.277E+02	3.753E+01	-0.134
		739.50	*	4.743E+01	4.814E+01	8.585E+01	1.240E+01	0.552
		777.92		-2.063E+01	1.424E+02	2.340E+02	1.499E+01	-0.088
TC-99M		140.51	*	3.337E+16	1.424E+02	Half-Life too short		
RU-103		497.08	*	-2.200E-02	4.343E-02	6.752E-02	8.335E-03	-0.326
	+	610.33		1.556E+01	3.060E+00	3.411E+00	5.059E-01	4.562
RH-106		621.93	*	-8.153E-02	3.250E-01	5.074E-01	5.736E-02	-0.161
		1050.41		3.073E-01	2.799E+00	4.598E+00	3.324E-01	0.067
RU-106		621.93	*	-8.153E-02	3.249E-01	5.074E-01	2.606E-02	-0.161
		1050.41		3.073E-01	2.799E+00	4.598E+00	3.324E-01	0.067
AG-108M		433.94	*	-1.009E-02	3.003E-02	4.809E-02	2.927E-03	-0.210
		614.28		1.554E-02	3.797E-02	5.574E-02	3.143E-03	0.279
		722.91		7.200E-03	4.404E-02	6.524E-02	3.957E-03	0.110
AG-110M		657.76	*	-2.159E-02	3.764E-02	6.068E-02	3.243E-03	-0.356
		677.62		9.722E-02	3.098E-01	5.336E-01	2.926E-02	0.182
		706.68		-1.876E-01	2.426E-01	3.833E-01	2.232E-02	-0.489
		763.94		5.411E-02	1.744E-01	2.622E-01	1.713E-02	0.206
		884.68		-2.018E-02	5.517E-02	8.776E-02	7.294E-03	-0.230
		937.49		1.287E-01	1.372E-01	2.182E-01	1.826E-02	0.590
		1384.29		1.893E-01	1.473E-01	2.693E-01	1.922E-02	0.703
		1505.03		1.265E-01	2.991E-01	4.663E-01	3.147E-02	0.271
SN-113		391.69	*	-3.634E-02	4.694E-02	7.352E-02	4.430E-03	-0.494
CD-115		260.90		1.410E-04	4.694E-02	Half-Life too short		
		492.35		1.414E-04	4.694E-02	Half-Life too short		
		527.90	*	1.778E-05	4.694E-02	Half-Life too short		
SN-117M		156.02		-1.352E+00	2.958E+00	4.699E+00	3.014E-01	-0.288
		158.56	*	1.834E-02	7.100E-02	1.165E-01	7.453E-03	0.157
TE-123M		159.00	*	-9.413E-03	2.948E-02	4.709E-02	3.044E-03	-0.200
SB-124		602.73		-3.587E-02	4.844E-02	6.680E-02	3.505E-03	-0.537
		645.85		-2.204E-01	5.500E-01	8.995E-01	5.219E-02	-0.245
		722.78		5.528E-02	4.683E-01	6.904E-01	4.106E-02	0.080
		1690.97	*	3.476E-03	7.059E-02	1.166E-01	7.958E-03	0.030
SB-125		427.87	*	3.878E-02	9.600E-02	1.619E-01	9.571E-03	0.240
	+	463.37		1.075E+00	4.743E-01	6.277E-01	4.150E-02	1.713

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		600.60		1.528E-01	1.865E-01	3.183E-01	1.989E-02	0.480
		635.95		2.104E-02	3.102E-01	4.980E-01	3.072E-02	0.042
TE-125M		109.28	*	-3.297E+00	1.053E+01	1.716E+01	1.733E+00	-0.192
I-126		388.63		1.390E-01	2.306E-01	3.952E-01	2.241E-02	0.352
		666.33	*	2.217E-01	3.182E-01	5.605E-01	2.765E-02	0.396
		753.82		-7.804E-01	2.397E+00	3.883E+00	2.356E-01	-0.201
SB-126		414.70		6.572E-02	1.081E-01	1.846E-01	1.045E-02	0.356
		666.50		1.105E-01	1.088E-01	1.955E-01	9.649E-03	0.565
		695.00		9.692E-02	1.085E-01	1.936E-01	1.024E-02	0.501
		697.00		1.635E-01	3.793E-01	6.559E-01	3.486E-02	0.249
		720.70	*	6.119E-02	2.084E-01	3.273E-01	1.840E-02	0.187
		856.80		-3.374E-01	6.797E-01	8.996E-01	6.813E-02	-0.375
SB-127		252.40		-6.477E+00	1.102E+01	1.758E+01	7.326E+00	-0.368
		473.00		-1.071E+00	4.403E+00	7.052E+00	8.960E-01	-0.152
		685.70	*	1.483E+00	3.456E+00	5.988E+00	6.627E-01	0.248
		783.70		-5.936E-04	9.907E+00	1.647E+01	2.091E+00	0.000
I-131		80.19		-7.172E+00	7.705E+00	1.237E+01	1.439E+00	-0.580
		284.31		-5.386E-01	2.556E+00	3.740E+00	2.711E-01	-0.144
		364.49	*	2.849E-02	1.958E-01	3.279E-01	2.200E-02	0.087
		636.99		-1.002E-01	2.769E+00	4.406E+00	2.606E-01	-0.023
TE-132		49.72		6.210E+01	1.201E+02	2.086E+02	3.209E+01	0.298
		111.76		1.088E+01	1.088E+02	1.803E+02	2.183E+01	0.060
		116.30		3.196E+01	9.106E+01	1.521E+02	1.798E+01	0.210
		228.16	*	6.896E-01	2.539E+00	4.085E+00	6.560E-01	0.169
BA-133		81.00		-7.805E-02	1.097E-01	1.575E-01	2.731E-02	-0.496
		276.40		3.250E-01	4.164E-01	6.125E-01	7.966E-02	0.531
		302.85		6.283E-02	1.554E-01	2.367E-01	2.794E-02	0.265
		356.01	*	-4.204E-04	4.792E-02	7.001E-02	8.005E-03	-0.006
		383.85		-3.138E-02	3.058E-01	5.027E-01	5.345E-02	-0.062
I-133		529.87	*	-1.003E-01	3.058E-01	Half-Life too short		
		875.33		1.378E-01	3.058E-01	Half-Life too short		
		1298.22		-5.407E+00	3.058E-01	Half-Life too short		
CS-134		563.25		1.483E-01	4.103E-01	6.737E-01	3.745E-02	0.220
		569.33		-3.888E-02	2.132E-01	3.381E-01	1.890E-02	-0.115
		604.72		-5.107E-03	4.087E-02	5.427E-02	2.860E-03	-0.094
	+	795.86	*	9.385E-02	7.984E-02	9.510E-02	6.410E-03	0.987
		801.95		-2.809E-01	4.595E-01	6.066E-01	4.131E-02	-0.463
		1365.19		-6.691E-02	1.281E+00	2.117E+00	1.556E-01	-0.032
CS-135		268.22	*	2.051E-01	1.783E-01	2.847E-01	2.373E-02	0.720
I-135		546.56		-5.255E+15	1.783E-01	Half-Life too short		
		836.80		7.735E+15	1.783E-01	Half-Life too short		
		1038.76		-4.007E+15	1.783E-01	Half-Life too short		
		1131.51		-9.785E+14	1.783E-01	Half-Life too short		
		1260.41	*	2.599E+15	1.783E-01	Half-Life too short		
		1457.56		6.371E+16	1.783E-01	Half-Life too short		
		1678.03		-1.684E+15	1.783E-01	Half-Life too short		
		1791.20		-4.622E+14	1.783E-01	Half-Life too short		
CS-136		153.25		1.097E+00	1.143E+00	1.928E+00	1.643E-01	0.569
		176.60		9.715E-02	6.512E-01	1.058E+00	7.998E-02	0.092

Sample ID : G248863004 Acquisition date : 24-MAR-2010 20:31:19

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		273.65		-1.591E-01	9.635E-01	1.024E+00	7.769E-02	-0.155
		340.55		4.175E-01	2.382E-01	3.878E-01	2.605E-02	1.077
		818.51		-1.099E-02	1.120E-01	1.841E-01	1.290E-02	-0.060
		1048.07	*	-9.036E-02	1.602E-01	2.453E-01	1.885E-02	-0.368
		1235.36		-5.862E-01	8.610E-01	1.365E+00	1.392E-01	-0.429
BA-137M		661.66	*	-4.289E-02	4.109E-02	6.521E-02	3.180E-03	-0.658
CS-137		661.66	*	-4.531E-02	4.340E-02	6.889E-02	3.380E-03	-0.658
CE-139		165.86	*	-3.167E-02	3.123E-02	4.799E-02	3.049E-03	-0.660
BA-140		162.66		3.331E-01	1.085E+00	1.781E+00	1.271E-01	0.187
		304.85		-1.315E+00	2.103E+00	2.914E+00	8.372E-01	-0.451
		423.72		-1.702E+00	2.703E+00	4.155E+00	1.340E+00	-0.410
		537.26	*	1.552E-01	3.828E-01	6.327E-01	2.105E-01	0.245
LA-140	+	328.76		9.481E-01	5.815E-01	7.421E-01	5.212E-02	1.278
		487.02		-8.119E-02	1.838E-01	2.885E-01	1.853E-02	-0.281
		815.77		2.731E-01	4.743E-01	8.233E-01	6.727E-02	0.332
		1596.21	*	-1.820E-02	1.213E-01	1.945E-01	1.281E-02	-0.094
CE-141		145.44	*	8.436E-02	6.929E-02	1.185E-01	7.954E-03	0.712
CE-143		57.36		-1.512E-02	6.929E-02	Half-Life too short		
		293.27	*	6.255E-03	6.929E-02	Half-Life too short		
		664.57		1.380E-02	6.929E-02	Half-Life too short		
		721.93		7.612E-03	6.929E-02	Half-Life too short		
CE-144		80.12		-2.502E+00	2.687E+00	4.315E+00	4.985E-01	-0.580
		133.52	*	2.687E-02	2.032E-01	3.343E-01	4.772E-02	0.080
PM-144		476.78		-5.297E-03	6.987E-02	1.133E-01	7.633E-03	-0.047
		618.01		2.031E-02	3.509E-02	5.707E-02	3.171E-03	0.356
		696.49	*	1.946E-02	3.582E-02	6.245E-02	3.321E-03	0.312
PR-144		696.51	*	1.271E+00	2.704E+00	4.690E+00	2.490E-01	0.271
		1489.16		-8.869E+00	1.081E+01	1.478E+01	1.000E+00	-0.600
PM-146		453.88	*	-9.885E-03	4.045E-02	6.492E-02	5.432E-03	-0.152
		633.25		1.001E+00	1.645E+00	2.689E+00	1.010E+00	0.372
		735.93		7.483E-03	1.552E-01	2.602E-01	7.102E-02	0.029
		747.24		2.605E-02	9.343E-02	1.596E-01	2.106E-02	0.163
ND-147	+	91.11		9.819E-01	4.974E-01	6.905E-01	8.100E-02	1.422
		319.41		1.743E+00	4.655E+00	7.952E+00	5.129E-01	0.219
		531.02	*	-7.673E-01	8.343E-01	1.237E+00	1.659E-01	-0.620
PM-149		285.90	*	-1.891E-04	8.343E-01	Half-Life too short		
EU-152		121.78		8.814E-03	7.031E-02	1.162E-01	9.874E-03	0.076
		244.70		1.836E-01	3.462E-01	5.066E-01	3.380E-02	0.362
		344.28	*	-1.860E-02	1.135E-01	1.642E-01	1.135E-02	-0.113
		778.90		8.669E-02	2.653E-01	4.534E-01	2.909E-02	0.191
	+	964.08		5.287E-01	4.331E-01	5.891E-01	4.639E-02	0.897
		1085.87		-7.747E-02	4.670E-01	7.446E-01	5.140E-02	-0.104
		1112.07		4.625E-01	3.957E-01	6.990E-01	4.641E-02	0.662
		1408.01		-4.790E-02	2.319E-01	3.764E-01	2.574E-02	-0.127
GD-153		69.67		-1.027E+00	2.193E+00	3.623E+00	4.184E-01	-0.283
		97.43	*	-5.697E-02	1.008E-01	1.452E-01	1.425E-02	-0.392
		103.18		-8.899E-02	1.139E-01	1.820E-01	1.619E-02	-0.489
EU-154		123.07		1.603E-02	5.215E-02	8.546E-02	8.638E-03	0.188
		723.31		5.537E-02	1.909E-01	2.871E-01	1.985E-02	0.193

Sample ID : G248863004 Acquisition date : 24-MAR-2010 20:31:19

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		873.19		2.679E-01	2.697E-01	4.858E-01	5.508E-02	0.552
		996.26		6.422E-02	4.289E-01	7.089E-01	1.206E-01	0.091
		1004.73		4.668E-03	2.517E-01	4.111E-01	4.481E-02	0.011
		1274.44	*	-3.980E-02	1.333E-01	2.163E-01	2.139E-02	-0.184
EU-155	+	86.55		5.098E-01	1.496E-01	2.114E-01	2.532E-02	2.412
		105.31	*	1.350E-01	1.055E-01	1.828E-01	1.592E-02	0.738
TB-160	+	86.79		1.419E+00	4.161E-01	5.924E-01	7.068E-02	2.396
		197.04		5.004E-02	6.490E-01	1.030E+00	6.702E-02	0.049
		215.65		8.665E-01	9.024E-01	1.360E+00	8.966E-02	0.637
	+	298.57		1.707E-01	1.588E-01	2.129E-01	1.400E-02	0.802
		879.36	*	-3.691E-02	1.571E-01	2.532E-01	2.008E-02	-0.146
		962.29		2.521E-01	6.556E-01	9.736E-01	7.677E-02	0.259
	+	966.15		3.880E-01	3.179E-01	4.655E-01	3.660E-02	0.834
		1177.93		-4.342E-01	4.359E-01	6.292E-01	3.759E-02	-0.690
		1271.85		4.018E-02	8.338E-01	1.402E+00	9.127E-02	0.029
HO-166M		80.57		-2.965E-01	2.865E-01	4.573E-01	5.292E-02	-0.648
		184.41		3.518E-02	3.968E-02	5.983E-02	3.853E-03	0.588
	+	280.46		1.826E-01	1.673E-01	1.392E-01	9.251E-03	1.311
		410.95		1.953E-01	2.665E-01	4.578E-01	2.589E-02	0.427
		711.68	*	4.409E-02	6.208E-02	1.096E-01	6.029E-03	0.402
		752.31		-2.555E-01	2.826E-01	4.339E-01	2.623E-02	-0.589
		810.29		-9.270E-02	6.178E-02	8.725E-02	5.994E-03	-1.062
TA-182		67.75		3.577E-02	1.434E-01	2.439E-01	2.837E-02	0.147
		100.11		1.258E-01	1.892E-01	3.216E-01	3.010E-02	0.391
		152.43		2.277E-01	3.656E-01	6.098E-01	3.928E-02	0.373
		222.11		-1.751E-02	3.790E-01	6.015E-01	3.981E-02	-0.029
	+	1121.30		5.465E-01	3.783E-01	4.129E-01	2.701E-02	1.323
		1189.05		2.119E-01	3.943E-01	6.633E-01	4.005E-02	0.320
		1221.41	*	1.477E-01	2.442E-01	4.278E-01	2.662E-02	0.345
		1231.02		-3.394E-01	5.726E-01	9.161E-01	5.752E-02	-0.370
IR-192	+	295.96		1.195E+00	2.241E-01	3.271E-01	2.181E-02	3.653
		308.46		5.223E-02	1.009E-01	1.739E-01	1.144E-02	0.300
		316.51	*	-1.629E-02	3.718E-02	6.072E-02	3.942E-03	-0.268
		468.07		-1.482E-03	8.058E-02	1.150E-01	7.563E-03	-0.013
BI-207		72.81		1.613E-01	2.487E-01	3.854E-01	4.419E-02	0.419
	+	74.97		5.902E-01	1.620E-01	2.763E-01	3.164E-02	2.136
		569.70		-9.144E-03	3.313E-02	5.214E-02	2.816E-03	-0.175
		1063.66	*	2.634E-02	6.088E-02	1.028E-01	7.310E-03	0.256
		1770.23		3.043E-01	5.841E-01	9.232E-01	5.609E-02	0.330
PB-210		46.54	*	-6.222E+00	8.889E+00	1.459E+01	1.273E+00	-0.426
PB-211		404.85	*	2.289E-01	7.281E-01	1.211E+00	5.809E-01	0.189
		427.09		2.150E+00	1.847E+00	2.800E+00	1.283E+00	0.768
		832.01		-4.392E-01	1.107E+00	1.731E+00	8.938E-01	-0.254
BI-212	+	727.33	*	2.310E+00	1.026E+00	1.335E+00	1.422E-01	1.730
		785.37		3.384E+00	3.402E+00	6.076E+00	3.955E-01	0.557
		1620.50		2.635E+00	2.725E+00	5.065E+00	3.307E-01	0.520
RN-219	+	271.23		9.068E-01	3.738E-01	4.681E-01	4.062E-02	1.937
		401.81	*	-2.086E-01	4.019E-01	6.379E-01	8.528E-02	-0.327
RA-223		81.07		-1.815E-01	2.469E-01	3.554E-01	4.120E-02	-0.511

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		83.79		2.307E-01	1.728E-01	2.254E-01	2.644E-02	1.024
		94.87		5.276E-01	5.019E-01	7.844E-01	8.089E-02	0.673
		144.24		2.711E-01	6.884E-01	1.124E+00	8.769E-02	0.241
		154.21		9.218E-03	3.917E-01	6.369E-01	4.775E-02	0.014
	+	269.46		7.046E-01	2.880E-01	3.795E-01	2.614E-02	1.857
		323.87	*	-2.404E-01	7.025E-01	1.004E+00	1.641E-01	-0.240
	+	338.28		8.433E+00	1.985E+00	2.599E+00	2.738E-01	3.245
AC-227		79.69		-1.275E+00	1.344E+00	2.134E+00	4.026E-01	-0.598
		235.96		1.145E-02	1.756E-01	2.484E-01	2.179E-02	0.046
		256.23	*	1.368E-01	2.561E-01	4.442E-01	4.775E-02	0.308
	+	299.98		1.268E+00	1.186E+00	1.660E+00	1.895E-01	0.764
		304.50		-9.186E-01	1.877E+00	2.668E+00	4.147E-01	-0.344
		334.37		-1.854E-01	1.846E+00	2.689E+00	3.884E-01	-0.069
TH-227		79.80		-1.702E+00	1.783E+00	2.806E+00	6.479E-01	-0.607
		235.96		1.145E-02	1.756E-01	2.484E-01	2.006E-02	0.046
		256.23	*	1.368E-01	2.563E-01	4.442E-01	5.538E-02	0.308
	+	299.98		1.268E+00	1.186E+00	1.660E+00	1.895E-01	0.764
		304.50		-9.186E-01	1.877E+00	2.668E+00	4.147E-01	-0.344
		334.37		-1.854E-01	1.846E+00	2.689E+00	3.884E-01	-0.069
TH-229		85.43		3.426E-01	2.441E-01	3.849E-01	4.555E-02	0.890
	+	88.47		6.468E-01	1.896E-01	2.492E-01	2.963E-02	2.595
		193.51	*	-1.641E-01	5.431E-01	8.580E-01	5.567E-02	-0.191
	+	210.85		4.646E+00	1.596E+00	1.687E+00	1.109E-01	2.755
PA-231		283.69	*	-4.776E-01	1.573E+00	2.283E+00	3.083E-01	-0.209
	+	301.36		8.146E-01	7.611E-01	1.081E+00	1.166E-01	0.754
TH-231		81.07		-1.815E-01	2.469E-01	3.554E-01	4.120E-02	-0.511
		83.79		2.307E-01	1.728E-01	2.254E-01	2.644E-02	1.024
		94.87		5.276E-01	5.019E-01	7.844E-01	8.089E-02	0.673
		144.24		2.711E-01	6.884E-01	1.124E+00	8.769E-02	0.241
		154.21		9.218E-03	3.917E-01	6.369E-01	4.775E-02	0.014
	+	269.46		7.046E-01	2.880E-01	3.795E-01	2.614E-02	1.857
		323.87	*	-2.404E-01	7.025E-01	1.004E+00	1.641E-01	-0.240
	+	338.28		8.433E+00	1.985E+00	2.599E+00	2.738E-01	3.245
PA-233	+	300.13		5.738E-01	5.383E-01	7.532E-01	1.035E-01	0.762
		311.90	*	-1.347E-03	6.229E-02	1.043E-01	7.113E-03	-0.013
		340.48		1.627E+00	8.662E-01	1.298E+00	3.027E-01	1.254
PA-234		94.67		2.342E-01	1.902E-01	2.969E-01	4.056E-02	0.789
		98.44		3.618E-02	9.630E-02	1.587E-01	8.880E-02	0.228
		111.00		1.391E-01	1.895E-01	3.211E-01	3.730E-02	0.433
		131.20		-2.237E-02	1.090E-01	1.770E-01	1.188E-02	-0.126
		569.50		-7.247E-02	2.928E-01	4.619E-01	2.495E-02	-0.157
		733.00		-2.028E-01	4.530E-01	6.203E-01	1.319E-01	-0.327
		880.51		2.693E-01	2.919E-01	5.207E-01	4.139E-02	0.517
		883.24		-2.934E-03	3.096E-01	5.096E-01	3.422E-01	-0.006
		926.50		-1.277E-01	1.889E-01	2.844E-01	7.139E-02	-0.449
		946.00	*	-1.858E-01	3.234E-01	4.964E-01	9.174E-02	-0.374
		949.00		3.044E-01	4.990E-01	8.615E-01	6.862E-02	0.353
PA-234M		766.42		2.665E+00	1.318E+01	1.941E+01	9.778E+00	0.137
		1001.03	*	-8.050E-01	5.573E+00	8.895E+00	8.110E-01	-0.090

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	-4.912E-01	1.893E+00	3.076E+00	6.192E-01	-0.160
	+	92.59		2.687E+00	1.156E+00	1.350E+00	3.109E-01	1.990
U-238		63.29	*	-4.912E-01	1.893E+00	3.076E+00	6.192E-01	-0.160
	+	92.59		2.687E+00	1.019E+00	1.350E+00	1.460E-01	1.990
NP-239		99.53		1.141E-01	1.706E-01	2.901E-01	2.742E-02	0.393
		103.37		-6.341E-02	1.022E-01	1.646E-01	1.460E-02	-0.385
		106.12		8.653E-02	8.268E-02	1.423E-01	1.210E-02	0.608
		117.23	*	-1.239E-01	4.014E-01	6.520E-01	4.784E-02	-0.190
		228.18		6.398E-02	2.416E-01	3.888E-01	2.581E-02	0.165
		277.60		1.766E-01	1.747E-01	3.084E-01	2.052E-02	0.573
AM-241		59.54	*	1.208E-01	2.297E-01	3.963E-01	5.003E-02	0.305
CM-247	+	278.00		1.576E+00	1.445E+00	1.321E+00	8.783E-02	1.194
		287.50		1.341E+00	1.206E+00	2.141E+00	1.418E-01	0.626
		402.40	*	-3.865E-02	3.753E-02	5.745E-02	3.242E-03	-0.673
CF-249		252.80		-3.015E-01	9.276E-01	1.549E+00	1.034E-01	-0.195
		333.37		9.814E-02	2.273E-01	2.963E-01	1.876E-02	0.331
		388.16	*	2.997E-02	4.180E-02	7.207E-02	4.093E-03	0.416
CF-251		177.52	*	-5.981E-02	1.314E-01	2.071E-01	1.326E-02	-0.289
		227.38		1.488E-01	3.929E-01	6.358E-01	4.219E-02	0.234
		285.41		-1.550E+00	2.347E+00	3.514E+00	2.329E-01	-0.441

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863004     *
* Acquisition date : 24-MAR-2010 20:31:19 Detector SN#     :               *
* Detector ID        : GAM04               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.37      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        :  4-MAR-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G248863004          Analyst initials: MXR1          *
* Batch Number       : 962633              Sample Quantity : 1.2696E+02 GRAM *
* Recovery           :    1.00000          Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.449E+01	3.103E+00	5.163E-01	0.000E+00
CD-109	4.326E+00	1.243E+00	1.438E+00	0.000E+00
SN-126	4.195E-01	1.205E-01	1.405E-01	0.000E+00
HG-203	8.901E-02	7.997E-02	6.855E-02	0.000E+00
TL-208	6.579E-01	9.518E-02	5.717E-02	0.000E+00
BI-211	4.243E+00	5.484E-01	3.539E-01	0.000E+00
PB-212	1.979E+00	1.985E-01	9.264E-02	0.000E+00
BI-214	1.375E+00	2.005E-01	1.131E-01	0.000E+00
PB-214	1.540E+00	2.157E-01	1.287E-01	0.000E+00
RA-224	5.460E+00	1.586E+00	9.931E-01	0.000E+00
RA-226	1.375E+00	2.005E-01	1.131E-01	0.000E+00
AC-228	2.230E+00	4.104E-01	2.551E-01	0.000E+00
RA-228	2.230E+00	4.104E-01	2.551E-01	0.000E+00
TH-228	1.979E+00	1.985E-01	9.264E-02	0.000E+00
TH-230	1.375E+00	1.875E-01	1.131E-01	0.000E+00
TH-232	2.230E+00	4.104E-01	2.551E-01	0.000E+00
U-235	5.812E-02	2.002E-01	3.435E-01	0.000E+00
NP-237	1.252E+00	4.422E-01	4.558E-01	0.000E+00
ANH-511	1.789E-01	7.152E-02	5.063E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.481E-01	3.565E-01	6.205E-01	0.000E+00	NOT IDENT.
NA-22	-1.903E-02	4.664E-02	7.659E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.596E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-1.643E-02	4.694E-02	7.550E-02	0.000E+00	FAIL ABUN
V-48	1.084E-01	9.646E-02	1.777E-01	0.000E+00	NOT IDENT.
CR-51	-5.472E-02	4.277E-01	7.418E-01	0.000E+00	NOT IDENT.
MN-54	3.042E-02	4.125E-02	7.408E-02	0.000E+00	NOT IDENT.
CO-56	3.789E-02	4.579E-02	8.287E-02	0.000E+00	NOT IDENT.

CO-57	2.892E-03	2.504E-02	4.307E-02	0.000E+00	NOT IDENT.
CO-58	-6.666E-02	4.283E-02	6.219E-02	0.000E+00	NOT IDENT.
FE-59	3.005E-02	1.106E-01	1.882E-01	0.000E+00	NOT IDENT.
CO-60	4.263E-03	3.976E-02	6.856E-02	0.000E+00	NOT IDENT.
ZN-65	-2.825E-02	1.340E-01	1.866E-01	0.000E+00	NOT IDENT.
SE-75	-1.916E-02	4.672E-02	7.495E-02	0.000E+00	FAIL ABUN
SR-85	0.000E+00	4.914E-02	8.577E-02	0.000E+00	NOT IDENT.
Y-88	-1.971E-02	3.397E-02	4.843E-02	0.000E+00	NOT IDENT.
Y-91	1.090E+01	2.519E+01	4.306E+01	0.000E+00	NOT IDENT.
NB-94	1.014E-02	3.602E-02	6.348E-02	0.000E+00	NOT IDENT.
NB-95	-2.018E-02	5.022E-02	7.131E-02	0.000E+00	NOT IDENT.
NB-95M	-8.368E-02	1.545E-01	2.195E-01	0.000E+00	NOT IDENT.
ZR-95	1.244E-02	7.515E-02	1.308E-01	0.000E+00	NOT IDENT.
MO-99	4.743E+01	4.718E+01	8.671E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	7.142E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.200E-02	4.256E-02	6.861E-02	0.000E+00	FAIL ABUN
RH-106	-8.153E-02	3.185E-01	5.138E-01	0.000E+00	NOT IDENT.
RU-106	-8.153E-02	3.184E-01	5.138E-01	0.000E+00	NOT IDENT.
AG-108M	-1.009E-02	2.943E-02	4.896E-02	0.000E+00	NOT IDENT.
AG-110M	-2.159E-02	3.689E-02	6.140E-02	0.000E+00	NOT IDENT.
SN-113	-3.634E-02	4.600E-02	7.497E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	5.857E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	1.834E-02	6.958E-02	1.204E-01	0.000E+00	NOT IDENT.
TE-123M	-9.413E-03	2.889E-02	4.865E-02	0.000E+00	NOT IDENT.
SB-124	3.476E-03	6.917E-02	1.164E-01	0.000E+00	NOT IDENT.
SB-125	3.878E-02	9.408E-02	1.649E-01	0.000E+00	FAIL ABUN
TE-125M	-3.297E+00	1.032E+01	1.783E+01	0.000E+00	NOT IDENT.
I-126	2.217E-01	3.118E-01	5.670E-01	0.000E+00	NOT IDENT.
SB-126	6.119E-02	2.043E-01	3.307E-01	0.000E+00	NOT IDENT.
SB-127	1.483E+00	3.387E+00	6.056E+00	0.000E+00	NOT IDENT.
I-131	2.849E-02	1.919E-01	3.347E-01	0.000E+00	NOT IDENT.
TE-132	6.896E-01	2.489E+00	4.198E+00	0.000E+00	NOT IDENT.
BA-133	-4.204E-04	4.696E-02	7.149E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.895E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	9.385E-02	7.825E-02	9.596E-02	0.000E+00	FAIL ABUN
CS-135	2.051E-01	1.747E-01	2.919E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.384E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-9.036E-02	1.570E-01	2.464E-01	0.000E+00	NOT IDENT.
BA-137M	-4.289E-02	4.026E-02	6.598E-02	0.000E+00	NOT IDENT.
CS-137	-4.531E-02	4.254E-02	6.970E-02	0.000E+00	NOT IDENT.
CE-139	-3.167E-02	3.060E-02	4.955E-02	0.000E+00	NOT IDENT.
BA-140	1.552E-01	3.752E-01	6.422E-01	0.000E+00	NOT IDENT.
LA-140	-1.820E-02	1.188E-01	1.941E-01	0.000E+00	FAIL ABUN
CE-141	8.436E-02	6.791E-02	1.226E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.429E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	2.687E-02	1.991E-01	3.462E-01	0.000E+00	NOT IDENT.
PM-144	1.946E-02	3.510E-02	6.314E-02	0.000E+00	NOT IDENT.
PR-144	1.271E+00	2.650E+00	4.742E+00	0.000E+00	NOT IDENT.
PM-146	-9.885E-03	3.965E-02	6.605E-02	0.000E+00	NOT IDENT.
ND-147	-7.673E-01	8.176E-01	1.256E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	4.821E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-1.860E-02	1.112E-01	1.677E-01	0.000E+00	FAIL ABUN
GD-153	-5.697E-02	9.876E-02	1.510E-01	0.000E+00	NOT IDENT.
EU-154	-3.980E-02	1.306E-01	2.167E-01	0.000E+00	NOT IDENT.
EU-155	1.350E-01	1.034E-01	1.899E-01	0.000E+00	FAIL ABUN
TB-160	-3.691E-02	1.540E-01	2.551E-01	0.000E+00	FAIL ABUN
HO-166M	4.409E-02	6.084E-02	1.107E-01	0.000E+00	FAIL ABUN
TA-182	1.477E-01	2.393E-01	4.288E-01	0.000E+00	FAIL ABUN
IR-192	-1.629E-02	3.643E-02	6.211E-02	0.000E+00	FAIL ABUN
BI-207	2.634E-02	5.966E-02	1.033E-01	0.000E+00	FAIL ABUN
PB-210	-6.222E+00	8.711E+00	1.534E+01	0.000E+00	NOT IDENT.
PB-211	2.289E-01	7.136E-01	1.235E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.006E+00	1.349E+00	0.000E+00	FAIL ABUN
RN-219	-2.086E-01	3.938E-01	6.502E-01	0.000E+00	FAIL ABUN
RA-223	-2.404E-01	6.885E-01	1.026E+00	0.000E+00	FAIL ABUN
AC-227	1.368E-01	2.510E-01	4.558E-01	0.000E+00	FAIL ABUN
TH-227	1.368E-01	2.511E-01	4.558E-01	0.000E+00	FAIL ABUN
TH-229	-1.641E-01	5.322E-01	8.839E-01	0.000E+00	FAIL ABUN
PA-231	-4.776E-01	1.541E+00	2.339E+00	0.000E+00	FAIL ABUN
TH-231	-2.404E-01	6.885E-01	1.026E+00	0.000E+00	FAIL ABUN
PA-233	-1.347E-03	6.104E-02	1.067E-01	0.000E+00	FAIL ABUN
PA-234	-1.858E-01	3.169E-01	4.996E-01	0.000E+00	NOT IDENT.
PA-234M	-8.050E-01	5.461E+00	8.944E+00	0.000E+00	NOT IDENT.
TH-234	-4.912E-01	1.855E+00	3.220E+00	0.000E+00	FAIL ABUN
U-238	-4.912E-01	1.855E+00	3.220E+00	0.000E+00	FAIL ABUN
NP-239	-1.239E-01	3.934E-01	6.766E-01	0.000E+00	NOT IDENT.
AM-241	1.208E-01	2.251E-01	4.152E-01	0.000E+00	NOT IDENT.
CM-247	-3.865E-02	3.678E-02	5.856E-02	0.000E+00	FAIL ABUN

CF-249	2.997E-02	4.096E-02	7.350E-02	0.000E+00	NOT IDENT.
CF-251	-5.981E-02	1.288E-01	2.136E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:31:48.59

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863004.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:31:19
Sample ID         : G248863004           Sample quantity  : 1.26960E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.37  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1335	10.66*	1.074E+00	3.449E+01	3.449E+01	9.18
CD-109	88.03	263	3.70*	5.015E+00	4.195E+00	4.326E+00	29.32
SN-126	64.28	------	9.60	2.203E+00	------ Line Not Found		------
	86.94	263	8.90	5.015E+00	1.744E+00	1.744E+00	49.96
	87.57	263	37.00*	5.015E+00	4.195E-01	4.195E-01	29.32
HG-203	70.83	------	3.69	3.109E+00	------ Line Not Found		------
	72.87	------	6.19	3.384E+00	------ Line Not Found		------
	279.20	78	81.56*	4.306E+00	6.572E-02	8.901E-02	91.68
TL-208	277.37	------	6.60	4.326E+00	------ Line Not Found		------
	583.19	464	85.00*	2.453E+00	6.579E-01	6.579E-01	14.76
	860.56	84	12.50	1.742E+00	1.137E+00	1.137E+00	54.50
BI-211	72.87	------	1.23	3.384E+00	------ Line Not Found		------
	351.06	672	12.92*	3.626E+00	4.243E+00	4.243E+00	13.19
PB-212	74.82	259	10.28	3.644E+00	2.047E+00	2.047E+00	29.12
	77.11	576	17.10	3.939E+00	2.529E+00	2.529E+00	17.94
	238.63	1408	43.60*	4.824E+00	1.979E+00	1.979E+00	10.23
	300.09	53	3.30	4.082E+00	1.153E+00	1.153E+00	93.23
BI-214	609.32	500	45.49*	2.366E+00	1.375E+00	1.375E+00	14.88
	1120.29	77	14.92	1.356E+00	1.130E+00	1.130E+00	69.54
	1764.49	97	15.30	9.526E-01	1.976E+00	1.976E+00	29.35
PB-214	74.82	259	5.80	3.644E+00	3.628E+00	3.629E+00	28.57
	77.11	576	9.70	3.939E+00	4.458E+00	4.458E+00	19.74
	242.00	362	7.25	4.782E+00	3.088E+00	3.088E+00	30.20
	295.22	396	18.42	4.131E+00	1.538E+00	1.538E+00	19.83
	351.93	672	35.60*	3.626E+00	1.540E+00	1.540E+00	14.30
RA-224	240.99	362	4.10*	4.782E+00	5.460E+00	5.460E+00	29.64
RA-226	609.32	500	45.49*	2.366E+00	1.375E+00	1.375E+00	14.88
	1120.29	77	14.92	1.356E+00	1.130E+00	1.130E+00	69.54
	1764.49	97	15.30	9.526E-01	1.976E+00	1.976E+00	29.35
AC-228	338.32	302	11.27	3.733E+00	2.125E+00	2.125E+00	46.35
	911.20	321	25.80*	1.651E+00	2.230E+00	2.230E+00	18.78
	968.97	146	15.80	1.558E+00	1.750E+00	1.750E+00	35.58

Sample ID : G248863004 Acquisition date : 24-MAR-2010 20:31:19

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	302	11.27	3.733E+00	2.125E+00	2.125E+00	46.35
	911.20	321	25.80*	1.651E+00	2.230E+00	2.230E+00	18.78
	968.97	146	15.80	1.558E+00	1.750E+00	1.750E+00	35.58
TH-228	74.82	259	10.28	3.644E+00	2.047E+00	2.047E+00	27.47
	77.11	576	17.10	3.939E+00	2.529E+00	2.529E+00	17.94
	238.63	1408	43.60*	4.824E+00	1.979E+00	1.979E+00	10.23
	300.09	53	3.30	4.082E+00	1.153E+00	1.153E+00	111.03
TH-230	609.32	500	45.49*	2.366E+00	1.375E+00	1.375E+00	13.92
	1120.29	77	14.92	1.356E+00	1.130E+00	1.130E+00	69.21
	1764.49	97	15.30	9.526E-01	1.976E+00	1.976E+00	29.35
TH-232	338.32	302	11.27	3.733E+00	2.125E+00	2.125E+00	21.96
	911.20	321	25.80*	1.651E+00	2.230E+00	2.230E+00	18.78
	968.97	146	15.80	1.558E+00	1.750E+00	1.750E+00	35.58
U-235	89.96	134	3.47	5.252E+00	2.178E+00	2.178E+00	55.54
	93.35	211	5.60	5.489E+00	2.030E+00	2.030E+00	43.56
	143.76	------	10.96*	6.399E+00	------ Line Not Found		------
	163.33	------	5.08	6.104E+00	------ Line Not Found		------
	185.72	229	57.20	5.695E+00	2.078E-01	2.078E-01	35.33
	205.31	------	5.01	5.352E+00	------ Line Not Found		------
NP-237	86.48	263	12.40*	5.015E+00	1.252E+00	1.252E+00	36.04
	95.86	------	2.68	5.677E+00	------ Line Not Found		------
ANH-511	511.00	165	100.00*	2.729E+00	1.789E-01	1.789E-01	40.79

Flag: "*" = Keyline

Sample ID : G248863004 Acquisition date : 24-MAR-2010 20:31:19

Total number of lines in spectrum 34
Number of unidentified lines 5
Number of lines tentatively identified by NID 29 85.29%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.449E+01	3.449E+01	0.317E+01	9.18	
CD-109	461.40D	1.03	4.195E+00	4.326E+00	1.268E+00	29.32	
SN-126	2.30E+05Y	1.00	4.195E-01	4.195E-01	1.230E-01	29.32	
HG-203	46.59D	1.35	6.572E-02	8.901E-02	8.161E-02	91.68	
TL-208	1.41E+10Y	1.00	6.579E-01	6.579E-01	0.971E-01	14.76	
BI-211	7.04E+08Y	1.00	4.243E+00	4.243E+00	0.560E+00	13.19	
PB-212	1.41E+10Y	1.00	1.979E+00	1.979E+00	0.203E+00	10.23	
BI-214	1600.00Y	1.00	1.375E+00	1.375E+00	0.205E+00	14.88	
PB-214	1600.00Y	1.00	1.540E+00	1.540E+00	0.220E+00	14.30	
RA-224	1.41E+10Y	1.00	5.460E+00	5.460E+00	1.618E+00	29.64	
RA-226	1600.00Y	1.00	1.375E+00	1.375E+00	0.205E+00	14.88	
AC-228	1.41E+10Y	1.00	2.230E+00	2.230E+00	0.419E+00	18.78	
RA-228	1.41E+10Y	1.00	2.230E+00	2.230E+00	0.419E+00	18.78	
TH-228	1.41E+10Y	1.00	1.979E+00	1.979E+00	0.203E+00	10.23	
TH-230	7.54E+04Y	1.00	1.375E+00	1.375E+00	0.191E+00	13.92	
TH-232	1.41E+10Y	1.00	2.230E+00	2.230E+00	0.419E+00	18.78	
U-235	7.04E+08Y	1.00	2.078E-01	2.078E-01	0.734E-01	35.33	K
NP-237	2.14E+06Y	1.00	1.252E+00	1.252E+00	0.451E+00	36.04	
ANH-511	1.00E+09Y	1.00	1.789E-01	1.789E-01	0.730E-01	40.79	
	Total Activity :		6.748E+01	6.763E+01			

Grand Total Activity : 6.748E+01 6.763E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248863004 Acquisition date : 24-MAR-2010 20:31:19

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.73	232	319	1.79	419.52	415	12	3.22E-02	33.7	5.28E+00	T
0	270.30	146	201	1.04	540.67	536	10	2.03E-02	40.3	4.41E+00	T
0	327.83	82	156	1.11	655.74	651	10	1.14E-02	60.9	3.82E+00	T
0	463.25	112	120	0.80	926.58	921	12	1.55E-02	43.6	2.95E+00	T
0	727.66	106	94	1.29	1455.40	1449	13	1.47E-02	43.1	2.03E+00	T
0	768.67	41	75	0.74	1537.42	1532	11	5.72E-03	86.9	1.93E+00	
0	795.57	45	75	1.12	1591.21	1585	13	6.24E-03	84.8	1.88E+00	T
0	935.00	41	43	1.30	1870.07	1865	10	5.72E-03	68.0	1.61E+00	
1	965.50	41	73	1.87	1931.05	1925	20	5.67E-03	81.6	1.56E+00	T
0	1378.82	50	19	2.24	2757.56	2750	15	6.93E-03	49.6	1.13E+00	
0	1510.27	24	3	0.98	3020.41	3016	11	3.30E-03	49.5	1.05E+00	
0	1730.48	34	2	2.44	3460.71	3454	11	4.70E-03	39.0	9.62E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:31:52.88

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248863004.CNF;1  *
* Acquisition date : 24-MAR-2010 20:31:19  Detector SN#    :                 *
* Detector ID      : GAM04                 Sensitivity     : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000         *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000        *
* Elapsed real time: 0 02:00:01.37         Half life ratio : 8.00000         *
*****************************************************************************
*                                                                            *
*                                SAMPLE DATA                                 *
*                                                                            *
* Sample date      : 4-MAR-2010 12:00:00.  Nuclide Library : SOLID           *
* Sample ID        : G248863004            Analyst initials: MXR1            *
* Batch Number     : 962633                Sample Quantity : 1.26960E+02 GRAM *
*****************************************************************************
*                                                                            *
*                                  QC DATA                                   *
*                                                                            *
* CALIB. DATE/TIME : 5-MAY-2009 14:25:41.36MS Isotope      :                 *
* MSD ID           :                       MSD Isotope     :                 *
* LCS ID           : 1032-A                LCS Isotope     :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.449E+01	3.167E+00	5.165E-01	3.671E-02	66.777
CD-109	4.326E+00	1.268E+00	1.380E+00	1.658E-01	3.135
SN-126	4.195E-01	1.230E-01	1.349E-01	1.617E-02	3.111
HG-203	8.901E-02	8.161E-02	6.690E-02	4.637E-03	1.331
TL-208	6.579E-01	9.712E-02	5.640E-02	3.539E-03	11.664
BI-211	4.243E+00	5.596E-01	3.465E-01	2.342E-02	12.244
PB-212	1.979E+00	2.025E-01	9.019E-02	7.296E-03	21.940
BI-214	1.375E+00	2.046E-01	1.116E-01	8.275E-03	12.317
PB-214	1.540E+00	2.202E-01	1.260E-01	1.099E-02	12.218
RA-224	5.460E+00	1.618E+00	9.670E-01	6.447E-02	5.647
RA-226	1.375E+00	2.046E-01	1.116E-01	8.275E-03	12.317
AC-228	2.230E+00	4.188E-01	2.534E-01	2.853E-02	8.802
RA-228	2.230E+00	4.188E-01	2.534E-01	2.853E-02	8.802
TH-228	1.979E+00	2.025E-01	9.019E-02	7.296E-03	21.940
TH-230	1.375E+00	1.913E-01	1.116E-01	5.813E-03	12.317
TH-232	2.230E+00	4.188E-01	2.534E-01	2.853E-02	8.802
U-235	2.078E-01	7.342E-02	3.320E-01	5.308E-02	0.626
NP-237	1.252E+00	4.512E-01	4.374E-01	1.055E-01	2.862

Sample ID : G248863004 Acquisition date : 24-MAR-2010 20:31:19

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	1.789E-01	7.298E-02	4.984E-02	2.788E-03	3.589

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.481E-01		3.638E-01	6.103E-01	4.041E-02	0.243
NA-22	-1.903E-02		4.759E-02	7.645E-02	4.998E-03	-0.249
NA-24	-2.827E+01		1.325E+02	Half-Life too short		
SC-46	-1.643E-02		4.790E-02	7.495E-02	6.062E-03	-0.219
V-48	1.084E-01		9.843E-02	1.766E-01	1.368E-02	0.614
CR-51	-5.472E-02		4.364E-01	7.253E-01	5.101E-02	-0.075
MN-54	3.042E-02		4.209E-02	7.347E-02	5.317E-03	0.414
CO-56	3.789E-02		4.673E-02	8.220E-02	6.099E-03	0.461
CO-57	2.892E-03		2.555E-02	4.154E-02	2.883E-03	0.070
CO-58	-6.666E-02		4.371E-02	6.165E-02	4.256E-03	-1.081
FE-59	3.005E-02		1.129E-01	1.874E-01	1.432E-02	0.160
CO-60	4.263E-03		4.057E-02	6.848E-02	4.693E-03	0.062
ZN-65	-2.825E-02		1.367E-01	1.859E-01	1.230E-02	-0.152
SE-75	-1.916E-02		4.767E-02	7.308E-02	4.917E-03	-0.262
SR-85	1.127E-01		5.014E-02	8.445E-02	4.717E-03	1.334
Y-88	-1.971E-02		3.467E-02	4.861E-02	2.836E-03	-0.405
Y-91	1.090E+01		2.571E+01	4.294E+01	2.631E+00	0.254
NB-94	1.014E-02		3.675E-02	6.279E-02	3.383E-03	0.162
NB-95	-2.018E-02		5.125E-02	7.063E-02	4.402E-03	-0.286
NB-95M	-8.368E-02		1.576E-01	2.137E-01	1.759E-02	-0.392
ZR-95	1.244E-02		7.669E-02	1.296E-01	9.492E-03	0.096
MO-99	4.743E+01		4.814E+01	8.585E+01	1.240E+01	0.552
TC-99M	3.337E+16		3.644E+16	Half-Life too short		
RU-103	-2.200E-02		4.343E-02	6.752E-02	8.335E-03	-0.326
RH-106	-8.153E-02		3.250E-01	5.074E-01	5.736E-02	-0.161
RU-106	-8.153E-02		3.249E-01	5.074E-01	2.606E-02	-0.161
AG-108M	-1.009E-02		3.003E-02	4.809E-02	2.927E-03	-0.210
AG-110M	-2.159E-02		3.764E-02	6.068E-02	3.243E-03	-0.356
SN-113	-3.634E-02		4.694E-02	7.352E-02	4.430E-03	-0.494
CD-115	1.778E-05		2.988E-05	Half-Life too short		
SN-117M	1.834E-02		7.100E-02	1.165E-01	7.453E-03	0.157
TE-123M	-9.413E-03		2.948E-02	4.709E-02	3.044E-03	-0.200
SB-124	3.476E-03		7.059E-02	1.166E-01	7.958E-03	0.030
SB-125	3.878E-02		9.600E-02	1.619E-01	9.571E-03	0.240
TE-125M	-3.297E+00		1.053E+01	1.716E+01	1.733E+00	-0.192
I-126	2.217E-01		3.182E-01	5.605E-01	2.765E-02	0.396
SB-126	6.119E-02		2.084E-01	3.273E-01	1.840E-02	0.187
SB-127	1.483E+00		3.456E+00	5.988E+00	6.627E-01	0.248
I-131	2.849E-02		1.958E-01	3.279E-01	2.200E-02	0.087
TE-132	6.896E-01		2.539E+00	4.085E+00	6.560E-01	0.169
BA-133	-4.204E-04		4.792E-02	7.001E-02	8.005E-03	-0.006
I-133	-1.003E-01		1.987E-01	Half-Life too short		

Sample ID : G248863004 Acquisition date : 24-MAR-2010 20:31:19

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-134	9.385E-02	+	7.984E-02	9.510E-02	6.410E-03	0.987
CS-135	2.051E-01		1.783E-01	2.847E-01	2.373E-02	0.720
I-135	2.599E+15		2.237E+15	Half-Life too short		
CS-136	-9.036E-02		1.602E-01	2.453E-01	1.885E-02	-0.368
BA-137M	-4.289E-02		4.109E-02	6.521E-02	3.180E-03	-0.658
CS-137	-4.531E-02		4.340E-02	6.889E-02	3.380E-03	-0.658
CE-139	-3.167E-02		3.123E-02	4.799E-02	3.049E-03	-0.660
BA-140	1.552E-01		3.828E-01	6.327E-01	2.105E-01	0.245
LA-140	-1.820E-02		1.213E-01	1.945E-01	1.281E-02	-0.094
CE-141	8.436E-02		6.929E-02	1.185E-01	7.954E-03	0.712
CE-143	6.255E-03		1.239E-03	Half-Life too short		
CE-144	2.687E-02		2.032E-01	3.343E-01	4.772E-02	0.080
PM-144	1.946E-02		3.582E-02	6.245E-02	3.321E-03	0.312
PR-144	1.271E+00		2.704E+00	4.690E+00	2.490E-01	0.271
PM-146	-9.885E-03		4.045E-02	6.492E-02	5.432E-03	-0.152
ND-147	-7.673E-01		8.343E-01	1.237E+00	1.659E-01	-0.620
PM-149	-1.891E-04		2.460E-04	Half-Life too short		
EU-152	-1.860E-02		1.135E-01	1.642E-01	1.135E-02	-0.113
GD-153	-5.697E-02		1.008E-01	1.452E-01	1.425E-02	-0.392
EU-154	-3.980E-02		1.333E-01	2.163E-01	2.139E-02	-0.184
EU-155	1.350E-01		1.055E-01	1.828E-01	1.592E-02	0.738
TB-160	-3.691E-02		1.571E-01	2.532E-01	2.008E-02	-0.146
HO-166M	4.409E-02		6.208E-02	1.096E-01	6.029E-03	0.402
TA-182	1.477E-01		2.442E-01	4.278E-01	2.662E-02	0.345
IR-192	-1.629E-02		3.718E-02	6.072E-02	3.942E-03	-0.268
BI-207	2.634E-02		6.088E-02	1.028E-01	7.310E-03	0.256
PB-210	-6.222E+00		8.889E+00	1.459E+01	1.273E+00	-0.426
PB-211	2.289E-01		7.281E-01	1.211E+00	5.809E-01	0.189
BI-212	2.310E+00	+	1.026E+00	1.335E+00	1.422E-01	1.730
RN-219	-2.086E-01		4.019E-01	6.379E-01	8.528E-02	-0.327
RA-223	-2.404E-01		7.025E-01	1.004E+00	1.641E-01	-0.240
AC-227	1.368E-01		2.561E-01	4.442E-01	4.775E-02	0.308
TH-227	1.368E-01		2.563E-01	4.442E-01	5.538E-02	0.308
TH-229	-1.641E-01		5.431E-01	8.580E-01	5.567E-02	-0.191
PA-231	-4.776E-01		1.573E+00	2.283E+00	3.083E-01	-0.209
TH-231	-2.404E-01		7.025E-01	1.004E+00	1.641E-01	-0.240
PA-233	-1.347E-03		6.229E-02	1.043E-01	7.113E-03	-0.013
PA-234	-1.858E-01		3.234E-01	4.964E-01	9.174E-02	-0.374
PA-234M	-8.050E-01		5.573E+00	8.895E+00	8.110E-01	-0.090
TH-234	-4.912E-01		1.893E+00	3.076E+00	6.192E-01	-0.160
U-238	-4.912E-01		1.893E+00	3.076E+00	6.192E-01	-0.160
NP-239	-1.239E-01		4.014E-01	6.520E-01	4.784E-02	-0.190
AM-241	1.208E-01		2.297E-01	3.963E-01	5.003E-02	0.305
CM-247	-3.865E-02		3.753E-02	5.745E-02	3.242E-03	-0.673
CF-249	2.997E-02		4.180E-02	7.207E-02	4.093E-03	0.416
CF-251	-5.981E-02		1.314E-01	2.071E-01	1.326E-02	-0.289

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248863004           *
* Acquisition date : 24-MAR-2010 20:31:19 Detector SN#    :                *
* Detector ID      : GAM04                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.37     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  4-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G248863004           Analyst initials: MXR1           *
* Batch Number     : 962633               Sample Quantity : 1.2696E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                *
* MSD DPM          :    0.000             MSD Isotope     :                *
* LCS DPM          :    0.000             LCS Isotope     :                *
* LCSD DPM         :    0.000             LCSD Isotope    :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.449E+01	3.103E+00	2.583E-01	1.583E+00
CD-109	4.326E+00	1.243E+00	7.193E-01	6.342E-01
SN-126	4.195E-01	1.205E-01	7.030E-02	6.150E-02
HG-203	8.901E-02	7.997E-02	3.430E-02	4.080E-02
TL-208	6.579E-01	9.518E-02	2.860E-02	4.856E-02
BI-211	4.243E+00	5.484E-01	1.771E-01	2.798E-01
PB-212	1.979E+00	1.985E-01	4.635E-02	1.013E-01
BI-214	1.375E+00	2.005E-01	5.656E-02	1.023E-01
PB-214	1.540E+00	2.157E-01	6.440E-02	1.101E-01
RA-224	5.460E+00	1.586E+00	4.968E-01	8.092E-01
RA-226	1.375E+00	2.005E-01	5.656E-02	1.023E-01
AC-228	2.230E+00	4.104E-01	1.276E-01	2.094E-01
RA-228	2.230E+00	4.104E-01	1.276E-01	2.094E-01
TH-228	1.979E+00	1.985E-01	4.635E-02	1.013E-01
TH-230	1.375E+00	1.875E-01	5.656E-02	9.565E-02
TH-232	2.230E+00	4.104E-01	1.276E-01	2.094E-01
U-235	5.812E-02	2.002E-01	1.718E-01	1.021E-01
NP-237	1.252E+00	4.422E-01	2.280E-01	2.256E-01
ANH-511	1.789E-01	7.152E-02	2.533E-02	3.649E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.481E-01	3.565E-01	3.104E-01	1.819E-01	NOT IDENT.
NA-22	-1.903E-02	4.664E-02	3.832E-02	2.380E-02	NOT IDENT.
NA-24	-2.827E+07	2.596E+08	0.000E+00	1.325E+08	SHORT HLIF
SC-46	-1.643E-02	4.694E-02	3.777E-02	2.395E-02	FAIL ABUN
V-48	1.084E-01	9.646E-02	8.888E-02	4.921E-02	NOT IDENT.
CR-51	-5.472E-02	4.277E-01	3.711E-01	2.182E-01	NOT IDENT.
MN-54	3.042E-02	4.125E-02	3.706E-02	2.105E-02	NOT IDENT.
CO-56	3.789E-02	4.579E-02	4.146E-02	2.336E-02	NOT IDENT.

CO-57	2.892E-03	2.504E-02	2.155E-02	1.278E-02	NOT IDENT.
CO-58	-6.666E-02	4.283E-02	3.111E-02	2.185E-02	NOT IDENT.
FE-59	3.005E-02	1.106E-01	9.414E-02	5.645E-02	NOT IDENT.
CO-60	4.263E-03	3.976E-02	3.430E-02	2.028E-02	NOT IDENT.
ZN-65	-2.825E-02	1.340E-01	9.337E-02	6.837E-02	NOT IDENT.
SE-75	-1.916E-02	4.672E-02	3.750E-02	2.384E-02	FAIL ABUN
SR-85	1.127E-01	4.914E-02	4.291E-02	2.507E-02	NOT IDENT.
Y-88	-1.971E-02	3.397E-02	2.423E-02	1.733E-02	NOT IDENT.
Y-91	1.090E+01	2.519E+01	2.154E+01	1.285E+01	NOT IDENT.
NB-94	1.014E-02	3.602E-02	3.176E-02	1.838E-02	NOT IDENT.
NB-95	-2.018E-02	5.022E-02	3.568E-02	2.562E-02	NOT IDENT.
NB-95M	-8.368E-02	1.545E-01	1.098E-01	7.882E-02	NOT IDENT.
ZR-95	1.244E-02	7.515E-02	6.546E-02	3.834E-02	NOT IDENT.
MO-99	4.743E+01	4.718E+01	4.338E+01	2.407E+01	NOT IDENT.
TC-99M	3.337E+22	7.142E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.200E-02	4.256E-02	3.433E-02	2.171E-02	FAIL ABUN
RH-106	-8.153E-02	3.185E-01	2.571E-01	1.625E-01	NOT IDENT.
RU-106	-8.153E-02	3.184E-01	2.571E-01	1.624E-01	NOT IDENT.
AG-108M	-1.009E-02	2.943E-02	2.450E-02	1.501E-02	NOT IDENT.
AG-110M	-2.159E-02	3.689E-02	3.072E-02	1.882E-02	NOT IDENT.
SN-113	-3.634E-02	4.600E-02	3.751E-02	2.347E-02	NOT IDENT.
CD-115	1.778E+01	5.857E+01	0.000E+00	2.988E+01	SHORT HLIF
SN-117M	1.834E-02	6.958E-02	6.023E-02	3.550E-02	NOT IDENT.
TE-123M	-9.413E-03	2.889E-02	2.434E-02	1.474E-02	NOT IDENT.
SB-124	3.476E-03	6.917E-02	5.821E-02	3.529E-02	NOT IDENT.
SB-125	3.878E-02	9.408E-02	8.248E-02	4.800E-02	FAIL ABUN
TE-125M	-3.297E+00	1.032E+01	8.920E+00	5.266E+00	NOT IDENT.
I-126	2.217E-01	3.118E-01	2.837E-01	1.591E-01	NOT IDENT.
SB-126	6.119E-02	2.043E-01	1.654E-01	1.042E-01	NOT IDENT.
SB-127	1.483E+00	3.387E+00	3.030E+00	1.728E+00	NOT IDENT.
I-131	2.849E-02	1.919E-01	1.674E-01	9.792E-02	NOT IDENT.
TE-132	6.896E-01	2.489E+00	2.100E+00	1.270E+00	NOT IDENT.
BA-133	-4.204E-04	4.696E-02	3.577E-02	2.396E-02	NOT IDENT.
I-133	-1.003E+05	3.895E+05	0.000E+00	1.987E+05	SHORT HLIF
CS-134	9.385E-02	7.825E-02	4.801E-02	3.992E-02	FAIL ABUN
CS-135	2.051E-01	1.747E-01	1.461E-01	8.914E-02	NOT IDENT.
I-135	2.599E+21	4.384E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-9.036E-02	1.570E-01	1.233E-01	8.009E-02	NOT IDENT.
BA-137M	-4.289E-02	4.026E-02	3.301E-02	2.054E-02	NOT IDENT.
CS-137	-4.531E-02	4.254E-02	3.487E-02	2.170E-02	NOT IDENT.
CE-139	-3.167E-02	3.060E-02	2.479E-02	1.561E-02	NOT IDENT.
BA-140	1.552E-01	3.752E-01	3.213E-01	1.914E-01	NOT IDENT.
LA-140	-1.820E-02	1.188E-01	9.713E-02	6.064E-02	FAIL ABUN
CE-141	8.436E-02	6.791E-02	6.132E-02	3.465E-02	NOT IDENT.
CE-143	6.255E+03	2.429E+03	0.000E+00	1.239E+03	SHORT HLIF
CE-144	2.687E-02	1.991E-01	1.732E-01	1.016E-01	NOT IDENT.
PM-144	1.946E-02	3.510E-02	3.159E-02	1.791E-02	NOT IDENT.
PR-144	1.271E+00	2.650E+00	2.372E+00	1.352E+00	NOT IDENT.
PM-146	-9.885E-03	3.965E-02	3.305E-02	2.023E-02	NOT IDENT.
ND-147	-7.673E-01	8.176E-01	6.282E-01	4.171E-01	FAIL ABUN
PM-149	-1.891E+02	4.821E+02	0.000E+00	2.460E+02	SHORT HLIF
EU-152	-1.860E-02	1.112E-01	8.391E-02	5.676E-02	FAIL ABUN
GD-153	-5.697E-02	9.876E-02	7.555E-02	5.039E-02	NOT IDENT.
EU-154	-3.980E-02	1.306E-01	1.084E-01	6.666E-02	NOT IDENT.
EU-155	1.350E-01	1.034E-01	9.503E-02	5.274E-02	FAIL ABUN
TB-160	-3.691E-02	1.540E-01	1.276E-01	7.857E-02	FAIL ABUN
HO-166M	4.409E-02	6.084E-02	5.539E-02	3.104E-02	FAIL ABUN
TA-182	1.477E-01	2.393E-01	2.145E-01	1.221E-01	FAIL ABUN
IR-192	-1.629E-02	3.643E-02	3.107E-02	1.859E-02	FAIL ABUN
BI-207	2.634E-02	5.966E-02	5.166E-02	3.044E-02	FAIL ABUN
PB-210	-6.222E+00	8.711E+00	7.674E+00	4.444E+00	NOT IDENT.
PB-211	2.289E-01	7.136E-01	6.177E-01	3.641E-01	NOT IDENT.
BI-212	2.310E+00	1.006E+00	6.747E-01	5.131E-01	FAIL ABUN
RN-219	-2.086E-01	3.938E-01	3.253E-01	2.009E-01	FAIL ABUN
RA-223	-2.404E-01	6.885E-01	5.135E-01	3.513E-01	FAIL ABUN
AC-227	1.368E-01	2.510E-01	2.280E-01	1.281E-01	FAIL ABUN
TH-227	1.368E-01	2.511E-01	2.280E-01	1.281E-01	FAIL ABUN
TH-229	-1.641E-01	5.322E-01	4.422E-01	2.715E-01	FAIL ABUN
PA-231	-4.776E-01	1.541E+00	1.170E+00	7.863E-01	FAIL ABUN
TH-231	-2.404E-01	6.885E-01	5.135E-01	3.513E-01	FAIL ABUN
PA-233	-1.347E-03	6.104E-02	5.338E-02	3.114E-02	FAIL ABUN
PA-234	-1.858E-01	3.169E-01	2.499E-01	1.617E-01	NOT IDENT.
PA-234M	-8.050E-01	5.461E+00	4.475E+00	2.786E+00	NOT IDENT.
TH-234	-4.912E-01	1.855E+00	1.611E+00	9.463E-01	FAIL ABUN
U-238	-4.912E-01	1.855E+00	1.611E+00	9.463E-01	FAIL ABUN
NP-239	-1.239E-01	3.934E-01	3.385E-01	2.007E-01	NOT IDENT.
AM-241	1.208E-01	2.251E-01	2.077E-01	1.148E-01	NOT IDENT.
CM-247	-3.865E-02	3.678E-02	2.930E-02	1.877E-02	FAIL ABUN

CF-249	2.997E-02	4.096E-02	3.677E-02	2.090E-02 NOT IDENT.
CF-251	-5.981E-02	1.288E-01	1.069E-01	6.571E-02 NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.54	228.7572
49.72	193.8532
57.36	0.0000
59.54	240.6569
63.29	279.5457
63.29	279.5457
64.28	262.3167
67.75	288.8737
69.67	338.2286
70.83	357.3096
72.81	369.8719
72.87	369.9214
72.87	369.9214
74.82	345.8383
74.82	345.8383
74.82	345.8383
74.97	345.9515
77.11	347.5660
77.11	347.5660
77.11	347.5660
79.69	349.4836
79.80	349.5641
80.12	349.7990
80.19	349.8498
80.57	350.1298
81.00	330.4587
81.07	330.5057
81.07	330.5057
83.79	269.2573
83.79	269.2573
85.43	315.1777
86.48	380.7031
86.55	380.7566
86.79	334.8473
86.94	334.9487
87.57	335.3688
88.03	335.6730
88.47	335.9645
89.96	336.9441
91.11	337.6937
92.59	338.6534
92.59	338.6534
93.35	339.1423
94.67	290.8043
94.87	275.1504
94.87	275.1504
95.86	275.6587
97.43	308.1393
98.44	274.0890
99.53	270.7795
100.11	266.2407
103.18	290.9851
103.37	289.1422
105.31	233.6621
106.12	234.9667
109.28	288.2010
111.00	268.3970
111.76	299.2546
116.30	265.8054
117.23	272.1674
121.12	272.8709
121.78	240.1367
122.06	240.2429
123.07	243.6328
131.20	301.5107
133.52	270.9761
136.00	258.6749

136.47	249.6443
140.51	244.9315
140.51	0.0000
143.76	266.7396
144.24	266.9207
144.24	266.9207
145.44	238.3526
152.43	261.5764
153.25	252.4391
154.21	271.6412
154.21	271.6412
156.02	273.3512
158.56	244.7323
159.00	263.8728
162.66	250.2843
163.33	246.2546
165.86	280.0635
176.60	230.9495
177.52	252.8145
181.07	231.1118
184.41	254.9068
185.72	232.3881
193.51	247.7005
197.04	248.6916
205.31	234.2484
210.85	222.1901
215.65	197.9463
222.11	218.0195
227.38	229.4721
228.16	234.2243
228.18	234.2285
235.69	253.8361
235.96	233.1766
235.96	233.1766
238.63	190.4942
238.63	190.4942
240.99	190.9323
242.00	191.1203
244.70	153.2950
252.40	186.0046
252.80	181.6857
256.23	177.8658
256.23	177.8658
260.90	0.0000
264.66	170.3730
268.22	166.6479
269.46	185.3706
269.46	185.3706
271.23	165.6682
273.65	161.0156
276.40	156.0255
277.37	158.8506
277.60	158.8830
278.00	158.9370
279.20	159.1045
279.54	159.1504
280.46	149.7412
283.69	155.9355
284.31	156.0173
285.41	174.7216
285.90	0.0000
287.50	133.9918
293.27	0.0000
295.22	137.0550
295.96	153.1882
298.57	197.3815
299.98	150.7708
299.98	150.7708
300.09	168.3531
300.09	168.3531
300.13	168.3588
301.36	153.8727
302.85	146.7261
304.50	168.9624
304.50	168.9624
304.85	171.9494
308.46	136.3427
311.90	134.8745

316.51	154.8425
319.41	134.7516
320.08	153.4186
323.87	138.7666
323.87	138.7666
328.76	146.7823
333.37	122.7532
334.37	132.3738
334.37	132.3738
338.28	138.6110
338.28	138.6110
338.32	138.6155
338.32	138.6155
338.32	138.6155
340.48	152.6318
340.55	152.6392
344.28	142.4573
351.06	139.9367
351.93	140.0241
356.01	128.4035
364.49	134.5718
366.42	130.9075
383.85	125.6892
388.16	113.3556
388.63	114.3685
391.69	129.2990
400.66	118.2513
401.81	116.3705
402.40	128.2544
404.85	108.6975
410.95	121.0376
414.70	111.3882
423.72	117.0339
427.09	86.2100
427.87	105.3076
433.94	105.7098
453.88	89.6838
463.37	87.1193
468.07	93.7341
473.00	102.0454
476.78	102.2690
477.60	93.0171
487.02	91.4429
492.35	0.0000
497.08	88.8300
511.00	97.9454
514.00	86.0806
527.90	0.0000
529.87	0.0000
531.02	99.0112
537.26	83.3177
546.56	0.0000
563.25	89.8618
569.33	91.2264
569.50	92.3203
569.70	93.4142
583.19	73.2690
600.60	72.7938
602.73	100.9431
604.72	83.1060
609.32	76.4226
609.32	76.4226
609.32	76.4226
610.33	76.4605
614.28	62.1711
618.01	68.6376
621.93	73.5390
621.93	73.5390
633.25	75.0499
635.95	82.9948
636.99	81.9111
645.85	84.7239
657.76	90.6201
661.66	96.2255
661.66	96.2255
664.57	0.0000
666.33	79.1432
666.50	71.8715

677.62	63.0838
685.70	66.0603
695.00	67.2470
696.49	70.9778
696.51	72.8223
697.00	75.6038
702.65	84.1039
706.68	100.9128
711.68	63.0893
720.70	62.5301
721.93	0.0000
722.78	73.0168
722.91	73.0206
723.31	65.2627
724.19	71.5044
727.33	70.9754
733.00	76.4469
735.93	71.2277
739.50	55.3773
747.24	54.6101
752.31	77.3675
753.82	67.0288
756.73	61.4374
763.94	55.2956
765.81	74.3096
766.42	71.1639
777.92	68.6303
778.90	59.1210
783.70	76.4277
785.37	61.1828
795.86	52.7938
801.95	64.1423
810.29	77.2168
810.76	79.1612
815.77	58.0342
818.51	71.6496
832.01	72.9858
834.85	66.2436
836.80	0.0000
846.77	58.7095
856.80	52.3776
860.56	39.3369
871.09	58.1326
873.19	35.5649
875.33	0.0000
879.36	59.4053
880.51	43.5821
883.24	57.5044
884.68	63.4859
889.28	61.6019
898.04	69.7659
911.20	61.7419
911.20	61.7419
911.20	61.7419
926.50	60.3911
937.49	45.4625
944.13	58.7278
946.00	59.7778
949.00	52.7389
962.29	57.7264
964.08	56.0621
966.15	54.0597
968.97	54.1102
968.97	54.1102
968.97	54.1102
983.53	43.0849
996.26	63.8648
1001.03	68.0883
1004.73	64.0374
1037.84	54.2725
1038.76	0.0000
1048.07	61.7743
1050.41	50.2945
1050.41	50.2945
1063.66	53.6546
1085.87	63.5479
1099.45	54.2348
1112.07	60.8436

1115.54	83.6996
1120.29	56.7085
1120.29	56.7085
1120.29	56.7085
1120.55	56.7136
1121.30	56.7266
1131.51	0.0000
1173.23	65.1826
1177.93	71.7943
1189.05	65.4697
1204.77	55.8933
1221.41	71.5603
1231.02	84.6253
1235.36	87.4854
1238.28	71.8872
1260.41	0.0000
1271.85	49.2842
1274.44	49.3187
1274.54	51.1798
1291.59	41.1265
1298.22	0.0000
1312.11	43.2242
1332.49	31.1705
1365.19	27.6170
1368.63	0.0000
1384.29	9.8417
1408.01	44.2686
1457.56	0.0000
1460.82	18.5160
1489.16	17.6572
1505.03	15.1900
1596.21	22.1038
1620.50	16.1602
1678.03	0.0000
1690.97	9.2260
1764.49	5.3515
1764.49	5.3515
1764.49	5.3515
1770.23	12.5010
1771.35	8.9310
1791.20	0.0000
1836.06	13.7183

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248863004

Total Uranium Activity	-1.4345E+00	ug/g
Total Uranium Counting Unc.	5.5184E+00	ug/g
Total Uranium Tpu	2.8155E-06	ug/g
Total Uranium Mda	4.7932E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248863004       *
*   ANALYST       : MXR1                      DETECTOR   : GAM04            *
*   SAMPLE DATE   :  4-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 20:31:19.93    SAMPLE ALQT:  126.960 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.101E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.531E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 3.912E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.895E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:35:03.53

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:33:15
Sample ID         : G248867001           Sample quantity  : 1.22070E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:57.45  0.8%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	74.70*	595	709	1.78	149.61	143	15	8.26E-02	10.2	6.48E+00
2	3	77.13*	699	378	0.98	154.46	143	15	9.71E-02	5.9	
3	0	86.89*	170	508	1.12	173.95	172	7	2.36E-02	23.5	
4	0	93.22*	169	756	1.39	186.60	181	10	2.35E-02	33.0	
5	0	129.40	102	529	1.21	258.87	253	12	1.41E-02	46.4	
6	0	185.85*	158	426	1.20	371.63	365	11	2.19E-02	27.7	
7	0	209.14	75	344	1.00	418.17	414	9	1.04E-02	46.1	
8	4	238.54*	1301	172	1.07	476.91	471	18	1.81E-01	3.4	1.51E+00
9	4	241.43	315	310	1.77	482.67	471	18	4.38E-02	15.7	
10	0	270.01	120	335	1.39	539.77	534	14	1.66E-02	33.7	
11	4	295.15	406	145	1.16	590.01	585	19	5.64E-02	7.0	1.26E+00
12	4	299.92	131	150	1.42	599.54	585	19	1.82E-02	18.5	
13	0	328.37	95	195	1.05	656.39	651	11	1.32E-02	30.1	
14	0	338.29	271	184	1.41	676.21	669	12	3.76E-02	11.7	
15	0	351.81	620	227	1.23	703.23	698	12	8.61E-02	6.3	
16	0	463.34	92	115	0.98	926.09	921	13	1.28E-02	26.2	
17	0	583.03*	429	125	1.47	1165.32	1158	14	5.96E-02	7.5	
18	0	609.34*	441	129	1.28	1217.91	1213	12	6.13E-02	7.2	
19	0	663.39	83	184	1.04	1325.96	1316	20	1.15E-02	41.8	
20	0	727.40	90	78	1.24	1453.93	1448	11	1.25E-02	21.9	
21	0	795.70	71	83	0.99	1590.48	1580	19	9.82E-03	33.5	
22	0	860.37	65	49	1.51	1719.81	1715	12	8.96E-03	24.9	
23	0	911.26*	257	85	1.62	1821.57	1813	14	3.57E-02	10.0	
24	4	964.31*	85	37	2.53	1927.66	1922	25	1.18E-02	18.9	1.63E+00
25	4	969.05*	171	51	2.05	1937.14	1922	25	2.38E-02	11.6	
26	0	1120.33*	113	55	2.02	2239.74	2233	13	1.56E-02	17.2	
27	0	1378.58*	26	35	1.04	2756.43	2747	14	3.66E-03	52.7	
28	0	1402.03	18	24	0.99	2803.36	2794	12	2.47E-03	60.1	
29	0	1460.89*	1478	45	1.75	2921.16	2911	20	2.05E-01	2.8	
30	0	1620.67	30	4	1.43	3240.97	3233	15	4.20E-03	22.9	
31	0	1764.57*	92	3	1.88	3529.07	3522	13	1.28E-02	12.4	
32	0	1847.98	18	7	1.33	3696.08	3689	14	2.50E-03	39.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 22:35:06

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 20:33:15
Sample ID : G248867001 Sample quantity : 122.07 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAM29 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:57.45 0.8%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.523E+01	4.325E+00	5.862E-01	6.376E-02	60.093
CD-109	+	88.03	*	2.483E+00	1.192E+00	1.820E+00	1.719E-01	1.364
SN-126		64.28		2.422E-03	6.348E-01	1.037E+00	1.537E-01	0.002
	+	86.94		1.003E+00	6.294E-01	7.645E-01	3.174E-01	1.312
	+	87.57	*	2.412E-01	1.158E-01	1.819E-01	1.710E-02	1.326
TL-208		277.37		4.630E-01	4.993E-01	7.893E-01	1.015E-01	0.587
	+	583.19	*	5.863E-01	1.036E-01	6.767E-02	6.341E-03	8.663
	+	860.56		8.343E-01	4.289E-01	5.000E-01	6.413E-02	1.668
BI-211		72.87		1.569E+01	4.825E+00	7.495E+00	6.194E-01	2.093
	+	351.06	*	3.834E+00	6.063E-01	3.919E-01	3.753E-02	9.782
BI-212	+	727.33	*	1.882E+00	8.594E-01	8.798E-01	1.150E-01	2.139
		785.37		6.275E+00	3.919E+00	6.750E+00	7.215E-01	0.930
	+	1620.50		5.596E+00	2.626E+00	3.759E+00	3.755E-01	1.489
PB-212	+	74.82		3.681E+00	8.883E-01	7.004E-01	8.989E-02	5.255
	+	77.11		2.474E+00	3.618E-01	4.007E-01	3.412E-02	6.175
	+	238.63	*	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
	+	300.09		2.841E+00	1.095E+00	1.418E+00	1.558E-01	2.003
BI-214	+	609.32	*	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
	+	1120.29		1.544E+00	5.596E-01	5.108E-01	5.962E-02	3.022
	+	1764.49		1.707E+00	4.519E-01	2.887E-01	2.622E-02	5.912
PB-214	+	74.82		6.524E+00	1.531E+00	1.241E+00	1.432E-01	5.255
	+	77.11		4.362E+00	7.323E-01	7.064E-01	8.374E-02	6.175
	+	242.00		2.702E+00	8.938E-01	6.932E-01	7.350E-02	3.897
	+	295.22		1.563E+00	2.793E-01	2.497E-01	2.806E-02	6.256
	+	351.93	*	1.391E+00	2.331E-01	1.435E-01	1.586E-02	9.695
RA-224	+	240.99	*	4.777E+00	1.556E+00	1.222E+00	1.084E-01	3.909
RA-226	+	609.32	*	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
	+	1120.29		1.544E+00	5.596E-01	5.108E-01	5.962E-02	3.022
	+	1764.49		1.707E+00	4.519E-01	2.887E-01	2.622E-02	5.912
AC-228	+	338.32		1.867E+00	8.953E-01	4.700E-01	1.966E-01	3.973
	+	911.20	*	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
	+	968.97		1.951E+00	6.782E-01	4.648E-01	1.204E-01	4.197
RA-228	+	338.32		1.867E+00	8.953E-01	4.700E-01	1.966E-01	3.973
	+	911.20	*	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		1.951E+00	6.782E-01	4.648E-01	1.204E-01	4.197
TH-228	+	74.82		3.681E+00	8.141E-01	7.004E-01	5.920E-02	5.255
	+	77.11		2.474E+00	3.618E-01	4.007E-01	3.412E-02	6.175
	+	238.63	*	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
	+	300.09		2.841E+00	2.033E+00	1.418E+00	8.694E-01	2.003
TH-230	+	609.32	*	1.167E+00	1.955E-01	1.384E-01	1.192E-02	8.437
	+	1120.29		1.544E+00	5.499E-01	5.108E-01	4.882E-02	3.022
	+	1764.49		1.707E+00	4.519E-01	2.887E-01	2.622E-02	5.912
TH-232	+	338.32		1.867E+00	4.698E-01	4.700E-01	4.316E-02	3.973
	+	911.20	*	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
	+	968.97		1.951E+00	6.782E-01	4.648E-01	1.204E-01	4.197
NP-237	+	86.48	*	7.197E-01	3.769E-01	4.879E-01	1.119E-01	1.475
		95.86		5.234E-01	1.246E+00	1.808E+00	4.364E-01	0.290

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-2.460E-02	3.972E-01	6.430E-01	6.260E-02	-0.038
NA-22		1274.54	*	-4.993E-02	4.804E-02	7.200E-02	7.188E-03	-0.693
NA-24		1368.63	*	-5.110E+01	4.804E-02	Half-Life too short		
SC-46		889.28	*	-2.542E-02	4.469E-02	6.961E-02	9.088E-03	-0.365
	+	1120.55		2.704E-01	9.634E-02	1.501E-01	1.434E-02	1.802
V-48		944.13		-8.359E-01	1.282E+00	1.980E+00	2.515E-01	-0.422
		983.53	*	-3.953E-02	9.753E-02	1.536E-01	1.863E-02	-0.257
		1312.11		-2.539E-02	1.141E-01	1.866E-01	1.981E-02	-0.136
CR-51		320.08	*	-1.087E-01	4.670E-01	7.636E-01	7.342E-02	-0.142
MN-54		834.85	*	-3.045E-02	4.396E-02	6.857E-02	8.082E-03	-0.444
CO-56		846.77	*	1.498E-02	4.718E-02	7.976E-02	9.618E-03	0.188
		1037.84		1.155E-01	3.678E-01	6.162E-01	7.129E-02	0.187
		1238.28		1.860E-01	1.184E-01	2.104E-01	2.020E-02	0.884
		1771.35		2.082E-02	2.953E-01	4.195E-01	3.789E-02	0.050
CO-57		122.06	*	2.208E-02	3.147E-02	5.225E-02	4.721E-03	0.423
		136.47		1.856E-01	2.559E-01	4.238E-01	3.937E-02	0.438
CO-58		810.76	*	-2.382E-03	4.833E-02	7.967E-02	8.971E-03	-0.030
FE-59		1099.45	*	-5.190E-02	1.038E-01	1.600E-01	1.699E-02	-0.324
		1291.59		-2.755E-02	1.360E-01	2.227E-01	2.508E-02	-0.124
CO-60		1173.23		-2.246E-02	5.635E-02	8.814E-02	7.327E-03	-0.255
		1332.49	*	-1.929E-02	4.266E-02	6.761E-02	7.415E-03	-0.285
ZN-65		1115.54	*	-6.619E-02	1.148E-01	1.464E-01	1.416E-02	-0.452
SE-75		121.12		2.459E-01	1.655E-01	2.795E-01	3.184E-02	0.880
		136.00		2.277E-02	5.162E-02	8.191E-02	7.149E-03	0.278
		264.66	*	1.681E-02	6.110E-02	9.012E-02	8.171E-03	0.187
		279.54		3.291E-02	1.346E-01	2.264E-01	2.131E-02	0.145
		400.66		1.953E-02	3.028E-01	4.982E-01	5.681E-02	0.039
SR-85		514.00	*	-1.800E-01	6.424E-02	8.613E-02	7.791E-03	-2.090
Y-88		898.04		-1.017E-02	5.214E-02	8.444E-02	1.122E-02	-0.120
		1836.06	*	-6.498E-03	3.818E-02	6.045E-02	5.169E-03	-0.108
Y-91		1204.77	*	-9.039E+00	2.724E+01	4.277E+01	3.772E+00	-0.211

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94		702.65	*	-9.570E-03	3.608E-02	5.900E-02	5.300E-03	-0.162
		871.09		3.748E-02	3.723E-02	6.606E-02	8.339E-03	0.567
NB-95		765.81	*	7.055E-02	5.146E-02	9.219E-02	9.469E-03	0.765
NB-95M		235.69	*	6.736E-01	1.991E-01	3.184E-01	3.207E-02	2.115
ZR-95		724.19		8.915E-02	1.270E-01	1.939E-01	1.955E-02	0.460
		756.73	*	2.077E-02	8.542E-02	1.443E-01	1.568E-02	0.144
MO-99		140.51		-1.268E+02	8.891E+01	1.275E+02	3.025E+01	-0.995
		181.07		-5.081E+01	7.467E+01	9.920E+01	1.850E+01	-0.512
		366.42		-2.952E+02	3.331E+02	5.187E+02	4.729E+01	-0.569
		739.50	*	5.954E+01	4.271E+01	7.590E+01	1.244E+01	0.785
		777.92		-1.019E+02	1.178E+02	1.811E+02	1.907E+01	-0.563
TC-99M		140.51	*	-9.175E+15	1.178E+02	Half-Life too short		
RU-103		497.08	*	-1.237E-02	5.221E-02	8.333E-02	1.188E-02	-0.148
	+	610.33		1.299E+01	2.825E+00	3.251E+00	5.312E-01	3.994
RH-106		621.93	*	-1.023E-01	3.442E-01	5.652E-01	7.457E-02	-0.181
		1050.41		-2.472E-01	2.962E+00	4.790E+00	5.264E-01	-0.052
RU-106		621.93	*	-1.023E-01	3.440E-01	5.652E-01	4.817E-02	-0.181
		1050.41		-2.472E-01	2.962E+00	4.790E+00	5.264E-01	-0.052
AG-108M		433.94	*	-1.315E-03	3.302E-02	5.377E-02	5.031E-03	-0.024
		614.28		-1.303E-02	4.400E-02	6.191E-02	5.487E-03	-0.210
		722.91		-1.182E-02	4.617E-02	6.396E-02	6.166E-03	-0.185
AG-110M		657.76	*	9.767E-03	4.395E-02	6.487E-02	5.515E-03	0.151
		677.62		-4.171E-01	3.367E-01	5.053E-01	4.421E-02	-0.825
		706.68		7.301E-02	2.321E-01	3.953E-01	3.676E-02	0.185
		763.94		-4.864E-02	1.859E-01	3.027E-01	3.158E-02	-0.161
		884.68		1.415E-02	5.420E-02	9.121E-02	1.198E-02	0.155
		937.49		1.227E-01	1.312E-01	2.298E-01	2.988E-02	0.534
		1384.29		4.885E-02	1.903E-01	2.833E-01	3.135E-02	0.172
		1505.03		-3.317E-01	3.144E-01	4.432E-01	4.664E-02	-0.748
SN-113		391.69	*	3.037E-02	5.294E-02	8.953E-02	8.280E-03	0.339
CD-115		260.90		-1.476E-04	5.294E-02	Half-Life too short		
		492.35		-3.479E-05	5.294E-02	Half-Life too short		
		527.90	*	5.067E-06	5.294E-02	Half-Life too short		
SN-117M		156.02		-2.836E+00	3.424E+00	5.307E+00	4.408E-01	-0.534
		158.56	*	1.580E-02	8.013E-02	1.298E-01	1.073E-02	0.122
TE-123M		159.00	*	-8.985E-03	3.464E-02	5.504E-02	4.575E-03	-0.163
SB-124		602.73		2.073E-02	5.026E-02	7.570E-02	6.553E-03	0.274
		645.85		-3.962E-01	5.572E-01	8.830E-01	7.813E-02	-0.449
		722.78		-1.171E-01	4.874E-01	6.766E-01	6.472E-02	-0.173
		1690.97	*	-4.839E-02	8.496E-02	1.248E-01	1.236E-02	-0.388
SB-125		427.87	*	-5.397E-02	1.117E-01	1.772E-01	1.636E-02	-0.305
	+	463.37		8.628E-01	4.607E-01	5.931E-01	5.769E-02	1.455
		600.60		-1.330E-01	2.086E-01	3.188E-01	2.966E-02	-0.417
		635.95		-9.029E-02	3.066E-01	5.034E-01	4.597E-02	-0.179
TE-125M		109.28	*	1.845E+00	1.305E+01	2.132E+01	2.278E+00	0.087
I-126		388.63		-1.694E-01	2.520E-01	3.973E-01	3.581E-02	-0.426
		666.33	*	2.483E-01	3.624E-01	5.558E-01	4.605E-02	0.447
		753.82		2.187E+00	2.572E+00	4.516E+00	4.525E-01	0.484
SB-126		414.70		1.935E-02	1.094E-01	1.809E-01	1.639E-02	0.107

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		666.50		9.092E-02	1.250E-01	1.925E-01	1.596E-02	0.472
		695.00		6.494E-02	1.131E-01	1.956E-01	1.728E-02	0.332
		697.00		1.064E-01	3.845E-01	6.532E-01	5.795E-02	0.163
		720.70	*	-6.002E-02	2.262E-01	3.147E-01	2.940E-02	-0.191
		856.80		2.453E-01	7.521E-01	1.107E+00	1.360E-01	0.222
SB-127		252.40		1.186E+00	1.028E+01	1.725E+01	7.244E+00	0.069
		473.00		-1.305E+00	4.007E+00	6.367E+00	9.086E-01	-0.205
		685.70	*	-2.427E-01	3.197E+00	5.310E+00	6.756E-01	-0.046
		783.70		1.078E+01	8.970E+00	1.585E+01	2.371E+00	0.680
I-131		80.19		-1.328E+01	9.677E+00	1.304E+01	1.151E+00	-1.018
		284.31		-1.311E-01	2.494E+00	4.138E+00	3.959E-01	-0.032
		364.49	*	4.339E-03	1.903E-01	3.136E-01	3.008E-02	0.014
		636.99		-2.847E+00	2.601E+00	4.009E+00	3.588E-01	-0.710
TE-132		49.72		-1.142E+02	6.056E+01	8.921E+01	1.098E+01	-1.280
		111.76		-2.708E+01	1.071E+02	1.725E+02	2.149E+01	-0.157
		116.30		1.419E+01	9.153E+01	1.494E+02	1.867E+01	0.095
		228.16	*	1.995E+00	2.269E+00	3.887E+00	6.534E-01	0.513
BA-133		81.00		-1.325E-01	1.381E-01	1.885E-01	2.945E-02	-0.703
		276.40		4.598E-01	4.828E-01	7.325E-01	1.055E-01	0.628
		302.85		-4.779E-02	1.851E-01	2.616E-01	3.515E-02	-0.183
		356.01	*	5.465E-02	5.492E-02	8.367E-02	1.114E-02	0.653
		383.85		2.454E-01	3.446E-01	5.857E-01	7.449E-02	0.419
I-133		529.87	*	7.975E-02	3.446E-01	Half-Life too short		
		875.33		4.246E-01	3.446E-01	Half-Life too short		
		1298.22		2.458E+00	3.446E-01	Half-Life too short		
CS-134		563.25		-7.646E-03	4.073E-01	6.555E-01	5.869E-02	-0.012
		569.33		-4.779E-02	2.261E-01	3.585E-01	3.212E-02	-0.133
		604.72		4.817E-03	4.603E-02	6.428E-02	5.570E-03	0.075
	+	795.86	*	1.411E-01	9.575E-02	1.005E-01	1.102E-02	1.405
		801.95		-7.164E-01	5.492E-01	6.565E-01	7.280E-02	-1.091
		1365.19		-9.385E-01	1.231E+00	1.836E+00	2.063E-01	-0.511
CS-135		268.22	*	3.862E-01	2.230E-01	3.497E-01	3.615E-02	1.104
I-135		546.56		7.085E+14	2.230E-01	Half-Life too short		
		836.80		1.538E+14	2.230E-01	Half-Life too short		
		1038.76		6.268E+13	2.230E-01	Half-Life too short		
		1131.51		-1.536E+14	2.230E-01	Half-Life too short		
		1260.41	*	-2.956E+13	2.230E-01	Half-Life too short		
		1457.56		4.530E+16	2.230E-01	Half-Life too short		
		1678.03		-4.196E+14	2.230E-01	Half-Life too short		
		1791.20		-1.634E+14	2.230E-01	Half-Life too short		
CS-136		153.25		8.770E-01	1.284E+00	2.116E+00	2.126E-01	0.414
		176.60		-3.017E-01	7.744E-01	1.219E+00	1.119E-01	-0.248
		273.65		-8.157E-01	8.916E-01	1.212E+00	1.185E-01	-0.673
		340.55		8.495E-01	2.750E-01	4.403E-01	4.179E-02	1.929
		818.51		2.060E-02	1.033E-01	1.736E-01	1.984E-02	0.119
		1048.07	*	-6.837E-02	1.522E-01	2.373E-01	2.687E-02	-0.288
		1235.36		-1.335E-01	8.882E-01	1.416E+00	1.741E-01	-0.094
BA-137M		661.66	*	1.196E-01	4.649E-02	8.699E-02	7.132E-03	1.375
CS-137		661.66	*	1.263E-01	4.912E-02	9.190E-02	7.550E-03	1.375

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-139		165.86	*	9.968E-03	3.697E-02	5.995E-02	4.886E-03	0.166
BA-140		162.66		-5.853E-01	1.271E+00	1.978E+00	1.742E-01	-0.296
		304.85		5.957E-02	2.222E+00	3.205E+00	9.436E-01	0.019
		423.72		1.372E+00	3.049E+00	5.054E+00	1.669E+00	0.271
		537.26	*	5.443E-02	4.064E-01	6.618E-01	2.251E-01	0.082
LA-140	+	328.76		1.028E+00	6.276E-01	8.132E-01	7.851E-02	1.264
		487.02		1.024E-01	2.040E-01	3.416E-01	3.279E-02	0.300
		815.77		5.523E-02	4.708E-01	7.859E-01	9.541E-02	0.070
		1596.21	*	-5.603E-02	1.297E-01	2.019E-01	2.042E-02	-0.278
CE-141		145.44	*	2.067E-02	8.851E-02	1.438E-01	1.243E-02	0.144
CE-143		57.36		-4.083E-03	8.851E-02	Half-Life too short		
		293.27	*	9.059E-03	8.851E-02	Half-Life too short		
	+	664.57		3.267E-02	8.851E-02	Half-Life too short		
		721.93		3.150E-03	8.851E-02	Half-Life too short		
CE-144		80.12		-1.372E+00	3.510E+00	4.963E+00	4.335E-01	-0.276
		133.52	*	-1.194E-01	2.813E-01	3.872E-01	5.940E-02	-0.308
PM-144		476.78		-1.607E-02	7.645E-02	1.225E-01	1.203E-02	-0.131
		618.01		3.137E-02	3.593E-02	6.247E-02	5.495E-03	0.502
		696.49	*	2.249E-02	3.890E-02	6.731E-02	5.968E-03	0.334
PR-144		696.51	*	1.183E+00	2.949E+00	5.047E+00	4.473E-01	0.234
		1489.16		-1.855E+01	1.447E+01	1.933E+01	2.045E+00	-0.960
PM-146		453.88	*	4.661E-02	4.888E-02	8.387E-02	9.219E-03	0.556
		633.25		1.239E+00	1.657E+00	2.800E+00	1.068E+00	0.442
		735.93		6.594E-02	1.720E-01	2.920E-01	8.281E-02	0.226
		747.24		1.615E-03	1.099E-01	1.829E-01	2.810E-02	0.009
ND-147		91.11		3.945E-01	8.282E-01	8.768E-01	8.695E-02	0.450
		319.41		5.101E-01	4.970E+00	8.269E+00	7.602E-01	0.062
		531.02	*	6.399E-01	8.369E-01	1.416E+00	2.149E-01	0.452
PM-149		285.90	*	2.098E-04	8.369E-01	Half-Life too short		
EU-152		121.78		9.315E-02	8.904E-02	1.492E-01	1.530E-02	0.624
		244.70		2.638E-01	4.226E-01	6.370E-01	5.670E-02	0.414
		344.28	*	1.243E-03	1.332E-01	1.907E-01	1.841E-02	0.007
		778.90		-1.723E-01	2.934E-01	4.635E-01	4.890E-02	-0.372
	+	964.08		1.041E+00	4.136E-01	6.716E-01	8.341E-02	1.551
		1085.87		-3.718E-01	4.914E-01	7.449E-01	7.667E-02	-0.499
		1112.07		3.569E-02	3.773E-01	5.531E-01	5.386E-02	0.065
		1408.01		1.721E-01	2.304E-01	3.742E-01	4.051E-02	0.460
GD-153		69.67		4.578E-01	2.424E+00	3.527E+00	2.864E-01	0.130
		97.43	*	1.264E-01	1.174E-01	1.737E-01	1.560E-02	0.728
		103.18		-3.733E-02	1.318E-01	2.124E-01	1.885E-02	-0.176
EU-154		123.07		-2.435E-02	6.909E-02	1.016E-01	1.183E-02	-0.240
		723.31		-5.521E-02	2.133E-01	2.956E-01	3.015E-02	-0.187
		873.19		-1.445E-01	3.166E-01	5.000E-01	7.546E-02	-0.289
		996.26		2.408E-01	4.333E-01	7.364E-01	1.423E-01	0.327
		1004.73		-2.723E-01	2.563E-01	3.747E-01	5.302E-02	-0.727
		1274.44	*	-1.385E-01	1.364E-01	2.045E-01	2.543E-02	-0.677
EU-155	+	86.55		2.930E-01	1.406E-01	2.263E-01	2.123E-02	1.295
		105.31	*	-1.860E-02	1.299E-01	2.104E-01	1.884E-02	-0.088
TB-160	+	86.79		8.081E-01	3.879E-01	6.164E-01	5.746E-02	1.311

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		197.04		-8.149E-02	6.858E-01	1.128E+00	9.551E-02	-0.072
		215.65		1.483E-01	9.179E-01	1.513E+00	1.310E-01	0.098
	+	298.57		4.167E-01	1.585E-01	2.563E-01	2.348E-02	1.626
		879.36	*	-1.272E-02	1.675E-01	2.741E-01	3.514E-02	-0.046
		962.29		1.587E+00	7.975E-01	1.309E+00	1.629E-01	1.213
		966.15		1.473E+00	3.728E-01	6.551E-01	8.117E-02	2.249
		1177.93		1.951E-01	4.861E-01	8.105E-01	6.798E-02	0.241
		1271.85		-4.315E-01	7.518E-01	1.184E+00	1.175E-01	-0.365
HO-166M		80.57		-5.202E-01	3.950E-01	5.339E-01	4.682E-02	-0.974
	+	184.41		1.165E-01	6.530E-02	8.328E-02	6.943E-03	1.398
		280.46		-5.871E-02	1.022E-01	1.655E-01	1.506E-02	-0.355
		410.95		2.596E-01	2.868E-01	4.914E-01	4.447E-02	0.528
		711.68	*	-2.686E-02	7.282E-02	1.106E-01	1.013E-02	-0.243
		752.31		-1.723E-01	3.262E-01	5.208E-01	5.201E-02	-0.331
		810.29		2.619E-02	6.938E-02	1.179E-01	1.325E-02	0.222
TA-182		67.75		-4.754E-02	1.540E-01	2.322E-01	1.870E-02	-0.205
		100.11		5.709E-03	2.155E-01	3.517E-01	3.137E-02	0.016
		152.43		2.453E-01	4.389E-01	7.207E-01	6.029E-02	0.340
		222.11		-1.690E-01	4.247E-01	7.018E-01	6.116E-02	-0.241
	+	1121.30		7.422E-01	2.644E-01	4.184E-01	3.989E-02	1.774
		1189.05		-1.402E-01	3.688E-01	5.760E-01	4.934E-02	-0.243
		1221.41	*	-2.094E-01	2.591E-01	3.905E-01	3.550E-02	-0.536
		1231.02		-7.762E-01	6.271E-01	9.056E-01	8.375E-02	-0.857
IR-192	+	295.96		1.202E+00	2.005E-01	3.338E-01	3.076E-02	3.602
		308.46		2.599E-02	1.170E-01	1.961E-01	1.808E-02	0.133
		316.51	*	2.985E-02	4.093E-02	7.011E-02	6.455E-03	0.426
		468.07		-4.780E-03	8.830E-02	1.234E-01	1.198E-02	-0.039
HG-203		70.83		1.177E+00	2.003E+00	2.946E+00	4.662E-01	0.399
		72.87		4.161E+00	1.388E+00	1.988E+00	3.049E-01	2.093
		279.20	*	2.803E-02	4.929E-02	8.391E-02	7.810E-03	0.334
BI-207		72.81		8.380E-01	2.751E-01	4.267E-01	3.525E-02	1.964
	+	74.97		1.061E+00	2.344E-01	3.014E-01	2.526E-02	3.520
		569.70		8.771E-03	3.466E-02	5.682E-02	5.025E-03	0.154
		1063.66	*	1.272E-02	5.727E-02	9.518E-02	1.022E-02	0.134
		1770.23		3.546E-01	4.794E-01	8.056E-01	7.282E-02	0.440
PB-210		46.54	*	7.241E-01	4.304E+00	7.269E+00	6.936E-01	0.100
PB-211		404.85	*	-3.471E-01	8.807E-01	1.385E+00	6.711E-01	-0.251
		427.09		-2.108E-01	1.896E+00	3.074E+00	1.425E+00	-0.069
		832.01		1.985E-01	1.158E+00	1.931E+00	1.013E+00	0.103
RN-219	+	271.23		7.402E-01	5.055E-01	5.237E-01	5.566E-02	1.414
		401.81	*	9.623E-02	4.678E-01	7.753E-01	1.172E-01	0.124
RA-223		81.07		-2.935E-01	3.101E-01	4.273E-01	3.764E-02	-0.687
		83.79		1.111E-01	1.782E-01	2.606E-01	2.356E-02	0.426
		94.87		1.663E+00	6.599E-01	1.018E+00	9.232E-02	1.633
		144.24		7.337E-01	8.846E-01	1.447E+00	1.378E-01	0.507
		154.21		6.837E-01	4.592E-01	7.753E-01	7.122E-02	0.882
	+	269.46		5.751E-01	3.916E-01	4.113E-01	3.791E-02	1.398
		323.87	*	6.526E-02	8.300E-01	1.198E+00	2.111E-01	0.054
	+	338.28		7.410E+00	1.967E+00	2.612E+00	3.260E-01	2.837

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227		79.69		5.276E-02	1.753E+00	2.525E+00	4.362E-01	0.021
		235.96		1.428E+00	2.794E-01	4.283E-01	4.506E-02	3.334
		256.23	*	1.762E-03	2.844E-01	4.751E-01	5.848E-02	0.004
	+	299.98		3.126E+00	1.224E+00	1.890E+00	2.472E-01	1.654
		304.50		1.194E+00	2.084E+00	3.107E+00	5.227E-01	0.384
		334.37		7.957E-02	3.145E+00	3.022E+00	4.807E-01	0.026
TH-227		79.80		-1.771E-01	2.305E+00	3.304E+00	7.207E-01	-0.054
		235.96		1.428E+00	2.750E-01	4.283E-01	4.260E-02	3.334
		256.23	*	1.762E-03	2.844E-01	4.751E-01	6.573E-02	0.004
	+	299.98		3.126E+00	1.224E+00	1.890E+00	2.472E-01	1.654
		304.50		1.194E+00	2.084E+00	3.107E+00	5.227E-01	0.384
		334.37		7.957E-02	3.145E+00	3.022E+00	4.807E-01	0.026
TH-229	+	85.43		6.071E-01	2.914E-01	4.747E-01	4.363E-02	1.279
		88.47		-4.030E-02	2.879E-01	2.949E-01	2.775E-02	-0.137
		193.51	*	-3.620E-01	6.550E-01	1.019E+00	8.593E-02	-0.355
		210.85		2.298E+00	1.223E+00	1.934E+00	1.665E-01	1.188
PA-231		283.69	*	-1.594E-01	1.695E+00	2.807E+00	4.177E-01	-0.057
	+	301.36		2.008E+00	7.830E-01	1.227E+00	1.539E-01	1.637
TH-231		81.07		-2.935E-01	3.101E-01	4.273E-01	3.764E-02	-0.687
		83.79		1.111E-01	1.782E-01	2.606E-01	2.356E-02	0.426
		94.87		1.663E+00	6.599E-01	1.018E+00	9.232E-02	1.633
		144.24		7.337E-01	8.846E-01	1.447E+00	1.378E-01	0.507
		154.21		6.837E-01	4.592E-01	7.753E-01	7.122E-02	0.882
	+	269.46		5.751E-01	3.916E-01	4.113E-01	3.791E-02	1.398
		323.87	*	6.526E-02	8.300E-01	1.198E+00	2.111E-01	0.054
	+	338.28		7.410E+00	1.967E+00	2.612E+00	3.260E-01	2.837
PA-233	+	300.13		1.414E+00	5.644E-01	8.567E-01	1.298E-01	1.651
		311.90	*	1.334E-02	7.383E-02	1.234E-01	1.162E-02	0.108
		340.48		2.945E+00	1.163E+00	1.530E+00	3.714E-01	1.925
PA-234	+	94.67		5.338E-01	3.585E-01	3.838E-01	4.883E-02	1.391
		98.44		7.603E-02	1.266E-01	1.823E-01	1.018E-01	0.417
		111.00		-3.363E-02	2.351E-01	3.801E-01	4.660E-02	-0.088
		131.20		1.253E-01	1.455E-01	2.142E-01	1.880E-02	0.585
		569.50		3.634E-02	3.047E-01	4.950E-01	4.377E-02	0.073
		733.00		-5.555E-01	5.400E-01	6.687E-01	1.511E-01	-0.831
		880.51		1.957E-01	3.122E-01	5.395E-01	6.931E-02	0.363
		883.24		2.430E-01	3.577E-01	5.561E-01	3.776E-01	0.437
		926.50		3.674E-03	1.975E-01	3.247E-01	8.785E-02	0.011
		946.00	*	4.000E-01	3.700E-01	6.427E-01	1.346E-01	0.622
		949.00		5.016E-02	5.518E-01	9.112E-01	1.151E-01	0.055
PA-234M		766.42		1.013E+01	1.469E+01	2.340E+01	1.195E+01	0.433
		1001.03	*	-2.274E+00	5.690E+00	9.072E+00	1.167E+00	-0.251
TH-234		63.29	*	7.463E-01	1.709E+00	2.818E+00	5.091E-01	0.265
	+	92.59		1.981E+00	1.379E+00	1.650E+00	3.679E-01	1.201
U-235		89.96		-2.479E+00	2.017E+00	1.813E+00	4.508E-01	-1.367
	+	93.35		1.496E+00	1.046E+00	1.221E+00	2.843E-01	1.226
		143.76	*	3.406E-01	2.688E-01	4.377E-01	7.397E-02	0.778
		163.33		-5.112E-01	5.572E-01	8.396E-01	1.490E-01	-0.609
	+	185.72		1.466E-01	8.220E-02	1.052E-01	8.784E-03	1.393

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		205.31		2.507E-01	6.241E-01	9.330E-01	1.690E-01	0.269
U-238		63.29	*	7.463E-01	1.709E+00	2.818E+00	5.091E-01	0.265
	+	92.59		1.981E+00	1.319E+00	1.650E+00	1.512E-01	1.201
NP-239		99.53		3.516E-02	1.990E-01	3.206E-01	2.863E-02	0.110
		103.37		2.603E-02	1.173E-01	1.927E-01	1.709E-02	0.135
		106.12		3.422E-02	1.028E-01	1.692E-01	1.498E-02	0.202
		117.23	*	-2.888E-01	5.135E-01	8.153E-01	7.282E-02	-0.354
		228.18		2.344E-01	2.661E-01	4.594E-01	4.028E-02	0.510
		277.60		1.705E-01	2.281E-01	3.587E-01	3.261E-02	0.475
AM-241		59.54	*	-2.518E-02	1.931E-01	3.177E-01	2.742E-02	-0.079
CM-247		278.00		4.777E-01	9.370E-01	1.509E+00	1.372E-01	0.317
		287.50		4.054E-02	1.455E+00	2.359E+00	2.154E-01	0.017
		402.40	*	7.683E-03	4.300E-02	7.117E-02	6.425E-03	0.108
CF-249		252.80		6.513E-01	1.053E+00	1.806E+00	1.617E-01	0.361
		333.37		6.435E-02	3.328E-01	3.279E-01	3.013E-02	0.196
		388.16	*	-1.102E-02	4.693E-02	7.600E-02	6.851E-03	-0.145
CF-251		177.52	*	1.016E-01	1.582E-01	2.596E-01	2.145E-02	0.392
		227.38		3.744E-01	4.306E-01	7.435E-01	6.514E-02	0.504
		285.41		-6.903E-01	2.563E+00	4.208E+00	3.838E-01	-0.164
ANH-511		511.00	*	1.200E-01	5.445E-02	1.011E-01	9.151E-03	1.187

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001      *
* Acquisition date : 24-MAR-2010 20:33:15 Detector SN#     :               *
* Detector ID      : GAM29                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:57.45     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  5-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248867001           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.2207E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.523E+01	4.238E+00	5.852E-01	0.000E+00
CD-109	2.483E+00	1.168E+00	1.883E+00	0.000E+00
SN-126	2.412E-01	1.134E-01	1.881E-01	0.000E+00
TL-208	5.863E-01	1.015E-01	6.836E-02	0.000E+00
BI-211	3.834E+00	5.942E-01	3.984E-01	0.000E+00
BI-212	1.882E+00	8.422E-01	8.862E-01	0.000E+00
PB-212	1.839E+00	2.167E-01	1.166E-01	0.000E+00
BI-214	1.167E+00	2.009E-01	1.397E-01	0.000E+00
PB-214	1.391E+00	2.284E-01	1.459E-01	0.000E+00
RA-224	4.777E+00	1.525E+00	1.248E+00	0.000E+00
RA-226	1.167E+00	2.009E-01	1.397E-01	0.000E+00
AC-228	1.693E+00	4.177E-01	2.795E-01	0.000E+00
RA-228	1.693E+00	4.177E-01	2.795E-01	0.000E+00
TH-228	1.839E+00	2.167E-01	1.166E-01	0.000E+00
TH-230	1.167E+00	1.916E-01	1.397E-01	0.000E+00
TH-232	1.693E+00	4.177E-01	2.795E-01	0.000E+00
NP-237	7.197E-01	3.694E-01	5.047E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-2.460E-02		3.893E-01	6.512E-01	0.000E+00	NOT IDENT.
NA-22	-4.993E-02		4.708E-02	7.200E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		8.825E+07	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.542E-02		4.380E-02	6.993E-02	0.000E+00	FAIL ABUN
V-48	-3.953E-02		9.558E-02	1.541E-01	0.000E+00	NOT IDENT.
CR-51	-1.087E-01		4.577E-01	7.772E-01	0.000E+00	NOT IDENT.
MN-54	-3.045E-02		4.308E-02	6.895E-02	0.000E+00	NOT IDENT.
CO-56	1.498E-02		4.624E-02	8.018E-02	0.000E+00	NOT IDENT.
CO-57	2.208E-02		3.084E-02	5.382E-02	0.000E+00	NOT IDENT.
CO-58	-2.382E-03		4.736E-02	8.013E-02	0.000E+00	NOT IDENT.

FE-59	-5.190E-02	1.017E-01	1.603E-01	0.000E+00	NOT IDENT.
CO-60	-1.929E-02	4.181E-02	6.757E-02	0.000E+00	NOT IDENT.
ZN-65	-6.619E-02	1.125E-01	1.466E-01	0.000E+00	NOT IDENT.
SE-75	1.681E-02	5.988E-02	9.194E-02	0.000E+00	NOT IDENT.
SR-85	-1.800E-01	6.295E-02	8.714E-02	0.000E+00	NOT IDENT.
Y-88	-6.498E-03	3.742E-02	6.016E-02	0.000E+00	NOT IDENT.
Y-91	-9.039E+00	2.670E+01	4.280E+01	0.000E+00	NOT IDENT.
NB-94	-9.570E-03	3.536E-02	5.945E-02	0.000E+00	NOT IDENT.
NB-95	7.055E-02	5.043E-02	9.280E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.952E-01	3.253E-01	0.000E+00	NOT IDENT.
ZR-95	2.077E-02	8.372E-02	1.453E-01	0.000E+00	NOT IDENT.
MO-99	5.954E+01	4.185E+01	7.643E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.787E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.237E-02	5.116E-02	8.435E-02	0.000E+00	FAIL ABUN
RH-106	-1.023E-01	3.373E-01	5.704E-01	0.000E+00	NOT IDENT.
RU-106	-1.023E-01	3.371E-01	5.704E-01	0.000E+00	NOT IDENT.
AG-108M	-1.315E-03	3.236E-02	5.452E-02	0.000E+00	NOT IDENT.
AG-110M	9.767E-03	4.308E-02	6.543E-02	0.000E+00	NOT IDENT.
SN-113	3.037E-02	5.188E-02	9.089E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	4.747E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	1.580E-02	7.853E-02	1.333E-01	0.000E+00	NOT IDENT.
TE-123M	-8.985E-03	3.395E-02	5.651E-02	0.000E+00	NOT IDENT.
SB-124	-4.839E-02	8.326E-02	1.244E-01	0.000E+00	NOT IDENT.
SB-125	-5.397E-02	1.094E-01	1.796E-01	0.000E+00	FAIL ABUN
TE-125M	1.845E+00	1.279E+01	2.199E+01	0.000E+00	NOT IDENT.
I-126	2.483E-01	3.551E-01	5.605E-01	0.000E+00	NOT IDENT.
SB-126	-6.002E-02	2.217E-01	3.171E-01	0.000E+00	NOT IDENT.
SB-127	-2.427E-01	3.134E+00	5.353E+00	0.000E+00	NOT IDENT.
I-131	4.339E-03	1.865E-01	3.186E-01	0.000E+00	NOT IDENT.
TE-132	1.995E+00	2.223E+00	3.973E+00	0.000E+00	NOT IDENT.
BA-133	5.465E-02	5.382E-02	8.504E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.030E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.384E-02	1.011E-01	0.000E+00	FAIL ABUN
CS-135	0.000E+00	2.186E-01	3.567E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.521E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.837E-02	1.491E-01	2.379E-01	0.000E+00	NOT IDENT.
BA-137M	0.000E+00	4.556E-02	8.773E-02	0.000E+00	NOT IDENT.
CS-137	0.000E+00	4.813E-02	9.268E-02	0.000E+00	NOT IDENT.
CE-139	9.968E-03	3.623E-02	6.152E-02	0.000E+00	NOT IDENT.
BA-140	5.443E-02	3.983E-01	6.692E-01	0.000E+00	NOT IDENT.
LA-140	-5.603E-02	1.271E-01	2.013E-01	0.000E+00	FAIL ABUN
CE-141	2.067E-02	8.674E-02	1.478E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.713E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.194E-01	2.756E-01	3.983E-01	0.000E+00	NOT IDENT.
PM-144	2.249E-02	3.812E-02	6.784E-02	0.000E+00	NOT IDENT.
PR-144	1.183E+00	2.890E+00	5.086E+00	0.000E+00	NOT IDENT.
PM-146	4.661E-02	4.790E-02	8.499E-02	0.000E+00	NOT IDENT.
ND-147	6.399E-01	8.201E-01	1.432E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	3.935E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	1.243E-03	1.306E-01	1.939E-01	0.000E+00	FAIL ABUN
GD-153	1.264E-01	1.150E-01	1.794E-01	0.000E+00	NOT IDENT.
EU-154	-1.385E-01	1.337E-01	2.045E-01	0.000E+00	NOT IDENT.
EU-155	-1.860E-02	1.273E-01	2.171E-01	0.000E+00	FAIL ABUN
TB-160	-1.272E-02	1.641E-01	2.754E-01	0.000E+00	FAIL ABUN
HO-166M	-2.686E-02	7.137E-02	1.115E-01	0.000E+00	FAIL ABUN
TA-182	-2.094E-01	2.540E-01	3.907E-01	0.000E+00	FAIL ABUN
IR-192	2.985E-02	4.011E-02	7.137E-02	0.000E+00	FAIL ABUN
HG-203	2.803E-02	4.830E-02	8.555E-02	0.000E+00	NOT IDENT.
BI-207	1.272E-02	5.612E-02	9.541E-02	0.000E+00	FAIL ABUN
PB-210	7.241E-01	4.218E+00	7.575E+00	0.000E+00	NOT IDENT.
PB-211	-3.471E-01	8.631E-01	1.405E+00	0.000E+00	NOT IDENT.
RN-219	9.623E-02	4.585E-01	7.869E-01	0.000E+00	FAIL ABUN
RA-223	6.526E-02	8.134E-01	1.219E+00	0.000E+00	FAIL ABUN
AC-227	1.762E-03	2.787E-01	4.849E-01	0.000E+00	FAIL ABUN
TH-227	1.762E-03	2.787E-01	4.849E-01	0.000E+00	FAIL ABUN
TH-229	-3.620E-01	6.419E-01	1.044E+00	0.000E+00	FAIL ABUN
PA-231	-1.594E-01	1.661E+00	2.861E+00	0.000E+00	FAIL ABUN
TH-231	6.526E-02	8.134E-01	1.219E+00	0.000E+00	FAIL ABUN
PA-233	1.334E-02	7.235E-02	1.257E-01	0.000E+00	FAIL ABUN
PA-234	4.000E-01	3.626E-01	6.452E-01	0.000E+00	FAIL ABUN
PA-234M	-2.274E+00	5.577E+00	9.101E+00	0.000E+00	NOT IDENT.
TH-234	7.463E-01	1.675E+00	2.926E+00	0.000E+00	FAIL ABUN
U-235	3.406E-01	2.635E-01	4.499E-01	0.000E+00	FAIL ABUN
U-238	7.463E-01	1.675E+00	2.926E+00	0.000E+00	FAIL ABUN
NP-239	-2.888E-01	5.032E-01	8.402E-01	0.000E+00	NOT IDENT.
AM-241	-2.518E-02	1.892E-01	3.301E-01	0.000E+00	NOT IDENT.
CM-247	7.683E-03	4.214E-02	7.223E-02	0.000E+00	NOT IDENT.
CF-249	-1.102E-02	4.599E-02	7.716E-02	0.000E+00	NOT IDENT.

CF-251	1.016E-01	1.550E-01	2.662E-01	0.000E+00 NOT IDENT.
ANH-511	0.000E+00	5.336E-02	1.023E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:35:04.49

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:33:15
Sample ID         : G248867001           Sample quantity  : 1.22070E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:57.45  0.8%
Energy tolerance : 1.50000 keV           Analyst Initials : MXRl
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1478	10.66*	1.210E+00	3.523E+01	3.523E+01	12.28
CD-109	88.03	170	3.70*	5.857E+00	2.412E+00	2.483E+00	47.99
SN-126	64.28	------	9.60	3.540E+00	------ Line Not Found		------
	86.94	170	8.90	5.857E+00	1.003E+00	1.003E+00	62.77
	87.57	170	37.00*	5.857E+00	2.412E-01	2.412E-01	47.99
TL-208	277.37	------	6.60	4.524E+00	------ Line Not Found		------
	583.19	429	85.00*	2.646E+00	5.863E-01	5.863E-01	17.67
	860.56	65	12.50	1.903E+00	8.343E-01	8.343E-01	51.41
BI-211	72.87	------	1.23	4.632E+00	------ Line Not Found		------
	351.06	620	12.92*	3.848E+00	3.834E+00	3.834E+00	15.82
BI-212	727.33	90	6.67*	2.204E+00	1.882E+00	1.882E+00	45.67
	785.37	------	1.10	2.062E+00	------ Line Not Found		------
	1620.50	30	1.47	1.130E+00	5.596E+00	5.596E+00	46.93
PB-212	74.82	595	10.28	4.832E+00	3.681E+00	3.681E+00	24.13
	77.11	699	17.10	5.079E+00	2.474E+00	2.474E+00	14.62
	238.63	1301	43.60*	4.991E+00	1.839E+00	1.839E+00	12.03
	300.09	131	3.30	4.293E+00	2.841E+00	2.841E+00	38.52
BI-214	609.32	441	45.49*	2.554E+00	1.167E+00	1.167E+00	17.56
	1120.29	113	14.92	1.503E+00	1.544E+00	1.544E+00	36.25
	1764.49	92	15.30	1.081E+00	1.707E+00	1.707E+00	26.48
PB-214	74.82	595	5.80	4.832E+00	6.524E+00	6.524E+00	23.47
	77.11	699	9.70	5.079E+00	4.362E+00	4.362E+00	16.79
	242.00	315	7.25	4.953E+00	2.701E+00	2.702E+00	33.09
	295.22	406	18.42	4.340E+00	1.562E+00	1.563E+00	17.87
	351.93	620	35.60*	3.848E+00	1.391E+00	1.391E+00	16.75
RA-224	240.99	315	4.10*	4.953E+00	4.777E+00	4.777E+00	32.57
RA-226	609.32	441	45.49*	2.554E+00	1.167E+00	1.167E+00	17.56
	1120.29	113	14.92	1.503E+00	1.544E+00	1.544E+00	36.25
	1764.49	92	15.30	1.081E+00	1.707E+00	1.707E+00	26.48
AC-228	338.32	271	11.27	3.954E+00	1.867E+00	1.867E+00	47.95
	911.20	257	25.80*	1.808E+00	1.693E+00	1.693E+00	25.18
	968.97	171	15.80	1.711E+00	1.951E+00	1.951E+00	34.77

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	271	11.27	3.954E+00	1.867E+00	1.867E+00	47.95
	911.20	257	25.80*	1.808E+00	1.693E+00	1.693E+00	25.18
	968.97	171	15.80	1.711E+00	1.951E+00	1.951E+00	34.77
TH-228	74.82	595	10.28	4.832E+00	3.681E+00	3.681E+00	22.12
	77.11	699	17.10	5.079E+00	2.474E+00	2.474E+00	14.62
	238.63	1301	43.60*	4.991E+00	1.839E+00	1.839E+00	12.03
	300.09	131	3.30	4.293E+00	2.841E+00	2.841E+00	71.56
TH-230	609.32	441	45.49*	2.554E+00	1.167E+00	1.167E+00	16.75
	1120.29	113	14.92	1.503E+00	1.544E+00	1.544E+00	35.62
	1764.49	92	15.30	1.081E+00	1.707E+00	1.707E+00	26.48
TH-232	338.32	271	11.27	3.954E+00	1.867E+00	1.867E+00	25.16
	911.20	257	25.80*	1.808E+00	1.693E+00	1.693E+00	25.18
	968.97	171	15.80	1.711E+00	1.951E+00	1.951E+00	34.77
NP-237	86.48	170	12.40*	5.857E+00	7.197E-01	7.197E-01	52.37
	95.86	------	2.68	6.306E+00	------	Line Not Found	------

Flag: "*" = Keyline

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

Total number of lines in spectrum 32
Number of unidentified lines 5
Number of lines tentatively identified by NID 27 84.38%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.523E+01	3.523E+01	0.432E+01	12.28	
CD-109	461.40D	1.03	2.412E+00	2.483E+00	1.192E+00	47.99	
SN-126	2.30E+05Y	1.00	2.412E-01	2.412E-01	1.158E-01	47.99	
TL-208	1.41E+10Y	1.00	5.863E-01	5.863E-01	1.036E-01	17.67	
BI-211	7.04E+08Y	1.00	3.834E+00	3.834E+00	0.606E+00	15.82	
BI-212	1.41E+10Y	1.00	1.882E+00	1.882E+00	0.859E+00	45.67	
PB-212	1.41E+10Y	1.00	1.839E+00	1.839E+00	0.221E+00	12.03	
BI-214	1600.00Y	1.00	1.167E+00	1.167E+00	0.205E+00	17.56	
PB-214	1600.00Y	1.00	1.391E+00	1.391E+00	0.233E+00	16.75	
RA-224	1.41E+10Y	1.00	4.777E+00	4.777E+00	1.556E+00	32.57	
RA-226	1600.00Y	1.00	1.167E+00	1.167E+00	0.205E+00	17.56	
AC-228	1.41E+10Y	1.00	1.693E+00	1.693E+00	0.426E+00	25.18	
RA-228	1.41E+10Y	1.00	1.693E+00	1.693E+00	0.426E+00	25.18	
TH-228	1.41E+10Y	1.00	1.839E+00	1.839E+00	0.221E+00	12.03	
TH-230	7.54E+04Y	1.00	1.167E+00	1.167E+00	0.196E+00	16.75	
TH-232	1.41E+10Y	1.00	1.693E+00	1.693E+00	0.426E+00	25.18	
NP-237	2.14E+06Y	1.00	7.197E-01	7.197E-01	3.769E-01	52.37	
			---	---			
	Total Activity :		6.333E+01	6.340E+01			

Grand Total Activity : 6.333E+01 6.340E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	93.22	169	756	1.39	186.60	181	10	2.35E-02	65.9	6.20E+00	T
0	129.40	102	529	1.21	258.87	253	12	1.41E-02	92.8	6.64E+00	
0	185.85	158	426	1.20	371.63	365	11	2.19E-02	55.5	5.79E+00	T
0	209.14	75	344	1.00	418.17	414	9	1.04E-02	92.2	5.41E+00	
0	270.01	120	335	1.39	539.77	534	14	1.66E-02	67.5	4.61E+00	T
0	328.37	95	195	1.05	656.39	651	11	1.32E-02	60.3	4.04E+00	T
0	463.34	92	115	0.98	926.09	921	13	1.28E-02	52.5	3.16E+00	T
0	663.39	83	184	1.04	1325.96	1316	20	1.15E-02	83.7	2.38E+00	T
0	795.70	71	83	0.99	1590.48	1580	19	9.82E-03	66.9	2.04E+00	T
4	964.31	85	37	2.53	1927.66	1922	25	1.18E-02	37.7	1.72E+00	T
0	1378.58	26	35	1.04	2756.43	2747	14	3.66E-03	****	1.26E+00	
0	1402.03	18	24	0.99	2803.36	2794	12	2.47E-03	****	1.25E+00	
0	1847.98	18	7	1.33	3696.08	3689	14	2.50E-03	78.2	1.06E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:35:08.79

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1  *
* Acquisition date : 24-MAR-2010 20:33:15  Detector SN#    :                *
* Detector ID      : GAM29                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:57.45         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 5-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248867001            Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.22070E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.523E+01	4.325E+00	5.862E-01	6.376E-02	60.093
CD-109	2.483E+00	1.192E+00	1.820E+00	1.719E-01	1.364
SN-126	2.412E-01	1.158E-01	1.819E-01	1.710E-02	1.326
TL-208	5.863E-01	1.036E-01	6.767E-02	6.341E-03	8.663
BI-211	3.834E+00	6.063E-01	3.919E-01	3.753E-02	9.782
BI-212	1.882E+00	8.594E-01	8.798E-01	1.150E-01	2.139
PB-212	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
BI-214	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
PB-214	1.391E+00	2.331E-01	1.435E-01	1.586E-02	9.695
RA-224	4.777E+00	1.556E+00	1.222E+00	1.084E-01	3.909
RA-226	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
AC-228	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
RA-228	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
TH-228	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
TH-230	1.167E+00	1.955E-01	1.384E-01	1.192E-02	8.437
TH-232	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
NP-237	7.197E-01	3.769E-01	4.879E-01	1.119E-01	1.475

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.460E-02		3.972E-01	6.430E-01	6.260E-02	-0.038

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	-4.993E-02		4.804E-02	7.200E-02	7.188E-03	-0.693
NA-24	-5.110E+01		4.503E+01	Half-Life too short		
SC-46	-2.542E-02		4.469E-02	6.961E-02	9.088E-03	-0.365
V-48	-3.953E-02		9.753E-02	1.536E-01	1.863E-02	-0.257
CR-51	-1.087E-01		4.670E-01	7.636E-01	7.342E-02	-0.142
MN-54	-3.045E-02		4.396E-02	6.857E-02	8.082E-03	-0.444
CO-56	1.498E-02		4.718E-02	7.976E-02	9.618E-03	0.188
CO-57	2.208E-02		3.147E-02	5.225E-02	4.721E-03	0.423
CO-58	-2.382E-03		4.833E-02	7.967E-02	8.971E-03	-0.030
FE-59	-5.190E-02		1.038E-01	1.600E-01	1.699E-02	-0.324
CO-60	-1.929E-02		4.266E-02	6.761E-02	7.415E-03	-0.285
ZN-65	-6.619E-02		1.148E-01	1.464E-01	1.416E-02	-0.452
SE-75	1.681E-02		6.110E-02	9.012E-02	8.171E-03	0.187
SR-85	-1.800E-01		6.424E-02	8.613E-02	7.791E-03	-2.090
Y-88	-6.498E-03		3.818E-02	6.045E-02	5.169E-03	-0.108
Y-91	-9.039E+00		2.724E+01	4.277E+01	3.772E+00	-0.211
NB-94	-9.570E-03		3.608E-02	5.900E-02	5.300E-03	-0.162
NB-95	7.055E-02		5.146E-02	9.219E-02	9.469E-03	0.765
NB-95M	6.736E-01		1.991E-01	3.184E-01	3.207E-02	2.115
ZR-95	2.077E-02		8.542E-02	1.443E-01	1.568E-02	0.144
MO-99	5.954E+01		4.271E+01	7.590E+01	1.244E+01	0.785
TC-99M	-9.175E+15		3.463E+15	Half-Life too short		
RU-103	-1.237E-02		5.221E-02	8.333E-02	1.188E-02	-0.148
RH-106	-1.023E-01		3.442E-01	5.652E-01	7.457E-02	-0.181
RU-106	-1.023E-01		3.440E-01	5.652E-01	4.817E-02	-0.181
AG-108M	-1.315E-03		3.302E-02	5.377E-02	5.031E-03	-0.024
AG-110M	9.767E-03		4.395E-02	6.487E-02	5.515E-03	0.151
SN-113	3.037E-02		5.294E-02	8.953E-02	8.280E-03	0.339
CD-115	5.067E-06		2.422E-05	Half-Life too short		
SN-117M	1.580E-02		8.013E-02	1.298E-01	1.073E-02	0.122
TE-123M	-8.985E-03		3.464E-02	5.504E-02	4.575E-03	-0.163
SB-124	-4.839E-02		8.496E-02	1.248E-01	1.236E-02	-0.388
SB-125	-5.397E-02		1.117E-01	1.772E-01	1.636E-02	-0.305
TE-125M	1.845E+00		1.305E+01	2.132E+01	2.278E+00	0.087
I-126	2.483E-01		3.624E-01	5.558E-01	4.605E-02	0.447
SB-126	-6.002E-02		2.262E-01	3.147E-01	2.940E-02	-0.191
SB-127	-2.427E-01		3.197E+00	5.310E+00	6.756E-01	-0.046
I-131	4.339E-03		1.903E-01	3.136E-01	3.008E-02	0.014
TE-132	1.995E+00		2.269E+00	3.887E+00	6.534E-01	0.513
BA-133	5.465E-02		5.492E-02	8.367E-02	1.114E-02	0.653
I-133	7.975E-02		1.036E-01	Half-Life too short		
CS-134	1.411E-01	+	9.575E-02	1.005E-01	1.102E-02	1.405
CS-135	3.862E-01		2.230E-01	3.497E-01	3.615E-02	1.104
I-135	-2.956E+13		1.797E+14	Half-Life too short		
CS-136	-6.837E-02		1.522E-01	2.373E-01	2.687E-02	-0.288
BA-137M	1.196E-01		4.649E-02	8.699E-02	7.132E-03	1.375
CS-137	1.263E-01		4.912E-02	9.190E-02	7.550E-03	1.375
CE-139	9.968E-03		3.697E-02	5.995E-02	4.886E-03	0.166

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-140	5.443E-02		4.064E-01	6.618E-01	2.251E-01	0.082
LA-140	-5.603E-02		1.297E-01	2.019E-01	2.042E-02	-0.278
CE-141	2.067E-02		8.851E-02	1.438E-01	1.243E-02	0.144
CE-143	9.059E-03		1.384E-03	Half-Life too short		
CE-144	-1.194E-01		2.813E-01	3.872E-01	5.940E-02	-0.308
PM-144	2.249E-02		3.890E-02	6.731E-02	5.968E-03	0.334
PR-144	1.183E+00		2.949E+00	5.047E+00	4.473E-01	0.234
PM-146	4.661E-02		4.888E-02	8.387E-02	9.219E-03	0.556
ND-147	6.399E-01		8.369E-01	1.416E+00	2.149E-01	0.452
PM-149	2.098E-04		2.008E-04	Half-Life too short		
EU-152	1.243E-03		1.332E-01	1.907E-01	1.841E-02	0.007
GD-153	1.264E-01		1.174E-01	1.737E-01	1.560E-02	0.728
EU-154	-1.385E-01		1.364E-01	2.045E-01	2.543E-02	-0.677
EU-155	-1.860E-02		1.299E-01	2.104E-01	1.884E-02	-0.088
TB-160	-1.272E-02		1.675E-01	2.741E-01	3.514E-02	-0.046
HO-166M	-2.686E-02		7.282E-02	1.106E-01	1.013E-02	-0.243
TA-182	-2.094E-01		2.591E-01	3.905E-01	3.550E-02	-0.536
IR-192	2.985E-02		4.093E-02	7.011E-02	6.455E-03	0.426
HG-203	2.803E-02		4.929E-02	8.391E-02	7.810E-03	0.334
BI-207	1.272E-02		5.727E-02	9.518E-02	1.022E-02	0.134
PB-210	7.241E-01		4.304E+00	7.269E+00	6.936E-01	0.100
PB-211	-3.471E-01		8.807E-01	1.385E+00	6.711E-01	-0.251
RN-219	9.623E-02		4.678E-01	7.753E-01	1.172E-01	0.124
RA-223	6.526E-02		8.300E-01	1.198E+00	2.111E-01	0.054
AC-227	1.762E-03		2.844E-01	4.751E-01	5.848E-02	0.004
TH-227	1.762E-03		2.844E-01	4.751E-01	6.573E-02	0.004
TH-229	-3.620E-01		6.550E-01	1.019E+00	8.593E-02	-0.355
PA-231	-1.594E-01		1.695E+00	2.807E+00	4.177E-01	-0.057
TH-231	6.526E-02		8.300E-01	1.198E+00	2.111E-01	0.054
PA-233	1.334E-02		7.383E-02	1.234E-01	1.162E-02	0.108
PA-234	4.000E-01		3.700E-01	6.427E-01	1.346E-01	0.622
PA-234M	-2.274E+00		5.690E+00	9.072E+00	1.167E+00	-0.251
TH-234	7.463E-01		1.709E+00	2.818E+00	5.091E-01	0.265
U-235	3.406E-01		2.688E-01	4.377E-01	7.397E-02	0.778
U-238	7.463E-01		1.709E+00	2.818E+00	5.091E-01	0.265
NP-239	-2.888E-01		5.135E-01	8.153E-01	7.282E-02	-0.354
AM-241	-2.518E-02		1.931E-01	3.177E-01	2.742E-02	-0.079
CM-247	7.683E-03		4.300E-02	7.117E-02	6.425E-03	0.108
CF-249	-1.102E-02		4.693E-02	7.600E-02	6.851E-03	-0.145
CF-251	1.016E-01		1.582E-01	2.596E-01	2.145E-02	0.392
ANH-511	1.200E-01		5.445E-02	1.011E-01	9.151E-03	1.187

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248867001            *
* Acquisition date : 24-MAR-2010 20:33:15 Detector SN#    :                 *
* Detector ID      : GAM29                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:57.45     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  5-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248867001           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.2207E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.523E+01	4.238E+00	2.928E-01	2.162E+00
CD-109	2.483E+00	1.168E+00	9.418E-01	5.959E-01
SN-126	2.412E-01	1.134E-01	9.410E-02	5.788E-02
TL-208	5.863E-01	1.015E-01	3.420E-02	5.179E-02
BI-211	3.834E+00	5.942E-01	1.993E-01	3.032E-01
BI-212	1.882E+00	8.422E-01	4.434E-01	4.297E-01
PB-212	1.839E+00	2.167E-01	5.832E-02	1.106E-01
BI-214	1.167E+00	2.009E-01	6.989E-02	1.025E-01
PB-214	1.391E+00	2.284E-01	7.299E-02	1.165E-01
RA-224	4.777E+00	1.525E+00	6.245E-01	7.780E-01
RA-226	1.167E+00	2.009E-01	6.989E-02	1.025E-01
AC-228	1.693E+00	4.177E-01	1.398E-01	2.131E-01
RA-228	1.693E+00	4.177E-01	1.398E-01	2.131E-01
TH-228	1.839E+00	2.167E-01	5.832E-02	1.106E-01
TH-230	1.167E+00	1.916E-01	6.988E-02	9.777E-02
TH-232	1.693E+00	4.177E-01	1.398E-01	2.131E-01
NP-237	7.197E-01	3.694E-01	2.525E-01	1.885E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.460E-02	3.893E-01	3.258E-01	1.986E-01	NOT IDENT.
NA-22	-4.993E-02	4.708E-02	3.602E-02	2.402E-02	NOT IDENT.
NA-24	-5.110E+07	8.825E+07	0.000E+00	4.503E+07	SHORT HLIF
SC-46	-2.542E-02	4.380E-02	3.499E-02	2.234E-02	FAIL ABUN
V-48	-3.953E-02	9.558E-02	7.708E-02	4.876E-02	NOT IDENT.
CR-51	-1.087E-01	4.577E-01	3.888E-01	2.335E-01	NOT IDENT.
MN-54	-3.045E-02	4.308E-02	3.449E-02	2.198E-02	NOT IDENT.
CO-56	1.498E-02	4.624E-02	4.011E-02	2.359E-02	NOT IDENT.
CO-57	2.208E-02	3.084E-02	2.692E-02	1.573E-02	NOT IDENT.
CO-58	-2.382E-03	4.736E-02	4.009E-02	2.416E-02	NOT IDENT.

FE-59	-5.190E-02	1.017E-01	8.020E-02	5.189E-02	NOT IDENT.
CO-60	-1.929E-02	4.181E-02	3.381E-02	2.133E-02	NOT IDENT.
ZN-65	-6.619E-02	1.125E-01	7.336E-02	5.739E-02	NOT IDENT.
SE-75	1.681E-02	5.988E-02	4.600E-02	3.055E-02	NOT IDENT.
SR-85	-1.800E-01	6.295E-02	4.360E-02	3.212E-02	NOT IDENT.
Y-88	-6.498E-03	3.742E-02	3.010E-02	1.909E-02	NOT IDENT.
Y-91	-9.039E+00	2.670E+01	2.141E+01	1.362E+01	NOT IDENT.
NB-94	-9.570E-03	3.536E-02	2.974E-02	1.804E-02	NOT IDENT.
NB-95	7.055E-02	5.043E-02	4.643E-02	2.573E-02	NOT IDENT.
NB-95M	6.736E-01	1.952E-01	1.628E-01	9.957E-02	NOT IDENT.
ZR-95	2.077E-02	8.372E-02	7.270E-02	4.271E-02	NOT IDENT.
MO-99	5.954E+01	4.185E+01	3.824E+01	2.135E+01	NOT IDENT.
TC-99M	-9.175E+21	6.787E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.237E-02	5.116E-02	4.220E-02	2.610E-02	FAIL ABUN
RH-106	-1.023E-01	3.373E-01	2.854E-01	1.721E-01	NOT IDENT.
RU-106	-1.023E-01	3.371E-01	2.854E-01	1.720E-01	NOT IDENT.
AG-108M	-1.315E-03	3.236E-02	2.728E-02	1.651E-02	NOT IDENT.
AG-110M	9.767E-03	4.308E-02	3.273E-02	2.198E-02	NOT IDENT.
SN-113	3.037E-02	5.188E-02	4.547E-02	2.647E-02	NOT IDENT.
CD-115	5.067E+00	4.747E+01	0.000E+00	2.422E+01	SHORT HLIF
SN-117M	1.580E-02	7.853E-02	6.668E-02	4.007E-02	NOT IDENT.
TE-123M	-8.985E-03	3.395E-02	2.827E-02	1.732E-02	NOT IDENT.
SB-124	-4.839E-02	8.326E-02	6.223E-02	4.248E-02	NOT IDENT.
SB-125	-5.397E-02	1.094E-01	8.988E-02	5.584E-02	FAIL ABUN
TE-125M	1.845E+00	1.279E+01	1.100E+01	6.525E+00	NOT IDENT.
I-126	2.483E-01	3.551E-01	2.804E-01	1.812E-01	NOT IDENT.
SB-126	-6.002E-02	2.217E-01	1.586E-01	1.131E-01	NOT IDENT.
SB-127	-2.427E-01	3.134E+00	2.678E+00	1.599E+00	NOT IDENT.
I-131	4.339E-03	1.865E-01	1.594E-01	9.513E-02	NOT IDENT.
TE-132	1.995E+00	2.223E+00	1.987E+00	1.134E+00	NOT IDENT.
BA-133	5.465E-02	5.382E-02	4.255E-02	2.746E-02	NOT IDENT.
I-133	7.975E+04	2.030E+05	0.000E+00	1.036E+05	SHORT HLIF
CS-134	1.411E-01	9.384E-02	5.058E-02	4.788E-02	FAIL ABUN
CS-135	3.862E-01	2.186E-01	1.785E-01	1.115E-01	NOT IDENT.
I-135	-2.956E+19	3.521E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.837E-02	1.491E-01	1.190E-01	7.609E-02	NOT IDENT.
BA-137M	1.196E-01	4.556E-02	4.389E-02	2.324E-02	NOT IDENT.
CS-137	1.263E-01	4.813E-02	4.637E-02	2.456E-02	NOT IDENT.
CE-139	9.968E-03	3.623E-02	3.078E-02	1.848E-02	NOT IDENT.
BA-140	5.443E-02	3.983E-01	3.348E-01	2.032E-01	NOT IDENT.
LA-140	-5.603E-02	1.271E-01	1.007E-01	6.483E-02	FAIL ABUN
CE-141	2.067E-02	8.674E-02	7.396E-02	4.426E-02	NOT IDENT.
CE-143	9.059E+03	2.713E+03	0.000E+00	1.384E+03	SHORT HLIF
CE-144	-1.194E-01	2.756E-01	1.993E-01	1.406E-01	NOT IDENT.
PM-144	2.249E-02	3.812E-02	3.394E-02	1.945E-02	NOT IDENT.
PR-144	1.183E+00	2.890E+00	2.545E+00	1.474E+00	NOT IDENT.
PM-146	4.661E-02	4.790E-02	4.252E-02	2.444E-02	NOT IDENT.
ND-147	6.399E-01	8.201E-01	7.166E-01	4.184E-01	NOT IDENT.
PM-149	2.098E+02	3.935E+02	0.000E+00	2.008E+02	SHORT HLIF
EU-152	1.243E-03	1.306E-01	9.700E-02	6.661E-02	FAIL ABUN
GD-153	1.264E-01	1.150E-01	8.977E-02	5.868E-02	NOT IDENT.
EU-154	-1.385E-01	1.337E-01	1.023E-01	6.822E-02	NOT IDENT.
EU-155	-1.860E-02	1.273E-01	1.086E-01	6.496E-02	FAIL ABUN
TB-160	-1.272E-02	1.641E-01	1.378E-01	8.373E-02	FAIL ABUN
HO-166M	-2.686E-02	7.137E-02	5.576E-02	3.641E-02	FAIL ABUN
TA-182	-2.094E-01	2.540E-01	1.955E-01	1.296E-01	FAIL ABUN
IR-192	2.985E-02	4.011E-02	3.570E-02	2.046E-02	FAIL ABUN
HG-203	2.803E-02	4.830E-02	4.280E-02	2.464E-02	NOT IDENT.
BI-207	1.272E-02	5.612E-02	4.773E-02	2.863E-02	FAIL ABUN
PB-210	7.241E-01	4.218E+00	3.790E+00	2.152E+00	NOT IDENT.
PB-211	-3.471E-01	8.631E-01	7.030E-01	4.404E-01	NOT IDENT.
RN-219	9.623E-02	4.585E-01	3.937E-01	2.339E-01	FAIL ABUN
RA-223	6.526E-02	8.134E-01	6.099E-01	4.150E-01	FAIL ABUN
AC-227	1.762E-03	2.787E-01	2.426E-01	1.422E-01	FAIL ABUN
TH-227	1.762E-03	2.787E-01	2.426E-01	1.422E-01	FAIL ABUN
TH-229	-3.620E-01	6.419E-01	5.222E-01	3.275E-01	FAIL ABUN
PA-231	-1.594E-01	1.661E+00	1.431E+00	8.473E-01	FAIL ABUN
TH-231	6.526E-02	8.134E-01	6.099E-01	4.150E-01	FAIL ABUN
PA-233	1.334E-02	7.235E-02	6.287E-02	3.691E-02	FAIL ABUN
PA-234	4.000E-01	3.626E-01	3.228E-01	1.850E-01	FAIL ABUN
PA-234M	-2.274E+00	5.577E+00	4.553E+00	2.845E+00	NOT IDENT.
TH-234	7.463E-01	1.675E+00	1.464E+00	8.547E-01	FAIL ABUN
U-235	3.406E-01	2.635E-01	2.251E-01	1.344E-01	FAIL ABUN
U-238	7.463E-01	1.675E+00	1.464E+00	8.547E-01	FAIL ABUN
NP-239	-2.888E-01	5.032E-01	4.204E-01	2.568E-01	NOT IDENT.
AM-241	-2.518E-02	1.892E-01	1.652E-01	9.654E-02	NOT IDENT.
CM-247	7.683E-03	4.214E-02	3.614E-02	2.150E-02	NOT IDENT.
CF-249	-1.102E-02	4.599E-02	3.860E-02	2.347E-02	NOT IDENT.

CF-251	1.016E-01	1.550E-01	1.332E-01	7.910E-02 NOT IDENT.
ANH-511	1.200E-01	5.336E-02	5.117E-02	2.722E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	399.1819
49.72	507.5309
57.36	0.0000
59.54	526.4267
63.29	541.2366
63.29	541.2366
64.28	563.7461
67.75	591.3801
69.67	561.9409
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72.81	601.1479
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72.87	601.1960
74.82	595.1647
74.82	595.1647
74.82	595.1647
74.97	595.2848
77.11	591.7491
77.11	591.7491
77.11	591.7491
79.69	611.4868
79.80	611.5724
80.12	611.8246
80.19	689.3741
80.57	689.7077
81.00	670.6946
81.07	670.7529
81.07	670.7529
83.79	577.3723
83.79	577.3723
85.43	572.0494
86.48	608.5878
86.55	608.6403
86.79	777.3015
86.94	777.4472
87.57	770.7123
88.03	735.2753
88.47	872.6861
89.96	874.2535
91.11	875.4519
92.59	595.5837
92.59	595.5837
93.35	449.5480
94.67	451.8835
94.87	451.9876
94.87	451.9876
95.86	427.8225
97.43	370.8984
98.44	382.3264
99.53	390.3705
100.11	393.7260
103.18	389.8857
103.37	369.2245
105.31	417.8181
106.12	400.5017
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111.76	452.1009
116.30	410.0695
117.23	434.6659
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123.07	389.5779
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136.00	360.1300

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144.24	393.0790
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154.21	301.7494
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158.56	322.5482
159.00	339.0743
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163.33	382.0162
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184.41	323.2768
185.72	379.0251
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205.31	297.7745
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215.65	292.3320
222.11	310.1455
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228.16	293.9048
228.18	293.9087
235.69	285.4906
235.96	285.5414
235.96	285.5414
238.63	301.4978
238.63	301.4978
240.99	301.9580
242.00	302.1544
244.70	243.6931
252.40	220.8582
252.80	204.9997
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256.23	226.0736
260.90	0.0000
264.66	226.2979
268.22	234.6586
269.46	251.5408
269.46	251.5408
271.23	251.8038
273.65	287.5594
276.40	226.3061
277.37	226.6603
277.60	232.1221
278.00	238.7948
279.20	235.8725
279.54	242.5768
280.46	257.9363
283.69	225.0441
284.31	220.3552
285.41	229.0840
285.90	0.0000
287.50	211.3079
293.27	0.0000
295.22	194.8522
295.96	194.9340
298.57	195.2190
299.98	194.0894
299.98	194.0894
300.09	197.3075
300.09	197.3075
300.13	197.3125
301.36	210.2898
302.85	215.2828
304.50	181.7099
304.50	181.7099
304.85	201.0447
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311.90	186.0000

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320.08	187.7910
323.87	181.9954
323.87	181.9954
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334.37	166.6589
334.37	166.6589
338.28	214.4741
338.28	214.4741
338.32	214.4768
338.32	214.4768
338.32	214.4768
340.48	175.3771
340.55	165.5490
344.28	190.4966
351.06	186.2068
351.93	188.9249
356.01	148.6725
364.49	157.2555
366.42	178.3248
383.85	148.6775
388.16	167.0983
388.63	182.2373
391.69	146.2001
400.66	154.9050
401.81	149.9223
402.40	150.9753
404.85	177.5186
410.95	143.4234
414.70	141.6266
423.72	154.4709
427.09	164.9444
427.87	166.0263
433.94	128.4454
453.88	116.0701
463.37	131.0972
468.07	118.1478
473.00	128.4834
476.78	131.8201
477.60	128.7251
487.02	116.6083
492.35	0.0000
497.08	135.0047
511.00	108.1696
514.00	321.6989
527.90	0.0000
529.87	0.0000
531.02	95.1079
537.26	118.8941
546.56	0.0000
563.25	104.8955
569.33	110.5440
569.50	101.8808
569.70	101.8876
583.19	113.2701
600.60	121.6312
602.73	100.2589
604.72	118.8757
609.32	126.3905
609.32	126.3905
609.32	126.3905
610.33	95.2847
614.28	106.9449
618.01	84.1771
621.93	98.4186
621.93	98.4186
633.25	85.8668
635.95	101.6547
636.99	116.4792
645.85	98.2773
657.76	87.7579
661.66	86.6691
661.66	86.6691
664.57	0.0000
666.33	92.7996
666.50	91.2056

677.62	100.2276
685.70	94.8478
695.00	94.1833
696.49	90.4570
696.51	95.1683
697.00	96.1272
702.65	94.4071
706.68	85.0708
711.68	90.8828
720.70	86.2507
721.93	0.0000
722.78	84.6759
722.91	84.6795
723.31	87.9478
724.19	92.8576
727.33	81.8025
733.00	115.9718
735.93	88.6898
739.50	71.6003
747.24	86.1182
752.31	103.4956
753.82	75.7389
756.73	83.4794
763.94	99.0415
765.81	81.7783
766.42	85.6411
777.92	92.6836
778.90	90.7775
783.70	77.3649
785.37	68.3706
795.86	79.5726
801.95	98.3176
810.29	78.9219
810.76	85.7531
815.77	76.1147
818.51	70.3125
832.01	82.3372
834.85	99.0767
836.80	0.0000
846.77	73.8098
856.80	67.6660
860.56	69.1455
871.09	52.4997
873.19	74.3332
875.33	0.0000
879.36	73.4610
880.51	59.5801
883.24	57.6354
884.68	60.6401
889.28	71.6602
898.04	84.7925
911.20	82.3627
911.20	82.3627
911.20	82.3627
926.50	66.3196
937.49	61.4654
944.13	83.7717
946.00	61.5957
949.00	79.8310
962.29	66.0441
964.08	86.9385
966.15	77.1257
968.97	77.1782
968.97	77.1782
968.97	77.1782
983.53	70.3182
996.26	67.4677
1001.03	78.8016
1004.73	86.0422
1037.84	60.9062
1038.76	0.0000
1048.07	68.2935
1050.41	66.2604
1050.41	66.2604
1063.66	56.0764
1085.87	86.6272
1099.45	61.7656
1112.07	61.4136

1115.54	70.2414
1120.29	64.1547
1120.29	64.1547
1120.29	64.1547
1120.55	81.1387
1121.30	77.5446
1131.51	0.0000
1173.23	88.2956
1177.93	84.1239
1189.05	77.9189
1204.77	84.5997
1221.41	106.3839
1231.02	115.2070
1235.36	101.2979
1238.28	75.4801
1260.41	0.0000
1271.85	53.0399
1274.44	66.1019
1274.54	66.1019
1291.59	47.6435
1298.22	0.0000
1312.11	57.2152
1332.49	45.1992
1365.19	35.0592
1368.63	0.0000
1384.29	29.9553
1408.01	28.0824
1457.56	0.0000
1460.82	27.9683
1489.16	37.8030
1505.03	38.8811
1596.21	35.5455
1620.50	19.0842
1678.03	0.0000
1690.97	20.0572
1764.49	11.1604
1764.49	11.1604
1764.49	11.1604
1770.23	8.8855
1771.35	15.9966
1791.20	0.0000
1836.06	17.4382

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248867001

Total Uranium Activity	2.3778E+00	ug/g
Total Uranium Counting Unc.	4.9855E+00	ug/g
Total Uranium Tpu	2.5436E-06	ug/g
Total Uranium Mda	4.3560E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248867001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM29            *
*   SAMPLE DATE   :  5-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 20:33:15.40    SAMPLE ALQT:  122.070 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.033E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.575E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.849E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.369E+00
```

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:01:37.14

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 24-MAR-2010 22:59:45
Sample ID         : G1202065188          Sample quantity  : 1.43700E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:01:22.05  0.6%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
No peaks were found
```

VMS Nuclide Identification Report V3.1 Generated 25-MAR-2010 03:01:40

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 9-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 22:59:45
Sample ID : G1202065188 Sample quantity : 143.70 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAM29 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:01:22.05 0.6%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	4.447E-02	1.381E-01	2.297E-01	2.236E-02	0.194
NA-22		1274.54	*	-2.092E-06	1.491E-02	2.494E-02	2.490E-03	0.000
NA-24		1368.63	*	-2.708E-01	1.491E-02	Half-Life too short		
K-40		1460.82	*	-4.044E-02	2.100E-01	3.411E-01	3.710E-02	-0.119
SC-46		889.28	*	-9.628E-03	1.646E-02	2.541E-02	3.318E-03	-0.379
		1120.55		-2.244E-02	2.531E-02	3.084E-02	2.945E-03	-0.728
V-48		944.13		-3.854E-02	3.468E-01	5.617E-01	7.133E-02	-0.069
		983.53	*	-4.179E-03	2.624E-02	4.210E-02	5.107E-03	-0.099
		1312.11		1.339E-02	2.882E-02	5.094E-02	5.408E-03	0.263
CR-51		320.08	*	-6.487E-02	1.533E-01	2.469E-01	2.374E-02	-0.263
MN-54		834.85	*	1.374E-02	1.323E-02	2.392E-02	2.819E-03	0.575
CO-56		846.77	*	-9.102E-03	1.753E-02	2.752E-02	3.318E-03	-0.331
		1037.84		5.229E-02	1.030E-01	1.787E-01	2.067E-02	0.293
		1238.28		-3.877E-02	3.075E-02	3.890E-02	3.733E-03	-0.997
		1771.35		-2.633E-02	1.281E-01	2.036E-01	1.838E-02	-0.129
CO-57		122.06	*	-6.051E-03	1.005E-02	1.576E-02	1.424E-03	-0.384
		136.47		-1.839E-02	8.128E-02	1.297E-01	1.205E-02	-0.142
CO-58		810.76	*	-1.067E-02	1.443E-02	2.188E-02	2.464E-03	-0.487
FE-59		1099.45	*	1.909E-02	3.252E-02	5.651E-02	6.000E-03	0.338
		1291.59		-1.749E-02	4.688E-02	7.482E-02	8.424E-03	-0.234
CO-60		1173.23		-1.427E-04	1.349E-02	2.179E-02	1.812E-03	-0.007
		1332.49	*	1.748E-02	1.523E-02	2.865E-02	3.143E-03	0.610
ZN-65		1115.54	*	-1.286E-03	3.514E-02	5.682E-02	5.495E-03	-0.023
SE-75		121.12		-2.678E-02	5.350E-02	8.443E-02	9.617E-03	-0.317
		136.00		-1.021E-03	1.558E-02	2.509E-02	2.190E-03	-0.041
		264.66	*	1.106E-02	1.802E-02	3.101E-02	2.812E-03	0.357
		279.54		-1.256E-02	4.264E-02	6.974E-02	6.563E-03	-0.180
		400.66		-5.993E-02	1.032E-01	1.618E-01	1.845E-02	-0.370
SR-85		514.00	*	-4.163E-02	2.674E-02	3.976E-02	3.597E-03	-1.047
Y-88		898.04		-7.746E-03	1.593E-02	2.475E-02	3.291E-03	-0.313
		1836.06	*	-1.055E-02	1.601E-02	2.288E-02	1.956E-03	-0.461
Y-91		1204.77	*	-8.383E-01	7.269E+00	1.157E+01	1.020E+00	-0.072
NB-94		702.65	*	4.069E-03	1.379E-02	2.351E-02	2.112E-03	0.173
		871.09		7.689E-03	1.364E-02	2.367E-02	2.988E-03	0.325

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	1.099E-02	1.639E-02	2.868E-02	2.945E-03	0.383
NB-95M		235.69	*	-7.634E-02	5.271E-02	8.150E-02	8.207E-03	-0.937
ZR-95		724.19		1.091E-02	3.168E-02	5.442E-02	5.486E-03	0.200
		756.73	*	-1.520E-03	2.738E-02	4.524E-02	4.914E-03	-0.034
MO-99		140.51		-2.238E+00	1.084E+01	1.729E+01	4.101E+00	-0.130
		181.07		-1.850E+01	1.049E+01	1.437E+01	2.679E+00	-1.287
		366.42		-1.187E+01	5.328E+01	8.642E+01	7.877E+00	-0.137
		739.50	*	2.823E+00	5.625E+00	9.765E+00	1.600E+00	0.289
		777.92		-1.979E+00	1.812E+01	2.976E+01	3.133E+00	-0.067
TC-99M		140.51	*	-3.517E+10	1.812E+01	Half-Life too short		
RU-103		497.08	*	-6.258E-03	1.733E-02	2.728E-02	3.889E-03	-0.229
		610.33		-2.000E-01	3.860E-01	5.527E-01	9.030E-02	-0.362
RH-106		621.93	*	-6.571E-02	1.318E-01	2.122E-01	2.799E-02	-0.310
		1050.41		7.229E-01	9.649E-01	1.699E+00	1.867E-01	0.425
RU-106		621.93	*	-6.571E-02	1.316E-01	2.122E-01	1.809E-02	-0.310
		1050.41		7.229E-01	9.649E-01	1.699E+00	1.867E-01	0.425
AG-108M		433.94	*	2.998E-03	1.134E-02	1.889E-02	1.768E-03	0.159
		614.28		-1.604E-02	1.466E-02	2.248E-02	1.992E-03	-0.713
		722.91		-2.911E-03	1.513E-02	2.196E-02	2.117E-03	-0.133
CD-109		88.03	*	-6.119E-01	3.382E-01	4.429E-01	4.182E-02	-1.382
AG-110M		657.76	*	7.019E-03	1.350E-02	2.353E-02	2.001E-03	0.298
		677.62		2.770E-02	1.198E-01	2.041E-01	1.786E-02	0.136
		706.68		1.980E-02	8.634E-02	1.466E-01	1.363E-02	0.135
		763.94		1.426E-02	6.264E-02	1.060E-01	1.106E-02	0.135
		884.68		-1.074E-03	1.922E-02	3.145E-02	4.130E-03	-0.034
		937.49		2.161E-02	4.072E-02	7.052E-02	9.167E-03	0.306
		1384.29		5.108E-04	5.818E-02	9.697E-02	1.073E-02	0.005
		1505.03		-1.309E-01	1.203E-01	1.653E-01	1.739E-02	-0.792
SN-113		391.69	*	-3.263E-03	1.857E-02	3.010E-02	2.784E-03	-0.108
CD-115		260.90		-6.292E+01	7.404E+01	1.174E+02	1.058E+01	-0.536
		492.35		-3.511E+00	2.582E+01	3.634E+01	3.303E+00	-0.097
		527.90	*	2.372E+00	5.830E+00	9.759E+00	8.791E-01	0.243
SN-117M		156.02		-7.593E-01	8.825E-01	1.346E+00	1.118E-01	-0.564
		158.56	*	5.880E-03	2.178E-02	3.551E-02	2.935E-03	0.166
TE-123M		159.00	*	-1.452E-03	1.121E-02	1.789E-02	1.487E-03	-0.081
SB-124		602.73		7.734E-03	1.828E-02	3.025E-02	2.619E-03	0.256
		645.85		2.878E-02	1.943E-01	3.293E-01	2.914E-02	0.087
		722.78		-5.106E-02	1.549E-01	2.220E-01	2.124E-02	-0.230
		1690.97	*	9.078E-03	3.550E-02	6.077E-02	6.017E-03	0.149
SB-125		427.87	*	-8.882E-03	3.634E-02	5.827E-02	5.382E-03	-0.152
		463.37		-2.803E-02	1.050E-01	1.672E-01	1.626E-02	-0.168
		600.60		-3.584E-03	8.472E-02	1.356E-01	1.262E-02	-0.026
		635.95		-1.340E-01	1.081E-01	1.607E-01	1.467E-02	-0.834
TE-125M		109.28	*	-3.711E+00	3.800E+00	5.844E+00	6.237E-01	-0.635
I-126		388.63		7.257E-03	6.887E-02	1.139E-01	1.026E-02	0.064
		666.33	*	9.224E-03	8.450E-02	1.426E-01	1.182E-02	0.065
		753.82		-5.061E-02	7.403E-01	1.222E+00	1.224E-01	-0.041
SB-126		414.70		7.638E-04	3.172E-02	5.199E-02	4.709E-03	0.015
		666.50		6.982E-03	2.874E-02	4.907E-02	4.066E-03	0.142

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		695.00		-9.048E-03	3.398E-02	5.548E-02	4.901E-03	-0.163
		697.00		1.287E-02	1.170E-01	1.968E-01	1.746E-02	0.065
		720.70	*	-3.690E-02	5.563E-02	8.663E-02	8.092E-03	-0.426
		856.80		-2.855E-01	2.012E-01	2.784E-01	3.422E-02	-1.025
SN-126		64.28		4.436E-02	2.181E-01	3.189E-01	4.730E-02	0.139
		86.94		-3.316E-02	1.340E-01	1.911E-01	7.933E-02	-0.174
		87.57	*	-2.509E-02	3.209E-02	4.471E-02	4.202E-03	-0.561
SB-127		252.40		6.393E-01	2.094E+00	3.526E+00	1.469E+00	0.181
		473.00		-9.163E-02	8.177E-01	1.318E+00	1.757E-01	-0.070
		685.70	*	-7.514E-02	6.235E-01	1.031E+00	1.201E-01	-0.073
		783.70		2.006E-01	1.572E+00	2.636E+00	3.707E-01	0.076
I-131		80.19		-8.559E-01	1.680E+00	2.690E+00	2.367E-01	-0.318
		284.31		4.831E-01	6.454E-01	1.115E+00	1.064E-01	0.433
		364.49	*	-4.238E-03	5.537E-02	9.071E-02	8.679E-03	-0.047
		636.99		-4.711E-01	6.570E-01	1.031E+00	9.196E-02	-0.457
TE-132		49.72		-1.949E+01	1.031E+01	1.260E+01	1.422E+00	-1.546
		111.76		1.849E+01	1.533E+01	2.614E+01	2.991E+00	0.708
		116.30		-1.374E+01	1.381E+01	2.114E+01	2.428E+00	-0.650
		228.16	*	9.357E-02	3.469E-01	5.891E-01	9.471E-02	0.159
BA-133		81.00		-2.372E-02	3.208E-02	5.047E-02	7.884E-03	-0.470
		276.40		5.120E-02	1.368E-01	2.322E-01	3.344E-02	0.220
		302.85		8.849E-03	5.884E-02	9.841E-02	1.322E-02	0.090
		356.01	*	-7.671E-03	1.894E-02	3.041E-02	4.048E-03	-0.252
		383.85		-5.162E-02	1.221E-01	1.945E-01	2.474E-02	-0.265
I-133		529.87	*	-3.748E-03	1.221E-01	Half-Life too short		
		875.33		4.458E-02	1.221E-01	Half-Life too short		
		1298.22		1.730E-01	1.221E-01	Half-Life too short		
CS-134		563.25		5.073E-02	1.616E-01	2.666E-01	2.387E-02	0.190
		569.33		-4.702E-02	8.633E-02	1.327E-01	1.189E-02	-0.354
		604.72		-9.258E-03	1.648E-02	2.535E-02	2.197E-03	-0.365
		795.86	*	-2.862E-03	1.573E-02	2.555E-02	2.802E-03	-0.112
		801.95		-2.592E-02	1.731E-01	2.644E-01	2.931E-02	-0.098
		1365.19		-2.353E-01	4.990E-01	7.770E-01	8.729E-02	-0.303
CS-135		268.22	*	3.162E-03	6.127E-02	1.024E-01	1.059E-02	0.031
I-135		546.56		-3.426E+10	6.127E-02	Half-Life too short		
		836.80		3.256E+10	6.127E-02	Half-Life too short		
		1038.76		2.043E+10	6.127E-02	Half-Life too short		
		1131.51		-4.012E+09	6.127E-02	Half-Life too short		
		1260.41	*	1.180E+09	6.127E-02	Half-Life too short		
		1457.56		3.098E+10	6.127E-02	Half-Life too short		
		1678.03		-3.355E+10	6.127E-02	Half-Life too short		
		1791.20		1.722E+10	6.127E-02	Half-Life too short		
CS-136		153.25		1.398E-01	3.258E-01	5.360E-01	5.383E-02	0.261
		176.60		-1.705E-01	2.144E-01	3.274E-01	3.006E-02	-0.521
		273.65		3.292E-02	2.108E-01	3.540E-01	3.459E-02	0.093
		340.55		-1.313E-02	7.603E-02	9.891E-02	9.386E-03	-0.133
		818.51		-1.633E-03	3.026E-02	4.978E-02	5.687E-03	-0.033
		1048.07	*	3.396E-02	4.212E-02	7.459E-02	8.443E-03	0.455
		1235.36		-5.172E-02	1.832E-01	2.843E-01	3.494E-02	-0.182

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-137M		661.66	*	-5.400E-03	1.360E-02	2.196E-02	1.800E-03	-0.246
CS-137		661.66	*	-5.705E-03	1.436E-02	2.320E-02	1.906E-03	-0.246
CE-139		165.86	*	-1.062E-02	1.281E-02	1.964E-02	1.601E-03	-0.541
BA-140		162.66		1.332E-01	3.854E-01	5.782E-01	5.092E-02	0.230
		304.85		-2.023E-01	6.075E-01	9.841E-01	2.897E-01	-0.206
		423.72		9.198E-01	8.754E-01	1.448E+00	4.781E-01	0.635
		537.26	*	-1.804E-02	1.085E-01	1.724E-01	5.863E-02	-0.105
LA-140		328.76		-3.500E-03	1.249E-01	2.062E-01	1.990E-02	-0.017
		487.02		2.896E-02	5.856E-02	9.872E-02	9.478E-03	0.293
		815.77		-2.301E-02	1.284E-01	2.085E-01	2.531E-02	-0.110
		1596.21	*	2.319E-02	3.615E-02	6.523E-02	6.600E-03	0.356
CE-141		145.44	*	1.356E-02	2.568E-02	4.242E-02	3.667E-03	0.320
CE-143		57.36		1.276E-04	2.568E-02	Half-Life too short		
		293.27	*	9.310E-05	2.568E-02	Half-Life too short		
		664.57		1.965E-04	2.568E-02	Half-Life too short		
		721.93		-4.701E-04	2.568E-02	Half-Life too short		
CE-144		80.12		-1.558E-01	8.297E-01	1.349E+00	1.178E-01	-0.115
		133.52	*	4.401E-03	7.606E-02	1.233E-01	1.892E-02	0.036
PM-144		476.78		-1.947E-02	2.841E-02	4.369E-02	4.287E-03	-0.446
		618.01		-7.797E-03	1.301E-02	2.078E-02	1.828E-03	-0.375
		696.49	*	3.863E-03	1.438E-02	2.448E-02	2.170E-03	0.158
PR-144		696.51	*	4.565E-01	1.064E+00	1.833E+00	1.624E-01	0.249
		1489.16		5.606E+00	5.670E+00	1.056E+01	1.118E+00	0.531
PM-146		453.88	*	-4.587E-03	1.846E-02	2.953E-02	3.246E-03	-0.155
		633.25		-1.391E-01	5.600E-01	9.153E-01	3.492E-01	-0.152
		735.93		-5.098E-02	5.548E-02	8.061E-02	2.286E-02	-0.632
		747.24		9.279E-03	4.014E-02	6.798E-02	1.044E-02	0.136
ND-147		91.11		3.569E-01	1.185E-01	2.059E-01	2.042E-02	1.733
		319.41		2.942E-01	1.429E+00	2.395E+00	2.202E-01	0.123
		531.02	*	-1.707E-01	2.360E-01	3.542E-01	5.373E-02	-0.482
PM-149		285.90	*	3.938E+00	4.987E+01	8.328E+01	1.318E+01	0.047
EU-152		121.78		-9.455E-03	2.857E-02	4.550E-02	4.667E-03	-0.208
		244.70		-8.345E-02	1.300E-01	2.100E-01	1.869E-02	-0.397
		344.28	*	-1.697E-02	4.054E-02	6.511E-02	6.286E-03	-0.261
		778.90		-1.716E-03	1.045E-01	1.730E-01	1.825E-02	-0.010
		964.08		-1.348E-01	1.119E-01	1.566E-01	1.945E-02	-0.860
		1085.87		6.445E-02	1.361E-01	2.341E-01	2.409E-02	0.275
		1112.07		-4.296E-03	1.138E-01	1.841E-01	1.792E-02	-0.023
		1408.01		1.994E-03	9.038E-02	1.133E-01	1.226E-02	0.018
GD-153		69.67		-1.960E-01	5.774E-01	9.352E-01	7.595E-02	-0.210
		97.43	*	-2.554E-02	3.668E-02	5.067E-02	4.551E-03	-0.504
		103.18		1.640E-02	4.095E-02	6.800E-02	6.033E-03	0.241
EU-154		123.07		2.092E-03	2.029E-02	3.305E-02	3.847E-03	0.063
		723.31		2.702E-03	6.807E-02	1.011E-01	1.031E-02	0.027
		873.19		-2.273E-02	1.160E-01	1.873E-01	2.827E-02	-0.121
		996.26		-4.496E-02	1.411E-01	2.221E-01	4.291E-02	-0.202
		1004.73		-5.096E-02	8.704E-02	1.328E-01	1.878E-02	-0.384
		1274.44	*	-1.679E-03	4.200E-02	6.992E-02	8.694E-03	-0.024
EU-155		86.55		3.256E-02	3.855E-02	5.782E-02	5.424E-03	0.563

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		105.31	*	-2.498E-04	3.972E-02	6.465E-02	5.789E-03	-0.004
TB-160		86.79		-1.580E-02	1.046E-01	1.508E-01	1.406E-02	-0.105
		197.04		-6.047E-02	2.654E-01	3.879E-01	3.285E-02	-0.156
		215.65		-1.493E-01	2.913E-01	4.768E-01	4.127E-02	-0.313
		298.57		-8.077E-03	4.617E-02	7.589E-02	6.953E-03	-0.106
		879.36	*	-1.909E-02	5.448E-02	8.629E-02	1.106E-02	-0.221
		962.29		-2.284E-01	2.280E-01	3.063E-01	3.812E-02	-0.746
		966.15		-1.985E-02	7.529E-02	1.186E-01	1.469E-02	-0.167
		1177.93		-3.600E-02	1.086E-01	1.670E-01	1.401E-02	-0.216
		1271.85		2.192E-02	2.439E-01	4.126E-01	4.096E-02	0.053
HO-166M		80.57		-5.438E-02	9.125E-02	1.454E-01	1.275E-02	-0.374
		184.41		-1.579E-02	1.882E-02	2.746E-02	2.289E-03	-0.575
		280.46		-1.431E-02	3.323E-02	5.390E-02	4.906E-03	-0.266
		410.95		-3.081E-02	9.429E-02	1.506E-01	1.363E-02	-0.205
		711.68	*	-5.989E-03	3.500E-02	4.325E-02	3.962E-03	-0.138
		752.31		3.713E-02	1.070E-01	1.832E-01	1.830E-02	0.203
		810.29		-2.291E-02	2.227E-02	3.256E-02	3.658E-03	-0.704
TA-182		67.75		-4.363E-02	3.826E-02	5.940E-02	4.785E-03	-0.734
		100.11		5.399E-03	6.519E-02	1.067E-01	9.518E-03	0.051
		152.43		1.234E-01	1.295E-01	2.184E-01	1.827E-02	0.565
		222.11		-3.527E-02	1.390E-01	2.305E-01	2.009E-02	-0.153
		1121.30		-2.153E-03	5.392E-02	8.714E-02	8.308E-03	-0.025
		1189.05		1.129E-02	9.401E-02	1.546E-01	1.324E-02	0.073
		1221.41	*	-7.653E-03	5.488E-02	8.670E-02	7.881E-03	-0.088
		1231.02		1.167E-01	1.534E-01	2.699E-01	2.496E-02	0.432
IR-192		295.96		-4.517E-02	4.378E-02	6.822E-02	6.286E-03	-0.662
		308.46		-2.052E-03	4.252E-02	7.030E-02	6.483E-03	-0.029
		316.51	*	2.258E-03	1.451E-02	2.424E-02	2.232E-03	0.093
		468.07		1.503E-02	2.778E-02	4.695E-02	4.556E-03	0.320
HG-203		70.83		-1.554E-01	4.750E-01	7.694E-01	1.217E-01	-0.202
		72.87		1.270E-01	2.728E-01	4.562E-01	6.998E-02	0.278
		279.20	*	-7.503E-03	1.523E-02	2.461E-02	2.290E-03	-0.305
BI-207		72.81		2.755E-02	6.212E-02	1.040E-01	8.590E-03	0.265
		74.97		5.036E-02	4.183E-02	6.160E-02	5.162E-03	0.818
		569.70		7.279E-06	1.309E-02	2.108E-02	1.864E-03	0.000
		1063.66	*	1.456E-02	2.060E-02	3.602E-02	3.867E-03	0.404
		1770.23		-2.701E-01	2.656E-01	3.684E-01	3.330E-02	-0.733
TL-208		277.37		4.317E-02	1.476E-01	2.495E-01	3.208E-02	0.173
		583.19	*	9.359E-03	1.873E-02	2.912E-02	2.729E-03	0.321
		860.56		9.249E-02	1.133E-01	1.999E-01	2.564E-02	0.463
PB-210		46.54	*	-2.527E+00	1.589E+00	2.317E+00	2.210E-01	-1.091
BI-211		72.87		5.032E-01	1.079E+00	1.808E+00	1.494E-01	0.278
		351.06	*	2.971E-02	9.187E-02	1.541E-01	1.476E-02	0.193
PB-211		404.85	*	1.858E-01	3.004E-01	4.904E-01	2.377E-01	0.379
		427.09		-2.297E-01	6.240E-01	9.767E-01	4.527E-01	-0.235
		832.01		-1.769E-01	3.777E-01	5.746E-01	3.014E-01	-0.308
BI-212		727.33	*	-4.767E-02	1.847E-01	2.998E-01	3.917E-02	-0.159
		785.37		7.090E-02	1.206E+00	2.010E+00	2.149E-01	0.035
		1620.50		5.468E-01	1.139E+00	1.994E+00	1.992E-01	0.274

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PB-212		74.82		1.698E-01	1.463E-01	2.137E-01	2.742E-02	0.794
		77.11		-9.961E-02	7.422E-02	1.091E-01	9.290E-03	-0.913
		238.63	*	-1.736E-02	3.442E-02	5.065E-02	5.051E-03	-0.343
		300.09		-1.580E-03	3.275E-01	5.434E-01	5.971E-02	-0.003
BI-214		609.32	*	-1.192E-02	3.661E-02	5.343E-02	5.396E-03	-0.223
		1120.29		-1.340E-01	1.496E-01	1.822E-01	2.127E-02	-0.736
		1764.49		-1.890E-01	1.357E-01	2.067E-01	1.877E-02	-0.915
PB-214		74.82		3.009E-01	2.587E-01	3.787E-01	4.367E-02	0.794
		77.11		-1.756E-01	1.316E-01	1.923E-01	2.280E-02	-0.913
		242.00		-4.019E-01	1.649E-01	2.363E-01	2.505E-02	-1.701
		295.22		8.099E-03	5.735E-02	9.597E-02	1.078E-02	0.084
		351.93	*	1.149E-02	3.324E-02	5.582E-02	6.168E-03	0.206
RN-219		271.23		-8.085E-03	9.223E-02	1.529E-01	1.626E-02	-0.053
		401.81	*	-4.395E-02	1.648E-01	2.648E-01	4.002E-02	-0.166
RA-223		81.07		-5.461E-02	7.227E-02	1.142E-01	1.006E-02	-0.478
		83.79		-4.076E-02	5.086E-02	7.183E-02	6.494E-03	-0.567
		94.87		-2.109E-01	1.910E-01	2.964E-01	2.688E-02	-0.711
		144.24		-5.739E-02	3.107E-01	4.464E-01	4.251E-02	-0.129
		154.21		-5.222E-02	1.438E-01	2.265E-01	2.080E-02	-0.231
		269.46		-1.817E-02	7.276E-02	1.196E-01	1.102E-02	-0.152
		323.87	*	-2.208E-02	2.558E-01	4.209E-01	7.418E-02	-0.052
		338.28		2.843E-01	3.726E-01	6.408E-01	7.997E-02	0.444
RA-224		240.99	*	3.042E-01	2.730E-01	4.766E-01	4.229E-02	0.638
RA-226		609.32	*	-1.192E-02	3.661E-02	5.343E-02	5.396E-03	-0.223
		1120.29		-1.340E-01	1.496E-01	1.822E-01	2.127E-02	-0.736
		1764.49		-1.890E-01	1.357E-01	2.067E-01	1.877E-02	-0.915
AC-227		79.69		-1.814E-01	4.102E-01	6.573E-01	1.135E-01	-0.276
		235.96		-6.537E-02	6.375E-02	1.013E-01	1.066E-02	-0.645
		256.23	*	4.453E-02	1.035E-01	1.764E-01	2.172E-02	0.252
		299.98		-2.497E-02	3.610E-01	5.969E-01	7.808E-02	-0.042
		304.50		-1.665E-01	7.029E-01	1.150E+00	1.934E-01	-0.145
		334.37		3.316E-02	6.961E-01	1.153E+00	1.835E-01	0.029
TH-227		79.80		-2.040E-01	5.424E-01	8.714E-01	1.901E-01	-0.234
		235.96		-6.537E-02	6.371E-02	1.013E-01	1.008E-02	-0.645
		256.23	*	4.453E-02	1.035E-01	1.764E-01	2.441E-02	0.252
		299.98		-2.497E-02	3.610E-01	5.969E-01	7.808E-02	-0.042
		304.50		-1.665E-01	7.029E-01	1.150E+00	1.934E-01	-0.145
		334.37		3.316E-02	6.961E-01	1.153E+00	1.835E-01	0.029
AC-228		338.32		7.048E-02	9.795E-02	1.613E-01	6.747E-02	0.437
		911.20	*	-3.534E-02	6.857E-02	9.124E-02	1.390E-02	-0.387
		968.97		4.036E-03	1.015E-01	1.544E-01	4.001E-02	0.026
RA-228		338.32		7.048E-02	9.795E-02	1.613E-01	6.747E-02	0.437
		911.20	*	-3.534E-02	6.857E-02	9.124E-02	1.390E-02	-0.387
		968.97		4.036E-03	1.015E-01	1.544E-01	4.001E-02	0.026
TH-228		74.82		1.698E-01	1.453E-01	2.137E-01	1.806E-02	0.794
		77.11		-9.961E-02	7.422E-02	1.091E-01	9.290E-03	-0.913
		238.63	*	-1.736E-02	3.442E-02	5.065E-02	5.051E-03	-0.343
		300.09		-1.580E-03	3.275E-01	5.434E-01	3.331E-01	-0.003
TH-229		85.43		1.143E-01	8.210E-02	1.269E-01	1.166E-02	0.901

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		88.47		-1.843E-01	5.553E-02	6.523E-02	6.138E-03	-2.825
		193.51	*	2.037E-01	2.135E-01	3.569E-01	3.010E-02	0.571
		210.85		7.686E-03	3.282E-01	5.527E-01	4.758E-02	0.014
TH-230		609.32	*	-1.192E-02	3.660E-02	5.342E-02	4.601E-03	-0.223
		1120.29		-1.340E-01	1.493E-01	1.822E-01	1.742E-02	-0.736
		1764.49		-1.890E-01	1.357E-01	2.067E-01	1.877E-02	-0.915
PA-231		283.69	*	3.917E-01	5.797E-01	9.958E-01	1.482E-01	0.393
		301.36		1.951E-01	2.299E-01	3.968E-01	4.978E-02	0.492
TH-231		81.07		-5.461E-02	7.227E-02	1.142E-01	1.006E-02	-0.478
		83.79		-4.076E-02	5.086E-02	7.183E-02	6.494E-03	-0.567
		94.87		-2.109E-01	1.910E-01	2.964E-01	2.688E-02	-0.711
		144.24		-5.739E-02	3.107E-01	4.464E-01	4.251E-02	-0.129
		154.21		-5.222E-02	1.438E-01	2.265E-01	2.080E-02	-0.231
		269.46		-1.817E-02	7.276E-02	1.196E-01	1.102E-02	-0.152
		323.87	*	-2.208E-02	2.558E-01	4.209E-01	7.418E-02	-0.052
		338.28		2.843E-01	3.726E-01	6.408E-01	7.997E-02	0.444
TH-232		338.32		7.048E-02	9.363E-02	1.613E-01	1.481E-02	0.437
		911.20	*	-3.534E-02	6.857E-02	9.124E-02	1.390E-02	-0.387
		968.97		4.036E-03	1.015E-01	1.544E-01	4.001E-02	0.026
PA-233		300.13		-4.207E-04	1.631E-01	2.706E-01	4.100E-02	-0.002
		311.90	*	9.803E-03	2.795E-02	4.720E-02	4.444E-03	0.208
		340.48		-6.080E-02	3.103E-01	4.029E-01	9.780E-02	-0.151
PA-234		94.67		9.342E-02	6.669E-02	1.133E-01	1.442E-02	0.824
		98.44		-1.743E-02	4.038E-02	5.477E-02	3.058E-02	-0.318
		111.00		8.053E-02	7.003E-02	1.191E-01	1.460E-02	0.676
		131.20		-4.243E-02	4.097E-02	6.241E-02	5.477E-03	-0.680
		569.50		-1.051E-02	1.154E-01	1.844E-01	1.631E-02	-0.057
		733.00		4.892E-02	1.350E-01	2.315E-01	5.229E-02	0.211
		880.51		-1.023E-01	1.100E-01	1.614E-01	2.073E-02	-0.634
		883.24		-1.051E-02	1.097E-01	1.784E-01	1.211E-01	-0.059
		926.50		3.754E-03	6.229E-02	1.030E-01	2.786E-02	0.036
		946.00	*	5.780E-02	1.150E-01	1.978E-01	4.140E-02	0.292
		949.00		-6.368E-02	1.789E-01	2.819E-01	3.561E-02	-0.226
PA-234M		766.42		-1.278E+00	5.648E+00	7.548E+00	3.853E+00	-0.169
		1001.03	*	-3.860E-01	2.080E+00	3.216E+00	4.137E-01	-0.120
TH-234		63.29	*	1.989E-01	5.925E-01	8.713E-01	1.574E-01	0.228
		92.59		4.009E-01	3.275E-01	5.065E-01	1.130E-01	0.791
U-235		89.96		-1.525E+00	5.056E-01	4.421E-01	1.099E-01	-3.449
		93.35		1.512E-01	2.424E-01	3.777E-01	8.798E-02	0.400
		143.76	*	-1.272E-02	9.163E-02	1.316E-01	2.224E-02	-0.097
		163.33		5.033E-02	1.995E-01	2.980E-01	5.289E-02	0.169
		185.72		-7.239E-03	2.345E-02	3.502E-02	2.924E-03	-0.207
		205.31		8.914E-02	1.918E-01	3.286E-01	5.952E-02	0.271
NP-237		86.48	*	8.849E-02	9.707E-02	1.435E-01	3.291E-02	0.617
		95.86		-1.760E+00	5.872E-01	5.375E-01	1.298E-01	-3.274
U-238		63.29	*	1.989E-01	5.925E-01	8.713E-01	1.574E-01	0.228
		92.59		4.009E-01	3.172E-01	5.065E-01	4.643E-02	0.791
NP-239		99.53		-3.625E-02	7.015E-02	9.719E-02	8.679E-03	-0.373
		103.37		2.007E-02	3.705E-02	6.191E-02	5.491E-03	0.324

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		106.12		-7.113E-03	3.175E-02	5.110E-02	4.523E-03	-0.139
		117.23	*	-3.081E-02	1.565E-01	2.514E-01	2.245E-02	-0.123
		228.18		2.225E-02	8.479E-02	1.440E-01	1.263E-02	0.155
		277.60		2.123E-03	6.727E-02	1.122E-01	1.020E-02	0.019
AM-241		59.54	*	-9.476E-02	5.773E-02	8.730E-02	7.534E-03	-1.085
CM-247		278.00		-1.139E-01	2.873E-01	4.673E-01	4.249E-02	-0.244
		287.50		-1.386E-01	5.099E-01	8.346E-01	7.619E-02	-0.166
		402.40	*	-2.755E-03	1.513E-02	2.448E-02	2.209E-03	-0.113
CF-249		252.80		1.480E-01	3.933E-01	6.695E-01	5.996E-02	0.221
		333.37		1.039E-02	7.234E-02	1.206E-01	1.108E-02	0.086
		388.16	*	-4.165E-03	1.600E-02	2.578E-02	2.324E-03	-0.162
CF-251		177.52	*	-5.726E-02	5.347E-02	8.024E-02	6.631E-03	-0.714
		227.38		9.225E-02	1.396E-01	2.413E-01	2.115E-02	0.382
		285.41		4.945E-01	8.902E-01	1.524E+00	1.390E-01	0.325
ANH-511		511.00	*	-1.433E-02	2.821E-02	4.552E-02	4.121E-03	-0.315

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188    *
* Acquisition date : 24-MAR-2010 22:59:45 Detector SN#     :               *
* Detector ID        : GAM29               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 04:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 04:01:22.05      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        :  9-MAR-2010 00:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202065188         Analyst initials: MXR1          *
* Batch Number       : 962633              Sample Quantity : 1.4370E+02 GRAM *
* Recovery           :    1.00000          Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)	
BE-7	4.447E-02	1.353E-01	2.367E-01	0.000E+00 NOT IDENT.
NA-22	-2.092E-06	1.461E-02	2.514E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	7.762E+05	0.000E+00	0.000E+00 SHORT HLIF
K-40	-4.044E-02	2.058E-01	3.427E-01	0.000E+00 NOT IDENT.
SC-46	-9.628E-03	1.613E-02	2.582E-02	0.000E+00 NOT IDENT.
V-48	-4.179E-03	2.572E-02	4.269E-02	0.000E+00 NOT IDENT.
CR-51	-6.487E-02	1.502E-01	2.567E-01	0.000E+00 NOT IDENT.
MN-54	1.374E-02	1.296E-02	2.435E-02	0.000E+00 NOT IDENT.
CO-56	-9.102E-03	1.717E-02	2.800E-02	0.000E+00 NOT IDENT.
CO-57	-6.051E-03	9.848E-03	1.672E-02	0.000E+00 NOT IDENT.
CO-58	-1.067E-02	1.414E-02	2.228E-02	0.000E+00 NOT IDENT.
FE-59	1.909E-02	3.187E-02	5.715E-02	0.000E+00 NOT IDENT.
CO-60	1.748E-02	1.492E-02	2.885E-02	0.000E+00 NOT IDENT.
ZN-65	-1.286E-03	3.443E-02	5.745E-02	0.000E+00 NOT IDENT.
SE-75	1.106E-02	1.766E-02	3.236E-02	0.000E+00 NOT IDENT.
SR-85	-4.163E-02	2.620E-02	4.090E-02	0.000E+00 NOT IDENT.
Y-88	-1.055E-02	1.569E-02	2.287E-02	0.000E+00 NOT IDENT.
Y-91	-8.383E-01	7.123E+00	1.168E+01	0.000E+00 NOT IDENT.
NB-94	4.069E-03	1.351E-02	2.402E-02	0.000E+00 NOT IDENT.
NB-95	1.099E-02	1.606E-02	2.924E-02	0.000E+00 NOT IDENT.
NB-95M	-7.634E-02	5.165E-02	8.527E-02	0.000E+00 NOT IDENT.
ZR-95	-1.520E-03	2.684E-02	4.615E-02	0.000E+00 NOT IDENT.
MO-99	2.823E+00	5.512E+00	9.966E+00	0.000E+00 NOT IDENT.
TC-99M	0.000E+00	1.670E+17	0.000E+00	0.000E+00 SHORT HLIF
RU-103	-6.258E-03	1.699E-02	2.809E-02	0.000E+00 NOT IDENT.
RH-106	-6.571E-02	1.292E-01	2.174E-01	0.000E+00 NOT IDENT.

RU-106	-6.571E-02	1.290E-01	2.174E-01	0.000E+00	NOT IDENT.
AG-108M	2.998E-03	1.111E-02	1.951E-02	0.000E+00	NOT IDENT.
CD-109	-6.119E-01	3.315E-01	4.730E-01	0.000E+00	NOT IDENT.
AG-110M	7.019E-03	1.323E-02	2.408E-02	0.000E+00	NOT IDENT.
SN-113	-3.263E-03	1.820E-02	3.115E-02	0.000E+00	NOT IDENT.
CD-115	2.372E+00	5.714E+00	1.003E+01	0.000E+00	NOT IDENT.
SN-117M	5.880E-03	2.135E-02	3.746E-02	0.000E+00	NOT IDENT.
TE-123M	-1.452E-03	1.099E-02	1.887E-02	0.000E+00	NOT IDENT.
SB-124	9.078E-03	3.479E-02	6.086E-02	0.000E+00	NOT IDENT.
SB-125	-8.882E-03	3.562E-02	6.019E-02	0.000E+00	NOT IDENT.
TE-125M	-3.711E+00	3.724E+00	6.213E+00	0.000E+00	NOT IDENT.
I-126	9.224E-03	8.281E-02	1.459E-01	0.000E+00	NOT IDENT.
SB-126	-3.690E-02	5.452E-02	8.846E-02	0.000E+00	NOT IDENT.
SN-126	-2.509E-02	3.145E-02	4.774E-02	0.000E+00	NOT IDENT.
SB-127	-7.514E-02	6.111E-01	1.053E+00	0.000E+00	NOT IDENT.
I-131	-4.238E-03	5.426E-02	9.402E-02	0.000E+00	NOT IDENT.
TE-132	9.357E-02	3.400E-01	6.168E-01	0.000E+00	NOT IDENT.
BA-133	-7.671E-03	1.856E-02	3.154E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.796E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-2.862E-03	1.541E-02	2.603E-02	0.000E+00	NOT IDENT.
CS-135	3.162E-03	6.005E-02	1.069E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.027E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.396E-02	4.128E-02	7.553E-02	0.000E+00	NOT IDENT.
BA-137M	-5.400E-03	1.332E-02	2.247E-02	0.000E+00	NOT IDENT.
CS-137	-5.705E-03	1.408E-02	2.374E-02	0.000E+00	NOT IDENT.
CE-139	-1.062E-02	1.256E-02	2.070E-02	0.000E+00	NOT IDENT.
BA-140	-1.804E-02	1.063E-01	1.772E-01	0.000E+00	NOT IDENT.
LA-140	2.319E-02	3.543E-02	6.542E-02	0.000E+00	NOT IDENT.
CE-141	1.356E-02	2.517E-02	4.483E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.823E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	4.401E-03	7.454E-02	1.305E-01	0.000E+00	NOT IDENT.
PM-144	3.863E-03	1.409E-02	2.502E-02	0.000E+00	NOT IDENT.
PR-144	4.565E-01	1.043E+00	1.873E+00	0.000E+00	NOT IDENT.
PM-146	-4.587E-03	1.809E-02	3.046E-02	0.000E+00	NOT IDENT.
ND-147	-1.707E-01	2.313E-01	3.641E-01	0.000E+00	NOT IDENT.
PM-149	3.938E+00	4.887E+01	8.677E+01	0.000E+00	NOT IDENT.
EU-152	-1.697E-02	3.973E-02	6.757E-02	0.000E+00	NOT IDENT.
GD-153	-2.554E-02	3.595E-02	5.400E-02	0.000E+00	NOT IDENT.
EU-154	-1.679E-03	4.116E-02	7.048E-02	0.000E+00	NOT IDENT.
EU-155	-2.498E-04	3.893E-02	6.879E-02	0.000E+00	NOT IDENT.
TB-160	-1.909E-02	5.339E-02	8.772E-02	0.000E+00	NOT IDENT.
HO-166M	-5.989E-03	3.430E-02	4.418E-02	0.000E+00	NOT IDENT.
TA-182	-7.653E-03	5.378E-02	8.749E-02	0.000E+00	NOT IDENT.
IR-192	2.258E-03	1.422E-02	2.520E-02	0.000E+00	NOT IDENT.
HG-203	-7.503E-03	1.492E-02	2.565E-02	0.000E+00	NOT IDENT.
BI-207	1.456E-02	2.019E-02	3.646E-02	0.000E+00	NOT IDENT.
TL-208	9.359E-03	1.835E-02	2.988E-02	0.000E+00	NOT IDENT.
PB-210	-2.527E+00	1.557E+00	2.506E+00	0.000E+00	NOT IDENT.
BI-211	2.971E-02	9.003E-02	1.599E-01	0.000E+00	NOT IDENT.
PB-211	1.858E-01	2.944E-01	5.071E-01	0.000E+00	NOT IDENT.
BI-212	-4.767E-02	1.810E-01	3.061E-01	0.000E+00	NOT IDENT.
PB-212	-1.736E-02	3.374E-02	5.298E-02	0.000E+00	NOT IDENT.
BI-214	-1.192E-02	3.588E-02	5.476E-02	0.000E+00	NOT IDENT.
PB-214	1.149E-02	3.258E-02	5.791E-02	0.000E+00	NOT IDENT.
RN-219	-4.395E-02	1.615E-01	2.739E-01	0.000E+00	NOT IDENT.
RA-223	-2.208E-02	2.507E-01	4.374E-01	0.000E+00	NOT IDENT.
RA-224	3.042E-01	2.675E-01	4.984E-01	0.000E+00	NOT IDENT.
RA-226	-1.192E-02	3.588E-02	5.476E-02	0.000E+00	NOT IDENT.
AC-227	4.453E-02	1.014E-01	1.843E-01	0.000E+00	NOT IDENT.
TH-227	4.453E-02	1.014E-01	1.843E-01	0.000E+00	NOT IDENT.
AC-228	-3.534E-02	6.720E-02	9.268E-02	0.000E+00	NOT IDENT.
RA-228	-3.534E-02	6.720E-02	9.268E-02	0.000E+00	NOT IDENT.
TH-228	-1.736E-02	3.374E-02	5.298E-02	0.000E+00	NOT IDENT.
TH-229	2.037E-01	2.092E-01	3.750E-01	0.000E+00	NOT IDENT.
TH-230	-1.192E-02	3.587E-02	5.476E-02	0.000E+00	NOT IDENT.
PA-231	3.917E-01	5.681E-01	1.038E+00	0.000E+00	NOT IDENT.
TH-231	-2.208E-02	2.507E-01	4.374E-01	0.000E+00	NOT IDENT.
TH-232	-3.534E-02	6.720E-02	9.268E-02	0.000E+00	NOT IDENT.
PA-233	9.803E-03	2.739E-02	4.908E-02	0.000E+00	NOT IDENT.
PA-234	5.780E-02	1.127E-01	2.007E-01	0.000E+00	NOT IDENT.
PA-234M	-3.860E-01	2.038E+00	3.260E+00	0.000E+00	NOT IDENT.
TH-234	1.989E-01	5.806E-01	9.367E-01	0.000E+00	NOT IDENT.
U-235	-1.272E-02	8.979E-02	1.391E-01	0.000E+00	NOT IDENT.
NP-237	8.849E-02	9.512E-02	1.533E-01	0.000E+00	NOT IDENT.
U-238	1.989E-01	5.806E-01	9.367E-01	0.000E+00	NOT IDENT.
NP-239	-3.081E-02	1.534E-01	2.669E-01	0.000E+00	NOT IDENT.
AM-241	-9.476E-02	5.657E-02	9.396E-02	0.000E+00	NOT IDENT.
CM-247	-2.755E-03	1.483E-02	2.531E-02	0.000E+00	NOT IDENT.

CF-249	-4.165E-03	1.568E-02	2.668E-02	0.000E+00 NOT IDENT.
CF-251	-5.726E-02	5.240E-02	8.445E-02	0.000E+00 NOT IDENT.
ANH-511	-1.433E-02	2.764E-02	4.683E-02	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:01:38.10

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1
Sample date      : 9-MAR-2010 00:00:00. Acquisition date : 24-MAR-2010 22:59:45
Sample ID        : G1202065188          Sample quantity  : 1.43700E+02 GRAM
Detector name    : GAM29                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:01:22.05  0.6%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 962633               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

None

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:01:42.35

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                 DETECTOR DATA                               *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1   *
* Acquisition date : 24-MAR-2010 22:59:45  Detector SN#     :                 *
* Detector ID      : GAM29                 Sensitivity      : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 04:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 04:01:22.05         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 9-MAR-2010 00:00:00.  Nuclide Library : SOLID            *
* Sample ID        : G1202065188           Analyst initials: MXR1             *
* Batch Number     : 962633                Sample Quantity : 1.43700E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                    QC DATA                                  *
*                                                                             *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45.9MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.447E-02		1.381E-01	2.297E-01	2.236E-02	0.194
NA-22	-2.092E-06		1.491E-02	2.494E-02	2.490E-03	0.000
NA-24	-2.708E-01		3.960E-01	Half-Life too short		
K-40	-4.044E-02		2.100E-01	3.411E-01	3.710E-02	-0.119
SC-46	-9.628E-03		1.646E-02	2.541E-02	3.318E-03	-0.379
V-48	-4.179E-03		2.624E-02	4.210E-02	5.107E-03	-0.099
CR-51	-6.487E-02		1.533E-01	2.469E-01	2.374E-02	-0.263
MN-54	1.374E-02		1.323E-02	2.392E-02	2.819E-03	0.575
CO-56	-9.102E-03		1.753E-02	2.752E-02	3.318E-03	-0.331
CO-57	-6.051E-03		1.005E-02	1.576E-02	1.424E-03	-0.384
CO-58	-1.067E-02		1.443E-02	2.188E-02	2.464E-03	-0.487
FE-59	1.909E-02		3.252E-02	5.651E-02	6.000E-03	0.338
CO-60	1.748E-02		1.523E-02	2.865E-02	3.143E-03	0.610
ZN-65	-1.286E-03		3.514E-02	5.682E-02	5.495E-03	-0.023
SE-75	1.106E-02		1.802E-02	3.101E-02	2.812E-03	0.357
SR-85	-4.163E-02		2.674E-02	3.976E-02	3.597E-03	-1.047
Y-88	-1.055E-02		1.601E-02	2.288E-02	1.956E-03	-0.461

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	-8.383E-01		7.269E+00	1.157E+01	1.020E+00	-0.072
NB-94	4.069E-03		1.379E-02	2.351E-02	2.112E-03	0.173
NB-95	1.099E-02		1.639E-02	2.868E-02	2.945E-03	0.383
NB-95M	-7.634E-02		5.271E-02	8.150E-02	8.207E-03	-0.937
ZR-95	-1.520E-03		2.738E-02	4.524E-02	4.914E-03	-0.034
MO-99	2.823E+00		5.625E+00	9.765E+00	1.600E+00	0.289
TC-99M	-3.517E+10		8.522E+10	Half-Life too short		
RU-103	-6.258E-03		1.733E-02	2.728E-02	3.889E-03	-0.229
RH-106	-6.571E-02		1.318E-01	2.122E-01	2.799E-02	-0.310
RU-106	-6.571E-02		1.316E-01	2.122E-01	1.809E-02	-0.310
AG-108M	2.998E-03		1.134E-02	1.889E-02	1.768E-03	0.159
CD-109	-6.119E-01		3.382E-01	4.429E-01	4.182E-02	-1.382
AG-110M	7.019E-03		1.350E-02	2.353E-02	2.001E-03	0.298
SN-113	-3.263E-03		1.857E-02	3.010E-02	2.784E-03	-0.108
CD-115	2.372E+00		5.830E+00	9.759E+00	8.791E-01	0.243
SN-117M	5.880E-03		2.178E-02	3.551E-02	2.935E-03	0.166
TE-123M	-1.452E-03		1.121E-02	1.789E-02	1.487E-03	-0.081
SB-124	9.078E-03		3.550E-02	6.077E-02	6.017E-03	0.149
SB-125	-8.882E-03		3.634E-02	5.827E-02	5.382E-03	-0.152
TE-125M	-3.711E+00		3.800E+00	5.844E+00	6.237E-01	-0.635
I-126	9.224E-03		8.450E-02	1.426E-01	1.182E-02	0.065
SB-126	-3.690E-02		5.563E-02	8.663E-02	8.092E-03	-0.426
SN-126	-2.509E-02		3.209E-02	4.471E-02	4.202E-03	-0.561
SB-127	-7.514E-02		6.235E-01	1.031E+00	1.201E-01	-0.073
I-131	-4.238E-03		5.537E-02	9.071E-02	8.679E-03	-0.047
TE-132	9.357E-02		3.469E-01	5.891E-01	9.471E-02	0.159
BA-133	-7.671E-03		1.894E-02	3.041E-02	4.048E-03	-0.252
I-133	-3.748E-03		2.447E-03	Half-Life too short		
CS-134	-2.862E-03		1.573E-02	2.555E-02	2.802E-03	-0.112
CS-135	3.162E-03		6.127E-02	1.024E-01	1.059E-02	0.031
I-135	1.180E+09		1.034E+10	Half-Life too short		
CS-136	3.396E-02		4.212E-02	7.459E-02	8.443E-03	0.455
BA-137M	-5.400E-03		1.360E-02	2.196E-02	1.800E-03	-0.246
CS-137	-5.705E-03		1.436E-02	2.320E-02	1.906E-03	-0.246
CE-139	-1.062E-02		1.281E-02	1.964E-02	1.601E-03	-0.541
BA-140	-1.804E-02		1.085E-01	1.724E-01	5.863E-02	-0.105
LA-140	2.319E-02		3.615E-02	6.523E-02	6.600E-03	0.356
CE-141	1.356E-02		2.568E-02	4.242E-02	3.667E-03	0.320
CE-143	9.310E-05		3.991E-05	Half-Life too short		
CE-144	4.401E-03		7.606E-02	1.233E-01	1.892E-02	0.036
PM-144	3.863E-03		1.438E-02	2.448E-02	2.170E-03	0.158
PR-144	4.565E-01		1.064E+00	1.833E+00	1.624E-01	0.249
PM-146	-4.587E-03		1.846E-02	2.953E-02	3.246E-03	-0.155
ND-147	-1.707E-01		2.360E-01	3.542E-01	5.373E-02	-0.482
PM-149	3.938E+00		4.987E+01	8.328E+01	1.318E+01	0.047
EU-152	-1.697E-02		4.054E-02	6.511E-02	6.286E-03	-0.261
GD-153	-2.554E-02		3.668E-02	5.067E-02	4.551E-03	-0.504
EU-154	-1.679E-03		4.200E-02	6.992E-02	8.694E-03	-0.024

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	-2.498E-04		3.972E-02	6.465E-02	5.789E-03	-0.004
TB-160	-1.909E-02		5.448E-02	8.629E-02	1.106E-02	-0.221
HO-166M	-5.989E-03		3.500E-02	4.325E-02	3.962E-03	-0.138
TA-182	-7.653E-03		5.488E-02	8.670E-02	7.881E-03	-0.088
IR-192	2.258E-03		1.451E-02	2.424E-02	2.232E-03	0.093
HG-203	-7.503E-03		1.523E-02	2.461E-02	2.290E-03	-0.305
BI-207	1.456E-02		2.060E-02	3.602E-02	3.867E-03	0.404
TL-208	9.359E-03		1.873E-02	2.912E-02	2.729E-03	0.321
PB-210	-2.527E+00		1.589E+00	2.317E+00	2.210E-01	-1.091
BI-211	2.971E-02		9.187E-02	1.541E-01	1.476E-02	0.193
PB-211	1.858E-01		3.004E-01	4.904E-01	2.377E-01	0.379
BI-212	-4.767E-02		1.847E-01	2.998E-01	3.917E-02	-0.159
PB-212	-1.736E-02		3.442E-02	5.065E-02	5.051E-03	-0.343
BI-214	-1.192E-02		3.661E-02	5.343E-02	5.396E-03	-0.223
PB-214	1.149E-02		3.324E-02	5.582E-02	6.168E-03	0.206
RN-219	-4.395E-02		1.648E-01	2.648E-01	4.002E-02	-0.166
RA-223	-2.208E-02		2.558E-01	4.209E-01	7.418E-02	-0.052
RA-224	3.042E-01		2.730E-01	4.766E-01	4.229E-02	0.638
RA-226	-1.192E-02		3.661E-02	5.343E-02	5.396E-03	-0.223
AC-227	4.453E-02		1.035E-01	1.764E-01	2.172E-02	0.252
TH-227	4.453E-02		1.035E-01	1.764E-01	2.441E-02	0.252
AC-228	-3.534E-02		6.857E-02	9.124E-02	1.390E-02	-0.387
RA-228	-3.534E-02		6.857E-02	9.124E-02	1.390E-02	-0.387
TH-228	-1.736E-02		3.442E-02	5.065E-02	5.051E-03	-0.343
TH-229	2.037E-01		2.135E-01	3.569E-01	3.010E-02	0.571
TH-230	-1.192E-02		3.660E-02	5.342E-02	4.601E-03	-0.223
PA-231	3.917E-01		5.797E-01	9.958E-01	1.482E-01	0.393
TH-231	-2.208E-02		2.558E-01	4.209E-01	7.418E-02	-0.052
TH-232	-3.534E-02		6.857E-02	9.124E-02	1.390E-02	-0.387
PA-233	9.803E-03		2.795E-02	4.720E-02	4.444E-03	0.208
PA-234	5.780E-02		1.150E-01	1.978E-01	4.140E-02	0.292
PA-234M	-3.860E-01		2.080E+00	3.216E+00	4.137E-01	-0.120
TH-234	1.989E-01		5.925E-01	8.713E-01	1.574E-01	0.228
U-235	-1.272E-02		9.163E-02	1.316E-01	2.224E-02	-0.097
NP-237	8.849E-02		9.707E-02	1.435E-01	3.291E-02	0.617
U-238	1.989E-01		5.925E-01	8.713E-01	1.574E-01	0.228
NP-239	-3.081E-02		1.565E-01	2.514E-01	2.245E-02	-0.123
AM-241	-9.476E-02		5.773E-02	8.730E-02	7.534E-03	-1.085
CM-247	-2.755E-03		1.513E-02	2.448E-02	2.209E-03	-0.113
CF-249	-4.165E-03		1.600E-02	2.578E-02	2.324E-03	-0.162
CF-251	-5.726E-02		5.347E-02	8.024E-02	6.631E-03	-0.714
ANH-511	-1.433E-02		2.821E-02	4.552E-02	4.121E-03	-0.315

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065188          *
* Acquisition date : 24-MAR-2010 22:59:45 Detector SN#    :                *
* Detector ID      : GAM29                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 04:01:22.05     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202065188          Analyst initials: MXR1           *
* Batch Number     : 962633               Sample Quantity : 1.4370E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act Error	DLC (pCi/GRAM)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	4.447E-02	1.353E-01	1.184E-01	6.905E-02 NOT IDENT.
NA-22	-2.092E-06	1.461E-02	1.258E-02	7.453E-03 NOT IDENT.
NA-24	-2.708E+05	7.762E+05	0.000E+00	3.960E+05 SHORT HLIF
K-40	-4.044E-02	2.058E-01	1.715E-01	1.050E-01 NOT IDENT.
SC-46	-9.628E-03	1.613E-02	1.292E-02	8.229E-03 NOT IDENT.
V-48	-4.179E-03	2.572E-02	2.136E-02	1.312E-02 NOT IDENT.
CR-51	-6.487E-02	1.502E-01	1.284E-01	7.665E-02 NOT IDENT.
MN-54	1.374E-02	1.296E-02	1.218E-02	6.614E-03 NOT IDENT.
CO-56	-9.102E-03	1.717E-02	1.401E-02	8.763E-03 NOT IDENT.
CO-57	-6.051E-03	9.848E-03	8.366E-03	5.024E-03 NOT IDENT.
CO-58	-1.067E-02	1.414E-02	1.115E-02	7.214E-03 NOT IDENT.
FE-59	1.909E-02	3.187E-02	2.859E-02	1.626E-02 NOT IDENT.
CO-60	1.748E-02	1.492E-02	1.444E-02	7.614E-03 NOT IDENT.
ZN-65	-1.286E-03	3.443E-02	2.874E-02	1.757E-02 NOT IDENT.
SE-75	1.106E-02	1.766E-02	1.619E-02	9.012E-03 NOT IDENT.
SR-85	-4.163E-02	2.620E-02	2.046E-02	1.337E-02 NOT IDENT.
Y-88	-1.055E-02	1.569E-02	1.144E-02	8.007E-03 NOT IDENT.
Y-91	-8.383E-01	7.123E+00	5.842E+00	3.634E+00 NOT IDENT.
NB-94	4.069E-03	1.351E-02	1.202E-02	6.894E-03 NOT IDENT.
NB-95	1.099E-02	1.606E-02	1.463E-02	8.193E-03 NOT IDENT.
NB-95M	-7.634E-02	5.165E-02	4.266E-02	2.635E-02 NOT IDENT.
ZR-95	-1.520E-03	2.684E-02	2.309E-02	1.369E-02 NOT IDENT.
MO-99	2.823E+00	5.512E+00	4.986E+00	2.812E+00 NOT IDENT.
TC-99M	-3.517E+16	1.670E+17	0.000E+00	0.000E+00 SHORT HLIF
RU-103	-6.258E-03	1.699E-02	1.405E-02	8.667E-03 NOT IDENT.
RH-106	-6.571E-02	1.292E-01	1.087E-01	6.589E-02 NOT IDENT.

RU-106	-6.571E-02	1.290E-01	1.087E-01	6.581E-02	NOT IDENT.
AG-108M	2.998E-03	1.111E-02	9.761E-03	5.671E-03	NOT IDENT.
CD-109	-6.119E-01	3.315E-01	2.366E-01	1.691E-01	NOT IDENT.
AG-110M	7.019E-03	1.323E-02	1.205E-02	6.752E-03	NOT IDENT.
SN-113	-3.263E-03	1.820E-02	1.559E-02	9.286E-03	NOT IDENT.
CD-115	2.372E+00	5.714E+00	5.020E+00	2.915E+00	NOT IDENT.
SN-117M	5.880E-03	2.135E-02	1.874E-02	1.089E-02	NOT IDENT.
TE-123M	-1.452E-03	1.099E-02	9.442E-03	5.606E-03	NOT IDENT.
SB-124	9.078E-03	3.479E-02	3.045E-02	1.775E-02	NOT IDENT.
SB-125	-8.882E-03	3.562E-02	3.011E-02	1.817E-02	NOT IDENT.
TE-125M	-3.711E+00	3.724E+00	3.108E+00	1.900E+00	NOT IDENT.
I-126	9.224E-03	8.281E-02	7.299E-02	4.225E-02	NOT IDENT.
SB-126	-3.690E-02	5.452E-02	4.425E-02	2.782E-02	NOT IDENT.
SN-126	-2.509E-02	3.145E-02	2.389E-02	1.605E-02	NOT IDENT.
SB-127	-7.514E-02	6.111E-01	5.270E-01	3.118E-01	NOT IDENT.
I-131	-4.238E-03	5.426E-02	4.704E-02	2.769E-02	NOT IDENT.
TE-132	9.357E-02	3.400E-01	3.086E-01	1.735E-01	NOT IDENT.
BA-133	-7.671E-03	1.856E-02	1.578E-02	9.468E-03	NOT IDENT.
I-133	-3.748E+03	4.796E+03	0.000E+00	2.447E+03	SHORT HLIF
CS-134	-2.862E-03	1.541E-02	1.302E-02	7.864E-03	NOT IDENT.
CS-135	3.162E-03	6.005E-02	5.347E-02	3.064E-02	NOT IDENT.
I-135	1.180E+15	2.027E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.396E-02	4.128E-02	3.779E-02	2.106E-02	NOT IDENT.
BA-137M	-5.400E-03	1.332E-02	1.124E-02	6.798E-03	NOT IDENT.
CS-137	-5.705E-03	1.408E-02	1.188E-02	7.182E-03	NOT IDENT.
CE-139	-1.062E-02	1.256E-02	1.036E-02	6.406E-03	NOT IDENT.
BA-140	-1.804E-02	1.063E-01	8.865E-02	5.426E-02	NOT IDENT.
LA-140	2.319E-02	3.543E-02	3.273E-02	1.808E-02	NOT IDENT.
CE-141	1.356E-02	2.517E-02	2.243E-02	1.284E-02	NOT IDENT.
CE-143	9.310E+01	7.823E+01	0.000E+00	3.991E+01	SHORT HLIF
CE-144	4.401E-03	7.454E-02	6.531E-02	3.803E-02	NOT IDENT.
PM-144	3.863E-03	1.409E-02	1.252E-02	7.191E-03	NOT IDENT.
PR-144	4.565E-01	1.043E+00	9.371E-01	5.321E-01	NOT IDENT.
PM-146	-4.587E-03	1.809E-02	1.524E-02	9.229E-03	NOT IDENT.
ND-147	-1.707E-01	2.313E-01	1.821E-01	1.180E-01	NOT IDENT.
PM-149	3.938E+00	4.887E+01	4.341E+01	2.493E+01	NOT IDENT.
EU-152	-1.697E-02	3.973E-02	3.380E-02	2.027E-02	NOT IDENT.
GD-153	-2.554E-02	3.595E-02	2.701E-02	1.834E-02	NOT IDENT.
EU-154	-1.679E-03	4.116E-02	3.526E-02	2.100E-02	NOT IDENT.
EU-155	-2.498E-04	3.893E-02	3.441E-02	1.986E-02	NOT IDENT.
TB-160	-1.909E-02	5.339E-02	4.389E-02	2.724E-02	NOT IDENT.
HO-166M	-5.989E-03	3.430E-02	2.210E-02	1.750E-02	NOT IDENT.
TA-182	-7.653E-03	5.378E-02	4.377E-02	2.744E-02	NOT IDENT.
IR-192	2.258E-03	1.422E-02	1.261E-02	7.253E-03	NOT IDENT.
HG-203	-7.503E-03	1.492E-02	1.283E-02	7.615E-03	NOT IDENT.
BI-207	1.456E-02	2.019E-02	1.824E-02	1.030E-02	NOT IDENT.
TL-208	9.359E-03	1.835E-02	1.495E-02	9.365E-03	NOT IDENT.
PB-210	-2.527E+00	1.557E+00	1.254E+00	7.943E-01	NOT IDENT.
BI-211	2.971E-02	9.003E-02	7.999E-02	4.593E-02	NOT IDENT.
PB-211	1.858E-01	2.944E-01	2.537E-01	1.502E-01	NOT IDENT.
BI-212	-4.767E-02	1.810E-01	1.531E-01	9.233E-02	NOT IDENT.
PB-212	-1.736E-02	3.374E-02	2.651E-02	1.721E-02	NOT IDENT.
BI-214	-1.192E-02	3.588E-02	2.739E-02	1.830E-02	NOT IDENT.
PB-214	1.149E-02	3.258E-02	2.897E-02	1.662E-02	NOT IDENT.
RN-219	-4.395E-02	1.615E-01	1.370E-01	8.241E-02	NOT IDENT.
RA-223	-2.208E-02	2.507E-01	2.188E-01	1.279E-01	NOT IDENT.
RA-224	3.042E-01	2.675E-01	2.493E-01	1.365E-01	NOT IDENT.
RA-226	-1.192E-02	3.588E-02	2.739E-02	1.830E-02	NOT IDENT.
AC-227	4.453E-02	1.014E-01	9.218E-02	5.174E-02	NOT IDENT.
TH-227	4.453E-02	1.014E-01	9.218E-02	5.176E-02	NOT IDENT.
AC-228	-3.534E-02	6.720E-02	4.637E-02	3.428E-02	NOT IDENT.
RA-228	-3.534E-02	6.720E-02	4.637E-02	3.428E-02	NOT IDENT.
TH-228	-1.736E-02	3.374E-02	2.651E-02	1.721E-02	NOT IDENT.
TH-229	2.037E-01	2.092E-01	1.876E-01	1.067E-01	NOT IDENT.
TH-230	-1.192E-02	3.587E-02	2.739E-02	1.830E-02	NOT IDENT.
PA-231	3.917E-01	5.681E-01	5.192E-01	2.898E-01	NOT IDENT.
TH-231	-2.208E-02	2.507E-01	2.188E-01	1.279E-01	NOT IDENT.
TH-232	-3.534E-02	6.720E-02	4.637E-02	3.428E-02	NOT IDENT.
PA-233	9.803E-03	2.739E-02	2.456E-02	1.398E-02	NOT IDENT.
PA-234	5.780E-02	1.127E-01	1.004E-01	5.751E-02	NOT IDENT.
PA-234M	-3.860E-01	2.038E+00	1.631E+00	1.040E+00	NOT IDENT.
TH-234	1.989E-01	5.806E-01	4.686E-01	2.962E-01	NOT IDENT.
U-235	-1.272E-02	8.979E-02	6.959E-02	4.581E-02	NOT IDENT.
NP-237	8.849E-02	9.512E-02	7.668E-02	4.853E-02	NOT IDENT.
U-238	1.989E-01	5.806E-01	4.686E-01	2.962E-01	NOT IDENT.
NP-239	-3.081E-02	1.534E-01	1.335E-01	7.824E-02	NOT IDENT.
AM-241	-9.476E-02	5.657E-02	4.701E-02	2.886E-02	NOT IDENT.
CM-247	-2.755E-03	1.483E-02	1.266E-02	7.566E-03	NOT IDENT.

CF-249	-4.165E-03	1.568E-02	1.335E-02	8.001E-03	NOT IDENT.
CF-251	-5.726E-02	5.240E-02	4.225E-02	2.674E-02	NOT IDENT.
ANH-511	-1.433E-02	2.764E-02	2.343E-02	1.410E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	202.4697
49.72	267.2739
57.36	0.0000
59.54	291.1522
63.29	220.8324
63.29	220.8324
64.28	221.1543
67.75	264.9304
69.67	243.7598
70.83	277.0381
72.81	265.8001
72.87	265.8214
72.87	265.8214
74.82	235.4608
74.82	235.4608
74.82	235.4608
74.97	235.5083
77.11	275.3724
77.11	275.3724
77.11	275.3724
79.69	250.0804
79.80	250.1154
80.12	250.2185
80.19	265.3767
80.57	265.5052
81.00	268.6819
81.07	268.7052
81.07	268.7052
83.79	279.7661
83.79	279.7661
85.43	203.1425
86.48	214.5923
86.55	214.6108
86.79	254.3526
86.94	254.4003
87.57	271.9083
88.03	315.8749
88.47	408.8167
89.96	476.9584
91.11	269.9992
92.59	183.3879
92.59	183.3879
93.35	216.3655
94.67	265.9951
94.87	360.5628
94.87	360.5628
95.86	451.4762
97.43	236.9629
98.44	222.7945
99.53	218.9380
100.11	206.6803
103.18	200.1275
103.37	196.0209
105.31	215.1452
106.12	221.5763
109.28	243.2037
111.00	188.2253
111.76	187.3288
116.30	241.8359
117.23	219.9641
121.12	233.5066
121.78	218.8581
122.06	228.4371
123.07	211.7271
131.20	236.8743
133.52	202.1045
136.00	211.1477

136.47	216.6007
140.51	223.8628
140.51	0.0000
143.76	213.7256
144.24	221.3769
144.24	221.3769
145.44	216.2079
152.43	168.5911
153.25	174.1528
154.21	194.9933
154.21	194.9933
156.02	202.9323
158.56	183.6885
159.00	203.4446
162.66	199.6790
163.33	206.3766
165.86	250.8066
176.60	223.0197
177.52	228.7324
181.07	298.3982
184.41	233.3040
185.72	207.8380
193.51	176.4633
197.04	205.5465
205.31	201.3379
210.85	187.5601
215.65	195.4970
222.11	190.8588
227.38	168.5155
228.16	174.1317
228.18	174.1340
235.69	259.2563
235.96	259.3025
235.96	259.3025
238.63	179.9710
238.63	179.9710
240.99	207.1896
242.00	304.9435
244.70	189.9874
252.40	163.7720
252.80	161.9404
256.23	157.5948
256.23	157.5948
260.90	174.0405
264.66	142.3791
268.22	154.0242
269.46	168.3243
269.46	168.3243
271.23	159.0340
273.65	155.4717
276.40	140.5314
277.37	140.6108
277.60	144.4315
278.00	153.0188
279.20	154.0780
279.54	148.3999
280.46	151.3353
283.69	131.5936
284.31	131.6407
285.41	139.3594
285.90	149.9013
287.50	156.7289
293.27	0.0000
295.22	154.5380
295.96	181.4903
298.57	162.5222
299.98	162.6501
299.98	162.6501
300.09	160.7334
300.09	160.7334
300.13	160.7375
301.36	140.6212
302.85	154.2324
304.50	165.9510
304.50	165.9510
304.85	164.0525
308.46	156.6429
311.90	144.3438

316.51	133.0482
319.41	125.4742
320.08	136.2214
323.87	129.6718
323.87	129.6718
328.76	135.8694
333.37	129.3381
334.37	134.3075
334.37	134.3075
338.28	115.9143
338.28	115.9143
338.32	115.9157
338.32	115.9157
338.32	115.9157
340.48	126.8615
340.55	125.8828
344.28	136.9605
351.06	148.3063
351.93	146.3921
356.01	153.6282
364.49	133.3686
366.42	129.5096
383.85	119.5447
388.16	108.7146
388.63	99.6768
391.69	113.9352
400.66	112.3821
401.81	109.4027
402.40	108.4185
404.85	94.3385
410.95	100.7016
414.70	97.8141
423.72	80.8159
427.09	100.4010
427.87	96.3362
433.94	80.1500
453.88	108.8157
463.37	89.4791
468.07	84.4409
473.00	97.1460
476.78	108.8039
477.60	88.9564
487.02	75.6378
492.35	91.5900
497.08	94.9252
511.00	100.7462
514.00	314.2669
527.90	64.0415
529.87	0.0000
531.02	80.1471
537.26	70.6938
546.56	0.0000
563.25	87.5931
569.33	94.2875
569.50	83.4555
569.70	83.4612
583.19	64.2590
600.60	104.0988
602.73	96.4992
604.72	123.9965
609.32	89.0229
609.32	89.0229
609.32	89.0229
610.33	92.3528
614.28	99.0813
618.01	81.7553
621.93	83.7018
621.93	83.7018
633.25	69.2474
635.95	81.3237
636.99	72.1062
645.85	63.0458
657.76	58.6382
661.66	68.9625
661.66	68.9625
664.57	0.0000
666.33	57.8664
666.50	55.0700

677.62	58.0758
685.70	67.6143
695.00	78.1722
696.49	72.5541
696.51	68.7850
697.00	73.5090
702.65	69.8613
706.68	67.1114
711.68	64.3753
720.70	61.7045
721.93	0.0000
722.78	52.2440
722.91	49.3964
723.31	45.6025
724.19	47.5149
727.33	58.0227
733.00	46.6882
735.93	61.0339
739.50	44.8695
747.24	61.2396
752.31	53.6644
753.82	58.4819
756.73	53.7339
763.94	58.6557
765.81	54.8395
766.42	49.0753
777.92	59.8582
778.90	58.9088
783.70	54.1554
785.37	55.1480
795.86	45.6087
801.95	50.5474
810.29	57.4863
810.76	51.6467
815.77	47.8157
818.51	49.8047
832.01	51.9508
834.85	35.3145
836.80	0.0000
846.77	68.8892
856.80	69.0757
860.56	44.4507
871.09	42.5941
873.19	53.5199
875.33	0.0000
879.36	48.6431
880.51	54.6151
883.24	44.7171
884.68	45.7286
889.28	57.7262
898.04	48.8804
911.20	39.0365
911.20	39.0365
911.20	39.0365
926.50	36.1743
937.49	35.2670
944.13	42.3905
946.00	37.3613
949.00	50.5259
962.29	55.7609
964.08	53.7570
966.15	39.5776
968.97	35.5426
968.97	35.5426
968.97	35.5426
983.53	36.6877
996.26	47.0229
1001.03	38.8891
1004.73	53.2642
1037.84	25.8077
1038.76	0.0000
1048.07	31.0425
1050.41	32.0949
1050.41	32.0949
1063.66	35.3074
1085.87	29.2236
1099.45	29.3125
1112.07	39.8926

1115.54	47.2778
1120.29	49.4307
1120.29	49.4307
1120.29	49.4307
1120.55	48.3827
1121.30	47.3383
1131.51	0.0000
1173.23	26.5951
1177.93	28.7512
1189.05	26.6846
1204.77	35.3391
1221.41	25.7900
1231.02	27.9942
1235.36	35.5620
1238.28	34.5052
1260.41	0.0000
1271.85	28.8463
1274.44	29.7924
1274.54	29.7924
1291.59	36.4333
1298.22	0.0000
1312.11	22.5109
1332.49	19.7747
1365.19	30.3214
1368.63	0.0000
1384.29	22.8231
1408.01	15.2829
1457.56	0.0000
1460.82	26.0395
1489.16	17.4475
1505.03	33.0490
1596.21	15.7980
1620.50	22.8019
1678.03	0.0000
1690.97	16.0458
1764.49	17.2478
1764.49	17.2478
1764.49	17.2478
1770.23	35.5420
1771.35	26.4072
1791.20	0.0000
1836.06	20.5155

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065188

Total Uranium Activity	5.8577E-01	ug/g
Total Uranium Counting Unc.	1.7279E+00	ug/g
Total Uranium Tpu	8.8156E-07	ug/g
Total Uranium Mda	1.3945E+00	ug/g

THERE ARE NO PEAKS !

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:02:26.60

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 23:00:25
Sample ID         : G1202065189          Sample quantity  : 1.22070E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:50.22  0.3%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.64*	552	737	0.66	93.27	90	7	3.83E-02	9.3	
2	0	63.32	350	1140	0.80	126.61	123	8	2.43E-02	17.5	
3	3	74.87*	1388	627	0.69	149.69	148	17	9.64E-02	3.7	1.49E+00
4	3	77.13*	2112	560	0.69	154.20	148	17	1.47E-01	2.7	
5	8	84.29	346	922	1.31	168.52	165	27	2.40E-02	15.5	6.37E+00
6	8	87.30*	885	753	1.21	174.54	165	27	6.15E-02	6.1	
7	8	89.90	456	500	0.83	179.74	165	27	3.17E-02	8.9	
8	8	93.09*	857	827	1.54	186.11	165	27	5.95E-02	7.3	
9	0	99.35	86	678	0.85	198.64	195	8	5.99E-03	53.6	
10	0	128.90	140	664	0.94	257.71	255	8	9.71E-03	33.0	
11	0	154.10	121	551	1.09	308.09	305	8	8.43E-03	34.7	
12	0	185.86*	455	654	1.06	371.58	367	10	3.16E-02	11.8	
13	1	209.03	241	275	0.97	417.90	413	14	1.67E-02	12.6	2.59E+00
14	1	211.67	70	286	1.02	423.18	413	14	4.86E-03	39.5	
15	7	238.55*	2375	210	0.89	476.91	474	15	1.65E-01	2.3	3.85E+00
16	7	241.50	535	388	1.73	482.82	474	15	3.72E-02	9.2	
17	0	270.08*	146	277	1.53	539.96	536	8	1.02E-02	21.9	
18	0	277.26	113	266	1.01	554.31	551	8	7.88E-03	26.7	
19	0	295.07*	706	238	0.89	589.92	585	10	4.90E-02	5.7	
20	0	299.88	132	239	0.99	599.55	596	8	9.20E-03	21.9	
21	0	327.96	114	221	0.99	655.68	652	8	7.89E-03	24.6	
22	0	338.11	405	287	1.02	675.98	671	11	2.82E-02	9.5	
23	0	351.87*	991	240	1.13	703.48	699	9	6.89E-02	4.3	
24	0	410.14	71	228	1.66	820.01	815	10	4.93E-03	41.6	
25	0	462.58	119	182	1.17	924.87	920	11	8.23E-03	23.9	
26	0	510.82*	197	248	1.52	1021.35	1014	16	1.37E-02	21.7	
27	0	583.13*	574	131	1.22	1165.96	1159	13	3.98E-02	6.0	
28	0	609.11*	744	153	1.30	1217.92	1211	13	5.17E-02	5.2	
29	0	661.74*	98	159	1.36	1323.18	1317	12	6.77E-03	28.2	
30	0	727.18	145	103	1.39	1454.07	1448	11	1.00E-02	16.0	
31	0	768.11	59	71	1.28	1535.94	1532	8	4.08E-03	28.1	
32	0	795.09	70	70	0.93	1589.90	1585	11	4.86E-03	26.2	
33	0	860.35	60	58	1.81	1720.46	1716	8	4.18E-03	25.4	
34	0	911.10	377	92	1.49	1821.98	1817	13	2.62E-02	7.3	
35	4	964.65	86	50	2.37	1929.11	1924	20	6.00E-03	19.9	1.05E+00
36	4	968.79	214	68	1.90	1937.39	1924	20	1.48E-02	10.0	
37	0	1120.31*	127	103	1.40	2240.56	2235	14	8.79E-03	19.6	
38	0	1460.56*	1652	29	1.97	2921.49	2914	17	1.15E-01	2.6	

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1508.85	27	4	2.21	3018.15	3014	8	1.88E-03	23.1	
40	2	1587.81	37	16	2.40	3176.22	3168	23	2.56E-03	24.9	1.26E+00
41	2	1592.31	40	5	2.40	3185.22	3168	23	2.81E-03	23.1	
42	0	1729.10*	25	14	1.12	3459.06	3452	14	1.72E-03	38.7	
43	0	1764.43*	85	7	1.71	3529.81	3522	16	5.89E-03	14.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 25-MAR-2010 03:02:30

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 23:00:25
Sample ID : G1202065189 Sample quantity : 122.07 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA21 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:00:50.22 0.3%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.308E+01	3.301E+00	4.821E-01	4.116E-02	68.620
CD-109	+	88.03	*	4.658E+00	7.132E-01	5.051E-01	4.753E-02	9.222
SN-126	+	64.28		6.852E-01	2.606E-01	2.152E-01	3.189E-02	3.184
	+	86.94		1.880E+00	8.133E-01	2.031E-01	8.429E-02	9.260
	+	87.57	*	4.523E-01	6.926E-02	4.896E-02	4.590E-03	9.238
BA-137M	+	661.66	*	1.069E-01	6.140E-02	5.681E-02	6.275E-03	1.882
CS-137	+	661.66	*	1.129E-01	6.487E-02	6.002E-02	6.636E-03	1.882
TL-208	+	277.37		6.952E-01	3.811E-01	4.263E-01	5.430E-02	1.631
	+	583.19	*	5.839E-01	9.423E-02	4.576E-02	4.981E-03	12.760
	+	860.56		6.159E-01	3.192E-01	4.200E-01	4.167E-02	1.467
PB-210	+	46.54	*	2.719E+00	5.690E-01	4.482E-01	4.239E-02	6.066
BI-211		72.87		1.059E+00	1.193E+00	1.860E+00	1.557E-01	0.569
	+	351.06	*	3.938E+00	4.930E-01	2.429E-01	2.192E-02	16.215
PB-212	+	74.82		2.509E+00	3.732E-01	2.141E-01	2.764E-02	11.718
	+	77.11		2.298E+00	2.342E-01	1.294E-01	1.116E-02	17.752
	+	238.63	*	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
	+	300.09		1.753E+00	7.914E-01	9.200E-01	9.922E-02	1.905
BI-214	+	609.32	*	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
	+	1120.29		1.404E+00	5.705E-01	4.649E-01	5.015E-02	3.020
	+	1764.49		1.426E+00	4.285E-01	2.975E-01	2.474E-02	4.791
PB-214	+	74.82		4.448E+00	6.122E-01	3.796E-01	4.408E-02	11.718
	+	77.11		4.050E+00	5.311E-01	2.282E-01	2.723E-02	17.752
	+	242.00		2.618E+00	5.558E-01	3.735E-01	3.963E-02	7.011
	+	295.22		1.648E+00	2.605E-01	1.463E-01	1.616E-02	11.266
	+	351.93	*	1.429E+00	1.955E-01	8.840E-02	9.345E-03	16.167
RA-224	+	240.99	*	4.630E+00	9.454E-01	6.574E-01	5.842E-02	7.043
RA-226	+	609.32	*	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
	+	1120.29		1.404E+00	5.705E-01	4.649E-01	5.015E-02	3.020
	+	1764.49		1.426E+00	4.285E-01	2.975E-01	2.474E-02	4.791
AC-228	+	338.32		1.772E+00	8.122E-01	2.552E-01	1.065E-01	6.946
	+	911.20	*	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
	+	968.97		1.944E+00	6.143E-01	3.729E-01	9.102E-02	5.212
RA-228	+	338.32		1.772E+00	8.122E-01	2.552E-01	1.065E-01	6.946
	+	911.20	*	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		1.944E+00	6.143E-01	3.729E-01	9.102E-02	5.212
TH-228	+	74.82		2.509E+00	2.838E-01	2.141E-01	1.834E-02	11.718
	+	77.11		2.298E+00	2.342E-01	1.294E-01	1.116E-02	17.752
	+	238.63	*	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
	+	300.09		1.753E+00	1.320E+00	9.200E-01	5.636E-01	1.905
TH-229	+	85.43		4.425E-01	1.431E-01	1.223E-01	1.126E-02	3.619
	+	88.47		6.973E-01	1.068E-01	7.575E-02	7.142E-03	9.206
		193.51	*	-2.275E-01	3.339E-01	5.488E-01	4.659E-02	-0.415
	+	210.85		7.865E-01	6.258E-01	8.998E-01	7.805E-02	0.874
TH-230	+	609.32	*	1.479E+00	2.193E-01	1.002E-01	1.064E-02	14.766
	+	1120.29		1.404E+00	5.627E-01	4.649E-01	3.929E-02	3.020
	+	1764.49		1.426E+00	4.284E-01	2.975E-01	2.474E-02	4.791
TH-232	+	338.32		1.772E+00	3.693E-01	2.552E-01	2.225E-02	6.946
	+	911.20	*	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
	+	968.97		1.944E+00	6.143E-01	3.729E-01	9.102E-02	5.212
TH-234	+	63.29	*	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
	+	92.59		3.887E+00	1.042E+00	4.371E-01	9.832E-02	8.894
U-235	+	89.96		2.498E+00	7.645E-01	5.270E-01	1.314E-01	4.741
	+	93.35		2.936E+00	8.120E-01	3.312E-01	7.786E-02	8.865
		143.76	*	1.100E-01	1.338E-01	2.091E-01	3.701E-02	0.526
		163.33		1.339E-01	2.588E-01	4.480E-01	7.989E-02	0.299
	+	185.72		2.243E-01	5.607E-02	4.151E-02	3.484E-03	5.402
		205.31		-3.362E-02	3.294E-01	4.946E-01	8.974E-02	-0.068
NP-237	+	86.48	*	1.350E+00	3.504E-01	1.455E-01	3.337E-02	9.276
		95.86		1.856E-01	5.062E-01	6.727E-01	1.644E-01	0.276
U-238	+	63.29	*	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
	+	92.59		3.887E+00	6.795E-01	4.371E-01	4.207E-02	8.894
ANH-511	+	511.00	*	1.489E-01	6.629E-02	3.937E-02	3.775E-03	3.781

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	5.292E-02	2.715E-01	4.604E-01	4.510E-02	0.115
NA-22		1274.54	*	-1.556E-03	4.226E-02	6.780E-02	5.562E-03	-0.023
NA-24		1368.63	*	-8.318E+01	4.226E-02	Half-Life too short		
SC-46		889.28	*	1.971E-02	3.822E-02	6.623E-02	5.889E-03	0.298
	+	1120.55		2.463E-01	9.870E-02	1.302E-01	1.101E-02	1.891
V-48		944.13		-7.994E-01	1.035E+00	1.609E+00	1.410E-01	-0.497
		983.53	*	3.861E-02	8.415E-02	1.440E-01	1.260E-02	0.268
		1312.11		-1.883E-02	1.097E-01	1.732E-01	1.411E-02	-0.109
CR-51		320.08	*	-2.034E-01	3.022E-01	4.699E-01	4.365E-02	-0.433
MN-54		834.85	*	-1.687E-03	3.282E-02	5.493E-02	5.324E-03	-0.031
CO-56		846.77	*	6.398E-03	3.581E-02	6.091E-02	5.806E-03	0.105
		1037.84		-1.535E-01	3.144E-01	4.954E-01	4.519E-02	-0.310
		1238.28		5.210E-02	1.035E-01	1.725E-01	1.464E-02	0.302
		1771.35		4.264E-02	2.568E-01	3.741E-01	3.108E-02	0.114
CO-57		122.06	*	-9.237E-03	1.481E-02	2.271E-02	2.609E-03	-0.407
		136.47		-2.357E-02	1.249E-01	1.938E-01	2.146E-02	-0.122

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-58		810.76	*	-1.424E-02	3.502E-02	5.711E-02	5.715E-03	-0.249
FE-59		1099.45	*	-3.716E-02	9.604E-02	1.518E-01	1.401E-02	-0.245
		1291.59		-6.168E-02	1.388E-01	2.134E-01	2.005E-02	-0.289
CO-60		1173.23		-5.779E-03	4.700E-02	7.560E-02	6.230E-03	-0.076
		1332.49	*	-8.831E-04	3.383E-02	5.659E-02	4.593E-03	-0.016
ZN-65		1115.54	*	-4.955E-04	1.110E-01	1.566E-01	1.328E-02	-0.003
SE-75		121.12		-6.611E-02	7.786E-02	1.178E-01	1.576E-02	-0.561
		136.00		-2.771E-02	2.460E-02	3.632E-02	3.861E-03	-0.763
		264.66	*	-1.302E-02	2.985E-02	4.802E-02	4.312E-03	-0.271
		279.54		4.763E-03	8.577E-02	1.192E-01	1.101E-02	0.040
		400.66		3.553E-02	2.124E-01	3.399E-01	3.630E-02	0.105
SR-85		514.00	*	2.077E-02	3.530E-02	5.415E-02	5.210E-03	0.384
Y-88		898.04		-8.581E-03	4.371E-02	7.008E-02	6.160E-03	-0.122
		1836.06	*	2.893E-02	3.540E-02	6.532E-02	5.393E-03	0.443
Y-91		1204.77	*	-8.734E-02	2.542E+01	4.116E+01	3.391E+00	-0.002
NB-94		702.65	*	-1.641E-02	3.242E-02	5.046E-02	5.496E-03	-0.325
		871.09		2.977E-02	3.136E-02	5.600E-02	5.140E-03	0.532
NB-95		765.81	*	2.001E-02	4.798E-02	6.984E-02	7.299E-03	0.287
NB-95M		235.69	*	4.864E-02	9.064E-02	1.387E-01	1.400E-02	0.351
ZR-95		724.19		5.194E-02	1.045E-01	1.540E-01	1.749E-02	0.337
		756.73	*	-8.187E-03	7.409E-02	1.179E-01	1.329E-02	-0.069
MO-99		140.51		1.460E+01	4.160E+01	6.566E+01	1.601E+01	0.222
		181.07		-1.487E+01	3.522E+01	5.252E+01	9.799E+00	-0.283
		366.42		-5.710E+01	2.199E+02	3.455E+02	2.898E+01	-0.165
		739.50	*	-2.756E+01	3.474E+01	5.171E+01	8.771E+00	-0.533
		777.92		-1.031E+02	1.020E+02	1.480E+02	1.530E+01	-0.697
TC-99M		140.51	*	1.507E+15	1.020E+02	Half-Life too short		
RU-103		497.08	*	-4.041E-03	3.496E-02	5.799E-02	8.392E-03	-0.070
	+	610.33		1.650E+01	3.352E+00	2.922E+00	5.110E-01	5.647
RH-106		621.93	*	2.005E-01	2.717E-01	4.652E-01	6.845E-02	0.431
		1050.41		9.697E-01	2.583E+00	4.368E+00	3.777E-01	0.222
RU-106		621.93	*	2.005E-01	2.709E-01	4.652E-01	4.991E-02	0.431
		1050.41		9.697E-01	2.583E+00	4.368E+00	3.777E-01	0.222
AG-108M		433.94	*	1.199E-02	2.328E-02	4.041E-02	3.578E-03	0.297
		614.28		3.466E-02	3.297E-02	5.179E-02	5.642E-03	0.669
		722.91		-1.148E-02	4.120E-02	5.633E-02	6.196E-03	-0.204
AG-110M		657.76	*	1.921E-03	3.529E-02	5.053E-02	5.668E-03	0.038
		677.62		-2.419E-02	3.023E-01	4.877E-01	5.458E-02	-0.050
		706.68		1.916E-01	2.054E-01	3.514E-01	3.890E-02	0.545
		763.94		7.500E-02	1.725E-01	2.520E-01	2.687E-02	0.298
		884.68		-2.682E-02	4.348E-02	6.875E-02	6.348E-03	-0.390
		937.49		-7.407E-02	1.136E-01	1.793E-01	1.627E-02	-0.413
		1384.29		5.574E-02	1.456E-01	2.533E-01	2.137E-02	0.220
		1505.03		1.609E-01	2.603E-01	4.175E-01	3.474E-02	0.385
SN-113		391.69	*	-2.679E-02	3.762E-02	5.700E-02	4.694E-03	-0.470
CD-115		260.90		-2.042E-04	3.762E-02	Half-Life too short		
		492.35		7.916E-05	3.762E-02	Half-Life too short		
		527.90	*	7.571E-06	3.762E-02	Half-Life too short		
SN-117M		156.02		3.988E-01	1.791E+00	2.799E+00	2.526E-01	0.142

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		158.56	*	-1.996E-02	4.490E-02	6.659E-02	5.862E-03	-0.300
TE-123M		159.00	*	-5.911E-03	1.816E-02	2.867E-02	2.527E-03	-0.206
SB-124		602.73		1.050E-02	3.968E-02	5.846E-02	6.174E-03	0.180
		645.85		-3.995E-02	4.432E-01	7.175E-01	8.122E-02	-0.056
		722.78		-1.278E-01	4.349E-01	5.937E-01	6.492E-02	-0.215
		1690.97	*	1.140E-02	8.283E-02	1.385E-01	1.209E-02	0.082
SB-125		427.87	*	-7.887E-02	7.205E-02	1.142E-01	9.877E-03	-0.691
	+	463.37		7.747E-01	3.771E-01	4.562E-01	4.382E-02	1.698
		600.60		-1.804E-02	1.597E-01	2.603E-01	2.881E-02	-0.069
		635.95		7.166E-02	2.327E-01	3.884E-01	4.432E-02	0.185
TE-125M		109.28	*	5.010E-01	5.511E+00	8.811E+00	1.072E+00	0.057
I-126		388.63		-1.880E-02	1.673E-01	2.639E-01	2.113E-02	-0.071
		666.33	*	3.679E-02	2.976E-01	4.280E-01	4.722E-02	0.086
		753.82		2.858E-01	2.253E+00	3.651E+00	3.852E-01	0.078
SB-126		414.70		4.458E-02	8.027E-02	1.253E-01	1.039E-02	0.356
		666.50		1.673E-02	1.027E-01	1.483E-01	1.636E-02	0.113
		695.00		-5.110E-02	9.027E-02	1.396E-01	1.525E-02	-0.366
		697.00		-1.547E-01	3.125E-01	4.863E-01	5.309E-02	-0.318
		720.70	*	1.016E-01	1.833E-01	2.863E-01	3.089E-02	0.355
		856.80		4.486E-01	5.789E-01	9.149E-01	8.591E-02	0.490
SB-127		252.40		5.598E+00	7.050E+00	1.137E+01	4.776E+00	0.492
		473.00		2.363E+00	2.797E+00	4.893E+00	7.005E-01	0.483
		685.70	*	3.703E+00	2.908E+00	5.031E+00	7.264E-01	0.736
		783.70		9.306E-01	7.185E+00	1.160E+01	1.711E+00	0.080
I-131		80.19		-3.411E+00	2.983E+00	4.283E+00	3.820E-01	-0.796
		284.31		-9.521E-02	1.482E+00	2.415E+00	2.266E-01	-0.039
		364.49	*	2.967E-02	1.261E-01	2.045E-01	1.825E-02	0.145
		636.99		1.427E+00	1.949E+00	3.343E+00	3.771E-01	0.427
TE-132		49.72		1.705E+00	5.475E+00	8.645E+00	1.051E+00	0.197
		111.76		3.685E+01	4.590E+01	7.488E+01	1.041E+01	0.492
		116.30		5.491E+01	4.255E+01	6.974E+01	9.867E+00	0.787
		228.16	*	-9.806E-01	1.239E+00	1.978E+00	3.336E-01	-0.496
BA-133		81.00		-6.013E-02	4.324E-02	6.018E-02	9.427E-03	-0.999
	+	276.40		6.431E-01	3.550E-01	4.738E-01	6.775E-02	1.357
		302.85		4.562E-02	1.091E-01	1.627E-01	2.157E-02	0.280
		356.01	*	2.983E-02	3.349E-02	5.089E-02	6.561E-03	0.586
		383.85		-1.405E-01	2.300E-01	3.508E-01	4.234E-02	-0.400
I-133		529.87	*	-6.207E-02	2.300E-01	Half-Life too short		
		875.33		-1.068E+00	2.300E-01	Half-Life too short		
		1298.22		3.051E-01	2.300E-01	Half-Life too short		
CS-134		563.25		2.169E-01	3.042E-01	5.242E-01	5.369E-02	0.414
		569.33		-1.239E-01	1.635E-01	2.471E-01	2.553E-02	-0.502
		604.72		-8.163E-03	3.263E-02	4.581E-02	4.854E-03	-0.178
	+	795.86	*	1.096E-01	5.859E-02	8.032E-02	8.199E-03	1.364
		801.95		6.988E-03	3.850E-01	6.150E-01	6.231E-02	0.011
		1365.19		8.671E-01	1.162E+00	2.091E+00	1.796E-01	0.415
CS-135		268.22	*	1.258E-01	1.188E-01	1.831E-01	1.875E-02	0.687
I-135		546.56		-4.109E+13	1.188E-01	Half-Life too short		
		836.80		1.763E+14	1.188E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1038.76		-5.573E+14	1.188E-01	Half-Life too short		
		1131.51		2.101E+13	1.188E-01	Half-Life too short		
		1260.41	*	4.587E+14	1.188E-01	Half-Life too short		
		1457.56		5.113E+16	1.188E-01	Half-Life too short		
		1678.03		4.439E+14	1.188E-01	Half-Life too short		
		1791.20		3.148E+14	1.188E-01	Half-Life too short		
CS-136	+	153.25		1.448E+00	1.016E+00	1.157E+00	1.251E-01	1.252
		176.60		1.364E-01	3.725E-01	6.409E-01	5.897E-02	0.213
		273.65		3.875E-01	5.724E-01	7.083E-01	6.829E-02	0.547
		340.55		1.400E-02	1.513E-01	2.183E-01	1.970E-02	0.064
		818.51		-9.439E-03	8.022E-02	1.338E-01	1.326E-02	-0.071
		1048.07	*	-5.081E-02	1.362E-01	2.168E-01	1.956E-02	-0.234
		1235.36		4.398E-01	8.063E-01	1.347E+00	1.547E-01	0.326
CE-139		165.86	*	-1.466E-03	1.825E-02	3.107E-02	2.526E-03	-0.047
BA-140		162.66		4.953E-02	6.027E-01	1.033E+00	9.323E-02	0.048
		304.85		-6.560E-01	1.266E+00	1.875E+00	5.506E-01	-0.350
		423.72		1.917E+00	2.037E+00	3.447E+00	1.132E+00	0.556
		537.26	*	-1.037E-01	2.844E-01	4.569E-01	1.565E-01	-0.227
LA-140	+	328.76		7.738E-01	3.878E-01	5.341E-01	4.955E-02	1.449
		487.02		1.514E-01	1.431E-01	2.529E-01	2.475E-02	0.599
		815.77		2.346E-01	3.536E-01	6.238E-01	6.749E-02	0.376
		1596.21	*	7.334E-02	1.018E-01	1.664E-01	1.392E-02	0.441
CE-141		145.44	*	-1.156E-02	4.375E-02	6.733E-02	6.751E-03	-0.172
CE-143		57.36		2.211E-03	4.375E-02	Half-Life too short		
		293.27	*	1.929E-03	4.375E-02	Half-Life too short		
		664.57		1.012E-02	4.375E-02	Half-Life too short		
		721.93		5.237E-03	4.375E-02	Half-Life too short		
CE-144		80.12		-1.295E+00	1.115E+00	1.599E+00	1.411E-01	-0.810
		133.52	*	6.507E-02	1.204E-01	1.923E-01	3.189E-02	0.338
PM-144		476.78		-3.715E-03	5.202E-02	8.687E-02	8.568E-03	-0.043
		618.01		-2.019E-02	2.861E-02	4.435E-02	4.831E-03	-0.455
		696.49	*	-2.446E-02	3.198E-02	4.863E-02	5.312E-03	-0.503
PR-144		696.51	*	-1.821E+00	2.400E+00	3.651E+00	3.987E-01	-0.499
		1489.16		-3.152E+00	1.121E+01	1.784E+01	1.482E+00	-0.177
PM-146		453.88	*	1.388E-02	3.327E-02	5.728E-02	6.175E-03	0.242
		633.25		-2.766E-01	1.244E+00	1.990E+00	7.713E-01	-0.139
		735.93		1.209E-02	1.323E-01	2.144E-01	6.159E-02	0.056
		747.24		7.701E-02	9.605E-02	1.622E-01	2.569E-02	0.475
ND-147	+	91.11		1.067E+00	2.181E-01	2.829E-01	2.888E-02	3.771
		319.41		-2.975E+00	3.279E+00	5.028E+00	4.452E-01	-0.592
		531.02	*	-1.449E-01	6.120E-01	1.000E+00	1.567E-01	-0.145
PM-149		285.90	*	-1.055E-04	6.120E-01	Half-Life too short		
EU-152		121.78		-3.397E-02	4.240E-02	6.440E-02	8.022E-03	-0.527
		244.70		1.102E-01	2.239E-01	3.418E-01	3.043E-02	0.322
		344.28	*	6.194E-02	7.127E-02	1.199E-01	1.099E-02	0.517
		778.90		-2.147E-01	2.406E-01	3.535E-01	3.651E-02	-0.607
	+	964.08		8.471E-01	3.451E-01	5.494E-01	4.814E-02	1.542
		1085.87		-3.109E-01	3.838E-01	5.828E-01	4.989E-02	-0.534
		1112.07		1.040E-01	3.146E-01	5.269E-01	4.468E-02	0.197

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		1408.01		2.461E-01	1.705E-01	3.242E-01	2.667E-02	0.759
GD-153		69.67		-2.143E-01	5.666E-01	9.215E-01	7.555E-02	-0.233
		97.43	*	-2.240E-03	5.054E-02	6.565E-02	6.485E-03	-0.034
		103.18		-8.740E-02	6.599E-02	9.052E-02	9.241E-03	-0.965
EU-154		123.07		3.778E-02	2.962E-02	4.850E-02	6.599E-03	0.779
		723.31		-6.404E-02	1.907E-01	2.592E-01	2.977E-02	-0.247
		873.19		1.408E-01	2.591E-01	4.504E-01	5.532E-02	0.313
		996.26		-2.241E-01	3.399E-01	5.265E-01	9.227E-02	-0.426
		1004.73		-5.835E-02	2.222E-01	3.593E-01	4.209E-02	-0.162
		1274.44	*	-3.064E-02	1.204E-01	1.890E-01	2.090E-02	-0.162
EU-155	+	86.55		5.494E-01	8.440E-02	9.530E-02	8.936E-03	5.765
		105.31	*	1.071E-01	5.775E-02	9.674E-02	1.008E-02	1.107
TB-160	+	86.79		1.518E+00	2.324E-01	2.754E-01	2.565E-02	5.510
		197.04		7.559E-02	3.570E-01	6.063E-01	5.172E-02	0.125
		215.65		-1.525E-01	5.752E-01	8.523E-01	7.430E-02	-0.179
	+	298.57		2.574E-01	1.152E-01	1.452E-01	1.296E-02	1.773
		879.36	*	-5.747E-03	1.194E-01	1.988E-01	1.799E-02	-0.029
		962.29		8.535E-01	5.639E-01	9.297E-01	8.146E-02	0.918
		966.15		9.983E-01	2.596E-01	4.898E-01	4.290E-02	2.038
		1177.93		1.139E-01	4.019E-01	6.663E-01	5.491E-02	0.171
		1271.85		-1.482E-01	7.620E-01	1.205E+00	9.876E-02	-0.123
HO-166M		80.57		-1.497E-01	1.208E-01	1.726E-01	1.529E-02	-0.867
	+	184.41		1.782E-01	4.454E-02	4.307E-02	3.608E-03	4.136
		280.46		1.429E-02	6.615E-02	9.308E-02	8.301E-03	0.154
	+	410.95		3.810E-01	3.188E-01	3.682E-01	3.033E-02	1.035
		711.68	*	-3.356E-02	5.628E-02	8.652E-02	9.381E-03	-0.388
		752.31		-1.090E-01	2.796E-01	4.356E-01	4.602E-02	-0.250
		810.29		-3.490E-02	5.183E-02	8.267E-02	8.262E-03	-0.422
TA-182		67.75		6.395E-03	3.503E-02	5.803E-02	4.703E-03	0.110
	+	100.11		1.345E-01	1.447E-01	1.521E-01	1.526E-02	0.884
		152.43		1.185E-01	2.471E-01	3.605E-01	3.363E-02	0.329
		222.11		8.180E-02	2.370E-01	4.009E-01	3.516E-02	0.204
	+	1121.30		6.756E-01	2.708E-01	3.530E-01	2.982E-02	1.914
		1189.05		-5.085E-02	3.457E-01	5.546E-01	4.570E-02	-0.092
		1221.41	*	-2.550E-01	2.285E-01	3.377E-01	2.780E-02	-0.755
		1231.02		7.543E-04	5.409E-01	8.742E-01	7.192E-02	0.001
IR-192	+	295.96		1.270E+00	1.834E-01	2.385E-01	2.143E-02	5.324
		308.46		-1.074E-02	6.820E-02	1.097E-01	9.814E-03	-0.098
		316.51	*	-4.150E-03	2.693E-02	4.326E-02	3.844E-03	-0.096
		468.07		6.869E-03	5.927E-02	8.864E-02	8.547E-03	0.077
HG-203		70.83		-4.926E-01	4.910E-01	7.737E-01	1.228E-01	-0.637
		72.87		2.814E-01	3.190E-01	4.942E-01	7.610E-02	0.569
		279.20	*	2.902E-03	3.225E-02	4.509E-02	4.117E-03	0.064
BI-207		72.81		5.791E-02	6.852E-02	1.067E-01	8.930E-03	0.543
	+	74.97		7.234E-01	8.138E-02	1.091E-01	9.269E-03	6.628
		569.70		-2.825E-02	2.580E-02	3.788E-02	3.879E-03	-0.746
		1063.66	*	8.562E-03	5.134E-02	8.539E-02	7.359E-03	0.100
		1770.23		-2.096E-02	4.981E-01	6.869E-01	5.707E-02	-0.031
PB-211		404.85	*	-2.759E-01	6.908E-01	9.211E-01	4.450E-01	-0.300

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.09		3.373E-02	1.177E+00	1.995E+00	9.226E-01	0.017
		832.01		2.002E-01	8.751E-01	1.485E+00	7.731E-01	0.135
BI-212	+	727.33	*	2.347E+00	8.201E-01	1.116E+00	1.564E-01	2.102
		785.37		3.314E+00	2.909E+00	5.035E+00	5.168E-01	0.658
		1620.50		1.630E+00	2.279E+00	4.102E+00	3.430E-01	0.397
RN-219	+	271.23		5.336E-01	2.400E-01	3.068E-01	3.228E-02	1.739
		401.81	*	-7.249E-02	3.289E-01	5.134E-01	7.485E-02	-0.141
RA-223		81.07		-1.375E-01	9.636E-02	1.362E-01	1.211E-02	-1.009
	+	83.79		2.633E-01	8.516E-02	9.830E-02	8.931E-03	2.679
		94.87		1.937E-01	2.187E-01	3.365E-01	3.278E-02	0.576
		144.24		4.270E-01	4.466E-01	7.050E-01	7.656E-02	0.606
	+	154.21		5.220E-01	3.655E-01	4.328E-01	4.310E-02	1.206
	+	269.46		4.146E-01	1.852E-01	2.499E-01	2.275E-02	1.659
		323.87	*	7.878E-02	5.194E-01	7.566E-01	1.319E-01	0.104
	+	338.28		7.033E+00	1.581E+00	1.956E+00	2.375E-01	3.595
AC-227		79.69		-6.972E-01	5.554E-01	7.786E-01	1.349E-01	-0.895
		235.96		5.651E-02	1.057E-01	1.617E-01	1.705E-02	0.350
		256.23	*	-1.023E-01	1.810E-01	2.906E-01	3.568E-02	-0.352
	+	299.98		1.928E+00	8.813E-01	1.219E+00	1.574E-01	1.582
		304.50		-6.445E-01	1.211E+00	1.807E+00	3.014E-01	-0.357
		334.37		-9.197E-01	1.351E+00	1.826E+00	2.860E-01	-0.504
TH-227		79.80		-9.010E-01	7.430E-01	1.030E+00	2.251E-01	-0.875
		235.96		5.651E-02	1.057E-01	1.617E-01	1.612E-02	0.350
		256.23	*	-1.023E-01	1.811E-01	2.906E-01	4.012E-02	-0.352
	+	299.98		1.928E+00	8.813E-01	1.219E+00	1.574E-01	1.582
		304.50		-6.445E-01	1.211E+00	1.807E+00	3.014E-01	-0.357
		334.37		-9.197E-01	1.351E+00	1.826E+00	2.860E-01	-0.504
PA-231		283.69	*	-7.276E-01	9.947E-01	1.557E+00	2.299E-01	-0.467
	+	301.36		1.239E+00	5.643E-01	7.559E-01	9.347E-02	1.639
TH-231		81.07		-1.375E-01	9.636E-02	1.362E-01	1.211E-02	-1.009
	+	83.79		2.633E-01	8.516E-02	9.830E-02	8.931E-03	2.679
		94.87		1.937E-01	2.187E-01	3.365E-01	3.278E-02	0.576
		144.24		4.270E-01	4.466E-01	7.050E-01	7.656E-02	0.606
	+	154.21		5.220E-01	3.655E-01	4.328E-01	4.310E-02	1.206
	+	269.46		4.146E-01	1.852E-01	2.499E-01	2.275E-02	1.659
		323.87	*	7.878E-02	5.194E-01	7.566E-01	1.319E-01	0.104
	+	338.28		7.033E+00	1.581E+00	1.956E+00	2.375E-01	3.595
PA-233	+	300.13		8.724E-01	4.043E-01	5.509E-01	8.266E-02	1.584
		311.90	*	-5.600E-03	4.670E-02	7.526E-02	6.870E-03	-0.074
		340.48		1.524E-01	5.183E-01	7.563E-01	1.822E-01	0.202
PA-234		94.67		1.406E-01	8.615E-02	1.336E-01	1.763E-02	1.052
	+	98.44		6.633E-02	8.019E-02	7.511E-02	4.207E-02	0.883
		111.00		-5.948E-02	1.013E-01	1.569E-01	2.143E-02	-0.379
		131.20		3.076E-03	6.880E-02	9.962E-02	1.086E-02	0.031
		569.50		-2.383E-01	2.296E-01	3.392E-01	3.472E-02	-0.703
		733.00		9.710E-02	3.571E-01	5.439E-01	1.256E-01	0.179
		880.51		3.447E-02	2.261E-01	3.830E-01	3.459E-02	0.090
		883.24		-2.550E-02	2.412E-01	3.984E-01	2.680E-01	-0.064
		926.50		1.824E-02	1.637E-01	2.746E-01	6.956E-02	0.066

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	-1.728E-01	2.950E-01	4.641E-01	8.741E-02	-0.372
		949.00		2.064E-01	4.414E-01	7.573E-01	6.638E-02	0.273
PA-234M		766.42		9.208E+00	1.359E+01	1.905E+01	9.731E+00	0.483
		1001.03	*	2.070E+00	4.634E+00	7.895E+00	7.943E-01	0.262
NP-239	+	99.53		1.203E-01	1.295E-01	1.392E-01	1.392E-02	0.864
		103.37		-7.215E-02	5.946E-02	8.216E-02	8.397E-03	-0.878
		106.12		5.567E-02	4.653E-02	7.694E-02	7.993E-03	0.724
		117.23	*	-3.099E-01	2.407E-01	3.582E-01	3.986E-02	-0.865
		228.18		-1.111E-01	1.411E-01	2.269E-01	2.000E-02	-0.490
	+	277.60		3.178E-01	1.718E-01	2.319E-01	2.069E-02	1.370
AM-241		59.54	*	-3.614E-02	3.662E-02	5.412E-02	4.591E-03	-0.668
CM-247	+	278.00		1.350E+00	7.295E-01	9.772E-01	8.716E-02	1.381
		287.50		8.215E-02	8.786E-01	1.442E+00	1.287E-01	0.057
		402.40	*	-1.819E-02	3.102E-02	4.729E-02	3.835E-03	-0.385
CF-249		252.80		4.709E-01	6.685E-01	1.136E+00	1.014E-01	0.415
		333.37		3.215E-02	1.406E-01	2.055E-01	1.800E-02	0.156
		388.16	*	9.434E-03	3.128E-02	5.064E-02	4.060E-03	0.186
CF-251		177.52	*	2.961E-02	7.738E-02	1.332E-01	1.103E-02	0.222
		227.38		-2.032E-01	2.279E-01	3.644E-01	3.210E-02	-0.558
		285.41		-1.928E-01	1.492E+00	2.422E+00	2.162E-01	-0.080

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189      *
* Acquisition date : 24-MAR-2010 23:00:25 Detector SN#    :                 *
* Detector ID       : GAM21               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:50.22     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  5-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202065189         Analyst initials: MXR1            *
* Batch Number      : 962633              Sample Quantity : 1.2207E+02 GRAM *
* Recovery          :    1.00000          Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.308E+01	3.235E+00	4.812E-01	0.000E+00
CD-109	4.658E+00	6.989E-01	5.224E-01	0.000E+00
SN-126	4.523E-01	6.787E-02	5.064E-02	0.000E+00
BA-137M	1.069E-01	6.017E-02	5.730E-02	0.000E+00
CS-137	1.129E-01	6.357E-02	6.053E-02	0.000E+00
TL-208	5.839E-01	9.234E-02	4.622E-02	0.000E+00
PB-210	2.719E+00	5.576E-01	4.671E-01	0.000E+00
BI-211	3.938E+00	4.831E-01	2.469E-01	0.000E+00
PB-212	1.910E+00	2.054E-01	6.247E-02	0.000E+00
BI-214	1.480E+00	2.282E-01	1.012E-01	0.000E+00
PB-214	1.429E+00	1.916E-01	8.987E-02	0.000E+00
RA-224	4.630E+00	9.265E-01	6.714E-01	0.000E+00
RA-226	1.480E+00	2.282E-01	1.012E-01	0.000E+00
AC-228	1.977E+00	3.637E-01	2.107E-01	0.000E+00
RA-228	1.977E+00	3.637E-01	2.107E-01	0.000E+00
TH-228	1.910E+00	2.054E-01	6.247E-02	0.000E+00
TH-229	-2.275E-01	3.272E-01	5.621E-01	0.000E+00
TH-230	1.479E+00	2.150E-01	1.011E-01	0.000E+00
TH-232	1.977E+00	3.637E-01	2.107E-01	0.000E+00
TH-234	1.778E+00	6.867E-01	5.800E-01	0.000E+00
U-235	1.100E-01	1.311E-01	2.149E-01	0.000E+00
NP-237	1.350E+00	3.434E-01	1.505E-01	0.000E+00
U-238	1.778E+00	6.867E-01	5.800E-01	0.000E+00
ANH-511	1.489E-01	6.496E-02	3.984E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	5.292E-02	2.661E-01	4.663E-01	0.000E+00	NOT IDENT.
NA-22	-1.556E-03	4.142E-02	6.780E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.363E+07	0.000E+00	0.000E+00	SHORT HLIF

SC-46	1.971E-02	3.746E-02	6.654E-02	0.000E+00	FAIL ABUN
V-48	3.861E-02	8.247E-02	1.445E-01	0.000E+00	NOT IDENT.
CR-51	-2.034E-01	2.961E-01	4.782E-01	0.000E+00	NOT IDENT.
MN-54	-1.687E-03	3.216E-02	5.523E-02	0.000E+00	NOT IDENT.
CO-56	6.398E-03	3.510E-02	6.123E-02	0.000E+00	NOT IDENT.
CO-57	-9.237E-03	1.451E-02	2.340E-02	0.000E+00	NOT IDENT.
CO-58	-1.424E-02	3.432E-02	5.745E-02	0.000E+00	NOT IDENT.
FE-59	-3.716E-02	9.412E-02	1.521E-01	0.000E+00	NOT IDENT.
CO-60	-8.831E-04	3.316E-02	5.656E-02	0.000E+00	NOT IDENT.
ZN-65	-4.955E-04	1.088E-01	1.569E-01	0.000E+00	NOT IDENT.
SE-75	-1.302E-02	2.925E-02	4.899E-02	0.000E+00	NOT IDENT.
SR-85	2.077E-02	3.460E-02	5.478E-02	0.000E+00	NOT IDENT.
Y-88	2.893E-02	3.469E-02	6.501E-02	0.000E+00	NOT IDENT.
Y-91	-8.734E-02	2.491E+01	4.119E+01	0.000E+00	NOT IDENT.
NB-94	-1.641E-02	3.177E-02	5.085E-02	0.000E+00	NOT IDENT.
NB-95	2.001E-02	4.702E-02	7.030E-02	0.000E+00	NOT IDENT.
NB-95M	4.864E-02	8.883E-02	1.417E-01	0.000E+00	NOT IDENT.
ZR-95	-8.187E-03	7.261E-02	1.187E-01	0.000E+00	NOT IDENT.
MO-99	-2.756E+01	3.404E+01	5.208E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.227E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.041E-03	3.426E-02	5.870E-02	0.000E+00	FAIL ABUN
RH-106	2.005E-01	2.662E-01	4.695E-01	0.000E+00	NOT IDENT.
RU-106	2.005E-01	2.655E-01	4.695E-01	0.000E+00	NOT IDENT.
AG-108M	1.199E-02	2.282E-02	4.097E-02	0.000E+00	NOT IDENT.
AG-110M	1.921E-03	3.458E-02	5.096E-02	0.000E+00	NOT IDENT.
SN-113	-2.679E-02	3.686E-02	5.787E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	3.436E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-1.996E-02	4.400E-02	6.837E-02	0.000E+00	NOT IDENT.
TE-123M	-5.911E-03	1.780E-02	2.943E-02	0.000E+00	NOT IDENT.
SB-124	1.140E-02	8.117E-02	1.380E-01	0.000E+00	NOT IDENT.
SB-125	-7.887E-02	7.061E-02	1.158E-01	0.000E+00	FAIL ABUN
TE-125M	5.010E-01	5.401E+00	9.088E+00	0.000E+00	NOT IDENT.
I-126	3.679E-02	2.916E-01	4.316E-01	0.000E+00	NOT IDENT.
SB-126	1.016E-01	1.796E-01	2.884E-01	0.000E+00	NOT IDENT.
SB-127	3.703E+00	2.850E+00	5.071E+00	0.000E+00	NOT IDENT.
I-131	2.967E-02	1.236E-01	2.078E-01	0.000E+00	NOT IDENT.
TE-132	-9.806E-01	1.214E+00	2.021E+00	0.000E+00	NOT IDENT.
BA-133	2.983E-02	3.282E-02	5.173E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.574E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.742E-02	8.081E-02	0.000E+00	FAIL ABUN
CS-135	1.258E-01	1.164E-01	1.868E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.676E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.081E-02	1.334E-01	2.174E-01	0.000E+00	FAIL ABUN
CE-139	-1.466E-03	1.788E-02	3.188E-02	0.000E+00	NOT IDENT.
BA-140	-1.037E-01	2.787E-01	4.620E-01	0.000E+00	NOT IDENT.
LA-140	7.334E-02	9.976E-02	1.659E-01	0.000E+00	FAIL ABUN
CE-141	-1.156E-02	4.288E-02	6.920E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.037E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	6.507E-02	1.180E-01	1.979E-01	0.000E+00	NOT IDENT.
PM-144	-2.446E-02	3.134E-02	4.901E-02	0.000E+00	NOT IDENT.
PR-144	-1.821E+00	2.352E+00	3.679E+00	0.000E+00	NOT IDENT.
PM-146	1.388E-02	3.260E-02	5.804E-02	0.000E+00	NOT IDENT.
ND-147	-1.449E-01	5.997E-01	1.011E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	2.501E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	6.194E-02	6.985E-02	1.219E-01	0.000E+00	FAIL ABUN
GD-153	-2.240E-03	4.953E-02	6.781E-02	0.000E+00	NOT IDENT.
EU-154	-3.064E-02	1.180E-01	1.890E-01	0.000E+00	NOT IDENT.
EU-155	0.000E+00	5.659E-02	9.983E-02	0.000E+00	FAIL ABUN
TB-160	-5.747E-03	1.170E-01	1.997E-01	0.000E+00	FAIL ABUN
HO-166M	-3.356E-02	5.515E-02	8.717E-02	0.000E+00	FAIL ABUN
TA-182	-2.550E-01	2.239E-01	3.379E-01	0.000E+00	FAIL ABUN
IR-192	-4.150E-03	2.639E-02	4.403E-02	0.000E+00	FAIL ABUN
HG-203	2.902E-03	3.161E-02	4.597E-02	0.000E+00	NOT IDENT.
BI-207	8.562E-03	5.032E-02	8.559E-02	0.000E+00	FAIL ABUN
PB-211	-2.759E-01	6.770E-01	9.347E-01	0.000E+00	NOT IDENT.
BI-212	0.000E+00	8.037E-01	1.124E+00	0.000E+00	FAIL ABUN
RN-219	-7.249E-02	3.223E-01	5.211E-01	0.000E+00	FAIL ABUN
RA-223	7.878E-02	5.091E-01	7.699E-01	0.000E+00	FAIL ABUN
AC-227	-1.023E-01	1.774E-01	2.966E-01	0.000E+00	FAIL ABUN
TH-227	-1.023E-01	1.775E-01	2.966E-01	0.000E+00	FAIL ABUN
PA-231	-7.276E-01	9.748E-01	1.587E+00	0.000E+00	FAIL ABUN
TH-231	7.878E-02	5.091E-01	7.699E-01	0.000E+00	FAIL ABUN
PA-233	-5.600E-03	4.577E-02	7.663E-02	0.000E+00	FAIL ABUN
PA-234	-1.728E-01	2.891E-01	4.659E-01	0.000E+00	FAIL ABUN
PA-234M	2.070E+00	4.541E+00	7.920E+00	0.000E+00	NOT IDENT.
NP-239	-3.099E-01	2.359E-01	3.691E-01	0.000E+00	FAIL ABUN
AM-241	-3.614E-02	3.589E-02	5.623E-02	0.000E+00	NOT IDENT.
CM-247	-1.819E-02	3.040E-02	4.799E-02	0.000E+00	FAIL ABUN

CF-249	9.434E-03	3.066E-02	5.141E-02	0.000E+00 NOT IDENT.
CF-251	2.961E-02	7.583E-02	1.365E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:02:27.68

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 23:00:25
Sample ID         : G1202065189          Sample quantity  : 1.22070E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:50.22  0.3%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1652	10.66*	7.204E-01	3.308E+01	3.308E+01	9.98
CD-109	88.03	885	3.70*	8.135E+00	4.523E+00	4.658E+00	15.31
SN-126	64.28	350	9.60	8.182E+00	6.852E-01	6.852E-01	38.04
	86.94	885	8.90	8.135E+00	1.880E+00	1.880E+00	43.25
	87.57	885	37.00*	8.135E+00	4.523E-01	4.523E-01	15.31
BA-137M	661.66	98	89.90*	1.562E+00	1.068E-01	1.069E-01	57.44
CS-137	661.66	98	85.10*	1.562E+00	1.128E-01	1.129E-01	57.44
TL-208	277.37	113	6.60	3.803E+00	6.952E-01	6.952E-01	54.81
	583.19	574	85.00*	1.777E+00	5.839E-01	5.839E-01	16.14
	860.56	60	12.50	1.201E+00	6.159E-01	6.159E-01	51.82
PB-210	46.54	552	4.25*	7.360E+00	2.714E+00	2.719E+00	20.93
BI-211	72.87	------	1.23	8.278E+00	------ Line Not Found		------
	351.06	991	12.92*	2.996E+00	3.938E+00	3.938E+00	12.52
PB-212	74.82	1388	10.28	8.275E+00	2.509E+00	2.509E+00	14.87
	77.11	2112	17.10	8.264E+00	2.298E+00	2.298E+00	10.19
	238.63	2375	43.60*	4.386E+00	1.910E+00	1.910E+00	10.97
	300.09	132	3.30	3.520E+00	1.753E+00	1.753E+00	45.15
BI-214	609.32	744	45.49*	1.699E+00	1.479E+00	1.480E+00	15.74
	1120.29	127	14.92	9.295E-01	1.404E+00	1.404E+00	40.64
	1764.49	85	15.30	5.982E-01	1.426E+00	1.426E+00	30.05
PB-214	74.82	1388	5.80	8.275E+00	4.448E+00	4.448E+00	13.76
	77.11	2112	9.70	8.264E+00	4.050E+00	4.050E+00	13.11
	242.00	535	7.25	4.337E+00	2.618E+00	2.618E+00	21.23
	295.22	706	18.42	3.577E+00	1.648E+00	1.648E+00	15.81
	351.93	991	35.60*	2.996E+00	1.429E+00	1.429E+00	13.68
RA-224	240.99	535	4.10*	4.337E+00	4.630E+00	4.630E+00	20.42
RA-226	609.32	744	45.49*	1.699E+00	1.479E+00	1.480E+00	15.74
	1120.29	127	14.92	9.295E-01	1.404E+00	1.404E+00	40.64
	1764.49	85	15.30	5.982E-01	1.426E+00	1.426E+00	30.05
AC-228	338.32	405	11.27	3.120E+00	1.772E+00	1.772E+00	45.83
	911.20	377	25.80*	1.135E+00	1.977E+00	1.977E+00	18.77
	968.97	214	15.80	1.070E+00	1.944E+00	1.944E+00	31.61

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	405	11.27	3.120E+00	1.772E+00	1.772E+00	45.83
	911.20	377	25.80*	1.135E+00	1.977E+00	1.977E+00	18.77
	968.97	214	15.80	1.070E+00	1.944E+00	1.944E+00	31.61
TH-228	74.82	1388	10.28	8.275E+00	2.509E+00	2.509E+00	11.31
	77.11	2112	17.10	8.264E+00	2.298E+00	2.298E+00	10.19
	238.63	2375	43.60*	4.386E+00	1.910E+00	1.910E+00	10.97
	300.09	132	3.30	3.520E+00	1.753E+00	1.753E+00	75.33
TH-229	85.43	346	14.70	8.185E+00	4.424E-01	4.425E-01	32.34
	88.47	885	24.00	8.135E+00	6.973E-01	6.973E-01	15.31
	193.51	------	4.41*	5.271E+00	------ Line Not Found		------
	210.85	70	2.80	4.884E+00	7.865E-01	7.865E-01	79.57
TH-230	609.32	744	45.49*	1.699E+00	1.479E+00	1.479E+00	14.83
	1120.29	127	14.92	9.295E-01	1.404E+00	1.404E+00	40.08
	1764.49	85	15.30	5.982E-01	1.426E+00	1.426E+00	30.05
TH-232	338.32	405	11.27	3.120E+00	1.772E+00	1.772E+00	20.83
	911.20	377	25.80*	1.135E+00	1.977E+00	1.977E+00	18.77
	968.97	214	15.80	1.070E+00	1.944E+00	1.944E+00	31.61
TH-234	63.29	350	3.70*	8.182E+00	1.778E+00	1.778E+00	39.42
	92.59	857	4.23	8.017E+00	3.887E+00	3.887E+00	26.81
U-235	89.96	456	3.47	8.085E+00	2.498E+00	2.498E+00	30.60
	93.35	857	5.60	8.017E+00	2.936E+00	2.936E+00	27.65
	143.76	------	10.96*	6.567E+00	------ Line Not Found		------
	163.33	------	5.08	6.017E+00	------ Line Not Found		------
	185.72	455	57.20	5.448E+00	2.243E-01	2.243E-01	25.00
	205.31	------	5.01	5.015E+00	------ Line Not Found		------
NP-237	86.48	885	12.40*	8.135E+00	1.350E+00	1.350E+00	25.96
	95.86	------	2.68	7.953E+00	------ Line Not Found		------
U-238	63.29	350	3.70*	8.182E+00	1.778E+00	1.778E+00	39.42
	92.59	857	4.23	8.017E+00	3.887E+00	3.887E+00	17.48
ANH-511	511.00	197	100.00*	2.037E+00	1.489E-01	1.489E-01	44.52

Flag: "*" = Keyline

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

Total number of lines in spectrum 43
Number of unidentified lines 7
Number of lines tentatively identified by NID 36 83.72%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.308E+01	3.308E+01	0.330E+01	9.98	
CD-109	461.40D	1.03	4.523E+00	4.658E+00	0.713E+00	15.31	
SN-126	2.30E+05Y	1.00	4.523E-01	4.523E-01	0.693E-01	15.31	
BA-137M	30.08Y	1.00	1.068E-01	1.069E-01	0.614E-01	57.44	
CS-137	30.08Y	1.00	1.128E-01	1.129E-01	0.649E-01	57.44	
TL-208	1.41E+10Y	1.00	5.839E-01	5.839E-01	0.942E-01	16.14	
PB-210	22.20Y	1.00	2.714E+00	2.719E+00	0.569E+00	20.93	
BI-211	7.04E+08Y	1.00	3.938E+00	3.938E+00	0.493E+00	12.52	
PB-212	1.41E+10Y	1.00	1.910E+00	1.910E+00	0.210E+00	10.97	
BI-214	1600.00Y	1.00	1.479E+00	1.480E+00	0.233E+00	15.74	
PB-214	1600.00Y	1.00	1.429E+00	1.429E+00	0.196E+00	13.68	
RA-224	1.41E+10Y	1.00	4.630E+00	4.630E+00	0.945E+00	20.42	
RA-226	1600.00Y	1.00	1.479E+00	1.480E+00	0.233E+00	15.74	
AC-228	1.41E+10Y	1.00	1.977E+00	1.977E+00	0.371E+00	18.77	
RA-228	1.41E+10Y	1.00	1.977E+00	1.977E+00	0.371E+00	18.77	
TH-228	1.41E+10Y	1.00	1.910E+00	1.910E+00	0.210E+00	10.97	
TH-229	7340.00Y	1.00	6.973E-01	6.973E-01	1.068E-01	15.31	K
TH-230	7.54E+04Y	1.00	1.479E+00	1.479E+00	0.219E+00	14.83	
TH-232	1.41E+10Y	1.00	1.977E+00	1.977E+00	0.371E+00	18.77	
TH-234	4.47E+09Y	1.00	1.778E+00	1.778E+00	0.701E+00	39.42	
U-235	7.04E+08Y	1.00	2.243E-01	2.243E-01	0.561E-01	25.00	K
NP-237	2.14E+06Y	1.00	1.350E+00	1.350E+00	0.350E+00	25.96	
U-238	4.47E+09Y	1.00	1.778E+00	1.778E+00	0.701E+00	39.42	
ANH-511	1.00E+09Y	1.00	1.489E-01	1.489E-01	0.663E-01	44.52	
	Total Activity :		7.173E+01	7.187E+01			

Grand Total Activity : 7.173E+01 7.187E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	99.35	86	678	0.85	198.64	195	8	5.99E-03	****	7.87E+00	T
0	128.90	140	664	0.94	257.71	255	8	9.71E-03	66.0	7.01E+00	
0	154.10	121	551	1.09	308.09	305	8	8.43E-03	69.3	6.27E+00	T
1	209.03	241	275	0.97	417.90	413	14	1.67E-02	25.3	4.94E+00	
0	270.08	146	277	1.53	539.96	536	8	1.02E-02	43.7	3.90E+00	T
0	327.96	114	221	0.99	655.68	652	8	7.89E-03	49.2	3.22E+00	T
0	410.14	71	228	1.66	820.01	815	10	4.93E-03	83.3	2.56E+00	T
0	462.58	119	182	1.17	924.87	920	11	8.23E-03	47.7	2.26E+00	T
0	727.18	145	103	1.39	1454.07	1448	11	1.00E-02	32.0	1.42E+00	T
0	768.11	59	71	1.28	1535.94	1532	8	4.08E-03	56.3	1.34E+00	
0	795.09	70	70	0.93	1589.90	1585	11	4.86E-03	52.5	1.30E+00	T
4	964.65	86	50	2.37	1929.11	1924	20	6.00E-03	39.8	1.07E+00	T
0	1508.85	27	4	2.21	3018.15	3014	8	1.88E-03	46.1	6.98E-01	
2	1587.81	37	16	2.40	3176.22	3168	23	2.56E-03	49.7	6.64E-01	
2	1592.31	40	5	2.40	3185.22	3168	23	2.81E-03	46.1	6.62E-01	
0	1729.10	25	14	1.12	3459.06	3452	14	1.72E-03	77.3	6.10E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:02:34.27

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1  *
* Acquisition date  : 24-MAR-2010 23:00:25  Detector SN#     :              *
* Detector ID       : GAM21                 Sensitivity      : 5.00000      *
* Geometry          : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 04:00:00.00          Abundance limit : 75.00000      *
* Elapsed real time: 0 04:00:50.22          Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 5-MAR-2010 12:00:00.  Nuclide Library : SOLID         *
* Sample ID         : G1202065189           Analyst initials: MXR1          *
* Batch Number      : 962633                Sample Quantity : 1.22070E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51.9MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :                *
* LCS ID           : 1032-A               LCS Isotope      :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.308E+01	3.301E+00	4.821E-01	4.116E-02	68.620
CD-109	4.658E+00	7.132E-01	5.051E-01	4.753E-02	9.222
SN-126	4.523E-01	6.926E-02	4.896E-02	4.590E-03	9.238
BA-137M	1.069E-01	6.140E-02	5.681E-02	6.275E-03	1.882
CS-137	1.129E-01	6.487E-02	6.002E-02	6.636E-03	1.882
TL-208	5.839E-01	9.423E-02	4.576E-02	4.981E-03	12.760
PB-210	2.719E+00	5.690E-01	4.482E-01	4.239E-02	6.066
BI-211	3.938E+00	4.930E-01	2.429E-01	2.192E-02	16.215
PB-212	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
BI-214	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
PB-214	1.429E+00	1.955E-01	8.840E-02	9.345E-03	16.167
RA-224	4.630E+00	9.454E-01	6.574E-01	5.842E-02	7.043
RA-226	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
AC-228	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
RA-228	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
TH-228	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
TH-229	6.973E-01	1.068E-01	5.488E-01	4.659E-02	1.271
TH-230	1.479E+00	2.193E-01	1.002E-01	1.064E-02	14.766

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
TH-234	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
U-235	2.243E-01	5.607E-02	2.091E-01	3.701E-02	1.073
NP-237	1.350E+00	3.504E-01	1.455E-01	3.337E-02	9.276
U-238	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
ANH-511	1.489E-01	6.629E-02	3.937E-02	3.775E-03	3.781

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	5.292E-02		2.715E-01	4.604E-01	4.510E-02	0.115
NA-22	-1.556E-03		4.226E-02	6.780E-02	5.562E-03	-0.023
NA-24	-8.318E+01		4.267E+01	Half-Life too short		
SC-46	1.971E-02		3.822E-02	6.623E-02	5.889E-03	0.298
V-48	3.861E-02		8.415E-02	1.440E-01	1.260E-02	0.268
CR-51	-2.034E-01		3.022E-01	4.699E-01	4.365E-02	-0.433
MN-54	-1.687E-03		3.282E-02	5.493E-02	5.324E-03	-0.031
CO-56	6.398E-03		3.581E-02	6.091E-02	5.806E-03	0.105
CO-57	-9.237E-03		1.481E-02	2.271E-02	2.609E-03	-0.407
CO-58	-1.424E-02		3.502E-02	5.711E-02	5.715E-03	-0.249
FE-59	-3.716E-02		9.604E-02	1.518E-01	1.401E-02	-0.245
CO-60	-8.831E-04		3.383E-02	5.659E-02	4.593E-03	-0.016
ZN-65	-4.955E-04		1.110E-01	1.566E-01	1.328E-02	-0.003
SE-75	-1.302E-02		2.985E-02	4.802E-02	4.312E-03	-0.271
SR-85	2.077E-02		3.530E-02	5.415E-02	5.210E-03	0.384
Y-88	2.893E-02		3.540E-02	6.532E-02	5.393E-03	0.443
Y-91	-8.734E-02		2.542E+01	4.116E+01	3.391E+00	-0.002
NB-94	-1.641E-02		3.242E-02	5.046E-02	5.496E-03	-0.325
NB-95	2.001E-02		4.798E-02	6.984E-02	7.299E-03	0.287
NB-95M	4.864E-02		9.064E-02	1.387E-01	1.400E-02	0.351
ZR-95	-8.187E-03		7.409E-02	1.179E-01	1.329E-02	-0.069
MO-99	-2.756E+01		3.474E+01	5.171E+01	8.771E+00	-0.533
TC-99M	1.507E+15		2.157E+15	Half-Life too short		
RU-103	-4.041E-03		3.496E-02	5.799E-02	8.392E-03	-0.070
RH-106	2.005E-01		2.717E-01	4.652E-01	6.845E-02	0.431
RU-106	2.005E-01		2.709E-01	4.652E-01	4.991E-02	0.431
AG-108M	1.199E-02		2.328E-02	4.041E-02	3.578E-03	0.297
AG-110M	1.921E-03		3.529E-02	5.053E-02	5.668E-03	0.038
SN-113	-2.679E-02		3.762E-02	5.700E-02	4.694E-03	-0.470
CD-115	7.571E-06		1.753E-05	Half-Life too short		
SN-117M	-1.996E-02		4.490E-02	6.659E-02	5.862E-03	-0.300
TE-123M	-5.911E-03		1.816E-02	2.867E-02	2.527E-03	-0.206
SB-124	1.140E-02		8.283E-02	1.385E-01	1.209E-02	0.082
SB-125	-7.887E-02		7.205E-02	1.142E-01	9.877E-03	-0.691
TE-125M	5.010E-01		5.511E+00	8.811E+00	1.072E+00	0.057
I-126	3.679E-02		2.976E-01	4.280E-01	4.722E-02	0.086
SB-126	1.016E-01		1.833E-01	2.863E-01	3.089E-02	0.355

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-127	3.703E+00		2.908E+00	5.031E+00	7.264E-01	0.736
I-131	2.967E-02		1.261E-01	2.045E-01	1.825E-02	0.145
TE-132	-9.806E-01		1.239E+00	1.978E+00	3.336E-01	-0.496
BA-133	2.983E-02		3.349E-02	5.089E-02	6.561E-03	0.586
I-133	-6.207E-02		8.031E-02	Half-Life too short		
CS-134	1.096E-01	+	5.859E-02	8.032E-02	8.199E-03	1.364
CS-135	1.258E-01		1.188E-01	1.831E-01	1.875E-02	0.687
I-135	4.587E+14		2.386E+14	Half-Life too short		
CS-136	-5.081E-02		1.362E-01	2.168E-01	1.956E-02	-0.234
CE-139	-1.466E-03		1.825E-02	3.107E-02	2.526E-03	-0.047
BA-140	-1.037E-01		2.844E-01	4.569E-01	1.565E-01	-0.227
LA-140	7.334E-02		1.018E-01	1.664E-01	1.392E-02	0.441
CE-141	-1.156E-02		4.375E-02	6.733E-02	6.751E-03	-0.172
CE-143	1.929E-03		5.292E-04	Half-Life too short		
CE-144	6.507E-02		1.204E-01	1.923E-01	3.189E-02	0.338
PM-144	-2.446E-02		3.198E-02	4.863E-02	5.312E-03	-0.503
PR-144	-1.821E+00		2.400E+00	3.651E+00	3.987E-01	-0.499
PM-146	1.388E-02		3.327E-02	5.728E-02	6.175E-03	0.242
ND-147	-1.449E-01		6.120E-01	1.000E+00	1.567E-01	-0.145
PM-149	-1.055E-04		1.276E-04	Half-Life too short		
EU-152	6.194E-02		7.127E-02	1.199E-01	1.099E-02	0.517
GD-153	-2.240E-03		5.054E-02	6.565E-02	6.485E-03	-0.034
EU-154	-3.064E-02		1.204E-01	1.890E-01	2.090E-02	-0.162
EU-155	1.071E-01		5.775E-02	9.674E-02	1.008E-02	1.107
TB-160	-5.747E-03		1.194E-01	1.988E-01	1.799E-02	-0.029
HO-166M	-3.356E-02		5.628E-02	8.652E-02	9.381E-03	-0.388
TA-182	-2.550E-01		2.285E-01	3.377E-01	2.780E-02	-0.755
IR-192	-4.150E-03		2.693E-02	4.326E-02	3.844E-03	-0.096
HG-203	2.902E-03		3.225E-02	4.509E-02	4.117E-03	0.064
BI-207	8.562E-03		5.134E-02	8.539E-02	7.359E-03	0.100
PB-211	-2.759E-01		6.908E-01	9.211E-01	4.450E-01	-0.300
BI-212	2.347E+00	+	8.201E-01	1.116E+00	1.564E-01	2.102
RN-219	-7.249E-02		3.289E-01	5.134E-01	7.485E-02	-0.141
RA-223	7.878E-02		5.194E-01	7.566E-01	1.319E-01	0.104
AC-227	-1.023E-01		1.810E-01	2.906E-01	3.568E-02	-0.352
TH-227	-1.023E-01		1.811E-01	2.906E-01	4.012E-02	-0.352
PA-231	-7.276E-01		9.947E-01	1.557E+00	2.299E-01	-0.467
TH-231	7.878E-02		5.194E-01	7.566E-01	1.319E-01	0.104
PA-233	-5.600E-03		4.670E-02	7.526E-02	6.870E-03	-0.074
PA-234	-1.728E-01		2.950E-01	4.641E-01	8.741E-02	-0.372
PA-234M	2.070E+00		4.634E+00	7.895E+00	7.943E-01	0.262
NP-239	-3.099E-01		2.407E-01	3.582E-01	3.986E-02	-0.865
AM-241	-3.614E-02		3.662E-02	5.412E-02	4.591E-03	-0.668
CM-247	-1.819E-02		3.102E-02	4.729E-02	3.835E-03	-0.385
CF-249	9.434E-03		3.128E-02	5.064E-02	4.060E-03	0.186
CF-251	2.961E-02		7.738E-02	1.332E-01	1.103E-02	0.222

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065189          *
* Acquisition date : 24-MAR-2010 23:00:25 Detector SN#    :                *
* Detector ID      : GAM21                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 04:00:50.22     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  5-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202065189          Analyst initials: MXR1           *
* Batch Number     : 962633               Sample Quantity : 1.2207E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.308E+01	3.235E+00	2.407E-01	1.650E+00
CD-109	4.658E+00	6.989E-01	2.613E-01	3.566E-01
SN-126	4.523E-01	6.787E-02	2.533E-02	3.463E-02
BA-137M	1.069E-01	6.017E-02	2.866E-02	3.070E-02
CS-137	1.129E-01	6.357E-02	3.028E-02	3.243E-02
TL-208	5.839E-01	9.234E-02	2.313E-02	4.711E-02
PB-210	2.719E+00	5.576E-01	2.337E-01	2.845E-01
BI-211	3.938E+00	4.831E-01	1.235E-01	2.465E-01
PB-212	1.910E+00	2.054E-01	3.125E-02	1.048E-01
BI-214	1.480E+00	2.282E-01	5.061E-02	1.164E-01
PB-214	1.429E+00	1.916E-01	4.496E-02	9.776E-02
RA-224	4.630E+00	9.265E-01	3.359E-01	4.727E-01
RA-226	1.480E+00	2.282E-01	5.061E-02	1.164E-01
AC-228	1.977E+00	3.637E-01	1.054E-01	1.855E-01
RA-228	1.977E+00	3.637E-01	1.054E-01	1.855E-01
TH-228	1.910E+00	2.054E-01	3.125E-02	1.048E-01
TH-229	-2.275E-01	3.272E-01	2.812E-01	1.670E-01
TH-230	1.479E+00	2.150E-01	5.060E-02	1.097E-01
TH-232	1.977E+00	3.637E-01	1.054E-01	1.855E-01
TH-234	1.778E+00	6.867E-01	2.902E-01	3.504E-01
U-235	1.100E-01	1.311E-01	1.075E-01	6.689E-02
NP-237	1.350E+00	3.434E-01	7.530E-02	1.752E-01
U-238	1.778E+00	6.867E-01	2.902E-01	3.504E-01
ANH-511	1.489E-01	6.496E-02	1.993E-02	3.314E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	5.292E-02	2.661E-01	2.333E-01	1.358E-01	NOT IDENT.
NA-22	-1.556E-03	4.142E-02	3.392E-02	2.113E-02	NOT IDENT.
NA-24	-8.318E+07	8.363E+07	0.000E+00	4.267E+07	SHORT HLIF

SC-46	1.971E-02	3.746E-02	3.329E-02	1.911E-02	FAIL ABUN
V-48	3.861E-02	8.247E-02	7.229E-02	4.208E-02	NOT IDENT.
CR-51	-2.034E-01	2.961E-01	2.393E-01	1.511E-01	NOT IDENT.
MN-54	-1.687E-03	3.216E-02	2.763E-02	1.641E-02	NOT IDENT.
CO-56	6.398E-03	3.510E-02	3.063E-02	1.791E-02	NOT IDENT.
CO-57	-9.237E-03	1.451E-02	1.171E-02	7.403E-03	NOT IDENT.
CO-58	-1.424E-02	3.432E-02	2.874E-02	1.751E-02	NOT IDENT.
FE-59	-3.716E-02	9.412E-02	7.610E-02	4.802E-02	NOT IDENT.
CO-60	-8.831E-04	3.316E-02	2.830E-02	1.692E-02	NOT IDENT.
ZN-65	-4.955E-04	1.088E-01	7.849E-02	5.550E-02	NOT IDENT.
SE-75	-1.302E-02	2.925E-02	2.451E-02	1.493E-02	NOT IDENT.
SR-85	2.077E-02	3.460E-02	2.741E-02	1.765E-02	NOT IDENT.
Y-88	2.893E-02	3.469E-02	3.252E-02	1.770E-02	NOT IDENT.
Y-91	-8.734E-02	2.491E+01	2.061E+01	1.271E+01	NOT IDENT.
NB-94	-1.641E-02	3.177E-02	2.544E-02	1.621E-02	NOT IDENT.
NB-95	2.001E-02	4.702E-02	3.517E-02	2.399E-02	NOT IDENT.
NB-95M	4.864E-02	8.883E-02	7.090E-02	4.532E-02	NOT IDENT.
ZR-95	-8.187E-03	7.261E-02	5.936E-02	3.704E-02	NOT IDENT.
MO-99	-2.756E+01	3.404E+01	2.605E+01	1.737E+01	NOT IDENT.
TC-99M	1.507E+21	4.227E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.041E-03	3.426E-02	2.936E-02	1.748E-02	FAIL ABUN
RH-106	2.005E-01	2.662E-01	2.349E-01	1.358E-01	NOT IDENT.
RU-106	2.005E-01	2.655E-01	2.349E-01	1.355E-01	NOT IDENT.
AG-108M	1.199E-02	2.282E-02	2.050E-02	1.164E-02	NOT IDENT.
AG-110M	1.921E-03	3.458E-02	2.549E-02	1.764E-02	NOT IDENT.
SN-113	-2.679E-02	3.686E-02	2.895E-02	1.881E-02	NOT IDENT.
CD-115	7.571E+00	3.436E+01	0.000E+00	1.753E+01	SHORT HLIF
SN-117M	-1.996E-02	4.400E-02	3.421E-02	2.245E-02	NOT IDENT.
TE-123M	-5.911E-03	1.780E-02	1.472E-02	9.082E-03	NOT IDENT.
SB-124	1.140E-02	8.117E-02	6.904E-02	4.141E-02	NOT IDENT.
SB-125	-7.887E-02	7.061E-02	5.793E-02	3.603E-02	FAIL ABUN
TE-125M	5.010E-01	5.401E+00	4.547E+00	2.756E+00	NOT IDENT.
I-126	3.679E-02	2.916E-01	2.159E-01	1.488E-01	NOT IDENT.
SB-126	1.016E-01	1.796E-01	1.443E-01	9.164E-02	NOT IDENT.
SB-127	3.703E+00	2.850E+00	2.537E+00	1.454E+00	NOT IDENT.
I-131	2.967E-02	1.236E-01	1.040E-01	6.305E-02	NOT IDENT.
TE-132	-9.806E-01	1.214E+00	1.011E+00	6.194E-01	NOT IDENT.
BA-133	2.983E-02	3.282E-02	2.588E-02	1.675E-02	FAIL ABUN
I-133	-6.207E+04	1.574E+05	0.000E+00	8.031E+04	SHORT HLIF
CS-134	1.096E-01	5.742E-02	4.043E-02	2.929E-02	FAIL ABUN
CS-135	1.258E-01	1.164E-01	9.344E-02	5.938E-02	NOT IDENT.
I-135	4.587E+20	4.676E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.081E-02	1.334E-01	1.088E-01	6.808E-02	FAIL ABUN
CE-139	-1.466E-03	1.788E-02	1.595E-02	9.124E-03	NOT IDENT.
BA-140	-1.037E-01	2.787E-01	2.311E-01	1.422E-01	NOT IDENT.
LA-140	7.334E-02	9.976E-02	8.302E-02	5.090E-02	FAIL ABUN
CE-141	-1.156E-02	4.288E-02	3.462E-02	2.188E-02	NOT IDENT.
CE-143	1.929E+03	1.037E+03	0.000E+00	5.292E+02	SHORT HLIF
CE-144	6.507E-02	1.180E-01	9.900E-02	6.021E-02	NOT IDENT.
PM-144	-2.446E-02	3.134E-02	2.452E-02	1.599E-02	NOT IDENT.
PR-144	-1.821E+00	2.352E+00	1.841E+00	1.200E+00	NOT IDENT.
PM-146	1.388E-02	3.260E-02	2.904E-02	1.663E-02	NOT IDENT.
ND-147	-1.449E-01	5.997E-01	5.060E-01	3.060E-01	FAIL ABUN
PM-149	-1.055E+02	2.501E+02	0.000E+00	1.276E+02	SHORT HLIF
EU-152	6.194E-02	6.985E-02	6.097E-02	3.564E-02	FAIL ABUN
GD-153	-2.240E-03	4.953E-02	3.392E-02	2.527E-02	NOT IDENT.
EU-154	-3.064E-02	1.180E-01	9.455E-02	6.022E-02	NOT IDENT.
EU-155	1.071E-01	5.659E-02	4.994E-02	2.887E-02	FAIL ABUN
TB-160	-5.747E-03	1.170E-01	9.991E-02	5.969E-02	FAIL ABUN
HO-166M	-3.356E-02	5.515E-02	4.361E-02	2.814E-02	FAIL ABUN
TA-182	-2.550E-01	2.239E-01	1.691E-01	1.142E-01	FAIL ABUN
IR-192	-4.150E-03	2.639E-02	2.203E-02	1.346E-02	FAIL ABUN
HG-203	2.902E-03	3.161E-02	2.300E-02	1.613E-02	NOT IDENT.
BI-207	8.562E-03	5.032E-02	4.282E-02	2.567E-02	FAIL ABUN
PB-211	-2.759E-01	6.770E-01	4.676E-01	3.454E-01	NOT IDENT.
BI-212	2.347E+00	8.037E-01	5.625E-01	4.101E-01	FAIL ABUN
RN-219	-7.249E-02	3.223E-01	2.607E-01	1.644E-01	FAIL ABUN
RA-223	7.878E-02	5.091E-01	3.852E-01	2.597E-01	FAIL ABUN
AC-227	-1.023E-01	1.774E-01	1.484E-01	9.051E-02	FAIL ABUN
TH-227	-1.023E-01	1.775E-01	1.484E-01	9.057E-02	FAIL ABUN
PA-231	-7.276E-01	9.748E-01	7.939E-01	4.974E-01	FAIL ABUN
TH-231	7.878E-02	5.091E-01	3.852E-01	2.597E-01	FAIL ABUN
PA-233	-5.600E-03	4.577E-02	3.834E-02	2.335E-02	FAIL ABUN
PA-234	-1.728E-01	2.891E-01	2.331E-01	1.475E-01	FAIL ABUN
PA-234M	2.070E+00	4.541E+00	3.962E+00	2.317E+00	NOT IDENT.
NP-239	-3.099E-01	2.359E-01	1.847E-01	1.204E-01	FAIL ABUN
AM-241	-3.614E-02	3.589E-02	2.813E-02	1.831E-02	NOT IDENT.
CM-247	-1.819E-02	3.040E-02	2.401E-02	1.551E-02	FAIL ABUN

CF-249	9.434E-03	3.066E-02	2.572E-02	1.564E-02 NOT IDENT.
CF-251	2.961E-02	7.583E-02	6.831E-02	3.869E-02 NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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```

ENERGY	MDA COUNTS
46.54	382.3819
49.72	381.1498
57.36	0.0000
59.54	550.4957
63.29	559.4451
63.29	559.4451
64.28	561.6814
67.75	588.1947
69.67	620.4482
70.83	683.2540
72.81	631.0656
72.87	631.2015
72.87	631.2015
74.82	649.2062
74.82	649.2062
74.82	649.2062
74.97	649.5571
77.11	654.4687
77.11	654.4687
77.11	654.4687
79.69	660.3061
79.80	660.5546
80.12	661.2709
80.19	661.4268
80.57	662.2795
81.00	663.2346
81.07	663.3904
81.07	663.3904
83.79	419.2444
83.79	419.2444
85.43	421.4813
86.48	422.9004
86.55	422.9950
86.79	423.3154
86.94	423.5229
87.57	424.3683
88.03	424.9847
88.47	425.5707
89.96	427.5513
91.11	429.0680
92.59	431.0028
92.59	431.0028
93.35	431.9916
94.67	433.7006
94.87	399.2432
94.87	399.2432
95.86	376.4735
97.43	400.0696
98.44	379.3152
99.53	380.5045
100.11	381.1353
103.18	472.5843
103.37	472.8342
105.31	364.3499
106.12	399.8791
109.28	393.1222
111.00	416.4730
111.76	350.2151
116.30	345.1195
117.23	454.3180
121.12	384.2086
121.78	391.8261
122.06	383.9254
123.07	317.0178
131.20	386.3469
133.52	351.2325
136.00	386.9476

136.47	359.5998
140.51	378.6374
140.51	0.0000
143.76	376.3907
144.24	371.8658
144.24	371.8658
145.44	397.4217
152.43	354.5406
153.25	377.6382
154.21	365.0069
154.21	365.0069
156.02	347.0552
158.56	342.4923
159.00	341.0150
162.66	347.3612
163.33	340.1570
165.86	355.4814
176.60	312.0628
177.52	312.5799
181.07	336.0922
184.41	339.3945
185.72	327.7660
193.51	352.7901
197.04	309.7168
205.31	307.4907
210.85	298.1895
215.65	325.0573
222.11	288.3309
227.38	293.4285
228.16	297.5532
228.18	297.5628
235.69	270.1439
235.96	278.8735
235.96	278.8735
238.63	267.4234
238.63	267.4234
240.99	268.3086
242.00	268.6875
244.70	218.2755
252.40	240.1799
252.80	240.3095
256.23	276.8838
256.23	276.8838
260.90	0.0000
264.66	215.1958
268.22	195.1627
269.46	230.5568
269.46	230.5568
271.23	227.5553
273.65	190.4612
276.40	230.5559
277.37	223.7427
277.60	223.8102
278.00	200.6144
279.20	196.3463
279.54	184.2473
280.46	185.9822
283.69	219.3654
284.31	204.2155
285.41	205.5106
285.90	0.0000
287.50	215.2551
293.27	0.0000
295.22	181.5521
295.96	161.5193
298.57	162.0144
299.98	223.1320
299.98	223.1320
300.09	223.1626
300.09	223.1626
300.13	223.1713
301.36	200.0469
302.85	190.9973
304.50	209.5573
304.50	209.5573
304.85	203.3622
308.46	174.3689
311.90	192.9743

316.51	199.2681
319.41	210.5402
320.08	200.0560
323.87	182.7208
323.87	182.7208
328.76	190.1331
333.37	166.7841
334.37	183.1698
334.37	183.1698
338.28	157.3400
338.28	157.3400
338.32	157.3459
338.32	157.3459
338.32	157.3459
340.48	199.0319
340.55	199.0468
344.28	152.8658
351.06	173.7190
351.93	173.8733
356.01	134.2576
364.49	147.0928
366.42	151.8379
383.85	165.7500
388.16	149.3206
388.63	159.6505
391.69	179.5445
400.66	156.8101
401.81	161.5902
402.40	176.6915
404.85	177.0806
410.95	153.6079
414.70	131.7010
423.72	135.0353
427.09	144.2790
427.87	169.1738
433.94	135.3286
453.88	128.5337
463.37	135.9043
468.07	117.1875
473.00	107.5345
476.78	128.1321
477.60	123.6008
487.02	108.7074
492.35	0.0000
497.08	123.5828
511.00	125.8138
514.00	121.3486
527.90	0.0000
529.87	0.0000
531.02	116.1257
537.26	119.5309
546.56	0.0000
563.25	101.0763
569.33	96.5645
569.50	105.4424
569.70	105.4555
583.19	93.4722
600.60	124.6963
602.73	111.1715
604.72	119.3756
609.32	117.2957
609.32	117.2957
609.32	117.2957
610.33	127.8928
614.28	86.0137
618.01	116.9162
621.93	86.6264
621.93	86.6264
633.25	100.5720
635.95	88.4014
636.99	81.2566
645.85	93.0652
657.76	96.6374
661.66	124.2041
661.66	124.2041
664.57	0.0000
666.33	110.5178
666.50	108.8560

677.62	110.6076
685.70	94.1850
695.00	109.5727
696.49	116.0520
696.51	116.0553
697.00	109.6953
702.65	122.8613
706.68	95.2958
711.68	107.3669
720.70	89.1956
721.93	0.0000
722.78	114.0659
722.91	114.0756
723.31	119.2878
724.19	103.7754
727.33	91.8235
733.00	81.0970
735.93	85.9385
739.50	100.2684
747.24	88.6407
752.31	114.1118
753.82	99.9256
756.73	101.1781
763.94	90.0743
765.81	99.0008
766.42	106.1045
777.92	98.9462
778.90	95.6582
783.70	88.0842
785.37	72.5359
795.86	68.2052
801.95	88.8871
810.29	86.7656
810.76	79.5545
815.77	63.4358
818.51	73.5012
832.01	76.7197
834.85	84.1387
836.80	0.0000
846.77	71.7387
856.80	61.6016
860.56	77.7533
871.09	63.2486
873.19	68.8962
875.33	0.0000
879.36	60.6868
880.51	56.0479
883.24	63.5989
884.68	73.9352
889.28	71.2741
898.04	82.8523
911.20	73.8658
911.20	73.8658
911.20	73.8658
926.50	72.4523
937.49	97.6994
944.13	88.3703
946.00	87.4786
949.00	77.0039
962.29	64.5296
964.08	64.5768
966.15	77.5586
968.97	77.6504
968.97	77.6504
968.97	77.6504
983.53	71.2819
996.26	80.4865
1001.03	80.6427
1004.73	92.5817
1037.84	79.8320
1038.76	0.0000
1048.07	83.1581
1050.41	73.2032
1050.41	73.2032
1063.66	71.5616
1085.87	83.3453
1099.45	79.6796
1112.07	80.0528

1115.54	95.9128
1120.29	81.3222
1120.29	81.3222
1120.29	81.3222
1120.55	81.3299
1121.30	81.3530
1131.51	0.0000
1173.23	90.2160
1177.93	89.3123
1189.05	100.2046
1204.77	106.0498
1221.41	127.9805
1231.02	111.2719
1235.36	112.5059
1238.28	114.7585
1260.41	0.0000
1271.85	69.4031
1274.44	62.9476
1274.54	59.6943
1291.59	69.8438
1298.22	0.0000
1312.11	70.3031
1332.49	38.6931
1365.19	31.6384
1368.63	0.0000
1384.29	33.6943
1408.01	25.4498
1457.56	0.0000
1460.82	26.8003
1489.16	26.0519
1505.03	18.2755
1596.21	15.3262
1620.50	19.9943
1678.03	0.0000
1690.97	19.3386
1764.49	14.5081
1764.49	14.5081
1764.49	14.5081
1770.23	16.0105
1771.35	14.2355
1791.20	0.0000
1836.06	11.5935

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065189

Total Uranium Activity	5.3397E+00	ug/g
Total Uranium Counting Unc.	2.0440E+00	ug/g
Total Uranium Tpu	1.0428E-06	ug/g
Total Uranium Mda	8.6471E-01	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G1202065189      *
*   ANALYST       : MXR1                      DETECTOR   : GAM21            *
*   SAMPLE DATE   :  5-MAR-2010 12:00:00.00   COUNT TIME :    0 04:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 23:00:25.28    SAMPLE ALQT:  122.070 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.099E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.251E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 3.798E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.851E+00
```

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 10:17:29.46

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 25-MAR-2010 09:16:55
Sample ID         : G1202065190          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:02.21  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.48	3653	1120	1.07	119.22	113	11	1.01E+00	2.4	
2	2	74.80	274	459	1.22	149.83	145	15	7.62E-02	14.2	3.12E+00
3	2	77.10*	407	386	1.08	154.42	145	15	1.13E-01	9.4	
4	0	88.09	1951	721	1.15	176.38	171	12	5.42E-01	3.6	
5	0	92.85*	119	426	1.77	185.90	183	9	3.31E-02	33.6	
6	0	122.01	348	514	1.08	244.16	238	12	9.68E-02	14.1	
7	0	186.19*	142	575	1.24	372.40	365	13	3.94E-02	36.4	
8	0	209.26	60	349	1.10	418.50	415	8	1.67E-02	55.4	
9	3	238.69*	843	316	1.32	477.30	470	20	2.34E-01	5.1	2.05E+00
10	3	241.58	162	435	1.82	483.08	470	20	4.50E-02	28.8	
11	0	270.41	89	437	1.23	540.69	534	14	2.47E-02	51.1	
12	0	295.39*	209	346	1.61	590.59	585	12	5.80E-02	19.2	
13	0	338.36*	158	363	1.27	676.47	669	12	4.40E-02	25.5	
14	0	351.92*	489	321	1.40	703.58	697	13	1.36E-01	8.9	
15	0	583.37*	288	179	1.16	1166.15	1160	13	8.01E-02	11.4	
16	0	609.38*	312	179	1.79	1218.14	1214	13	8.66E-02	10.6	
17	0	661.69	3635	233	1.70	1322.71	1314	18	1.01E+00	1.9	
18	0	911.46*	231	257	2.20	1822.04	1815	18	6.42E-02	17.7	
19	0	969.01*	95	171	1.57	1937.11	1933	10	2.64E-02	28.2	
20	0	1120.06*	81	135	3.88	2239.14	2232	16	2.24E-02	34.5	
21	0	1173.30	2983	187	2.28	2345.61	2334	24	8.29E-01	2.2	
22	0	1238.38*	58	32	3.31	2475.76	2466	16	1.62E-02	25.9	
23	0	1332.59	2827	60	2.48	2664.18	2653	21	7.85E-01	2.0	
24	0	1764.73*	48	21	3.69	3528.67	3519	17	1.33E-02	27.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 25-MAR-2010 10:17:32

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 9-MAR-2010 00:00:00 Acquisition date : 25-MAR-2010 09:16:55
Sample ID : G1202065190 Sample quantity : 151.73 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:02.21 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	+	122.06	*	2.454E-01	7.192E-02	5.698E-02	4.699E-03	4.306
		136.47		2.217E-01	2.863E-01	4.960E-01	4.597E-02	0.447
CO-60	+	1173.23		6.587E+00	6.035E-01	1.006E-01	8.091E-03	65.472
	+	1332.49	*	6.898E+00	6.740E-01	7.319E-02	6.526E-03	94.247
CD-109	+	88.03	*	3.543E+01	4.214E+00	1.843E+00	1.749E-01	19.226
SN-126		64.28		-6.603E-01	6.794E-01	1.045E+00	1.517E-01	-0.632
	+	86.94		1.437E+01	6.058E+00	7.547E-01	3.134E-01	19.038
	+	87.57	*	3.456E+00	4.111E-01	1.805E-01	1.704E-02	19.148
BA-137M	+	661.66	*	5.580E+00	6.266E-01	8.497E-02	8.961E-03	65.662
CS-137	+	661.66	*	5.894E+00	6.626E-01	8.977E-02	9.478E-03	65.662
TL-208		277.37		2.304E-01	6.904E-01	1.035E+00	1.722E-01	0.223
	+	583.19	*	4.272E-01	1.080E-01	9.539E-02	1.034E-02	4.478
		860.56		2.452E-01	5.082E-01	8.648E-01	1.008E-01	0.284
BI-211		72.87		1.759E+00	4.575E+00	6.832E+00	5.468E-01	0.257
	+	351.06	*	3.464E+00	7.343E-01	5.093E-01	5.942E-02	6.803
PB-212	+	74.82		2.143E+00	6.663E-01	7.556E-01	9.596E-02	2.836
	+	77.11		1.821E+00	3.750E-01	4.352E-01	3.639E-02	4.185
	+	238.63	*	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
		300.09		2.117E+00	1.358E+00	2.110E+00	3.094E-01	1.003
BI-214	+	609.32	*	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
	+	1120.29		1.141E+00	7.986E-01	7.309E-01	8.111E-02	1.562
	+	1764.49		9.010E-01	5.089E-01	4.442E-01	3.700E-02	2.029
PB-214	+	74.82		3.798E+00	1.162E+00	1.339E+00	1.524E-01	2.836
	+	77.11		3.211E+00	7.122E-01	7.672E-01	9.011E-02	4.185
	+	242.00		1.657E+00	9.807E-01	8.560E-01	1.184E-01	1.936
	+	295.22		9.401E-01	3.882E-01	3.710E-01	5.566E-02	2.534
	+	351.93	*	1.257E+00	2.754E-01	1.852E-01	2.384E-02	6.790
RA-224	+	240.99	*	2.930E+00	1.726E+00	1.509E+00	1.889E-01	1.941
RA-226	+	609.32	*	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
	+	1120.29		1.141E+00	7.986E-01	7.309E-01	8.111E-02	1.562
	+	1764.49		9.010E-01	5.089E-01	4.442E-01	3.700E-02	2.029
AC-228	+	338.32		1.258E+00	8.356E-01	5.950E-01	2.530E-01	2.114
	+	911.20	*	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
	+	968.97		1.124E+00	6.948E-01	7.823E-01	1.967E-01	1.436

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	+	338.32		1.258E+00	8.356E-01	5.950E-01	2.530E-01	2.114
	+	911.20	*	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
	+	968.97		1.124E+00	6.948E-01	7.823E-01	1.967E-01	1.436
TH-228	+	74.82		2.143E+00	6.334E-01	7.556E-01	6.231E-02	2.836
	+	77.11		1.821E+00	3.750E-01	4.352E-01	3.639E-02	4.185
	+	238.63	*	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
		300.09		2.117E+00	1.864E+00	2.110E+00	1.309E+00	1.003
TH-230	+	609.32	*	8.897E-01	2.101E-01	1.672E-01	1.741E-02	5.320
	+	1120.29		1.141E+00	7.949E-01	7.309E-01	6.464E-02	1.562
	+	1764.49		9.009E-01	5.089E-01	4.441E-01	3.700E-02	2.029
TH-232	+	338.32		1.258E+00	6.593E-01	5.950E-01	7.076E-02	2.114
	+	911.20	*	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
	+	968.97		1.124E+00	6.948E-01	7.823E-01	1.967E-01	1.436
AM-241	+	59.54	*	1.388E+01	1.276E+00	4.300E-01	3.361E-02	32.276

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-6.283E-01	6.229E-01	9.539E-01	9.954E-02	-0.659
NA-22		1274.54	*	3.530E-02	4.785E-02	8.450E-02	7.283E-03	0.418
NA-24		1368.63	*	-4.793E+00	4.785E-02	Half-Life too short		
K-40		1460.82	*	1.020E+00	5.080E-01	1.009E+00	9.248E-02	1.010
SC-46		889.28	*	1.936E-02	7.345E-02	1.235E-01	1.382E-02	0.157
	+	1120.55		1.951E-01	1.359E-01	1.669E-01	1.476E-02	1.169
V-48		944.13		-1.120E+00	1.997E+00	3.200E+00	3.471E-01	-0.350
		983.53	*	8.991E-02	1.497E-01	2.529E-01	2.652E-02	0.356
		1312.11		-1.098E-01	9.952E-02	1.444E-01	1.272E-02	-0.760
CR-51		320.08	*	2.543E-01	6.268E-01	1.064E+00	1.377E-01	0.239
MN-54		834.85	*	5.691E-03	6.465E-02	1.084E-01	1.204E-02	0.053
CO-56		846.77	*	9.840E-03	7.148E-02	1.199E-01	1.335E-02	0.082
		1037.84		-1.871E-02	5.661E-01	9.231E-01	9.511E-02	-0.020
	+	1238.28		2.310E-01	1.211E-01	1.784E-01	1.546E-02	1.295
		1771.35		1.750E-01	3.558E-01	5.459E-01	4.536E-02	0.320
CO-58		810.76	*	-4.948E-02	6.825E-02	1.094E-01	1.212E-02	-0.452
FE-59		1099.45	*	6.726E-02	1.725E-01	2.863E-01	2.805E-02	0.235
		1291.59		1.053E-03	1.448E-01	2.395E-01	2.361E-02	0.004
ZN-65		1115.54	*	4.760E-02	1.851E-01	2.607E-01	2.326E-02	0.183
SE-75	+	121.12		1.288E+00	3.880E-01	4.214E-01	4.549E-02	3.056
		136.00		4.249E-02	5.623E-02	9.736E-02	8.451E-03	0.436
		264.66	*	-3.781E-02	8.181E-02	1.112E-01	1.496E-02	-0.340
		279.54		-3.865E-02	1.868E-01	2.960E-01	4.203E-02	-0.131
		400.66		-1.363E-01	4.402E-01	7.125E-01	8.320E-02	-0.191
SR-85		514.00	*	-6.774E-02	7.280E-02	1.115E-01	1.119E-02	-0.608
Y-88		898.04		-1.224E-02	7.860E-02	1.292E-01	1.452E-02	-0.095
		1836.06	*	4.593E-02	4.760E-02	8.778E-02	7.097E-03	0.523
Y-91		1204.77	*	-5.302E+00	2.374E+01	3.875E+01	3.186E+00	-0.137
NB-94		702.65	*	-1.147E-02	5.099E-02	8.211E-02	8.799E-03	-0.140
		871.09		-2.237E-02	6.412E-02	1.046E-01	1.168E-02	-0.214

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	1.970E-02	6.972E-02	1.146E-01	1.253E-02	0.172
NB-95M		235.69	*	6.343E-02	2.291E-01	3.296E-01	4.361E-02	0.192
ZR-95		724.19		3.637E-02	1.474E-01	2.431E-01	2.768E-02	0.150
		756.73	*	-6.121E-02	1.216E-01	1.909E-01	2.221E-02	-0.321
MO-99		140.51		1.745E-04	4.089E+01	6.899E+01	1.642E+01	0.000
		181.07		9.353E+00	4.009E+01	5.901E+01	1.158E+01	0.158
		366.42		2.582E+00	2.206E+02	3.652E+02	3.874E+01	0.007
		739.50	*	-5.276E-01	2.630E+01	4.266E+01	7.287E+00	-0.012
		777.92		-1.249E+01	8.222E+01	1.317E+02	1.445E+01	-0.095
TC-99M		140.51	*	6.925E+06	8.222E+01	Half-Life too short		
RU-103		497.08	*	2.732E-02	6.869E-02	1.127E-01	1.670E-02	0.243
	+	610.33		9.387E+00	2.572E+00	3.130E+00	5.433E-01	2.999
RH-106		621.93	*	-1.807E-01	4.959E-01	8.014E-01	1.163E-01	-0.225
		1050.41		-1.497E+00	4.721E+00	7.558E+00	7.378E-01	-0.198
RU-106		621.93	*	-1.807E-01	4.956E-01	8.014E-01	8.371E-02	-0.225
		1050.41		-1.497E+00	4.721E+00	7.558E+00	7.378E-01	-0.198
AG-108M		433.94	*	-5.355E-02	5.411E-02	8.384E-02	8.251E-03	-0.639
		614.28		2.403E-02	6.516E-02	9.506E-02	1.013E-02	0.253
		722.91		-7.880E-02	6.189E-02	9.243E-02	1.018E-02	-0.852
AG-110M		657.76	*	7.130E-01	1.192E-01	1.773E-01	1.905E-02	4.023
		677.62		1.271E-01	4.526E-01	7.539E-01	8.155E-02	0.169
		706.68		-2.418E-01	3.183E-01	4.932E-01	5.392E-02	-0.490
		763.94		-2.733E-01	2.676E-01	4.047E-01	4.499E-02	-0.675
		884.68		-1.028E-03	9.467E-02	1.570E-01	1.791E-02	-0.007
		937.49		-2.892E-02	2.334E-01	3.829E-01	4.270E-02	-0.076
		1384.29		-1.079E-01	1.977E-01	3.046E-01	2.791E-02	-0.354
		1505.03		-1.076E-01	3.587E-01	5.624E-01	5.001E-02	-0.191
SN-113		391.69	*	-2.312E-02	7.727E-02	1.254E-01	1.198E-02	-0.184
CD-115		260.90		1.167E+02	3.285E+02	5.361E+02	7.124E+01	0.218
		492.35		3.925E+01	9.848E+01	1.617E+02	1.605E+01	0.243
		527.90	*	1.856E+00	2.666E+01	4.483E+01	4.527E+00	0.041
SN-117M		156.02		-1.087E+00	3.445E+00	5.702E+00	5.346E-01	-0.191
		158.56	*	-2.678E-02	8.457E-02	1.398E-01	1.326E-02	-0.192
TE-123M		159.00	*	4.039E-03	4.073E-02	6.837E-02	6.530E-03	0.059
SB-124		602.73		1.380E-02	6.525E-02	9.822E-02	1.020E-02	0.140
		645.85		-1.820E-01	7.986E-01	1.297E+00	1.416E-01	-0.140
		722.78		-7.815E-01	6.315E-01	9.460E-01	1.036E-01	-0.826
		1690.97	*	1.561E-02	9.962E-02	1.685E-01	1.503E-02	0.093
SB-125		427.87	*	5.091E-03	1.563E-01	2.555E-01	2.477E-02	0.020
		463.37		3.834E-01	5.168E-01	8.610E-01	8.908E-02	0.445
		600.60		2.445E-02	2.696E-01	4.487E-01	4.898E-02	0.054
		635.95		5.052E-01	4.458E-01	7.722E-01	8.545E-02	0.654
TE-125M		109.28	*	-4.316E+00	1.409E+01	2.212E+01	2.275E+00	-0.195
I-126		388.63		3.775E-02	3.027E-01	5.008E-01	4.742E-02	0.075
		666.33	*	6.479E-01	4.249E-01	6.622E-01	6.997E-02	0.978
		753.82		3.102E+00	3.189E+00	5.430E+00	5.918E-01	0.571
SB-126		414.70		-7.470E-04	1.388E-01	2.271E-01	2.149E-02	-0.003
		666.50		1.642E-01	1.426E-01	2.180E-01	2.304E-02	0.753
		695.00		1.876E-02	1.282E-01	2.113E-01	2.258E-02	0.089

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		697.00		-7.329E-02	4.456E-01	7.210E-01	7.711E-02	-0.102
		720.70	*	-2.106E-02	2.478E-01	4.016E-01	4.331E-02	-0.052
		856.80		-6.932E-03	9.058E-01	1.507E+00	1.680E-01	-0.005
SB-127		252.40		-9.839E-01	8.641E+00	1.386E+01	5.924E+00	-0.071
		473.00		1.102E+00	3.889E+00	6.363E+00	8.859E-01	0.173
		685.70	*	1.226E+00	2.581E+00	4.330E+00	5.761E-01	0.283
		783.70		1.995E+00	7.273E+00	1.193E+01	1.719E+00	0.167
I-131		80.19		-2.751E+00	7.741E+00	1.110E+01	9.673E-01	-0.248
		284.31		-1.483E+00	2.847E+00	4.431E+00	6.264E-01	-0.335
		364.49	*	-1.378E-01	2.102E-01	3.368E-01	3.734E-02	-0.409
		636.99		1.242E-01	2.859E+00	4.721E+00	5.148E-01	0.026
TE-132		49.72		5.517E+00	4.220E+01	7.111E+01	7.756E+00	0.078
		111.76		-2.937E+01	6.331E+01	9.891E+01	1.102E+01	-0.297
		116.30		9.154E+00	6.094E+01	8.690E+01	9.647E+00	0.105
		228.16	*	-6.566E-01	1.545E+00	2.465E+00	4.470E-01	-0.266
BA-133		81.00		-4.321E-02	1.469E-01	2.110E-01	3.287E-02	-0.205
		276.40		8.390E-01	6.628E-01	9.708E-01	1.731E-01	0.864
		302.85		6.460E-02	2.181E-01	3.612E-01	5.960E-02	0.179
		356.01	*	1.313E-02	7.462E-02	1.086E-01	1.599E-02	0.121
		383.85		3.371E-01	4.963E-01	8.383E-01	1.108E-01	0.402
I-133		529.87	*	-2.273E-02	4.963E-01	Half-Life too short		
		875.33		-3.329E-01	4.963E-01	Half-Life too short		
		1298.22		1.715E-01	4.963E-01	Half-Life too short		
CS-134		563.25		2.318E-01	5.912E-01	1.003E+00	1.034E-01	0.231
		569.33		-2.969E-01	3.309E-01	5.240E-01	5.434E-02	-0.567
		604.72		1.602E-02	5.513E-02	8.028E-02	8.358E-03	0.200
		795.86	*	7.098E-02	7.708E-02	1.302E-01	1.442E-02	0.545
		801.95		-3.819E-01	7.103E-01	1.107E+00	1.226E-01	-0.345
		1365.19		1.616E+00	1.488E+00	2.715E+00	2.530E-01	0.595
CS-135		268.22	*	2.535E-01	2.738E-01	4.019E-01	5.813E-02	0.631
I-135		546.56		-2.443E+11	2.738E-01	Half-Life too short		
		836.80		6.952E+11	2.738E-01	Half-Life too short		
		1038.76		1.407E+11	2.738E-01	Half-Life too short		
		1131.51		8.949E+09	2.738E-01	Half-Life too short		
		1260.41	*	1.469E+11	2.738E-01	Half-Life too short		
		1457.56		1.196E+12	2.738E-01	Half-Life too short		
		1678.03		4.265E+09	2.738E-01	Half-Life too short		
		1791.20		-1.507E+11	2.738E-01	Half-Life too short		
CS-136		153.25		7.859E-01	1.296E+00	2.216E+00	2.395E-01	0.355
		176.60		9.649E-02	7.804E-01	1.301E+00	1.422E-01	0.074
		273.65		-6.261E-01	1.046E+00	1.405E+00	2.003E-01	-0.446
		340.55		4.365E-01	2.906E-01	4.473E-01	5.385E-02	0.976
		818.51		4.071E-02	1.422E-01	2.411E-01	2.672E-02	0.169
		1048.07	*	-2.620E-02	2.080E-01	3.369E-01	3.407E-02	-0.078
		1235.36		1.072E+00	7.350E-01	1.202E+00	1.394E-01	0.892
CE-139		165.86	*	1.006E-02	4.292E-02	7.218E-02	7.079E-03	0.139
BA-140		162.66		-7.156E-01	1.282E+00	2.095E+00	2.133E-01	-0.342
		304.85		-4.603E+00	2.633E+00	3.400E+00	1.051E+00	-1.354
		423.72		1.004E+00	3.518E+00	5.797E+00	1.921E+00	0.173

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		537.26	*	2.555E-01	4.698E-01	7.925E-01	2.721E-01	0.322
LA-140		328.76		2.339E-01	5.107E-01	8.663E-01	1.095E-01	0.270
		487.02		5.407E-02	2.615E-01	4.260E-01	4.416E-02	0.127
		815.77		2.431E-01	6.094E-01	1.039E+00	1.233E-01	0.234
		1596.21	*	-7.469E-02	1.255E-01	1.933E-01	1.694E-02	-0.386
CE-141		145.44	*	-9.325E-02	8.903E-02	1.435E-01	1.306E-02	-0.650
CE-143		57.36		1.360E-02	8.903E-02	Half-Life too short		
		293.27	*	6.885E-04	8.903E-02	Half-Life too short		
		664.57		2.009E-01	8.903E-02	Half-Life too short		
		721.93		-3.067E-03	8.903E-02	Half-Life too short		
CE-144		80.12		-1.489E+00	3.765E+00	5.387E+00	4.657E-01	-0.276
		133.52	*	-2.078E-01	2.823E-01	4.627E-01	7.052E-02	-0.449
PM-144		476.78		-8.818E-02	1.223E-01	1.905E-01	2.001E-02	-0.463
		618.01		3.062E-02	5.630E-02	8.899E-02	9.464E-03	0.344
		696.49	*	-2.925E-03	5.313E-02	8.652E-02	9.253E-03	-0.034
PR-144		696.51	*	-1.968E-01	3.980E+00	6.484E+00	6.932E-01	-0.030
		1489.16		-7.258E+00	1.691E+01	2.607E+01	2.322E+00	-0.278
PM-146		453.88	*	-1.790E-02	7.911E-02	1.271E-01	1.461E-02	-0.141
		633.25		1.191E+00	2.386E+00	3.962E+00	1.531E+00	0.301
		735.93		-3.607E-02	2.360E-01	3.797E-01	1.093E-01	-0.095
		747.24		-5.684E-02	1.548E-01	2.450E-01	3.926E-02	-0.232
ND-147		91.11		1.133E+00	4.999E-01	6.529E-01	6.454E-02	1.735
		319.41		6.263E+00	5.893E+00	1.018E+01	1.289E+00	0.615
		531.02	*	-5.022E-01	9.584E-01	1.558E+00	2.470E-01	-0.322
PM-149		285.90	*	-9.432E+01	2.346E+02	3.669E+02	6.943E+01	-0.257
EU-152	+	121.78		7.042E-01	2.092E-01	2.340E-01	2.241E-02	3.009
		244.70		-1.162E-01	5.865E-01	8.195E-01	1.038E-01	-0.142
		344.28	*	1.084E-02	1.766E-01	2.560E-01	3.076E-02	0.042
		778.90		-3.505E-02	4.294E-01	6.905E-01	7.577E-02	-0.051
		964.08		6.815E-01	6.438E-01	9.622E-01	1.027E-01	0.708
		1085.87		5.522E-01	7.090E-01	1.202E+00	1.120E-01	0.459
		1112.07		1.361E-01	6.035E-01	8.493E-01	7.610E-02	0.160
		1408.01		1.995E-01	2.127E-01	3.831E-01	3.425E-02	0.521
GD-153		69.67		1.741E+00	2.575E+00	3.906E+00	3.031E-01	0.446
		97.43	*	1.063E-02	1.262E-01	1.821E-01	1.601E-02	0.058
		103.18		-6.306E-02	1.586E-01	2.501E-01	2.138E-02	-0.252
EU-154	+	123.07		4.979E-01	1.505E-01	1.633E-01	1.810E-02	3.049
		723.31		-3.501E-01	2.795E-01	4.175E-01	4.803E-02	-0.838
		873.19		-1.989E-01	5.418E-01	8.824E-01	1.223E-01	-0.225
		996.26		-2.573E-01	6.599E-01	1.056E+00	1.942E-01	-0.244
		1004.73		6.650E-02	3.860E-01	6.386E-01	8.244E-02	0.104
		1274.44	*	9.591E-02	1.353E-01	2.380E-01	2.707E-02	0.403
EU-155		86.55		2.227E+00	2.999E-01	4.013E-01	3.775E-02	5.550
		105.31	*	1.250E-01	1.480E-01	2.449E-01	2.101E-02	0.511
TB-160	+	86.79		1.125E+01	1.339E+00	1.163E+00	1.087E-01	9.679
		197.04		-3.828E-01	8.637E-01	1.398E+00	1.520E-01	-0.274
		215.65		-7.725E-02	1.238E+00	2.019E+00	2.333E-01	-0.038
		298.57		1.395E-01	1.969E-01	2.985E-01	4.001E-02	0.467
		879.36	*	1.579E-01	2.792E-01	4.721E-01	5.279E-02	0.334

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		962.29		2.237E-01	1.213E+00	1.728E+00	1.846E-01	0.129
		966.15		1.234E+00	5.060E-01	7.894E-01	8.409E-02	1.563
		1177.93		1.119E+01	1.389E+00	2.227E+00	1.797E-01	5.023
		1271.85		-1.349E-01	7.676E-01	1.248E+00	1.073E-01	-0.108
HO-166M		80.57		-9.026E-02	4.105E-01	5.922E-01	5.146E-02	-0.152
		184.41		5.621E-02	5.358E-02	9.226E-02	9.619E-03	0.609
		280.46		-2.474E-02	1.417E-01	2.248E-01	3.140E-02	-0.110
		410.95		1.279E-01	4.175E-01	6.927E-01	6.538E-02	0.185
		711.68	*	-1.588E-02	9.174E-02	1.480E-01	1.591E-02	-0.107
		752.31		5.142E-01	4.519E-01	7.749E-01	8.442E-02	0.664
		810.29		-4.304E-02	1.016E-01	1.660E-01	1.836E-02	-0.259
TA-182		67.75		1.150E-02	1.506E-01	2.497E-01	1.904E-02	0.046
		100.11		-2.538E-03	2.407E-01	3.869E-01	3.353E-02	-0.007
		152.43		1.371E-02	4.968E-01	8.343E-01	7.697E-02	0.016
		222.11		6.560E-03	5.948E-01	9.703E-01	1.145E-01	0.007
	+	1121.30		5.389E-01	3.753E-01	4.468E-01	3.945E-02	1.206
		1189.05		-2.458E-01	3.723E-01	5.872E-01	4.775E-02	-0.419
		1221.41	*	-4.006E-02	2.117E-01	3.461E-01	2.878E-02	-0.116
		1231.02		-1.390E-01	5.403E-01	7.356E-01	6.156E-02	-0.189
IR-192	+	295.96		7.034E-01	2.869E-01	3.395E-01	4.593E-02	2.072
		308.46		9.459E-02	1.498E-01	2.569E-01	3.364E-02	0.368
		316.51	*	-2.151E-02	5.621E-02	9.255E-02	1.183E-02	-0.232
		468.07		-1.002E-01	1.321E-01	2.062E-01	2.134E-02	-0.486
HG-203		70.83		5.832E-01	2.008E+00	2.991E+00	4.683E-01	0.195
		72.87		4.461E-01	1.162E+00	1.733E+00	2.634E-01	0.257
		279.20	*	-1.630E-02	6.628E-02	1.049E-01	1.483E-02	-0.155
BI-207		72.81		9.041E-02	2.632E-01	3.924E-01	3.139E-02	0.230
	+	74.97		6.177E-01	1.824E-01	2.712E-01	2.217E-02	2.278
		569.70		-2.357E-02	5.004E-02	8.121E-02	8.342E-03	-0.290
		1063.66	*	4.345E-02	9.695E-02	1.619E-01	1.554E-02	0.268
		1770.23		7.526E-01	7.657E-01	1.253E+00	1.042E-01	0.601
PB-210		46.54	*	-9.424E-01	5.493E+00	9.202E+00	8.474E-01	-0.102
PB-211		404.85	*	-5.866E-01	1.262E+00	1.975E+00	9.587E-01	-0.297
		427.09		-2.420E+00	2.866E+00	4.120E+00	1.913E+00	-0.587
		832.01		-9.521E-01	1.833E+00	2.864E+00	1.499E+00	-0.332
BI-212		727.33	*	4.134E-03	8.732E-01	1.422E+00	2.000E-01	0.003
		785.37		4.290E+00	5.199E+00	8.762E+00	9.631E-01	0.490
		1620.50		-2.024E+00	2.877E+00	4.334E+00	3.778E-01	-0.467
RN-219	+	271.23		6.485E-01	6.698E-01	6.503E-01	9.607E-02	0.997
		401.81	*	-2.733E-01	7.024E-01	1.131E+00	1.733E-01	-0.242
RA-223		81.07		-8.385E-02	3.328E-01	4.792E-01	4.188E-02	-0.175
		83.79		3.097E-02	2.012E-01	2.943E-01	2.655E-02	0.105
		94.87		6.172E-01	6.478E-01	9.757E-01	8.724E-02	0.633
		144.24		-7.471E-01	9.104E-01	1.476E+00	1.458E-01	-0.506
		154.21		4.311E-01	5.470E-01	9.396E-01	9.461E-02	0.459
	+	269.46		5.039E-01	5.197E-01	4.959E-01	6.809E-02	1.016
		323.87	*	-8.937E-01	1.081E+00	1.725E+00	3.372E-01	-0.518
	+	338.28		4.991E+00	2.650E+00	3.163E+00	4.615E-01	1.578
AC-227		79.69		-1.439E+00	1.876E+00	2.614E+00	4.503E-01	-0.551

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		235.96		4.373E-01	2.840E-01	4.245E-01	5.767E-02	1.030
		256.23	*	-2.257E-02	4.155E-01	6.680E-01	1.041E-01	-0.034
		299.98		1.643E+00	1.520E+00	2.325E+00	3.788E-01	0.707
		304.50		-4.167E+00	2.616E+00	3.892E+00	7.519E-01	-1.071
		334.37		1.731E-01	3.153E+00	4.583E+00	8.122E-01	0.038
TH-227		79.80		-1.688E+00	2.484E+00	3.469E+00	7.554E-01	-0.487
		235.96		4.373E-01	2.836E-01	4.245E-01	5.580E-02	1.030
		256.23	*	-2.257E-02	4.155E-01	6.680E-01	1.123E-01	-0.034
		299.98		1.643E+00	1.520E+00	2.325E+00	3.788E-01	0.707
		304.50		-4.167E+00	2.616E+00	3.892E+00	7.519E-01	-1.071
		334.37		1.731E-01	3.153E+00	4.583E+00	8.122E-01	0.038
TH-229		85.43		3.726E-01	3.410E-01	5.148E-01	4.736E-02	0.724
	+	88.47		5.329E+00	6.338E-01	5.928E-01	5.600E-02	8.988
		193.51	*	-5.836E-01	7.982E-01	1.275E+00	1.371E-01	-0.458
		210.85		7.206E-01	1.624E+00	2.378E+00	2.706E-01	0.303
PA-231		283.69	*	-3.662E-01	2.451E+00	3.888E+00	7.072E-01	-0.094
		301.36		1.757E+00	9.721E-01	1.507E+00	2.386E-01	1.166
TH-231		81.07		-8.385E-02	3.328E-01	4.792E-01	4.188E-02	-0.175
		83.79		3.097E-02	2.012E-01	2.943E-01	2.655E-02	0.105
		94.87		6.172E-01	6.478E-01	9.757E-01	8.724E-02	0.633
		144.24		-7.471E-01	9.104E-01	1.476E+00	1.458E-01	-0.506
		154.21		4.311E-01	5.470E-01	9.396E-01	9.461E-02	0.459
	+	269.46		5.039E-01	5.197E-01	4.959E-01	6.809E-02	1.016
		323.87	*	-8.937E-01	1.081E+00	1.725E+00	3.372E-01	-0.518
	+	338.28		4.991E+00	2.650E+00	3.163E+00	4.615E-01	1.578
PA-233		300.13		1.057E+00	6.852E-01	1.051E+00	1.891E-01	1.006
		311.90	*	6.103E-02	1.006E-01	1.723E-01	2.258E-02	0.354
		340.48		1.757E+00	1.240E+00	1.808E+00	4.589E-01	0.972
PA-234		94.67		2.927E-01	2.393E-01	3.622E-01	4.577E-02	0.808
		98.44		-1.647E-02	1.293E-01	1.964E-01	1.096E-01	-0.084
		111.00		-1.023E-01	2.634E-01	4.113E-01	4.892E-02	-0.249
		131.20		-1.650E-02	1.461E-01	2.466E-01	2.089E-02	-0.067
		569.50		-2.014E-01	4.445E-01	7.222E-01	7.417E-02	-0.279
		733.00		-4.800E-01	6.579E-01	1.011E+00	2.340E-01	-0.475
		880.51		1.041E-01	5.499E-01	9.147E-01	1.023E-01	0.114
		883.24		-5.849E-02	5.542E-01	9.127E-01	6.170E-01	-0.064
		926.50		-5.388E-02	3.599E-01	5.898E-01	1.544E-01	-0.091
		946.00	*	-2.163E-01	6.427E-01	1.040E+00	2.068E-01	-0.208
		949.00		-2.714E-01	9.596E-01	1.560E+00	1.686E-01	-0.174
PA-234M		766.42		5.938E+00	1.873E+01	3.044E+01	1.558E+01	0.195
		1001.03	*	1.848E+00	8.268E+00	1.377E+01	1.578E+00	0.134
TH-234		63.29	*	-8.535E-01	1.934E+00	2.879E+00	5.124E-01	-0.296
	+	92.59		1.770E+00	1.254E+00	1.547E+00	3.445E-01	1.145
U-235		89.96		1.035E+01	3.019E+00	2.526E+00	6.279E-01	4.099
	+	93.35		1.337E+00	9.517E-01	1.174E+00	2.730E-01	1.139
		143.76	*	-1.472E-01	2.700E-01	4.419E-01	7.553E-02	-0.333
		163.33		-5.418E-01	6.497E-01	1.039E+00	1.922E-01	-0.521
	+	185.72		1.613E-01	1.187E-01	1.212E-01	1.269E-02	1.331
		205.31		-2.797E-01	8.060E-01	1.135E+00	2.212E-01	-0.246

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237		86.48	*	4.949E+00	1.248E+00	9.559E-01	2.193E-01	5.177
		95.86		9.849E-02	1.320E+00	1.905E+00	4.589E-01	0.052
U-238		63.29	*	-8.535E-01	1.934E+00	2.879E+00	5.124E-01	-0.296
	+	92.59		1.770E+00	1.201E+00	1.547E+00	1.407E-01	1.145
NP-239		99.53		-1.067E-01	2.240E-01	3.527E-01	3.066E-02	-0.303
		103.37		-2.145E-03	1.417E-01	2.273E-01	1.941E-02	-0.009
		106.12		-8.509E-02	1.193E-01	1.849E-01	1.564E-02	-0.460
		117.23	*	-2.970E-01	6.546E-01	8.999E-01	7.436E-02	-0.330
		228.18		-1.474E-01	3.487E-01	5.574E-01	6.705E-02	-0.264
		277.60		1.086E-02	3.032E-01	4.688E-01	6.535E-02	0.023
CM-247		278.00		-2.292E-02	1.289E+00	1.988E+00	2.774E-01	-0.012
		287.50		1.600E+00	2.096E+00	3.437E+00	4.728E-01	0.466
		402.40	*	3.664E-02	6.265E-02	1.053E-01	9.875E-03	0.348
CF-249		252.80		-1.459E-01	1.514E+00	2.433E+00	3.156E-01	-0.060
		333.37		-2.101E-02	3.286E-01	4.744E-01	5.740E-02	-0.044
		388.16	*	6.796E-03	6.811E-02	1.126E-01	1.069E-02	0.060
CF-251		177.52	*	1.287E-03	1.909E-01	3.169E-01	3.229E-02	0.004
		227.38		-2.177E-01	5.655E-01	9.055E-01	1.087E-01	-0.240
		285.41		-1.641E+00	3.761E+00	5.881E+00	8.127E-01	-0.279
ANH-511		511.00	*	5.184E-02	6.036E-02	1.083E-01	1.085E-02	0.479

VAX/VMS Nuclide Identification Report Generated

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                              2040 Savage Road                         *
*                            Charleston, SC 29414                       *
*************************************************************************
*                                                                       *
*                              DETECTOR DATA                            *
*                                                                       *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190 *
* Acquisition date : 25-MAR-2010 09:16:55 Detector SN#     :            *
* Detector ID      : GAM22                Sensitivity     : 5.000      *
* Geometry         : CAN                  Energy tolerance: 1.500      *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000     *
* Elapsed real time:    0 01:00:02.21     Half life ratio :  8.000     *
*************************************************************************
*                                                                       *
*                              SAMPLE DATA                              *
*                                                                       *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID       *
* Sample ID        : G1202065190          Analyst initials: MXR1        *
* Batch Number     : 962633               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000   *
*************************************************************************
*                                                                       *
*                                QC DATA                                *
* Standard Weight  :   0.00000                                          *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :             *
* MSD DPM          :    0.000             MSD Isotope     :             *
* LCS DPM          :    0.000             LCS Isotope     :             *
* LCSD DPM         :    0.000             LCSD Isotope    :             *
*************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-57	2.454E-01	7.048E-02	6.108E-02	0.000E+00
CO-60	6.898E+00	6.605E-01	7.391E-02	0.000E+00
CD-109	3.543E+01	4.130E+00	1.990E+00	0.000E+00
SN-126	3.456E+00	4.029E-01	1.950E-01	0.000E+00
BA-137M	5.580E+00	6.140E-01	8.739E-02	0.000E+00
CS-137	5.894E+00	6.494E-01	9.232E-02	0.000E+00
TL-208	4.272E-01	1.058E-01	9.842E-02	0.000E+00
BI-211	3.464E+00	7.196E-01	5.321E-01	0.000E+00
PB-212	1.427E+00	2.333E-01	1.487E-01	0.000E+00
BI-214	8.897E-01	2.110E-01	1.724E-01	0.000E+00
PB-214	1.257E+00	2.699E-01	1.935E-01	0.000E+00
RA-224	2.930E+00	1.691E+00	1.592E+00	0.000E+00
RA-226	8.897E-01	2.110E-01	1.724E-01	0.000E+00
AC-228	1.589E+00	5.890E-01	4.709E-01	0.000E+00
RA-228	1.589E+00	5.890E-01	4.709E-01	0.000E+00
TH-228	1.427E+00	2.333E-01	1.487E-01	0.000E+00
TH-230	8.897E-01	2.059E-01	1.724E-01	0.000E+00
TH-232	1.589E+00	5.890E-01	4.709E-01	0.000E+00
AM-241	1.388E+01	1.250E+00	4.687E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-6.283E-01		6.105E-01	9.892E-01	0.000E+00	NOT IDENT.
NA-22	3.530E-02		4.690E-02	8.544E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		3.888E+06	0.000E+00	0.000E+00	SHORT HLIF
K-40	0.000E+00		4.979E-01	1.017E+00	0.000E+00	NOT IDENT.
SC-46	1.936E-02		7.198E-02	1.260E-01	0.000E+00	FAIL ABUN
V-48	8.991E-02		1.467E-01	2.574E-01	0.000E+00	NOT IDENT.
CR-51	2.543E-01		6.143E-01	1.114E+00	0.000E+00	NOT IDENT.
MN-54	5.691E-03		6.336E-02	1.108E-01	0.000E+00	NOT IDENT.

CO-56	9.840E-03	7.005E-02	1.226E-01	0.000E+00	FAIL ABUN
CO-58	-4.948E-02	6.689E-02	1.120E-01	0.000E+00	NOT IDENT.
FE-59	6.726E-02	1.691E-01	2.906E-01	0.000E+00	NOT IDENT.
ZN-65	4.760E-02	1.814E-01	2.645E-01	0.000E+00	NOT IDENT.
SE-75	-3.781E-02	8.017E-02	1.170E-01	0.000E+00	FAIL ABUN
SR-85	-6.774E-02	7.135E-02	1.154E-01	0.000E+00	NOT IDENT.
Y-88	4.593E-02	4.665E-02	8.788E-02	0.000E+00	NOT IDENT.
Y-91	-5.302E+00	2.326E+01	3.923E+01	0.000E+00	NOT IDENT.
NB-94	-1.147E-02	4.997E-02	8.432E-02	0.000E+00	NOT IDENT.
NB-95	1.970E-02	6.833E-02	1.174E-01	0.000E+00	NOT IDENT.
NB-95M	6.343E-02	2.245E-01	3.477E-01	0.000E+00	NOT IDENT.
ZR-95	-6.121E-02	1.192E-01	1.957E-01	0.000E+00	NOT IDENT.
MO-99	-5.276E-01	2.577E+01	4.375E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.590E+18	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.732E-02	6.732E-02	1.167E-01	0.000E+00	FAIL ABUN
RH-106	-1.807E-01	4.860E-01	8.255E-01	0.000E+00	NOT IDENT.
RU-106	-1.807E-01	4.857E-01	8.255E-01	0.000E+00	NOT IDENT.
AG-108M	-5.355E-02	5.302E-02	8.714E-02	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	1.168E-01	1.823E-01	0.000E+00	NOT IDENT.
SN-113	-2.312E-02	7.572E-02	1.307E-01	0.000E+00	NOT IDENT.
CD-115	1.856E+00	2.613E+01	4.637E+01	0.000E+00	NOT IDENT.
SN-117M	-2.678E-02	8.287E-02	1.489E-01	0.000E+00	NOT IDENT.
TE-123M	4.039E-03	3.991E-02	7.283E-02	0.000E+00	NOT IDENT.
SB-124	1.561E-02	9.763E-02	1.691E-01	0.000E+00	NOT IDENT.
SB-125	5.091E-03	1.532E-01	2.656E-01	0.000E+00	NOT IDENT.
TE-125M	-4.316E+00	1.381E+01	2.378E+01	0.000E+00	NOT IDENT.
I-126	6.479E-01	4.164E-01	6.809E-01	0.000E+00	NOT IDENT.
SB-126	-2.106E-02	2.428E-01	4.121E-01	0.000E+00	NOT IDENT.
SB-127	1.226E+00	2.529E+00	4.449E+00	0.000E+00	NOT IDENT.
I-131	-1.378E-01	2.060E-01	3.516E-01	0.000E+00	NOT IDENT.
TE-132	-6.566E-01	1.514E+00	2.604E+00	0.000E+00	NOT IDENT.
BA-133	1.313E-02	7.313E-02	1.134E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.499E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.098E-02	7.554E-02	1.333E-01	0.000E+00	NOT IDENT.
CS-135	2.535E-01	2.683E-01	4.227E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.638E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.620E-02	2.038E-01	3.424E-01	0.000E+00	NOT IDENT.
CE-139	1.006E-02	4.207E-02	7.681E-02	0.000E+00	NOT IDENT.
BA-140	2.555E-01	4.604E-01	8.193E-01	0.000E+00	NOT IDENT.
LA-140	-7.469E-02	1.230E-01	1.943E-01	0.000E+00	NOT IDENT.
CE-141	-9.325E-02	8.725E-02	1.532E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.676E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.078E-01	2.767E-01	4.950E-01	0.000E+00	NOT IDENT.
PM-144	-2.925E-03	5.206E-02	8.887E-02	0.000E+00	NOT IDENT.
PR-144	-1.968E-01	3.900E+00	6.659E+00	0.000E+00	NOT IDENT.
PM-146	-1.790E-02	7.753E-02	1.320E-01	0.000E+00	NOT IDENT.
ND-147	-5.022E-01	9.393E-01	1.611E+00	0.000E+00	NOT IDENT.
PM-149	-9.432E+01	2.299E+02	3.854E+02	0.000E+00	NOT IDENT.
EU-152	1.084E-02	1.730E-01	2.676E-01	0.000E+00	FAIL ABUN
GD-153	1.063E-02	1.237E-01	1.962E-01	0.000E+00	NOT IDENT.
EU-154	9.591E-02	1.326E-01	2.407E-01	0.000E+00	FAIL ABUN
EU-155	1.250E-01	1.450E-01	2.634E-01	0.000E+00	NOT IDENT.
TB-160	1.579E-01	2.736E-01	4.819E-01	0.000E+00	FAIL ABUN
HO-166M	-1.588E-02	8.991E-02	1.519E-01	0.000E+00	NOT IDENT.
TA-182	-4.006E-02	2.074E-01	3.503E-01	0.000E+00	FAIL ABUN
IR-192	-2.151E-02	5.508E-02	9.696E-02	0.000E+00	FAIL ABUN
HG-203	-1.630E-02	6.496E-02	1.102E-01	0.000E+00	NOT IDENT.
BI-207	4.345E-02	9.501E-02	1.645E-01	0.000E+00	FAIL ABUN
PB-210	-9.424E-01	5.383E+00	1.008E+01	0.000E+00	NOT IDENT.
PB-211	-5.866E-01	1.237E+00	2.057E+00	0.000E+00	NOT IDENT.
BI-212	4.134E-03	8.557E-01	1.459E+00	0.000E+00	NOT IDENT.
RN-219	-2.733E-01	6.883E-01	1.178E+00	0.000E+00	FAIL ABUN
RA-223	-8.937E-01	1.060E+00	1.806E+00	0.000E+00	FAIL ABUN
AC-227	-2.257E-02	4.072E-01	7.035E-01	0.000E+00	NOT IDENT.
TH-227	-2.257E-02	4.072E-01	7.035E-01	0.000E+00	NOT IDENT.
TH-229	-5.836E-01	7.823E-01	1.352E+00	0.000E+00	FAIL ABUN
PA-231	-3.662E-01	2.402E+00	4.084E+00	0.000E+00	NOT IDENT.
TH-231	-8.937E-01	1.060E+00	1.806E+00	0.000E+00	FAIL ABUN
PA-233	6.103E-02	9.862E-02	1.806E-01	0.000E+00	NOT IDENT.
PA-234	-2.163E-01	6.299E-01	1.060E+00	0.000E+00	NOT IDENT.
PA-234M	1.848E+00	8.103E+00	1.401E+01	0.000E+00	NOT IDENT.
TH-234	-8.535E-01	1.895E+00	3.134E+00	0.000E+00	FAIL ABUN
U-235	-1.472E-01	2.646E-01	4.719E-01	0.000E+00	FAIL ABUN
NP-237	0.000E+00	1.223E+00	1.033E+00	0.000E+00	NOT IDENT.
U-238	-8.535E-01	1.895E+00	3.134E+00	0.000E+00	FAIL ABUN
NP-239	-2.970E-01	6.415E-01	9.655E-01	0.000E+00	NOT IDENT.
CM-247	3.664E-02	6.140E-02	1.096E-01	0.000E+00	NOT IDENT.
CF-249	6.796E-03	6.675E-02	1.174E-01	0.000E+00	NOT IDENT.

CF-251	1.287E-03	1.871E-01	3.367E-01	0.000E+00 NOT IDENT.
ANH-511	5.184E-02	5.915E-02	1.121E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 10:17:30.53

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 25-MAR-2010 09:16:55
Sample ID         : G1202065190          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:02.21  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	348	85.60*	8.558E+00	2.353E-01	2.454E-01	29.31
	136.47	------	10.68	8.461E+00	------ Line Not Found		------
CO-60	1173.23	2983	99.85	2.258E+00	6.548E+00	6.587E+00	9.16
	1332.49	2827	99.98*	2.040E+00	6.857E+00	6.898E+00	9.77
CD-109	88.03	1951	3.70*	7.548E+00	3.456E+01	3.543E+01	11.89
SN-126	64.28	------	9.60	4.512E+00	------ Line Not Found		------
	86.94	1951	8.90	7.548E+00	1.437E+01	1.437E+01	42.16
	87.57	1951	37.00*	7.548E+00	3.456E+00	3.456E+00	11.89
BA-137M	661.66	3635	89.90*	3.590E+00	5.574E+00	5.580E+00	11.23
CS-137	661.66	3635	85.10*	3.590E+00	5.888E+00	5.894E+00	11.24
TL-208	277.37	------	6.60	6.182E+00	------ Line Not Found		------
	583.19	288	85.00*	3.930E+00	4.272E-01	4.272E-01	25.28
	860.56	------	12.50	2.923E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	5.897E+00	------ Line Not Found		------
	351.06	489	12.92*	5.401E+00	3.464E+00	3.464E+00	21.20
PB-212	74.82	274	10.28	6.165E+00	2.143E+00	2.143E+00	31.09
	77.11	407	17.10	6.460E+00	1.821E+00	1.821E+00	20.59
	238.63	843	43.60*	6.709E+00	1.427E+00	1.427E+00	16.69
	300.09	------	3.30	5.916E+00	------ Line Not Found		------
BI-214	609.32	312	45.49*	3.811E+00	8.897E-01	8.897E-01	24.20
	1120.29	81	14.92	2.346E+00	1.141E+00	1.141E+00	69.97
	1764.49	48	15.30	1.716E+00	9.009E-01	9.010E-01	56.49
PB-214	74.82	274	5.80	6.165E+00	3.798E+00	3.798E+00	30.58
	77.11	407	9.70	6.460E+00	3.211E+00	3.211E+00	22.18
	242.00	162	7.25	6.666E+00	1.657E+00	1.657E+00	59.19
	295.22	209	18.42	5.968E+00	9.401E-01	9.401E-01	41.29
	351.93	489	35.60*	5.401E+00	1.257E+00	1.257E+00	21.90
RA-224	240.99	162	4.10*	6.666E+00	2.930E+00	2.930E+00	58.90
RA-226	609.32	312	45.49*	3.811E+00	8.897E-01	8.897E-01	24.20
	1120.29	81	14.92	2.346E+00	1.141E+00	1.141E+00	69.97
	1764.49	48	15.30	1.716E+00	9.009E-01	9.010E-01	56.49
AC-228	338.32	158	11.27	5.525E+00	1.258E+00	1.258E+00	66.44

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	231	25.80*	2.788E+00	1.589E+00	1.589E+00	37.81
	968.97	95	15.80	2.649E+00	1.124E+00	1.124E+00	61.84
RA-228	338.32	158	11.27	5.525E+00	1.258E+00	1.258E+00	66.44
	911.20	231	25.80*	2.788E+00	1.589E+00	1.589E+00	37.81
	968.97	95	15.80	2.649E+00	1.124E+00	1.124E+00	61.84
TH-228	74.82	274	10.28	6.165E+00	2.143E+00	2.143E+00	29.56
	77.11	407	17.10	6.460E+00	1.821E+00	1.821E+00	20.59
	238.63	843	43.60*	6.709E+00	1.427E+00	1.427E+00	16.69
	300.09	------	3.30	5.916E+00	------	Line Not Found	------
TH-230	609.32	312	45.49*	3.811E+00	8.897E-01	8.897E-01	23.61
	1120.29	81	14.92	2.346E+00	1.141E+00	1.141E+00	69.65
	1764.49	48	15.30	1.716E+00	9.009E-01	9.009E-01	56.49
TH-232	338.32	158	11.27	5.525E+00	1.258E+00	1.258E+00	52.42
	911.20	231	25.80*	2.788E+00	1.589E+00	1.589E+00	37.81
	968.97	95	15.80	2.649E+00	1.124E+00	1.124E+00	61.84
AM-241	59.54	3653	35.90*	3.628E+00	1.388E+01	1.388E+01	9.19

Flag: "*" = Keyline

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

Total number of lines in spectrum 24
Number of unidentified lines 1
Number of lines tentatively identified by NID 23 95.83%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	271.74D	1.04	2.353E-01	2.454E-01	0.719E-01	29.31	
CO-60	5.27Y	1.01	6.857E+00	6.898E+00	0.674E+00	9.77	
CD-109	461.40D	1.02	3.456E+01	3.543E+01	0.421E+01	11.89	
SN-126	2.30E+05Y	1.00	3.456E+00	3.456E+00	0.411E+00	11.89	
BA-137M	30.08Y	1.00	5.574E+00	5.580E+00	0.627E+00	11.23	
CS-137	30.08Y	1.00	5.888E+00	5.894E+00	0.663E+00	11.24	
TL-208	1.41E+10Y	1.00	4.272E-01	4.272E-01	1.080E-01	25.28	
BI-211	7.04E+08Y	1.00	3.464E+00	3.464E+00	0.734E+00	21.20	
PB-212	1.41E+10Y	1.00	1.427E+00	1.427E+00	0.238E+00	16.69	
BI-214	1600.00Y	1.00	8.897E-01	8.897E-01	2.153E-01	24.20	
PB-214	1600.00Y	1.00	1.257E+00	1.257E+00	0.275E+00	21.90	
RA-224	1.41E+10Y	1.00	2.930E+00	2.930E+00	1.726E+00	58.90	
RA-226	1600.00Y	1.00	8.897E-01	8.897E-01	2.153E-01	24.20	
AC-228	1.41E+10Y	1.00	1.589E+00	1.589E+00	0.601E+00	37.81	
RA-228	1.41E+10Y	1.00	1.589E+00	1.589E+00	0.601E+00	37.81	
TH-228	1.41E+10Y	1.00	1.427E+00	1.427E+00	0.238E+00	16.69	
TH-230	7.54E+04Y	1.00	8.897E-01	8.897E-01	2.101E-01	23.61	
TH-232	1.41E+10Y	1.00	1.589E+00	1.589E+00	0.601E+00	37.81	
AM-241	432.60Y	1.00	1.388E+01	1.388E+01	0.128E+01	9.19	
	Total Activity :		8.882E+01	8.975E+01			

Grand Total Activity : 8.882E+01 8.975E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.85	119	426	1.77	185.90	183	9	3.31E-02	67.3	7.87E+00	T
0	186.19	142	575	1.24	372.40	365	13	3.94E-02	72.8	7.60E+00	T
0	209.26	60	349	1.10	418.50	415	8	1.67E-02	****	7.18E+00	
0	270.41	89	437	1.23	540.69	534	14	2.47E-02	****	6.27E+00	T
0	1238.38	58	32	3.31	2475.76	2466	16	1.62E-02	51.7	2.16E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 10:17:34.80

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1 *
* Acquisition date : 25-MAR-2010 09:16:55  Detector SN#     :              *
* Detector ID      : GAM22                 Sensitivity      : 5.00000      *
* Geometry         : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 01:00:02.21         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 9-MAR-2010 00:00:00.  Nuclide Library : SOLID         *
* Sample ID        : G1202065190           Analyst initials: MXR1          *
* Batch Number     : 962633                Sample Quantity : 1.51730E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :               *
* MSD ID           :                       MSD Isotope     :               *
* LCS ID           : 1032-A                LCS Isotope     :               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	2.454E-01	7.192E-02	5.698E-02	4.699E-03	4.306
CO-60	6.898E+00	6.740E-01	7.319E-02	6.526E-03	94.247
CD-109	3.543E+01	4.214E+00	1.843E+00	1.749E-01	19.226
SN-126	3.456E+00	4.111E-01	1.805E-01	1.704E-02	19.148
BA-137M	5.580E+00	6.266E-01	8.497E-02	8.961E-03	65.662
CS-137	5.894E+00	6.626E-01	8.977E-02	9.478E-03	65.662
TL-208	4.272E-01	1.080E-01	9.539E-02	1.034E-02	4.478
BI-211	3.464E+00	7.343E-01	5.093E-01	5.942E-02	6.803
PB-212	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
BI-214	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
PB-214	1.257E+00	2.754E-01	1.852E-01	2.384E-02	6.790
RA-224	2.930E+00	1.726E+00	1.509E+00	1.889E-01	1.941
RA-226	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
AC-228	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
RA-228	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
TH-228	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
TH-230	8.897E-01	2.101E-01	1.672E-01	1.741E-02	5.320
TH-232	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-241	1.388E+01	1.276E+00	4.300E-01	3.361E-02	32.276

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.283E-01		6.229E-01	9.539E-01	9.954E-02	-0.659
NA-22	3.530E-02		4.785E-02	8.450E-02	7.283E-03	0.418
NA-24	-4.793E+00		1.984E+00	Half-Life too short		
K-40	1.020E+00		5.080E-01	1.009E+00	9.248E-02	1.010
SC-46	1.936E-02		7.345E-02	1.235E-01	1.382E-02	0.157
V-48	8.991E-02		1.497E-01	2.529E-01	2.652E-02	0.356
CR-51	2.543E-01		6.268E-01	1.064E+00	1.377E-01	0.239
MN-54	5.691E-03		6.465E-02	1.084E-01	1.204E-02	0.053
CO-56	9.840E-03		7.148E-02	1.199E-01	1.335E-02	0.082
CO-58	-4.948E-02		6.825E-02	1.094E-01	1.212E-02	-0.452
FE-59	6.726E-02		1.725E-01	2.863E-01	2.805E-02	0.235
ZN-65	4.760E-02		1.851E-01	2.607E-01	2.326E-02	0.183
SE-75	-3.781E-02		8.181E-02	1.112E-01	1.496E-02	-0.340
SR-85	-6.774E-02		7.280E-02	1.115E-01	1.119E-02	-0.608
Y-88	4.593E-02		4.760E-02	8.778E-02	7.097E-03	0.523
Y-91	-5.302E+00		2.374E+01	3.875E+01	3.186E+00	-0.137
NB-94	-1.147E-02		5.099E-02	8.211E-02	8.799E-03	-0.140
NB-95	1.970E-02		6.972E-02	1.146E-01	1.253E-02	0.172
NB-95M	6.343E-02		2.291E-01	3.296E-01	4.361E-02	0.192
ZR-95	-6.121E-02		1.216E-01	1.909E-01	2.221E-02	-0.321
MO-99	-5.276E-01		2.630E+01	4.266E+01	7.287E+00	-0.012
TC-99M	6.925E+06		8.112E+11	Half-Life too short		
RU-103	2.732E-02		6.869E-02	1.127E-01	1.670E-02	0.243
RH-106	-1.807E-01		4.959E-01	8.014E-01	1.163E-01	-0.225
RU-106	-1.807E-01		4.956E-01	8.014E-01	8.371E-02	-0.225
AG-108M	-5.355E-02		5.411E-02	8.384E-02	8.251E-03	-0.639
AG-110M	7.130E-01		1.192E-01	1.773E-01	1.905E-02	4.023
SN-113	-2.312E-02		7.727E-02	1.254E-01	1.198E-02	-0.184
CD-115	1.856E+00		2.666E+01	4.483E+01	4.527E+00	0.041
SN-117M	-2.678E-02		8.457E-02	1.398E-01	1.326E-02	-0.192
TE-123M	4.039E-03		4.073E-02	6.837E-02	6.530E-03	0.059
SB-124	1.561E-02		9.962E-02	1.685E-01	1.503E-02	0.093
SB-125	5.091E-03		1.563E-01	2.555E-01	2.477E-02	0.020
TE-125M	-4.316E+00		1.409E+01	2.212E+01	2.275E+00	-0.195
I-126	6.479E-01		4.249E-01	6.622E-01	6.997E-02	0.978
SB-126	-2.106E-02		2.478E-01	4.016E-01	4.331E-02	-0.052
SB-127	1.226E+00		2.581E+00	4.330E+00	5.761E-01	0.283
I-131	-1.378E-01		2.102E-01	3.368E-01	3.734E-02	-0.409
TE-132	-6.566E-01		1.545E+00	2.465E+00	4.470E-01	-0.266
BA-133	1.313E-02		7.462E-02	1.086E-01	1.599E-02	0.121
I-133	-2.273E-02		1.275E-02	Half-Life too short		
CS-134	7.098E-02		7.708E-02	1.302E-01	1.442E-02	0.545

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-135	2.535E-01		2.738E-01	4.019E-01	5.813E-02	0.631
I-135	1.469E+11		8.356E+10	Half-Life too short		
CS-136	-2.620E-02		2.080E-01	3.369E-01	3.407E-02	-0.078
CE-139	1.006E-02		4.292E-02	7.218E-02	7.079E-03	0.139
BA-140	2.555E-01		4.698E-01	7.925E-01	2.721E-01	0.322
LA-140	-7.469E-02		1.255E-01	1.933E-01	1.694E-02	-0.386
CE-141	-9.325E-02		8.903E-02	1.435E-01	1.306E-02	-0.650
CE-143	6.885E-04		2.386E-04	Half-Life too short		
CE-144	-2.078E-01		2.823E-01	4.627E-01	7.052E-02	-0.449
PM-144	-2.925E-03		5.313E-02	8.652E-02	9.253E-03	-0.034
PR-144	-1.968E-01		3.980E+00	6.484E+00	6.932E-01	-0.030
PM-146	-1.790E-02		7.911E-02	1.271E-01	1.461E-02	-0.141
ND-147	-5.022E-01		9.584E-01	1.558E+00	2.470E-01	-0.322
PM-149	-9.432E+01		2.346E+02	3.669E+02	6.943E+01	-0.257
EU-152	1.084E-02		1.766E-01	2.560E-01	3.076E-02	0.042
GD-153	1.063E-02		1.262E-01	1.821E-01	1.601E-02	0.058
EU-154	9.591E-02		1.353E-01	2.380E-01	2.707E-02	0.403
EU-155	1.250E-01		1.480E-01	2.449E-01	2.101E-02	0.511
TB-160	1.579E-01		2.792E-01	4.721E-01	5.279E-02	0.334
HO-166M	-1.588E-02		9.174E-02	1.480E-01	1.591E-02	-0.107
TA-182	-4.006E-02		2.117E-01	3.461E-01	2.878E-02	-0.116
IR-192	-2.151E-02		5.621E-02	9.255E-02	1.183E-02	-0.232
HG-203	-1.630E-02		6.628E-02	1.049E-01	1.483E-02	-0.155
BI-207	4.345E-02		9.695E-02	1.619E-01	1.554E-02	0.268
PB-210	-9.424E-01		5.493E+00	9.202E+00	8.474E-01	-0.102
PB-211	-5.866E-01		1.262E+00	1.975E+00	9.587E-01	-0.297
BI-212	4.134E-03		8.732E-01	1.422E+00	2.000E-01	0.003
RN-219	-2.733E-01		7.024E-01	1.131E+00	1.733E-01	-0.242
RA-223	-8.937E-01		1.081E+00	1.725E+00	3.372E-01	-0.518
AC-227	-2.257E-02		4.155E-01	6.680E-01	1.041E-01	-0.034
TH-227	-2.257E-02		4.155E-01	6.680E-01	1.123E-01	-0.034
TH-229	-5.836E-01		7.982E-01	1.275E+00	1.371E-01	-0.458
PA-231	-3.662E-01		2.451E+00	3.888E+00	7.072E-01	-0.094
TH-231	-8.937E-01		1.081E+00	1.725E+00	3.372E-01	-0.518
PA-233	6.103E-02		1.006E-01	1.723E-01	2.258E-02	0.354
PA-234	-2.163E-01		6.427E-01	1.040E+00	2.068E-01	-0.208
PA-234M	1.848E+00		8.268E+00	1.377E+01	1.578E+00	0.134
TH-234	-8.535E-01		1.934E+00	2.879E+00	5.124E-01	-0.296
U-235	-1.472E-01		2.700E-01	4.419E-01	7.553E-02	-0.333
NP-237	4.949E+00		1.248E+00	9.559E-01	2.193E-01	5.177
U-238	-8.535E-01		1.934E+00	2.879E+00	5.124E-01	-0.296
NP-239	-2.970E-01		6.546E-01	8.999E-01	7.436E-02	-0.330
CM-247	3.664E-02		6.265E-02	1.053E-01	9.875E-03	0.348
CF-249	6.796E-03		6.811E-02	1.126E-01	1.069E-02	0.060
CF-251	1.287E-03		1.909E-01	3.169E-01	3.229E-02	0.004
ANH-511	5.184E-02		6.036E-02	1.083E-01	1.085E-02	0.479

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065190          *
* Acquisition date  : 25-MAR-2010 09:16:55 Detector SN#     :               *
* Detector ID       : GAM22                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:02.21      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  9-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202065190          Analyst initials: MXR1           *
* Batch Number      : 962633               Sample Quantity : 1.5173E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
CO-57	2.454E-01	7.048E-02	3.056E-02	3.596E-02
CO-60	6.898E+00	6.605E-01	3.698E-02	3.370E-01
CD-109	3.543E+01	4.130E+00	9.957E-01	2.107E+00
SN-126	3.456E+00	4.029E-01	9.755E-02	2.056E-01
BA-137M	5.580E+00	6.140E-01	4.372E-02	3.133E-01
CS-137	5.894E+00	6.494E-01	4.619E-02	3.313E-01
TL-208	4.272E-01	1.058E-01	4.924E-02	5.399E-02
BI-211	3.464E+00	7.196E-01	2.662E-01	3.672E-01
PB-212	1.427E+00	2.333E-01	7.438E-02	1.190E-01
BI-214	8.897E-01	2.110E-01	8.623E-02	1.076E-01
PB-214	1.257E+00	2.699E-01	9.680E-02	1.377E-01
RA-224	2.930E+00	1.691E+00	7.963E-01	8.629E-01
RA-226	8.897E-01	2.110E-01	8.623E-02	1.076E-01
AC-228	1.589E+00	5.890E-01	2.356E-01	3.005E-01
RA-228	1.589E+00	5.890E-01	2.356E-01	3.005E-01
TH-228	1.427E+00	2.333E-01	7.438E-02	1.190E-01
TH-230	8.897E-01	2.059E-01	8.623E-02	1.050E-01
TH-232	1.589E+00	5.890E-01	2.356E-01	3.005E-01
AM-241	1.388E+01	1.250E+00	2.345E-01	6.378E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-6.283E-01	6.105E-01	4.949E-01	3.115E-01	NOT IDENT.
NA-22	3.530E-02	4.690E-02	4.274E-02	2.393E-02	NOT IDENT.
NA-24	-4.793E+06	3.888E+06	0.000E+00	1.984E+06	SHORT HLIF
K-40	1.020E+00	4.979E-01	5.088E-01	2.540E-01	NOT IDENT.
SC-46	1.936E-02	7.198E-02	6.304E-02	3.673E-02	FAIL ABUN
V-48	8.991E-02	1.467E-01	1.288E-01	7.483E-02	NOT IDENT.
CR-51	2.543E-01	6.143E-01	5.574E-01	3.134E-01	NOT IDENT.
MN-54	5.691E-03	6.336E-02	5.542E-02	3.233E-02	NOT IDENT.

CO-56	9.840E-03	7.005E-02	6.132E-02	3.574E-02	FAIL ABUN
CO-58	-4.948E-02	6.689E-02	5.601E-02	3.413E-02	NOT IDENT.
FE-59	6.726E-02	1.691E-01	1.454E-01	8.627E-02	NOT IDENT.
ZN-65	4.760E-02	1.814E-01	1.323E-01	9.257E-02	NOT IDENT.
SE-75	-3.781E-02	8.017E-02	5.851E-02	4.090E-02	FAIL ABUN
SR-85	-6.774E-02	7.135E-02	5.773E-02	3.640E-02	NOT IDENT.
Y-88	4.593E-02	4.665E-02	4.397E-02	2.380E-02	NOT IDENT.
Y-91	-5.302E+00	2.326E+01	1.963E+01	1.187E+01	NOT IDENT.
NB-94	-1.147E-02	4.997E-02	4.218E-02	2.549E-02	NOT IDENT.
NB-95	1.970E-02	6.833E-02	5.874E-02	3.486E-02	NOT IDENT.
NB-95M	6.343E-02	2.245E-01	1.740E-01	1.146E-01	NOT IDENT.
ZR-95	-6.121E-02	1.192E-01	9.790E-02	6.082E-02	NOT IDENT.
MO-99	-5.276E-01	2.577E+01	2.189E+01	1.315E+01	NOT IDENT.
TC-99M	6.925E+12	1.590E+18	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.732E-02	6.732E-02	5.839E-02	3.434E-02	FAIL ABUN
RH-106	-1.807E-01	4.860E-01	4.130E-01	2.480E-01	NOT IDENT.
RU-106	-1.807E-01	4.857E-01	4.130E-01	2.478E-01	NOT IDENT.
AG-108M	-5.355E-02	5.302E-02	4.360E-02	2.705E-02	NOT IDENT.
AG-110M	7.130E-01	1.168E-01	9.121E-02	5.960E-02	NOT IDENT.
SN-113	-2.312E-02	7.572E-02	6.538E-02	3.863E-02	NOT IDENT.
CD-115	1.856E+00	2.613E+01	2.320E+01	1.333E+01	NOT IDENT.
SN-117M	-2.678E-02	8.287E-02	7.451E-02	4.228E-02	NOT IDENT.
TE-123M	4.039E-03	3.991E-02	3.644E-02	2.036E-02	NOT IDENT.
SB-124	1.561E-02	9.763E-02	8.461E-02	4.981E-02	NOT IDENT.
SB-125	5.091E-03	1.532E-01	1.329E-01	7.814E-02	NOT IDENT.
TE-125M	-4.316E+00	1.381E+01	1.190E+01	7.044E+00	NOT IDENT.
I-126	6.479E-01	4.164E-01	3.407E-01	2.125E-01	NOT IDENT.
SB-126	-2.106E-02	2.428E-01	2.062E-01	1.239E-01	NOT IDENT.
SB-127	1.226E+00	2.529E+00	2.226E+00	1.290E+00	NOT IDENT.
I-131	-1.378E-01	2.060E-01	1.759E-01	1.051E-01	NOT IDENT.
TE-132	-6.566E-01	1.514E+00	1.303E+00	7.727E-01	NOT IDENT.
BA-133	1.313E-02	7.313E-02	5.674E-02	3.731E-02	NOT IDENT.
I-133	-2.273E+04	2.499E+04	0.000E+00	1.275E+04	SHORT HLIF
CS-134	7.098E-02	7.554E-02	6.670E-02	3.854E-02	NOT IDENT.
CS-135	2.535E-01	2.683E-01	2.115E-01	1.369E-01	NOT IDENT.
I-135	1.469E+17	1.638E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.620E-02	2.038E-01	1.713E-01	1.040E-01	NOT IDENT.
CE-139	1.006E-02	4.207E-02	3.843E-02	2.146E-02	NOT IDENT.
BA-140	2.555E-01	4.604E-01	4.099E-01	2.349E-01	NOT IDENT.
LA-140	-7.469E-02	1.230E-01	9.719E-02	6.277E-02	NOT IDENT.
CE-141	-9.325E-02	8.725E-02	7.662E-02	4.452E-02	NOT IDENT.
CE-143	6.885E+02	4.676E+02	0.000E+00	2.386E+02	SHORT HLIF
CE-144	-2.078E-01	2.767E-01	2.476E-01	1.412E-01	NOT IDENT.
PM-144	-2.925E-03	5.206E-02	4.446E-02	2.656E-02	NOT IDENT.
PR-144	-1.968E-01	3.900E+00	3.332E+00	1.990E+00	NOT IDENT.
PM-146	-1.790E-02	7.753E-02	6.602E-02	3.955E-02	NOT IDENT.
ND-147	-5.022E-01	9.393E-01	8.059E-01	4.792E-01	NOT IDENT.
PM-149	-9.432E+01	2.299E+02	1.928E+02	1.173E+02	NOT IDENT.
EU-152	1.084E-02	1.730E-01	1.339E-01	8.828E-02	FAIL ABUN
GD-153	1.063E-02	1.237E-01	9.816E-02	6.312E-02	NOT IDENT.
EU-154	9.591E-02	1.326E-01	1.204E-01	6.763E-02	FAIL ABUN
EU-155	1.250E-01	1.450E-01	1.318E-01	7.400E-02	NOT IDENT.
TB-160	1.579E-01	2.736E-01	2.411E-01	1.396E-01	FAIL ABUN
HO-166M	-1.588E-02	8.991E-02	7.599E-02	4.587E-02	NOT IDENT.
TA-182	-4.006E-02	2.074E-01	1.753E-01	1.058E-01	FAIL ABUN
IR-192	-2.151E-02	5.508E-02	4.851E-02	2.810E-02	FAIL ABUN
HG-203	-1.630E-02	6.496E-02	5.513E-02	3.314E-02	NOT IDENT.
BI-207	4.345E-02	9.501E-02	8.229E-02	4.847E-02	FAIL ABUN
PB-210	-9.424E-01	5.383E+00	5.045E+00	2.746E+00	NOT IDENT.
PB-211	-5.866E-01	1.237E+00	1.029E+00	6.312E-01	NOT IDENT.
BI-212	4.134E-03	8.557E-01	7.300E-01	4.366E-01	NOT IDENT.
RN-219	-2.733E-01	6.883E-01	5.894E-01	3.512E-01	FAIL ABUN
RA-223	-8.937E-01	1.060E+00	9.037E-01	5.406E-01	FAIL ABUN
AC-227	-2.257E-02	4.072E-01	3.519E-01	2.077E-01	NOT IDENT.
TH-227	-2.257E-02	4.072E-01	3.519E-01	2.077E-01	NOT IDENT.
TH-229	-5.836E-01	7.823E-01	6.765E-01	3.991E-01	FAIL ABUN
PA-231	-3.662E-01	2.402E+00	2.043E+00	1.225E+00	NOT IDENT.
TH-231	-8.937E-01	1.060E+00	9.037E-01	5.406E-01	FAIL ABUN
PA-233	6.103E-02	9.862E-02	9.035E-02	5.032E-02	NOT IDENT.
PA-234	-2.163E-01	6.299E-01	5.304E-01	3.214E-01	NOT IDENT.
PA-234M	1.848E+00	8.103E+00	7.011E+00	4.134E+00	NOT IDENT.
TH-234	-8.535E-01	1.895E+00	1.568E+00	9.669E-01	FAIL ABUN
U-235	-1.472E-01	2.646E-01	2.361E-01	1.350E-01	FAIL ABUN
NP-237	4.949E+00	1.223E+00	5.167E-01	6.238E-01	NOT IDENT.
U-238	-8.535E-01	1.895E+00	1.568E+00	9.669E-01	FAIL ABUN
NP-239	-2.970E-01	6.415E-01	4.831E-01	3.273E-01	NOT IDENT.
CM-247	3.664E-02	6.140E-02	5.486E-02	3.133E-02	NOT IDENT.
CF-249	6.796E-03	6.675E-02	5.872E-02	3.406E-02	NOT IDENT.

CF-251	1.287E-03	1.871E-01	1.685E-01	9.547E-02 NOT IDENT.
ANH-511	5.184E-02	5.915E-02	5.606E-02	3.018E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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```

ENERGY	MDA COUNTS
46.54	486.0000
49.72	573.9034
57.36	0.0000
59.54	596.3845
63.29	384.0284
63.29	384.0284
64.28	398.3148
67.75	403.2376
69.67	406.5132
70.83	423.1225
72.81	438.0719
72.87	438.1629
72.87	438.1629
74.82	433.4862
74.82	433.4862
74.82	433.4862
74.97	433.7044
77.11	436.7876
77.11	436.7876
77.11	436.7876
79.69	463.5518
79.80	463.7148
80.12	461.1036
80.19	461.2062
80.57	461.7628
81.00	484.0429
81.07	484.1504
81.07	484.1504
83.79	497.6319
83.79	497.6319
85.43	493.8602
86.48	541.0378
86.55	541.1507
86.79	473.8467
86.94	474.0626
87.57	474.9536
88.03	475.6035
88.47	476.2236
89.96	298.7451
91.11	299.7440
92.59	301.0192
92.59	301.0192
93.35	325.7398
94.67	314.0706
94.87	314.2462
94.87	314.2462
95.86	313.4991
97.43	309.9918
98.44	318.9860
99.53	334.0761
100.11	311.7099
103.18	352.7199
103.37	334.2070
105.31	304.9606
106.12	353.2092
109.28	337.0803
111.00	337.4094
111.76	356.0139
116.30	318.5172
117.23	336.2942
121.12	302.0538
121.78	302.5153
122.06	302.7106
123.07	297.6459
131.20	352.4384
133.52	369.2654
136.00	322.2599

136.47	310.1048
140.51	329.8050
140.51	0.0000
143.76	329.2890
144.24	340.4746
144.24	340.4746
145.44	366.7168
152.43	348.7921
153.25	335.5181
154.21	323.2090
154.21	323.2090
156.02	358.6140
158.56	357.5449
159.00	333.6093
162.66	378.0984
163.33	384.1989
165.86	328.4059
176.60	337.5703
177.52	341.9562
181.07	341.1155
184.41	372.2629
185.72	373.0731
193.51	371.8864
197.04	357.0663
205.31	341.7180
210.85	399.8431
215.65	390.8191
222.11	396.5508
227.38	359.9802
228.16	366.6228
228.18	366.6335
235.69	385.6017
235.96	370.5840
235.96	370.5840
238.63	321.2072
238.63	321.2072
240.99	322.2253
242.00	322.6591
244.70	332.3379
252.40	307.7132
252.80	300.3350
256.23	320.0340
256.23	320.0340
260.90	289.2977
264.66	295.4612
268.22	258.1257
269.46	314.3530
269.46	314.3530
271.23	315.0294
273.65	353.5107
276.40	273.1018
277.37	318.0995
277.60	328.5421
278.00	329.9693
279.20	334.7302
279.54	334.8634
280.46	319.6343
283.69	315.2577
284.31	331.1482
285.41	331.5728
285.90	329.5208
287.50	288.5838
293.27	0.0000
295.22	314.4730
295.96	314.7356
298.57	278.9686
299.98	262.7029
299.98	262.7029
300.09	236.9199
300.09	236.9199
300.13	236.9294
301.36	228.1281
302.85	271.1574
304.50	316.8274
304.50	316.8274
304.85	327.9423
308.46	245.5507
311.90	251.0820

316.51	285.7196
319.41	255.8957
320.08	281.2154
323.87	328.1498
323.87	328.1498
328.76	287.5362
333.37	284.8084
334.37	288.2458
334.37	288.2458
338.28	259.3430
338.28	259.3430
338.32	259.3564
338.32	259.3564
338.32	259.3564
340.48	283.6898
340.55	275.7867
344.28	257.7228
351.06	239.2704
351.93	239.4740
356.01	236.5602
364.49	263.7917
366.42	251.5972
383.85	246.7598
388.16	266.6227
388.63	262.7528
391.69	278.4414
400.66	275.6222
401.81	280.9345
402.40	243.8020
404.85	282.6865
410.95	261.8454
414.70	257.5924
423.72	234.9291
427.09	271.5958
427.87	246.0340
433.94	293.8180
453.88	284.8775
463.37	282.7521
468.07	316.7232
473.00	268.8390
476.78	283.5164
477.60	294.3964
487.02	225.3179
492.35	209.9685
497.08	196.5746
511.00	221.5836
514.00	326.4843
527.90	184.0726
529.87	0.0000
531.02	193.7392
537.26	183.3929
546.56	0.0000
563.25	192.2743
569.33	219.6596
569.50	201.6139
569.70	201.6398
583.19	191.8742
600.60	170.6934
602.73	167.5165
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609.32	158.7917
609.32	158.7917
609.32	158.7917
610.33	167.8113
614.28	181.0672
618.01	169.8985
621.93	171.9345
621.93	171.9345
633.25	167.1571
635.95	149.5930
636.99	171.4901
645.85	168.3914
657.76	158.2245
661.66	141.7717
661.66	141.7717
664.57	0.0000
666.33	133.0715
666.50	133.0850

677.62	126.8133
685.70	142.6632
695.00	153.6316
696.49	158.8819
696.51	158.8851
697.00	162.0021
702.65	157.3548
706.68	156.6634
711.68	145.7132
720.70	157.8324
721.93	0.0000
722.78	198.5464
722.91	198.5581
723.31	196.5212
724.19	163.3213
727.33	179.2191
733.00	193.3331
735.93	154.9014
739.50	140.5075
747.24	151.5908
752.31	135.0964
753.82	139.4229
756.73	168.1902
763.94	187.9077
765.81	167.8943
766.42	172.1942
777.92	157.1415
778.90	154.0107
783.70	155.4431
785.37	143.7681
795.86	144.5015
801.95	173.0436
810.29	174.0440
810.76	178.7377
815.77	158.6309
818.51	169.1130
832.01	193.6854
834.85	181.7015
836.80	0.0000
846.77	172.2849
856.80	181.6305
860.56	170.5064
871.09	185.6674
873.19	195.4194
875.33	0.0000
879.36	180.5841
880.51	184.5201
883.24	189.5520
884.68	183.8955
889.28	167.8646
898.04	183.9995
911.20	208.4171
911.20	208.4171
911.20	208.4171
926.50	208.7953
937.49	224.5290
944.13	235.0242
946.00	229.2772
949.00	234.5078
962.29	224.5965
964.08	210.8195
966.15	217.9718
968.97	202.5079
968.97	202.5079
968.97	202.5079
983.53	175.6012
996.26	169.4297
1001.03	150.5512
1004.73	155.8289
1037.84	151.6855
1038.76	0.0000
1048.07	154.3318
1050.41	162.7061
1050.41	162.7061
1063.66	149.0223
1085.87	137.7271
1099.45	154.1367
1112.07	132.7192

1115.54	155.0288
1120.29	123.5984
1120.29	123.5984
1120.29	123.5984
1120.55	112.7815
1121.30	118.3594
1131.51	0.0000
1173.23	96.0359
1177.93	92.2097
1189.05	86.1401
1204.77	68.5151
1221.41	68.8931
1231.02	58.0169
1235.36	51.2646
1238.28	53.0239
1260.41	0.0000
1271.85	50.5718
1274.44	43.7997
1274.54	43.8011
1291.59	52.8448
1298.22	0.0000
1312.11	61.0596
1332.49	41.6219
1365.19	30.0238
1368.63	0.0000
1384.29	49.3155
1408.01	30.4028
1457.56	0.0000
1460.82	20.5750
1489.16	40.4366
1505.03	40.6127
1596.21	42.6721
1620.50	35.3048
1678.03	0.0000
1690.97	23.3060
1764.49	25.6974
1764.49	25.6974
1764.49	25.6974
1770.23	23.1588
1771.35	21.3832
1791.20	0.0000
1836.06	19.0923

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065190

Total Uranium Activity	-2.6073E+00	ug/g
Total Uranium Counting Unc.	5.6392E+00	ug/g
Total Uranium Tpu	2.8771E-06	ug/g
Total Uranium Mda	4.6652E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G1202065190      *
*   ANALYST       : MXR1                      DETECTOR   : GAM22            *
*   SAMPLE DATE   :  9-MAR-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 25-MAR-2010 09:16:55.57    SAMPLE ALQT:  151.730 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.898E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 2.749E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.013E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.466E+00
```

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-DEC-2009 15:29:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.294995 through 0.314995

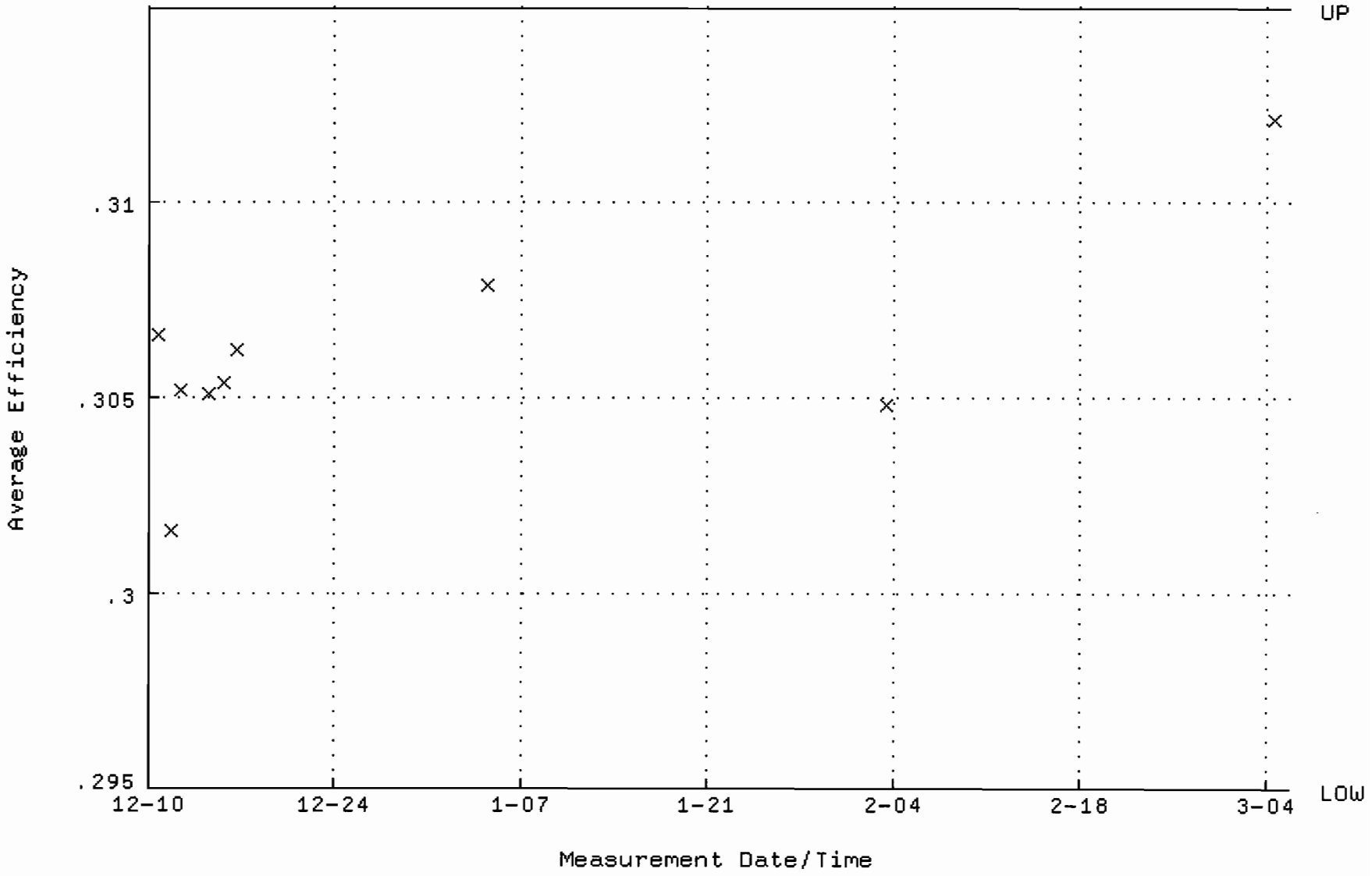

QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-DEC-2009 15:29:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 87.5863 through 96.8059

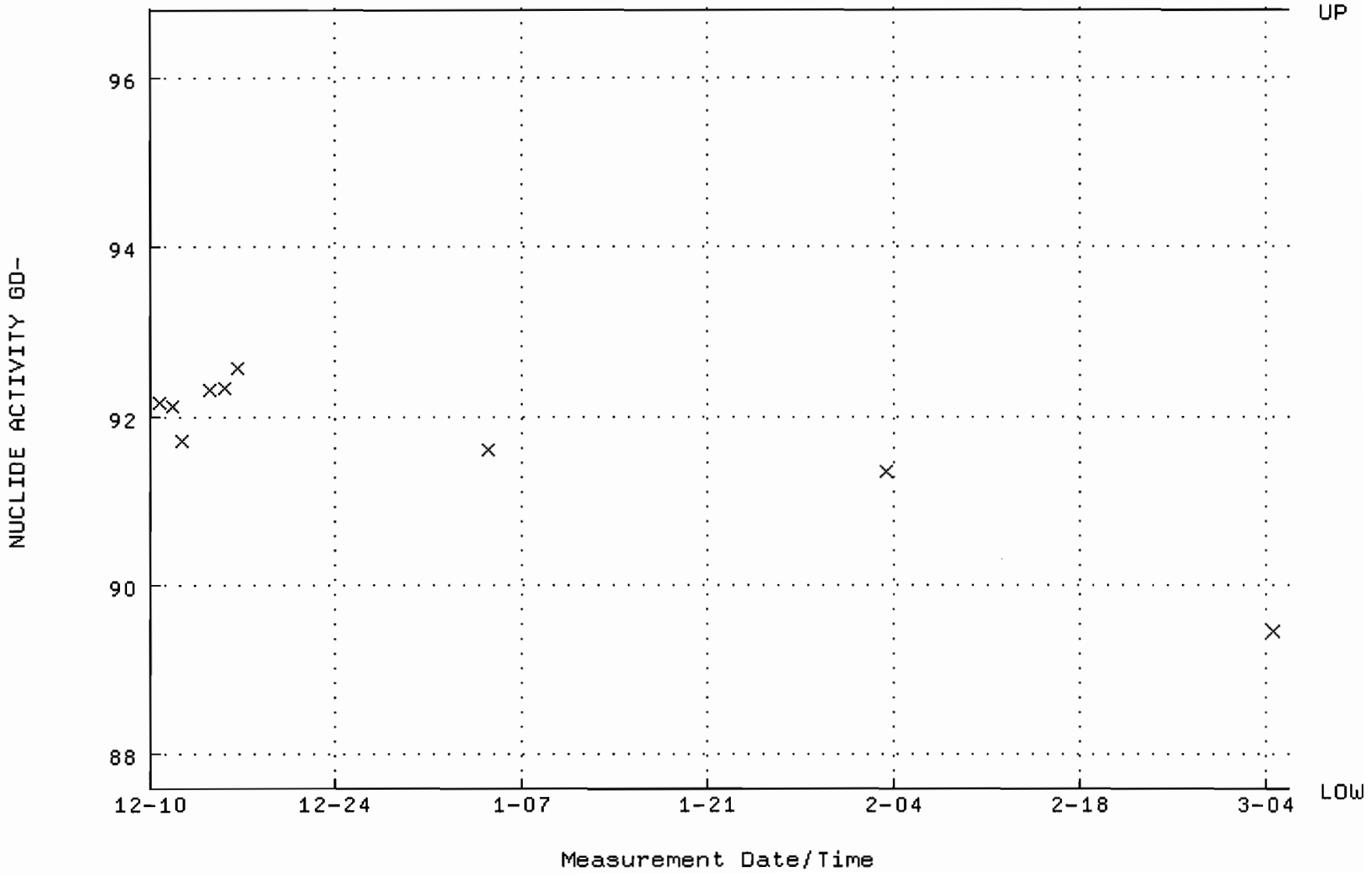

QA filename : DKA100:[ENV_ALPHA.QA.B]B004.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

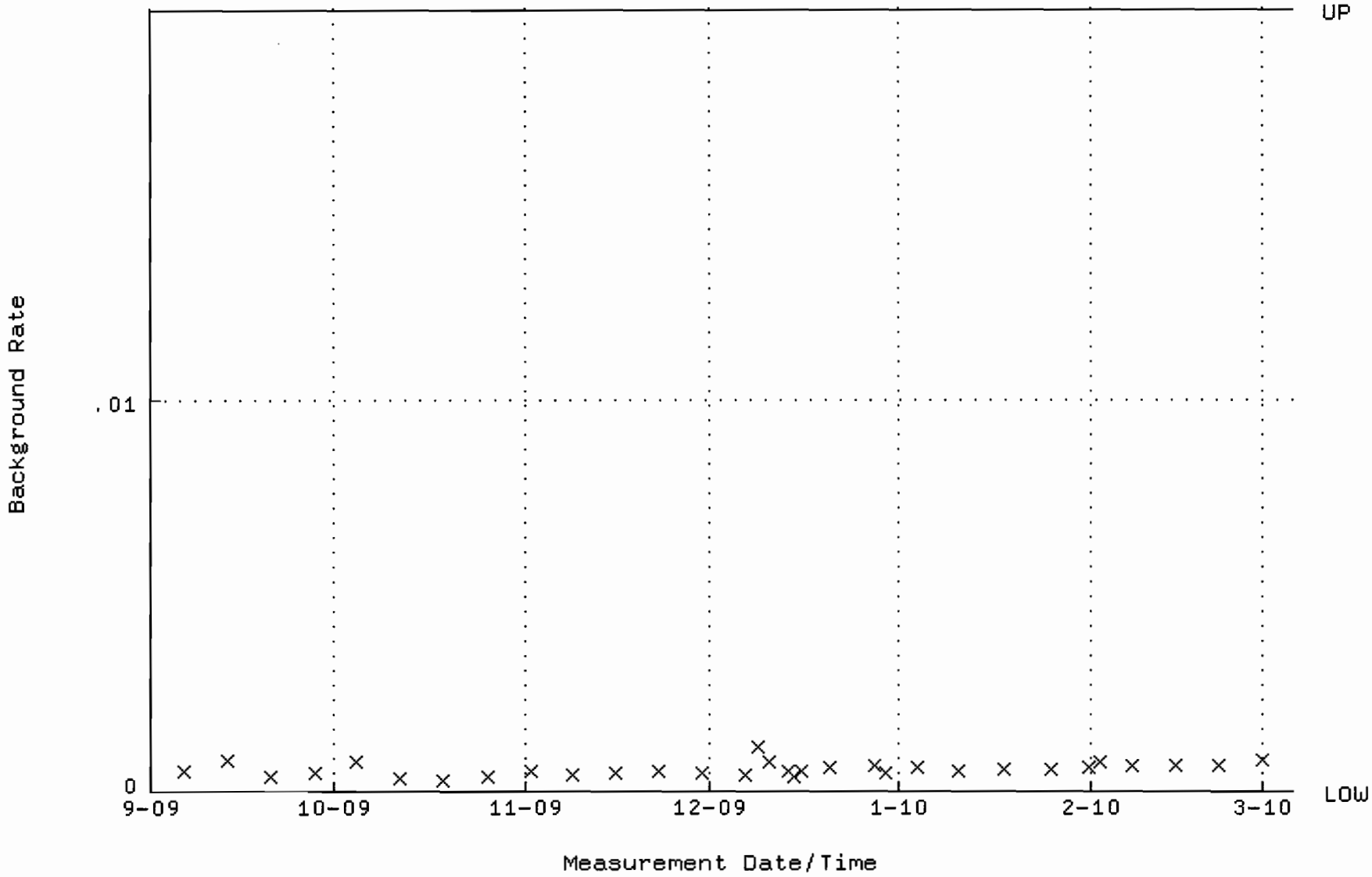

QA filename : DKA100:[ENV_ALPHA.QA.W]W005.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.302314 through 0.344088

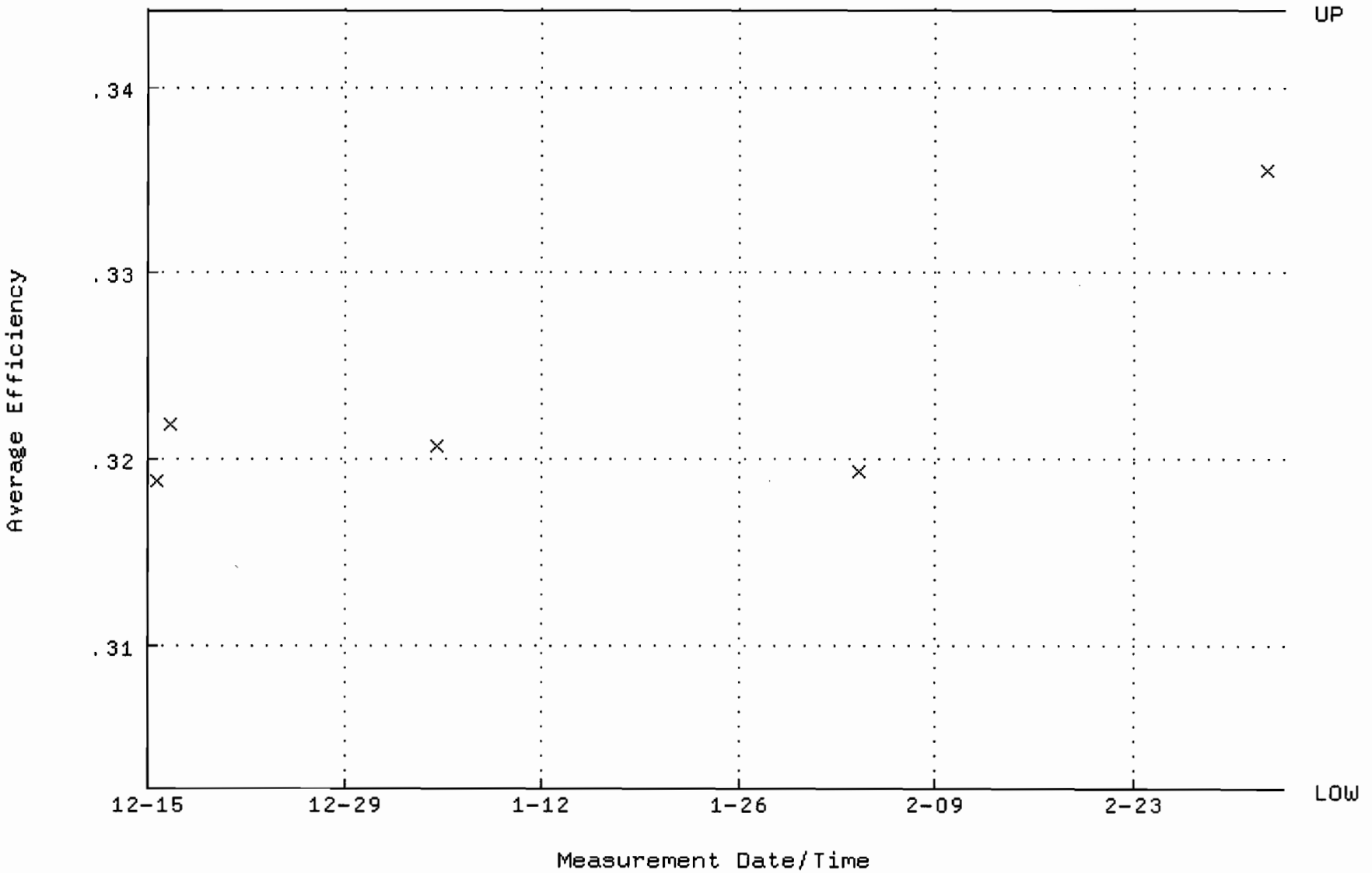

QA filename : DKA100:[ENV_ALPHA.QA.W]W005.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 88.6685 through 97.7693

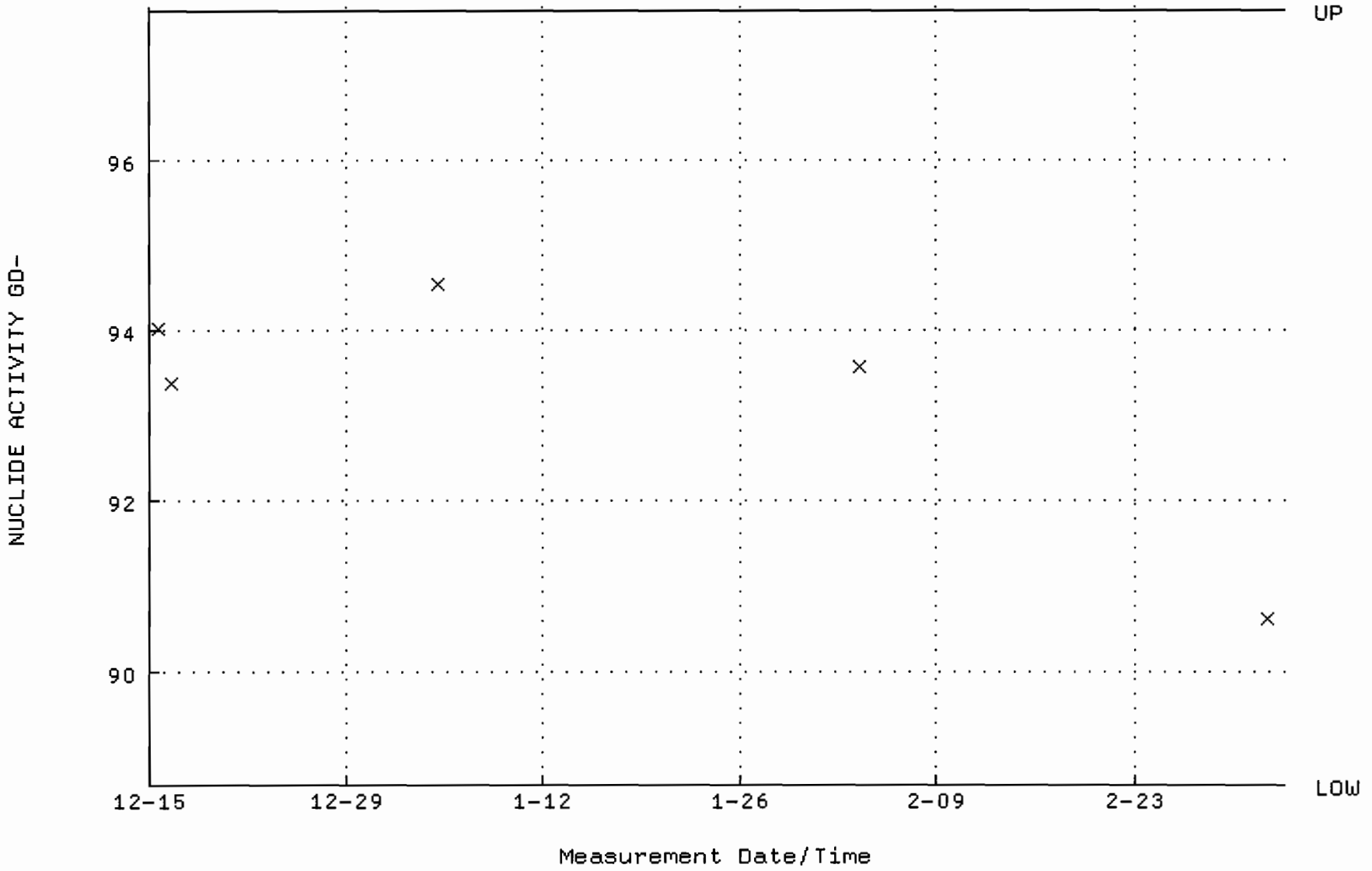

QA filename : DKA100:[ENV_ALPHA.QA.B]B005.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

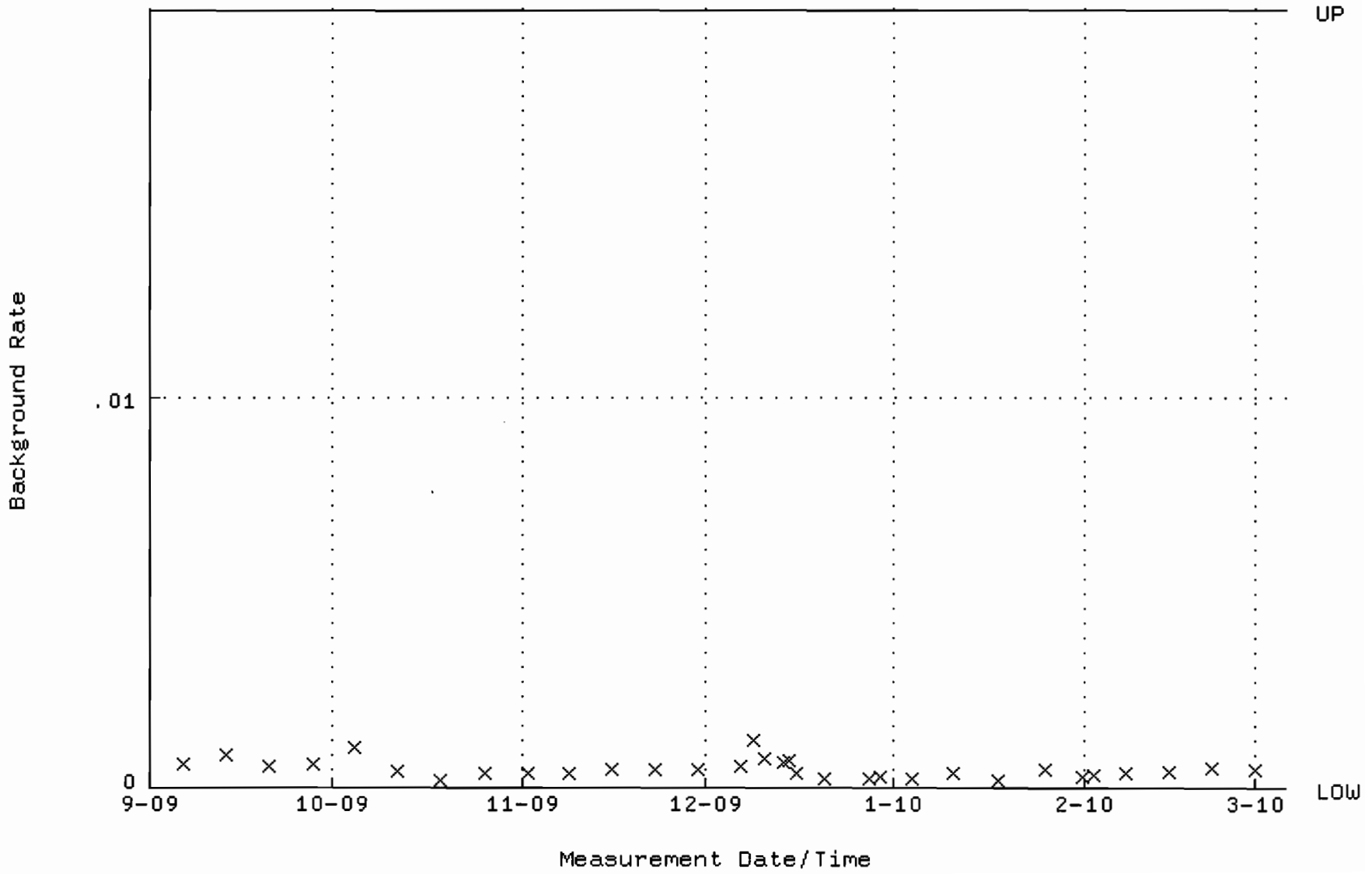

QA filename : DKA100:[ENV_ALPHA.QA.W]W006.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.288996 through 0.330714

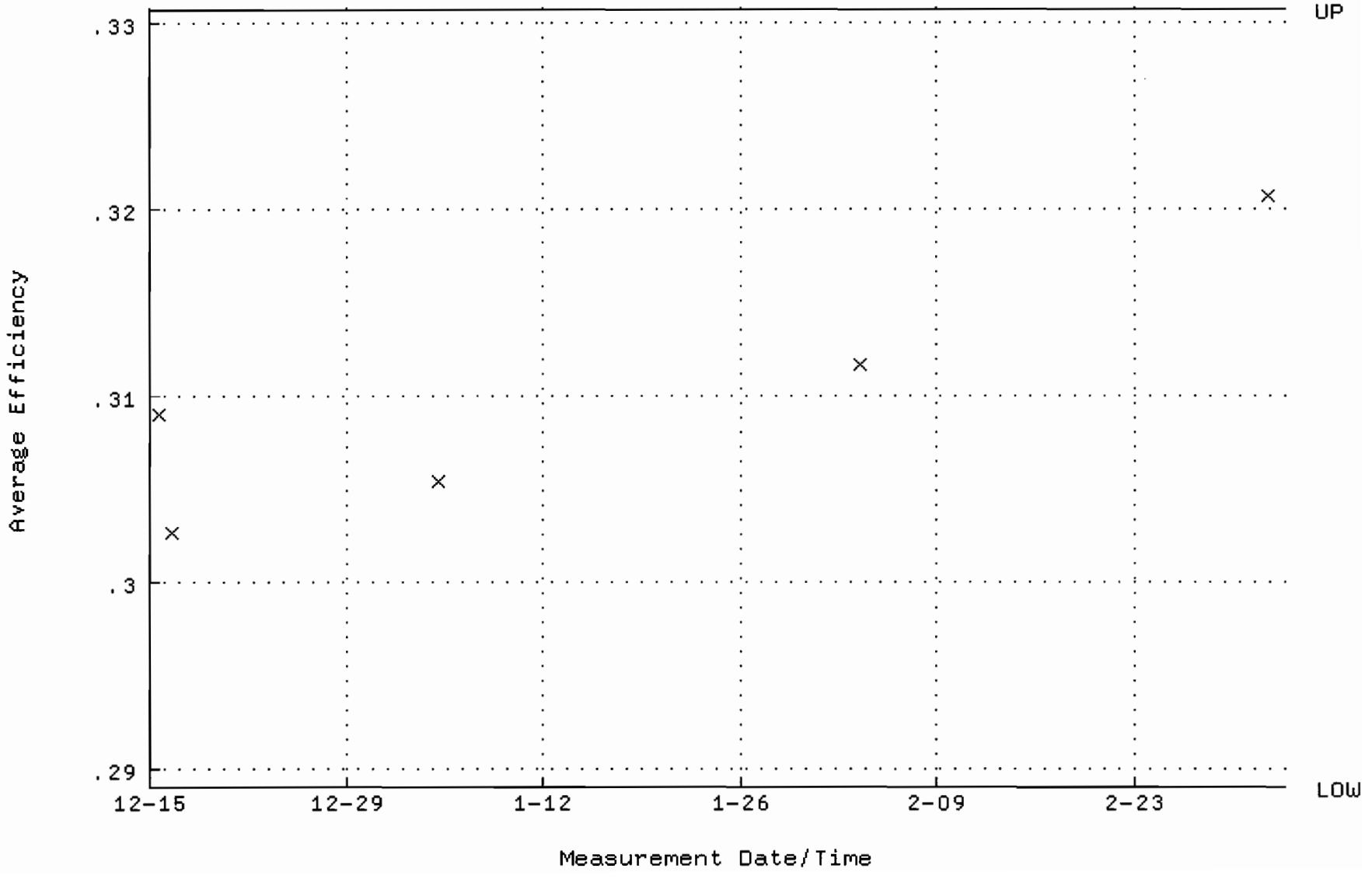

QA filename : DKA100:[ENV_ALPHA.QA.W]W006.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5567 through 97.8515

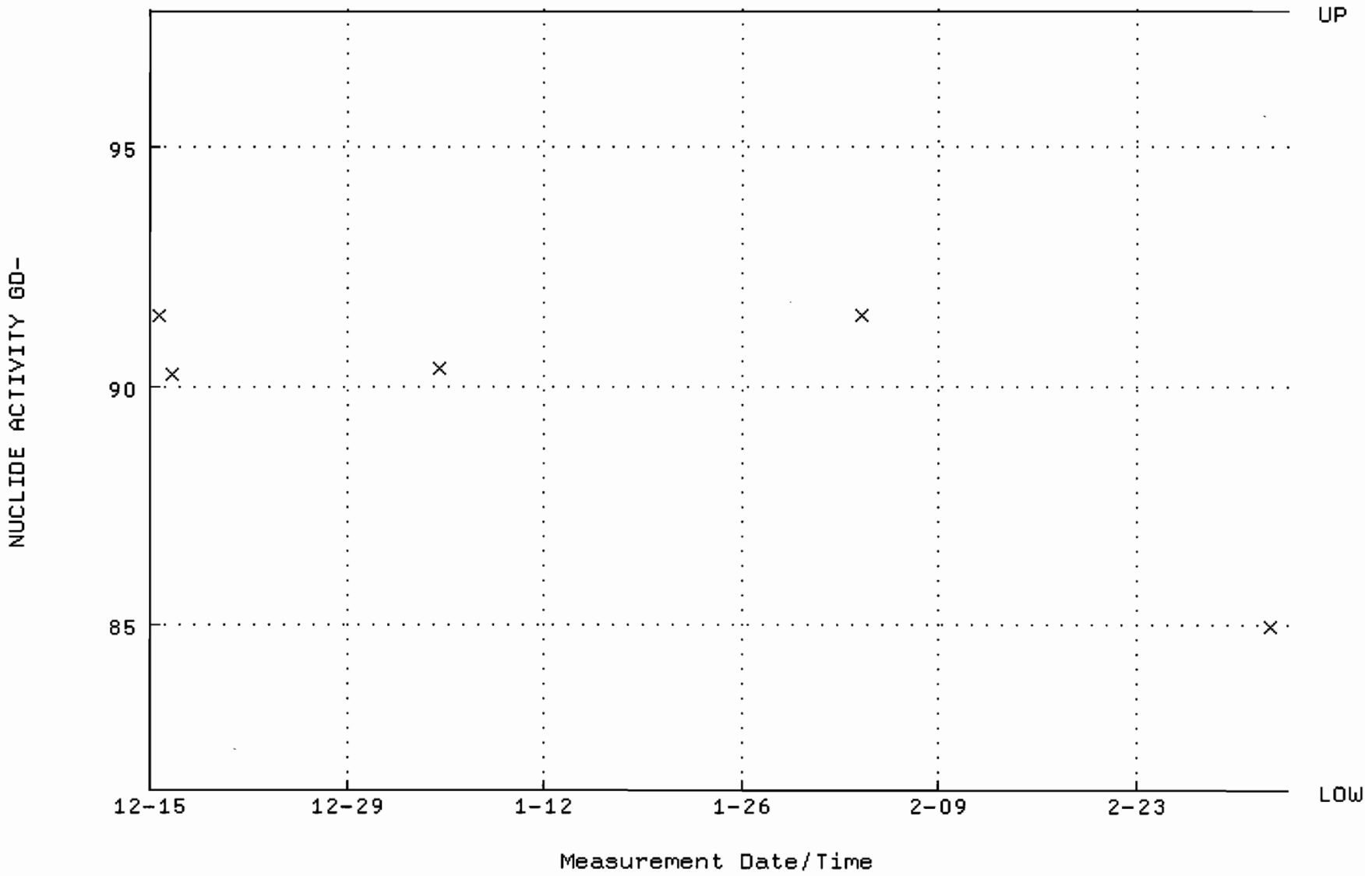

QA filename : DKA100:[ENV_ALPHA.QA.B]B006.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

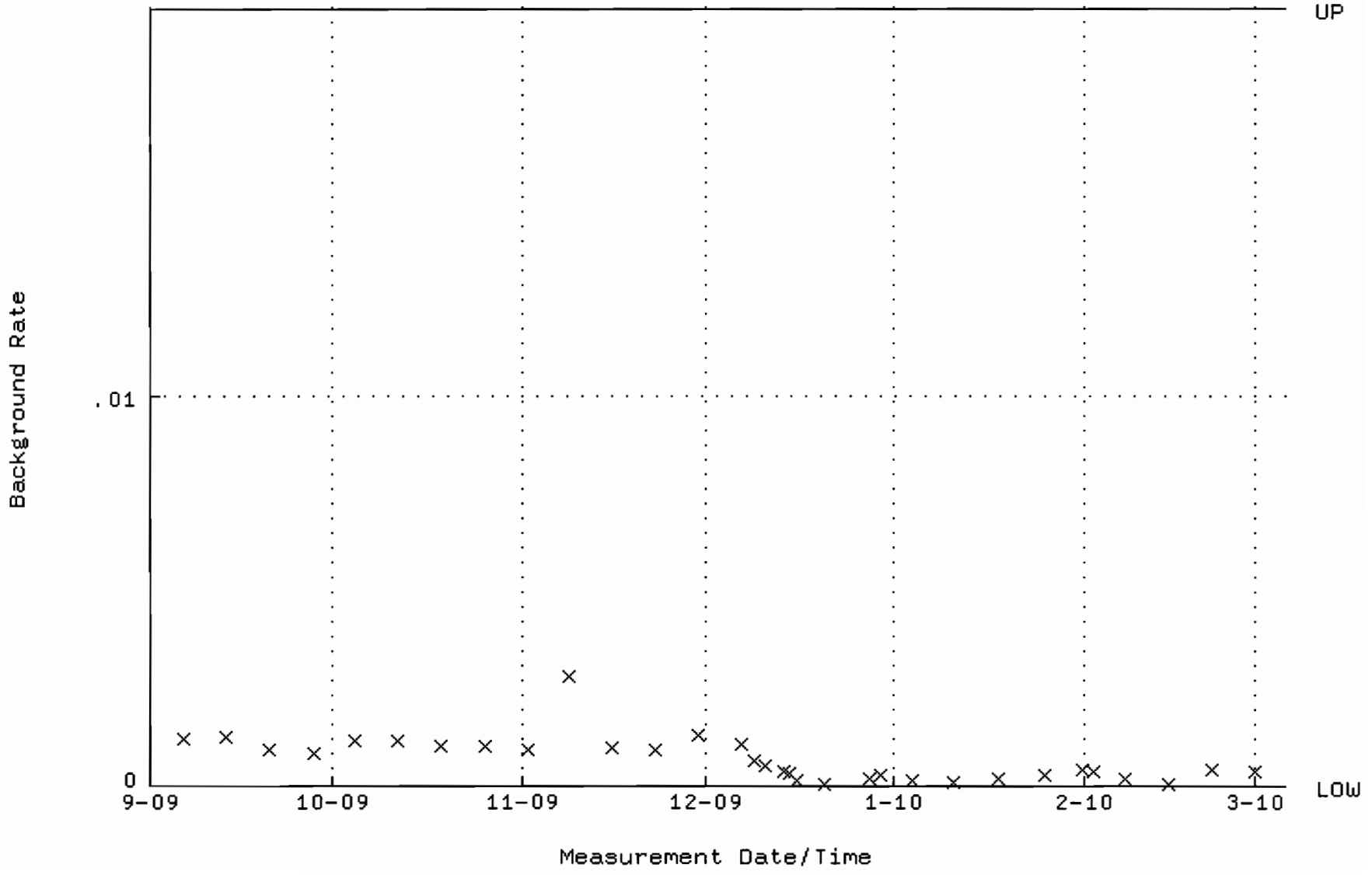

QA filename : DKA100:[ENV_ALPHA.QA.W]W096.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.317970 through 0.337970

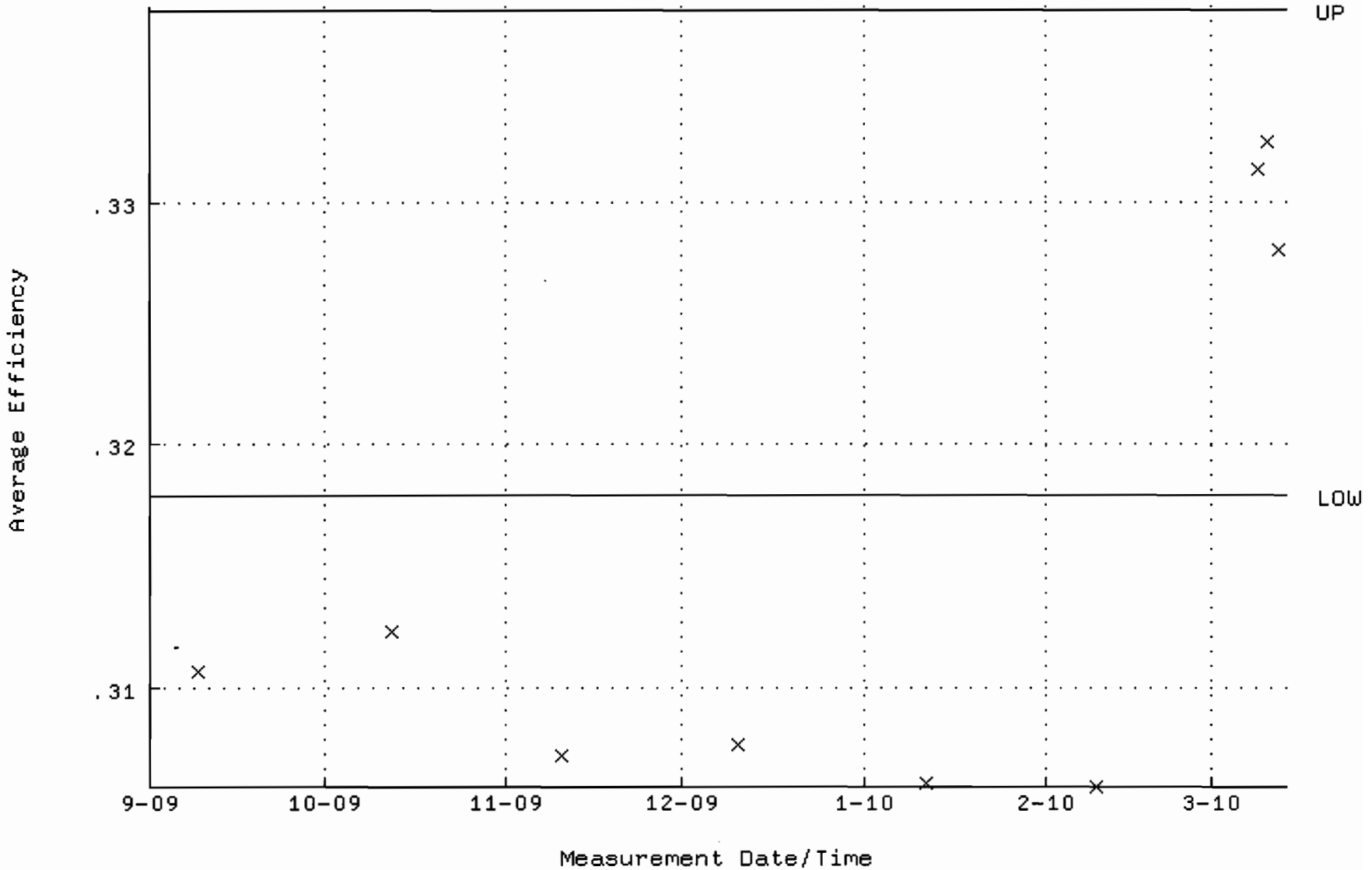

QA filename : DKA100:[ENV_ALPHA.QA.W]W096.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 62.4466 through 69.0200

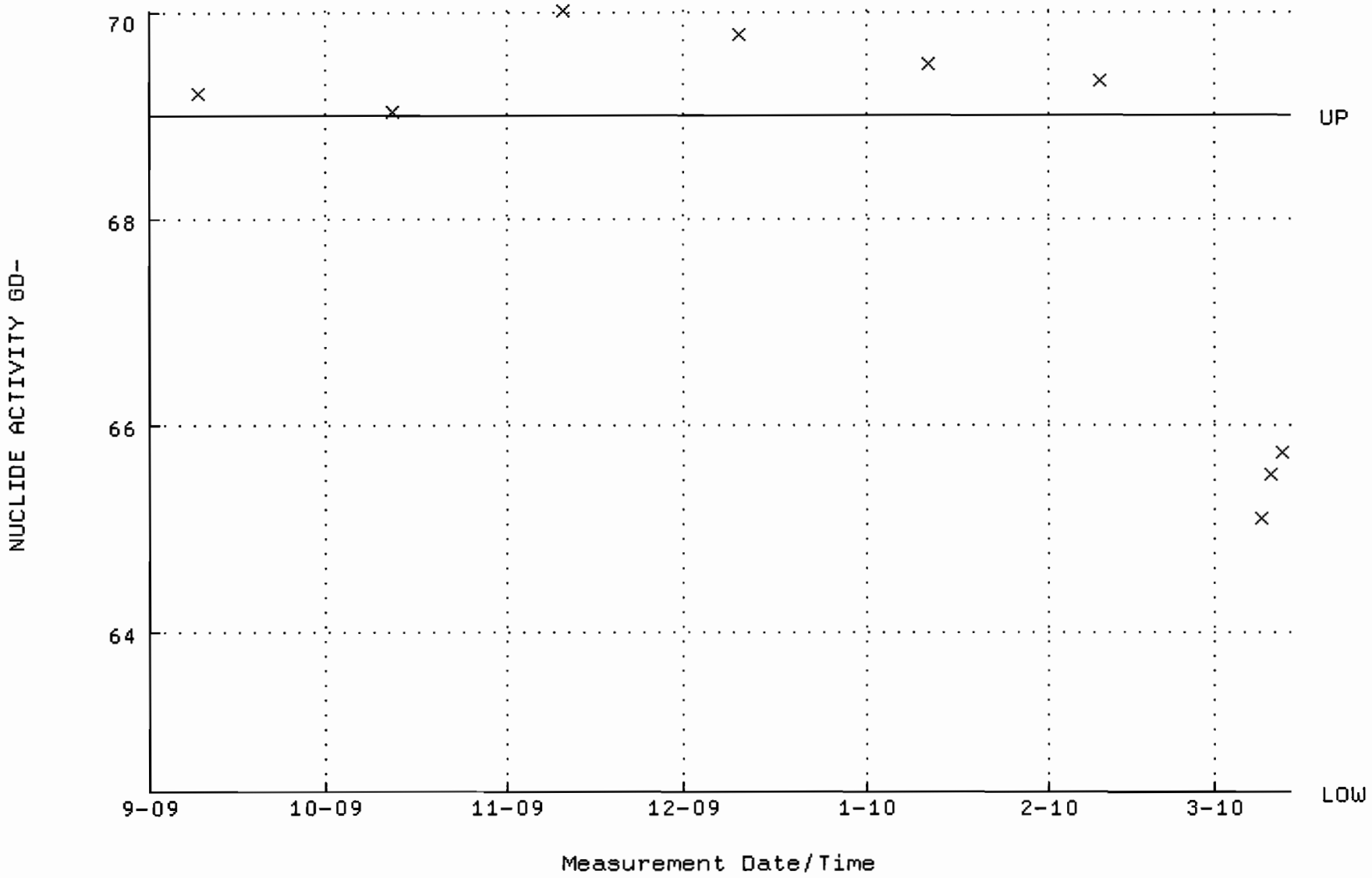

QA filename : DKA100:[ENV_ALPHA.QA.B]B096.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

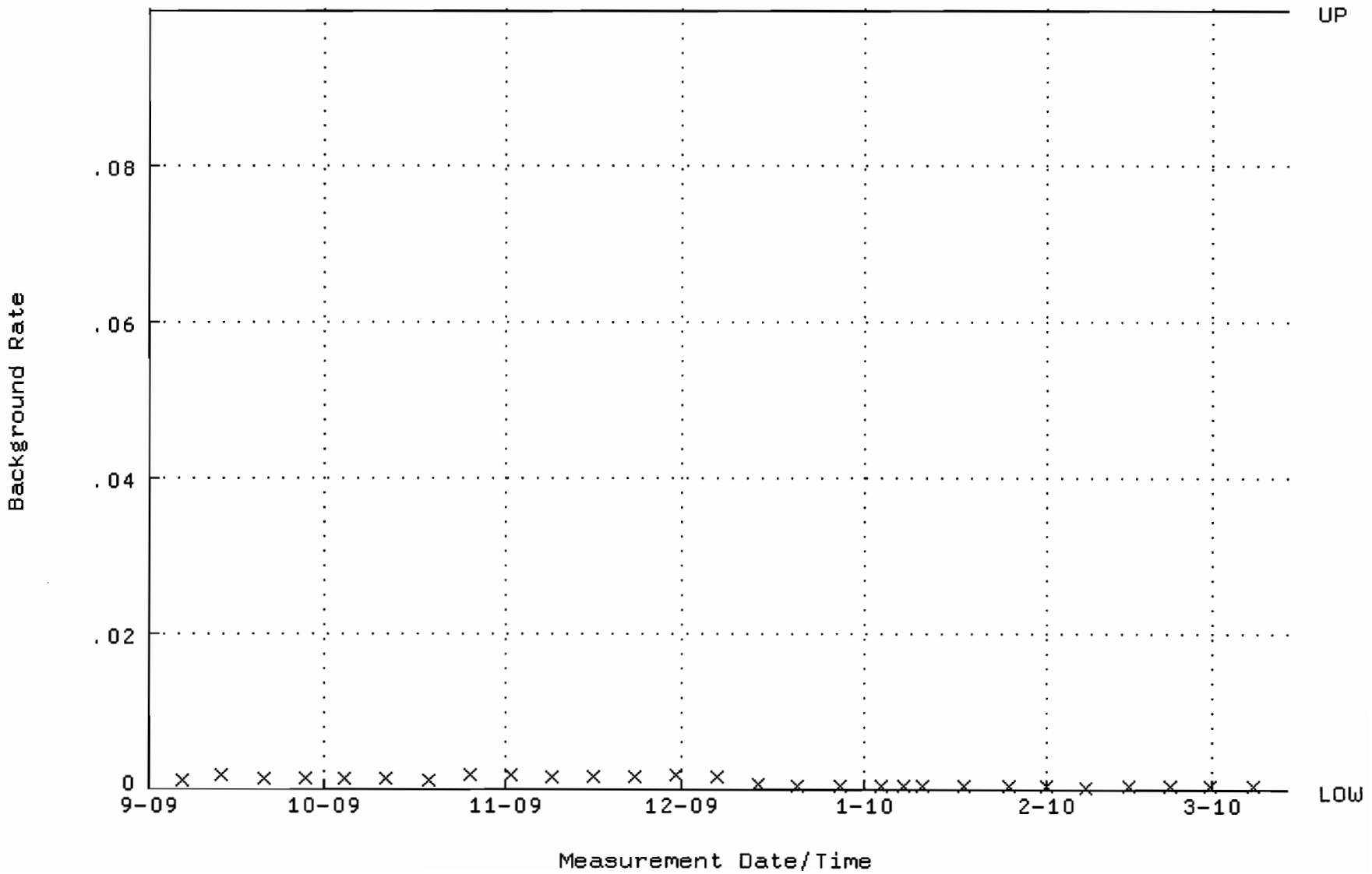

QA filename : DKA100:[ENV_ALPHA.QA.W]W097.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.338442 through 0.349972

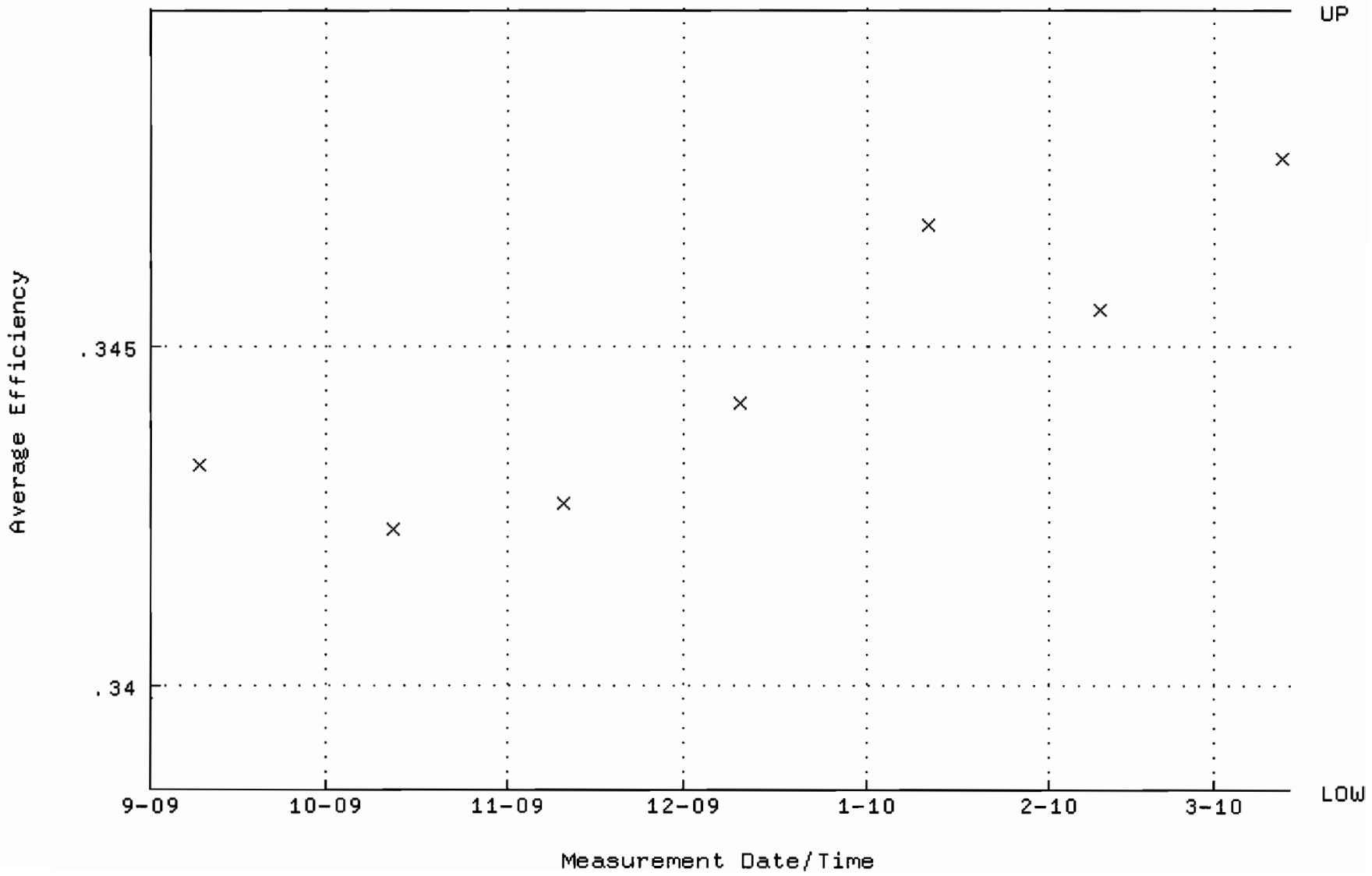

QA filename : DKA100:[ENV_ALPHA.QA.W]W097.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 66.0956 through 69.6464

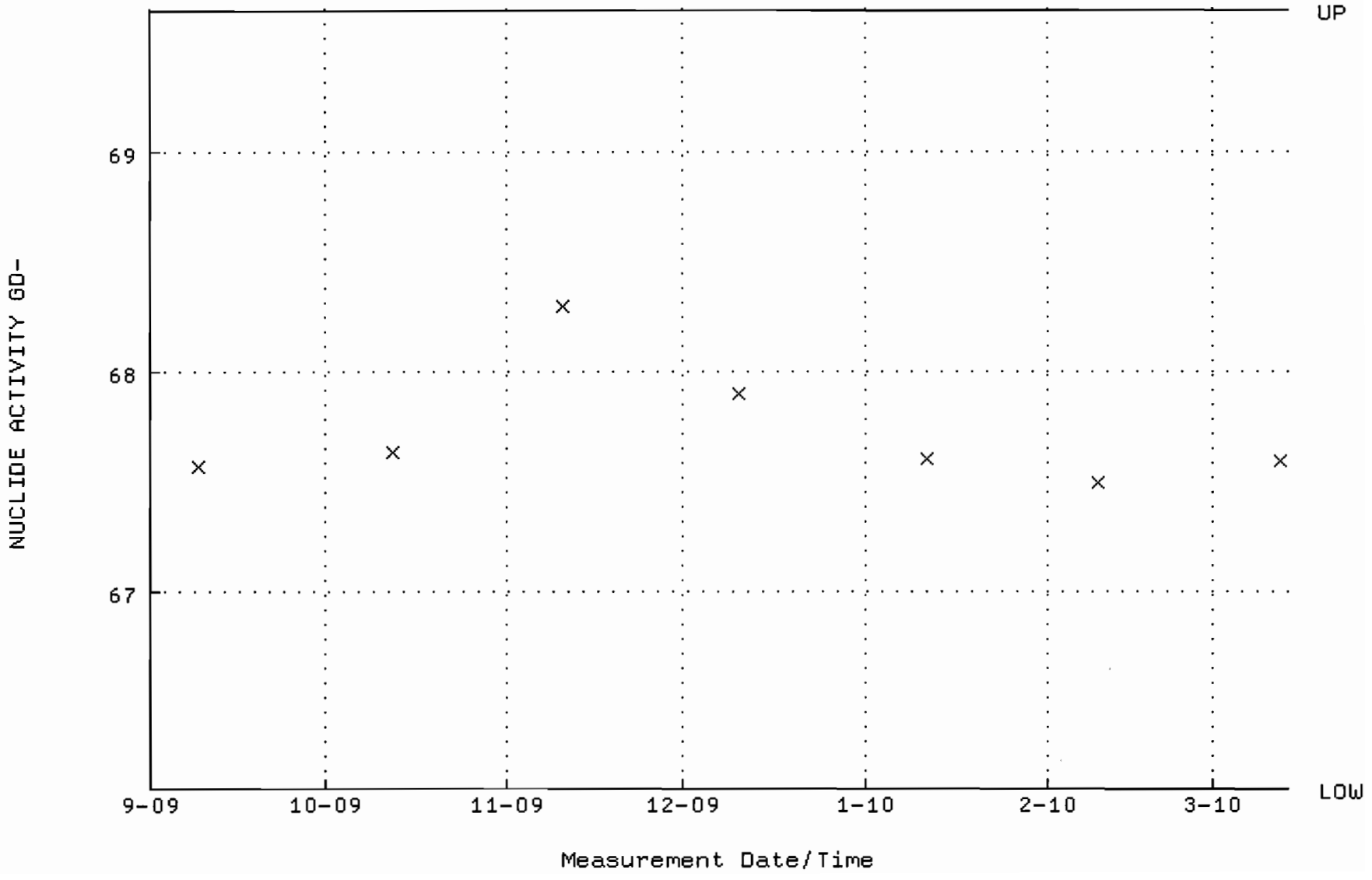

QA filename : DKA100:[ENV_ALPHA.QA.B]B097.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

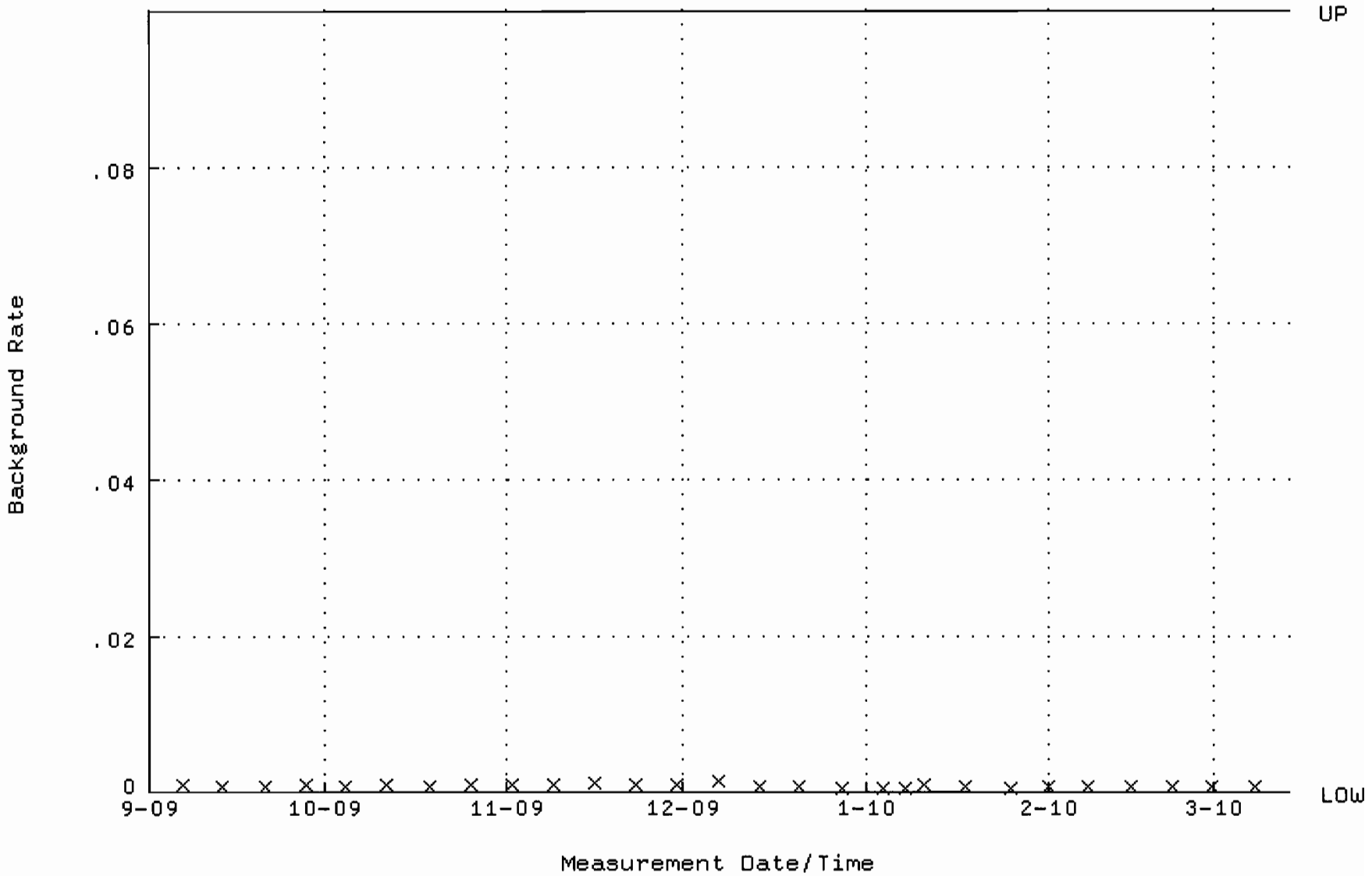

QA filename : DKA100:[ENV_ALPHA.QA.W]W098.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.346488 through 0.366488

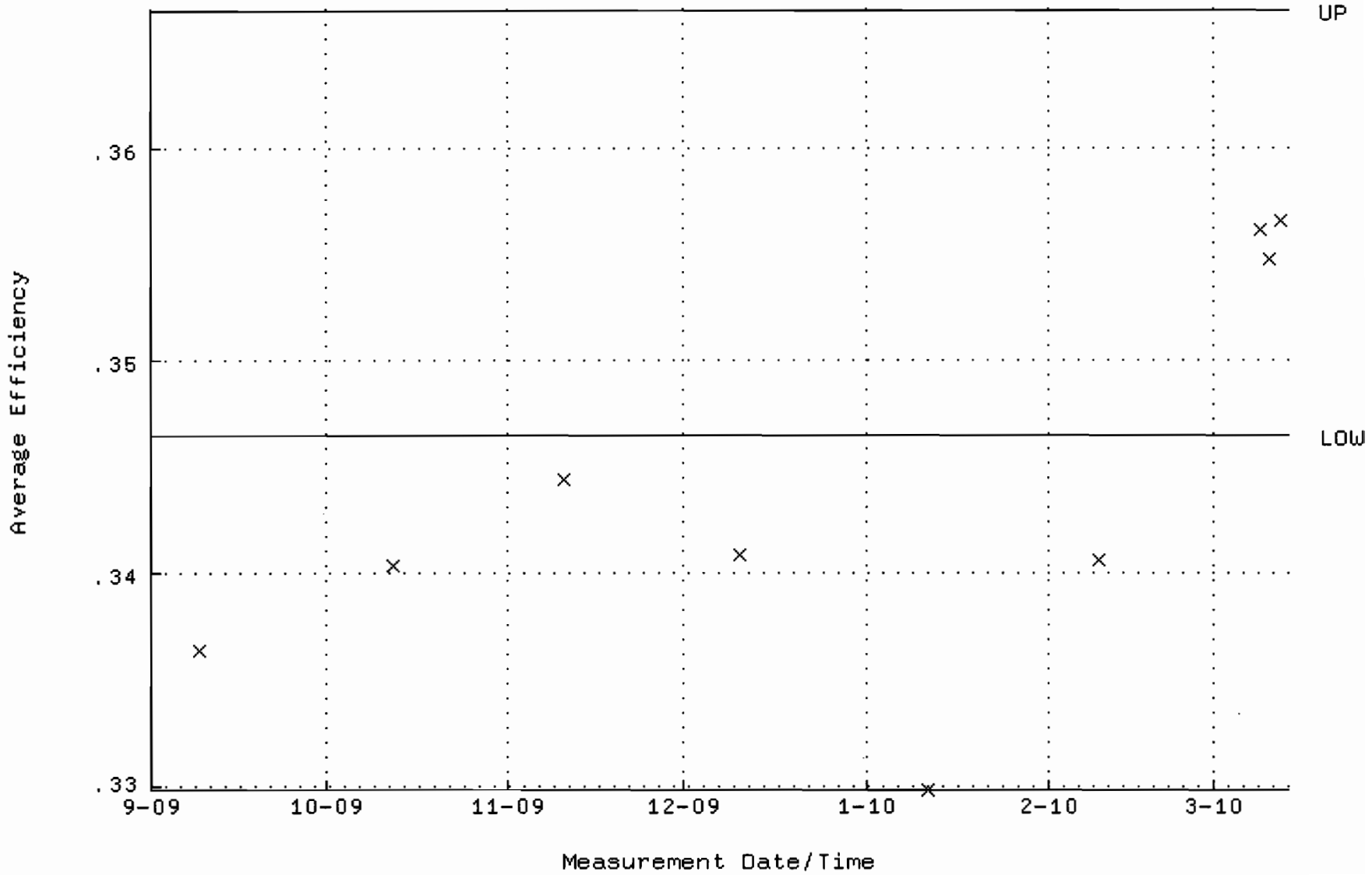

QA filename : DKA100:[ENV_ALPHA.QA.W]W098.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 62.6847 through 69.2831

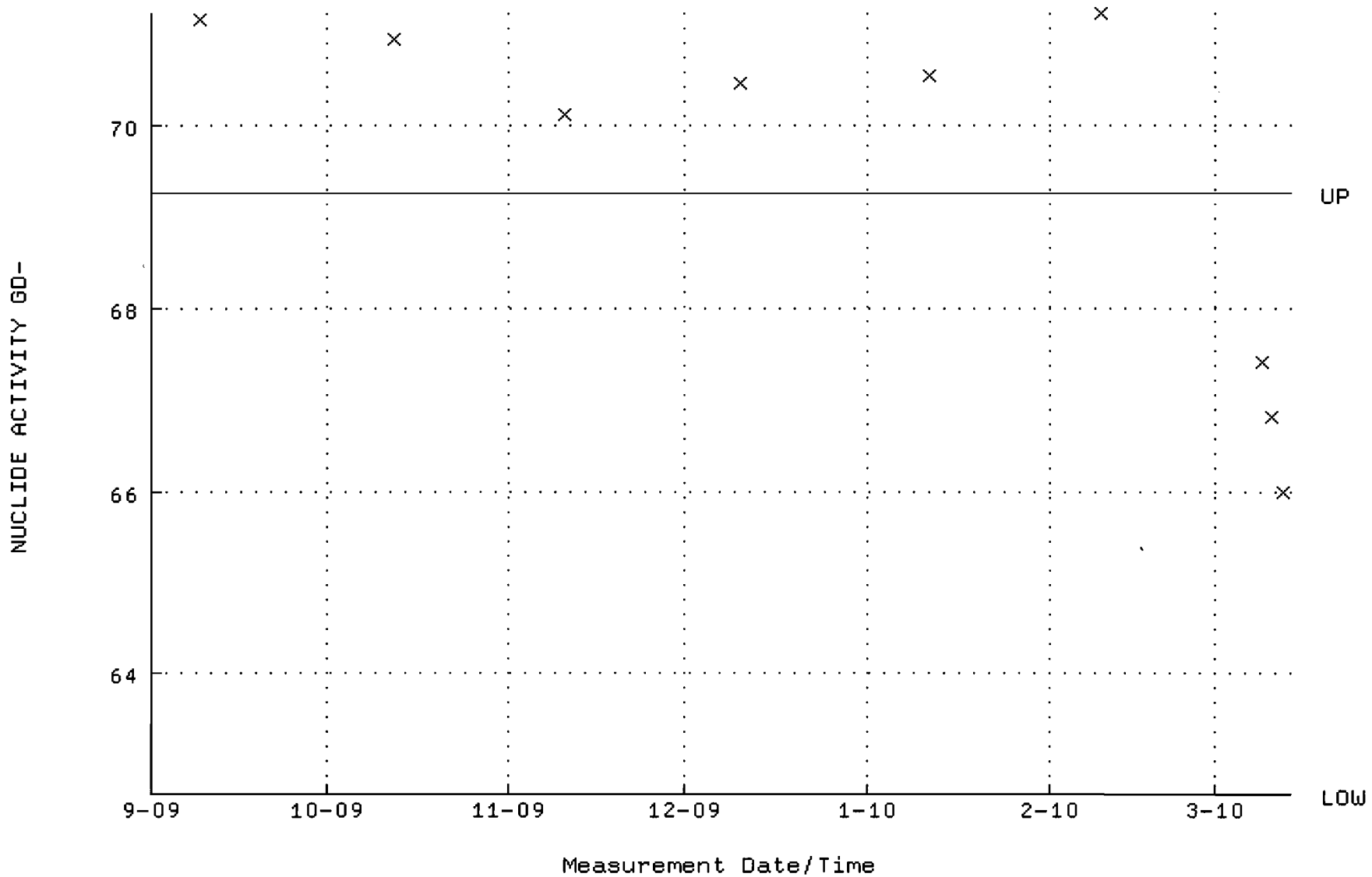

QA filename : DKA100:[ENV_ALPHA.QA.B]B098.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

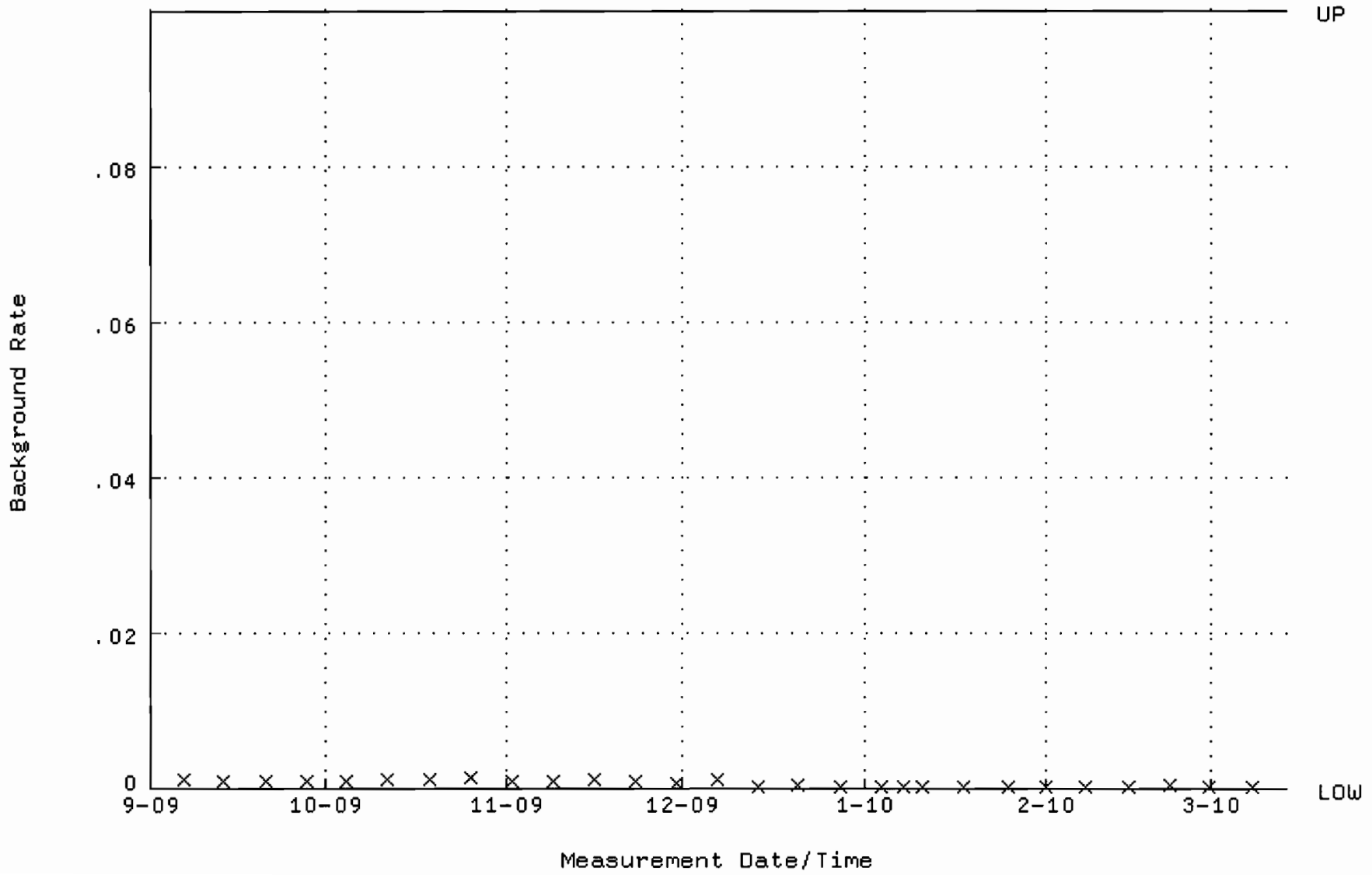

QA filename : DKA100:[ENV_ALPHA.QA.W]W103.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.322227 through 0.345175

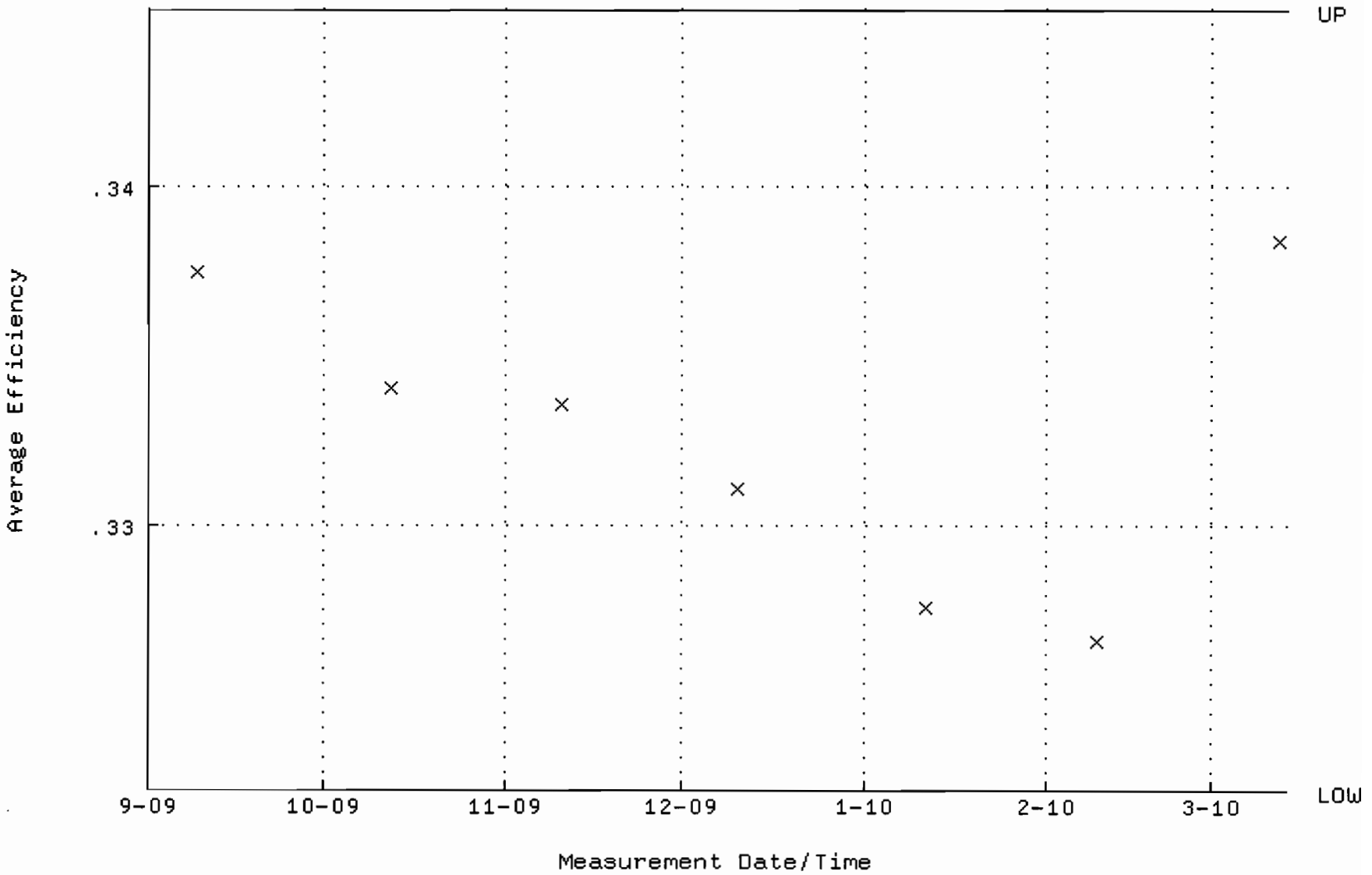

QA filename : DKA100:[ENV_ALPHA.QA.W]W103.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 64.9318 through 70.5959

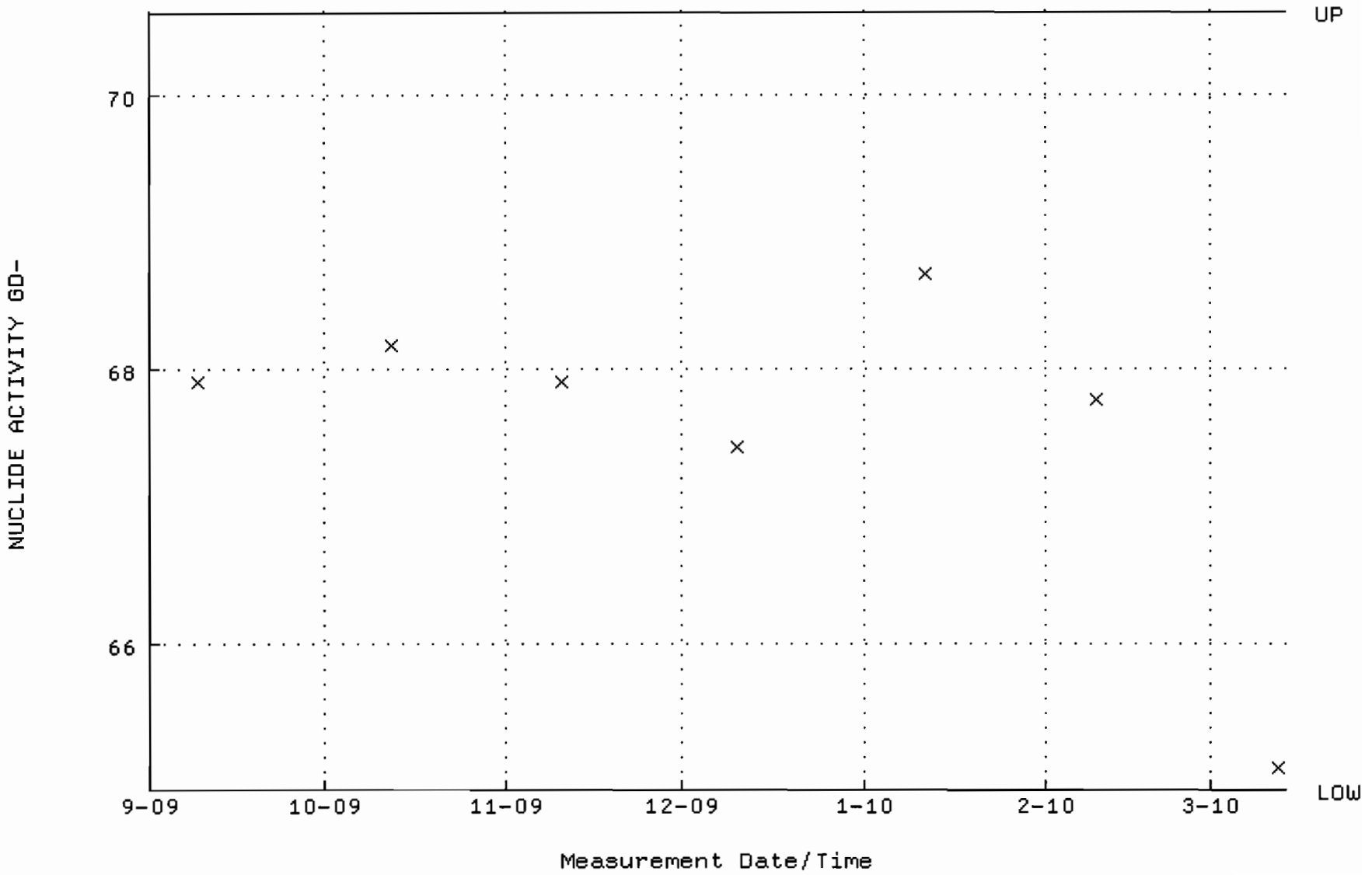

QA filename : DKA100:[ENV_ALPHA.QA.B]B103.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

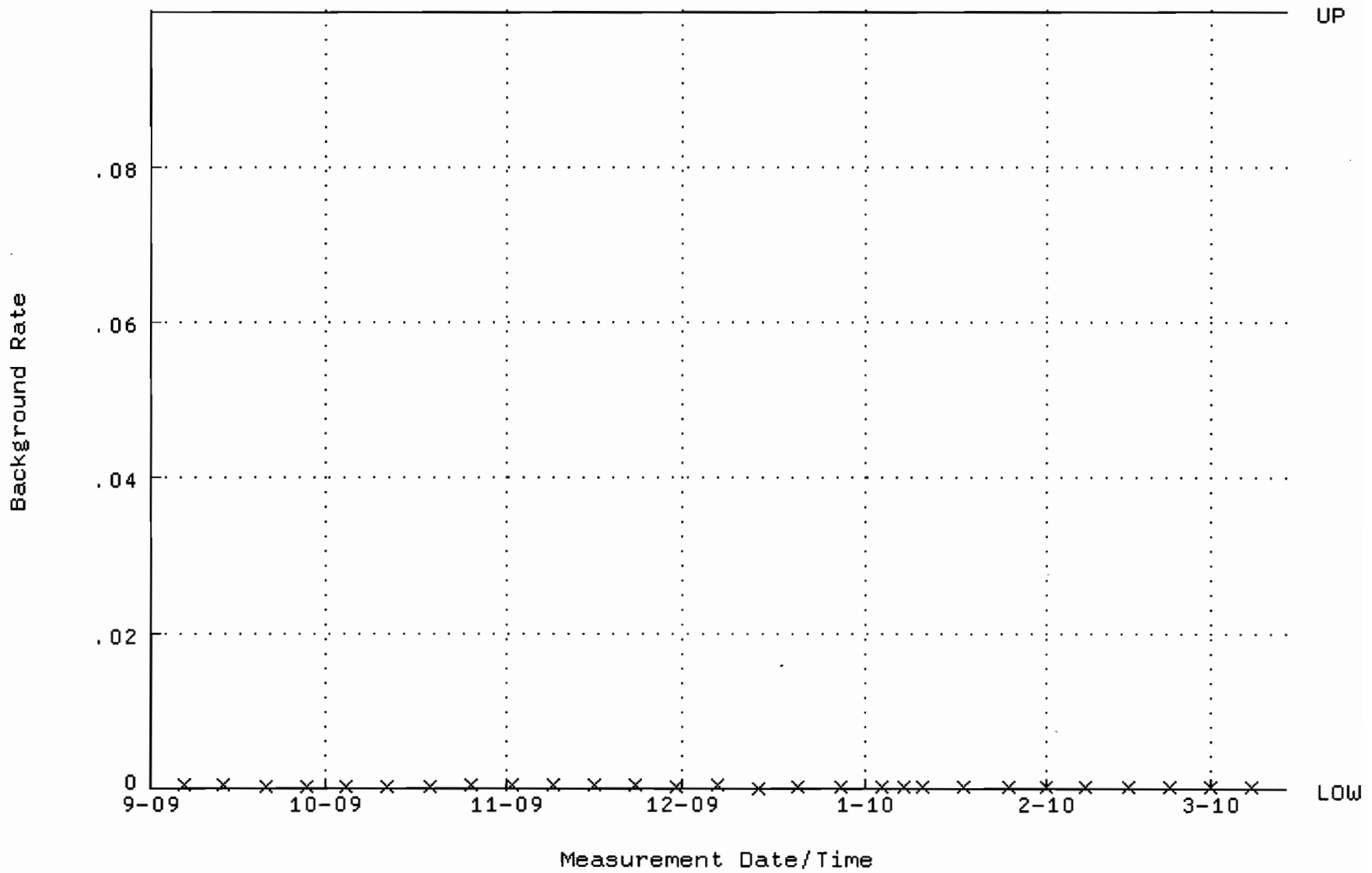

QA filename : DKA100:[ENV_ALPHA.QA.W]W105.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-SEP-2009 08:05:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.309544 through 0.338666

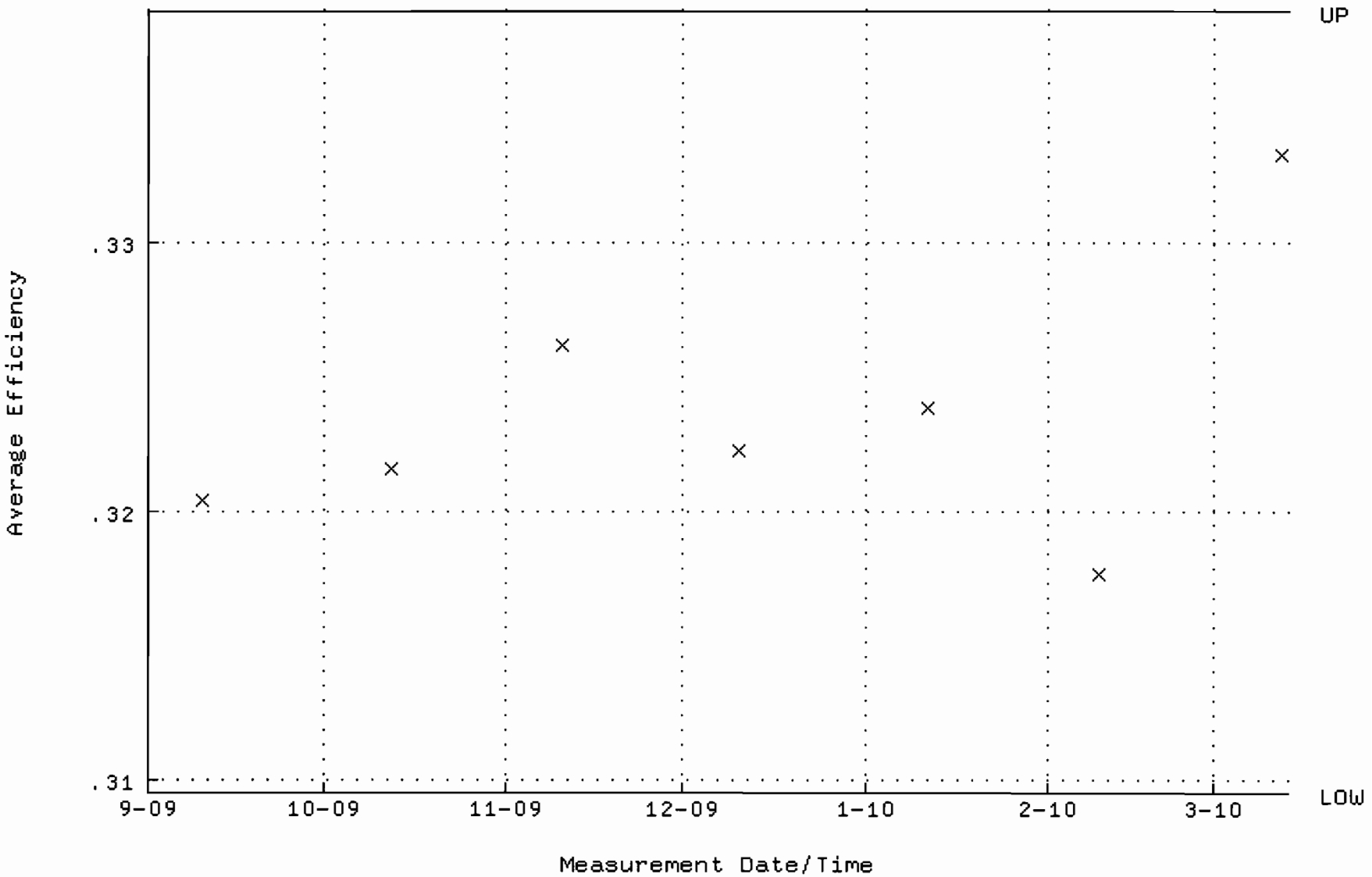

QA filename : DKA100:[ENV_ALPHA.QA.W]W105.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-SEP-2009 08:05:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 67.6585 through 76.2091

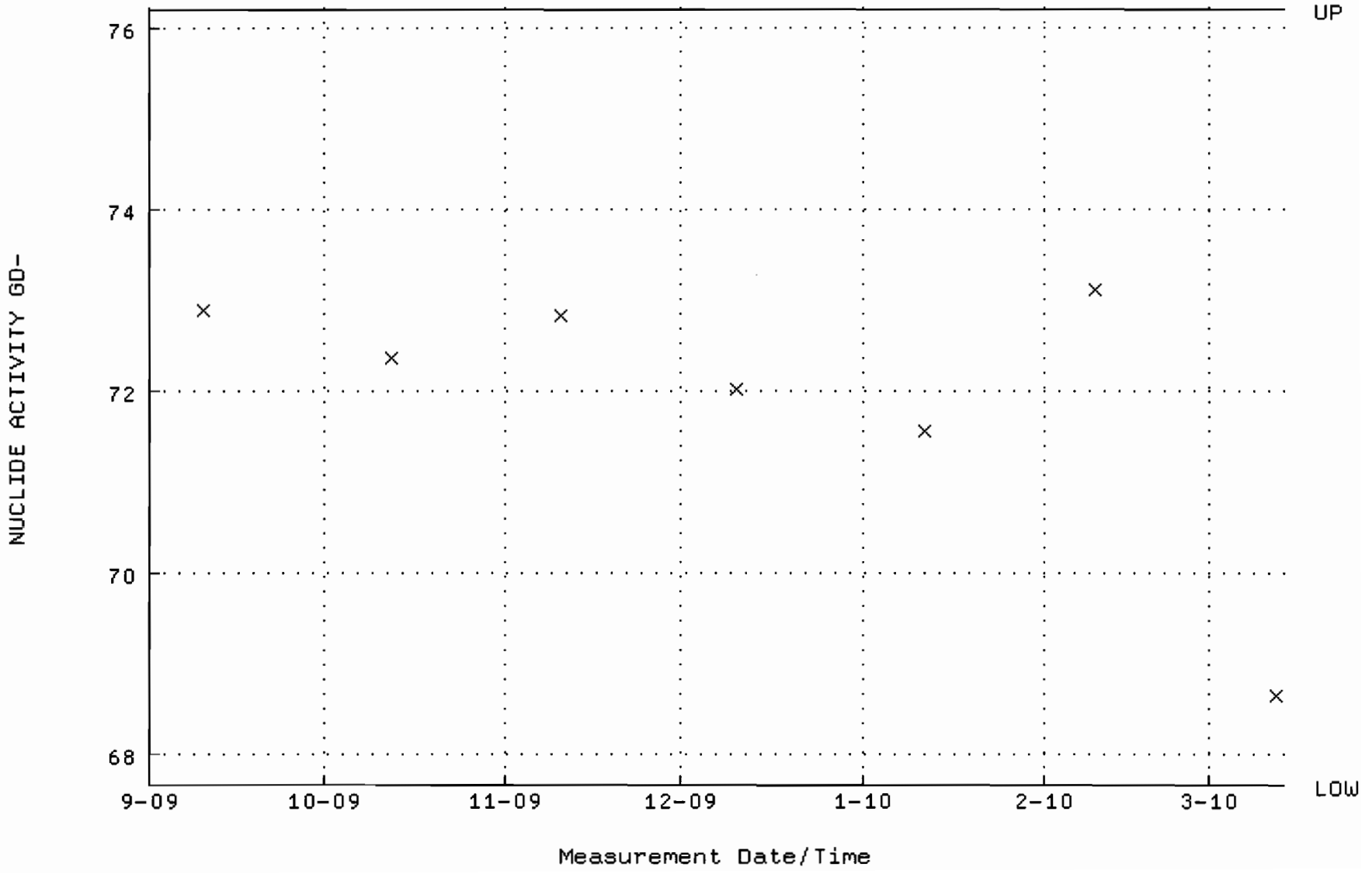

QA filename : DKA100:[ENV_ALPHA.QA.B]B105.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

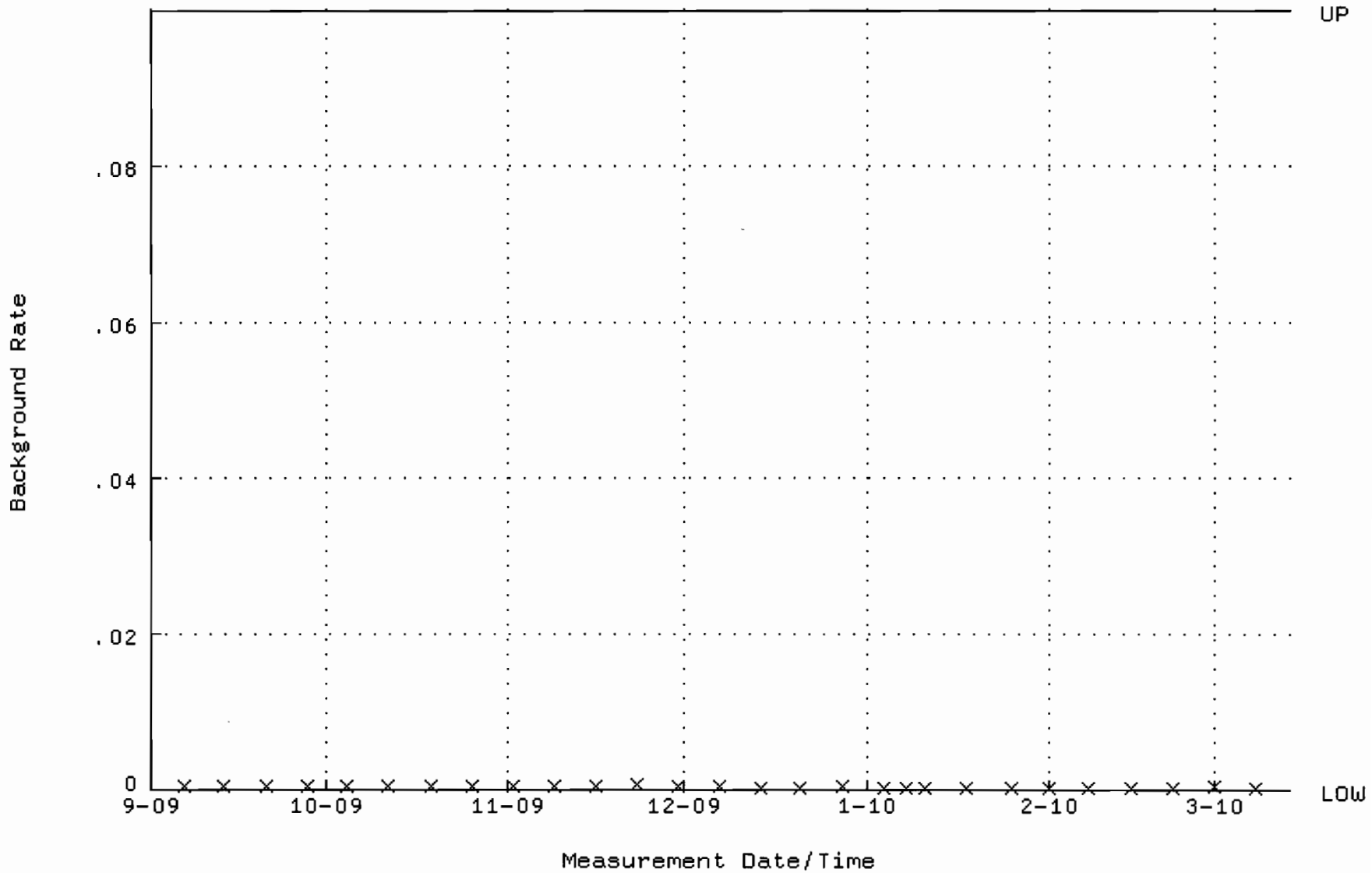

QA filename : DKA100:[ENV_ALPHA.QA.W]W107.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.288232 through 0.332218

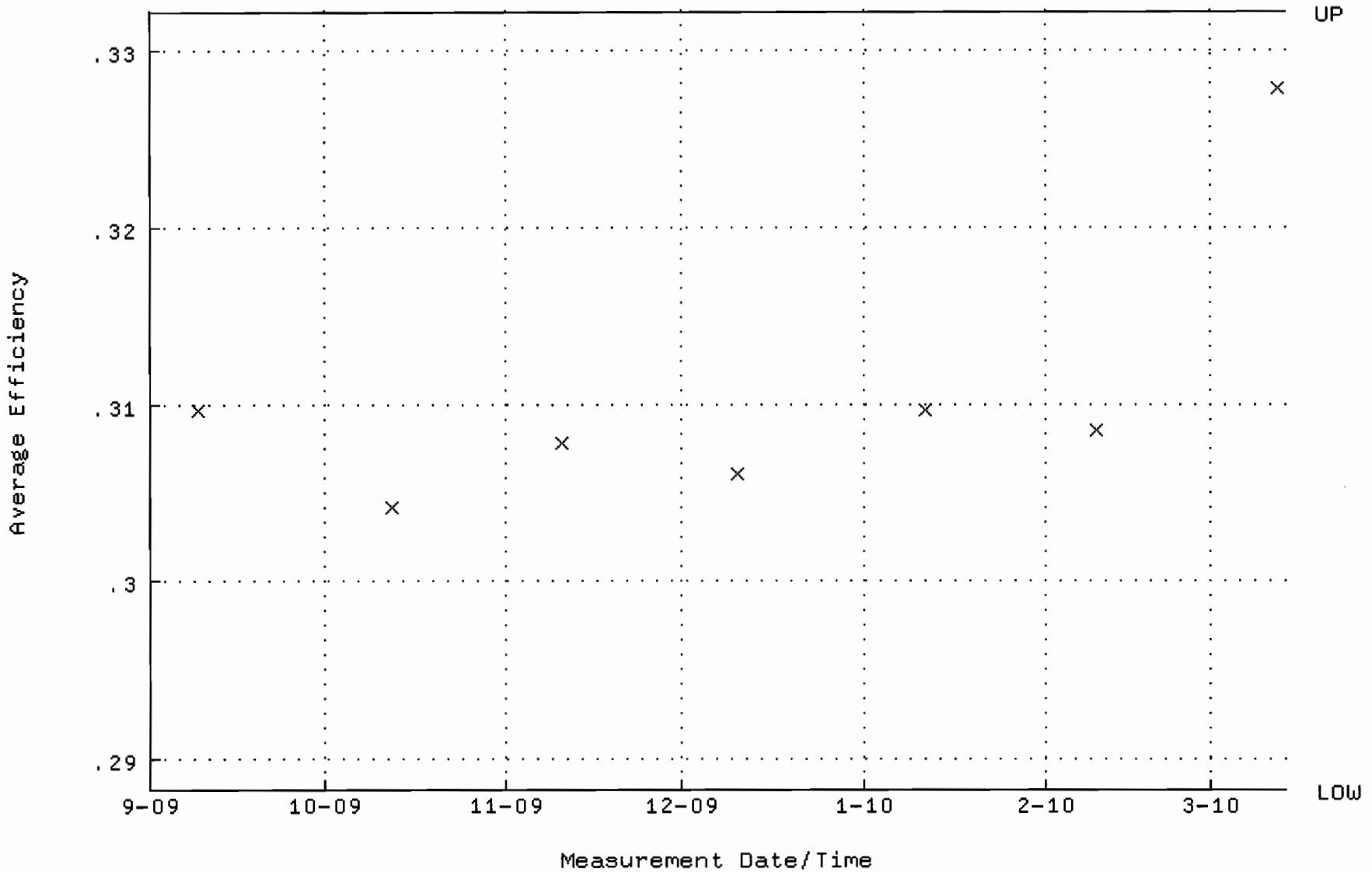

QA filename : DKA100:[ENV_ALPHA.QA.W]W107.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 63.9135 through 75.9257

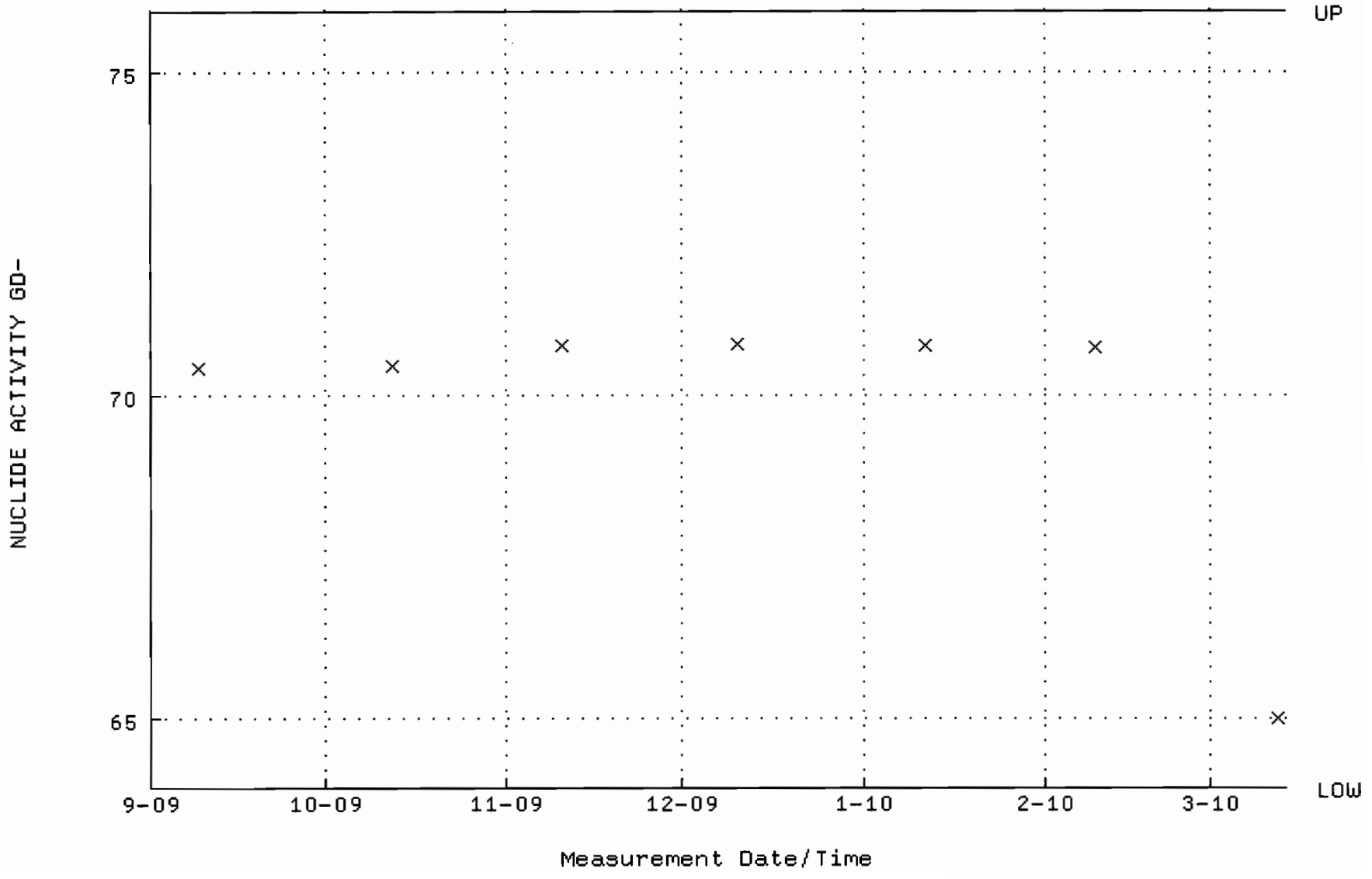

QA filename : DKA100:[ENV_ALPHA.QA.B]B107.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:12 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

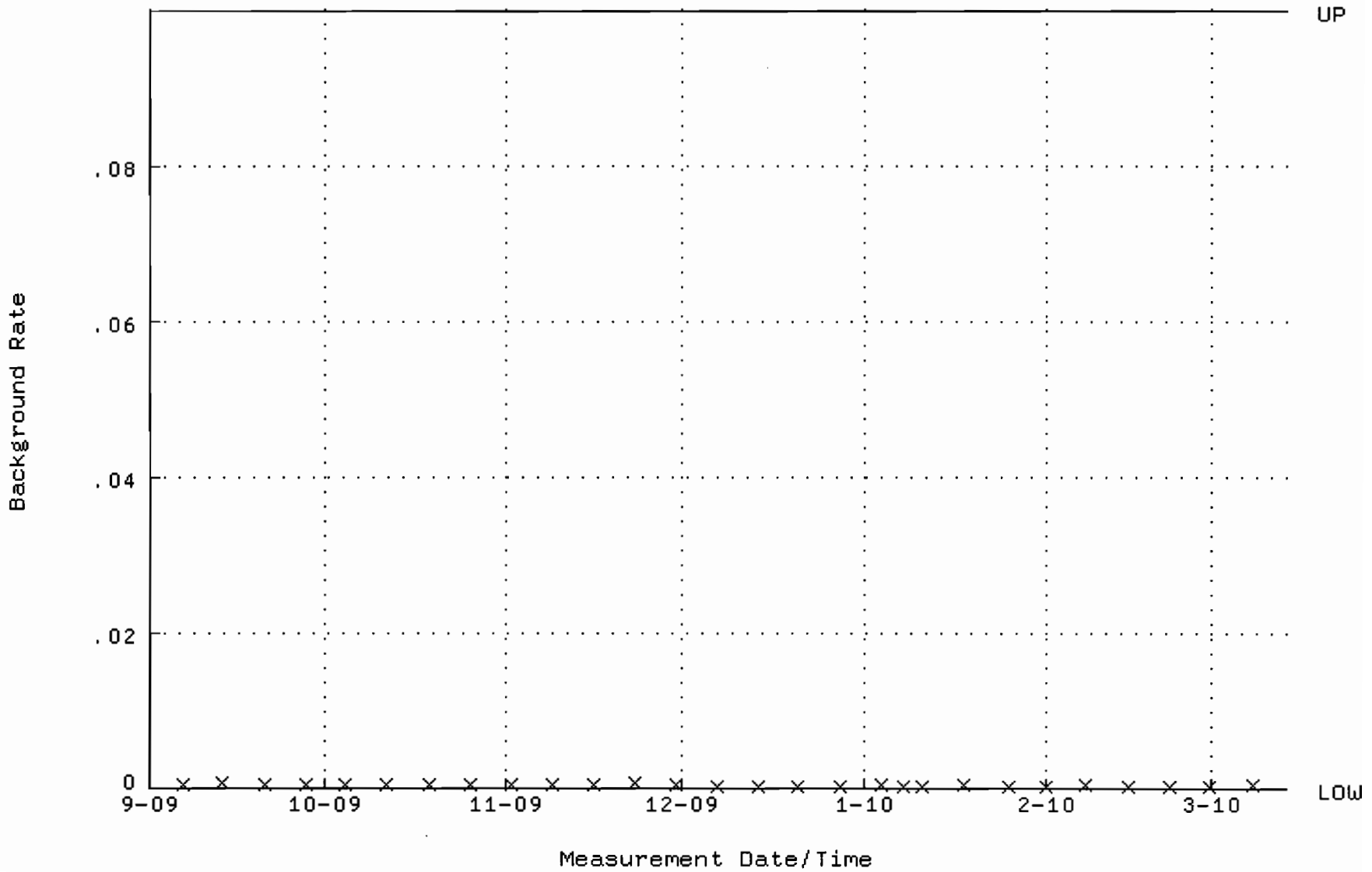

QA filename : DKA100:[ENV_ALPHA.QA.W]W108.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.329201 through 0.361417

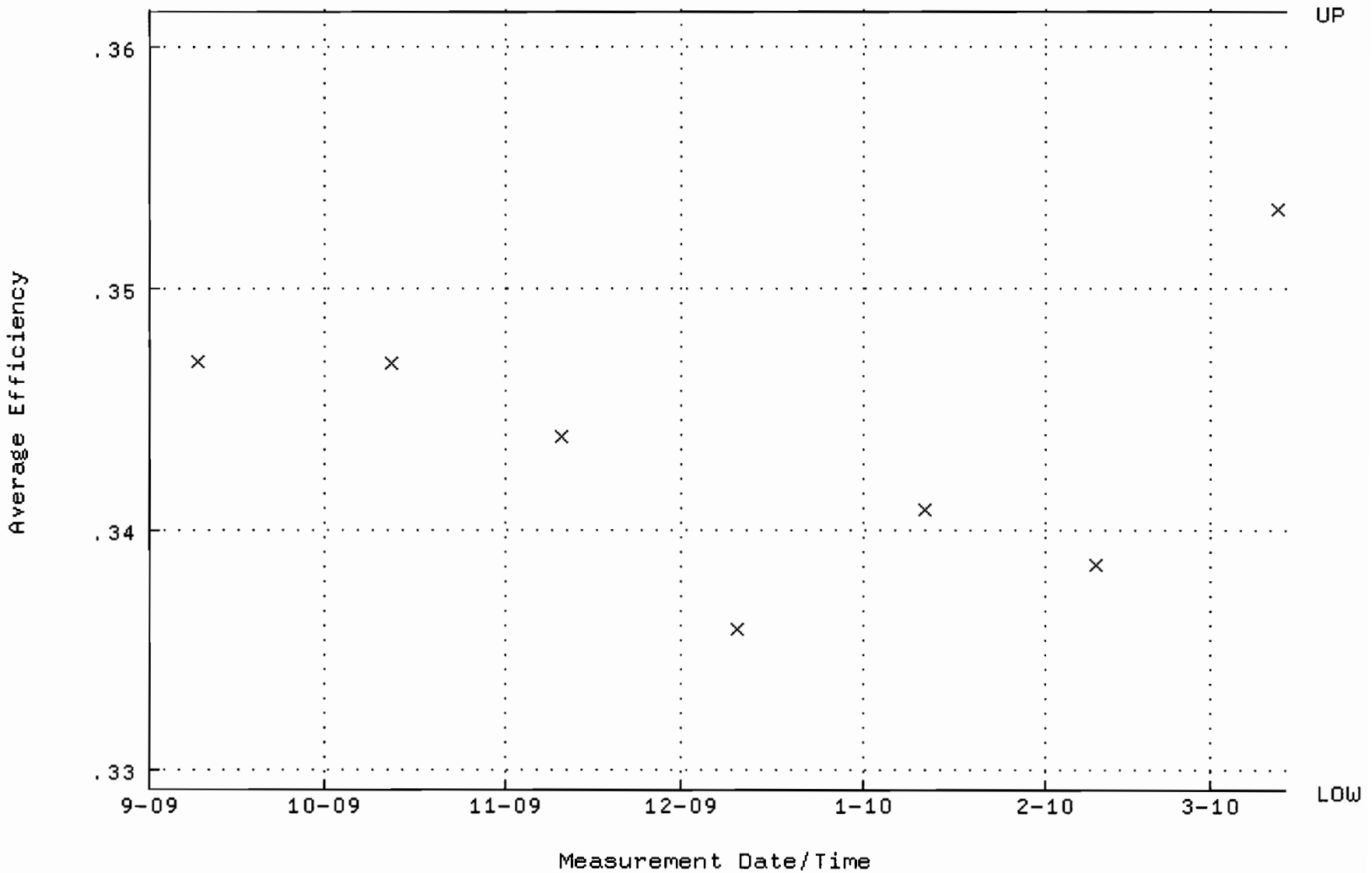

QA filename : DKA100:[ENV_ALPHA.QA.W]W108.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 67.0155 through 72.5031

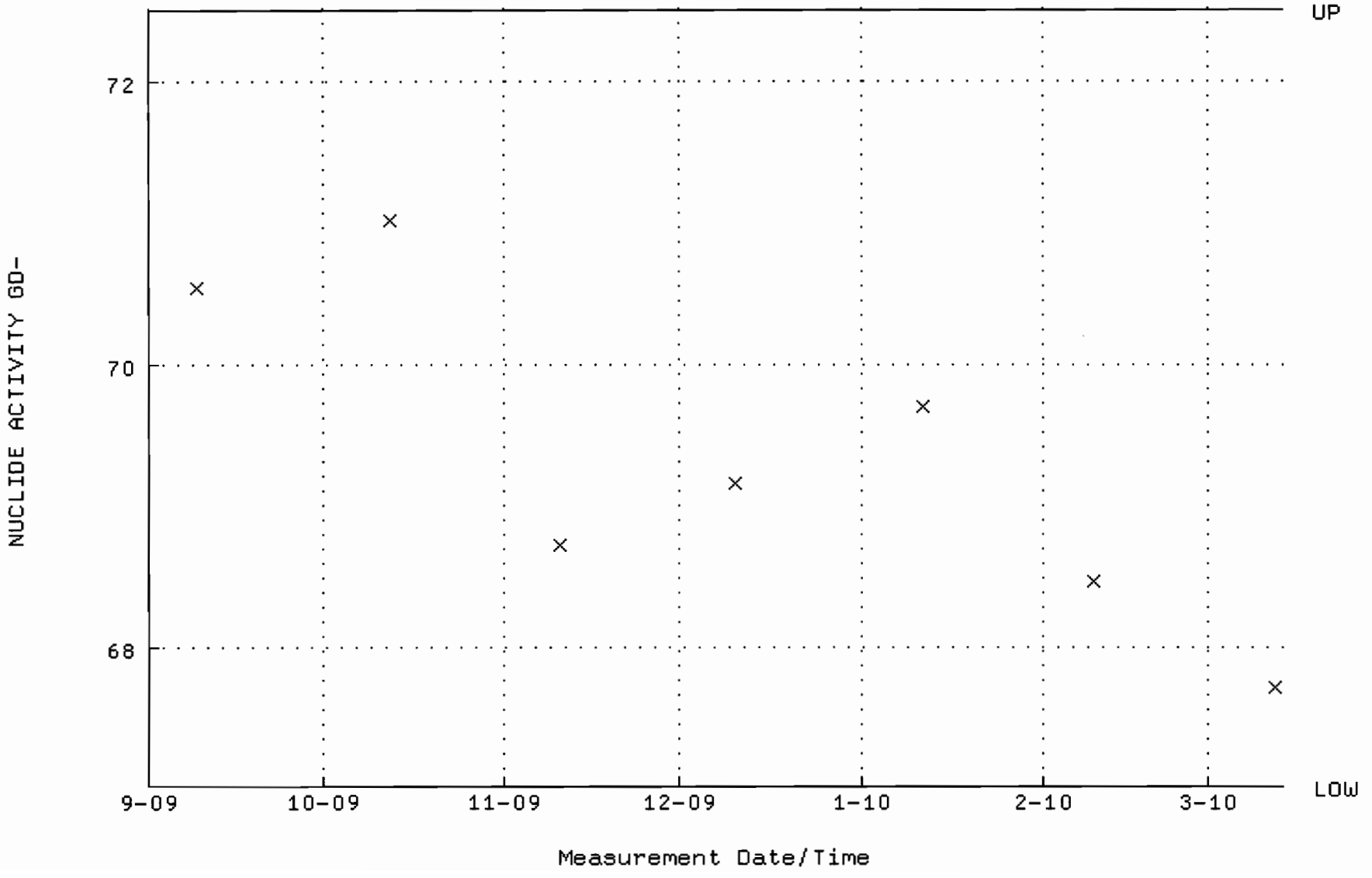

QA filename : DKA100:[ENV_ALPHA.QA.B]B108.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:12 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

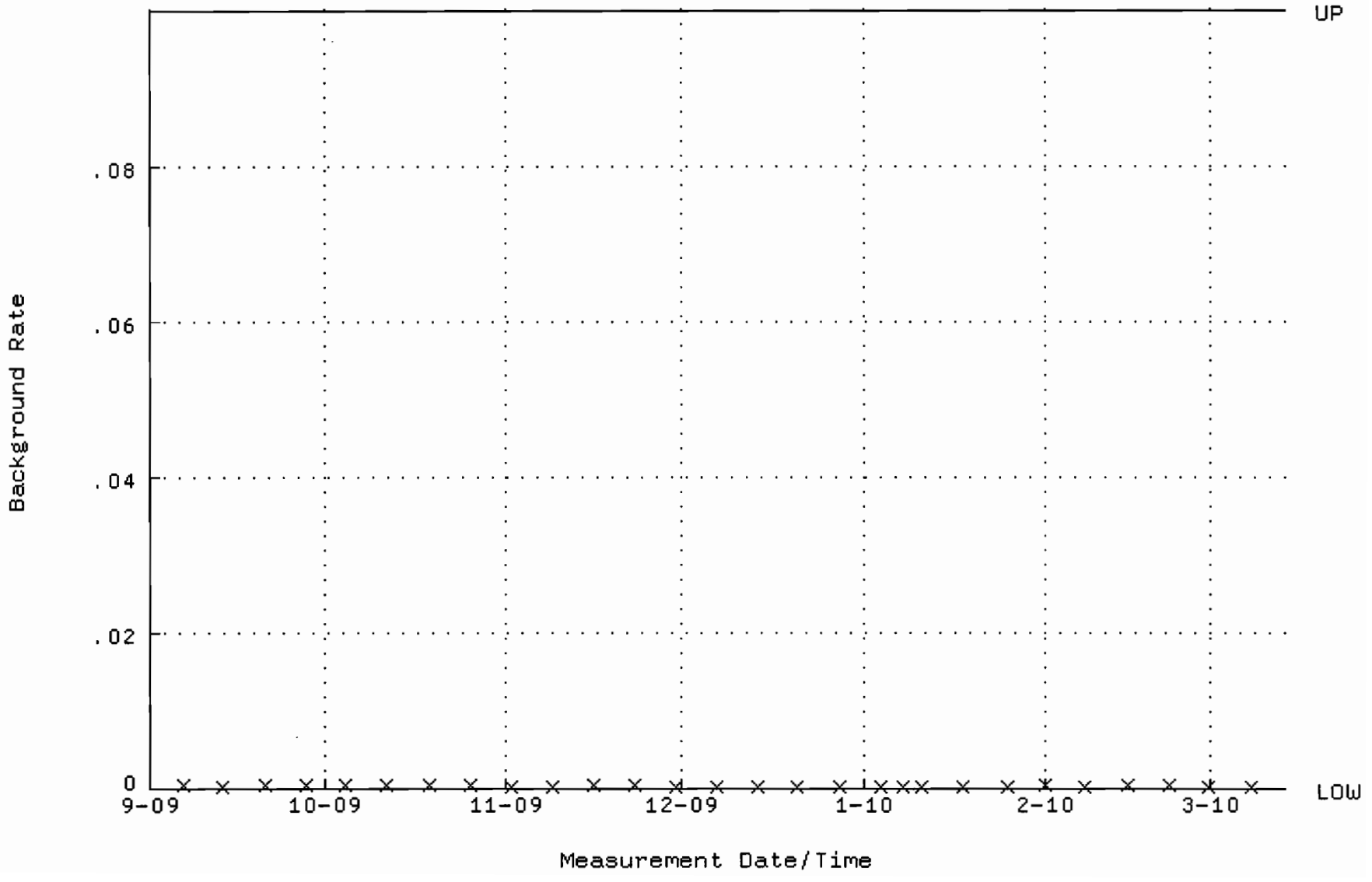

QA filename : DKA100:[ENV_ALPHA.QA.W]W111.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.320109 through 0.359725

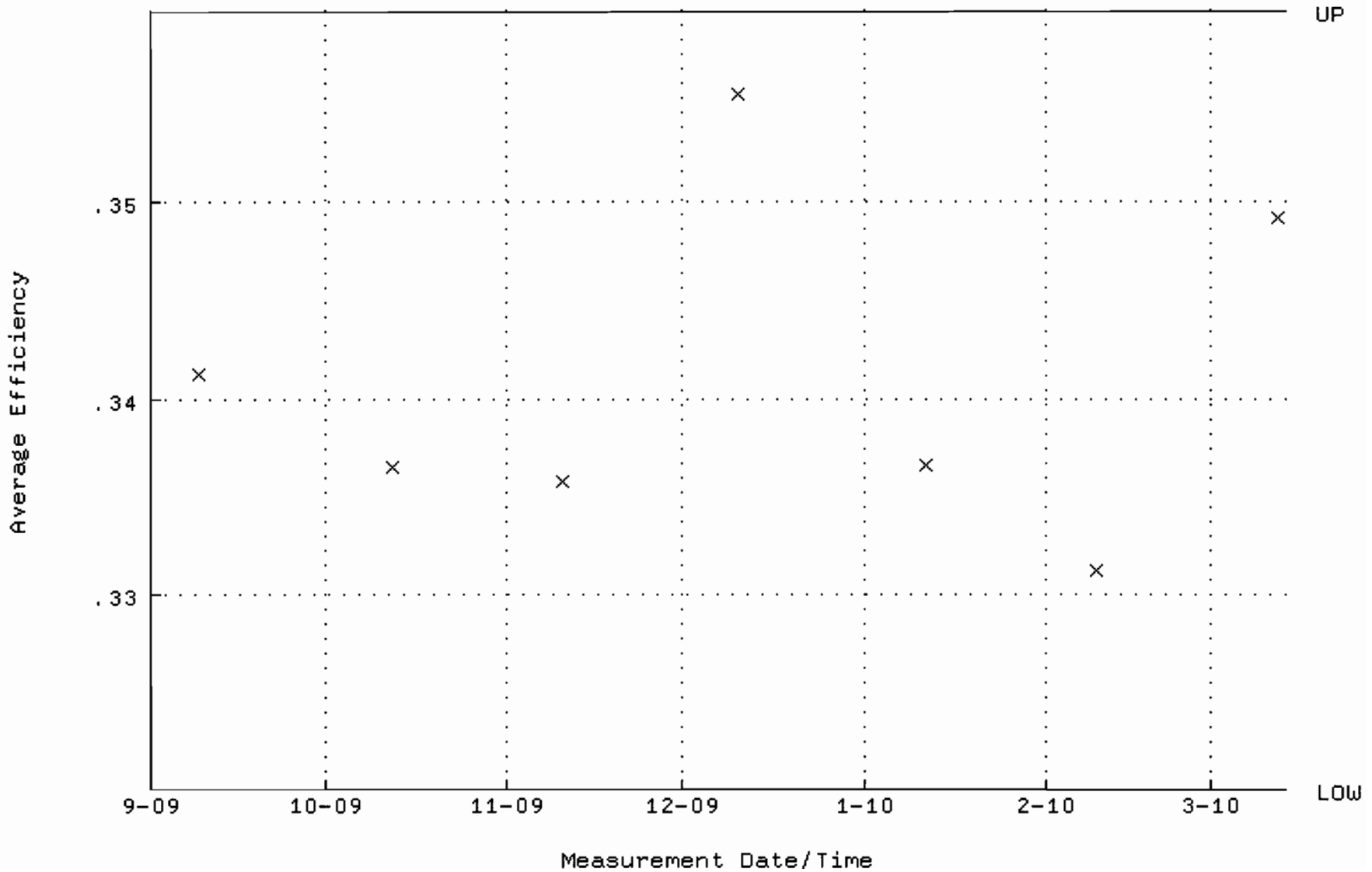

QA filename : DKA100:[ENV_ALPHA.QA.W]W111.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 67.6917 through 72.9869

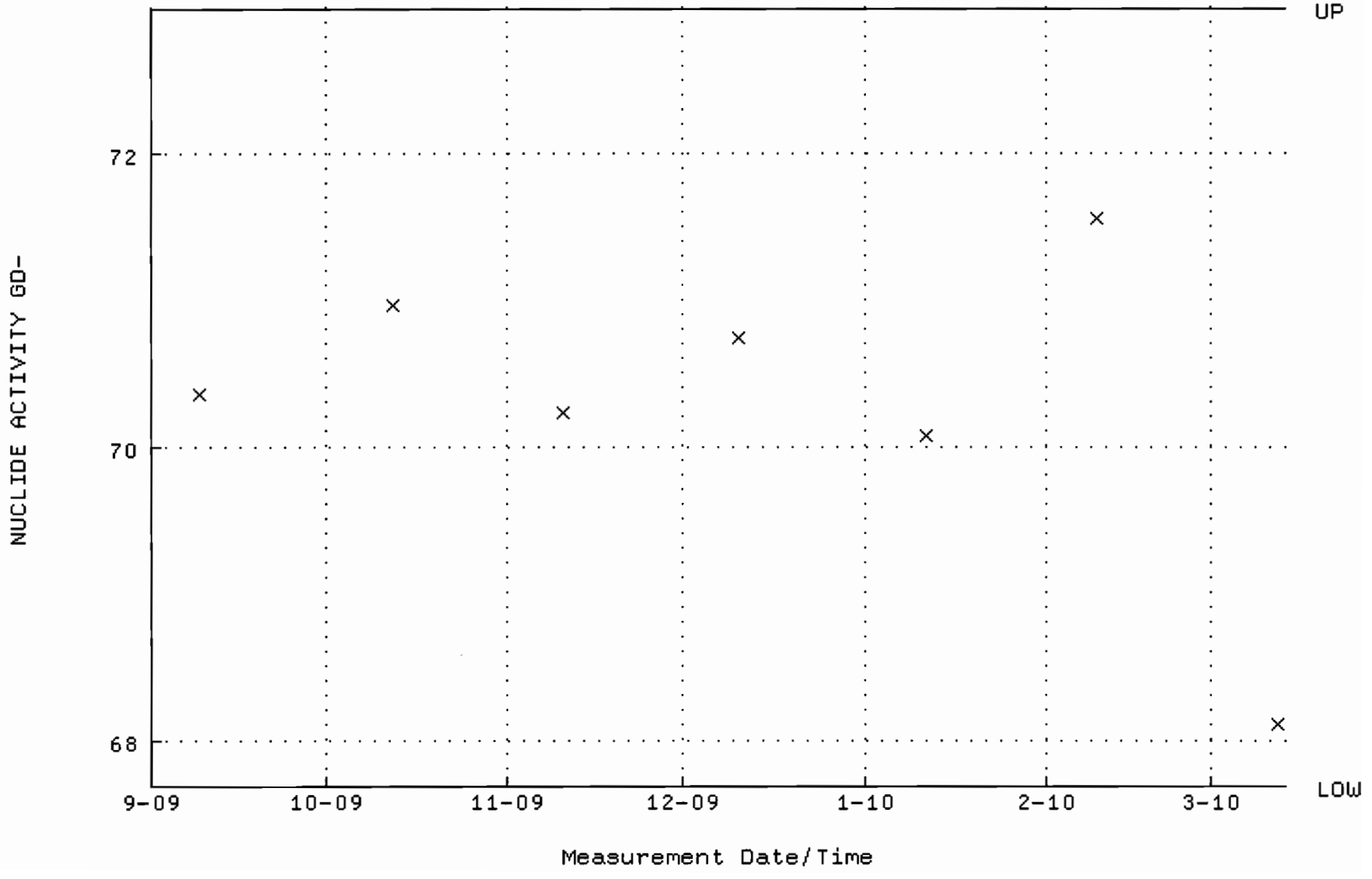

QA filename : DKA100:[ENV_ALPHA.QA.B]B111.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:12 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

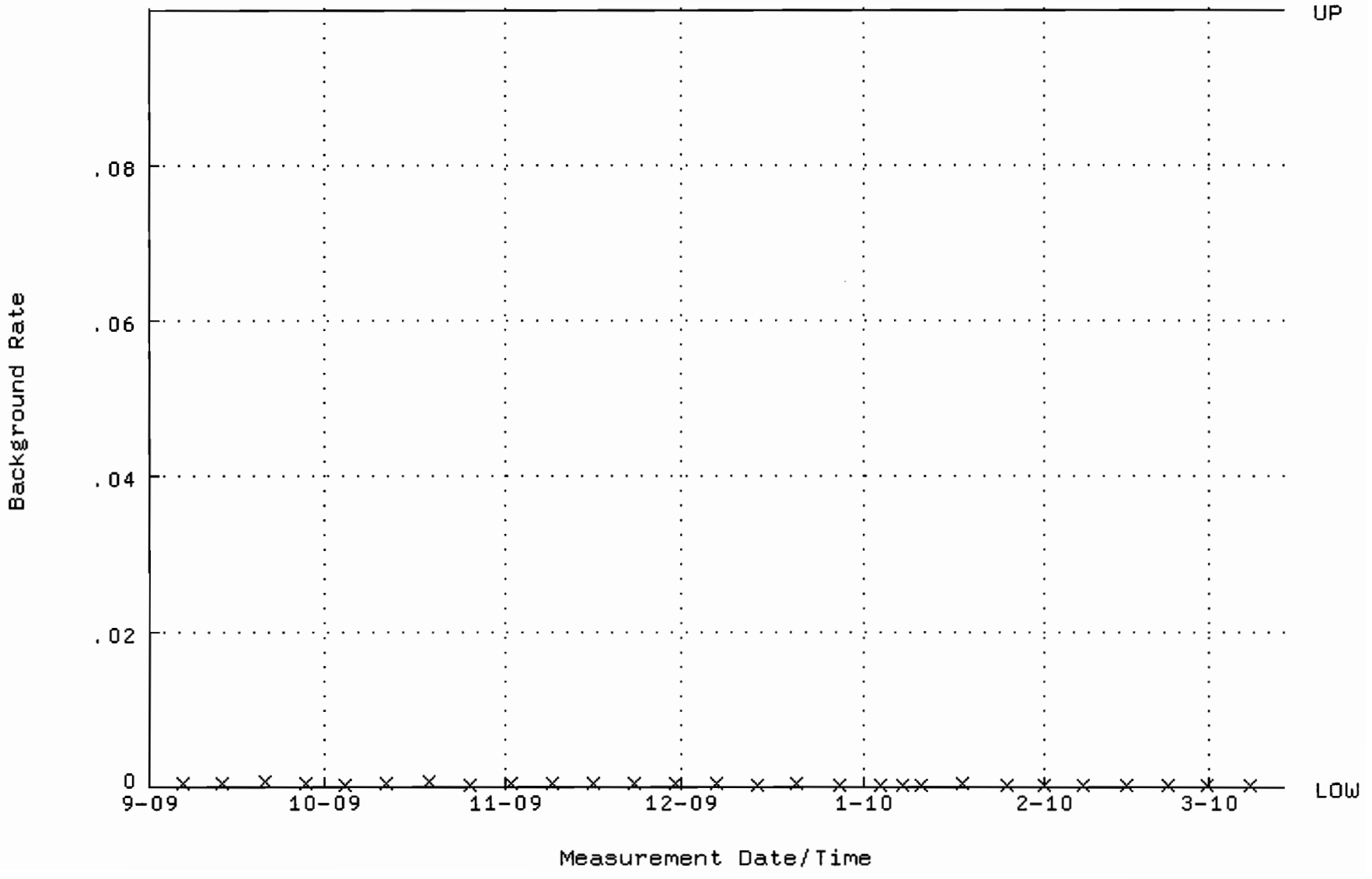

QA filename : DKA100:[ENV_ALPHA.QA.W]W155.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:52 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250153 through 0.272837

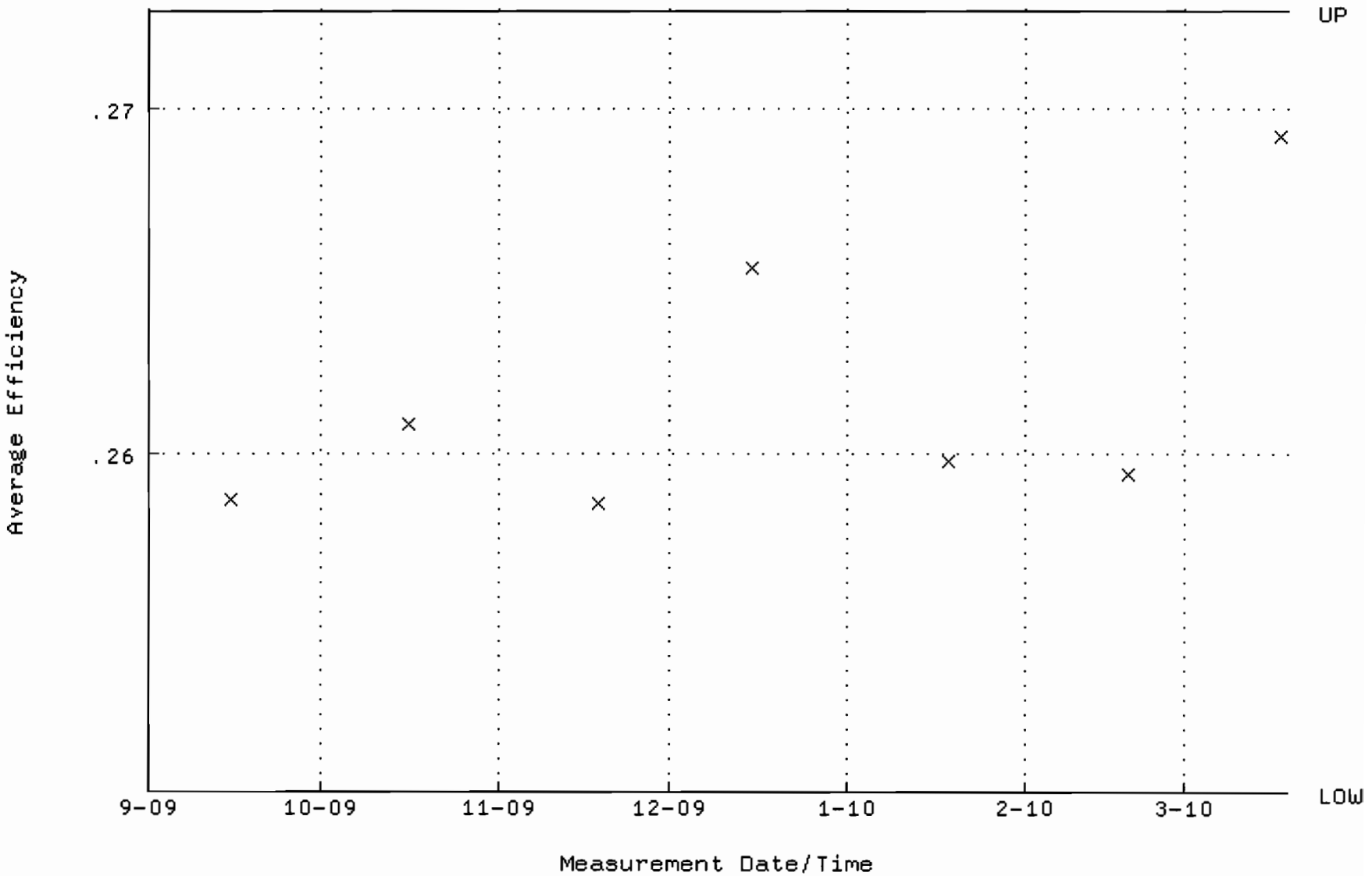

QA filename : DKA100:[ENV_ALPHA.QA.W]W155.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:52 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 83.7123 through 91.3975

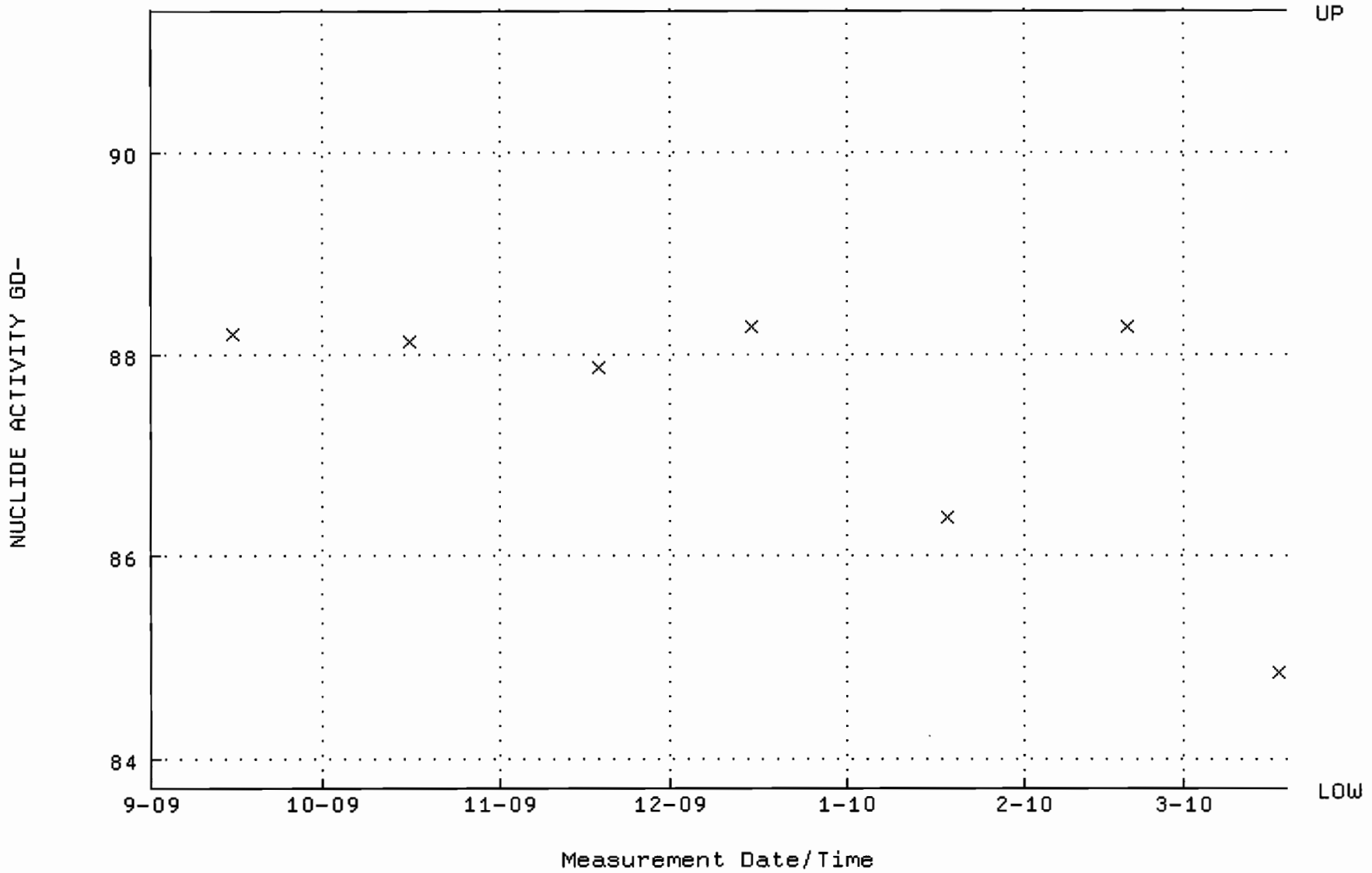

QA filename : DKA100:[ENV_ALPHA.QA.B]B155.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:43:06 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

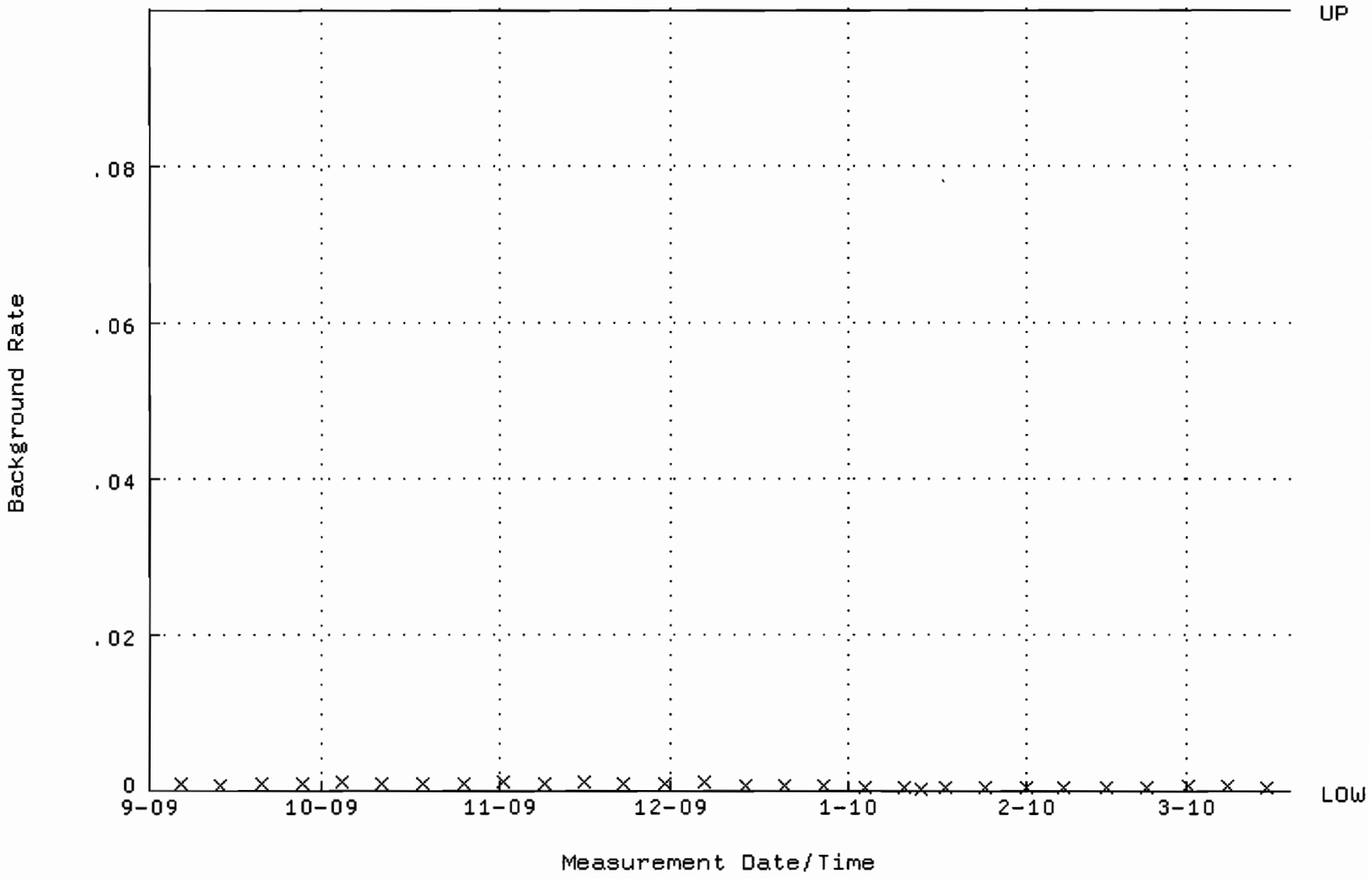

QA filename : DKA100:[ENV_ALPHA.QA.W]W156.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:57 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.235897 through 0.260757

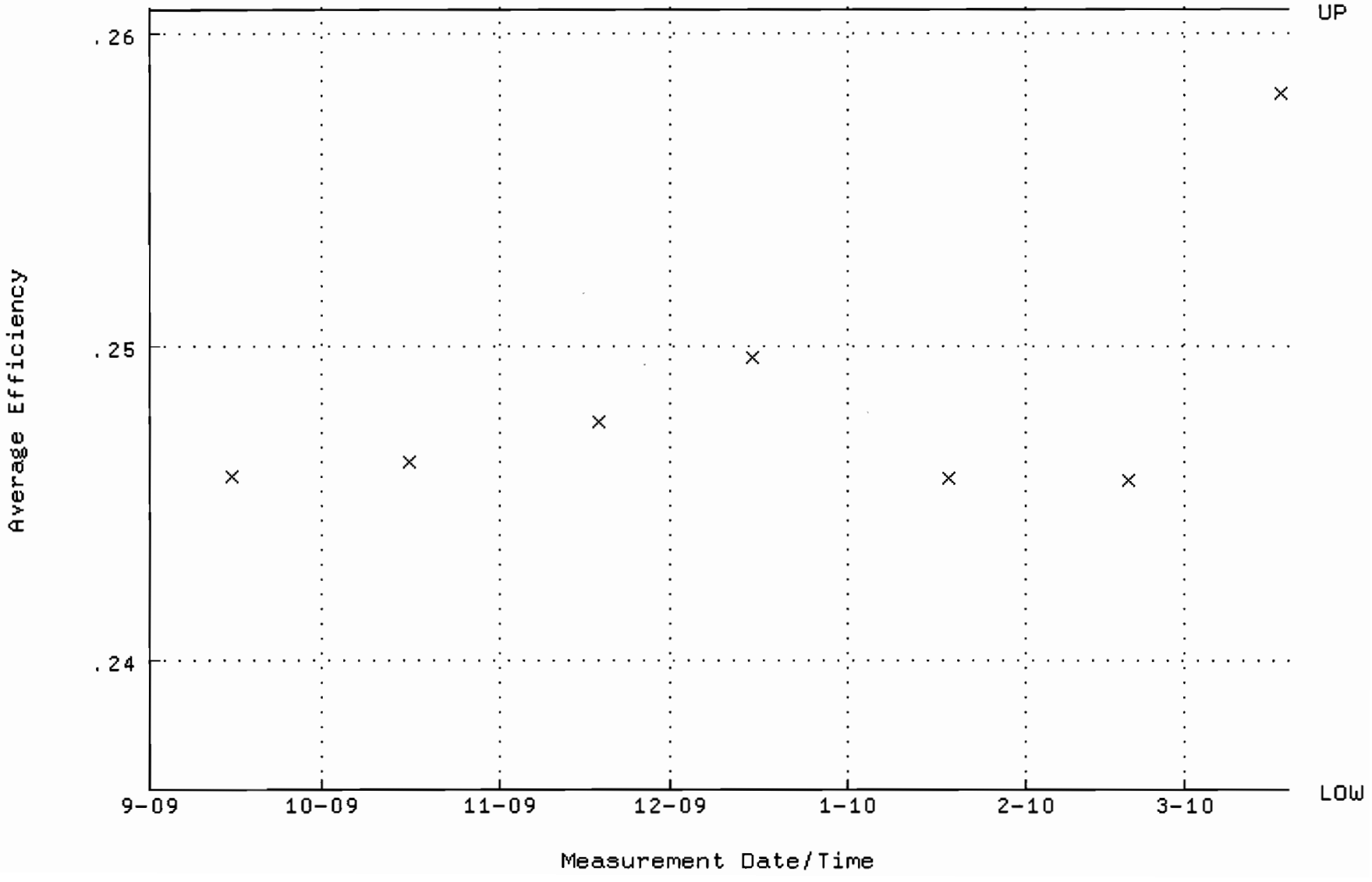

QA filename : DKA100:[ENV_ALPHA.QA.W]W156.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:57 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 83.2670 through 89.6596

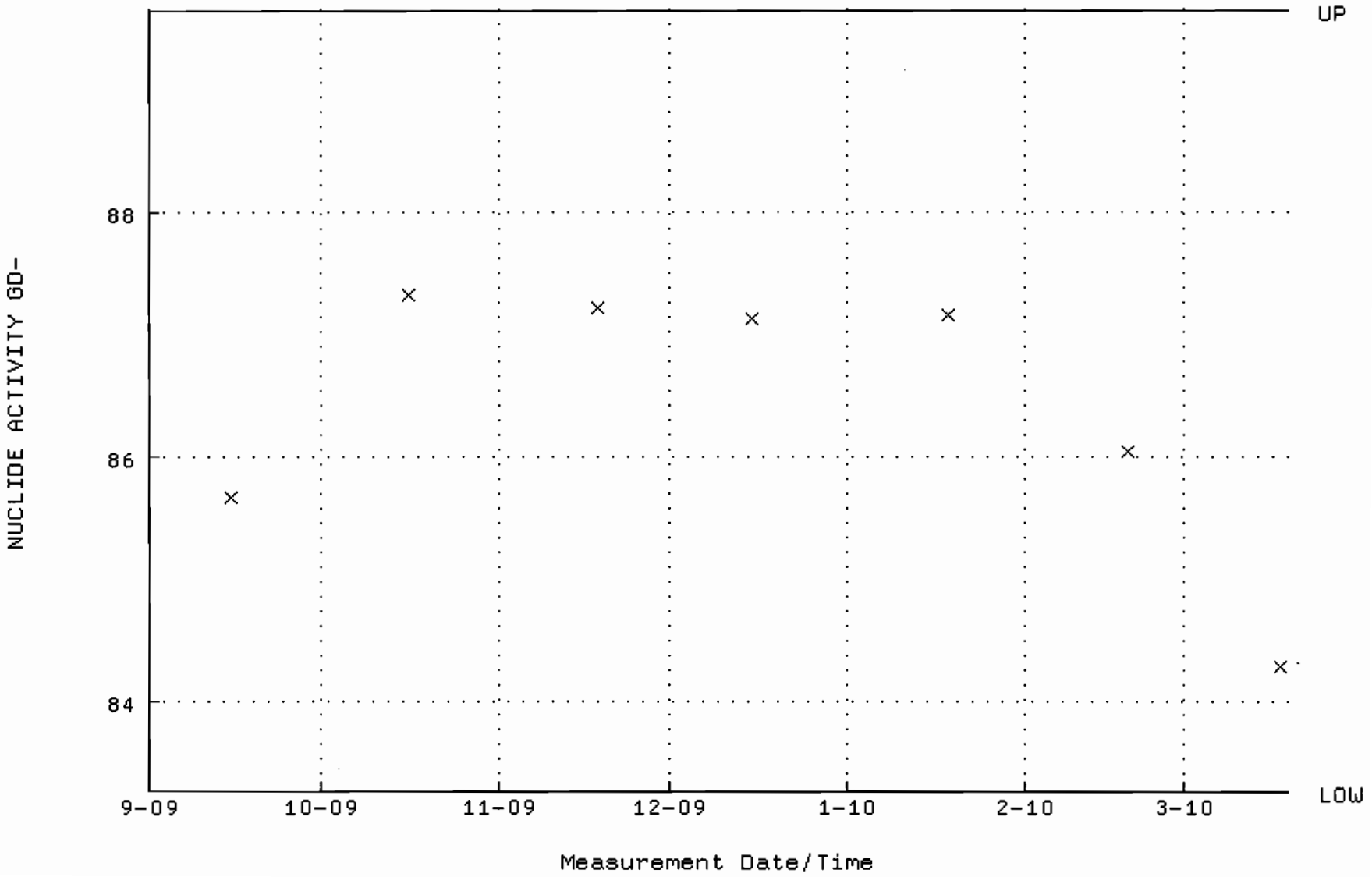

QA filename : DKA100:[ENV_ALPHA.QA.B]B156.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:43:10 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

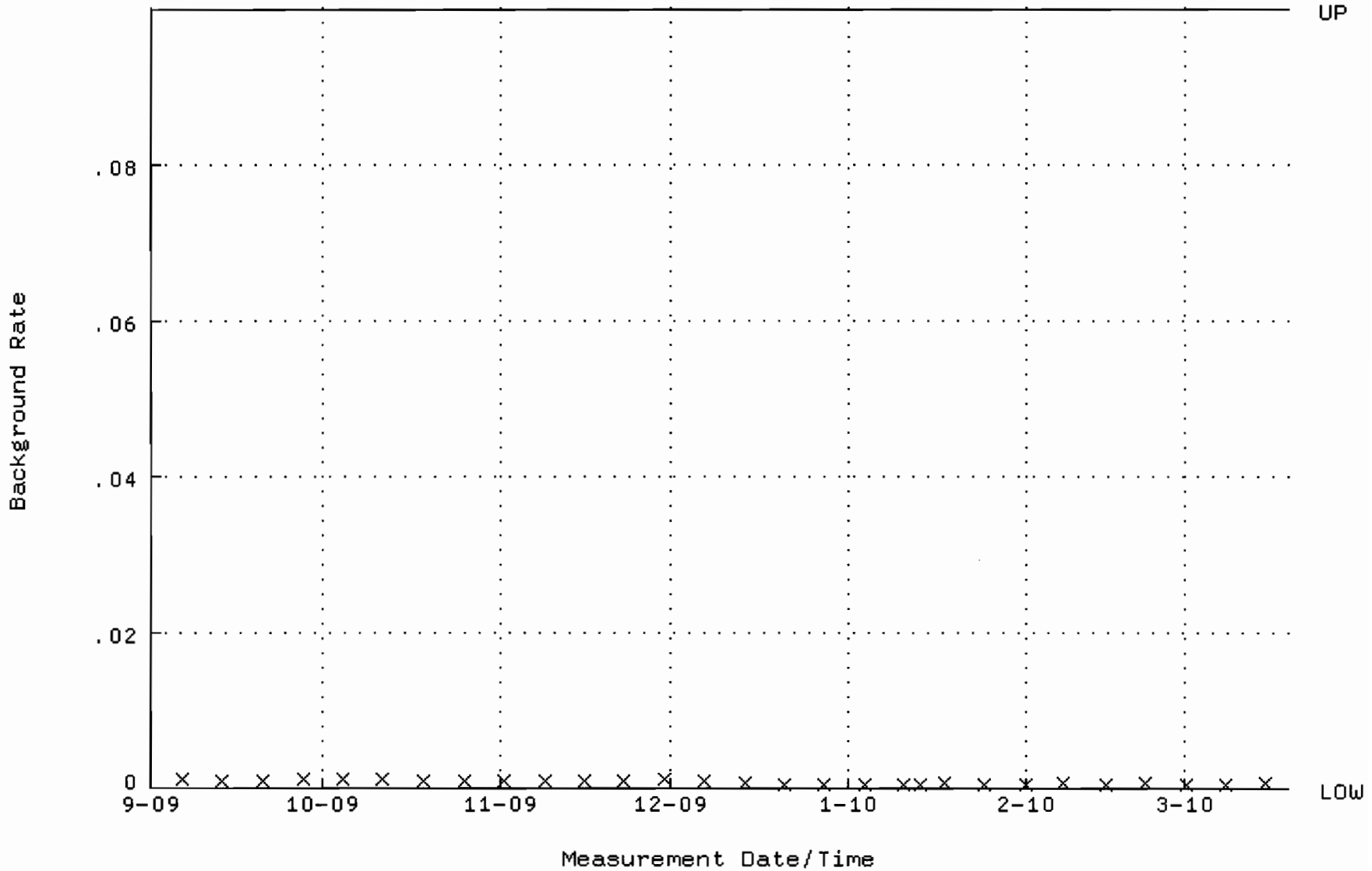

QA filename : DKA100:[ENV_ALPHA.QA.W]W157.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:18:03 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.235688 through 0.261102

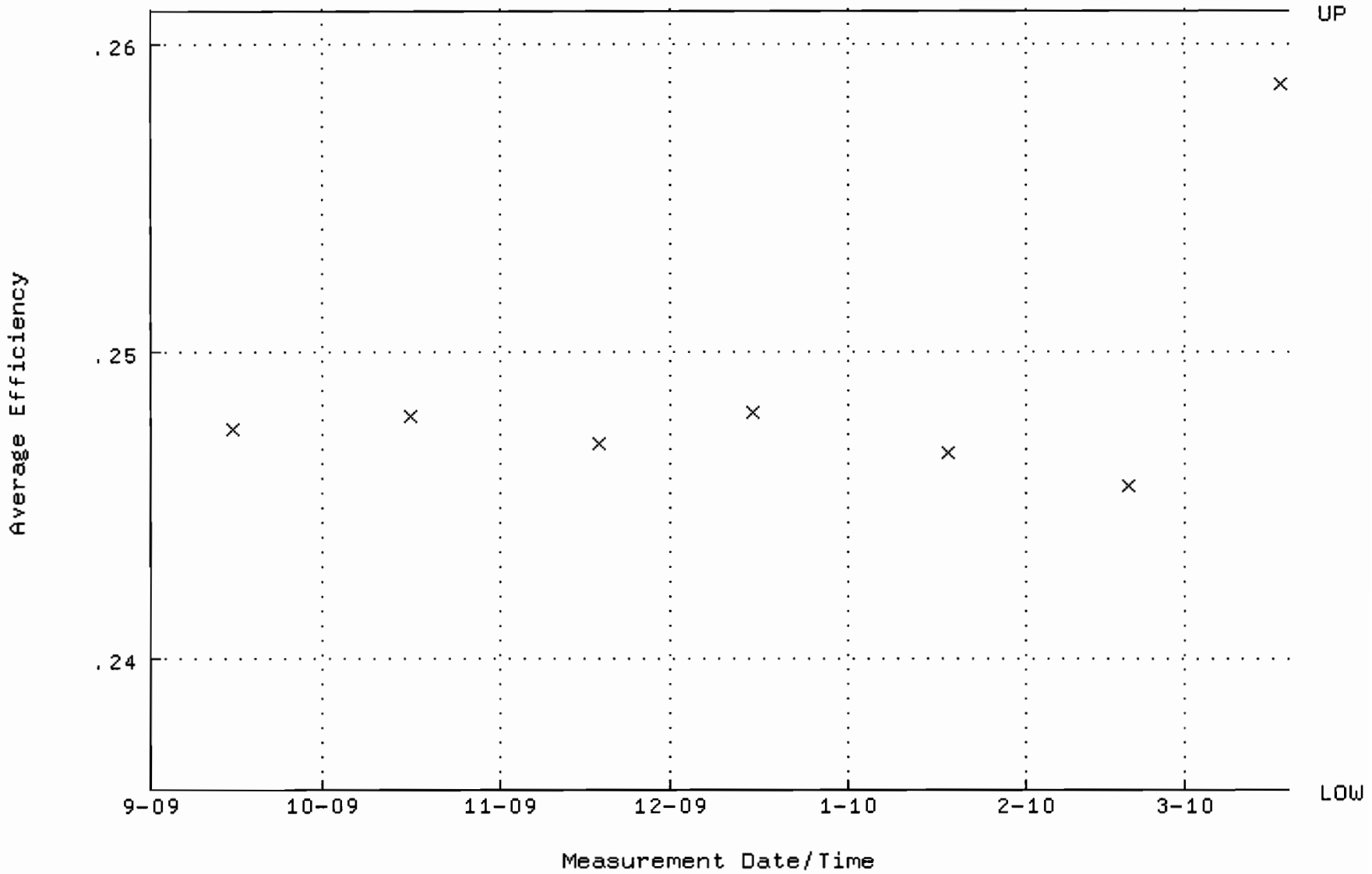

QA filename : DKA100:[ENV_ALPHA.QA.W]W157.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:18:03 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 86.1142 through 95.1160

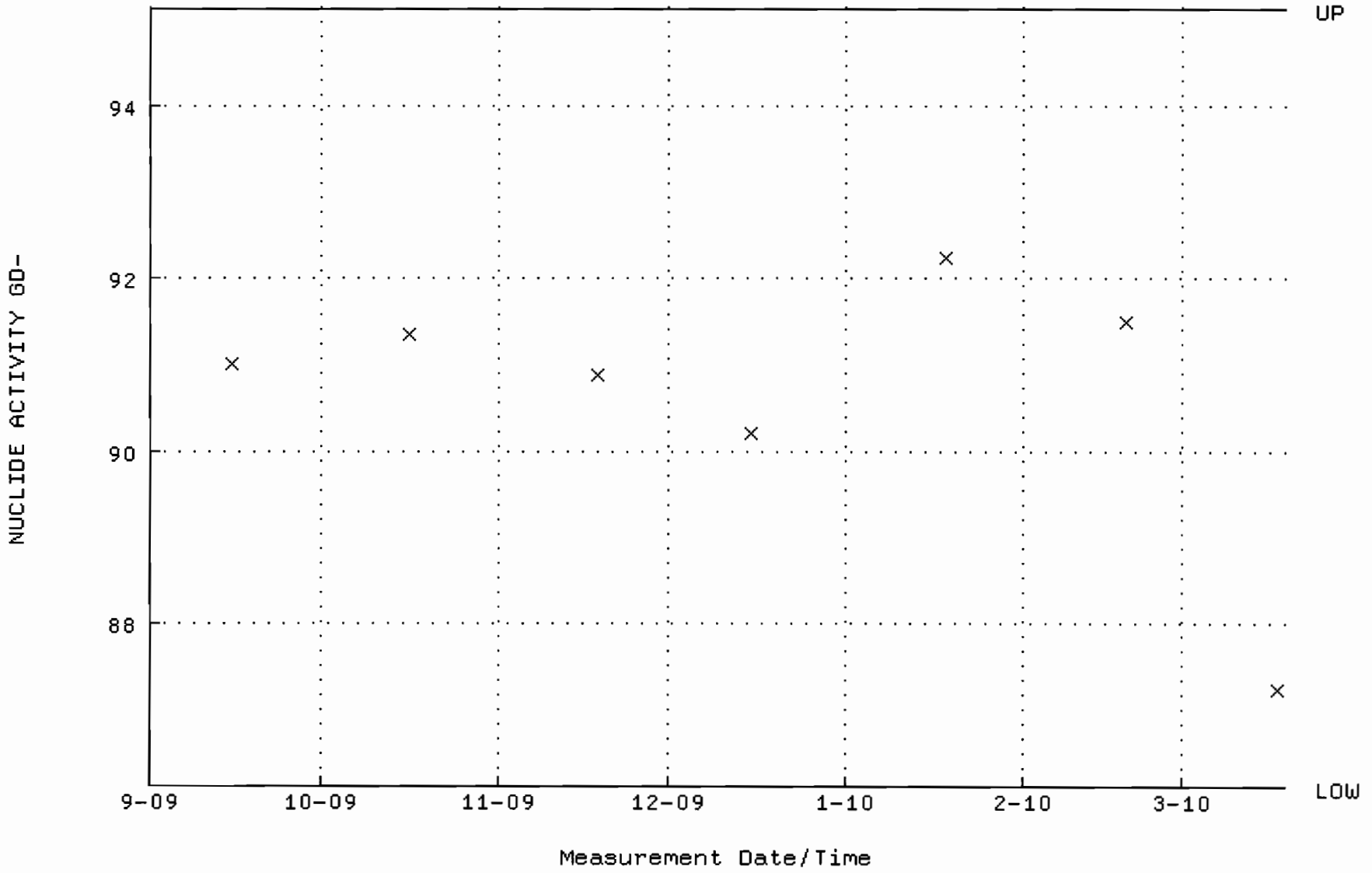

QA filename : DKA100:[ENV_ALPHA.QA.B]B157.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:43:14 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

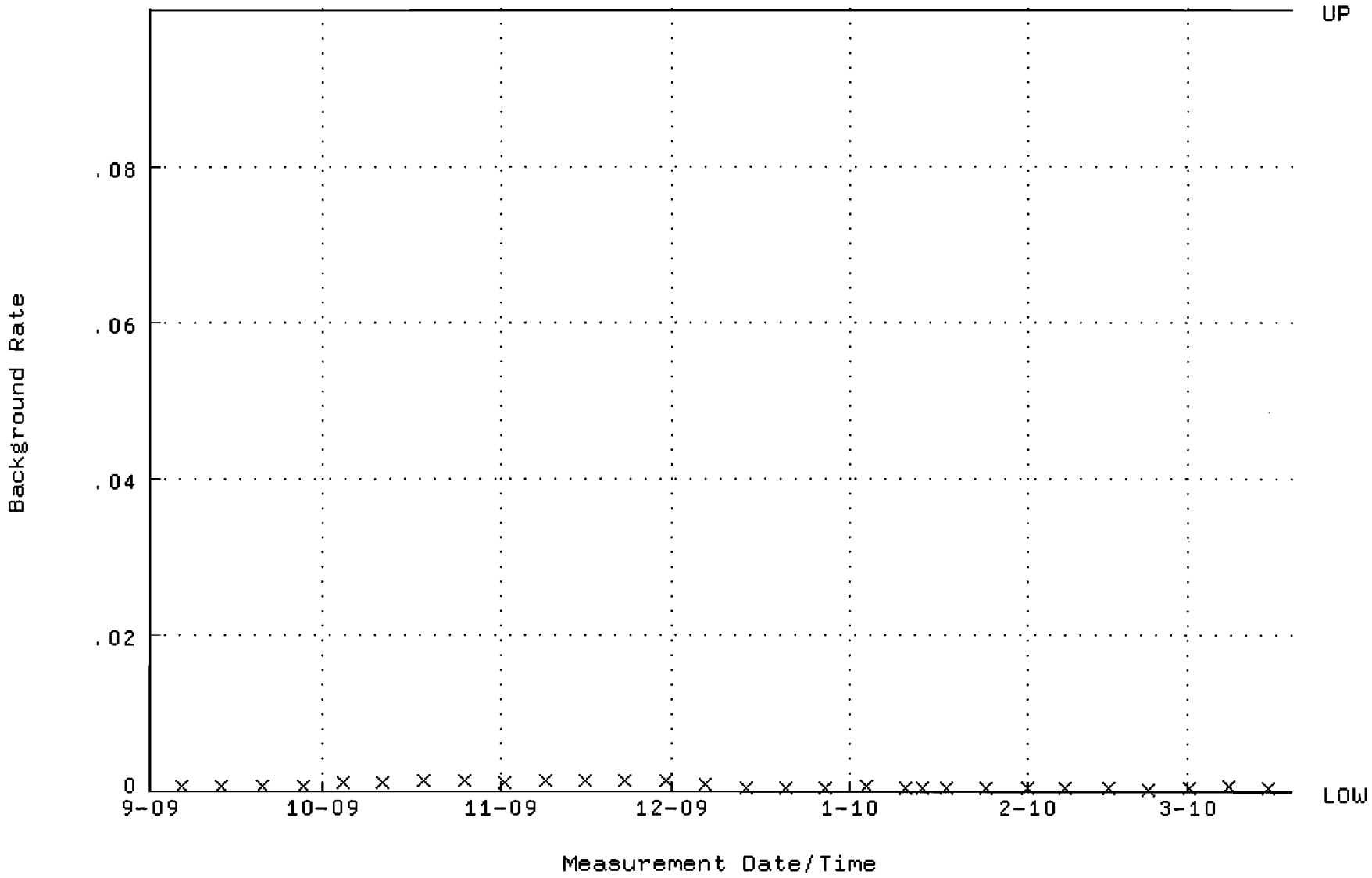

QA filename : DKA100:[ENV_ALPHA.QA.W]W158.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:18:08 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.246053 through 0.266053

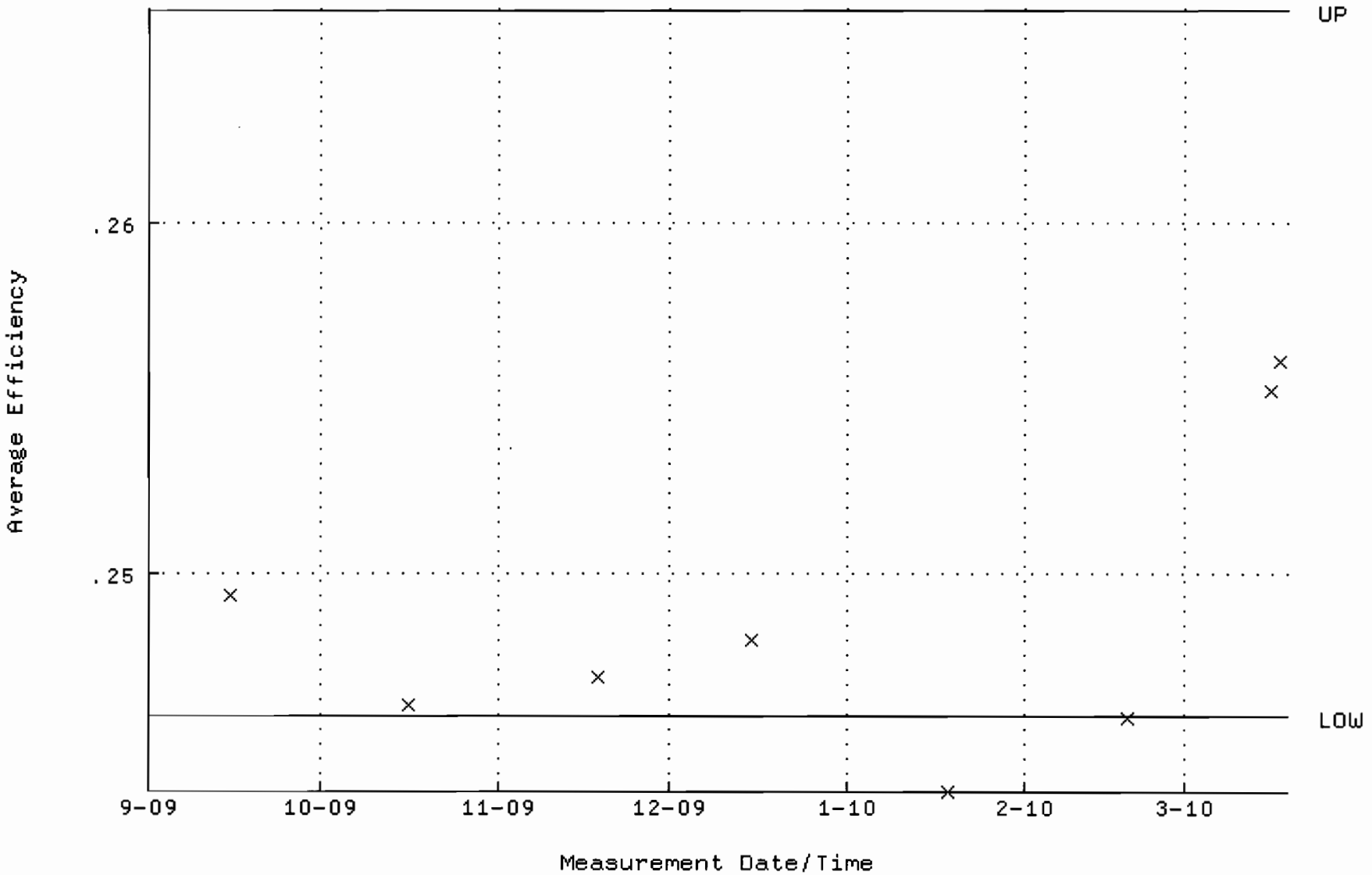

QA filename : DKA100:[ENV_ALPHA.QA.W]W158.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:18:08 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 82.3255 through 90.9913

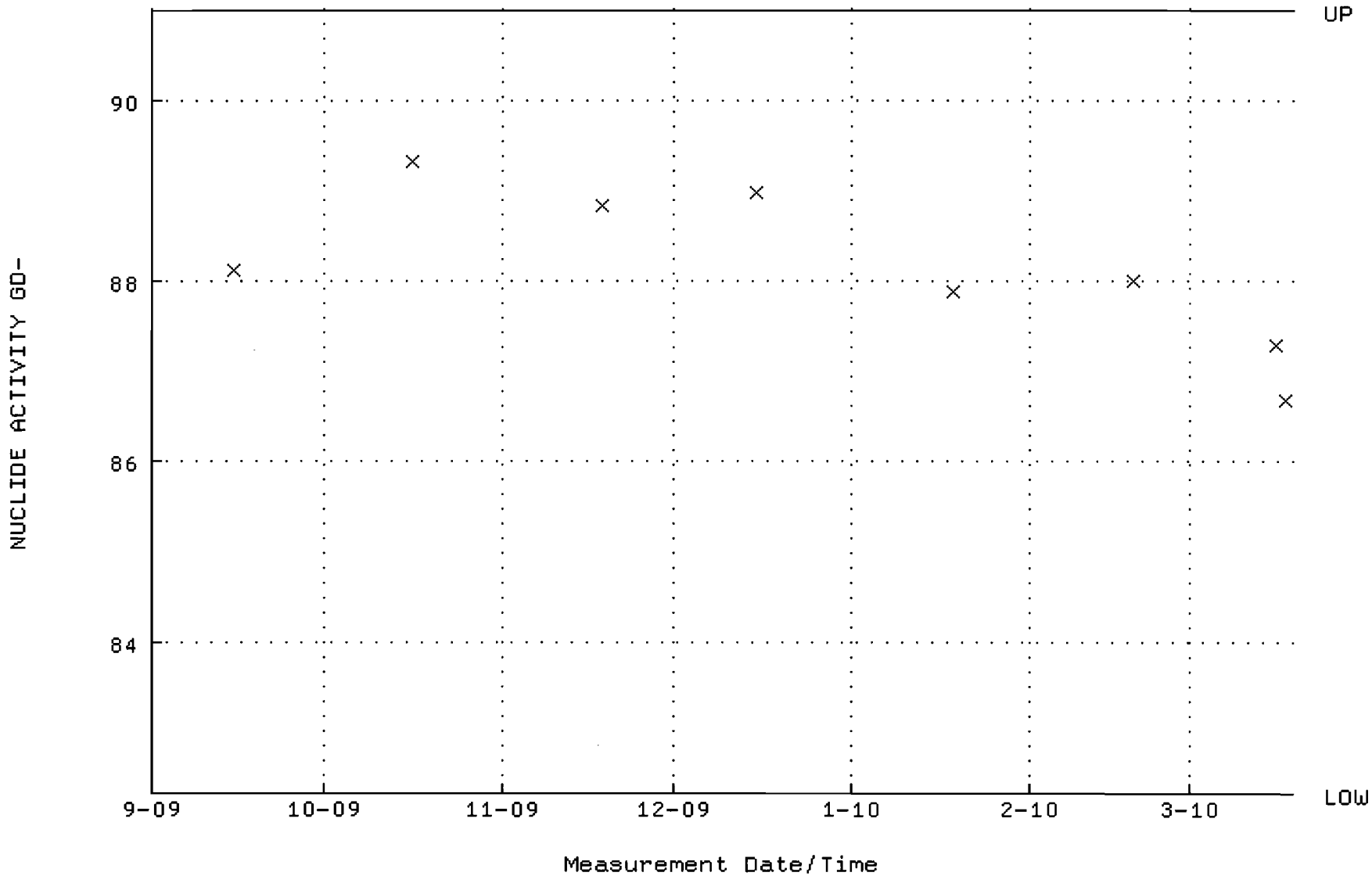

QA filename : DKA100:[ENV_ALPHA.QA.B]B158.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:43:18 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

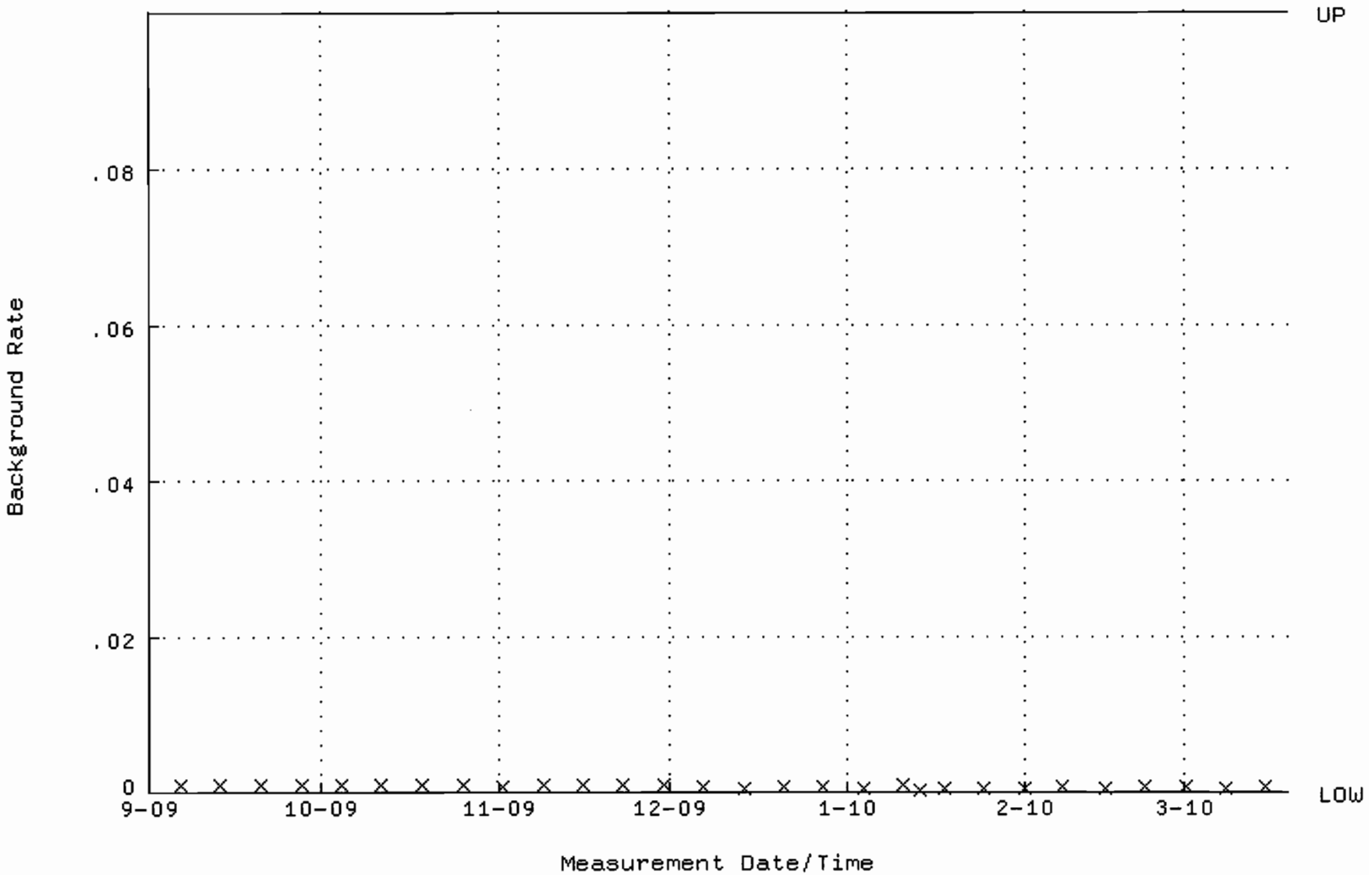

QA filename : DKA100:[ENV_ALPHA.QA.W]W160.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:18:19 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.234333 through 0.259825

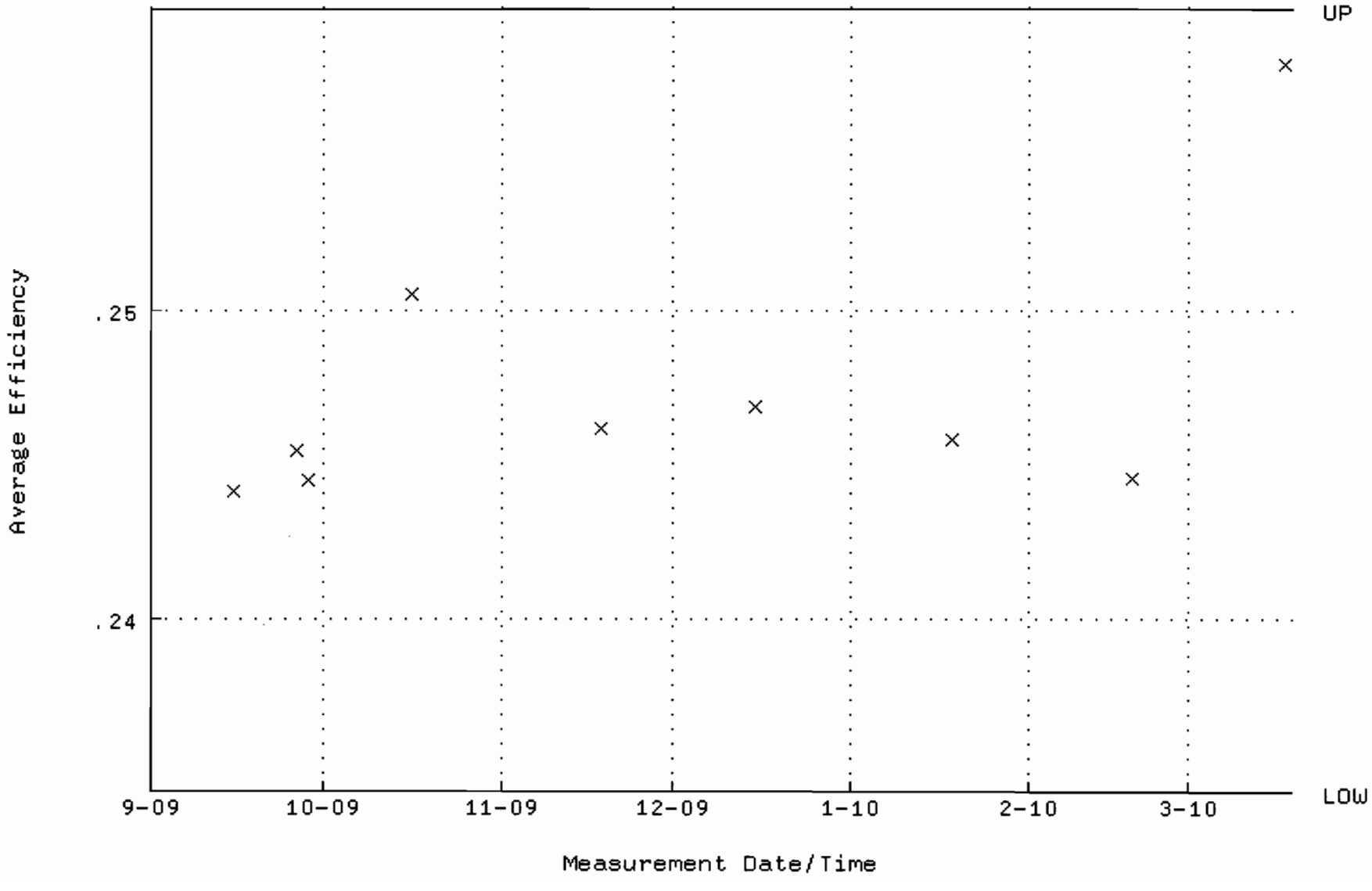

QA filename : DKA100:[ENV_ALPHA.QA.W]W160.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:18:19 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 80.4990 through 91.4457

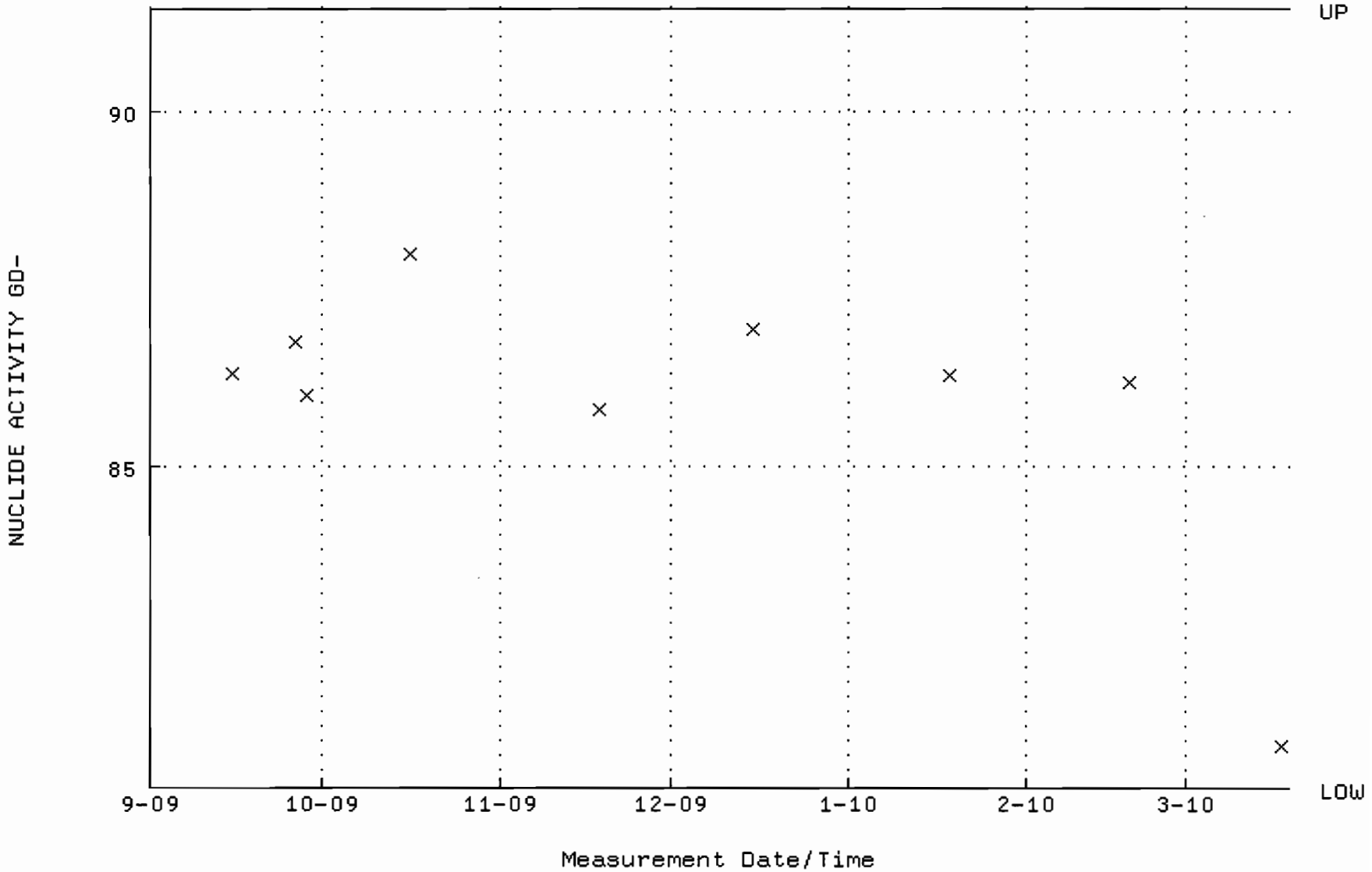

QA filename : DKA100:[ENV_ALPHA.QA.B]B160.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:43:26 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

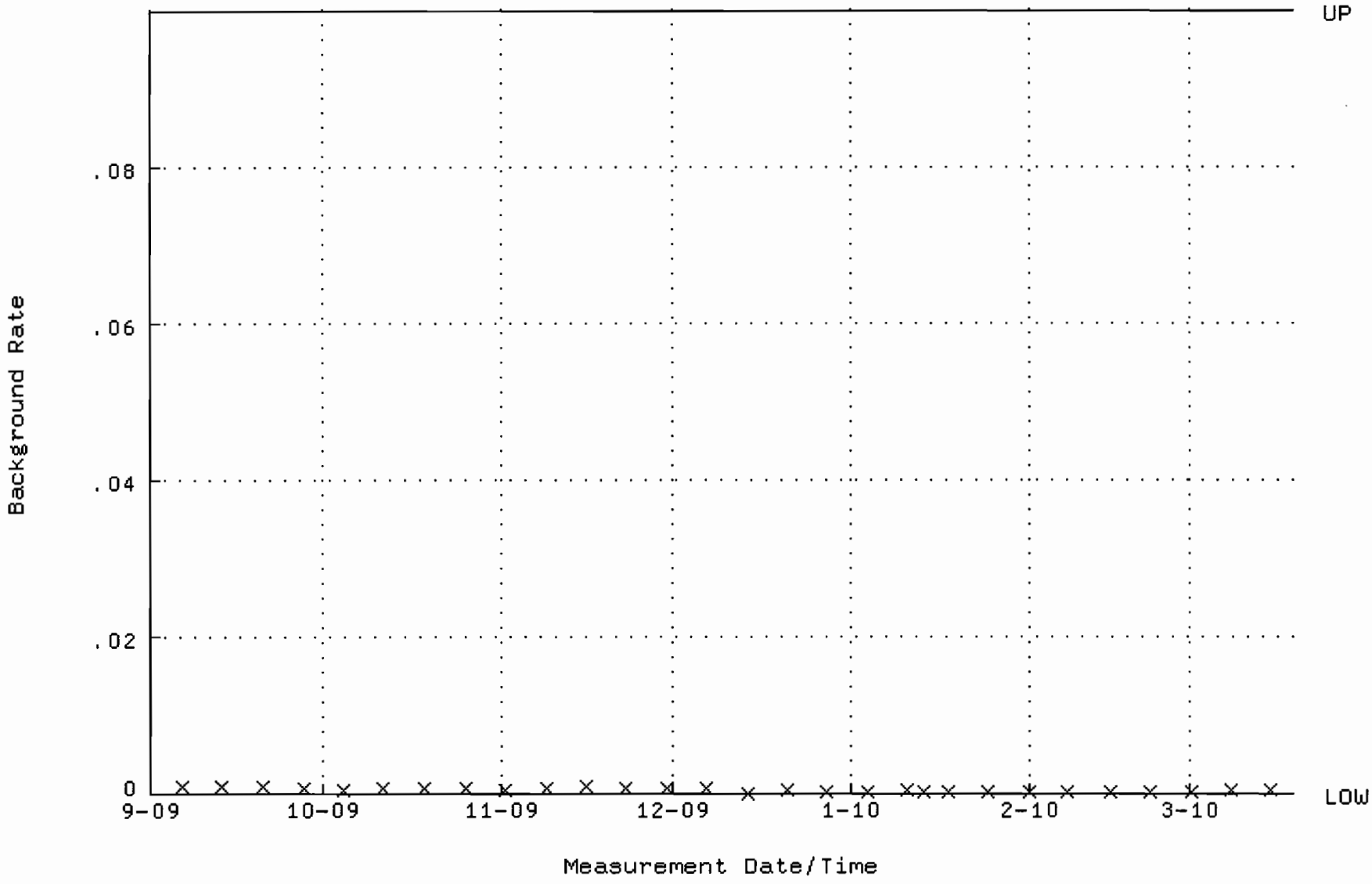

QA filename : DKA100:[ENV_ALPHA.QA.W]W177.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:03 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.259935 through 0.279935

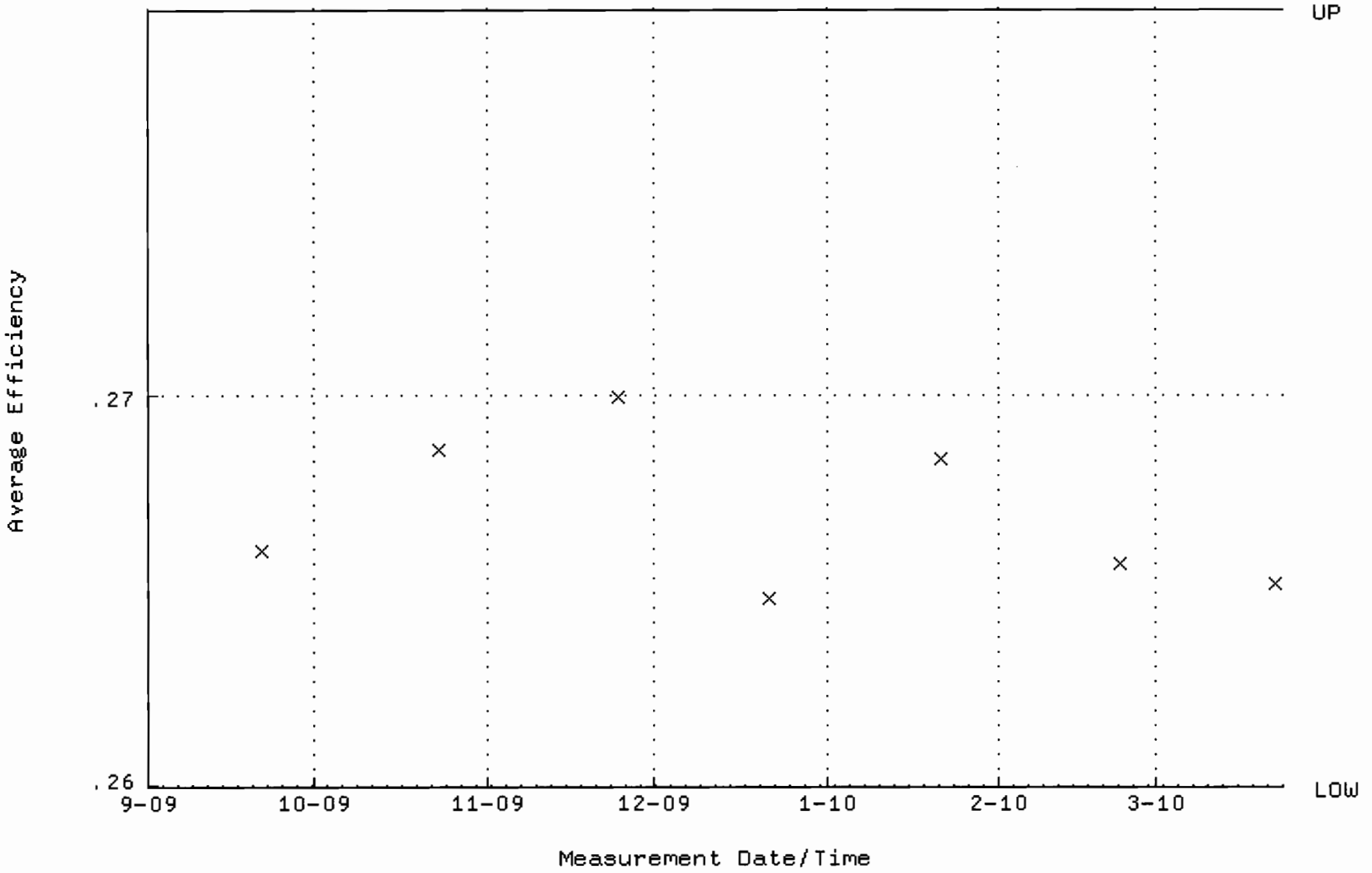

QA filename : DKA100:[ENV_ALPHA.QA.W]W177.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:03 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 86.4857 through 95.5895

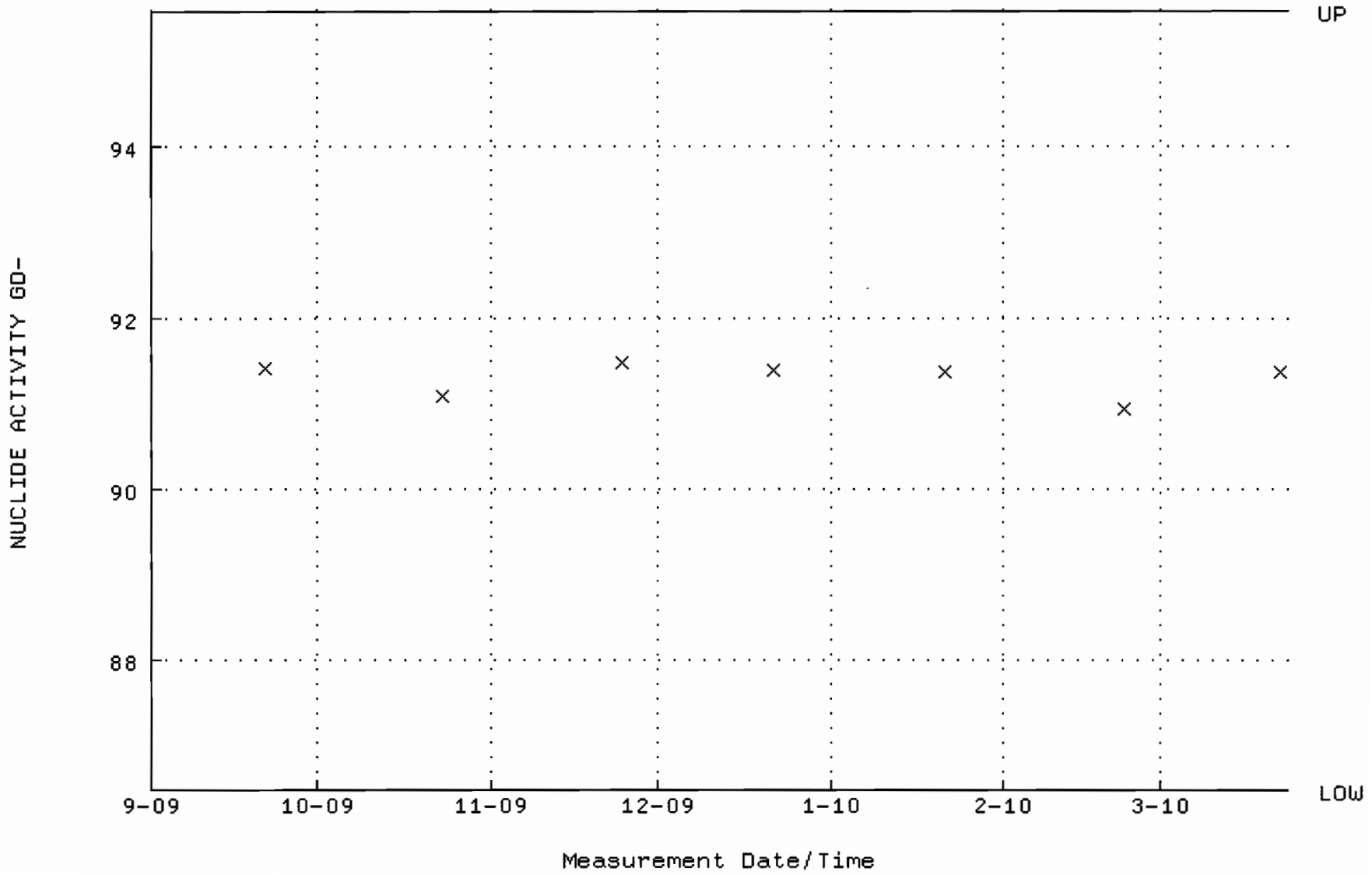

QA filename : DKA100:[ENV_ALPHA.QA.B]B177.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:25 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

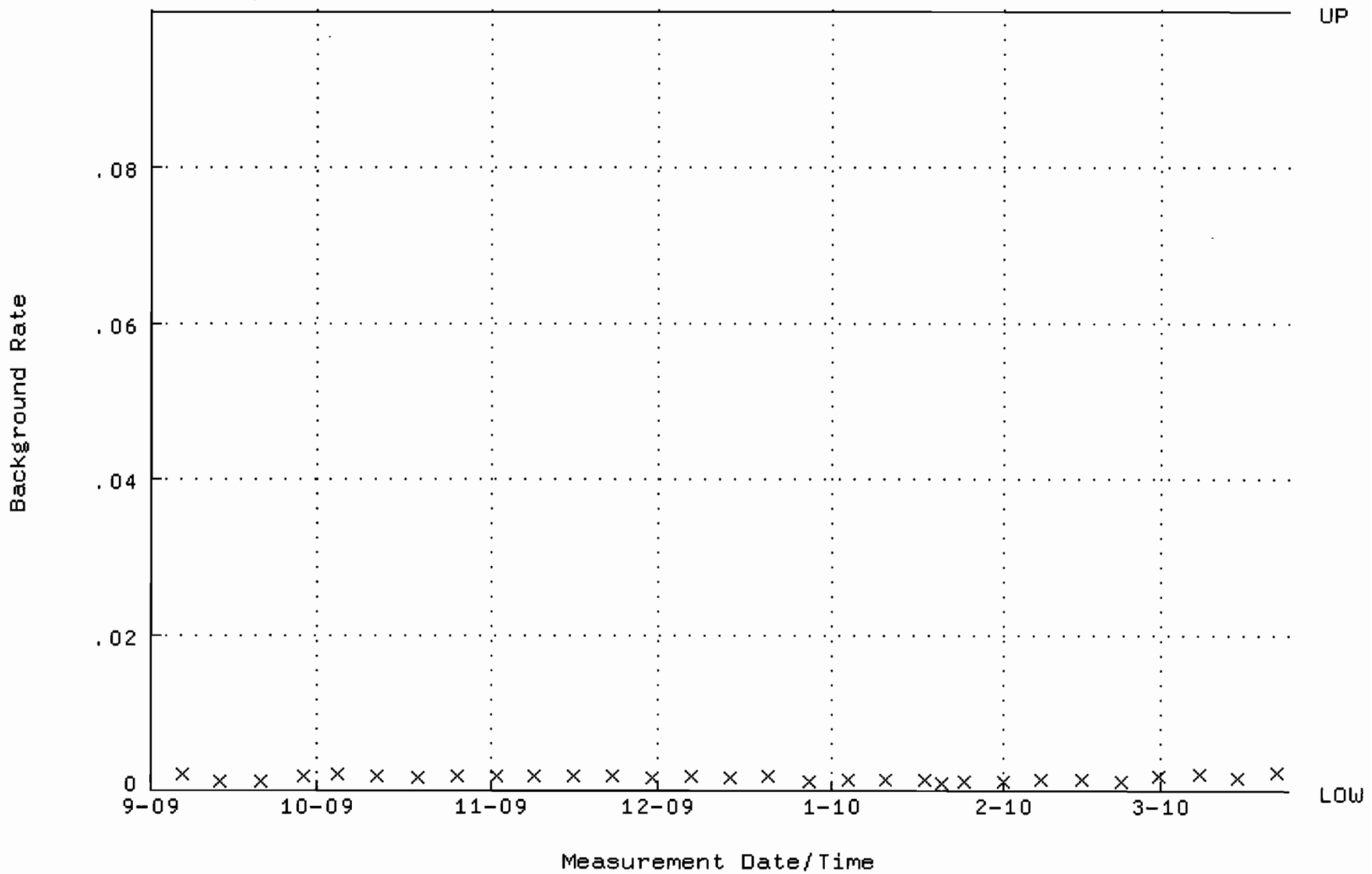

QA filename : DKA100:[ENV_ALPHA.QA.W]W178.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:10 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.249490 through 0.269490

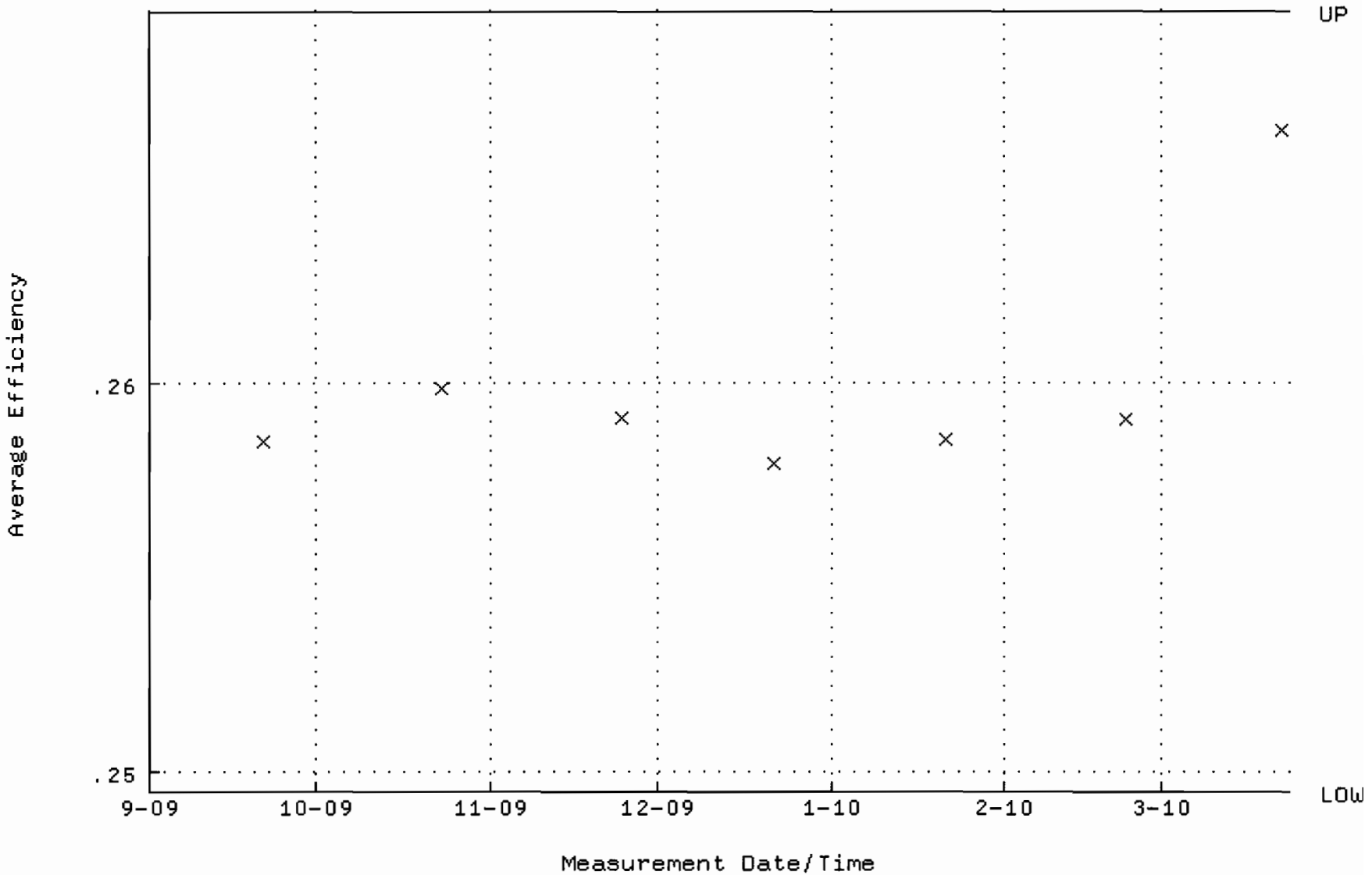

QA filename : DKA100:[ENV_ALPHA.QA.W]W178.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:10 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 88.5525 through 97.8739

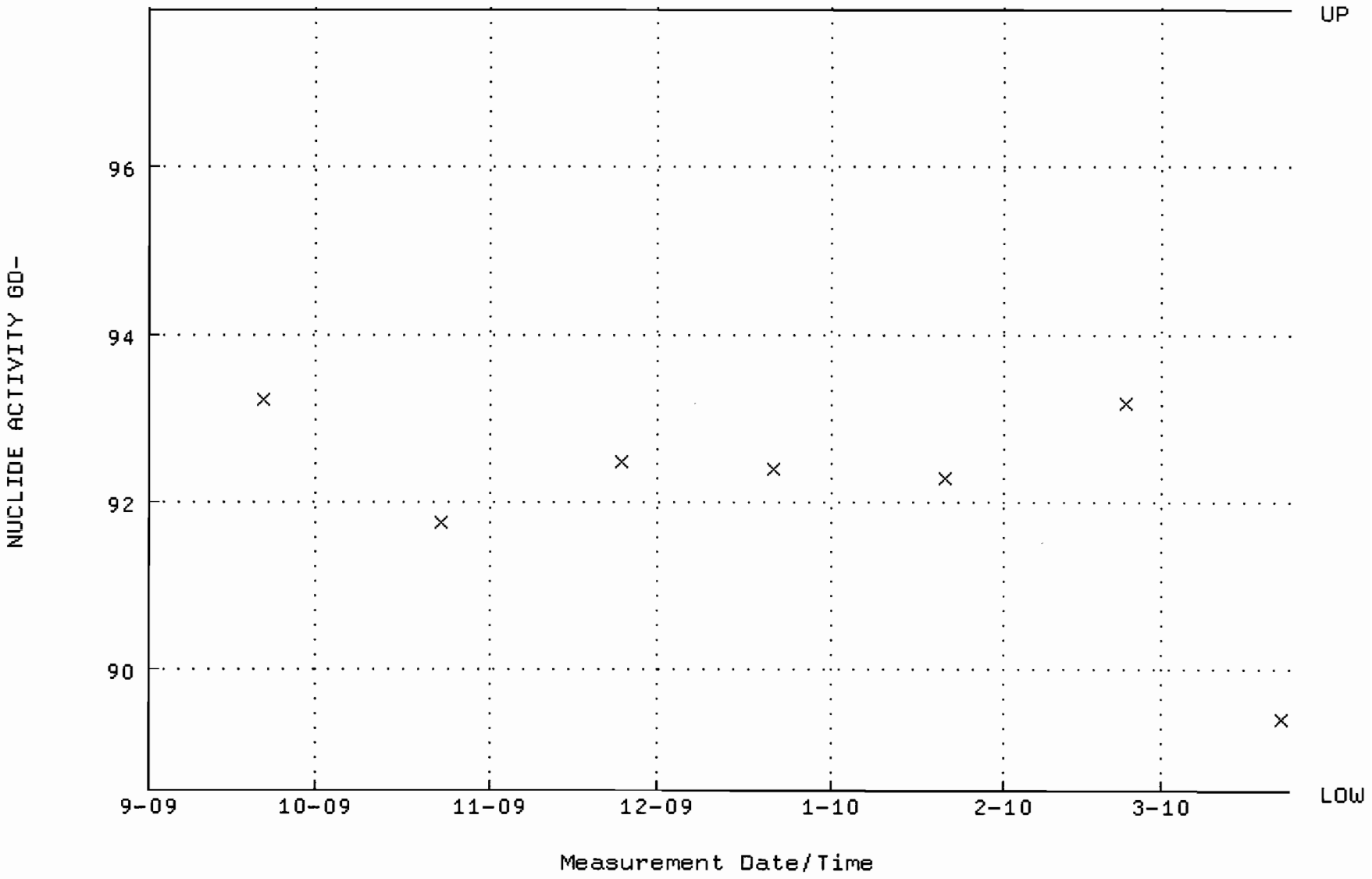

QA filename : DKA100:[ENV_ALPHA.QA.B]B178.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:29 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

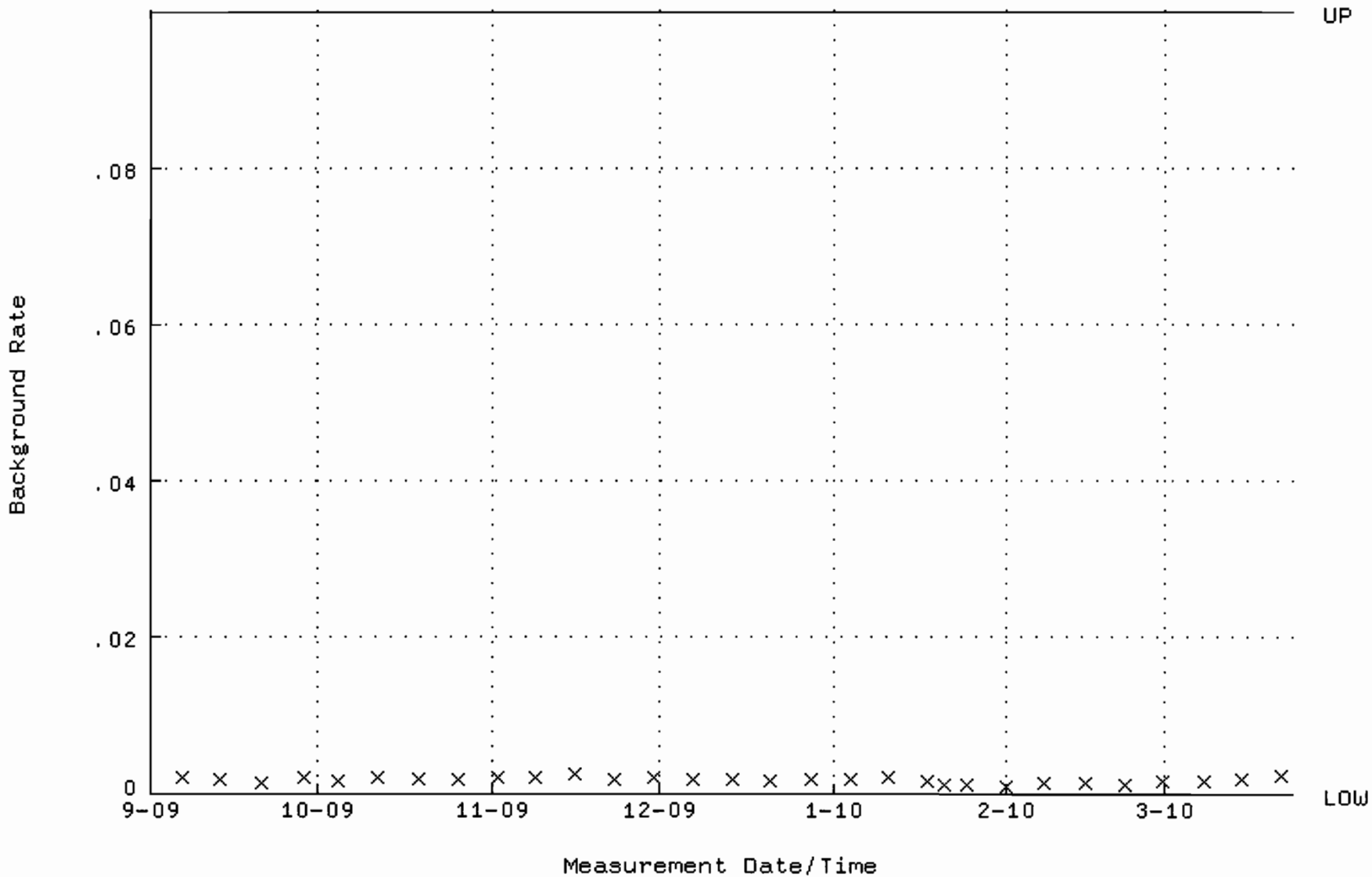

QA filename : DKA100:[ENV_ALPHA.QA.W]W179.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:16 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.256911 through 0.276911

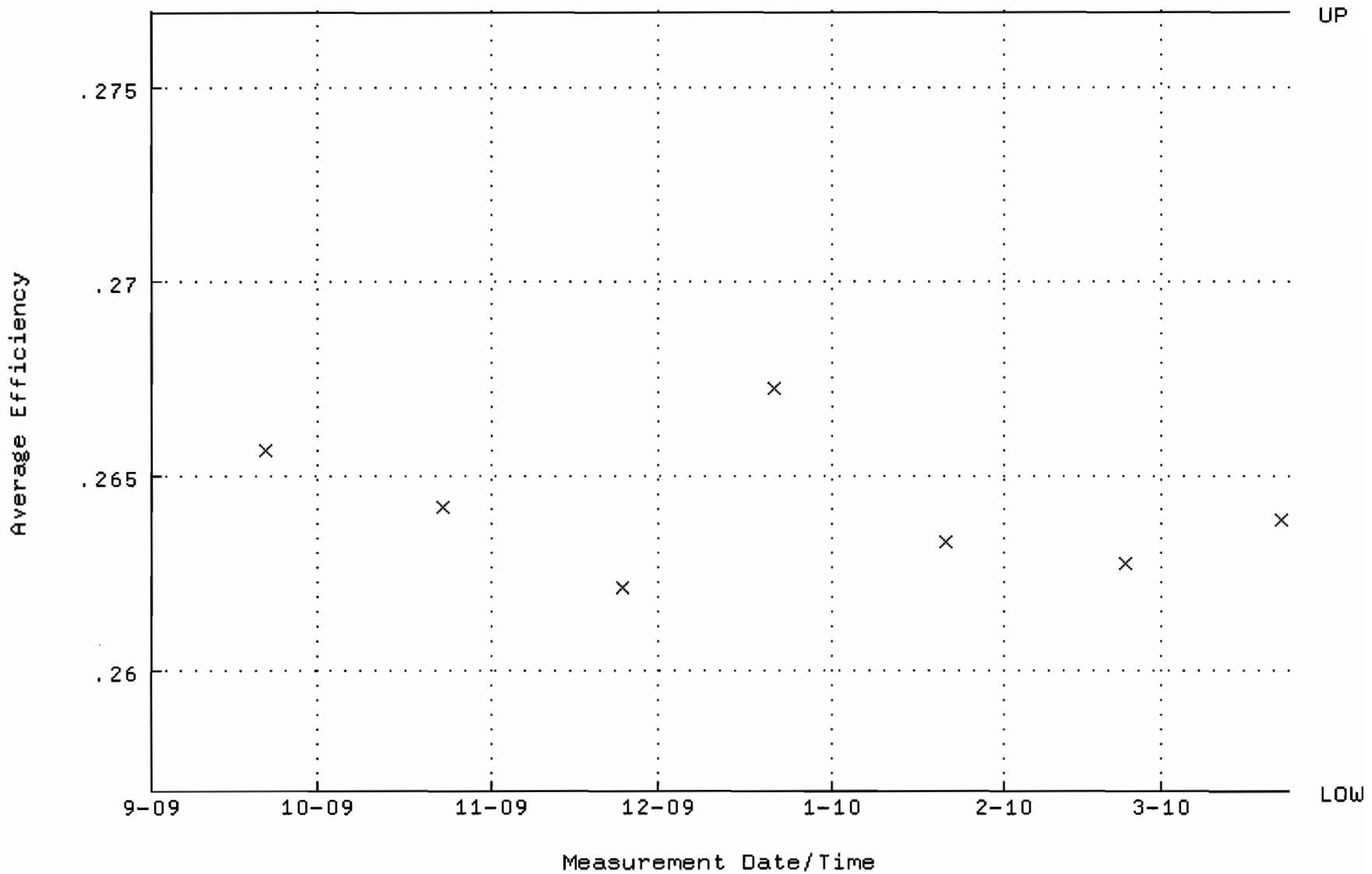

QA filename : DKA100:[ENV_ALPHA.QA.W]W179.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:16 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 86.7434 through 95.8742

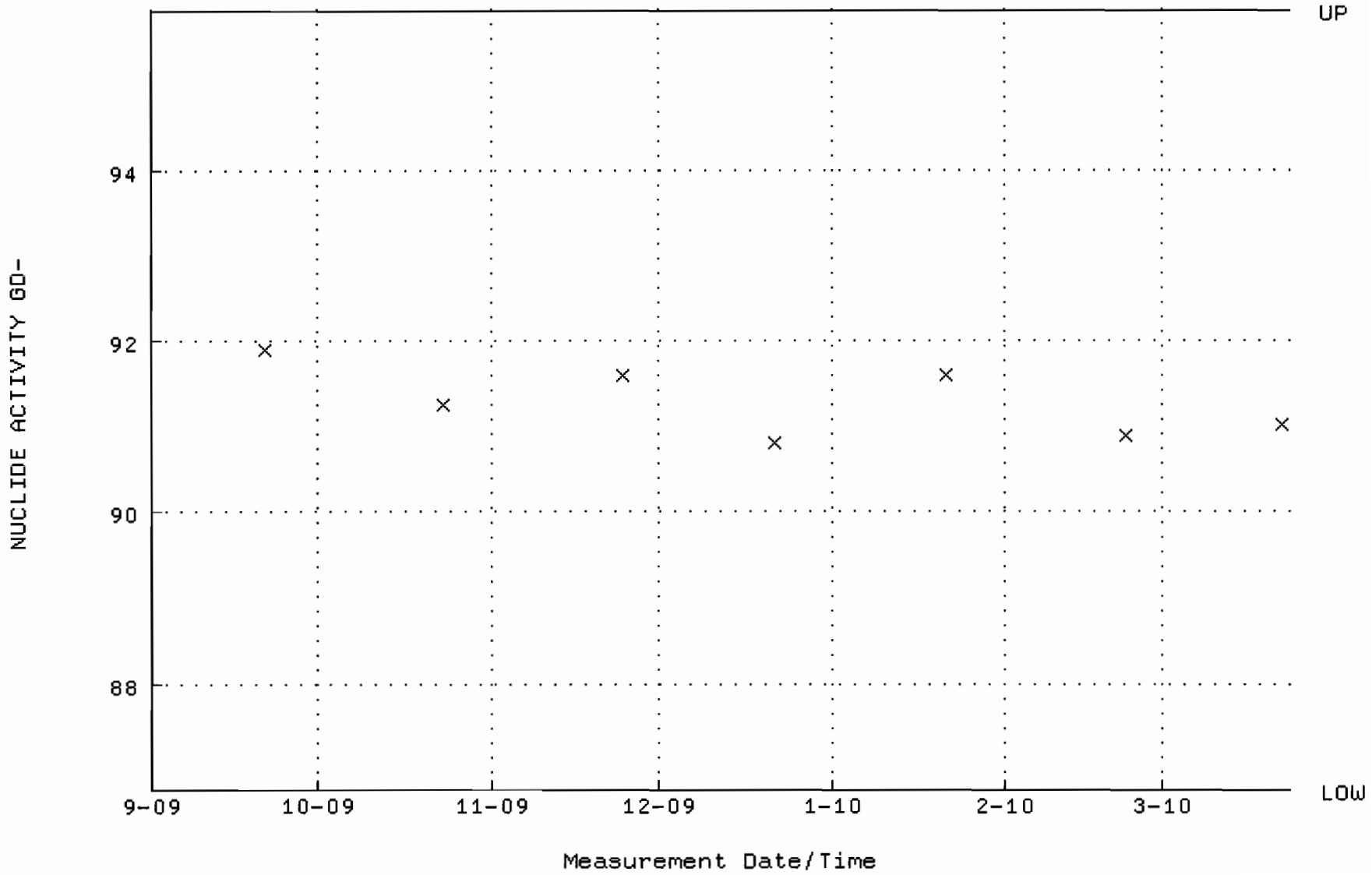

QA filename : DKA100:[ENV_ALPHA.QA.B]B179.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:34 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

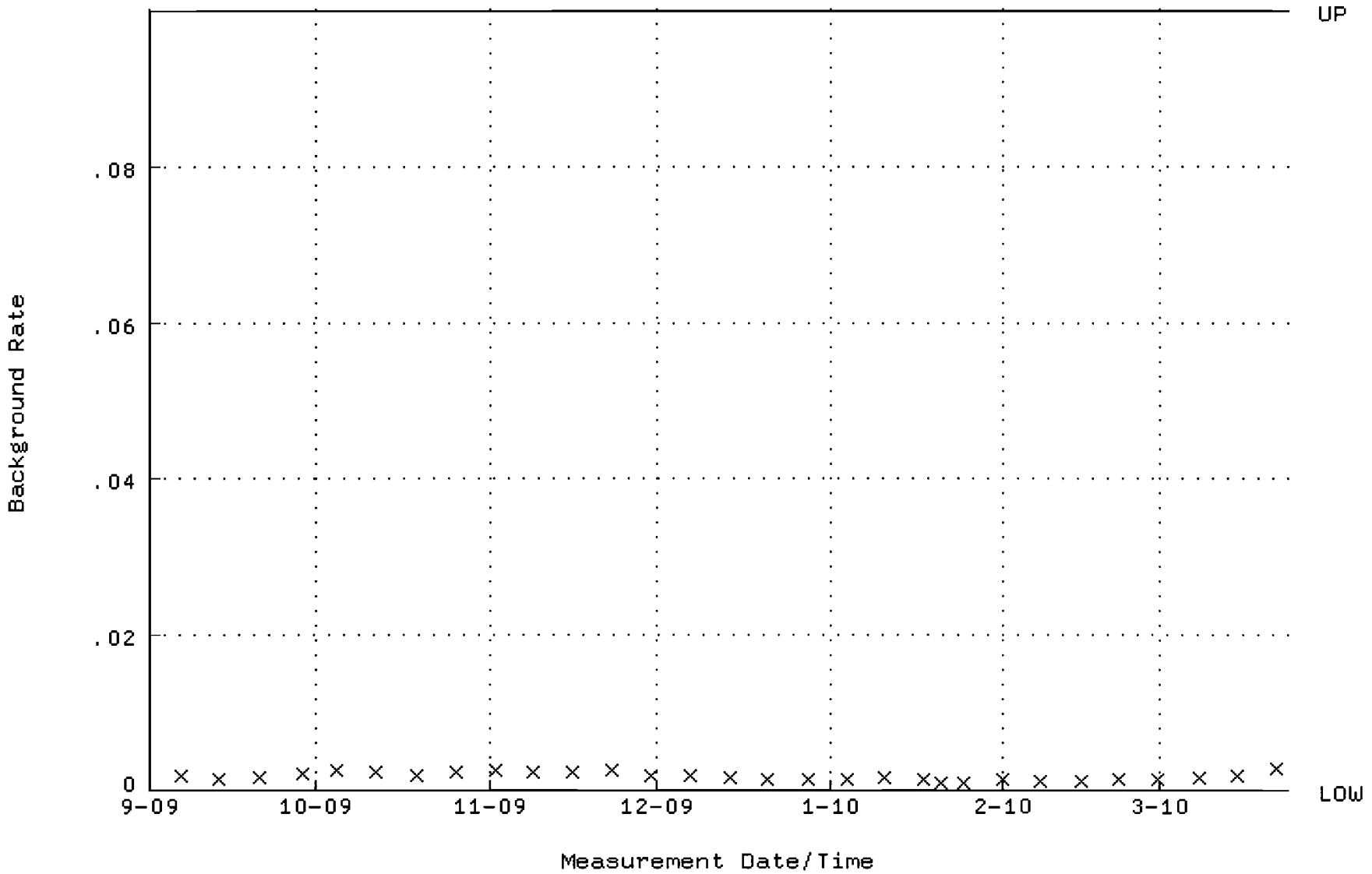

QA filename : DKA100:[ENV_ALPHA.QA.W]W180.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:22 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.242633 through 0.262633

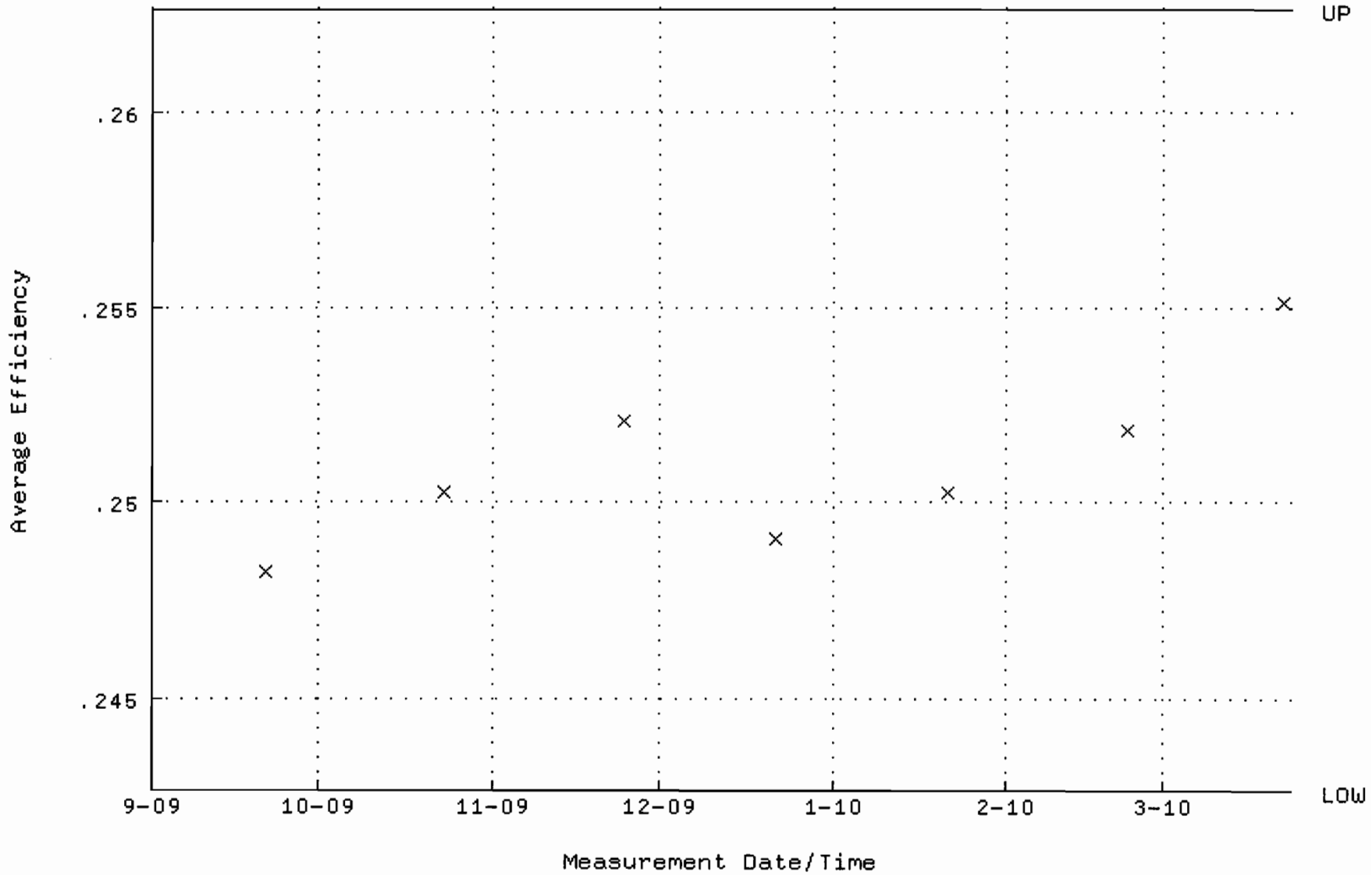

QA filename : DKA100:[ENV_ALPHA.QA.W]W180.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:22 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 88.0803 through 97.3519

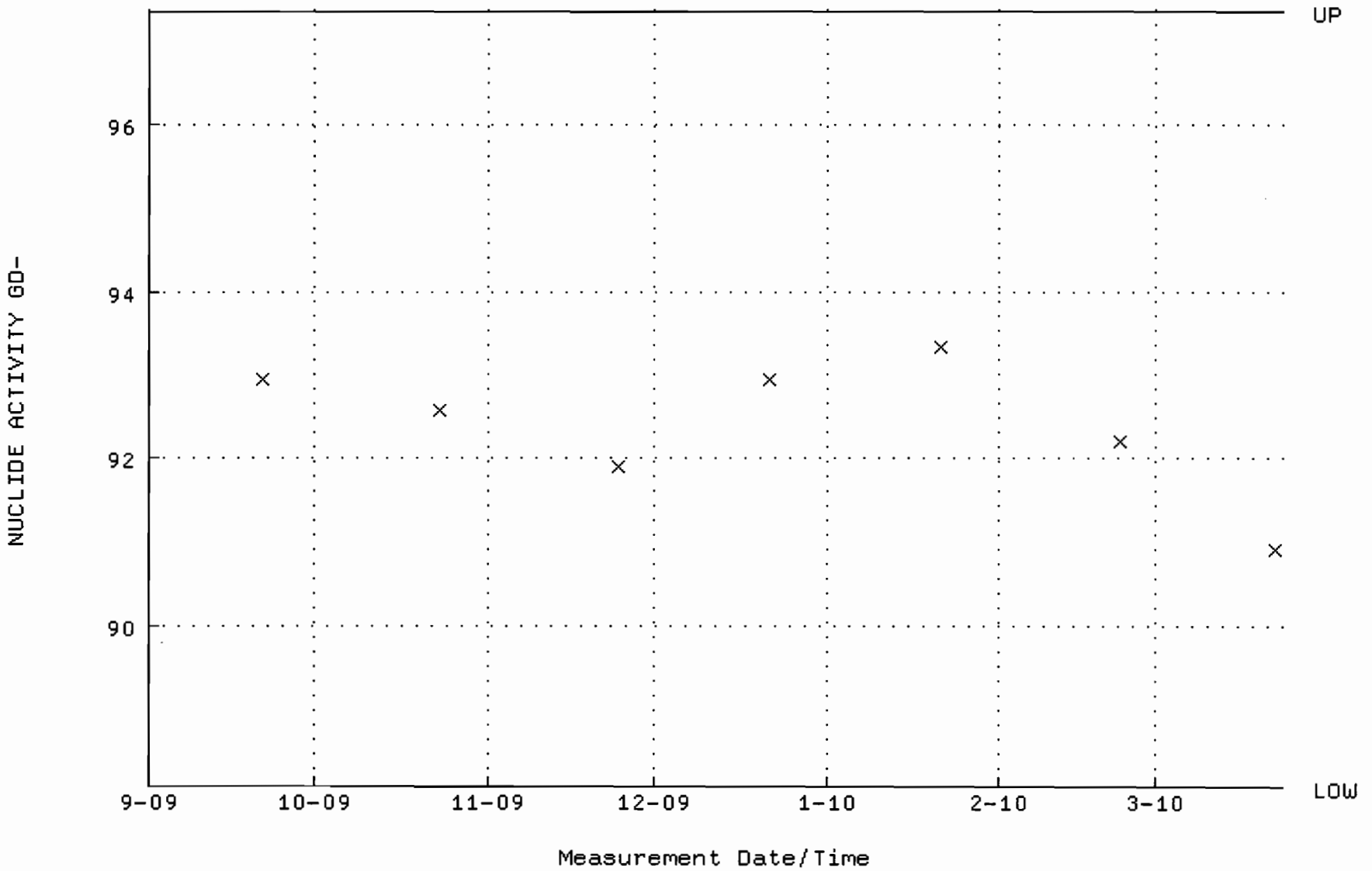

QA filename : DKA100:[ENV_ALPHA.QA.B]B180.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:40 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

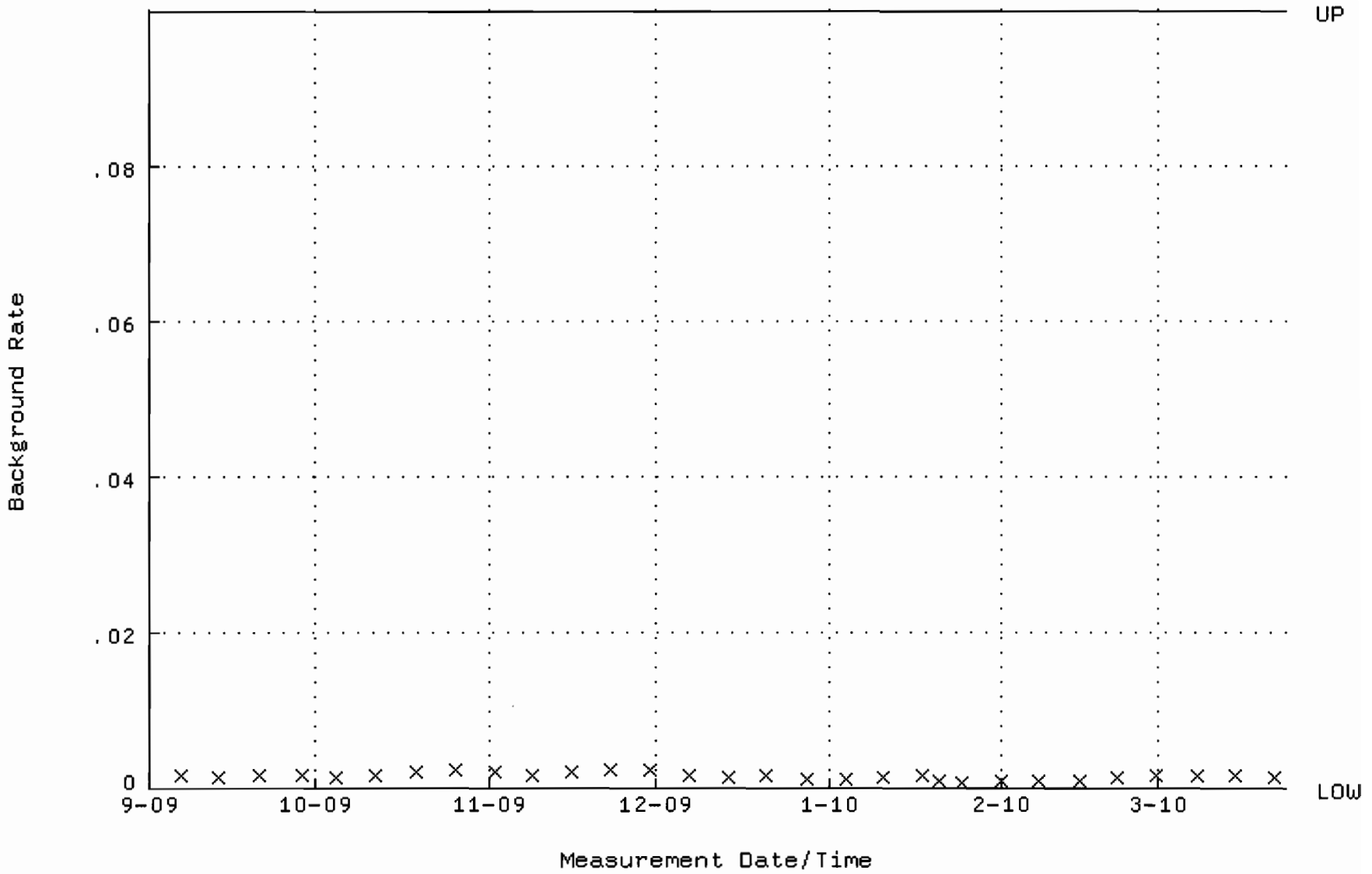

QA filename : DKA100:[ENV_ALPHA.QA.W]W182.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:34 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.245707 through 0.265707

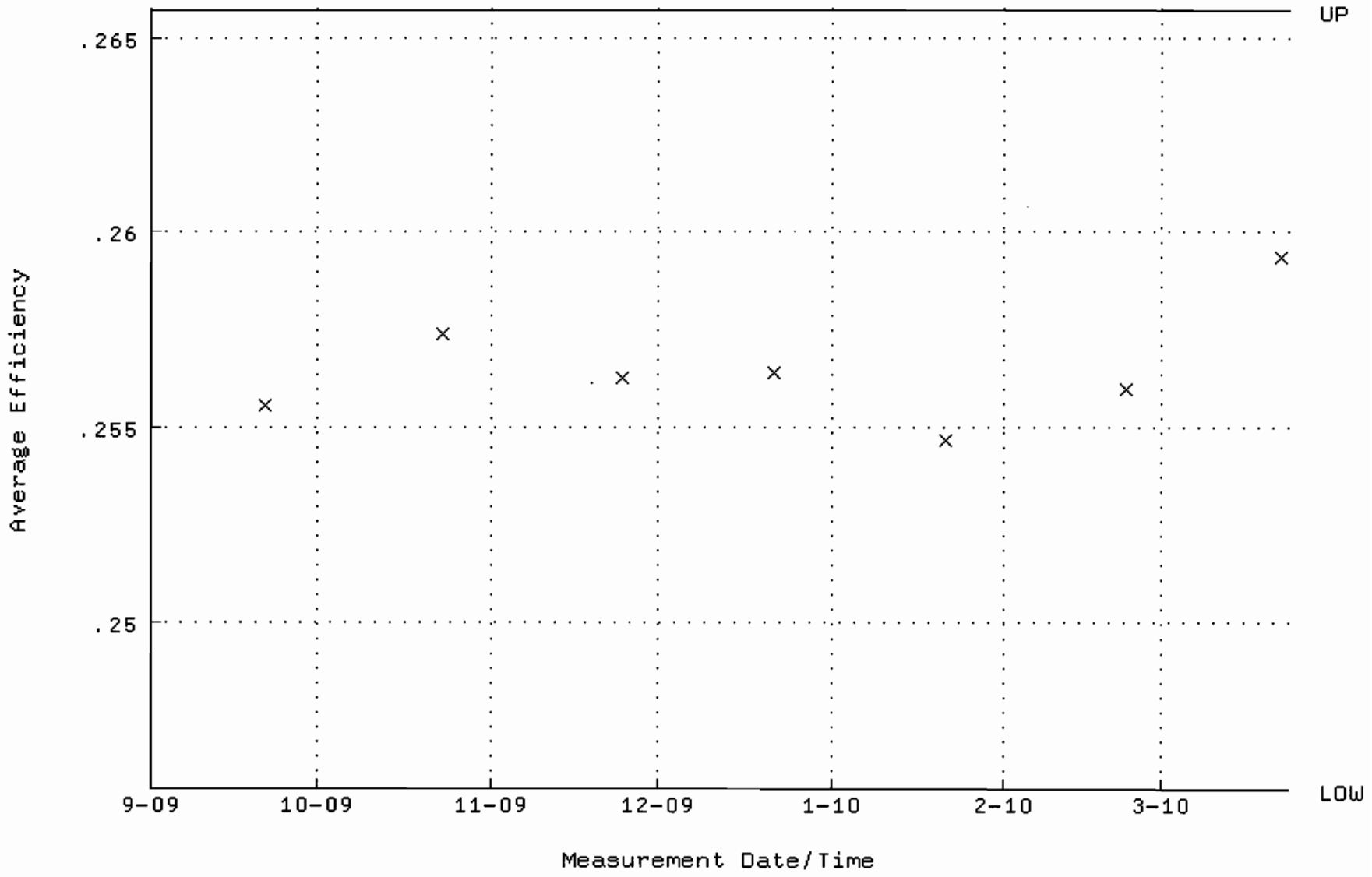

QA filename : DKA100:[ENV_ALPHA.QA.W]W182.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:34 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 87.3454 through 96.5396

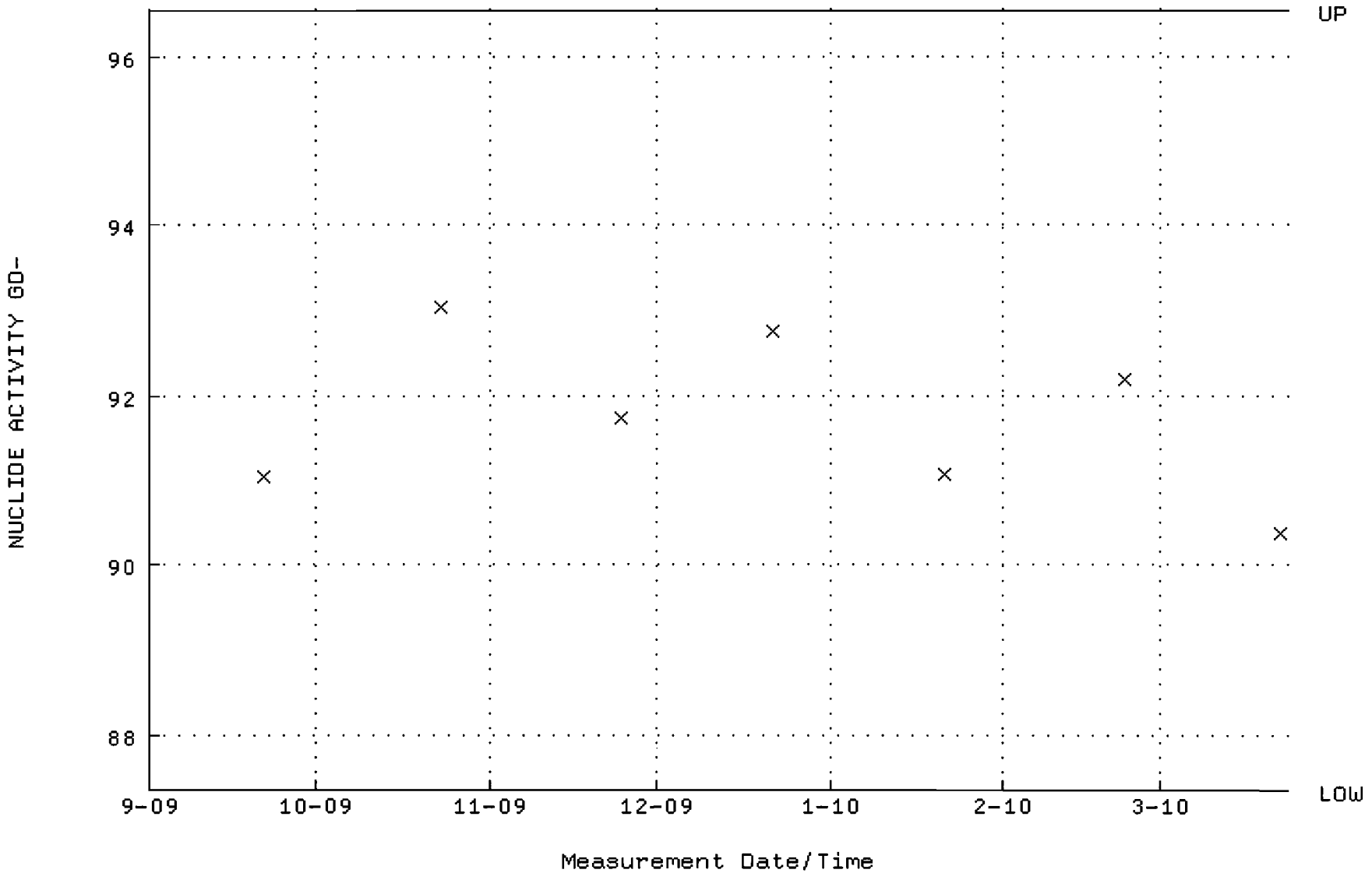

QA filename : DKA100:[ENV_ALPHA.QA.B]B182.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:49 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

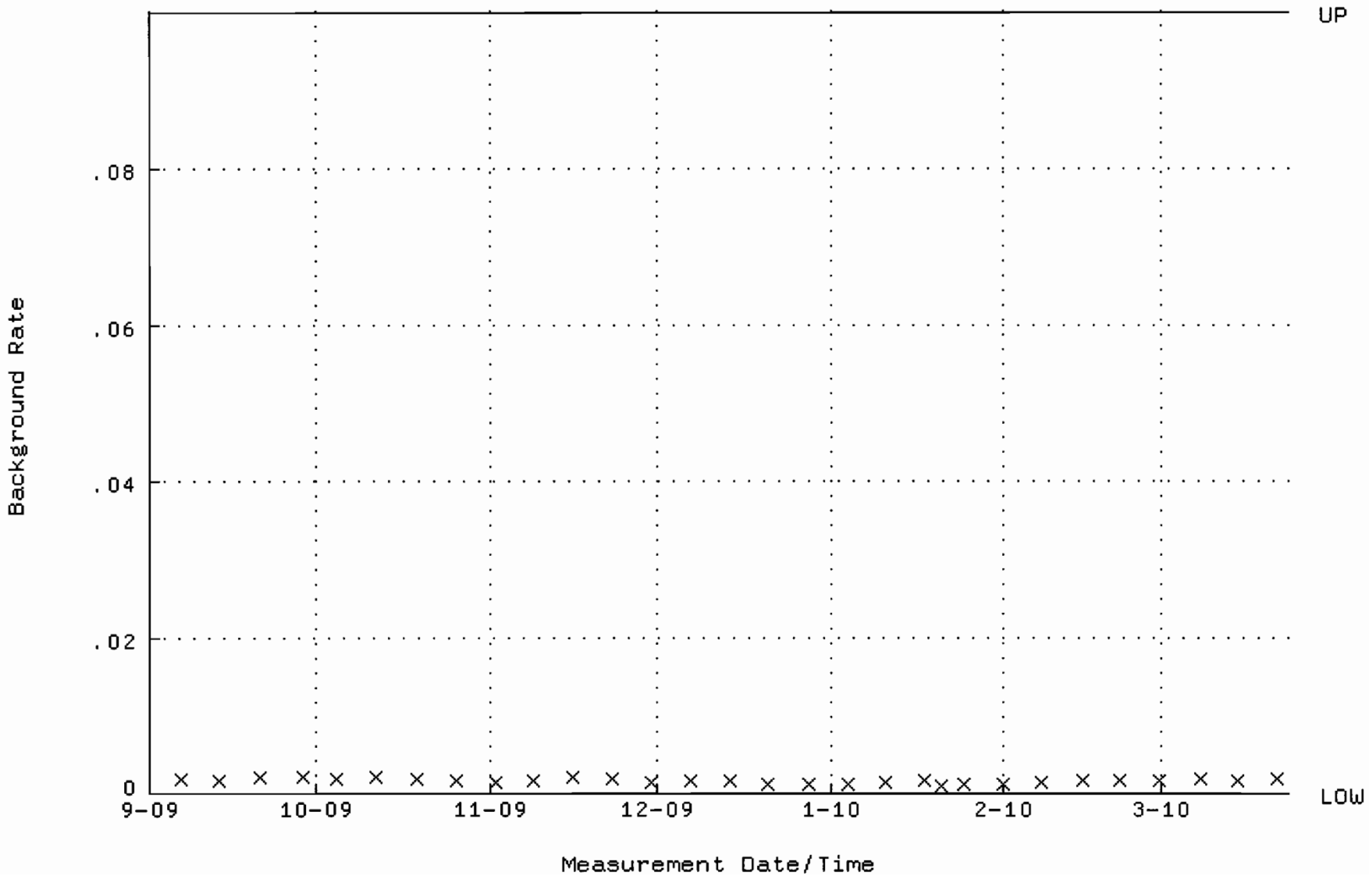

QA filename : DKA100:[ENV_ALPHA.QA.W]W193.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:40 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250400 through 0.272904

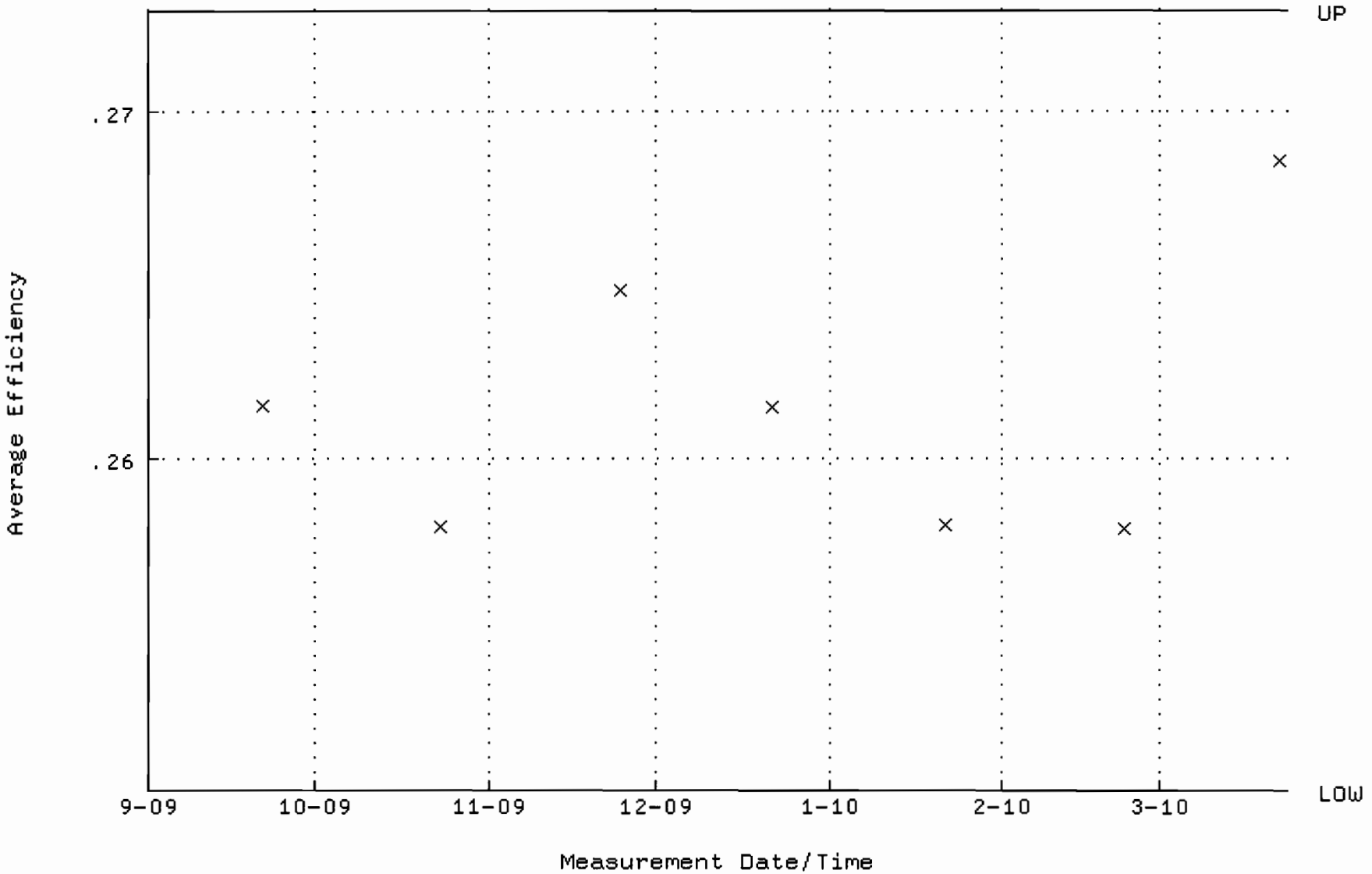

QA filename : DKA100:[ENV_ALPHA.QA.W]W193.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:40 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.1081 through 93.4501

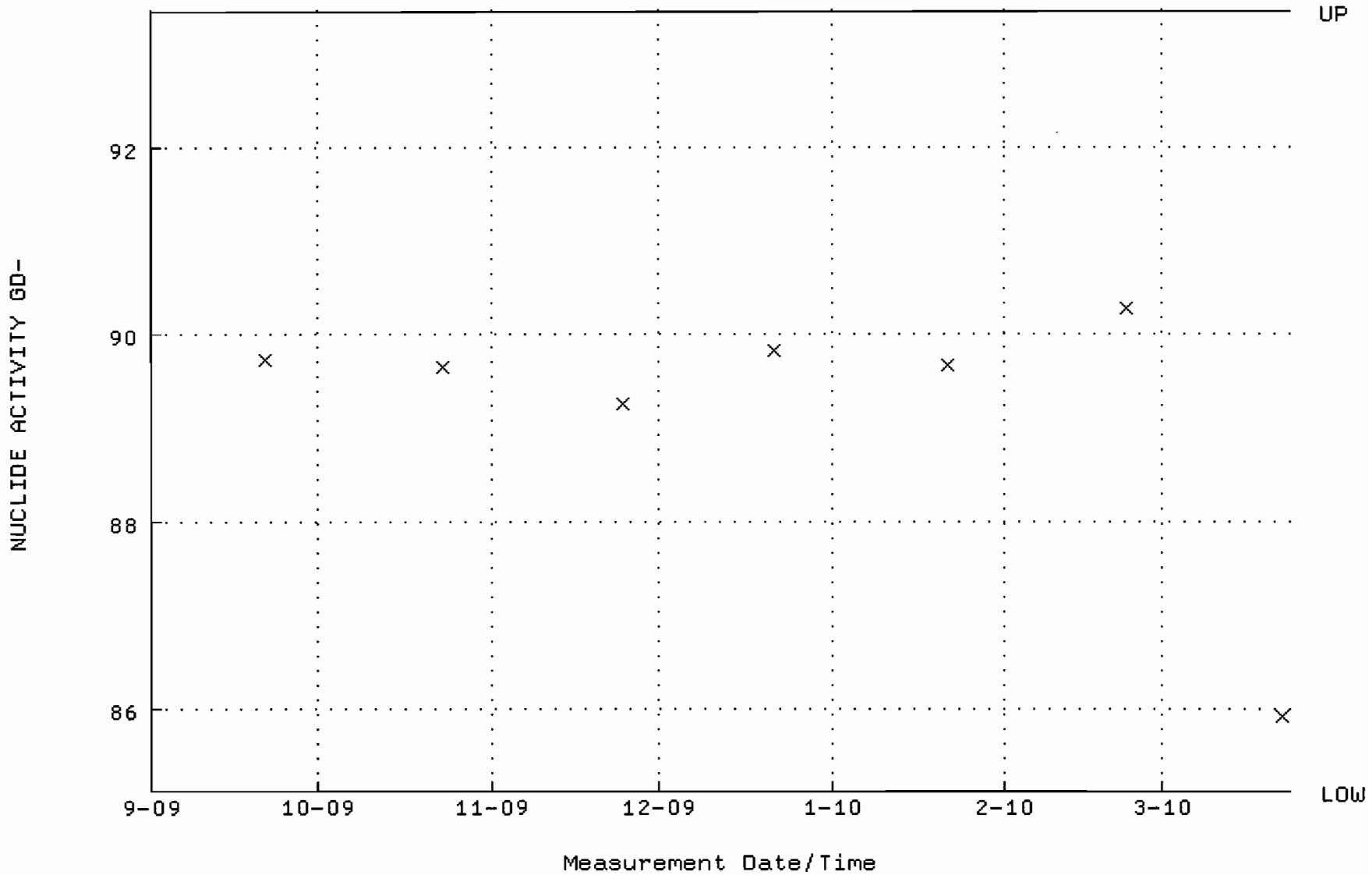

QA filename : DKA100:[ENV_ALPHA.QA.B]B193.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:36 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

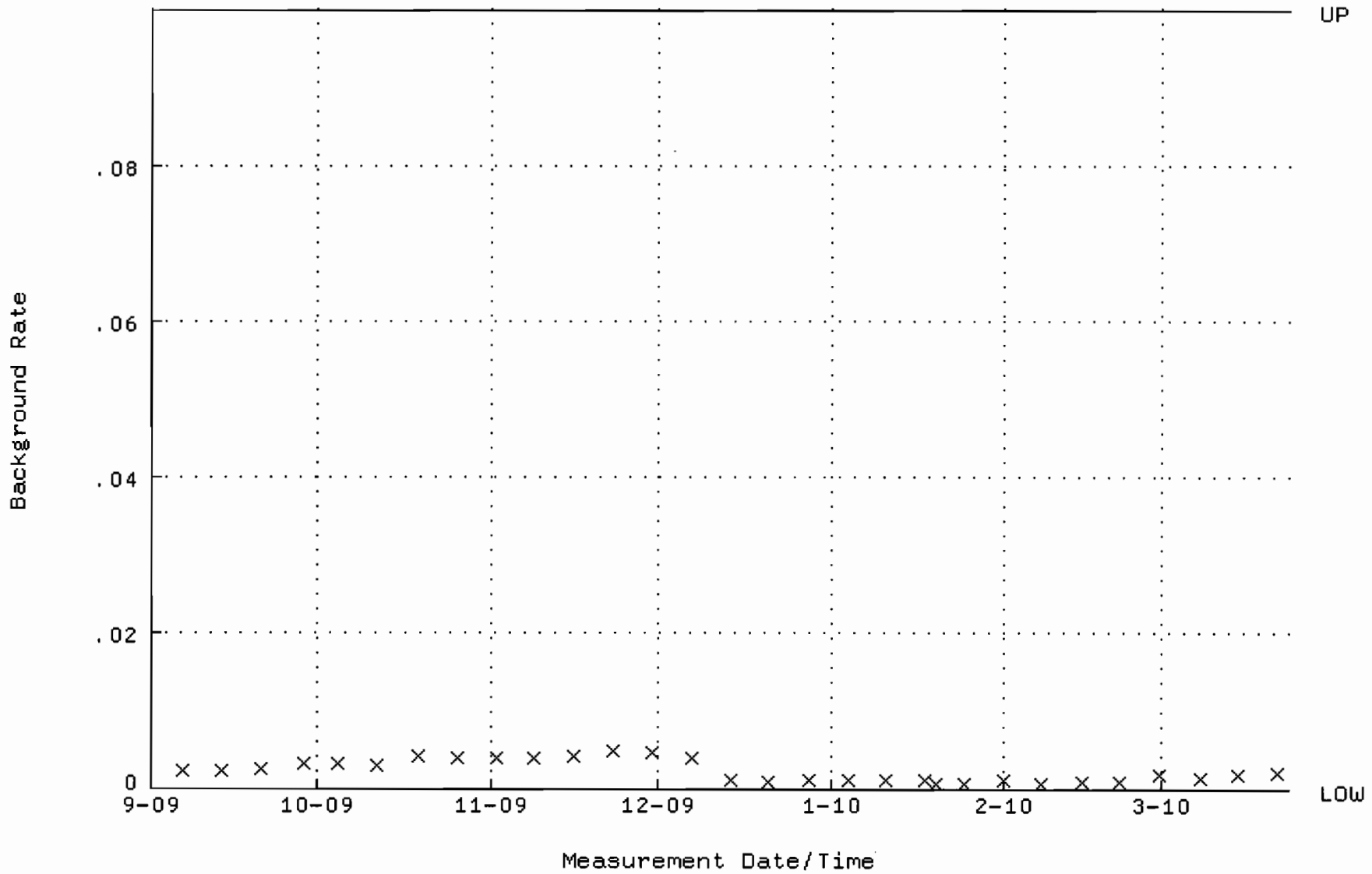

QA filename : DKA100:[ENV_ALPHA.QA.W]W194.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:45 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.246760 through 0.266760

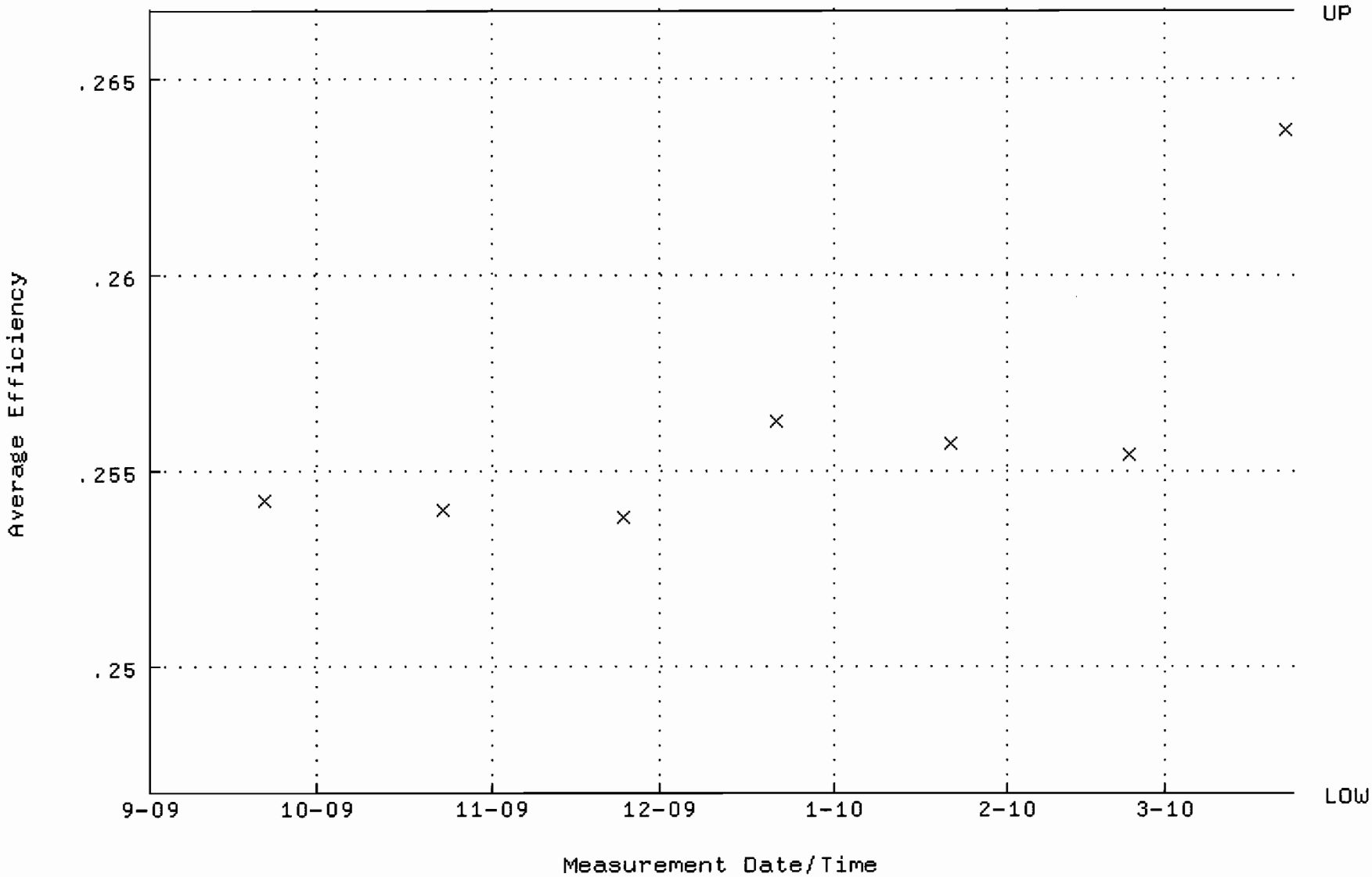

QA filename : DKA100:[ENV_ALPHA.QA.W]W194.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:45 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 86.0376 through 95.0942

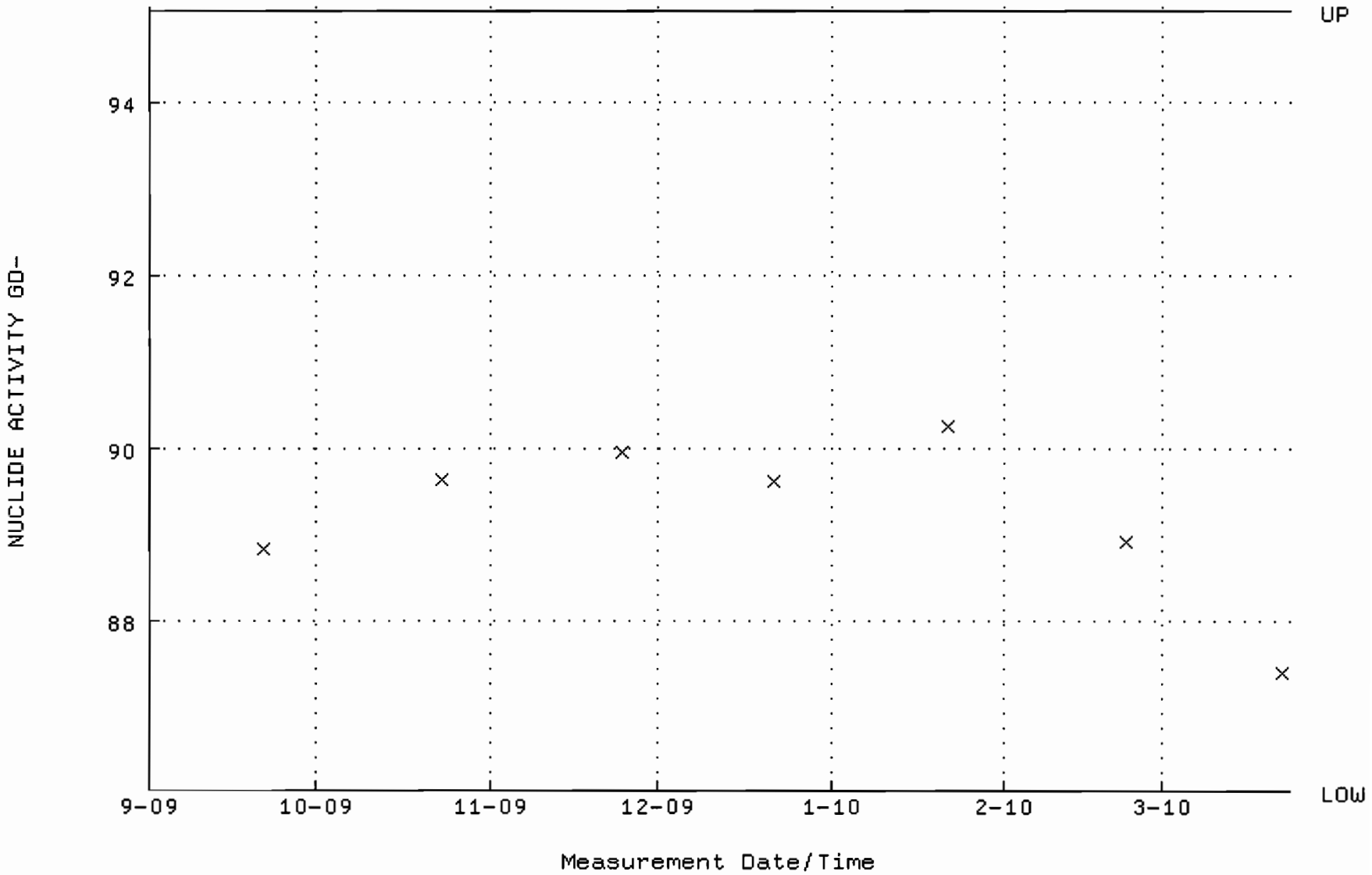

QA filename : DKA100:[ENV_ALPHA.QA.B]B194.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:41 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

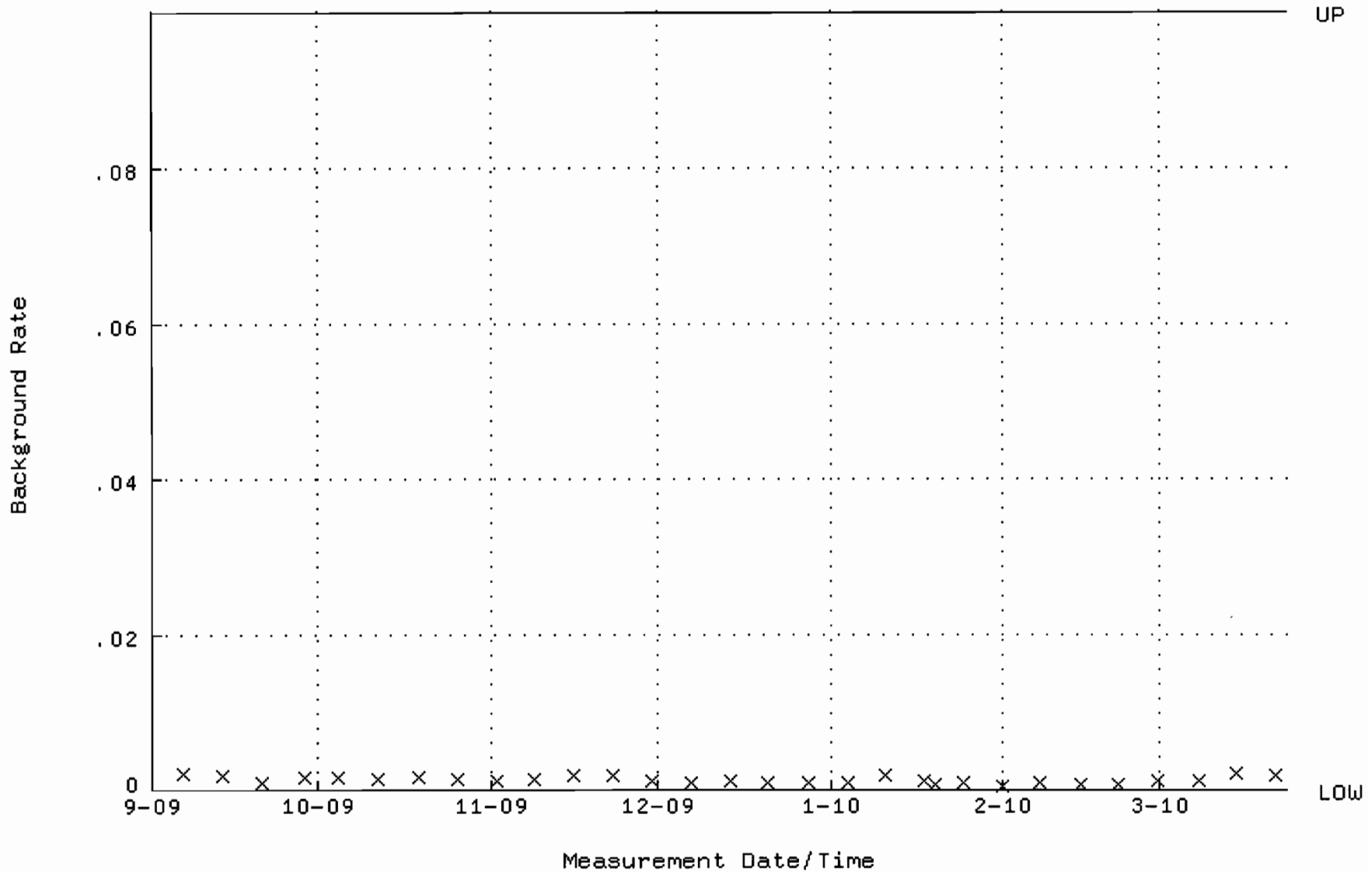

QA filename : DKA100:[ENV_ALPHA.QA.W]W195.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:51 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.237531 through 0.281633

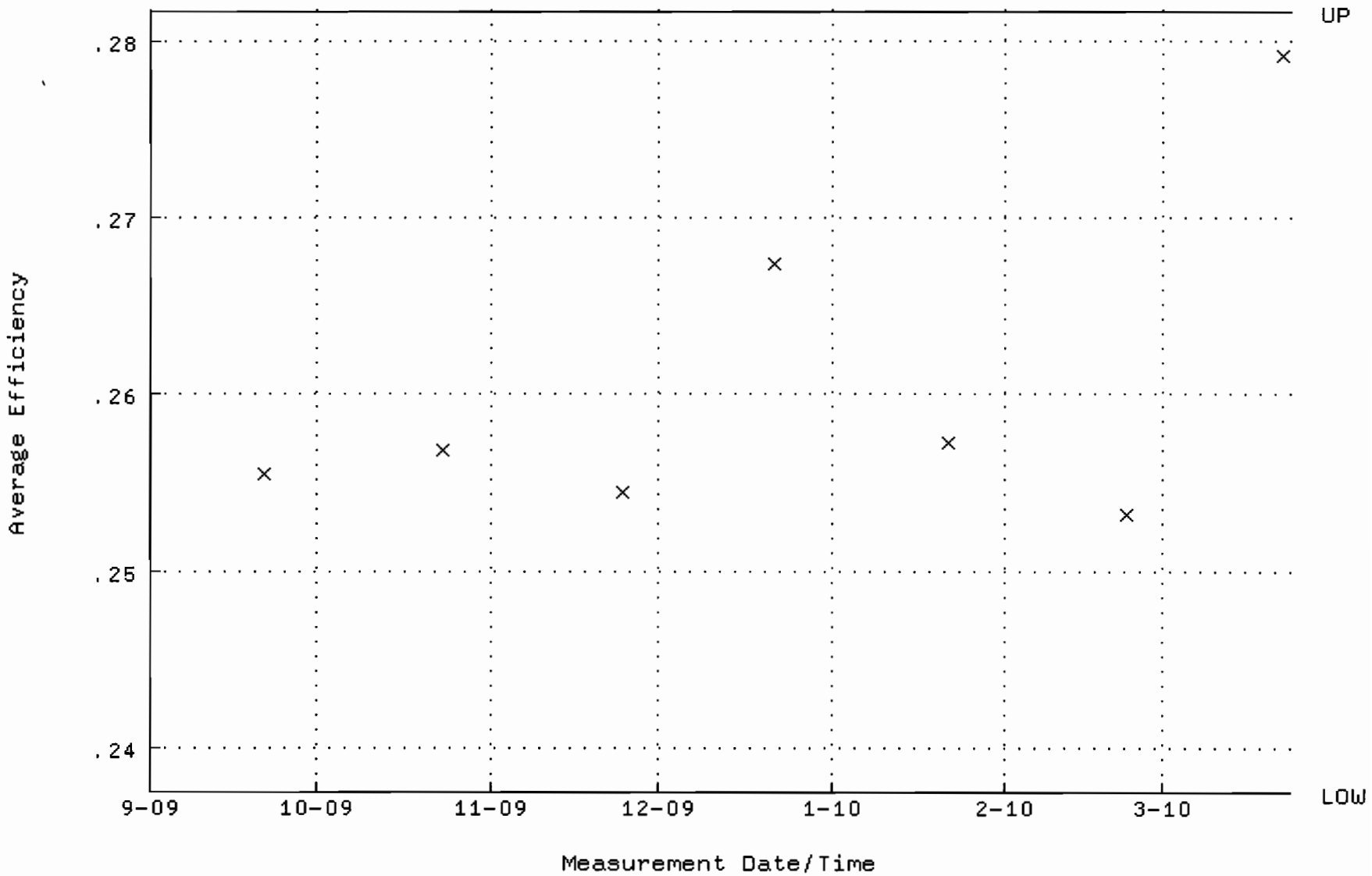

QA filename : DKA100:[ENV_ALPHA.QA.W]W195.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:51 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.6297 through 91.3753

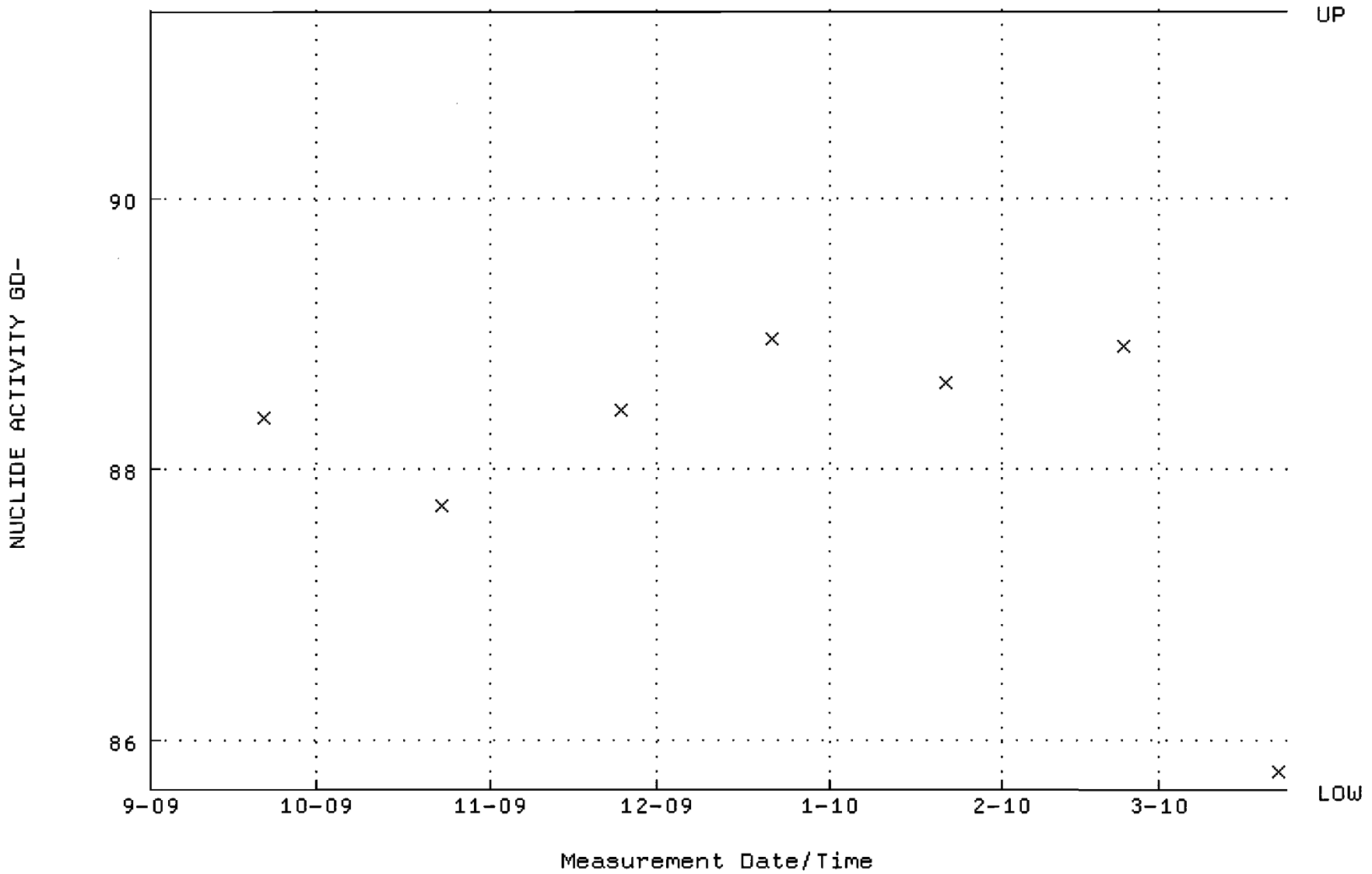

QA filename : DKA100:[ENV_ALPHA.QA.B]B195.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:44 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

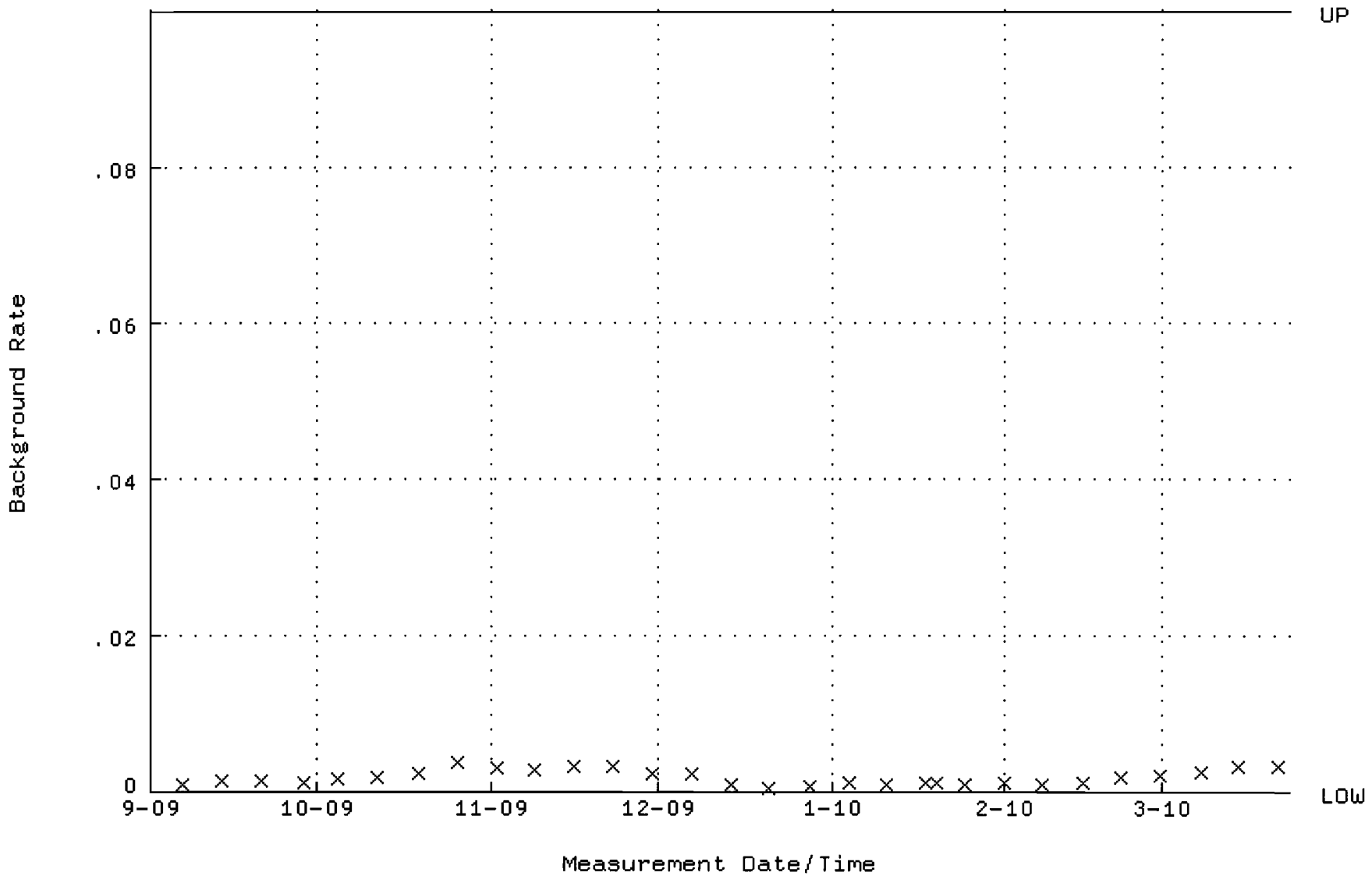

QA filename : DKA100:[ENV_ALPHA.QA.W]W218.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:37:13 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.353641 through 0.399809

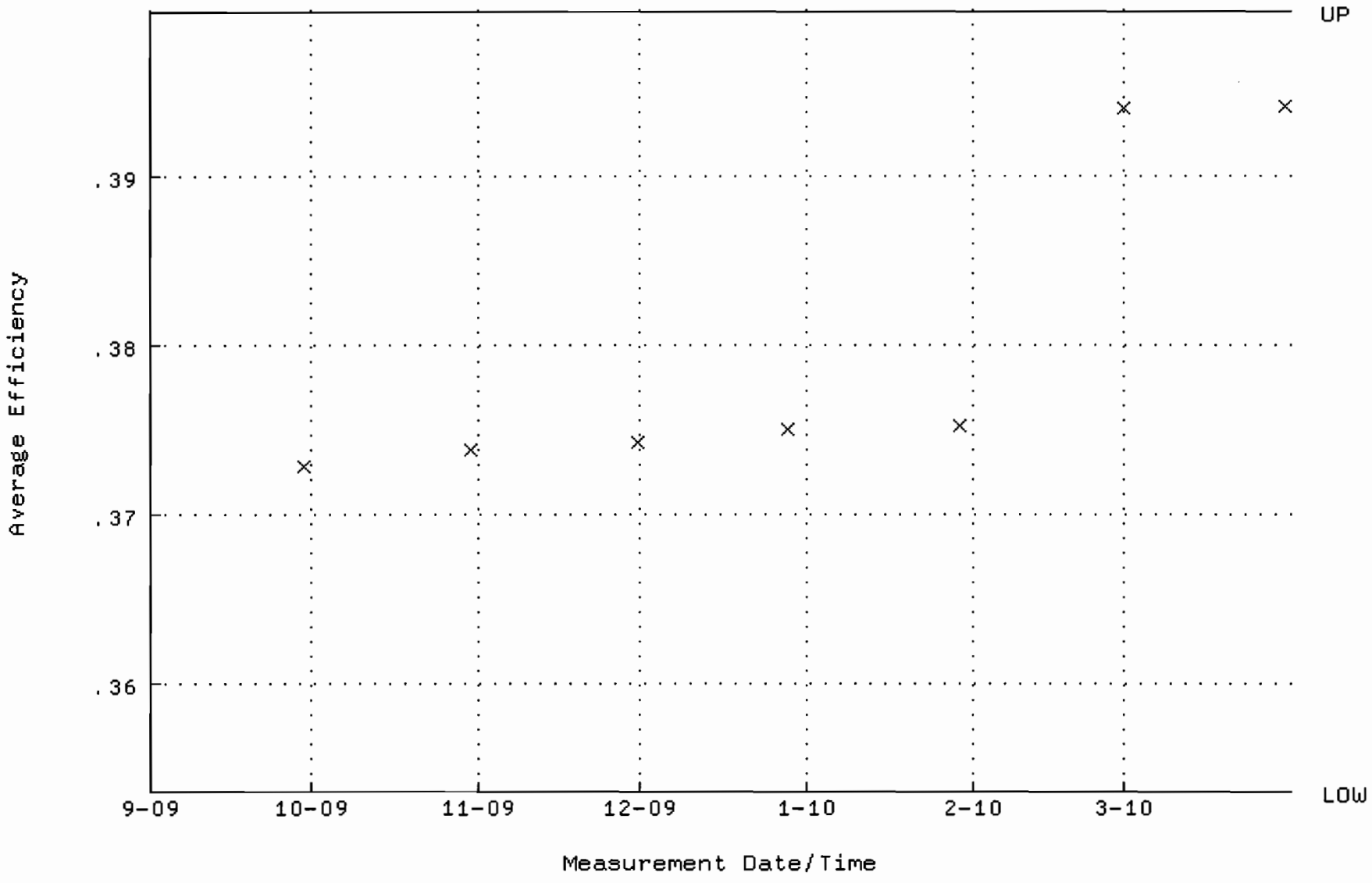

QA filename : DKA100:[ENV_ALPHA.QA.W]W218.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:37:13 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 86.8733 through 99.5183

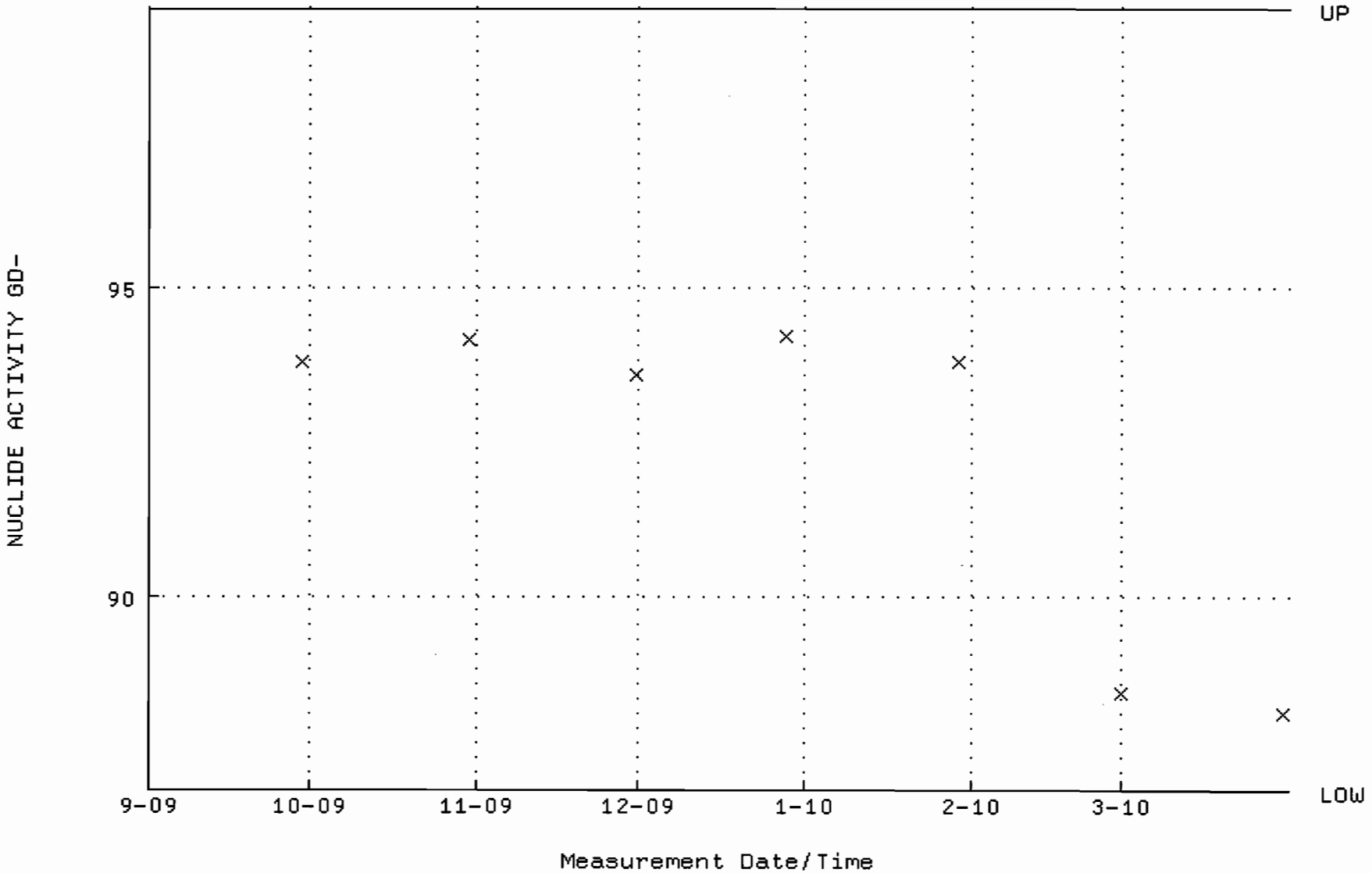

QA filename : DKA100:[ENV_ALPHA.QA.B]B218.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:49:02 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

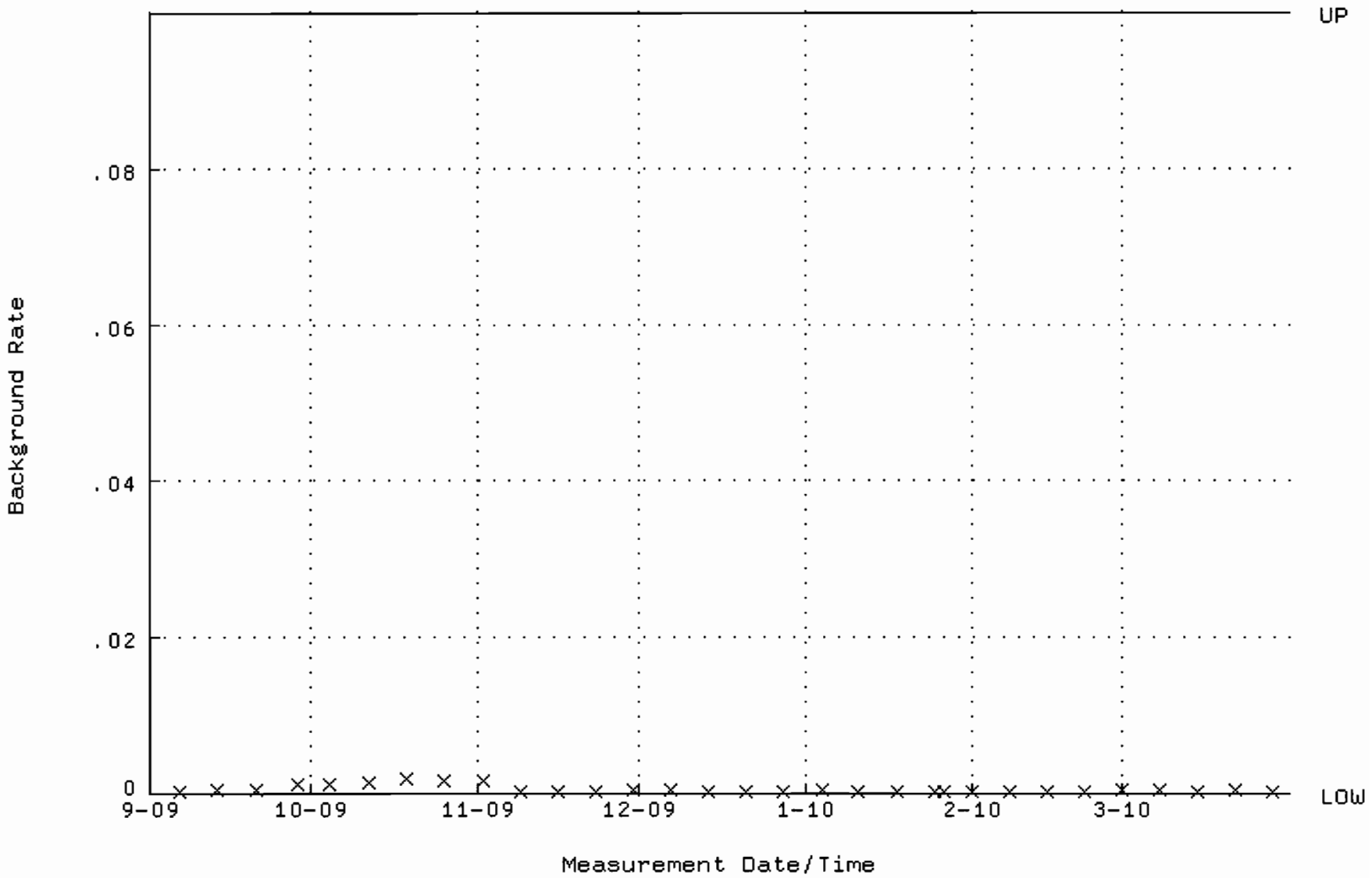

QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:42 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.368938 through 0.401788

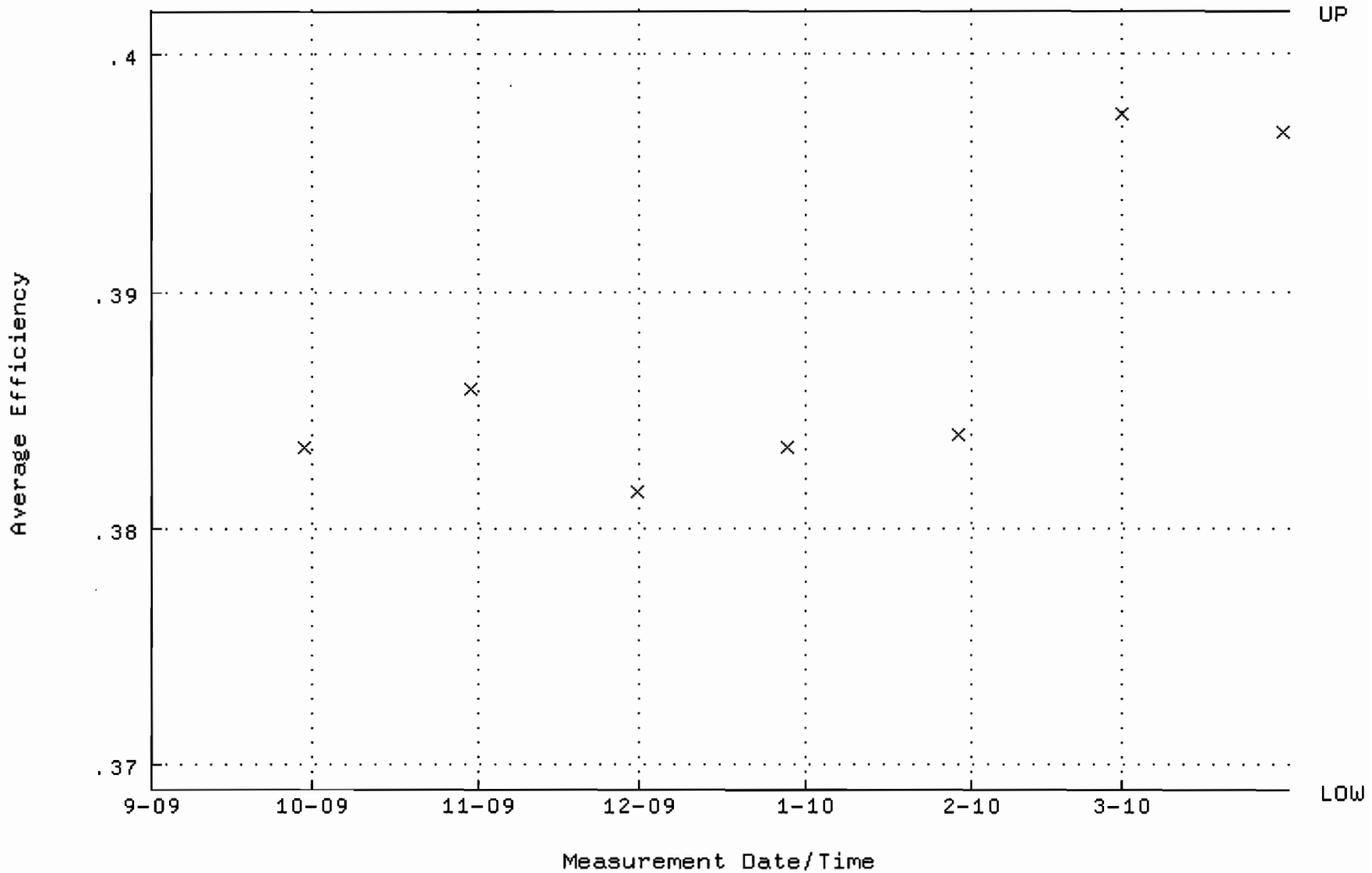

QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:42 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5490 through 88.3592

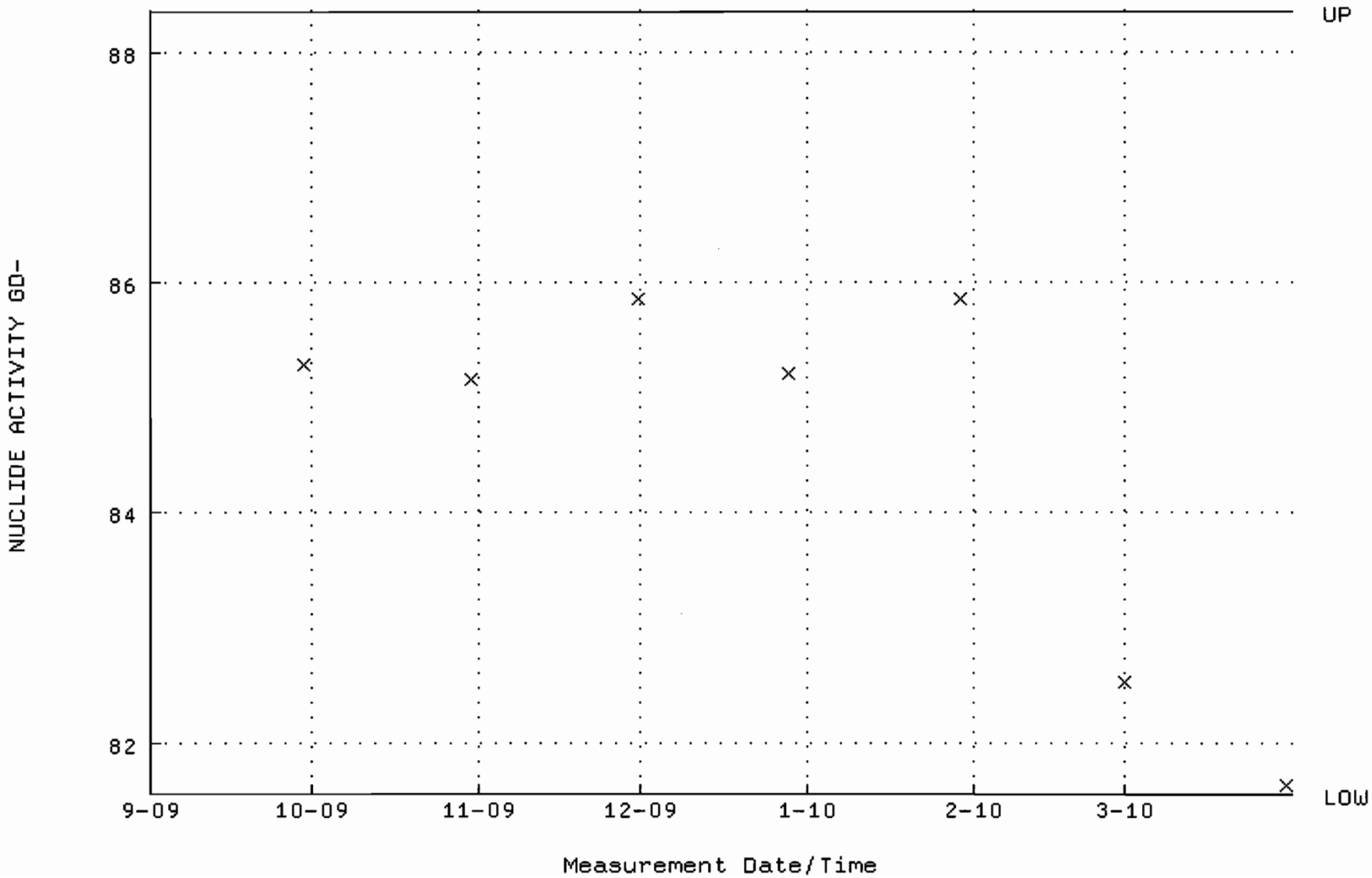

QA filename : DKA100:[ENV_ALPHA.QA.B]B234.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:16 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

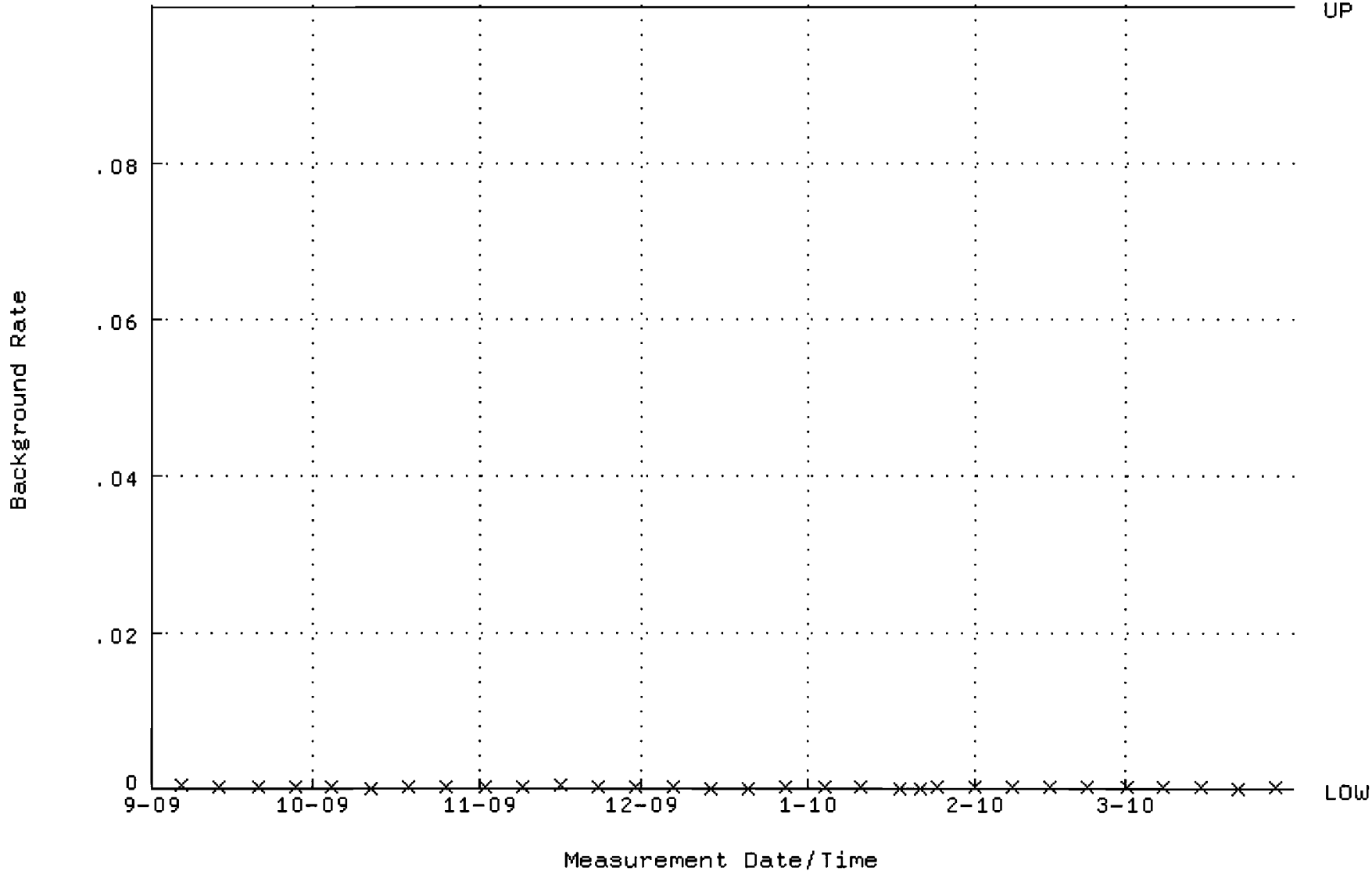

QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:47 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.347554 through 0.411802

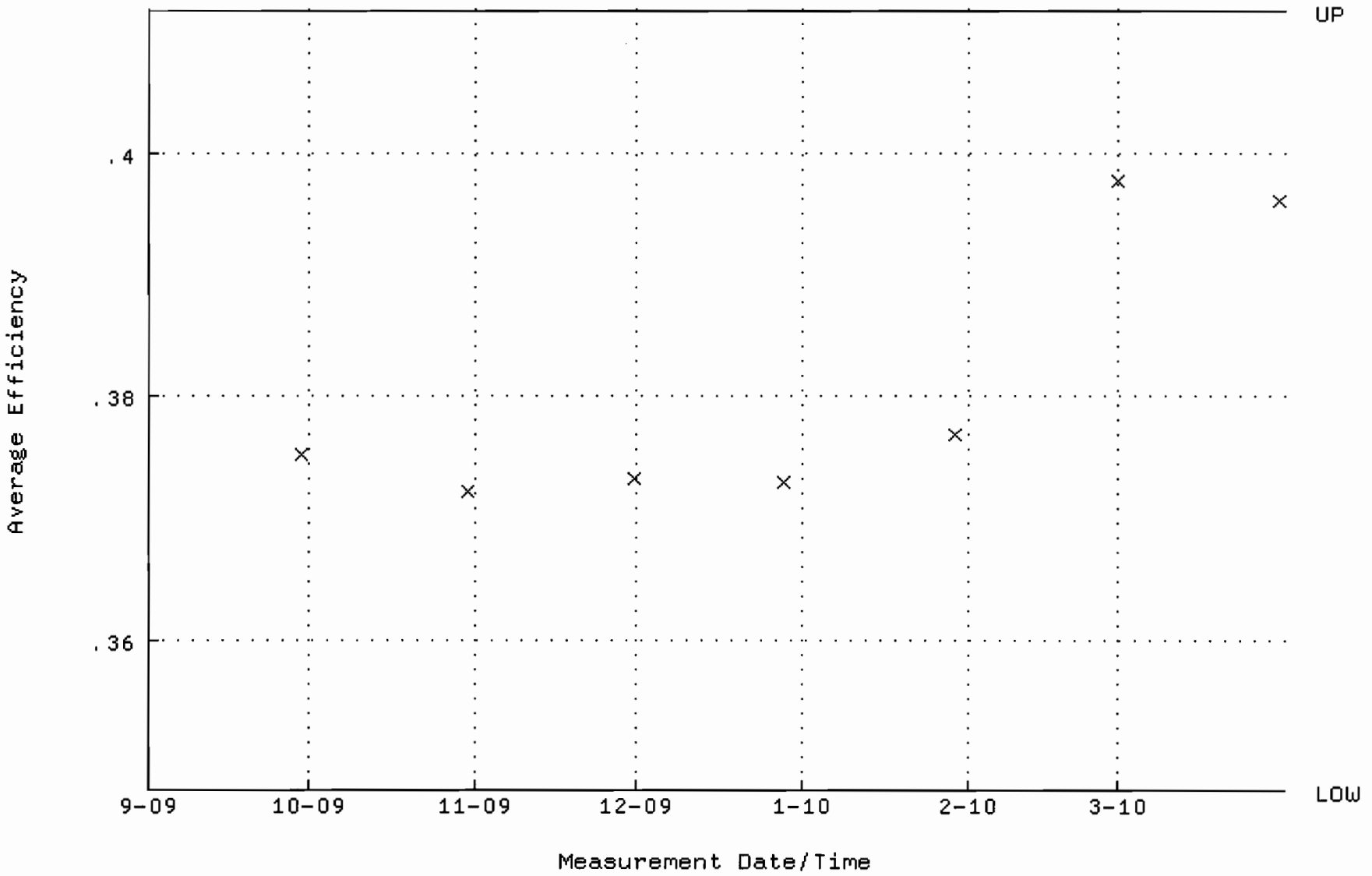

QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:47 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 86.9159 through 90.2825

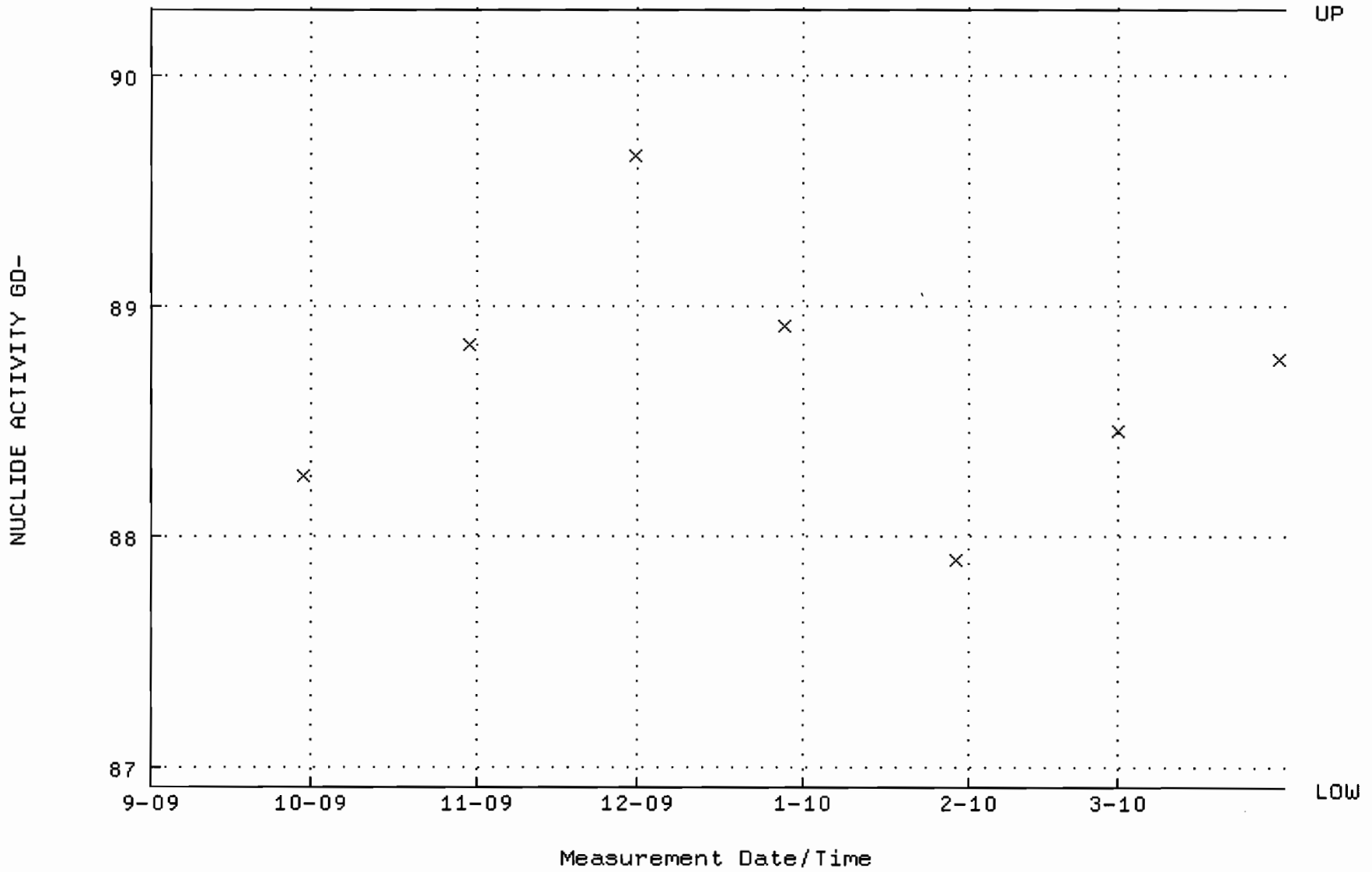

QA filename : DKA100:[ENV_ALPHA.QA.B]B235.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:20 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

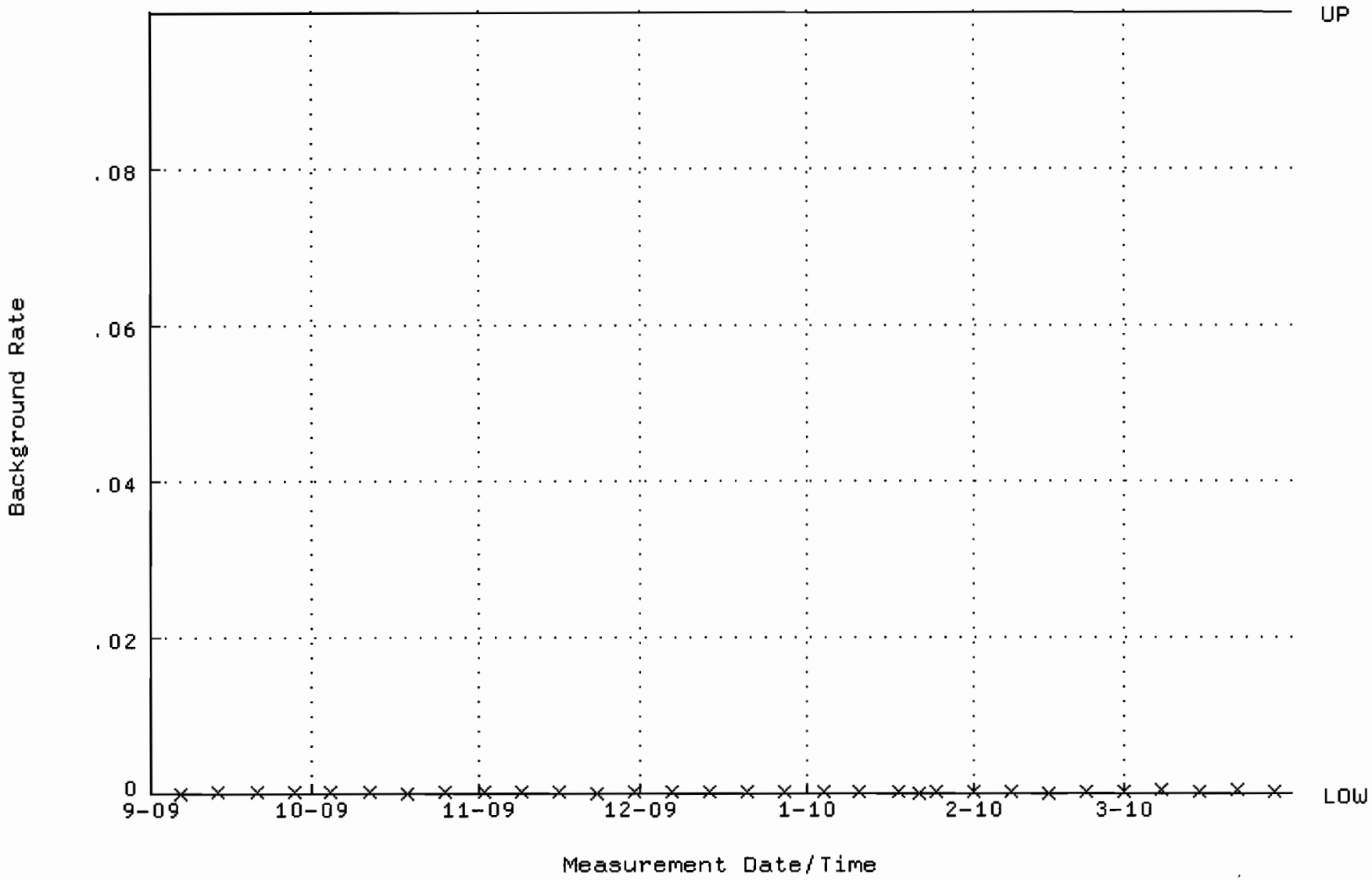

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:58 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.385327 through 0.415351

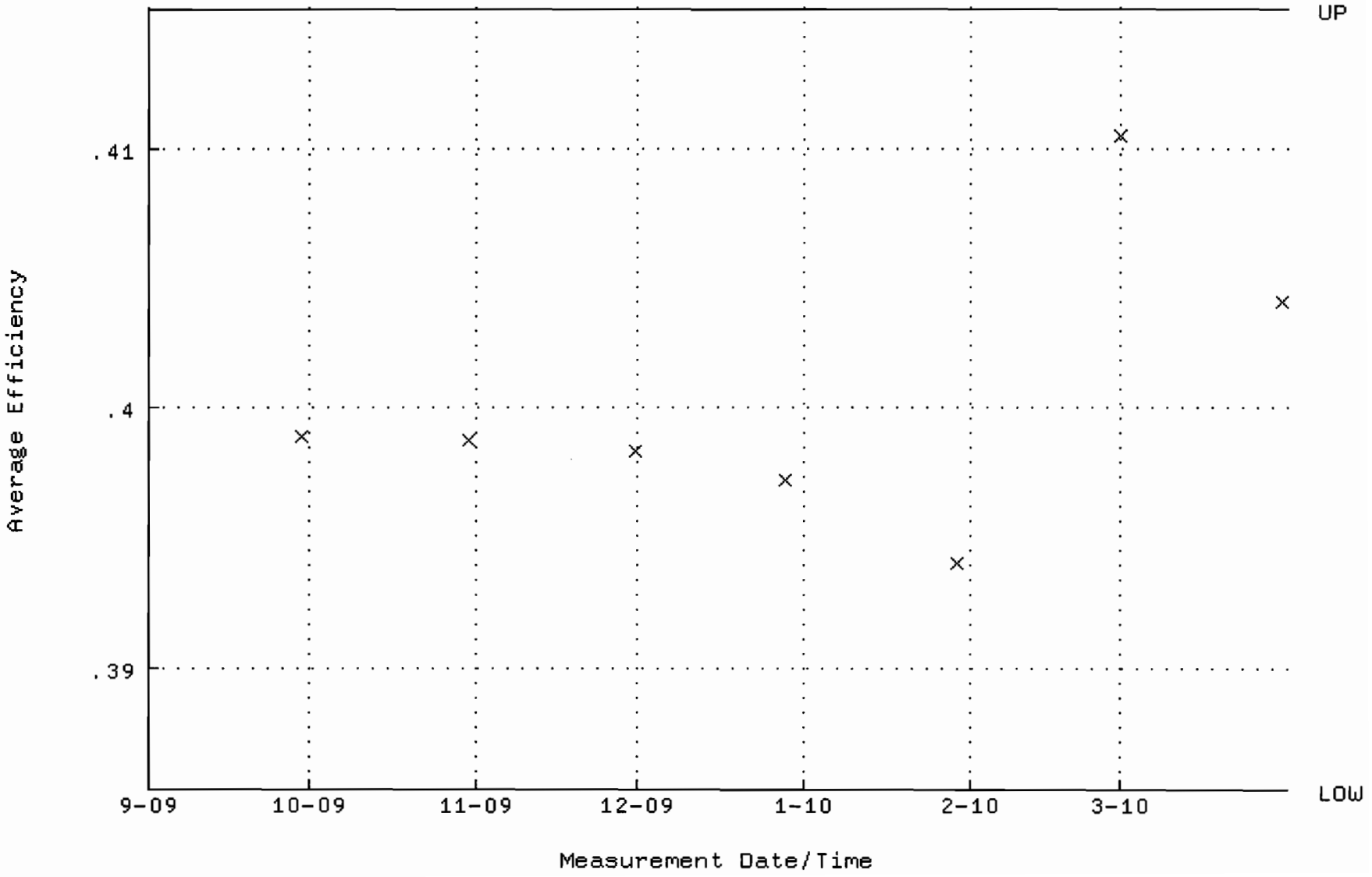

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:58 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5268 through 85.6787

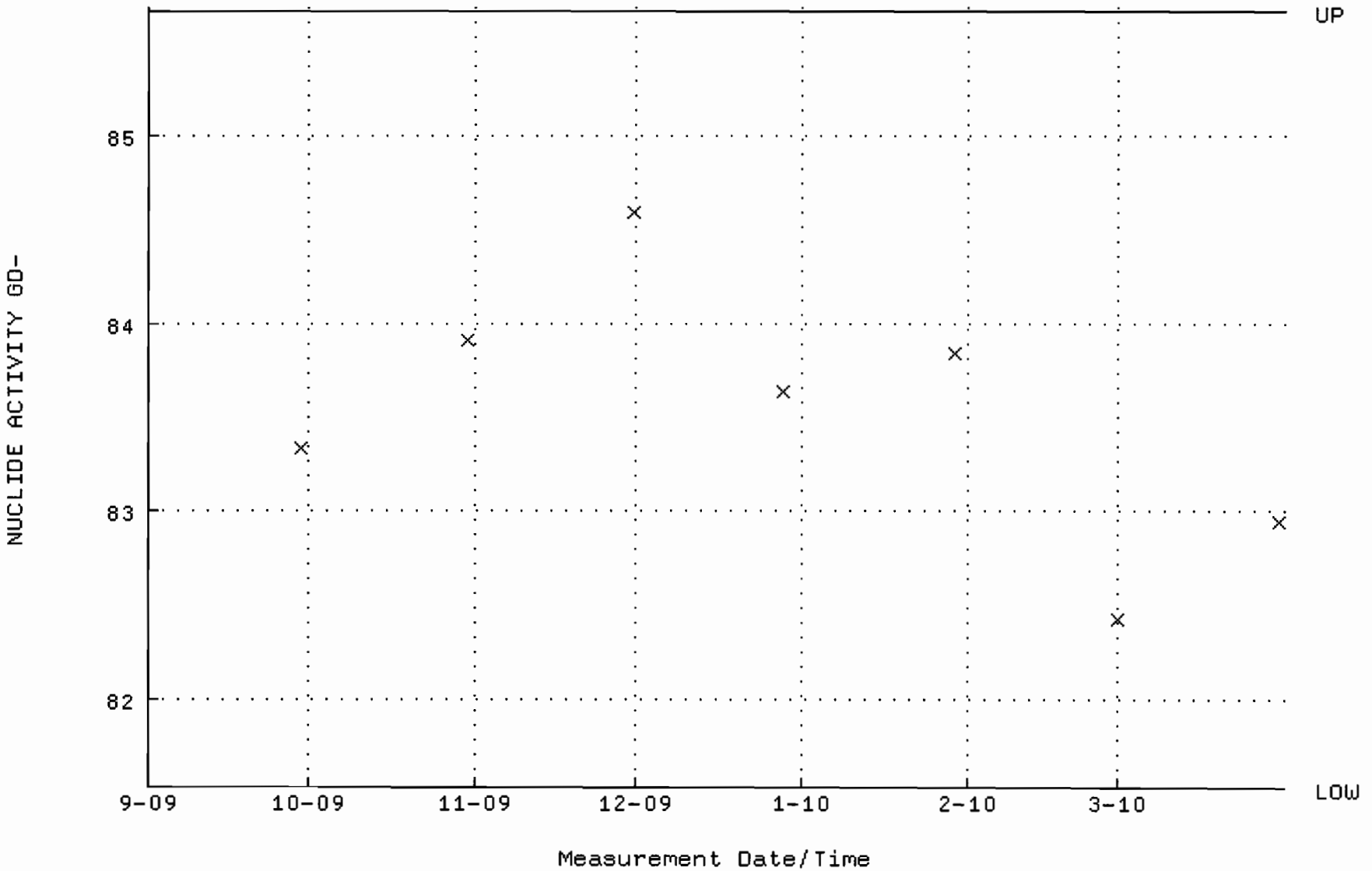

QA filename : DKA100:[ENV_ALPHA.QA.B]B237.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:30 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

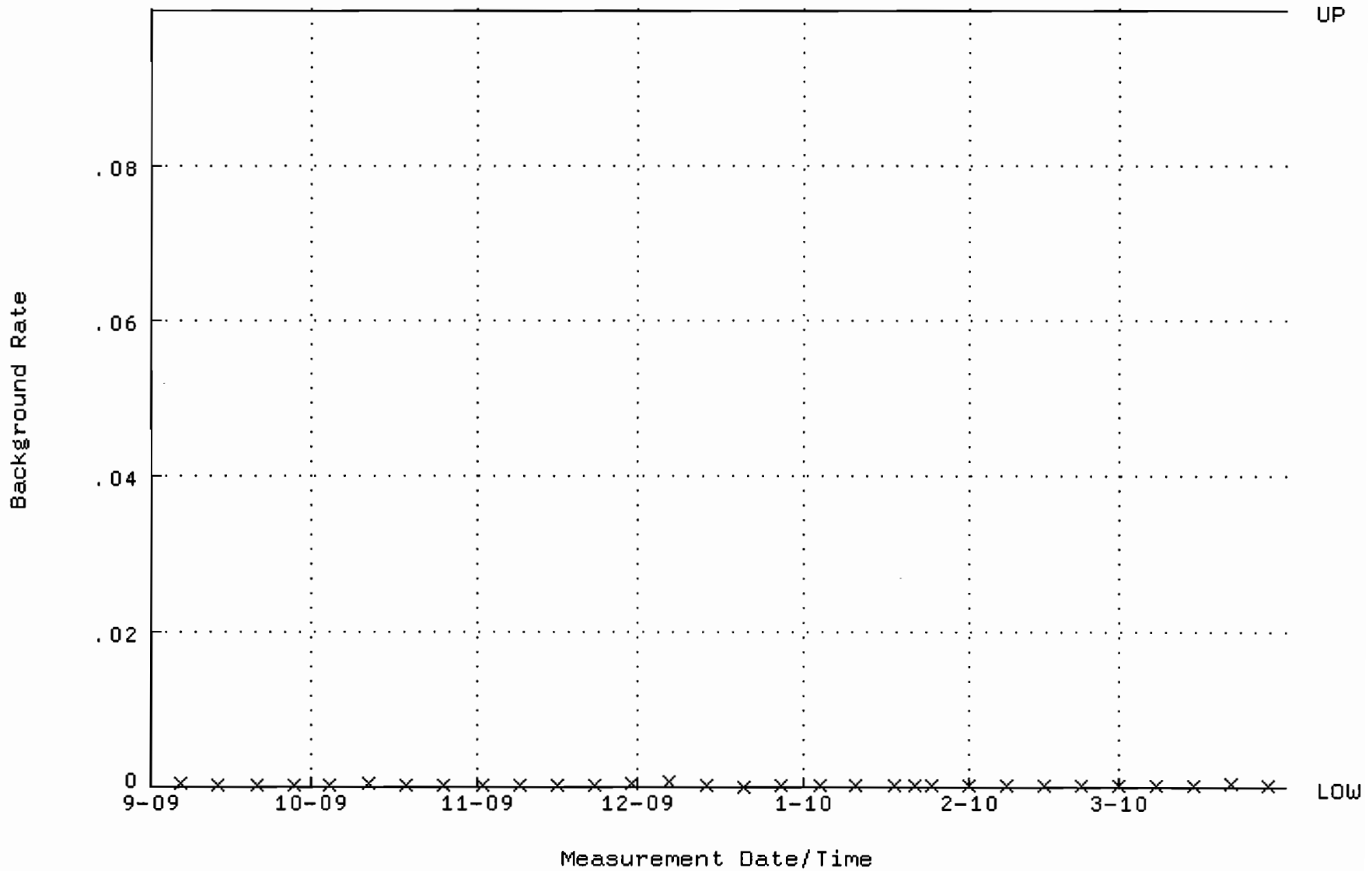

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:04 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.389351 through 0.404525

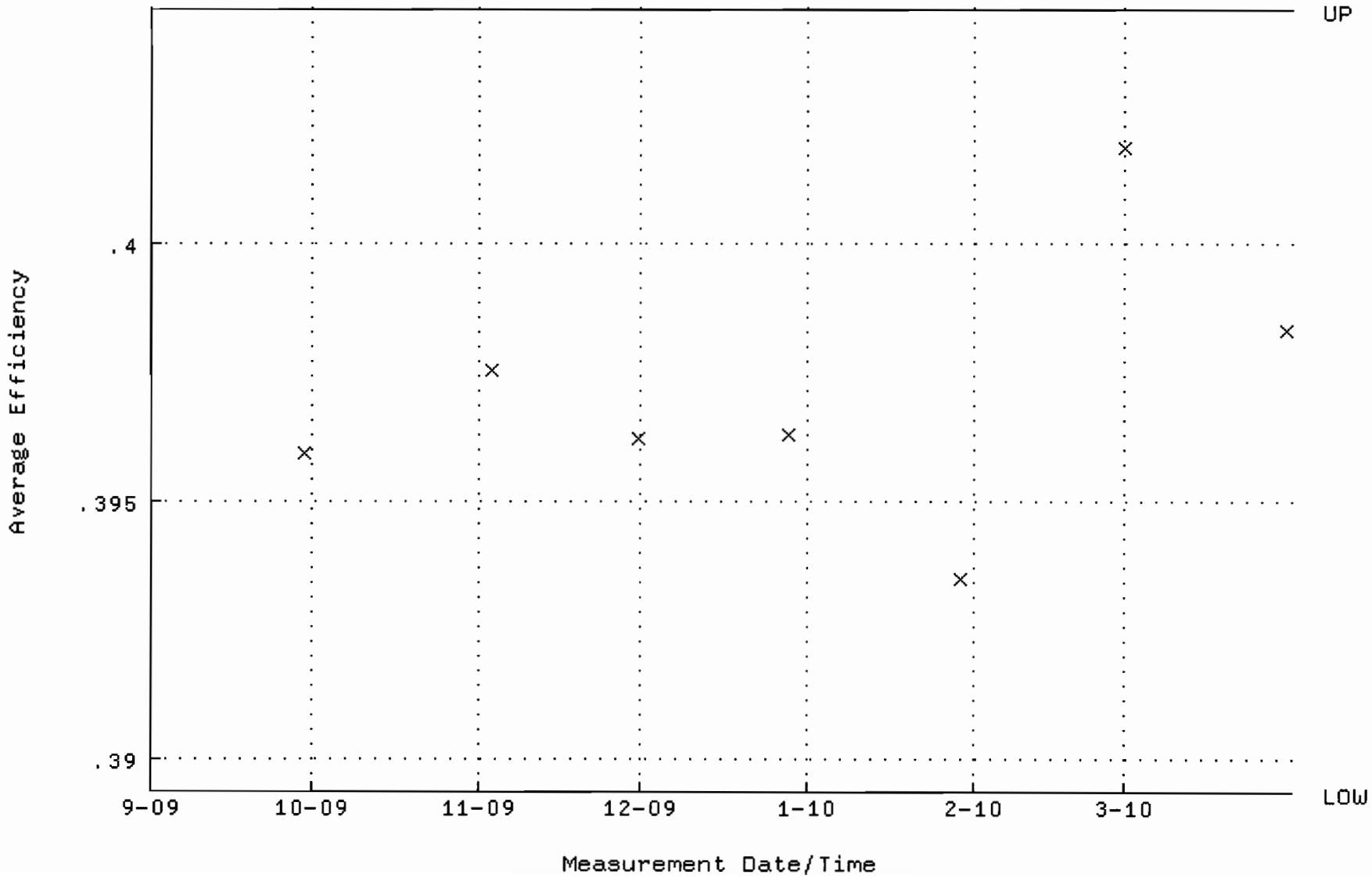

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:04 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 82.7118 through 85.8726

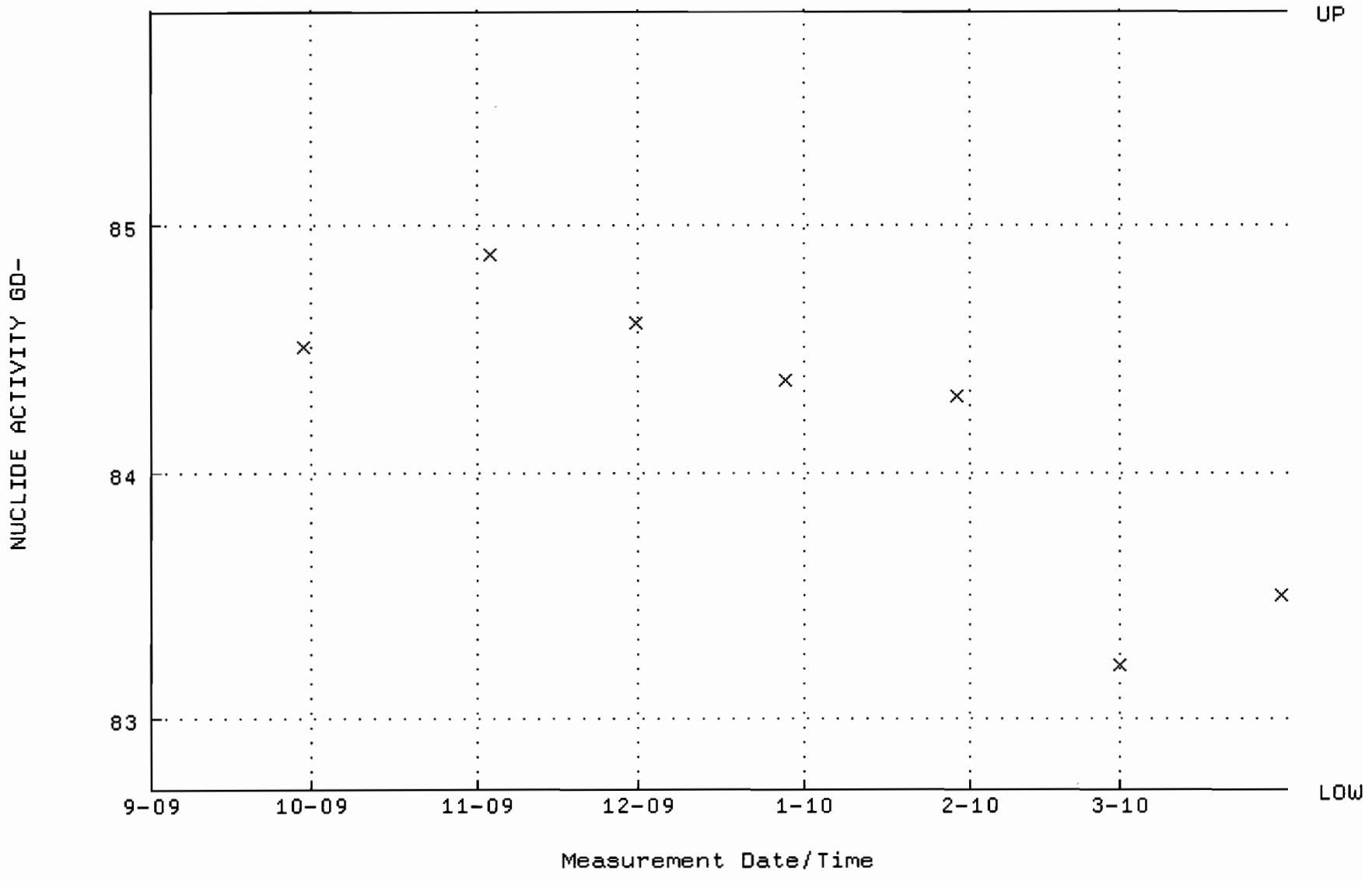

QA filename : DKA100:[ENV_ALPHA.QA.B]B238.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:34 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

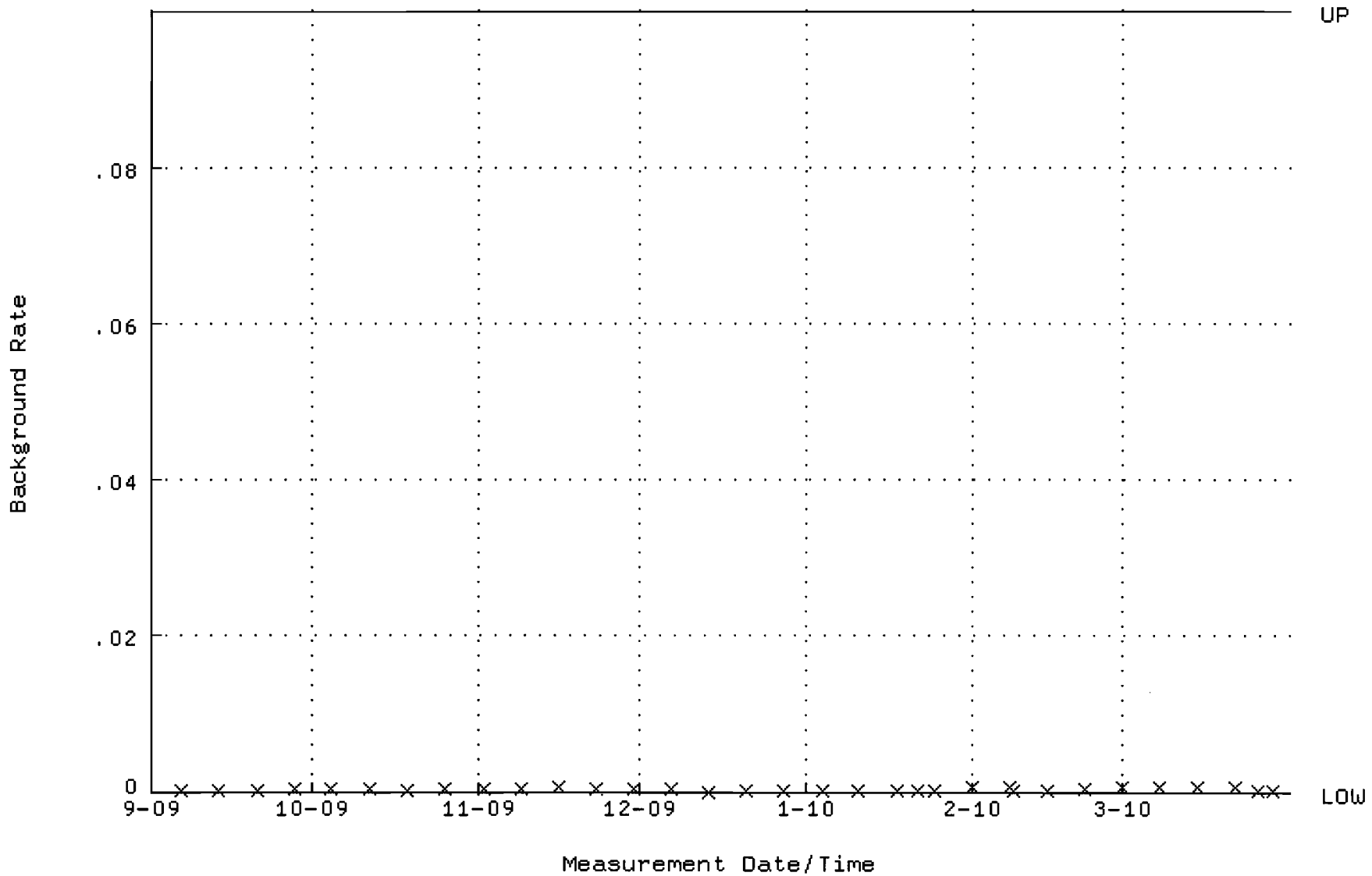

QA filename : DKA100:[ENV_ALPHA.QA.W]W239.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:10 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.366465 through 0.400837

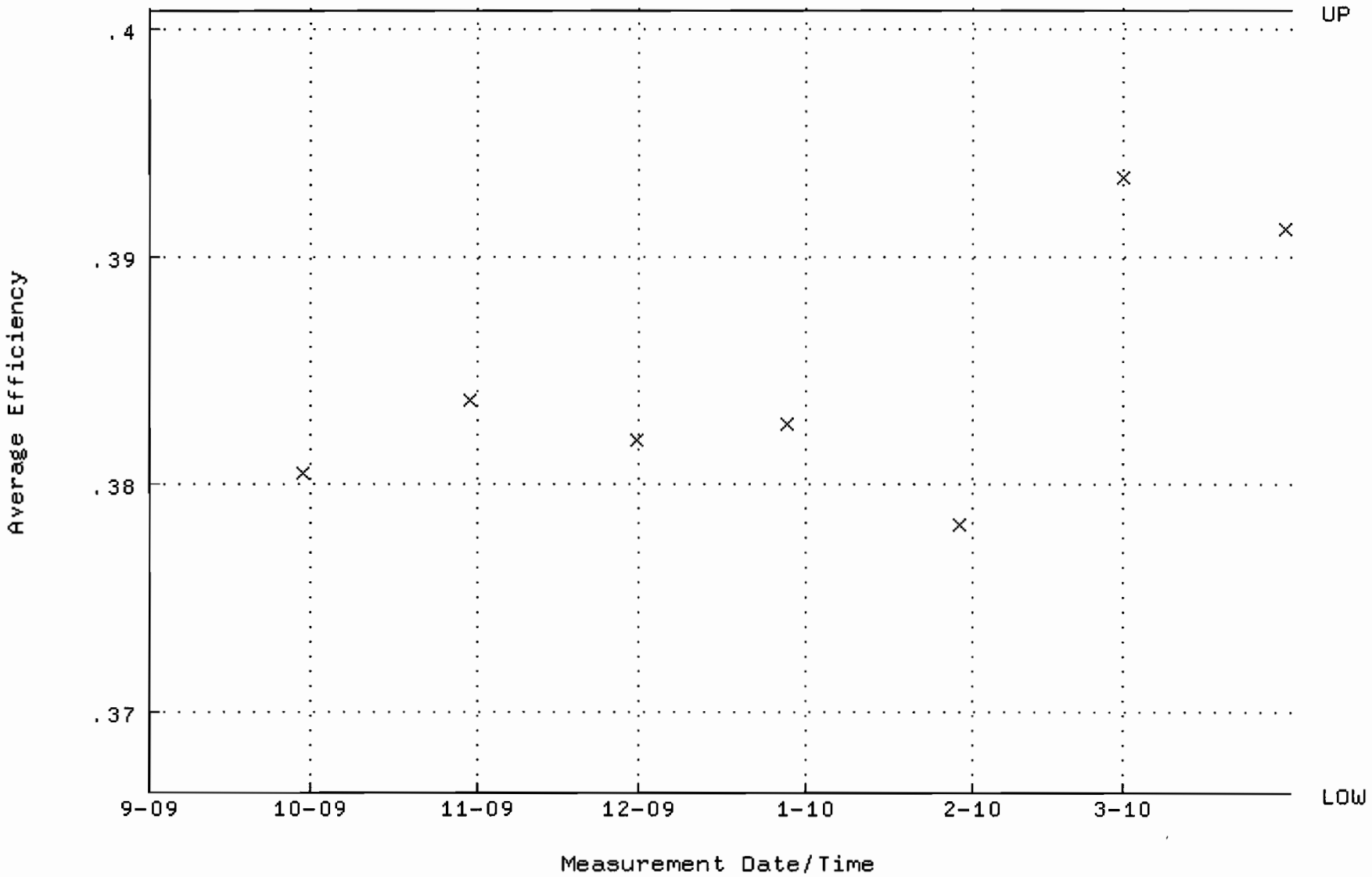

QA filename : DKA100:[ENV_ALPHA.QA.W]W239.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:10 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 82.5482 through 91.4126

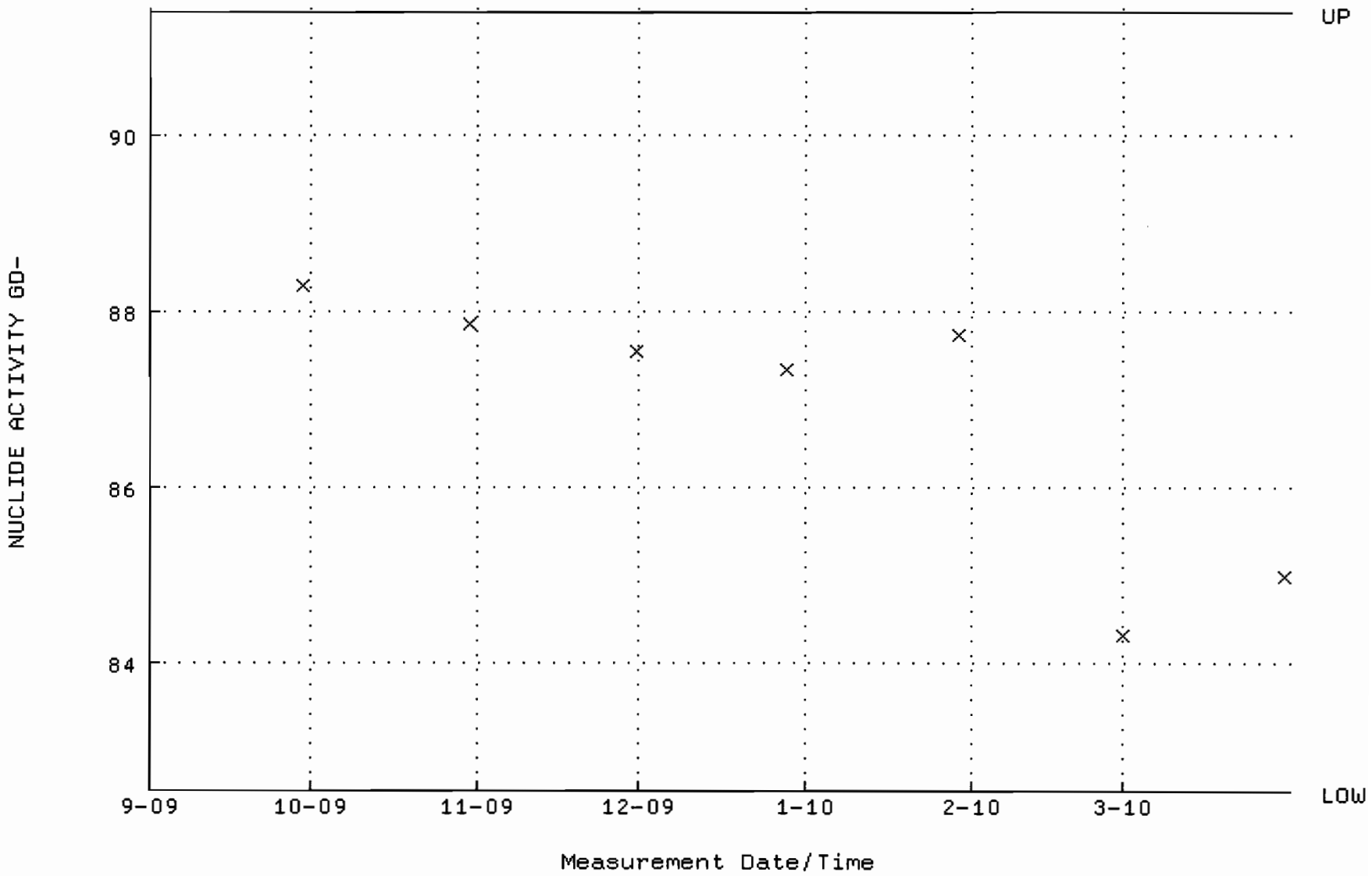

QA filename : DKA100:[ENV_ALPHA.QA.B]B239.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:39 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

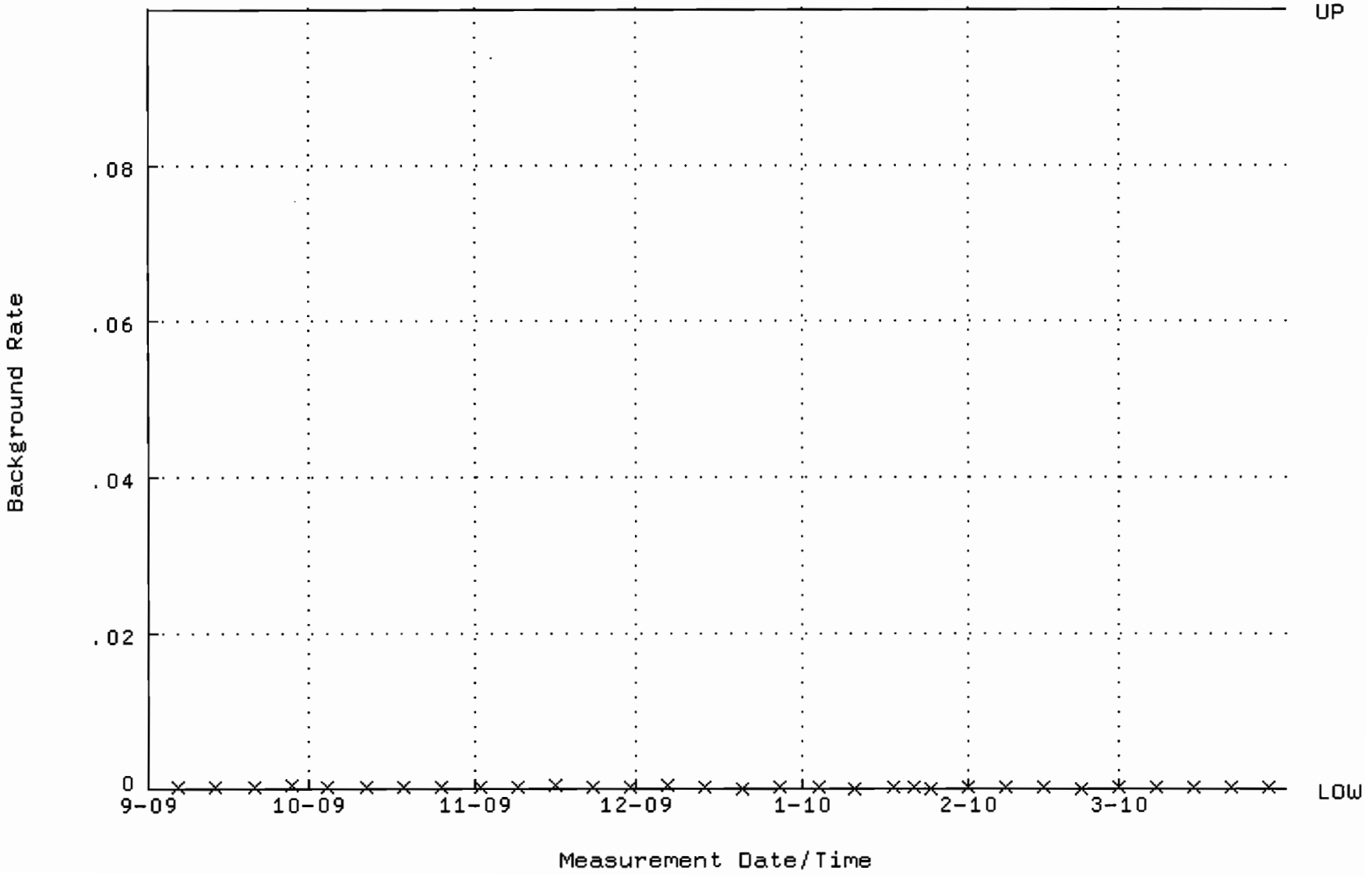

QA filename : DKA100:[ENV_ALPHA.QA.W]W240.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:16 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.353617 through 0.392947

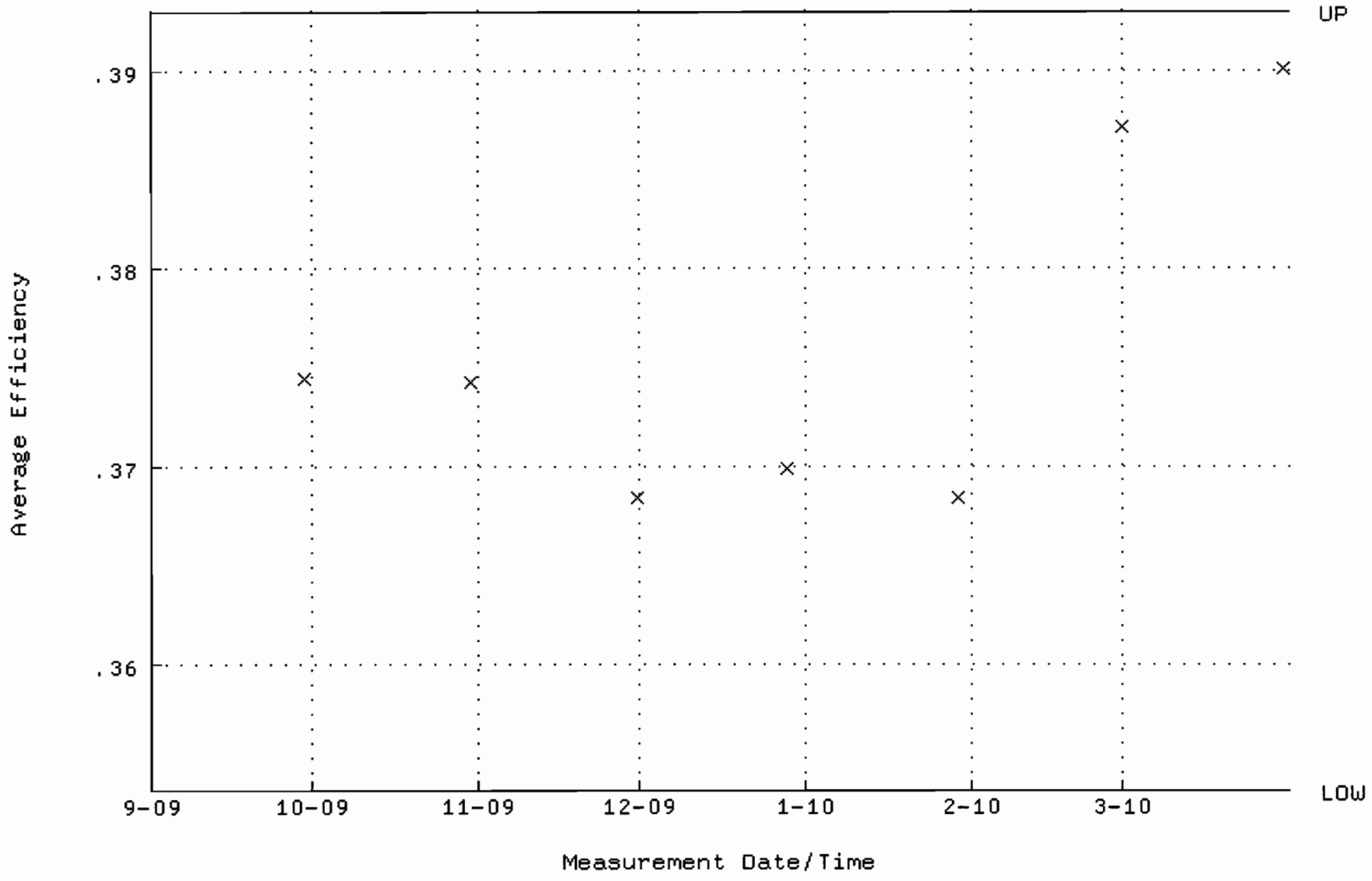

QA filename : DKA100:[ENV_ALPHA.QA.W]W240.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:16 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 82.4439 through 92.1786

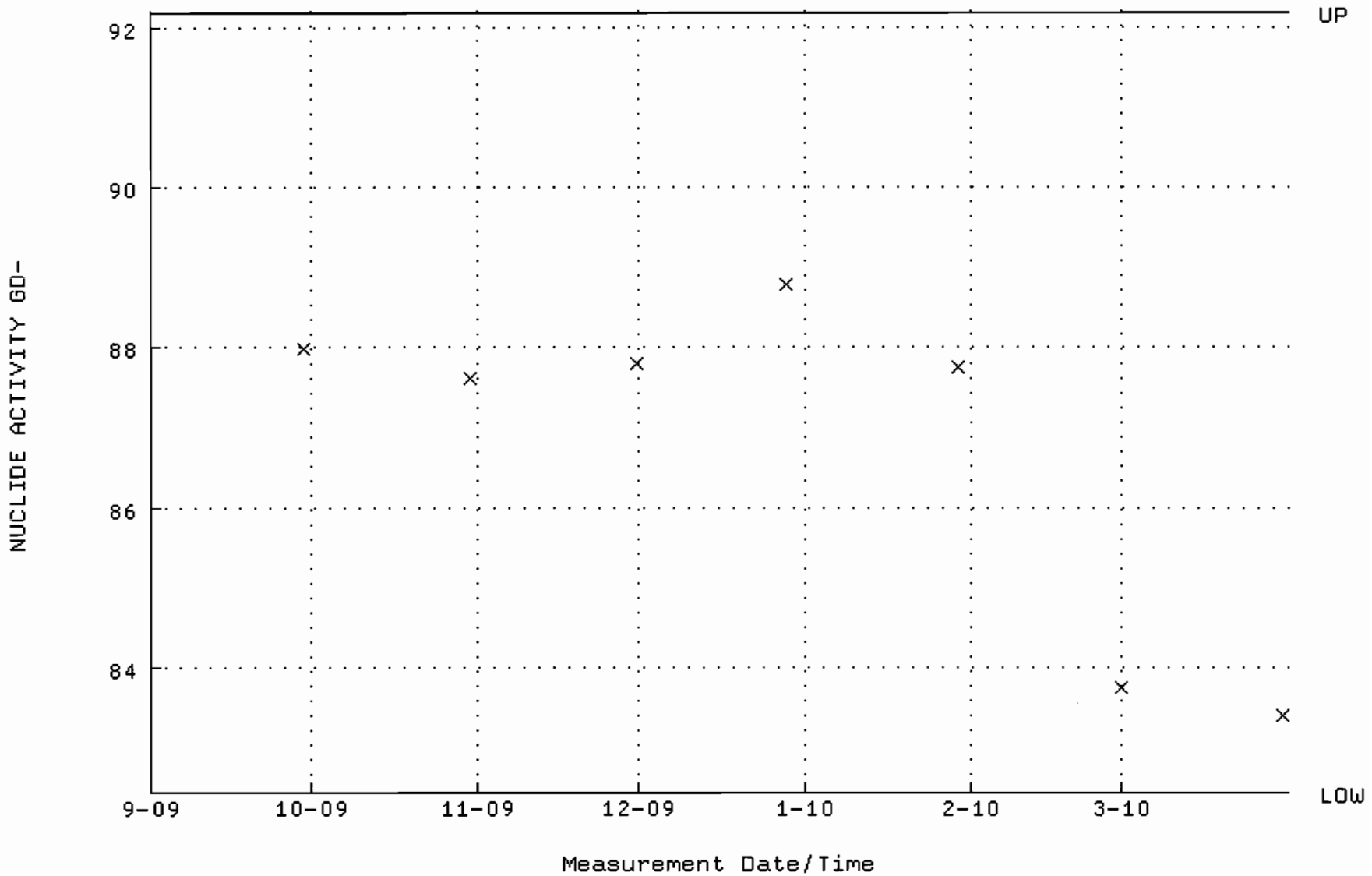

QA filename : DKA100:[ENV_ALPHA.QA.B]B240.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:44 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

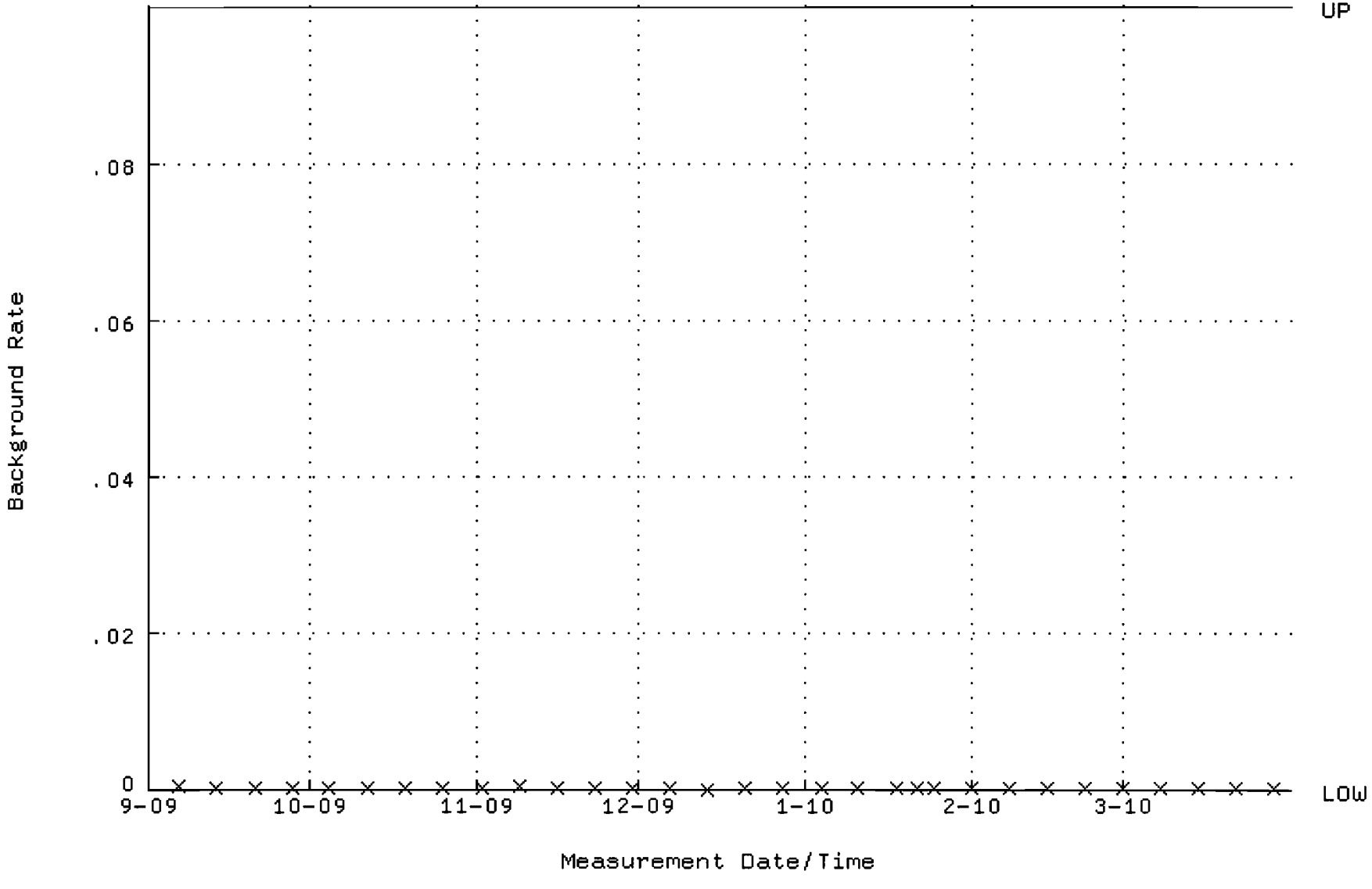

QA filename : DKA100:[ENV_ALPHA.QA.W]W241.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:20 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.358643 through 0.400349

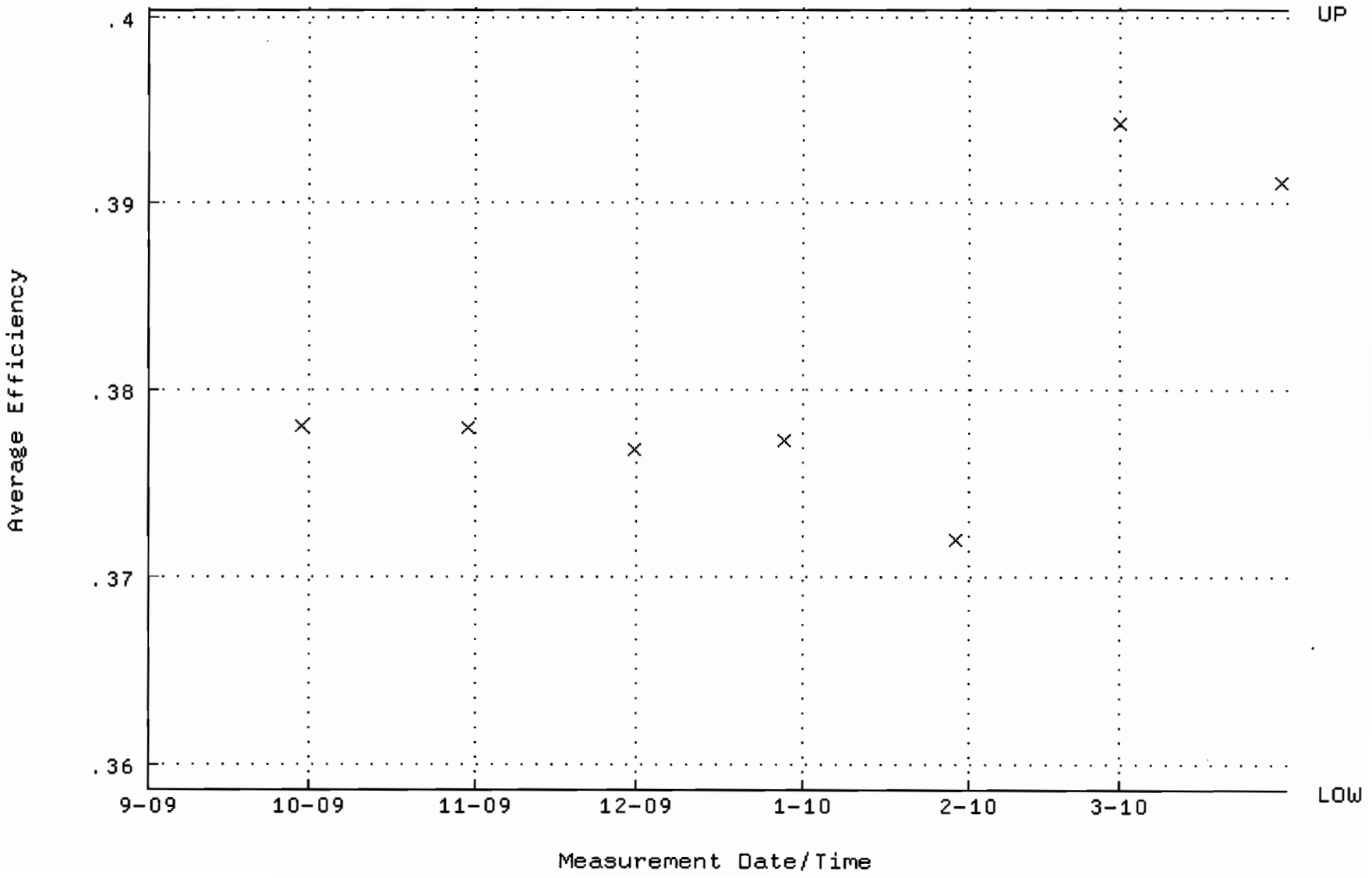

QA filename : DKA100:[ENV_ALPHA.QA.W]W241.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:20 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 83.4341 through 92.1277

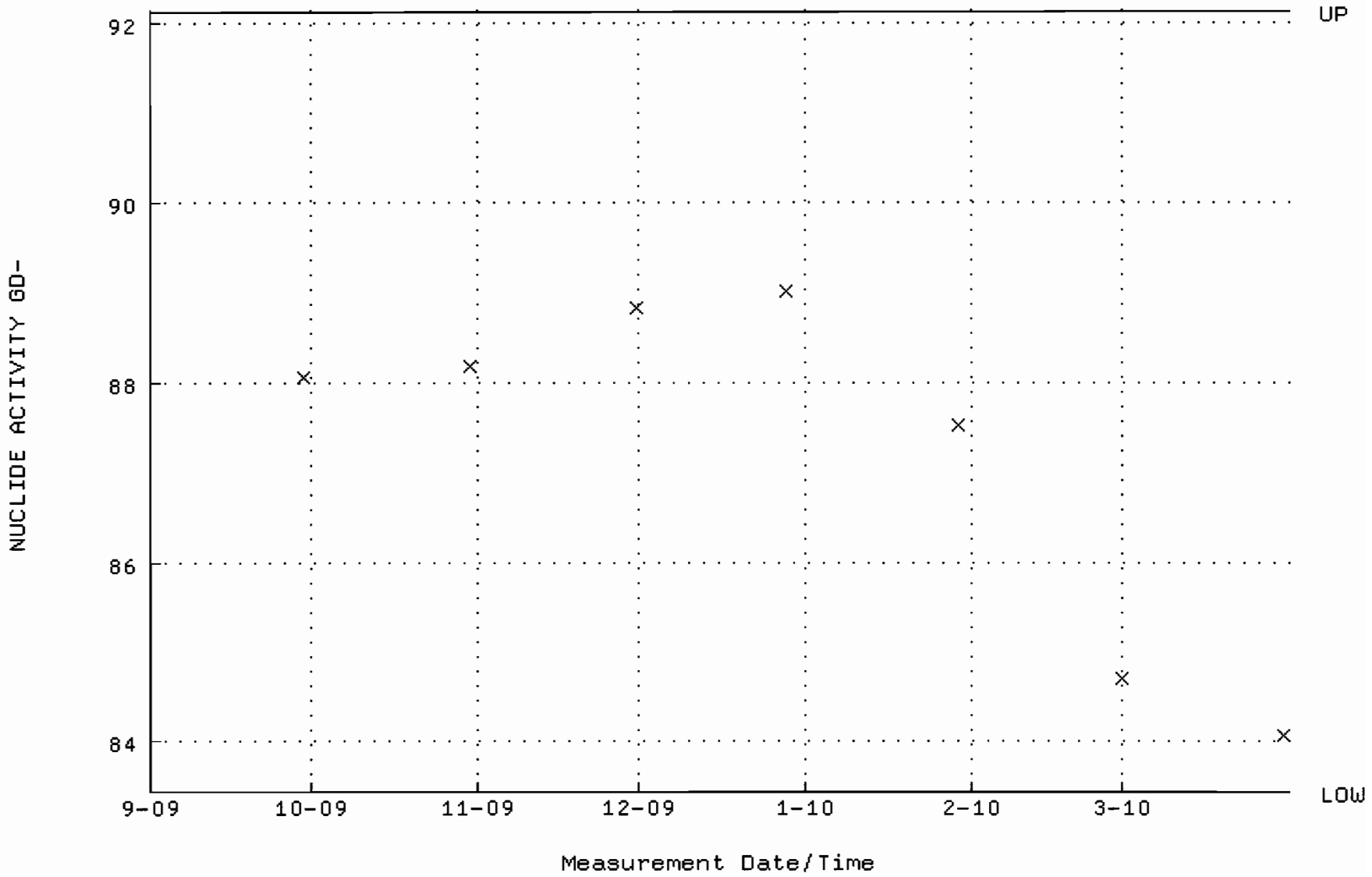

QA filename : DKA100:[ENV_ALPHA.QA.B]B241.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:48 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

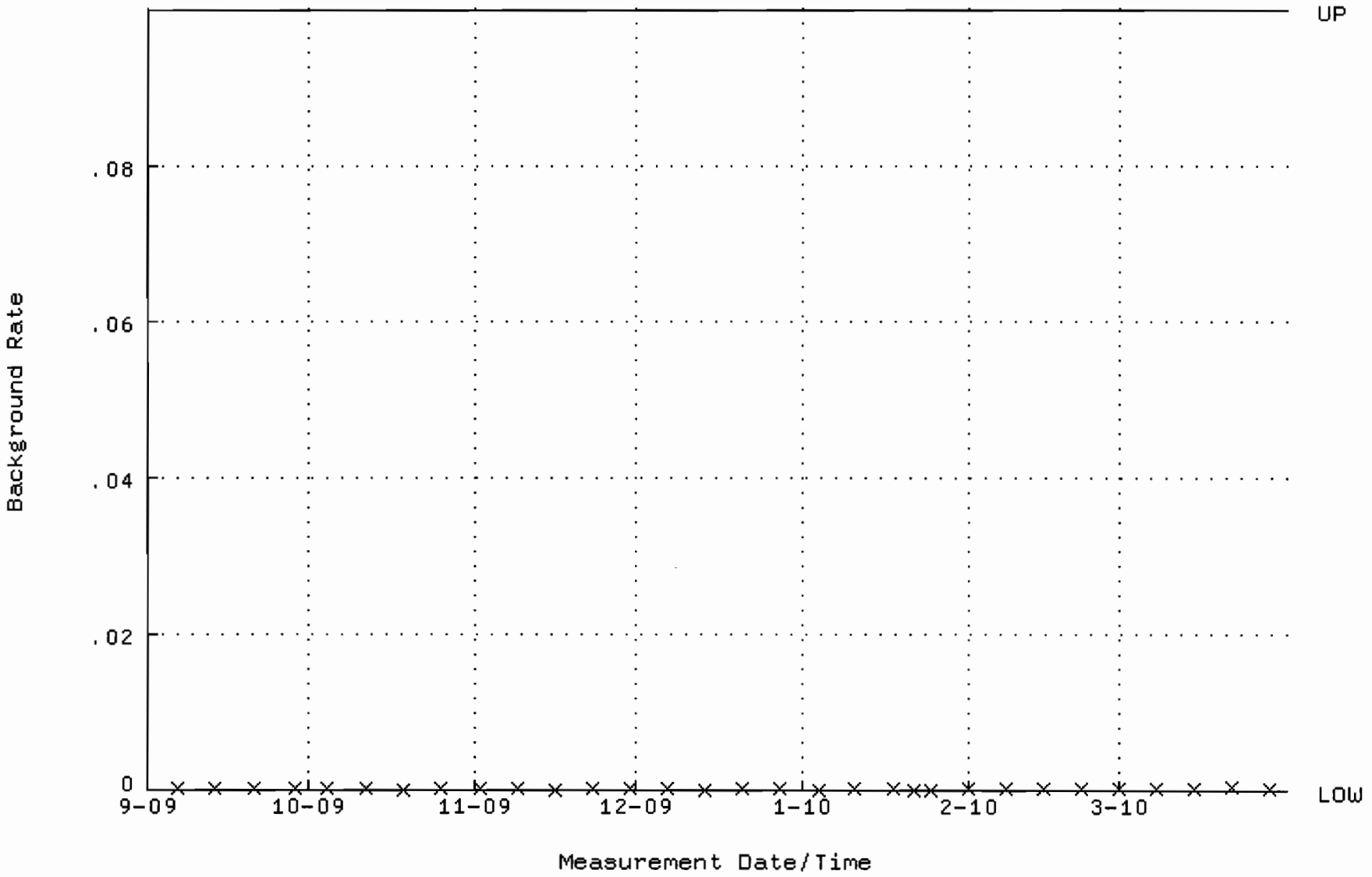

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM04_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 05:22:58 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

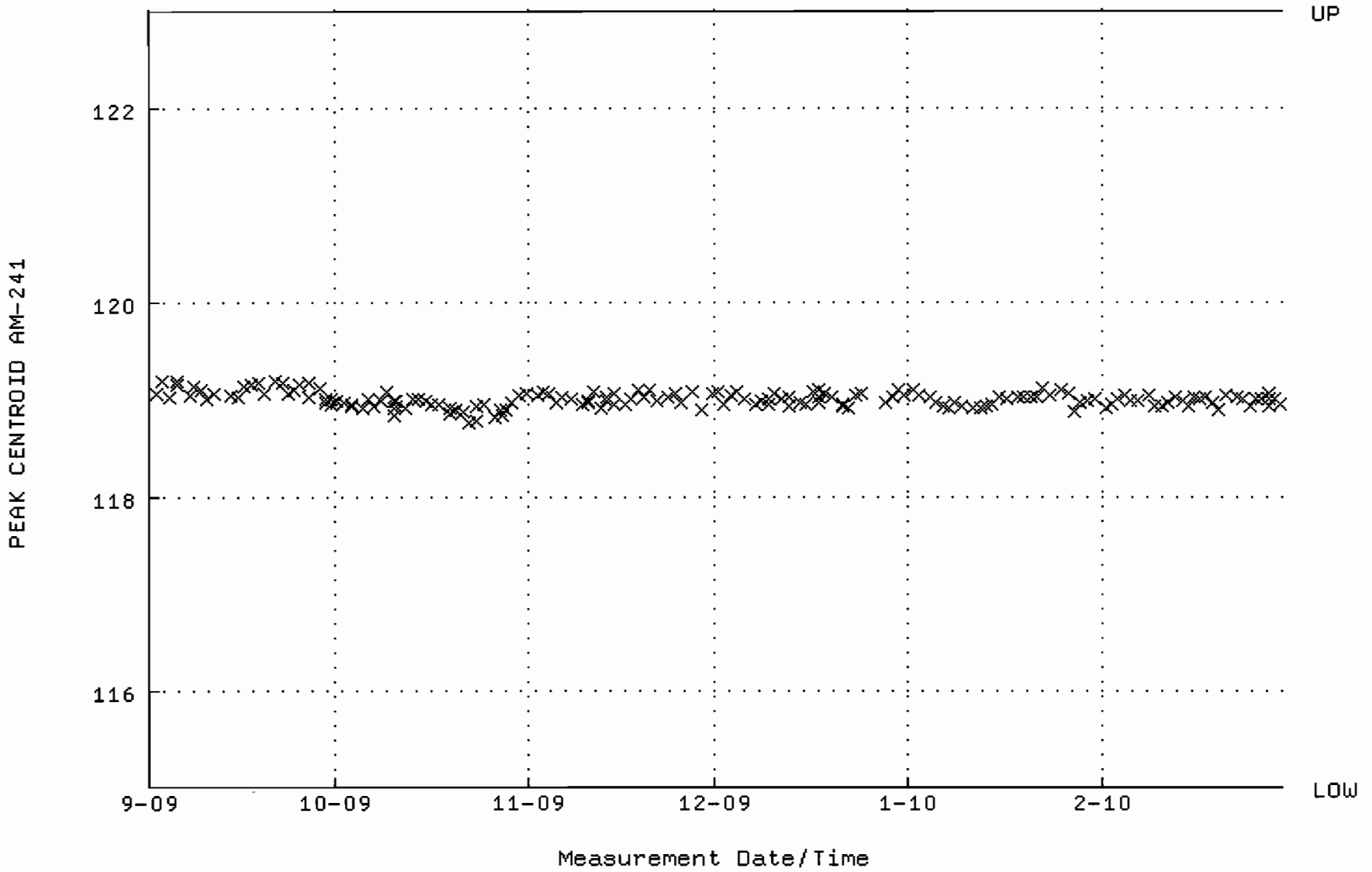

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM04.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:38:33 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.32050 +- 2.495234E-02 (1.89 %)

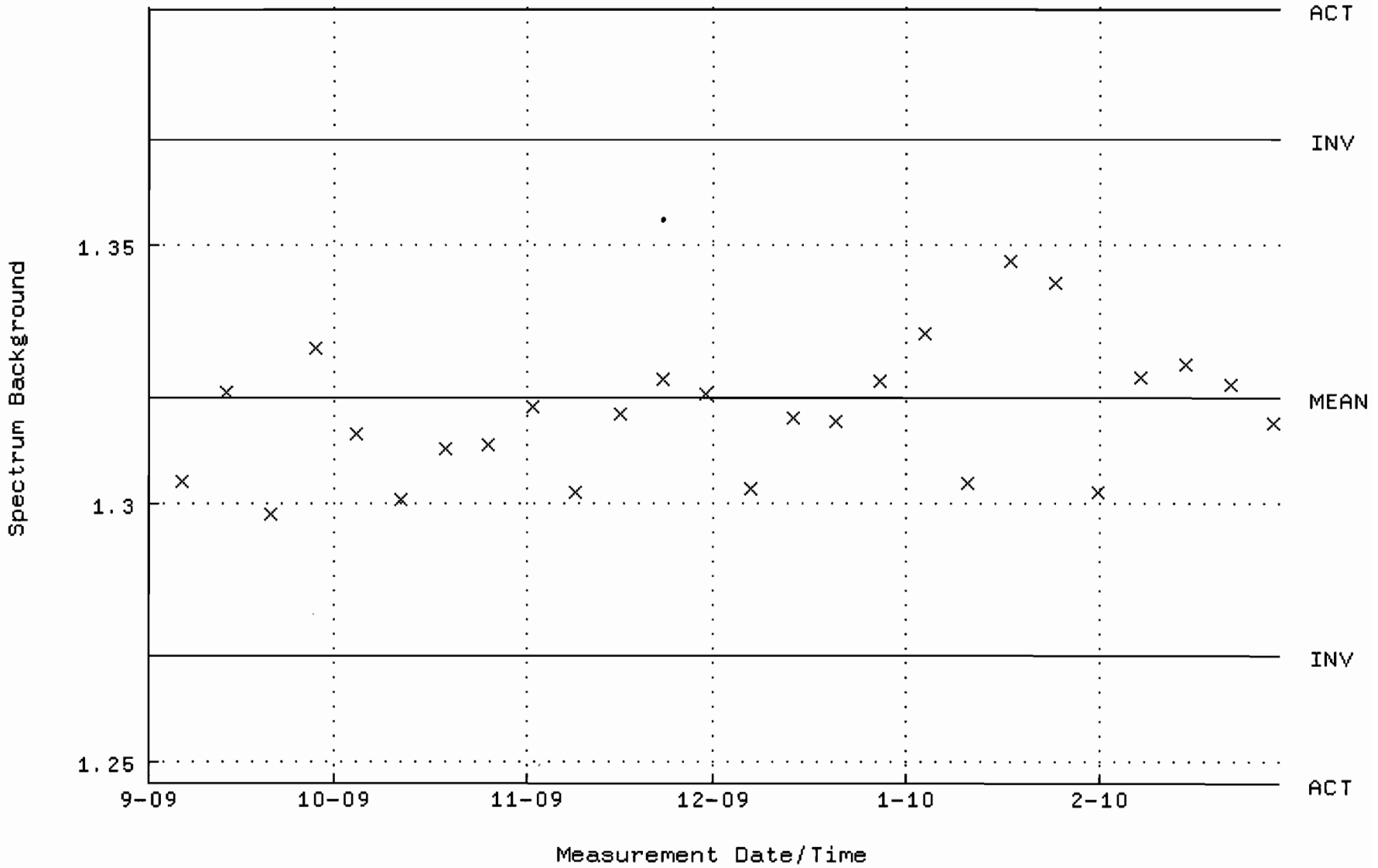

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:32:23 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

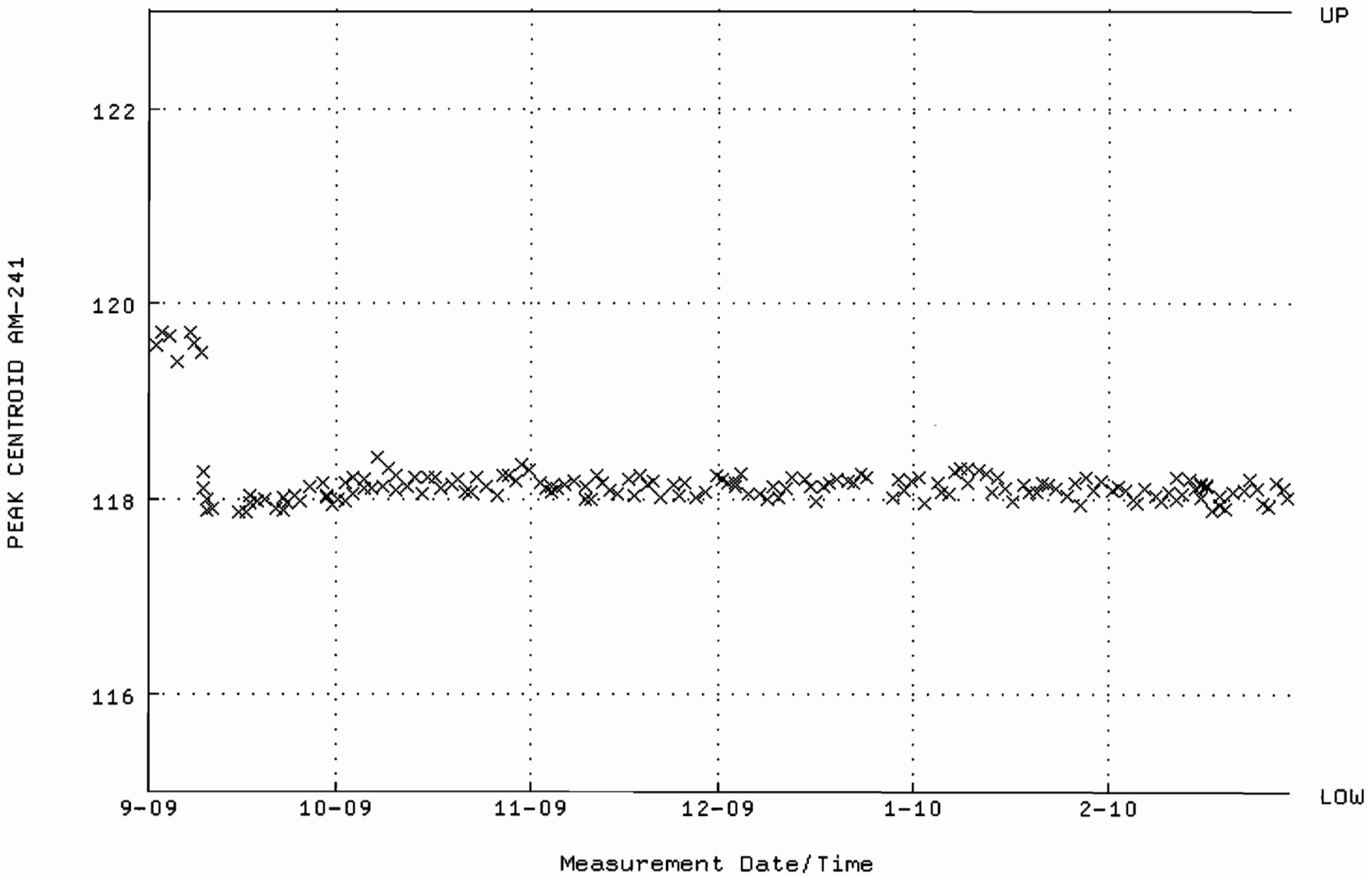

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:43:44 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)

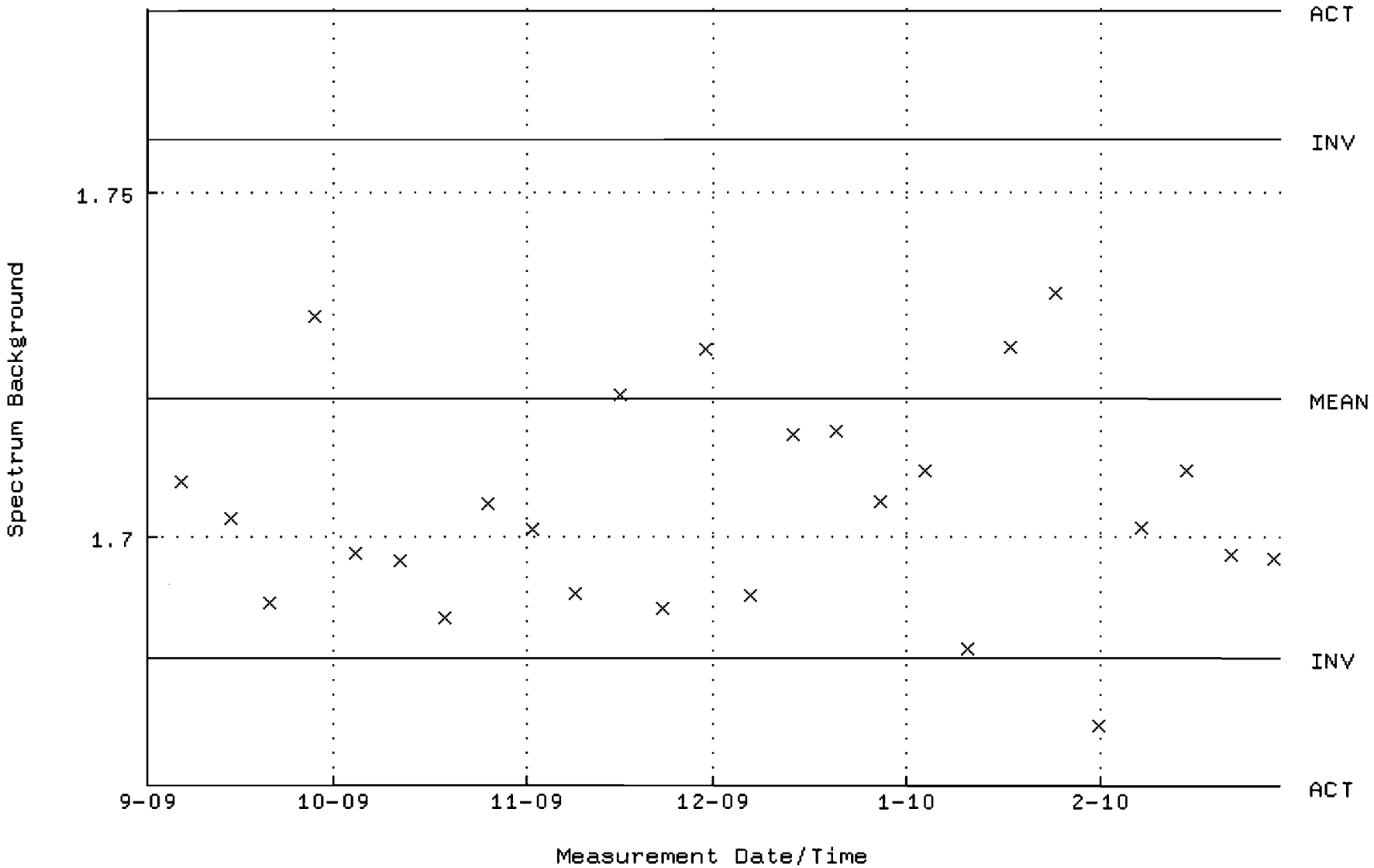

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM21_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-DEC-2009 13:07:42 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

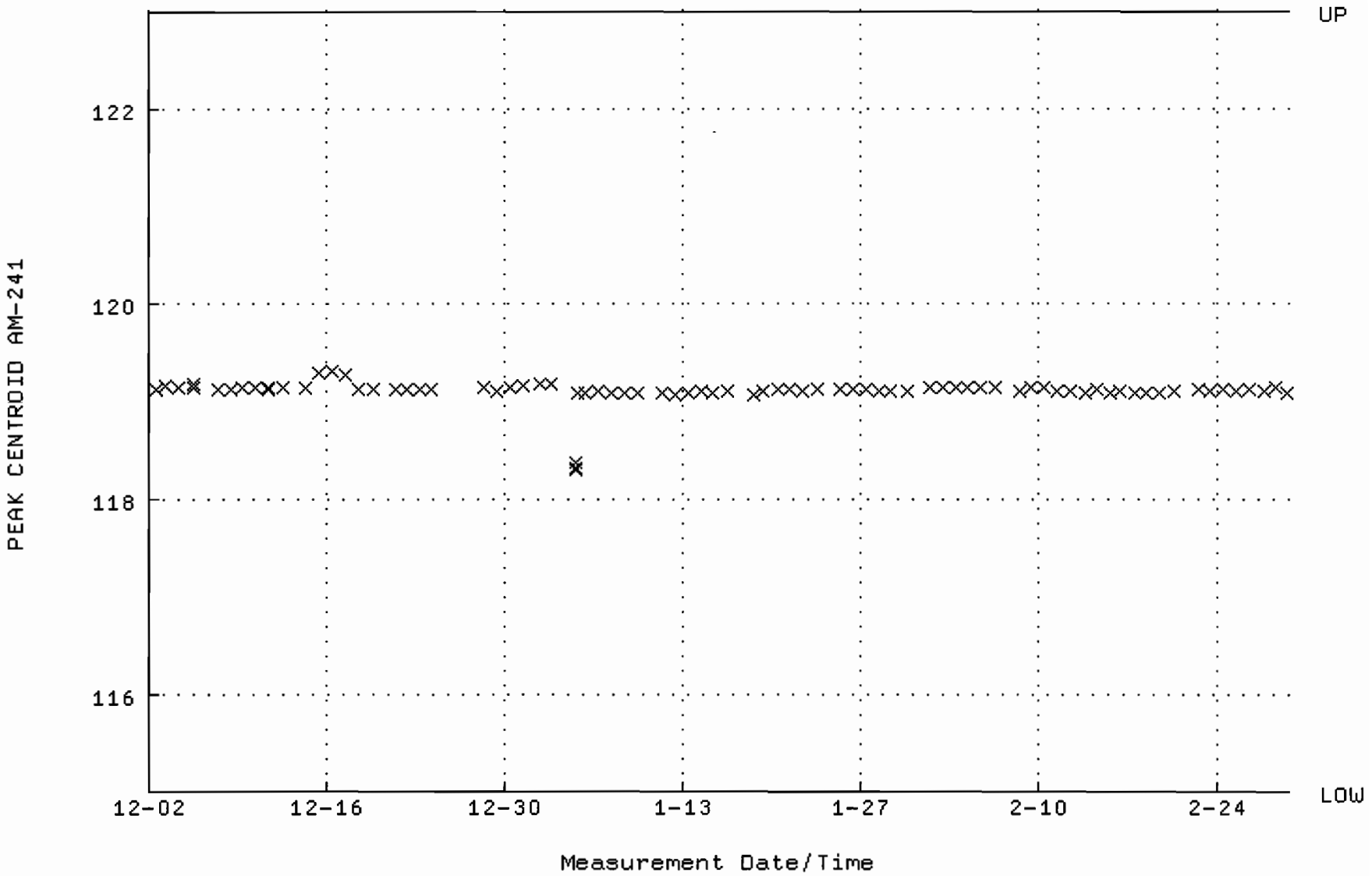

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM21.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-DEC-2009 15:25:38 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.04443 +- 1.452671E-02 (1.39 %)

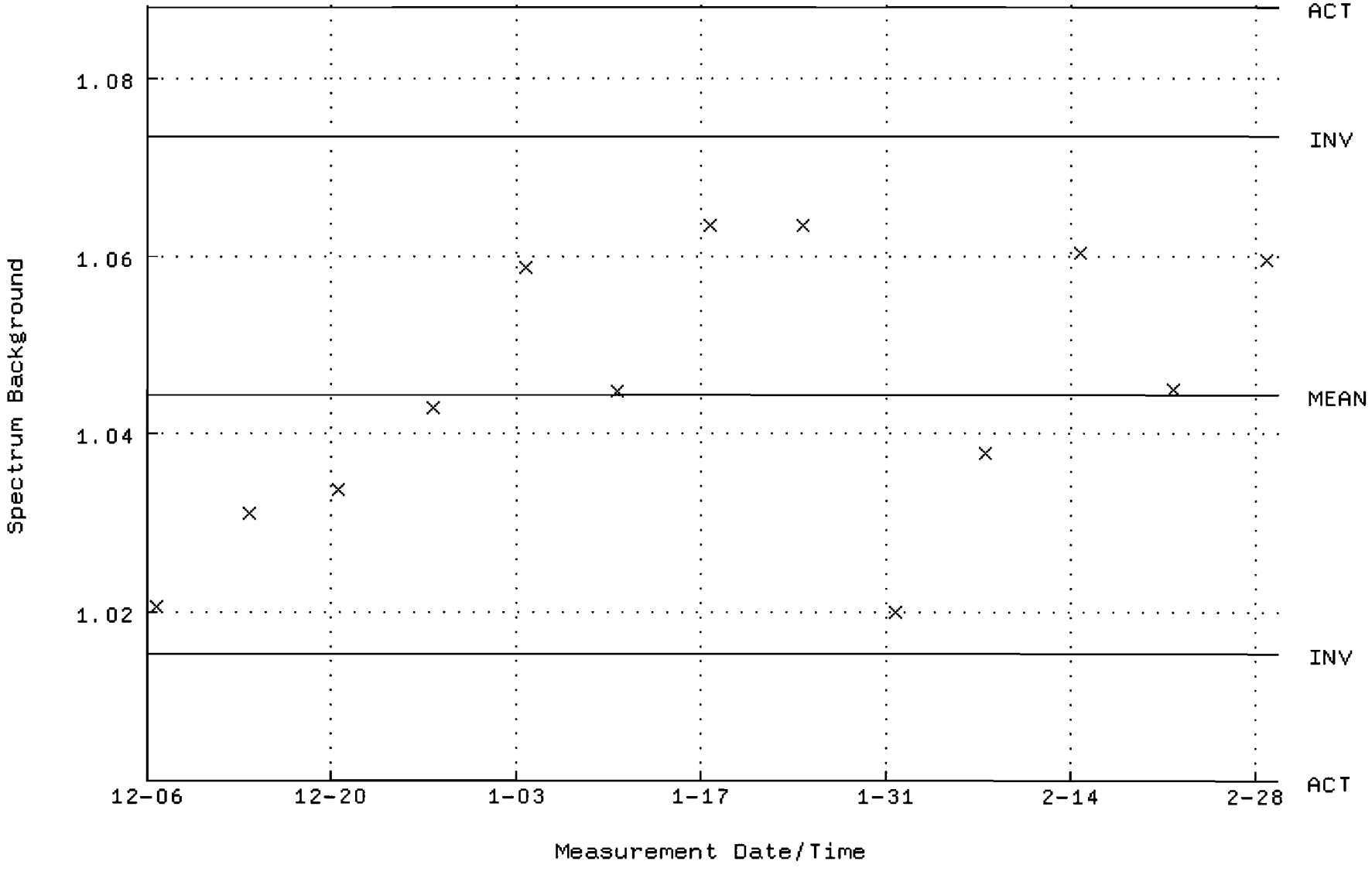

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRO-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

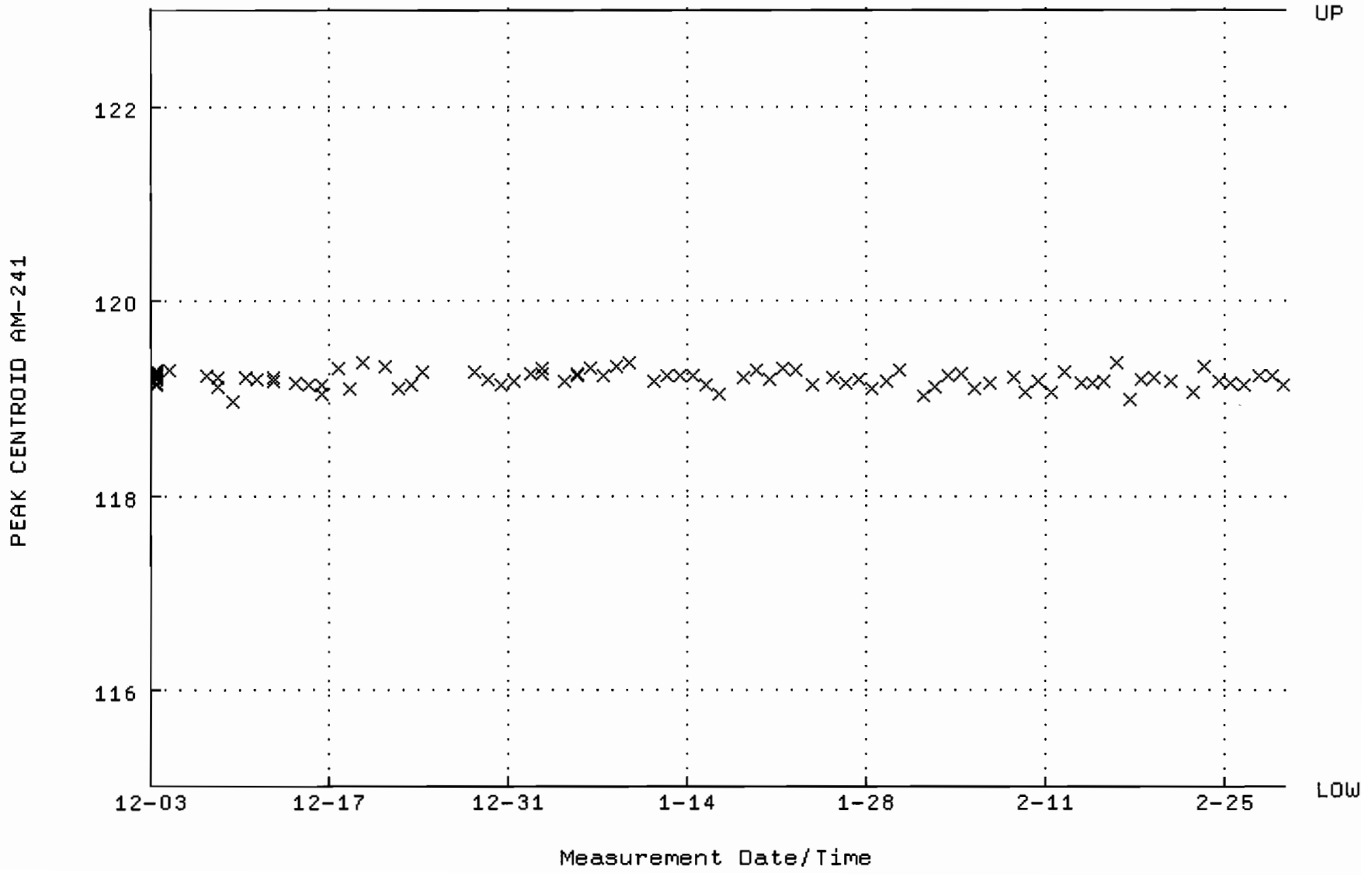

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

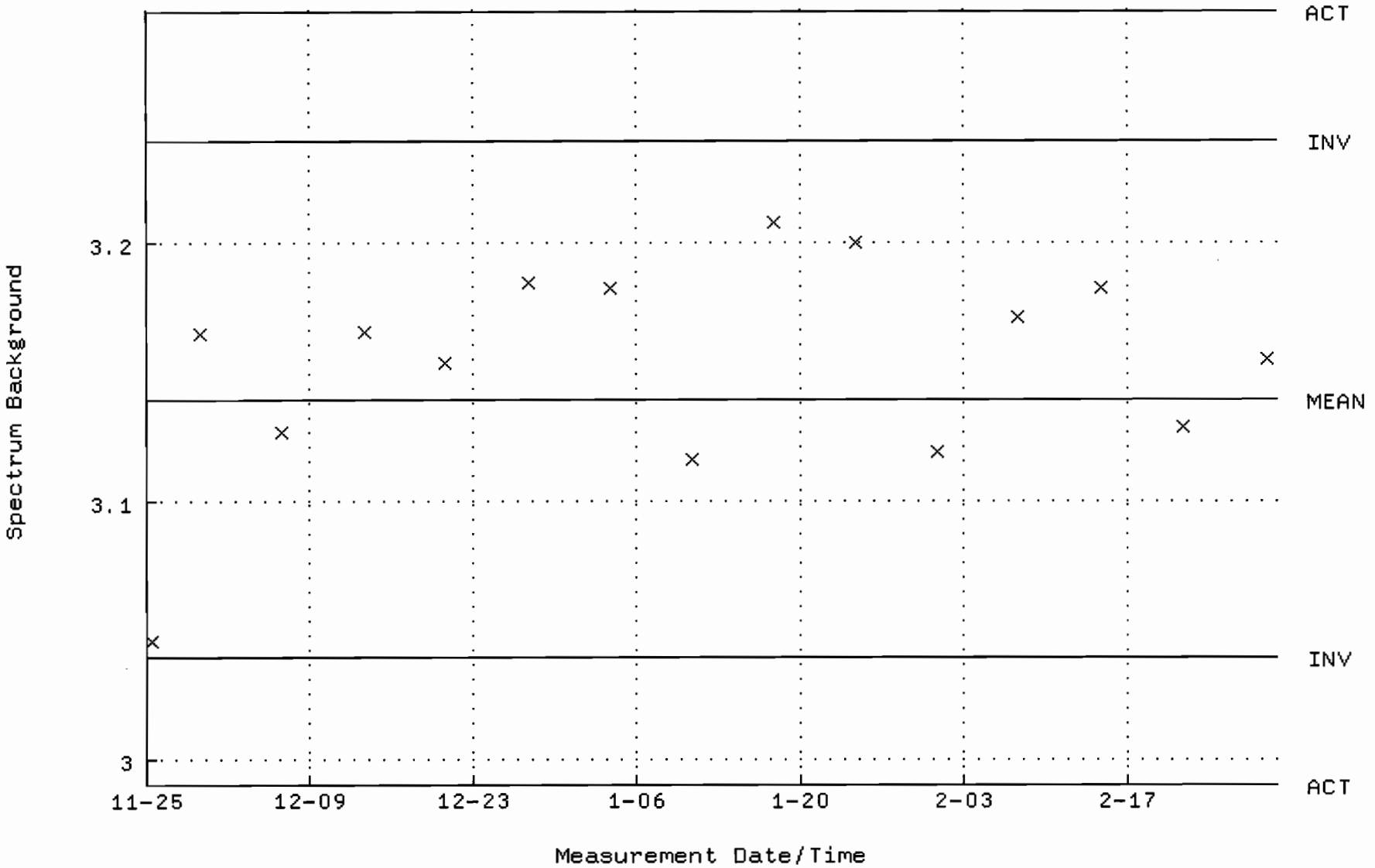

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 9-SEP-2009 16:19:12 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

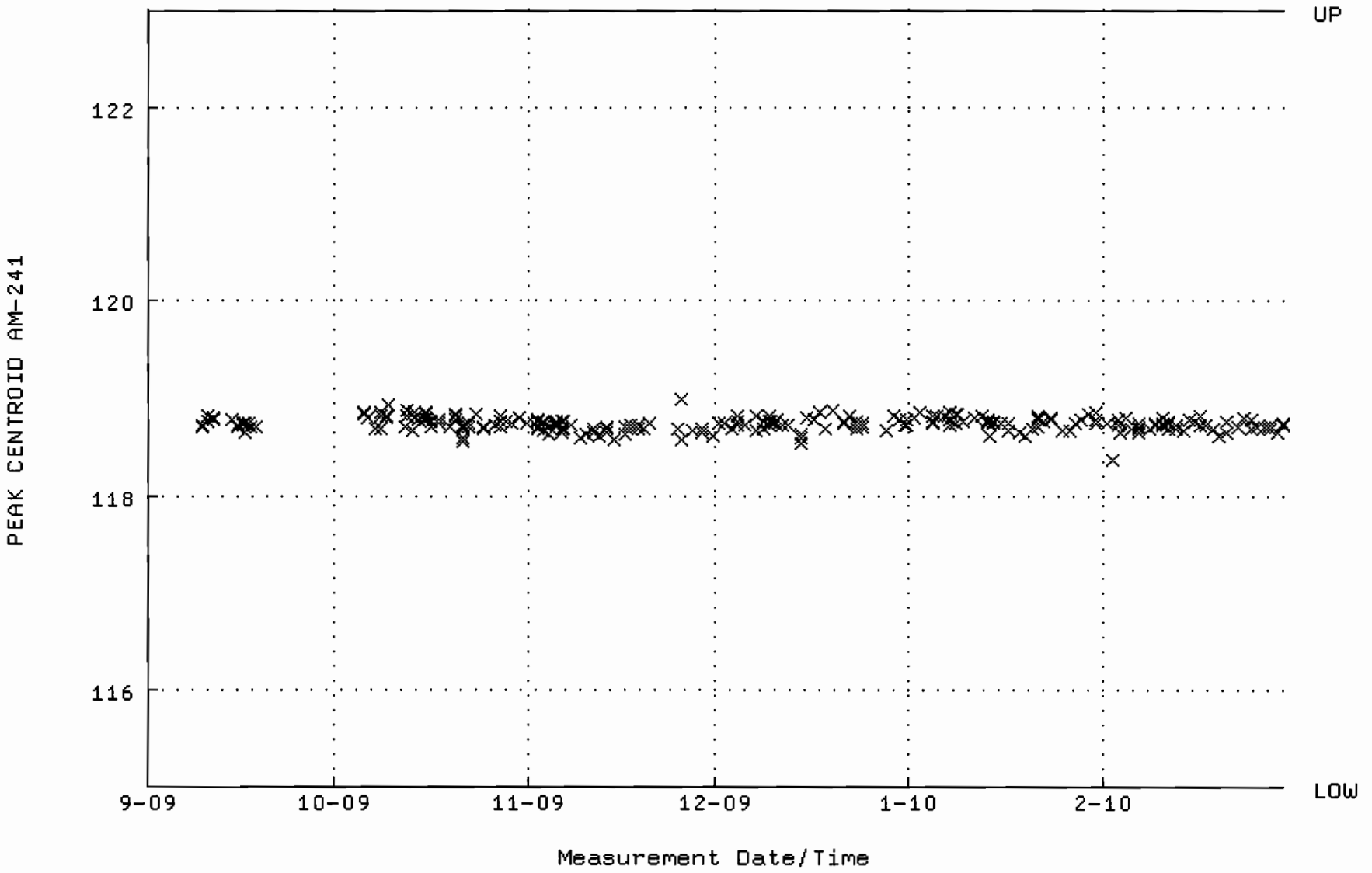

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM23.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-OCT-2009 15:13:53 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.61827 +- 0.119991 (7.41 %)

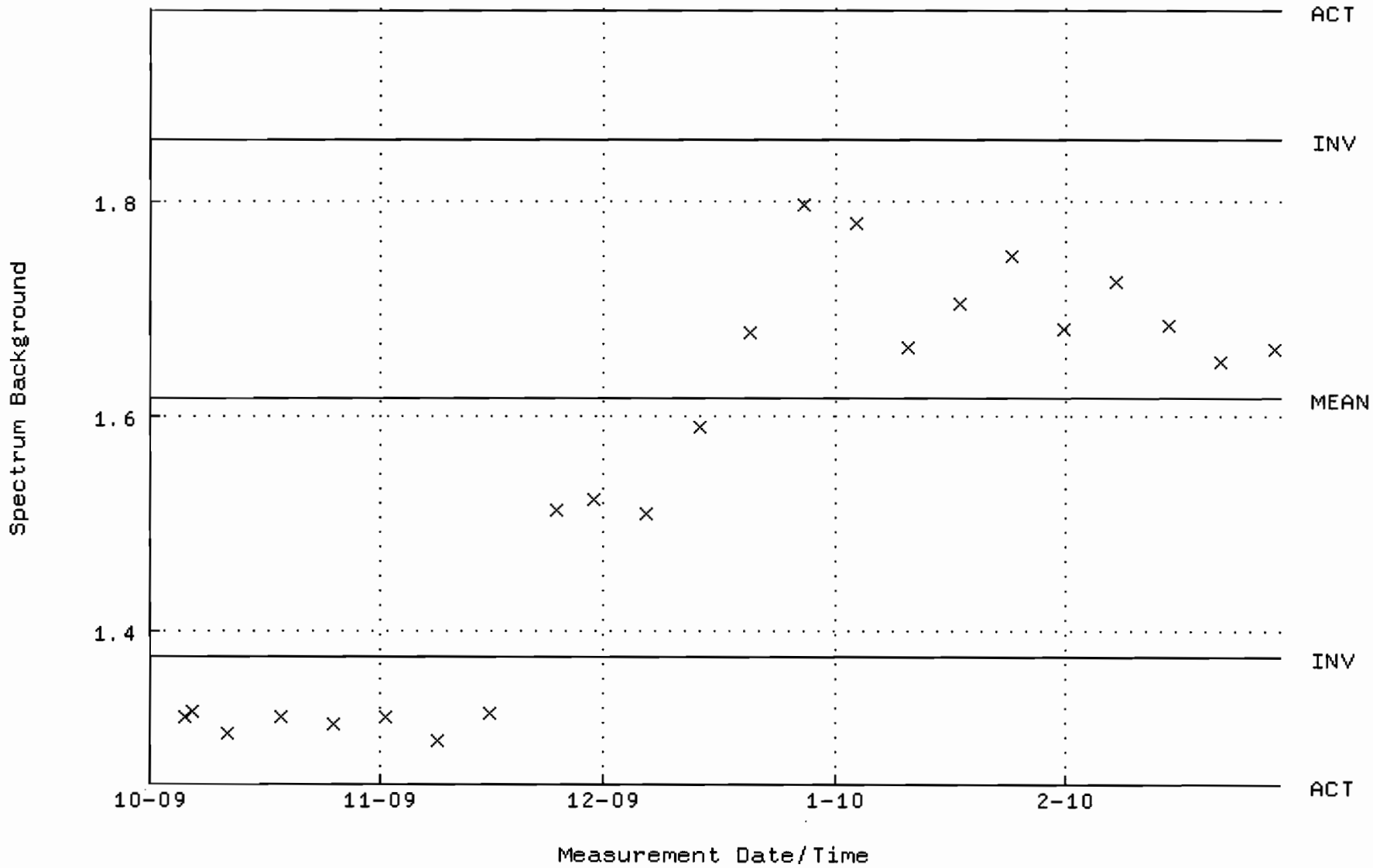

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM29_CAN.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 2-MAR-2010 08:30:43 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

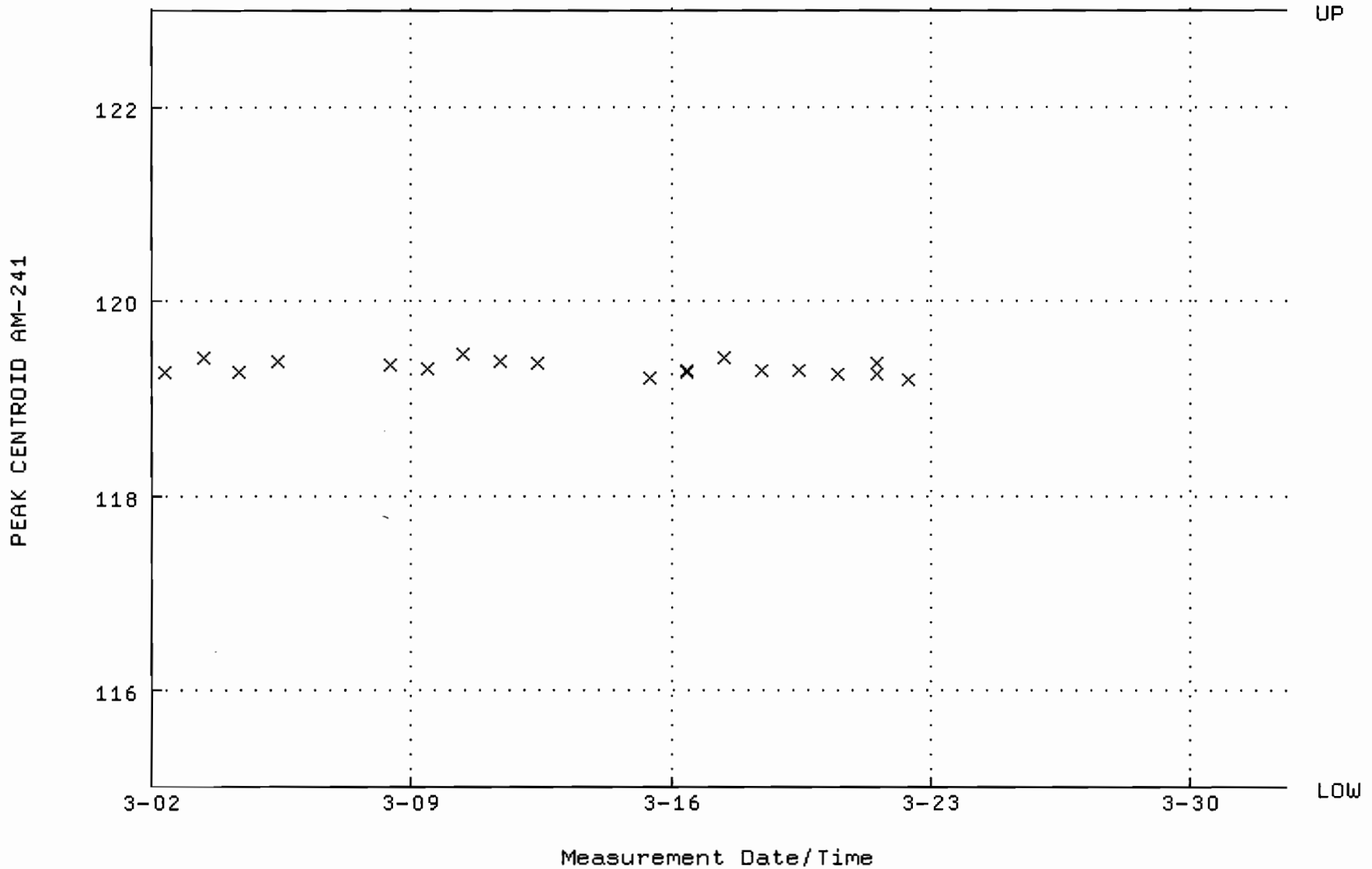

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM29.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 7-MAR-2010 16:47:12 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 1.94193 through 2.37347

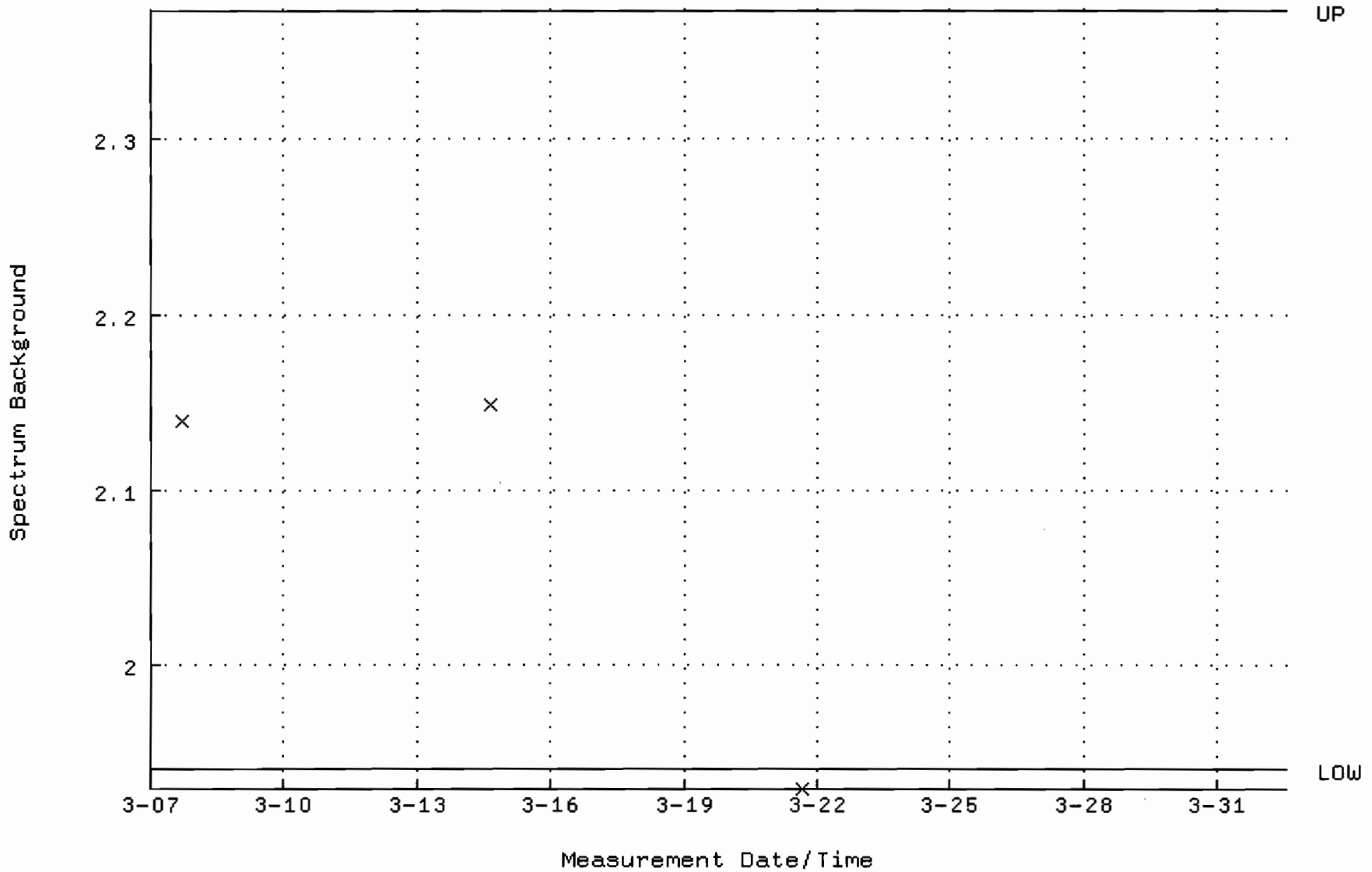

STANDARDS DATA

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATE 4/14/2005 Scott C Neill 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 bottles of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM-1	TRM-2	TRM-3	TRM-4
U-238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U-234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th-230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra-225	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb-210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped 11-16-99 SMO USE
Carrier/Waybill No. 726494
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking (LAB USE) SMO USE
Date Entered (mm/dd/yy)
Entered by
QC limits

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL on behalf of Hank Mistaer-
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
[illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept. _____
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking (LAB USE) SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized mud materials being sent to GEL on behalf of Hank Mistaer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date
QC limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. WESTON	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

0934

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 • U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

72858-278

Th-229 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Th-229
ACTIVITY (dps):	3.842 E3
HALF-LIFE:	7340 years
CALIBRATION DATE:	May 2, 2006 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	3.5%

Impurities: Th-228 5.7 dps
Th-230 24 dps
Th-232 1.5 dps

5.05657 grams 0.5M HNO_3 solution.

P O NUMBER 2724RD, Item 1

SOURCE PREPARED BY: M Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 05-02-2006

RECEIVED 5/5/06 MLK

RCS-041-110

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0934
Prepared By:	Daniel Roy
Carrier Conc:	0.05M HNO3
Reference Date:	05/02/2006
Ampoule Mass (g):	5.05657 g
Uncertainty:	+/- 3.5 %
LogBook No:	RC-S-041-110

A Solution Material Info	
Isotope:	Thorium-229
Prepared By:	Daniel Roy
Prep Date:	04/23/2008
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	0934-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8973 g
Density(g/mL):	1.0143
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8973 g) * (3842 dps) * (60 dpm/dps) / (5.05657 g * 100 mL) = 2232.5917 dpm/mL
(4.8973 g) * (3842 dps) * (60 dpm/dps) / (1.0143 g/mL)/ (5.05657 g * 100 mL) = 2201.0332 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
04/23/2008	Daniel Roy	2.5898	250	0934-B	22.8009 dpm/ml	04/23/2008	04/23/2009
09/25/2008	Daniel Roy	2.6237	250	0934-C	23.0994 dpm/ml	09/25/2008	09/25/2009
12/16/2008	Daniel Roy	2.6547	250	0934-D	23.3723 dpm/ml	12/16/2008	12/16/2009
01/09/2009	Daniel Roy	2.5399	250	0934-E	22.3616 dpm/ml	01/09/2009	01/09/2010
04/03/2009	Mary Aders	2.5434	250	0934-F	22.3924 dpm/ml	04/03/2009	04/03/2010
04/22/2009	Mary Aders	2.5138	250	0934-G	22.1318 dpm/ml	04/28/2009	04/28/2010
07/31/2009	Mary Aders	2.579	250	0934-H	22.7059 dpm/mL	07/31/2009	07/31/2010
09/16/2009	Mary Aders	2.5029	250	0934-I	22.0359 dpm/mL	09/16/2009	09/16/2010
10/21/2009	Mary Aders	2.4847	250	0934-J	21.8756 dpm/mL	10/21/2009	10/21/2010
12/02/2009	Ashley Drochter	5.0356	500	0934-K	22.167 dpm/mL	12/02/2009	12/02/2010
03/09/2010	Ashley Drochter	5.0236	500	0934-L	22.1142 dpm/mL	03/09/2010	03/09/2011

Verification for Th-229 Standard 0934-L

A.DROCHTER	Isotope	Value	Uncertainty
3/15/2010	0934-L	0.958	0.1630
	0934-L	1.020	0.2040
	0934-L	0.978	0.1550
Mean Value (Counting) =	0.985	98.95	**Pass**
Stdev =	0.031643851		**Rule 3 (Pass/Fail)**

Target =	0.996
Lower Limit =	0.92204563
Upper Limit =	1.048621036
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.063287703
10 % of Mean =	0.098533333
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard 0934-L using 0.1 mL for each source. Each standard was combined with 0.1 mL of Th-230 standard A2796-J and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Two mL of 49% HF was added to precipitate neodymium(and Thorium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Th-229 were calculated by comparison to Th-230 certified values.

3/18/10

3/18/10

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

Certificate of Calibration
Laboratory

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER. JAR-1
	Mixed Gamma N2	2510	pCi/L	- VER. JAR-3
	Mixed Gamma N3	2413	pCi/L	- VER. JAR. 5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 verification 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

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Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result		
	Mixed Gamma N1	1572	pCi/L	- VER-JAR-5
	Mixed Gamma N2	1495	pCi/L	- VER-JAR-2
	Mixed Gamma N3	1501	pCi/L	- VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**	
Stdev =	42.829	**Rule 3 (Pass/Fail)**		
Certificate Value =	1545.8378	pCi/L		
Lower Limit =	1437.008431	pCi/L		
Upper Limit =	1608.324902	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	85.65823564			
10 % of Mean =	152.26666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Khan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ 1. STANDARD WIPE TEST

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 2. SOAK TEST

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 3. SOAK TEST -- BERYLLIUM WINDOW

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 4. GAS SOURCE TEST (Radioactive Gas)

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ 5. OTHER LEAK TEST

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 6. LEAK TEST NOT APPLICABLE

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	03/09/2010
Expiration Date:	03/09/2011
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Tara Sides	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/14/2009	09/14/2010
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/09/2010	Ashley Drochter	.011	1000	445-96-2-VV	22.7878 dpm/mL	03/09/2010	03/09/2011
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
03/23/2010	Ashley Drochter	.0163	1000	445-96-2-WW	33.7674 dpm/mL	03/23/2010	03/23/2011
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-VV*

A.Drochter	Isotope	Value	Uncertainty
3/15/2010	445-96-2-VV #1	1.040	0.1630
	445-96-2-VV #2	0.964	0.1480
	445-96-2-VV #3	0.970	0.1550
Mean Value (Counting) =	0.991	96.72	**Pass**
Stdev =	0.042253205		**Rule 3 (Pass/Fail)**
Target =	1.025		
Lower Limit =	0.906826923		
Upper Limit =	1.075839743		
Rule 1 Pass/Fail	**Pass**		
Two sigma =	0.08450641		
10 % of Mean =	0.099133333		
Rule 2 (Pass/Fail)	**Pass**		

The analyst prepared three standard verification sources for standard ***445-96-2-VV*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

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Rule 3 = The determined mean value shall be within 5% of the certificate value.

3/15/10

3/16/10

1430

NATIONAL PHYSICAL LABORATORY

Teddington Middlesex UK TW11 0LW Telephone +44 20 8977 3222

Certificate of Calibration

UKAS CALIBRATION 0478

PLUTONIUM-236 SOLUTION
R37-02

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

FOR:	GEL Laboratories LLC 2040 Savage Road Charleston, SC 29407 USA
FOR THE ATTENTION OF:	Mr Tim Winters
NPL PRODUCT CODE:	R37-02
IDENTIFICATION:	A09881
DESCRIPTION:	An aqueous solution of ^{236}Pu also containing 2 mol dm^{-3} of nitric acid. The solution is contained in a flame sealed ampoule of type Q and nominal volume 5 ml (squat) as defined in BS 795:1983.
DATE(S) OF CALIBRATION:	26 June 2009 to 1 July 2009
INTENDED USE:	Calibration of instruments for response to ^{236}Pu
STORAGE:	The material may be stored at room temperature in a suitably sealed container. Flame-sealed glass ampoules are recommended for long-term storage. Regulatory conditions may apply to the manner in which this material is stored.

RECEIVED 11 JUL 2009 AWS.

MEASUREMENTS

The samples were prepared by gravimetric dilution of a ^{236}Pu solution, which had been previously standardised using liquid scintillation counting. The accuracy of the dilution factor was checked using liquid scintillation counting.

Reference: 2009100356

Date of Issue: 4 November 2009

Checked by:

Signed:

Name: Dr Arvic Harms

(Authorised Signatory)

for Managing Director

RESULTS

Principal radionuclide:	^{236}Pu
Reference time:	2009-07-01 12:00 UTC
Activity concentration of principal radionuclide:	170.8 Bq g^{-1}
Expanded uncertainty:	±0.6 Bq g^{-1} (±0.36 %)
Contaminants present:	^{226}Ra, ^{232}U, ^{228}Th, ^{237}Np
Activity concentration of ^{226}Ra:	11.0 mBq g^{-1}
Expanded uncertainty:	±4.0 mBq g^{-1} (±36 %)
Activity concentration of ^{232}U:	0.67 Bq g^{-1}
Expanded uncertainty:	±0.12 Bq g^{-1} (±18 %)
Activity concentration of ^{228}Th:	11.38 mBq g^{-1}
Expanded uncertainty:	±0.46 mBq g^{-1} (±4 %)
Activity concentration of ^{237}Np:	5.00 mBq g^{-1}
Expanded uncertainty:	±0.34 mBq g^{-1} (±8 %)
Sample Mass:	4.97 g ± 0.02 g

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

NOTES

[1]. The reported reference time is stated consistent with the format given in ISO 8601:2004. UTC is the abbreviation for Universal Time, Coordinated. The date is stated in the format YYYY-MM-DD such that 2008-09-01 represents 1 September 2008.

[2]. The recommended half life of ^{236}Pu is 1044 (6) days and is taken from the evaluations published in *Nuclear Data Sheets*.

[3]. The recommended half life of ^{226}Ra is 5.844 (50) × 10^5 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[4]. The recommended half life of ^{232}U is 25800 (800) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[5]. The recommended half life of ^{237}Np is 7.83 (6) × 10^8 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[6]. The recommended half life of ^{228}Th is 698.60 (46) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1430
Prepared By:	Ashley Drochter
Carrier Conc:	2 M HNO3
Reference Date:	07/01/2009
Ampoule Mass (g):	4.97 g
Uncertainty:	+/- .36 %
LogBook No:	RC-S-051-149

A Solution Material Info	
Isotope:	Plutonium-236
Prepared By:	Ashley Drochter
Prep Date:	01/27/2010
Verification Date:	01/27/2010
Expiration Date:	01/27/2011
Primary Code:	1430-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8051 g
Density(g/mL):	1.0610
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (100 mL) = 492.4266 dpm/mL
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (1.0610 g/mL) / (100 mL) = 464.1156 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/27/2010	Bethany Fiem	33.0429	200	1430-B	76.6786262 dpm/mL	01/27/2010	01/27/2011
03/04/2010	Ashley Drochter	15.2331	200	1430-C	35.3496 dpm/mL	03/04/2010	03/04/2011
03/17/2010	Ashley Drochter	15.0683	200	1430-D	34.9672 dpm/mL	03/17/2010	03/17/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-236 Standard 1430-C

	Isotope	Value	Uncertainty
A. Drochter	1430-C	2.760	0.4480
3/4/2010	1430-C	2.770	0.4520
	1430-C	2.950	0.4850

Mean Value (Counting) =	2.827	104.54659	% of Known Value
Stdev =	0.106926766		
Target =	2.70		
Lower Limit =	2.612813134		
Upper Limit =	3.040520199		
Rule 1 Pass/Fail	Pass	Pass	Pass
Two sigma =	0.213853532		
10 % of Mean =	0.282666667		
Rule 2 (Pass/Fail)	Pass		

The analyst prepared three standard verification sources for standard 1430-B using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. After approximately ten minutes, two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-236 were calculated by comparison to Pu-239 certified values.

3/5/10

3/5/10

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-05

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 962633**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248860001	SAMPLE	MXR1	GAM15	24-MAR-10 16:15	DONE CAN		03-FEB-10 00:00
248860002	SAMPLE	MXR1	GAM18	24-MAR-10 16:15	DONE CAN		23-APR-09 00:00
248860003	SAMPLE	MXR1	GAM22	24-MAR-10 16:15	DONE CAN		02-DEC-09 00:00
248860004	SAMPLE	MXR1	GAM23	24-MAR-10 16:16	DONE CAN		02-JUN-09 00:00
248860005	SAMPLE	MXR1	GAM25	24-MAR-10 16:16	DONE CAN		07-OCT-09 00:00
248860006	SAMPLE	MXR1	GAM02	24-MAR-10 16:27	DONE CAN		29-OCT-09 00:00
248860007	SAMPLE	MXR1	GAM05	24-MAR-10 16:27	DONE CAN		11-JUN-09 00:00
248860008	SAMPLE	MXR1	GAM10	24-MAR-10 16:28	DONE CAN		13-MAR-10 00:00
248860009	SAMPLE	MXR1	GAM12	24-MAR-10 16:28	DONE CAN		25-FEB-10 00:00
248863001	SAMPLE	MXR1	GAM15	24-MAR-10 18:28	DONE CAN		03-FEB-10 00:00
248863002	SAMPLE	MXR1	GAM22	24-MAR-10 18:28	DONE CAN		02-DEC-09 00:00
248863003	SAMPLE	MXR1	GAM23	24-MAR-10 18:29	DONE CAN		02-JUN-09 00:00
248863004	SAMPLE	MXR1	GAM04	24-MAR-10 20:31	DONE CAN		05-MAY-09 00:00
248865001	SAMPLE	MXR1	GAM07	24-MAR-10 20:31	DONE CAN		20-JUL-09 00:00
248866001	SAMPLE	MXR1	GAM15	24-MAR-10 20:32	DONE CAN		03-FEB-10 00:00
248866002	SAMPLE	MXR1	GAM17	24-MAR-10 20:32	DONE CAN		06-JAN-10 00:00
248867001	SAMPLE	MXR1	GAM29	24-MAR-10 20:33	DONE CAN		23-FEB-10 00:00
248867002	SAMPLE	MXR1	GAM22	24-MAR-10 20:37	DONE CAN		02-DEC-09 00:00
248867003	SAMPLE	MXR1	GAM05	24-MAR-10 20:51	DONE CAN		11-JUN-09 00:00
248867004	SAMPLE	MXR1	GAM15	24-MAR-10 22:58	DONE CAN		03-FEB-10 00:00
1202065188	MB	MXR1	GAM29	24-MAR-10 22:59	DONE CAN		23-FEB-10 00:00
1202065189	DUP	MXR1	GAM21	24-MAR-10 23:00	DONE CAN		28-JUL-09 00:00
1202065190	LCS	MXR1	GAM22	25-MAR-10 09:16	DONE CAN		02-DEC-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 962716**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202065373	LCS	MXE1	1234	23-MAR-10 09:05	DONE		
248866001	SAMPLE	MXE1	1235	23-MAR-10 13:34	DONE		
248866002	SAMPLE	MXE1	1236	23-MAR-10 13:34	DONE		
1202065371	MB	MXE1	1237	23-MAR-10 13:34	DONE		
1202065372	DUP	MXE1	1238	23-MAR-10 13:35	DONE		
248863002	SAMPLE	MXE1	1239	23-MAR-10 13:35	DONE		
248863003	SAMPLE	MXE1	1240	23-MAR-10 13:35	DONE		
248863004	SAMPLE	MXE1	1241	23-MAR-10 13:35	DONE		
248865001	SAMPLE	MXE1	1242	23-MAR-10 13:35	DONE		
248800001	SAMPLE	MXE1	1228	23-MAR-10 21:41	DONE		
248800002	SAMPLE	MXE1	1229	23-MAR-10 21:41	DONE		
248800003	SAMPLE	MXE1	1230	23-MAR-10 21:41	DONE		
248800004	SAMPLE	MXE1	1231	23-MAR-10 21:41	DONE		
248800005	SAMPLE	MXE1	1232	23-MAR-10 21:41	DONE		
248800006	SAMPLE	MXE1	1233	23-MAR-10 21:41	DONE		
248800007	SAMPLE	MXE1	1234	23-MAR-10 21:41	DONE		
248800008	SAMPLE	MXE1	1209	24-MAR-10 08:04	DONE		
248800009	SAMPLE	MXE1	1210	24-MAR-10 08:04	DONE		
248800010	SAMPLE	MXE1	1211	24-MAR-10 08:04	DONE		
248800011	SAMPLE	MXE1	1216	24-MAR-10 08:04	DONE		
248800012	SAMPLE	MXE1	1217	24-MAR-10 08:04	DONE		
248863001	SAMPLE	MXE1	1218	24-MAR-10 08:04	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 962718**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202065378	MB	MXE1	1096	24-MAR-10 10:20	DONE		
1202065379	DUP	MXE1	1097	24-MAR-10 10:20	DONE		
1202065380	LCS	MXE1	1098	24-MAR-10 10:20	DONE		
248863003	SAMPLE	MXE1	1107	24-MAR-10 11:26	DONE		
248863004	SAMPLE	MXE1	1108	24-MAR-10 11:26	DONE		
248865001	SAMPLE	MXE1	1109	24-MAR-10 11:26	DONE		
248866001	SAMPLE	MXE1	1111	24-MAR-10 11:26	DONE		
248866002	SAMPLE	MXE1	1112	24-MAR-10 11:26	DONE		
248800001	SAMPLE	MXE1	1013	24-MAR-10 16:31	DONE		
248800002	SAMPLE	MXE1	1014	24-MAR-10 16:31	DONE		
248800003	SAMPLE	MXE1	1016	24-MAR-10 16:31	DONE		
248800004	SAMPLE	MXE1	1017	24-MAR-10 16:31	DONE		
248800005	SAMPLE	MXE1	1018	24-MAR-10 16:31	DONE		
248800006	SAMPLE	MXE1	1019	24-MAR-10 16:31	DONE		
248800007	SAMPLE	MXE1	1020	24-MAR-10 16:31	DONE		
248800008	SAMPLE	MXE1	1022	24-MAR-10 16:31	DONE		
248800009	SAMPLE	MXE1	1023	24-MAR-10 16:31	DONE		
248800010	SAMPLE	MXE1	1024	24-MAR-10 16:31	DONE		
248800011	SAMPLE	MXE1	1101	24-MAR-10 16:31	DONE		
248800012	SAMPLE	MXE1	1102	24-MAR-10 16:31	DONE		
248863001	SAMPLE	MXE1	1103	24-MAR-10 16:31	DONE		
248863002	SAMPLE	MXE1	1105	24-MAR-10 16:31	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 962721**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248800001	SAMPLE	MXE1	1115	24-MAR-10 11:54	DONE		
248800002	SAMPLE	MXE1	1116	24-MAR-10 11:54	DONE		
248800003	SAMPLE	MXE1	1145	24-MAR-10 11:55	DONE		
248800004	SAMPLE	MXE1	1146	24-MAR-10 11:55	DONE		
248800005	SAMPLE	MXE1	1147	24-MAR-10 11:55	DONE		
248800006	SAMPLE	MXE1	1148	24-MAR-10 11:55	DONE		
248800007	SAMPLE	MXE1	1149	24-MAR-10 11:55	DONE		
248800008	SAMPLE	MXE1	1150	24-MAR-10 11:55	DONE		
248866002	SAMPLE	MXE1	1003	24-MAR-10 11:55	DONE		
1202065398	MB	MXE1	1004	24-MAR-10 11:55	DONE		
1202065399	DUP	MXE1	1005	24-MAR-10 11:55	DONE		
1202065400	LCS	MXE1	1006	24-MAR-10 11:55	DONE		
248800009	SAMPLE	MXE1	1151	24-MAR-10 11:55	DONE		
248800010	SAMPLE	MXE1	1152	24-MAR-10 11:55	DONE		
248800011	SAMPLE	MXE1	1153	24-MAR-10 11:55	DONE		
248800012	SAMPLE	MXE1	1154	24-MAR-10 11:55	DONE		
248863001	SAMPLE	MXE1	1155	24-MAR-10 11:55	DONE		
248863002	SAMPLE	MXE1	1156	24-MAR-10 11:55	DONE		
248863003	SAMPLE	MXE1	1157	24-MAR-10 11:55	DONE		
248863004	SAMPLE	MXE1	1158	24-MAR-10 11:55	DONE		
248865001	SAMPLE	MXE1	1159	24-MAR-10 11:55	DONE		
248866001	SAMPLE	MXE1	1160	24-MAR-10 11:55	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965814**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248824001	SAMPLE	AYB1	1173	27-MAR-10 13:52	DUSE		
248824002	SAMPLE	AYB1	1174	27-MAR-10 13:52	DUSE		
248863001	SAMPLE	AYB1	1177	27-MAR-10 13:52	DUSE		
248863002	SAMPLE	AYB1	1178	27-MAR-10 13:52	DUSE		
248863003	SAMPLE	AYB1	1179	27-MAR-10 13:52	DUSE		
248863004	SAMPLE	AYB1	1180	27-MAR-10 13:52	DUSE		
248865001	SAMPLE	AYB1	1181	27-MAR-10 13:52	DUSE		
248867001	SAMPLE	AYB1	1182	27-MAR-10 13:52	DUSE		
248867002	SAMPLE	AYB1	1183	27-MAR-10 13:52	DUSE		
248867003	SAMPLE	AYB1	1184	27-MAR-10 13:52	DUSE		
248867004	SAMPLE	AYB1	1185	27-MAR-10 13:52	DUSE		
249179001	SAMPLE	AYB1	1186	27-MAR-10 13:52	DUSE		
249179002	SAMPLE	AYB1	1187	27-MAR-10 13:53	DUSE		
249179003	SAMPLE	AYB1	1188	27-MAR-10 13:53	DUSE		
249179004	SAMPLE	AYB1	1189	27-MAR-10 13:53	DUSE		
249179005	SAMPLE	AYB1	1190	27-MAR-10 13:53	DUSE		
249179006	SAMPLE	AYB1	1191	27-MAR-10 13:53	DUSE		
249179007	SAMPLE	AYB1	1192	27-MAR-10 13:53	DUSE		
1202072528	MB	AYB1	1193	27-MAR-10 13:53	DUSE		
1202072529	DUP	AYB1	1194	27-MAR-10 13:53	DUSE		
1202072530	LCS	AYB1	1195	27-MAR-10 13:53	DUSE		
248824001	SAMPLE	AYB1	1173	29-MAR-10 17:05	DONE		
248824002	SAMPLE	AYB1	1174	29-MAR-10 17:05	DONE		
248863001	SAMPLE	AYB1	1177	29-MAR-10 17:05	DONE		
248863002	SAMPLE	AYB1	1178	29-MAR-10 17:05	DONE		
248863003	SAMPLE	AYB1	1179	29-MAR-10 17:05	DONE		
248863004	SAMPLE	AYB1	1180	29-MAR-10 17:05	DONE		
248865001	SAMPLE	AYB1	1181	29-MAR-10 17:05	DONE		
248867001	SAMPLE	AYB1	1182	29-MAR-10 17:05	DONE		
248867002	SAMPLE	AYB1	1183	29-MAR-10 17:05	DONE		
248867003	SAMPLE	AYB1	1184	29-MAR-10 17:05	DONE		
248867004	SAMPLE	AYB1	1185	29-MAR-10 17:05	DONE		
249179001	SAMPLE	AYB1	1186	29-MAR-10 17:05	DONE		
249179002	SAMPLE	AYB1	1187	29-MAR-10 17:05	DONE		
249179003	SAMPLE	AYB1	1188	29-MAR-10 17:05	DONE		
249179004	SAMPLE	AYB1	1189	29-MAR-10 17:05	DONE		
249179005	SAMPLE	AYB1	1190	29-MAR-10 17:06	DONE		
249179006	SAMPLE	AYB1	1191	29-MAR-10 17:06	DONE		
249179007	SAMPLE	AYB1	1192	29-MAR-10 17:06	DONE		
1202072528	MB	AYB1	1193	29-MAR-10 17:06	DONE		
1202072529	DUP	AYB1	1194	29-MAR-10 17:06	DONE		
1202072530	LCS	AYB1	1195	29-MAR-10 17:06	DONE		

Friday, March 05, 2010

REQUEST NUMBER: 10-2314

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number:10-2314
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/5/2010
TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015 M_EXTRACTABLE	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	

Friday, March 05, 2010 REQUEST NUMBER: 10-2314

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015 M_EXTRACTABLE	1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	SW-846:8081A	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	SW-846:8082	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	SW-846:8260B	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	

Friday, March 05, 2010

REQUEST NUMBER: 10-2314

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
		1	RE46-10-13784	S	3/4/2010	
		2	RE46-10-13784	S	3/4/2010	
	SW-846:8270C	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	

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Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2314C

REQUEST NUMBER: 10-2314

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13784	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13784	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13782	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13782	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13782	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13783	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13783	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13783	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13777	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13777	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13777	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13775	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13775	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13775	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13776	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13776	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13776	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13781	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13781	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13781	1	AMBER GLASS	8270C+TPH-DRO	Ice	S

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2314C

REQUEST NUMBER: 10-2314

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13779	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13779	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13779	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13780	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13780	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13780	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13778	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13778	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13778	1	AMBER GLASS	8270C+TPH-DRO	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		3/5/10	3:00				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13777 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		0950	SUB-MEDIA:	SOIL	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611738	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
2		ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: wet dark reddish brown coarse sediment w/ some gravel (5YR 3/2)

SAMPLE COMMENTS: beneath asphalt, sample very wet, water filling hole slowly

LOCATION DESC: 6f-2

FIELD SCREENING/MEASUREMENT RESULTS: PID: NA, sample too wet Background: α: 15 β: 942 Samples MDA

COLLECTED BY (PRINT) J. Romero REVIEWED BY (PRINT) M SHERWOOD

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
J. ROMERO	3/4/10 1635	Sheri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13776 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	~~ALH~~ RA 3/3/10	Qbt 3
TIME COLLECTED (HH:MM)		1005	SUB-MEDIA:	SOIL	N
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611737	OK	FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	OK
TOP DEPTH:	0	3'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	41	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~SR~~ RA 3/3/10		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	RA 3/3/10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: gray tuff (2.5 YR 5/2), Red tuff (2.5 YR 4/6)

SAMPLE COMMENTS: beneath asphalt, abrupt contact between gray & Red tuff @ 3.5'

LOCATION DESC: 6f-1

FIELD SCREENING/MEASUREMENT RESULTS: Background: PID: 0.0ppm α: 15 β: 942 Samples MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. ROMERO	3/4/10 1635	(Printed Name) Sherri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13775 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10 4 pt 3/4/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		0934	SUB-MEDIA:	SOIL	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611737	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1-2	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: weak red tuff & coarse sandy fill (2.5YR 5/2) w/ some gravel

SAMPLE COMMENTS: beneath asphalt, hit tuff @ 10"

LOCATION DESC: 6f-1

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.0ppm Background: α: 15 β: 942 Samples MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** J. Romero

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
J. Aylson & Romero	3/4/10 1635	Sherri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13780 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	~~ALLH~~ 3/4/10	Qbt 3
TIME COLLECTED (HH:MM)		1050	SUB-MEDIA:	SOIL	N
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611739	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:		
FIELD MATRIX:	~~S~~ R 3/4/10		EXCAVATED: YES / NO / NA	NA	

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
2	MS 3/5/10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: gray tuff (2.5 YR 5/2)

SAMPLE COMMENTS: tuff @ 2ft

LOCATION DESC: 6f-3

FIELD SCREENING/MEASUREMENT RESULTS: Background: α:15 β:942 Samples LMDA

PID: 0.4ppm

COLLECTED BY (PRINT) M. Nowck **REVIEWED BY (PRINT)** M. Shendo

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
M. Shendo	3/4/10 1635	Sherri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13786 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1037	SUB-MEDIA:	OTHER	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611737	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH <2
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH >12

SAMPLE DESC: QC Sample of
RE46-10-13775

SAMPLE COMMENTS: NA

LOCATION DESC: Loc-1

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature) [signature]	3/4/10 1635	(Printed Name) Sheri Sherwood (Signature) Sheri Sherwood	3/4/10 1635
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13784 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		0934	SUB-MEDIA:	OTHER	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611737	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of

RE46-10-13775

SAMPLE COMMENTS: NA

LOCATION DESC: 6f-1

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L Andress **REVIEWED BY (PRINT)** M. Shends

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Jane Andress	3/4/10	(Printed Name) Sherri Sherwood	3/4/10
(Signature) Jane Andress	1635	(Signature) Sherri Sherwood	1635
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13785 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1029	SUB-MEDIA:	OTHER	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611737	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH <2
1		SW-846:6850	250 ML POLY	Ice	Y	~~pH >12~~ pH 3/4/10
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH >12

SAMPLE DESC: QC Sample of RE46-10-13775

SAMPLE COMMENTS: NA

LOCATION DESC: 6f-1

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature) [signature]	3/4/10 1635	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	3/4/10 1635
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13783 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		0934	SUB-MEDIA:	SOIL	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	~~OK~~ 46-611737 3/3/10	FIELD QC TYPE:	FD	S
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	S
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
~~1~~ 2 3/10		ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of
RE46-10-13775

SAMPLE COMMENTS: NA

LOCATION DESC: 6f-1

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/4/10 1635	(Printed Name) Sherri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13782 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	~~ALLH~~ 3/4/10	Qbt 3
TIME COLLECTED (HH:MM)		1105	SUB-MEDIA:	SOIL	N
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611740	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~SR~~ 3/4/10		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
2	PRS 3/9/10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: reddish gray tuff (2.5 YR 5/1)

SAMPLE COMMENTS:

LOCATION DESC: 6f-4

FIELD SCREENING/MEASUREMENT RESULTS: PID: 3.8ppm Background: α: 15 β: 942 dpm Samples < MDA

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/4/10 1635	(Printed Name) Sherri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13781 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1650	SUB-MEDIA:	SOIL	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611740	OK	FIELD QC TYPE:	NA	C
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	V
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	3/5/10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: brown coarse sediment (7.5 YR 4/2)

SAMPLE COMMENTS: tuff @ 4",

LOCATION DESC: 6 of 4

FIELD SCREENING/MEASUREMENT RESULTS: PID: 2.4ppm 3/4/10 Background: α: 15 β: 142 Samples < MDA

COLLECTED BY (PRINT) J. Romero REVIEWED BY (PRINT) M. Shenda

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
M. Shenda	3/4/10 1635	Sheri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13779 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1030	SUB-MEDIA:	SOIL	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611739	OK	FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	OK
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1 X 3/5/10		ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: dark reddish gray very coarse sediment fill/ gravel (5YR 4/2)

SAMPLE COMMENTS: sample very moist, small plant roots present

LOCATION DESC: 6f-3

FIELD SCREENING/MEASUREMENT RESULTS: PID: 4.9 ppm Background: α: 15 β: 942 Samples <MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Shends

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Shends	3/4/10 1635	(Printed Name) Sherri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13778 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	~~ALLH~~ 3/4/10	Qbt3
TIME COLLECTED (HH:MM)		1020	SUB-MEDIA:	SOIL	N
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611738	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	3'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	4'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ 3/4/10		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
2		ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: ~~ft~~ ~~Coarse~~ wet tuff, dark reddish gray (5YR 4/2) 3/4/10

SAMPLE COMMENTS: beneath asphalt, very wet water seeping into hole tuff @ 2 ft, Red tuff @ 4 ft

LOCATION DESC: 6f-2

FIELD SCREENING/MEASUREMENT RESULTS: PID: NA sample too wet

Background: α: 15 β: 942

Samples < MDA

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** M. Shende

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
M. Shende	3/4/10 1635	Sherri Sherwood Sherri Sherwood	3/4/10 1635

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2314 VALIDATION DATE: 4/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The CCV %Ds for acetone; 2-butanone; 2,2-dichloropropane; 1,1,1-trichloroethane; carbon tetrachloride and 2-hexanone were >20%. The acetone result for sample RE46-10-13776 was a detect and, thus, was qualified J,V7c. The remaining associated sample results were NDs and, thus, were qualified UJ,V7c.
2. The MS/MSD was not spiked with trichlorotrifluoroethane. No sample data were qualified as a result.
3. It should be noted that the laboratory received one container for sample -13784 instead of two as indicated on the COC.

Reviewed by: Allison Felix Level: 1 Date: 4/23/10

VALIDATOR'S SIGNATURE: L Thal DATE: 4/22/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☐	☒	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862005	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13775	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 03:11	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:49	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c333.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.376	1.10	
74-87-3	Chloromethane	U	1.10	ug/kg	0.331	1.10	
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.331	1.10	
74-83-9	Bromomethane	U	1.10	ug/kg	0.331	1.10	
75-00-3	Chloroethane	U	1.10	ug/kg	0.331	1.10	
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.331	1.10	
67-64-1	Acetone	U	5.52	ug/kg	1.83	5.52	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.331	1.10	
74-88-4	Iodomethane	U	5.52	ug/kg	1.77	5.52	
75-09-2	Methylene chloride	U	5.52	ug/kg	2.21	5.52	
75-15-0	Carbon disulfide	U	5.52	ug/kg	1.38	5.52	
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10	
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.331	1.10	
78-93-3	2-Butanone	U	5.52	ug/kg	1.66	5.52	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10	
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10	UJ,V7c
67-66-3	Chloroform	U	1.10	ug/kg	0.331	1.10	
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.365	1.10	
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.331	1.10	UJ,V7c
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.331	1.10	
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.331	1.10	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.331	1.10	
71-43-2	Benzene	U	1.10	ug/kg	0.331	1.10	
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.365	1.10	
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10	
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.331	1.10	
74-95-3	Dibromomethane	U	1.10	ug/kg	0.331	1.10	
108-10-1	4-Methyl-2-pentanone	U	5.52	ug/kg	1.38	5.52	
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10	
108-88-3	Toluene	U	1.10	ug/kg	0.331	1.10	
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10	
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.331	1.10	
591-78-6	2-Hexanone	U	5.52	ug/kg	1.66	5.52	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.331	1.10	
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.331	1.10	
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.331	1.10	
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.331	1.10	
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.331	1.10	

LT 4/22/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862005	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13775	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 03:11	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:49	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c333.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.331	1.10
179601-23-1	m,p-Xylenes	U	2.21	ug/kg	0.331	2.21
95-47-6	o-Xylene	U	1.10	ug/kg	0.331	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.331	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.331	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.331	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.331	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.331	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.331	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.331	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.331	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.331	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.331	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.331	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.52	ug/kg	1.77	5.52
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	19.96	14.6	ug/kg		J

LT 4/22/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862006	**Date Received:**	03/06/2010 09:15	**%Moisture:**	10.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13776	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 03:42	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:51	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c334.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.378	1.11	
74-87-3	Chloromethane	U	1.11	ug/kg	0.334	1.11	
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.334	1.11	
74-83-9	Bromomethane	U	1.11	ug/kg	0.334	1.11	
75-00-3	Chloroethane	U	1.11	ug/kg	0.334	1.11	
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.334	1.11	
67-64-1	Acetone	J	1.88	ug/kg	1.85	5.56	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.334	1.11	
74-88-4	Iodomethane	U	5.56	ug/kg	1.78	5.56	
75-09-2	Methylene chloride	U	5.56	ug/kg	2.22	5.56	
75-15-0	Carbon disulfide	U	5.56	ug/kg	1.39	5.56	
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11	
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.334	1.11	
78-93-3	2-Butanone	U	5.56	ug/kg	1.67	5.56	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11	
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11	UJ,V7c
67-66-3	Chloroform	U	1.11	ug/kg	0.334	1.11	
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.367	1.11	
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.334	1.11	UJ,V7c
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.334	1.11	
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.334	1.11	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.334	1.11	
71-43-2	Benzene	U	1.11	ug/kg	0.334	1.11	
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.367	1.11	
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11	
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.334	1.11	
74-95-3	Dibromomethane	U	1.11	ug/kg	0.334	1.11	
108-10-1	4-Methyl-2-pentanone	U	5.56	ug/kg	1.39	5.56	
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11	
108-88-3	Toluene	U	1.11	ug/kg	0.334	1.11	
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11	
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.334	1.11	
591-78-6	2-Hexanone	U	5.56	ug/kg	1.67	5.56	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.334	1.11	
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.334	1.11	
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.334	1.11	
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.334	1.11	
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.334	1.11	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862006	**Date Received:**	03/06/2010 09:15	**%Moisture:**	10.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13776	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 03:42	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:51	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c334.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.334	1.11
179601-23-1	m,p-Xylenes	U	2.22	ug/kg	0.334	2.22
95-47-6	o-Xylene	U	1.11	ug/kg	0.334	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.334	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.334	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.334	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.334	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.334	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.334	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.334	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.334	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.334	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.334	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.334	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.56	ug/kg	1.78	5.56
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862004	**Date Received:**	03/06/2010 09:15	**%Moisture:**	20.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13777	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 02:41	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:47	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c332.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.427	1.26	
74-87-3	Chloromethane	U	1.26	ug/kg	0.377	1.26	
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.377	1.26	
74-83-9	Bromomethane	U	1.26	ug/kg	0.377	1.26	
75-00-3	Chloroethane	U	1.26	ug/kg	0.377	1.26	
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.377	1.26	
67-64-1	Acetone	U	6.28	ug/kg	2.09	6.28	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.26	ug/kg	0.377	1.26	
74-88-4	Iodomethane	U	6.28	ug/kg	2.01	6.28	
75-09-2	Methylene chloride	U	6.28	ug/kg	2.51	6.28	
75-15-0	Carbon disulfide	U	6.28	ug/kg	1.57	6.28	
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.377	1.26	
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.377	1.26	
78-93-3	2-Butanone	U	6.28	ug/kg	1.89	6.28	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.26	ug/kg	0.377	1.26	
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.377	1.26	UJ,V7c
67-66-3	Chloroform	U	1.26	ug/kg	0.377	1.26	
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.415	1.26	
71-55-6	1,1,1-Trichloroethane	U	1.26	ug/kg	0.377	1.26	UJ,V7c
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.377	1.26	
56-23-5	Carbon tetrachloride	U	1.26	ug/kg	0.377	1.26	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.377	1.26	
71-43-2	Benzene	U	1.26	ug/kg	0.377	1.26	
79-01-6	Trichloroethylene	U	1.26	ug/kg	0.415	1.26	
78-87-5	1,2-Dichloropropane	U	1.26	ug/kg	0.377	1.26	
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.377	1.26	
74-95-3	Dibromomethane	U	1.26	ug/kg	0.377	1.26	
108-10-1	4-Methyl-2-pentanone	U	6.28	ug/kg	1.57	6.28	
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.377	1.26	
108-88-3	Toluene		6.41	ug/kg	0.377	1.26	
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.377	1.26	
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.377	1.26	
591-78-6	2-Hexanone	U	6.28	ug/kg	1.89	6.28	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.377	1.26	
127-18-4	Tetrachloroethylene	U	1.26	ug/kg	0.377	1.26	
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.377	1.26	
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.377	1.26	
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.377	1.26	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862004	**Date Received:**	03/06/2010 09:15	**%Moisture:**	20.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13777	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 02:41	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:47	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c332.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	J	0.392	ug/kg	0.377	1.26
179601-23-1	m,p-Xylenes	J	0.850	ug/kg	0.377	2.51
95-47-6	o-Xylene	U	1.26	ug/kg	0.377	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.377	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.377	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.377	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.377	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.377	1.26
103-65-1	n-Propylbenzene	U	1.26	ug/kg	0.377	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.377	1.26
98-82-8	Isopropylbenzene	U	1.26	ug/kg	0.377	1.26
108-67-8	1,3,5-Trimethylbenzene	U	1.26	ug/kg	0.377	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.377	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.377	1.26
95-63-6	1,2,4-Trimethylbenzene	U	1.26	ug/kg	0.377	1.26
135-98-8	sec-Butylbenzene	U	1.26	ug/kg	0.377	1.26
99-87-6	4-Isopropyltoluene	U	1.26	ug/kg	0.377	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.377	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.377	1.26
104-51-8	n-Butylbenzene	U	1.26	ug/kg	0.377	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.377	1.26
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.28	ug/kg	2.01	6.28
630-20-6	1,1,1,2-Tetrachloroethane	U	1.26	ug/kg	0.377	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.377	1.26

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
108-87-2	Cyclohexane, methyl-	14.27	10.7	ug/kg	97	NJ
97-85-8	Propanoic acid, 2-methyl-, 2-methylpropy	17.76	31.2	ug/kg	90	NJ

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862010	**Date Received:**	03/06/2010 09:15	**%Moisture:**	19.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13778	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 05:44	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:59	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c338.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.24	ug/kg	0.420	1.24	
74-87-3	Chloromethane	U	1.24	ug/kg	0.371	1.24	
75-01-4	Vinyl chloride	U	1.24	ug/kg	0.371	1.24	
74-83-9	Bromomethane	U	1.24	ug/kg	0.371	1.24	
75-00-3	Chloroethane	U	1.24	ug/kg	0.371	1.24	
75-69-4	Trichlorofluoromethane	U	1.24	ug/kg	0.371	1.24	
67-64-1	Acetone	U	6.18	ug/kg	2.05	6.18	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.24	ug/kg	0.371	1.24	
74-88-4	Iodomethane	U	6.18	ug/kg	1.98	6.18	
75-09-2	Methylene chloride	U	6.18	ug/kg	2.47	6.18	
75-15-0	Carbon disulfide	U	6.18	ug/kg	1.54	6.18	
156-60-5	trans-1,2-Dichloroethylene	U	1.24	ug/kg	0.371	1.24	
75-34-3	1,1-Dichloroethane	U	1.24	ug/kg	0.371	1.24	
78-93-3	2-Butanone	U	6.18	ug/kg	1.85	6.18	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.24	ug/kg	0.371	1.24	
594-20-7	2,2-Dichloropropane	U	1.24	ug/kg	0.371	1.24	UJ,V7c
67-66-3	Chloroform	U	1.24	ug/kg	0.371	1.24	
74-97-5	Bromochloromethane	U	1.24	ug/kg	0.408	1.24	
71-55-6	1,1,1-Trichloroethane	U	1.24	ug/kg	0.371	1.24	UJ,V7c
563-58-6	1,1-Dichloropropene	U	1.24	ug/kg	0.371	1.24	
56-23-5	Carbon tetrachloride	U	1.24	ug/kg	0.371	1.24	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.24	ug/kg	0.371	1.24	
71-43-2	Benzene	U	1.24	ug/kg	0.371	1.24	
79-01-6	Trichloroethylene	U	1.24	ug/kg	0.408	1.24	
78-87-5	1,2-Dichloropropane	U	1.24	ug/kg	0.371	1.24	
75-27-4	Bromodichloromethane	U	1.24	ug/kg	0.371	1.24	
74-95-3	Dibromomethane	U	1.24	ug/kg	0.371	1.24	
108-10-1	4-Methyl-2-pentanone	U	6.18	ug/kg	1.54	6.18	
10061-01-5	cis-1,3-Dichloropropylene	U	1.24	ug/kg	0.371	1.24	
108-88-3	Toluene	U	1.24	ug/kg	0.371	1.24	
10061-02-6	trans-1,3-Dichloropropylene	U	1.24	ug/kg	0.371	1.24	
79-00-5	1,1,2-Trichloroethane	U	1.24	ug/kg	0.371	1.24	
591-78-6	2-Hexanone	U	6.18	ug/kg	1.85	6.18	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.24	ug/kg	0.371	1.24	
127-18-4	Tetrachloroethylene	U	1.24	ug/kg	0.371	1.24	
124-48-1	Dibromochloromethane	U	1.24	ug/kg	0.371	1.24	
106-93-4	1,2-Dibromoethane	U	1.24	ug/kg	0.371	1.24	
108-90-7	Chlorobenzene	U	1.24	ug/kg	0.371	1.24	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862010	**Date Received:**	03/06/2010 09:15	**%Moisture:**	19.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13778	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 05:44	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:59	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c338.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.24	ug/kg	0.371	1.24
179601-23-1	m,p-Xylenes	U	2.47	ug/kg	0.371	2.47
95-47-6	o-Xylene	U	1.24	ug/kg	0.371	1.24
100-42-5	Styrene	U	1.24	ug/kg	0.371	1.24
75-25-2	Bromoform	U	1.24	ug/kg	0.371	1.24
79-34-5	1,1,2,2-Tetrachloroethane	U	1.24	ug/kg	0.371	1.24
96-18-4	1,2,3-Trichloropropane	U	1.24	ug/kg	0.371	1.24
108-86-1	Bromobenzene	U	1.24	ug/kg	0.371	1.24
103-65-1	n-Propylbenzene	U	1.24	ug/kg	0.371	1.24
95-49-8	2-Chlorotoluene	U	1.24	ug/kg	0.371	1.24
98-82-8	Isopropylbenzene	U	1.24	ug/kg	0.371	1.24
108-67-8	1,3,5-Trimethylbenzene	U	1.24	ug/kg	0.371	1.24
106-43-4	4-Chlorotoluene	U	1.24	ug/kg	0.371	1.24
98-06-6	tert-Butylbenzene	U	1.24	ug/kg	0.371	1.24
95-63-6	1,2,4-Trimethylbenzene	U	1.24	ug/kg	0.371	1.24
135-98-8	sec-Butylbenzene	U	1.24	ug/kg	0.371	1.24
99-87-6	4-Isopropyltoluene	U	1.24	ug/kg	0.371	1.24
541-73-1	1,3-Dichlorobenzene	U	1.24	ug/kg	0.371	1.24
106-46-7	1,4-Dichlorobenzene	U	1.24	ug/kg	0.371	1.24
104-51-8	n-Butylbenzene	U	1.24	ug/kg	0.371	1.24
96-12-8	1,2-Dibromo-3-chloropropane	U	1.24	ug/kg	0.371	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.18	ug/kg	1.98	6.18
630-20-6	1,1,1,2-Tetrachloroethane	U	1.24	ug/kg	0.371	1.24
95-50-1	1,2-Dichlorobenzene	U	1.24	ug/kg	0.371	1.24

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Flt	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	Date Collected:	03/04/2010 12:00	Matrix:	S
Lab Sample ID:	248862008	Date Received:	03/06/2010 09:15	%Moisture:	19.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13779	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	966068	Inst:	VOA1.I	Dilution:	1
Run Date:	03/18/2010 04:43	Analyst:	GRB2	Purge Vol:	5 mL
Prep Date:	03/17/2010 17:55	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1c336.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.24	ug/kg	0.422	1.24	
74-87-3	Chloromethane	U	1.24	ug/kg	0.373	1.24	
75-01-4	Vinyl chloride	U	1.24	ug/kg	0.373	1.24	
74-83-9	Bromomethane	U	1.24	ug/kg	0.373	1.24	
75-00-3	Chloroethane	U	1.24	ug/kg	0.373	1.24	
75-69-4	Trichlorofluoromethane	U	1.24	ug/kg	0.373	1.24	
67-64-1	Acetone	U	6.21	ug/kg	2.06	6.21	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.24	ug/kg	0.373	1.24	
74-88-4	Iodomethane	U	6.21	ug/kg	1.99	6.21	
75-09-2	Methylene chloride	U	6.21	ug/kg	2.48	6.21	
75-15-0	Carbon disulfide	U	6.21	ug/kg	1.55	6.21	
156-60-5	trans-1,2-Dichloroethylene	U	1.24	ug/kg	0.373	1.24	
75-34-3	1,1-Dichloroethane	U	1.24	ug/kg	0.373	1.24	
78-93-3	2-Butanone	U	6.21	ug/kg	1.86	6.21	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.24	ug/kg	0.373	1.24	
594-20-7	2,2-Dichloropropane	U	1.24	ug/kg	0.373	1.24	UJ,V7c
67-66-3	Chloroform	U	1.24	ug/kg	0.373	1.24	
74-97-5	Bromochloromethane	U	1.24	ug/kg	0.410	1.24	
71-55-6	1,1,1-Trichloroethane	U	1.24	ug/kg	0.373	1.24	UJ,V7c
563-58-6	1,1-Dichloropropene	U	1.24	ug/kg	0.373	1.24	
56-23-5	Carbon tetrachloride	U	1.24	ug/kg	0.373	1.24	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.24	ug/kg	0.373	1.24	
71-43-2	Benzene	U	1.24	ug/kg	0.373	1.24	
79-01-6	Trichloroethylene	U	1.24	ug/kg	0.410	1.24	
78-87-5	1,2-Dichloropropane	U	1.24	ug/kg	0.373	1.24	
75-27-4	Bromodichloromethane	U	1.24	ug/kg	0.373	1.24	
74-95-3	Dibromomethane	U	1.24	ug/kg	0.373	1.24	
108-10-1	4-Methyl-2-pentanone	U	6.21	ug/kg	1.55	6.21	
10061-01-5	cis-1,3-Dichloropropylene	U	1.24	ug/kg	0.373	1.24	
108-88-3	Toluene	U	1.24	ug/kg	0.373	1.24	
10061-02-6	trans-1,3-Dichloropropylene	U	1.24	ug/kg	0.373	1.24	
79-00-5	1,1,2-Trichloroethane	U	1.24	ug/kg	0.373	1.24	
591-78-6	2-Hexanone	U	6.21	ug/kg	1.86	6.21	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.24	ug/kg	0.373	1.24	
127-18-4	Tetrachloroethylene	U	1.24	ug/kg	0.373	1.24	
124-48-1	Dibromochloromethane	U	1.24	ug/kg	0.373	1.24	
106-93-4	1,2-Dibromoethane	U	1.24	ug/kg	0.373	1.24	
108-90-7	Chlorobenzene	U	1.24	ug/kg	0.373	1.24	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862008	**Date Received:**	03/06/2010 09:15	**%Moisture:**	19.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13779	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 04:43	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:55	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c336.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.24	ug/kg	0.373	1.24
179601-23-1	m,p-Xylenes	U	2.48	ug/kg	0.373	2.48
95-47-6	o-Xylene	U	1.24	ug/kg	0.373	1.24
100-42-5	Styrene	U	1.24	ug/kg	0.373	1.24
75-25-2	Bromoform	U	1.24	ug/kg	0.373	1.24
79-34-5	1,1,2,2-Tetrachloroethane	U	1.24	ug/kg	0.373	1.24
96-18-4	1,2,3-Trichloropropane	U	1.24	ug/kg	0.373	1.24
108-86-1	Bromobenzene	U	1.24	ug/kg	0.373	1.24
103-65-1	n-Propylbenzene	U	1.24	ug/kg	0.373	1.24
95-49-8	2-Chlorotoluene	U	1.24	ug/kg	0.373	1.24
98-82-8	Isopropylbenzene	U	1.24	ug/kg	0.373	1.24
108-67-8	1,3,5-Trimethylbenzene	U	1.24	ug/kg	0.373	1.24
106-43-4	4-Chlorotoluene	U	1.24	ug/kg	0.373	1.24
98-06-6	tert-Butylbenzene	U	1.24	ug/kg	0.373	1.24
95-63-6	1,2,4-Trimethylbenzene	U	1.24	ug/kg	0.373	1.24
135-98-8	sec-Butylbenzene	U	1.24	ug/kg	0.373	1.24
99-87-6	4-Isopropyltoluene	U	1.24	ug/kg	0.373	1.24
541-73-1	1,3-Dichlorobenzene	U	1.24	ug/kg	0.373	1.24
106-46-7	1,4-Dichlorobenzene	U	1.24	ug/kg	0.373	1.24
104-51-8	n-Butylbenzene	U	1.24	ug/kg	0.373	1.24
96-12-8	1,2-Dibromo-3-chloropropane	U	1.24	ug/kg	0.373	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.21	ug/kg	1.99	6.21
630-20-6	1,1,1,2-Tetrachloroethane	U	1.24	ug/kg	0.373	1.24
95-50-1	1,2-Dichlorobenzene	U	1.24	ug/kg	0.373	1.24

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	19.96	9.36	ug/kg		J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862009	**Date Received:**	03/06/2010 09:15	**%Moisture:**	18.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13780	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 05:13	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:57	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c337.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.22	ug/kg	0.415	1.22	
74-87-3	Chloromethane	U	1.22	ug/kg	0.366	1.22	
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.366	1.22	
74-83-9	Bromomethane	U	1.22	ug/kg	0.366	1.22	
75-00-3	Chloroethane	U	1.22	ug/kg	0.366	1.22	
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.366	1.22	
67-64-1	Acetone	U	6.10	ug/kg	2.03	6.10	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.366	1.22	
74-88-4	Iodomethane	U	6.10	ug/kg	1.95	6.10	
75-09-2	Methylene chloride	U	6.10	ug/kg	2.44	6.10	
75-15-0	Carbon disulfide	U	6.10	ug/kg	1.53	6.10	
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.366	1.22	
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.366	1.22	
78-93-3	2-Butanone	U	6.10	ug/kg	1.83	6.10	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.366	1.22	
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.366	1.22	UJ,V7c
67-66-3	Chloroform	U	1.22	ug/kg	0.366	1.22	
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.403	1.22	
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.366	1.22	UJ,V7c
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.366	1.22	
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.366	1.22	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.366	1.22	
71-43-2	Benzene	U	1.22	ug/kg	0.366	1.22	
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.403	1.22	
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.366	1.22	
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.366	1.22	
74-95-3	Dibromomethane	U	1.22	ug/kg	0.366	1.22	
108-10-1	4-Methyl-2-pentanone	U	6.10	ug/kg	1.53	6.10	
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.366	1.22	
108-88-3	Toluene	U	1.22	ug/kg	0.366	1.22	
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.366	1.22	
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.366	1.22	
591-78-6	2-Hexanone	U	6.10	ug/kg	1.83	6.10	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.366	1.22	
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.366	1.22	
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.366	1.22	
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.366	1.22	
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.366	1.22	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862009	**Date Received:**	03/06/2010 09:15	**%Moisture:**	18.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13780	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 05:13	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:57	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c337.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.22	ug/kg	0.366	1.22
179601-23-1	m,p-Xylenes	U	2.44	ug/kg	0.366	2.44
95-47-6	o-Xylene	U	1.22	ug/kg	0.366	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.366	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.366	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.366	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.366	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.366	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.366	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.366	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.366	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.366	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.366	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.366	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.366	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.366	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.366	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22
106-46-7	1,4-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.366	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.366	1.22
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.10	ug/kg	1.95	6.10
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.366	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862007	**Date Received:**	03/06/2010 09:15	**%Moisture:**	18.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13781	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 04:12	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:53	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c335.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.23	ug/kg	0.419	1.23	
74-87-3	Chloromethane	U	1.23	ug/kg	0.370	1.23	
75-01-4	Vinyl chloride	U	1.23	ug/kg	0.370	1.23	
74-83-9	Bromomethane	U	1.23	ug/kg	0.370	1.23	
75-00-3	Chloroethane	U	1.23	ug/kg	0.370	1.23	
75-69-4	Trichlorofluoromethane	U	1.23	ug/kg	0.370	1.23	
67-64-1	Acetone	U	6.16	ug/kg	2.05	6.16	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.23	ug/kg	0.370	1.23	
74-88-4	Iodomethane	U	6.16	ug/kg	1.97	6.16	
75-09-2	Methylene chloride	U	6.16	ug/kg	2.46	6.16	
75-15-0	Carbon disulfide	U	6.16	ug/kg	1.54	6.16	
156-60-5	trans-1,2-Dichloroethylene	U	1.23	ug/kg	0.370	1.23	
75-34-3	1,1-Dichloroethane	U	1.23	ug/kg	0.370	1.23	
78-93-3	2-Butanone	U	6.16	ug/kg	1.85	6.16	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.23	ug/kg	0.370	1.23	
594-20-7	2,2-Dichloropropane	U	1.23	ug/kg	0.370	1.23	UJ,V7c
67-66-3	Chloroform	U	1.23	ug/kg	0.370	1.23	
74-97-5	Bromochloromethane	U	1.23	ug/kg	0.407	1.23	
71-55-6	1,1,1-Trichloroethane	U	1.23	ug/kg	0.370	1.23	UJ,V7c
563-58-6	1,1-Dichloropropene	U	1.23	ug/kg	0.370	1.23	
56-23-5	Carbon tetrachloride	U	1.23	ug/kg	0.370	1.23	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.23	ug/kg	0.370	1.23	
71-43-2	Benzene	U	1.23	ug/kg	0.370	1.23	
79-01-6	Trichloroethylene	U	1.23	ug/kg	0.407	1.23	
78-87-5	1,2-Dichloropropane	U	1.23	ug/kg	0.370	1.23	
75-27-4	Bromodichloromethane	U	1.23	ug/kg	0.370	1.23	
74-95-3	Dibromomethane	U	1.23	ug/kg	0.370	1.23	
108-10-1	4-Methyl-2-pentanone	U	6.16	ug/kg	1.54	6.16	
10061-01-5	cis-1,3-Dichloropropylene	U	1.23	ug/kg	0.370	1.23	
108-88-3	Toluene	U	1.23	ug/kg	0.370	1.23	
10061-02-6	trans-1,3-Dichloropropylene	U	1.23	ug/kg	0.370	1.23	
79-00-5	1,1,2-Trichloroethane	U	1.23	ug/kg	0.370	1.23	
591-78-6	2-Hexanone	U	6.16	ug/kg	1.85	6.16	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.23	ug/kg	0.370	1.23	
127-18-4	Tetrachloroethylene	U	1.23	ug/kg	0.370	1.23	
124-48-1	Dibromochloromethane	U	1.23	ug/kg	0.370	1.23	
106-93-4	1,2-Dibromoethane	U	1.23	ug/kg	0.370	1.23	
108-90-7	Chlorobenzene	U	1.23	ug/kg	0.370	1.23	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862007	**Date Received:**	03/06/2010 09:15	**%Moisture:**	18.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13781	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 04:12	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:53	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c335.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.23	ug/kg	0.370	1.23
179601-23-1	m,p-Xylenes	U	2.46	ug/kg	0.370	2.46
95-47-6	o-Xylene	U	1.23	ug/kg	0.370	1.23
100-42-5	Styrene	U	1.23	ug/kg	0.370	1.23
75-25-2	Bromoform	U	1.23	ug/kg	0.370	1.23
79-34-5	1,1,2,2-Tetrachloroethane	U	1.23	ug/kg	0.370	1.23
96-18-4	1,2,3-Trichloropropane	U	1.23	ug/kg	0.370	1.23
108-86-1	Bromobenzene	U	1.23	ug/kg	0.370	1.23
103-65-1	n-Propylbenzene	U	1.23	ug/kg	0.370	1.23
95-49-8	2-Chlorotoluene	U	1.23	ug/kg	0.370	1.23
98-82-8	Isopropylbenzene	U	1.23	ug/kg	0.370	1.23
108-67-8	1,3,5-Trimethylbenzene	U	1.23	ug/kg	0.370	1.23
106-43-4	4-Chlorotoluene	U	1.23	ug/kg	0.370	1.23
98-06-6	tert-Butylbenzene	U	1.23	ug/kg	0.370	1.23
95-63-6	1,2,4-Trimethylbenzene	U	1.23	ug/kg	0.370	1.23
135-98-8	sec-Butylbenzene	U	1.23	ug/kg	0.370	1.23
99-87-6	4-Isopropyltoluene	U	1.23	ug/kg	0.370	1.23
541-73-1	1,3-Dichlorobenzene	U	1.23	ug/kg	0.370	1.23
106-46-7	1,4-Dichlorobenzene	U	1.23	ug/kg	0.370	1.23
104-51-8	n-Butylbenzene	U	1.23	ug/kg	0.370	1.23
96-12-8	1,2-Dibromo-3-chloropropane	U	1.23	ug/kg	0.370	1.23
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.16	ug/kg	1.97	6.16
630-20-6	1,1,1,2-Tetrachloroethane	U	1.23	ug/kg	0.370	1.23
95-50-1	1,2-Dichlorobenzene	U	1.23	ug/kg	0.370	1.23

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862002	**Date Received:**	03/06/2010 09:15	**%Moisture:**	13.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13782	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 01:39	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:39	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c330.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.395	1.16	
74-87-3	Chloromethane	U	1.16	ug/kg	0.349	1.16	
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.349	1.16	
74-83-9	Bromomethane	U	1.16	ug/kg	0.349	1.16	
75-00-3	Chloroethane	U	1.16	ug/kg	0.349	1.16	
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.349	1.16	
67-64-1	Acetone	U	5.81	ug/kg	1.93	5.81	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.349	1.16	
74-88-4	Iodomethane	U	5.81	ug/kg	1.86	5.81	
75-09-2	Methylene chloride	U	5.81	ug/kg	2.32	5.81	
75-15-0	Carbon disulfide	U	5.81	ug/kg	1.45	5.81	
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16	
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.349	1.16	
78-93-3	2-Butanone	U	5.81	ug/kg	1.74	5.81	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16	
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16	UJ,V7c
67-66-3	Chloroform	U	1.16	ug/kg	0.349	1.16	
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.383	1.16	
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.349	1.16	UJ,V7c
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.349	1.16	
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.349	1.16	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.349	1.16	
71-43-2	Benzene	U	1.16	ug/kg	0.349	1.16	
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.383	1.16	
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16	
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.349	1.16	
74-95-3	Dibromomethane	U	1.16	ug/kg	0.349	1.16	
108-10-1	4-Methyl-2-pentanone	U	5.81	ug/kg	1.45	5.81	
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16	
108-88-3	Toluene	U	1.16	ug/kg	0.349	1.16	
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16	
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.349	1.16	
591-78-6	2-Hexanone	U	5.81	ug/kg	1.74	5.81	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.349	1.16	
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.349	1.16	
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.349	1.16	
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.349	1.16	
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.349	1.16	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862002	**Date Received:**	03/06/2010 09:15	**%Moisture:**	13.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13782	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 01:39	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:39	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c330.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.349	1.16
179601-23-1	m,p-Xylenes	U	2.32	ug/kg	0.349	2.32
95-47-6	o-Xylene	U	1.16	ug/kg	0.349	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.349	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.349	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.349	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.349	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.349	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.349	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.349	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.349	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.349	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.349	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.349	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.81	ug/kg	1.86	5.81
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862003	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13783	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 02:10	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:45	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c331.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.375	1.10	
74-87-3	Chloromethane	U	1.10	ug/kg	0.331	1.10	
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.331	1.10	
74-83-9	Bromomethane	U	1.10	ug/kg	0.331	1.10	
75-00-3	Chloroethane	U	1.10	ug/kg	0.331	1.10	
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.331	1.10	
67-64-1	Acetone	U	5.51	ug/kg	1.83	5.51	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.331	1.10	
74-88-4	Iodomethane	U	5.51	ug/kg	1.76	5.51	
75-09-2	Methylene chloride	U	5.51	ug/kg	2.20	5.51	
75-15-0	Carbon disulfide	U	5.51	ug/kg	1.38	5.51	
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10	
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.331	1.10	
78-93-3	2-Butanone	U	5.51	ug/kg	1.65	5.51	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10	
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10	UJ,V7c
67-66-3	Chloroform	U	1.10	ug/kg	0.331	1.10	
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.364	1.10	
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.331	1.10	UJ,V7c
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.331	1.10	
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.331	1.10	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.331	1.10	
71-43-2	Benzene	U	1.10	ug/kg	0.331	1.10	
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.364	1.10	
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10	
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.331	1.10	
74-95-3	Dibromomethane	U	1.10	ug/kg	0.331	1.10	
108-10-1	4-Methyl-2-pentanone	U	5.51	ug/kg	1.38	5.51	
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10	
108-88-3	Toluene	U	1.10	ug/kg	0.331	1.10	
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10	
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.331	1.10	
591-78-6	2-Hexanone	U	5.51	ug/kg	1.65	5.51	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.331	1.10	
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.331	1.10	
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.331	1.10	
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.331	1.10	
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.331	1.10	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862003	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13783	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 02:10	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:45	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c331.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.331	1.10
179601-23-1	m,p-Xylenes	U	2.20	ug/kg	0.331	2.20
95-47-6	o-Xylene	U	1.10	ug/kg	0.331	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.331	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.331	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.331	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.331	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.331	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.331	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.331	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.331	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.331	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.331	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.331	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.51	ug/kg	1.76	5.51
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862001	**Date Received:**	03/06/2010 09:15		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13784	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 01:09	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:37	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c329.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00	
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00	
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00	
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00	
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	UJ,V7c
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00	UJ,V7c
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00	
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862001	**Date Received:**	03/06/2010 09:15		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13784	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 01:09	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:37	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c329.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

LT 4/22/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2314 VALIDATION DATE: 4/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The ICV %Ds for pyridine and 2-methyl-4,6-dinitrophenol were >20%. The %Ds for 4-nitrophenol; benzyl alcohol; bis(2-chloroisopropyl)ether; 2,4-dimethylphenol; 3-nitroanline and 4-nitroaniline were >20% for the CCV associated with sample RE46-10-13782. The %Ds for benzyl alcohol; 2,4-dimethylphenol and hexachlorocyclopentadiene were >20% for the remaining samples. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The MS/MSD was performed on a sample from another LANL RN and the raw data for the parent sample were not present in the data package. The MSD %R and MS/MSD RPD for benzyl alcohol did not meet laboratory acceptance criteria. Since the analysis of an MS or an MSD was not a client requirement, no sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/23/10

VALIDATOR'S SIGNATURE: L Thal DATE: 4/22/10

DATA VALIDATION COVER SHEET	
5115-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5115-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862005	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13775	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 21:28	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s2c2521.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	368	ug/kg	73.7	368	
108-95-2	Phenol	U	368	ug/kg	73.7	368	
95-57-8	2-Chlorophenol	U	368	ug/kg	73.7	368	
106-46-7	1,4-Dichlorobenzene	U	368	ug/kg	73.7	368	
621-64-7	N-Nitrosodipropylamine	U	368	ug/kg	73.7	368	
59-50-7	4-Chloro-3-methylphenol	U	368	ug/kg	73.7	368	
83-32-9	Acenaphthene	U	36.8	ug/kg	12.2	36.8	
121-14-2	2,4-Dinitrotoluene	U	368	ug/kg	36.8	368	
100-02-7	4-Nitrophenol	U	368	ug/kg	122	368	
87-86-5	Pentachlorophenol	U	368	ug/kg	92.1	368	
129-00-0	Pyrene	J	12.6	ug/kg	11.0	36.8	
110-86-1	Pyridine	U	368	ug/kg	73.7	368	UJ,SV7c
62-53-3	Aniline	U	368	ug/kg	110	368	
111-44-4	bis(2-Chloroethyl) ether	U	368	ug/kg	73.7	368	
541-73-1	1,3-Dichlorobenzene	U	368	ug/kg	73.7	368	
100-51-6	Benzyl alcohol	U	368	ug/kg	110	368	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	368	ug/kg	73.7	368	
108-60-1	bis(2-Chloroisopropyl)ether	U	368	ug/kg	73.7	368	
95-48-7	o-Cresol	U	368	ug/kg	73.7	368	
65794-96-9	m,p-Cresols	U	368	ug/kg	110	368	
67-72-1	Hexachloroethane	U	368	ug/kg	73.7	368	
98-95-3	Nitrobenzene	U	368	ug/kg	73.7	368	
78-59-1	Isophorone	U	368	ug/kg	73.7	368	
88-75-5	2-Nitrophenol	U	368	ug/kg	73.7	368	
105-67-9	2,4-Dimethylphenol	U	368	ug/kg	129	368	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	368	ug/kg	73.7	368	
120-83-2	2,4-Dichlorophenol	U	368	ug/kg	73.7	368	
65-85-0	Benzoic acid	U	737	ug/kg	184	737	
91-20-3	Naphthalene	U	36.8	ug/kg	11.0	36.8	
106-47-8	4-Chloroaniline	U	368	ug/kg	73.7	368	
87-68-3	Hexachlorobutadiene	U	368	ug/kg	73.7	368	
91-57-6	2-Methylnaphthalene	U	36.8	ug/kg	7.37	36.8	
77-47-4	Hexachlorocyclopentadiene	U	368	ug/kg	73.7	368	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	368	ug/kg	73.7	368	
95-95-4	2,4,5-Trichlorophenol	U	368	ug/kg	73.7	368	
91-58-7	2-Chloronaphthalene	U	36.8	ug/kg	12.2	36.8	
88-74-4	2-Nitroaniline	U	368	ug/kg	73.7	368	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	368	ug/kg	73.7	368	

LT 4/22/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862005	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13775	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 21:28	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s2c2521.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	368	ug/kg	73.7	368	
606-20-2	2,6-Dinitrotoluene	U	368	ug/kg	36.8	368	
208-96-8	Acenaphthylene	U	36.8	ug/kg	11.0	36.8	
51-28-5	2,4-Dinitrophenol	U	737	ug/kg	140	737	
132-64-9	Dibenzofuran	U	368	ug/kg	73.7	368	
84-66-2	Diethylphthalate	U	368	ug/kg	73.7	368	
86-73-7	Fluorene	U	36.8	ug/kg	11.0	36.8	
7005-72-3	4-Chlorophenylphenylether	U	368	ug/kg	73.7	368	
534-52-1	2-Methyl-4,6-dinitrophenol	U	368	ug/kg	73.7	368	UJ,SV7c
100-01-6	4-Nitroaniline	U	368	ug/kg	110	368	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	368	ug/kg	73.7	368	
122-66-7	Azobenzene	U	368	ug/kg	73.7	368	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	368	ug/kg	73.7	368	
118-74-1	Hexachlorobenzene	U	368	ug/kg	73.7	368	
85-01-8	Phenanthrene	U	36.8	ug/kg	11.0	36.8	
120-12-7	Anthracene	U	36.8	ug/kg	7.37	36.8	
84-74-2	Di-n-butylphthalate	U	368	ug/kg	73.7	368	
206-44-0	Fluoranthene	J	14.9	ug/kg	11.0	36.8	
85-68-7	Butylbenzylphthalate	U	368	ug/kg	73.7	368	
56-55-3	Benzo(a)anthracene	U	36.8	ug/kg	11.0	36.8	
91-94-1	3,3'-Dichlorobenzidine	U	368	ug/kg	110	368	
218-01-9	Chrysene	U	36.8	ug/kg	11.0	36.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	368	ug/kg	73.7	368	
117-84-0	Di-n-octylphthalate	U	368	ug/kg	73.7	368	
205-99-2	Benzo(b)fluoranthene	J	11.1	ug/kg	11.0	36.8	
207-08-9	Benzo(k)fluoranthene	U	36.8	ug/kg	11.0	36.8	
50-32-8	Benzo(a)pyrene	U	36.8	ug/kg	11.0	36.8	
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.8	ug/kg	11.0	36.8	
53-70-3	Dibenzo(a,h)anthracene	U	36.8	ug/kg	11.0	36.8	
191-24-2	Benzo(ghi)perylene	U	36.8	ug/kg	11.0	36.8	
120-82-1	1,2,4-Trichlorobenzene	U	368	ug/kg	73.7	368	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	309	ug/kg		JA

LT 4/22/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862006	**Date Received:**	03/06/2010 09:15	**%Moisture:**	10.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13776	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 21:48	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s2c2522.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	371	ug/kg	74.1	371	
108-95-2	Phenol	U	371	ug/kg	74.1	371	
95-57-8	2-Chlorophenol	U	371	ug/kg	74.1	371	
106-46-7	1,4-Dichlorobenzene	U	371	ug/kg	74.1	371	
621-64-7	N-Nitrosodipropylamine	U	371	ug/kg	74.1	371	
59-50-7	4-Chloro-3-methylphenol	U	371	ug/kg	74.1	371	
83-32-9	Acenaphthene	U	37.1	ug/kg	12.2	37.1	
121-14-2	2,4-Dinitrotoluene	U	371	ug/kg	37.1	371	
100-02-7	4-Nitrophenol	U	371	ug/kg	122	371	
87-86-5	Pentachlorophenol	U	371	ug/kg	92.6	371	
129-00-0	Pyrene	U	37.1	ug/kg	11.1	37.1	
110-86-1	Pyridine	U	371	ug/kg	74.1	371	UJ,SV7c
62-53-3	Aniline	U	371	ug/kg	111	371	
111-44-4	bis(2-Chloroethyl) ether	U	371	ug/kg	74.1	371	
541-73-1	1,3-Dichlorobenzene	U	371	ug/kg	74.1	371	
100-51-6	Benzyl alcohol	U	371	ug/kg	111	371	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	371	ug/kg	74.1	371	
108-60-1	bis(2-Chloroisopropyl)ether	U	371	ug/kg	74.1	371	
95-48-7	o-Cresol	U	371	ug/kg	74.1	371	
65794-96-9	m,p-Cresols	U	371	ug/kg	111	371	
67-72-1	Hexachloroethane	U	371	ug/kg	74.1	371	
98-95-3	Nitrobenzene	U	371	ug/kg	74.1	371	
78-59-1	Isophorone	U	371	ug/kg	74.1	371	
88-75-5	2-Nitrophenol	U	371	ug/kg	74.1	371	
105-67-9	2,4-Dimethylphenol	U	371	ug/kg	130	371	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	371	ug/kg	74.1	371	
120-83-2	2,4-Dichlorophenol	U	371	ug/kg	74.1	371	
65-85-0	Benzoic acid	U	741	ug/kg	185	741	
91-20-3	Naphthalene	U	37.1	ug/kg	11.1	37.1	
106-47-8	4-Chloroaniline	U	371	ug/kg	74.1	371	
87-68-3	Hexachlorobutadiene	U	371	ug/kg	74.1	371	
91-57-6	2-Methylnaphthalene	U	37.1	ug/kg	7.41	37.1	
77-47-4	Hexachlorocyclopentadiene	U	371	ug/kg	74.1	371	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	371	ug/kg	74.1	371	
95-95-4	2,4,5-Trichlorophenol	U	371	ug/kg	74.1	371	
91-58-7	2-Chloronaphthalene	U	37.1	ug/kg	12.2	37.1	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	371	ug/kg	74.1	371	
99-09-2	3-Nitroaniline	U	371	ug/kg	74.1	371	

LT 4/22/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862006	**Date Received:**	03/06/2010 09:15	**%Moisture:**	10.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13776	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 21:48	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s2c2522.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	371	ug/kg	74.1	371	
606-20-2	2,6-Dinitrotoluene	U	371	ug/kg	37.1	371	
208-96-8	Acenaphthylene	U	37.1	ug/kg	11.1	37.1	
51-28-5	2,4-Dinitrophenol	U	741	ug/kg	141	741	
132-64-9	Dibenzofuran	U	371	ug/kg	74.1	371	
84-66-2	Diethylphthalate	U	371	ug/kg	74.1	371	
86-73-7	Fluorene	U	37.1	ug/kg	11.1	37.1	
7005-72-3	4-Chlorophenylphenylether	U	371	ug/kg	74.1	371	
534-52-1	2-Methyl-4,6-dinitrophenol	U	371	ug/kg	74.1	371	UJ,SV7c
100-01-6	4-Nitroaniline	U	371	ug/kg	111	371	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	371	ug/kg	74.1	371	
122-66-7	Azobenzene	U	371	ug/kg	74.1	371	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	371	ug/kg	74.1	371	
118-74-1	Hexachlorobenzene	U	371	ug/kg	74.1	371	
85-01-8	Phenanthrene	U	37.1	ug/kg	11.1	37.1	
120-12-7	Anthracene	U	37.1	ug/kg	7.41	37.1	
84-74-2	Di-n-butylphthalate	U	371	ug/kg	74.1	371	
206-44-0	Fluoranthene	U	37.1	ug/kg	11.1	37.1	
85-68-7	Butylbenzylphthalate	U	371	ug/kg	74.1	371	
56-55-3	Benzo(a)anthracene	U	37.1	ug/kg	11.1	37.1	
91-94-1	3,3'-Dichlorobenzidine	U	371	ug/kg	111	371	
218-01-9	Chrysene	U	37.1	ug/kg	11.1	37.1	
117-81-7	bis(2-Ethylhexyl)phthalate	U	371	ug/kg	74.1	371	
117-84-0	Di-n-octylphthalate	U	371	ug/kg	74.1	371	
205-99-2	Benzo(b)fluoranthene	U	37.1	ug/kg	11.1	37.1	
207-08-9	Benzo(k)fluoranthene	U	37.1	ug/kg	11.1	37.1	
50-32-8	Benzo(a)pyrene	U	37.1	ug/kg	11.1	37.1	
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.1	ug/kg	11.1	37.1	
53-70-3	Dibenzo(a,h)anthracene	U	37.1	ug/kg	11.1	37.1	
191-24-2	Benzo(ghi)perylene	U	37.1	ug/kg	11.1	37.1	
120-82-1	1,2,4-Trichlorobenzene	U	371	ug/kg	74.1	371	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	356	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862004	**Date Received:**	03/06/2010 09:15	**%Moisture:**	20.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13777	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 21:08	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s2c2520.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	419	ug/kg	83.7	419	
108-95-2	Phenol	U	419	ug/kg	83.7	419	
95-57-8	2-Chlorophenol	U	419	ug/kg	83.7	419	
106-46-7	1,4-Dichlorobenzene	U	419	ug/kg	83.7	419	
621-64-7	N-Nitrosodipropylamine	U	419	ug/kg	83.7	419	
59-50-7	4-Chloro-3-methylphenol	U	419	ug/kg	83.7	419	
83-32-9	Acenaphthene	U	41.9	ug/kg	13.8	41.9	
121-14-2	2,4-Dinitrotoluene	U	419	ug/kg	41.9	419	
100-02-7	4-Nitrophenol	U	419	ug/kg	138	419	
87-86-5	Pentachlorophenol	U	419	ug/kg	105	419	
129-00-0	Pyrene		82.9	ug/kg	12.6	41.9	
110-86-1	Pyridine	U	419	ug/kg	83.7	419	UJ,SV7c
62-53-3	Aniline	U	419	ug/kg	126	419	
111-44-4	bis(2-Chloroethyl) ether	U	419	ug/kg	83.7	419	
541-73-1	1,3-Dichlorobenzene	U	419	ug/kg	83.7	419	
100-51-6	Benzyl alcohol	U	419	ug/kg	126	419	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	419	ug/kg	83.7	419	
108-60-1	bis(2-Chloroisopropyl)ether	U	419	ug/kg	83.7	419	
95-48-7	o-Cresol	U	419	ug/kg	83.7	419	
65794-96-9	m,p-Cresols	U	419	ug/kg	126	419	
67-72-1	Hexachloroethane	U	419	ug/kg	83.7	419	
98-95-3	Nitrobenzene	U	419	ug/kg	83.7	419	
78-59-1	Isophorone	U	419	ug/kg	83.7	419	
88-75-5	2-Nitrophenol	U	419	ug/kg	83.7	419	
105-67-9	2,4-Dimethylphenol	U	419	ug/kg	146	419	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	419	ug/kg	83.7	419	
120-83-2	2,4-Dichlorophenol	U	419	ug/kg	83.7	419	
65-85-0	Benzoic acid	U	837	ug/kg	209	837	
91-20-3	Naphthalene	U	41.9	ug/kg	12.6	41.9	
106-47-8	4-Chloroaniline	U	419	ug/kg	83.7	419	
87-68-3	Hexachlorobutadiene	U	419	ug/kg	83.7	419	
91-57-6	2-Methylnaphthalene	U	41.9	ug/kg	8.37	41.9	
77-47-4	Hexachlorocyclopentadiene	U	419	ug/kg	83.7	419	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	419	ug/kg	83.7	419	
95-95-4	2,4,5-Trichlorophenol	U	419	ug/kg	83.7	419	
91-58-7	2-Chloronaphthalene	U	41.9	ug/kg	13.8	41.9	
88-74-4	2-Nitroaniline	U	419	ug/kg	83.7	419	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	419	ug/kg	83.7	419	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	Date Collected:	03/04/2010 12:00	Matrix:	S
Lab Sample ID:	248862004	Date Received:	03/06/2010 09:15	%Moisture:	20.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13777	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965979	Inst:	MSD2.I	Dilution:	1
Run Date:	03/25/2010 21:08	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/17/2010 10:52	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s2c2520.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	419	ug/kg	83.7	419	
606-20-2	2,6-Dinitrotoluene	U	419	ug/kg	41.9	419	
208-96-8	Acenaphthylene	U	41.9	ug/kg	12.6	41.9	
51-28-5	2,4-Dinitrophenol	U	837	ug/kg	159	837	
132-64-9	Dibenzofuran	U	419	ug/kg	83.7	419	
84-66-2	Diethylphthalate	U	419	ug/kg	83.7	419	
86-73-7	Fluorene	U	41.9	ug/kg	12.6	41.9	
7005-72-3	4-Chlorophenylphenylether	U	419	ug/kg	83.7	419	
534-52-1	2-Methyl-4,6-dinitrophenol	U	419	ug/kg	83.7	419	UJ,SV7c
100-01-6	4-Nitroaniline	U	419	ug/kg	126	419	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	419	ug/kg	83.7	419	
122-66-7	Azobenzene	U	419	ug/kg	83.7	419	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	419	ug/kg	83.7	419	
118-74-1	Hexachlorobenzene	U	419	ug/kg	83.7	419	
85-01-8	Phenanthrene		85.8	ug/kg	12.6	41.9	
120-12-7	Anthracene	J	19.1	ug/kg	8.37	41.9	
84-74-2	Di-n-butylphthalate	U	419	ug/kg	83.7	419	
206-44-0	Fluoranthene		102	ug/kg	12.6	41.9	
85-68-7	Butylbenzylphthalate	U	419	ug/kg	83.7	419	
56-55-3	Benzo(a)anthracene	U	41.9	ug/kg	12.6	41.9	
91-94-1	3,3'-Dichlorobenzidine	U	419	ug/kg	126	419	
218-01-9	Chrysene		45.2	ug/kg	12.6	41.9	
117-81-7	bis(2-Ethylhexyl)phthalate	U	419	ug/kg	83.7	419	
117-84-0	Di-n-octylphthalate	U	419	ug/kg	83.7	419	
205-99-2	Benzo(b)fluoranthene		71.1	ug/kg	12.6	41.9	
207-08-9	Benzo(k)fluoranthene	U	41.9	ug/kg	12.6	41.9	
50-32-8	Benzo(a)pyrene		44.7	ug/kg	12.6	41.9	
193-39-5	Indeno(1,2,3-cd)pyrene	J	32.0	ug/kg	12.6	41.9	
53-70-3	Dibenzo(a,h)anthracene	U	41.9	ug/kg	12.6	41.9	
191-24-2	Benzo(ghi)perylene		42.5	ug/kg	12.6	41.9	
120-82-1	1,2,4-Trichlorobenzene	U	419	ug/kg	83.7	419	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	450	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	Date Collected:	03/04/2010 12:00	Matrix:	S
Lab Sample ID:	248862010	Date Received:	03/06/2010 09:15	%Moisture:	19.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13778	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965979	Inst:	MSD2.I	Dilution:	1
Run Date:	03/25/2010 23:09	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/17/2010 10:52	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s2c2526.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	412	ug/kg	82.4	412	
108-95-2	Phenol	U	412	ug/kg	82.4	412	
95-57-8	2-Chlorophenol	U	412	ug/kg	82.4	412	
106-46-7	1,4-Dichlorobenzene	U	412	ug/kg	82.4	412	
621-64-7	N-Nitrosodipropylamine	U	412	ug/kg	82.4	412	
59-50-7	4-Chloro-3-methylphenol	U	412	ug/kg	82.4	412	
83-32-9	Acenaphthene	U	41.2	ug/kg	13.6	41.2	
121-14-2	2,4-Dinitrotoluene	U	412	ug/kg	41.2	412	
100-02-7	4-Nitrophenol	U	412	ug/kg	136	412	
87-86-5	Pentachlorophenol	U	412	ug/kg	103	412	
129-00-0	Pyrene	U	41.2	ug/kg	12.4	41.2	
110-86-1	Pyridine	U	412	ug/kg	82.4	412	UJ,SV7c
62-53-3	Aniline	U	412	ug/kg	124	412	
111-44-4	bis(2-Chloroethyl) ether	U	412	ug/kg	82.4	412	
541-73-1	1,3-Dichlorobenzene	U	412	ug/kg	82.4	412	
100-51-6	Benzyl alcohol	U	412	ug/kg	124	412	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	412	ug/kg	82.4	412	
108-60-1	bis(2-Chloroisopropyl)ether	U	412	ug/kg	82.4	412	
95-48-7	o-Cresol	U	412	ug/kg	82.4	412	
65794-96-9	m,p-Cresols	U	412	ug/kg	124	412	
67-72-1	Hexachloroethane	U	412	ug/kg	82.4	412	
98-95-3	Nitrobenzene	U	412	ug/kg	82.4	412	
78-59-1	Isophorone	U	412	ug/kg	82.4	412	
88-75-5	2-Nitrophenol	U	412	ug/kg	82.4	412	
105-67-9	2,4-Dimethylphenol	U	412	ug/kg	144	412	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	412	ug/kg	82.4	412	
120-83-2	2,4-Dichlorophenol	U	412	ug/kg	82.4	412	
65-85-0	Benzoic acid	U	824	ug/kg	206	824	
91-20-3	Naphthalene	U	41.2	ug/kg	12.4	41.2	
106-47-8	4-Chloroaniline	U	412	ug/kg	82.4	412	
87-68-3	Hexachlorobutadiene	U	412	ug/kg	82.4	412	
91-57-6	2-Methylnaphthalene	U	41.2	ug/kg	8.24	41.2	
77-47-4	Hexachlorocyclopentadiene	U	412	ug/kg	82.4	412	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	412	ug/kg	82.4	412	
95-95-4	2,4,5-Trichlorophenol	U	412	ug/kg	82.4	412	
91-58-7	2-Chloronaphthalene	U	41.2	ug/kg	13.6	41.2	
88-74-4	2-Nitroaniline	U	412	ug/kg	82.4	412	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	412	ug/kg	82.4	412	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	Date Collected:	03/04/2010 12:00	Matrix:	S
Lab Sample ID:	248862010	Date Received:	03/06/2010 09:15	%Moisture:	19.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13778	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965979	Inst:	MSD2.I	Dilution:	1
Run Date:	03/25/2010 23:09	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/17/2010 10:52	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s2c2526.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	412	ug/kg	82.4	412	
606-20-2	2,6-Dinitrotoluene	U	412	ug/kg	41.2	412	
208-96-8	Acenaphthylene	U	41.2	ug/kg	12.4	41.2	
51-28-5	2,4-Dinitrophenol	U	824	ug/kg	157	824	
132-64-9	Dibenzofuran	U	412	ug/kg	82.4	412	
84-66-2	Diethylphthalate	U	412	ug/kg	82.4	412	
86-73-7	Fluorene	U	41.2	ug/kg	12.4	41.2	
7005-72-3	4-Chlorophenylphenylether	U	412	ug/kg	82.4	412	
534-52-1	2-Methyl-4,6-dinitrophenol	U	412	ug/kg	82.4	412	UJ,SV7c
100-01-6	4-Nitroaniline	U	412	ug/kg	124	412	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	412	ug/kg	82.4	412	
122-66-7	Azobenzene	U	412	ug/kg	82.4	412	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	412	ug/kg	82.4	412	
118-74-1	Hexachlorobenzene	U	412	ug/kg	82.4	412	
85-01-8	Phenanthrene	U	41.2	ug/kg	12.4	41.2	
120-12-7	Anthracene	U	41.2	ug/kg	8.24	41.2	
84-74-2	Di-n-butylphthalate	U	412	ug/kg	82.4	412	
206-44-0	Fluoranthene	U	41.2	ug/kg	12.4	41.2	
85-68-7	Butylbenzylphthalate	U	412	ug/kg	82.4	412	
56-55-3	Benzo(a)anthracene	U	41.2	ug/kg	12.4	41.2	
91-94-1	3,3'-Dichlorobenzidine	U	412	ug/kg	124	412	
218-01-9	Chrysene	U	41.2	ug/kg	12.4	41.2	
117-81-7	bis(2-Ethylhexyl)phthalate	J	83.3	ug/kg	82.4	412	
117-84-0	Di-n-octylphthalate	U	412	ug/kg	82.4	412	
205-99-2	Benzo(b)fluoranthene	U	41.2	ug/kg	12.4	41.2	
207-08-9	Benzo(k)fluoranthene	U	41.2	ug/kg	12.4	41.2	
50-32-8	Benzo(a)pyrene	U	41.2	ug/kg	12.4	41.2	
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.2	ug/kg	12.4	41.2	
53-70-3	Dibenzo(a,h)anthracene	U	41.2	ug/kg	12.4	41.2	
191-24-2	Benzo(ghi)perylene	U	41.2	ug/kg	12.4	41.2	
120-82-1	1,2,4-Trichlorobenzene	U	412	ug/kg	82.4	412	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	443	ug/kg		JA

LT 4/22/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	Date Collected:	03/04/2010 12:00	Matrix:	S
Lab Sample ID:	248862008	Date Received:	03/06/2010 09:15	%Moisture:	19.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13779	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965979	Inst:	MSD2.I	Dilution:	1
Run Date:	03/25/2010 22:28	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/17/2010 10:52	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	s2c2524.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	413	ug/kg	82.6	413	
108-95-2	Phenol	U	413	ug/kg	82.6	413	
95-57-8	2-Chlorophenol	U	413	ug/kg	82.6	413	
106-46-7	1,4-Dichlorobenzene	U	413	ug/kg	82.6	413	
621-64-7	N-Nitrosodipropylamine	U	413	ug/kg	82.6	413	
59-50-7	4-Chloro-3-methylphenol	U	413	ug/kg	82.6	413	
83-32-9	Acenaphthene	U	41.3	ug/kg	13.6	41.3	
121-14-2	2,4-Dinitrotoluene	U	413	ug/kg	41.3	413	
100-02-7	4-Nitrophenol	U	413	ug/kg	136	413	
87-86-5	Pentachlorophenol	U	413	ug/kg	103	413	
129-00-0	Pyrene		64.7	ug/kg	12.4	41.3	
110-86-1	Pyridine	U	413	ug/kg	82.6	413	UJ,SV7c
62-53-3	Aniline	U	413	ug/kg	124	413	
111-44-4	bis(2-Chloroethyl) ether	U	413	ug/kg	82.6	413	
541-73-1	1,3-Dichlorobenzene	U	413	ug/kg	82.6	413	
100-51-6	Benzyl alcohol	U	413	ug/kg	124	413	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	413	ug/kg	82.6	413	
108-60-1	bis(2-Chloroisopropyl)ether	U	413	ug/kg	82.6	413	
95-48-7	o-Cresol	U	413	ug/kg	82.6	413	
65794-96-9	m,p-Cresols	U	413	ug/kg	124	413	
67-72-1	Hexachloroethane	U	413	ug/kg	82.6	413	
98-95-3	Nitrobenzene	U	413	ug/kg	82.6	413	
78-59-1	Isophorone	U	413	ug/kg	82.6	413	
88-75-5	2-Nitrophenol	U	413	ug/kg	82.6	413	
105-67-9	2,4-Dimethylphenol	U	413	ug/kg	145	413	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	413	ug/kg	82.6	413	
120-83-2	2,4-Dichlorophenol	U	413	ug/kg	82.6	413	
65-85-0	Benzoic acid	U	826	ug/kg	207	826	
91-20-3	Naphthalene	U	41.3	ug/kg	12.4	41.3	
106-47-8	4-Chloroaniline	U	413	ug/kg	82.6	413	
87-68-3	Hexachlorobutadiene	U	413	ug/kg	82.6	413	
91-57-6	2-Methylnaphthalene	U	41.3	ug/kg	8.26	41.3	
77-47-4	Hexachlorocyclopentadiene	U	413	ug/kg	82.6	413	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	413	ug/kg	82.6	413	
95-95-4	2,4,5-Trichlorophenol	U	413	ug/kg	82.6	413	
91-58-7	2-Chloronaphthalene	U	41.3	ug/kg	13.6	41.3	
88-74-4	2-Nitroaniline	U	413	ug/kg	82.6	413	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	413	ug/kg	82.6	413	

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Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862008	**Date Received:**	03/06/2010 09:15	**%Moisture:**	19.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13779	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 22:28	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	s2c2524.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	413	ug/kg	82.6	413	
606-20-2	2,6-Dinitrotoluene	U	413	ug/kg	41.3	413	
208-96-8	Acenaphthylene	U	41.3	ug/kg	12.4	41.3	
51-28-5	2,4-Dinitrophenol	U	826	ug/kg	157	826	
132-64-9	Dibenzofuran	U	413	ug/kg	82.6	413	
84-66-2	Diethylphthalate	U	413	ug/kg	82.6	413	
86-73-7	Fluorene	U	41.3	ug/kg	12.4	41.3	
7005-72-3	4-Chlorophenylphenylether	U	413	ug/kg	82.6	413	
534-52-1	2-Methyl-4,6-dinitrophenol	U	413	ug/kg	82.6	413	UJ,SV7c
100-01-6	4-Nitroaniline	U	413	ug/kg	124	413	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	413	ug/kg	82.6	413	
122-66-7	Azobenzene	U	413	ug/kg	82.6	413	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	413	ug/kg	82.6	413	
118-74-1	Hexachlorobenzene	U	413	ug/kg	82.6	413	
85-01-8	Phenanthrene		54.5	ug/kg	12.4	41.3	
120-12-7	Anthracene	J	12.1	ug/kg	8.26	41.3	
84-74-2	Di-n-butylphthalate	U	413	ug/kg	82.6	413	
206-44-0	Fluoranthene		79.1	ug/kg	12.4	41.3	
85-68-7	Butylbenzylphthalate	U	413	ug/kg	82.6	413	
56-55-3	Benzo(a)anthracene	U	41.3	ug/kg	12.4	41.3	
91-94-1	3,3'-Dichlorobenzidine	U	413	ug/kg	124	413	
218-01-9	Chrysene	J	35.7	ug/kg	12.4	41.3	
117-81-7	bis(2-Ethylhexyl)phthalate	U	413	ug/kg	82.6	413	
117-84-0	Di-n-octylphthalate	U	413	ug/kg	82.6	413	
205-99-2	Benzo(b)fluoranthene		54.9	ug/kg	12.4	41.3	
207-08-9	Benzo(k)fluoranthene	U	41.3	ug/kg	12.4	41.3	
50-32-8	Benzo(a)pyrene	J	34.1	ug/kg	12.4	41.3	
193-39-5	Indeno(1,2,3-cd)pyrene	J	18.4	ug/kg	12.4	41.3	
53-70-3	Dibenzo(a,h)anthracene	U	41.3	ug/kg	12.4	41.3	
191-24-2	Benzo(ghi)perylene	J	22.5	ug/kg	12.4	41.3	
120-82-1	1,2,4-Trichlorobenzene	U	413	ug/kg	82.6	413	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	446	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862009	**Date Received:**	03/06/2010 09:15	**%Moisture:**	18.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13780	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 22:49	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	s2c2525.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	406	ug/kg	81.3	406	
108-95-2	Phenol	U	406	ug/kg	81.3	406	
95-57-8	2-Chlorophenol	U	406	ug/kg	81.3	406	
106-46-7	1,4-Dichlorobenzene	U	406	ug/kg	81.3	406	
621-64-7	N-Nitrosodipropylamine	U	406	ug/kg	81.3	406	
59-50-7	4-Chloro-3-methylphenol	U	406	ug/kg	81.3	406	
83-32-9	Acenaphthene	U	40.6	ug/kg	13.4	40.6	
121-14-2	2,4-Dinitrotoluene	U	406	ug/kg	40.6	406	
100-02-7	4-Nitrophenol	U	406	ug/kg	134	406	
87-86-5	Pentachlorophenol	U	406	ug/kg	102	406	
129-00-0	Pyrene	U	40.6	ug/kg	12.2	40.6	
110-86-1	Pyridine	U	406	ug/kg	81.3	406	UJ,SV7c
62-53-3	Aniline	U	406	ug/kg	122	406	
111-44-4	bis(2-Chloroethyl) ether	U	406	ug/kg	81.3	406	
541-73-1	1,3-Dichlorobenzene	U	406	ug/kg	81.3	406	
100-51-6	Benzyl alcohol	U	406	ug/kg	122	406	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	406	ug/kg	81.3	406	
108-60-1	bis(2-Chloroisopropyl)ether	U	406	ug/kg	81.3	406	
95-48-7	o-Cresol	U	406	ug/kg	81.3	406	
65794-96-9	m,p-Cresols	U	406	ug/kg	122	406	
67-72-1	Hexachloroethane	U	406	ug/kg	81.3	406	
98-95-3	Nitrobenzene	U	406	ug/kg	81.3	406	
78-59-1	Isophorone	U	406	ug/kg	81.3	406	
88-75-5	2-Nitrophenol	U	406	ug/kg	81.3	406	
105-67-9	2,4-Dimethylphenol	U	406	ug/kg	142	406	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	406	ug/kg	81.3	406	
120-83-2	2,4-Dichlorophenol	U	406	ug/kg	81.3	406	
65-85-0	Benzoic acid	U	813	ug/kg	203	813	
91-20-3	Naphthalene	U	40.6	ug/kg	12.2	40.6	
106-47-8	4-Chloroaniline	U	406	ug/kg	81.3	406	
87-68-3	Hexachlorobutadiene	U	406	ug/kg	81.3	406	
91-57-6	2-Methylnaphthalene	U	40.6	ug/kg	8.13	40.6	
77-47-4	Hexachlorocyclopentadiene	U	406	ug/kg	81.3	406	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	406	ug/kg	81.3	406	
95-95-4	2,4,5-Trichlorophenol	U	406	ug/kg	81.3	406	
91-58-7	2-Chloronaphthalene	U	40.6	ug/kg	13.4	40.6	
88-74-4	2-Nitroaniline	U	406	ug/kg	81.3	406	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	406	ug/kg	81.3	406	

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Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862009	**Date Received:**	03/06/2010 09:15	**%Moisture:**	18.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13780	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 22:49	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	s2c2525.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	406	ug/kg	81.3	406	
606-20-2	2,6-Dinitrotoluene	U	406	ug/kg	40.6	406	
208-96-8	Acenaphthylene	U	40.6	ug/kg	12.2	40.6	
51-28-5	2,4-Dinitrophenol	U	813	ug/kg	154	813	
132-64-9	Dibenzofuran	U	406	ug/kg	81.3	406	
84-66-2	Diethylphthalate	U	406	ug/kg	81.3	406	
86-73-7	Fluorene	U	40.6	ug/kg	12.2	40.6	
7005-72-3	4-Chlorophenylphenylether	U	406	ug/kg	81.3	406	
534-52-1	2-Methyl-4,6-dinitrophenol	U	406	ug/kg	81.3	406	UJ,SV7c
100-01-6	4-Nitroaniline	U	406	ug/kg	122	406	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	406	ug/kg	81.3	406	
122-66-7	Azobenzene	U	406	ug/kg	81.3	406	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	406	ug/kg	81.3	406	
118-74-1	Hexachlorobenzene	U	406	ug/kg	81.3	406	
85-01-8	Phenanthrene	U	40.6	ug/kg	12.2	40.6	
120-12-7	Anthracene	U	40.6	ug/kg	8.13	40.6	
84-74-2	Di-n-butylphthalate	U	406	ug/kg	81.3	406	
206-44-0	Fluoranthene	U	40.6	ug/kg	12.2	40.6	
85-68-7	Butylbenzylphthalate	U	406	ug/kg	81.3	406	
56-55-3	Benzo(a)anthracene	U	40.6	ug/kg	12.2	40.6	
91-94-1	3,3'-Dichlorobenzidine	U	406	ug/kg	122	406	
218-01-9	Chrysene	U	40.6	ug/kg	12.2	40.6	
117-81-7	bis(2-Ethylhexyl)phthalate	U	406	ug/kg	81.3	406	
117-84-0	Di-n-octylphthalate	U	406	ug/kg	81.3	406	
205-99-2	Benzo(b)fluoranthene	U	40.6	ug/kg	12.2	40.6	
207-08-9	Benzo(k)fluoranthene	U	40.6	ug/kg	12.2	40.6	
50-32-8	Benzo(a)pyrene	U	40.6	ug/kg	12.2	40.6	
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.6	ug/kg	12.2	40.6	
53-70-3	Dibenzo(a,h)anthracene	U	40.6	ug/kg	12.2	40.6	
191-24-2	Benzo(ghi)perylene	U	40.6	ug/kg	12.2	40.6	
120-82-1	1,2,4-Trichlorobenzene	U	406	ug/kg	81.3	406	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.88	356	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862007	**Date Received:**	03/06/2010 09:15	**%Moisture:**	18.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13781	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 22:08	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s2c2523.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	411	ug/kg	82.1	411	
108-95-2	Phenol	U	411	ug/kg	82.1	411	
95-57-8	2-Chlorophenol	U	411	ug/kg	82.1	411	
106-46-7	1,4-Dichlorobenzene	U	411	ug/kg	82.1	411	
621-64-7	N-Nitrosodipropylamine	U	411	ug/kg	82.1	411	
59-50-7	4-Chloro-3-methylphenol	U	411	ug/kg	82.1	411	
83-32-9	Acenaphthene	U	41.1	ug/kg	13.6	41.1	
121-14-2	2,4-Dinitrotoluene	U	411	ug/kg	41.1	411	
100-02-7	4-Nitrophenol	U	411	ug/kg	136	411	
87-86-5	Pentachlorophenol	U	411	ug/kg	103	411	
129-00-0	Pyrene		94.9	ug/kg	12.3	41.1	
110-86-1	Pyridine	U	411	ug/kg	82.1	411	UJ,SV7c
62-53-3	Aniline	U	411	ug/kg	123	411	
111-44-4	bis(2-Chloroethyl) ether	U	411	ug/kg	82.1	411	
541-73-1	1,3-Dichlorobenzene	U	411	ug/kg	82.1	411	
100-51-6	Benzyl alcohol	U	411	ug/kg	123	411	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	411	ug/kg	82.1	411	
108-60-1	bis(2-Chloroisopropyl)ether	U	411	ug/kg	82.1	411	
95-48-7	o-Cresol	U	411	ug/kg	82.1	411	
65794-96-9	m,p-Cresols	U	411	ug/kg	123	411	
67-72-1	Hexachloroethane	U	411	ug/kg	82.1	411	
98-95-3	Nitrobenzene	U	411	ug/kg	82.1	411	
78-59-1	Isophorone	U	411	ug/kg	82.1	411	
88-75-5	2-Nitrophenol	U	411	ug/kg	82.1	411	
105-67-9	2,4-Dimethylphenol	U	411	ug/kg	144	411	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	411	ug/kg	82.1	411	
120-83-2	2,4-Dichlorophenol	U	411	ug/kg	82.1	411	
65-85-0	Benzoic acid	U	821	ug/kg	205	821	
91-20-3	Naphthalene	U	41.1	ug/kg	12.3	41.1	
106-47-8	4-Chloroaniline	U	411	ug/kg	82.1	411	
87-68-3	Hexachlorobutadiene	U	411	ug/kg	82.1	411	
91-57-6	2-Methylnaphthalene	U	41.1	ug/kg	8.21	41.1	
77-47-4	Hexachlorocyclopentadiene	U	411	ug/kg	82.1	411	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	411	ug/kg	82.1	411	
95-95-4	2,4,5-Trichlorophenol	U	411	ug/kg	82.1	411	
91-58-7	2-Chloronaphthalene	U	41.1	ug/kg	13.6	41.1	
88-74-4	2-Nitroaniline	U	411	ug/kg	82.1	411	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	411	ug/kg	82.1	411	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862007	**Date Received:**	03/06/2010 09:15	**%Moisture:**	18.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13781	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 22:08	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s2c2523.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	411	ug/kg	82.1	411	
606-20-2	2,6-Dinitrotoluene	U	411	ug/kg	41.1	411	
208-96-8	Acenaphthylene	U	41.1	ug/kg	12.3	41.1	
51-28-5	2,4-Dinitrophenol	U	821	ug/kg	156	821	
132-64-9	Dibenzofuran	U	411	ug/kg	82.1	411	
84-66-2	Diethylphthalate	U	411	ug/kg	82.1	411	
86-73-7	Fluorene	U	41.1	ug/kg	12.3	41.1	
7005-72-3	4-Chlorophenylphenylether	U	411	ug/kg	82.1	411	
534-52-1	2-Methyl-4,6-dinitrophenol	U	411	ug/kg	82.1	411	UJ,SV7c
100-01-6	4-Nitroaniline	U	411	ug/kg	123	411	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	411	ug/kg	82.1	411	
122-66-7	Azobenzene	U	411	ug/kg	82.1	411	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	411	ug/kg	82.1	411	
118-74-1	Hexachlorobenzene	U	411	ug/kg	82.1	411	
85-01-8	Phenanthrene		76.7	ug/kg	12.3	41.1	
120-12-7	Anthracene	J	16.1	ug/kg	8.21	41.1	
84-74-2	Di-n-butylphthalate	U	411	ug/kg	82.1	411	
206-44-0	Fluoranthene		125	ug/kg	12.3	41.1	
85-68-7	Butylbenzylphthalate	U	411	ug/kg	82.1	411	
56-55-3	Benzo(a)anthracene	U	41.1	ug/kg	12.3	41.1	
91-94-1	3,3'-Dichlorobenzidine	U	411	ug/kg	123	411	
218-01-9	Chrysene		59.2	ug/kg	12.3	41.1	
117-81-7	bis(2-Ethylhexyl)phthalate	U	411	ug/kg	82.1	411	
117-84-0	Di-n-octylphthalate	U	411	ug/kg	82.1	411	
205-99-2	Benzo(b)fluoranthene		88.2	ug/kg	12.3	41.1	
207-08-9	Benzo(k)fluoranthene	U	41.1	ug/kg	12.3	41.1	
50-32-8	Benzo(a)pyrene		55.6	ug/kg	12.3	41.1	
193-39-5	Indeno(1,2,3-cd)pyrene	J	32.3	ug/kg	12.3	41.1	
53-70-3	Dibenzo(a,h)anthracene	U	41.1	ug/kg	12.3	41.1	
191-24-2	Benzo(ghi)perylene	J	32.7	ug/kg	12.3	41.1	
120-82-1	1,2,4-Trichlorobenzene	U	411	ug/kg	82.1	411	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	491	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	Date Collected:	03/04/2010 12:00	Matrix:	S
Lab Sample ID:	248862002	Date Received:	03/06/2010 09:15	%Moisture:	13.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13782	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965979	Inst:	MSD2.I	Dilution:	1
Run Date:	03/26/2010 18:17	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/17/2010 10:52	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s2c2610.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	387	ug/kg	77.4	387	
108-95-2	Phenol	U	387	ug/kg	77.4	387	
95-57-8	2-Chlorophenol	U	387	ug/kg	77.4	387	
106-46-7	1,4-Dichlorobenzene	U	387	ug/kg	77.4	387	
621-64-7	N-Nitrosodipropylamine	U	387	ug/kg	77.4	387	
59-50-7	4-Chloro-3-methylphenol	U	387	ug/kg	77.4	387	
83-32-9	Acenaphthene	U	38.7	ug/kg	12.8	38.7	
121-14-2	2,4-Dinitrotoluene	U	387	ug/kg	38.7	387	
100-02-7	4-Nitrophenol	U	387	ug/kg	128	387	UJ,SV7c
87-86-5	Pentachlorophenol	U	387	ug/kg	96.8	387	
129-00-0	Pyrene	U	38.7	ug/kg	11.6	38.7	
110-86-1	Pyridine	U	387	ug/kg	77.4	387	UJ,SV7c
62-53-3	Aniline	U	387	ug/kg	116	387	
111-44-4	bis(2-Chloroethyl) ether	U	387	ug/kg	77.4	387	
541-73-1	1,3-Dichlorobenzene	U	387	ug/kg	77.4	387	
100-51-6	Benzyl alcohol	U	387	ug/kg	116	387	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	387	ug/kg	77.4	387	
108-60-1	bis(2-Chloroisopropyl)ether	U	387	ug/kg	77.4	387	UJ,SV7c
95-48-7	o-Cresol	U	387	ug/kg	77.4	387	
65794-96-9	m,p-Cresols	U	387	ug/kg	116	387	
67-72-1	Hexachloroethane	U	387	ug/kg	77.4	387	
98-95-3	Nitrobenzene	U	387	ug/kg	77.4	387	
78-59-1	Isophorone	U	387	ug/kg	77.4	387	
88-75-5	2-Nitrophenol	U	387	ug/kg	77.4	387	
105-67-9	2,4-Dimethylphenol	U	387	ug/kg	135	387	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	387	ug/kg	77.4	387	
120-83-2	2,4-Dichlorophenol	U	387	ug/kg	77.4	387	
65-85-0	Benzoic acid	U	774	ug/kg	194	774	
91-20-3	Naphthalene	U	38.7	ug/kg	11.6	38.7	
106-47-8	4-Chloroaniline	U	387	ug/kg	77.4	387	
87-68-3	Hexachlorobutadiene	U	387	ug/kg	77.4	387	
91-57-6	2-Methylnaphthalene	U	38.7	ug/kg	7.74	38.7	
77-47-4	Hexachlorocyclopentadiene	U	387	ug/kg	77.4	387	
88-06-2	2,4,6-Trichlorophenol	U	387	ug/kg	77.4	387	
95-95-4	2,4,5-Trichlorophenol	U	387	ug/kg	77.4	387	
91-58-7	2-Chloronaphthalene	U	38.7	ug/kg	12.8	38.7	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	387	ug/kg	77.4	387	
99-09-2	3-Nitroaniline	U	387	ug/kg	77.4	387	UJ,SV7c

LT 4/22/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862002	**Date Received:**	03/06/2010 09:15	**%Moisture:**	13.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13782	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 18:17	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s2c2610.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	387	ug/kg	77.4	387	
606-20-2	2,6-Dinitrotoluene	U	387	ug/kg	38.7	387	
208-96-8	Acenaphthylene	U	38.7	ug/kg	11.6	38.7	
51-28-5	2,4-Dinitrophenol	U	774	ug/kg	147	774	
132-64-9	Dibenzofuran	U	387	ug/kg	77.4	387	
84-66-2	Diethylphthalate	U	387	ug/kg	77.4	387	
86-73-7	Fluorene	U	38.7	ug/kg	11.6	38.7	
7005-72-3	4-Chlorophenylphenylether	U	387	ug/kg	77.4	387	
534-52-1	2-Methyl-4,6-dinitrophenol	U	387	ug/kg	77.4	387	UJ,SV7c
100-01-6	4-Nitroaniline	U	387	ug/kg	116	387	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	387	ug/kg	77.4	387	
122-66-7	Azobenzene	U	387	ug/kg	77.4	387	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	387	ug/kg	77.4	387	
118-74-1	Hexachlorobenzene	U	387	ug/kg	77.4	387	
85-01-8	Phenanthrene	U	38.7	ug/kg	11.6	38.7	
120-12-7	Anthracene	U	38.7	ug/kg	7.74	38.7	
84-74-2	Di-n-butylphthalate	U	387	ug/kg	77.4	387	
206-44-0	Fluoranthene	U	38.7	ug/kg	11.6	38.7	
85-68-7	Butylbenzylphthalate	U	387	ug/kg	77.4	387	
56-55-3	Benzo(a)anthracene	U	38.7	ug/kg	11.6	38.7	
91-94-1	3,3'-Dichlorobenzidine	U	387	ug/kg	116	387	
218-01-9	Chrysene	U	38.7	ug/kg	11.6	38.7	
117-81-7	bis(2-Ethylhexyl)phthalate	U	387	ug/kg	77.4	387	
117-84-0	Di-n-octylphthalate	U	387	ug/kg	77.4	387	
205-99-2	Benzo(b)fluoranthene	U	38.7	ug/kg	11.6	38.7	
207-08-9	Benzo(k)fluoranthene	U	38.7	ug/kg	11.6	38.7	
50-32-8	Benzo(a)pyrene	U	38.7	ug/kg	11.6	38.7	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.7	ug/kg	11.6	38.7	
53-70-3	Dibenzo(a,h)anthracene	U	38.7	ug/kg	11.6	38.7	
191-24-2	Benzo(ghi)perylene	U	38.7	ug/kg	11.6	38.7	
120-82-1	1,2,4-Trichlorobenzene	U	387	ug/kg	77.4	387	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	381	ug/kg		JA

LT 4/22/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862003	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13783	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 20:47	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s2c2519.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	367	ug/kg	73.5	367	
108-95-2	Phenol	U	367	ug/kg	73.5	367	
95-57-8	2-Chlorophenol	U	367	ug/kg	73.5	367	
106-46-7	1,4-Dichlorobenzene	U	367	ug/kg	73.5	367	
621-64-7	N-Nitrosodipropylamine	U	367	ug/kg	73.5	367	
59-50-7	4-Chloro-3-methylphenol	U	367	ug/kg	73.5	367	
83-32-9	Acenaphthene	U	36.7	ug/kg	12.1	36.7	
121-14-2	2,4-Dinitrotoluene	U	367	ug/kg	36.7	367	
100-02-7	4-Nitrophenol	U	367	ug/kg	121	367	
87-86-5	Pentachlorophenol	U	367	ug/kg	91.8	367	
129-00-0	Pyrene	U	36.7	ug/kg	11.0	36.7	
110-86-1	Pyridine	U	367	ug/kg	73.5	367	UJ,SV7c
62-53-3	Aniline	U	367	ug/kg	110	367	
111-44-4	bis(2-Chloroethyl) ether	U	367	ug/kg	73.5	367	
541-73-1	1,3-Dichlorobenzene	U	367	ug/kg	73.5	367	
100-51-6	Benzyl alcohol	U	367	ug/kg	110	367	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	367	ug/kg	73.5	367	
108-60-1	bis(2-Chloroisopropyl)ether	U	367	ug/kg	73.5	367	
95-48-7	o-Cresol	U	367	ug/kg	73.5	367	
65794-96-9	m,p-Cresols	U	367	ug/kg	110	367	
67-72-1	Hexachloroethane	U	367	ug/kg	73.5	367	
98-95-3	Nitrobenzene	U	367	ug/kg	73.5	367	
78-59-1	Isophorone	U	367	ug/kg	73.5	367	
88-75-5	2-Nitrophenol	U	367	ug/kg	73.5	367	
105-67-9	2,4-Dimethylphenol	U	367	ug/kg	129	367	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	367	ug/kg	73.5	367	
120-83-2	2,4-Dichlorophenol	U	367	ug/kg	73.5	367	
65-85-0	Benzoic acid	U	735	ug/kg	184	735	
91-20-3	Naphthalene	U	36.7	ug/kg	11.0	36.7	
106-47-8	4-Chloroaniline	U	367	ug/kg	73.5	367	
87-68-3	Hexachlorobutadiene	U	367	ug/kg	73.5	367	
91-57-6	2-Methylnaphthalene	U	36.7	ug/kg	7.35	36.7	
77-47-4	Hexachlorocyclopentadiene	U	367	ug/kg	73.5	367	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	367	ug/kg	73.5	367	
95-95-4	2,4,5-Trichlorophenol	U	367	ug/kg	73.5	367	
91-58-7	2-Chloronaphthalene	U	36.7	ug/kg	12.1	36.7	
88-74-4	2-Nitroaniline	U	367	ug/kg	73.5	367	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	367	ug/kg	73.5	367	

LT 4/22/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862003	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13783	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 20:47	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s2c2519.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	367	ug/kg	73.5	367	
606-20-2	2,6-Dinitrotoluene	U	367	ug/kg	36.7	367	
208-96-8	Acenaphthylene	U	36.7	ug/kg	11.0	36.7	
51-28-5	2,4-Dinitrophenol	U	735	ug/kg	140	735	
132-64-9	Dibenzofuran	U	367	ug/kg	73.5	367	
84-66-2	Diethylphthalate	U	367	ug/kg	73.5	367	
86-73-7	Fluorene	U	36.7	ug/kg	11.0	36.7	
7005-72-3	4-Chlorophenylphenylether	U	367	ug/kg	73.5	367	
534-52-1	2-Methyl-4,6-dinitrophenol	U	367	ug/kg	73.5	367	UJ,SV7c
100-01-6	4-Nitroaniline	U	367	ug/kg	110	367	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	367	ug/kg	73.5	367	
122-66-7	Azobenzene	U	367	ug/kg	73.5	367	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	367	ug/kg	73.5	367	
118-74-1	Hexachlorobenzene	U	367	ug/kg	73.5	367	
85-01-8	Phenanthrene	U	36.7	ug/kg	11.0	36.7	
120-12-7	Anthracene	U	36.7	ug/kg	7.35	36.7	
84-74-2	Di-n-butylphthalate	U	367	ug/kg	73.5	367	
206-44-0	Fluoranthene	U	36.7	ug/kg	11.0	36.7	
85-68-7	Butylbenzylphthalate	U	367	ug/kg	73.5	367	
56-55-3	Benzo(a)anthracene	U	36.7	ug/kg	11.0	36.7	
91-94-1	3,3'-Dichlorobenzidine	U	367	ug/kg	110	367	
218-01-9	Chrysene	U	36.7	ug/kg	11.0	36.7	
117-81-7	bis(2-Ethylhexyl)phthalate	U	367	ug/kg	73.5	367	
117-84-0	Di-n-octylphthalate	U	367	ug/kg	73.5	367	
205-99-2	Benzo(b)fluoranthene	U	36.7	ug/kg	11.0	36.7	
207-08-9	Benzo(k)fluoranthene	U	36.7	ug/kg	11.0	36.7	
50-32-8	Benzo(a)pyrene	U	36.7	ug/kg	11.0	36.7	
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.7	ug/kg	11.0	36.7	
53-70-3	Dibenzo(a,h)anthracene	U	36.7	ug/kg	11.0	36.7	
191-24-2	Benzo(ghi)perylene	U	36.7	ug/kg	11.0	36.7	
120-82-1	1,2,4-Trichlorobenzene	U	367	ug/kg	73.5	367	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	310	ug/kg		JA

LT 4/22/10

DATA VALIDATION COVER SHEET

5130-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2314 VALIDATION DATE: 4/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The MSD %R was <70% but ≥10%. The associated results for samples RE46-10-13783, -13775, -13781 and -13778 were detects and, thus, were qualified J,DR12e. The remaining associated sample results were NDs and, thus, were qualified UJ,DR12e.

Reviewed by: Allison Felix Level: 1 Date: 4/23/10

VALIDATOR'S SIGNATURE: K Thal DATE: 4/22/10

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The retention time criteria were not met.	R, DR0 or GR0	R, DR0 or GR0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR0b	R, GR0b
☐	☒	☐	3. The surrogate is less than 10%R. Follow external laboratory limits.	R, DR3 or GR3	J-, DR3 or GR3
☐	☒	☐	4. The surrogate is less than the Lower Acceptance Limit, but greater than or equal to 10%R. Follow external laboratory limits.	UJ, DR3a or GR3a	J-, DR3a or GR3a
☐	☒	☐	5. The surrogate %R value is greater than the Upper Acceptance Limit. Follow external laboratory limits.	N/A	J+, DR3b or GR3b
☐	☒	☐	6. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR3d or GR3d	R, DR3d or GR3d
☐	☒	☐	7. The sample result is less than or equal to 5 times the concentration of the related analyte in the method blank.	U, DR4 or GR4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank, but was greater than 5x.	N/A	J+, DR4a or GR4a
☐	☐	☒	9. The sample result is less than or equal to 5 times the concentration of the related analyte in the trip blank, rinsate blank or equipment blank.	U, DR4d or GR4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR4e or GR4e	R, DR4e or GR4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, DR7 or GR7	J, DR7 or GR7

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less than 0.995.	UJ, DR7a or GR7a	J, DR7a or GR7a
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method specific limits.	UJ, DR7c or GR7c	J, DR7c or GR7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DR7d or GR7d	J, DR7d or GR7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DR7f or GR7f	R, DR7f or GR7f
☐	☒	☐	16. The holding time was greater than 1 and less than or equal to 2 times the applicable holding time requirement.	UJ, DR9 or GR9	J-, DR9 or GR9
☐	☒	☐	17. The holding time was greater than 2 times the applicable holding time requirement.	R, DR9a or GR9a	J-, DR9a or GR9a
☐	☒	☐	18. The LCS percent recovery was less than 10%. Follow the external laboratory limits.	R, DR12 or GR12	J-, DR12 or GR12
☐	☒	☐	19. The LCS percent recovery was less than the Lower Acceptance Limit, but greater than 10%. Follow the external laboratory limits.	UJ, DR12a or GR12a	J-, DR12a or GR12a
☐	☒	☐	20. The LCS percent recovery was greater than the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DR12b or GR12b
☐	☒	☐	21. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or the external laboratory for information.	R, DR12c or GR12c	R, DR12c or GR12c
☐	☒	☐	22. The MS/MSD percent recovery was less than 10%.	R, DR12d or GR12d	R, DR12d or Gr12d
☒	☐	☐	23. The MS/MSD percent recovery was greater than 10%, but less than 70%.	UJ, DR12e or GR12e	J, DR12e or GR12e

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST	
5130-2 **TPH GRO and DRO Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The MS/MSD percent recovery was greater than 70%.	N/A	J+, DR12f or GR12f
☐	☒	☐	25. The MS/MSD relative percent difference was greater than 30%.	UJ, DR12g or GR12g	J, DR12g or GR12g
☐	☐	☒	26. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, DR15 or GR15	R, DR15 or GR15
☐	☒	☐	27. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, DR19 or GR19	J, R, DR19 or GR19
☐	☒	☐	28. Duplicate, dilution, or reanalysis.	UJ, DR88 or GR88	J, DR88 or GR88

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862005	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13775	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 21:32	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.14 g	**Final Volume:**	1 mL
Data File:	054f5401.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
DRO	Diesel Range Organics	J	3.87	mg/kg	2.38	7.33	J,DR12e

LT 4/22/10

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862006	**Date Received:**	03/06/2010 09:15	**%Moisture:**	10.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13776	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 22:09	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	055f5501.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
DRO	Diesel Range Organics	U	7.40	mg/kg	2.41	7.40	UJ,DR12e

LT 4/22/10

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862004	**Date Received:**	03/06/2010 09:15	**%Moisture:**	20.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13777	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	20
Run Date:	03/19/2010 20:55	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	053f5301.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
DRO	Diesel Range Organics	U	167	mg/kg	54.4	167	UJ,DR12e

LT 4/22/10

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862010	**Date Received:**	03/06/2010 09:15	**%Moisture:**	19.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13778	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/20/2010 00:36	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	059f5901.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
DRO	Diesel Range Organics	J	4.24	mg/kg	2.68	8.23	J,DR12e

LT 4/22/10

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862008	**Date Received:**	03/06/2010 09:15	**%Moisture:**	19.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13779	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	20
Run Date:	03/19/2010 23:22	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	057f5701.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
DRO	Diesel Range Organics	U	165	mg/kg	53.5	165	UJ,DR12e

LT 4/22/10

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862009	**Date Received:**	03/06/2010 09:15	**%Moisture:**	18.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13780	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 23:59	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	058f5801.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
DRO	Diesel Range Organics	U	8.13	mg/kg	2.64	8.13	UJ,DR12e

LT 4/22/10

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862007	**Date Received:**	03/06/2010 09:15	**%Moisture:**	18.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13781	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 22:46	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	056f5601.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
DRO	Diesel Range Organics	J	7.17	mg/kg	2.65	8.16	J,DR12e

LT 4/22/10

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862002	**Date Received:**	03/06/2010 09:15	**%Moisture:**	13.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13782	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 17:13	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	047f4701.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
DRO	Diesel Range Organics	U	7.70	mg/kg	2.50	7.70	UJ,DR12e

LT 4/22/10

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862003	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13783	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 20:18	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	052f5201.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
DRO	Diesel Range Organics	J	3.80	mg/kg	2.38	7.33	J,DR12e

LT 4/22/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2314 VALIDATION DATE: 4/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The CCV %Ds for gamma-BHC and endrin were >15% on one column only. The associated sample results were NDs and, thus, were not qualified.
2. The MS/MSD was performed on a sample from another LANL RN and the raw data for the parent sample were not present in the data package. No sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/23/10

VALIDATOR'S SIGNATURE: L. Thal DATE: 4/22/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862005	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13775	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	966423	**Inst:**	ECD5A.I	**Dilution:**	10
Run Date:	03/18/2010 21:40	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:23	**Aliquot:**	30.12 g	**Final Volume:**	5 mL
Data File:	015f1501.d	**Column:**	1 CLP–1	**Level:**	LOW
	015b1501.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.34	ug/kg	1.83	7.34	1
58–89–9	gamma–BHC (Lindane)	U	7.34	ug/kg	1.83	7.34	1
319–85–7	beta–BHC	U	7.34	ug/kg	1.83	7.34	1
319–86–8	delta–BHC	U	7.34	ug/kg	1.83	7.34	1
76–44–8	Heptachlor	U	7.34	ug/kg	1.83	7.34	1
309–00–2	Aldrin	U	7.34	ug/kg	1.83	7.34	1
1024–57–3	Heptachlor epoxide	U	7.34	ug/kg	2.29	7.34	1
5103–74–2	gamma–Chlordane	U	7.34	ug/kg	1.83	7.34	1
5103–71–9	alpha–Chlordane	U	7.34	ug/kg	1.83	7.34	1
959–98–8	Endosulfan I	U	7.34	ug/kg	1.83	7.34	1
72–55–9	4,4'–DDE	U	14.7	ug/kg	3.67	14.7	1
60–57–1	Dieldrin	U	14.7	ug/kg	3.67	14.7	1
72–20–8	Endrin	U	14.7	ug/kg	3.67	14.7	1
72–54–8	4,4'–DDD	U	14.7	ug/kg	3.67	14.7	1
33213–65–9	Endosulfan II	U	14.7	ug/kg	3.67	14.7	1
7421–93–4	Endrin aldehyde	U	14.7	ug/kg	3.67	14.7	1
50–29–3	4,4'–DDT	U	14.7	ug/kg	3.67	14.7	1
1031–07–8	Endosulfan sulfate	U	14.7	ug/kg	3.67	14.7	1
72–43–5	Methoxychlor	U	73.4	ug/kg	18.3	73.4	1
53494–70–5	Endrin ketone	U	14.7	ug/kg	3.67	14.7	1
8001–35–2	Toxaphene	U	183	ug/kg	61.1	183	1

LT 4/22/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862006	**Date Received:**	03/06/2010 09:15	**%Moisture:**	10.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13776	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	966423	**Inst:**	ECD5A.I	**Dilution:**	10
Run Date:	03/18/2010 21:54	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:23	**Aliquot:**	30.13 g	**Final Volume:**	5 mL
Data File:	016f1601.d	**Column:**	1 CLP–1	**Level:**	LOW
	016b1601.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.38	ug/kg	1.85	7.38	1
58–89–9	gamma–BHC (Lindane)	U	7.38	ug/kg	1.85	7.38	1
319–85–7	beta–BHC	U	7.38	ug/kg	1.85	7.38	1
319–86–8	delta–BHC	U	7.38	ug/kg	1.85	7.38	1
76–44–8	Heptachlor	U	7.38	ug/kg	1.85	7.38	1
309–00–2	Aldrin	U	7.38	ug/kg	1.85	7.38	1
1024–57–3	Heptachlor epoxide	U	7.38	ug/kg	2.31	7.38	1
5103–74–2	gamma–Chlordane	U	7.38	ug/kg	1.85	7.38	1
5103–71–9	alpha–Chlordane	U	7.38	ug/kg	1.85	7.38	1
959–98–8	Endosulfan I	U	7.38	ug/kg	1.85	7.38	1
72–55–9	4,4'–DDE	U	14.8	ug/kg	3.69	14.8	1
60–57–1	Dieldrin	U	14.8	ug/kg	3.69	14.8	1
72–20–8	Endrin	U	14.8	ug/kg	3.69	14.8	1
72–54–8	4,4'–DDD	U	14.8	ug/kg	3.69	14.8	1
33213–65–9	Endosulfan II	U	14.8	ug/kg	3.69	14.8	1
7421–93–4	Endrin aldehyde	U	14.8	ug/kg	3.69	14.8	1
50–29–3	4,4'–DDT	U	14.8	ug/kg	3.69	14.8	1
1031–07–8	Endosulfan sulfate	U	14.8	ug/kg	3.69	14.8	1
72–43–5	Methoxychlor	U	73.8	ug/kg	18.5	73.8	1
53494–70–5	Endrin ketone	U	14.8	ug/kg	3.69	14.8	1
8001–35–2	Toxaphene	U	185	ug/kg	61.5	185	1

LT 4/22/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862004	**Date Received:**	03/06/2010 09:15	**%Moisture:**	20.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13777	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	966423	**Inst:**	ECD5A.I	**Dilution:**	10
Run Date:	03/18/2010 21:26	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:23	**Aliquot:**	30.17 g	**Final Volume:**	5 mL
Data File:	014f1401.d	**Column:**	1 CLP–1	**Level:**	LOW
	014b1401.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	8.33	ug/kg	2.08	8.33	1
58–89–9	gamma–BHC (Lindane)	U	8.33	ug/kg	2.08	8.33	1
319–85–7	beta–BHC	U	8.33	ug/kg	2.08	8.33	1
319–86–8	delta–BHC	U	8.33	ug/kg	2.08	8.33	1
76–44–8	Heptachlor	U	8.33	ug/kg	2.08	8.33	1
309–00–2	Aldrin	U	8.33	ug/kg	2.08	8.33	1
1024–57–3	Heptachlor epoxide	U	8.33	ug/kg	2.60	8.33	1
5103–74–2	gamma–Chlordane	U	8.33	ug/kg	2.08	8.33	1
5103–71–9	alpha–Chlordane	U	8.33	ug/kg	2.08	8.33	1
959–98–8	Endosulfan I	U	8.33	ug/kg	2.08	8.33	1
72–55–9	4,4'–DDE	U	16.7	ug/kg	4.17	16.7	1
60–57–1	Dieldrin	U	16.7	ug/kg	4.17	16.7	1
72–20–8	Endrin	U	16.7	ug/kg	4.17	16.7	1
72–54–8	4,4'–DDD	U	16.7	ug/kg	4.17	16.7	1
33213–65–9	Endosulfan II	U	16.7	ug/kg	4.17	16.7	1
7421–93–4	Endrin aldehyde	U	16.7	ug/kg	4.17	16.7	1
50–29–3	4,4'–DDT	U	16.7	ug/kg	4.17	16.7	1
1031–07–8	Endosulfan sulfate	U	16.7	ug/kg	4.17	16.7	1
72–43–5	Methoxychlor	U	83.3	ug/kg	20.8	83.3	1
53494–70–5	Endrin ketone	U	16.7	ug/kg	4.17	16.7	1
8001–35–2	Toxaphene	U	208	ug/kg	69.4	208	1

LT 4/22/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862010**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13778**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 23:18**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30.03 g**	**Final Volume:**	**5 mL**
Data File:	**022f2201.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	022b2201.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	8.23	ug/kg	2.06	8.23	1
58-89-9	gamma-BHC (Lindane)	U	8.23	ug/kg	2.06	8.23	1
319-85-7	beta-BHC	U	8.23	ug/kg	2.06	8.23	1
319-86-8	delta-BHC	U	8.23	ug/kg	2.06	8.23	1
76-44-8	Heptachlor	U	8.23	ug/kg	2.06	8.23	1
309-00-2	Aldrin	U	8.23	ug/kg	2.06	8.23	1
1024-57-3	Heptachlor epoxide	U	8.23	ug/kg	2.57	8.23	1
5103-74-2	gamma-Chlordane	U	8.23	ug/kg	2.06	8.23	1
5103-71-9	alpha-Chlordane	U	8.23	ug/kg	2.06	8.23	1
959-98-8	Endosulfan I	U	8.23	ug/kg	2.06	8.23	1
72-55-9	4,4'-DDE	U	16.5	ug/kg	4.11	16.5	1
60-57-1	Dieldrin	U	16.5	ug/kg	4.11	16.5	1
72-20-8	Endrin	U	16.5	ug/kg	4.11	16.5	1
72-54-8	4,4'-DDD	U	16.5	ug/kg	4.11	16.5	1
33213-65-9	Endosulfan II	U	16.5	ug/kg	4.11	16.5	1
7421-93-4	Endrin aldehyde	U	16.5	ug/kg	4.11	16.5	1
50-29-3	4,4'-DDT	U	16.5	ug/kg	4.11	16.5	1
1031-07-8	Endosulfan sulfate	U	16.5	ug/kg	4.11	16.5	1
72-43-5	Methoxychlor	U	82.3	ug/kg	20.6	82.3	1
53494-70-5	Endrin ketone	U	16.5	ug/kg	4.11	16.5	1
8001-35-2	Toxaphene	U	206	ug/kg	68.5	206	1

LT 4/22/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862008**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13779**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 22:22**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30.07 g**	**Final Volume:**	**5 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	018b1801.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	8.26	ug/kg	2.07	8.26	1
58–89–9	gamma–BHC (Lindane)	U	8.26	ug/kg	2.07	8.26	1
319–85–7	beta–BHC	U	8.26	ug/kg	2.07	8.26	1
319–86–8	delta–BHC	U	8.26	ug/kg	2.07	8.26	1
76–44–8	Heptachlor	U	8.26	ug/kg	2.07	8.26	1
309–00–2	Aldrin	U	8.26	ug/kg	2.07	8.26	1
1024–57–3	Heptachlor epoxide	U	8.26	ug/kg	2.58	8.26	1
5103–74–2	gamma–Chlordane	U	8.26	ug/kg	2.07	8.26	1
5103–71–9	alpha–Chlordane	U	8.26	ug/kg	2.07	8.26	1
959–98–8	Endosulfan I	U	8.26	ug/kg	2.07	8.26	1
72–55–9	4,4'–DDE	U	16.5	ug/kg	4.13	16.5	1
60–57–1	Dieldrin	U	16.5	ug/kg	4.13	16.5	1
72–20–8	Endrin	U	16.5	ug/kg	4.13	16.5	1
72–54–8	4,4'–DDD	U	16.5	ug/kg	4.13	16.5	1
33213–65–9	Endosulfan II	U	16.5	ug/kg	4.13	16.5	1
7421–93–4	Endrin aldehyde	U	16.5	ug/kg	4.13	16.5	1
50–29–3	4,4'–DDT	U	16.5	ug/kg	4.13	16.5	1
1031–07–8	Endosulfan sulfate	U	16.5	ug/kg	4.13	16.5	1
72–43–5	Methoxychlor	U	82.6	ug/kg	20.7	82.6	1
53494–70–5	Endrin ketone	U	16.5	ug/kg	4.13	16.5	1
8001–35–2	Toxaphene	U	207	ug/kg	68.8	207	1

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Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862009	**Date Received:**	03/06/2010 09:15	**%Moisture:**	18.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13780	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	966423	**Inst:**	ECD5A.I	**Dilution:**	10
Run Date:	03/18/2010 23:04	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:23	**Aliquot:**	30.16 g	**Final Volume:**	5 mL
Data File:	021f2101.d	**Column:**	1 CLP–1	**Level:**	LOW
	021b2101.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	8.09	ug/kg	2.02	8.09	1
58–89–9	gamma–BHC (Lindane)	U	8.09	ug/kg	2.02	8.09	1
319–85–7	beta–BHC	U	8.09	ug/kg	2.02	8.09	1
319–86–8	delta–BHC	U	8.09	ug/kg	2.02	8.09	1
76–44–8	Heptachlor	U	8.09	ug/kg	2.02	8.09	1
309–00–2	Aldrin	U	8.09	ug/kg	2.02	8.09	1
1024–57–3	Heptachlor epoxide	U	8.09	ug/kg	2.53	8.09	1
5103–74–2	gamma–Chlordane	U	8.09	ug/kg	2.02	8.09	1
5103–71–9	alpha–Chlordane	U	8.09	ug/kg	2.02	8.09	1
959–98–8	Endosulfan I	U	8.09	ug/kg	2.02	8.09	1
72–55–9	4,4'–DDE	U	16.2	ug/kg	4.05	16.2	1
60–57–1	Dieldrin	U	16.2	ug/kg	4.05	16.2	1
72–20–8	Endrin	U	16.2	ug/kg	4.05	16.2	1
72–54–8	4,4'–DDD	U	16.2	ug/kg	4.05	16.2	1
33213–65–9	Endosulfan II	U	16.2	ug/kg	4.05	16.2	1
7421–93–4	Endrin aldehyde	U	16.2	ug/kg	4.05	16.2	1
50–29–3	4,4'–DDT	U	16.2	ug/kg	4.05	16.2	1
1031–07–8	Endosulfan sulfate	U	16.2	ug/kg	4.05	16.2	1
72–43–5	Methoxychlor	U	80.9	ug/kg	20.2	80.9	1
53494–70–5	Endrin ketone	U	16.2	ug/kg	4.05	16.2	1
8001–35–2	Toxaphene	U	202	ug/kg	67.4	202	1

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Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862007**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13781**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 22:08**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30.11 g**	**Final Volume:**	**5 mL**
Data File:	**017f1701.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	017b1701.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	8.18	ug/kg	2.05	8.18	1
58–89–9	gamma–BHC (Lindane)	U	8.18	ug/kg	2.05	8.18	1
319–85–7	beta–BHC	U	8.18	ug/kg	2.05	8.18	1
319–86–8	delta–BHC	U	8.18	ug/kg	2.05	8.18	1
76–44–8	Heptachlor	U	8.18	ug/kg	2.05	8.18	1
309–00–2	Aldrin	U	8.18	ug/kg	2.05	8.18	1
1024–57–3	Heptachlor epoxide	U	8.18	ug/kg	2.56	8.18	1
5103–74–2	gamma–Chlordane	U	8.18	ug/kg	2.05	8.18	1
5103–71–9	alpha–Chlordane	U	8.18	ug/kg	2.05	8.18	1
959–98–8	Endosulfan I	U	8.18	ug/kg	2.05	8.18	1
72–55–9	4,4'–DDE	U	16.4	ug/kg	4.09	16.4	1
60–57–1	Dieldrin	U	16.4	ug/kg	4.09	16.4	1
72–20–8	Endrin	U	16.4	ug/kg	4.09	16.4	1
72–54–8	4,4'–DDD	U	16.4	ug/kg	4.09	16.4	1
33213–65–9	Endosulfan II	U	16.4	ug/kg	4.09	16.4	1
7421–93–4	Endrin aldehyde	U	16.4	ug/kg	4.09	16.4	1
50–29–3	4,4'–DDT	U	16.4	ug/kg	4.09	16.4	1
1031–07–8	Endosulfan sulfate	U	16.4	ug/kg	4.09	16.4	1
72–43–5	Methoxychlor	U	81.8	ug/kg	20.5	81.8	1
53494–70–5	Endrin ketone	U	16.4	ug/kg	4.09	16.4	1
8001–35–2	Toxaphene	U	205	ug/kg	68.1	205	1

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Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13782**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 20:58**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30.17 g**	**Final Volume:**	**5 mL**
Data File:	**012f1201.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	012b1201.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.70	ug/kg	1.93	7.70	1
58-89-9	gamma-BHC (Lindane)	U	7.70	ug/kg	1.93	7.70	1
319-85-7	beta-BHC	U	7.70	ug/kg	1.93	7.70	1
319-86-8	delta-BHC	U	7.70	ug/kg	1.93	7.70	1
76-44-8	Heptachlor	U	7.70	ug/kg	1.93	7.70	1
309-00-2	Aldrin	U	7.70	ug/kg	1.93	7.70	1
1024-57-3	Heptachlor epoxide	U	7.70	ug/kg	2.41	7.70	1
5103-74-2	gamma-Chlordane	U	7.70	ug/kg	1.93	7.70	1
5103-71-9	alpha-Chlordane	U	7.70	ug/kg	1.93	7.70	1
959-98-8	Endosulfan I	U	7.70	ug/kg	1.93	7.70	1
72-55-9	4,4'-DDE	U	15.4	ug/kg	3.85	15.4	1
60-57-1	Dieldrin	U	15.4	ug/kg	3.85	15.4	1
72-20-8	Endrin	U	15.4	ug/kg	3.85	15.4	1
72-54-8	4,4'-DDD	U	15.4	ug/kg	3.85	15.4	1
33213-65-9	Endosulfan II	U	15.4	ug/kg	3.85	15.4	1
7421-93-4	Endrin aldehyde	U	15.4	ug/kg	3.85	15.4	1
50-29-3	4,4'-DDT	U	15.4	ug/kg	3.85	15.4	1
1031-07-8	Endosulfan sulfate	U	15.4	ug/kg	3.85	15.4	1
72-43-5	Methoxychlor	U	77.0	ug/kg	19.3	77.0	1
53494-70-5	Endrin ketone	U	15.4	ug/kg	3.85	15.4	1
8001-35-2	Toxaphene	U	193	ug/kg	64.1	193	1

LT 4/22/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862003	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13783	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	966423	**Inst:**	ECD5A.I	**Dilution:**	10
Run Date:	03/18/2010 21:12	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:23	**Aliquot:**	30.11 g	**Final Volume:**	5 mL
Data File:	013f1301.d	**Column:**	1 CLP–1	**Level:**	LOW
	013b1301.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.32	ug/kg	1.83	7.32	1
58–89–9	gamma–BHC (Lindane)	U	7.32	ug/kg	1.83	7.32	1
319–85–7	beta–BHC	U	7.32	ug/kg	1.83	7.32	1
319–86–8	delta–BHC	U	7.32	ug/kg	1.83	7.32	1
76–44–8	Heptachlor	U	7.32	ug/kg	1.83	7.32	1
309–00–2	Aldrin	U	7.32	ug/kg	1.83	7.32	1
1024–57–3	Heptachlor epoxide	U	7.32	ug/kg	2.29	7.32	1
5103–74–2	gamma–Chlordane	U	7.32	ug/kg	1.83	7.32	1
5103–71–9	alpha–Chlordane	U	7.32	ug/kg	1.83	7.32	1
959–98–8	Endosulfan I	U	7.32	ug/kg	1.83	7.32	1
72–55–9	4,4'–DDE	U	14.6	ug/kg	3.66	14.6	1
60–57–1	Dieldrin	U	14.6	ug/kg	3.66	14.6	1
72–20–8	Endrin	U	14.6	ug/kg	3.66	14.6	1
72–54–8	4,4'–DDD	U	14.6	ug/kg	3.66	14.6	1
33213–65–9	Endosulfan II	U	14.6	ug/kg	3.66	14.6	1
7421–93–4	Endrin aldehyde	U	14.6	ug/kg	3.66	14.6	1
50–29–3	4,4'–DDT	U	14.6	ug/kg	3.66	14.6	1
1031–07–8	Endosulfan sulfate	U	14.6	ug/kg	3.66	14.6	1
72–43–5	Methoxychlor	U	73.2	ug/kg	18.3	73.2	1
53494–70–5	Endrin ketone	U	14.6	ug/kg	3.66	14.6	1
8001–35–2	Toxaphene	U	183	ug/kg	60.9	183	1

LT 4/22/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2314 VALIDATION DATE: 4/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The decachlorobiphenyl surrogate %Rs for sample RE46-10-13781 were > the laboratory's UAL on both columns. The associated sample results were NDs and the sample was in dilution. Thus, no sample results were qualified. The decachlorobiphenyl surrogate %Rs for the MSD were > the laboratory's UAL on both columns. Since this was a QC sample, no field sample results were qualified.
2. The MSD %R for aroclor-1260 did not meet laboratory acceptance criteria. Since the analysis of an MS or an MSD was not a client requirement, no sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/23/10

VALIDATOR'S SIGNATURE: L Thal DATE: 4/22/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☒	☐	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862005	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13775	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967396	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/23/2010 00:21	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 12:13	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	075f7501.d	**Column:**	1 CLP1	**Level:**	LOW
	075b7501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.4	ug/kg	6.13	18.4	1
11104–28–2	Aroclor–1221	U	18.4	ug/kg	6.13	18.4	1
11141–16–5	Aroclor–1232	U	18.4	ug/kg	6.13	18.4	1
53469–21–9	Aroclor–1242	U	18.4	ug/kg	6.13	18.4	1
12672–29–6	Aroclor–1248	U	18.4	ug/kg	6.13	18.4	1
11097–69–1	Aroclor–1254	U	18.4	ug/kg	6.13	18.4	1
11096–82–5	Aroclor–1260	U	18.4	ug/kg	6.13	18.4	1

LT 4/22/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862006**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13776**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 00:34**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**076f7601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	076b7601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.5	ug/kg	6.17	18.5	1
11104–28–2	Aroclor–1221	U	18.5	ug/kg	6.17	18.5	1
11141–16–5	Aroclor–1232	U	18.5	ug/kg	6.17	18.5	1
53469–21–9	Aroclor–1242	U	18.5	ug/kg	6.17	18.5	1
12672–29–6	Aroclor–1248	U	18.5	ug/kg	6.17	18.5	1
11097–69–1	Aroclor–1254	U	18.5	ug/kg	6.17	18.5	1
11096–82–5	Aroclor–1260	U	18.5	ug/kg	6.17	18.5	1

LT 4/22/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**20.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13777**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**20**
Run Date:	**03/23/2010 00:09**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**074f7401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	074b7401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	83.6	ug/kg	27.9	83.6	1
11104–28–2	Aroclor–1221	U	83.6	ug/kg	27.9	83.6	1
11141–16–5	Aroclor–1232	U	83.6	ug/kg	27.9	83.6	1
53469–21–9	Aroclor–1242	U	83.6	ug/kg	27.9	83.6	1
12672–29–6	Aroclor–1248	U	83.6	ug/kg	27.9	83.6	1
11097–69–1	Aroclor–1254	U	83.6	ug/kg	27.9	83.6	1
11096–82–5	Aroclor–1260	U	83.6	ug/kg	27.9	83.6	1

LT 4/22/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862010**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13778**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 02:00**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**082f8201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	082b8201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	41.0	ug/kg	13.7	41.0	1
11104–28–2	Aroclor–1221	U	41.0	ug/kg	13.7	41.0	1
11141–16–5	Aroclor–1232	U	41.0	ug/kg	13.7	41.0	1
53469–21–9	Aroclor–1242	U	41.0	ug/kg	13.7	41.0	1
12672–29–6	Aroclor–1248	U	41.0	ug/kg	13.7	41.0	1
11097–69–1	Aroclor–1254	U	41.0	ug/kg	13.7	41.0	1
11096–82–5	Aroclor–1260	U	41.0	ug/kg	13.7	41.0	1

LT 4/22/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862008**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13779**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**20**
Run Date:	**03/23/2010 01:03**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**078f7801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	078b7801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	82.7	ug/kg	27.6	82.7	1
11104–28–2	Aroclor–1221	U	82.7	ug/kg	27.6	82.7	1
11141–16–5	Aroclor–1232	U	82.7	ug/kg	27.6	82.7	1
53469–21–9	Aroclor–1242	U	82.7	ug/kg	27.6	82.7	1
12672–29–6	Aroclor–1248	U	82.7	ug/kg	27.6	82.7	1
11097–69–1	Aroclor–1254	J	72.5	ug/kg	27.6	82.7	2
11096–82–5	Aroclor–1260	U	82.7	ug/kg	27.6	82.7	1

LT 4/22/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862009**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13780**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 01:44**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**081f8101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	081b8101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	20.3	ug/kg	6.77	20.3	1
11104-28-2	Aroclor-1221	U	20.3	ug/kg	6.77	20.3	1
11141-16-5	Aroclor-1232	U	20.3	ug/kg	6.77	20.3	1
53469-21-9	Aroclor-1242	U	20.3	ug/kg	6.77	20.3	1
12672-29-6	Aroclor-1248	U	20.3	ug/kg	6.77	20.3	1
11097-69-1	Aroclor-1254	U	20.3	ug/kg	6.77	20.3	1
11096-82-5	Aroclor-1260	U	20.3	ug/kg	6.77	20.3	1

LT 4/22/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862007**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13781**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 00:46**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**077f7701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	077b7701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	40.9	ug/kg	13.6	40.9	1
11104-28-2	Aroclor-1221	U	40.9	ug/kg	13.6	40.9	1
11141-16-5	Aroclor-1232	U	40.9	ug/kg	13.6	40.9	1
53469-21-9	Aroclor-1242	U	40.9	ug/kg	13.6	40.9	1
12672-29-6	Aroclor-1248	U	40.9	ug/kg	13.6	40.9	1
11097-69-1	Aroclor-1254	U	40.9	ug/kg	13.6	40.9	1
11096-82-5	Aroclor-1260	U	40.9	ug/kg	13.6	40.9	1

LT 4/22/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13782**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 23:20**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**070f7001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	070b7001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	19.3	ug/kg	6.42	19.3	1
11104-28-2	Aroclor-1221	U	19.3	ug/kg	6.42	19.3	1
11141-16-5	Aroclor-1232	U	19.3	ug/kg	6.42	19.3	1
53469-21-9	Aroclor-1242	U	19.3	ug/kg	6.42	19.3	1
12672-29-6	Aroclor-1248	U	19.3	ug/kg	6.42	19.3	1
11097-69-1	Aroclor-1254	U	19.3	ug/kg	6.42	19.3	1
11096-82-5	Aroclor-1260	U	19.3	ug/kg	6.42	19.3	1

LT 4/22/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862003	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13783	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967396	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/22/2010 23:57	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 12:13	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	073f7301.d	**Column:**	1 CLP1	**Level:**	LOW
	073b7301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.3	ug/kg	6.10	18.3	1
11104–28–2	Aroclor–1221	U	18.3	ug/kg	6.10	18.3	1
11141–16–5	Aroclor–1232	U	18.3	ug/kg	6.10	18.3	1
53469–21–9	Aroclor–1242	U	18.3	ug/kg	6.10	18.3	1
12672–29–6	Aroclor–1248	U	18.3	ug/kg	6.10	18.3	1
11097–69–1	Aroclor–1254	U	18.3	ug/kg	6.10	18.3	1
11096–82–5	Aroclor–1260	U	18.3	ug/kg	6.10	18.3	1

LT 4/22/10

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2314C

REQUEST NUMBER: 10-2314

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248862%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13784	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13784	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13782	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13782	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13782	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13783	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13783	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13783	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13777	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13777	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13777	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13775	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13775	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13775	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13776	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13776	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13776	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13781	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13781	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13781	1	AMBER GLASS	8270C+TPH-DRO	Ice	S

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2314C

REQUEST NUMBER: 10-2314

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13779	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13779	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13779	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13780	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13780	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13780	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13778	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13778	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13778	1	AMBER GLASS	8270C+TPH-DRO	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/5/10	3:00	Greg Tyler		3-6-10	0915
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

Friday, March 05, 2010

REQUEST NUMBER: 10-2314

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number: 10-2314
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/5/2010
TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015 M_EXTRACTABLE	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	

Friday, March 05, 2010

REQUEST NUMBER: 10-2314

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015 M_EXTRACTABLE	1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	SW-846:8081A	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	SW-846:8082	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	SW-846:8260B	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	

Friday, March 05, 2010

REQUEST NUMBER: 10-2314

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
		1	RE46-10-13784	S	3/4/2010	
		2	RE46-10-13784	S	3/4/2010	
	SW-846:8270C	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	

Final Page of REQUEST NUMBER 10-2314

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

March 12, 2010

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

Re: LANL ER Project
Work Order: 248862
SDG: 10-2314

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 06, 2010, and analyzed for FID Flame Ionization Detector, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile and GC/MS Volatile. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Sincerely,

Valerie Davis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2314
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 248862
SDG: 10-2314

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Miscellaneous Data 580
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Miscellaneous Data 760

GC Semivolatile PCB Analysis **787**
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Quality Control Summary 805
Sample Data 811
Standards Data 866

Quality Control Data 952
Miscellaneous Data 991

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 248862
SDG # : 10-2314

March 12, 2010

Laboratory Identification:

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

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 06, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The lab received (1) 40ml vial 8260B container for sample RE46-10-13784 instead of (2) as indicated on the COC. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
248862001	RE46-10-13784
248862002	RE46-10-13782
248862003	RE46-10-13783
248862004	RE46-10-13777
248862005	RE46-10-13775
248862006	RE46-10-13776
248862007	RE46-10-13781
248862008	RE46-10-13779
248862009	RE46-10-13780
248862010	RE46-10-13778

Case Narrative

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

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: FID Flame Ionization Detector, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile and GC/MS Volatile.

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

Valerie Davis

Valerie Davis

Project Manager

List of current GEL Certifications as of 12 March 2010

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

Chain of Custody and Supporting Documentation

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2314C

REQUEST NUMBER: 10-2314

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248862%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13784	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13784	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13782	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13782	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13782	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13783	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13783	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13783	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13777	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13777	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13777	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13775	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13775	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13775	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13776	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13776	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13776	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13781	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13781	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13781	1	AMBER GLASS	8270C+TPH-DRO	Ice	S

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2314C

REQUEST NUMBER: 10-2314

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13779	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13779	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13779	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13780	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13780	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13780	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13778	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13778	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13778	1	AMBER GLASS	8270C+TPH-DRO	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/5/10	3:00	Greg Tyler		3-6-10	0915
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

Hard Copy Required

Friday, March 05, 2010

REQUEST NUMBER: 10-2314

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number: 10-2314
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/5/2010
TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015 M_EXTRACTABLE	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	

Friday, March 05, 2010

REQUEST NUMBER: 10-2314

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8015 M_EXTRACTABLE	1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	SW-846:8081A	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	SW-846:8082	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	SW-846:8260B	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	

Friday, March 05, 2010

REQUEST NUMBER: 10-2314

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
		1	RE46-10-13784	S	3/4/2010	
		2	RE46-10-13784	S	3/4/2010	
	SW-846:8270C	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	

Final Page of REQUEST NUMBER 10-2314

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2314**
Received By: Greg Tyler	**Date Received: 3/6/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **2,3,5C** **11C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?			X	Sample ID's affected: **RE46-10-~~13764~~** 13784 **The lab rec'd (1) 40ML vial 8260B instead of (2) as indicated on COC.**
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:
7209 7850 3782 2C
7209 7850 3808 3C
7209 7850 3793 5C
7209 7850 3771 11C

PM (or PMA) review: Initials _____ Date 3/8/10

Subject: Sample Receipt for 3/6/10
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Sat, 06 Mar 2010 14:57:33 -0500
To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Keith,

RN 10-2314: the lab rec'd (1) 40ml vial 8260B container for sample RE46-10-13784 instead of (2) as indicated on the COC.

Thanks,
Dionne

--
Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05MAR10
ACTWGT: 31.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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

2°

FedEx Express

3 of 3 ### SATURDAY ### A1
MPS# 0263 7209 7850 3782 PRIORITY OVERNIGHT
MstrW 7209 7850 3760 0201

X0 CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05MAR10
ACTWGT: 20.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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

3°

FedEx Express

2 of 2 ### SATURDAY ### A1
MPS# 0263 7209 7850 3808 PRIORITY OVERNIGHT
MstrW 7209 7850 3783 0201

X0 CHSA

29407
SC-US
CHS

Part # 158148-434 NRITV3 04-09

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

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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

5°

FedEx Express

1 of 2 ### SATURDAY ### A1
TRK# 0201 7209 7850 3793 PRIORITY OVERNIGHT
MASTER

X0 CHSA

29407
SC-US
CHS

LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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

11°

FedEx Express

2 of 3 ### SATURDAY ### A1
MPS# 0263 7209 7850 3771 PRIORITY OVERNIGHT
MstrW 7209 7850 3760 0201

X0 CHSA

29407
SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

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

GC/MS Volatile Analysis

GC/MS Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-2314

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	966068
Prep Batch Number:	966067

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
248862001	RE46-10-13784
248862002	RE46-10-13782
248862003	RE46-10-13783
248862004	RE46-10-13777
248862005	RE46-10-13775
248862006	RE46-10-13776
248862007	RE46-10-13781
248862008	RE46-10-13779
248862009	RE46-10-13780
248862010	RE46-10-13778
1202073204	Method Blank (MB)
1202073206	Laboratory Control Sample (LCS)
1202073207	Laboratory Control Sample (LCS)
1202073210	248862002(RE46-10-13782) Post Spike (PS)
1202073211	248862002(RE46-10-13782) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
Samples 248862 002, 003, 004, 005, 006, 007, 008, 009 and 010 in this SDG were analyzed on an "dry weight" basis. Samples 248862 001 in this SDG were analyzed on a "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 19.1.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248862002 (RE46-10-13782) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Package Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
A Data Exception Document was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA1.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	RTX-624	Restek, 60m x 0.25mm x 1.4um	Trap 10

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

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-2314 GEL Work Order: 248862

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

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

Signature: Erin Haubert **Name: Erin Haubert**

Date: 02 APR 2010 **Title: Data Validator**

Roadmap for LANL 10-2314 VOA

This roadmap was analyzed by ACJ on 03-29-2010, 22:09.
This roadmap was packaged by lys00434 on 04-02-2010, 10:45.

Sample

exclude	manual	datafile	smpid	clientid	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA1.i/031710v1/1c329.d	248862001	RE46-10-13784	18-MAR-2010	01:09	10-2314.sub	1	966068	
☐	N	/chem/VOA1.i/031710v1/1c330.d	248862002	RE46-10-13782	18-MAR-2010	01:39	10-2314.sub	1	966068	
☐	N	/chem/VOA1.i/031710v1/1c331.d	248862003	RE46-10-13783	18-MAR-2010	02:10	10-2314.sub	1	966068	
☐	N	/chem/VOA1.i/031710v1/1c332.d	248862004	RE46-10-13777	18-MAR-2010	02:41	10-2314.sub	1	966068	
☐	N	/chem/VOA1.i/031710v1/1c333.d	248862005	RE46-10-13775	18-MAR-2010	03:11	10-2314.sub	1	966068	
☐	N	/chem/VOA1.i/031710v1/1c334.d	248862006	RE46-10-13776	18-MAR-2010	03:42	10-2314.sub	1	966068	
☐	N	/chem/VOA1.i/031710v1/1c335.d	248862007	RE46-10-13781	18-MAR-2010	04:12	10-2314.sub	1	966068	
☐	N	/chem/VOA1.i/031710v1/1c336.d	248862008	RE46-10-13779	18-MAR-2010	04:43	10-2314.sub	1	966068	
☐	N	/chem/VOA1.i/031710v1/1c337.d	248862009	RE46-10-13780	18-MAR-2010	05:13	10-2314.sub	1	966068	
☐	N	/chem/VOA1.i/031710v1/1c338.d	248862010	RE46-10-13778	18-MAR-2010	05:44	10-2314.sub	1	966068	

QC Sample

exclude	manual	datafile	smpid	clientid	sampletype	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA1.i/031710v1/1c324ll.d	1202073206	LCS	lcs	17-MAR-2010	22:37	all.sub	1	966068	
☐	N	/chem/VOA1.i/031710v1/1c326sl.d	1202073207	LCS	lcs	17-MAR-2010	23:38	all.sub	1	966068	
☐	N	/chem/VOA1.i/031710v1/1c327bl.d	1202073204	BLANK	mb	18-MAR-2010	00:08	all.sub	1	966068	
☐	N	/chem/VOA1.i/031710v1/1c339.d	1202073210	RE46-10-13782MS	ms	18-MAR-2010	06:14	10-2314.sub	1	966068	
☐	N	/chem/VOA1.i/031710v1/1c340.d	1202073211	RE46-10-13782MSD	msd	18-MAR-2010	06:45	10-2314.sub	1	966068	

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862005**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13775**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 03:11**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:49**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c333.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.376	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.331	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.331	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.331	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.331	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.331	1.10
67-64-1	Acetone	U	5.52	ug/kg	1.83	5.52
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
74-88-4	Iodomethane	U	5.52	ug/kg	1.77	5.52
75-09-2	Methylene chloride	U	5.52	ug/kg	2.21	5.52
75-15-0	Carbon disulfide	U	5.52	ug/kg	1.38	5.52
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.331	1.10
78-93-3	2-Butanone	U	5.52	ug/kg	1.66	5.52
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10
67-66-3	Chloroform	U	1.10	ug/kg	0.331	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.365	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.331	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.331	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.331	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.331	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.331	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.365	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.331	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.331	1.10
108-10-1	4-Methyl-2-pentanone	U	5.52	ug/kg	1.38	5.52
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.331	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.331	1.10
591-78-6	2-Hexanone	U	5.52	ug/kg	1.66	5.52
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.331	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.331	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.331	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.331	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.331	1.10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862005**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13775**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 03:11**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:49**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c333.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.331	1.10
179601-23-1	m,p-Xylenes	U	2.21	ug/kg	0.331	2.21
95-47-6	o-Xylene	U	1.10	ug/kg	0.331	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.331	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.331	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.331	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.331	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.331	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.331	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.331	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.331	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.331	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.331	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.331	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.52	ug/kg	1.77	5.52
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	19.96	14.6	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862006**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13776**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 03:42**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:51**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c334.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.378	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.334	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.334	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.334	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.334	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.334	1.11
67-64-1	Acetone	J	1.88	ug/kg	1.85	5.56
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
74-88-4	Iodomethane	U	5.56	ug/kg	1.78	5.56
75-09-2	Methylene chloride	U	5.56	ug/kg	2.22	5.56
75-15-0	Carbon disulfide	U	5.56	ug/kg	1.39	5.56
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.334	1.11
78-93-3	2-Butanone	U	5.56	ug/kg	1.67	5.56
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.334	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.367	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.334	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.334	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.334	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.334	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.334	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.367	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.334	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.334	1.11
108-10-1	4-Methyl-2-pentanone	U	5.56	ug/kg	1.39	5.56
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.334	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.334	1.11
591-78-6	2-Hexanone	U	5.56	ug/kg	1.67	5.56
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.334	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.334	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.334	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.334	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.334	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862006**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13776**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 03:42**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:51**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c334.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.334	1.11
179601-23-1	m,p-Xylenes	U	2.22	ug/kg	0.334	2.22
95-47-6	o-Xylene	U	1.11	ug/kg	0.334	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.334	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.334	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.334	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.334	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.334	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.334	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.334	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.334	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.334	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.334	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.334	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.56	ug/kg	1.78	5.56
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**20.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13777**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 02:41**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:47**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c332.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.427	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.377	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.377	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.377	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.377	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.377	1.26
67-64-1	Acetone	U	6.28	ug/kg	2.09	6.28
75-35-4	1,1-Dichloroethylene	U	1.26	ug/kg	0.377	1.26
74-88-4	Iodomethane	U	6.28	ug/kg	2.01	6.28
75-09-2	Methylene chloride	U	6.28	ug/kg	2.51	6.28
75-15-0	Carbon disulfide	U	6.28	ug/kg	1.57	6.28
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.377	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.377	1.26
78-93-3	2-Butanone	U	6.28	ug/kg	1.89	6.28
156-59-2	cis-1,2-Dichloroethylene	U	1.26	ug/kg	0.377	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.377	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.377	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.415	1.26
71-55-6	1,1,1-Trichloroethane	U	1.26	ug/kg	0.377	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.377	1.26
56-23-5	Carbon tetrachloride	U	1.26	ug/kg	0.377	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.377	1.26
71-43-2	Benzene	U	1.26	ug/kg	0.377	1.26
79-01-6	Trichloroethylene	U	1.26	ug/kg	0.415	1.26
78-87-5	1,2-Dichloropropane	U	1.26	ug/kg	0.377	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.377	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.377	1.26
108-10-1	4-Methyl-2-pentanone	U	6.28	ug/kg	1.57	6.28
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.377	1.26
108-88-3	Toluene		6.41	ug/kg	0.377	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.377	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.377	1.26
591-78-6	2-Hexanone	U	6.28	ug/kg	1.89	6.28
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.377	1.26
127-18-4	Tetrachloroethylene	U	1.26	ug/kg	0.377	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.377	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.377	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.377	1.26

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**20.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13777**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 02:41**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:47**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c332.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	J	0.392	ug/kg	0.377	1.26
179601-23-1	m,p-Xylenes	J	0.850	ug/kg	0.377	2.51
95-47-6	o-Xylene	U	1.26	ug/kg	0.377	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.377	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.377	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.377	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.377	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.377	1.26
103-65-1	n-Propylbenzene	U	1.26	ug/kg	0.377	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.377	1.26
98-82-8	Isopropylbenzene	U	1.26	ug/kg	0.377	1.26
108-67-8	1,3,5-Trimethylbenzene	U	1.26	ug/kg	0.377	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.377	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.377	1.26
95-63-6	1,2,4-Trimethylbenzene	U	1.26	ug/kg	0.377	1.26
135-98-8	sec-Butylbenzene	U	1.26	ug/kg	0.377	1.26
99-87-6	4-Isopropyltoluene	U	1.26	ug/kg	0.377	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.377	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.377	1.26
104-51-8	n-Butylbenzene	U	1.26	ug/kg	0.377	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.377	1.26
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.28	ug/kg	2.01	6.28
630-20-6	1,1,1,2-Tetrachloroethane	U	1.26	ug/kg	0.377	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.377	1.26

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
108-87-2	Cyclohexane, methyl-	14.27	10.7	ug/kg	97	NJ
97-85-8	Propanoic acid, 2-methyl-, 2-methylpropy	17.76	31.2	ug/kg	90	NJ

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862010**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13778**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 05:44**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:59**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c338.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.24	ug/kg	0.420	1.24
74-87-3	Chloromethane	U	1.24	ug/kg	0.371	1.24
75-01-4	Vinyl chloride	U	1.24	ug/kg	0.371	1.24
74-83-9	Bromomethane	U	1.24	ug/kg	0.371	1.24
75-00-3	Chloroethane	U	1.24	ug/kg	0.371	1.24
75-69-4	Trichlorofluoromethane	U	1.24	ug/kg	0.371	1.24
67-64-1	Acetone	U	6.18	ug/kg	2.05	6.18
75-35-4	1,1-Dichloroethylene	U	1.24	ug/kg	0.371	1.24
74-88-4	Iodomethane	U	6.18	ug/kg	1.98	6.18
75-09-2	Methylene chloride	U	6.18	ug/kg	2.47	6.18
75-15-0	Carbon disulfide	U	6.18	ug/kg	1.54	6.18
156-60-5	trans-1,2-Dichloroethylene	U	1.24	ug/kg	0.371	1.24
75-34-3	1,1-Dichloroethane	U	1.24	ug/kg	0.371	1.24
78-93-3	2-Butanone	U	6.18	ug/kg	1.85	6.18
156-59-2	cis-1,2-Dichloroethylene	U	1.24	ug/kg	0.371	1.24
594-20-7	2,2-Dichloropropane	U	1.24	ug/kg	0.371	1.24
67-66-3	Chloroform	U	1.24	ug/kg	0.371	1.24
74-97-5	Bromochloromethane	U	1.24	ug/kg	0.408	1.24
71-55-6	1,1,1-Trichloroethane	U	1.24	ug/kg	0.371	1.24
563-58-6	1,1-Dichloropropene	U	1.24	ug/kg	0.371	1.24
56-23-5	Carbon tetrachloride	U	1.24	ug/kg	0.371	1.24
107-06-2	1,2-Dichloroethane	U	1.24	ug/kg	0.371	1.24
71-43-2	Benzene	U	1.24	ug/kg	0.371	1.24
79-01-6	Trichloroethylene	U	1.24	ug/kg	0.408	1.24
78-87-5	1,2-Dichloropropane	U	1.24	ug/kg	0.371	1.24
75-27-4	Bromodichloromethane	U	1.24	ug/kg	0.371	1.24
74-95-3	Dibromomethane	U	1.24	ug/kg	0.371	1.24
108-10-1	4-Methyl-2-pentanone	U	6.18	ug/kg	1.54	6.18
10061-01-5	cis-1,3-Dichloropropylene	U	1.24	ug/kg	0.371	1.24
108-88-3	Toluene	U	1.24	ug/kg	0.371	1.24
10061-02-6	trans-1,3-Dichloropropylene	U	1.24	ug/kg	0.371	1.24
79-00-5	1,1,2-Trichloroethane	U	1.24	ug/kg	0.371	1.24
591-78-6	2-Hexanone	U	6.18	ug/kg	1.85	6.18
142-28-9	1,3-Dichloropropane	U	1.24	ug/kg	0.371	1.24
127-18-4	Tetrachloroethylene	U	1.24	ug/kg	0.371	1.24
124-48-1	Dibromochloromethane	U	1.24	ug/kg	0.371	1.24
106-93-4	1,2-Dibromoethane	U	1.24	ug/kg	0.371	1.24
108-90-7	Chlorobenzene	U	1.24	ug/kg	0.371	1.24

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862010**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13778**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 05:44**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:59**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c338.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.24	ug/kg	0.371	1.24
179601-23-1	m,p-Xylenes	U	2.47	ug/kg	0.371	2.47
95-47-6	o-Xylene	U	1.24	ug/kg	0.371	1.24
100-42-5	Styrene	U	1.24	ug/kg	0.371	1.24
75-25-2	Bromoform	U	1.24	ug/kg	0.371	1.24
79-34-5	1,1,2,2-Tetrachloroethane	U	1.24	ug/kg	0.371	1.24
96-18-4	1,2,3-Trichloropropane	U	1.24	ug/kg	0.371	1.24
108-86-1	Bromobenzene	U	1.24	ug/kg	0.371	1.24
103-65-1	n-Propylbenzene	U	1.24	ug/kg	0.371	1.24
95-49-8	2-Chlorotoluene	U	1.24	ug/kg	0.371	1.24
98-82-8	Isopropylbenzene	U	1.24	ug/kg	0.371	1.24
108-67-8	1,3,5-Trimethylbenzene	U	1.24	ug/kg	0.371	1.24
106-43-4	4-Chlorotoluene	U	1.24	ug/kg	0.371	1.24
98-06-6	tert-Butylbenzene	U	1.24	ug/kg	0.371	1.24
95-63-6	1,2,4-Trimethylbenzene	U	1.24	ug/kg	0.371	1.24
135-98-8	sec-Butylbenzene	U	1.24	ug/kg	0.371	1.24
99-87-6	4-Isopropyltoluene	U	1.24	ug/kg	0.371	1.24
541-73-1	1,3-Dichlorobenzene	U	1.24	ug/kg	0.371	1.24
106-46-7	1,4-Dichlorobenzene	U	1.24	ug/kg	0.371	1.24
104-51-8	n-Butylbenzene	U	1.24	ug/kg	0.371	1.24
96-12-8	1,2-Dibromo-3-chloropropane	U	1.24	ug/kg	0.371	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.18	ug/kg	1.98	6.18
630-20-6	1,1,1,2-Tetrachloroethane	U	1.24	ug/kg	0.371	1.24
95-50-1	1,2-Dichlorobenzene	U	1.24	ug/kg	0.371	1.24

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862008**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13779**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 04:43**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:55**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c336.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.24	ug/kg	0.422	1.24
74-87-3	Chloromethane	U	1.24	ug/kg	0.373	1.24
75-01-4	Vinyl chloride	U	1.24	ug/kg	0.373	1.24
74-83-9	Bromomethane	U	1.24	ug/kg	0.373	1.24
75-00-3	Chloroethane	U	1.24	ug/kg	0.373	1.24
75-69-4	Trichlorofluoromethane	U	1.24	ug/kg	0.373	1.24
67-64-1	Acetone	U	6.21	ug/kg	2.06	6.21
75-35-4	1,1-Dichloroethylene	U	1.24	ug/kg	0.373	1.24
74-88-4	Iodomethane	U	6.21	ug/kg	1.99	6.21
75-09-2	Methylene chloride	U	6.21	ug/kg	2.48	6.21
75-15-0	Carbon disulfide	U	6.21	ug/kg	1.55	6.21
156-60-5	trans-1,2-Dichloroethylene	U	1.24	ug/kg	0.373	1.24
75-34-3	1,1-Dichloroethane	U	1.24	ug/kg	0.373	1.24
78-93-3	2-Butanone	U	6.21	ug/kg	1.86	6.21
156-59-2	cis-1,2-Dichloroethylene	U	1.24	ug/kg	0.373	1.24
594-20-7	2,2-Dichloropropane	U	1.24	ug/kg	0.373	1.24
67-66-3	Chloroform	U	1.24	ug/kg	0.373	1.24
74-97-5	Bromochloromethane	U	1.24	ug/kg	0.410	1.24
71-55-6	1,1,1-Trichloroethane	U	1.24	ug/kg	0.373	1.24
563-58-6	1,1-Dichloropropene	U	1.24	ug/kg	0.373	1.24
56-23-5	Carbon tetrachloride	U	1.24	ug/kg	0.373	1.24
107-06-2	1,2-Dichloroethane	U	1.24	ug/kg	0.373	1.24
71-43-2	Benzene	U	1.24	ug/kg	0.373	1.24
79-01-6	Trichloroethylene	U	1.24	ug/kg	0.410	1.24
78-87-5	1,2-Dichloropropane	U	1.24	ug/kg	0.373	1.24
75-27-4	Bromodichloromethane	U	1.24	ug/kg	0.373	1.24
74-95-3	Dibromomethane	U	1.24	ug/kg	0.373	1.24
108-10-1	4-Methyl-2-pentanone	U	6.21	ug/kg	1.55	6.21
10061-01-5	cis-1,3-Dichloropropylene	U	1.24	ug/kg	0.373	1.24
108-88-3	Toluene	U	1.24	ug/kg	0.373	1.24
10061-02-6	trans-1,3-Dichloropropylene	U	1.24	ug/kg	0.373	1.24
79-00-5	1,1,2-Trichloroethane	U	1.24	ug/kg	0.373	1.24
591-78-6	2-Hexanone	U	6.21	ug/kg	1.86	6.21
142-28-9	1,3-Dichloropropane	U	1.24	ug/kg	0.373	1.24
127-18-4	Tetrachloroethylene	U	1.24	ug/kg	0.373	1.24
124-48-1	Dibromochloromethane	U	1.24	ug/kg	0.373	1.24
106-93-4	1,2-Dibromoethane	U	1.24	ug/kg	0.373	1.24
108-90-7	Chlorobenzene	U	1.24	ug/kg	0.373	1.24

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862008**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13779**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 04:43**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:55**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c336.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.24	ug/kg	0.373	1.24
179601-23-1	m,p-Xylenes	U	2.48	ug/kg	0.373	2.48
95-47-6	o-Xylene	U	1.24	ug/kg	0.373	1.24
100-42-5	Styrene	U	1.24	ug/kg	0.373	1.24
75-25-2	Bromoform	U	1.24	ug/kg	0.373	1.24
79-34-5	1,1,2,2-Tetrachloroethane	U	1.24	ug/kg	0.373	1.24
96-18-4	1,2,3-Trichloropropane	U	1.24	ug/kg	0.373	1.24
108-86-1	Bromobenzene	U	1.24	ug/kg	0.373	1.24
103-65-1	n-Propylbenzene	U	1.24	ug/kg	0.373	1.24
95-49-8	2-Chlorotoluene	U	1.24	ug/kg	0.373	1.24
98-82-8	Isopropylbenzene	U	1.24	ug/kg	0.373	1.24
108-67-8	1,3,5-Trimethylbenzene	U	1.24	ug/kg	0.373	1.24
106-43-4	4-Chlorotoluene	U	1.24	ug/kg	0.373	1.24
98-06-6	tert-Butylbenzene	U	1.24	ug/kg	0.373	1.24
95-63-6	1,2,4-Trimethylbenzene	U	1.24	ug/kg	0.373	1.24
135-98-8	sec-Butylbenzene	U	1.24	ug/kg	0.373	1.24
99-87-6	4-Isopropyltoluene	U	1.24	ug/kg	0.373	1.24
541-73-1	1,3-Dichlorobenzene	U	1.24	ug/kg	0.373	1.24
106-46-7	1,4-Dichlorobenzene	U	1.24	ug/kg	0.373	1.24
104-51-8	n-Butylbenzene	U	1.24	ug/kg	0.373	1.24
96-12-8	1,2-Dibromo-3-chloropropane	U	1.24	ug/kg	0.373	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.21	ug/kg	1.99	6.21
630-20-6	1,1,1,2-Tetrachloroethane	U	1.24	ug/kg	0.373	1.24
95-50-1	1,2-Dichlorobenzene	U	1.24	ug/kg	0.373	1.24

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	19.96	9.36	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862009**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13780**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 05:13**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:57**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c337.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.22	ug/kg	0.415	1.22
74-87-3	Chloromethane	U	1.22	ug/kg	0.366	1.22
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.366	1.22
74-83-9	Bromomethane	U	1.22	ug/kg	0.366	1.22
75-00-3	Chloroethane	U	1.22	ug/kg	0.366	1.22
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.366	1.22
67-64-1	Acetone	U	6.10	ug/kg	2.03	6.10
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
74-88-4	Iodomethane	U	6.10	ug/kg	1.95	6.10
75-09-2	Methylene chloride	U	6.10	ug/kg	2.44	6.10
75-15-0	Carbon disulfide	U	6.10	ug/kg	1.53	6.10
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.366	1.22
78-93-3	2-Butanone	U	6.10	ug/kg	1.83	6.10
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.366	1.22
67-66-3	Chloroform	U	1.22	ug/kg	0.366	1.22
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.403	1.22
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.366	1.22
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.366	1.22
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.366	1.22
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.366	1.22
71-43-2	Benzene	U	1.22	ug/kg	0.366	1.22
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.403	1.22
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.366	1.22
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.366	1.22
74-95-3	Dibromomethane	U	1.22	ug/kg	0.366	1.22
108-10-1	4-Methyl-2-pentanone	U	6.10	ug/kg	1.53	6.10
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.366	1.22
108-88-3	Toluene	U	1.22	ug/kg	0.366	1.22
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.366	1.22
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.366	1.22
591-78-6	2-Hexanone	U	6.10	ug/kg	1.83	6.10
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.366	1.22
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.366	1.22
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.366	1.22
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.366	1.22
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.366	1.22

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862009**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13780**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 05:13**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:57**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c337.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.22	ug/kg	0.366	1.22
179601-23-1	m,p-Xylenes	U	2.44	ug/kg	0.366	2.44
95-47-6	o-Xylene	U	1.22	ug/kg	0.366	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.366	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.366	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.366	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.366	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.366	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.366	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.366	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.366	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.366	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.366	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.366	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.366	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.366	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.366	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22
106-46-7	1,4-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.366	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.366	1.22
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.10	ug/kg	1.95	6.10
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.366	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862007**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13781**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 04:12**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:53**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c335.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.23	ug/kg	0.419	1.23
74-87-3	Chloromethane	U	1.23	ug/kg	0.370	1.23
75-01-4	Vinyl chloride	U	1.23	ug/kg	0.370	1.23
74-83-9	Bromomethane	U	1.23	ug/kg	0.370	1.23
75-00-3	Chloroethane	U	1.23	ug/kg	0.370	1.23
75-69-4	Trichlorofluoromethane	U	1.23	ug/kg	0.370	1.23
67-64-1	Acetone	U	6.16	ug/kg	2.05	6.16
75-35-4	1,1-Dichloroethylene	U	1.23	ug/kg	0.370	1.23
74-88-4	Iodomethane	U	6.16	ug/kg	1.97	6.16
75-09-2	Methylene chloride	U	6.16	ug/kg	2.46	6.16
75-15-0	Carbon disulfide	U	6.16	ug/kg	1.54	6.16
156-60-5	trans-1,2-Dichloroethylene	U	1.23	ug/kg	0.370	1.23
75-34-3	1,1-Dichloroethane	U	1.23	ug/kg	0.370	1.23
78-93-3	2-Butanone	U	6.16	ug/kg	1.85	6.16
156-59-2	cis-1,2-Dichloroethylene	U	1.23	ug/kg	0.370	1.23
594-20-7	2,2-Dichloropropane	U	1.23	ug/kg	0.370	1.23
67-66-3	Chloroform	U	1.23	ug/kg	0.370	1.23
74-97-5	Bromochloromethane	U	1.23	ug/kg	0.407	1.23
71-55-6	1,1,1-Trichloroethane	U	1.23	ug/kg	0.370	1.23
563-58-6	1,1-Dichloropropene	U	1.23	ug/kg	0.370	1.23
56-23-5	Carbon tetrachloride	U	1.23	ug/kg	0.370	1.23
107-06-2	1,2-Dichloroethane	U	1.23	ug/kg	0.370	1.23
71-43-2	Benzene	U	1.23	ug/kg	0.370	1.23
79-01-6	Trichloroethylene	U	1.23	ug/kg	0.407	1.23
78-87-5	1,2-Dichloropropane	U	1.23	ug/kg	0.370	1.23
75-27-4	Bromodichloromethane	U	1.23	ug/kg	0.370	1.23
74-95-3	Dibromomethane	U	1.23	ug/kg	0.370	1.23
108-10-1	4-Methyl-2-pentanone	U	6.16	ug/kg	1.54	6.16
10061-01-5	cis-1,3-Dichloropropylene	U	1.23	ug/kg	0.370	1.23
108-88-3	Toluene	U	1.23	ug/kg	0.370	1.23
10061-02-6	trans-1,3-Dichloropropylene	U	1.23	ug/kg	0.370	1.23
79-00-5	1,1,2-Trichloroethane	U	1.23	ug/kg	0.370	1.23
591-78-6	2-Hexanone	U	6.16	ug/kg	1.85	6.16
142-28-9	1,3-Dichloropropane	U	1.23	ug/kg	0.370	1.23
127-18-4	Tetrachloroethylene	U	1.23	ug/kg	0.370	1.23
124-48-1	Dibromochloromethane	U	1.23	ug/kg	0.370	1.23
106-93-4	1,2-Dibromoethane	U	1.23	ug/kg	0.370	1.23
108-90-7	Chlorobenzene	U	1.23	ug/kg	0.370	1.23

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862007**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13781**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 04:12**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:53**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c335.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.23	ug/kg	0.370	1.23
179601-23-1	m,p-Xylenes	U	2.46	ug/kg	0.370	2.46
95-47-6	o-Xylene	U	1.23	ug/kg	0.370	1.23
100-42-5	Styrene	U	1.23	ug/kg	0.370	1.23
75-25-2	Bromoform	U	1.23	ug/kg	0.370	1.23
79-34-5	1,1,2,2-Tetrachloroethane	U	1.23	ug/kg	0.370	1.23
96-18-4	1,2,3-Trichloropropane	U	1.23	ug/kg	0.370	1.23
108-86-1	Bromobenzene	U	1.23	ug/kg	0.370	1.23
103-65-1	n-Propylbenzene	U	1.23	ug/kg	0.370	1.23
95-49-8	2-Chlorotoluene	U	1.23	ug/kg	0.370	1.23
98-82-8	Isopropylbenzene	U	1.23	ug/kg	0.370	1.23
108-67-8	1,3,5-Trimethylbenzene	U	1.23	ug/kg	0.370	1.23
106-43-4	4-Chlorotoluene	U	1.23	ug/kg	0.370	1.23
98-06-6	tert-Butylbenzene	U	1.23	ug/kg	0.370	1.23
95-63-6	1,2,4-Trimethylbenzene	U	1.23	ug/kg	0.370	1.23
135-98-8	sec-Butylbenzene	U	1.23	ug/kg	0.370	1.23
99-87-6	4-Isopropyltoluene	U	1.23	ug/kg	0.370	1.23
541-73-1	1,3-Dichlorobenzene	U	1.23	ug/kg	0.370	1.23
106-46-7	1,4-Dichlorobenzene	U	1.23	ug/kg	0.370	1.23
104-51-8	n-Butylbenzene	U	1.23	ug/kg	0.370	1.23
96-12-8	1,2-Dibromo-3-chloropropane	U	1.23	ug/kg	0.370	1.23
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.16	ug/kg	1.97	6.16
630-20-6	1,1,1,2-Tetrachloroethane	U	1.23	ug/kg	0.370	1.23
95-50-1	1,2-Dichlorobenzene	U	1.23	ug/kg	0.370	1.23

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13782**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 01:39**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:39**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c330.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.395	1.16
74-87-3	Chloromethane	U	1.16	ug/kg	0.349	1.16
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.349	1.16
74-83-9	Bromomethane	U	1.16	ug/kg	0.349	1.16
75-00-3	Chloroethane	U	1.16	ug/kg	0.349	1.16
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.349	1.16
67-64-1	Acetone	U	5.81	ug/kg	1.93	5.81
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
74-88-4	Iodomethane	U	5.81	ug/kg	1.86	5.81
75-09-2	Methylene chloride	U	5.81	ug/kg	2.32	5.81
75-15-0	Carbon disulfide	U	5.81	ug/kg	1.45	5.81
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.349	1.16
78-93-3	2-Butanone	U	5.81	ug/kg	1.74	5.81
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16
67-66-3	Chloroform	U	1.16	ug/kg	0.349	1.16
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.383	1.16
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.349	1.16
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.349	1.16
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.349	1.16
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.349	1.16
71-43-2	Benzene	U	1.16	ug/kg	0.349	1.16
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.383	1.16
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.349	1.16
74-95-3	Dibromomethane	U	1.16	ug/kg	0.349	1.16
108-10-1	4-Methyl-2-pentanone	U	5.81	ug/kg	1.45	5.81
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16
108-88-3	Toluene	U	1.16	ug/kg	0.349	1.16
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.349	1.16
591-78-6	2-Hexanone	U	5.81	ug/kg	1.74	5.81
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.349	1.16
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.349	1.16
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.349	1.16
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.349	1.16
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.349	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13782**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 01:39**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:39**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c330.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.349	1.16
179601-23-1	m,p-Xylenes	U	2.32	ug/kg	0.349	2.32
95-47-6	o-Xylene	U	1.16	ug/kg	0.349	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.349	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.349	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.349	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.349	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.349	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.349	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.349	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.349	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.349	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.349	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.349	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.81	ug/kg	1.86	5.81
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13783**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 02:10**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:45**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c331.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.375	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.331	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.331	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.331	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.331	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.331	1.10
67-64-1	Acetone	U	5.51	ug/kg	1.83	5.51
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
74-88-4	Iodomethane	U	5.51	ug/kg	1.76	5.51
75-09-2	Methylene chloride	U	5.51	ug/kg	2.20	5.51
75-15-0	Carbon disulfide	U	5.51	ug/kg	1.38	5.51
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.331	1.10
78-93-3	2-Butanone	U	5.51	ug/kg	1.65	5.51
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10
67-66-3	Chloroform	U	1.10	ug/kg	0.331	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.364	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.331	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.331	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.331	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.331	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.331	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.364	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.331	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.331	1.10
108-10-1	4-Methyl-2-pentanone	U	5.51	ug/kg	1.38	5.51
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.331	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.331	1.10
591-78-6	2-Hexanone	U	5.51	ug/kg	1.65	5.51
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.331	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.331	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.331	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.331	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.331	1.10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13783**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 02:10**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:45**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c331.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.331	1.10
179601-23-1	m,p-Xylenes	U	2.20	ug/kg	0.331	2.20
95-47-6	o-Xylene	U	1.10	ug/kg	0.331	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.331	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.331	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.331	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.331	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.331	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.331	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.331	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.331	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.331	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.331	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.331	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.51	ug/kg	1.76	5.51
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862001**	**Date Received:**	**03/06/2010 09:15**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13784**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 01:09**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:37**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c329.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862001**	**Date Received:**	**03/06/2010 09:15**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13784**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 01:09**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:37**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c329.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

QC Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-2314

Matrix Type: SOLID

CAP Column (1) : RTX-Volatiles

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202073206	LCS for batch 966067	110	100	100
1202073207	LCS for batch 966067	103	103	105
1202073204	MB for batch 966067	101	103	107
248862001	RE46-10-13784	109	103	106
248862002	RE46-10-13782	105	100	102
248862003	RE46-10-13783	112	103	107
248862004	RE46-10-13777	112	107	128
248862005	RE46-10-13775	116	104	111
248862006	RE46-10-13776	118	103	109
248862007	RE46-10-13781	118	104	111
248862008	RE46-10-13779	120	106	113
248862009	RE46-10-13780	113	97	102
248862010	RE46-10-13778	120	104	111
1202073210	RE46-10-13782PS	130	100	105
1202073211	RE46-10-13782PSD	133	103	107

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(66%-134%)
TOL	= Toluene-d8	(71%-128%)
BFB	= Bromofluorobenzene	(65%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2314
Client ID: LCS for batch 966067
Lab Sample ID: 1202073206
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: MISC SOLID
Analysis Date: 03/17/2010 22:37
Dilution: 1
Prep Batch ID: 966067
Batch ID: 966068

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	48.7	97	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	38.4	77	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	43.3	87	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	46.7	93	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	45.3	91	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	55.1	110	73-143
67-64-1	LCS	Acetone	250	0.0	172	69	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	48.9	98	71-129
74-88-4	LCS	Iodomethane	250	0.0	236	94	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	48.7	97	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	255	102	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	49.7	99	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	47.7	95	73-120
78-93-3	LCS	2-Butanone	250	0.0	171	68	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	49.0	98	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	54.7	109	73-134
67-66-3	LCS	Chloroform	50.0	0.0	50.6	101	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	47.4	95	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	54.5	109	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	52.8	106	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	56.7	113	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	48.7	97	65-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2314
Client ID: LCS for batch 966067
Lab Sample ID: 1202073206
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: MISC SOLID
Analysis Date: 03/17/2010 22:37
Dilution: 1
Prep Batch ID: 966067
Batch ID: 966068

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	48.2	96	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	50.7	101	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	46.6	93	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	53.1	106	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	48.5	97	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	213	85	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	51.6	103	78-127
108-88-3	LCS	Toluene	50.0	0.0	49.0	98	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	52.1	104	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	46.7	93	75-120
591-78-6	LCS	2-Hexanone	250	0.0	177	71	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	45.5	91	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	48.8	98	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	51.9	104	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	47.5	95	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	48.5	97	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	50.6	101	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	99.8	100	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	49.0	98	76-122
100-42-5	LCS	Styrene	50.0	0.0	51.8	104	75-125
75-25-2	LCS	Bromoform	50.0	0.0	53.6	107	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	45.7	91	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2314
Client ID: LCS for batch 966067
Lab Sample ID: 1202073206
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: MISC SOLID
Analysis Date: 03/17/2010 22:37
Dilution: 1
Prep Batch ID: 966067
Batch ID: 966068

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	46.9	94	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	46.9	94	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	50.1	100	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	49.5	99	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	50.5	101	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	51.6	103	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	49.5	99	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	49.6	99	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	49.9	100	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	49.8	100	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	50.1	100	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	46.1	92	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	46.2	92	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	50.3	101	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	49.4	99	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	51.3	103	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	45.8	92	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2314**
Client ID: **LCS for batch 966067**
Lab Sample ID: **1202073207**
Instrument: **VOA1.I**
Analyst: **GRB2**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **MISC SOLID**
Analysis Date: **03/17/2010 23:38**
Dilution: 1
Prep Batch ID **966067**
Batch ID: **966068**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	248	99	67-140

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2314

Client ID: RE46-10-13782PS

Lab Sample ID: 1202073210

Instrument: VOA1.I

Analyst: GRB2

Purge Vol: 5 mL

Sample Type: Post Spike

Matrix: S

%Moisture: 13.9

Analysis Date: 03/18/2010 06:14

Dilution: 1

Prep Batch ID: 966067

Batch ID: 966068

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	49.3	99	39-148
74-87-3	PS	Chloromethane	50.0	0.00	U	38.0	76	42-131
75-01-4	PS	Vinyl chloride	50.0	0.00	U	42.5	85	50-127
74-83-9	PS	Bromomethane	50.0	0.00	U	43.9	88	26-135
75-00-3	PS	Chloroethane	50.0	0.00	U	42.0	84	54-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	57.6	115	55-138
67-64-1	PS	Acetone	250	0.00	U	147	59	20-144
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	48.6	97	55-128
74-88-4	PS	Iodomethane	250	0.00	U	220	88	47-132
75-09-2	PS	Methylene chloride	50.0	0.00	U	45.8	92	56-123
75-15-0	PS	Carbon disulfide	250	0.00	U	225	90	53-133
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	44.5	89	57-119
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	47.2	94	62-125
78-93-3	PS	2-Butanone	250	0.00	U	143	57	30-150
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	44.8	90	60-124
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	52.1	104	56-129
67-66-3	PS	Chloroform	50.0	0.00	U	51.6	103	62-120
74-97-5	PS	Bromochloromethane	50.0	0.00	U	42.8	86	51-135
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	57.9	116	58-129
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	50.0	100	59-126
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	60.2	120	55-132
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	53.3	107	54-121

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2314
Client ID: RE46-10-13782PS
Lab Sample ID: 1202073210
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 13.9
Analysis Date: 03/18/2010 06:14
Prep Batch ID: 966067
Batch ID: 966068
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	43.7	87	58-120
79-01-6	PS	Trichloroethylene	50.0	0.00	U	48.3	97	54-130
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	43.7	87	59-121
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	55.3	111	57-130
74-95-3	PS	Dibromomethane	50.0	0.00	U	47.5	95	57-124
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	181	72	40-137
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	47.7	95	50-131
108-88-3	PS	Toluene	50.0	0.00	U	43.3	87	54-119
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	48.4	97	47-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	41.8	84	60-130
591-78-6	PS	2-Hexanone	250	0.00	U	148	59	30-139
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	42.7	85	59-125
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	42.7	85	50-126
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	50.0	100	54-131
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	42.8	86	55-127
108-90-7	PS	Chlorobenzene	50.0	0.00	U	43.4	87	50-130
100-41-4	PS	Ethylbenzene	50.0	0.00	U	46.0	92	50-121
179601-23-1	PS	m,p-Xylenes	100	0.00	U	86.6	87	47-125
95-47-6	PS	o-Xylene	50.0	0.00	U	44.3	89	51-127
100-42-5	PS	Styrene	50.0	0.00	U	45.5	91	41-136
75-25-2	PS	Bromoform	50.0	0.00	U	50.1	100	48-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	38.5	77	52-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2314**	**Sample Type:**	**Post Spike**
Client ID:	**RE46-10-13782PS**	**Matrix:**	**S**
Lab Sample ID:	**1202073210**	**%Moisture:**	**13.9**
Instrument:	**VOA1.I**	**Analysis Date:**	**03/18/2010 06:14**
Analyst:	**GRB2**	**Prep Batch ID:**	**966067**
Purge Vol:	**5 mL**	**Batch ID:**	**966068**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	42.4	85	56-139
108-86-1	PS	Bromobenzene	50.0	0.00	U	42.1	84	54-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	43.4	87	46-127
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	45.1	90	47-130
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	45.5	91	42-126
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	46.1	92	44-132
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	44.3	89	46-127
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	45.0	90	48-136
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	43.8	88	42-132
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	43.0	86	47-130
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	42.7	85	36-142
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	38.8	78	41-130
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	39.4	79	41-126
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	41.2	82	37-136
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	41.8	84	42-143
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	49.4	99	58-127
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	39.7	79	42-128

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2314
Client ID: RE46-10-13782PSD
Lab Sample ID: 1202073211
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 13.9
Analysis Date: 03/18/2010 06:45
Dilution: 1
Prep Batch ID: 966067
Batch ID: 966068

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	50.5	101	39-148	2	0-19
74-87-3	PSD	Chloromethane	50.0	0.00	U	40.7	81	42-131	7	0-23
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	44.6	89	50-127	5	0-23
74-83-9	PSD	Bromomethane	50.0	0.00	U	44.1	88	26-135	1	0-22
75-00-3	PSD	Chloroethane	50.0	0.00	U	43.1	86	54-128	3	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	57.4	115	55-138	0	0-21
67-64-1	PSD	Acetone	250	0.00	U	168	67	20-144	14	0-22
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	50.5	101	55-128	4	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	235	94	47-132	7	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	48.4	97	56-123	6	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	236	94	53-133	5	0-22
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	47.0	94	57-119	5	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	50.0	100	62-125	6	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	161	64	30-150	12	0-21
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	48.2	96	60-124	7	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	55.1	110	56-129	6	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	55.0	110	62-120	6	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	45.8	92	51-135	7	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	58.9	118	58-129	2	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	50.8	102	59-126	2	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	61.1	122	55-132	2	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	56.5	113	54-121	6	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2314
Client ID: RE46-10-13782PSD
Lab Sample ID: 1202073211
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 13.9
Analysis Date: 03/18/2010 06:45
Dilution: 1
Prep Batch ID: 966067
Batch ID: 966068

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	46.5	93	58-120	6	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	50.3	101	54-130	4	0-23
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	46.7	93	59-121	7	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	57.3	115	57-130	4	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	51.1	102	57-124	7	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	198	79	40-137	9	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	50.6	101	50-131	6	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	44.6	89	54-119	3	0-23
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	50.7	101	47-133	5	0-24
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	44.9	90	60-130	7	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	160	64	30-139	8	0-21
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	45.4	91	59-125	6	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	44.2	88	50-126	3	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	52.1	104	54-131	4	0-23
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	46.4	93	55-127	8	0-23
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	45.0	90	50-130	4	0-24
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	47.4	95	50-121	3	0-24
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	90.4	90	47-125	4	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	45.8	92	51-127	3	0-24
100-42-5	PSD	Styrene	50.0	0.00	U	47.3	95	41-136	4	0-24
75-25-2	PSD	Bromoform	50.0	0.00	U	52.9	106	48-143	5	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	42.4	85	52-129	10	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2314
Client ID: RE46-10-13782PSD
Lab Sample ID: 1202073211
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 13.9
Analysis Date: 03/18/2010 06:45
Prep Batch ID: 966067
Batch ID: 966068
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	46.7	93	56-139	10	0-34
108-86-1	PSD	Bromobenzene	50.0	0.00	U	44.3	89	54-125	5	0-22
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	45.1	90	46-127	4	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	46.5	93	47-130	3	0-24
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	46.6	93	42-126	2	0-22
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	47.2	94	44-132	2	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	45.4	91	46-127	2	0-26
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	46.7	93	48-136	4	0-24
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	45.5	91	42-132	4	0-26
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	44.7	89	47-130	4	0-27
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	44.2	88	36-142	3	0-27
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	40.4	81	41-130	4	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	40.4	81	41-126	2	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	42.2	84	37-136	3	0-29
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	46.3	93	42-143	10	0-21
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	52.4	105	58-127	6	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	41.3	83	42-128	4	0-24

Method Blank Summary

SDG Number:	10-2314	Client:	LANL010	Matrix:	MISC SOLID
Client ID:	MB for batch 966067	Instrument ID:	VOA1.I	Data File:	1c327bl.d
Lab Sample ID:	1202073204	Prep Date:	03/17/2010 21:30	Analyzed:	03/18/10 00:08
Column:	RTX-Volatiles	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 966067	1202073206	1c324ll.d	03/17/10	2237
02	LCS for batch 966067	1202073207	1c326sl.d	03/17/10	2338
03	RE46-10-13784	248862001	1c329.d	03/18/10	0109
04	RE46-10-13782	248862002	1c330.d	03/18/10	0139
05	RE46-10-13783	248862003	1c331.d	03/18/10	0210
06	RE46-10-13777	248862004	1c332.d	03/18/10	0241
07	RE46-10-13775	248862005	1c333.d	03/18/10	0311
08	RE46-10-13776	248862006	1c334.d	03/18/10	0342
09	RE46-10-13781	248862007	1c335.d	03/18/10	0412
10	RE46-10-13779	248862008	1c336.d	03/18/10	0443
11	RE46-10-13780	248862009	1c337.d	03/18/10	0513
12	RE46-10-13778	248862010	1c338.d	03/18/10	0544
13	RE46-10-13782PS	1202073210	1c339.d	03/18/10	0614
14	RE46-10-13782PSD	1202073211	1c340.d	03/18/10	0645

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2314

Instrument ID: VOA1.I **Injection Date/Time:** 04-MAR-10 16:41

Column Description: RTX-Volatiles **Lab File ID** /030410v1/1a411.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	22.2
75	30.0 - 60.0% of mass 95	56.5
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.9
174	50.0 - 100.0% of mass 95	71.7
175	5.0 -9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	95.2
177	5.0 - 9.0% of mass 176	6.8

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD001	W1VM100304-06	1a412.d	04-MAR-10 17:28
VSTD002	W1VM100304-07	1a413.d	04-MAR-10 17:59
VSTD005	W1VM100304-08	1a414.d	04-MAR-10 18:29
VSTD010	W1VM100304-09	1a415.d	04-MAR-10 19:00
VSTD020	W1VM100304-10	1a416.d	04-MAR-10 19:31
VSTD050	W1VM100304-11	1a417.d	04-MAR-10 20:02
VSTD100	W1VM100304-12	1a418.d	04-MAR-10 20:32
VSTD0005	W1VM100304-13	1a420.d	04-MAR-10 21:35
VSTD005S	W1VM100304-16	1a423.d	04-MAR-10 23:06
VSTD010S	W1VM100304-17	1a424.d	04-MAR-10 23:37
VSTD025S	W1VM100304-18	1a425.d	05-MAR-10 00:08
VSTD050S	W1VM100304-19	1a426.d	05-MAR-10 00:39
VSTD100S	W1VM100304-20	1a427.d	05-MAR-10 01:10
VSTD250S	W1VM100304-21	1a428.d	05-MAR-10 01:41
VSTD500S	W1VM100304-22	1a429.d	05-MAR-10 02:12
SICV	W1VM100304-23	1a431.d	05-MAR-10 03:14

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2314

Instrument ID: VOA1.I **Injection Date/Time:** 05-MAR-10 10:31

Column Description: RTX-Volatiles **Lab File ID** /030510v1/1a502BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	22.9
75	30.0 - 60.0% of mass 95	57.9
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	72.8
175	5.0 -9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	97
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
LICV	W1VM100305-01	1a502.d	05-MAR-10 10:31

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2314

Instrument ID: VOA1.I **Injection Date/Time:** 17-MAR-10 22:06

Column Description: RTX-Volatiles **Lab File ID** /031710v1/1c323BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	20.8
75	30.0 - 60.0% of mass 95	56.2
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	71.2
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	96.1
177	5.0 - 9.0% of mass 176	6.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W1VM100317-05	1c323.d	17-MAR-10 22:06
LCS	1202073206	1c324ll.d	17-MAR-10 22:37
VSTD250S	UVM100304-08A	1c325.d	17-MAR-10 23:07
LCS	1202073207	1c326sl.d	17-MAR-10 23:38
BLANK	1202073204	1c327bl.d	18-MAR-10 00:08
RE46-10-13784	248862001	1c329.d	18-MAR-10 01:09
RE46-10-13782	248862002	1c330.d	18-MAR-10 01:39
RE46-10-13783	248862003	1c331.d	18-MAR-10 02:10
RE46-10-13777	248862004	1c332.d	18-MAR-10 02:41
RE46-10-13775	248862005	1c333.d	18-MAR-10 03:11
RE46-10-13776	248862006	1c334.d	18-MAR-10 03:42
RE46-10-13781	248862007	1c335.d	18-MAR-10 04:12
RE46-10-13779	248862008	1c336.d	18-MAR-10 04:43
RE46-10-13780	248862009	1c337.d	18-MAR-10 05:13
RE46-10-13778	248862010	1c338.d	18-MAR-10 05:44
RE46-10-13782MS	1202073210	1c339.d	18-MAR-10 06:14
RE46-10-13782MSD	1202073211	1c340.d	18-MAR-10 06:45

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA1.I

GC Column: RTX-Volatiles

Client SDG: 10-2314

STD Analysis Time: 17-MAR-10 22:06

Data File: 1c323.d

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	993293		13.7	741882		17.2	404725		19.6
Upper Limit	1986586		14.2	1483764		17.7	809450		20.1
Lower Limit	496647		13.2	370941		16.7	202363		19.1
Sample ID									
BLK01LCS	1043079		13.7	775046		17.2	431356		19.6
BLK01SLCS	998628		13.7	755860		17.2	415298		19.6
BLK01	995598		13.7	736724		17.2	393755		19.6
RE46-10-13784	925696		13.7	694754		17.2	377978		19.6
RE46-10-13782	923611		13.7	681449		17.2	373703		19.6
RE46-10-13783	878641		13.7	657252		17.2	359853		19.6
RE46-10-13777	847413		13.7	591598		17.2	246579		19.6
RE46-10-13775	832987		13.7	613499		17.2	329916		19.6
RE46-10-13776	813596		13.7	613291		17.2	335602		19.6
RE46-10-13781	795320		13.7	594232		17.2	312408		19.6
RE46-10-13779	770561		13.7	562569		17.2	290323		19.6
RE46-10-13780	805830		13.7	602732		17.2	330704		19.6
RE46-10-13778	745779		13.7	554193		17.2	294677		19.6
RE46-10-13782MS	791555		13.7	605302		17.2	343985		19.6
RE46-10-13782MSD	780709		13.7	601188		17.2	339683		19.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862005**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13775**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 03:11**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:49**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c333.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.376	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.331	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.331	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.331	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.331	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.331	1.10
67-64-1	Acetone	U	5.52	ug/kg	1.83	5.52
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
74-88-4	Iodomethane	U	5.52	ug/kg	1.77	5.52
75-09-2	Methylene chloride	U	5.52	ug/kg	2.21	5.52
75-15-0	Carbon disulfide	U	5.52	ug/kg	1.38	5.52
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.331	1.10
78-93-3	2-Butanone	U	5.52	ug/kg	1.66	5.52
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10
67-66-3	Chloroform	U	1.10	ug/kg	0.331	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.365	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.331	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.331	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.331	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.331	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.331	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.365	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.331	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.331	1.10
108-10-1	4-Methyl-2-pentanone	U	5.52	ug/kg	1.38	5.52
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.331	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.331	1.10
591-78-6	2-Hexanone	U	5.52	ug/kg	1.66	5.52
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.331	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.331	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.331	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.331	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.331	1.10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862005**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13775**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 03:11**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:49**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c333.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.331	1.10
179601-23-1	m,p-Xylenes	U	2.21	ug/kg	0.331	2.21
95-47-6	o-Xylene	U	1.10	ug/kg	0.331	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.331	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.331	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.331	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.331	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.331	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.331	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.331	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.331	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.331	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.331	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.331	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.52	ug/kg	1.77	5.52
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	19.96	14.6	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c333.d
Lab Smp Id: 248862005 Client Smp ID: RE46-10-13775
Inj Date : 18-MAR-2010 03:11
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862005|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	9.49990	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	832987	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	613499	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	329916	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	473470	58.2133	64.3
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1075683	52.1315	57.6
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	457025	55.2536	61.0

ION RATIO REPORT

VOA REPORT

Data file: 1c333.d
Report Date: 03/18/2010 05:37
Lab. ID: 248862005 SampleType: SAMPLE
Injection Date: 18-MAR-2010 03:11
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248862005|966068|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	16454	13.67	13.43	80-120	100	(T)
64	2594	13.68	13.43	2- 62	16	(T)
54 Trichloroethylene				CAS#: 79-01-6		
95	72065	13.67	14.11	80-120	100	(T)
97	54039	13.67	14.11	35- 95	75	(T)
130	170	14.11	14.11	52-112	0	(Q)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	11057	15.50	15.35	80-120	100	(T)
43	6363	15.50	15.35	215-275	58	(QT)
100	670165	15.50	15.35	0- 60	6060	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c333.d
Lab Smp Id: 248862005 Client Smp ID: RE46-10-13775
Inj Date : 18-MAR-2010 03:11
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862005|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	9.49990	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 102 1,4-Dichlorobenzene-d4	19.596	2282190	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
19.960	603098	13.2131434	14.6	0		0	102

Data File: /chem/VOA1.i/031710v1/1c333.d
Date : 18-MAR-2010 03:11
Client ID: RE46-10-13775
Sample Info: |2488620051966068|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2
Column diameter: 0.25

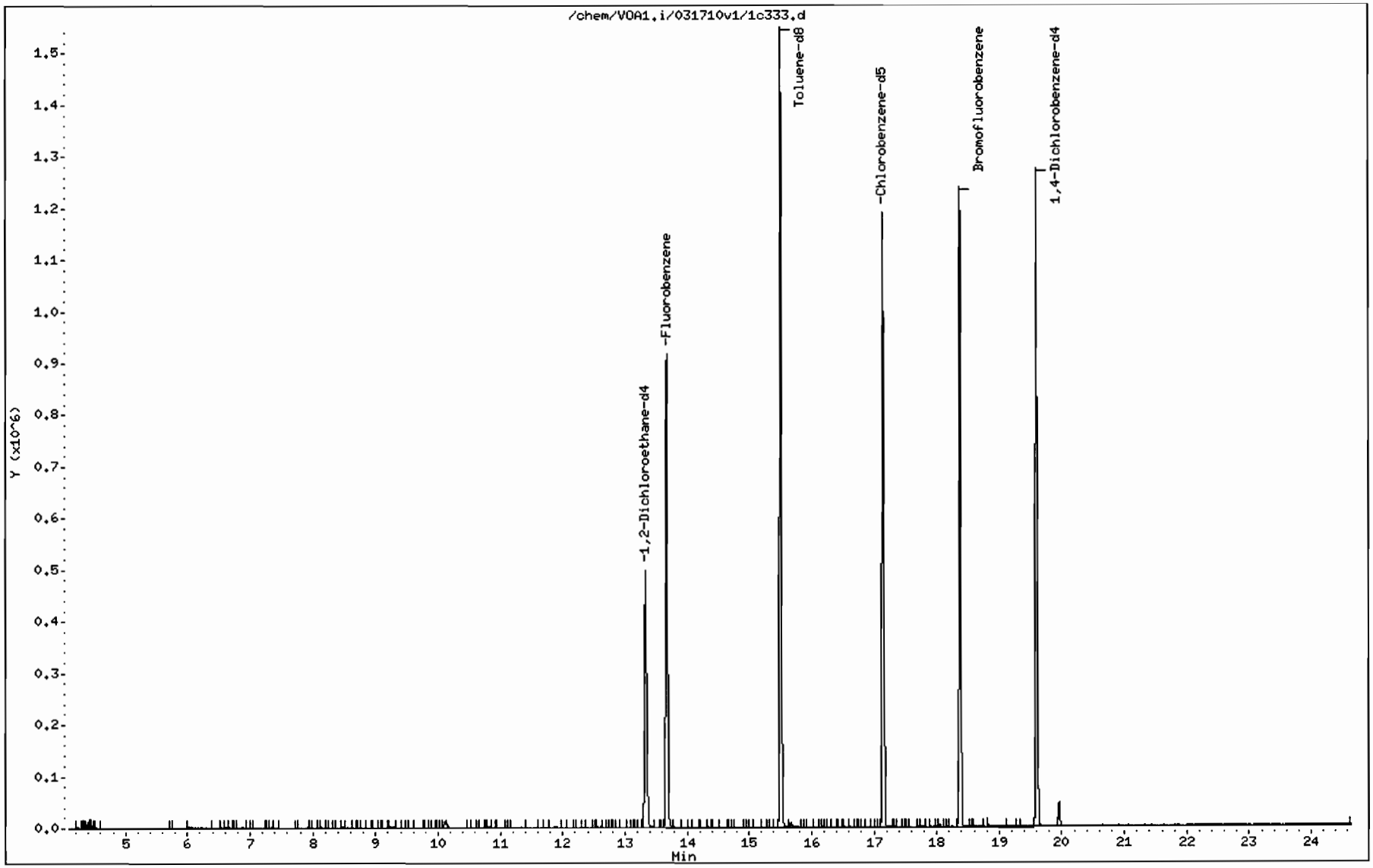

Data File: /chem/VOA1.i/031710v1/1c333.d

Date : 18-MAR-2010 03:11

Client ID: RE46-10-13775

Instrument: VOA1.i

Sample Info: |248862005|966068|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0

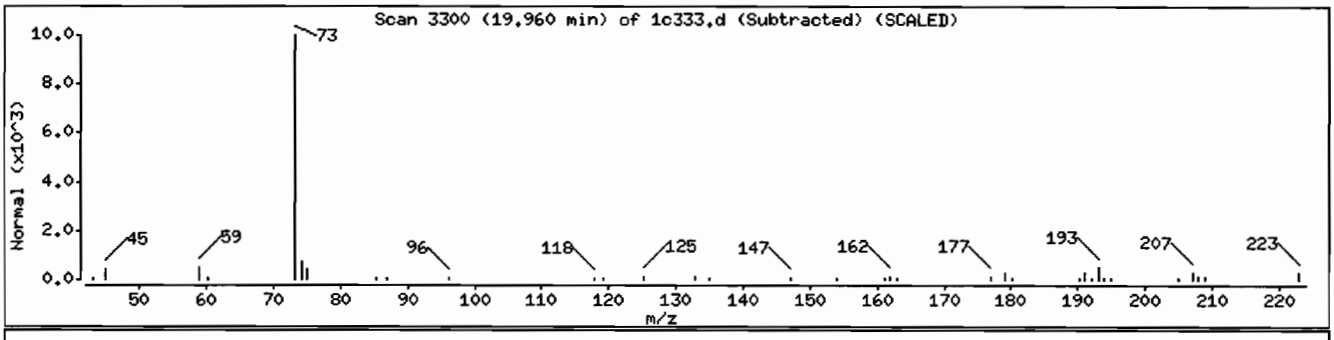

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862006**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13776**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 03:42**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:51**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c334.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.378	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.334	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.334	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.334	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.334	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.334	1.11
67-64-1	Acetone	J	1.88	ug/kg	1.85	5.56
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
74-88-4	Iodomethane	U	5.56	ug/kg	1.78	5.56
75-09-2	Methylene chloride	U	5.56	ug/kg	2.22	5.56
75-15-0	Carbon disulfide	U	5.56	ug/kg	1.39	5.56
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.334	1.11
78-93-3	2-Butanone	U	5.56	ug/kg	1.67	5.56
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.334	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.334	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.367	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.334	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.334	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.334	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.334	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.334	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.367	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.334	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.334	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.334	1.11
108-10-1	4-Methyl-2-pentanone	U	5.56	ug/kg	1.39	5.56
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.334	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.334	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.334	1.11
591-78-6	2-Hexanone	U	5.56	ug/kg	1.67	5.56
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.334	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.334	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.334	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.334	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.334	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862006**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13776**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 03:42**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:51**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c334.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.334	1.11
179601-23-1	m,p-Xylenes	U	2.22	ug/kg	0.334	2.22
95-47-6	o-Xylene	U	1.11	ug/kg	0.334	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.334	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.334	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.334	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.334	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.334	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.334	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.334	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.334	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.334	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.334	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.334	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.334	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.334	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.56	ug/kg	1.78	5.56
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.334	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.334	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c334.d
Lab Smp Id: 248862006 Client Smp ID: RE46-10-13776
Inj Date : 18-MAR-2010 03:42
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862006|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	10.10940	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	813596	50.0000	
* 76 Chlorobenzene-d5	117	17.147	17.148	(1.000)	613291	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	335602	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.332	13.327	(0.975)	468795	59.0122	65.6
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1065273	51.6445	57.4
$ 87 Bromofluorobenzene	95	18.376	18.377	(0.938)	457002	54.3148	60.4
16 Acetone	43	9.249	9.244	(0.676)	8126	1.68598	1.9(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1c334.d
Report Date: 03/18/2010 05:37
Lab. ID: 248862006 SampleType: SAMPLE
Injection Date: 18-MAR-2010 03:42
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248862006|966068|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	8126	9.25	9.24	80-120	100	( )
58	2392	9.23	9.24	0- 59	29	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	17119	13.67	13.43	80-120	100	(T)
64	2690	13.68	13.43	2- 62	16	(T)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	10915	15.50	15.35	80-120	100	(T)
43	6412	15.50	15.35	215-275	59	(QT)
100	658243	15.50	15.35	0- 60	6030	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c334.d
Lab Smp Id: 248862006 Client Smp ID: RE46-10-13776
Inj Date : 18-MAR-2010 03:42
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862006|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/031710v1/1c334.d
Date : 18-MAR-2010 03:42
Client ID: RE46-10-13776
Sample Info: |2488620061966068|1|VOAF|1|

Instrument: VOA1.i

Operator: GRB2
Column diameter: 0.25

Column phase: RTX-Volatiles

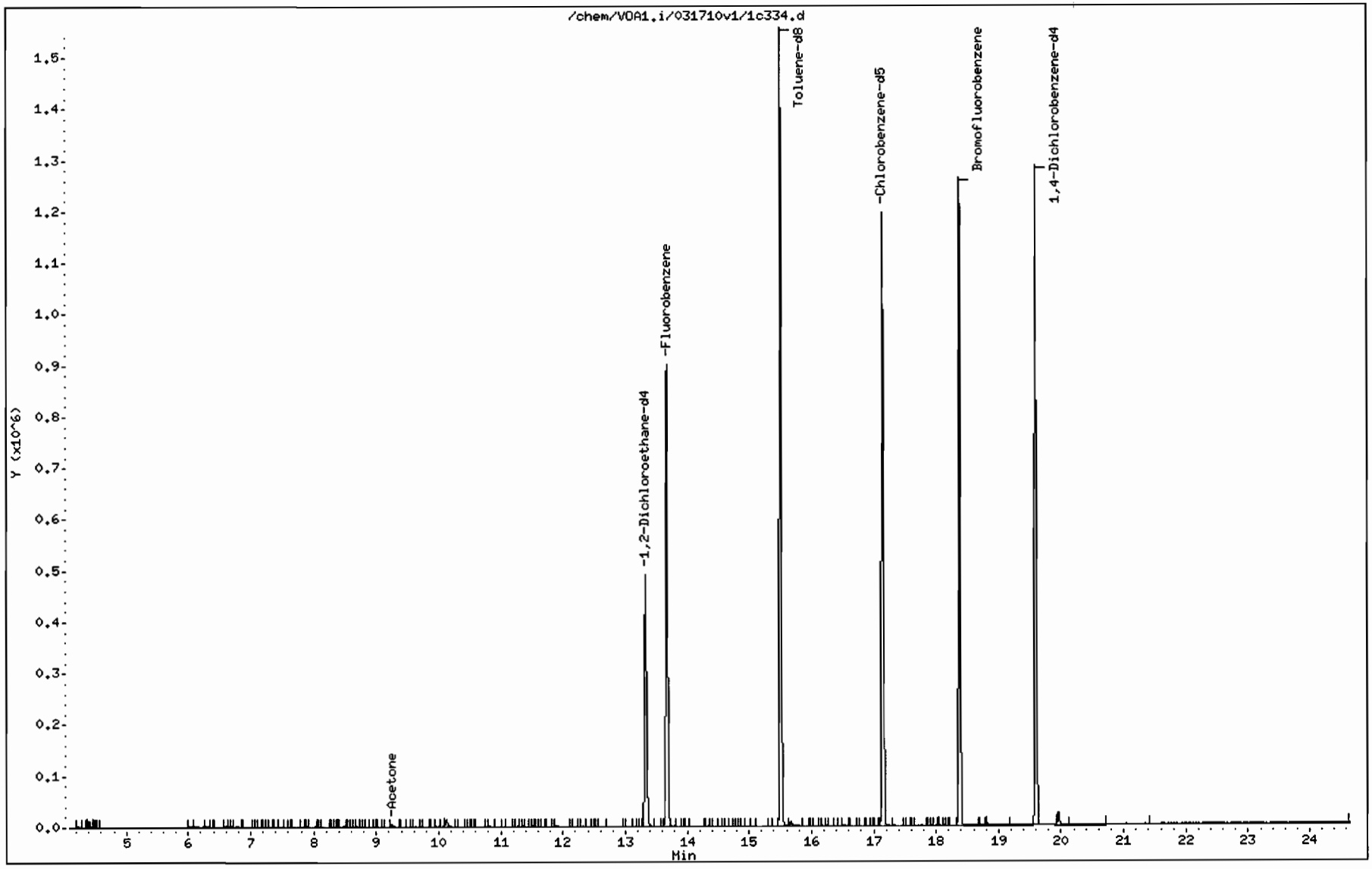

Data File: /chem/VOA1.i/031710v1/1c334.d

Date : 18-MAR-2010 03:42

Client ID: RE46-10-13776

Instrument: VOA1.i

Sample Info: |2488620061966068|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 1.9 ug/Kg

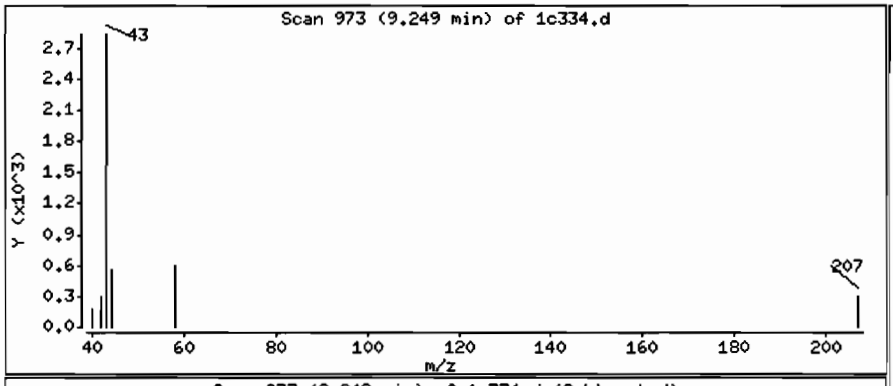

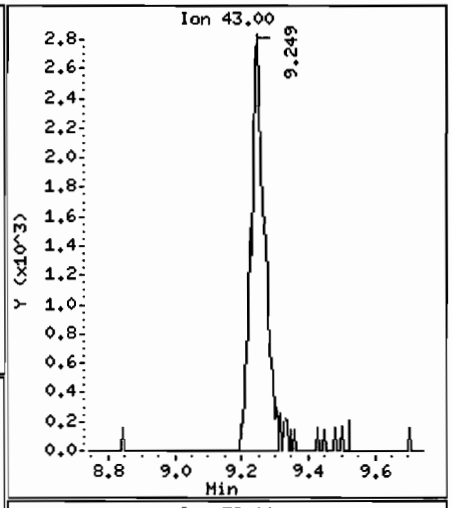

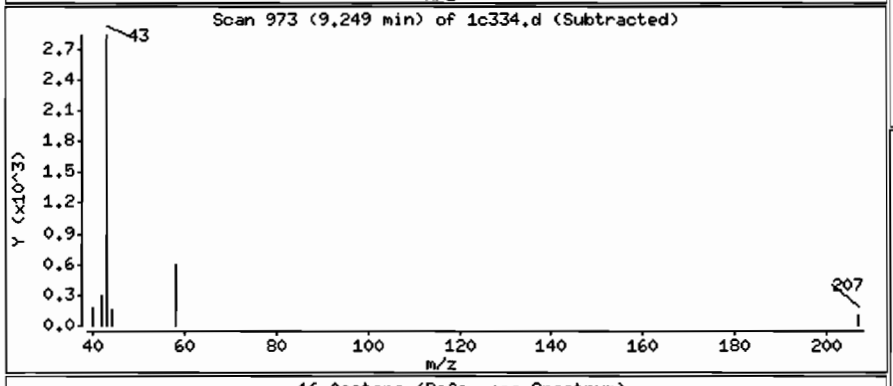

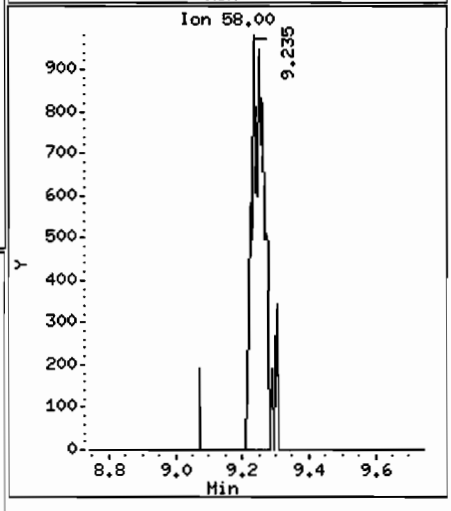

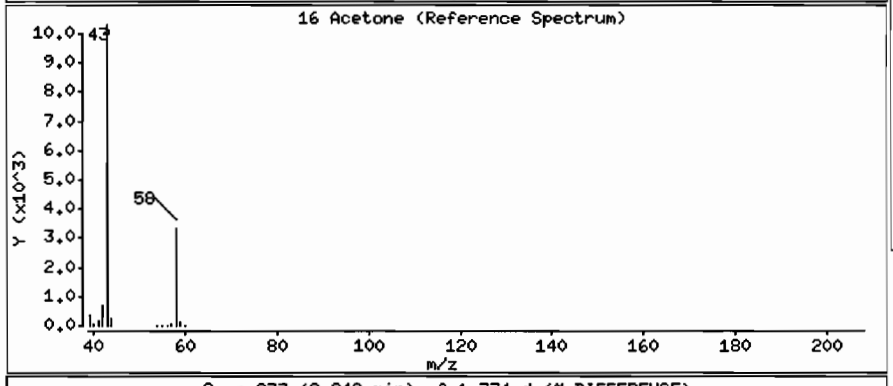

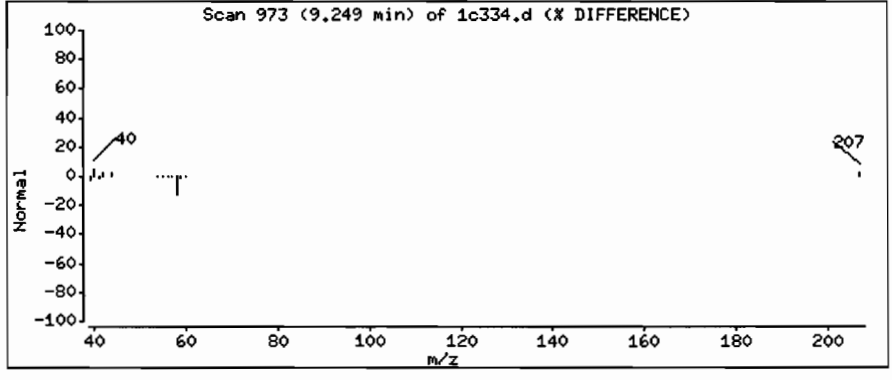

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**20.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13777**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 02:41**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:47**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c332.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.427	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.377	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.377	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.377	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.377	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.377	1.26
67-64-1	Acetone	U	6.28	ug/kg	2.09	6.28
75-35-4	1,1-Dichloroethylene	U	1.26	ug/kg	0.377	1.26
74-88-4	Iodomethane	U	6.28	ug/kg	2.01	6.28
75-09-2	Methylene chloride	U	6.28	ug/kg	2.51	6.28
75-15-0	Carbon disulfide	U	6.28	ug/kg	1.57	6.28
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.377	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.377	1.26
78-93-3	2-Butanone	U	6.28	ug/kg	1.89	6.28
156-59-2	cis-1,2-Dichloroethylene	U	1.26	ug/kg	0.377	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.377	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.377	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.415	1.26
71-55-6	1,1,1-Trichloroethane	U	1.26	ug/kg	0.377	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.377	1.26
56-23-5	Carbon tetrachloride	U	1.26	ug/kg	0.377	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.377	1.26
71-43-2	Benzene	U	1.26	ug/kg	0.377	1.26
79-01-6	Trichloroethylene	U	1.26	ug/kg	0.415	1.26
78-87-5	1,2-Dichloropropane	U	1.26	ug/kg	0.377	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.377	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.377	1.26
108-10-1	4-Methyl-2-pentanone	U	6.28	ug/kg	1.57	6.28
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.377	1.26
108-88-3	Toluene		6.41	ug/kg	0.377	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.377	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.377	1.26
591-78-6	2-Hexanone	U	6.28	ug/kg	1.89	6.28
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.377	1.26
127-18-4	Tetrachloroethylene	U	1.26	ug/kg	0.377	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.377	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.377	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.377	1.26

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**20.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13777**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 02:41**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:47**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c332.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	J	0.392	ug/kg	0.377	1.26
179601-23-1	m,p-Xylenes	J	0.850	ug/kg	0.377	2.51
95-47-6	o-Xylene	U	1.26	ug/kg	0.377	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.377	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.377	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.377	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.377	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.377	1.26
103-65-1	n-Propylbenzene	U	1.26	ug/kg	0.377	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.377	1.26
98-82-8	Isopropylbenzene	U	1.26	ug/kg	0.377	1.26
108-67-8	1,3,5-Trimethylbenzene	U	1.26	ug/kg	0.377	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.377	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.377	1.26
95-63-6	1,2,4-Trimethylbenzene	U	1.26	ug/kg	0.377	1.26
135-98-8	sec-Butylbenzene	U	1.26	ug/kg	0.377	1.26
99-87-6	4-Isopropyltoluene	U	1.26	ug/kg	0.377	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.377	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.377	1.26
104-51-8	n-Butylbenzene	U	1.26	ug/kg	0.377	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.377	1.26
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.28	ug/kg	2.01	6.28
630-20-6	1,1,1,2-Tetrachloroethane	U	1.26	ug/kg	0.377	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.377	1.26

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
108-87-2	Cyclohexane, methyl-	14.27	10.7	ug/kg	97	NJ
97-85-8	Propanoic acid, 2-methyl-, 2-methylpropy	17.76	31.2	ug/kg	90	NJ

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c332.d
Lab Smp Id: 248862004 Client Smp ID: RE46-10-13777
Inj Date : 18-MAR-2010 02:41
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862004|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	20.43130	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	847413	50.0000	
* 76 Chlorobenzene-d5	117	17.147	17.148	(1.000)	591598	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	246579	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	462971	55.9534	70.3
$ 65 Toluene-d8	98	15.509	15.504	(0.904)	1067464	53.6484	67.4
$ 87 Bromofluorobenzene	95	18.376	18.377	(0.938)	395914	64.0426	80.5
66 Toluene	92	15.587	15.583	(0.909)	58217	5.10202	6.4
78 Ethylbenzene	91	17.207	17.207	(1.003)	7111	0.31193	0.39(a)
80 m,p-Xylenes	106	17.327	17.323	(1.010)	5468	0.67657	0.85(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1c332.d
Report Date: 03/18/2010 05:37
Lab. ID: 248862004 SampleType: SAMPLE
Injection Date: 18-MAR-2010 02:41
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248862004|966068|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
43 1,1,1-Trichloroethane				CAS#: 71-55-6		
97	2642	12.82	12.83	80-120	100	( )
99	383	12.81	12.83	35- 95	15	(Q)
61	987	12.84	12.83	13- 73	37	( )
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	16664	13.67	13.43	80-120	100	(T)
64	2371	13.68	13.43	2- 62	14	(T)
54 Trichloroethylene				CAS#: 79-01-6		
95	75874	13.67	14.11	80-120	100	(T)
97	56034	13.67	14.11	35- 95	74	(T)
130	1068	14.10	14.11	52-112	1	(Q)
60 Bromodichloromethane				CAS#: 75-27-4		
83	58568	14.27	14.74	80-120	100	(T)
85	290	14.44	14.74	34- 94	0	(QT)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	11261	15.50	15.35	80-120	100	(T)
43	14198	15.49	15.35	215-275	126	(QT)
100	660157	15.50	15.35	0- 60	5862	(QT)
66 Toluene				CAS#: 108-88-3		
92	58217	15.59	15.58	80-120	100	( )
91	97248	15.59	15.58	139-199	167	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
78 Ethylbenzene			CAS#: 100-41-4			
91	7111	17.21	17.21	80-120	100	( )
106	1799	17.20	17.21	0- 58	25	( )
81 o-Xylene			CAS#: 95-47-6			
106	5468	17.33	17.77	80-120	100	(T)
91	13113	17.32	17.77	220-280	240	(T)
80 m,p-Xylenes			CAS#:			
106	5468	17.33	17.32	80-120	100	( )
91	13113	17.32	17.32	205-265	240	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c332.d
Lab Smp Id: 248862004 Client Smp ID: RE46-10-13777
Inj Date : 18-MAR-2010 02:41
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862004|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	20.43130	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 52 Fluorobenzene	13.672	2012410	50.000
* 76 Chlorobenzene-d5	17.147	2134395	50.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Cyclohexane, methyl-					CAS #: 108-87-2		
14.271	342848	8.51833078	10.7	97	NIST05.L	3271	52

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
Propanoic acid, 2-methyl-, 2-methylpropy				CAS #: 97-85-8			
17.760	1059959	24.8304237	31.2	90	NIST05.L	20229	76

Data File: /chem/VOA1.i/031710v1/1c332.d

Date : 18-MAR-2010 02:41

Client ID: RE46-10-13777

Sample Info: |248862004|966068|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2

Column diameter: 0.25

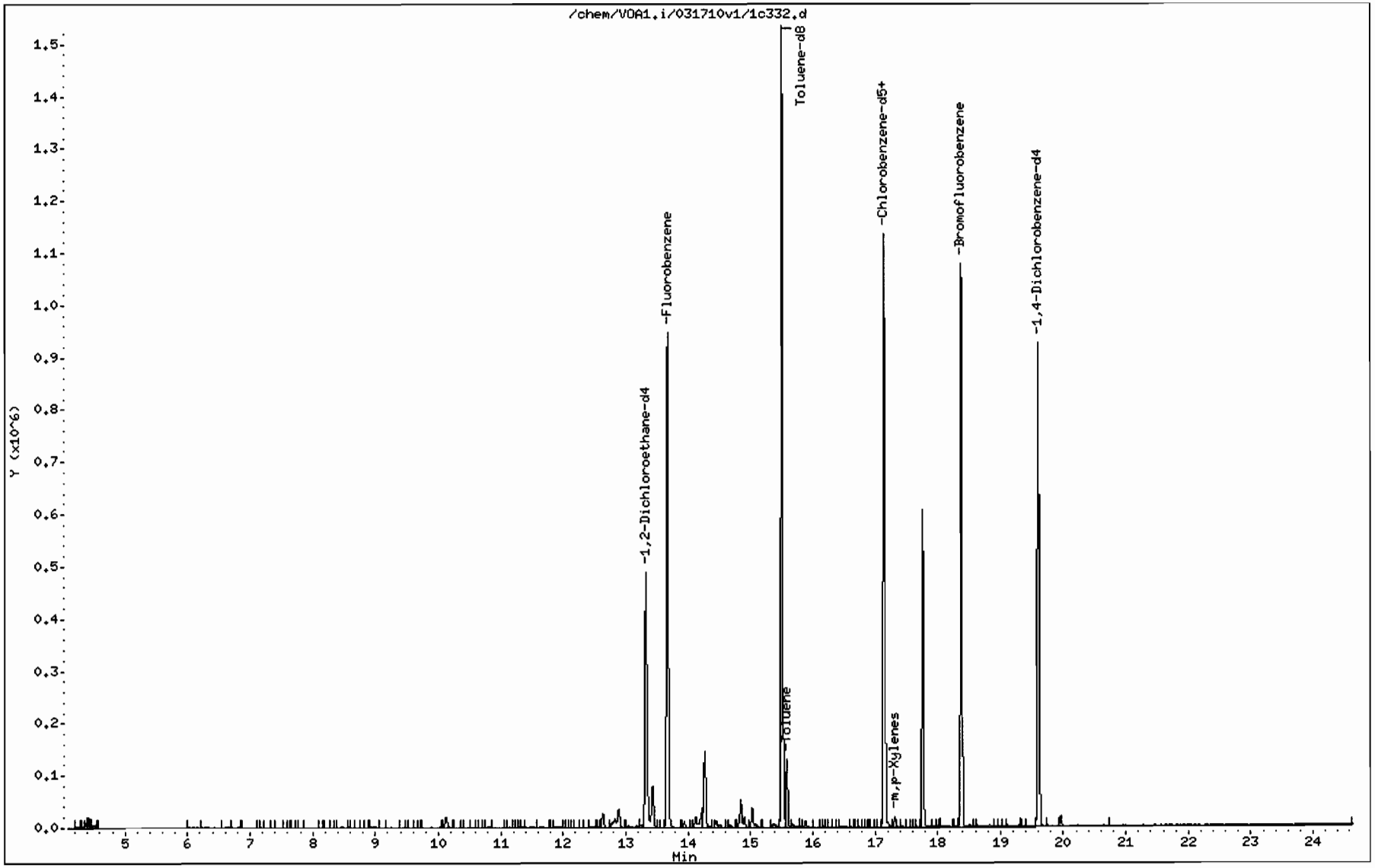

Data File: /chem/VOA1.i/031710v1/1c332.d

Date : 18-MAR-2010 02:41

Client ID: RE46-10-13777

Instrument: VOA1.i

Sample Info: |2488620041966068|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

66 Toluene

Concentration: 6.4 ug/Kg

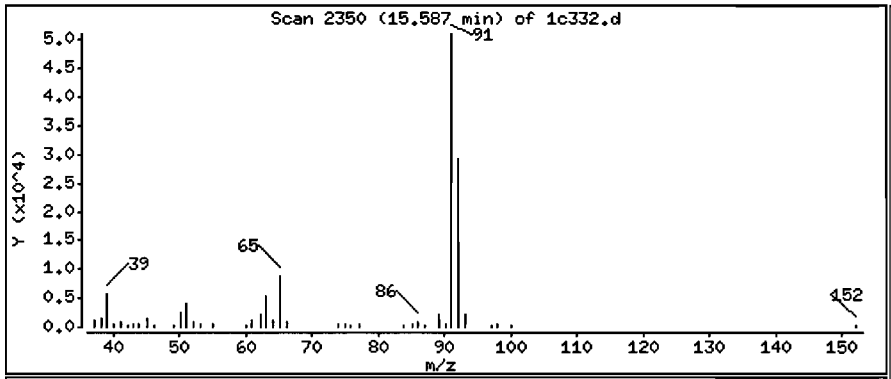

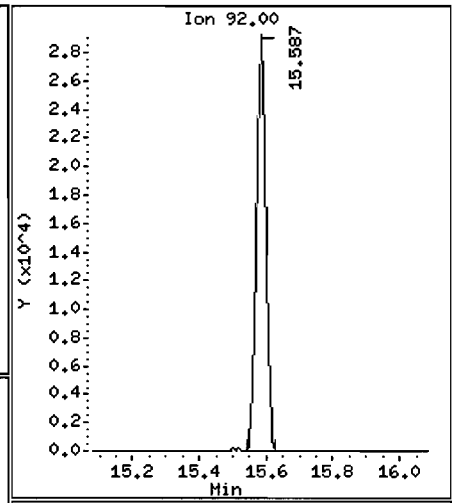

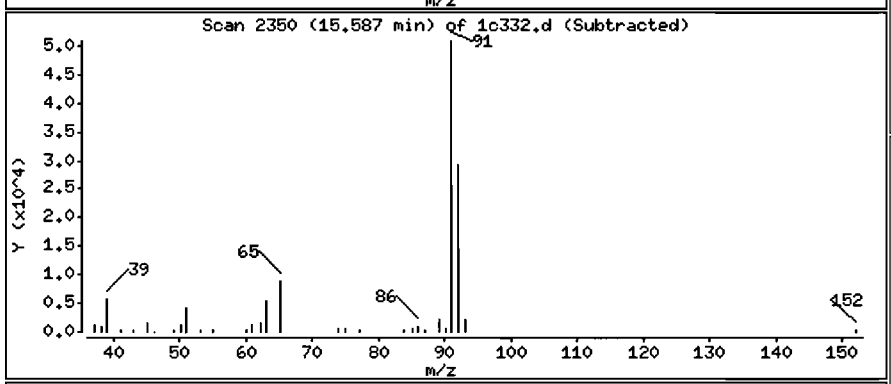

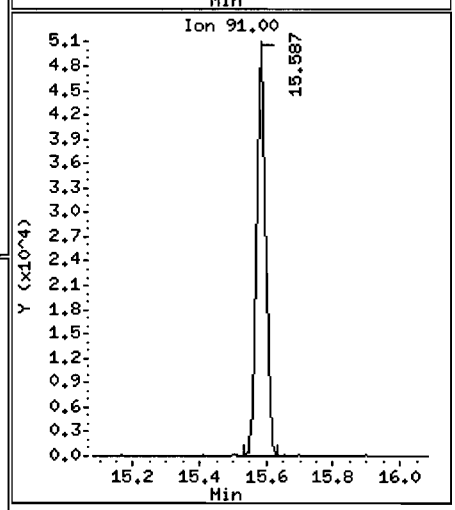

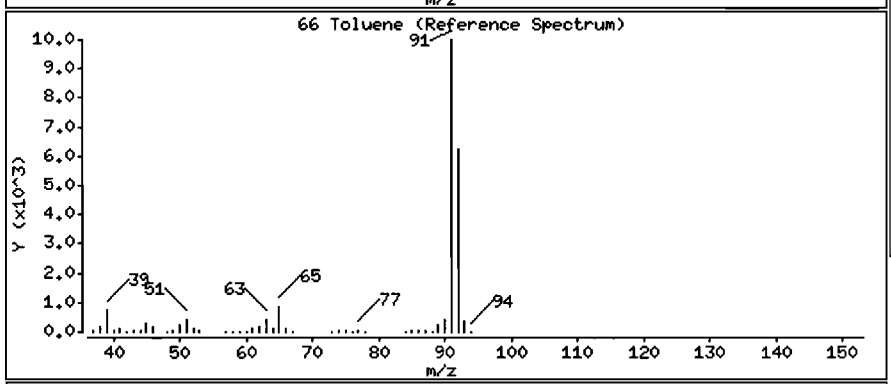

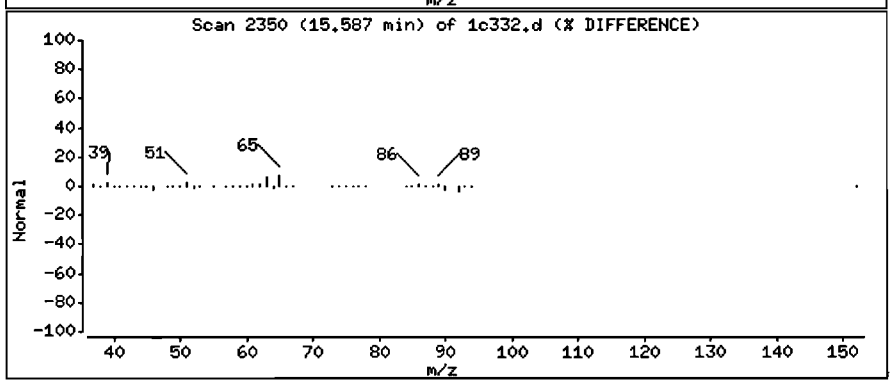

Data File: /chem/VOA1.i/031710v1/1c332.d

Date : 18-MAR-2010 02:41

Client ID: RE46-10-13777

Instrument: VOA1.i

Sample Info: |2488620041966068|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

78 Ethylbenzene

Concentration: 0.39 ug/Kg

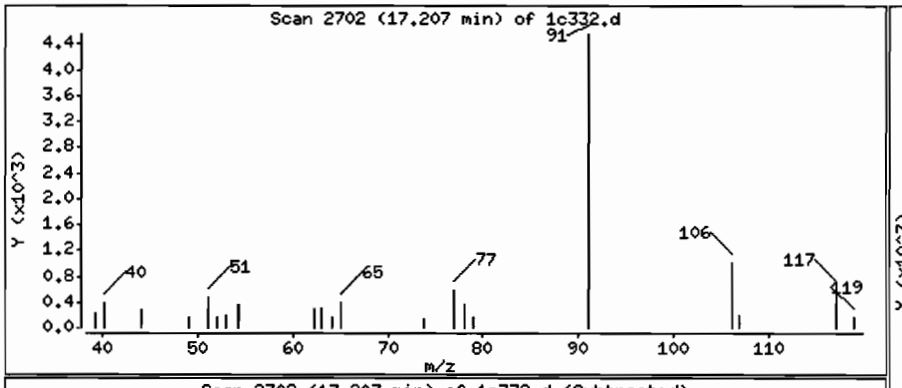

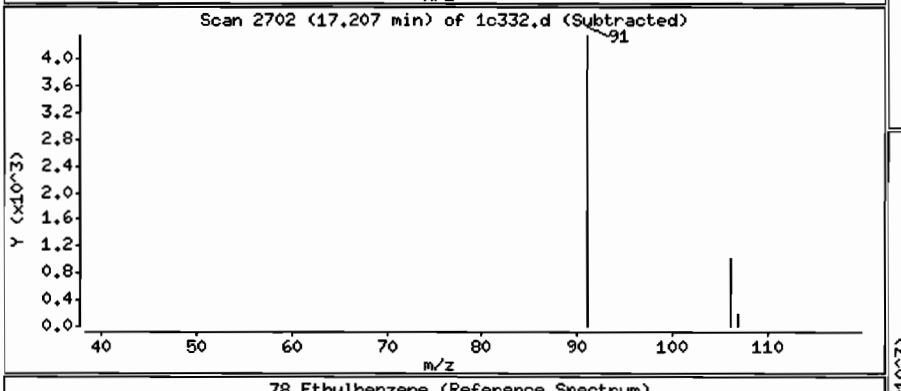

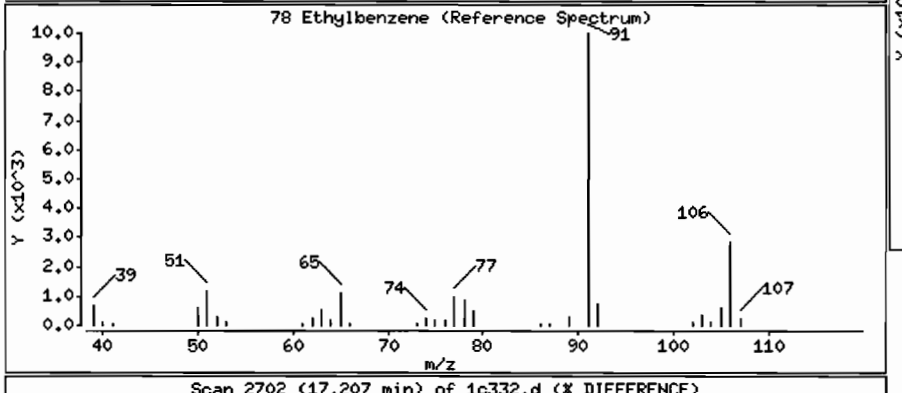

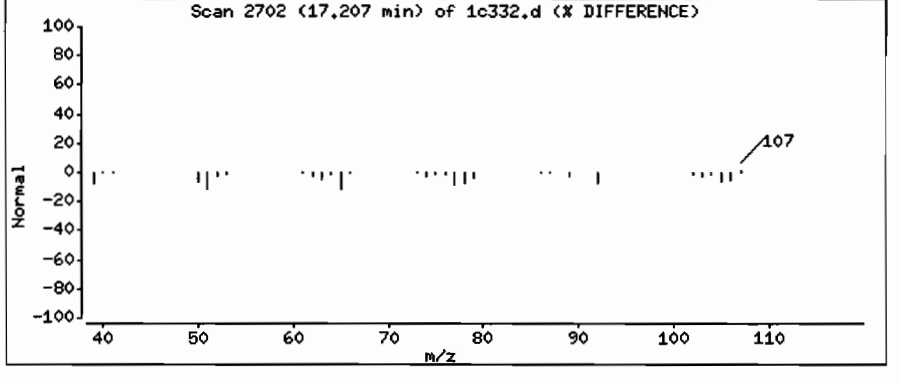

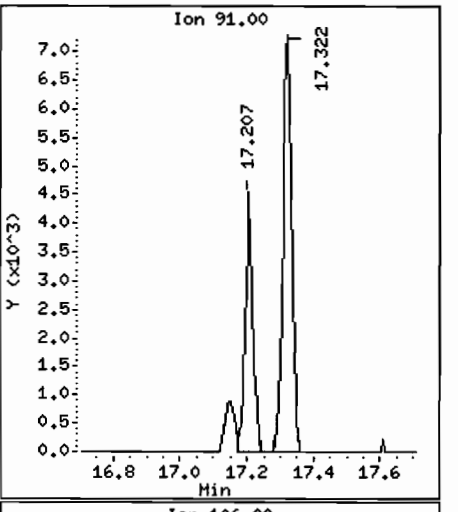

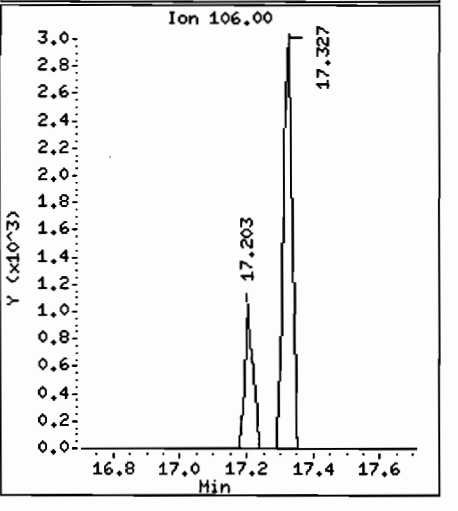

Data File: /chem/VOA1.i/031710v1/1c332.d

Date : 18-MAR-2010 02:41

Client ID: RE46-10-13777

Instrument: VOA1.i

Sample Info: |248862004|966068|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

80 m,p-Xylenes

Concentration: 0.85 ug/Kg

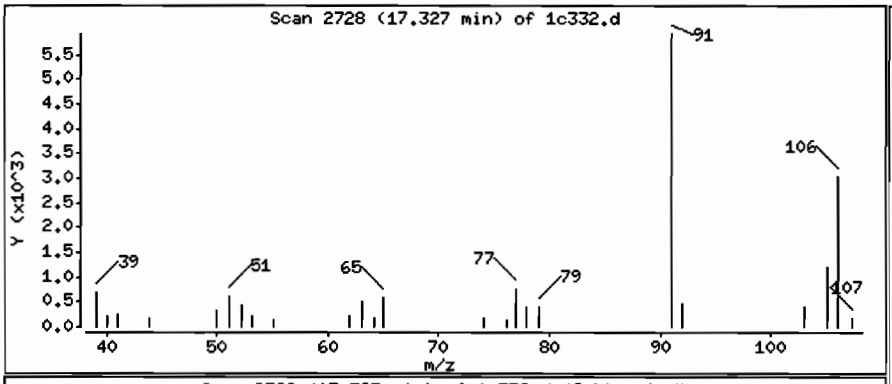

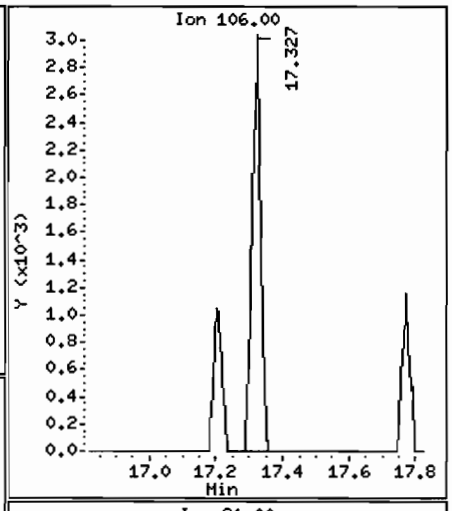

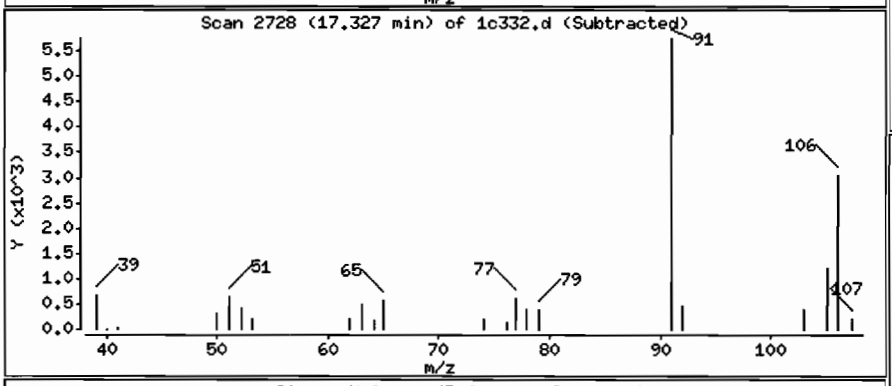

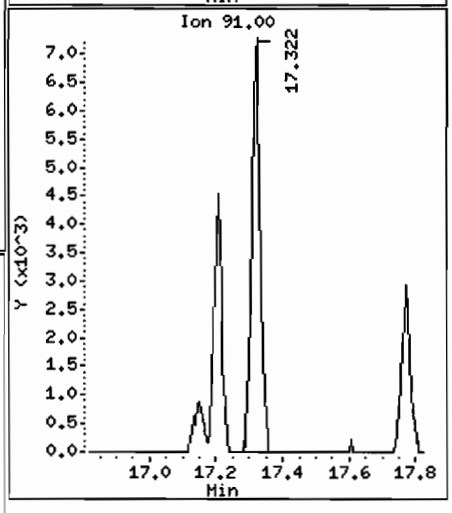

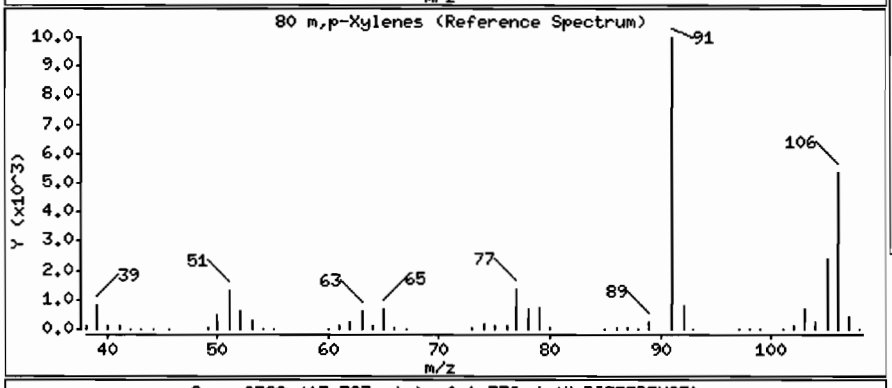

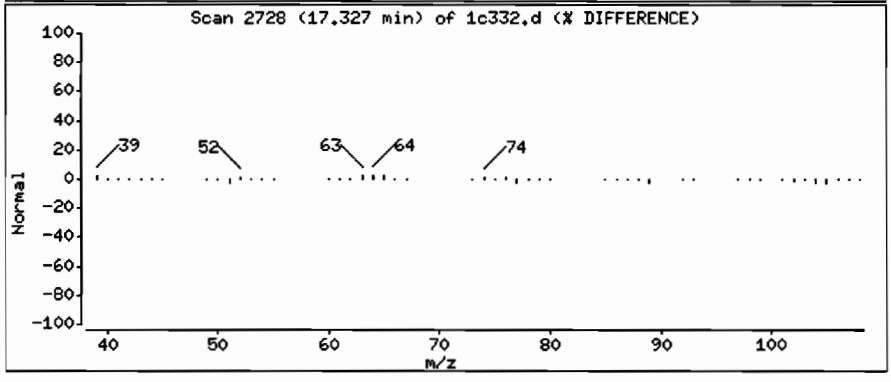

Data File: /chem/VOA1.i/031710v1/1c332.d

Date : 18-MAR-2010 02:41

Client ID: RE46-10-13777

Instrument: VOA1.i

Sample Info: |2488620041966068|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexane, methyl-	108-87-2	NIST05.L	3271	97	C7H14	98
Cyclohexane, methyl-	108-87-2	NIST05.L	3269	90	C7H14	98
Cyclohexane, methyl-	108-87-2	NIST05.L	3273	90	C7H14	98

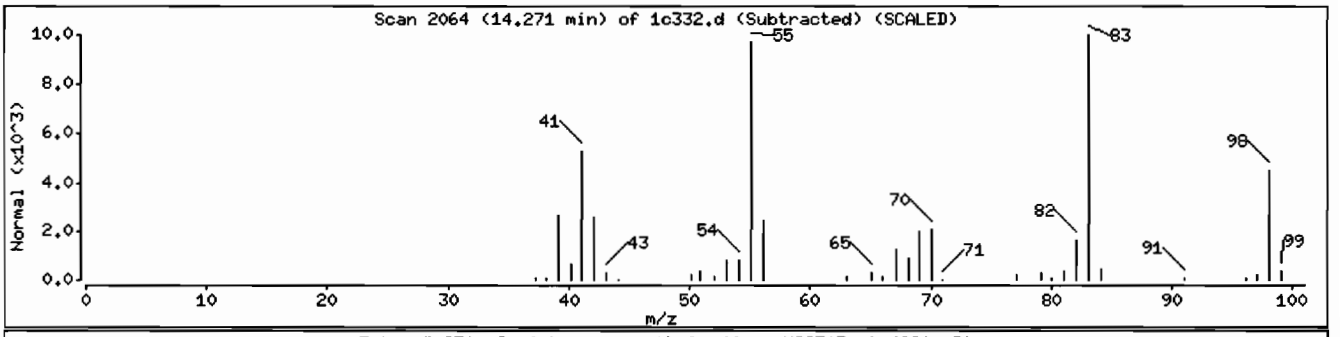

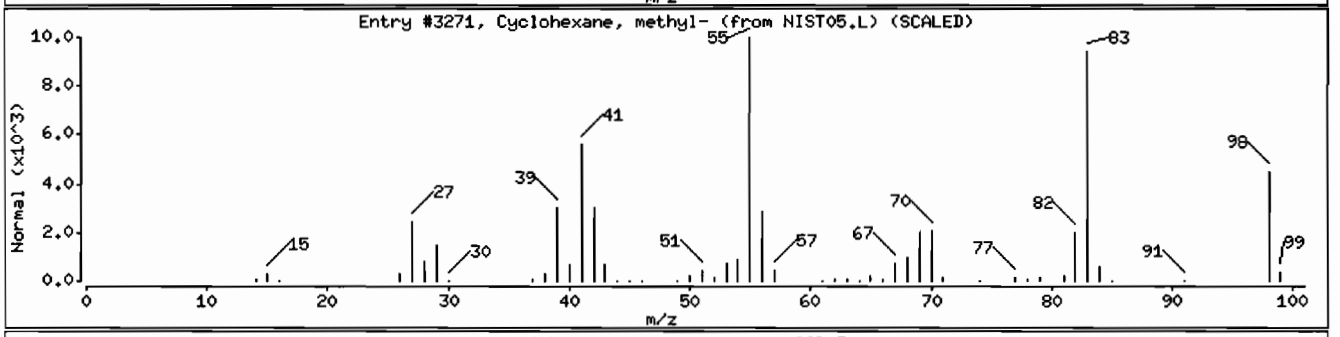

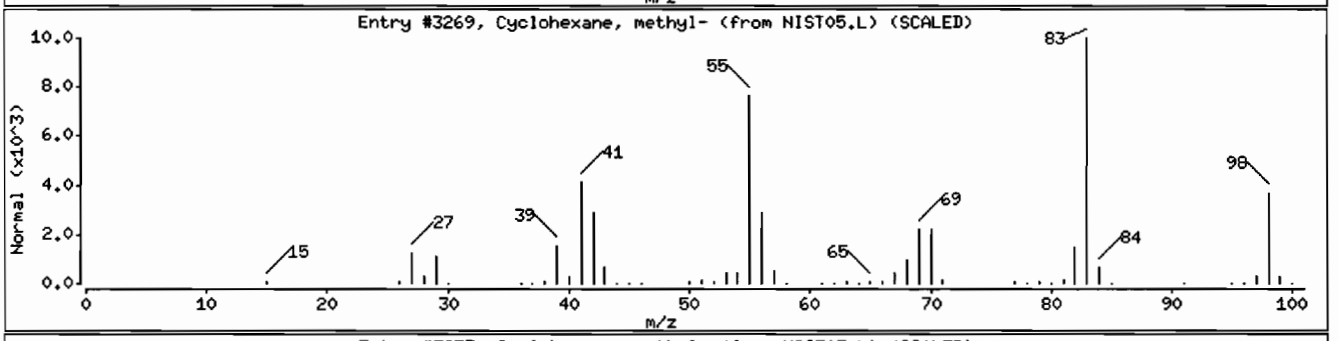

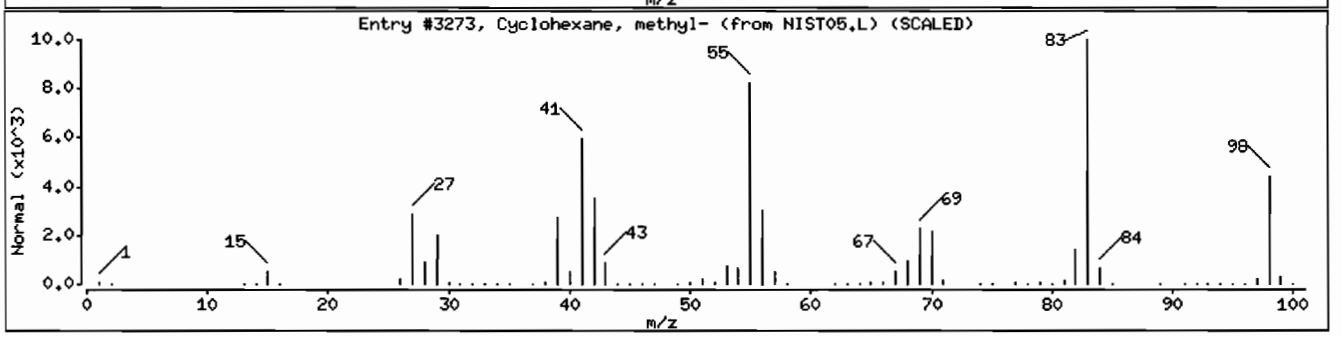

Data File: /chem/VOA1.i/031710v1/1c332.d

Date : 18-MAR-2010 02:41

Client ID: RE46-10-13777

Instrument: VOA1.i

Sample Info: |2488620041966068|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Propanoic acid, 2-methyl-, 2-methylpropy	97-85-8	NIST05.L	20229	90	C8H1602	144
Propanoic acid, 2-methyl-, butyl ester	97-87-0	NIST05.L	20176	90	C8H1602	144
Propanoic acid, 2-methyl-, butyl ester	97-87-0	NIST05.L	20188	83	C8H1602	144

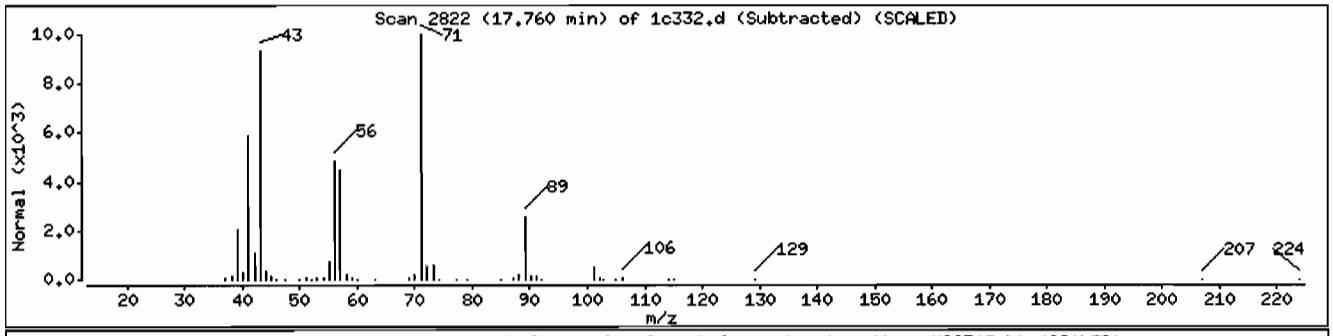

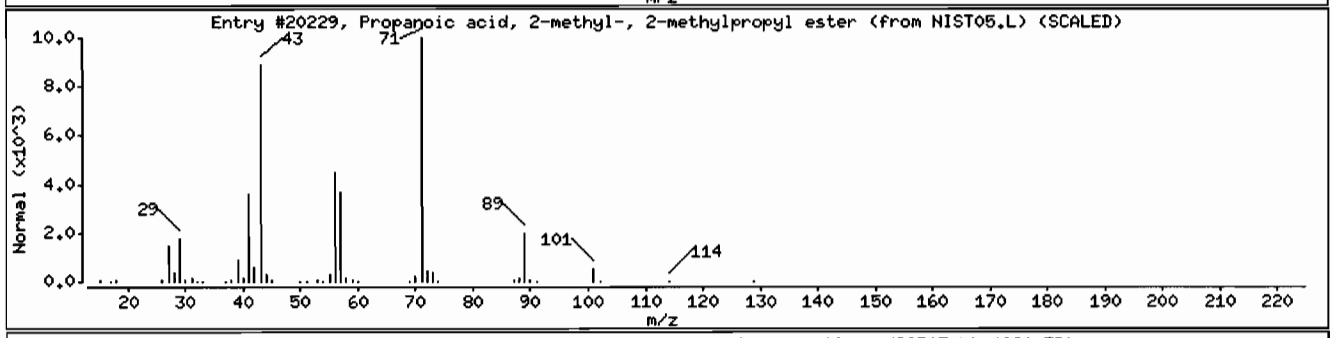

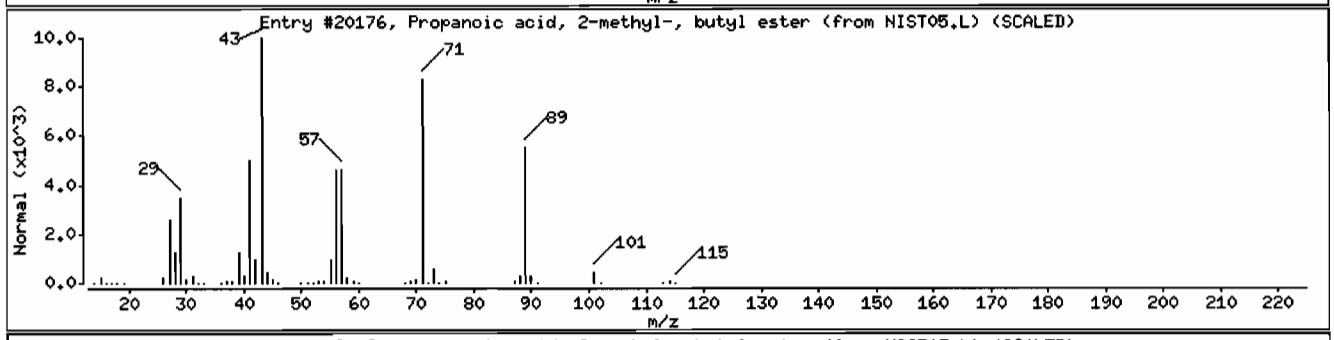

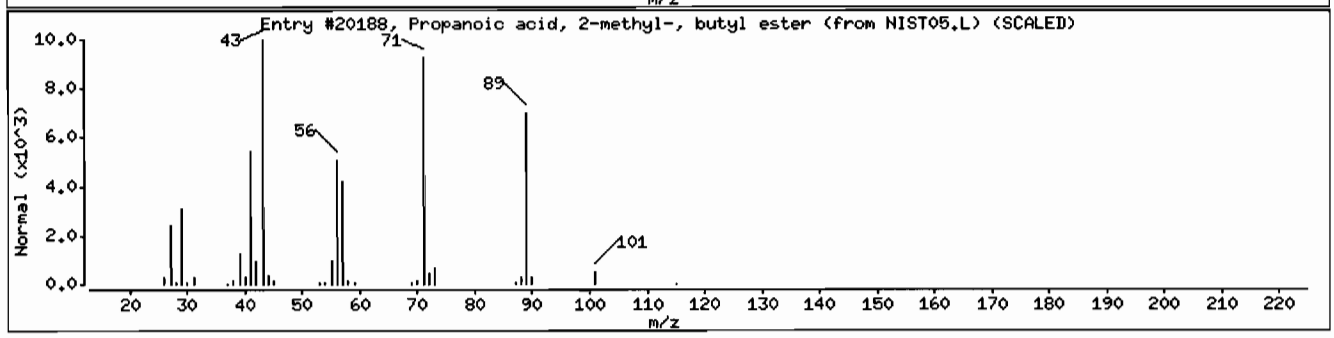

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	Date Collected:	03/04/2010 12:00	Matrix:	S
Lab Sample ID:	248862010	Date Received:	03/06/2010 09:15	%Moisture:	19.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13778	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	966068	Inst:	VOA1.I	Dilution:	1
Run Date:	03/18/2010 05:44	Analyst:	GRB2	Purge Vol:	5 mL
Prep Date:	03/17/2010 17:59	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1c338.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.24	ug/kg	0.420	1.24
74-87-3	Chloromethane	U	1.24	ug/kg	0.371	1.24
75-01-4	Vinyl chloride	U	1.24	ug/kg	0.371	1.24
74-83-9	Bromomethane	U	1.24	ug/kg	0.371	1.24
75-00-3	Chloroethane	U	1.24	ug/kg	0.371	1.24
75-69-4	Trichlorofluoromethane	U	1.24	ug/kg	0.371	1.24
67-64-1	Acetone	U	6.18	ug/kg	2.05	6.18
75-35-4	1,1-Dichloroethylene	U	1.24	ug/kg	0.371	1.24
74-88-4	Iodomethane	U	6.18	ug/kg	1.98	6.18
75-09-2	Methylene chloride	U	6.18	ug/kg	2.47	6.18
75-15-0	Carbon disulfide	U	6.18	ug/kg	1.54	6.18
156-60-5	trans-1,2-Dichloroethylene	U	1.24	ug/kg	0.371	1.24
75-34-3	1,1-Dichloroethane	U	1.24	ug/kg	0.371	1.24
78-93-3	2-Butanone	U	6.18	ug/kg	1.85	6.18
156-59-2	cis-1,2-Dichloroethylene	U	1.24	ug/kg	0.371	1.24
594-20-7	2,2-Dichloropropane	U	1.24	ug/kg	0.371	1.24
67-66-3	Chloroform	U	1.24	ug/kg	0.371	1.24
74-97-5	Bromochloromethane	U	1.24	ug/kg	0.408	1.24
71-55-6	1,1,1-Trichloroethane	U	1.24	ug/kg	0.371	1.24
563-58-6	1,1-Dichloropropene	U	1.24	ug/kg	0.371	1.24
56-23-5	Carbon tetrachloride	U	1.24	ug/kg	0.371	1.24
107-06-2	1,2-Dichloroethane	U	1.24	ug/kg	0.371	1.24
71-43-2	Benzene	U	1.24	ug/kg	0.371	1.24
79-01-6	Trichloroethylene	U	1.24	ug/kg	0.408	1.24
78-87-5	1,2-Dichloropropane	U	1.24	ug/kg	0.371	1.24
75-27-4	Bromodichloromethane	U	1.24	ug/kg	0.371	1.24
74-95-3	Dibromomethane	U	1.24	ug/kg	0.371	1.24
108-10-1	4-Methyl-2-pentanone	U	6.18	ug/kg	1.54	6.18
10061-01-5	cis-1,3-Dichloropropylene	U	1.24	ug/kg	0.371	1.24
108-88-3	Toluene	U	1.24	ug/kg	0.371	1.24
10061-02-6	trans-1,3-Dichloropropylene	U	1.24	ug/kg	0.371	1.24
79-00-5	1,1,2-Trichloroethane	U	1.24	ug/kg	0.371	1.24
591-78-6	2-Hexanone	U	6.18	ug/kg	1.85	6.18
142-28-9	1,3-Dichloropropane	U	1.24	ug/kg	0.371	1.24
127-18-4	Tetrachloroethylene	U	1.24	ug/kg	0.371	1.24
124-48-1	Dibromochloromethane	U	1.24	ug/kg	0.371	1.24
106-93-4	1,2-Dibromoethane	U	1.24	ug/kg	0.371	1.24
108-90-7	Chlorobenzene	U	1.24	ug/kg	0.371	1.24

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862010**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13778**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 05:44**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:59**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c338.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.24	ug/kg	0.371	1.24
179601-23-1	m,p-Xylenes	U	2.47	ug/kg	0.371	2.47
95-47-6	o-Xylene	U	1.24	ug/kg	0.371	1.24
100-42-5	Styrene	U	1.24	ug/kg	0.371	1.24
75-25-2	Bromoform	U	1.24	ug/kg	0.371	1.24
79-34-5	1,1,2,2-Tetrachloroethane	U	1.24	ug/kg	0.371	1.24
96-18-4	1,2,3-Trichloropropane	U	1.24	ug/kg	0.371	1.24
108-86-1	Bromobenzene	U	1.24	ug/kg	0.371	1.24
103-65-1	n-Propylbenzene	U	1.24	ug/kg	0.371	1.24
95-49-8	2-Chlorotoluene	U	1.24	ug/kg	0.371	1.24
98-82-8	Isopropylbenzene	U	1.24	ug/kg	0.371	1.24
108-67-8	1,3,5-Trimethylbenzene	U	1.24	ug/kg	0.371	1.24
106-43-4	4-Chlorotoluene	U	1.24	ug/kg	0.371	1.24
98-06-6	tert-Butylbenzene	U	1.24	ug/kg	0.371	1.24
95-63-6	1,2,4-Trimethylbenzene	U	1.24	ug/kg	0.371	1.24
135-98-8	sec-Butylbenzene	U	1.24	ug/kg	0.371	1.24
99-87-6	4-Isopropyltoluene	U	1.24	ug/kg	0.371	1.24
541-73-1	1,3-Dichlorobenzene	U	1.24	ug/kg	0.371	1.24
106-46-7	1,4-Dichlorobenzene	U	1.24	ug/kg	0.371	1.24
104-51-8	n-Butylbenzene	U	1.24	ug/kg	0.371	1.24
96-12-8	1,2-Dibromo-3-chloropropane	U	1.24	ug/kg	0.371	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.18	ug/kg	1.98	6.18
630-20-6	1,1,1,2-Tetrachloroethane	U	1.24	ug/kg	0.371	1.24
95-50-1	1,2-Dichlorobenzene	U	1.24	ug/kg	0.371	1.24

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c338.d
Lab Smp Id: 248862010 Client Smp ID: RE46-10-13778
Inj Date : 18-MAR-2010 05:44
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862010|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 38
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	19.06520	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	745779	50.0000	
* 76 Chlorobenzene-d5	117	17.147	17.148	(1.000)	554193	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	294677	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	438667	60.2411	74.4
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	967906	51.9281	64.2
$ 87 Bromofluorobenzene	95	18.376	18.377	(0.938)	409558	55.4362	68.5

ION RATIO REPORT

VOA REPORT

Data file: 1c338.d
Report Date: 03/18/2010 05:37
Lab. ID: 248862010 SampleType: SAMPLE
Injection Date: 18-MAR-2010 05:44
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248862010|966068|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	15948	13.67	13.43	80-120	100	(T)
64	2433	13.67	13.43	2- 62	15	(T)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	10204	15.50	15.35	80-120	100	(T)
43	7264	15.49	15.35	215-275	71	(QT)
100	594709	15.50	15.35	0- 60	5828	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c338.d
Lab Smp Id: 248862010 Client Smp ID: RE46-10-13778
Inj Date : 18-MAR-2010 05:44
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862010|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 38
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/031710v1/1c338.d

Date : 18-MAR-2010 05:44

Client ID: RE46-10-13778

Sample Info: |2488620101966068|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2

Column diameter: 0.25

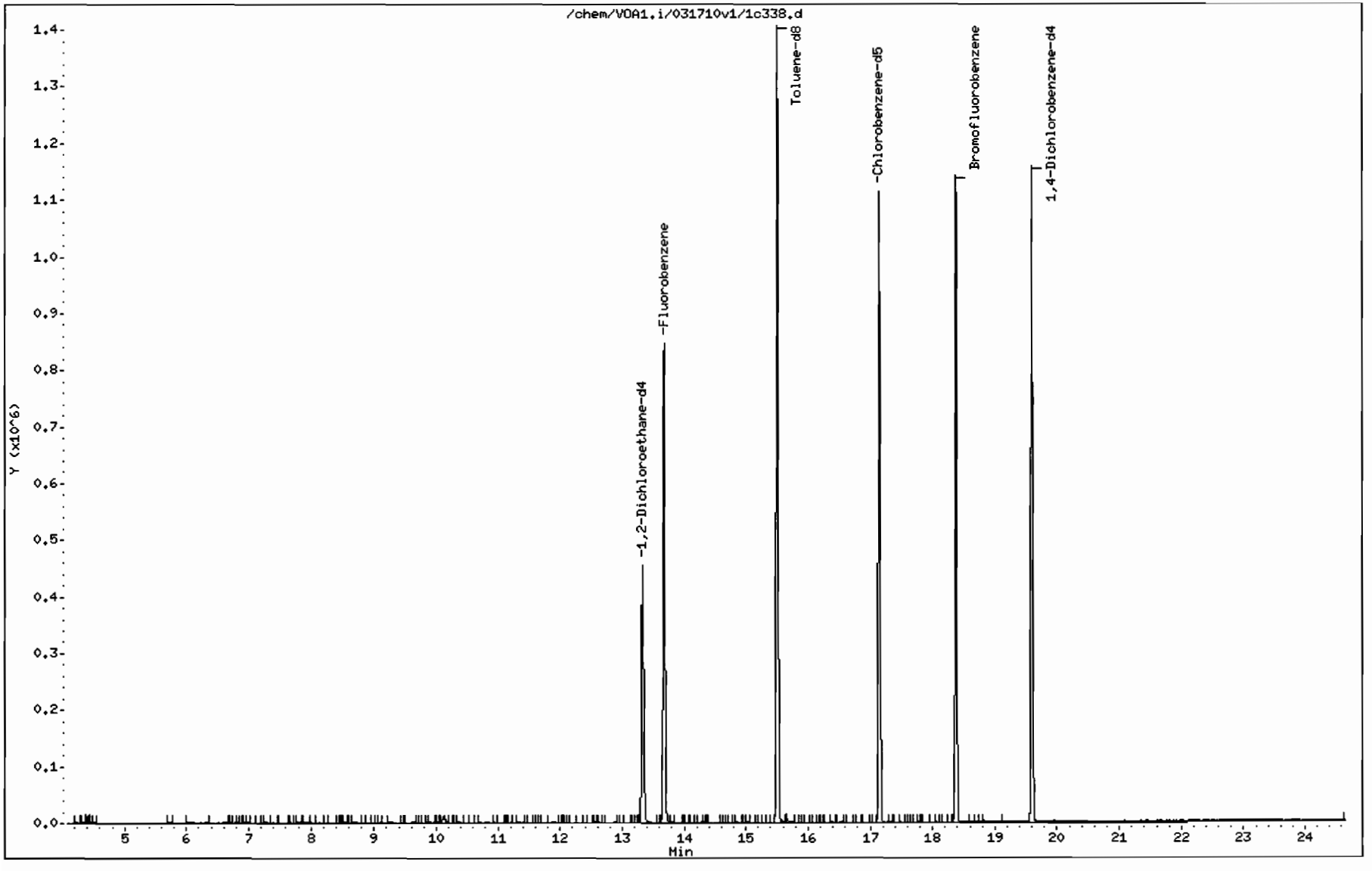

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862008**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13779**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 04:43**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:55**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c336.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.24	ug/kg	0.422	1.24
74-87-3	Chloromethane	U	1.24	ug/kg	0.373	1.24
75-01-4	Vinyl chloride	U	1.24	ug/kg	0.373	1.24
74-83-9	Bromomethane	U	1.24	ug/kg	0.373	1.24
75-00-3	Chloroethane	U	1.24	ug/kg	0.373	1.24
75-69-4	Trichlorofluoromethane	U	1.24	ug/kg	0.373	1.24
67-64-1	Acetone	U	6.21	ug/kg	2.06	6.21
75-35-4	1,1-Dichloroethylene	U	1.24	ug/kg	0.373	1.24
74-88-4	Iodomethane	U	6.21	ug/kg	1.99	6.21
75-09-2	Methylene chloride	U	6.21	ug/kg	2.48	6.21
75-15-0	Carbon disulfide	U	6.21	ug/kg	1.55	6.21
156-60-5	trans-1,2-Dichloroethylene	U	1.24	ug/kg	0.373	1.24
75-34-3	1,1-Dichloroethane	U	1.24	ug/kg	0.373	1.24
78-93-3	2-Butanone	U	6.21	ug/kg	1.86	6.21
156-59-2	cis-1,2-Dichloroethylene	U	1.24	ug/kg	0.373	1.24
594-20-7	2,2-Dichloropropane	U	1.24	ug/kg	0.373	1.24
67-66-3	Chloroform	U	1.24	ug/kg	0.373	1.24
74-97-5	Bromochloromethane	U	1.24	ug/kg	0.410	1.24
71-55-6	1,1,1-Trichloroethane	U	1.24	ug/kg	0.373	1.24
563-58-6	1,1-Dichloropropene	U	1.24	ug/kg	0.373	1.24
56-23-5	Carbon tetrachloride	U	1.24	ug/kg	0.373	1.24
107-06-2	1,2-Dichloroethane	U	1.24	ug/kg	0.373	1.24
71-43-2	Benzene	U	1.24	ug/kg	0.373	1.24
79-01-6	Trichloroethylene	U	1.24	ug/kg	0.410	1.24
78-87-5	1,2-Dichloropropane	U	1.24	ug/kg	0.373	1.24
75-27-4	Bromodichloromethane	U	1.24	ug/kg	0.373	1.24
74-95-3	Dibromomethane	U	1.24	ug/kg	0.373	1.24
108-10-1	4-Methyl-2-pentanone	U	6.21	ug/kg	1.55	6.21
10061-01-5	cis-1,3-Dichloropropylene	U	1.24	ug/kg	0.373	1.24
108-88-3	Toluene	U	1.24	ug/kg	0.373	1.24
10061-02-6	trans-1,3-Dichloropropylene	U	1.24	ug/kg	0.373	1.24
79-00-5	1,1,2-Trichloroethane	U	1.24	ug/kg	0.373	1.24
591-78-6	2-Hexanone	U	6.21	ug/kg	1.86	6.21
142-28-9	1,3-Dichloropropane	U	1.24	ug/kg	0.373	1.24
127-18-4	Tetrachloroethylene	U	1.24	ug/kg	0.373	1.24
124-48-1	Dibromochloromethane	U	1.24	ug/kg	0.373	1.24
106-93-4	1,2-Dibromoethane	U	1.24	ug/kg	0.373	1.24
108-90-7	Chlorobenzene	U	1.24	ug/kg	0.373	1.24

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862008**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13779**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 04:43**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:55**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c336.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.24	ug/kg	0.373	1.24
179601-23-1	m,p-Xylenes	U	2.48	ug/kg	0.373	2.48
95-47-6	o-Xylene	U	1.24	ug/kg	0.373	1.24
100-42-5	Styrene	U	1.24	ug/kg	0.373	1.24
75-25-2	Bromoform	U	1.24	ug/kg	0.373	1.24
79-34-5	1,1,2,2-Tetrachloroethane	U	1.24	ug/kg	0.373	1.24
96-18-4	1,2,3-Trichloropropane	U	1.24	ug/kg	0.373	1.24
108-86-1	Bromobenzene	U	1.24	ug/kg	0.373	1.24
103-65-1	n-Propylbenzene	U	1.24	ug/kg	0.373	1.24
95-49-8	2-Chlorotoluene	U	1.24	ug/kg	0.373	1.24
98-82-8	Isopropylbenzene	U	1.24	ug/kg	0.373	1.24
108-67-8	1,3,5-Trimethylbenzene	U	1.24	ug/kg	0.373	1.24
106-43-4	4-Chlorotoluene	U	1.24	ug/kg	0.373	1.24
98-06-6	tert-Butylbenzene	U	1.24	ug/kg	0.373	1.24
95-63-6	1,2,4-Trimethylbenzene	U	1.24	ug/kg	0.373	1.24
135-98-8	sec-Butylbenzene	U	1.24	ug/kg	0.373	1.24
99-87-6	4-Isopropyltoluene	U	1.24	ug/kg	0.373	1.24
541-73-1	1,3-Dichlorobenzene	U	1.24	ug/kg	0.373	1.24
106-46-7	1,4-Dichlorobenzene	U	1.24	ug/kg	0.373	1.24
104-51-8	n-Butylbenzene	U	1.24	ug/kg	0.373	1.24
96-12-8	1,2-Dibromo-3-chloropropane	U	1.24	ug/kg	0.373	1.24
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.21	ug/kg	1.99	6.21
630-20-6	1,1,1,2-Tetrachloroethane	U	1.24	ug/kg	0.373	1.24
95-50-1	1,2-Dichlorobenzene	U	1.24	ug/kg	0.373	1.24

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	19.96	9.36	ug/kg		J

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c336.d
Lab Smp Id: 248862008 Client Smp ID: RE46-10-13779
Inj Date : 18-MAR-2010 04:43
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862008|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 36
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	19.50530	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	770561	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	562569	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	290323	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.332	13.327	(0.975)	450386	59.8613	74.4
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1001735	52.9428	65.8
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	412648	56.6921	70.4

ION RATIO REPORT

VOA REPORT

Data file: 1c336.d
Report Date: 03/18/2010 05:37
Lab. ID: 248862008 SampleType: SAMPLE
Injection Date: 18-MAR-2010 04:43
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248862008|966068|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	15953	13.67	13.43	80-120	100	(T)
64	2199	13.67	13.43	2- 62	14	(T)
54 Trichloroethylene				CAS#: 79-01-6		
95	68846	13.67	14.11	80-120	100	(T)
97	50588	13.67	14.11	35- 95	73	(T)
130	253	14.09	14.11	52-112	0	(Q)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	11207	15.51	15.35	80-120	100	(T)
43	6216	15.51	15.35	215-275	55	(QT)
100	617890	15.50	15.35	0- 60	5513	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c336.d
Lab Smp Id: 248862008 Client Smp ID: RE46-10-13779
Inj Date : 18-MAR-2010 04:43
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862008|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 36
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	19.50530	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 102 1,4-Dichlorobenzene-d4	19.596	2040704	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
19.956	307665	7.53821420	9.4	0		0	102

Data File: /chem/VOA1.i/031710v1/1c336.d
Date : 18-MAR-2010 04:43
Client ID: RE46-10-13779
Sample Info: |2488620081966068|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2
Column diameter: 0.25

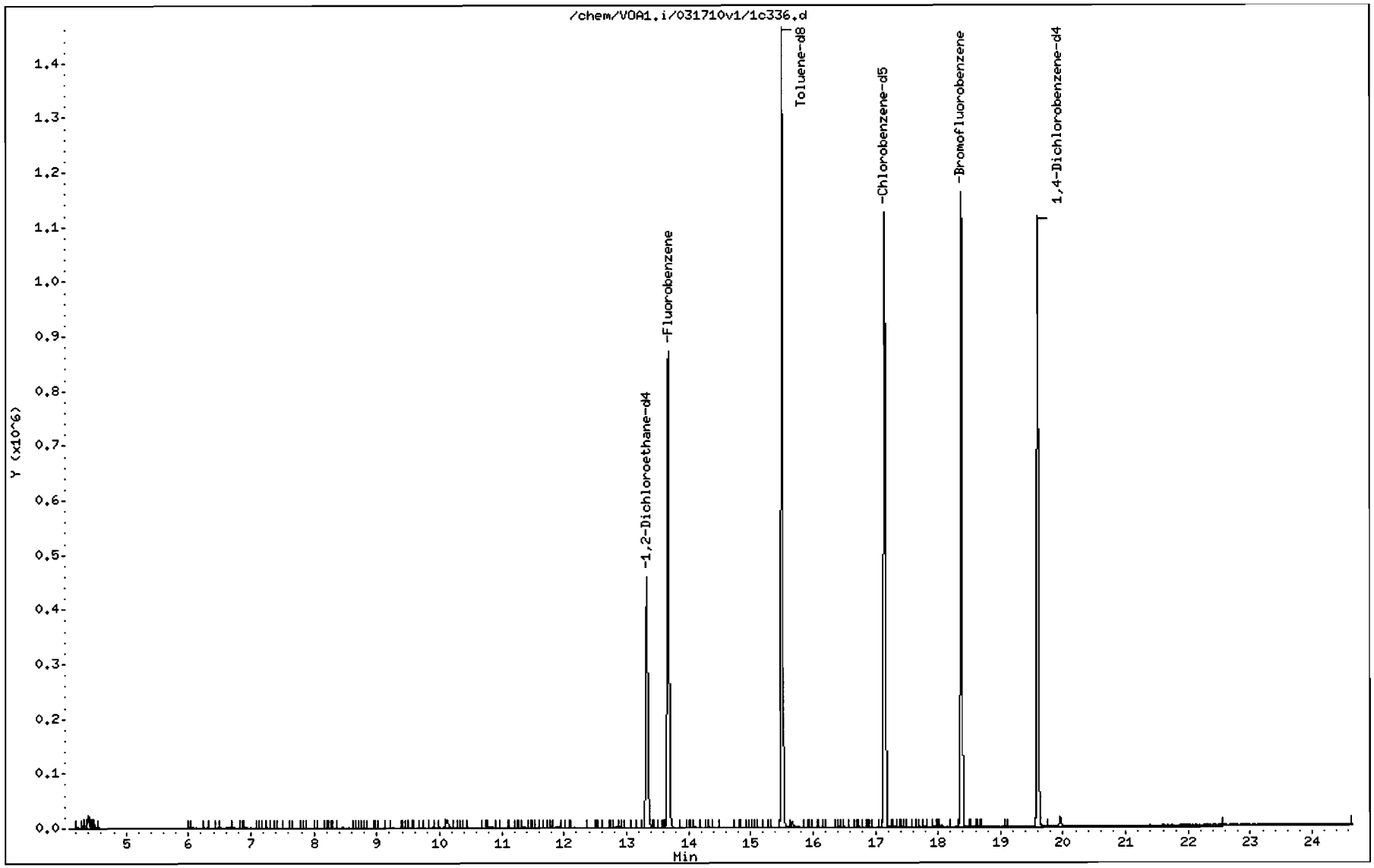

Data File: /chem/VOA1.i/031710v1/1c336.d

Date : 18-MAR-2010 04:43

Client ID: RE46-10-13779

Instrument: VOA1.i

Sample Info: |2488620081966068|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0

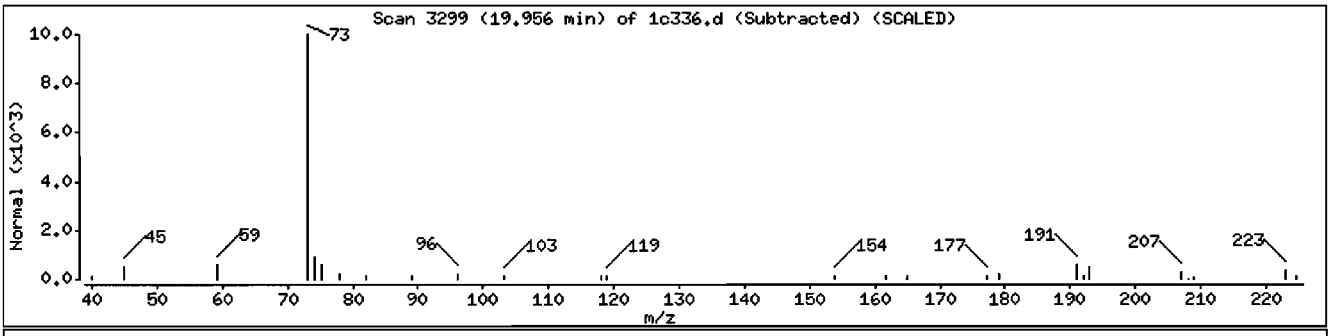

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862009**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13780**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 05:13**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:57**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c337.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.22	ug/kg	0.415	1.22
74-87-3	Chloromethane	U	1.22	ug/kg	0.366	1.22
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.366	1.22
74-83-9	Bromomethane	U	1.22	ug/kg	0.366	1.22
75-00-3	Chloroethane	U	1.22	ug/kg	0.366	1.22
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.366	1.22
67-64-1	Acetone	U	6.10	ug/kg	2.03	6.10
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
74-88-4	Iodomethane	U	6.10	ug/kg	1.95	6.10
75-09-2	Methylene chloride	U	6.10	ug/kg	2.44	6.10
75-15-0	Carbon disulfide	U	6.10	ug/kg	1.53	6.10
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.366	1.22
78-93-3	2-Butanone	U	6.10	ug/kg	1.83	6.10
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.366	1.22
67-66-3	Chloroform	U	1.22	ug/kg	0.366	1.22
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.403	1.22
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.366	1.22
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.366	1.22
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.366	1.22
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.366	1.22
71-43-2	Benzene	U	1.22	ug/kg	0.366	1.22
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.403	1.22
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.366	1.22
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.366	1.22
74-95-3	Dibromomethane	U	1.22	ug/kg	0.366	1.22
108-10-1	4-Methyl-2-pentanone	U	6.10	ug/kg	1.53	6.10
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.366	1.22
108-88-3	Toluene	U	1.22	ug/kg	0.366	1.22
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.366	1.22
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.366	1.22
591-78-6	2-Hexanone	U	6.10	ug/kg	1.83	6.10
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.366	1.22
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.366	1.22
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.366	1.22
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.366	1.22
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.366	1.22

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862009**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13780**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 05:13**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:57**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c337.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.22	ug/kg	0.366	1.22
179601-23-1	m,p-Xylenes	U	2.44	ug/kg	0.366	2.44
95-47-6	o-Xylene	U	1.22	ug/kg	0.366	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.366	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.366	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.366	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.366	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.366	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.366	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.366	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.366	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.366	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.366	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.366	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.366	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.366	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.366	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22
106-46-7	1,4-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.366	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.366	1.22
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.10	ug/kg	1.95	6.10
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.366	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c337.d
Lab Smp Id: 248862009 Client Smp ID: RE46-10-13780
Inj Date : 18-MAR-2010 05:13
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862009|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	18.07330	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	805830	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	602732	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	330704	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	443574	56.3755	68.8
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	984447	48.5622	59.3
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	421153	50.7954	62.0

ION RATIO REPORT

VOA REPORT

Data file: 1c337.d
Report Date: 03/18/2010 05:37
Lab. ID: 248862009 SampleType: SAMPLE
Injection Date: 18-MAR-2010 05:13
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248862009|966068|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	16466	13.67	13.43	80-120	100	(T)
64	2687	13.67	13.43	2- 62	16	(T)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	10519	15.51	15.35	80-120	100	(T)
43	6283	15.50	15.35	215-275	60	(QT)
100	610061	15.50	15.35	0- 60	5799	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c337.d
Lab Smp Id: 248862009 Client Smp ID: RE46-10-13780
Inj Date : 18-MAR-2010 05:13
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862009|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/031710v1/1c337.d
Date : 18-MAR-2010 05:13
Client ID: RE46-10-13780
Sample Info: |2488620091966068|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2
Column diameter: 0.25

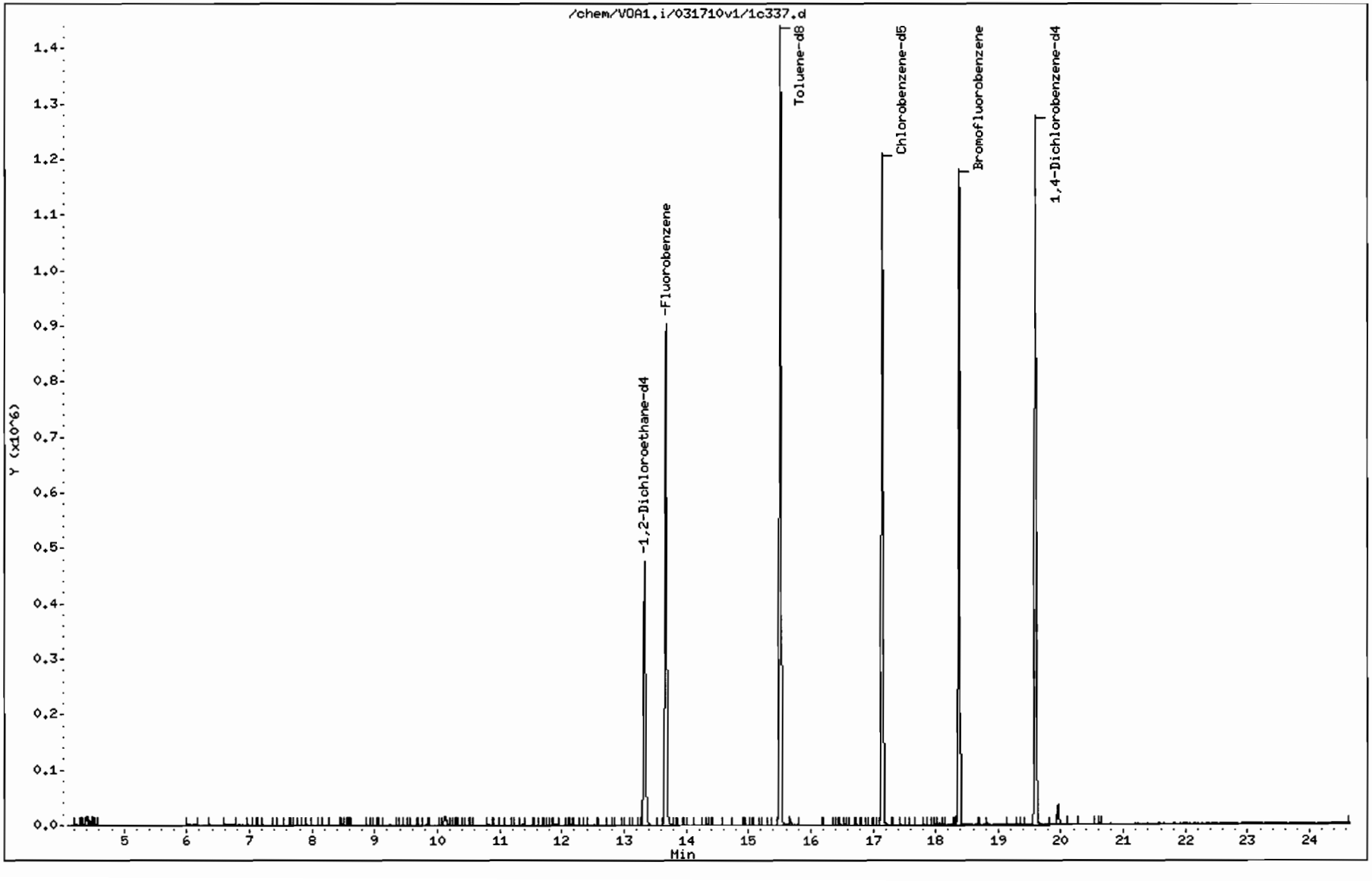

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862007**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13781**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 04:12**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:53**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c335.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.23	ug/kg	0.419	1.23
74-87-3	Chloromethane	U	1.23	ug/kg	0.370	1.23
75-01-4	Vinyl chloride	U	1.23	ug/kg	0.370	1.23
74-83-9	Bromomethane	U	1.23	ug/kg	0.370	1.23
75-00-3	Chloroethane	U	1.23	ug/kg	0.370	1.23
75-69-4	Trichlorofluoromethane	U	1.23	ug/kg	0.370	1.23
67-64-1	Acetone	U	6.16	ug/kg	2.05	6.16
75-35-4	1,1-Dichloroethylene	U	1.23	ug/kg	0.370	1.23
74-88-4	Iodomethane	U	6.16	ug/kg	1.97	6.16
75-09-2	Methylene chloride	U	6.16	ug/kg	2.46	6.16
75-15-0	Carbon disulfide	U	6.16	ug/kg	1.54	6.16
156-60-5	trans-1,2-Dichloroethylene	U	1.23	ug/kg	0.370	1.23
75-34-3	1,1-Dichloroethane	U	1.23	ug/kg	0.370	1.23
78-93-3	2-Butanone	U	6.16	ug/kg	1.85	6.16
156-59-2	cis-1,2-Dichloroethylene	U	1.23	ug/kg	0.370	1.23
594-20-7	2,2-Dichloropropane	U	1.23	ug/kg	0.370	1.23
67-66-3	Chloroform	U	1.23	ug/kg	0.370	1.23
74-97-5	Bromochloromethane	U	1.23	ug/kg	0.407	1.23
71-55-6	1,1,1-Trichloroethane	U	1.23	ug/kg	0.370	1.23
563-58-6	1,1-Dichloropropene	U	1.23	ug/kg	0.370	1.23
56-23-5	Carbon tetrachloride	U	1.23	ug/kg	0.370	1.23
107-06-2	1,2-Dichloroethane	U	1.23	ug/kg	0.370	1.23
71-43-2	Benzene	U	1.23	ug/kg	0.370	1.23
79-01-6	Trichloroethylene	U	1.23	ug/kg	0.407	1.23
78-87-5	1,2-Dichloropropane	U	1.23	ug/kg	0.370	1.23
75-27-4	Bromodichloromethane	U	1.23	ug/kg	0.370	1.23
74-95-3	Dibromomethane	U	1.23	ug/kg	0.370	1.23
108-10-1	4-Methyl-2-pentanone	U	6.16	ug/kg	1.54	6.16
10061-01-5	cis-1,3-Dichloropropylene	U	1.23	ug/kg	0.370	1.23
108-88-3	Toluene	U	1.23	ug/kg	0.370	1.23
10061-02-6	trans-1,3-Dichloropropylene	U	1.23	ug/kg	0.370	1.23
79-00-5	1,1,2-Trichloroethane	U	1.23	ug/kg	0.370	1.23
591-78-6	2-Hexanone	U	6.16	ug/kg	1.85	6.16
142-28-9	1,3-Dichloropropane	U	1.23	ug/kg	0.370	1.23
127-18-4	Tetrachloroethylene	U	1.23	ug/kg	0.370	1.23
124-48-1	Dibromochloromethane	U	1.23	ug/kg	0.370	1.23
106-93-4	1,2-Dibromoethane	U	1.23	ug/kg	0.370	1.23
108-90-7	Chlorobenzene	U	1.23	ug/kg	0.370	1.23

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862007**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13781**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 04:12**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:53**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c335.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.23	ug/kg	0.370	1.23
179601-23-1	m,p-Xylenes	U	2.46	ug/kg	0.370	2.46
95-47-6	o-Xylene	U	1.23	ug/kg	0.370	1.23
100-42-5	Styrene	U	1.23	ug/kg	0.370	1.23
75-25-2	Bromoform	U	1.23	ug/kg	0.370	1.23
79-34-5	1,1,2,2-Tetrachloroethane	U	1.23	ug/kg	0.370	1.23
96-18-4	1,2,3-Trichloropropane	U	1.23	ug/kg	0.370	1.23
108-86-1	Bromobenzene	U	1.23	ug/kg	0.370	1.23
103-65-1	n-Propylbenzene	U	1.23	ug/kg	0.370	1.23
95-49-8	2-Chlorotoluene	U	1.23	ug/kg	0.370	1.23
98-82-8	Isopropylbenzene	U	1.23	ug/kg	0.370	1.23
108-67-8	1,3,5-Trimethylbenzene	U	1.23	ug/kg	0.370	1.23
106-43-4	4-Chlorotoluene	U	1.23	ug/kg	0.370	1.23
98-06-6	tert-Butylbenzene	U	1.23	ug/kg	0.370	1.23
95-63-6	1,2,4-Trimethylbenzene	U	1.23	ug/kg	0.370	1.23
135-98-8	sec-Butylbenzene	U	1.23	ug/kg	0.370	1.23
99-87-6	4-Isopropyltoluene	U	1.23	ug/kg	0.370	1.23
541-73-1	1,3-Dichlorobenzene	U	1.23	ug/kg	0.370	1.23
106-46-7	1,4-Dichlorobenzene	U	1.23	ug/kg	0.370	1.23
104-51-8	n-Butylbenzene	U	1.23	ug/kg	0.370	1.23
96-12-8	1,2-Dibromo-3-chloropropane	U	1.23	ug/kg	0.370	1.23
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.16	ug/kg	1.97	6.16
630-20-6	1,1,1,2-Tetrachloroethane	U	1.23	ug/kg	0.370	1.23
95-50-1	1,2-Dichlorobenzene	U	1.23	ug/kg	0.370	1.23

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c335.d
Lab Smp Id: 248862007 Client Smp ID: RE46-10-13781
Inj Date : 18-MAR-2010 04:12
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862007|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	18.83070	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	795320	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	594232	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	312408	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	457093	58.8614	72.5
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1035095	51.7910	63.8
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	435613	55.6164	68.5

ION RATIO REPORT

VOA REPORT

Data file: 1c335.d
Report Date: 03/18/2010 05:37
Lab. ID: 248862007 SampleType: SAMPLE
Injection Date: 18-MAR-2010 04:12
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248862007|966068|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	15814	13.67	13.43	80-120	100	(T)
64	2750	13.67	13.43	2- 62	17	(T)
54 Trichloroethylene				CAS#: 79-01-6		
95	71144	13.67	14.11	80-120	100	(T)
97	52139	13.67	14.11	35- 95	73	(T)
130	135	14.10	14.11	52-112	0	(Q)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	11001	15.50	15.35	80-120	100	(T)
43	6372	15.50	15.35	215-275	58	(QT)
100	650819	15.50	15.35	0- 60	5916	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c335.d
Lab Smp Id: 248862007 Client Smp ID: RE46-10-13781
Inj Date : 18-MAR-2010 04:12
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862007|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/031710v1/1c335.d
Date : 18-MAR-2010 04:12
Client ID: RE46-10-13781
Sample Info: |2488620071966068|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2
Column diameter: 0.25

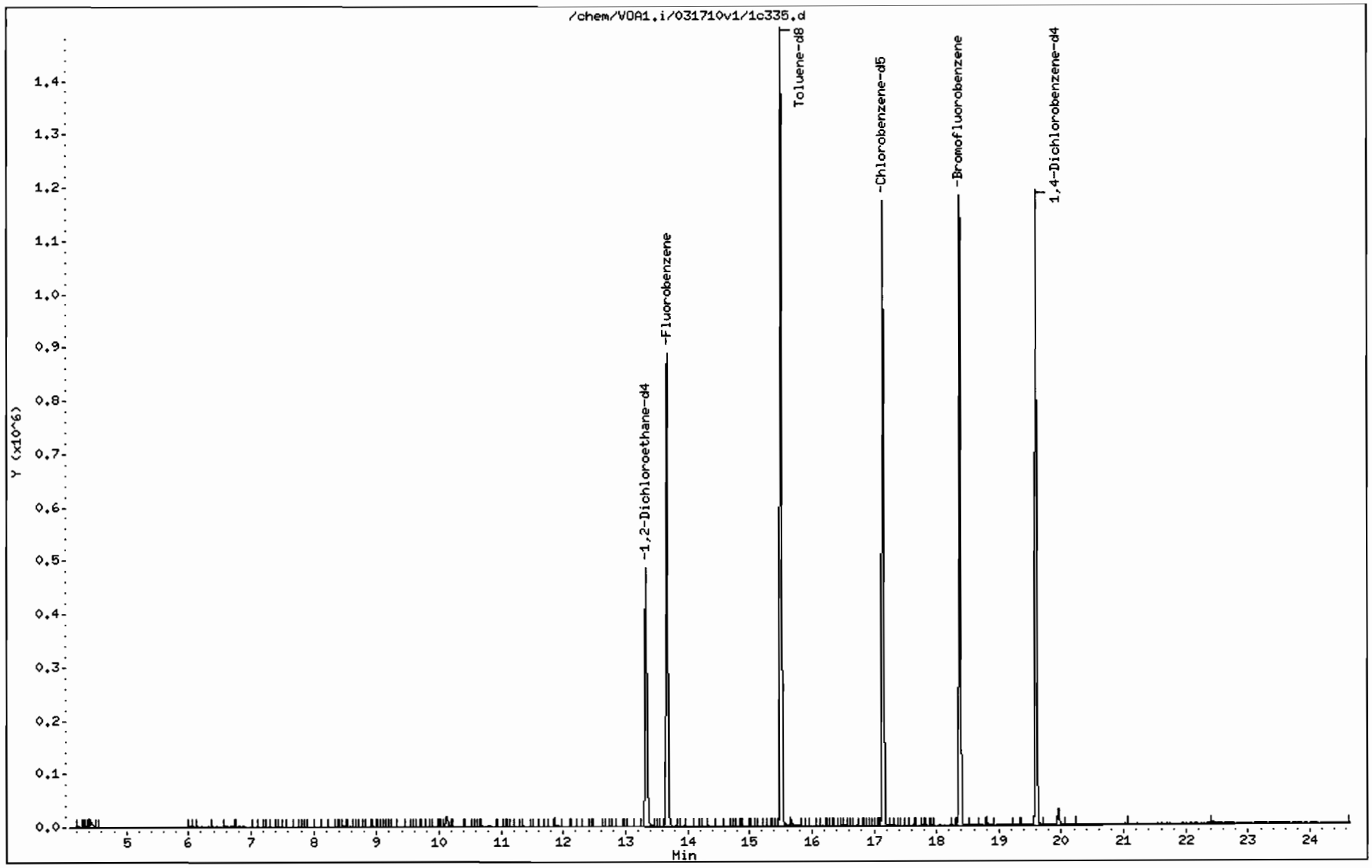

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862002	**Date Received:**	03/06/2010 09:15	**%Moisture:**	13.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13782	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 01:39	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:39	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c330.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.395	1.16
74-87-3	Chloromethane	U	1.16	ug/kg	0.349	1.16
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.349	1.16
74-83-9	Bromomethane	U	1.16	ug/kg	0.349	1.16
75-00-3	Chloroethane	U	1.16	ug/kg	0.349	1.16
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.349	1.16
67-64-1	Acetone	U	5.81	ug/kg	1.93	5.81
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
74-88-4	Iodomethane	U	5.81	ug/kg	1.86	5.81
75-09-2	Methylene chloride	U	5.81	ug/kg	2.32	5.81
75-15-0	Carbon disulfide	U	5.81	ug/kg	1.45	5.81
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.349	1.16
78-93-3	2-Butanone	U	5.81	ug/kg	1.74	5.81
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16
67-66-3	Chloroform	U	1.16	ug/kg	0.349	1.16
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.383	1.16
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.349	1.16
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.349	1.16
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.349	1.16
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.349	1.16
71-43-2	Benzene	U	1.16	ug/kg	0.349	1.16
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.383	1.16
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.349	1.16
74-95-3	Dibromomethane	U	1.16	ug/kg	0.349	1.16
108-10-1	4-Methyl-2-pentanone	U	5.81	ug/kg	1.45	5.81
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16
108-88-3	Toluene	U	1.16	ug/kg	0.349	1.16
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.349	1.16
591-78-6	2-Hexanone	U	5.81	ug/kg	1.74	5.81
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.349	1.16
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.349	1.16
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.349	1.16
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.349	1.16
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.349	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13782**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 01:39**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:39**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c330.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.349	1.16
179601-23-1	m,p-Xylenes	U	2.32	ug/kg	0.349	2.32
95-47-6	o-Xylene	U	1.16	ug/kg	0.349	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.349	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.349	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.349	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.349	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.349	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.349	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.349	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.349	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.349	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.349	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.349	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.81	ug/kg	1.86	5.81
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c330.d
Lab Smp Id: 248862002 Client Smp ID: RE46-10-13782
Inj Date : 18-MAR-2010 01:39
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862002|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: la428.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	13.92880	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	923611	50.0000	
* 76 Chlorobenzene-d5	117	17.147	17.148	(1.000)	681449	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.596	(1.000)	373703	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	471801	52.3164	60.8
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1147594	50.0708	58.2
$ 87 Bromofluorobenzene	95	18.376	18.377	(0.938)	478729	51.0961	59.4

ION RATIO REPORT

VOA REPORT

Data file: 1c330.d
Report Date: 03/18/2010 05:37
Lab. ID: 248862002 SampleType: SAMPLE
Injection Date: 18-MAR-2010 01:39
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248862002|966068|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	16562	13.67	13.43	80-120	100	(T)
64	2785	13.68	13.43	2- 62	17	(T)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	11322	15.51	15.35	80-120	100	(T)
43	6138	15.50	15.35	215-275	54	(QT)
100	706655	15.50	15.35	0- 60	6241	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c330.d
Lab Smp Id: 248862002 Client Smp ID: RE46-10-13782
Inj Date : 18-MAR-2010 01:39
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862002|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/031710v1/1c330.d

Date : 18-MAR-2010 01:39

Client ID: RE46-10-13782

Sample Info: |2488620021966068|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2

Column diameter: 0.25

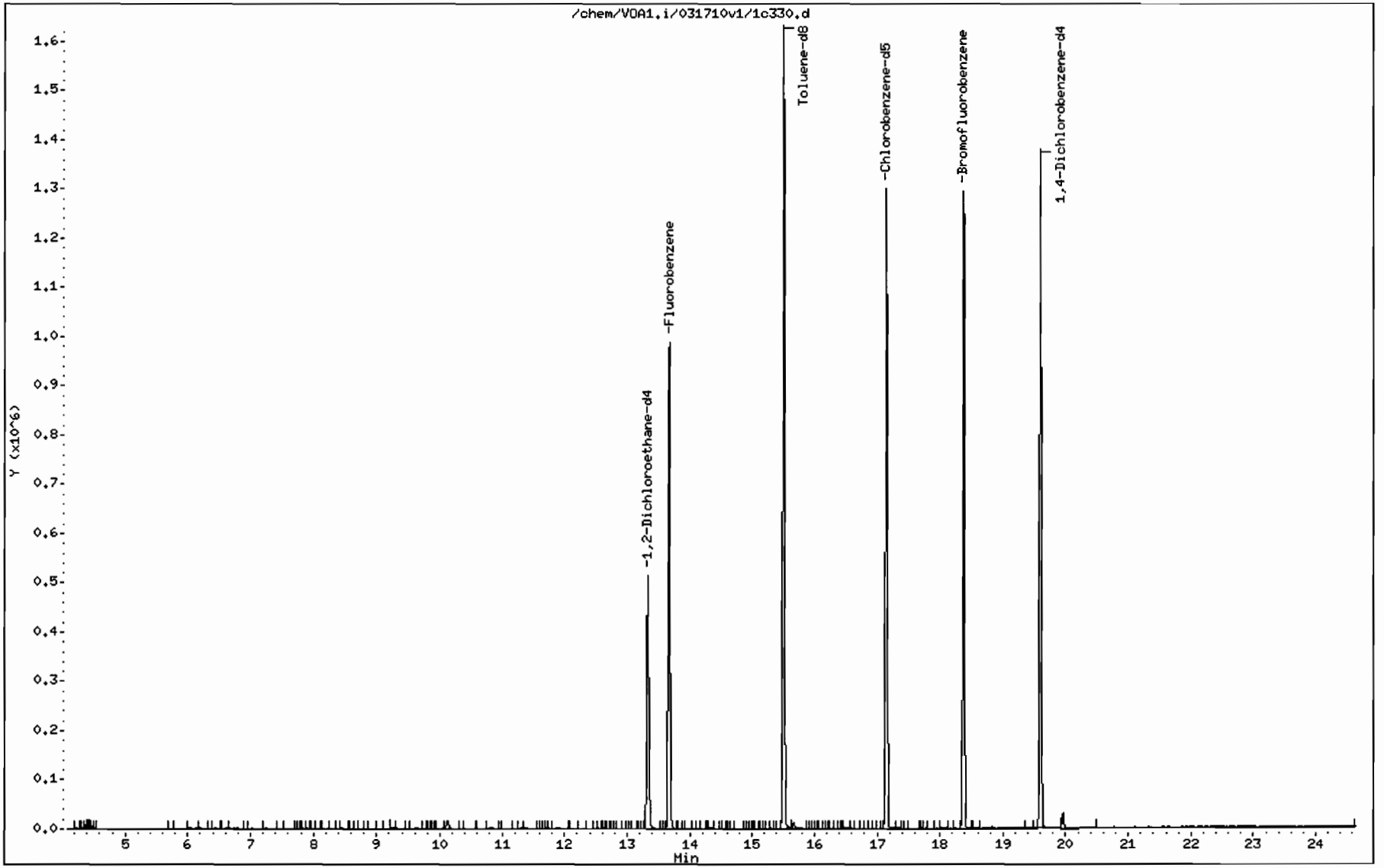

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13783**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 02:10**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:45**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c331.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.375	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.331	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.331	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.331	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.331	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.331	1.10
67-64-1	Acetone	U	5.51	ug/kg	1.83	5.51
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
74-88-4	Iodomethane	U	5.51	ug/kg	1.76	5.51
75-09-2	Methylene chloride	U	5.51	ug/kg	2.20	5.51
75-15-0	Carbon disulfide	U	5.51	ug/kg	1.38	5.51
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.331	1.10
78-93-3	2-Butanone	U	5.51	ug/kg	1.65	5.51
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.331	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10
67-66-3	Chloroform	U	1.10	ug/kg	0.331	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.364	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.331	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.331	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.331	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.331	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.331	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.364	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.331	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.331	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.331	1.10
108-10-1	4-Methyl-2-pentanone	U	5.51	ug/kg	1.38	5.51
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.331	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.331	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.331	1.10
591-78-6	2-Hexanone	U	5.51	ug/kg	1.65	5.51
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.331	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.331	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.331	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.331	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.331	1.10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13783**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 02:10**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:45**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c331.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.331	1.10
179601-23-1	m,p-Xylenes	U	2.20	ug/kg	0.331	2.20
95-47-6	o-Xylene	U	1.10	ug/kg	0.331	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.331	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.331	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.331	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.331	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.331	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.331	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.331	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.331	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.331	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.331	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.331	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.331	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.331	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.51	ug/kg	1.76	5.51
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.331	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.331	1.10

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c331.d
Lab Smp Id: 248862003 Client Smp ID: RE46-10-13783
Inj Date : 18-MAR-2010 02:10
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862003|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 31
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	9.26380	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	878641	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	657252	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	359853	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	479931	55.9417	61.6
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1135084	51.3483	56.6
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	480647	53.2752	58.7

ION RATIO REPORT

VOA REPORT

Data file: 1c331.d
Report Date: 03/18/2010 05:37
Lab. ID: 248862003 SampleType: SAMPLE
Injection Date: 18-MAR-2010 02:10
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248862003|966068|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51	1,2-Dichloroethane			CAS#: 107-06-2		
62	16922	13.67	13.43	80-120	100	(T)
64	2848	13.67	13.43	2- 62	17	(T)
64	4-Methyl-2-pentanone			CAS#: 108-10-1		
58	11369	15.50	15.35	80-120	100	(T)
43	6795	15.50	15.35	215-275	60	(QT)
100	703623	15.50	15.35	0- 60	6189	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c331.d
Lab Smp Id: 248862003 Client Smp ID: RE46-10-13783
Inj Date : 18-MAR-2010 02:10
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862003|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 31
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/031710v1/1c331.d

Date : 18-MAR-2010 02:10

Client ID: RE46-10-13783

Sample Info: |2488620031966068|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2

Column diameter: 0.25

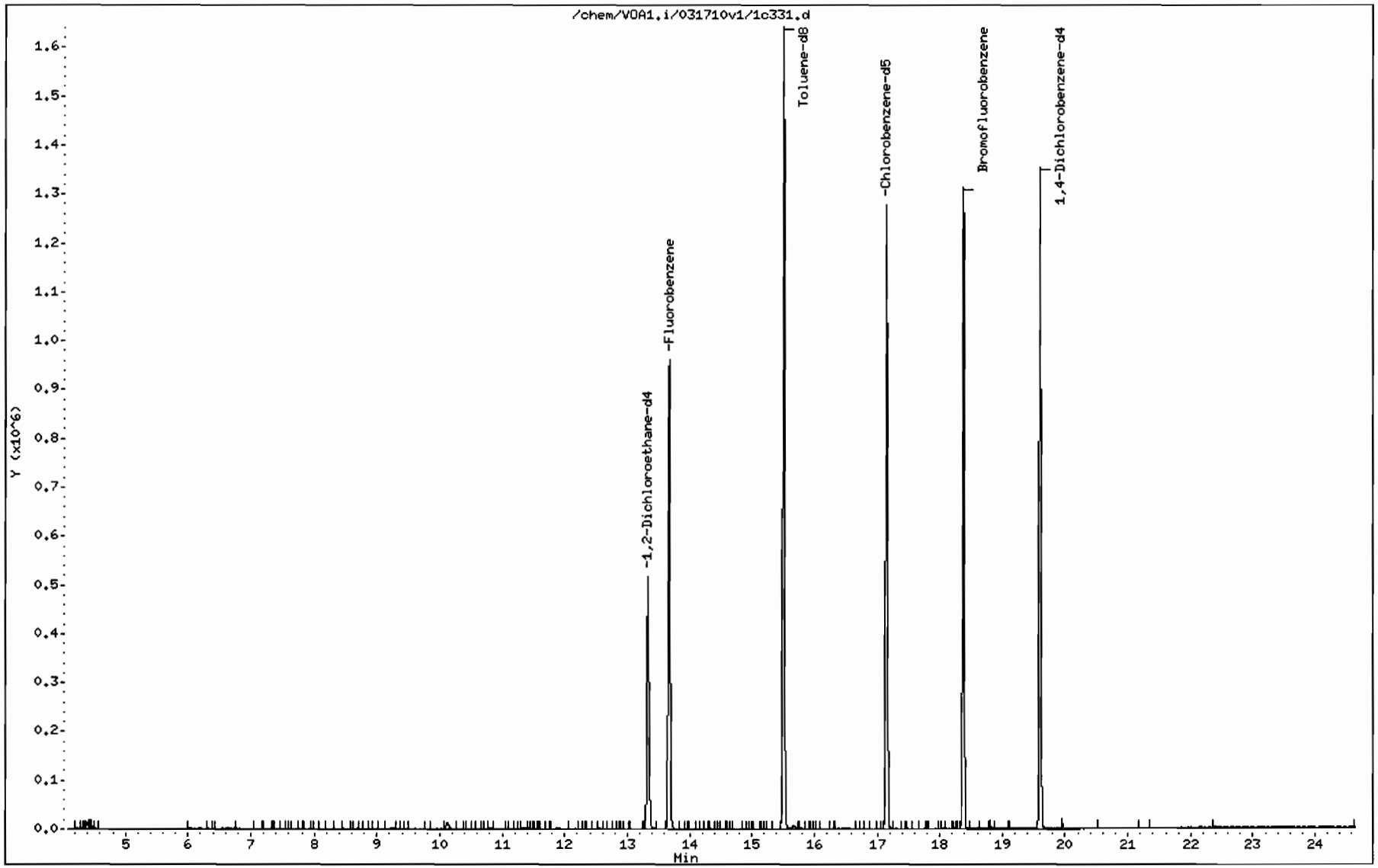

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862001**	**Date Received:**	**03/06/2010 09:15**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13784**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 01:09**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:37**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c329.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862001**	**Date Received:**	**03/06/2010 09:15**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13784**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 01:09**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:37**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c329.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c329.d
Lab Smp Id: 248862001 Client Smp ID: RE46-10-13784
Inj Date : 18-MAR-2010 01:09
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862001|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	925696	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	694754	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.596	(1.000)	377978	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	492310	54.4676	54.5
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1199181	51.3196	51.3
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	501784	52.9511	53.0

ION RATIO REPORT

VOA REPORT

Data file: 1c329.d
Report Date: 03/18/2010 05:37
Lab. ID: 248862001 SampleType: SAMPLE
Injection Date: 18-MAR-2010 01:09
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248862001|966068|1|VOAF|1|
Miscellaneous Info: LANL 5G N/A
Comment:
Method used: /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	16750	13.67	13.43	80-120	100	(T)
64	3114	13.66	13.43	2- 62	19	(T)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	12135	15.51	15.35	80-120	100	(T)
43	6847	15.50	15.35	215-275	56	(QT)
100	752045	15.50	15.35	0- 60	6197	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c329.d
Lab Smp Id: 248862001 Client Smp ID: RE46-10-13784
Inj Date : 18-MAR-2010 01:09
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248862001|966068|1|VOAF|1|
Misc Info : LANL 5G N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/031710v1/1c329.d

Date : 18-MAR-2010 01:09

Client ID: RE46-10-13784

Sample Info: |2488620001|966068|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2

Column diameter: 0.25

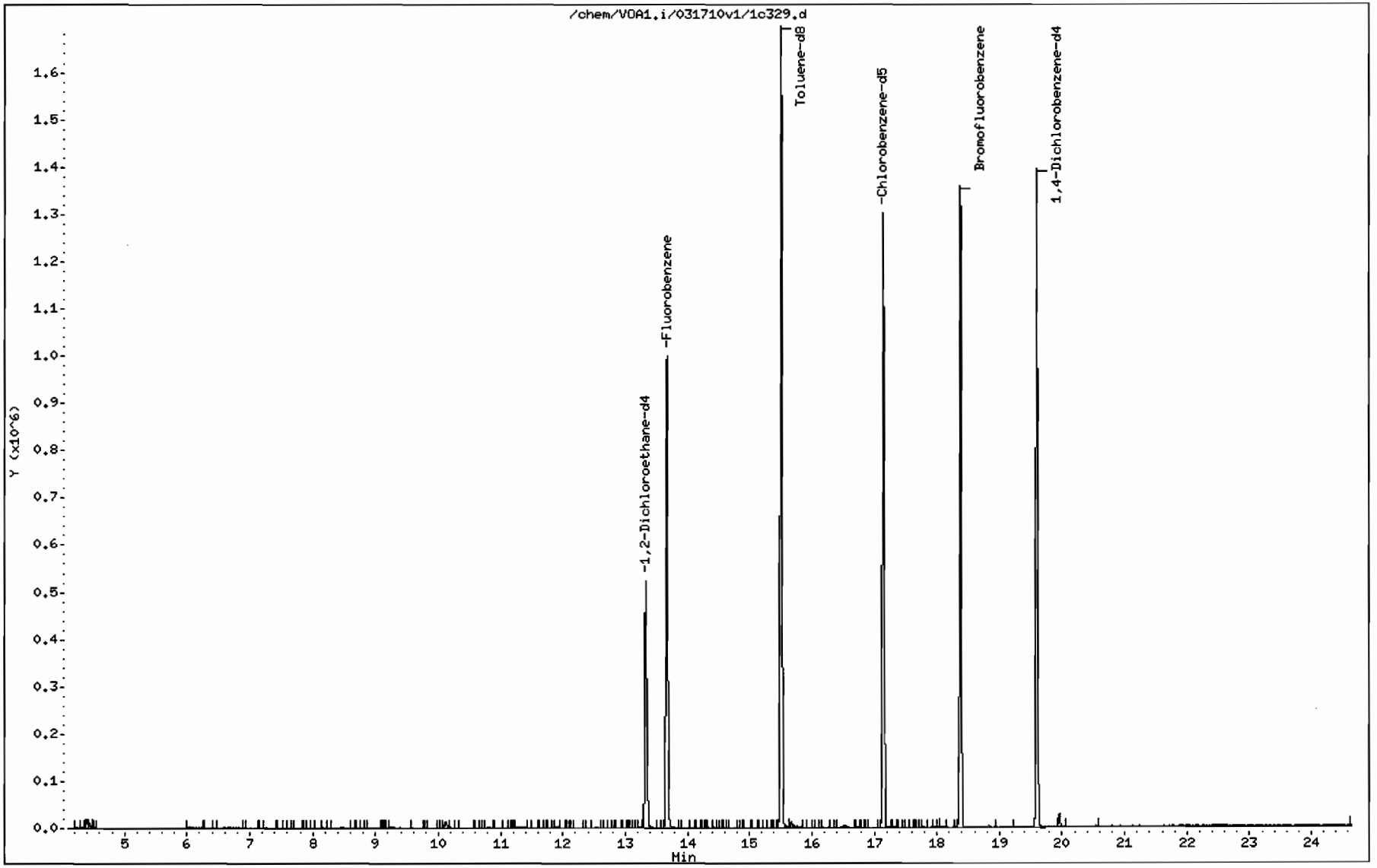

Standard Data

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Report Date: 26-Mar-2010 18:08

Calibration History

Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Start Cal Date: 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
04-MAR-2010 23:06	ICALsubS	/chem/VOA1.i/030410v1/1a423.d
04-MAR-2010 17:28	ICALsubL+	/chem/VOA1.i/030410v1/1a412.d
Cal Level: 2 , Cal Amount: 2.00000		
04-MAR-2010 23:37	ICALsubS	/chem/VOA1.i/030410v1/1a424.d
04-MAR-2010 17:59	ICALsubL+	/chem/VOA1.i/030410v1/1a413.d
Cal Level: 3 , Cal Amount: 5.00000		
05-MAR-2010 00:08	ICALsubS	/chem/VOA1.i/030410v1/1a425.d
04-MAR-2010 18:29	ICALsubL+	/chem/VOA1.i/030410v1/1a414.d
Cal Level: 4 , Cal Amount: 10.00000		
05-MAR-2010 00:39	ICALsubS	/chem/VOA1.i/030410v1/1a426.d
04-MAR-2010 19:00	ICALsubL+	/chem/VOA1.i/030410v1/1a415.d
Cal Level: 5 , Cal Amount: 20.00000		
05-MAR-2010 01:10	ICALsubS	/chem/VOA1.i/030410v1/1a427.d
04-MAR-2010 19:31	ICALsubL+	/chem/VOA1.i/030410v1/1a416.d
Cal Level: 6 , Cal Amount: 50.00000		
05-MAR-2010 01:41	ICALsubS	/chem/VOA1.i/030410v1/1a428.d
04-MAR-2010 20:02	ICALsubL+	/chem/VOA1.i/030410v1/1a417.d
Cal Level: 7 , Cal Amount: 100.00000		
05-MAR-2010 02:12	ICALsubS	/chem/VOA1.i/030410v1/1a429.d
04-MAR-2010 20:32	ICALsubL+	/chem/VOA1.i/030410v1/1a418.d
Cal Level: 8 , Cal Amount: 200.00000		
04-MAR-2010 21:35	BENZENE+	/chem/VOA1.i/030410v1/1a420.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

```
| Ccal Level: 6 , Ccal Amount: 50.0                                          |
+==========================================================================+
|17-MAR-2010 22:06 |CALsubL+          |/chem/VOA1.i/031710v1/1c323.d          |
+------------------+-----------------+---------------------------------------+
| Ccal Level: 6 , Ccal Amount: 50.0                                          |
+==========================================================================+
|17-MAR-2010 23:07 |CALsubS+SS        |/chem/VOA1.i/031710v1/1c325.d          |
+------------------+-----------------+---------------------------------------+
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GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Cal Date : 26-Mar-2010 18:02 a1e01592

Calibration File Names:
Level 1: /chem/VOA1.i/030410v1/1a423.d
Level 2: /chem/VOA1.i/030410v1/1a424.d
Level 3: /chem/VOA1.i/030410v1/1a425.d
Level 4: /chem/VOA1.i/030410v1/1a426.d
Level 5: /chem/VOA1.i/030410v1/1a427.d
Level 6: /chem/VOA1.i/030410v1/1a428.d
Level 7: /chem/VOA1.i/030410v1/1a429.d
Level 8: /chem/VOA1.i/030410v1/1a420.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
M 1 Xylenes (total)	0.75321	0.70295	0.67437	0.64934	0.66109	0.66867					
	0.64249	+++++					AVRG		0.67887		5.62262
M 2 1,2-Dichloroethylene (total)	0.30334	0.30025	0.27886	0.26621	0.26744	0.26937					
	0.27255	+++++					AVRG		0.27972		5.59995
M 3 1,3-Dichloropropylene	0.69166	0.64436	0.64939	0.67195	0.68534	0.69765					
	0.70488	+++++					AVRG		0.67789		3.47866
4 Chlorotrifluoroethylene	7805	16787	47024	110497	268873	338249					
	476883	+++++					LINR	0.06240	0.11129		0.99026
5 Dichlorodifluoromethane	0.27135	0.25757	0.29080	0.24806	0.24053	0.21915					
	0.23360	+++++					AVRG		0.25158		9.56487

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Cal Date : 26-Mar-2010 18:02 ale01592

Compound	1 Level 1 / 100 Level 7	2 Level 2 / 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
6 Chloromethane	0.49489	0.44914	0.44193	0.42489	0.42420	0.40637					
	0.41388	+++++					AVRG		0.43647		6.81194
7 Vinyl chloride	0.40692	0.36796	0.35614	0.33153	0.31791	0.29484					
	0.29544	+++++					AVRG		0.33868		12.11013
8 2-Chloro-1,1,1-trifluoroethan	0.28441	0.28440	0.28998	0.28904	0.30052	0.29948					
	0.30499	+++++					AVRG		0.29326		2.83331
9 Bromomethane	0.21507	0.20535	0.20088	0.20376	0.19743	0.19252					
	0.18747	+++++					AVRG		0.20035		4.50690
10 Chloroethane	0.22216	0.22108	0.22663	0.21982	0.21544	0.21349					
	0.20610	+++++					AVRG		0.21782		3.09561
11 Trichlorofluoromethane	0.42098	0.47006	0.43077	0.42906	0.40992	0.41083					
	0.40666	+++++					AVRG		0.42547		5.13087
12 Ethyl Ether	0.29749	0.27429	0.26617	0.28422	0.28683	0.27691					
	0.27342	+++++					AVRG		0.27990		3.71030
13 Acrolein	0.05197	0.05349	0.05589	0.05663	0.06145	0.06074					
	0.06025	+++++					AVRG		0.05720		6.50407
14 Trichlorotrifluoroethane	0.24812	0.24556	0.24345	0.23944	0.24235	0.23563					
	0.22530	+++++					AVRG		0.23998		3.18126

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Cal Date : 26-Mar-2010 18:02 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
15 1,1-Dichloroethylene	0.59051	0.56817	0.56621	0.52232	0.52017	0.53882					
	0.55068	+++++					AVRG		0.55098		4.69138
16 Acetone	0.34831	0.29514	0.29382	0.28949	0.28780	0.27337					
	0.28547	+++++					AVRG		0.29620		8.12358
17 Isopropyl Alcohol	0.02135	0.02088	0.02356	0.02326	0.01925	0.02447					
	0.02624	+++++					AVRG		0.02272		10.43485
18 Iodomethane	0.44533	0.41971	0.42192	0.40151	0.38432	0.38700					
	0.39337	+++++					AVRG		0.40759		5.46868
19 Carbon disulfide	0.97397	0.89862	0.85934	0.80937	0.70728	0.77734					
	0.82445	+++++					AVRG		0.83577		10.28708
20 Allyl chloride	8507	17929	43809	99452	210254	591520					
	1225666	+++++					LINR	0.15508	0.11299		0.99920
21 Methyl acetate	0.28095	0.26688	0.26567	0.27049	0.24559	0.24490					
	0.25595	+++++					AVRG		0.26149		5.09450
22 Acetonitrile	0.05311	0.04242	0.04264	0.04213	0.04352	0.03875					
	0.04193	+++++					AVRG		0.04350		10.33047
23 Methylene chloride	+++++	24115	41759	72196	139372	335541					
	709352	+++++					LINR	-0.01880	0.29499		0.99971

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Cal Date : 26-Mar-2010 18:02 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
24 tert-Butyl Alcohol	0.03450	0.03286	0.03710	0.03753	0.03121	0.03968					
	0.04208	+++++					AVRG		0.03642		10.50706
25 tert-Butyl methyl ether	0.93371	1.08746	0.88131	0.89456	0.91498	0.87293					
	0.91476	+++++					AVRG		0.92853		7.88164
26 trans-1,2-Dichloroethylene	0.29478	0.29262	0.26391	0.25636	0.25335	0.25891					
	0.26549	+++++					AVRG		0.26935		6.37027
27 Acrylonitrile	0.10797	0.10596	0.11041	0.11289	0.11528	0.11298					
	0.11285	+++++					AVRG		0.11119		2.93632
28 Isopropyl ether	1.09877	1.11233	1.10276	1.11762	1.16730	1.12032					
	1.18051	+++++					AVRG		1.12852		2.84927
29 Vinyl acetate	0.63725	0.60486	0.62394	0.59395	0.60658	0.58731					
	0.55312	+++++					AVRG		0.60100		4.51404
30 1,1-Dichloroethane	0.62513	0.63230	0.58982	0.55421	0.54772	0.55281					
	0.55078	+++++					AVRG		0.57897		6.36993
31 2-Chloro-1,3-butadiene	0.41810	0.41746	0.43019	0.45620	0.47274	0.48150					
	0.49600	+++++					AVRG		0.45317		7.01467
32 Ethyl tert-butyl ether	0.86453	0.86266	0.87110	0.90491	0.97011	0.95654					
	1.02989	+++++					AVRG		0.92282		6.97391

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Cal Date : 26-Mar-2010 18:02 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
33 2,2-Dichloropropane	0.39694	0.39205	0.36929	0.34932	0.35176	0.36430					
	0.35457	+++++					AVRG		0.36832		5.22710
34 Ethyl acetate	0.32902	0.29952	0.30825	0.30260	0.31733	0.30959					
	0.30120	+++++					AVRG		0.30964		3.38693
35 2-Butanone	0.34555	0.30939	0.30921	0.30431	0.30884	0.29894					
	0.32163	+++++					AVRG		0.31398		4.94376
36 cis-1,2-Dichloroethylene	0.31190	0.30788	0.29381	0.27606	0.28153	0.27982					
	0.27961	+++++					AVRG		0.29009		5.05776
37 Propionitrile	0.04709	0.04309	0.04679	0.04442	0.04601	0.04646					
	0.04636	+++++					AVRG		0.04574		3.17363
38 Tetrahydrofuran	0.26663	0.24683	0.26381	0.26054	0.25545	0.25212					
	0.24814	+++++					AVRG		0.25622		3.00396
39 Bromochloromethane	0.13836	0.13142	0.12971	0.13156	0.13371	0.12617					
	0.12976	+++++					AVRG		0.13153		2.88879
40 Methacrylonitrile	0.23771	0.23024	0.24233	0.24295	0.25151	0.24475					
	0.23800	+++++					AVRG		0.24107		2.76048
41 Chloroform	0.64658	0.60478	0.56892	0.55129	0.55756	0.55736					
	0.55798	+++++					AVRG		0.57778		6.10312

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Cal Date : 26-Mar-2010 18:02 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
42 Cyclohexane	0.60530	0.60739	0.56143	0.52600	0.49687	0.53693					
	0.52530	+++++					AVRG		0.55132		7.64201
43 1,1,1-Trichloroethane	0.45718	0.45635	0.43251	0.40820	0.41251	0.42806					
	0.41223	+++++					AVRG		0.42958		4.78840
44 Carbon tetrachloride	0.42399	0.42089	0.40940	0.39794	0.39811	0.41779					
	0.40835	+++++					AVRG		0.41092		2.54998
45 1,1-Dichloropropene	0.44544	0.45160	0.42126	0.39213	0.39119	0.40990					
	0.40530	+++++					AVRG		0.41669		5.79289
46 Isobutyl alcohol	0.01181	0.01064	0.01226	0.01201	0.01008	0.01304					
	0.01267	+++++					AVRG		0.01179		9.05259
47 Benzene	1.28998	1.15477	1.12632	1.08296	1.06740	1.09512					
	1.08491	1.25413					AVRG		1.14445		7.33590
49 Methyl tert-amyl ether	0.63334	0.62456	0.66931	0.68471	0.75377	0.75941					
	0.82305	+++++					AVRG		0.70688		10.41836
50 Cyclohexene	0.46264	0.44813	0.43312	0.40701	0.39320	0.42308					
	0.41399	+++++					AVRG		0.42588		5.64859
51 1,2-Dichloroethane	0.55999	0.52493	0.51731	0.50725	0.50443	0.49881					
	0.49879	+++++					AVRG		0.51593		4.20091

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Cal Date : 26-Mar-2010 18:02 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
53 n-Butyl alcohol	0.01024	0.00907	0.01003	0.01050	0.00888	0.01107					
	0.01122	#####					AVRG		0.01014		8.92075
54 Trichloroethylene	0.33004	0.30974	0.28603	0.28383	0.28464	0.28975					
	0.28384	#####					AVRG		0.29541		6.03769
55 Methylcyclohexane	0.49476	0.48703	0.47480	0.43861	0.43922	0.47464					
	0.45928	#####					AVRG		0.46690		4.73137
56 Methyl methacrylate	0.17389	0.17599	0.18085	0.18308	0.19483	0.19527					
	0.18940	#####					AVRG		0.18476		4.66850
57 1,2-Dichloropropane	0.33825	0.33087	0.31503	0.30131	0.30696	0.30490					
	0.30672	#####					AVRG		0.31486		4.51981
58 1,4-Dioxane	0.00268	0.00257	0.00273	0.00275	0.00275	0.00281					
	0.00281	#####					AVRG		0.00273		3.01538
59 Dibromomethane	0.19447	0.19393	0.18299	0.18510	0.18747	0.18297					
	0.18551	#####					AVRG		0.18749		2.58103
60 Bromodichloromethane	0.40950	0.42240	0.42513	0.42497	0.43872	0.44091					
	0.44459	#####					AVRG		0.42946		2.90391
61 2-Chloroethylvinyl ether	1534	4339	11215	24575	56621	#####					
	#####	#####					LINR	0.08394	0.02560		0.99683

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Cal Date : 26-Mar-2010 18:02 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
62 2-Nitropropane	8355	16281	47508	98345	220270	600056					
	1201622	+++++					LINR	0.11599	0.11103		0.99976
63 cis-1,3-Dichloropropylene	0.50349	0.47474	0.48488	0.49293	0.50736	0.51026					
	0.51996	+++++					AVRG		0.49909		3.14746
64 4-Methyl-2-pentanone	0.19874	0.19036	0.19606	0.19827	0.19870	0.19602					
	0.20758	+++++					AVRG		0.19796		2.60039
66 Toluene	1.08029	1.03835	0.96419	0.91516	0.91512	0.92876					
	0.90883	+++++					AVRG		0.96439		7.09762
67 Ethyl methacrylate	0.44077	0.44538	0.48183	0.48992	0.51785	0.51126					
	0.49563	+++++					AVRG		0.48324		6.21958
68 trans-1,3-Dichloropropylene	0.68217	0.63777	0.62991	0.66476	0.68131	0.70164					
	0.70410	+++++					AVRG		0.67167		4.33804
69 1,1,2-Trichloroethane	0.32465	0.30578	0.29078	0.29279	0.29162	0.29080					
	0.28928	+++++					AVRG		0.29796		4.37271
70 Tetrachloroethylene	0.37602	0.33298	0.30537	0.28451	0.28138	0.29671					
	0.27926	+++++					AVRG		0.30803		11.45604
71 2-Hexanone	0.57174	0.52453	0.54122	0.54512	0.55785	0.54679					
	0.57858	+++++					AVRG		0.55226		3.36783

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Cal Date : 26-Mar-2010 18:02 ale01592

Compound	1 Level 1 / 100 Level 7	2 Level 2 / 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
72 1,3-Dichloropropane	0.71966	0.64917	0.62966	0.63963	0.62910	0.61431					
	0.61756	+++++					AVRG		0.64273		5.59769
73 Dibromochloromethane	0.39057	0.38477	0.37507	0.38697	0.40149	0.40885					
	0.41437	+++++					AVRG		0.39459		3.57493
74 1,2-Dibromoethane	0.38525	0.33966	0.34493	0.34795	0.35126	0.34244					
	0.34972	+++++					AVRG		0.35160		4.37512
75 1-Chlorohexane	0.30784	0.32105	0.32102	0.32615	0.34149	0.33470					
	0.36021	+++++					AVRG		0.33035		5.14370
77 Chlorobenzene	1.14795	1.07647	1.01136	0.98151	0.98002	0.98572					
	0.94770	+++++					AVRG		1.01868		6.83721
78 Ethylbenzene	2.14544	2.02011	1.89606	1.84090	1.85339	1.90287					
	1.82809	+++++					AVRG		1.92669		6.01325
79 1,1,1,2-Tetrachloroethane	0.37405	0.37314	0.35996	0.36122	0.36918	0.37374					
	0.36962	+++++					AVRG		0.36870		1.59367
80 m,p-Xylenes	0.76855	0.70366	0.68029	0.65351	0.66267	0.67323					
	0.63949	+++++					AVRG		0.68306		6.27525
81 o-Xylene	0.72253	0.70153	0.66252	0.64099	0.65795	0.65954					
	0.64848	+++++					AVRG		0.67051		4.46036

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Cal Date : 26-Mar-2010 18:02 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
82 Styrene	1.09275	1.08435	1.09948	1.10852	1.13194	1.16948					
	1.15197	+++++					AVRG		1.11978		2.86591
83 Bromoform	0.41943	0.40765	0.45884	0.45833	0.49134	0.51077					
	0.51981	+++++					AVRG		0.46660		9.26892
84 Isopropylbenzene	3.65457	3.53232	3.40485	3.23822	3.27088	3.42401					
	3.26911	+++++					AVRG		3.39914		4.53997
85 cis-1,4-Dichloro-2-butene	0.27086	0.26576	0.29675	0.30266	0.32236	0.32519					
	0.32415	+++++					AVRG		0.30111		8.30060
86 Cyclohexanone	0.02452	0.02257	0.02302	0.02274	0.02518	0.02556					
	0.02720	+++++					AVRG		0.02440		7.06404
88 1,1,2,2-Tetrachloroethane	0.88305	0.84554	0.81587	0.83545	0.83718	0.85101					
	0.85147	+++++					AVRG		0.84565		2.42526
89 n-Propylbenzene	4.52756	4.31461	4.08942	3.96800	4.00981	4.21309					
	3.98618	+++++					AVRG		4.15838		4.97130
90 trans-1,4-Dichloro-2-butene	0.26047	0.24350	0.27777	0.28729	0.29324	0.30480					
	0.30069	+++++					AVRG		0.28111		7.92934
91 Bromobenzene	0.87561	0.84315	0.83031	0.80039	0.79985	0.78449					
	0.77364	+++++					AVRG		0.81535		4.41751

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Cal Date : 26-Mar-2010 18:02 ale01592

Compound	1 Level 1 / 100 Level 7	2 Level 2 / 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
92 1,2,3-Trichloropropane	0.25374	0.25157	0.23407	0.24149	0.24048	0.23469					
	0.23399	+++++					AVRG		0.24143		3.42436
93 1,3,5-Trimethylbenzene	3.15016	3.03866	2.92163	2.83430	2.90902	3.03029					
	2.88725	+++++					AVRG		2.96733		3.69365
94 2-Chlorotoluene	3.40116	3.10077	2.99009	2.85022	2.90368	2.95741					
	2.86121	+++++					AVRG		3.00922		6.41193
95 4-Chlorotoluene	2.96916	2.82351	2.72455	2.60839	2.62990	2.69119					
	2.64207	+++++					AVRG		2.72697		4.73307
96 tert-Butylbenzene	2.56799	2.45028	2.36355	2.27069	2.29279	2.43004					
	2.28987	+++++					AVRG		2.38074		4.56046
97 1,2,4-Trimethylbenzene	3.38891	3.11898	3.06635	2.94444	2.98604	3.11129					
	2.97368	+++++					AVRG		3.08424		4.89034
98 Pentachloroethane	12149	15882	38181	66725	133523	507783					
	1078303	+++++					LINR	0.27833	0.24667		0.99429
99 sec-Butylbenzene	4.10342	3.88387	3.73084	3.55024	3.66314	3.89266					
	3.61775	+++++					AVRG		3.77742		5.10627
100 4-Isopropyltoluene	3.12249	3.00522	2.91403	2.83082	2.81896	3.04721					
	2.85667	+++++					AVRG		2.94220		4.00251

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Cal Date : 26-Mar-2010 18:02 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
101 1,3-Dichlorobenzene	1.84867	1.68002	1.57918	1.49323	1.50639	1.51963					
	1.47490	+++++					AVRG		1.58600		8.52066
103 1,4-Dichlorobenzene	1.84911	1.65010	1.60437	1.53722	1.53074	1.53576					
	1.47931	+++++					AVRG		1.59809		7.74803
104 Benzyl chloride	1.12801	1.11484	1.29183	1.31709	1.38449	1.40406					
	1.37657	+++++					AVRG		1.28813		9.35175
105 n-Butylbenzene	3.44185	3.23539	3.12630	2.97997	3.06171	3.30417					
	3.08924	+++++					AVRG		3.17694		5.01186
106 1,2-Dichlorobenzene	1.69129	1.57033	1.50223	1.45431	1.47131	1.47889					
	1.43580	+++++					AVRG		1.51488		5.87152
107 bis(2-Chloroisopropyl)ether	0.42927	0.40771	0.45797	0.44748	0.46047	0.46175					
	0.45692	+++++					AVRG		0.44594		4.54779
108 1,2-Dibromo-3-chloropropane	0.14634	0.16047	0.16196	0.16379	0.17248	0.17743					
	0.18378	+++++					AVRG		0.16661		7.45078
109 1,2,4-Trichlorobenzene	1.41272	1.18723	1.16596	1.09928	1.12657	1.12407					
	1.09072	+++++					AVRG		1.17236		9.50296
110 Hexachlorobutadiene	0.81557	0.75828	0.69142	0.67610	0.68594	0.71859					
	0.67069	+++++					AVRG		0.71666		7.39638

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Cal Date : 26-Mar-2010 18:02 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
111 Naphthalene	3.32209	2.52371	2.47904	2.48696	2.57602	2.54628					
	2.53867	+++++					AVRG		2.63897		11.48579
112 1,2,3-Trichlorobenzene	1.34666	1.04210	1.03215	1.03675	1.03134	1.00392					
	0.97889	+++++					AVRG		1.06740		11.72478
$ 48 1,2-Dichloroethane-d4	0.45047	0.46081	0.45790	0.48374	0.48927	0.51337					
	0.56187	+++++					AVRG		0.48820		8.00985
$ 65 Toluene-d8	1.70210	1.65586	1.65755	1.73908	1.67205	1.67342					
	1.67162	+++++					AVRG		1.68167		1.75445
$ 87 Bromofluorobenzene	1.23838	1.23601	1.23055	1.28837	1.26074	1.26956					
	1.25131	+++++					AVRG		1.25356		1.65830

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Cal Date : 26-Mar-2010 18:02 ale01592

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 05-MAR-2010 03:14
Lab File ID: 1a431.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100304-23 Quant Type: ISTD
Method: /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Chlorotrifluoroethylene	176	150	0.12854	0.010	17.57577	30.00000	Linear
8 2-Chloro-1,1,1-trifluoroeth	0.29326	0.29918	0.29918	0.010	2.01988	30.00000	Averaged
13 Acrolein	0.05720	0.05786	0.05786	0.001	1.15202	30.00000	Averaged
14 Trichlorotrifluoroethane	0.23998	0.22387	0.22387	0.030	-6.71094	30.00000	Averaged
17 Isopropyl Alcohol	0.02272	0.02425	0.02425	0.000	6.77030	40.00000	Averaged
20 Allyl chloride	261	250	0.11450	0.010	4.44100	30.00000	Linear
24 tert-Butyl Alcohol	0.03642	0.03861	0.03861	0.010	6.01112	40.00000	Averaged
27 Acrylonitrile	0.11119	0.11685	0.11685	0.010	5.09258	30.00000	Averaged
28 Isopropyl ether	1.12852	1.11236	1.11236	0.010	-1.43125	30.00000	Averaged
31 2-Chloro-1,3-butadiene	0.45317	0.53602	0.53602	0.010	18.28132	30.00000	Averaged
32 Ethyl tert-butyl ether	0.92282	0.94254	0.94254	0.010	2.13673	30.00000	Averaged
37 Propionitrile	0.04574	0.04595	0.04595	0.010	0.44555	30.00000	Averaged
34 Ethyl acetate	0.30964	0.29007	0.29007	0.010	-6.32210	40.00000	Averaged
40 Methacrylonitrile	0.24107	0.24743	0.24743	0.010	2.63790	30.00000	Averaged
38 Tetrahydrofuran	0.25622	0.25409	0.25409	0.010	-0.83235	30.00000	Averaged
46 Isobutyl alcohol	0.01179	0.01194	0.01194	0.001	1.26309	40.00000	Averaged
49 Methyl tert-amyl ether	0.70688	0.74158	0.74158	0.010	4.90840	30.00000	Averaged
56 Methyl methacrylate	0.18476	0.19653	0.19653	0.010	6.37074	30.00000	Averaged
67 Ethyl methacrylate	0.48324	0.52431	0.52431	0.010	8.49938	30.00000	Averaged
75 1-Chlorohexane	0.33035	0.32814	0.32814	0.000	-0.66768	30.00000	Averaged
58 1,4-Dioxane	0.00273	0.00267	0.00267	0.001	-2.06096	40.00000	Averaged
62 2-Nitropropane	248	250	0.10744	0.000	-0.91469	30.00000	Linear
85 cis-1,4-Dichloro-2-butene	0.30111	0.34413	0.34413	0.010	14.29028	30.00000	Averaged
86 Cyclohexanone	0.02440	0.01830	0.01830	0.010	-24.97856	40.00000	Averaged
90 trans-1,4-Dichloro-2-butene	0.28111	0.32198	0.32198	0.010	14.53904	30.00000	Averaged
98 Pentachloroethane	254	250	0.23651	0.010	1.45004	30.00000	Linear
104 Benzyl chloride	1.28813	1.28543	1.28543	0.010	-0.20940	30.00000	Averaged
107 bis(2-Chloroisopropyl)ether	0.44594	0.46332	0.46332	0.010	3.89777	30.00000	Averaged
$ 48 1,2-Dichloroethane-d4	0.48820	0.45554	0.45554	0.010	-6.69163	30.00000	Averaged
$ 65 Toluene-d8	1.68167	1.70100	1.70100	0.010	1.14955	30.00000	Averaged
$ 87 Bromofluorobenzene	1.25356	1.23878	1.23878	0.010	-1.17885	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1a431.d
Analysis Type: WATER
Lab Sample ID: W1VM100304-23
Method: /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m

Injection Date: 05-MAR-2010 03:14
Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Init. Cal. Times: 17:28 02:12
Quant Type: ISTD

Average %D / Drift Results.	
Calculated Average %D/Drift =	5.83118
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/030410v1/1a431.d
Lab Smp Id: W1VM100304-23 Client Smp ID: VSTD250S
Inj Date : 05-MAR-2010 03:14
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |W1VM100304-23|S-ICV|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM100304-08A/UVM100125-08E
Comment :
Method : /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m
Meth Date : 05-Mar-2010 11:12 dav01267 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
4 Chlorotrifluoroethylene	116	4.875	4.875	(0.357)	422849	150.000	176
8 2-Chloro-1,1,1-trifluoroethane	118	6.275	6.275	(0.459)	984214	150.000	153
13 Acrolein	56	8.940	8.940	(0.654)	317253	250.000	253
14 Trichlorotrifluoroethane	101	8.963	8.963	(0.656)	1227444	250.000	233
17 Isopropyl Alcohol	45	9.437	9.437	(0.690)	1329758	2500.00	2670
20 Allyl chloride	76	9.838	9.838	(0.720)	627804	250.000	261
24 tert-Butyl Alcohol	59	10.183	10.183	(0.745)	2117018	2500.00	2650
27 Acrylonitrile	53	10.662	10.662	(0.780)	640684	250.000	263
28 Isopropyl ether	45	11.182	11.182	(0.818)	1219773	50.0000	49.3
31 2-Chloro-1,3-butadiene	53	11.385	11.385	(0.833)	587773	50.0000	59.1
32 Ethyl tert-butyl ether	59	11.744	11.744	(0.859)	1033549	50.0000	51.1
37 Propionitrile	54	12.393	12.393	(0.906)	251923	250.000	251
34 Ethyl acetate	43	12.153	12.153	(0.889)	1590381	250.000	234
40 Methacrylonitrile	41	12.549	12.549	(0.918)	1356599	250.000	256
38 Tetrahydrofuran	42	12.531	12.531	(0.639)	564841	250.000	248
46 Isobutyl alcohol	41	13.097	13.097	(0.958)	654432	2500.00	2530

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
49 Methyl tert-amyl ether	73	13.336	13.336	(0.975)	813183	50.0000	52.4
56 Methyl methacrylate	69	14.427	14.427	(1.055)	1077534	250.000	266
67 Ethyl methacrylate	69	15.799	15.799	(0.921)	2089094	250.000	271
75 1-Chlorohexane	55	17.019	17.019	(1.245)	359829	50.0000	49.7
58 1,4-Dioxane	88	14.538	14.538	(1.063)	146478	2500.00	2450
62 2-Nitropropane	43	15.067	15.067	(1.102)	589084	250.000	248
85 cis-1,4-Dichloro-2-butene	53	18.266	18.266	(0.932)	765022	250.000	286
86 Cyclohexanone	55	18.377	18.377	(1.072)	364656	1250.00	938
90 trans-1,4-Dichloro-2-butene	53	18.556	18.556	(0.947)	715772	250.000	286
98 Pentachloroethane	167	19.187	19.187	(0.979)	525774	250.000	254(A)
104 Benzyl chloride	91	19.762	19.762	(1.008)	2857558	250.000	249
107 bis(2-Chloroisopropyl)ether	45	20.153	20.153	(1.028)	1029978	250.000	260
* 52 Fluorobenzene	96	13.672	13.668	(1.000)	1096559	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	796894	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.601	(1.000)	444607	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	499522	50.0000	46.6
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1355516	50.0000	50.6
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	550772	50.0000	49.4

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/030410v1/1a431.d

Date : 05-MAR-2010 03:14

Client ID: VSTD250S

Sample Info: |W1VM100304-23|S-ICV|1|VOAF|1|

Purge Volume: 5.0

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2

Column diameter: 0.25

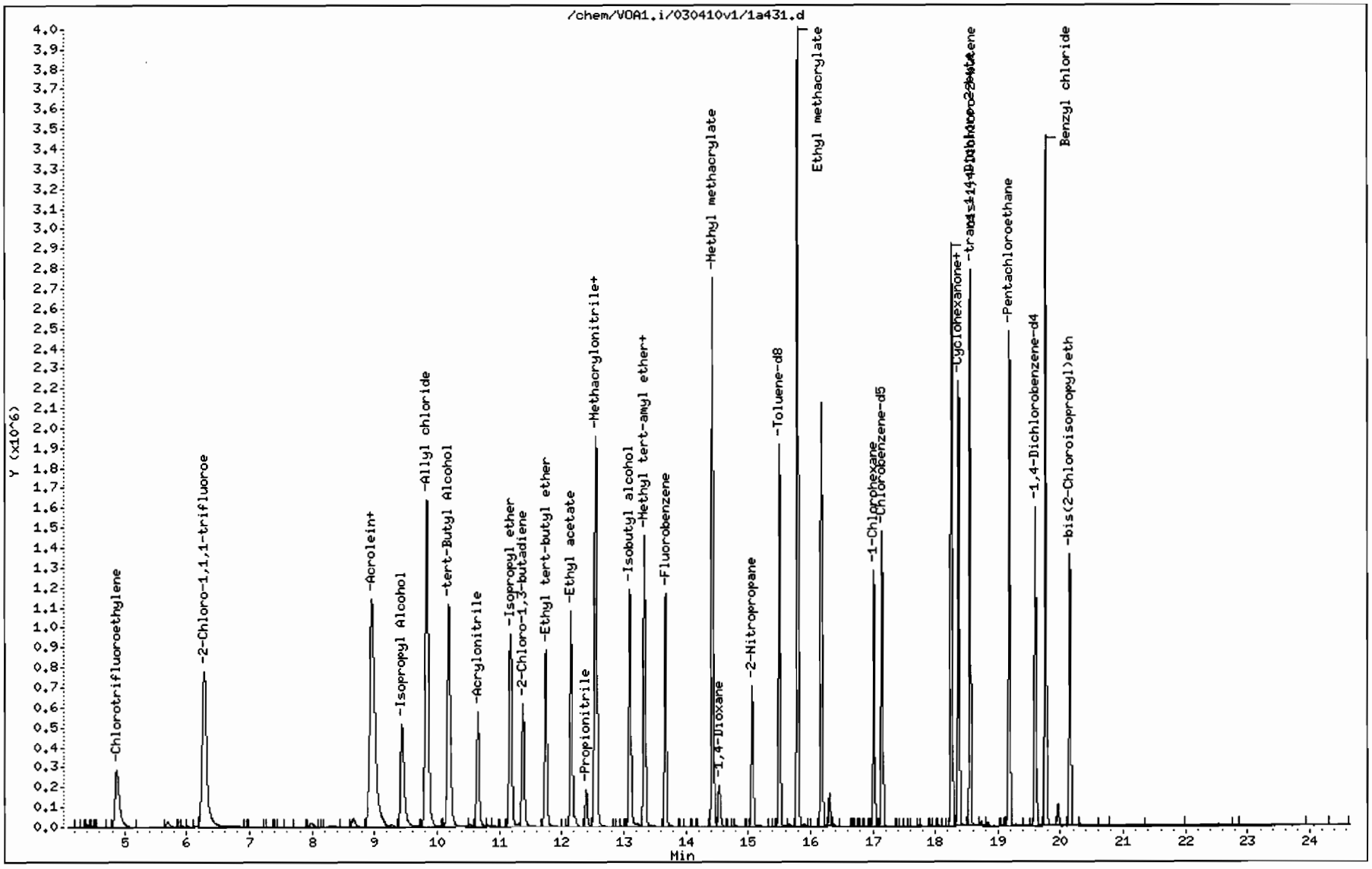

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 05-MAR-2010 10:31
Lab File ID: 1a502.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100305-01 Quant Type: ISTD
Method: /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	0.67887	0.70270	0.70270	0.050	3.50958	30.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.27972	0.29253	0.29253	0.050	4.58161	30.00000	Averaged	
M	3 1,3-Dichloropropylene	0.67789	0.73948	0.73948	0.050	9.08598	30.00000	Averaged	
	5 Dichlorodifluoromethane	0.25158	0.28147	0.28147	0.050	11.88053	30.00000	Averaged	
	6 Chloromethane	0.43647	0.44111	0.44111	0.100	1.06208	30.00000	Averaged	spcc
	7 Vinyl chloride	0.33868	0.35060	0.35060	0.050	3.51988	20.00000	Averaged	ccc
	9 Bromomethane	0.20035	0.21019	0.21019	0.050	4.91190	30.00000	Averaged	
	10 Chloroethane	0.21782	0.22685	0.22685	0.050	4.14710	30.00000	Averaged	
	11 Trichlorofluoromethane	0.42547	0.47389	0.47389	0.050	11.38080	30.00000	Averaged	
	12 Ethyl Ether	0.27990	0.29643	0.29643	0.010	5.90323	30.00000	Averaged	
	16 Acetone	0.29620	0.26818	0.26818	0.000	-9.46030	40.00000	Averaged	
	22 Acetonitrile	0.04350	0.04236	0.04236	0.010	-2.62705	30.00000	Averaged	
	15 1,1-Dichloroethylene	0.55098	0.58968	0.58968	0.050	7.02346	20.00000	Averaged	ccc
	21 Methyl acetate	0.26149	0.25709	0.25709	0.010	-1.68238	40.00000	Averaged	
	18 Iodomethane	0.40759	0.41313	0.41313	0.050	1.35752	30.00000	Averaged	
	23 Methylene chloride	52.61887	50.00000	0.31598	0.000	5.23774	30.00000	Linear	
	19 Carbon disulfide	0.83577	0.92684	0.92684	0.050	10.89737	30.00000	Averaged	
	25 tert-Butyl methyl ether	0.92853	0.95444	0.95444	0.050	2.79026	30.00000	Averaged	
	26 trans-1,2-Dichloroethylene	0.26935	0.28551	0.28551	0.050	6.00229	30.00000	Averaged	
	29 Vinyl acetate	0.60100	0.73912	0.73912	0.010	22.98050	40.00000	Averaged	
	30 1,1-Dichloroethane	0.57897	0.60129	0.60129	0.100	3.85597	30.00000	Averaged	spcc
	35 2-Butanone	0.31398	0.28165	0.28165	0.030	-10.29650	40.00000	Averaged	
	36 cis-1,2-Dichloroethylene	0.29009	0.29955	0.29955	0.050	3.26249	30.00000	Averaged	
	33 2,2-Dichloropropane	0.36832	0.40745	0.40745	0.050	10.62596	30.00000	Averaged	
	41 Chloroform	0.57778	0.60477	0.60477	0.010	4.67163	20.00000	Averaged	ccc
	39 Bromochloromethane	0.13153	0.13791	0.13791	0.010	4.85169	30.00000	Averaged	
	43 1,1,1-Trichloroethane	0.42958	0.46035	0.46035	0.010	7.16254	30.00000	Averaged	
	42 Cyclohexane	0.55132	0.59714	0.59714	0.010	8.31206	30.00000	Averaged	
	45 1,1-Dichloropropene	0.41669	0.45350	0.45350	0.010	8.83380	30.00000	Averaged	
	53 n-Butyl alcohol	0.01014	0.01140	0.01140	0.001	12.38769	40.00000	Averaged	
	44 Carbon tetrachloride	0.41092	0.45961	0.45961	0.010	11.84942	30.00000	Averaged	
$	48 1,2-Dichloroethane-d4	0.48820	0.54295	0.54295	0.010	11.21406	30.00000	Averaged	
	51 1,2-Dichloroethane	0.51593	0.55085	0.55085	0.010	6.76938	30.00000	Averaged	
	47 Benzene	1.14445	1.16427	1.16427	0.010	1.73166	30.00000	Averaged	
	50 Cyclohexene	0.42588	0.45113	0.45113	0.010	5.92886	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 05-MAR-2010 10:31
Lab File ID: 1a502.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100305-01 Quant Type: ISTD
Method: /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	54 Trichloroethylene	0.29541	0.30343	0.30343	0.010	2.71395	30.00000	Averaged	
	57 1,2-Dichloropropane	0.31486	0.32789	0.32789	0.010	4.13811	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.46690	0.50670	0.50670	0.010	8.52348	30.00000	Averaged	
	60 Bromodichloromethane	0.42946	0.47700	0.47700	0.010	11.07011	30.00000	Averaged	
	59 Dibromomethane	0.18749	0.19313	0.19313	0.010	3.00557	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	303	250	0.03059	0.000	21.20753	30.00000	Linear	
	64 4-Methyl-2-pentanone	0.19796	0.20254	0.20254	0.010	2.31048	40.00000	Averaged	
	63 cis-1,3-Dichloropropylene	0.49909	0.55038	0.55038	0.010	10.27752	30.00000	Averaged	
$	65 Toluene-d8	1.68167	1.69864	1.69864	0.010	1.00920	30.00000	Averaged	
	66 Toluene	0.96439	0.98216	0.98216	0.010	1.84342	20.00000	Averaged	ccc
	68 trans-1,3-Dichloropropylene	0.67167	0.74386	0.74386	0.010	10.74782	30.00000	Averaged	
	69 1,1,2-Trichloroethane	0.29796	0.30083	0.30083	0.010	0.96395	30.00000	Averaged	
	71 2-Hexanone	0.55226	0.51037	0.51037	0.010	-7.58551	40.00000	Averaged	
	72 1,3-Dichloropropane	0.64273	0.65261	0.65261	0.010	1.53845	30.00000	Averaged	
	70 Tetrachloroethylene	0.30803	0.31428	0.31428	0.010	2.02844	30.00000	Averaged	
	73 Dibromochloromethane	0.39459	0.42408	0.42408	0.010	7.47363	30.00000	Averaged	
	74 1,2-Dibromoethane	0.35160	0.36245	0.36245	0.010	3.08438	30.00000	Averaged	
	77 Chlorobenzene	1.01868	1.05248	1.05248	0.300	3.31789	30.00000	Averaged	spcc
	79 1,1,1,2-Tetrachloroethane	0.36870	0.39424	0.39424	0.010	6.92719	30.00000	Averaged	
	78 Ethylbenzene	1.92669	1.99643	1.99643	0.010	3.61924	20.00000	Averaged	ccc
	80 m,p-Xylenes	0.68306	0.70413	0.70413	0.010	3.08515	30.00000	Averaged	
	81 o-Xylene	0.67051	0.69984	0.69984	0.010	4.37431	30.00000	Averaged	
	82 Styrene	1.11978	1.22440	1.22440	0.010	9.34244	30.00000	Averaged	
	83 Bromoform	0.46660	0.52379	0.52379	0.100	12.25768	30.00000	Averaged	spcc
	84 Isopropylbenzene	3.39914	3.56476	3.56476	0.010	4.87255	30.00000	Averaged	
	88 1,1,2,2-Tetrachloroethane	0.84565	0.87401	0.87401	0.300	3.35316	30.00000	Averaged	spcc
$	87 Bromofluorobenzene	1.25356	1.28252	1.28252	0.010	2.31038	30.00000	Averaged	
	92 1,2,3-Trichloropropane	0.24143	0.24442	0.24442	0.010	1.23888	30.00000	Averaged	
	91 Bromobenzene	0.81535	0.83587	0.83587	0.010	2.51718	30.00000	Averaged	
	89 n-Propylbenzene	4.15838	4.37662	4.37662	0.010	5.24800	30.00000	Averaged	
	94 2-Chlorotoluene	3.00922	3.13432	3.13432	0.010	4.15715	30.00000	Averaged	
	93 1,3,5-Trimethylbenzene	2.96733	3.15153	3.15153	0.010	6.20738	30.00000	Averaged	
	95 4-Chlorotoluene	2.72697	2.87524	2.87524	0.010	5.43717	30.00000	Averaged	
	96 tert-Butylbenzene	2.38074	2.48278	2.48278	0.010	4.28576	30.00000	Averaged	
	97 1,2,4-Trimethylbenzene	3.08424	3.23504	3.23504	0.010	4.88953	30.00000	Averaged	
	99 sec-Butylbenzene	3.77742	3.96034	3.96034	0.010	4.84263	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 05-MAR-2010 10:31
Lab File ID: 1a502.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100305-01 Quant Type: ISTD
Method: /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
100 4-Isopropyltoluene	2.94220	3.12737	3.12737	0.010	6.29344	30.00000	Averaged
101 1,3-Dichlorobenzene	1.58600	1.61043	1.61043	0.010	1.54014	30.00000	Averaged
103 1,4-Dichlorobenzene	1.59809	1.62423	1.62423	0.010	1.63593	30.00000	Averaged
105 n-Butylbenzene	3.17694	3.41120	3.41120	0.010	7.37353	30.00000	Averaged
106 1,2-Dichlorobenzene	1.51488	1.54066	1.54066	0.010	1.70191	30.00000	Averaged
108 1,2-Dibromo-3-chloropropane	0.16661	0.18123	0.18123	0.010	8.77975	30.00000	Averaged
109 1,2,4-Trichlorobenzene	1.17236	1.22250	1.22250	0.010	4.27675	30.00000	Averaged
110 Hexachlorobutadiene	0.71666	0.74291	0.74291	0.010	3.66327	30.00000	Averaged
111 Naphthalene	2.63897	2.62914	2.62914	0.010	-0.37230	30.00000	Averaged
112 1,2,3-Trichlorobenzene	1.06740	1.10036	1.10036	0.010	3.08807	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 5.83118
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/030410v1/1a502.d
Lab Smp Id: W1VM100305-01 Client Smp ID: VSTD050
Inj Date : 05-MAR-2010 10:31
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |W1VM100305-01|ICV/CCV/LCS|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM100220-01D/IVM100304-01
Comment :
Method : /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m
Meth Date : 05-Mar-2010 11:12 dav01267 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				1696711	150.000	155
M 2 1,2-Dichloroethylene (total)	96				628940	100.000	105
M 3 1,3-Dichloropropylene	75				1190353	100.000	110
5 Dichlorodifluoromethane	85	4.976	4.976	(0.364)	302577	50.0000	55.9
6 Chloromethane	50	5.528	5.528	(0.404)	474188	50.0000	50.5
7 Vinyl chloride	62	5.901	5.901	(0.432)	376890	50.0000	51.8
9 Bromomethane	96	6.929	6.929	(0.507)	225958	50.0000	52.4
10 Chloroethane	64	7.201	7.201	(0.527)	243865	50.0000	52.1
11 Trichlorofluoromethane	101	7.813	7.813	(0.572)	509427	50.0000	55.7
12 Ethyl Ether	59	8.457	8.457	(0.619)	318658	50.0000	53.0
16 Acetone	43	9.240	9.240	(0.676)	1441449	250.000	226
22 Acetonitrile	41	9.962	9.962	(0.729)	1138311	1250.00	1220
15 1,1-Dichloroethylene	61	9.065	9.065	(0.663)	633902	50.0000	53.5
21 Methyl acetate	43	9.820	9.820	(0.718)	1381847	250.000	246
18 Iodomethane	142	9.451	9.451	(0.692)	2220549	250.000	253
23 Methylene chloride	84	10.123	10.123	(0.741)	339679	50.0000	52.6

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	19 Carbon disulfide	76	9.553	9.553	(0.699)	4981747	250.000	277
	25 tert-Butyl methyl ether	73	10.423	10.423	(0.763)	1026015	50.0000	51.4
	26 trans-1,2-Dichloroethylene	96	10.533	10.533	(0.771)	306926	50.0000	53.0
	29 Vinyl acetate	43	11.279	11.279	(0.825)	3972726	250.000	307
	30 1,1-Dichloroethane	63	11.306	11.306	(0.827)	646385	50.0000	51.9
	35 2-Butanone	43	12.172	12.172	(0.891)	1513863	250.000	224
	36 cis-1,2-Dichloroethylene	96	12.190	12.190	(0.892)	322014	50.0000	51.6
	33 2,2-Dichloropropane	77	12.149	12.149	(0.889)	438011	50.0000	55.3
	41 Chloroform	83	12.600	12.600	(0.922)	650126	50.0000	52.3
	39 Bromochloromethane	128	12.545	12.545	(0.918)	148250	50.0000	52.4
	43 1,1,1-Trichloroethane	97	12.835	12.835	(0.939)	494870	50.0000	53.6
	42 Cyclohexane	56	12.825	12.825	(0.938)	641925	50.0000	54.2
	45 1,1-Dichloropropene	75	13.037	13.037	(0.954)	487506	50.0000	54.4
	53 n-Butyl alcohol	56	13.916	13.916	(1.018)	1225614	5000.00	5620
	44 Carbon tetrachloride	117	13.010	13.010	(0.952)	494082	50.0000	55.9
$	48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	583670	50.0000	55.6
	51 1,2-Dichloroethane	62	13.428	13.428	(0.982)	592164	50.0000	53.4
	47 Benzene	78	13.318	13.318	(0.974)	1251578	50.0000	50.9
	50 Cyclohexene	54	13.382	13.382	(0.979)	484963	50.0000	53.0
*	52 Fluorobenzene	96	13.668	13.668	(1.000)	1074993	50.0000	
	54 Trichloroethylene	95	14.105	14.105	(1.032)	326181	50.0000	51.4
	57 1,2-Dichloropropane	63	14.446	14.446	(1.057)	352482	50.0000	52.1
	55 Methylcyclohexane	83	14.266	14.266	(1.044)	544700	50.0000	54.3
	60 Bromodichloromethane	83	14.740	14.740	(1.078)	512774	50.0000	55.5
	59 Dibromomethane	93	14.611	14.611	(1.069)	207611	50.0000	51.5
	61 2-Chloroethylvinyl ether	63	15.017	15.017	(1.099)	164440	250.000	303
	64 4-Methyl-2-pentanone	58	15.343	15.343	(0.895)	815059	250.000	256
	63 cis-1,3-Dichloropropylene	75	15.242	15.242	(1.115)	591657	50.0000	55.1
$	65 Toluene-d8	98	15.504	15.504	(0.904)	1367158	50.0000	50.5
	66 Toluene	92	15.583	15.583	(0.909)	790500	50.0000	50.9
	68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	598696	50.0000	55.4
	69 1,1,2-Trichloroethane	83	16.094	16.094	(0.939)	242124	50.0000	50.5
	71 2-Hexanone	43	16.255	16.255	(0.948)	2053864	250.000	231
	72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	525260	50.0000	50.8
	70 Tetrachloroethylene	164	16.176	16.176	(0.943)	252952	50.0000	51.0
	73 Dibromochloromethane	129	16.535	16.535	(0.964)	341319	50.0000	53.7
	74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	291718	50.0000	51.5
*	76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	804855	50.0000	
	77 Chlorobenzene	112	17.180	17.180	(1.002)	847090	50.0000	51.6
	79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	317308	50.0000	53.5
	78 Ethylbenzene	91	17.208	17.208	(1.003)	1606834	50.0000	51.8
	80 m,p-Xylenes	106	17.323	17.323	(1.010)	1133444	100.000	103
	81 o-Xylene	106	17.769	17.769	(1.036)	563267	50.0000	52.2
	82 Styrene	104	17.792	17.792	(1.038)	985464	50.0000	54.7
	83 Bromoform	173	18.096	18.096	(0.923)	232402	50.0000	56.1
	84 Isopropylbenzene	105	18.114	18.114	(0.924)	1581663	50.0000	52.4
	88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	387792	50.0000	51.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	569048	50.0000	51.2
92 1,2,3-Trichloropropane	110	18.593	18.593	(0.949)	108449	50.0000	50.6
91 Bromobenzene	156	18.579	18.579	(0.948)	370872	50.0000	51.2
89 n-Propylbenzene	91	18.547	18.547	(0.946)	1941878	50.0000	52.6
94 2-Chlorotoluene	91	18.731	18.731	(0.956)	1390679	50.0000	52.1
93 1,3,5-Trimethylbenzene	105	18.704	18.704	(0.954)	1398313	50.0000	53.1
95 4-Chlorotoluene	91	18.842	18.842	(0.961)	1275725	50.0000	52.7
96 tert-Butylbenzene	119	19.063	19.063	(0.973)	1101593	50.0000	52.1
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	1435370	50.0000	52.4
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1757181	50.0000	52.4
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	1387594	50.0000	53.1
101 1,3-Dichlorobenzene	146	19.532	19.532	(0.996)	714537	50.0000	50.8
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.601	(1.000)	443694	50.0000	
103 1,4-Dichlorobenzene	146	19.624	19.624	(1.001)	720661	50.0000	50.8
105 n-Butylbenzene	91	19.854	19.854	(1.013)	1513528	50.0000	53.7
106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	683582	50.0000	50.8
108 1,2-Dibromo-3-chloropropane	157	20.987	20.987	(1.071)	80412	50.0000	54.4
109 1,2,4-Trichlorobenzene	180	22.009	22.009	(1.123)	542417	50.0000	52.1
110 Hexachlorobutadiene	225	22.091	22.091	(1.127)	329624	50.0000	51.8
111 Naphthalene	128	22.418	22.418	(1.144)	1166534	50.0000	49.8
112 1,2,3-Trichlorobenzene	180	22.773	22.773	(1.162)	488224	50.0000	51.5

Data File: /chem/VOA1.i/030410v1/1a502.d
Date : 05-MAR-2010 10:31
Client ID: VSTD050
Sample Info: IW1VM100305-01|ICV/CCV/LCS|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

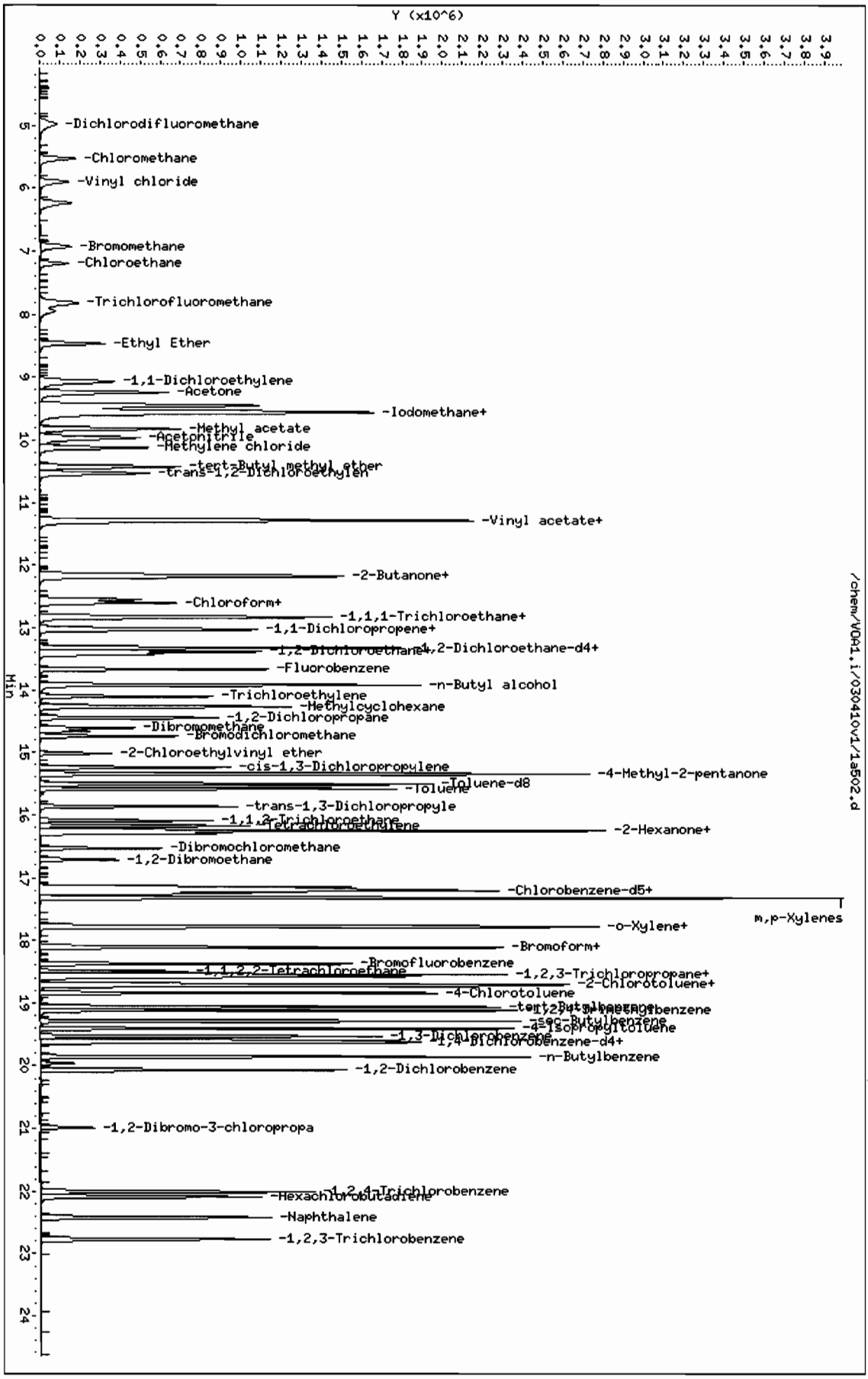

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-MAR-2010 22:06
Lab File ID: 1c323.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100317-05 Quant Type: ISTD
Method: /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M 1 Xylenes (total)	0.67887	0.72413	0.72413	0.050	6.66717	30.00000	Averaged	
M 2 1,2-Dichloroethylene (total	0.27972	0.29888	0.29888	0.050	6.84995	30.00000	Averaged	
M 3 1,3-Dichloropropylene	0.67789	0.73526	0.73526	0.050	8.46241	30.00000	Averaged	
5 Dichlorodifluoromethane	0.25158	0.26528	0.26528	0.050	5.44536	30.00000	Averaged	
6 Chloromethane	0.43647	0.36498	0.36498	0.100	-16.38028	30.00000	Averaged	spcc
7 Vinyl chloride	0.33868	0.33050	0.33050	0.050	-2.41438	20.00000	Averaged	ccc
9 Bromomethane	0.20035	0.20273	0.20273	0.050	1.18642	30.00000	Averaged	
10 Chloroethane	0.21782	0.21301	0.21301	0.050	-2.21000	30.00000	Averaged	
11 Trichlorofluoromethane	0.42547	0.50340	0.50340	0.050	18.31804	30.00000	Averaged	
12 Ethyl Ether	0.27990	0.26491	0.26491	0.010	-5.35784	30.00000	Averaged	
16 Acetone	0.29620	0.21594	0.21594	0.000	-27.09508	40.00000	Averaged	
22 Acetonitrile	0.04350	0.03566	0.03566	0.010	-18.01647	30.00000	Averaged	
15 1,1-Dichloroethylene	0.55098	0.57938	0.57938	0.050	5.15476	20.00000	Averaged	ccc
21 Methyl acetate	0.26149	0.21866	0.21866	0.010	-16.38044	40.00000	Averaged	
18 Iodomethane	0.40759	0.41035	0.41035	0.050	0.67654	30.00000	Averaged	
23 Methylene chloride	51.77431	50.00000	0.31100	0.000	3.54862	30.00000	Linear	
19 Carbon disulfide	0.83577	0.91043	0.91043	0.050	8.93400	30.00000	Averaged	
25 tert-Butyl methyl ether	0.92853	0.96259	0.96259	0.050	3.66857	30.00000	Averaged	
26 trans-1,2-Dichloroethylene	0.26935	0.28833	0.28833	0.050	7.04757	30.00000	Averaged	
29 Vinyl acetate	0.60100	0.66180	0.66180	0.010	10.11548	40.00000	Averaged	
30 1,1-Dichloroethane	0.57897	0.60507	0.60507	0.100	4.50780	30.00000	Averaged	spcc
35 2-Butanone	0.31398	0.22583	0.22583	0.030	-28.07514	40.00000	Averaged	
36 cis-1,2-Dichloroethylene	0.29009	0.30942	0.30942	0.050	6.66646	30.00000	Averaged	
33 2,2-Dichloropropane	0.36832	0.45160	0.45160	0.050	22.61049	30.00000	Averaged	
41 Chloroform	0.57778	0.63767	0.63767	0.010	10.36575	20.00000	Averaged	ccc
39 Bromochloromethane	0.13153	0.13205	0.13205	0.010	0.39690	30.00000	Averaged	
43 1,1,1-Trichloroethane	0.42958	0.51924	0.51924	0.010	20.87211	30.00000	Averaged	
42 Cyclohexane	0.55132	0.58974	0.58974	0.010	6.96964	30.00000	Averaged	
45 1,1-Dichloropropene	0.41669	0.47948	0.47948	0.010	15.06915	30.00000	Averaged	
53 n-Butyl alcohol	0.01014	0.01014	0.01014	0.001	-0.02015	40.00000	Averaged	
44 Carbon tetrachloride	0.41092	0.50948	0.50948	0.010	23.98479	30.00000	Averaged	
$ 48 1,2-Dichloroethane-d4	0.48820	0.56930	0.56930	0.010	16.61096	30.00000	Averaged	
51 1,2-Dichloroethane	0.51593	0.53856	0.53856	0.010	4.38675	30.00000	Averaged	
47 Benzene	1.14445	1.19310	1.19310	0.010	4.25121	30.00000	Averaged	
50 Cyclohexene	0.42588	0.44338	0.44338	0.010	4.10873	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1c323.d
Analysis Type: WATER
Lab Sample ID: W1VM100317-05
Method: /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m

Injection Date: 17-MAR-2010 22:06
Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Init. Cal. Times: 17:28 02:12
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	54 Trichloroethylene	0.29541	0.32795	0.32795	0.010	11.01545	30.00000	Averaged	
	57 1,2-Dichloropropane	0.31486	0.31083	0.31083	0.010	-1.28127	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.46690	0.53908	0.53908	0.010	15.45909	30.00000	Averaged	
	60 Bromodichloromethane	0.42946	0.49227	0.49227	0.010	14.62515	30.00000	Averaged	
	59 Dibromomethane	0.18749	0.19572	0.19572	0.010	4.38906	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	405	250	0.04099	0.000	61.80880	30.00000	Linear	<-
	64 4-Methyl-2-pentanone	0.19796	0.17616	0.17616	0.010	-11.01484	40.00000	Averaged	
	63 cis-1,3-Dichloropropylene	0.49909	0.54365	0.54365	0.010	8.92827	30.00000	Averaged	
$	65 Toluene-d8	1.68167	1.79914	1.79914	0.010	6.98527	30.00000	Averaged	
	66 Toluene	0.96439	1.01548	1.01548	0.010	5.29754	20.00000	Averaged	ccc
	68 trans-1,3-Dichloropropylene	0.67167	0.74263	0.74263	0.010	10.56536	30.00000	Averaged	
	69 1,1,2-Trichloroethane	0.29796	0.29066	0.29066	0.010	-2.45017	30.00000	Averaged	
	71 2-Hexanone	0.55226	0.40625	0.40625	0.010	-26.43795	40.00000	Averaged	
	72 1,3-Dichloropropane	0.64273	0.62739	0.62739	0.010	-2.38623	30.00000	Averaged	
	70 Tetrachloroethylene	0.30803	0.32716	0.32716	0.010	6.21018	30.00000	Averaged	
	73 Dibromochloromethane	0.39459	0.43376	0.43376	0.010	9.92851	30.00000	Averaged	
	74 1,2-Dibromoethane	0.35160	0.35554	0.35554	0.010	1.12057	30.00000	Averaged	
	77 Chlorobenzene	1.01868	1.05831	1.05831	0.300	3.89025	30.00000	Averaged	spcc
	79 1,1,1,2-Tetrachloroethane	0.36870	0.40639	0.40639	0.010	10.22062	30.00000	Averaged	
	78 Ethylbenzene	1.92669	2.09789	2.09789	0.010	8.88523	20.00000	Averaged	ccc
	80 m,p-Xylenes	0.68306	0.73177	0.73177	0.010	7.13109	30.00000	Averaged	
	81 o-Xylene	0.67051	0.70887	0.70887	0.010	5.72198	30.00000	Averaged	
	82 Styrene	1.11978	1.24334	1.24334	0.010	11.03382	30.00000	Averaged	
	83 Bromoform	0.46660	0.53999	0.53999	0.100	15.73016	30.00000	Averaged	spcc
	84 Isopropylbenzene	3.39914	3.84212	3.84212	0.010	13.03217	30.00000	Averaged	
	88 1,1,2,2-Tetrachloroethane	0.84565	0.82723	0.82723	0.300	-2.17801	30.00000	Averaged	spcc
$	87 Bromofluorobenzene	1.25356	1.35665	1.35665	0.010	8.22361	30.00000	Averaged	
	92 1,2,3-Trichloropropane	0.24143	0.24563	0.24563	0.010	1.73924	30.00000	Averaged	
	91 Bromobenzene	0.81535	0.84793	0.84793	0.010	3.99575	30.00000	Averaged	
	89 n-Propylbenzene	4.15838	4.62425	4.62425	0.010	11.20315	30.00000	Averaged	
	94 2-Chlorotoluene	3.00922	3.28221	3.28221	0.010	9.07167	30.00000	Averaged	
	93 1,3,5-Trimethylbenzene	2.96733	3.39081	3.39081	0.010	14.27137	30.00000	Averaged	
	95 4-Chlorotoluene	2.72697	3.00401	3.00401	0.010	10.15924	30.00000	Averaged	
	96 tert-Butylbenzene	2.38074	2.62950	2.62950	0.010	10.44875	30.00000	Averaged	
	97 1,2,4-Trimethylbenzene	3.08424	3.39361	3.39361	0.010	10.03052	30.00000	Averaged	
	99 sec-Butylbenzene	3.77742	4.16508	4.16508	0.010	10.26262	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-MAR-2010 22:06
Lab File ID: 1c323.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100317-05 Quant Type: ISTD
Method: /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
100 4-Isopropyltoluene	2.94220	3.26324	3.26324	0.010	10.91136	30.00000	Averaged
101 1,3-Dichlorobenzene	1.58600	1.58220	1.58220	0.010	-0.23995	30.00000	Averaged
103 1,4-Dichlorobenzene	1.59809	1.60874	1.60874	0.010	0.66646	30.00000	Averaged
105 n-Butylbenzene	3.17694	3.52472	3.52472	0.010	10.94682	30.00000	Averaged
106 1,2-Dichlorobenzene	1.51488	1.49701	1.49701	0.010	-1.17963	30.00000	Averaged
108 1,2-Dibromo-3-chloropropane	0.16661	0.17515	0.17515	0.010	5.12626	30.00000	Averaged
109 1,2,4-Trichlorobenzene	1.17236	1.20818	1.20818	0.010	3.05473	30.00000	Averaged
110 Hexachlorobutadiene	0.71666	0.77832	0.77832	0.010	8.60500	30.00000	Averaged
111 Naphthalene	2.63897	2.41398	2.41398	0.010	-8.52553	30.00000	Averaged
112 1,2,3-Trichlorobenzene	1.06740	1.07127	1.07127	0.010	0.36263	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 9.37749
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c323.d
Lab Smp Id: W1VM100317-05 Client Smp ID: VSTD050
Inj Date : 17-MAR-2010 22:06
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |W1VM100317-05|BFB/CCV/LCS|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM1000305-01C/IVM100316-01
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 26-Mar-2010 18:02 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				1611667	150.000	160
M 2 1,2-Dichloroethylene (total)	96				593745	100.000	107
M 3 1,3-Dichloropropylene	75				1090946	100.000	110
5 Dichlorodifluoromethane	85	4.983	4.983	(0.364)	263500	50.0000	52.7
6 Chloromethane	50	5.535	5.535	(0.405)	362529	50.0000	41.8
7 Vinyl chloride	62	5.901	5.901	(0.432)	328283	50.0000	48.8
9 Bromomethane	96	6.934	6.934	(0.507)	201371	50.0000	50.6
10 Chloroethane	64	7.200	7.200	(0.527)	211577	50.0000	48.9
11 Trichlorofluoromethane	101	7.817	7.817	(0.572)	500028	50.0000	59.2
12 Ethyl Ether	59	8.466	8.466	(0.619)	263131	50.0000	47.3
16 Acetone	43	9.244	9.244	(0.676)	1072479	250.000	182
22 Acetonitrile	41	9.962	9.962	(0.729)	885566	1250.00	1020
15 1,1-Dichloroethylene	61	9.074	9.074	(0.664)	575498	50.0000	52.6
21 Methyl acetate	43	9.824	9.824	(0.719)	1085946	250.000	209
18 Iodomethane	142	9.451	9.451	(0.691)	2038001	250.000	252
23 Methylene chloride	84	10.128	10.128	(0.741)	308914	50.0000	51.8

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	19 Carbon disulfide	76	9.553	9.553	(0.699)	4521636	250.000	272
	25 tert-Butyl methyl ether	73	10.427	10.427	(0.763)	956138	50.0000	51.8
	26 trans-1,2-Dichloroethylene	96	10.533	10.533	(0.770)	286396	50.0000	53.5
	29 Vinyl acetate	43	11.279	11.279	(0.825)	3286794	250.000	275
	30 1,1-Dichloroethane	63	11.306	11.306	(0.827)	601008	50.0000	52.2
	35 2-Butanone	43	12.172	12.172	(0.890)	1121574	250.000	180
	36 cis-1,2-Dichloroethylene	96	12.190	12.190	(0.892)	307349	50.0000	53.3
	33 2,2-Dichloropropane	77	12.149	12.149	(0.889)	448567	50.0000	61.3
	41 Chloroform	83	12.600	12.600	(0.922)	633395	50.0000	55.2
	39 Bromochloromethane	128	12.549	12.549	(0.918)	131163	50.0000	50.2
	43 1,1,1-Trichloroethane	97	12.835	12.835	(0.939)	515758	50.0000	60.4
	42 Cyclohexane	56	12.830	12.830	(0.938)	585787	50.0000	53.5
	45 1,1-Dichloropropene	75	13.037	13.037	(0.954)	476263	50.0000	57.5
	53 n-Butyl alcohol	56	13.921	13.921	(1.018)	1007440	5000.00	5000
	44 Carbon tetrachloride	117	13.010	13.010	(0.952)	506064	50.0000	62.0
$	48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	565482	50.0000	58.3
	51 1,2-Dichloroethane	62	13.428	13.428	(0.982)	534949	50.0000	52.2
	47 Benzene	78	13.323	13.323	(0.974)	1185099	50.0000	52.1
	50 Cyclohexene	54	13.382	13.382	(0.979)	440406	50.0000	52.0
*	52 Fluorobenzene	96	13.672	13.672	(1.000)	993293	50.0000	
	54 Trichloroethylene	95	14.105	14.105	(1.032)	325750	50.0000	55.5
	57 1,2-Dichloropropane	63	14.446	14.446	(1.057)	308744	50.0000	49.4
	55 Methylcyclohexane	83	14.271	14.271	(1.044)	535468	50.0000	57.7
	60 Bromodichloromethane	83	14.740	14.740	(1.078)	488968	50.0000	57.3
	59 Dibromomethane	93	14.616	14.616	(1.069)	194409	50.0000	52.2
	61 2-Chloroethylvinyl ether	63	15.016	15.016	(1.098)	203554	250.000	404
	64 4-Methyl-2-pentanone	58	15.348	15.348	(0.895)	653437	250.000	222
	63 cis-1,3-Dichloropropylene	75	15.247	15.247	(1.115)	540002	50.0000	54.5
$	65 Toluene-d8	98	15.504	15.504	(0.904)	1334747	50.0000	53.5
	66 Toluene	92	15.583	15.583	(0.909)	753363	50.0000	52.6
	68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	550944	50.0000	55.3
	69 1,1,2-Trichloroethane	83	16.094	16.094	(0.939)	215633	50.0000	48.8
	71 2-Hexanone	43	16.255	16.255	(0.948)	1506963	250.000	184
	72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	465449	50.0000	48.8
	70 Tetrachloroethylene	164	16.181	16.181	(0.944)	242717	50.0000	53.1
	73 Dibromochloromethane	129	16.535	16.535	(0.964)	321800	50.0000	55.0
	74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	263771	50.0000	50.6
*	76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	741882	50.0000	
	77 Chlorobenzene	112	17.184	17.184	(1.002)	785138	50.0000	51.9
	79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	301490	50.0000	55.1
	78 Ethylbenzene	91	17.207	17.207	(1.003)	1556384	50.0000	54.4
	80 m,p-Xylenes	106	17.323	17.323	(1.010)	1085767	100.000	107
	81 o-Xylene	106	17.769	17.769	(1.036)	525900	50.0000	52.9
	82 Styrene	104	17.792	17.792	(1.038)	922411	50.0000	55.5
	83 Bromoform	173	18.096	18.096	(0.923)	218548	50.0000	57.9
	84 Isopropylbenzene	105	18.114	18.114	(0.924)	1555001	50.0000	56.5
	88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	334802	50.0000	48.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	549070	50.0000	54.1
92 1,2,3-Trichloropropane	110	18.593	18.593	(0.949)	99413	50.0000	50.9
91 Bromobenzene	156	18.579	18.579	(0.948)	343178	50.0000	52.0
89 n-Propylbenzene	91	18.547	18.547	(0.946)	1871551	50.0000	55.6
94 2-Chlorotoluene	91	18.731	18.731	(0.956)	1328392	50.0000	54.5
93 1,3,5-Trimethylbenzene	105	18.703	18.703	(0.954)	1372346	50.0000	57.1
95 4-Chlorotoluene	91	18.842	18.842	(0.961)	1215796	50.0000	55.1
96 tert-Butylbenzene	119	19.062	19.062	(0.973)	1064225	50.0000	55.2
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	1373477	50.0000	55.0
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1685712	50.0000	55.1
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	1320713	50.0000	55.4
101 1,3-Dichlorobenzene	146	19.527	19.527	(0.996)	640354	50.0000	49.9
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	404725	50.0000	
103 1,4-Dichlorobenzene	146	19.629	19.629	(1.002)	651096	50.0000	50.3
105 n-Butylbenzene	91	19.854	19.854	(1.013)	1426542	50.0000	55.5
106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	605877	50.0000	49.4
108 1,2-Dibromo-3-chloropropane	157	20.991	20.991	(1.071)	70886	50.0000	52.6
109 1,2,4-Trichlorobenzene	180	22.008	22.008	(1.123)	488979	50.0000	51.5
110 Hexachlorobutadiene	225	22.091	22.091	(1.127)	315007	50.0000	54.3
111 Naphthalene	128	22.414	22.414	(1.144)	976998	50.0000	45.7
112 1,2,3-Trichlorobenzene	180	22.768	22.768	(1.162)	433570	50.0000	50.2

Data File: /chem/VOA1.i/031710v1/1c323.d
Date : 17-MAR-2010 22:06
Client ID: VSTD050
Sample Info: IW1VM100317-05|BFB/CCV/LCS|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

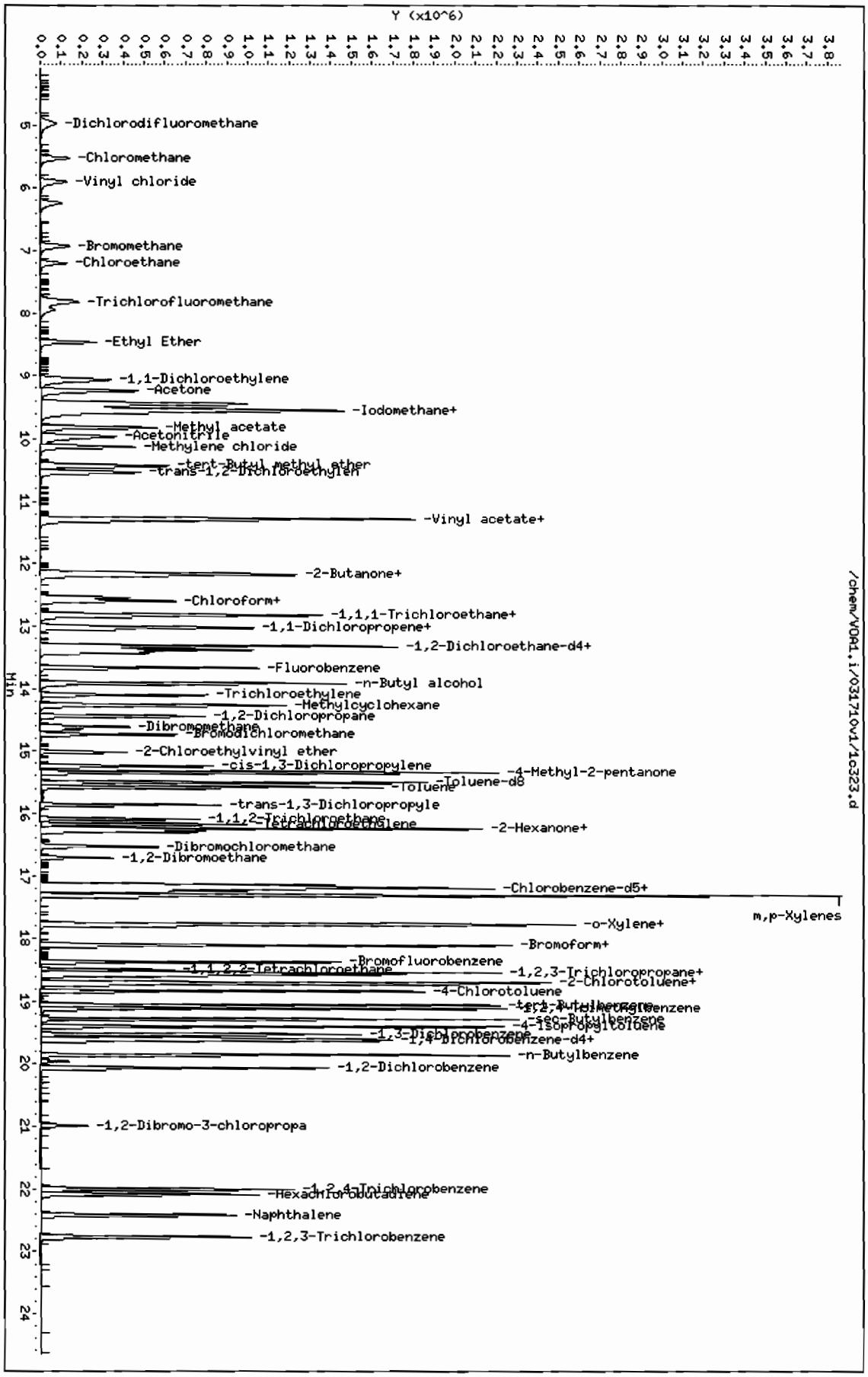

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-MAR-2010 23:07
Lab File ID: 1c325.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: UVM100304-08A Quant Type: ISTD
Method: /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
13 Acrolein	0.05720	0.04778	0.04778	0.001	-16.48031	30.00000	Averaged
14 Trichlorotrifluoroethane	0.23998	0.21773	0.21773	0.030	-9.27179	30.00000	Averaged
20 Allyl chloride	237	250	0.10378	0.010	-5.04664	30.00000	Linear
27 Acrylonitrile	0.11119	0.09219	0.09219	0.010	-17.08916	30.00000	Averaged
31 2-Chloro-1,3-butadiene	0.45317	0.49551	0.49551	0.010	9.34386	30.00000	Averaged
37 Propionitrile	0.04574	0.03551	0.03551	0.010	-22.37362	30.00000	Averaged
34 Ethyl acetate	0.30964	0.22388	0.22388	0.010	-27.69624	40.00000	Averaged
40 Methacrylonitrile	0.24107	0.19107	0.19107	0.010	-20.74252	30.00000	Averaged
38 Tetrahydrofuran	0.25622	0.18194	0.18194	0.010	-28.99185	30.00000	Averaged
46 Isobutyl alcohol	0.01179	0.00905	0.00905	0.001	-23.25254	40.00000	Averaged
56 Methyl methacrylate	0.18476	0.16909	0.16909	0.010	-8.47975	30.00000	Averaged
67 Ethyl methacrylate	0.48324	0.44975	0.44975	0.010	-6.92888	30.00000	Averaged
58 1,4-Dioxane	0.00273	0.00222	0.00222	0.001	-18.54285	40.00000	Averaged
62 2-Nitropropane	214	250	0.09227	0.000	-14.57840	30.00000	Linear
85 cis-1,4-Dichloro-2-butene	0.30111	0.30334	0.30334	0.010	0.74076	30.00000	Averaged
86 Cyclohexanone	0.02440	0.01412	0.01412	0.010	-42.13741	40.00000	Averaged <-
90 trans-1,4-Dichloro-2-butene	0.28111	0.28317	0.28317	0.010	0.73353	30.00000	Averaged
98 Pentachloroethane	461	250	0.44100	0.010	84.35075	30.00000	Linear <-
104 Benzyl chloride	1.28813	1.59387	1.59387	0.010	23.73550	30.00000	Averaged
107 bis(2-Chloroisopropyl)ether	0.44594	0.34023	0.34023	0.010	-23.70428	30.00000	Averaged
$ 48 1,2-Dichloroethane-d4	0.48820	0.48476	0.48476	0.010	-0.70580	30.00000	Averaged
$ 65 Toluene-d8	1.68167	1.72597	1.72597	0.010	2.63422	30.00000	Averaged
$ 87 Bromofluorobenzene	1.25356	1.31007	1.31007	0.010	4.50784	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 9.37749
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c325.d
Lab Smp Id: UVM100304-08A Client Smp ID: VSTD250S
Inj Date : 17-MAR-2010 23:07
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |UVM100304-08A|SHORT/SLCS|1|VOAF|1|
Misc Info : GEL 5mL N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 26-Mar-2010 18:02 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
13 Acrolein	56	8.945	8.945	(0.654)	241996	250.000	209
14 Trichlorotrifluoroethane	101	8.959	8.959	(0.655)	1102812	250.000	227
20 Allyl chloride	76	9.833	9.833	(0.719)	525680	250.000	237
27 Acrylonitrile	53	10.657	10.657	(0.779)	466951	250.000	207
31 2-Chloro-1,3-butadiene	53	11.380	11.380	(0.832)	501968	50.0000	54.7
37 Propionitrile	54	12.388	12.388	(0.906)	179860	250.000	194
34 Ethyl acetate	43	12.153	12.153	(0.889)	1134000	250.000	181
40 Methacrylonitrile	41	12.549	12.549	(0.918)	967770	250.000	198
38 Tetrahydrofuran	42	12.526	12.526	(0.639)	381301	250.000	178
46 Isobutyl alcohol	41	13.097	13.097	(0.958)	458211	2500.00	1920
56 Methyl methacrylate	69	14.427	14.427	(1.055)	856474	250.000	229
67 Ethyl methacrylate	69	15.799	15.799	(0.921)	1717948	250.000	233
58 1,4-Dioxane	88	14.533	14.533	(1.063)	112547	2500.00	2040
62 2-Nitropropane	43	15.067	15.067	(1.102)	467364	250.000	214
85 cis-1,4-Dichloro-2-butene	53	18.261	18.261	(0.932)	635731	250.000	252
86 Cyclohexanone	55	18.377	18.377	(1.072)	269625	1250.00	723

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
90 trans-1,4-Dichloro-2-butene	53	18.556	18.556	(0.947)	593470	250.000	252
98 Pentachloroethane	167	19.187	19.187	(0.979)	924247	250.000	461(A)
104 Benzyl chloride	91	19.757	19.757	(1.008)	3340437	250.000	309
107 bis(2-Chloroisopropyl)ether	45	20.149	20.149	(1.028)	713059	250.000	191
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	1013025	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	763950	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	419160	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	491073	50.0000	49.6
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1318552	50.0000	51.3
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	549129	50.0000	52.2

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/031710v1/1c325.d
Date : 17-MAR-2010 23:07
Client ID: VSTD250S
Sample Info: IUVH100304-08A|SHORT/SLCS1|VOAF1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

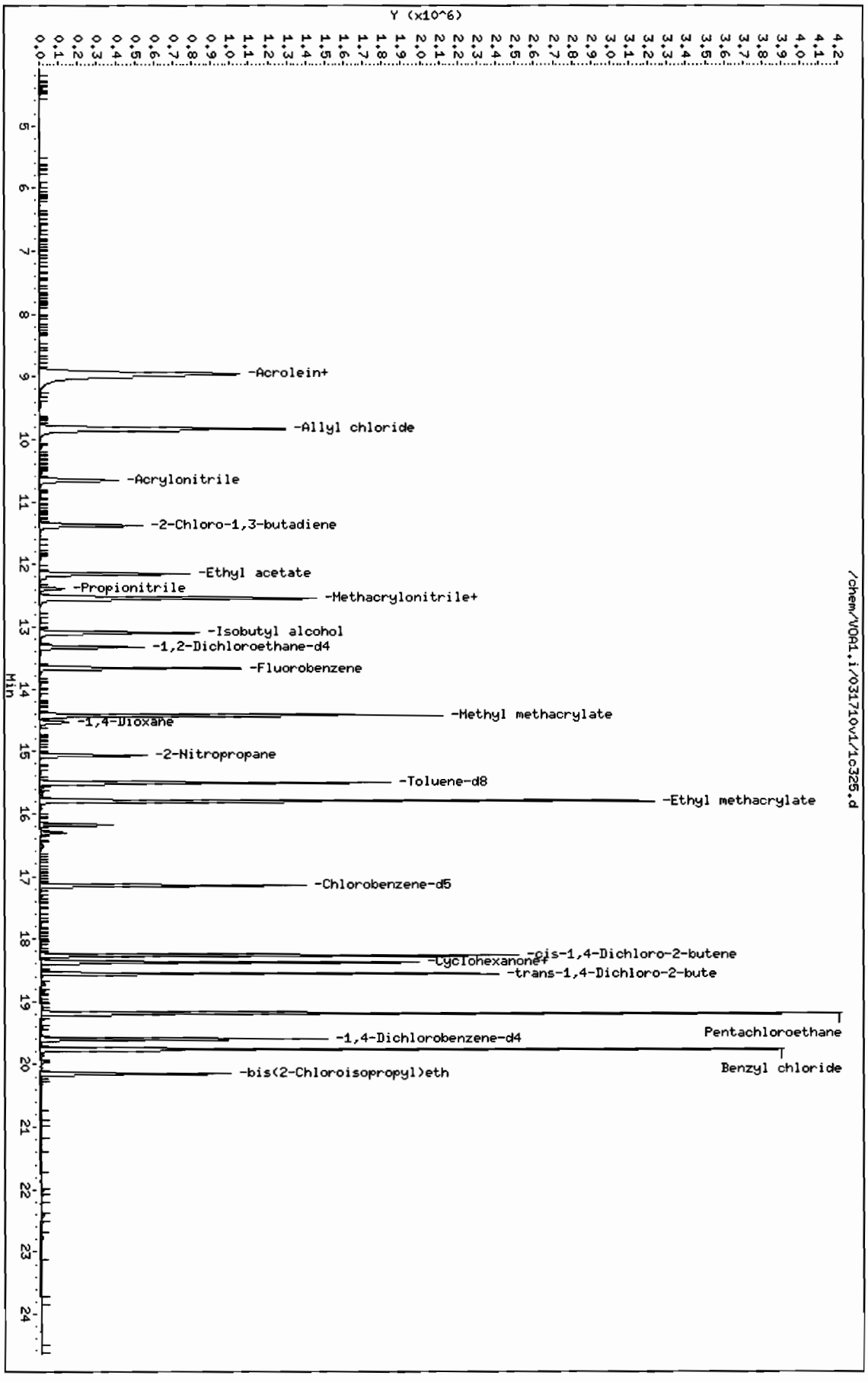

Page 1

QC Data

Data File: /chem/VOA1.i/030410v1/1a411.d

Date : 04-MAR-2010 16:41

Client ID: BFB01

Instrument: VOA1.i

Sample Info: !UVM100203-02!BFB01!1!VOAF!1!

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

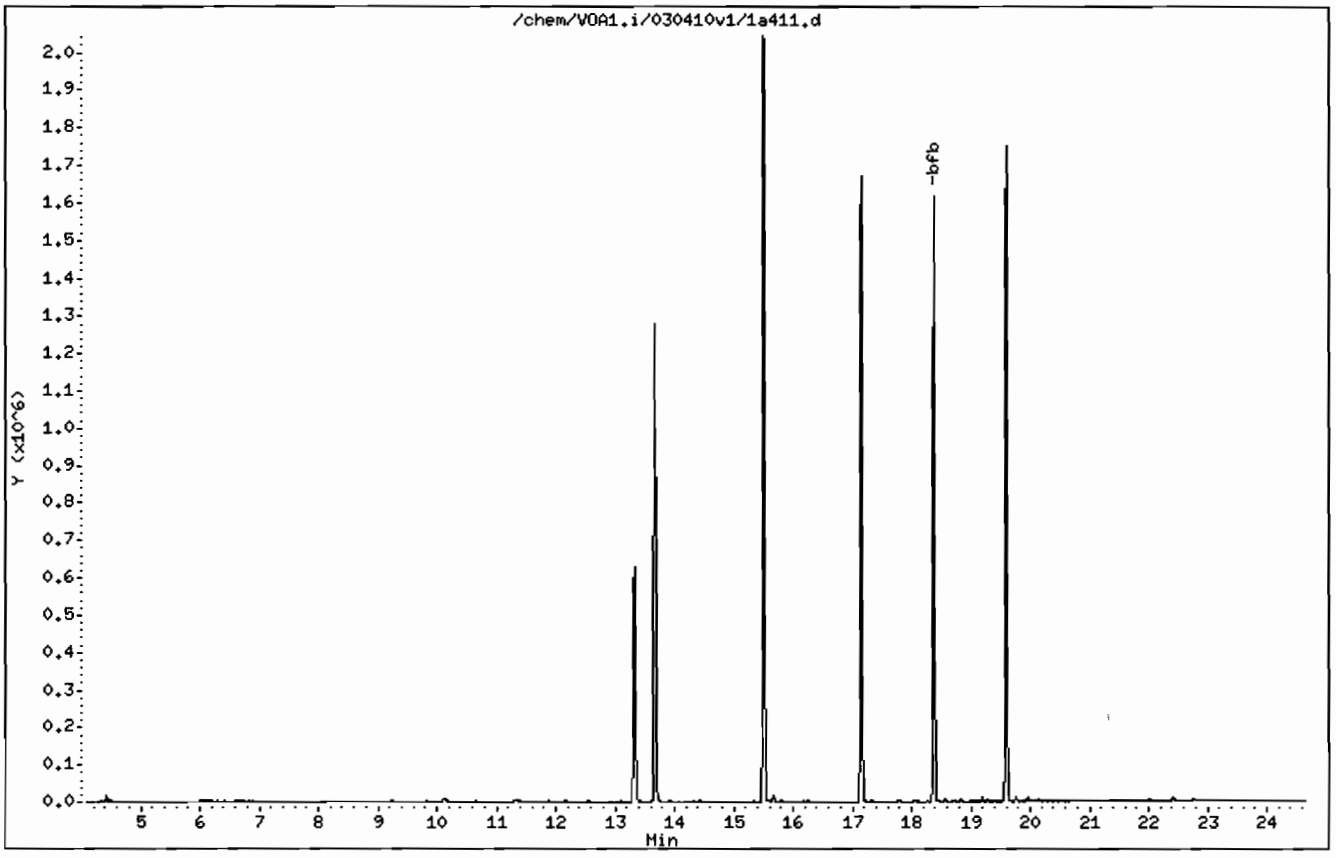

Data File: /chem/VOA1.i/030410v1/1a411.d

Date : 04-MAR-2010 16:41

Client ID: BFB01 Instrument: VOA1.i

Sample Info: |UVM100203-02|BFB01|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

1 bfb

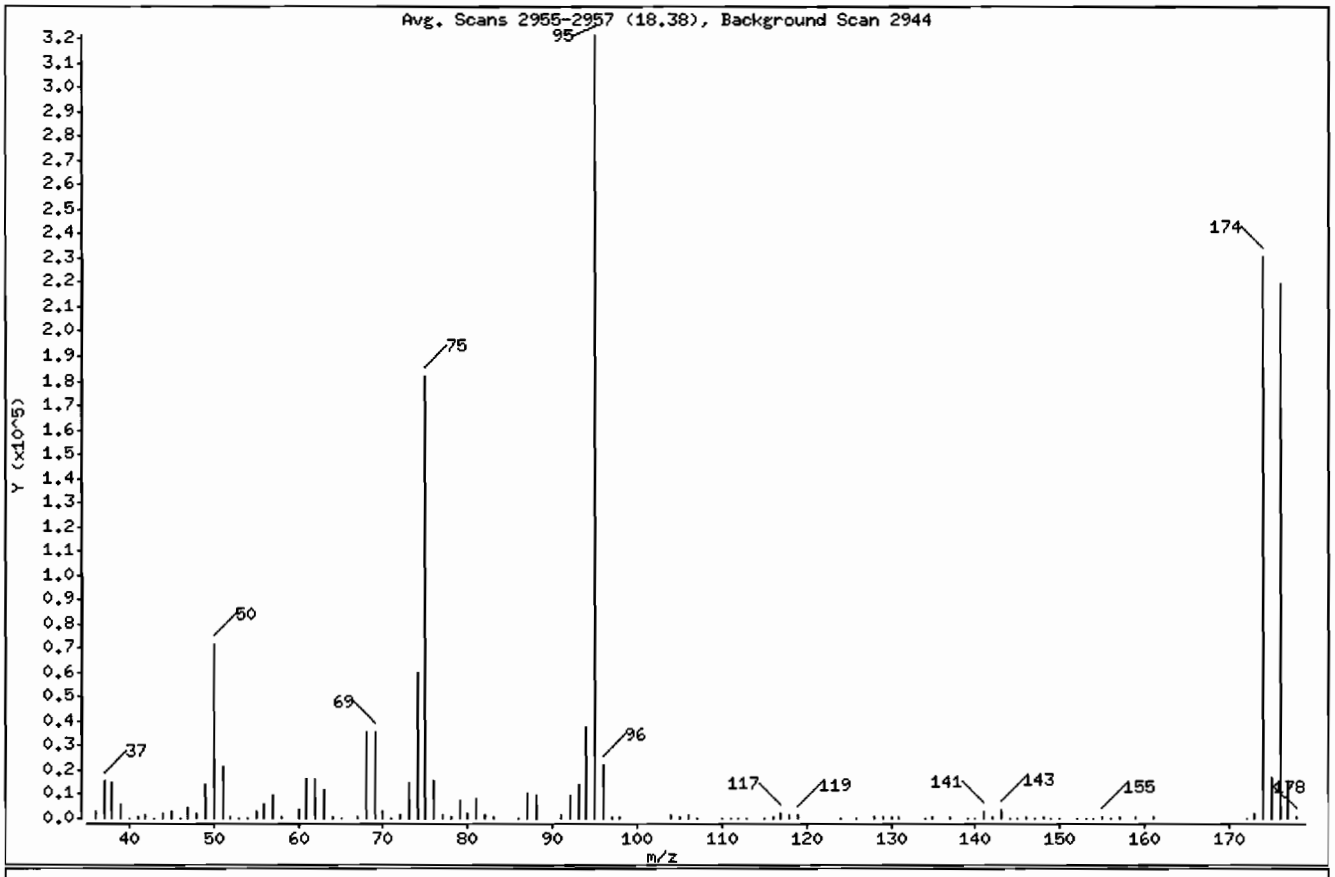

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.19
75	30.00 - 60.00% of mass 95	56.54
96	5.00 - 9.00% of mass 95	6.82
173	Less than 2.00% of mass 174	0.62 (0.86)
174	50.00 - 100.00% of mass 95	71.68
175	5.00 - 9.00% of mass 174	5.29 (7.37)
176	95.00 - 101.00% of mass 174	68.26 (95.22)
177	5.00 - 9.00% of mass 176	4.67 (6.84)

Data File: /chem/VOA1.i/030410v1/1a411.d

Date : 04-MAR-2010 16:41

Client ID: BFB01 Instrument: VOA1.i

Sample Info: |UVM100203-02|BFB01|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

Data File: 1a411.d
Spectrum: Avg. Scans 2955-2957 (18.38), Background Scan 2944
Location of Maximum: 95.00
Number of points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3252	64.00	1002	96.00	21928	141.00	3275
37.00	15572	65.00	151	97.00	684	142.00	452
38.00	14638	67.00	722	98.00	764	143.00	3350
39.00	6262	68.00	35600	104.00	1360	144.00	197
40.00	321	69.00	35720	105.00	511	145.00	327
41.00	477	70.00	2977	106.00	1216	146.00	439
42.00	1424	71.00	60	107.00	263	147.00	330
43.00	352	72.00	1701	110.00	109	148.00	888
44.00	1931	73.00	15015	111.00	277	149.00	183
45.00	2969	74.00	60064	112.00	125	150.00	338
46.00	158	75.00	181824	113.00	185	152.00	207
47.00	4691	76.00	15418	115.00	327	153.00	238
48.00	1850	77.00	1617	116.00	1071	154.00	133
49.00	13884	78.00	1067	117.00	1864	155.00	781
50.00	71368	79.00	7566	118.00	1148	156.00	51
51.00	21760	80.00	2438	119.00	1609	157.00	626
52.00	955	81.00	8436	124.00	161	159.00	370
53.00	76	82.00	1645	126.00	67	161.00	414
54.00	259	83.00	381	128.00	1053	172.00	188
55.00	2630	86.00	361	129.00	495	173.00	1978
56.00	5595	87.00	9988	130.00	1095	174.00	230528
57.00	9504	88.00	9653	131.00	434	175.00	17000
58.00	429	91.00	1151	134.00	69	176.00	219520
60.00	3442	92.00	9649	135.00	445	177.00	15017
61.00	16203	93.00	13946	137.00	440	178.00	465
62.00	16166	94.00	37880	139.00	135		
63.00	11877	95.00	321600	140.00	236		

Data File: /chem/VOA1.i/030410v1/1a502BFB.d

Date : 05-MAR-2010 10:31

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |W1VM100305-01|BFB/ICV/CCV/LCS|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

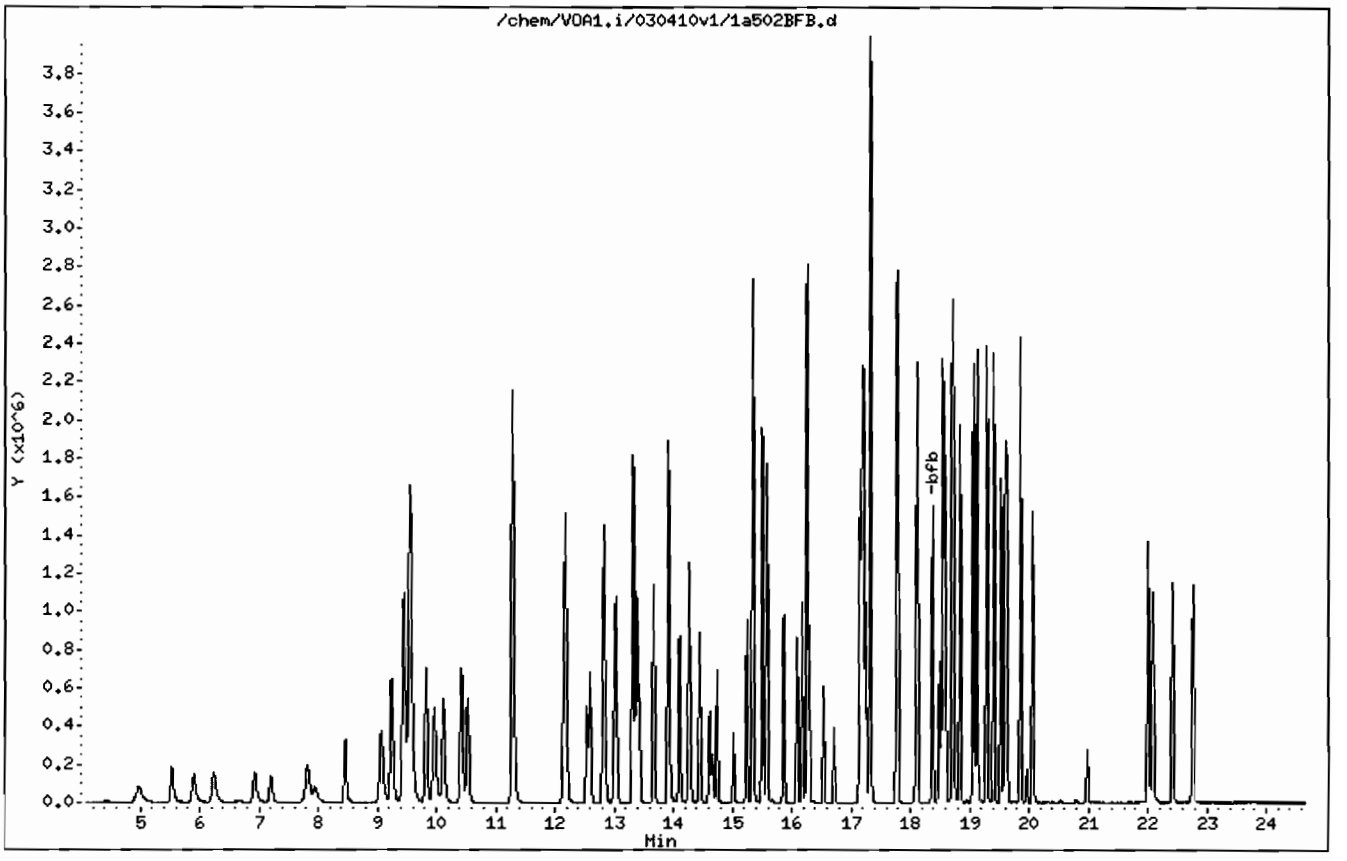

Data File: /chem/VOA1.i/030410v1/1a502BFB.d

Date : 05-MAR-2010 10:31

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |W1VM100305-01|BFB/ICV/CCV/LCS|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

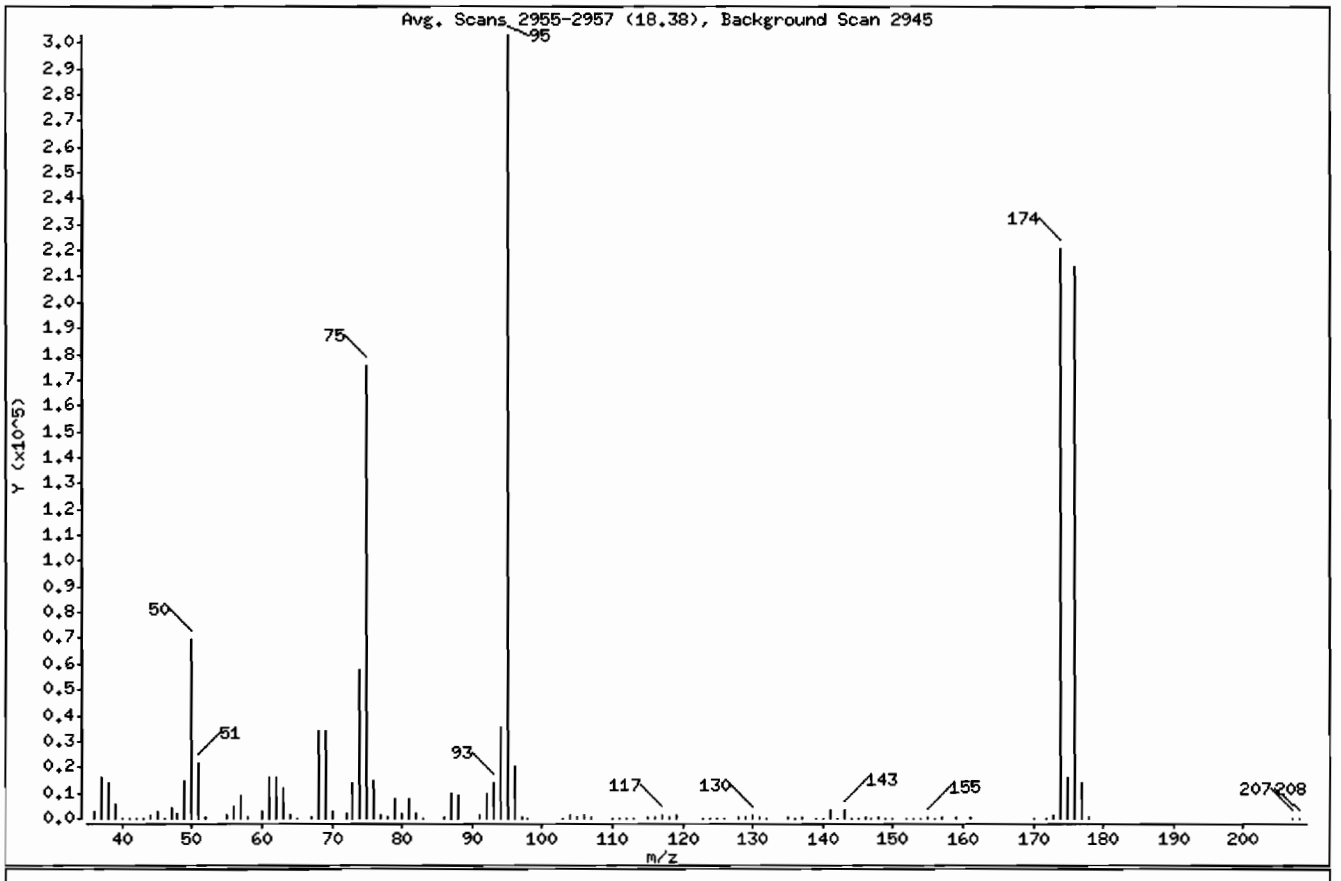

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.94
75	30.00 - 60.00% of mass 95	57.86
96	5.00 - 9.00% of mass 95	6.68
173	Less than 2.00% of mass 174	0.57 (0.79)
174	50.00 - 100.00% of mass 95	72.77
175	5.00 - 9.00% of mass 174	5.40 (7.42)
176	95.00 - 101.00% of mass 174	70.57 (96.98)
177	5.00 - 9.00% of mass 176	4.69 (6.65)

Data File: /chem/VOA1.i/030410v1/1a502BFB.d

Date : 05-MAR-2010 10:31

Client ID: BFB01 Instrument: VOA1.i

Sample Info: |W1VM100305-01|BFB/ICV/CCV/LCS|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles Column diameter: 0.25

Data File: 1a502BFB.d

Spectrum: Avg. Scans 2955-2957 (18.38), Background Scan 2945

Location of Maximum: 95.00

Number of points: 110

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2700	68.00	34160	105.00	576	143.00	3184
37.00	15903	69.00	34136	106.00	1250	144.00	226
38.00	13600	70.00	2594	107.00	391	145.00	331
39.00	5678	72.00	1760	110.00	184	146.00	429
40.00	18	73.00	14242	111.00	283	147.00	194
41.00	234	74.00	57680	112.00	86	148.00	598
42.00	316	75.00	175296	113.00	241	149.00	175
43.00	234	76.00	14596	115.00	370	150.00	288
44.00	1370	77.00	1460	116.00	973	152.00	186
45.00	2758	78.00	926	117.00	1708	153.00	151
46.00	201	79.00	7638	118.00	1043	154.00	115
47.00	3992	80.00	2309	119.00	1382	155.00	816
48.00	1892	81.00	7551	123.00	67	156.00	53
49.00	14691	82.00	1743	124.00	227	157.00	590
50.00	69512	83.00	212	125.00	75	159.00	435
51.00	21264	86.00	435	126.00	68	161.00	403
52.00	822	87.00	9645	128.00	909	170.00	55
55.00	1295	88.00	8766	129.00	455	172.00	217
56.00	5028	91.00	1143	130.00	1098	173.00	1733
57.00	8837	92.00	9719	131.00	473	174.00	220480
58.00	414	93.00	14084	132.00	53	175.00	16349
60.00	3066	94.00	35688	135.00	616	176.00	213824
61.00	16228	95.00	302976	136.00	73	177.00	14224
62.00	16261	96.00	20248	137.00	501	178.00	490
63.00	11722	97.00	594	139.00	112	207.00	66
64.00	1188	98.00	122	140.00	119	208.00	70
65.00	151	103.00	115	141.00	3164		
67.00	865	104.00	1261	142.00	316		

Data File: /chem/VOA1.i/031710v1/1c323BFB.d

Date : 17-MAR-2010 22:06

Client ID: BFB01

Instrument: VOA1.i

Sample Info: IW1VM100317-05|CCV|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

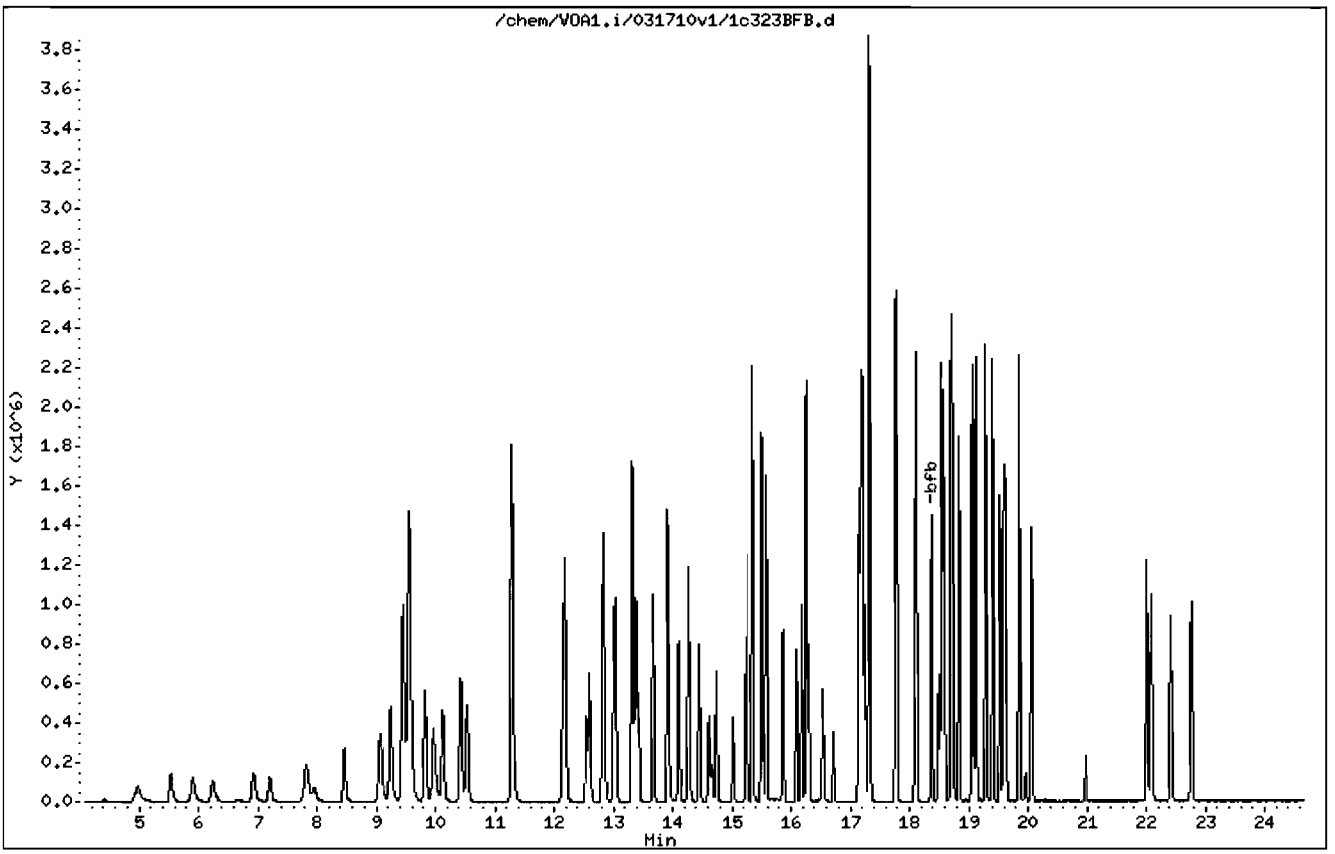

Data File: /chem/VOA1.i/031710v1/1c323BFB.d

Date : 17-MAR-2010 22:06

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |W1VM100317-05|CCV|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

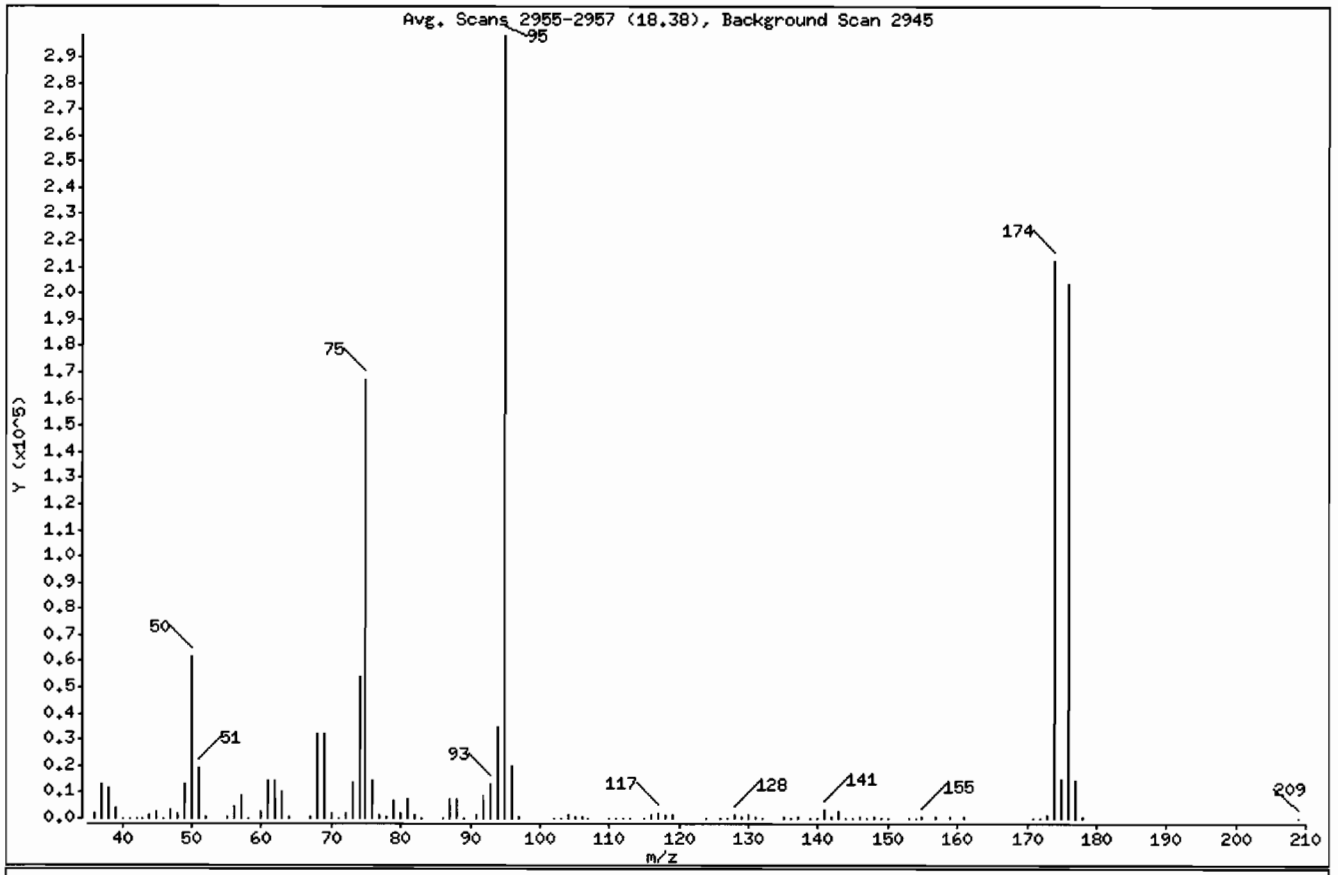

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.79
75	30.00 - 60.00% of mass 95	56.19
96	5.00 - 9.00% of mass 95	6.72
173	Less than 2.00% of mass 174	0.39 (0.55)
174	50.00 - 100.00% of mass 95	71.20
175	5.00 - 9.00% of mass 174	5.06 (7.11)
176	95.00 - 101.00% of mass 174	68.38 (96.05)
177	5.00 - 9.00% of mass 176	4.72 (6.90)

Data File: /chem/VOA1.i/031710v1/1c323BFB.d

Date : 17-MAR-2010 22:06

Client ID: BFB01 Instrument: VOA1.i

Sample Info: IW1VM100317-05ICCVI1IVOAFI1I

Operator: GRB2

Column phase: RTX-Volatiles Column diameter: 0.25

Data File: 1c323BFB.d
Spectrum: Avg. Scans 2955-2957 (18.38), Background Scan 2945
Location of Maximum: 95.00
Number of points: 107

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2372	68.00	31936	102.00	57	140.00	185
37.00	13323	69.00	32536	103.00	62	141.00	3121
38.00	11418	70.00	2301	104.00	1095	142.00	395
39.00	4228	71.00	51	105.00	495	143.00	2955
40.00	100	72.00	1774	106.00	944	144.00	122
41.00	57	73.00	13425	107.00	257	145.00	198
42.00	70	74.00	53936	110.00	67	146.00	469
43.00	133	75.00	167552	111.00	251	147.00	139
44.00	1416	76.00	14120	112.00	75	148.00	784
45.00	2665	77.00	1178	113.00	255	149.00	263
46.00	123	78.00	872	115.00	209	150.00	319
47.00	3184	79.00	6857	116.00	1070	153.00	185
48.00	2106	80.00	2031	117.00	1754	154.00	240
49.00	12884	81.00	7342	118.00	1063	155.00	759
50.00	61976	82.00	1359	119.00	1449	157.00	494
51.00	19056	83.00	235	124.00	114	159.00	398
52.00	928	86.00	181	126.00	256	161.00	411
55.00	716	87.00	7833	127.00	50	171.00	54
56.00	4576	88.00	7577	128.00	1271	172.00	119
57.00	8648	89.00	291	129.00	466	173.00	1172
58.00	322	91.00	1136	130.00	1060	174.00	212288
60.00	2929	92.00	8753	131.00	419	175.00	15096
61.00	14615	93.00	12878	132.00	52	176.00	203904
62.00	14285	94.00	35128	135.00	665	177.00	14075
63.00	10420	95.00	298176	136.00	64	178.00	356
64.00	870	96.00	20024	137.00	395	209.00	61
67.00	872	97.00	607	139.00	55		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**			**Matrix:**	**MISC SOLID**
Lab Sample ID:	**1202073204**				
Client Sample:	**QC for batch 966067**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966067**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 00:08**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 21:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**Ic327bl.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**			**Matrix:**	**MISC SOLID**
Lab Sample ID:	**1202073204**				
Client Sample:	**QC for batch 966067**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966067**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1J**	**Dilution:**	**1**
Run Date:	**03/18/2010 00:08**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 21:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c327bl.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c327b1.d
Lab Smp Id: 1202073204 Client Smp ID: BLANK
Inj Date : 18-MAR-2010 00:08
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202073204|966068|1|VOAF|1|
Misc Info : GEL 5mL N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 27 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	489306	50.3344	50.3
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	995598	50.0000	
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1278804	51.6094	51.6
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	736724	50.0000	
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	529082	53.5946	53.6
98 Pentachloroethane	167	19.191	19.187	(0.979)	1467	14.6717	14.7
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	393755	50.0000	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c327bl.d
Lab Smp Id: 1202073204 Client Smp ID: BLANK
Inj Date : 18-MAR-2010 00:08
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202073204|966068|1|VOAF|1|
Misc Info : GEL 5mL N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 27 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/031710v1/1c327bl.d
Date : 18-MAR-2010 00:08
Client ID: BLANK
Sample Info: |1202073204|966068|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2
Column diameter: 0.25

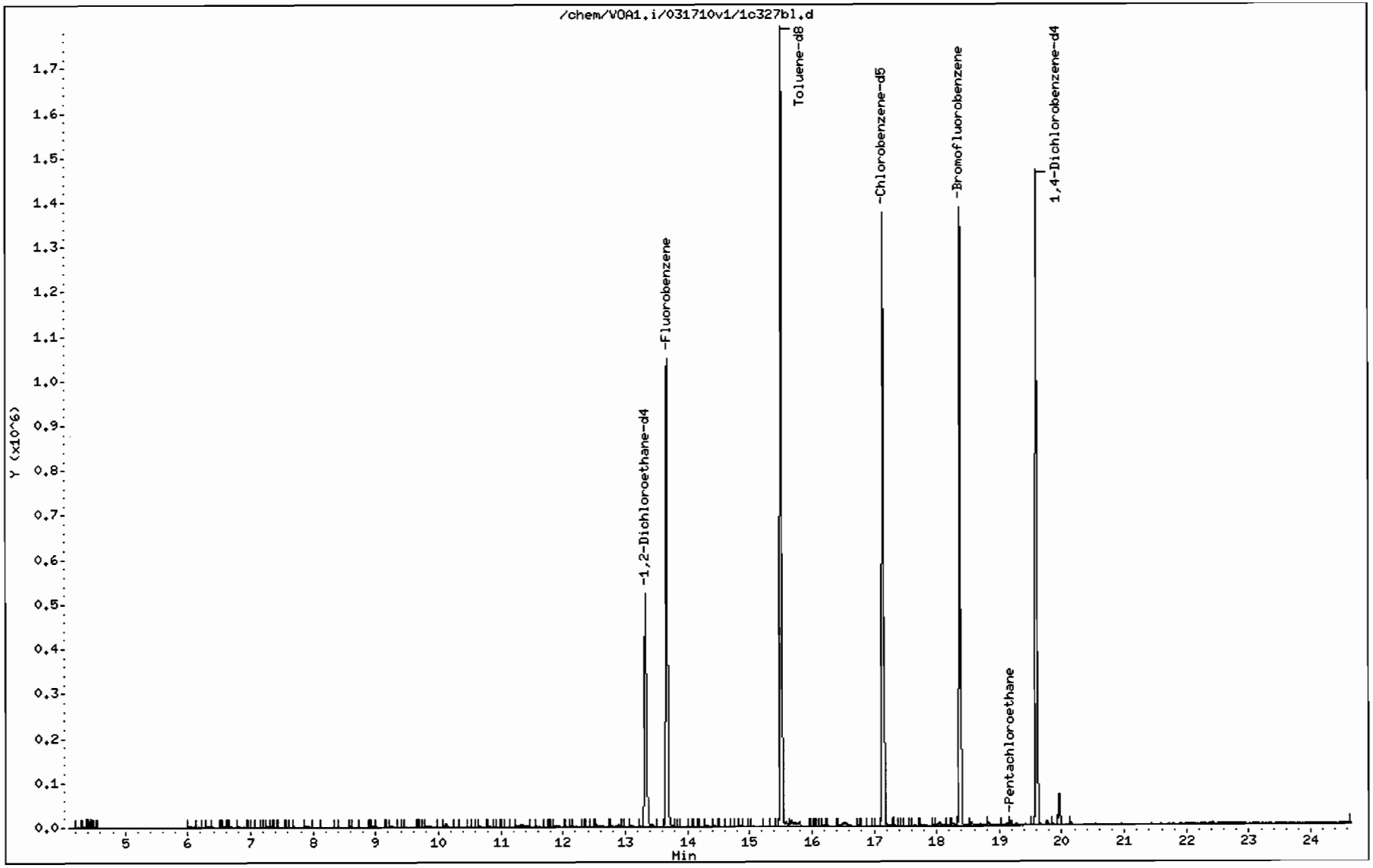

Data File: /chem/VOA1.i/031710v1/1c327bl.d

Date : 18-MAR-2010 00:08

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202073204|966068|1|VOAF|1|

Purge Volume: 5.0

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

98 Pentachloroethane

Concentration: 14.7 ug/l

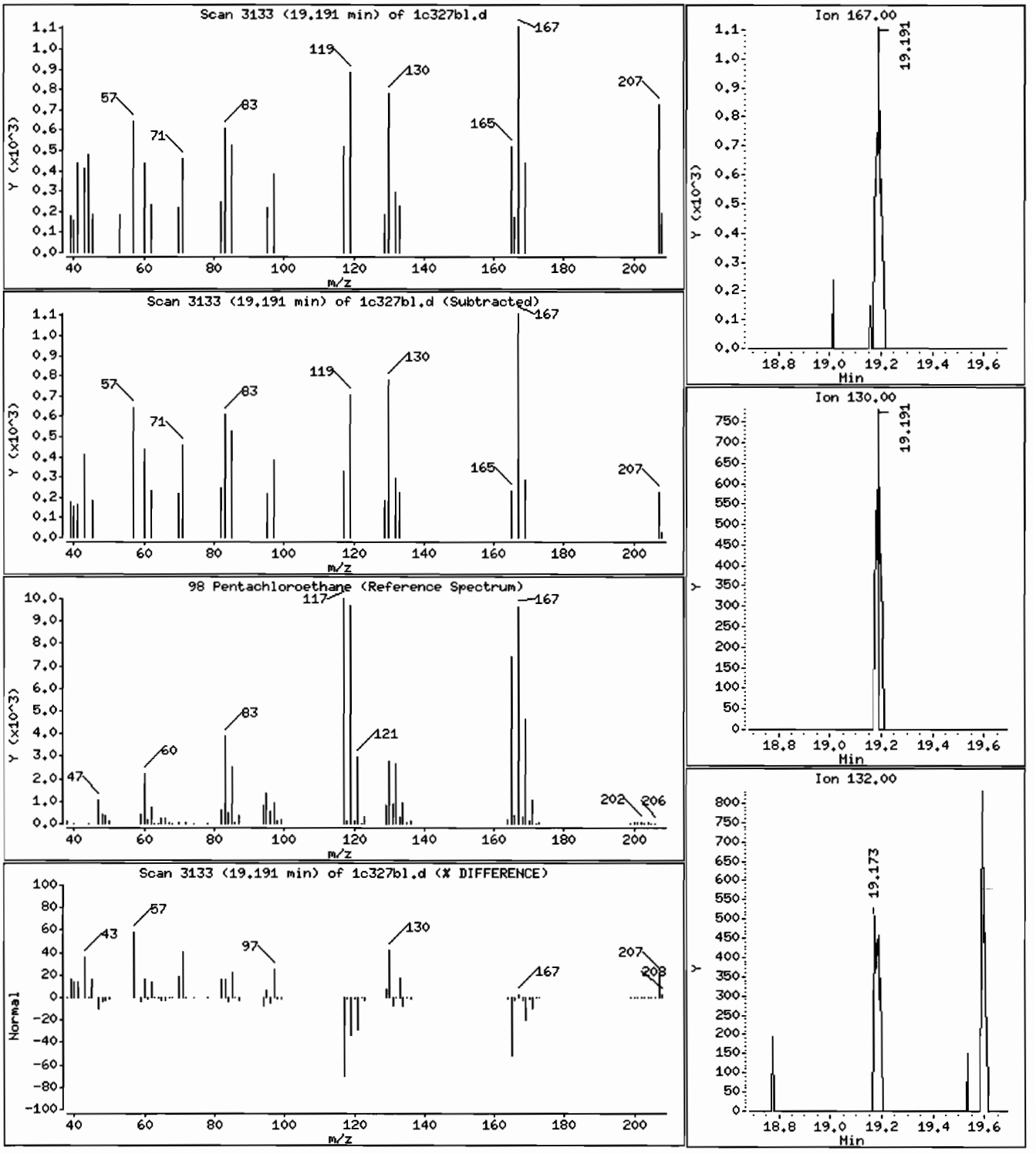

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**			**Matrix:**	**MISC SOLID**
Lab Sample ID:	**1202073206**				
Client Sample:	**QC for batch 966067**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966067**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 22:37**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 21:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c324ll.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		48.7	ug/kg	0.340	1.00
74-87-3	Chloromethane		38.4	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		43.3	ug/kg	0.300	1.00
74-83-9	Bromomethane		46.7	ug/kg	0.300	1.00
75-00-3	Chloroethane		45.3	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		55.1	ug/kg	0.300	1.00
67-64-1	Acetone		172	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		48.9	ug/kg	0.300	1.00
74-88-4	Iodomethane		236	ug/kg	1.60	5.00
75-09-2	Methylene chloride		48.7	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		255	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		49.7	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		47.7	ug/kg	0.300	1.00
78-93-3	2-Butanone		171	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		49.0	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		54.7	ug/kg	0.300	1.00
67-66-3	Chloroform		50.6	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		47.4	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		54.5	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		52.8	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		56.7	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		48.7	ug/kg	0.300	1.00
71-43-2	Benzene		48.2	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		50.7	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		46.6	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		53.1	ug/kg	0.300	1.00
74-95-3	Dibromomethane		48.5	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		213	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		51.6	ug/kg	0.300	1.00
108-88-3	Toluene		49.0	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		52.1	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		46.7	ug/kg	0.300	1.00
591-78-6	2-Hexanone		177	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		45.5	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		48.8	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		51.9	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		47.5	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		48.5	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**			**Matrix:**	**MISC SOLID**
Lab Sample ID:	**1202073206**				
Client Sample:	**QC for batch 966067**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966067**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 22:37**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 21:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c324ll.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		50.6	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		99.8	ug/kg	0.300	2.00
95-47-6	o-Xylene		49.0	ug/kg	0.300	1.00
100-42-5	Styrene		51.8	ug/kg	0.300	1.00
75-25-2	Bromoform		53.6	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		45.7	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		46.9	ug/kg	0.300	1.00
108-86-1	Bromobenzene		46.9	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		50.1	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		49.5	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		50.5	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		51.6	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		49.5	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		49.6	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		49.9	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		49.8	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		50.1	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		46.1	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		46.2	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		50.3	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		49.4	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		51.3	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		45.8	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c32411.d
Lab Smp Id: 1202073206 Client Smp ID: LCS
Inj Date : 17-MAR-2010 22:37
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202073206|966068|1|VOAF|1|
Misc Info : GEL 5g N/A UVM100305-01C/IVM100316-01
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 24 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
M 1 Xylenes (total)	106				1566071	148.811	149
M 2 1,2-Dichloroethylene (total)	96				575285	98.6126	98.6
M 3 1,3-Dichloropropylene	75				1079483	103.681	104
5 Dichlorodifluoromethane	85	4.990	4.983	(0.365)	255641	48.7088	48.7
6 Chloromethane	50	5.535	5.535	(0.405)	349549	38.3888	38.4
7 Vinyl chloride	62	5.901	5.901	(0.432)	305766	43.2770	43.3
9 Bromomethane	96	6.933	6.934	(0.507)	195254	46.7149	46.7
10 Chloroethane	64	7.200	7.200	(0.527)	205677	45.2628	45.3
11 Trichlorofluoromethane	101	7.817	7.817	(0.572)	489001	55.0930	55.1
12 Ethyl Ether	59	8.462	8.466	(0.619)	262903	45.0234	45.0
15 1,1-Dichloroethylene	61	9.069	9.074	(0.663)	562446	48.9324	48.9
16 Acetone	43	9.240	9.244	(0.676)	1065001	172.353	172

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	18 Iodomethane	142	9.451	9.451	(0.691)	2005554	235.862	236
	19 Carbon disulfide	76	9.553	9.553	(0.699)	4449181	255.181	255
	21 Methyl acetate	43	9.824	9.824	(0.719)	1086136	199.106	199
	22 Acetonitrile	41	9.958	9.962	(0.728)	905692	998.059	998
	23 Methylene chloride	84	10.123	10.128	(0.740)	305367	48.6819	48.7
	25 tert-Butyl methyl ether	73	10.427	10.427	(0.763)	935734	48.3069	48.3
	26 trans-1,2-Dichloroethylene	96	10.533	10.533	(0.770)	279031	49.6584	49.6
	29 Vinyl acetate	43	11.283	11.279	(0.825)	3231185	257.714	258
	30 1,1-Dichloroethane	63	11.311	11.306	(0.827)	576622	47.7408	47.7
	33 2,2-Dichloropropane	77	12.149	12.149	(0.889)	420466	54.7219	54.7
	35 2-Butanone	43	12.172	12.172	(0.890)	1117612	170.625	171
	36 cis-1,2-Dichloroethylene	96	12.190	12.190	(0.892)	296254	48.9543	49.0
	39 Bromochloromethane	128	12.549	12.549	(0.918)	130191	47.4482	47.4
	41 Chloroform	83	12.600	12.600	(0.922)	609862	50.5966	50.6
	42 Cyclohexane	56	12.825	12.830	(0.938)	564957	49.1209	49.1
	43 1,1,1-Trichloroethane	97	12.835	12.835	(0.939)	488857	54.5497	54.5
	44 Carbon tetrachloride	117	13.014	13.010	(0.952)	486232	56.7201	56.7
	45 1,1-Dichloropropene	75	13.037	13.037	(0.954)	458795	52.7790	52.8
	47 Benzene	78	13.322	13.323	(0.974)	1151101	48.2137	48.2
$	48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	558620	54.8488	54.8
	50 Cyclohexene	54	13.382	13.382	(0.979)	426391	47.9924	48.0
	51 1,2-Dichloroethane	62	13.428	13.428	(0.982)	523830	48.6691	48.7
*	52 Fluorobenzene	96	13.672	13.672	(1.000)	1043079	50.0000	
	53 n-Butyl alcohol	56	13.921	13.921	(1.018)	1038708	4908.14	4910
	54 Trichloroethylene	95	14.105	14.105	(1.032)	312298	50.6755	50.7
	55 Methylcyclohexane	83	14.271	14.271	(1.044)	514835	52.8558	52.8
	57 1,2-Dichloropropane	63	14.446	14.446	(1.057)	305789	46.5536	46.6
	59 Dibromomethane	93	14.611	14.616	(1.069)	189629	48.4812	48.5
	60 Bromodichloromethane	83	14.740	14.740	(1.078)	475315	53.0531	53.0
	61 2-Chloroethylvinyl ether	63	15.016	15.016	(1.098)	179059	339.540	340(AR)
	63 cis-1,3-Dichloropropylene	75	15.242	15.247	(1.115)	537325	51.6075	51.6
	64 4-Methyl-2-pentanone	58	15.343	15.348	(0.895)	652169	212.531	212
$	65 Toluene-d8	98	15.504	15.504	(0.904)	1298529	49.8143	49.8
	66 Toluene	92	15.583	15.583	(0.909)	732712	49.0145	49.0
	68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	542158	52.0733	52.1
	69 1,1,2-Trichloroethane	83	16.089	16.094	(0.938)	215550	46.6699	46.7
	70 Tetrachloroethylene	164	16.181	16.181	(0.944)	232986	48.7948	48.8
	71 2-Hexanone	43	16.255	16.255	(0.948)	1515896	177.079	177
	72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	453441	45.5132	45.5
	73 Dibromochloromethane	129	16.540	16.535	(0.965)	317431	51.8980	51.9
	74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	259059	47.5323	47.5
*	76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	775046	50.0000	
	77 Chlorobenzene	112	17.180	17.184	(1.002)	766385	48.5348	48.5
	78 Ethylbenzene	91	17.207	17.207	(1.003)	1511962	50.6256	50.6
	79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	292990	51.2649	51.3
	80 m,p-Xylenes	106	17.323	17.323	(1.010)	1056391	99.7725	99.8
	81 o-Xylene	106	17.769	17.769	(1.036)	509680	49.0385	49.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
82 Styrene	104	17.792	17.792	(1.038)	898914	51.7877	51.8
83 Bromoform	173	18.091	18.096	(0.923)	215778	53.6045	53.6
84 Isopropylbenzene	105	18.114	18.114	(0.924)	1480892	50.4997	50.5
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	541040	50.0285	50.0
88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	333271	45.6815	45.7
89 n-Propylbenzene	91	18.547	18.547	(0.946)	1795774	50.0566	50.0
91 Bromobenzene	156	18.579	18.579	(0.948)	329976	46.9108	46.9
92 1,2,3-Trichloropropane	110	18.588	18.593	(0.949)	97782	46.9460	46.9
93 1,3,5-Trimethylbenzene	105	18.703	18.703	(0.954)	1321412	51.6186	51.6
94 2-Chlorotoluene	91	18.731	18.731	(0.956)	1286215	49.5443	49.5
95 4-Chlorotoluene	91	18.842	18.842	(0.961)	1163478	49.4553	49.4
96 tert-Butylbenzene	119	19.062	19.062	(0.973)	1018173	49.5728	49.6
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	1328454	49.9267	49.9
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1623450	49.8171	49.8
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	1271662	50.0995	50.1
101 1,3-Dichlorobenzene	146	19.527	19.527	(0.996)	631348	46.1423	46.1
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	431356	50.0000	
103 1,4-Dichlorobenzene	146	19.624	19.629	(1.001)	637118	46.2119	46.2
105 n-Butylbenzene	91	19.854	19.854	(1.013)	1377530	50.2604	50.3
106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	598764	45.8154	45.8
108 1,2-Dibromo-3-chloropropane	157	20.987	20.991	(1.071)	70954	49.3653	49.4
109 1,2,4-Trichlorobenzene	180	22.004	22.008	(1.123)	475552	47.0186	47.0
110 Hexachlorobutadiene	225	22.091	22.091	(1.127)	304174	49.1978	49.2
111 Naphthalene	128	22.418	22.414	(1.144)	994513	43.6828	43.7
112 1,2,3-Trichlorobenzene	180	22.768	22.768	(1.162)	436003	47.3474	47.3

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/031710v1/1c32411.d
Date : 17-MAR-2010 22:37
Client ID: LCS
Sample Info: |1202073206|966068111|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

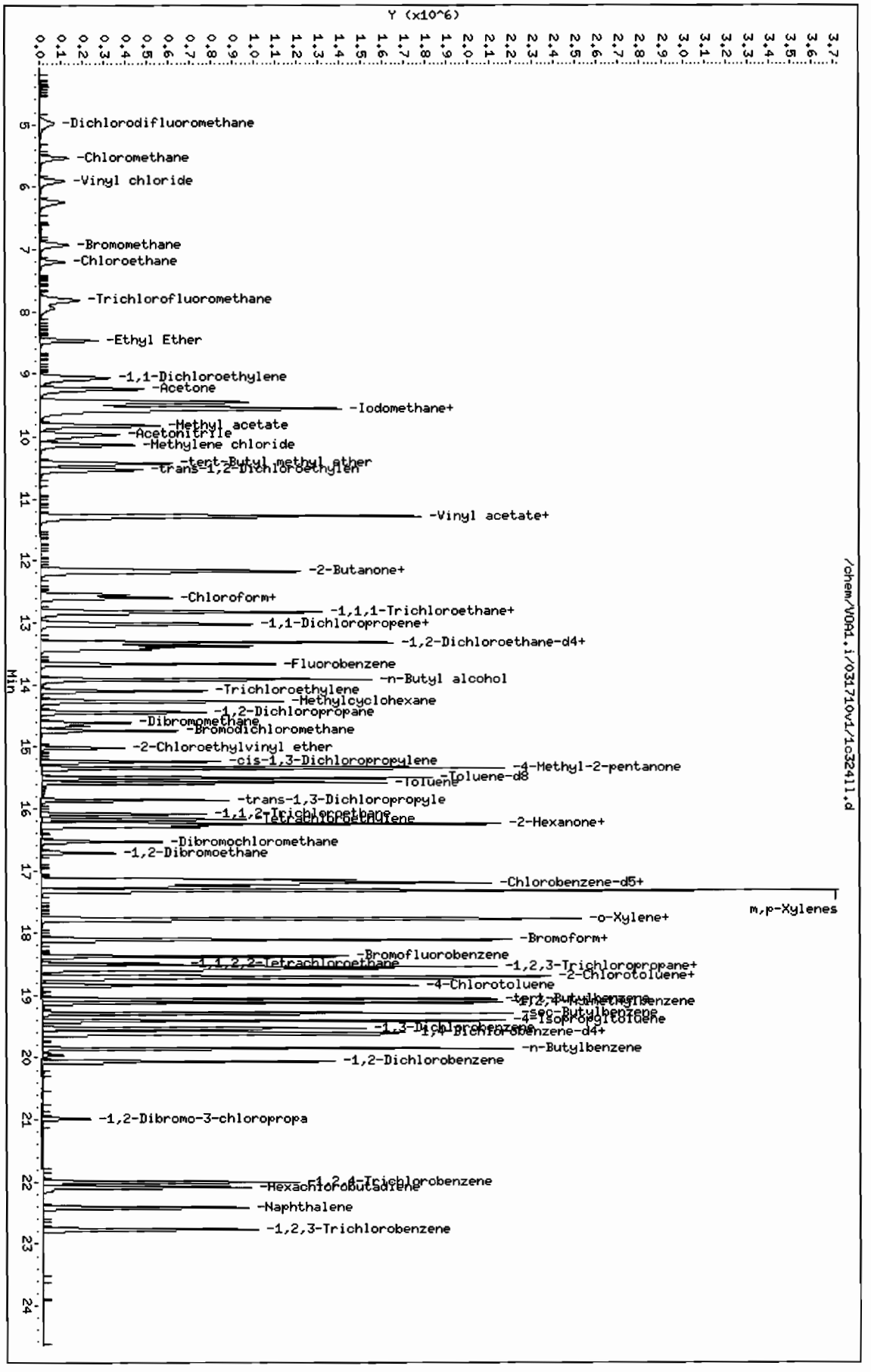

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**			**Matrix:**	**MISC SOLID**
Lab Sample ID:	**1202073207**				
Client Sample:	**QC for batch 966067**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966067**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 23:38**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 21:15**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c326sl.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**			**Matrix:**	**MISC SOLID**
Lab Sample ID:	**1202073207**				
Client Sample:	**QC for batch 966067**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966067**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 23:38**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 21:15**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c326sl.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		248	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c326sl.d
Lab Smp Id: 1202073207 Client Smp ID: LCS
Inj Date : 17-MAR-2010 23:38
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202073207|966068|1|VOAF|1|
Misc Info : GEL 5g N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 26 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
13 Acrolein	56	8.940	8.945	(0.654)	273413	239.307	239
14 Trichlorotrifluoroethane	101	8.959	8.959	(0.655)	1187125	247.682	248
20 Allyl chloride	76	9.838	9.833	(0.720)	557028	254.585	254
27 Acrylonitrile	53	10.657	10.657	(0.779)	520189	234.238	234
31 2-Chloro-1,3-butadiene	53	11.380	11.380	(0.832)	542173	59.9022	59.9
34 Ethyl acetate	43	12.153	12.153	(0.889)	1287536	208.192	208
37 Propionitrile	54	12.393	12.388	(0.906)	203999	223.285	223
38 Tetrahydrofuran	42	12.526	12.526	(0.639)	438893	206.233	206
40 Methacrylonitrile	41	12.545	12.549	(0.918)	1095862	227.604	228
46 Isobutyl alcohol	41	13.097	13.097	(0.958)	543764	2309.75	2310
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	500454	51.3249	51.3
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	998628	50.0000	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
56 Methyl methacrylate	69	14.427	14.427	(1.055)	965271	261.583	262
58 1,4-Dioxane	88	14.538	14.533	(1.063)	129731	2381.20	2380
62 2-Nitropropane	43	15.067	15.067	(1.102)	535312	247.189	247
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1304254	51.3039	51.3
67 Ethyl methacrylate	69	15.799	15.799	(0.921)	1923470	263.302	263
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	755860	50.0000	
85 cis-1,4-Dichloro-2-butene	53	18.261	18.261	(0.932)	714225	285.579	286
86 Cyclohexanone	55	18.372	18.377	(1.071)	320885	870.003	870
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	546836	52.5196	52.5
90 trans-1,4-Dichloro-2-butene	53	18.556	18.556	(0.947)	671184	287.460	287
98 Pentachloroethane	167	19.187	19.187	(0.979)	930846	468.254	468(R)
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	415298	50.0000	
104 Benzyl chloride	91	19.757	19.757	(1.008)	3664010	342.458	342
107 bis(2-Chloroisopropyl)ether	45	20.149	20.149	(1.028)	821253	221.723	222

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/031710v1/1c326sl.d
Date : 17-MAR-2010 23:38
Client ID: LCS
Sample Info: |1202073207196606811|VOAF|1|

Instrument: VOA1.i

Operator: GRB2
Column diameter: 0.25

Column phase: RTX-Volatiles

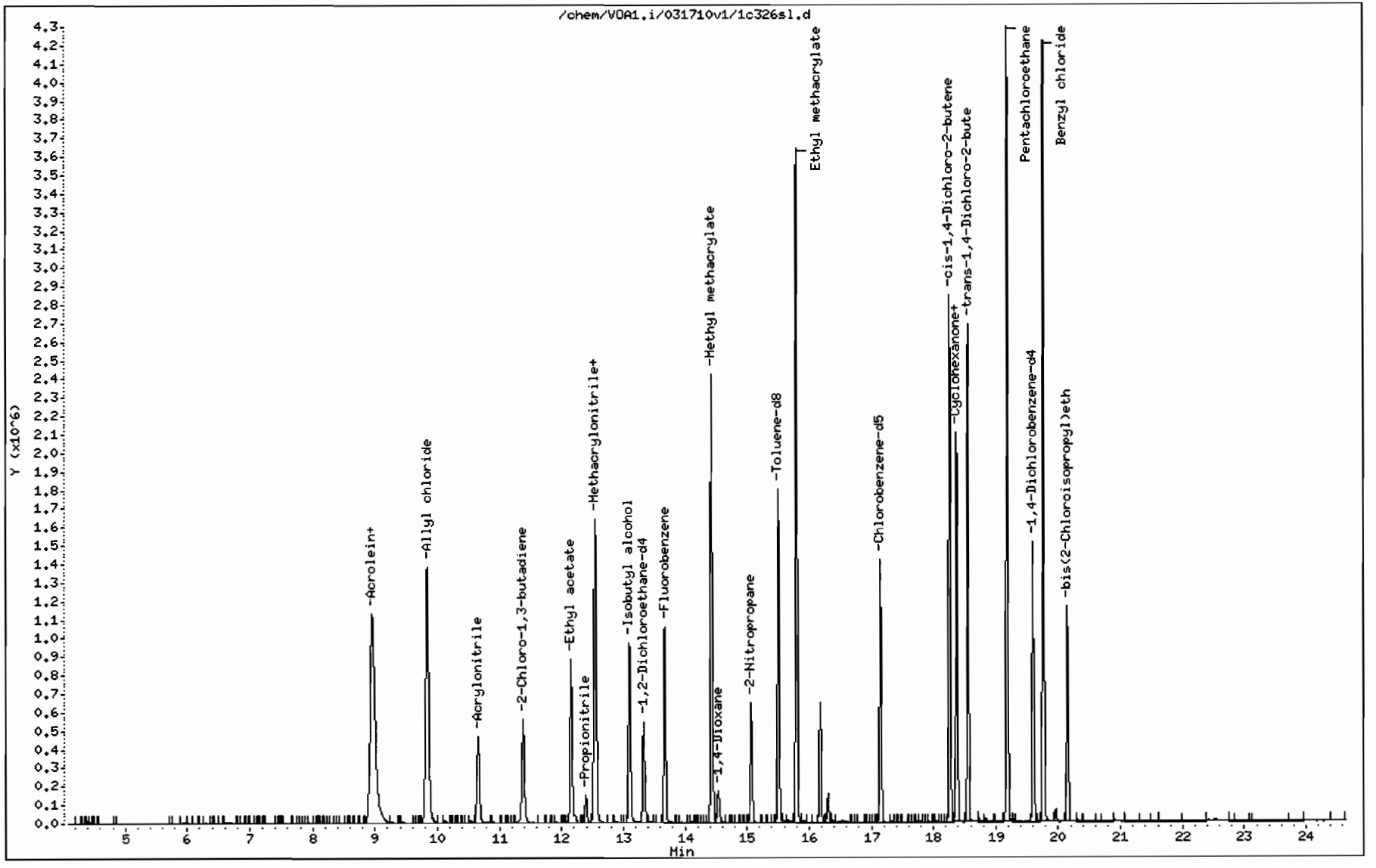

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202073210**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
Client Sample:	**QC for batch 966067**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13782PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 06:14**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:41**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c339.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		57.2	ug/kg	0.395	1.16
74-87-3	Chloromethane		44.1	ug/kg	0.349	1.16
75-01-4	Vinyl chloride		49.4	ug/kg	0.349	1.16
74-83-9	Bromomethane		51.0	ug/kg	0.349	1.16
75-00-3	Chloroethane		48.8	ug/kg	0.349	1.16
75-69-4	Trichlorofluoromethane		66.9	ug/kg	0.349	1.16
67-64-1	Acetone		170	ug/kg	1.93	5.81
75-35-4	1,1-Dichloroethylene		56.5	ug/kg	0.349	1.16
74-88-4	Iodomethane		255	ug/kg	1.86	5.81
75-09-2	Methylene chloride		53.2	ug/kg	2.32	5.81
75-15-0	Carbon disulfide		261	ug/kg	1.45	5.81
156-60-5	trans-1,2-Dichloroethylene		51.7	ug/kg	0.349	1.16
75-34-3	1,1-Dichloroethane		54.9	ug/kg	0.349	1.16
78-93-3	2-Butanone		166	ug/kg	1.74	5.81
156-59-2	cis-1,2-Dichloroethylene		52.0	ug/kg	0.349	1.16
594-20-7	2,2-Dichloropropane		60.5	ug/kg	0.349	1.16
67-66-3	Chloroform		59.9	ug/kg	0.349	1.16
74-97-5	Bromochloromethane		49.8	ug/kg	0.383	1.16
71-55-6	1,1,1-Trichloroethane		67.3	ug/kg	0.349	1.16
563-58-6	1,1-Dichloropropene		58.0	ug/kg	0.349	1.16
56-23-5	Carbon tetrachloride		69.9	ug/kg	0.349	1.16
107-06-2	1,2-Dichloroethane		62.0	ug/kg	0.349	1.16
71-43-2	Benzene		50.8	ug/kg	0.349	1.16
79-01-6	Trichloroethylene		56.1	ug/kg	0.383	1.16
78-87-5	1,2-Dichloropropane		50.8	ug/kg	0.349	1.16
75-27-4	Bromodichloromethane		64.2	ug/kg	0.349	1.16
74-95-3	Dibromomethane		55.1	ug/kg	0.349	1.16
108-10-1	4-Methyl-2-pentanone		210	ug/kg	1.45	5.81
10061-01-5	cis-1,3-Dichloropropylene		55.5	ug/kg	0.349	1.16
108-88-3	Toluene		50.4	ug/kg	0.349	1.16
10061-02-6	trans-1,3-Dichloropropylene		56.2	ug/kg	0.349	1.16
79-00-5	1,1,2-Trichloroethane		48.5	ug/kg	0.349	1.16
591-78-6	2-Hexanone		172	ug/kg	1.74	5.81
142-28-9	1,3-Dichloropropane		49.6	ug/kg	0.349	1.16
127-18-4	Tetrachloroethylene		49.6	ug/kg	0.349	1.16
124-48-1	Dibromochloromethane		58.1	ug/kg	0.349	1.16
106-93-4	1,2-Dibromoethane		49.8	ug/kg	0.349	1.16
108-90-7	Chlorobenzene		50.4	ug/kg	0.349	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202073210**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
Client Sample:	**QC for batch 966067**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13782PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 06:14**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:41**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c339.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		53.4	ug/kg	0.349	1.16
179601-23-1	m,p-Xylenes		101	ug/kg	0.349	2.32
95-47-6	o-Xylene		51.5	ug/kg	0.349	1.16
100-42-5	Styrene		52.8	ug/kg	0.349	1.16
75-25-2	Bromoform		58.2	ug/kg	0.349	1.16
79-34-5	1,1,2,2-Tetrachloroethane		44.7	ug/kg	0.349	1.16
96-18-4	1,2,3-Trichloropropane		49.3	ug/kg	0.349	1.16
108-86-1	Bromobenzene		48.9	ug/kg	0.349	1.16
103-65-1	n-Propylbenzene		50.4	ug/kg	0.349	1.16
95-49-8	2-Chlorotoluene		52.4	ug/kg	0.349	1.16
98-82-8	Isopropylbenzene		52.9	ug/kg	0.349	1.16
108-67-8	1,3,5-Trimethylbenzene		53.5	ug/kg	0.349	1.16
106-43-4	4-Chlorotoluene		51.5	ug/kg	0.349	1.16
98-06-6	tert-Butylbenzene		52.3	ug/kg	0.349	1.16
95-63-6	1,2,4-Trimethylbenzene		50.9	ug/kg	0.349	1.16
135-98-8	sec-Butylbenzene		50.0	ug/kg	0.349	1.16
99-87-6	4-Isopropyltoluene		49.7	ug/kg	0.349	1.16
541-73-1	1,3-Dichlorobenzene		45.1	ug/kg	0.349	1.16
106-46-7	1,4-Dichlorobenzene		45.8	ug/kg	0.349	1.16
104-51-8	n-Butylbenzene		47.8	ug/kg	0.349	1.16
96-12-8	1,2-Dibromo-3-chloropropane		48.6	ug/kg	0.349	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.81	ug/kg	1.86	5.81
630-20-6	1,1,1,2-Tetrachloroethane		57.3	ug/kg	0.349	1.16
95-50-1	1,2-Dichlorobenzene		46.2	ug/kg	0.349	1.16

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c339.d
Lab Smp Id: 1202073210 Client Smp ID: RE46-10-13782MS
Inj Date : 18-MAR-2010 06:14
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202073210|966068|1|VOAF|1|
Misc Info : LANL 5G N/A MS 248862002
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 39 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	13.92880	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	791555	50.0000	
* 76 Chlorobenzene-d5	117	17.147	17.148	(1.000)	605302	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	343985	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	504296	65.2488	75.8
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1015382	49.8755	57.9
$ 87 Bromofluorobenzene	95	18.376	18.377	(0.938)	452793	52.5031	61.0
5 Dichlorodifluoromethane	85	4.976	4.983	(0.364)	196179	49.2567	57.2
6 Chloromethane	50	5.535	5.535	(0.405)	262538	37.9948	44.1
7 Vinyl chloride	62	5.901	5.901	(0.432)	227812	42.4894	49.4
9 Bromomethane	96	6.938	6.934	(0.507)	139098	43.8543	51.0
10 Chloroethane	64	7.205	7.200	(0.527)	144699	41.9622	48.8
11 Trichlorofluoromethane	101	7.817	7.817	(0.572)	387994	57.6034	66.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
16 Acetone	43	9.239	9.244	(0.676)	687272	146.566	170
15 1,1-Dichloroethylene	61	9.064	9.074	(0.663)	424004	48.6095	56.5
103 1,4-Dichlorobenzene	146	19.624	19.629	(1.001)	432932	39.3777	45.8
18 Iodomethane	142	9.456	9.451	(0.692)	1417650	219.700	255
23 Methylene chloride	84	10.128	10.128	(0.741)	218201	45.7844	53.2
19 Carbon disulfide	76	9.557	9.553	(0.699)	2976485	224.961	261
26 trans-1,2-Dichloroethylene	96	10.537	10.533	(0.771)	189897	44.5343	51.7
30 1,1-Dichloroethane	63	11.311	11.306	(0.827)	432882	47.2285	54.9
35 2-Butanone	43	12.172	12.172	(0.890)	710735	142.987	166
36 cis-1,2-Dichloroethylene	96	12.190	12.190	(0.892)	205557	44.7605	52.0
101 1,3-Dichlorobenzene	146	19.532	19.527	(0.997)	423673	38.8291	45.1
33 2,2-Dichloropropane	77	12.149	12.149	(0.889)	303717	52.0878	60.5
41 Chloroform	83	12.604	12.600	(0.922)	471835	51.5841	59.9
106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	414136	39.7370	46.2
39 Bromochloromethane	128	12.549	12.549	(0.918)	89195	42.8367	49.8
43 1,1,1-Trichloroethane	97	12.834	12.835	(0.939)	393785	57.9036	67.3
45 1,1-Dichloropropene	75	13.037	13.037	(0.954)	329505	49.9506	58.0
44 Carbon tetrachloride	117	13.009	13.010	(0.952)	391498	60.1809	69.9
51 1,2-Dichloroethane	62	13.428	13.428	(0.982)	435650	53.3380	62.0
47 Benzene	78	13.322	13.323	(0.974)	791675	43.6958	50.8
54 Trichloroethylene	95	14.105	14.105	(1.032)	225806	48.2837	56.1
57 1,2-Dichloropropane	63	14.450	14.446	(1.057)	217860	43.7064	50.8
60 Bromodichloromethane	83	14.745	14.740	(1.078)	375746	55.2663	64.2
59 Dibromomethane	93	14.611	14.616	(1.069)	140879	47.4626	55.1
64 4-Methyl-2-pentanone	58	15.343	15.348	(0.895)	433464	180.871	210
63 cis-1,3-Dichloropropylene	75	15.246	15.247	(1.115)	377166	47.7358	55.5
66 Toluene	92	15.587	15.583	(0.909)	506002	43.3410	50.4
68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	393289	48.3678	56.2
69 1,1,2-Trichloroethane	83	16.089	16.094	(0.938)	150604	41.7523	48.5
71 2-Hexanone	43	16.254	16.255	(0.948)	987012	147.631	172
72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	331965	42.6642	49.6
70 Tetrachloroethylene	164	16.181	16.181	(0.944)	159255	42.7063	49.6
73 Dibromochloromethane	129	16.540	16.535	(0.965)	239009	50.0347	58.1
74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	182299	42.8282	49.8
77 Chlorobenzene	112	17.180	17.184	(1.002)	534747	43.3621	50.4
79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	220290	49.3534	57.3
78 Ethylbenzene	91	17.207	17.207	(1.003)	1072066	45.9628	53.4
80 m,p-Xylenes	106	17.322	17.323	(1.010)	716348	86.6295	101
81 o-Xylene	106	17.769	17.769	(1.036)	359805	44.3264	51.5
82 Styrene	104	17.792	17.792	(1.038)	616512	45.4784	52.8
83 Bromoform	173	18.096	18.096	(0.923)	160893	50.1219	58.2
88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	223720	38.4542	44.7
92 1,2,3-Trichloropropane	110	18.593	18.593	(0.949)	70417	42.3949	49.2
91 Bromobenzene	156	18.579	18.579	(0.948)	236122	42.0943	48.9
89 n-Propylbenzene	91	18.547	18.547	(0.946)	1241374	43.3919	50.4
94 2-Chlorotoluene	91	18.731	18.731	(0.956)	934288	45.1291	52.4
84 Isopropylbenzene	105	18.114	18.114	(0.924)	1064257	45.5102	52.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
93 1,3,5-Trimethylbenzene	105	18.708	18.703	(0.955)	940694	46.0800	53.5
95 4-Chlorotoluene	91	18.841	18.842	(0.961)	831792	44.3369	51.5
96 tert-Butylbenzene	119	19.062	19.062	(0.973)	737778	45.0447	52.3
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	930130	43.8355	50.9
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1117537	43.0029	50.0
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	865256	42.7467	49.7
105 n-Butylbenzene	91	19.854	19.854	(1.013)	899614	41.1602	47.8
108 1,2-Dibromo-3-chloropropane	157	20.991	20.991	(1.071)	47912	41.8009	48.6

Data File: /chem/VOA1.i/031710v1/1c339.d

Date : 18-MAR-2010 06:14

Client ID: RE46-10-13782MS

Sample Info: |1202073210|966068|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2

Column diameter: 0.25

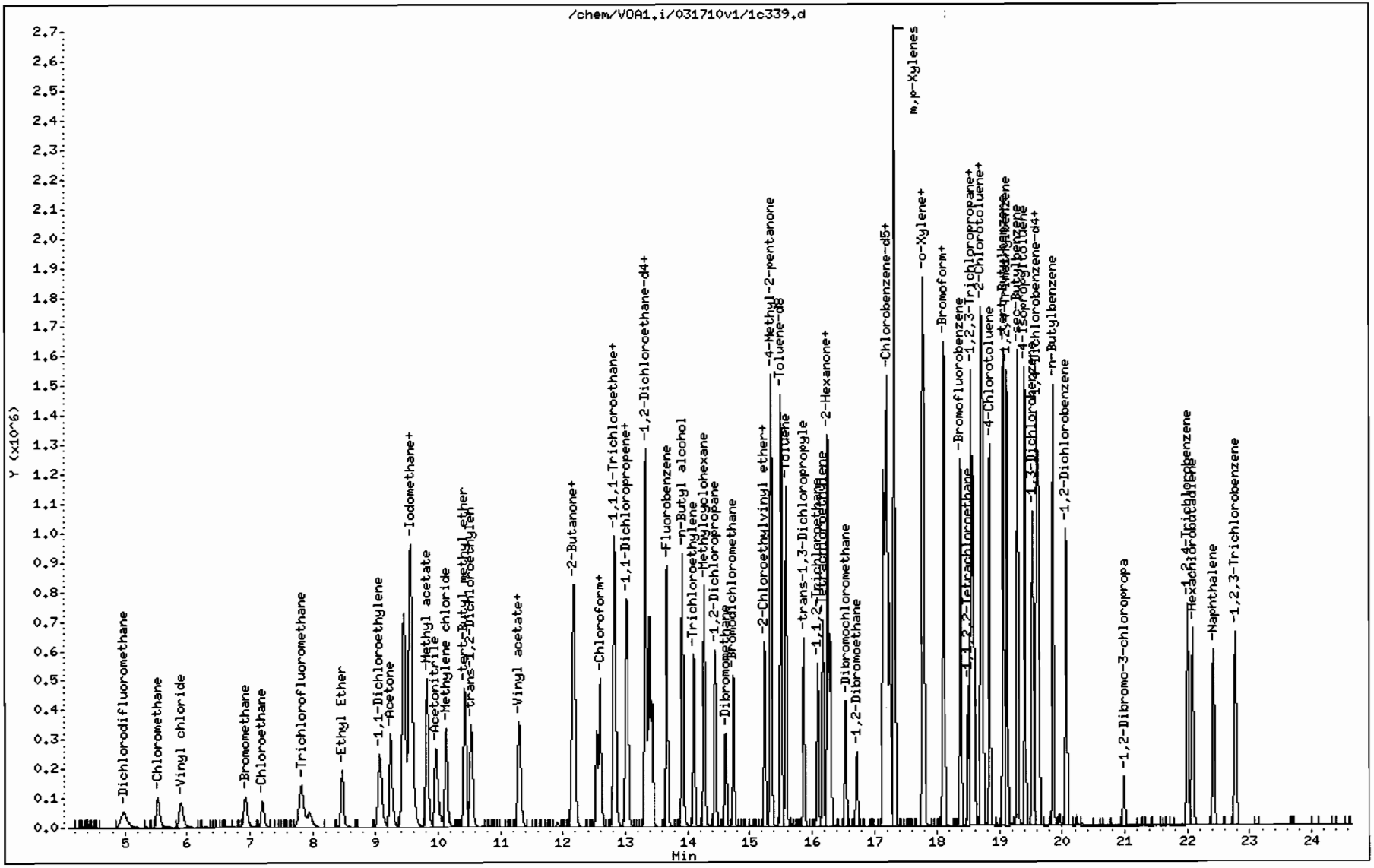

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202073211	**Date Received:**	03/06/2010 09:15	**%Moisture:**	13.9
Client Sample:	QC for batch 966067	**Client:**	LANL010	**Project:**	QC
Client ID:	RE46-10-13782PSD	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	966068	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 06:45	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 17:43	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c340.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		58.7	ug/kg	0.395	1.16
74-87-3	Chloromethane		47.3	ug/kg	0.349	1.16
75-01-4	Vinyl chloride		51.9	ug/kg	0.349	1.16
74-83-9	Bromomethane		51.3	ug/kg	0.349	1.16
75-00-3	Chloroethane		50.1	ug/kg	0.349	1.16
75-69-4	Trichlorofluoromethane		66.7	ug/kg	0.349	1.16
67-64-1	Acetone		195	ug/kg	1.93	5.81
75-35-4	1,1-Dichloroethylene		58.6	ug/kg	0.349	1.16
74-88-4	Iodomethane		273	ug/kg	1.86	5.81
75-09-2	Methylene chloride		56.2	ug/kg	2.32	5.81
75-15-0	Carbon disulfide		274	ug/kg	1.45	5.81
156-60-5	trans-1,2-Dichloroethylene		54.6	ug/kg	0.349	1.16
75-34-3	1,1-Dichloroethane		58.1	ug/kg	0.349	1.16
78-93-3	2-Butanone		187	ug/kg	1.74	5.81
156-59-2	cis-1,2-Dichloroethylene		56.0	ug/kg	0.349	1.16
594-20-7	2,2-Dichloropropane		64.0	ug/kg	0.349	1.16
67-66-3	Chloroform		63.9	ug/kg	0.349	1.16
74-97-5	Bromochloromethane		53.2	ug/kg	0.383	1.16
71-55-6	1,1,1-Trichloroethane		68.4	ug/kg	0.349	1.16
563-58-6	1,1-Dichloropropene		59.1	ug/kg	0.349	1.16
56-23-5	Carbon tetrachloride		71.0	ug/kg	0.349	1.16
107-06-2	1,2-Dichloroethane		65.6	ug/kg	0.349	1.16
71-43-2	Benzene		54.0	ug/kg	0.349	1.16
79-01-6	Trichloroethylene		58.4	ug/kg	0.383	1.16
78-87-5	1,2-Dichloropropane		54.2	ug/kg	0.349	1.16
75-27-4	Bromodichloromethane		66.5	ug/kg	0.349	1.16
74-95-3	Dibromomethane		59.4	ug/kg	0.349	1.16
108-10-1	4-Methyl-2-pentanone		230	ug/kg	1.45	5.81
10061-01-5	cis-1,3-Dichloropropylene		58.8	ug/kg	0.349	1.16
108-88-3	Toluene		51.8	ug/kg	0.349	1.16
10061-02-6	trans-1,3-Dichloropropylene		58.9	ug/kg	0.349	1.16
79-00-5	1,1,2-Trichloroethane		52.1	ug/kg	0.349	1.16
591-78-6	2-Hexanone		186	ug/kg	1.74	5.81
142-28-9	1,3-Dichloropropane		52.8	ug/kg	0.349	1.16
127-18-4	Tetrachloroethylene		51.3	ug/kg	0.349	1.16
124-48-1	Dibromochloromethane		60.5	ug/kg	0.349	1.16
106-93-4	1,2-Dibromoethane		53.9	ug/kg	0.349	1.16
108-90-7	Chlorobenzene		52.3	ug/kg	0.349	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202073211**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
Client Sample:	**QC for batch 966067**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13782PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**966068**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 06:45**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 17:43**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c340.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		55.0	ug/kg	0.349	1.16
179601-23-1	m,p-Xylenes		105	ug/kg	0.349	2.32
95-47-6	o-Xylene		53.2	ug/kg	0.349	1.16
100-42-5	Styrene		54.9	ug/kg	0.349	1.16
75-25-2	Bromoform		61.5	ug/kg	0.349	1.16
79-34-5	1,1,2,2-Tetrachloroethane		49.3	ug/kg	0.349	1.16
96-18-4	1,2,3-Trichloropropane		54.2	ug/kg	0.349	1.16
108-86-1	Bromobenzene		51.5	ug/kg	0.349	1.16
103-65-1	n-Propylbenzene		52.4	ug/kg	0.349	1.16
95-49-8	2-Chlorotoluene		54.0	ug/kg	0.349	1.16
98-82-8	Isopropylbenzene		54.1	ug/kg	0.349	1.16
108-67-8	1,3,5-Trimethylbenzene		54.9	ug/kg	0.349	1.16
106-43-4	4-Chlorotoluene		52.7	ug/kg	0.349	1.16
98-06-6	tert-Butylbenzene		54.3	ug/kg	0.349	1.16
95-63-6	1,2,4-Trimethylbenzene		52.8	ug/kg	0.349	1.16
135-98-8	sec-Butylbenzene		51.9	ug/kg	0.349	1.16
99-87-6	4-Isopropyltoluene		51.4	ug/kg	0.349	1.16
541-73-1	1,3-Dichlorobenzene		46.9	ug/kg	0.349	1.16
106-46-7	1,4-Dichlorobenzene		46.9	ug/kg	0.349	1.16
104-51-8	n-Butylbenzene		49.1	ug/kg	0.349	1.16
96-12-8	1,2-Dibromo-3-chloropropane		53.8	ug/kg	0.349	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.81	ug/kg	1.86	5.81
630-20-6	1,1,1,2-Tetrachloroethane		60.8	ug/kg	0.349	1.16
95-50-1	1,2-Dichlorobenzene		48.0	ug/kg	0.349	1.16

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c340.d
Lab Smp Id: 1202073211 Client Smp ID: RE46-10-13782MSD
Inj Date : 18-MAR-2010 06:45
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202073211|966068|1|VOAF|1|
Misc Info : LANL 5G N/A MSD 248862002
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410PM.m
Meth Date : 29-Mar-2010 20:03 amj Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: la428.d
Als bottle: 40 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	13.92880	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	780709	50.0000	
* 76 Chlorobenzene-d5	117	17.147	17.148	(1.000)	601188	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.596	(1.000)	339683	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	508599	66.7197	77.5
$ 65 Toluene-d8	98	15.509	15.504	(0.904)	1043448	51.6048	60.0
$ 87 Bromofluorobenzene	95	18.376	18.377	(0.938)	454124	53.3243	62.0
5 Dichlorodifluoromethane	85	4.990	4.983	(0.365)	198330	50.4886	58.6
6 Chloromethane	50	5.535	5.535	(0.405)	277235	40.6792	47.3
7 Vinyl chloride	62	5.901	5.901	(0.432)	236065	44.6403	51.9
9 Bromomethane	96	6.938	6.934	(0.507)	138047	44.1276	51.3
10 Chloroethane	64	7.214	7.200	(0.528)	146670	43.1246	50.1
11 Trichlorofluoromethane	101	7.817	7.817	(0.572)	381644	57.4478	66.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
16 Acetone	43	9.239	9.244	(0.676)	778002	168.220	195
15 1,1-Dichloroethylene	61	9.069	9.074	(0.663)	434278	50.4790	58.6
103 1,4-Dichlorobenzene	146	19.628	19.629	(1.001)	438187	40.3604	46.9
18 Iodomethane	142	9.451	9.451	(0.691)	1497011	235.222	273
23 Methylene chloride	84	10.123	10.128	(0.740)	227258	48.3999	56.2
19 Carbon disulfide	76	9.557	9.553	(0.699)	3075769	235.695	274
26 trans-1,2-Dichloroethylene	96	10.528	10.533	(0.770)	197564	46.9760	54.6
30 1,1-Dichloroethane	63	11.311	11.306	(0.827)	452042	50.0041	58.1
35 2-Butanone	43	12.172	12.172	(0.890)	790403	161.223	187
36 cis-1,2-Dichloroethylene	96	12.185	12.190	(0.891)	218445	48.2277	56.0
101 1,3-Dichlorobenzene	146	19.527	19.527	(0.996)	434917	40.3645	46.9
33 2,2-Dichloropropane	77	12.144	12.149	(0.888)	316611	55.0534	64.0
41 Chloroform	83	12.600	12.600	(0.922)	495867	54.9646	63.8
106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	424759	41.2725	48.0
39 Bromochloromethane	128	12.549	12.549	(0.918)	93973	45.7583	53.2
43 1,1,1-Trichloroethane	97	12.834	12.835	(0.939)	395072	58.8999	68.4
45 1,1-Dichloropropene	75	13.037	13.037	(0.954)	330802	50.8438	59.1
44 Carbon tetrachloride	117	13.009	13.010	(0.952)	392128	61.1152	71.0
51 1,2-Dichloroethane	62	13.428	13.428	(0.982)	454929	56.4722	65.6
47 Benzene	78	13.322	13.323	(0.974)	830851	46.4952	54.0
54 Trichloroethylene	95	14.105	14.105	(1.032)	231827	50.2599	58.4
57 1,2-Dichloropropane	63	14.445	14.446	(1.057)	229440	46.6690	54.2
60 Bromodichloromethane	83	14.740	14.740	(1.078)	384015	57.2672	66.5
59 Dibromomethane	93	14.616	14.616	(1.069)	149655	51.1197	59.4
64 4-Methyl-2-pentanone	58	15.348	15.348	(0.895)	471567	198.117	230
63 cis-1,3-Dichloropropylene	75	15.246	15.247	(1.115)	394638	50.6410	58.8
66 Toluene	92	15.582	15.583	(0.909)	517294	44.6114	51.8
68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	409504	50.7066	58.9
69 1,1,2-Trichloroethane	83	16.093	16.094	(0.939)	160727	44.8637	52.1
71 2-Hexanone	43	16.254	16.255	(0.948)	1064402	160.296	186
72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	350985	45.4174	52.8
70 Tetrachloroethylene	164	16.181	16.181	(0.944)	163585	44.1676	51.3
73 Dibromochloromethane	129	16.535	16.535	(0.964)	247023	52.0662	60.5
74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	196155	46.3988	53.9
77 Chlorobenzene	112	17.180	17.184	(1.002)	551595	45.0343	52.3
79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	232169	52.3707	60.8
78 Ethylbenzene	91	17.207	17.207	(1.003)	1096934	47.3508	55.0
80 m,p-Xylenes	106	17.322	17.323	(1.010)	742300	90.3822	105
81 o-Xylene	106	17.773	17.769	(1.036)	369174	45.7918	53.2
82 Styrene	104	17.792	17.792	(1.038)	636340	47.2623	54.9
83 Bromoform	173	18.096	18.096	(0.923)	167667	52.8937	61.4
88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	243792	42.4350	49.3
92 1,2,3-Trichloropropane	110	18.593	18.593	(0.949)	76519	46.6521	54.2(Q)
91 Bromobenzene	156	18.579	18.579	(0.948)	245524	44.3248	51.5
89 n-Propylbenzene	91	18.547	18.547	(0.946)	1273272	45.0705	52.4
94 2-Chlorotoluene	91	18.731	18.731	(0.956)	950393	46.4885	54.0
84 Isopropylbenzene	105	18.114	18.114	(0.924)	1076198	46.6036	54.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
93 1,3,5-Trimethylbenzene	105	18.703	18.703	(0.954)	952290	47.2388	54.9
95 4-Chlorotoluene	91	18.841	18.842	(0.961)	840411	45.3637	52.7
96 tert-Butylbenzene	119	19.062	19.062	(0.973)	755684	46.7223	54.3
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	952671	45.4664	52.8
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1145992	44.6563	51.9
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	884440	44.2478	51.4
105 n-Butylbenzene	91	19.854	19.854	(1.013)	911365	42.2259	49.0
108 1,2-Dibromo-3-chloropropane	157	20.991	20.991	(1.071)	52416	46.3096	53.8

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA1.i/031710v1/1c340.d
Date : 18-MAR-2010 06:45
Client ID: RE46-10-13782MSD
Sample Info: |120207321|9660681|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

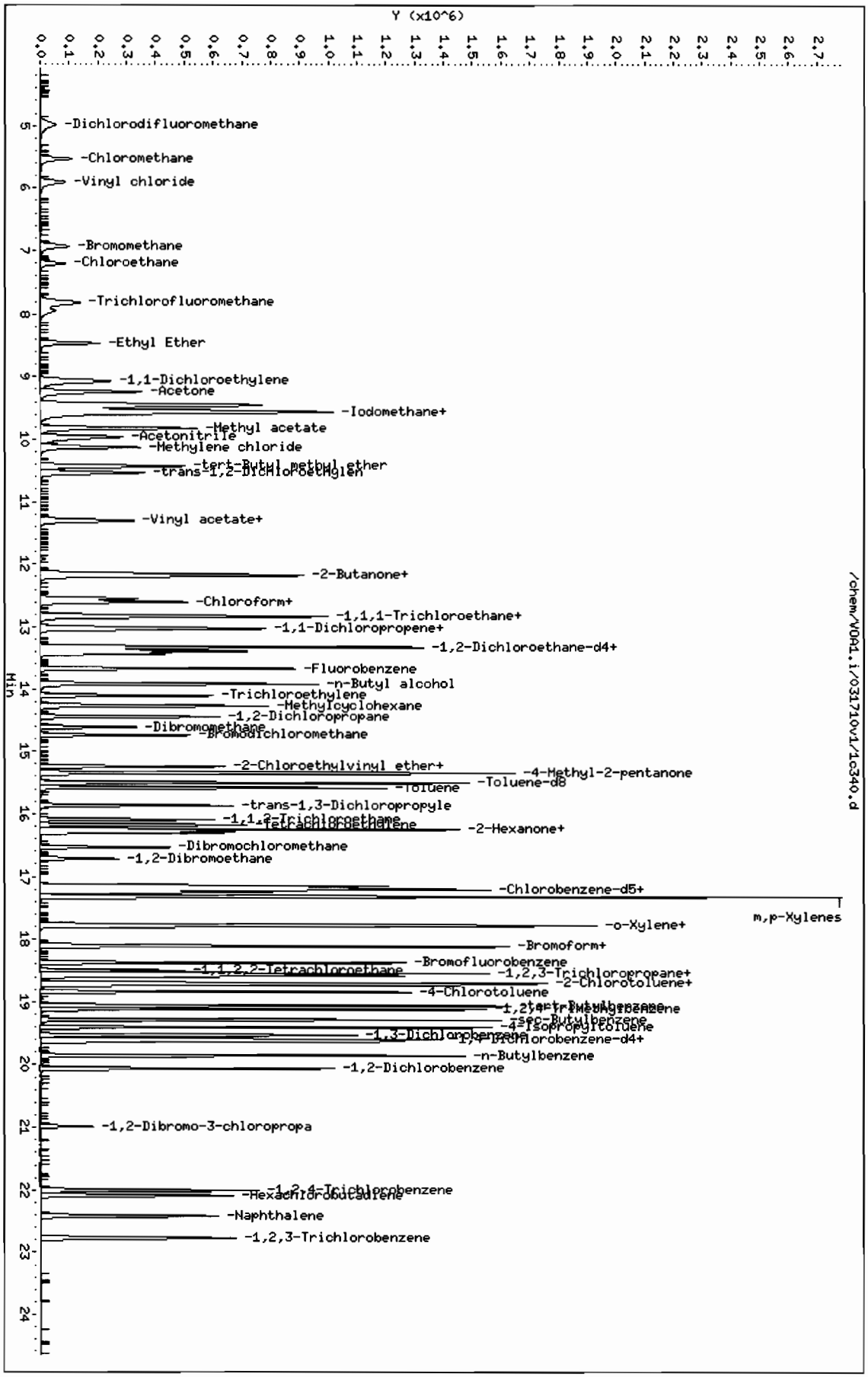

Page 1

Miscellaneous Data

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 3/4/2010 Method 8260B/624 Operator: RXD1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1471

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/4/2010

(See pg. 30,31,32 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 030410V1

Daily Standard	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
Long ICV	W1VM100305-01			5+5	
IS	UVM1000214-01	1	1	1	
SS	UVM1000203-02	1	1	1	
SHORT ICV	W1VM100304-23			5+5	
BFB	UVM1000203-02				1

Purge Amount	
5	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
4 Mar 2010 08:55	1A401.D	UVM100114-02	GEL	RINSE	5mL	1	N/A	1	w	RXD1	N/A	X	
4 Mar 2010 09:26	1A402.D	W1VM100304-01	GEL	CCV	5mL	1	N/A	2	w	RXD1	N/A	X	UVM100220-01C/IVM100301-01 1,2DCE-d4 S.S. high
4 Mar 2010 10:53	1A403.D	W1VM100304-02	GEL	CCV	5mL	1	N/A	2	w	RXD1	N/A	X	UVM100220-01C/IVM100304-01 Surr Still high
4 Mar 2010 12:09	1A404.D	12020---	GEL	BLANK	5mL	1	N/A	4	w	RXD1	N/A	X	RINSE
4 Mar 2010 12:40	1A405.D	12020---	GEL	BLANK	5mL	1	N/A	5	w	RXD1	N/A	X	RINSE
4 Mar 2010 13:55	1A406.D	12020---	GEL	BLANK	5mL	1	N/A	6	w	RXD1	N/A	X	RINSE Adjusting EM voltage
4 Mar 2010 14:26	1A407.D	12020---	GEL	BLANK	5mL	1	N/A	7	w	RXD1	N/A	X	RINSE
4 Mar 2010 15:08	1A408.D	W1VM100304-03	GEL	CCV	5mL	1	N/A	8	w	RXD1	N/A	X	UVM100106-07D/UVM100222-07A
4 Mar 2010 15:39	1A409.D	W1VM100304-04	GEL	LCS	5mL	1	N/A	9	s	RXD1	N/A	X	UVM100220-01C/IVM100304-01
4 Mar 2010 16:10	1A410.D	W1VM100304-05	GEL	SHORT	5g	1	N/A	10	w	RXD1	N/A	X	UVM100215-08A
4 Mar 2010 16:41	1A411.D	UVM100203-02	GEL	BFB01	5mL	1	N/A	11	w	RXD1	N/A	O	
4 Mar 2010 17:28	1A412.D	W1VM100304-06	GEL	VSTD001	5mL	1	N/A	12	w	RXD1	N/A	O	UVM100106-02D/UVM100222-02A
4 Mar 2010 17:59	1A413.D	W1VM100304-07	GEL	VSTD002	5mL	1	N/A	13	w	RXD1	N/A	O	UVM100106-03D/UVM100222-03A
4 Mar 2010 18:29	1A414.D	W1VM100304-08	GEL	VSTD005	5mL	1	N/A	14	w	RXD1	N/A	O	UVM100106-04D/UVM100222-04A
4 Mar 2010 19:00	1A415.D	W1VM100304-09	GEL	VSTD010	5mL	1	N/A	15	w	RXD1	N/A	O	UVM100106-05D/UVM100222-05A
4 Mar 2010 19:31	1A416.D	W1VM100304-10	GEL	VSTD020	5mL	1	N/A	16	w	RXD1	N/A	O	UVM100106-06D/UVM100222-06A
4 Mar 2010 20:02	1A417.D	W1VM100304-11	GEL	VSTD050	5mL	1	N/A	17	w	RXD1	N/A	O	UVM100106-07D/UVM100222-07A
4 Mar 2010 20:32	1A418.D	W1VM100304-12	GEL	VSTD100	5mL	1	N/A	18	w	RXD1	N/A	O	UVM100106-08D/UVM100222-08A
4 Mar 2010 21:04	1A419.D	12020---	GEL	BLANK	5mL	1	N/A	19	w	RXD1	N/A	X	RINSE
4 Mar 2010 21:35	1A420.D	W1VM100304-13	GEL	VSTD0005	5mL	1	N/A	20	w	RXD1	N/A	O	UVM100106-01D/UVM100222-01A
4 Mar 2010 22:05	1A421.D	W1VM100304-14	GEL	ICV	5mL	1	N/A	21	w	RXD1	N/A	X	UVM100220-01C/IVM100304-01 See 7A502
4 Mar 2010 22:36	1A422.D	W1VM100304-15	GEL	ICV	5mL	1	N/A	22	w	RXD1	N/A	X	UVM100126-02E/IVM100304-01 See 7A502
4 Mar 2010 23:06	1A423.D	W1VM100304-16	GEL	VSTD005S	5mL	1	N/A	23	w	RXD1	N/A	O	UVM100304-01/UVM100227-01A
4 Mar 2010 23:37	1A424.D	W1VM100304-17	GEL	VSTD010S	5mL	1	N/A	24	w	RXD1	N/A	O	UVM100304-02/UVM100227-02A
5 Mar 2010 00:08	1A425.D	W1VM100304-18	GEL	VSTD025S	5mL	1	N/A	25	w	RXD1	N/A	O	UVM100304-03/UVM100227-03A
5 Mar 2010 00:39	1A426.D	W1VM100304-19	GEL	VSTD050S	5mL	1	N/A	26	w	RXD1	N/A	O	UVM100304-04/UVM100227-04A

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 3/4/2010 Method 8260B/624 Operator: RXD1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1471

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/4/2010

(See pg. 30,31,32 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 030410V1

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
Long ICV	W1VM100305-01			5+5	
IS	UVM1000214-01	1	1	1	
SS	UVM1000203-02	1	1	1	
SHORT ICV	W1VM100304-23			5+5	
BFB	UVM1000203-02				1

Purge Amount	
5	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
5 Mar 2010 01:10	1A427.D	W1VM100304-20	GEL	VSTD100S	5mL	1	N/A	27	w	RXD1	N/A	O	UVM100304-05/UVM100227-05A
5 Mar 2010 01:41	1A428.D	W1VM100304-21	GEL	VSTD250S	5mL	1	N/A	28	w	RXD1	N/A	O	UVM100304-06/UVM100227-06A
5 Mar 2010 02:12	1A429.D	W1VM100304-22	GEL	VSTD500S	5mL	1	N/A	29	w	RXD1	N/A	O	UVM100304-07/UVM100227-07A
5 Mar 2010 02:43	1A430.D	12020---	GEL	BLANK	5mL	1	N/A	30	w	RXD1	N/A	X	RINSE
5 Mar 2010 03:14	1A431.D	W1VM100304-23	GEL	SICV	5mL	1	N/A	31	w	RXD1	N/A	O	UVM100304-08A/UVM100125-08E
5 Mar 2010 03:44	1A432.D	W1VM100304-24	GEL	SICV	5mL	1	N/A	32	w	RXD1	N/A	X	UVM100215-08A/UVM100125-08E Not needed
5 Mar 2010 04:15	1A433.D	12020---	GEL	BLANK	5mL	1	N/A	33	w	RXD1	N/A	X	RINSE

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 3/5/2010 Method 8260B/624 Operator: AXO1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1471

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/4/2010

(See pg. 14,15 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 030510v1

Daily Standard — Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W1VM100305-01		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100203-02	1	1	1	
LCS/MS	W1VM100305-01/02			5+5	
BFB	UVM100203-02				1
SHORT	W1VM100305-03/04		5+5	5+5	

Purge Amount

5	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
5 Mar 2010 10:00	1A501.D	UVM100203-02	GEL	RINSE	5mL	1	N/A	1	W	AXO1	N/A	X	BFB ok but see 1A502
5 Mar 2010 10:31	1A502.D	W1VM100305-01	GEL	BFB/ICV/CCV/LCS	5mL	1	N/A	2	w	AXO1	N/A	O	UVM100220-01D/IVM100304-01
5 Mar 2010 11:02	1A503.D	W1VM100305-02	GEL	LCS	5g	1	N/A	3	s	AXO1	N/A	O	UVM100220-01D/IVM100304-01
5 Mar 2010 11:32	1A504.D	W1VM100305-03	GEL	SHORT/SLCS	5mL	1	N/A	4	w	AXO1	N/A	O	UVM100304-08A/UVM100125-08E
5 Mar 2010 12:03	1A505.D	W1VM100305-04	GEL	SLCS	5g	1	N/A	5	s	AXO1	N/A	O	UVM100304-08A/UVM100125-08E
5 Mar 2010 12:35	1A506.D	12020---	GEL	BLANK	5g	1	N/A	6	s	AXO1	N/A	O	RINSE
5 Mar 2010 13:06	1A507.D	12020---	GEL	BLANK	5mL	1	N/A	7	w	AXO1	N/A	O	RINSE
5 Mar 2010 13:38	1A508.D	247920001	LANL	961771	5g	1	N/A	8	s	AXO1	N/A	O	
5 Mar 2010 14:10	1A509.D	247866001	WASP	961764	5mL	1	pH2	9	w	AXO1	N	O	
5 Mar 2010 14:43	1A510.D	247920002	LANL	961771	5g	1	N/A	10	s	AXO1	N/A	O	
5 Mar 2010 15:15	1A511.D	247973001	LANL	961771	5g	1	N/A	11	s	AXO1	N/A	O	
5 Mar 2010 15:46	1A512.D	247973002	LANL	961771	5g	1	N/A	12	s	AXO1	N/A	O	
5 Mar 2010 16:17	1A513.D	247973003	LANL	961771	5g	1	N/A	13	s	AXO1	N/A	O	
5 Mar 2010 16:48	1A514.D	247973004	LANL	961771	5g	1	N/A	14	s	AXO1	N/A	O	
5 Mar 2010 17:19	1A515.D	247973005	LANL	961771	5g	1	N/A	15	s	AXO1	N/A	O	
5 Mar 2010 17:50	1A516.D	247973006	LANL	961771	5g	1	N/A	16	s	AXO1	N/A	O	
5 Mar 2010 18:20	1A517.D	247973007	LANL	961771	5g	1	N/A	17	s	AXO1	N/A	O	
5 Mar 2010 18:51	1A518.D	247973008	LANL	961771	5g	1	N/A	18	s	AXO1	N/A	O	
5 Mar 2010 19:21	1A519.D	248130001	LANL	961771	5g	1	N/A	19	s	AXO1	N/A	O	
5 Mar 2010 19:52	1A520.D	248130002	LANL	961771	5g	1	N/A	20	s	AXO1	N/A	O	
5 Mar 2010 20:22	1A521.D	248130003	LANL	961771	5g	1	N/A	21	s	AXO1	N/A	O	
5 Mar 2010 20:53	1A522.D	248130004	LANL	961771	5g	1	N/A	22	s	AXO1	N/A	O	
5 Mar 2010 21:23	1A523.D	248130005	LANL	961771	5g	1	N/A	23	s	AXO1	N/A	O	
5 Mar 2010 21:54	1A524.D	1202062920	LANL	961771	5g	1	N/A	24	s	AXO1	N/A	O	MS 248130005
5 Mar 2010 22:24	1A525.D	1202062921	LANL	961771	5g	1	N/A	25	s	AXO1	N/A	O	MSD 248130005

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 3/17/2010 Method 8260B/624 Operator: AXO1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1506

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/4/2010

(See pg. 30,31,32 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 031710V1PM

Daily Standard

	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W1VM100317-05		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100311-02	1	1	1	
LCS/MS	W1VM100317-05/06			5+5	
BFB	UVM100311-02				1
SHORT	UVM100304-08A		5	5	

Purge Amount

5	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
N	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
3/17/2010 21:36	1C322.D	UVM100217-02	GEL	BFB2	5mL	1	N/A	22	w	AXO1	N/A	X	BFB
3/17/2010 22:06	1C323.D	W1VM100317-05	GEL	CCV	5mL	1	N/A	23	w	AXO1	N/A	O	UVM1000305-01C/IVM100316-01
3/17/2010 22:37	1C324.D	W1VM100317-06	GEL	LCS	5g	1	N/A	24	s	AXO1	N/A	O	UVM100305-01C/IVM100316-01
3/17/2010 23:07	1C325.D	UVM100304-08A	GEL	SHORT/SLCS	5mL	1	N/A	25	w	AXO1	N/A	O	
3/17/2010 23:38	1C326.D	UVM100304-08A	GEL	SLCS	5g	1	N/A	26	s	AXO1	N/A	O	
3/18/2010 0:08	1C327.D	12020--	GEL	BLANK	5g	1	N/A	27	s	AXO1	N/A	O	
3/18/2010 0:39	1C328.D	12020--	GEL	BLANK	5ml	1	N/A	28	w	AXO1	N/A	X	Not required
3/18/2010 1:09	1C329.D	248862001	LANL	966068	5G	1	N/A	29	s	AXO1	N/A	O	
3/18/2010 1:39	1C330.D	248862002	LANL	966068	5G	1	N/A	30	s	AXO1	N/A	O	
3/18/2010 2:10	1C331.D	248862003	LANL	966068	5G	1	N/A	31	s	AXO1	N/A	O	
3/18/2010 2:41	1C332.D	248862004	LANL	966068	5G	1	N/A	32	s	AXO1	N/A	O	
3/18/2010 3:11	1C333.D	248862005	LANL	966068	5G	1	N/A	33	s	AXO1	N/A	O	
3/18/2010 3:42	1C334.D	248862006	LANL	966068	5G	1	N/A	34	s	AXO1	N/A	O	
3/18/2010 4:12	1C335.D	248862007	LANL	966068	5G	1	N/A	35	s	AXO1	N/A	O	
3/18/2010 4:43	1C336.D	248862008	LANL	966068	5G	1	N/A	36	s	AXO1	N/A	O	
3/18/2010 5:13	1C337.D	248862009	LANL	966068	5G	1	N/A	37	s	AXO1	N/A	O	
3/18/2010 5:44	1C338.D	248862010	LANL	966068	5G	1	N/A	38	s	AXO1	N/A	O	
3/18/2010 6:14	1C339.D	1202073210	LANL	966068	5G	1	N/A	39	s	AXO1	N/A	O	MS 248862002
3/18/2010 6:45	1C340.D	1202073211	LANL	966068	5G	1	N/A	40	s	AXO1	N/A	O	MSD 248862002

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2314

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	965979
Prep Batch Number:	965978

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
248862002	RE46-10-13782
248862003	RE46-10-13783
248862004	RE46-10-13777
248862005	RE46-10-13775
248862006	RE46-10-13776
248862007	RE46-10-13781
248862008	RE46-10-13779
248862009	RE46-10-13780
248862010	RE46-10-13778
1202072982	Method Blank (MB)
1202072983	Laboratory Control Sample (LCS)
1202072984	249081001(RE16-10-3799) Matrix Spike (MS)
1202072985	249081001(RE16-10-3799) Matrix Spike Duplicate (MSD)

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

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
The non-SDG sample 249081001 (RE16-10-3799) was selected for analysis as the matrix spike and matrix

spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD(1202072985) recovered Benzyl alcohol at 13% (limits: 19%-112%). The MS displayed a similar low (but passing) recovery for that analyte. Therefore, the low recoveries were attributed to sample matrix interference and the data were reported.

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD value for Benzyl alcohol was at 49% (Limit: 30.00%). The failure was attributed to sample matrix interference and the data were reported.

Internal Standard (ISTD) Acceptance
The internal standard responses were outside of the acceptance criteria for the following sample: 248862002 (RE46-10-13782). The sample was re-analyzed and the failures were not confirmed. The re-analysis data are reported.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for the samples reported with this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD2.I	Agilent 5975 Mass Spectrometer	HP7890A/HP5975C	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement

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

Review Validation:

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

Reviewer: Dan Beachamp **Date:** 4-1-10

Roadmap for LANL 10-2314 SVOA

This roadmap was analyzed by ANN00964 on 03-30-2010, 13:09.
This roadmap was reviewed by bar00895 on 03-30-2010, 14:18.
This roadmap was packaged by CHA01131 on 03-31-2010, 11:16.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
■	N	/chem/MSD2.i/s032510.b/s2c2518.d	248862002	25-MAR-2010	20:27	10-2314.sub	RE46-10-13782	1	965979	duse ISTD low RR s2c2610.d
□	N	/chem/MSD2.i/s032510.b/s2c2519.d	248862003	25-MAR-2010	20:47	10-2314.sub	RE46-10-13783	1	965979	
□	N	/chem/MSD2.i/s032510.b/s2c2520.d	248862004	25-MAR-2010	21:08	10-2314.sub	RE46-10-13777	1	965979	
□	N	/chem/MSD2.i/s032510.b/s2c2521.d	248862005	25-MAR-2010	21:28	10-2314.sub	RE46-10-13775	1	965979	
□	N	/chem/MSD2.i/s032510.b/s2c2522.d	248862006	25-MAR-2010	21:48	10-2314.sub	RE46-10-13776	1	965979	
□	N	/chem/MSD2.i/s032510.b/s2c2523.d	248862007	25-MAR-2010	22:08	10-2314.sub	RE46-10-13781	1	965979	
□	N	/chem/MSD2.i/s032510.b/s2c2524.d	248862008	25-MAR-2010	22:28	10-2314.sub	RE46-10-13779	1	965979	
□	N	/chem/MSD2.i/s032510.b/s2c2525.d	248862009	25-MAR-2010	22:49	10-2314.sub	RE46-10-13780	1	965979	
□	N	/chem/MSD2.i/s032510.b/s2c2526.d	248862010	25-MAR-2010	23:09	10-2314.sub	RE46-10-13778	1	965979	
□	N	/chem/MSD2.i/s032610.b/s2c2610.d	248862002	26-MAR-2010	18:17	10-2314.sub	RE46-10-13782	1	965979	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
□	N	/chem/MSD2.i/s032510.b/s2c2505.d	1202072982	mb	25-MAR-2010	16:05	10-2314.sub	SBLK01	1	965979	
□	N	/chem/MSD2.i/s032510.b/s2c2506.d	1202072983	lcs	25-MAR-2010	16:24	10-2314.sub	SBLK01LCS	1	965979	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	Date Collected:	03/04/2010 12:00	Matrix:	S
Lab Sample ID:	248862005	Date Received:	03/06/2010 09:15	%Moisture:	9.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13775	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965979	Inst:	MSD2.I	Dilution:	1
Run Date:	03/25/2010 21:28	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/17/2010 10:52	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s2c2521.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	368	ug/kg	73.7	368
108-95-2	Phenol	U	368	ug/kg	73.7	368
95-57-8	2-Chlorophenol	U	368	ug/kg	73.7	368
106-46-7	1,4-Dichlorobenzene	U	368	ug/kg	73.7	368
621-64-7	N-Nitrosodipropylamine	U	368	ug/kg	73.7	368
59-50-7	4-Chloro-3-methylphenol	U	368	ug/kg	73.7	368
83-32-9	Acenaphthene	U	36.8	ug/kg	12.2	36.8
121-14-2	2,4-Dinitrotoluene	U	368	ug/kg	36.8	368
100-02-7	4-Nitrophenol	U	368	ug/kg	122	368
87-86-5	Pentachlorophenol	U	368	ug/kg	92.1	368
129-00-0	Pyrene	J	12.6	ug/kg	11.0	36.8
110-86-1	Pyridine	U	368	ug/kg	73.7	368
62-53-3	Aniline	U	368	ug/kg	110	368
111-44-4	bis(2-Chloroethyl) ether	U	368	ug/kg	73.7	368
541-73-1	1,3-Dichlorobenzene	U	368	ug/kg	73.7	368
100-51-6	Benzyl alcohol	U	368	ug/kg	110	368
95-50-1	1,2-Dichlorobenzene	U	368	ug/kg	73.7	368
108-60-1	bis(2-Chloroisopropyl)ether	U	368	ug/kg	73.7	368
95-48-7	o-Cresol	U	368	ug/kg	73.7	368
65794-96-9	m,p-Cresols	U	368	ug/kg	110	368
67-72-1	Hexachloroethane	U	368	ug/kg	73.7	368
98-95-3	Nitrobenzene	U	368	ug/kg	73.7	368
78-59-1	Isophorone	U	368	ug/kg	73.7	368
88-75-5	2-Nitrophenol	U	368	ug/kg	73.7	368
105-67-9	2,4-Dimethylphenol	U	368	ug/kg	129	368
111-91-1	bis(2-Chloroethoxy)methane	U	368	ug/kg	73.7	368
120-83-2	2,4-Dichlorophenol	U	368	ug/kg	73.7	368
65-85-0	Benzoic acid	U	737	ug/kg	184	737
91-20-3	Naphthalene	U	36.8	ug/kg	11.0	36.8
106-47-8	4-Chloroaniline	U	368	ug/kg	73.7	368
87-68-3	Hexachlorobutadiene	U	368	ug/kg	73.7	368
91-57-6	2-Methylnaphthalene	U	36.8	ug/kg	7.37	36.8
77-47-4	Hexachlorocyclopentadiene	U	368	ug/kg	73.7	368
88-06-2	2,4,6-Trichlorophenol	U	368	ug/kg	73.7	368
95-95-4	2,4,5-Trichlorophenol	U	368	ug/kg	73.7	368
91-58-7	2-Chloronaphthalene	U	36.8	ug/kg	12.2	36.8
88-74-4	2-Nitroaniline	U	368	ug/kg	73.7	368
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	368	ug/kg	73.7	368

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862005**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13775**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 21:28**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2521.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	368	ug/kg	73.7	368
606-20-2	2,6-Dinitrotoluene	U	368	ug/kg	36.8	368
208-96-8	Acenaphthylene	U	36.8	ug/kg	11.0	36.8
51-28-5	2,4-Dinitrophenol	U	737	ug/kg	140	737
132-64-9	Dibenzofuran	U	368	ug/kg	73.7	368
84-66-2	Diethylphthalate	U	368	ug/kg	73.7	368
86-73-7	Fluorene	U	36.8	ug/kg	11.0	36.8
7005-72-3	4-Chlorophenylphenylether	U	368	ug/kg	73.7	368
534-52-1	2-Methyl-4,6-dinitrophenol	U	368	ug/kg	73.7	368
100-01-6	4-Nitroaniline	U	368	ug/kg	110	368
	p-Nitroaniline					
122-39-4	Diphenylamine	U	368	ug/kg	73.7	368
122-66-7	Azobenzene	U	368	ug/kg	73.7	368
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	368	ug/kg	73.7	368
118-74-1	Hexachlorobenzene	U	368	ug/kg	73.7	368
85-01-8	Phenanthrene	U	36.8	ug/kg	11.0	36.8
120-12-7	Anthracene	U	36.8	ug/kg	7.37	36.8
84-74-2	Di-n-butylphthalate	U	368	ug/kg	73.7	368
206-44-0	Fluoranthene	J	14.9	ug/kg	11.0	36.8
85-68-7	Butylbenzylphthalate	U	368	ug/kg	73.7	368
56-55-3	Benzo(a)anthracene	U	36.8	ug/kg	11.0	36.8
91-94-1	3,3'-Dichlorobenzidine	U	368	ug/kg	110	368
218-01-9	Chrysene	U	36.8	ug/kg	11.0	36.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	368	ug/kg	73.7	368
117-84-0	Di-n-octylphthalate	U	368	ug/kg	73.7	368
205-99-2	Benzo(b)fluoranthene	J	11.1	ug/kg	11.0	36.8
207-08-9	Benzo(k)fluoranthene	U	36.8	ug/kg	11.0	36.8
50-32-8	Benzo(a)pyrene	U	36.8	ug/kg	11.0	36.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.8	ug/kg	11.0	36.8
53-70-3	Dibenzo(a,h)anthracene	U	36.8	ug/kg	11.0	36.8
191-24-2	Benzo(ghi)perylene	U	36.8	ug/kg	11.0	36.8
120-82-1	1,2,4-Trichlorobenzene	U	368	ug/kg	73.7	368

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	309	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862006**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13776**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 21:48**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2522.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	371	ug/kg	74.1	371
108-95-2	Phenol	U	371	ug/kg	74.1	371
95-57-8	2-Chlorophenol	U	371	ug/kg	74.1	371
106-46-7	1,4-Dichlorobenzene	U	371	ug/kg	74.1	371
621-64-7	N-Nitrosodipropylamine	U	371	ug/kg	74.1	371
59-50-7	4-Chloro-3-methylphenol	U	371	ug/kg	74.1	371
83-32-9	Acenaphthene	U	37.1	ug/kg	12.2	37.1
121-14-2	2,4-Dinitrotoluene	U	371	ug/kg	37.1	371
100-02-7	4-Nitrophenol	U	371	ug/kg	122	371
87-86-5	Pentachlorophenol	U	371	ug/kg	92.6	371
129-00-0	Pyrene	U	37.1	ug/kg	11.1	37.1
110-86-1	Pyridine	U	371	ug/kg	74.1	371
62-53-3	Aniline	U	371	ug/kg	111	371
111-44-4	bis(2-Chloroethyl) ether	U	371	ug/kg	74.1	371
541-73-1	1,3-Dichlorobenzene	U	371	ug/kg	74.1	371
100-51-6	Benzyl alcohol	U	371	ug/kg	111	371
95-50-1	1,2-Dichlorobenzene	U	371	ug/kg	74.1	371
108-60-1	bis(2-Chloroisopropyl)ether	U	371	ug/kg	74.1	371
95-48-7	o-Cresol	U	371	ug/kg	74.1	371
65794-96-9	m,p-Cresols	U	371	ug/kg	111	371
67-72-1	Hexachloroethane	U	371	ug/kg	74.1	371
98-95-3	Nitrobenzene	U	371	ug/kg	74.1	371
78-59-1	Isophorone	U	371	ug/kg	74.1	371
88-75-5	2-Nitrophenol	U	371	ug/kg	74.1	371
105-67-9	2,4-Dimethylphenol	U	371	ug/kg	130	371
111-91-1	bis(2-Chloroethoxy)methane	U	371	ug/kg	74.1	371
120-83-2	2,4-Dichlorophenol	U	371	ug/kg	74.1	371
65-85-0	Benzoic acid	U	741	ug/kg	185	741
91-20-3	Naphthalene	U	37.1	ug/kg	11.1	37.1
106-47-8	4-Chloroaniline	U	371	ug/kg	74.1	371
87-68-3	Hexachlorobutadiene	U	371	ug/kg	74.1	371
91-57-6	2-Methylnaphthalene	U	37.1	ug/kg	7.41	37.1
77-47-4	Hexachlorocyclopentadiene	U	371	ug/kg	74.1	371
88-06-2	2,4,6-Trichlorophenol	U	371	ug/kg	74.1	371
95-95-4	2,4,5-Trichlorophenol	U	371	ug/kg	74.1	371
91-58-7	2-Chloronaphthalene	U	37.1	ug/kg	12.2	37.1
88-74-4	2-Nitroaniline	U	371	ug/kg	74.1	371
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	371	ug/kg	74.1	371

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	Date Collected:	03/04/2010 12:00	Matrix:	S
Lab Sample ID:	248862006	Date Received:	03/06/2010 09:15	%Moisture:	10.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13776	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965979	Inst:	MSD2.I	Dilution:	1
Run Date:	03/25/2010 21:48	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/17/2010 10:52	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s2c2522.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	371	ug/kg	74.1	371
606-20-2	2,6-Dinitrotoluene	U	371	ug/kg	37.1	371
208-96-8	Acenaphthylene	U	37.1	ug/kg	11.1	37.1
51-28-5	2,4-Dinitrophenol	U	741	ug/kg	141	741
132-64-9	Dibenzofuran	U	371	ug/kg	74.1	371
84-66-2	Diethylphthalate	U	371	ug/kg	74.1	371
86-73-7	Fluorene	U	37.1	ug/kg	11.1	37.1
7005-72-3	4-Chlorophenylphenylether	U	371	ug/kg	74.1	371
534-52-1	2-Methyl-4,6-dinitrophenol	U	371	ug/kg	74.1	371
100-01-6	4-Nitroaniline	U	371	ug/kg	111	371
	p-Nitroaniline					
122-39-4	Diphenylamine	U	371	ug/kg	74.1	371
122-66-7	Azobenzene	U	371	ug/kg	74.1	371
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	371	ug/kg	74.1	371
118-74-1	Hexachlorobenzene	U	371	ug/kg	74.1	371
85-01-8	Phenanthrene	U	37.1	ug/kg	11.1	37.1
120-12-7	Anthracene	U	37.1	ug/kg	7.41	37.1
84-74-2	Di-n-butylphthalate	U	371	ug/kg	74.1	371
206-44-0	Fluoranthene	U	37.1	ug/kg	11.1	37.1
85-68-7	Butylbenzylphthalate	U	371	ug/kg	74.1	371
56-55-3	Benzo(a)anthracene	U	37.1	ug/kg	11.1	37.1
91-94-1	3,3'-Dichlorobenzidine	U	371	ug/kg	111	371
218-01-9	Chrysene	U	37.1	ug/kg	11.1	37.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	371	ug/kg	74.1	371
117-84-0	Di-n-octylphthalate	U	371	ug/kg	74.1	371
205-99-2	Benzo(b)fluoranthene	U	37.1	ug/kg	11.1	37.1
207-08-9	Benzo(k)fluoranthene	U	37.1	ug/kg	11.1	37.1
50-32-8	Benzo(a)pyrene	U	37.1	ug/kg	11.1	37.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.1	ug/kg	11.1	37.1
53-70-3	Dibenzo(a,h)anthracene	U	37.1	ug/kg	11.1	37.1
191-24-2	Benzo(ghi)perylene	U	37.1	ug/kg	11.1	37.1
120-82-1	1,2,4-Trichlorobenzene	U	371	ug/kg	74.1	371

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	356	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	Date Collected:	03/04/2010 12:00	Matrix:	S
Lab Sample ID:	248862004	Date Received:	03/06/2010 09:15	%Moisture:	20.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13777	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965979	Inst:	MSD2.I	Dilution:	1
Run Date:	03/25/2010 21:08	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/17/2010 10:52	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s2c2520.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	419	ug/kg	83.7	419
108-95-2	Phenol	U	419	ug/kg	83.7	419
95-57-8	2-Chlorophenol	U	419	ug/kg	83.7	419
106-46-7	1,4-Dichlorobenzene	U	419	ug/kg	83.7	419
621-64-7	N-Nitrosodipropylamine	U	419	ug/kg	83.7	419
59-50-7	4-Chloro-3-methylphenol	U	419	ug/kg	83.7	419
83-32-9	Acenaphthene	U	41.9	ug/kg	13.8	41.9
121-14-2	2,4-Dinitrotoluene	U	419	ug/kg	41.9	419
100-02-7	4-Nitrophenol	U	419	ug/kg	138	419
87-86-5	Pentachlorophenol	U	419	ug/kg	105	419
129-00-0	Pyrene		82.9	ug/kg	12.6	41.9
110-86-1	Pyridine	U	419	ug/kg	83.7	419
62-53-3	Aniline	U	419	ug/kg	126	419
111-44-4	bis(2-Chloroethyl) ether	U	419	ug/kg	83.7	419
541-73-1	1,3-Dichlorobenzene	U	419	ug/kg	83.7	419
100-51-6	Benzyl alcohol	U	419	ug/kg	126	419
95-50-1	1,2-Dichlorobenzene	U	419	ug/kg	83.7	419
108-60-1	bis(2-Chloroisopropyl)ether	U	419	ug/kg	83.7	419
95-48-7	o-Cresol	U	419	ug/kg	83.7	419
65794-96-9	m,p-Cresols	U	419	ug/kg	126	419
67-72-1	Hexachloroethane	U	419	ug/kg	83.7	419
98-95-3	Nitrobenzene	U	419	ug/kg	83.7	419
78-59-1	Isophorone	U	419	ug/kg	83.7	419
88-75-5	2-Nitrophenol	U	419	ug/kg	83.7	419
105-67-9	2,4-Dimethylphenol	U	419	ug/kg	146	419
111-91-1	bis(2-Chloroethoxy)methane	U	419	ug/kg	83.7	419
120-83-2	2,4-Dichlorophenol	U	419	ug/kg	83.7	419
65-85-0	Benzoic acid	U	837	ug/kg	209	837
91-20-3	Naphthalene	U	41.9	ug/kg	12.6	41.9
106-47-8	4-Chloroaniline	U	419	ug/kg	83.7	419
87-68-3	Hexachlorobutadiene	U	419	ug/kg	83.7	419
91-57-6	2-Methylnaphthalene	U	41.9	ug/kg	8.37	41.9
77-47-4	Hexachlorocyclopentadiene	U	419	ug/kg	83.7	419
88-06-2	2,4,6-Trichlorophenol	U	419	ug/kg	83.7	419
95-95-4	2,4,5-Trichlorophenol	U	419	ug/kg	83.7	419
91-58-7	2-Chloronaphthalene	U	41.9	ug/kg	13.8	41.9
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	419	ug/kg	83.7	419
99-09-2	3-Nitroaniline	U	419	ug/kg	83.7	419

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**20.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13777**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 21:08**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2520.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	419	ug/kg	83.7	419
606-20-2	2,6-Dinitrotoluene	U	419	ug/kg	41.9	419
208-96-8	Acenaphthylene	U	41.9	ug/kg	12.6	41.9
51-28-5	2,4-Dinitrophenol	U	837	ug/kg	159	837
132-64-9	Dibenzofuran	U	419	ug/kg	83.7	419
84-66-2	Diethylphthalate	U	419	ug/kg	83.7	419
86-73-7	Fluorene	U	41.9	ug/kg	12.6	41.9
7005-72-3	4-Chlorophenylphenylether	U	419	ug/kg	83.7	419
534-52-1	2-Methyl-4,6-dinitrophenol	U	419	ug/kg	83.7	419
100-01-6	4-Nitroaniline	U	419	ug/kg	126	419
	p-Nitroaniline					
122-39-4	Diphenylamine	U	419	ug/kg	83.7	419
122-66-7	Azobenzene	U	419	ug/kg	83.7	419
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	419	ug/kg	83.7	419
118-74-1	Hexachlorobenzene	U	419	ug/kg	83.7	419
85-01-8	Phenanthrene		85.8	ug/kg	12.6	41.9
120-12-7	Anthracene	J	19.1	ug/kg	8.37	41.9
84-74-2	Di-n-butylphthalate	U	419	ug/kg	83.7	419
206-44-0	Fluoranthene		102	ug/kg	12.6	41.9
85-68-7	Butylbenzylphthalate	U	419	ug/kg	83.7	419
56-55-3	Benzo(a)anthracene	U	41.9	ug/kg	12.6	41.9
91-94-1	3,3'-Dichlorobenzidine	U	419	ug/kg	126	419
218-01-9	Chrysene		45.2	ug/kg	12.6	41.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	419	ug/kg	83.7	419
117-84-0	Di-n-octylphthalate	U	419	ug/kg	83.7	419
205-99-2	Benzo(b)fluoranthene		71.1	ug/kg	12.6	41.9
207-08-9	Benzo(k)fluoranthene	U	41.9	ug/kg	12.6	41.9
50-32-8	Benzo(a)pyrene		44.7	ug/kg	12.6	41.9
193-39-5	Indeno(1,2,3-cd)pyrene	J	32.0	ug/kg	12.6	41.9
53-70-3	Dibenzo(a,h)anthracene	U	41.9	ug/kg	12.6	41.9
191-24-2	Benzo(ghi)perylene		42.5	ug/kg	12.6	41.9
120-82-1	1,2,4-Trichlorobenzene	U	419	ug/kg	83.7	419

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	450	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862010**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13778**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 23:09**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2526.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	412	ug/kg	82.4	412
108-95-2	Phenol	U	412	ug/kg	82.4	412
95-57-8	2-Chlorophenol	U	412	ug/kg	82.4	412
106-46-7	1,4-Dichlorobenzene	U	412	ug/kg	82.4	412
621-64-7	N-Nitrosodipropylamine	U	412	ug/kg	82.4	412
59-50-7	4-Chloro-3-methylphenol	U	412	ug/kg	82.4	412
83-32-9	Acenaphthene	U	41.2	ug/kg	13.6	41.2
121-14-2	2,4-Dinitrotoluene	U	412	ug/kg	41.2	412
100-02-7	4-Nitrophenol	U	412	ug/kg	136	412
87-86-5	Pentachlorophenol	U	412	ug/kg	103	412
129-00-0	Pyrene	U	41.2	ug/kg	12.4	41.2
110-86-1	Pyridine	U	412	ug/kg	82.4	412
62-53-3	Aniline	U	412	ug/kg	124	412
111-44-4	bis(2-Chloroethyl) ether	U	412	ug/kg	82.4	412
541-73-1	1,3-Dichlorobenzene	U	412	ug/kg	82.4	412
100-51-6	Benzyl alcohol	U	412	ug/kg	124	412
95-50-1	1,2-Dichlorobenzene	U	412	ug/kg	82.4	412
108-60-1	bis(2-Chloroisopropyl)ether	U	412	ug/kg	82.4	412
95-48-7	o-Cresol	U	412	ug/kg	82.4	412
65794-96-9	m,p-Cresols	U	412	ug/kg	124	412
67-72-1	Hexachloroethane	U	412	ug/kg	82.4	412
98-95-3	Nitrobenzene	U	412	ug/kg	82.4	412
78-59-1	Isophorone	U	412	ug/kg	82.4	412
88-75-5	2-Nitrophenol	U	412	ug/kg	82.4	412
105-67-9	2,4-Dimethylphenol	U	412	ug/kg	144	412
111-91-1	bis(2-Chloroethoxy)methane	U	412	ug/kg	82.4	412
120-83-2	2,4-Dichlorophenol	U	412	ug/kg	82.4	412
65-85-0	Benzoic acid	U	824	ug/kg	206	824
91-20-3	Naphthalene	U	41.2	ug/kg	12.4	41.2
106-47-8	4-Chloroaniline	U	412	ug/kg	82.4	412
87-68-3	Hexachlorobutadiene	U	412	ug/kg	82.4	412
91-57-6	2-Methylnaphthalene	U	41.2	ug/kg	8.24	41.2
77-47-4	Hexachlorocyclopentadiene	U	412	ug/kg	82.4	412
88-06-2	2,4,6-Trichlorophenol	U	412	ug/kg	82.4	412
95-95-4	2,4,5-Trichlorophenol	U	412	ug/kg	82.4	412
91-58-7	2-Chloronaphthalene	U	41.2	ug/kg	13.6	41.2
88-74-4	2-Nitroaniline	U	412	ug/kg	82.4	412
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	412	ug/kg	82.4	412

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862010**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13778**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 23:09**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2526.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	412	ug/kg	82.4	412
606-20-2	2,6-Dinitrotoluene	U	412	ug/kg	41.2	412
208-96-8	Acenaphthylene	U	41.2	ug/kg	12.4	41.2
51-28-5	2,4-Dinitrophenol	U	824	ug/kg	157	824
132-64-9	Dibenzofuran	U	412	ug/kg	82.4	412
84-66-2	Diethylphthalate	U	412	ug/kg	82.4	412
86-73-7	Fluorene	U	41.2	ug/kg	12.4	41.2
7005-72-3	4-Chlorophenylphenylether	U	412	ug/kg	82.4	412
534-52-1	2-Methyl-4,6-dinitrophenol	U	412	ug/kg	82.4	412
100-01-6	4-Nitroaniline	U	412	ug/kg	124	412
	p-Nitroaniline					
122-39-4	Diphenylamine	U	412	ug/kg	82.4	412
122-66-7	Azobenzene	U	412	ug/kg	82.4	412
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	412	ug/kg	82.4	412
118-74-1	Hexachlorobenzene	U	412	ug/kg	82.4	412
85-01-8	Phenanthrene	U	41.2	ug/kg	12.4	41.2
120-12-7	Anthracene	U	41.2	ug/kg	8.24	41.2
84-74-2	Di-n-butylphthalate	U	412	ug/kg	82.4	412
206-44-0	Fluoranthene	U	41.2	ug/kg	12.4	41.2
85-68-7	Butylbenzylphthalate	U	412	ug/kg	82.4	412
56-55-3	Benzo(a)anthracene	U	41.2	ug/kg	12.4	41.2
91-94-1	3,3'-Dichlorobenzidine	U	412	ug/kg	124	412
218-01-9	Chrysene	U	41.2	ug/kg	12.4	41.2
117-81-7	bis(2-Ethylhexyl)phthalate	J	83.3	ug/kg	82.4	412
117-84-0	Di-n-octylphthalate	U	412	ug/kg	82.4	412
205-99-2	Benzo(b)fluoranthene	U	41.2	ug/kg	12.4	41.2
207-08-9	Benzo(k)fluoranthene	U	41.2	ug/kg	12.4	41.2
50-32-8	Benzo(a)pyrene	U	41.2	ug/kg	12.4	41.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.2	ug/kg	12.4	41.2
53-70-3	Dibenzo(a,h)anthracene	U	41.2	ug/kg	12.4	41.2
191-24-2	Benzo(ghi)perylene	U	41.2	ug/kg	12.4	41.2
120-82-1	1,2,4-Trichlorobenzene	U	412	ug/kg	82.4	412

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	443	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862008**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13779**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 22:28**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2524.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	413	ug/kg	82.6	413
108-95-2	Phenol	U	413	ug/kg	82.6	413
95-57-8	2-Chlorophenol	U	413	ug/kg	82.6	413
106-46-7	1,4-Dichlorobenzene	U	413	ug/kg	82.6	413
621-64-7	N-Nitrosodipropylamine	U	413	ug/kg	82.6	413
59-50-7	4-Chloro-3-methylphenol	U	413	ug/kg	82.6	413
83-32-9	Acenaphthene	U	41.3	ug/kg	13.6	41.3
121-14-2	2,4-Dinitrotoluene	U	413	ug/kg	41.3	413
100-02-7	4-Nitrophenol	U	413	ug/kg	136	413
87-86-5	Pentachlorophenol	U	413	ug/kg	103	413
129-00-0	Pyrene		64.7	ug/kg	12.4	41.3
110-86-1	Pyridine	U	413	ug/kg	82.6	413
62-53-3	Aniline	U	413	ug/kg	124	413
111-44-4	bis(2-Chloroethyl) ether	U	413	ug/kg	82.6	413
541-73-1	1,3-Dichlorobenzene	U	413	ug/kg	82.6	413
100-51-6	Benzyl alcohol	U	413	ug/kg	124	413
95-50-1	1,2-Dichlorobenzene	U	413	ug/kg	82.6	413
108-60-1	bis(2-Chloroisopropyl)ether	U	413	ug/kg	82.6	413
95-48-7	o-Cresol	U	413	ug/kg	82.6	413
65794-96-9	m,p-Cresols	U	413	ug/kg	124	413
67-72-1	Hexachloroethane	U	413	ug/kg	82.6	413
98-95-3	Nitrobenzene	U	413	ug/kg	82.6	413
78-59-1	Isophorone	U	413	ug/kg	82.6	413
88-75-5	2-Nitrophenol	U	413	ug/kg	82.6	413
105-67-9	2,4-Dimethylphenol	U	413	ug/kg	145	413
111-91-1	bis(2-Chloroethoxy)methane	U	413	ug/kg	82.6	413
120-83-2	2,4-Dichlorophenol	U	413	ug/kg	82.6	413
65-85-0	Benzoic acid	U	826	ug/kg	207	826
91-20-3	Naphthalene	U	41.3	ug/kg	12.4	41.3
106-47-8	4-Chloroaniline	U	413	ug/kg	82.6	413
87-68-3	Hexachlorobutadiene	U	413	ug/kg	82.6	413
91-57-6	2-Methylnaphthalene	U	41.3	ug/kg	8.26	41.3
77-47-4	Hexachlorocyclopentadiene	U	413	ug/kg	82.6	413
88-06-2	2,4,6-Trichlorophenol	U	413	ug/kg	82.6	413
95-95-4	2,4,5-Trichlorophenol	U	413	ug/kg	82.6	413
91-58-7	2-Chloronaphthalene	U	41.3	ug/kg	13.6	41.3
88-74-4	2-Nitroaniline	U	413	ug/kg	82.6	413
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	413	ug/kg	82.6	413

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862008**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13779**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.1**	**Dilution:**	**1**
Run Date:	**03/25/2010 22:28**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2524.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	413	ug/kg	82.6	413
606-20-2	2,6-Dinitrotoluene	U	413	ug/kg	41.3	413
208-96-8	Acenaphthylene	U	41.3	ug/kg	12.4	41.3
51-28-5	2,4-Dinitrophenol	U	826	ug/kg	157	826
132-64-9	Dibenzofuran	U	413	ug/kg	82.6	413
84-66-2	Diethylphthalate	U	413	ug/kg	82.6	413
86-73-7	Fluorene	U	41.3	ug/kg	12.4	41.3
7005-72-3	4-Chlorophenylphenylether	U	413	ug/kg	82.6	413
534-52-1	2-Methyl-4,6-dinitrophenol	U	413	ug/kg	82.6	413
100-01-6	4-Nitroaniline	U	413	ug/kg	124	413
	p-Nitroaniline					
122-39-4	Diphenylamine	U	413	ug/kg	82.6	413
122-66-7	Azobenzene	U	413	ug/kg	82.6	413
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	413	ug/kg	82.6	413
118-74-1	Hexachlorobenzene	U	413	ug/kg	82.6	413
85-01-8	Phenanthrene		54.5	ug/kg	12.4	41.3
120-12-7	Anthracene	J	12.1	ug/kg	8.26	41.3
84-74-2	Di-n-butylphthalate	U	413	ug/kg	82.6	413
206-44-0	Fluoranthene		79.1	ug/kg	12.4	41.3
85-68-7	Butylbenzylphthalate	U	413	ug/kg	82.6	413
56-55-3	Benzo(a)anthracene	U	41.3	ug/kg	12.4	41.3
91-94-1	3,3'-Dichlorobenzidine	U	413	ug/kg	124	413
218-01-9	Chrysene	J	35.7	ug/kg	12.4	41.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	413	ug/kg	82.6	413
117-84-0	Di-n-octylphthalate	U	413	ug/kg	82.6	413
205-99-2	Benzo(b)fluoranthene		54.9	ug/kg	12.4	41.3
207-08-9	Benzo(k)fluoranthene	U	41.3	ug/kg	12.4	41.3
50-32-8	Benzo(a)pyrene	J	34.1	ug/kg	12.4	41.3
193-39-5	Indeno(1,2,3-cd)pyrene	J	18.4	ug/kg	12.4	41.3
53-70-3	Dibenzo(a,h)anthracene	U	41.3	ug/kg	12.4	41.3
191-24-2	Benzo(ghi)perylene	J	22.5	ug/kg	12.4	41.3
120-82-1	1,2,4-Trichlorobenzene	U	413	ug/kg	82.6	413

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	446	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862009**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13780**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 22:49**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2525.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	406	ug/kg	81.3	406
108-95-2	Phenol	U	406	ug/kg	81.3	406
95-57-8	2-Chlorophenol	U	406	ug/kg	81.3	406
106-46-7	1,4-Dichlorobenzene	U	406	ug/kg	81.3	406
621-64-7	N-Nitrosodipropylamine	U	406	ug/kg	81.3	406
59-50-7	4-Chloro-3-methylphenol	U	406	ug/kg	81.3	406
83-32-9	Acenaphthene	U	40.6	ug/kg	13.4	40.6
121-14-2	2,4-Dinitrotoluene	U	406	ug/kg	40.6	406
100-02-7	4-Nitrophenol	U	406	ug/kg	134	406
87-86-5	Pentachlorophenol	U	406	ug/kg	102	406
129-00-0	Pyrene	U	40.6	ug/kg	12.2	40.6
110-86-1	Pyridine	U	406	ug/kg	81.3	406
62-53-3	Aniline	U	406	ug/kg	122	406
111-44-4	bis(2-Chloroethyl) ether	U	406	ug/kg	81.3	406
541-73-1	1,3-Dichlorobenzene	U	406	ug/kg	81.3	406
100-51-6	Benzyl alcohol	U	406	ug/kg	122	406
95-50-1	1,2-Dichlorobenzene	U	406	ug/kg	81.3	406
108-60-1	bis(2-Chloroisopropyl)ether	U	406	ug/kg	81.3	406
95-48-7	o-Cresol	U	406	ug/kg	81.3	406
65794-96-9	m,p-Cresols	U	406	ug/kg	122	406
67-72-1	Hexachloroethane	U	406	ug/kg	81.3	406
98-95-3	Nitrobenzene	U	406	ug/kg	81.3	406
78-59-1	Isophorone	U	406	ug/kg	81.3	406
88-75-5	2-Nitrophenol	U	406	ug/kg	81.3	406
105-67-9	2,4-Dimethylphenol	U	406	ug/kg	142	406
111-91-1	bis(2-Chloroethoxy)methane	U	406	ug/kg	81.3	406
120-83-2	2,4-Dichlorophenol	U	406	ug/kg	81.3	406
65-85-0	Benzoic acid	U	813	ug/kg	203	813
91-20-3	Naphthalene	U	40.6	ug/kg	12.2	40.6
106-47-8	4-Chloroaniline	U	406	ug/kg	81.3	406
87-68-3	Hexachlorobutadiene	U	406	ug/kg	81.3	406
91-57-6	2-Methylnaphthalene	U	40.6	ug/kg	8.13	40.6
77-47-4	Hexachlorocyclopentadiene	U	406	ug/kg	81.3	406
88-06-2	2,4,6-Trichlorophenol	U	406	ug/kg	81.3	406
95-95-4	2,4,5-Trichlorophenol	U	406	ug/kg	81.3	406
91-58-7	2-Chloronaphthalene	U	40.6	ug/kg	13.4	40.6
88-74-4	2-Nitroaniline	U	406	ug/kg	81.3	406
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	406	ug/kg	81.3	406

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862009**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13780**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 22:49**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2525.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	406	ug/kg	81.3	406
606-20-2	2,6-Dinitrotoluene	U	406	ug/kg	40.6	406
208-96-8	Acenaphthylene	U	40.6	ug/kg	12.2	40.6
51-28-5	2,4-Dinitrophenol	U	813	ug/kg	154	813
132-64-9	Dibenzofuran	U	406	ug/kg	81.3	406
84-66-2	Diethylphthalate	U	406	ug/kg	81.3	406
86-73-7	Fluorene	U	40.6	ug/kg	12.2	40.6
7005-72-3	4-Chlorophenylphenylether	U	406	ug/kg	81.3	406
534-52-1	2-Methyl-4,6-dinitrophenol	U	406	ug/kg	81.3	406
100-01-6	4-Nitroaniline	U	406	ug/kg	122	406
	p-Nitroaniline					
122-39-4	Diphenylamine	U	406	ug/kg	81.3	406
122-66-7	Azobenzene	U	406	ug/kg	81.3	406
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	406	ug/kg	81.3	406
118-74-1	Hexachlorobenzene	U	406	ug/kg	81.3	406
85-01-8	Phenanthrene	U	40.6	ug/kg	12.2	40.6
120-12-7	Anthracene	U	40.6	ug/kg	8.13	40.6
84-74-2	Di-n-butylphthalate	U	406	ug/kg	81.3	406
206-44-0	Fluoranthene	U	40.6	ug/kg	12.2	40.6
85-68-7	Butylbenzylphthalate	U	406	ug/kg	81.3	406
56-55-3	Benzo(a)anthracene	U	40.6	ug/kg	12.2	40.6
91-94-1	3,3'-Dichlorobenzidine	U	406	ug/kg	122	406
218-01-9	Chrysene	U	40.6	ug/kg	12.2	40.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	406	ug/kg	81.3	406
117-84-0	Di-n-octylphthalate	U	406	ug/kg	81.3	406
205-99-2	Benzo(b)fluoranthene	U	40.6	ug/kg	12.2	40.6
207-08-9	Benzo(k)fluoranthene	U	40.6	ug/kg	12.2	40.6
50-32-8	Benzo(a)pyrene	U	40.6	ug/kg	12.2	40.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.6	ug/kg	12.2	40.6
53-70-3	Dibenzo(a,h)anthracene	U	40.6	ug/kg	12.2	40.6
191-24-2	Benzo(ghi)perylene	U	40.6	ug/kg	12.2	40.6
120-82-1	1,2,4-Trichlorobenzene	U	406	ug/kg	81.3	406

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.88	356	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862007**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13781**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 22:08**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2523.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	411	ug/kg	82.1	411
108-95-2	Phenol	U	411	ug/kg	82.1	411
95-57-8	2-Chlorophenol	U	411	ug/kg	82.1	411
106-46-7	1,4-Dichlorobenzene	U	411	ug/kg	82.1	411
621-64-7	N-Nitrosodipropylamine	U	411	ug/kg	82.1	411
59-50-7	4-Chloro-3-methylphenol	U	411	ug/kg	82.1	411
83-32-9	Acenaphthene	U	41.1	ug/kg	13.6	41.1
121-14-2	2,4-Dinitrotoluene	U	411	ug/kg	41.1	411
100-02-7	4-Nitrophenol	U	411	ug/kg	136	411
87-86-5	Pentachlorophenol	U	411	ug/kg	103	411
129-00-0	Pyrene		94.9	ug/kg	12.3	41.1
110-86-1	Pyridine	U	411	ug/kg	82.1	411
62-53-3	Aniline	U	411	ug/kg	123	411
111-44-4	bis(2-Chloroethyl) ether	U	411	ug/kg	82.1	411
541-73-1	1,3-Dichlorobenzene	U	411	ug/kg	82.1	411
100-51-6	Benzyl alcohol	U	411	ug/kg	123	411
95-50-1	1,2-Dichlorobenzene	U	411	ug/kg	82.1	411
108-60-1	bis(2-Chloroisopropyl)ether	U	411	ug/kg	82.1	411
95-48-7	o-Cresol	U	411	ug/kg	82.1	411
65794-96-9	m,p-Cresols	U	411	ug/kg	123	411
67-72-1	Hexachloroethane	U	411	ug/kg	82.1	411
98-95-3	Nitrobenzene	U	411	ug/kg	82.1	411
78-59-1	Isophorone	U	411	ug/kg	82.1	411
88-75-5	2-Nitrophenol	U	411	ug/kg	82.1	411
105-67-9	2,4-Dimethylphenol	U	411	ug/kg	144	411
111-91-1	bis(2-Chloroethoxy)methane	U	411	ug/kg	82.1	411
120-83-2	2,4-Dichlorophenol	U	411	ug/kg	82.1	411
65-85-0	Benzoic acid	U	821	ug/kg	205	821
91-20-3	Naphthalene	U	41.1	ug/kg	12.3	41.1
106-47-8	4-Chloroaniline	U	411	ug/kg	82.1	411
87-68-3	Hexachlorobutadiene	U	411	ug/kg	82.1	411
91-57-6	2-Methylnaphthalene	U	41.1	ug/kg	8.21	41.1
77-47-4	Hexachlorocyclopentadiene	U	411	ug/kg	82.1	411
88-06-2	2,4,6-Trichlorophenol	U	411	ug/kg	82.1	411
95-95-4	2,4,5-Trichlorophenol	U	411	ug/kg	82.1	411
91-58-7	2-Chloronaphthalene	U	41.1	ug/kg	13.6	41.1
88-74-4	2-Nitroaniline	U	411	ug/kg	82.1	411
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	411	ug/kg	82.1	411

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862007**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13781**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 22:08**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2523.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	411	ug/kg	82.1	411
606-20-2	2,6-Dinitrotoluene	U	411	ug/kg	41.1	411
208-96-8	Acenaphthylene	U	41.1	ug/kg	12.3	41.1
51-28-5	2,4-Dinitrophenol	U	821	ug/kg	156	821
132-64-9	Dibenzofuran	U	411	ug/kg	82.1	411
84-66-2	Diethylphthalate	U	411	ug/kg	82.1	411
86-73-7	Fluorene	U	41.1	ug/kg	12.3	41.1
7005-72-3	4-Chlorophenylphenylether	U	411	ug/kg	82.1	411
534-52-1	2-Methyl-4,6-dinitrophenol	U	411	ug/kg	82.1	411
100-01-6	4-Nitroaniline	U	411	ug/kg	123	411
	p-Nitroaniline					
122-39-4	Diphenylamine	U	411	ug/kg	82.1	411
122-66-7	Azobenzene	U	411	ug/kg	82.1	411
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	411	ug/kg	82.1	411
118-74-1	Hexachlorobenzene	U	411	ug/kg	82.1	411
85-01-8	Phenanthrene		76.7	ug/kg	12.3	41.1
120-12-7	Anthracene	J	16.1	ug/kg	8.21	41.1
84-74-2	Di-n-butylphthalate	U	411	ug/kg	82.1	411
206-44-0	Fluoranthene		125	ug/kg	12.3	41.1
85-68-7	Butylbenzylphthalate	U	411	ug/kg	82.1	411
56-55-3	Benzo(a)anthracene	U	41.1	ug/kg	12.3	41.1
91-94-1	3,3'-Dichlorobenzidine	U	411	ug/kg	123	411
218-01-9	Chrysene		59.2	ug/kg	12.3	41.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	411	ug/kg	82.1	411
117-84-0	Di-n-octylphthalate	U	411	ug/kg	82.1	411
205-99-2	Benzo(b)fluoranthene		88.2	ug/kg	12.3	41.1
207-08-9	Benzo(k)fluoranthene	U	41.1	ug/kg	12.3	41.1
50-32-8	Benzo(a)pyrene		55.6	ug/kg	12.3	41.1
193-39-5	Indeno(1,2,3-cd)pyrene	J	32.3	ug/kg	12.3	41.1
53-70-3	Dibenzo(a,h)anthracene	U	41.1	ug/kg	12.3	41.1
191-24-2	Benzo(ghi)perylene	J	32.7	ug/kg	12.3	41.1
120-82-1	1,2,4-Trichlorobenzene	U	411	ug/kg	82.1	411

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	491	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13782**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 18:17**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2610.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Uuits	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	387	ug/kg	77.4	387
108-95-2	Phenol	U	387	ug/kg	77.4	387
95-57-8	2-Chlorophenol	U	387	ug/kg	77.4	387
106-46-7	1,4-Dichlorobenzene	U	387	ug/kg	77.4	387
621-64-7	N-Nitrosodipropylamine	U	387	ug/kg	77.4	387
59-50-7	4-Chloro-3-methylphenol	U	387	ug/kg	77.4	387
83-32-9	Acenaphthene	U	38.7	ug/kg	12.8	38.7
121-14-2	2,4-Dinitrotoluene	U	387	ug/kg	38.7	387
100-02-7	4-Nitrophenol	U	387	ug/kg	128	387
87-86-5	Pentachlorophenol	U	387	ug/kg	96.8	387
129-00-0	Pyrene	U	38.7	ug/kg	11.6	38.7
110-86-1	Pyridine	U	387	ug/kg	77.4	387
62-53-3	Aniline	U	387	ug/kg	116	387
111-44-4	bis(2-Chloroethyl) ether	U	387	ug/kg	77.4	387
541-73-1	1,3-Dichlorobenzene	U	387	ug/kg	77.4	387
100-51-6	Benzyl alcohol	U	387	ug/kg	116	387
95-50-1	1,2-Dichlorobenzene	U	387	ug/kg	77.4	387
108-60-1	bis(2-Chloroisopropyl)ether	U	387	ug/kg	77.4	387
95-48-7	o-Cresol	U	387	ug/kg	77.4	387
65794-96-9	m,p-Cresols	U	387	ug/kg	116	387
67-72-1	Hexachloroethane	U	387	ug/kg	77.4	387
98-95-3	Nitrobenzene	U	387	ug/kg	77.4	387
78-59-1	Isophorone	U	387	ug/kg	77.4	387
88-75-5	2-Nitrophenol	U	387	ug/kg	77.4	387
105-67-9	2,4-Dimethylphenol	U	387	ug/kg	135	387
111-91-1	bis(2-Chloroethoxy)methane	U	387	ug/kg	77.4	387
120-83-2	2,4-Dichlorophenol	U	387	ug/kg	77.4	387
65-85-0	Benzoic acid	U	774	ug/kg	194	774
91-20-3	Naphthalene	U	38.7	ug/kg	11.6	38.7
106-47-8	4-Chloroaniline	U	387	ug/kg	77.4	387
87-68-3	Hexachlorobutadiene	U	387	ug/kg	77.4	387
91-57-6	2-Methylnaphthalene	U	38.7	ug/kg	7.74	38.7
77-47-4	Hexachlorocyclopentadiene	U	387	ug/kg	77.4	387
88-06-2	2,4,6-Trichlorophenol	U	387	ug/kg	77.4	387
95-95-4	2,4,5-Trichlorophenol	U	387	ug/kg	77.4	387
91-58-7	2-Chloronaphthalene	U	38.7	ug/kg	12.8	38.7
88-74-4	2-Nitroaniline	U	387	ug/kg	77.4	387
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	387	ug/kg	77.4	387

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13782**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 18:17**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2610.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	387	ug/kg	77.4	387
606-20-2	2,6-Dinitrotoluene	U	387	ug/kg	38.7	387
208-96-8	Acenaphthylene	U	38.7	ug/kg	11.6	38.7
51-28-5	2,4-Dinitrophenol	U	774	ug/kg	147	774
132-64-9	Dibenzofuran	U	387	ug/kg	77.4	387
84-66-2	Diethylphthalate	U	387	ug/kg	77.4	387
86-73-7	Fluorene	U	38.7	ug/kg	11.6	38.7
7005-72-3	4-Chlorophenylphenylether	U	387	ug/kg	77.4	387
534-52-1	2-Methyl-4,6-dinitrophenol	U	387	ug/kg	77.4	387
100-01-6	4-Nitroaniline	U	387	ug/kg	116	387
	p-Nitroaniline					
122-39-4	Diphenylamine	U	387	ug/kg	77.4	387
122-66-7	Azobenzene	U	387	ug/kg	77.4	387
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	387	ug/kg	77.4	387
118-74-1	Hexachlorobenzene	U	387	ug/kg	77.4	387
85-01-8	Phenanthrene	U	38.7	ug/kg	11.6	38.7
120-12-7	Anthracene	U	38.7	ug/kg	7.74	38.7
84-74-2	Di-n-butylphthalate	U	387	ug/kg	77.4	387
206-44-0	Fluoranthene	U	38.7	ug/kg	11.6	38.7
85-68-7	Butylbenzylphthalate	U	387	ug/kg	77.4	387
56-55-3	Benzo(a)anthracene	U	38.7	ug/kg	11.6	38.7
91-94-1	3,3'-Dichlorobenzidine	U	387	ug/kg	116	387
218-01-9	Chrysene	U	38.7	ug/kg	11.6	38.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	387	ug/kg	77.4	387
117-84-0	Di-n-octylphthalate	U	387	ug/kg	77.4	387
205-99-2	Benzo(b)fluoranthene	U	38.7	ug/kg	11.6	38.7
207-08-9	Benzo(k)fluoranthene	U	38.7	ug/kg	11.6	38.7
50-32-8	Benzo(a)pyrene	U	38.7	ug/kg	11.6	38.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.7	ug/kg	11.6	38.7
53-70-3	Dibenzo(a,h)anthracene	U	38.7	ug/kg	11.6	38.7
191-24-2	Benzo(ghi)perylene	U	38.7	ug/kg	11.6	38.7
120-82-1	1,2,4-Trichlorobenzene	U	387	ug/kg	77.4	387

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	381	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13783**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 20:47**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2519.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	367	ug/kg	73.5	367
108-95-2	Phenol	U	367	ug/kg	73.5	367
95-57-8	2-Chlorophenol	U	367	ug/kg	73.5	367
106-46-7	1,4-Dichlorobenzene	U	367	ug/kg	73.5	367
621-64-7	N-Nitrosodipropylamine	U	367	ug/kg	73.5	367
59-50-7	4-Chloro-3-methylphenol	U	367	ug/kg	73.5	367
83-32-9	Acenaphthene	U	36.7	ug/kg	12.1	36.7
121-14-2	2,4-Dinitrotoluene	U	367	ug/kg	36.7	367
100-02-7	4-Nitrophenol	U	367	ug/kg	121	367
87-86-5	Pentachlorophenol	U	367	ug/kg	91.8	367
129-00-0	Pyrene	U	36.7	ug/kg	11.0	36.7
110-86-1	Pyridine	U	367	ug/kg	73.5	367
62-53-3	Aniline	U	367	ug/kg	110	367
111-44-4	bis(2-Chloroethyl) ether	U	367	ug/kg	73.5	367
541-73-1	1,3-Dichlorobenzene	U	367	ug/kg	73.5	367
100-51-6	Benzyl alcohol	U	367	ug/kg	110	367
95-50-1	1,2-Dichlorobenzene	U	367	ug/kg	73.5	367
108-60-1	bis(2-Chloroisopropyl)ether	U	367	ug/kg	73.5	367
95-48-7	o-Cresol	U	367	ug/kg	73.5	367
65794-96-9	m,p-Cresols	U	367	ug/kg	110	367
67-72-1	Hexachloroethane	U	367	ug/kg	73.5	367
98-95-3	Nitrobenzene	U	367	ug/kg	73.5	367
78-59-1	Isophorone	U	367	ug/kg	73.5	367
88-75-5	2-Nitrophenol	U	367	ug/kg	73.5	367
105-67-9	2,4-Dimethylphenol	U	367	ug/kg	129	367
111-91-1	bis(2-Chloroethoxy)methane	U	367	ug/kg	73.5	367
120-83-2	2,4-Dichlorophenol	U	367	ug/kg	73.5	367
65-85-0	Benzoic acid	U	735	ug/kg	184	735
91-20-3	Naphthalene	U	36.7	ug/kg	11.0	36.7
106-47-8	4-Chloroaniline	U	367	ug/kg	73.5	367
87-68-3	Hexachlorobutadiene	U	367	ug/kg	73.5	367
91-57-6	2-Methylnaphthalene	U	36.7	ug/kg	7.35	36.7
77-47-4	Hexachlorocyclopentadiene	U	367	ug/kg	73.5	367
88-06-2	2,4,6-Trichlorophenol	U	367	ug/kg	73.5	367
95-95-4	2,4,5-Trichlorophenol	U	367	ug/kg	73.5	367
91-58-7	2-Chloronaphthalene	U	36.7	ug/kg	12.1	36.7
88-74-4	2-Nitroaniline	U	367	ug/kg	73.5	367
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	367	ug/kg	73.5	367

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862003	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13783	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 20:47	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s2c2519.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	367	ug/kg	73.5	367
606-20-2	2,6-Dinitrotoluene	U	367	ug/kg	36.7	367
208-96-8	Acenaphthylene	U	36.7	ug/kg	11.0	36.7
51-28-5	2,4-Dinitrophenol	U	735	ug/kg	140	735
132-64-9	Dibenzofuran	U	367	ug/kg	73.5	367
84-66-2	Diethylphthalate	U	367	ug/kg	73.5	367
86-73-7	Fluorene	U	36.7	ug/kg	11.0	36.7
7005-72-3	4-Chlorophenylphenylether	U	367	ug/kg	73.5	367
534-52-1	2-Methyl-4,6-dinitrophenol	U	367	ug/kg	73.5	367
100-01-6	4-Nitroaniline	U	367	ug/kg	110	367
	p-Nitroaniline					
122-39-4	Diphenylamine	U	367	ug/kg	73.5	367
122-66-7	Azobenzene	U	367	ug/kg	73.5	367
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	367	ug/kg	73.5	367
118-74-1	Hexachlorobenzene	U	367	ug/kg	73.5	367
85-01-8	Phenanthrene	U	36.7	ug/kg	11.0	36.7
120-12-7	Anthracene	U	36.7	ug/kg	7.35	36.7
84-74-2	Di-n-butylphthalate	U	367	ug/kg	73.5	367
206-44-0	Fluoranthene	U	36.7	ug/kg	11.0	36.7
85-68-7	Butylbenzylphthalate	U	367	ug/kg	73.5	367
56-55-3	Benzo(a)anthracene	U	36.7	ug/kg	11.0	36.7
91-94-1	3,3'-Dichlorobenzidine	U	367	ug/kg	110	367
218-01-9	Chrysene	U	36.7	ug/kg	11.0	36.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	367	ug/kg	73.5	367
117-84-0	Di-n-octylphthalate	U	367	ug/kg	73.5	367
205-99-2	Benzo(b)fluoranthene	U	36.7	ug/kg	11.0	36.7
207-08-9	Benzo(k)fluoranthene	U	36.7	ug/kg	11.0	36.7
50-32-8	Benzo(a)pyrene	U	36.7	ug/kg	11.0	36.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.7	ug/kg	11.0	36.7
53-70-3	Dibenzo(a,h)anthracene	U	36.7	ug/kg	11.0	36.7
191-24-2	Benzo(ghi)perylene	U	36.7	ug/kg	11.0	36.7
120-82-1	1,2,4-Trichlorobenzene	U	367	ug/kg	73.5	367

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	310	ug/kg		JA

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-2314

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202072982	MB for batch 965978	75	70	75	67	89	101
1202072983	LCS for batch 965978	79	77	80	72	98	80
248862003	RE46-10-13783	64	60	63	51	71	77
248862004	RE46-10-13777	55	52	57	53	60	70
248862005	RE46-10-13775	67	61	68	58	75	78
248862006	RE46-10-13776	66	61	67	53	69	74
248862007	RE46-10-13781	59	56	59	52	70	73
248862008	RE46-10-13779	53	50	52	48	58	68
248862009	RE46-10-13780	60	52	59	43	63	61
248862010	RE46-10-13778	61	57	60	52	68	72
248862002	RE46-10-13782	64	58	61	50	67	76

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(29%-99%)
PHL	=	Phenol-d5	(33%-98%)
NBZ	=	Nitrobenzene-d5	(31%-105%)
FBP	=	2-Fluorobiphenyl	(25%-109%)
TBP	=	2,4,6-Tribromophenol	(37%-106%)
TPH	=	p-Terphenyl-d14	(13%-150%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2314
Client ID: LCS for batch 965978
Lab Sample ID: 1202072983
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/25/2010 16:24
Prep Batch ID: 965978
Batch ID: 965979
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	1020	61	22-114
108-95-2	LCS	Phenol	1670	0.0	1300	78	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1250	75	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1150	69	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1380	83	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1340	80	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	1290	77	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1430	86	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	993	60	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	1200	72	27-116
129-00-0	LCS	Pyrene	1670	0.0	1120	67	42-113
110-86-1	LCS	Pyridine	1670	0.0	1010	60	8-125
62-53-3	LCS	Aniline	1670	0.0	981	59	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1200	72	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1130	68	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	823	49	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1160	70	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1520	91	28-117
95-48-7	LCS	o-Cresol	1670	0.0	1230	74	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1600	96	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	1230	74	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	1310	79	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2314 **Sample Type:** Laboratory Control Sample
Client ID: LCS for batch 965978 **Matrix:** SOIL
Lab Sample ID: 1202072983
Instrument: MSD2.I **Analysis Date:** 03/25/2010 16:24 **Dilution:** 1
Analyst: AGS1 **Prep Batch ID:** 965978
Inj. Vol: .5 uL **Batch ID:** 965979

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1240	75	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	1220	73	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	994	60	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1160	70	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1290	77	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	3570	107	22-138
91-20-3	LCS	Naphthalene	1670	0.0	1200	72	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	1030	62	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1350	81	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1300	78	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1040	63	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1280	77	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1220	73	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1220	73	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1390	84	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1240	74	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	1410	84	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1310	78	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	1300	78	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1380	83	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	1350	81	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	1520	91	51-126

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2314
Client ID: LCS for batch 965978
Lab Sample ID: 1202072983
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/25/2010 16:24
Dilution: 1
Prep Batch ID: 965978
Batch ID: 965979

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1470	88	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1410	85	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1270	76	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1890	113	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	1260	76	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1340	80	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1250	75	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1230	74	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	1270	76	46-107
120-12-7	LCS	Anthracene	1670	0.0	1310	79	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1490	89	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1480	89	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1300	78	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1270	76	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1070	64	36-103
218-01-9	LCS	Chrysene	1670	0.0	1300	78	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1350	81	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1390	83	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1470	88	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1260	75	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1360	82	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1400	84	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2314
Client ID: LCS for batch 965978
Lab Sample ID: 1202072983
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/25/2010 16:24
Dilution: 1
Prep Batch ID: 965978
Batch ID: 965979

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1430	86	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1310	79	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1250	75	32-114

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2314

Client ID: RE16-10-3799MS

Lab Sample ID: 1202072984

Instrument: MSD2.I

Analyst: AGS1

Inj. Vol: .5 uL

Sample Type: Matrix Spike

Matrix: S

%Moisture: 6.5

Analysis Date: 03/25/2010 17:05

Prep Batch ID: 965978

Batch ID: 965979

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1780	0.00	U	824	46	27-98
108-95-2	MS	Phenol	1780	0.00	U	964	54	33-94
95-57-8	MS	2-Chlorophenol	1780	0.00	U	960	54	29-96
106-46-7	MS	1,4-Dichlorobenzene	1780	0.00	U	800	45	27-96
621-64-7	MS	N-Nitrosodipropylamine	1780	0.00	U	1080	61	29-102
59-50-7	MS	4-Chloro-3-methylphenol	1780	0.00	U	1060	60	29-110
83-32-9	MS	Acenaphthene	1780	0.00	U	912	51	17-109
121-14-2	MS	2,4-Dinitrotoluene	1780	0.00	U	1060	60	33-107
100-02-7	MS	4-Nitrophenol	1780	0.00	U	750	42	15-110
87-86-5	MS	Pentachlorophenol	1780	0.00	U	804	45	23-110
129-00-0	MS	Pyrene	1780	0.00	U	859	48	24-118
110-86-1	MS	Pyridine	1780	0.00	U	748	42	25-102
62-53-3	MS	Aniline	1780	0.00	U	986	55	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	1780	0.00	U	959	54	29-96
541-73-1	MS	1,3-Dichlorobenzene	1780	0.00	U	776	44	26-97
100-51-6	MS	Benzyl alcohol	1780	0.00	U	377	21	19-112
95-50-1	MS	1,2-Dichlorobenzene	1780	0.00	U	812	46	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	1780	0.00	U	1180	66	28-103
95-48-7	MS	o-Cresol	1780	0.00	U	978	55	32-107
65794-96-9	MS	m,p-Cresols	1780	0.00	U	1300	73	33-115
67-72-1	MS	Hexachloroethane	1780	0.00	U	815	46	25-100
98-95-3	MS	Nitrobenzene	1780	0.00	U	1060	59	27-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2314**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE16-10-3799MS**	**Matrix:**	**S**
Lab Sample ID:	**1202072984**	**%Moisture:**	**6.5**
Instrument:	**MSD2.I**	**Analysis Date:**	**03/25/2010 17:05**
Analyst:	**AGS1**	**Prep Batch ID:**	**965978**
Inj. Vol:	**.5 uL**	**Batch ID:**	**965979**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1780	0.00	U	1010	57	29-104
88-75-5	MS	2-Nitrophenol	1780	0.00	U	979	55	26-102
105-67-9	MS	2,4-Dimethylphenol	1780	0.00	U	764	43	22-104
111-91-1	MS	bis(2-Chloroethoxy)methane	1780	0.00	U	940	53	27-101
120-83-2	MS	2,4-Dichlorophenol	1780	0.00	U	1030	58	26-103
65-85-0	MS	Benzoic acid	3560	0.00	U	2480	70	13-131
91-20-3	MS	Naphthalene	1780	0.00	U	920	52	23-103
106-47-8	MS	4-Chloroaniline	1780	0.00	U	887	50	26-103
87-68-3	MS	Hexachlorobutadiene	1780	0.00	U	949	53	28-101
91-57-6	MS	2-Methylnaphthalene	1780	0.00	U	1030	58	27-106
77-47-4	MS	Hexachlorocyclopentadiene	1780	0.00	U	591	33	24-117
88-06-2	MS	2,4,6-Trichlorophenol	1780	0.00	U	913	51	26-105
95-95-4	MS	2,4,5-Trichlorophenol	1780	0.00	U	912	51	30-110
91-58-7	MS	2-Chloronaphthalene	1780	0.00	U	919	52	28-102
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1780	0.00	U	1060	59	33-106
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1780	0.00	U	1010	57	33-116
131-11-3	MS	Dimethylphthalate	1780	0.00	U	1040	58	38-113
606-20-2	MS	2,6-Dinitrotoluene	1780	0.00	U	975	55	29-107
208-96-8	MS	Acenaphthylene	1780	0.00	U	971	54	25-108
51-28-5	MS	2,4-Dinitrophenol	1780	0.00	U	879	49	14-102
132-64-9	MS	Dibenzofuran	1780	0.00	U	1000	56	35-112
84-66-2	MS	Diethylphthalate	1780	0.00	U	1120	63	36-122

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2314
Client ID: RE16-10-3799MS
Lab Sample ID: 1202072984
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 6.5
Analysis Date: 03/25/2010 17:05
Prep Batch ID: 965978
Batch ID: 965979

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1780	0.00	U	1080	60	33-105
7005-72-3	MS	4-Chlorophenylphenylether	1780	0.00	U	1030	58	30-110
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1780	0.00	U	911	51	26-97
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1780	0.00	U	1330	75	28-135
122-39-4	MS	Diphenylamine	1780	0.00	U	951	53	33-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1780	0.00	U	1010	57	31-113
101-55-3	MS	4-Bromophenylphenylether	1780	0.00	U	919	52	31-109
118-74-1	MS	Hexachlorobenzene	1780	0.00	U	895	50	37-99
85-01-8	MS	Phenanthrene	1780	0.00	U	946	53	29-109
120-12-7	MS	Anthracene	1780	0.00	U	966	54	19-118
84-74-2	MS	Di-n-butylphthalate	1780	0.00	U	1120	63	39-123
206-44-0	MS	Fluoranthene	1780	0.00	U	1090	61	33-114
85-68-7	MS	Butylbenzylphthalate	1780	0.00	U	1010	57	35-131
56-55-3	MS	Benzo(a)anthracene	1780	0.00	U	994	56	30-111
91-94-1	MS	3,3'-Dichlorobenzidine	1780	0.00	U	739	41	30-124
218-01-9	MS	Chrysene	1780	0.00	U	1010	57	32-108
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1780	0.00	U	1040	59	37-129
117-84-0	MS	Di-n-octylphthalate	1780	0.00	U	1090	61	31-143
205-99-2	MS	Benzo(b)fluoranthene	1780	0.00	U	1030	58	29-118
207-08-9	MS	Benzo(k)fluoranthene	1780	0.00	U	1070	60	32-118
50-32-8	MS	Benzo(a)pyrene	1780	0.00	U	1040	58	33-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1780	0.00	U	983	55	29-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2314**	**Sample Type:**	**Matrix Spike**	
Client ID:	**RE16-10-3799MS**	**Matrix:**	**S**	
Lab Sample ID:	**1202072984**	**%Moisture:**	**6.5**	
Instrument:	**MSD2.I**	**Analysis Date:**	**03/25/2010 17:05**	**Dilution: 1**
Analyst:	**AGS1**	**Prep Batch ID:**	**965978**	
Inj. Vol:	**.5 uL**	**Batch ID:**	**965979**	

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1780	0.00	U	992	56	27-119
191-24-2	MS	Benzo(ghi)perylene	1780	0.00	U	941	53	28-112
120-82-1	MS	1,2,4-Trichlorobenzene	1780	0.00	U	939	53	28-99

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2314
Client ID: RE16-10-3799MSD
Lab Sample ID: 1202072985
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 6.5
Analysis Date: 03/25/2010 17:25
Prep Batch ID: 965978
Batch ID: 965979
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1780	0.00	U	885	50	27-98	7	0-30
108-95-2	MSD Phenol	1780	0.00	U	1010	57	33-94	4	0-30
95-57-8	MSD 2-Chlorophenol	1780	0.00	U	1060	59	29-96	10	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1780	0.00	U	879	49	27-96	9	0-30
621-64-7	MSD N-Nitrosodipropylamine	1780	0.00	U	1160	65	29-102	7	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1780	0.00	U	1130	64	29-110	7	0-30
83-32-9	MSD Acenaphthene	1780	0.00	U	997	56	17-109	9	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1780	0.00	U	1130	63	33-107	6	0-30
100-02-7	MSD 4-Nitrophenol	1780	0.00	U	783	44	15-110	4	0-30
87-86-5	MSD Pentachlorophenol	1780	0.00	U	849	48	23-110	5	0-30
129-00-0	MSD Pyrene	1780	0.00	U	869	49	24-118	1	0-30
110-86-1	MSD Pyridine	1780	0.00	U	821	46	25-102	9	0-30
62-53-3	MSD Aniline	1780	0.00	U	981	55	18-109	1	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1780	0.00	U	1040	58	29-96	8	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1780	0.00	U	866	49	26-97	11	0-30
100-51-6	MSD Benzyl alcohol	1780	0.00	U	229	13 *	19-112	49 *	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1780	0.00	U	901	51	30-97	10	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1780	0.00	U	1290	72	28-103	9	0-30
95-48-7	MSD o-Cresol	1780	0.00	U	1040	58	32-107	6	0-30
65794-96-9	MSD m,p-Cresols	1780	0.00	U	1400	79	33-115	8	0-30
67-72-1	MSD Hexachloroethane	1780	0.00	U	895	50	25-100	9	0-30
98-95-3	MSD Nitrobenzene	1780	0.00	U	1170	66	27-106	10	0-30

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2314
Client ID: RE16-10-3799MSD
Lab Sample ID: 1202072985
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 6.5
Analysis Date: 03/25/2010 17:25
Prep Batch ID: 965978
Batch ID: 965979
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1780	0.00	U	1080	61	29-104	6	0-30
88-75-5	MSD 2-Nitrophenol	1780	0.00	U	1050	59	26-102	7	0-30
105-67-9	MSD 2,4-Dimethylphenol	1780	0.00	U	804	45	22-104	5	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1780	0.00	U	1010	56	27-101	7	0-30
120-83-2	MSD 2,4-Dichlorophenol	1780	0.00	U	1090	61	26-103	6	0-30
65-85-0	MSD Benzoic acid	3560	0.00	U	2650	75	13-131	7	0-30
91-20-3	MSD Naphthalene	1780	0.00	U	1000	56	23-103	9	0-30
106-47-8	MSD 4-Chloroaniline	1780	0.00	U	918	52	26-103	3	0-30
87-68-3	MSD Hexachlorobutadiene	1780	0.00	U	1070	60	28-101	12	0-30
91-57-6	MSD 2-Methylnaphthalene	1780	0.00	U	1100	62	27-106	6	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1780	0.00	U	752	42	24-117	24	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1780	0.00	U	953	54	26-105	4	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1780	0.00	U	1010	56	30-110	10	0-30
91-58-7	MSD 2-Chloronaphthalene	1780	0.00	U	999	56	28-102	8	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1780	0.00	U	1140	64	33-106	8	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1780	0.00	U	1100	62	33-116	9	0-30
131-11-3	MSD Dimethylphthalate	1780	0.00	U	1100	61	38-113	5	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1780	0.00	U	1040	59	29-107	7	0-30
208-96-8	MSD Acenaphthylene	1780	0.00	U	1040	58	25-108	7	0-30
51-28-5	MSD 2,4-Dinitrophenol	1780	0.00	U	1000	56	14-102	13	0-30
132-64-9	MSD Dibenzofuran	1780	0.00	U	1060	60	35-112	6	0-30
84-66-2	MSD Diethylphthalate	1780	0.00	U	1200	67	36-122	7	0-30

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2314

Client ID: RE16-10-3799MSD

Lab Sample ID: 1202072985

Instrument: MSD2.I

Analyst: AGS1

Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate

Matrix: S

%Moisture: 6.5

Analysis Date: 03/25/2010 17:25

Dilution: 1

Prep Batch ID: 965978

Batch ID: 965979

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD Fluorene	1780	0.00	U	1150	65	33-105	7	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	1780	0.00	U	1110	62	30-110	7	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	1780	0.00	U	987	55	26-97	8	0-30
100-01-6	MSD 4-Nitroaniline *p-Nitroaniline*	1780	0.00	U	1530	86	28-135	14	0-30
122-39-4	MSD Diphenylamine	1780	0.00	U	1020	57	33-109	7	0-30
122-66-7	MSD Azobenzene *1,2-Diphenylhydrazine*	1780	0.00	U	1100	62	31-113	8	0-30
101-55-3	MSD 4-Bromophenylphenylether	1780	0.00	U	981	55	31-109	7	0-30
118-74-1	MSD Hexachlorobenzene	1780	0.00	U	969	54	37-99	8	0-30
85-01-8	MSD Phenanthrene	1780	0.00	U	1020	57	29-109	8	0-30
120-12-7	MSD Anthracene	1780	0.00	U	1030	58	19-118	7	0-30
84-74-2	MSD Di-n-butylphthalate	1780	0.00	U	1170	65	39-123	4	0-30
206-44-0	MSD Fluoranthene	1780	0.00	U	1150	65	33-114	6	0-30
85-68-7	MSD Butylbenzylphthalate	1780	0.00	U	1020	58	35-131	1	0-30
56-55-3	MSD Benzo(a)anthracene	1780	0.00	U	1000	56	30-111	1	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	1780	0.00	U	816	46	30-124	10	0-30
218-01-9	MSD Chrysene	1780	0.00	U	1060	60	32-108	5	0-30
117-81-7	MSD bis(2-Ethylhexyl)phthalate	1780	0.00	U	1060	59	37-129	1	0-30
117-84-0	MSD Di-n-octylphthalate	1780	0.00	U	1080	61	31-143	1	0-30
205-99-2	MSD Benzo(b)fluoranthene	1780	0.00	U	1120	63	29-118	8	0-30
207-08-9	MSD Benzo(k)fluoranthene	1780	0.00	U	1020	57	32-118	5	0-30
50-32-8	MSD Benzo(a)pyrene	1780	0.00	U	1070	60	33-115	3	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	1780	0.00	U	1090	61	29-114	10	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2314
Client ID: RE16-10-3799MSD
Lab Sample ID: 1202072985
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 6.5
Analysis Date: 03/25/2010 17:25
Prep Batch ID: 965978
Batch ID: 965979
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1780	0.00	U	1120	63	27-119	12	0-30
191-24-2	MSD Benzo(ghi)perylene	1780	0.00	U	1060	59	28-112	11	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1780	0.00	U	1010	57	28-99	7	0-30

Method Blank Summary

SDG Number:	10-2314	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965978	Instrument ID:	MSD2.I	Data File:	s2c2505-1.d
Lab Sample ID:	1202072982	Prep Date:	03/17/2010 10:52	Analyzed:	03/25/10 16:05
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 965978	1202072983	s2c2506-1.d	03/25/10	1624
04	RE46-10-13783	248862003	s2c2519.d	03/25/10	2047
05	RE46-10-13777	248862004	s2c2520.d	03/25/10	2108
06	RE46-10-13775	248862005	s2c2521.d	03/25/10	2128
07	RE46-10-13776	248862006	s2c2522.d	03/25/10	2148
08	RE46-10-13781	248862007	s2c2523.d	03/25/10	2208
09	RE46-10-13779	248862008	s2c2524.d	03/25/10	2228
10	RE46-10-13780	248862009	s2c2525.d	03/25/10	2249
11	RE46-10-13778	248862010	s2c2526.d	03/25/10	2309
12	RE46-10-13782	248862002	s2c2610.d	03/26/10	1817

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2314

Instrument ID: MSD2.I **Injection Date/Time:** 12-MAR-10 14:32

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s031210.b/s2c1201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	51.2
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	43.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.7
197	0 - 1% of mass 198	0.5
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	21.3
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	67.2
442	Greater than 40% of mass 198	65.7
443	17 - 23% of mass 442	21.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100309-08	s2c1203.d	12-MAR-10 15:04
MEGA010	WBN100309-07	s2c1204.d	12-MAR-10 15:31
MEGA020	WBN100309-06	s2c1205.d	12-MAR-10 15:59
MEGA040	WBN100309-05.1	s2c1206.d	12-MAR-10 16:23
MEGA050	WBN100309-04	s2c1207.d	12-MAR-10 16:48
MEGA080	WBN100309-03	s2c1208.d	12-MAR-10 17:13
MEGA100	WBN100309-02	s2c1209.d	12-MAR-10 17:38
MEGA120	WBN100309-01	s2c1210.d	12-MAR-10 18:02
MEGAICV	WBN100309-09.1	s2c1212.d	12-MAR-10 18:54
AP010	WBN100218-01	s2c1213.d	12-MAR-10 19:18
AP020	WBN100218-02	s2c1214.d	12-MAR-10 19:39
AP040	WBN100218-03.1	s2c1215.d	12-MAR-10 19:59
AP050	WBN100218-04	s2c1216.d	12-MAR-10 20:19
AP080	WBN100218-05	s2c1217.d	12-MAR-10 20:39
AP100	WBN100218-06	s2c1218.d	12-MAR-10 20:59
AP120	WBN100218-07	s2c1219.d	12-MAR-10 21:19

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2314

Instrument ID: MSD2.I **Injection Date/Time:** 12-MAR-10 14:32

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s031210.b/s2c1201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	51.2
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	43.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.7
197	0 - 1% of mass 198	0.5
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	21.3
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	67.2
442	Greater than 40% of mass 198	65.7
443	17 - 23% of mass 442	21.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
APICV	WBN100218-08.1	s2c1227.d	13-MAR-10 00:00

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2314

Instrument ID: MSD2.I **Injection Date/Time:** 25-MAR-10 14:45

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s032510.b/s2c2501.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	55.8
68	Less than 2% of mass 69	1.4
69	Mass 69 Relative Abundance	46.7
70	Less than 2% of mass 69	0.4
127	40 - 60% of mass 198	53.2
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	21.4
365	Greater than 1% of mass 198	2.7
441	Present, but less than mass 443	69.2
442	Greater than 40% of mass 198	66
443	17 - 23% of mass 442	21.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-09.1	s2c2502.d	25-MAR-10 14:58
APCVS	WBN100218-08.1	s2c2503.d	25-MAR-10 15:24
SBLK01	1202072982	s2c2505-1.d	25-MAR-10 16:05
SBLK01LCS	1202072983	s2c2506-1.d	25-MAR-10 16:24
RE46-10-13783	248862003	s2c2519.d	25-MAR-10 20:47
RE46-10-13777	248862004	s2c2520.d	25-MAR-10 21:08
RE46-10-13775	248862005	s2c2521.d	25-MAR-10 21:28
RE46-10-13776	248862006	s2c2522.d	25-MAR-10 21:48
RE46-10-13781	248862007	s2c2523.d	25-MAR-10 22:08
RE46-10-13779	248862008	s2c2524.d	25-MAR-10 22:28
RE46-10-13780	248862009	s2c2525.d	25-MAR-10 22:49
RE46-10-13778	248862010	s2c2526.d	25-MAR-10 23:09

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2314

Instrument ID: MSD2.I **Injection Date/Time:** 26-MAR-10 15:12

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s032610.b/s2c2601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	53.5
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	45
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	53.4
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	22.5
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	68.2
442	Greater than 40% of mass 198	69.5
443	17 - 23% of mass 442	21.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-09.1	s2c2602.d	26-MAR-10 15:25
APCVS	WBN100218-08.1	s2c2605.d	26-MAR-10 16:34
RE46-10-13782	248862002	s2c2610.d	26-MAR-10 18:17

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2314

Instrument: MSD2.I

STD Analysis Time: 25-MAR-10 14:58

GC Column: J&W DB-5MS

Data File: s2c2502.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	165409		3.84	774230		4.7	421050		5.95	753174		6.94	671706		8.6	435860		10.0
Upper Limit	330818		4.34	1548460		5.2	842100		6.45	1506348		7.44	1343412		9.1	871720		10.5
Lower Limit	82705		3.34	387115		4.2	210525		5.45	376587		6.44	335853		8.1	217930		9.54
Sample ID																		
BLK01	136360		3.84	529830		4.7	324342		5.94	599949		6.93	460744		8.59	288448		10.0
BLK01LCS	168920		3.84	768523		4.7	409646		5.94	798278		6.94	752653		8.59	503248		10.0
RE46-10-13783	127788		3.84	521576		4.7	331008		5.95	608325		6.94	511287		8.59	331839		10.0
RE46-10-13777	124460		3.84	486962		4.7	305725		5.94	536191		6.94	388452		8.59	261200		10.0
RE46-10-13775	117929		3.84	468357		4.7	291976		5.95	541190		6.94	441033		8.59	315944		10.0
RE46-10-13776	137679		3.84	548568		4.7	341756		5.94	627468		6.94	502064		8.59	344192		10.0
RE46-10-13781	154953		3.84	604032		4.7	375796		5.94	711651		6.94	576396		8.59	383010		10.0
RE46-10-13779	177960		3.84	692698		4.7	428662		5.95	774772		6.94	580438		8.59	375126		10.0
RE46-10-13780	176599		3.84	687299		4.7	428509		5.95	818115		6.94	671812		8.59	420249		10.0
RE46-10-13778	174223		3.84	682634		4.7	433500		5.95	815136		6.94	654210		8.6	400703		10.0

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2314

Instrument: MSD2.I

STD Analysis Time: 26-MAR-10 15:25

GC Column: J&W DB-5MS

Data File: s2c2602.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	158646		3.81	744655		4.67	397163		5.92	686062		6.91	608658		8.56	380590		9.96
Upper Limit	317292		4.31	1489310		5.17	794326		6.42	1372124		7.41	1217316		9.06	761180		10.5
Lower Limit	79323		3.31	372328		4.17	198582		5.42	343031		6.41	304329		8.06	190295		9.46
Sample ID																		
RE46-10-13782	223156		3.81	883257		4.67	540906		5.91	985520		6.91	748323		8.54	469153		9.95

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862005	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13775	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/25/2010 21:28	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s2c2521.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	368	ug/kg	73.7	368
108-95-2	Phenol	U	368	ug/kg	73.7	368
95-57-8	2-Chlorophenol	U	368	ug/kg	73.7	368
106-46-7	1,4-Dichlorobenzene	U	368	ug/kg	73.7	368
621-64-7	N-Nitrosodipropylamine	U	368	ug/kg	73.7	368
59-50-7	4-Chloro-3-methylphenol	U	368	ug/kg	73.7	368
83-32-9	Acenaphthene	U	36.8	ug/kg	12.2	36.8
121-14-2	2,4-Dinitrotoluene	U	368	ug/kg	36.8	368
100-02-7	4-Nitrophenol	U	368	ug/kg	122	368
87-86-5	Pentachlorophenol	U	368	ug/kg	92.1	368
129-00-0	Pyrene	J	12.6	ug/kg	11.0	36.8
110-86-1	Pyridine	U	368	ug/kg	73.7	368
62-53-3	Aniline	U	368	ug/kg	110	368
111-44-4	bis(2-Chloroethyl) ether	U	368	ug/kg	73.7	368
541-73-1	1,3-Dichlorobenzene	U	368	ug/kg	73.7	368
100-51-6	Benzyl alcohol	U	368	ug/kg	110	368
95-50-1	1,2-Dichlorobenzene	U	368	ug/kg	73.7	368
108-60-1	bis(2-Chloroisopropyl)ether	U	368	ug/kg	73.7	368
95-48-7	o-Cresol	U	368	ug/kg	73.7	368
65794-96-9	m,p-Cresols	U	368	ug/kg	110	368
67-72-1	Hexachloroethane	U	368	ug/kg	73.7	368
98-95-3	Nitrobenzene	U	368	ug/kg	73.7	368
78-59-1	Isophorone	U	368	ug/kg	73.7	368
88-75-5	2-Nitrophenol	U	368	ug/kg	73.7	368
105-67-9	2,4-Dimethylphenol	U	368	ug/kg	129	368
111-91-1	bis(2-Chloroethoxy)methane	U	368	ug/kg	73.7	368
120-83-2	2,4-Dichlorophenol	U	368	ug/kg	73.7	368
65-85-0	Benzoic acid	U	737	ug/kg	184	737
91-20-3	Naphthalene	U	36.8	ug/kg	11.0	36.8
106-47-8	4-Chloroaniline	U	368	ug/kg	73.7	368
87-68-3	Hexachlorobutadiene	U	368	ug/kg	73.7	368
91-57-6	2-Methylnaphthalene	U	36.8	ug/kg	7.37	36.8
77-47-4	Hexachlorocyclopentadiene	U	368	ug/kg	73.7	368
88-06-2	2,4,6-Trichlorophenol	U	368	ug/kg	73.7	368
95-95-4	2,4,5-Trichlorophenol	U	368	ug/kg	73.7	368
91-58-7	2-Chloronaphthalene	U	36.8	ug/kg	12.2	36.8
88-74-4	2-Nitroaniline	U	368	ug/kg	73.7	368
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	368	ug/kg	73.7	368

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862005**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13775**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 21:28**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2521.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	368	ug/kg	73.7	368
606-20-2	2,6-Dinitrotoluene	U	368	ug/kg	36.8	368
208-96-8	Acenaphthylene	U	36.8	ug/kg	11.0	36.8
51-28-5	2,4-Dinitrophenol	U	737	ug/kg	140	737
132-64-9	Dibenzofuran	U	368	ug/kg	73.7	368
84-66-2	Diethylphthalate	U	368	ug/kg	73.7	368
86-73-7	Fluorene	U	36.8	ug/kg	11.0	36.8
7005-72-3	4-Chlorophenylphenylether	U	368	ug/kg	73.7	368
534-52-1	2-Methyl-4,6-dinitrophenol	U	368	ug/kg	73.7	368
100-01-6	4-Nitroaniline	U	368	ug/kg	110	368
	p-Nitroaniline					
122-39-4	Diphenylamine	U	368	ug/kg	73.7	368
122-66-7	Azobenzene	U	368	ug/kg	73.7	368
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	368	ug/kg	73.7	368
118-74-1	Hexachlorobenzene	U	368	ug/kg	73.7	368
85-01-8	Phenanthrene	U	36.8	ug/kg	11.0	36.8
120-12-7	Anthracene	U	36.8	ug/kg	7.37	36.8
84-74-2	Di-n-butylphthalate	U	368	ug/kg	73.7	368
206-44-0	Fluoranthene	J	14.9	ug/kg	11.0	36.8
85-68-7	Butylbenzylphthalate	U	368	ug/kg	73.7	368
56-55-3	Benzo(a)anthracene	U	36.8	ug/kg	11.0	36.8
91-94-1	3,3'-Dichlorobenzidine	U	368	ug/kg	110	368
218-01-9	Chrysene	U	36.8	ug/kg	11.0	36.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	368	ug/kg	73.7	368
117-84-0	Di-n-octylphthalate	U	368	ug/kg	73.7	368
205-99-2	Benzo(b)fluoranthene	J	11.1	ug/kg	11.0	36.8
207-08-9	Benzo(k)fluoranthene	U	36.8	ug/kg	11.0	36.8
50-32-8	Benzo(a)pyrene	U	36.8	ug/kg	11.0	36.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.8	ug/kg	11.0	36.8
53-70-3	Dibenzo(a,h)anthracene	U	36.8	ug/kg	11.0	36.8
191-24-2	Benzo(ghi)perylene	U	36.8	ug/kg	11.0	36.8
120-82-1	1,2,4-Trichlorobenzene	U	368	ug/kg	73.7	368

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	309	ug/kg		JA

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2521.d
Lab Smp Id: 248862005 Client Smp ID: RE46-10-13775
Inj Date : 25-MAR-2010 21:28
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248862005|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	9.49990	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.843	3.843	(1.000)	117929	40.0000	
* 29 Naphthalene-d8	136	4.704	4.704	(1.000)	468357	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	291976	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	541190	40.0000	
* 91 Chrysene-d12	240	8.587	8.603	(1.000)	441033	40.0000	
* 98 Perylene-d12	264	10.026	10.042	(1.000)	315944	40.0000	
$ 3 2-Fluorophenol	112	3.046	3.035	(0.793)	187857	66.8999	2460
$ 5 Phenol-d5	99	3.559	3.565	(0.926)	210861	60.9807	2250
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.893)	116018	34.2259	1260
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	234316	29.1691	1070
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.090)	64656	74.8686	2760
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.915)	313980	39.0356	1440

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.801	7.812	(0.908)	4929	0.34286	12.6(a)
76 Fluoranthene	202	7.667	7.672	(1.105)	4887	0.40448	14.9(a)
95 Benzo(b)fluoranthene	252	9.566	9.582	(0.954)	2607	0.30252	11.1(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s2c2521.d
Report Date: 03/26/2010 13:39
Lab. ID: 248862005 SampleType: SAMPLE
Injection Date: 25-MAR-2010 21:28
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248862005|965979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	16930	4.20	4.08	80-120	100	(T)
42	15570	4.20	4.08	90-150	92	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	53039	5.95	5.72	80-120	100	(T)
164	291976	5.95	5.72	0- 40	550	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	37349	5.94	5.77	80-120	100	(T)
63	559	5.94	5.77	85-145	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	37349	5.94	6.06	80-120	100	(T)
89	750	5.94	6.06	55-115	2	(QT)
63	559	5.94	6.06	44-104	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	3191	6.49	6.32	80-120	100	(T)
165	3346	6.49	6.32	63-123	105	(T)
167	982	6.49	6.32	0- 43	31	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	259	6.49	6.34	80-120	100	(T)
105	652	6.49	6.34	17- 77	251	(QT)
51	831	6.48	6.34	99-159	320	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
69 Anthracene			CAS#: 120-12-7			
178	3541	6.95	6.99	80-120	100	( )
179	981	6.95	6.99	0- 46	28	( )
176	600	6.95	6.99	0- 48	17	( )
76 Fluoranthene			CAS#: 206-44-0			
202	4887	7.67	7.67	80-120	100	( )
203	893	7.67	7.67	0- 47	18	( )
101	358	7.66	7.67	0- 39	7	( )
79 Pyrene			CAS#: 129-00-0			
202	4929	7.80	7.81	80-120	100	( )
200	996	7.80	7.81	0- 51	20	( )
101	584	7.80	7.81	0- 40	12	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	3549	8.58	8.59	80-120	100	( )
226	785	8.58	8.59	0- 56	22	( )
229	1153	8.58	8.59	0- 50	33	( )
92 Chrysene			CAS#: 218-01-9			
228	3549	8.58	8.62	80-120	100	( )
229	1153	8.58	8.62	0- 50	33	( )
226	785	8.58	8.62	0- 59	22	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	2607	9.57	9.58	80-120	100	( )
253	737	9.57	9.58	0- 52	28	( )
125	319	9.58	9.58	0- 40	12	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD2.i/s032510.b/s2c2521.d
Lab Smp Id: 248862005 Client Smp ID: RE46-10-13775
Inj Date : 25-MAR-2010 21:28
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248862005|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	9.49990	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.843	884305	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.869	185601	8.39532677	309	0		0	10

Data File: /chem/MSD2.i/s032510.b/s2c2521.d
Date : 25-MAR-2010 21:28
Client ID: RE46-10-13775
Sample Info: I2488620051965979|1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

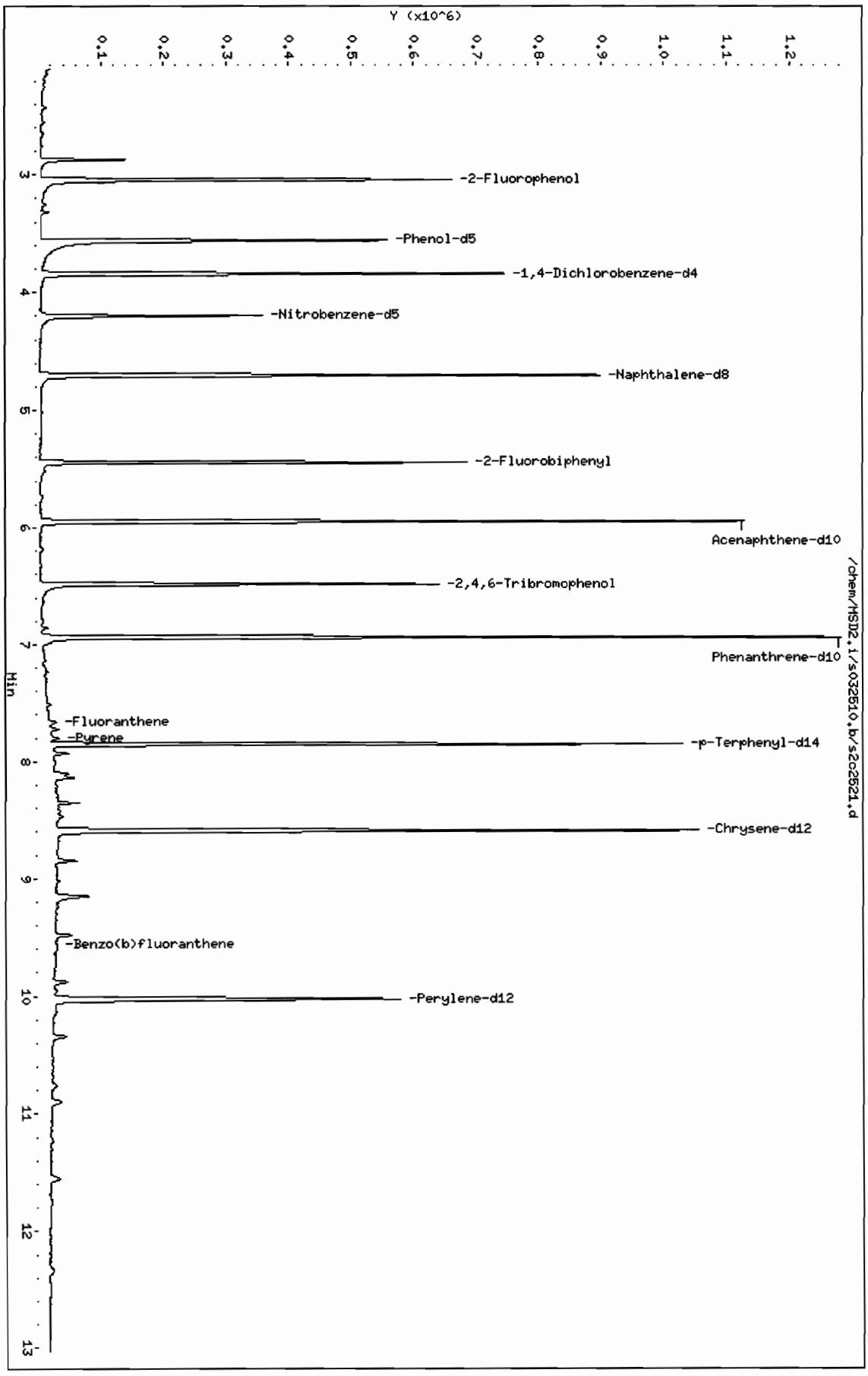

Page 1

Data File: /chem/MSD2.i/s032510.b/s2c2521.d

Date : 25-MAR-2010 21:28

Client ID: RE46-10-13775

Instrument: MSD2.i

Sample Info: 1248862005|965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 12.6 ug/Kg

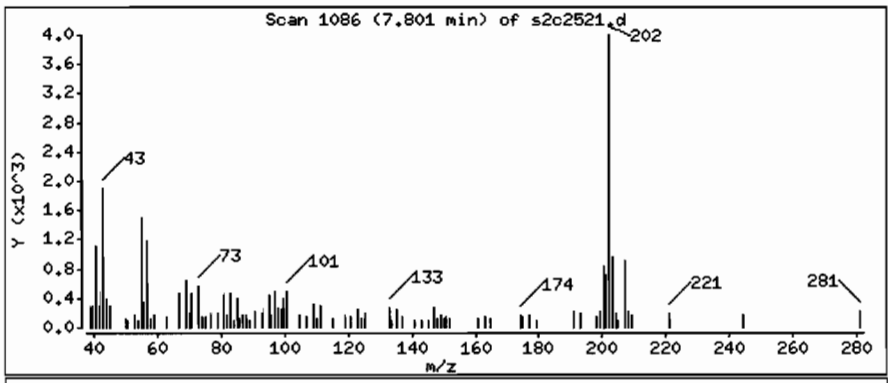

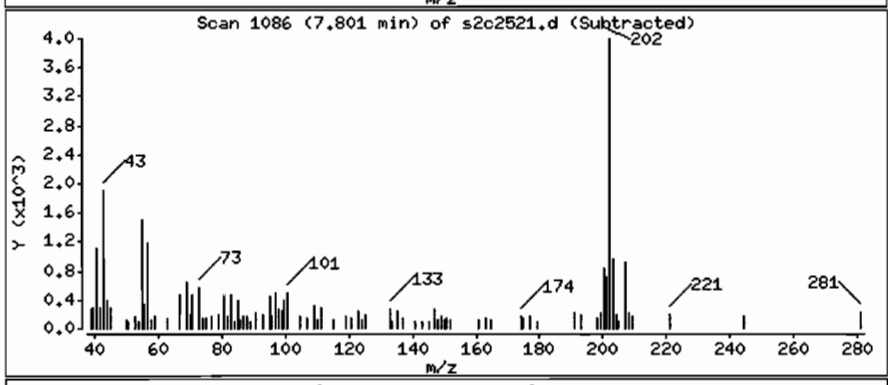

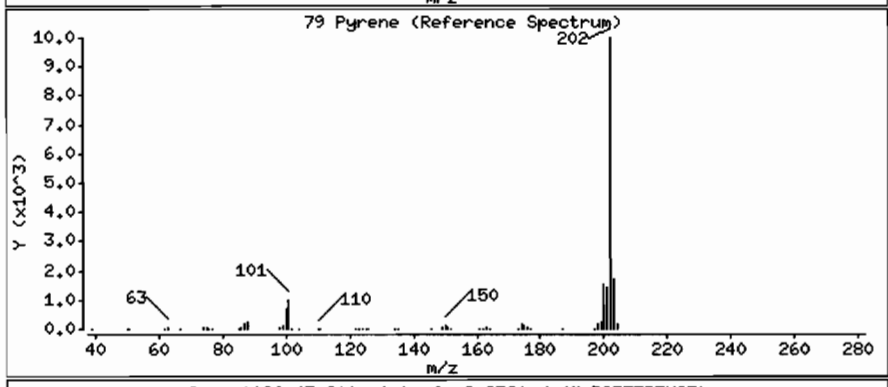

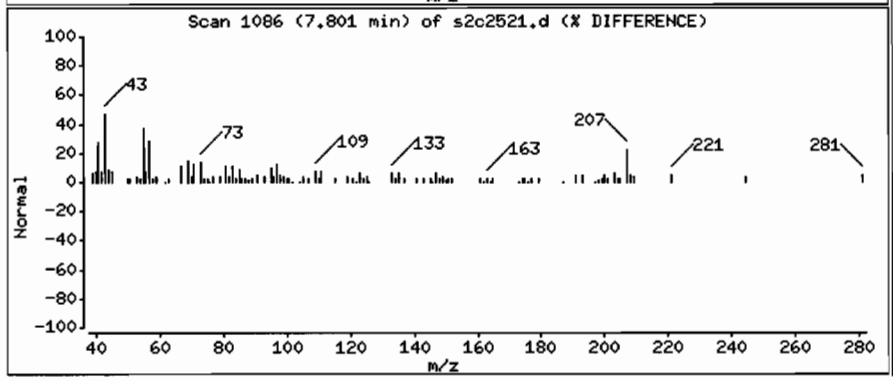

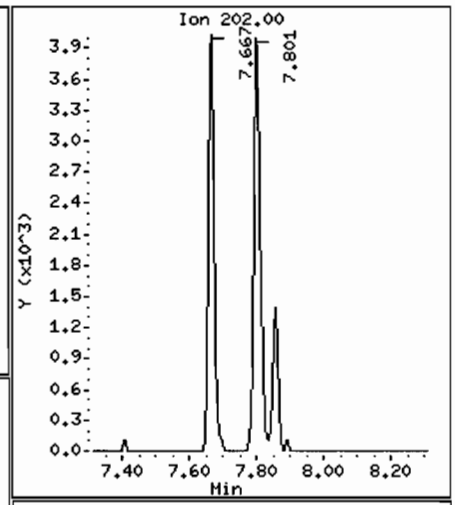

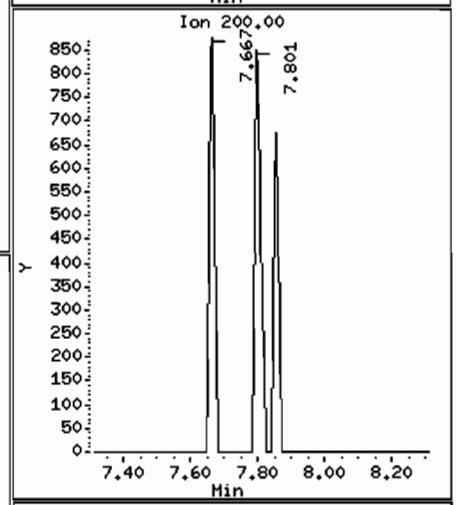

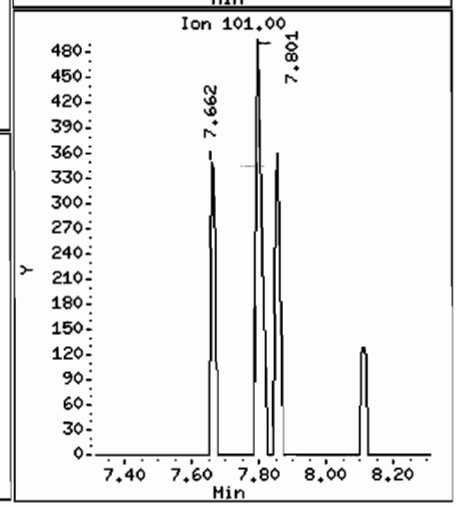

Data File: /chem/MSD2.i/s032510.b/s2c2521.d

Date : 25-MAR-2010 21:28

Client ID: RE46-10-13775

Instrument: MSD2.i

Sample Info: |2488620051965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 14.9 ug/Kg

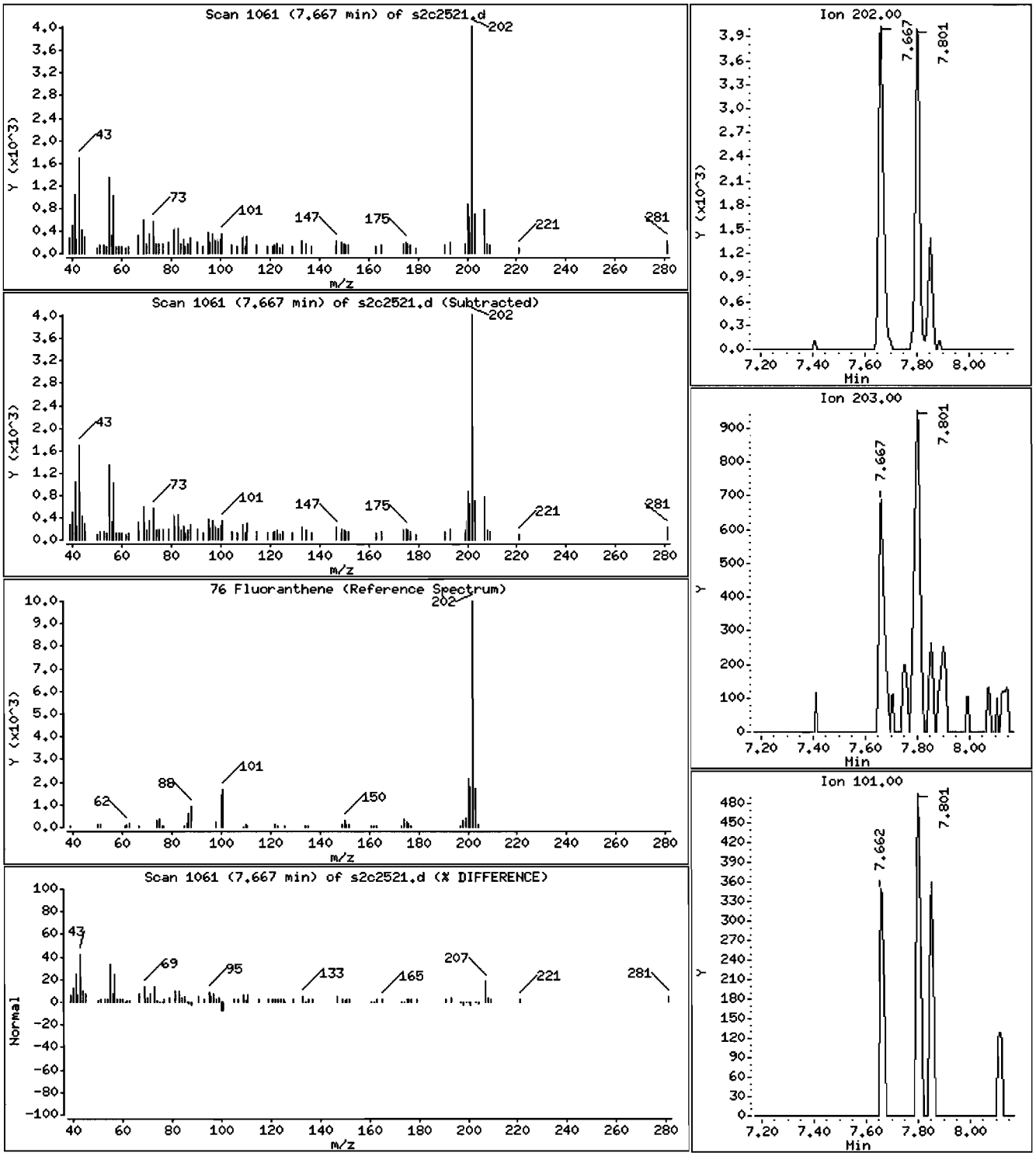

Data File: /chem/MSD2.i/s032510.b/s2c2521.d

Date : 25-MAR-2010 21:28

Client ID: RE46-10-13775

Instrument: MSD2.i

Sample Info: 1248862005|965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 11.1 ug/Kg

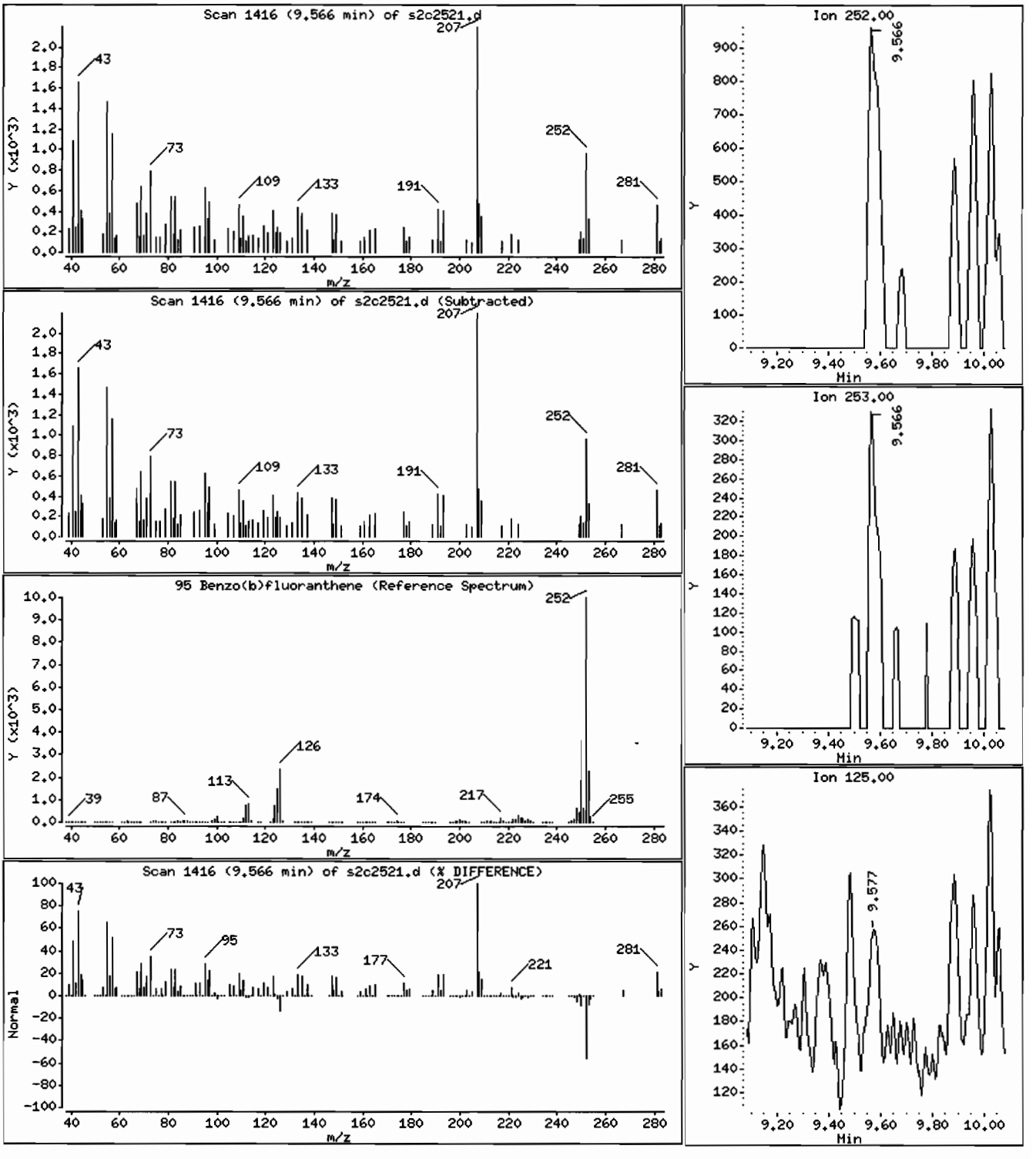

Data File: /chem/MSD2.i/s032510.b/s2c2521.d

Date : 25-MAR-2010 21:28

Client ID: RE46-10-13775

Instrument: MSD2.i

Sample Info: |2488620051965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
1-Butene, 4-ethoxy-	44611-46-3	NIST05.L	3747	23	C6H12O	100

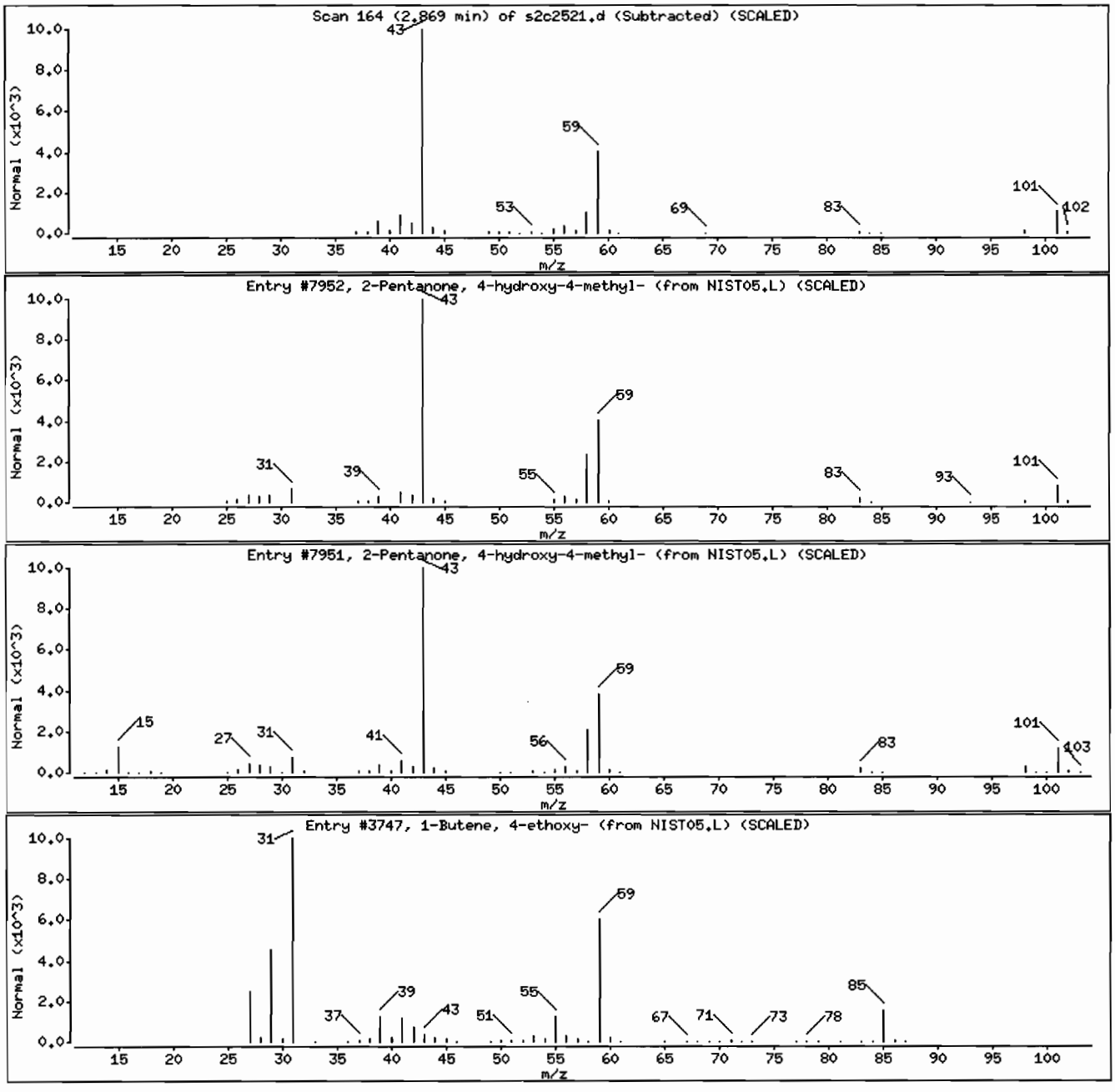

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862006**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13776**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilutiou:**	**1**
Run Date:	**03/25/2010 21:48**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2522.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	371	ug/kg	74.1	371
108-95-2	Phenol	U	371	ug/kg	74.1	371
95-57-8	2-Chlorophenol	U	371	ug/kg	74.1	371
106-46-7	1,4-Dichlorobenzene	U	371	ug/kg	74.1	371
621-64-7	N-Nitrosodipropylamine	U	371	ug/kg	74.1	371
59-50-7	4-Chloro-3-methylphenol	U	371	ug/kg	74.1	371
83-32-9	Acenaphthene	U	37.1	ug/kg	12.2	37.1
121-14-2	2,4-Dinitrotoluene	U	371	ug/kg	37.1	371
100-02-7	4-Nitrophenol	U	371	ug/kg	122	371
87-86-5	Pentachlorophenol	U	371	ug/kg	92.6	371
129-00-0	Pyrene	U	37.1	ug/kg	11.1	37.1
110-86-1	Pyridine	U	371	ug/kg	74.1	371
62-53-3	Aniline	U	371	ug/kg	111	371
111-44-4	bis(2-Chloroethyl) ether	U	371	ug/kg	74.1	371
541-73-1	1,3-Dichlorobenzene	U	371	ug/kg	74.1	371
100-51-6	Benzyl alcohol	U	371	ug/kg	111	371
95-50-1	1,2-Dichlorobenzene	U	371	ug/kg	74.1	371
108-60-1	bis(2-Chloroisopropyl)ether	U	371	ug/kg	74.1	371
95-48-7	o-Cresol	U	371	ug/kg	74.1	371
65794-96-9	m,p-Cresols	U	371	ug/kg	111	371
67-72-1	Hexachloroethane	U	371	ug/kg	74.1	371
98-95-3	Nitrobenzene	U	371	ug/kg	74.1	371
78-59-1	Isophorone	U	371	ug/kg	74.1	371
88-75-5	2-Nitrophenol	U	371	ug/kg	74.1	371
105-67-9	2,4-Dimethylphenol	U	371	ug/kg	130	371
111-91-1	bis(2-Chloroethoxy)methane	U	371	ug/kg	74.1	371
120-83-2	2,4-Dichlorophenol	U	371	ug/kg	74.1	371
65-85-0	Benzoic acid	U	741	ug/kg	185	741
91-20-3	Naphthalene	U	37.1	ug/kg	11.1	37.1
106-47-8	4-Chloroaniline	U	371	ug/kg	74.1	371
87-68-3	Hexachlorobutadiene	U	371	ug/kg	74.1	371
91-57-6	2-Methylnaphthalene	U	37.1	ug/kg	7.41	37.1
77-47-4	Hexachlorocyclopentadiene	U	371	ug/kg	74.1	371
88-06-2	2,4,6-Trichlorophenol	U	371	ug/kg	74.1	371
95-95-4	2,4,5-Trichlorophenol	U	371	ug/kg	74.1	371
91-58-7	2-Chloronaphthalene	U	37.1	ug/kg	12.2	37.1
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	371	ug/kg	74.1	371
99-09-2	3-Nitroaniline	U	371	ug/kg	74.1	371

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862006**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13776**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 21:48**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2522.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	371	ug/kg	74.1	371
606-20-2	2,6-Dinitrotoluene	U	371	ug/kg	37.1	371
208-96-8	Acenaphthylene	U	37.1	ug/kg	11.1	37.1
51-28-5	2,4-Dinitrophenol	U	741	ug/kg	141	741
132-64-9	Dibenzofuran	U	371	ug/kg	74.1	371
84-66-2	Diethylphthalate	U	371	ug/kg	74.1	371
86-73-7	Fluorene	U	37.1	ug/kg	11.1	37.1
7005-72-3	4-Chlorophenylphenylether	U	371	ug/kg	74.1	371
534-52-1	2-Methyl-4,6-dinitrophenol	U	371	ug/kg	74.1	371
100-01-6	4-Nitroaniline	U	371	ug/kg	111	371
	p-Nitroaniline					
122-39-4	Diphenylamine	U	371	ug/kg	74.1	371
122-66-7	Azobenzene	U	371	ug/kg	74.1	371
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	371	ug/kg	74.1	371
118-74-1	Hexachlorobenzene	U	371	ug/kg	74.1	371
85-01-8	Phenanthrene	U	37.1	ug/kg	11.1	37.1
120-12-7	Anthracene	U	37.1	ug/kg	7.41	37.1
84-74-2	Di-n-butylphthalate	U	371	ug/kg	74.1	371
206-44-0	Fluoranthene	U	37.1	ug/kg	11.1	37.1
85-68-7	Butylbenzylphthalate	U	371	ug/kg	74.1	371
56-55-3	Benzo(a)anthracene	U	37.1	ug/kg	11.1	37.1
91-94-1	3,3'-Dichlorobenzidine	U	371	ug/kg	111	371
218-01-9	Chrysene	U	37.1	ug/kg	11.1	37.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	371	ug/kg	74.1	371
117-84-0	Di-n-octylphthalate	U	371	ug/kg	74.1	371
205-99-2	Benzo(b)fluoranthene	U	37.1	ug/kg	11.1	37.1
207-08-9	Benzo(k)fluoranthene	U	37.1	ug/kg	11.1	37.1
50-32-8	Benzo(a)pyrene	U	37.1	ug/kg	11.1	37.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.1	ug/kg	11.1	37.1
53-70-3	Dibenzo(a,h)anthracene	U	37.1	ug/kg	11.1	37.1
191-24-2	Benzo(ghi)perylene	U	37.1	ug/kg	11.1	37.1
120-82-1	1,2,4-Trichlorobenzene	U	371	ug/kg	74.1	371

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	356	ug/kg		JA

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2522.d
Lab Smp Id: 248862006 Client Smp ID: RE46-10-13776
Inj Date : 25-MAR-2010 21:48
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248862006|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	10.10940	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.843	3.843	(1.000)	137679	40.0000	
* 29 Naphthalene-d8	136	4.699	4.704	(1.000)	548568	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	341756	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	627468	40.0000	
* 91 Chrysene-d12	240	8.592	8.603	(1.000)	502064	40.0000	
* 98 Perylene-d12	264	10.026	10.042	(1.000)	344192	40.0000	
$ 3 2-Fluorophenol	112	3.041	3.035	(0.791)	215280	65.6681	2430
$ 5 Phenol-d5	99	3.559	3.565	(0.926)	246852	61.1485	2270
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.894)	132019	33.2516	1230
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	246877	26.2563	973
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.091)	69934	69.1848	2560
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	340652	37.2033	1380

ION RATIO REPORT

SV REPORT

Data file: s2c2522.d
Report Date: 03/26/2010 13:40
Lab. ID: 248862006 SampleType: SAMPLE
Injection Date: 25-MAR-2010 21:48
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248862006|965979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	19678	3.56	3.63	80-120	100	(T)
93	110	3.52	3.64	342-402	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	20371	4.20	4.08	80-120	100	(T)
42	18052	4.20	4.08	90-150	89	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	60709	5.95	5.72	80-120	100	(T)
164	341756	5.94	5.72	0- 40	563	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	43216	5.94	5.77	80-120	100	(T)
63	702	5.94	5.77	85-145	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	43216	5.94	6.06	80-120	100	(T)
89	896	5.94	6.06	55-115	2	(QT)
63	702	5.94	6.06	44-104	2	(QT)
53 Fluorene				CAS#: 86-73-7		
166	3508	6.49	6.32	80-120	100	(T)
165	3659	6.49	6.32	63-123	104	(T)
167	1117	6.49	6.32	0- 43	32	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	383	6.49	6.34	80-120	100	(T)
105	798	6.49	6.34	17- 77	209	(QT)
51	855	6.48	6.34	99-159	223	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD2.i/s032510.b/s2c2522.d
Lab Smp Id: 248862006 Client Smp ID: RE46-10-13776
Inj Date : 25-MAR-2010 21:48
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248862006|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	10.10940	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.843	1038413	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.875	249504	9.61097239	356	0		0	10

Data File: /chem/MSD2.i/s032510.b/s2c2522.d
Date : 25-MAR-2010 21:48
Client ID: RE46-10-13776
Sample Info: 1248862006196597911SVMI1LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: AGS1
Column diameter: 0.20

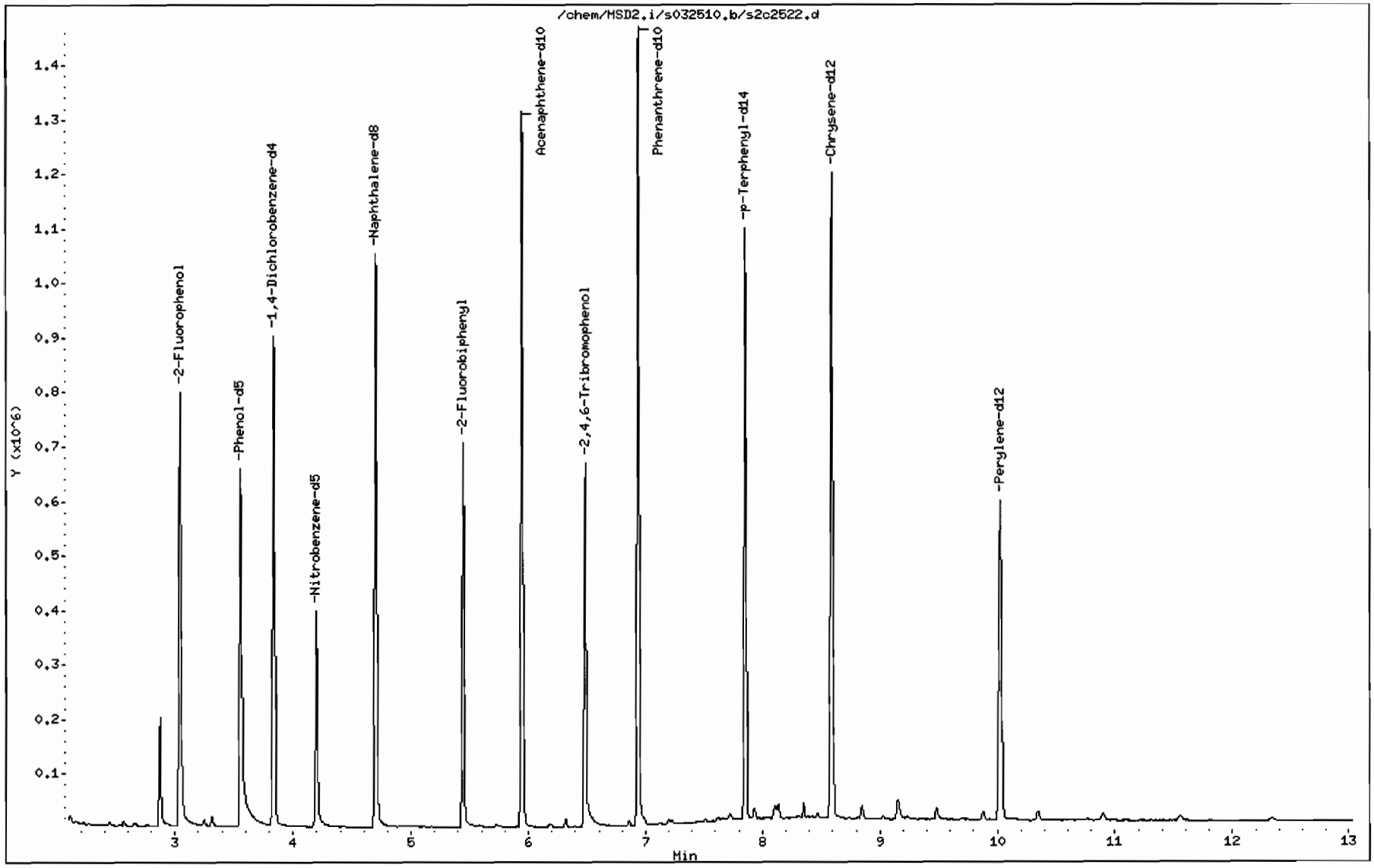

Data File: /chem/MSD2.i/s032510.b/s2c2522.d

Date : 25-MAR-2010 21:48

Client ID: RE46-10-13776

Instrument: MSD2.i

Sample Info: |2488620061965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
1-Propen-2-ol, acetate	108-22-5	NIST05.L	3595	10	C5H8O2	100

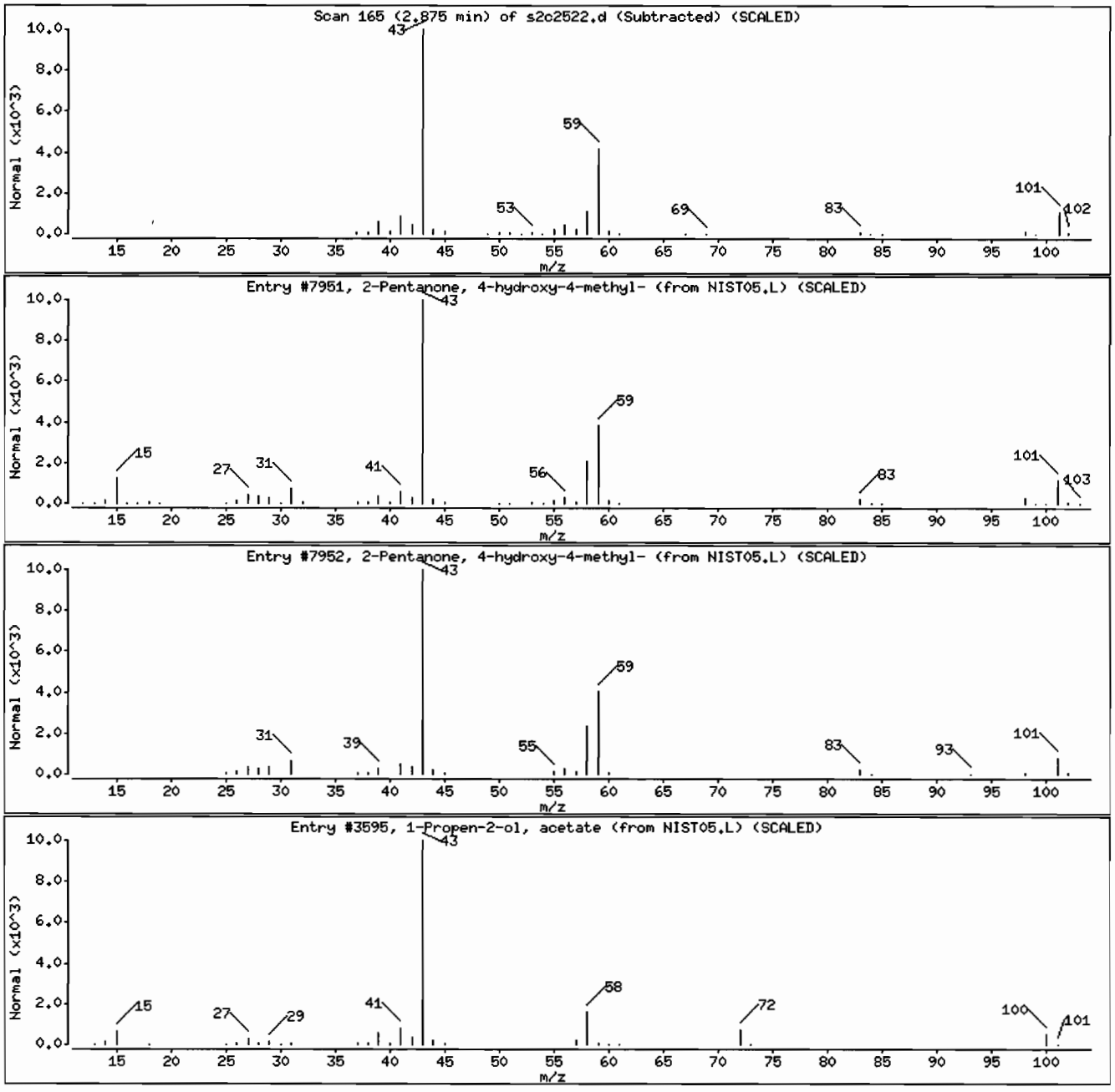

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**20.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13777**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 21:08**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2520.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	419	ug/kg	83.7	419
108-95-2	Phenol	U	419	ug/kg	83.7	419
95-57-8	2-Chlorophenol	U	419	ug/kg	83.7	419
106-46-7	1,4-Dichlorobenzene	U	419	ug/kg	83.7	419
621-64-7	N-Nitrosodipropylamine	U	419	ug/kg	83.7	419
59-50-7	4-Chloro-3-methylphenol	U	419	ug/kg	83.7	419
83-32-9	Acenaphthene	U	41.9	ug/kg	13.8	41.9
121-14-2	2,4-Dinitrotoluene	U	419	ug/kg	41.9	419
100-02-7	4-Nitrophenol	U	419	ug/kg	138	419
87-86-5	Pentachlorophenol	U	419	ug/kg	105	419
129-00-0	Pyrene		82.9	ug/kg	12.6	41.9
110-86-1	Pyridine	U	419	ug/kg	83.7	419
62-53-3	Aniline	U	419	ug/kg	126	419
111-44-4	bis(2-Chloroethyl) ether	U	419	ug/kg	83.7	419
541-73-1	1,3-Dichlorobenzene	U	419	ug/kg	83.7	419
100-51-6	Benzyl alcohol	U	419	ug/kg	126	419
95-50-1	1,2-Dichlorobenzene	U	419	ug/kg	83.7	419
108-60-1	bis(2-Chloroisopropyl)ether	U	419	ug/kg	83.7	419
95-48-7	o-Cresol	U	419	ug/kg	83.7	419
65794-96-9	m,p-Cresols	U	419	ug/kg	126	419
67-72-1	Hexachloroethane	U	419	ug/kg	83.7	419
98-95-3	Nitrobenzene	U	419	ug/kg	83.7	419
78-59-1	Isophorone	U	419	ug/kg	83.7	419
88-75-5	2-Nitrophenol	U	419	ug/kg	83.7	419
105-67-9	2,4-Dimethylphenol	U	419	ug/kg	146	419
111-91-1	bis(2-Chloroethoxy)methane	U	419	ug/kg	83.7	419
120-83-2	2,4-Dichlorophenol	U	419	ug/kg	83.7	419
65-85-0	Benzoic acid	U	837	ug/kg	209	837
91-20-3	Naphthalene	U	41.9	ug/kg	12.6	41.9
106-47-8	4-Chloroaniline	U	419	ug/kg	83.7	419
87-68-3	Hexachlorobutadiene	U	419	ug/kg	83.7	419
91-57-6	2-Methylnaphthalene	U	41.9	ug/kg	8.37	41.9
77-47-4	Hexachlorocyclopentadiene	U	419	ug/kg	83.7	419
88-06-2	2,4,6-Trichlorophenol	U	419	ug/kg	83.7	419
95-95-4	2,4,5-Trichlorophenol	U	419	ug/kg	83.7	419
91-58-7	2-Chloronaphthalene	U	41.9	ug/kg	13.8	41.9
88-74-4	2-Nitroaniline	U	419	ug/kg	83.7	419
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	419	ug/kg	83.7	419

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**20.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13777**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 21:08**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2520.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	419	ug/kg	83.7	419
606-20-2	2,6-Dinitrotoluene	U	419	ug/kg	41.9	419
208-96-8	Acenaphthylene	U	41.9	ug/kg	12.6	41.9
51-28-5	2,4-Dinitrophenol	U	837	ug/kg	159	837
132-64-9	Dibenzofuran	U	419	ug/kg	83.7	419
84-66-2	Diethylphthalate	U	419	ug/kg	83.7	419
86-73-7	Fluorene	U	41.9	ug/kg	12.6	41.9
7005-72-3	4-Chlorophenylphenylether	U	419	ug/kg	83.7	419
534-52-1	2-Methyl-4,6-dinitrophenol	U	419	ug/kg	83.7	419
100-01-6	4-Nitroaniline	U	419	ug/kg	126	419
	p-Nitroaniline					
122-39-4	Diphenylamine	U	419	ug/kg	83.7	419
122-66-7	Azobenzene	U	419	ug/kg	83.7	419
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	419	ug/kg	83.7	419
118-74-1	Hexachlorobenzene	U	419	ug/kg	83.7	419
85-01-8	Phenanthrene		85.8	ug/kg	12.6	41.9
120-12-7	Anthracene	J	19.1	ug/kg	8.37	41.9
84-74-2	Di-n-butylphthalate	U	419	ug/kg	83.7	419
206-44-0	Fluoranthene		102	ug/kg	12.6	41.9
85-68-7	Butylbenzylphthalate	U	419	ug/kg	83.7	419
56-55-3	Benzo(a)anthracene	U	41.9	ug/kg	12.6	41.9
91-94-1	3,3'-Dichlorobenzidine	U	419	ug/kg	126	419
218-01-9	Chrysene		45.2	ug/kg	12.6	41.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	419	ug/kg	83.7	419
117-84-0	Di-n-octylphthalate	U	419	ug/kg	83.7	419
205-99-2	Benzo(b)fluoranthene		71.1	ug/kg	12.6	41.9
207-08-9	Benzo(k)fluoranthene	U	41.9	ug/kg	12.6	41.9
50-32-8	Benzo(a)pyrene		44.7	ug/kg	12.6	41.9
193-39-5	Indeno(1,2,3-cd)pyrene	J	32.0	ug/kg	12.6	41.9
53-70-3	Dibenzo(a,h)anthracene	U	41.9	ug/kg	12.6	41.9
191-24-2	Benzo(ghi)perylene		42.5	ug/kg	12.6	41.9
120-82-1	1,2,4-Trichlorobenzene	U	419	ug/kg	83.7	419

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	450	ug/kg		JA

GEL Laboratories LLC

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Data file : /chem/MSD2.i/s032510.b/s2c2520.d
Lab Smp Id: 248862004 Client Smp ID: RE46-10-13777
Inj Date : 25-MAR-2010 21:08
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248862004|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	20.43130	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.843	3.843	(1.000)	124460	40.0000	
* 29 Naphthalene-d8	136	4.699	4.704	(1.000)	486962	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	305725	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	536191	40.0000	
* 91 Chrysene-d12	240	8.592	8.603	(1.000)	388452	40.0000	
* 98 Perylene-d12	264	10.026	10.042	(1.000)	261200	40.0000	
$ 3 2-Fluorophenol	112	3.040	3.035	(0.791)	162104	54.6994	2290
$ 5 Phenol-d5	99	3.559	3.565	(0.926)	191558	52.4913	2200
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.894)	99934	28.3547	1190
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	221793	26.3685	1100
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.091)	54146	59.8789	2500
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	248782	35.1165	1470

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.806	7.812	(0.908)	25084	1.98100	82.9
68 Phenanthrene	178	6.950	6.956	(1.002)	27165	2.04976	85.8
69 Anthracene	178	6.982	6.988	(1.006)	5850	0.45630	19.1(a)
76 Fluoranthene	202	7.667	7.672	(1.105)	29224	2.44132	102
92 Chrysene	228	8.608	8.625	(1.002)	9769	1.08017	45.2
95 Benzo(b)fluoranthene	252	9.571	9.582	(0.955)	12096	1.69780	71.0
97 Benzo(a)pyrene	252	9.956	9.978	(0.993)	6309	1.06841	44.7
99 Indeno(1,2,3-cd)pyrene	276	11.625	11.657	(1.159)	3865	0.76463	32.0(a)
101 Benzo(ghi)perylene	276	12.128	12.155	(1.210)	4158	1.01558	42.5

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s2c2520.d
Report Date: 03/26/2010 13:39
Lab. ID: 248862004 SampleType: SAMPLE
Injection Date: 25-MAR-2010 21:08
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248862004|965979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	16187	4.20	4.08	80-120	100	(T)
42	13764	4.20	4.08	90-150	85	(QT)
30 Naphthalene				CAS#: 91-20-3		
128	3814	4.71	4.72	80-120	100	( )
129	377	4.71	4.72	0- 50	10	( )
127	396	4.71	4.74	17- 77	10	(Q)
43 Dimethylphthalate				CAS#: 131-11-3		
163	53397	5.94	5.72	80-120	100	(T)
164	305725	5.94	5.72	0- 40	573	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	39699	5.94	5.77	80-120	100	(T)
63	777	5.94	5.77	85-145	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	39699	5.94	6.06	80-120	100	(T)
89	796	5.94	6.06	55-115	2	(QT)
63	777	5.94	6.06	44-104	2	(QT)
53 Fluorene				CAS#: 86-73-7		
166	2711	6.49	6.32	80-120	100	(T)
165	2690	6.49	6.32	63-123	99	(T)
167	998	6.49	6.32	0- 43	37	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	243	6.49	6.34	80-120	100	(T)
105	704	6.48	6.34	17- 77	289	(QT)
51	940	6.48	6.34	99-159	385	(QT)
68 Phenanthrene				CAS#: 85-01-8		
178	27165	6.95	6.96	80-120	100	( )
179	4511	6.95	6.96	0- 45	17	( )
176	5092	6.95	6.96	0- 49	19	( )
69 Anthracene				CAS#: 120-12-7		
178	5850	6.98	6.99	80-120	100	( )
179	1342	6.98	6.99	0- 46	23	( )
176	1048	6.98	6.99	0- 48	18	( )
76 Fluoranthene				CAS#: 206-44-0		
202	29224	7.67	7.67	80-120	100	( )
203	5181	7.67	7.67	0- 47	18	( )
101	2594	7.66	7.67	0- 39	9	( )
79 Pyrene				CAS#: 129-00-0		
202	25084	7.81	7.81	80-120	100	( )
200	5336	7.81	7.81	0- 51	21	( )
101	2899	7.80	7.81	0- 40	12	( )
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	12093	8.58	8.59	80-120	100	( )
226	3319	8.58	8.59	0- 56	27	( )
229	3264	8.58	8.59	0- 50	27	( )
92 Chrysene				CAS#: 218-01-9		
228	9769	8.61	8.62	80-120	100	( )
229	2351	8.61	8.62	0- 50	24	( )
226	2880	8.61	8.62	0- 59	29	( )
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	12096	9.57	9.58	80-120	100	( )
253	2816	9.57	9.58	0- 52	23	( )
125	1999	9.57	9.58	0- 40	17	( )
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	12096	9.57	9.61	80-120	100	( )
253	2816	9.57	9.61	0- 52	23	( )
125	1999	9.57	9.61	0- 39	17	( )
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	6309	9.96	9.98	80-120	100	( )
253	1560	9.96	9.98	0- 51	25	( )
125	1203	9.96	9.97	0- 42	19	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	3865	11.63	11.66	80-120	100	( )
138	523	11.62	11.66	0- 58	14	( )
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	2624	11.88	11.66	80-120	100	(T)
139	492	11.88	11.66	0- 52	19	(T)
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	4158	12.13	12.15	80-120	100	( )
138	1086	12.13	12.15	0- 58	26	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD2.i/s032510.b/s2c2520.d
Lab Smp Id: 248862004 Client Smp ID: RE46-10-13777
Inj Date : 25-MAR-2010 21:08
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248862004|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	20.43130	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.843	916184	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.869	246208	10.7492669	450	0		0	10

Data File: /chem/MSD2.i/s032510.b/s2c2520.d

Date : 25-MAR-2010 21:08

Client ID: RE46-10-13777

Sample Info: |2488620041965979111SVMI1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: ACS1

Column diameter: 0.20

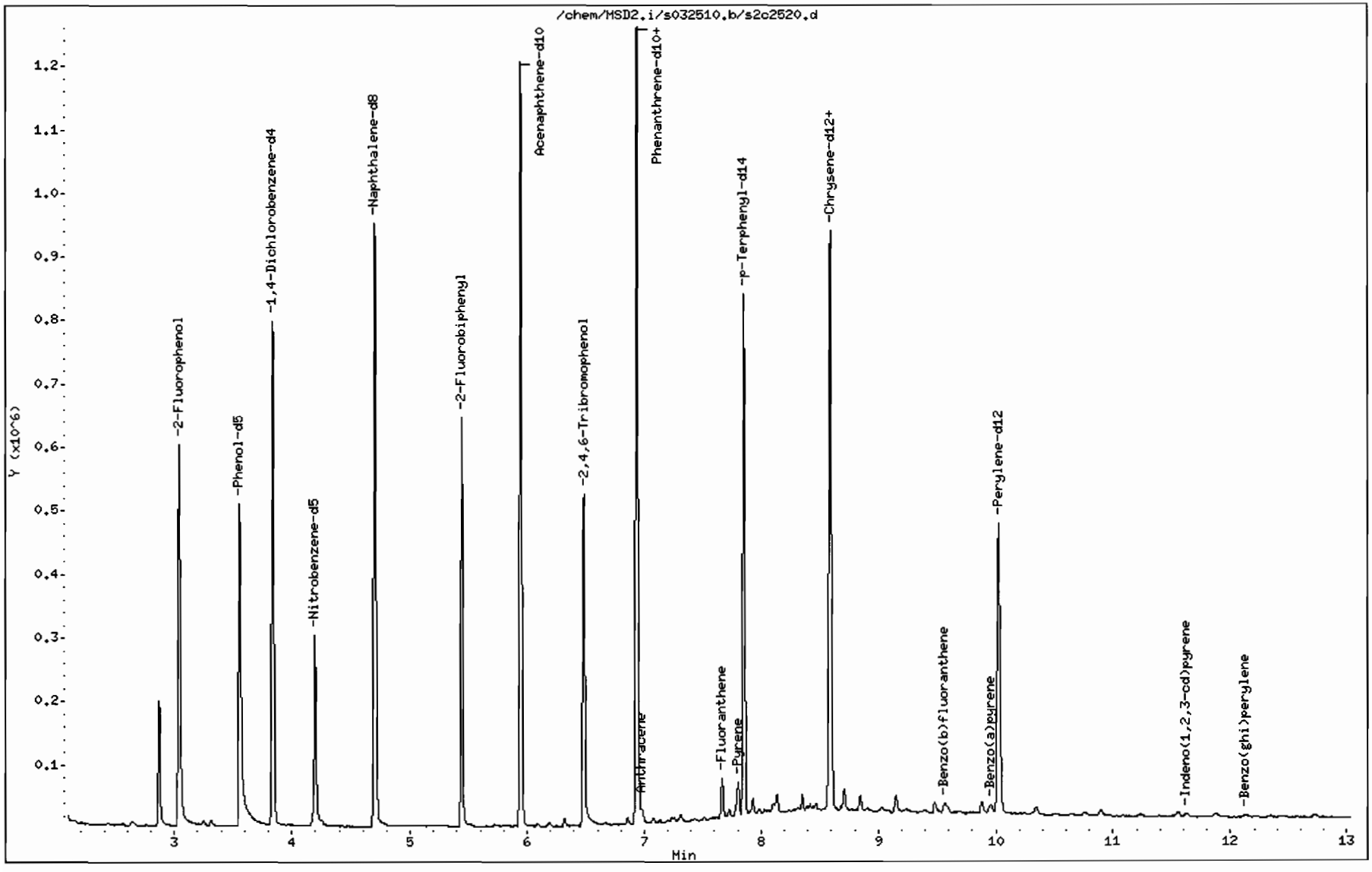

Data File: /chem/MSD2.i/s032510.b/s2c2520.d

Date : 25-MAR-2010 21:08

Client ID: RE46-10-13777

Instrument: MSD2.i

Sample Info: |2488620041965979|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 82.9 ug/Kg

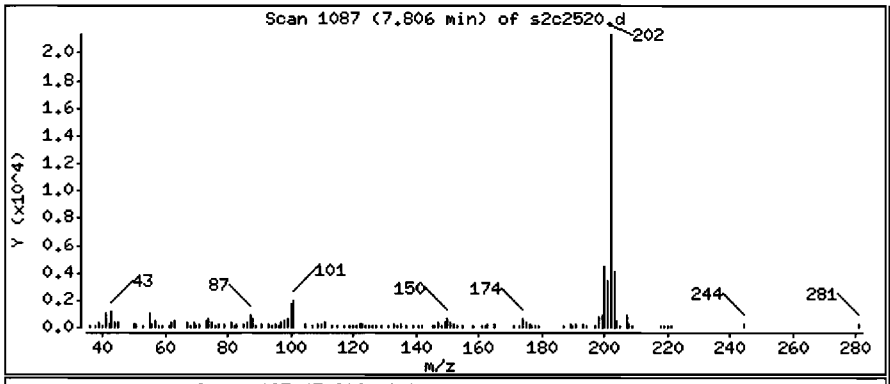

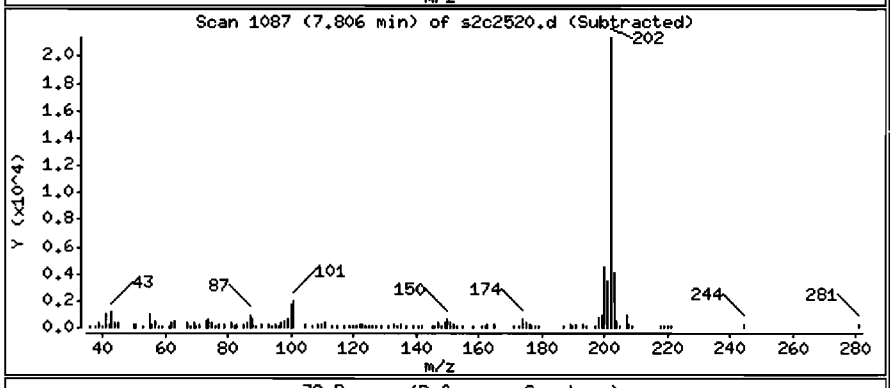

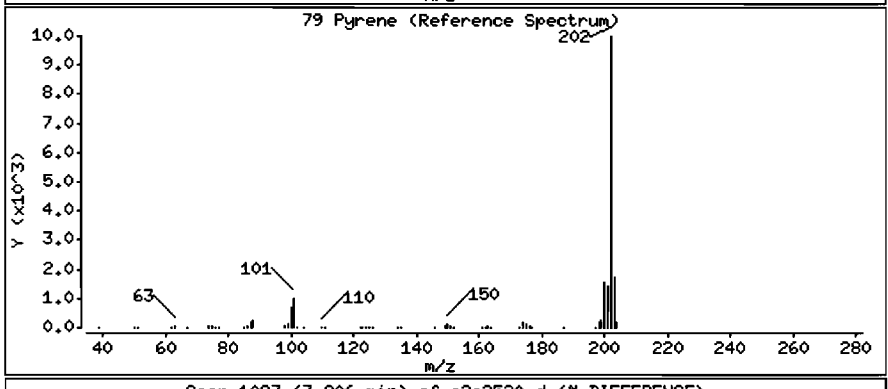

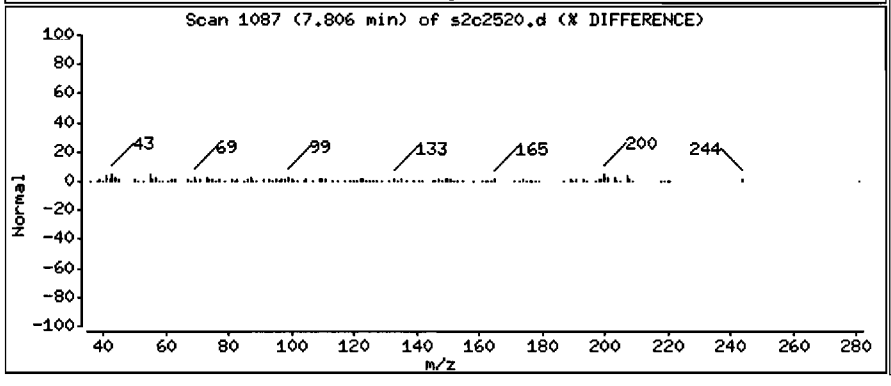

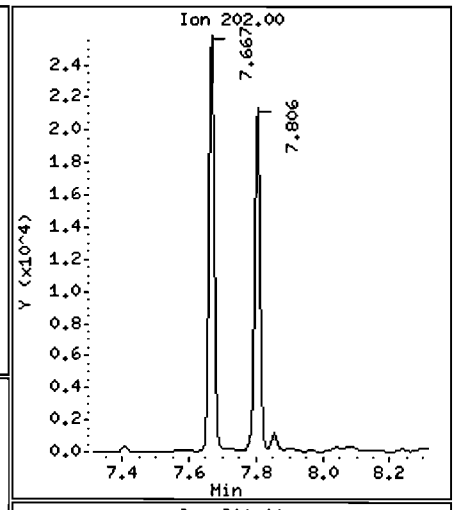

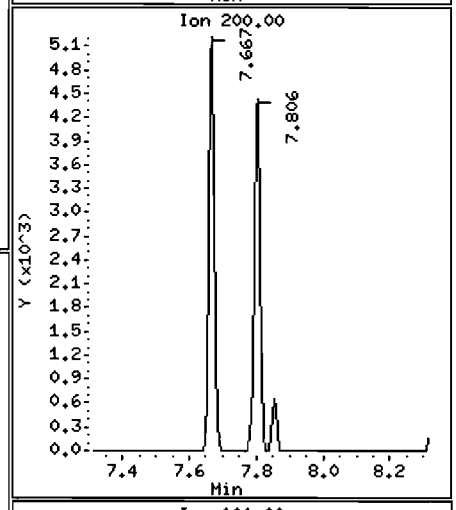

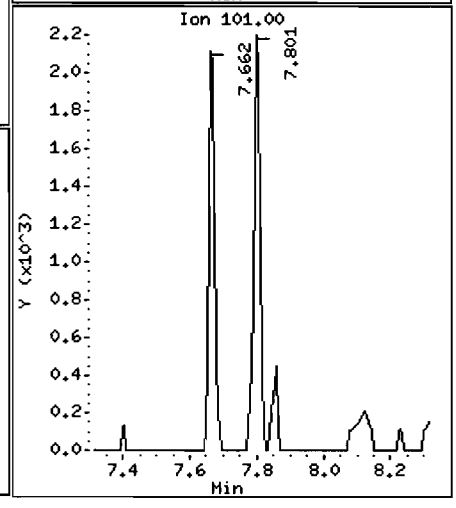

Data File: /chem/MSD2.i/s032510.b/s2c2520.d

Date : 25-MAR-2010 21:08

Client ID: RE46-10-13777

Instrument: MSD2.i

Sample Info: |2488620041965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 85.8 ug/Kg

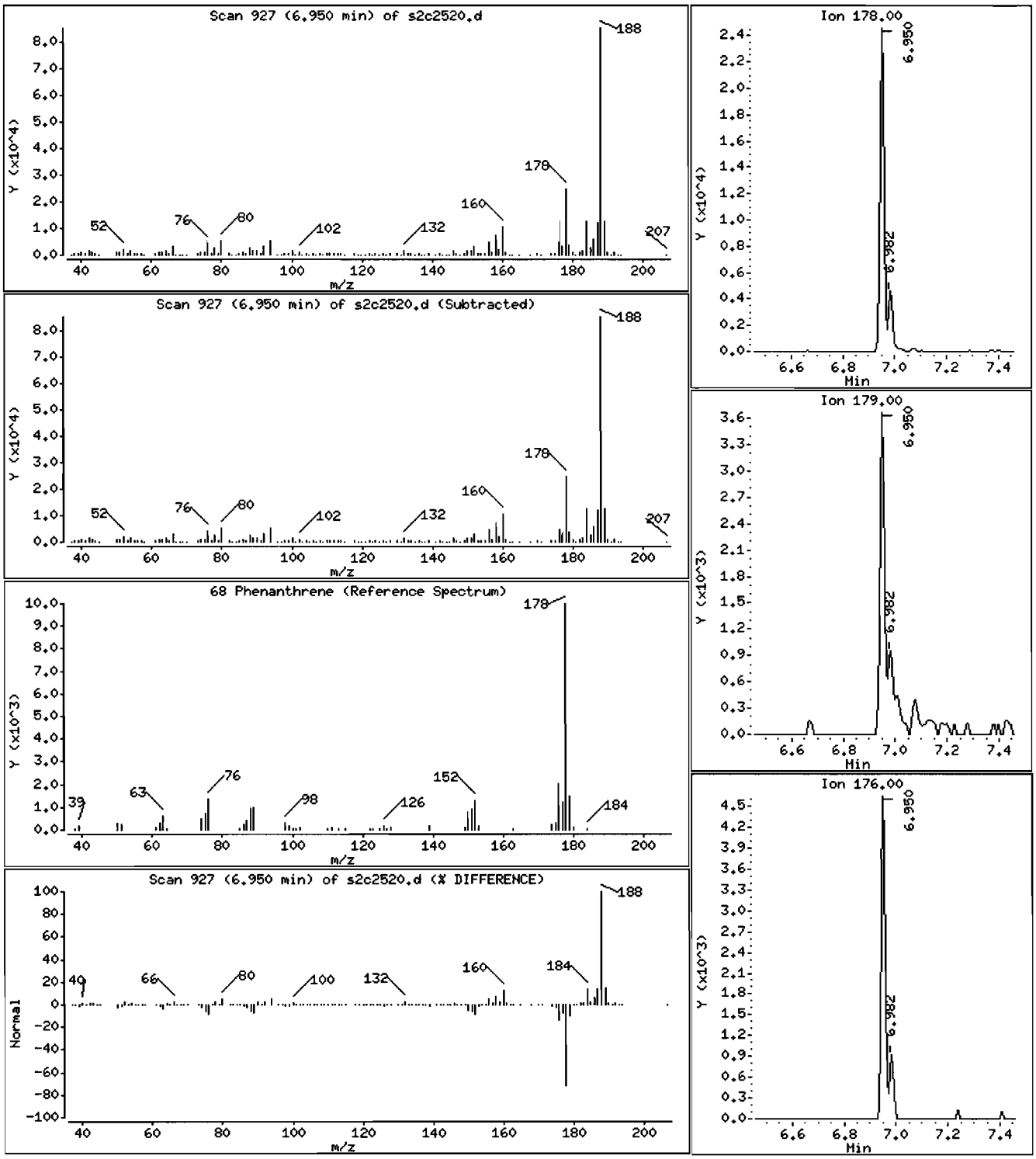

Data File: /chem/MSD2.i/s032510.b/s2c2520.d

Date : 25-MAR-2010 21:08

Client ID: RE46-10-13777

Instrument: MSD2.i

Sample Info: 1248862004|965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 19.1 ug/Kg

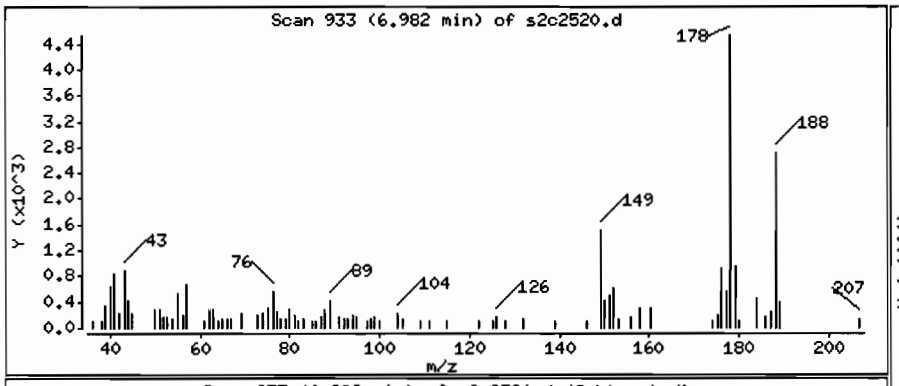

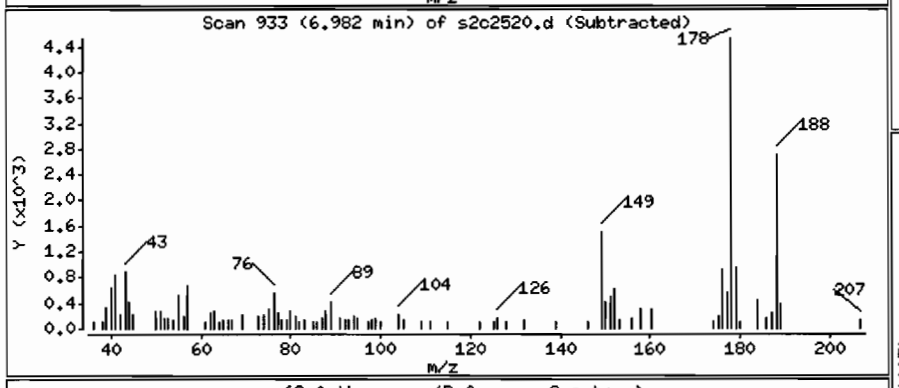

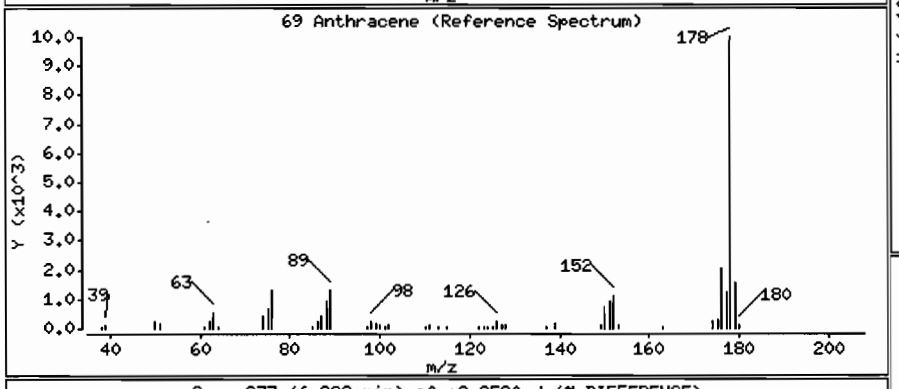

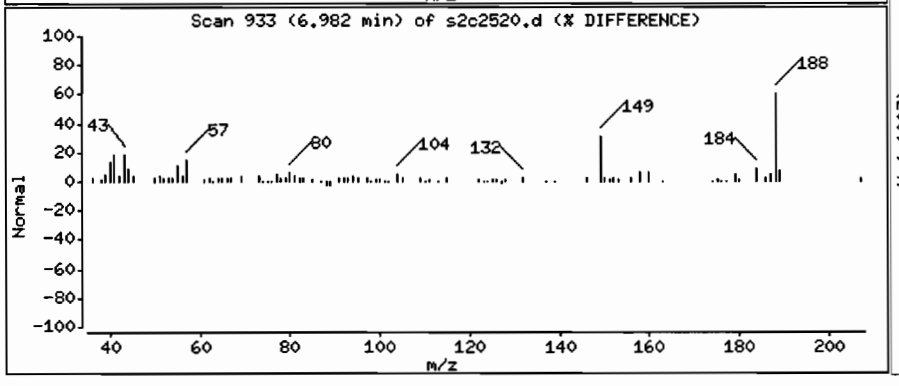

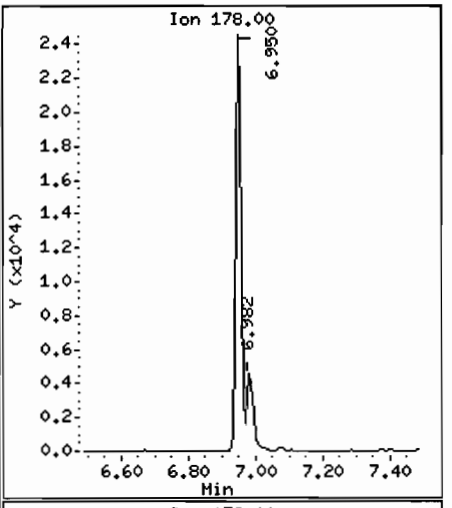

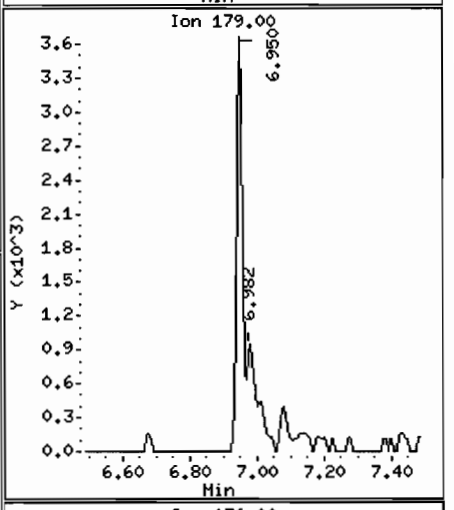

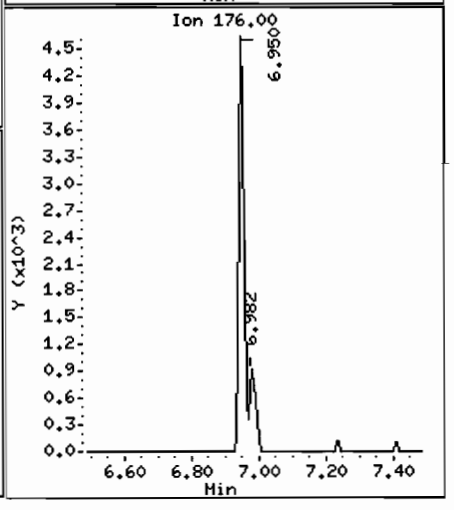

Data File: /chem/MSD2.i/s032510.b/s2c2520.d

Date : 25-MAR-2010 21:08

Client ID: RE46-10-13777

Instrument: MSD2.i

Sample Info: 1248862004|965979|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 102 ug/Kg

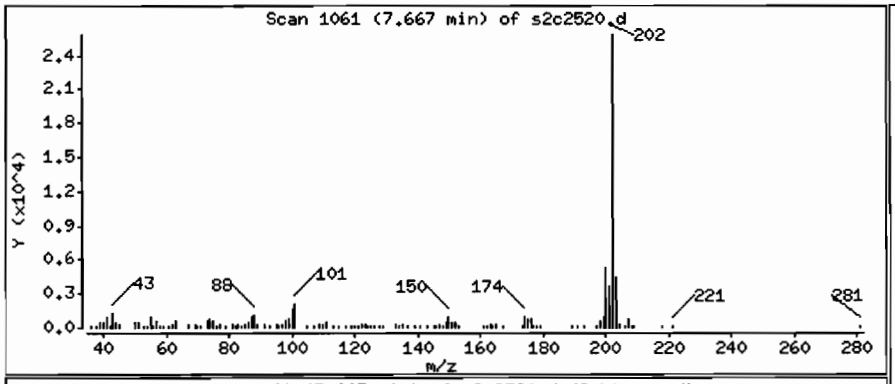

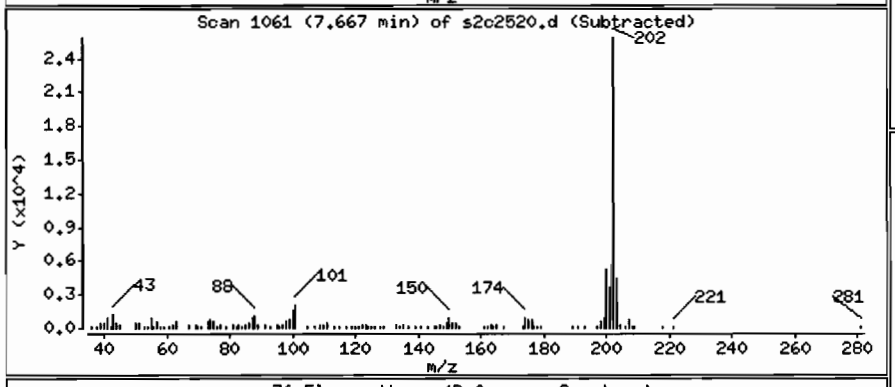

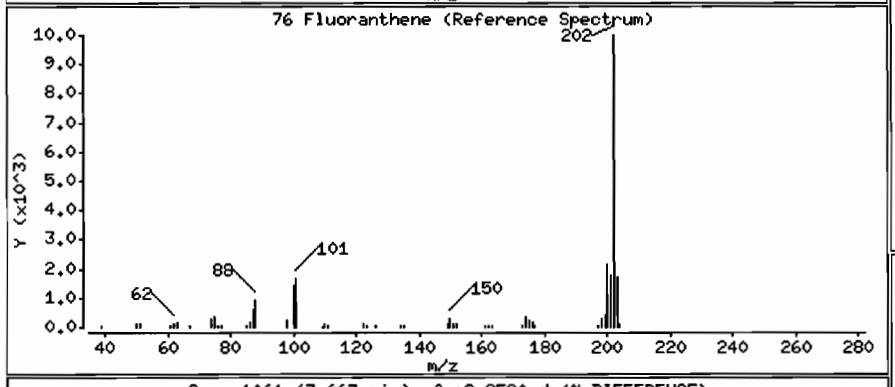

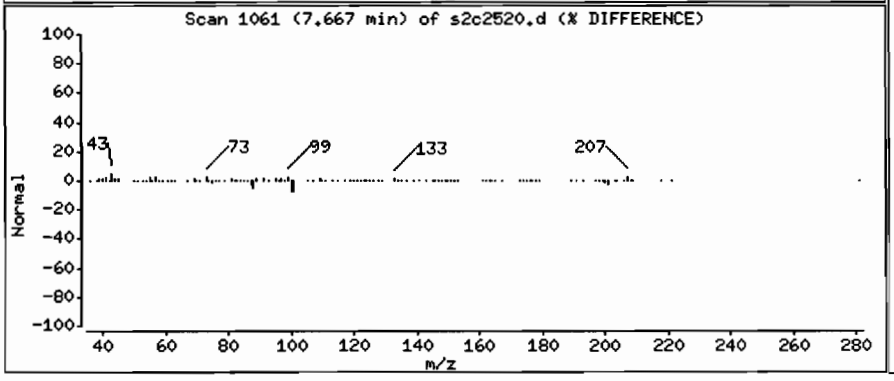

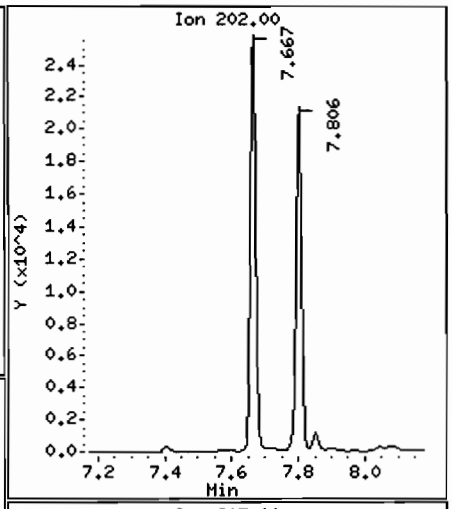

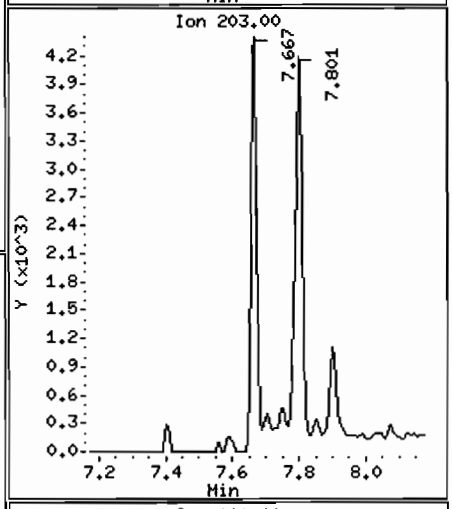

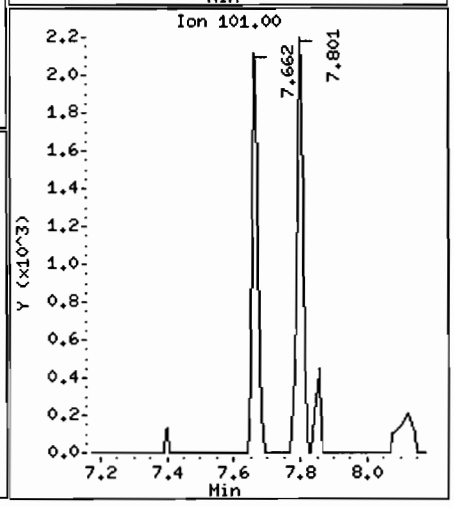

Data File: /chem/MSD2.i/s032510.b/s2c2520.d

Date : 25-MAR-2010 21:08

Client ID: RE46-10-13777

Instrument: MSD2.i

Sample Info: |2488620041965979|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 45.2 ug/Kg

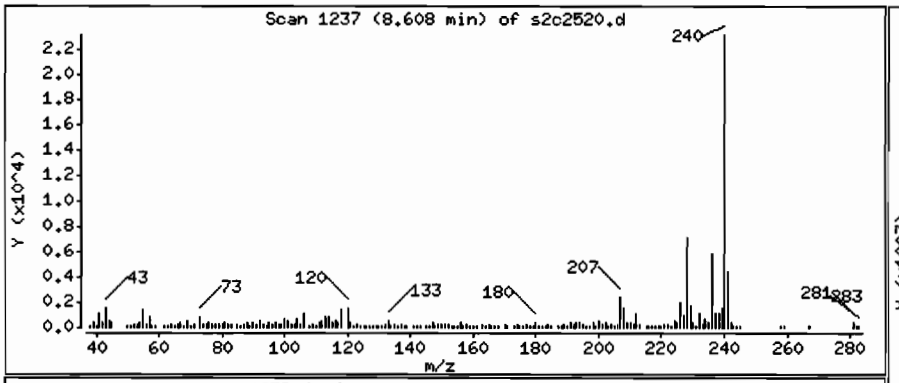

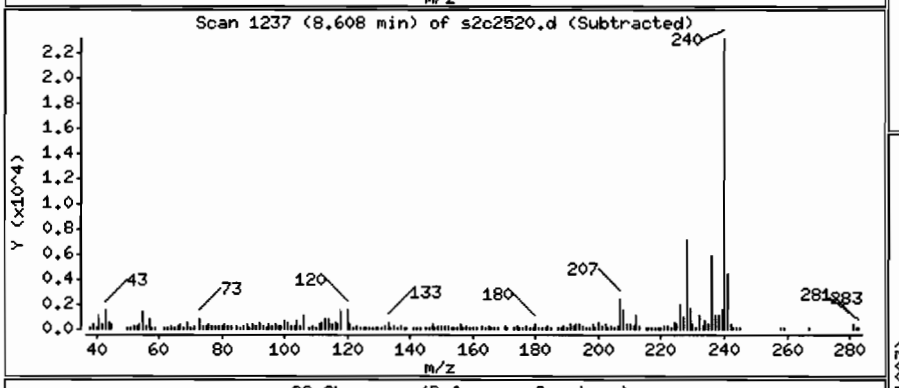

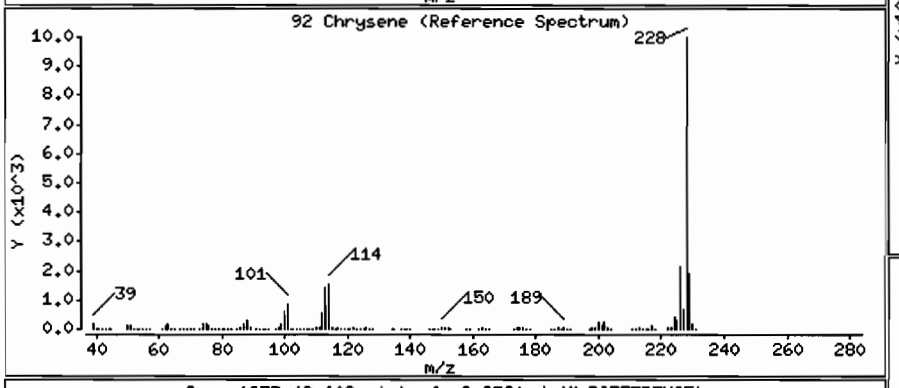

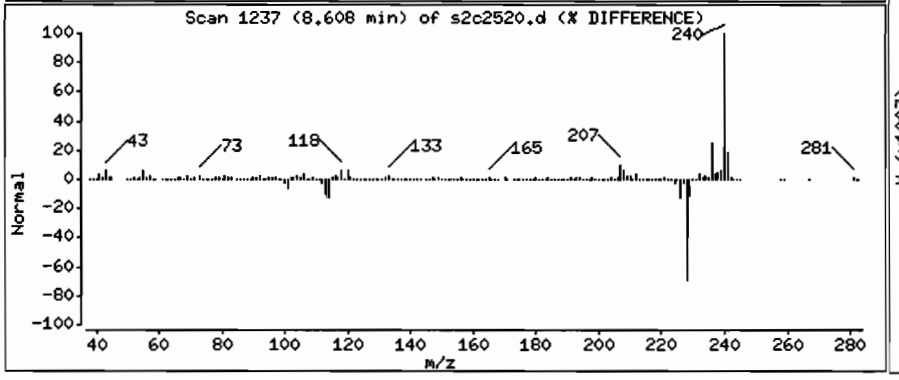

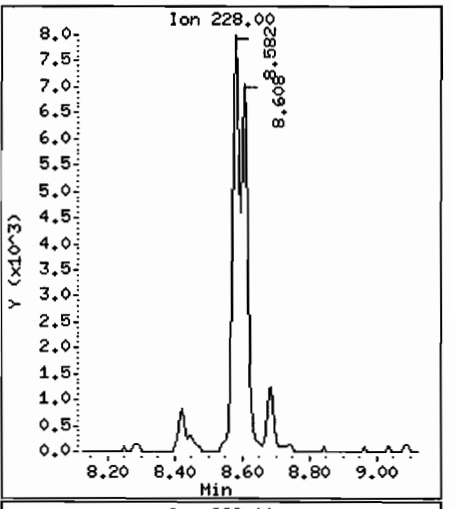

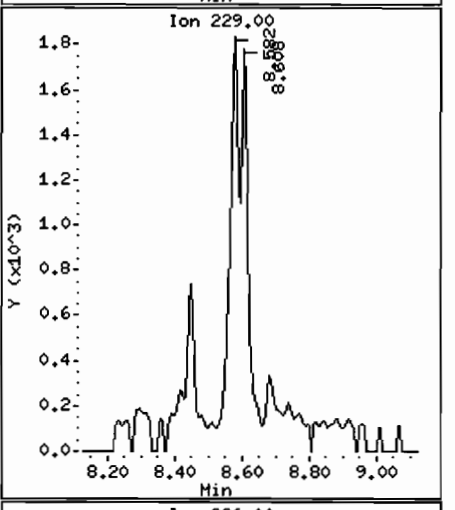

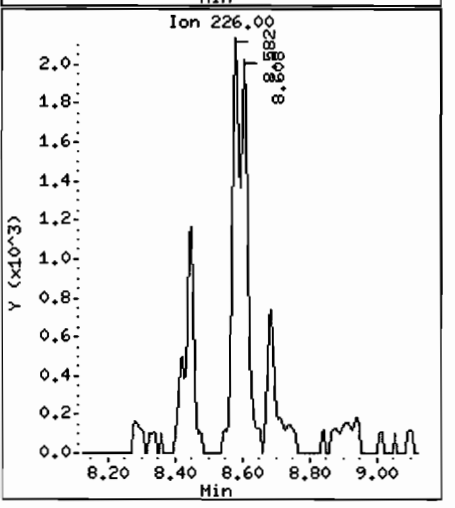

Data File: /chem/MSD2.i/s032510.b/s2c2520.d

Date : 25-MAR-2010 21:08

Client ID: RE46-10-13777

Instrument: MSD2.i

Sample Info: |2488620041965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 71.0 ug/Kg

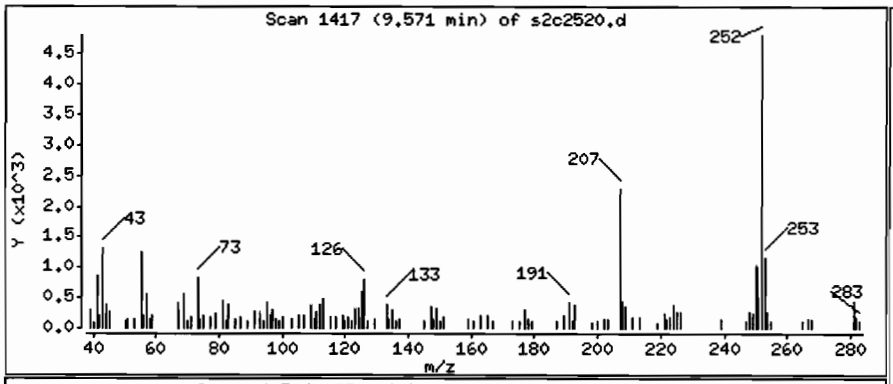

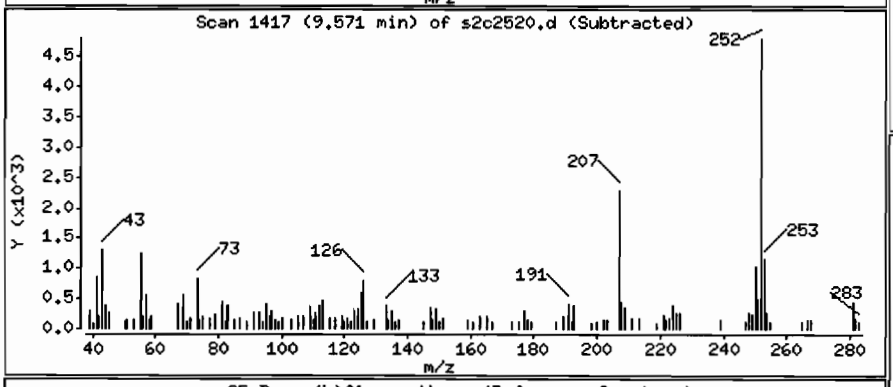

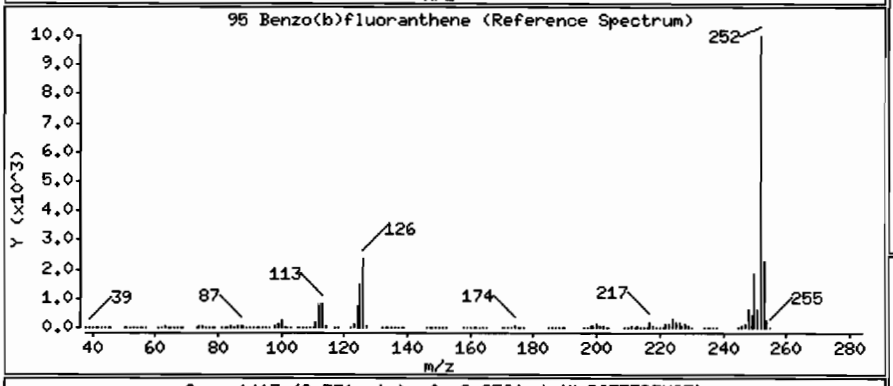

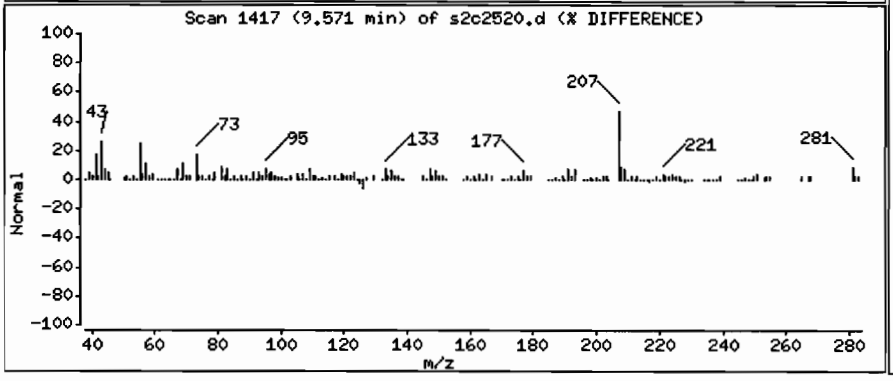

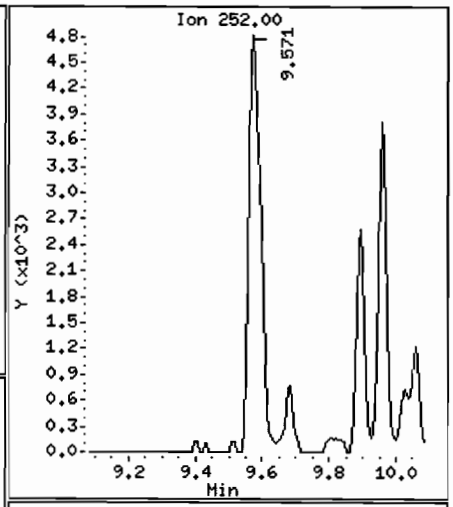

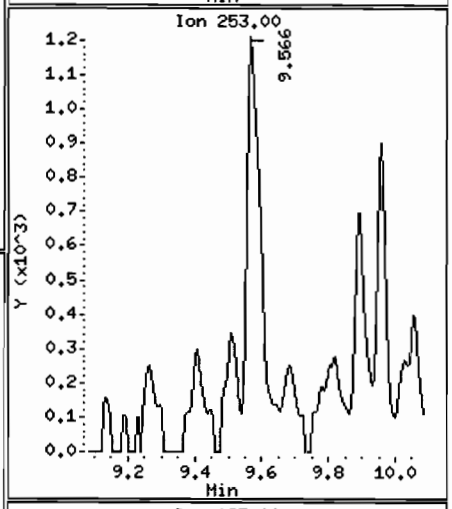

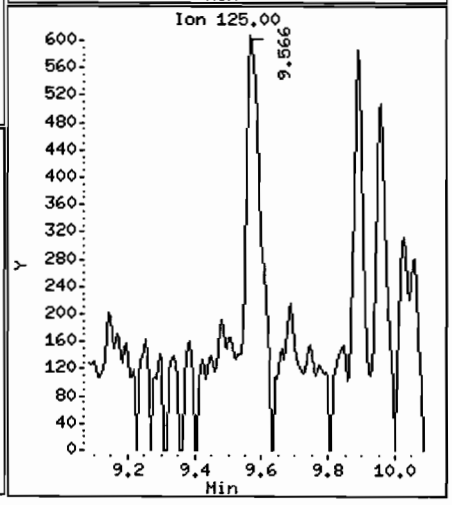

Data File: /chem/MSD2.i/s032510.b/s2c2520.d

Date : 25-MAR-2010 21:08

Client ID: RE46-10-13777

Instrument: MSD2.i

Sample Info: 1248862004|965979|1|SVH|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 44.7 ug/Kg

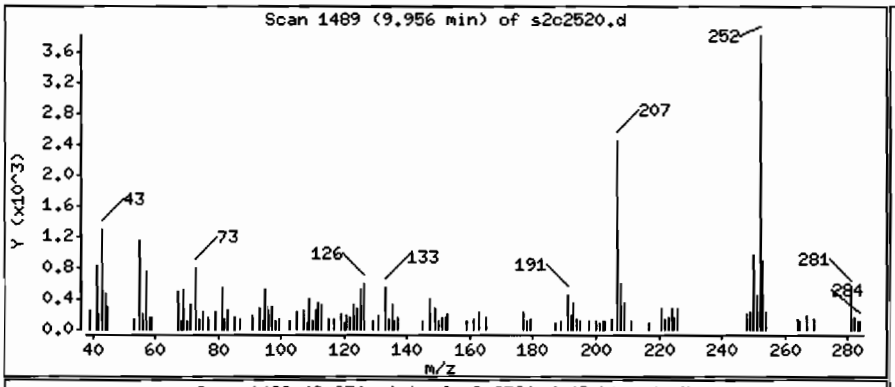

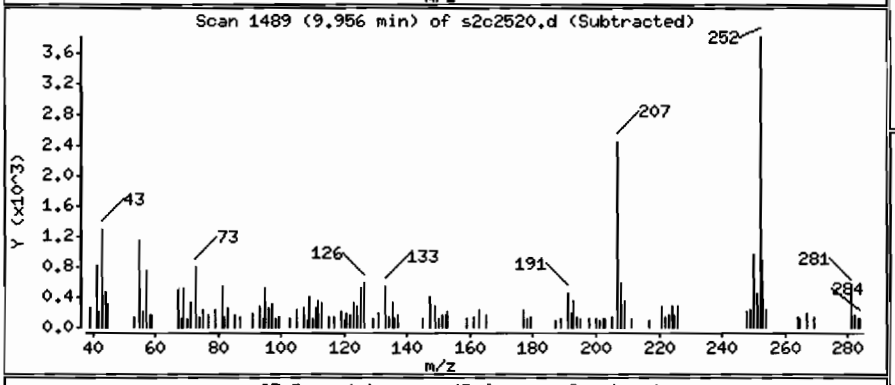

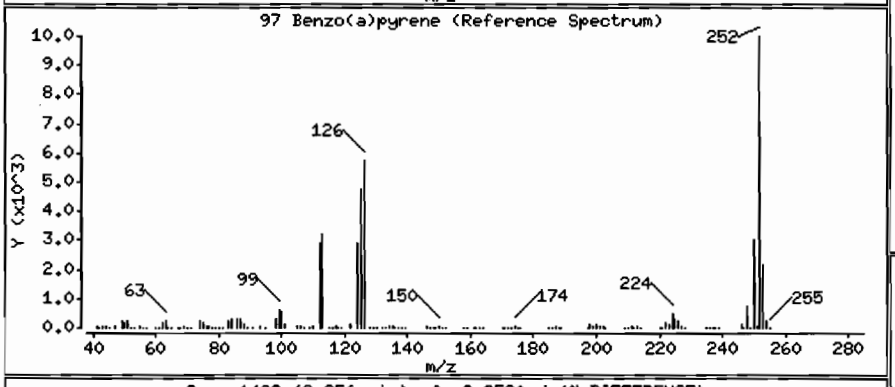

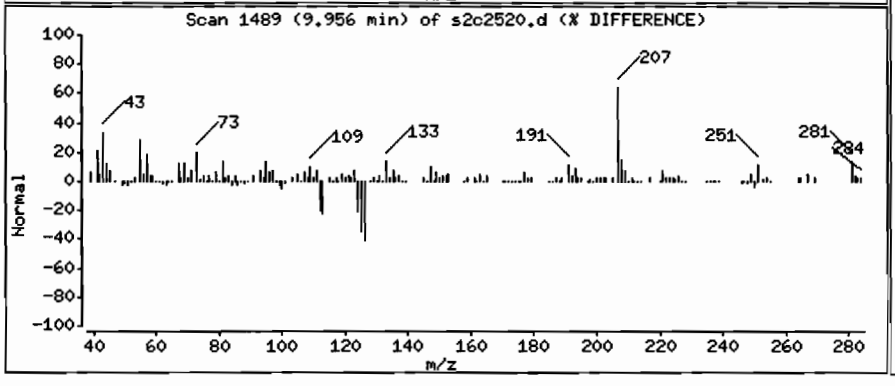

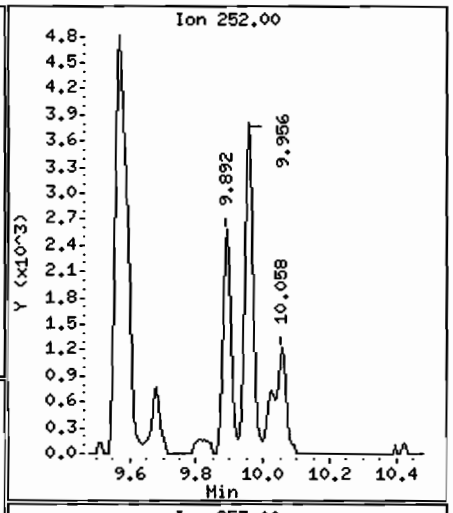

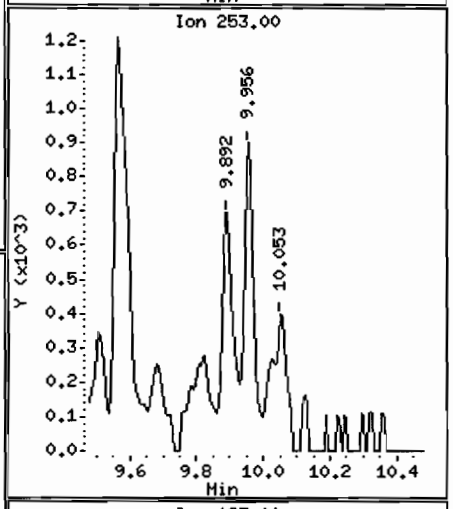

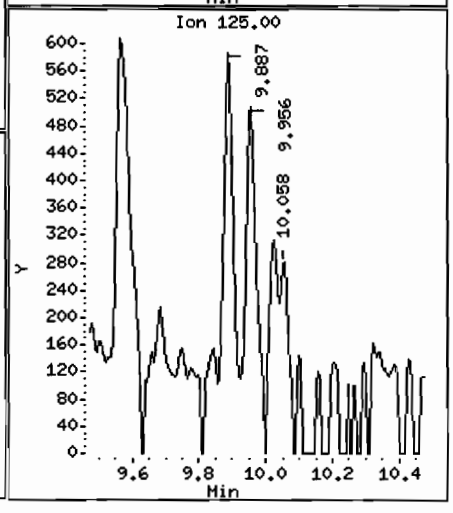

Data File: /chem/MSD2.i/s032510.b/s2c2520.d

Date : 25-MAR-2010 21:08

Client ID: RE46-10-13777 Instrument: MSD2.i

Sample Info: |2488620041965979|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene Concentration: 32.0 ug/Kg

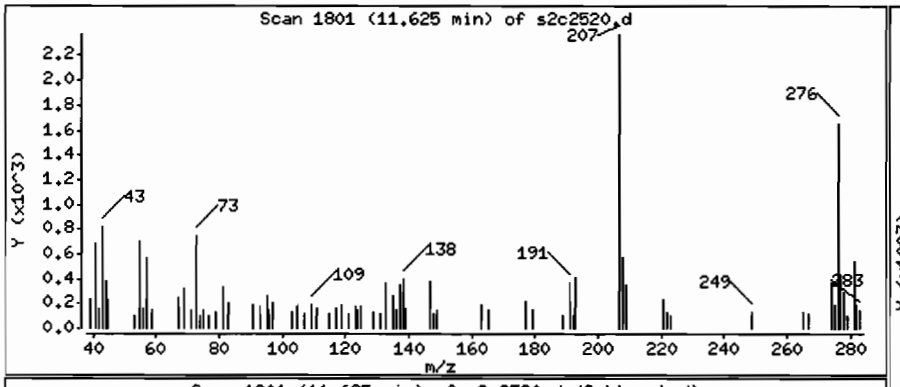

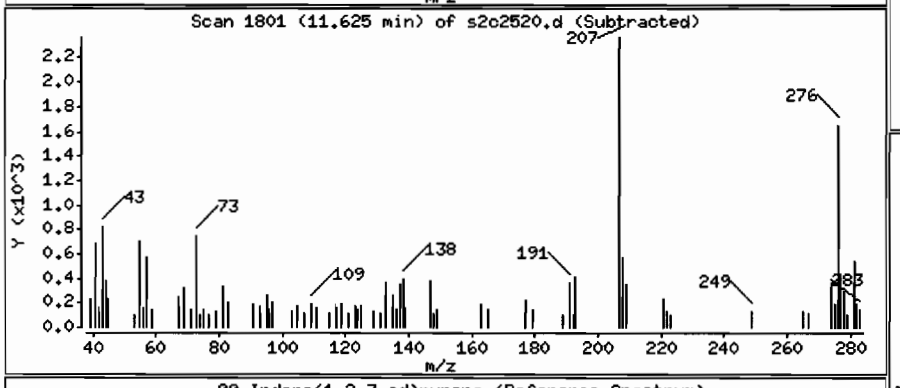

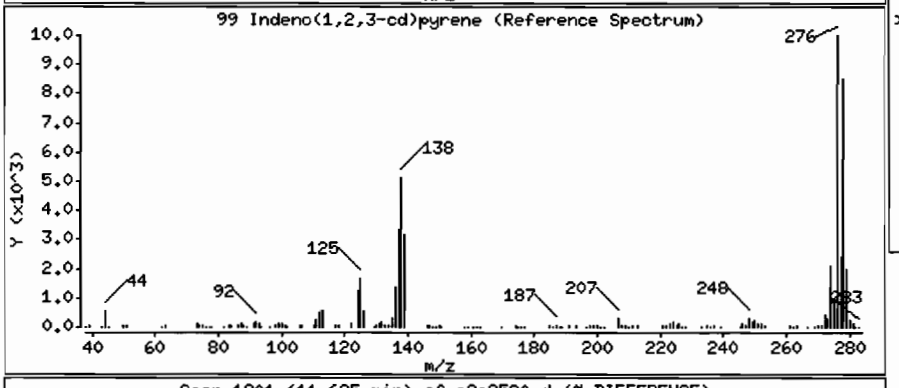

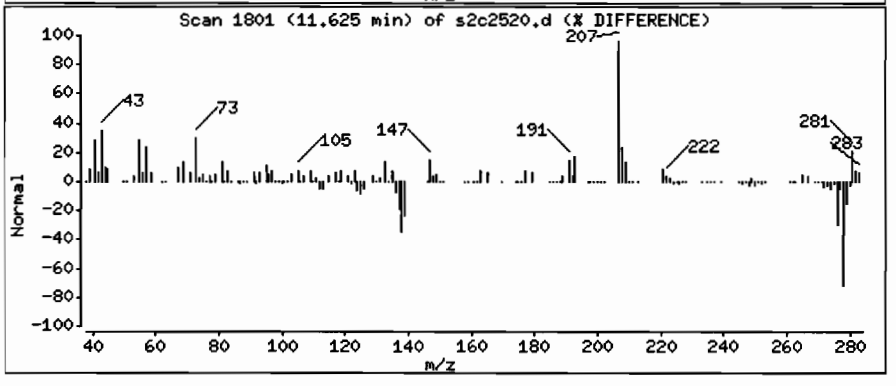

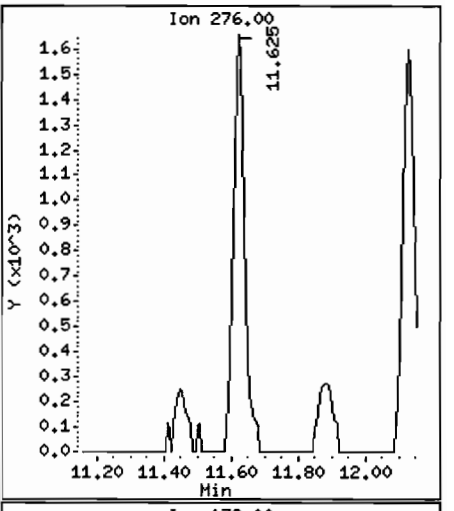

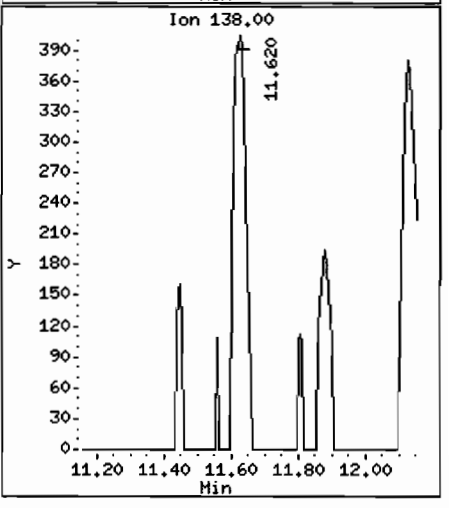

Data File: /chem/MSD2.i/s032510.b/s2c2520.d

Date : 25-MAR-2010 21:08

Client ID: RE46-10-13777

Instrument: MSD2.i

Sample Info: 1248862004|965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 42.5 ug/Kg

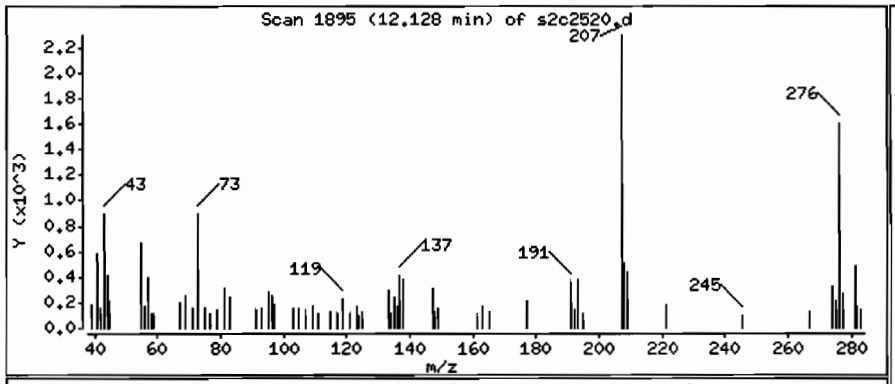

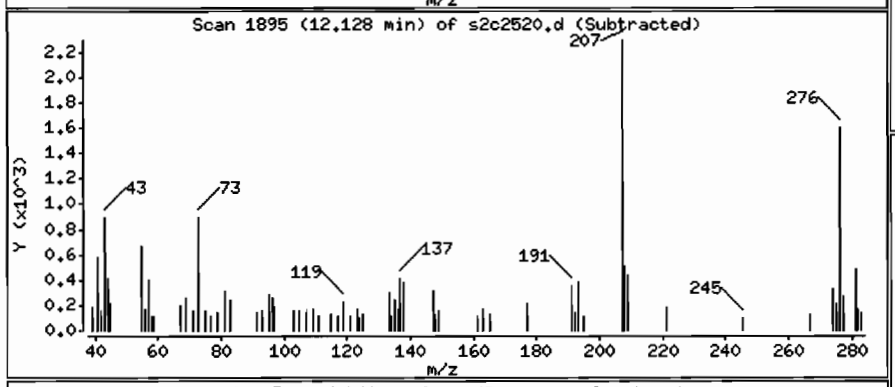

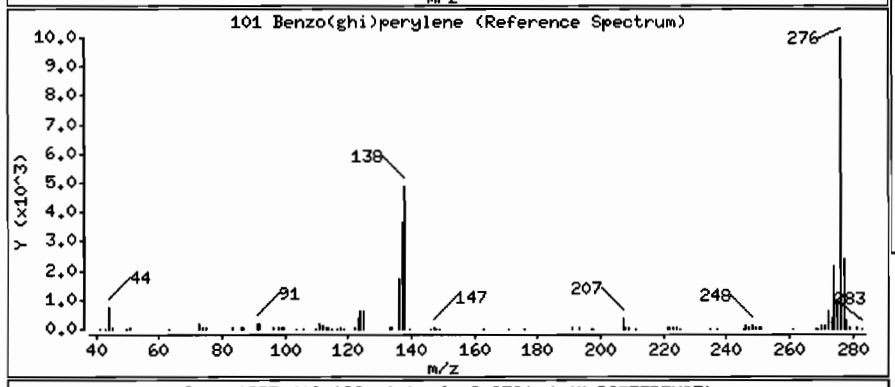

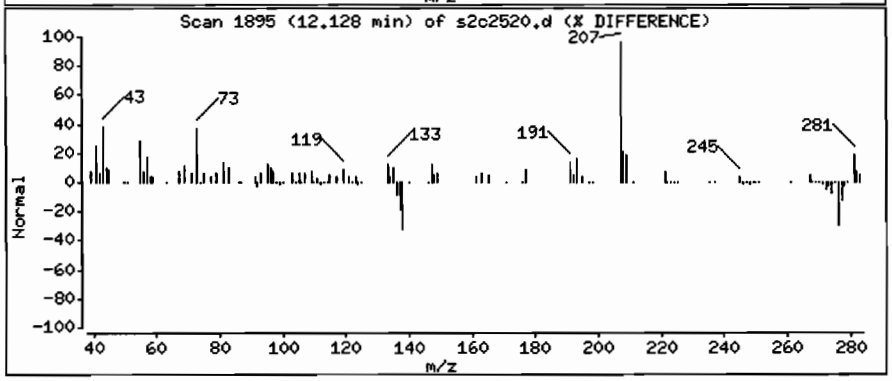

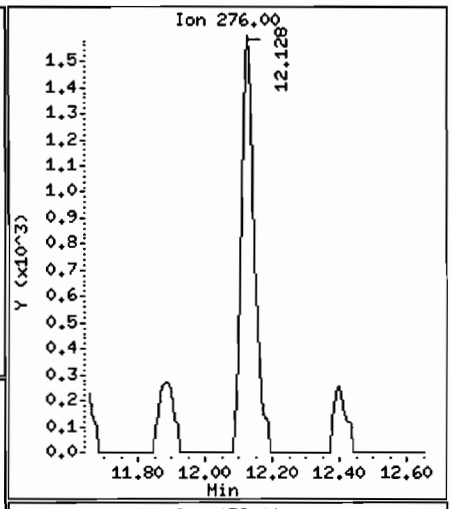

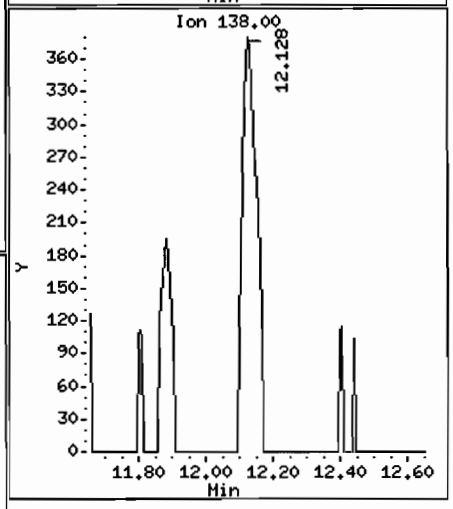

Data File: /chem/MSD2.i/s032510.b/s2c2520.d

Date : 25-MAR-2010 21:08

Client ID: RE46-10-13777

Instrument: MSD2.i

Sample Info: |2488620041965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
1-Butene, 4-ethoxy-	44611-46-3	NIST05.L	3747	23	C6H12O	100

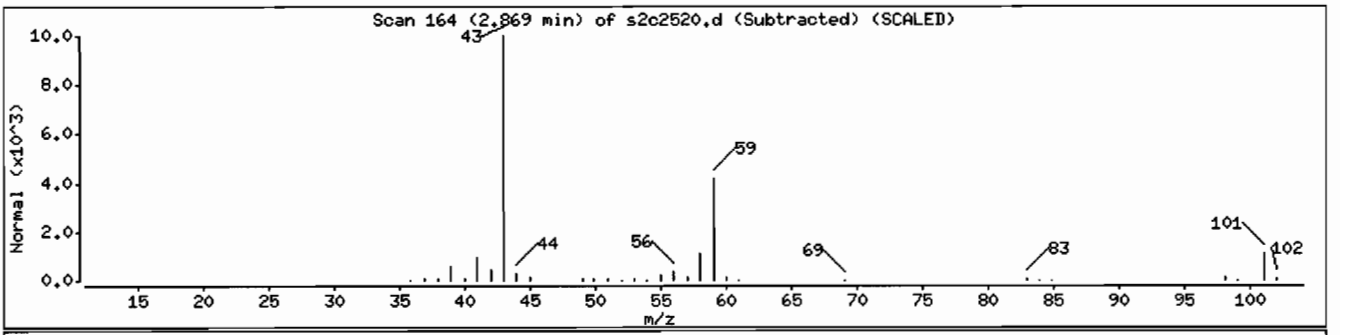

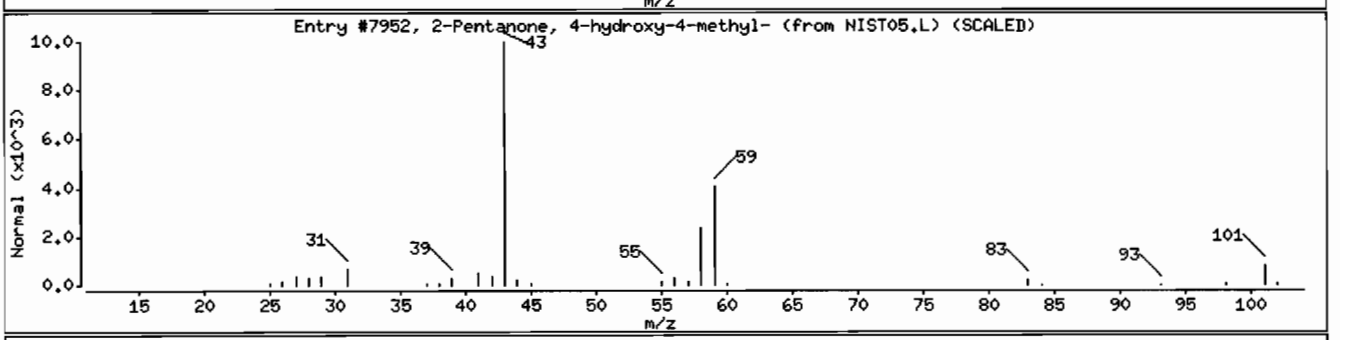

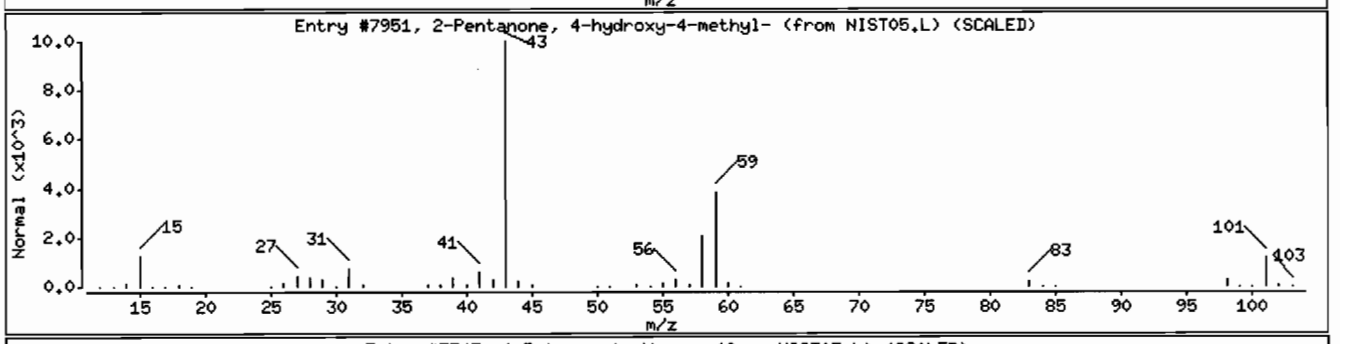

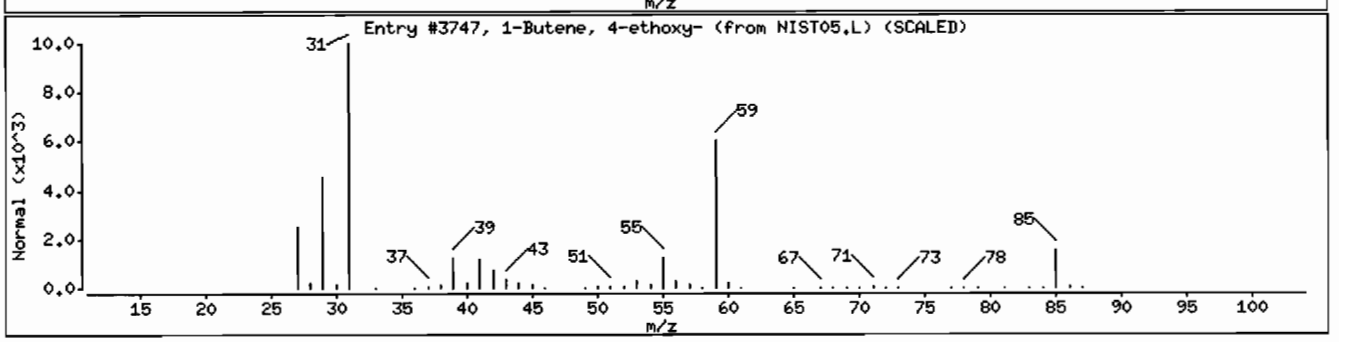

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862010**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13778**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 23:09**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2526.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	412	ug/kg	82.4	412
108-95-2	Phenol	U	412	ug/kg	82.4	412
95-57-8	2-Chlorophenol	U	412	ug/kg	82.4	412
106-46-7	1,4-Dichlorobenzene	U	412	ug/kg	82.4	412
621-64-7	N-Nitrosodipropylamine	U	412	ug/kg	82.4	412
59-50-7	4-Chloro-3-methylphenol	U	412	ug/kg	82.4	412
83-32-9	Acenaphthene	U	41.2	ug/kg	13.6	41.2
121-14-2	2,4-Dinitrotoluene	U	412	ug/kg	41.2	412
100-02-7	4-Nitrophenol	U	412	ug/kg	136	412
87-86-5	Pentachlorophenol	U	412	ug/kg	103	412
129-00-0	Pyrene	U	41.2	ug/kg	12.4	41.2
110-86-1	Pyridine	U	412	ug/kg	82.4	412
62-53-3	Aniline	U	412	ug/kg	124	412
111-44-4	bis(2-Chloroethyl) ether	U	412	ug/kg	82.4	412
541-73-1	1,3-Dichlorobenzene	U	412	ug/kg	82.4	412
100-51-6	Benzyl alcohol	U	412	ug/kg	124	412
95-50-1	1,2-Dichlorobenzene	U	412	ug/kg	82.4	412
108-60-1	bis(2-Chloroisopropyl)ether	U	412	ug/kg	82.4	412
95-48-7	o-Cresol	U	412	ug/kg	82.4	412
65794-96-9	m,p-Cresols	U	412	ug/kg	124	412
67-72-1	Hexachloroethane	U	412	ug/kg	82.4	412
98-95-3	Nitrobenzene	U	412	ug/kg	82.4	412
78-59-1	Isophorone	U	412	ug/kg	82.4	412
88-75-5	2-Nitrophenol	U	412	ug/kg	82.4	412
105-67-9	2,4-Dimethylphenol	U	412	ug/kg	144	412
111-91-1	bis(2-Chloroethoxy)methane	U	412	ug/kg	82.4	412
120-83-2	2,4-Dichlorophenol	U	412	ug/kg	82.4	412
65-85-0	Benzoic acid	U	824	ug/kg	206	824
91-20-3	Naphthalene	U	41.2	ug/kg	12.4	41.2
106-47-8	4-Chloroaniline	U	412	ug/kg	82.4	412
87-68-3	Hexachlorobutadiene	U	412	ug/kg	82.4	412
91-57-6	2-Methylnaphthalene	U	41.2	ug/kg	8.24	41.2
77-47-4	Hexachlorocyclopentadiene	U	412	ug/kg	82.4	412
88-06-2	2,4,6-Trichlorophenol	U	412	ug/kg	82.4	412
95-95-4	2,4,5-Trichlorophenol	U	412	ug/kg	82.4	412
91-58-7	2-Chloronaphthalene	U	41.2	ug/kg	13.6	41.2
88-74-4	2-Nitroaniline	U	412	ug/kg	82.4	412
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	412	ug/kg	82.4	412

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862010**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13778**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 23:09**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2526.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	412	ug/kg	82.4	412
606-20-2	2,6-Dinitrotoluene	U	412	ug/kg	41.2	412
208-96-8	Acenaphthylene	U	41.2	ug/kg	12.4	41.2
51-28-5	2,4-Dinitrophenol	U	824	ug/kg	157	824
132-64-9	Dibenzofuran	U	412	ug/kg	82.4	412
84-66-2	Diethylphthalate	U	412	ug/kg	82.4	412
86-73-7	Fluorene	U	41.2	ug/kg	12.4	41.2
7005-72-3	4-Chlorophenylphenylether	U	412	ug/kg	82.4	412
534-52-1	2-Methyl-4,6-dinitrophenol	U	412	ug/kg	82.4	412
100-01-6	4-Nitroaniline	U	412	ug/kg	124	412
	p-Nitroaniline					
122-39-4	Diphenylamine	U	412	ug/kg	82.4	412
122-66-7	Azobenzene	U	412	ug/kg	82.4	412
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	412	ug/kg	82.4	412
118-74-1	Hexachlorobenzene	U	412	ug/kg	82.4	412
85-01-8	Phenanthrene	U	41.2	ug/kg	12.4	41.2
120-12-7	Anthracene	U	41.2	ug/kg	8.24	41.2
84-74-2	Di-n-butylphthalate	U	412	ug/kg	82.4	412
206-44-0	Fluoranthene	U	41.2	ug/kg	12.4	41.2
85-68-7	Butylbenzylphthalate	U	412	ug/kg	82.4	412
56-55-3	Benzo(a)anthracene	U	41.2	ug/kg	12.4	41.2
91-94-1	3,3'-Dichlorobenzidine	U	412	ug/kg	124	412
218-01-9	Chrysene	U	41.2	ug/kg	12.4	41.2
117-81-7	bis(2-Ethylhexyl)phthalate	J	83.3	ug/kg	82.4	412
117-84-0	Di-n-octylphthalate	U	412	ug/kg	82.4	412
205-99-2	Benzo(b)fluoranthene	U	41.2	ug/kg	12.4	41.2
207-08-9	Benzo(k)fluoranthene	U	41.2	ug/kg	12.4	41.2
50-32-8	Benzo(a)pyrene	U	41.2	ug/kg	12.4	41.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.2	ug/kg	12.4	41.2
53-70-3	Dibenzo(a,h)anthracene	U	41.2	ug/kg	12.4	41.2
191-24-2	Benzo(ghi)perylene	U	41.2	ug/kg	12.4	41.2
120-82-1	1,2,4-Trichlorobenzene	U	412	ug/kg	82.4	412

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	443	ug/kg		JA

GEL Laboratories LLC

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Data file : /chem/MSD2.i/s032510.b/s2c2526.d
Lab Smp Id: 248862010 Client Smp ID: RE46-10-13778
Inj Date : 25-MAR-2010 23:09
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248862010|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	19.06520	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.843	3.843	(1.000)	174223	40.0000	
* 29 Naphthalene-d8	136	4.704	4.704	(1.000)	682634	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	433500	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	815136	40.0000	
* 91 Chrysene-d12	240	8.598	8.603	(1.000)	654210	40.0000	
* 98 Perylene-d12	264	10.036	10.042	(1.000)	400703	40.0000	
$ 3 2-Fluorophenol	112	3.046	3.035	(0.793)	251024	60.5101	2490
$ 5 Phenol-d5	99	3.565	3.565	(0.928)	291437	57.0500	2350
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.893)	148016	29.9590	1230
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	307921	25.8178	1060
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.090)	86760	67.6657	2790
$ 81 p-Terphenyl-d14	244	7.860	7.860	(0.914)	426600	35.7547	1470

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
93 bis(2-Ethylhexyl)phthalate	149	8.480	8.485	(0.986)	27790	2.02268	83.3(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s2c2526.d
Report Date: 03/26/2010 13:41
Lab. ID: 248862010 SampleType: SAMPLE
Injection Date: 25-MAR-2010 23:09
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248862010|965979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	23362	3.56	3.63	80-120	100	(T)
93	208	3.52	3.64	342-402	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	22614	4.20	4.08	80-120	100	(T)
42	20353	4.20	4.08	90-150	90	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	76972	5.95	5.72	80-120	100	(T)
164	433500	5.95	5.72	0- 40	563	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	56481	5.95	5.77	80-120	100	(T)
63	785	5.95	5.77	85-145	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	56481	5.95	6.06	80-120	100	(T)
89	1125	5.95	6.06	55-115	2	(QT)
63	785	5.95	6.06	44-104	1	(QT)
53 Fluorene			CAS#: 86-73-7			
166	3711	6.48	6.32	80-120	100	(T)
165	4289	6.48	6.32	63-123	116	(T)
167	1340	6.48	6.32	0- 43	36	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	425	6.48	6.34	80-120	100	(T)
105	833	6.48	6.34	17- 77	196	(QT)
51	1033	6.48	6.34	99-159	243	(QT)
93 bis(2-Ethylhexyl)phthalate				CAS#: 117-81-7		
149	27790	8.48	8.49	80-120	100	( )
167	2755	8.47	8.49	2- 62	10	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2526.d
Lab Smp Id: 248862010 Client Smp ID: RE46-10-13778
Inj Date : 25-MAR-2010 23:09
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248862010|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	19.06520	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.843	1306352	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.875	350993	10.7472550	443	0		0	10

Data File: /chem/MSD2.i/s032510.b/s2c2526.d
Date : 25-MAR-2010 23:09
Client ID: RE46-10-13778
Sample Info: |2488620101965979|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: AGS1
Column diameter: 0.20

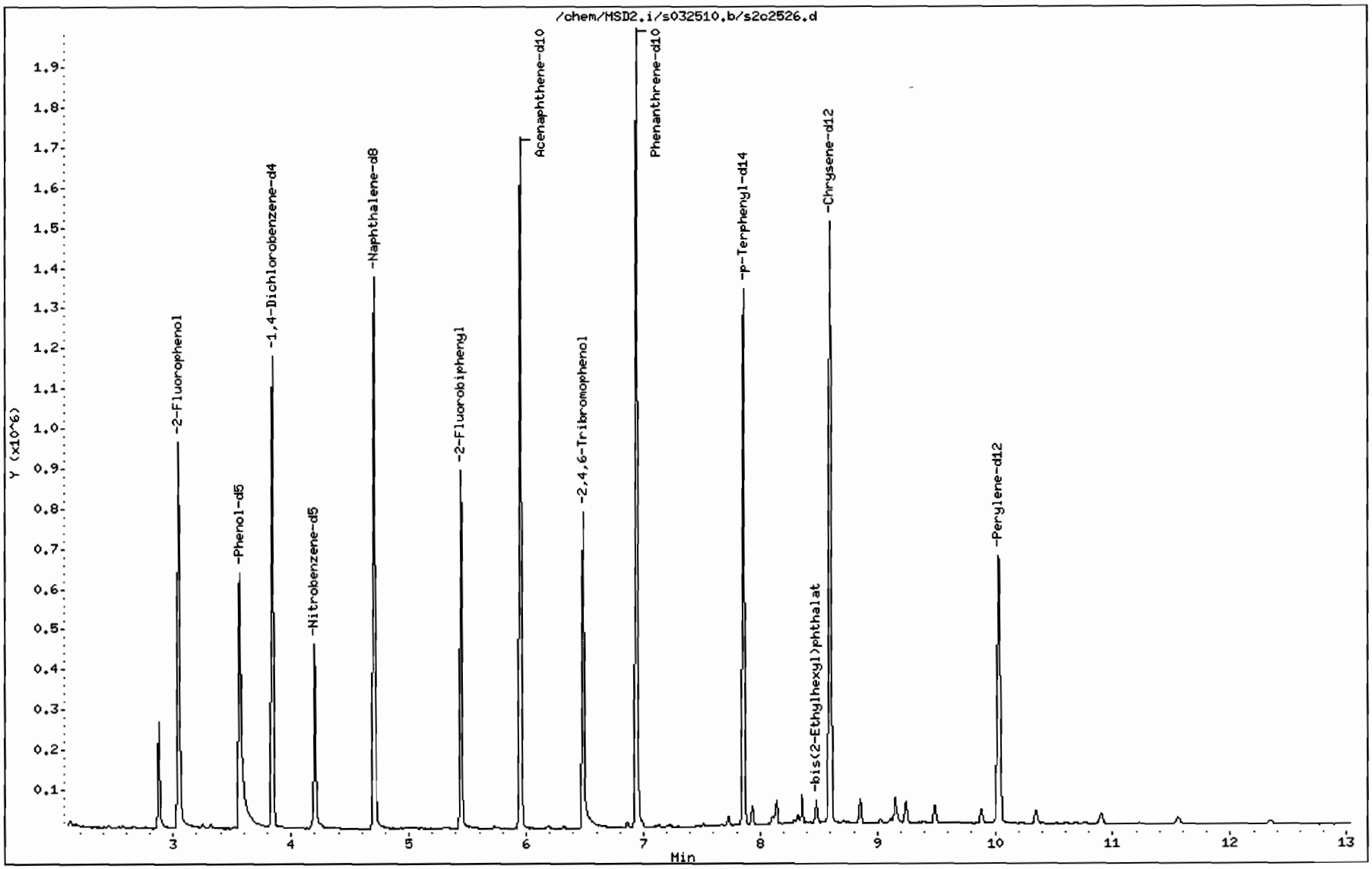

Data File: /chem/MSD2.i/s032510.b/s2c2526.d

Date : 25-MAR-2010 23:09

Client ID: RE46-10-13778

Instrument: MSD2.i

Sample Info: 1248862010|965979|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 83.3 ug/Kg

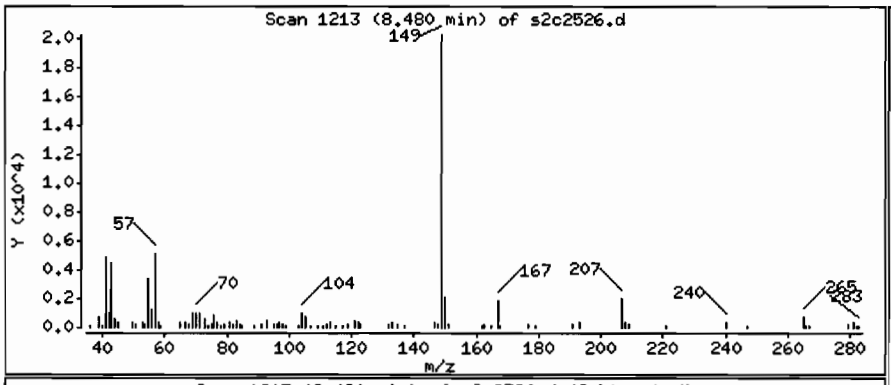

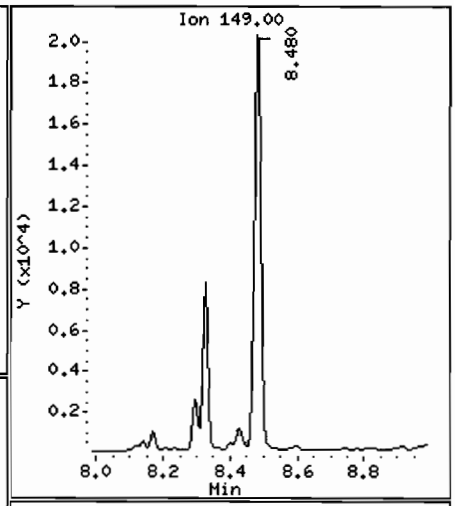

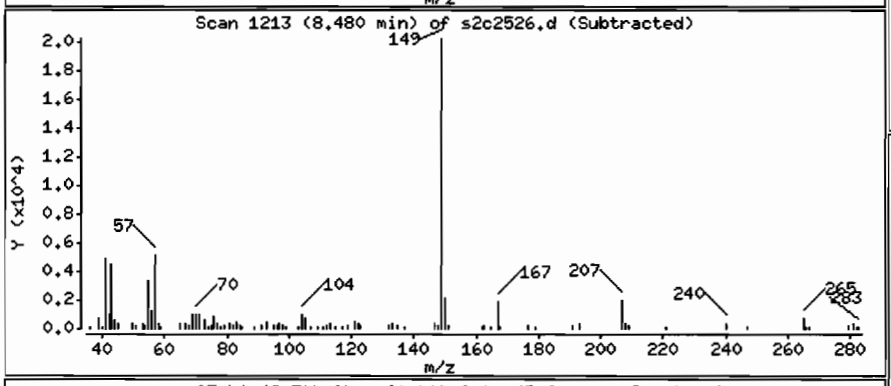

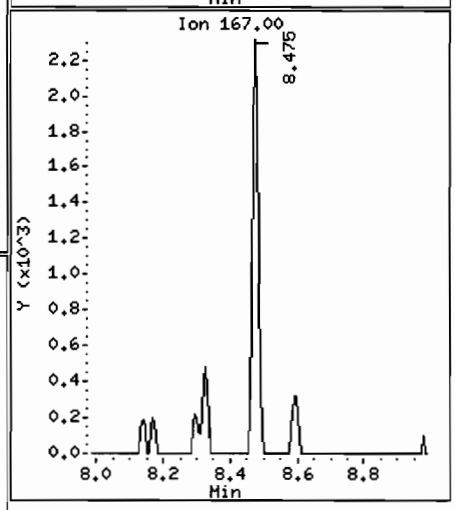

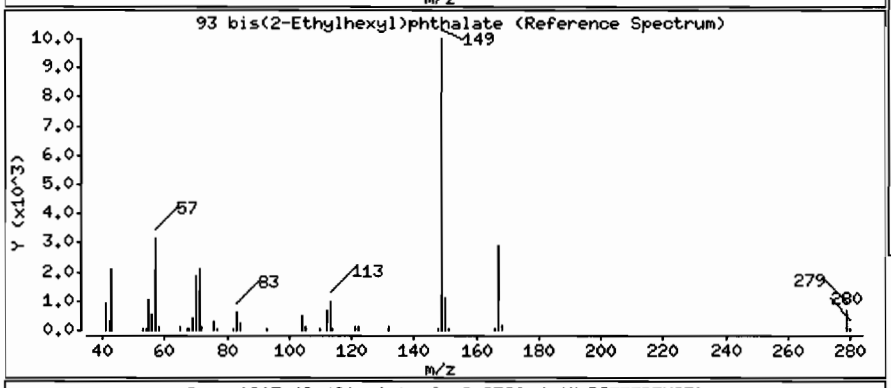

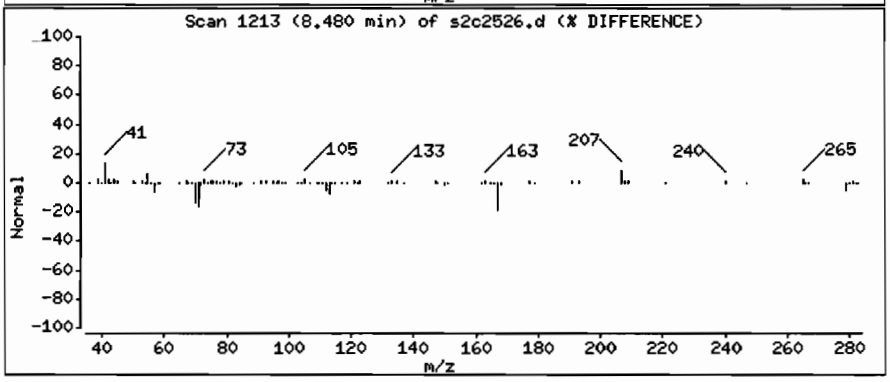

Data File: /chem/MSD2.i/s032510.b/s2c2526.d

Date : 25-MAR-2010 23:09

Client ID: RE46-10-13778

Instrument: MSD2.i

Sample Info: 1248862010|965979|1|SVH|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
Methyl acetoxyacetate	5837-80-9	NIST05.L	13788	9	C5H8O4	132

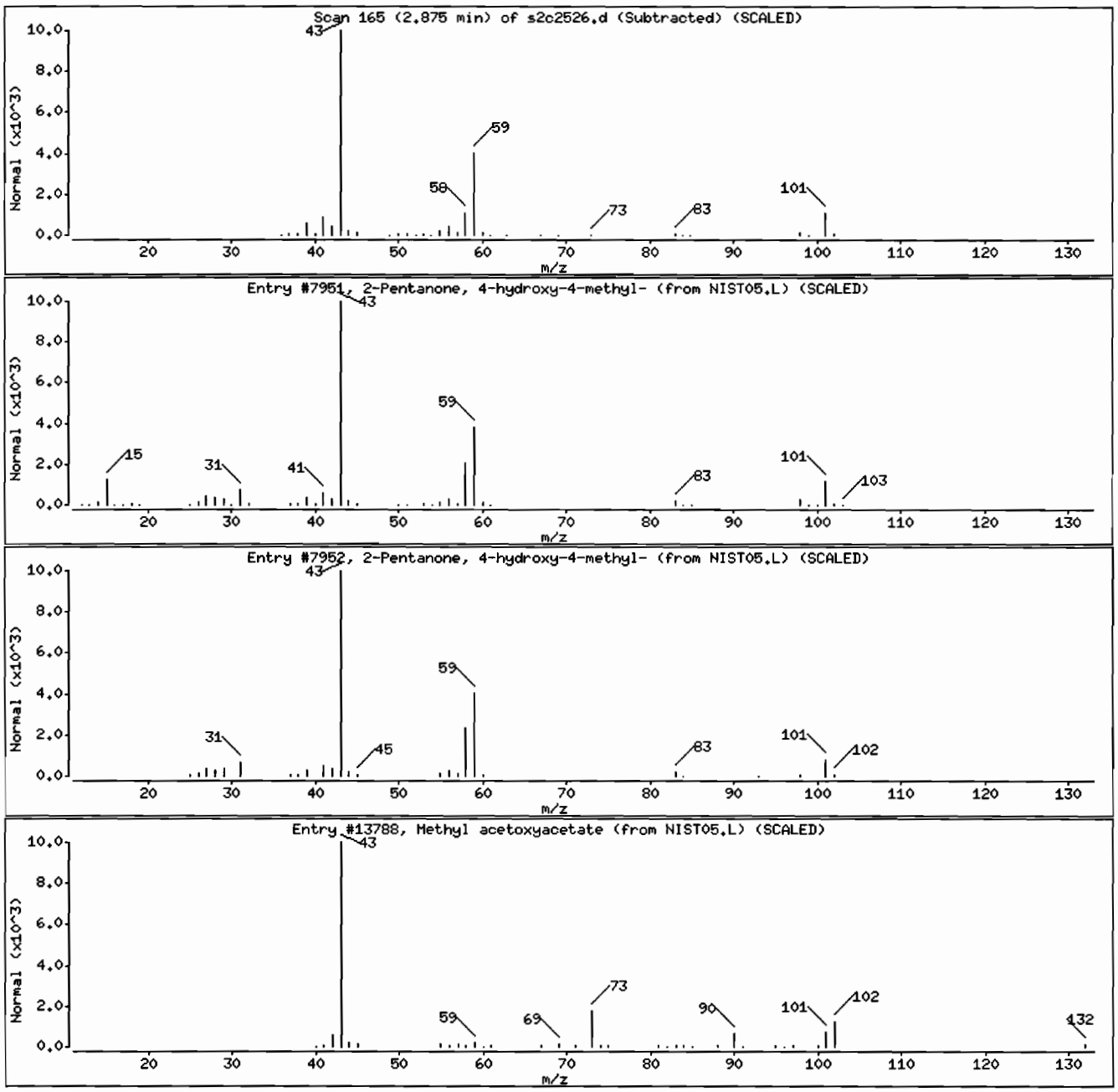

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862008**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13779**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 22:28**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2524.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	413	ug/kg	82.6	413
108-95-2	Phenol	U	413	ug/kg	82.6	413
95-57-8	2-Chlorophenol	U	413	ug/kg	82.6	413
106-46-7	1,4-Dichlorobenzene	U	413	ug/kg	82.6	413
621-64-7	N-Nitrosodipropylamine	U	413	ug/kg	82.6	413
59-50-7	4-Chloro-3-methylphenol	U	413	ug/kg	82.6	413
83-32-9	Acenaphthene	U	41.3	ug/kg	13.6	41.3
121-14-2	2,4-Dinitrotoluene	U	413	ug/kg	41.3	413
100-02-7	4-Nitrophenol	U	413	ug/kg	136	413
87-86-5	Pentachlorophenol	U	413	ug/kg	103	413
129-00-0	Pyrene		64.7	ug/kg	12.4	41.3
110-86-1	Pyridine	U	413	ug/kg	82.6	413
62-53-3	Aniline	U	413	ug/kg	124	413
111-44-4	bis(2-Chloroethyl) ether	U	413	ug/kg	82.6	413
541-73-1	1,3-Dichlorobenzene	U	413	ug/kg	82.6	413
100-51-6	Benzyl alcohol	U	413	ug/kg	124	413
95-50-1	1,2-Dichlorobenzene	U	413	ug/kg	82.6	413
108-60-1	bis(2-Chloroisopropyl)ether	U	413	ug/kg	82.6	413
95-48-7	o-Cresol	U	413	ug/kg	82.6	413
65794-96-9	m,p-Cresols	U	413	ug/kg	124	413
67-72-1	Hexachloroethane	U	413	ug/kg	82.6	413
98-95-3	Nitrobenzene	U	413	ug/kg	82.6	413
78-59-1	Isophorone	U	413	ug/kg	82.6	413
88-75-5	2-Nitrophenol	U	413	ug/kg	82.6	413
105-67-9	2,4-Dimethylphenol	U	413	ug/kg	145	413
111-91-1	bis(2-Chloroethoxy)methane	U	413	ug/kg	82.6	413
120-83-2	2,4-Dichlorophenol	U	413	ug/kg	82.6	413
65-85-0	Benzoic acid	U	826	ug/kg	207	826
91-20-3	Naphthalene	U	41.3	ug/kg	12.4	41.3
106-47-8	4-Chloroaniline	U	413	ug/kg	82.6	413
87-68-3	Hexachlorobutadiene	U	413	ug/kg	82.6	413
91-57-6	2-Methylnaphthalene	U	41.3	ug/kg	8.26	41.3
77-47-4	Hexachlorocyclopentadiene	U	413	ug/kg	82.6	413
88-06-2	2,4,6-Trichlorophenol	U	413	ug/kg	82.6	413
95-95-4	2,4,5-Trichlorophenol	U	413	ug/kg	82.6	413
91-58-7	2-Chloronaphthalene	U	41.3	ug/kg	13.6	41.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	413	ug/kg	82.6	413
99-09-2	3-Nitroaniline	U	413	ug/kg	82.6	413

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	Date Collected:	03/04/2010 12:00	Matrix:	S
Lab Sample ID:	248862008	Date Received:	03/06/2010 09:15	%Moisture:	19.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13779	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965979	Inst:	MSD2.1	Dilution:	1
Run Date:	03/25/2010 22:28	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/17/2010 10:52	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	s2c2524.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	413	ug/kg	82.6	413
606-20-2	2,6-Dinitrotoluene	U	413	ug/kg	41.3	413
208-96-8	Acenaphthylene	U	41.3	ug/kg	12.4	41.3
51-28-5	2,4-Dinitrophenol	U	826	ug/kg	157	826
132-64-9	Dibenzofuran	U	413	ug/kg	82.6	413
84-66-2	Diethylphthalate	U	413	ug/kg	82.6	413
86-73-7	Fluorene	U	41.3	ug/kg	12.4	41.3
7005-72-3	4-Chlorophenylphenylether	U	413	ug/kg	82.6	413
534-52-1	2-Methyl-4,6-dinitrophenol	U	413	ug/kg	82.6	413
100-01-6	4-Nitroaniline	U	413	ug/kg	124	413
	p-Nitroaniline					
122-39-4	Diphenylamine	U	413	ug/kg	82.6	413
122-66-7	Azobenzene	U	413	ug/kg	82.6	413
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	413	ug/kg	82.6	413
118-74-1	Hexachlorobenzene	U	413	ug/kg	82.6	413
85-01-8	Phenanthrene		54.5	ug/kg	12.4	41.3
120-12-7	Anthracene	J	12.1	ug/kg	8.26	41.3
84-74-2	Di-n-butylphthalate	U	413	ug/kg	82.6	413
206-44-0	Fluoranthene		79.1	ug/kg	12.4	41.3
85-68-7	Butylbenzylphthalate	U	413	ug/kg	82.6	413
56-55-3	Benzo(a)anthracene	U	41.3	ug/kg	12.4	41.3
91-94-1	3,3'-Dichlorobenzidine	U	413	ug/kg	124	413
218-01-9	Chrysene	J	35.7	ug/kg	12.4	41.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	413	ug/kg	82.6	413
117-84-0	Di-n-octylphthalate	U	413	ug/kg	82.6	413
205-99-2	Benzo(b)fluoranthene		54.9	ug/kg	12.4	41.3
207-08-9	Benzo(k)fluoranthene	U	41.3	ug/kg	12.4	41.3
50-32-8	Benzo(a)pyrene	J	34.1	ug/kg	12.4	41.3
193-39-5	Indeno(1,2,3-cd)pyrene	J	18.4	ug/kg	12.4	41.3
53-70-3	Dibenzo(a,h)anthracene	U	41.3	ug/kg	12.4	41.3
191-24-2	Benzo(ghi)perylene	J	22.5	ug/kg	12.4	41.3
120-82-1	1,2,4-Trichlorobenzene	U	413	ug/kg	82.6	413

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	446	ug/kg		JA

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2524.d
Lab Smp Id: 248862008 Client Smp ID: RE46-10-13779
Inj Date : 25-MAR-2010 22:28
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248862008|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	19.50530	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.843	3.843	(1.000)	177960	40.0000	
* 29 Naphthalene-d8	136	4.704	4.704	(1.000)	692698	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	428662	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	774772	40.0000	
* 91 Chrysene-d12	240	8.593	8.603	(1.000)	580438	40.0000	
* 98 Perylene-d12	264	10.026	10.042	(1.000)	375126	40.0000	
$ 3 2-Fluorophenol	112	3.041	3.035	(0.791)	223994	52.8606	2180
$ 5 Phenol-d5	99	3.559	3.565	(0.926)	258925	49.6213	2050
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.893)	130972	26.1241	1080
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	284599	24.1316	997
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.090)	73209	57.7414	2380
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	359493	33.9597	1400

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.801	7.812	(0.908)	29644	1.56677	64.7
68 Phenanthrene	178	6.950	6.956	(1.002)	25277	1.31997	54.5
69 Anthracene	178	6.983	6.988	(1.006)	5419	0.29252	12.1(a)
76 Fluoranthene	202	7.667	7.672	(1.105)	33121	1.91485	79.1
92 Chrysene	228	8.609	8.625	(1.002)	11685	0.86467	35.7(a)
95 Benzo(b)fluoranthene	252	9.571	9.582	(0.955)	13599	1.32907	54.9
97 Benzo(a)pyrene	252	9.956	9.978	(0.993)	7004	0.82589	34.1(a)
99 Indeno(1,2,3-cd)pyrene	276	11.625	11.657	(1.159)	3235	0.44563	18.4(a)
101 Benzo(ghi)perylene	276	12.128	12.155	(1.210)	3205	0.54507	22.5(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s2c2524.d
Report Date: 03/26/2010 13:41
Lab. ID: 248862008 SampleType: SAMPLE
Injection Date: 25-MAR-2010 22:28
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248862008|965979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	19811	3.56	3.63	80-120	100	(T)
93	143	3.52	3.64	342-402	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	20716	4.20	4.08	80-120	100	(T)
42	17836	4.20	4.08	90-150	86	(QT)
43 Dimethylphthalate			CAS#: 131-11-3			
163	75686	5.95	5.72	80-120	100	(T)
164	428662	5.95	5.72	0- 40	566	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	54816	5.95	5.77	80-120	100	(T)
63	1132	5.94	5.77	85-145	2	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	54816	5.95	6.06	80-120	100	(T)
89	1052	5.94	6.06	55-115	2	(QT)
63	1132	5.94	6.06	44-104	2	(QT)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	251	6.49	6.34	80-120	100	(T)
105	801	6.49	6.34	17- 77	318	(QT)
51	1039	6.49	6.34	99-159	413	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
68 Phenanthrene			CAS#: 85-01-8			
178	25277	6.95	6.96	80-120	100	( )
179	4628	6.95	6.96	0- 45	18	( )
176	4830	6.95	6.96	0- 49	19	( )
69 Anthracene			CAS#: 120-12-7			
178	5419	6.98	6.99	80-120	100	( )
179	1452	6.98	6.99	0- 46	27	( )
176	816	6.98	6.99	0- 48	15	( )
76 Fluoranthene			CAS#: 206-44-0			
202	33121	7.67	7.67	80-120	100	( )
203	5753	7.67	7.67	0- 47	17	( )
101	3236	7.66	7.67	0- 39	10	( )
79 Pyrene			CAS#: 129-00-0			
202	29644	7.80	7.81	80-120	100	( )
200	6112	7.80	7.81	0- 51	21	( )
101	3586	7.80	7.81	0- 40	12	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	14115	8.58	8.59	80-120	100	( )
226	3713	8.58	8.59	0- 56	26	( )
229	3652	8.58	8.59	0- 50	26	( )
92 Chrysene			CAS#: 218-01-9			
228	11685	8.61	8.62	80-120	100	( )
229	2522	8.61	8.62	0- 50	22	( )
226	3537	8.61	8.62	0- 59	30	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	13599	9.57	9.58	80-120	100	( )
253	3169	9.57	9.58	0- 52	23	( )
125	1943	9.58	9.58	0- 40	14	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	13599	9.57	9.61	80-120	100	( )
253	3169	9.57	9.61	0- 52	23	( )
125	1943	9.58	9.61	0- 39	14	( )
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	7004	9.96	9.98	80-120	100	( )
253	1964	9.96	9.98	0- 51	28	( )
125	1123	9.96	9.97	0- 42	16	( )
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	3235	11.63	11.66	80-120	100	( )
138	512	11.62	11.66	0- 58	16	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	2451	11.88	11.66	80-120	100	(T)
139	478	11.89	11.66	0- 52	20	(T)
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	3205	12.13	12.15	80-120	100	( )
138	816	12.13	12.15	0- 58	25	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2524.d
Lab Smp Id: 248862008 Client Smp ID: RE46-10-13779
Inj Date : 25-MAR-2010 22:28
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248862008|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	19.50530	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.843	1285277	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.875	347176	10.8047012	446	0		0	10

Data File: /chem/MSD2.i/s032510.b/s2c2524.d
Date : 25-MAR-2010 22:28
Client ID: RE46-10-13779
Sample Info: 1248862008196597911|SVM11|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

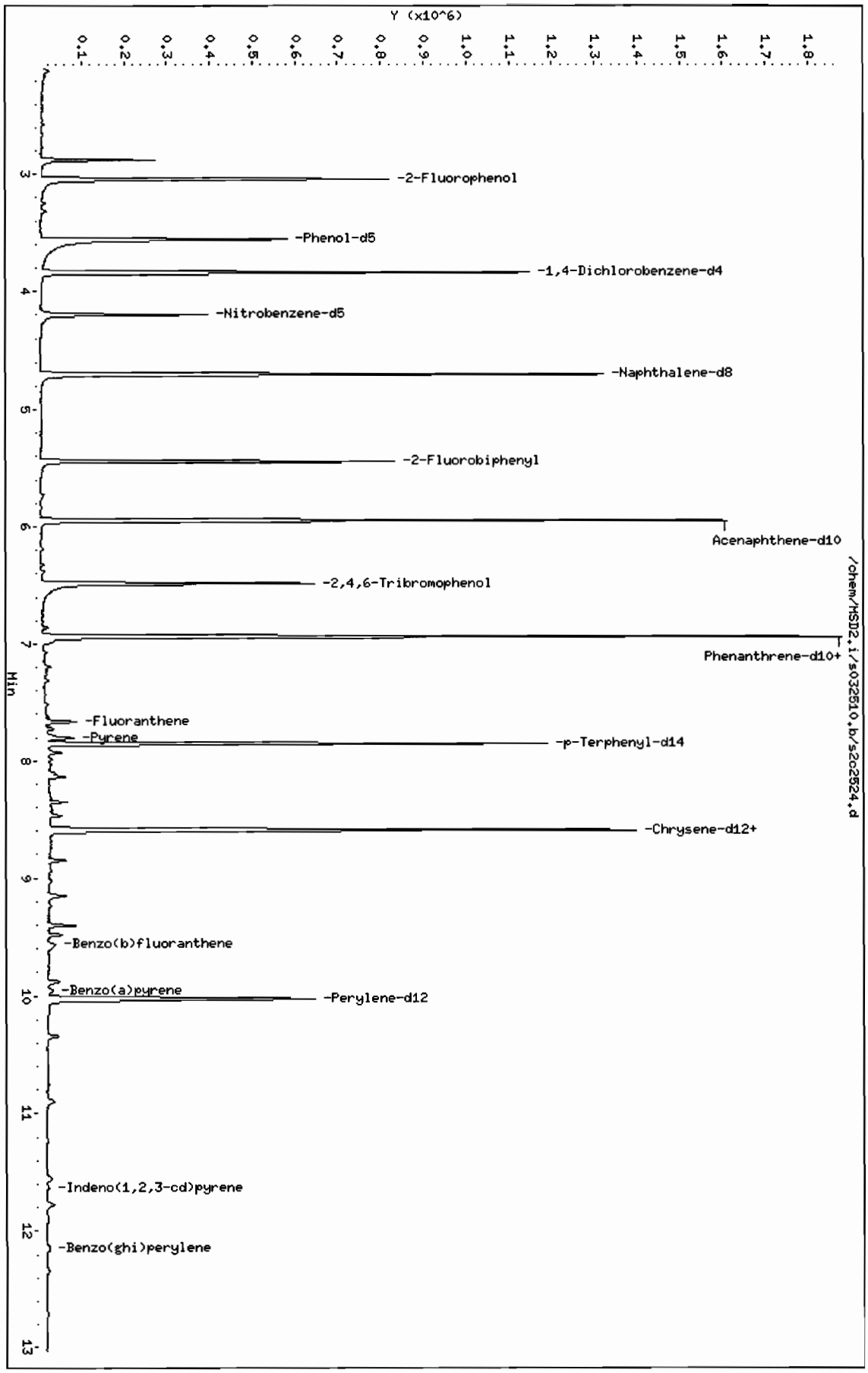

Page 1

Data File: /chem/MSD2.i/s032510.b/s2c2524.d

Date : 25-MAR-2010 22:28

Client ID: RE46-10-13779

Instrument: MSD2.i

Sample Info: |2488620081965979|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 64.7 ug/Kg

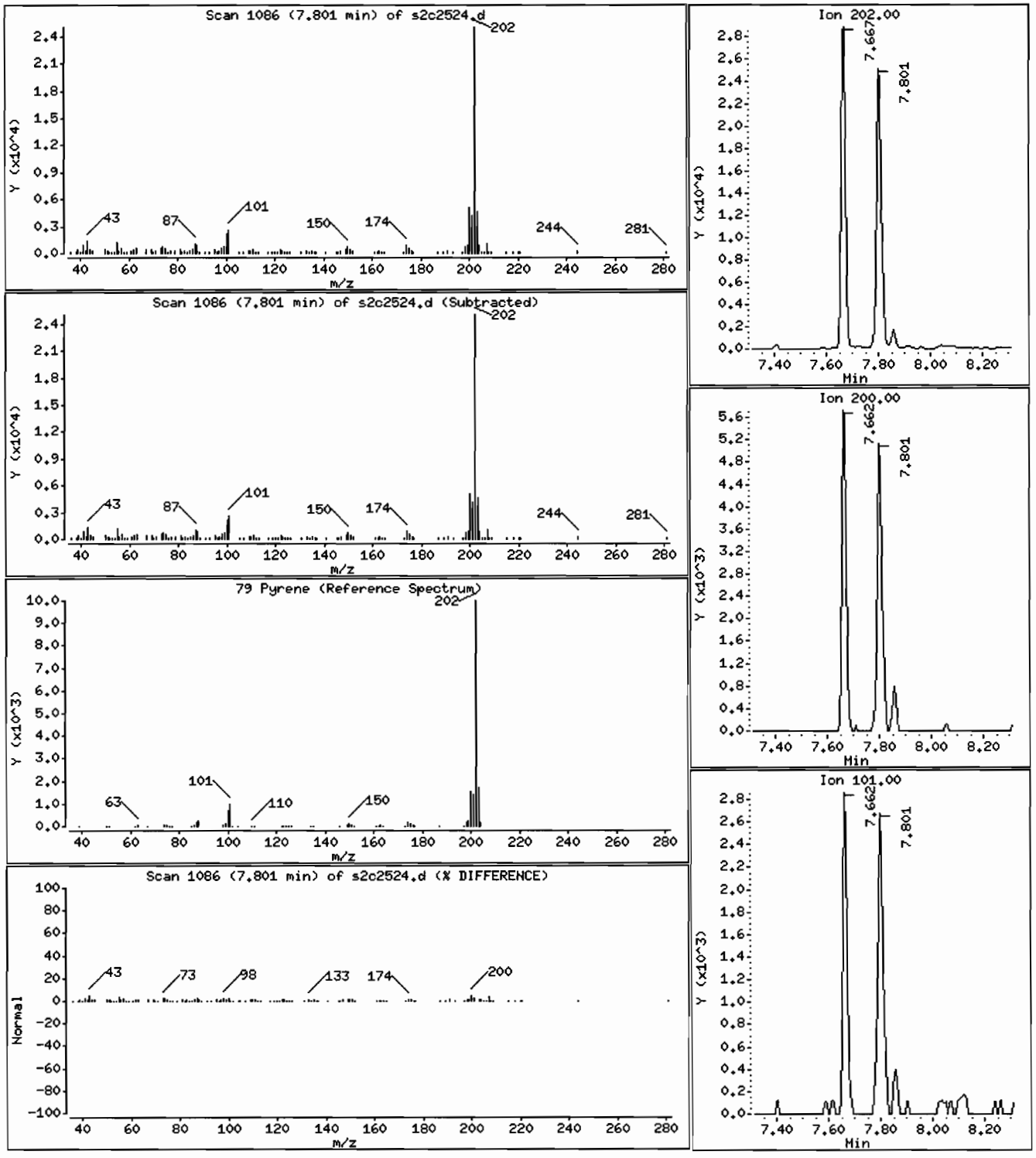

Data File: /chem/MSD2.i/s032510.b/s2c2524.d

Date : 25-MAR-2010 22:28

Client ID: RE46-10-13779 Instrument: MSD2.i

Sample Info: 1248862008196597911ISVMI1ILANL

Volume Injected (uL): 0.5 Operator: ACS1

Column phase: J&W DB-5MS Column diameter: 0.20

68 Phenanthrene Concentration: 54.5 ug/Kg

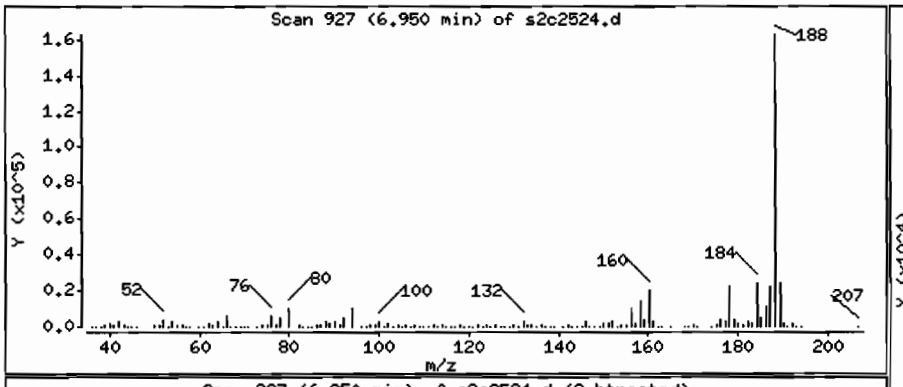

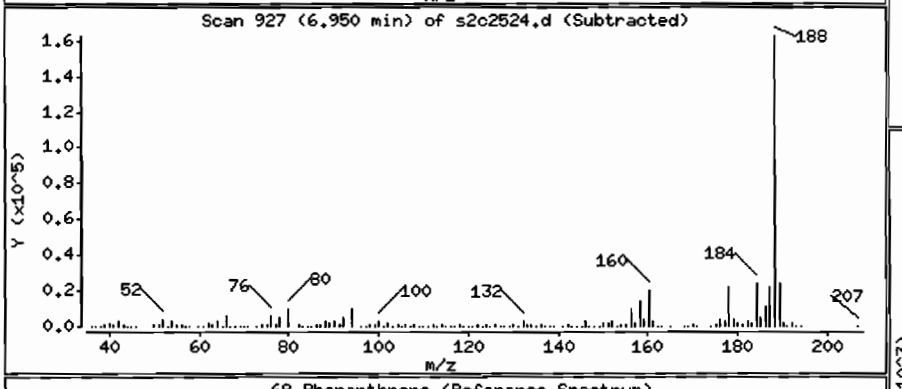

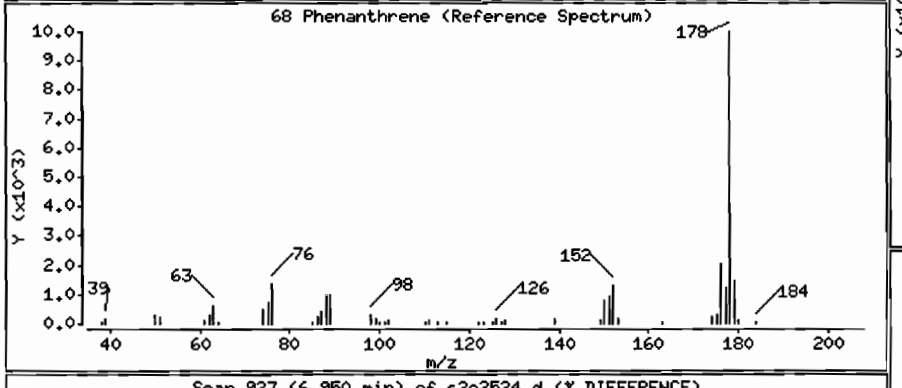

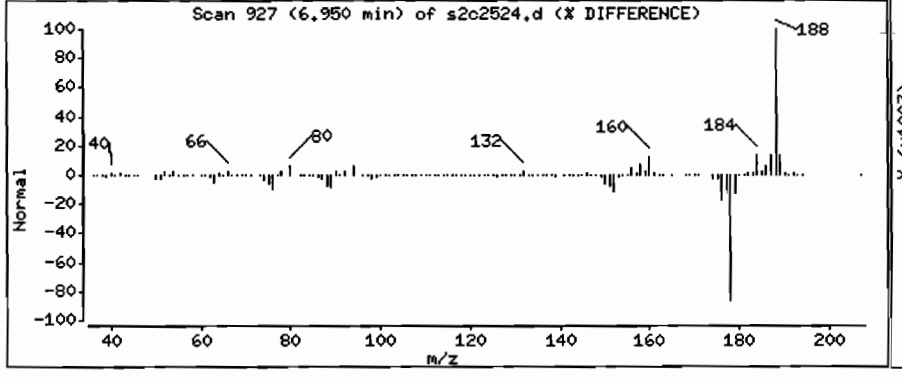

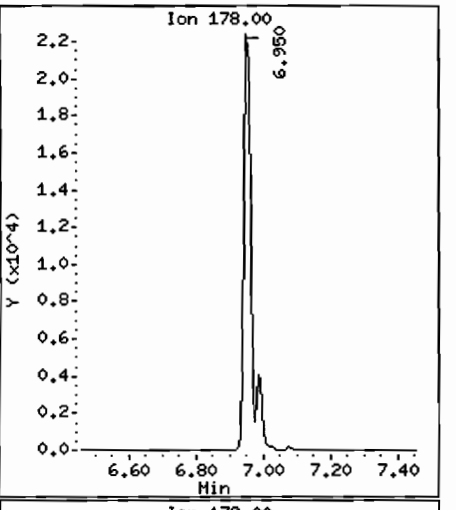

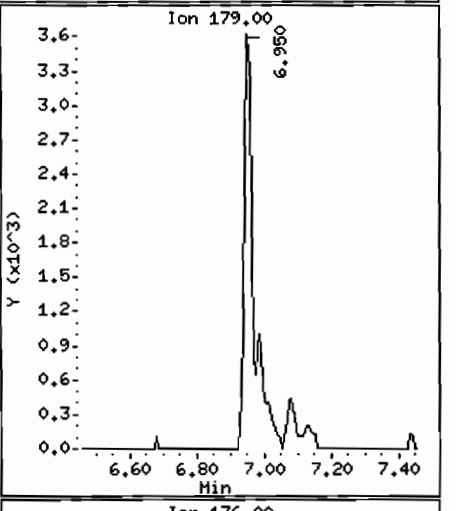

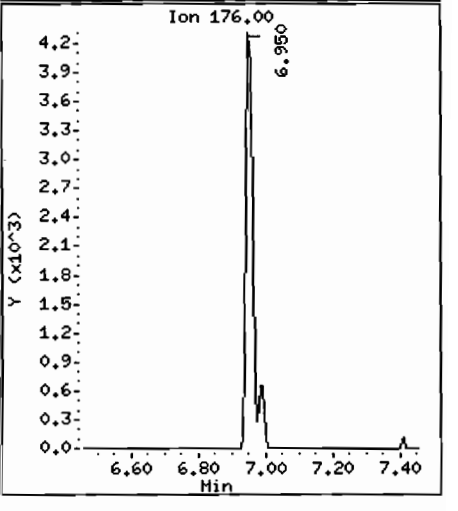

Data File: /chem/MSD2.i/s032510.b/s2c2524.d

Date : 25-MAR-2010 22:28

Client ID: RE46-10-13779

Instrument: MSD2.i

Sample Info: |2488620081965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 12.1 ug/Kg

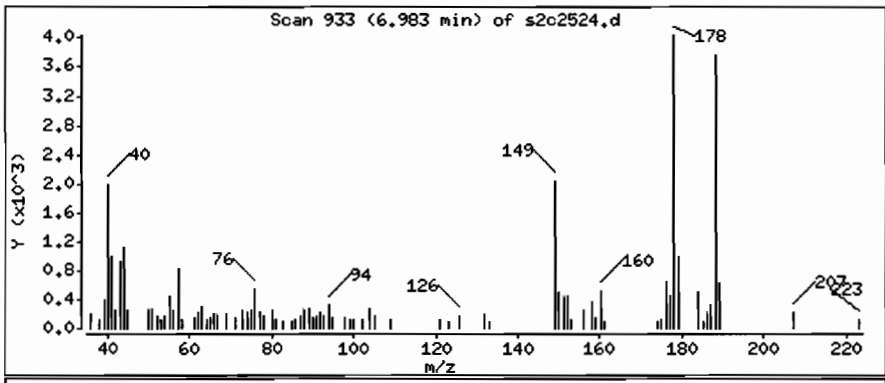

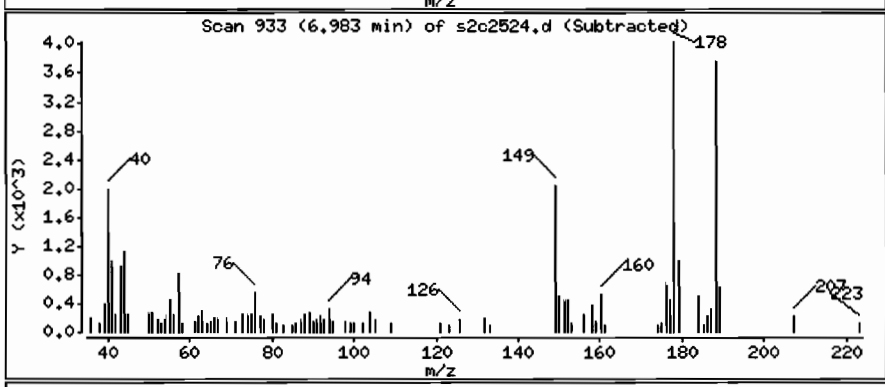

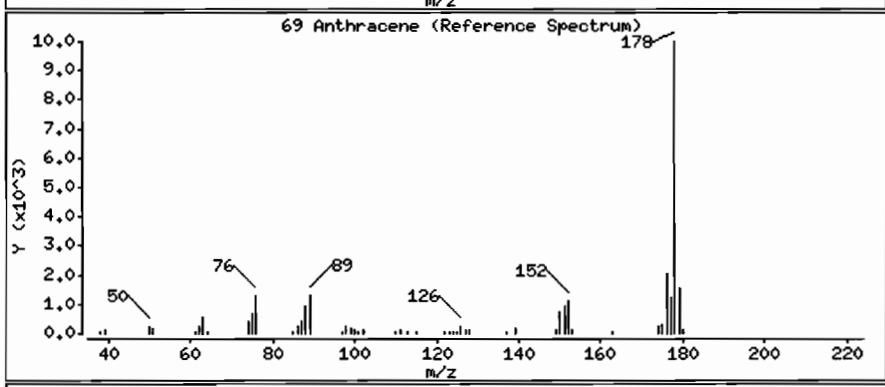

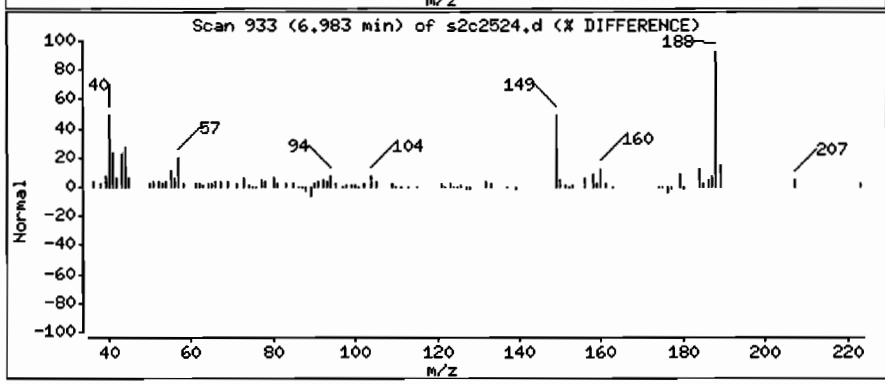

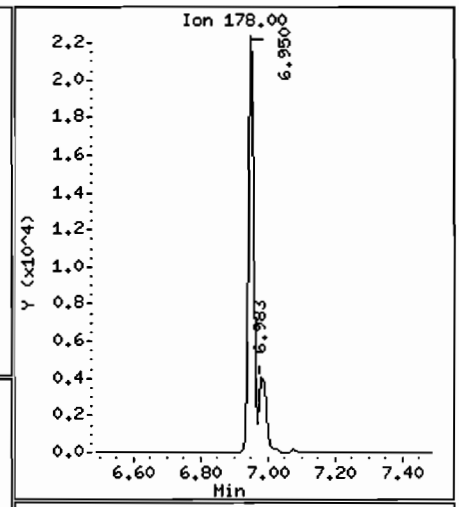

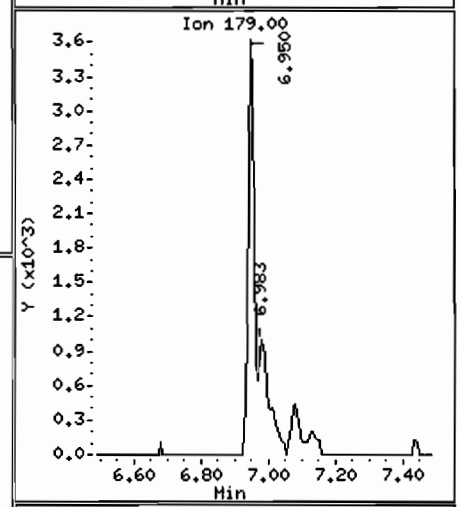

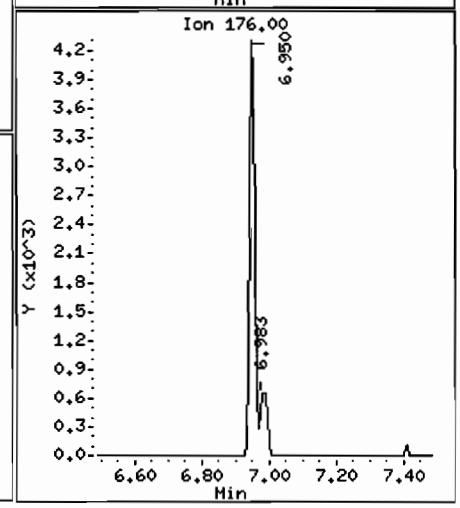

Data File: /chem/MSD2.i/s032510.b/s2c2524.d

Date : 25-MAR-2010 22:28

Client ID: RE46-10-13779 Instrument: MSD2.i

Sample Info: 1248862008196597911ISVMI1ILANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

76 Fluoranthene Concentration: 79.1 ug/Kg

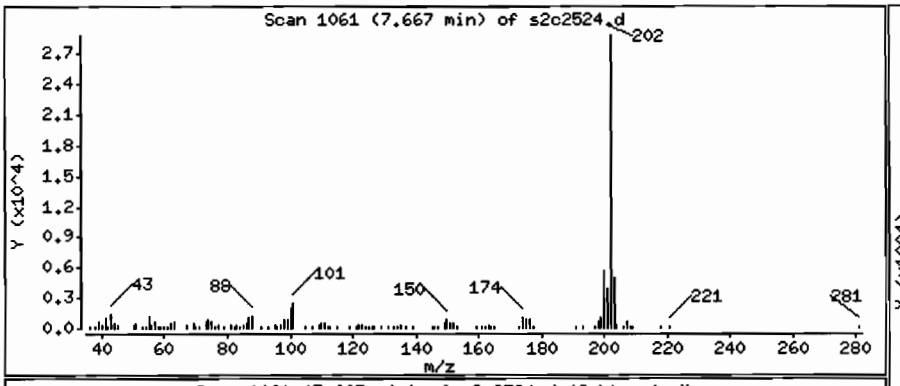

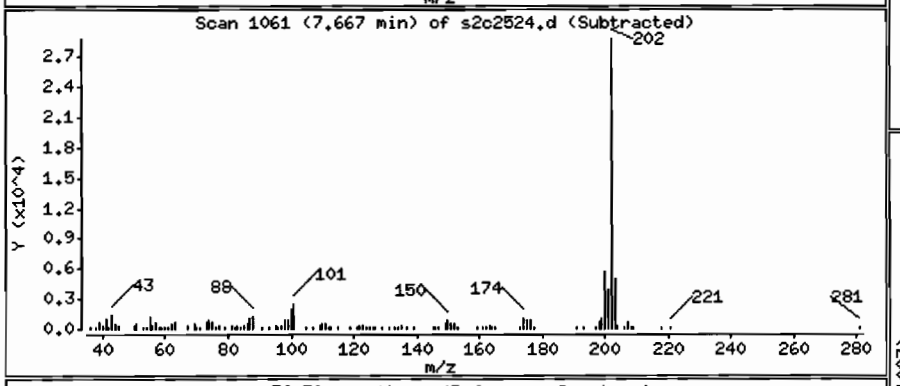

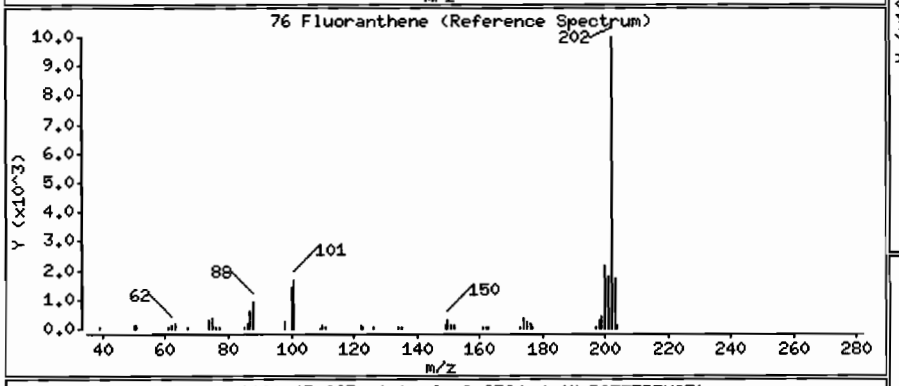

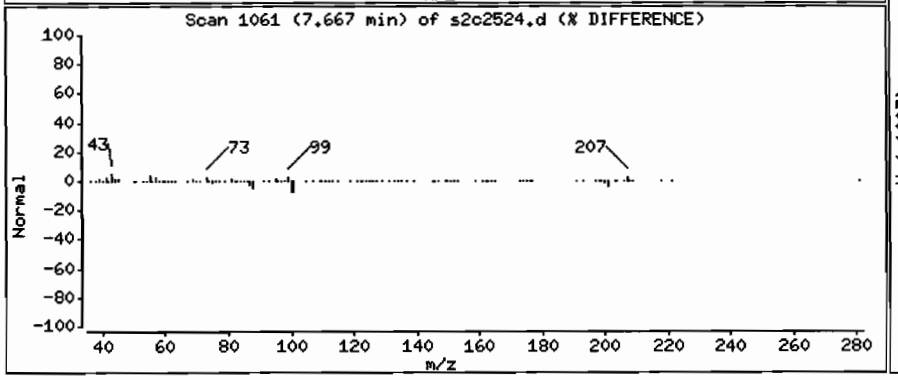

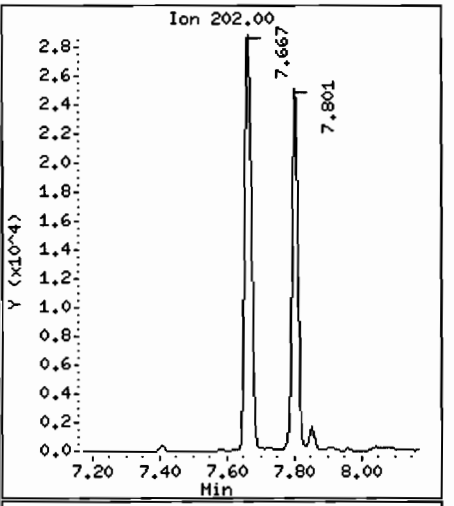

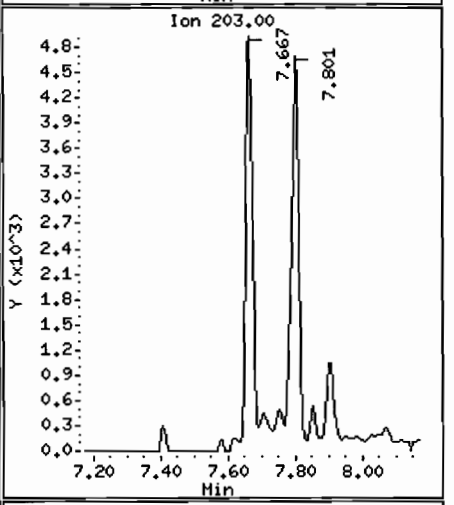

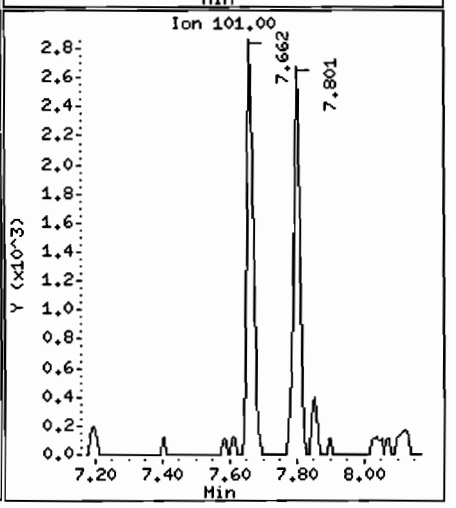

Data File: /chem/MSD2.i/s032510.b/s2c2524.d

Date : 25-MAR-2010 22:28

Client ID: RE46-10-13779

Instrument: MSD2.i

Sample Info: 1248862008|965979|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 35.7 ug/Kg

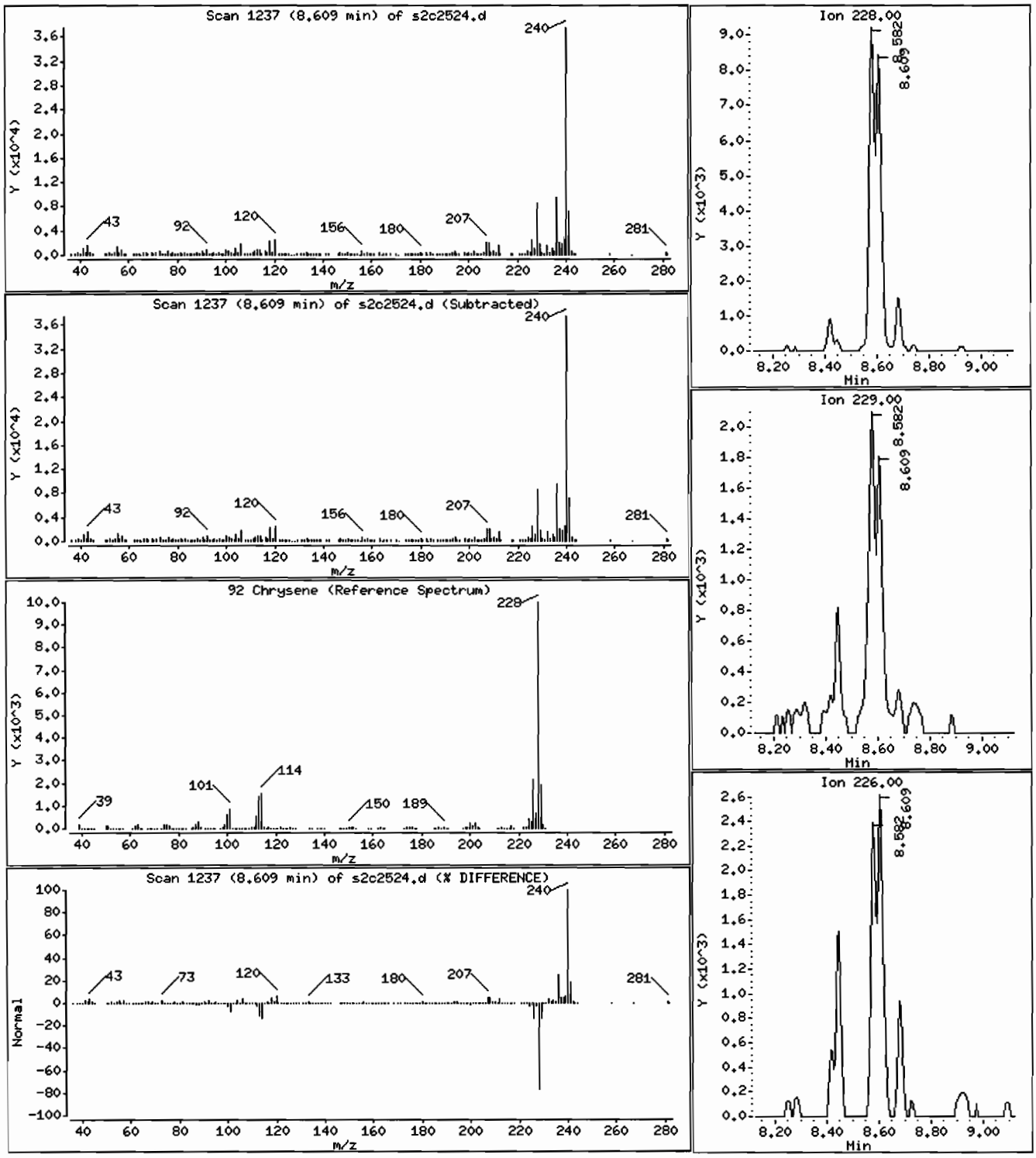

Data File: /chem/MSD2.i/s032510.b/s2c2524.d

Date : 25-MAR-2010 22:28

Client ID: RE46-10-13779 Instrument: MSD2.i

Sample Info: 1248862008196597911ISVMI1ILANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

95 Benzo(b)fluoranthene Concentration: 54.9 ug/Kg

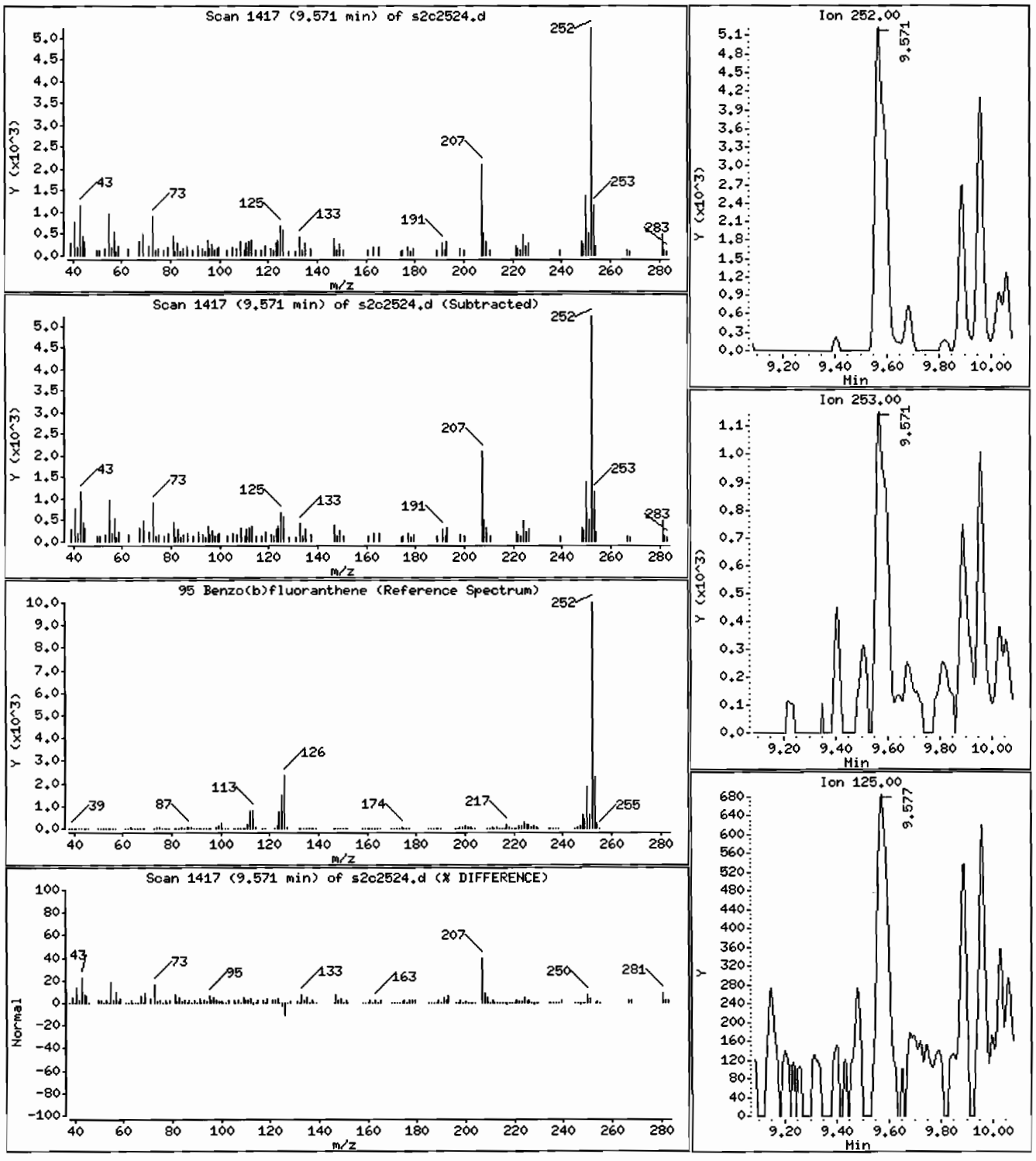

Data File: /chem/MSD2.i/s032510.b/s2c2524.d

Date : 25-MAR-2010 22:28

Client ID: RE46-10-13779

Instrument: MSD2.i

Sample Info: |2488620081965979|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 34.1 ug/Kg

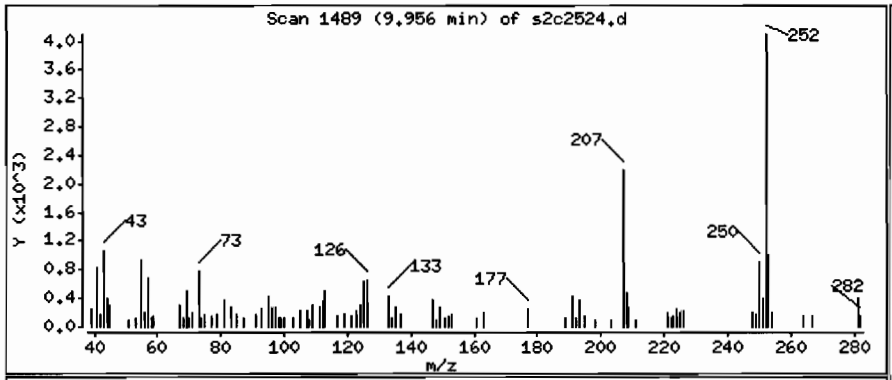

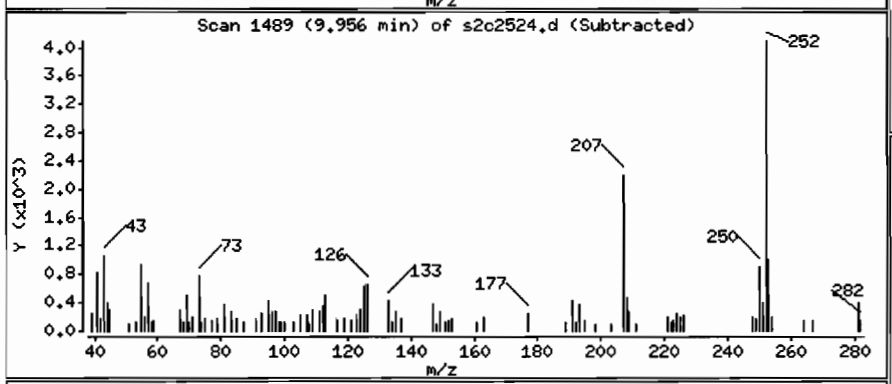

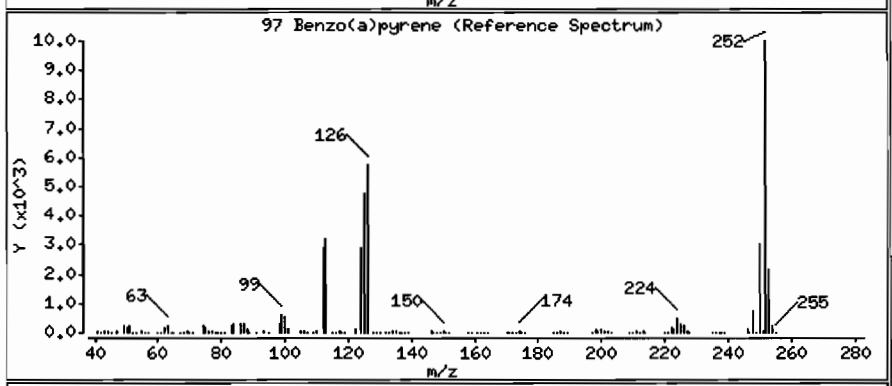

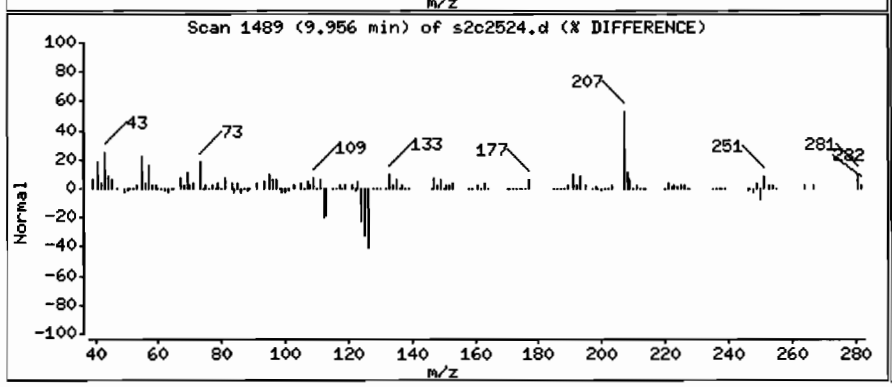

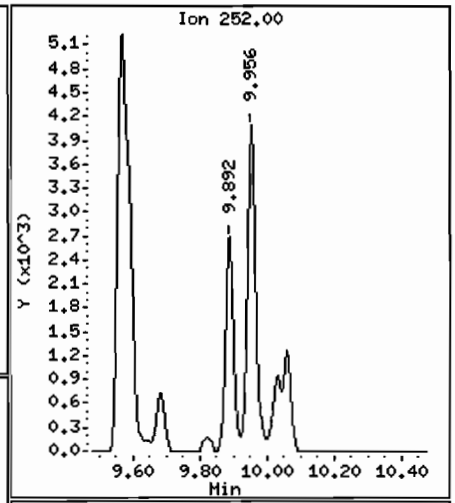

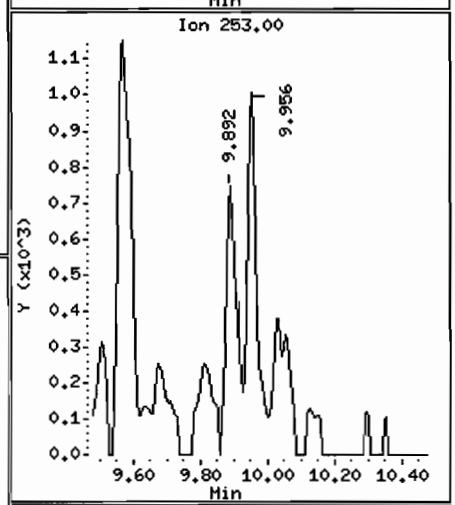

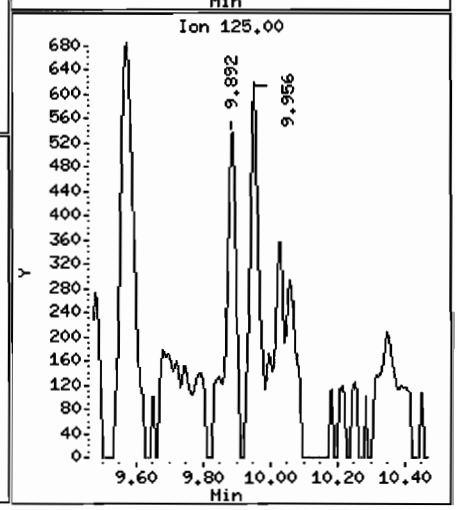

Data File: /chem/MSD2.i/s032510.b/s2c2524.d

Date : 25-MAR-2010 22:28

Client ID: RE46-10-13779

Instrument: MSD2.i

Sample Info: 1248862008|965979|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 18.4 ug/Kg

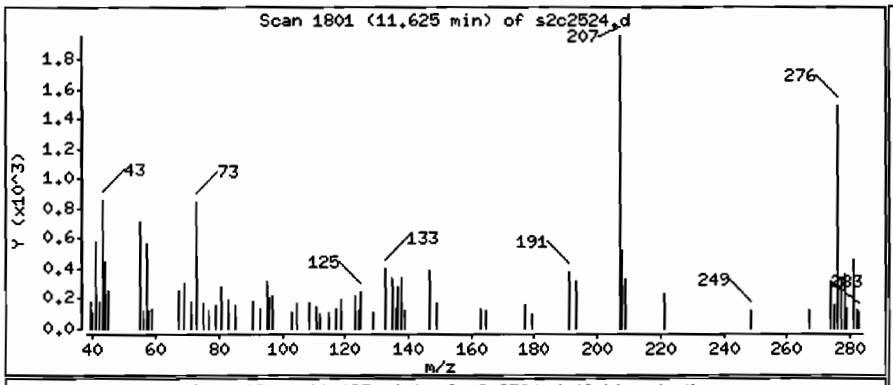

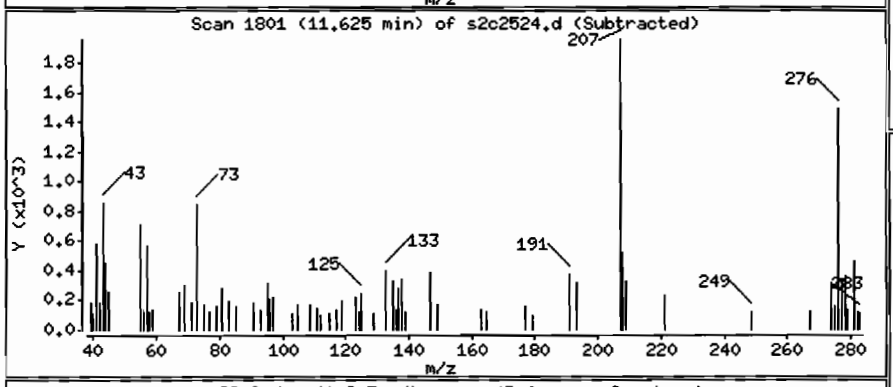

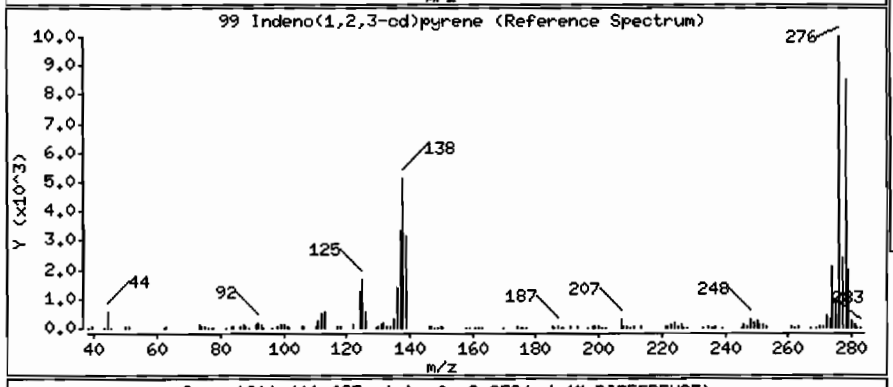

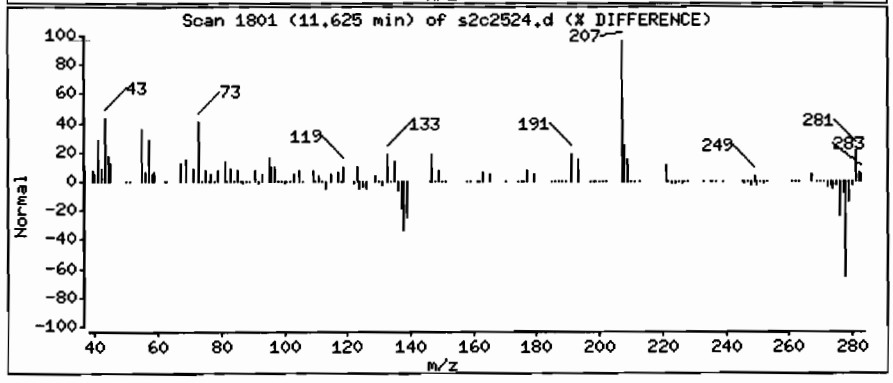

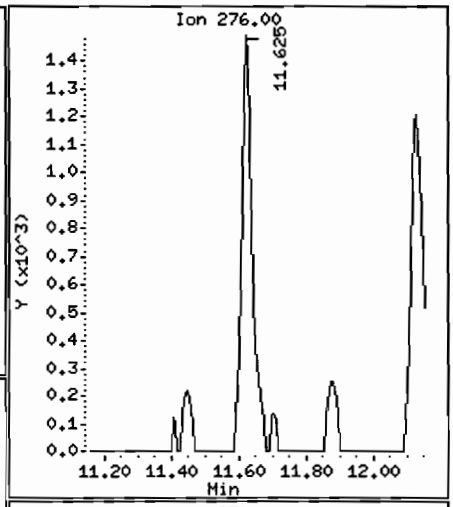

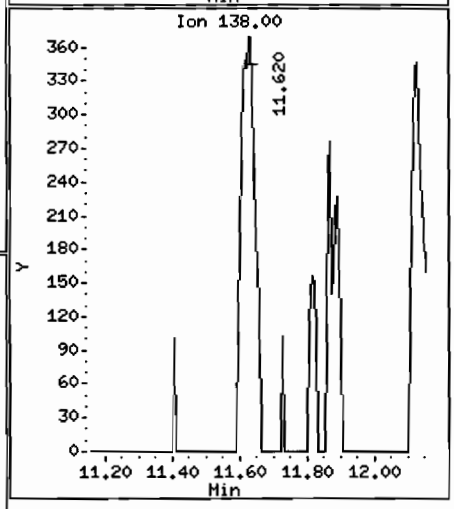

Data File: /chem/MSD2.i/s032510.b/s2c2524.d

Date : 25-MAR-2010 22:28

Client ID: RE46-10-13779

Instrument: MSD2.i

Sample Info: |2488620081965979|1|SVH|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 22.5 ug/Kg

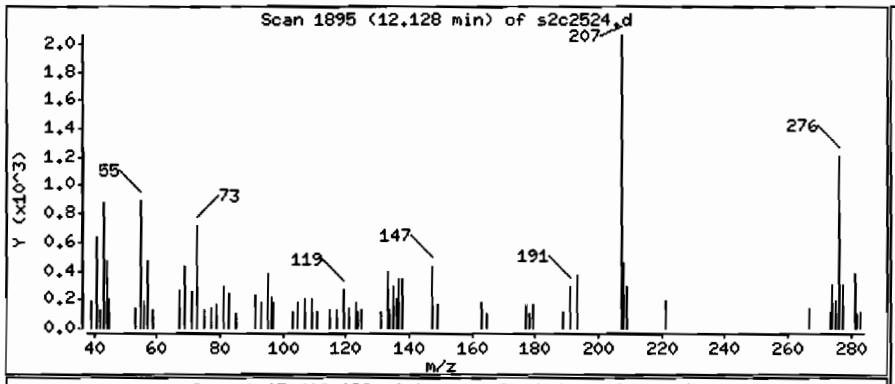

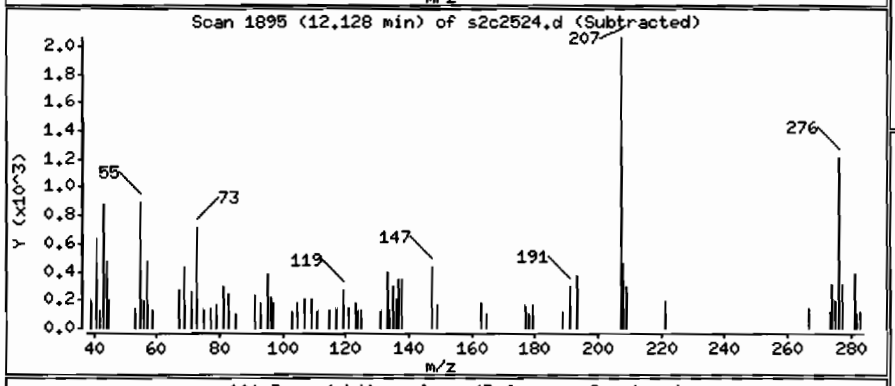

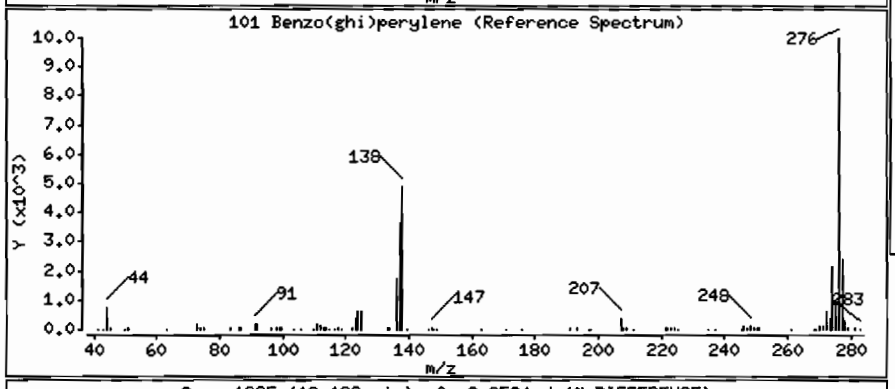

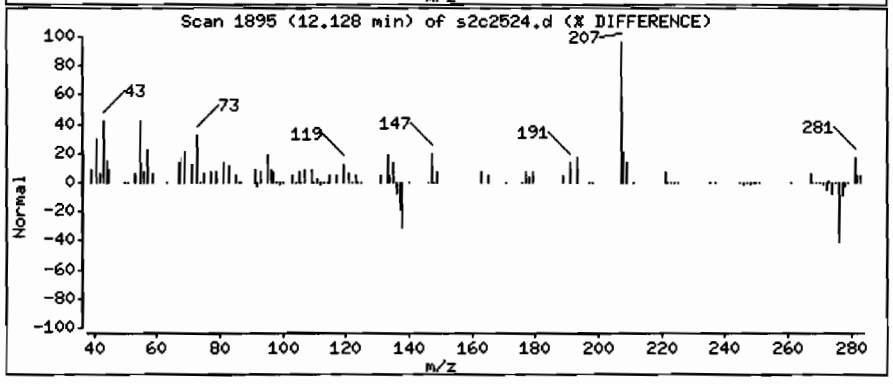

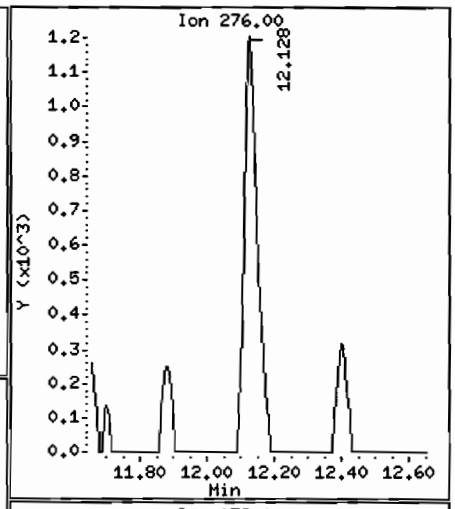

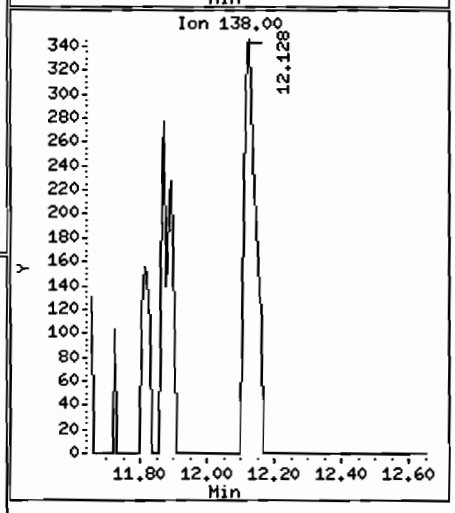

Data File: /chem/MSD2.i/s032510.b/s2c2524.d

Date : 25-MAR-2010 22:28

Client ID: RE46-10-13779

Instrument: MSD2.i

Sample Info: |2488620081965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7976	23	C6H12O2	116

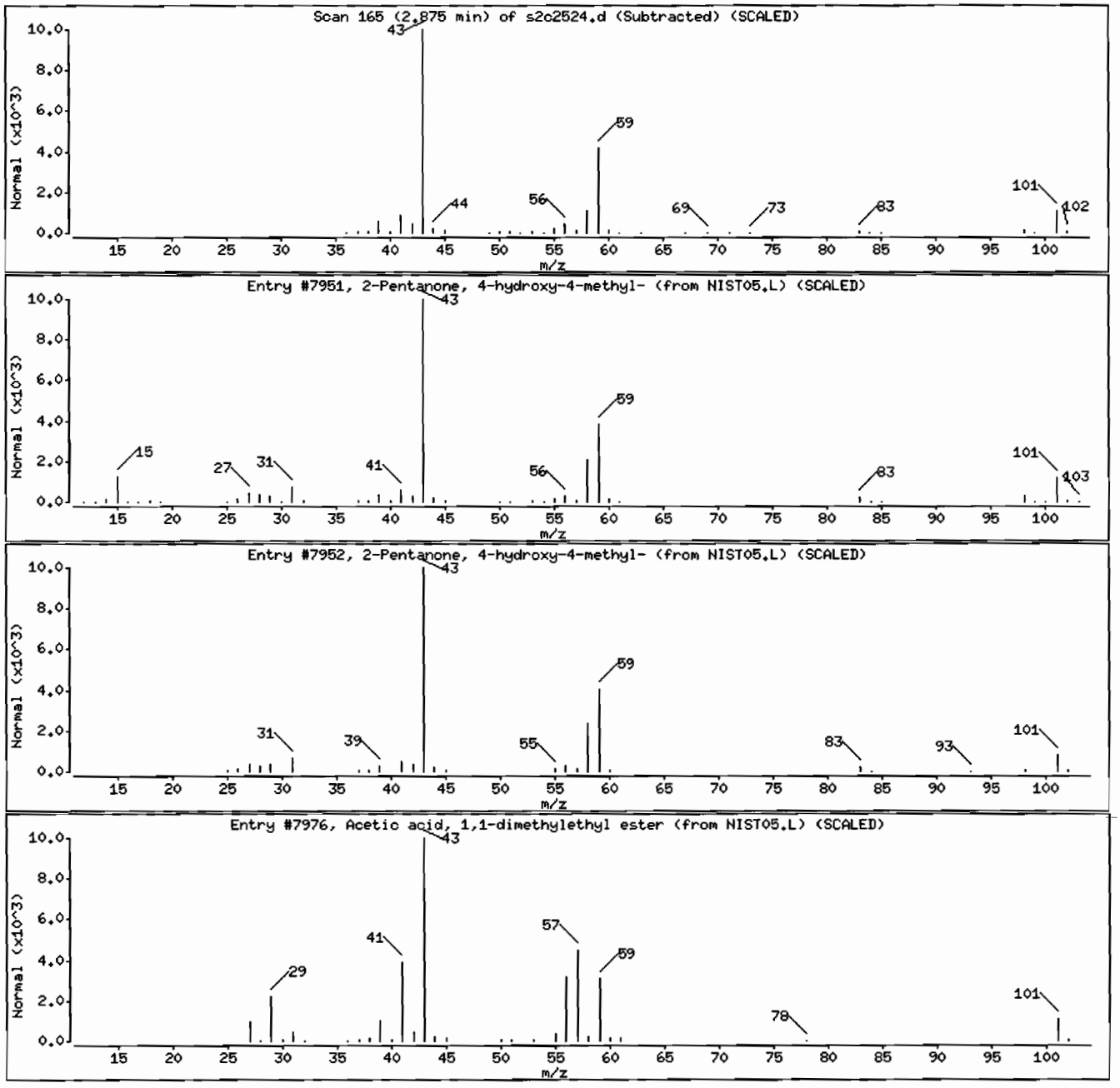

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862009**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13780**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 22:49**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2525.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	406	ug/kg	81.3	406
108-95-2	Phenol	U	406	ug/kg	81.3	406
95-57-8	2-Chlorophenol	U	406	ug/kg	81.3	406
106-46-7	1,4-Dichlorobenzene	U	406	ug/kg	81.3	406
621-64-7	N-Nitrosodipropylamine	U	406	ug/kg	81.3	406
59-50-7	4-Chloro-3-methylphenol	U	406	ug/kg	81.3	406
83-32-9	Acenaphthene	U	40.6	ug/kg	13.4	40.6
121-14-2	2,4-Dinitrotoluene	U	406	ug/kg	40.6	406
100-02-7	4-Nitrophenol	U	406	ug/kg	134	406
87-86-5	Pentachlorophenol	U	406	ug/kg	102	406
129-00-0	Pyrene	U	40.6	ug/kg	12.2	40.6
110-86-1	Pyridine	U	406	ug/kg	81.3	406
62-53-3	Aniline	U	406	ug/kg	122	406
111-44-4	bis(2-Chloroethyl) ether	U	406	ug/kg	81.3	406
541-73-1	1,3-Dichlorobenzene	U	406	ug/kg	81.3	406
100-51-6	Benzyl alcohol	U	406	ug/kg	122	406
95-50-1	1,2-Dichlorobenzene	U	406	ug/kg	81.3	406
108-60-1	bis(2-Chloroisopropyl)ether	U	406	ug/kg	81.3	406
95-48-7	o-Cresol	U	406	ug/kg	81.3	406
65794-96-9	m,p-Cresols	U	406	ug/kg	122	406
67-72-1	Hexachloroethane	U	406	ug/kg	81.3	406
98-95-3	Nitrobenzene	U	406	ug/kg	81.3	406
78-59-1	Isophorone	U	406	ug/kg	81.3	406
88-75-5	2-Nitrophenol	U	406	ug/kg	81.3	406
105-67-9	2,4-Dimethylphenol	U	406	ug/kg	142	406
111-91-1	bis(2-Chloroethoxy)methane	U	406	ug/kg	81.3	406
120-83-2	2,4-Dichlorophenol	U	406	ug/kg	81.3	406
65-85-0	Benzoic acid	U	813	ug/kg	203	813
91-20-3	Naphthalene	U	40.6	ug/kg	12.2	40.6
106-47-8	4-Chloroaniline	U	406	ug/kg	81.3	406
87-68-3	Hexachlorobutadiene	U	406	ug/kg	81.3	406
91-57-6	2-Methylnaphthalene	U	40.6	ug/kg	8.13	40.6
77-47-4	Hexachlorocyclopentadiene	U	406	ug/kg	81.3	406
88-06-2	2,4,6-Trichlorophenol	U	406	ug/kg	81.3	406
95-95-4	2,4,5-Trichlorophenol	U	406	ug/kg	81.3	406
91-58-7	2-Chloronaphthalene	U	40.6	ug/kg	13.4	40.6
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	406	ug/kg	81.3	406
99-09-2	3-Nitroaniline	U	406	ug/kg	81.3	406

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862009**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13780**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 22:49**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2525.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	406	ug/kg	81.3	406
606-20-2	2,6-Dinitrotoluene	U	406	ug/kg	40.6	406
208-96-8	Acenaphthylene	U	40.6	ug/kg	12.2	40.6
51-28-5	2,4-Dinitrophenol	U	813	ug/kg	154	813
132-64-9	Dibenzofuran	U	406	ug/kg	81.3	406
84-66-2	Diethylphthalate	U	406	ug/kg	81.3	406
86-73-7	Fluorene	U	40.6	ug/kg	12.2	40.6
7005-72-3	4-Chlorophenylphenylether	U	406	ug/kg	81.3	406
534-52-1	2-Methyl-4,6-dinitrophenol	U	406	ug/kg	81.3	406
100-01-6	4-Nitroaniline	U	406	ug/kg	122	406
	p-Nitroaniline					
122-39-4	Diphenylamine	U	406	ug/kg	81.3	406
122-66-7	Azobenzene	U	406	ug/kg	81.3	406
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	406	ug/kg	81.3	406
118-74-1	Hexachlorobenzene	U	406	ug/kg	81.3	406
85-01-8	Phenanthrene	U	40.6	ug/kg	12.2	40.6
120-12-7	Anthracene	U	40.6	ug/kg	8.13	40.6
84-74-2	Di-n-butylphthalate	U	406	ug/kg	81.3	406
206-44-0	Fluoranthene	U	40.6	ug/kg	12.2	40.6
85-68-7	Butylbenzylphthalate	U	406	ug/kg	81.3	406
56-55-3	Benzo(a)anthracene	U	40.6	ug/kg	12.2	40.6
91-94-1	3,3'-Dichlorobenzidine	U	406	ug/kg	122	406
218-01-9	Chrysene	U	40.6	ug/kg	12.2	40.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	406	ug/kg	81.3	406
117-84-0	Di-n-octylphthalate	U	406	ug/kg	81.3	406
205-99-2	Benzo(b)fluoranthene	U	40.6	ug/kg	12.2	40.6
207-08-9	Benzo(k)fluoranthene	U	40.6	ug/kg	12.2	40.6
50-32-8	Benzo(a)pyrene	U	40.6	ug/kg	12.2	40.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.6	ug/kg	12.2	40.6
53-70-3	Dibenzo(a,h)anthracene	U	40.6	ug/kg	12.2	40.6
191-24-2	Benzo(ghi)perylene	U	40.6	ug/kg	12.2	40.6
120-82-1	1,2,4-Trichlorobenzene	U	406	ug/kg	81.3	406

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.88	356	ug/kg		JA

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2525.d
Lab Smp Id: 248862009 Client Smp ID: RE46-10-13780
Inj Date : 25-MAR-2010 22:49
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248862009|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	18.07330	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.843	3.843	(1.000)	176599	40.0000	
* 29 Naphthalene-d8	136	4.704	4.704	(1.000)	687299	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	428509	40.0000	
* 67 Phenanthrene-d10	188	6.939	6.940	(1.000)	818115	40.0000	
* 91 Chrysene-d12	240	8.592	8.603	(1.000)	671812	40.0000	
* 98 Perylene-d12	264	10.031	10.042	(1.000)	420249	40.0000	
$ 3 2-Fluorophenol	112	3.046	3.035	(0.793)	250769	59.6354	2420
$ 5 Phenol-d5	99	3.559	3.565	(0.926)	270225	52.1860	2120
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.893)	147454	29.6427	1200
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	250822	21.2752	864
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.090)	79223	62.5071	2540
$ 81 p-Terphenyl-d14	244	7.859	7.860	(0.915)	374311	30.5502	1240

ION RATIO REPORT

SV REPORT

Data file: s2c2525.d
Report Date: 03/26/2010 13:41
Lab. ID: 248862009 SampleType: SAMPLE
Injection Date: 25-MAR-2010 22:49
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248862009|965979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	23498	4.20	4.08	80-120	100	(T)
42	19818	4.20	4.08	90-150	84	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	76073	5.95	5.72	80-120	100	(T)
164	428509	5.95	5.72	0- 40	563	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	54329	5.94	5.77	80-120	100	(T)
63	794	5.94	5.77	85-145	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	54329	5.94	6.06	80-120	100	(T)
89	1015	5.94	6.06	55-115	2	(QT)
63	794	5.94	6.06	44-104	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	3650	6.48	6.32	80-120	100	(T)
165	3944	6.48	6.32	63-123	108	(T)
167	1412	6.48	6.32	0- 43	39	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	303	6.48	6.34	80-120	100	(T)
105	850	6.48	6.34	17- 77	280	(QT)
51	898	6.48	6.34	99-159	296	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2525.d
Lab Smp Id: 248862009 Client Smp ID: RE46-10-13780
Inj Date : 25-MAR-2010 22:49
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248862009|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	18.07330	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.843	1305231	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.880	285763	8.75745885	356	0		0	10

Data File: /chem/MSD2.i/s032510.b/s2c2525.d
Date : 25-MAR-2010 22:49
Client ID: RE46-10-13780
Sample Info: 1248862009196597911SVMI1ILANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

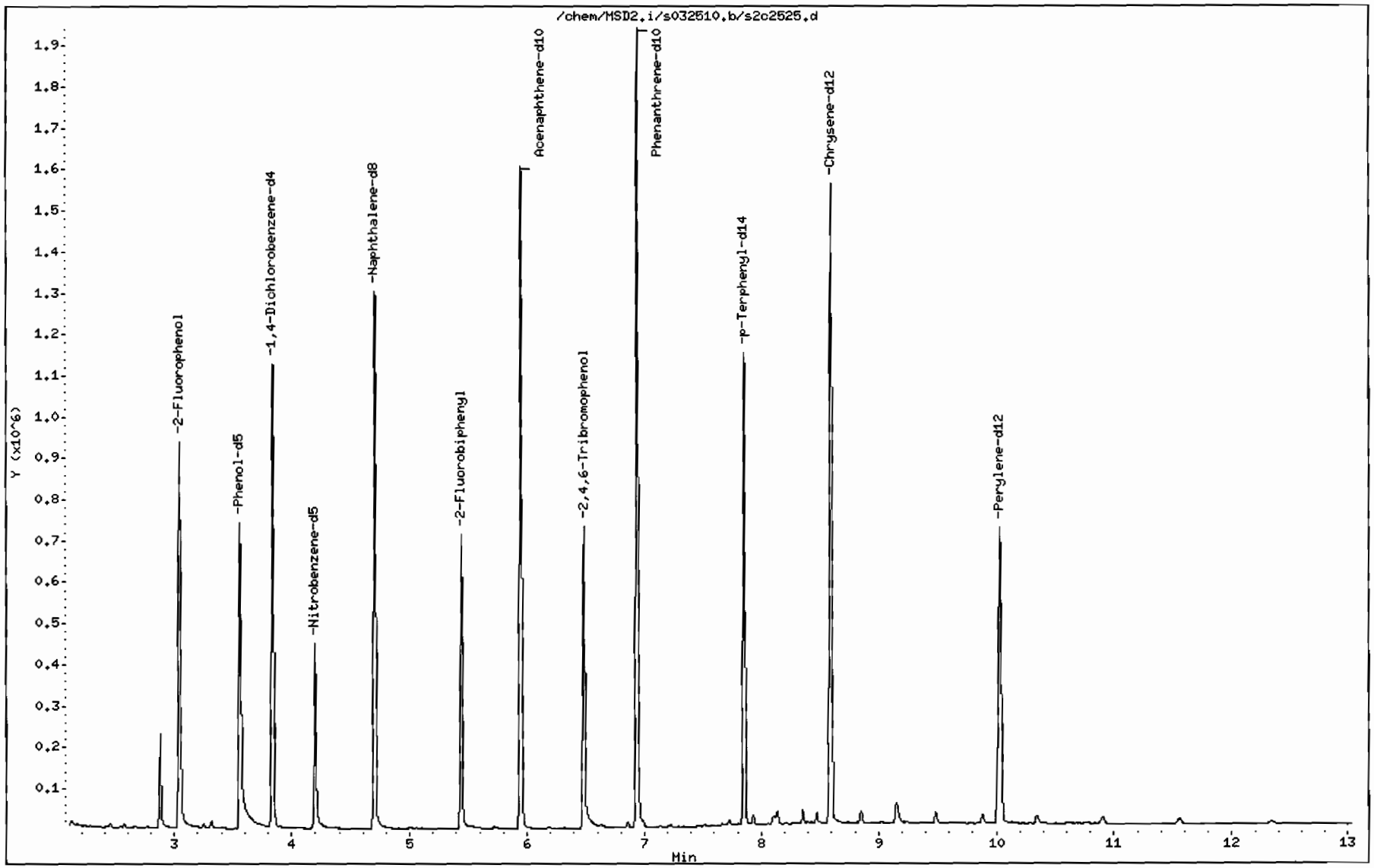

Data File: /chem/MSD2.i/s032510.b/s2c2525.d

Date : 25-MAR-2010 22:49

Client ID: RE46-10-13780

Instrument: MSD2.i

Sample Info: |2488620091965979|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7950	9	C6H12O2	116

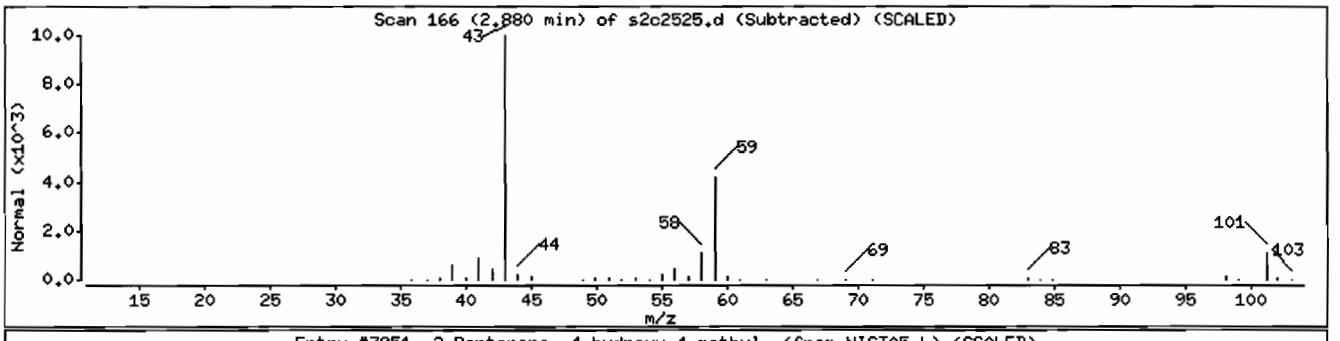

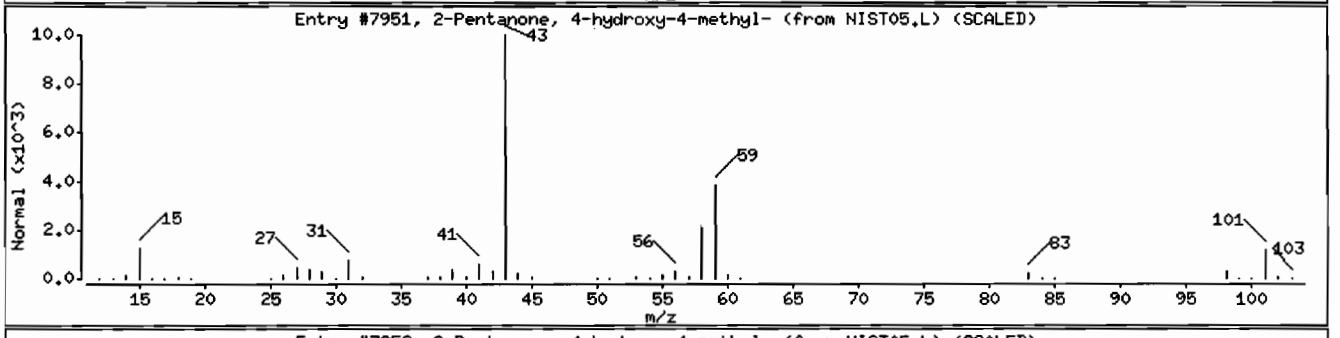

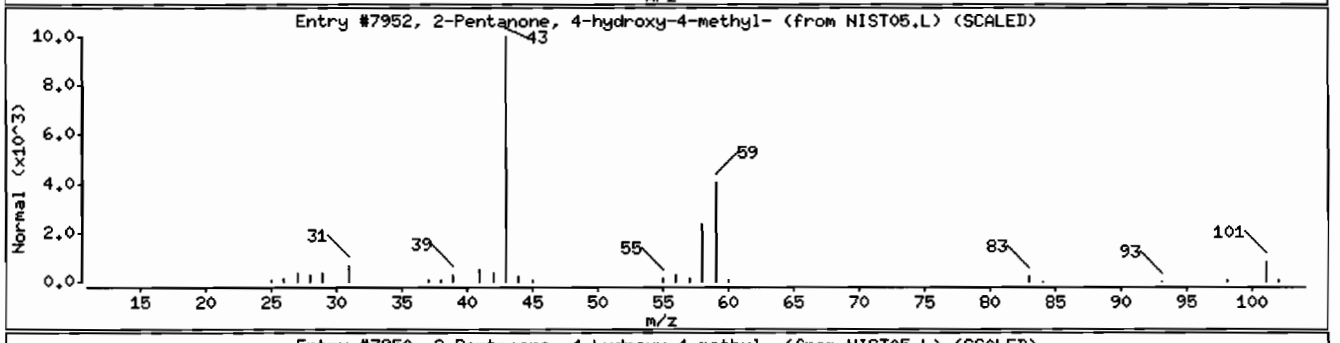

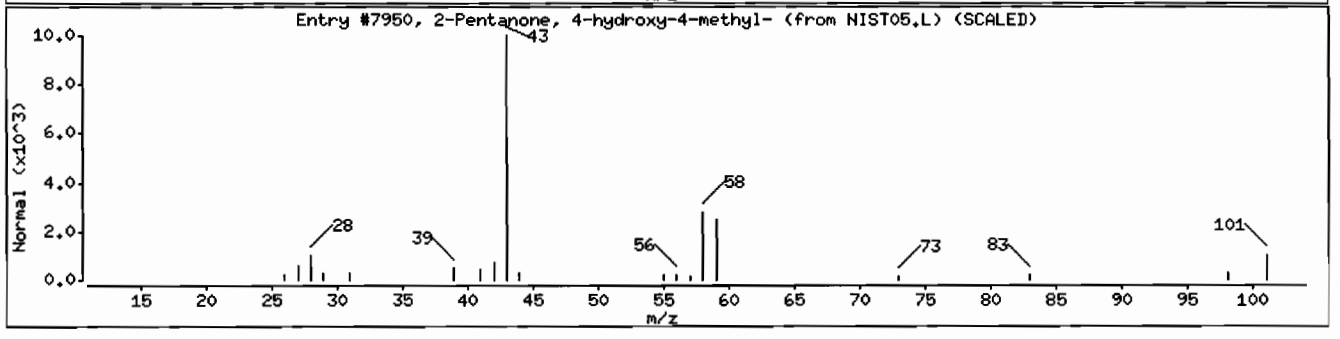

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862007**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13781**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 22:08**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2523.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	411	ug/kg	82.1	411
108-95-2	Phenol	U	411	ug/kg	82.1	411
95-57-8	2-Chlorophenol	U	411	ug/kg	82.1	411
106-46-7	1,4-Dichlorobenzene	U	411	ug/kg	82.1	411
621-64-7	N-Nitrosodipropylamine	U	411	ug/kg	82.1	411
59-50-7	4-Chloro-3-methylphenol	U	411	ug/kg	82.1	411
83-32-9	Acenaphthene	U	41.1	ug/kg	13.6	41.1
121-14-2	2,4-Dinitrotoluene	U	411	ug/kg	41.1	411
100-02-7	4-Nitrophenol	U	411	ug/kg	136	411
87-86-5	Pentachlorophenol	U	411	ug/kg	103	411
129-00-0	Pyrene		94.9	ug/kg	12.3	41.1
110-86-1	Pyridine	U	411	ug/kg	82.1	411
62-53-3	Aniline	U	411	ug/kg	123	411
111-44-4	bis(2-Chloroethyl) ether	U	411	ug/kg	82.1	411
541-73-1	1,3-Dichlorobenzene	U	411	ug/kg	82.1	411
100-51-6	Benzyl alcohol	U	411	ug/kg	123	411
95-50-1	1,2-Dichlorobenzene	U	411	ug/kg	82.1	411
108-60-1	bis(2-Chloroisopropyl)ether	U	411	ug/kg	82.1	411
95-48-7	o-Cresol	U	411	ug/kg	82.1	411
65794-96-9	m,p-Cresols	U	411	ug/kg	123	411
67-72-1	Hexachloroethane	U	411	ug/kg	82.1	411
98-95-3	Nitrobenzene	U	411	ug/kg	82.1	411
78-59-1	Isophorone	U	411	ug/kg	82.1	411
88-75-5	2-Nitrophenol	U	411	ug/kg	82.1	411
105-67-9	2,4-Dimethylphenol	U	411	ug/kg	144	411
111-91-1	bis(2-Chloroethoxy)methane	U	411	ug/kg	82.1	411
120-83-2	2,4-Dichlorophenol	U	411	ug/kg	82.1	411
65-85-0	Benzoic acid	U	821	ug/kg	205	821
91-20-3	Naphthalene	U	41.1	ug/kg	12.3	41.1
106-47-8	4-Chloroaniline	U	411	ug/kg	82.1	411
87-68-3	Hexachlorobutadiene	U	411	ug/kg	82.1	411
91-57-6	2-Methylnaphthalene	U	41.1	ug/kg	8.21	41.1
77-47-4	Hexachlorocyclopentadiene	U	411	ug/kg	82.1	411
88-06-2	2,4,6-Trichlorophenol	U	411	ug/kg	82.1	411
95-95-4	2,4,5-Trichlorophenol	U	411	ug/kg	82.1	411
91-58-7	2-Chloronaphthalene	U	41.1	ug/kg	13.6	41.1
88-74-4	2-Nitroaniline	U	411	ug/kg	82.1	411
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	411	ug/kg	82.1	411

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862007**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13781**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 22:08**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2523.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	411	ug/kg	82.1	411
606-20-2	2,6-Dinitrotoluene	U	411	ug/kg	41.1	411
208-96-8	Acenaphthylene	U	41.1	ug/kg	12.3	41.1
51-28-5	2,4-Dinitrophenol	U	821	ug/kg	156	821
132-64-9	Dibenzofuran	U	411	ug/kg	82.1	411
84-66-2	Diethylphthalate	U	411	ug/kg	82.1	411
86-73-7	Fluorene	U	41.1	ug/kg	12.3	41.1
7005-72-3	4-Chlorophenylphenylether	U	411	ug/kg	82.1	411
534-52-1	2-Methyl-4,6-dinitrophenol	U	411	ug/kg	82.1	411
100-01-6	4-Nitroaniline	U	411	ug/kg	123	411
	p-Nitroaniline					
122-39-4	Diphenylamine	U	411	ug/kg	82.1	411
122-66-7	Azobenzene	U	411	ug/kg	82.1	411
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	411	ug/kg	82.1	411
118-74-1	Hexachlorobenzene	U	411	ug/kg	82.1	411
85-01-8	Phenanthrene		76.7	ug/kg	12.3	41.1
120-12-7	Anthracene	J	16.1	ug/kg	8.21	41.1
84-74-2	Di-n-butylphthalate	U	411	ug/kg	82.1	411
206-44-0	Fluoranthene		125	ug/kg	12.3	41.1
85-68-7	Butylbenzylphthalate	U	411	ug/kg	82.1	411
56-55-3	Benzo(a)anthracene	U	41.1	ug/kg	12.3	41.1
91-94-1	3,3'-Dichlorobenzidine	U	411	ug/kg	123	411
218-01-9	Chrysene		59.2	ug/kg	12.3	41.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	411	ug/kg	82.1	411
117-84-0	Di-n-octylphthalate	U	411	ug/kg	82.1	411
205-99-2	Benzo(b)fluoranthene		88.2	ug/kg	12.3	41.1
207-08-9	Benzo(k)fluoranthene	U	41.1	ug/kg	12.3	41.1
50-32-8	Benzo(a)pyrene		55.6	ug/kg	12.3	41.1
193-39-5	Indeno(1,2,3-cd)pyrene	J	32.3	ug/kg	12.3	41.1
53-70-3	Dibenzo(a,h)anthracene	U	41.1	ug/kg	12.3	41.1
191-24-2	Benzo(ghi)perylene	J	32.7	ug/kg	12.3	41.1
120-82-1	1,2,4-Trichlorobenzene	U	411	ug/kg	82.1	411

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	491	ug/kg		JA

GEL Laboratories LLC

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Data file : /chem/MSD2.i/s032510.b/s2c2523.d
Lab Smp Id: 248862007 Client Smp ID: RE46-10-13781
Inj Date : 25-MAR-2010 22:08
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248862007|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	18.83070	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.837	3.843	(1.000)	154953	40.0000	
* 29 Naphthalene-d8	136	4.699	4.704	(1.000)	604032	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	375796	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	711651	40.0000	
* 91 Chrysene-d12	240	8.592	8.603	(1.000)	576396	40.0000	
* 98 Perylene-d12	264	10.031	10.042	(1.000)	383010	40.0000	
$ 3 2-Fluorophenol	112	3.040	3.035	(0.792)	219269	59.4286	2440
$ 5 Phenol-d5	99	3.559	3.565	(0.928)	254442	56.0023	2300
$ 20 Nitrobenzene-d5	82	4.196	4.207	(0.893)	128291	29.3456	1200
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	270113	26.1253	1070
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.091)	78016	70.1891	2880
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	384919	36.6166	1500

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.806	7.812	(0.908)	43412	2.31054	94.9
68 Phenanthrene	178	6.950	6.956	(1.002)	32847	1.86742	76.7
69 Anthracene	178	6.982	6.988	(1.006)	6681	0.39263	16.1(a)
76 Fluoranthene	202	7.667	7.672	(1.105)	48490	3.05204	125
92 Chrysene	228	8.608	8.625	(1.002)	19337	1.44094	59.2
95 Benzo(b)fluoranthene	252	9.571	9.582	(0.954)	22445	2.14846	88.2
97 Benzo(a)pyrene	252	9.956	9.978	(0.993)	11715	1.35295	55.6
99 Indeno(1,2,3-cd)pyrene	276	11.630	11.657	(1.159)	5825	0.78589	32.3(a)
101 Benzo(ghi)perylene	276	12.133	12.155	(1.210)	4782	0.79653	32.7(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s2c2523.d
Report Date: 03/26/2010 13:40
Lab. ID: 248862007 SampleType: SAMPLE
Injection Date: 25-MAR-2010 22:08
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248862007|965979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	20722	4.20	4.08	80-120	100	(T)
42	18259	4.20	4.08	90-150	88	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	67256	5.95	5.72	80-120	100	(T)
164	375796	5.94	5.72	0- 40	559	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	47722	5.94	5.77	80-120	100	(T)
63	941	5.94	5.77	85-145	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	47722	5.94	6.06	80-120	100	(T)
89	952	5.94	6.06	55-115	2	(QT)
63	941	5.94	6.06	44-104	2	(QT)
53 Fluorene				CAS#: 86-73-7		
166	3866	6.48	6.32	80-120	100	(T)
165	4152	6.48	6.32	63-123	107	(T)
167	1265	6.48	6.32	0- 43	33	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	359	6.48	6.34	80-120	100	(T)
105	918	6.48	6.34	17- 77	255	(QT)
51	1220	6.48	6.34	99-159	339	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
68 Phenanthrene			CAS#: 85-01-8			
178	32847	6.95	6.96	80-120	100	( )
179	5620	6.95	6.96	0- 45	17	( )
176	6209	6.95	6.96	0- 49	19	( )
69 Anthracene			CAS#: 120-12-7			
178	6681	6.98	6.99	80-120	100	( )
179	1480	6.98	6.99	0- 46	22	( )
176	1136	6.98	6.99	0- 48	17	( )
76 Fluoranthene			CAS#: 206-44-0			
202	48490	7.67	7.67	80-120	100	( )
203	8211	7.67	7.67	0- 47	17	( )
101	4168	7.66	7.67	0- 39	9	( )
79 Pyrene			CAS#: 129-00-0			
202	43412	7.81	7.81	80-120	100	( )
200	9461	7.81	7.81	0- 51	22	( )
101	5139	7.80	7.81	0- 40	12	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	21325	8.58	8.59	80-120	100	( )
226	5964	8.58	8.59	0- 56	28	( )
229	5703	8.58	8.59	0- 50	27	( )
92 Chrysene			CAS#: 218-01-9			
228	19337	8.61	8.62	80-120	100	( )
229	4547	8.61	8.62	0- 50	24	( )
226	6079	8.61	8.62	0- 59	31	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	22445	9.57	9.58	80-120	100	( )
253	4963	9.57	9.58	0- 52	22	( )
125	2615	9.58	9.58	0- 40	12	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	22445	9.57	9.61	80-120	100	( )
253	4963	9.57	9.61	0- 52	22	( )
125	2615	9.58	9.61	0- 39	12	( )
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	11715	9.96	9.98	80-120	100	( )
253	2804	9.96	9.98	0- 51	24	( )
125	1136	9.96	9.97	0- 42	10	( )
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	5825	11.63	11.66	80-120	100	( )
138	1392	11.63	11.66	0- 58	24	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	3995	11.89	11.66	80-120	100	(T)
139	309	11.88	11.66	0- 52	8	(T)
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	4782	12.13	12.15	80-120	100	( )
138	1358	12.13	12.15	0- 58	28	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2523.d
Lab Smp Id: 248862007 Client Smp ID: RE46-10-13781
Inj Date : 25-MAR-2010 22:08
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248862007|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	18.83070	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.837	1150552	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.875	344253	11.9682760	491	0		0	10

Data File: /chem/MSD2.i/s032510.b/s2c2523.d

Date : 25-MAR-2010 22:08

Client ID: RE46-10-13781

Sample Info: |2488620071965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: ACS1

Column diameter: 0.20

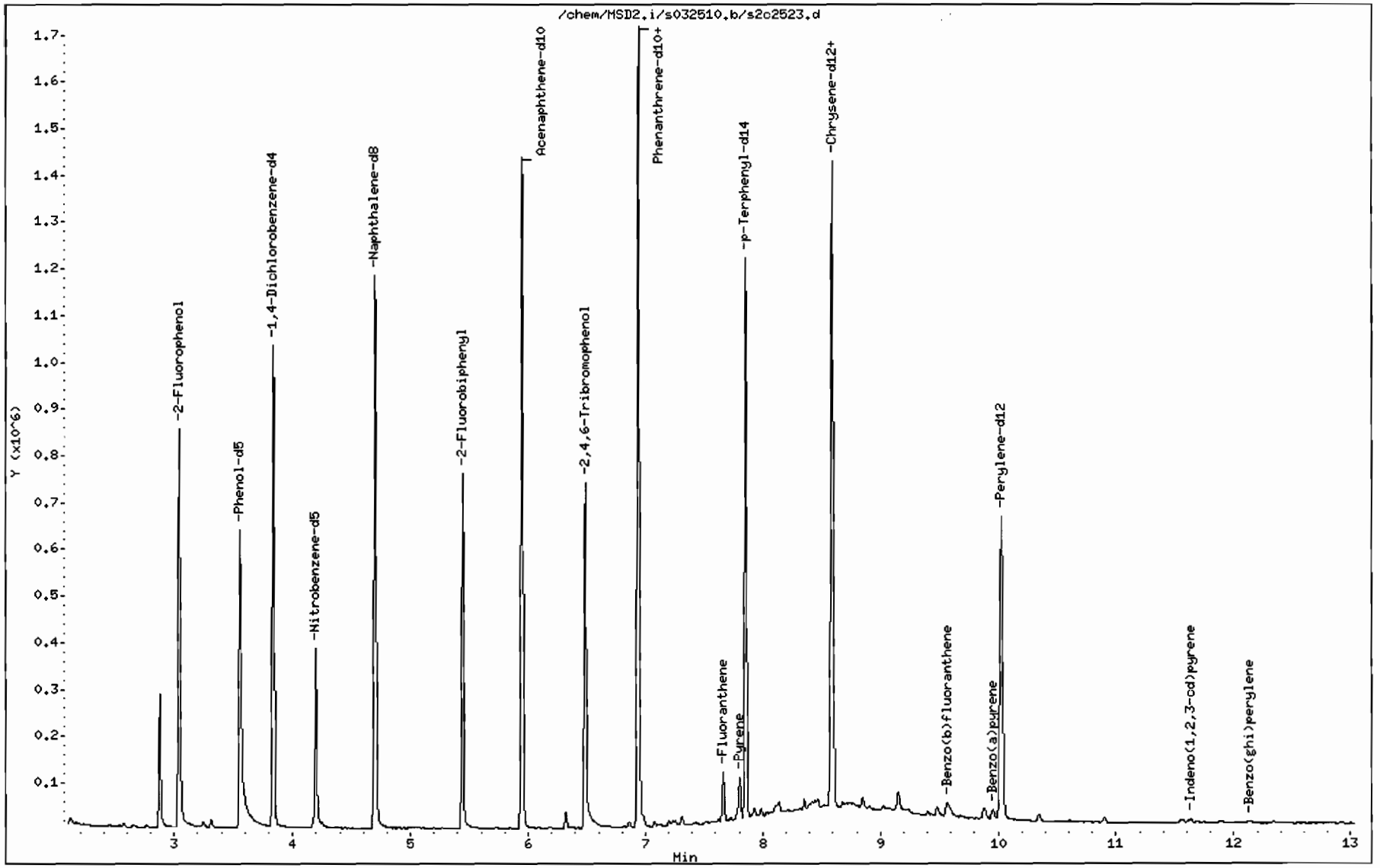

Data File: /chem/MSD2.i/s032510.b/s2c2523.d

Date : 25-MAR-2010 22:08

Client ID: RE46-10-13781

Instrument: MSD2.i

Sample Info: 1248862007|965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 94.9 ug/Kg

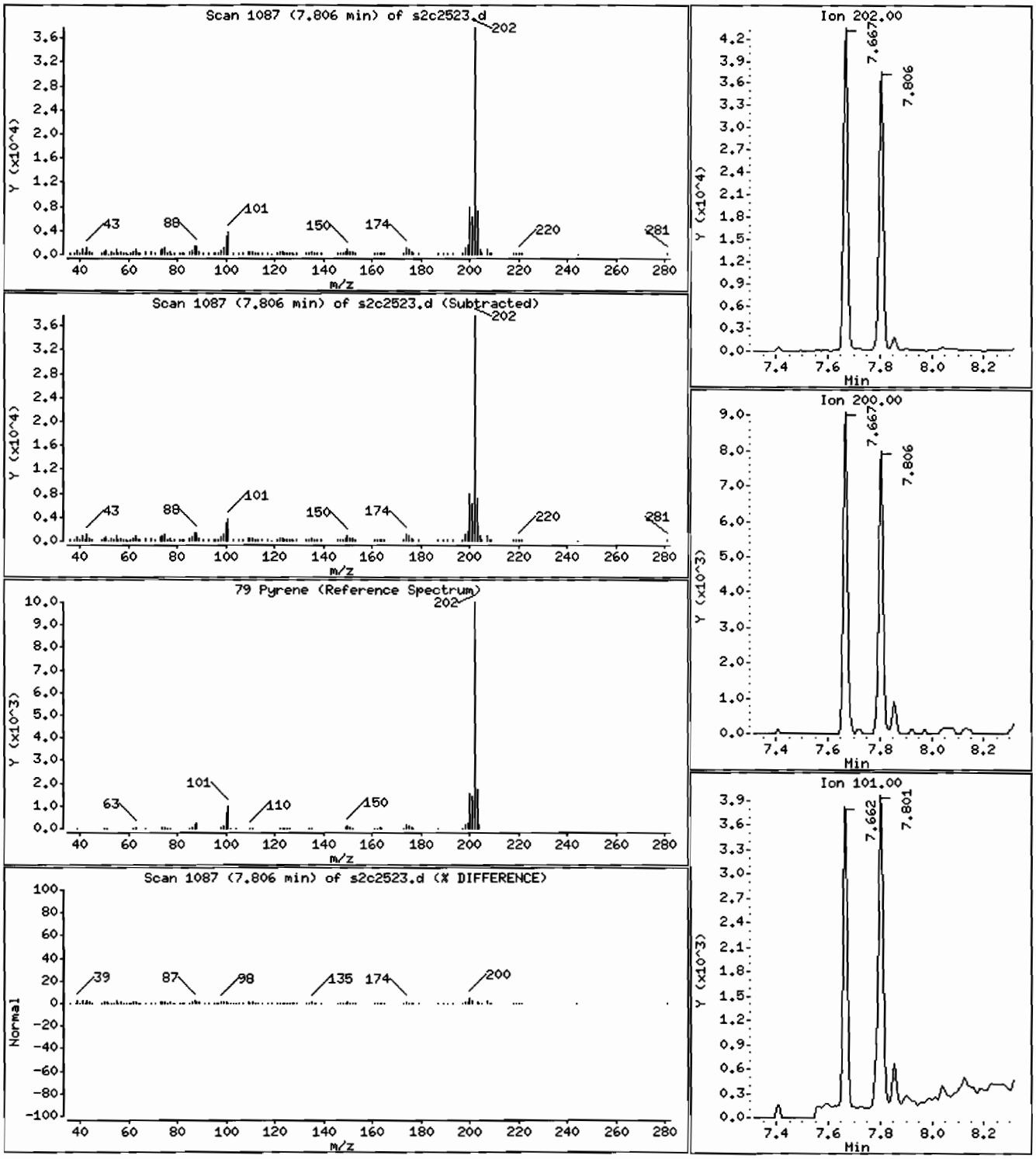

Data File: /chem/MSD2.i/s032510.b/s2c2523.d

Date : 25-MAR-2010 22:08

Client ID: RE46-10-13781

Instrument: MSD2.i

Sample Info: 1248862007196597911ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 76.7 ug/Kg

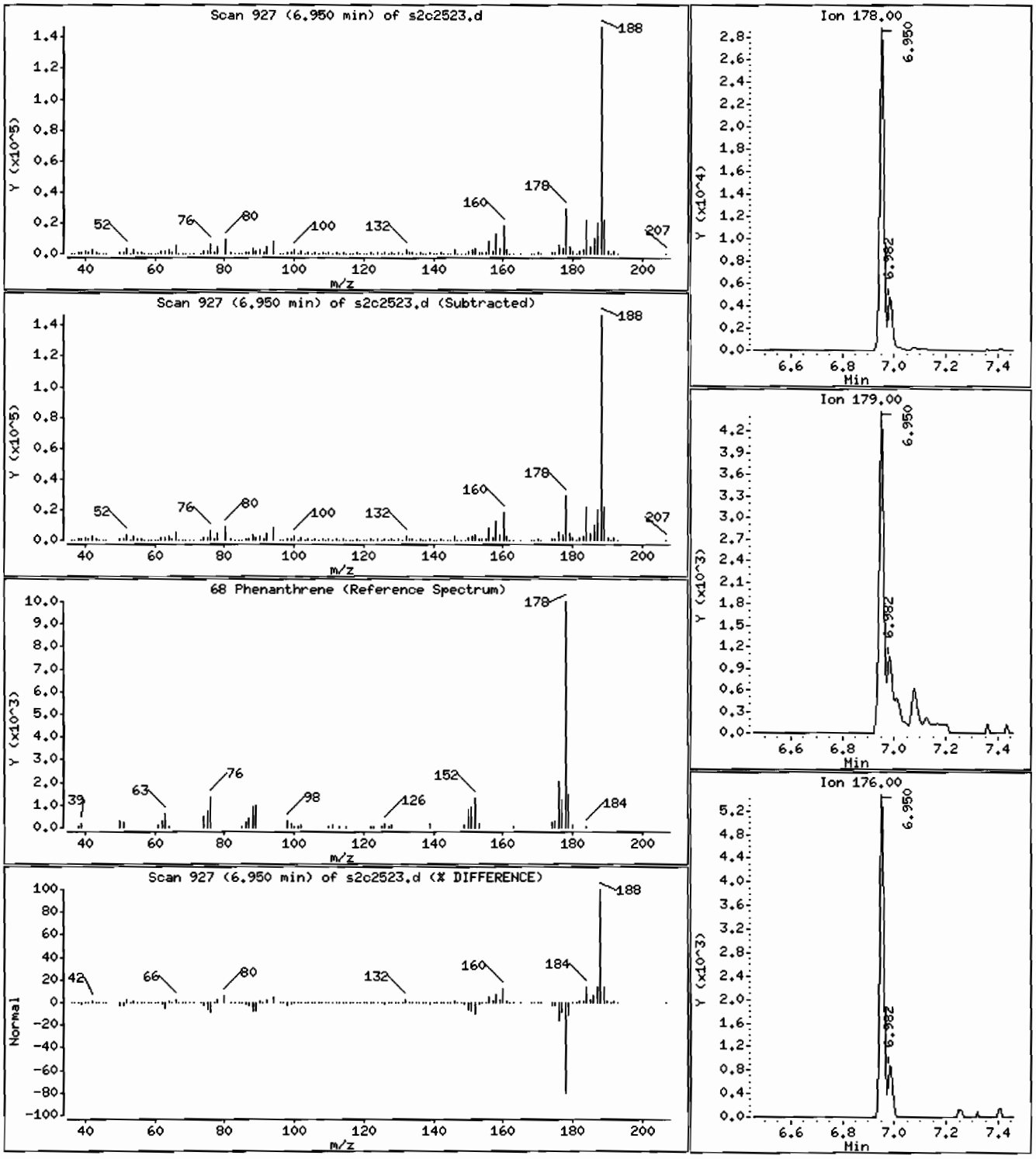

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Date : 25-MAR-2010 22:08

Client ID: RE46-10-13781

Instrument: MSD2.i

Sample Info: 1248862007|965979|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 16.1 ug/Kg

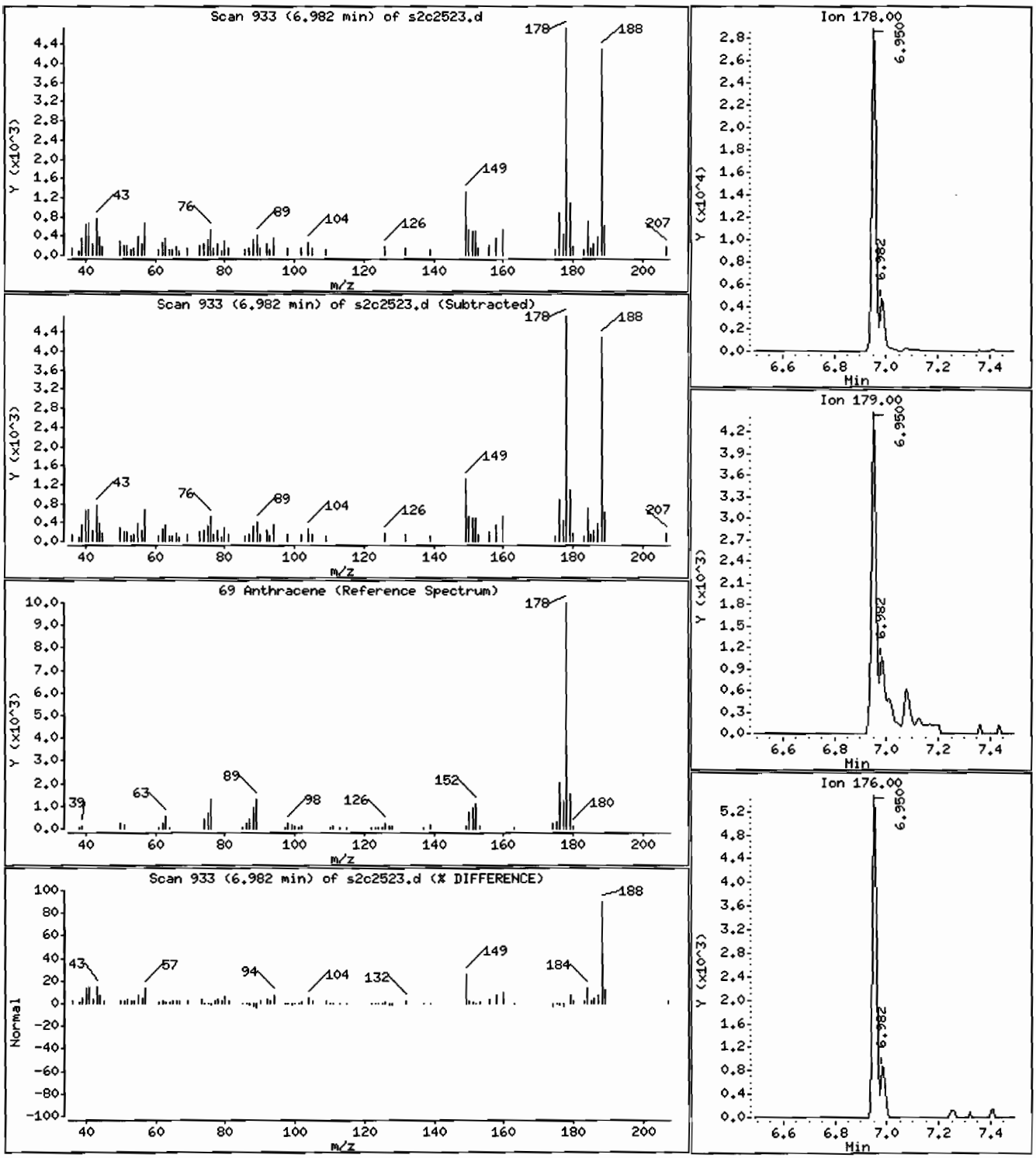

Data File: /chem/MSD2.i/s032510.b/s2c2523.d

Date : 25-MAR-2010 22:08

Client ID: RE46-10-13781

Instrument: MSD2.i

Sample Info: 1248862007|965979|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 125 ug/Kg

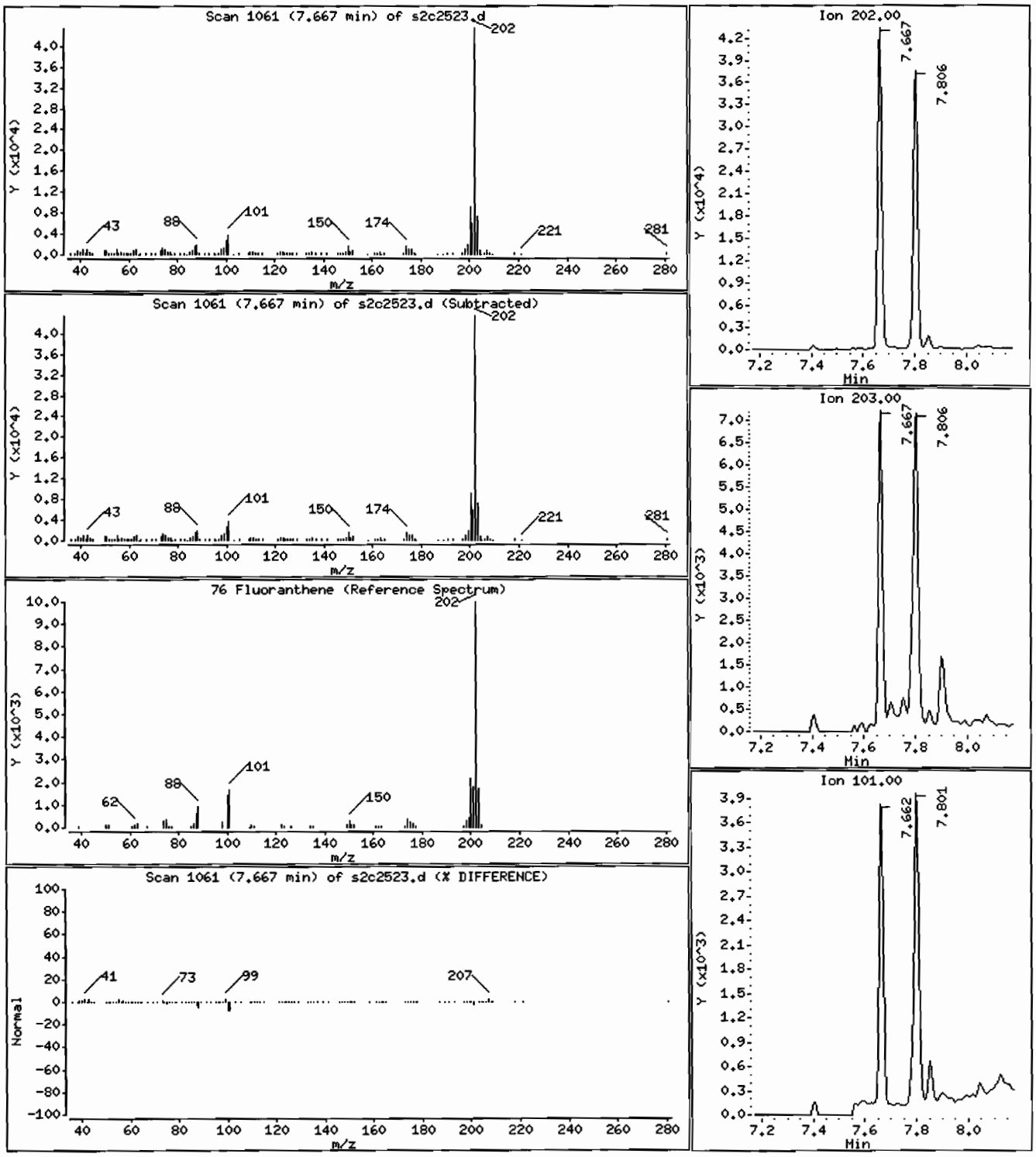

Data File: /chem/MSD2.i/s032510.b/s2c2523.d

Date : 25-MAR-2010 22:08

Client ID: RE46-10-13781

Instrument: MSD2.i

Sample Info: 1248862007|965979|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 59.2 ug/Kg

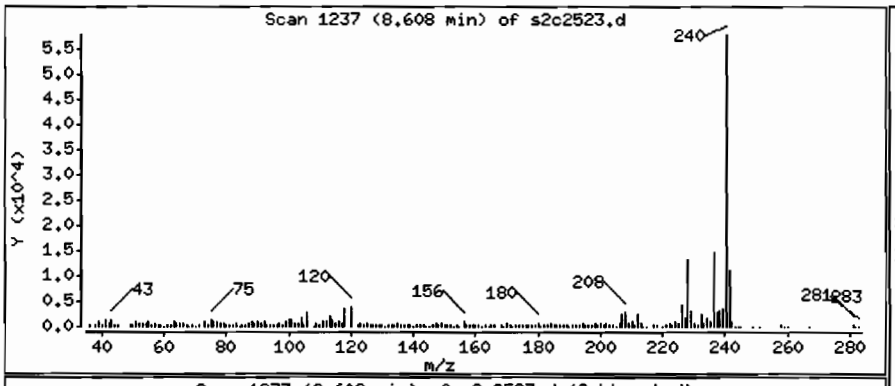

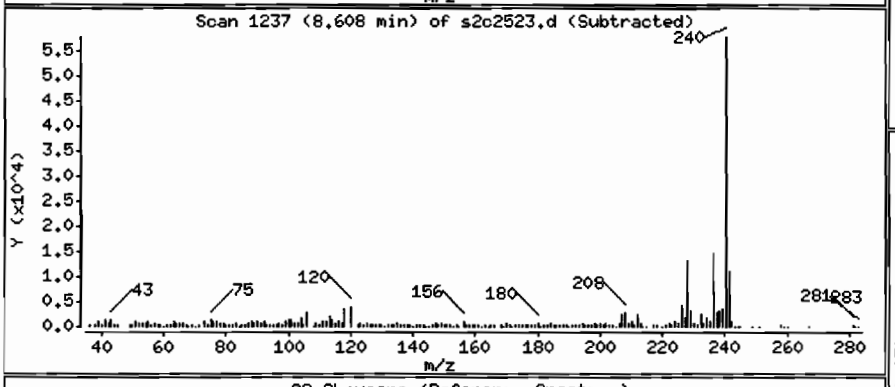

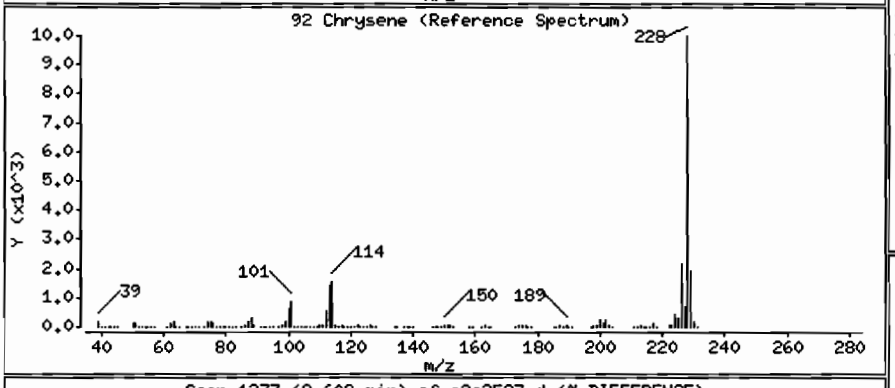

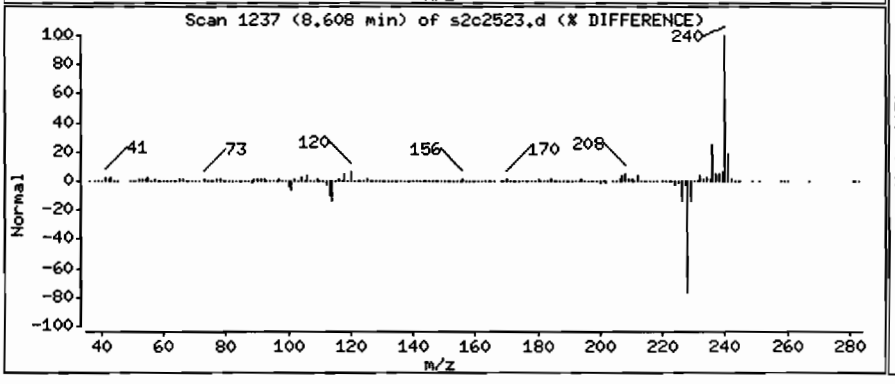

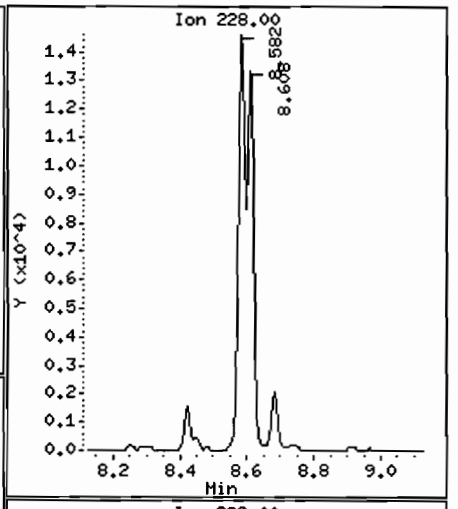

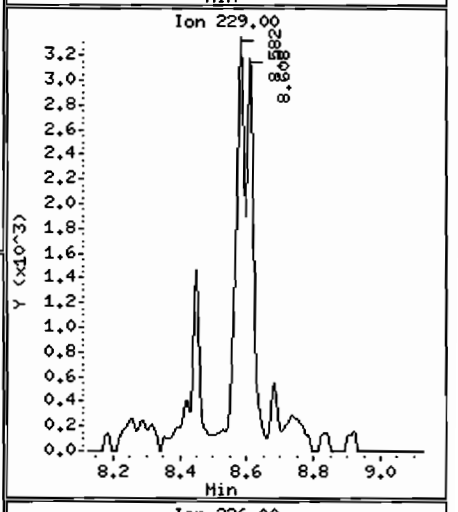

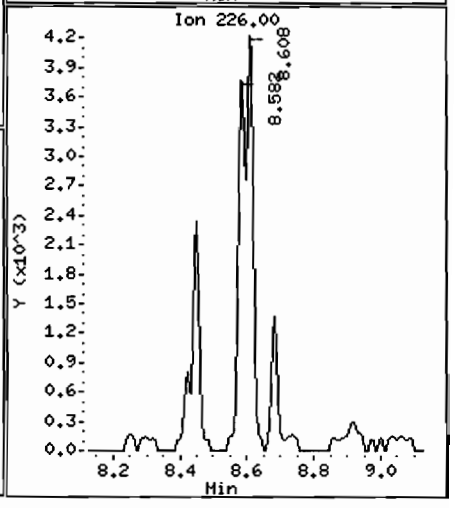

Data File: /chem/MSD2.i/s032510.b/s2c2523.d

Date : 25-MAR-2010 22:08

Client ID: RE46-10-13781

Instrument: MSD2.i

Sample Info: 1248862007|965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 88.2 ug/Kg

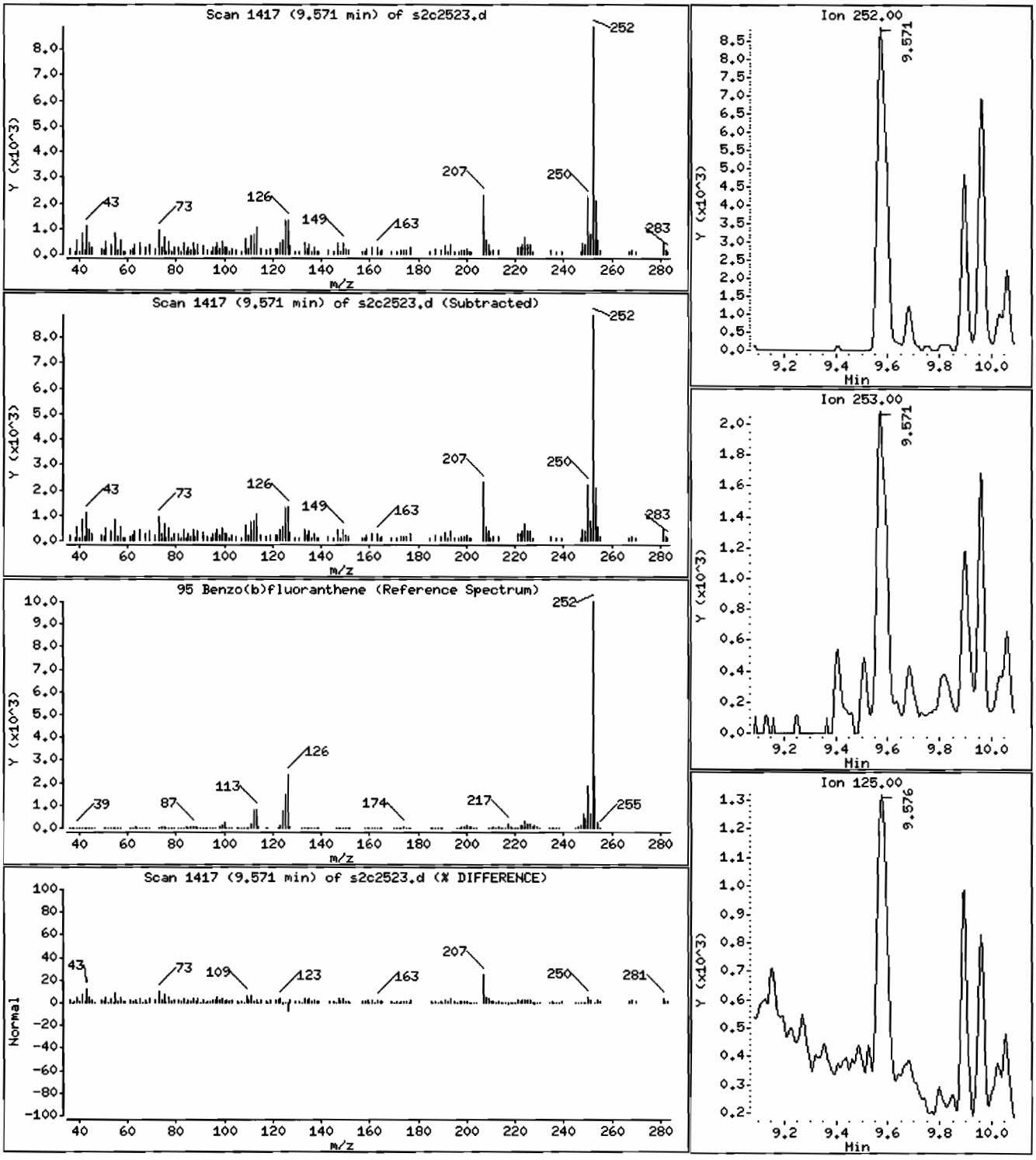

Data File: /chem/MSD2.i/s032510.b/s2c2523.d

Date : 25-MAR-2010 22:08

Client ID: RE46-10-13781

Instrument: MSD2.i

Sample Info: 1248862007|965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 55.6 ug/Kg

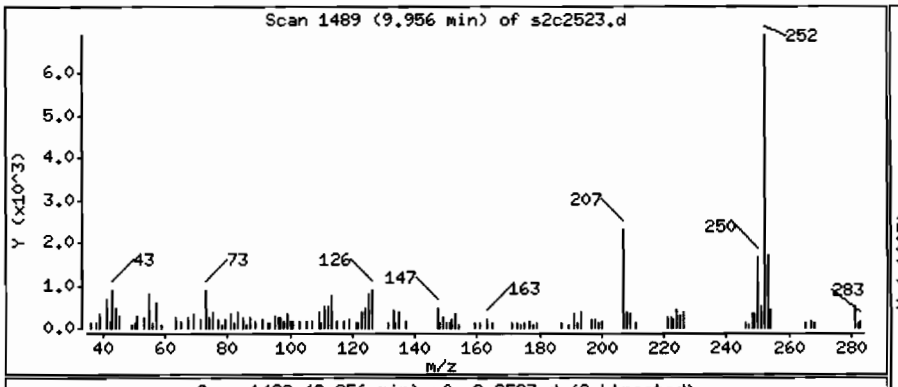

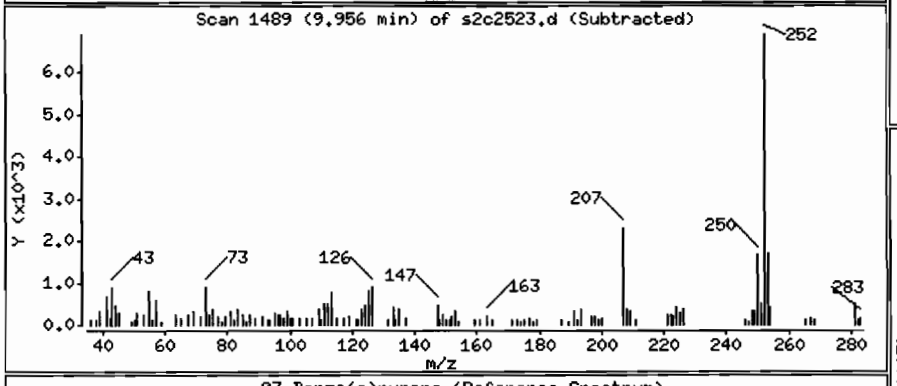

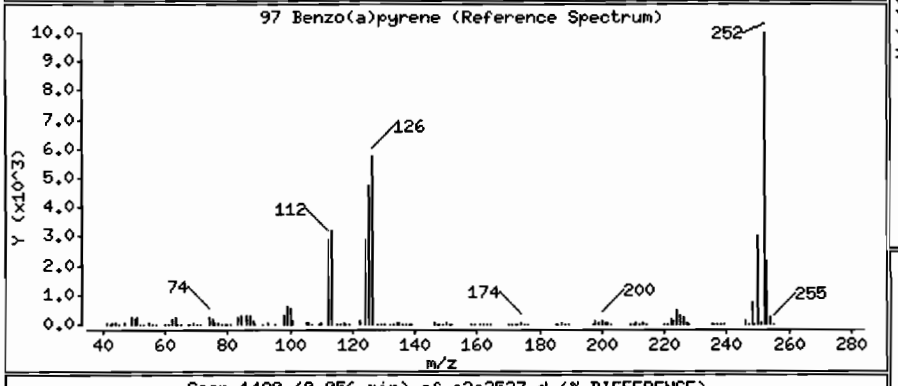

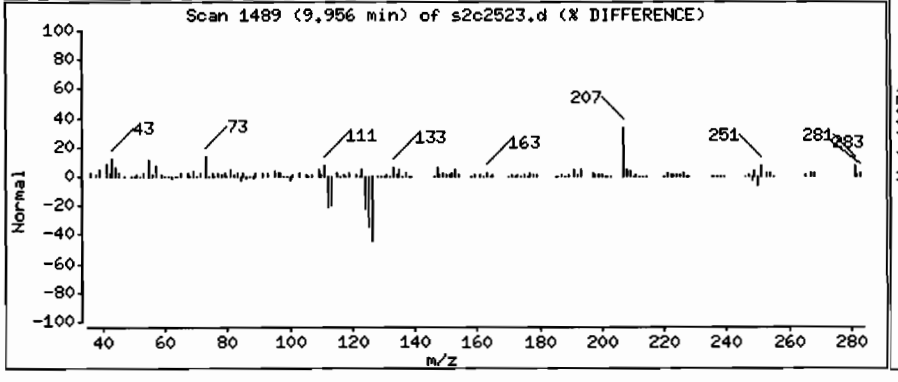

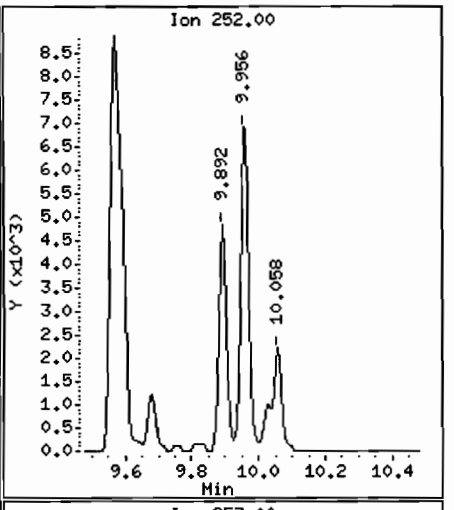

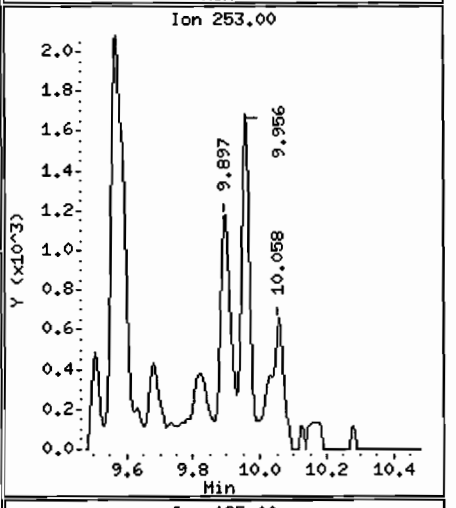

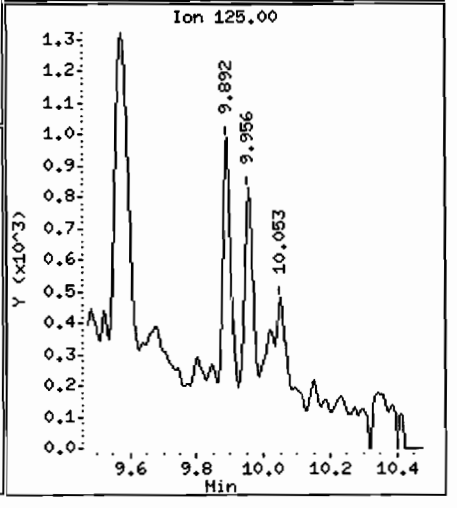

Data File: /chem/MSD2.i/s032510.b/s2c2523.d

Date : 25-MAR-2010 22:08

Client ID: RE46-10-13781

Instrument: MSD2.i

Sample Info: |2488620071965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 32.3 ug/Kg

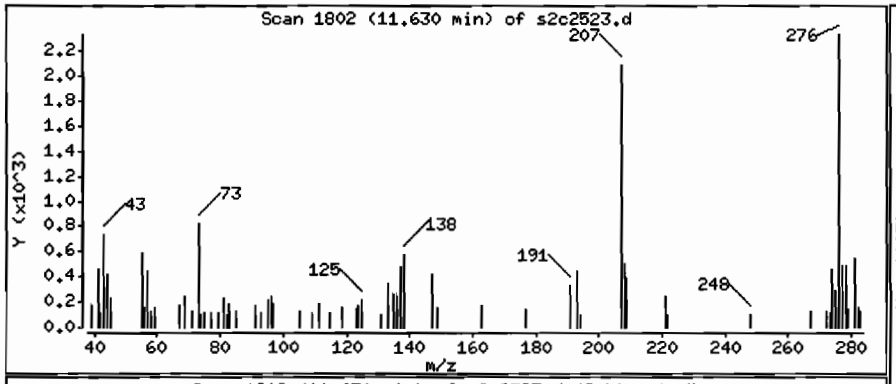

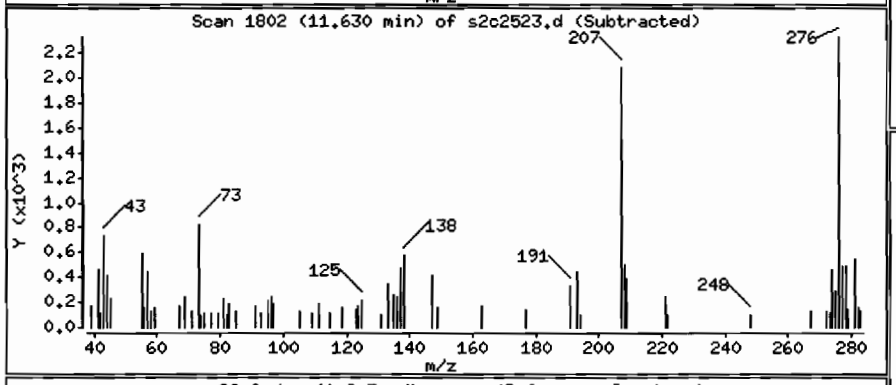

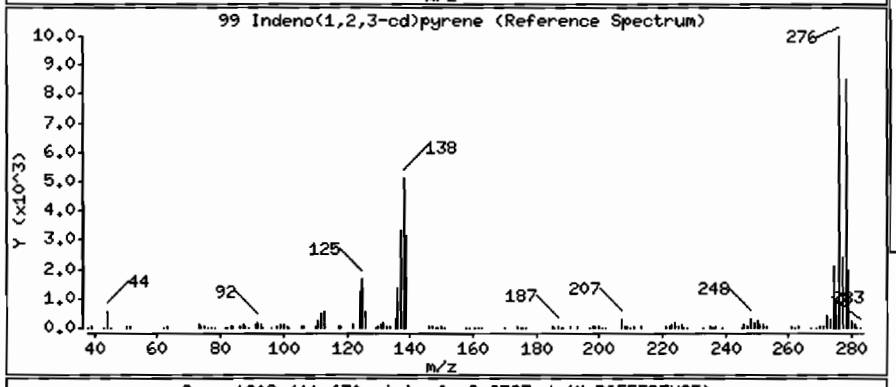

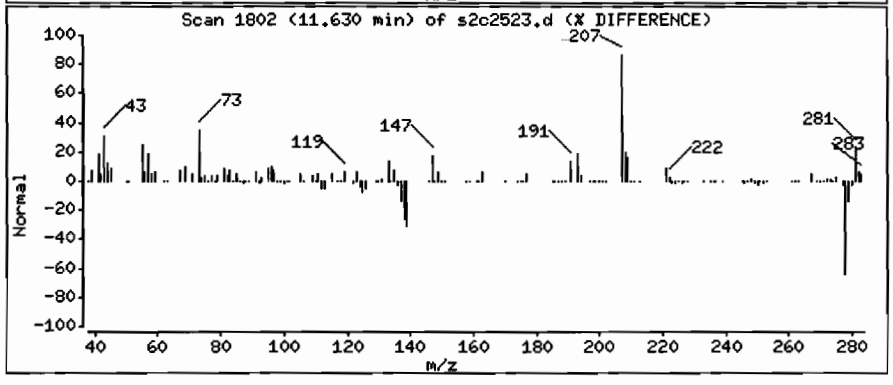

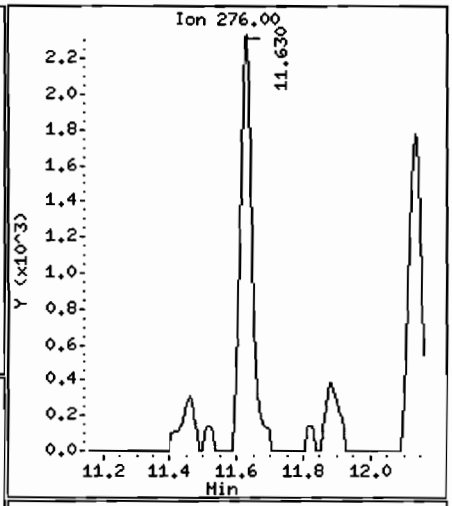

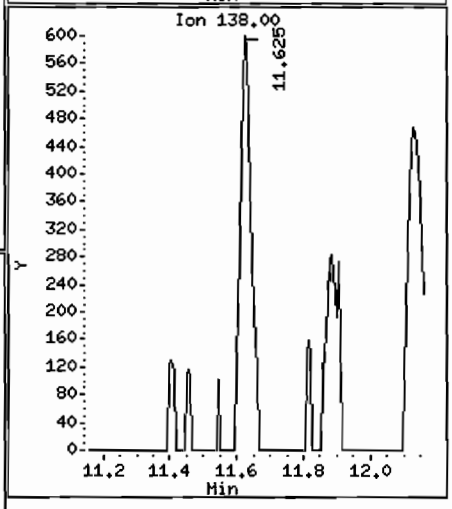

Data File: /chem/MSD2.i/s032510.b/s2c2523.d

Date : 25-MAR-2010 22:08

Client ID: RE46-10-13781 Instrument: MSD2.i

Sample Info: |2488620071965979|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

101 Benzo(ghi)perylene Concentration: 32.7 ug/Kg

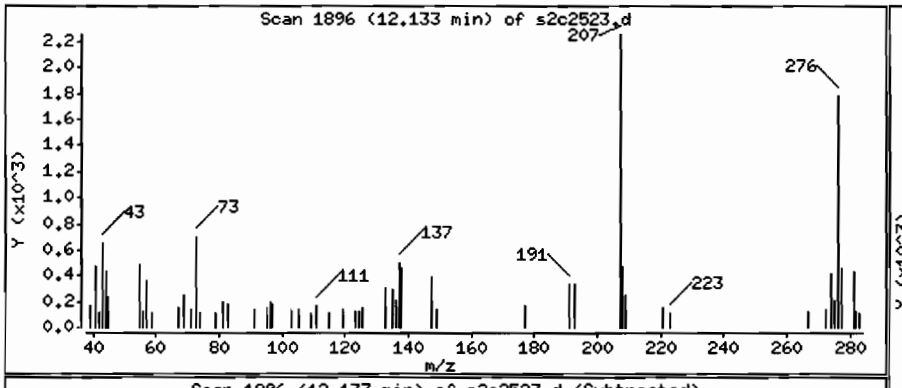

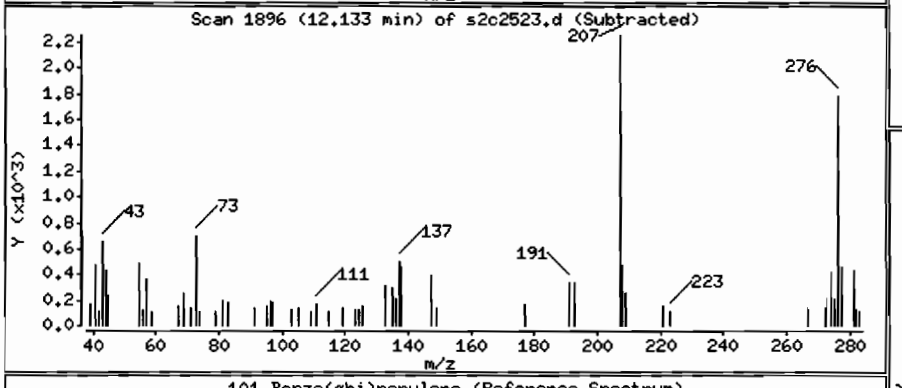

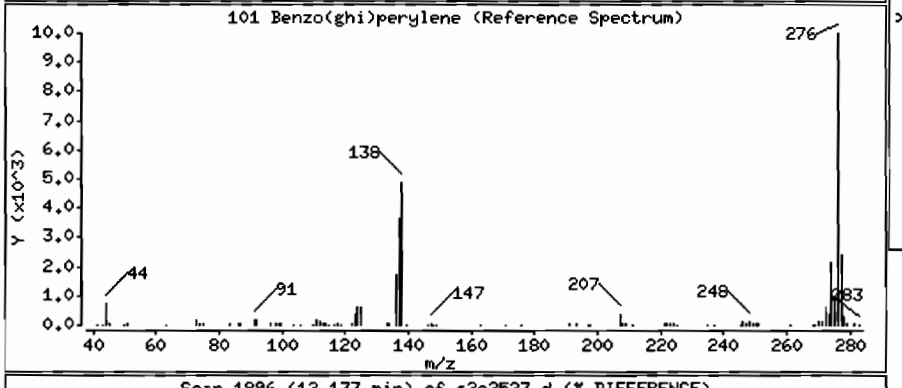

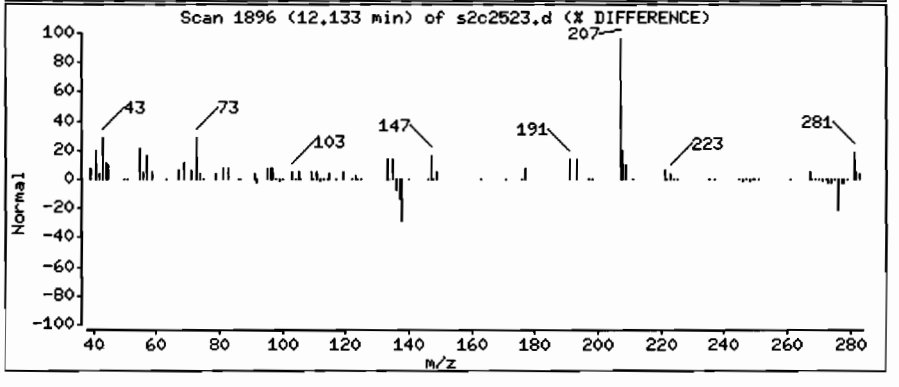

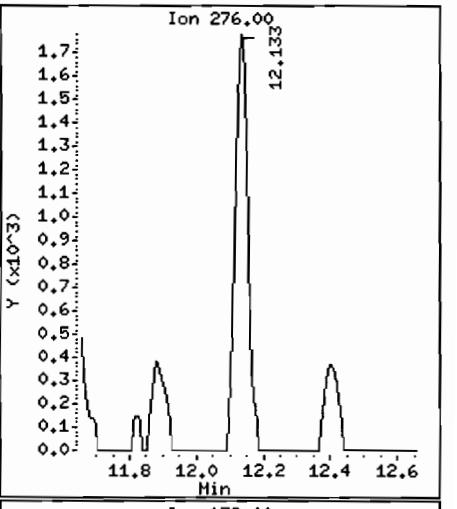

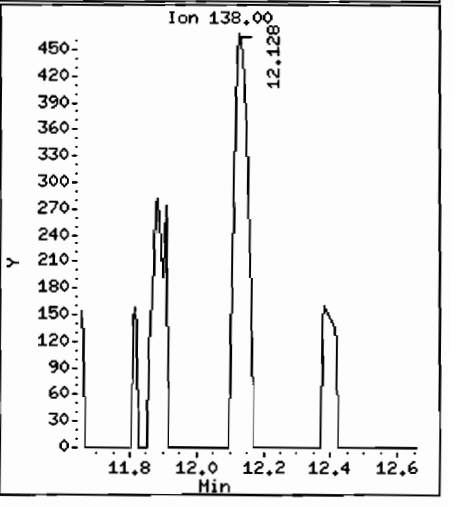

Data File: /chem/MSD2.i/s032510.b/s2c2523.d

Date : 25-MAR-2010 22:08

Client ID: RE46-10-13781

Instrument: MSD2.i

Sample Info: 1248862007196597911SVMI11LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
1-Propen-2-ol, acetate	108-22-5	NIST05.L	3595	10	C5H8O2	100

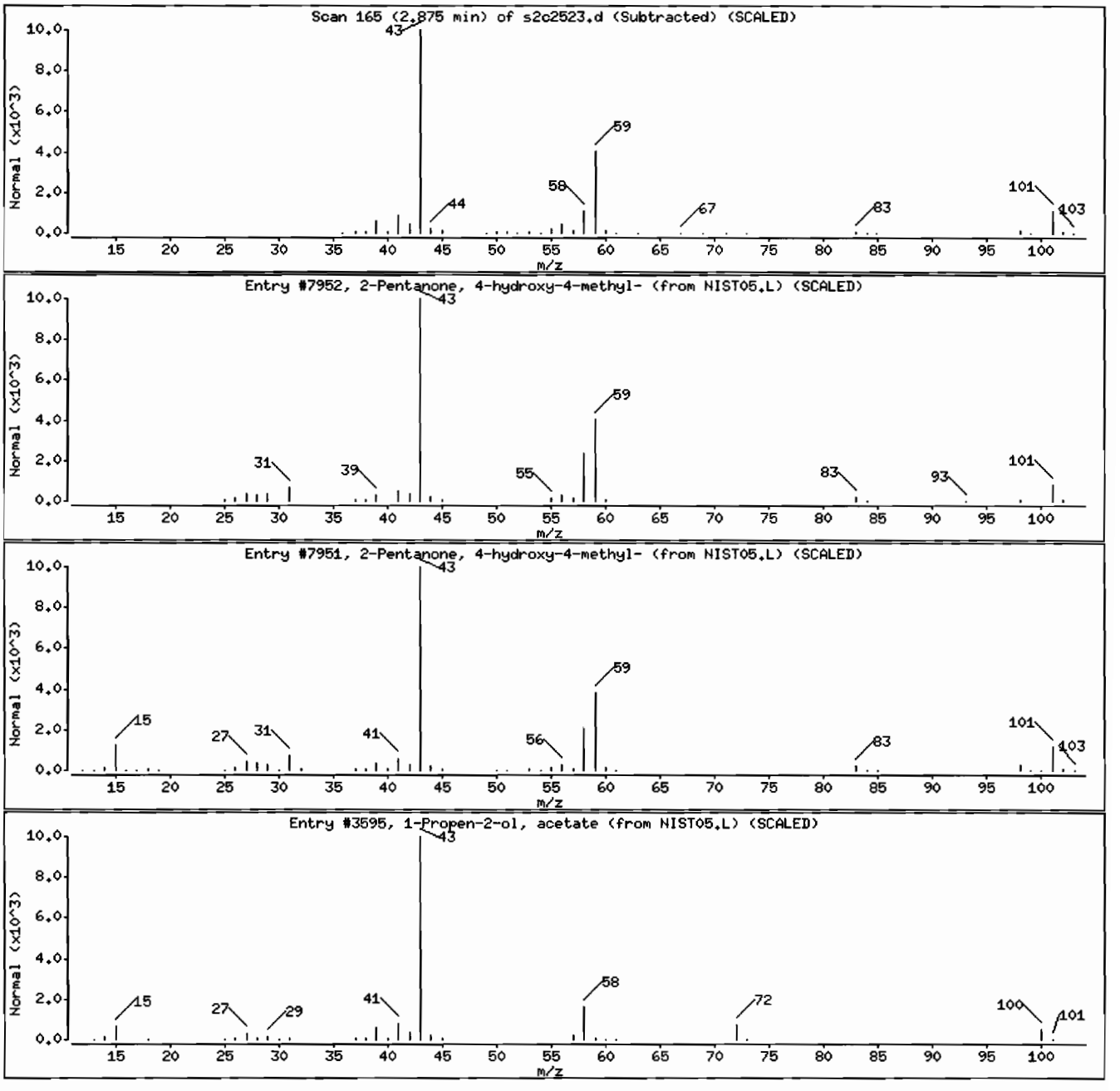

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13782**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 18:17**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2610.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	387	ug/kg	77.4	387
108-95-2	Phenol	U	387	ug/kg	77.4	387
95-57-8	2-Chlorophenol	U	387	ug/kg	77.4	387
106-46-7	1,4-Dichlorobenzene	U	387	ug/kg	77.4	387
621-64-7	N-Nitrosodipropylamine	U	387	ug/kg	77.4	387
59-50-7	4-Chloro-3-methylphenol	U	387	ug/kg	77.4	387
83-32-9	Acenaphthene	U	38.7	ug/kg	12.8	38.7
121-14-2	2,4-Dinitrotoluene	U	387	ug/kg	38.7	387
100-02-7	4-Nitrophenol	U	387	ug/kg	128	387
87-86-5	Pentachlorophenol	U	387	ug/kg	96.8	387
129-00-0	Pyrene	U	38.7	ug/kg	11.6	38.7
110-86-1	Pyridine	U	387	ug/kg	77.4	387
62-53-3	Aniline	U	387	ug/kg	116	387
111-44-4	bis(2-Chloroethyl) ether	U	387	ug/kg	77.4	387
541-73-1	1,3-Dichlorobenzene	U	387	ug/kg	77.4	387
100-51-6	Benzyl alcohol	U	387	ug/kg	116	387
95-50-1	1,2-Dichlorobenzene	U	387	ug/kg	77.4	387
108-60-1	bis(2-Chloroisopropyl)ether	U	387	ug/kg	77.4	387
95-48-7	o-Cresol	U	387	ug/kg	77.4	387
65794-96-9	m,p-Cresols	U	387	ug/kg	116	387
67-72-1	Hexachloroethane	U	387	ug/kg	77.4	387
98-95-3	Nitrobenzene	U	387	ug/kg	77.4	387
78-59-1	Isophorone	U	387	ug/kg	77.4	387
88-75-5	2-Nitrophenol	U	387	ug/kg	77.4	387
105-67-9	2,4-Dimethylphenol	U	387	ug/kg	135	387
111-91-1	bis(2-Chloroethoxy)methane	U	387	ug/kg	77.4	387
120-83-2	2,4-Dichlorophenol	U	387	ug/kg	77.4	387
65-85-0	Benzoic acid	U	774	ug/kg	194	774
91-20-3	Naphthalene	U	38.7	ug/kg	11.6	38.7
106-47-8	4-Chloroaniline	U	387	ug/kg	77.4	387
87-68-3	Hexachlorobutadiene	U	387	ug/kg	77.4	387
91-57-6	2-Methylnaphthalene	U	38.7	ug/kg	7.74	38.7
77-47-4	Hexachlorocyclopentadiene	U	387	ug/kg	77.4	387
88-06-2	2,4,6-Trichlorophenol	U	387	ug/kg	77.4	387
95-95-4	2,4,5-Trichlorophenol	U	387	ug/kg	77.4	387
91-58-7	2-Chloronaphthalene	U	38.7	ug/kg	12.8	38.7
88-74-4	2-Nitroaniline	U	387	ug/kg	77.4	387
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	387	ug/kg	77.4	387

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13782**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 18:17**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2610.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	387	ug/kg	77.4	387
606-20-2	2,6-Dinitrotoluene	U	387	ug/kg	38.7	387
208-96-8	Acenaphthylene	U	38.7	ug/kg	11.6	38.7
51-28-5	2,4-Dinitrophenol	U	774	ug/kg	147	774
132-64-9	Dibenzofuran	U	387	ug/kg	77.4	387
84-66-2	Diethylphthalate	U	387	ug/kg	77.4	387
86-73-7	Fluorene	U	38.7	ug/kg	11.6	38.7
7005-72-3	4-Chlorophenylphenylether	U	387	ug/kg	77.4	387
534-52-1	2-Methyl-4,6-dinitrophenol	U	387	ug/kg	77.4	387
100-01-6	4-Nitroaniline	U	387	ug/kg	116	387
	p-Nitroaniline					
122-39-4	Diphenylamine	U	387	ug/kg	77.4	387
122-66-7	Azobenzene	U	387	ug/kg	77.4	387
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	387	ug/kg	77.4	387
118-74-1	Hexachlorobenzene	U	387	ug/kg	77.4	387
85-01-8	Phenanthrene	U	38.7	ug/kg	11.6	38.7
120-12-7	Anthracene	U	38.7	ug/kg	7.74	38.7
84-74-2	Di-n-butylphthalate	U	387	ug/kg	77.4	387
206-44-0	Fluoranthene	U	38.7	ug/kg	11.6	38.7
85-68-7	Butylbenzylphthalate	U	387	ug/kg	77.4	387
56-55-3	Benzo(a)anthracene	U	38.7	ug/kg	11.6	38.7
91-94-1	3,3'-Dichlorobenzidine	U	387	ug/kg	116	387
218-01-9	Chrysene	U	38.7	ug/kg	11.6	38.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	387	ug/kg	77.4	387
117-84-0	Di-n-octylphthalate	U	387	ug/kg	77.4	387
205-99-2	Benzo(b)fluoranthene	U	38.7	ug/kg	11.6	38.7
207-08-9	Benzo(k)fluoranthene	U	38.7	ug/kg	11.6	38.7
50-32-8	Benzo(a)pyrene	U	38.7	ug/kg	11.6	38.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.7	ug/kg	11.6	38.7
53-70-3	Dibenzo(a,h)anthracene	U	38.7	ug/kg	11.6	38.7
191-24-2	Benzo(ghi)perylene	U	38.7	ug/kg	11.6	38.7
120-82-1	1,2,4-Trichlorobenzene	U	387	ug/kg	77.4	387

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	381	ug/kg		JA

GEL Laboratories LLC

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Data file : /chem/MSD2.i/s032610.b/s2c2610.d
Lab Smp Id: 248862002 Client Smp ID: RE46-10-13782
Inj Date : 26-MAR-2010 18:17
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248862002|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 26-Mar-2010 19:34 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2cl239.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	13.92880	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	223156	40.0000	
* 29 Naphthalene-d8	136	4.667	4.672	(1.000)	883257	40.0000	
* 46 Acenaphthene-d10	164	5.913	5.918	(1.000)	540906	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	985520	40.0000	
* 91 Chrysene-d12	240	8.544	8.555	(1.000)	748323	40.0000	
* 98 Perylene-d12	264	9.946	9.962	(1.000)	469153	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	340586	64.0968	2480
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	382488	58.4556	2260
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.893)	195920	30.6478	1190
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.915)	375032	25.2008	975
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.091)	107593	67.2513	2600
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.915)	520248	38.1198	1480

ION RATIO REPORT

SV REPORT

Data file: s2c2610.d
Report Date: 03/26/2010 19:49
Lab. ID: 248862002 SampleType: SAMPLE
Injection Date: 26-MAR-2010 18:17
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248862002|965979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	31273	3.53	3.60	80-120	100	(T)
93	172	3.49	3.61	335-395	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	30552	4.17	4.05	80-120	100	(T)
42	26997	4.16	4.05	96-156	88	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	94262	5.91	5.69	80-120	100	(T)
164	540906	5.91	5.69	0- 40	574	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	68884	5.91	5.74	80-120	100	(T)
63	1157	5.91	5.74	87-147	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	68884	5.91	6.03	80-120	100	(T)
89	1227	5.91	6.03	58-118	2	(QT)
63	1157	5.91	6.03	47-107	2	(QT)
53 Fluorene		CAS#: 86-73-7				
166	5782	6.45	6.29	80-120	100	(T)
165	5639	6.45	6.29	61-121	98	(T)
167	1682	6.45	6.29	0- 43	29	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	502	6.45	6.31	80-120	100	(T)
105	1102	6.45	6.31	15- 75	219	(QT)
51	1493	6.45	6.31	92-152	297	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD2.i/s032610.b/s2c2610.d
Lab Smp Id: 248862002 Client Smp ID: RE46-10-13782
Inj Date : 26-MAR-2010 18:17
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248862002|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 26-Mar-2010 19:34 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	13.92880	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.811	1646123	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.848	405629	9.85658780	381	0		0	10

Data File: /chem/MSD2.i/s032610.b/s2c2610.d
Date : 26-MAR-2010 18:17
Client ID: RE46-10-13782
Sample Info: 1248862002|965979|1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD2.i

Operator: AGS1
Column diameter: 0.20

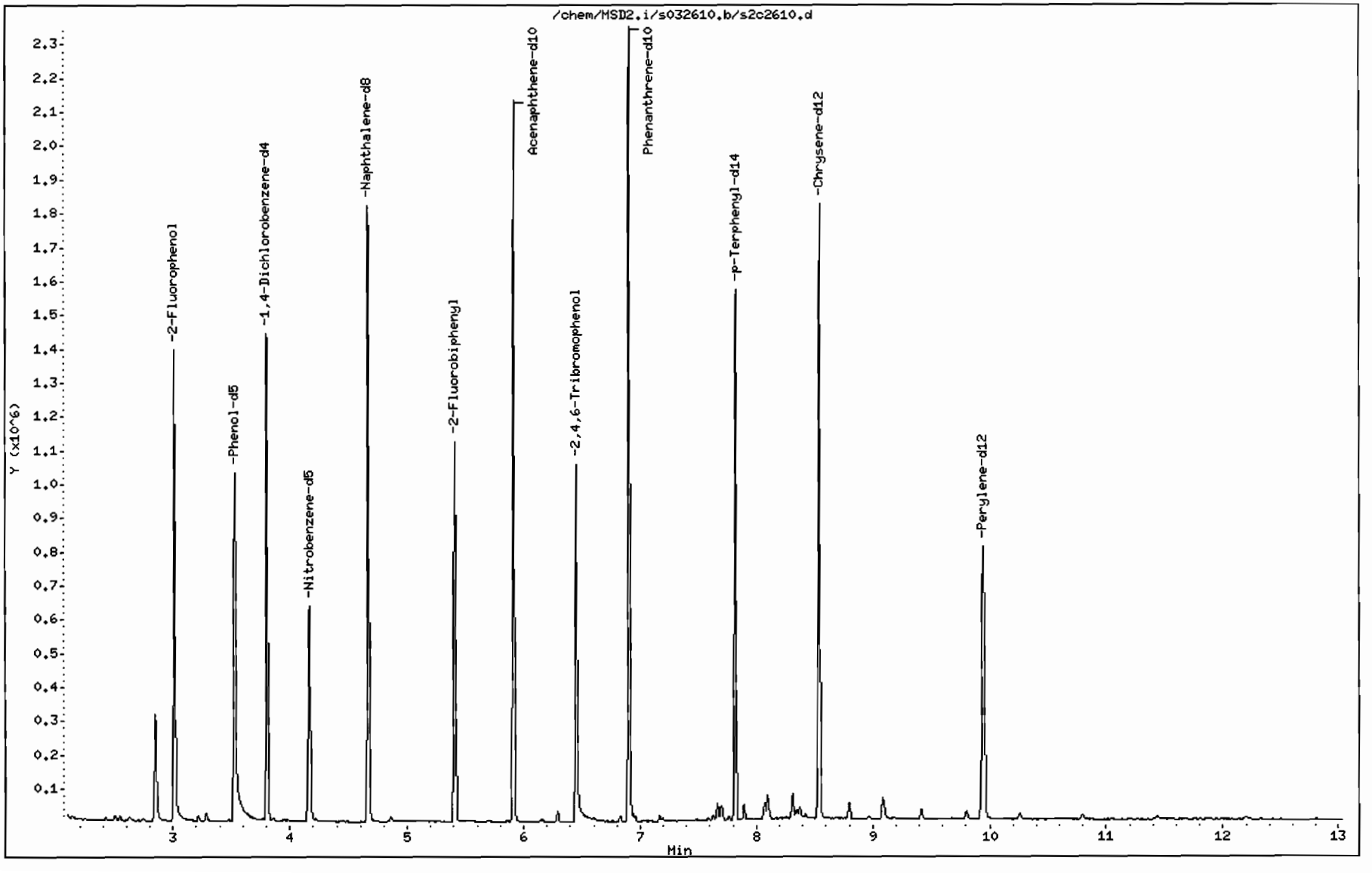

Data File: /chem/MSD2.i/s032610.b/s2c2610.d

Date : 26-MAR-2010 18:17

Client ID: RE46-10-13782

Instrument: MSD2.i

Sample Info: |2488620021965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
Propylamine	107-10-8	NIST05.L	242	9	C3H9N	59

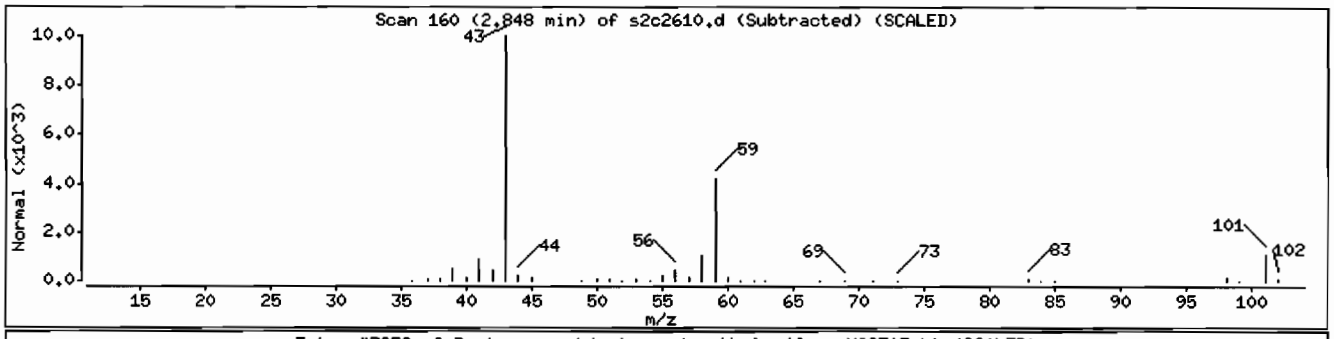

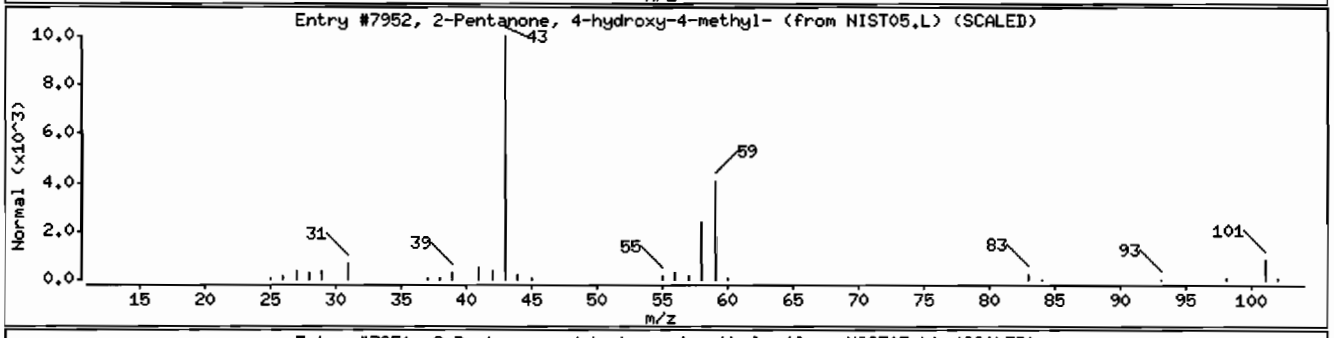

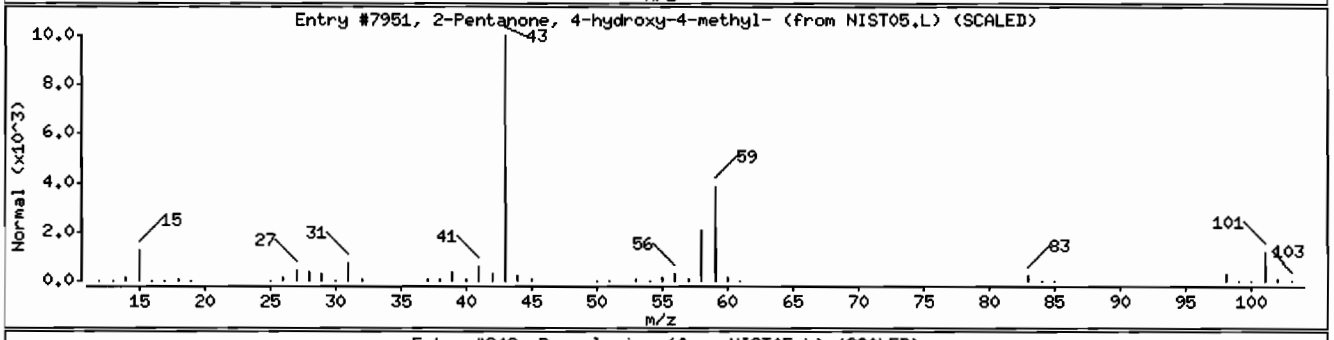

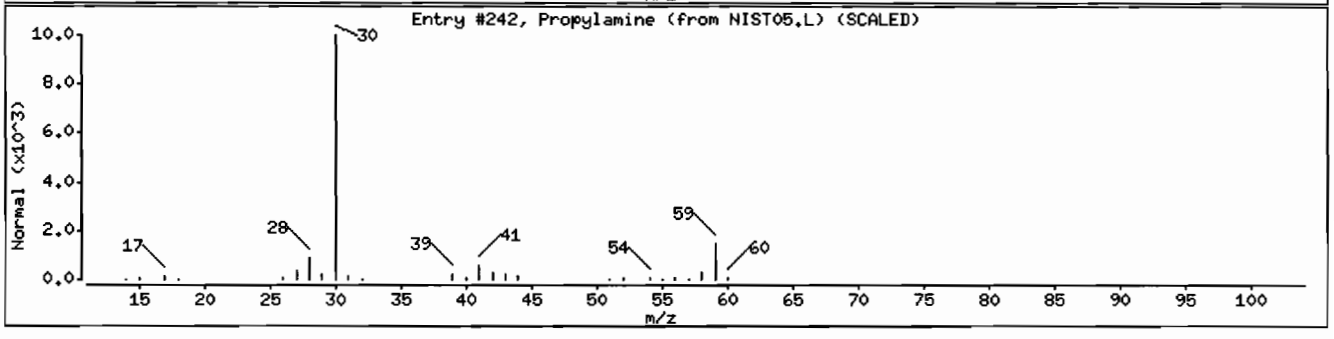

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13783**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 20:47**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2519.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	367	ug/kg	73.5	367
108-95-2	Phenol	U	367	ug/kg	73.5	367
95-57-8	2-Chlorophenol	U	367	ug/kg	73.5	367
106-46-7	1,4-Dichlorobenzene	U	367	ug/kg	73.5	367
621-64-7	N-Nitrosodipropylamine	U	367	ug/kg	73.5	367
59-50-7	4-Chloro-3-methylphenol	U	367	ug/kg	73.5	367
83-32-9	Acenaphthene	U	36.7	ug/kg	12.1	36.7
121-14-2	2,4-Dinitrotoluene	U	367	ug/kg	36.7	367
100-02-7	4-Nitrophenol	U	367	ug/kg	121	367
87-86-5	Pentachlorophenol	U	367	ug/kg	91.8	367
129-00-0	Pyrene	U	36.7	ug/kg	11.0	36.7
110-86-1	Pyridine	U	367	ug/kg	73.5	367
62-53-3	Aniline	U	367	ug/kg	110	367
111-44-4	bis(2-Chloroethyl) ether	U	367	ug/kg	73.5	367
541-73-1	1,3-Dichlorobenzene	U	367	ug/kg	73.5	367
100-51-6	Benzyl alcohol	U	367	ug/kg	110	367
95-50-1	1,2-Dichlorobenzene	U	367	ug/kg	73.5	367
108-60-1	bis(2-Chloroisopropyl)ether	U	367	ug/kg	73.5	367
95-48-7	o-Cresol	U	367	ug/kg	73.5	367
65794-96-9	m,p-Cresols	U	367	ug/kg	110	367
67-72-1	Hexachloroethane	U	367	ug/kg	73.5	367
98-95-3	Nitrobenzene	U	367	ug/kg	73.5	367
78-59-1	Isophorone	U	367	ug/kg	73.5	367
88-75-5	2-Nitrophenol	U	367	ug/kg	73.5	367
105-67-9	2,4-Dimethylphenol	U	367	ug/kg	129	367
111-91-1	bis(2-Chloroethoxy)methane	U	367	ug/kg	73.5	367
120-83-2	2,4-Dichlorophenol	U	367	ug/kg	73.5	367
65-85-0	Benzoic acid	U	735	ug/kg	184	735
91-20-3	Naphthalene	U	36.7	ug/kg	11.0	36.7
106-47-8	4-Chloroaniline	U	367	ug/kg	73.5	367
87-68-3	Hexachlorobutadiene	U	367	ug/kg	73.5	367
91-57-6	2-Methylnaphthalene	U	36.7	ug/kg	7.35	36.7
77-47-4	Hexachlorocyclopentadiene	U	367	ug/kg	73.5	367
88-06-2	2,4,6-Trichlorophenol	U	367	ug/kg	73.5	367
95-95-4	2,4,5-Trichlorophenol	U	367	ug/kg	73.5	367
91-58-7	2-Chloronaphthalene	U	36.7	ug/kg	12.1	36.7
88-74-4	2-Nitroaniline	U	367	ug/kg	73.5	367
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	367	ug/kg	73.5	367

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	Date Collected:	03/04/2010 12:00	Matrix:	S
Lab Sample ID:	248862003	Date Received:	03/06/2010 09:15	%Moisture:	9.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13783	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965979	Inst:	MSD2.I	Dilution:	1
Run Date:	03/25/2010 20:47	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/17/2010 10:52	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s2c2519.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	367	ug/kg	73.5	367
606-20-2	2,6-Dinitrotoluene	U	367	ug/kg	36.7	367
208-96-8	Acenaphthylene	U	36.7	ug/kg	11.0	36.7
51-28-5	2,4-Dinitrophenol	U	735	ug/kg	140	735
132-64-9	Dibenzofuran	U	367	ug/kg	73.5	367
84-66-2	Diethylphthalate	U	367	ug/kg	73.5	367
86-73-7	Fluorene	U	36.7	ug/kg	11.0	36.7
7005-72-3	4-Chlorophenylphenylether	U	367	ug/kg	73.5	367
534-52-1	2-Methyl-4,6-dinitrophenol	U	367	ug/kg	73.5	367
100-01-6	4-Nitroaniline	U	367	ug/kg	110	367
	p-Nitroaniline					
122-39-4	Diphenylamine	U	367	ug/kg	73.5	367
122-66-7	Azobenzene	U	367	ug/kg	73.5	367
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	367	ug/kg	73.5	367
118-74-1	Hexachlorobenzene	U	367	ug/kg	73.5	367
85-01-8	Phenanthrene	U	36.7	ug/kg	11.0	36.7
120-12-7	Anthracene	U	36.7	ug/kg	7.35	36.7
84-74-2	Di-n-butylphthalate	U	367	ug/kg	73.5	367
206-44-0	Fluoranthene	U	36.7	ug/kg	11.0	36.7
85-68-7	Butylbenzylphthalate	U	367	ug/kg	73.5	367
56-55-3	Benzo(a)anthracene	U	36.7	ug/kg	11.0	36.7
91-94-1	3,3'-Dichlorobenzidine	U	367	ug/kg	110	367
218-01-9	Chrysene	U	36.7	ug/kg	11.0	36.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	367	ug/kg	73.5	367
117-84-0	Di-n-octylphthalate	U	367	ug/kg	73.5	367
205-99-2	Benzo(b)fluoranthene	U	36.7	ug/kg	11.0	36.7
207-08-9	Benzo(k)fluoranthene	U	36.7	ug/kg	11.0	36.7
50-32-8	Benzo(a)pyrene	U	36.7	ug/kg	11.0	36.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.7	ug/kg	11.0	36.7
53-70-3	Dibenzo(a,h)anthracene	U	36.7	ug/kg	11.0	36.7
191-24-2	Benzo(ghi)perylene	U	36.7	ug/kg	11.0	36.7
120-82-1	1,2,4-Trichlorobenzene	U	367	ug/kg	73.5	367

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	310	ug/kg		JA

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2519.d
Lab Smp Id: 248862003 Client Smp ID: RE46-10-13783
Inj Date : 25-MAR-2010 20:47
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248862003|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	9.26380	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.843	3.843	(1.000)	127788	40.0000	
* 29 Naphthalene-d8	136	4.704	4.704	(1.000)	521576	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	331008	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	608325	40.0000	
* 91 Chrysene-d12	240	8.587	8.603	(1.000)	511287	40.0000	
* 98 Perylene-d12	264	10.026	10.042	(1.000)	331839	40.0000	
$ 3 2-Fluorophenol	112	3.040	3.035	(0.791)	194750	64.0038	2350
$ 5 Phenol-d5	99	3.559	3.565	(0.926)	224483	59.9115	2200
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.893)	118821	31.4762	1160
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	234369	25.7354	945
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.090)	69296	70.7796	2600
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.915)	360829	38.6960	1420

ION RATIO REPORT

SV REPORT

Data file: s2c2519.d
Report Date: 03/26/2010 13:39
Lab. ID: 248862003 SampleType: SAMPLE
Injection Date: 25-MAR-2010 20:47
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248862003|965979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2314
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	17825	3.56	3.63	80-120	100	(T)
93	161	3.52	3.64	342-402	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	18416	4.20	4.08	80-120	100	(T)
42	16613	4.20	4.08	90-150	90	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	58714	5.95	5.72	80-120	100	(T)
164	331008	5.95	5.72	0- 40	564	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	41462	5.94	5.77	80-120	100	(T)
63	658	5.94	5.77	85-145	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	41462	5.94	6.06	80-120	100	(T)
89	797	5.94	6.06	55-115	2	(QT)
63	658	5.94	6.06	44-104	2	(QT)
53 Fluorene			CAS#: 86-73-7			
166	3312	6.48	6.32	80-120	100	(T)
165	3682	6.48	6.32	63-123	111	(T)
167	1069	6.48	6.32	0- 43	32	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	349	6.48	6.34	80-120	100	(T)
105	812	6.48	6.34	17- 77	232	(QT)
51	1005	6.48	6.34	99-159	287	(QT)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	5438	6.48	6.63	80-120	100	(T)
141	47918	6.48	6.63	79-139	881	(QT)
250	10679	6.48	6.63	68-128	196	(QT)
92 Chrysene			CAS#: 218-01-9			
228	3660	8.59	8.62	80-120	100	( )
229	1079	8.59	8.62	0- 50	30	( )
226	504	8.58	8.62	0- 59	14	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2519.d
Lab Smp Id: 248862003 Client Smp ID: RE46-10-13783
Inj Date : 25-MAR-2010 20:47
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248862003|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	9.26380	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.843	960887	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.869	202721	8.43891011	310	0		0	10

Data File: /chem/MSD2.i/s032510.b/s2c2519.d
Date : 25-MAR-2010 20:47
Client ID: RE46-10-13783
Sample Info: 1248862003196597911ISVMI11LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: ACS1
Column diameter: 0.20

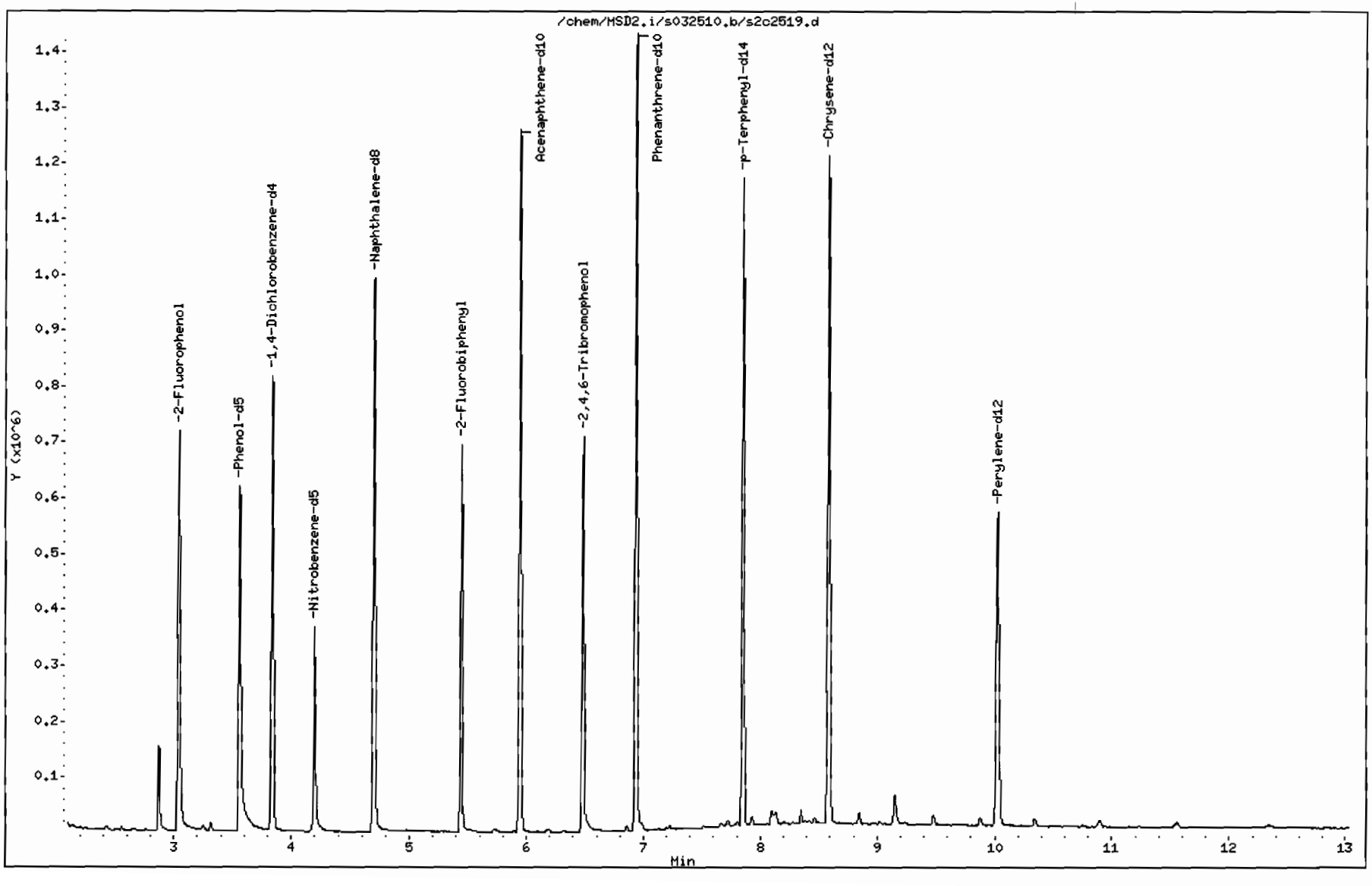

Data File: /chem/MSD2.i/s032510.b/s2c2519.d

Date : 25-MAR-2010 20:47

Client ID: RE46-10-13783

Instrument: MSD2.i

Sample Info: |2488620031965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7976	23	C6H12O2	116

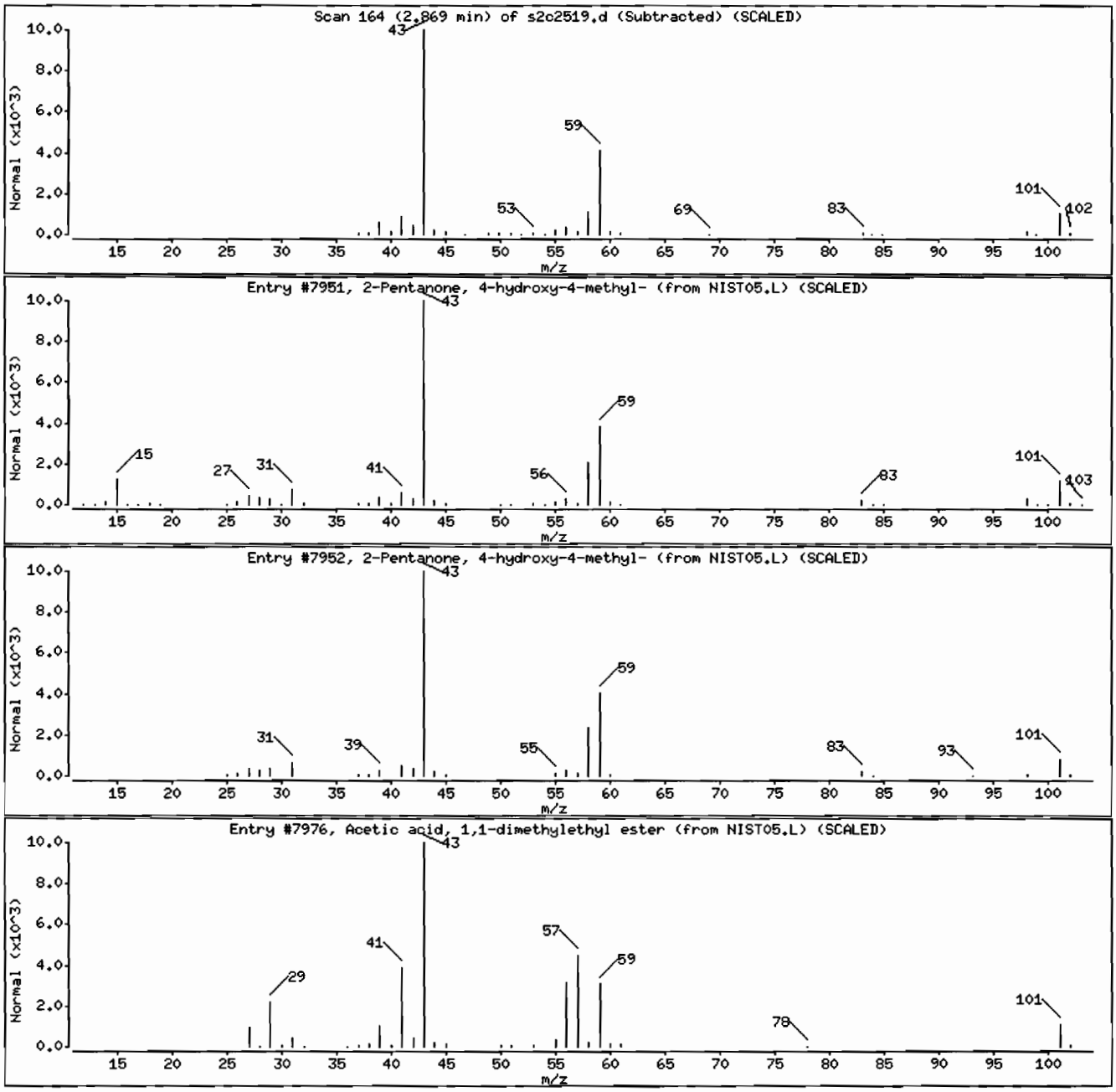

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 25-Mar-2010 18:34

Calibration History

Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Start Cal Date: 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
12-MAR-2010 15:04	MEGAII	/chem/MSD2.i/s031210.b/s2c1203.d
Cal Level: 2 , Cal Amount: 10.00000		
13-MAR-2010 03:15	BJCO	/chem/MSD2.i/s031210.b/s2c1237.d
13-MAR-2010 01:15	HEX	/chem/MSD2.i/s031210.b/s2c1231.d
12-MAR-2010 21:39	PEST	/chem/MSD2.i/s031210.b/s2c1220.d
12-MAR-2010 19:18	AP12	/chem/MSD2.i/s031210.b/s2c1213.d
12-MAR-2010 15:31	MEGAII	/chem/MSD2.i/s031210.b/s2c1204.d
Cal Level: 3 , Cal Amount: 20.00000		
13-MAR-2010 03:42	BJCO	/chem/MSD2.i/s031210.b/s2c1238.d
13-MAR-2010 01:35	HEX	/chem/MSD2.i/s031210.b/s2c1232.d
12-MAR-2010 21:59	PEST	/chem/MSD2.i/s031210.b/s2c1221.d
12-MAR-2010 19:39	AP12	/chem/MSD2.i/s031210.b/s2c1214.d
12-MAR-2010 15:59	MEGAII	/chem/MSD2.i/s031210.b/s2c1205.d
Cal Level: 4 , Cal Amount: 40.00000		
13-MAR-2010 04:08	BJCO	/chem/MSD2.i/s031210.b/s2c1239.d
13-MAR-2010 01:55	HEX	/chem/MSD2.i/s031210.b/s2c1233.d
12-MAR-2010 22:19	PEST	/chem/MSD2.i/s031210.b/s2c1222.d
12-MAR-2010 19:59	AP12	/chem/MSD2.i/s031210.b/s2c1215.d
12-MAR-2010 16:23	MEGAII	/chem/MSD2.i/s031210.b/s2c1206.d
Cal Level: 5 , Cal Amount: 50.00000		
13-MAR-2010 04:35	BJCO	/chem/MSD2.i/s031210.b/s2c1240.d
13-MAR-2010 02:15	HEX	/chem/MSD2.i/s031210.b/s2c1234.d
12-MAR-2010 22:39	PEST	/chem/MSD2.i/s031210.b/s2c1223.d
12-MAR-2010 20:19	AP12	/chem/MSD2.i/s031210.b/s2c1216.d
12-MAR-2010 16:48	MEGAII	/chem/MSD2.i/s031210.b/s2c1207.d
Cal Level: 6 , Cal Amount: 80.00000		
13-MAR-2010 05:01	BJCO	/chem/MSD2.i/s031210.b/s2c1241.d
13-MAR-2010 02:35	HEX	/chem/MSD2.i/s031210.b/s2c1235.d
12-MAR-2010 23:00	PEST	/chem/MSD2.i/s031210.b/s2c1224.d
12-MAR-2010 20:39	AP12	/chem/MSD2.i/s031210.b/s2c1217.d
12-MAR-2010 17:13	MEGAII	/chem/MSD2.i/s031210.b/s2c1208.d
Cal Level: 7 , Cal Amount: 100.00000		

13-MAR-2010 05:28	BJCO	/chem/MSD2.i/s031210.b/s2c1242.d
13-MAR-2010 02:55	HEX	/chem/MSD2.i/s031210.b/s2c1236.d
12-MAR-2010 23:20	PEST	/chem/MSD2.i/s031210.b/s2c1225.d
12-MAR-2010 20:59	AP12	/chem/MSD2.i/s031210.b/s2c1218.d
12-MAR-2010 17:38	MEGAII	/chem/MSD2.i/s031210.b/s2c1209.d

Cal Level: 8 , Cal Amount: 120.00000		
13-MAR-2010 05:54	BJCO	/chem/MSD2.i/s031210.b/s2c1243.d
12-MAR-2010 23:40	PEST	/chem/MSD2.i/s031210.b/s2c1226.d
12-MAR-2010 21:19	AP12	/chem/MSD2.i/s031210.b/s2c1219.d
12-MAR-2010 18:02	MEGAII	/chem/MSD2.i/s031210.b/s2c1210.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
25-MAR-2010 15:44	PEST	/chem/MSD2.i/s032510.b/s2c2504.d
Ccal Level: 4 , Ccal Amount: 40.0		
25-MAR-2010 15:24	AP12	/chem/MSD2.i/s032510.b/s2c2503.d
Ccal Level: 4 , Ccal Amount: 40.0		
25-MAR-2010 14:58	MEGAII	/chem/MSD2.i/s032510.b/s2c2502.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Calibration File Names:
Level 1: /chem/MSD2.i/s031210.b/s2c1203.d
Level 2: /chem/MSD2.i/s031210.b/s2c1237.d
Level 3: /chem/MSD2.i/s031210.b/s2c1238.d
Level 4: /chem/MSD2.i/s031210.b/s2c1239.d
Level 5: /chem/MSD2.i/s031210.b/s2c1240.d
Level 6: /chem/MSD2.i/s031210.b/s2c1241.d
Level 7: /chem/MSD2.i/s031210.b/s2c1242.d
Level 8: /chem/MSD2.i/s031210.b/s2c1243.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	++++++	0.53069	0.56409	0.54068	0.55457	0.54064					
	++++++	0.55374					AVRG		0.54740		2.22282
2 Pyridine	++++++	0.74049	0.79261	0.76560	0.80515	0.77149					
	++++++	0.79393					AVRG		0.77821		3.04477
4 Aniline	++++++	0.55826	0.57077	0.56362	0.58547	0.57284					
	++++++	0.59420					AVRG		0.57419		2.34554
209 Benzaldehyde	++++++	0.93842	0.91810	0.84928	0.88119	0.86080					
	0.82896	0.76897					AVRG		0.86368		6.55756
6 Phenol	++++++	1.14465	1.17926	1.17186	1.24067	1.22191					
	++++++	1.29706					AVRG		1.20923		4.57865

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	1.04016	1.03764	1.04161	1.01485	1.04797	1.03256					
	+++++	1.05677					AVRG		1.03880		1.26167
8 2-Chlorophenol	+++++	1.02487	1.07560	1.05680	1.09331	1.07141					
	+++++	1.13071					AVRG		1.07545		3.29921
203 n-Decane	+++++	2.00990	2.00845	1.84585	1.80869	1.77685					
	+++++	1.56954					AVRG		1.83655		8.95766
9 1,3-Dichlorobenzene	+++++	1.24048	1.30102	1.24836	1.29021	1.27457					
	+++++	1.32500					AVRG		1.27994		2.51073
11 1,4-Dichlorobenzene	+++++	1.33103	1.36189	1.32236	1.38180	1.35219					
	+++++	1.39329					AVRG		1.35709		2.04557
12 Benzyl alcohol	+++++	0.46844	0.53613	0.58192	0.62208	0.59998					
	+++++	0.60896					AVRG		0.56959		10.15574
13 1,2-Dichlorobenzene	+++++	1.21698	1.24338	1.21938	1.27220	1.26460					
	+++++	1.29976					AVRG		1.25272		2.57686
14 bis(2-Chloroisopropyl)ether	+++++	2.68696	2.65305	2.54839	2.53017	2.49533					
	+++++	2.32358					AVRG		2.53958		5.08482
15 o-Cresol	+++++	0.84323	0.82956	0.80082	0.84780	0.84739					
	+++++	0.95435					AVRG		0.85386		6.12877

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.37504	1.34990	1.31025	1.39529	1.40445					
	1.40367	1.39174					AVRG		1.37576		2.51790
17 N-Nitrosodipropylamine	0.73303	0.75246	0.76349	0.75895	0.77570	0.75404					
	+++++	0.77361					AVRG		0.75875		1.90533
18 m,p-Cresols	+++++	0.98606	1.00993	1.01061	1.04500	1.01871					
	+++++	1.03374					AVRG		1.01734		2.02140
19 Hexachloroethane	+++++	0.53473	0.54456	0.52915	0.54253	0.52984					
	+++++	0.53701					AVRG		0.53630		1.18806
21 Nitrobenzene	+++++	0.30184	0.30097	0.28004	0.26992	0.25041					
	+++++	0.23182					AVRG		0.27250		10.21908
22 Isophorone	+++++	0.54505	0.54677	0.50717	0.49346	0.45822					
	+++++	0.40630					AVRG		0.49283		10.93751
23 2-Nitrophenol	+++++	0.17908	0.15205	0.13691	0.13791	0.12777					
	+++++	0.12234					AVRG		0.14268		14.37906
24 2,4-Dimethylphenol	+++++	0.27372	0.30536	0.25113	0.23635	0.20969					
	+++++	+++++					AVRG		0.25525		14.26274
25 bis(2-Chloroethoxy)methane	+++++	0.30134	0.30867	0.28603	0.28357	0.26861					
	+++++	0.24812					AVRG		0.28272		7.79457

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
26 2,4-Dichlorophenol	+++++	0.21397	0.21772	0.20785	0.20427	0.19269					
	+++++	0.17722					AVRG		0.20229		7.43147
27 Benzoic acid	+++++	+++++	0.09573	0.12767	0.14526	0.12886					
	+++++	0.13198					AVRG		0.12590		14.50415
28 1,2,4-Trichlorobenzene	+++++	0.27075	0.27246	0.25039	0.24546	0.23111					
	+++++	0.21355					AVRG		0.24729		9.21640
30 Naphthalene	0.88264	0.83585	0.83802	0.78823	0.78416	0.73200					
	+++++	0.69134					AVRG		0.79318		8.30793
204 alpha-Terpineol	+++++	0.30499	0.30556	0.27977	0.26969	0.25106					
	+++++	0.21766					AVRG		0.27145		12.40556
31 4-Chloroaniline	+++++	0.30611	0.36557	0.36836	0.36658	0.33911					
	+++++	0.32132					AVRG		0.34451		7.72390
189 Caprolactam	+++++	0.07385	0.08037	0.08218	0.09025	0.09135					
	0.08948	0.09264					AVRG		0.08573		8.19744
32 Hexachlorobutadiene	+++++	0.16400	0.16685	0.15308	0.14816	0.13933					
	+++++	0.12666					AVRG		0.14968		10.13585
33 4-Chloro-3-methylphenol	+++++	0.23613	0.23807	0.22392	0.22130	0.20293					
	+++++	0.18282					AVRG		0.21753		9.73149

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.55918	0.54065	0.54701	0.50998	0.50398	0.47433					
	+++++	0.43335					AVRG		0.50978		8.74067
35 1-Methylnaphthalene	0.54513	0.53724	0.53347	0.50485	0.49777	0.46277					
	+++++	0.42797					AVRG		0.50131		8.59294
36 Hexachlorocyclopentadiene	+++++	0.16297	0.19074	0.20053	0.20711	0.17732					
	+++++	0.20353					AVRG		0.19037		9.03164
208 1,1'-Biphenyl	+++++	1.35911	1.33104	1.31085	1.38582	1.39800					
	1.41044	1.39351					AVRG		1.36982		2.72454
205 2,3-Dichloroaniline	+++++	0.51010	0.54015	0.54652	0.56436	0.57152					
	+++++	0.61221					AVRG		0.55748		6.16449
37 2,4,6-Trichlorophenol	+++++	0.27124	0.28804	0.30627	0.30322	0.30549					
	+++++	0.33030					AVRG		0.30076		6.59007
38 2,4,5-Trichlorophenol	+++++	0.29158	0.32247	0.31010	0.33011	0.33422					
	+++++	0.35852					AVRG		0.32450		6.99838
40 2-Chloronaphthalene	0.95732	0.92503	0.97188	0.94372	0.96936	0.97959					
	+++++	1.03937					AVRG		0.96947		3.71428
42 o-Nitroaniline	+++++	0.28178	0.30956	0.30499	0.30426	0.30435					
	+++++	0.30862					AVRG		0.30226		3.40284

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Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
41 m-Nitroaniline	+++++	21802	52996	142135	204510	208409					
	+++++	402686					LINR	0.08432	0.22019		0.99755
43 Dimethylphthalate	+++++	1.10980	1.15239	1.11587	1.13305	1.14965					
	+++++	1.16434					AVRG		1.13752		1.90358
44 2,6-Dinitrotoluene	+++++	0.24590	0.25940	0.25324	0.25815	0.25973					
	+++++	0.26721					AVRG		0.25727		2.77894
45 Acenaphthylene	1.37487	1.40503	1.46492	1.45336	1.46622	1.49132					
	+++++	1.57389					AVRG		1.46137		4.35613
47 Acenaphthene	1.09285	0.99386	1.05730	1.04614	1.07303	1.07796					
	+++++	1.11624					AVRG		1.06534		3.65712
48 2,4-Dinitrophenol	+++++	+++++	26928	70814	105683	112290					
	+++++	256161					LINR	0.27701	0.14408		0.99297
49 Dibenzofuran	+++++	1.23686	1.30875	1.28894	1.31722	1.32619					
	+++++	1.37415					AVRG		1.30868		3.45347
50 2,4-Dinitrotoluene	+++++	0.29926	0.32448	0.32292	0.32838	0.33137					
	+++++	0.32165					AVRG		0.32134		3.54887
51 Diethylphthalate	+++++	1.14932	1.19433	1.15409	1.17087	1.17737					
	+++++	1.15441					AVRG		1.16673		1.48807

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Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1 / 100 Level 7	10 Level 2 / 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
52 4-Nitrophenol	++++++	0.13055	0.15792	0.16796	0.17481	0.16540					
	++++++	0.16153					AVRG		0.15969		9.64147
53 Fluorene	1.05424	1.07394	1.13370	1.14492	1.17060	1.17058					
	++++++	1.20012					AVRG		1.13544		4.70479
54 4-Chlorophenylphenylether	++++++	0.50279	0.52689	0.52750	0.53924	0.54595					
	++++++	0.56736					AVRG		0.53496		4.04829
55 2-Methyl-4,6-dinitrophenol	++++++	18180	48014	109404	161133	168398					
	++++++	347979					LINR	0.18671	0.12250		0.99452
56 p-Nitroaniline	++++++	22179	45659	125678	187857	194328					
	++++++	406138					LINR	0.15309	0.22168		0.99822
133 Diphenylamine	++++++	0.48570	0.49400	0.50138	0.51990	0.52948					
	++++++	0.59303					AVRG		0.52058		7.49917
58 1,2-Diphenylhydrazine	++++++	0.63730	0.66715	0.65507	0.67151	0.69301					
	++++++	0.74396					AVRG		0.67800		5.48585
59 Tributylphosphate	++++++	1.14218	1.23338	1.26398	1.24736	1.30493					
	1.31959	1.26442					AVRG		1.25369		4.61401
61 4-Bromophenylphenylether	++++++	0.16412	0.17037	0.17123	0.17327	0.18076					
	++++++	0.19621					AVRG		0.17599		6.39971

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Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
63 Hexachlorobenzene	+++++	0.16428	0.16925	0.17087	0.17418	0.18013					
	+++++	0.19569					AVRG		0.17573		6.32010
207 Atrazine	+++++	0.04678	0.04546	0.04310	0.04200	0.04389					
	0.04014	0.03918					AVRG		0.04293		6.37284
65 Pentachlorophenol	+++++	0.07005	0.08362	0.09145	0.09635	0.09801					
	+++++	0.10656					AVRG		0.09101		14.01556
206 n-Octadecane	+++++	0.58190	0.60061	0.56933	0.56240	0.58766					
	+++++	0.58012					AVRG		0.58034		2.32517
68 Phenanthrene	0.98272	0.94591	0.98449	0.95745	1.00421	0.99535					
	+++++	1.05048					AVRG		0.98866		3.44563
69 Anthracene	0.88306	0.89261	0.96551	0.99042	0.96594	0.99150					
	+++++	1.00588					AVRG		0.95642		5.13275
72 Di-n-butylphthalate	+++++	1.11765	1.16093	1.12721	1.12060	1.15861					
	+++++	1.10402					AVRG		1.13150		2.04799
76 Fluoranthene	0.81916	0.85958	0.91809	0.91892	0.91345	0.92075					
	+++++	0.90111					AVRG		0.89301		4.36703
77 Benzidine	+++++	0.33270	0.32337	0.26589	0.33110	0.36513					
	0.36116	0.39174					AVRG		0.33873		11.83753

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Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.23304	1.24570	1.28178	1.24643	1.33748	1.35539					
	+++++	1.42729					AVRG		1.30387		5.53101
85 Butylbenzylphthalate	+++++	0.59999	0.62912	0.59210	0.60752	0.62259					
	+++++	0.60906					AVRG		0.61006		2.26136
89 Benzo(a)anthracene	1.07945	0.96635	0.97615	0.97295	1.00816	0.99033					
	+++++	0.99439					AVRG		0.99826		3.86151
90 3,3'-Dichlorobenzidine	+++++	0.21872	0.24546	0.24771	0.27723	0.29323					
	0.27943	0.29408					AVRG		0.26512		10.69374
92 Chrysene	0.92724	0.88493	0.98051	0.91794	0.90417	0.93552					
	+++++	0.96869					AVRG		0.93128		3.64633
93 bis(2-Ethylhexyl)phthalate	0.83224	0.82159	0.85356	0.79815	0.82639	0.87973					
	+++++	0.86867					AVRG		0.84005		3.40874
94 Di-n-octylphthalate	+++++	1.80144	1.89250	1.71252	1.93706	2.03001					
	+++++	2.06832					AVRG		1.90697		7.08363
95 Benzo(b)fluoranthene	0.94096	1.08670	1.08972	1.16567	1.15813	1.07475					
	+++++	1.12139					AVRG		1.09105		6.87930
96 Benzo(k)fluoranthene	1.00301	0.98897	1.13567	0.97578	1.11291	1.23028					
	+++++	1.27986					AVRG		1.10378		10.96105

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.82242	0.84279	0.91106	0.89892	0.92930	0.92862					
	+++++	0.99694					AVRG		0.90429		6.44159
99 Indeno(1,2,3-cd)pyrene	0.72384	0.70149	0.79920	0.80145	0.75282	0.78505					
	+++++	0.85471					AVRG		0.77408		6.72266
100 Dibenzo(a,h)anthracene	0.58300	0.56617	0.64555	0.65848	0.61402	0.64622					
	+++++	0.71335					AVRG		0.63240		7.84312
101 Benzo(ghi)perylene	0.62290	0.59146	0.65859	0.64551	0.59098	0.61395					
	+++++	0.66549					AVRG		0.62698		4.85944
102 1,4-Dioxane	+++++	0.35160	0.34509	0.33135	0.35428	0.34578					
	0.35023	0.34933					AVRG		0.34681		2.17036
103 Methyl methacrylate	+++++	0.20061	0.19873	0.18864	0.20452	0.20433					
	0.20673	0.20414					AVRG		0.20110		3.03929
104 Ethyl methacrylate	+++++	0.75667	0.76459	0.72872	0.77419	0.76818					
	0.77700	0.76357					AVRG		0.76185		2.11428
105 2-Picoline	+++++	1.16328	1.16948	1.11649	1.19601	1.20509					
	1.22656	1.22244					AVRG		1.18562		3.27696
106 N-Nitrosomethylethylamine	+++++	0.45377	0.46348	0.43670	0.46929	0.45242					
	0.45863	0.45164					AVRG		0.45513		2.27560

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.63060	0.60690	0.56958	0.58418	0.57873					
	0.55212	0.52685					AVRG		0.57842		5.90367
108 N-Nitrosodiethylamine	+++++	0.49994	0.50455	0.48829	0.51912	0.51895					
	0.52868	0.51703					AVRG		0.51094		2.71861
109 Ethyl Methanesulfonate	+++++	0.64316	0.63898	0.61674	0.64614	0.64667					
	0.63240	0.62556					AVRG		0.63566		1.78065
110 Pentachloroethane	+++++	0.38534	0.38296	0.36184	0.37892	0.37518					
	0.37755	0.36804					AVRG		0.37569		2.20176
111 N-Nitrosopyrrolidine	+++++	0.49075	0.50988	0.50101	0.53665	0.55050					
	0.56242	0.57355					AVRG		0.53211		6.02450
113 N-Nitrosomorpholine	+++++	1.00110	0.99132	0.94345	1.00036	0.97827					
	0.95370	0.93068					AVRG		0.97127		2.94734
114 o-Toluidine	+++++	1.80852	1.83550	1.80199	1.84876	1.97447					
	1.98694	2.00308					AVRG		1.89418		4.73437
115 N-Nitrosopiperidine	+++++	0.13521	0.13511	0.13226	0.14210	0.14020					
	0.13850	0.13785					AVRG		0.13732		2.44499
116 a,a-Dimethylphenethylamine	+++++	0.79717	0.87203	0.88887	0.95657	0.97824					
	0.96170	0.96066					AVRG		0.91646		7.23662

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.12969	0.13498	0.13988	0.14347	0.15050					
	0.15111	0.15112					AVRG		0.14297		5.98605
118 2,6-Dichlorophenol	+++++	0.21704	0.22718	0.22752	0.24481	0.24384					
	0.24812	0.24650					AVRG		0.23643		5.19197
119 Hexachloropropene	+++++	0.09452	0.12047	0.11686	0.12728	0.13200					
	0.12883	0.13145					AVRG		0.12163		10.85915
120 p-Phenylenediamine	+++++	0.16662	0.22639	0.22496	0.24913	0.22983					
	0.19849	0.20531					AVRG		0.21439		12.51311
121 N-Nitrosodi-n-butylamine	+++++	0.23456	0.24217	0.20702	0.21125	0.21342					
	0.20654	0.20943					AVRG		0.21777		6.62755
122 Safrole	+++++	0.20577	0.20863	0.20444	0.21501	0.21894					
	0.21571	0.21789					AVRG		0.21234		2.80176
123 1,2,4,5-Tetrachlorobenzene	+++++	0.45777	0.45385	0.43570	0.46563	0.46742					
	0.47683	0.46456					AVRG		0.46025		2.83817
124 Isosafrole	+++++	0.35040	0.35154	0.34687	0.36295	0.36305					
	0.36929	0.36287					AVRG		0.35814		2.34899
125 1,4-Naphthoquinone	+++++	0.35704	0.37620	0.36066	0.36273	0.31265					
	0.28003	0.26784					AVRG		0.33102		13.24400

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.15972	0.17551	0.17202	0.17880	0.17527					
	+++++	0.18357					AVRG		0.17415		4.63730
127 Pentachlorobenzene	+++++	0.39226	0.39020	0.38763	0.40604	0.41773					
	0.41906	0.42405					AVRG		0.40528		3.77750
128 1-Naphthylamine	+++++	0.87990	0.89273	0.87839	0.96023	0.99070					
	0.96177	0.97320					AVRG		0.93385		5.16042
129 2-Naphthylamine	+++++	0.96003	0.98889	0.96557	1.04769	1.04666					
	1.01828	1.03999					AVRG		1.00959		3.76020
130 2,3,4,6-Tetrachlorophenol	+++++	0.24559	0.25323	0.27046	0.28031	0.29434					
	+++++	0.30632					AVRG		0.27504		8.51517
131 5-Nitro-o-toluidine	+++++	0.22743	0.26020	0.25061	0.27591	0.28592					
	0.27827	0.28407					AVRG		0.26606		8.01756
132 Thionazin	+++++	0.15011	0.15522	0.16542	0.16383	0.17150					
	0.17067	0.16715					AVRG		0.16341		4.87242
134 Sulfotepp	+++++	0.08160	0.08679	0.09355	0.09774	0.10316					
	0.10522	0.10640					AVRG		0.09635		9.88855
135 Phorate	+++++	0.34717	0.36619	0.37505	0.38205	0.38811					
	0.38037	0.37522					AVRG		0.37345		3.60208

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.09652	0.13549	0.13757	0.14799	0.14625					
	0.13417	0.13774					AVRG		0.13367		12.87991
137 Phenacetin	+++++	0.27229	0.29485	0.28597	0.30648	0.30974					
	0.30537	0.31201					AVRG		0.29810		4.89196
138 Diallate	+++++	0.27591	0.25445	0.25725	0.26238	0.26308					
	0.26769	0.26482					AVRG		0.26365		2.66294
139 Dimethoate	+++++	0.18468	0.19709	0.20942	0.21468	0.22518					
	0.22365	0.22216					AVRG		0.21098		7.20828
140 4-Aminobiphenyl	+++++	0.54803	0.54411	0.53885	0.63692	0.66300					
	0.65007	0.64996					AVRG		0.60442		9.49504
141 Pentachloronitrobenzene	+++++	0.08753	0.08511	0.08321	0.08704	0.08548					
	0.08309	0.08073					AVRG		0.08460		2.84314
142 Pronamide	+++++	0.31192	0.30186	0.29923	0.31237	0.31025					
	0.30730	0.29182					AVRG		0.30496		2.51189
143 Dinoseb	+++++	26318	64904	148620	219199	230621					
	+++++	463231					LINR	0.16895	0.16301		0.99661
144 Disulfoton	+++++	0.26029	0.26807	0.27619	0.28099	0.29536					
	0.28719	0.28588					AVRG		0.27914		4.29750

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	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.16726	0.18176	0.19745	0.20499	0.21200					
	0.21135	0.20784					AVRG		0.19752		8.59064
146 4-Nitroquinoline-1-oxide	+++++	2342	9511	16827	20691	41438					
	+++++	+++++					LINR	0.12110	0.01872		0.99242
147 Methapyrilene	+++++	0.47127	0.44938	0.39997	0.40196	0.40766					
	0.34925	0.35531					AVRG		0.40497		11.03384
148 Isodrin	+++++	0.10675	0.09831	0.09726	0.09704	0.10075					
	0.09619	0.09809					AVRG		0.09920		3.65672
149 Aramite	+++++	0.05128	0.05168	0.04752	0.04833	0.05257					
	0.04617	0.04656					AVRG		0.04916		5.35243
150 Kepone	+++++	0.06472	0.06750	0.06098	0.06584	0.07074					
	0.06165	0.06597					AVRG		0.06534		5.13220
151 p-(Dimethylamino)azobenzene	+++++	0.40077	0.36831	0.39870	0.38456	0.36646					
	0.39314	0.38315					AVRG		0.38501		3.56168
152 Chlorobenzilate	+++++	0.36667	0.32344	0.37057	0.34530	0.34588					
	0.37301	0.36768					AVRG		0.35608		5.16475
153 3,3'-Dimethylbenzidine	+++++	0.51799	0.49896	0.45789	0.49166	0.51632					
	0.51079	0.52916					AVRG		0.50325		4.67890

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
154 Famphur	+++++	0.36991	0.39797	0.41889	0.44377	0.43941						
	0.42710	0.42618					AVRG		0.41760		6.17190	
155 2-Acetylaminofluorene	+++++	0.24420	0.30205	0.29363	0.33824	0.35451						
	0.33945	0.35224					AVRG		0.31776		12.63393	
157 7,12Dimethylbenz(a)anthracene	+++++	0.56588	0.53307	0.57223	0.56155	0.56719						
	0.57623	0.59670					AVRG		0.56755		3.35460	
158 3-Methylcholanthrene	+++++	0.38667	0.38727	0.39472	0.41832	0.42507						
	0.41325	0.43432					AVRG		0.40852		4.66290	
26 Phthalic anhydride	+++++	16723	47830	125691	196574	215901						
	+++++	+++++					LINR	0.12340	0.10949		0.99655	
173 Carbazole	18867	141917	253992	658583	1027960	1048673						
	+++++	2140487					LINR	0.13239	0.73569		0.99210	
174 Hexachlorophene	+++++	518849	1036568	1456110	1739399	+++++						
	2263726	+++++					LINR	5.32015	0.08280		0.99874	
179 Dibenzo(a,e)pyrene	+++++	0.28512	0.33642	0.33663	0.27673	0.30466						
	+++++	0.34488					AVRG		0.31408		9.31398	
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	10744	27498	56694	89591	116622					
	+++++	221829					LINR	0.17295	0.25904		0.99077
191 Parathion	+++++	0.04839	0.05278	0.05817	0.06057	0.06406					
	0.06770	0.06650					AVRG		0.05974		11.99755
192 Methoxychlor	+++++	0.56862	0.61889	0.60522	0.60255	0.61534					
	+++++	0.62322					AVRG		0.60564		3.26803
210 m-Toluidine	+++++	1.14296	1.20463	1.50407	1.47783	1.51385					
	+++++	1.62653					AVRG		1.41165		13.61097
211 p-Toluidine	+++++	1.03688	1.03950	0.98382	1.16617	1.07729					
	+++++	1.06044					AVRG		1.06068		5.70763
212 Cis Diallate	+++++	0.26579	0.24953	0.24544	0.24698	0.24161					
	0.24032	0.24133					AVRG		0.24728		3.56817
213 Trans Diallate	+++++	0.32461	0.29935	0.30264	0.30868	0.30950					
	0.31493	0.31155					AVRG		0.31018		2.66294
214 1,4-Dinitrobenzene	+++++	0.20082	0.22011	0.22052	0.22474	0.22190					
	+++++	0.23207					AVRG		0.22002		4.72222
215 2-Ethoxyethanol	+++++	0.67233	0.71321	0.70155	0.72308	0.70042					
	+++++	0.72494					AVRG		0.70592		2.75199

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
216 Methylenebis(2-chloroaniline)	+++++	18503	31120	85711	123300	126551						
	+++++	+++++					LINR	0.12923	0.11629		0.99554	
226 2,2'-Dichlorobenzil	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
227 4-Chlorothioanisole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
228 4-Chlorothiophenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
229 bis(p-Chlorophenyl)sulfone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
230 bis(p-Chlorophenyl)disulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
231 Diphenyl disulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
232 Diphenyl sulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
233 Phenyl sulfone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
234 Hydroxymethyl phthalimide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
235 Phthalic acid	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
236 Thiophenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
237 bis(Chloromethyl)ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
238 Octachlorostyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
239 Dibenzo(a,h)pyrene	+++++	0.30133	0.24543	0.32224	0.29208	0.31923						
	0.31975	0.32872					AVRG		0.30411		9.49556	<-
240 Benzo(j)fluoranthene	+++++	0.83072	0.92385	0.96790	1.00940	1.00885						
	0.96377	1.00814					AVRG		0.95895		6.76250	<-
241 Dibenzo(a,j)acridine	+++++	0.52861	0.50350	0.56758	0.54588	0.60197						
	0.62650	0.57297					AVRG		0.56386		7.48315	<-
242 Dibenz(a,h)acridine	+++++	0.50014	0.47046	0.53958	0.51864	0.56520						
	0.59114	0.54589					AVRG		0.53301		7.59150	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
243 Quinoline	+++++	0.46673	0.48865	0.51133	0.52553	0.56197					
	0.54063	0.54407					AVRG		0.51984		6.42466 <-
244 2,4-Toluene Diisocyanate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-
245 Dibenzo(a,i)pyrene	+++++	0.17203	0.15057	0.20368	0.18325	0.20792					
	0.21104	0.21682					AVRG		0.19219		12.67372 <-
246 1-Nitropyrene	+++++	20082	52196	139152	171773	455481					
	483179	481130					LINR	0.19784	0.19692		0.99615 <-
247 5-Methylchrysene	+++++	0.49606	0.51261	0.54747	0.54329	0.55777					
	0.55201	0.55122					AVRG		0.53721		4.35140 <-
248 Dibenzo(a,l)pyrene	+++++	0.27683	0.24014	0.28791	0.26504	0.29597					
	0.31327	0.28427					AVRG		0.28049		8.31565 <-
249 7H-Dibenzo(c,g)carbazole	+++++	0.36891	0.33138	0.39163	0.37071	0.41623					
	0.44981	0.40022					AVRG		0.38984		9.72582 <-
250 1-Hexanol	+++++	0.81019	0.88354	0.90810	0.89375	0.82269					
	0.80572	0.80074					AVRG		0.84639		5.50854 <-
M 222 Trichlorophenols	+++++	0.28141	0.30525	0.30818	0.31667	0.31985					
	+++++	0.34441					AVRG		0.31263		6.59754

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
M 223 Tetrachlorophenols	+++++	0.24559	0.25323	0.27046	0.28031	0.29434						
	+++++	0.30632					AVRG		0.27504		8.51517	
M 224 Benzo(b,k)fluoranthene	0.97199	1.03784	1.11270	1.07072	1.13552	1.15252						
	+++++	1.20062					AVRG		1.09742		6.99618	
M 225 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 3 2-Fluorophenol	+++++	0.91171	0.95294	0.93696	0.97627	0.93389						
	+++++	1.00292					AVRG		0.95245		3.43740	
$ 5 Phenol-d5	+++++	1.12207	1.15643	1.14832	1.20475	1.17617						
	+++++	1.22938					AVRG		1.17285		3.34024	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.32032	0.32188	0.29453	0.28831	0.26888						
	+++++	0.24310					AVRG		0.28950		10.48064	
$ 39 2-Fluorobiphenyl	+++++	1.04124	1.09665	1.06393	1.09049	1.11952						
	+++++	1.19118					AVRG		1.10050		4.73010	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
$ 60 2,4,6-Tribromophenol	+++++	0.10863	0.11665	0.11808	0.12058	0.12299					
	+++++	0.12293					AVRG		0.11831		4.54874
$ 81 p-Terphenyl-d14	+++++	0.66878	0.70423	0.69072	0.73707	0.76446					
	+++++	0.81180					AVRG		0.72951		7.22278

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 12-MAR-2010 18:54
Lab File ID: s2c1212.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 18:02
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$	3 2-Fluorophenol	0.95245	0.93834	0.93834	0.000	-1.48102	60.00000	Averaged
$	5 Phenol-d5	1.17285	1.13234	1.13234	0.000	-3.45424	60.00000	Averaged
$	20 Nitrobenzene-d5	0.28950	0.29753	0.29753	0.000	2.77388	60.00000	Averaged
$	39 2-Fluorobiphenyl	1.10050	1.08541	1.08541	0.000	-1.37168	60.00000	Averaged
$	60 2,4,6-Tribromophenol	0.11831	0.11606	0.11606	0.000	-1.90573	60.00000	Averaged
$	81 p-Terphenyl-d14	0.72951	0.73940	0.73940	0.000	1.35559	60.00000	Averaged
	1 N-Methyl-N-nitrosomethylami	0.54740	0.52461	0.52461	0.000	-4.16446	60.00000	Averaged
	2 Pyridine	0.77821	0.58893	0.58893	0.000	-24.32317	60.00000	Averaged
	4 Aniline	0.57419	0.51885	0.51885	0.000	-9.63809	60.00000	Averaged
	6 Phenol	1.20923	1.19909	1.19909	0.001	-0.83915	20.00000	Averaged ccc
	7 bis(2-Chloroethyl) ether	1.03880	0.93188	0.93188	0.000	-10.29272	60.00000	Averaged
	8 2-Chlorophenol	1.07545	1.09732	1.09732	0.000	2.03377	60.00000	Averaged
	203 n-Decane	1.83655	1.81258	1.81258	0.000	-1.30488	60.00000	Averaged
	9 1,3-Dichlorobenzene	1.27994	1.24868	1.24868	0.000	-2.44251	60.00000	Averaged
	11 1,4-Dichlorobenzene	1.35709	1.30739	1.30739	0.001	-3.66268	20.00000	Averaged ccc
	13 1,2-Dichlorobenzene	1.25272	1.26001	1.26001	0.000	0.58216	60.00000	Averaged
	14 bis(2-Chloroisopropyl)ether	2.53958	2.42695	2.42695	0.000	-4.43484	60.00000	Averaged
	12 Benzyl alcohol	0.56959	0.59115	0.59115	0.000	3.78667	60.00000	Averaged
	15 o-Cresol	0.85386	0.84683	0.84683	0.000	-0.82343	60.00000	Averaged
	18 m,p-Cresols	1.01734	1.03157	1.03157	0.000	1.39833	60.00000	Averaged
	17 N-Nitrosodipropylamine	0.75875	0.75192	0.75192	0.050	-0.89997	60.00000	Averaged spcc
	19 Hexachloroethane	0.53630	0.51130	0.51130	0.000	-4.66258	60.00000	Averaged
	21 Nitrobenzene	0.27250	0.26462	0.26462	0.000	-2.89142	60.00000	Averaged
	22 Isophorone	0.49283	0.46638	0.46638	0.000	-5.36610	60.00000	Averaged
	23 2-Nitrophenol	0.14268	0.13889	0.13889	0.001	-2.65087	20.00000	Averaged ccc
	24 2,4-Dimethylphenol	0.25525	0.24875	0.24875	0.000	-2.54825	60.00000	Averaged
	25 bis(2-Chloroethoxy)methane	0.28272	0.25590	0.25590	0.000	-9.48667	60.00000	Averaged
	26 2,4-Dichlorophenol	0.20229	0.20678	0.20678	0.001	2.22074	20.00000	Averaged ccc
	27 Benzoic acid	0.12590	0.13539	0.13539	0.000	7.54080	60.00000	Averaged
	28 1,2,4-Trichlorobenzene	0.24729	0.23757	0.23757	0.000	-3.92985	60.00000	Averaged
	30 Naphthalene	0.79318	0.73998	0.73998	0.000	-6.70624	60.00000	Averaged
	204 alpha-Terpineol	0.27145	0.24457	0.24457	0.000	-9.90400	60.00000	Averaged
	31 4-Chloroaniline	0.34451	0.34387	0.34387	0.000	-0.18513	60.00000	Averaged
	32 Hexachlorobutadiene	0.14968	0.14732	0.14732	0.001	-1.57512	20.00000	Averaged ccc
	33 4-Chloro-3-methylphenol	0.21753	0.22451	0.22451	0.001	3.20750	20.00000	Averaged ccc
	34 2-Methylnaphthalene	0.50978	0.50939	0.50939	0.000	-0.07628	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i
Lab File ID: s2c1212.d
Analysis Type:
Lab Sample ID: WBN100309-09.1
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

Injection Date: 12-MAR-2010 18:54
Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Init. Cal. Times: 15:04 18:02
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.50131	0.48065	0.48065	0.000	-4.12090	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.19037	0.16197	0.16197	0.050	-14.91714	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.55748	0.52593	0.52593	0.000	-5.65805	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.30076	0.29510	0.29510	0.001	-1.88287	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.32450	0.32264	0.32264	0.000	-0.57285	60.00000	Averaged	
40 2-Chloronaphthalene	0.96947	0.93771	0.93771	0.000	-3.27528	60.00000	Averaged	
42 o-Nitroaniline	0.30226	0.29731	0.29731	0.000	-1.63904	60.00000	Averaged	
41 m-Nitroaniline	42.34792	40.00000	0.21455	0.000	5.86981	0.000e+00	Linear	<-
43 Dimethylphthalate	1.13752	1.08580	1.08580	0.000	-4.54616	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.25727	0.24724	0.24724	0.000	-3.90095	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.32134	0.32044	0.32044	0.000	-0.28246	60.00000	Averaged	
45 Acenaphthylene	1.46137	1.43394	1.43394	0.000	-1.87723	60.00000	Averaged	
47 Acenaphthene	1.06534	0.99366	0.99366	0.001	-6.72774	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	43.39364	40.00000	0.11639	0.050	8.48410	0.000e+00	Linear	<-spcc
49 Dibenzofuran	1.30868	1.27744	1.27744	0.000	-2.38769	60.00000	Averaged	
51 Diethylphthalate	1.16673	1.11642	1.11642	0.000	-4.31267	60.00000	Averaged	
52 4-Nitrophenol	0.15969	0.17678	0.17678	0.050	10.70040	60.00000	Averaged	spcc
53 Fluorene	1.13544	1.09827	1.09827	0.000	-3.27395	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.53496	0.50010	0.50010	0.000	-6.51651	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	49.43642	40.00000	0.12853	0.000	23.59104	0.000e+00	Linear	<-
56 p-Nitroaniline	45.98377	40.00000	0.22091	0.000	14.95942	0.000e+00	Linear	<-
133 Diphenylamine	0.52058	0.49828	0.49828	0.001	-4.28299	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.67800	0.63515	0.63515	0.000	-6.32056	60.00000	Averaged	
61 4-Bromophenylphenylether	0.17599	0.15541	0.15541	0.000	-11.69298	60.00000	Averaged	
63 Hexachlorobenzene	0.17573	0.16135	0.16135	0.000	-8.18286	60.00000	Averaged	
65 Pentachlorophenol	0.09101	0.09422	0.09422	0.001	3.52958	20.00000	Averaged	ccc
206 n-Octadecane	0.58034	0.54417	0.54417	0.000	-6.23136	60.00000	Averaged	
68 Phenanthrene	0.98866	0.94474	0.94474	0.000	-4.44244	60.00000	Averaged	
69 Anthracene	0.95642	0.88574	0.88574	0.000	-7.39015	60.00000	Averaged	
72 Di-n-butylphthalate	1.13150	1.06538	1.06538	0.000	-5.84413	60.00000	Averaged	
76 Fluoranthene	0.89301	0.88183	0.88183	0.001	-1.25167	20.00000	Averaged	ccc
79 Pyrene	1.30387	1.11648	1.11648	0.000	-14.37193	60.00000	Averaged	
85 Butylbenzylphthalate	0.61006	0.54363	0.54363	0.000	-10.88944	60.00000	Averaged	
89 Benzo(a)anthracene	0.99826	0.91547	0.91547	0.000	-8.29331	60.00000	Averaged	
92 Chrysene	0.93128	0.85492	0.85492	0.000	-8.19991	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.84005	0.76087	0.76087	0.000	-9.42480	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 12-MAR-2010 18:54
Lab File ID: s2c1212.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 18:02
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.90697	1.62008	1.62008	0.001	-15.04453	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.09105	1.07318	1.07318	0.000	-1.63732	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.10378	0.96926	0.96926	0.000	-12.18747	60.00000	Averaged	
	97 Benzo(a)pyrene	0.90429	0.85268	0.85268	0.001	-5.70785	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.77408	0.74575	0.74575	0.000	-3.65997	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.63240	0.61423	0.61423	0.000	-2.87235	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.62698	0.59748	0.59748	0.000	-4.70493	60.00000	Averaged	
	126 m-Dinitrobenzene	0.17415	0.17536	0.17536	0.000	0.69298	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27504	0.24941	0.24941	0.000	-9.31817	60.00000	Averaged	
	143 Dinoseb	40.05156	40.00000	0.13568	0.000	0.12890	0.000e+00	Linear	<-
	173 Carbazole	42.31804	40.00000	0.68093	0.000	5.79511	0.000e+00	Linear	<-
	184 p-Benzoquinone	25.62660	40.00000	0.12116	0.000	-35.93349	0.000e+00	Linear	<-
	192 Methoxychlor	0.60564	0.58020	0.58020	0.000	-4.20018	60.00000	Averaged	
	211 p-Toluidine	1.06068	0.79713	0.79713	0.000	-24.84761	60.00000	Averaged	
	210 m-Toluidine	1.41165	1.45567	1.45567	0.000	3.11867	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.22002	0.22732	0.22732	0.000	3.31771	60.00000	Averaged	
	215 2-Ethoxyethanol	0.70592	0.72271	0.72271	0.000	2.37858	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	48.62249	40.00000	0.12633	0.000	21.55622	0.000e+00	Linear	<-
	179 Dibenzo(a,e)pyrene	0.31408	0.23056	0.23056	0.000	-26.59122	60.00000	Averaged	
	26 Phthalic anhydride	56.98108	40.00000	0.14245	0.000	42.45270	0.000e+00	Linear	<-
M	222 Trichlorophenols	0.31263	0.30887	0.30887	0.000	-1.20299	60.00000	Averaged	
M	223 Tetrachlorophenols	0.27504	0.24941	0.24941	0.000	-9.31817	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.09742	1.02122	1.02122	0.000	-6.94301	60.00000	Averaged	

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Data file : /chem/MSD2.i/s031210.b/s2c1212.d
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGAICV
Inj Date : 12-MAR-2010 18:54
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100309-09.1|40PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m
Meth Date : 12-Mar-2010 19:19 ann00964 Quant Type: ISTD
Cal Date : 12-MAR-2010 18:02 Cal File: s2c1210.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.982	3.982	(1.000)	333197	40.0000	
* 29 Naphthalene-d8	136	4.848	4.848	(1.000)	1447881	40.0000	
* 46 Acenaphthene-d10	164	6.095	6.095	(1.000)	750245	40.0000	
* 67 Phenanthrene-d10	188	7.073	7.073	(1.000)	1307528	40.0000	
* 91 Chrysene-d12	240	8.769	8.769	(1.000)	1059004	40.0000	
* 98 Perylene-d12	264	10.304	10.304	(1.000)	718805	40.0000	
$ 3 2-Fluorophenol	112	3.169	3.169	(0.796)	312653	40.0000	39.4
$ 5 Phenol-d5	99	3.693	3.693	(0.927)	377292	40.0000	38.6
$ 20 Nitrobenzene-d5	82	4.346	4.346	(0.896)	430793	40.0000	41.1
$ 39 2-Fluorobiphenyl	172	5.586	5.586	(0.917)	814322	40.0000	39.4
$ 60 2,4,6-Tribromophenol	329	6.624	6.624	(1.087)	87070	40.0000	39.2
$ 81 p-Terphenyl-d14	244	7.988	7.988	(0.911)	783025	40.0000	40.5
1 N-Methyl-N-nitrosomethylamine	74	2.490	2.490	(0.625)	174797	40.0000	38.3
2 Pyridine	79	2.527	2.527	(0.635)	196229	40.0000	30.3
4 Aniline	66	3.768	3.768	(0.946)	172880	40.0000	36.1
6 Phenol	94	3.704	3.704	(0.930)	399532	40.0000	39.7(Q)
7 bis(2-Chloroethyl) ether	63	3.779	3.779	(0.949)	310498	40.0000	35.9
8 2-Chlorophenol	128	3.848	3.848	(0.966)	365625	40.0000	40.8
203 n-Decane	43	3.827	3.827	(0.961)	603947	40.0000	39.5
9 1,3-Dichlorobenzene	146	3.950	3.950	(0.992)	416056	40.0000	39.0
11 1,4-Dichlorobenzene	146	3.993	3.993	(1.003)	435617	40.0000	38.5
13 1,2-Dichlorobenzene	146	4.099	4.099	(1.030)	419832	40.0000	40.2
14 bis(2-Chloroisopropyl)ether	45	4.121	4.121	(1.035)	808653	40.0000	38.2
12 Benzyl alcohol	108	4.046	4.046	(1.016)	196971	40.0000	41.5
15 o-Cresol	107	4.094	4.094	(1.028)	282161	40.0000	39.7
18 m,p-Cresols	107	4.196	4.196	(1.054)	343715	40.0000	40.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.222	4.222	(1.060)	250539	40.0000	39.6
19 Hexachloroethane	117	4.329	4.329	(1.087)	170363	40.0000	38.1
21 Nitrobenzene	77	4.356	4.356	(0.898)	383137	40.0000	38.8
22 Isophorone	82	4.511	4.511	(0.930)	675266	40.0000	37.8
23 2-Nitrophenol	139	4.570	4.570	(0.943)	201103	40.0000	38.9
24 2,4-Dimethylphenol	122	4.559	4.559	(0.940)	360154	40.0000	39.0
25 bis(2-Chloroethoxy)methane	93	4.629	4.629	(0.955)	370515	40.0000	36.2
26 2,4-Dichlorophenol	162	4.731	4.731	(0.976)	299391	40.0000	40.9
27 Benzoic acid	105	4.613	4.613	(0.951)	196034	40.0000	43.0(H)
28 1,2,4-Trichlorobenzene	180	4.795	4.795	(0.989)	343972	40.0000	38.4
30 Naphthalene	128	4.864	4.864	(1.003)	1071410	40.0000	37.3(Q)
204 alpha-Terpineol	59	4.838	4.838	(0.998)	354106	40.0000	36.0
31 4-Chloroaniline	127	4.875	4.875	(1.006)	497883	40.0000	39.9
32 Hexachlorobutadiene	225	4.928	4.928	(1.017)	213305	40.0000	39.4
33 4-Chloro-3-methylphenol	107	5.185	5.185	(1.069)	325058	40.0000	41.3
34 2-Methylnaphthalene	142	5.340	5.340	(1.101)	737542	40.0000	40.0
35 1-Methylnaphthalene	142	5.415	5.415	(1.117)	695929	40.0000	38.4
36 Hexachlorocyclopentadiene	237	5.447	5.447	(0.894)	121516	40.0000	34.0
205 2,3-Dichloroaniline	161	5.538	5.538	(0.909)	394580	40.0000	37.7
37 2,4,6-Trichlorophenol	196	5.528	5.528	(0.907)	221395	40.0000	39.2
38 2,4,5-Trichlorophenol	196	5.560	5.560	(0.912)	242060	40.0000	39.8
40 2-Chloronaphthalene	162	5.699	5.699	(0.935)	703515	40.0000	38.7
42 o-Nitroaniline	65	5.752	5.752	(0.944)	223053	40.0000	39.3
41 m-Nitroaniline	138	6.041	6.041	(0.991)	160966	40.0000	42.3
43 Dimethylphthalate	163	5.859	5.859	(0.961)	814618	40.0000	38.2
44 2,6-Dinitrotoluene	165	5.913	5.913	(0.970)	185488	40.0000	38.4
50 2,4-Dinitrotoluene	165	6.196	6.196	(1.017)	240405	40.0000	39.9
45 Acenaphthylene	152	5.998	5.998	(0.984)	1075805	40.0000	39.2
47 Acenaphthene	154	6.116	6.116	(1.004)	745492	40.0000	37.3
48 2,4-Dinitrophenol	184	6.111	6.111	(1.003)	87320	40.0000	43.4
49 Dibenzofuran	168	6.228	6.228	(1.022)	958390	40.0000	39.0
51 Diethylphthalate	149	6.335	6.335	(1.039)	837585	40.0000	38.3
52 4-Nitrophenol	139	6.127	6.127	(1.005)	132630	40.0000	44.3
53 Fluorene	166	6.464	6.464	(1.061)	823971	40.0000	38.7
54 4-Chlorophenylphenylether	204	6.442	6.442	(1.057)	375195	40.0000	37.4
55 2-Methyl-4,6-dinitrophenol	198	6.480	6.480	(0.916)	168059	40.0000	49.4
56 p-Nitroaniline	138	6.464	6.464	(1.061)	165733	40.0000	46.0
133 Diphenylamine	169	6.517	6.517	(0.921)	651520	40.0000	38.3
58 1,2-Diphenylhydrazine	77	6.549	6.549	(0.926)	830471	40.0000	37.5
61 4-Bromophenylphenylether	248	6.763	6.763	(0.956)	203209	40.0000	35.3
63 Hexachlorobenzene	284	6.822	6.822	(0.964)	210975	40.0000	36.7
65 Pentachlorophenol	266	6.940	6.940	(0.981)	123194	40.0000	41.4
206 n-Octadecane	57	6.918	6.918	(0.978)	711522	40.0000	37.5
68 Phenanthrene	178	7.089	7.089	(1.002)	1235271	40.0000	38.2
69 Anthracene	178	7.121	7.121	(1.007)	1158125	40.0000	37.0
72 Di-n-butylphthalate	149	7.357	7.357	(1.040)	1393010	40.0000	37.7
76 Fluoranthene	202	7.801	7.801	(1.103)	1153017	40.0000	39.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.945	7.945	(0.906)	1182358	40.0000	34.2
85 Butylbenzylphthalate	149	8.261	8.261	(0.942)	575706	40.0000	35.6
89 Benzo(a)anthracene	228	8.758	8.758	(0.999)	969483	40.0000	36.7
92 Chrysene	228	8.790	8.790	(1.002)	905364	40.0000	36.7
93 bis(2-Ethylhexyl)phthalate	149	8.630	8.630	(0.984)	805769	40.0000	36.2
94 Di-n-octylphthalate	149	9.191	9.191	(0.892)	1164521	40.0000	34.0
95 Benzo(b)fluoranthene	252	9.812	9.812	(0.952)	771408	40.0000	39.3
96 Benzo(k)fluoranthene	252	9.844	9.844	(0.955)	696710	40.0000	35.1
97 Benzo(a)pyrene	252	10.229	10.229	(0.993)	612909	40.0000	37.7
99 Indeno(1,2,3-cd)pyrene	276	12.037	12.037	(1.168)	536048	40.0000	38.5
100 Dibenzo(a,h)anthracene	278	12.042	12.042	(1.169)	441515	40.0000	38.8
101 Benzo(ghi)perylene	276	12.572	12.572	(1.220)	429475	40.0000	38.1
126 m-Dinitrobenzene	168	5.902	5.902	(0.968)	131560	40.0000	40.3
130 2,3,4,6-Tetrachlorophenol	232	6.303	6.303	(1.034)	187121	40.0000	36.3
143 Dinoseb	211	7.025	7.025	(0.993)	177407	40.0000	40.0
173 Carbazole	167	7.202	7.202	(1.018)	890330	40.0000	42.3
184 p-Benzoquinone	54	3.468	3.468	(0.871)	40369	40.0000	25.6
192 Methoxychlor	227	8.619	8.619	(0.983)	614438	40.0000	38.3
211 p-Toluidine	106	4.260	4.260	(1.070)	265601	40.0000	30.1
210 m-Toluidine	106	4.281	4.281	(1.075)	485025	40.0000	41.2
214 1,4-Dinitrobenzene	75	5.843	5.843	(0.959)	170549	40.0000	41.3
215 2-Ethoxyethanol	59	2.340	2.340	(0.588)	240806	40.0000	41.0
216 Methylenebis(2-chloroaniline)	231	8.683	8.683	(0.990)	133781	40.0000	48.6(Q)
179 Dibenzo(a,e)pyrene	302	16.706	16.706	(1.621)	165727	40.0000	29.4
26 Phthalic anhydride	104	5.383	5.383	(1.110)	206257	40.0000	57.0
M 222 Trichlorophenols	196				463455	80.0000	79.0
M 223 Tetrachlorophenols	232				187121	40.0000	36.3
M 224 Benzo(b,k)fluoranthene	252				1468118	80.0000	74.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD2.i/s031210.b/s2c1212.d
Date : 12-MAR-2010 18:54
Client ID: MEGAICV
Sample Info: IWBN100309-09,1|40PPM|1|SVMF|1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

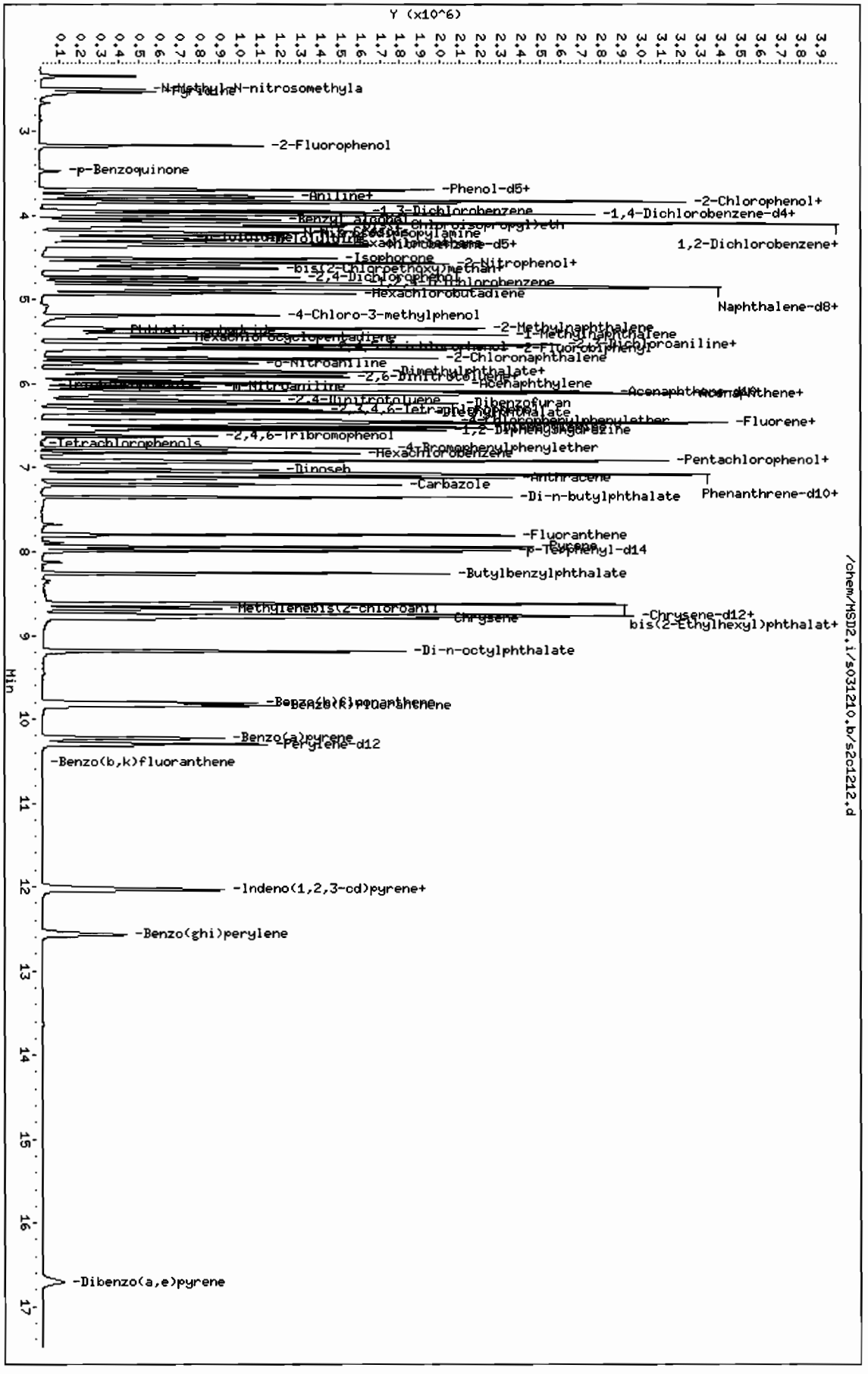

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 13-MAR-2010 00:00
Lab File ID: s2c1227.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 21:19
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86368	0.75564	0.75564	0.000	-12.50838	60.00000	Averaged
16 Acetophenone	1.37576	1.27079	1.27079	0.000	-7.62984	60.00000	Averaged
189 Caprolactam	0.08573	0.08566	0.08566	0.000	-0.08430	60.00000	Averaged
208 1,1'-Biphenyl	1.36982	1.31903	1.31903	0.000	-3.70836	60.00000	Averaged
207 Atrazine	0.04293	0.04369	0.04369	0.000	1.76064	60.00000	Averaged
77 Benzidine	0.33873	0.34309	0.34309	0.000	1.28761	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.26512	0.28321	0.28321	0.000	6.82159	60.00000	Averaged
102 1,4-Dioxane	0.34681	0.37068	0.37068	0.000	6.88370	60.00000	Averaged
103 Methyl methacrylate	0.20110	0.21548	0.21548	0.000	7.15166	60.00000	Averaged
104 Ethyl methacrylate	0.76185	0.80024	0.80024	0.000	5.03989	60.00000	Averaged
105 2-Picoline	1.18562	1.12632	1.12632	0.000	-5.00158	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45513	0.44655	0.44655	0.000	-1.88560	60.00000	Averaged
107 Methyl methanesulfonate	0.57842	0.59134	0.59134	0.000	2.23361	60.00000	Averaged
108 N-Nitrosodiethylamine	0.51094	0.49566	0.49566	0.000	-2.99036	60.00000	Averaged
109 Ethyl Methanesulfonate	0.63566	0.67502	0.67502	0.000	6.19142	60.00000	Averaged
110 Pentachloroethane	0.37569	0.42896	0.42896	0.000	14.17796	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.53211	0.49610	0.49610	0.000	-6.76619	60.00000	Averaged
113 N-Nitrosomorpholine	0.97127	0.96572	0.96572	0.000	-0.57150	60.00000	Averaged
114 o-Toluidine	1.89418	1.79540	1.79540	0.000	-5.21493	60.00000	Averaged
115 N-Nitrosopiperidine	0.13732	0.13231	0.13231	0.000	-3.64621	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.91646	0.89653	0.89653	0.000	-2.17525	60.00000	Averaged
118 2,6-Dichlorophenol	0.23643	0.22415	0.22415	0.000	-5.19240	60.00000	Averaged
119 Hexachloropropene	0.12163	0.15923	0.15923	0.000	30.90841	60.00000	Averaged
120 p-Phenylenediamine	0.21439	0.23161	0.23161	0.000	8.03359	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21777	0.20771	0.20771	0.000	-4.61876	60.00000	Averaged
122 Safrole	0.21234	0.21590	0.21590	0.000	1.67394	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.46025	0.44876	0.44876	0.000	-2.49607	60.00000	Averaged
124 Isosafrole	0.35814	0.40082	0.40082	0.000	11.91638	60.00000	Averaged
125 1,4-Naphthoquinone	0.33102	0.34506	0.34506	0.000	4.24213	60.00000	Averaged
127 Pentachlorobenzene	0.40528	0.38955	0.38955	0.000	-3.88134	60.00000	Averaged
128 1-Naphthylamine	0.93385	0.95763	0.95763	0.000	2.54649	60.00000	Averaged
129 2-Naphthylamine	1.00959	1.04476	1.04476	0.000	3.48365	60.00000	Averaged
131 5-Nitro-o-toluidine	0.26606	0.26753	0.26753	0.000	0.55219	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.13367	0.16141	0.16141	0.000	20.75009	60.00000	Averaged
137 Phenacetin	0.29810	0.30174	0.30174	0.000	1.22161	60.00000	Averaged
138 Diallate	0.26365	0.23898	0.23898	0.000	-9.35913	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i
Lab File ID: s2c1227.d
Analysis Type:
Lab Sample ID: WBN100218-08.1
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

Injection Date: 13-MAR-2010 00:00
Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Init. Cal. Times: 15:04 21:19
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.24728	0.26374	0.26374	0.000	6.65322	60.00000	Averaged
213 Trans Diallate	0.31018	0.28115	0.28115	0.000	-9.35913	60.00000	Averaged
140 4-Aminobiphenyl	0.60442	0.62924	0.62924	0.000	4.10653	60.00000	Averaged
141 Pentachloronitrobenzene	0.08460	0.08405	0.08405	0.000	-0.64552	60.00000	Averaged
142 Pronamide	0.30496	0.30856	0.30856	0.000	1.17857	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	45.34862	40.00000	0.01896	0.000	13.37156	60.00000	Linear
147 Methapyrilene	0.40497	0.44250	0.44250	0.000	9.26786	60.00000	Averaged
148 Isodrin	0.09920	0.08903	0.08903	0.000	-10.25242	60.00000	Averaged
149 Aramite	0.04916	0.04815	0.04815	0.000	-2.05353	60.00000	Averaged
150 Kepone	0.06534	0.05728	0.05728	0.000	-12.34233	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.38501	0.37365	0.37365	0.000	-2.95212	60.00000	Averaged
152 Chlorobenzilate	0.35608	0.32534	0.32534	0.000	-8.63249	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.50325	0.52227	0.52227	0.000	3.77811	60.00000	Averaged
155 2-Acetylaminofluorene	0.31776	0.33833	0.33833	0.000	6.47277	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.56755	0.51824	0.51824	0.000	-8.68907	60.00000	Averaged
158 3-Methylcholanthrene	0.40852	0.40827	0.40827	0.000	-0.06068	60.00000	Averaged

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s031210.b/s2c1227.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV
Inj Date : 13-MAR-2010 00:00
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100218-08.1|40 PPM|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m
Meth Date : 15-Mar-2010 14:05 ann00964 Quant Type: ISTD
Cal Date : 12-MAR-2010 21:19 Cal File: s2c1219.d
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.982	3.982	(1.000)	327425	40.0000	
* 29 Naphthalene-d8	136	4.843	4.843	(1.000)	1276866	40.0000	
* 46 Acenaphthene-d10	164	6.089	6.089	(1.000)	725322	40.0000	
* 67 Phenanthrene-d10	188	7.068	7.068	(1.000)	1248188	40.0000	
* 91 Chrysene-d12	240	8.758	8.758	(1.000)	903803	40.0000	
* 98 Perylene-d12	264	10.288	10.288	(1.000)	599145	40.0000	
209 Benzaldehyde	77	3.704	3.704	(0.930)	247417	40.0000	35.0
16 Acetophenone	105	4.228	4.228	(1.062)	416090	40.0000	36.9
189 Caprolactam	113	5.116	5.116	(1.056)	109373	40.0000	40.0
208 1,1'-Biphenyl	154	5.667	5.667	(0.931)	956718	40.0000	38.5
207 Atrazine	173	6.833	6.833	(0.967)	54534	40.0000	40.7
77 Benzidine	184	7.844	7.844	(0.896)	310084	40.0000	40.5
90 3,3'-Dichlorobenzidine	252	8.683	8.683	(0.991)	255965	40.0000	42.7
102 1,4-Dioxane	88	2.345	2.345	(0.589)	121371	40.0000	42.8
103 Methyl methacrylate	100	2.335	2.335	(0.586)	70554	40.0000	42.9
104 Ethyl methacrylate	69	2.693	2.693	(0.676)	262019	40.0000	42.0
105 2-Picoline	93	2.885	2.885	(0.725)	368786	40.0000	38.0
106 N-Nitrosomethylethylamine	88	2.928	2.928	(0.735)	146212	40.0000	39.2
107 Methyl methanesulfonate	80	3.078	3.078	(0.773)	193620	40.0000	40.9
108 N-Nitrosodiethylamine	102	3.313	3.313	(0.832)	162291	40.0000	38.8
109 Ethyl Methanesulfonate	79	3.468	3.468	(0.871)	221018	40.0000	42.5
110 Pentachloroethane	167	3.805	3.805	(0.956)	140451	40.0000	45.7
111 N-Nitrosopyrrolidine	100	4.217	4.217	(1.059)	162437	40.0000	37.3(Q)
113 N-Nitrosomorpholine	56	4.239	4.239	(1.064)	316200	40.0000	39.8
114 o-Toluidine	106	4.255	4.255	(1.068)	587859	40.0000	37.9
115 N-Nitrosopiperidine	114	4.458	4.458	(0.920)	168944	40.0000	38.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.699	4.699	(0.970)	1144746	40.0000	39.1
118 2,6-Dichlorophenol	162	4.886	4.886	(1.009)	286211	40.0000	37.9
119 Hexachloropropene	213	4.918	4.918	(1.015)	203309	40.0000	52.4
120 p-Phenylenediamine	108	5.121	5.121	(1.057)	295737	40.0000	43.2
121 N-Nitrosodi-n-butylamine	84	5.089	5.089	(1.051)	265219	40.0000	38.2
122 Safrole	162	5.255	5.255	(1.085)	275669	40.0000	40.7
123 1,2,4,5-Tetrachlorobenzene	216	5.458	5.458	(0.896)	325498	40.0000	39.0
124 Isosafrole	162	5.624	5.624	(0.924)	290720	40.0000	44.8
125 1,4-Naphthoquinone	158	5.811	5.811	(0.954)	250282	40.0000	41.7
127 Pentachlorobenzene	250	6.202	6.202	(1.018)	282550	40.0000	38.4
128 1-Naphthylamine	143	6.277	6.277	(1.031)	694587	40.0000	41.0
129 2-Naphthylamine	143	6.330	6.330	(1.040)	757785	40.0000	41.4
131 5-Nitro-o-toluidine	152	6.453	6.453	(1.060)	194043	40.0000	40.2
136 1,3,5-Trinitrobenzene	75	6.667	6.667	(0.943)	201473	40.0000	48.3
137 Phenacetin	108	6.699	6.699	(0.948)	376632	40.0000	40.5(Q)
138 Diallate	86	6.688	6.688	(0.946)	298288	40.0000	36.2
212 Cis Diallate	86	6.747	6.747	(0.955)	49379	6.00000	6.4
213 Trans Diallate	86	6.688	6.688	(0.946)	298288	34.0000	30.8
140 4-Aminobiphenyl	169	6.929	6.929	(0.980)	785409	40.0000	41.6
141 Pentachloronitrobenzene	237	6.945	6.945	(0.983)	104915	40.0000	39.7
142 Pronamide	173	6.934	6.934	(0.981)	385139	40.0000	40.5
146 4-Nitroquinoline-1-oxide	101	7.533	7.533	(1.066)	23665	40.0000	45.3
147 Methapyrilene	58	7.544	7.544	(1.067)	552326	40.0000	43.7
148 Isodrin	193	7.710	7.710	(1.091)	111124	40.0000	35.9
149 Aramite	185	7.935	7.935	(1.123)	60098	40.0000	39.2
150 Kepone	272	8.373	8.373	(1.185)	71493	40.0000	35.1
151 p-(Dimethylamino)azobenzene	120	8.063	8.063	(0.921)	337704	40.0000	38.8
152 Chlorobenzilate	251	8.074	8.074	(0.922)	294042	40.0000	36.5
153 3,3'-Dimethylbenzidine	212	8.277	8.277	(0.945)	472026	40.0000	41.5
155 2-Acetylaminofluorene	181	8.464	8.464	(0.966)	305783	40.0000	42.6
157 7,12Dimethylbenz(a)anthracene	256	9.764	9.764	(0.949)	310498	40.0000	36.5
158 3-Methylcholanthrene	268	10.668	10.668	(1.037)	244613	40.0000	40.0(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s031210.b/s2c1227.d
Date : 13-MAR-2010 00:00
Client ID: APICV
Sample Info: IWBN100218-08,1|40 PPM|1|SVMF|1|APICV
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

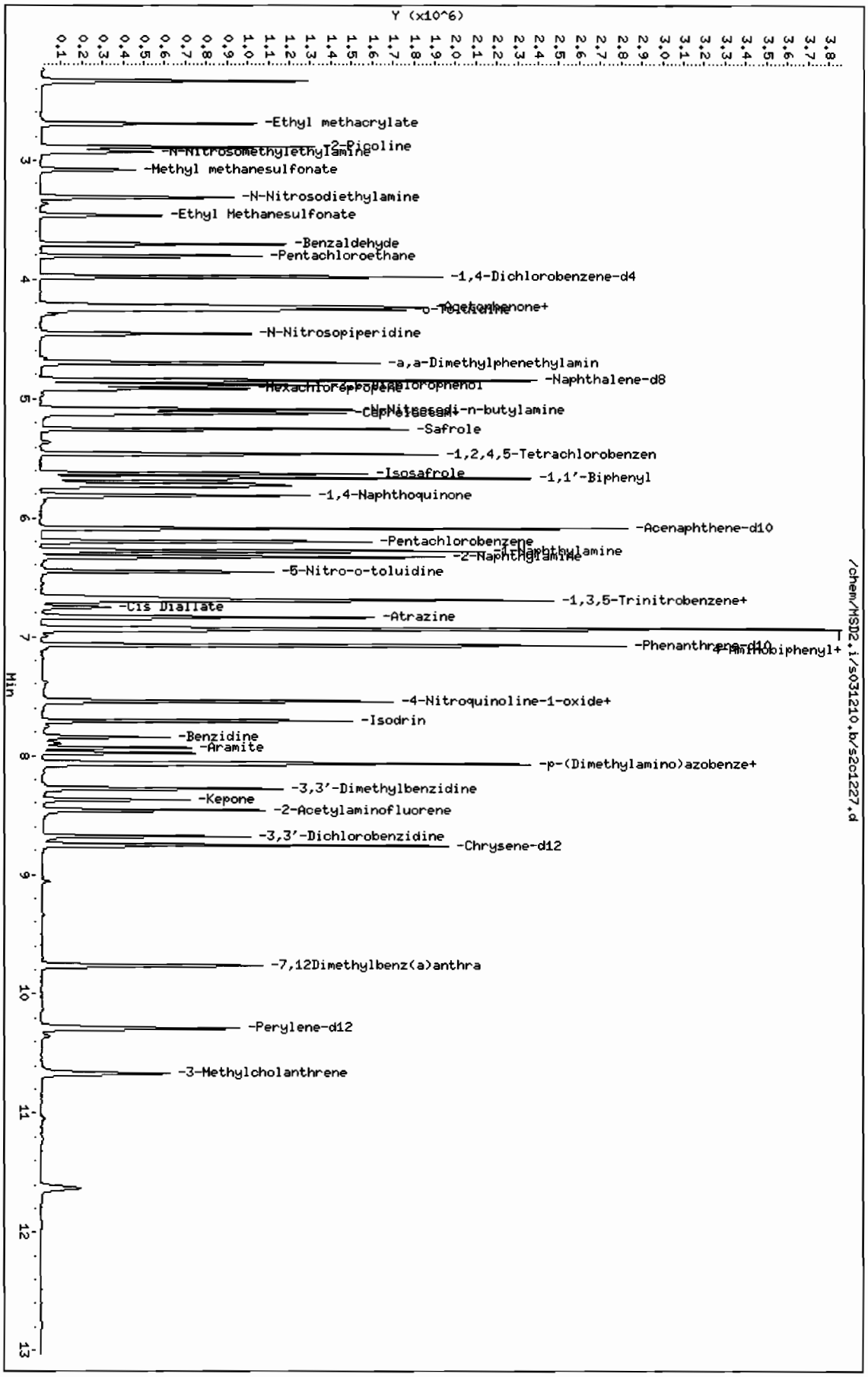

Page 1

Data File: /chem/MSD2.i/s032510.b/s2c2502.d
Report Date: 25-Mar-2010 18:37

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i
Lab File ID: s2c2502.d
Analysis Type:
Lab Sample ID: WBN100309-09.1
Method: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m

Injection Date: 25-MAR-2010 14:58
Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Init. Cal. Times: 15:04 05:54
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	0.95245	0.87597	0.87597	0.000	-8.02990	60.00000	Averaged
$ 5 Phenol-d5	1.17285	1.12329	1.12329	0.000	-4.22593	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28950	0.29590	0.29590	0.000	2.20803	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.10050	1.03611	1.03611	0.000	-5.85130	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11831	0.11776	0.11776	0.000	-0.46867	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.72951	0.66477	0.66477	0.000	-8.87405	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.54740	0.49638	0.49638	0.000	-9.32043	60.00000	Averaged
2 Pyridine	0.77821	0.69896	0.69896	0.000	-10.18355	60.00000	Averaged
4 Aniline	0.57419	0.58228	0.58228	0.000	1.40795	60.00000	Averaged
6 Phenol	1.20923	1.12490	1.12490	0.001	-6.97393	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.03880	1.07326	1.07326	0.000	3.31782	60.00000	Averaged
8 2-Chlorophenol	1.07545	1.03256	1.03256	0.000	-3.98808	60.00000	Averaged
203 n-Decane	1.83655	2.20878	2.20878	0.000	20.26806	60.00000	Averaged
9 1,3-Dichlorobenzene	1.27994	1.26050	1.26050	0.000	-1.51895	60.00000	Averaged
11 1,4-Dichlorobenzene	1.35709	1.37572	1.37572	0.001	1.37246	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.25272	1.24127	1.24127	0.000	-0.91352	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.53958	2.99698	2.99698	0.000	18.01109	60.00000	Averaged
12 Benzyl alcohol	0.56959	0.37159	0.37159	0.000	-34.76072	60.00000	Averaged
15 o-Cresol	0.85386	0.84296	0.84296	0.000	-1.27671	60.00000	Averaged
18 m,p-Cresols	1.01734	1.01386	1.01386	0.000	-0.34193	60.00000	Averaged
17 N-Nitrosodipropylamine	0.75875	0.76825	0.76825	0.050	1.25207	60.00000	Averaged spcc
19 Hexachloroethane	0.53630	0.57290	0.57290	0.000	6.82288	60.00000	Averaged
21 Nitrobenzene	0.27250	0.26891	0.26891	0.000	-1.31734	60.00000	Averaged
22 Isophorone	0.49283	0.48953	0.48953	0.000	-0.66834	60.00000	Averaged
23 2-Nitrophenol	0.14268	0.13177	0.13177	0.001	-7.64653	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.25525	0.19650	0.19650	0.000	-23.01624	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.28272	0.26534	0.26534	0.000	-6.14789	60.00000	Averaged
26 2,4-Dichlorophenol	0.20229	0.19619	0.19619	0.001	-3.01326	20.00000	Averaged ccc
27 Benzoic acid	0.12590	0.12253	0.12253	0.000	-2.67806	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24729	0.24776	0.24776	0.000	0.18948	60.00000	Averaged
30 Naphthalene	0.79318	0.75315	0.75315	0.000	-5.04617	60.00000	Averaged
204 alpha-Terpineol	0.27145	0.29788	0.29788	0.000	9.73454	60.00000	Averaged
31 4-Chloroaniline	0.34451	0.33033	0.33033	0.000	-4.11593	60.00000	Averaged
32 Hexachlorobutadiene	0.14968	0.16097	0.16097	0.001	7.54477	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21753	0.21782	0.21782	0.001	0.13460	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.50978	0.50755	0.50755	0.000	-0.43711	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i
Lab File ID: s2c2502.d
Analysis Type:
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m

Injection Date: 25-MAR-2010 14:58
Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Init. Cal. Times: 15:04 05:54

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.50131	0.50005	0.50005	0.000	-0.25089	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.19037	0.13452	0.13452	0.050	-29.33550	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.55748	0.52809	0.52809	0.000	-5.27201	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.30076	0.28456	0.28456	0.001	-5.38472	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.32450	0.28045	0.28045	0.000	-13.57585	60.00000	Averaged	
40	2-Chloronaphthalene	0.96947	0.91561	0.91561	0.000	-5.55517	60.00000	Averaged	
42	o-Nitroaniline	0.30226	0.30252	0.30252	0.000	0.08406	60.00000	Averaged	
41	m-Nitroaniline	32.62804	40.00000	0.16105	0.000	-18.42990	60.00000	Linear	
43	Dimethylphthalate	1.13752	1.13653	1.13653	0.000	-0.08708	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.25727	0.24975	0.24975	0.000	-2.92514	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.32134	0.31968	0.31968	0.000	-0.51697	60.00000	Averaged	
45	Acenaphthylene	1.46137	1.41170	1.41170	0.000	-3.39885	60.00000	Averaged	
47	Acenaphthene	1.06534	1.05001	1.05001	0.001	-1.43850	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	36.54440	40.00000	0.09172	0.050	-8.63899	60.00000	Linear	spcc
49	Dibenzofuran	1.30868	1.27016	1.27016	0.000	-2.94365	60.00000	Averaged	
51	Diethylphthalate	1.16673	1.23151	1.23151	0.000	5.55218	60.00000	Averaged	
52	4-Nitrophenol	0.15969	0.14103	0.14103	0.050	-11.69003	60.00000	Averaged	spcc
53	Fluorene	1.13544	1.17191	1.17191	0.000	3.21176	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.53496	0.55146	0.55146	0.000	3.08523	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	33.26735	40.00000	0.07901	0.000	-16.83163	60.00000	Linear	
56	p-Nitroaniline	32.55522	40.00000	0.14648	0.000	-18.61194	60.00000	Linear	
133	Diphenylamine	0.52058	0.47999	0.47999	0.001	-7.79634	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.67800	0.63852	0.63852	0.000	-5.82362	60.00000	Averaged	
61	4-Bromophenylphenylether	0.17599	0.16999	0.16999	0.000	-3.41352	60.00000	Averaged	
63	Hexachlorobenzene	0.17573	0.17156	0.17156	0.000	-2.37341	60.00000	Averaged	
65	Pentachlorophenol	0.09101	0.08300	0.08300	0.001	-8.80165	20.00000	Averaged	ccc
206	n-Octadecane	0.58034	0.61624	0.61624	0.000	6.18718	60.00000	Averaged	
68	Phenanthrene	0.98866	0.97868	0.97868	0.000	-1.00878	60.00000	Averaged	
69	Anthracene	0.95642	0.96098	0.96098	0.000	0.47736	60.00000	Averaged	
72	Di-n-butylphthalate	1.13150	1.22966	1.22966	0.000	8.67454	60.00000	Averaged	
76	Fluoranthene	0.89301	0.98167	0.98167	0.001	9.92823	20.00000	Averaged	ccc
79	Pyrene	1.30387	1.16251	1.16251	0.000	-10.84187	60.00000	Averaged	
85	Butylbenzylphthalate	0.61006	0.61120	0.61120	0.000	0.18661	60.00000	Averaged	
89	Benzo(a)anthracene	0.99826	0.94218	0.94218	0.000	-5.61732	60.00000	Averaged	
92	Chrysene	0.93128	0.95053	0.95053	0.000	2.06689	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.84005	0.84837	0.84837	0.000	0.99125	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 25-MAR-2010 14:58
Lab File ID: s2c2502.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.90697	2.03760	2.03760	0.001	6.84984	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	1.09105	1.11687	1.11687	0.000	2.36699	60.00000	Averaged	
96 Benzo(k)fluoranthene	1.10378	1.16702	1.16702	0.000	5.72907	60.00000	Averaged	
97 Benzo(a)pyrene	0.90429	0.94719	0.94719	0.001	4.74411	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	0.77408	0.83314	0.83314	0.000	7.62959	60.00000	Averaged	
100 Dibenzo(a,h)anthracene	0.63240	0.69595	0.69595	0.000	10.04847	60.00000	Averaged	
101 Benzo(ghi)perylene	0.62698	0.65465	0.65465	0.000	4.41303	60.00000	Averaged	
126 m-Dinitrobenzene	0.17415	0.16451	0.16451	0.000	-5.53223	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.27504	0.26900	0.26900	0.000	-2.19545	60.00000	Averaged	
143 Dinoseb	34.99569	40.00000	0.11508	0.000	-12.51076	60.00000	Linear	
173 Carbazole	27.32328	40.00000	0.40514	0.000	-31.69179	60.00000	Linear	
184 p-Benzoquinone	34.91975	40.00000	0.18134	0.000	-12.70061	60.00000	Linear	
192 Methoxychlor	0.60564	0.59442	0.59442	0.000	-1.85274	60.00000	Averaged	
211 p-Toluidine	1.06068	1.11491	1.11491	0.000	5.11233	60.00000	Averaged	
210 m-Toluidine	1.41165	1.29877	1.29877	0.000	-7.99572	60.00000	Averaged	
214 1,4-Dinitrobenzene	0.22002	0.22926	0.22926	0.000	4.19859	60.00000	Averaged	
215 2-Ethoxyethanol	0.70592	0.61566	0.61566	0.000	-12.78708	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	32.21884	40.00000	0.07864	0.000	-19.45291	60.00000	Linear	
179 Dibenzo(a,e)pyrene	0.31408	0.32170	0.32170	0.000	2.42892	60.00000	Averaged	
26 Phthalic anhydride	45.67599	40.00000	0.11151	0.000	14.18998	60.00000	Linear	
M 222 Trichlorophenols	0.31263	0.28251	0.28251	0.000	-9.63579	60.00000	Averaged	
M 223 Tetrachlorophenols	0.27504	0.26900	0.26900	0.000	-2.19545	60.00000	Averaged	
M 224 Benzo(b,k)fluoranthene	1.09742	1.14195	1.14195	0.000	4.05779	60.00000	Averaged	

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Data file : /chem/MSD2.i/s032510.b/s2c2502.d
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGACVS
Inj Date : 25-MAR-2010 14:58
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100309-09.1|40PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.843	3.843	(1.000)	165409	40.0000	
* 29 Naphthalene-d8	136	4.704	4.704	(1.000)	774230	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	421050	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	753174	40.0000	
* 91 Chrysene-d12	240	8.603	8.603	(1.000)	671706	40.0000	
* 98 Perylene-d12	264	10.042	10.042	(1.000)	435860	40.0000	
$ 3 2-Fluorophenol	112	3.035	3.035	(0.790)	144893	40.0000	36.8
$ 5 Phenol-d5	99	3.565	3.565	(0.928)	185802	40.0000	38.3
$ 20 Nitrobenzene-d5	82	4.207	4.207	(0.894)	229091	40.0000	40.9
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	436254	40.0000	37.6
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.090)	49581	40.0000	39.8
$ 81 p-Terphenyl-d14	244	7.860	7.860	(0.914)	446531	40.0000	36.4
1 N-Methyl-N-nitrosomethylamine	74	2.351	2.351	(0.612)	82106	40.0000	36.3
2 Pyridine	79	2.383	2.383	(0.620)	115615	40.0000	35.9
4 Aniline	66	3.629	3.629	(0.944)	96314	40.0000	40.6
6 Phenol	94	3.570	3.570	(0.929)	186069	40.0000	37.2
7 bis(2-Chloroethyl) ether	63	3.645	3.645	(0.948)	177527	40.0000	41.3
8 2-Chlorophenol	128	3.709	3.709	(0.965)	170795	40.0000	38.4
203 n-Decane	43	3.693	3.693	(0.961)	365352	40.0000	48.1
9 1,3-Dichlorobenzene	146	3.811	3.811	(0.992)	208498	40.0000	39.4
11 1,4-Dichlorobenzene	146	3.854	3.854	(1.003)	227556	40.0000	40.5
13 1,2-Dichlorobenzene	146	3.955	3.955	(1.029)	205318	40.0000	39.6
14 bis(2-Chloroisopropyl)ether	45	3.987	3.987	(1.038)	495728	40.0000	47.2
12 Benzyl alcohol	108	3.912	3.912	(1.018)	61465	40.0000	26.1
15 o-Cresol	107	3.961	3.961	(1.031)	139433	40.0000	39.5
18 m,p-Cresols	107	4.062	4.062	(1.057)	167702	40.0000	39.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.084	4.084	(1.063)	127076	40.0000	40.5
19 Hexachloroethane	117	4.185	4.185	(1.089)	94762	40.0000	42.7
21 Nitrobenzene	77	4.217	4.217	(0.897)	208197	40.0000	39.5
22 Isophorone	82	4.372	4.372	(0.930)	379012	40.0000	39.7
23 2-Nitrophenol	139	4.431	4.431	(0.942)	102018	40.0000	36.9
24 2,4-Dimethylphenol	122	4.426	4.426	(0.941)	152137	40.0000	30.8
25 bis(2-Chloroethoxy)methane	93	4.490	4.490	(0.955)	205435	40.0000	37.5
26 2,4-Dichlorophenol	162	4.592	4.592	(0.976)	151897	40.0000	38.8
27 Benzoic acid	105	4.479	4.479	(0.952)	94865	40.0000	38.9
28 1,2,4-Trichlorobenzene	180	4.656	4.656	(0.990)	191820	40.0000	40.1
30 Naphthalene	128	4.720	4.720	(1.003)	583113	40.0000	38.0
204 alpha-Terpineol	59	4.699	4.699	(0.999)	230626	40.0000	43.9
31 4-Chloroaniline	127	4.736	4.736	(1.007)	255750	40.0000	38.4
32 Hexachlorobutadiene	225	4.784	4.784	(1.017)	124630	40.0000	43.0
33 4-Chloro-3-methylphenol	107	5.052	5.052	(1.074)	168644	40.0000	40.0
34 2-Methylnaphthalene	142	5.201	5.201	(1.106)	392964	40.0000	39.8
35 1-Methylnaphthalene	142	5.271	5.271	(1.121)	387157	40.0000	39.9
36 Hexachlorocyclopentadiene	237	5.303	5.303	(0.891)	56640	40.0000	28.3
205 2,3-Dichloroaniline	161	5.394	5.394	(0.906)	222351	40.0000	37.9
37 2,4,6-Trichlorophenol	196	5.389	5.389	(0.906)	119816	40.0000	37.8
38 2,4,5-Trichlorophenol	196	5.415	5.415	(0.910)	118082	40.0000	34.6
40 2-Chloronaphthalene	162	5.549	5.549	(0.933)	385518	40.0000	37.8
42 o-Nitroaniline	65	5.608	5.608	(0.942)	127374	40.0000	40.0
41 m-Nitroaniline	138	5.902	5.902	(0.992)	67808	40.0000	32.6
43 Dimethylphthalate	163	5.720	5.720	(0.961)	478534	40.0000	40.0
44 2,6-Dinitrotoluene	165	5.774	5.774	(0.970)	105156	40.0000	38.8
50 2,4-Dinitrotoluene	165	6.063	6.063	(1.019)	134602	40.0000	39.8
45 Acenaphthylene	152	5.854	5.854	(0.984)	594397	40.0000	38.6
47 Acenaphthene	154	5.977	5.977	(1.004)	442108	40.0000	39.4
48 2,4-Dinitrophenol	184	5.977	5.977	(1.004)	38618	40.0000	36.5
49 Dibenzofuran	168	6.089	6.089	(1.023)	534801	40.0000	38.8
51 Diethylphthalate	149	6.202	6.202	(1.042)	518528	40.0000	42.2
52 4-Nitrophenol	139	5.998	5.998	(1.008)	59379	40.0000	35.3
53 Fluorene	166	6.325	6.325	(1.063)	493433	40.0000	41.3
54 4-Chlorophenylphenylether	204	6.303	6.303	(1.059)	232193	40.0000	41.2
55 2-Methyl-4,6-dinitrophenol	198	6.341	6.341	(0.914)	59510	40.0000	33.3
56 p-Nitroaniline	138	6.325	6.325	(1.063)	61677	40.0000	32.6
133 Diphenylamine	169	6.383	6.383	(0.920)	361519	40.0000	36.9
58 1,2-Diphenylhydrazine	77	6.416	6.416	(0.924)	480913	40.0000	37.7
61 4-Bromophenylphenylether	248	6.630	6.630	(0.955)	128029	40.0000	38.6
63 Hexachlorobenzene	284	6.688	6.688	(0.964)	129217	40.0000	39.0
65 Pentachlorophenol	266	6.811	6.811	(0.982)	62511	40.0000	36.5
206 n-Octadecane	57	6.795	6.795	(0.979)	464138	40.0000	42.5
68 Phenanthrene	178	6.956	6.956	(1.002)	737120	40.0000	39.6
69 Anthracene	178	6.988	6.988	(1.007)	723787	40.0000	40.2
72 Di-n-butylphthalate	149	7.234	7.234	(1.042)	926145	40.0000	43.5
76 Fluoranthene	202	7.672	7.672	(1.106)	739366	40.0000	44.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.812	7.812	(0.908)	780864	40.0000	35.7
85 Butylbenzylphthalate	149	8.127	8.127	(0.945)	410547	40.0000	40.1
89 Benzo(a)anthracene	228	8.592	8.592	(0.999)	632868	40.0000	37.8
92 Chrysene	228	8.625	8.625	(1.002)	638479	40.0000	40.8
93 bis(2-Ethylhexyl)phthalate	149	8.485	8.485	(0.986)	569858	40.0000	40.4
94 Di-n-octylphthalate	149	9.010	9.010	(0.897)	888108	40.0000	42.7
95 Benzo(b)fluoranthene	252	9.582	9.582	(0.954)	486799	40.0000	40.9
96 Benzo(k)fluoranthene	252	9.614	9.614	(0.957)	508658	40.0000	42.3
97 Benzo(a)pyrene	252	9.978	9.978	(0.994)	412844	40.0000	41.9
99 Indeno(1,2,3-cd)pyrene	276	11.657	11.657	(1.161)	363132	40.0000	43.0
100 Dibenzo(a,h)anthracene	278	11.663	11.663	(1.161)	303335	40.0000	44.0
101 Benzo(ghi)perylene	276	12.155	12.155	(1.210)	285337	40.0000	41.8
126 m-Dinitrobenzene	168	5.758	5.758	(0.968)	69269	40.0000	37.8
130 2,3,4,6-Tetrachlorophenol	232	6.164	6.164	(1.036)	113264	40.0000	39.1
143 Dinoseb	211	6.897	6.897	(0.994)	86673	40.0000	35.0
173 Carbazole	167	7.073	7.073	(1.019)	305139	40.0000	27.3
184 p-Benzoquinone	54	3.335	3.335	(0.868)	29995	40.0000	34.9
192 Methoxychlor	227	8.469	8.469	(0.984)	399276	40.0000	39.2
211 p-Toluidine	106	4.121	4.121	(1.072)	184416	40.0000	42.0
210 m-Toluidine	106	4.142	4.142	(1.078)	214829	40.0000	36.8
214 1,4-Dinitrobenzene	75	5.704	5.704	(0.959)	96531	40.0000	41.7
215 2-Ethoxyethanol	59	2.195	2.195	(0.571)	101835	40.0000	34.9
216 Methylenebis(2-chloroaniline)	231	8.528	8.528	(0.991)	52822	40.0000	32.2
179 Dibenzo(a,e)pyrene	302	15.995	15.995	(1.593)	140218	40.0000	41.0
26 Phthalic anhydride	104	5.239	5.239	(1.114)	86335	40.0000	45.7
M 222 Trichlorophenols	196				237898	80.0000	72.3
M 223 Tetrachlorophenols	232				113264	40.0000	39.1
M 224 Benzo(b,k)fluoranthene	252				995457	80.0000	83.2

Data File: /chem/MSD2.i/s032510.b/s2c2502.d

Date : 25-MAR-2010 14:58

Client ID: MEGACVS

Sample Info: |WBN100309-09.1|40PPM|1|SVMF|1|MEGACVS

Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: AGS1

Column diameter: 0.20

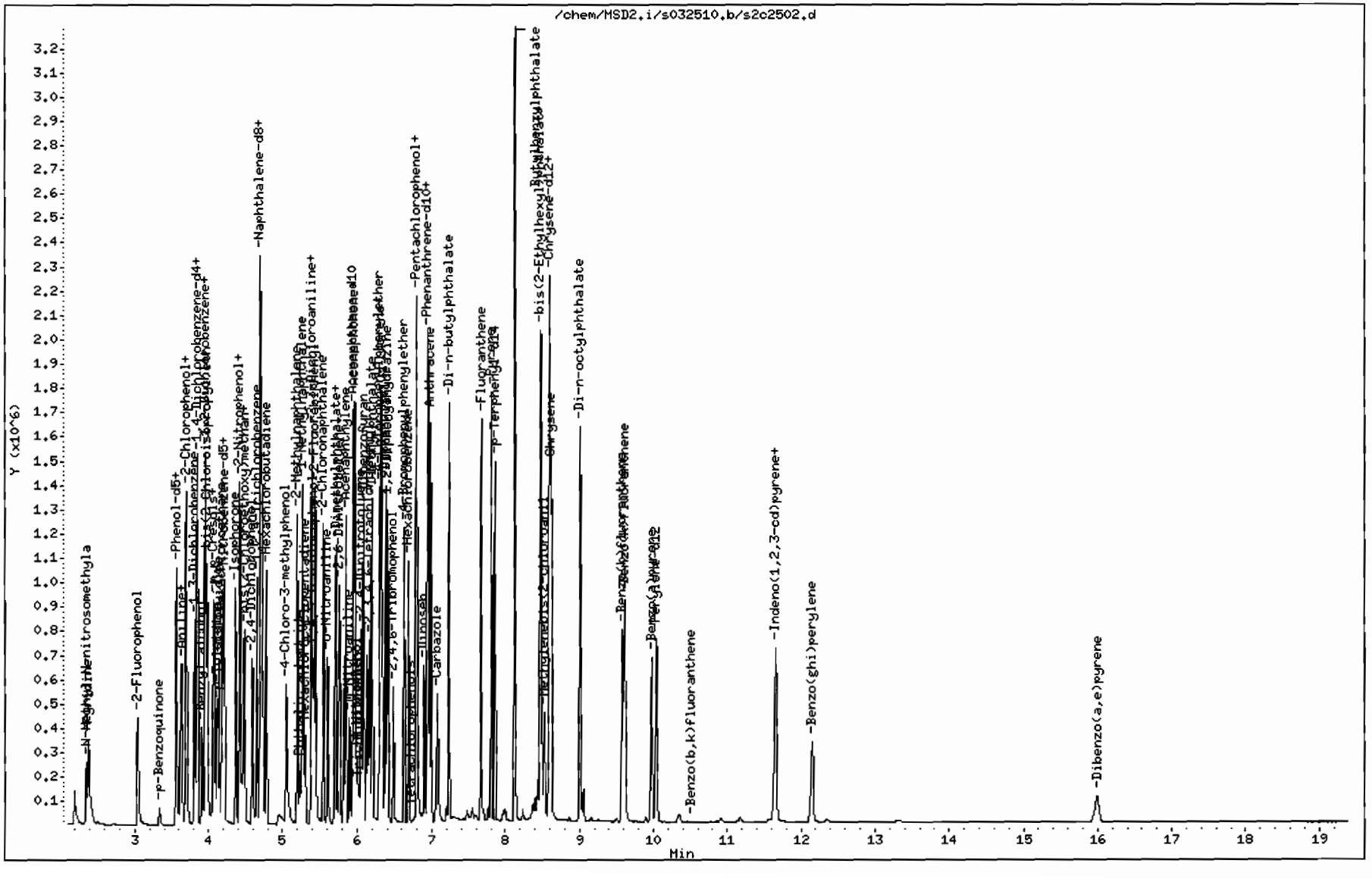

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 25-MAR-2010 15:24
Lab File ID: s2c2503.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86368	0.82595	0.82595	0.000	-4.36827	60.00000	Averaged
16 Acetophenone	1.37576	1.39964	1.39964	0.000	1.73519	60.00000	Averaged
189 Caprolactam	0.08573	0.07947	0.07947	0.000	-7.29821	60.00000	Averaged
208 1,1'-Biphenyl	1.36982	1.28211	1.28211	0.000	-6.40347	60.00000	Averaged
207 Atrazine	0.04293	0.04181	0.04181	0.000	-2.62955	60.00000	Averaged
77 Benzidine	0.33873	0.14608	0.14608	0.000	-56.87488	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.26512	0.24055	0.24055	0.000	-9.26747	60.00000	Averaged
102 1,4-Dioxane	0.34681	0.28362	0.28362	0.000	-18.22082	60.00000	Averaged
103 Methyl methacrylate	0.20110	0.15934	0.15934	0.000	-20.76479	60.00000	Averaged
104 Ethyl methacrylate	0.76185	0.63337	0.63337	0.000	-16.86372	60.00000	Averaged
105 2-Picoline	1.18562	1.00087	1.00087	0.000	-15.58295	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45513	0.40020	0.40020	0.000	-12.07013	60.00000	Averaged
107 Methyl methanesulfonate	0.57842	0.58641	0.58641	0.000	1.38068	60.00000	Averaged
108 N-Nitrosodiethylamine	0.51094	0.47374	0.47374	0.000	-7.28013	60.00000	Averaged
109 Ethyl Methanesulfonate	0.63566	0.59128	0.59128	0.000	-6.98202	60.00000	Averaged
110 Pentachloroethane	0.37569	0.36987	0.36987	0.000	-1.54829	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.53211	0.50077	0.50077	0.000	-5.89023	60.00000	Averaged
113 N-Nitrosomorpholine	0.97127	1.15052	1.15052	0.000	18.45494	60.00000	Averaged
114 o-Toluidine	1.89418	1.77311	1.77311	0.000	-6.39156	60.00000	Averaged
115 N-Nitrosopiperidine	0.13732	0.12103	0.12103	0.000	-11.86331	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.91646	0.93605	0.93605	0.000	2.13699	60.00000	Averaged
118 2,6-Dichlorophenol	0.23643	0.22476	0.22476	0.000	-4.93539	60.00000	Averaged
119 Hexachloropropene	0.12163	0.11045	0.11045	0.000	-9.19574	60.00000	Averaged
120 p-Phenylenediamine	0.21439	0.19248	0.19248	0.000	-10.21880	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21777	0.20576	0.20576	0.000	-5.51376	60.00000	Averaged
122 Safrole	0.21234	0.20777	0.20777	0.000	-2.15308	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.46025	0.43121	0.43121	0.000	-6.30912	60.00000	Averaged
124 Isosafrole	0.35814	0.32101	0.32101	0.000	-10.36573	60.00000	Averaged
125 1,4-Naphthoquinone	0.33102	0.32063	0.32063	0.000	-3.13925	60.00000	Averaged
127 Pentachlorobenzene	0.40528	0.40364	0.40364	0.000	-0.40394	60.00000	Averaged
128 1-Naphthylamine	0.93385	0.89241	0.89241	0.000	-4.43697	60.00000	Averaged
129 2-Naphthylamine	1.00959	0.90471	0.90471	0.000	-10.38844	60.00000	Averaged
131 5-Nitro-o-toluidine	0.26606	0.24027	0.24027	0.000	-9.69205	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.13367	0.14012	0.14012	0.000	4.82440	60.00000	Averaged
137 Phenacetin	0.29810	0.28506	0.28506	0.000	-4.37536	60.00000	Averaged
138 Diallate	0.26365	0.23269	0.23269	0.000	-11.74303	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 25-MAR-2010 15:24
Lab File ID: s2c2503.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.24728	0.20546	0.20546	0.000	-16.91481	60.00000	Averaged
213 Trans Diallate	0.31018	0.27375	0.27375	0.000	-11.74303	60.00000	Averaged
140 4-Aminobiphenyl	0.60442	0.48074	0.48074	0.000	-20.46231	60.00000	Averaged
141 Pentachloronitrobenzene	0.08460	0.09838	0.09838	0.000	16.28929	60.00000	Averaged
142 Pronamide	0.30496	0.33825	0.33825	0.000	10.91422	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	22.68609	40.00000	0.00835	0.000	-43.28478	60.00000	Linear
147 Methapyrilene	0.40497	0.37812	0.37812	0.000	-6.63103	60.00000	Averaged
148 Isodrin	0.09920	0.10423	0.10423	0.000	5.07078	60.00000	Averaged
149 Aramite	0.04916	0.05110	0.05110	0.000	3.95637	60.00000	Averaged
150 Kepone	0.06534	0.06230	0.06230	0.000	-4.64850	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.38501	0.33523	0.33523	0.000	-12.93056	60.00000	Averaged
152 Chlorobenzilate	0.35608	0.35158	0.35158	0.000	-1.26192	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.50325	0.35628	0.35628	0.000	-29.20420	60.00000	Averaged
155 2-Acetylaminofluorene	0.31776	0.30347	0.30347	0.000	-4.49685	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.56755	0.59483	0.59483	0.000	4.80722	60.00000	Averaged
158 3-Methylcholanthrene	0.40852	0.39808	0.39808	0.000	-2.55619	60.00000	Averaged

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Data file : /chem/MSD2.i/s032510.b/s2c2503.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APCVS
Inj Date : 25-MAR-2010 15:24
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100218-08.1|40 PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:33 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.843	3.843	(1.000)	236448	40.0000	
* 29 Naphthalene-d8	136	4.704	4.704	(1.000)	987632	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	625947	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	1166733	40.0000	
* 91 Chrysene-d12	240	8.592	8.592	(1.000)	946677	40.0000	
* 98 Perylene-d12	264	10.031	10.031	(1.000)	573253	40.0000	
209 Benzaldehyde	77	3.570	3.570	(0.929)	195294	40.0000	38.2
16 Acetophenone	105	4.094	4.094	(1.065)	330941	40.0000	40.7
189 Caprolactam	113	4.982	4.982	(1.059)	78490	40.0000	37.1
208 1,1'-Biphenyl	154	5.522	5.522	(0.928)	802531	40.0000	37.4
207 Atrazine	173	6.710	6.710	(0.967)	48776	40.0000	38.9
77 Benzidine	184	7.720	7.720	(0.899)	138287	40.0000	17.2
90 3,3'-Dichlorobenzidine	252	8.528	8.528	(0.993)	227726	40.0000	36.3
102 1,4-Dioxane	88	2.195	2.195	(0.571)	67061	40.0000	32.7
103 Methyl methacrylate	100	2.190	2.190	(0.570)	37676	40.0000	31.7
104 Ethyl methacrylate	69	2.559	2.559	(0.666)	149759	40.0000	33.2
105 2-Picoline	93	2.752	2.752	(0.716)	236653	40.0000	33.8
106 N-Nitrosomethylethylamine	88	2.794	2.794	(0.727)	94626	40.0000	35.2
107 Methyl methanesulfonate	80	2.949	2.949	(0.768)	138655	40.0000	40.6
108 N-Nitrosodiethylamine	102	3.179	3.179	(0.827)	112015	40.0000	37.1
109 Ethyl Methanesulfonate	79	3.335	3.335	(0.868)	139807	40.0000	37.2
110 Pentachloroethane	167	3.666	3.666	(0.954)	87456	40.0000	39.4
111 N-Nitrosopyrrolidine	100	4.083	4.083	(1.063)	118405	40.0000	37.6(Q)
113 N-Nitrosomorpholine	56	4.099	4.099	(1.067)	272037	40.0000	47.4
114 o-Toluidine	106	4.121	4.121	(1.072)	419249	40.0000	37.4
115 N-Nitrosopiperidine	114	4.319	4.319	(0.918)	119531	40.0000	35.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.559	4.559	(0.969)	924471	40.0000	40.8
118 2,6-Dichlorophenol	162	4.747	4.747	(1.009)	221979	40.0000	38.0
119 Hexachloropropene	213	4.773	4.773	(1.015)	109080	40.0000	36.3
120 p-Phenylenediamine	108	4.987	4.987	(1.060)	190100	40.0000	35.9
121 N-Nitrosodi-n-butylamine	84	4.950	4.950	(1.052)	203217	40.0000	37.8
122 Safrole	162	5.116	5.116	(1.088)	205199	40.0000	39.1
123 1,2,4,5-Tetrachlorobenzene	216	5.314	5.314	(0.893)	269917	40.0000	37.5
124 Isosafrole	162	5.485	5.485	(0.922)	200938	40.0000	35.8
125 1,4-Naphthoquinone	158	5.672	5.672	(0.953)	200697	40.0000	38.7
127 Pentachlorobenzene	250	6.062	6.062	(1.019)	252660	40.0000	39.8
128 1-Naphthylamine	143	6.143	6.143	(1.032)	558602	40.0000	38.2
129 2-Naphthylamine	143	6.196	6.196	(1.041)	566298	40.0000	35.8
131 5-Nitro-o-toluidine	152	6.319	6.319	(1.062)	150397	40.0000	36.1
136 1,3,5-Trinitrobenzene	75	6.544	6.544	(0.943)	163487	40.0000	41.9
137 Phenacetin	108	6.571	6.571	(0.947)	332587	40.0000	38.2(Q)
138 Diallate	86	6.554	6.554	(0.944)	271489	40.0000	35.3
212 Cis Diallate	86	6.619	6.619	(0.954)	35957	6.00000	5.0
213 Trans Diallate	86	6.554	6.554	(0.944)	271489	34.0000	30.0
140 4-Aminobiphenyl	169	6.801	6.801	(0.980)	560896	40.0000	31.8
141 Pentachloronitrobenzene	237	6.817	6.817	(0.982)	114784	40.0000	46.5
142 Pronamide	173	6.811	6.811	(0.981)	394646	40.0000	44.4
146 4-Nitroquinoline-1-oxide	101	7.410	7.410	(1.068)	9744	40.0000	22.7
147 Methapyrilene	58	7.421	7.421	(1.069)	441161	40.0000	37.3
148 Isodrin	193	7.581	7.581	(1.092)	121607	40.0000	42.0
149 Aramite	185	7.811	7.811	(1.126)	59623	40.0000	41.6
150 Kepone	272	8.223	8.223	(1.185)	72693	40.0000	38.1
151 p-(Dimethylamino)azobenzene	120	7.934	7.934	(0.923)	317354	40.0000	34.8
152 Chlorobenzilate	251	7.950	7.950	(0.925)	332836	40.0000	39.5
153 3,3'-Dimethylbenzidine	212	8.143	8.143	(0.948)	337284	40.0000	28.3
155 2-Acetylaminofluorene	181	8.320	8.320	(0.968)	287290	40.0000	38.2
157 7,12Dimethylbenz(a)anthracene	256	9.544	9.544	(0.951)	340990	40.0000	41.9
158 3-Methylcholanthrene	268	10.384	10.384	(1.035)	228198	40.0000	39.0(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s032510.b/s2c2503.d
Date : 25-MAR-2010 15:24
Client ID: APCVS
Sample Info: IWBN100218-08.1|40 PPM|1|SVMF|1|APCVS
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

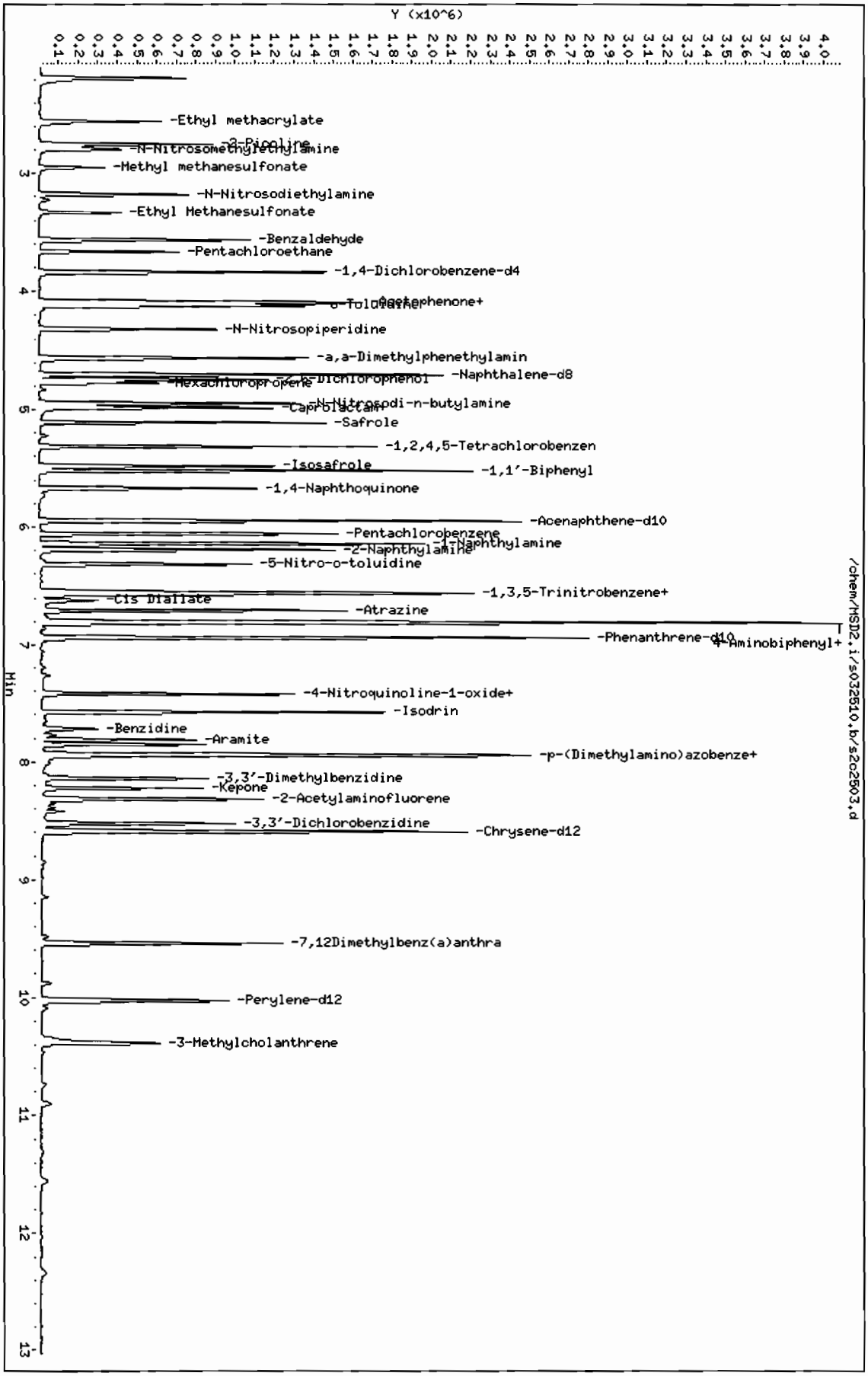

Page 1

Data File: /chem/MSD2.i/s032610.b/s2c2602.d
Report Date: 27-Mar-2010 21:53

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i
Lab File ID: s2c2602.d
Analysis Type:
Lab Sample ID: WBN100309-09.1
Method: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m

Injection Date: 26-MAR-2010 15:25
Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Init. Cal. Times: 15:04 05:54
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	0.95245	0.84952	0.84952	0.000	-10.80672	60.00000	Averaged
$ 5 Phenol-d5	1.17285	1.08428	1.08428	0.000	-7.55170	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28950	0.29672	0.29672	0.000	2.49196	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.10050	1.05389	1.05389	0.000	-4.23522	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11831	0.11272	0.11272	0.000	-4.72328	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.72951	0.66032	0.66032	0.000	-9.48427	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.54740	0.51431	0.51431	0.000	-6.04438	60.00000	Averaged
2 Pyridine	0.77821	0.70775	0.70775	0.000	-9.05518	60.00000	Averaged
4 Aniline	0.57419	0.58211	0.58211	0.000	1.37825	60.00000	Averaged
6 Phenol	1.20923	1.05758	1.05758	0.001	-12.54122	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.03880	1.07689	1.07689	0.000	3.66701	60.00000	Averaged
8 2-Chlorophenol	1.07545	1.00261	1.00261	0.000	-6.77315	60.00000	Averaged
203 n-Decane	1.83655	2.33238	2.33238	0.000	26.99819	60.00000	Averaged
9 1,3-Dichlorobenzene	1.27994	1.27457	1.27457	0.000	-0.41938	60.00000	Averaged
11 1,4-Dichlorobenzene	1.35709	1.37861	1.37861	0.001	1.58564	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.25272	1.25785	1.25785	0.000	0.40970	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.53958	3.15355	3.15355	0.000	24.17613	60.00000	Averaged
12 Benzyl alcohol	0.56959	0.28350	0.28350	0.000	-50.22720	60.00000	Averaged
15 o-Cresol	0.85386	0.78314	0.78314	0.000	-8.28244	60.00000	Averaged
18 m,p-Cresols	1.01734	0.91492	0.91492	0.000	-10.06716	60.00000	Averaged
17 N-Nitrosodipropylamine	0.75875	0.77340	0.77340	0.050	1.93055	60.00000	Averaged spcc
19 Hexachloroethane	0.53630	0.58524	0.58524	0.000	9.12475	60.00000	Averaged
21 Nitrobenzene	0.27250	0.27942	0.27942	0.000	2.53840	60.00000	Averaged
22 Isophorone	0.49283	0.49816	0.49816	0.000	1.08185	60.00000	Averaged
23 2-Nitrophenol	0.14268	0.12233	0.12233	0.001	-14.26424	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.25525	0.17231	0.17231	0.000	-32.49390	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.28272	0.26585	0.26585	0.000	-5.96907	60.00000	Averaged
26 2,4-Dichlorophenol	0.20229	0.18460	0.18460	0.001	-8.74083	20.00000	Averaged ccc
27 Benzoic acid	0.12590	0.11622	0.11622	0.000	-7.68513	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24729	0.24808	0.24808	0.000	0.32111	60.00000	Averaged
30 Naphthalene	0.79318	0.74995	0.74995	0.000	-5.44972	60.00000	Averaged
204 alpha-Terpineol	0.27145	0.30185	0.30185	0.000	11.19925	60.00000	Averaged
31 4-Chloroaniline	0.34451	0.30723	0.30723	0.000	-10.82115	60.00000	Averaged
32 Hexachlorobutadiene	0.14968	0.16557	0.16557	0.001	10.61384	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21753	0.20717	0.20717	0.001	-4.76276	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.50978	0.49774	0.49774	0.000	-2.36278	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-MAR-2010 15:25
Lab File ID: s2c2602.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.50131	0.50289	0.50289	0.000	0.31570	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.19037	0.16309	0.16309	0.050	-14.32971	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.55748	0.52537	0.52537	0.000	-5.75916	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.30076	0.26359	0.26359	0.001	-12.35965	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.32450	0.28177	0.28177	0.000	-13.16692	60.00000	Averaged
40 2-Chloronaphthalene	0.96947	0.91506	0.91506	0.000	-5.61251	60.00000	Averaged
42 o-Nitroaniline	0.30226	0.29730	0.29730	0.000	-1.64178	60.00000	Averaged
41 m-Nitroaniline	27.91412	40.00000	0.13510	0.000	-30.21471	60.00000	Linear
43 Dimethylphthalate	1.13752	1.14724	1.14724	0.000	0.85501	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25727	0.24980	0.24980	0.000	-2.90390	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32134	0.31078	0.31078	0.000	-3.28817	60.00000	Averaged
45 Acenaphthylene	1.46137	1.39595	1.39595	0.000	-4.47650	60.00000	Averaged
47 Acenaphthene	1.06534	1.07340	1.07340	0.001	0.75634	20.00000	Averaged ccc
48 2,4-Dinitrophenol	42.41691	40.00000	0.11287	0.050	6.04226	60.00000	Linear spcc
49 Dibenzofuran	1.30868	1.25298	1.25298	0.000	-4.25650	60.00000	Averaged
51 Diethylphthalate	1.16673	1.24765	1.24765	0.000	6.93551	60.00000	Averaged
52 4-Nitrophenol	0.15969	0.12437	0.12437	0.050	-22.11706	60.00000	Averaged spcc
53 Fluorene	1.13544	1.14385	1.14385	0.000	0.74043	60.00000	Averaged
54 4-Chlorophenylphenylether	0.53496	0.52189	0.52189	0.000	-2.44331	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	38.13931	40.00000	0.09393	0.000	-4.65173	60.00000	Linear
56 p-Nitroaniline	27.89801	40.00000	0.12067	0.000	-30.25498	60.00000	Linear
133 Diphenylamine	0.52058	0.46026	0.46026	0.001	-11.58680	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.67800	0.63314	0.63314	0.000	-6.61712	60.00000	Averaged
61 4-Bromophenylphenylether	0.17599	0.16998	0.16998	0.000	-3.41758	60.00000	Averaged
63 Hexachlorobenzene	0.17573	0.17982	0.17982	0.000	2.32611	60.00000	Averaged
65 Pentachlorophenol	0.09101	0.07956	0.07956	0.001	-12.58297	20.00000	Averaged ccc
206 n-Octadecane	0.58034	0.63764	0.63764	0.000	9.87408	60.00000	Averaged
68 Phenanthrene	0.98866	1.00053	1.00053	0.000	1.20041	60.00000	Averaged
69 Anthracene	0.95642	0.92635	0.92635	0.000	-3.14379	60.00000	Averaged
72 Di-n-butylphthalate	1.13150	1.23666	1.23666	0.000	9.29374	60.00000	Averaged
76 Fluoranthene	0.89301	0.97516	0.97516	0.001	9.19937	20.00000	Averaged ccc
79 Pyrene	1.30387	1.18791	1.18791	0.000	-8.89359	60.00000	Averaged
85 Butylbenzylphthalate	0.61006	0.60541	0.60541	0.000	-0.76218	60.00000	Averaged
89 Benzo(a)anthracene	0.99826	0.97209	0.97209	0.000	-2.62083	60.00000	Averaged
92 Chrysene	0.93128	0.88559	0.88559	0.000	-4.90619	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.84005	0.81972	0.81972	0.000	-2.42018	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-MAR-2010 15:25
Lab File ID: s2c2602.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.90697	1.94128	1.94128	0.001	1.79884	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	1.09105	1.19664	1.19664	0.000	9.67851	60.00000	Averaged	
96 Benzo(k)fluoranthene	1.10378	1.09567	1.09567	0.000	-0.73544	60.00000	Averaged	
97 Benzo(a)pyrene	0.90429	0.92966	0.92966	0.001	2.80475	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	0.77408	0.81172	0.81172	0.000	4.86204	60.00000	Averaged	
100 Dibenzo(a,h)anthracene	0.63240	0.66504	0.66504	0.000	5.16073	60.00000	Averaged	
101 Benzo(ghi)perylene	0.62698	0.64149	0.64149	0.000	2.31335	60.00000	Averaged	
126 m-Dinitrobenzene	0.17415	0.15567	0.15567	0.000	-10.61312	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.27504	0.26617	0.26617	0.000	-3.22744	60.00000	Averaged	
143 Dinoseb	39.69399	40.00000	0.13422	0.000	-0.76503	60.00000	Linear	
173 Carbazole	20.90772	40.00000	0.28714	0.000	-47.73071	60.00000	Linear	
184 p-Benzoquinone	34.30498	40.00000	0.17736	0.000	-14.23755	60.00000	Linear	
192 Methoxychlor	0.60564	0.61717	0.61717	0.000	1.90282	60.00000	Averaged	
211 p-Toluidine	1.06068	0.86766	0.86766	0.000	-18.19850	60.00000	Averaged	
210 m-Toluidine	1.41165	1.36151	1.36151	0.000	-3.55164	60.00000	Averaged	
214 1,4-Dinitrobenzene	0.22002	0.23185	0.23185	0.000	5.37315	60.00000	Averaged	
215 2-Ethoxyethanol	0.70592	0.55001	0.55001	0.000	-22.08626	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	36.16631	40.00000	0.09011	0.000	-9.58422	60.00000	Linear	
179 Dibenzo(a,e)pyrene	0.31408	0.30121	0.30121	0.000	-4.09508	60.00000	Averaged	
26 Phthalic anhydride	39.20317	40.00000	0.09379	0.000	-1.99207	60.00000	Linear	
M 222 Trichlorophenols	0.31263	0.27268	0.27268	0.000	-12.77861	60.00000	Averaged	
M 223 Tetrachlorophenols	0.27504	0.26617	0.26617	0.000	-3.22744	60.00000	Averaged	
M 224 Benzo(b,k)fluoranthene	1.09742	1.14615	1.14615	0.000	4.44131	60.00000	Averaged	

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Data file : /chem/MSD2.i/s032610.b/s2c2602.d
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGACVS
Inj Date : 26-MAR-2010 15:25
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100309-09.1|40PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	158646	40.0000	
* 29 Naphthalene-d8	136	4.672	4.672	(1.000)	744655	40.0000	
* 46 Acenaphthene-d10	164	5.918	5.918	(1.000)	397163	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	686062	40.0000	
* 91 Chrysene-d12	240	8.555	8.555	(1.000)	608658	40.0000	
* 98 Perylene-d12	264	9.962	9.962	(1.000)	380590	40.0000	
$ 3 2-Fluorophenol	112	3.003	3.003	(0.788)	134773	40.0000	35.7
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	172017	40.0000	37.0
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.892)	220952	40.0000	41.0
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.914)	418568	40.0000	38.3
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.090)	44769	40.0000	38.1
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.914)	401909	40.0000	36.2
1 N-Methyl-N-nitrosomethylamine	74	2.319	2.319	(0.608)	81594	40.0000	37.6
2 Pyridine	79	2.345	2.345	(0.615)	112281	40.0000	36.4
4 Aniline	66	3.597	3.597	(0.944)	92349	40.0000	40.6
6 Phenol	94	3.538	3.538	(0.928)	167781	40.0000	35.0
7 bis(2-Chloroethyl) ether	63	3.613	3.613	(0.948)	170844	40.0000	41.5
8 2-Chlorophenol	128	3.677	3.677	(0.965)	159060	40.0000	37.3
203 n-Decane	43	3.661	3.661	(0.961)	370023	40.0000	50.8
9 1,3-Dichlorobenzene	146	3.773	3.773	(0.990)	202206	40.0000	39.8
11 1,4-Dichlorobenzene	146	3.822	3.822	(1.003)	218711	40.0000	40.6
13 1,2-Dichlorobenzene	146	3.923	3.923	(1.029)	199553	40.0000	40.2
14 bis(2-Chloroisopropyl)ether	45	3.955	3.955	(1.038)	500298	40.0000	49.7
12 Benzyl alcohol	108	3.880	3.880	(1.018)	44976	40.0000	19.9
15 o-Cresol	107	3.929	3.929	(1.031)	124242	40.0000	36.7
18 m,p-Cresols	107	4.030	4.030	(1.058)	145149	40.0000	36.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.046	4.046	(1.062)	122697	40.0000	40.8
19 Hexachloroethane	117	4.148	4.148	(1.088)	92846	40.0000	43.6
21 Nitrobenzene	77	4.185	4.185	(0.896)	208068	40.0000	41.0
22 Isophorone	82	4.335	4.335	(0.928)	370957	40.0000	40.4
23 2-Nitrophenol	139	4.394	4.394	(0.940)	91090	40.0000	34.3
24 2,4-Dimethylphenol	122	4.394	4.394	(0.940)	128311	40.0000	27.0
25 bis(2-Chloroethoxy)methane	93	4.458	4.458	(0.954)	197964	40.0000	37.6
26 2,4-Dichlorophenol	162	4.560	4.560	(0.976)	137467	40.0000	36.5
27 Benzoic acid	105	4.447	4.447	(0.952)	86547	40.0000	36.9
28 1,2,4-Trichlorobenzene	180	4.624	4.624	(0.990)	184735	40.0000	40.1
30 Naphthalene	128	4.688	4.688	(1.003)	558455	40.0000	37.8
204 alpha-Terpineol	59	4.667	4.667	(0.999)	224777	40.0000	44.5
31 4-Chloroaniline	127	4.704	4.704	(1.007)	228779	40.0000	35.7
32 Hexachlorobutadiene	225	4.752	4.752	(1.017)	123290	40.0000	44.2
33 4-Chloro-3-methylphenol	107	5.020	5.020	(1.074)	154269	40.0000	38.1
34 2-Methylnaphthalene	142	5.164	5.164	(1.105)	370643	40.0000	39.0
35 1-Methylnaphthalene	142	5.239	5.239	(1.121)	374483	40.0000	40.1
36 Hexachlorocyclopentadiene	237	5.266	5.266	(0.890)	64772	40.0000	34.3
205 2,3-Dichloroaniline	161	5.362	5.362	(0.906)	208658	40.0000	37.7
37 2,4,6-Trichlorophenol	196	5.357	5.357	(0.905)	104687	40.0000	35.0
38 2,4,5-Trichlorophenol	196	5.383	5.383	(0.910)	111910	40.0000	34.7
40 2-Chloronaphthalene	162	5.517	5.517	(0.932)	363426	40.0000	37.8
42 o-Nitroaniline	65	5.576	5.576	(0.942)	118076	40.0000	39.3
41 m-Nitroaniline	138	5.870	5.870	(0.992)	53655	40.0000	27.9
43 Dimethylphthalate	163	5.688	5.688	(0.961)	455642	40.0000	40.3
44 2,6-Dinitrotoluene	165	5.742	5.742	(0.970)	99212	40.0000	38.8
50 2,4-Dinitrotoluene	165	6.025	6.025	(1.018)	123429	40.0000	38.7
45 Acenaphthylene	152	5.817	5.817	(0.983)	554421	40.0000	38.2
47 Acenaphthene	154	5.940	5.940	(1.004)	426313	40.0000	40.3
48 2,4-Dinitrophenol	184	5.940	5.940	(1.004)	44828	40.0000	42.4
49 Dibenzofuran	168	6.057	6.057	(1.023)	497637	40.0000	38.3
51 Diethylphthalate	149	6.170	6.170	(1.042)	495521	40.0000	42.8
52 4-Nitrophenol	139	5.966	5.966	(1.008)	49397	40.0000	31.2
53 Fluorene	166	6.293	6.293	(1.063)	454295	40.0000	40.3
54 4-Chlorophenylphenylether	204	6.271	6.271	(1.060)	207274	40.0000	39.0
55 2-Methyl-4,6-dinitrophenol	198	6.309	6.309	(0.913)	64444	40.0000	38.1
56 p-Nitroaniline	138	6.293	6.293	(1.063)	47927	40.0000	27.9
133 Diphenylamine	169	6.351	6.351	(0.919)	315768	40.0000	35.4
58 1,2-Diphenylhydrazine	77	6.378	6.378	(0.923)	434370	40.0000	37.4
61 4-Bromophenylphenylether	248	6.597	6.597	(0.955)	116616	40.0000	38.6
63 Hexachlorobenzene	284	6.656	6.656	(0.964)	123369	40.0000	40.9
65 Pentachlorophenol	266	6.774	6.774	(0.981)	54580	40.0000	35.0
206 n-Octadecane	57	6.763	6.763	(0.979)	437460	40.0000	43.9
68 Phenanthrene	178	6.924	6.924	(1.002)	686423	40.0000	40.5
69 Anthracene	178	6.956	6.956	(1.007)	635533	40.0000	38.7
72 Di-n-butylphthalate	149	7.197	7.197	(1.042)	848427	40.0000	43.7
76 Fluoranthene	202	7.635	7.635	(1.105)	669019	40.0000	43.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.774	7.774	(0.909)	723032	40.0000	36.4
85 Butylbenzylphthalate	149	8.084	8.084	(0.945)	368489	40.0000	39.7
89 Benzo(a)anthracene	228	8.544	8.544	(0.999)	591672	40.0000	39.0
92 Chrysene	228	8.576	8.576	(1.002)	539024	40.0000	38.0
93 bis(2-Ethylhexyl)phthalate	149	8.437	8.437	(0.986)	498927	40.0000	39.0
94 Di-n-octylphthalate	149	8.951	8.951	(0.899)	738831	40.0000	40.7
95 Benzo(b)fluoranthene	252	9.512	9.512	(0.955)	455430	40.0000	43.9
96 Benzo(k)fluoranthene	252	9.539	9.539	(0.958)	417000	40.0000	39.7
97 Benzo(a)pyrene	252	9.892	9.892	(0.993)	353818	40.0000	41.1
99 Indeno(1,2,3-cd)pyrene	276	11.534	11.534	(1.158)	308931	40.0000	41.9
100 Dibenzo(a,h)anthracene	278	11.540	11.540	(1.158)	253106	40.0000	42.1
101 Benzo(ghi)perylene	276	12.021	12.021	(1.207)	244144	40.0000	40.9
126 m-Dinitrobenzene	168	5.726	5.726	(0.967)	61825	40.0000	35.8
130 2,3,4,6-Tetrachlorophenol	232	6.132	6.132	(1.036)	105711	40.0000	38.7
143 Dinoseb	211	6.865	6.865	(0.994)	92086	40.0000	39.7
173 Carbazole	167	7.041	7.041	(1.019)	196996	40.0000	20.9
184 p-Benzoquinone	54	3.303	3.303	(0.867)	28137	40.0000	34.3
192 Methoxychlor	227	8.421	8.421	(0.984)	375643	40.0000	40.8
211 p-Toluidine	106	4.089	4.089	(1.073)	137650	40.0000	32.7
210 m-Toluidine	106	4.110	4.110	(1.079)	215998	40.0000	38.6
214 1,4-Dinitrobenzene	75	5.667	5.667	(0.958)	92081	40.0000	42.1
215 2-Ethoxyethanol	59	2.158	2.158	(0.566)	87257	40.0000	31.2
216 Methylenebis(2-chloroaniline)	231	8.480	8.480	(0.991)	54849	40.0000	36.2
179 Dibenzo(a,e)pyrene	302	15.770	15.770	(1.583)	114639	40.0000	38.4
26 Phthalic anhydride	104	5.207	5.207	(1.114)	69844	40.0000	39.2
M 222 Trichlorophenols	196				216597	80.0000	69.8
M 223 Tetrachlorophenols	232				105711	40.0000	38.7
M 224 Benzo(b,k)fluoranthene	252				872430	80.0000	83.6

Data File: /chem/MSD2.i/s032610.b/s2c2602.d

Date : 26-MAR-2010 15:25

Client ID: MEGACVS

Sample Info: |WBN100309-09.1|40PPM|1|SVMF|1|MEGACVS

Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: ACS1

Column diameter: 0.20

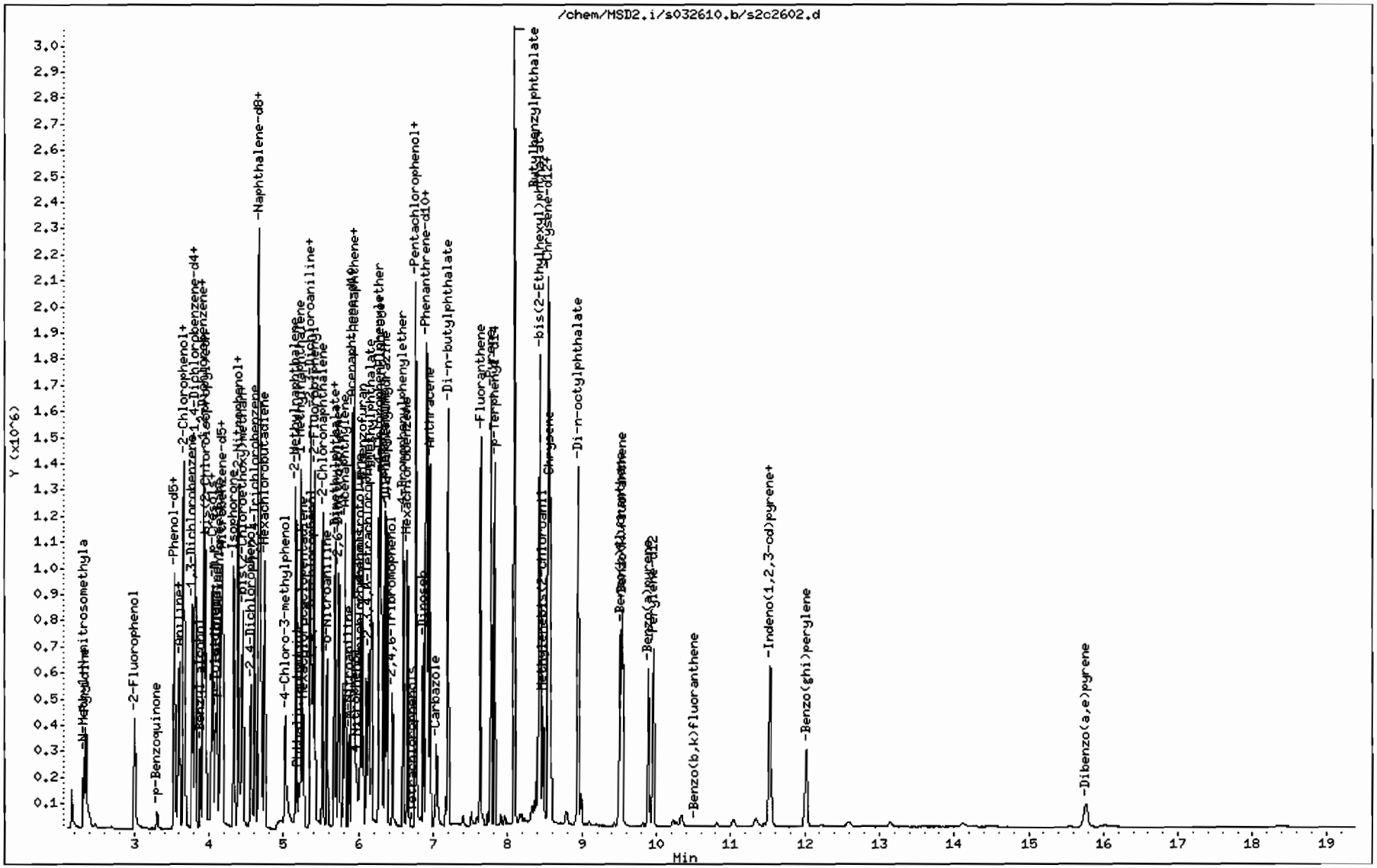

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-MAR-2010 16:34
Lab File ID: s2c2605.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86368	0.81614	0.81614	0.000	-5.50454	60.00000	Averaged
16 Acetophenone	1.37576	1.39463	1.39463	0.000	1.37145	60.00000	Averaged
189 Caprolactam	0.08573	0.07926	0.07926	0.000	-7.54673	60.00000	Averaged
208 1,1'-Biphenyl	1.36982	1.24082	1.24082	0.000	-9.41777	60.00000	Averaged
207 Atrazine	0.04293	0.04070	0.04070	0.000	-5.20042	60.00000	Averaged
77 Benzidine	0.33873	0.15976	0.15976	0.000	-52.83396	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.26512	0.26252	0.26252	0.000	-0.98085	60.00000	Averaged
102 1,4-Dioxane	0.34681	0.26478	0.26478	0.000	-23.65264	60.00000	Averaged
103 Methyl methacrylate	0.20110	0.15368	0.15368	0.000	-23.57876	60.00000	Averaged
104 Ethyl methacrylate	0.76185	0.61445	0.61445	0.000	-19.34673	60.00000	Averaged
105 2-Picoline	1.18562	0.96844	0.96844	0.000	-18.31807	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45513	0.38562	0.38562	0.000	-15.27205	60.00000	Averaged
107 Methyl methanesulfonate	0.57842	0.57101	0.57101	0.000	-1.28221	60.00000	Averaged
108 N-Nitrosodiethylamine	0.51094	0.47555	0.47555	0.000	-6.92658	60.00000	Averaged
109 Ethyl Methanesulfonate	0.63566	0.58560	0.58560	0.000	-7.87612	60.00000	Averaged
110 Pentachloroethane	0.37569	0.36414	0.36414	0.000	-3.07397	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.53211	0.49645	0.49645	0.000	-6.70041	60.00000	Averaged
113 N-Nitrosomorpholine	0.97127	1.16376	1.16376	0.000	19.81823	60.00000	Averaged
114 o-Toluidine	1.89418	1.80202	1.80202	0.000	-4.86538	60.00000	Averaged
115 N-Nitrosopiperidine	0.13732	0.12093	0.12093	0.000	-11.93267	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.91646	0.93864	0.93864	0.000	2.41938	60.00000	Averaged
118 2,6-Dichlorophenol	0.23643	0.21746	0.21746	0.000	-8.02446	60.00000	Averaged
119 Hexachloropropene	0.12163	0.13266	0.13266	0.000	9.07094	60.00000	Averaged
120 p-Phenylenediamine	0.21439	0.18197	0.18197	0.000	-15.12054	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21777	0.20311	0.20311	0.000	-6.73091	60.00000	Averaged
122 Safrole	0.21234	0.20391	0.20391	0.000	-3.97130	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.46025	0.42650	0.42650	0.000	-7.33424	60.00000	Averaged
124 Isosafrole	0.35814	0.30007	0.30007	0.000	-16.21275	60.00000	Averaged
125 1,4-Naphthoquinone	0.33102	0.28003	0.28003	0.000	-15.40405	60.00000	Averaged
127 Pentachlorobenzene	0.40528	0.39612	0.39612	0.000	-2.26147	60.00000	Averaged
128 1-Naphthylamine	0.93385	0.83975	0.83975	0.000	-10.07595	60.00000	Averaged
129 2-Naphthylamine	1.00959	0.83732	0.83732	0.000	-17.06281	60.00000	Averaged
131 5-Nitro-o-toluidine	0.26606	0.22952	0.22952	0.000	-13.73210	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.13367	0.16157	0.16157	0.000	20.86978	60.00000	Averaged
137 Phenacetin	0.29810	0.27909	0.27909	0.000	-6.37834	60.00000	Averaged
138 Diallate	0.26365	0.23159	0.23159	0.000	-12.15938	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-MAR-2010 16:34
Lab File ID: s2c2605.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.24728	0.19881	0.19881	0.000	-19.60261	60.00000	Averaged
213 Trans Diallate	0.31018	0.27246	0.27246	0.000	-12.15938	60.00000	Averaged
140 4-Aminobiphenyl	0.60442	0.50091	0.50091	0.000	-17.12453	60.00000	Averaged
141 Pentachloronitrobenzene	0.08460	0.10249	0.10249	0.000	21.14627	60.00000	Averaged
142 Pronamide	0.30496	0.35150	0.35150	0.000	15.26076	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	30.28667	40.00000	0.01191	0.000	-24.28331	60.00000	Linear
147 Methapyrilene	0.40497	0.37524	0.37524	0.000	-7.34237	60.00000	Averaged
148 Isodrin	0.09920	0.10321	0.10321	0.000	4.04865	60.00000	Averaged
149 Aramite	0.04916	0.04809	0.04809	0.000	-2.16305	60.00000	Averaged
150 Kepone	0.06534	0.06391	0.06391	0.000	-2.18656	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.38501	0.33876	0.33876	0.000	-12.01296	60.00000	Averaged
152 Chlorobenzilate	0.35608	0.33623	0.33623	0.000	-5.57274	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.50325	0.38113	0.38113	0.000	-24.26658	60.00000	Averaged
155 2-Acetylaminofluorene	0.31776	0.34795	0.34795	0.000	9.49941	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.56755	0.54684	0.54684	0.000	-3.64944	60.00000	Averaged
158 3-Methylcholanthrene	0.40852	0.39297	0.39297	0.000	-3.80636	60.00000	Averaged

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Data file : /chem/MSD2.i/s032610.b/s2c2605.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APCVS
Inj Date : 26-MAR-2010 16:34
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100218-08.1|40 PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 26-Mar-2010 17:05 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	205189	40.0000	
* 29 Naphthalene-d8	136	4.672	4.672	(1.000)	856171	40.0000	
* 46 Acenaphthene-d10	164	5.918	5.918	(1.000)	554090	40.0000	
* 67 Phenanthrene-d10	188	6.913	6.913	(1.000)	990324	40.0000	
* 91 Chrysene-d12	240	8.555	8.555	(1.000)	790141	40.0000	
* 98 Perylene-d12	264	9.962	9.962	(1.000)	502641	40.0000	
209 Benzaldehyde	77	3.538	3.538	(0.928)	167462	40.0000	37.8
16 Acetophenone	105	4.062	4.062	(1.066)	286163	40.0000	40.5
189 Caprolactam	113	4.955	4.955	(1.061)	67860	40.0000	37.0
208 1,1'-Biphenyl	154	5.490	5.490	(0.928)	687524	40.0000	36.2
207 Atrazine	173	6.683	6.683	(0.967)	40308	40.0000	37.9
77 Benzidine	184	7.689	7.689	(0.899)	126236	40.0000	18.9
90 3,3'-Dichlorobenzidine	252	8.491	8.491	(0.992)	207430	40.0000	39.6
102 1,4-Dioxane	88	2.163	2.163	(0.568)	54330	40.0000	30.5
103 Methyl methacrylate	100	2.158	2.158	(0.566)	31534	40.0000	30.6
104 Ethyl methacrylate	69	2.527	2.527	(0.663)	126079	40.0000	32.3
105 2-Picoline	93	2.720	2.720	(0.714)	198713	40.0000	32.7
106 N-Nitrosomethylethylamine	88	2.763	2.763	(0.725)	79126	40.0000	33.9
107 Methyl methanesulfonate	80	2.918	2.918	(0.766)	117164	40.0000	39.5
108 N-Nitrosodiethylamine	102	3.148	3.148	(0.826)	97577	40.0000	37.2
109 Ethyl Methanesulfonate	79	3.308	3.308	(0.868)	120158	40.0000	36.8
110 Pentachloroethane	167	3.634	3.634	(0.954)	74718	40.0000	38.8
111 N-Nitrosopyrrolidine	100	4.057	4.057	(1.065)	101867	40.0000	37.3(Q)
113 N-Nitrosomorpholine	56	4.073	4.073	(1.069)	238790	40.0000	47.9
114 o-Toluidine	106	4.089	4.089	(1.073)	369755	40.0000	38.0
115 N-Nitrosopiperidine	114	4.287	4.287	(0.918)	103539	40.0000	35.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.528	4.528	(0.969)	803633	40.0000	41.0
118 2,6-Dichlorophenol	162	4.715	4.715	(1.009)	186179	40.0000	36.8
119 Hexachloropropene	213	4.742	4.742	(1.015)	113583	40.0000	43.6
120 p-Phenylenediamine	108	4.955	4.955	(1.061)	155799	40.0000	34.0
121 N-Nitrosodi-n-butylamine	84	4.918	4.918	(1.053)	173898	40.0000	37.3
122 Safrole	162	5.084	5.084	(1.088)	174580	40.0000	38.4
123 1,2,4,5-Tetrachlorobenzene	216	5.287	5.287	(0.893)	236317	40.0000	37.1
124 Isosafrole	162	5.453	5.453	(0.921)	166268	40.0000	33.5
125 1,4-Naphthoquinone	158	5.640	5.640	(0.953)	155162	40.0000	33.8
127 Pentachlorobenzene	250	6.031	6.031	(1.019)	219484	40.0000	39.1
128 1-Naphthylamine	143	6.111	6.111	(1.033)	465298	40.0000	36.0
129 2-Naphthylamine	143	6.164	6.164	(1.042)	463952	40.0000	33.2
131 5-Nitro-o-toluidine	152	6.287	6.287	(1.062)	127176	40.0000	34.5
136 1,3,5-Trinitrobenzene	75	6.517	6.517	(0.943)	160009	40.0000	48.3
137 Phenacetin	108	6.544	6.544	(0.947)	276387	40.0000	37.4(Q)
138 Diallate	86	6.528	6.528	(0.944)	229353	40.0000	35.1
212 Cis Diallate	86	6.587	6.587	(0.953)	29533	6.00000	4.8
213 Trans Diallate	86	6.528	6.528	(0.944)	229353	34.0000	29.9
140 4-Aminobiphenyl	169	6.774	6.774	(0.980)	496068	40.0000	33.2
141 Pentachloronitrobenzene	237	6.785	6.785	(0.981)	101498	40.0000	48.4
142 Pronamide	173	6.785	6.785	(0.981)	348103	40.0000	46.1
146 4-Nitroquinoline-1-oxide	101	7.378	7.378	(1.067)	11794	40.0000	30.3
147 Methapyrilene	58	7.394	7.394	(1.070)	371605	40.0000	37.1
148 Isodrin	193	7.550	7.550	(1.092)	102216	40.0000	41.6
149 Aramite	185	7.785	7.785	(1.126)	47629	40.0000	39.1
150 Kepone	272	8.191	8.191	(1.185)	63295	40.0000	39.1
151 p-(Dimethylamino)azobenzene	120	7.903	7.903	(0.924)	267670	40.0000	35.2
152 Chlorobenzilate	251	7.919	7.919	(0.926)	265672	40.0000	37.8
153 3,3'-Dimethylbenzidine	212	8.111	8.111	(0.948)	301147	40.0000	30.3
155 2-Acetylaminofluorene	181	8.282	8.282	(0.968)	274927	40.0000	43.8
157 7,12Dimethylbenz(a)anthracene	256	9.486	9.486	(0.952)	274863	40.0000	38.5
158 3-Methylcholanthrene	268	10.309	10.309	(1.035)	197522	40.0000	38.5(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s032610.b/s2c2605.d
Date : 26-MAR-2010 16:34
Client ID: APCVS
Sample Info: IWBN100218-08,1|40 PPM|1|SVMF|1|APCVS
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

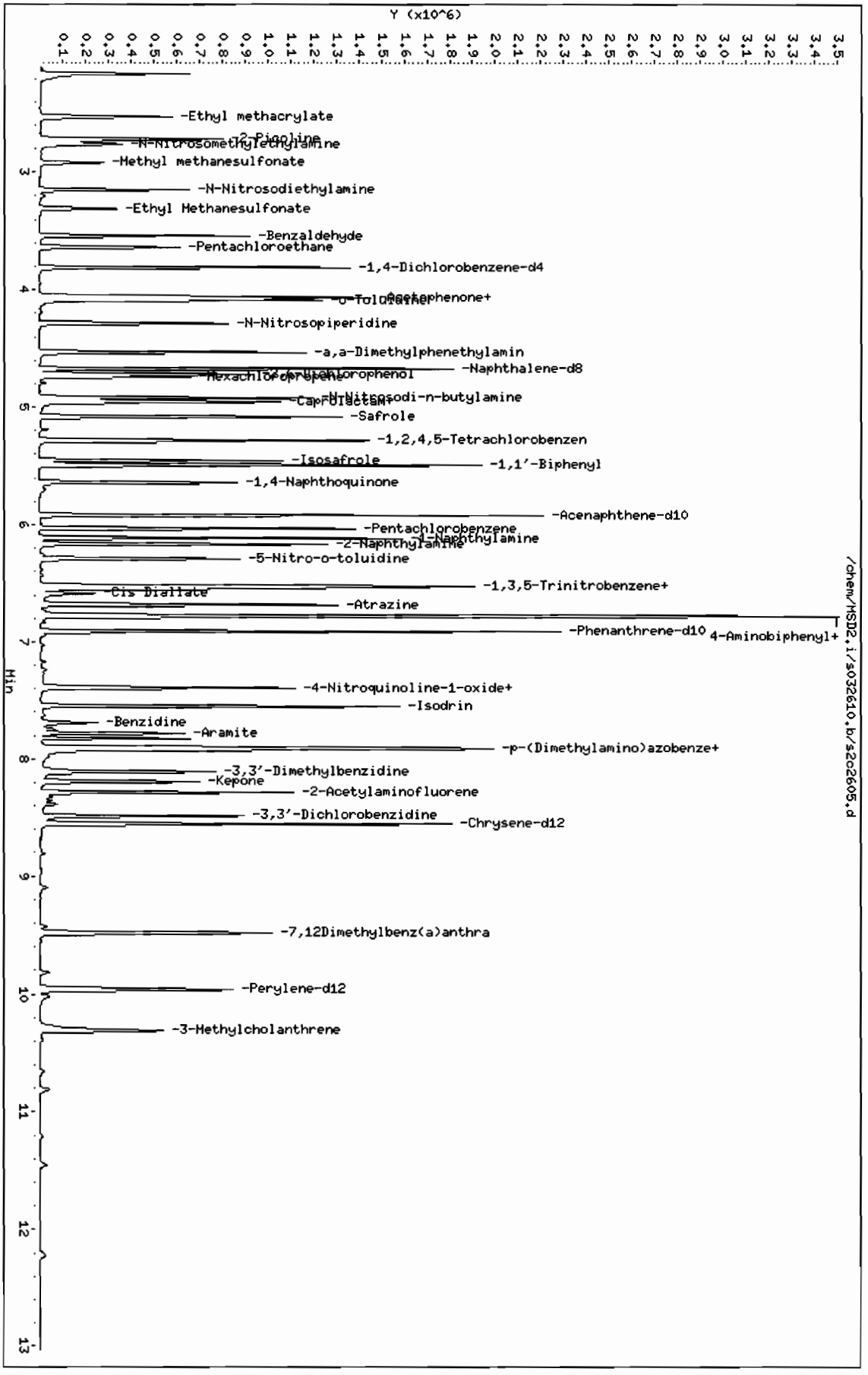

Page 1

QC Data

Data File: /chem/MSD2.i/s031210.b/s2c1201.d

Date : 12-MAR-2010 14:32

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

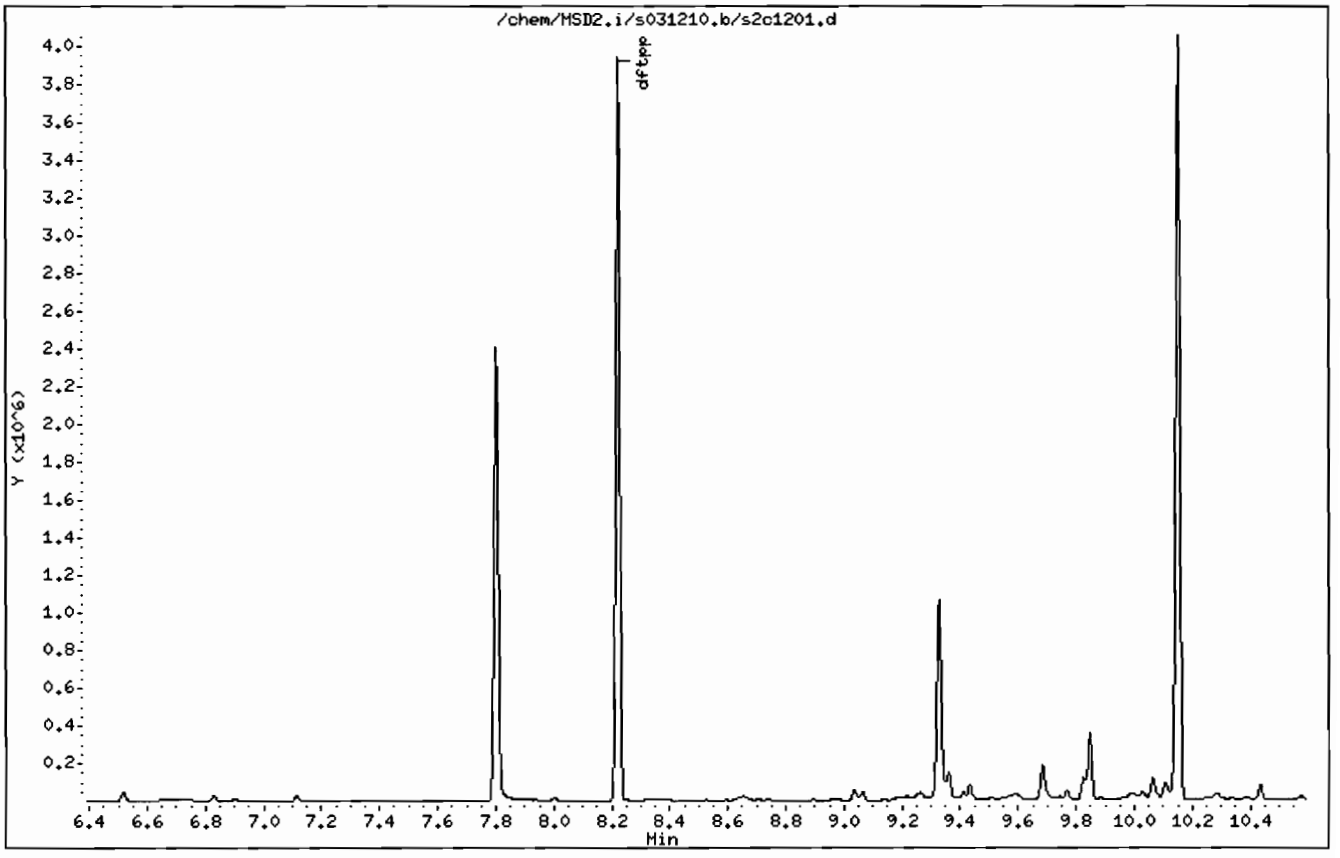

Data File: /chem/MSD2.i/s031210.b/s2c1201.d

Date : 12-MAR-2010 14:32

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

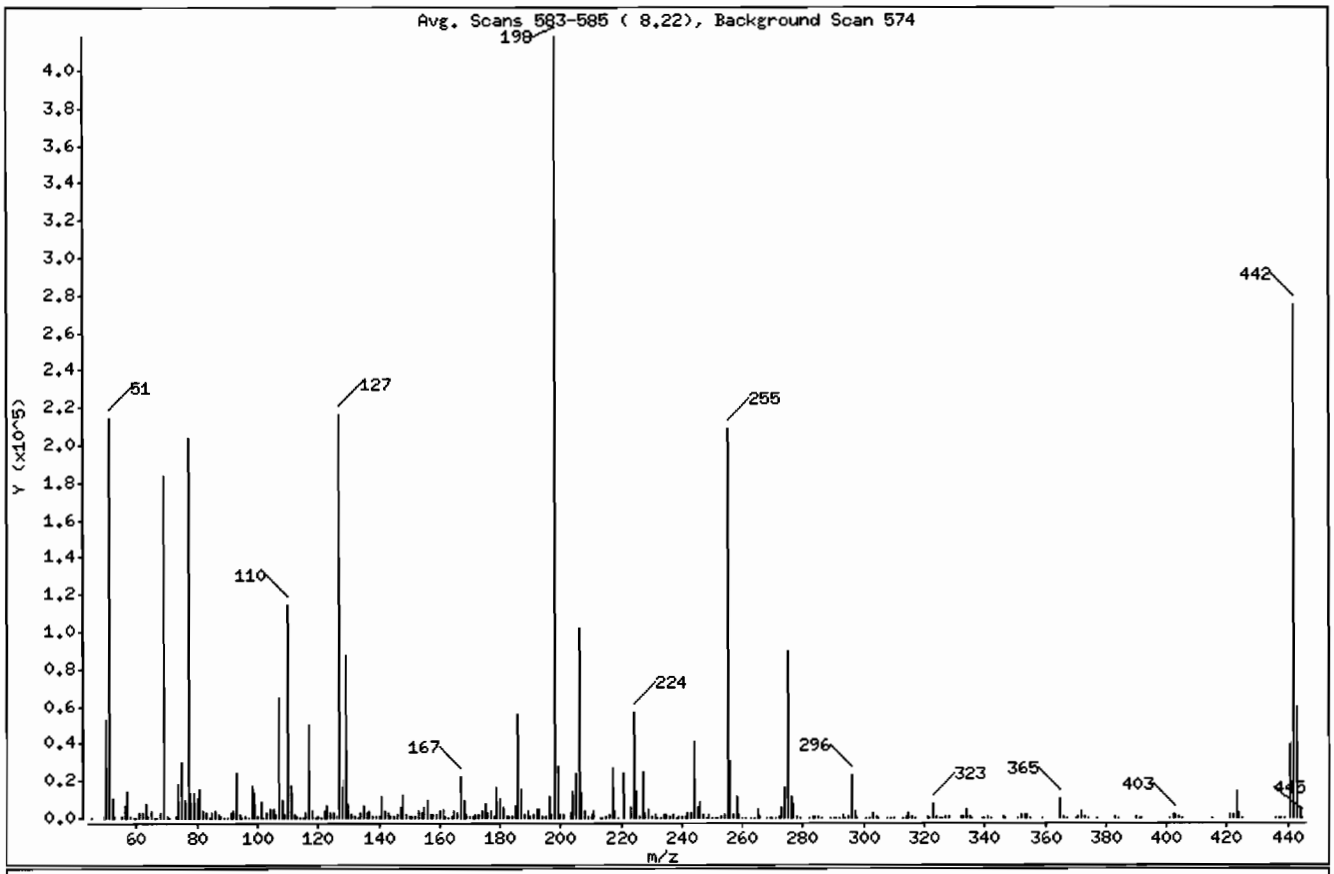

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	51.23
68	Less than 2.00% of mass 69	0.66 (1.50)
69	Mass 69 relative abundance	43.91
70	Less than 2.00% of mass 69	0.22 (0.50)
127	40.00 - 60.00% of mass 198	51.73
197	Less than 1.00% of mass 198	0.54
199	5.00 - 9.00% of mass 198	6.68
275	10.00 - 30.00% of mass 198	21.33
365	Greater than 1.00% of mass 198	2.44
441	Present, but less than mass 443	9.51
442	Greater than 40.00% of mass 198	65.73
443	17.00 - 23.00% of mass 442	14.16 (21.54)

Data File: /chem/MSD2.i/s031210.b/s2c1201.d

Date : 12-MAR-2010 14:32

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2c1201.d
Spectrum: Avg. Scans 583-585 (8.22), Background Scan 574
Location of Maximum: 198.00
Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	111	128.00	16105	207.00	13087	294.00	340
49.00	1232	129.00	87200	208.00	3366	295.00	506
50.00	53328	130.00	7430	209.00	1093	296.00	23416
51.00	214272	131.00	1539	210.00	1706	297.00	3588
52.00	10549	132.00	939	211.00	4158	298.00	195
53.00	487	133.00	251	213.00	272	301.00	290
55.00	832	134.00	2602	214.00	82	302.00	297
56.00	6559	135.00	7153	215.00	1062	303.00	2593
57.00	14416	136.00	2794	216.00	2280	304.00	688
58.00	574	137.00	3413	217.00	27360	305.00	141
59.00	214	138.00	835	218.00	3612	308.00	266
60.00	128	139.00	544	219.00	310	309.00	175
61.00	2499	140.00	1186	221.00	23584	310.00	263
62.00	2815	141.00	11269	223.00	5914	313.00	188
63.00	7676	142.00	3759	224.00	56600	314.00	1057
64.00	1029	143.00	2548	225.00	14894	315.00	2589
65.00	3643	144.00	564	226.00	1401	316.00	1393
66.00	227	145.00	550	227.00	24744	317.00	244
67.00	249	146.00	1785	228.00	3284	321.00	907
68.00	2751	147.00	5698	229.00	4822	322.00	417
69.00	183616	148.00	12040	230.00	606	323.00	7352
70.00	924	149.00	2352	231.00	2082	324.00	1433
71.00	69	150.00	590	232.00	344	325.00	163
73.00	1326	151.00	1386	233.00	452	326.00	205
74.00	18456	152.00	915	234.00	1620	327.00	1409
75.00	30256	153.00	3731	235.00	1697	328.00	800
76.00	9563	154.00	2755	236.00	1243	332.00	529
77.00	203648	155.00	6002	237.00	1721	333.00	698
78.00	13270	156.00	9198	238.00	174	334.00	4633
79.00	13512	157.00	1778	239.00	837	335.00	1148
80.00	10545	158.00	2068	240.00	582	336.00	129
81.00	15127	159.00	1680	241.00	1318	339.00	36
82.00	3756	160.00	3406	242.00	2859	340.00	35
83.00	3210	161.00	4970	243.00	2882	341.00	750
84.00	283	162.00	1386	244.00	41656	342.00	198

Date : 12-MAR-2010 14:32

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c1201.d
Spectrum: Avg. Scans 583-585 (8.22), Background Scan 574
Location of Maximum: 198.00
Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
85.00	2708	163.00	351	245.00	5634	346.00	1433
86.00	4261	164.00	594	246.00	8289	347.00	279
87.00	1859	165.00	4127	247.00	1512	351.00	89
88.00	737	166.00	3102	248.00	396	352.00	2169
89.00	409	167.00	21928	249.00	1500	353.00	1448
90.00	33	168.00	9147	250.00	274	354.00	2178
91.00	3326	169.00	1600	251.00	362	355.00	446
92.00	3744	170.00	833	252.00	354	359.00	204
93.00	23560	171.00	791	253.00	954	365.00	10190
94.00	1638	172.00	1833	254.00	1580	366.00	1326
95.00	431	173.00	2299	255.00	208832	367.00	69
96.00	1044	174.00	4053	256.00	30520	370.00	245
97.00	353	175.00	8142	257.00	2349	371.00	659
98.00	17640	176.00	2587	258.00	11879	372.00	4217
99.00	13822	177.00	4010	259.00	1703	373.00	973
100.00	1267	178.00	1325	260.00	329	374.00	71
101.00	8433	179.00	16023	261.00	399	377.00	73
102.00	446	180.00	10416	263.00	145	383.00	1032
103.00	2592	181.00	5383	264.00	341	384.00	293
104.00	5157	182.00	761	265.00	4795	390.00	534
105.00	4954	183.00	489	266.00	713	391.00	366
106.00	1577	184.00	1375	268.00	265	392.00	291
107.00	64696	185.00	6858	269.00	39	401.00	207
108.00	10050	186.00	56160	270.00	297	402.00	1528
109.00	1764	187.00	15585	271.00	433	403.00	2384
110.00	114096	188.00	1641	272.00	551	404.00	798
111.00	17488	189.00	3417	273.00	5795	405.00	91
112.00	2390	190.00	598	274.00	15910	415.00	123
113.00	762	191.00	1833	275.00	89224	421.00	1870
114.00	188	192.00	4782	276.00	11921	422.00	1814
115.00	216	193.00	5187	277.00	7262	423.00	14591
116.00	3185	194.00	1094	278.00	1035	424.00	2911
117.00	49888	195.00	806	279.00	226	425.00	233
118.00	3469	196.00	11999	282.00	142	436.00	76
119.00	443	197.00	2241	283.00	690	437.00	117

Date : 12-MAR-2010 14:32

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c1201.d
Spectrum: Avg. Scans 583-585 (8.22), Background Scan 574
Location of Maximum: 198.00
Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
120.00	823	198.00	418304	284.00	641	438.00	77
121.00	272	199.00	27952	285.00	1258	439.00	437
122.00	4046	200.00	2119	286.00	201	441.00	39784
123.00	6733	201.00	2001	289.00	268	442.00	274944
124.00	2787	203.00	2988	290.00	239	443.00	59232
125.00	2776	204.00	14572	291.00	177	444.00	5408
126.00	814	205.00	24104	292.00	278	445.00	225
127.00	216384	206.00	101472	293.00	1773		

Data File: /chem/MSD2.i/s032610.b/s2c2601.d

Date : 26-MAR-2010 15:12

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100306-01,2|50PPM|1|SVMF|1|DFTPP|

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

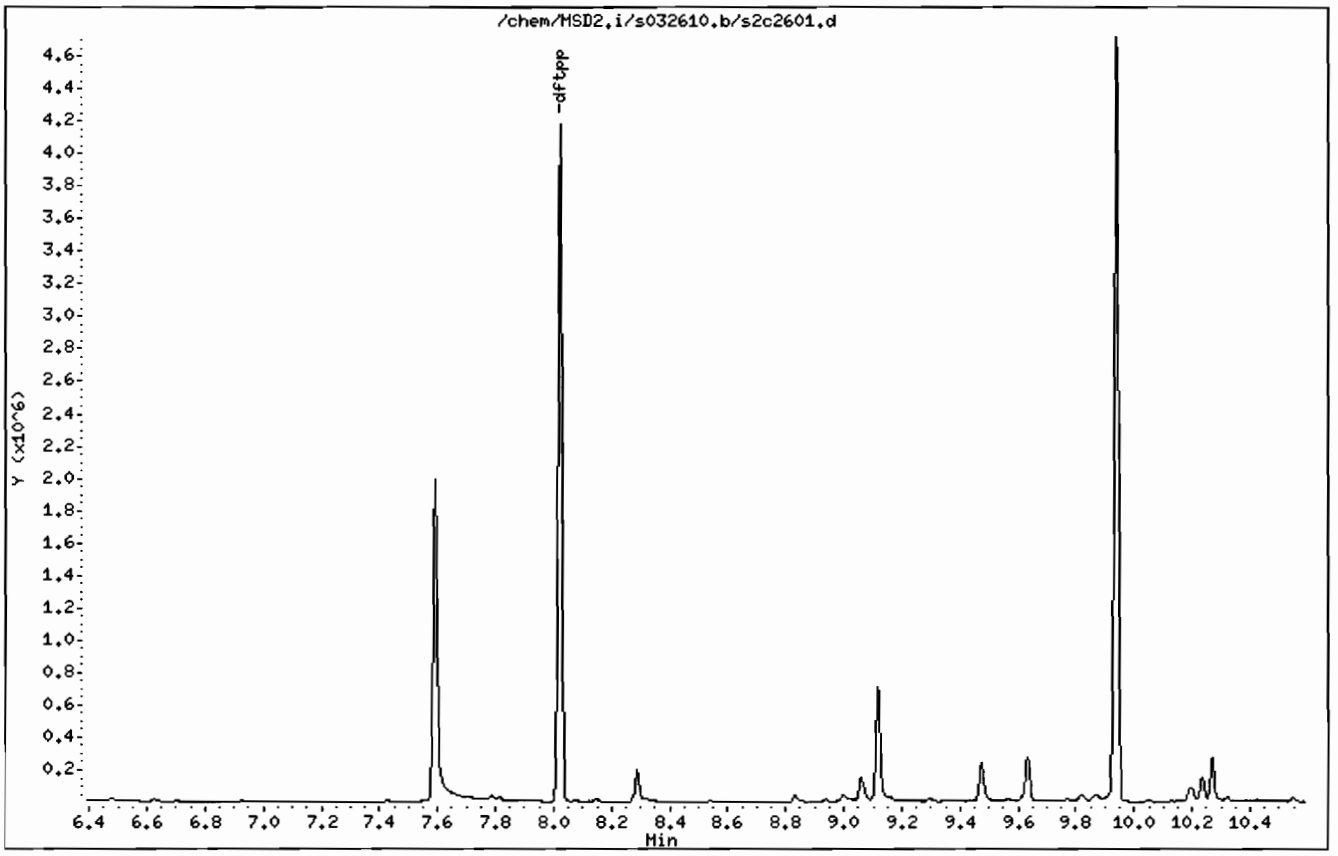

Data File: /chem/MSD2.i/s032610.b/s2c2601.d

Date : 26-MAR-2010 15:12

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

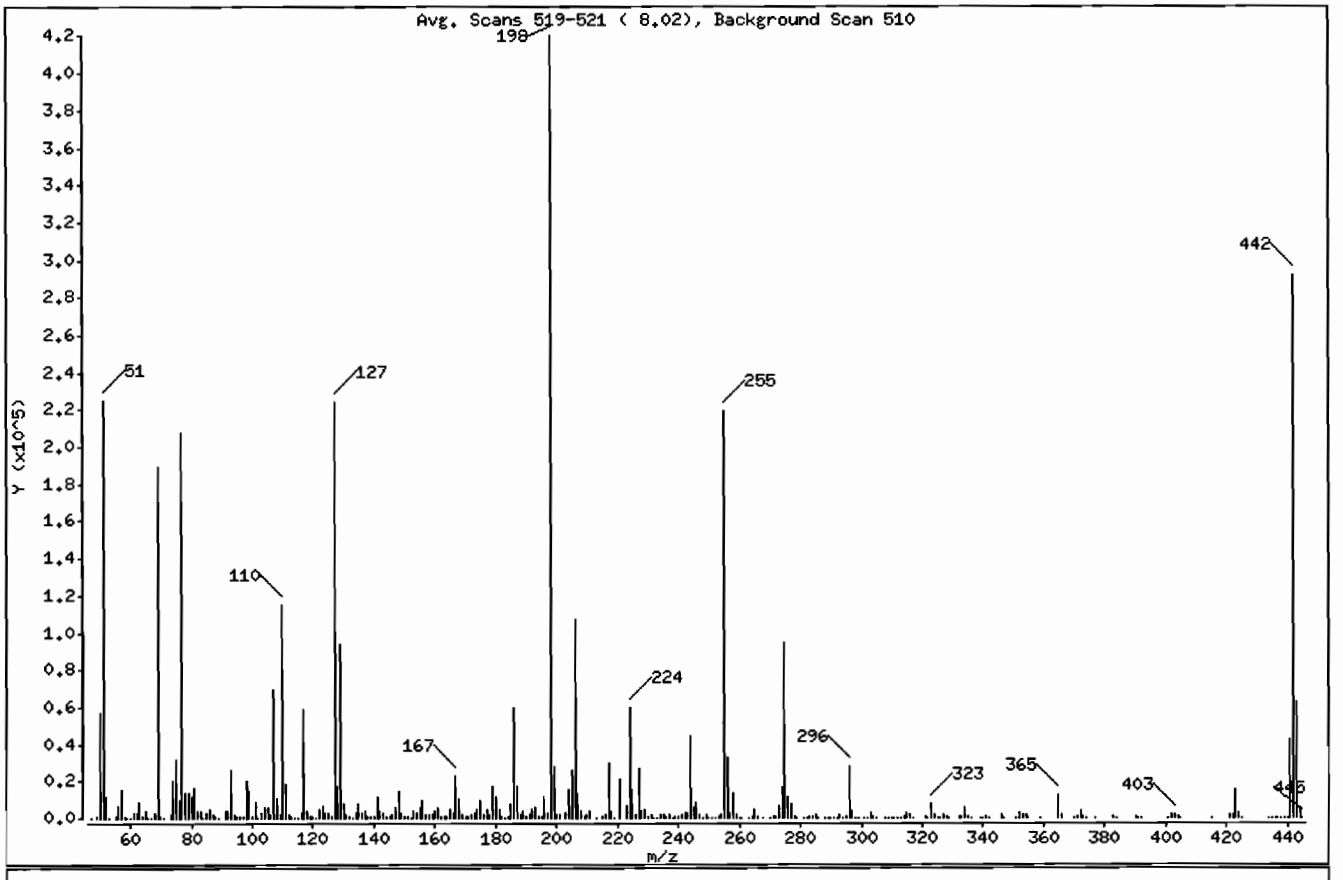

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	53.50
68	Less than 2.00% of mass 69	0.69 (1.54)
69	Mass 69 relative abundance	45.03
70	Less than 2.00% of mass 69	0.24 (0.53)
127	40.00 - 60.00% of mass 198	53.40
197	Less than 1.00% of mass 198	0.68
199	5.00 - 9.00% of mass 198	6.70
275	10.00 - 30.00% of mass 198	22.48
365	Greater than 1.00% of mass 198	2.88
441	Present, but less than mass 443	10.22
442	Greater than 40.00% of mass 198	69.48
443	17.00 - 23.00% of mass 442	14.98 (21.56)

Data File: /chem/MSD2.i/s032610.b/s2c2601.d

Date : 26-MAR-2010 15:12

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2c2601.d
Spectrum: Avg. Scans 519-521 (8.02), Background Scan 510
Location of Maximum: 198.00
Number of points: 316

m/z	Y	m/z	Y	m/z	Y	m/z	Y
47.00	36	131.00	1818	213.00	245	302.00	473
49.00	1134	132.00	826	215.00	1215	303.00	3157
50.00	56928	133.00	351	216.00	2361	304.00	803
51.00	224896	134.00	2770	217.00	30000	305.00	33
52.00	11346	135.00	7325	218.00	3562	308.00	397
53.00	433	136.00	3248	219.00	330	309.00	207
55.00	945	137.00	3735	221.00	21256	310.00	293
56.00	6698	138.00	750	223.00	6314	311.00	42
57.00	15103	139.00	519	224.00	59792	312.00	73
58.00	539	140.00	1084	225.00	15432	313.00	233
59.00	265	141.00	11972	226.00	1831	314.00	1251
60.00	69	142.00	4062	227.00	27536	315.00	2953
61.00	2491	143.00	2536	228.00	3789	316.00	1455
62.00	3061	144.00	722	229.00	4742	317.00	211
63.00	8339	145.00	585	230.00	777	321.00	909
64.00	1145	146.00	2129	231.00	2143	322.00	420
65.00	3412	147.00	5899	232.00	405	323.00	7889
66.00	396	148.00	14283	233.00	474	324.00	1505
67.00	204	149.00	2957	234.00	1724	325.00	114
68.00	2913	150.00	590	235.00	1792	326.00	176
69.00	189312	151.00	1379	236.00	1278	327.00	1623
70.00	1000	152.00	238	237.00	1808	328.00	765
71.00	179	153.00	3755	238.00	301	329.00	150
73.00	1465	154.00	2766	239.00	984	332.00	689
74.00	20104	155.00	6231	240.00	701	333.00	827
75.00	31632	156.00	9291	241.00	1488	334.00	5354
76.00	10073	157.00	1651	242.00	3141	335.00	1299
77.00	207744	158.00	2282	243.00	3050	336.00	145
78.00	13585	159.00	1691	244.00	44464	339.00	114
79.00	13774	160.00	3819	245.00	5706	340.00	35
80.00	11217	161.00	5590	246.00	9121	341.00	834
81.00	16229	162.00	1389	247.00	1871	342.00	211
82.00	3922	163.00	534	248.00	395	346.00	1609
83.00	3462	164.00	654	249.00	1518	347.00	245
84.00	396	165.00	4456	250.00	294	351.00	179

Date : 26-MAR-2010 15:12

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100306-01,2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c2601.d
Spectrum: Avg. Scans 519-521 (8.02), Background Scan 510
Location of Maximum: 198.00
Number of points: 316

m/z	Y	m/z	Y	m/z	Y	m/z	Y
85.00	2663	166.00	3368	251.00	397	352.00	2524
86.00	4739	167.00	23648	252.00	455	353.00	1708
87.00	2120	168.00	10178	253.00	1084	354.00	2416
88.00	760	169.00	1852	254.00	1634	355.00	409
89.00	363	170.00	732	255.00	219520	359.00	140
91.00	3502	171.00	965	256.00	32432	365.00	12126
92.00	3947	172.00	2138	257.00	2590	366.00	1624
93.00	25904	173.00	2623	258.00	13537	370.00	281
94.00	1575	174.00	4522	259.00	2305	371.00	619
95.00	525	175.00	9401	260.00	396	372.00	4256
96.00	1191	176.00	2390	261.00	391	373.00	953
97.00	522	177.00	4438	263.00	6	374.00	73
98.00	20552	178.00	1493	264.00	686	377.00	38
99.00	14671	179.00	17376	265.00	5132	383.00	1154
100.00	1329	180.00	11343	266.00	1031	384.00	283
101.00	8842	181.00	5312	268.00	418	390.00	630
102.00	396	182.00	857	270.00	359	391.00	284
103.00	2541	183.00	474	271.00	517	392.00	321
104.00	5742	184.00	1379	272.00	721	401.00	243
105.00	5801	185.00	7687	273.00	6744	402.00	1774
106.00	1792	186.00	59704	274.00	16416	403.00	2278
107.00	69888	187.00	17128	275.00	94520	404.00	858
108.00	10215	188.00	1813	276.00	11976	405.00	37
109.00	1669	189.00	4113	277.00	8137	415.00	79
110.00	114864	190.00	656	278.00	1249	421.00	1911
111.00	18008	191.00	1645	279.00	279	422.00	2023
112.00	2329	192.00	4928	281.00	133	423.00	15341
113.00	774	193.00	5831	282.00	245	424.00	3128
114.00	113	194.00	1196	283.00	971	425.00	299
115.00	236	195.00	540	284.00	668	434.00	135
116.00	3315	196.00	11383	285.00	1559	435.00	80
117.00	59056	197.00	2840	286.00	218	436.00	286
118.00	4065	198.00	420416	288.00	35	437.00	205
119.00	504	199.00	28152	289.00	241	438.00	243
120.00	916	200.00	2179	290.00	215	439.00	336

Data File: /chem/MSD2.i/s032610.b/s2c2601.d

Date : 26-MAR-2010 15:12

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100306-01,2|50PPM|1|SVMF|1|DFTPP|

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2c2601.d
Spectrum: Avg. Scans 519-521 (8.02), Background Scan 510
Location of Maximum: 198.00
Number of points: 316

m/z	Y	m/z	Y	m/z	Y	m/z	Y
121.00	303	201.00	1899	291.00	169	440.00	204
122.00	4685	203.00	3352	292.00	412	441.00	42952
123.00	7039	204.00	15646	293.00	1765	442.00	292096
124.00	3205	205.00	26056	294.00	368	443.00	62992
125.00	2805	206.00	107016	295.00	551	444.00	5770
126.00	723	207.00	13672	296.00	27800	445.00	397
127.00	224512	208.00	3975	297.00	3636		
128.00	16992	209.00	1307	298.00	234		
129.00	93432	210.00	2009	299.00	38		
130.00	7581	211.00	3971	301.00	430		

Data File: /chem/MSD2.i/s032510.b/s2c2501.d

Date : 25-MAR-2010 14:45

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

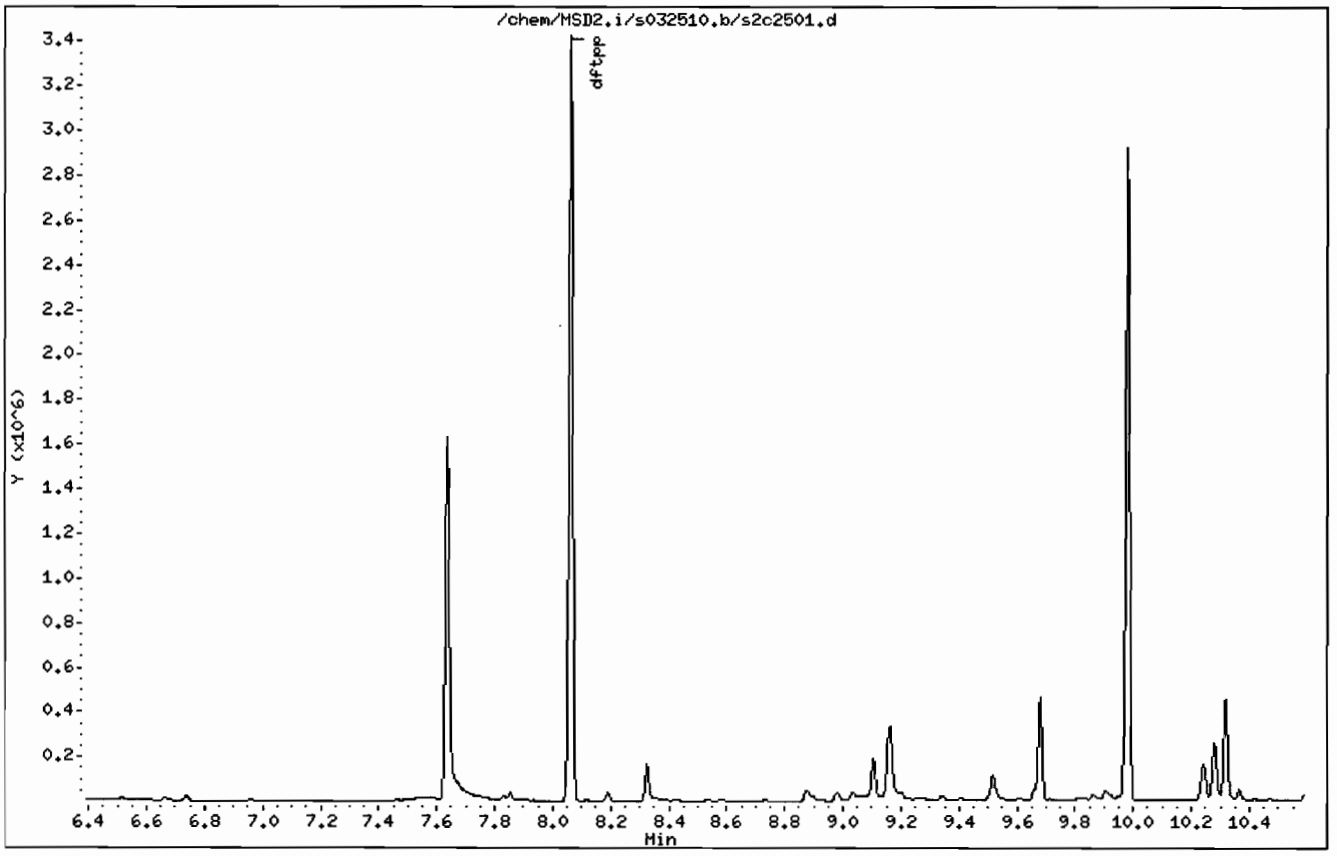

Data File: /chem/MSD2.i/s032510.b/s2c2501.d

Date : 25-MAR-2010 14:45

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100306-01,2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

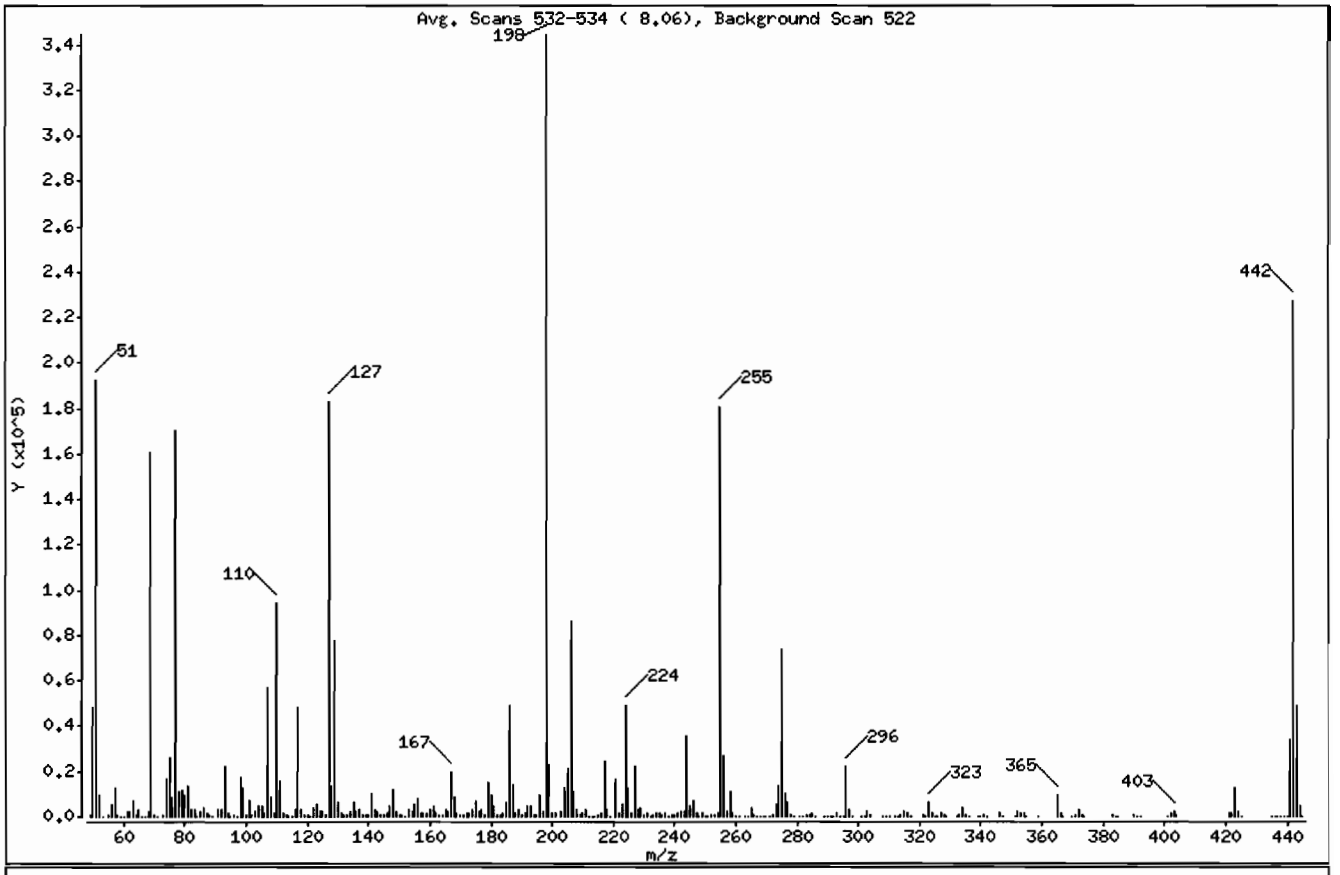

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	55.75
68	Less than 2.00% of mass 69	0.64 (1.37)
69	Mass 69 relative abundance	46.70
70	Less than 2.00% of mass 69	0.19 (0.40)
127	40.00 - 60.00% of mass 198	53.20
197	Less than 1.00% of mass 198	0.67
199	5.00 - 9.00% of mass 198	6.77
275	10.00 - 30.00% of mass 198	21.39
365	Greater than 1.00% of mass 198	2.68
441	Present, but less than mass 443	9.91
442	Greater than 40.00% of mass 198	65.97
443	17.00 - 23.00% of mass 442	14.32 (21.70)

Date : 25-MAR-2010 14:45

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c2501.d
Spectrum: Avg. Scans 532-534 (8.06), Background Scan 522
Location of Maximum: 198.00
Number of points: 314

m/z	Y	m/z	Y	m/z	Y	m/z	Y
49.00	998	131.00	1389	211.00	3267	295.00	370
50.00	48552	132.00	632	212.00	209	296.00	22216
51.00	192000	133.00	451	213.00	232	297.00	2940
52.00	9503	134.00	2471	214.00	35	298.00	174
53.00	388	135.00	6506	215.00	902	301.00	288
55.00	776	136.00	2553	216.00	1979	302.00	366
56.00	5672	137.00	2896	217.00	24800	303.00	2490
57.00	12487	138.00	577	218.00	2955	304.00	702
58.00	552	139.00	441	219.00	273	308.00	326
59.00	230	140.00	947	221.00	16848	309.00	183
60.00	205	141.00	10142	222.00	1390	310.00	277
61.00	2343	142.00	3117	223.00	5315	312.00	70
62.00	2567	143.00	2437	224.00	48952	313.00	184
63.00	6987	144.00	683	225.00	12273	314.00	1030
64.00	1033	145.00	574	226.00	1388	315.00	2540
65.00	3264	146.00	1680	227.00	22168	316.00	1391
66.00	280	147.00	5040	228.00	2925	317.00	161
67.00	212	148.00	11805	229.00	4000	321.00	587
68.00	2211	149.00	2263	230.00	604	322.00	291
69.00	160832	150.00	546	231.00	1524	323.00	6650
70.00	647	151.00	1119	232.00	364	324.00	1250
71.00	169	152.00	226	233.00	450	325.00	72
73.00	1088	153.00	3104	234.00	1325	326.00	122
74.00	16251	154.00	2566	235.00	1508	327.00	1276
75.00	25800	155.00	5587	236.00	1050	328.00	639
76.00	8644	156.00	8050	237.00	1494	329.00	75
77.00	170560	157.00	1609	238.00	244	332.00	381
78.00	11437	158.00	1937	239.00	886	333.00	711
79.00	12152	159.00	1409	240.00	737	334.00	4104
80.00	9358	160.00	3069	241.00	1219	335.00	1018
81.00	13144	161.00	4464	242.00	2558	336.00	122
82.00	3063	162.00	1411	243.00	2615	339.00	34
83.00	3023	163.00	467	244.00	35304	340.00	75
84.00	304	164.00	510	245.00	4651	341.00	760
85.00	2077	165.00	3343	246.00	7334	342.00	224

Date : 25-MAR-2010 14:45

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c2501.d
Spectrum: Avg. Scans 532-534 (8.06), Background Scan 522
Location of Maximum: 198.00
Number of points: 314

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	3611	166.00	2658	247.00	1448	346.00	1583
87.00	1698	167.00	19456	248.00	330	347.00	237
88.00	669	168.00	8706	249.00	1325	351.00	135
89.00	334	169.00	1454	250.00	281	352.00	1988
91.00	3048	170.00	638	251.00	389	353.00	1368
92.00	3124	171.00	789	252.00	460	354.00	1880
93.00	22008	172.00	1783	253.00	935	355.00	376
94.00	1451	173.00	1940	254.00	1434	359.00	75
95.00	332	174.00	3496	255.00	180544	365.00	9239
96.00	884	175.00	7415	256.00	26672	366.00	1352
97.00	335	176.00	2086	257.00	2014	367.00	41
98.00	17096	177.00	3509	258.00	10994	370.00	148
99.00	12292	178.00	1173	259.00	1926	371.00	539
100.00	1074	179.00	14861	260.00	326	372.00	3460
101.00	7270	180.00	9199	261.00	309	373.00	791
102.00	423	181.00	4437	263.00	113	374.00	121
103.00	2456	182.00	656	264.00	354	383.00	897
104.00	4504	183.00	415	265.00	4345	384.00	190
105.00	4732	184.00	1359	266.00	633	385.00	116
106.00	1274	185.00	6619	267.00	144	390.00	449
107.00	56784	186.00	49000	268.00	31	391.00	285
108.00	8394	187.00	14201	269.00	34	392.00	180
109.00	1385	188.00	1447	270.00	247	401.00	223
110.00	94568	189.00	3351	271.00	362	402.00	1279
111.00	15568	190.00	505	272.00	511	403.00	1998
112.00	1946	191.00	1534	273.00	5171	404.00	672
113.00	659	192.00	4361	274.00	13411	421.00	1601
114.00	131	193.00	4439	275.00	73664	422.00	1542
115.00	236	194.00	935	276.00	9955	423.00	12595
116.00	2909	195.00	721	277.00	6408	424.00	2359
117.00	48648	196.00	9855	278.00	1016	425.00	247
118.00	3428	197.00	2299	279.00	146	435.00	37
119.00	487	198.00	344384	281.00	34	436.00	311
120.00	633	199.00	23312	282.00	186	437.00	167
121.00	253	200.00	1927	283.00	888	438.00	227

Date : 25-MAR-2010 14:45

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100306-01,2150PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c2501.d
Spectrum: Avg. Scans 532-534 (8.06), Background Scan 522
Location of Maximum: 198.00
Number of points: 314

m/z	Y	m/z	Y	m/z	Y	m/z	Y
122.00	3803	201.00	1596	284.00	439	439.00	395
123.00	5902	203.00	2700	285.00	1230	440.00	304
124.00	2677	204.00	12945	286.00	190	441.00	34128
125.00	2421	205.00	21512	289.00	262	442.00	227200
126.00	654	206.00	86224	290.00	232	443.00	49312
127.00	183168	207.00	11146	291.00	157	444.00	4434
128.00	13684	208.00	3283	292.00	316	445.00	240
129.00	77376	209.00	1128	293.00	1681		
130.00	6728	210.00	1679	294.00	296		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072982**				
Client Sample:	**QC for batch 965978**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965978**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 16:05**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2505-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072982**				
Client Sample:	**QC for batch 965978**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965978**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 16:05**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2505-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	447	ug/kg		JA

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2505.d
Lab Smp Id: 1202072982 Client Smp ID: SBLK01
Inj Date : 25-MAR-2010 16:05
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202072982|965979|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2cl239.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.838	3.843	(1.000)	136360	40.0000	
* 29 Naphthalene-d8	136	4.699	4.704	(1.000)	529830	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	324342	40.0000	
* 67 Phenanthrene-d10	188	6.934	6.940	(1.000)	599949	40.0000	
* 91 Chrysene-d12	240	8.592	8.603	(1.000)	460744	40.0000	
* 98 Perylene-d12	264	10.026	10.042	(1.000)	288448	40.0000	
$ 3 2-Fluorophenol	112	3.041	3.035	(0.792)	243518	75.0002	2500
$ 5 Phenol-d5	99	3.559	3.565	(0.928)	281480	70.4007	2350
$ 20 Nitrobenzene-d5	82	4.196	4.207	(0.893)	143591	37.4453	1250
$ 39 2-Fluorobiphenyl	172	5.437	5.442	(0.915)	297797	33.3723	1110
$ 60 2,4,6-Tribromophenol	329	6.480	6.485	(1.090)	85032	88.6375	2950
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	423750	50.4289	1680

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD2.i/s032510.b/s2c2505.d
Lab Smp Id: 1202072982 Client Smp ID: SBLK01
Inj Date : 25-MAR-2010 16:05
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202072982|965979|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.838	1001905	40.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.875	335873	13.4093812	447	0		0	10

Data File: /chem/MSD2.i/s032510.b/s2c2505.d
Date : 25-MAR-2010 16:05
Client ID: SBLK01
Sample Info: |1202072982|965979|1|SVMI1|MB
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: AGS1
Column diameter: 0.20

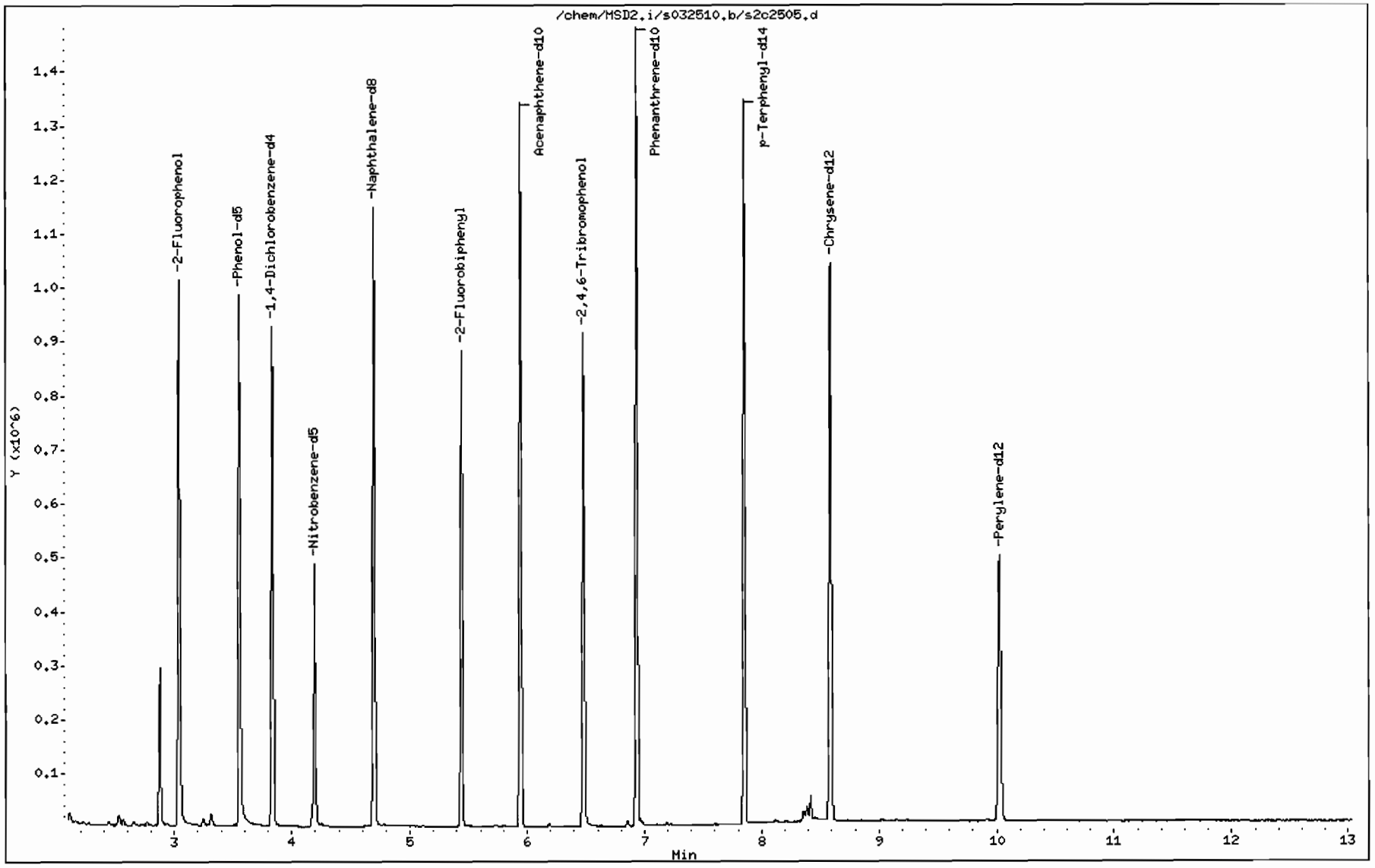

Data File: /chem/MSD2.i/s032510.b/s2c2505.d

Date : 25-MAR-2010 16:05

Client ID: SBLK01

Instrument: MSD2.i

Sample Info: |1202072982|965979|1|SWH|1|MB

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
Diacetamide	625-77-4	NIST05.L	3936	9	C4H7NO2	101

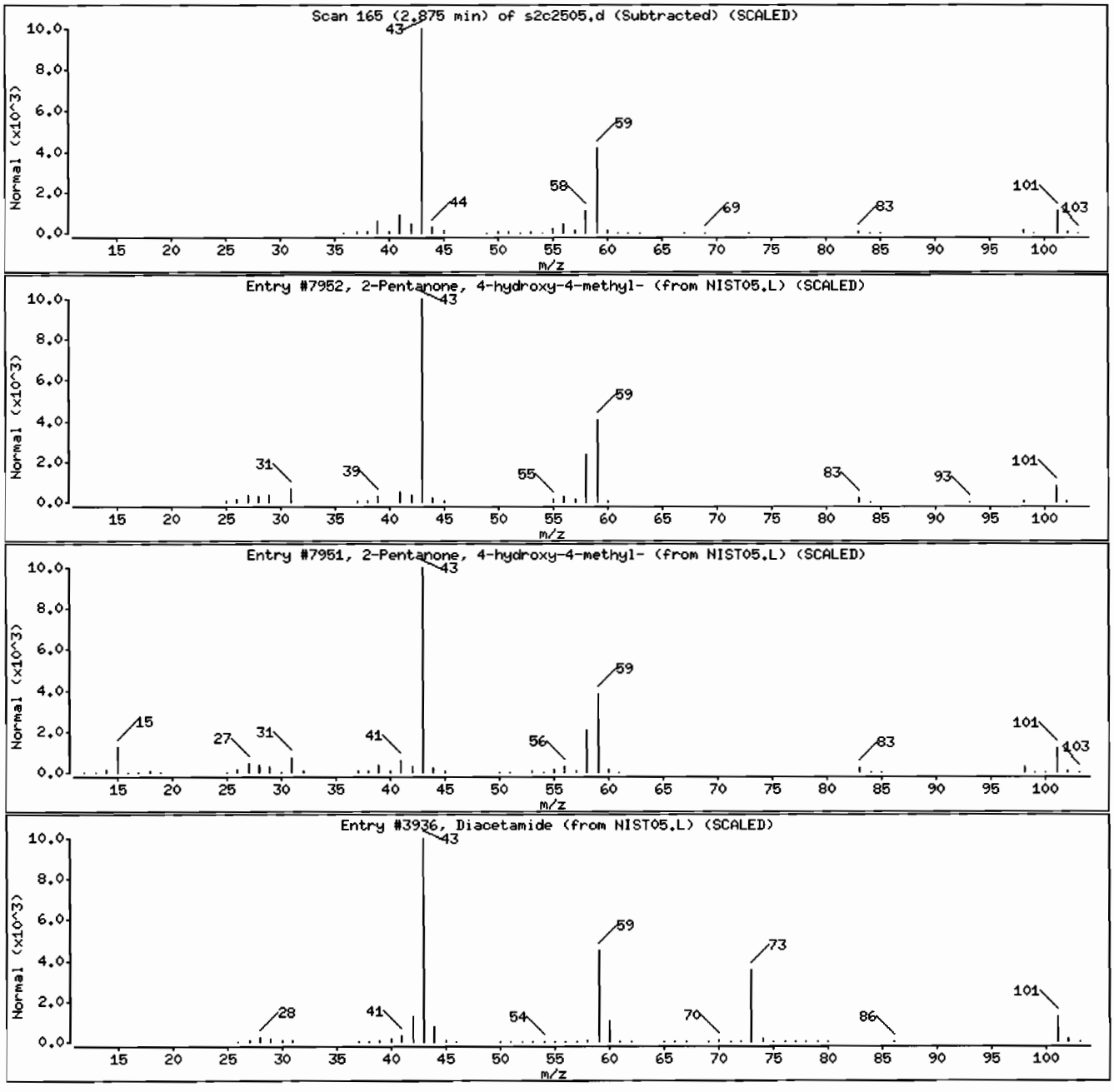

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072983**				
Client Sample:	**QC for batch 965978**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965978**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 16:24**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2506-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1020	ug/kg	66.7	333
108-95-2	Phenol		1300	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1250	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1150	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1380	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1340	ug/kg	66.7	333
83-32-9	Acenaphthene		1290	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1430	ug/kg	33.3	333
100-02-7	4-Nitrophenol		993	ug/kg	110	333
87-86-5	Pentachlorophenol		1200	ug/kg	83.3	333
129-00-0	Pyrene		1120	ug/kg	10.0	33.3
110-86-1	Pyridine		1010	ug/kg	66.7	333
62-53-3	Aniline		981	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1200	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1130	ug/kg	66.7	333
100-51-6	Benzyl alcohol		823	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1160	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1520	ug/kg	66.7	333
95-48-7	o-Cresol		1230	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1600	ug/kg	100	333
67-72-1	Hexachloroethane		1230	ug/kg	66.7	333
98-95-3	Nitrobenzene		1310	ug/kg	66.7	333
78-59-1	Isophorone		1240	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1220	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		994	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1160	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1290	ug/kg	66.7	333
65-85-0	Benzoic acid		3570	ug/kg	167	667
91-20-3	Naphthalene		1200	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1030	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1350	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1300	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1040	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1280	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1220	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1220	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline *o-Nitroaniline*		1390	ug/kg	66.7	333
99-09-2	3-Nitroaniline		1240	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072983**				
Client Sample:	**QC for batch 965978**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965978**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 16:24**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2506-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1410	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1310	ug/kg	33.3	333
208-96-8	Acenaphthylene		1300	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1380	ug/kg	127	667
132-64-9	Dibenzofuran		1350	ug/kg	66.7	333
84-66-2	Diethylphthalate		1520	ug/kg	66.7	333
86-73-7	Fluorene		1470	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1410	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1270	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1890	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1260	ug/kg	66.7	333
122-66-7	Azobenzene		1340	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1250	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1230	ug/kg	66.7	333
85-01-8	Phenanthrene		1270	ug/kg	10.0	33.3
120-12-7	Anthracene		1310	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1490	ug/kg	66.7	333
206-44-0	Fluoranthene		1480	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1300	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1270	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1070	ug/kg	100	333
218-01-9	Chrysene		1300	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1350	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1390	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1470	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1260	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1360	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1400	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1430	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1310	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1250	ug/kg	66.7	333

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD2.i/s032510.b/s2c2506.d
Lab Smp Id: 1202072983 Client Smp ID: SBLK01LCS
Inj Date : 25-MAR-2010 16:24
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202072983|965979|1|SVM|1|LCS
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2314.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.837	3.843	(1.000)	168920	40.0000	
* 29 Naphthalene-d8	136	4.699	4.704	(1.000)	768523	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	409646	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	798278	40.0000	
* 91 Chrysene-d12	240	8.592	8.603	(1.000)	752653	40.0000	
* 98 Perylene-d12	264	10.031	10.042	(1.000)	503248	40.0000	
$ 3 2-Fluorophenol	112	3.041	3.035	(0.792)	315746	78.5010	2620
$ 5 Phenol-d5	99	3.559	3.565	(0.928)	382609	77.2486	2570
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.894)	221873	39.8891	1330
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	407162	36.1266	1200
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.091)	118320	97.6535	3260
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	545763	39.7593	1320

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.570	3.570	(0.930)	199717	39.1096	1300
8 2-Chlorophenol	128	3.709	3.709	(0.967)	170485	37.5383	1250
11 1,4-Dichlorobenzene	146	3.848	3.854	(1.003)	197958	34.5416	1150
17 N-Nitrosodipropylamine	70	4.078	4.084	(1.063)	132903	41.4776	1380(Q)
28 1,2,4-Trichlorobenzene	180	4.650	4.656	(0.990)	178089	37.4834	1250
33 4-Chloro-3-methylphenol	107	5.057	5.052	(1.076)	168082	40.2168	1340
47 Acenaphthene	154	5.972	5.977	(1.004)	422283	38.7050	1290
50 2,4-Dinitrotoluene	165	6.057	6.063	(1.019)	141466	42.9867	1430
52 4-Nitrophenol	139	6.004	5.998	(1.010)	48727	29.7942	993
65 Pentachlorophenol	266	6.811	6.811	(0.982)	65619	36.1294	1200
79 Pyrene	202	7.806	7.812	(0.908)	821090	33.4673	1120
2 Pyridine	79	2.409	2.383	(0.628)	99158	30.1722	1000
4 Aniline	66	3.624	3.629	(0.944)	71397	29.4443	981(Q)
7 bis(2-Chloroethyl) ether	63	3.640	3.645	(0.948)	157946	36.0046	1200
9 1,3-Dichlorobenzene	146	3.805	3.811	(0.992)	183841	34.0119	1130
12 Benzyl alcohol	108	3.907	3.912	(1.018)	59387	24.6894	823
13 1,2-Dichlorobenzene	146	3.950	3.955	(1.029)	184709	34.9151	1160
14 bis(2-Chloroisopropyl)ether	45	3.982	3.987	(1.038)	489741	45.6650	1520
15 o-Cresol	107	3.961	3.961	(1.032)	133142	36.9239	1230
18 m,p-Cresols	107	4.062	4.062	(1.059)	206846	48.1459	1600
19 Hexachloroethane	117	4.180	4.185	(1.089)	83608	36.9161	1230
21 Nitrobenzene	77	4.212	4.217	(0.896)	206248	39.3939	1310
22 Isophorone	82	4.367	4.372	(0.929)	352852	37.2649	1240
23 2-Nitrophenol	139	4.426	4.431	(0.942)	100285	36.5835	1220
24 2,4-Dimethylphenol	122	4.420	4.426	(0.941)	146231	29.8179	994
25 bis(2-Chloroethoxy)methane	93	4.485	4.490	(0.954)	188997	34.7935	1160
26 2,4-Dichlorophenol	162	4.592	4.592	(0.977)	149946	38.5808	1290
27 Benzoic acid	105	4.501	4.479	(0.958)	259234	107.169	3570
30 Naphthalene	128	4.715	4.720	(1.003)	546864	35.8849	1200
31 4-Chloroaniline	127	4.736	4.736	(1.008)	205107	30.9873	1030
32 Hexachlorobutadiene	225	4.779	4.784	(1.017)	116481	40.5037	1350
34 2-Methylnaphthalene	142	5.196	5.201	(1.106)	383071	39.1108	1300
36 Hexachlorocyclopentadiene	237	5.298	5.303	(0.891)	61091	31.3358	1040
37 2,4,6-Trichlorophenol	196	5.389	5.389	(0.906)	118167	38.3643	1280
38 2,4,5-Trichlorophenol	196	5.421	5.415	(0.912)	121853	36.6668	1220
40 2-Chloronaphthalene	162	5.549	5.549	(0.933)	364365	36.6991	1220
42 o-Nitroaniline	65	5.608	5.608	(0.943)	129356	41.7884	1390
41 m-Nitroaniline	138	5.902	5.902	(0.993)	76392	37.2491	1240
43 Dimethylphthalate	163	5.715	5.720	(0.961)	492094	42.2417	1410
44 2,6-Dinitrotoluene	165	5.768	5.774	(0.970)	103307	39.2091	1310
45 Acenaphthylene	152	5.849	5.854	(0.984)	585224	39.1032	1300
48 2,4-Dinitrophenol	184	5.972	5.977	(1.004)	44900	41.5108	1380(Q)
49 Dibenzofuran	168	6.089	6.089	(1.024)	542718	40.4940	1350
51 Diethylphthalate	149	6.202	6.202	(1.043)	546539	45.7405	1520
53 Fluorene	166	6.325	6.325	(1.064)	513950	44.1984	1470
54 4-Chlorophenylphenylether	204	6.303	6.303	(1.060)	232347	42.4101	1410
55 2-Methyl-4,6-dinitrophenol	198	6.341	6.341	(0.914)	74607	37.9848	1270

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.325	6.325	(1.064)	114826	56.7019	1890
133 Diphenylamine	169	6.383	6.383	(0.920)	392559	37.7853	1260
58 1,2-Diphenylhydrazine	77	6.410	6.416	(0.924)	543147	40.1415	1340
61 4-Bromophenylphenylether	248	6.629	6.630	(0.955)	132213	37.6429	1250
63 Hexachlorobenzene	284	6.688	6.688	(0.964)	129706	36.9836	1230
68 Phenanthrene	178	6.950	6.956	(1.002)	752297	38.1284	1270
69 Anthracene	178	6.982	6.988	(1.006)	751252	39.3590	1310
72 Di-n-butylphthalate	149	7.229	7.234	(1.042)	1010238	44.7377	1490
76 Fluoranthene	202	7.667	7.672	(1.105)	791900	44.4346	1480
85 Butylbenzylphthalate	149	8.116	8.127	(0.945)	447384	38.9737	1300
89 Benzo(a)anthracene	228	8.582	8.592	(0.999)	715721	38.1037	1270
90 3,3'-Dichlorobenzidine	252	8.523	8.528	(0.992)	159387	31.9500	1060
92 Chrysene	228	8.614	8.625	(1.002)	685482	39.1182	1300
93 bis(2-Ethylhexyl)phthalate	149	8.469	8.485	(0.986)	640795	40.5397	1350
94 Di-n-octylphthalate	149	8.994	9.010	(0.897)	1000869	41.7167	1390
95 Benzo(b)fluoranthene	252	9.571	9.582	(0.954)	606124	44.1567	1470
96 Benzo(k)fluoranthene	252	9.598	9.614	(0.957)	524200	37.7477	1260
97 Benzo(a)pyrene	252	9.962	9.978	(0.993)	463726	40.7596	1360
99 Indeno(1,2,3-cd)pyrene	276	11.641	11.657	(1.160)	409503	42.0484	1400
100 Dibenzo(a,h)anthracene	278	11.646	11.663	(1.161)	341464	42.9172	1430
101 Benzo(ghi)perylene	276	12.139	12.155	(1.210)	310557	39.3698	1310
1 N-Methyl-N-nitrosomethylamine	74	2.372	2.351	(0.618)	70484	30.4904	1020

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s032510.b/s2c2506.d
Date : 25-MAR-2010 16:24
Client ID: SBLK01LCS
Sample Info: 1120072983|965979|1|SVM1|LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

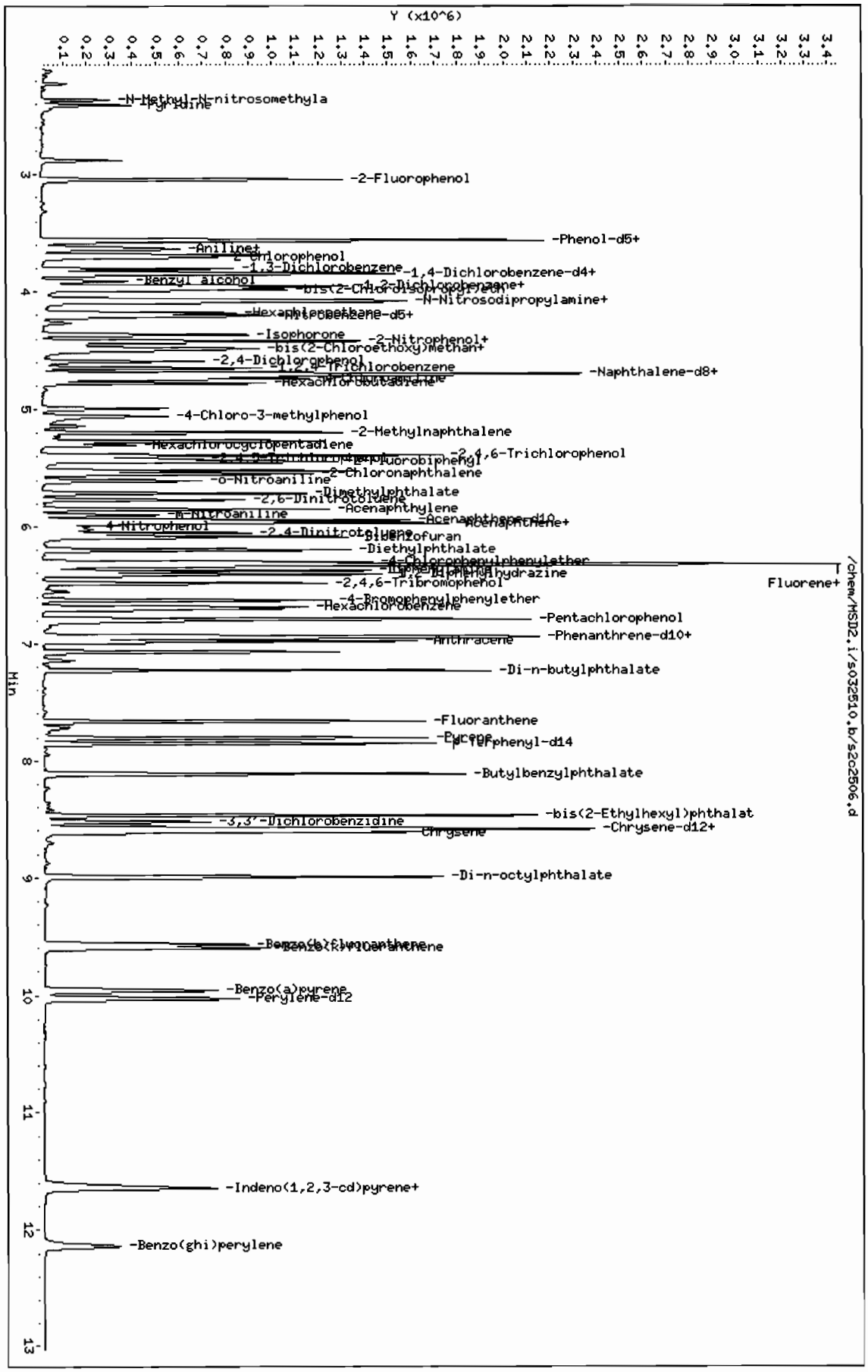

Page 1

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 965978 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202072982 MB	17-MAR-2010 10:52:00	30	1	0.03333
1202072983 LCS	17-MAR-2010 10:52:00	30	1	0.03333
248862002	17-MAR-2010 10:52:00	30.02	1	0.03331
248862003	17-MAR-2010 10:52:00	30	1	0.03333
248862004	17-MAR-2010 10:52:00	30.03	1	0.0333
248862005	17-MAR-2010 10:52:00	30	1	0.03333
248862006	17-MAR-2010 10:52:00	30.02	1	0.03331
248862007	17-MAR-2010 10:52:00	30	1	0.03333
248862008	17-MAR-2010 10:52:00	30.08	1	0.03324
248862009	17-MAR-2010 10:52:00	30.04	1	0.03329
248862010	17-MAR-2010 10:52:00	30	1	0.03333
248863001	17-MAR-2010 10:52:00	30	1	0.03333
248863002	17-MAR-2010 10:52:00	30.02	1	0.03331
248863003	17-MAR-2010 10:52:00	30.01	1	0.03332
248863004	17-MAR-2010 10:52:00	30.04	1	0.03329
248866001	17-MAR-2010 10:52:00	30	1	0.03333
248866002	17-MAR-2010 10:52:00	30	1	0.03333
249067003	17-MAR-2010 10:52:00	30	1	0.03333
249067004	17-MAR-2010 10:52:00	30.01	1	0.03332
249067005	17-MAR-2010 10:52:00	30	1	0.03333
249067006	17-MAR-2010 10:52:00	30.03	1	0.0333
249081001	17-MAR-2010 10:52:00	30.02	1	0.03331
1202072984 MS (249081001)	17-MAR-2010 10:52:00	30	1	0.03333
1202072985 MSD (249081001)	17-MAR-2010 10:52:00	30.02	1	0.03331

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202072983	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
LCS	1202072983	BENZIDINE LCS	UE100310-23	1	mL
MS	1202072984	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MS	1202072984	BENZIDINE LCS	UE100310-23	1	mL
MSD	1202072985	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MSD	1202072985	BENZIDINE LCS	UE100310-23	1	mL
SURR	All	BNA for all Surrogate	UE100310-10	1	mL
REGNT	All	Acetone	1273739-B1	150	mL
REGNT	All	Methylene Chloride	1281955-D	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: RWH

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD2

DATE: 03/12/2010 METHOD:8270C MSD2-DFTPP.m OPERATOR:AGS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1165 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100227-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD2.i/s031210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c1201.d	WBN100207-01	AGS1	12-MAR-2010 14:32	50PPM	DFTPP	1.0	DFTPP	8270C (MEGA-AP-PEST)
s2c1201D.d	WBN100207-01	AGS1	12-MAR-2010 14:32	50PPM	DFTPP	1.0	DFTPP	8270D (MEGA-AP-PEST)
s2c1202.d	INSTBLK	AGS1	12-MAR-2010 14:44	------	s031210	1.0	INSTBLK	
s2c1203.d	WBN100309-08	AGS1	12-MAR-2010 15:04	1PPM	CAL	1.0	MEGA001	
s2c1204.d	WBN100309-07	AGS1	12-MAR-2010 15:31	10PPM	CAL	1.0	MEGA010	
s2c1204D.d	WBN100309-07	AGS1	12-MAR-2010 15:31	10PPM	CAL	1.0	MEGA010	requanted for linear analytes in 8270D passes 70-130% 56/26/216
s2c1205.d	WBN100309-06	AGS1	12-MAR-2010 15:59	20PPM	CAL	1.0	MEGA020	
s2c1206.d	WBN100309-05.1	AGS1	12-MAR-2010 16:23	40PPM	CAL	1.0	MEGA040	
s2c1207.d	WBN100309-04	AGS1	12-MAR-2010 16:48	50PPM	CAL	1.0	MEGA050	
s2c1208.d	WBN100309-03	AGS1	12-MAR-2010 17:13	80PPM	CAL	1.0	MEGA080	
s2c1209.d	WBN100309-02	AGS1	12-MAR-2010 17:38	1000PPM	CAL	1.0	MEGA100	
s2c1210.d	WBN100309-01	AGS1	12-MAR-2010 18:02	120PPM	CAL	1.0	MEGA120	
s2c1211.d	INSTBLK	AGS1	12-MAR-2010 18:27	------	s031210	1.0	INSTBLK	
s2c1212.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	8270C 333197
s2c1212BOE.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	BOE 333197
s2c1212D.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	8270D 333197
s2c1212-625.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	625 333197
s2c1213.d	WBN100218-01	AGS1	12-MAR-2010 19:18	10 PPM	s031210	1.0	AP010	
s2c1214.d	WBN100218-02	AGS1	12-MAR-2010 19:39	20 PPM	CAL	1.0	AP020	

s2c1215.d	WBN100218-03.1	AGS1	12-MAR-2010 19:59	40 PPM	CAL		1.0	AP040	
s2c1216.d	WBN100218-04	AGS1	12-MAR-2010 20:19	50 PPM	CAL		1.0	AP050	
s2c1217.d	WBN100218-05	AGS1	12-MAR-2010 20:39	80 PPM	CAL		1.0	AP0800	
s2c1218.d	WBN100218-06	AGS1	12-MAR-2010 20:59	100 PPM	CAL		1.0	AP100	
s2c1219.d	WBN100218-07	AGS1	12-MAR-2010 21:19	120 PPM	CAL		1.0	AP120	
s2c1220.d	WBN100304-25	AGS1	12-MAR-2010 21:39	10 PPM	CAL		1.0	PEST010	
s2c1221.d	WBN100304-24	AGS1	12-MAR-2010 21:59	20 PPM	CAL		1.0	PEST020	
s2c1222.d	WBN100304-23.1	AGS1	12-MAR-2010 22:19	40 PPM	CAL		1.0	PEST040	
s2c1223.d	WBN100304-22	AGS1	12-MAR-2010 22:39	50 PPM	CAL		1.0	PEST050	
s2c1224.d	WBN100304-21	AGS1	12-MAR-2010 23:00	80 PPM	CAL		1.0	PEST080	
s2c1225.d	WBN100304-20	AGS1	12-MAR-2010 23:20	100 PPM	CAL		1.0	PEST100	
s2c1226.d	WBN100304-19	AGS1	12-MAR-2010 23:40	120 PPM	CAL		1.0	PEST120	
s2c1227.d	WBN100218-08.1	AGS1	13-MAR-2010 00:00	40 PPM	ICV		1.0	APICV	8270C
s2c1227D.d	WBN100218-08.1	AGS1	13-MAR-2010 00:00	40 PPM	ICV		1.0	APICV	8270D
s2c1228.d	WBN100304-26.1	AGS1	13-MAR-2010 00:20	40 PPM	ICV		1.0	PESTICV	8270C
s2c1228D.d	WBN100304-26.1	AGS1	13-MAR-2010 00:20	40 PPM	ICV		1.0	PESTICV	8270D
s2c1229.d	WBN100207-01	AGS1	13-MAR-2010 00:42	50PPM	DFTPP		1.0	DFTPP	8270C (HEX-BJCO)
s2c1229D.d	WBN100207-01	AGS1	13-MAR-2010 00:42	50PPM	DFTPP		1.0	DFTPP	8270D (HEX)
s2c1230.d	INSTBLK	AGS1	13-MAR-2010 00:55	------	s031210		1.0	INSTBLK	
s2c1231.d	WBN100304-16	AGS1	13-MAR-2010 01:15	500 PPM	CAL		1.0	HEX500	
s2c1232.d	WBN100304-15	AGS1	13-MAR-2010 01:35	1000 PPM	CAL		1.0	HEX1000	
s2c1233.d	WBN100304-14	AGS1	13-MAR-2010 01:55	1250 PPM	CAL		1.0	HEX1250	
s2c1234.d	WBN100304-13	AGS1	13-MAR-2010 02:15	1500 PPM	CAL		1.0	HEX1500	

Instrument Batch: /chem/MSD2.i/s031210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c1235.d	WBN100304-12	AGS1	13-MAR-2010 02:35	1750 PPM	CAL		1.0	HEX1750

s2c1236.d	UBN100126-02.3	AGS1	13-MAR-2010 02:55	2000 PPM	CAL		1.0	HEX2000
s2c1237.d	WBN100301-07	AGS1	13-MAR-2010 03:15	10PPM	CAL		1.0	BJCO010
s2c1238.d	WBN100301-06	AGS1	13-MAR-2010 03:42	10PPM	CAL		1.0	BJCO010
s2c1239.d	WBN100301-05.1	AGS1	13-MAR-2010 04:08	40PPM	CAL		1.0	BJCO040
s2c1240.d	WBN100301-04	AGS1	13-MAR-2010 04:35	10PPM	CAL		1.0	BJCO010
s2c1241.d	WBN100301-03	AGS1	13-MAR-2010 05:01	10PPM	CAL		1.0	BJCO010
s2c1242.d	WBN100301-02	AGS1	13-MAR-2010 05:28	10PPM	CAL		1.0	BJCO010
s2c1243.d	WBN100301-01	AGS1	13-MAR-2010 05:54	10PPM	CAL		1.0	BJCO010
s2c1244.d	WBN100304-10.1	AGS1	13-MAR-2010 06:21	1250 PPM	ICV		1.0	HEXICV	8270C
s2c1244D.d	WBN100304-10.1	AGS1	13-MAR-2010 06:21	1250 PPM	ICV		1.0	HEXICV	8270D
s2c1245.d	WBN100301-05.3	AGS1	13-MAR-2010 06:41	10PPM	ICV		1.0	BJCOICV
s2c1245D.d	WBN100301-05.3	AGS1	13-MAR-2010 06:41	10PPM	ICV		1.0	BJCOICV

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD2

DATE: 03/25/2010 METHOD:8270C MSD2-DFTPP.m OPERATOR:AGS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1106 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD2.i/s032510.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c2501.d	WBN100306-01.2	AGS1	25-MAR-2010 14:45	50PPM	DFTPP	1.0	DFTPP	8270C TUNE
s2c2501D.d	WBN100306-01.2	AGS1	25-MAR-2010 14:45	50PPM	DFTPP	1.0	DFTPP	8270D TUNE
s2c2502.d	WBN100309-09.1	AGS1	25-MAR-2010 14:58	40PPM	CVS	1.0	MEGACVS	8270C 165409
s2c2502D.d	WBN100309-09.1	AGS1	25-MAR-2010 14:58	40PPM	CVS	1.0	MEGACVS	8270D 165409
s2c2503.d	WBN100218-08.1	AGS1	25-MAR-2010 15:24	40 PPM	CVS	1.0	APCVS	8270C
s2c2503D.d	WBN100218-08.1	AGS1	25-MAR-2010 15:24	40 PPM	CVS	1.0	APCVS	8270D
s2c2504.d	WBN100304-26.1	AGS1	25-MAR-2010 15:44	40 PPM	CVS	1.0	PESTCVS	8270C
s2c2504D.d	WBN100304-26.1	AGS1	25-MAR-2010 15:44	40 PPM	CVS	1.0	PESTCVS	8270D
s2c2505.d	1202072982	AGS1	25-MAR-2010 16:05	965979	10-2314	1.0	MB	
s2c2506.d	1202072983	AGS1	25-MAR-2010 16:24	965979	10-2314	1.0	LCS	
s2c2507.d	249081001	AGS1	25-MAR-2010 16:45	965979	10-2359-1	1.0	LANL	
s2c2508.d	1202072984	AGS1	25-MAR-2010 17:05	965979	10-2359-1	1.0	MS	
s2c2509.d	1202072985	AGS1	25-MAR-2010 17:25	965979	10-2359-1	1.0	MSD	
s2c2510.d	248801006	AGS1	25-MAR-2010 17:45	963820	10-2294	1.0	LANL	
s2c2511.d	249338006	AGS1	25-MAR-2010 18:06	966343	249338	1.0	GEEL_BEAM	
s2c2512.d	249338015	AGS1	25-MAR-2010 18:26	966343	249338	1.0	GEEL_BEAM	
s2c2513.d	249338017	AGS1	25-MAR-2010 18:46	966343	249338	1.0	GEEL_BEAM	
s2c2514.d	249067003	AGS1	25-MAR-2010 19:07	965979	10-2354	1.0	LANL	
s2c2515.d	249067004	AGS1	25-MAR-2010 19:27	965979	10-2354	1.0	LANL	

s2c2516.d	249067005	AGS1	25-MAR-2010 19:47	965979	10-2354	1.0	LANL	
s2c2517.d	249067006	AGS1	25-MAR-2010 20:07	965979	10-2354	1.0	LANL	
s2c2518.d	248862002	AGS1	25-MAR-2010 20:27	965979	10-2314	1.0	LANL	ISTD low RR
s2c2519.d	248862003	AGS1	25-MAR-2010 20:47	965979	10-2314	1.0	LANL	
s2c2520.d	248862004	AGS1	25-MAR-2010 21:08	965979	10-2314	1.0	LANL	
s2c2521.d	248862005	AGS1	25-MAR-2010 21:28	965979	10-2314	1.0	LANL	
s2c2522.d	248862006	AGS1	25-MAR-2010 21:48	965979	10-2314	1.0	LANL	
s2c2523.d	248862007	AGS1	25-MAR-2010 22:08	965979	10-2314	1.0	LANL	
s2c2524.d	248862008	AGS1	25-MAR-2010 22:28	965979	10-2314	1.0	LANL	
s2c2525.d	248862009	AGS1	25-MAR-2010 22:49	965979	10-2314	1.0	LANL	
s2c2526.d	248862010	AGS1	25-MAR-2010 23:09	965979	10-2314	1.0	LANL	
s2c2527.d	248863001	AGS1	25-MAR-2010 23:29	965979	10-2315	1.0	LANL	
s2c2528.d	248863002	AGS1	25-MAR-2010 23:49	965979	10-2315	1.0	LANL	
s2c2529.d	248863003	AGS1	26-MAR-2010 00:09	965979	10-2315	1.0	LANL	

Instrument Batch: /chem/MSD2.i/s032510.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c2530.d	248863004	AGS1	26-MAR-2010 00:30	965979	10-2315	1.0	LANL	
s2c2531.d	248866001	AGS1	26-MAR-2010 00:50	965979	10-2319	1.0	LANL	
s2c2532.d	248866002	AGS1	26-MAR-2010 01:10	965979	10-2319	1.0	LANL	

Instrument Batch: /chem/MSD2.i/s032510.b Page: 1

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD2

DATE: 03/26/2010 METHOD:8270C MSD2-DFTPP.m OPERATOR:AGS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1165 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD2.i/s032610.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c2601.d	WBN100306-01.2	AGS1	26-MAR-2010 15:12	50PPM	DFTPP	1.0	DFTPP	8270C TUNE
s2c2601D.d	WBN100306-01.2	AGS1	26-MAR-2010 15:12	50PPM	DFTPP	1.0	DFTPP	8270D TUNE
s2c2602.d	WBN100309-09.1	AGS1	26-MAR-2010 15:25	40PPM	CVS	1.0	MEGACVS	8270C 158646
s2c2602D.d	WBN100309-09.1	AGS1	26-MAR-2010 15:25	40PPM	CVS	1.0	MEGACVS	8270D 158646
s2c2603.d	WBN100218-08.1	AGS1	26-MAR-2010 15:52	40 PPM	DUSE	1.0	APCVS	DUSE ISTD HIGH
s2c2604.d	WBN100304-26.1	AGS1	26-MAR-2010 16:12	40 PPM	CVS	1.0	PESTCVS	8270C
s2c2604D.d	WBN100304-26.1	AGS1	26-MAR-2010 16:12	40 PPM	CVS	1.0	PESTCVS	8270D
s2c2605.d	WBN100218-08.1	AGS1	26-MAR-2010 16:34	40 PPM	CVS	1.0	APCVS	8270C
s2c2605D.d	WBN100218-08.1	AGS1	26-MAR-2010 16:34	40 PPM	CVS	1.0	APCVS	8270D
s2c2606.d	1202080906	AGS1	26-MAR-2010 16:55	969217	249338	1.0	MB	
s2c2607.d	1202080907	AGS1	26-MAR-2010 17:15	969217	249338	1.0	LCS	
s2c2608.d	1202074566	AGS1	26-MAR-2010 17:36	966675	10-2398	1.0	MB	
s2c2608-1.d	1202074566	AGS1	26-MAR-2010 17:36	966675	10-2412	1.0	MB	
s2c2608-2.d	1202074566	AGS1	26-MAR-2010 17:36	966675	10-2415	1.0	MB	
s2c2608-3.d	1202074566	AGS1	26-MAR-2010 17:36	966675	10-2416	1.0	MB	
s2c2608-4.d	1202074566	AGS1	26-MAR-2010 17:36	966675	10-2418	1.0	MB	
s2c2609.d	1202074567	AGS1	26-MAR-2010 17:56	966675	10-2398	1.0	LCS	
s2c2609-1.d	1202074567	AGS1	26-MAR-2010 17:56	966675	10-2412	1.0	LCS	
s2c2609-2.d	1202074567	AGS1	26-MAR-2010 17:56	966675	10-2415	1.0	LCS	

s2c2609-3.d	1202074567	AGS1	26-MAR-2010 17:56	966675	10-2416		1.0	LCS
s2c2609-4.d	1202074567	AGS1	26-MAR-2010 17:56	966675	10-2418		1.0	LCS
s2c2610.d	248862002	AGS1	26-MAR-2010 18:17	965979	10-2314		1.0	LANL
s2c2611.d	249338018	AGS1	26-MAR-2010 18:37	969217	249338		1.0	GEEL_BEAM
s2c2612.d	1202080908	AGS1	26-MAR-2010 18:57	969217	249338		1.0	MS
s2c2613.d	1202080909	AGS1	26-MAR-2010 19:17	969217	249338		1.0	MSD
s2c2614.d	249250003	AGS1	26-MAR-2010 19:37	966675	10-2418		1.0	LANL
s2c2615.d	1202074568	AGS1	26-MAR-2010 19:57	966675	10-2418		1.0	MS
s2c2616.d	1202074569	AGS1	26-MAR-2010 20:18	966675	10-2418		1.0	MSD
s2c2617.d	249250004	AGS1	26-MAR-2010 20:38	966675	10-2418		1.0	LANL
s2c2618.d	249245001	AGS1	26-MAR-2010 20:58	966675	10-2415		1.0	LANL
s2c2619.d	249245002	AGS1	26-MAR-2010 21:18	966675	10-2415		1.0	LANL
s2c2620.d	249247001	AGS1	26-MAR-2010 21:38	966675	10-2416		1.0	LANL
s2c2621.d	249247002	AGS1	26-MAR-2010 21:58	966675	10-2416		1.0	LANL
s2c2622.d	249247003	AGS1	26-MAR-2010 22:18	966675	10-2416		1.0	LANL
s2c2623.d	249180001	AGS1	26-MAR-2010 22:38	966675	10-2398		1.0	LANL
s2c2624.d	249180002	AGS1	26-MAR-2010 22:58	966675	10-2398		1.0	LANL
s2c2625.d	249180003	AGS1	26-MAR-2010 23:18	966675	10-2398		1.0	LANL
s2c2626.d	249180004	AGS1	26-MAR-2010 23:38	966675	10-2398		1.0	LANL
s2c2627.d	249180005	AGS1	26-MAR-2010 23:58	966675	10-2398		1.0	LANL
s2c2628.d	249180006	AGS1	27-MAR-2010 00:18	966675	10-2398		1.0	LANL
s2c2629.d	249180008	AGS1	27-MAR-2010 00:38	966675	10-2398		1.0	LANL
s2c2630.d	249244001	AGS1	27-MAR-2010 00:58	966675	10-2412		1.0	LANL
s2c2631.d	249244002	AGS1	27-MAR-2010 01:18	966675	10-2412		1.0	LANL
s2c2632.d	249244003	AGS1	27-MAR-2010 01:38	966675	10-2412		1.0	LANL
s2c2633.d	249244004	AGS1	27-MAR-2010 01:58	966675	10-2412		1.0	LANL
s2c2634.d	249244005	AGS1	27-MAR-2010 02:19	966675	10-2412		1.0	LANL

s2c2635.d	249244006	AGS1	27-MAR-2010 02:39	966675	10-2412	1.0	LANL

Instrument Batch: /chem/MSD2.i/s032610.b

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2508.d
Lab Smp Id: 1202072984 Client Smp ID: RE16-10-3799MS
Inj Date : 25-MAR-2010 17:05
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202072984|965979|1|SVM|1|MS
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 8 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2359-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	6.46600	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.838	3.843	(1.000)	153202	40.0000	
* 29 Naphthalene-d8	136	4.699	4.704	(1.000)	682284	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	383764	40.0000	
* 67 Phenanthrene-d10	188	6.934	6.940	(1.000)	734090	40.0000	
* 91 Chrysene-d12	240	8.593	8.603	(1.000)	671337	40.0000	
* 98 Perylene-d12	264	10.026	10.042	(1.000)	430902	40.0000	
$ 3 2-Fluorophenol	112	3.041	3.035	(0.792)	205024	56.2029	2000
$ 5 Phenol-d5	99	3.559	3.565	(0.928)	247147	55.0184	1960
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.894)	144436	29.2494	1040
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	264701	25.0703	893
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.091)	72071	63.4943	2260
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	361408	29.5180	1050

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.570	3.570	(0.930)	125257	27.0450	964
8 2-Chlorophenol	128	3.709	3.709	(0.967)	110918	26.9282	960
11 1,4-Dichlorobenzene	146	3.848	3.854	(1.003)	116674	22.4471	800
17 N-Nitrosodipropylamine	70	4.073	4.084	(1.061)	87988	30.2774	1080(Q)
28 1,2,4-Trichlorobenzene	180	4.651	4.656	(0.990)	111089	26.3369	938
33 4-Chloro-3-methylphenol	107	5.057	5.052	(1.076)	110429	29.7619	1060
47 Acenaphthene	154	5.972	5.977	(1.004)	261581	25.5926	912
50 2,4-Dinitrotoluene	165	6.057	6.063	(1.019)	91912	29.8126	1060
52 4-Nitrophenol	139	6.009	5.998	(1.011)	32237	21.0407	750
65 Pentachlorophenol	266	6.811	6.811	(0.982)	37696	22.5700	804
79 Pyrene	202	7.806	7.812	(0.908)	527704	24.1143	859
2 Pyridine	79	2.399	2.383	(0.625)	62531	20.9793	748
4 Aniline	66	3.624	3.629	(0.944)	60871	27.6788	986
7 bis(2-Chloroethyl) ether	63	3.640	3.645	(0.948)	107048	26.9057	959
9 1,3-Dichlorobenzene	146	3.806	3.811	(0.992)	106730	21.7717	776
12 Benzyl alcohol	108	3.913	3.912	(1.020)	23086	10.5824	377
13 1,2-Dichlorobenzene	146	3.950	3.955	(1.029)	109383	22.7977	812
14 bis(2-Chloroisopropyl)ether	45	3.982	3.987	(1.038)	323330	33.2415	1180
15 o-Cresol	107	3.961	3.961	(1.032)	89771	27.4502	978(Q)
18 m,p-Cresols	107	4.057	4.062	(1.057)	142084	36.4648	1300
19 Hexachloroethane	117	4.180	4.185	(1.089)	46982	22.8726	815
21 Nitrobenzene	77	4.212	4.217	(0.896)	138024	29.6952	1060
22 Isophorone	82	4.362	4.372	(0.928)	238745	28.4010	1010
23 2-Nitrophenol	139	4.426	4.431	(0.942)	66834	27.4624	979
24 2,4-Dimethylphenol	122	4.421	4.426	(0.941)	93348	21.4405	764
25 bis(2-Chloroethoxy)methane	93	4.485	4.490	(0.954)	127249	26.3869	940
26 2,4-Dichlorophenol	162	4.592	4.592	(0.977)	100153	29.0263	1030
27 Benzoic acid	105	4.485	4.479	(0.954)	149493	69.6130	2480
30 Naphthalene	128	4.715	4.720	(1.003)	349275	25.8162	920
31 4-Chloroaniline	127	4.736	4.736	(1.008)	146241	24.8866	887
32 Hexachlorobutadiene	225	4.779	4.784	(1.017)	67991	26.6307	949
34 2-Methylnaphthalene	142	5.196	5.201	(1.106)	251247	28.8942	1030
36 Hexachlorocyclopentadiene	237	5.298	5.303	(0.891)	30294	16.5869	591
37 2,4,6-Trichlorophenol	196	5.389	5.389	(0.906)	73920	25.6176	913
38 2,4,5-Trichlorophenol	196	5.421	5.415	(0.912)	79713	25.6041	912
40 2-Chloronaphthalene	162	5.549	5.549	(0.933)	239788	25.7804	919
42 o-Nitroaniline	65	5.608	5.608	(0.943)	85963	29.6432	1060
41 m-Nitroaniline	138	5.897	5.902	(0.992)	52817	28.3743	1010
43 Dimethylphthalate	163	5.710	5.720	(0.960)	318225	29.1590	1040
44 2,6-Dinitrotoluene	165	5.769	5.774	(0.970)	67522	27.3557	975
45 Acenaphthylene	152	5.849	5.854	(0.984)	381850	27.2350	970
48 2,4-Dinitrophenol	184	5.972	5.977	(1.004)	18779	24.6661	879(Q)
49 Dibenzofuran	168	6.089	6.089	(1.024)	353560	28.1595	1000
51 Diethylphthalate	149	6.202	6.202	(1.043)	350640	31.3246	1120
53 Fluorene	166	6.325	6.325	(1.064)	328666	30.1707	1080
54 4-Chlorophenylphenylether	204	6.303	6.303	(1.060)	148601	28.9533	1030
55 2-Methyl-4,6-dinitrophenol	198	6.341	6.341	(0.914)	40653	25.5506	910

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.325	6.325	(1.064)	66446	37.3656	1330
133 Diphenylamine	169	6.378	6.383	(0.920)	254840	26.6742	951
58 1,2-Diphenylhydrazine	77	6.410	6.416	(0.924)	352674	28.3436	1010
61 4-Bromophenylphenylether	248	6.630	6.630	(0.956)	83326	25.7985	919
63 Hexachlorobenzene	284	6.688	6.688	(0.965)	80995	25.1138	895
68 Phenanthrene	178	6.951	6.956	(1.002)	481433	26.5339	946
69 Anthracene	178	6.983	6.988	(1.007)	475921	27.1143	966
72 Di-n-butylphthalate	149	7.229	7.234	(1.042)	652914	31.4420	1120
76 Fluoranthene	202	7.662	7.672	(1.105)	501606	30.6068	1090
85 Butylbenzylphthalate	149	8.117	8.127	(0.945)	290840	28.4053	1010
89 Benzo(a)anthracene	228	8.582	8.592	(0.999)	467368	27.8957	994
90 3,3'-Dichlorobenzidine	252	8.523	8.528	(0.992)	92239	20.7294	739
92 Chrysene	228	8.614	8.625	(1.002)	443017	28.3437	1010
93 bis(2-Ethylhexyl)phthalate	149	8.475	8.485	(0.986)	413339	29.3172	1040
94 Di-n-octylphthalate	149	8.994	9.010	(0.897)	627688	30.5549	1090
95 Benzo(b)fluoranthene	252	9.566	9.582	(0.954)	339899	28.9194	1030
96 Benzo(k)fluoranthene	252	9.598	9.614	(0.957)	357481	30.0642	1070
97 Benzo(a)pyrene	252	9.962	9.978	(0.994)	283006	29.0514	1040
99 Indeno(1,2,3-cd)pyrene	276	11.636	11.657	(1.161)	230117	27.5959	983
100 Dibenzo(a,h)anthracene	278	11.636	11.663	(1.161)	189683	27.8432	992
101 Benzo(ghi)perylene	276	12.133	12.155	(1.210)	178433	26.4180	941
1 N-Methyl-N-nitrosomethylamine	74	2.356	2.351	(0.614)	48472	23.1196	824

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s032510.b/s2o2508.d
Date : 25-MAR-2010 17:05
Client ID: RE16-10-3799MS
Sample Info: 1120207298419659791|SVMI1|MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

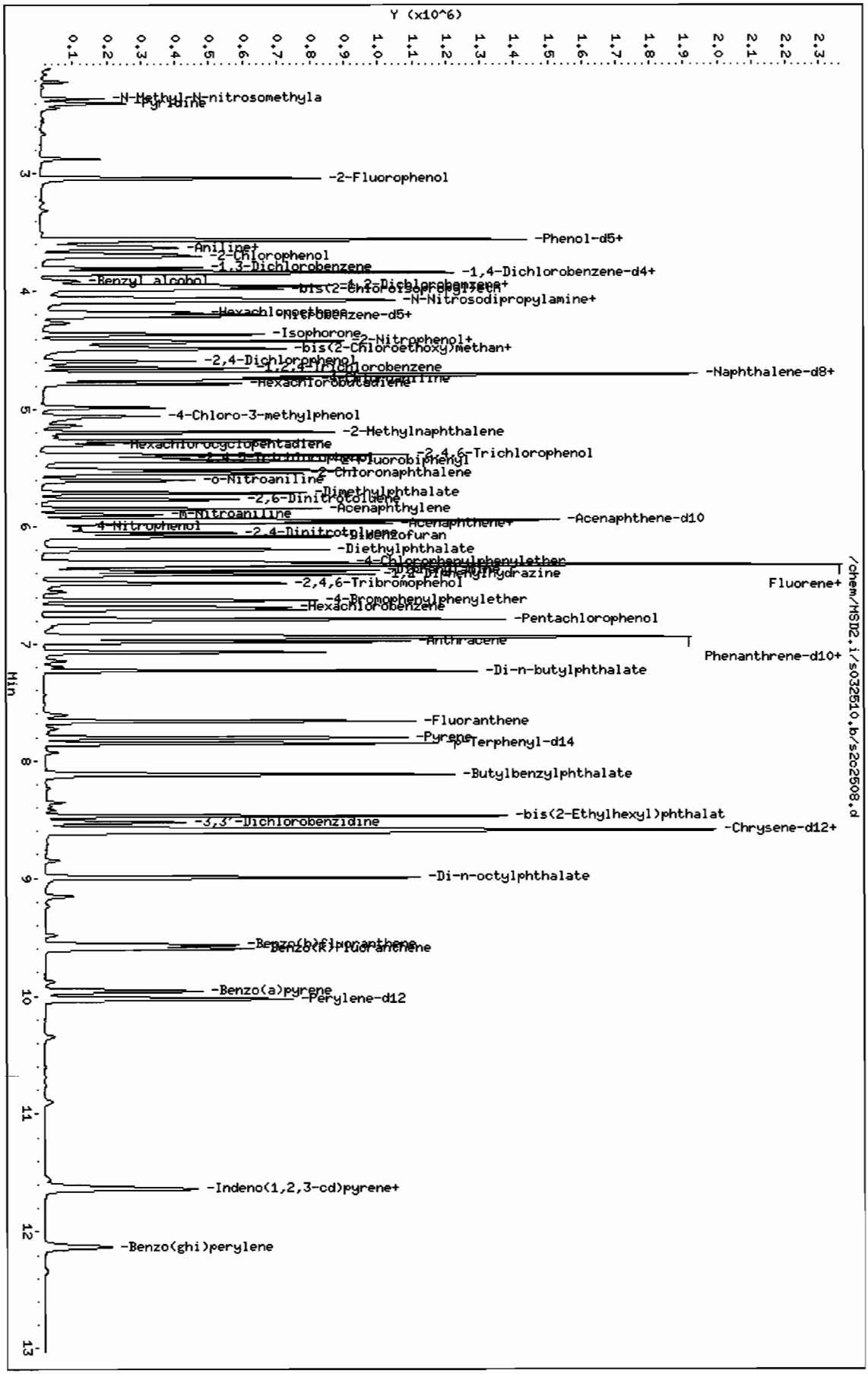

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GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2509.d
Lab Smp Id: 1202072985 Client Smp ID: RE16-10-3799MSD
Inj Date : 25-MAR-2010 17:25
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202072985|965979|1|SVM|1|MSD
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 9 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2359-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	6.46600	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.838	3.843	(1.000)	164745	40.0000	
* 29 Naphthalene-d8	136	4.699	4.704	(1.000)	732366	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	408987	40.0000	
* 67 Phenanthrene-d10	188	6.934	6.940	(1.000)	778496	40.0000	
* 91 Chrysene-d12	240	8.593	8.603	(1.000)	741211	40.0000	
* 98 Perylene-d12	264	10.031	10.042	(1.000)	500304	40.0000	
$ 3 2-Fluorophenol	112	3.041	3.035	(0.792)	241169	61.4791	2190
$ 5 Phenol-d5	99	3.559	3.565	(0.928)	288790	59.7842	2130
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.894)	169513	31.9802	1140
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	309942	27.5448	981
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.091)	82730	68.3899	2440
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	397644	29.4159	1050

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.570	3.570	(0.930)	140844	28.2798	1010
8 2-Chlorophenol	128	3.709	3.709	(0.967)	131728	29.7396	1060
11 1,4-Dichlorobenzene	146	3.848	3.854	(1.003)	137976	24.6855	879
17 N-Nitrosodipropylamine	70	4.073	4.084	(1.061)	101782	32.5700	1160(Q)
28 1,2,4-Trichlorobenzene	180	4.651	4.656	(0.990)	127971	28.2645	1010
33 4-Chloro-3-methylphenol	107	5.057	5.052	(1.076)	126894	31.8608	1130
47 Acenaphthene	154	5.972	5.977	(1.004)	304960	27.9966	997
50 2,4-Dinitrotoluene	165	6.057	6.063	(1.019)	104131	31.6929	1130
52 4-Nitrophenol	139	6.014	5.998	(1.012)	35919	21.9981	783
65 Pentachlorophenol	266	6.811	6.811	(0.982)	42223	23.8385	849
79 Pyrene	202	7.801	7.812	(0.908)	589831	24.4124	869
2 Pyridine	79	2.404	2.383	(0.626)	73850	23.0409	820
4 Aniline	66	3.624	3.629	(0.944)	65151	27.5493	981
7 bis(2-Chloroethyl) ether	63	3.640	3.645	(0.948)	124420	29.0809	1040
9 1,3-Dichlorobenzene	146	3.805	3.811	(0.992)	128233	24.3253	866
12 Benzyl alcohol	108	3.918	3.912	(1.021)	15076	6.42650	229(aR)
13 1,2-Dichlorobenzene	146	3.950	3.955	(1.029)	130482	25.2898	901
14 bis(2-Chloroisopropyl)ether	45	3.982	3.987	(1.038)	378796	36.2153	1290
15 o-Cresol	107	3.961	3.961	(1.032)	102434	29.1276	1040
18 m,p-Cresols	107	4.057	4.062	(1.057)	165298	39.4502	1400
19 Hexachloroethane	117	4.180	4.185	(1.089)	55525	25.1377	895
21 Nitrobenzene	77	4.212	4.217	(0.896)	163586	32.7880	1170
22 Isophorone	82	4.362	4.372	(0.928)	273339	30.2927	1080
23 2-Nitrophenol	139	4.426	4.431	(0.942)	77087	29.5093	1050
24 2,4-Dimethylphenol	122	4.421	4.426	(0.941)	105474	22.5690	804
25 bis(2-Chloroethoxy)methane	93	4.485	4.490	(0.954)	146229	28.2491	1010
26 2,4-Dichlorophenol	162	4.592	4.592	(0.977)	113761	30.7156	1090
27 Benzoic acid	105	4.485	4.479	(0.954)	171836	74.5454	2650
30 Naphthalene	128	4.715	4.720	(1.003)	408652	28.1394	1000
31 4-Chloroaniline	127	4.736	4.736	(1.008)	162589	25.7765	918
32 Hexachlorobutadiene	225	4.779	4.784	(1.017)	82493	30.1013	1070
34 2-Methylnaphthalene	142	5.196	5.201	(1.106)	287237	30.7742	1100
36 Hexachlorocyclopentadiene	237	5.298	5.303	(0.891)	41085	21.1079	752
37 2,4,6-Trichlorophenol	196	5.389	5.389	(0.906)	82287	26.7585	953
38 2,4,5-Trichlorophenol	196	5.421	5.415	(0.912)	93670	28.2316	1000
40 2-Chloronaphthalene	162	5.549	5.549	(0.933)	278153	28.0609	999
42 o-Nitroaniline	65	5.608	5.608	(0.943)	99080	32.0593	1140
41 m-Nitroaniline	138	5.897	5.902	(0.992)	62213	31.0058	1100
43 Dimethylphthalate	163	5.710	5.720	(0.960)	357608	30.7468	1100
44 2,6-Dinitrotoluene	165	5.768	5.774	(0.970)	77092	29.3067	1040
45 Acenaphthylene	152	5.849	5.854	(0.984)	436937	29.2421	1040
48 2,4-Dinitrophenol	184	5.972	5.977	(1.004)	25146	28.1503	1000(Q)
49 Dibenzofuran	168	6.089	6.089	(1.024)	398394	29.7734	1060
51 Diethylphthalate	149	6.202	6.202	(1.043)	401153	33.6271	1200
53 Fluorene	166	6.325	6.325	(1.064)	376344	32.4168	1150
54 4-Chlorophenylphenylether	204	6.303	6.303	(1.060)	169792	31.0419	1100
55 2-Methyl-4,6-dinitrophenol	198	6.341	6.341	(0.914)	48297	27.7252	987

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.325	6.325	(1.064)	83282	42.8666	1530
133 Diphenylamine	169	6.378	6.383	(0.920)	290860	28.7078	1020
58 1,2-Diphenylhydrazine	77	6.410	6.416	(0.924)	407408	30.8748	1100
61 4-Bromophenylphenylether	248	6.630	6.630	(0.956)	94387	27.5562	981
63 Hexachlorobenzene	284	6.688	6.688	(0.965)	93032	27.2007	969
68 Phenanthrene	178	6.950	6.956	(1.002)	551910	28.6831	1020
69 Anthracene	178	6.983	6.988	(1.007)	539024	28.9577	1030
72 Di-n-butylphthalate	149	7.229	7.234	(1.042)	720755	32.7292	1160
76 Fluoranthene	202	7.662	7.672	(1.105)	562750	32.3791	1150
85 Butylbenzylphthalate	149	8.117	8.127	(0.945)	325038	28.7527	1020
89 Benzo(a)anthracene	228	8.582	8.592	(0.999)	521108	28.1711	1000
90 3,3'-Dichlorobenzidine	252	8.523	8.528	(0.992)	112568	22.9132	816
92 Chrysene	228	8.614	8.625	(1.002)	514845	29.8340	1060
93 bis(2-Ethylhexyl)phthalate	149	8.475	8.485	(0.986)	461598	29.6537	1060
94 Di-n-octylphthalate	149	8.999	9.010	(0.897)	721654	30.2559	1080
95 Benzo(b)fluoranthene	252	9.571	9.582	(0.954)	428163	31.3756	1120
96 Benzo(k)fluoranthene	252	9.598	9.614	(0.957)	395766	28.6669	1020
97 Benzo(a)pyrene	252	9.962	9.978	(0.993)	339866	30.0486	1070
99 Indeno(1,2,3-cd)pyrene	276	11.641	11.657	(1.160)	295000	30.4693	1080
100 Dibenzo(a,h)anthracene	278	11.641	11.663	(1.160)	249280	31.5153	1120
101 Benzo(ghi)perylene	276	12.139	12.155	(1.210)	232409	29.6362	1060
1 N-Methyl-N-nitrosomethylamine	74	2.361	2.351	(0.615)	56009	24.8427	885

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD2.i/s032510.b/s2o2509.d
Date : 25-MAR-2010 17:25
Client ID: RE16-10-3799MSD
Sample Info: 1120207298519659791 1SVM11 1MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

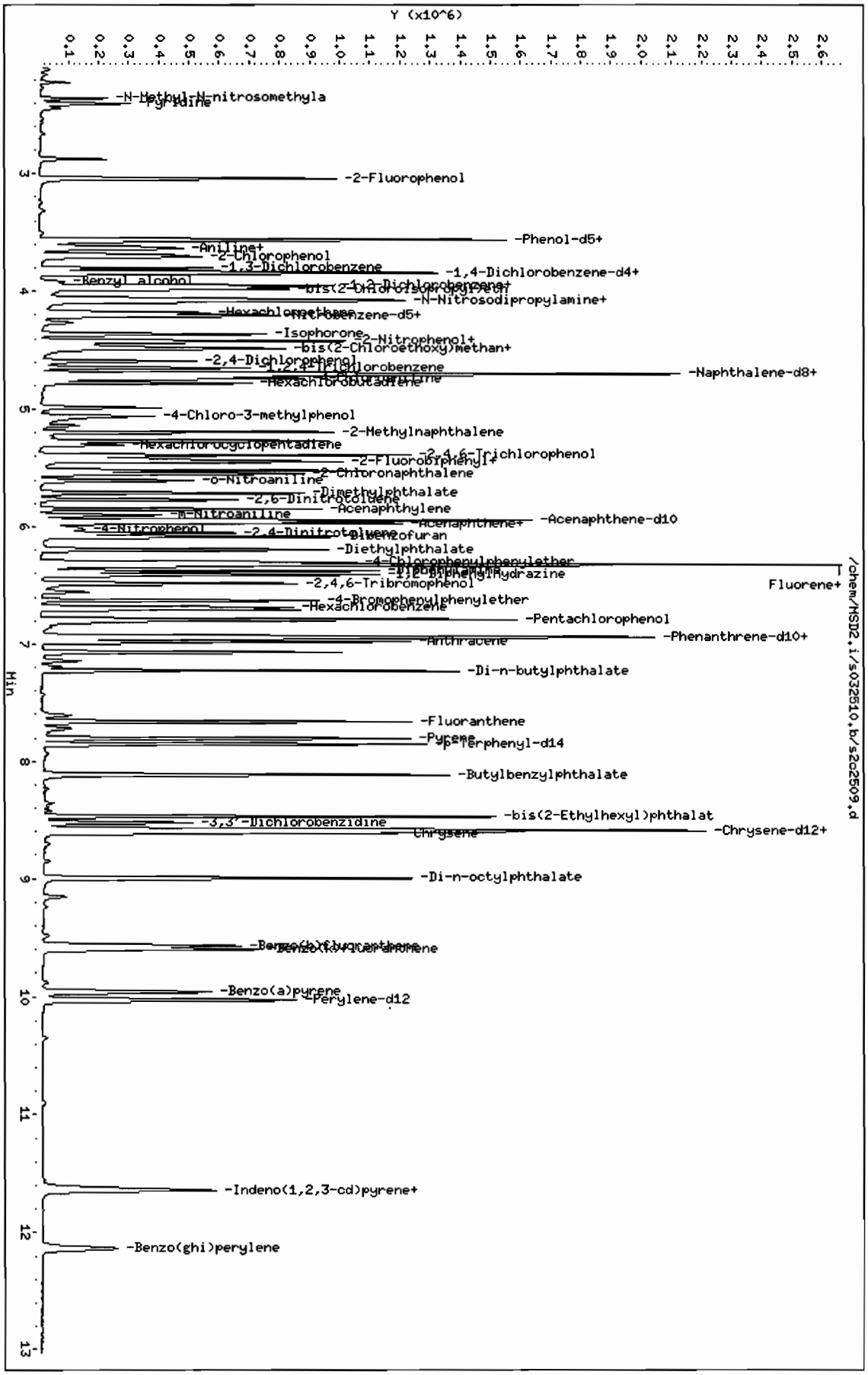

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FID Diesel Range Organics Analysis

FID Diesel Range Organics
Los Alamos National Laboratory (LANL)
SDG 10-2314

Method/Analysis Information

Procedure:	**Analysis of Diesel Range Organics by Flame Ionization Detector**
Analytical Method:	SW846 8015A/B SVOC
Prep Method:	SW846 3550B
Analytical Batch Number:	966003
Prep Batch Number:	966002

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8015A/B SVOC:

Sample ID	Client ID
248862002	RE46-10-13782
248862003	RE46-10-13783
248862004	RE46-10-13777
248862005	RE46-10-13775
248862006	RE46-10-13776
248862007	RE46-10-13781
248862008	RE46-10-13779
248862009	RE46-10-13780
248862010	RE46-10-13778
1202073046	Method Blank (MB)
1202073047	Laboratory Control Sample (LCS)
1202073048	248862002(RE46-10-13782) Matrix Spike (MS)
1202073049	248862002(RE46-10-13782) Matrix Spike Duplicate (MSD)

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

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-003 REV# 18.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248862002 (RE46-10-13782) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recovery was within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery was within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Samples 248862004 (RE46-10-13777) and 248862008 (RE46-10-13779) were diluted at 1:20 due to the extracts being thick and oily.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator

will always sign and date the case narrative.

Data Exception (DER) Documentation
Data exception reports (DERs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and QC samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this fraction. Some of the samples were manually integrated.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Diesel Range Organics analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
FID7.I	Agilent GC FID	Agilent 6890N GC/FID	DB-5MS	30m x 0.25mm, 0.25um(J&W)

Certification Statement

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

Review Validation:

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

Review Validation:

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

Reviewer: _____ **Date:** 04-02-10

Sample Data Summary

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862005**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13775**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 21:32**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**054f5401.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.87	mg/kg	2.38	7.33

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862006**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13776**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 22:09**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**055f5501.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.40	mg/kg	2.41	7.40

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**20.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13777**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**20**
Run Date:	**03/19/2010 20:55**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**053f5301.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	167	mg/kg	54.4	167

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862010**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13778**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 00:36**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**059f5901.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	4.24	mg/kg	2.68	8.23

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862008**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13779**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**20**
Run Date:	**03/19/2010 23:22**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**057f5701.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	165	mg/kg	53.5	165

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862009**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13780**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.1**	**Dilution:**	**1**
Run Date:	**03/19/2010 23:59**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**058f5801.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	8.13	mg/kg	2.64	8.13

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862007**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13781**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 22:46**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**056f5601.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	7.17	mg/kg	2.65	8.16

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13782**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 17:13**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**047f4701.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.70	mg/kg	2.50	7.70

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13783**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 20:18**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**052f5201.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.80	mg/kg	2.38	7.33

QC Summary

FID Diesel Range Organics

Surrogate Recovery Report

SDG Number: 10-2314

Matrix Type: SOLID

CAP Column (1) : DB-5MS

Sample ID	Client ID	OTP %REC	
1202073046	MB for batch 966002	42	
1202073047	LCS for batch 966002	79	
248862002	RE46-10-13782	46	
1202073048	RE46-10-13782MS	87	
1202073049	RE46-10-13782MSD	73	
248862003	RE46-10-13783	53	
248862004	RE46-10-13777	116	D
248862005	RE46-10-13775	51	
248862006	RE46-10-13776	32	
248862007	RE46-10-13781	43	
248862008	RE46-10-13779	45	D
248862009	RE46-10-13780	47	
248862010	RE46-10-13778	57	

Surrogate	Acceptance Limits
OTP = o-Terphenyl	(8%-121%)

* Recovery outside Acceptance Limits
\# Column to be used to flag recovery values
D Sample Diluted

FID Diesel Range Organics

Quality Control Summary

Spike Recovery Report

SDG Number: **10-2314**

Sample Type: **Laboratory Control Sample**

Client ID: **LCS for batch 966002**

Matrix: **SOIL**

Lab Sample ID: **1202073047**

Instrument: **FID7.I**

Analysis Date: **03/19/2010 08:36**

Dilution: 1

Analyst: **KXR2**

Prep Batch ID **966002**

Inj. Vol: **1 uL**

Batch ID: **966003**

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg	Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	LCS	Diesel Range Organics	33.3	0.0	25.1	75	44-113

FID Diesel Range Organics

Quality Control Summary

Spike Recovery Report

SDG Number:	**10-2314**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE46-10-13782MS**	**Matrix:**	**S**
Lab Sample ID:	**1202073048**	**%Moisture:**	**13.9**
Instrument:	**FID7.I**	**Analysis Date:**	**03/19/2010 17:50**
Analyst:	**KXR2**	**Prep Batch ID:**	**966002**
Inj. Vol:	**1 uL**	**Batch ID:**	**966003**

Dilution: 1

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	MS	Diesel Range Organics	38.6	0.00	U	30.6	79	23-130

FID Diesel Range Organics

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2314
Client ID: RE46-10-13782MSD
Lab Sample ID: 1202073049
Instrument: FID7.I
Analyst: KXR2
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 13.9
Analysis Date: 03/19/2010 18:27
Prep Batch ID: 966002
Batch ID: 966003
Dilution: 1

CAS No	Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
DRO	MSD Diesel Range Organics	38.5	0.00	U	26.2	68	23-130	16	0-30

Method Blank Summary

SDG Number:	10-2314	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 966002	Instrument ID:	FID7.I	Data File:	032f3201.d
Lab Sample ID:	1202073046	Prep Date:	03/17/2010 20:50	Analyzed:	03/19/10 07:59
Column:	DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 966002	1202073047	033f3301.d	03/19/10	0836
02	RE46-10-13782	248862002	047f4701.d	03/19/10	1713
03	RE46-10-13782MS	1202073048	048f4801.d	03/19/10	1750
04	RE46-10-13782MSD	1202073049	049f4901.d	03/19/10	1827
05	RE46-10-13783	248862003	052f5201.d	03/19/10	2018
06	RE46-10-13777	248862004	053f5301.d	03/19/10	2055
07	RE46-10-13775	248862005	054f5401.d	03/19/10	2132
08	RE46-10-13776	248862006	055f5501.d	03/19/10	2209
09	RE46-10-13781	248862007	056f5601.d	03/19/10	2246
10	RE46-10-13779	248862008	057f5701.d	03/19/10	2322
11	RE46-10-13780	248862009	058f5801.d	03/19/10	2359
12	RE46-10-13778	248862010	059f5901.d	03/20/10	0036

Sample Data

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862005**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13775**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 21:32**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**054f5401.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.87	mg/kg	2.38	7.33

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/054f5401.d
Lab Smp Id: 248862005 Client Smp ID: RE46-10-13775
Inj Date : 19-MAR-2010 21:32
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248862005|1|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 54
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.14000	Weigth of sample extracted (g)
M	9.49990	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.415- 17.722			1379993	105.475	3.9	(a)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.530	13.532	-0.002	256173	10.1945	0.37	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/031810dr/054f5401.d

Date : 19-MAR-2010 21:32

Client ID: RE46-10-13775

Sample Info: |248862005|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

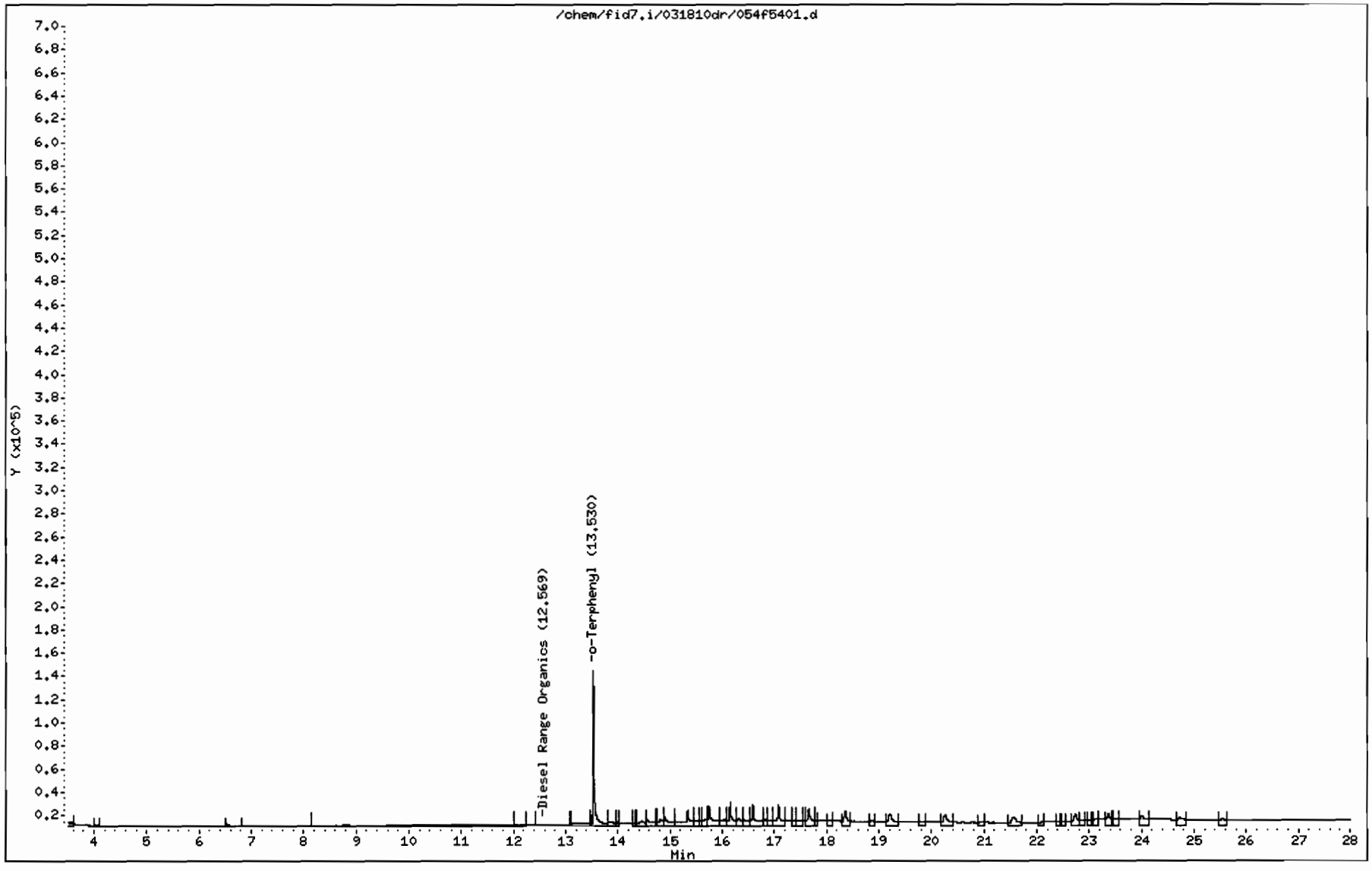

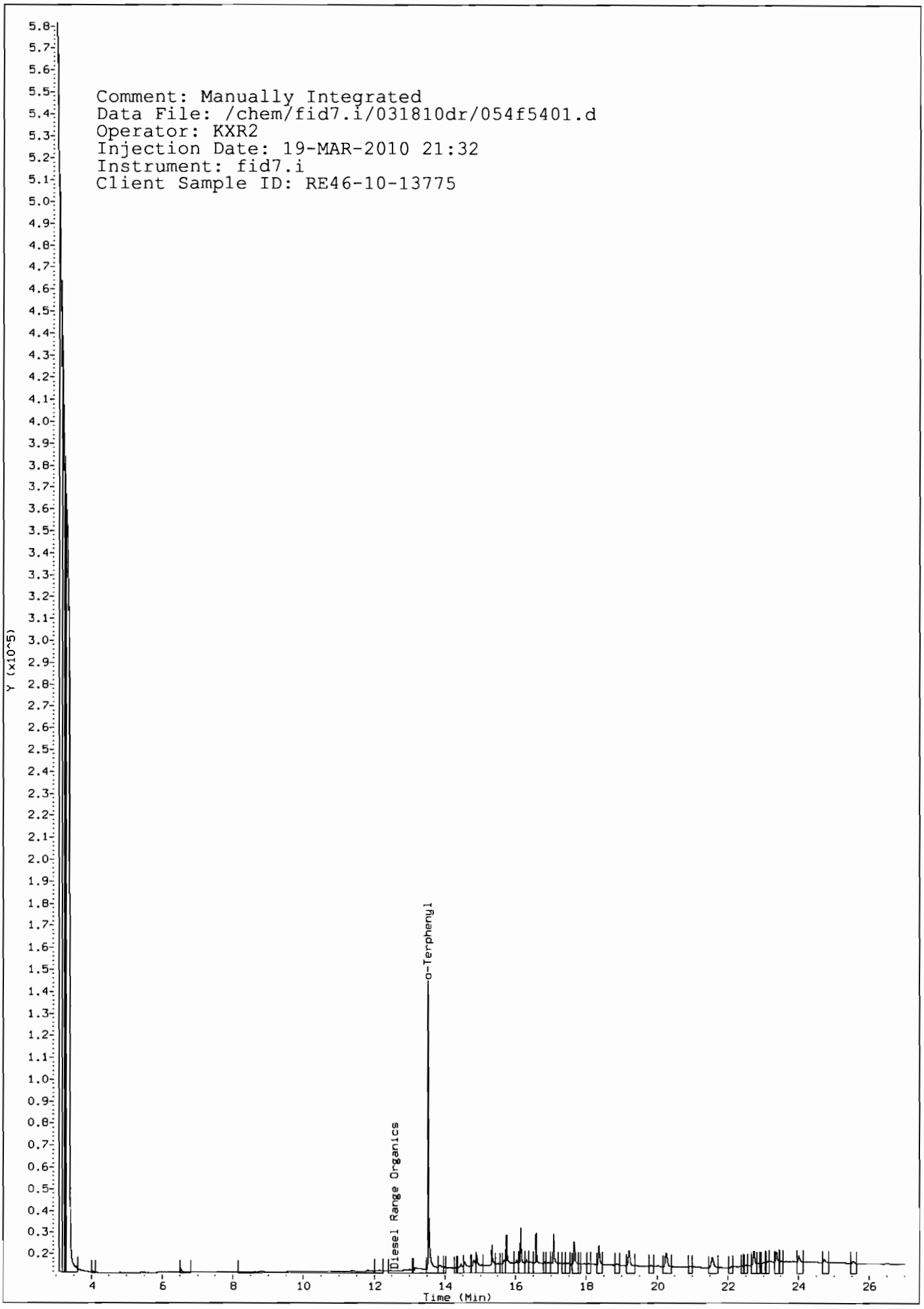
Comment: Manually Integrated
Data File: /chem/fid7.i/031810dr/054f5401.d
Operator: KXR2
Injection Date: 19-MAR-2010 21:32
Instrument: fid7.i
Client Sample ID: RE46-10-13775
Y (x10^5)
Diesel Range Organics
o-Terphenyl
Time (Min)

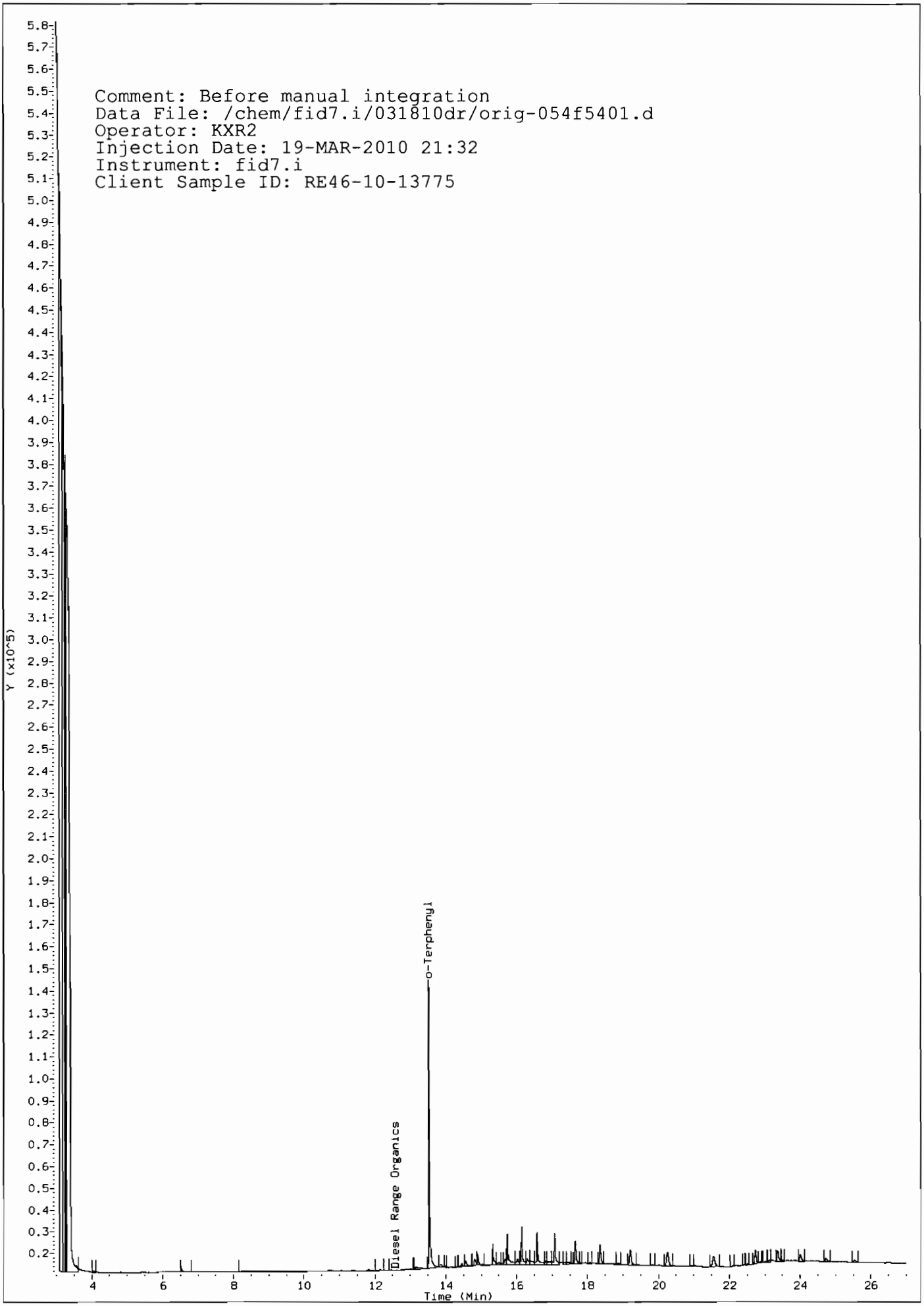
Comment: Before manual integration
Data File: /chem/fid7.i/031810dr/orig-054f5401.d
Operator: KXR2
Injection Date: 19-MAR-2010 21:32
Instrument: fid7.i
Client Sample ID: RE46-10-13775
Diesel Range Organics
o-Terphenyl
Y (x10^5)
Time (Min)

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862006**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13776**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 22:09**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**055f5501.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.40	mg/kg	2.41	7.40

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/055f5501.d
Lab Smp Id: 248862006 Client Smp ID: RE46-10-13776
Inj Date : 19-MAR-2010 22:09
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248862006|1|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 55
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weigth of sample extracted (g)
M	10.10940	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.532	13.532	0.000	159821	6.36015	0.24

Data File: /chem/fid7.i/031810dr/055f5501.d

Date : 19-MAR-2010 22:09

Client ID: RE46-10-13776

Sample Info: |248862006|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

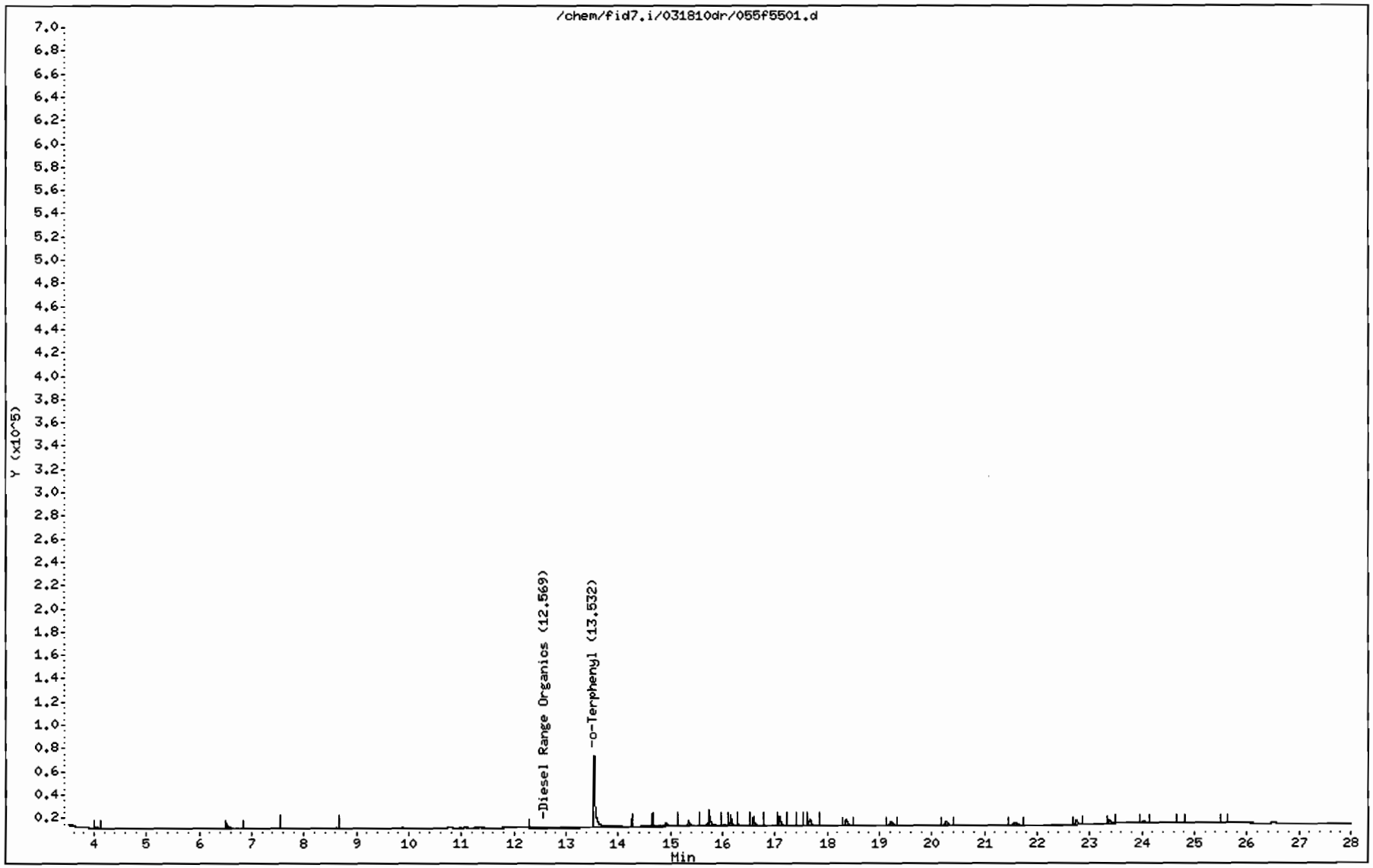

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**20.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13777**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**20**
Run Date:	**03/19/2010 20:55**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**053f5301.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	167	mg/kg	54.4	167

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/053f5301.d
Lab Smp Id: 248862004 Client Smp ID: RE46-10-13777
Inj Date : 19-MAR-2010 20:55
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248862004|20|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 53
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weigth of sample extracted (g)
M	20.43130	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.550	13.532	0.018	29217	1.16272	0.97

Data File: /chem/fid7.i/031810dr/053f5301.d

Date : 19-MAR-2010 20:55

Client ID: RE46-10-13777

Sample Info: |2488620041201

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

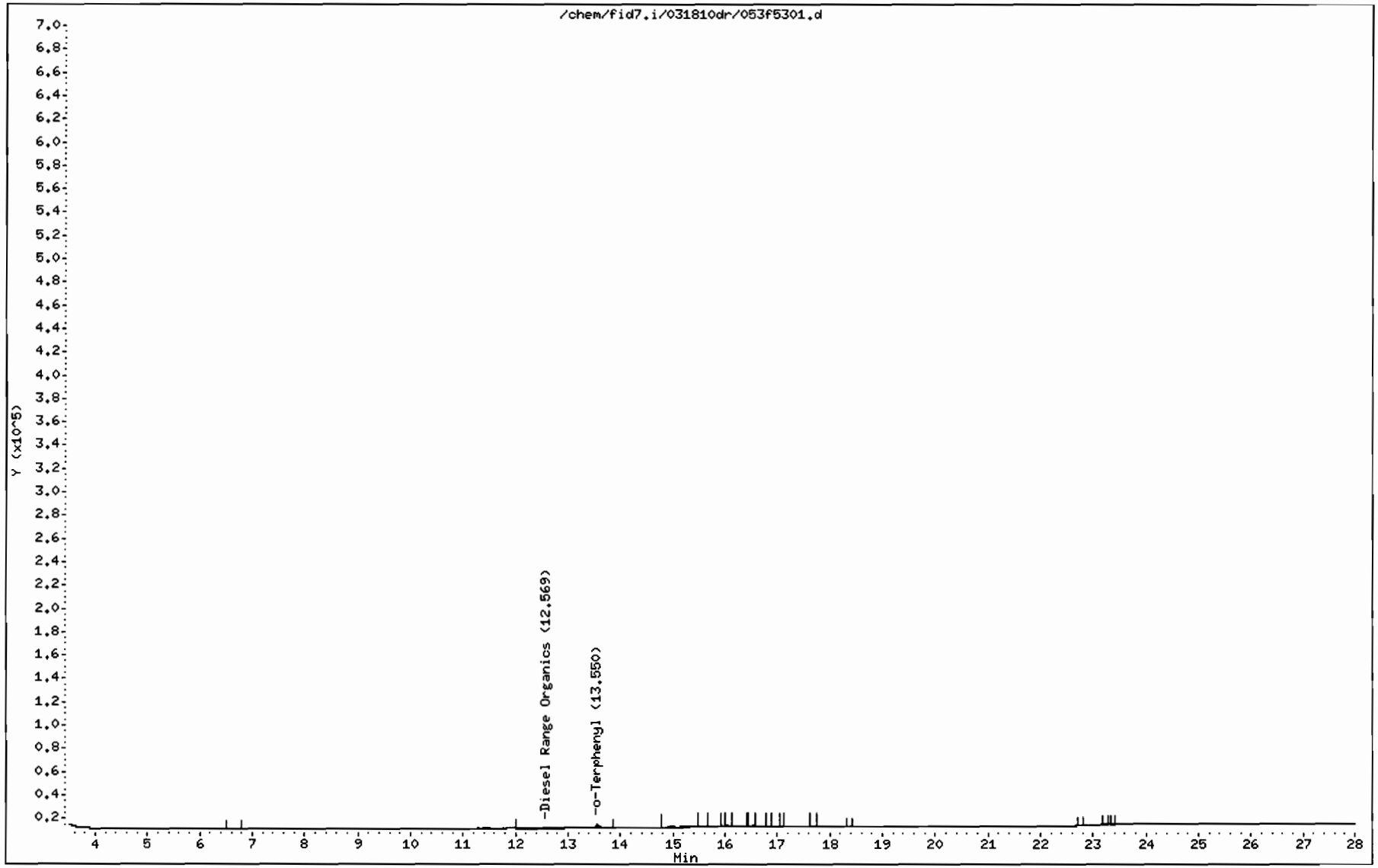

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862010**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13778**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 00:36**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**059f5901.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	4.24	mg/kg	2.68	8.23

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/059f5901.d
Lab Smp Id: 248862010 Client Smp ID: RE46-10-13778
Inj Date : 20-MAR-2010 00:36
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248862010|1|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 59
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	19.06520	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.415- 17.722			1346558	102.919	4.2	(a)
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.529	13.532	-0.003	284039	11.3034	0.46	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/031810dr/059f5901.d

Page 1

Date : 20-MAR-2010 00:36

Client ID: RE46-10-13778

Instrument: fid7.i

Sample Info: |248862010|1|

Volume Injected (uL): 1.0

Operator: KXR2

Column phase: DB-5MS

Column diameter: 0.25

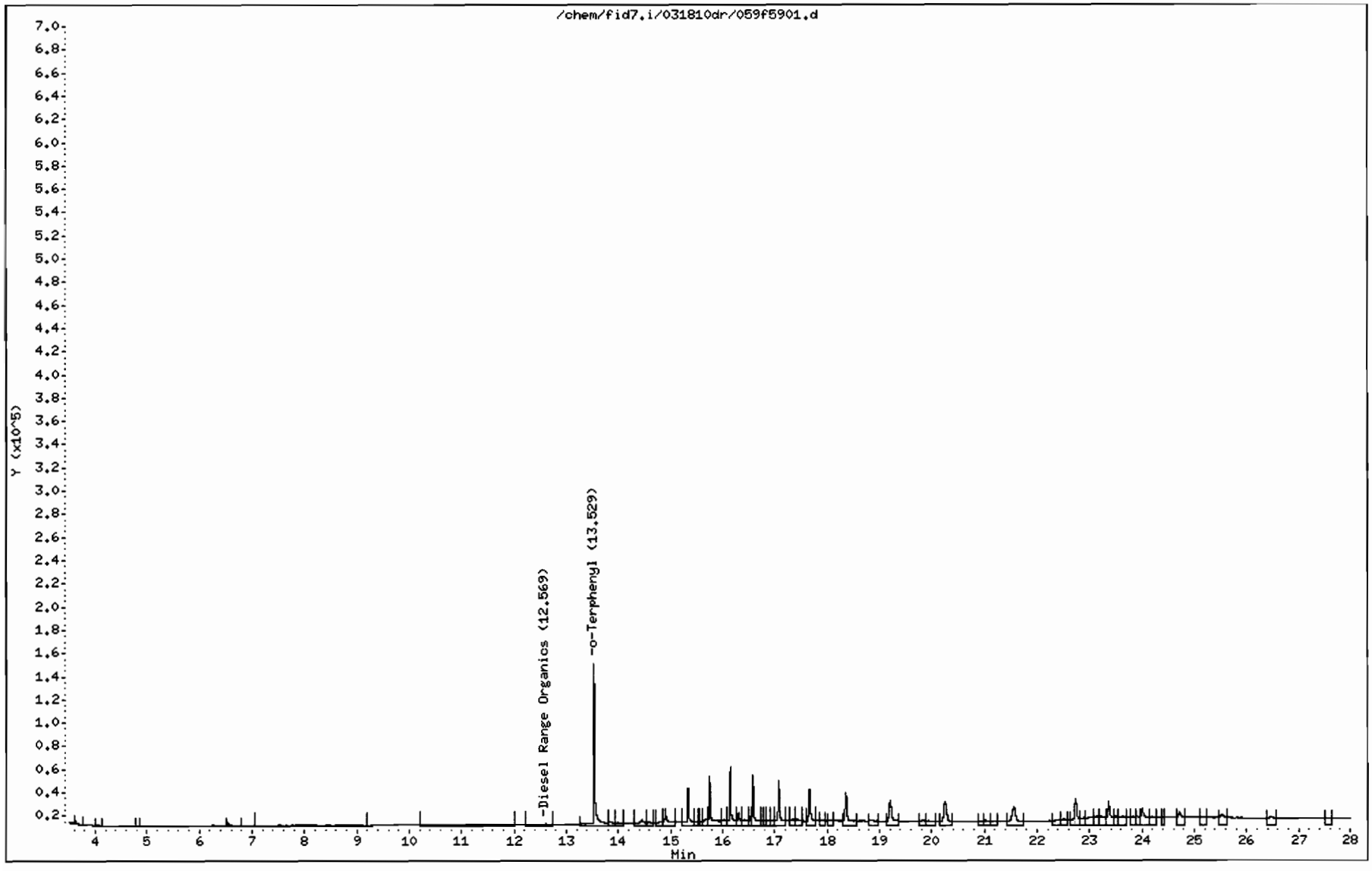

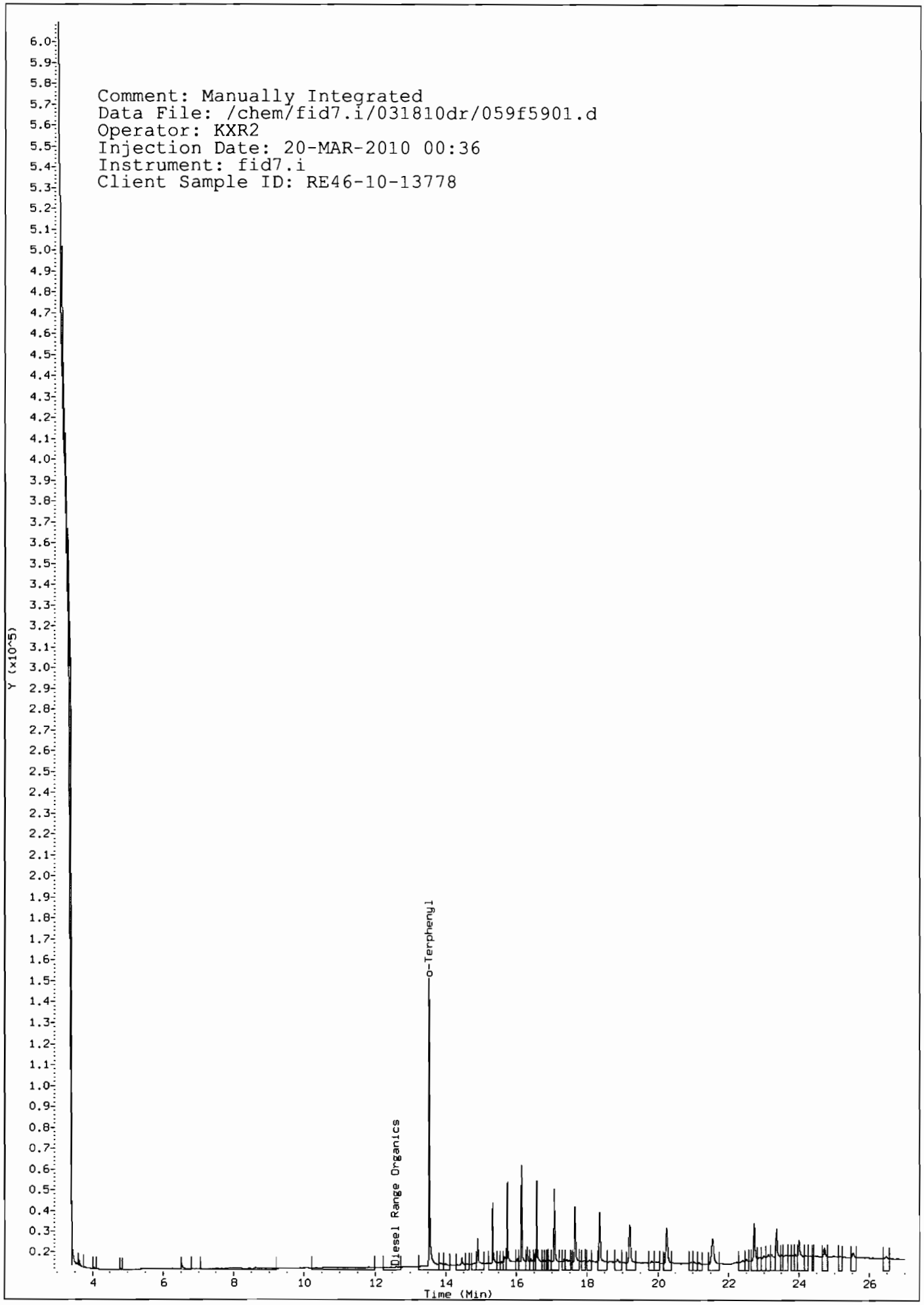
Comment: Manually Integrated
Data File: /chem/fid7.i/031810dr/059f5901.d
Operator: KXR2
Injection Date: 20-MAR-2010 00:36
Instrument: fid7.i
Client Sample ID: RE46-10-13778
Diesel Range Organics
o-Terphenyl
Y (x10^5)
Time (Min)

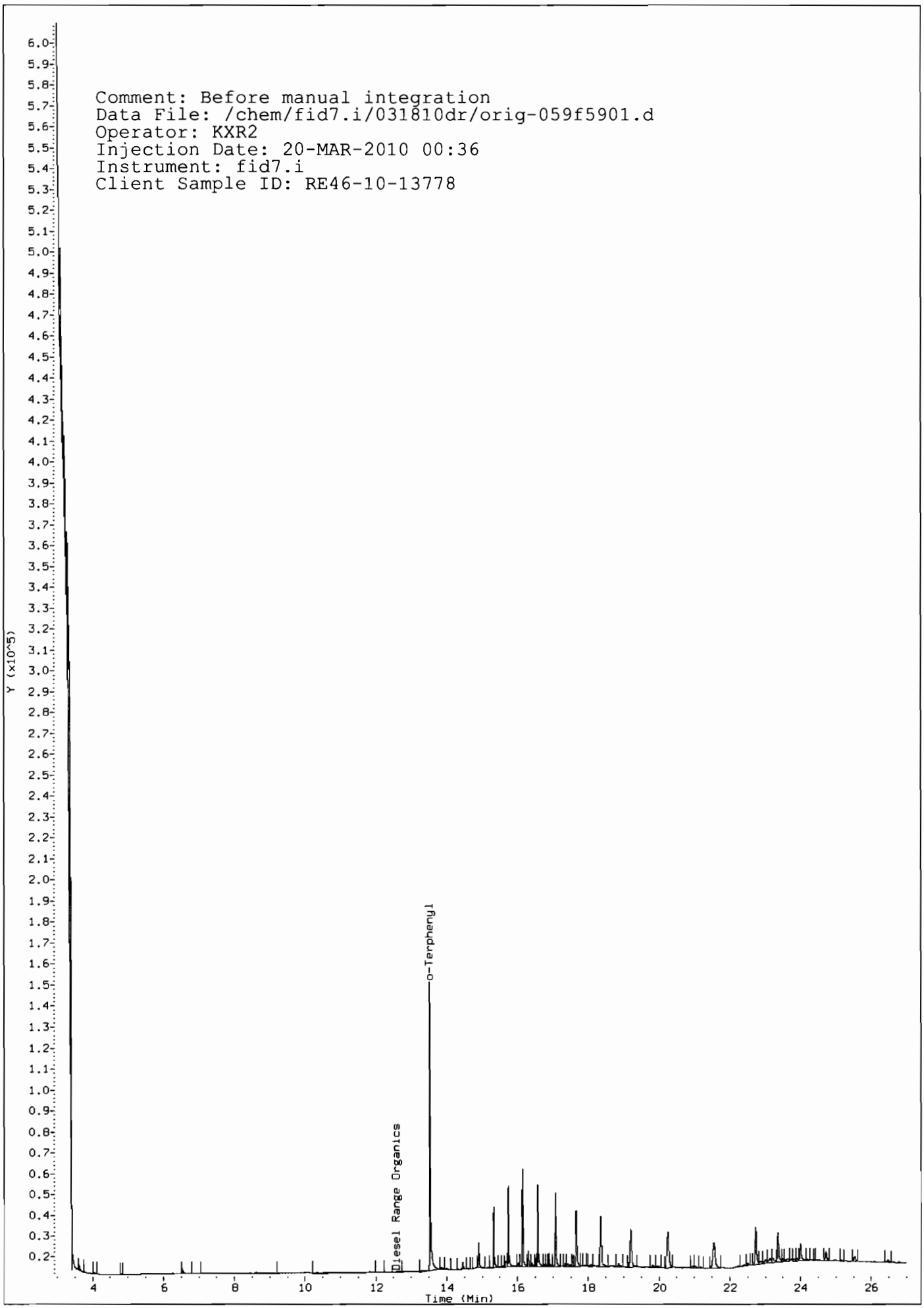
Comment: Before manual integration
Data File: /chem/fid7.i/031810dr/orig-059f5901.d
Operator: KXR2
Injection Date: 20-MAR-2010 00:36
Instrument: fid7.i
Client Sample ID: RE46-10-13778
Y (x10^5)
Time (Min)
Diesel Range Organics
o-Terphenyl

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862008**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13779**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**20**
Run Date:	**03/19/2010 23:22**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**057f5701.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	165	mg/kg	53.5	165

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/057f5701.d
Lab Smp Id: 248862008 Client Smp ID: RE46-10-13779
Inj Date : 19-MAR-2010 23:22
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248862008|20|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 14:12 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 57
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weigth of sample extracted (g)
M	19.50530	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.544	13.532	0.012	11254	0.44786	0.37

Data File: /chem/fid7.i/031810dr/057f5701.d
Date : 19-MAR-2010 23:22
Client ID: RE46-10-13779
Sample Info: |2488620081201|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

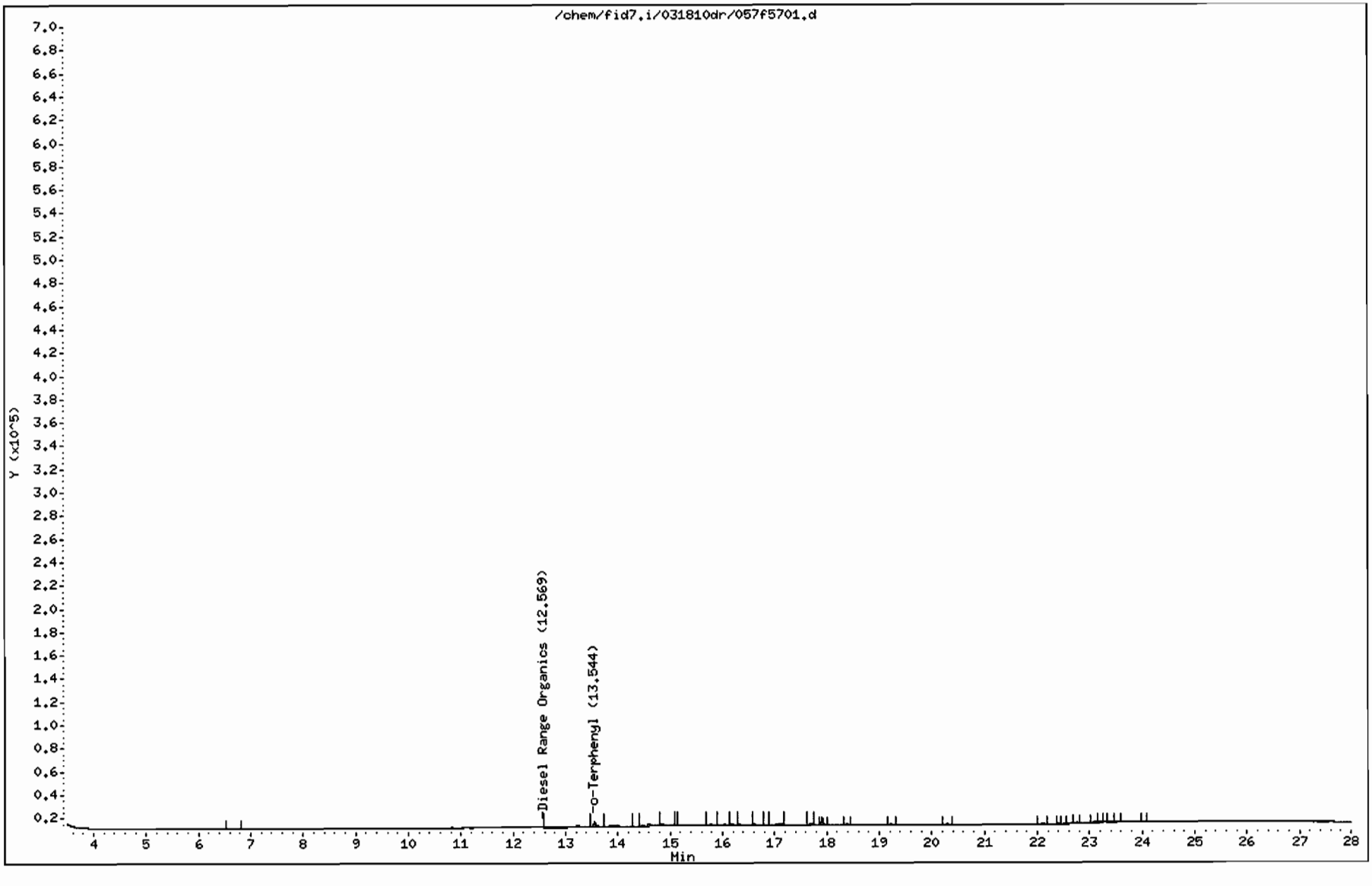

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862009**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13780**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 23:59**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**058f5801.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	8.13	mg/kg	2.64	8.13

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/058f5801.d
Lab Smp Id: 248862009 Client Smp ID: RE46-10-13780
Inj Date : 19-MAR-2010 23:59
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248862009|1|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 14:12 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 58
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weigth of sample extracted (g)
M	18.07330	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.530	13.532	-0.002	236000	9.39167	0.38

Data File: /chem/fid7.i/031810dr/058f5801.d

Date : 19-MAR-2010 23:59

Client ID: RE46-10-13780

Sample Info: |248862009|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

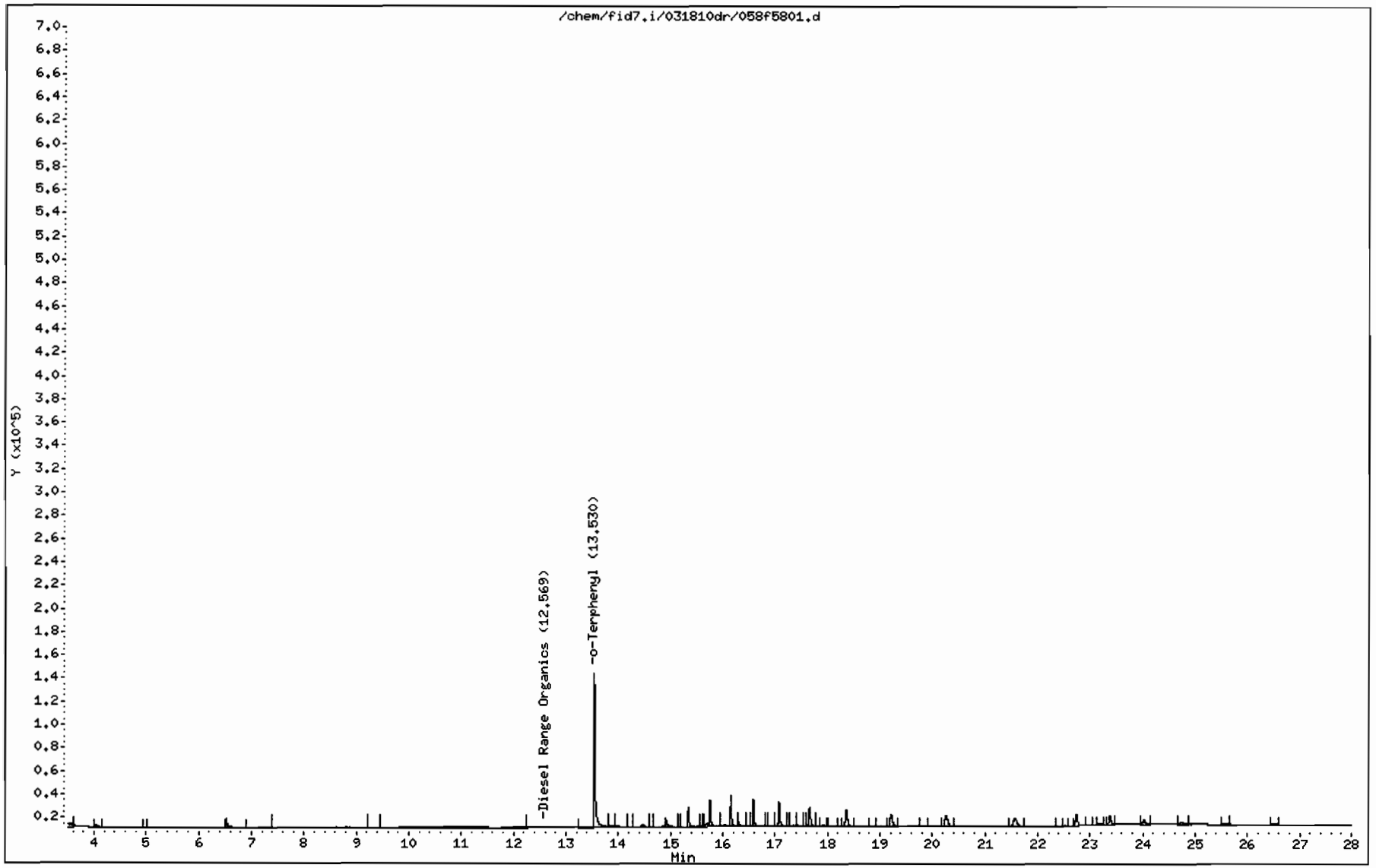

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862007**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13781**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 22:46**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**056f5601.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	7.17	mg/kg	2.65	8.16

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/056f5601.d
Lab Smp Id: 248862007 Client Smp ID: RE46-10-13781
Inj Date : 19-MAR-2010 22:46
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248862007|1|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 56
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weigth of sample extracted (g)
M	18.83070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.415- 17.722			2297140	175.573	7.2	(a)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.527	13.532	-0.005	217980	8.67459	0.35	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/031810dr/056f5601.d

Date : 19-MAR-2010 22:46

Client ID: RE46-10-13781

Sample Info: |248862007|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

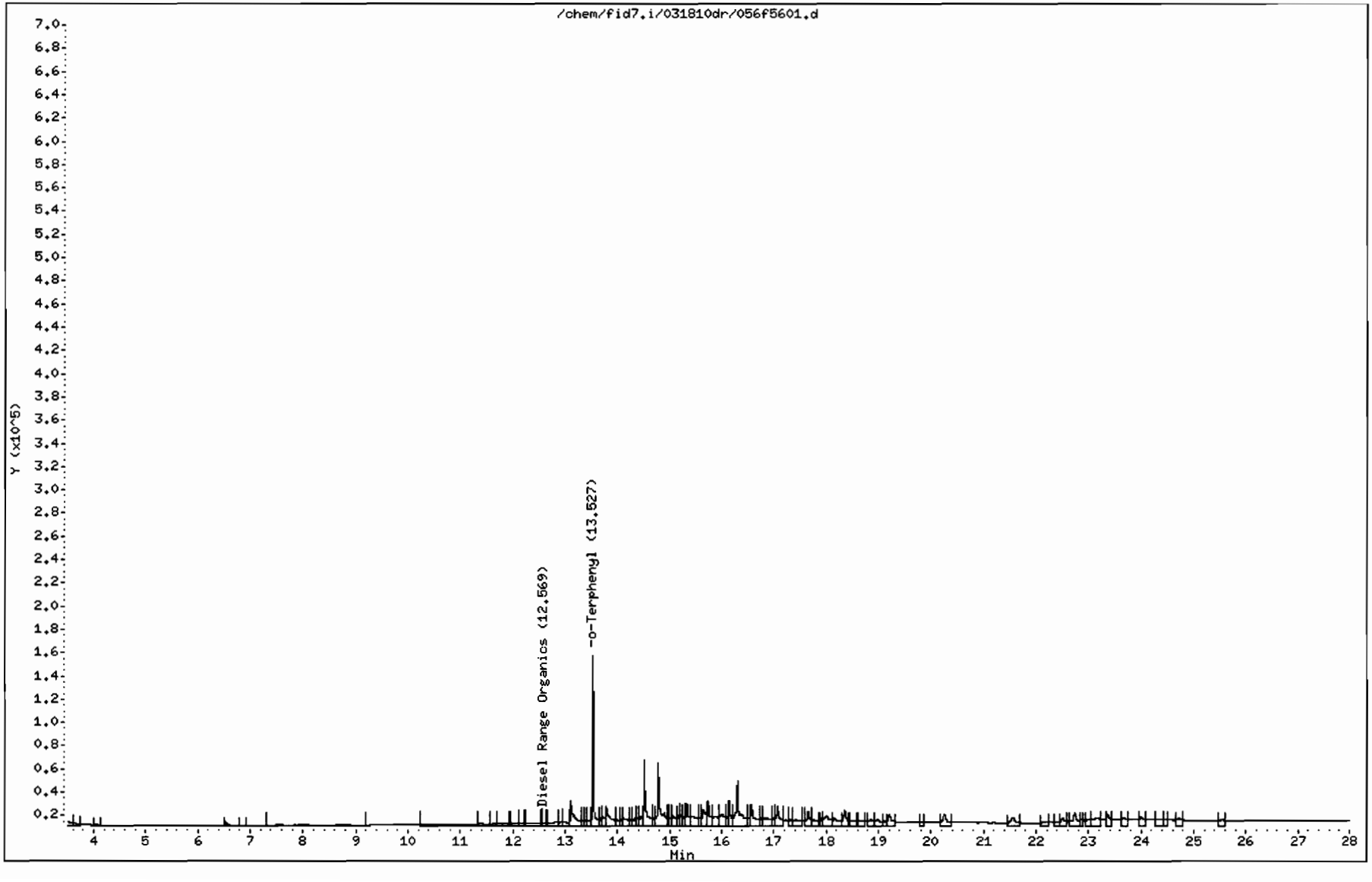

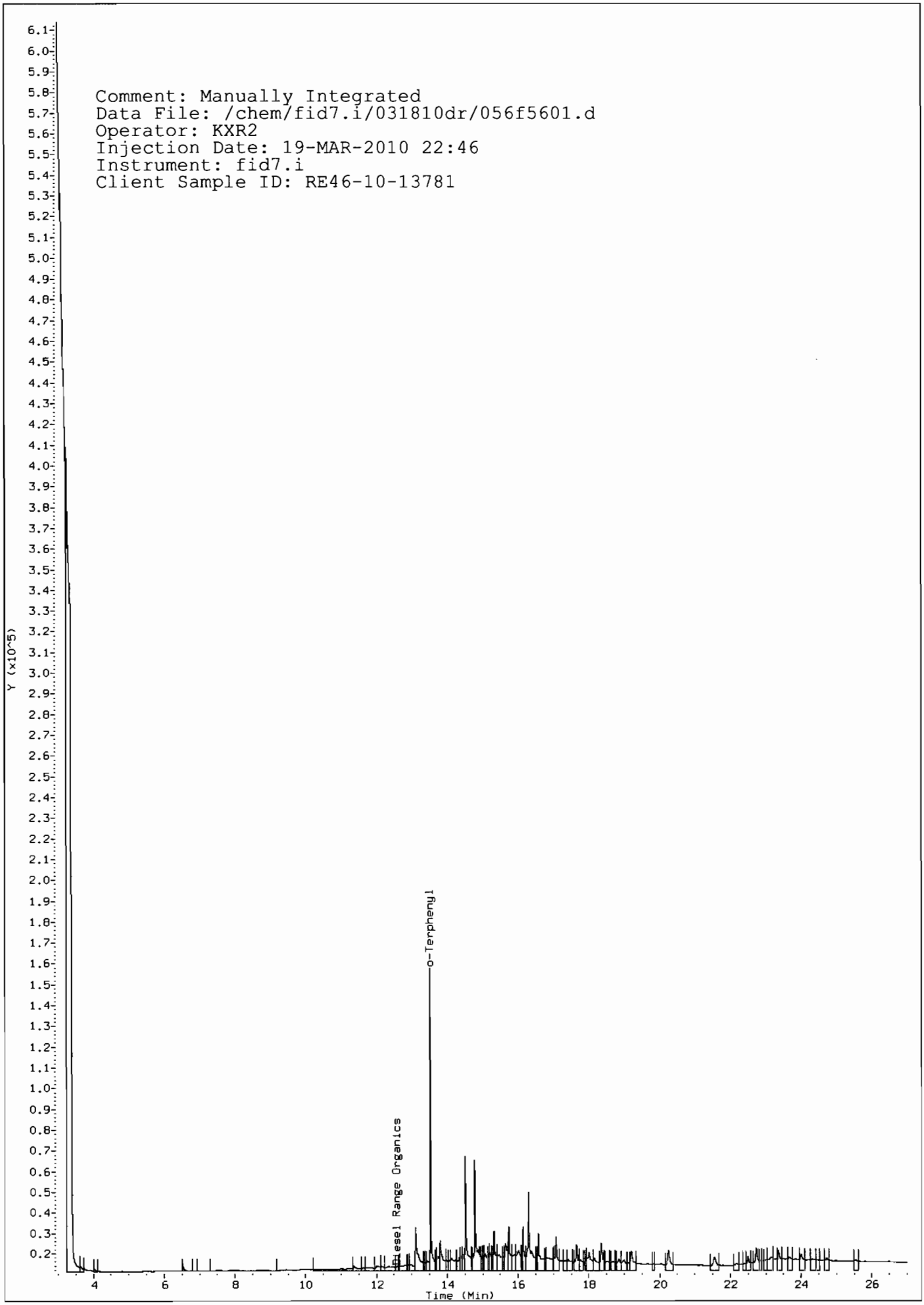
Comment: Manually Integrated
Data File: /chem/fid7.i/031810dr/056f5601.d
Operator: KXR2
Injection Date: 19-MAR-2010 22:46
Instrument: fid7.i
Client Sample ID: RE46-10-13781
o-Terphenyl
Diesel Range Organics
Y (x10^5)
Time (Min)

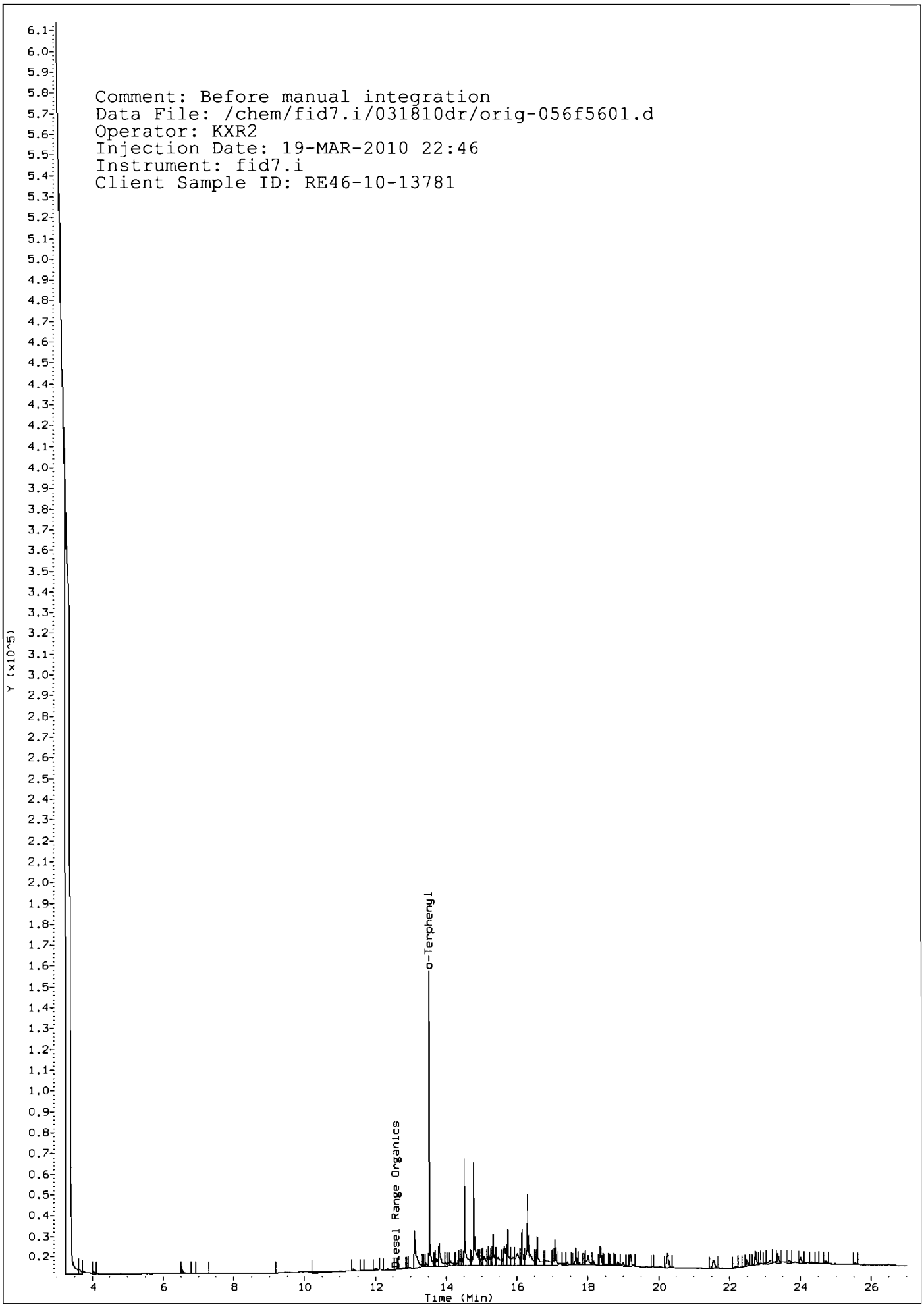
Comment: Before manual integration
Data File: /chem/fid7.i/031810dr/orig-056f5601.d
Operator: KXR2
Injection Date: 19-MAR-2010 22:46
Instrument: fid7.i
Client Sample ID: RE46-10-13781
o-Terphenyl
Diesel Range Organics
Y (x10^5)
Time (Min)

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13782**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 17:13**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**047f4701.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.70	mg/kg	2.50	7.70

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/047f4701.d
Lab Smp Id: 248862002 Client Smp ID: RE46-10-13782
Inj Date : 19-MAR-2010 17:13
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248862002|1|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 47
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weigth of sample extracted (g)
M	13.92880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.529	13.532	-0.003	228765	9.10379	0.35

Data File: /chem/fid7.i/031810dr/047f4701.d
Date : 19-MAR-2010 17:13
Client ID: RE46-10-13782
Sample Info: 1248862002111
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

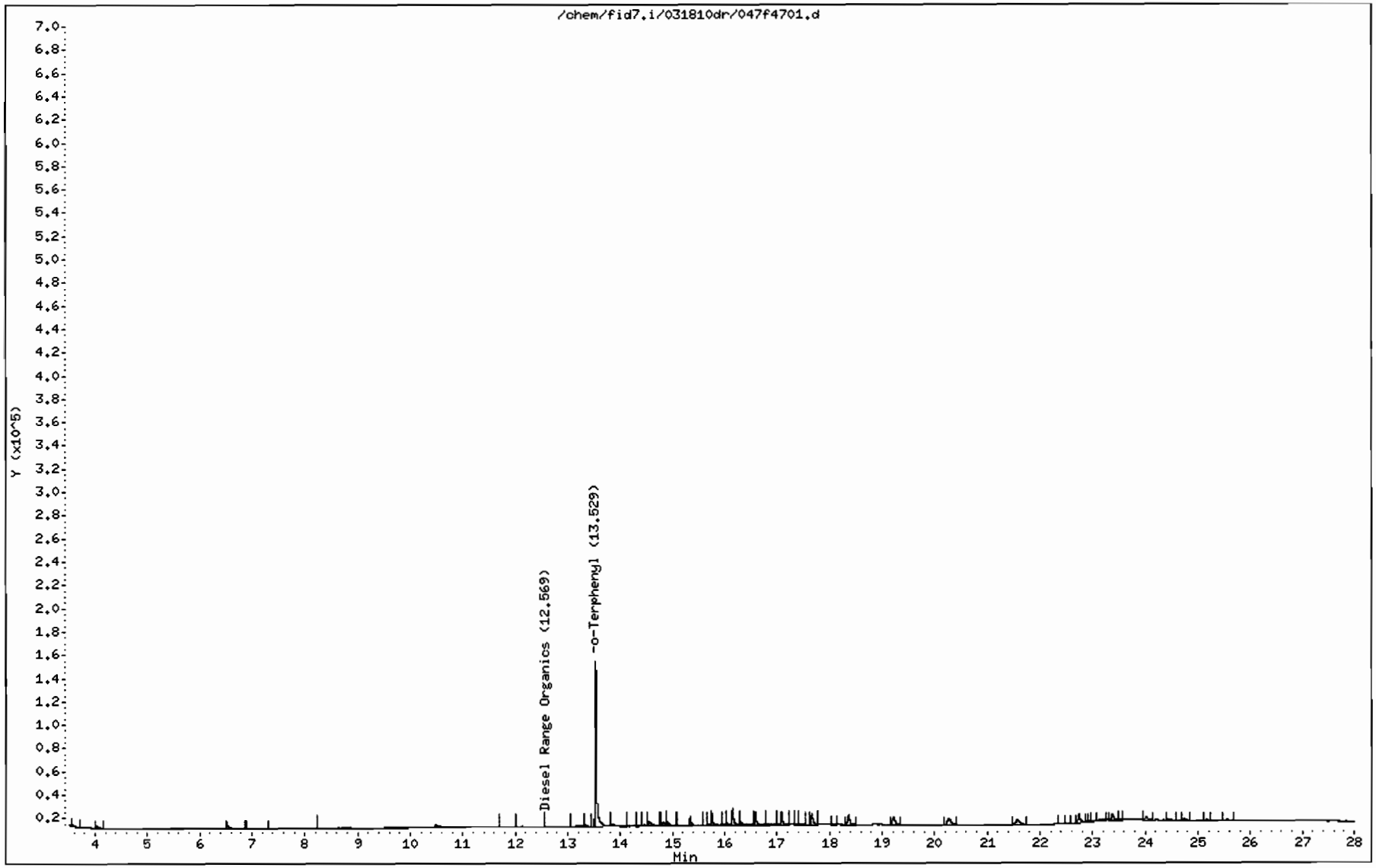

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13783**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 20:18**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**052f5201.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	3.80	mg/kg	2.38	7.33

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/052f5201.d
Lab Smp Id: 248862003 Client Smp ID: RE46-10-13783
Inj Date : 19-MAR-2010 20:18
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248862003|1|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 52
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weigth of sample extracted (g)
M	9.26380	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.415- 17.722			1356677	103.693	3.8	(a)
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.529	13.532	-0.003	264348	10.5198	0.38	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/031810dr/052f5201.d

Date : 19-MAR-2010 20:18

Client ID: RE46-10-13783

Sample Info: 1248862003|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

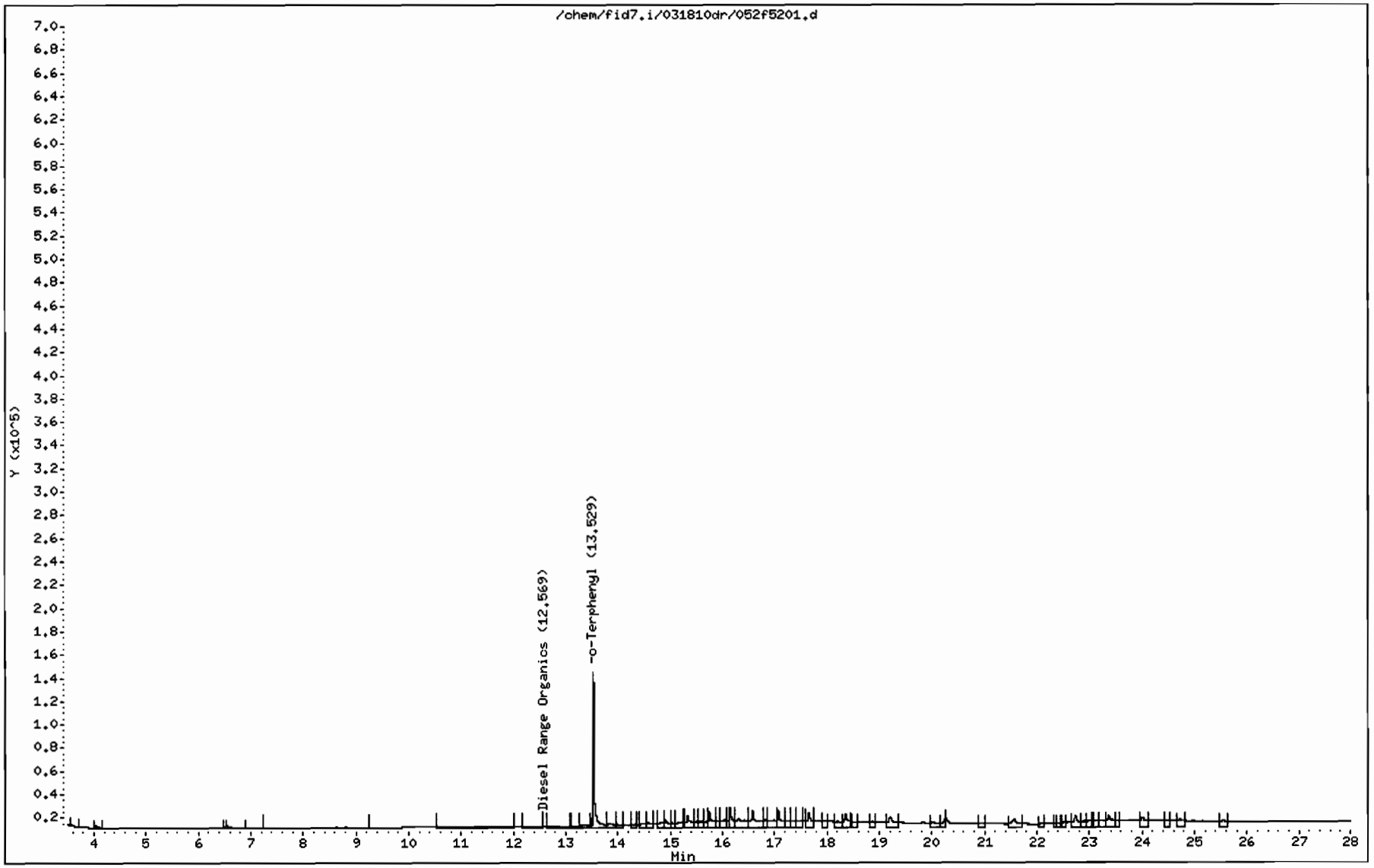

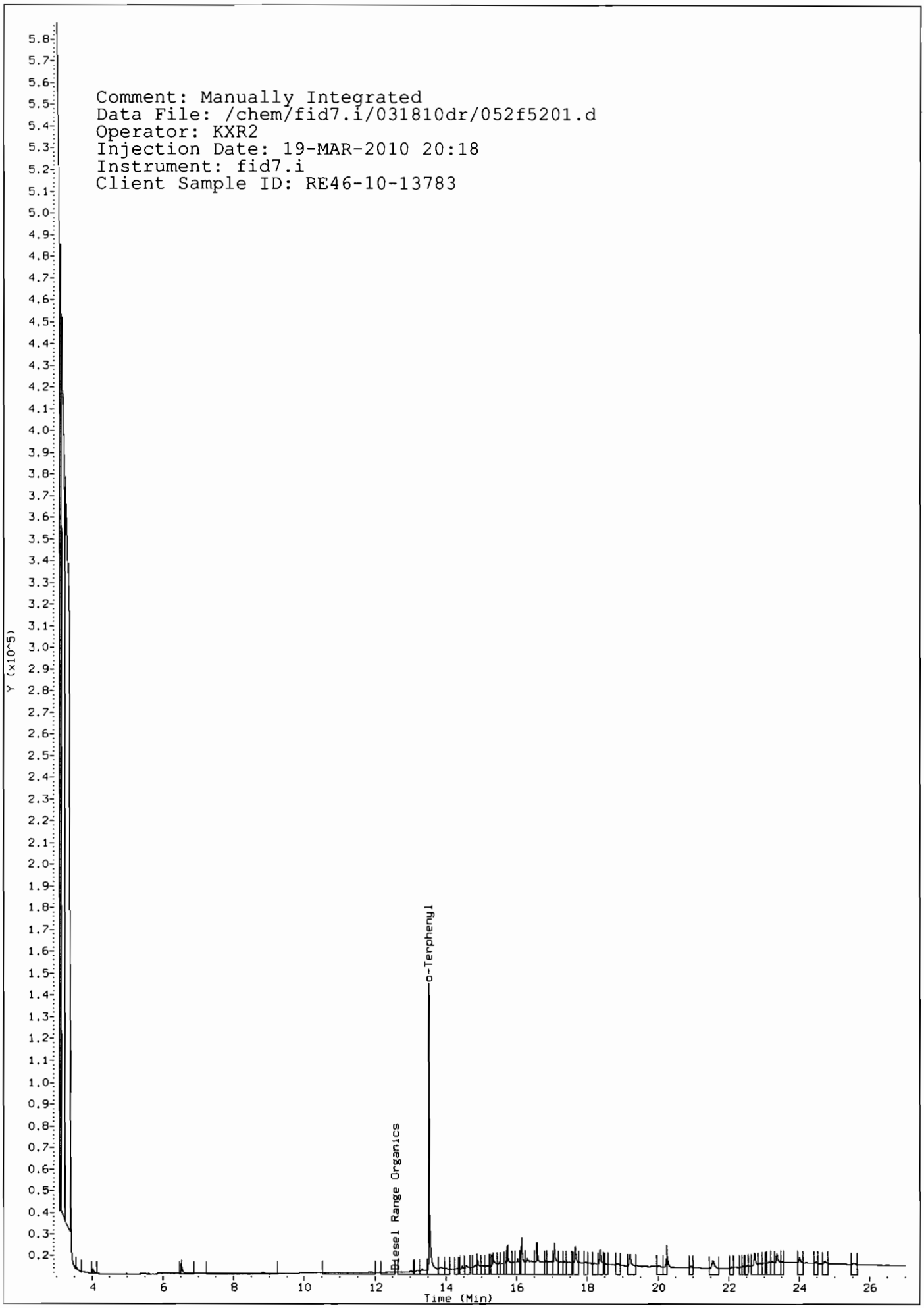
Comment: Manually Integrated
Data File: /chem/fid7.i/031810dr/052f5201.d
Operator: KXR2
Injection Date: 19-MAR-2010 20:18
Instrument: fid7.i
Client Sample ID: RE46-10-13783
Diesel Range Organics
o-Terphenyl
Y (x10^5)
Time (Min)

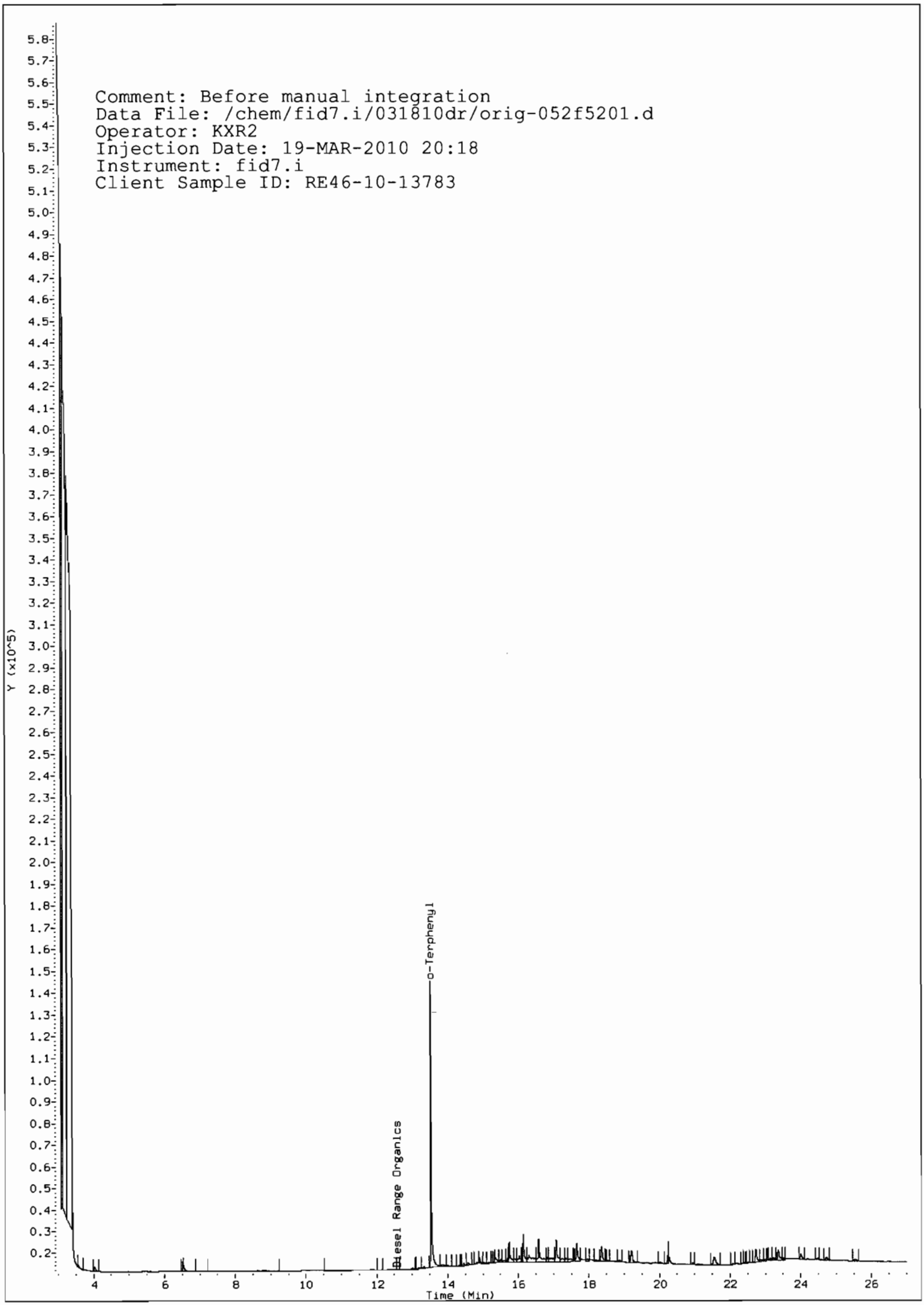
Comment: Before manual integration
Data File: /chem/fid7.i/031810dr/orig-052f5201.d
Operator: KXR2
Injection Date: 19-MAR-2010 20:18
Instrument: fid7.i
Client Sample ID: RE46-10-13783
Diesel Range Organics
o-Terphenyl
Y (x10^5)
Time (Min)

Standard Data

Report Date: 22-Mar-2010 11:22

Calibration History

Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Start Cal Date: 11-MAR-2010 14:05
End Cal Date : 11-MAR-2010 16:33

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 3 , Cal Amount: 200.00000		
11-MAR-2010 14:05	dro	/chem/fid7.i/031110dr/003f0301.d
Cal Level: 4 , Cal Amount: 500.00000		
11-MAR-2010 14:42	dro	/chem/fid7.i/031110dr/004f0401.d
Cal Level: 5 , Cal Amount: 1000.00000		
11-MAR-2010 15:19	dro	/chem/fid7.i/031110dr/005f0501.d
Cal Level: 6 , Cal Amount: 2000.00000		
11-MAR-2010 15:56	dro	/chem/fid7.i/031110dr/006f0601.d
Cal Level: 7 , Cal Amount: 5000.00000		
11-MAR-2010 16:33	dro	/chem/fid7.i/031110dr/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 1000		
19-MAR-2010 19:04	dro	/chem/fid7.i/031810dr/050f5001.d
Ccal Level: 5 , Ccal Amount: 1000		
19-MAR-2010 12:55	dro	/chem/fid7.i/031810dr/040f4001.d
Ccal Level: 5 , Ccal Amount: 1000		
19-MAR-2010 06:45	dro	/chem/fid7.i/031810dr/030f3001.d
Ccal Level: 5 , Ccal Amount: 1000		
19-MAR-2010 01:14	dro	/chem/fid7.i/031810dr/021f2101.d
Ccal Level: 5 , Ccal Amount: 1000		
18-MAR-2010 19:04	dro	/chem/fid7.i/031810dr/011f1101.d
Ccal Level: 5 , Ccal Amount: 1000		
18-MAR-2010 13:10	dro	/chem/fid7.i/031810dr/003f0301.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Quant Method : ESTD Target Version : 3.50
Last Update : 22-Mar-2010 10:14 Number of Cpnds : 6
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	100.000000
Initial:End Threshold	50.000000
Initial:Area Threshold	100.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	11.000000
Initial:Negative Peaks	OFF
Initial:Tension	7.000000
5.000:Force Cluster ON	n/a
17.000:Force Cluster OFF	n/a
17.371:Tension	1.000000

		Compound	RT	RT Window	RF
	3	Decane (C10)	7.437	7.407-7.467	
S	1	Diesel Range Organics	12.569	7.415-17.722	1.308e+04
$	2	o-Terphenyl	13.532	13.502-13.562	2.513e+04
	4	Octacosane (C28)	17.672	17.642-17.702	
S	75	JP-4	6.750	3.500-10.000	
S	76	Motor oil	17.000	14.000-20.000	

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INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 14:05
End Cal Date : 11-MAR-2010 16:33
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Cal Date : 22-Mar-2010 10:14 kev01577
Curve Type : Average

Calibration File Names:
Level 3: /chem/fid7.i/031110dr/003f0301.d
Level 4: /chem/fid7.i/031110dr/004f0401.d
Level 5: /chem/fid7.i/031110dr/005f0501.d
Level 6: /chem/fid7.i/031110dr/006f0601.d
Level 7: /chem/fid7.i/031110dr/007f0701.d

	Compound	200.000 Level 3	500.000 Level 4	1000.000 Level 5	2000.000 Level 6	5000.000 Level 7	___ RRF	% RSD
	3 Decane (C10)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	1 Diesel Range Organics	12016	12573	13899	13696	13234	13084	5.997
	4 Octacosane (C28)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	75 JP-4	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S	76 Motor oil	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	2 o-Terphenyl	23465	24862	25111	25585	26620	25129	4.569

Continuing Calibration Summary

Client SDG: 10-2314

Instrument ID: FID7.I

Injection Date: 18-MAR-10 13:10

Data File: /chem/fid7.i/031810dr/003f0301.d

Init. Cal. Date(s) 11-MAR-10 14:42 - 11-MAR-10 16:33

Lab Sample ID UFI100302-01 D1

Method: /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m

Column ID: DB-5MS

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Diesel Range Organics	13083.65	12433.37	1000	-4.97	15		Averaged
o-Terphenyl(Surr)	25128.64	21777.32	25	-13.34	15		Averaged

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/003f0301.d
Lab Smp Id: UFI100302-01 D1 Client Smp ID: DSTD01
Inj Date : 18-MAR-2010 13:10
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI100302-01 D1
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	
S	1 Diesel Range Organics						CAS #:
	7.415- 17.722			12433372	1000.00		950
$	2 o-Terphenyl						CAS #: 84-15-1
	13.532	13.532	0.000	544433	25.0000		21.7

Data File: /chem/fid7.i/031810dr/003f0301.d

Date : 18-MAR-2010 13:10

Client ID: DSTD01

Sample Info: IUFI100302-01 D1

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

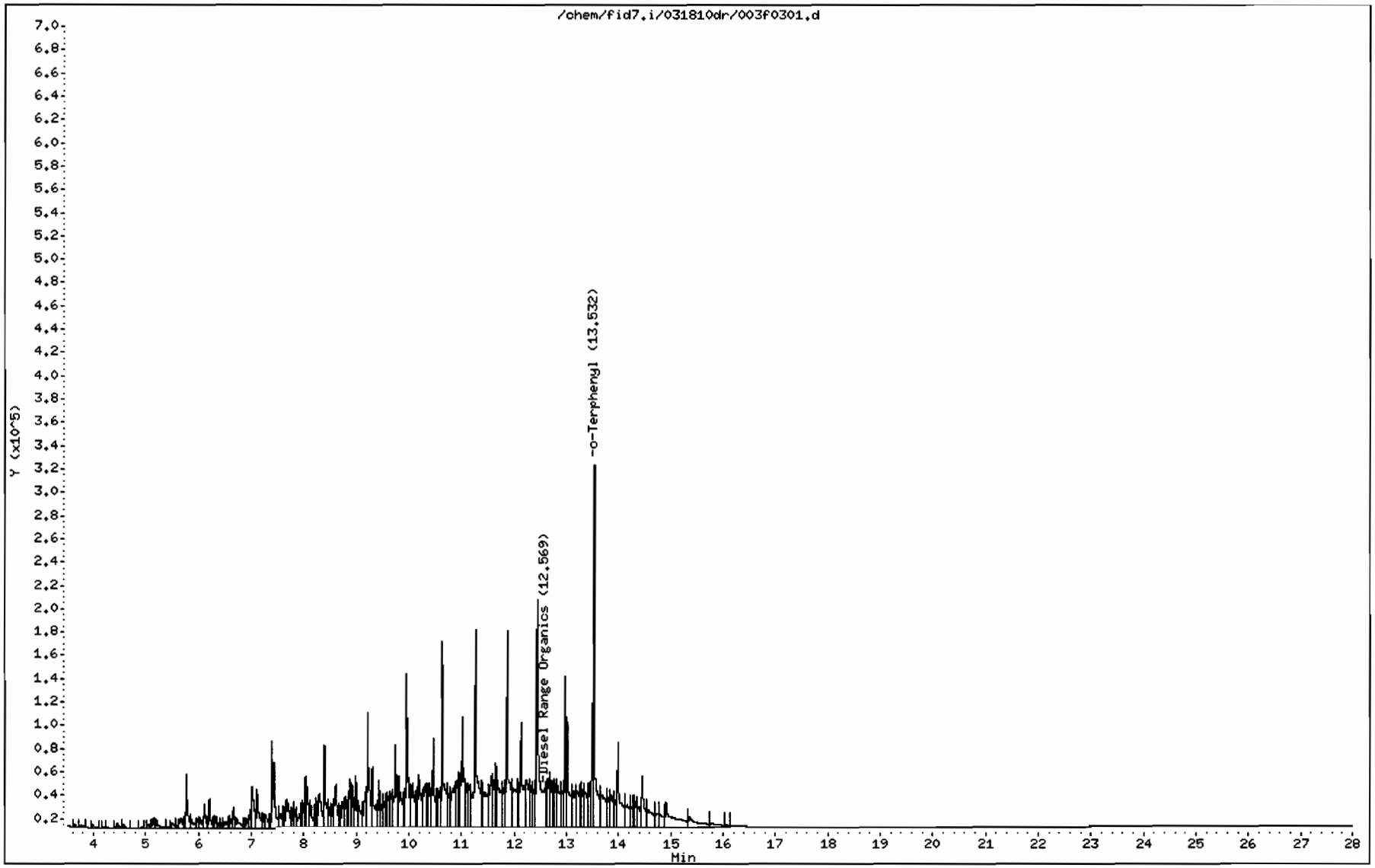

Continuing Calibration Summary

Client SDG: 10-2314

Instrument ID: FID7.I

Injection Date: 19-MAR-10 06:45

Data File: /chem/fid7.i/031810dr/030f3001.d

Init. Cal. Date(s) 11-MAR-10 14:42 - 11-MAR-10 16:33

Lab Sample ID UFI100302-01 D4

Method: /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m

Column ID: DB-5MS

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Diesel Range Organics	13083.65	13160.06	1000	0.58	15		Averaged
o-Terphenyl(Surr)	25128.64	22583.8	25	-10.13	15		Averaged

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/030f3001.d
Lab Smp Id: UFI100302-01 D4 Client Smp ID: DSTD04
Inj Date : 19-MAR-2010 06:45
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI100302-01 D4
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	
S	1 Diesel Range Organics						CAS #:
	7.415- 17.722			13160063	1000.00	1000	
$	2 o-Terphenyl						CAS #: 84-15-1
	13.530	13.532	-0.002	564595	25.0000	22.5	

Data File: /chem/fid7.i/031810dr/030f3001.d

Date : 19-MAR-2010 06:45

Client ID: DSTD04

Sample Info: |UFI100302-01 D4

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

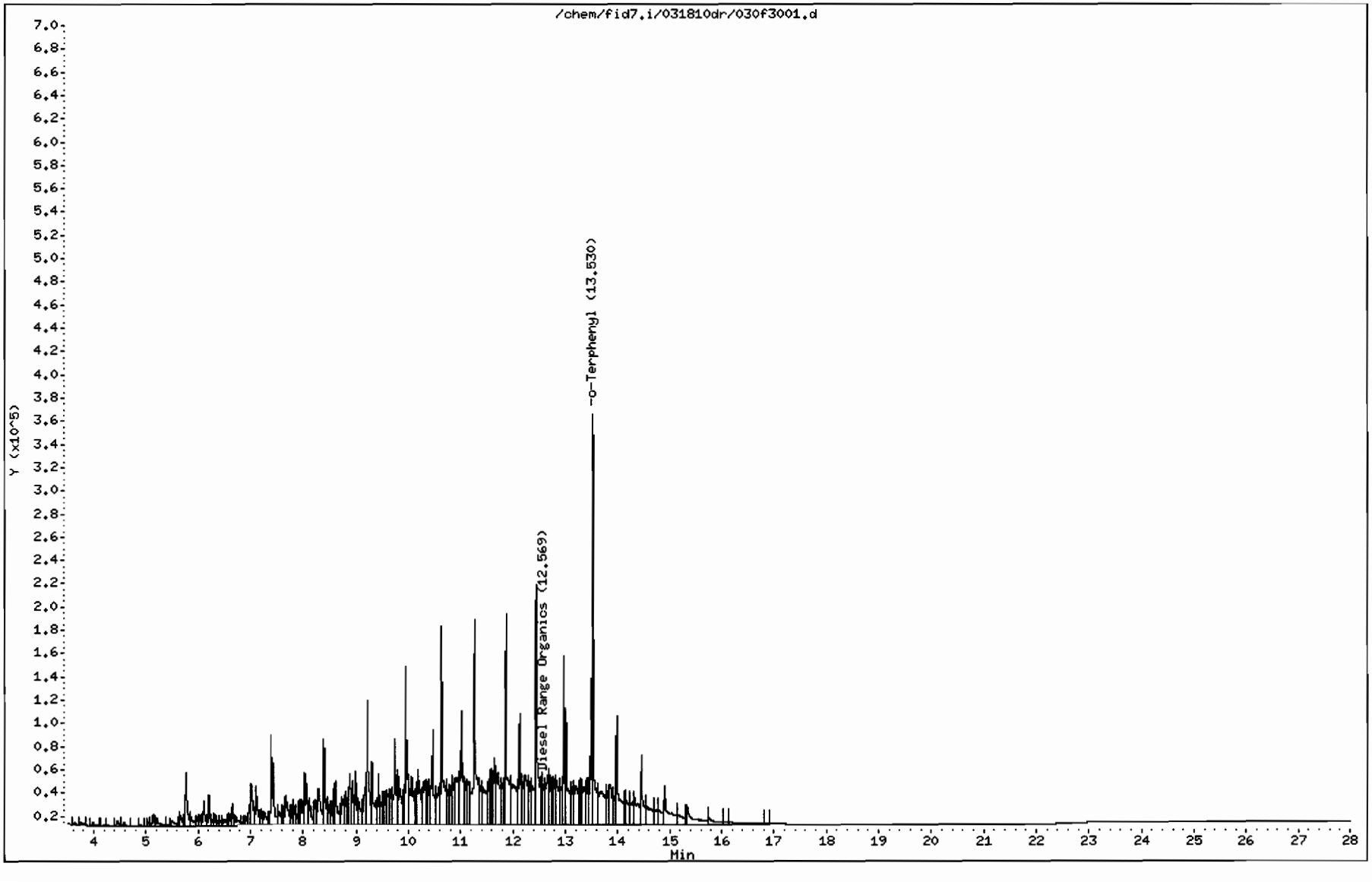

Continuing Calibration Summary

Client SDG: 10-2314

Instrument ID: FID7.I

Injection Date: 19-MAR-10 12:55

Data File: /chem/fid7.i/031810dr/040f4001.d

Init. Cal. Date(s) 11-MAR-10 14:42 - 11-MAR-10 16:33

Lab Sample ID UFI100302-01 D5

Method: /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m

Column ID: DB-5MS

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Diesel Range Organics	13083.65	14957.12	1000	14.32	15		Averaged
o-Terphenyl(Surr)	25128.64	25993.44	25	3.44	15		Averaged

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/040f4001.d
Lab Smp Id: UFI100302-01 D5 Client Smp ID: DSTD05
Inj Date : 19-MAR-2010 12:55
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI100302-01 D5
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 40 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S	1 Diesel Range Organics					CAS #:
	7.415- 17.722			14957115	1000.00	1140
$	2 o-Terphenyl					CAS #: 84-15-1
	13.531	13.532	-0.001	649836	25.0000	25.9

Data File: /chem/fid7.i/031810dr/040f4001.d

Date : 19-MAR-2010 12:55

Client ID: DSTD05

Sample Info: IUFI100302-01 D5

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

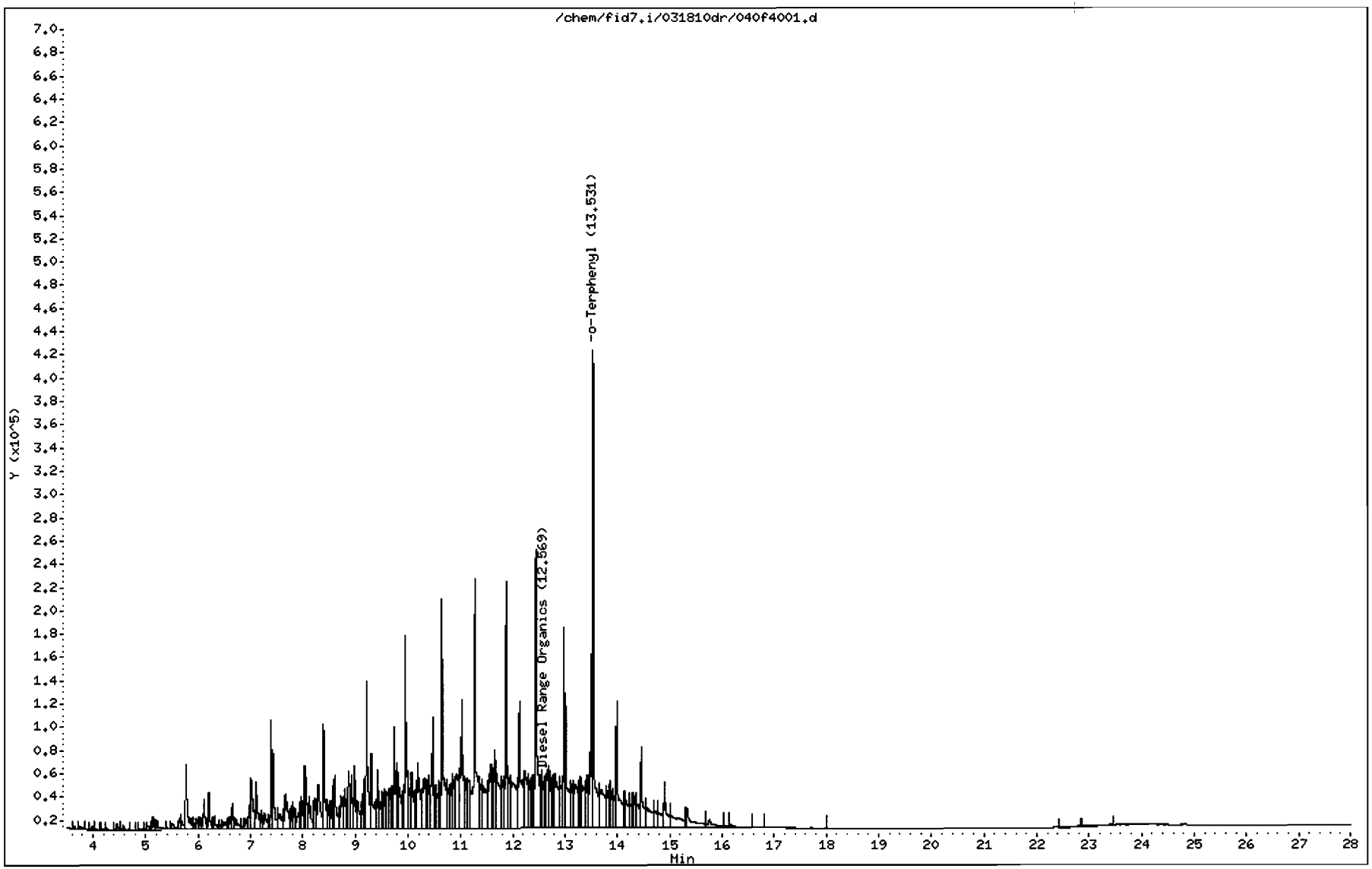

Continuing Calibration Summary

Client SDG: 10-2314

Instrument ID: FID7.I

Injection Date: 19-MAR-10 19:04

Data File: /chem/fid7.i/031810dr/050f5001.d

Init. Cal. Date(s) 11-MAR-10 14:42 - 11-MAR-10 16:33

Lab Sample ID UFI100302-01 D6

Method: /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m

Column ID: DB-5MS

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Diesel Range Organics	13083.65	13385.23	1000	2.31	15		Averaged
o-Terphenyl(Surr)	25128.64	23177.8	25	-7.76	15		Averaged

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/050f5001.d
Lab Smp Id: UFI100302-01 D6 Client Smp ID: DSTD06
Inj Date : 19-MAR-2010 19:04
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI100302-01 D6
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 50 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	
S	1 Diesel Range Organics						CAS #:
	7.415- 17.722			13385229	1000.00		1020
$	2 o-Terphenyl						CAS #: 84-15-1
	13.530	13.532	-0.002	579445	25.0000		23.0

Data File: /chem/fid7.i/031810dr/050f5001.d

Date : 19-MAR-2010 19:04

Client ID: DSTD06

Sample Info: IUFI100302-01 D6

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

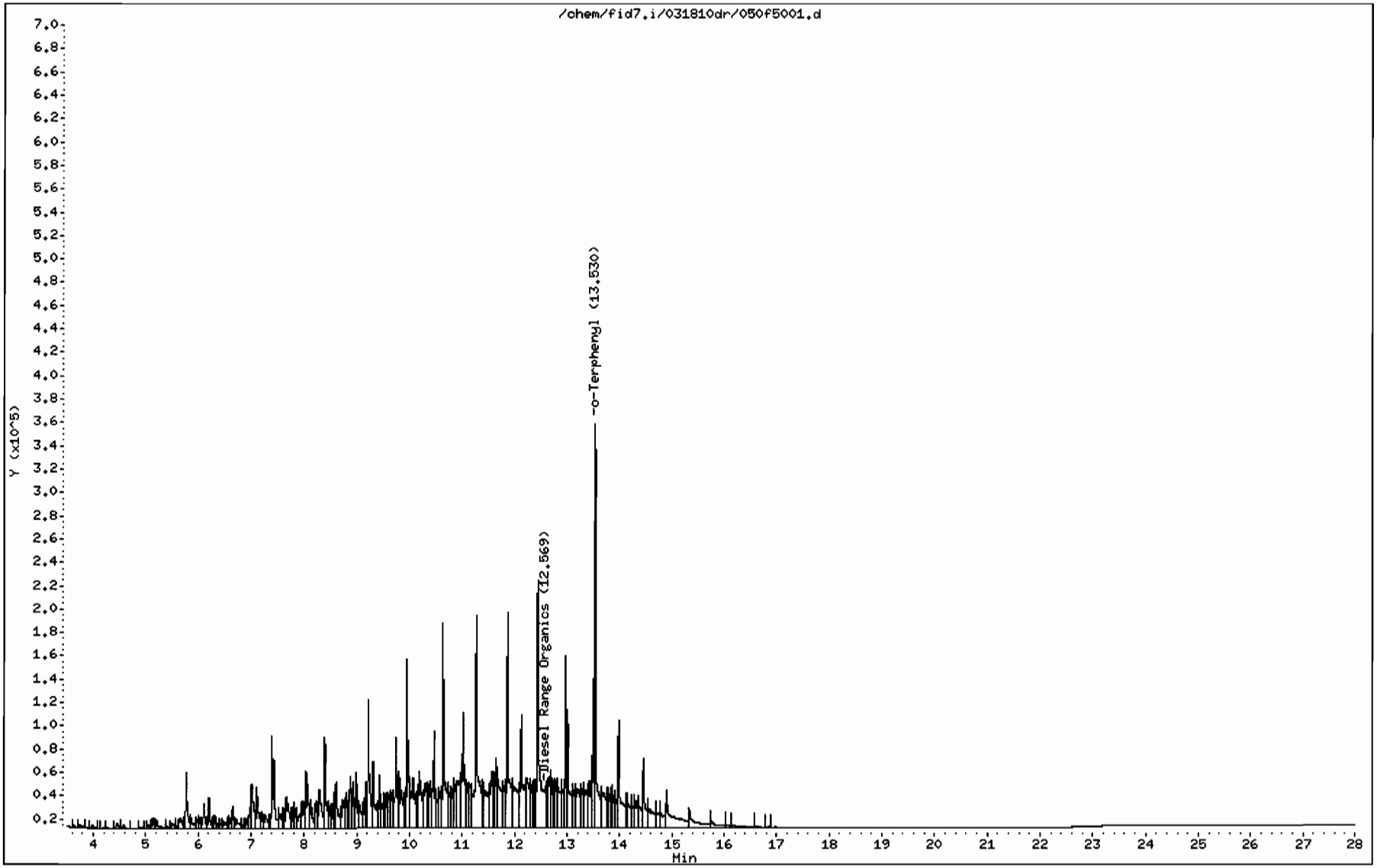

Continuing Calibration Summary

Client SDG: 10-2314

Instrument ID: FID7.1

Injection Date: 20-MAR-10 01:12

Data File: /chem/fid7.i/031810dr/060f6001.d

Init. Cal. Date(s) 11-MAR-10 14:42 - 11-MAR-10 16:33

Lab Sample ID UFI100302-01 D7

Method: /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m

Column ID: DB-5MS

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Diesel Range Organics	13083.65	13389.38	1000	2.34	15		Averaged
o-Terphenyl(Surr)	25128.64	22998.12	25	-8.48	15		Averaged

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/060f6001.d
Lab Smp Id: UFI100302-01 D7 Client Smp ID: DSTD07
Inj Date : 20-MAR-2010 01:12
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI100302-01 D7
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 11:23 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 60 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	
S	1 Diesel Range Organics						CAS #:
	7.415- 17.722			13389377	1000.00		1020
$	2 o-Terphenyl						CAS #: 84-15-1
	13.529	13.532	-0.003	574953	25.0000		22.9

Data File: /chem/fid7.i/031810dr/060f6001.d

Date : 20-MAR-2010 01:12

Client ID: DSTD07

Sample Info: IUFI100302-01 D7

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

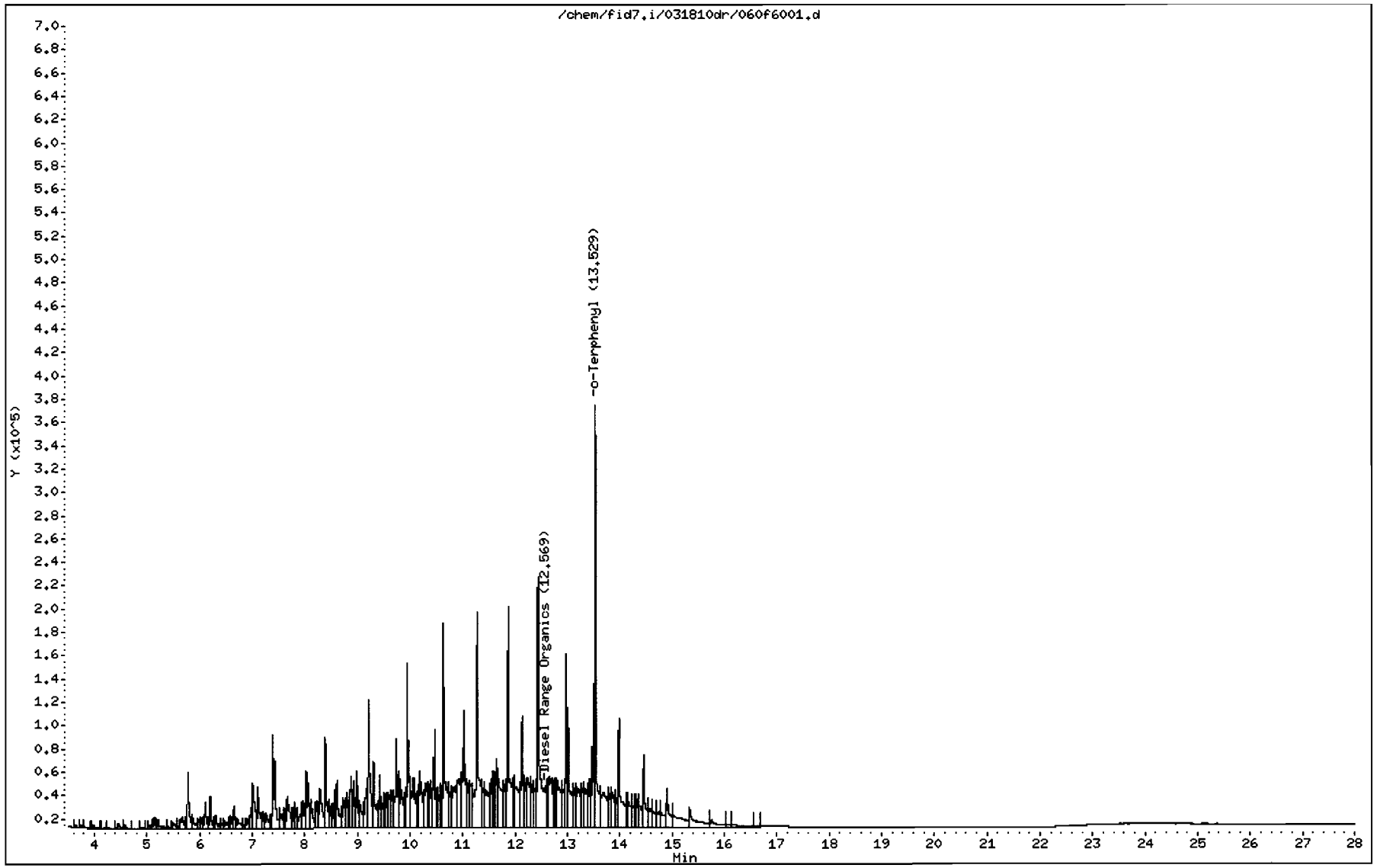

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 10-2314

GC Column: DB-5MS **Init. Calibration Dates:** 11-MAR-10 14:05 - 11-MAR-10 16:33

Instrument ID: FID7.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration: **RT Range Based on Calibration Verification:**				13.54 13.51 13.57 #
File	**Sample Number**	**Lab Sample ID**	**Analysis Date**	**o-Terphenyl**
001f0101.d	DIBLK01	WFI100125-06 B1	11-MAR-10 12:51	13.54
002f0201.d	RTMARKER	UFI091203-03 RT	11-MAR-10 13:27	NA
003f0301.d	CSTD01	UFI090827-20 200	11-MAR-10 14:05	13.54
004f0401.d	CSTD02	UFI090827-21 500	11-MAR-10 14:42	13.54
005f0501.d	CSTD03	UFI090827-22 1000	11-MAR-10 15:19	13.54
006f0601.d	CSTD04	UFI090827-23 2000	11-MAR-10 15:56	13.55
007f0701.d	CSTD05	UFI090827-24 5000	11-MAR-10 16:33	13.56
008f0801.d	DSTD01	WFI100125-01 D1	11-MAR-10 17:10	13.54
009f0901.d	DIBLK02	WFI100125-06 B2	11-MAR-10 17:46	13.54

Column used to flag retention time values with an asterisk.

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 10-2314

GC Column: DB-5MS **Init. Calibration Dates:** 11-MAR-10 14:05 - 11-MAR-10 16:33

Instrument ID: FID7.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration:				13.53
RT Range Based on Calibration Verification:				13.5 13.56 #
File	**Sample Number**	**Lab Sample ID**	**Analysis Date**	**o-Terphenyl**
001f0101.d	DIBLK01	WFI100125-06 B1	18-MAR-10 11:56	13.54
002f0201.d	ZZZZZZZ	ZZZZZZZ	18-MAR-10 12:33	NA
003f0301.d	DSTD01	UFI100302-01 D1	18-MAR-10 13:10	13.53
004f0401.d	DIBLK02	WFI100125-06 B2	18-MAR-10 13:46	13.54
011f1101.d	DSTD02	UFI100302-01 D2	18-MAR-10 19:04	13.53
012f1201.d	DIBLK03	WFI100125-06 B3	18-MAR-10 19:41	13.53
013f1301c.d	ZZZZZZZ	ZZZZZZZ	18-MAR-10 20:18	13.53
014f1401d.d	ZZZZZZZ	ZZZZZZZ	18-MAR-10 20:55	13.53
015f1501.d	ZZZZZZZ	ZZZZZZZ	18-MAR-10 21:33	13.53
016f1601.d	ZZZZZZZ	ZZZZZZZ	18-MAR-10 22:09	13.53
017f1701.d	ZZZZZZZ	ZZZZZZZ	18-MAR-10 22:46	13.54
018f1801.d	ZZZZZZZ	ZZZZZZZ	18-MAR-10 23:23	13.53
019f1901.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 00:00	13.53
020f2001.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 00:37	13.53
021f2101.d	DSTD03	UFI100302-01 D3	19-MAR-10 01:14	13.53
022f2201.d	DIBLK04	WFI100125-06 B4	19-MAR-10 01:51	13.53
023f2301.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 02:28	13.54
024f2401.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 03:05	13.53
025f2501.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 03:41	13.53
026f2601.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 04:18	13.53
027f2701.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 04:55	13.53
028f2801.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 05:32	13.53
029f2901.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 06:08	13.53
030f3001.d	DSTD04	UFI100302-01 D4	19-MAR-10 06:45	13.53
031f3101.d	DIBLK05	WFI100125-06 B5	19-MAR-10 07:22	13.53
032f3201.d	DBLK01	1202073046	19-MAR-10 07:59	13.53
033f3301.d	BLK01LCS	1202073047	19-MAR-10 08:36	13.53
034f3401.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 09:13	13.53
035f3501.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 09:50	13.53

Column used to flag retention time values with an asterisk.

Lab Name:

Client SDG: 10-2314

GC Column: DB-5MS

Init. Calibration Dates: 11-MAR-10 14:05 - 11-MAR-10 16:33

Instrument ID: FID7.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration:				13.53
RT Range Based on Calibration Verification:				13.5 13.56 #
	Sample Number	**Lab Sample ID**	**Analysis Date**	**o-Terphenyl**
036f3601.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 10:27	13.53
037f3701.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 11:04	13.53
038f3801.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 11:42	13.54
039f3901.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 12:18	13.51
040f4001.d	DSTD05	UFI100302-01 D5	19-MAR-10 12:55	13.53
041f4101.d	DIBLK06	WFI100125-06 B6	19-MAR-10 13:32	13.53
042f4201.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 14:09	13.5
043f4301.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 14:45	13.53
044f4401.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 15:22	13.55
045f4501.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 15:59	13.52
046f4601.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 16:36	13.53
047f4701.d	RE46-10-13782	248862002	19-MAR-10 17:13	13.53
048f4801.d	RE46-10-13782MS	1202073048	19-MAR-10 17:50	13.53
049f4901.d	RE46-10-13782MSD	1202073049	19-MAR-10 18:27	13.53
050f5001.d	DSTD06	UFI100302-01 D6	19-MAR-10 19:04	13.53
051f5101.d	DIBLK07	WFI100125-06 B7	19-MAR-10 19:41	13.53
052f5201.d	RE46-10-13783	248862003	19-MAR-10 20:18	13.53
053f5301.d	RE46-10-13777	248862004	19-MAR-10 20:55	13.55
054f5401.d	RE46-10-13775	248862005	19-MAR-10 21:32	13.53
055f5501.d	RE46-10-13776	248862006	19-MAR-10 22:09	13.53
056f5601.d	RE46-10-13781	248862007	19-MAR-10 22:46	13.53
057f5701.d	RE46-10-13779	248862008	19-MAR-10 23:22	13.54
058f5801.d	RE46-10-13780	248862009	19-MAR-10 23:59	13.53
059f5901.d	RE46-10-13778	248862010	20-MAR-10 00:36	13.53
060f6001.d	DSTD07	UFI100302-01 D7	20-MAR-10 01:12	13.53
061f6101.d	DIBLK08	WFI100125-06 B8	20-MAR-10 01:49	13.53

Column used to flag retention time values with an asterisk.

QC Data

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202073046**				
Client Sample:	**QC for batch 966002**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966002**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 07:59**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**032f3201.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	6.67	mg/kg	2.17	6.67

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/032f3201a.d
Lab Smp Id: 1202073046 Client Smp ID: DBLK01
Inj Date : 19-MAR-2010 07:59
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1202073046|1|
Misc Info : |FIDDRO_S|966003|DROQ|MB|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 11:23 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 32 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.533	13.532	0.001	209227	8.32624	0.28

Data File: /chem/fid7.i/031810dr/032f3201a.d

Page 1

Date : 19-MAR-2010 07:59

Client ID: DBLK01

Instrument: fid7.i

Sample Info: |1202073046|1|

Volume Injected (uL): 1.0

Operator: KXR2

Column phase: DB-5MS

Column diameter: 0.25

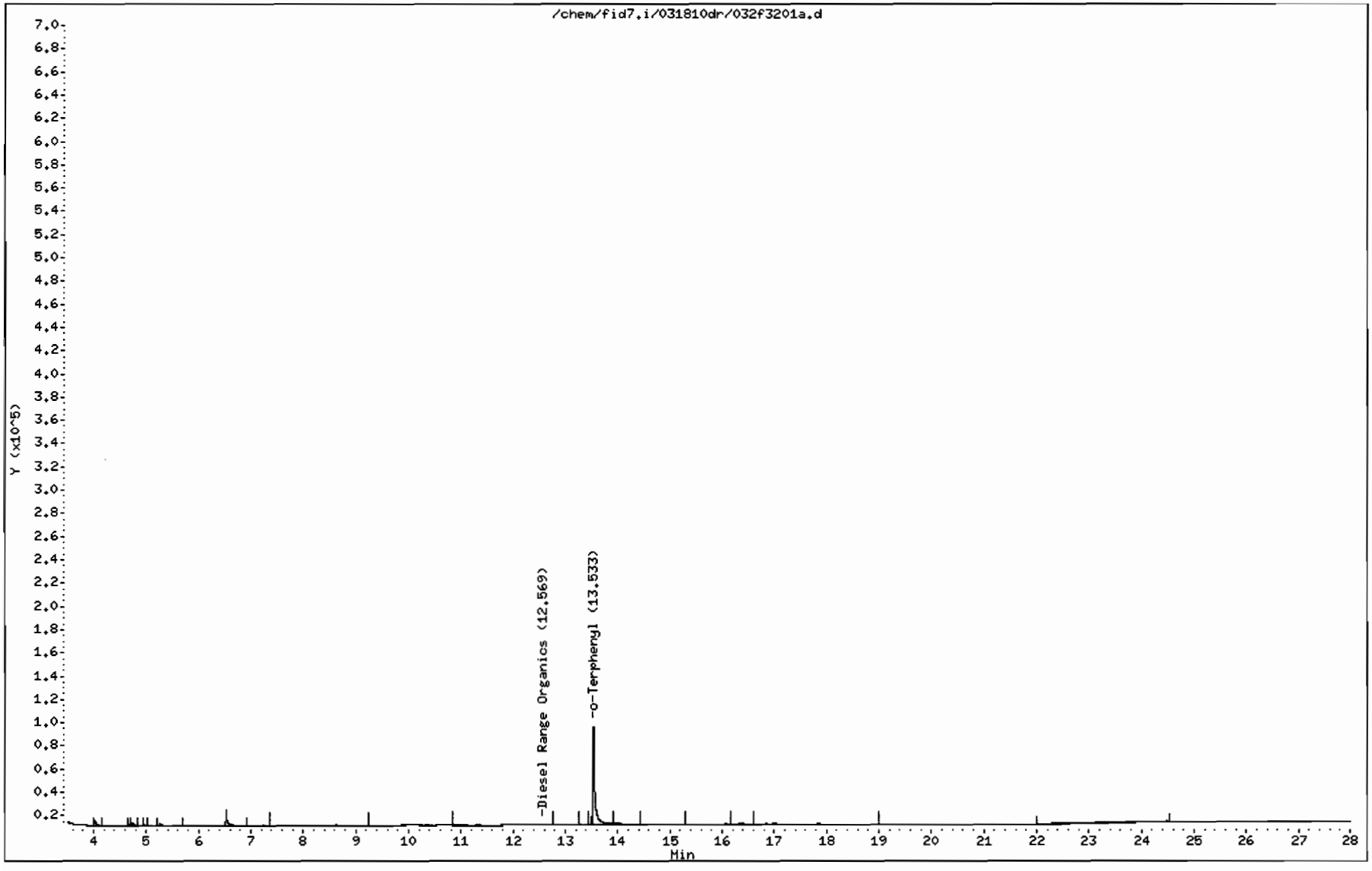

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202073047**				
Client Sample:	**QC for batch 966002**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966002**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 08:36**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**033f3301.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		25.1	mg/kg	2.17	6.67

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/033f3301a.d
Lab Smp Id: 1202073047 Client Smp ID: DBLK01LCS
Inj Date : 19-MAR-2010 08:36
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1202073047|1|
Misc Info : |FIDDRO_S|966003|DROQ|LCS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 11:23 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 33 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.415- 17.722			9837341	751.881	25.1
$ 2 o-Terphenyl					CAS #: 84-15-1
13.529	13.532	-0.003	396042	15.7606	0.52

Data File: /chem/fid7.i/031810dr/033f3301a.d

Date : 19-MAR-2010 08:36

Client ID: DBLK01LCS

Sample Info: |1202073047|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

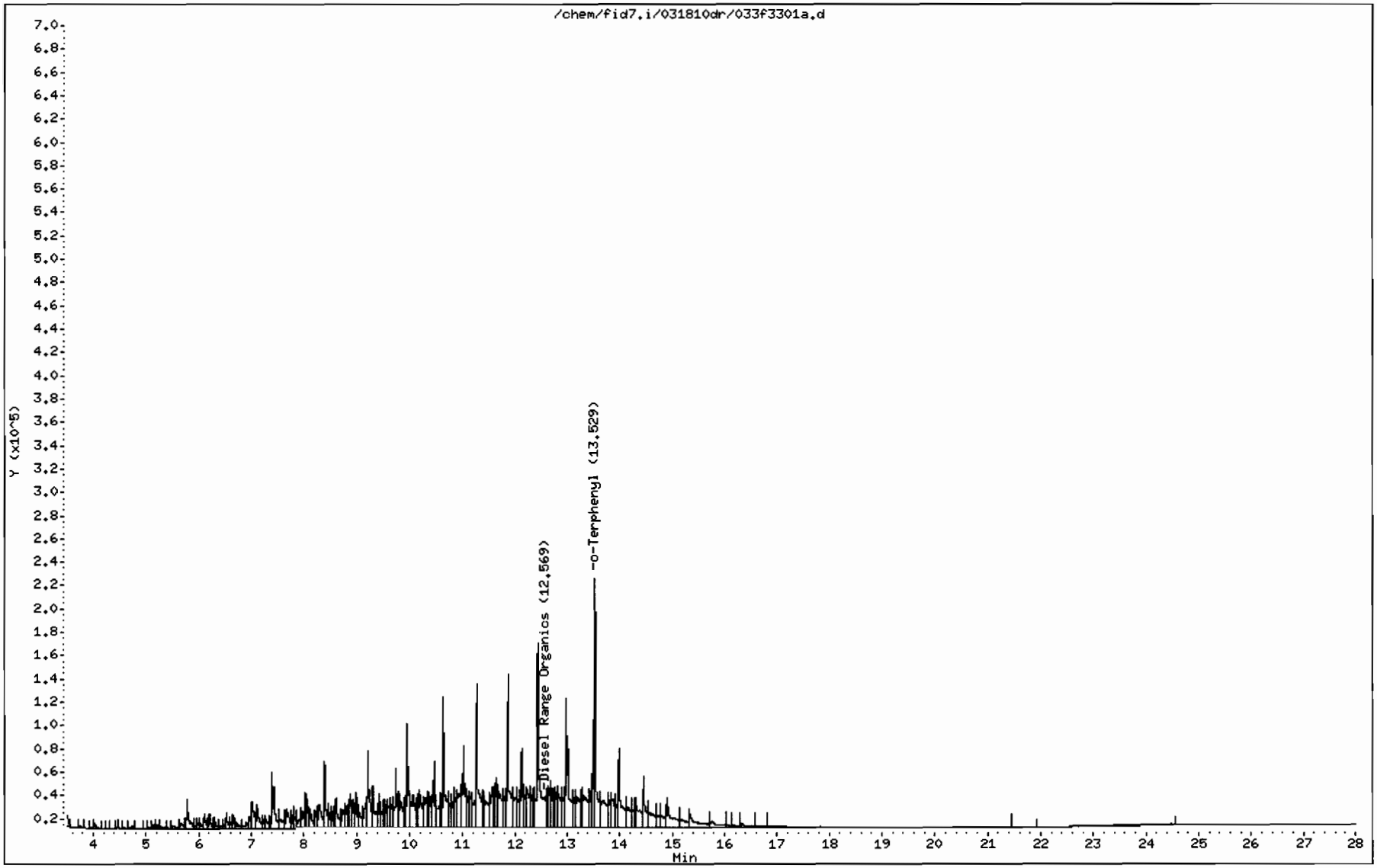

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202073048**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
Client Sample:	**QC for batch 966002**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13782MS**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 17:50**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**048f4801.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		30.6	mg/kg	2.51	7.71

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/048f4801.d
Lab Smp Id: 1202073048 Client Smp ID: RE46-10-13782MS
Inj Date : 19-MAR-2010 17:50
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1202073048|1|
Misc Info : |FIDDRO_S|966003|DROQ|MS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 48 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weigth of sample extracted (g)
M	13.92880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.415- 17.722			10387898	793.961	30.6
$ 2 o-Terphenyl					CAS #: 84-15-1
13.530	13.532	-0.002	435854	17.3449	0.67

Data File: /chem/fid7.i/031810dr/048f4801.d

Date : 19-MAR-2010 17:50

Client ID: RE46-10-13782MS

Sample Info: |1202073048|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

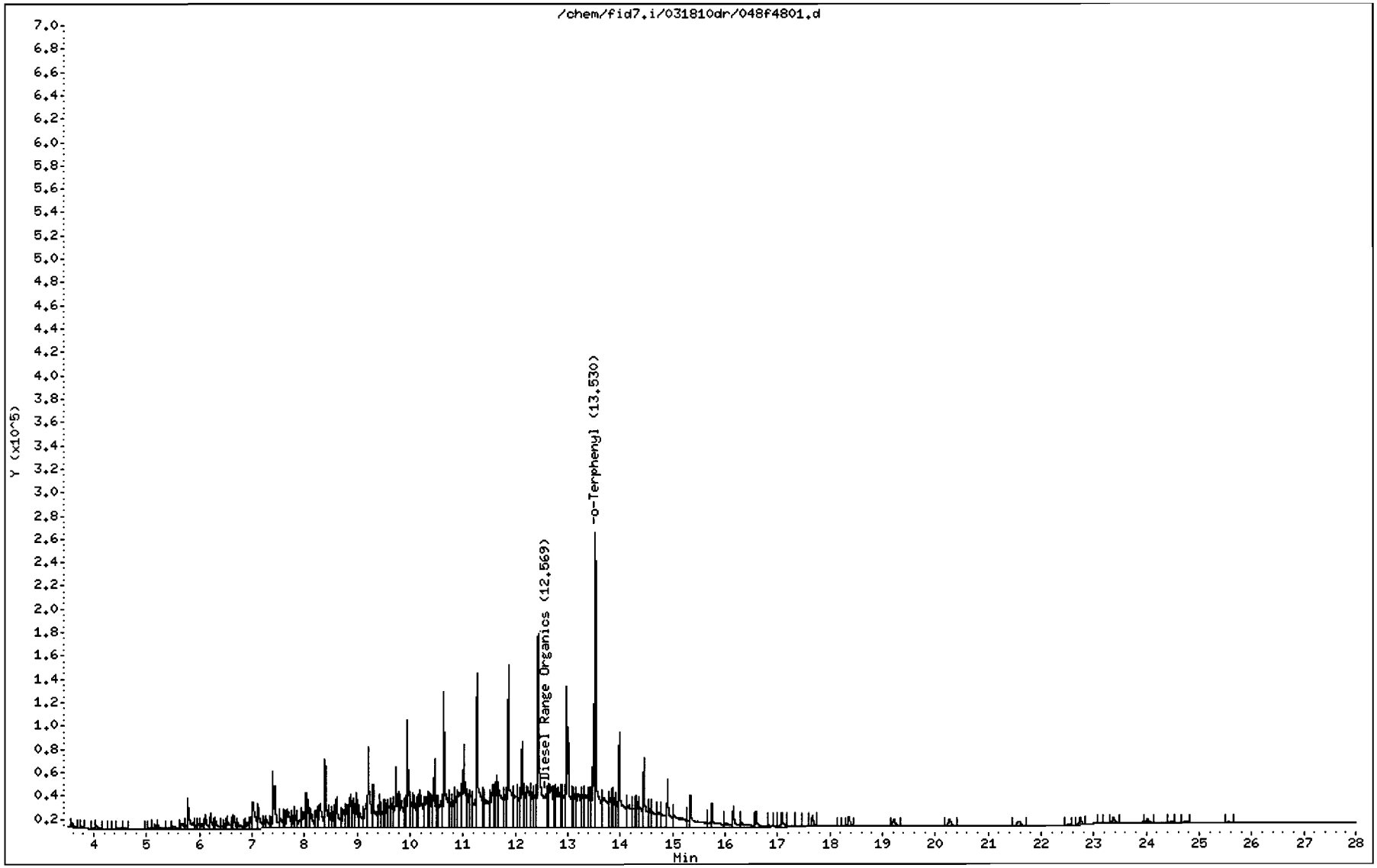

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202073049**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
Client Sample:	**QC for batch 966002**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13782MSD**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 18:27**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**049f4901.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		26.2	mg/kg	2.50	7.70

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/049f4901.d
Lab Smp Id: 1202073049 Client Smp ID: RE46-10-13782MSD
Inj Date : 19-MAR-2010 18:27
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1202073049|1|
Misc Info : |FIDDRO_S|966003|DROQ|MSD|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 49 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weigth of sample extracted (g)
M	13.92880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.415- 17.722			8908604	680.896	26.2
$ 2 o-Terphenyl					CAS #: 84-15-1
13.528	13.532	-0.004	366806	14.5972	0.56

Data File: /chem/fid7.i/031810dr/049f4901.d

Date : 19-MAR-2010 18:27

Client ID: RE46-10-13782MSD

Sample Info: 1120207304911

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

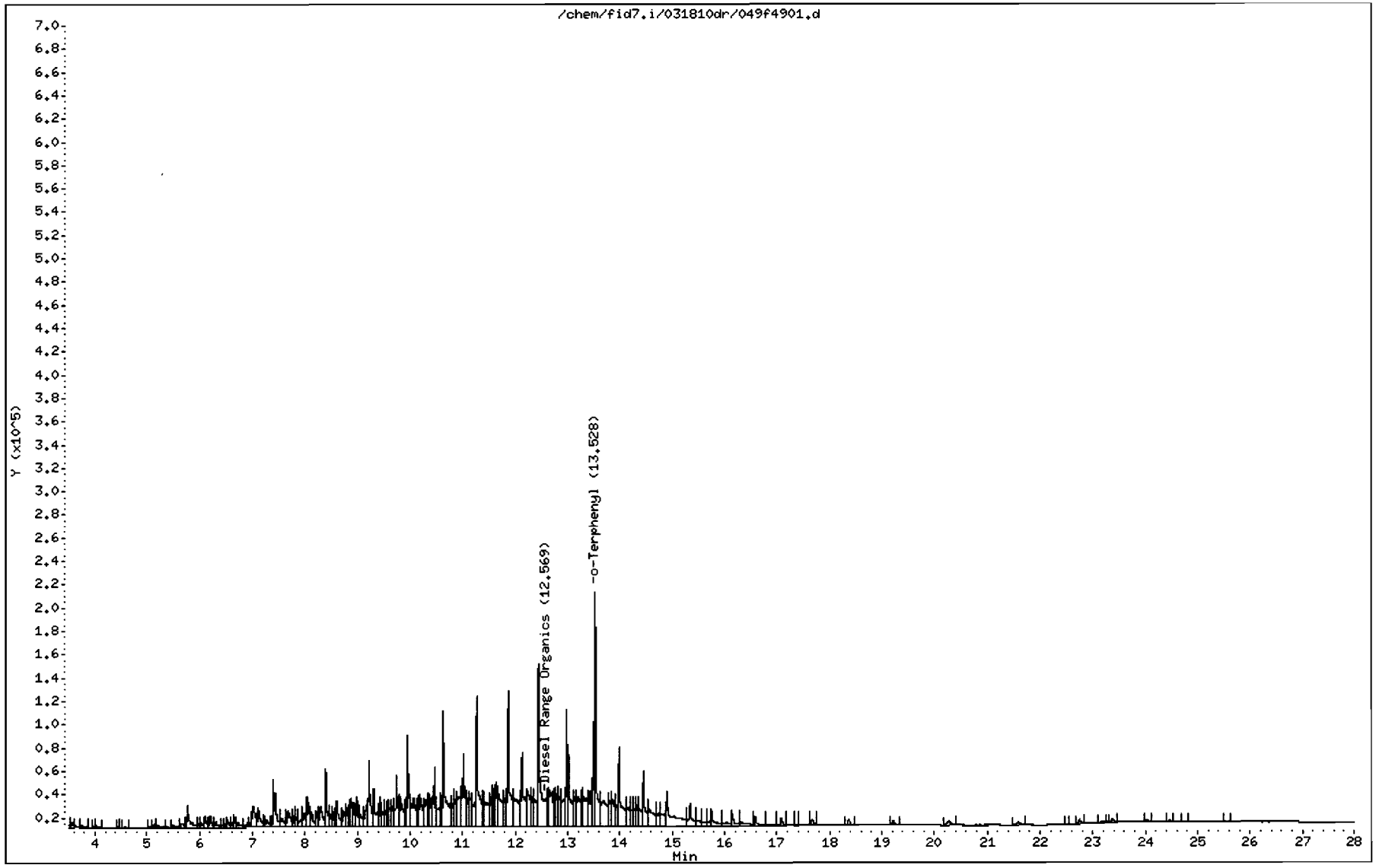

Miscellaneous Data

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 03/15/2010 METHOD: FID7a.i_b_DRO_031110.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:031110DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI100125-06 B1	KXR2	11-MAR-2010 12:51		SDGa18479	1.0		CLEAN
002f0201.d	UFI091203-03 RT	KXR2	11-MAR-2010 13:27		SDGa18479	1.0		RTMARKER
003f0301.d	UFI090827-20 200	KXR2	11-MAR-2010 14:05		SDGa18479	1.0		CAL. LEVEL 1
004f0401.d	UFI090827-21 500	KXR2	11-MAR-2010 14:42		SDGa18479	1.0		CAL. LEVEL 2
005f0501.d	UFI090827-22 1000	KXR2	11-MAR-2010 15:19		SDGa18479	1.0		CAL. LEVEL 3
006f0601.d	UFI090827-23 2000	KXR2	11-MAR-2010 15:56		SDGa18479	1.0		CAL. LEVEL 4
007f0701.d	UFI090827-24 5000	KXR2	11-MAR-2010 16:33		SDGa18479	1.0		CAL. LEVEL 5
008f0801.d	WFI100125-01 D1	KXR2	11-MAR-2010 17:10		SDGa18479	1.0		PASSES
009f0901.d	WFI100125-06 B2	KXR2	11-MAR-2010 17:46		SDGa18479	1.0		CLEAN
010f1001.d	ch2cl2screen	KXR2	11-MAR-2010 18:23		SDGa18479	1.0		CLEAN
011f1101.d	1202066287	KXR2	11-MAR-2010 19:00	963172	10-2125	1.0	MB	USE
012f1201.d	1202066288	KXR2	11-MAR-2010 19:36	963172	10-2125	1.0	LCS	USE
013f1301.d	1202066290	KXR2	11-MAR-2010 20:13	963172	10-2125	1.0	MSD	USE
014f1401.d	1202066289	KXR2	11-MAR-2010 20:49	963172	10-2125	1.0	MS	USE
015f1501.d	248203002	KXR2	11-MAR-2010 21:26	963172	10-2125	1.0	LANL	USE

Instrument Batch: /chem/fid7.i/031110dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	UFI100302-01 D2	KXR2	11-MAR-2010 22:03		SDGa18479	1.0		PASSES

017f1701.d	WFI100125-06 B3	KXR2	11-MAR-2010 22:40			SDGa18479	1.0		CLEAN
018f1801.d	1202066061	KXR2	11-MAR-2010 23:17	963060	248706		1.0	MB	USE
019f1901.d	1202066062	KXR2	11-MAR-2010 23:54	963060	248706		1.0	LCS	USE,FAILS LOW, NO SAMPLE FOR RE-EXTRACT
020f2001.d	1202066063	KXR2	12-MAR-2010 00:31	963060	248706		1.0	LCSD	USE
021f2101.d	248706003	KXR2	12-MAR-2010 01:08	963060	248706		20.0	XCEL	USE
022f2201.d	UFI100302-01 D3	KXR2	12-MAR-2010 01:45			SDGa18479	1.0		PASSES
023f2301.d	WFI100125-06 B4	KXR2	12-MAR-2010 02:22			SDGa18479	1.0		CLEAN
024f2401.d	1202063324	KXR2	12-MAR-2010 02:59	961954	248343		1.0	MB	USE
025f2501.d	1202063325	KXR2	12-MAR-2010 03:36	961954	248343		1.0	LCS	USE
026f2601.d	248343001	KXR2	12-MAR-2010 04:13	961954	248343		1.0	SNLS	USE
027f2701.d	1202063326	KXR2	12-MAR-2010 04:50	961954	248343		1.0	MS	USE
028f2801.d	1202063327	KXR2	12-MAR-2010 05:27	961954	248343		1.0	MSD	USE
029f2901.d	248343004	KXR2	12-MAR-2010 06:04	961954	248343		1.0	SNLS	USE
030f3001.d	UFI100302-01 D4	KXR2	12-MAR-2010 06:41			SDGa18479	1.0		PASSES
031f3101.d	WFI100125-06 B5	KXR2	12-MAR-2010 07:19			SDGa18479	1.0		CLEAN
032f3201.d	1202066278	KXR2	12-MAR-2010 07:56	963169	10-2102		1.0	MB	USE
033f3301.d	1202066279	KXR2	12-MAR-2010 08:33	963169	10-2102		1.0	LCS	USE
034f3401.d	248154003	KXR2	12-MAR-2010 09:10	963169	10-2102		1.0	LANL	USE
035f3501.d	1202066280	KXR2	12-MAR-2010 09:47	963169	10-2102		1.0	MS	USE

Instrument Batch: /chem/fid7.i/031110dr

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202066281	KXR2	12-MAR-2010 10:24	963169	10-2102	1.0	MSD	USE
037f3701.d	248154004	KXR2	12-MAR-2010 11:01	963169	10-2102	1.0	LANL	USE
038f3801.d	248154005	KXR2	12-MAR-2010 11:38	963169	10-2102	10.0	LANL	USE
039f3901.d	248154006	KXR2	12-MAR-2010 12:15	963169	10-2102	1.0	LANL	USE
040f4001.d	UFI100302-01 D5	KXR2	12-MAR-2010 12:52			SDGa18479	1.0	PASSES
041f4101.d	WFI100125-06 B6	KXR2	12-MAR-2010 13:29			SDGa18479	1.0	CLEAN

042f4201.d	248154007	KXR2	12-MAR-2010 14:05	963169	10-2102		1.0	LANL	USE
043f4301.d	248154008	KXR2	12-MAR-2010 14:42	963169	10-2102		1.0	LANL	USE
044f4401.d	248154009	KXR2	12-MAR-2010 15:19	963169	10-2102		1.0	LANL	USE
045f4501.d	248154010	KXR2	12-MAR-2010 15:56	963169	10-2102		20.0	LANL	USE
046f4601.d	248154011	KXR2	12-MAR-2010 16:33	963169	10-2102		1.0	LANL	USE
047f4701.d	248154012	KXR2	12-MAR-2010 17:10	963169	10-2102		1.0	LANL	USE
048f4801.d	248154013	KXR2	12-MAR-2010 17:47	963169	10-2102		20.0	LANL	USE
049f4901.d	248154014	KXR2	12-MAR-2010 18:24	963169	10-2102		1.0	LANL	USE
050f5001.d	248154015	KXR2	12-MAR-2010 19:01	963169	10-2102		1.0	LANL	USE
051f5101.d	248154016	KXR2	12-MAR-2010 19:38	963169	10-2102		1.0	LANL	USE
052f5201.d	UFI100302-01 D6	KXR2	12-MAR-2010 20:15		SDGa18479		1.0		PASSES
053f5301.d	WFI100125-06 B7	KXR2	12-MAR-2010 20:52		SDGa18479		1.0		CLEAN
054f5401.d	1202066291	KXR2	12-MAR-2010 21:29	963175	IDOC-AW-DRO-S		1.0	MB	USE
055f5501.d	1202066292	KXR2	12-MAR-2010 22:07	963175	IDOC-AW-DRO-S		1.0	LCS	USE

Instrument Batch: /chem/fid7.i/031110dr

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	1202066293	KXR2	12-MAR-2010 22:44	963175	IDOC-AW-DRO-S	1.0	LCS	USE
057f5701.d	1202066294	KXR2	12-MAR-2010 23:21	963175	IDOC-AW-DRO-S	1.0	LCS	USE
058f5801.d	1202066295	KXR2	12-MAR-2010 23:58	963175	IDOC-AW-DRO-S	1.0	LCS	USE
059f5901.d	1202066296	KXR2	13-MAR-2010 00:35	963175	IDOC-AW-DRO-S	1.0	LCS	USE
060f6001.d	248909001	KXR2	13-MAR-2010 01:12	963175	IDOC-AW-DRO-S	1.0	QCQA	USE
061f6101.d	UFI100302-01 D7	KXR2	13-MAR-2010 01:49		SDGa18479	1.0		PASSES
062f6201.d	WFI100125-06 B8	KXR2	13-MAR-2010 02:26		SDGa18479	1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 03/22/2010 METHOD: FID7a.i_b_DRO_031110.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:031810DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI100125-06 B1	KXR2	18-MAR-2010 11:56		SDGa15945	1.0		CLEAN
002f0201.d	UFI091203-03 RT	KXR2	18-MAR-2010 12:33		SDGa15945	1.0		RTMARKER
003f0301.d	UFI100302-01 D1	KXR2	18-MAR-2010 13:10		SDGa15945	1.0		PASSES
004f0401.d	WFI100125-06 B2	KXR2	18-MAR-2010 13:46		SDGa15945	1.0		CLEAN
005f0501.d	1202072853	KXR2	18-MAR-2010 15:23	965927	249301	1.0	MB	USE
006f0601.d	1202072854	KXR2	18-MAR-2010 16:00	965927	249301	1.0	LCS	USE
007f0701.d	1202072855	KXR2	18-MAR-2010 16:37	965927	249301	1.0	LCSD	USE
008f0801.d	249301001	KXR2	18-MAR-2010 17:14	965927	249301	1.0	HESS	USE
009f0901.d	249308001	KXR2	18-MAR-2010 17:50	965927	249308	1.0	HESS	USE
010f1001.d	249312001	KXR2	18-MAR-2010 18:27	965927	249312	1.0	HESS	USE
011f1101.d	UFI100302-01 D2	KXR2	18-MAR-2010 19:04		SDGa15945	1.0		PASSES
012f1201.d	WFI100125-06 B3	KXR2	18-MAR-2010 19:41		SDGa15945	1.0		CLEAN
013f1301.d	1202068694	KXR2	18-MAR-2010 20:18	964269	10-2164	1.0	MB	USE
014f1401.d	1202068695	KXR2	18-MAR-2010 20:55	964269	10-2164	1.0	LCS	USE
015f1501.d	248386003	KXR2	18-MAR-2010 21:33	964269	10-2164	1.0	LANL	USE

Instrument Batch: /chem/fid7.i/031810dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	248386004	KXR2	18-MAR-2010 22:09	964269	10-2164	1.0	LANL	USE

017f1701.d	248394001	KXR2	18-MAR-2010 22:46	964269	10-2168		1.0	LANL	USE
018f1801.d	248394002	KXR2	18-MAR-2010 23:23	964269	10-2168		1.0	LANL	USE
019f1901.d	248394003	KXR2	19-MAR-2010 00:00	964269	10-2168		1.0	LANL	USE
020f2001.d	248394004	KXR2	19-MAR-2010 00:37	964269	10-2168		1.0	LANL	USE
021f2101.d	UFI100302-01 D3	KXR2	19-MAR-2010 01:14		SDGa15945		1.0		PASSES
022f2201.d	WFI100125-06 B4	KXR2	19-MAR-2010 01:51		SDGa15945		1.0		CLEAN
023f2301.d	248394006	KXR2	19-MAR-2010 02:28	964269	10-2168		1.0	LANL	USE
024f2401.d	248660002	KXR2	19-MAR-2010 03:05	964269	10-2244		1.0	LANL	USE
025f2501.d	248689001	KXR2	19-MAR-2010 03:41	964269	10-2261		5.0	LANL	USE
026f2601.d	248702001	KXR2	19-MAR-2010 04:18	964269	10-2264		1.0	LANL	USE
027f2701.d	1202068696	KXR2	19-MAR-2010 04:55	964269	10-2264		1.0	MS	USE
028f2801.d	1202068697	KXR2	19-MAR-2010 05:32	964269	10-2264		1.0	MSD	USE
029f2901.d	248702002	KXR2	19-MAR-2010 06:08	964269	10-2264		1.0	LANL	USE
030f3001.d	UFI100302-01 D4	KXR2	19-MAR-2010 06:45		SDGa15945		1.0		PASSES
031f3101.d	WFI100125-06 B5	KXR2	19-MAR-2010 07:22		SDGa15945		1.0		CLEAN
032f3201.d	1202073046	KXR2	19-MAR-2010 07:59	966003	10-2298		1.0	MB	USE
033f3301.d	1202073047	KXR2	19-MAR-2010 08:36	966003	10-2298		1.0	LCS	USE
034f3401.d	248815001	KXR2	19-MAR-2010 09:13	966003	10-2298		1.0	LANL	USE
035f3501.d	248815002	KXR2	19-MAR-2010 09:50	966003	10-2298		1.0	LANL	USE

Instrument Batch: /chem/fid7.i/031810dr

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	248815003	KXR2	19-MAR-2010 10:27	966003	10-2298	1.0	LANL	USE
037f3701.d	248815004	KXR2	19-MAR-2010 11:04	966003	10-2298	1.0	LANL	USE
038f3801.d	248815005	KXR2	19-MAR-2010 11:42	966003	10-2298	10.0	LANL	USE
039f3901.d	248815006	KXR2	19-MAR-2010 12:18	966003	10-2298	5.0	LANL	USE
040f4001.d	UFI100302-01 D5	KXR2	19-MAR-2010 12:55		SDGa15945	1.0		PASSES
041f4101.d	WFI100125-06 B6	KXR2	19-MAR-2010 13:32		SDGa15945	1.0		CLEAN

042f4201.d	248815007	KXR2	19-MAR-2010 14:09	966003	10-2298		20.0	LANL	USE
043f4301.d	248815008	KXR2	19-MAR-2010 14:45	966003	10-2298		1.0	LANL	USE
044f4401.d	248815009	KXR2	19-MAR-2010 15:22	966003	10-2298		20.0	LANL	USE
045f4501.d	248815010	KXR2	19-MAR-2010 15:59	966003	10-2298		20.0	LANL	USE
046f4601.d	248815011	KXR2	19-MAR-2010 16:36	966003	10-2298		1.0	LANL	USE
047f4701.d	248862002	KXR2	19-MAR-2010 17:13	966003	10-2314		1.0	LANL	USE
048f4801.d	1202073048	KXR2	19-MAR-2010 17:50	966003	10-2314		1.0	MS	USE
049f4901.d	1202073049	KXR2	19-MAR-2010 18:27	966003	10-2314		1.0	MSD	USE
050f5001.d	UFI100302-01 D6	KXR2	19-MAR-2010 19:04		SDGa15945		1.0		PASSES
051f5101.d	WFI100125-06 B7	KXR2	19-MAR-2010 19:41		SDGa15945		1.0		CLEAN
052f5201.d	248862003	KXR2	19-MAR-2010 20:18	966003	10-2314		1.0	LANL	USE
053f5301.d	248862004	KXR2	19-MAR-2010 20:55	966003	10-2314		20.0	LANL	USE
054f5401.d	248862005	KXR2	19-MAR-2010 21:32	966003	10-2314		1.0	LANL	USE
055f5501.d	248862006	KXR2	19-MAR-2010 22:09	966003	10-2314		1.0	LANL	USE

Instrument Batch: /chem/fid7.i/031810dr

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	248862007	KXR2	19-MAR-2010 22:46	966003	10-2314	1.0	LANL	USE
057f5701.d	248862008	KXR2	19-MAR-2010 23:22	966003	10-2314	20.0	LANL	USE
058f5801.d	248862009	KXR2	19-MAR-2010 23:59	966003	10-2314	1.0	LANL	USE
059f5901.d	248862010	KXR2	20-MAR-2010 00:36	966003	10-2314	1.0	LANL	USE
060f6001.d	UFI100302-01 D7	KXR2	20-MAR-2010 01:12		SDGa15945	1.0		PASSES
061f6101.d	WFI100125-06 B8	KXR2	20-MAR-2010 01:49		SDGa15945	1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 966002 **Verified by:** _____

Analyst: Alberto Velasco

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202073046 MB	17-MAR-2010 20:50:00	30	1	0.03333
1202073047 LCS	17-MAR-2010 20:50:00	30	1	0.03333
248815001	17-MAR-2010 20:50:00	30.09	1	0.03323
248815002	17-MAR-2010 20:50:00	30.1	1	0.03322
248815003	17-MAR-2010 20:50:00	30.06	1	0.03327
248815004	17-MAR-2010 20:50:00	30.07	1	0.03326
248815005	17-MAR-2010 20:50:00	30.03	1	0.0333
248815006	17-MAR-2010 20:50:00	30.07	1	0.03326
248815007	17-MAR-2010 20:50:00	30.14	1	0.03318
248815008	17-MAR-2010 20:50:00	30.03	1	0.0333
248815009	17-MAR-2010 20:50:00	30.09	1	0.03323
248815010	17-MAR-2010 20:50:00	30.12	1	0.0332
248815011	17-MAR-2010 20:50:00	30.15	1	0.03317
248862002	17-MAR-2010 20:50:00	30.17	1	0.03315
1202073048 MS (248862002)	17-MAR-2010 20:50:00	30.12	1	0.0332
1202073049 MSD (248862002)	17-MAR-2010 20:50:00	30.19	1	0.03312
248862003	17-MAR-2010 20:50:00	30.06	1	0.03327
248862004	17-MAR-2010 20:50:00	30.03	1	0.0333
248862005	17-MAR-2010 20:50:00	30.14	1	0.03318
248862006	17-MAR-2010 20:50:00	30.06	1	0.03327
248862007	17-MAR-2010 20:50:00	30.18	1	0.03313
248862008	17-MAR-2010 20:50:00	30.19	1	0.03312
248862009	17-MAR-2010 20:50:00	30.03	1	0.0333
248862010	17-MAR-2010 20:50:00	30.01	1	0.03332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202073047	TPH DRO LCS	UE091121-08	1	mL
MS	1202073048	TPH DRO LCS	UE091121-08	1	mL
MSD	1202073049	TPH DRO LCS	UE091121-08	1	mL
SURR	All	20 ppm surrogate	WE100305-04	1	mL
REGNT	All	Methylene Chloride	1287549-D	300	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: AJS

Final Solvent: CH2Cl2

There are no "Data Exception Reports" associated with this analytical report.

GC SEMIVOLATILE PESTICIDE ANALYSIS

Pesticide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2314

Method/Analysis Information

Procedure:	**Analysis of Organochlorine Pesticides and Chlorinated Hydrocarbons by ECD**
Analytical Method:	SW846 8081A
Prep Method:	SW846 3550B
Analytical Batch Number:	966423
Prep Batch Number:	966422

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8081A:

Sample ID	Client ID
248862002	RE46-10-13782
248862003	RE46-10-13783
248862004	RE46-10-13777
248862005	RE46-10-13775
248862006	RE46-10-13776
248862007	RE46-10-13781
248862008	RE46-10-13779
248862009	RE46-10-13780
248862010	RE46-10-13778
1202073942	Method Blank (MB)
1202073943	Laboratory Control Sample (LCS)
1202073946	Laboratory Control Sample (LCS)-Toxaphene LCS Only
1202073944	249081001(RE16-10-3799) Matrix Spike (MS)
1202073945	249081001(RE16-10-3799) Matrix Spike Duplicate (MSD)

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

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 10.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

Two of five peaks failed in the Toxaphene standard bracketing the samples in this SDG; however, the average amount of the five peaks met the acceptance criteria.

Some target analytes failed acceptance criteria with a positive bias in the standards bracketing the samples in this SDG. The positive bias for the analytical data is a result of instrument response increasing after the initial calibration. These target analytes were not detected above the PQL in the samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-2359-1-) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information:

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
All associated samples in this SDG were diluted at 1:10 due to being dark orange hue, strong odor, viscous nature.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Florisil
Florisil clean-up was necessary for this batch.

Miscellaneous Information:

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Data Exception (DER) Documentation
Data exception reports (DERs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The lower results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD5A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD5A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

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

Review Validation:

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

Reviewer: _____ **Date:** 04-02-10

Roadmap for LANL 10-2314 PEST

This roadmap was analyzed by reb01393 on 03-23-2010, 16:31.
This roadmap was packaged by yml on 04-02-2010, 12:35.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd5a.i/031810.b/012f1201.d	248862002	sample	18-MAR-2010	20:58	10-2314.sub	RE46-10-13782	10.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/013f1301.d	248862003	sample	18-MAR-2010	21:12	10-2314.sub	RE46-10-13783	10.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/014f1401.d	248862004	sample	18-MAR-2010	21:26	10-2314.sub	RE46-10-13777	10.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/015f1501.d	248862005	sample	18-MAR-2010	21:40	10-2314.sub	RE46-10-13775	10.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/016f1601.d	248862006	sample	18-MAR-2010	21:54	10-2314.sub	RE46-10-13776	10.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/017f1701.d	248862007	sample	18-MAR-2010	22:08	10-2314.sub	RE46-10-13781	10.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/018f1801.d	248862008	sample	18-MAR-2010	22:22	10-2314.sub	RE46-10-13779	10.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/021f2101.d	248862009	sample	18-MAR-2010	23:04	10-2314.sub	RE46-10-13780	10.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/022f2201.d	248862010	sample	18-MAR-2010	23:18	10-2314.sub	RE46-10-13778	10.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd5a.i/031810.b/012b1201.d	248862002	sample	18-MAR-2010	20:58	10-2314.sub	RE46-10-13782	10.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/013b1301.d	248862003	sample	18-MAR-2010	21:12	10-2314.sub	RE46-10-13783	10.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/014b1401.d	248862004	sample	18-MAR-2010	21:26	10-2314.sub	RE46-10-13777	10.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/015b1501.d	248862005	sample	18-MAR-2010	21:40	10-2314.sub	RE46-10-13775	10.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/016b1601.d	248862006	sample	18-MAR-2010	21:54	10-2314.sub	RE46-10-13776	10.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/017b1701.d	248862007	sample	18-MAR-2010	22:08	10-2314.sub	RE46-10-13781	10.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/018b1801.d	248862008	sample	18-MAR-2010	22:22	10-2314.sub	RE46-10-13779	10.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/021b2101.d	248862009	sample	18-MAR-2010	23:04	10-2314.sub	RE46-10-13780	10.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/022b2201.d	248862010	sample	18-MAR-2010	23:18	10-2314.sub	RE46-10-13778	10.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd5a.i/031810.b/009f0901.d	1202073942	mb	18-MAR-2010	20:15	10-2314.sub	PBLK01	1.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/010f1001.d	1202073943	lcs	18-MAR-2010	20:30	10-2314.sub	PBLK01LCS	1.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/011f1101.d	1202073946	lcs	18-MAR-2010	20:44	10-2314.sub	PBLK01TLCS	1.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd5a.i/031810.b/009b0901.d	1202073942	mb	18-MAR-2010	20:15	10-2314.sub	PBLK01	1.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.

☐	N	/chem/ecd5a.i/031810.b/010b1001.d	1202073943	lcs	18-MAR-2010	20:30	10-2314.sub	PBLK01LCS	1.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
☐	N	/chem/ecd5a.i/031810.b/011b1101.d	1202073946	lcs	18-MAR-2010	20:44	10-2314.sub	PBLK01TLCS	1.00000	966423	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.

SAMPLE DATA SUMMARY

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862005**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13775**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 21:40**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30.12 g**	**Final Volume:**	**5 mL**
Data File:	**015f1501.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	015b1501.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.34	ug/kg	1.83	7.34	1
58-89-9	gamma-BHC (Lindane)	U	7.34	ug/kg	1.83	7.34	1
319-85-7	beta-BHC	U	7.34	ug/kg	1.83	7.34	1
319-86-8	delta-BHC	U	7.34	ug/kg	1.83	7.34	1
76-44-8	Heptachlor	U	7.34	ug/kg	1.83	7.34	1
309-00-2	Aldrin	U	7.34	ug/kg	1.83	7.34	1
1024-57-3	Heptachlor epoxide	U	7.34	ug/kg	2.29	7.34	1
5103-74-2	gamma-Chlordane	U	7.34	ug/kg	1.83	7.34	1
5103-71-9	alpha-Chlordane	U	7.34	ug/kg	1.83	7.34	1
959-98-8	Endosulfan I	U	7.34	ug/kg	1.83	7.34	1
72-55-9	4,4'-DDE	U	14.7	ug/kg	3.67	14.7	1
60-57-1	Dieldrin	U	14.7	ug/kg	3.67	14.7	1
72-20-8	Endrin	U	14.7	ug/kg	3.67	14.7	1
72-54-8	4,4'-DDD	U	14.7	ug/kg	3.67	14.7	1
33213-65-9	Endosulfan II	U	14.7	ug/kg	3.67	14.7	1
7421-93-4	Endrin aldehyde	U	14.7	ug/kg	3.67	14.7	1
50-29-3	4,4'-DDT	U	14.7	ug/kg	3.67	14.7	1
1031-07-8	Endosulfan sulfate	U	14.7	ug/kg	3.67	14.7	1
72-43-5	Methoxychlor	U	73.4	ug/kg	18.3	73.4	1
53494-70-5	Endrin ketone	U	14.7	ug/kg	3.67	14.7	1
8001-35-2	Toxaphene	U	183	ug/kg	61.1	183	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862006**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13776**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 21:54**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30.13 g**	**Final Volume:**	**5 mL**
Data File:	**016f1601.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	016b1601.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.38	ug/kg	1.85	7.38	1
58-89-9	gamma-BHC (Lindane)	U	7.38	ug/kg	1.85	7.38	1
319-85-7	beta-BHC	U	7.38	ug/kg	1.85	7.38	1
319-86-8	delta-BHC	U	7.38	ug/kg	1.85	7.38	1
76-44-8	Heptachlor	U	7.38	ug/kg	1.85	7.38	1
309-00-2	Aldrin	U	7.38	ug/kg	1.85	7.38	1
1024-57-3	Heptachlor epoxide	U	7.38	ug/kg	2.31	7.38	1
5103-74-2	gamma-Chlordane	U	7.38	ug/kg	1.85	7.38	1
5103-71-9	alpha-Chlordane	U	7.38	ug/kg	1.85	7.38	1
959-98-8	Endosulfan I	U	7.38	ug/kg	1.85	7.38	1
72-55-9	4,4'-DDE	U	14.8	ug/kg	3.69	14.8	1
60-57-1	Dieldrin	U	14.8	ug/kg	3.69	14.8	1
72-20-8	Endrin	U	14.8	ug/kg	3.69	14.8	1
72-54-8	4,4'-DDD	U	14.8	ug/kg	3.69	14.8	1
33213-65-9	Endosulfan II	U	14.8	ug/kg	3.69	14.8	1
7421-93-4	Endrin aldehyde	U	14.8	ug/kg	3.69	14.8	1
50-29-3	4,4'-DDT	U	14.8	ug/kg	3.69	14.8	1
1031-07-8	Endosulfan sulfate	U	14.8	ug/kg	3.69	14.8	1
72-43-5	Methoxychlor	U	73.8	ug/kg	18.5	73.8	1
53494-70-5	Endrin ketone	U	14.8	ug/kg	3.69	14.8	1
8001-35-2	Toxaphene	U	185	ug/kg	61.5	185	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**20.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13777**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 21:26**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30.17 g**	**Final Volume:**	**5 mL**
Data File:	**014f1401.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	014b1401.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	8.33	ug/kg	2.08	8.33	1
58–89–9	gamma–BHC (Lindane)	U	8.33	ug/kg	2.08	8.33	1
319–85–7	beta–BHC	U	8.33	ug/kg	2.08	8.33	1
319–86–8	delta–BHC	U	8.33	ug/kg	2.08	8.33	1
76–44–8	Heptachlor	U	8.33	ug/kg	2.08	8.33	1
309–00–2	Aldrin	U	8.33	ug/kg	2.08	8.33	1
1024–57–3	Heptachlor epoxide	U	8.33	ug/kg	2.60	8.33	1
5103–74–2	gamma–Chlordane	U	8.33	ug/kg	2.08	8.33	1
5103–71–9	alpha–Chlordane	U	8.33	ug/kg	2.08	8.33	1
959–98–8	Endosulfan I	U	8.33	ug/kg	2.08	8.33	1
72–55–9	4,4'–DDE	U	16.7	ug/kg	4.17	16.7	1
60–57–1	Dieldrin	U	16.7	ug/kg	4.17	16.7	1
72–20–8	Endrin	U	16.7	ug/kg	4.17	16.7	1
72–54–8	4,4'–DDD	U	16.7	ug/kg	4.17	16.7	1
33213–65–9	Endosulfan II	U	16.7	ug/kg	4.17	16.7	1
7421–93–4	Endrin aldehyde	U	16.7	ug/kg	4.17	16.7	1
50–29–3	4,4'–DDT	U	16.7	ug/kg	4.17	16.7	1
1031–07–8	Endosulfan sulfate	U	16.7	ug/kg	4.17	16.7	1
72–43–5	Methoxychlor	U	83.3	ug/kg	20.8	83.3	1
53494–70–5	Endrin ketone	U	16.7	ug/kg	4.17	16.7	1
8001–35–2	Toxaphene	U	208	ug/kg	69.4	208	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862010**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13778**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 23:18**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30.03 g**	**Final Volume:**	**5 mL**
Data File:	**022f2201.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	022b2201.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	8.23	ug/kg	2.06	8.23	1
58-89-9	gamma-BHC (Lindane)	U	8.23	ug/kg	2.06	8.23	1
319-85-7	beta-BHC	U	8.23	ug/kg	2.06	8.23	1
319-86-8	delta-BHC	U	8.23	ug/kg	2.06	8.23	1
76-44-8	Heptachlor	U	8.23	ug/kg	2.06	8.23	1
309-00-2	Aldrin	U	8.23	ug/kg	2.06	8.23	1
1024-57-3	Heptachlor epoxide	U	8.23	ug/kg	2.57	8.23	1
5103-74-2	gamma-Chlordane	U	8.23	ug/kg	2.06	8.23	1
5103-71-9	alpha-Chlordane	U	8.23	ug/kg	2.06	8.23	1
959-98-8	Endosulfan I	U	8.23	ug/kg	2.06	8.23	1
72-55-9	4,4'-DDE	U	16.5	ug/kg	4.11	16.5	1
60-57-1	Dieldrin	U	16.5	ug/kg	4.11	16.5	1
72-20-8	Endrin	U	16.5	ug/kg	4.11	16.5	1
72-54-8	4,4'-DDD	U	16.5	ug/kg	4.11	16.5	1
33213-65-9	Endosulfan II	U	16.5	ug/kg	4.11	16.5	1
7421-93-4	Endrin aldehyde	U	16.5	ug/kg	4.11	16.5	1
50-29-3	4,4'-DDT	U	16.5	ug/kg	4.11	16.5	1
1031-07-8	Endosulfan sulfate	U	16.5	ug/kg	4.11	16.5	1
72-43-5	Methoxychlor	U	82.3	ug/kg	20.6	82.3	1
53494-70-5	Endrin ketone	U	16.5	ug/kg	4.11	16.5	1
8001-35-2	Toxaphene	U	206	ug/kg	68.5	206	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862008	**Date Received:**	03/06/2010 09:15	**%Moisture:**	19.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13779	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	966423	**Inst:**	ECD5A.I	**Dilution:**	10
Run Date:	03/18/2010 22:22	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:23	**Aliquot:**	30.07 g	**Final Volume:**	5 mL
Data File:	018f1801.d	**Column:**	1 CLP-1	**Level:**	LOW
	018b1801.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	8.26	ug/kg	2.07	8.26	1
58-89-9	gamma-BHC (Lindane)	U	8.26	ug/kg	2.07	8.26	1
319-85-7	beta-BHC	U	8.26	ug/kg	2.07	8.26	1
319-86-8	delta-BHC	U	8.26	ug/kg	2.07	8.26	1
76-44-8	Heptachlor	U	8.26	ug/kg	2.07	8.26	1
309-00-2	Aldrin	U	8.26	ug/kg	2.07	8.26	1
1024-57-3	Heptachlor epoxide	U	8.26	ug/kg	2.58	8.26	1
5103-74-2	gamma-Chlordane	U	8.26	ug/kg	2.07	8.26	1
5103-71-9	alpha-Chlordane	U	8.26	ug/kg	2.07	8.26	1
959-98-8	Endosulfan I	U	8.26	ug/kg	2.07	8.26	1
72-55-9	4,4'-DDE	U	16.5	ug/kg	4.13	16.5	1
60-57-1	Dieldrin	U	16.5	ug/kg	4.13	16.5	1
72-20-8	Endrin	U	16.5	ug/kg	4.13	16.5	1
72-54-8	4,4'-DDD	U	16.5	ug/kg	4.13	16.5	1
33213-65-9	Endosulfan II	U	16.5	ug/kg	4.13	16.5	1
7421-93-4	Endrin aldehyde	U	16.5	ug/kg	4.13	16.5	1
50-29-3	4,4'-DDT	U	16.5	ug/kg	4.13	16.5	1
1031-07-8	Endosulfan sulfate	U	16.5	ug/kg	4.13	16.5	1
72-43-5	Methoxychlor	U	82.6	ug/kg	20.7	82.6	1
53494-70-5	Endrin ketone	U	16.5	ug/kg	4.13	16.5	1
8001-35-2	Toxaphene	U	207	ug/kg	68.8	207	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862009**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13780**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 23:04**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30.16 g**	**Final Volume:**	**5 mL**
Data File:	**021f2101.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	021b2101.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	8.09	ug/kg	2.02	8.09	1
58-89-9	gamma-BHC (Lindane)	U	8.09	ug/kg	2.02	8.09	1
319-85-7	beta-BHC	U	8.09	ug/kg	2.02	8.09	1
319-86-8	delta-BHC	U	8.09	ug/kg	2.02	8.09	1
76-44-8	Heptachlor	U	8.09	ug/kg	2.02	8.09	1
309-00-2	Aldrin	U	8.09	ug/kg	2.02	8.09	1
1024-57-3	Heptachlor epoxide	U	8.09	ug/kg	2.53	8.09	1
5103-74-2	gamma-Chlordane	U	8.09	ug/kg	2.02	8.09	1
5103-71-9	alpha-Chlordane	U	8.09	ug/kg	2.02	8.09	1
959-98-8	Endosulfan I	U	8.09	ug/kg	2.02	8.09	1
72-55-9	4,4'-DDE	U	16.2	ug/kg	4.05	16.2	1
60-57-1	Dieldrin	U	16.2	ug/kg	4.05	16.2	1
72-20-8	Endrin	U	16.2	ug/kg	4.05	16.2	1
72-54-8	4,4'-DDD	U	16.2	ug/kg	4.05	16.2	1
33213-65-9	Endosulfan II	U	16.2	ug/kg	4.05	16.2	1
7421-93-4	Endrin aldehyde	U	16.2	ug/kg	4.05	16.2	1
50-29-3	4,4'-DDT	U	16.2	ug/kg	4.05	16.2	1
1031-07-8	Endosulfan sulfate	U	16.2	ug/kg	4.05	16.2	1
72-43-5	Methoxychlor	U	80.9	ug/kg	20.2	80.9	1
53494-70-5	Endrin ketone	U	16.2	ug/kg	4.05	16.2	1
8001-35-2	Toxaphene	U	202	ug/kg	67.4	202	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862007**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13781**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 22:08**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30.11 g**	**Final Volume:**	**5 mL**
Data File:	**017f1701.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	017b1701.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	8.18	ug/kg	2.05	8.18	1
58–89–9	gamma–BHC (Lindane)	U	8.18	ug/kg	2.05	8.18	1
319–85–7	beta–BHC	U	8.18	ug/kg	2.05	8.18	1
319–86–8	delta–BHC	U	8.18	ug/kg	2.05	8.18	1
76–44–8	Heptachlor	U	8.18	ug/kg	2.05	8.18	1
309–00–2	Aldrin	U	8.18	ug/kg	2.05	8.18	1
1024–57–3	Heptachlor epoxide	U	8.18	ug/kg	2.56	8.18	1
5103–74–2	gamma–Chlordane	U	8.18	ug/kg	2.05	8.18	1
5103–71–9	alpha–Chlordane	U	8.18	ug/kg	2.05	8.18	1
959–98–8	Endosulfan I	U	8.18	ug/kg	2.05	8.18	1
72–55–9	4,4'–DDE	U	16.4	ug/kg	4.09	16.4	1
60–57–1	Dieldrin	U	16.4	ug/kg	4.09	16.4	1
72–20–8	Endrin	U	16.4	ug/kg	4.09	16.4	1
72–54–8	4,4'–DDD	U	16.4	ug/kg	4.09	16.4	1
33213–65–9	Endosulfan II	U	16.4	ug/kg	4.09	16.4	1
7421–93–4	Endrin aldehyde	U	16.4	ug/kg	4.09	16.4	1
50–29–3	4,4'–DDT	U	16.4	ug/kg	4.09	16.4	1
1031–07–8	Endosulfan sulfate	U	16.4	ug/kg	4.09	16.4	1
72–43–5	Methoxychlor	U	81.8	ug/kg	20.5	81.8	1
53494–70–5	Endrin ketone	U	16.4	ug/kg	4.09	16.4	1
8001–35–2	Toxaphene	U	205	ug/kg	68.1	205	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13782**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 20:58**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30.17 g**	**Final Volume:**	**5 mL**
Data File:	**012f1201.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	012b1201.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.70	ug/kg	1.93	7.70	1
58–89–9	gamma–BHC (Lindane)	U	7.70	ug/kg	1.93	7.70	1
319–85–7	beta–BHC	U	7.70	ug/kg	1.93	7.70	1
319–86–8	delta–BHC	U	7.70	ug/kg	1.93	7.70	1
76–44–8	Heptachlor	U	7.70	ug/kg	1.93	7.70	1
309–00–2	Aldrin	U	7.70	ug/kg	1.93	7.70	1
1024–57–3	Heptachlor epoxide	U	7.70	ug/kg	2.41	7.70	1
5103–74–2	gamma–Chlordane	U	7.70	ug/kg	1.93	7.70	1
5103–71–9	alpha–Chlordane	U	7.70	ug/kg	1.93	7.70	1
959–98–8	Endosulfan I	U	7.70	ug/kg	1.93	7.70	1
72–55–9	4,4'–DDE	U	15.4	ug/kg	3.85	15.4	1
60–57–1	Dieldrin	U	15.4	ug/kg	3.85	15.4	1
72–20–8	Endrin	U	15.4	ug/kg	3.85	15.4	1
72–54–8	4,4'–DDD	U	15.4	ug/kg	3.85	15.4	1
33213–65–9	Endosulfan II	U	15.4	ug/kg	3.85	15.4	1
7421–93–4	Endrin aldehyde	U	15.4	ug/kg	3.85	15.4	1
50–29–3	4,4'–DDT	U	15.4	ug/kg	3.85	15.4	1
1031–07–8	Endosulfan sulfate	U	15.4	ug/kg	3.85	15.4	1
72–43–5	Methoxychlor	U	77.0	ug/kg	19.3	77.0	1
53494–70–5	Endrin ketone	U	15.4	ug/kg	3.85	15.4	1
8001–35–2	Toxaphene	U	193	ug/kg	64.1	193	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862003	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13783	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	966423	**Inst:**	ECD5A.I	**Dilution:**	10
Run Date:	03/18/2010 21:12	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:23	**Aliquot:**	30.11 g	**Final Volume:**	5 mL
Data File:	013f1301.d	**Column:**	1 CLP-1	**Level:**	LOW
	013b1301.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.32	ug/kg	1.83	7.32	1
58-89-9	gamma-BHC (Lindane)	U	7.32	ug/kg	1.83	7.32	1
319-85-7	beta-BHC	U	7.32	ug/kg	1.83	7.32	1
319-86-8	delta-BHC	U	7.32	ug/kg	1.83	7.32	1
76-44-8	Heptachlor	U	7.32	ug/kg	1.83	7.32	1
309-00-2	Aldrin	U	7.32	ug/kg	1.83	7.32	1
1024-57-3	Heptachlor epoxide	U	7.32	ug/kg	2.29	7.32	1
5103-74-2	gamma-Chlordane	U	7.32	ug/kg	1.83	7.32	1
5103-71-9	alpha-Chlordane	U	7.32	ug/kg	1.83	7.32	1
959-98-8	Endosulfan I	U	7.32	ug/kg	1.83	7.32	1
72-55-9	4,4'-DDE	U	14.6	ug/kg	3.66	14.6	1
60-57-1	Dieldrin	U	14.6	ug/kg	3.66	14.6	1
72-20-8	Endrin	U	14.6	ug/kg	3.66	14.6	1
72-54-8	4,4'-DDD	U	14.6	ug/kg	3.66	14.6	1
33213-65-9	Endosulfan II	U	14.6	ug/kg	3.66	14.6	1
7421-93-4	Endrin aldehyde	U	14.6	ug/kg	3.66	14.6	1
50-29-3	4,4'-DDT	U	14.6	ug/kg	3.66	14.6	1
1031-07-8	Endosulfan sulfate	U	14.6	ug/kg	3.66	14.6	1
72-43-5	Methoxychlor	U	73.2	ug/kg	18.3	73.2	1
53494-70-5	Endrin ketone	U	14.6	ug/kg	3.66	14.6	1
8001-35-2	Toxaphene	U	183	ug/kg	60.9	183	1

QUALITY CONTROL SUMMARY

Pesticide

Surrogate Recovery Report

SDG Number: 10–2314

Matrix Type: SOLID

CAP Column (1) : CLP–1 **CAP Column (2) : CLP–2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
1202073942	MB for batch 966422	53		56		55		59	
1202073943	LCS for batch 966422	60		64		63		68	
1202073946	LCS for batch 966422	65		68		66		72	
248862002	RE46–10–13782	60	D	63	D	65	D	69	D
248862003	RE46–10–13783	64	D	68	D	77	D	81	D
248862004	RE46–10–13777	48	D	50	D	49	D	55	D
248862005	RE46–10–13775	70	D	73	D	79	D	88	D
248862006	RE46–10–13776	49	D	51	D	56	D	60	D
248862007	RE46–10–13781	54	D	57	D	87	D	81	D
248862008	RE46–10–13779	53	D	57	D	57	D	64	D
248862009	RE46–10–13780	69	D	74	D	76	D	82	D
248862010	RE46–10–13778	54	D	58	D	59	D	64	D

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%–120%)
DCB = Decachlorobiphenyl	(30%–116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2314
Client ID: LCS for batch 966422
Lab Sample ID: 1202073943
Instrument: ECD5A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/18/2010 20:30
Prep Batch ID: 966422
Batch ID: 966423
Dilution: 1

CAS No	Parmname		Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
319–84–6	LCS	alpha–BHC	16.7	0.0	11.7	70	57–130
58–89–9	LCS	gamma–BHC (Lindane)	16.7	0.0	11.9	71	56–132
319–85–7	LCS	beta–BHC	16.7	0.0	10.9	66	53–123
319–86–8	LCS	delta–BHC	16.7	0.0	11.9	72	56–130
76–44–8	LCS	Heptachlor	16.7	0.0	11.8	71	51–131
309–00–2	LCS	Aldrin	16.7	0.0	11.0	66	51–124
1024–57–3	LCS	Heptachlor epoxide	16.7	0.0	11.4	69	52–123
5103–74–2	LCS	gamma–Chlordane	16.7	0.0	11.2	67	57–126
5103–71–9	LCS	alpha–Chlordane	16.7	0.0	11.3	68	53–128
959–98–8	LCS	Endosulfan I	16.7	0.0	11.4	68	43–126
72–55–9	LCS	4,4'–DDE	41.7	0.0	27.5	66	59–122
60–57–1	LCS	Dieldrin	41.7	0.0	27.6	66	52–120
72–20–8	LCS	Endrin	41.7	0.0	31.8	76	61–135
72–54–8	LCS	4,4'–DDD	41.7	0.0	28.9	69	60–129
33213–65–9	LCS	Endosulfan II	41.7	0.0	28.8	69	50–126
7421–93–4	LCS	Endrin aldehyde	41.7	0.0	27.8	67	47–117
50–29–3	LCS	4,4'–DDT	41.7	0.0	32.0	77	50–142
1031–07–8	LCS	Endosulfan sulfate	41.7	0.0	30.2	73	61–132
72–43–5	LCS	Methoxychlor	167	0.0	119	71	59–140
53494–70–5	LCS	Endrin ketone	41.7	0.0	28.2	68	57–129

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2314
Client ID: LCS for batch 966422
Lab Sample ID: 1202073946
Instrument: ECD5A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/18/2010 20:44
Dilution: 1
Prep Batch ID: 966422
Batch ID: 966423

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
8001-35-2	LCS Toxaphene	133	0.0	116	87	50-129

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2359-1
Client ID: RE16-10-3799MS
Lab Sample ID: 1202073944
Instrument: ECD5A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 6.5
Analysis Date: 03/18/2010 23:46
Prep Batch ID: 966422
Batch ID: 966423

Dilution: 10

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
319-84-6	MS	alpha-BHC	17.7	0.00	U	12.5	71	36-122
58-89-9	MS	gamma-BHC (Lindane)	17.7	0.00	U	13.0	73	37-126
319-85-7	MS	beta-BHC	17.7	0.00	U	13.4	75	33-129
319-86-8	MS	delta-BHC	17.7	0.00	U	12.5	71	32-125
76-44-8	MS	Heptachlor	17.7	0.00	U	13.9	78	33-128
309-00-2	MS	Aldrin	17.7	0.00	U	12.8	72	40-120
1024-57-3	MS	Heptachlor epoxide	17.7	0.00	U	13.2	75	30-128
5103-74-2	MS	gamma-Chlordane	17.7	0.00	U	12.4	70	35-133
5103-71-9	MS	alpha-Chlordane	17.7	0.00	U	13.3	75	36-129
959-98-8	MS	Endosulfan I	17.7	0.00	U	13.4	76	31-118
72-55-9	MS	4,4'-DDE	44.3	0.00	U	33.3	75	36-127
60-57-1	MS	Dieldrin	44.3	0.00	U	32.5	73	32-126
72-20-8	MS	Endrin	44.3	0.00	U	37.2	84	37-137
72-54-8	MS	4,4'-DDD	44.3	0.00	U	35.9	81	34-131
33213-65-9	MS	Endosulfan II	44.3	0.00	U	33.7	76	25-128
7421-93-4	MS	Endrin aldehyde	44.3	0.00	U	28.8	65	30-120
50-29-3	MS	4,4'-DDT	44.3	0.00	U	32.8	74	30-147
1031-07-8	MS	Endosulfan sulfate	44.3	0.00	U	31.4	71	32-127
72-43-5	MS	Methoxychlor	177	0.00	U	138	78	32-144
53494-70-5	MS	Endrin ketone	44.3	0.00	U	33.7	76	35-130

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2359-1
Client ID: RE16-10-3799MSD
Lab Sample ID: 1202073945
Instrument: ECD5A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 6.5
Analysis Date: 03/19/2010 00:00
Prep Batch ID: 966422
Batch ID: 966423
Dilution: 10

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
319-84-6	MSD alpha-BHC	17.7	0.00	U	13.2	75	36-122	6	0-32
58-89-9	MSD gamma-BHC (Lindane)	17.7	0.00	U	13.7	78	37-126	5	0-29
319-85-7	MSD beta-BHC	17.7	0.00	U	13.8	78	33-129	3	0-30
319-86-8	MSD delta-BHC	17.7	0.00	U	13.1	74	32-125	4	0-29
76-44-8	MSD Heptachlor	17.7	0.00	U	14.5	82	33-128	4	0-33
309-00-2	MSD Aldrin	17.7	0.00	U	13.4	76	40-120	5	0-31
1024-57-3	MSD Heptachlor epoxide	17.7	0.00	U	13.8	78	30-128	4	0-32
5103-74-2	MSD gamma-Chlordane	17.7	0.00	U	12.9	73	35-133	4	0-34
5103-71-9	MSD alpha-Chlordane	17.7	0.00	U	13.7	77	36-129	3	0-34
959-98-8	MSD Endosulfan I	17.7	0.00	U	13.8	78	31-118	3	0-29
72-55-9	MSD 4,4'-DDE	44.3	0.00	U	34.3	77	36-127	3	0-31
60-57-1	MSD Dieldrin	44.3	0.00	U	33.7	76	32-126	4	0-31
72-20-8	MSD Endrin	44.3	0.00	U	38.6	87	37-137	4	0-27
72-54-8	MSD 4,4'-DDD	44.3	0.00	U	37.5	85	34-131	4	0-25
33213-65-9	MSD Endosulfan II	44.3	0.00	U	35.1	79	25-128	4	0-31
7421-93-4	MSD Endrin aldehyde	44.3	0.00	U	30.5	69	30-120	6	0-30
50-29-3	MSD 4,4'-DDT	44.3	0.00	U	34.2	77	30-147	4	0-27
1031-07-8	MSD Endosulfan sulfate	44.3	0.00	U	33.2	75	32-127	5	0-30
72-43-5	MSD Methoxychlor	177	0.00	U	144	82	32-144	5	0-31
53494-70-5	MSD Endrin ketone	44.3	0.00	U	35.1	79	35-130	4	0-26

Method Blank Summary

SDG Number:	10–2314	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 966422	Instrument ID:	ECD5A.I_2 ECD5A.I_1	Data File:	009b0901.d 009f0901.d
Lab Sample ID:	1202073942				
Column:	CLP–2 CLP–1	Prep Date:	03/17/2010 20:23	Analyzed:	03/18/10 20:15
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 966422	1202073943	010f1001.d 010b1001.d	03/18/10	2030
02 LCS for batch 966422	1202073946	011f1101.d 011b1101.d	03/18/10	2044
03 RE46–10–13782	248862002	012f1201.d 012b1201.d	03/18/10	2058
04 RE46–10–13783	248862003	013f1301.d 013b1301.d	03/18/10	2112
05 RE46–10–13777	248862004	014f1401.d 014b1401.d	03/18/10	2126
06 RE46–10–13775	248862005	015f1501.d 015b1501.d	03/18/10	2140
07 RE46–10–13776	248862006	016f1601.d 016b1601.d	03/18/10	2154
08 RE46–10–13781	248862007	017f1701.d 017b1701.d	03/18/10	2208
09 RE46–10–13779	248862008	018f1801.d 018b1801.d	03/18/10	2222
10 RE46–10–13780	248862009	021f2101.d 021b2101.d	03/18/10	2304
11 RE46–10–13778	248862010	022f2201.d 022b2201.d	03/18/10	2318

SAMPLE
DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862005**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13775**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 21:40**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30.12 g**	**Final Volume:**	**5 mL**
Data File:	**015f1501.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	015b1501.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.34	ug/kg	1.83	7.34	1
58-89-9	gamma-BHC (Lindane)	U	7.34	ug/kg	1.83	7.34	1
319-85-7	beta-BHC	U	7.34	ug/kg	1.83	7.34	1
319-86-8	delta-BHC	U	7.34	ug/kg	1.83	7.34	1
76-44-8	Heptachlor	U	7.34	ug/kg	1.83	7.34	1
309-00-2	Aldrin	U	7.34	ug/kg	1.83	7.34	1
1024-57-3	Heptachlor epoxide	U	7.34	ug/kg	2.29	7.34	1
5103-74-2	gamma-Chlordane	U	7.34	ug/kg	1.83	7.34	1
5103-71-9	alpha-Chlordane	U	7.34	ug/kg	1.83	7.34	1
959-98-8	Endosulfan 1	U	7.34	ug/kg	1.83	7.34	1
72-55-9	4,4'-DDE	U	14.7	ug/kg	3.67	14.7	1
60-57-1	Dieldrin	U	14.7	ug/kg	3.67	14.7	1
72-20-8	Endrin	U	14.7	ug/kg	3.67	14.7	1
72-54-8	4,4'-DDD	U	14.7	ug/kg	3.67	14.7	1
33213-65-9	Endosulfan II	U	14.7	ug/kg	3.67	14.7	1
7421-93-4	Endrin aldehyde	U	14.7	ug/kg	3.67	14.7	1
50-29-3	4,4'-DDT	U	14.7	ug/kg	3.67	14.7	1
1031-07-8	Endosulfan sulfate	U	14.7	ug/kg	3.67	14.7	1
72-43-5	Methoxychlor	U	73.4	ug/kg	18.3	73.4	1
53494-70-5	Endrin ketone	U	14.7	ug/kg	3.67	14.7	1
8001-35-2	Toxaphene	U	183	ug/kg	61.1	183	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/031810.b/015f1501.d
Lab Smp Id: 248862005 Client Smp ID: RE46-10-13775
Inj Date : 18-MAR-2010 21:40
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |248862005|10|
Misc Info : |ECD81A_1S|966423|SVP|LANL|SOIL|RE46-10-13775|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 15
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weigth of sample extracted (g)
M	9.49990	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.739	2.739	0.000	6940252	13.9343	25.6	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.882	7.883	-0.001	5747711	15.8819	29.1	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/015f1501.d

Date : 18-MAR-2010 21:40

Client ID: RE46-10-13775

Instrument: ecd5a.i

Sample Info: |248862005|10|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

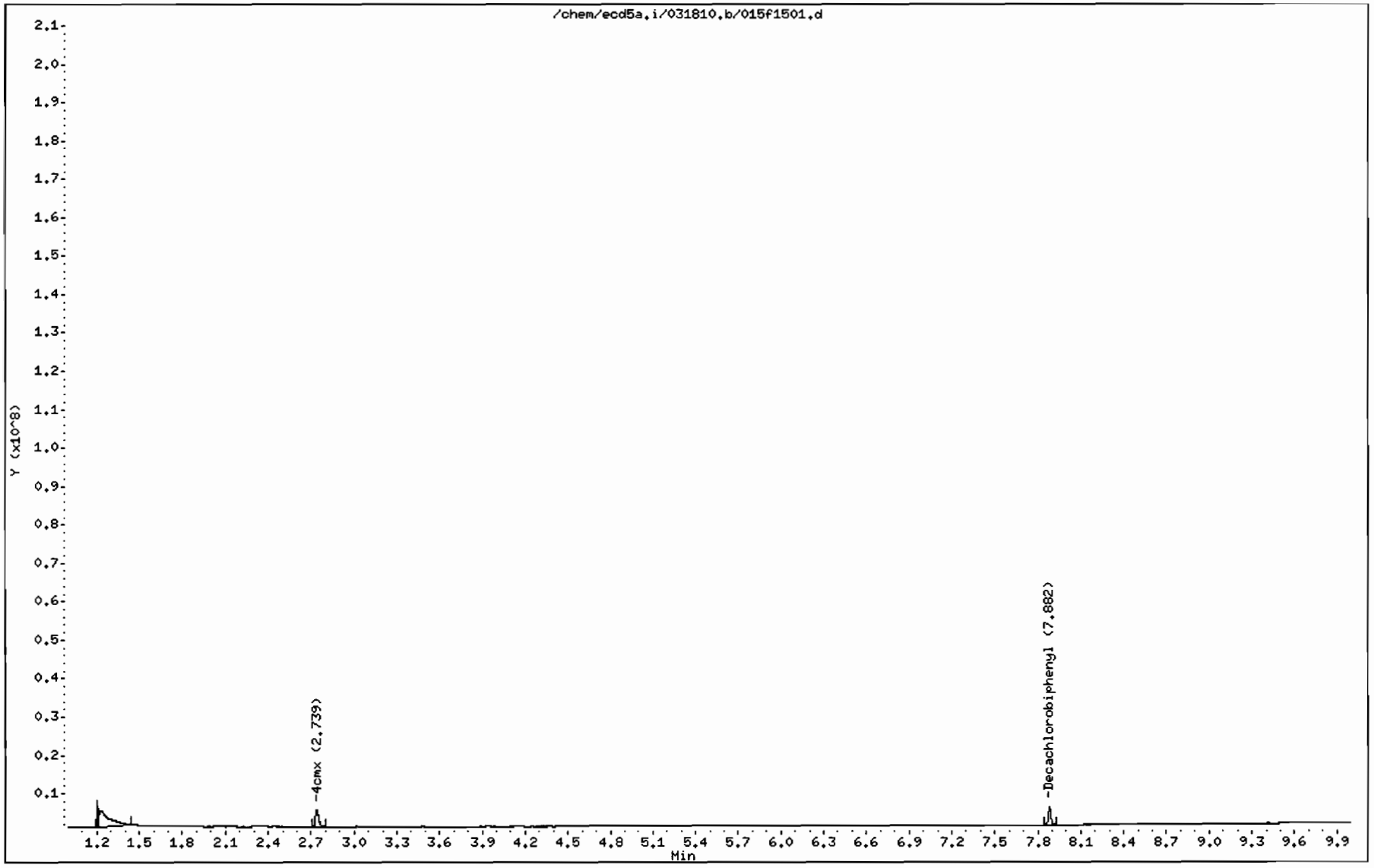

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/015b1501.d
Lab Smp Id: 248862005 Client Smp ID: RE46-10-13775
Inj Date : 18-MAR-2010 21:40
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |248862005|10|
Misc Info : |ECD81A_1S|966423|SVP|LANL|SOIL|RE46-10-13775|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 15
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weigth of sample extracted (g)
M	9.49990	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.824	2.823	0.001	7751547	14.5909	26.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.719	8.720	-0.001	5616491	17.6189	32.3	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/015b1501.d

Page 1

Date : 18-MAR-2010 21:40

Client ID: RE46-10-13775

Instrument: ecd5a.i

Sample Info: |2488620051101|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

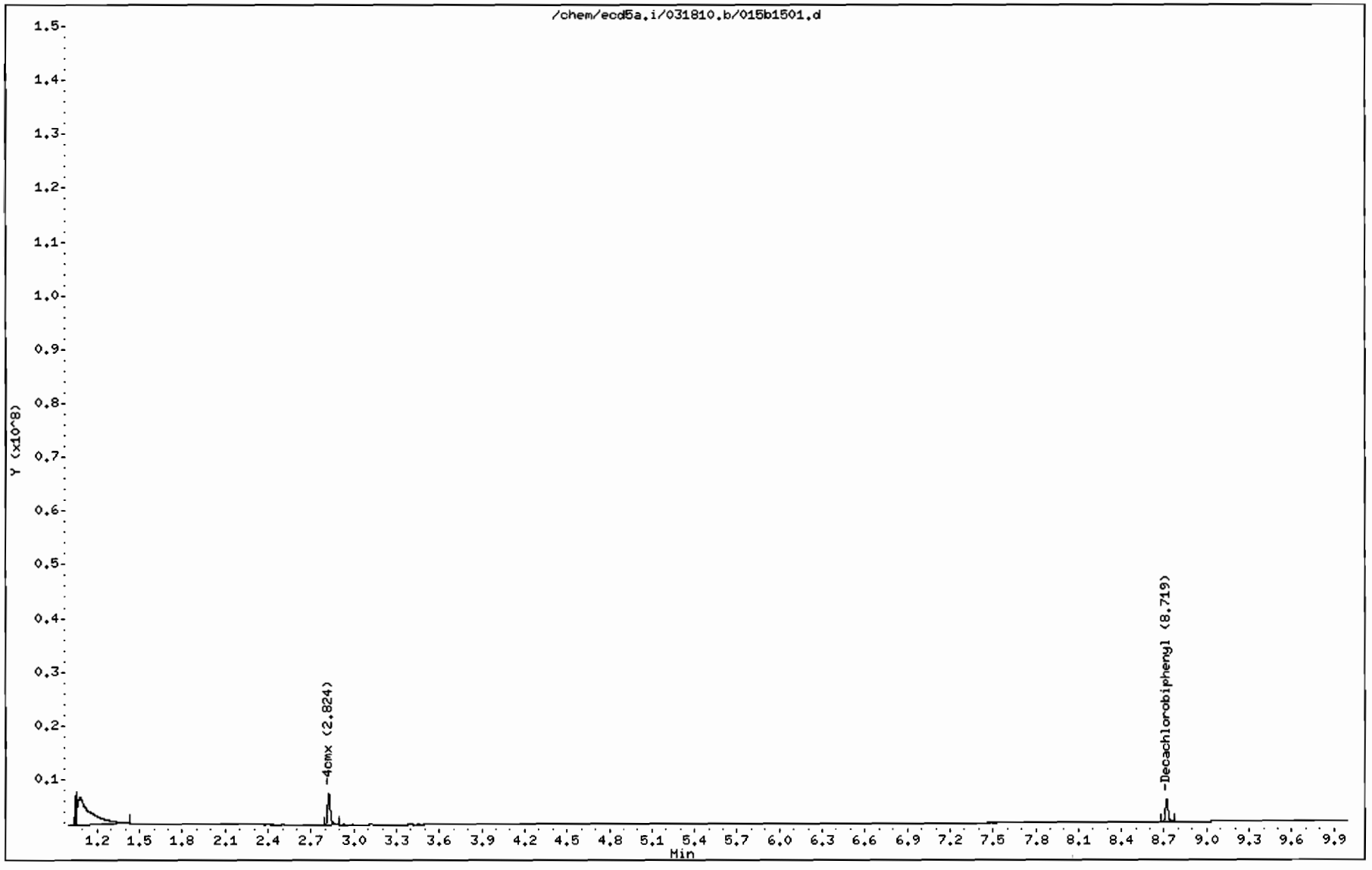

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862006**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**10.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13776**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 21:54**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30.13 g**	**Final Volume:**	**5 mL**
Data File:	**016f1601.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	016b1601.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.38	ug/kg	1.85	7.38	1
58-89-9	gamma-BHC (Lindane)	U	7.38	ug/kg	1.85	7.38	1
319-85-7	beta-BHC	U	7.38	ug/kg	1.85	7.38	1
319-86-8	delta-BHC	U	7.38	ug/kg	1.85	7.38	1
76-44-8	Heptachlor	U	7.38	ug/kg	1.85	7.38	1
309-00-2	Aldrin	U	7.38	ug/kg	1.85	7.38	1
1024-57-3	Heptachlor epoxide	U	7.38	ug/kg	2.31	7.38	1
5103-74-2	gamma-Chlordane	U	7.38	ug/kg	1.85	7.38	1
5103-71-9	alpha-Chlordane	U	7.38	ug/kg	1.85	7.38	1
959-98-8	Endosulfan I	U	7.38	ug/kg	1.85	7.38	1
72-55-9	4,4'-DDE	U	14.8	ug/kg	3.69	14.8	1
60-57-1	Dieldrin	U	14.8	ug/kg	3.69	14.8	1
72-20-8	Endrin	U	14.8	ug/kg	3.69	14.8	1
72-54-8	4,4'-DDD	U	14.8	ug/kg	3.69	14.8	1
33213-65-9	Endosulfan II	U	14.8	ug/kg	3.69	14.8	1
7421-93-4	Endrin aldehyde	U	14.8	ug/kg	3.69	14.8	1
50-29-3	4,4'-DDT	U	14.8	ug/kg	3.69	14.8	1
1031-07-8	Endosulfan sulfate	U	14.8	ug/kg	3.69	14.8	1
72-43-5	Methoxychlor	U	73.8	ug/kg	18.5	73.8	1
53494-70-5	Endrin ketone	U	14.8	ug/kg	3.69	14.8	1
8001-35-2	Toxaphene	U	185	ug/kg	61.5	185	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/031810.b/016f1601.d
Lab Smp Id: 248862006 Client Smp ID: RE46-10-13776
Inj Date : 18-MAR-2010 21:54
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |248862006|10|
Misc Info : |ECD81A_1S|966423|SVP|LANL|SOIL|RE46-10-13776|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 16
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.13000	Weigth of sample extracted (g)
M	10.10940	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.738	2.739	-0.001	4862352	9.76239	18.0	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.883	7.883	0.000	4035501	11.1508	20.6	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/016f1601.d

Date : 18-MAR-2010 21:54

Client ID: RE46-10-13776

Sample Info: |2488620061101

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

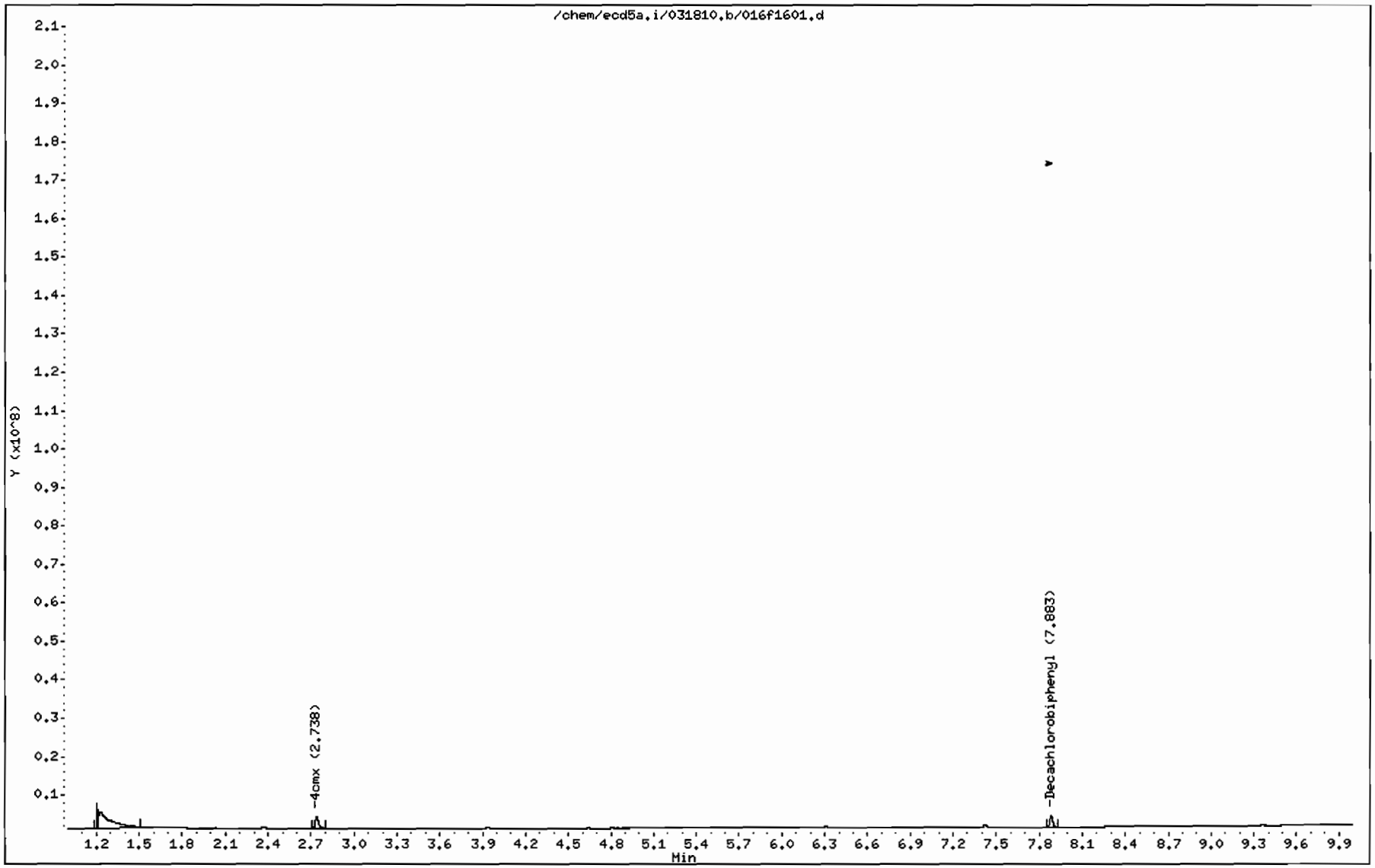

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/016b1601.d
Lab Smp Id: 248862006 Client Smp ID: RE46-10-13776
Inj Date : 18-MAR-2010 21:54
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |248862006|10|
Misc Info : |ECD81A_1S|966423|SVP|LANL|SOIL|RE46-10-13776|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 16
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.13000	Weigth of sample extracted (g)
M	10.10940	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.823	2.823	0.000	5434696	10.2298	18.9	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.718	8.720	-0.002	3817817	11.9765	22.1	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/016b1601.d

Page 1

Date : 18-MAR-2010 21:54

Client ID: RE46-10-13776

Instrument: ecd5a.i

Sample Info: |2488620061101|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

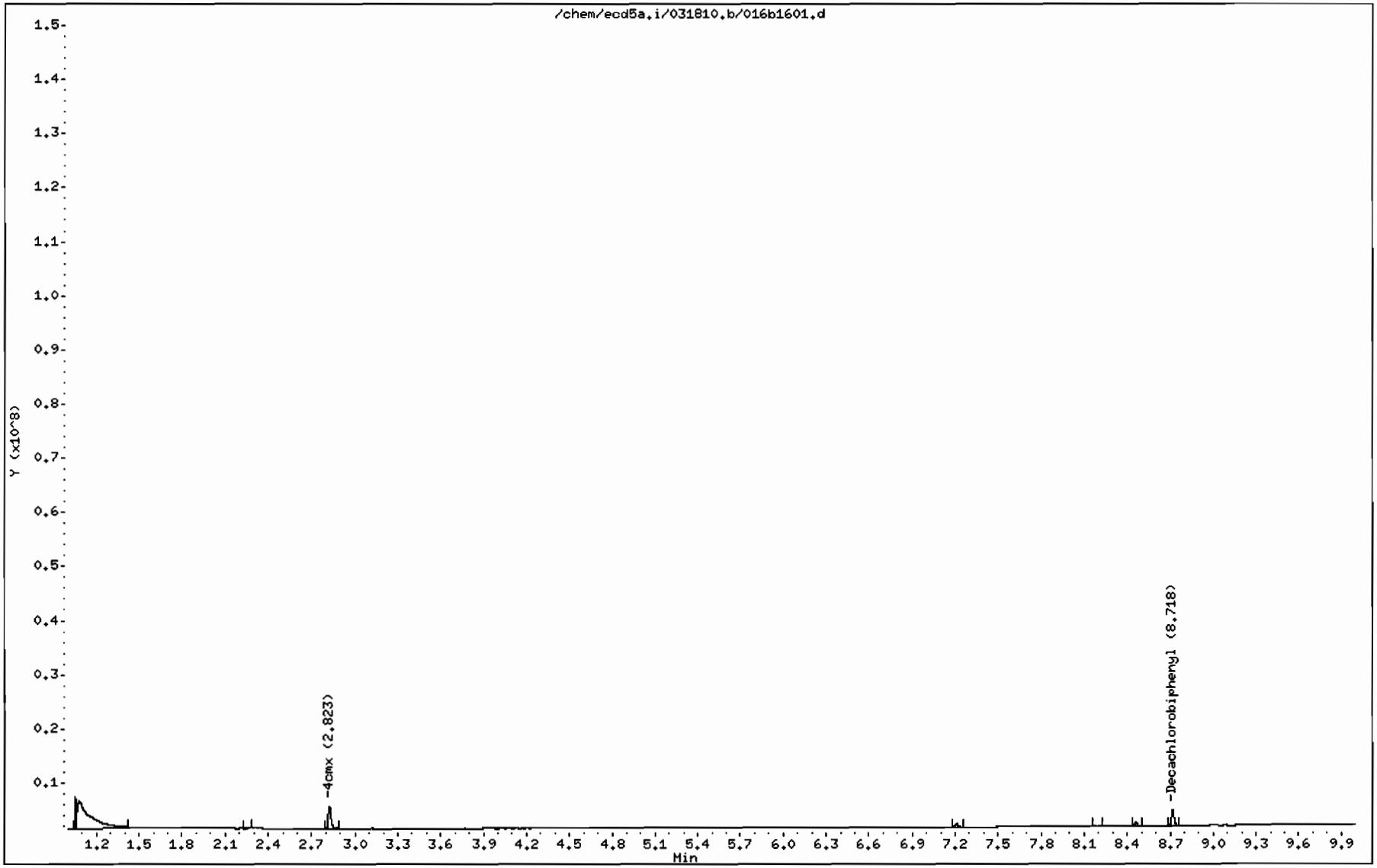

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**20.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13777**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 21:26**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30.17 g**	**Final Volume:**	**5 mL**
Data File:	**014f1401.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	014b1401.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	8.33	ug/kg	2.08	8.33	1
58–89–9	gamma–BHC (Lindane)	U	8.33	ug/kg	2.08	8.33	1
319–85–7	beta–BHC	U	8.33	ug/kg	2.08	8.33	1
319–86–8	delta–BHC	U	8.33	ug/kg	2.08	8.33	1
76–44–8	Heptachlor	U	8.33	ug/kg	2.08	8.33	1
309–00–2	Aldrin	U	8.33	ug/kg	2.08	8.33	1
1024–57–3	Heptachlor epoxide	U	8.33	ug/kg	2.60	8.33	1
5103–74–2	gamma–Chlordane	U	8.33	ug/kg	2.08	8.33	1
5103–71–9	alpha–Chlordane	U	8.33	ug/kg	2.08	8.33	1
959–98–8	Endosulfan I	U	8.33	ug/kg	2.08	8.33	1
72–55–9	4,4'–DDE	U	16.7	ug/kg	4.17	16.7	1
60–57–1	Dieldrin	U	16.7	ug/kg	4.17	16.7	1
72–20–8	Endrin	U	16.7	ug/kg	4.17	16.7	1
72–54–8	4,4'–DDD	U	16.7	ug/kg	4.17	16.7	1
33213–65–9	Endosulfan II	U	16.7	ug/kg	4.17	16.7	1
7421–93–4	Endrin aldehyde	U	16.7	ug/kg	4.17	16.7	1
50–29–3	4,4'–DDT	U	16.7	ug/kg	4.17	16.7	1
1031–07–8	Endosulfan sulfate	U	16.7	ug/kg	4.17	16.7	1
72–43–5	Methoxychlor	U	83.3	ug/kg	20.8	83.3	1
53494–70–5	Endrin ketone	U	16.7	ug/kg	4.17	16.7	1
8001–35–2	Toxaphene	U	208	ug/kg	69.4	208	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/031810.b/014f1401.d
Lab Smp Id: 248862004 Client Smp ID: RE46-10-13777
Inj Date : 18-MAR-2010 21:26
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |248862004|10|
Misc Info : |ECD81A_1S|966423|SVP|LANL|SOIL|RE46-10-13777|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 14
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weigth of sample extracted (g)
M	20.43130	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.740	2.739	0.001	4748159	9.53312	19.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.881	7.883	-0.002	3548292	9.80455	20.4	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/014f1401.d

Page 1

Date : 18-MAR-2010 21:26

Client ID: RE46-10-13777

Instrument: ecd5a.i

Sample Info: |248862004|10|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

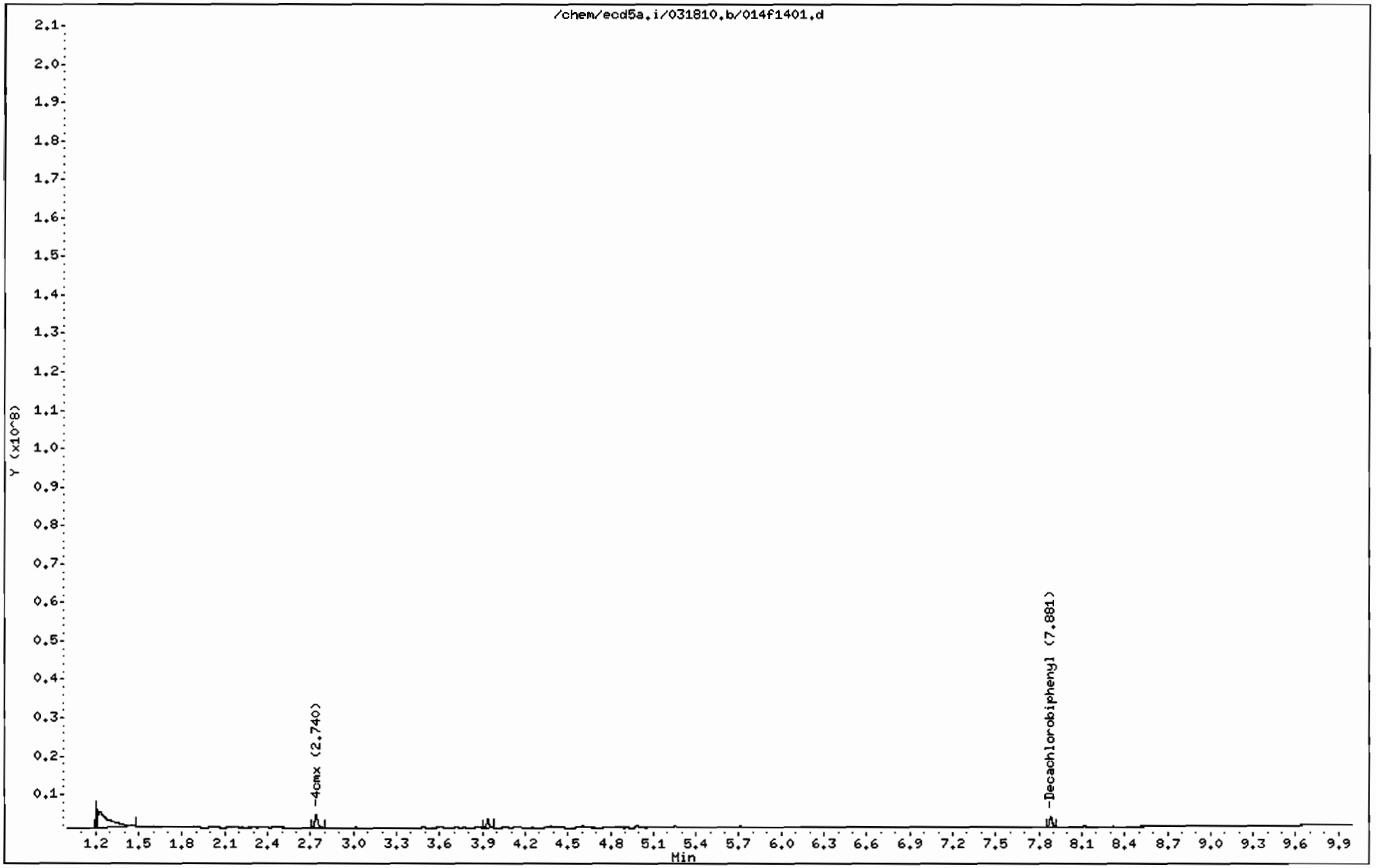

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/014b1401.d
Lab Smp Id: 248862004 Client Smp ID: RE46-10-13777
Inj Date : 18-MAR-2010 21:26
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |248862004|10|
Misc Info : |ECD81A_1S|966423|SVP|LANL|SOIL|RE46-10-13777|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 14
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weigth of sample extracted (g)
M	20.43130	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.824	2.823	0.001	5363176	10.0952	21.0	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.718	8.720	-0.002	3489158	10.9455	22.8	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/014b1401.d
Date : 18-MAR-2010 21:26
Client ID: RE46-10-13777
Sample Info: |2488620041101|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

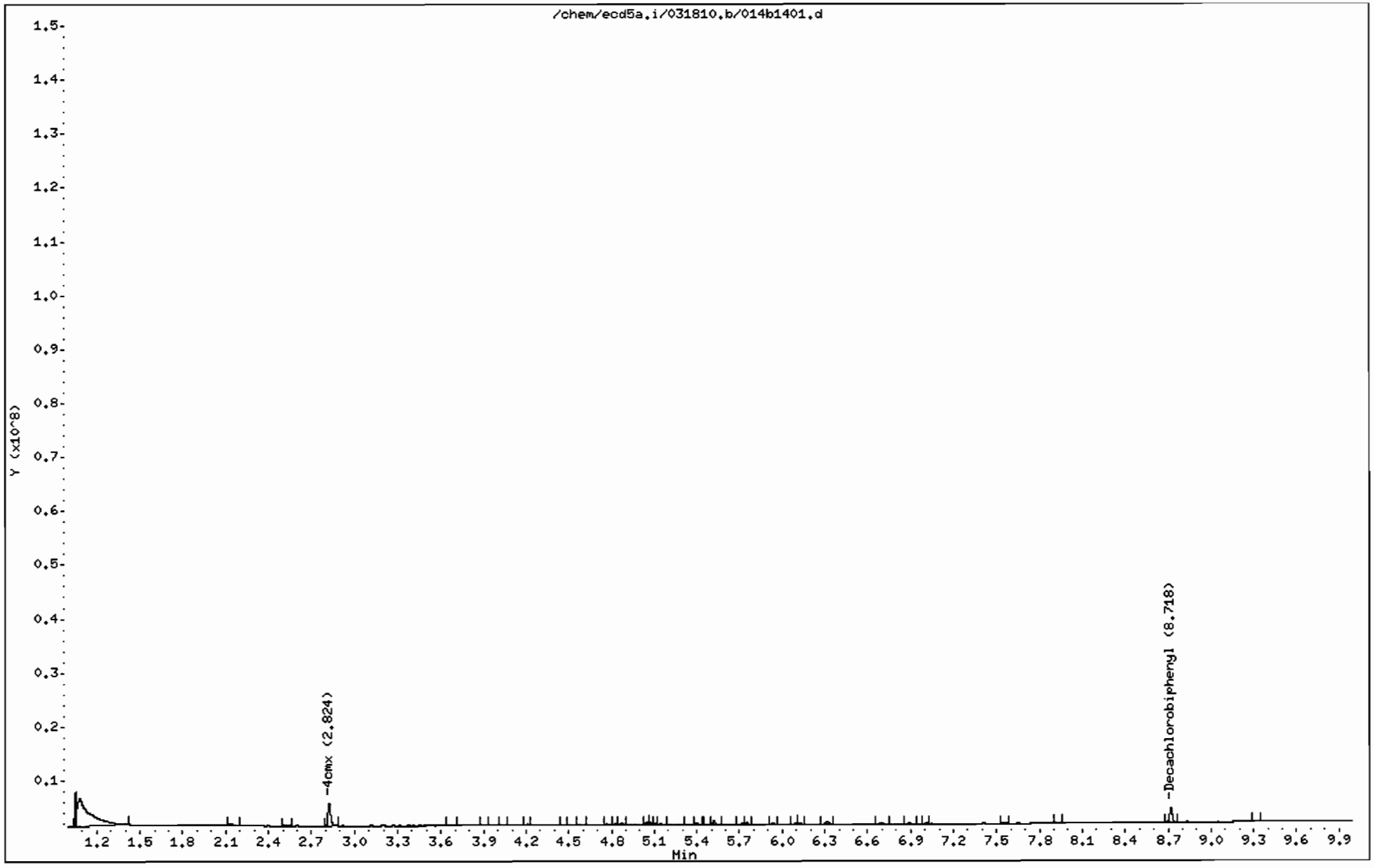

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862010	**Date Received:**	03/06/2010 09:15	**%Moisture:**	19.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13778	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	966423	**Inst:**	ECD5A.I	**Dilution:**	10
Run Date:	03/18/2010 23:18	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:23	**Aliquot:**	30.03 g	**Final Volume:**	5 mL
Data File:	022f2201.d	**Column:**	1 CLP-1	**Level:**	LOW
	022b2201.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	8.23	ug/kg	2.06	8.23	1
58-89-9	gamma-BHC (Lindane)	U	8.23	ug/kg	2.06	8.23	1
319-85-7	beta-BHC	U	8.23	ug/kg	2.06	8.23	1
319-86-8	delta-BHC	U	8.23	ug/kg	2.06	8.23	1
76-44-8	Heptachlor	U	8.23	ug/kg	2.06	8.23	1
309-00-2	Aldrin	U	8.23	ug/kg	2.06	8.23	1
1024-57-3	Heptachlor epoxide	U	8.23	ug/kg	2.57	8.23	1
5103-74-2	gamma-Chlordane	U	8.23	ug/kg	2.06	8.23	1
5103-71-9	alpha-Chlordane	U	8.23	ug/kg	2.06	8.23	1
959-98-8	Endosulfan I	U	8.23	ug/kg	2.06	8.23	1
72-55-9	4,4'-DDE	U	16.5	ug/kg	4.11	16.5	1
60-57-1	Dieldrin	U	16.5	ug/kg	4.11	16.5	1
72-20-8	Endrin	U	16.5	ug/kg	4.11	16.5	1
72-54-8	4,4'-DDD	U	16.5	ug/kg	4.11	16.5	1
33213-65-9	Endosulfan II	U	16.5	ug/kg	4.11	16.5	1
7421-93-4	Endrin aldehyde	U	16.5	ug/kg	4.11	16.5	1
50-29-3	4,4'-DDT	U	16.5	ug/kg	4.11	16.5	1
1031-07-8	Endosulfan sulfate	U	16.5	ug/kg	4.11	16.5	1
72-43-5	Methoxychlor	U	82.3	ug/kg	20.6	82.3	1
53494-70-5	Endrin ketone	U	16.5	ug/kg	4.11	16.5	1
8001-35-2	Toxaphene	U	206	ug/kg	68.5	206	1

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CLP-1

Data file : /chem/ecd5a.i/031810.b/022f2201.d
Lab Smp Id: 248862010 Client Smp ID: RE46-10-13778
Inj Date : 18-MAR-2010 23:18
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |248862010|10|
Misc Info : |ECD81A_1S|966423|SVP|LANL|SOIL|RE46-10-13778|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 22
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weigth of sample extracted (g)
M	19.06520	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.740	2.739	0.001	5345819	10.7331	22.1	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.881	7.883	-0.002	4251039	11.7464	24.2	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/022f2201.d

Date : 18-MAR-2010 23:18

Client ID: RE46-10-13778

Instrument: ecd5a.i

Sample Info: |2488620101101

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

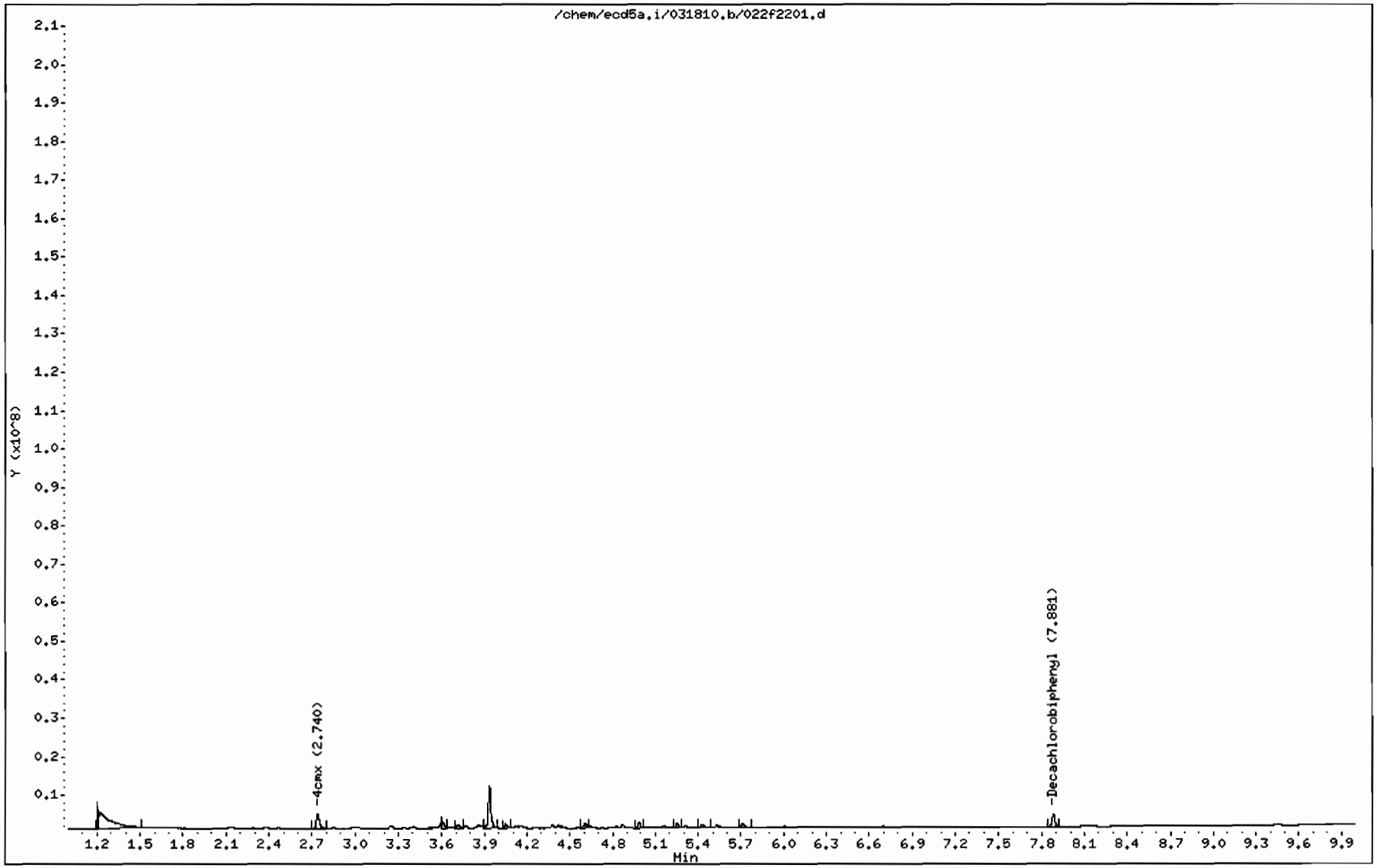

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/022b2201.d
Lab Smp Id: 248862010 Client Smp ID: RE46-10-13778
Inj Date : 18-MAR-2010 23:18
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |248862010|10|
Misc Info : |ECD81A_1S|966423|SVP|LANL|SOIL|RE46-10-13778|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 22
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weigth of sample extracted (g)
M	19.06520	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.823	2.823	0.000	6169049	11.6121	23.9	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.718	8.720	-0.002	4088324	12.8250	26.4	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/022b2201.d

Date : 18-MAR-2010 23:18

Client ID: RE46-10-13778

Sample Info: |2488620101101

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

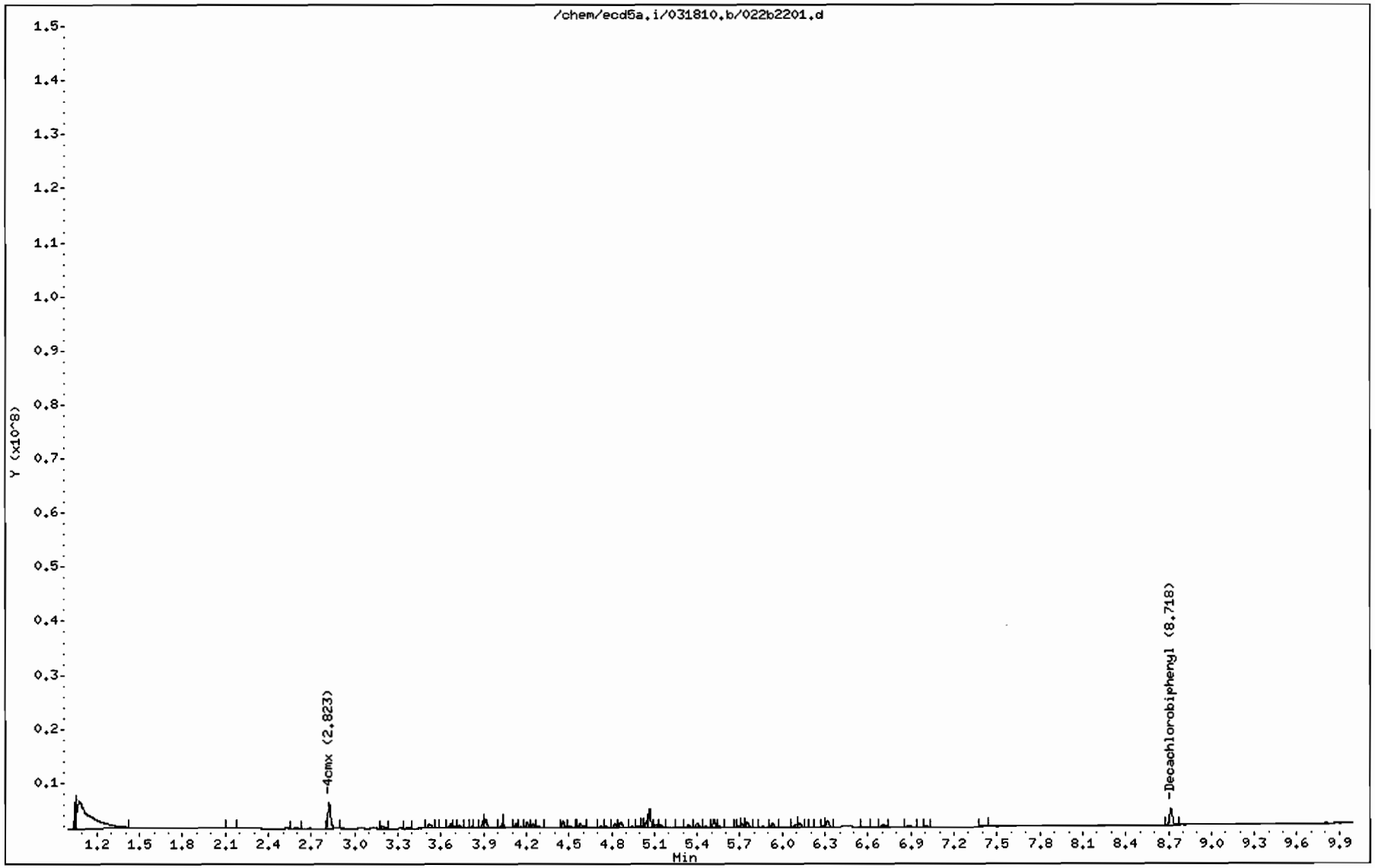

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862008	**Date Received:**	03/06/2010 09:15	**%Moisture:**	19.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13779	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	966423	**Inst:**	ECD5A.I	**Dilution:**	10
Run Date:	03/18/2010 22:22	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:23	**Aliquot:**	30.07 g	**Final Volume:**	5 mL
Data File:	018f1801.d	**Column:**	1 CLP-1	**Level:**	LOW
	018b1801.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	8.26	ug/kg	2.07	8.26	1
58-89-9	gamma-BHC (Lindane)	U	8.26	ug/kg	2.07	8.26	1
319-85-7	beta-BHC	U	8.26	ug/kg	2.07	8.26	1
319-86-8	delta-BHC	U	8.26	ug/kg	2.07	8.26	1
76-44-8	Heptachlor	U	8.26	ug/kg	2.07	8.26	1
309-00-2	Aldrin	U	8.26	ug/kg	2.07	8.26	1
1024-57-3	Heptachlor epoxide	U	8.26	ug/kg	2.58	8.26	1
5103-74-2	gamma-Chlordane	U	8.26	ug/kg	2.07	8.26	1
5103-71-9	alpha-Chlordane	U	8.26	ug/kg	2.07	8.26	1
959-98-8	Endosulfan I	U	8.26	ug/kg	2.07	8.26	1
72-55-9	4,4'-DDE	U	16.5	ug/kg	4.13	16.5	1
60-57-1	Dieldrin	U	16.5	ug/kg	4.13	16.5	1
72-20-8	Endrin	U	16.5	ug/kg	4.13	16.5	1
72-54-8	4,4'-DDD	U	16.5	ug/kg	4.13	16.5	1
33213-65-9	Endosulfan II	U	16.5	ug/kg	4.13	16.5	1
7421-93-4	Endrin aldehyde	U	16.5	ug/kg	4.13	16.5	1
50-29-3	4,4'-DDT	U	16.5	ug/kg	4.13	16.5	1
1031-07-8	Endosulfan sulfate	U	16.5	ug/kg	4.13	16.5	1
72-43-5	Methoxychlor	U	82.6	ug/kg	20.7	82.6	1
53494-70-5	Endrin ketone	U	16.5	ug/kg	4.13	16.5	1
8001-35-2	Toxaphene	U	207	ug/kg	68.8	207	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/031810.b/018f1801.d
Lab Smp Id: 248862008 Client Smp ID: RE46-10-13779
Inj Date : 18-MAR-2010 22:22
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |248862008|10|
Misc Info : |ECD81A_1S|966423|SVP|LANL|SOIL|RE46-10-13779|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 18
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weigth of sample extracted (g)
M	19.50530	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.740	2.739	0.001	5313623	10.6684	22.0	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.882	7.883	-0.001	4150622	11.4689	23.7	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/018f1801.d
Date : 18-MAR-2010 22:22
Client ID: RE46-10-13779
Sample Info: 12488620081101
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

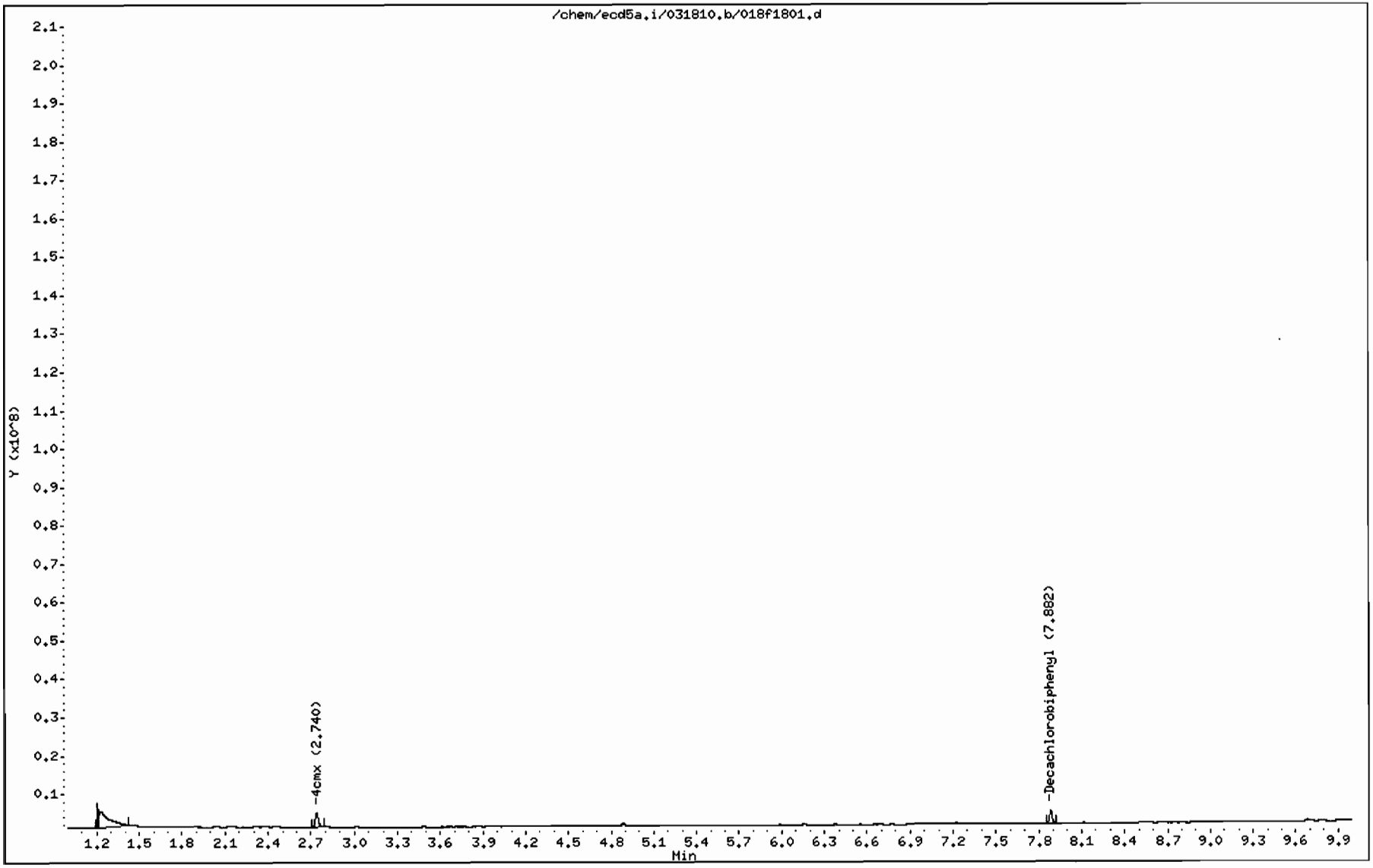

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/018b1801.d
Lab Smp Id: 248862008 Client Smp ID: RE46-10-13779
Inj Date : 18-MAR-2010 22:22
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |248862008|10|
Misc Info : |ECD81A_1S|966423|SVP|LANL|SOIL|RE46-10-13779|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 18
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weigth of sample extracted (g)
M	19.50530	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.824	2.823	0.001	6103965	11.4896	23.7	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.718	8.720	-0.002	4065379	12.7531	26.3	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/018b1801.d
Date : 18-MAR-2010 22:22
Client ID: RE46-10-13779
Sample Info: |2488620081101
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

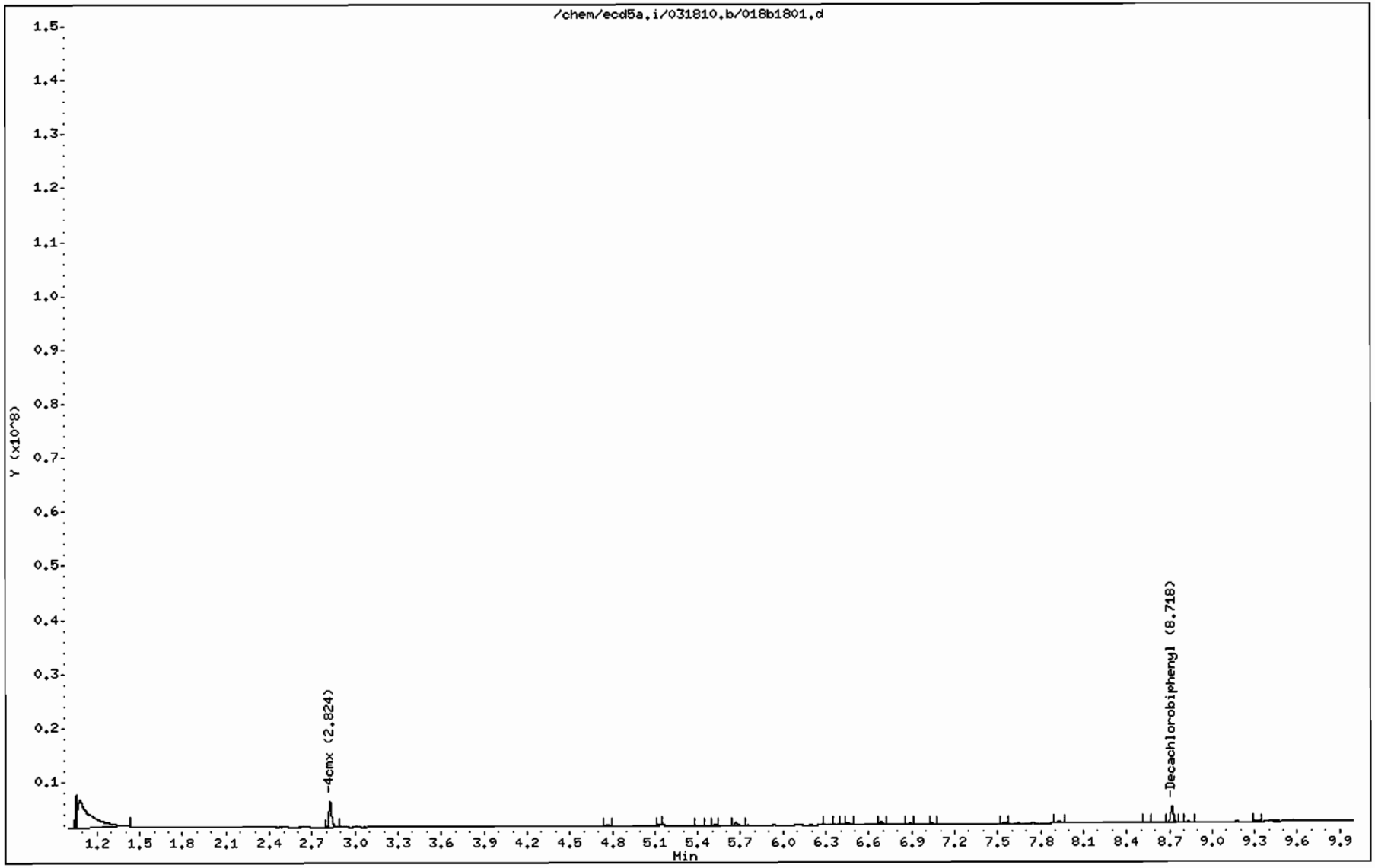

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862009**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13780**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 23:04**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30.16 g**	**Final Volume:**	**5 mL**
Data File:	**021f2101.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	021b2101.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	8.09	ug/kg	2.02	8.09	1
58-89-9	gamma-BHC (Lindane)	U	8.09	ug/kg	2.02	8.09	1
319-85-7	beta-BHC	U	8.09	ug/kg	2.02	8.09	1
319-86-8	delta-BHC	U	8.09	ug/kg	2.02	8.09	1
76-44-8	Heptachlor	U	8.09	ug/kg	2.02	8.09	1
309-00-2	Aldrin	U	8.09	ug/kg	2.02	8.09	1
1024-57-3	Heptachlor epoxide	U	8.09	ug/kg	2.53	8.09	1
5103-74-2	gamma-Chlordane	U	8.09	ug/kg	2.02	8.09	1
5103-71-9	alpha-Chlordane	U	8.09	ug/kg	2.02	8.09	1
959-98-8	Endosulfan I	U	8.09	ug/kg	2.02	8.09	1
72-55-9	4,4'-DDE	U	16.2	ug/kg	4.05	16.2	1
60-57-1	Dieldrin	U	16.2	ug/kg	4.05	16.2	1
72-20-8	Endrin	U	16.2	ug/kg	4.05	16.2	1
72-54-8	4,4'-DDD	U	16.2	ug/kg	4.05	16.2	1
33213-65-9	Endosulfan II	U	16.2	ug/kg	4.05	16.2	1
7421-93-4	Endrin aldehyde	U	16.2	ug/kg	4.05	16.2	1
50-29-3	4,4'-DDT	U	16.2	ug/kg	4.05	16.2	1
1031-07-8	Endosulfan sulfate	U	16.2	ug/kg	4.05	16.2	1
72-43-5	Methoxychlor	U	80.9	ug/kg	20.2	80.9	1
53494-70-5	Endrin ketone	U	16.2	ug/kg	4.05	16.2	1
8001-35-2	Toxaphene	U	202	ug/kg	67.4	202	1

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CLP-1

Data file : /chem/ecd5a.i/031810.b/021f2101.d
Lab Smp Id: 248862009 Client Smp ID: RE46-10-13780
Inj Date : 18-MAR-2010 23:04
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |248862009|10|
Misc Info : |ECD81A_1S|966423|SVP|LANL|SOIL|RE46-10-13780|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 21
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.16000	Weigth of sample extracted (g)
M	18.07330	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.740	2.739	0.001	6905832	13.8652	28.0	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.883	7.883	0.000	5507607	15.2185	30.8	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/021f2101.d
Date : 18-MAR-2010 23:04
Client ID: RE46-10-13780
Sample Info: |2488620091101
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

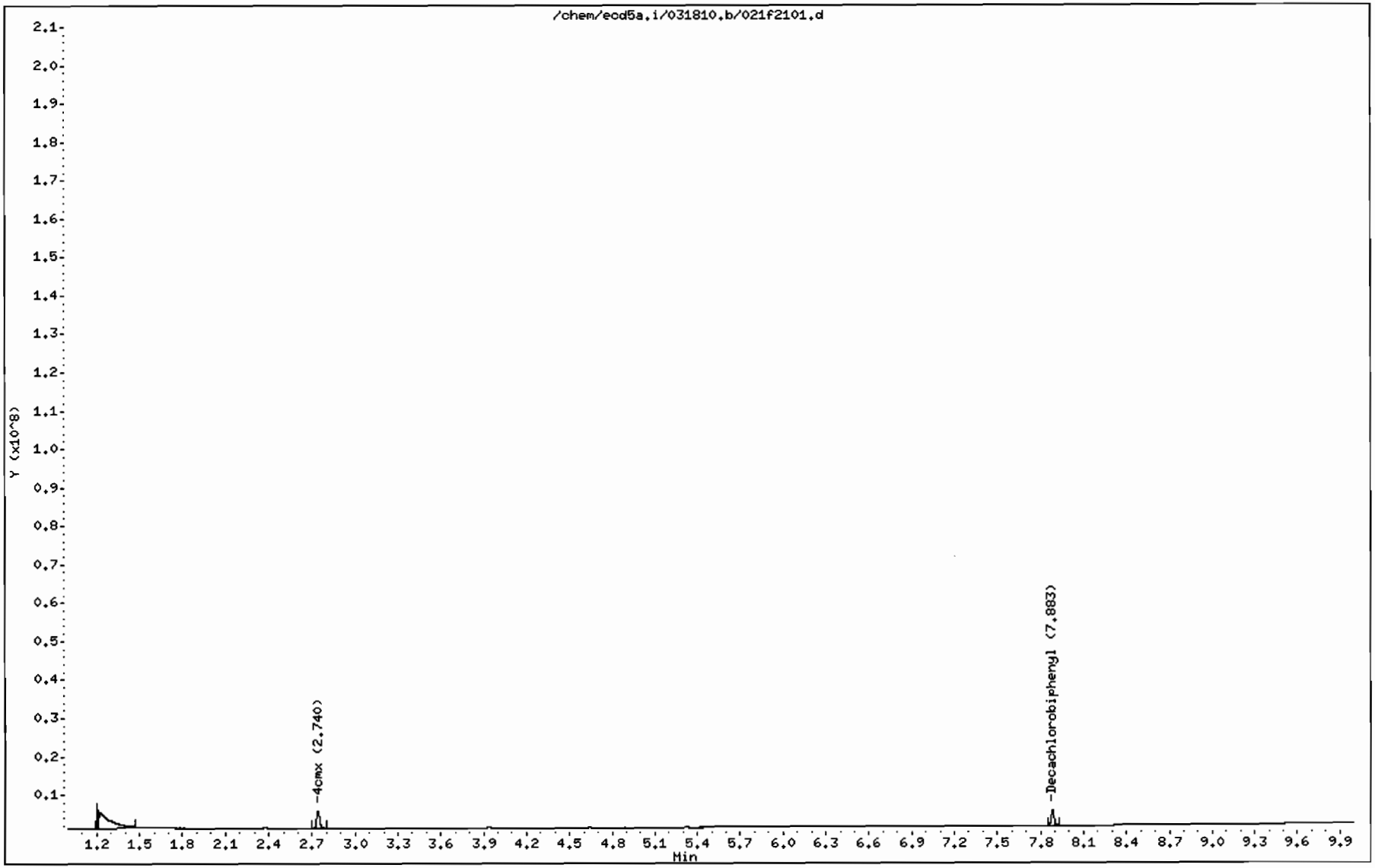

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/021b2101.d
Lab Smp Id: 248862009 Client Smp ID: RE46-10-13780
Inj Date : 18-MAR-2010 23:04
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |248862009|10|
Misc Info : |ECD81A_1S|966423|SVP|LANL|SOIL|RE46-10-13780|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 21
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.16000	Weigth of sample extracted (g)
M	18.07330	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.823	2.823	0.000	7813775	14.7080	29.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.718	8.720	-0.002	5205273	16.3289	33.0	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/021b2101.d

Date : 18-MAR-2010 23:04

Client ID: RE46-10-13780

Sample Info: |2488620091101|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862007**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13781**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 22:08**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30.11 g**	**Final Volume:**	**5 mL**
Data File:	**017f1701.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	017b1701.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	8.18	ug/kg	2.05	8.18	1
58-89-9	gamma-BHC (Lindane)	U	8.18	ug/kg	2.05	8.18	1
319-85-7	beta-BHC	U	8.18	ug/kg	2.05	8.18	1
319-86-8	delta-BHC	U	8.18	ug/kg	2.05	8.18	1
76-44-8	Heptachlor	U	8.18	ug/kg	2.05	8.18	1
309-00-2	Aldrin	U	8.18	ug/kg	2.05	8.18	1
1024-57-3	Heptachlor epoxide	U	8.18	ug/kg	2.56	8.18	1
5103-74-2	gamma-Chlordane	U	8.18	ug/kg	2.05	8.18	1
5103-71-9	alpha-Chlordane	U	8.18	ug/kg	2.05	8.18	1
959-98-8	Endosulfan I	U	8.18	ug/kg	2.05	8.18	1
72-55-9	4,4'-DDE	U	16.4	ug/kg	4.09	16.4	1
60-57-1	Dieldrin	U	16.4	ug/kg	4.09	16.4	1
72-20-8	Endrin	U	16.4	ug/kg	4.09	16.4	1
72-54-8	4,4'-DDD	U	16.4	ug/kg	4.09	16.4	1
33213-65-9	Endosulfan II	U	16.4	ug/kg	4.09	16.4	1
7421-93-4	Endrin aldehyde	U	16.4	ug/kg	4.09	16.4	1
50-29-3	4,4'-DDT	U	16.4	ug/kg	4.09	16.4	1
1031-07-8	Endosulfan sulfate	U	16.4	ug/kg	4.09	16.4	1
72-43-5	Methoxychlor	U	81.8	ug/kg	20.5	81.8	1
53494-70-5	Endrin ketone	U	16.4	ug/kg	4.09	16.4	1
8001-35-2	Toxaphene	U	205	ug/kg	68.1	205	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/031810.b/017f1701.d
Lab Smp Id: 248862007 Client Smp ID: RE46-10-13781
Inj Date : 18-MAR-2010 22:08
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |248862007|10|
Misc Info : |ECD81A_1S|966423|SVP|LANL|SOIL|RE46-10-13781|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 17
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weigth of sample extracted (g)
M	18.83070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.739	2.739	0.000	5402155	10.8462	22.2	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.882	7.883	-0.001	6296258	17.3977	35.6	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/017f1701.d

Date : 18-MAR-2010 22:08

Client ID: RE46-10-13781

Sample Info: |248862007|10|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

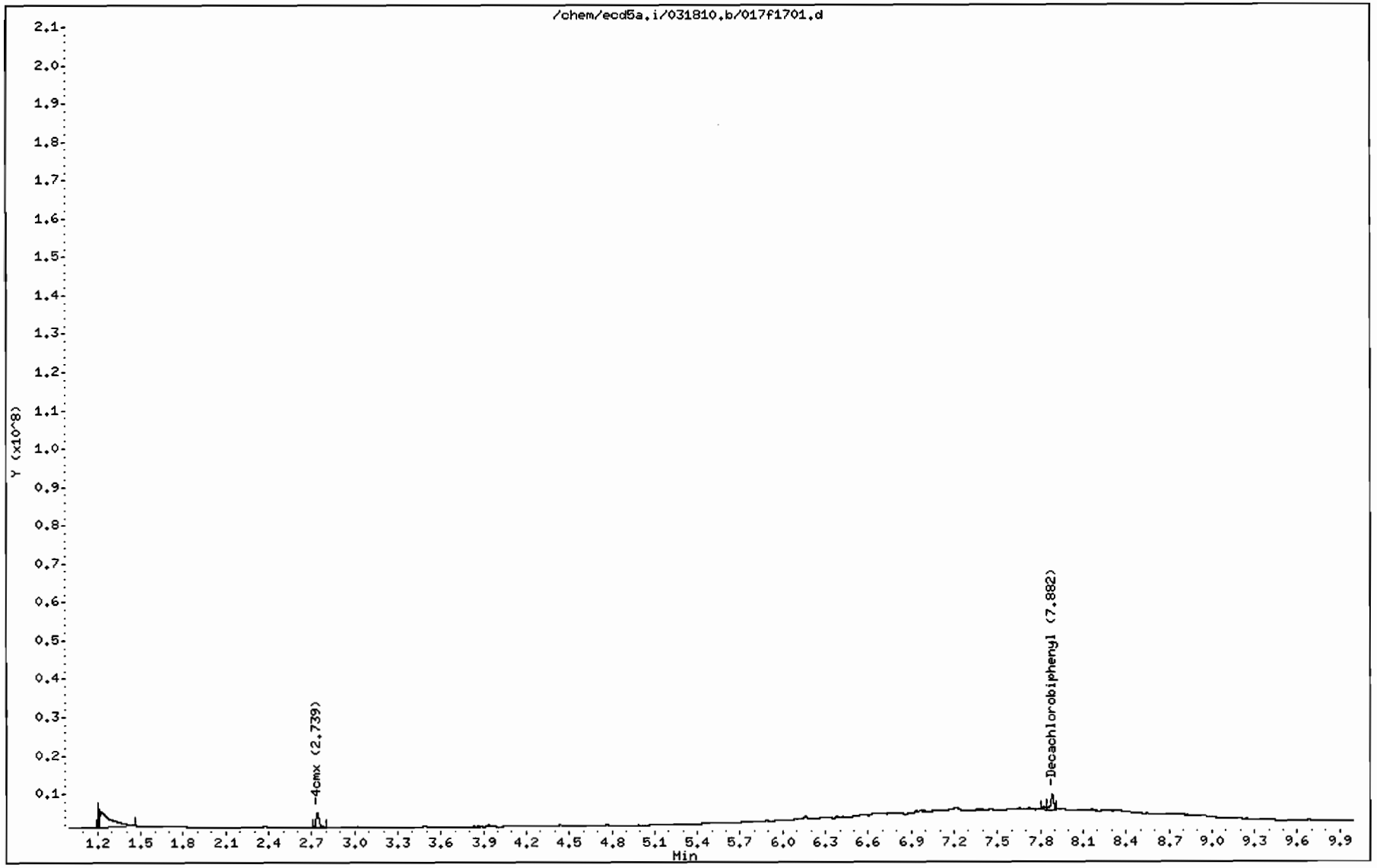

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/017b1701.d
Lab Smp Id: 248862007 Client Smp ID: RE46-10-13781
Inj Date : 18-MAR-2010 22:08
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |248862007|10|
Misc Info : |ECD81A_1S|966423|SVP|LANL|SOIL|RE46-10-13781|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 17
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weigth of sample extracted (g)
M	18.83070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.823	2.823	0.000	6034683	11.3592	23.2	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.718	8.720	-0.002	5139593	16.1229	33.0	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/017b1701.d

Date : 18-MAR-2010 22:08

Client ID: RE46-10-13781

Sample Info: 1248862007110

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

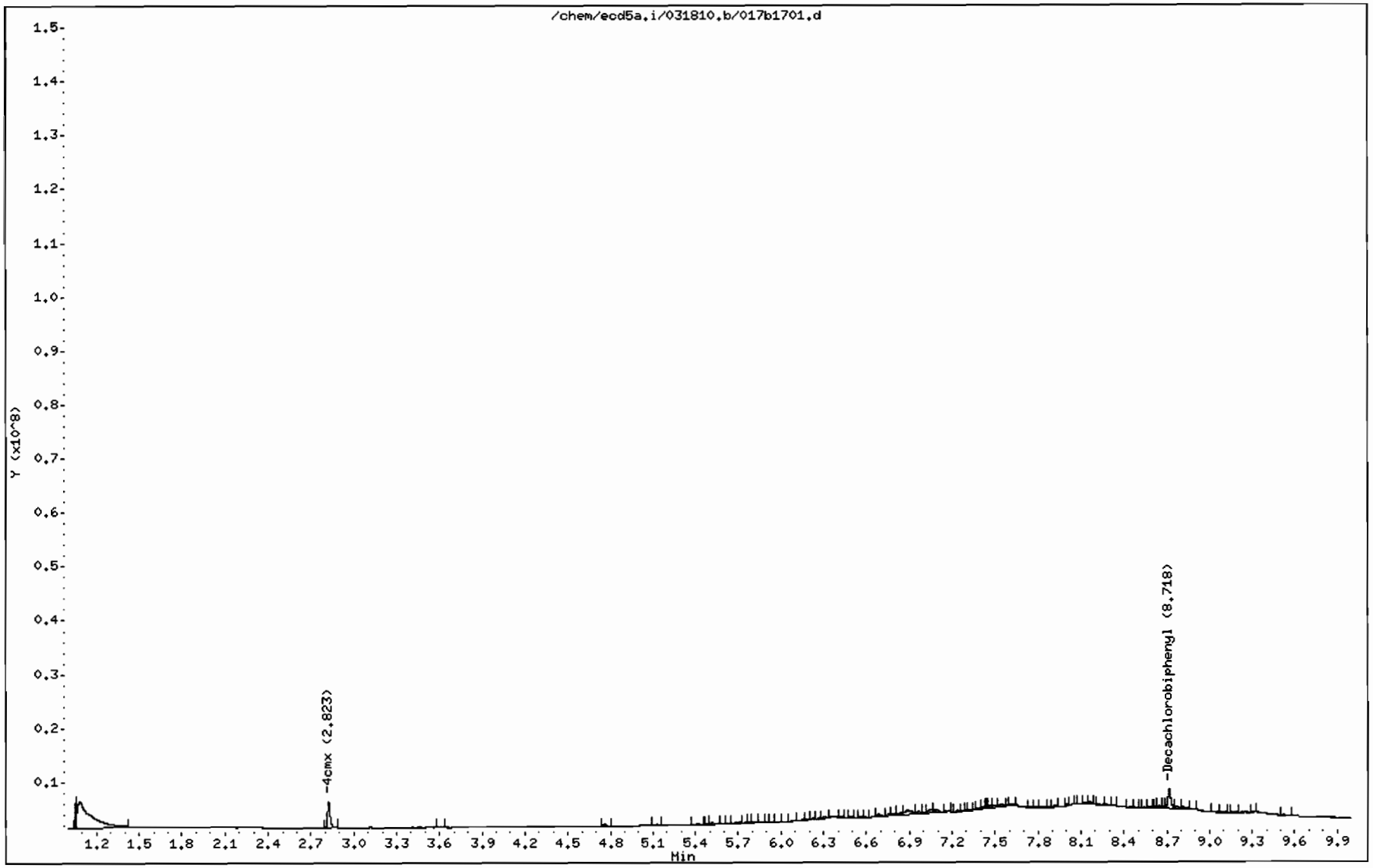

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13782**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 20:58**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30.17 g**	**Final Volume:**	**5 mL**
Data File:	**012f1201.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	012b1201.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.70	ug/kg	1.93	7.70	1
58–89–9	gamma–BHC (Lindane)	U	7.70	ug/kg	1.93	7.70	1
319–85–7	beta–BHC	U	7.70	ug/kg	1.93	7.70	1
319–86–8	delta–BHC	U	7.70	ug/kg	1.93	7.70	1
76–44–8	Heptachlor	U	7.70	ug/kg	1.93	7.70	1
309–00–2	Aldrin	U	7.70	ug/kg	1.93	7.70	1
1024–57–3	Heptachlor epoxide	U	7.70	ug/kg	2.41	7.70	1
5103–74–2	gamma–Chlordane	U	7.70	ug/kg	1.93	7.70	1
5103–71–9	alpha–Chlordane	U	7.70	ug/kg	1.93	7.70	1
959–98–8	Endosulfan I	U	7.70	ug/kg	1.93	7.70	1
72–55–9	4,4'–DDE	U	15.4	ug/kg	3.85	15.4	1
60–57–1	Dieldrin	U	15.4	ug/kg	3.85	15.4	1
72–20–8	Endrin	U	15.4	ug/kg	3.85	15.4	1
72–54–8	4,4'–DDD	U	15.4	ug/kg	3.85	15.4	1
33213–65–9	Endosulfan II	U	15.4	ug/kg	3.85	15.4	1
7421–93–4	Endrin aldehyde	U	15.4	ug/kg	3.85	15.4	1
50–29–3	4,4'–DDT	U	15.4	ug/kg	3.85	15.4	1
1031–07–8	Endosulfan sulfate	U	15.4	ug/kg	3.85	15.4	1
72–43–5	Methoxychlor	U	77.0	ug/kg	19.3	77.0	1
53494–70–5	Endrin ketone	U	15.4	ug/kg	3.85	15.4	1
8001–35–2	Toxaphene	U	193	ug/kg	64.1	193	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/031810.b/012f1201.d
Lab Smp Id: 248862002 Client Smp ID: RE46-10-13782
Inj Date : 18-MAR-2010 20:58
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |248862002|10|
Misc Info : |ECD81A_1S|966423|SVP|LANL|SOIL|RE46-10-13782|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 12
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weigth of sample extracted (g)
M	13.92880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.738	2.739	-0.001	5948996	11.9441	23.0	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.883	7.883	0.000	4693631	12.9693	25.0	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/012f1201.d
Date : 18-MAR-2010 20:58
Client ID: RE46-10-13782
Sample Info: |2488620021101
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

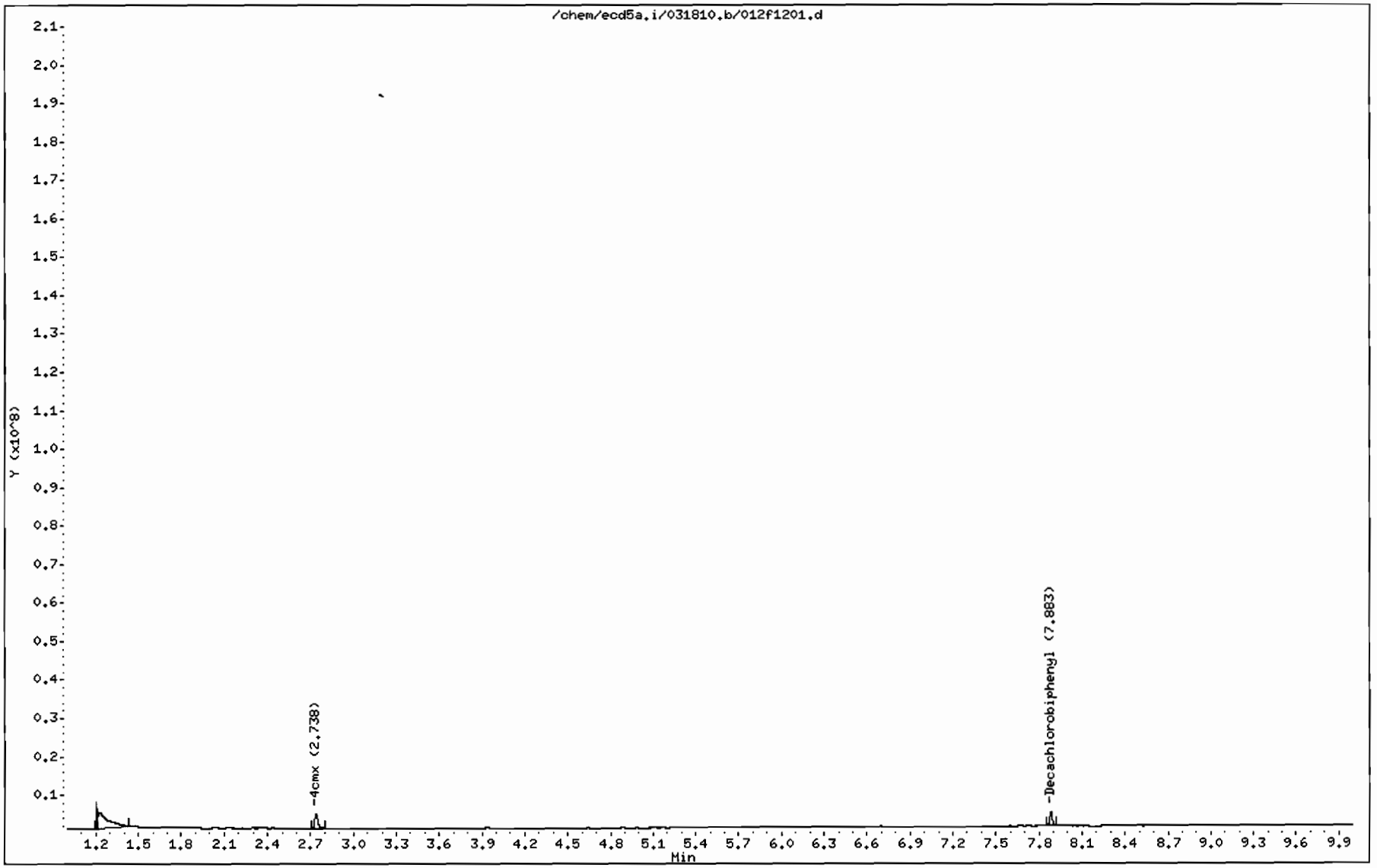

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/012b1201.d
Lab Smp Id: 248862002 Client Smp ID: RE46-10-13782
Inj Date : 18-MAR-2010 20:58
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |248862002|10|
Misc Info : |ECD81A_1S|966423|SVP|LANL|SOIL|RE46-10-13782|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 12
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weigth of sample extracted (g)
M	13.92880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.823	2.823	0.000	6663724	12.5432	24.2	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.720	8.720	0.000	4407292	13.8256	26.6	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/012b1201.d
Date : 18-MAR-2010 20:58
Client ID: RE46-10-13782
Sample Info: 1248862002|10|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

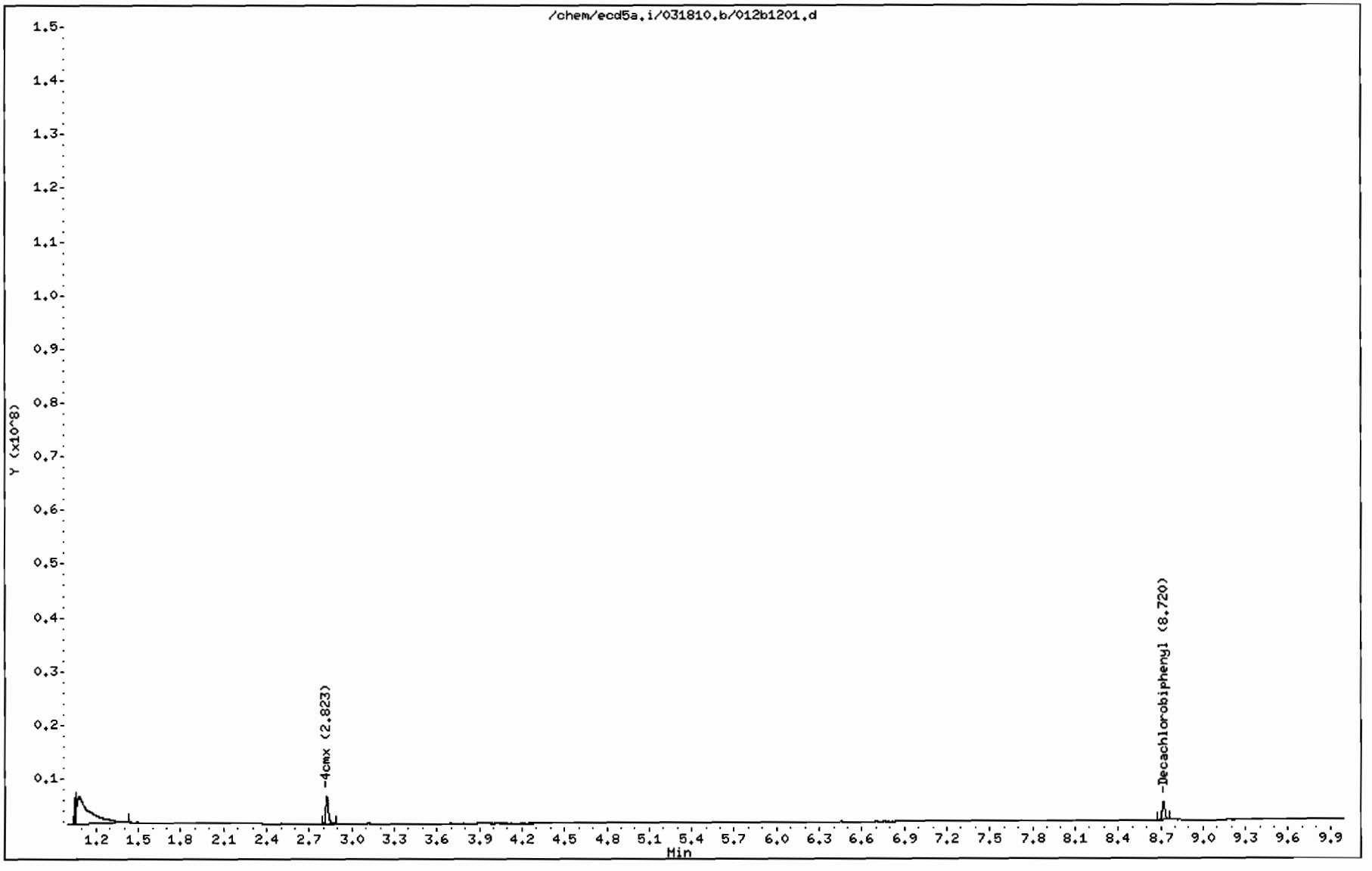

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13783**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 21:12**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30.11 g**	**Final Volume:**	**5 mL**
Data File:	**013f1301.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	013b1301.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.32	ug/kg	1.83	7.32	1
58-89-9	gamma-BHC (Lindane)	U	7.32	ug/kg	1.83	7.32	1
319-85-7	beta-BHC	U	7.32	ug/kg	1.83	7.32	1
319-86-8	delta-BHC	U	7.32	ug/kg	1.83	7.32	1
76-44-8	Heptachlor	U	7.32	ug/kg	1.83	7.32	1
309-00-2	Aldrin	U	7.32	ug/kg	1.83	7.32	1
1024-57-3	Heptachlor epoxide	U	7.32	ug/kg	2.29	7.32	1
5103-74-2	gamma-Chlordane	U	7.32	ug/kg	1.83	7.32	1
5103-71-9	alpha-Chlordane	U	7.32	ug/kg	1.83	7.32	1
959-98-8	Endosulfan I	U	7.32	ug/kg	1.83	7.32	1
72-55-9	4,4'-DDE	U	14.6	ug/kg	3.66	14.6	1
60-57-1	Dieldrin	U	14.6	ug/kg	3.66	14.6	1
72-20-8	Endrin	U	14.6	ug/kg	3.66	14.6	1
72-54-8	4,4'-DDD	U	14.6	ug/kg	3.66	14.6	1
33213-65-9	Endosulfan II	U	14.6	ug/kg	3.66	14.6	1
7421-93-4	Endrin aldehyde	U	14.6	ug/kg	3.66	14.6	1
50-29-3	4,4'-DDT	U	14.6	ug/kg	3.66	14.6	1
1031-07-8	Endosulfan sulfate	U	14.6	ug/kg	3.66	14.6	1
72-43-5	Methoxychlor	U	73.2	ug/kg	18.3	73.2	1
53494-70-5	Endrin ketone	U	14.6	ug/kg	3.66	14.6	1
8001-35-2	Toxaphene	U	183	ug/kg	60.9	183	1

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CLP-1

Data file : /chem/ecd5a.i/031810.b/013f1301.d
Lab Smp Id: 248862003 Client Smp ID: RE46-10-13783
Inj Date : 18-MAR-2010 21:12
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |248862003|10|
Misc Info : |ECD81A_1S|966423|SVP|LANL|SOIL|RE46-10-13783|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 13
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weigth of sample extracted (g)
M	9.26380	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.737	2.739	-0.002	6396913	12.8434	23.5	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.882	7.883	-0.001	5589329	15.4443	28.3	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/013f1301.d

Page 1

Date : 18-MAR-2010 21:12

Client ID: RE46-10-13783

Instrument: ecd5a.i

Sample Info: |2488620031101|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

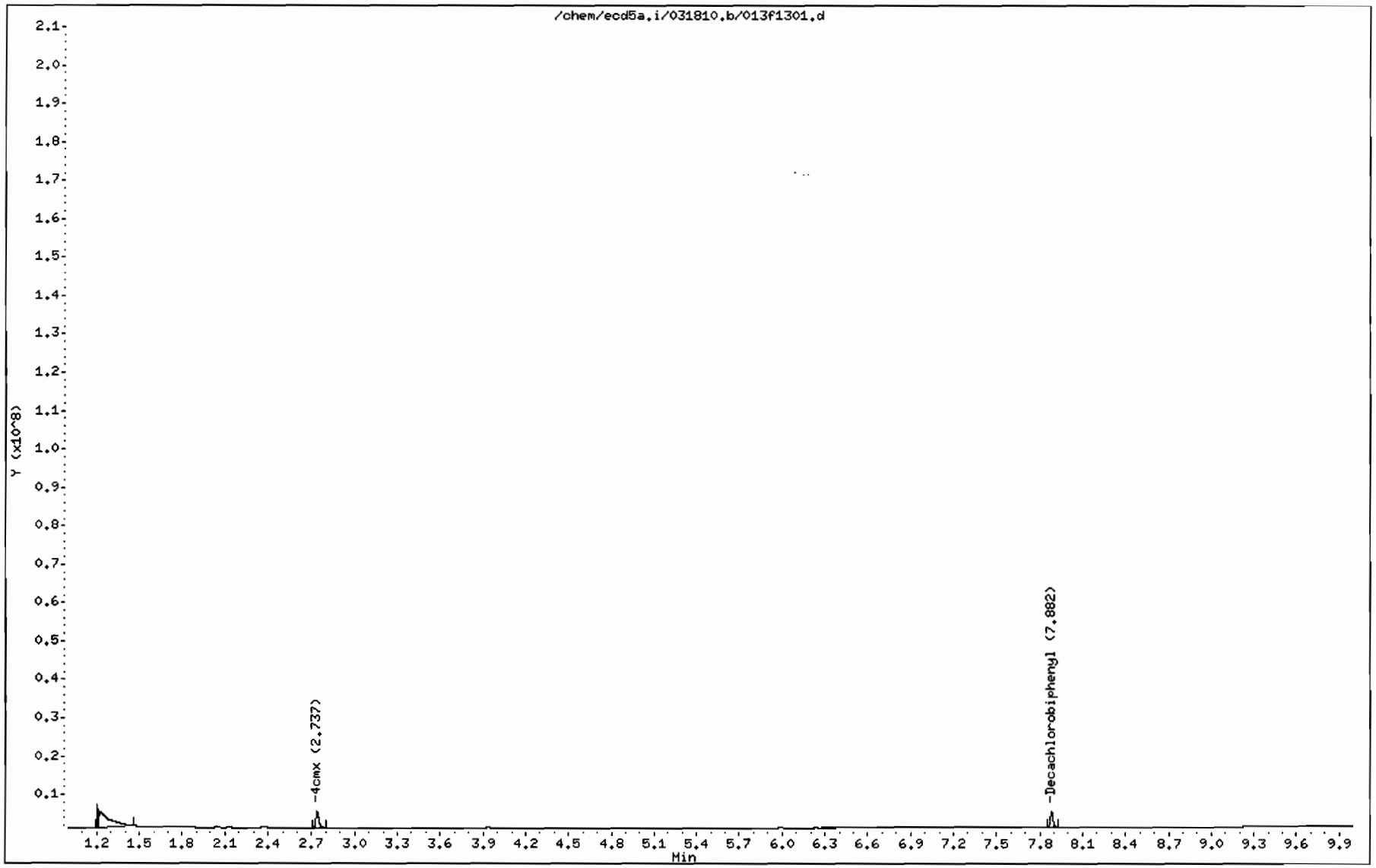

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/013b1301.d
Lab Smp Id: 248862003 Client Smp ID: RE46-10-13783
Inj Date : 18-MAR-2010 21:12
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |248862003|10|
Misc Info : |ECD81A_1S|966423|SVP|LANL|SOIL|RE46-10-13783|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 13
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weigth of sample extracted (g)
M	9.26380	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.823	2.823	0.000	7207972	13.5677	24.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.720	8.720	0.000	5160087	16.1872	29.6	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/013b1301.d

Page 1

Date : 18-MAR-2010 21:12

Client ID: RE46-10-13783

Instrument: ecd5a.i

Sample Info: 1248862003|101

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

STANDARDS DATA

Report Date: 18-Mar-2010 22:12

Calibration History

Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Start Cal Date: 06-JAN-2010 15:47
End Cal Date : 17-MAR-2010 21:53

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
05-MAR-2010 21:09	gapa	/chem/ecd5a.i/030510.b/009f0901.d
26-FEB-2010 15:51	ar1660	/chem/ecd5a.i/022610.b/007f0701.d
16-MAR-2010 19:32	chlor	/chem/ecd5a.i/031610a.b/015f1501.d
16-MAR-2010 17:53	tox	/chem/ecd5a.i/031610a.b/008f0801.d
17-MAR-2010 20:56	indab	/chem/ecd5a.i/031710.b/010f1001.d
Cal Level: 2 , Cal Amount: 10.00000		
05-MAR-2010 21:23	gapa	/chem/ecd5a.i/030510.b/010f1001.d
26-FEB-2010 16:05	ar1660	/chem/ecd5a.i/022610.b/008f0801.d
16-MAR-2010 19:46	chlor	/chem/ecd5a.i/031610a.b/016f1601.d
16-MAR-2010 18:07	tox	/chem/ecd5a.i/031610a.b/009f0901.d
17-MAR-2010 21:10	indab	/chem/ecd5a.i/031710.b/011f1101.d
Cal Level: 3 , Cal Amount: 50.00000		
05-MAR-2010 21:37	gapa	/chem/ecd5a.i/030510.b/011f1101.d
26-FEB-2010 16:19	ar1660	/chem/ecd5a.i/022610.b/009f0901.d
16-MAR-2010 20:00	chlor	/chem/ecd5a.i/031610a.b/017f1701.d
17-MAR-2010 21:24	indab	/chem/ecd5a.i/031710.b/012f1201.d
16-MAR-2010 18:21	tox	/chem/ecd5a.i/031610a.b/010f1001.d
Cal Level: 4 , Cal Amount: 100.00000		
05-MAR-2010 21:50	gapa	/chem/ecd5a.i/030510.b/012f1201.d
15-JAN-2010 17:29	ar1254	/chem/ecd5a.i/011510.b/016f1601.d
15-JAN-2010 17:15	ar1248	/chem/ecd5a.i/011510.b/015f1501.d
15-JAN-2010 17:01	ar1242	/chem/ecd5a.i/011510.b/014f1401.d
15-JAN-2010 16:47	ar1232	/chem/ecd5a.i/011510.b/013f1301.d
15-JAN-2010 16:33	ar1221	/chem/ecd5a.i/011510.b/012f1201.d
26-FEB-2010 16:33	ar1660	/chem/ecd5a.i/022610.b/010f1001.d
16-MAR-2010 20:14	chlor	/chem/ecd5a.i/031610a.b/018f1801.d
17-MAR-2010 21:39	indab	/chem/ecd5a.i/031710.b/013f1301.d
16-MAR-2010 18:36	tox	/chem/ecd5a.i/031610a.b/011f1101.d
Cal Level: 5 , Cal Amount: 200.00000		
05-MAR-2010 22:04	gapa	/chem/ecd5a.i/030510.b/013f1301.d
26-FEB-2010 16:47	ar1660	/chem/ecd5a.i/022610.b/011f1101.d
16-MAR-2010 20:28	chlor	/chem/ecd5a.i/031610a.b/019f1901.d
17-MAR-2010 21:53	indab	/chem/ecd5a.i/031710.b/014f1401.d
16-MAR-2010 18:50	tox	/chem/ecd5a.i/031610a.b/012f1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
18-MAR-2010 19:19	chlor	/chem/ecd5a.i/031810.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 100		
18-MAR-2010 19:04	tox	/chem/ecd5a.i/031810.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 100		
18-MAR-2010 19:33	indab	/chem/ecd5a.i/031810.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 100		
18-MAR-2010 18:50	indab	/chem/ecd5a.i/031810.b/003f0301.d

Report Date: 18-Mar-2010 22:11

Calibration History

Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Start Cal Date: 06-JAN-2010 15:47
End Cal Date : 17-MAR-2010 21:53

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
05-MAR-2010 21:09	gapa	/chem/ecd5a.i/030510.b/009b0901.d
26-FEB-2010 15:51	ar1660	/chem/ecd5a.i/022610.b/007b0701.d
16-MAR-2010 19:32	chlor	/chem/ecd5a.i/031610a.b/015b1501.d
16-MAR-2010 17:53	tox	/chem/ecd5a.i/031610a.b/008b0801.d
17-MAR-2010 20:56	indab	/chem/ecd5a.i/031710.b/010b1001.d
Cal Level: 2 , Cal Amount: 10.00000		
05-MAR-2010 21:23	gapa	/chem/ecd5a.i/030510.b/010b1001.d
26-FEB-2010 16:05	ar1660	/chem/ecd5a.i/022610.b/008b0801.d
16-MAR-2010 19:46	chlor	/chem/ecd5a.i/031610a.b/016b1601.d
16-MAR-2010 18:07	tox	/chem/ecd5a.i/031610a.b/009b0901.d
17-MAR-2010 21:10	indab	/chem/ecd5a.i/031710.b/011b1101.d
Cal Level: 3 , Cal Amount: 50.00000		
05-MAR-2010 21:37	gapa	/chem/ecd5a.i/030510.b/011b1101.d
26-FEB-2010 16:19	ar1660	/chem/ecd5a.i/022610.b/009b0901.d
16-MAR-2010 20:00	chlor	/chem/ecd5a.i/031610a.b/017b1701.d
17-MAR-2010 21:24	indab	/chem/ecd5a.i/031710.b/012b1201.d
16-MAR-2010 18:21	tox	/chem/ecd5a.i/031610a.b/010b1001.d
Cal Level: 4 , Cal Amount: 100.00000		
05-MAR-2010 21:50	gapa	/chem/ecd5a.i/030510.b/012b1201.d
15-JAN-2010 17:29	ar1254	/chem/ecd5a.i/011510.b/016b1601.d
15-JAN-2010 17:15	ar1248	/chem/ecd5a.i/011510.b/015b1501.d
15-JAN-2010 17:01	ar1242	/chem/ecd5a.i/011510.b/014b1401.d
15-JAN-2010 16:47	ar1232	/chem/ecd5a.i/011510.b/013b1301.d
15-JAN-2010 16:33	ar1221	/chem/ecd5a.i/011510.b/012b1201.d
26-FEB-2010 16:33	ar1660	/chem/ecd5a.i/022610.b/010b1001.d
16-MAR-2010 20:14	chlor	/chem/ecd5a.i/031610a.b/018b1801.d
17-MAR-2010 21:39	indab	/chem/ecd5a.i/031710.b/013b1301.d
16-MAR-2010 18:36	tox	/chem/ecd5a.i/031610a.b/011b1101.d
Cal Level: 5 , Cal Amount: 200.00000		
05-MAR-2010 22:04	gapa	/chem/ecd5a.i/030510.b/013b1301.d
26-FEB-2010 16:47	ar1660	/chem/ecd5a.i/022610.b/011b1101.d
16-MAR-2010 20:28	chlor	/chem/ecd5a.i/031610a.b/019b1901.d
17-MAR-2010 21:53	indab	/chem/ecd5a.i/031710.b/014b1401.d
16-MAR-2010 18:50	tox	/chem/ecd5a.i/031610a.b/012b1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

```
+------------------+-----------------+-----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|18-MAR-2010 19:19 |chlor            |/chem/ecd5a.i/031810.b/005b0501.d        |
+------------------+-----------------+-----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|18-MAR-2010 19:04 |tox              |/chem/ecd5a.i/031810.b/004b0401.d        |
+------------------+-----------------+-----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|18-MAR-2010 19:33 |indab            |/chem/ecd5a.i/031810.b/006b0601.d        |
+------------------+-----------------+-----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==================================================================================+
|18-MAR-2010 18:50 |indab            |/chem/ecd5a.i/031810.b/003b0301.d        |
+------------------+-----------------+-----------------------------------------+
```

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Quant Method : ESTD Target Version : 3.50
Last Update : 18-Mar-2010 20:26 Number of Cpnds : 44
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	14752.000000
Initial:End Threshold	7376.000000
Initial:Area Threshold	1147520.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.739	2.709-2.769	4.981e+05
63 2,4,5-Trichlorophenol	2.059	2.029-2.089	
59 Hexachlorobenzene	3.029	2.999-3.059	1.314e+06
2 Aroclor-1221	2.891	2.861-2.921	4.644e+03
	2.999	2.969-3.029	2.616e+03
	3.030	3.000-3.060	1.164e+04
3 Aroclor-1016	3.033	3.003-3.063	1.498e+04
	3.298	3.268-3.328	2.930e+04
	3.666	3.636-3.696	4.076e+04
	3.775	3.745-3.805	2.652e+04
	3.827	3.797-3.857	1.702e+04
4 Aroclor-1232	3.030	3.000-3.060	7.180e+03
	3.295	3.265-3.325	6.073e+03
	3.663	3.633-3.693	1.012e+04
	3.772	3.742-3.802	6.656e+03
	4.114	4.084-4.144	4.363e+03
5 alpha-BHC	3.143	3.113-3.173	6.905e+05
6 Aroclor-1242	3.295	3.265-3.325	1.232e+04
	3.662	3.632-3.692	1.067e+04
	3.771	3.741-3.801	1.721e+04
	4.113	4.083-4.143	1.135e+04
	4.485	4.455-4.515	7.142e+03
7 gamma-BHC (Lindane)	3.388	3.358-3.418	6.036e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.709	3.679-3.739	2.181e+04
	4.510	4.480-4.540	1.129e+04
	4.613	4.583-4.643	8.512e+03
	4.685	4.655-4.715	6.430e+04
	4.807	4.777-4.837	5.212e+04
9 Aroclor-1248	3.663	3.633-3.693	8.041e+03
	3.919	3.889-3.949	1.031e+04
	4.114	4.084-4.144	1.417e+04
	4.486	4.456-4.516	1.619e+04
	4.664	4.634-4.694	1.546e+04
10 Heptachlor	3.774	3.744-3.804	4.584e+05
11 Aldrin	4.032	4.002-4.062	6.484e+05
12 beta-BHC	3.451	3.421-3.481	2.704e+05
13 delta-BHC	3.600	3.570-3.630	5.913e+05
14 Heptachlor epoxide	4.567	4.537-4.597	5.294e+05
15 Aroclor-1254	4.447	4.418-4.478	1.420e+04
	4.680	4.650-4.710	2.494e+04
	5.061	5.031-5.091	1.527e+04
	5.330	5.300-5.360	2.657e+04
	5.793	5.763-5.822	1.954e+04
16 Endosulfan I	4.938	4.908-4.968	4.982e+05
17 gamma-Chlordane	4.683	4.653-4.713	5.565e+05
18 alpha-Chlordane	4.806	4.776-4.836	5.641e+05
19 4,4'-DDE	4.873	4.843-4.903	5.348e+05
20 Dieldrin	5.166	5.136-5.196	5.360e+05
21 Aroclor-1260	5.239	5.209-5.269	3.817e+04
	5.509	5.479-5.539	5.614e+04
	5.795	5.765-5.825	4.658e+04
	6.489	6.459-6.519	7.845e+04
	6.794	6.764-6.824	3.886e+04
22 Endrin	5.395	5.365-5.425	3.981e+05
23 Toxaphene	4.782	4.752-4.812	2.490e+03
	5.066	5.036-5.096	3.811e+03
	5.171	5.141-5.201	5.937e+03
	5.256	5.226-5.286	6.554e+03
	5.833	5.803-5.863	3.823e+03
24 Endosulfan II	5.617	5.587-5.647	4.272e+05
25 4,4'-DDD	5.455	5.425-5.485	3.953e+05
26 4,4'-DDT	5.734	5.704-5.764	3.090e+05
27 Endrin aldehyde	6.040	6.010-6.070	3.616e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m

	Compound	RT	RT Window	RF
	28 Methoxychlor	6.234	6.204-6.264	1.348e+05
	29 Endosulfan sulfate	6.490	6.460-6.520	3.571e+05
	30 Aroclor-1268	5.050	5.020-5.080	
		5.067	5.037-5.097	
		5.185	5.155-5.215	
		5.378	5.348-5.408	
		5.531	5.501-5.561	
	61 Aroclor-1262	4.121	4.091-4.151	
		4.289	4.259-4.319	
		4.525	4.495-4.555	
		4.671	4.641-4.701	
		4.854	4.824-4.884	
	31 Endrin ketone	6.790	6.760-6.820	4.417e+05
	51 Mirex	6.403	6.373-6.433	7.762e+05
	52 C-Nonachlor	5.441	5.411-5.471	1.209e+06
	53 O-Chlordane	4.486	4.456-4.516	9.900e+05
	54 T-Nonachlor	4.802	4.772-4.832	1.180e+06
	55 1,2-Dichlorobenzene	6.525	6.495-6.555	
	56 2,4-DDE	4.567	4.537-4.597	6.851e+05
	58 2,4-DDD	5.056	5.026-5.086	6.009e+05
	57 2,4-DDT	5.304	5.274-5.334	6.819e+05
$	32 Decachlorobiphenyl	7.883	7.853-7.913	3.619e+05
M	62 TTO Sum Pesticides	1.000	0.980-1.020	

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Quant Method : ESTD Target Version : 3.50
Last Update : 18-Mar-2010 20:26 Number of Cpnds : 43
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	11405.000000
Initial:End Threshold	5702.500000
Initial:Area Threshold	114050.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	4.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.823	2.793-2.853	5.313e+05
61 2,4,5-Trichlorophenol	2.051	1.951-2.151	
59 Hexachlorobenzene	3.200	3.170-3.230	6.555e+06
2 Aroclor-1221	3.092	3.062-3.122	2.690e+04
	3.205	3.175-3.235	1.786e+04
	3.255	3.225-3.285	5.772e+04
3 Aroclor-1016	3.255	3.225-3.285	5.922e+04
	3.588	3.558-3.618	7.633e+04
	3.973	3.943-4.003	1.026e+05
	3.992	3.962-4.022	1.503e+05
	4.112	4.082-4.142	9.663e+04
4 Aroclor-1232	3.255	3.225-3.285	4.373e+04
	3.587	3.557-3.617	8.176e+03
	3.973	3.943-4.003	3.495e+04
	3.992	3.962-4.022	1.680e+04
	4.111	4.081-4.141	2.455e+04
5 alpha-BHC	3.309	3.279-3.339	6.834e+05
6 Aroclor-1242	3.586	3.556-3.616	2.150e+04
	3.991	3.961-4.021	2.744e+04
	4.111	4.081-4.141	5.736e+04
	4.543	4.513-4.573	7.915e+04
	4.959	4.929-4.989	5.426e+04
7 gamma-BHC (Lindane)	3.615	3.585-3.645	5.658e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.890	3.860-3.920	1.878e+04
	4.840	4.810-4.870	1.005e+04
	4.957	4.927-4.987	8.010e+03
	5.070	5.040-5.100	5.293e+04
	5.215	5.185-5.245	4.623e+04
9 Aroclor-1248	4.286	4.256-4.316	3.236e+04
	4.544	4.514-4.574	5.415e+04
	4.910	4.880-4.940	3.672e+04
	4.958	4.928-4.988	7.167e+04
	5.189	5.159-5.219	1.313e+04
10 Heptachlor	4.024	3.994-4.054	3.926e+05
11 Aldrin	4.333	4.303-4.363	6.221e+05
12 beta-BHC	3.679	3.649-3.709	2.562e+05
13 delta-BHC	3.948	3.918-3.978	6.052e+05
14 Heptachlor epoxide	4.877	4.847-4.907	4.803e+05
15 Aroclor-1254	4.952	4.923-4.982	8.201e+04
	5.138	5.107-5.168	8.850e+04
	5.614	5.584-5.644	6.982e+04
	5.850	5.820-5.880	1.176e+05
	6.423	6.393-6.453	8.707e+04
16 Endosulfan I	5.275	5.245-5.305	4.708e+05
17 gamma-Chlordane	5.068	5.038-5.098	5.304e+05
18 alpha-Chlordane	5.213	5.183-5.243	5.343e+05
19 4,4'-DDE	5.372	5.342-5.402	4.814e+05
20 Dieldrin	5.554	5.524-5.584	4.662e+05
21 Aroclor-1260	5.819	5.789-5.849	1.348e+05
	6.035	6.005-6.065	1.655e+05
	6.425	6.395-6.455	1.588e+05
	7.119	7.089-7.149	2.986e+05
	7.530	7.500-7.560	2.218e+05
22 Endrin	5.871	5.841-5.901	3.541e+05
23 Toxaphene	5.128	5.098-5.158	2.842e+03
	5.526	5.496-5.556	6.427e+03
	5.590	5.560-5.620	2.746e+03
	5.651	5.621-5.681	3.232e+03
	5.841	5.811-5.871	5.171e+03
24 Endosulfan II	6.092	6.062-6.122	4.302e+05
25 4,4'-DDD	5.975	5.945-6.005	3.388e+05
26 4,4'-DDT	6.312	6.282-6.342	2.629e+05
27 Endrin aldehyde	6.447	6.417-6.477	3.383e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m

Compound	RT	RT Window	RF
28 Methoxychlor	7.051	7.021-7.081	1.232e+05
29 Endosulfan sulfate	6.748	6.718-6.778	3.695e+05
30 Aroclor-1268	5.217	5.187-5.247	
	5.596	5.566-5.626	
	5.628	5.598-5.658	
	5.769	5.739-5.799	
	6.149	6.119-6.179	
60 Aroclor-1262	4.689	4.589-4.789	
	4.779	4.679-4.879	
	5.074	4.974-5.174	
	5.224	5.124-5.324	
	5.396	5.296-5.496	
31 Endrin ketone	7.335	7.305-7.365	4.298e+05
51 Mirex	7.309	7.279-7.339	4.164e+06
52 C-Nonachlor	5.955	5.925-5.985	6.489e+06
53 O-Chlordane	4.784	4.754-4.814	5.897e+06
54 T-Nonachlor	5.156	5.126-5.186	6.473e+06
55 1,2-Dichlorobenzene	6.619	6.589-6.649	
56 2,4-DDE	5.052	5.022-5.082	3.980e+06
58 2,4-DDD	5.577	5.547-5.607	3.570e+06
57 2,4-DDT	5.901	5.871-5.931	3.759e+06
$ 32 Decachlorobiphenyl	8.720	8.690-8.750	3.188e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 15:47
End Cal Date : 17-MAR-2010 21:53
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Cal Date : 18-Mar-2010 20:26 hea01125
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd5a.i/030510.b/009f0901.d
Level 2: /chem/ecd5a.i/030510.b/010f1001.d
Level 3: /chem/ecd5a.i/030510.b/011f1101.d
Level 4: /chem/ecd5a.i/030510.b/012f1201.d
Level 5: /chem/ecd5a.i/030510.b/013f1301.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
63 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Hexachlorobenzene	1309594	1282620	1322608	1324528	1328429	1313556	1.422
2 Aroclor-1221(1)	+++++	+++++	+++++	4644	+++++	4644	0.000
(2)	+++++	+++++	+++++	2616	+++++	2616	0.000
(3)	+++++	+++++	+++++	11636	+++++	11636	0.000
3 Aroclor-1016(1)	17742	16139	14886	13942	12200	14982	14.077
(2)	34883	31302	29095	27452	23755	29297	14.215
(3)	45962	43119	41043	39013	34645	40756	10.493
(4)	30202	28303	26401	25206	22466	26516	11.142
(5)	18615	18096	17113	16333	14936	17019	8.578
4 Aroclor-1232(1)	+++++	+++++	+++++	7180	+++++	7180	0.000
(2)	+++++	+++++	+++++	6073	+++++	6073	0.000
(3)	+++++	+++++	+++++	10116	+++++	10116	0.000
(4)	+++++	+++++	+++++	6656	+++++	6656	0.000
(5)	+++++	+++++	+++++	4363	+++++	4363	0.000
5 alpha-BHC	626019	662416	715856	719535	728824	690530	6.436
6 Aroclor-1242(1)	+++++	+++++	+++++	12323	+++++	12323	0.000
(2)	+++++	+++++	+++++	10665	+++++	10665	0.000
(3)	+++++	+++++	+++++	17213	+++++	17213	0.000
(4)	+++++	+++++	+++++	11349	+++++	11349	0.000
(5)	+++++	+++++	+++++	7142	+++++	7142	0.000
7 gamma-BHC (Lindane)	560819	581817	622853	623164	629171	603565	5.047
8 Chlordane (tech.)(1)	20986	20861	21982	22984	22234	21809	4.079
(2)	10883	10832	11263	11997	11461	11287	4.215
(3)	7462	7519	8495	9571	9513	8512	12.056
(4)	59657	62741	66413	68094	64576	64296	5.095
(5)	49249	51674	53935	56148	49581	52117	5.627

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 15:47
End Cal Date : 17-MAR-2010 21:53
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Cal Date : 18-Mar-2010 20:26 hea01125
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	8041	+++++	8041	0.000
(2)	+++++	+++++	+++++	10313	+++++	10313	0.000
(3)	+++++	+++++	+++++	14166	+++++	14166	0.000
(4)	+++++	+++++	+++++	16190	+++++	16190	0.000
(5)	+++++	+++++	+++++	15461	+++++	15461	0.000
10 Heptachlor	448641	452239	466371	461652	463051	458391	1.650
11 Aldrin	602578	636087	674786	668718	660052	648444	4.559
12 beta-BHC	275268	266464	271698	268485	270030	270389	1.236
13 delta-BHC	544019	570237	606464	614408	621559	591338	5.582
14 Heptachlor epoxide	517334	528780	543470	534532	522712	529366	1.924
15 Aroclor-1254(1)	+++++	+++++	+++++	14197	+++++	14197	0.000
(2)	+++++	+++++	+++++	24937	+++++	24937	0.000
(3)	+++++	+++++	+++++	15266	+++++	15266	0.000
(4)	+++++	+++++	+++++	26573	+++++	26573	0.000
(5)	+++++	+++++	+++++	19537	+++++	19537	0.000
16 Endosulfan I	483038	497823	511924	505979	492383	498229	2.272
17 gamma-Chlordane	518896	540956	570127	577364	575000	556469	4.598
18 alpha-Chlordane	542677	555820	575440	575675	570893	564101	2.563
19 4,4'-DDE	504860	537782	556503	544128	530803	534815	3.596
20 Dieldrin	523271	547366	553076	535822	520603	536028	2.671
21 Aroclor-1260(1)	44809	41095	37331	35828	31777	38168	13.080
(2)	62897	59068	55524	54080	49131	56140	9.255
(3)	49360	49001	45826	45765	42949	46580	5.681
(4)	83498	81006	78342	77547	71853	78449	5.570
(5)	40859	38515	37966	39501	37472	38863	3.464
22 Endrin	394146	403102	409980	392527	390984	398148	2.038
23 Toxaphene(1)	1759	2478	2382	2861	2970	2490	19.200
(2)	3123	3715	4003	4098	4117	3811	10.938
(3)	5148	6002	6011	6273	6252	5937	7.736
(4)	5143	6585	6786	7135	7121	6554	12.546
(5)	2546	3703	4165	4272	4429	3823	19.970
24 Endosulfan II	431744	437873	435056	421588	409740	427200	2.701
25 4,4'-DDD	368277	390050	414142	405881	398276	395325	4.442

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 15:47
End Cal Date : 17-MAR-2010 21:53
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Cal Date : 18-Mar-2010 20:26 hea01125
Curve Type : Average

	Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
	26 4,4'-DDT	292956	301196	316475	314885	319407	308984	3.680
	27 Endrin aldehyde	373603	369805	369258	355818	339635	361624	3.876
	28 Methoxychlor	150799	143770	130916	124177	124229	134778	8.904
	29 Endosulfan sulfate	357038	357558	360620	357121	353150	357097	0.744
	30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	61 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	31 Endrin ketone	468876	464335	441005	425657	408619	441698	5.775
	51 Mirex	787420	747489	774380	785575	786172	776207	2.176
	52 C-Nonachlor	1125523	1155810	1268327	1256558	1239208	1209085	5.311
	53 O-Chlordane	945095	961636	1025004	1015835	1002307	989975	3.523
	54 T-Nonachlor	1114225	1143117	1231094	1209726	1203758	1180384	4.181
	55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	56 2,4-DDE	681300	662413	722195	692445	667047	685080	3.489
	58 2,4-DDD	591313	599891	632730	595649	585056	600928	3.096
	57 2,4-DDT	663136	642841	711068	704642	688048	681947	4.201
M	62 TTO Sum Pesticides	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	1 4cmx	493573	502338	507078	496804	490556	498070	1.338
$	32 Decachlorobiphenyl	387465	372502	355410	350535	343601	361903	4.928

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 15:47
End Cal Date : 17-MAR-2010 21:53
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Cal Date : 18-Mar-2010 20:26 hea01125

Calibration File Names:
Level 1: /chem/ecd5a.i/030510.b/009b0901.d
Level 2: /chem/ecd5a.i/030510.b/010b1001.d
Level 3: /chem/ecd5a.i/030510.b/011b1101.d
Level 4: /chem/ecd5a.i/030510.b/012b1201.d
Level 5: /chem/ecd5a.i/030510.b/013b1301.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
61 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	7602359	6549391	6346175	6250604	6024272	AVRG		6554560		9.38907
2 Aroclor-1221(1)	+++++	+++++	+++++	26899	+++++	AVRG		26899		0.000e+00
(2)	+++++	+++++	+++++	17858	+++++	AVRG		17858		0.000e+00
(3)	+++++	+++++	+++++	57715	+++++	AVRG		57715		0.000e+00
3 Aroclor-1016(1)	11874443	25761293	46034311	79729372	247054321	LINR	-216	59224		0.99647
(2)	16457266	35432912	62527943	106284125	320243984	LINR	-247	76325		0.99548
(3)	19283810	42529073	76580210	135768504	425939949	LINR	-195	102566		0.99681
(4)	27931636	59368903	103061537	186691769	621291602	LINR	-158	150318		0.99868
(5)	18909052	41605017	72141316	126727236	402192162	LINR	-199	96626		0.99740
4 Aroclor-1232(1)	+++++	+++++	+++++	43727	+++++	AVRG		43727		0.000e+00
(2)	+++++	+++++	+++++	8176	+++++	AVRG		8176		0.000e+00
(3)	+++++	+++++	+++++	34952	+++++	AVRG		34952		0.000e+00
(4)	+++++	+++++	+++++	16803	+++++	AVRG		16803		0.000e+00
(5)	+++++	+++++	+++++	24546	+++++	AVRG		24546		0.000e+00
5 alpha-BHC	606628	641146	704264	718511	746325	AVRG		683375		8.44014
6 Aroclor-1242(1)	+++++	+++++	+++++	21499	+++++	AVRG		21499		0.000e+00
(2)	+++++	+++++	+++++	27438	+++++	AVRG		27438		0.000e+00
(3)	+++++	+++++	+++++	57357	+++++	AVRG		57357		0.000e+00
(4)	+++++	+++++	+++++	79147	+++++	AVRG		79147		0.000e+00
(5)	+++++	+++++	+++++	54260	+++++	AVRG		54260		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 15:47
End Cal Date : 17-MAR-2010 21:53
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Cal Date : 18-Mar-2010 20:26 hea01125

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	518751	535120	575778	587977	611217	AVRG		565769		6.73566
8 Chlordane (tech.) (1)	17747	17852	18807	19514	19957	AVRG		18775		5.22701
(2)	9749	9675	9944	10406	10501	AVRG		10055		3.76228
(3)	6863	6945	8183	8912	9145	AVRG		8010		13.36141
(4)	48288	49781	53950	56424	56230	AVRG		52935		7.04319
(5)	42742	43795	46863	49188	48569	AVRG		46231		6.18620
9 Aroclor-1248 (1)	+++++	+++++	+++++	32356	+++++	AVRG		32356		0.000e+00
(2)	+++++	+++++	+++++	54145	+++++	AVRG		54145		0.000e+00
(3)	+++++	+++++	+++++	36718	+++++	AVRG		36718		0.000e+00
(4)	+++++	+++++	+++++	71670	+++++	AVRG		71670		0.000e+00
(5)	+++++	+++++	+++++	13131	+++++	AVRG		13131		0.000e+00
10 Heptachlor	374378	375651	393964	401042	417888	AVRG		392585		4.64806
11 Aldrin	569515	591789	639939	648962	660150	AVRG		622071		6.31433
12 beta-BHC	261913	254695	251930	252782	259681	AVRG		256200		1.71181
13 delta-BHC	551025	571902	618731	630920	653394	AVRG		605194		7.01575
14 Heptachlor epoxide	458682	464252	485971	492542	499940	AVRG		480277		3.74290
15 Aroclor-1254 (1)	+++++	+++++	+++++	82008	+++++	AVRG		82008		0.000e+00
(2)	+++++	+++++	+++++	88498	+++++	AVRG		88498		0.000e+00
(3)	+++++	+++++	+++++	69815	+++++	AVRG		69815		0.000e+00
(4)	+++++	+++++	+++++	117575	+++++	AVRG		117575		0.000e+00
(5)	+++++	+++++	+++++	87072	+++++	AVRG		87072		0.000e+00
16 Endosulfan I	441392	459301	481302	487288	484504	AVRG		470757		4.20440
17 gamma-Chlordane	482666	499768	541908	556476	571181	AVRG		530400		7.11233
18 alpha-Chlordane	502456	512795	543569	553407	559073	AVRG		534260		4.71774

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 15:47
End Cal Date : 17-MAR-2010 21:53
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Cal Date : 18-Mar-2010 20:26 hea01125

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	445054	470212	498466	495729	497653	AVRG		481423		4.87901
20 Dieldrin	439582	455023	478490	476739	481410	AVRG		466249		3.90632
21 Aroclor-1260(1)	27386323	57914562	100779297	178420559	561484671	LINR	-204	134797		0.99728
(2)	31381571	67959098	119683026	214856440	686467403	LINR	-184	165498		0.99758
(3)	30494233	64947529	113107244	201131972	658290485	LINR	-175	158755		0.99830
(4)	52856712	114414959	205931974	374319090	1.232e+09	LINR	-156	298646		0.99826
(5)	37953393	81990265	146127950	266890324	912051019	LINR	-133	221800		0.99904
22 Endrin	342602	346807	359599	355696	365927	AVRG		354126		2.67169
23 Toxaphene(1)	1951	2928	3005	3157	3169	AVRG		2842		17.89349
(2)	5419	6432	6548	6835	6903	AVRG		6427		9.27837
(3)	1950	2747	2890	3004	3137	AVRG		2746		17.01642
(4)	2306	3210	3457	3561	3629	AVRG		3232		16.75773
(5)	4100	4942	5276	5622	5913	AVRG		5171		13.55803
24 Endosulfan II	411218	420564	438006	438708	442471	AVRG		430193		3.15536
25 4,4'-DDD	321795	332593	344396	345520	349875	AVRG		338836		3.38697
26 4,4'-DDT	239359	243347	267495	272605	291935	AVRG		262948		8.27721
27 Endrin aldehyde	339506	338421	339536	338248	335923	AVRG		338327		0.43458
28 Methoxychlor	124736	122238	122023	120277	126671	AVRG		123189		2.04017
29 Endosulfan sulfate	355847	359572	372959	374645	384616	AVRG		369528		3.17868
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 15:47
End Cal Date : 17-MAR-2010 21:53
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Cal Date : 18-Mar-2010 20:26 hea01125

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
60 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
31 Endrin ketone	429882	432453	429792	428405	428624	AVRG		429831		0.37456
51 Mirex	4866841	4184792	3913073	3978396	3875872	AVRG		4163795		9.86470
52 C-Nonachlor	7500377	6667128	6371956	6108037	5799913	AVRG		6489482		10.01113
53 O-Chlordane	6516809	5780884	5702241	5752804	5734132	AVRG		5897374		5.89166
54 T-Nonachlor	7449797	6646084	6339023	6115746	5812776	AVRG		6472685		9.66543
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
56 2,4-DDE	4796572	4290372	3883790	3633654	3294910	AVRG		3979860		14.66019
58 2,4-DDD	4240810	3780090	3489466	3293539	3046369	AVRG		3570055		12.92166
57 2,4-DDT	4360795	3870731	3677818	3551705	3332142	AVRG		3758638		10.35912
$ 1 4cmx	515605	523989	541079	535050	540579	AVRG		531261		2.09515
$ 32 Decachlorobiphenyl	331054	318774	311907	313119	319030	AVRG		318777		2.37873

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 06-JAN-2010 15:47
End Cal Date : 17-MAR-2010 21:53
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Cal Date : 18-Mar-2010 20:26 hea01125

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/16/10 03/17/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :03/18/10

Lab Sample ID (PEM): WPE100125-99 Time Analyzed :1835

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.03	4.00	4.06	122	100	22.0
4,4'-DDE						
Endrin	5.39	5.36	5.42	124	100	24.0
4,4'-DDD						
4,4'-DDT	5.73	5.70	5.76	113	100	13.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 3.00 Endrin % breakdown (1): 3.90

Combined % breakdown (1): 6.90

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/16/10 03/17/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :03/18/10

Lab Sample ID (PEM): WPE100125-99 Time Analyzed :1835

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.33	4.30	4.36	128	100	28.0
4,4'-DDE						
Endrin	5.87	5.84	5.90	127	100	27.0
4,4'-DDD						
4,4'-DDT	6.31	6.28	6.34	116	100	16.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 3.20 Endrin % breakdown (1): 4.20

Combined % breakdown (1): 7.40

FORM VII PEST-1 OLM03.0

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD5A Calibration Date: 03/18/10 Time: 1904

Lab File ID: 004F0401 Init. Calib. Date(s): 03/16/10 03/16/10

Heated Purge: (Y/N) N Init. Calib. Times: 1753 1850

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	2489.931	2475.562	0.01	-0.6	15.0
(2)	3811.286	3816.086	0.01	0.1	15.0
(3)	5937.302	6156.127	0.01	3.7	15.0
(4)	6553.851	7081.858	0.01	8.0	15.0
(5)	3822.800	3872.766	0.01	1.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD5A Calibration Date: 03/18/10 Time: 1904

Lab File ID: 004B0401 Init. Calib. Date(s): 03/16/10 03/16/10

Heated Purge: (Y/N) N Init. Calib. Times: 1753 1850

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
Toxaphene	2842.225	3030.188	0.01	6.6	15.0	
(2)	6427.350	7588.422	0.01	18.1	15.0	<-
(3)	2745.871	2915.634	0.01	6.2	15.0	
(4)	3232.485	3828.356	0.01	18.4	15.0	<-
(5)	5170.848	5528.243	0.01	6.9	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD5A Calibration Date: 03/18/10 Time: 1933

Lab File ID: 006F0601 Init. Calib. Date(s): 03/17/10 03/17/10

Heated Purge: (Y/N) N Init. Calib. Times: 2056 2153

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	690529.74	745966.85	0.01	8.0	15.0
beta-BHC	270388.95	275008.13	0.01	1.7	15.0
delta-BHC	591337.53	654520.99	0.01	10.7	15.0
gamma-BHC (Lindane)	603564.72	648734.00	0.01	7.5	15.0
Heptachlor	458390.77	499417.96	0.01	9.0	15.0
Aldrin	648444.23	664223.38	0.01	2.4	15.0
Heptachlor epoxide	529365.56	547452.92	0.01	3.4	15.0
Endosulfan I	498229.36	516244.05	0.01	3.6	15.0
Dieldrin	536027.67	544009.10	0.01	1.5	15.0
4,4'-DDE	534815.13	536529.68	0.01	0.3	15.0
Endrin	398147.57	422098.83	0.01	6.0	15.0
Endosulfan II	427200.06	435446.23	0.01	1.9	15.0
4,4'-DDD	395325.18	404003.52	0.01	2.2	15.0
Endosulfan sulfate	357097.17	369644.93	0.01	3.5	15.0
4,4'-DDT	308983.74	338662.10	0.01	9.6	15.0
Methoxychlor	134778.28	136569.66	0.01	1.3	15.0
Endrin ketone	441698.26	438516.95	0.01	-0.7	15.0
Endrin aldehyde	361623.84	362092.42	0.01	0.1	15.0
gamma-Chlordane	556468.62	579344.63	0.01	4.1	15.0
alpha-Chlordane	564100.75	571484.34	0.01	1.3	15.0
4cmx	498069.89	490840.35	0.01	-1.4	15.0
Decachlorobiphenyl	361902.65	340686.18	0.01	-5.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD5A Calibration Date: 03/18/10 Time: 1933

Lab File ID: 006B0601 Init. Calib. Date(s): 03/17/10 03/17/10

Heated Purge: (Y/N) N Init. Calib. Times: 2056 2153

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	683374.69	770175.85	0.01	12.7	15.0
beta-BHC	256200.15	270916.14	0.01	5.7	15.0
delta-BHC	605194.43	671967.38	0.01	11.0	15.0
gamma-BHC (Lindane)	565768.75	633372.89	0.01	11.9	15.0
Heptachlor	392584.73	441383.79	0.01	12.4	15.0
Aldrin	622071.09	673235.68	0.01	8.2	15.0
Heptachlor epoxide	480277.34	521579.03	0.01	8.6	15.0
Endosulfan I	470757.49	497224.78	0.01	5.6	15.0
Dieldrin	466248.91	507861.90	0.01	8.9	15.0
4,4'-DDE	481422.78	510628.71	0.01	6.1	15.0
Endrin	354126.24	393061.88	0.01	11.0	15.0
Endosulfan II	430193.41	454651.56	0.01	5.7	15.0
4,4'-DDD	338835.71	363121.34	0.01	7.2	15.0
Endosulfan sulfate	369527.53	388708.16	0.01	5.2	15.0
4,4'-DDT	262948.16	300742.61	0.01	14.4	15.0
Methoxychlor	123188.87	134583.83	0.01	9.2	15.0
Endrin ketone	429831.35	444228.12	0.01	3.3	15.0
Endrin aldehyde	338326.69	348198.68	0.01	2.9	15.0
gamma-Chlordane	530399.78	580310.50	0.01	9.4	15.0
alpha-Chlordane	534260.01	565772.46	0.01	5.9	15.0
4cmx	531260.50	546049.31	0.01	2.8	15.0
Decachlorobiphenyl	318776.71	314482.13	0.01	-1.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD5A Calibration Date: 03/18/10 Time: 2236

Lab File ID: 019F1901 Init. Calib. Date(s): 03/17/10 03/17/10

Heated Purge: (Y/N) N Init. Calib. Times: 2056 2153

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	690529.74	741905.06	0.01	7.4	15.0
beta-BHC	270388.95	269022.25	0.01	-0.5	15.0
delta-BHC	591337.53	620165.35	0.01	4.9	15.0
gamma-BHC (Lindane)	603564.72	657987.64	0.01	9.0	15.0
Heptachlor	458390.77	468015.58	0.01	2.1	15.0
Aldrin	648444.23	635236.41	0.01	-2.0	15.0
Heptachlor epoxide	529365.56	535502.34	0.01	1.2	15.0
Endosulfan I	498229.36	517808.12	0.01	3.9	15.0
Dieldrin	536027.67	529829.93	0.01	-1.2	15.0
4,4'-DDE	534815.13	536531.21	0.01	0.3	15.0
Endrin	398147.57	427726.19	0.01	7.4	15.0
Endosulfan II	427200.06	425237.83	0.01	-0.4	15.0
4,4'-DDD	395325.18	418567.02	0.01	5.9	15.0
Endosulfan sulfate	357097.17	354914.79	0.01	-0.6	15.0
4,4'-DDT	308983.74	313477.98	0.01	1.4	15.0
Methoxychlor	134778.28	125368.70	0.01	-7.0	15.0
Endrin ketone	441698.26	412820.86	0.01	-6.5	15.0
Endrin aldehyde	361623.84	339305.44	0.01	-6.2	15.0
gamma-Chlordane	556468.62	594857.50	0.01	6.9	15.0
alpha-Chlordane	564100.75	524998.94	0.01	-6.9	15.0
4cmx	498069.89	512082.47	0.01	2.8	15.0
Decachlorobiphenyl	361902.65	346077.05	0.01	-4.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD5A Calibration Date: 03/18/10 Time: 2236

Lab File ID: 019B1901 Init. Calib. Date(s): 03/17/10 03/17/10

Heated Purge: (Y/N) N Init. Calib. Times: 2056 2153

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	683374.69	777038.83	0.01	13.7	15.0	
beta-BHC	256200.15	269575.26	0.01	5.2	15.0	
delta-BHC	605194.43	655968.74	0.01	8.4	15.0	
gamma-BHC (Lindane)	565768.75	656017.62	0.01	16.0	15.0	<-
Heptachlor	392584.73	420573.91	0.01	7.1	15.0	
Aldrin	622071.09	650219.77	0.01	4.5	15.0	
Heptachlor epoxide	480277.34	524807.44	0.01	9.3	15.0	
Endosulfan I	470757.49	517312.36	0.01	9.9	15.0	
Dieldrin	466248.91	498865.59	0.01	7.0	15.0	
4,4'-DDE	481422.78	513697.80	0.01	6.7	15.0	
Endrin	354126.24	411848.36	0.01	16.3	15.0	<-
Endosulfan II	430193.41	456630.42	0.01	6.1	15.0	
4,4'-DDD	338835.71	376950.15	0.01	11.2	15.0	
Endosulfan sulfate	369527.53	384521.62	0.01	4.0	15.0	
4,4'-DDT	262948.16	286255.68	0.01	8.9	15.0	
Methoxychlor	123188.87	124147.07	0.01	0.8	15.0	
Endrin ketone	429831.35	424940.49	0.01	-1.1	15.0	
Endrin aldehyde	338326.69	337013.28	0.01	-0.4	15.0	
gamma-Chlordane	530399.78	605440.86	0.01	14.1	15.0	
alpha-Chlordane	534260.01	530190.72	0.01	-0.8	15.0	
4cmx	531260.50	573301.67	0.01	7.9	15.0	
Decachlorobiphenyl	318776.71	329498.34	0.01	3.4	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD5A Calibration Date: 03/19/10 Time: 0014

Lab File ID: 026F2601 Init. Calib. Date(s): 03/17/10 03/17/10

Heated Purge: (Y/N) N Init. Calib. Times: 2056 2153

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	690529.74	731634.66	0.01	6.0	15.0
beta-BHC	270388.95	265897.61	0.01	-1.7	15.0
delta-BHC	591337.53	603353.62	0.01	2.0	15.0
gamma-BHC (Lindane)	603564.72	647775.56	0.01	7.3	15.0
Heptachlor	458390.77	458286.31	0.01	-0.0	15.0
Aldrin	648444.23	629430.58	0.01	-2.9	15.0
Heptachlor epoxide	529365.56	530720.50	0.01	0.2	15.0
Endosulfan I	498229.36	514858.60	0.01	3.3	15.0
Dieldrin	536027.67	525512.30	0.01	-2.0	15.0
4,4'-DDE	534815.13	531479.50	0.01	-0.6	15.0
Endrin	398147.57	417778.73	0.01	4.9	15.0
Endosulfan II	427200.06	422485.68	0.01	-1.1	15.0
4,4'-DDD	395325.18	424478.65	0.01	7.4	15.0
Endosulfan sulfate	357097.17	351630.16	0.01	-1.5	15.0
4,4'-DDT	308983.74	304906.72	0.01	-1.3	15.0
Methoxychlor	134778.28	121328.71	0.01	-10.0	15.0
Endrin ketone	441698.26	411225.20	0.01	-6.9	15.0
Endrin aldehyde	361623.84	339789.42	0.01	-6.0	15.0
gamma-Chlordane	556468.62	591432.67	0.01	6.3	15.0
alpha-Chlordane	564100.75	523070.14	0.01	-7.3	15.0
4cmx	498069.89	506744.64	0.01	1.7	15.0
Decachlorobiphenyl	361902.65	348493.79	0.01	-3.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD5A Calibration Date: 03/19/10 Time: 0014

Lab File ID: 026B2601 Init. Calib. Date(s): 03/17/10 03/17/10

Heated Purge: (Y/N) N Init. Calib. Times: 2056 2153

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	683374.69	768967.95	0.01	12.5	15.0	
beta-BHC	256200.15	267593.54	0.01	4.4	15.0	
delta-BHC	605194.43	648930.14	0.01	7.2	15.0	
gamma-BHC (Lindane)	565768.75	651537.57	0.01	15.2	15.0	<-
Heptachlor	392584.73	416791.82	0.01	6.2	15.0	
Aldrin	622071.09	648828.02	0.01	4.3	15.0	
Heptachlor epoxide	480277.34	520948.90	0.01	8.5	15.0	
Endosulfan I	470757.49	514181.99	0.01	9.2	15.0	
Dieldrin	466248.91	494301.37	0.01	6.0	15.0	
4,4'-DDE	481422.78	503155.45	0.01	4.5	15.0	
Endrin	354126.24	402701.79	0.01	13.7	15.0	
Endosulfan II	430193.41	456531.54	0.01	6.1	15.0	
4,4'-DDD	338835.71	379970.84	0.01	12.1	15.0	
Endosulfan sulfate	369527.53	382036.15	0.01	3.4	15.0	
4,4'-DDT	262948.16	277276.20	0.01	5.4	15.0	
Methoxychlor	123188.87	120569.04	0.01	-2.1	15.0	
Endrin ketone	429831.35	425378.79	0.01	-1.0	15.0	
Endrin aldehyde	338326.69	338099.21	0.01	-0.1	15.0	
gamma-Chlordane	530399.78	604002.75	0.01	13.9	15.0	
alpha-Chlordane	534260.01	527032.75	0.01	-1.4	15.0	
4cmx	531260.50	566102.83	0.01	6.6	15.0	
Decachlorobiphenyl	318776.71	327828.24	0.01	2.8	15.0	

FORM VII PEST

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/031810.b/002f0201.d
Lab Smp Id: WPE100125-99DG Client Smp ID: PEM01
Inj Date : 18-MAR-2010 18:35
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE100125-99DG
Misc Info :
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.028	4.032	-0.004	78920190	121.707	122	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.869	4.873	-0.004	207398	0.38780	0.388	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.390	5.395	-0.005	49308262	123.844	124	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.453	5.455	-0.002	887246	2.24435	2.24	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
6.038	6.040	-0.002	606296	1.67659	1.68	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
5.732	5.734	-0.002	34849742	112.788	113	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.788	6.790	-0.002	1382529	3.13003	3.13	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.735	2.739	-0.004	101195227	203.175	203	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.879	7.883	-0.004	71850792	198.536	198	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd5a.i/031810.b/002f0201.d

Date : 18-MAR-2010 18:35

Client ID: PEM01

Sample Info: IWPE100125-99DG

Column phase: CLP-1

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

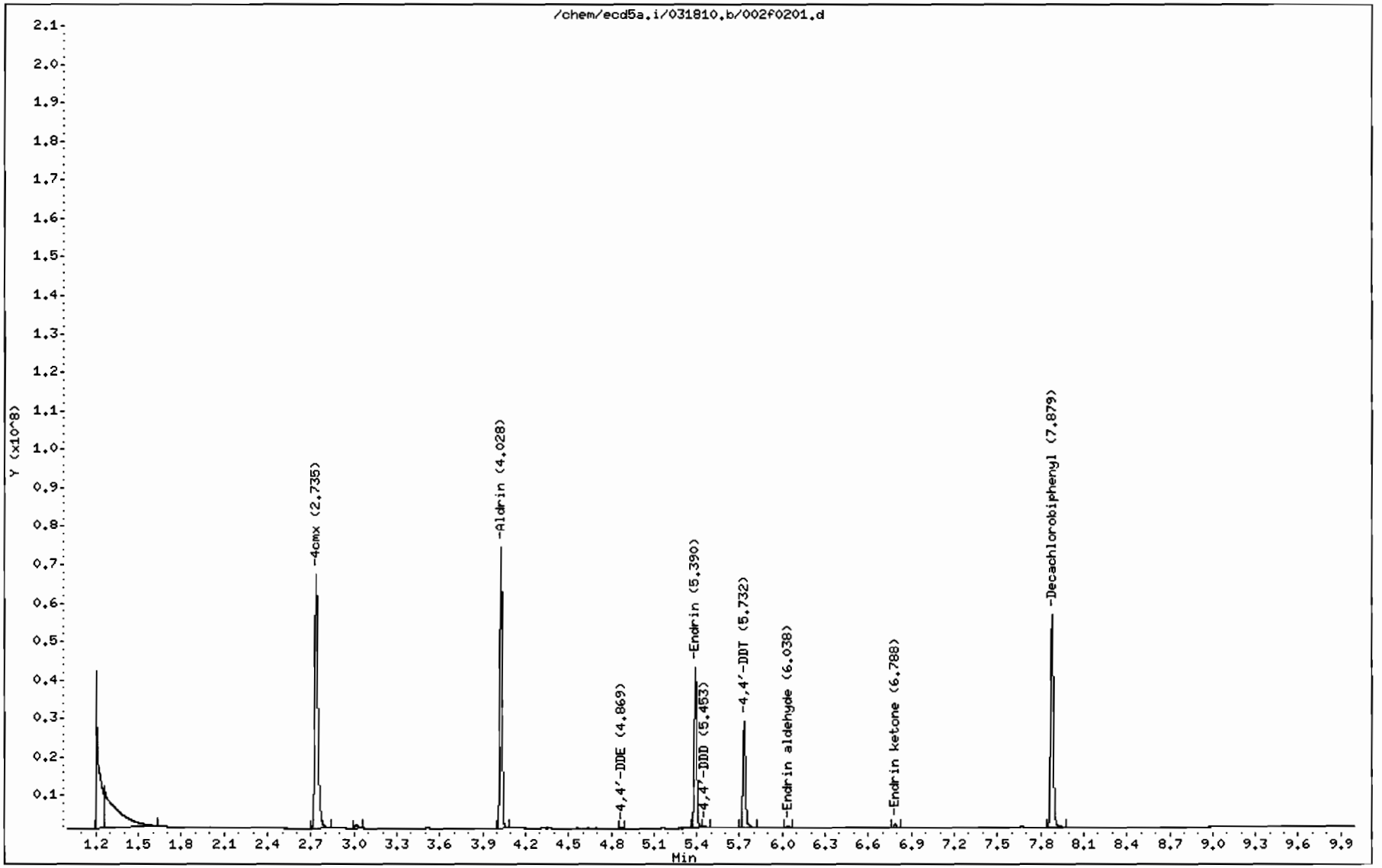

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/002b0201.d
Lab Smp Id: WPE100125-99DG Client Smp ID: PEM01
Inj Date : 18-MAR-2010 18:35
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE100125-99DG
Misc Info :
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.330	4.333	-0.003	79801685	128.284	128	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.371	5.372	-0.001	201486	0.41852	0.418	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.867	5.871	-0.004	44931371	126.880	127	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.973	5.975	-0.002	794170	2.34382	2.34	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.445	6.447	-0.002	614278	1.81564	1.82	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.309	6.312	-0.003	30481097	115.921	116	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.333	7.335	-0.002	1348971	3.13837	3.14	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.821	2.823	-0.002	112035564	210.886	211	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.716	8.720	-0.004	65473984	205.391	205	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd5a.i/031810.b/002b0201.d

Date : 18-MAR-2010 18:35

Client ID: PEM01

Sample Info: !WPE100125-99DG

Column phase: CLP-2

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

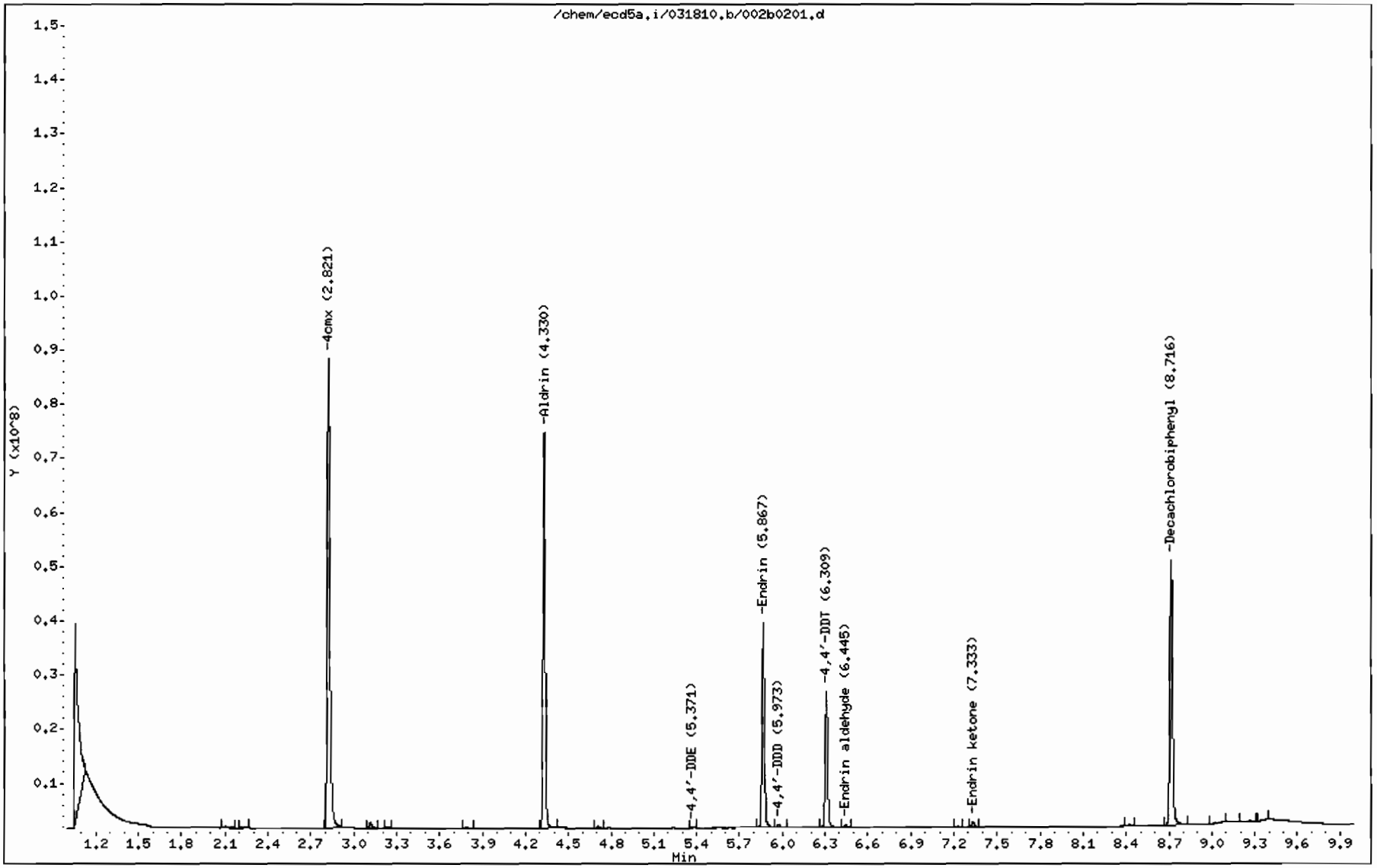

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/031810.b/004f0401.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 18-MAR-2010 19:04
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE100125-52TX
Misc Info :
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
4.782	4.782	0.000	4951124	2000.00	1990	80.00- 120.00	100.00(M)
5.066	5.066	0.000	7632172	2000.00	2000	134.15- 174.15	154.15
5.171	5.171	0.000	12312254	2000.00	2070	228.68- 268.68	248.68
5.256	5.256	0.000	14163715	2000.00	2160	266.07- 306.07	286.07
5.833	5.833	0.000	7745532	2000.00	2030	136.44- 176.44	156.44

Average of Peak Amounts = 2.05e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/031810.b/004f0401.d
Date : 18-MAR-2010 19:04
Client ID: TOXAPH01
Sample Info: IWPE100125-52TX

Column phase: CLP-1

Instrument: ecd5a.i

Operator: HXJ1
Column diameter: 0.25

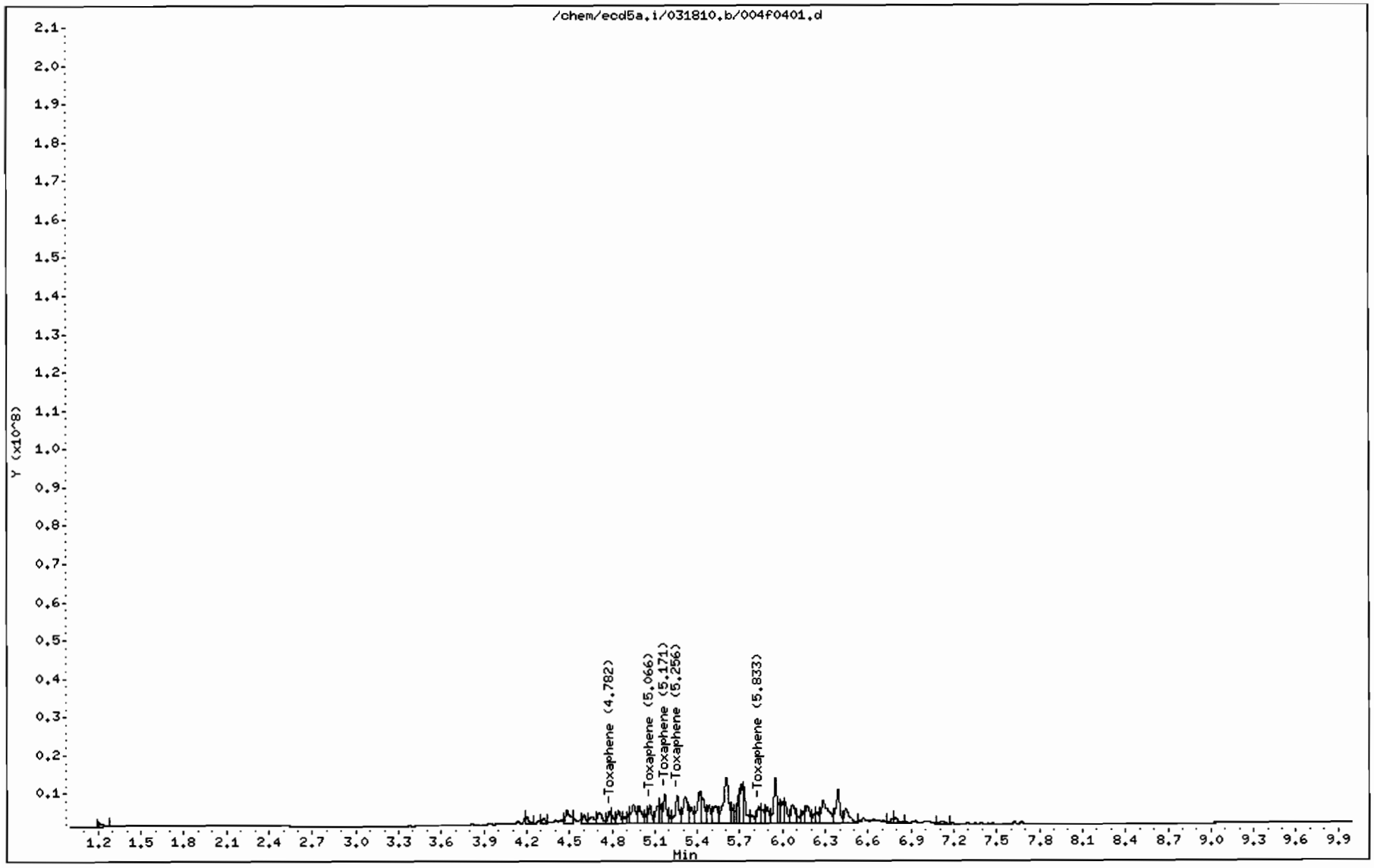

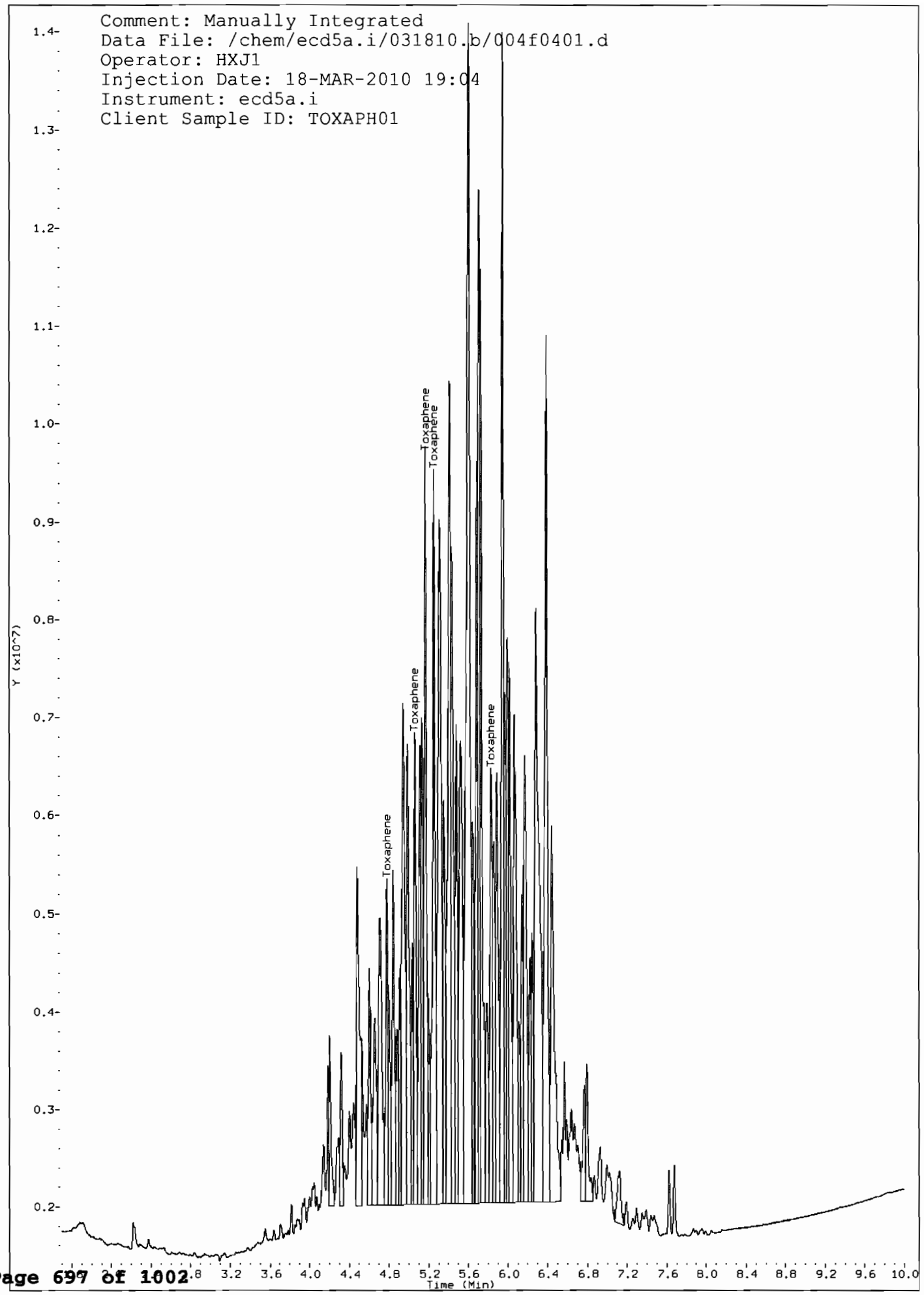
Comment: Manually Integrated
Data File: /chem/ecd5a.i/031810.b/004f0401.d
Operator: HXJ1
Injection Date: 18-MAR-2010 19:04
Instrument: ecd5a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

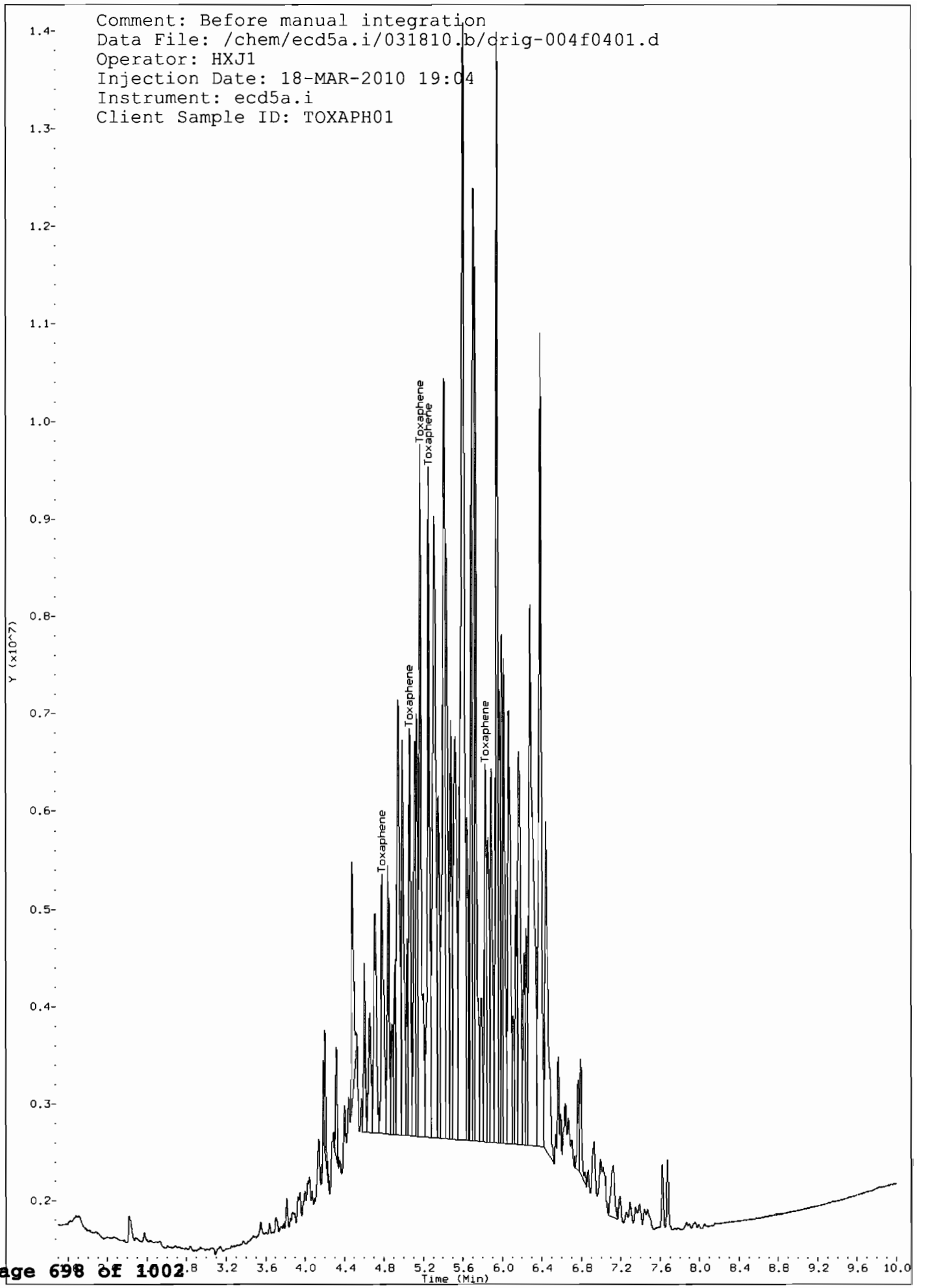
Comment: Before manual integration
Data File: /chem/ecd5a.i/031810.b/drig-004f0401.d
Operator: HXJ1
Injection Date: 18-MAR-2010 19:04
Instrument: ecd5a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/004b0401.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 18-MAR-2010 19:04
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE100125-52TX
Misc Info :
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.128	5.128	0.000	6060377	2000.00	2130	80.00- 120.00	100.00(M)
5.526	5.526	0.000	15176843	2000.00	2360	230.43- 270.43	250.43
5.590	5.590	0.000	5831267	2000.00	2120	76.22- 116.22	96.22
5.651	5.651	0.000	7656713	2000.00	2370	106.34- 146.34	126.34
5.841	5.841	0.000	11056486	2000.00	2140	162.44- 202.44	182.44

Average of Peak Amounts = 2.22e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/031810.b/004b0401.d
Date : 18-MAR-2010 19:04
Client ID: TOXAPH01
Sample Info: IWPE100125-52TX

Instrument: ecd5a.i

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

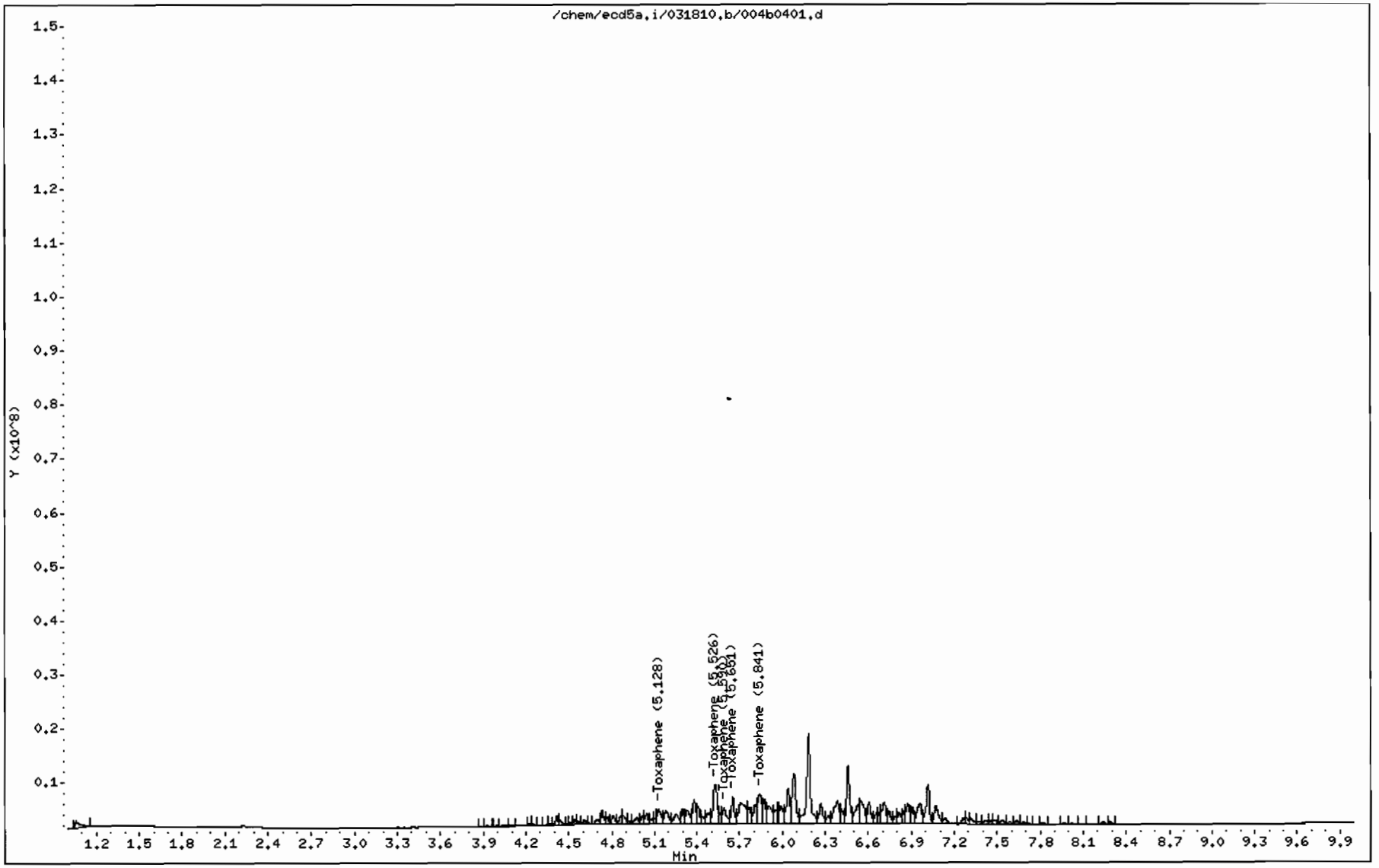

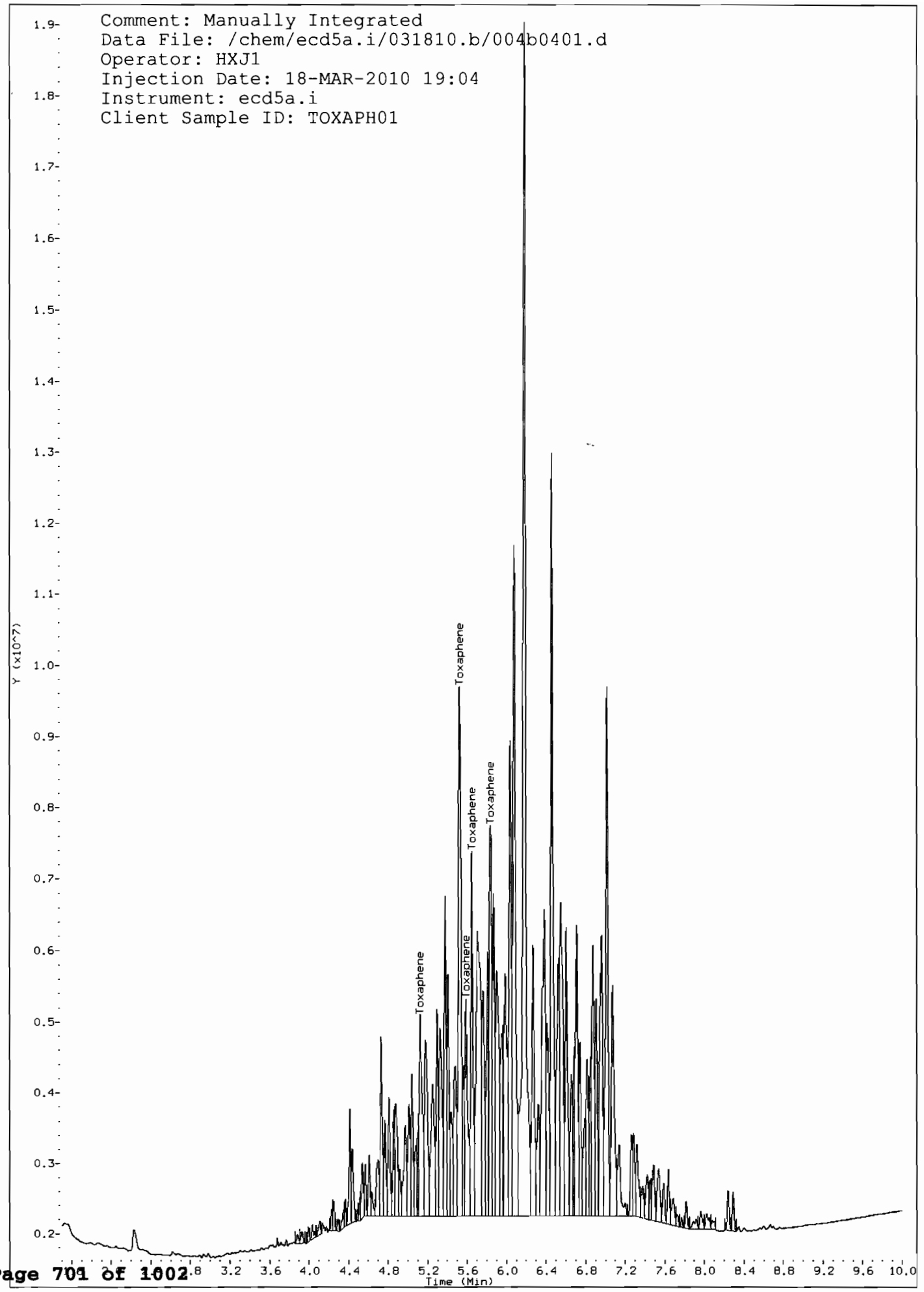
Comment: Manually Integrated
Data File: /chem/ecd5a.i/031810.b/004b0401.d
Operator: HXJ1
Injection Date: 18-MAR-2010 19:04
Instrument: ecd5a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

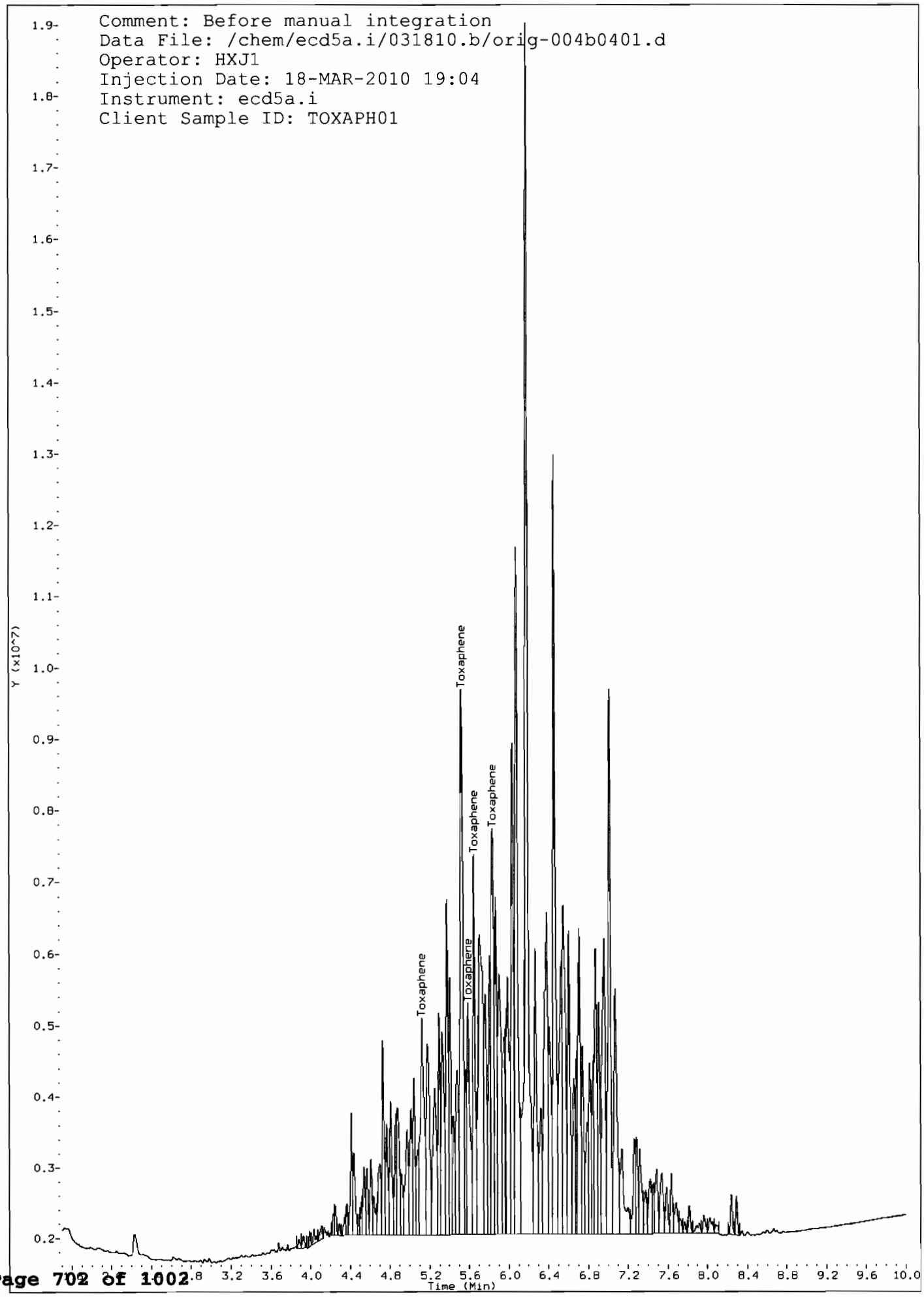
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Operator: HXJ1
Injection Date: 18-MAR-2010 19:04
Instrument: ecd5a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/031810.b/006f0601.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB01
Inj Date : 18-MAR-2010 19:33
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE100305-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.143	3.143	0.000	74596685	100.000	108	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.388	3.388	0.000	64873400	100.000	107	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.451	3.451	0.000	27500813	100.000	102	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.774	3.774	0.000	49941796	100.000	109	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.600	3.600	0.000	65452099	100.000	111	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.032	4.032	0.000	66422338	100.000	102	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.567	4.567	0.000	54745292	100.000	103	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.683	4.683	0.000	57934463	100.000	104	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.806	4.806	0.000	57148434	100.000	101	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.938	4.938	0.000	51624405	100.000	104	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.873	4.873	0.000	107305935	200.000	201	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.166	5.166	0.000	108801820	200.000	203	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.395	5.395	0.000	84419765	200.000	212	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.455	5.455	0.000	80800704	200.000	204	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.617	5.617	0.000	87089246	200.000	204	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.040	6.040	0.000	72418485	200.000	200	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.734	5.734	0.000	67732420	200.000	219	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.490	6.490	0.000	73928987	200.000	207	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.234	6.234	0.000	136569661	1000.00	1010	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.790	6.790	0.000	87703390	200.000	198	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.739	2.739	0.000	98168070	200.000	197	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.883	7.883	0.000	68137237	200.000	188	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/006f0601.d
Date : 18-MAR-2010 19:33
Client ID: INDAB01
Sample Info: IWPE100305-10AB
Column phase: CLP-1

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

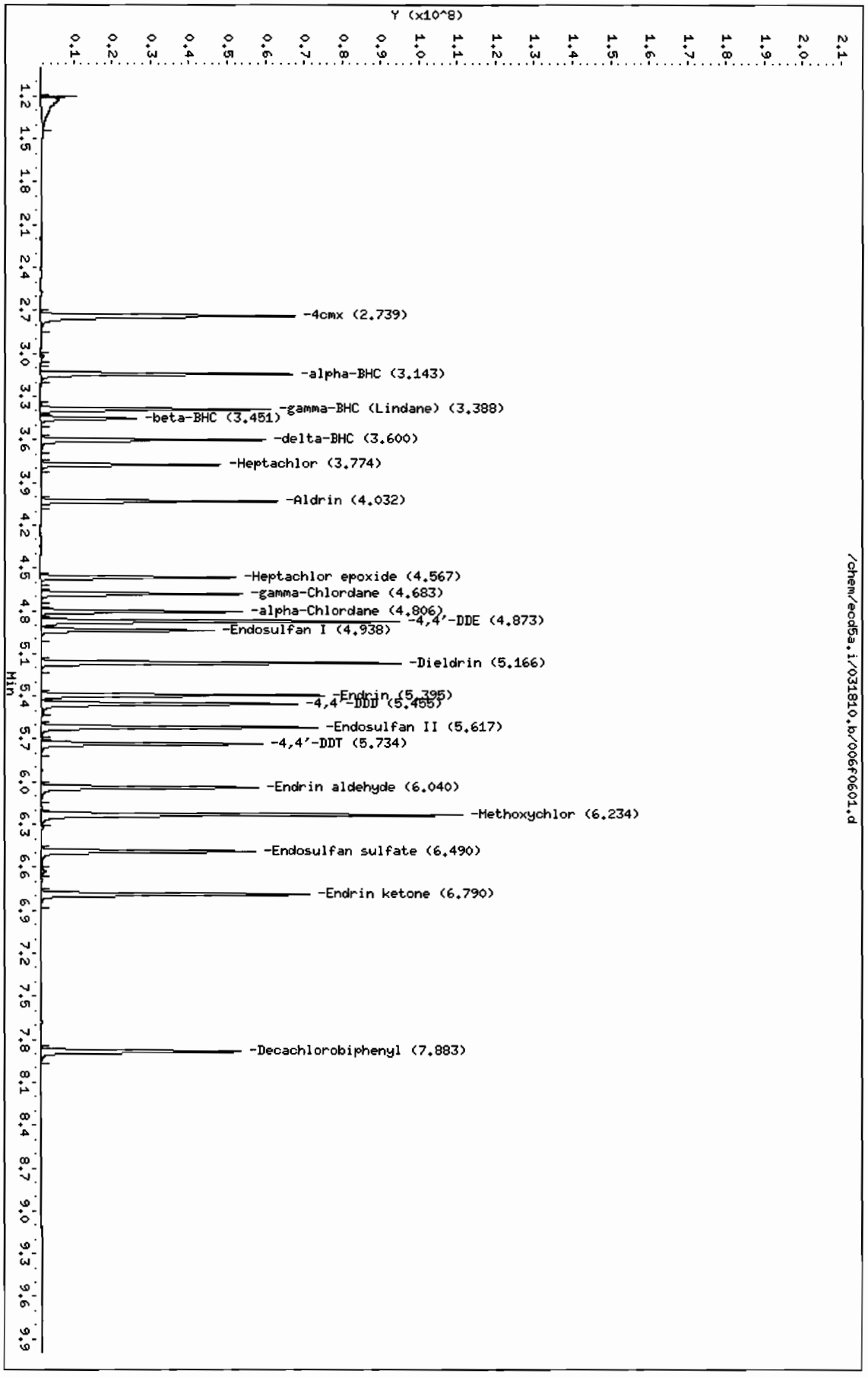

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/006b0601.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB01
Inj Date : 18-MAR-2010 19:33
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE100305-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.309	3.309	0.000	77017585	100.000	113	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.615	3.615	0.000	63337289	100.000	112	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.679	3.679	0.000	27091614	100.000	106	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.024	4.024	0.000	44138379	100.000	112	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.948	3.948	0.000	67196738	100.000	111	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.333	4.333	0.000	67323568	100.000	108	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.877	4.877	0.000	52157903	100.000	108	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.068	5.068	0.000	58031050	100.000	109	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.213	5.213	0.000	56577246	100.000	106	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.275	5.275	0.000	49722478	100.000	106	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.372	5.372	0.000	102125742	200.000	212	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.554	5.554	0.000	101572380	200.000	218	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.871	5.871	0.000	78612375	200.000	222	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.975	5.975	0.000	72624269	200.000	214	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.092	6.092	0.000	90930312	200.000	211	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.447	6.447	0.000	69639737	200.000	206	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.312	6.312	0.000	60148523	200.000	229	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.748	6.748	0.000	77741633	200.000	210	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.051	7.051	0.000	134583834	1000.00	1090	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.335	7.335	0.000	88845624	200.000	207	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.823	2.823	0.000	109209862	200.000	206	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.720	8.720	0.000	62896426	200.000	197	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/006b0601.d
Date : 18-MAR-2010 19:33
Client ID: INDAB01
Sample Info: IWPE100305-10AB
Column phase: CLP-2

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

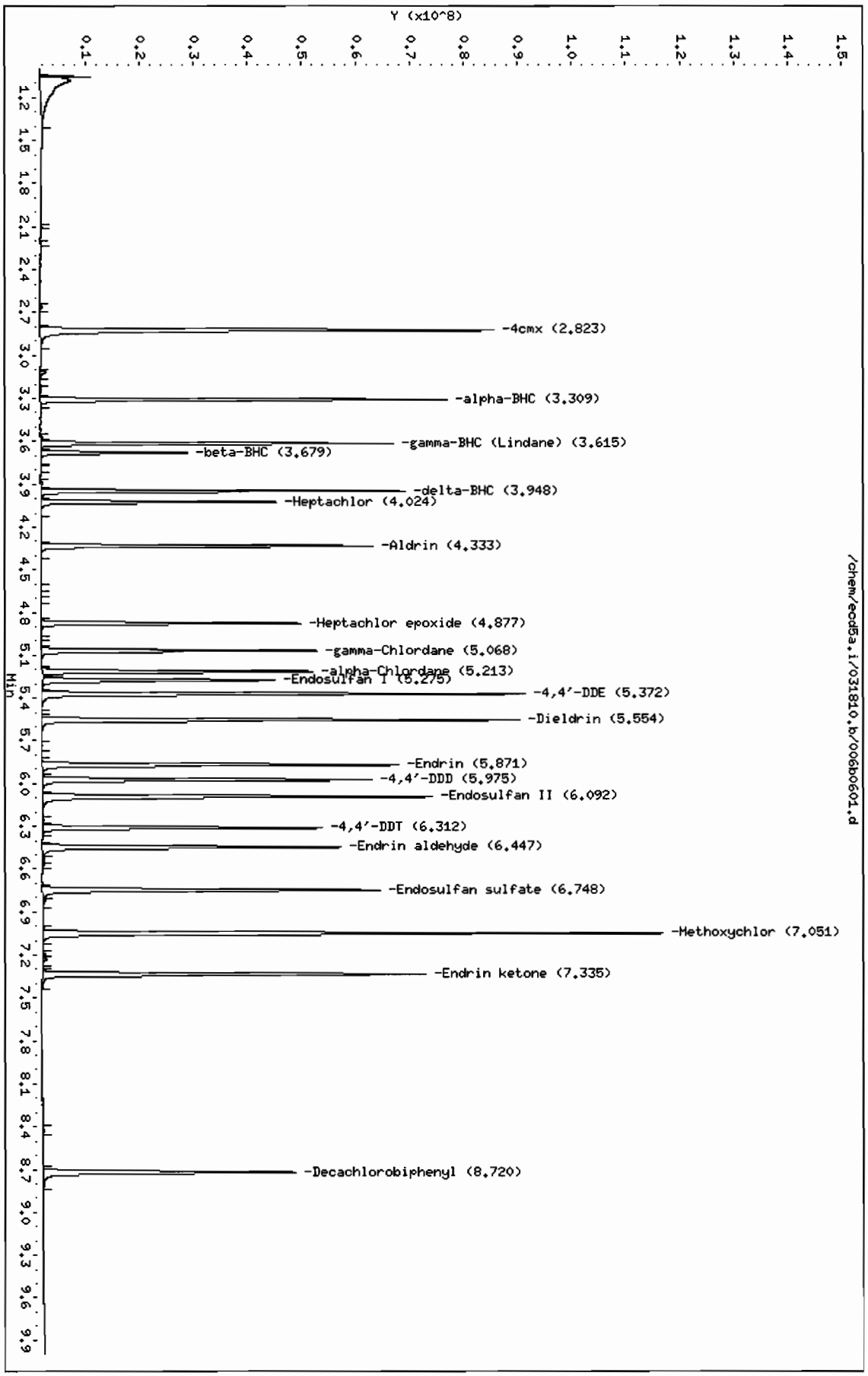

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CLP-1

Data file : /chem/ecd5a.i/031810.b/019f1901.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB02
Inj Date : 18-MAR-2010 22:36
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE100305-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.144	3.143	0.001	74190506	100.000	107	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.389	3.388	0.001	65798763	100.000	109	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.452	3.451	0.001	26902225	100.000	99.5	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.774	3.774	0.000	46801557	100.000	102	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.602	3.600	0.002	62016535	100.000	105	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.033	4.032	0.001	63523640	100.000	98.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.568	4.567	0.001	53550233	100.000	101	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.683	4.683	0.000	59485750	100.000	107	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.807	4.806	0.001	52499894	100.000	93.1	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.938	4.938	0.000	51780812	100.000	104	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.873	4.873	0.000	107306241	200.000	201	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.167	5.166	0.001	105965985	200.000	198	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.395	5.395	0.000	85545237	200.000	215	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.454	5.455	-0.001	83713404	200.000	212	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.617	5.617	0.000	85047565	200.000	199	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.039	6.040	-0.001	67861087	200.000	188	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.733	5.734	-0.001	62695596	200.000	203	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.490	6.490	0.000	70982957	200.000	199	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.234	6.234	0.000	125368699	1000.00	930	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.790	6.790	0.000	82564172	200.000	187	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.739	2.739	0.000	102416494	200.000	206	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.882	7.883	-0.001	69215411	200.000	191	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/019f1901.d
Date : 18-MAR-2010 22:36
Client ID: INDAB02
Sample Info: IWPE100305-10AB

Column phase: CLP-1

Instrument: ecd5a.i

Operator: HXJ1
Column diameter: 0.25

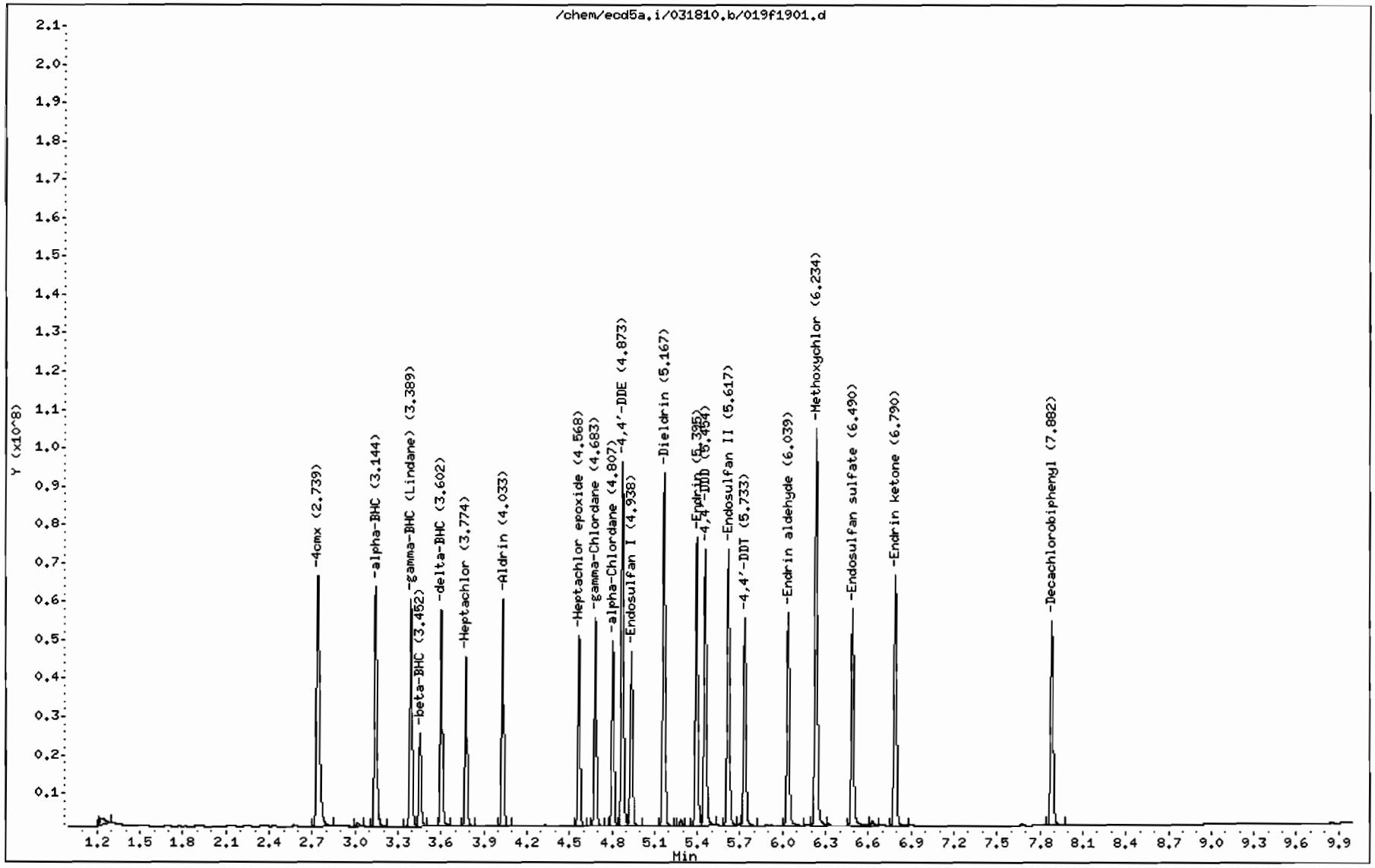

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/019b1901.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB02
Inj Date : 18-MAR-2010 22:36
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE100305-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.308	3.309	-0.001	77703883	100.000	114	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.615	3.615	0.000	65601762	100.000	116	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.678	3.679	-0.001	26957526	100.000	105	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.024	4.024	0.000	42057391	100.000	107	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.948	3.948	0.000	65596874	100.000	108	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.332	4.333	-0.001	65021977	100.000	104	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.877	4.877	0.000	52480744	100.000	109	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.067	5.068	-0.001	60544086	100.000	114	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.212	5.213	-0.001	53019072	100.000	99.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.274	5.275	-0.001	51731236	100.000	110	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.372	5.372	0.000	102739561	200.000	213	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.553	5.554	-0.001	99773117	200.000	214	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.870	5.871	-0.001	82369672	200.000	232	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.973	5.975	-0.002	75390029	200.000	222	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.091	6.092	-0.001	91326084	200.000	212	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.445	6.447	-0.002	67402657	200.000	199	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.309	6.312	-0.003	57251137	200.000	218	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.747	6.748	-0.001	76904324	200.000	208	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.049	7.051	-0.002	124147070	1000.00	1010	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.333	7.335	-0.002	84988099	200.000	198	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.823	2.823	0.000	114660333	200.000	216	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.718	8.720	-0.002	65899667	200.000	207	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/019b1901.d
Date : 18-MAR-2010 22:36
Client ID: INDAB02
Sample Info: IWPE100305-10AB
Column phase: CLP-2

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

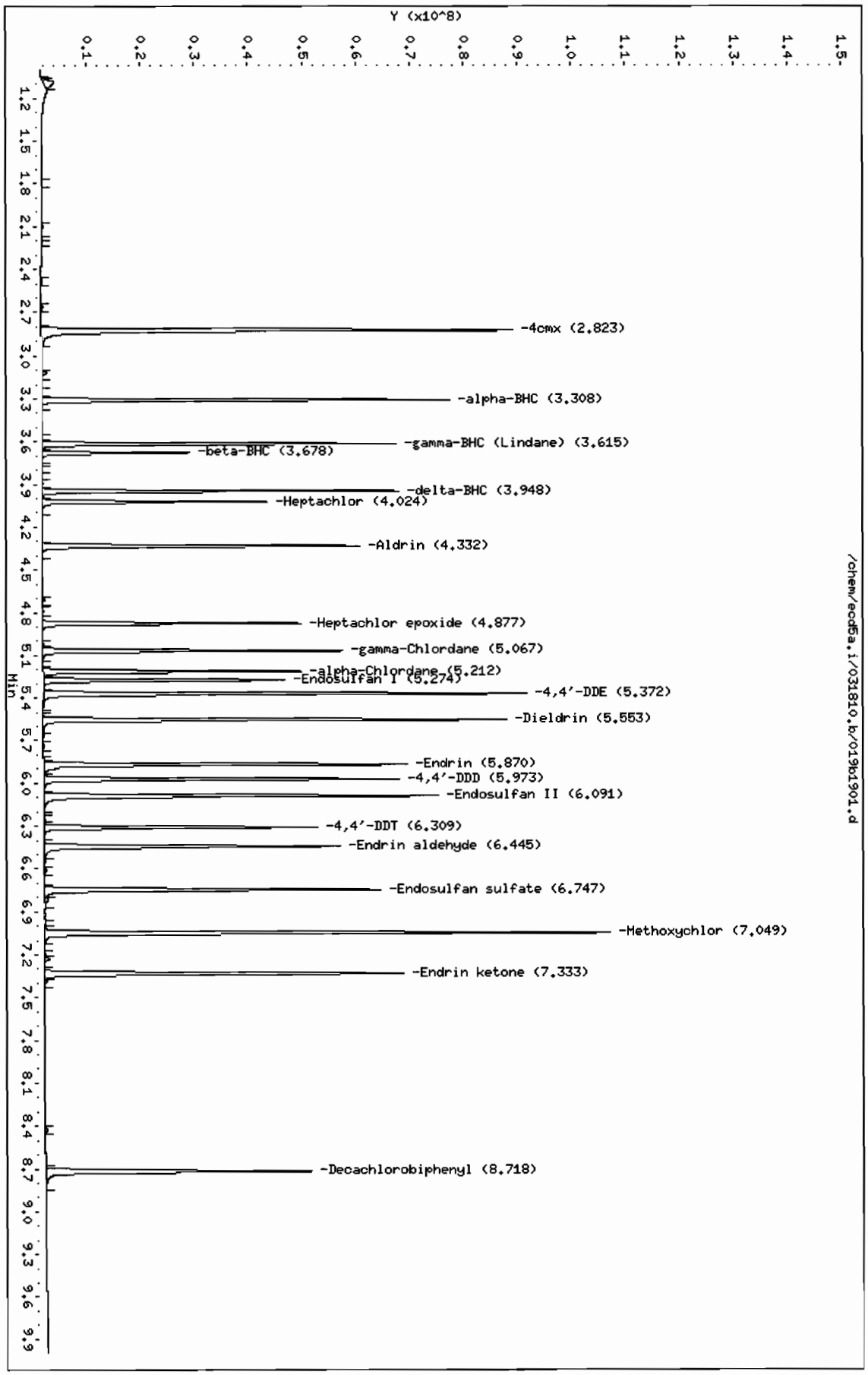

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CLP-1

Data file : /chem/ecd5a.i/031810.b/026f2601.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB03
Inj Date : 19-MAR-2010 00:14
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE100305-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 26 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.144	3.143	0.001	73163465	100.000	106	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.388	3.388	0.000	64777556	100.000	107	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.453	3.451	0.002	26589760	100.000	98.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.773	3.774	-0.001	45828631	100.000	100	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.601	3.600	0.001	60335361	100.000	102	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.033	4.032	0.001	62943058	100.000	97.1	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.568	4.567	0.001	53072049	100.000	100	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.683	4.683	0.000	59143267	100.000	106	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.807	4.806	0.001	52307014	100.000	92.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.938	4.938	0.000	51485859	100.000	103	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.873	4.873	0.000	106295899	200.000	199	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.166	5.166	0.000	105102460	200.000	196	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.395	5.395	0.000	83555746	200.000	210	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.455	5.455	0.000	84895730	200.000	215	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.618	5.617	0.001	84497135	200.000	198	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.040	6.040	0.000	67957884	200.000	188	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.734	5.734	0.000	60981344	200.000	197	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.490	6.490	0.000	70326032	200.000	197	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.233	6.234	-0.001	121328714	1000.00	900	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.790	6.790	0.000	82245039	200.000	186	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.739	2.739	0.000	101348927	200.000	203	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.883	7.883	0.000	69698758	200.000	192	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/026f2601.d

Date : 19-MAR-2010 00:14

Client ID: INDAB03

Sample Info: IWPE100305-10AB

Column phase: CLP-1

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

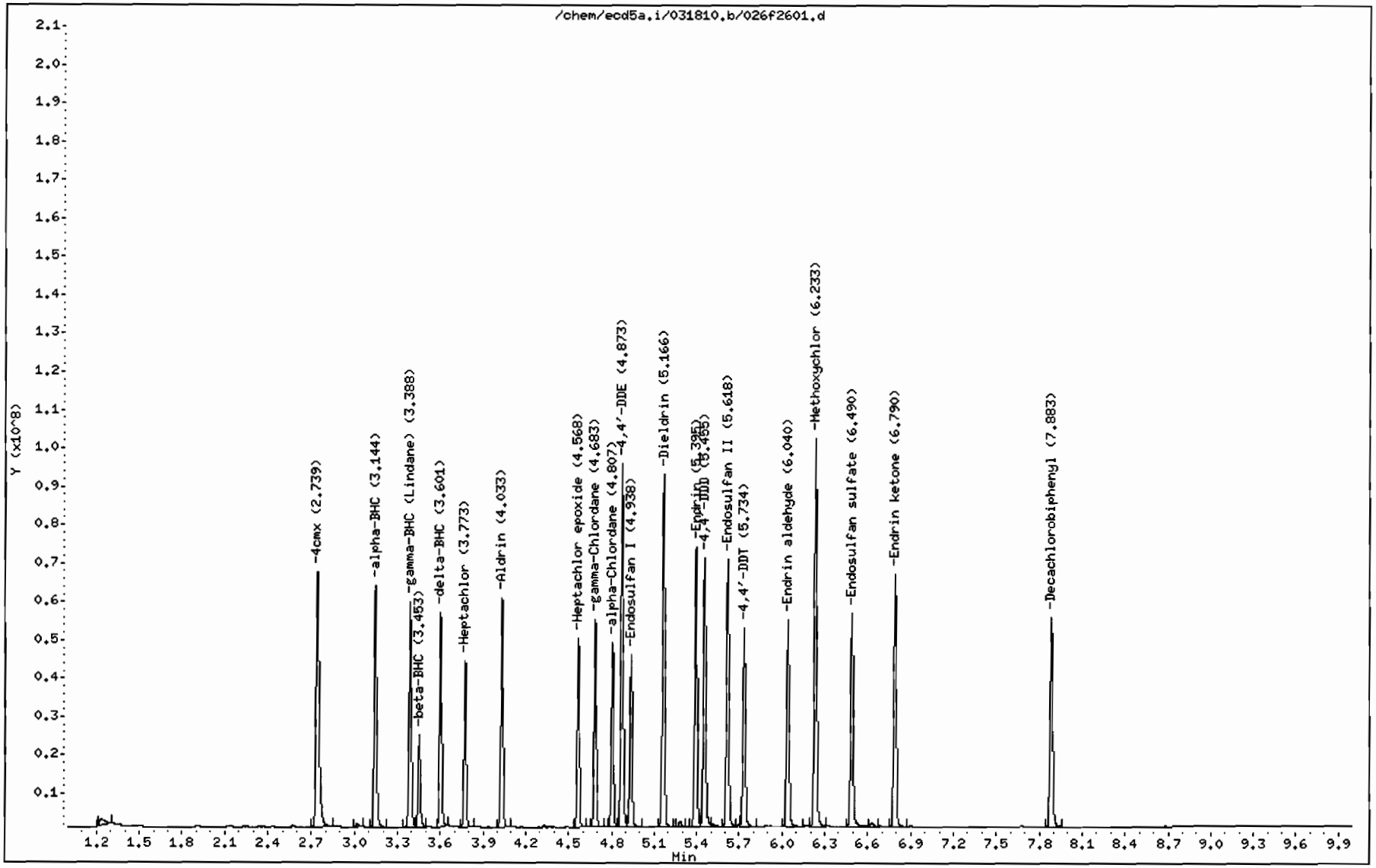

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/026b2601.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB03
Inj Date : 19-MAR-2010 00:14
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |WPE100305-10AB
Misc Info :
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 26 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.308	3.309	-0.001	76896795	100.000	112	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.614	3.615	-0.001	65153757	100.000	115	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.678	3.679	-0.001	26759353	100.000	104	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.023	4.024	-0.001	41679182	100.000	106	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.948	3.948	0.000	64893013	100.000	107	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.333	4.333	0.000	64882802	100.000	104	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.877	4.877	0.000	52094890	100.000	108	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.067	5.068	-0.001	60400275	100.000	114	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.212	5.213	-0.001	52703275	100.000	98.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.274	5.275	-0.001	51418199	100.000	109	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.372	5.372	0.000	100631090	200.000	209	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.553	5.554	-0.001	98860274	200.000	212	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.869	5.871	-0.002	80540358	200.000	227	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.973	5.975	-0.002	75994167	200.000	224	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.091	6.092	-0.001	91306308	200.000	212	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.445	6.447	-0.002	67619841	200.000	200	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.311	6.312	-0.001	55455239	200.000	211	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.747	6.748	-0.001	76407230	200.000	207	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.050	7.051	-0.001	120569035	1000.00	979	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.334	7.335	-0.001	85075757	200.000	198	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.823	2.823	0.000	113220567	200.000	213	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.718	8.720	-0.002	65565648	200.000	206	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/026b2601.d
Date : 19-MAR-2010 00:14
Client ID: INDAB03
Sample Info: IWPE100305-10AB
Column phase: CLP-2

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

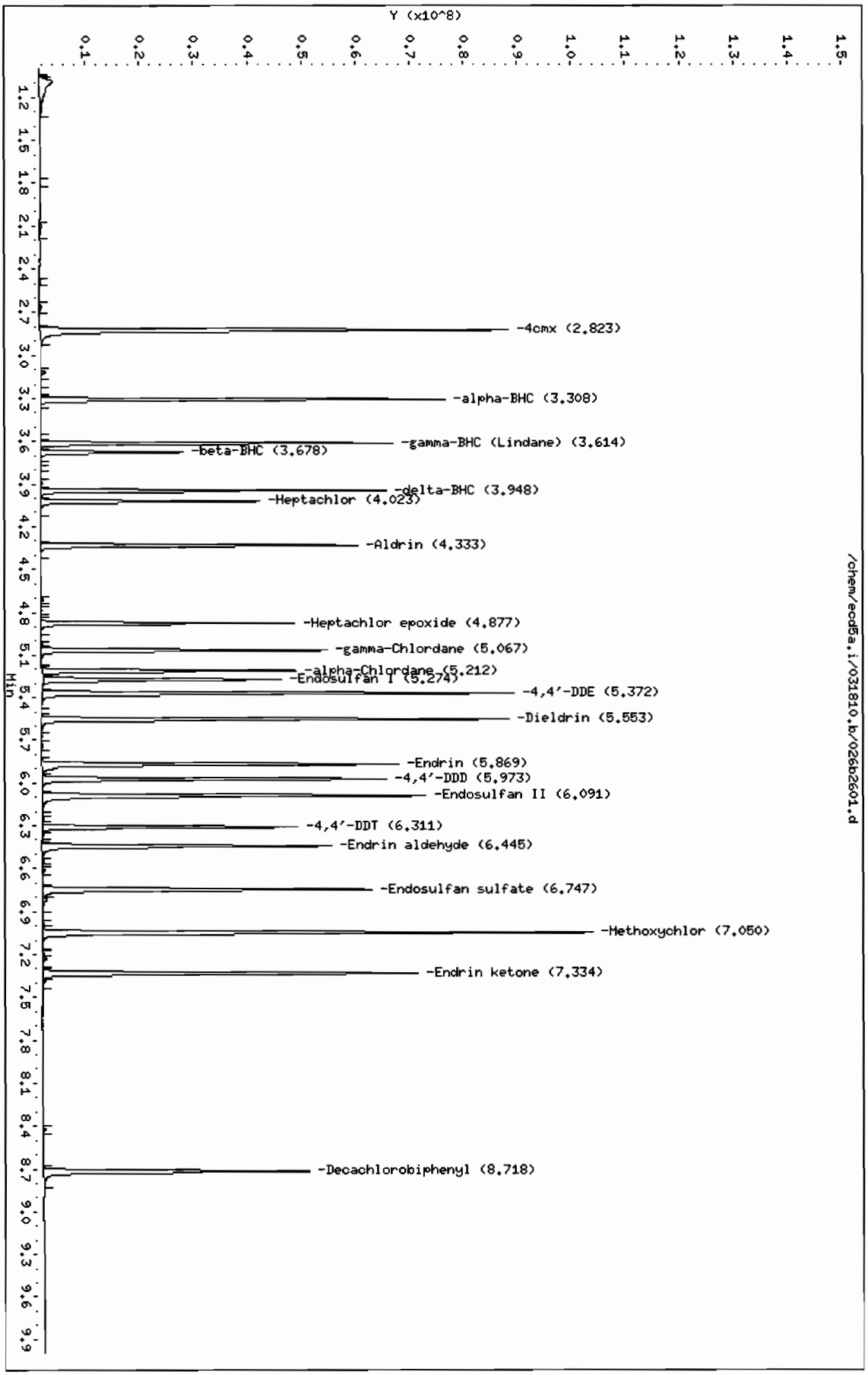

Page 1

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/16/10 03/16/10

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.74 DCB: 7.87

	GOSS SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100104-99	03/16/10	1615	2.73	7.86
02	PEM01	WPE100125-99	03/16/10	1629	2.73	7.87
03	INDAB01	WPE100316-01	03/16/10	1643	2.73	7.87
04	INDAB02	WPE100316-02	03/16/10	1657	2.74	7.87
05	INDAB03	WPE100316-03	03/16/10	1711	2.73	7.87
06	INDAB04	WPE100316-04	03/16/10	1725	2.74	7.87
07	INDAB05	IPE100204-02	03/16/10	1739	2.74	7.87
08	TOXAPH01	WPE100316-11	03/16/10	1753		
09	TOXAPH02	WPE100316-12	03/16/10	1807		
10	TOXAPH03	WPE100316-13	03/16/10	1821		
11	TOXAPH04	WPE100316-14	03/16/10	1836		
12	TOXAPH05	IPE100204-40	03/16/10	1850		
13	TOXAPH01	WPE100125-52	03/16/10	1904		
14	ZZZZZ	ZZZZZ	03/16/10	1918	2.74	7.87
15	CHLOR01	WPE100316-21	03/16/10	1932	2.74	7.88
16	CHLOR02	WPE100316-22	03/16/10	1946	2.74	7.87
17	CHLOR03	WPE100316-23	03/16/10	2000	2.74	7.88
18	CHLOR04	WPE100316-24	03/16/10	2014	2.74	7.87
19	CHLOR05	IPE100116-06	03/16/10	2028	2.74	7.87
20	CHLOR01	WPE100305-00	03/16/10	2042		
21	PIBLK02	WAR100104-99	03/16/10	2056	2.74	7.87
22	ZZZZZ	ZZZZZ	03/16/10	2110	2.74	7.87
23	ZZZZZ	ZZZZZ	03/16/10	2124	2.74	7.87
24	ZZZZZ	ZZZZZ	03/16/10	2138	2.74	7.87
25	ZZZZZ	ZZZZZ	03/16/10	2152	2.74	7.87
26	ZZZZZ	ZZZZZ	03/16/10	2207	2.74	7.87
27	ZZZZZ	ZZZZZ	03/16/10	2221	2.74	7.87
28	ZZZZZ	ZZZZZ	03/16/10	2235	2.74	7.87
29	INDAB01	WPE100305-10	03/16/10	2249	2.74	7.87
30	PIBLK03	WAR100104-99	03/16/10	2303	2.73	7.87
31	PEM02	WPE100125-99	03/16/10	2317	2.73	7.87
32	ZZZZZ	ZZZZZ	03/16/10	2331	2.74	7.87

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII PEST

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2359-1

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/16/10 03/16/10

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.82 DCB: 8.71

	GOSS SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100104-99	03/16/10	1615	2.82	8.70
02	PEM01	WPE100125-99	03/16/10	1629	2.82	8.71
03	INDAB01	WPE100316-01	03/16/10	1643	2.82	8.71
04	INDAB02	WPE100316-02	03/16/10	1657	2.82	8.71
05	INDAB03	WPE100316-03	03/16/10	1711	2.82	8.71
06	INDAB04	WPE100316-04	03/16/10	1725	2.82	8.71
07	INDAB05	IPE100204-02	03/16/10	1739	2.82	8.71
08	TOXAPH01	WPE100316-11	03/16/10	1753		
09	TOXAPH02	WPE100316-12	03/16/10	1807		
10	TOXAPH03	WPE100316-13	03/16/10	1821		
11	TOXAPH04	WPE100316-14	03/16/10	1836		
12	TOXAPH05	IPE100204-40	03/16/10	1850		
13	TOXAPH01	WPE100125-52	03/16/10	1904		
14	ZZZZZ	ZZZZZ	03/16/10	1918	2.82	8.71
15	CHLOR01	WPE100316-21	03/16/10	1932	2.82	8.71
16	CHLOR02	WPE100316-22	03/16/10	1946	2.82	8.71
17	CHLOR03	WPE100316-23	03/16/10	2000	2.82	8.71
18	CHLOR04	WPE100316-24	03/16/10	2014	2.82	8.71
19	CHLOR05	IPE100116-06	03/16/10	2028	2.82	8.71
20	CHLOR01	WPE100305-00	03/16/10	2042		
21	PIBLK02	WAR100104-99	03/16/10	2056	2.82	8.71
22	ZZZZZ	ZZZZZ	03/16/10	2110	2.82	8.71
23	ZZZZZ	ZZZZZ	03/16/10	2124	2.82	8.71
24	ZZZZZ	ZZZZZ	03/16/10	2138	2.82	8.71
25	ZZZZZ	ZZZZZ	03/16/10	2152	2.82	8.71
26	ZZZZZ	ZZZZZ	03/16/10	2207	2.82	8.71
27	ZZZZZ	ZZZZZ	03/16/10	2221	2.82	8.71
28	ZZZZZ	ZZZZZ	03/16/10	2235	2.82	8.71
29	INDAB01	WPE100305-10	03/16/10	2249	2.82	8.71
30	PIBLK03	WAR100104-99	03/16/10	2303	2.82	8.71
31	PEM02	WPE100125-99	03/16/10	2317	2.82	8.71
32	ZZZZZ	ZZZZZ	03/16/10	2331	2.82	8.71

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

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FORM VIII PEST

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/17/10 03/17/10

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.74 DCB: 7.88

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100104-99	03/17/10	1849	2.73	7.87
02	PEM01	WPE100125-99	03/17/10	1903	2.73	7.87
03	ZZZZZ	ZZZZZ	03/17/10	1917	2.73	7.88
04	TOXAPH01	WPE100125-52	03/17/10	1931		
05	ZZZZZ	ZZZZZ	03/17/10	1945		
06	ZZZZZ	ZZZZZ	03/17/10	2000	2.74	7.88
07	ZZZZZ	ZZZZZ	03/17/10	2014		
08	ZZZZZ	ZZZZZ	03/17/10	2028	2.74	7.88
09	CHLOR01	WPE100305-00	03/17/10	2042		
10	INDAB01	WPE100316-01	03/17/10	2056	2.74	7.88
11	INDAB02	WPE100316-02	03/17/10	2110	2.73	7.88
12	INDAB03	WPE100316-03	03/17/10	2124	2.74	7.88
13	INDAB04	WPE100316-04	03/17/10	2139	2.74	7.88
14	INDAB05	IPE100204-02	03/17/10	2153	2.74	7.88
15	INDAB01	WPE100305-10	03/17/10	2207	2.74	7.88
16	PIBLK02	WAR100104-99	03/17/10	2221	2.74	7.88
17	PEM02	WPE100125-99	03/17/10	2235	2.73	7.88
18	ZZZZZ	ZZZZZ	03/17/10	2249	2.74	7.88
19	ZZZZZ	ZZZZZ	03/17/10	2303	2.74	7.88
20	ZZZZZ	ZZZZZ	03/17/10	2317	2.74	7.88
21	ZZZZZ	ZZZZZ	03/17/10	2331	2.74	7.88
22	ZZZZZ	ZZZZZ	03/17/10	2345	2.74	7.88
23	ZZZZZ	ZZZZZ	03/17/10	2359	2.74	7.88
24	ZZZZZ	ZZZZZ	03/18/10	0013	2.74	7.88
25	ZZZZZ	ZZZZZ	03/18/10	0027	2.74	7.88
26	INDAB02	WPE100305-10	03/18/10	0041	2.73	7.88
27	PIBLK03	WAR100104-99	03/18/10	0055	2.74	7.88
28	ZZZZZ	ZZZZZ	03/18/10	0109	2.73	7.88
29	ZZZZZ	ZZZZZ	03/18/10	0123	2.74	7.88
30	ZZZZZ	ZZZZZ	03/18/10	0137	2.74	7.88
31	ZZZZZ	ZZZZZ	03/18/10	0152	2.74	7.88
32	INDAB03	WPE100305-10	03/18/10	0206	2.74	7.88

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/17/10 03/17/10

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.82 DCB: 8.72

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100104-99	03/17/10	1849	2.82	8.71
02	PEM01	WPE100125-99	03/17/10	1903	2.82	8.71
03	ZZZZZ	ZZZZZ	03/17/10	1917	2.82	8.71
04	TOXAPH01	WPE100125-52	03/17/10	1931		
05	ZZZZZ	ZZZZZ	03/17/10	1945		
06	ZZZZZ	ZZZZZ	03/17/10	2000	2.82	8.72
07	ZZZZZ	ZZZZZ	03/17/10	2014		
08	ZZZZZ	ZZZZZ	03/17/10	2028	2.82	8.72
09	CHLOR01	WPE100305-00	03/17/10	2042		
10	INDAB01	WPE100316-01	03/17/10	2056	2.82	8.72
11	INDAB02	WPE100316-02	03/17/10	2110	2.82	8.72
12	INDAB03	WPE100316-03	03/17/10	2124	2.82	8.72
13	INDAB04	WPE100316-04	03/17/10	2139	2.82	8.71
14	INDAB05	IPE100204-02	03/17/10	2153	2.82	8.71
15	INDAB01	WPE100305-10	03/17/10	2207	2.82	8.72
16	PIBLK02	WAR100104-99	03/17/10	2221	2.82	8.72
17	PEM02	WPE100125-99	03/17/10	2235	2.82	8.72
18	ZZZZZ	ZZZZZ	03/17/10	2249	2.82	8.72
19	ZZZZZ	ZZZZZ	03/17/10	2303	2.82	8.71
20	ZZZZZ	ZZZZZ	03/17/10	2317	2.82	8.71
21	ZZZZZ	ZZZZZ	03/17/10	2331	2.82	8.71
22	ZZZZZ	ZZZZZ	03/17/10	2345	2.82	8.72
23	ZZZZZ	ZZZZZ	03/17/10	2359	2.82	8.71
24	ZZZZZ	ZZZZZ	03/18/10	0013	2.82	8.72
25	ZZZZZ	ZZZZZ	03/18/10	0027	2.82	8.71
26	INDAB02	WPE100305-10	03/18/10	0041	2.82	8.71
27	PIBLK03	WAR100104-99	03/18/10	0055	2.82	8.71
28	ZZZZZ	ZZZZZ	03/18/10	0109	2.82	8.71
29	ZZZZZ	ZZZZZ	03/18/10	0123	2.82	8.71
30	ZZZZZ	ZZZZZ	03/18/10	0137	2.82	8.71
31	ZZZZZ	ZZZZZ	03/18/10	0152	2.82	8.71
32	INDAB03	WPE100305-10	03/18/10	0206	2.82	8.71

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/16/10 03/17/10

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.74 DCB: 7.88

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100104-99	03/18/10	1821	2.73	7.87
02	PEM01	WPE100125-99	03/18/10	1835	2.74	7.88
03	ZZZZZ	ZZZZZ	03/18/10	1850	2.74	7.88
04	TOXAPH01	WPE100125-52	03/18/10	1904		
05	CHLOR01	WPE100305-00	03/18/10	1919		
06	INDAB01	WPE100305-10	03/18/10	1933	2.74	7.88
07	ZZZZZ	ZZZZZ	03/18/10	1947		
08	PIBLK02	WAR100104-99	03/18/10	2001	2.74	7.88
09	PBLK01	1202073942	03/18/10	2015	2.74	7.88
10	PBLK01LCS	1202073943	03/18/10	2030	2.74	7.88
11	PBLK01TLCS	1202073946	03/18/10	2044	2.74	7.88
12	RE46-10-13782	248862002	03/18/10	2058	2.74	7.88
13	RE46-10-13783	248862003	03/18/10	2112	2.74	7.88
14	RE46-10-13777	248862004	03/18/10	2126	2.74	7.88
15	RE46-10-13775	248862005	03/18/10	2140	2.74	7.88
16	RE46-10-13776	248862006	03/18/10	2154	2.74	7.88
17	RE46-10-13781	248862007	03/18/10	2208	2.74	7.88
18	RE46-10-13779	248862008	03/18/10	2222	2.74	7.88
19	INDAB02	WPE100305-10	03/18/10	2236	2.74	7.88
20	PIBLK03	WAR100104-99	03/18/10	2250	2.74	7.88
21	RE46-10-13780	248862009	03/18/10	2304	2.74	7.88
22	RE46-10-13778	248862010	03/18/10	2318	2.74	7.88
23	ZZZZZ	ZZZZZ	03/18/10	2332	2.74	7.88
24	ZZZZZ	ZZZZZ	03/18/10	2346	2.74	7.88
25	ZZZZZ	ZZZZZ	03/19/10	0000	2.74	7.88
26	INDAB03	WPE100305-10	03/19/10	0014	2.74	7.88
27	PIBLK04	WAR100104-99	03/19/10	0029	2.74	7.88
28	ZZZZZ	ZZZZZ	03/19/10	0043	2.74	7.88
29	ZZZZZ	ZZZZZ	03/19/10	0057	2.74	7.88
30	ZZZZZ	ZZZZZ	03/19/10	0111	2.74	7.88
31	ZZZZZ	ZZZZZ	03/19/10	0125	2.74	7.88
32	ZZZZZ	ZZZZZ	03/19/10	0139	2.74	7.88

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/16/10 03/17/10

Instrument ID: ECD5A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.82 DCB: 8.72

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100104-99	03/18/10	1821	2.82	8.71
02	PEM01	WPE100125-99	03/18/10	1835	2.82	8.72
03	ZZZZZ	ZZZZZ	03/18/10	1850	2.82	8.72
04	TOXAPH01	WPE100125-52	03/18/10	1904		
05	CHLOR01	WPE100305-00	03/18/10	1919		
06	INDAB01	WPE100305-10	03/18/10	1933	2.82	8.72
07	ZZZZZ	ZZZZZ	03/18/10	1947		
08	PIBLK02	WAR100104-99	03/18/10	2001	2.82	8.72
09	PBLK01	1202073942	03/18/10	2015	2.82	8.72
10	PBLK01LCS	1202073943	03/18/10	2030	2.82	8.72
11	PBLK01TLCS	1202073946	03/18/10	2044	2.82	8.72
12	RE46-10-13782	248862002	03/18/10	2058	2.82	8.72
13	RE46-10-13783	248862003	03/18/10	2112	2.82	8.72
14	RE46-10-13777	248862004	03/18/10	2126	2.82	8.72
15	RE46-10-13775	248862005	03/18/10	2140	2.82	8.72
16	RE46-10-13776	248862006	03/18/10	2154	2.82	8.72
17	RE46-10-13781	248862007	03/18/10	2208	2.82	8.72
18	RE46-10-13779	248862008	03/18/10	2222	2.82	8.72
19	INDAB02	WPE100305-10	03/18/10	2236	2.82	8.72
20	PIBLK03	WAR100104-99	03/18/10	2250	2.82	8.72
21	RE46-10-13780	248862009	03/18/10	2304	2.82	8.72
22	RE46-10-13778	248862010	03/18/10	2318	2.82	8.72
23	ZZZZZ	ZZZZZ	03/18/10	2332	2.82	8.72
24	ZZZZZ	ZZZZZ	03/18/10	2346	2.82	8.72
25	ZZZZZ	ZZZZZ	03/19/10	0000	2.82	8.72
26	INDAB03	WPE100305-10	03/19/10	0014	2.82	8.72
27	PIBLK04	WAR100104-99	03/19/10	0029	2.82	8.72
28	ZZZZZ	ZZZZZ	03/19/10	0043	2.82	8.72
29	ZZZZZ	ZZZZZ	03/19/10	0057	2.82	8.72
30	ZZZZZ	ZZZZZ	03/19/10	0111	2.82	8.72
31	ZZZZZ	ZZZZZ	03/19/10	0125	2.82	8.72
32	ZZZZZ	ZZZZZ	03/19/10	0139	2.82	8.72

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII SV OLM03.0

Identification Summary

SDG Number: 10–2314 **Client ID:** LCS for batch 966422

Lab Sample ID: 1202073943

Data File:	010f1001.d	**Data File:**	010b1001.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	18–MAR–10 20:30	**Analyzed:**	18–MAR–10 20:30

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							3.56
Column 1	1	3.14	3.11 – 3.17	11.7		ug/kg	
Column 2	1	3.31	3.28 – 3.34	12.1		ug/kg	
gamma–BHC (Lindane)							5.68
Column 1	1	3.39	3.36 – 3.42	11.9		ug/kg	
Column 2	1	3.62	3.58 – 3.64	12.6		ug/kg	
beta–BHC							9.57
Column 1	1	3.45	3.42 – 3.48	10.9		ug/kg	
Column 2	1	3.68	3.65 – 3.71	12		ug/kg	
delta–BHC							3.45
Column 1	1	3.6	3.57 – 3.63	11.9		ug/kg	
Column 2	1	3.95	3.92 – 3.98	12.4		ug/kg	
Heptachlor							5.1
Column 1	1	3.77	3.74 – 3.8	11.8		ug/kg	
Column 2	1	4.02	3.99 – 4.05	12.4		ug/kg	

Identification Summary

SDG Number: 10-2314 **Client ID:** LCS for batch 966422

Lab Sample ID: 1202073943

Data File:	010f1001.d	**Data File:**	010b1001.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	18-MAR-10 20:30	**Analyzed:**	18-MAR-10 20:30

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							5.48
Column 1	1	4.03	4 – 4.06	11		ug/kg	
Column 2	1	4.33	4.3 – 4.36	11.7		ug/kg	
Heptachlor epoxide							3.77
Column 1	1	4.57	4.54 – 4.6	11.4		ug/kg	
Column 2	1	4.88	4.85 – 4.91	11.9		ug/kg	
gamma-Chlordane							8.33
Column 1	1	4.68	4.65 – 4.71	11.2		ug/kg	
Column 2	1	5.07	5.04 – 5.1	12.1		ug/kg	
alpha-Chlordane							8.08
Column 1	1	4.81	4.78 – 4.84	11.3		ug/kg	
Column 2	1	5.21	5.18 – 5.24	12.3		ug/kg	
Endosulfan I							6.7
Column 1	1	4.94	4.91 – 4.97	11.4		ug/kg	
Column 2	1	5.28	5.25 – 5.31	12.2		ug/kg	

Identification Summary

SDG Number: 10-2314 **Client ID:** LCS for batch 966422

Lab Sample ID: 1202073943

Data File:	010f1001.d	**Data File:**	010b1001.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	18-MAR-10 20:30	**Analyzed:**	18-MAR-10 20:30

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'-DDE								8.31
	Column 1	1	4.87	4.84 – 4.9	27.5		ug/kg	
	Column 2	1	5.37	5.34 – 5.4	29.9		ug/kg	
Dieldrin								7.48
	Column 1	1	5.17	5.14 – 5.2	27.6		ug/kg	
	Column 2	1	5.55	5.52 – 5.58	29.8		ug/kg	
Endrin								6.16
	Column 1	1	5.39	5.36 – 5.42	31.8		ug/kg	
	Column 2	1	5.87	5.84 – 5.9	33.8		ug/kg	
4,4'-DDD								7.35
	Column 1	1	5.45	5.42 – 5.48	28.9		ug/kg	
	Column 2	1	5.97	5.94 – 6	31.2		ug/kg	
Endosulfan II								4.91
	Column 1	1	5.62	5.59 – 5.65	28.8		ug/kg	
	Column 2	1	6.09	6.06 – 6.12	30.3		ug/kg	

Identification Summary

SDG Number: 10–2314 **Client ID:** LCS for batch 966422

Lab Sample ID: 1202073943

Data File:	010f1001.d	**Data File:**	010b1001.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	18–MAR–10 20:30	**Analyzed:**	18–MAR–10 20:30

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							3.64
Column 1	1	6.04	6.01 – 6.07	27.8		ug/kg	
Column 2	1	6.45	6.42 – 6.48	28.9		ug/kg	
4,4'–DDT							4.12
Column 1	1	5.73	5.7 – 5.76	32		ug/kg	
Column 2	1	6.31	6.28 – 6.34	33.3		ug/kg	
Endosulfan sulfate							1.95
Column 1	1	6.49	6.46 – 6.52	30.2		ug/kg	
Column 2	1	6.75	6.72 – 6.78	30.8		ug/kg	
Methoxychlor							7.48
Column 1	1	6.23	6.2 – 6.26	119		ug/kg	
Column 2	1	7.05	7.02 – 7.08	128		ug/kg	
Endrin ketone							4.63
Column 1	1	6.79	6.76 – 6.82	28.2		ug/kg	
Column 2	1	7.33	7.3 – 7.36	29.6		ug/kg	

Identification Summary

SDG Number: 10–2314 **Client ID:** LCS for batch 966422

Lab Sample ID: 1202073946

Data File:	011f1101.d	**Data File:**	011b1101.d
Inst:	ECD5A.I_1	**Inst:**	ECD5A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	18–MAR–10 20:44	**Analyzed:**	18–MAR–10 20:44

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							1.7
Column 1	1	4.78	4.75 – 4.81	141		ug/kg	
	2	5.06	5.04 – 5.1	108		ug/kg	
	3	5.17	5.14 – 5.2	107		ug/kg	
	4	5.26	5.23 – 5.29	110		ug/kg	
	5	5.83	5.8 – 5.86	114		ug/kg	
					116		
Column 2	1	5.13	5.1 – 5.16	117		ug/kg	
	2	5.53	5.5 – 5.56	120		ug/kg	
	3	5.59	5.56 – 5.62	121		ug/kg	
	4	5.65	5.62 – 5.68	115		ug/kg	
	5	5.84	5.81 – 5.87	117		ug/kg	
					118		

QUALITY CONTROL DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202073942**				
Client Sample:	**QC for batch 966422**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966422**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 20:15**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**009f0901.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	009b0901.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.667	ug/kg	0.167	0.667	1
58-89-9	gamma-BHC (Lindane)	U	0.667	ug/kg	0.167	0.667	1
319-85-7	beta-BHC	U	0.667	ug/kg	0.167	0.667	1
319-86-8	delta-BHC	U	0.667	ug/kg	0.167	0.667	1
76-44-8	Heptachlor	U	0.667	ug/kg	0.167	0.667	1
309-00-2	Aldrin	U	0.667	ug/kg	0.167	0.667	1
1024-57-3	Heptachlor epoxide	U	0.667	ug/kg	0.208	0.667	1
5103-74-2	gamma-Chlordane	U	0.667	ug/kg	0.167	0.667	1
5103-71-9	alpha-Chlordane	U	0.667	ug/kg	0.167	0.667	1
959-98-8	Endosulfan I	U	0.667	ug/kg	0.167	0.667	1
72-55-9	4,4'-DDE	U	1.33	ug/kg	0.333	1.33	1
60-57-1	Dieldrin	U	1.33	ug/kg	0.333	1.33	1
72-20-8	Endrin	U	1.33	ug/kg	0.333	1.33	1
72-54-8	4,4'-DDD	U	1.33	ug/kg	0.333	1.33	1
33213-65-9	Endosulfan II	U	1.33	ug/kg	0.333	1.33	1
7421-93-4	Endrin aldehyde	U	1.33	ug/kg	0.333	1.33	1
50-29-3	4,4'-DDT	U	1.33	ug/kg	0.333	1.33	1
1031-07-8	Endosulfan sulfate	U	1.33	ug/kg	0.333	1.33	1
72-43-5	Methoxychlor	U	6.67	ug/kg	1.67	6.67	1
53494-70-5	Endrin ketone	U	1.33	ug/kg	0.333	1.33	1
8001-35-2	Toxaphene	U	16.7	ug/kg	5.55	16.7	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/031810.b/009f0901.d
Lab Smp Id: 1202073942 Client Smp ID: PBLK01
Inj Date : 18-MAR-2010 20:15
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1202073942|1|
Misc Info : |ECD81A_1S|966423|SVP|MB|SOIL|MB|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 9 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.738	2.739	-0.001	52346783	105.099	17.5	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.881	7.883	-0.002	39469129	109.060	18.2	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/009f0901.d

Date : 18-MAR-2010 20:15

Client ID: PBLK01

Sample Info: |1202073942|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

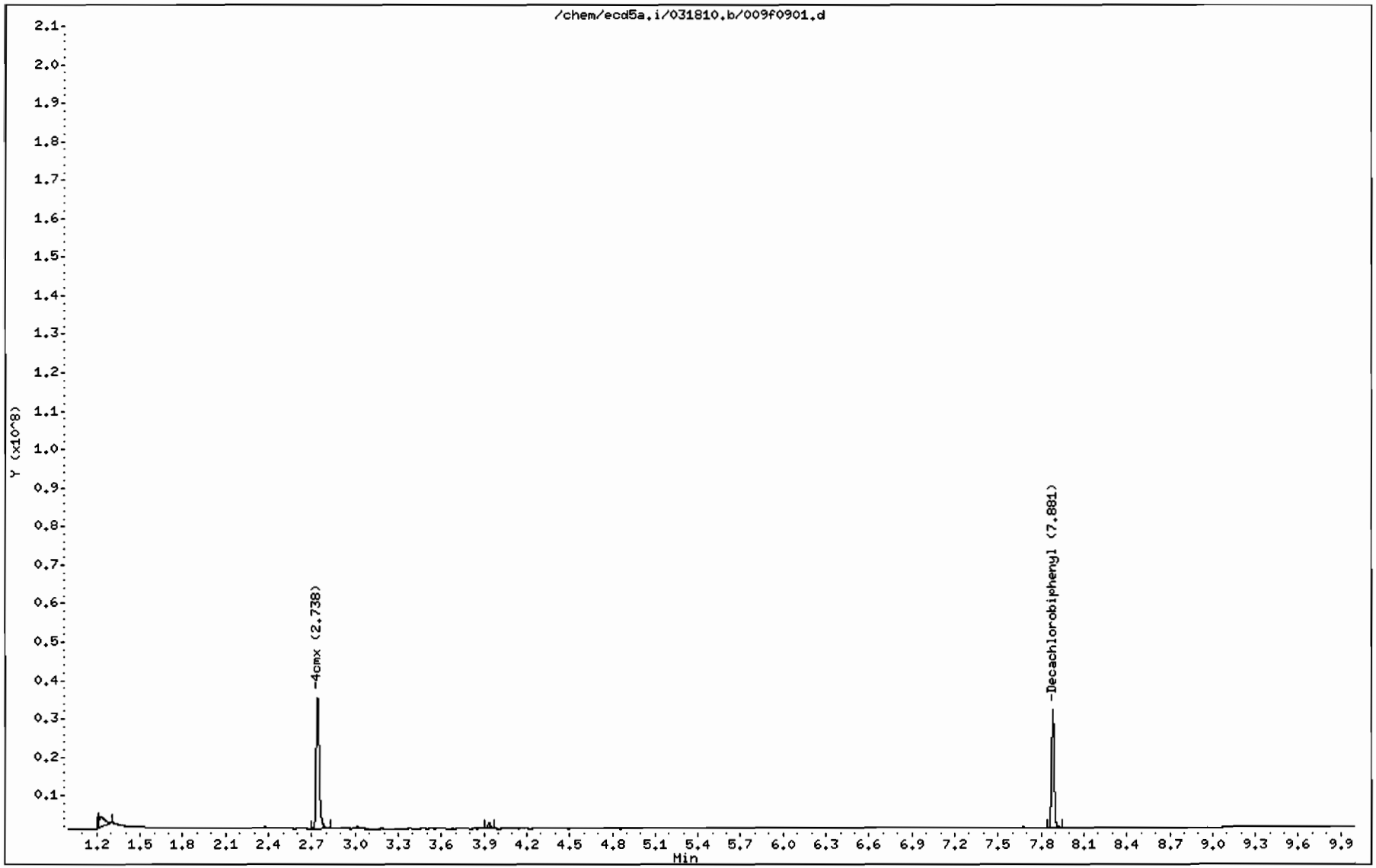

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/009b0901.d
Lab Smp Id: 1202073942 Client Smp ID: PBLK01
Inj Date : 18-MAR-2010 20:15
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1202073942|1|
Misc Info : |ECD81A_1S|966423|SVP|MB|SOIL|MB|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 9 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.823	2.823	0.000	59313217	111.646	18.6	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.718	8.720	-0.002	37494345	117.619	19.6	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/009b0901.d

Page 1

Date : 18-MAR-2010 20:15

Client ID: PBLK01

Instrument: ecd5a.i

Sample Info: |1202073942|1|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

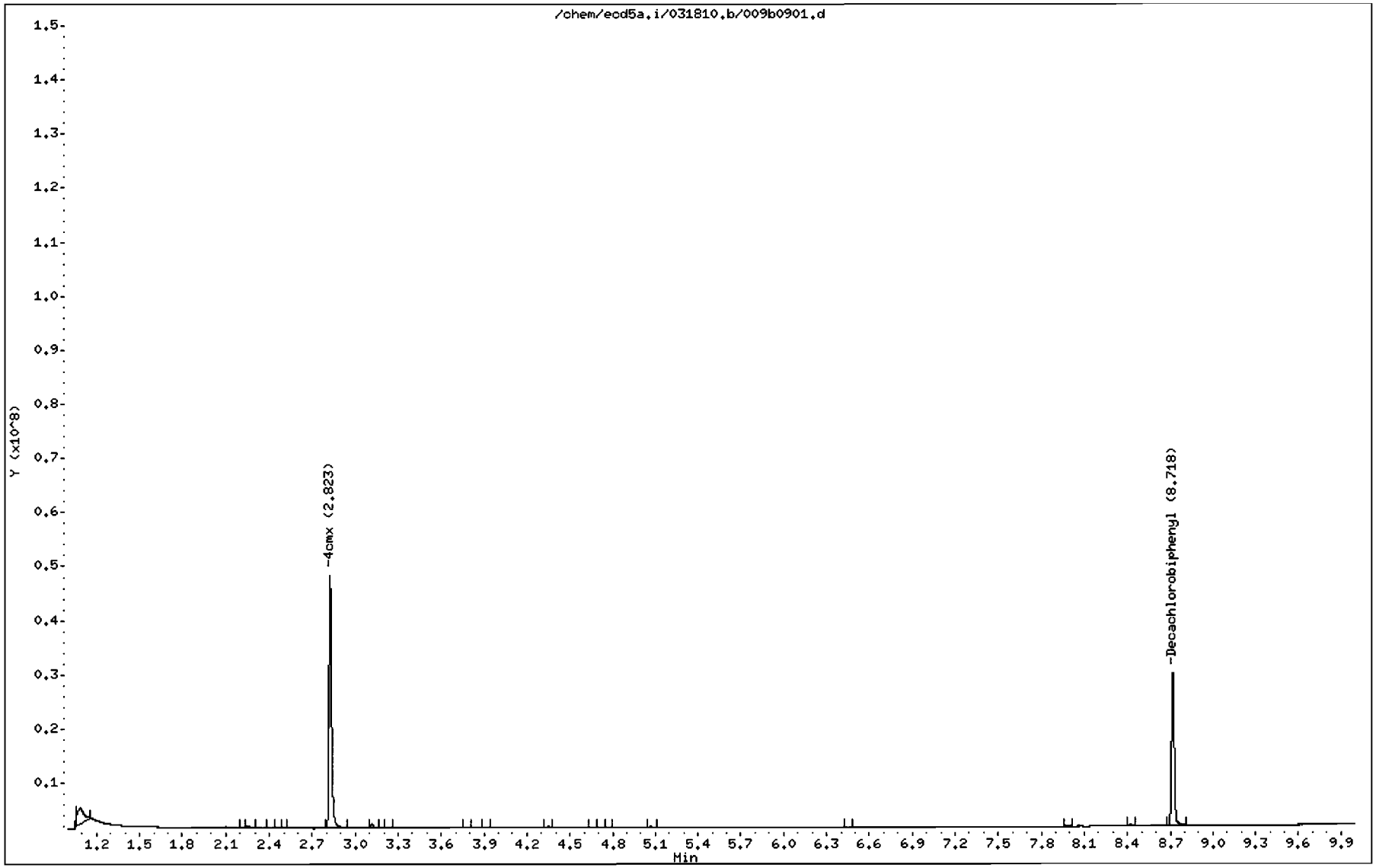

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2314**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202073943**				
Client Sample:	**QC for batch 966422**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966422**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 20:30**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**010f1001.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	010b1001.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC		11.7	ug/kg	0.167	0.667	1
58–89–9	gamma–BHC (Lindane)		11.9	ug/kg	0.167	0.667	1
319–85–7	beta–BHC		10.9	ug/kg	0.167	0.667	1
319–86–8	delta–BHC		11.9	ug/kg	0.167	0.667	1
76–44–8	Heptachlor		11.8	ug/kg	0.167	0.667	1
309–00–2	Aldrin		11.0	ug/kg	0.167	0.667	1
1024–57–3	Heptachlor epoxide		11.4	ug/kg	0.208	0.667	1
5103–74–2	gamma–Chlordane		11.2	ug/kg	0.167	0.667	1
5103–71–9	alpha–Chlordane		11.3	ug/kg	0.167	0.667	1
959–98–8	Endosulfan I		11.4	ug/kg	0.167	0.667	1
72–55–9	4,4'–DDE		27.5	ug/kg	0.333	1.33	1
60–57–1	Dieldrin		27.6	ug/kg	0.333	1.33	1
72–20–8	Endrin		31.8	ug/kg	0.333	1.33	1
72–54–8	4,4'–DDD		28.9	ug/kg	0.333	1.33	1
33213–65–9	Endosulfan II		28.8	ug/kg	0.333	1.33	1
7421–93–4	Endrin aldehyde		27.8	ug/kg	0.333	1.33	1
50–29–3	4,4'–DDT		32.0	ug/kg	0.333	1.33	1
1031–07–8	Endosulfan sulfate		30.2	ug/kg	0.333	1.33	1
72–43–5	Methoxychlor		119	ug/kg	1.67	6.67	1
53494–70–5	Endrin ketone		28.2	ug/kg	0.333	1.33	1
8001–35–2	Toxaphene	U	16.7	ug/kg	5.55	16.7	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/031810.b/010f1001.d
Lab Smp Id: 1202073943 Client Smp ID: PBLK01LCS
Inj Date : 18-MAR-2010 20:30
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1202073943|1|
Misc Info : |ECD81A_1S|966423|SVP|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 10 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.738	2.739	-0.001	60213408	120.893	20.1	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.882	7.883	-0.001	45691743	126.254	21.0	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.143	3.143	0.000	48529491	70.2786	11.7	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.388	3.388	0.000	43137793	71.4717	11.9	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.452	3.451	0.001	17734149	65.5876	10.9	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.601	3.600	0.001	42379108	71.6665	11.9	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.773	3.774	-0.001	32462124	70.8176	11.8	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.033	4.032	0.001	42965944	66.2600	11.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.568	4.567	0.001	36330190	68.6297	11.4	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.683	4.683	0.000	37286813	67.0061	11.2	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.806	4.806	0.000	38274443	67.8504	11.3	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.937	4.938	-0.001	34037538	68.3170	11.4	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.873	4.873	0.000	88344912	165.188	27.5	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.166	5.166	0.000	88837245	165.733	27.6	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.394	5.395	-0.001	75969290	190.807	31.8	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.453	5.455	-0.002	68652821	173.662	28.9	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.616	5.617	-0.001	73907338	173.004	28.8	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.038	6.040	-0.002	60376804	166.960	27.8	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.733	5.734	-0.001	59298415	191.914	32.0	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.490	6.490	0.000	64786083	181.424	30.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.233	6.234	-0.001	96322327	714.672	119	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.788	6.790	-0.002	74839200	169.435	28.2	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/010f1001.d

Date : 18-MAR-2010 20:30

Client ID: PBLK01LCS

Sample Info: |1202073943|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

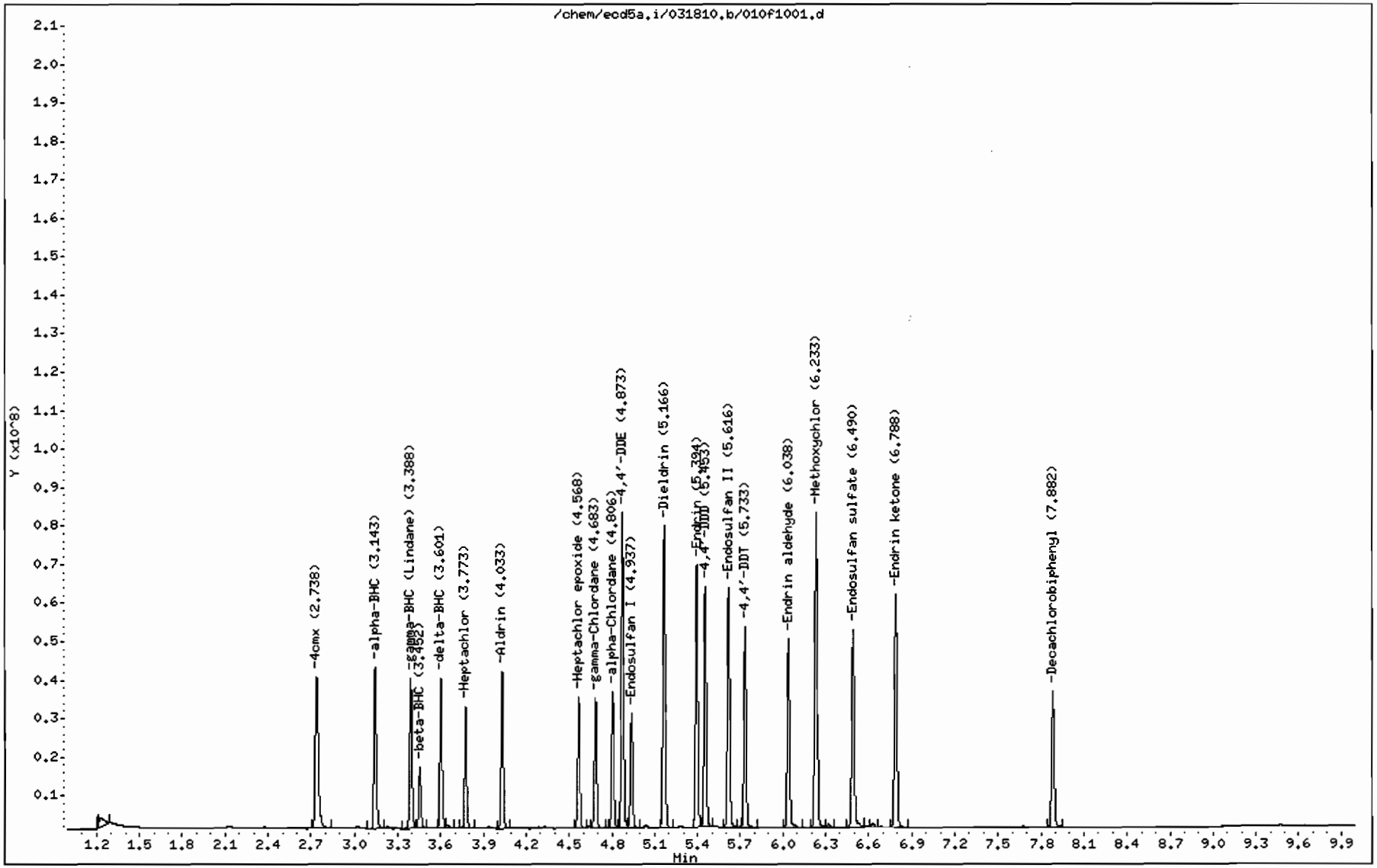

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/010b1001.d
Lab Smp Id: 1202073943 Client Smp ID: PBLK01LCS
Inj Date : 18-MAR-2010 20:30
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1202073943|1|
Misc Info : |ECD81A_1S|966423|SVP|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 10 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.823	2.823	0.000	68345729	128.648	21.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.719	8.720	-0.001	43337947	135.951	22.6	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.309	3.309	0.000	49765928	72.8238	12.1	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.615	3.615	0.000	42800279	75.6498	12.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.678	3.679	-0.001	18493068	72.1821	12.0	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.948	3.948	0.000	44893915	74.1810	12.4	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.023	4.024	-0.001	29255967	74.5214	12.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.333	4.333	0.000	43541387	69.9942	11.7	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.878	4.877	0.001	34228620	71.2684	11.9	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.068	5.068	0.000	38629649	72.8312	12.1	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.213	5.213	0.000	39302612	73.5646	12.3	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.275	5.275	0.000	34391883	73.0565	12.2	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.372	5.372	0.000	86421395	179.512	29.9	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.553	5.554	-0.001	83276949	178.610	29.8	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.870	5.871	-0.001	71866543	202.940	33.8	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.974	5.975	-0.001	63331292	186.909	31.2	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.092	6.092	0.000	78173865	181.718	30.3	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.446	6.447	-0.001	58582530	173.154	28.8	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.311	6.312	-0.001	52588262	199.995	33.3	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.748	6.748	0.000	68364444	185.005	30.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.051	7.051	0.000	94877838	770.182	128	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.334	7.335	-0.001	76277783	177.460	29.6	80.00- 120.00	100.00(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/031810.b/010b1001.d

Date : 18-MAR-2010 20:30

Client ID: PBLK01LCS

Sample Info: |1202073943|1|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

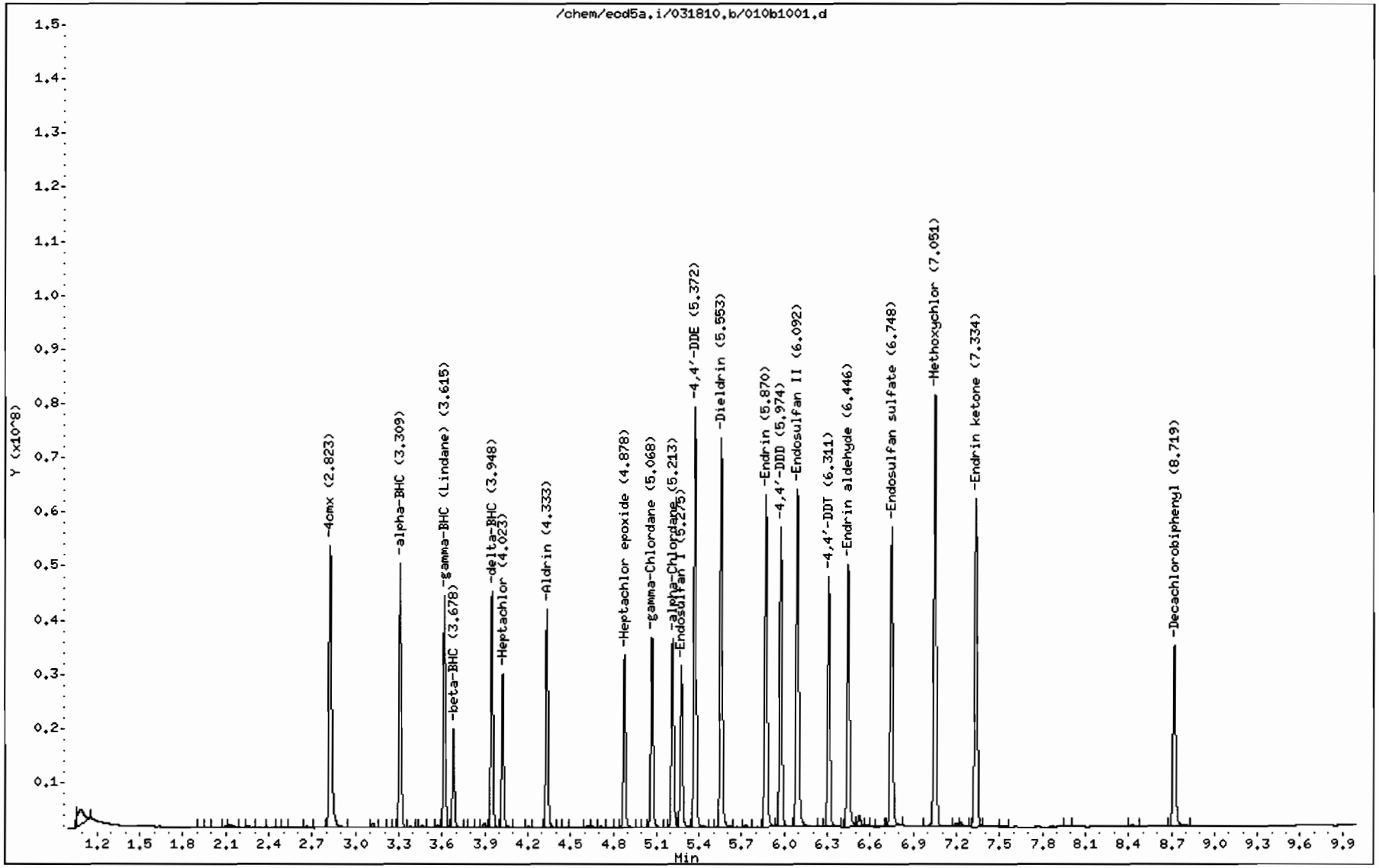

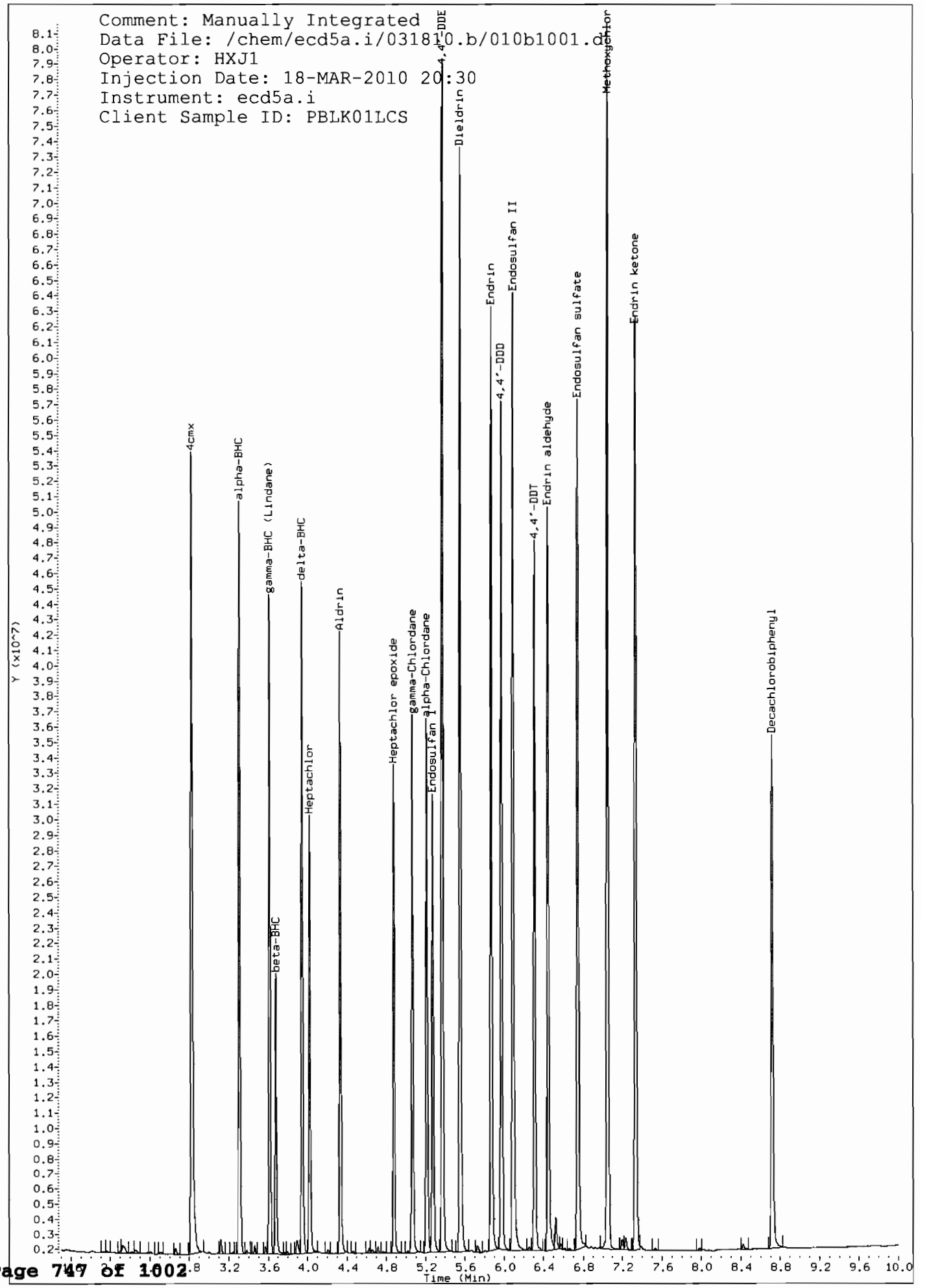
Comment: Manually Integrated
Data File: /chem/ecd5a.i/031810.b/010b1001.d
Operator: HXJ1
Injection Date: 18-MAR-2010 20:30
Instrument: ecd5a.i
Client Sample ID: PBLK01LCS
Y (x10^7)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

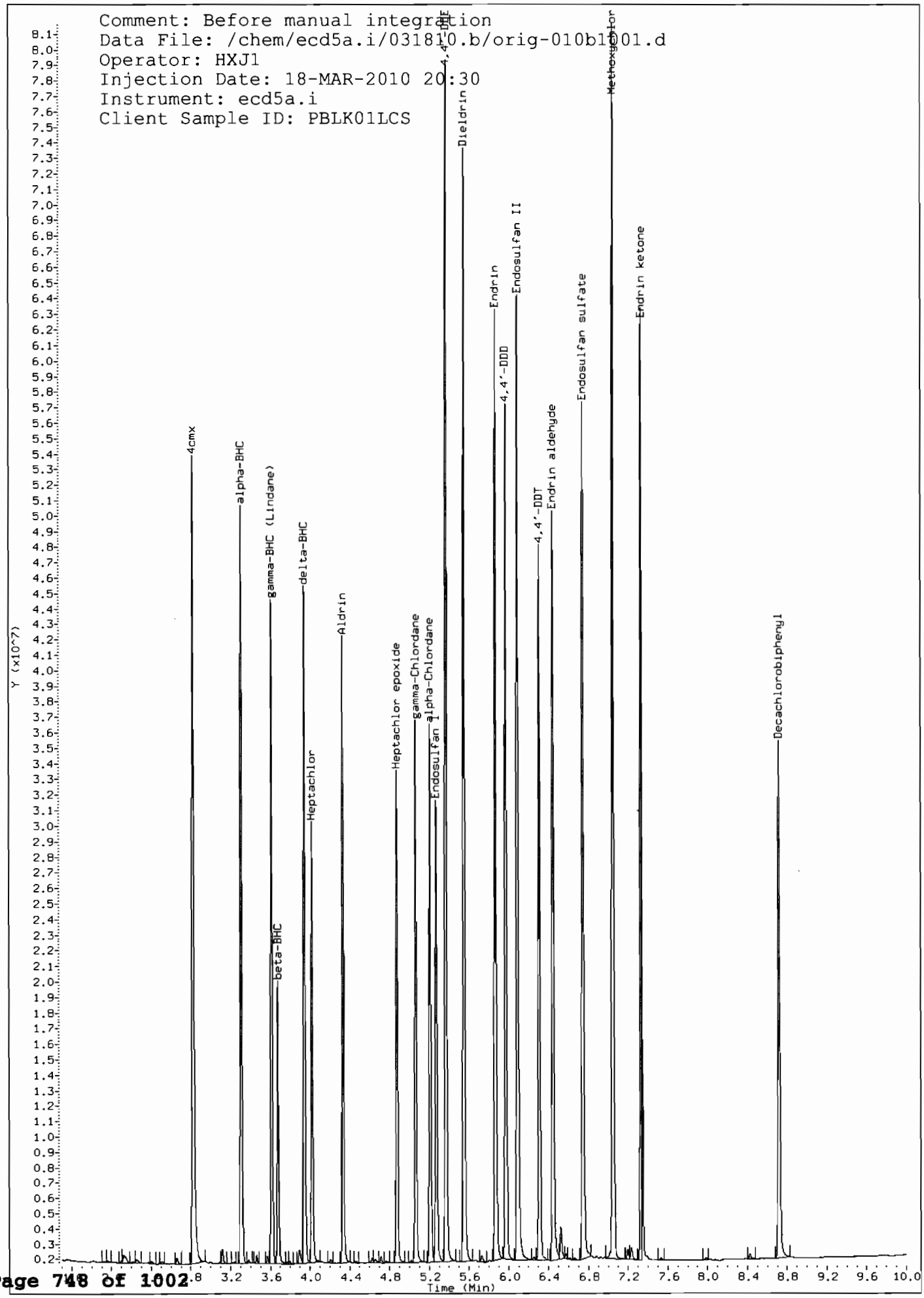
Comment: Before manual integration
Data File: /chem/ecd5a.i/031810.b/orig-010b1001.d
Operator: HXJ1
Injection Date: 18-MAR-2010 20:30
Instrument: ecd5a.i
Client Sample ID: PBLK01LCS
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl
Y (x10^7)
Time (Min)

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2314**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202073946**				
Client Sample:	**QC for batch 966422**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966422**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**966423**	**Inst:**	**ECD5A.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 20:44**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:23**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**011f1101.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	011b1101.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.667	ug/kg	0.167	0.667	1
58–89–9	gamma–BHC (Lindane)	U	0.667	ug/kg	0.167	0.667	1
319–85–7	beta–BHC	U	0.667	ug/kg	0.167	0.667	1
319–86–8	delta–BHC	U	0.667	ug/kg	0.167	0.667	1
76–44–8	Heptachlor	U	0.667	ug/kg	0.167	0.667	1
309–00–2	Aldrin	U	0.667	ug/kg	0.167	0.667	1
1024–57–3	Heptachlor epoxide	U	0.667	ug/kg	0.208	0.667	1
5103–74–2	gamma–Chlordane	U	0.667	ug/kg	0.167	0.667	1
5103–71–9	alpha–Chlordane	U	0.667	ug/kg	0.167	0.667	1
959–98–8	Endosulfan I	U	0.667	ug/kg	0.167	0.667	1
72–55–9	4,4'–DDE	U	1.33	ug/kg	0.333	1.33	1
60–57–1	Dieldrin	U	1.33	ug/kg	0.333	1.33	1
72–20–8	Endrin	U	1.33	ug/kg	0.333	1.33	1
72–54–8	4,4'–DDD	U	1.33	ug/kg	0.333	1.33	1
33213–65–9	Endosulfan II	U	1.33	ug/kg	0.333	1.33	1
7421–93–4	Endrin aldehyde	U	1.33	ug/kg	0.333	1.33	1
50–29–3	4,4'–DDT	U	1.33	ug/kg	0.333	1.33	1
1031–07–8	Endosulfan sulfate	U	1.33	ug/kg	0.333	1.33	1
72–43–5	Methoxychlor	U	6.67	ug/kg	1.67	6.67	1
53494–70–5	Endrin ketone	U	1.33	ug/kg	0.333	1.33	1
8001–35–2	Toxaphene		116	ug/kg	5.55	16.7	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/031810.b/011f1101.d
Lab Smp Id: 1202073946 Client Smp ID: PBLK01TLCS
Inj Date : 18-MAR-2010 20:44
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1202073946|1|
Misc Info : |ECD81A_1S|966423|SVP|TLCS|SOIL|TLCS|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 11 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.739	2.739	0.000	64438530	129.376	21.6	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.882	7.883	-0.001	47788896	132.049	22.0	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
4.782	4.782	0.000	2111447	847.994	141	80.00- 120.00	100.00(M)
5.065	5.066	-0.001	2473027	648.869	108	134.15- 174.15	117.12
5.171	5.171	0.000	3807286	641.249	107	228.68- 268.68	180.32
5.257	5.256	0.001	4310430	657.694	110	266.07- 306.07	204.15
5.834	5.833	0.001	2616971	684.569	114	136.44- 176.44	123.94
Average of Peak Concentrations =					116		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/031810.b/011f1101.d
Date : 18-MAR-2010 20:44
Client ID: PBLK01TLCS
Sample Info: |1202073946|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd5a.i
Operator: HXJ1
Column diameter: 0.25

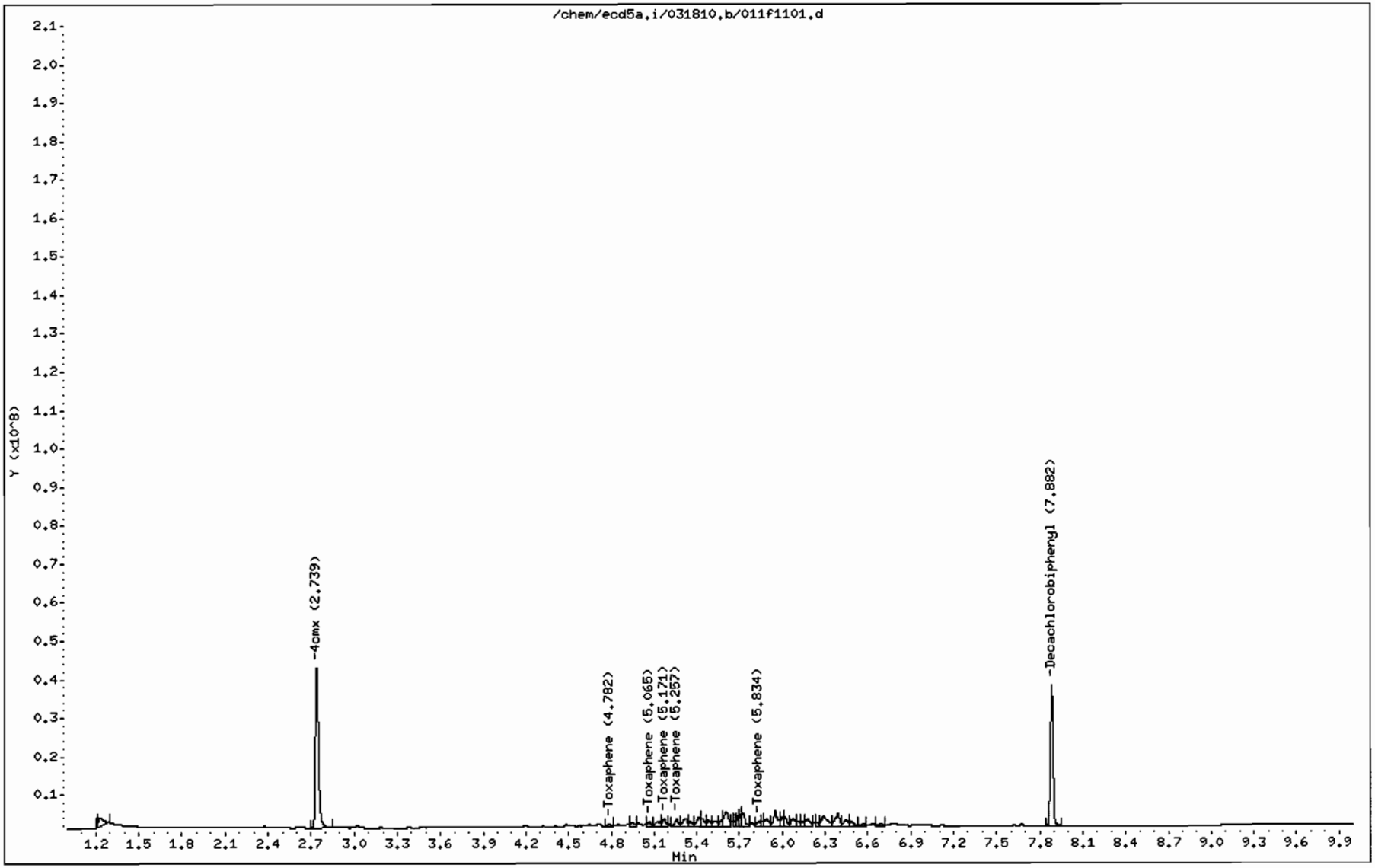

Comment: Manually Integrated
Data File: /chem/ecd5a.i/031810.b/011f1101.d
Operator: HXJ1
Injection Date: 18-MAR-2010 20:44
Instrument: ecd5a.i
Client Sample ID: PBLK01TLCS

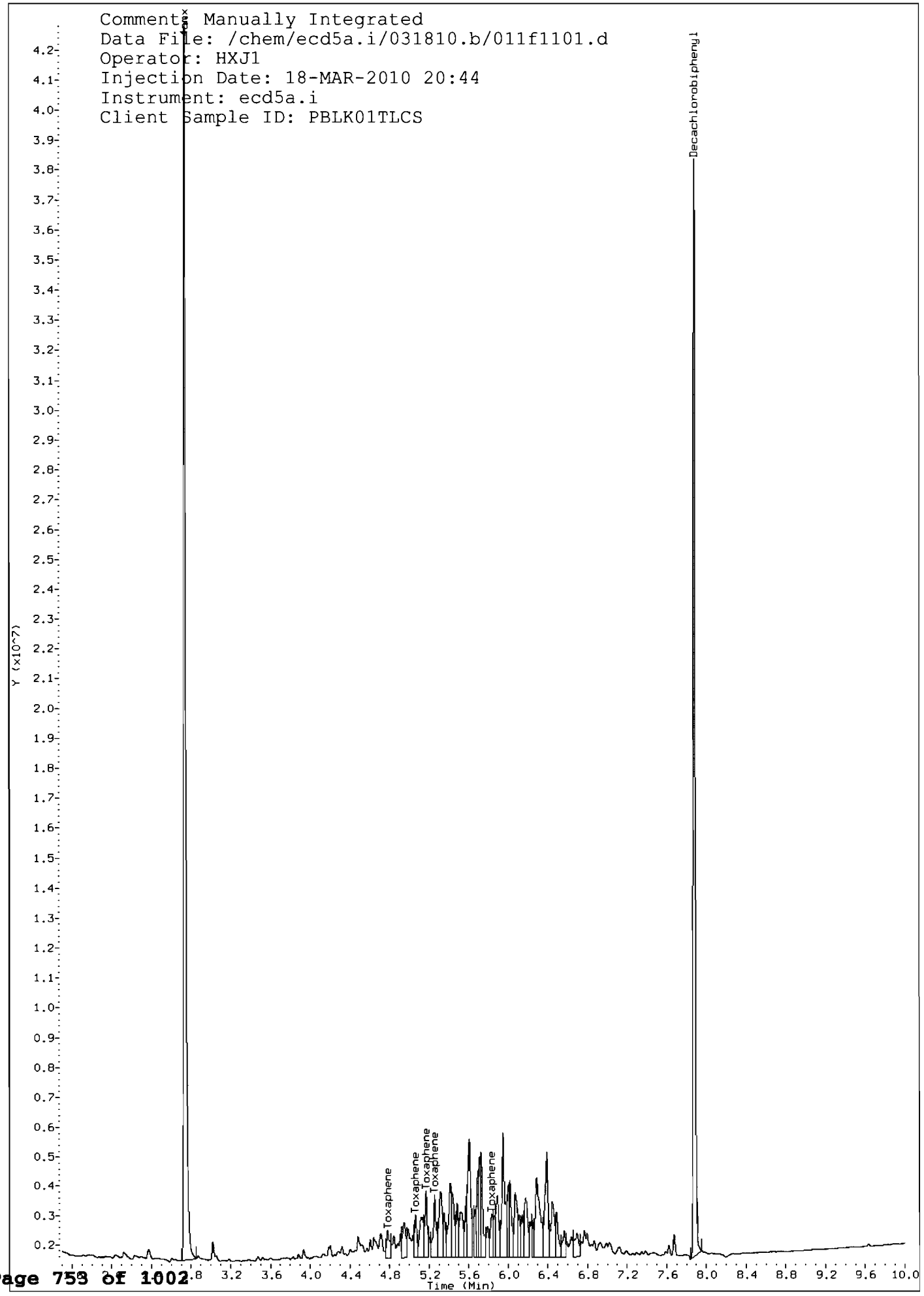

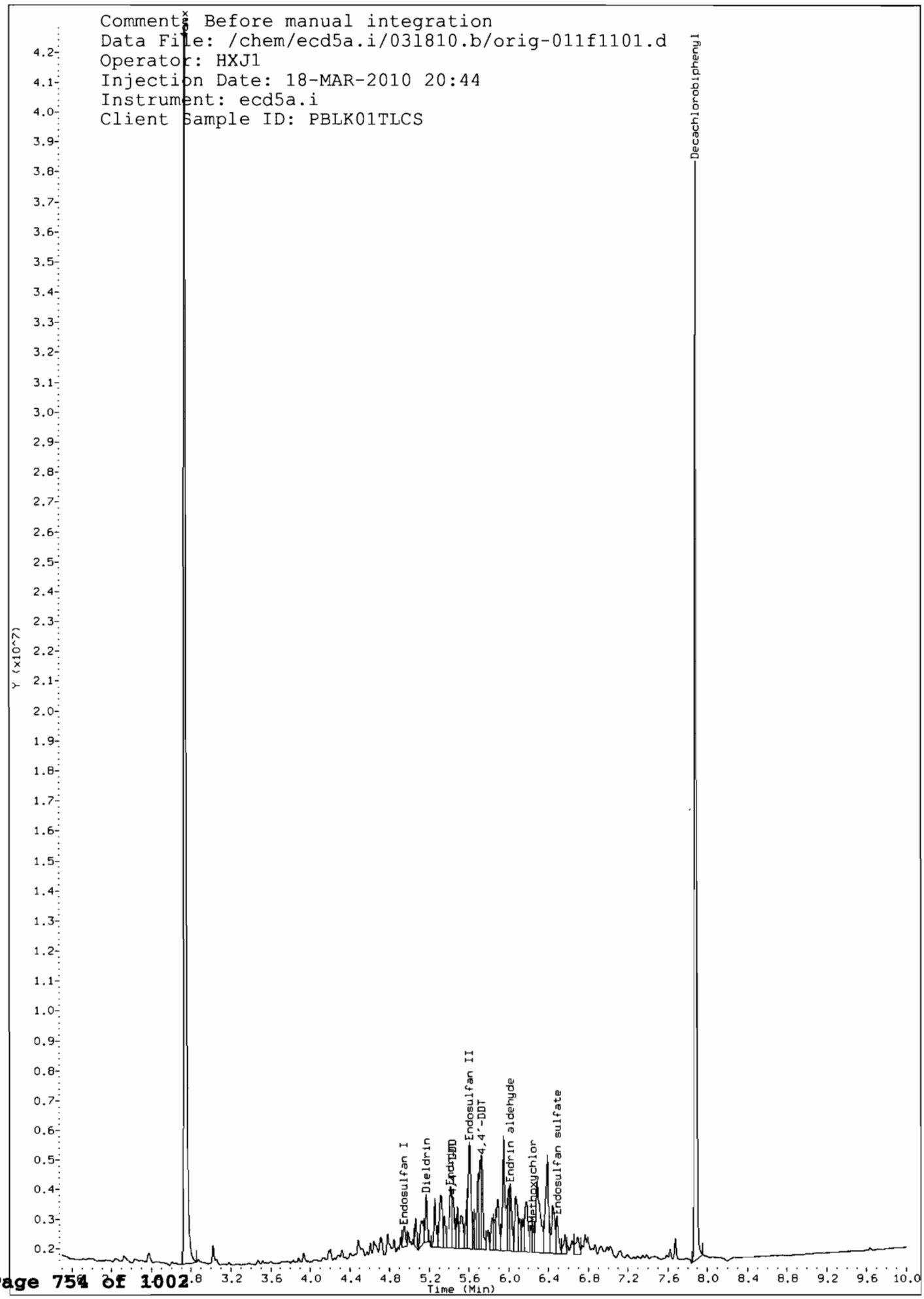
Comment: Before manual integration
Data File: /chem/ecd5a.i/031810.b/orig-011f1101.d
Operator: HXJ1
Injection Date: 18-MAR-2010 20:44
Instrument: ecd5a.i
Client Sample ID: PBLK01TLCS
Tox
Decachlorobiphenyl
Endosulfan I
Dieldrin
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/011b1101.d
Lab Smp Id: 1202073946 Client Smp ID: PBLK01TLCS
Inj Date : 18-MAR-2010 20:44
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1202073946|1|
Misc Info : |ECD81A_1S|966423|SVP|TLCS|SOIL|TLCS|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 11 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.822	2.823	-0.001	72361137	136.207	22.7	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.719	8.720	-0.001	45800909	143.677	23.9	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.130	5.128	0.002	1987158	699.156	116	80.00- 120.00	100.00(M)
5.532	5.526	0.006	4612080	717.571	120	230.43- 270.43	232.09
5.590	5.590	0.000	1999846	728.310	121	76.22- 116.22	100.64
5.651	5.651	0.000	2236236	691.801	115	106.34- 146.34	112.53
5.840	5.841	-0.001	3636580	703.285	117	162.44- 202.44	183.00
Average of Peak Concentrations =					118		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd5a.i/031810.b/011b1101.d

Date : 18-MAR-2010 20:44

Client ID: PBLK01TLCS

Sample Info: |1202073946|1|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

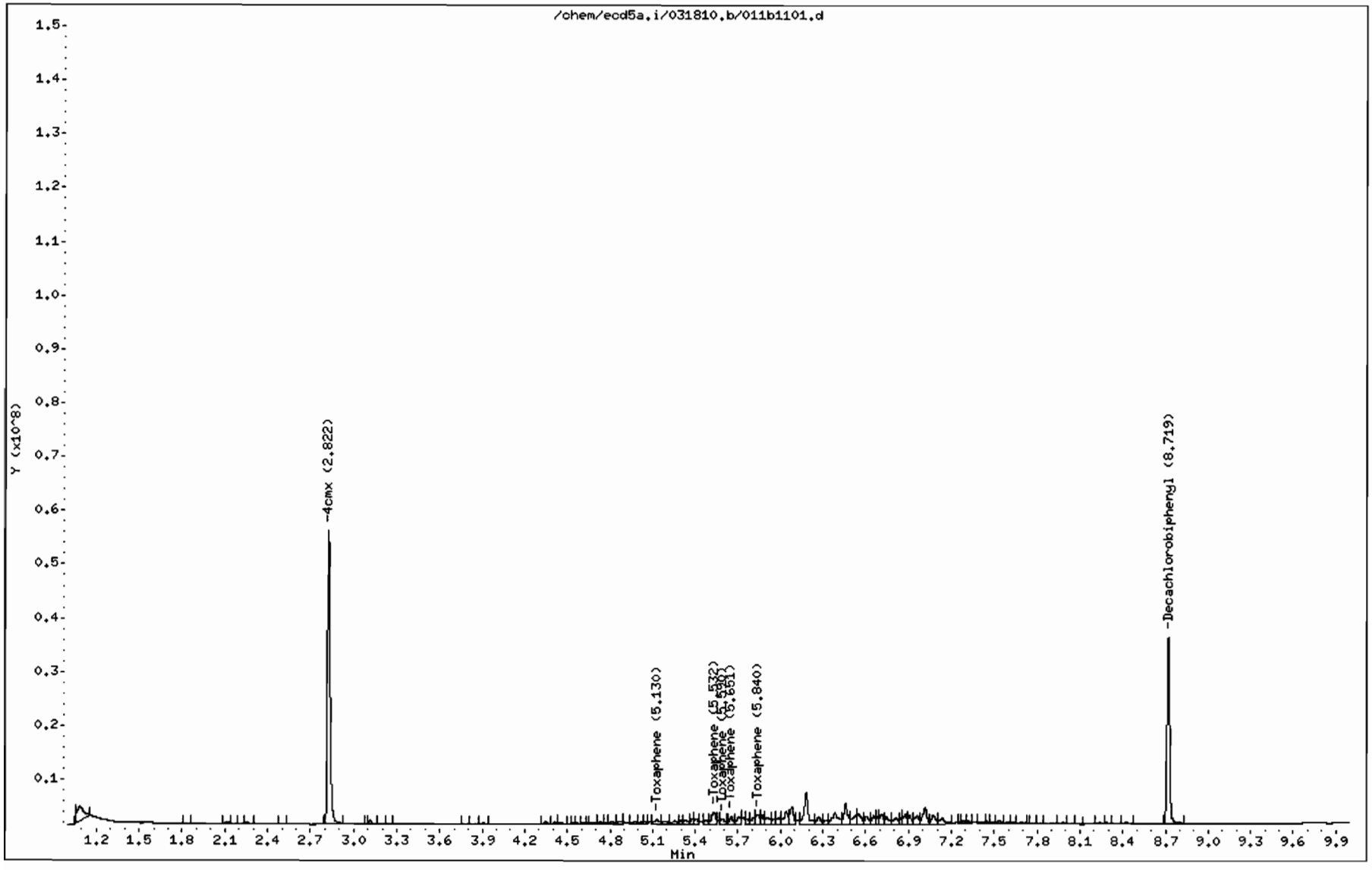

Comment: Manually Integrated
Data File: /chem/ecd5a.i/031810.b/011b1101.d
Operator: HXJ1
Injection Date: 18-MAR-2010 20:44
Instrument: ecd5a.i
Client Sample ID: PBLK01TLCS

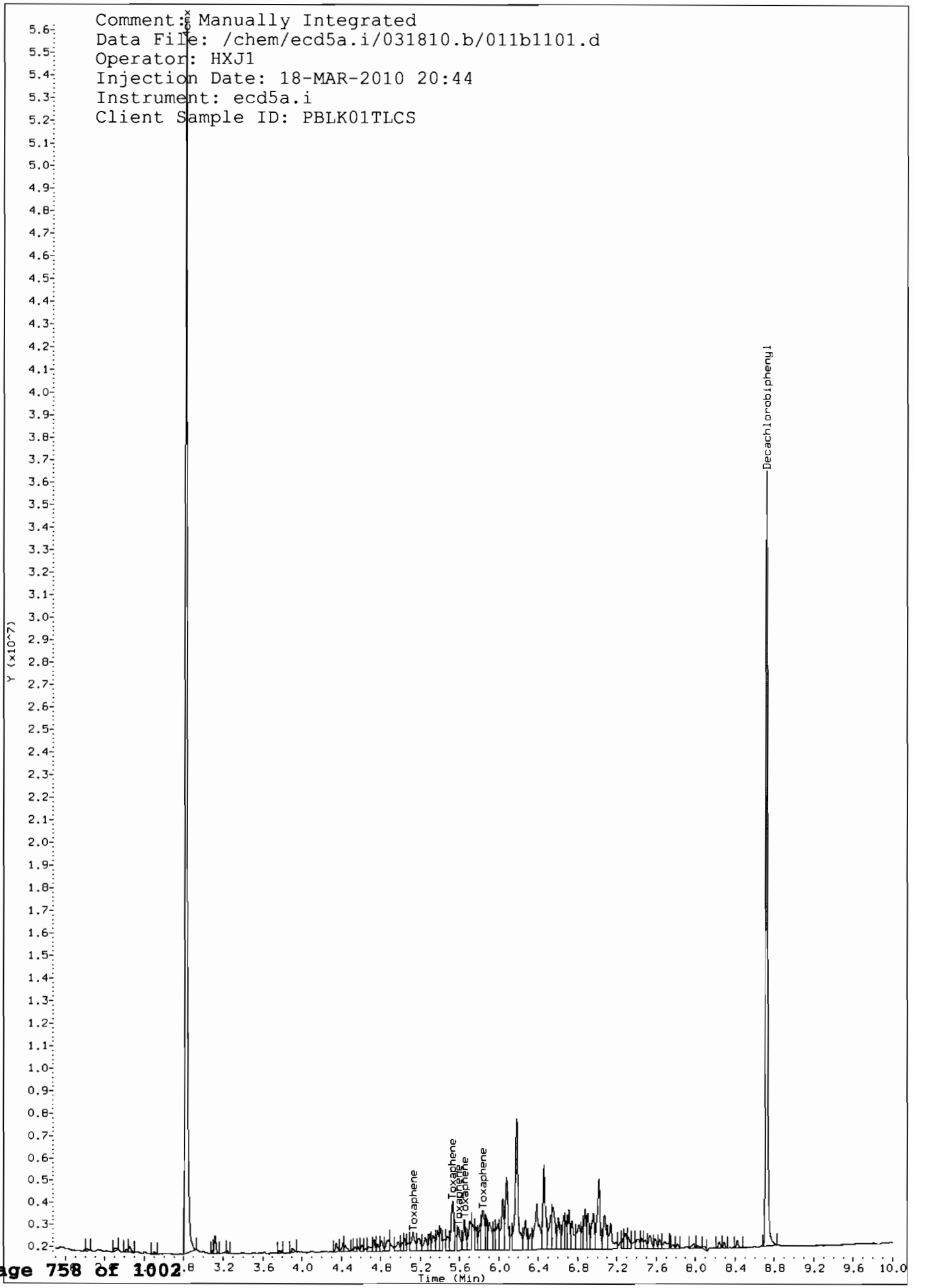

Comment: Before manual integration
Data File: /chem/ecd5a.i/031810.b/orig-011b1101.d
Operator: HXJ1
Injection Date: 18-MAR-2010 20:44
Instrument: ecd5a.i
Client Sample ID: PBLK01TLCS

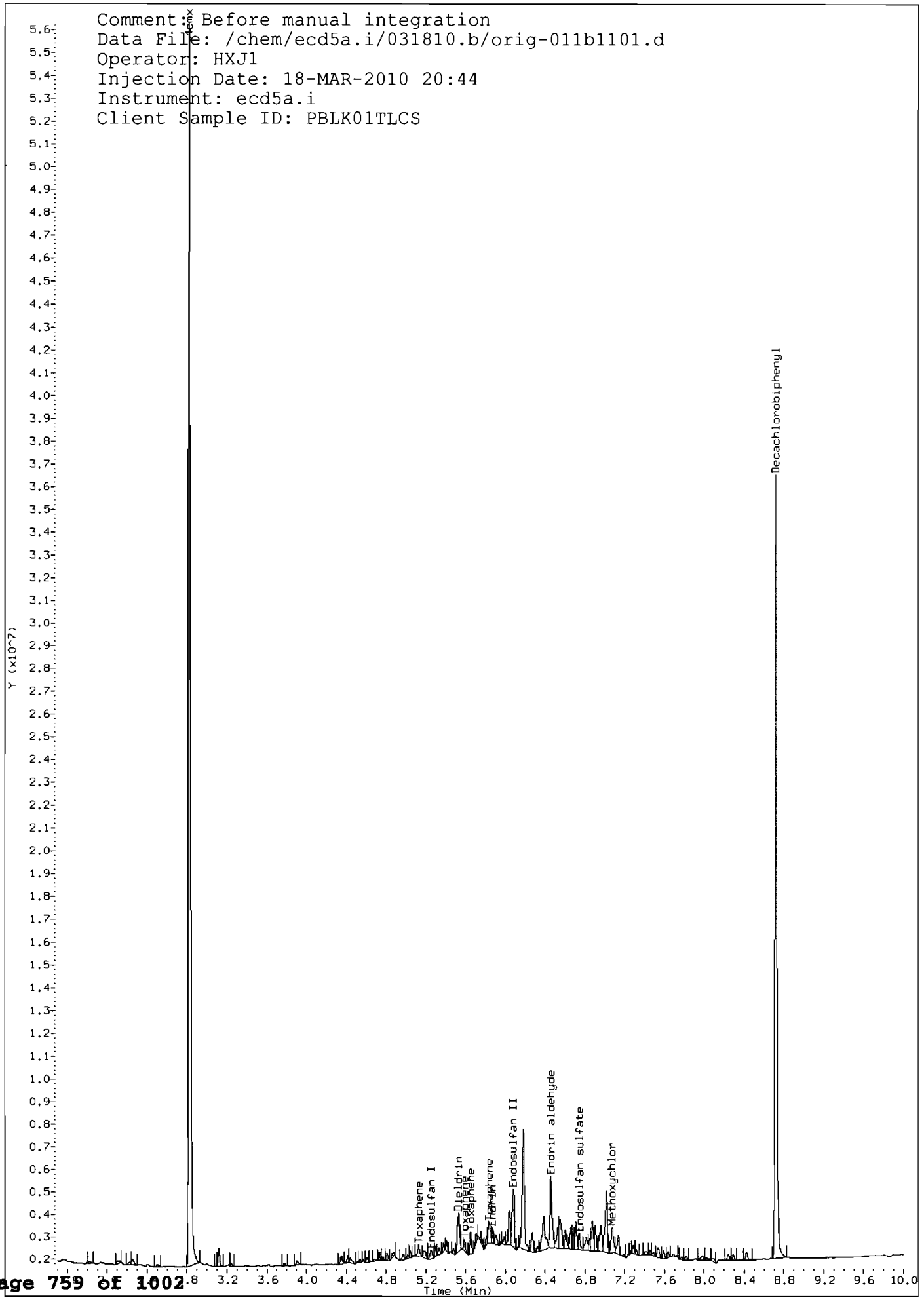

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD5

DATE: 03/18/2010 METHOD: ECD5-F-8081-031610.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons : 8081A
B
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, and
SP-Split Peak, DNC-Do Not Call, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd5a.i/031610a.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100104-99IB	HXJ1	16-MAR-2010 16:15		031610a	1.0		CLEAN
002f0201.d	WPE100125-99DG	HXJ1	16-MAR-2010 16:29		031610a	1.0		(B)DDT:2.5, ENDRIN:13.5, (F)DDT:3.5, ENDRIN:13.4
003f0301.d	WPE100316-01AB	HXJ1	16-MAR-2010 16:43		031610a	1.0		INDAB ICAL 1
004f0401.d	WPE100316-02AB	HXJ1	16-MAR-2010 16:57		031610a	1.0		INDAB ICAL 2
005f0501.d	WPE100316-03AB	HXJ1	16-MAR-2010 17:11		031610a	1.0		INDAB ICAL 3
006f0601.d	WPE100316-04AB	HXJ1	16-MAR-2010 17:25		031610a	1.0		INDAB ICAL 4
007f0701.d	IPE100204-02AB	HXJ1	16-MAR-2010 17:39		031610a	1.0		INDAB ICAL 5
008f0801.d	WPE100316-11TX	HXJ1	16-MAR-2010 17:53		031610a	1.0		TOXAPH ICAL 1
009f0901.d	WPE100316-12TX	HXJ1	16-MAR-2010 18:07		031610a	1.0		TOXAPH ICAL 2
010f1001.d	WPE100316-13TX	HXJ1	16-MAR-2010 18:21		031610a	1.0		TOXAPH ICAL 3
011f1101.d	WPE100316-14TX	HXJ1	16-MAR-2010 18:36		031610a	1.0		TOXAPH ICAL 4
012f1201.d	IPE100204-40TX	HXJ1	16-MAR-2010 18:50		031610a	1.0		TOXAPH ICAL 5
013f1301.d	WPE100125-52TX	HXJ1	16-MAR-2010 19:04		031610a	1.0		USE. ICV. ALL ANALYTES PASSING BOTH COLUMNS.
014f1401.d	WPE100305-10AB	HXJ1	16-MAR-2010 19:18		031610a	1.0		DUSE
015f1501.d	WPE100316-21CL	HXJ1	16-MAR-2010 19:32		031610a	1.0		CHLOR ICAL 1

Instrument Batch: /chem/ecd5a.i/031610a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WPE100316-22CL	HXJ1	16-MAR-2010 19:46		031610a		1.0		CHLOR ICAL 2
017f1701.d	WPE100316-23CL	HXJ1	16-MAR-2010 20:00		031610a		1.0		CHLOR ICAL 3
018f1801.d	WPE100316-24CL	HXJ1	16-MAR-2010 20:14		031610a		1.0		CHLOR ICAL 4
019f1901.d	IPE100116-06CL	HXJ1	16-MAR-2010 20:28		031610a		1.0		CHLOR ICAL 5
020f2001.d	WPE100305-00CL	HXJ1	16-MAR-2010 20:42		031610a		1.0		USE. ICV. ALL ANALYTES PASSING BOTH COLUMNS.
021f2101.d	WAR100104-99IB	HXJ1	16-MAR-2010 20:56		031610a		1.0		CLEAN
022f2201.d	1202066490	HXJ1	16-MAR-2010 21:10		031610a		1.0		DUSE
023f2301.d	1202066491	HXJ1	16-MAR-2010 21:24		031610a		1.0		DUSE
024f2401.d	1202066492	HXJ1	16-MAR-2010 21:38		031610a		1.0		DUSE
025f2501.d	1202066493	HXJ1	16-MAR-2010 21:52		031610a		1.0		DUSE
026f2601.d	1202066494	HXJ1	16-MAR-2010 22:07		031610a		1.0		DUSE
027f2701.d	1202066495	HXJ1	16-MAR-2010 22:21		031610a		1.0		DUSE
028f2801.d	248906001	HXJ1	16-MAR-2010 22:35		031610a		1.0		DUSE
029f2901.d	WPE100305-10AB	HXJ1	16-MAR-2010 22:49		031610a		1.0		USE. ICV. ALL ANALYTES PASSING BOTH COLUMNS.
030f3001.d	WAR100104-99IB	HXJ1	16-MAR-2010 23:03		031610a		1.0		CLEAN
031f3101.d	WPE100125-99DG	HXJ1	16-MAR-2010 23:17		031610a		1.0		(B)DDT:6.0, ENDRIN:11.2, (F)DDT:6.6, ENDRIN:10.5
032f3201.d	1202062809	HXJ1	16-MAR-2010 23:31	962837	247273		1.0	TB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
033f3301.d	1202065542	HXJ1	16-MAR-2010 23:45	962837	247273		1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
034f3401.d	1202065549	HXJ1	16-MAR-2010 23:59	962837	247273		1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
035f3501.d	1202065550	HXJ1	17-MAR-2010 00:13	962837	247273		1.0	TLCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.

Instrument Batch: /chem/ecd5a.i/031610a.b Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202065551	HXJ1	17-MAR-2010 00:27	962837	247273	1.0	CLCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
037f3701.d	WPE100305-10AB	HXJ1	17-MAR-2010 00:41		031610a	1.0		USE. ENDRIN HI (B), ALL OTHERS PASSING B METHOD.
038f3801.d	WAR100104-99IB	HXJ1	17-MAR-2010 00:55		031610a	1.0		CLEAN
039f3901.d	247273003	HXJ1	17-MAR-2010 01:09	962837	247273	10.0	LAID	USE. 4CMX HI (F), CONFIRMED BY MS/MSD.
040f4001.d	1202065543	HXJ1	17-MAR-2010 01:23	962837	247273	10.0	MS	USE. 4CMX/GAMMA-BHC/ENDRIN HI (F), PASSING (B).

041f4101.d	1202065546	HXJ1	17-MAR-2010 01:37	962837	247273		10.0	MSD	USE. 4CMX/GAMMA-BHC/ENDRIN HI (F), PASSING (B).
042f4201.d	1202065544	HXJ1	17-MAR-2010 01:52	962837	247273		10.0	TMS	USE. NO TOX BOTH, 4CMX HI (F).
043f4301.d	1202065547	HXJ1	17-MAR-2010 02:06	962837	247273		10.0	TMSD	USE. NO TOX BOTH, 4CMX HI (F).
044f4401.d	1202065545	HXJ1	17-MAR-2010 02:20	962837	247273		10.0	CMS	USE. 4CMX HI (F), PASSING (B).
045f4501.d	1202065548	HXJ1	17-MAR-2010 02:34	962837	247273		10.0	CMSD	USE. 4CMX HI (F), PASSING (B).
046f4601.d	WPE100305-10AB	HXJ1	17-MAR-2010 02:48		031610a		1.0		USE. GAMMA-BHC, ENDRIN HI (B), ALL PASSING B METHOD.
047f4701.d	WAR100104-99IB	HXJ1	17-MAR-2010 03:02		031610a		1.0		CLEAN
048f4801.d	1202068926	HXJ1	17-MAR-2010 03:16	964386	10-2244		1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
049f4901.d	1202068927	HXJ1	17-MAR-2010 03:30	964386	10-2244		1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
050f5001.d	1202068930	HXJ1	17-MAR-2010 03:44	964386	10-2244		1.0	TLCS	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
051f5101.d	248394001	HXJ1	17-MAR-2010 03:58	964386	10-2168		10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
052f5201.d	248394002	HXJ1	17-MAR-2010 04:12	964386	10-2168		10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
053f5301.d	248394003	HXJ1	17-MAR-2010 04:26	964386	10-2168		10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
054f5401.d	248394004	HXJ1	17-MAR-2010 04:40	964386	10-2168		10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
055f5501.d	248394006	HXJ1	17-MAR-2010 04:54	964386	10-2168		10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.

Instrument Batch: /chem/ecd5a.i/031610a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	248422001	HXJ1	17-MAR-2010 05:08	964386	10-2166	10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
057f5701.d	248422002	HXJ1	17-MAR-2010 05:22	964386	10-2166	10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
058f5801.d	WAR100104-99IB	HXJ1	17-MAR-2010 05:36		031610a	1.0		CLEAN
059f5901.d	WPE100305-10AB	HXJ1	17-MAR-2010 05:50		031610a	1.0		USE. GAMMA-BHC/CHL, ENDRIN, DDD HI (B), PASSING (F).
060f6001.d	WAR100104-99IB	HXJ1	17-MAR-2010 06:05		031610a	1.0		CLEAN
061f6101.d	248556002	HXJ1	17-MAR-2010 06:19	964386	10-2216	10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
062f6201.d	248556003	HXJ1	17-MAR-2010 06:33	964386	10-2216	10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
063f6301.d	248556004	HXJ1	17-MAR-2010 06:47	964386	10-2216	10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
064f6401.d	248556005	HXJ1	17-MAR-2010 07:01	964386	10-2216	10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.

065f6501.d	248556006	HXJ1	17-MAR-2010 07:15	964386	10-2216	10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
066f6601.d	248556007	HXJ1	17-MAR-2010 07:29	964386	10-2216	10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
067f6701.d	248556008	HXJ1	17-MAR-2010 07:43	964386	10-2216	10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
068f6801.d	248660002	HXJ1	17-MAR-2010 07:57	964386	10-2244	10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
069f6901.d	1202068928	HXJ1	17-MAR-2010 08:11	964386	10-2244	10.0	MS	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
070f7001.d	1202068929	HXJ1	17-MAR-2010 08:25	964386	10-2244	10.0	MSD	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
071f7101.d	WAR100104-99IB	HXJ1	17-MAR-2010 08:39		031610a	1.0		CLEAN
072f7201.d	WPE100305-10AB	HXJ1	17-MAR-2010 08:53		031610a	1.0		USE. DDD HI (B), MULTIPLE ANALYTES LOW (F).
073f7301.d	WAR100104-99IB	HXJ1	17-MAR-2010 09:07		031610a	1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD5

DATE: 03/18/2010 METHOD: ECD5-F-8081-031610.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons : 8081A
B
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, and
SP-Split Peak, DNC-Do Not Call, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd5a.i/031710.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100104-99IB	HXJ1	17-MAR-2010 18:49		031710	1.0		CLEAN
002f0201.d	WPE100125-99DG	HXJ1	17-MAR-2010 19:03		031710	1.0		(B)DDT:4.5, ENDRIN:6.2, (F)DDT:4.7, ENDRIN:6.1
003f0301.d	WPE100305-10AB	HXJ1	17-MAR-2010 19:17		031710	1.0		DUSE
004f0401.d	WPE100125-52TX	HXJ1	17-MAR-2010 19:31		031710	1.0		USE. ICV. PASSING BOTH COLUMNS.
005f0501.d	WPE100305-00CL	HXJ1	17-MAR-2010 19:45		031710	1.0		DUSE
006f0601.d	WPE100305-10AB	HXJ1	17-MAR-2010 20:00		031710	1.0		DUSE
007f0701.d	2,4,5-TCPCK	HXJ1	17-MAR-2010 20:14		031710	1.0		DUSE
008f0801.d	FLORSCRJ0650	HXJ1	17-MAR-2010 20:28		031710	1.0		DUSE
009f0901.d	WPE100305-00CL	HXJ1	17-MAR-2010 20:42		031710	1.0		USE. ICV. PASSING BOTH FOR B METHOD, (B) AVG FOR A METHOD.
010f1001.d	WPE100316-01AB	HXJ1	17-MAR-2010 20:56		031710	1.0		INDAB ICAL 1
011f1101.d	WPE100316-02AB	HXJ1	17-MAR-2010 21:10		031710	1.0		INDAB ICAL 2
012f1201.d	WPE100316-03AB	HXJ1	17-MAR-2010 21:24		031710	1.0		INDAB ICAL 3
013f1301.d	WPE100316-04AB	HXJ1	17-MAR-2010 21:39		031710	1.0		INDAB ICAL 4
014f1401.d	IPE100204-02AB	HXJ1	17-MAR-2010 21:53		031710	1.0		INDAB ICAL 5
015f1501.d	WPE100305-10AB	HXJ1	17-MAR-2010 22:07		031710	1.0		USE. ICV. PASSING BOTH COLUMNS.

Instrument Batch: /chem/ecd5a.i/031710.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100104-99IB	HXJ1	17-MAR-2010 22:21		031710	1.0		CLEAN
017f1701.d	WPE100125-99DG	HXJ1	17-MAR-2010 22:35		031710	1.0		(B)DDT:6.8, ENDRIN:7.4, (F)DDT:6.7, ENDRIN:7.2
018f1801.d	1202066676	HXJ1	17-MAR-2010 22:49	965850	EUI-7545	1.0	TB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
019f1901.d	1202068721	HXJ1	17-MAR-2010 23:03	965850	EUI-7544	1.0	TB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
020f2001.d	1202069785	HXJ1	17-MAR-2010 23:17	965850	EUI-7544	1.0	TB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
021f2101.d	1202070559	HXJ1	17-MAR-2010 23:31	965850	249262	1.0	TB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
022f2201.d	1202072649	HXJ1	17-MAR-2010 23:45	965850	EUI-7544	1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
023f2301.d	1202072659	HXJ1	17-MAR-2010 23:59	965850	EUI-7544	1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
024f2401.d	1202072660	HXJ1	18-MAR-2010 00:13	965850	EUI-7544	1.0	TLCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
025f2501.d	1202072661	HXJ1	18-MAR-2010 00:27	965850	EUI-7544	1.0	CLCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
026f2601.d	WPE100305-10AB	HXJ1	18-MAR-2010 00:41		031710	1.0		USE. CCV. GAMMA-BHC/ENDRIN HI (B), PASSING B METHOD.
027f2701.d	WAR100104-99IB	HXJ1	18-MAR-2010 00:55		031710	1.0		CLEAN
028f2801.d	249262001	HXJ1	18-MAR-2010 01:09	965850	249262	1.0	MECP	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
029f2901.d	1202072653	HXJ1	18-MAR-2010 01:23	965850	249262	1.0	MS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
030f3001.d	1202072654	HXJ1	18-MAR-2010 01:37	965850	249262	1.0	TMS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
031f3101.d	1202072655	HXJ1	18-MAR-2010 01:52	965850	249262	1.0	CMS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
032f3201.d	WPE100305-10AB	HXJ1	18-MAR-2010 02:06		031710	1.0		USE. CCV. ALPHA/GAMMA-BHC,ENDRIN HI (B), PASSING B METHOD.
033f3301.d	WAR100104-99IB	HXJ1	18-MAR-2010 02:20		031710	1.0		CLEAN
034f3401.d	248726001	HXJ1	18-MAR-2010 02:34	965850	EUI-7544	1.0	CARE	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
035f3501.d	1202072650	HXJ1	18-MAR-2010 02:48	965850	EUI-7544	1.0	MS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202072656	HXJ1	18-MAR-2010 03:02	965850	EUI-7544	1.0	MSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
037f3701.d	1202072651	HXJ1	18-MAR-2010 03:16	965850	EUI-7544	1.0	TMS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
038f3801.d	1202072657	HXJ1	18-MAR-2010 03:30	965850	EUI-7544	1.0	TMSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
039f3901.d	1202072652	HXJ1	18-MAR-2010 03:44	965850	EUI-7544	1.0	CMS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
040f4001.d	1202072658	HXJ1	18-MAR-2010 03:58	965850	EUI-7544	1.0	CMSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.

041f4101.d	248727001	HXJ1	18-MAR-2010 04:12	965850	EUI-7545		1.0	CARE	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
042f4201.d	WPE100305-10AB	HXJ1	18-MAR-2010 04:26		031710		1.0		USE. CCV. MULTIPLE ANALYTES HI (B), PASSING B METHOD.
043f4301.d	WAR100104-99IB	HXJ1	18-MAR-2010 04:40		031710		1.0		CLEAN
044f4401.d	1202072662	HXJ1	18-MAR-2010 04:54	965856	249310		1.0	MB	use. 4CMX HI (B), PASSING (F).
045f4501.d	1202072663	HXJ1	18-MAR-2010 05:08	965856	249310		1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
046f4601.d	1202072666	HXJ1	18-MAR-2010 05:22	965856	249310		1.0	TLCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
047f4701.d	249310005	HXJ1	18-MAR-2010 05:36	965856	249310		1.0	BY12	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
048f4801.d	1202072664	HXJ1	18-MAR-2010 05:50	965856	249310		1.0	MS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
049f4901.d	1202072665	HXJ1	18-MAR-2010 06:04	965856	249310		1.0	MSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
050f5001.d	WPE100305-10AB	HXJ1	18-MAR-2010 06:18		031710		1.0		USE. CCV. MULTIPLE ANALYTES HI (B), PASSING (F).
051f5101.d	WAR100104-99IB	HXJ1	18-MAR-2010 06:32		031710		1.0		CLEAN

Instrument Batch: /chem/ecd5a.i/031710.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
052f5201.d	1202073038	HXJ1	18-MAR-2010 06:46	965999	249231	1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
053f5301.d	1202073039	HXJ1	18-MAR-2010 07:00	965999	249231	1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
054f5401.d	249231002	HXJ1	18-MAR-2010 07:14	965999	249231	5.0	PCGE	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
055f5501.d	1202073040	HXJ1	18-MAR-2010 07:28	965999	249231	5.0	MS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
056f5601.d	1202073041	HXJ1	18-MAR-2010 07:43	965999	249231	5.0	MSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
057f5701.d	WPE100305-10AB	HXJ1	18-MAR-2010 07:57		031710	1.0		USE. MULTIPLE ANALYTES HI (B), LOW (F).
058f5801.d	WAR100104-99IB	HXJ1	18-MAR-2010 08:11		031710	1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD5

DATE: 03/23/2010 METHOD: ECD5-F-8081-031610.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons : 8081A
B
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, and
SP-Split Peak, DNC-Do Not Call, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd5a.i/031810.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100104-99IB	HXJ1	18-MAR-2010 18:21		031810	1.0		CLEAN
002f0201.d	WPE100125-99DG	HXJ1	18-MAR-2010 18:35		031810	1.0		(B)DDT:3.2, ENDRIN:4.2, (F)DDT:3.0, ENDRIN:3.9
003f0301.d	WPE100305-10AB	HXJ1	18-MAR-2010 18:50		031810	1.0		DUSE
004f0401.d	WPE100125-52TX	HXJ1	18-MAR-2010 19:04		031810	1.0		USE. ICV. (B) PASSES ON AVG (PASSES B), (F) PASSING ALL
005f0501.d	WPE100305-00CL	HXJ1	18-MAR-2010 19:19		031810	1.0		USE. ICV. (B) PASSES ON AVG (PASSES B), (F) PASSING ALL
006f0601.d	WPE100305-10AB	HXJ1	18-MAR-2010 19:33		031810	1.0		USE. ICV. PASSING BOTH COLUMNS.
007f0701.d	WE100317-11SCR	HXJ1	18-MAR-2010 19:47		031810	1.0		DUSE - SCREEN.
008f0801.d	WAR100104-99IB	HXJ1	18-MAR-2010 20:01		031810	1.0		CLEAN
009f0901.d	1202073942	HXJ1	18-MAR-2010 20:15	966423	10-2314	1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
010f1001.d	1202073943	HXJ1	18-MAR-2010 20:30	966423	10-2314	1.0	LCS	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
011f1101.d	1202073946	HXJ1	18-MAR-2010 20:44	966423	10-2314	1.0	TLCS	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
012f1201.d	248862002	HXJ1	18-MAR-2010 20:58	966423	10-2314	10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
013f1301.d	248862003	HXJ1	18-MAR-2010 21:12	966423	10-2314	10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
014f1401.d	248862004	HXJ1	18-MAR-2010 21:26	966423	10-2314	10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
015f1501.d	248862005	HXJ1	18-MAR-2010 21:40	966423	10-2314	10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.

Instrument Batch: /chem/ecd5a.i/031810.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	248862006	HXJ1	18-MAR-2010 21:54	966423	10-2314		10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
017f1701.d	248862007	HXJ1	18-MAR-2010 22:08	966423	10-2314		10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
018f1801.d	248862008	HXJ1	18-MAR-2010 22:22	966423	10-2314		10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
019f1901.d	WPE100305-10AB	HXJ1	18-MAR-2010 22:36		031810		1.0		USE. CCV. GAMMA-BHC/ENDRIN HI (B), PASSING (F).
020f2001.d	WAR100104-99IB	HXJ1	18-MAR-2010 22:50		031810		1.0		CLEAN
021f2101.d	248862009	HXJ1	18-MAR-2010 23:04	966423	10-2314		10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
022f2201.d	248862010	HXJ1	18-MAR-2010 23:18	966423	10-2314		10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
023f2301.d	249081001	HXJ1	18-MAR-2010 23:32	966423	10-2359-1		10.0	LANL	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
024f2401.d	1202073944	HXJ1	18-MAR-2010 23:46	966423	10-2359-1		10.0	MS	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
025f2501.d	1202073945	HXJ1	19-MAR-2010 00:00	966423	10-2359-1		10.0	MSD	USE. PASSING BOTH COLUMNS, UPLOAD LOWER.
026f2601.d	WPE100305-10AB	HXJ1	19-MAR-2010 00:14		031810		1.0		USE. CCV. GAMMA-BHC HI (B), PASSING (F).
027f2701.d	WAR100104-99IB	HXJ1	19-MAR-2010 00:29		031810		1.0		CLEAN
028f2801.d	1202072443	HXJ1	19-MAR-2010 00:43	965783	10004		1.0	MB	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
029f2901.d	1202072444	HXJ1	19-MAR-2010 00:57	965783	10004		1.0	LCS	USE. HEP/ALDRIN FAILING LOW BOTH, RE OUT OF HOLD, REPORT BOTH.
030f3001.d	249210001	HXJ1	19-MAR-2010 01:11	965783	10004		1.0	SRNS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
031f3101.d	249210002	HXJ1	19-MAR-2010 01:25	965783	10004		1.0	SRNS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
032f3201.d	249210003	HXJ1	19-MAR-2010 01:39	965783	10004		1.0	SRNS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
033f3301.d	1202072445	HXJ1	19-MAR-2010 01:53	965783	10004		1.0	MS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
034f3401.d	1202072446	HXJ1	19-MAR-2010 02:07	965783	10004		1.0	MSD	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
035f3501.d	249210004	HXJ1	19-MAR-2010 02:21	965783	10004		1.0	SRNS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.

Instrument Batch: /chem/ecd5a.i/031810.b Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	249210005	HXJ1	19-MAR-2010 02:35	965783	10004		1.0	SRNS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
037f3701.d	249210006	HXJ1	19-MAR-2010 02:49	965783	10004		1.0	SRNS	USE. PASSING BOTH COLUMNS, UPLOAD HIGHER.
038f3801.d	WPE100305-10AB	HXJ1	19-MAR-2010 03:03		031810		1.0		USE. CCV. MULTIPLE ANALYTES HI (B), PASSING (F).
039f3901.d	WAR100104-99IB	HXJ1	19-MAR-2010 03:17		031810		1.0		CLEAN

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/024b2401.d
Lab Smp Id: 1202073944 Client Smp ID: RE16-10-3799MS
Inj Date : 18-MAR-2010 23:46
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1202073944|10|
Misc Info : |ECD81A_1S|966423|SVP|MS|SOIL|MS|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 24 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2359-1.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weigth of sample extracted (g)
M	6.46600	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.823	2.823	0.000	7613358	14.3307	25.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.718	8.720	-0.002	4957883	15.5528	27.6	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.308	3.309	-0.001	5211881	7.62668	13.5	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.615	3.615	0.000	4512389	7.97568	14.1	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.678	3.679	-0.001	2258728	8.81627	15.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.948	3.948	0.000	4535715	7.49464	13.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.023	4.024	-0.001	3183485	8.10904	14.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.332	4.333	-0.001	4847666	7.79279	13.8	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.877	4.877	0.000	3799249	7.91053	14.0	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.067	5.068	-0.001	4129083	7.78485	13.8	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.213	5.213	0.000	4297472	8.04378	14.2	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.276	5.275	0.001	3709784	7.88046	14.0	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.372	5.372	0.000	9617421	19.9771	35.4	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.553	5.554	-0.001	9159572	19.6452	34.8	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.870	5.871	-0.001	7878694	22.2483	39.4	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.974	5.975	-0.001	7471671	22.0510	39.1	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.092	6.092	0.000	8537776	19.8464	35.2	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.447	6.447	0.000	5944170	17.5693	31.1	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.310	6.312	-0.002	4799055	18.2510	32.3	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.747	6.748	-0.001	6908500	18.6955	33.1	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.051	7.051	0.000	9453742	76.7419	136	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.335	7.335	0.000	8353148	19.4335	34.4	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/024b2401.d

Date : 18-MAR-2010 23:46

Client ID: RE16-10-3799MS

Sample Info: |1202073944|10|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

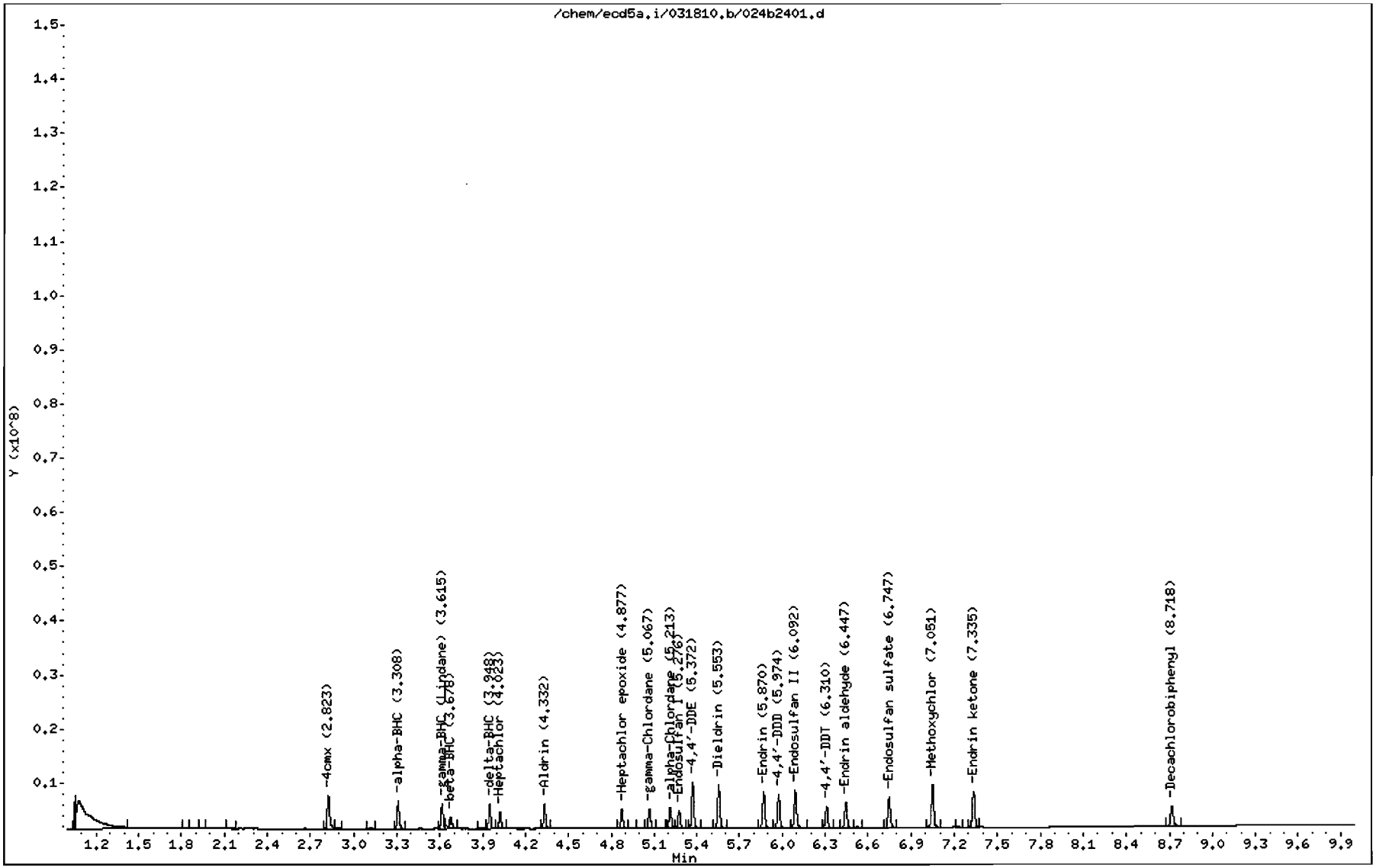

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CLP-1

Data file : /chem/ecd5a.i/031810.b/024f2401.d
Lab Smp Id: 1202073944 Client Smp ID: RE16-10-3799MSD
Inj Date : 18-MAR-2010 23:46
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1202073944|10|
Misc Info : |ECD81A_1S|966423|SVP|MS|SOIL|MS|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 24 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2359-1.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weigth of sample extracted (g)
M	6.46600	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.739	2.739	0.000	6687602	13.4270	23.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.882	7.883	-0.001	5263556	14.5441	25.8	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.143	3.143	0.000	4873233	7.05724	12.5	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.388	3.388	0.000	4433148	7.34494	13.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.452	3.451	0.001	2037331	7.53482	13.4	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.602	3.600	0.002	4187017	7.08059	12.5	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.773	3.774	-0.001	3588529	7.82854	13.9	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.032	4.032	0.000	4683366	7.22247	12.8	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.568	4.567	0.001	3949350	7.46054	13.2	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.684	4.683	0.001	3904174	7.01598	12.4	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.807	4.806	0.001	4219000	7.47916	13.2	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.938	4.938	0.000	3762057	7.55086	13.4	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.873	4.873	0.000	10042812	18.7781	33.3	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.167	5.166	0.001	9829276	18.3373	32.5	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.395	5.395	0.000	8359061	20.9949	37.2	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.457	5.455	0.002	8007158	20.2546	35.9	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.618	5.617	0.001	8115277	18.9964	33.6	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.041	6.040	0.001	5873707	16.2426	28.8	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.734	5.734	0.000	5727640	18.5370	32.8	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.491	6.490	0.001	6334840	17.7398	31.4	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.235	6.234	0.001	10473799	77.7113	138	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.790	6.790	0.000	8400550	19.0188	33.7	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/024f2401.d

Date : 18-MAR-2010 23:46

Client ID: RE16-10-3799MSD

Sample Info: |1202073944|10|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

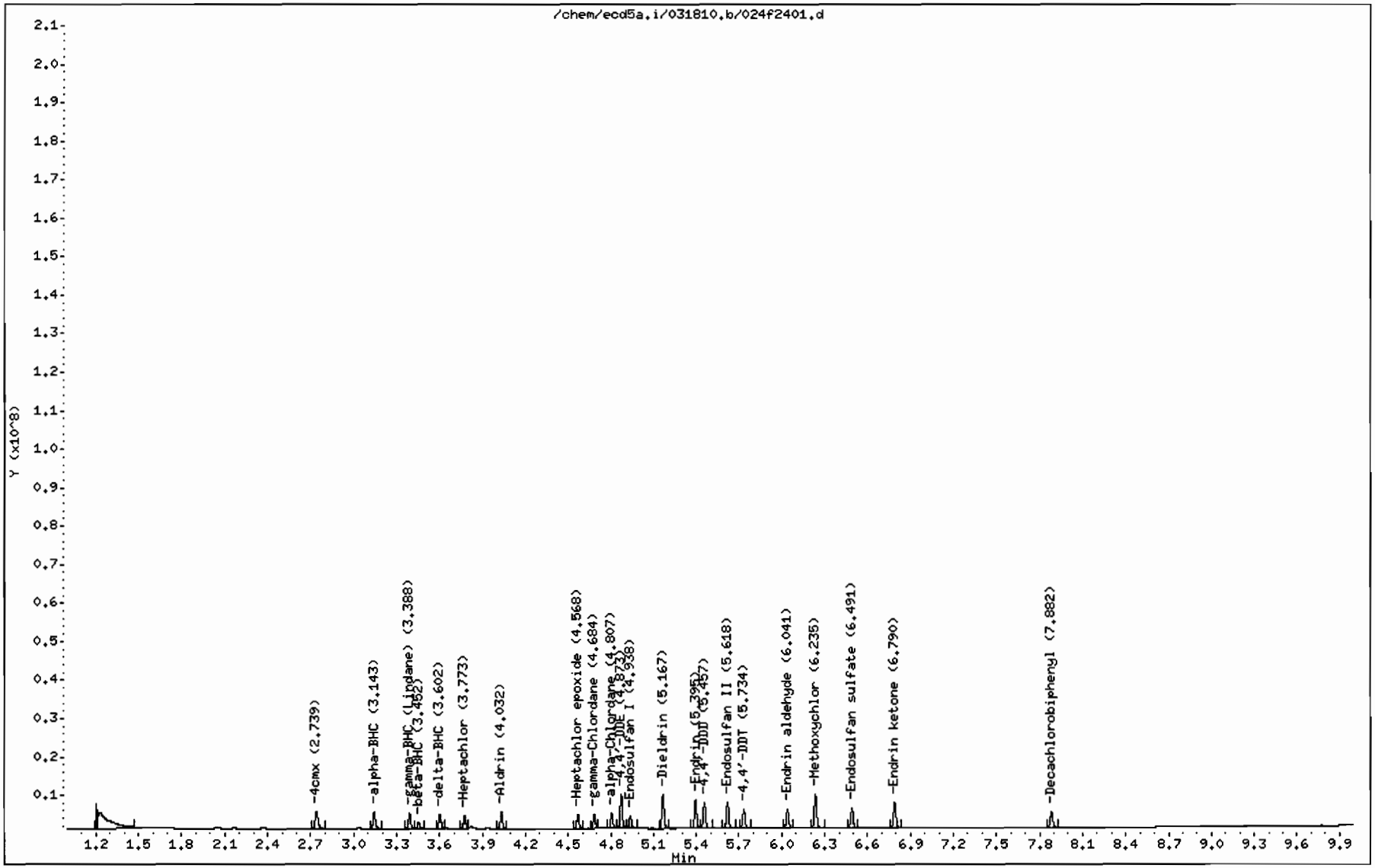

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd5a.i/031810.b/025b2501.d
Lab Smp Id: 1202073945 Client Smp ID: RE16-10-3799MSD
Inj Date : 19-MAR-2010 00:00
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1202073945|10|
Misc Info : |ECD81A_1S|966423|SVP|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-B-8081-031610.m
Meth Date : 19-Mar-2010 16:25 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013b1301.d
Als bottle: 25 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2359-1.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weigth of sample extracted (g)
M	6.46600	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.823	2.823	0.000	7007757	13.1908	23.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.720	8.720	0.000	4379158	13.7374	24.3	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.309	3.309	0.000	5517900	8.07449	14.3	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.615	3.615	0.000	4754982	8.40446	14.9	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.678	3.679	-0.001	2329627	9.09300	16.1	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.948	3.948	0.000	4776263	7.89211	14.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.024	4.024	0.000	3356776	8.55045	15.1	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.333	4.333	0.000	5074512	8.15745	14.4	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.878	4.877	0.001	3969119	8.26422	14.6	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.067	5.068	-0.001	4279823	8.06905	14.3	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.214	5.213	0.001	4459471	8.34701	14.8	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.275	5.275	0.000	3851474	8.18144	14.5	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.372	5.372	0.000	9895294	20.5543	36.4	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.555	5.554	0.001	9485620	20.3445	36.0	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.870	5.871	-0.001	8114652	22.9146	40.6	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.975	5.975	0.000	7690272	22.6962	40.2	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.092	6.092	0.000	8852967	20.5790	36.4	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.446	6.447	-0.001	6250467	18.4746	32.7	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.310	6.312	-0.002	4988626	18.9719	33.6	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.748	6.748	0.000	7306934	19.7737	35.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.050	7.051	-0.001	9876385	80.1727	142	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.335	7.335	0.000	8813333	20.5042	36.3	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/025b2501.d

Date : 19-MAR-2010 00:00

Client ID: RE16-10-3799MSD

Sample Info: |1202073945|10|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd5a.i

Operator: HXJ1

Column diameter: 0.25

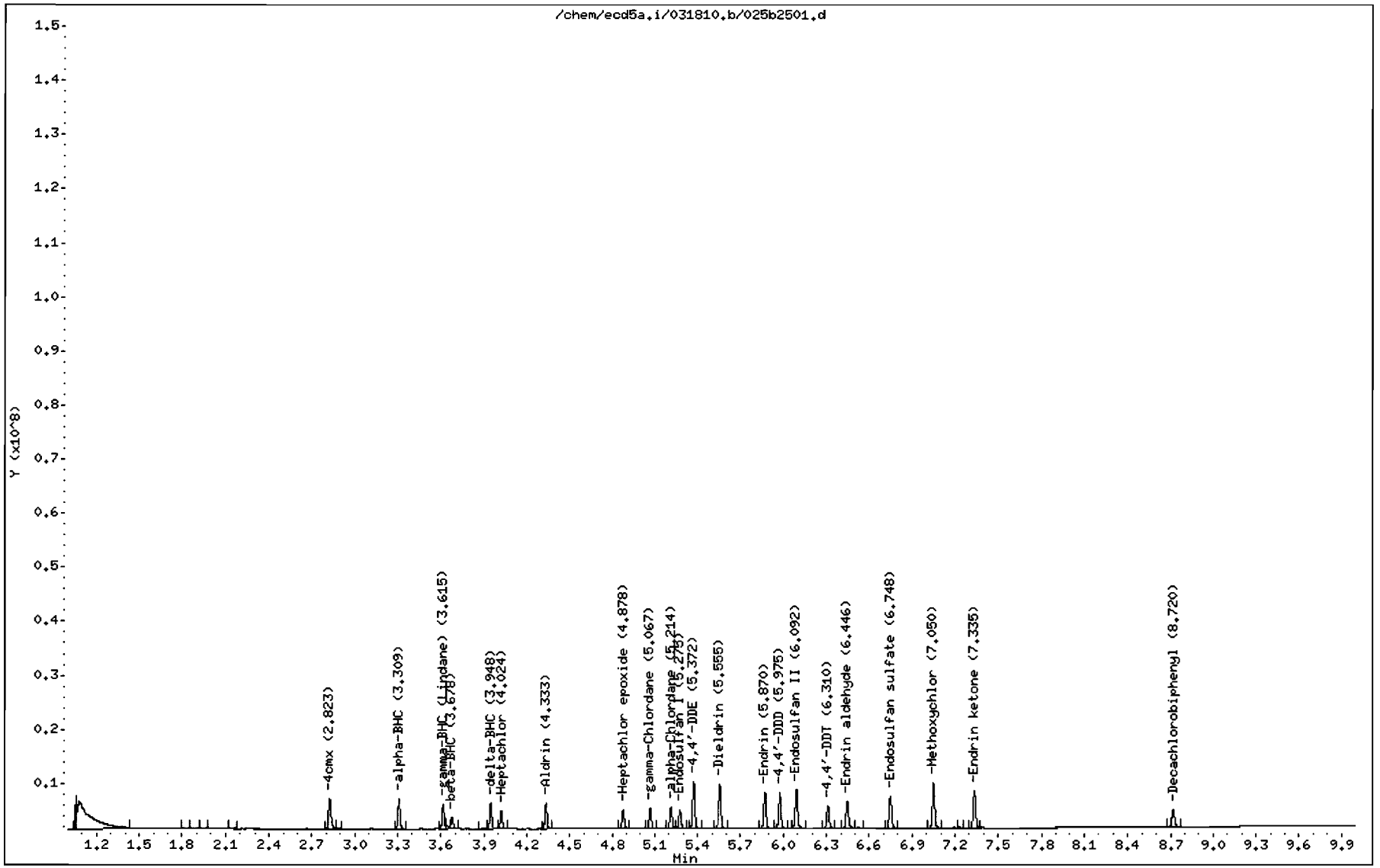

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd5a.i/031810.b/025f2501.d
Lab Smp Id: 1202073945 Client Smp ID: RE16-10-3799MSD
Inj Date : 19-MAR-2010 00:00
Operator : HXJ1 Inst ID: ecd5a.i
Smp Info : |1202073945|10|
Misc Info : |ECD81A_1S|966423|SVP|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd5a.i/031810.b/ECD5-F-8081-031610.m
Meth Date : 19-Mar-2010 16:34 reb01393 Quant Type: ESTD
Cal Date : 05-MAR-2010 22:04 Cal File: 013f1301.d
Als bottle: 25 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2359-1.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weigth of sample extracted (g)
M	6.46600	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.739	2.739	0.000	6165955	12.3797	21.9	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.884	7.883	0.001	4641451	12.8251	22.7	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.144	3.143	0.001	5153045	7.46245	13.2	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.389	3.388	0.001	4684708	7.76173	13.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.453	3.451	0.002	2108280	7.79721	13.8	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.601	3.600	0.001	4381404	7.40931	13.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.775	3.774	0.001	3748285	8.17705	14.5	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.033	4.032	0.001	4907212	7.56767	13.4	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.568	4.567	0.001	4119322	7.78162	13.8	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.684	4.683	0.001	4059201	7.29457	12.9	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.807	4.806	0.001	4367617	7.74262	13.7	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.939	4.938	0.001	3892107	7.81188	13.8	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.874	4.873	0.001	10349186	19.3510	34.3	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.167	5.166	0.001	10210768	19.0490	33.7	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.395	5.395	0.000	8674501	21.7872	38.6	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.456	5.455	0.001	8373909	21.1823	37.5	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.619	5.617	0.002	8472780	19.8333	35.1	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.041	6.040	0.001	6220005	17.2002	30.4	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.735	5.734	0.001	5972467	19.3294	34.2	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.492	6.490	0.002	6695550	18.7499	33.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.235	6.234	0.001	10986533	81.5156	144	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.792	6.790	0.002	8762629	19.8385	35.1	80.00- 120.00	100.00

Data File: /chem/ecd5a.i/031810.b/025f2501.d

Page 1

Date : 19-MAR-2010 00:00

Client ID: RE16-10-3799MSD

Instrument: ecd5a.i

Sample Info: |1202073945|10|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

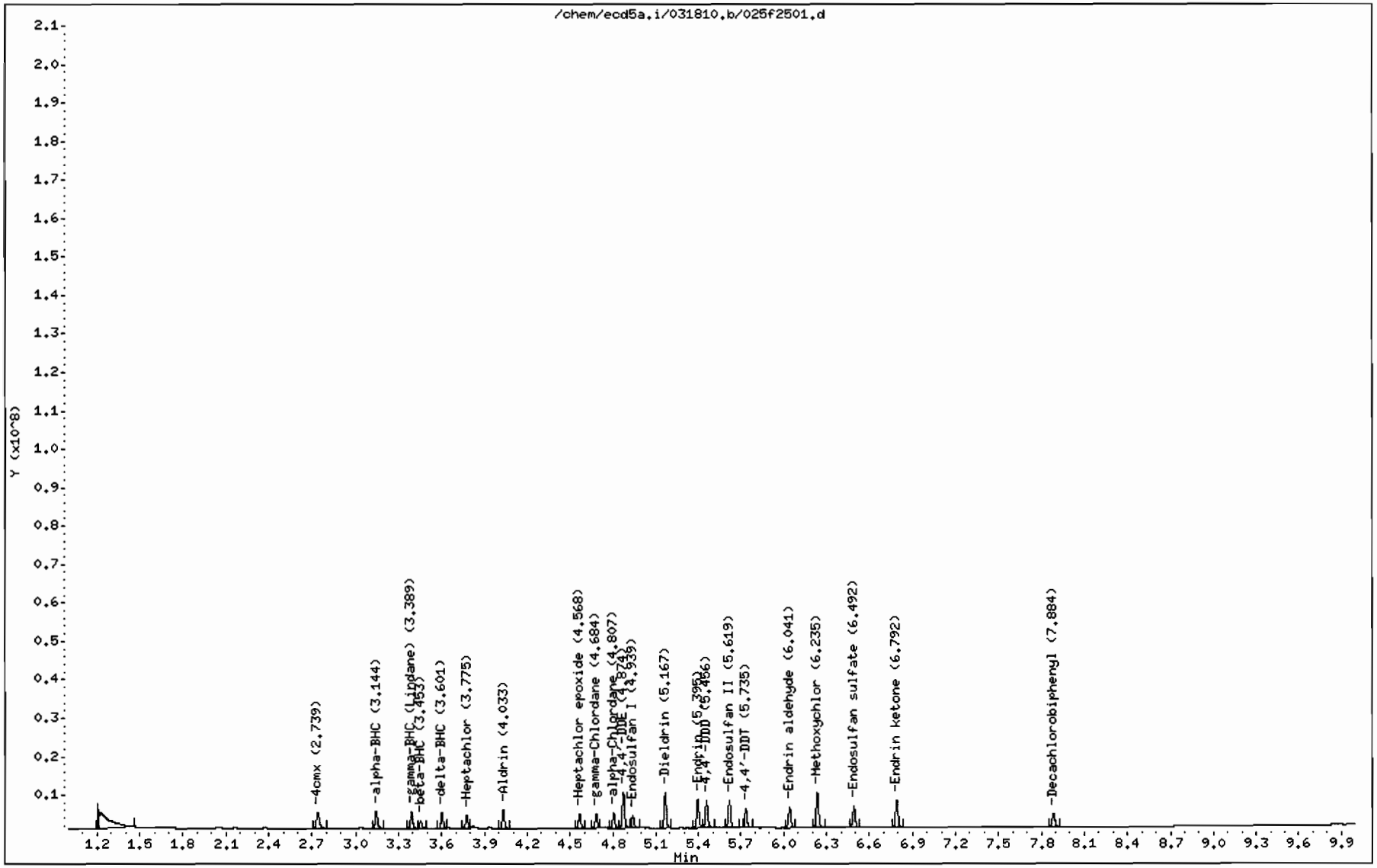

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 966422 **Verified by:** _____

Analyst: Alton Willis

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202073942 MB	17-MAR-2010 20:23:00	30	Florisil	5	1	10	5	0.16667
1202073943 LCS	17-MAR-2010 20:23:00	30	Florisil	5	1	10	5	0.16667
1202073946 LCS	17-MAR-2010 20:23:00	30	Florisil	5	1	10	5	0.16667
248862002	17-MAR-2010 20:23:00	30.17	Florisil	5	1	10	5	0.16573
248862003	17-MAR-2010 20:23:00	30.11	Florisil	5	1	10	5	0.16606
248862004	17-MAR-2010 20:23:00	30.17	Florisil	5	1	10	5	0.16573
248862005	17-MAR-2010 20:23:00	30.12	Florisil	5	1	10	5	0.166
248862006	17-MAR-2010 20:23:00	30.13	Florisil	5	1	10	5	0.16595
248862007	17-MAR-2010 20:23:00	30.11	Florisil	5	1	10	5	0.16606
248862008	17-MAR-2010 20:23:00	30.07	Florisil	5	1	10	5	0.16628
248862009	17-MAR-2010 20:23:00	30.16	Florisil	5	1	10	5	0.16578
248862010	17-MAR-2010 20:23:00	30.03	Florisil	5	1	10	5	0.1665
249081001	17-MAR-2010 20:23:00	30.01	Florisil	5	1	10	5	0.16661
1202073944 MS (249081001)	17-MAR-2010 20:23:00	30.17	Florisil	5	1	10	5	0.16573
1202073945 MSD (249081001)	17-MAR-2010 20:23:00	30.19	Florisil	5	1	10	5	0.16562

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202073943	PESTSPIKE	UE100310-04	1	mL
LCS	1202073946	Toxaphene TCLP LCS	WE100206-11	2	mL
MS	1202073944	PESTSPIKE	UE100310-04	1	mL
MSD	1202073945	PESTSPIKE	UE100310-04	1	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE100302-08	1	mL
REGNT	All	Acetone	1273823-B1	150	mL
REGNT	All	Hexane	1279345-B2	150	mL
REGNT	All	Florisil cartridge 1000mg per cartridge	1286912-28	1	g
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 3/17/10

Clean up Initials: AAW

Verified By: AJS

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-036

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2314

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	967396
Prep Batch Number:	967394

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
248862002	RE46-10-13782
248862003	RE46-10-13783
248862004	RE46-10-13777
248862005	RE46-10-13775
248862006	RE46-10-13776
248862007	RE46-10-13781
248862008	RE46-10-13779
248862009	RE46-10-13780
248862010	RE46-10-13778
1202076355	Method Blank (MB)
1202076356	Laboratory Control Sample (LCS)
1202076357	248862002(RE46-10-13782) Matrix Spike (MS)
1202076358	248862002(RE46-10-13782) Matrix Spike Duplicate (MSD)

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

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
The MSD(1202076358) and sample 248862007 (RE46-10-13781) did not meet surrogate recovery acceptance criteria with a positive bias. There were no target analytes detected in sample 248862007 (RE46-10-13781), so the positive bias had no adverse impact on the data results. The MS and LCS passed spike recovery and all other samples passed surrogate recoveries. The positive bias in the MSD had no adverse impact on the data results.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248862002 (RE46-10-13782) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD did not meet spike recovery acceptance criteria with a positive bias.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina.

Sample Dilutions
Samples 1202076357 (RE46-10-13782), 1202076358 (RE46-10-13782), 248862002 (RE46-10-13782), 248862003 (RE46-10-13783), 248862004 (RE46-10-13777), 248862005 (RE46-10-13775), 248862006 (RE46-10-13776), 248862007 (RE46-10-13781), 248862008 (RE46-10-13779), 248862009 (RE46-10-13780) and 248862010 (RE46-10-13778) were diluted prior to analysis due to the oily matrix of the extracts.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
The following DER was generated for this SDG: 808224 1202076358 (RE46-10-13782) and 248862007 (RE46-10-13781).

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and

retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD8A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD8A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

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

Review Validation:

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

Reviewer: _____ **Date:** 04-01-10

Roadmap for LANL 10-2314 PCB

This roadmap was analyzed by jen01212 on 03-23-2010, 12:57.
This roadmap was packaged by sha01289 on 04-01-2010, 05:55.
This roadmap was validated by jcb on 04-01-2010, 13:34.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032210.b/070f7001.d	248862002	sample	22-MAR-2010	23:20	10-2314.sub	RE46-10-13782	5.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/073f7301.d	248862003	sample	22-MAR-2010	23:57	10-2314.sub	RE46-10-13783	5.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/074f7401.d	248862004	sample	23-MAR-2010	00:09	10-2314.sub	RE46-10-13777	20.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/075f7501.d	248862005	sample	23-MAR-2010	00:21	10-2314.sub	RE46-10-13775	5.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/076f7601.d	248862006	sample	23-MAR-2010	00:34	10-2314.sub	RE46-10-13776	5.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/077f7701.d	248862007	sample	23-MAR-2010	00:46	10-2314.sub	RE46-10-13781	10.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/078f7801.d	248862008	sample	23-MAR-2010	01:03	10-2314.sub	RE46-10-13779	20.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/081f8101.d	248862009	sample	23-MAR-2010	01:44	10-2314.sub	RE46-10-13780	5.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/082f8201.d	248862010	sample	23-MAR-2010	02:00	10-2314.sub	RE46-10-13778	10.00000	967396	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032210.b/070b7001.d	248862002	sample	22-MAR-2010	23:20	10-2314.sub	RE46-10-13782	5.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/073b7301.d	248862003	sample	22-MAR-2010	23:57	10-2314.sub	RE46-10-13783	5.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/074b7401.d	248862004	sample	23-MAR-2010	00:09	10-2314.sub	RE46-10-13777	20.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/075b7501.d	248862005	sample	23-MAR-2010	00:21	10-2314.sub	RE46-10-13775	5.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/076b7601.d	248862006	sample	23-MAR-2010	00:34	10-2314.sub	RE46-10-13776	5.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/077b7701.d	248862007	sample	23-MAR-2010	00:46	10-2314.sub	RE46-10-13781	10.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/078b7801.d	248862008	sample	23-MAR-2010	01:03	10-2314.sub	RE46-10-13779	20.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/081b8101.d	248862009	sample	23-MAR-2010	01:44	10-2314.sub	RE46-10-13780	5.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/082b8201.d	248862010	sample	23-MAR-2010	02:00	10-2314.sub	RE46-10-13778	10.00000	967396	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032210.b/057f5701-1.d	1202076355	mb	22-MAR-2010	20:31	10-2314.sub	PBLK01	1.00000	967396	
☐	N	/chem/ecd8a.i/032210.b/058f5801-1.d	1202076356	lcs	22-MAR-2010	20:43	10-2314.sub	PBLK01LCS	1.00000	967396	

☐	N	/chem/ecd8a.i/032210.b/071f7101.d	1202076357	ms	22-MAR-2010	23:32	10-2314.sub	RE46-10-13782MS	5.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/072f7201.d	1202076358	msd	22-MAR-2010	23:44	10-2314.sub	RE46-10-13782MSD	5.00000	967396	UPLOAD BOTH, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032210.b/057b5701-1.d	1202076355	mb	22-MAR-2010	20:31	10-2314.sub	PBLK01	1.00000	967396	
☐	N	/chem/ecd8a.i/032210.b/058b5801-1.d	1202076356	lcs	22-MAR-2010	20:43	10-2314.sub	PBLK01LCS	1.00000	967396	
☐	N	/chem/ecd8a.i/032210.b/071b7101.d	1202076357	ms	22-MAR-2010	23:32	10-2314.sub	RE46-10-13782MS	5.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/072b7201.d	1202076358	msd	22-MAR-2010	23:44	10-2314.sub	RE46-10-13782MSD	5.00000	967396	UPLOAD BOTH, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862005**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13775**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 00:21**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**075f7501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	075b7501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	18.4	ug/kg	6.13	18.4	1
11104-28-2	Aroclor-1221	U	18.4	ug/kg	6.13	18.4	1
11141-16-5	Aroclor-1232	U	18.4	ug/kg	6.13	18.4	1
53469-21-9	Aroclor-1242	U	18.4	ug/kg	6.13	18.4	1
12672-29-6	Aroclor-1248	U	18.4	ug/kg	6.13	18.4	1
11097-69-1	Aroclor-1254	U	18.4	ug/kg	6.13	18.4	1
11096-82-5	Aroclor-1260	U	18.4	ug/kg	6.13	18.4	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862006	**Date Received:**	03/06/2010 09:15	**%Moisture:**	10.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13776	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967396	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/23/2010 00:34	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 12:13	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	076f7601.d	**Column:**	1 CLP1	**Level:**	LOW
	076b7601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.5	ug/kg	6.17	18.5	1
11104–28–2	Aroclor–1221	U	18.5	ug/kg	6.17	18.5	1
11141–16–5	Aroclor–1232	U	18.5	ug/kg	6.17	18.5	1
53469–21–9	Aroclor–1242	U	18.5	ug/kg	6.17	18.5	1
12672–29–6	Aroclor–1248	U	18.5	ug/kg	6.17	18.5	1
11097–69–1	Aroclor–1254	U	18.5	ug/kg	6.17	18.5	1
11096–82–5	Aroclor–1260	U	18.5	ug/kg	6.17	18.5	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**20.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13777**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**20**
Run Date:	**03/23/2010 00:09**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**074f7401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	074b7401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	83.6	ug/kg	27.9	83.6	1
11104–28–2	Aroclor–1221	U	83.6	ug/kg	27.9	83.6	1
11141–16–5	Aroclor–1232	U	83.6	ug/kg	27.9	83.6	1
53469–21–9	Aroclor–1242	U	83.6	ug/kg	27.9	83.6	1
12672–29–6	Aroclor–1248	U	83.6	ug/kg	27.9	83.6	1
11097–69–1	Aroclor–1254	U	83.6	ug/kg	27.9	83.6	1
11096–82–5	Aroclor–1260	U	83.6	ug/kg	27.9	83.6	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862010	**Date Received:**	03/06/2010 09:15	**%Moisture:**	19.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13778	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967396	**Inst:**	ECD8A.I	**Dilution:**	10
Run Date:	03/23/2010 02:00	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 12:13	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	082f8201.d	**Column:**	1 CLP1	**Level:**	LOW
	082b8201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	41.0	ug/kg	13.7	41.0	1
11104-28-2	Aroclor-1221	U	41.0	ug/kg	13.7	41.0	1
11141-16-5	Aroclor-1232	U	41.0	ug/kg	13.7	41.0	1
53469-21-9	Aroclor-1242	U	41.0	ug/kg	13.7	41.0	1
12672-29-6	Aroclor-1248	U	41.0	ug/kg	13.7	41.0	1
11097-69-1	Aroclor-1254	U	41.0	ug/kg	13.7	41.0	1
11096-82-5	Aroclor-1260	U	41.0	ug/kg	13.7	41.0	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862008**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13779**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**20**
Run Date:	**03/23/2010 01:03**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**078f7801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	078b7801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	82.7	ug/kg	27.6	82.7	1
11104–28–2	Aroclor–1221	U	82.7	ug/kg	27.6	82.7	1
11141–16–5	Aroclor–1232	U	82.7	ug/kg	27.6	82.7	1
53469–21–9	Aroclor–1242	U	82.7	ug/kg	27.6	82.7	1
12672–29–6	Aroclor–1248	U	82.7	ug/kg	27.6	82.7	1
11097–69–1	Aroclor–1254	J	72.5	ug/kg	27.6	82.7	2
11096–82–5	Aroclor–1260	U	82.7	ug/kg	27.6	82.7	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862009**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13780**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 01:44**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**081f8101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	081b8101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	20.3	ug/kg	6.77	20.3	1
11104-28-2	Aroclor-1221	U	20.3	ug/kg	6.77	20.3	1
11141-16-5	Aroclor-1232	U	20.3	ug/kg	6.77	20.3	1
53469-21-9	Aroclor-1242	U	20.3	ug/kg	6.77	20.3	1
12672-29-6	Aroclor-1248	U	20.3	ug/kg	6.77	20.3	1
11097-69-1	Aroclor-1254	U	20.3	ug/kg	6.77	20.3	1
11096-82-5	Aroclor-1260	U	20.3	ug/kg	6.77	20.3	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862007**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13781**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 00:46**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**077f7701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	077b7701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	40.9	ug/kg	13.6	40.9	1
11104-28-2	Aroclor-1221	U	40.9	ug/kg	13.6	40.9	1
11141-16-5	Aroclor-1232	U	40.9	ug/kg	13.6	40.9	1
53469-21-9	Aroclor-1242	U	40.9	ug/kg	13.6	40.9	1
12672-29-6	Aroclor-1248	U	40.9	ug/kg	13.6	40.9	1
11097-69-1	Aroclor-1254	U	40.9	ug/kg	13.6	40.9	1
11096-82-5	Aroclor-1260	U	40.9	ug/kg	13.6	40.9	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13782**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 23:20**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**070f7001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	070b7001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	19.3	ug/kg	6.42	19.3	1
11104–28–2	Aroclor–1221	U	19.3	ug/kg	6.42	19.3	1
11141–16–5	Aroclor–1232	U	19.3	ug/kg	6.42	19.3	1
53469–21–9	Aroclor–1242	U	19.3	ug/kg	6.42	19.3	1
12672–29–6	Aroclor–1248	U	19.3	ug/kg	6.42	19.3	1
11097–69–1	Aroclor–1254	U	19.3	ug/kg	6.42	19.3	1
11096–82–5	Aroclor–1260	U	19.3	ug/kg	6.42	19.3	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13783**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 23:57**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**073f7301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	073b7301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	18.3	ug/kg	6.10	18.3	1
11104-28-2	Aroclor-1221	U	18.3	ug/kg	6.10	18.3	1
11141-16-5	Aroclor-1232	U	18.3	ug/kg	6.10	18.3	1
53469-21-9	Aroclor-1242	U	18.3	ug/kg	6.10	18.3	1
12672-29-6	Aroclor-1248	U	18.3	ug/kg	6.10	18.3	1
11097-69-1	Aroclor-1254	U	18.3	ug/kg	6.10	18.3	1
11096-82-5	Aroclor-1260	U	18.3	ug/kg	6.10	18.3	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–2314

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
1202076355	MB for batch 967394	86		92		93		98	
1202076356	LCS for batch 967394	87		94		67		100	
248862002	RE46–10–13782	86	D	86	D	103	D	93	D
1202076357	RE46–10–13782MS	90	D	90	D	105	D	102	D
1202076358	RE46–10–13782MSD	108	D	108	D	127 *	D	133 *	D
248862003	RE46–10–13783	88	D	88	D	99	D	102	D
248862004	RE46–10–13777	75	D	69	D	79	D	78	D
248862005	RE46–10–13775	85	D	86	D	92	D	97	D
248862006	RE46–10–13776	61	D	61	D	72	D	71	D
248862007	RE46–10–13781	65	D	65	D	156 *	D	152 *	D
248862008	RE46–10–13779	85	D	80	D	103	D	101	D
248862009	RE46–10–13780	91	D	92	D	105	D	104	D
248862010	RE46–10–13778	72	D	70	D	86	D	83	D

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%–120%)
DCB = Decachlorobiphenyl	(30%–116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2314
Client ID: LCS for batch 967394
Lab Sample ID: 1202076356
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/22/2010 20:43
Dilution: 1
Prep Batch ID: 967394
Batch ID: 967396

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS Aroclor-1016	33.3	0.0	24.7	74	39-102
11096-82-5	LCS Aroclor-1260	33.3	0.0	28.2	85	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2314**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE46-10-13782MS**	**Matrix:**	**S**
Lab Sample ID:	**1202076357**	**%Moisture:**	**13.9**
Instrument:	**ECD8A.I**	**Analysis Date:**	**03/22/2010 23:32**
Analyst:	**JAOC**	**Prep Batch ID:**	**967394**
Inj. Vol:	**1 uL**	**Batch ID:**	**967396**

Dilution: 5

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	38.7	0.00	U	34.8	90	23-119
11096-82-5	MS	Aroclor-1260	38.7	0.00	U	38.7	100	28-124

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2314**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE46-10-13782MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202076358**	**%Moisture:**	**13.9**
Instrument:	**ECD8A.I**	**Analysis Date:**	**03/22/2010 23:44**
Analyst:	**JAOC**	**Prep Batch ID**	**967394**
Inj. Vol:	**1 uL**	**Batch ID:**	**967396**

Dilution: 5

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	38.6	0.00	U	43.1	112	23-119	21	0-28
11096-82-5	MSD Aroclor-1260	38.6	0.00	U	48.5	126 *	28-124	23	0-30

Method Blank Summary

SDG Number:	10-2314	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 967394	Instrument ID:	ECD8A.I_2 ECD8A.I_1	Data File:	057b5701-1.d 057f5701-1.d
Lab Sample ID:	1202076355				
Column:	CLP2 CLP1	Prep Date:	03/21/2010 12:13	Analyzed:	03/22/10 20:31
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 967394	1202076356	058f5801-1.d 058b5801-1.d	03/22/10	2043
02 RE46-10-13782	248862002	070f7001.d 070b7001.d	03/22/10	2320
03 RE46-10-13782MS	1202076357	071f7101.d 071b7101.d	03/22/10	2332
04 RE46-10-13782MSD	1202076358	072f7201.d 072b7201.d	03/22/10	2344
05 RE46-10-13783	248862003	073f7301.d 073b7301.d	03/22/10	2357
06 RE46-10-13777	248862004	074f7401.d 074b7401.d	03/23/10	0009
07 RE46-10-13775	248862005	075f7501.d 075b7501.d	03/23/10	0021
08 RE46-10-13776	248862006	076f7601.d 076b7601.d	03/23/10	0034
09 RE46-10-13781	248862007	077f7701.d 077b7701.d	03/23/10	0046
10 RE46-10-13779	248862008	078f7801.d 078b7801.d	03/23/10	0103
11 RE46-10-13780	248862009	081f8101.d 081b8101.d	03/23/10	0144
12 RE46-10-13778	248862010	082f8201.d 082b8201.d	03/23/10	0200

SAMPLE
DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862005**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13775**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 00:21**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**075f7501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	075b7501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	18.4	ug/kg	6.13	18.4	1
11104-28-2	Aroclor-1221	U	18.4	ug/kg	6.13	18.4	1
11141-16-5	Aroclor-1232	U	18.4	ug/kg	6.13	18.4	1
53469-21-9	Aroclor-1242	U	18.4	ug/kg	6.13	18.4	1
12672-29-6	Aroclor-1248	U	18.4	ug/kg	6.13	18.4	1
11097-69-1	Aroclor-1254	U	18.4	ug/kg	6.13	18.4	1
11096-82-5	Aroclor-1260	U	18.4	ug/kg	6.13	18.4	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/075f7501.d
Lab Smp Id: 248862005 Client Smp ID: RE46-10-13775
Inj Date : 23-MAR-2010 00:21
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248862005|5|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13775|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 75
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	9.49990	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.249	-0.001	4263529	34.1188	6.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.240	-0.001	3039264	36.9062	6.8	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032210.b/075f7501.d

Date : 23-MAR-2010 00:21

Client ID: RE46-10-13775

Sample Info: 1248862005151

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

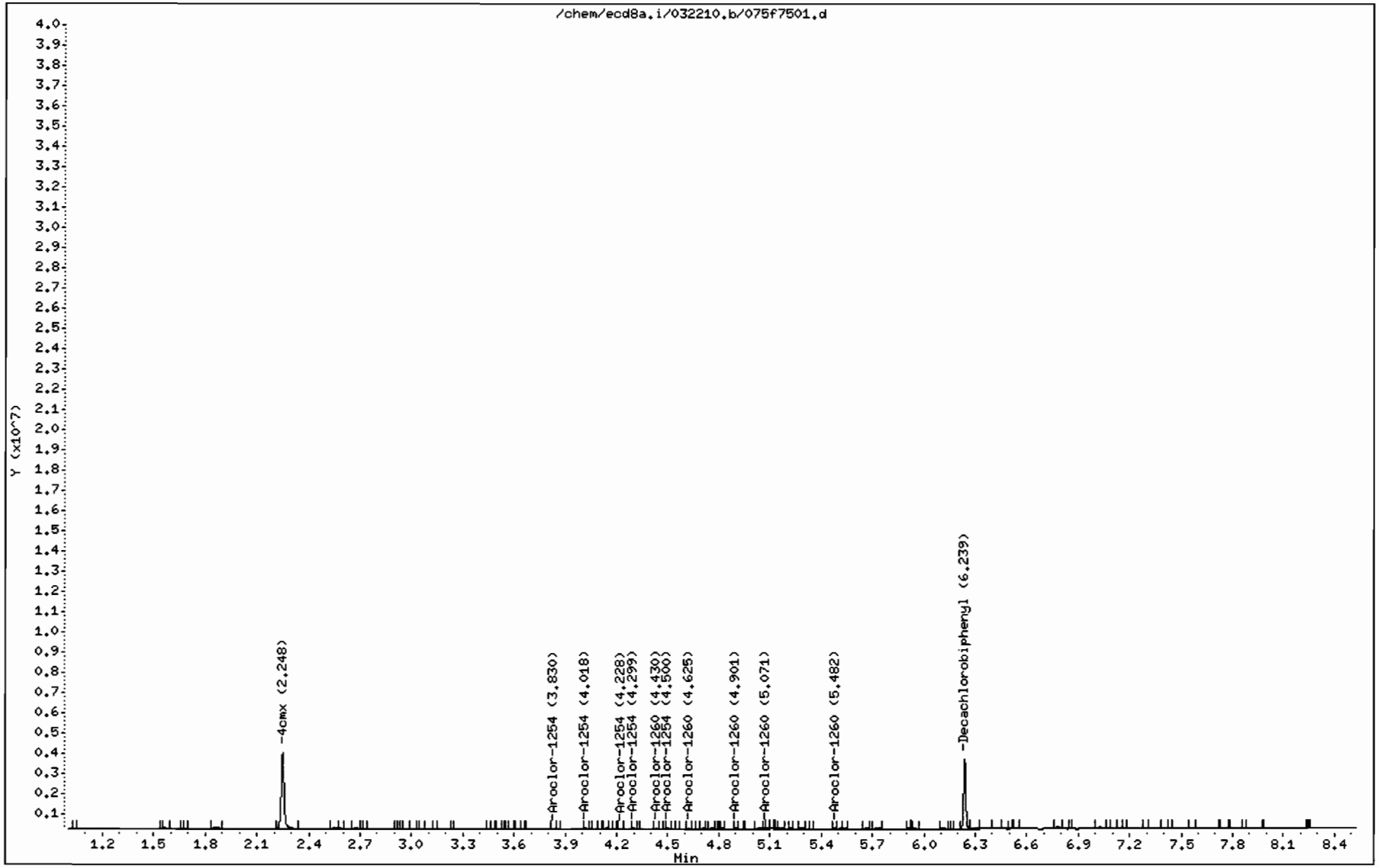

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/075b7501.d
Lab Smp Id: 248862005 Client Smp ID: RE46-10-13775
Inj Date : 23-MAR-2010 00:21
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248862005|5|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13775|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 75
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	9.49990	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	2876728	34.4180	6.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.825	-0.002	2304732	38.8968	7.2	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032210.b/075b7501.d

Date : 23-MAR-2010 00:21

Client ID: RE46-10-13775

Sample Info: |248862005|5|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

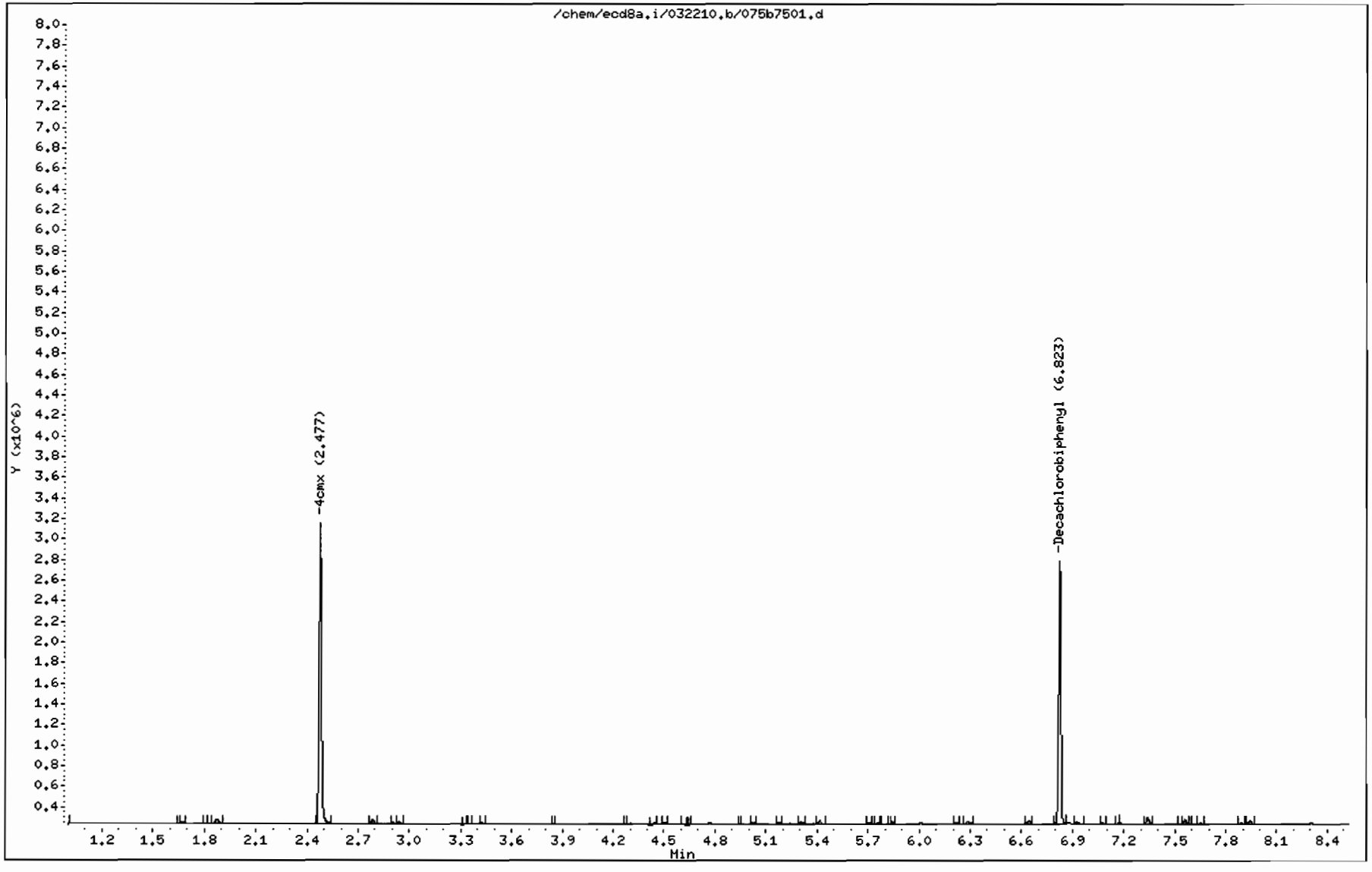

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862006	**Date Received:**	03/06/2010 09:15	**%Moisture:**	10.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13776	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967396	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/23/2010 00:34	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 12:13	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	076f7601.d	**Column:**	1 CLP1	**Level:**	LOW
	076b7601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.5	ug/kg	6.17	18.5	1
11104–28–2	Aroclor–1221	U	18.5	ug/kg	6.17	18.5	1
11141–16–5	Aroclor–1232	U	18.5	ug/kg	6.17	18.5	1
53469–21–9	Aroclor–1242	U	18.5	ug/kg	6.17	18.5	1
12672–29–6	Aroclor–1248	U	18.5	ug/kg	6.17	18.5	1
11097–69–1	Aroclor–1254	U	18.5	ug/kg	6.17	18.5	1
11096–82–5	Aroclor–1260	U	18.5	ug/kg	6.17	18.5	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/076f7601.d
Lab Smp Id: 248862006 Client Smp ID: RE46-10-13776
Inj Date : 23-MAR-2010 00:34
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248862006|5|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13776|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 76
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	10.10940	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.249	-0.001	3070154	24.5688	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.240	-0.001	2355823	28.6071	5.3	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032210.b/076f7601.d

Page 1

Date : 23-MAR-2010 00:34

Client ID: RE46-10-13776

Instrument: ecd8a.i

Sample Info: |2488620061 5|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

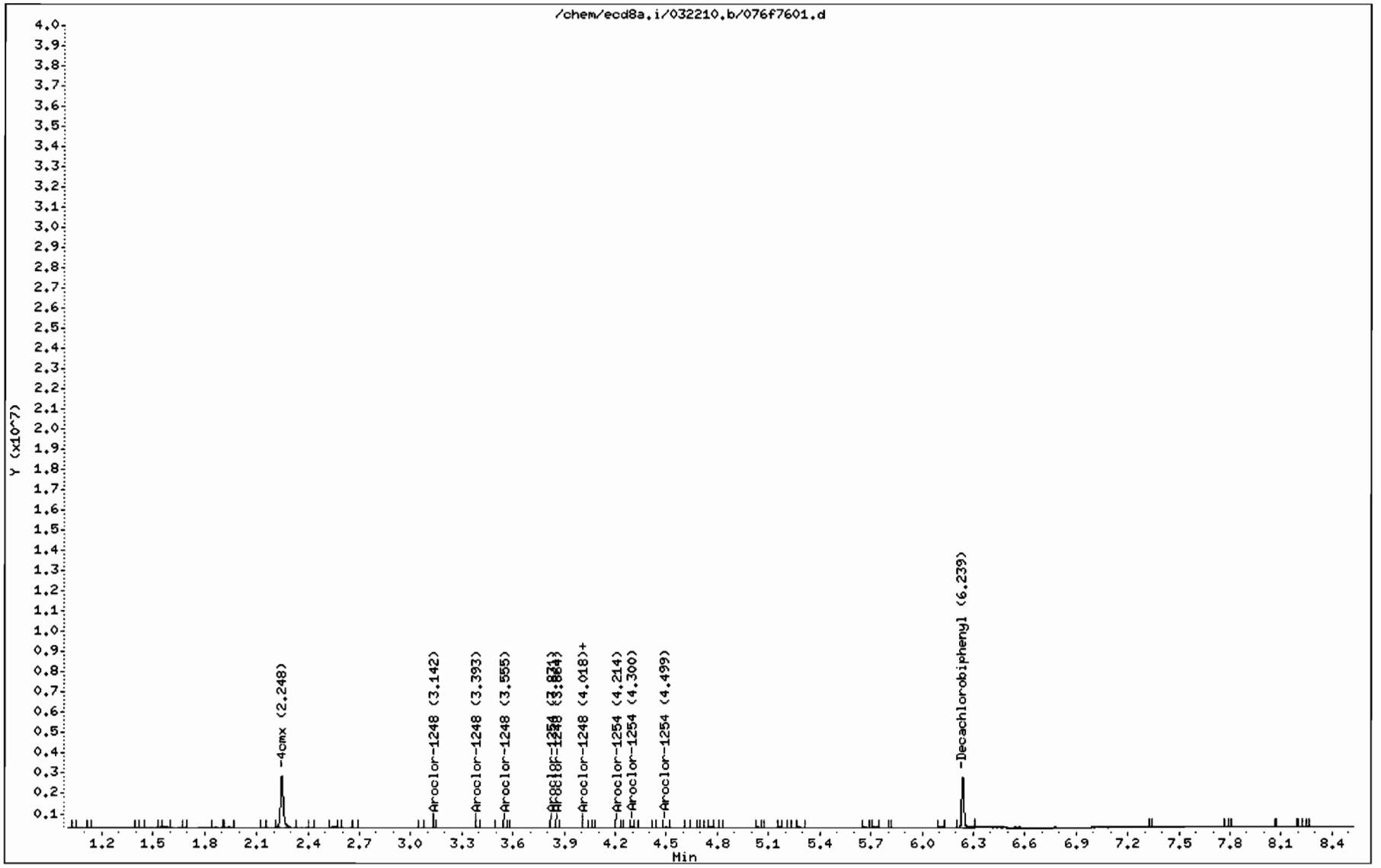

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/076b7601.d
Lab Smp Id: 248862006 Client Smp ID: RE46-10-13776
Inj Date : 23-MAR-2010 00:34
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248862006|5|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13776|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 76
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	10.10940	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	2032351	24.3156	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.825	-0.002	1674762	28.2649	5.2	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032210.b/076b7601.d
Date : 23-MAR-2010 00:34
Client ID: RE46-10-13776
Sample Info: 1248862006151
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

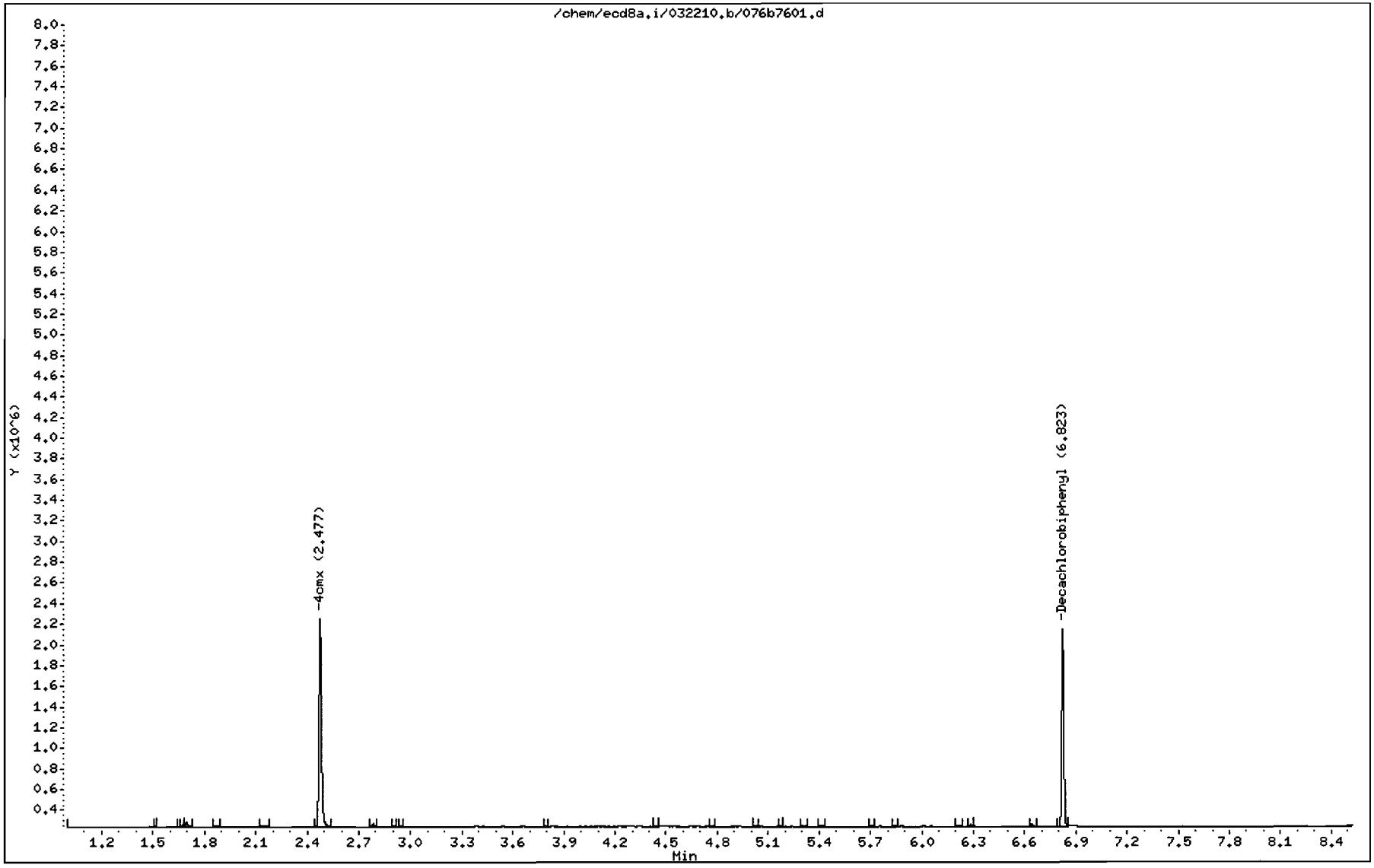

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**20.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13777**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**20**
Run Date:	**03/23/2010 00:09**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**074f7401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	074b7401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	83.6	ug/kg	27.9	83.6	1
11104–28–2	Aroclor–1221	U	83.6	ug/kg	27.9	83.6	1
11141–16–5	Aroclor–1232	U	83.6	ug/kg	27.9	83.6	1
53469–21–9	Aroclor–1242	U	83.6	ug/kg	27.9	83.6	1
12672–29–6	Aroclor–1248	U	83.6	ug/kg	27.9	83.6	1
11097–69–1	Aroclor–1254	U	83.6	ug/kg	27.9	83.6	1
11096–82–5	Aroclor–1260	U	83.6	ug/kg	27.9	83.6	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/074f7401.d
Lab Smp Id: 248862004 Client Smp ID: RE46-10-13777
Inj Date : 23-MAR-2010 00:09
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248862004|20|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13777|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 74
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	20.43130	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.249	0.000	939782	7.52059	6.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.240	-0.001	649785	7.89043	6.6	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032210.b/074f7401.d

Date : 23-MAR-2010 00:09

Client ID: RE46-10-13777

Sample Info: 12488620041201

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

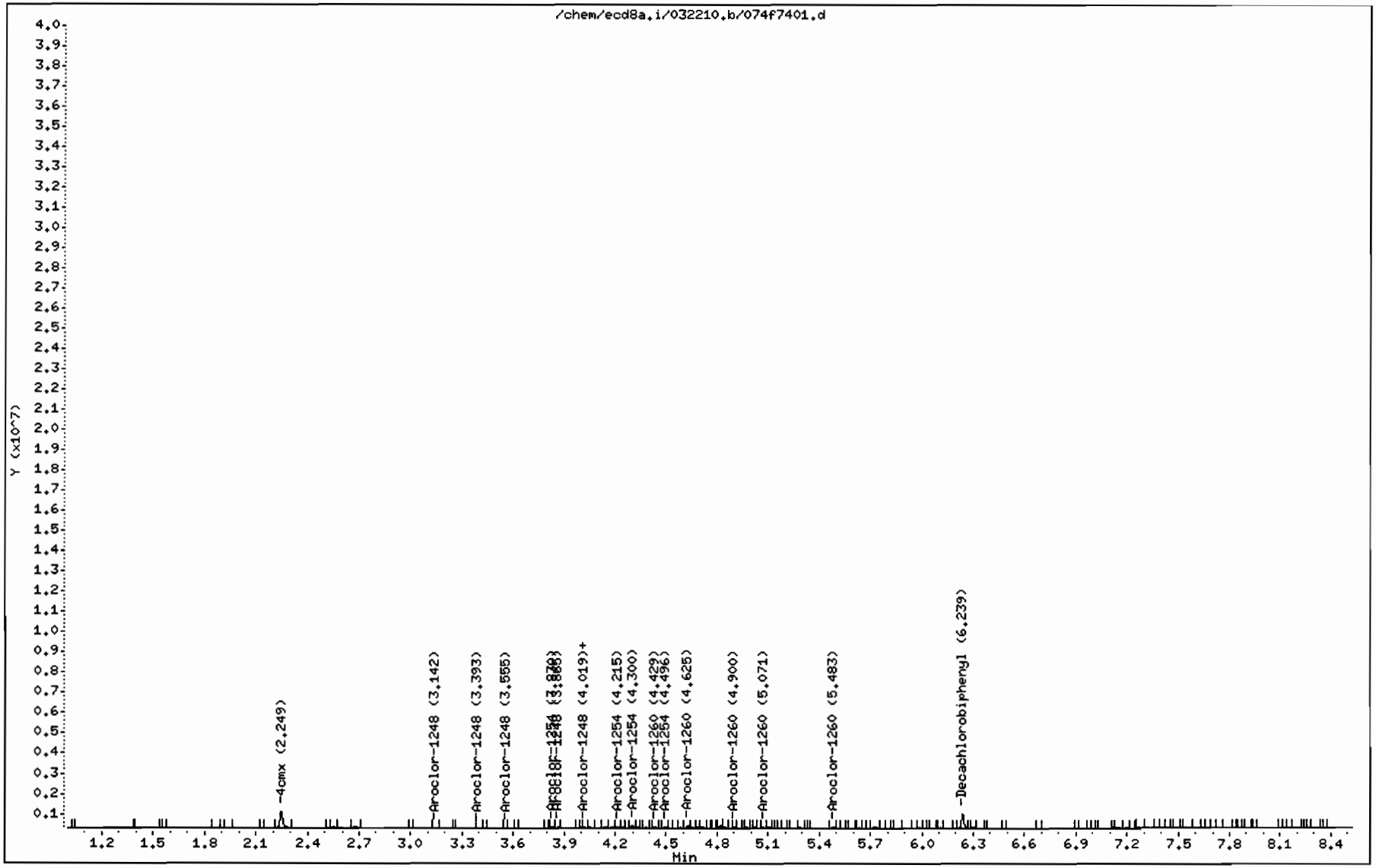

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/074b7401.d
Lab Smp Id: 248862004 Client Smp ID: RE46-10-13777
Inj Date : 23-MAR-2010 00:09
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248862004|20|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13777|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 74
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	20.43130	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	575260	6.88259	5.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.825	-0.001	459823	7.76041	6.5	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032210.b/074b7401.d

Date : 23-MAR-2010 00:09

Client ID: RE46-10-13777

Sample Info: 12488620041201

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

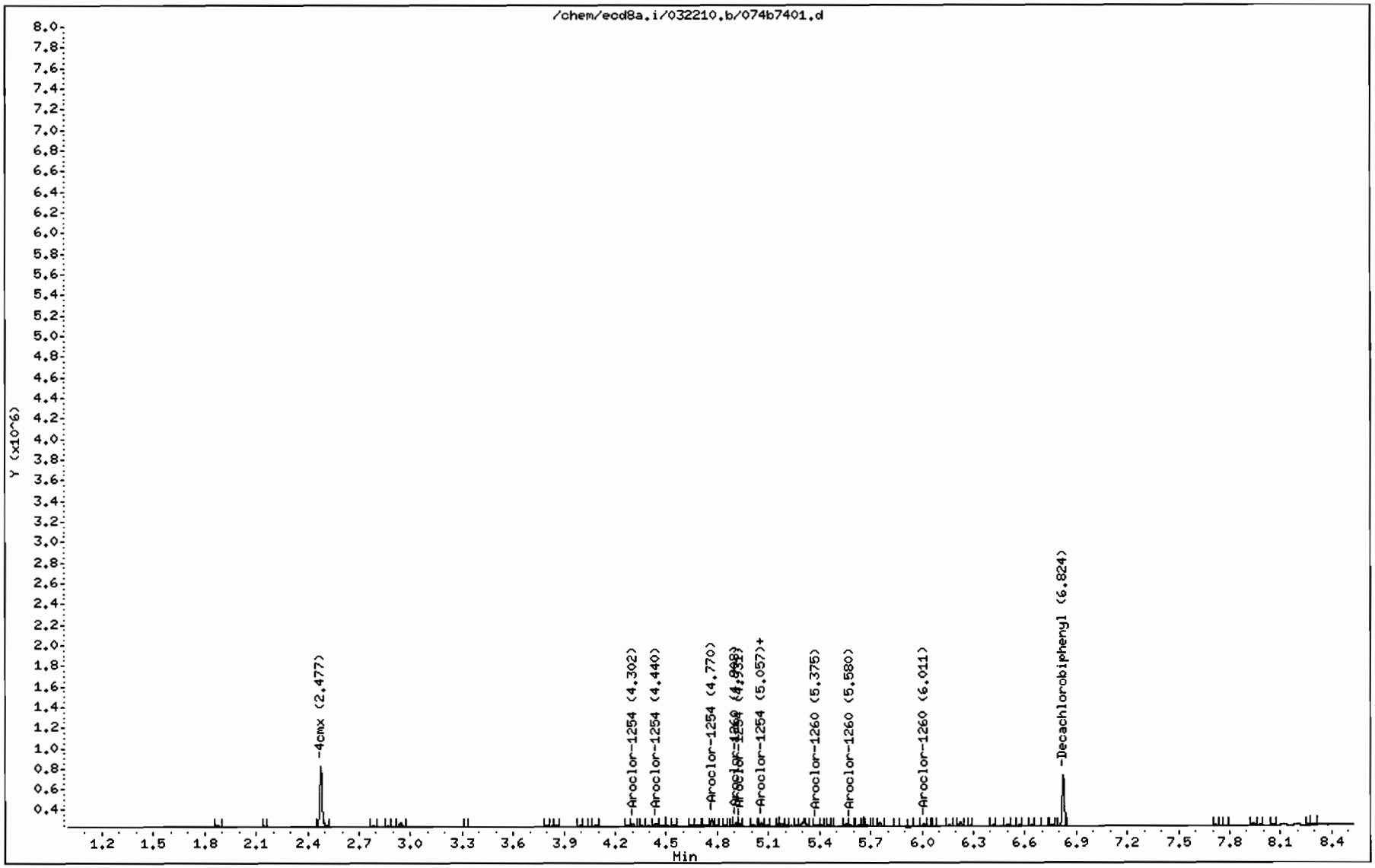

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862010	**Date Received:**	03/06/2010 09:15	**%Moisture:**	19.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13778	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967396	**Inst:**	ECD8A.I	**Dilution:**	10
Run Date:	03/23/2010 02:00	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 12:13	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	082f8201.d	**Column:**	1 CLP1	**Level:**	LOW
	082b8201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	41.0	ug/kg	13.7	41.0	1
11104-28-2	Aroclor-1221	U	41.0	ug/kg	13.7	41.0	1
11141-16-5	Aroclor-1232	U	41.0	ug/kg	13.7	41.0	1
53469-21-9	Aroclor-1242	U	41.0	ug/kg	13.7	41.0	1
12672-29-6	Aroclor-1248	U	41.0	ug/kg	13.7	41.0	1
11097-69-1	Aroclor-1254	U	41.0	ug/kg	13.7	41.0	1
11096-82-5	Aroclor-1260	U	41.0	ug/kg	13.7	41.0	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/082f8201.d
Lab Smp Id: 248862010 Client Smp ID: RE46-10-13778
Inj Date : 23-MAR-2010 02:00
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248862010|10|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13778|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 82
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weight of sample extracted (g)
M	19.06520	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.247	2.249	-0.002	1807176	14.4619	5.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.237	6.240	-0.003	1416749	17.2038	7.0	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032210.b/082f8201.d

Page 1

Date : 23-MAR-2010 02:00

Client ID: RE46-10-13778

Instrument: ecd8a.i

Sample Info: |248862010|10|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

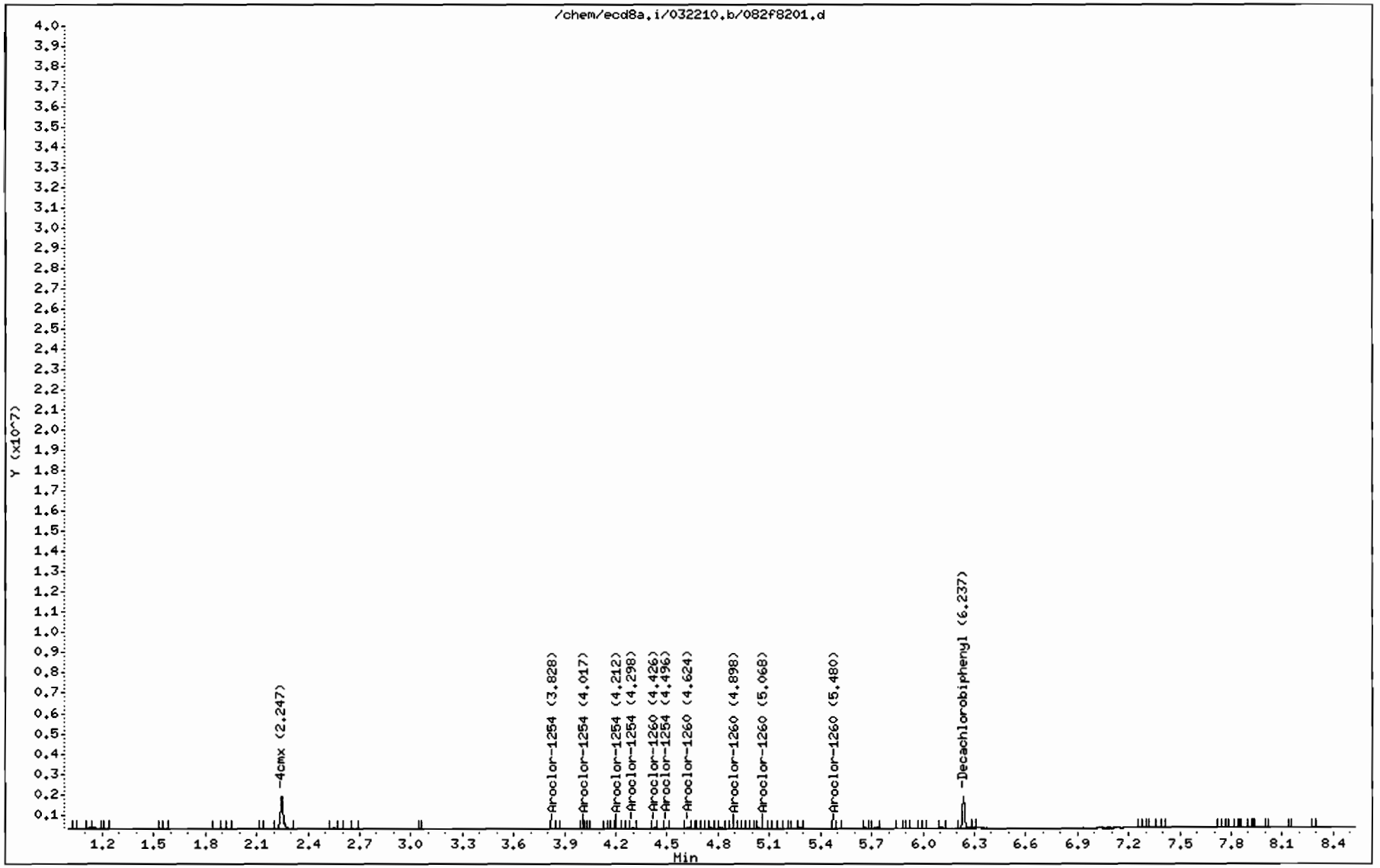

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/082b8201.d
Lab Smp Id: 248862010 Client Smp ID: RE46-10-13778
Inj Date : 23-MAR-2010 02:00
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248862010|10|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13778|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 82
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weight of sample extracted (g)
M	19.06520	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.477	-0.001	1167282	13.9657	5.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.825	-0.003	986259	16.6450	6.8	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032210.b/082b8201.d

Page 1

Date : 23-MAR-2010 02:00

Client ID: RE46-10-13778

Instrument: ecd8a.i

Sample Info: 1248862010110

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

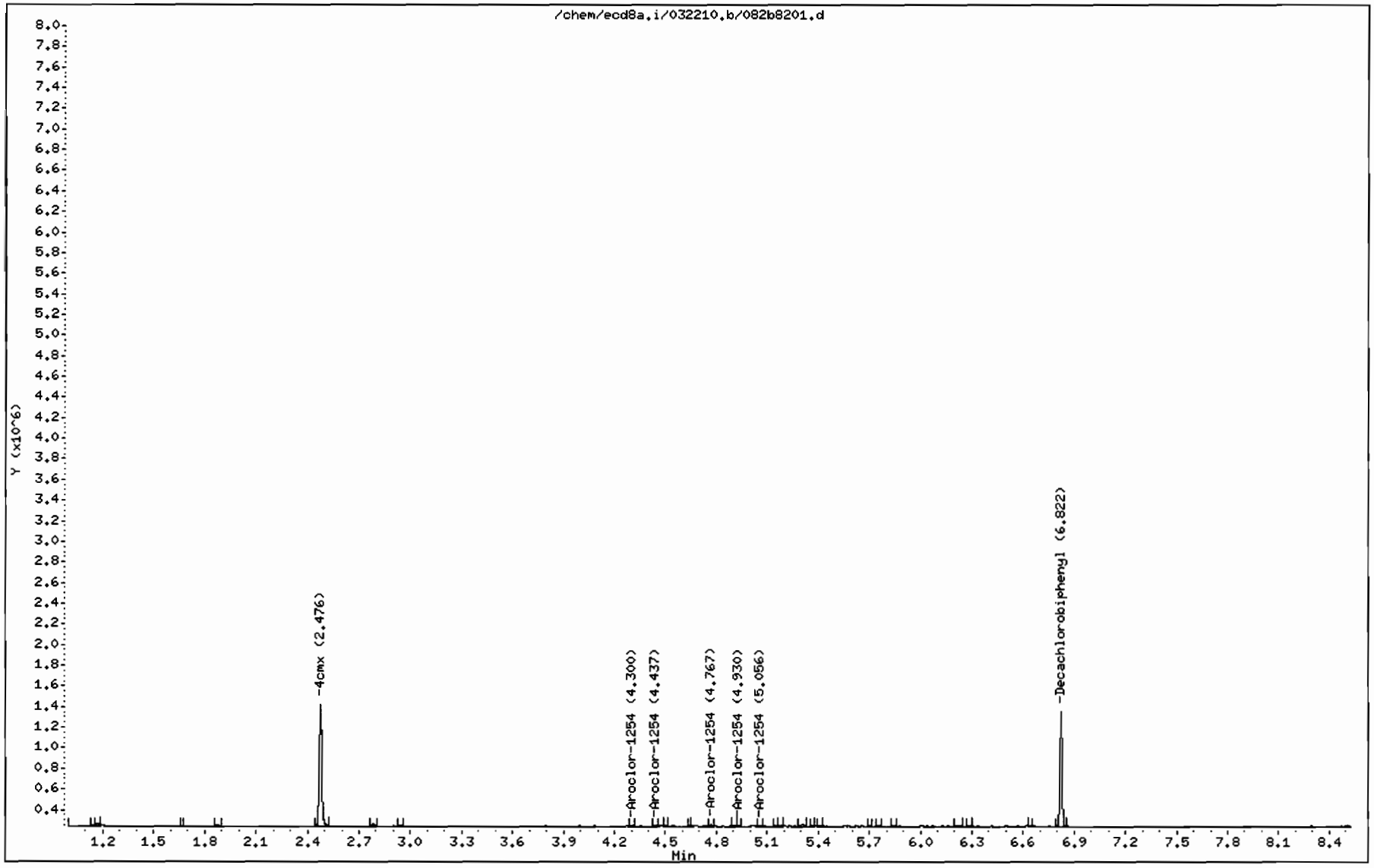

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862008**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**19.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13779**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**20**
Run Date:	**03/23/2010 01:03**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**078f7801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	078b7801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	82.7	ug/kg	27.6	82.7	1
11104-28-2	Aroclor-1221	U	82.7	ug/kg	27.6	82.7	1
11141-16-5	Aroclor-1232	U	82.7	ug/kg	27.6	82.7	1
53469-21-9	Aroclor-1242	U	82.7	ug/kg	27.6	82.7	1
12672-29-6	Aroclor-1248	U	82.7	ug/kg	27.6	82.7	1
11097-69-1	Aroclor-1254	J	72.5	ug/kg	27.6	82.7	2
11096-82-5	Aroclor-1260	U	82.7	ug/kg	27.6	82.7	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/078f7801.d
Lab Smp Id: 248862008 Client Smp ID: RE46-10-13779
Inj Date : 23-MAR-2010 01:03
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248862008|20|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13779|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 78
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	19.50530	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.247	2.249	-0.002	1056662	8.45591	7.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.237	6.240	-0.003	847858	10.2957	8.5	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.829	3.832	-0.003	376422	86.8540	71.9	80.00- 120.00	100.00(a)
4.016	4.019	-0.003	490207	85.0090	70.3	113.15- 153.15	130.23
4.212	4.214	-0.002	359436	80.6177	66.7	83.81- 123.81	95.49
4.298	4.301	-0.003	646760	85.9878	71.1	155.36- 195.36	171.82
4.494	4.497	-0.003	505635	87.9487	72.8	112.54- 152.54	134.33

Average of Peak Concentrations = 70.6

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd8a.i/032210.b/078f7801.d

Page 1

Date : 23-MAR-2010 01:03

Client ID: RE46-10-13779

Instrument: ecd8a.i

Sample Info: 12488620081201

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

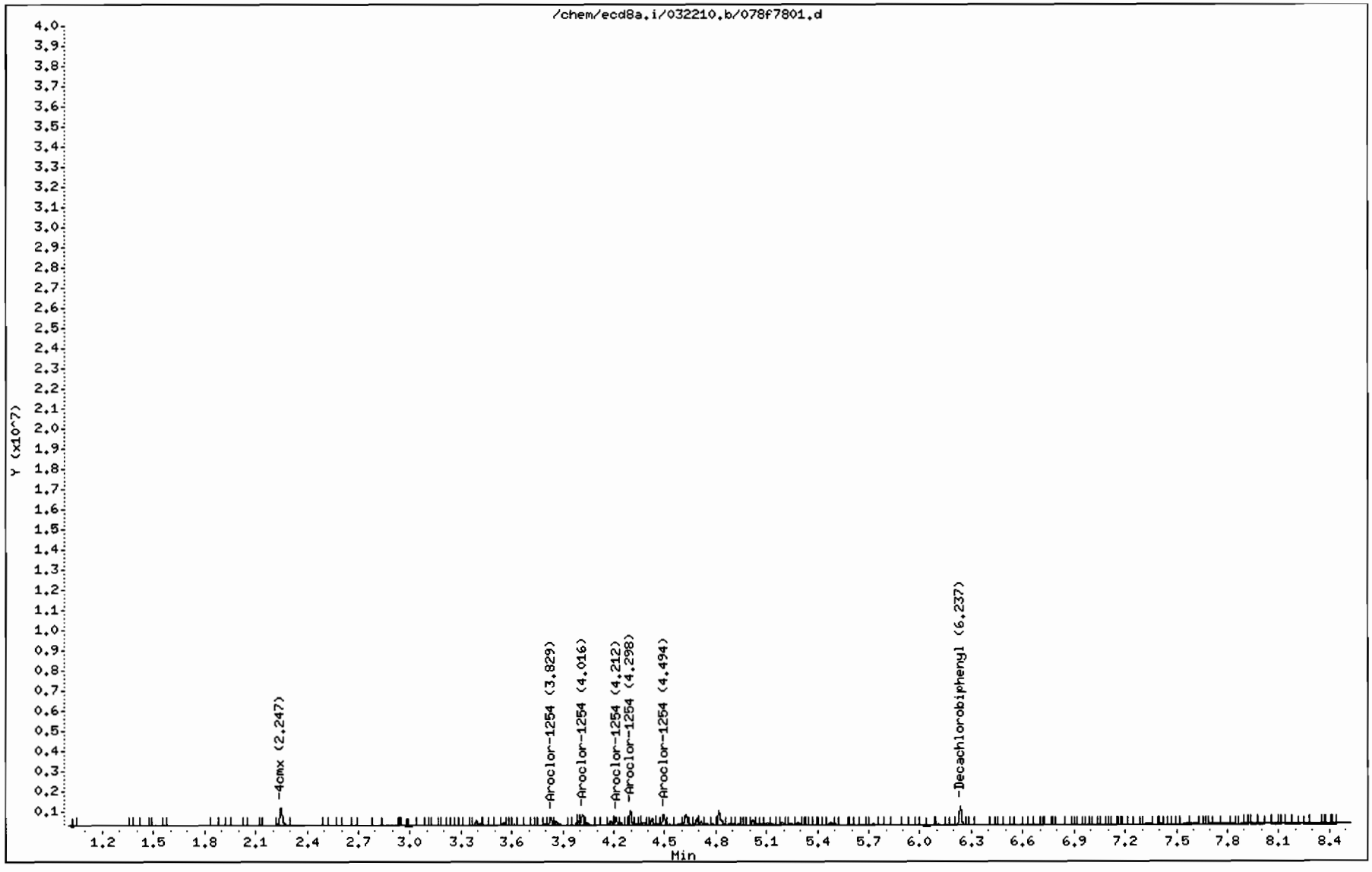

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/078b7801.d
Lab Smp Id: 248862008 Client Smp ID: RE46-10-13779
Inj Date : 23-MAR-2010 01:03
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248862008|20|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13779|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 78
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	19.50530	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	669668	8.01210	6.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.825	-0.003	600534	10.1352	8.4	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
4.300	4.302	-0.002	260514	83.5876	69.2	80.00- 120.00	100.00(aM)
4.439	4.441	-0.002	289967	83.3684	69.0	91.89- 131.89	111.31
4.768	4.770	-0.002	427264	88.4231	73.2	137.30- 177.30	164.01
4.929	4.932	-0.003	280334	80.2318	66.4	91.85- 131.85	107.61
5.055	5.057	-0.002	225584	102.459	84.8	50.50- 90.50	86.59
Average of Peak Concentrations =					72.5		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/078b7801.d

Date : 23-MAR-2010 01:03

Client ID: RE46-10-13779

Sample Info: 12488620081201

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

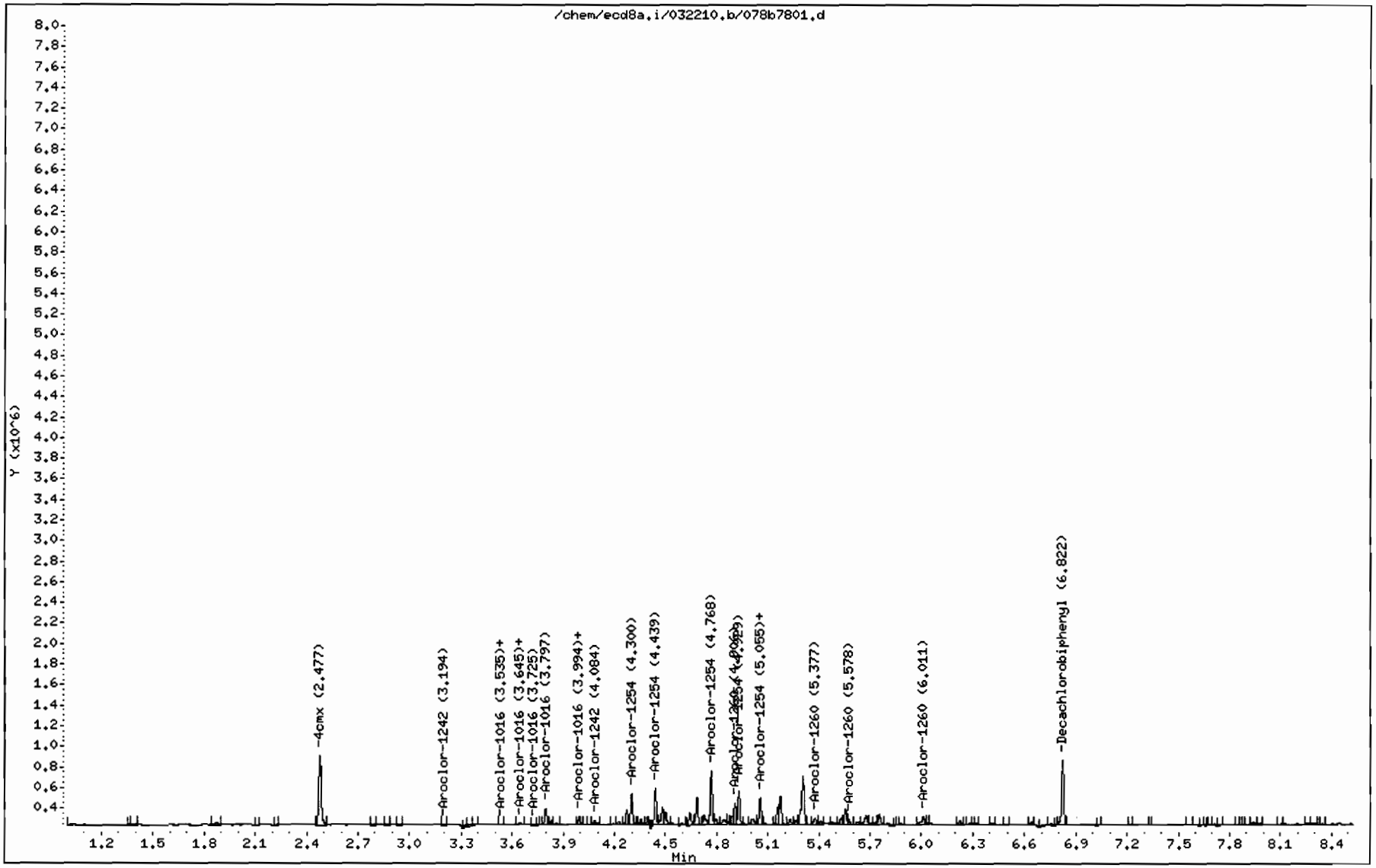

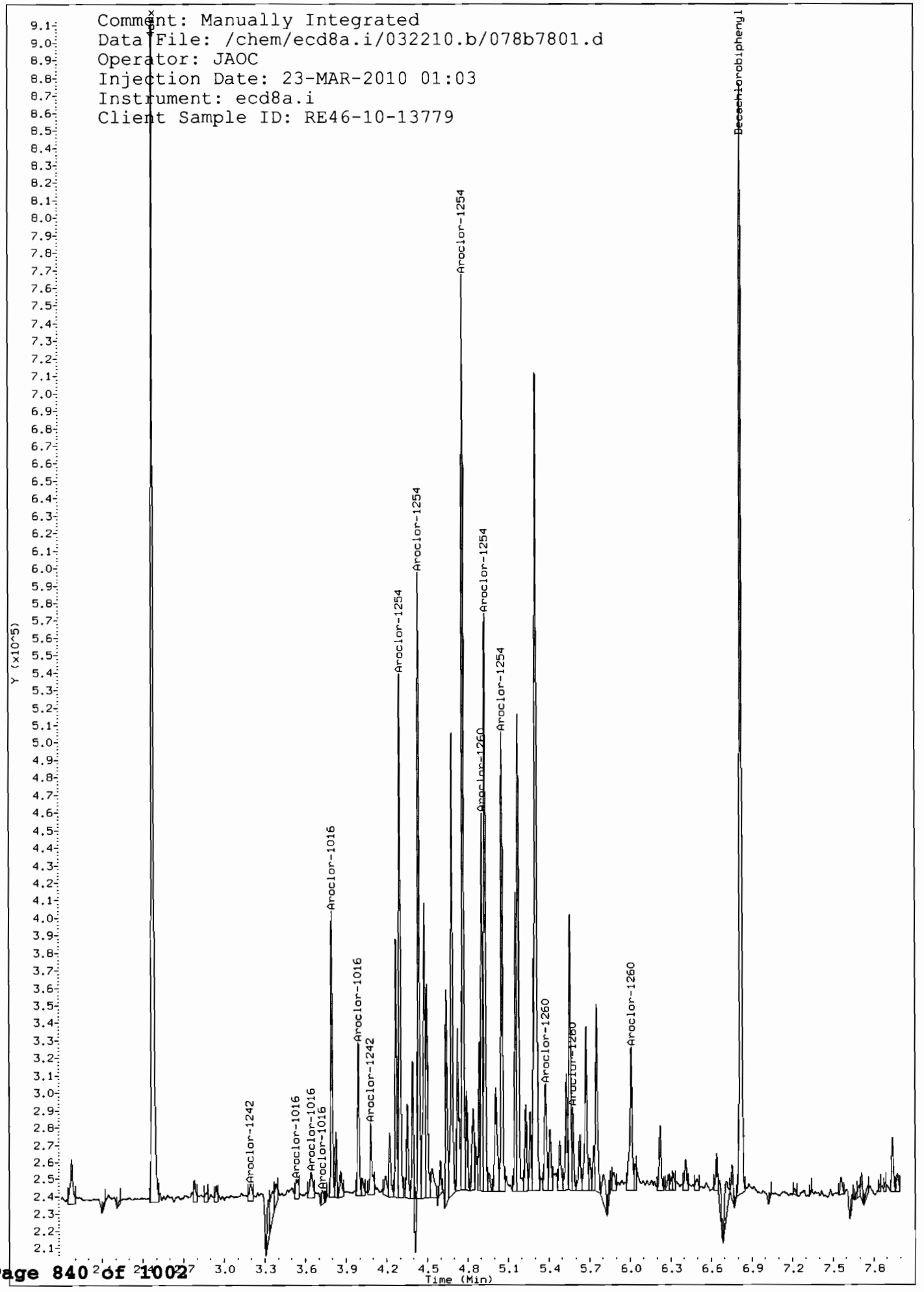
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/078b7801.d
Operator: JAOC
Injection Date: 23-MAR-2010 01:03
Instrument: ecd8a.i
Client Sample ID: RE46-10-13779
Decachlorobiphenyl
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1242
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^5)
Time (Min)

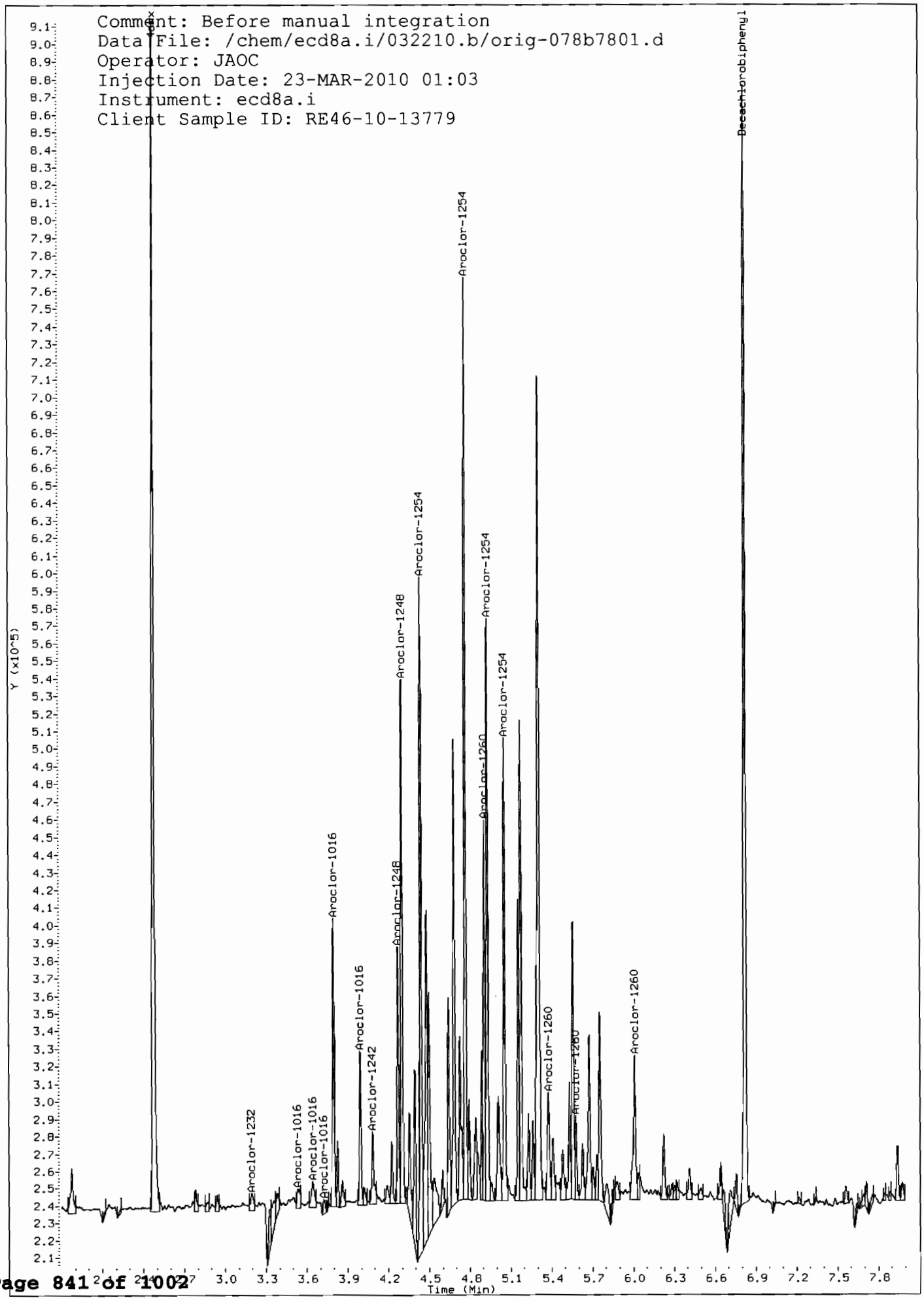
Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-078b7801.d
Operator: JAOC
Injection Date: 23-MAR-2010 01:03
Instrument: ecd8a.i
Client Sample ID: RE46-10-13779
Decachlorobiphenyl
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1248
Aroclor-1248
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^5)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862009	**Date Received:**	03/06/2010 09:15	**%Moisture:**	18.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13780	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967396	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/23/2010 01:44	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 12:13	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	081f8101.d	**Column:**	1 CLP1	**Level:**	LOW
	081b8101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	20.3	ug/kg	6.77	20.3	1
11104–28–2	Aroclor–1221	U	20.3	ug/kg	6.77	20.3	1
11141–16–5	Aroclor–1232	U	20.3	ug/kg	6.77	20.3	1
53469–21–9	Aroclor–1242	U	20.3	ug/kg	6.77	20.3	1
12672–29–6	Aroclor–1248	U	20.3	ug/kg	6.77	20.3	1
11097–69–1	Aroclor–1254	U	20.3	ug/kg	6.77	20.3	1
11096–82–5	Aroclor–1260	U	20.3	ug/kg	6.77	20.3	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/081f8101.d
Lab Smp Id: 248862009 Client Smp ID: RE46-10-13780
Inj Date : 23-MAR-2010 01:44
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248862009|5|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13780|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 81
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	18.07330	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.249	-0.001	4538163	36.3165	7.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.240	-0.001	3454468	41.9481	8.5	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032210.b/081f8101.d
Date : 23-MAR-2010 01:44
Client ID: RE46-10-13780
Sample Info: I2488620091S1
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

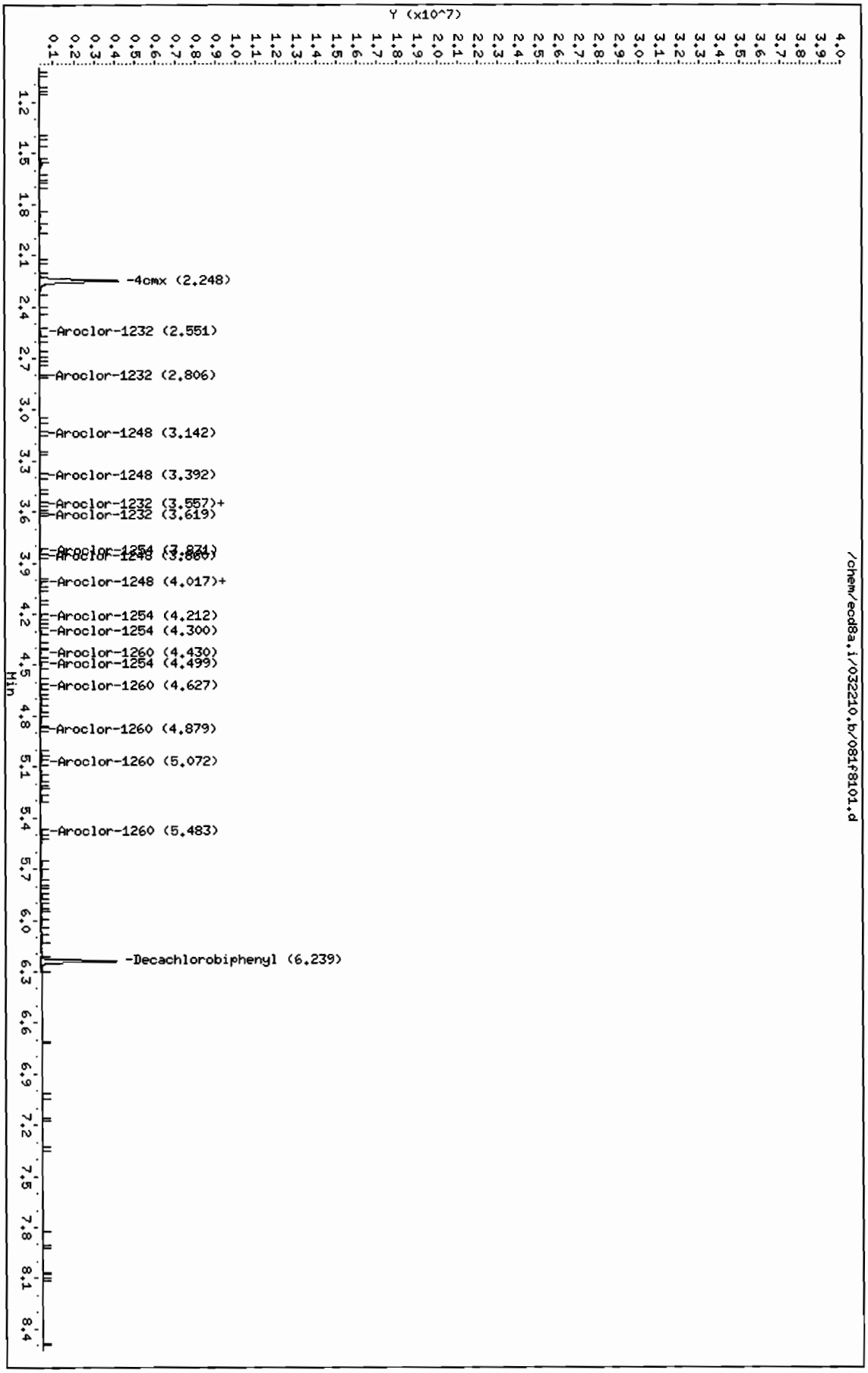

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/081b8101.d
Lab Smp Id: 248862009 Client Smp ID: RE46-10-13780
Inj Date : 23-MAR-2010 01:44
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248862009|5|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13780|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 81
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	18.07330	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	3079335	36.8420	7.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.825	-0.002	2475836	41.7845	8.5	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032210.b/081b8101.d
Date : 23-MAR-2010 01:44
Client ID: RE46-10-13780
Sample Info: 1248862009151
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

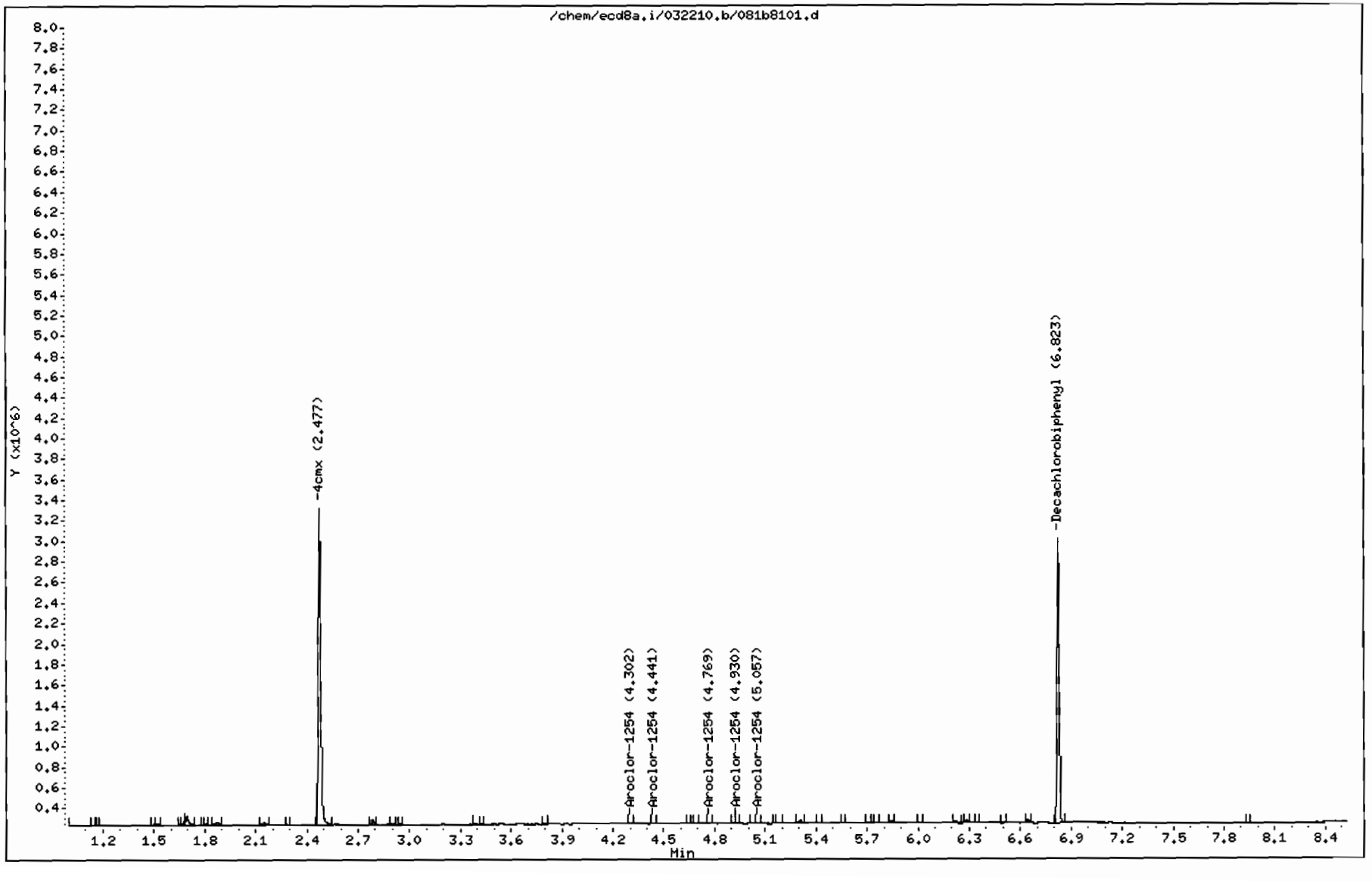

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862007	**Date Received:**	03/06/2010 09:15	**%Moisture:**	18.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13781	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967396	**Inst:**	ECD8A.I	**Dilution:**	10
Run Date:	03/23/2010 00:46	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 12:13	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	077f7701.d	**Column:**	1 CLP1	**Level:**	LOW
	077b7701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	40.9	ug/kg	13.6	40.9	1
11104-28-2	Aroclor-1221	U	40.9	ug/kg	13.6	40.9	1
11141-16-5	Aroclor-1232	U	40.9	ug/kg	13.6	40.9	1
53469-21-9	Aroclor-1242	U	40.9	ug/kg	13.6	40.9	1
12672-29-6	Aroclor-1248	U	40.9	ug/kg	13.6	40.9	1
11097-69-1	Aroclor-1254	U	40.9	ug/kg	13.6	40.9	1
11096-82-5	Aroclor-1260	U	40.9	ug/kg	13.6	40.9	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/077f7701.d
Lab Smp Id: 248862007 Client Smp ID: RE46-10-13781
Inj Date : 23-MAR-2010 00:46
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248862007|10|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13781|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 77
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	18.83070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.249	0.000	1614095	12.9167	5.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	2572223	31.2349	12.8	80.00- 120.00	100.00(RM)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/077f7701.d

Date : 23-MAR-2010 00:46

Client ID: RE46-10-13781

Sample Info: 1248862007|10|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

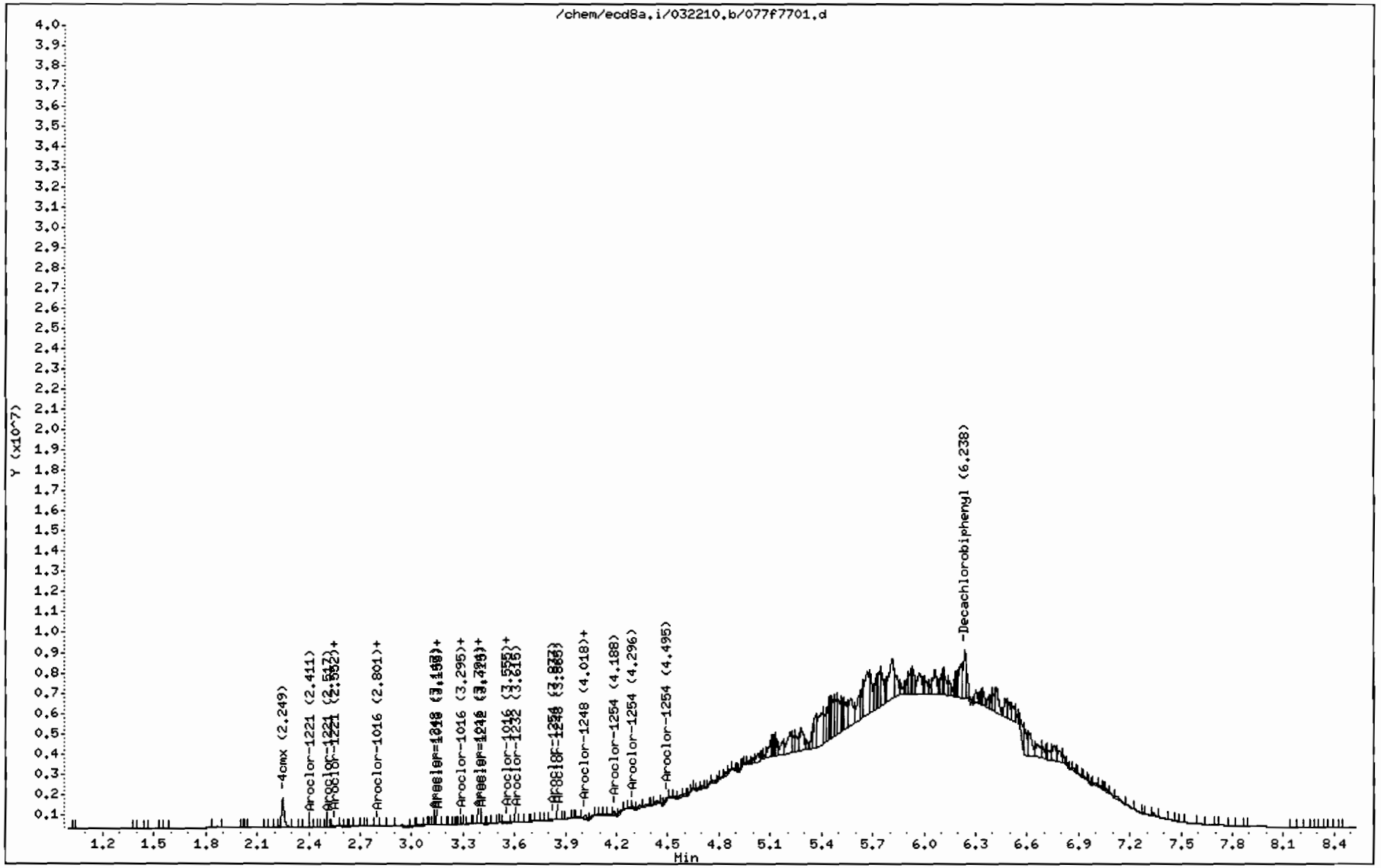

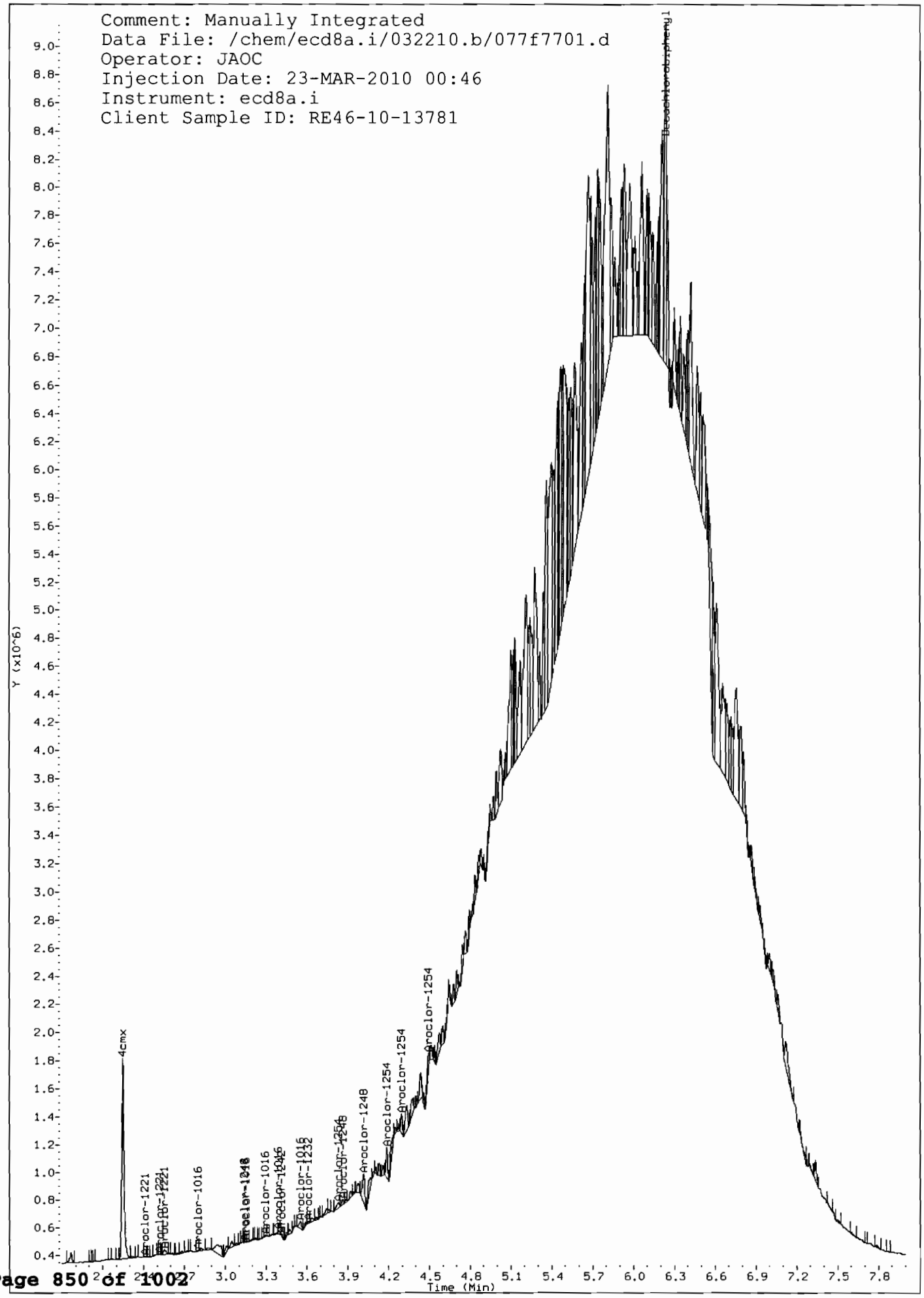
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/077f7701.d
Operator: JAOC
Injection Date: 23-MAR-2010 00:46
Instrument: ecd8a.i
Client Sample ID: RE46-10-13781
Decachlorobiphenyl
4cmx
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1254
Y (x10^6)
Time (Min)

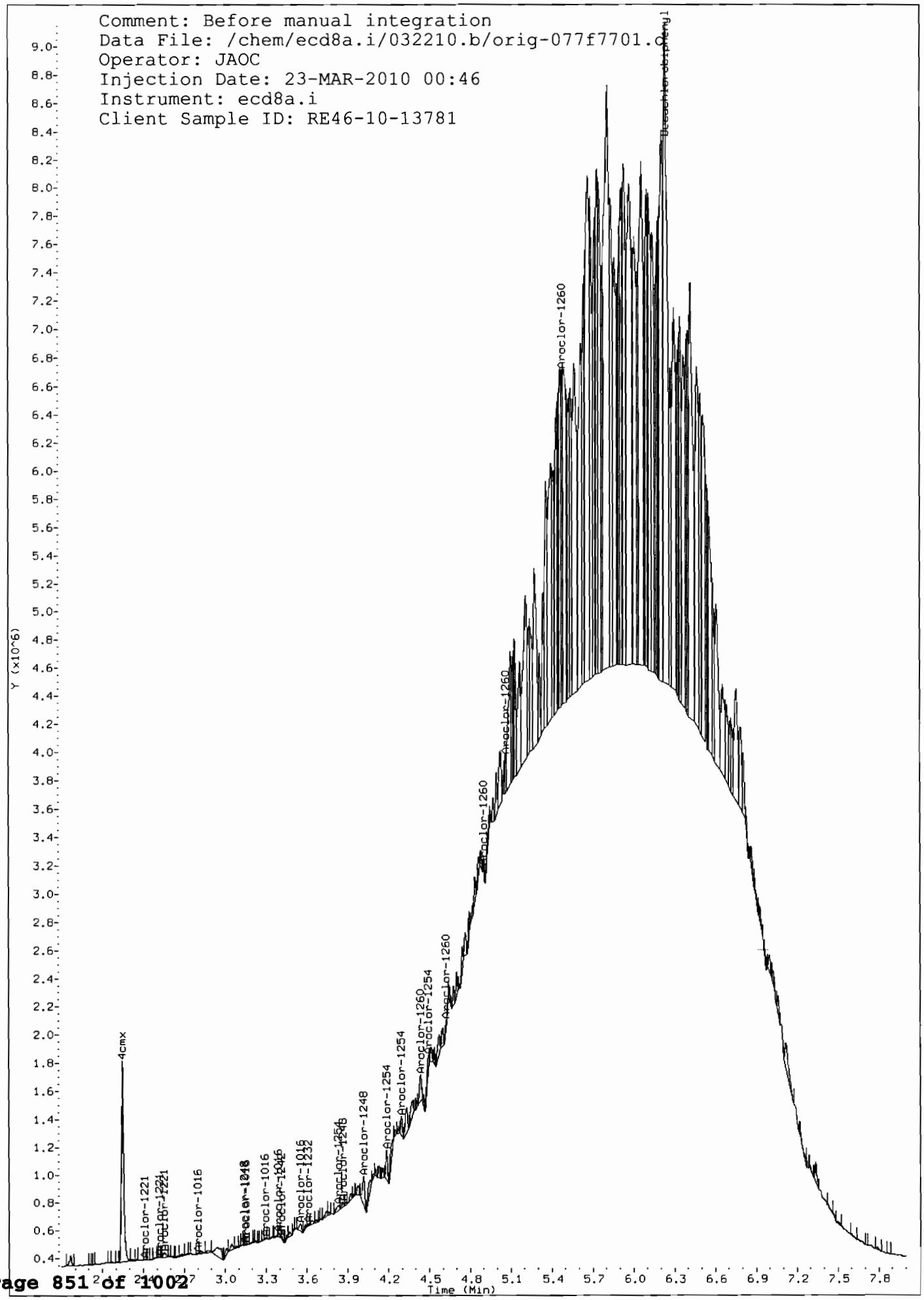
Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-077f7701.D
Operator: JAOC
Injection Date: 23-MAR-2010 00:46
Instrument: ecd8a.i
Client Sample ID: RE46-10-13781
Decachlorobiphenyl
Aroclor-1260
Aroclor-1254
Aroclor-1248
Aroclor-1232
Aroclor-1221
Aroclor-1016
4cmx
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/077b7701.d
Lab Smp Id: 248862007 Client Smp ID: RE46-10-13781
Inj Date : 23-MAR-2010 00:46
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248862007|10|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13781|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 77
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	18.83070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	1088314	13.0209	5.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.825	6.825	0.000	1800811	30.3922	12.4	80.00- 120.00	100.00(RM)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/077b7701.d

Date : 23-MAR-2010 00:46

Client ID: RE46-10-13781

Sample Info: |2488620071101

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

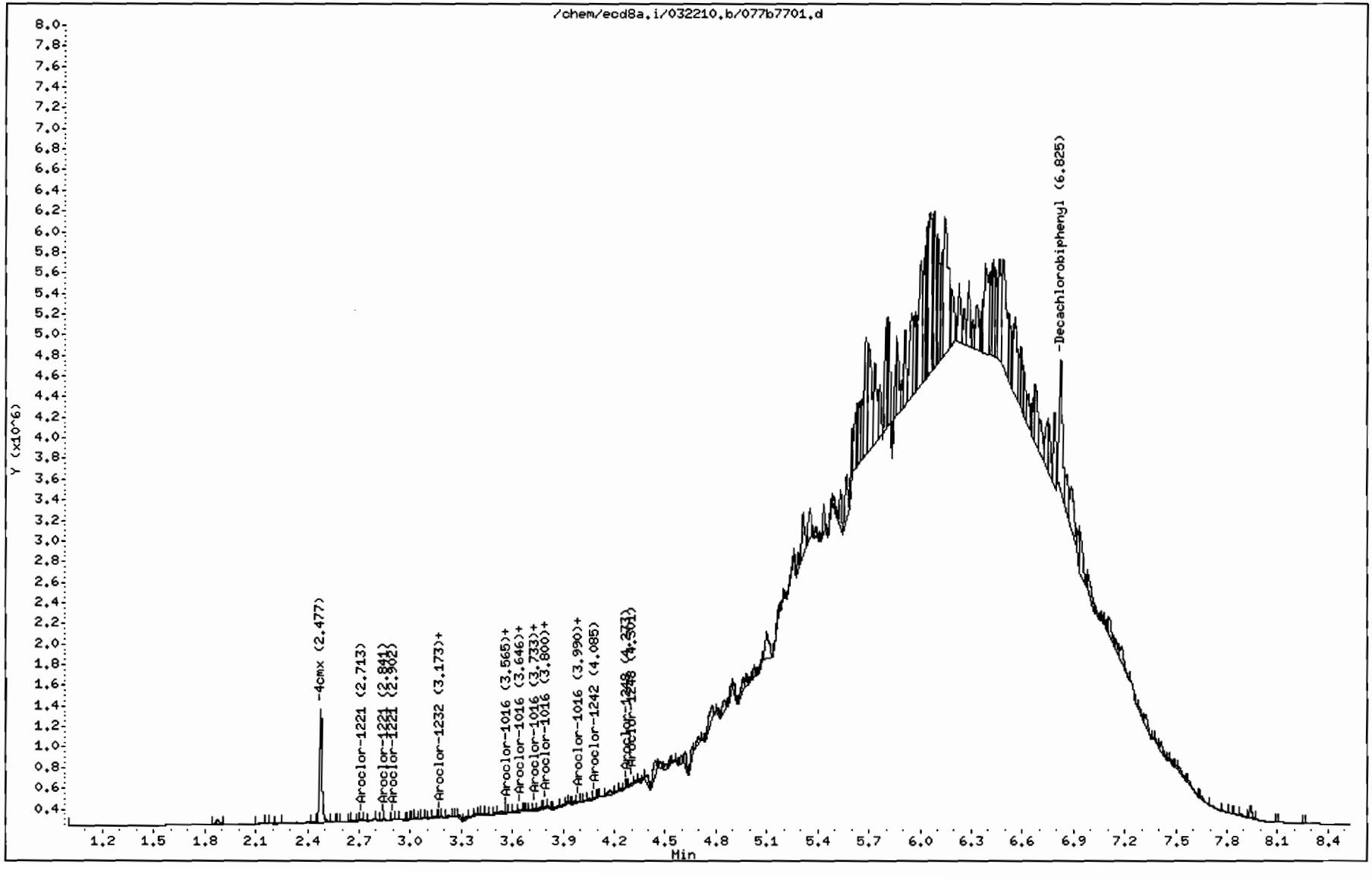

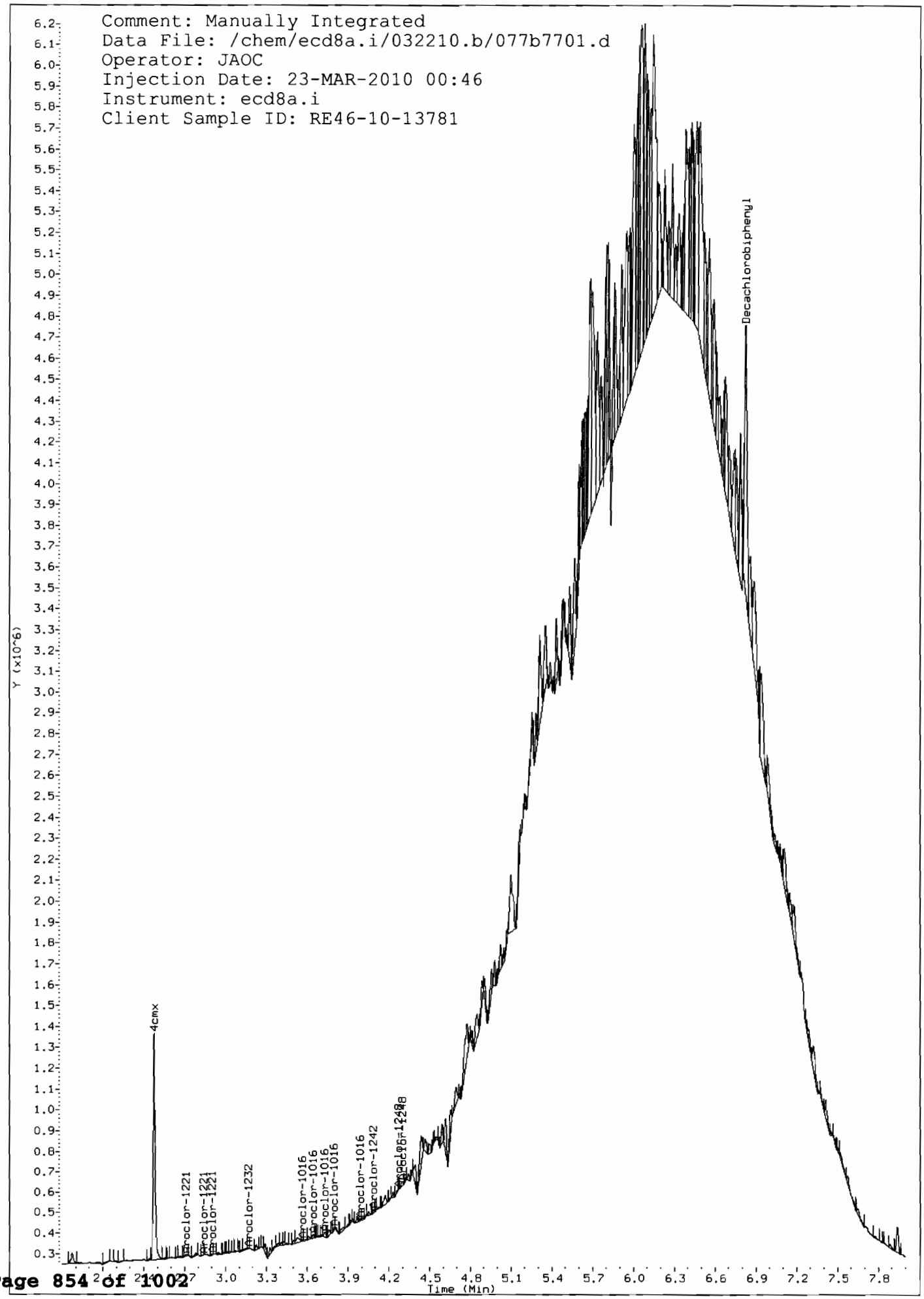
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/077b7701.d
Operator: JAOC
Injection Date: 23-MAR-2010 00:46
Instrument: ecd8a.i
Client Sample ID: RE46-10-13781
Y (x10^6)
Time (Min)
4cmx
Decachlorobiphenyl

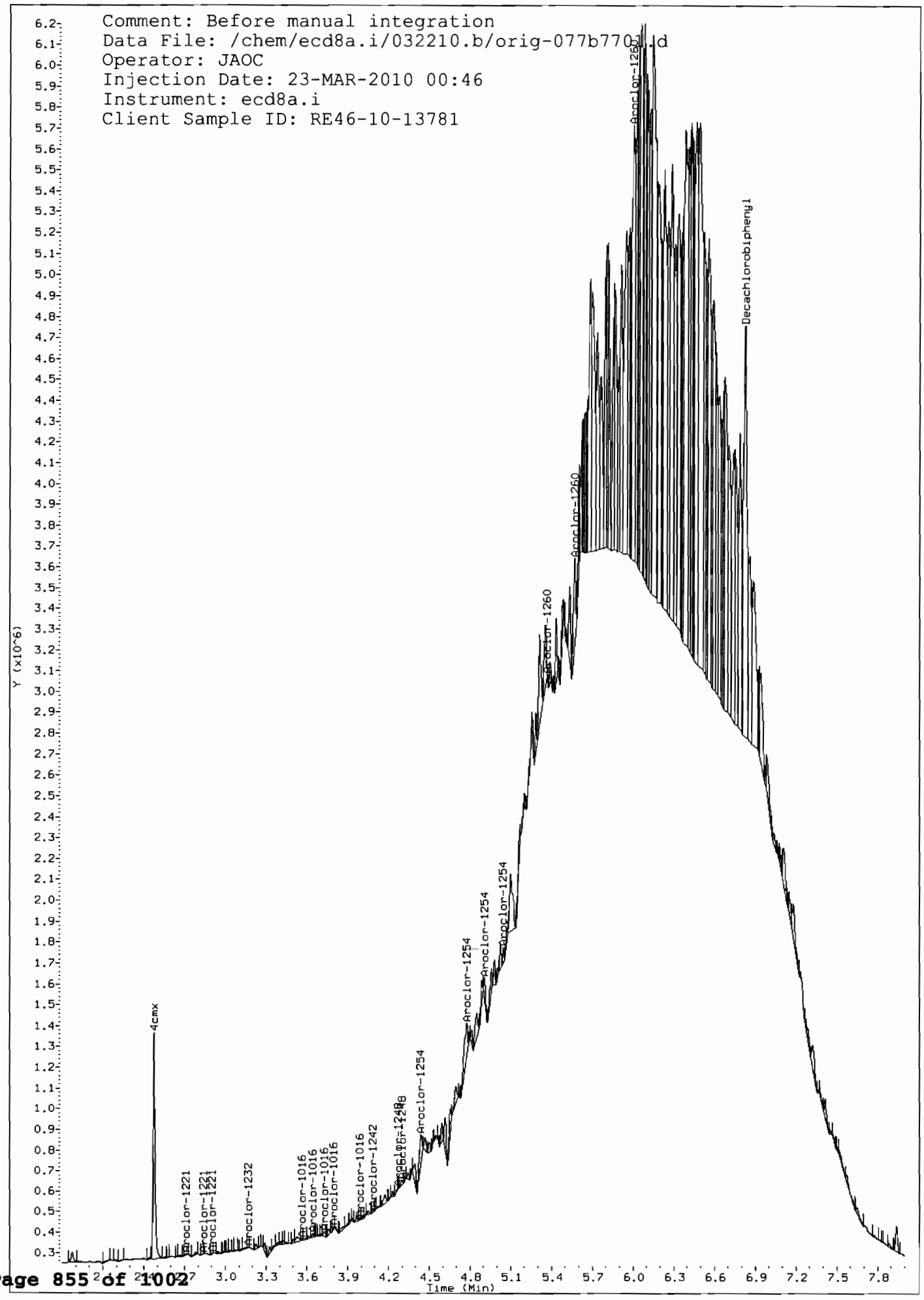
Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-077b7701.d
Operator: JAOC
Injection Date: 23-MAR-2010 00:46
Instrument: ecd8a.i
Client Sample ID: RE46-10-13781
Y (x10^6)
Time (Min)
4cmx
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248862002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13782**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 23:20**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**070f7001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	070b7001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	19.3	ug/kg	6.42	19.3	1
11104-28-2	Aroclor-1221	U	19.3	ug/kg	6.42	19.3	1
11141-16-5	Aroclor-1232	U	19.3	ug/kg	6.42	19.3	1
53469-21-9	Aroclor-1242	U	19.3	ug/kg	6.42	19.3	1
12672-29-6	Aroclor-1248	U	19.3	ug/kg	6.42	19.3	1
11097-69-1	Aroclor-1254	U	19.3	ug/kg	6.42	19.3	1
11096-82-5	Aroclor-1260	U	19.3	ug/kg	6.42	19.3	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/070f7001.d
Lab Smp Id: 248862002 Client Smp ID: RE46-10-13782
Inj Date : 22-MAR-2010 23:20
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248862002|5|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13782|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 70
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weight of sample extracted (g)
M	13.92880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.249	0.000	4299158	34.4039	6.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.240	-0.001	3398439	41.2677	8.0	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032210.b/070f7001.d

Date : 22-MAR-2010 23:20

Client ID: RE46-10-13782

Sample Info: |248862002|5|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

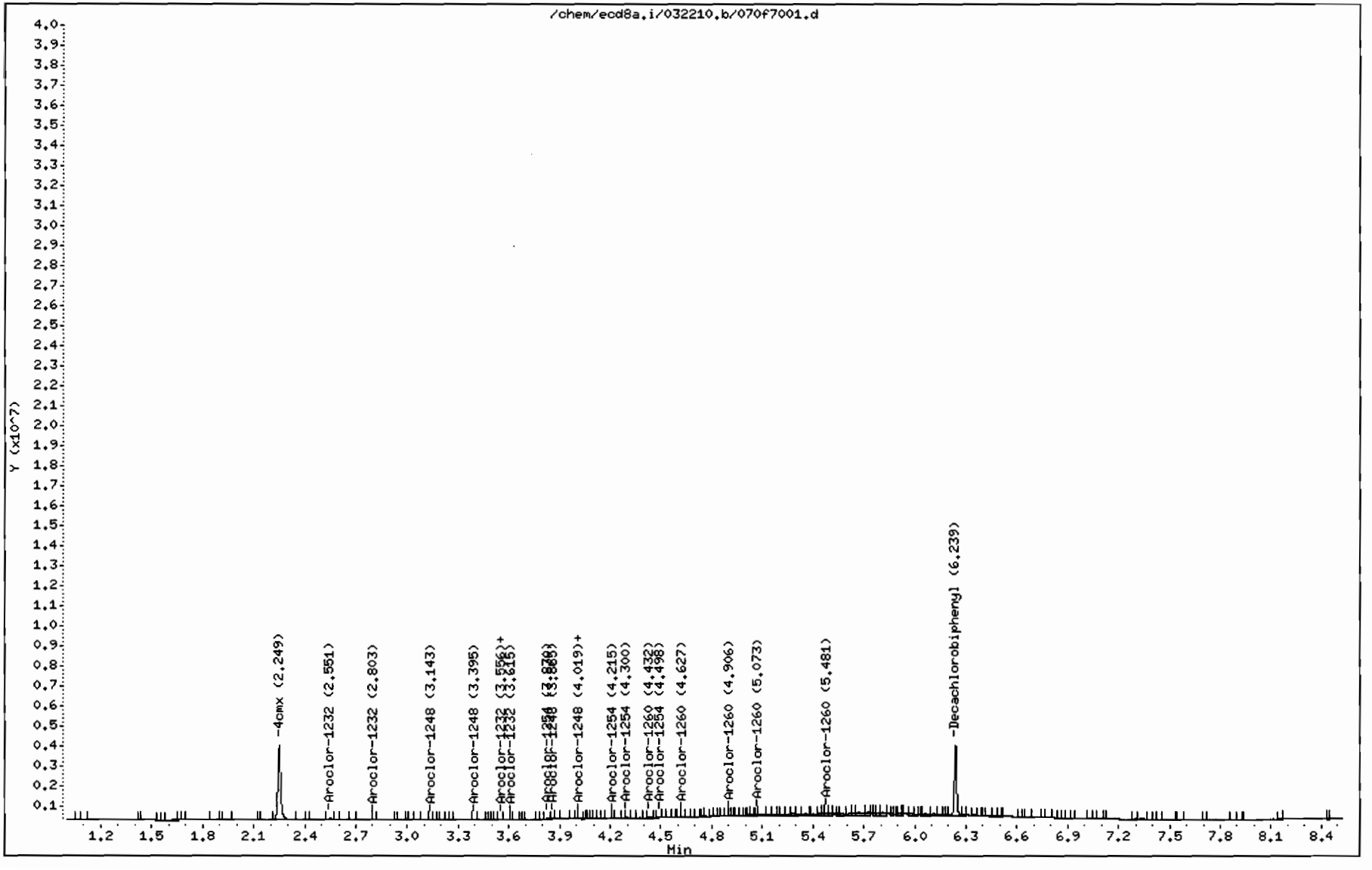

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/070b7001.d
Lab Smp Id: 248862002 Client Smp ID: RE46-10-13782
Inj Date : 22-MAR-2010 23:20
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248862002|5|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13782|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 70
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weight of sample extracted (g)
M	13.92880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	2885494	34.5229	6.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.825	-0.001	2213058	37.3496	7.2	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032210.b/070b7001.d
Date : 22-MAR-2010 23:20
Client ID: RE46-10-13782
Sample Info: |248862002151
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

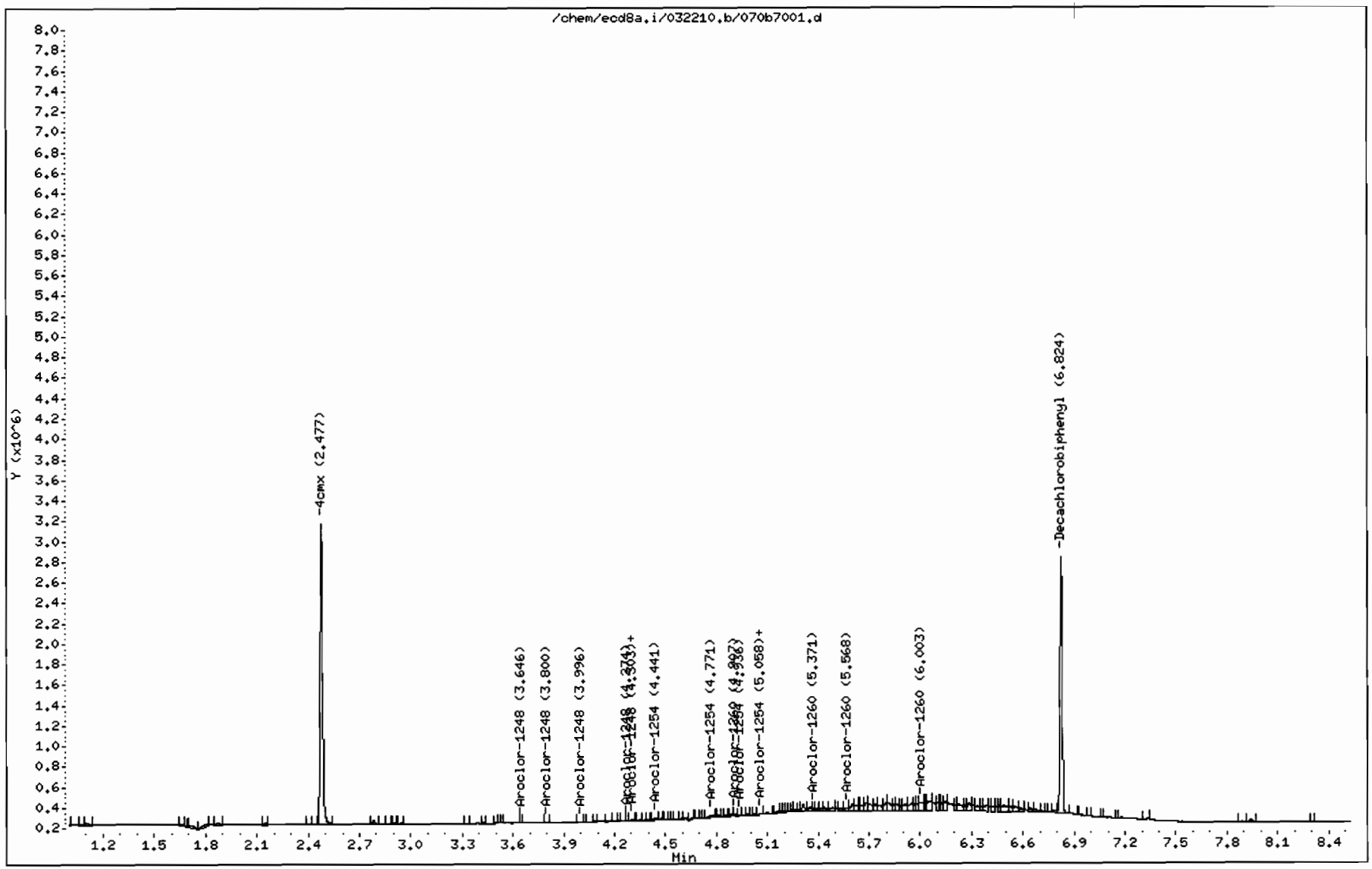

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248862003	**Date Received:**	03/06/2010 09:15	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13783	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967396	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/22/2010 23:57	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 12:13	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	073f7301.d	**Column:**	1 CLP1	**Level:**	LOW
	073b7301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.3	ug/kg	6.10	18.3	1
11104–28–2	Aroclor–1221	U	18.3	ug/kg	6.10	18.3	1
11141–16–5	Aroclor–1232	U	18.3	ug/kg	6.10	18.3	1
53469–21–9	Aroclor–1242	U	18.3	ug/kg	6.10	18.3	1
12672–29–6	Aroclor–1248	U	18.3	ug/kg	6.10	18.3	1
11097–69–1	Aroclor–1254	U	18.3	ug/kg	6.10	18.3	1
11096–82–5	Aroclor–1260	U	18.3	ug/kg	6.10	18.3	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/073f7301.d
Lab Smp Id: 248862003 Client Smp ID: RE46-10-13783
Inj Date : 22-MAR-2010 23:57
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248862003|5|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13783|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 73
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	9.26380	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.249	-0.001	4376553	35.0232	6.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	3260613	39.5941	7.2	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032210.b/073f7301.d

Page 1

Date : 22-MAR-2010 23:57

Client ID: RE46-10-13783

Instrument: ecd8a.i

Sample Info: |248862003|5|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

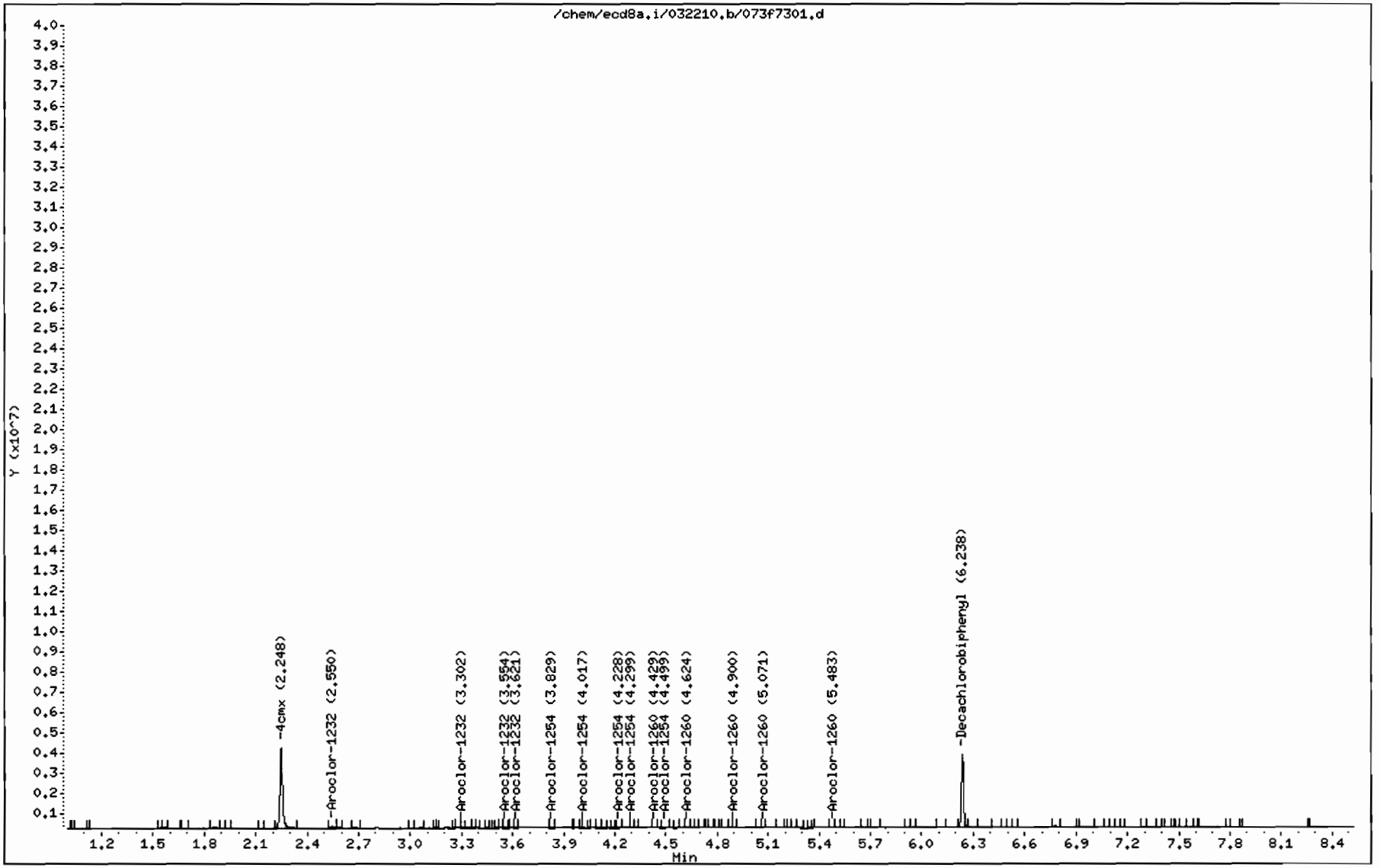

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/073b7301.d
Lab Smp Id: 248862003 Client Smp ID: RE46-10-13783
Inj Date : 22-MAR-2010 23:57
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248862003|5|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13783|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 73
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	9.26380	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.477	-0.001	2954742	35.3514	6.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.825	-0.001	2418561	40.8179	7.5	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032210.b/073b7301.d

Page 1

Date : 22-MAR-2010 23:57

Client ID: RE46-10-13783

Instrument: ecd8a.i

Sample Info: 1248862003151

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

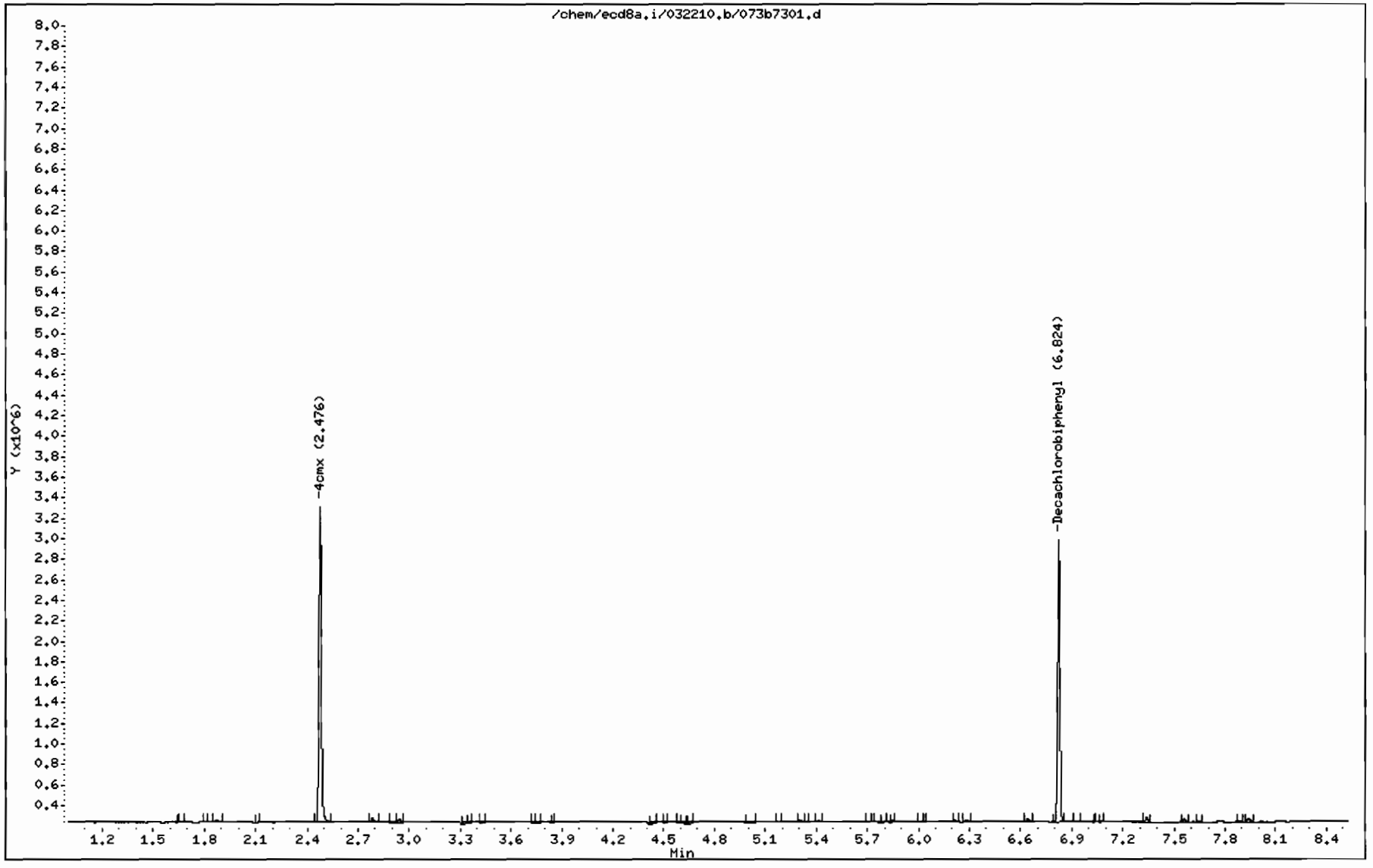

STANDARDS DATA

Report Date: 23-Mar-2010 11:37

Calibration History

Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
23-FEB-2010 10:43	AR1221	/chem/ecd8a.i/022310.b/013f1301.d
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028f2801.d
09-MAR-2010 10:41	AR1248	/chem/ecd8a.i/030910.b/013f1301.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014f1401.d
09-MAR-2010 09:27	AR1254	/chem/ecd8a.i/030910.b/007f0701.d
18-MAR-2010 06:25	AR1660	/chem/ecd8a.i/031810.b/002f0201.d
Cal Level: 2 , Cal Amount: 250.00000		
23-FEB-2010 10:55	AR1221	/chem/ecd8a.i/022310.b/014f1401.d
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029f2901.d
09-MAR-2010 10:53	AR1248	/chem/ecd8a.i/030910.b/014f1401.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015f1501.d
09-MAR-2010 09:39	AR1254	/chem/ecd8a.i/030910.b/008f0801.d
18-MAR-2010 06:38	AR1660	/chem/ecd8a.i/031810.b/003f0301.d
Cal Level: 3 , Cal Amount: 500.00000		
23-FEB-2010 11:07	AR1221	/chem/ecd8a.i/022310.b/015f1501.d
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030f3001.d
09-MAR-2010 11:05	AR1248	/chem/ecd8a.i/030910.b/015f1501.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016f1601.d
09-MAR-2010 09:51	AR1254	/chem/ecd8a.i/030910.b/009f0901.d
18-MAR-2010 06:50	AR1660	/chem/ecd8a.i/031810.b/004f0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036f3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034f3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031f3101.d
23-FEB-2010 11:20	AR1221	/chem/ecd8a.i/022310.b/016f1601.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026f2601.d
09-MAR-2010 11:18	AR1248	/chem/ecd8a.i/030910.b/016f1601.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017f1701.d
09-MAR-2010 10:04	AR1254	/chem/ecd8a.i/030910.b/010f1001.d
18-MAR-2010 07:02	AR1660	/chem/ecd8a.i/031810.b/005f0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
23-FEB-2010 11:32	AR1221	/chem/ecd8a.i/022310.b/017f1701.d
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032f3201.d
09-MAR-2010 11:30	AR1248	/chem/ecd8a.i/030910.b/017f1701.d

03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018f1801.d
09-MAR-2010 10:16	AR1254	/chem/ecd8a.i/030910.b/011f1101.d
18-MAR-2010 07:15	AR1660	/chem/ecd8a.i/031810.b/006f0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 20:06	AR1660	/chem/ecd8a.i/032210.b/055f5501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 19:25	AR1660	/chem/ecd8a.i/032210.b/052f5201.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 02:17	AR1660	/chem/ecd8a.i/032210.b/083f8301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 01:19	AR1660	/chem/ecd8a.i/032210.b/079f7901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 22:42	AR1660	/chem/ecd8a.i/032210.b/067f6701.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 16:48	AR1660	/chem/ecd8a.i/032210.b/040f4001.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:03	AR1248	/chem/ecd8a.i/032210.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 08:39	AR1254	/chem/ecd8a.i/032210.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 14:11	AR1660	/chem/ecd8a.i/032210.b/028f2801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 12:33	AR1660	/chem/ecd8a.i/032210.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:53	AR1268	/chem/ecd8a.i/032210.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:40	AR1262	/chem/ecd8a.i/032210.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:28	AR1221	/chem/ecd8a.i/032210.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:16	AR1232	/chem/ecd8a.i/032210.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 08:51	AR1242	/chem/ecd8a.i/032210.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 08:26	AR1660	/chem/ecd8a.i/032210.b/002f0201.d

Report Date: 23-Mar-2010 11:36

Calibration History

Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
23-FEB-2010 10:43	AR1221	/chem/ecd8a.i/022310.b/013b1301.d
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028b2801.d
09-MAR-2010 10:41	AR1248	/chem/ecd8a.i/030910.b/013b1301.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014b1401.d
09-MAR-2010 09:27	AR1254	/chem/ecd8a.i/030910.b/007b0701.d
18-MAR-2010 06:25	AR1660	/chem/ecd8a.i/031810.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
23-FEB-2010 10:55	AR1221	/chem/ecd8a.i/022310.b/014b1401.d
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029b2901.d
09-MAR-2010 10:53	AR1248	/chem/ecd8a.i/030910.b/014b1401.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015b1501.d
09-MAR-2010 09:39	AR1254	/chem/ecd8a.i/030910.b/008b0801.d
18-MAR-2010 06:38	AR1660	/chem/ecd8a.i/031810.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
23-FEB-2010 11:07	AR1221	/chem/ecd8a.i/022310.b/015b1501.d
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030b3001.d
09-MAR-2010 11:05	AR1248	/chem/ecd8a.i/030910.b/015b1501.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016b1601.d
09-MAR-2010 09:51	AR1254	/chem/ecd8a.i/030910.b/009b0901.d
18-MAR-2010 06:50	AR1660	/chem/ecd8a.i/031810.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036b3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034b3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031b3101.d
23-FEB-2010 11:20	AR1221	/chem/ecd8a.i/022310.b/016b1601.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026b2601.d
09-MAR-2010 11:18	AR1248	/chem/ecd8a.i/030910.b/016b1601.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017b1701.d
09-MAR-2010 10:04	AR1254	/chem/ecd8a.i/030910.b/010b1001.d
18-MAR-2010 07:02	AR1660	/chem/ecd8a.i/031810.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
23-FEB-2010 11:32	AR1221	/chem/ecd8a.i/022310.b/017b1701.d
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032b3201.d
09-MAR-2010 11:30	AR1248	/chem/ecd8a.i/030910.b/017b1701.d

03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018b1801.d
09-MAR-2010 10:16	AR1254	/chem/ecd8a.i/030910.b/011b1101.d
18-MAR-2010 07:15	AR1660	/chem/ecd8a.i/031810.b/006b0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 02:17	AR1660	/chem/ecd8a.i/032210.b/083b8301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 01:19	AR1660	/chem/ecd8a.i/032210.b/079b7901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 22:42	AR1660	/chem/ecd8a.i/032210.b/067b6701.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 20:06	AR1660	/chem/ecd8a.i/032210.b/055b5501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 19:25	AR1660	/chem/ecd8a.i/032210.b/052b5201.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 16:48	AR1660	/chem/ecd8a.i/032210.b/040b4001.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:03	AR1248	/chem/ecd8a.i/032210.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 08:39	AR1254	/chem/ecd8a.i/032210.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 14:11	AR1660	/chem/ecd8a.i/032210.b/028b2801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 12:33	AR1660	/chem/ecd8a.i/032210.b/021b2101.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:53	AR1268	/chem/ecd8a.i/032210.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:40	AR1262	/chem/ecd8a.i/032210.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:28	AR1221	/chem/ecd8a.i/032210.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:16	AR1232	/chem/ecd8a.i/032210.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 08:51	AR1242	/chem/ecd8a.i/032210.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 08:26	AR1660	/chem/ecd8a.i/032210.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Mar-2010 09:50 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	758.000000
Initial:End Threshold	379.000000
Initial:Area Threshold	734.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.500000
6.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.805	2.775-2.835	4.772e+03
	3.158	3.128-3.188	5.397e+03
	3.301	3.271-3.331	2.352e+03
	3.393	3.363-3.423	2.192e+03
	3.555	3.525-3.585	3.079e+03
2 Aroclor-1221	2.389	2.359-2.419	1.568e+03
	2.503	2.473-2.533	9.154e+02
	2.535	2.505-2.565	3.573e+03
3 Aroclor-1232	2.535	2.505-2.565	2.601e+03
	2.806	2.776-2.836	2.261e+03
	3.301	3.271-3.331	1.243e+03
	3.555	3.525-3.585	1.479e+03
	3.617	3.587-3.647	9.227e+02
4 Aroclor-1242	2.806	2.776-2.836	3.974e+03
	3.158	3.128-3.188	4.796e+03
	3.393	3.363-3.423	1.805e+03
	3.411	3.381-3.441	1.889e+03
	3.555	3.525-3.585	2.645e+03
5 Aroclor-1248	3.143	3.113-3.173	2.721e+03
	3.393	3.363-3.423	3.402e+03
	3.555	3.525-3.585	4.371e+03
	3.862	3.832-3.892	5.250e+03
	4.020	3.990-4.050	4.212e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.832	3.801-3.861	4.334e+03
		4.019	3.989-4.049	5.767e+03
		4.214	4.184-4.244	4.459e+03
		4.301	4.271-4.331	7.522e+03
		4.497	4.466-4.527	5.749e+03
	7 Aroclor-1260	4.430	4.400-4.460	5.890e+03
		4.625	4.595-4.655	8.495e+03
		4.900	4.870-4.930	5.066e+03
		5.073	5.043-5.103	5.329e+03
		5.485	5.455-5.515	5.641e+03
	8 Aroclor-1262	4.329	4.299-4.359	3.367e+03
		4.429	4.399-4.459	5.243e+03
		4.624	4.594-4.654	7.103e+03
		4.899	4.869-4.929	8.580e+03
		5.072	5.042-5.102	7.966e+03
	9 Aroclor-1268	5.507	5.477-5.537	1.632e+04
		5.534	5.504-5.564	1.572e+04
		5.667	5.637-5.697	1.207e+04
		5.913	5.883-5.943	6.023e+03
		6.110	6.080-6.140	3.601e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.249	2.219-2.279	1.250e+05
$	12 Decachlorobiphenyl	6.240	6.210-6.270	8.235e+04
	13 4,4'-DDT	4.852	4.832-4.872	2.393e+04
	14 4,4'-DDD	4.658	4.638-4.678	1.570e+05
	15 4,4'-DDE	4.234	4.214-4.254	1.340e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Mar-2010 09:30 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	733.000000
Initial:End Threshold	366.500000
Initial:Area Threshold	522.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	2.000000
9.000:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.549	3.519-3.579	3.678e+03
	3.648	3.618-3.678	2.551e+03
	3.724	3.694-3.754	1.492e+03
	3.800	3.770-3.830	1.478e+03
	3.995	3.965-4.025	2.025e+03
2 Aroclor-1221	2.718	2.688-2.748	9.481e+02
	2.830	2.800-2.860	5.911e+02
	2.878	2.848-2.908	2.179e+03
3 Aroclor-1232	3.196	3.166-3.226	1.515e+03
	3.549	3.519-3.579	1.744e+03
	3.648	3.618-3.678	1.176e+03
	3.724	3.694-3.754	7.101e+02
	3.799	3.769-3.829	6.182e+02
4 Aroclor-1242	3.196	3.166-3.226	2.677e+03
	3.549	3.519-3.579	3.126e+03
	3.648	3.618-3.678	2.127e+03
	3.996	3.966-4.026	1.703e+03
	4.085	4.055-4.115	1.567e+03
5 Aroclor-1248	3.648	3.618-3.678	1.329e+03
	3.799	3.769-3.829	2.249e+03
	3.996	3.966-4.026	2.790e+03
	4.273	4.243-4.303	3.273e+03
	4.306	4.276-4.336	3.592e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	4.302	4.272-4.332	3.117e+03
		4.441	4.412-4.471	3.478e+03
		4.770	4.740-4.800	4.832e+03
		4.932	4.902-4.962	3.494e+03
		5.057	5.027-5.087	2.202e+03
	7 Aroclor-1260	4.909	4.879-4.939	3.939e+03
		5.058	5.028-5.088	4.730e+03
		5.375	5.345-5.405	3.587e+03
		5.581	5.551-5.611	3.712e+03
		6.013	5.983-6.043	5.841e+03
	8 Aroclor-1262	4.909	4.879-4.939	3.276e+03
		5.057	5.027-5.087	3.827e+03
		5.374	5.344-5.404	5.446e+03
		5.580	5.550-5.610	5.047e+03
		6.009	5.979-6.039	7.196e+03
	9 Aroclor-1268	6.007	5.977-6.037	1.138e+04
		6.040	6.010-6.070	1.041e+04
		6.218	6.188-6.248	8.192e+03
		6.415	6.385-6.445	4.057e+03
		6.644	6.614-6.674	2.464e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.477	2.447-2.507	8.358e+04
$	12 Decachlorobiphenyl	6.825	6.795-6.855	5.925e+04
	13 4,4'-DDT	5.323	5.303-5.343	1.460e+04
	14 4,4'-DDD	5.102	5.082-5.122	1.001e+05
	15 4,4'-DDE	4.691	4.671-4.711	8.898e+04

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Cal Date : 23-Mar-2010 09:50 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/022310.b/013f1301.d
Level 2: /chem/ecd8a.i/022310.b/014f1401.d
Level 3: /chem/ecd8a.i/022310.b/015f1501.d
Level 4: /chem/ecd8a.i/020310a.b/036f3601.d
Level 5: /chem/ecd8a.i/022310.b/017f1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	5919	5050	4827	4394	3671	4772	17.374
(2)	6305	5464	5600	5079	4539	5397	12.103
(3)	2780	2401	2389	2196	1992	2352	12.417
(4)	2749	2248	2191	2001	1769	2192	16.589
(5)	3808	3166	3086	2824	2511	3079	15.627
2 Aroclor-1221(1)	1843	1746	1580	1468	1203	1568	15.964
(2)	1118	1046	917	835	660	915	19.675
(3)	4334	3992	3544	3325	2672	3573	17.859
3 Aroclor-1232(1)	+++++	+++++	+++++	2601	+++++	2601	0.000
(2)	+++++	+++++	+++++	2261	+++++	2261	0.000
(3)	+++++	+++++	+++++	1243	+++++	1243	0.000
(4)	+++++	+++++	+++++	1479	+++++	1479	0.000
(5)	+++++	+++++	+++++	923	+++++	923	0.000
4 Aroclor-1242(1)	4726	4372	4070	3706	2998	3974	16.680
(2)	5172	5152	4949	4680	4027	4796	9.873
(3)	2139	1968	1820	1683	1417	1805	15.251
(4)	2229	2050	1908	1759	1500	1889	14.735
(5)	3065	2855	2678	2500	2127	2645	13.507
5 Aroclor-1248(1)	3009	2847	2875	2619	2254	2721	10.891
(2)	3979	3666	3503	3232	2633	3402	14.930
(3)	4974	4644	4593	4148	3497	4371	13.049
(4)	5772	5534	5553	5051	4341	5250	10.905
(5)	4772	4453	4399	4004	3430	4212	12.231
6 Aroclor-1254(1)	4848	4583	4256	4143	3840	4334	9.026
(2)	6355	6045	5692	5573	5168	5767	7.878
(3)	4755	4649	4399	4320	4170	4459	5.382
(4)	7994	7880	7432	7366	6934	7522	5.676
(5)	6153	6013	5632	5615	5334	5749	5.750

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Cal Date : 23-Mar-2010 09:50 jen01212
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	7147	5970	6060	5488	4785	5890	14.695
(2)	10103	8518	8810	7994	7052	8495	13.185
(3)	6142	5086	5206	4683	4213	5066	14.134
(4)	6261	5444	5587	4872	4481	5329	12.849
(5)	6525	5540	5787	5277	5076	5641	9.964
8 Aroclor-1262(1)	3851	3558	3311	3256	2859	3367	10.954
(2)	5935	5551	5239	5102	4386	5243	10.995
(3)	7996	7523	7022	6963	6012	7103	10.414
(4)	9555	9028	8567	8433	7318	8580	9.694
(5)	8875	8357	7946	7802	6850	7966	9.421
9 Aroclor-1268(1)	+++++	+++++	+++++	16324	+++++	16324	0.000
(2)	+++++	+++++	+++++	15723	+++++	15723	0.000
(3)	+++++	+++++	+++++	12075	+++++	12075	0.000
(4)	+++++	+++++	+++++	6023	+++++	6023	0.000
(5)	+++++	+++++	+++++	36012	+++++	36012	0.000
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4,4'-DDT	+++++	+++++	+++++	23929	+++++	23929	0.000
14 4,4'-DDD	+++++	+++++	+++++	157020	+++++	157020	0.000
15 4,4'-DDE	+++++	+++++	+++++	133975	+++++	133975	0.000
$ 11 4cmx	136153	126431	127871	122774	111579	124961	7.155
$ 12 Decachlorobiphenyl	95355	82633	85082	76716	71970	82351	10.796

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Cal Date : 23-Mar-2010 09:30 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/022310.b/013b1301.d
Level 2: /chem/ecd8a.i/022310.b/014b1401.d
Level 3: /chem/ecd8a.i/022310.b/015b1501.d
Level 4: /chem/ecd8a.i/020310a.b/036b3601.d
Level 5: /chem/ecd8a.i/022310.b/017b1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	3858	3610	3858	3627	3436	3678	4.905
(2)	2824	2559	2590	2465	2318	2551	7.270
(3)	1619	1461	1511	1446	1422	1492	5.243
(4)	1671	1484	1494	1405	1335	1478	8.500
(5)	2238	2022	2057	1951	1857	2025	6.982
2 Aroclor-1221(1)	1008	1017	964	925	826	948	8.179
(2)	642	644	604	571	494	591	10.518
(3)	2384	2349	2220	2116	1827	2179	10.256
3 Aroclor-1232(1)	+++++	+++++	+++++	1515	+++++	1515	0.000
(2)	+++++	+++++	+++++	1744	+++++	1744	0.000
(3)	+++++	+++++	+++++	1176	+++++	1176	0.000
(4)	+++++	+++++	+++++	710	+++++	710	0.000
(5)	+++++	+++++	+++++	618	+++++	618	0.000
4 Aroclor-1242(1)	2949	2857	2758	2609	2213	2677	10.779
(2)	3213	3196	3180	3232	2808	3126	5.721
(3)	2287	2232	2178	2099	1842	2127	8.178
(4)	1820	1782	1741	1678	1497	1703	7.463
(5)	1675	1595	1607	1522	1434	1567	5.872
5 Aroclor-1248(1)	1413	1408	1337	1299	1188	1329	6.944
(2)	2387	2358	2277	2198	2024	2249	6.480
(3)	2920	2903	2849	2753	2523	2790	5.825
(4)	3350	3368	3334	3259	3054	3273	3.955
(5)	3677	3689	3657	3584	3353	3592	3.894
6 Aroclor-1254(1)	3242	3137	3080	3079	3045	3117	2.483
(2)	3591	3494	3433	3454	3418	3478	1.994
(3)	4854	4823	4800	4853	4830	4832	0.471
(4)	3516	3466	3440	3510	3538	3494	1.145
(5)	2281	2214	2159	2166	2188	2202	2.240

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Cal Date : 23-Mar-2010 09:30 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	___ RRF	% RSD
	7 Aroclor-1260(1)	4310	3885	4025	3827	3646	3939	6.300
	(2)	5135	4638	4867	4591	4421	4730	5.847
	(3)	3916	3515	3674	3464	3365	3587	5.999
	(4)	4033	3615	3813	3590	3510	3712	5.689
	(5)	6224	5645	6036	5678	5624	5841	4.664
	8 Aroclor-1262(1)	3545	3367	3269	3249	2948	3276	6.635
	(2)	4038	3929	3844	3825	3498	3827	5.277
	(3)	5683	5613	5515	5463	4958	5446	5.255
	(4)	5266	5178	5090	5067	4633	5047	4.838
	(5)	7327	7356	7286	7270	6740	7196	3.572
	9 Aroclor-1268(1)	+++++	+++++	+++++	11384	+++++	11384	0.000
	(2)	+++++	+++++	+++++	10412	+++++	10412	0.000
	(3)	+++++	+++++	+++++	8192	+++++	8192	0.000
	(4)	+++++	+++++	+++++	4057	+++++	4057	0.000
	(5)	+++++	+++++	+++++	24640	+++++	24640	0.000
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	14596	+++++	14596	0.000
	14 4,4'-DDD	+++++	+++++	+++++	100145	+++++	100145	0.000
	15 4,4'-DDE	+++++	+++++	+++++	88982	+++++	88982	0.000
S	11 4cmx	83925	81585	84996	84651	82754	83582	1.685
S	12 Decachlorobiphenyl	64763	57453	61017	56769	56260	59252	6.076

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD8A Calibration Date: 03/22/10 Time: 0826

Lab File ID: 002F0201 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4382.995	0.01	-8.2	15.0
(2)	5397.398	5158.479	0.01	-4.4	15.0
(3)	2351.643	2214.706	0.01	-5.8	15.0
(4)	2191.567	2003.916	0.01	-8.6	15.0
(5)	3078.945	2885.103	0.01	-6.3	15.0
Aroclor-1260	5890.060	5934.565	0.01	0.8	15.0
(2)	8495.287	8765.365	0.01	3.2	15.0
(3)	5066.269	5135.681	0.01	1.4	15.0
(4)	5329.016	5372.227	0.01	0.8	15.0
(5)	5640.982	5850.838	0.01	3.7	15.0
4cmx	124961.40	130101.36	0.01	4.1	15.0
Decachlorobiphenyl	82351.042	83075.330	0.01	0.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD8A Calibration Date: 03/22/10 Time: 0826

Lab File ID: 002B0201 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3655.954	0.01	-0.6	15.0
(2)	2551.186	2529.207	0.01	-0.9	15.0
(3)	1492.032	1490.235	0.01	-0.1	15.0
(4)	1477.704	1456.469	0.01	-1.4	15.0
(5)	2024.804	2023.515	0.01	-0.1	15.0
Aroclor-1260	3938.505	4263.921	0.01	8.3	15.0
(2)	4730.476	5094.006	0.01	7.7	15.0
(3)	3586.650	3844.714	0.01	7.2	15.0
(4)	3712.238	3978.250	0.01	7.2	15.0
(5)	5841.333	6122.565	0.01	4.8	15.0
4cmx	83582.102	91344.070	0.01	9.3	15.0
Decachlorobiphenyl	59252.492	60733.460	0.01	2.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD8A Calibration Date: 03/22/10 Time: 0839

Lab File ID: 003F0301 Init. Calib. Date(s): 03/09/10 03/09/10

Heated Purge: (Y/N) N Init. Calib. Times: 0927 1016

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	4333.962	4128.391	0.01	-4.7	15.0
(2)	5766.534	5497.005	0.01	-4.7	15.0
(3)	4458.524	4285.594	0.01	-3.9	15.0
(4)	7521.536	7239.592	0.01	-3.7	15.0
(5)	5749.206	5471.909	0.01	-4.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD8A Calibration Date: 03/22/10 Time: 0839

Lab File ID: 003B0301 Init. Calib. Date(s): 03/09/10 03/09/10

Heated Purge: (Y/N) N Init. Calib. Times: 0927 1016

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	3116.660	3267.250	0.01	4.8	15.0
(2)	3478.140	3655.762	0.01	5.1	15.0
(3)	4832.039	5139.439	0.01	6.4	15.0
(4)	3494.052	3654.503	0.01	4.6	15.0
(5)	2201.695	2303.521	0.01	4.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD8A Calibration Date: 03/22/10 Time: 2006

Lab File ID: 055F5501 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4318.218	0.01	-9.5	15.0
(2)	5397.398	5237.996	0.01	-3.0	15.0
(3)	2351.643	2214.637	0.01	-5.8	15.0
(4)	2191.567	2018.557	0.01	-7.9	15.0
(5)	3078.945	2887.079	0.01	-6.2	15.0
Aroclor-1260	5890.060	5827.949	0.01	-1.0	15.0
(2)	8495.287	8544.225	0.01	0.6	15.0
(3)	5066.269	4977.397	0.01	-1.8	15.0
(4)	5329.016	5320.498	0.01	-0.2	15.0
(5)	5640.982	5734.076	0.01	1.6	15.0
4cmx	124961.40	127201.28	0.01	1.8	15.0
Decachlorobiphenyl	82351.042	83783.480	0.01	1.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD8A Calibration Date: 03/22/10 Time: 2006

Lab File ID: 055B5501 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3754.233	0.01	2.1	15.0
(2)	2551.186	2472.485	0.01	-3.1	15.0
(3)	1492.032	1469.235	0.01	-1.5	15.0
(4)	1477.704	1418.739	0.01	-4.0	15.0
(5)	2024.804	1968.690	0.01	-2.8	15.0
Aroclor-1260	3938.505	4154.556	0.01	5.5	15.0
(2)	4730.476	5026.988	0.01	6.3	15.0
(3)	3586.650	3790.620	0.01	5.7	15.0
(4)	3712.238	3926.529	0.01	5.8	15.0
(5)	5841.333	6263.637	0.01	7.2	15.0
4cmx	83582.102	89294.840	0.01	6.8	15.0
Decachlorobiphenyl	59252.492	62696.640	0.01	5.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD8A Calibration Date: 03/22/10 Time: 2242

Lab File ID: 067F6701 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4329.055	0.01	-9.3	15.0
(2)	5397.398	5380.417	0.01	-0.3	15.0
(3)	2351.643	2254.903	0.01	-4.1	15.0
(4)	2191.567	1978.240	0.01	-9.7	15.0
(5)	3078.945	2864.371	0.01	-7.0	15.0
Aroclor-1260	5890.060	6019.529	0.01	2.2	15.0
(2)	8495.287	8845.570	0.01	4.1	15.0
(3)	5066.269	5217.063	0.01	3.0	15.0
(4)	5329.016	5610.266	0.01	5.3	15.0
(5)	5640.982	6016.806	0.01	6.7	15.0
4cmx	124961.40	128646.73	0.01	2.9	15.0
Decachlorobiphenyl	82351.042	89152.650	0.01	8.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD8A Calibration Date: 03/22/10 Time: 2242

Lab File ID: 067B6701 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3886.042	0.01	5.7	15.0
(2)	2551.186	2546.458	0.01	-0.2	15.0
(3)	1492.032	1532.980	0.01	2.7	15.0
(4)	1477.704	1480.729	0.01	0.2	15.0
(5)	2024.804	2046.374	0.01	1.1	15.0
Aroclor-1260	3938.505	4346.400	0.01	10.4	15.0
(2)	4730.476	5289.631	0.01	11.8	15.0
(3)	3586.650	3981.780	0.01	11.0	15.0
(4)	3712.238	4138.906	0.01	11.5	15.0
(5)	5841.333	6627.546	0.01	13.4	15.0
4cmx	83582.102	91339.430	0.01	9.3	15.0
Decachlorobiphenyl	59252.492	65897.640	0.01	11.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 0119

Lab File ID: 079F7901 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4442.874	0.01	-6.9	15.0
(2)	5397.398	5509.552	0.01	2.1	15.0
(3)	2351.643	2308.285	0.01	-1.8	15.0
(4)	2191.567	2034.542	0.01	-7.2	15.0
(5)	3078.945	2957.478	0.01	-3.9	15.0
Aroclor-1260	5890.060	6193.749	0.01	5.2	15.0
(2)	8495.287	9103.544	0.01	7.2	15.0
(3)	5066.269	5349.240	0.01	5.6	15.0
(4)	5329.016	5731.243	0.01	7.5	15.0
(5)	5640.982	6133.197	0.01	8.7	15.0
4cmx	124961.40	131744.49	0.01	5.4	15.0
Decachlorobiphenyl	82351.042	89124.700	0.01	8.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 0119

Lab File ID: 079B7901 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3785.461	0.01	2.9	15.0
(2)	2551.186	2526.646	0.01	-1.0	15.0
(3)	1492.032	1521.975	0.01	2.0	15.0
(4)	1477.704	1471.070	0.01	-0.4	15.0
(5)	2024.804	2034.532	0.01	0.5	15.0
Aroclor-1260	3938.505	4322.759	0.01	9.8	15.0
(2)	4730.476	5257.221	0.01	11.1	15.0
(3)	3586.650	3957.056	0.01	10.3	15.0
(4)	3712.238	4112.636	0.01	10.8	15.0
(5)	5841.333	6580.335	0.01	12.6	15.0
4cmx	83582.102	91326.080	0.01	9.3	15.0
Decachlorobiphenyl	59252.492	65795.770	0.01	11.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 0217

Lab File ID: 083F8301 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4245.012	0.01	-11.0	15.0
(2)	5397.398	5192.804	0.01	-3.8	15.0
(3)	2351.643	2184.052	0.01	-7.1	15.0
(4)	2191.567	1933.321	0.01	-11.8	15.0
(5)	3078.945	2794.938	0.01	-9.2	15.0
Aroclor-1260	5890.060	5799.081	0.01	-1.5	15.0
(2)	8495.287	8485.104	0.01	-0.1	15.0
(3)	5066.269	5032.671	0.01	-0.7	15.0
(4)	5329.016	5409.649	0.01	1.5	15.0
(5)	5640.982	5847.263	0.01	3.6	15.0
4cmx	124961.40	126691.01	0.01	1.4	15.0
Decachlorobiphenyl	82351.042	87295.190	0.01	6.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 0217

Lab File ID: 083B8301 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3755.858	0.01	2.1	15.0
(2)	2551.186	2507.871	0.01	-1.7	15.0
(3)	1492.032	1511.565	0.01	1.3	15.0
(4)	1477.704	1454.847	0.01	-1.5	15.0
(5)	2024.804	2021.277	0.01	-0.2	15.0
Aroclor-1260	3938.505	4263.476	0.01	8.2	15.0
(2)	4730.476	5181.234	0.01	9.5	15.0
(3)	3586.650	3903.672	0.01	8.8	15.0
(4)	3712.238	4057.710	0.01	9.3	15.0
(5)	5841.333	6491.930	0.01	11.1	15.0
4cmx	83582.102	90246.120	0.01	8.0	15.0
Decachlorobiphenyl	59252.492	64995.890	0.01	9.7	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/002f0201.d
Lab Smp Id: WAR100224-60 01 Client Smp ID: AR166001
Inj Date : 22-MAR-2010 08:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 14:20 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.249	0.000	13010136	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.240	6.240	0.000	8307533	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.805	2.805	0.000	4382994	1000.00	918	80.00- 120.00	100.00
3.158	3.158	0.000	5158478	1000.00	956	102.28- 142.28	117.69
3.301	3.301	0.000	2214706	1000.00	942	32.11- 72.11	50.53
3.393	3.393	0.000	2003915	1000.00	914	26.32- 66.32	45.72
3.555	3.555	0.000	2885102	1000.00	937	46.67- 86.67	65.82
Average of Peak Amounts =					933		
7 Aroclor-1260					CAS #: 11096-82-5		
4.430	4.430	0.000	5934565	1000.00	1010	80.00- 120.00	100.00
4.625	4.625	0.000	8765365	1000.00	1030	125.26- 165.26	147.70
4.900	4.900	0.000	5135681	1000.00	1010	65.29- 105.29	86.54
5.073	5.073	0.000	5372226	1000.00	1010	71.92- 111.92	90.52
5.485	5.485	0.000	5850838	1000.00	1040	78.39- 118.39	98.59
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd8a.i/032210.b/002f0201.d

Page 1

Date : 22-MAR-2010 08:26

Client ID: AR166001

Instrument: ecd8a.i

Sample Info: IWAR100224-60 01

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

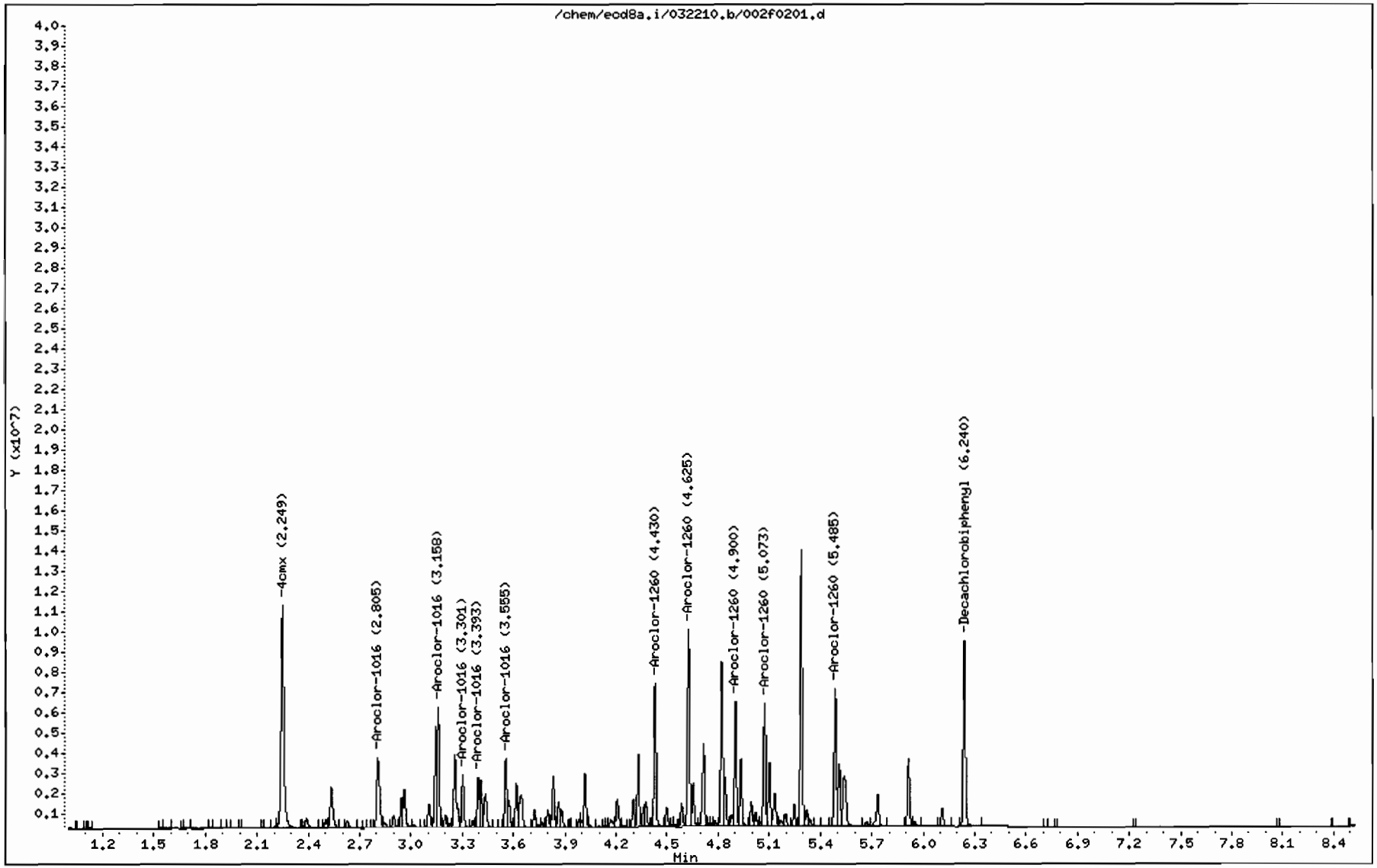

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/002b0201.d
Lab Smp Id: WAR100224-60 01 Client Smp ID: AR166001
Inj Date : 22-MAR-2010 08:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 14:20 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	9134407	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.825	6.825	0.000	6073346	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.549	3.549	0.000	3655954	1000.00	994	80.00- 120.00	100.00
3.648	3.648	0.000	2529207	1000.00	991	46.54- 86.54	69.18
3.724	3.724	0.000	1490235	1000.00	999	19.79- 59.79	40.76
3.800	3.800	0.000	1456468	1000.00	986	18.43- 58.43	39.84
3.995	3.995	0.000	2023514	1000.00	999	32.44- 72.44	55.35
Average of Peak Amounts =					994		
7 Aroclor-1260					CAS #: 11096-82-5		
4.909	4.909	0.000	4263921	1000.00	1080	80.00- 120.00	100.00
5.058	5.058	0.000	5094005	1000.00	1080	100.55- 140.55	119.47
5.375	5.375	0.000	3844714	1000.00	1070	70.91- 110.91	90.17
5.581	5.581	0.000	3978250	1000.00	1070	76.36- 116.36	93.30
6.013	6.013	0.000	6122565	1000.00	1050	131.40- 171.40	143.59
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd8a.i/032210.b/002b0201.d

Date : 22-MAR-2010 08:26

Client ID: AR166001

Sample Info: IWAR100224-60 01

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

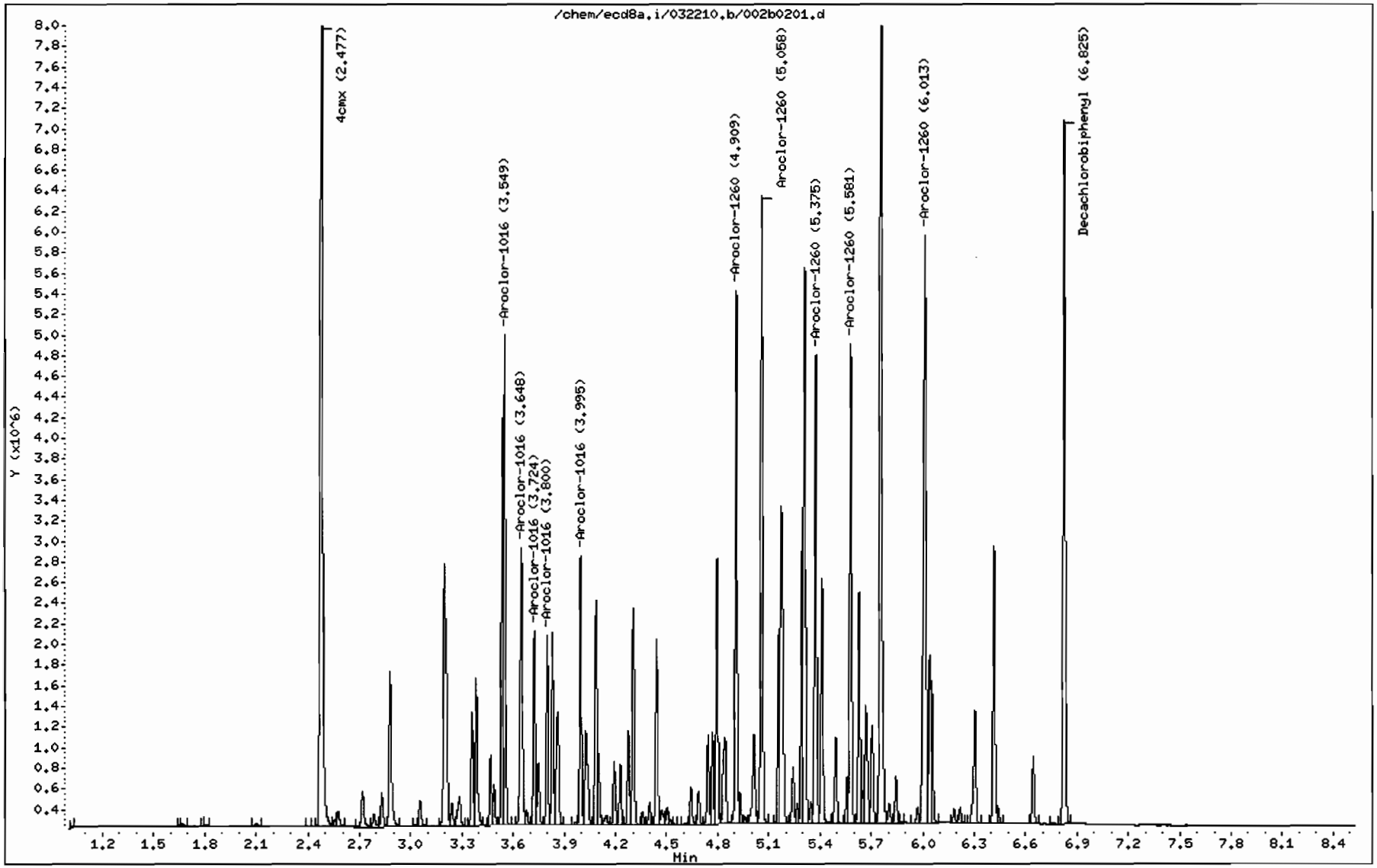

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 22-MAR-2010 08:39
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100219-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 16:03 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.832	3.832	0.000	4128391	1000.00	952	80.00- 120.00	100.00
4.019	4.019	0.000	5497005	1000.00	953	113.15- 153.15	133.15
4.214	4.214	0.000	4285594	1000.00	961	83.81- 123.81	103.81
4.301	4.301	0.000	7239592	1000.00	962	155.36- 195.36	175.36
4.497	4.497	0.000	5471909	1000.00	952	112.54- 152.54	132.54
		Average of Peak Amounts =			956		

Data File: /chem/ecd8a.i/032210.b/003f0301.d

Page 1

Date : 22-MAR-2010 08:39

Client ID: AR125401

Instrument: ecd8a.i

Sample Info: IWAR100219-54

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

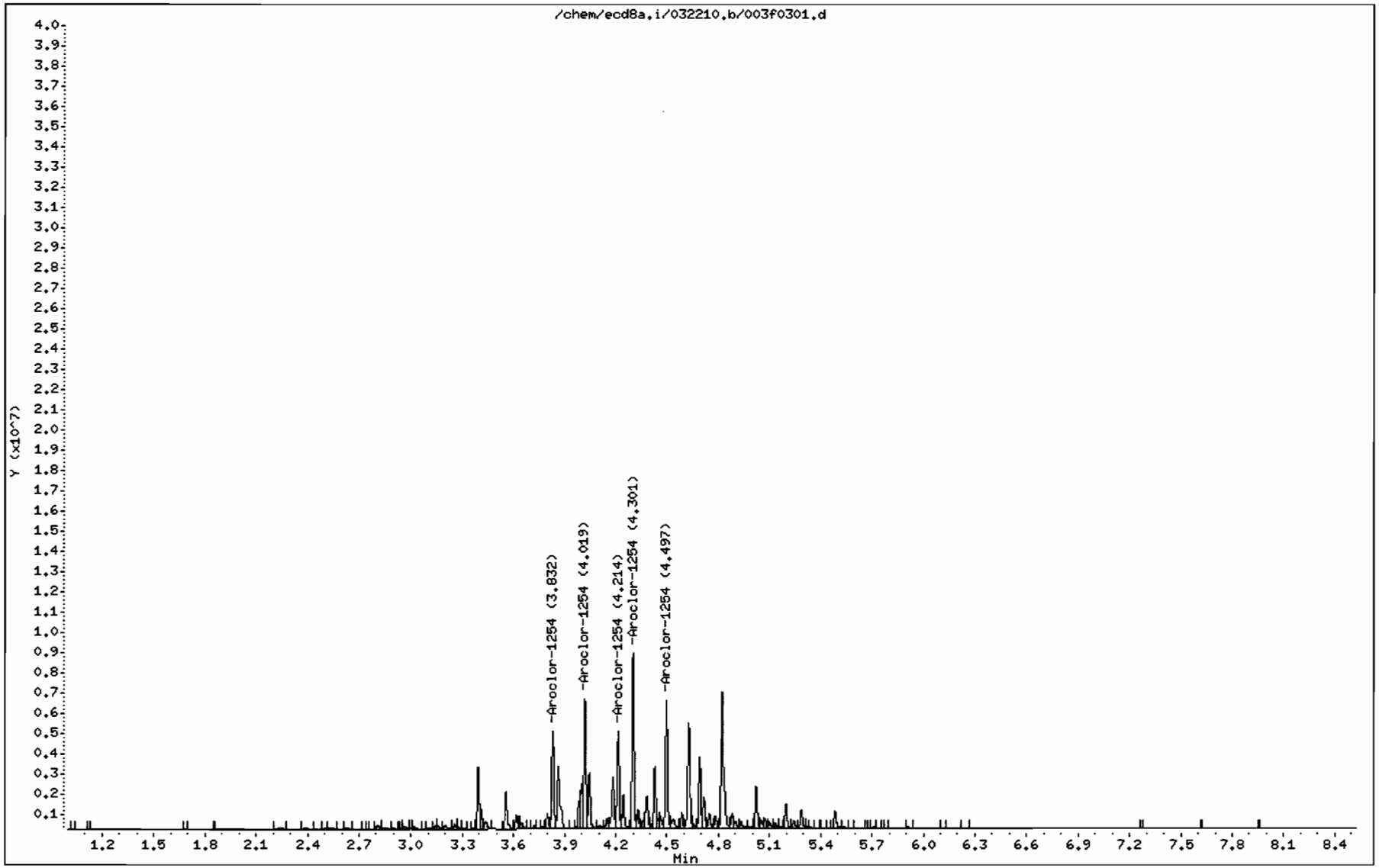

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 22-MAR-2010 08:39
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100219-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 16:02 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.302	4.302	0.000	3267250	1000.00	1050	80.00- 120.00	100.00
4.441	4.441	0.000	3655762	1000.00	1050	91.89- 131.89	111.89
4.770	4.770	0.000	5139439	1000.00	1060	137.30- 177.30	157.30
4.932	4.932	0.000	3654503	1000.00	1040	91.85- 131.85	111.85
5.057	5.057	0.000	2303521	1000.00	1050	50.50- 90.50	70.50

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd8a.i/032210.b/003b0301.d

Date : 22-MAR-2010 08:39

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

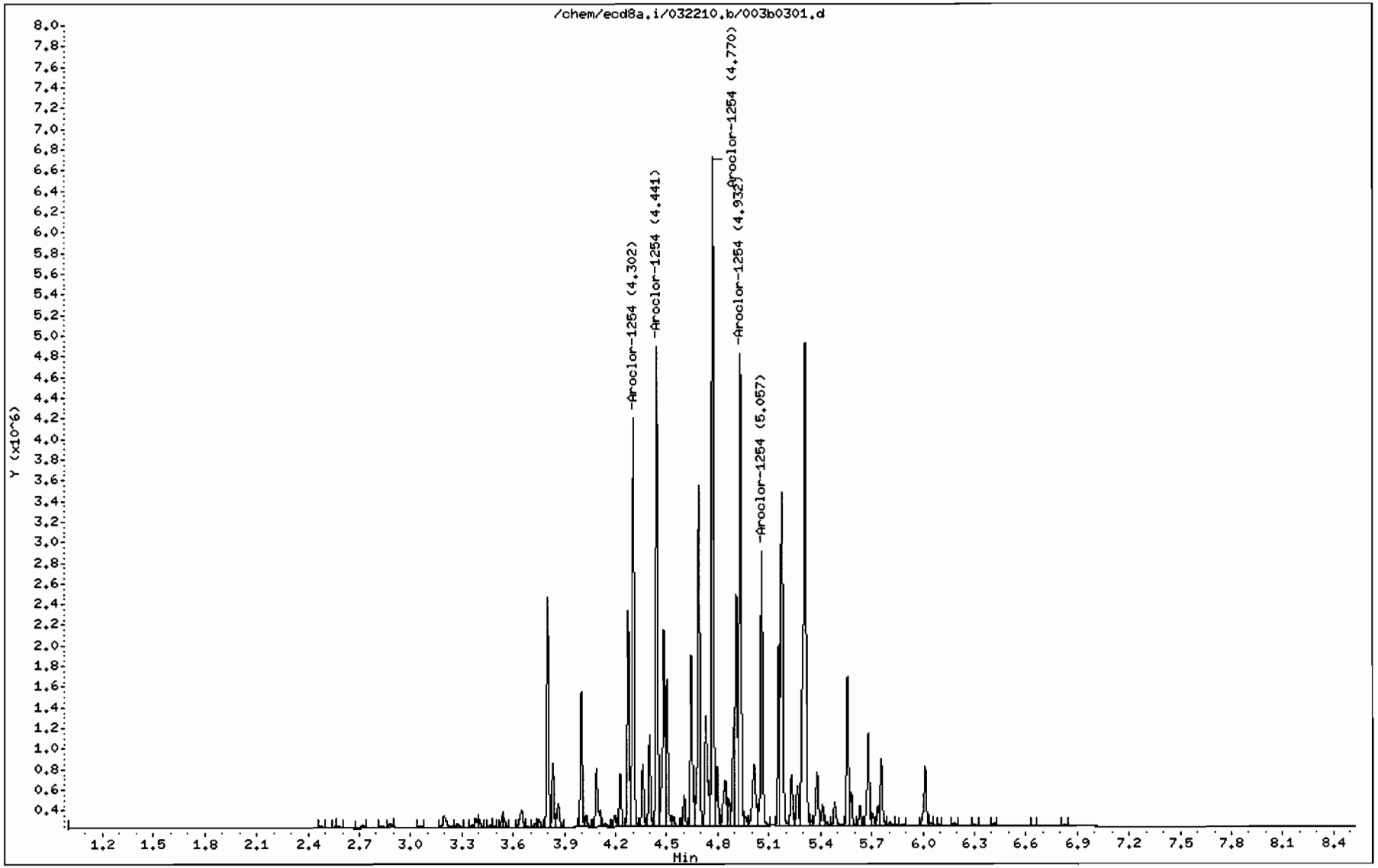

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 22-MAR-2010 08:51
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 14:20 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.806	2.806	0.000	3882256	1000.00	977	80.00- 120.00	100.00
3.158	3.158	0.000	4634398	1000.00	966	99.37- 139.37	119.37
3.393	3.393	0.000	1718165	1000.00	952	24.26- 64.26	44.26
3.411	3.411	0.000	1798284	1000.00	952	26.32- 66.32	46.32
3.555	3.555	0.000	2556341	1000.00	966	45.85- 85.85	65.85
Average of Peak Amounts =					963		

Data File: /chem/ecd8a.i/032210.b/004f0401.d

Date : 22-MAR-2010 08:51

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

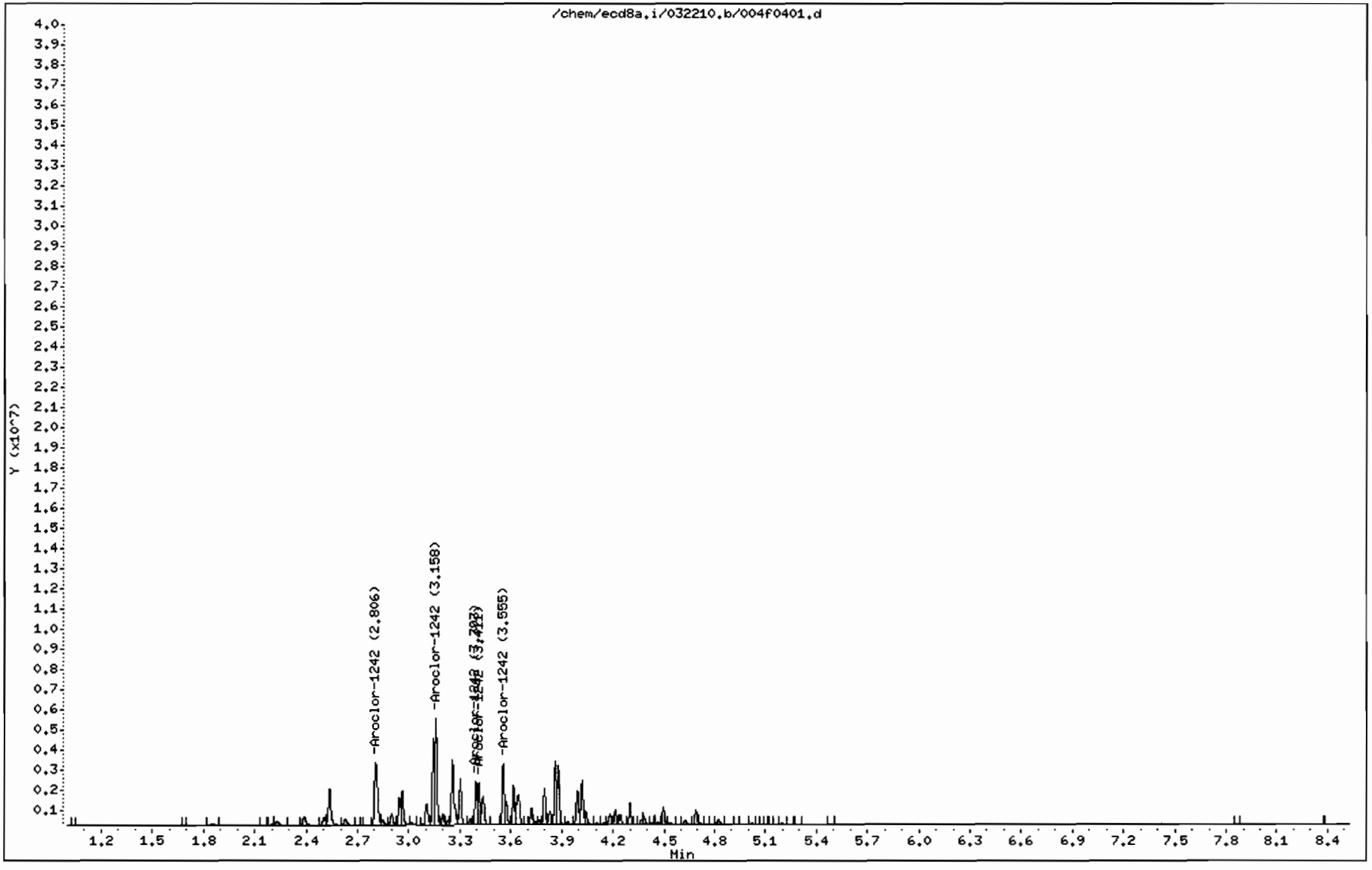

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 22-MAR-2010 08:51
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 14:20 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.196	3.196	0.000	2807928	1000.00	1050	80.00- 120.00	100.00(M)
3.549	3.549	0.000	3280674	1000.00	1050	96.84- 136.84	116.84
3.648	3.648	0.000	2221704	1000.00	1040	59.12- 99.12	79.12
3.996	3.996	0.000	1750185	1000.00	1030	42.33- 82.33	62.33
4.085	4.085	0.000	1612214	1000.00	1030	37.42- 77.42	57.42

Average of Peak Amounts = 1.04e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/004b0401.d

Date : 22-MAR-2010 08:51

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

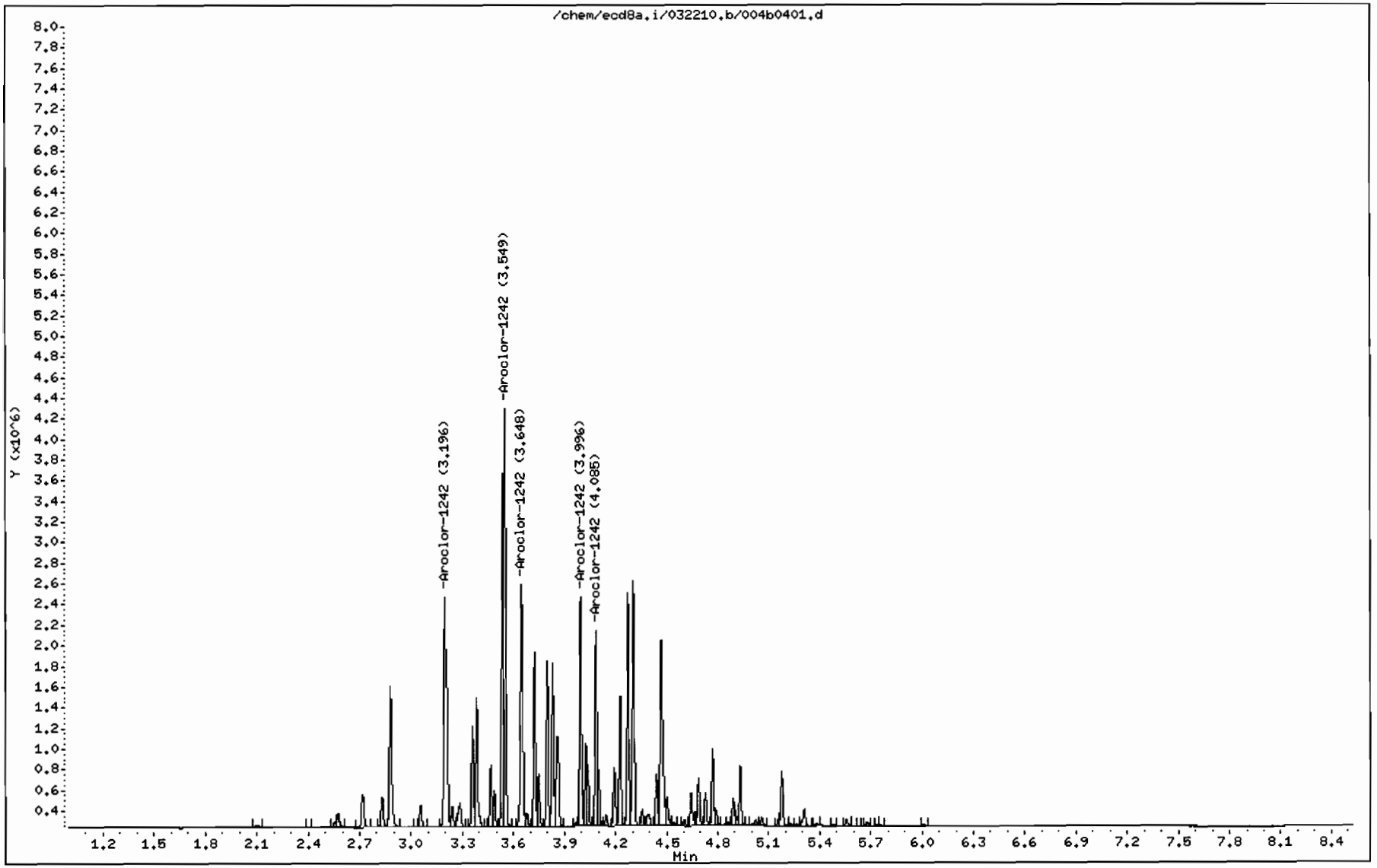

Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/004b0401.d
Operator: JAOC
Injection Date: 22-MAR-2010 08:51
Instrument: ecd8a.i
Client Sample ID: AR124201

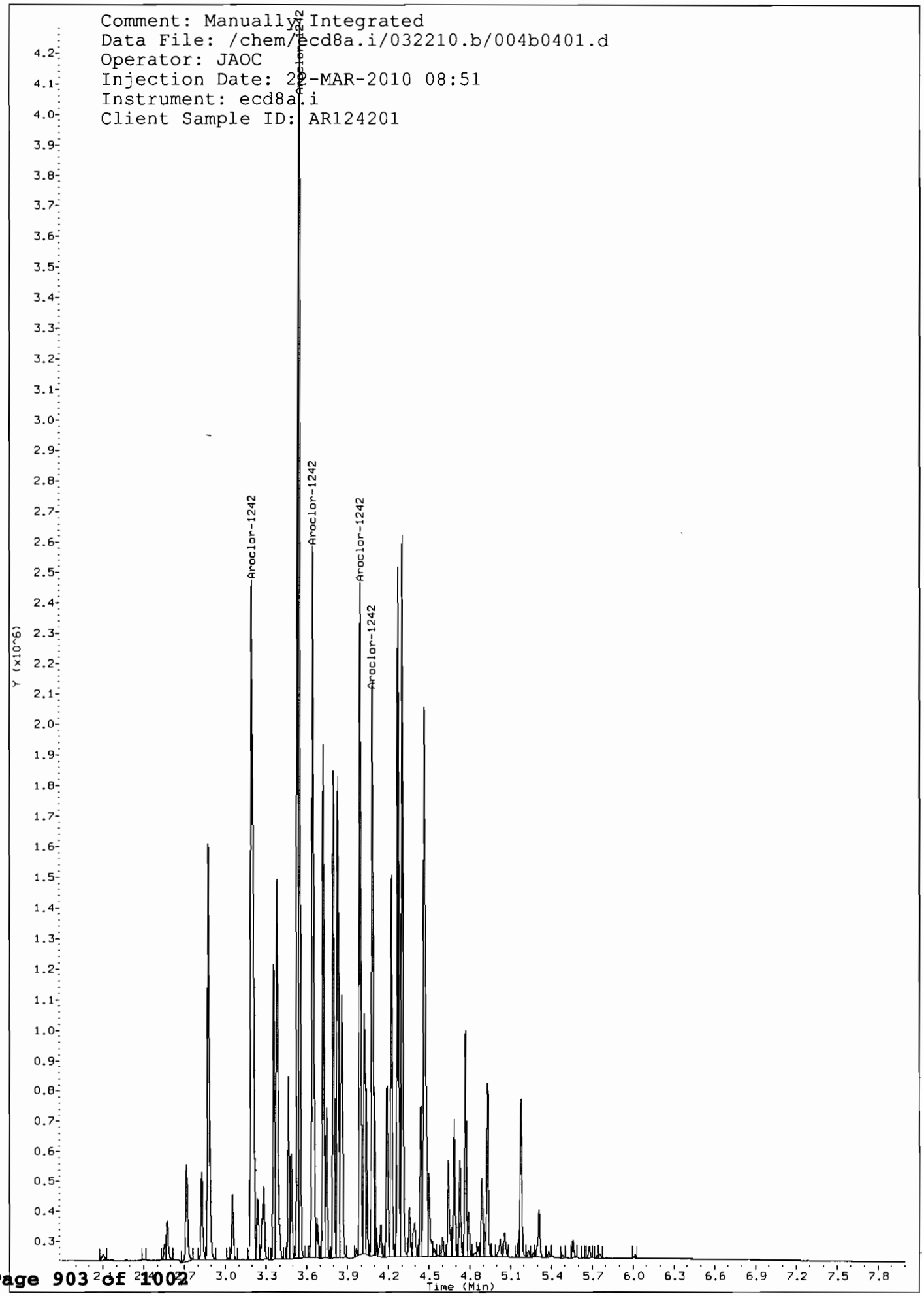

Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-004b0401.d
Operator: JAOC
Injection Date: 22-MAR-2010 08:51
Instrument: ecd8a.i
Client Sample ID: AR124201

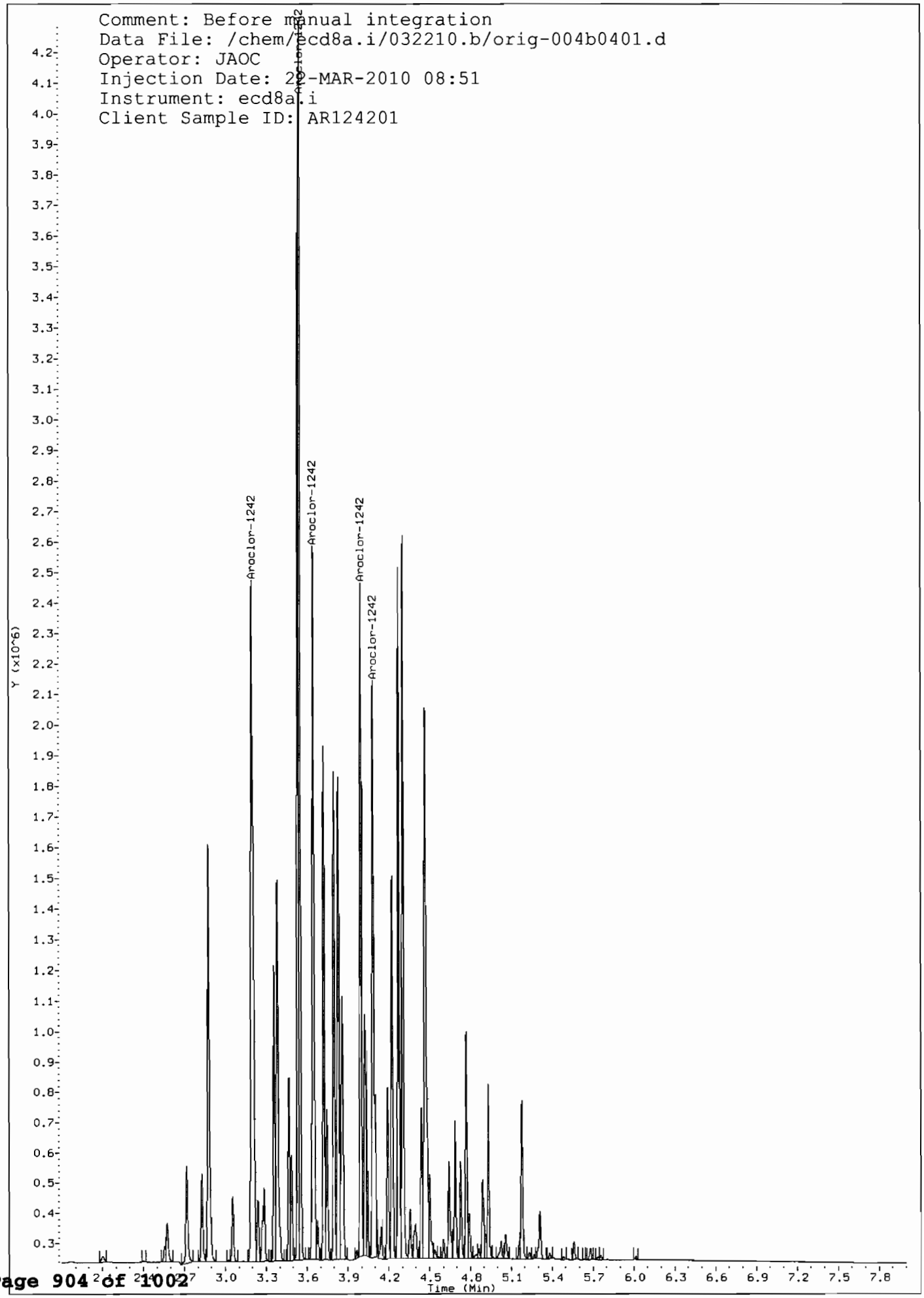

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 22-MAR-2010 09:03
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100223-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 16:03 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.143	3.143	0.000	2550227	1000.00	937	80.00- 120.00	100.00
3.393	3.393	0.000	3314779	1000.00	974	109.98- 149.98	129.98
3.555	3.555	0.000	4266678	1000.00	976	147.31- 187.31	167.31
3.862	3.862	0.000	5116173	1000.00	974	180.62- 220.62	200.62
4.020	4.020	0.000	4068708	1000.00	966	139.54- 179.54	159.54
		Average of Peak Amounts =			966		

Data File: /chem/ecd8a.i/032210.b/005f0501.d

Page 1

Date : 22-MAR-2010 09:03

Client ID: AR124801

Instrument: ecd8a.i

Sample Info: IWAR100223-48

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

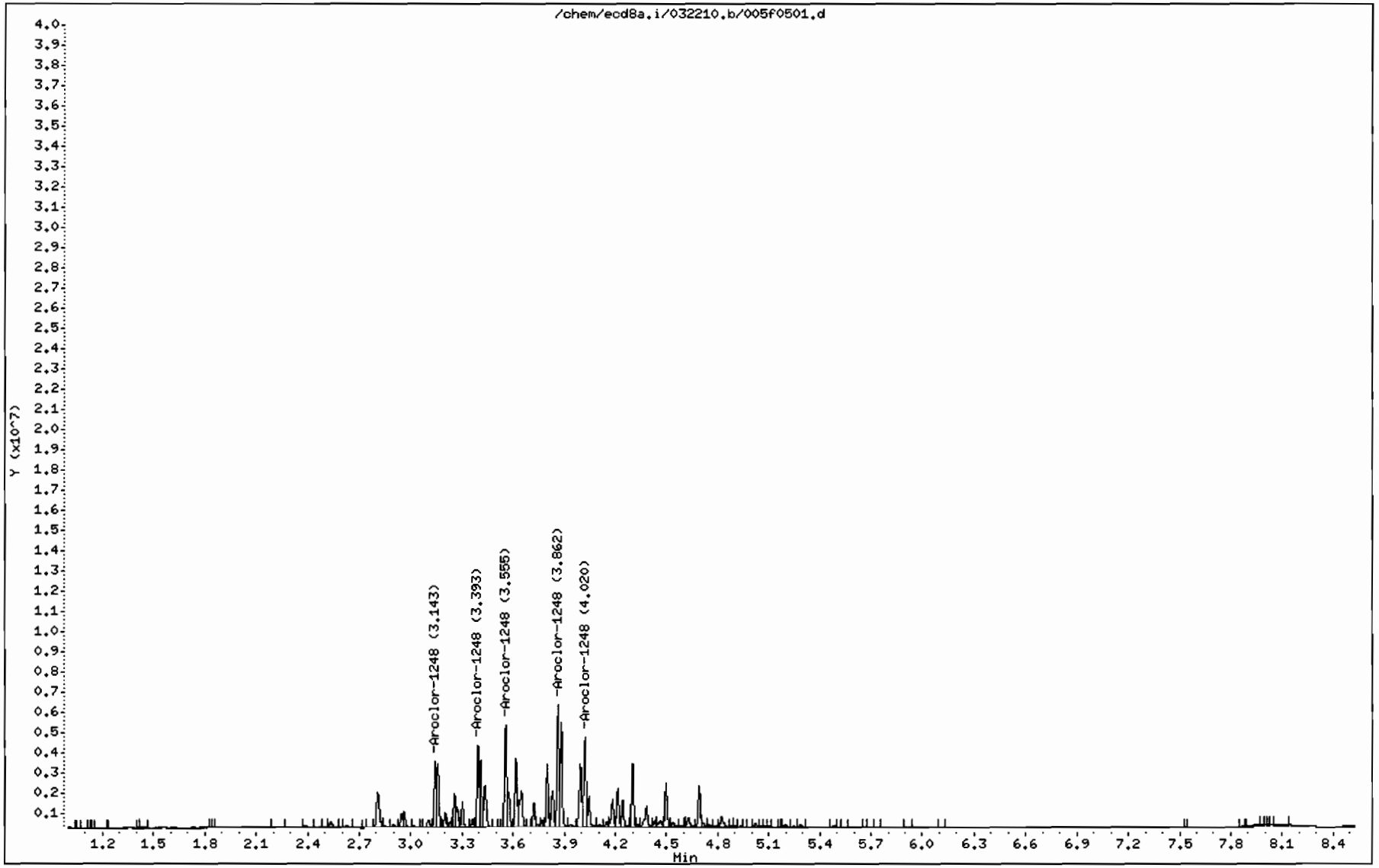

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 22-MAR-2010 09:03
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100223-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 16:02 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.648	3.648	0.000	1362602	1000.00	1020	80.00- 120.00	100.00
3.799	3.799	0.000	2427594	1000.00	1080	158.16- 198.16	178.16
3.996	3.996	0.000	3060721	1000.00	1100	204.62- 244.62	224.62
4.273	4.273	0.000	3551875	1000.00	1080	240.67- 280.67	260.67
4.306	4.306	0.000	3914248	1000.00	1090	267.26- 307.26	287.26

Average of Peak Amounts = 1.08e+03

Data File: /chem/ecd8a.i/032210.b/005b0501.d

Date : 22-MAR-2010 09:03

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

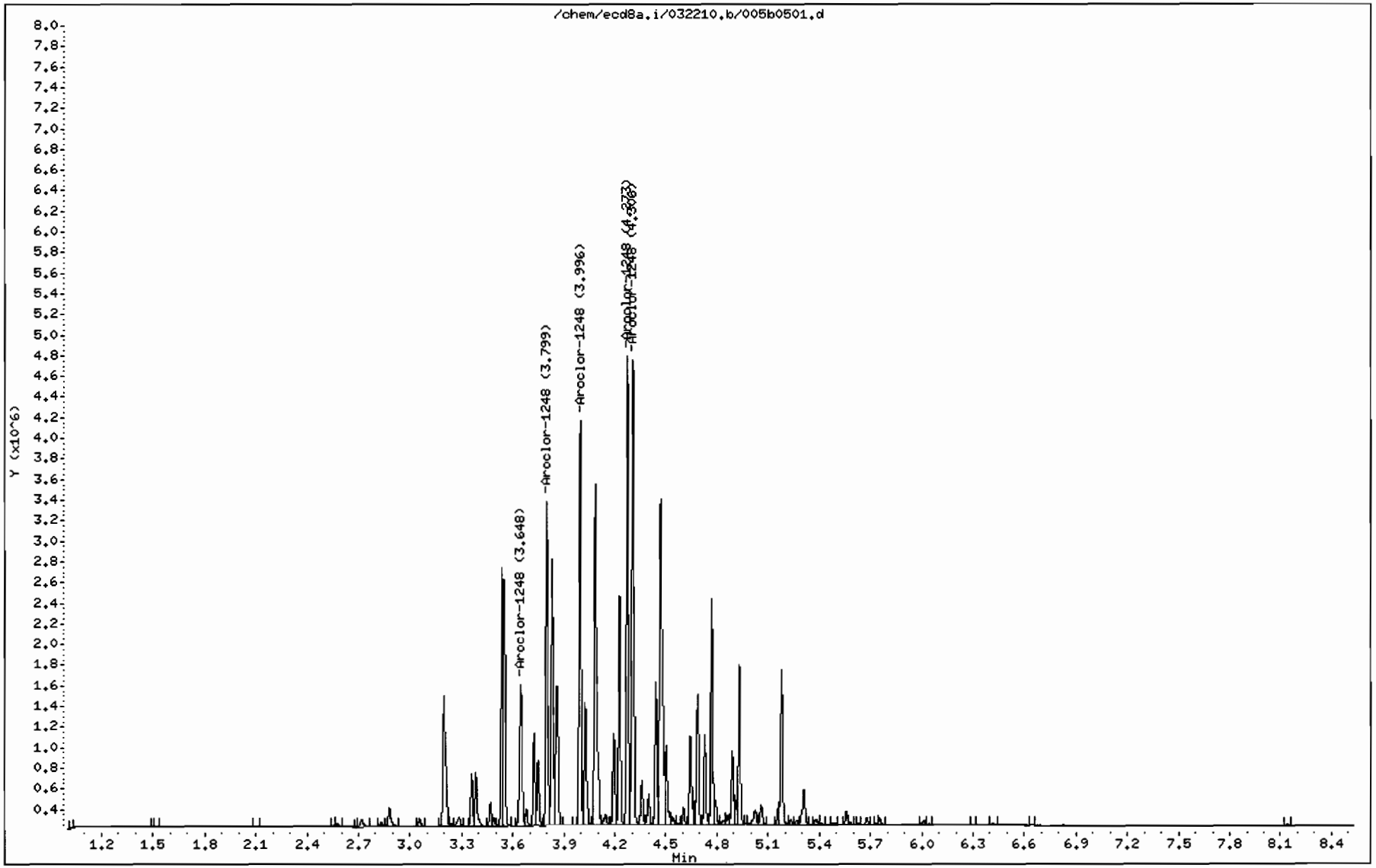

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 22-MAR-2010 09:16
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 14:20 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.535	2.535	0.000	2516127	1000.00	968	80.00- 120.00	100.00
2.806	2.806	0.000	2226579	1000.00	985	68.49- 108.49	88.49
3.301	3.301	0.000	1155393	1000.00	929	25.92- 65.92	45.92
3.555	3.555	0.000	1406374	1000.00	951	35.89- 75.89	55.89
3.617	3.617	0.000	850459	1000.00	922	13.80- 53.80	33.80
		Average of Peak Amounts =			951		

Data File: /chem/ecd8a.i/032210.b/006f0601.d
Date : 22-MAR-2010 09:16
Client ID: AR123201
Sample Info: IWAR100104-32

Instrument: ecd8a.i

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

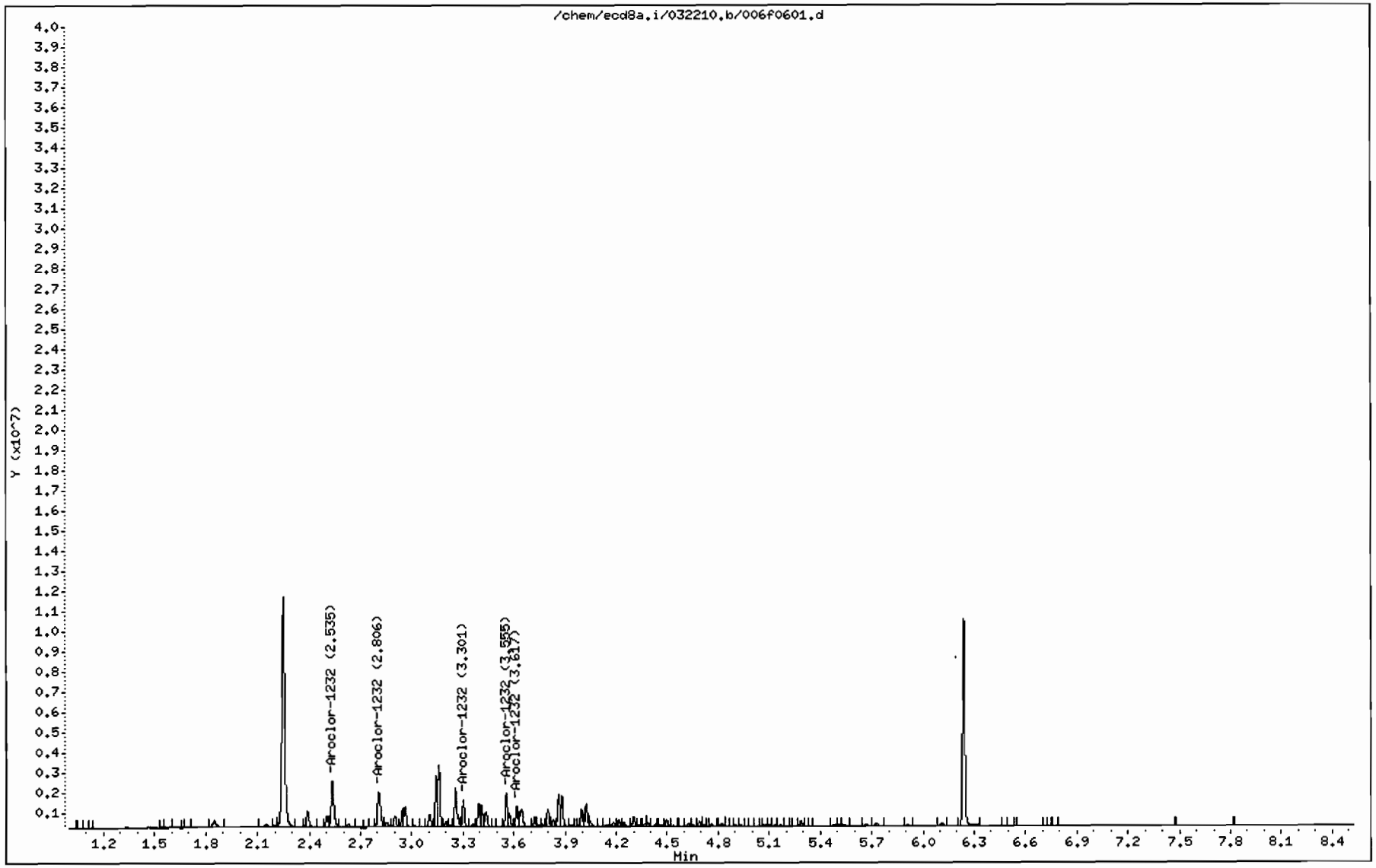

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 22-MAR-2010 09:16
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 14:20 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
3.196	3.196	0.000	1651756	1000.00	1090	80.00- 120.00	100.00
3.549	3.549	0.000	1825069	1000.00	1050	90.49- 130.49	110.49
3.648	3.648	0.000	1279983	1000.00	1090	57.49- 97.49	77.49
3.724	3.724	0.000	758219	1000.00	1070	25.90- 65.90	45.90
3.799	3.799	0.000	661447	1000.00	1070	20.05- 60.05	40.05

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd8a.i/032210.b/006b0601.d

Date : 22-MAR-2010 09:16

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

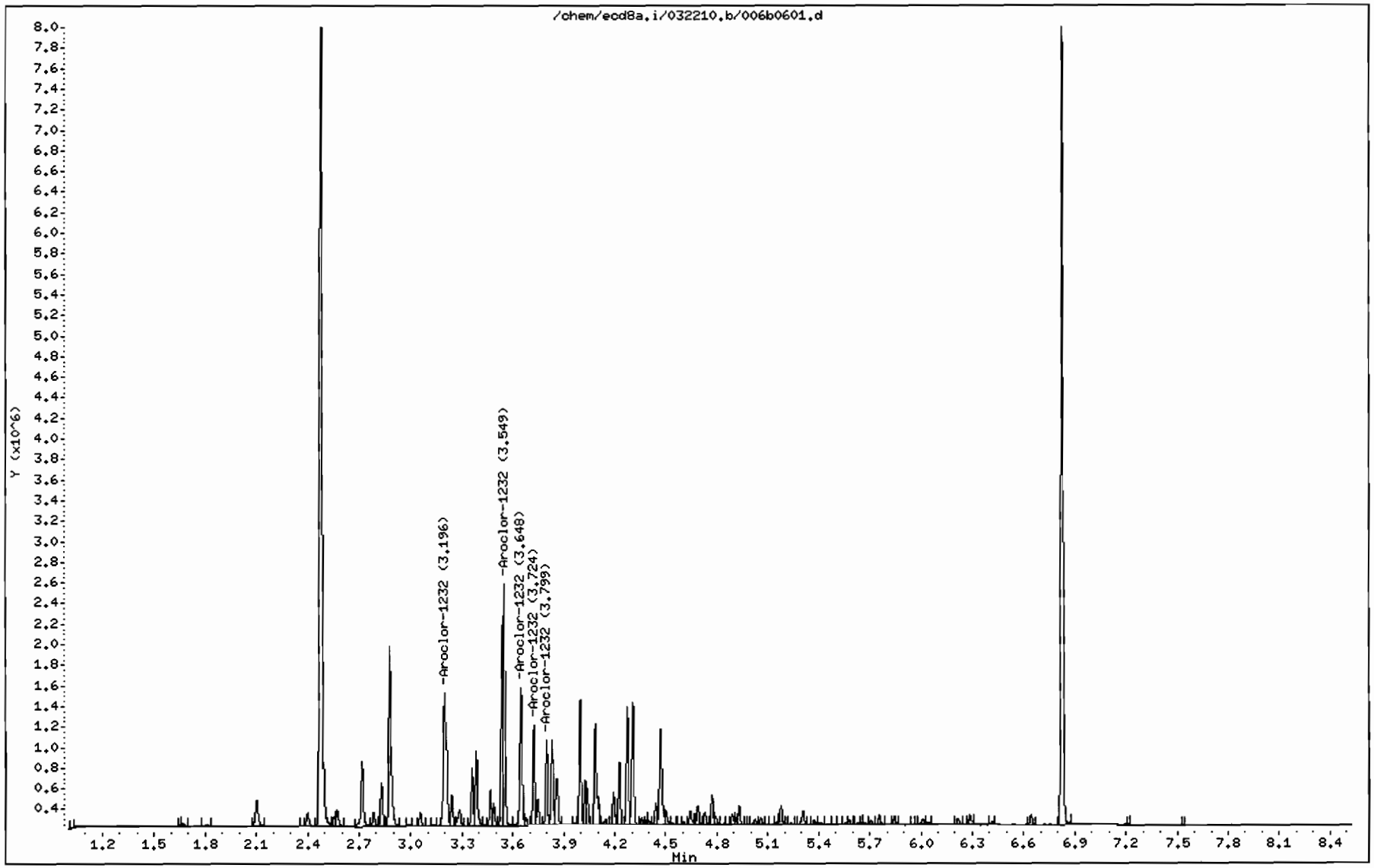

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 22-MAR-2010 09:28
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 14:20 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.389	2.389	0.000	1527685	1000.00	974	80.00- 120.00	100.00
2.503	2.503	0.000	905876	1000.00	990	39.30- 79.30	59.30
2.535	2.535	0.000	3466739	1000.00	970	206.93- 246.93	226.93
Average of Peak Amounts =					978		

Data File: /chem/ecd8a.i/032210.b/007f0701.d

Date : 22-MAR-2010 09:28

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

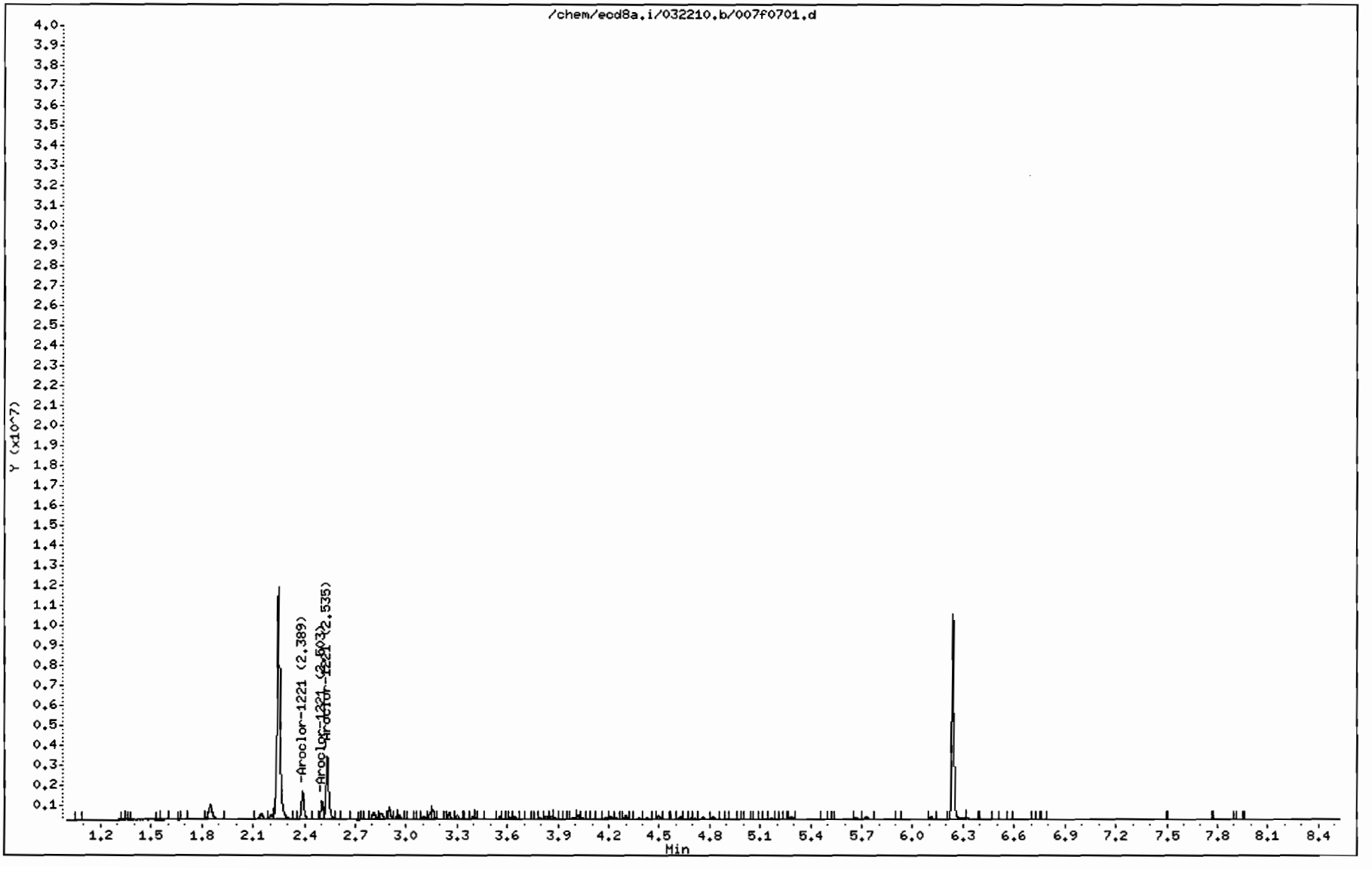

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 22-MAR-2010 09:28
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 14:20 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.718	2.718	0.000	1071301	1000.00	1130	80.00- 120.00	100.00
2.830	2.830	0.000	643132	1000.00	1090	40.03- 80.03	60.03
2.878	2.878	0.000	2334601	1000.00	1070	197.92- 237.92	217.92

Average of Peak Amounts = 1.1e+03

Data File: /chem/ecd8a.i/032210.b/007b0701.d

Date : 22-MAR-2010 09:28

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

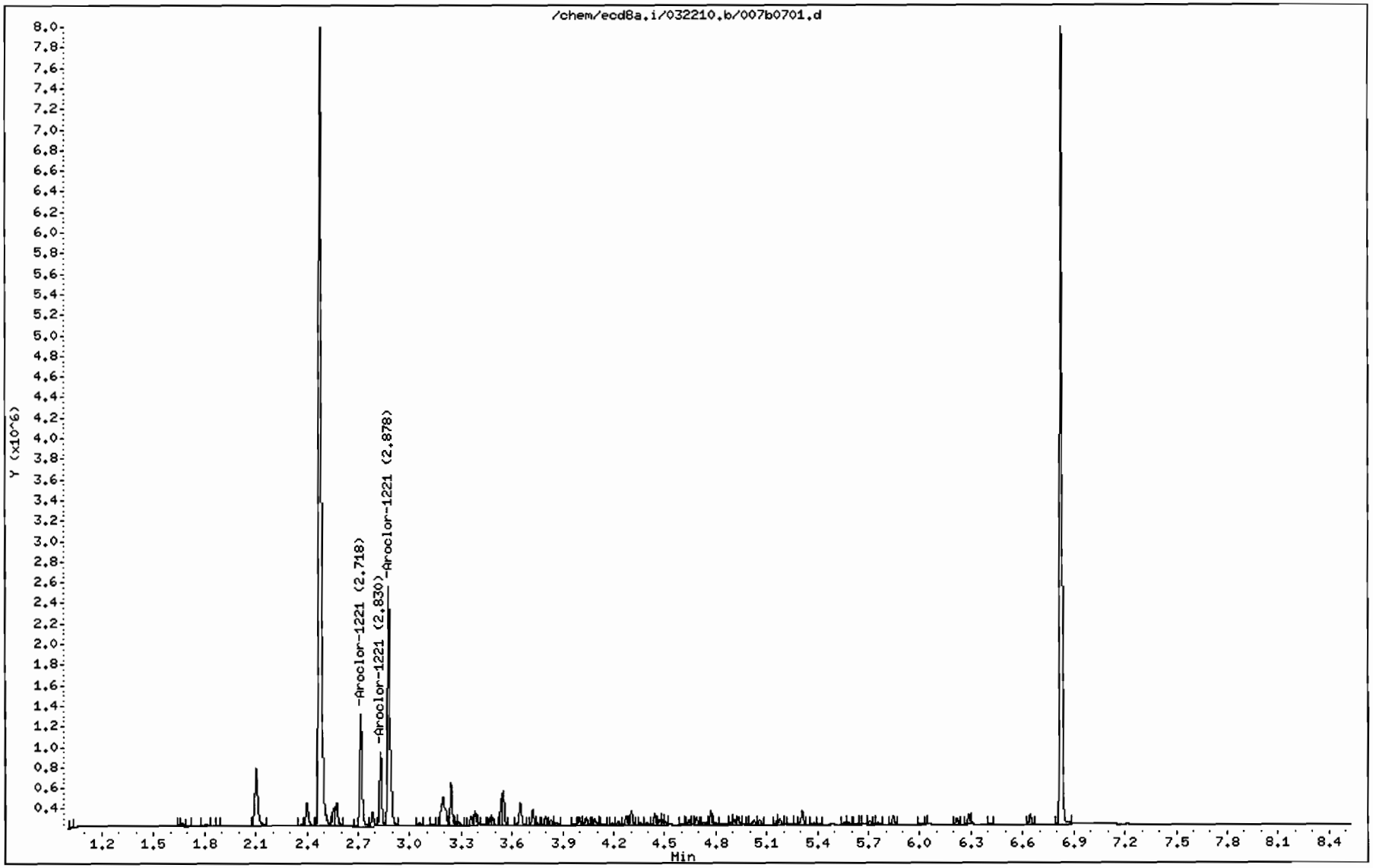

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/055f5501.d
Lab Smp Id: WAR100224-60 06 Client Smp ID: AR166006
Inj Date : 22-MAR-2010 20:06
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 06
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 55 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.247	2.249	-0.002	12720128	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.237	6.240	-0.003	8378348	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.804	2.805	-0.001	4318218	1000.00	905	80.00- 120.00	100.00(M)
3.155	3.158	-0.003	5237996	1000.00	970	101.30- 141.30	121.30
3.299	3.301	-0.002	2214637	1000.00	942	31.29- 71.29	51.29
3.390	3.393	-0.003	2018557	1000.00	921	26.75- 66.75	46.75
3.553	3.555	-0.002	2887079	1000.00	938	46.86- 86.86	66.86
Average of Peak Amounts =					935		
7 Aroclor-1260					CAS #: 11096-82-5		
4.426	4.430	-0.004	5827949	1000.00	989	80.00- 120.00	100.00(M)
4.622	4.625	-0.003	8544225	1000.00	1000	126.61- 166.61	146.61
4.898	4.900	-0.002	4977397	1000.00	982	65.41- 105.41	85.41
5.069	5.073	-0.004	5320498	1000.00	998	71.29- 111.29	91.29
5.481	5.485	-0.004	5734076	1000.00	1020	78.39- 118.39	98.39
Average of Peak Amounts =					999		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/055f5501.d
Date : 22-MAR-2010 20:06
Client ID: AR166006
Sample Info: IWAR100224-60 06
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

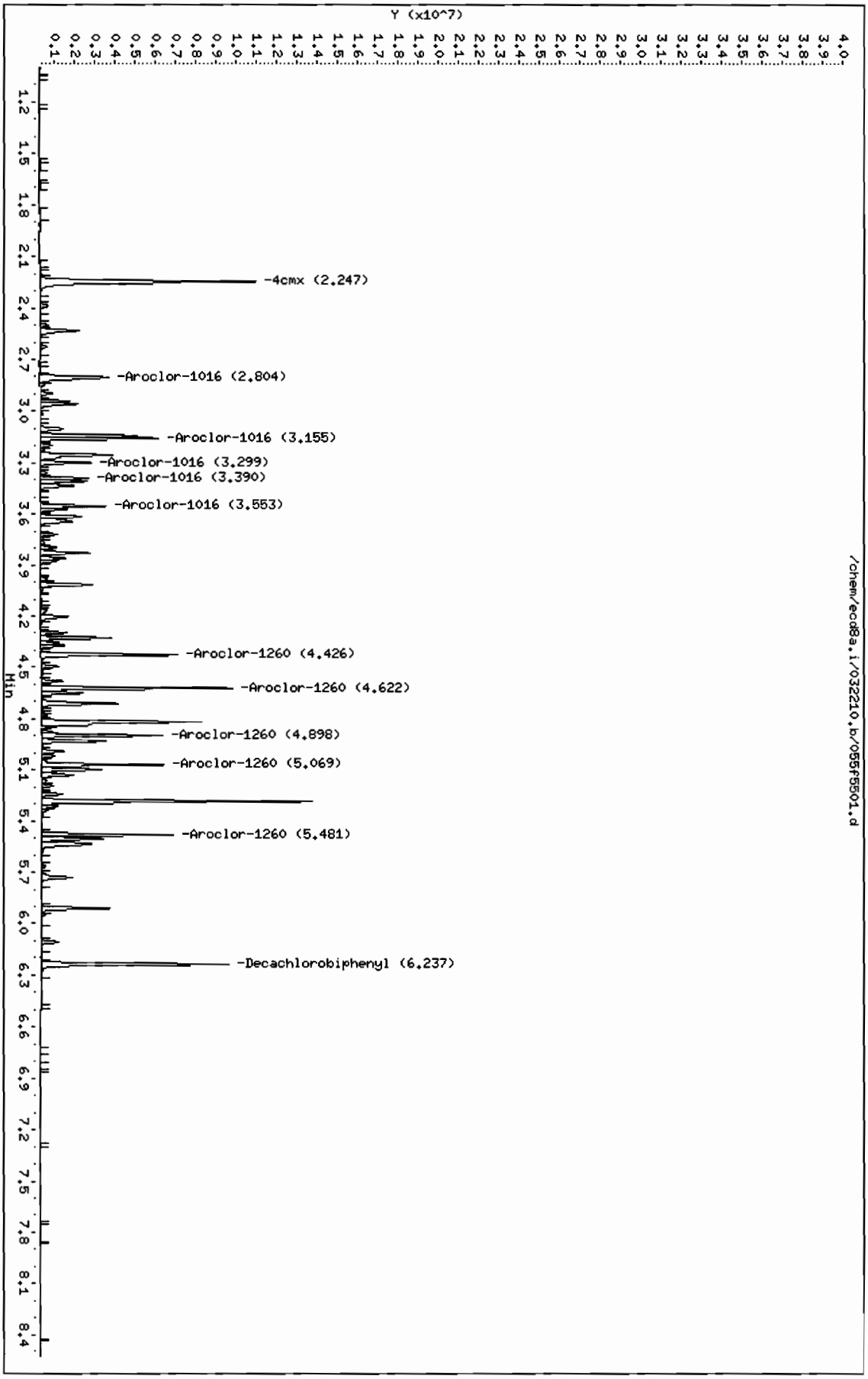

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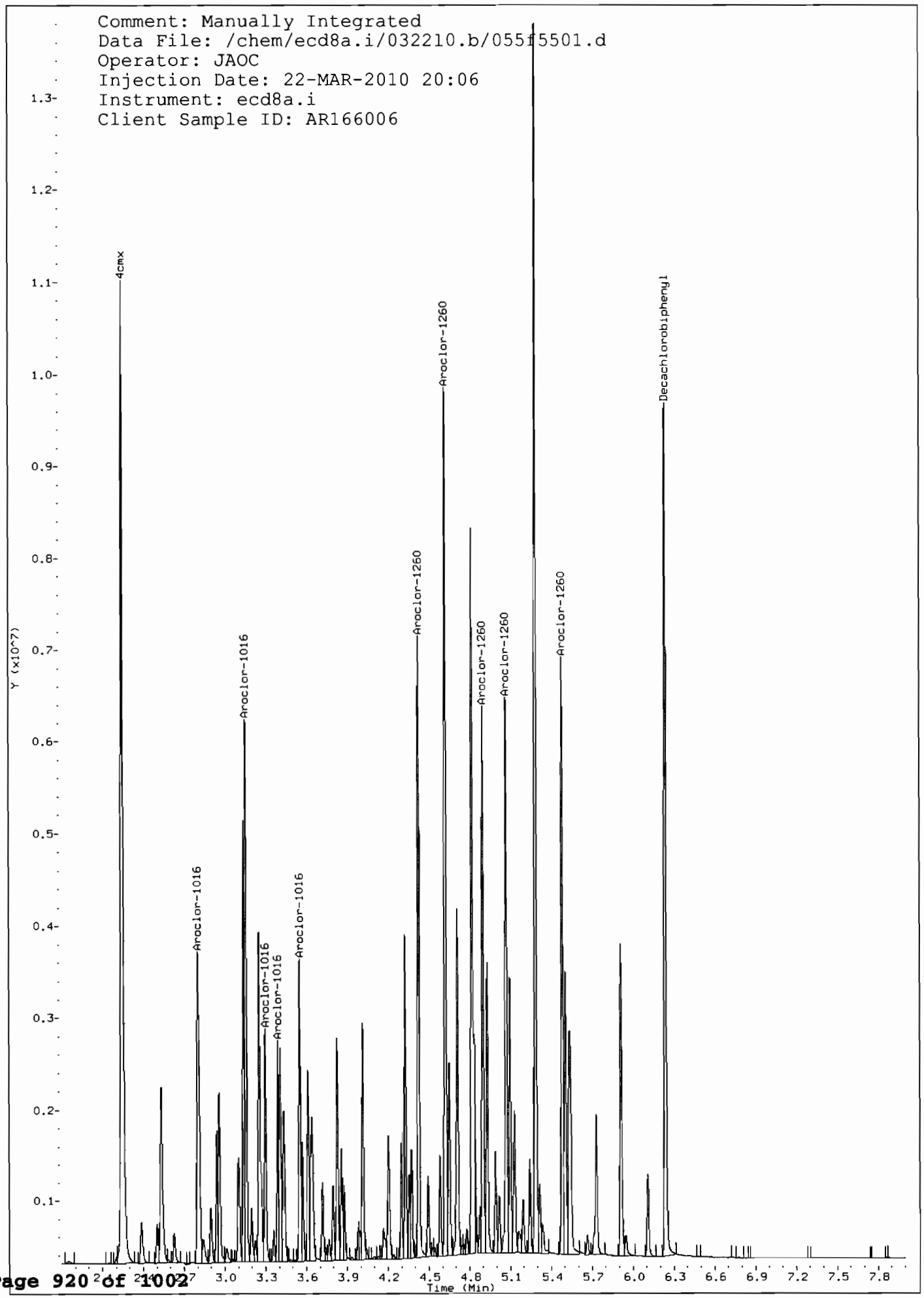
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/055f5501.d
Operator: JAOC
Injection Date: 22-MAR-2010 20:06
Instrument: ecd8a.i
Client Sample ID: AR166006
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

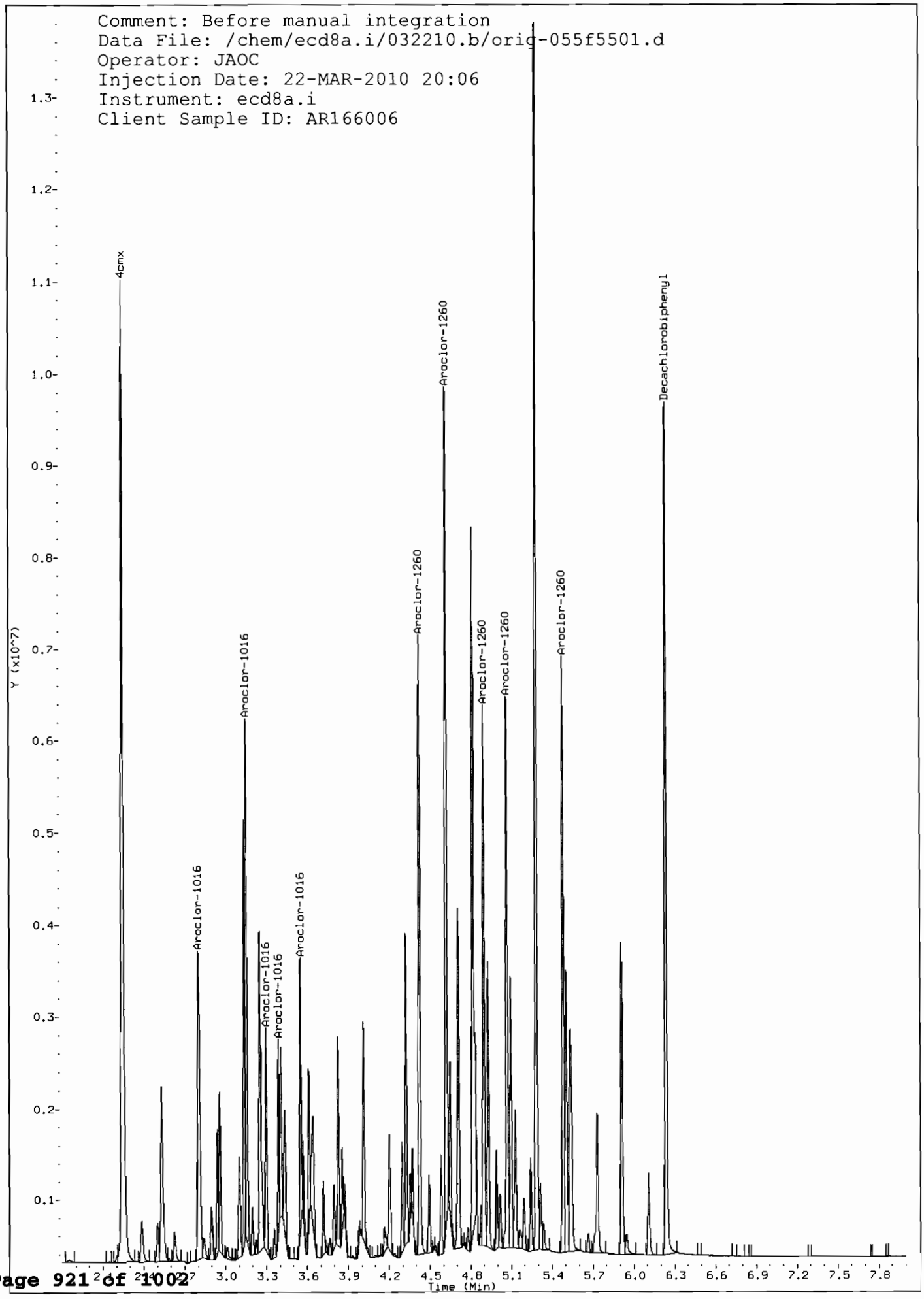
Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-055f5501.d
Operator: JAOC
Injection Date: 22-MAR-2010 20:06
Instrument: ecd8a.i
Client Sample ID: AR166006
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/055b5501.d
Lab Smp Id: WAR100224-60 06 Client Smp ID: AR166006
Inj Date : 22-MAR-2010 20:06
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 06
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 55 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.477	-0.001	8929484	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.825	-0.003	6269664	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.547	3.549	-0.002	3754232	1000.00	1020	80.00- 120.00	100.00
3.646	3.648	-0.002	2472485	1000.00	969	46.77- 86.77	65.86
3.722	3.724	-0.002	1469235	1000.00	985	20.25- 60.25	39.14
3.798	3.800	-0.002	1418739	1000.00	960	18.74- 58.74	37.79
3.994	3.995	-0.001	1968690	1000.00	972	33.82- 73.82	52.44
Average of Peak Amounts =					981		
7 Aroclor-1260					CAS #: 11096-82-5		
4.906	4.909	-0.003	4154556	1000.00	1050	80.00- 120.00	100.00
5.055	5.058	-0.003	5026988	1000.00	1060	101.53- 141.53	121.00
5.372	5.375	-0.003	3790619	1000.00	1060	71.56- 111.56	91.24
5.579	5.581	-0.002	3926529	1000.00	1060	75.17- 115.17	94.51
6.010	6.013	-0.003	6263637	1000.00	1070	132.27- 172.27	150.77
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd8a.i/032210.b/055b5501.d
Date : 22-MAR-2010 20:06
Client ID: AR166006
Sample Info: IWAR100224-60 06

Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

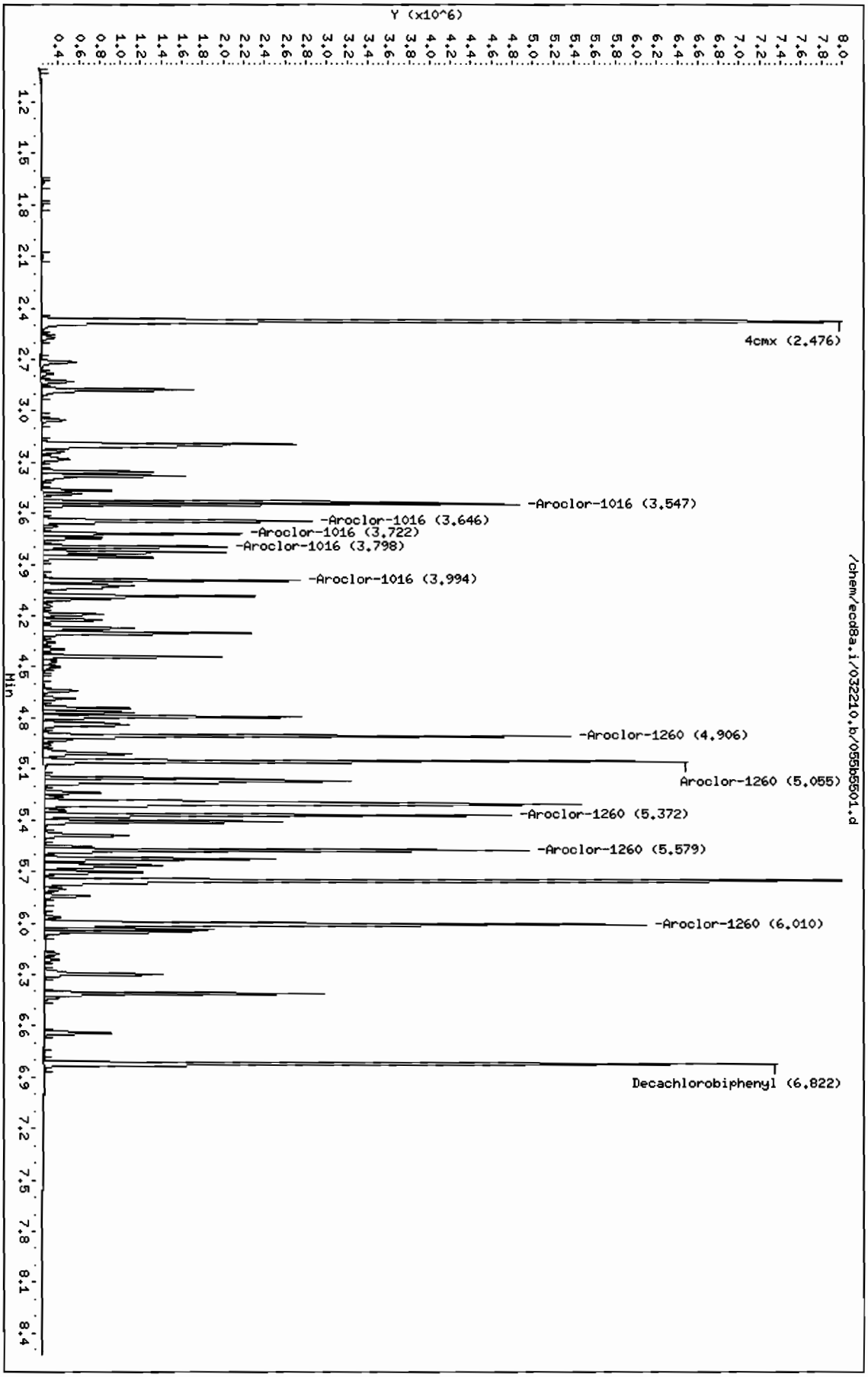

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/067f6701.d
Lab Smp Id: WAR100224-60 07 Client Smp ID: AR166007
Inj Date : 22-MAR-2010 22:42
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 07
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 67 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.247	2.249	-0.002	12864673	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.237	6.240	-0.003	8915265	100.000	108	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.805	2.805	0.000	4329054	1000.00	907	80.00- 120.00	100.00
3.155	3.158	-0.003	5380417	1000.00	997	101.30- 141.30	124.29
3.299	3.301	-0.002	2254903	1000.00	959	31.29- 71.29	52.09
3.391	3.393	-0.002	1978240	1000.00	903	26.75- 66.75	45.70
3.554	3.555	-0.001	2864371	1000.00	930	46.86- 86.86	66.17
Average of Peak Amounts =					939		
7 Aroclor-1260					CAS #: 11096-82-5		
4.427	4.430	-0.003	6019528	1000.00	1020	80.00- 120.00	100.00
4.623	4.625	-0.002	8845570	1000.00	1040	126.61- 166.61	146.95
4.898	4.900	-0.002	5217063	1000.00	1030	65.41- 105.41	86.67
5.070	5.073	-0.003	5610266	1000.00	1050	71.29- 111.29	93.20
5.481	5.485	-0.004	6016805	1000.00	1070	78.39- 118.39	99.95
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd8a.i/032210.b/067f6701.d

Date : 22-MAR-2010 22:42

Client ID: AR166007

Sample Info: IWAR100224-60 07

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

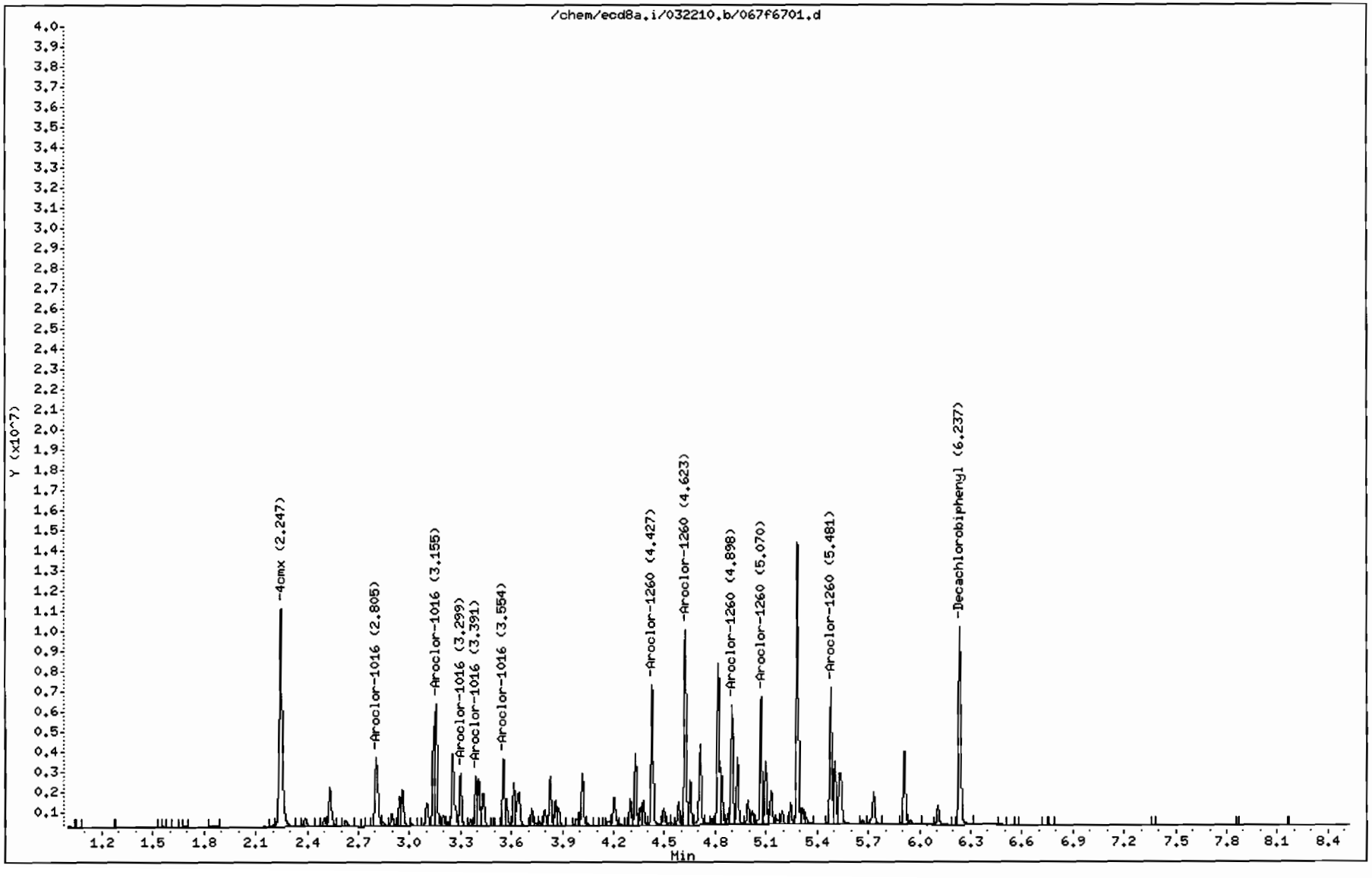

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/067b6701.d
Lab Smp Id: WAR100224-60 07 Client Smp ID: AR166007
Inj Date : 22-MAR-2010 22:42
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 07
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017bl701.d
Als bottle: 67 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.477	-0.001	9133943	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.825	-0.002	6589764	100.000	111	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.549	-0.001	3886041	1000.00	1060	80.00- 120.00	100.00
3.646	3.648	-0.002	2546458	1000.00	998	46.77- 86.77	65.53
3.723	3.724	-0.001	1532979	1000.00	1030	20.25- 60.25	39.45
3.798	3.800	-0.002	1480728	1000.00	1000	18.74- 58.74	38.10
3.995	3.995	0.000	2046373	1000.00	1010	33.82- 73.82	52.66
Average of Peak Amounts =					1.02e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.909	-0.002	4346399	1000.00	1100	80.00- 120.00	100.00
5.055	5.058	-0.003	5289630	1000.00	1120	101.53- 141.53	121.70
5.372	5.375	-0.003	3981780	1000.00	1110	71.56- 111.56	91.61
5.580	5.581	-0.001	4138905	1000.00	1110	75.17- 115.17	95.23
6.010	6.013	-0.003	6627546	1000.00	1130	132.27- 172.27	152.48
Average of Peak Amounts =					1.12e+03		

Data File: /chem/ecd8a.i/032210.b/067b6701.d

Date : 22-MAR-2010 22:42

Client ID: AR166007

Sample Info: |WAR100224-60 07

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

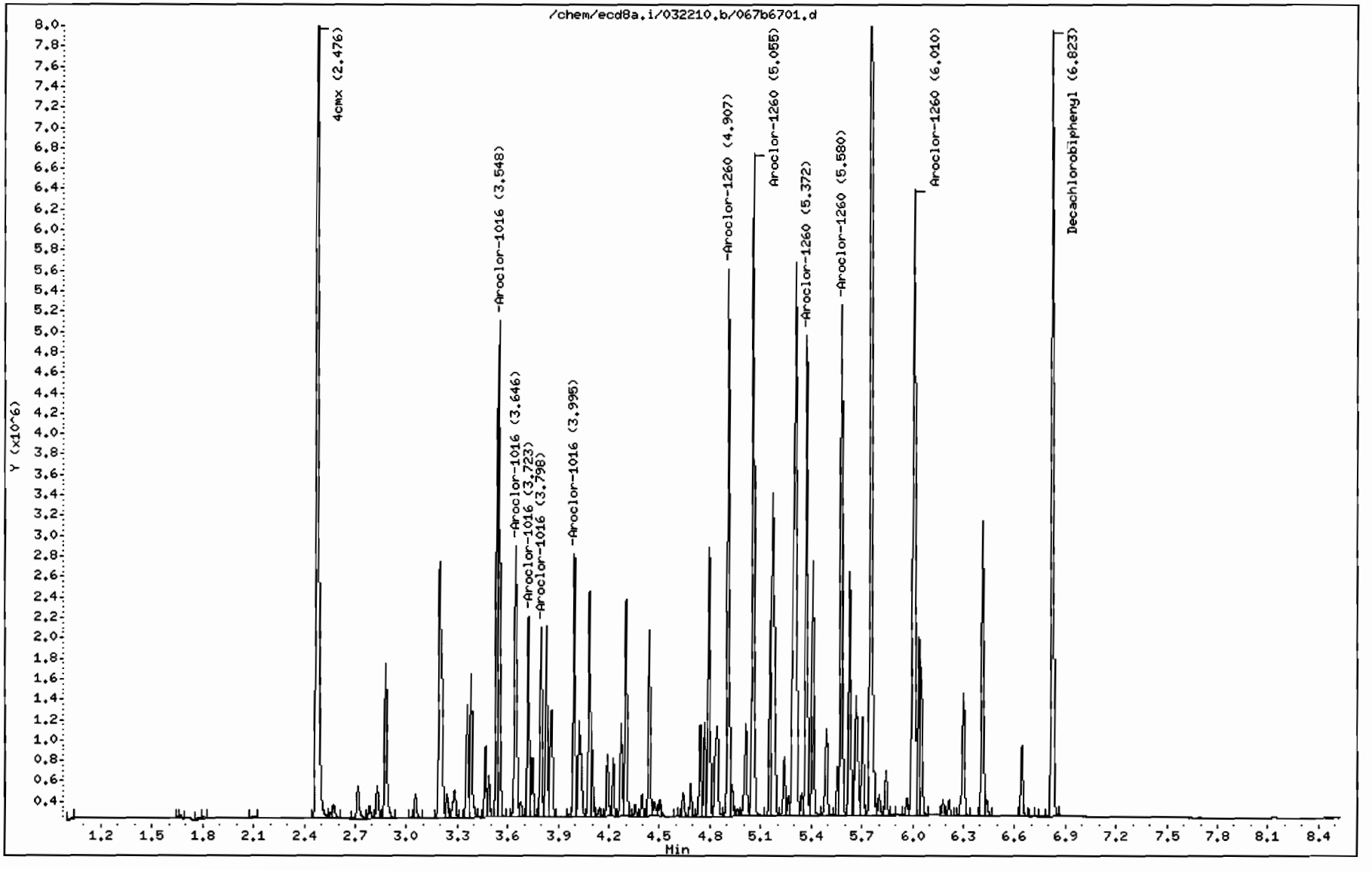

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/079f7901.d
Lab Smp Id: WAR100224-60 08 Client Smp ID: AR166008
Inj Date : 23-MAR-2010 01:19
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 08
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 79 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.247	2.249	-0.002	13174449	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	8912470	100.000	108	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.803	2.805	-0.002	4442873	1000.00	931	80.00- 120.00	100.00
3.155	3.158	-0.003	5509551	1000.00	1020	101.30- 141.30	124.01
3.299	3.301	-0.002	2308285	1000.00	982	31.29- 71.29	51.95
3.391	3.393	-0.002	2034542	1000.00	928	26.75- 66.75	45.79
3.553	3.555	-0.002	2957478	1000.00	960	46.86- 86.86	66.57
Average of Peak Amounts =					964		
7 Aroclor-1260					CAS #: 11096-82-5		
4.427	4.430	-0.003	6193749	1000.00	1050	80.00- 120.00	100.00
4.623	4.625	-0.002	9103544	1000.00	1070	126.61- 166.61	146.98
4.898	4.900	-0.002	5349239	1000.00	1060	65.41- 105.41	86.37
5.070	5.073	-0.003	5731242	1000.00	1080	71.29- 111.29	92.53
5.481	5.485	-0.004	6133196	1000.00	1090	78.39- 118.39	99.02
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd8a.i/032210.b/079f7901.d

Date : 23-MAR-2010 01:19

Client ID: AR166008

Sample Info: IWAR100224-60 08

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

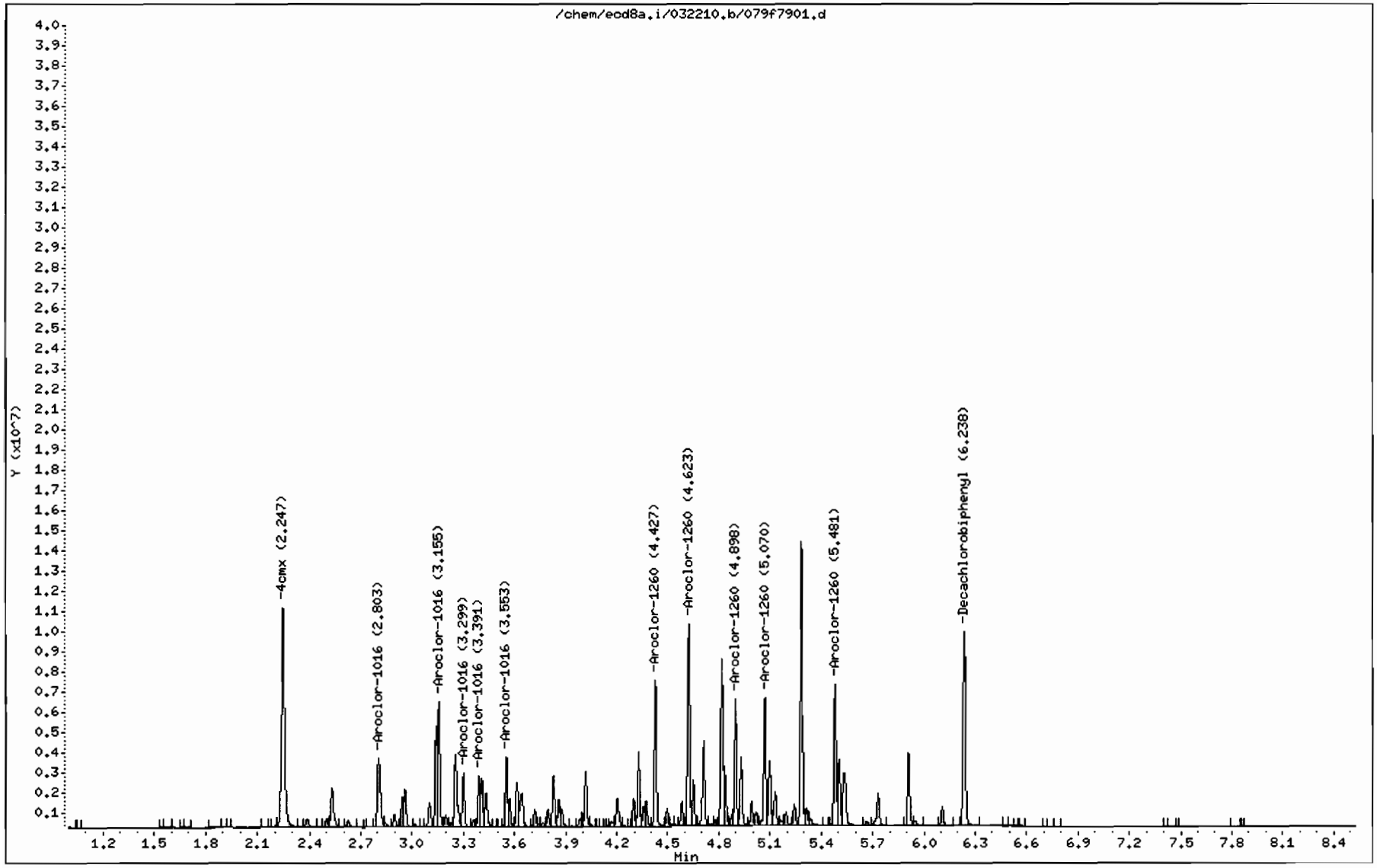

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/079b7901.d
Lab Smp Id: WAR100224-60 08 Client Smp ID: AR166008
Inj Date : 23-MAR-2010 01:19
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 08
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 79 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.477	-0.001	9132608	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.825	-0.002	6579577	100.000	111	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.549	-0.001	3785461	1000.00	1030	80.00- 120.00	100.00
3.646	3.648	-0.002	2526646	1000.00	990	46.77- 86.77	66.75
3.723	3.724	-0.001	1521974	1000.00	1020	20.25- 60.25	40.21
3.797	3.800	-0.003	1471069	1000.00	996	18.74- 58.74	38.86
3.994	3.995	-0.001	2034531	1000.00	1000	33.82- 73.82	53.75
Average of Peak Amounts =					1.01e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.909	-0.002	4322759	1000.00	1100	80.00- 120.00	100.00
5.055	5.058	-0.003	5257220	1000.00	1110	101.53- 141.53	121.62
5.372	5.375	-0.003	3957055	1000.00	1100	71.56- 111.56	91.54
5.578	5.581	-0.003	4112635	1000.00	1110	75.17- 115.17	95.14
6.010	6.013	-0.003	6580334	1000.00	1130	132.27- 172.27	152.23
Average of Peak Amounts =					1.11e+03		

Data File: /chem/ecd8a.i/032210.b/079b7901.d
Date : 23-MAR-2010 01:19
Client ID: AR166008
Sample Info: IWAR100224-60 08

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

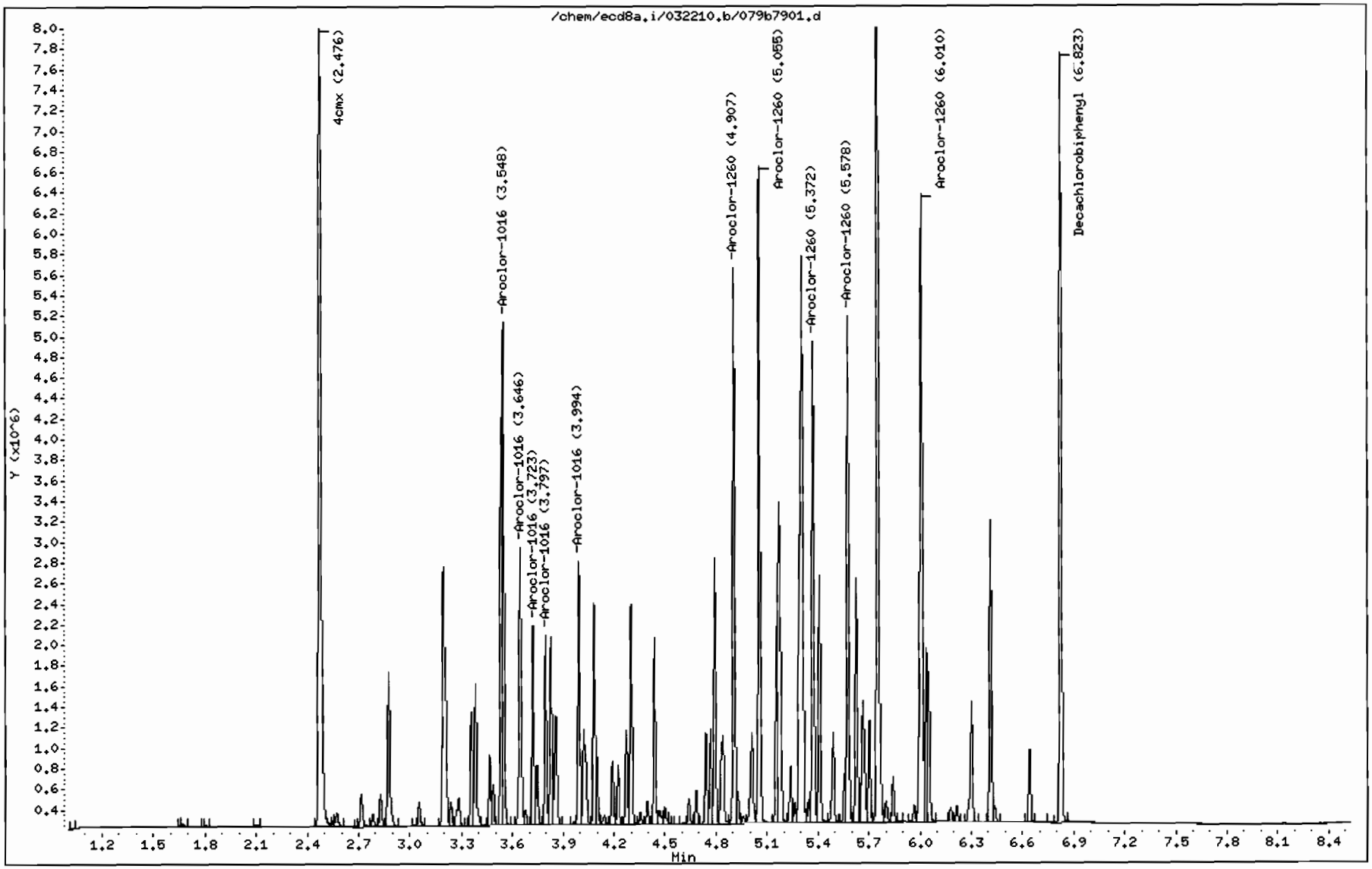

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/083f8301.d
Lab Smp Id: WAR100224-60 09 Client Smp ID: AR166009
Inj Date : 23-MAR-2010 02:17
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 09
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 83 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.247	2.249	-0.002	12669101	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.237	6.240	-0.003	8729519	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.803	2.805	-0.002	4245012	1000.00	890	80.00- 120.00	100.00
3.155	3.158	-0.003	5192804	1000.00	962	101.30- 141.30	122.33
3.298	3.301	-0.003	2184051	1000.00	929	31.29- 71.29	51.45
3.391	3.393	-0.002	1933321	1000.00	882	26.75- 66.75	45.54
3.552	3.555	-0.003	2794938	1000.00	908	46.86- 86.86	65.84
Average of Peak Amounts =					914		
7 Aroclor-1260					CAS #: 11096-82-5		
4.427	4.430	-0.003	5799081	1000.00	984	80.00- 120.00	100.00
4.622	4.625	-0.003	8485103	1000.00	999	126.61- 166.61	146.32
4.897	4.900	-0.003	5032671	1000.00	993	65.41- 105.41	86.78
5.070	5.073	-0.003	5409648	1000.00	1020	71.29- 111.29	93.28
5.482	5.485	-0.003	5847263	1000.00	1040	78.39- 118.39	100.83
Average of Peak Amounts =					1.01e+03		

Data File: /chem/ecd8a.i/032210.b/083f8301.d
Date : 23-MAR-2010 02:17
Client ID: AR166009
Sample Info: IWAR100224-60 09

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

Column phase: CLP1

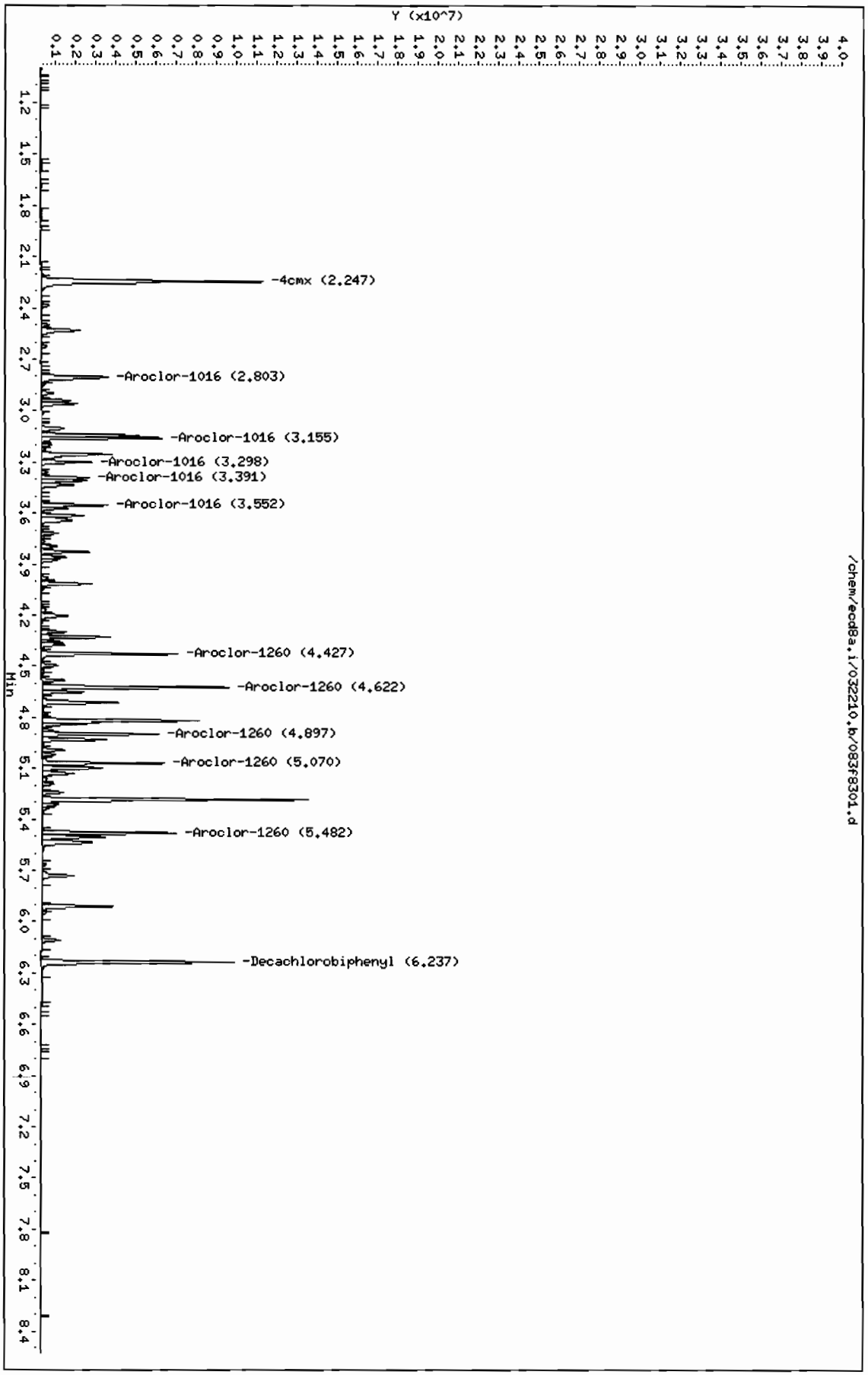

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/083b8301.d
Lab Smp Id: WAR100224-60 09 Client Smp ID: AR166009
Inj Date : 23-MAR-2010 02:17
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 09
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 83 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.477	-0.001	9024612	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.825	-0.003	6499589	100.000	110	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.547	3.549	-0.002	3755857	1000.00	1020	80.00- 120.00	100.00
3.647	3.648	-0.001	2507870	1000.00	983	46.77- 86.77	66.77
3.722	3.724	-0.002	1511565	1000.00	1010	20.25- 60.25	40.25
3.797	3.800	-0.003	1454846	1000.00	984	18.74- 58.74	38.74
3.993	3.995	-0.002	2021276	1000.00	998	33.82- 73.82	53.82
Average of Peak Amounts =					1e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.909	-0.002	4263476	1000.00	1080	80.00- 120.00	100.00
5.055	5.058	-0.003	5181233	1000.00	1100	101.53- 141.53	121.53
5.372	5.375	-0.003	3903671	1000.00	1090	71.56- 111.56	91.56
5.578	5.581	-0.003	4057709	1000.00	1090	75.17- 115.17	95.17
6.010	6.013	-0.003	6491930	1000.00	1110	132.27- 172.27	152.27
Average of Peak Amounts =					1.09e+03		

Data File: /chem/ecd8a.i/032210.b/083b8301.d

Date : 23-MAR-2010 02:17

Client ID: AR166009

Sample Info: IWAR100224-60 09

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

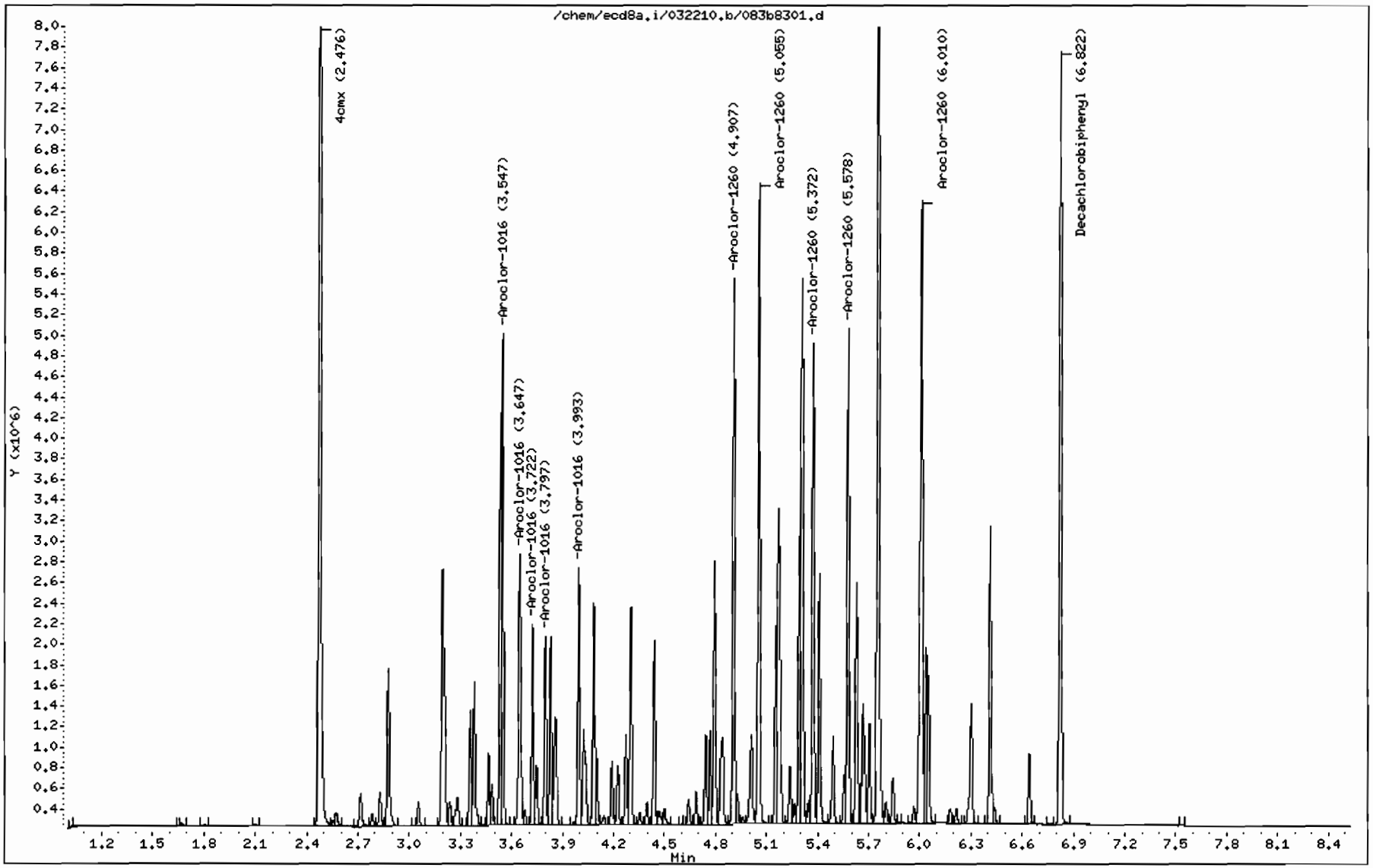

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/09/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/09/10	0759	2.25	6.24
02	AR166001	WAR100225-60	03/09/10	0811	2.25	6.24
03	AR125401	WAR100201-54	03/09/10	0824		
04	AR124201	WAR091217-42	03/09/10	0836		
05	AR124801	WAR091217-48	03/09/10	0848		
06	AR166001	WAR100309-60	03/09/10	0908	2.25	6.24
07	AR125401	WAR100309-05	03/09/10	0927		
08	AR125402	WAR100309-06	03/09/10	0939		
09	AR125403	WAR100309-07	03/09/10	0951		
10	AR125404	WAR100309-08	03/09/10	1004		
11	AR125405	IAR100219-02	03/09/10	1016		
12	AR125401	WAR100201-54	03/09/10	1029		
13	AR124801	WAR100309-09	03/09/10	1041		
14	AR124802	WAR100309-10	03/09/10	1053		
15	AR124803	WAR100309-11	03/09/10	1105		
16	AR124804	WAR100309-12	03/09/10	1118		
17	AR124805	IAR100211-01	03/09/10	1130		
18	AR124801	WAR091217-48	03/09/10	1143		
19	AR123201	WAR100104-32	03/09/10	1155		
20	AR122101	WAR100104-21	03/09/10	1207		
21	AR126201	WAR100104-62	03/09/10	1220		
22	AR126801	WAR100107-68	03/09/10	1232		
23	DDTANALOGSTD	WAR091219-DD	03/09/10	1244		
24	PIBLK02	WAR100219-99	03/09/10	1257	2.25	6.24
25	ZZZZZ	ZZZZZ	03/09/10	1309	2.25	6.24
26	AR166002	WAR100309-60	03/09/10	1322	2.25	6.24
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/09/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/09/10	0759	2.48	6.83
02	AR166001	WAR100225-60	03/09/10	0811	2.48	6.83
03	AR125401	WAR100201-54	03/09/10	0824		
04	AR124201	WAR091217-42	03/09/10	0836		
05	AR124801	WAR091217-48	03/09/10	0848		
06	AR166001	WAR100309-60	03/09/10	0908	2.48	6.83
07	AR125401	WAR100309-05	03/09/10	0927		
08	AR125402	WAR100309-06	03/09/10	0939		
09	AR125403	WAR100309-07	03/09/10	0951		
10	AR125404	WAR100309-08	03/09/10	1004		
11	AR125405	IAR100219-02	03/09/10	1016		
12	AR125401	WAR100201-54	03/09/10	1029		
13	AR124801	WAR100309-09	03/09/10	1041		
14	AR124802	WAR100309-10	03/09/10	1053		
15	AR124803	WAR100309-11	03/09/10	1105		
16	AR124804	WAR100309-12	03/09/10	1118		
17	AR124805	IAR100211-01	03/09/10	1130		
18	AR124801	WAR091217-48	03/09/10	1143		
19	AR123201	WAR100104-32	03/09/10	1155		
20	AR122101	WAR100104-21	03/09/10	1207		
21	AR126201	WAR100104-62	03/09/10	1220		
22	AR126801	WAR100107-68	03/09/10	1232		
23	DDTANALOGSTD	WAR091219-DD	03/09/10	1244		
24	PIBLK02	WAR100219-99	03/09/10	1257	2.48	6.83
25	ZZZZZ	ZZZZZ	03/09/10	1309	2.48	6.83
26	AR166002	WAR100309-60	03/09/10	1322	2.48	6.83
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/18/10	0613	2.25	6.24
02	AR166001	WAR100317-01	03/18/10	0625	2.25	6.24
03	AR166002	WAR100317-02	03/18/10	0638	2.25	6.24
04	AR166003	WAR100317-03	03/18/10	0650	2.25	6.24
05	AR166004	WAR100317-04	03/18/10	0702	2.25	6.24
06	AR166005	IAR100311-01	03/18/10	0715	2.25	6.24
07	AR166001	WAR100224-60	03/18/10	0727	2.25	6.24
08	AR125401	WAR100201-54	03/18/10	0739		
09	AR124201	WAR091217-42	03/18/10	0752		
10	AR124801	WAR091217-48	03/18/10	0804		
11	AR123201	WAR100104-32	03/18/10	0817		
12	AR122101	WAR100104-21	03/18/10	0829		
13	AR126201	WAR100104-62	03/18/10	0841		
14	AR126801	WAR100107-68	03/18/10	0854		
15	DDTANALOGSTD	WAR091219-DD	03/18/10	0906		
16	PIBLK02	WAR100219-99	03/18/10	0919	2.25	6.24
17	ZZZZZ	ZZZZZ	03/18/10	0931	2.25	6.24
18	ZZZZZ	ZZZZZ	03/18/10	0943	2.25	6.24
19	ZZZZZ	ZZZZZ	03/18/10	0955	2.25	6.24
20	ZZZZZ	ZZZZZ	03/18/10	1008	2.25	6.24
21	ZZZZZ	ZZZZZ	03/18/10	1020	2.25	6.24
22	ZZZZZ	ZZZZZ	03/18/10	1033	2.25	6.25
23	ZZZZZ	ZZZZZ	03/18/10	1045	2.25	6.24
24	ZZZZZ	ZZZZZ	03/18/10	1057	2.25	6.24
25	ZZZZZ	ZZZZZ	03/18/10	1110	2.25	6.24
26	ZZZZZ	ZZZZZ	03/18/10	1122	2.25	6.25
27	AR166002	WAR100224-60	03/18/10	1139	2.25	6.24
28	PIBLK03	WAR100219-99	03/18/10	1151	2.25	6.24
29	ZZZZZ	ZZZZZ	03/18/10	1203	2.25	6.24
30	ZZZZZ	ZZZZZ	03/18/10	1216	2.25	6.29*
31	ZZZZZ	ZZZZZ	03/18/10	1228	2.25	6.26
32	ZZZZZ	ZZZZZ	03/18/10	1240	2.25	6.24

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/18/10	1253	2.25	6.24
02	ZZZZZ	ZZZZZ	03/18/10	1305	2.25	6.25
03	ZZZZZ	ZZZZZ	03/18/10	1317	2.25	6.24
04	ZZZZZ	ZZZZZ	03/18/10	1330	2.25	6.24
05	ZZZZZ	ZZZZZ	03/18/10	1342	2.25	6.24
06	ZZZZZ	ZZZZZ	03/18/10	1354	2.25	6.24
07	AR166003	WAR100224-60	03/18/10	1411	2.25	6.24
08	PIBLK04	WAR100219-99	03/18/10	1423	2.25	6.24
09	ZZZZZ	ZZZZZ	03/18/10	1436	2.25	6.24
10	ZZZZZ	ZZZZZ	03/18/10	1448	2.25	6.24
11	ZZZZZ	ZZZZZ	03/18/10	1501	2.25	6.24
12	ZZZZZ	ZZZZZ	03/18/10	1513	2.25	6.24
13	ZZZZZ	ZZZZZ	03/18/10	1525	2.25	6.25
14	AR166004	WAR100224-60	03/18/10	1538	2.25	6.24
15	PIBLK05	WAR100219-99	03/18/10	1550	2.25	6.24
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/18/10	0613	2.48	6.82
02	AR166001	WAR100317-01	03/18/10	0625	2.48	6.83
03	AR166002	WAR100317-02	03/18/10	0638	2.48	6.83
04	AR166003	WAR100317-03	03/18/10	0650	2.48	6.83
05	AR166004	WAR100317-04	03/18/10	0702	2.48	6.83
06	AR166005	IAR100311-01	03/18/10	0715	2.48	6.83
07	AR166001	WAR100224-60	03/18/10	0727	2.48	6.83
08	AR125401	WAR100201-54	03/18/10	0739		
09	AR124201	WAR091217-42	03/18/10	0752		
10	AR124801	WAR091217-48	03/18/10	0804		
11	AR123201	WAR100104-32	03/18/10	0817		
12	AR122101	WAR100104-21	03/18/10	0829		
13	AR126201	WAR100104-62	03/18/10	0841		
14	AR126801	WAR100107-68	03/18/10	0854		
15	DDTANALOGSTD	WAR091219-DD	03/18/10	0906		
16	PIBLK02	WAR100219-99	03/18/10	0919	2.48	6.83
17	ZZZZZ	ZZZZZ	03/18/10	0931	2.48	6.83
18	ZZZZZ	ZZZZZ	03/18/10	0943	2.48	6.82
19	ZZZZZ	ZZZZZ	03/18/10	0955	2.48	6.82
20	ZZZZZ	ZZZZZ	03/18/10	1008	2.48	6.83
21	ZZZZZ	ZZZZZ	03/18/10	1020	2.48	6.83
22	ZZZZZ	ZZZZZ	03/18/10	1033	2.48	6.83
23	ZZZZZ	ZZZZZ	03/18/10	1045	2.48	6.83
24	ZZZZZ	ZZZZZ	03/18/10	1057	2.48	6.83
25	ZZZZZ	ZZZZZ	03/18/10	1110	2.48	6.83
26	ZZZZZ	ZZZZZ	03/18/10	1122	2.48	6.83
27	AR166002	WAR100224-60	03/18/10	1139	2.48	6.82
28	PIBLK03	WAR100219-99	03/18/10	1151	2.48	6.83
29	ZZZZZ	ZZZZZ	03/18/10	1203	2.48	6.83
30	ZZZZZ	ZZZZZ	03/18/10	1216	2.48	6.86*
31	ZZZZZ	ZZZZZ	03/18/10	1228	2.48	6.84
32	ZZZZZ	ZZZZZ	03/18/10	1240	2.48	6.83

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/18/10	1253	2.48	6.83
02	ZZZZZ	ZZZZZ	03/18/10	1305	2.48	6.84
03	ZZZZZ	ZZZZZ	03/18/10	1317	2.48	6.83
04	ZZZZZ	ZZZZZ	03/18/10	1330	2.48	6.83
05	ZZZZZ	ZZZZZ	03/18/10	1342	2.48	6.82
06	ZZZZZ	ZZZZZ	03/18/10	1354	2.48	6.82
07	AR166003	WAR100224-60	03/18/10	1411	2.48	6.82
08	PIBLK04	WAR100219-99	03/18/10	1423	2.48	6.82
09	ZZZZZ	ZZZZZ	03/18/10	1436	2.48	6.82
10	ZZZZZ	ZZZZZ	03/18/10	1448	2.48	6.82
11	ZZZZZ	ZZZZZ	03/18/10	1501	2.48	6.82
12	ZZZZZ	ZZZZZ	03/18/10	1513	2.48	6.82
13	ZZZZZ	ZZZZZ	03/18/10	1525	2.48	6.84
14	AR166004	WAR100224-60	03/18/10	1538	2.48	6.83
15	PIBLK05	WAR100219-99	03/18/10	1550	2.48	6.83
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/22/10	0814	2.25	6.24
02	AR166001	WAR100224-60	03/22/10	0826	2.25	6.24
03	AR125401	WAR100219-54	03/22/10	0839		
04	AR124201	WAR091217-42	03/22/10	0851		
05	AR124801	WAR100223-48	03/22/10	0903		
06	AR123201	WAR100104-32	03/22/10	0916		
07	AR122101	WAR100104-21	03/22/10	0928		
08	AR126201	WAR100104-62	03/22/10	0940		
09	AR126801	WAR100107-68	03/22/10	0953		
10	DDTANALOGSTD	WAR091219-DD	03/22/10	1005		
11	PIBLK02	WAR100219-99	03/22/10	1018	2.25	6.24
12	ZZZZZ	ZZZZZ	03/22/10	1030	2.25	6.24
13	ZZZZZ	ZZZZZ	03/22/10	1042	2.25	6.24
14	ZZZZZ	ZZZZZ	03/22/10	1055	2.25	6.24
15	ZZZZZ	ZZZZZ	03/22/10	1107	2.25	6.24
16	ZZZZZ	ZZZZZ	03/22/10	1119	2.25	6.24
17	ZZZZZ	ZZZZZ	03/22/10	1132	2.25	6.25
18	ZZZZZ	ZZZZZ	03/22/10	1144	2.25	6.24
19	ZZZZZ	ZZZZZ	03/22/10	1200	2.25	6.24
20	ZZZZZ	ZZZZZ	03/22/10	1216	2.25	6.24
21	AR166002	WAR100224-60	03/22/10	1233	2.25	6.24
22	PIBLK03	WAR100219-99	03/22/10	1245	2.25	6.24
23	ZZZZZ	ZZZZZ	03/22/10	1257	2.25	6.24
24	ZZZZZ	ZZZZZ	03/22/10	1310	2.25	6.24
25	ZZZZZ	ZZZZZ	03/22/10	1322	2.25	6.24
26	ZZZZZ	ZZZZZ	03/22/10	1338	2.25	6.24
27	ZZZZZ	ZZZZZ	03/22/10	1355	2.25	6.24
28	AR166003	WAR100224-60	03/22/10	1411	2.25	6.24
29	PIBLK04	WAR100219-99	03/22/10	1424	2.25	6.24
30	ZZZZZ	ZZZZZ	03/22/10	1436	2.25	6.24
31	ZZZZZ	ZZZZZ	03/22/10	1449	2.25	6.24
32	ZZZZZ	ZZZZZ	03/22/10	1501	2.25	6.24

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/22/10	1513	2.25	6.24
02	ZZZZZ	ZZZZZ	03/22/10	1526	2.25	6.24
03	ZZZZZ	ZZZZZ	03/22/10	1538	2.25	6.24
04	ZZZZZ	ZZZZZ	03/22/10	1550	2.25	6.24
05	ZZZZZ	ZZZZZ	03/22/10	1603	2.25	6.24
06	ZZZZZ	ZZZZZ	03/22/10	1615	2.25	6.24
07	ZZZZZ	ZZZZZ	03/22/10	1632	2.25	6.24
08	AR166004	WAR100224-60	03/22/10	1648	2.25	6.24
09	PIBLK05	WAR100219-99	03/22/10	1701	2.25	6.24
10	ZZZZZ	ZZZZZ	03/22/10	1713	2.25	6.24
11	ZZZZZ	ZZZZZ	03/22/10	1725	2.25	6.24
12	ZZZZZ	ZZZZZ	03/22/10	1738	2.25	6.24
13	ZZZZZ	ZZZZZ	03/22/10	1750	2.25	6.24
14	ZZZZZ	ZZZZZ	03/22/10	1802	2.25	6.24
15	ZZZZZ	ZZZZZ	03/22/10	1815	2.25	6.24
16	ZZZZZ	ZZZZZ	03/22/10	1827	2.25	6.24
17	ZZZZZ	ZZZZZ	03/22/10	1839	2.25	6.24
18	ZZZZZ	ZZZZZ	03/22/10	1852	2.25	6.24
19	ZZZZZ	ZZZZZ	03/22/10	1908	2.25	6.24
20	AR166005	WAR100224-60	03/22/10	1925	2.25	6.24
21	PIBLK06	WAR100219-99	03/22/10	1937	2.25	6.24
22	ZZZZZ	ZZZZZ	03/22/10	1950	2.25	6.24
23	AR166006	WAR100224-60	03/22/10	2006	2.25	6.24
24	PIBLK07	WAR100219-99	03/22/10	2018	2.25	6.24
25	PBLK01	1202076355	03/22/10	2031	2.25	6.24
26	PBLK01LCS	1202076356	03/22/10	2043	2.25	6.24
27	ZZZZZ	ZZZZZ	03/22/10	2055	2.25	6.24
28	ZZZZZ	ZZZZZ	03/22/10	2108	2.25	6.24
29	ZZZZZ	ZZZZZ	03/22/10	2120	2.25	6.24
30	ZZZZZ	ZZZZZ	03/22/10	2132	2.25	6.24
31	ZZZZZ	ZZZZZ	03/22/10	2145	2.25	6.24
32	ZZZZZ	ZZZZZ	03/22/10	2157	2.25	6.26

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/22/10	2209	2.26	6.26
02	ZZZZZ	ZZZZZ	03/22/10	2226	2.25	6.24
03	AR166007	WAR100224-60	03/22/10	2242	2.25	6.24
04	PIBLK08	WAR100219-99	03/22/10	2255	2.25	6.24
05	ZZZZZ	ZZZZZ	03/22/10	2307	2.25	6.24
06	RE46-10-1378	248862002	03/22/10	2320	2.25	6.24
07	RE46-10-1378	1202076357	03/22/10	2332	2.25	6.24
08	RE46-10-1378	1202076358	03/22/10	2344	2.25	6.24
09	RE46-10-1378	248862003	03/22/10	2357	2.25	6.24
10	RE46-10-1377	248862004	03/23/10	0009	2.25	6.24
11	RE46-10-1377	248862005	03/23/10	0021	2.25	6.24
12	RE46-10-1377	248862006	03/23/10	0034	2.25	6.24
13	RE46-10-1378	248862007	03/23/10	0046	2.25	6.24
14	RE46-10-1377	248862008	03/23/10	0103	2.25	6.24
15	AR166008	WAR100224-60	03/23/10	0119	2.25	6.24
16	PIBLK09	WAR100219-99	03/23/10	0132	2.25	6.24
17	RE46-10-1378	248862009	03/23/10	0144	2.25	6.24
18	RE46-10-1377	248862010	03/23/10	0200	2.25	6.24
19	AR166009	WAR100224-60	03/23/10	0217	2.25	6.24
20	PIBLK10	WAR100219-99	03/23/10	0229	2.25	6.24
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/22/10	0814	2.48	6.83
02	AR166001	WAR100224-60	03/22/10	0826	2.48	6.83
03	AR125401	WAR100219-54	03/22/10	0839		
04	AR124201	WAR091217-42	03/22/10	0851		
05	AR124801	WAR100223-48	03/22/10	0903		
06	AR123201	WAR100104-32	03/22/10	0916		
07	AR122101	WAR100104-21	03/22/10	0928		
08	AR126201	WAR100104-62	03/22/10	0940		
09	AR126801	WAR100107-68	03/22/10	0953		
10	DDTANALOGSTD	WAR091219-DD	03/22/10	1005		
11	PIBLK02	WAR100219-99	03/22/10	1018	2.48	6.82
12	ZZZZZ	ZZZZZ	03/22/10	1030	2.48	6.82
13	ZZZZZ	ZZZZZ	03/22/10	1042	2.48	6.82
14	ZZZZZ	ZZZZZ	03/22/10	1055	2.48	6.82
15	ZZZZZ	ZZZZZ	03/22/10	1107	2.48	6.82
16	ZZZZZ	ZZZZZ	03/22/10	1119	2.48	6.82
17	ZZZZZ	ZZZZZ	03/22/10	1132	2.48	6.83
18	ZZZZZ	ZZZZZ	03/22/10	1144	2.48	6.82
19	ZZZZZ	ZZZZZ	03/22/10	1200	2.48	6.82
20	ZZZZZ	ZZZZZ	03/22/10	1216	2.48	6.82
21	AR166002	WAR100224-60	03/22/10	1233	2.48	6.82
22	PIBLK03	WAR100219-99	03/22/10	1245	2.48	6.82
23	ZZZZZ	ZZZZZ	03/22/10	1257	2.48	6.82
24	ZZZZZ	ZZZZZ	03/22/10	1310	2.48	6.82
25	ZZZZZ	ZZZZZ	03/22/10	1322	2.48	6.82
26	ZZZZZ	ZZZZZ	03/22/10	1338	2.48	6.82
27	ZZZZZ	ZZZZZ	03/22/10	1355	2.48	6.82
28	AR166003	WAR100224-60	03/22/10	1411	2.48	6.82
29	PIBLK04	WAR100219-99	03/22/10	1424	2.48	6.82
30	ZZZZZ	ZZZZZ	03/22/10	1436	2.48	6.82
31	ZZZZZ	ZZZZZ	03/22/10	1449	2.48	6.82
32	ZZZZZ	ZZZZZ	03/22/10	1501	2.48	6.82

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/22/10	1513	2.48	6.82
02	ZZZZZ	ZZZZZ	03/22/10	1526	2.48	6.82
03	ZZZZZ	ZZZZZ	03/22/10	1538	2.48	6.82
04	ZZZZZ	ZZZZZ	03/22/10	1550	2.48	6.82
05	ZZZZZ	ZZZZZ	03/22/10	1603	2.48	6.82
06	ZZZZZ	ZZZZZ	03/22/10	1615	2.48	6.82
07	ZZZZZ	ZZZZZ	03/22/10	1632	2.48	6.82
08	AR166004	WAR100224-60	03/22/10	1648	2.48	6.82
09	PIBLK05	WAR100219-99	03/22/10	1701	2.48	6.82
10	ZZZZZ	ZZZZZ	03/22/10	1713	2.48	6.82
11	ZZZZZ	ZZZZZ	03/22/10	1725	2.48	6.82
12	ZZZZZ	ZZZZZ	03/22/10	1738	2.48	6.82
13	ZZZZZ	ZZZZZ	03/22/10	1750	2.48	6.82
14	ZZZZZ	ZZZZZ	03/22/10	1802	2.48	6.82
15	ZZZZZ	ZZZZZ	03/22/10	1815	2.48	6.82
16	ZZZZZ	ZZZZZ	03/22/10	1827	2.48	6.82
17	ZZZZZ	ZZZZZ	03/22/10	1839	2.48	6.82
18	ZZZZZ	ZZZZZ	03/22/10	1852	2.48	6.82
19	ZZZZZ	ZZZZZ	03/22/10	1908	2.48	6.82
20	AR166005	WAR100224-60	03/22/10	1925	2.48	6.82
21	PIBLK06	WAR100219-99	03/22/10	1937	2.48	6.82
22	ZZZZZ	ZZZZZ	03/22/10	1950	2.48	6.82
23	AR166006	WAR100224-60	03/22/10	2006	2.48	6.82
24	PIBLK07	WAR100219-99	03/22/10	2018	2.48	6.82
25	PBLK01	1202076355	03/22/10	2031	2.48	6.82
26	PBLK01LCS	1202076356	03/22/10	2043	2.48	6.82
27	ZZZZZ	ZZZZZ	03/22/10	2055	2.48	6.82
28	ZZZZZ	ZZZZZ	03/22/10	2108	2.48	6.82
29	ZZZZZ	ZZZZZ	03/22/10	2120	2.48	6.83
30	ZZZZZ	ZZZZZ	03/22/10	2132	2.48	6.82
31	ZZZZZ	ZZZZZ	03/22/10	2145	2.48	6.83
32	ZZZZZ	ZZZZZ	03/22/10	2157	2.48	6.84

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2314

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/22/10	2209	2.48	6.84
02	ZZZZZ	ZZZZZ	03/22/10	2226	2.48	6.82
03	AR166007	WAR100224-60	03/22/10	2242	2.48	6.82
04	PIBLK08	WAR100219-99	03/22/10	2255	2.48	6.82
05	ZZZZZ	ZZZZZ	03/22/10	2307	2.48	6.83
06	RE46-10-1378	248862002	03/22/10	2320	2.48	6.82
07	RE46-10-1378	1202076357	03/22/10	2332	2.48	6.82
08	RE46-10-1378	1202076358	03/22/10	2344	2.48	6.82
09	RE46-10-1378	248862003	03/22/10	2357	2.48	6.82
10	RE46-10-1377	248862004	03/23/10	0009	2.48	6.82
11	RE46-10-1377	248862005	03/23/10	0021	2.48	6.82
12	RE46-10-1377	248862006	03/23/10	0034	2.48	6.82
13	RE46-10-1378	248862007	03/23/10	0046	2.48	6.83
14	RE46-10-1377	248862008	03/23/10	0103	2.48	6.82
15	AR166008	WAR100224-60	03/23/10	0119	2.48	6.82
16	PIBLK09	WAR100219-99	03/23/10	0132	2.48	6.82
17	RE46-10-1378	248862009	03/23/10	0144	2.48	6.82
18	RE46-10-1377	248862010	03/23/10	0200	2.48	6.82
19	AR166009	WAR100224-60	03/23/10	0217	2.48	6.82
20	PIBLK10	WAR100219-99	03/23/10	0229	2.48	6.82
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–2314 **Client ID:** LCS for batch 967394

Lab Sample ID: 1202076356

Data File:	058f5801.d	**Data File:**	058b5801.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–MAR–10 20:43	**Analyzed:**	22–MAR–10 20:43

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							7.85
Column 1	1	2.8	2.78 – 2.84	22.1		ug/kg	
	2	3.16	3.13 – 3.19	24.2		ug/kg	
	3	3.3	3.27 – 3.33	22.4		ug/kg	
	4	3.39	3.36 – 3.42	23.2		ug/kg	
	5	3.55	3.53 – 3.59	22.3		ug/kg	
					22.8		
Column 2	1	3.55	3.52 – 3.58	26.2		ug/kg	
	2	3.65	3.62 – 3.68	24.2		ug/kg	
	3	3.72	3.69 – 3.75	23.7		ug/kg	
	4	3.8	3.77 – 3.83	25.2		ug/kg	
	5	3.99	3.97 – 4.03	24.3		ug/kg	
					24.7		
Aroclor–1260							7.31
Column 1	1	4.43	4.4 – 4.46	25.9		ug/kg	
	2	4.62	4.6 – 4.66	27.6		ug/kg	
	3	4.9	4.87 – 4.93	27.8		ug/kg	
	4	5.07	5.04 – 5.1	25.5		ug/kg	
	5	5.48	5.45 – 5.51	24		ug/kg	
					26.2		
Column 2	1	4.91	4.88 – 4.94	28.1		ug/kg	
	2	5.06	5.03 – 5.09	28.3		ug/kg	
	3	5.37	5.34 – 5.4	30.1		ug/kg	
	4	5.58	5.55 – 5.61	24.1		ug/kg	
	5	6.01	5.98 – 6.04	30.2		ug/kg	
					28.1		

Identification Summary

SDG Number: 10-2314 **Client ID:** RE46-10-13779

Lab Sample ID: 248862008

Data File:	078f7801.d	**Data File:**	078b7801.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23-MAR-10 01:03	**Analyzed:**	23-MAR-10 01:03

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							2.7
Column 1	1	3.83	3.8 – 3.86	71.9		ug/kg	
	2	4.02	3.99 – 4.05	70.3		ug/kg	
	3	4.21	4.18 – 4.24	66.7		ug/kg	
	4	4.3	4.27 – 4.33	71.1		ug/kg	
	5	4.49	4.47 – 4.53	72.8		ug/kg	
					70.6		
Column 2	1	4.3	4.27 – 4.33	69.2		ug/kg	
	2	4.44	4.41 – 4.47	69		ug/kg	
	3	4.77	4.74 – 4.8	73.2		ug/kg	
	4	4.93	4.9 – 4.96	66.4		ug/kg	
	5	5.06	5.03 – 5.09	84.8		ug/kg	
					72.5		

Identification Summary

SDG Number: 10–2314 **Client ID:** RE46–10–13782MS

Lab Sample ID: 1202076357

Data File:	071f7101.d	**Data File:**	071b7101.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–MAR–10 23:32	**Analyzed:**	22–MAR–10 23:32

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							3.17
Column 1	1	2.81	2.78 – 2.84	34.6		ug/kg	
	2	3.16	3.13 – 3.19	34.8		ug/kg	
	3	3.3	3.27 – 3.33	34.2		ug/kg	
	4	3.39	3.36 – 3.42	35.7		ug/kg	
	5	3.55	3.53 – 3.59	34.8		ug/kg	
					34.8		
Column 2	1	3.55	3.52 – 3.58	34.1		ug/kg	
	2	3.65	3.62 – 3.68	33.2		ug/kg	
	3	3.72	3.69 – 3.75	33.1		ug/kg	
	4	3.8	3.77 – 3.83	34.9		ug/kg	
	5	3.99	3.97 – 4.03	33.5		ug/kg	
					33.7		
Aroclor–1260							5.64
Column 1	1	4.43	4.4 – 4.46	37.5		ug/kg	
	2	4.62	4.6 – 4.66	39.1		ug/kg	
	3	4.9	4.87 – 4.93	37.2		ug/kg	
	4	5.07	5.04 – 5.1	37.9		ug/kg	
	5	5.48	5.45 – 5.51	41.8		ug/kg	
					38.7		
Column 2	1	4.91	4.88 – 4.94	39.2		ug/kg	
	2	5.06	5.03 – 5.09	38.5		ug/kg	
	3	5.37	5.34 – 5.4	41.8		ug/kg	
	4	5.58	5.55 – 5.61	41.6		ug/kg	
	5	6.01	5.98 – 6.04	43.6		ug/kg	
					40.9		

Identification Summary

SDG Number: 10–2314 **Client ID:** RE46–10–13782MSD

Lab Sample ID: 1202076358

Data File:	072f7201.d	**Data File:**	072b7201.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–MAR–10 23:44	**Analyzed:**	22–MAR–10 23:44

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							3.52
Column 1	1	2.81	2.78 – 2.84	42.2		ug/kg	
	2	3.16	3.13 – 3.19	42.9		ug/kg	
	3	3.3	3.27 – 3.33	42.1		ug/kg	
	4	3.39	3.36 – 3.42	44.9		ug/kg	
	5	3.56	3.53 – 3.59	43.2		ug/kg	
					43.1		
Column 2	1	3.55	3.52 – 3.58	42.5		ug/kg	
	2	3.65	3.62 – 3.68	40.7		ug/kg	
	3	3.72	3.69 – 3.75	40.5		ug/kg	
	4	3.8	3.77 – 3.83	42.6		ug/kg	
	5	4	3.97 – 4.03	41.5		ug/kg	
					41.6		
Aroclor–1260							.59
Column 1	1	4.43	4.4 – 4.46	47.8		ug/kg	
	2	4.63	4.6 – 4.66	48.5		ug/kg	
	3	4.9	4.87 – 4.93	46.9		ug/kg	
	4	5.07	5.04 – 5.1	47.1		ug/kg	
	5	5.48	5.45 – 5.51	52.2		ug/kg	
					48.5		
Column 2	1	4.91	4.88 – 4.94	47.3		ug/kg	
	2	5.06	5.03 – 5.09	46.8		ug/kg	
	3	5.37	5.34 – 5.4	50.2		ug/kg	
	4	5.58	5.55 – 5.61	48.2		ug/kg	
	5	6.01	5.98 – 6.04	51.3		ug/kg	
					48.8		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076355**				
Client Sample:	**QC for batch 967394**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 967394**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 20:31**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**057f5701-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	057b5701-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/057f5701-1.d
Lab Smp Id: 1202076355 Client Smp ID: PBLK01
Inj Date : 22-MAR-2010 20:31
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202076355|1|
Misc Info : |ECD82P_1S|967396|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 57 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.249	-0.001	21468939	171.805	5.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.240	-0.001	15258832	185.290	6.2	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032210.b/057f5701-1.d

Date : 22-MAR-2010 20:31

Client ID: PBLK01

Sample Info: |120207635511|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

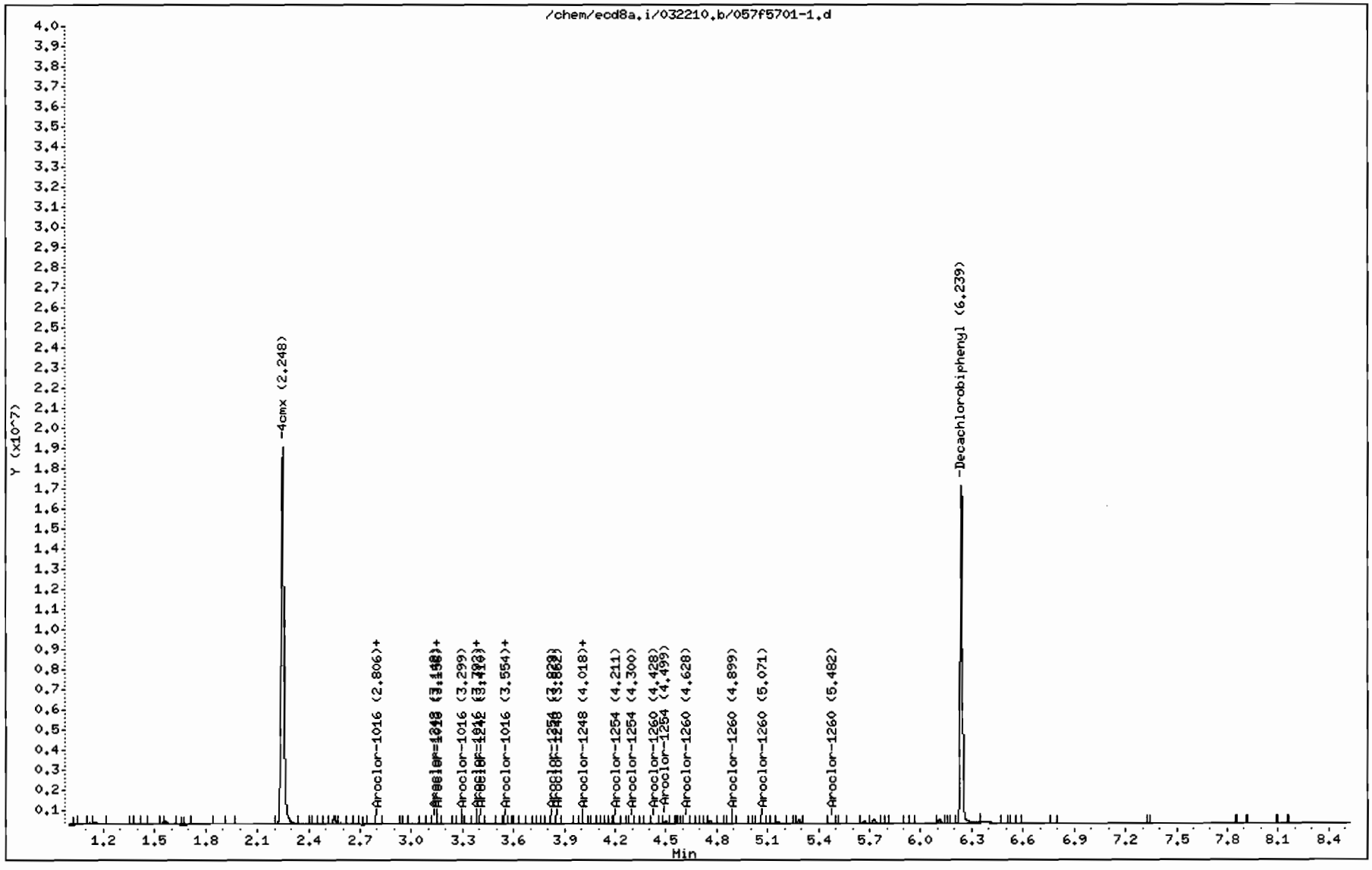

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/057b5701-1.d
Lab Smp Id: 1202076355 Client Smp ID: PBLK01
Inj Date : 22-MAR-2010 20:31
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202076355|1|
Misc Info : |ECD82P_1S|967396|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 57 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	15380433	184.016	6.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.825	-0.002	11651762	196.646	6.6	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032210.b/057b5701-1.d

Date : 22-MAR-2010 20:31

Client ID: PBLK01

Sample Info: |1202076355|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

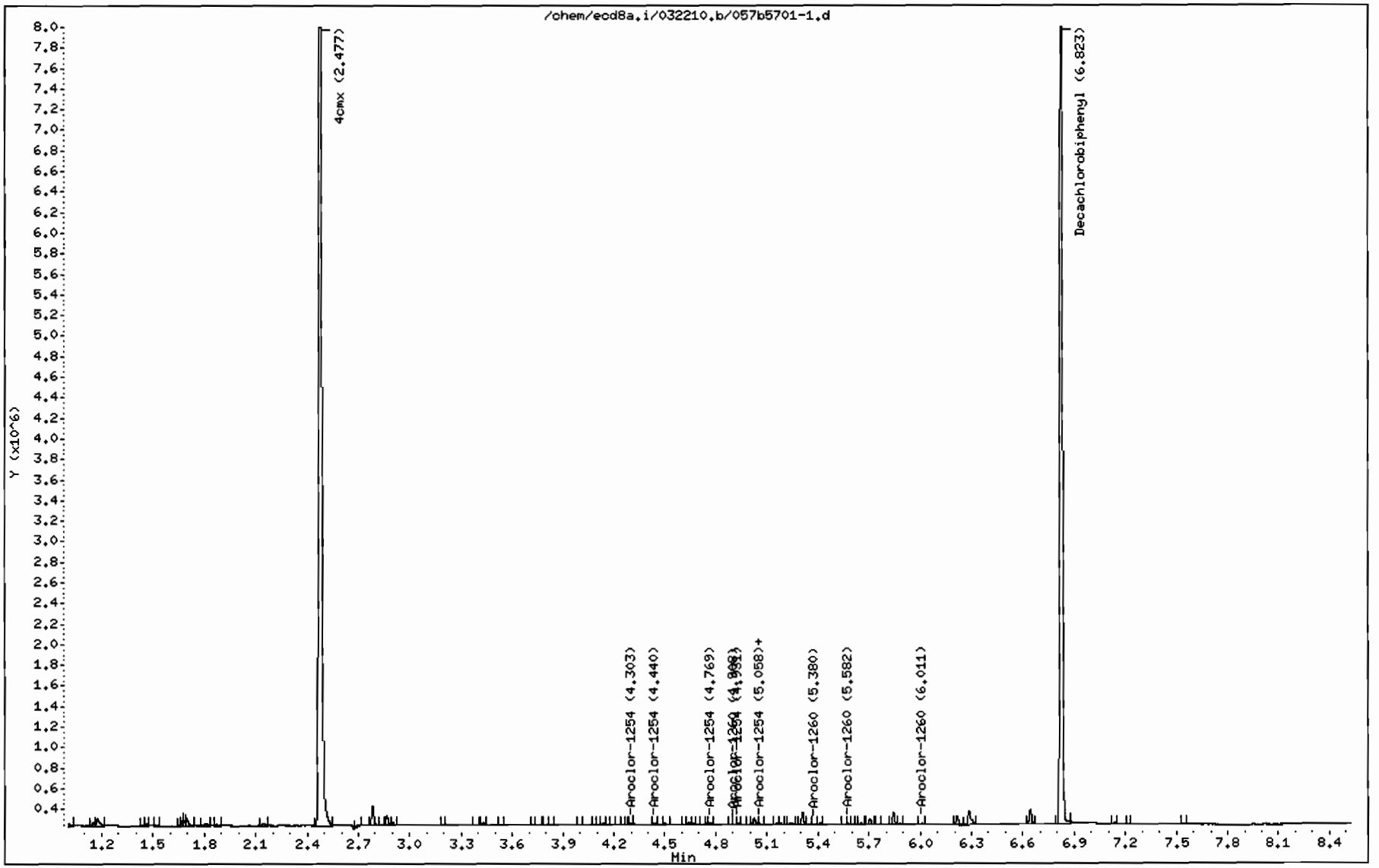

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2314**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076356**				
Client Sample:	**QC for batch 967394**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967394**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 20:43**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**058f5801-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	058b5801-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		24.7	ug/kg	1.11	3.33	2
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		28.2	ug/kg	1.11	3.33	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/058f5801-1.d
Lab Smp Id: 1202076356 Client Smp ID: PBLK01LCS
Inj Date : 22-MAR-2010 20:43
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202076356|1|
Misc Info : |ECD82P_1S|967396|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 58 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.249	-0.001	21618809	173.004	5.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.240	-0.001	10983975	133.380	4.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.805	2.805	0.000	3168531	663.946	22.1	80.00- 120.00	100.00
3.157	3.158	-0.001	3917591	725.830	24.2	101.30- 141.30	123.64
3.300	3.301	-0.001	1583002	673.147	22.4	31.29- 71.29	49.96
3.392	3.393	-0.001	1522567	694.739	23.2	26.75- 66.75	48.05

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.555	3.555	0.000	2061930	669.687	22.3	46.86- 86.86	65.08
Average of Peak Concentrations =					22.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.430	-0.002	4568523	775.633	25.8	80.00- 120.00	100.00
4.624	4.625	-0.001	7025392	826.975	27.6	126.61- 166.61	153.78
4.900	4.900	0.000	4228846	834.706	27.8	65.41- 105.41	92.56
5.072	5.073	-0.001	4082513	766.091	25.5	71.29- 111.29	89.36
5.482	5.485	-0.003	4068453	721.231	24.0	78.39- 118.39	89.05
Average of Peak Concentrations =					26.1		

Data File: /chem/ecd8a.i/032210.b/058f5801-1.d

Date : 22-MAR-2010 20:43

Client ID: PBLK01LCS

Sample Info: |1202076356|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

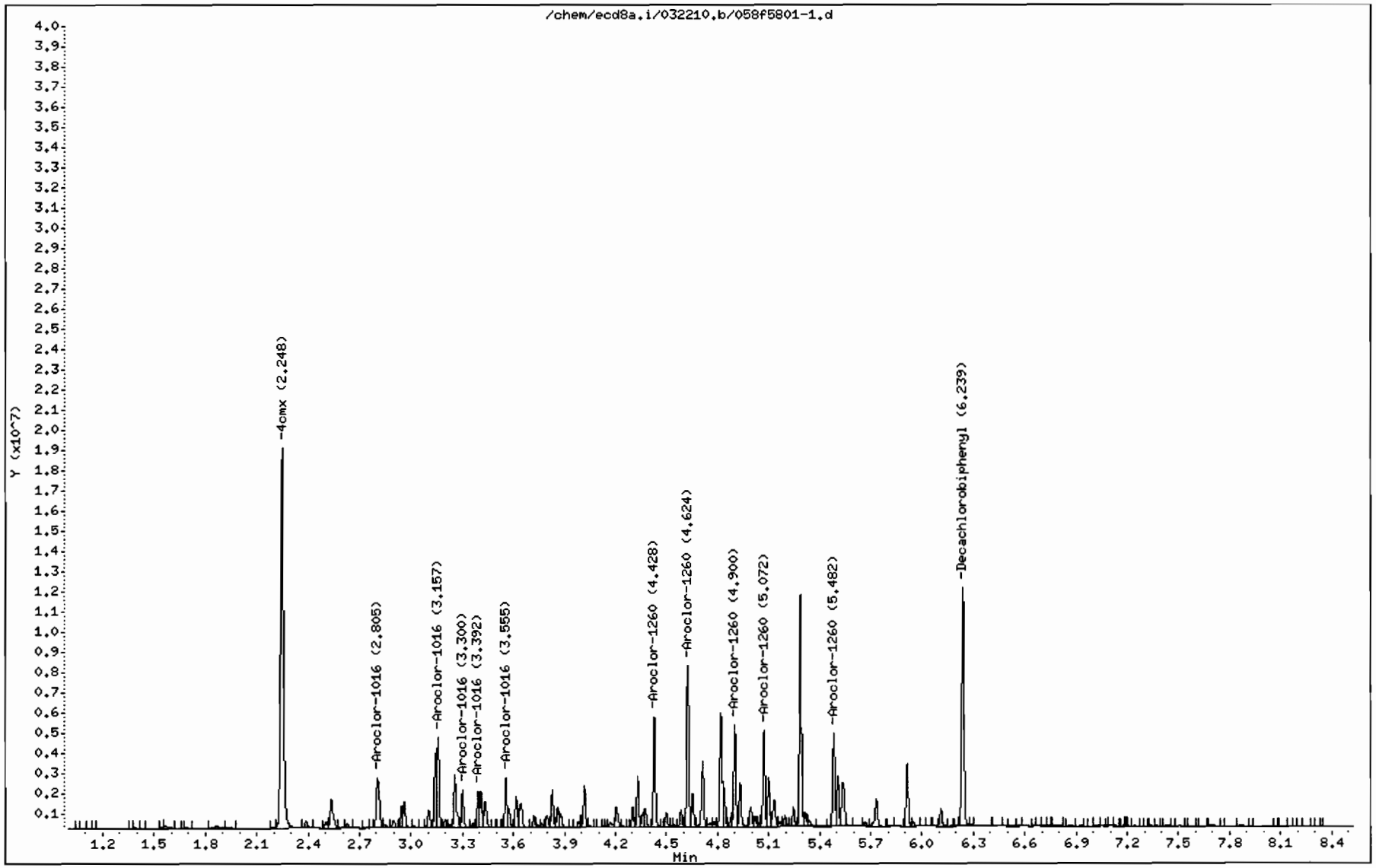

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/058b5801-1.d
Lab Smp Id: 1202076356 Client Smp ID: PBLK01LCS
Inj Date : 22-MAR-2010 20:43
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202076356|1|
Misc Info : |ECD82P_1S|967396|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 58 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	15643068	187.158	6.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.825	-0.001	11898684	200.813	6.7	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.549	-0.001	2886117	784.746	26.2	80.00- 120.00	100.00(M)
3.647	3.648	-0.001	1850726	725.437	24.2	46.77- 86.77	64.13
3.723	3.724	-0.001	1060947	711.075	23.7	20.25- 60.25	36.76
3.798	3.800	-0.002	1116619	755.645	25.2	18.74- 58.74	38.69

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.995	3.995	0.000	1478806	730.345	24.3	33.82- 73.82	51.24
Average of Peak Concentrations =					24.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.908	4.909	-0.001	3323321	843.803	28.1	80.00- 120.00	100.00(M)
5.057	5.058	-0.001	4012770	848.280	28.3	101.53- 141.53	120.75
5.373	5.375	-0.002	3240621	903.523	30.1	71.56- 111.56	97.51
5.580	5.581	-0.001	2680633	722.107	24.1	75.17- 115.17	80.66
6.011	6.013	-0.002	5285247	904.802	30.2	132.27- 172.27	159.04
Average of Peak Concentrations =					28.2		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/058b5801-1.d
Date : 22-MAR-2010 20:43
Client ID: PBLK01LCS
Sample Info: !120207635614!
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JADC
Column diameter: 0.25

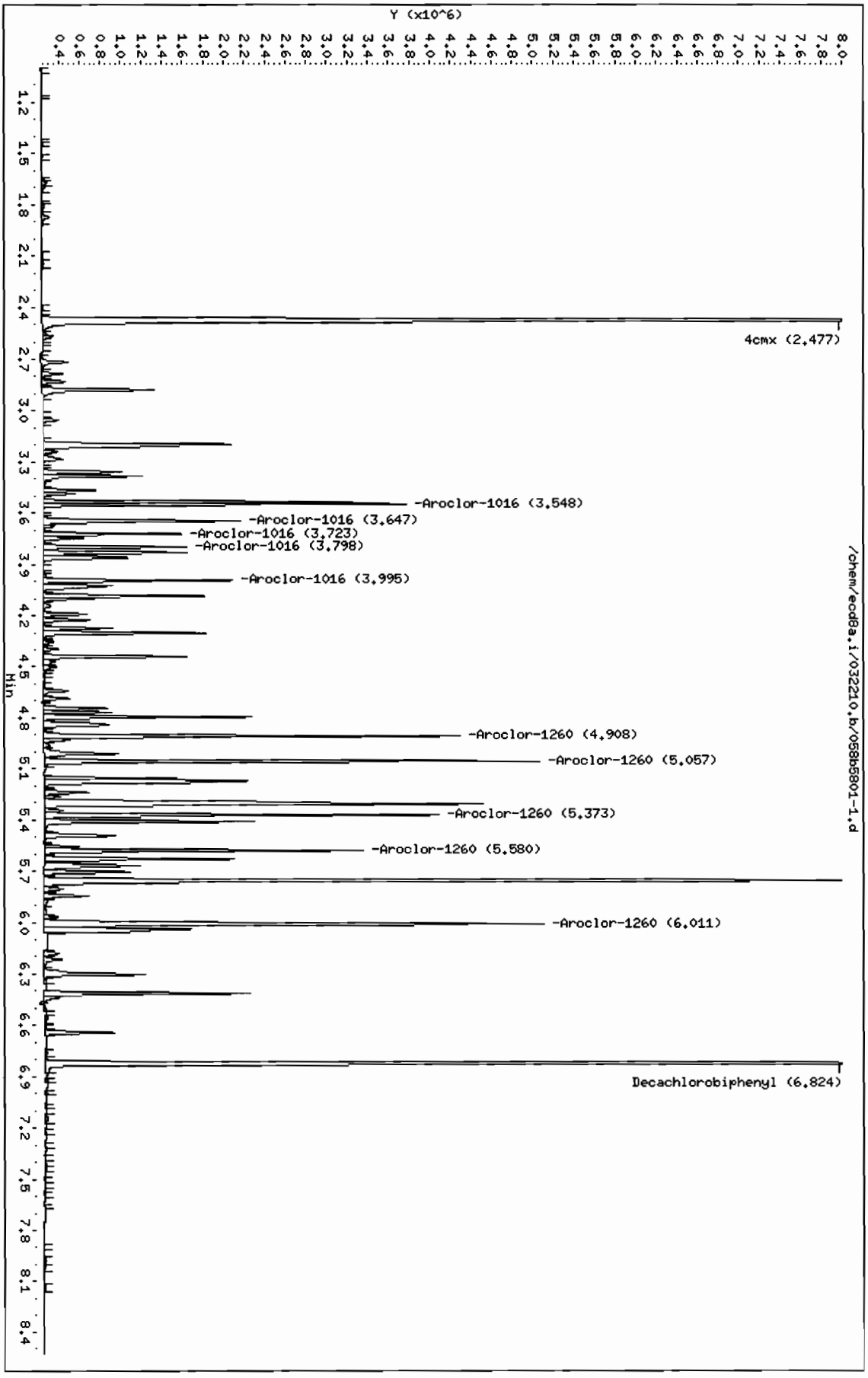

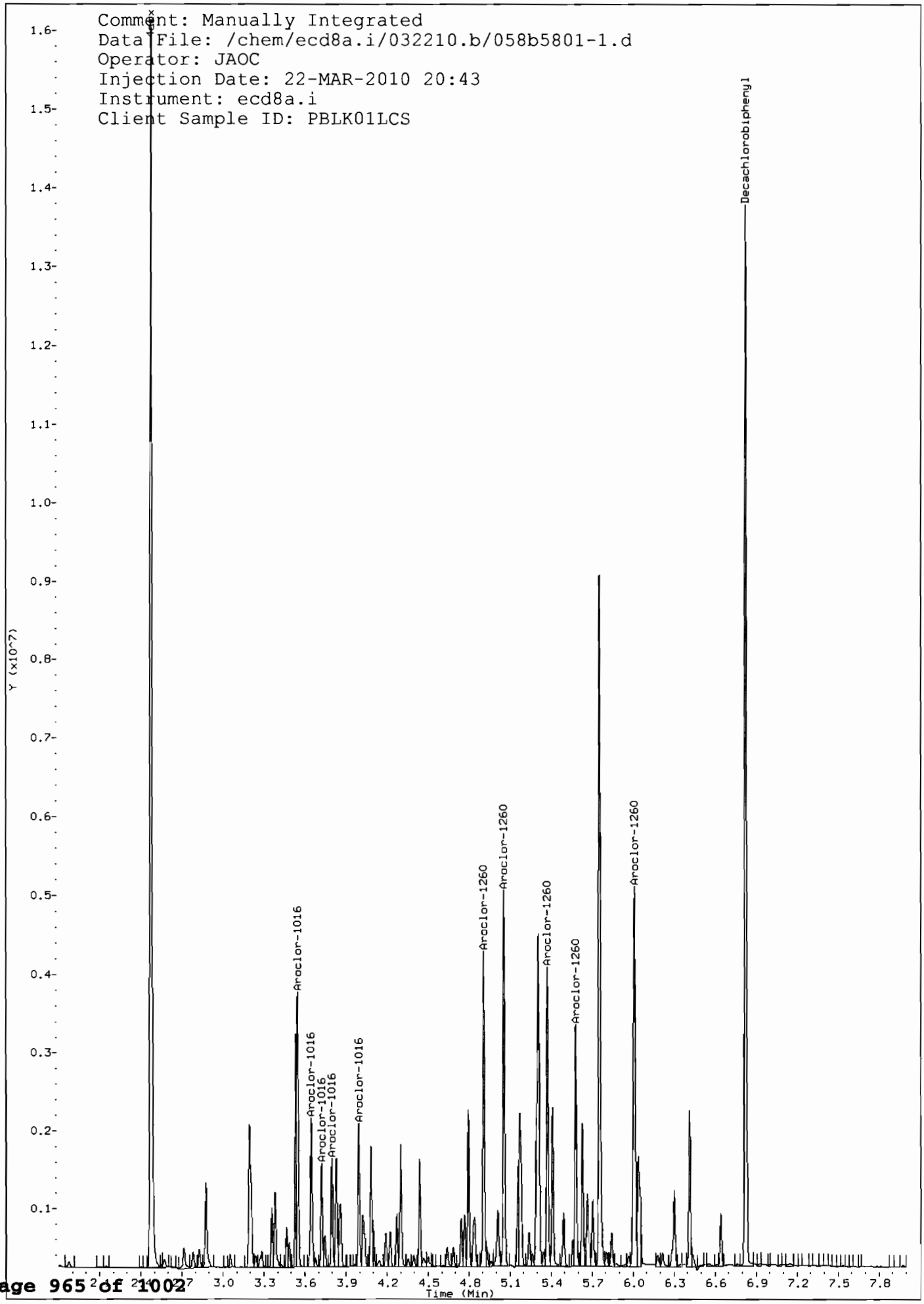
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/058b5801-1.d
Operator: JAOC
Injection Date: 22-MAR-2010 20:43
Instrument: ecd8a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
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Y (x10^7)
Time (Min)

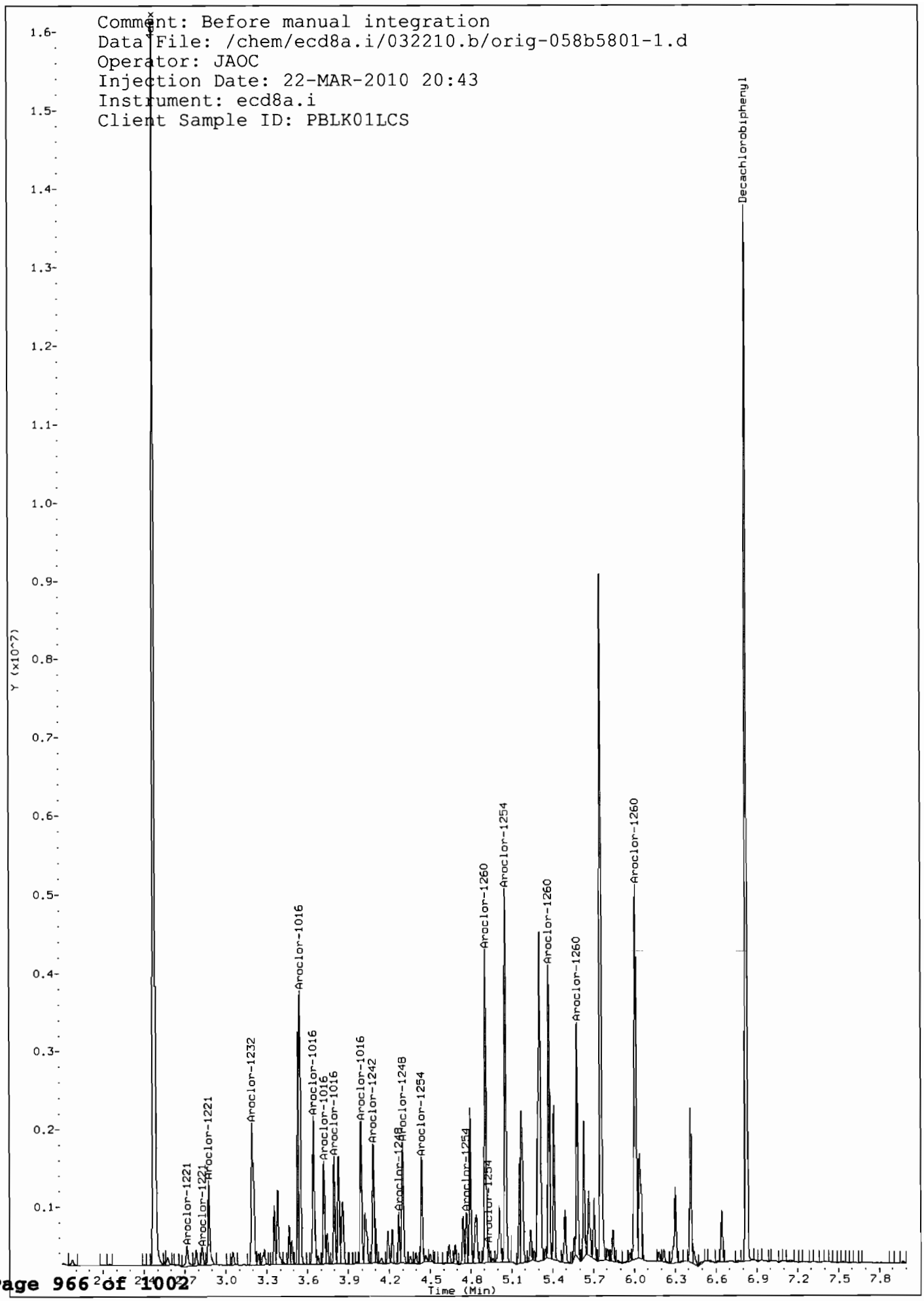
Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-058b5801-1.d
Operator: JAOC
Injection Date: 22-MAR-2010 20:43
Instrument: ecd8a.i
Client Sample ID: PBLK01LCS
Y (x10^7)
Time (Min)
Decachlorobiphenyl
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2314**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202076357**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**13.9**
Client Sample:	**QC for batch 967394**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46–10–13782MS**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 23:32**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**071f7101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	071b7101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		34.8	ug/kg	6.44	19.3	1
11104–28–2	Aroclor–1221	U	19.3	ug/kg	6.44	19.3	1
11141–16–5	Aroclor–1232	U	19.3	ug/kg	6.44	19.3	1
53469–21–9	Aroclor–1242	U	19.3	ug/kg	6.44	19.3	1
12672–29–6	Aroclor–1248	U	19.3	ug/kg	6.44	19.3	1
11097–69–1	Aroclor–1254	U	19.3	ug/kg	6.44	19.3	1
11096–82–5	Aroclor–1260		38.7	ug/kg	6.44	19.3	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/071f7101.d
Lab Smp Id: 1202076357 Client Smp ID: RE46-10-13782MS
Inj Date : 22-MAR-2010 23:32
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202076357|5|
Misc Info : |ECD82P_1S|967396|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 71 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	13.92880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.249	-0.001	4487218	35.9088	6.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.240	-0.001	3447761	41.8666	8.1	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
2.806	2.805	0.001	853883	178.926	34.6	80.00- 120.00	100.00
3.157	3.158	-0.001	972899	180.253	34.8	101.30- 141.30	113.94
3.300	3.301	-0.001	415677	176.760	34.2	31.29- 71.29	48.68
3.392	3.393	-0.001	405265	184.920	35.7	26.75- 66.75	47.46
3.555	3.555	0.000	554678	180.152	34.8	46.86- 86.86	64.96
Average of Peak Concentrations =					34.8		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.429	4.430	-0.001	1143747	194.183	37.5	80.00- 120.00	100.00(M)
4.625	4.625	0.000	1717130	202.127	39.1	126.61- 166.61	150.13
4.901	4.900	0.001	974743	192.399	37.2	65.41- 105.41	85.22
5.072	5.073	-0.001	1045512	196.192	37.9	71.29- 111.29	91.41
5.483	5.485	-0.002	1220255	216.320	41.8	78.39- 118.39	106.69
Average of Peak Concentrations =					38.7		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/071f7101.d
Date : 22-MAR-2010 23:32
Client ID: RE46-10-13782MS
Sample Info: |1202076357|5|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

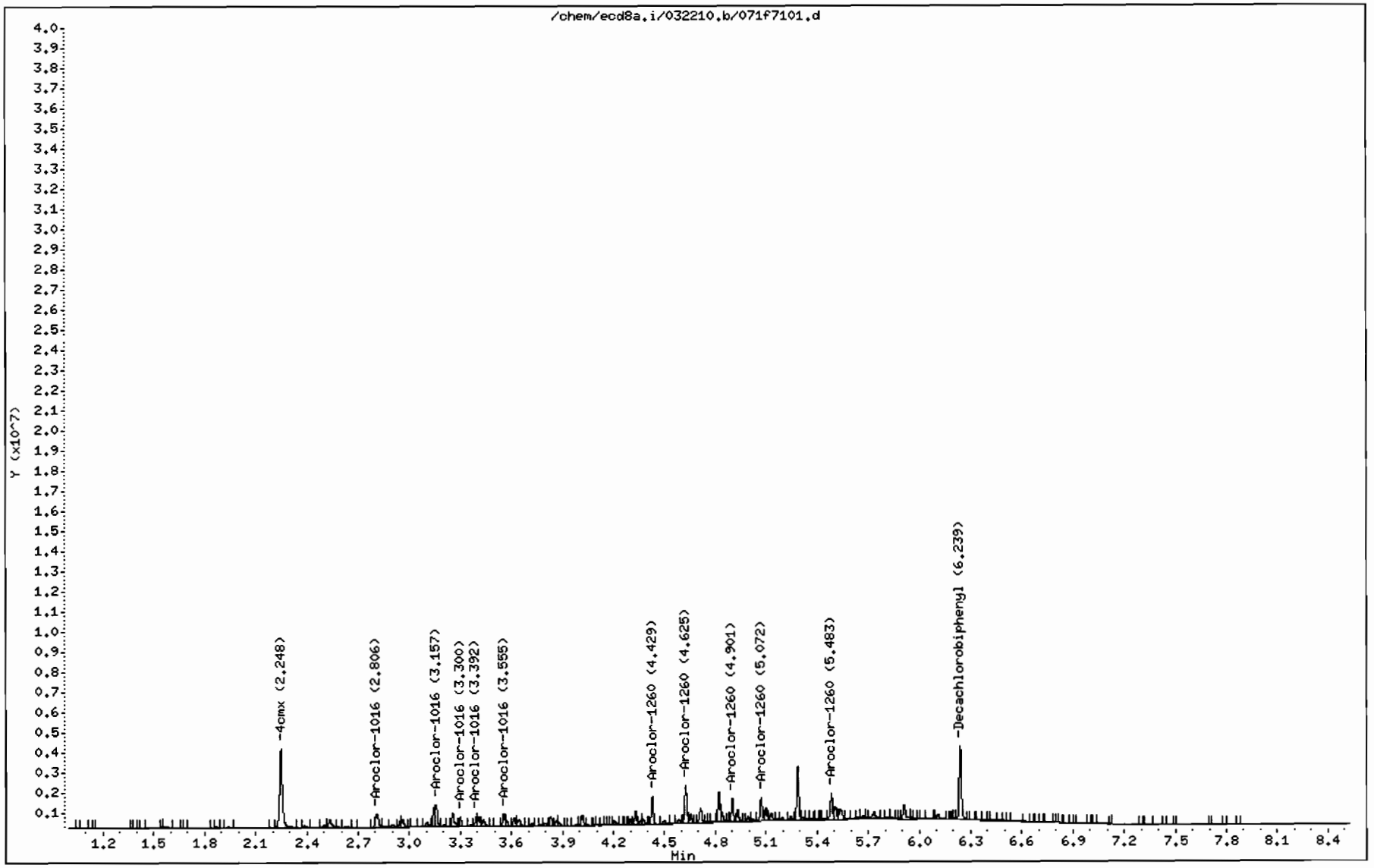

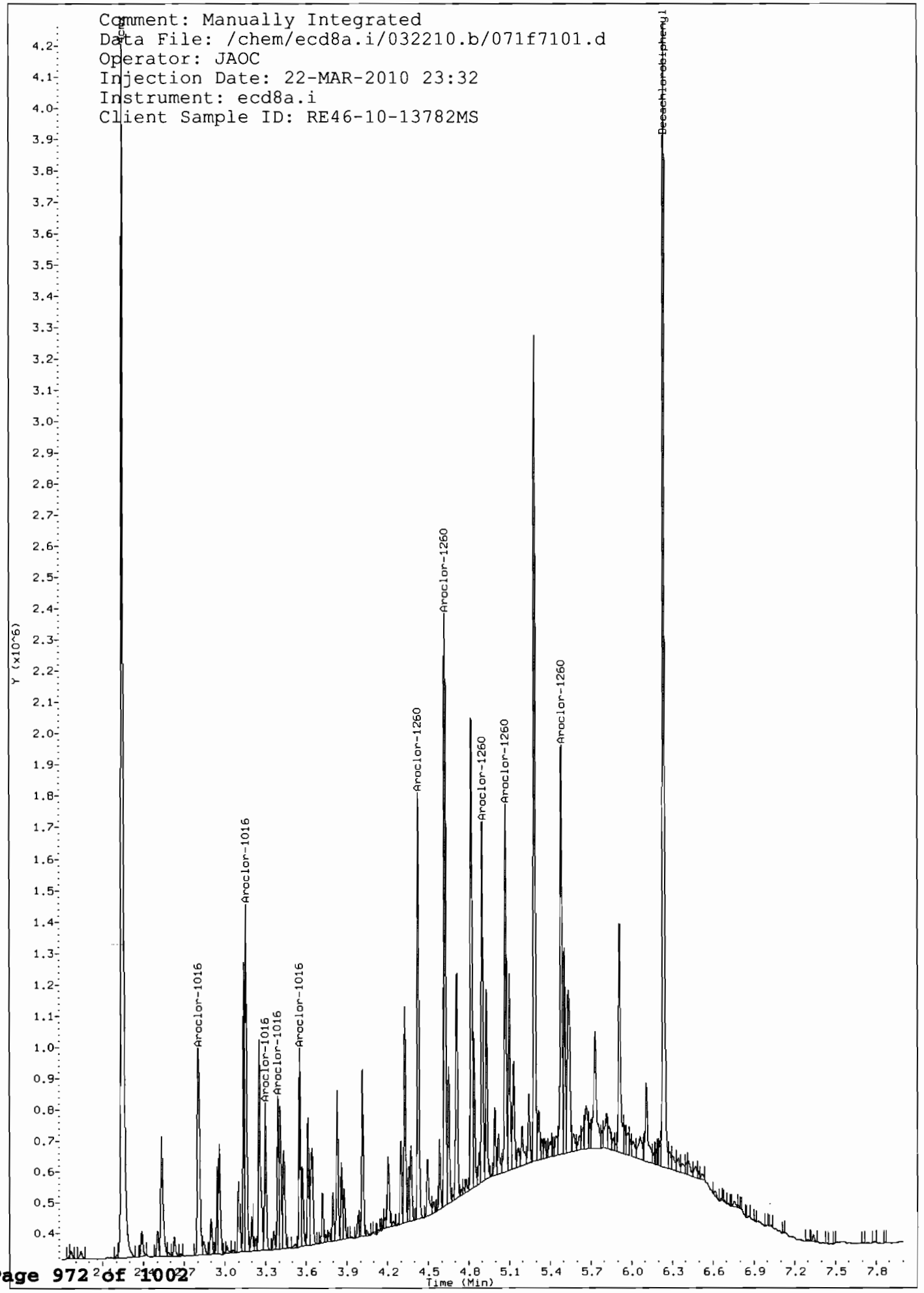
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/071f7101.d
Operator: JAOC
Injection Date: 22-MAR-2010 23:32
Instrument: ecd8a.i
Client Sample ID: RE46-10-13782MS
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^6)
Time (Min)

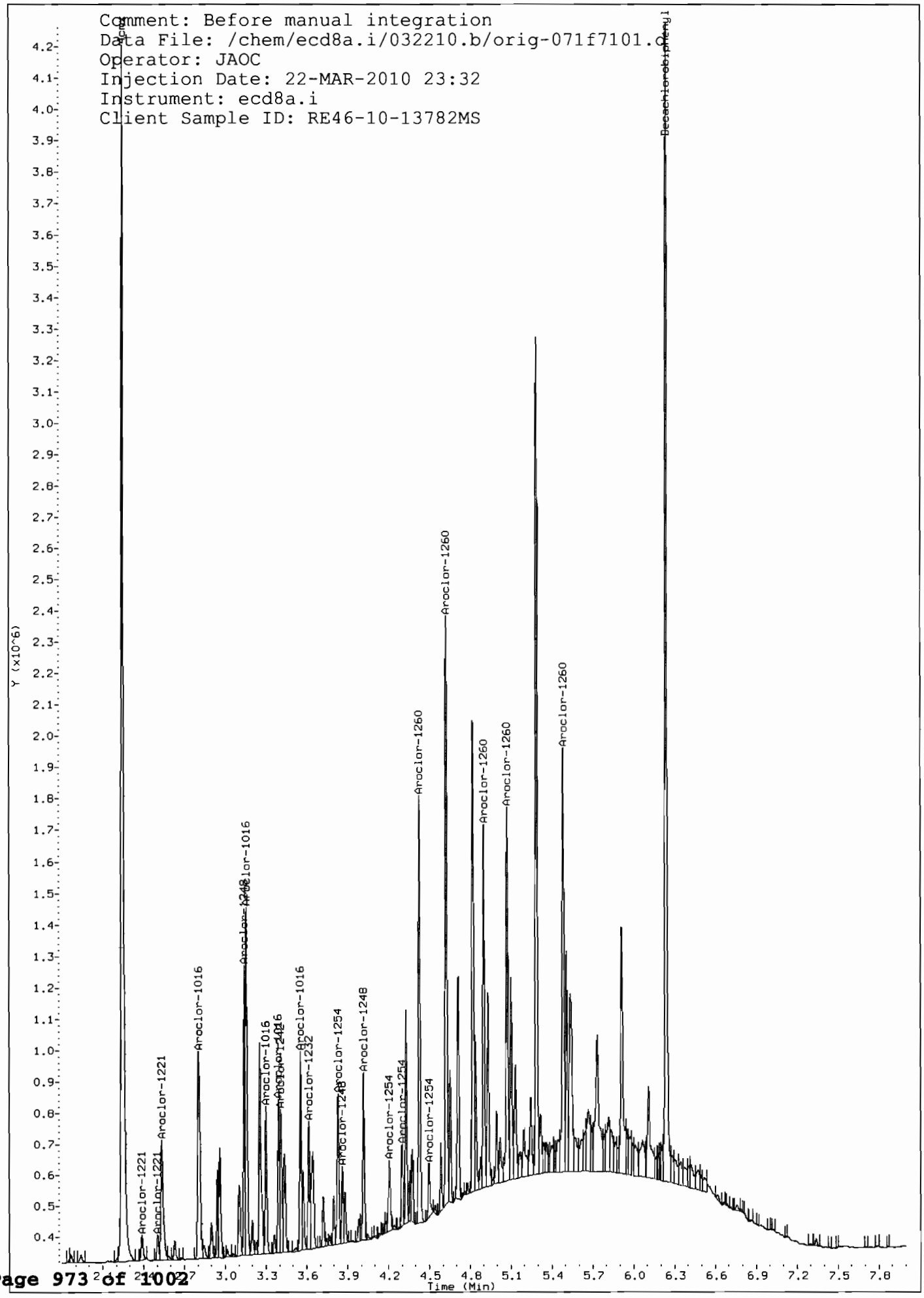
Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-071f7101.d
Operator: JAOC
Injection Date: 22-MAR-2010 23:32
Instrument: ecd8a.i
Client Sample ID: RE46-10-13782MS
Y (x10^6)
Time (Min)
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1254
Aroclor-1248
Aroclor-1260

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/071b7101.d
Lab Smp Id: 1202076357 Client Smp ID: RE46-10-13782MS
Inj Date : 22-MAR-2010 23:32
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202076357|5|
Misc Info : |ECD82P_1S|967396|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 71 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	13.92880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	3001245	35.9077	6.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.825	-0.001	2428289	40.9821	7.9	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.549	-0.001	648479	176.324	34.1	80.00- 120.00	100.00(M)
3.647	3.648	-0.001	437998	171.684	33.2	46.77- 86.77	67.54
3.723	3.724	-0.001	255326	171.126	33.1	20.25- 60.25	39.37
3.798	3.800	-0.002	266472	180.328	34.8	18.74- 58.74	41.09
3.995	3.995	0.000	351240	173.469	33.5	33.82- 73.82	54.16

Average of Peak Concentrations = 33.7

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.909	-0.002	799677	203.041	39.2	80.00- 120.00	100.00(M)
5.057	5.058	-0.001	942882	199.321	38.5	101.53- 141.53	117.91
5.373	5.375	-0.002	776077	216.379	41.8	71.56- 111.56	97.05
5.580	5.581	-0.001	798208	215.021	41.6	75.17- 115.17	99.82
6.012	6.013	-0.001	1317771	225.594	43.6	132.27- 172.27	164.79
			Average of Peak Concentrations =		40.9		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/071b7101.d

Page 1

Date : 22-MAR-2010 23:32

Client ID: RE46-10-13782MS

Instrument: ecd8a.i

Sample Info: |120207635715|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

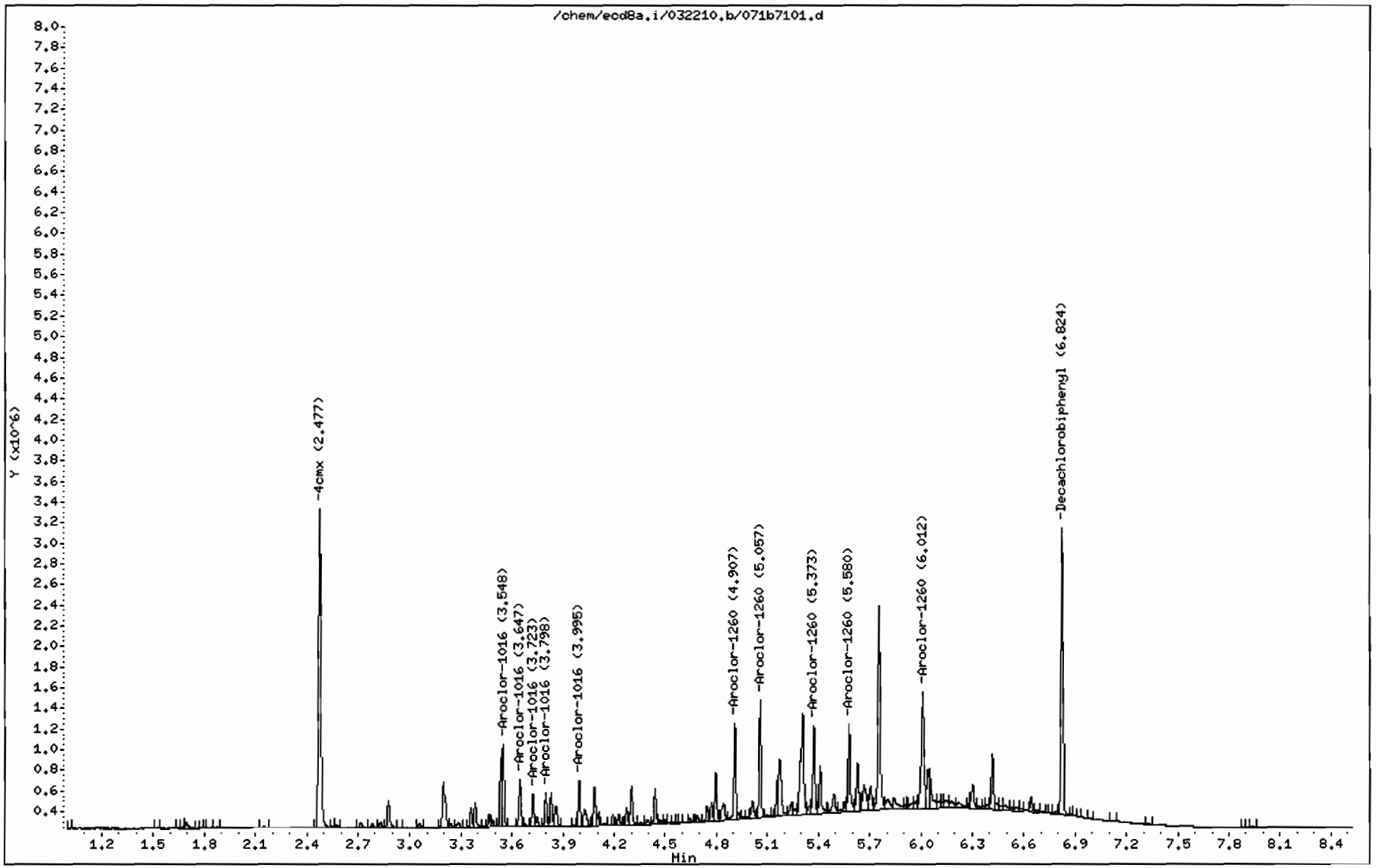

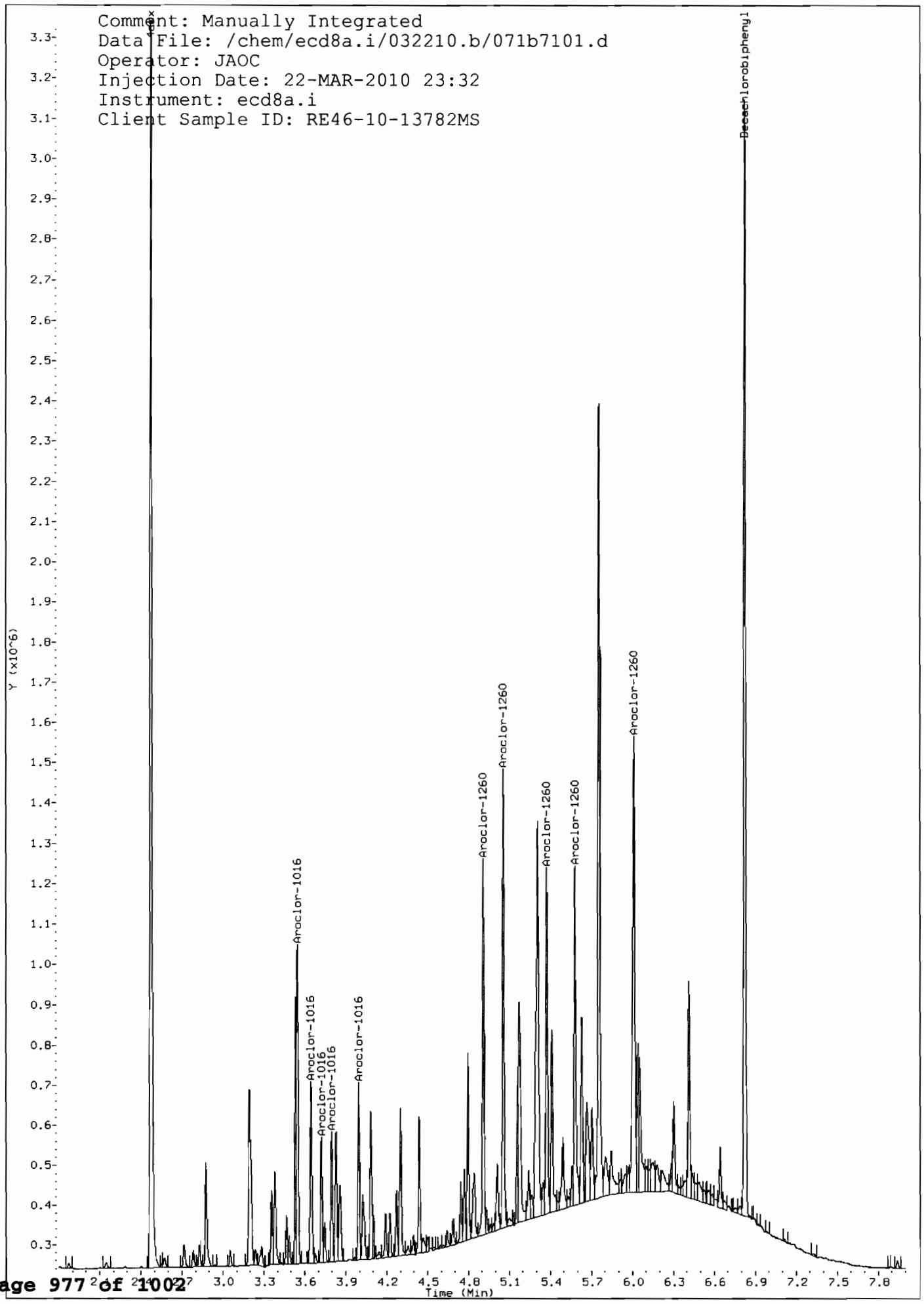
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/071b7101.d
Operator: JAOC
Injection Date: 22-MAR-2010 23:32
Instrument: ecd8a.i
Client Sample ID: RE46-10-13782MS
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^6)
Time (Min)

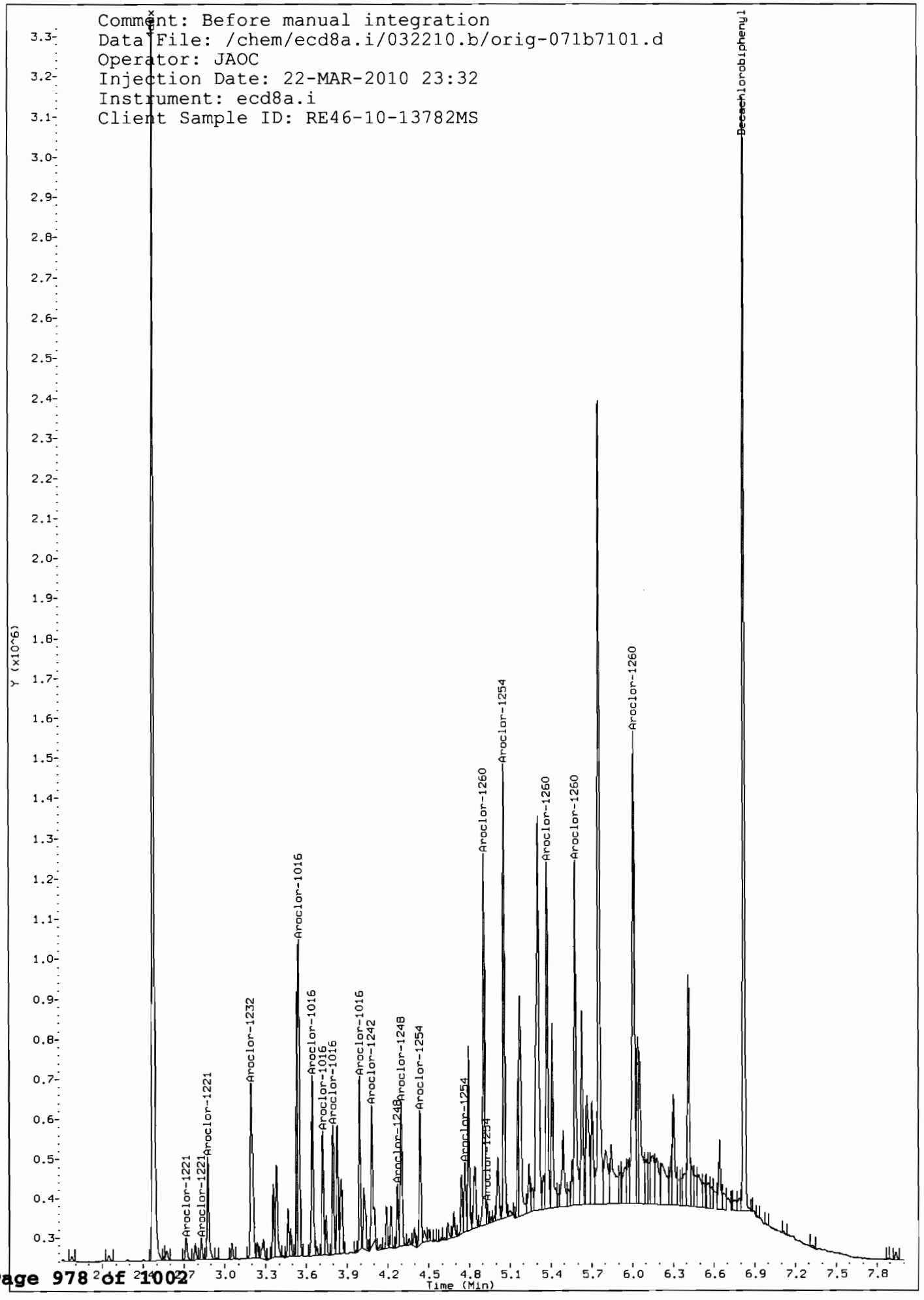
Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-071b7101.d
Operator: JAOC
Injection Date: 22-MAR-2010 23:32
Instrument: ecd8a.i
Client Sample ID: RE46-10-13782MS
Decachlorobiphenyl
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1242
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Aroclor-1254
Aroclor-1260
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^6)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2314	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202076358	**Date Received:**	03/06/2010 09:15	**%Moisture:**	13.9
Client Sample:	QC for batch 967394	**Client:**	LANL010	**Project:**	QC
Client ID:	RE46–10–13782MSD	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967396	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/22/2010 23:44	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 12:13	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	072f7201.d	**Column:**	1 CLP1	**Level:**	LOW
	072b7201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		43.1	ug/kg	6.43	19.3	1
11104–28–2	Aroclor–1221	U	19.3	ug/kg	6.43	19.3	1
11141–16–5	Aroclor–1232	U	19.3	ug/kg	6.43	19.3	1
53469–21–9	Aroclor–1242	U	19.3	ug/kg	6.43	19.3	1
12672–29–6	Aroclor–1248	U	19.3	ug/kg	6.43	19.3	1
11097–69–1	Aroclor–1254	U	19.3	ug/kg	6.43	19.3	1
11096–82–5	Aroclor–1260		48.5	ug/kg	6.43	19.3	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/072f7201.d
Lab Smp Id: 1202076358 Client Smp ID: RE46-10-13782MSD
Inj Date : 22-MAR-2010 23:44
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202076358|5|
Misc Info : |ECD82P_1S|967396|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 72 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	13.92880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.249	-0.001	5404924	43.2527	8.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.240	-0.001	4191140	50.8936	9.8	80.00- 120.00	100.00(RM)
1 Aroclor-1016					CAS #: 12674-11-2		
2.806	2.805	0.001	1041834	218.310	42.2	80.00- 120.00	100.00
3.157	3.158	-0.001	1198926	222.130	42.9	101.30- 141.30	115.08
3.301	3.301	0.000	512200	217.805	42.1	31.29- 71.29	49.16
3.393	3.393	0.000	510004	232.712	44.9	26.75- 66.75	48.95
3.555	3.555	0.000	689498	223.940	43.2	46.86- 86.86	66.18

Average of Peak Concentrations = 43.1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.429	4.430	-0.001	1456947	247.357	47.8	80.00- 120.00	100.00(RM)
4.625	4.625	0.000	2133211	251.105	48.5	126.61- 166.61	146.42
4.900	4.900	0.000	1231809	243.139	47.0	65.41- 105.41	84.55
5.073	5.073	0.000	1300477	244.037	47.1	71.29- 111.29	89.26
5.483	5.485	-0.002	1524595	270.271	52.2	78.39- 118.39	104.64
			Average of Peak Concentrations =		48.5		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/072f7201.d

Page 1

Date : 22-MAR-2010 23:44

Client ID: RE46-10-13782MSD

Instrument: ecd8a.i

Sample Info: |120207635815|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

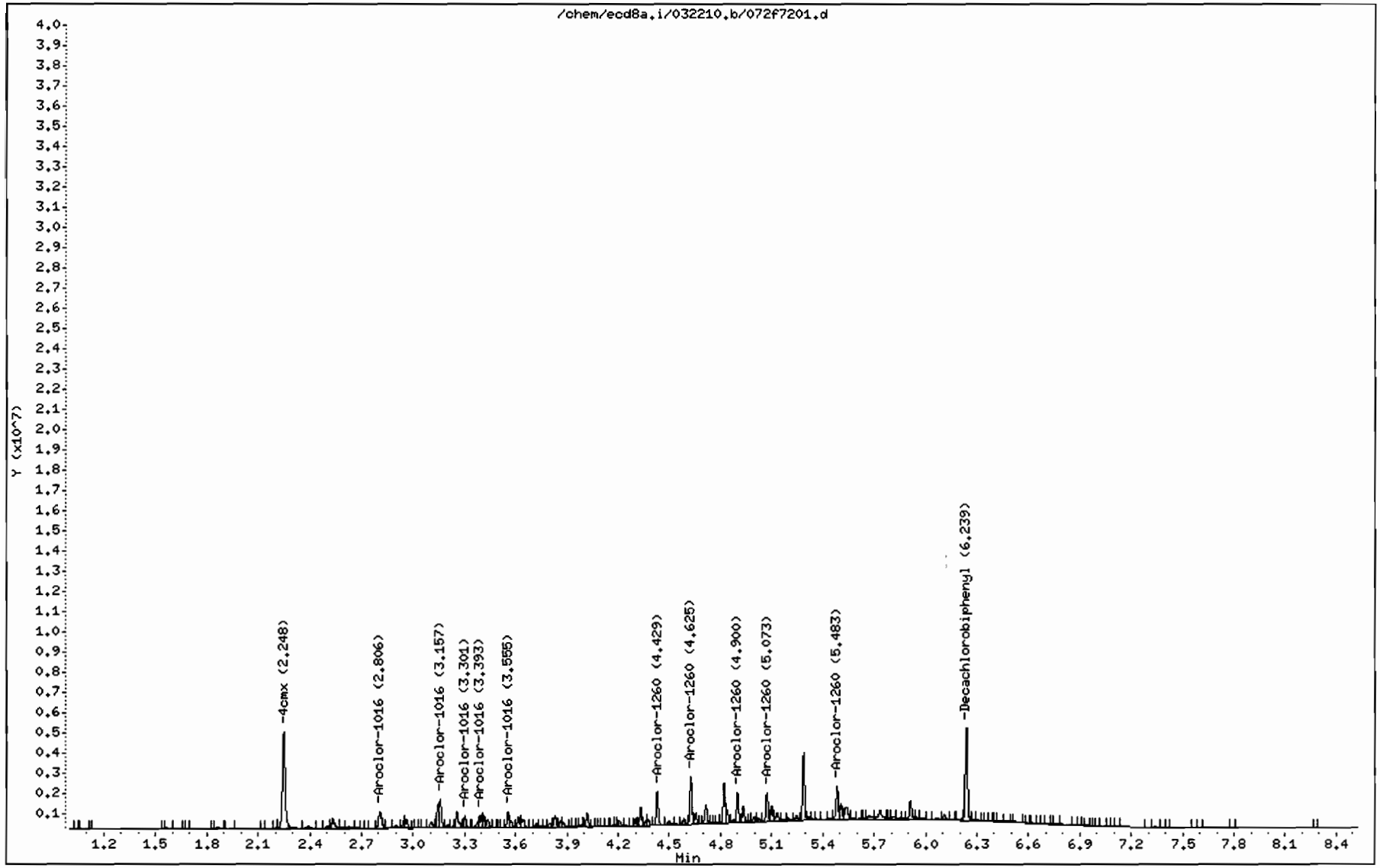

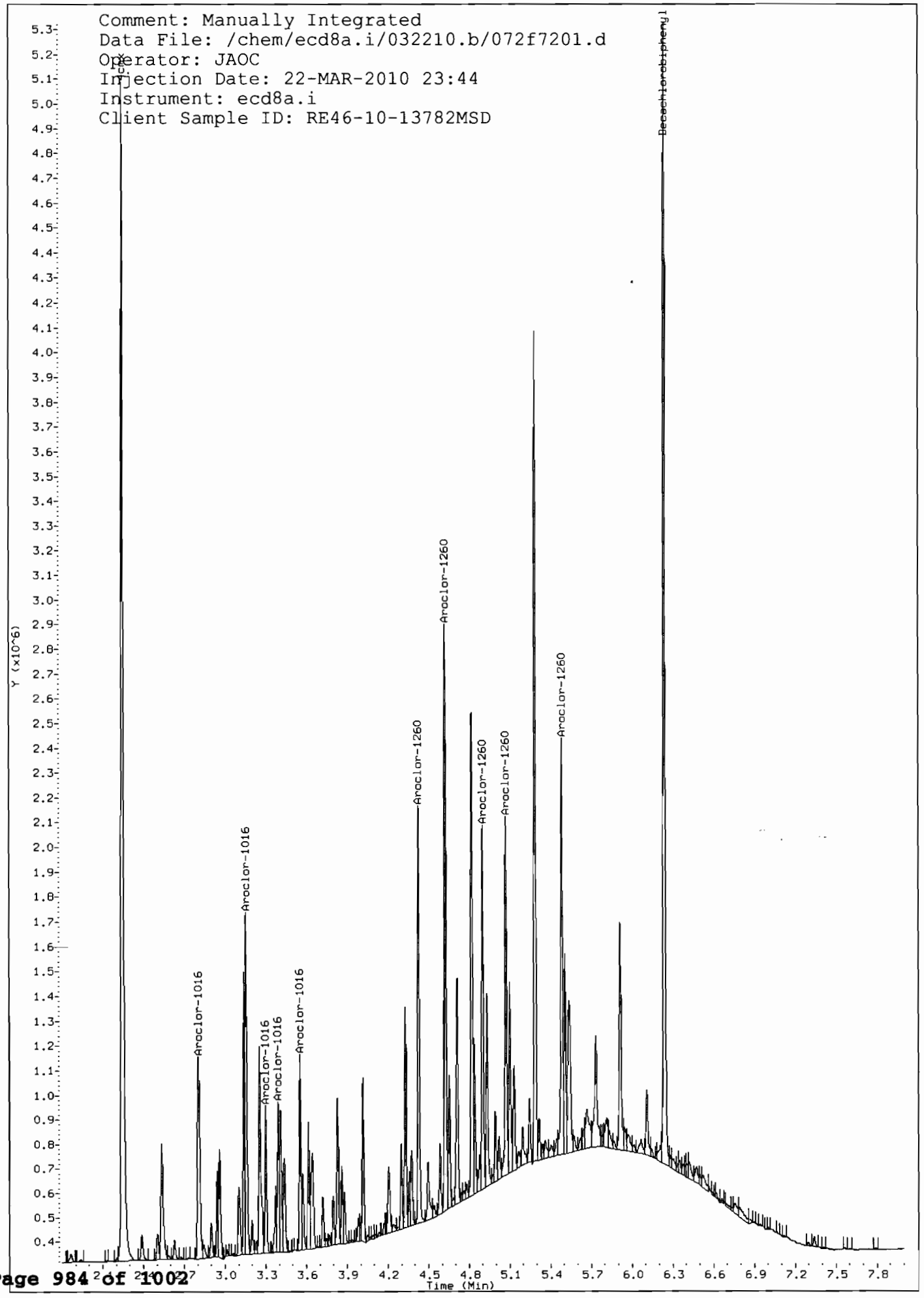
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/072f7201.d
Operator: JAOC
Injection Date: 22-MAR-2010 23:44
Instrument: ecd8a.i
Client Sample ID: RE46-10-13782MSD
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
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Aroclor-1260
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Y (x10^6)
Time (Min)

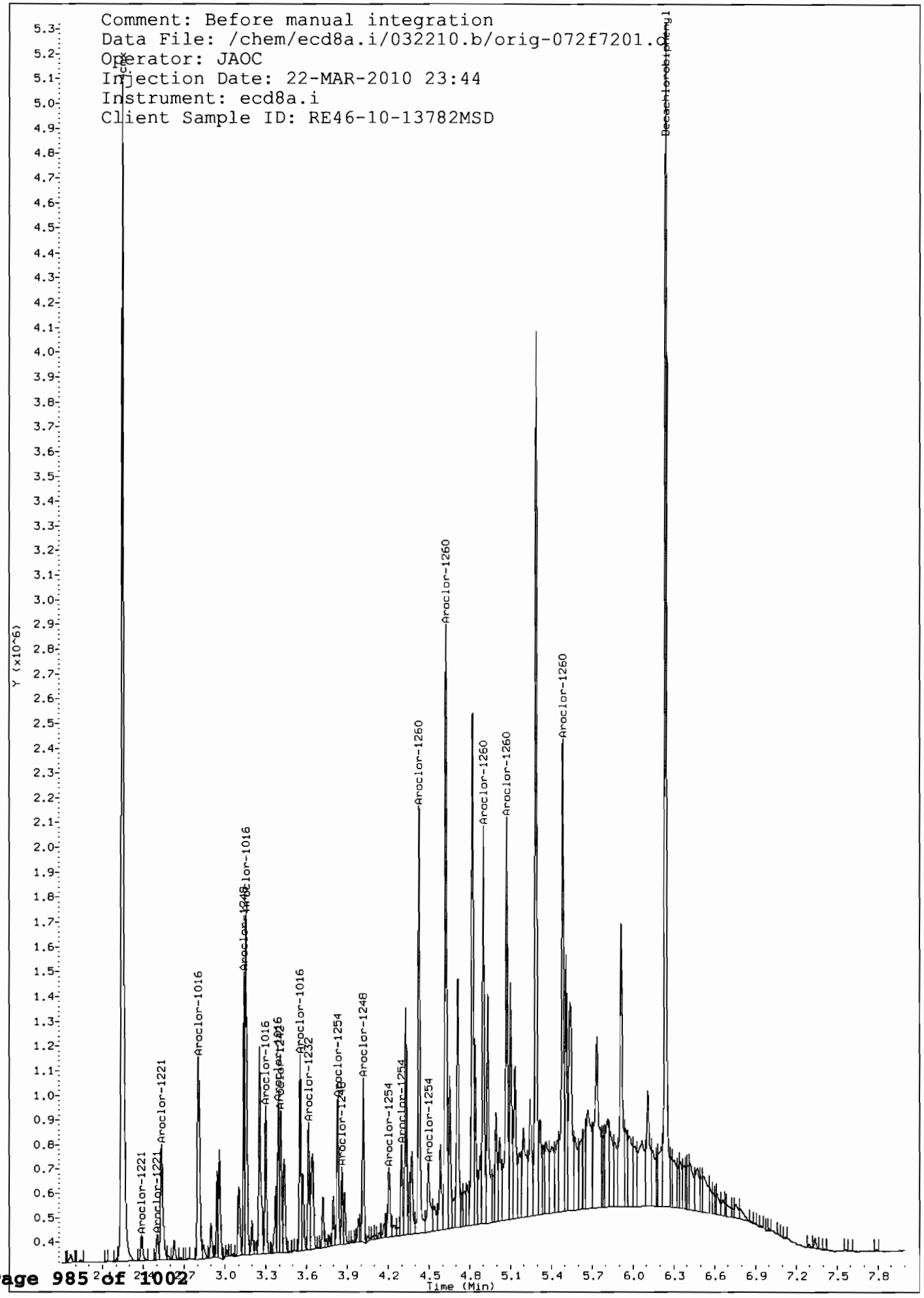
Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-072f7201.d
Operator: JAOC
Injection Date: 22-MAR-2010 23:44
Instrument: ecd8a.i
Client Sample ID: RE46-10-13782MSD
Decachlorobiphenyl
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1254
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/072b7201.d
Lab Smp Id: 1202076358 Client Smp ID: RE46-10-13782MSD
Inj Date : 22-MAR-2010 23:44
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202076358|5|
Misc Info : |ECD82P_1S|967396|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 72 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	13.92880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	3610391	43.1957	8.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.825	-0.002	3141014	53.0107	10.2	80.00- 120.00	100.00(RM)
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.549	-0.001	809127	220.005	42.5	80.00- 120.00	100.00(M)
3.648	3.648	0.000	537684	210.758	40.7	46.77- 86.77	66.45
3.723	3.724	-0.001	313197	209.913	40.5	20.25- 60.25	38.71
3.798	3.800	-0.002	325858	220.516	42.6	18.74- 58.74	40.27
3.995	3.995	0.000	435651	215.157	41.6	33.82- 73.82	53.84

Average of Peak Concentrations = 41.6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.908	4.909	-0.001	965428	245.125	47.3	80.00- 120.00	100.00(RM)
5.057	5.058	-0.001	1146812	242.431	46.8	101.53- 141.53	118.79
5.373	5.375	-0.002	933187	260.183	50.2	71.56- 111.56	96.66
5.580	5.581	-0.001	927286	249.792	48.2	75.17- 115.17	101.72
6.012	6.013	-0.001	1552698	265.812	51.3	132.27- 172.27	160.83
Average of Peak Concentrations =					48.8		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/072b7201.d

Date : 22-MAR-2010 23:44

Client ID: RE46-10-13782MSD

Sample Info: 1120207635815I

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

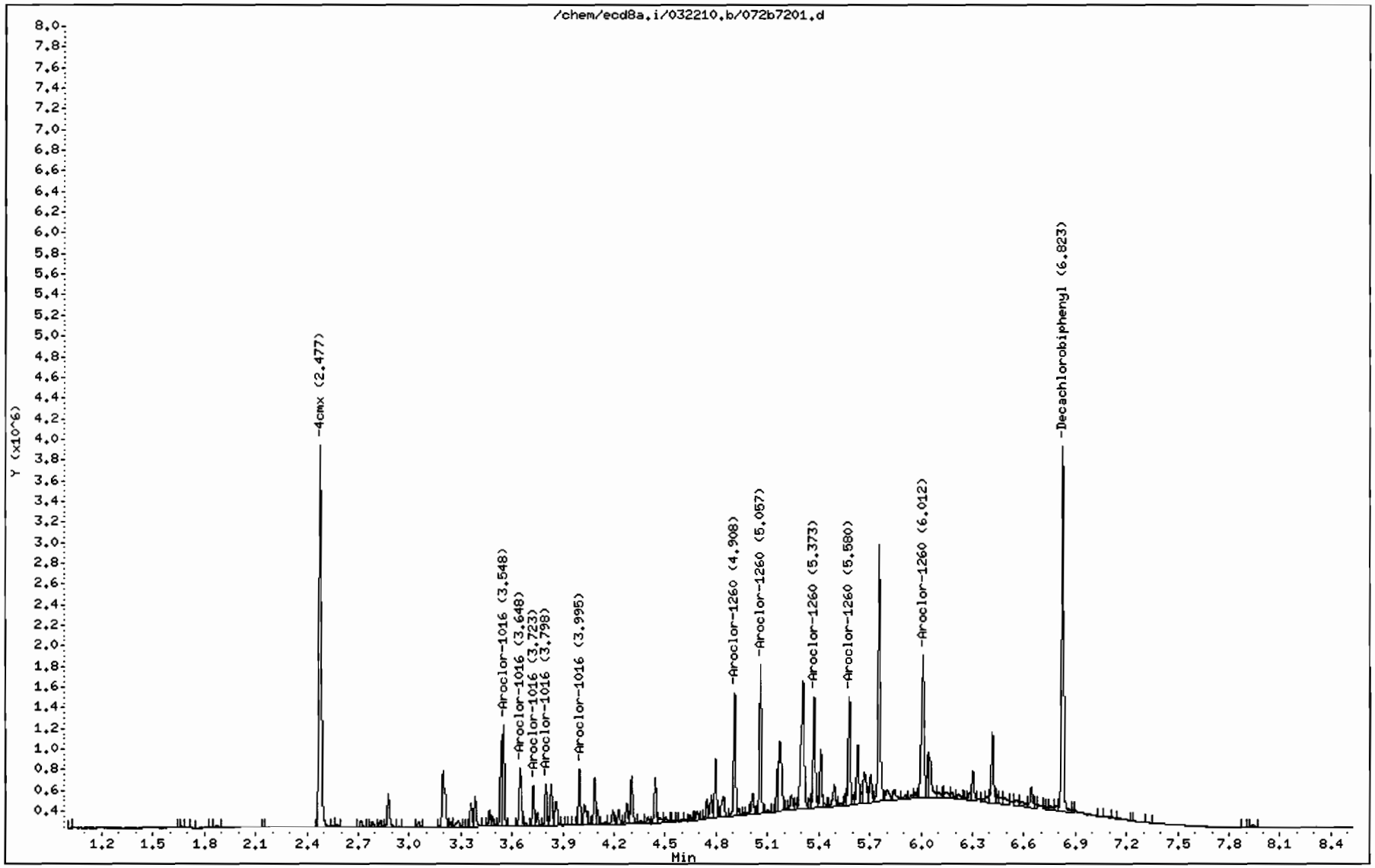

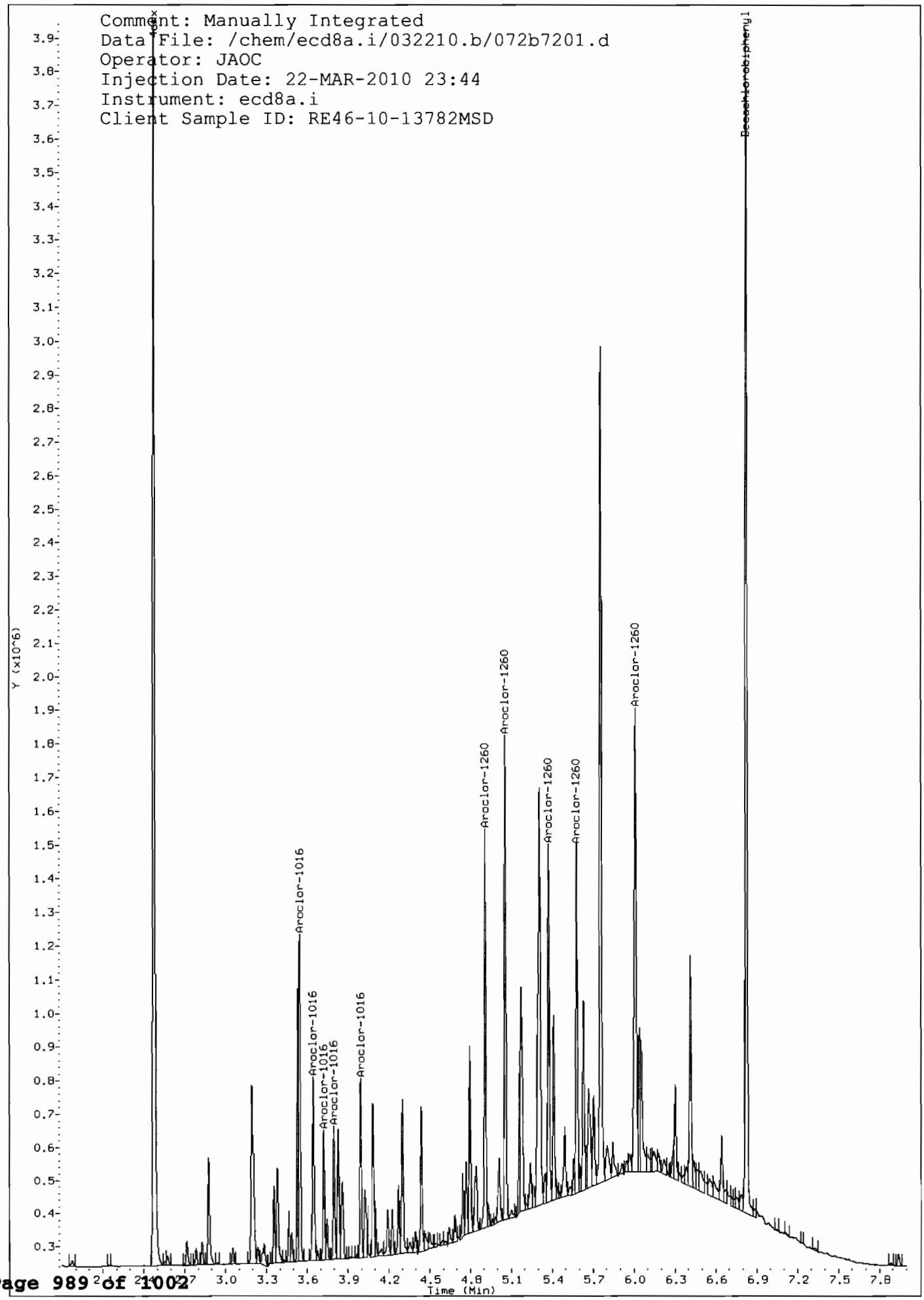
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/072b7201.d
Operator: JAOC
Injection Date: 22-MAR-2010 23:44
Instrument: ecd8a.i
Client Sample ID: RE46-10-13782MSD
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^6)
Time (Min)

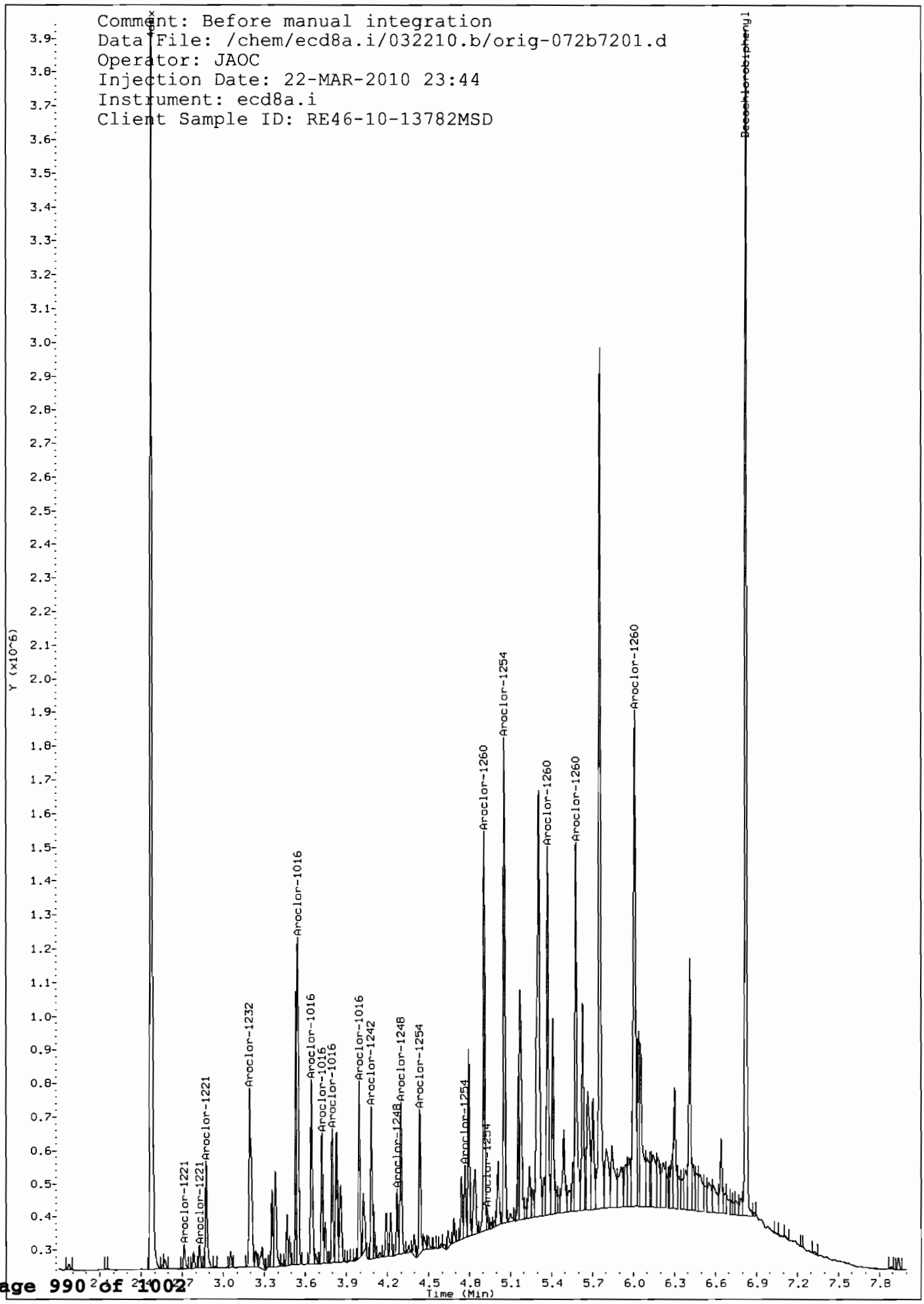
Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-072b7201.d
Operator: JAOC
Injection Date: 22-MAR-2010 23:44
Instrument: ecd8a.i
Client Sample ID: RE46-10-13782MSD
Decachlorobiphenyl
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^6)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 03/09/2010 METHOD: ECD8-F-8082-020310a.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/030910.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	JAOC	09-MAR-2010 07:59		030910	1.0	CLEAN	
002f0201.d	WAR100225-60 01	JAOC	09-MAR-2010 08:11		030910	1.0	DUSE	
003f0301.d	WAR100201-54	JAOC	09-MAR-2010 08:24		030910	1.0	DUSE	
004f0401.d	WAR091217-42	JAOC	09-MAR-2010 08:36		030910	1.0	PASSES BOTH COLUMNS	
005f0501.d	WAR091217-48	JAOC	09-MAR-2010 08:48		030910	1.0	DUSE	
006f0601.d	WAR100309-60 01	JAOC	09-MAR-2010 09:08		030910	1.0	PASSES BOTH COLUMNS	
007f0701.d	WAR100309-05 54	JAOC	09-MAR-2010 09:27		030910	1.0	1254 LEVEL 1	
008f0801.d	WAR100309-06 54	JAOC	09-MAR-2010 09:39		030910	1.0	1254 LEVEL 2	
009f0901.d	WAR100309-07 54	JAOC	09-MAR-2010 09:51		030910	1.0	1254 LEVEL 3	
010f1001.d	WAR100309-08 54	JAOC	09-MAR-2010 10:04		030910	1.0	1254 LEVEL 4	
011f1101.d	IAR100219-02 54	JAOC	09-MAR-2010 10:16		030910	1.0	1254 LEVEL 5	
012f1201.d	WAR100201-54	JAOC	09-MAR-2010 10:29		030910	1.0	PASSES BOTH COLUMNS	
013f1301.d	WAR100309-09 48	JAOC	09-MAR-2010 10:41		030910	1.0	1248 LEVEL 1	
014f1401.d	WAR100309-10 48	JAOC	09-MAR-2010 10:53		030910	1.0	1248 LEVEL 2	
015f1501.d	WAR100309-11 48	JAOC	09-MAR-2010 11:05		030910	1.0	1248 LEVEL 3	

Instrument Batch: /chem/ecd8a.i/030910.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR100309-12 48	JAOC	09-MAR-2010 11:18		030910	1.0	1248 LEVEL 4	
017f1701.d	IAR100211-01 48	JAOC	09-MAR-2010 11:30		030910	1.0	1248 LEVEL 5	

018f1801.d	WAR091217-48	JAOC	09-MAR-2010 11:43		030910	1.0		PASSES BOTH COLUMNS
019f1901.d	WAR100104-32	JAOC	09-MAR-2010 11:55		030910	1.0		PATTERN ONLY
020f2001.d	WAR100104-21	JAOC	09-MAR-2010 12:07		030910	1.0		PATTERN ONLY
021f2101.d	WAR100104-62	JAOC	09-MAR-2010 12:20		030910	1.0		PATTERN ONLY
022f2201.d	WAR100107-68	JAOC	09-MAR-2010 12:32		030910	1.0		PATTERN ONLY
023f2301.d	WAR091219-DDT	JAOC	09-MAR-2010 12:44		030910	1.0		DDT
024f2401.d	WAR100219-99 02	JAOC	09-MAR-2010 12:57		030910	1.0		CLEAN
025f2501.d	248545006	JAOC	09-MAR-2010 13:09	961905	10-2213	1.0	LANL	UPLOAD BOTH, USE HIGHER
026f2601.d	WAR100309-60 02	JAOC	09-MAR-2010 13:22		030910	1.0		PASSES BOTH COLUMNS

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 03/19/2010 METHOD: ECD8-F-8082-031810.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/031810.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	JAOC	18-MAR-2010 06:13		031810	1.0		CLEAN
002f0201.d	WAR100317-01 60	JAOC	18-MAR-2010 06:25		031810	1.0		1660 LEVEL 1
003f0301.d	WAR100317-02 60	JAOC	18-MAR-2010 06:38		031810	1.0		1660 LEVEL 2
004f0401.d	WAR100317-03 60	JAOC	18-MAR-2010 06:50		031810	1.0		1660 LEVEL 3
005f0501.d	WAR100317-04 60	JAOC	18-MAR-2010 07:02		031810	1.0		1660 LEVEL 4
006f0601.d	IAR100311-01 60	JAOC	18-MAR-2010 07:15		031810	1.0		1660 LEVEL 5
007f0701.d	WAR100224-60 01	JAOC	18-MAR-2010 07:27		031810	1.0		PASSES BOTH COLUMNS
008f0801.d	WAR100201-54	JAOC	18-MAR-2010 07:39		031810	1.0		PASSES BOTH COLUMNS
009f0901.d	WAR091217-42	JAOC	18-MAR-2010 07:52		031810	1.0		PASSES BOTH COLUMNS
010f1001.d	WAR091217-48	JAOC	18-MAR-2010 08:04		031810	1.0		PASSES BOTH COLUMNS
011f1101.d	WAR100104-32	JAOC	18-MAR-2010 08:17		031810	1.0		PATTERN ONLY
012f1201.d	WAR100104-21	JAOC	18-MAR-2010 08:29		031810	1.0		PATTERN ONLY
013f1301.d	WAR100104-62	JAOC	18-MAR-2010 08:41		031810	1.0		PATTERN ONLY
014f1401.d	WAR100107-68	JAOC	18-MAR-2010 08:54		031810	1.0		PATTERN ONLY
015f1501.d	WAR091219-DDT	JAOC	18-MAR-2010 09:06		031810	1.0		DDT

Instrument Batch: /chem/ecd8a.i/031810.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR100219-99 02	JAOC	18-MAR-2010 09:19		031810	1.0		CLEAN
017f1701.d	1202073907	JAOC	18-MAR-2010 09:31	966402	10033	1.0	QC A	UPLOAD BOTH, USE HIGHER

018f1801.d	1202073908	JAOC	18-MAR-2010 09:43	966402	10033	1.0	QC A	UPLOAD BOTH, USE HIGHER
019f1901.d	1202073909	JAOC	18-MAR-2010 09:55	966402	10033	1.0	QC A	UPLOAD BOTH, USE HIGHER
020f2001.d	248554001	JAOC	18-MAR-2010 10:08	966402	10033	1.0	WSRS	UPLOAD BOTH, USE HIGHER
021f2101.d	248554002	JAOC	18-MAR-2010 10:20	966402	10033	1.0	WSRS	UPLOAD BOTH, USE HIGHER
022f2201.d	248554003	JAOC	18-MAR-2010 10:33	966402	10033	1.0	WSRS	UPLOAD BOTH, USE HIGHER
023f2301.d	248554004	JAOC	18-MAR-2010 10:45	966402	10033	1.0	WSRS	UPLOAD BOTH, USE HIGHER
024f2401.d	248554005	JAOC	18-MAR-2010 10:57	966402	10033	1.0	WSRS	UPLOAD BOTH, USE HIGHER
025f2501.d	248554006	JAOC	18-MAR-2010 11:10	966402	10033	1.0	WSRS	UPLOAD BOTH, USE HIGHER
026f2601.d	248554007	JAOC	18-MAR-2010 11:22	966402	10033	5.0	WSRS	UPLOAD BOTH, USE HIGHER
027f2701.d	WAR100224-60 02	JAOC	18-MAR-2010 11:39		031810	1.0		PASSES BOTH COLUMNS
028f2801.d	WAR100219-99 03	JAOC	18-MAR-2010 11:51		031810	1.0		CLEAN
029f2901.d	248554008	JAOC	18-MAR-2010 12:03	966402	10033	5.0	WSRS	UPLOAD BOTH, USE HIGHER
030f3001.d	248554009	JAOC	18-MAR-2010 12:16	966402	10033	1.0	WSRS	UPLOAD BOTH, USE HIGHER
031f3101.d	248554010	JAOC	18-MAR-2010 12:28	966402	10033	1.0	WSRS	UPLOAD BOTH, USE HIGHER
032f3201.d	248554011	JAOC	18-MAR-2010 12:40	966402	10033	1.0	WSRS	UPLOAD BOTH, USE HIGHER
033f3301.d	248554012	JAOC	18-MAR-2010 12:53	966402	10033	1.0	WSRS	DUSE, 5X RERUN END SEQUENCE
034f3401.d	248554013	JAOC	18-MAR-2010 13:05	966402	10033	1.0	WSRS	DUSE, AFTER OVERRANGE RERUN END SEQUENCE
035f3501.d	248554014	JAOC	18-MAR-2010 13:17	966402	10033	1.0	WSRS	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/031810.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	248554015	JAOC	18-MAR-2010 13:30	966402	10033	1.0	WSRS	UPLOAD BOTH, USE HIGHER
037f3701.d	248554016	JAOC	18-MAR-2010 13:42	966402	10033	1.0	WSRS	UPLOAD BOTH, USE HIGHER
038f3801.d	248554017	JAOC	18-MAR-2010 13:54	966402	10033	1.0	WSRS	UPLOAD BOTH, USE HIGHER
039f3901.d	WAR100224-60 03	JAOC	18-MAR-2010 14:11		031810	1.0		PASSES BOTH COLUMNS
040f4001.d	WAR100219-99 04	JAOC	18-MAR-2010 14:23		031810	1.0		CLEAN
041f4101.d	248554018	JAOC	18-MAR-2010 14:36	966402	10033	1.0	WSRS	DUSE, 5X RERUN 031910

042f4201.d	248554019	JAOC	18-MAR-2010 14:48	966402	10033		1.0	WSRS	DUSE, AFTER OVERRANGE RERUN 031910
043f4301.d	248554020	JAOC	18-MAR-2010 15:01	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
044f4401.d	248554012	JAOC	18-MAR-2010 15:13	966402	10033		5.0	WSRS	UPLOAD BOTH, USE HIGHER
045f4501.d	248554013	JAOC	18-MAR-2010 15:25	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
046f4601.d	WAR100224-60 04	JAOC	18-MAR-2010 15:38		031810		1.0		PASSES BOTH COLUMNS
047f4701.d	WAR100219-99 05	JAOC	18-MAR-2010 15:50		031810		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 03/23/2010 METHOD: ECD8-F-8082-031810.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/032210.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	JAOC	22-MAR-2010 08:14		032210	1.0		CLEAN
002f0201.d	WAR100224-60 01	JAOC	22-MAR-2010 08:26		032210	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR100219-54	JAOC	22-MAR-2010 08:39		032210	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091217-42	JAOC	22-MAR-2010 08:51		032210	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR100223-48	JAOC	22-MAR-2010 09:03		032210	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR100104-32	JAOC	22-MAR-2010 09:16		032210	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	JAOC	22-MAR-2010 09:28		032210	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	JAOC	22-MAR-2010 09:40		032210	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	JAOC	22-MAR-2010 09:53		032210	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	JAOC	22-MAR-2010 10:05		032210	1.0		DDT
011f1101.d	WAR100219-99 02	JAOC	22-MAR-2010 10:18		032210	1.0		CLEAN
012f1201.d	1202074832	JAOC	22-MAR-2010 10:30	966777	248989	1.0	QC A	UPLOAD BOTH, USE HIGHER: 4CMX FAILS LOW SEND BACK SAMPLES WITH HITS
013f1301.d	1202074833	JAOC	22-MAR-2010 10:42	966777	248989	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	1202075899	JAOC	22-MAR-2010 10:55	966777	248989	1.0	QC A	UPLOAD BOTH, USE HIGHER
015f1501.d	248989001	JAOC	22-MAR-2010 11:07	966777	248989	5.0	BRKL	DUSE: SENT FOR RE, UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/032210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	248989002	JAOC	22-MAR-2010 11:19	966777	248989	1.0	BRKL	DUSE: SENT FOR RE, UPLOAD BOTH, USE HIGHER
017f1701.d	248989003	JAOC	22-MAR-2010 11:32	966777	248989	5.0	BRKL	DUSE: SENT FOR RE, UPLOAD BOTH, USE HIGHER

018f1801.d	248989004	JAOC	22-MAR-2010 11:44	966777	248989		1.0	BRKL	UPLOAD BOTH, USE HIGHER
019f1901.d	248989005	JAOC	22-MAR-2010 12:00	966777	248989		25.0	BRKL	UPLOAD BOTH, USE HIGHER
020f2001.d	248989006	JAOC	22-MAR-2010 12:16	966777	248989		5.0	BRKL	UPLOAD BOTH, USE HIGHER
021f2101.d	WAR100224-60 02	JAOC	22-MAR-2010 12:33		032210		1.0		PASSES BOTH COLUMNS
022f2201.d	WAR100219-99 03	JAOC	22-MAR-2010 12:45		032210		1.0		CLEAN
023f2301.d	1202076028	JAOC	22-MAR-2010 12:57	967268	249320		1.0	QC A	UPLOAD BOTH, USE HIGHER
024f2401.d	1202076029	JAOC	22-MAR-2010 13:10	967268	249320		1.0	QC A	UPLOAD BOTH, USE HIGHER
025f2501.d	249320001	JAOC	22-MAR-2010 13:22	967268	249320		20.0	COMM	UPLOAD BOTH, USE HIGHER
026f2601.d	1202076030	JAOC	22-MAR-2010 13:38	967268	249320		20.0	QC A	UPLOAD BOTH, USE HIGHER
027f2701.d	1202076031	JAOC	22-MAR-2010 13:55	967268	249320		20.0	QC A	UPLOAD BOTH, USE HIGHER
028f2801.d	WAR100224-60 03	JAOC	22-MAR-2010 14:11		032210		1.0		PASSES BOTH COLUMNS
029f2901.d	WAR100219-99 04	JAOC	22-MAR-2010 14:24		032210		1.0		CLEAN
030f3001.d	1202076024	JAOC	22-MAR-2010 14:36	967266	249616		1.0	QC A	UPLOAD BOTH, USE HIGHER
031f3101.d	1202076025	JAOC	22-MAR-2010 14:49	967266	249616		1.0	QC A	UPLOAD BOTH, USE HIGHER
032f3201.d	249616001	JAOC	22-MAR-2010 15:01	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER
033f3301.d	1202076026	JAOC	22-MAR-2010 15:13	967266	249616		5.0	QC A	UPLOAD BOTH, USE HIGHER
034f3401.d	1202076027	JAOC	22-MAR-2010 15:26	967266	249616		5.0	QC A	UPLOAD BOTH, USE HIGHER
035f3501.d	249616009	JAOC	22-MAR-2010 15:38	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/032210.b Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	249616010	JAOC	22-MAR-2010 15:50	967266	249616	5.0	SSFL	UPLOAD BOTH, USE HIGHER
037f3701.d	249616011	JAOC	22-MAR-2010 16:03	967266	249616	5.0	SSFL	UPLOAD BOTH, USE HIGHER
038f3801.d	249616012	JAOC	22-MAR-2010 16:15	967266	249616	5.0	SSFL	UPLOAD BOTH, USE HIGHER
039f3901.d	249616013	JAOC	22-MAR-2010 16:32	967266	249616	1.0	SSFL	UPLOAD BOTH, USE HIGHER
040f4001.d	WAR100224-60 04	JAOC	22-MAR-2010 16:48		032210	1.0		PASSES BOTH COLUMNS
041f4101.d	WAR100219-99 05	JAOC	22-MAR-2010 17:01		032210	1.0		CLEAN

042f4201.d	249616014	JAOC	22-MAR-2010 17:13	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER
043f4301.d	249616015	JAOC	22-MAR-2010 17:25	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER
044f4401.d	249616016	JAOC	22-MAR-2010 17:38	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER
045f4501.d	249616017	JAOC	22-MAR-2010 17:50	967266	249616		1.0	SSFL	UPLOAD BOTH, USE HIGHER
046f4601.d	249616018	JAOC	22-MAR-2010 18:02	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER
047f4701.d	249616019	JAOC	22-MAR-2010 18:15	967266	249616		1.0	SSFL	UPLOAD BOTH, USE HIGHER
048f4801.d	249616020	JAOC	22-MAR-2010 18:27	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER
049f4901.d	249616021	JAOC	22-MAR-2010 18:39	967266	249616		1.0	SSFL	UPLOAD BOTH, USE HIGHER
050f5001.d	249616022	JAOC	22-MAR-2010 18:52	967266	249616		1.0	SSFL	UPLOAD BOTH, USE HIGHER
051f5101.d	249616023	JAOC	22-MAR-2010 19:08	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER
052f5201.d	WAR100224-60 05	JAOC	22-MAR-2010 19:25		032210		1.0		PASSES BOTH COLUMNS
053f5301.d	WAR100219-99 06	JAOC	22-MAR-2010 19:37		032210		1.0		CLEAN
054f5401.d	249616024	JAOC	22-MAR-2010 19:50	967266	249616		1.0	SSFL	UPLOAD BOTH, USE HIGHER
055f5501.d	WAR100224-60 06	JAOC	22-MAR-2010 20:06		032210		1.0		PASSES BOTH COLUMNS

Instrument Batch: /chem/ecd8a.i/032210.b Page: 3

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	WAR100219-99 07	JAOC	22-MAR-2010 20:18		032210		1.0	CLEAN
057f5701.d	1202076355	JAOC	22-MAR-2010 20:31	967396	10-2302		1.0	QC A UPLOAD BOTH, USE HIGHER
058f5801.d	1202076356	JAOC	22-MAR-2010 20:43	967396	10-2302		1.0	QC A UPLOAD BOTH, USE HIGHER
059f5901.d	248842002	JAOC	22-MAR-2010 20:55	967396	10-2302		1.0	LANL UPLOAD BOTH, USE HIGHER
060f6001.d	248842003	JAOC	22-MAR-2010 21:08	967396	10-2302		1.0	LANL UPLOAD BOTH, USE HIGHER
061f6101.d	248842004	JAOC	22-MAR-2010 21:20	967396	10-2302		5.0	LANL UPLOAD BOTH, USE HIGHER
062f6201.d	248842005	JAOC	22-MAR-2010 21:32	967396	10-2302		1.0	LANL UPLOAD BOTH, USE HIGHER
063f6301.d	248842006	JAOC	22-MAR-2010 21:45	967396	10-2302		1.0	LANL UPLOAD BOTH, USE HIGHER
064f6401.d	248842007	JAOC	22-MAR-2010 21:57	967396	10-2302		5.0	LANL UPLOAD BOTH, USE HIGHER
065f6501.d	248842008	JAOC	22-MAR-2010 22:09	967396	10-2302		1.0	LANL UPLOAD BOTH, USE HIGHER
066f6601.d	248842009	JAOC	22-MAR-2010 22:26	967396	10-2302		5.0	LANL UPLOAD BOTH, USE HIGHER

067f6701.d	WAR100224-60 07	JAOC	22-MAR-2010 22:42		032210	1.0		PASSES BOTH COLUMNS
068f6801.d	WAR100219-99 08	JAOC	22-MAR-2010 22:55		032210	1.0		CLEAN
069f6901.d	248842010	JAOC	22-MAR-2010 23:07	967396	10-2302	1.0	LANL	UPLOAD BOTH, USE HIGHER
070f7001.d	248862002	JAOC	22-MAR-2010 23:20	967396	10-2314	5.0	LANL	UPLOAD BOTH, USE HIGHER
071f7101.d	1202076357	JAOC	22-MAR-2010 23:32	967396	10-2314	5.0	QC A	UPLOAD BOTH, USE HIGHER
072f7201.d	1202076358	JAOC	22-MAR-2010 23:44	967396	10-2314	5.0	QC A	UPLOAD BOTH, USE HIGHER
073f7301.d	248862003	JAOC	22-MAR-2010 23:57	967396	10-2314	5.0	LANL	UPLOAD BOTH, USE HIGHER
074f7401.d	248862004	JAOC	23-MAR-2010 00:09	967396	10-2314	20.0	LANL	UPLOAD BOTH, USE HIGHER
075f7501.d	248862005	JAOC	23-MAR-2010 00:21	967396	10-2314	5.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/032210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	248862006	JAOC	23-MAR-2010 00:34	967396	10-2314	5.0	LANL	UPLOAD BOTH, USE HIGHER
077f7701.d	248862007	JAOC	23-MAR-2010 00:46	967396	10-2314	10.0	LANL	UPLOAD BOTH, USE HIGHER
078f7801.d	248862008	JAOC	23-MAR-2010 01:03	967396	10-2314	20.0	LANL	UPLOAD BOTH, USE HIGHER
079f7901.d	WAR100224-60 08	JAOC	23-MAR-2010 01:19		032210	1.0		PASSES BOTH COLUMNS
080f8001.d	WAR100219-99 09	JAOC	23-MAR-2010 01:32		032210	1.0		CLEAN
081f8101.d	248862009	JAOC	23-MAR-2010 01:44	967396	10-2314	5.0	LANL	UPLOAD BOTH, USE HIGHER
082f8201.d	248862010	JAOC	23-MAR-2010 02:00	967396	10-2314	10.0	LANL	UPLOAD BOTH, USE HIGHER
083f8301.d	WAR100224-60 09	JAOC	23-MAR-2010 02:17		032210	1.0		PASSES BOTH COLUMNS
084f8401.d	WAR100219-99 10	JAOC	23-MAR-2010 02:29		032210	1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 967394 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202076355 MB	21-MAR-2010 12:13:00	30	H2SO4/KMn2		2	9	1	0.03333
1202076356 LCS	21-MAR-2010 12:13:00	30	H2SO4/KMn2		2	9	1	0.03333
248842002	21-MAR-2010 12:13:00	30.03	H2SO4/KMn2		2	9	1	0.0333
248842003	21-MAR-2010 12:13:00	30.15	H2SO4/KMn2		2	9	1	0.03317
248842004	21-MAR-2010 12:13:00	30.13	H2SO4/KMn2		2	9	1	0.03319
248842005	21-MAR-2010 12:13:00	30.16	H2SO4/KMn2		2	9	1	0.03316
248842006	21-MAR-2010 12:13:00	30.11	H2SO4/KMn2		2	9	1	0.03321
248842007	21-MAR-2010 12:13:00	30.15	H2SO4/KMn2		2	9	1	0.03317
248842008	21-MAR-2010 12:13:00	30.08	H2SO4/KMn2		2	9	1	0.03324
248842009	21-MAR-2010 12:13:00	30.06	H2SO4/KMn2		2	9	1	0.03327
248842010	21-MAR-2010 12:13:00	30.09	H2SO4/KMn2		2	9	1	0.03323
248862002	21-MAR-2010 12:13:00	30.12	H2SO4/KMn2		2	9	1	0.0332
1202076357 MS (248862002)	21-MAR-2010 12:13:00	30.06	H2SO4/KMn2		2	9	1	0.03327
1202076358 MSD (248862002)	21-MAR-2010 12:13:00	30.08	H2SO4/KMn2		2	9	1	0.03324
248862003	21-MAR-2010 12:13:00	30.06	H2SO4/KMn2		2	9	1	0.03327
248862004	21-MAR-2010 12:13:00	30.05	H2SO4/KMn2		2	9	1	0.03328
248862005	21-MAR-2010 12:13:00	30.01	H2SO4/KMn2		2	9	1	0.03332
248862006	21-MAR-2010 12:13:00	30.03	H2SO4/KMn2		2	9	1	0.0333
248862007	21-MAR-2010 12:13:00	30.09	H2SO4/KMn2		2	9	1	0.03323
248862008	21-MAR-2010 12:13:00	30.03	H2SO4/KMn2		2	9	1	0.0333
248862009	21-MAR-2010 12:13:00	30.02	H2SO4/KMn2		2	9	1	0.03331
248862010	21-MAR-2010 12:13:00	30.12	H2SO4/KMn2		2	9	1	0.0332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202076356	PCB Laboratory Control	WE100311-07	1	mL
MS	1202076357	PCB Laboratory Control	WE100311-07	1	mL
MSD	1202076358	PCB Laboratory Control	WE100311-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100310-16	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1273823-B1	150	mL
REGNT	All	Hexane	1279345-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 3/21/10
Clean up Initials: AJS
Verified By: AV
Final Solvent: Hexane
Clean Up SOP: GL-OA-E-037

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
23-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8082	Solid	LANL
Batch ID:	**Sample Numbers:**		
967396	See Below		

Potentially affected work order(s)(SDG): 248842(10-2302),248862(10-2314)

Application Issues:

Failed Recovery for MSD/PSD

Failed Yield for Surrogates

Specification and Requirements Exception Description:	DER Disposition:
1. 248862007 and 1202076358MSD do not meet surrogate recovery limits.	1. The surrogate failures are due to dilution and matrix interference. There are no hits in the samples.
2. 1202076358MSD does not meet spike recovery limits.	2. The MSD fails slightly high for spike recovery. The MS is within acceptable limits and the RPD is passing. There are no hits in the parent sample. The data is reported.

Originator's Name:

Jennifer Criscione 23-MAR-10

Data Validator/Group Leader:

Robert Whitlock 25-MAR-10

Friday, March 05, 2010

REQUEST NUMBER: 10-2313

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number: 10-2313
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/5/2010
TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	HASL-300:AM-241	1	RE46-10-13775	S	3/4/2010	

Friday, March 05, 2010

REQUEST NUMBER: 10-2313

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	HASL-300:ISOPU	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	HASL-300:ISOU	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	SW-846:6010B	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	

Friday, March 05, 2010

REQUEST NUMBER: 10-2313

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
		1	RE46-10-13785	W	3/4/2010	
		1	RE46-10-13786	W	3/4/2010	
	SW-846:6020	1	RE46-10-13785	W	3/4/2010	
		1	RE46-10-13786	W	3/4/2010	
	SW-846:6850	1	RE46-10-13785	W	3/4/2010	
		1	RE46-10-13786	W	3/4/2010	
	SW-846:9012A	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
		1	RE46-10-13785	W	3/4/2010	
		1	RE46-10-13786	W	3/4/2010	

Final Page of REQUEST NUMBER 10-2313

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2313C

REQUEST NUMBER: 10-2313

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13782	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13782	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13783	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13783	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13777	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13777	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13775	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13775	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13776	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13776	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13781	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13781	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13779	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13779	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13780	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13780	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13778	1	POLY	AM241+GS+ISOPU+ ISOU	None	S

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2313C

REQUEST NUMBER: 10-2313

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13778	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13786	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-13786	1	POLY	SW-846:6850	Ice	W
RE46-10-13786	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-13785	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-13785	1	POLY	SW-846:6850	Ice	W
RE46-10-13785	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		**Date**	**Time**	**Received By:**		**Date**	**Time**
		3/5/10	3:00				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13777 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		0950	SUB-MEDIA:	SOIL	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611738	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
2		ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: wet dark reddish brown coarse sediment w/ some gravel (5YR 3/2)

SAMPLE COMMENTS: beneath asphalt, sample very wet, water filling hole slowly

LOCATION DESC: 6f-2

FIELD SCREENING/MEASUREMENT RESULTS: PID: NA, sample too wet Background: α: 15 β: 942 Samples MDA

COLLECTED BY (PRINT) J. Romero REVIEWED BY (PRINT) M SHERWOOD

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
J. ROMERO	3/4/10 1635	Sheri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13776 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	~~ALLH~~ 3/3/10	Qbt 3
TIME COLLECTED (HH:MM)		1005	SUB-MEDIA:	SOIL	N
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611737	OK	FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	OK
TOP DEPTH:	0	3'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	41	SCREEN/PORT DESC:		NA
FIELD MATRIX:	SR 3/3/10		EXCAVATED: YES / NO (NA)		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	3/3/10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: gray tuff (2.5 YR 5/2), Red tuff (2.5 YR 4/6)

SAMPLE COMMENTS: beneath asphalt tuff @ 3.5', abrupt contact between gray & Red

LOCATION DESC: 6f-1

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.0ppm Background: α: 15 β: 942 Samples MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
J. ROMERO	3/4/10 1635	Sheri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13775 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10 4 3/4/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		0934	SUB-MEDIA:	SOIL	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611737	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1-2	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: weak red tuff & coarse sandy fill (2.5YR 5/2) w/ some gravel

SAMPLE COMMENTS: beneath asphalt, hit tuff @ 10"

LOCATION DESC: 6f-1

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples MDA
P.I.D: 0.0ppm
α: 15
β: 942

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
J. AYSON & ROMERO	3/4/10 1635	Sherri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13780 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	~~ALLH~~ 3/4/10	Qbt3
TIME COLLECTED (HH:MM)		1050	SUB-MEDIA:	SOIL	N
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611739	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R 3/4/10		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
2	MS 3/10/10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: gray tuff (2.5 YR 5/2)

SAMPLE COMMENTS: tuff @ 2ft

LOCATION DESC: 6f-3

FIELD SCREENING/MEASUREMENT RESULTS: Background: α:15 β:942 Samples LMDA

PID: 0.4ppm

COLLECTED BY (PRINT) M. Nawck **REVIEWED BY (PRINT)** M. Shendo

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
M. Shendo	3/4/10 1635	Sherri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13786 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1037	SUB-MEDIA:	OTHER	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611737	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH <2
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH >12

SAMPLE DESC: QC Sample of
RE46-10-13775

SAMPLE COMMENTS: NA

LOCATION DESC: 60-1

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature) [signature]	3/4/10 1635	(Printed Name) Sheri Sherwood (Signature) Sheri Sherwood	3/4/10 1635
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13784 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		0934	SUB-MEDIA:	OTHER	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611737	FIELD QC TYPE:	FTB	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of

RE46-10-13775

SAMPLE COMMENTS: NA

LOCATION DESC: 6f-1

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L Andress

REVIEWED BY (PRINT) M. Shenda

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Jane Andress	3/4/10	(Printed Name) Sherri Sherwood	3/4/10
(Signature)	1635	(Signature) Sherri Sherwood	1635
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13785 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1029	SUB-MEDIA:	OTHER	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611737	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH <2
1		SW-846:6850	250 ML POLY	Ice	Y	~~pH >12~~ 3/4/10
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH >12

SAMPLE DESC: QC Sample of RE46-10-13775

SAMPLE COMMENTS: NA

LOCATION DESC: 6f-1

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/4/10	(Printed Name) Sherri Sherwood	3/4/10
(Signature) [signature]	1635	(Signature) Sherri Sherwood	1635
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13783 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		0934	SUB-MEDIA:	SOIL	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	~~OK~~ 46-61173 3/3/10	FIELD QC TYPE:	FD	S
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	S
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of
RE46-10-13775

SAMPLE COMMENTS: NA

LOCATION DESC: 6f-1

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/4/10 1635	(Printed Name) Sherri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13782 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	~~ALLH~~ A 3/4/10	Qbt 3
TIME COLLECTED (HH:MM)		1105	SUB-MEDIA:	SOIL	N
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611740	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~R A 3/4/10		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	3/5/10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Reddish gray tuff (2.5 YR 5/1)

SAMPLE COMMENTS:

LOCATION DESC: 6f-4

FIELD SCREENING/MEASUREMENT RESULTS: PID: 3.8ppm Background: α: 15 β: 942 dpm Samples < MDA

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
Lane Andress	3/4/10 1635	Sherri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13781 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1050	SUB-MEDIA:	SOIL	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611740	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: brown coarse sediment (7.5 YR 4/2)

SAMPLE COMMENTS: tuff @ 4"

LOCATION DESC: 6 of 4

FIELD SCREENING/MEASUREMENT RESULTS: PID: 2.4ppm Background: α: 15 β: 942 Samples < MDA

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** M. Shendo

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
M. Shendo	3/4/10 1635	Sheri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13779 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1030	SUB-MEDIA:	SOIL	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611739	OK	FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	OK
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: dark reddish gray very coarse sediment fill/ gravel (5YR4/2)

SAMPLE COMMENTS: sample very moist, small plant roots present

LOCATION DESC: 6f-3

FIELD SCREENING/MEASUREMENT RESULTS: PID: 4.9 ppm Background: α: 15 β: 942 Samples <MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Shenda

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
M. Shenda	3/4/10 1635	Sherri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13778 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	~~ALLH~~ ft 3/4/10	Qbt3
TIME COLLECTED (HH:MM)		1020	SUB-MEDIA:	SOIL	N
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611738	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	3'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	4'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ ft 3/4/10		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
2		ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: ~~ft Coarse~~ wet tuff, dark reddish gray (5YR 4/2) 3/4/10

SAMPLE COMMENTS: beneath asphalt, very wet water seeping into hole tuff @ 2 ft, red tuff @ 4 ft

LOCATION DESC: 6f-2

FIELD SCREENING/MEASUREMENT RESULTS: PID: NA sample too wet

Background: α: 15 β: 942

Samples < MDA

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** M. Shende

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
M. Shende	3/4/10 1635	Sherri Sherwood Sherri Sherwood	3/4/10 1635

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2313 VALIDATION DATE: 06/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

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

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. It should be noted that the parent sample for the water QC analyses was a LANL sample from another RN. No sample data were qualified as a result. The MS/MSD parent sample raw data were not included in the data package.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/11/10

VALIDATOR'S SIGNATURE: John Bailey DATE: 06/10/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☒	☐	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13782

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860001

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.581	2.32	0.581	ug/kg	U	1	28-MAR-10 21:14	per0328053a
	Perchlorate Isotope Ratio						1	28-MAR-10 21:14	per0328053a
14797-73-0	Perchlorate-101	.581	2.32	0.581	ug/kg	U	1	28-MAR-10 21:14	per0328053a
	Perchlorate-O(18)			5.78	ug/kg		1	28-MAR-10 21:14	per0328053a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13783

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860002

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 90.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.2	0.551	ug/kg	U	1	28-MAR-10 21:40	per0328056a
	Perchlorate Isotope Ratio						1	28-MAR-10 21:40	per0328056a
14797-73-0	Perchlorate-101	.551	2.2	0.551	ug/kg	U	1	28-MAR-10 21:40	per0328056a
	Perchlorate-O(18)			5.37	ug/kg		1	28-MAR-10 21:40	per0328056a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

JAB

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13777

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860003

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 80

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.628	2.51	0.628	ug/kg	U	1	28-MAR-10 21:48	per0328057a
	Perchlorate Isotope Ratio						1	28-MAR-10 21:48	per0328057a
14797-73-0	Perchlorate-101	.628	2.51	0.628	ug/kg	U	1	28-MAR-10 21:48	per0328057a
	Perchlorate-O(18)			6.14	ug/kg		1	28-MAR-10 21:48	per0328057a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

JAB

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13775

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860004

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 90.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.552	2.21	0.552	ug/kg	U	1	28-MAR-10 21:57	per0328058a
	Perchlorate Isotope Ratio						1	28-MAR-10 21:57	per0328058a
14797-73-0	Perchlorate-101	.552	2.21	0.552	ug/kg	U	1	28-MAR-10 21:57	per0328058a
	Perchlorate-O(18)			5.32	ug/kg		1	28-MAR-10 21:57	per0328058a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13776

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860005

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.556	2.22	0.556	ug/kg	U	1	28-MAR-10 22:05	per0328059a
	Perchlorate Isotope Ratio						1	28-MAR-10 22:05	per0328059a
14797-73-0	Perchlorate-101	.556	2.22	0.556	ug/kg	U	1	28-MAR-10 22:05	per0328059a
	Perchlorate-O(18)			5.48	ug/kg		1	28-MAR-10 22:05	per0328059a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

JAB

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13781

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860006

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.616	2.46	0.616	ug/kg	U	1	28-MAR-10 22:14	per0328060a
	Perchlorate Isotope Ratio						1	28-MAR-10 22:14	per0328060a
14797-73-0	Perchlorate-101	.616	2.46	0.616	ug/kg	U	1	28-MAR-10 22:14	per0328060a
	Perchlorate-O(18)			6.03	ug/kg		1	28-MAR-10 22:14	per0328060a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46–10–13779

Date Received: 06–MAR–10

GEL Job No (SDG): 10–2313

GEL Sample ID: 248860007

Date Filtered: 19–MAR–10

Injection Volume (uL): 20

%Solids: 80

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.621	2.48	0.621	ug/kg	U	1	28–MAR–10 22:48	per0328064a
	Perchlorate Isotope Ratio						1	28–MAR–10 22:48	per0328064a
14797–73–0	Perchlorate–101	.621	2.48	0.621	ug/kg	U	1	28–MAR–10 22:48	per0328064a
	Perchlorate–O(18)			6.23	ug/kg		1	28–MAR–10 22:48	per0328064a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

JAB

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13780

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860008

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.61	2.44	0.610	ug/kg	U	1	28-MAR-10 22:57	per0328065a
	Perchlorate Isotope Ratio						1	28-MAR-10 22:57	per0328065a
14797-73-0	Perchlorate-101	.61	2.44	0.610	ug/kg	U	1	28-MAR-10 22:57	per0328065a
	Perchlorate-O(18)			6.12	ug/kg		1	28-MAR-10 22:57	per0328065a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

JAB

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13778

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860009

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.618	2.47	0.618	ug/kg	U	1	28-MAR-10 23:06	per0328066a
	Perchlorate Isotope Ratio						1	28-MAR-10 23:06	per0328066a
14797-73-0	Perchlorate-101	.618	2.47	0.618	ug/kg	U	1	28-MAR-10 23:06	per0328066a
	Perchlorate-O(18)			5.95	ug/kg		1	28-MAR-10 23:06	per0328066a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

JAB

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 964087

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE46-10-13786

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313-1

GEL Sample ID: 248861001

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	12-MAR-10 01:38	per0311043a
	Perchlorate Isotope Ratio						1	12-MAR-10 01:38	per0311043a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	12-MAR-10 01:38	per0311043a
	Perchlorate-O(18)			0.519	ug/L		1	12-MAR-10 01:38	per0311043a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

JAB

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 964087

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE46-10-13785

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313-1

GEL Sample ID: 248861002

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	12-MAR-10 01:47	per0311044a
	Perchlorate Isotope Ratio						1	12-MAR-10 01:47	per0311044a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	12-MAR-10 01:47	per0311044a
	Perchlorate-O(18)			0.501	ug/L		1	12-MAR-10 01:47	per0311044a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2313 VALIDATION DATE: 06/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

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

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. K was detected in the MB associated with the water samples. The K result for sample RE46-13786 was a detect ≤5X the blank concentration and, thus, was qualified U,I4. The K result for -13785 was ND and, thus, was not qualified. Al and K were detected in the MB associated with the soil samples. The K results for -13783 and -13775 and all Al results were detects >50X the blank concentrations, and, thus, were not qualified, based on professional judgment. All other K results were detects >5X but ≤50X the blank concentration and, thus, were qualified J,I4a.
2. K and Tl were detected in the bracketing CCBs associated with the water samples. The Tl sample result for -13786 and the K sample result for -13785 were NDs and, thus, were not qualified. The Tl sample result for -13785 and the K sample result for -13786 were detects ≤5X the blank concentrations and, thus, were qualified U,I4b. Tl and K were detected in the bracketing CCBs associated with the soil samples. The Tl results for -13782, -13783, -13775, and -13779 were detects ≤5X the blank concentration and, thus, were qualified U,I4b. All other Tl results were NDs and, thus, were not qualified. All K sample results were detects >5X the blank concentrations and, thus, were not qualified.
3. Fe, Mn, Na, and Zn were detected in the FR blank, sample -13786, which was associated with all field samples. All associated sample results were detects >5X the FR blank concentrations and, thus, were not qualified.
4. The soil LCS %R for Sb was < the laboratory's LAL but ≥10%. All sample results were NDs and, thus, were qualified UJ,I12a.
5. The soil MS %R for Mn, K, Na, and Al were > the laboratory's UAL. All associated sample results were detects and, thus, were qualified J+,I6b. The soil MS %R for Fe was > the laboratory's UAL. However, the parent sample concentration was >4X the spike concentration and, thus, the associated sample results were not qualified, based on professional judgment.
6. The DUP RPD was > 35% and the sample and DUP results were >5X the RL for Ca, associated with the soil

DATA VALIDATION COVER SHEET

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Data Validation Cover Sheet

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samples. All sample results were detects and, thus, was qualified J,I10a.

7. It should be noted that the parent sample for the soil Hg QC analyses was a LANL sample from another RN. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/11/10

VALIDATOR'S SIGNATURE: John Bailey DATE: 06/10/10

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☒	☐	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248860001 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13782 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum J+,I6b	1080000	ug/kg	N	7810	23000	23000	1	P	HSC	04/01/10 08:45	033110B-1	964012
7440-36-0	Antimony UJ,I12a	1150	ug/kg	U	379	1150	1150	1	P	HSC	04/01/10 08:45	033110B-1	964012
7440-38-2	Arsenic	1110	ug/kg	U	223	1110	1110	2	MS	BCD1	05/17/10 12:59	100517-3	964014
7440-39-3	Barium	10600	ug/kg		115	574	574	1	P	HSC	04/01/10 08:45	033110B-1	964012
7440-41-7	Beryllium	181	ug/kg		22.3	111	111	2	MS	PRB	05/17/10 20:19	100517-4	964014
7440-43-9	Cadmium	574	ug/kg	U	115	574	574	1	P	HSC	04/01/10 08:45	033110B-1	964012
7440-70-2	Calcium J,I10a	167000	ug/kg	*	8310	26000	26000	1	P	LS	04/13/10 15:00	041310A-2	974047
7440-47-3	Chromium	3310	ug/kg	*	172	574	574	1	P	HSC	04/01/10 08:45	033110B-1	964012
7440-48-4	Cobalt	296	ug/kg	J	172	574	574	1	P	HSC	04/01/10 08:45	033110B-1	964012
7440-50-8	Copper	1090	ug/kg	J	344	1150	1150	1	P	HSC	04/01/10 08:45	033110B-1	964012
7439-89-6	Iron	4290000	ug/kg		9180	28700	28700	1	P	HSC	04/01/10 08:45	033110B-1	964012
7439-92-1	Lead	2650	ug/kg		287	1150	1150	1	P	HSC	04/01/10 08:45	033110B-1	964012
7439-95-4	Magnesium	52700	ug/kg		9760	34400	34400	1	P	HSC	04/01/10 08:45	033110B-1	964012
7439-96-5	Manganese J+,I6b	180000	ug/kg	N	230	1150	1150	1	P	HSC	04/01/10 08:45	033110B-1	964012
7439-97-6	Mercury	11.8	ug/kg	U	4	11.8	11.8	1	AV	JXL1	03/24/10 10:52	032410S1-5	968185
7440-02-0	Nickel	756	ug/kg		111	445	445	2	MS	BCD1	05/17/10 12:59	100517-3	964014
7440-09-7	Potassium J,I4a	396000	ug/kg	EN	7350	28700	28700	1	P	HSC	04/01/10 08:45	033110B-1	964012
7782-49-2	Selenium	1110	ug/kg	U	556	1110	1110	2	MS	BCD1	05/17/10 12:59	100517-3	964014
7440-22-4	Silver	574	ug/kg	U	115	574	574	1	P	HSC	04/01/10 08:45	033110B-1	964012
7440-23-5	Sodium J+,I6b	345000	ug/kg	N	8040	28700	28700	1	P	HSC	04/01/10 08:45	033110B-1	964012
7440-28-0	Thallium U,I4b	87.2	ug/kg	J	66.8	223	223	2	MS	BCD1	05/17/10 12:59	100517-3	964014
7440-62-2	Vanadium	1020	ug/kg		115	574	574	1	P	HSC	04/01/10 08:45	033110B-1	964012
7440-66-6	Zinc	13700	ug/kg		379	1150	1150	1	P	HSC	04/01/10 08:45	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.506	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.522	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.592	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.559	g	50	mL	04/12/10	BXA1

JAB
06/10/

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248860002 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13783 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 90.7

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum J+,I6b	5190000	ug/kg	N	7450	21900	21900	1	P	HSC	04/01/10 09:00	033110B-1	964012
7440-36-0	Antimony UJ,I12a	1100	ug/kg	U	362	1100	1100	1	P	HSC	04/01/10 09:00	033110B-1	964012
7440-38-2	Arsenic	767	ug/kg	J	216	1080	1080	2	MS	BCD1	05/17/10 13:28	100517-3	964014
7440-39-3	Barium	49400	ug/kg		110	548	548	1	P	HSC	04/01/10 09:00	033110B-1	964012
7440-41-7	Beryllium	444	ug/kg		21.6	108	108	2	MS	PRB	05/17/10 20:25	100517-4	964014
7440-43-9	Cadmium	548	ug/kg	U	110	548	548	1	P	HSC	04/01/10 09:00	033110B-1	964012
7440-70-2	Calcium J,I10a	732000	ug/kg	*	8590	26900	26900	1	P	LS	04/13/10 15:17	041310A-2	974047
7440-47-3	Chromium	3180	ug/kg	*	164	548	548	1	P	HSC	04/01/10 09:00	033110B-1	964012
7440-48-4	Cobalt	1720	ug/kg		164	548	548	1	P	HSC	04/01/10 09:00	033110B-1	964012
7440-50-8	Copper	2930	ug/kg		329	1100	1100	1	P	HSC	04/01/10 09:00	033110B-1	964012
7439-89-6	Iron	8200000	ug/kg		8760	27400	27400	1	P	HSC	04/01/10 09:00	033110B-1	964012
7439-92-1	Lead	5940	ug/kg		274	1100	1100	1	P	HSC	04/01/10 09:00	033110B-1	964012
7439-95-4	Magnesium	543000	ug/kg		9310	32900	32900	1	P	HSC	04/01/10 09:00	033110B-1	964012
7439-96-5	Manganese J+,I6b	229000	ug/kg	N	219	1100	1100	1	P	HSC	04/01/10 09:00	033110B-1	964012
7439-97-6	Mercury	53.9	ug/kg		4.1	12	12	1	AV	JXL1	03/24/10 10:54	032410S1-5	968185
7440-02-0	Nickel	2910	ug/kg		108	431	431	2	MS	BCD1	05/17/10 13:28	100517-3	964014
7440-09-7	Potassium J+,I6b	474000	ug/kg	EN	7010	27400	27400	1	P	HSC	04/01/10 09:00	033110B-1	964012
7782-49-2	Selenium	1080	ug/kg	U	539	1080	1080	2	MS	BCD1	05/17/10 13:28	100517-3	964014
7440-22-4	Silver	548	ug/kg	U	110	548	548	1	P	HSC	04/01/10 09:00	033110B-1	964012
7440-23-5	Sodium J+,I6b	247000	ug/kg	N	7670	27400	27400	1	P	HSC	04/01/10 09:00	033110B-1	964012
7440-28-0	Thallium U,I4b	89.1	ug/kg	J	64.7	216	216	2	MS	BCD1	05/17/10 13:28	100517-3	964014
7440-62-2	Vanadium	7320	ug/kg		110	548	548	1	P	HSC	04/01/10 09:00	033110B-1	964012
7440-66-6	Zinc	27100	ug/kg		362	1100	1100	1	P	HSC	04/01/10 09:00	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.503	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.511	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.549	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.513	g	50	mL	04/12/10	BXA1

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06/10/1

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248860003 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13777 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 80

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum J+,I6b	2430000	ug/kg	N	8090	23800	23800	1	P	HSC	04/01/10 09:02	033110B-1	964012
7440-36-0	Antimony UJ,I12a	1190	ug/kg	U	393	1190	1190	1	P	HSC	04/01/10 09:02	033110B-1	964012
7440-38-2	Arsenic	817	ug/kg	J	248	1240	1240	2	MS	BCD1	05/17/10 13:32	100517-3	964014
7440-39-3	Barium	29100	ug/kg		119	595	595	1	P	HSC	04/01/10 09:02	033110B-1	964012
7440-41-7	Beryllium	335	ug/kg		24.8	124	124	2	MS	PRB	05/17/10 20:26	100517-4	964014
7440-43-9	Cadmium	595	ug/kg	U	119	595	595	1	P	HSC	04/01/10 09:02	033110B-1	964012
7440-70-2	Calcium J,I10a	758000	ug/kg	*	8990	28100	28100	1	P	LS	04/13/10 15:19	041310A-2	974047
7440-47-3	Chromium	3910	ug/kg	*	179	595	595	1	P	HSC	04/01/10 09:02	033110B-1	964012
7440-48-4	Cobalt	1050	ug/kg		179	595	595	1	P	HSC	04/01/10 09:02	033110B-1	964012
7440-50-8	Copper	11900	ug/kg		357	1190	1190	1	P	HSC	04/01/10 09:02	033110B-1	964012
7439-89-6	Iron	5660000	ug/kg		9520	29800	29800	1	P	HSC	04/01/10 09:02	033110B-1	964012
7439-92-1	Lead	14100	ug/kg		298	1190	1190	1	P	HSC	04/01/10 09:02	033110B-1	964012
7439-95-4	Magnesium	395000	ug/kg		10100	35700	35700	1	P	HSC	04/01/10 09:02	033110B-1	964012
7439-96-5	Manganese J+,I6b	137000	ug/kg	N	238	1190	1190	1	P	HSC	04/01/10 09:02	033110B-1	964012
7439-97-6	Mercury	12.5	ug/kg	J	4.96	14.6	14.6	1	AV	JXL1	03/24/10 10:56	032410S1-5	968185
7440-02-0	Nickel	2680	ug/kg		124	497	497	2	MS	BCD1	05/17/10 13:32	100517-3	964014
7440-09-7	Potassium J,I4a	356000	ug/kg	EN	7620	29800	29800	1	P	HSC	04/01/10 09:02	033110B-1	964012
7782-49-2	Selenium	1240	ug/kg	U	621	1240	1240	2	MS	BCD1	05/17/10 13:32	100517-3	964014
7440-22-4	Silver	595	ug/kg	U	119	595	595	1	P	HSC	04/01/10 09:02	033110B-1	964012
7440-23-5	Sodium J+,I6b	146000	ug/kg	N	8330	29800	29800	1	P	HSC	04/01/10 09:02	033110B-1	964012
7440-28-0	Thallium	248	ug/kg	U	74.5	248	248	2	MS	BCD1	05/17/10 13:32	100517-3	964014
7440-62-2	Vanadium	5110	ug/kg		119	595	595	1	P	HSC	04/01/10 09:02	033110B-1	964012
7440-66-6	Zinc	29500	ug/kg		393	1190	1190	1	P	HSC	04/01/10 09:02	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.528	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.506	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.517	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.559	g	50	mL	04/12/10	BXA1

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METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248860004 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13775 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 90.5

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	J+,I6b	4720000	ug/kg	N	7370	21700	21700	1	P	HSC	04/01/10 09:04	033110B-1	964012
7440-36-0	Antimony	UJ,I12a	1080	ug/kg	U	357	1080	1080	1	P	HSC	04/01/10 09:04	033110B-1	964012
7440-38-2	Arsenic		832	ug/kg	J	207	1030	1030	2	MS	BCD1	05/17/10 13:37	100517-3	964014
7440-39-3	Barium		44800	ug/kg		108	542	542	1	P	HSC	04/01/10 09:04	033110B-1	964012
7440-41-7	Beryllium		457	ug/kg		20.7	103	103	2	MS	PRB	05/17/10 20:27	100517-4	964014
7440-43-9	Cadmium		542	ug/kg	U	108	542	542	1	P	HSC	04/01/10 09:04	033110B-1	964012
7440-70-2	Calcium	J,I10a	649000	ug/kg	*	8390	26200	26200	1	P	LS	04/13/10 15:21	041310A-2	974047
7440-47-3	Chromium		3130	ug/kg	*	162	542	542	1	P	HSC	04/01/10 09:04	033110B-1	964012
7440-48-4	Cobalt		1460	ug/kg		162	542	542	1	P	HSC	04/01/10 09:04	033110B-1	964012
7440-50-8	Copper		2700	ug/kg		325	1080	1080	1	P	HSC	04/01/10 09:04	033110B-1	964012
7439-89-6	Iron		7810000	ug/kg		8670	27100	27100	1	P	HSC	04/01/10 09:04	033110B-1	964012
7439-92-1	Lead		5260	ug/kg		271	1080	1080	1	P	HSC	04/01/10 09:04	033110B-1	964012
7439-95-4	Magnesium		539000	ug/kg		9210	32500	32500	1	P	HSC	04/01/10 09:04	033110B-1	964012
7439-96-5	Manganese	J+,I6b	220000	ug/kg	N	217	1080	1080	1	P	HSC	04/01/10 09:04	033110B-1	964012
7439-97-6	Mercury		16.9	ug/kg		4.41	13	13	1	AV	JXL1	03/24/10 10:58	032410S1-5	968185
7440-02-0	Nickel		2810	ug/kg		103	414	414	2	MS	BCD1	05/17/10 13:37	100517-3	964014
7440-09-7	Potassium	J+,I6b	452000	ug/kg	EN	6930	27100	27100	1	P	HSC	04/01/10 09:04	033110B-1	964012
7782-49-2	Selenium		1030	ug/kg	U	517	1030	1030	2	MS	BCD1	05/17/10 13:37	100517-3	964014
7440-22-4	Silver		542	ug/kg	U	108	542	542	1	P	HSC	04/01/10 09:04	033110B-1	964012
7440-23-5	Sodium	J+,I6b	228000	ug/kg	N	7580	27100	27100	1	P	HSC	04/01/10 09:04	033110B-1	964012
7440-28-0	Thallium	U,I4b	74.7	ug/kg	J	62.1	207	207	2	MS	BCD1	05/17/10 13:37	100517-3	964014
7440-62-2	Vanadium		6480	ug/kg		108	542	542	1	P	HSC	04/01/10 09:04	033110B-1	964012
7440-66-6	Zinc		24500	ug/kg		357	1080	1080	1	P	HSC	04/01/10 09:04	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.51	g	50	mL	03/13/10	AXG
964014	964013	SW846 3050B	0.534	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.511	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.527	g	50	mL	04/12/10	BXA1

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248860005 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13776 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	J+,I6b	1470000	ug/kg	N	7290	21400	21400	1	P	HSC	04/01/10 09:07	033110B-1	964012
7440-36-0	Antimony	UJ,I12a	1070	ug/kg	U	354	1070	1070	1	P	HSC	04/01/10 09:07	033110B-1	964012
7440-38-2	Arsenic		642	ug/kg	J	218	1090	1090	2	MS	BCD1	05/17/10 13:41	100517-3	964014
7440-39-3	Barium		22200	ug/kg		107	536	536	1	P	HSC	04/01/10 09:07	033110B-1	964012
7440-41-7	Beryllium		611	ug/kg		21.8	109	109	2	MS	PRB	05/17/10 20:31	100517-4	964014
7440-43-9	Cadmium		536	ug/kg	U	107	536	536	1	P	HSC	04/01/10 09:07	033110B-1	964012
7440-70-2	Calcium	J,I10a	344000	ug/kg	*	8440	26400	26400	1	P	LS	04/13/10 15:23	041310A-2	974047
7440-47-3	Chromium		5510	ug/kg	*	161	536	536	1	P	HSC	04/01/10 09:07	033110B-1	964012
7440-48-4	Cobalt		316	ug/kg	J	161	536	536	1	P	HSC	04/01/10 09:07	033110B-1	964012
7440-50-8	Copper		1580	ug/kg		322	1070	1070	1	P	HSC	04/01/10 09:07	033110B-1	964012
7439-89-6	Iron		9400000	ug/kg		8570	26800	26800	1	P	HSC	04/01/10 09:07	033110B-1	964012
7439-92-1	Lead		1320	ug/kg		268	1070	1070	1	P	HSC	04/01/10 09:07	033110B-1	964012
7439-95-4	Magnesium		221000	ug/kg		9110	32200	32200	1	P	HSC	04/01/10 09:07	033110B-1	964012
7439-96-5	Manganese	J+,I6b	230000	ug/kg	N	214	1070	1070	1	P	HSC	04/01/10 09:07	033110B-1	964012
7439-97-6	Mercury		12.3	ug/kg	J	4.32	12.7	12.7	1	AV	JXL1	03/24/10 10:59	032410S1-5	968185
7440-02-0	Nickel		2610	ug/kg		109	436	436	2	MS	BCD1	05/17/10 13:41	100517-3	964014
7440-09-7	Potassium	J,I4a	245000	ug/kg	EN	6860	26800	26800	1	P	HSC	04/01/10 09:07	033110B-1	964012
7782-49-2	Selenium		1090	ug/kg	U	545	1090	1090	2	MS	BCD1	05/17/10 13:41	100517-3	964014
7440-22-4	Silver		536	ug/kg	U	107	536	536	1	P	HSC	04/01/10 09:07	033110B-1	964012
7440-23-5	Sodium	J+,I6b	165000	ug/kg	N	7500	26800	26800	1	P	HSC	04/01/10 09:07	033110B-1	964012
7440-28-0	Thallium		218	ug/kg	U	65.4	218	218	2	MS	BCD1	05/17/10 13:41	100517-3	964014
7440-62-2	Vanadium		3690	ug/kg		107	536	536	1	P	HSC	04/01/10 09:07	033110B-1	964012
7440-66-6	Zinc		17300	ug/kg		354	1070	1070	1	P	HSC	04/01/10 09:07	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.519	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.51	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.525	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.527	g	50	mL	04/12/10	BXA1

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248860006 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13781 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum J+,I6b	1260000	ug/kg	N	8150	24000	24000	1	P	HSC	04/01/10 09:09	033110B-1	964012
7440-36-0	Antimony UJ,I12a	1200	ug/kg	U	395	1200	1200	1	P	HSC	04/01/10 09:09	033110B-1	964012
7440-38-2	Arsenic	548	ug/kg	J	232	1160	1160	2	MS	BCD1	05/17/10 13:45	100517-3	964014
7440-39-3	Barium	16600	ug/kg		120	599	599	1	P	HSC	04/01/10 09:09	033110B-1	964012
7440-41-7	Beryllium	340	ug/kg		23.2	116	116	2	MS	PRB	05/17/10 20:32	100517-4	964[illegible]
7440-43-9	Cadmium	599	ug/kg	U	120	599	599	1	P	HSC	04/01/10 09:09	033110B-1	964012
7440-70-2	Calcium J,I10a	497000	ug/kg	*	9480	29600	29600	1	P	LS	04/13/10 15:25	041310A-2	974047
7440-47-3	Chromium	114000	ug/kg	*	180	599	599	1	P	HSC	04/01/10 09:09	033110B-1	964012
7440-48-4	Cobalt	1690	ug/kg		180	599	599	1	P	HSC	04/01/10 09:09	033110B-1	964012
7440-50-8	Copper	6300	ug/kg		360	1200	1200	1	P	HSC	04/01/10 09:09	033110B-1	964012
7439-89-6	Iron	6040000	ug/kg		9590	30000	30000	1	P	HSC	04/01/10 09:09	033110B-1	964012
7439-92-1	Lead	23400	ug/kg		300	1200	1200	1	P	HSC	04/01/10 09:09	033110B-1	964012
7439-95-4	Magnesium	226000	ug/kg		10200	36000	36000	1	P	HSC	04/01/10 09:09	033110B-1	964012
7439-96-5	Manganese J+,I6b	254000	ug/kg	N	240	1200	1200	1	P	HSC	04/01/10 09:09	033110B-1	964012
7439-97-6	Mercury	121	ug/kg		5.01	14.7	14.7	1	AV	JXL1	03/24/10 11:04	032410S1-5	968185
7440-02-0	Nickel	1000	ug/kg		116	465	465	2	MS	BCD1	05/17/10 13:45	100517-3	964014
7440-09-7	Potassium J,I4a	327000	ug/kg	EN	7670	30000	30000	1	P	HSC	04/01/10 09:09	033110B-1	964[illegible]
7782-49-2	Selenium	1160	ug/kg	U	581	1160	1160	2	MS	BCD1	05/17/10 13:45	100517-3	964014
7440-22-4	Silver	599	ug/kg	U	120	599	599	1	P	HSC	04/01/10 09:09	033110B-1	964012
7440-23-5	Sodium J+,I6b	262000	ug/kg	N	8390	30000	30000	1	P	HSC	04/01/10 09:09	033110B-1	964012
7440-28-0	Thallium	232	ug/kg	U	69.7	232	232	2	MS	BCD1	05/17/10 13:45	100517-3	964014
7440-62-2	Vanadium	2640	ug/kg		120	599	599	1	P	HSC	04/01/10 09:09	033110B-1	964012
7440-66-6	Zinc	29900	ug/kg		395	1200	1200	1	P	HSC	04/01/10 09:09	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.514	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.53	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.502	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.52	g	50	mL	04/12/10	BXA1

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248860007 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13779 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 80

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum J+,I6b	4020000	ug/kg	N	8410	24700	24700	1	P	HSC	04/01/10 09:11	033110B-1	964012
7440-36-0	Antimony UJ,I12a	1240	ug/kg	U	408	1240	1240	1	P	HSC	04/01/10 09:11	033110B-1	964012
7440-38-2	Arsenic	953	ug/kg	J	242	1210	1210	2	MS	BCD1	05/17/10 13:49	100517-3	964014
7440-39-3	Barium	38600	ug/kg		124	619	619	1	P	HSC	04/01/10 09:11	033110B-1	964012
7440-41-7	Beryllium	470	ug/kg		24.2	121	121	2	MS	PRB	05/17/10 20:34	100517-4	964014
7440-43-9	Cadmium	619	ug/kg	U	124	619	619	1	P	HSC	04/01/10 09:11	033110B-1	964012
7440-70-2	Calcium J,I10a	804000	ug/kg	*	8890	27800	27800	1	P	LS	04/13/10 15:27	041310A-2	974047
7440-47-3	Chromium	4330	ug/kg	*	186	619	619	1	P	HSC	04/01/10 09:11	033110B-1	964012
7440-48-4	Cobalt	1250	ug/kg		186	619	619	1	P	HSC	04/01/10 09:11	033110B-1	964012
7440-50-8	Copper	5300	ug/kg		371	1240	1240	1	P	HSC	04/01/10 09:11	033110B-1	964012
7439-89-6	Iron	6780000	ug/kg		9900	30900	30900	1	P	HSC	04/01/10 09:11	033110B-1	964012
7439-92-1	Lead	7910	ug/kg		309	1240	1240	1	P	HSC	04/01/10 09:11	033110B-1	964012
7439-95-4	Magnesium	475000	ug/kg		10500	37100	37100	1	P	HSC	04/01/10 09:11	033110B-1	964012
7439-96-5	Manganese J+,I6b	198000	ug/kg	N	247	1240	1240	1	P	HSC	04/01/10 09:11	033110B-1	964012
7439-97-6	Mercury	23.6	ug/kg		4.46	13.1	13.1	1	AV	JXL1	03/24/10 11:06	032410S1-5	968185
7440-02-0	Nickel	3310	ug/kg		121	483	483	2	MS	BCD1	05/17/10 13:49	100517-3	964014
7440-09-7	Potassium J,I4a	381000	ug/kg	EN	7920	30900	30900	1	P	HSC	04/01/10 09:11	033110B-1	964012
7782-49-2	Selenium	1210	ug/kg	U	604	1210	1210	2	MS	BCD1	05/17/10 13:49	100517-3	964014
7440-22-4	Silver	619	ug/kg	U	124	619	619	1	P	HSC	04/01/10 09:11	033110B-1	964012
7440-23-5	Sodium J+,I6b	143000	ug/kg	N	8660	30900	30900	1	P	HSC	04/01/10 09:11	033110B-1	964012
7440-28-0	Thallium U,I4b	73.2	ug/kg	J	72.5	242	242	2	MS	BCD1	05/17/10 13:49	100517-3	964014
7440-62-2	Vanadium	6050	ug/kg		124	619	619	1	P	HSC	04/01/10 09:11	033110B-1	964012
7440-66-6	Zinc	52600	ug/kg		408	1240	1240	1	P	HSC	04/01/10 09:11	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.502	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.514	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.568	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.559	g	50	mL	04/12/10	BXA1

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248860008 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13780 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	J+,I6b	1150000	ug/kg	N	7590	22300	22300	1	P	HSC	04/01/10 09:13	033110B-1	964012
7440-36-0	Antimony	UJ,I12a	1120	ug/kg	U	368	1120	1120	1	P	HSC	04/01/10 09:13	033110B-1	964012
7440-38-2	Arsenic		582	ug/kg	J	244	1220	1220	2	MS	BCD1	05/17/10 13:53	100517-3	964014
7440-39-3	Barium		13200	ug/kg		112	558	558	1	P	HSC	04/01/10 09:13	033110B-1	964012
7440-41-7	Beryllium		310	ug/kg		24.4	122	122	2	MS	PRB	05/17/10 20:35	100517-4	964014
7440-43-9	Cadmium		558	ug/kg	U	112	558	558	1	P	HSC	04/01/10 09:13	033110B-1	964012
7440-70-2	Calcium	J,I10a	334000	ug/kg	*	9500	29700	29700	1	P	LS	04/13/10 15:29	041310A-2	974047
7440-47-3	Chromium		16400	ug/kg	*	167	558	558	1	P	HSC	04/01/10 09:13	033110B-1	964012
7440-48-4	Cobalt		800	ug/kg		167	558	558	1	P	HSC	04/01/10 09:13	033110B-1	964012
7440-50-8	Copper		1630	ug/kg		335	1120	1120	1	P	HSC	04/01/10 09:13	033110B-1	964012
7439-89-6	Iron		6600000	ug/kg		8930	27900	27900	1	P	HSC	04/01/10 09:13	033110B-1	964012
7439-92-1	Lead		1430	ug/kg		279	1120	1120	1	P	HSC	04/01/10 09:13	033110B-1	964012
7439-95-4	Magnesium		151000	ug/kg		9480	33500	33500	1	P	HSC	04/01/10 09:13	033110B-1	964012
7439-96-5	Manganese	J+,I6b	259000	ug/kg	N	223	1120	1120	1	P	HSC	04/01/10 09:13	033110B-1	964012
7439-97-6	Mercury		12.7	ug/kg	U	4.31	12.7	12.7	1	AV	JXL1	03/24/10 11:08	032410S1-5	968185
7440-02-0	Nickel		2080	ug/kg		122	488	488	2	MS	BCD1	05/17/10 13:53	100517-3	964014
7440-09-7	Potassium	J,I4a	322000	ug/kg	EN	7140	27900	27900	1	P	HSC	04/01/10 09:13	033110B-1	964012
7782-49-2	Selenium		1220	ug/kg	U	610	1220	1220	2	MS	BCD1	05/17/10 13:53	100517-3	964014
7440-22-4	Silver		558	ug/kg	U	112	558	558	1	P	HSC	04/01/10 09:13	033110B-1	964012
7440-23-5	Sodium	J+,I6b	228000	ug/kg	N	7810	27900	27900	1	P	HSC	04/01/10 09:13	033110B-1	964012
7440-28-0	Thallium		244	ug/kg	U	73.2	244	244	2	MS	BCD1	05/17/10 13:53	100517-3	964014
7440-62-2	Vanadium		1580	ug/kg		112	558	558	1	P	HSC	04/01/10 09:13	033110B-1	964012
7440-66-6	Zinc		17200	ug/kg		368	1120	1120	1	P	HSC	04/01/10 09:13	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.547	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.5	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.578	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.514	g	50	mL	04/12/10	BXA1

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248860009 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13778 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum J+,I6b	1270000	ug/kg	N	8290	24400	24400	1	P	HSC	04/01/10 09:20	033110B-1	964012
7440-36-0	Antimony UJ,I12a	1220	ug/kg	U	402	1220	1220	1	P	HSC	04/01/10 09:20	033110B-1	964012
7440-38-2	Arsenic	377	ug/kg	J	242	1210	1210	2	MS	BCD1	05/17/10 13:57	100517-3	964014
7440-39-3	Barium	22300	ug/kg		122	609	609	1	P	HSC	04/01/10 09:20	033110B-1	964012
7440-41-7	Beryllium	174	ug/kg		24.2	121	121	2	MS	PRB	05/17/10 20:36	100517-4	964014
7440-43-9	Cadmium	609	ug/kg	U	122	609	609	1	P	HSC	04/01/10 09:20	033110B-1	964012
7440-70-2	Calcium J,I10a	166000	ug/kg	*	9490	29600	29600	1	P	LS	04/13/10 15:36	041310A-2	974047
7440-47-3	Chromium	2390	ug/kg	*	183	609	609	1	P	HSC	04/01/10 09:20	033110B-1	964012
7440-48-4	Cobalt	204	ug/kg	J	183	609	609	1	P	HSC	04/01/10 09:20	033110B-1	964012
7440-50-8	Copper	1610	ug/kg		366	1220	1220	1	P	HSC	04/01/10 09:20	033110B-1	964012
7439-89-6	Iron	7290000	ug/kg		9750	30500	30500	1	P	HSC	04/01/10 09:20	033110B-1	964012
7439-92-1	Lead	2060	ug/kg		305	1220	1220	1	P	HSC	04/01/10 09:20	033110B-1	964012
7439-95-4	Magnesium	98900	ug/kg		10400	36600	36600	1	P	HSC	04/01/10 09:20	033110B-1	964012
7439-96-5	Manganese J+,I6b	178000	ug/kg	N	244	1220	1220	1	P	HSC	04/01/10 09:20	033110B-1	964012
7439-97-6	Mercury	13.6	ug/kg	U	4.62	13.6	13.6	1	AV	JXL1	03/24/10 11:09	032410S1-5	968185
7440-02-0	Nickel	767	ug/kg		121	484	484	2	MS	BCD1	05/17/10 13:57	100517-3	964014
7440-09-7	Potassium J,I4a	269000	ug/kg	EN	7800	30500	30500	1	P	HSC	04/01/10 09:20	033110B-1	964012
7782-49-2	Selenium	1210	ug/kg	U	604	1210	1210	2	MS	BCD1	05/17/10 13:57	100517-3	964014
7440-22-4	Silver	609	ug/kg	U	122	609	609	1	P	HSC	04/01/10 09:20	033110B-1	964012
7440-23-5	Sodium J+,I6b	209000	ug/kg	N	8530	30500	30500	1	P	HSC	04/01/10 09:20	033110B-1	964012
7440-28-0	Thallium	242	ug/kg	U	72.5	242	242	2	MS	BCD1	05/17/10 13:57	100517-3	964014
7440-62-2	Vanadium	1500	ug/kg		122	609	609	1	P	HSC	04/01/10 09:20	033110B-1	964012
7440-66-6	Zinc	14900	ug/kg		402	1220	1220	1	P	HSC	04/01/10 09:20	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.507	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.511	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.545	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.521	g	50	mL	04/12/10	BXA1

JAB
06/10/

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248861001 **BASIS:** As Received **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13786 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	RMJ	05/11/10 08:42	100510-2	962984
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	RMJ	05/11/10 08:42	100510-2	962984
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	RMJ	05/11/10 08:42	100510-2	962984
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	03/31/10 19:16	033110B-1	962982
7439-89-6	Iron	47.2	ug/L	J	30	100	100	1	P	HSC	03/31/10 19:16	033110B-1	962982
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	RMJ	05/12/10 03:20	100511-3	962984
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/31/10 19:16	033110B-1	962982
7439-96-5	Manganese	1.6	ug/L	J	1	5	5	1	MS	RMJ	05/12/10 03:20	100511-3	962984
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/13/10 09:18	031310W1-4	964665
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-09-7	Potassium U,I4	74.3	ug/L	J	50	150	150	1	P	HSC	03/31/10 19:16	033110B-1	962982
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-23-5	Sodium	166	ug/L	J	100	300	300	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	RMJ	05/11/10 08:42	100510-2	962984
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-66-6	Zinc	3.51	ug/L	J	3.3	10	10	1	P	HSC	03/31/10 19:16	033110B-1	962982

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
962982	962981	SW846 3005A	50	mL	50	mL	03/13/10	LYH1
962984	962983	SW846 3005A	50	mL	50	mL	03/13/10	LYH1
964665	964663	SW846 7470A Prep	20	mL	20	mL	03/12/10	TXB3

JAB
06/10/1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248861002 **BASIS:** As Received **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13785 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	RMJ	05/11/10 09:01	100510-2	962984
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	RMJ	05/11/10 09:01	100510-2	962984
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	RMJ	05/11/10 09:01	100510-2	962984
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	03/31/10 19:44	033110B-1	962982
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	03/31/10 19:44	033110B-1	962982
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	RMJ	05/12/10 03:37	100511-3	962984
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/31/10 19:44	033110B-1	962982
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	RMJ	05/12/10 03:37	100511-3	962984
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/13/10 09:30	031310W1-4	964665
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	03/31/10 19:44	033110B-1	962982
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-28-0	Thallium U,I4b	0.423	ug/L	J	0.3	1	1	1	MS	RMJ	05/11/10 09:01	100510-2	962984
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	03/31/10 19:44	033110B-1	962982

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
962982	962981	SW846 3005A	50	mL	50	mL	03/13/10	LYH1
962984	962983	SW846 3005A	50	mL	50	mL	03/13/10	LYH1
964665	964663	SW846 7470A Prep	20	mL	20	mL	03/12/10	TXB3

JAB
06/10/1

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2313 VALIDATION DATE: 06/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

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

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. It should be noted that the parent samples for the water QC analyses were LANL samples from other RNs. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/11/10

VALIDATOR'S SIGNATURE: John Bailey DATE: 06/10/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2313

Client Sample ID:	RE46-10-13782	Project:	LANL01004
Sample ID:	248860001	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	13.9%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	74.5	274	ug/kg	1	AXC2 03/18/10	1320	962273	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

JAB

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2313

Client Sample ID:	RE46-10-13783	Project:	LANL01004
Sample ID:	248860002	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	9.26%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	69.4	255	ug/kg	1	AXC2 03/18/10	1321	962273	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

JAB

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2313

Client Sample ID:	RE46-10-13777	Project:	LANL01004
Sample ID:	248860003	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	20.4%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	77.7	286	ug/kg	1	AXC2 03/18/10	1322	962273	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2313

Client Sample ID:	RE46-10-13776	Project:	LANL01004
Sample ID:	248860005	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	10.1%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	75.6	278	ug/kg	1	AXC2 03/18/10	1324	962273	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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

Report Date: April 1, 2010

Client SDG: 10-2313

Client Sample ID:	RE46-10-13781	Project:	LANL01004
Sample ID:	248860006	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	18.8%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	82.1	302	ug/kg	1	AXC2 03/18/10	1325	962273	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2313

Client Sample ID:	RE46-10-13779	Project:	LANL01004
Sample ID:	248860007	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	19.5%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	74.1	272	ug/kg	1	AXC2 03/18/10	1325	962273	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2313

Client Sample ID:	RE46-10-13780	Project:	LANL01004
Sample ID:	248860008	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	18.1%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Meth.d
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	76.9	283	ug/kg	1	AXC2 03/18/10	1326	962273	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2313

Client Sample ID:	RE46-10-13778	Project:	LANL01004
Sample ID:	248860009	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	19.1%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
'012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	80.8	297	ug/kg	1	AXC2 03/18/10	1331	962273	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2313

Client Sample ID:	RE46-10-13775	Project:	LANL01004
Sample ID:	248860004	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	9.5%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	69.6	256	ug/kg	1	AXC2 03/18/10	1323	962273	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2313-1

Client Sample ID:	RE46-10-13786	Project:	LANL01004
Sample ID:	248861001	Client ID:	LANL010
Matrix:	W		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "As Received"										
nide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/11/10	1841	962268	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/11/10	1416	962267

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2313-1

Client Sample ID: RE46-10-13785
Sample ID: 248861002
Matrix: W
Collect Date: 04-MAR-10 12:00
Receive Date: 06-MAR-10
Collector: Client

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "As Received"										
nide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/11/10	1842	962268	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/11/10	1416	962267

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

IAR

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2313 VALIDATION DATE: 06/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

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

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The gamma spec results that were rejected by the laboratory due to interference or low abundance were qualified R,R5a.
2. The alpha spec U-232 tracer %R was < the laboratory's LAL for samples RE46-10-13783, -13777, and -13779. The alpha spec U-233/234 and U-238 results were detects and, thus, were qualified J+,R3b. The alpha spec U-235/236 results were NDs, and, thus were not qualified.
3. It should be noted that the parent sample for all the QC analyses was a LANL sample from another RN. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/11/10

VALIDATOR'S SIGNATURE: John Bailey DATE: 06/10/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

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

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

Report Date: April 5, 2010

Client Sample ID:	RE46-10-13782	Project:	LANL01004
Sample ID:	248860001	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	13.9%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mid.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
ericium-241	U	0.00355		0.0222	+/-0.00288	0.050	pCi/g		AYB1	03/29/10	1201	965811	2
)PU "Dry Weight Corrected"													
tonium-238	U	-0.00512		0.018	+/-0.00572	0.050	pCi/g		AYB1	03/27/10	1340	965813	3
tonium-239/240	U	-0.00128		0.0152	+/-0.00384	0.050	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.746		0.114	+/-0.0773	0.100	pCi/g		AYB1	04/02/10	1137	971197	4
.nium-235/236	U	0.0451		0.0698	+/-0.0169	0.100	pCi/g						
.nium-238		0.717		0.0803	+/-0.0751	0.100	pCi/g						
Gamma Spec Analysis													
lMMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.399		0.550	+/-0.168	0.200	pCi/g		MXR1	03/24/10	1615	962633	6
muth-211	UI	4.73	R,R5a	0.447	+/-0.355		pCi/g						
muth-214		1.24		0.140	+/-0.113	0.200	pCi/g						
lmium-109	UI	2.31	R,R5a	1.92	+/-0.701		pCi/g						
ium-139	U	-0.0071		0.0713	+/-0.0222	0.050	pCi/g						
ium-134	UI	0.195	R,R5a	0.121	+/-0.0436	0.100	pCi/g						
ium-137	U	-0.0285		0.0731	+/-0.0226	0.100	pCi/g						
alt-60	U	-0.0157		0.0739	+/-0.024	0.100	pCi/g						
opium-152	U	0.0699		0.218	+/-0.0718	0.200	pCi/g						
thanum-140	U	-0.0782		0.208	+/-0.0703		pCi/g						
d-212		2.03		0.127	+/-0.143	0.100	pCi/g						
d-214		1.72		0.160	+/-0.137	0.100	pCi/g						
rcury-203	U	0.0386		0.0945	+/-0.0269	0.100	pCi/g						
assium-40		39.7		0.756	+/-2.27	1.00	pCi/g						
lium-223	U	-0.265		1.46	+/-0.506		pCi/g						
lium-224	UI	3.77	R,R5a	1.36	+/-0.843		pCi/g						
lium-226		1.24		0.140	+/-0.113		pCi/g						
lium-228		1.90		0.310	+/-0.234	0.500	pCi/g						
henium-106	U	-0.0524		0.691	+/-0.214	0.800	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13782
Sample ID: 248860001

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
. Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
lium-22	U	0.0277		0.101	+/-0.0299	0.080	pCi/g						
›ntium-85	UI	0.124	R,R5a	0.104	+/-0.0319		pCi/g						
ıllium-208		0.599		0.0697	+/-0.0557	0.080	pCi/g						
›rium-227	U	-0.14		0.581	+/-0.173		pCi/g						
›rium-231	U	-0.265		1.46	+/-0.506		pCi/g						
›rium-234	U	0.311		4.55	+/-1.31	2.00	pCi/g						
-113	U	-0.0581		0.0991	+/-0.0314	0.100	pCi/g						
.nium-235	U	0.107		0.474	+/-0.142	0.500	pCi/g						
rium-88	U	0.0136		0.073	+/-0.0223	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
·ericium-243 Tracer	AM241 "Dry Weight Corrected"	83.8	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	89.1	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	82.7	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ıe Qualifiers in this report are defined as follows :

'* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
3D Results are either below the MDC or tracer recovery is low
: Analyte has been confirmed by GC/MS analysis
) Results are reported from a diluted aliquot of the sample
: General Chemistry--Concentration of the target analyte exceeds the instrument calibration range

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID:	RE46-10-13783	Project:	LANL01004
Sample ID:	248860002	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	9.26%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
ericium-241	U	0.00114		0.024	+/-0.00292	0.050	pCi/g		AYB1	03/29/10	1201	965811	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.00492		0.0224	+/-0.00759	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
tonium-239/240	U	0.006		0.0189	+/-0.00415	0.050	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.685	J+,R3b	0.173	+/-0.0838	0.100	pCi/g		AYB1	04/03/10	1618	971197	4
.nium-235/236	U	0.038		0.106	+/-0.0172	0.100	pCi/g						
.nium-238		0.683	J+,R3b	0.122	+/-0.0832	0.100	pCi/g						
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
.ericium-241	U	0.117		0.308	+/-0.0863	0.200	pCi/g		MXR1	03/24/10	1615	962633	6
muth-211	UI	3.58	R,R5a	0.278	+/-0.228		pCi/g						
muth-214		1.18		0.106	+/-0.0863	0.200	pCi/g						
lmium-109	UI	2.39	R,R5a	1.31	+/-0.531		pCi/g						
ium-139	U	-0.00245		0.0451	+/-0.013	0.050	pCi/g						
ium-134	UI	0.090	R,R5a	0.0759	+/-0.027	0.100	pCi/g						
ium-137	U	0.0172		0.0543	+/-0.0156	0.100	pCi/g						
ɔalt-60	U	-0.00605		0.0579	+/-0.018	0.100	pCi/g						
opium-152	U	-0.034		0.140	+/-0.0505	0.200	pCi/g						
ıthanum-140	U	0.0591		0.131	+/-0.0404		pCi/g						
.d-212		1.80		0.0842	+/-0.0833	0.100	pCi/g						
.d-214		1.30		0.101	+/-0.0903	0.100	pCi/g						
rcury-203	UI	0.067	R,R5a	0.0655	+/-0.0205	0.100	pCi/g						
assium-40		34.4		0.442	+/-1.53	1.00	pCi/g						
lium-223	U	0.333		0.882	+/-0.296		pCi/g						
lium-224	UI	3.79	R,R5a	0.902	+/-0.579		pCi/g						
lium-226		1.18		0.106	+/-0.0863		pCi/g						
lium-228		1.74		0.200	+/-0.182	0.500	pCi/g						
henium-106	U	-0.117		0.390	+/-0.124	0.800	pCi/g						
lium-22	U	-0.0549		0.0561	+/-0.0194	0.080	pCi/g						

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

Report Date: April 5, 2010

Client Sample ID: RE46-10-13783
Sample ID: 248860002

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
›ntium-85	UI	0.0948	R,R5a	0.063	+/-0.0186		pCi/g						
ıllium-208		0.525		0.0489	+/-0.0404	0.080	pCi/g						
›rium-227	U	-0.0985		0.354	+/-0.108		pCi/g						
›rium-231	U	0.333		0.882	+/-0.296		pCi/g						
›rium-234	U	1.92		2.75	+/-0.780	2.00	pCi/g						
-113	U	-0.0171		0.0614	+/-0.0185	0.100	pCi/g						
.nium-235	U	0.119		0.313	+/-0.0949	0.500	pCi/g						
rium-88	U	0.00587		0.0421	+/-0.0124	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
:ricium-243 Tracer	AM241 "Dry Weight Corrected"	76.4	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	86.4	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	41.6 *	(50%-105%)

tes:
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ıe Qualifiers in this report are defined as follows :

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: Result is less than value reported
· Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
3D Results are either below the MDC or tracer recovery is low
: Analyte has been confirmed by GC/MS analysis
) Results are reported from a diluted aliquot of the sample
: General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
: Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID:	RE46-10-13777	Project:	LANL01004
Sample ID:	248860003	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	20.4%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
.ericium-241	U	0.0022		0.0265	+/-0.002	0.050	pCi/g		AYB1	03/29/10	2147	965811	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.00491		0.0254	+/-0.00431	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
tonium-239/240	U	0.00023		0.0215	+/-0.00432	0.050	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.973	J+,R3b	0.240	+/-0.121	0.100	pCi/g		AYB1	04/03/10	1618	971197	4
.nium-235/236	U	0.063		0.146	+/-0.0301	0.100	pCi/g						
.nium-238		1.10	J+,R3b	0.168	+/-0.131	0.100	pCi/g						
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
.ericium-241	U	-0.0284		0.216	+/-0.0618	0.200	pCi/g		MXR1	03/24/10	1615	962633	6
muth-211	UI	3.86	R,R5a	0.304	+/-0.303		pCi/g						
muth-214		0.963		0.101	+/-0.0931	0.200	pCi/g						
lmium-109	UI	3.64	R,R5a	1.09	+/-0.504		pCi/g						
ium-139	U	0.00167		0.0492	+/-0.0142	0.050	pCi/g						
ium-134	UI	0.105	R,R5a	0.079	+/-0.027	0.100	pCi/g						
ium-137	U	0.0378		0.0636	+/-0.0182	0.100	pCi/g						
alt-60	U	0.00315		0.0591	+/-0.0177	0.100	pCi/g						
opium-152	U	-0.0757		0.141	+/-0.0644	0.200	pCi/g						
ıthanum-140	U	-0.192		0.152	+/-0.0576		pCi/g						
.d-212		1.65		0.0878	+/-0.120	0.100	pCi/g						
.d-214		1.40		0.110	+/-0.117	0.100	pCi/g						
rcury-203	UI	0.112	R,R5a	0.0589	+/-0.0326	0.100	pCi/g						
assium-40		34.4		0.477	+/-1.77	1.00	pCi/g						
lium-223	U	0.116		0.966	+/-0.320		pCi/g						
lium-224	UI	4.46	R,R5a	0.940	+/-0.625		pCi/g						
lium-226		0.963		0.101	+/-0.0931		pCi/g						
lium-228		1.84		0.212	+/-0.178	0.500	pCi/g						
henium-106	U	0.0221		0.466	+/-0.138	0.800	pCi/g						
lium-22	U	-0.0381		0.0603	+/-0.0196	0.080	pCi/g						

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

Report Date: April 5, 2010

Client Sample ID: RE46-10-13777
Sample ID: 248860003

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
. Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
›ntium-85	UI	0.167	R,R5a	0.0741	+/-0.0224		pCi/g						
ıllium-208		0.478		0.0509	+/-0.0432	0.080	pCi/g						
›rium-227	U	-0.204		0.380	+/-0.120		pCi/g						
›rium-231	U	0.116		0.966	+/-0.320		pCi/g						
›rium-234	U	0.661		2.08	+/-0.579	2.00	pCi/g						
-113	U	-0.0342		0.0641	+/-0.0199	0.100	pCi/g						
.nium-235	U	-0.0113		0.317	+/-0.0922	0.500	pCi/g						
rium-88	U	-0.0265		0.0437	+/-0.0185	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
;ricium-243 Tracer	AM241 "Dry Weight Corrected"	71.1	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	77.2	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	33.9 *	(50%-105%)

tes:
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3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
3D Results are either below the MDC or tracer recovery is low
: Analyte has been confirmed by GC/MS analysis
) Results are reported from a diluted aliquot of the sample
: General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
: Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID:	RE46-10-13775	Project:	LANL01004
Sample ID:	248860004	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	9.5%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
241 "Dry Weight Corrected"													
ericium-241	U	8.16E-05		0.022	+/-0.00151	0.050	pCi/g		AYB1	03/29/10	2147	965811	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.00347		0.023	+/-0.00246	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
tonium-239/240	U	0.0052		0.0195	+/-0.00302	0.050	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.854		0.182	+/-0.0996	0.100	pCi/g		AYB1	04/02/10	1137	971197	4
.nium-235/236	U	0.0479		0.111	+/-0.0229	0.100	pCi/g						
.nium-238		0.691		0.128	+/-0.0853	0.100	pCi/g						
Gamma Spec Analysis													
(MMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.15		0.320	+/-0.0912	0.200	pCi/g		MXR1	03/24/10	1616	962633	6
muth-211	UI	3.07	R,R5a	0.336	+/-0.229		pCi/g						
muth-214		0.945		0.128	+/-0.0753	0.200	pCi/g						
lmium-109	UI	1.94	R,R5a	1.44	+/-0.616		pCi/g						
ium-139	U	-0.0175		0.0509	+/-0.0155	0.050	pCi/g						
ium-134	U	0.0706		0.0948	+/-0.0253	0.100	pCi/g						
ium-137	U	-0.00236		0.0651	+/-0.0197	0.100	pCi/g						
alt-60	U	-0.0149		0.0633	+/-0.0203	0.100	pCi/g						
opium-152	U	-0.0179		0.160	+/-0.0803	0.200	pCi/g						
thanum-140	U	-0.133		0.146	+/-0.0554		pCi/g						
.d-212		1.50		0.0913	+/-0.054	0.100	pCi/g						
.d-214		1.11		0.123	+/-0.0831	0.100	pCi/g						
rcury-203	U	0.0389		0.0751	+/-0.0232	0.100	pCi/g						
assium-40		26.9		0.619	+/-0.876	1.00	pCi/g						
lium-223	U	-1.07		1.13	+/-0.356		pCi/g						
lium-224	UI	3.75	R,R5a	0.978	+/-0.482		pCi/g						
lium-226		0.945		0.128	+/-0.0753		pCi/g						
lium-228		1.31		0.216	+/-0.153	0.500	pCi/g						
henium-106	U	0.262		0.589	+/-0.167	0.800	pCi/g						
lium-22	U	0.0237		0.0764	+/-0.022	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13775
Sample ID: 248860004

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis												
IMMA SPEC "Dry Weight Corrected"												
›ntium-85	U	0.0447	0.0726	+/-0.0227		pCi/g						
ıllium-208		0.453	0.0508	+/-0.034	0.080	pCi/g						
›rium-227	U	0.0337	0.443	+/-0.132		pCi/g						
›rium-231	U	-1.07	1.13	+/-0.356		pCi/g						
›rium-234	U	1.76	2.87	+/-0.777	2.00	pCi/g						
-113	U	-0.0165	0.0754	+/-0.0224	0.100	pCi/g						
.nium-235	U	-0.161	0.337	+/-0.103	0.500	pCi/g						
rium-88	U	0.0234	0.0642	+/-0.0172	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
·ericium-243 Tracer	AM241 "Dry Weight Corrected"	84.4	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	84.2	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	51.9	(50%-105%)

tes:
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) Results are reported from a diluted aliquot of the sample
: General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
: Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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

Report Date: April 5, 2010

Client Sample ID:	RE46-10-13776	Project:	LANL01004
Sample ID:	248860005	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	10.1%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
. Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
.ericium-241	U	-0.00102		0.0205	+/-0.00172	0.050	pCi/g		AYB1	03/29/10	2147	965811	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.00997		0.0265	+/-0.0045	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
tonium-239/240	U	0.0185		0.0224	+/-0.00656	0.050	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.779		0.140	+/-0.0852	0.100	pCi/g		AYB1	04/02/10	1137	971197	4
.nium-235/236	U	0.0368		0.0854	+/-0.0153	0.100	pCi/g						
.nium-238		0.773		0.0983	+/-0.0848	0.100	pCi/g						
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
.ericium-241	UI	0.0871	R,R5a	0.0864	+/-0.0264	0.200	pCi/g		MXR1	03/24/10	1616	962633	6
muth-211	UI	4.83	R,R5a	0.332	+/-0.333		pCi/g						
muth-214		1.42		0.113	+/-0.118	0.200	pCi/g						
lmium-109	UI	4.74	R,R5a	0.739	+/-0.468		pCi/g						
ium-139	U	-0.0113		0.0439	+/-0.0131	0.050	pCi/g						
ium-134	UI	0.167	R,R5a	0.106	+/-0.0353	0.100	pCi/g						
ium-137	U	-0.029		0.0828	+/-0.0245	0.100	pCi/g						
)alt-60	U	-0.0139		0.0683	+/-0.0217	0.100	pCi/g						
opium-152	U	0.00742		0.157	+/-0.0492	0.200	pCi/g						
ıthanum-140	U	-0.0797		0.206	+/-0.0672		pCi/g						
.d-212		2.03		0.0854	+/-0.130	0.100	pCi/g						
.d-214		1.75		0.116	+/-0.130	0.100	pCi/g						
rcury-203	U	0.0355		0.0688	+/-0.0226	0.100	pCi/g						
assium-40		39.4		0.573	+/-1.97	1.00	pCi/g						
lium-223	U	0.552		1.06	+/-0.333		pCi/g						
lium-224	UI	5.00	R,R5a	0.916	+/-0.612		pCi/g						
lium-226		1.42		0.113	+/-0.118		pCi/g						
lium-228		2.19		0.245	+/-0.209	0.500	pCi/g						
henium-106	U	0.183		0.585	+/-0.165	0.800	pCi/g						
lium-22	U	0.010		0.0925	+/-0.0276	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13776
Sample ID: 248860005

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis												
IMMA SPEC "Dry Weight Corrected"												
›ntium-85	U	0.0529	0.0767	+/-0.0244		pCi/g						
ıllium-208		0.619	0.0596	+/-0.0555	0.080	pCi/g						
›rium-227	U	-0.136	0.355	+/-0.113		pCi/g						
›rium-231	U	0.552	1.06	+/-0.333		pCi/g						
›rium-234		1.43	0.808	+/-0.464	2.00	pCi/g						
-113	U	0.00839	0.0771	+/-0.0226	0.100	pCi/g						
.nium-235	U	0.112	0.310	+/-0.0888	0.500	pCi/g						
rium-88	U	0.0295	0.0751	+/-0.0204	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
·ricium-243 Tracer	AM241 "Dry Weight Corrected"	90.2	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	79.1	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	65.8	(50%-105%)

tes:
?U is calculated at the 67% confidence level (1-sigma).
ıe Qualifiers in this report are defined as follows :

'* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
3D Results are either below the MDC or tracer recovery is low
: Analyte has been confirmed by GC/MS analysis
) Results are reported from a diluted aliquot of the sample
: General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
: Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID:	RE46-10-13781	Project:	LANL01004
Sample ID:	248860006	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	18.8%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
241 "Dry Weight Corrected"													
ericium-241	U	0.00355		0.0243	+/-0.00244	0.050	pCi/g		AYB1	03/29/10	2147	965811	2
)PU "Dry Weight Corrected"													
tonium-238	U	-0.000875		0.0223	+/-0.00739	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
tonium-239/240	U	0.0151		0.0189	+/-0.00512	0.050	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		0.755		0.151	+/-0.0851	0.100	pCi/g		AYB1	04/02/10	1138	971197	
nium-235/236	U	0.0396		0.0921	+/-0.0211	0.100	pCi/g						
nium-238		0.855		0.106	+/-0.0941	0.100	pCi/g						
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.119		0.309	+/-0.0881	0.200	pCi/g		MXR1	03/24/10	1627	962633	6
muth-211	UI	4.18	R,R5a	0.357	+/-0.340		pCi/g						
muth-214		1.15		0.132	+/-0.116	0.200	pCi/g						
lmium-109	UI	3.86	R,R5a	1.78	+/-0.489		pCi/g						
ium-139	U	-0.0164		0.0569	+/-0.0173	0.050	pCi/g						
ium-134	U	0.0467		0.096	+/-0.0273	0.100	pCi/g						
ium-137	U	0.0627		0.0749	+/-0.0292	0.100	pCi/g						
alt-60	U	0.0305		0.0772	+/-0.0218	0.100	pCi/g						
opium-152	U	-0.084		0.178	+/-0.0549	0.200	pCi/g						
thanum-140	U	-0.0937		0.125	+/-0.0498		pCi/g						
d-212		1.77		0.136	+/-0.136	0.100	pCi/g						
d-214		1.52		0.130	+/-0.130	0.100	pCi/g						
rcury-203	U	0.0333		0.0803	+/-0.0253	0.100	pCi/g						
assium-40		36.4		0.512	+/-2.01	1.00	pCi/g						
lium-223	U	-0.592		1.21	+/-0.427		pCi/g						
lium-224	UI	3.31	R,R5a	1.46	+/-0.536		pCi/g						
lium-226		1.15		0.132	+/-0.116		pCi/g						
lium-228		1.96		0.278	+/-0.201	0.500	pCi/g						
henium-106	U	-0.17		0.554	+/-0.170	0.800	pCi/g						
lium-22	U	-0.0456		0.0753	+/-0.0253	0.080	pCi/g						

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Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13781
Sample ID: 248860006

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
. Gamma Spec Analysis												
ıMMA SPEC "Dry Weight Corrected"												
›ntium-85	U	0.0475	0.0718	+/-0.0227		pCi/g						
ıllium-208		0.601	0.0637	+/-0.0547	0.080	pCi/g						
›rium-227	U	0.197	0.494	+/-0.138		pCi/g						
›rium-231	U	-0.592	1.21	+/-0.427		pCi/g						
›rium-234	U	1.16	3.07	+/-0.843	2.00	pCi/g						
-113	U	0.00309	0.0859	+/-0.0255	0.100	pCi/g						
.nium-235	U	-0.0268	0.383	+/-0.115	0.500	pCi/g						
rium-88	U	-0.00592	0.0598	+/-0.0187	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
·ericium-243 Tracer	AM241 "Dry Weight Corrected"	72.2	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	83.9	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	64.4	(50%-105%)

tes:
?U is calculated at the 67% confidence level (1-sigma).
ıe Qualifiers in this report are defined as follows :

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: Result is less than value reported
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\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
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: Analyte has been confirmed by GC/MS analysis
) Results are reported from a diluted aliquot of the sample
: General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
: Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID:	RE46-10-13779	Project:	LANL01004
Sample ID:	248860007	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	19.5%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
ericium-241	U	5.86E-05		0.0217	+/-0.00148	0.050	pCi/g		AYB1	03/29/10	2147	965811	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.0125		0.0225	+/-0.00629	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
tonium-239/240	U	0.00603		0.019	+/-0.00418	0.050	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		0.967	J+,R3b	0.226	+/-0.119	0.100	pCi/g		AYB1	04/02/10	1138	971197	4
nium-235/236	U	0.0298		0.138	+/-0.0223	0.100	pCi/g						
nium-238		0.947	J+,R3b	0.159	+/-0.116	0.100	pCi/g						
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
ericium-241	U	0.0974		0.125	+/-0.039	0.200	pCi/g		MXR1	03/24/10	1627	962633	6
muth-211	UI	4.04	R,R5a	0.368	+/-0.299		pCi/g						
muth-214		1.41		0.145	+/-0.106	0.200	pCi/g						
lmium-109	UI	4.83	R,R5a	1.03	+/-0.462		pCi/g						
ium-139	U	-0.00892		0.0576	+/-0.0175	0.050	pCi/g						
ium-134	U	0.088		0.108	+/-0.0328	0.100	pCi/g						
ium-137	U	0.0688		0.0769	+/-0.0322	0.100	pCi/g						
alt-60	U	0.00582		0.0862	+/-0.0263	0.100	pCi/g						
opium-152	U	0.114		0.201	+/-0.0728	0.200	pCi/g						
thanum-140	U	-0.151		0.179	+/-0.0743		pCi/g						
d-212		1.88		0.104	+/-0.119	0.100	pCi/g						
d-214		1.47		0.135	+/-0.116	0.100	pCi/g						
rcury-203	U	0.0654		0.0855	+/-0.0237	0.100	pCi/g						
assium-40		34.0		0.605	+/-1.46	1.00	pCi/g						
lium-223	U	-0.176		1.30	+/-0.447		pCi/g						
lium-224	UI	5.41	R,R5a	1.12	+/-0.712		pCi/g						
lium-226		1.41		0.145	+/-0.106		pCi/g						
lium-228		1.85		0.303	+/-0.235	0.500	pCi/g						
henium-106	U	0.0582		0.686	+/-0.208	0.800	pCi/g						
lium-22	U	0.00767		0.097	+/-0.0295	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13779
Sample ID: 248860007
Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
›ntium-85	UI	0.111	R,R5a	0.0927	+/-0.0279		pCi/g						
ıllium-208		0.572		0.0694	+/-0.0494	0.080	pCi/g						
›rium-227	U	0.123		0.518	+/-0.148		pCi/g						
›rium-231	U	-0.176		1.30	+/-0.447		pCi/g						
›rium-234		1.61		1.23	+/-0.564	2.00	pCi/g						
-113	U	-0.0434		0.0868	+/-0.0271	0.100	pCi/g						
.nium-235	U	0.115		0.398	+/-0.117	0.500	pCi/g						
rium-88	U	0.00399		0.0692	+/-0.0207	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ɜricium-243 Tracer	AM241 "Dry Weight Corrected"	85.3	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	82.4	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	43.2 *	(50%-105%)

tes:
?U is calculated at the 67% confidence level (1-sigma).
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: General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
: Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13780
Sample ID: 248860008
Matrix: S
Collect Date: 04-MAR-10
Receive Date: 06-MAR-10
Collector: Client
Moisture: 18.1%

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
ericium-241	U	0.00476		0.0226	+/-0.00273	0.050	pCi/g		AYB1	03/29/10	2147	965811	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.0226		0.0255	+/-0.0111	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
tonium-239/240	U	0.00491		0.0215	+/-0.00432	0.050	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.825		0.114	+/-0.0832	0.100	pCi/g		AYB1	04/02/10	1138	971197	4
.nium-235/236	U	0.0448		0.0693	+/-0.0153	0.100	pCi/g						
.nium-238		0.837		0.0798	+/-0.0841	0.100	pCi/g						
. Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
.ericium-241	U	0.0265		0.392	+/-0.111	0.200	pCi/g		MXR1	03/24/10	1628	962633	6
muth-211	UI	3.84	R,R5a	0.339	+/-0.299		pCi/g						
muth-214		1.25		0.112	+/-0.100	0.200	pCi/g						
lmium-109	UI	2.88	R,R5a	1.24	+/-0.539		pCi/g						
ium-139	U	0.00647		0.0528	+/-0.0158	0.050	pCi/g						
ium-134	UI	0.134	R,R5a	0.102	+/-0.0391	0.100	pCi/g						
ium-137	U	-0.0609		0.0534	+/-0.0184	0.100	pCi/g						
)alt-60	U	0.00743		0.0725	+/-0.0214	0.100	pCi/g						
opium-152	U	-0.0713		0.156	+/-0.0558	0.200	pCi/g						
ıthanum-140	U	-0.0336		0.179	+/-0.0577		pCi/g						
.d-212		1.84		0.102	+/-0.116	0.100	pCi/g						
.d-214		1.39		0.123	+/-0.115	0.100	pCi/g						
rcury-203	U	0.0355		0.0755	+/-0.0213	0.100	pCi/g						
assium-40		37.5		0.529	+/-2.06	1.00	pCi/g						
lium-223	U	0.416		1.11	+/-0.359		pCi/g						
lium-224	UI	3.20	R,R5a	1.09	+/-0.635		pCi/g						
lium-226		1.25		0.112	+/-0.100		pCi/g						
lium-228		1.84		0.228	+/-0.214	0.500	pCi/g						
henium-106	U	-0.125		0.516	+/-0.156	0.800	pCi/g						
lium-22	U	-0.027		0.0814	+/-0.0257	0.080	pCi/g						

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06/10/1

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13780
Sample ID: 248860008

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
›ntium-85	UI	0.0929	R,R5a	0.0776	+/-0.0233		pCi/g						
ıllium-208		0.552		0.0592	+/-0.0505	0.080	pCi/g						
›rium-227	U	-0.0141		0.423	+/-0.123		pCi/g						
›rium-231	U	0.416		1.11	+/-0.359		pCi/g						
›rium-234	U	1.44		3.27	+/-0.925	2.00	pCi/g						
-113	U	-0.0252		0.0755	+/-0.0234	0.100	pCi/g						
.nium-235	U	0.0636		0.347	+/-0.105	0.500	pCi/g						
rium-88	U	-0.0024		0.0487	+/-0.0154	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
·ericium-243 Tracer	AM241 "Dry Weight Corrected"	79.5	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	77.3	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	86.5	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID:	RE46-10-13778	Project:	LANL01004
Sample ID:	248860009	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	19.1%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
ericium-241	U	0.000934		0.0269	+/-0.00243	0.050	pCi/g		AYB1	03/29/10	2147	965811	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.00536		0.0212	+/-0.00681	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
tonium-239/240	U	0.00363		0.0179	+/-0.003	0.050	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.719		0.117	+/-0.0761	0.100	pCi/g		AYB1	04/02/10	1137	971197	4
.nium-235/236	U	0.046		0.0712	+/-0.0173	0.100	pCi/g						
.nium-238		0.847		0.0819	+/-0.0855	0.100	pCi/g						
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
.ericium-241	U	0.0836		0.267	+/-0.0735	0.200	pCi/g		MXR1	03/24/10	1628	962633	6
muth-211	UI	4.10	R,R5a	0.309	+/-0.293		pCi/g						
muth-214		1.19		0.110	+/-0.103	0.200	pCi/g						
lmium-109	UI	3.44	R,R5a	1.19	+/-0.521		pCi/g						
ium-139	U	-0.0113		0.0539	+/-0.0164	0.050	pCi/g						
ium-134	U	0.0891		0.0952	+/-0.0258	0.100	pCi/g						
ium-137	U	-0.00538		0.0675	+/-0.0206	0.100	pCi/g						
alt-60	U	-0.00156		0.0695	+/-0.0212	0.100	pCi/g						
opium-152	U	0.061		0.169	+/-0.0545	0.200	pCi/g						
ıthanum-140	U	-0.00211		0.147	+/-0.0455		pCi/g						
.d-212		1.62		0.112	+/-0.108	0.100	pCi/g						
.d-214		1.49		0.113	+/-0.114	0.100	pCi/g						
rcury-203	U	0.0162		0.0717	+/-0.0204	0.100	pCi/g						
assium-40		37.1		0.534	+/-1.96	1.00	pCi/g						
lium-223	U	-0.40		1.06	+/-0.324		pCi/g						
lium-224	UI	2.52	R,R5a	1.49	+/-0.551		pCi/g						
lium-226		1.19		0.110	+/-0.103		pCi/g						
lium-228		1.82		0.243	+/-0.205	0.500	pCi/g						
henium-106	U	-0.0333		0.520	+/-0.154	0.800	pCi/g						
lium-22	U	-0.0403		0.0709	+/-0.0234	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13778
Sample ID: 248860009

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
ɔntium-85	UI	0.102	R,R5a	0.0803	+/-0.023		pCi/g						
ılium-208		0.561		0.0546	+/-0.0495	0.080	pCi/g						
ɔrium-227	U	0.116		0.447	+/-0.126		pCi/g						
ɔrium-231	U	-0.40		1.06	+/-0.324		pCi/g						
ɔrium-234	U	0.632		2.45	+/-0.683	2.00	pCi/g						
-113	U	0.0182		0.0823	+/-0.024	0.100	pCi/g						
.nium-235	U	-0.0667		0.342	+/-0.103	0.500	pCi/g						
rium-88	U	0.00475		0.0547	+/-0.016	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

:rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ɜricium-243 Tracer	AM241 "Dry Weight Corrected"	67.0	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	93.2	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	81.3	(50%-105%)

tes:
?U is calculated at the 67% confidence level (1-sigma).
ıe Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
3D Results are either below the MDC or tracer recovery is low
: Analyte has been confirmed by GC/MS analysis
) Results are reported from a diluted aliquot of the sample
: General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
: Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

JAB

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2313C

REQUEST NUMBER: 10-2313

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248860%, 248861%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13782	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13782	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13783	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13783	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13777	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13777	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13775	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13775	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13776	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13776	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13781	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13781	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13779	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13779	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13780	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13780	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13778	1	POLY	AM241+GS+ISOPU+ ISOU	None	S

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2313C

REQUEST NUMBER: 10-2313

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13778	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13786	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-13786	1	POLY	SW-846:6850	Ice	W
RE46-10-13786	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-13785	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-13785	1	POLY	SW-846:6850	Ice	W
RE46-10-13785	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
		3/5/10	3:00	Greg Tyler		3-6-10	091
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

Friday, March 05, 2010

REQUEST NUMBER: 10-2313

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number: 10-2313
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/5/2010
TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	

Friday, March 05, 2010

REQUEST NUMBER: 10-2313

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	HASL-300:ISOPU	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	HASL-300:ISOU	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	SW-846:6010B	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	

Friday, March 05, 2010

REQUEST NUMBER: 10-2313

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
		1	RE46-10-13785	W	3/4/2010	
		1	RE46-10-13786	W	3/4/2010	
	SW-846:6020	1	RE46-10-13785	W	3/4/2010	
		1	RE46-10-13786	W	3/4/2010	
	SW-846:6850	1	RE46-10-13785	W	3/4/2010	
		1	RE46-10-13786	W	3/4/2010	
	SW-846:9012A	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
		1	RE46-10-13785	W	3/4/2010	
		1	RE46-10-13786	W	3/4/2010	

Final Page of REQUEST NUMBER 10-2313

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

March 12, 2010

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

Re: LANL ER Project
Work Orders: 248860 248861
SDG: 10-2313

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 06, 2010, and analyzed for General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Sincerely,

Valerie Davis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2313
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 248860 and 248861
SDG: 10-2313

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Sample Data Summary 942
Quality Control Summary 945
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Raw Data 995
Miscellaneous 1239

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Sample Data Summary 1279

Quality Control Summary 1290
Instrument QC Data Summary 1293
Cyanide, Total 1295

General Chemistry Analysis 1309
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Sample Data Summary 1315
Quality Control Summary 1319
Instrument QC Data Summary 1322
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Miscellaneous 1338

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Standards Data 1977
Runlogs 2005

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 248860 and 248861
SDG # : 10-2313

March 12, 2010

Laboratory Identification:

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

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 06, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 11C temperature. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
248860001	RE46-10-13782
248860002	RE46-10-13783
248860003	RE46-10-13777
248860004	RE46-10-13775
248860005	RE46-10-13776
248860006	RE46-10-13781
248860007	RE46-10-13779
248860008	RE46-10-13780
248860009	RE46-10-13778
248861001	RE46-10-13786
248861002	RE46-10-13785

Case Narrative

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

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

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

Valerie Davis

Valerie Davis

Project Manager

List of current GEL Certifications as of 12 March 2010

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

Chain of Custody and Supporting Documentation

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2313C

REQUEST NUMBER: 10-2313

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 248860%, 248861%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13782	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13782	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13783	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13783	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13777	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13777	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13775	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13775	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13776	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13776	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13781	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13781	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13779	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13779	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13780	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13780	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13778	1	POLY	AM241+GS+ISOPU+ ISOU	None	S

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2313C

REQUEST NUMBER: 10-2313

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13778	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13786	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-13786	1	POLY	SW-846:6850	Ice	W
RE46-10-13786	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-13785	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-13785	1	POLY	SW-846:6850	Ice	W
RE46-10-13785	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
		3/5/10	3:00	Greg Tyler	Greg Tyl	3-6-10	0915
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

Hard Copy Required

Friday, March 05, 2010

REQUEST NUMBER: 10-2313

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number:10-2313
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/5/2010
TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	HASL-300:AM-241	1	RE46-10-13775	S	3/4/2010	

Hard Copy Required

Friday, March 05, 2010

REQUEST NUMBER: 10-2313

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	HASL-300:ISOPU	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	HASL-300:ISOU	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
	SW-846:6010B	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	

Hard Copy Required

Friday, March 05, 2010

REQUEST NUMBER: 10-2313

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
		1	RE46-10-13785	W	3/4/2010	
		1	RE46-10-13786	W	3/4/2010	
	SW-846:6020	1	RE46-10-13785	W	3/4/2010	
		1	RE46-10-13786	W	3/4/2010	
	SW-846:6850	1	RE46-10-13785	W	3/4/2010	
		1	RE46-10-13786	W	3/4/2010	
	SW-846:9012A	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	
		1	RE46-10-13783	S	3/4/2010	
		1	RE46-10-13785	W	3/4/2010	
		1	RE46-10-13786	W	3/4/2010	

Final Page of REQUEST NUMBER 10-2313

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2313**
Received By: Greg Tyler	**Date Received: 3/6/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **2,3,5C** **11C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:
7209 7850 3782 2C
7209 7850 3808 3C
7209 7850 3793 5C
7209 7850 3771 11C

PM (or PMA) review: Initials _____ Date 3/8/10

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05MAR10
ACTWGT: 31.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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

2°

FedEx Express

3 of 3

SATURDAY ### A1
PRIORITY OVERNIGHT

MPS# 0263 7209 7850 3782
Matr# 7209 7850 3786 0201

X0 CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05MAR10
ACTWGT: 30.0 LB MAN
CAD: 0014176/CAFE2450

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2 of 2

SATURDAY ### A1
PRIORITY OVERNIGHT

MPS# 0263 7209 7850 3808
Matr# 7209 7850 3793 0201

X0 CHSA

29407
SC-US
CHS

Part # 156148-434 NRTT V3 04-09

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

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

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1 of 2

SATURDAY ### A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7850 3793
MASTER

X0 CHSA

29407
SC-US
CHS

LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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

11°

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2 of 3

SATURDAY ### A1
PRIORITY OVERNIGHT

MPS# 0263 7209 7850 3771
Matr# 7209 7850 3760 0201

X0 CHSA

29407
SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

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

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2313

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	964122
Prep Batch Number:	964121

Sample Analysis

Sample ID	Client ID
248860001	RE46-10-13782
248860002	RE46-10-13783
248860003	RE46-10-13777
248860004	RE46-10-13775
248860005	RE46-10-13776
248860006	RE46-10-13781
248860007	RE46-10-13779
248860008	RE46-10-13780
248860009	RE46-10-13778
1202068351	Interference Check Sample (ICS)
1202068347	Method Blank (MB)
1202068348	Laboratory Control Sample (LCS)
1202068349	248860001(RE46-10-13782) Matrix Spike (MS)
1202068350	248860001(RE46-10-13782) Matrix Spike Duplicate (MSD)

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

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Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248860001 (RE46-10-13782) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

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Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

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

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

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Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

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

Review Validation:

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

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

Reviewer: Herbert K Maier **Date:** 04/01/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13782

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860001

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.581	2.32	0.581	ug/kg	U	1	28-MAR-10 21:14	per0328053a
	Perchlorate Isotope Ratio						1	28-MAR-10 21:14	per0328053a
14797-73-0	Perchlorate-101	.581	2.32	0.581	ug/kg	U	1	28-MAR-10 21:14	per0328053a
	Perchlorate-O(18)			5.78	ug/kg		1	28-MAR-10 21:14	per0328053a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13783

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860002

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 90.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.2	0.551	ug/kg	U	1	28-MAR-10 21:40	per0328056a
	Perchlorate Isotope Ratio						1	28-MAR-10 21:40	per0328056a
14797-73-0	Perchlorate-101	.551	2.2	0.551	ug/kg	U	1	28-MAR-10 21:40	per0328056a
	Perchlorate-O(18)			5.37	ug/kg		1	28-MAR-10 21:40	per0328056a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13777

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860003

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 80

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.628	2.51	0.628	ug/kg	U	1	28-MAR-10 21:48	per0328057a
	Perchlorate Isotope Ratio						1	28-MAR-10 21:48	per0328057a
14797-73-0	Perchlorate-101	.628	2.51	0.628	ug/kg	U	1	28-MAR-10 21:48	per0328057a
	Perchlorate-O(18)			6.14	ug/kg		1	28-MAR-10 21:48	per0328057a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13775

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860004

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 90.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.552	2.21	0.552	ug/kg	U	1	28-MAR-10 21:57	per0328058a
	Perchlorate Isotope Ratio						1	28-MAR-10 21:57	per0328058a
14797-73-0	Perchlorate-101	.552	2.21	0.552	ug/kg	U	1	28-MAR-10 21:57	per0328058a
	Perchlorate-O(18)			5.32	ug/kg		1	28-MAR-10 21:57	per0328058a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13776

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860005

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.556	2.22	0.556	ug/kg	U	1	28-MAR-10 22:05	per0328059a
	Perchlorate Isotope Ratio						1	28-MAR-10 22:05	per0328059a
14797-73-0	Perchlorate-101	.556	2.22	0.556	ug/kg	U	1	28-MAR-10 22:05	per0328059a
	Perchlorate-O(18)			5.48	ug/kg		1	28-MAR-10 22:05	per0328059a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13781

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860006

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.616	2.46	0.616	ug/kg	U	1	28-MAR-10 22:14	per0328060a
	Perchlorate Isotope Ratio						1	28-MAR-10 22:14	per0328060a
14797-73-0	Perchlorate-101	.616	2.46	0.616	ug/kg	U	1	28-MAR-10 22:14	per0328060a
	Perchlorate-O(18)			6.03	ug/kg		1	28-MAR-10 22:14	per0328060a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13779

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860007

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 80

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.621	2.48	0.621	ug/kg	U	1	28-MAR-10 22:48	per0328064a
	Perchlorate Isotope Ratio						1	28-MAR-10 22:48	per0328064a
14797-73-0	Perchlorate-101	.621	2.48	0.621	ug/kg	U	1	28-MAR-10 22:48	per0328064a
	Perchlorate-O(18)			6.23	ug/kg		1	28-MAR-10 22:48	per0328064a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13780

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860008

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.61	2.44	0.610	ug/kg	U	1	28-MAR-10 22:57	per0328065a
	Perchlorate Isotope Ratio						1	28-MAR-10 22:57	per0328065a
14797-73-0	Perchlorate-101	.61	2.44	0.610	ug/kg	U	1	28-MAR-10 22:57	per0328065a
	Perchlorate-O(18)			6.12	ug/kg		1	28-MAR-10 22:57	per0328065a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13778

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860009

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.618	2.47	0.618	ug/kg	U	1	28-MAR-10 23:06	per0328066a
	Perchlorate Isotope Ratio						1	28-MAR-10 23:06	per0328066a
14797-73-0	Perchlorate-101	.618	2.47	0.618	ug/kg	U	1	28-MAR-10 23:06	per0328066a
	Perchlorate-O(18)			5.95	ug/kg		1	28-MAR-10 23:06	per0328066a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Form 5

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2313

Extract Batch Code: 964121

Date Filtered: 19–MAR–10

Matrix: SOIL

Sample ID: 1202068348

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.92	ug/kg	95.9		70 – 130
Perchlorate Isotope Ratio		3.15				–
Perchlorate–101	2.00	1.95	ug/kg	97.4		70 – 130
Perchlorate–O(18)		5.04	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2313

Extract Batch Code: 964121

Date Filtered: 19–MAR–10

Matrix: SOIL

Sample ID: 1202068351

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.18	ug/kg	109		70 – 130
Perchlorate Isotope Ratio		3.34				
Perchlorate–101	2.00	2.09	ug/kg	105		70 – 130
Perchlorate–O(18)		5.22	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4** Page 1 c

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Tuesday, March 30, 2010 11:59:19 AM Eastern Standard Time
Printed: Tuesday, March 30, 2010 11:59:33 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032810a.mdb 29 Mar 2010 09:32:17
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032810a.cdb 29 Mar 2010 09:32:40

Name: per0328040a
Date: 28-Mar-2010
Time: 19:23:31
ID: 1202068351 | LANC | 964122 | SOLID | ICS | 1 |
Vial: 2:1,C

AW 03-30-10

Perchlorate

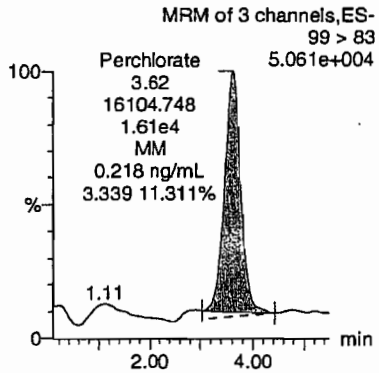

Perchlorate

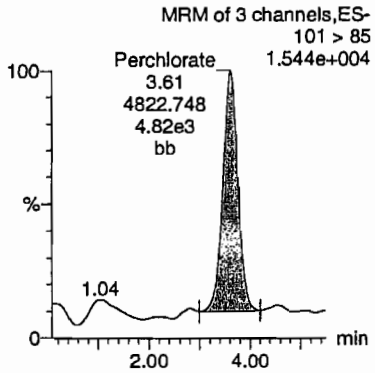

Perchlorate-101

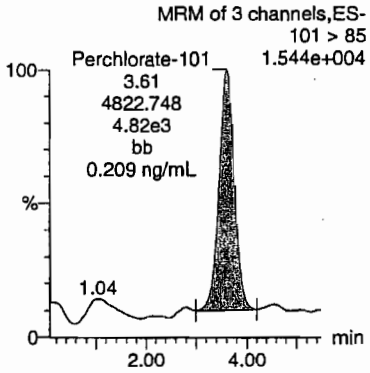

Perchlorate-O(18)

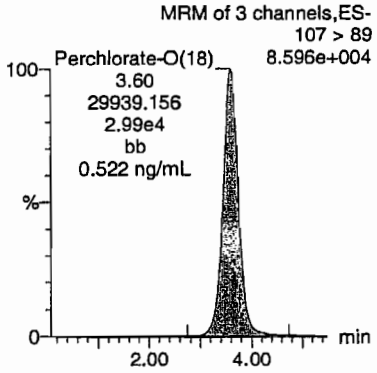

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068351	Perchlorate	99 > 83	3.62	16104.748	16104.748	MM	30-Mar-10	11:59:19	0.2184	109.22	9.22	209.746	3.34
1202068351	Perchlorate-101	101 > 85	3.61	4822.748	4822.748	bb			0.2094	104.69	4.69	73.048	
1202068351	Perchlorate-O(18)	107 > 89	3.60	29939.156	29939.156	bb			0.5222	104.44	4.44	9311.9...	

MAP 3/30/10

$$\frac{16104.748}{4822.748} = 3.3393$$

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-2313

Extract Batch Code: 964121

Date Extracted: 19-MAR-10

GEL MS/PS ID: 1202068349

Client ID: RE46-10-13782

GEL MSD/PSD ID: 1202068350

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.32	0.0629	ug/kg	2.26	94.6	2.3	96.2	1.67	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.21		3.25		0		–
Perchlorate-101	2.32	0.00	ug/kg	2.25	96.9	2.26	97.4	.492	30	75 – 125
Perchlorate-O(18)	0	5.78	ug/kg	5.59		5.72		2.39		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2313

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	28–MAR–10	per0328001a	IPB001
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328001a	IPB001
Perchlorate	0.00	0	NA	28–MAR–10	per0328002a	IPB001
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328002a	IPB001

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032810a.mdb 29 Mar 2010 09:32:17
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032810a.cdb 29 Mar 2010 09:32:40

Name: per0328001a
Date: 28-Mar-2010
Time: 13:50:13
ID: IPB001
Vial: 1:1,A

CWW 03-29-10

Perchlorate

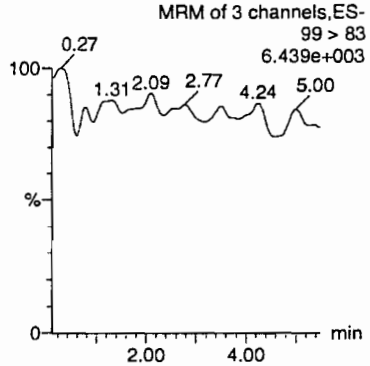

Perchlorate

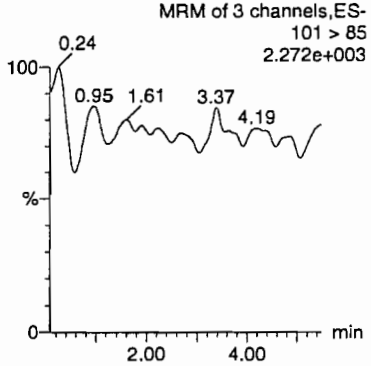

Perchlorate-101

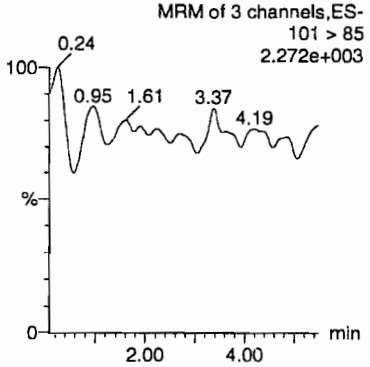

Perchlorate-O(18)

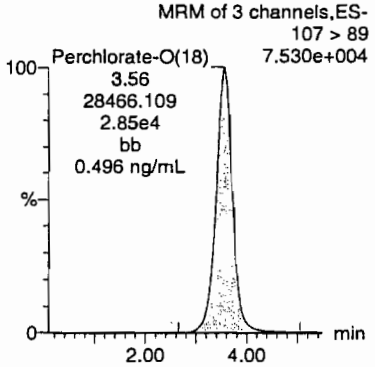

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.56	28466.109	28466.109	bb			0.4965	99.30	-0.70	8068.7...	

MM 3/30/10

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antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

st Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
nted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

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te: 28-Mar-2010
ne: 13:58:57
IPB001
l: 1:1,A

03-29-10

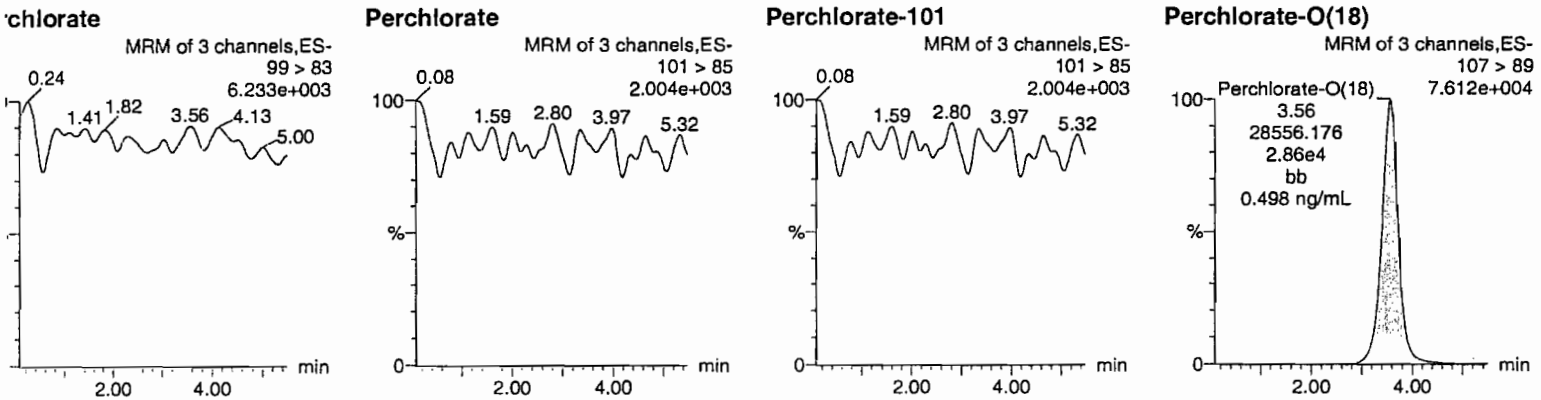

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
)01	Perchlorate	99 > 83											0.00
)01	Perchlorate-101	101 > 85											
)01	Perchlorate-O(18)	107 > 89	3.56	28556.176	28556.176	bb			0.4981	99.61	-0.39	617.780	

MM 3/30/10

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2313

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	28–MAR–10	per0328008a	IPB002
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328008a	IPB002
Perchlorate	0.00	0	NA	28–MAR–10	per0328010a	IPB003
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328010a	IPB003
Perchlorate	0.00	0	NA	28–MAR–10	per0328014a	IPB004
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328014a	IPB004
Perchlorate	0.00	0	NA	28–MAR–10	per0328023a	IPB005
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328023a	IPB005
Perchlorate	0.00	0	NA	28–MAR–10	per0328036a	IPB006
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328036a	IPB006
Perchlorate	0.00	0	NA	28–MAR–10	per0328049a	IPB007
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328049a	IPB007
Perchlorate	0.00	0	NA	28–MAR–10	per0328062a	IPB008

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2313

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328062a	IPB008
Perchlorate	0.00	0	NA	28–MAR–10	per0328067a	IPB009
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328067a	IPB009
Perchlorate	0.00	0	NA	29–MAR–10	per0328075a	IPB010
Perchlorate–101	0.00	0	NA	29–MAR–10	per0328075a	IPB010

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328008a
Date: 28-Mar-2010
Time: 14:50:04
ID: IPB002
Vial: 1:1,A

CWW 03-29-10

Perchlorate

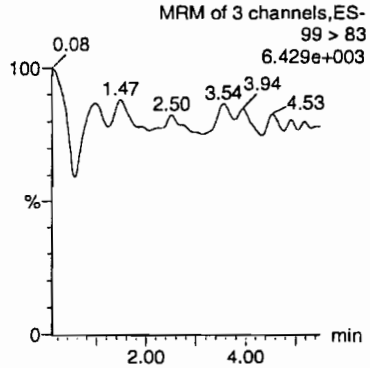

Perchlorate

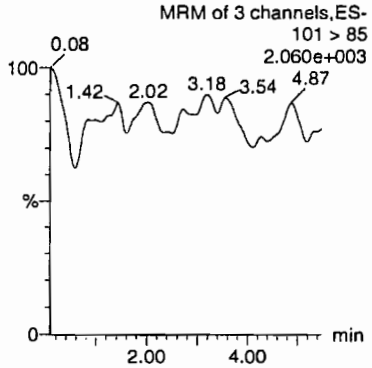

Perchlorate-101

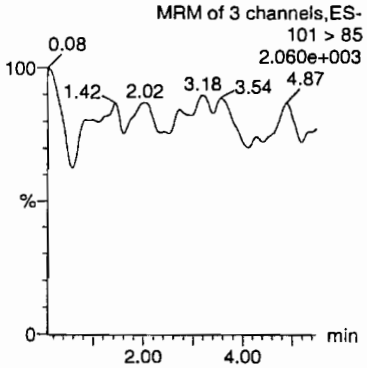

Perchlorate-O(18)

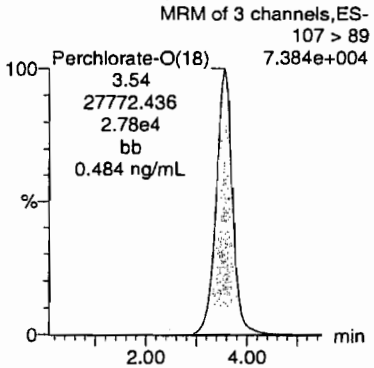

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IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	3.54	27772.436	27772.436	bb			0.4844	96.88	-3.12	4963.3...	

MAT 3/30/10

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ıst Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
inted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

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ıte: 28-Mar-2010
me: 15:07:08
: IPB003
al: 1:1,A

03-29-10

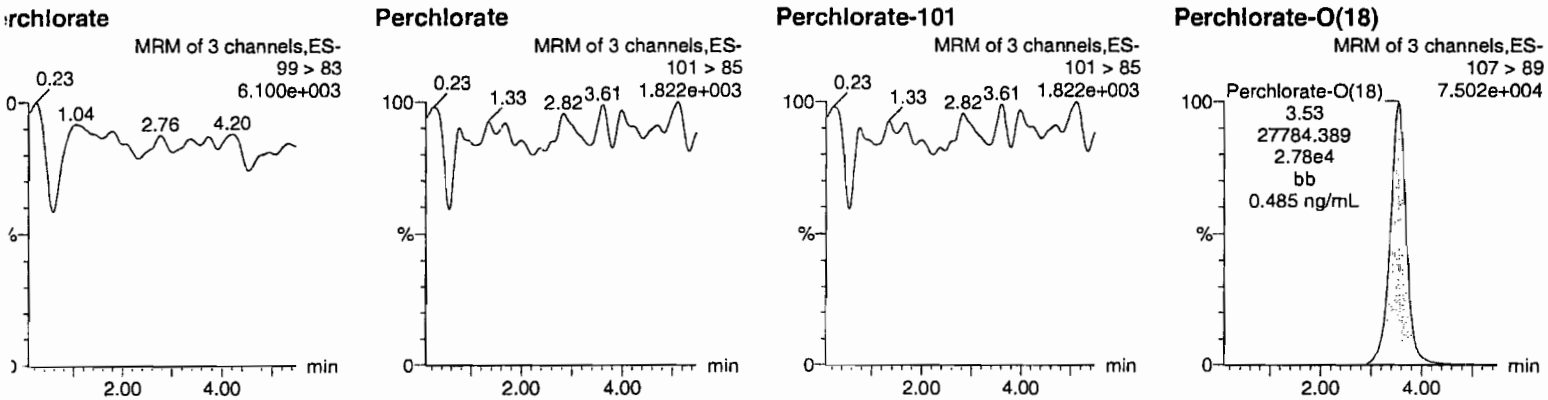

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003	Perchlorate-101	101 > 85											
003	Perchlorate-O(18)	107 > 89	3.53	27784.389	27784.389	bb			0.4846	96.92	-3.08	5153.3...	

MJT 3/30/10

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ıantify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

ıtaset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

st Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
nted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

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te: 28-Mar-2010
ne: 15:41:19
IPB004
ıl: 1:1,A

CWD
03-29-10

rchlorate

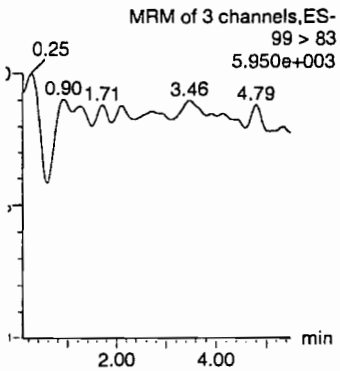

Perchlorate

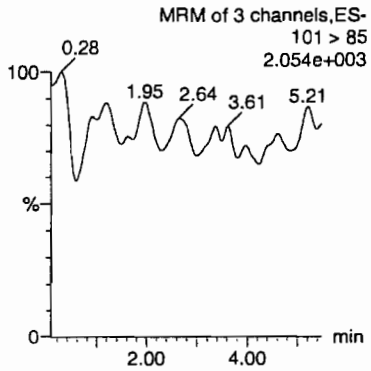

Perchlorate-101

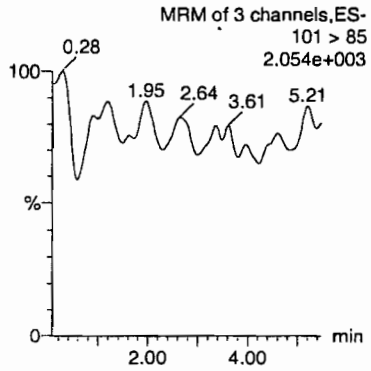

Perchlorate-O(18)

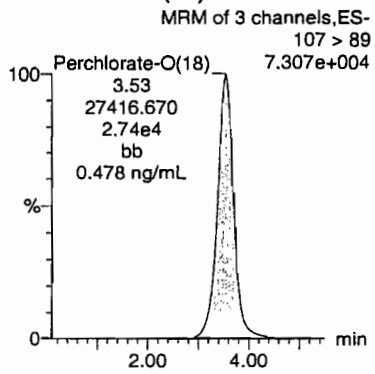

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
)04	Perchlorate	99 > 83											0.00
)04	Perchlorate-101	101 > 85											
)04	Perchlorate-O(18)	107 > 89	3.53	27416.670	27416.670	bb			0.4782	95.64	-4.36	1369.3...	

MAT
3/30/10

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ıst Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
inted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

ame: per0328023a
ate: 28-Mar-2010
me: 16:58:12
: IPB005
al: 1:1,A

03-29-10

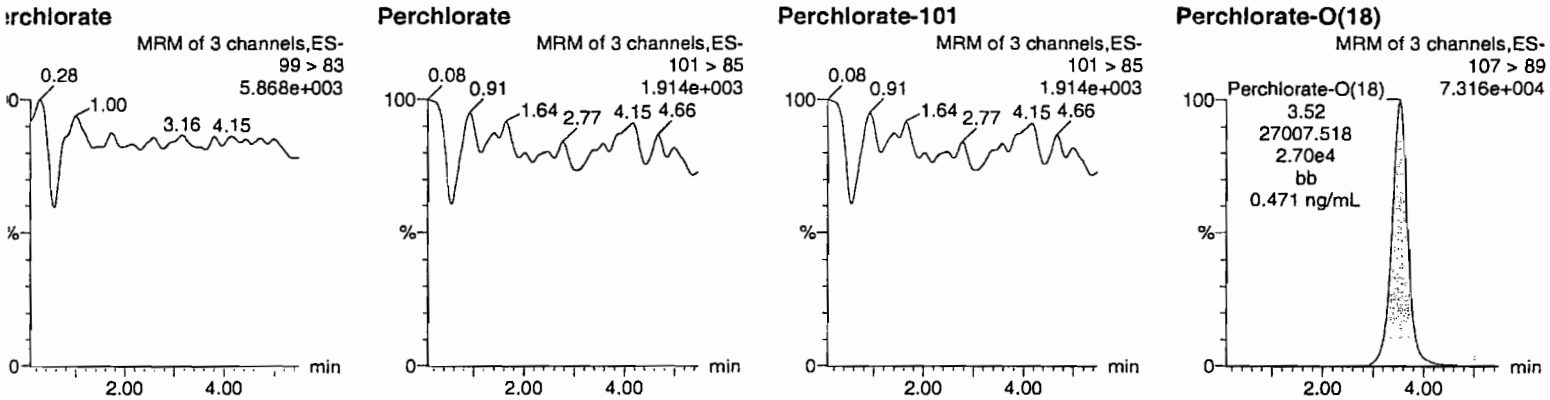

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
3005	Perchlorate	99 > 83											0.00
3005	Perchlorate-101	101 > 85											
3005	Perchlorate-O(18)	107 > 89	3.52	27007.518	27007.518	bb			0.4711	94.21	-5.79	913.616	

MM 3/30/10

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328036a
Date: 28-Mar-2010
Time: 18:49:11
ID: IPB006
Vial: 1:1,A

CWW 03-29-10

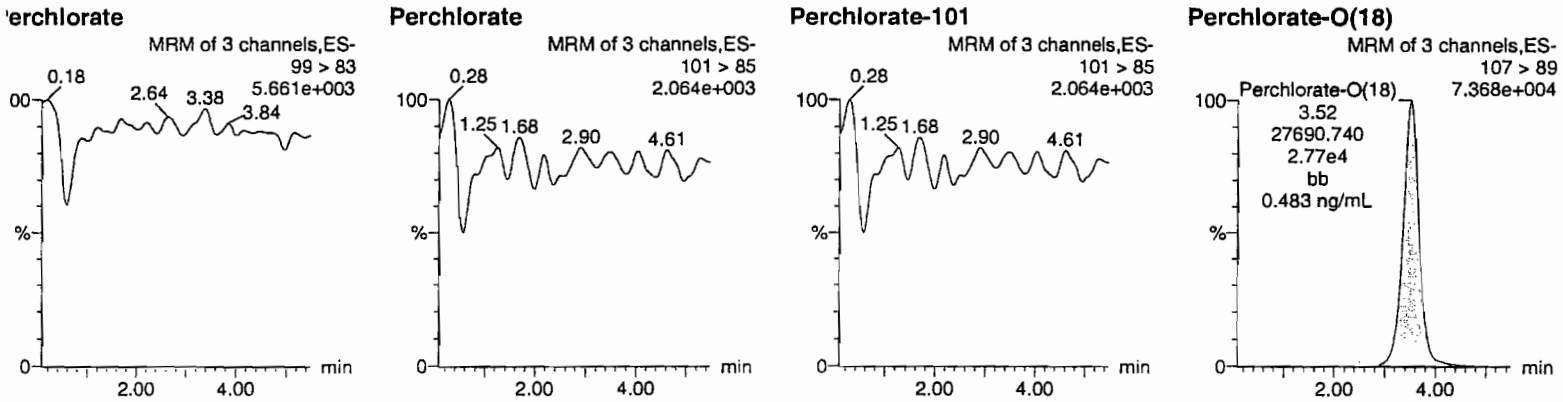

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B006	Perchlorate	99 > 83											0.00
B006	Perchlorate-101	101 > 85											
B006	Perchlorate-O(18)	107 > 89	3.52	27690.740	27690.740	bb			0.4830	96.59	-3.41	10009....	

MAP 3/29/10

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ıantify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

st Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
nted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

me: per0328049a
te: 28-Mar-2010
ne: 20:40:31
IPB007
ıl: 1:1,A

CWO 03-29-10

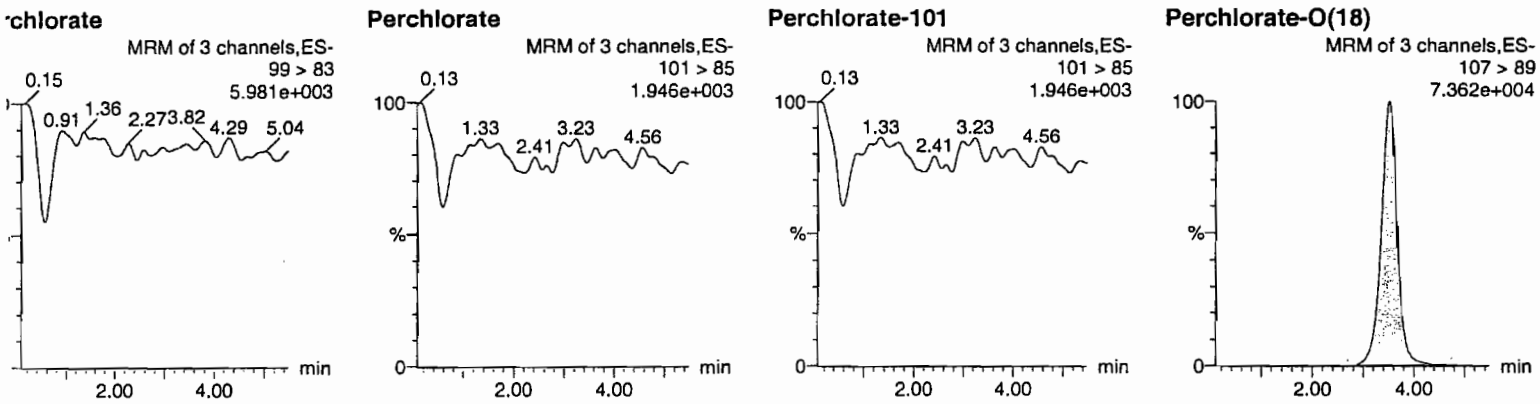

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)07	Perchlorate	99 > 83											0.00
)07	Perchlorate-101	101 > 85											
)07	Perchlorate-O(18)	107 > 89	3.51	27005.262	27005.262	bb			0.4710	94.20	-5.80	3330.6...	

MM 7/30/10

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328062a
Date: 28-Mar-2010
Time: 22:31:51
ID: IPB008
Vial: 1:1,A

CWW
03-24-10

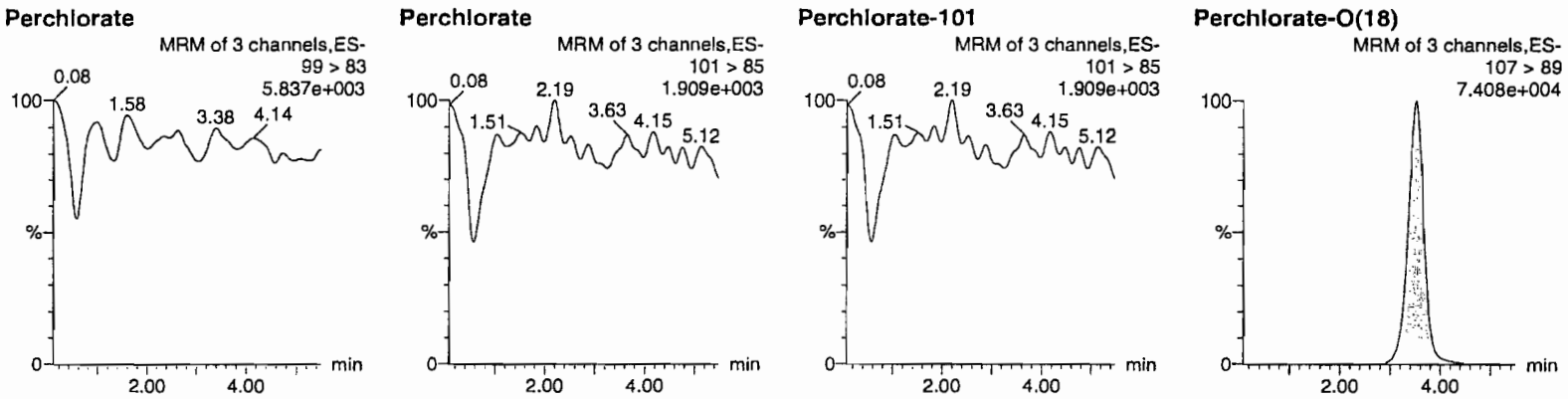

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IPB008	Perchlorate	99 > 83											0.00
IPB008	Perchlorate-101	101 > 85											
IPB008	Perchlorate-O(18)	107 > 89	3.51	27596.814	27596.814	bb			0.4813	96.27	-3.73	4682.9...	

MATT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report **MassLynx 4.0 SP4**
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ıst Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
inted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

ame: per0328067a
ate: 28-Mar-2010
me: 23:14:44
: IPB009
al: 1:1,A

CWD 03-29-10

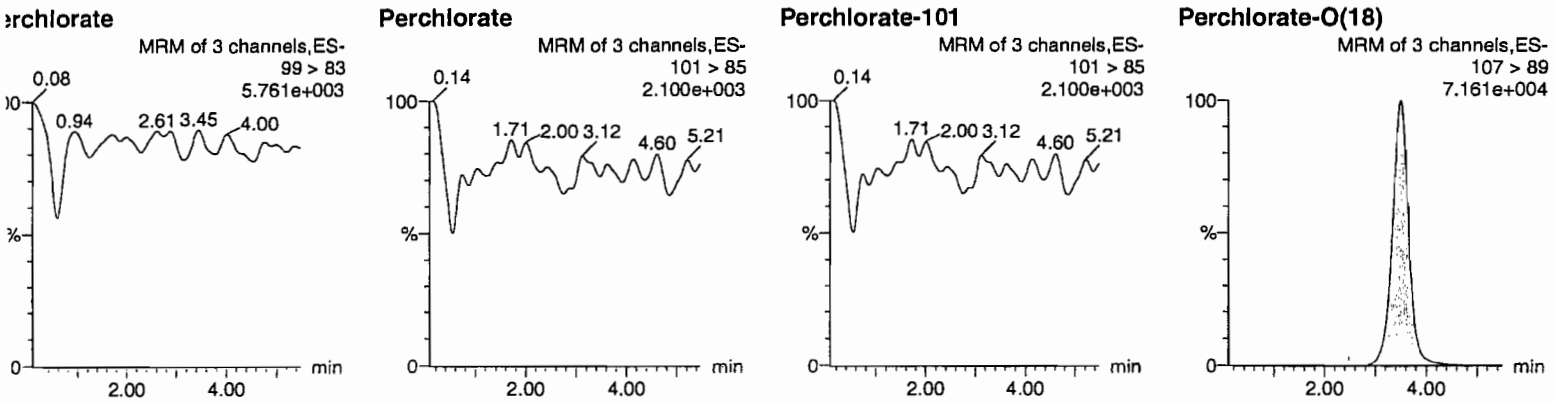

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3009	Perchlorate	99 > 83											0.00
3009	Perchlorate-101	101 > 85											
3009	Perchlorate-O(18)	107 > 89	3.50	26693.486	26693.486	bb			0.4656	93.12	-6.88	463.464	

MMT 7/30/10

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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antify Sample Report **MassLynx 4.0 SP4**
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

t Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
ted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

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e: 29-Mar-2010
e: 00:23:58
IPB010
l: 1:1,A

CW 03-29-10

chlorate

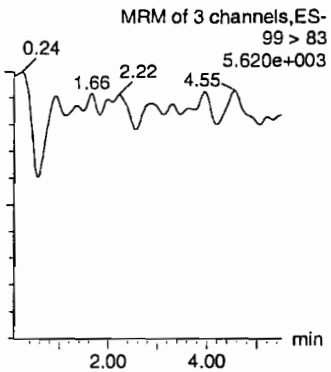

Perchlorate

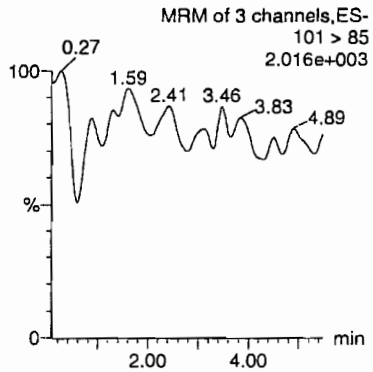

Perchlorate-101

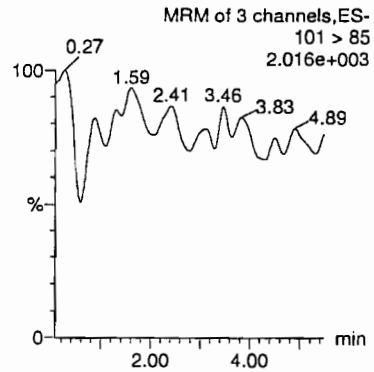

Perchlorate-O(18)

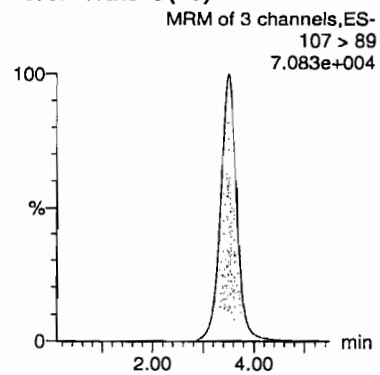

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
10	Perchlorate	99 > 83											0.00
10	Perchlorate-101	101 > 85											
10	Perchlorate-O(18)	107 > 89	3.50	26376.900	26376.900	bb			0.4601	92.01	-7.99	1141.0...	

MJT 3/30/10

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Rainbrd

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWJ 01-07-08

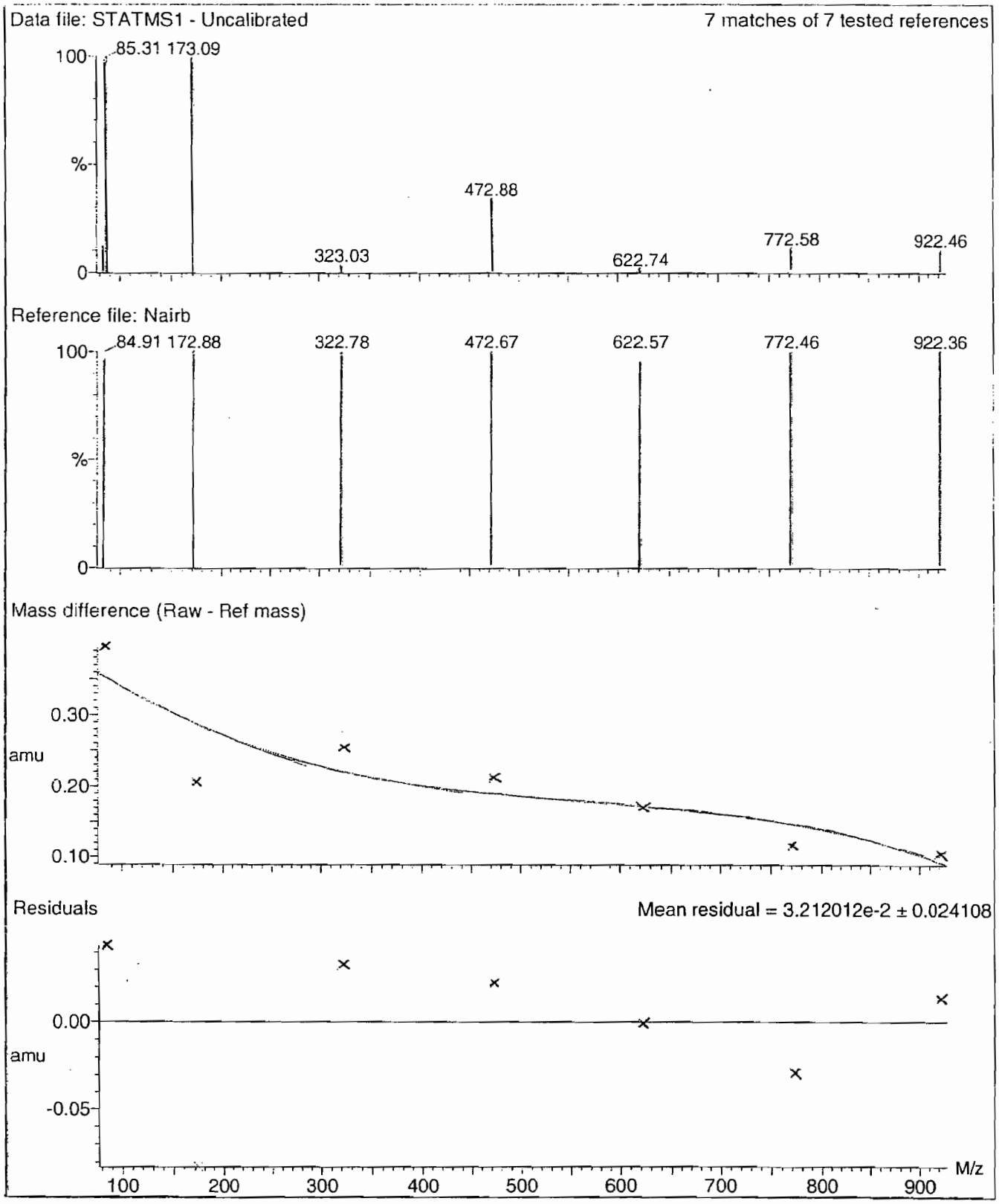

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

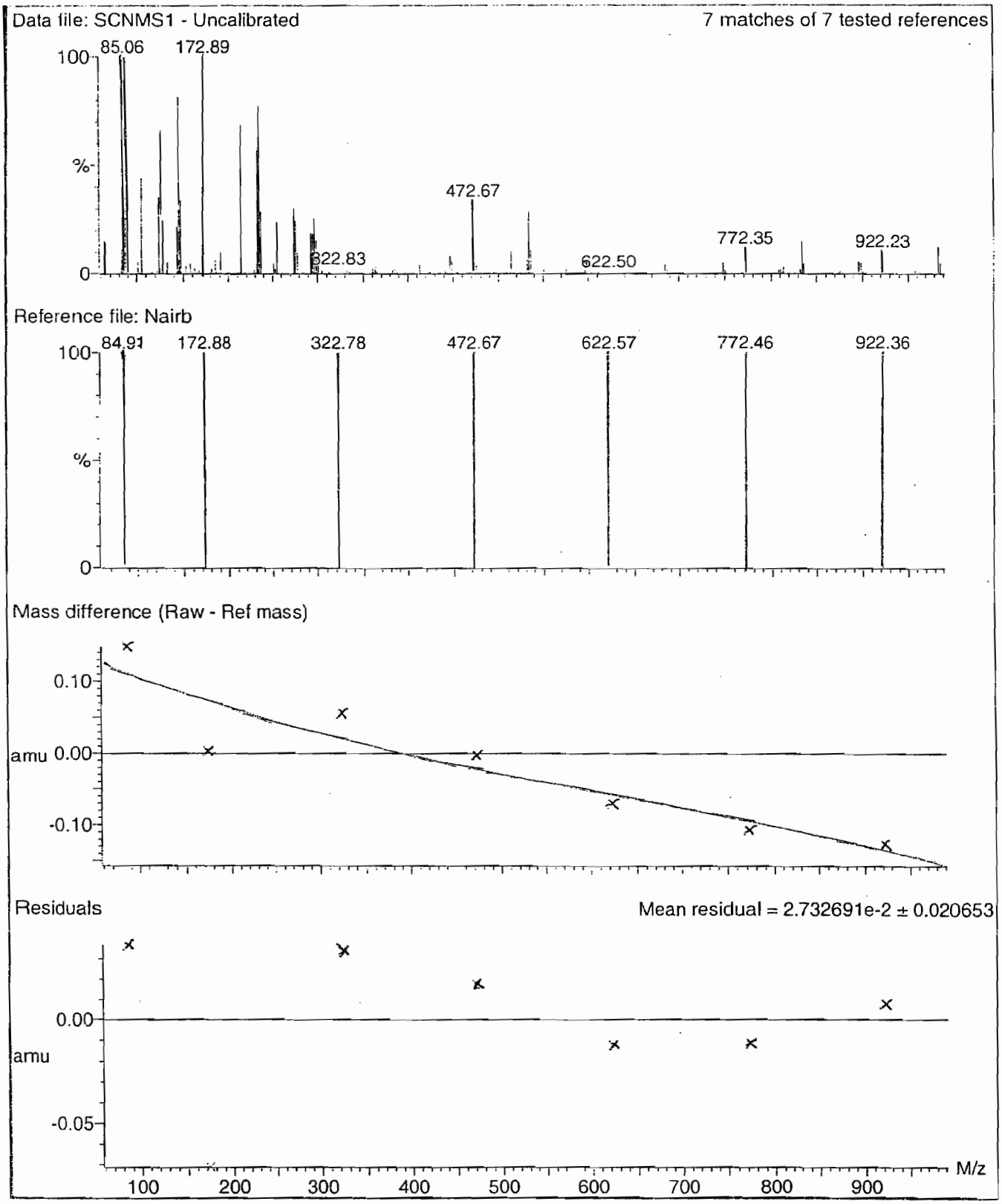

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Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

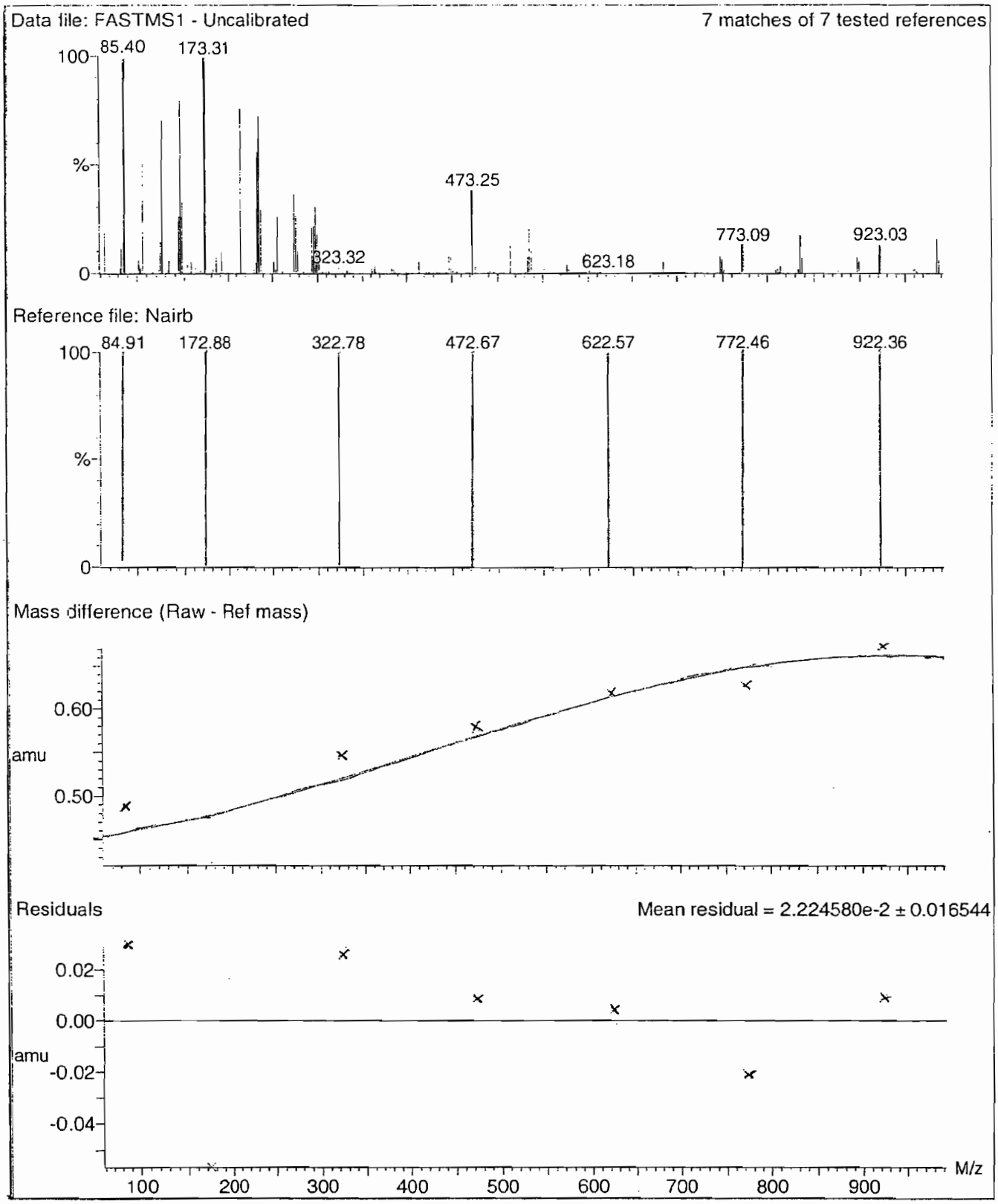

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Printed: Tue Jan 08 12:23:51 2008

Data file: FASTMS2 - Uncalibrated 7 matches of 7 tested references

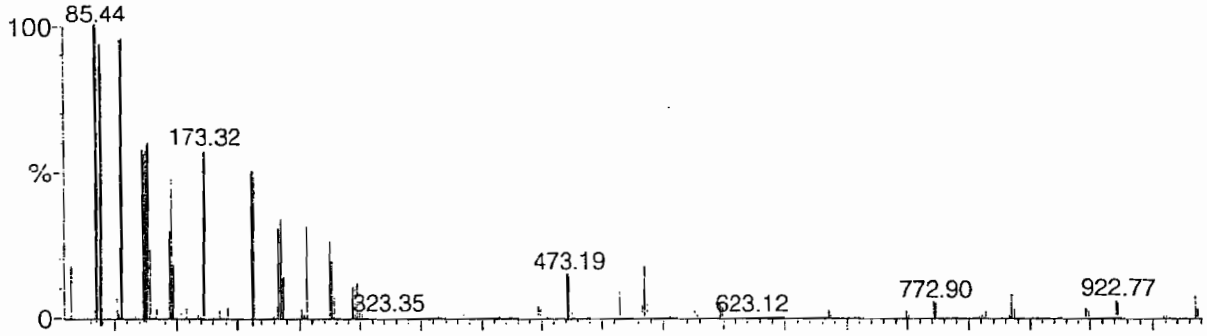

Reference file: Nairb

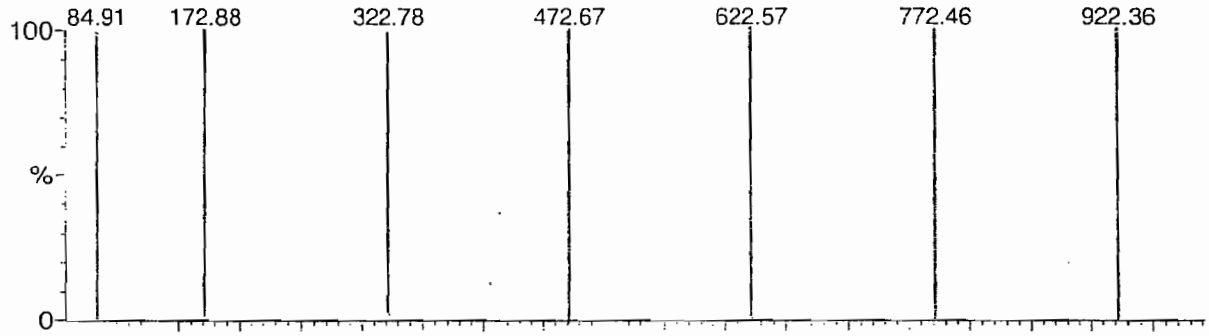

Mass difference (Raw - Ref mass)

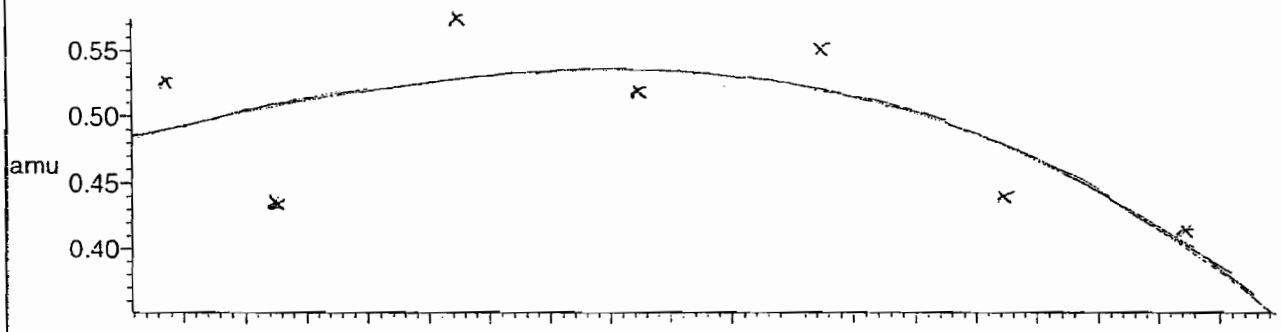

Residuals Mean residual = 3.598289e-2 ± 0.017899

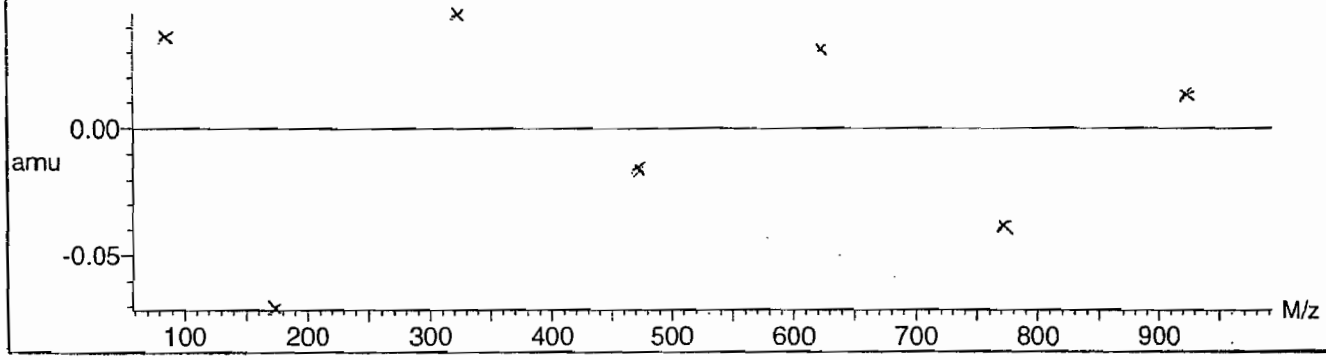

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Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

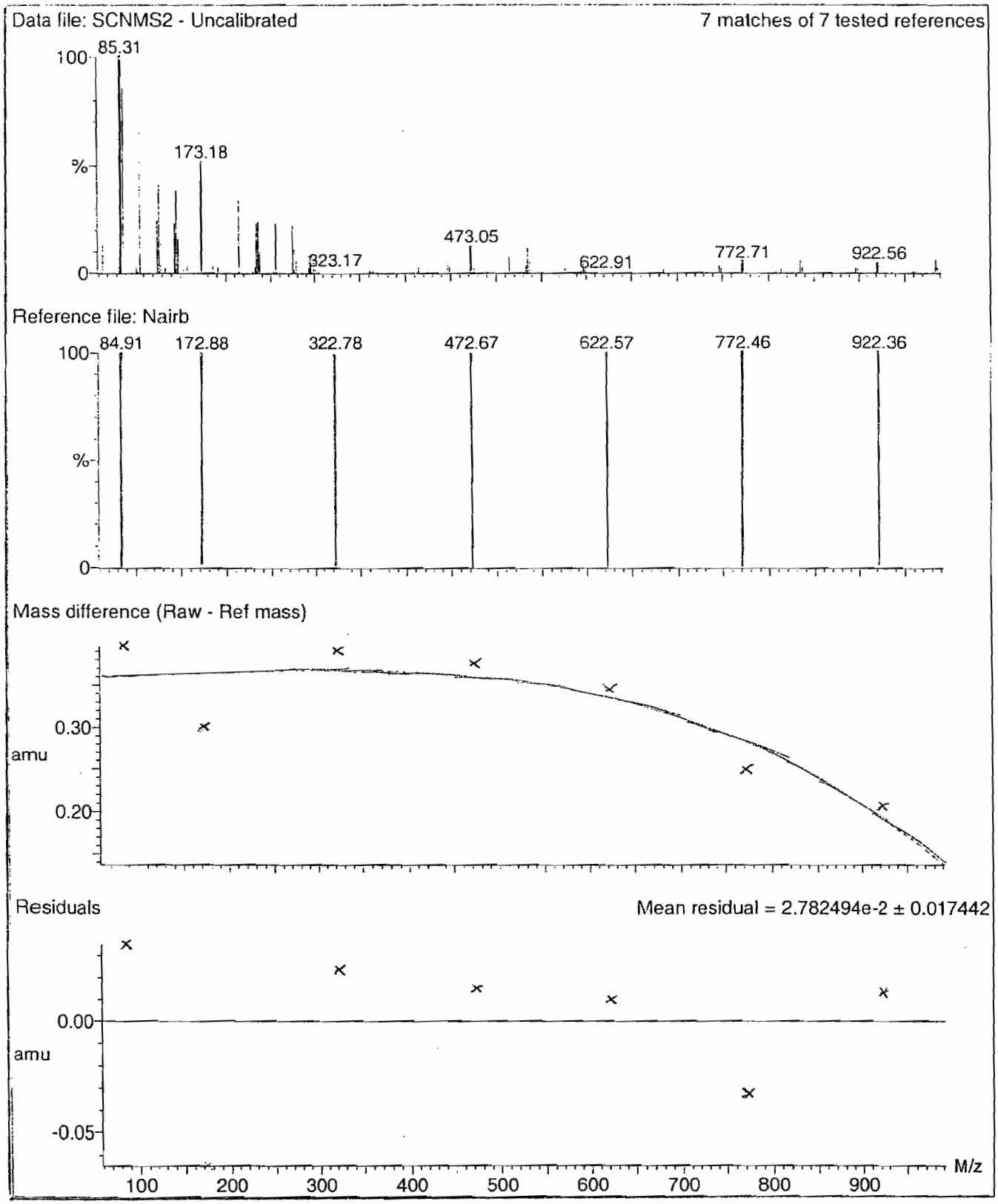

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Calibration Report - MS2 Static

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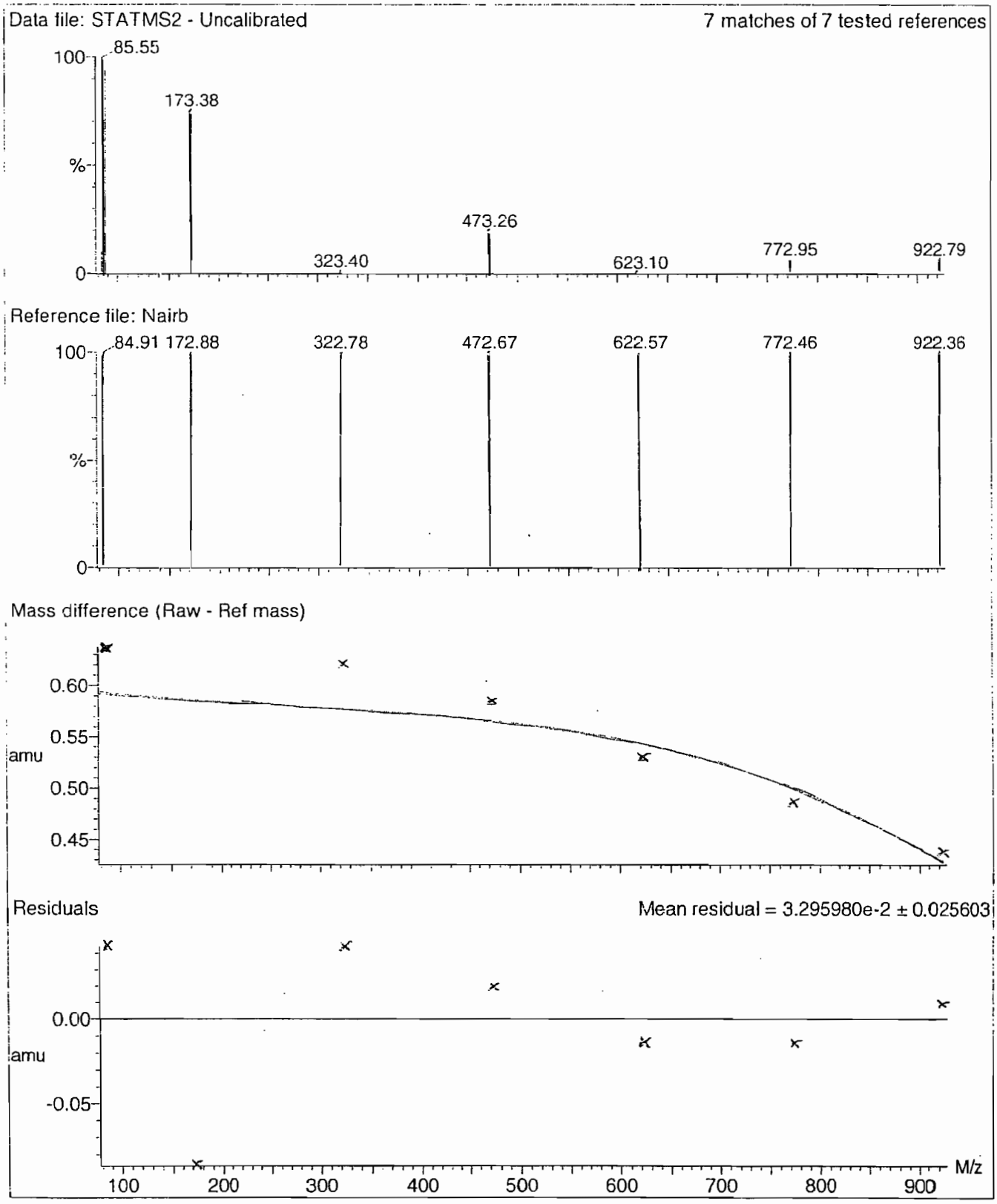

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Sunday, March 28, 2010 11:58:51 Eastern Standard Time

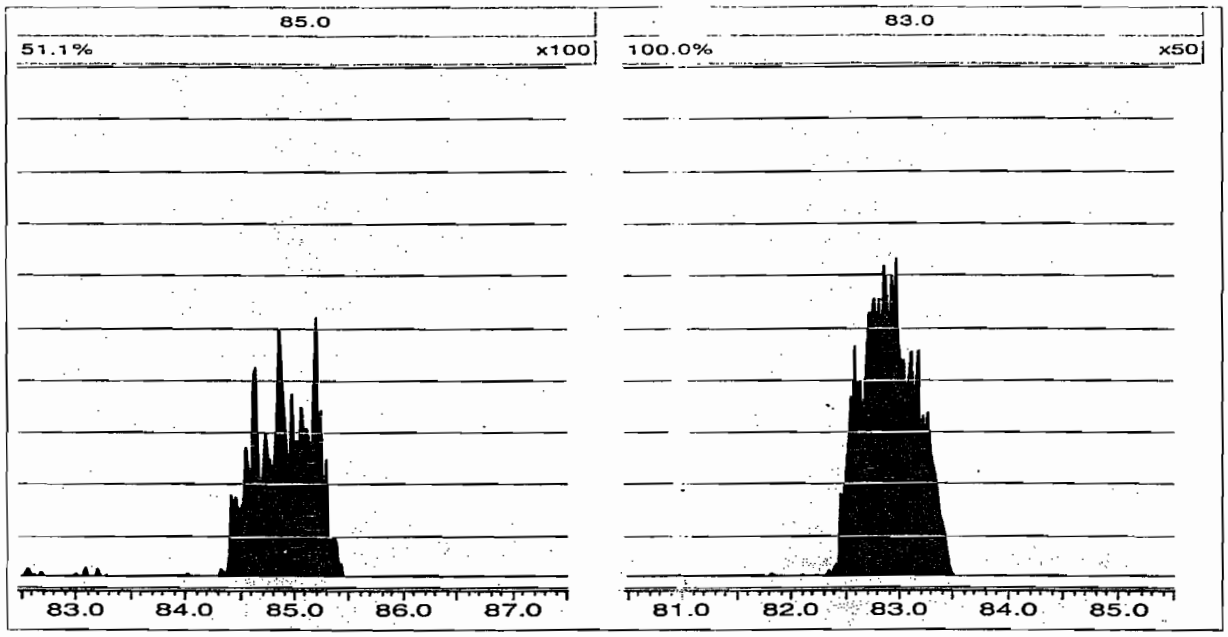

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-2313

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	**per0328006a**	**28-MAR-10**	**28421.6**				
Lower Area Limit			**14210.8**				
Upper Area Limit			**56843.2**				
1202068347	per0328038a	28-MAR-10 19:06	25332.3	3.51			
1202068348	per0328039a	28-MAR-10 19:15	28902.1	3.51	3.5201	1.003	
1202068351	per0328040a	28-MAR-10 19:23	29939.2	3.6	3.61957	1.005	
248860001	per0328053a	28-MAR-10 21:14	28537.7	3.5	3.5326	1.009	
1202068349	per0328054a	28-MAR-10 21:23	27562.9	3.51	3.52008	1.003	
1202068350	per0328055a	28-MAR-10 21:31	28228.5	3.5	3.52005	1.006	
248860002	per0328056a	28-MAR-10 21:40	27928.9	3.5			
248860003	per0328057a	28-MAR-10 21:48	27999	3.51			

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2313

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0328006a**	**28–MAR–10**	**28421.6**				
Lower Area Limit			**14210.8**				
Upper Area Limit			**56843.2**				
248860004	per0328058a	28–MAR–10 21:57	27593.3	3.51			
248860005	per0328059a	28–MAR–10 22:05	28220.5	3.5			
248860006	per0328060a	28–MAR–10 22:14	28084.4	3.51			
248860007	per0328064a	28–MAR–10 22:48	28746	3.5			
248860008	per0328065a	28–MAR–10 22:57	28763.8	3.51	3.54502	1.01	
248860009	per0328066a	28–MAR–10 23:06	27632.1	3.51			

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SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13782

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860001

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.581	2.32	0.581	ug/kg	U	1	28-MAR-10 21:14	per0328053a
	Perchlorate Isotope Ratio						1	28-MAR-10 21:14	per0328053a
14797-73-0	Perchlorate-101	.581	2.32	0.581	ug/kg	U	1	28-MAR-10 21:14	per0328053a
	Perchlorate-O(18)			5.78	ug/kg		1	28-MAR-10 21:14	per0328053a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328053a
Date: 28-Mar-2010
Time: 21:14:49
ID: 248860001
Vial: 2:3,A

|LANL|964122|50120|1|

CWW
03 29-10

Perchlorate

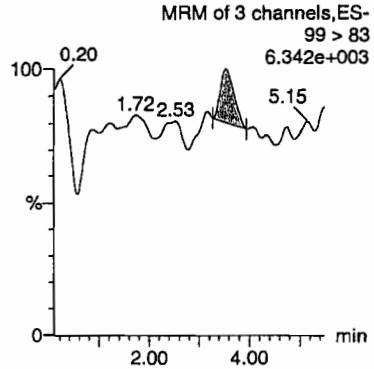

Perchlorate

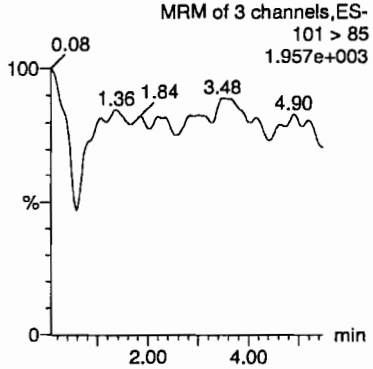

Perchlorate-101

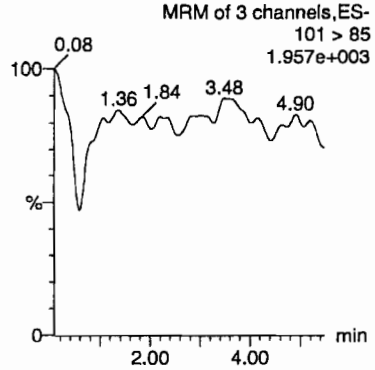

Perchlorate-O(18)

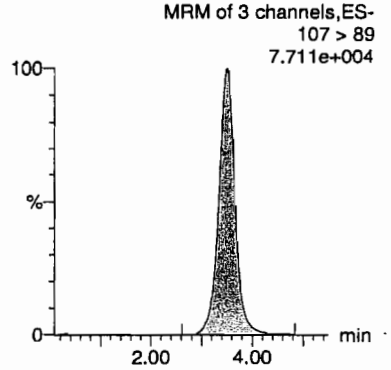

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248860001	Perchlorate	99 > 83	3.53	399.022	399.022	bb			0.0054			9.842	0.00
248860001	Perchlorate-101	101 > 85											
248860001	Perchlorate-O(18)	107 > 89	3.50	28537.688	28537.688	bb			0.4977	99.55	-0.45	3019.9...	

MATT
3/30/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13783

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860002

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 90.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.2	0.551	ug/kg	U	1	28-MAR-10 21:40	per0328056a
	Perchlorate Isotope Ratio						1	28-MAR-10 21:40	per0328056a
14797-73-0	Perchlorate-101	.551	2.2	0.551	ug/kg	U	1	28-MAR-10 21:40	per0328056a
	Perchlorate-O(18)			5.37	ug/kg		1	28-MAR-10 21:40	per0328056a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328056a
Date: 28-Mar-2010
Time: 21:40:26
ID: 248860002
Vial: 2:3,D

LANL | 964122 | 50620 | 1 |

03-29-10

Perchlorate

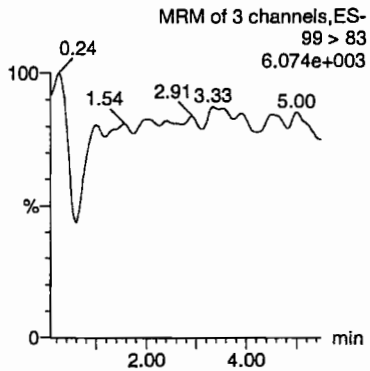

Perchlorate

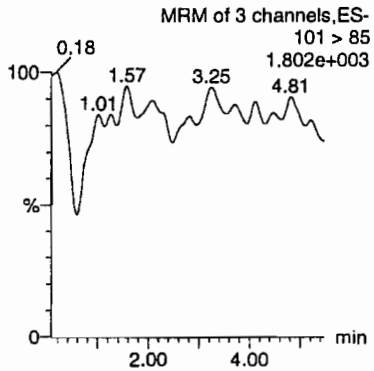

Perchlorate-101

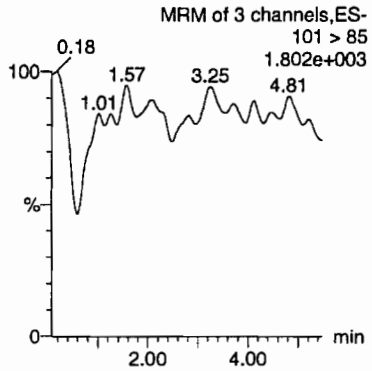

Perchlorate-O(18)

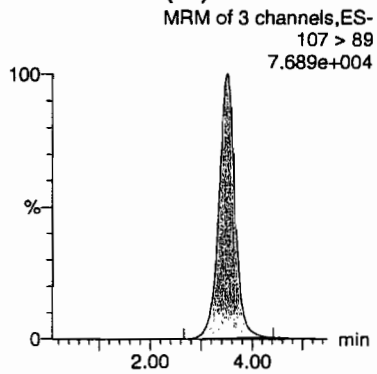

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248860002	Perchlorate	99 > 83											0.00
248860002	Perchlorate-101	101 > 85											
248860002	Perchlorate-O(18)	107 > 89	3.50	27928.867	27928.867	bb			0.4871	97.43	-2.57	1606.7...	

3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13777

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860003

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 80

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.628	2.51	0.628	ug/kg	U	1	28-MAR-10 21:48	per0328057a
	Perchlorate Isotope Ratio						1	28-MAR-10 21:48	per0328057a
14797-73-0	Perchlorate-101	.628	2.51	0.628	ug/kg	U	1	28-MAR-10 21:48	per0328057a
	Perchlorate-O(18)			6.14	ug/kg		1	28-MAR-10 21:48	per0328057a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328057a
Date: 28-Mar-2010
Time: 21:48:57
ID: 248860003
Vial: 2:3,E

|LANL|964122|50120|1|

03-29-10

Perchlorate

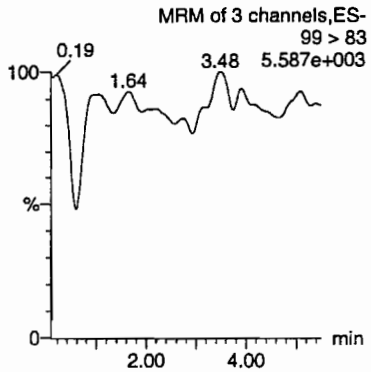

Perchlorate

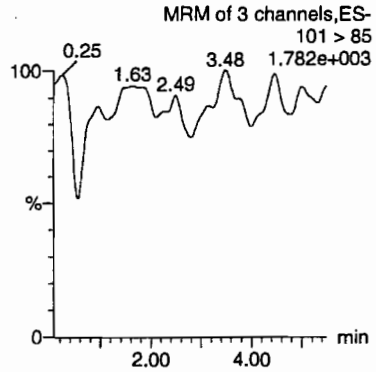

Perchlorate-101

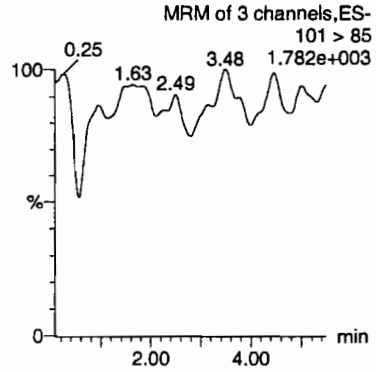

Perchlorate-O(18)

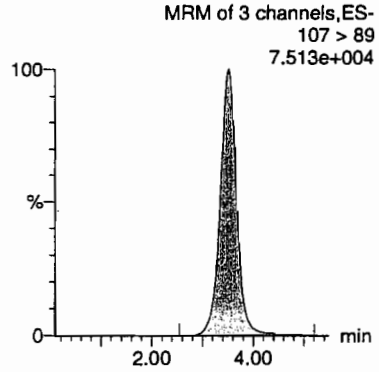

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248860003	Perchlorate	99 > 83											0.00
248860003	Perchlorate-101	101 > 85											
248860003	Perchlorate-O(18)	107 > 89	3.51	27998.994	27998.994	bb			0.4884	97.67	-2.33	5401.8...	

MAT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13775

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860004

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 90.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.552	2.21	0.552	ug/kg	U	1	28-MAR-10 21:57	per0328058a
	Perchlorate Isotope Ratio						1	28-MAR-10 21:57	per0328058a
14797-73-0	Perchlorate-101	.552	2.21	0.552	ug/kg	U	1	28-MAR-10 21:57	per0328058a
	Perchlorate-O(18)			5.32	ug/kg		1	28-MAR-10 21:57	per0328058a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ıst Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
inted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

ame: per0328058a
ate: 28-Mar-2010
me: 21:57:28
: 248860004
al: 2:3,F

|LANL|964122|50120|1|

03-29-10

erchlorate

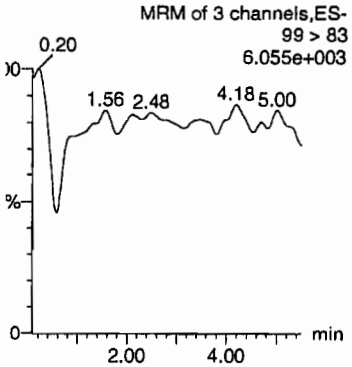

Perchlorate

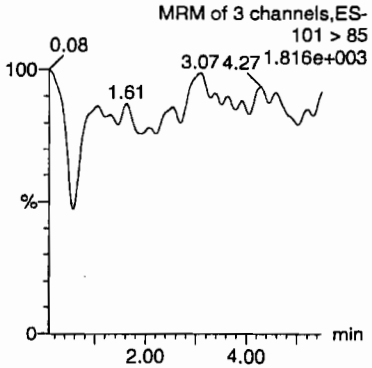

Perchlorate-101

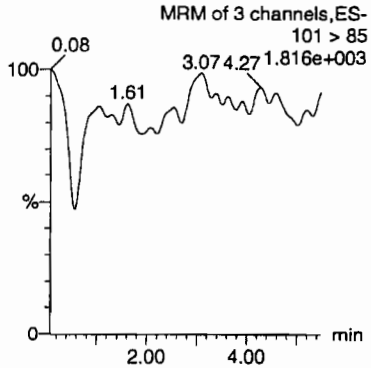

Perchlorate-O(18)

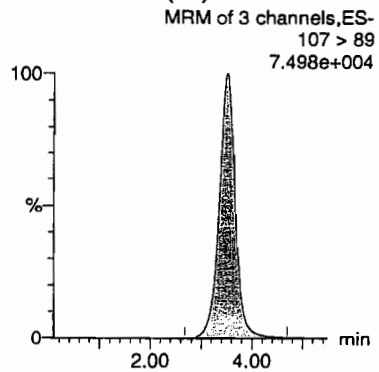

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
8860004	Perchlorate	99 > 83											0.00
8860004	Perchlorate-101	101 > 85											
8860004	Perchlorate-O(18)	107 > 89	3.51	27593.307	27593.307	bb			0.4813	96.25	-3.75	3316.4...	

MPP 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13776

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860005

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.556	2.22	0.556	ug/kg	U	1	28-MAR-10 22:05	per0328059a
	Perchlorate Isotope Ratio						1	28-MAR-10 22:05	per0328059a
14797-73-0	Perchlorate-101	.556	2.22	0.556	ug/kg	U	1	28-MAR-10 22:05	per0328059a
	Perchlorate-O(18)			5.48	ug/kg		1	28-MAR-10 22:05	per0328059a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328059a
Date: 28-Mar-2010
Time: 22:05:59
ID: 248860005
Vial: 2:4,A

1LANL | 964122 | 50120 | 1 |

CWO
03-29-10

Perchlorate

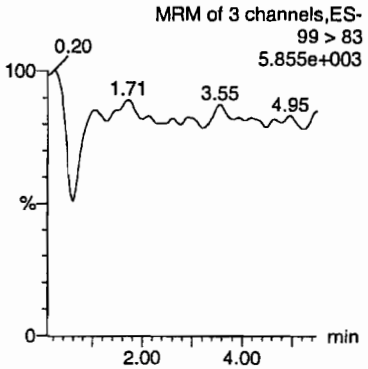

Perchlorate

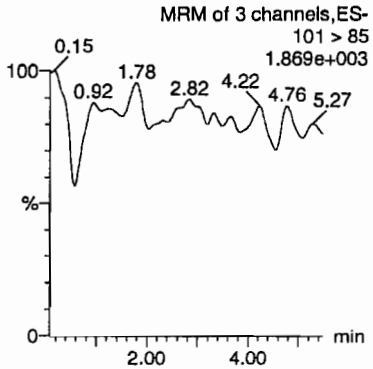

Perchlorate-101

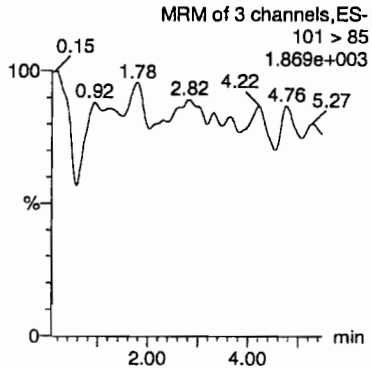

Perchlorate-O(18)

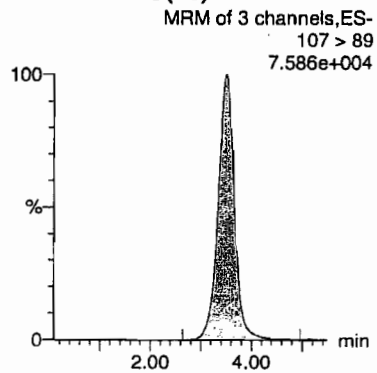

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248860005	Perchlorate	99 > 83											0.00
248860005	Perchlorate-101	101 > 85											
248860005	Perchlorate-O(18)	107 > 89	3.50	28220.500	28220.500	bb			0.4922	✓ 98.44	* -1.56	3560.8...	

MAT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13781

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860006

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.616	2.46	0.616	ug/kg	U	1	28-MAR-10 22:14	per0328060a
	Perchlorate Isotope Ratio						1	28-MAR-10 22:14	per0328060a
14797-73-0	Perchlorate-101	.616	2.46	0.616	ug/kg	U	1	28-MAR-10 22:14	per0328060a
	Perchlorate-O(18)			6.03	ug/kg		1	28-MAR-10 22:14	per0328060a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328060a
Date: 28-Mar-2010
Time: 22:14:32
ID: 248860006
Vial: 2:4,B

|LANL|964122|50120|1|

03-29-10

Perchlorate

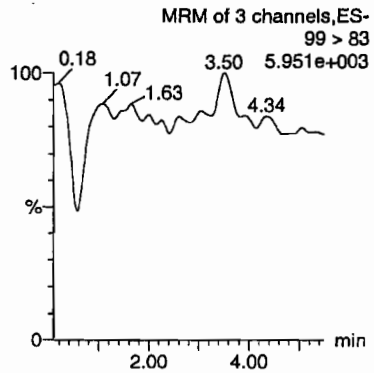

Perchlorate

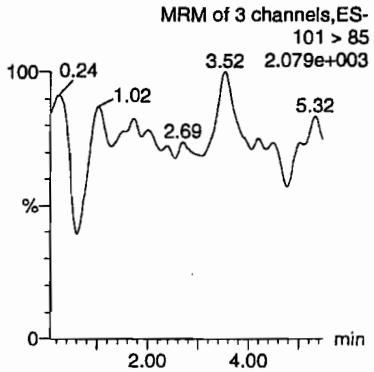

Perchlorate-101

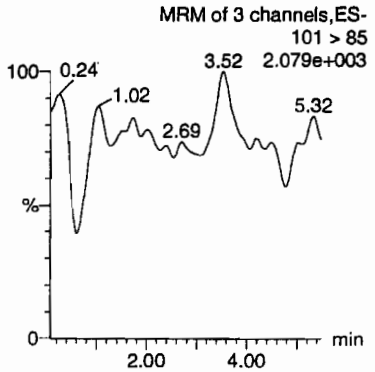

Perchlorate-O(18)

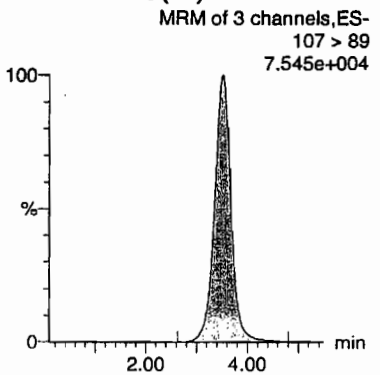

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248860006	Perchlorate	99 > 83											0.00
248860006	Perchlorate-101	101 > 85											
248860006	Perchlorate-O(18)	107 > 89	3.51	28084.432	28084.432	bb			0.4898	97.97	-2.03	6119.1...	

MM 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13779

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860007

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 80

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.621	2.48	0.621	ug/kg	U	1	28-MAR-10 22:48	per0328064a
	Perchlorate Isotope Ratio						1	28-MAR-10 22:48	per0328064a
14797-73-0	Perchlorate-101	.621	2.48	0.621	ug/kg	U	1	28-MAR-10 22:48	per0328064a
	Perchlorate-O(18)			6.23	ug/kg		1	28-MAR-10 22:48	per0328064a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328064a
Date: 28-Mar-2010
Time: 22:48:58
ID: 248860007
Vial: 2:4,C

|LANL|964122|50120|1|

03-24-10

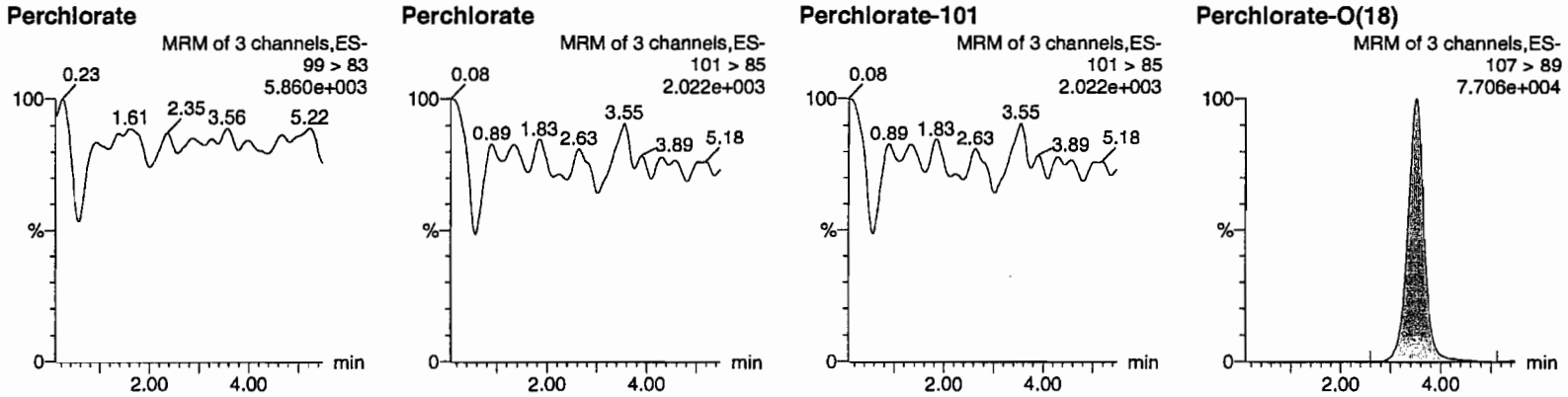

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248860007	Perchlorate	99 > 83											0.00
248860007	Perchlorate-101	101 > 85											
248860007	Perchlorate-O(18)	107 > 89	3.50	28745.986	28745.986	bb			0.5014	100.28	0.28	4199.6...	

3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13780

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860008

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.61	2.44	0.610	ug/kg	U	1	28-MAR-10 22:57	per0328065a
	Perchlorate Isotope Ratio						1	28-MAR-10 22:57	per0328065a
14797-73-0	Perchlorate-101	.61	2.44	0.610	ug/kg	U	1	28-MAR-10 22:57	per0328065a
	Perchlorate-O(18)			6.12	ug/kg		1	28-MAR-10 22:57	per0328065a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328065a
Date: 28-Mar-2010
Time: 22:57:41
ID: 248860008 | LAN | 964122 | 50620 | 1 |
Vial: 2:4,D

CWO
03-29-10

Perchlorate

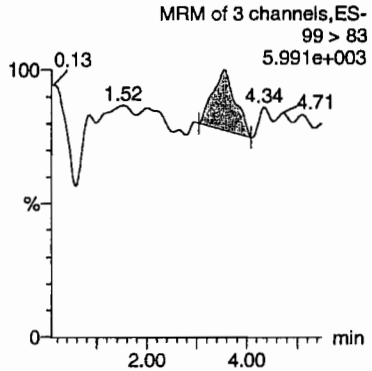

Perchlorate

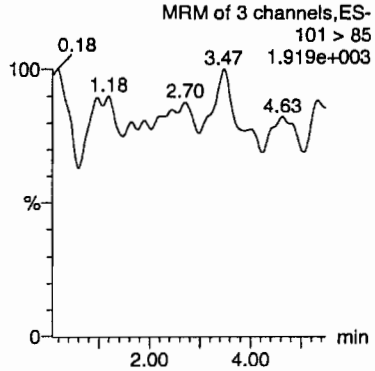

Perchlorate-101

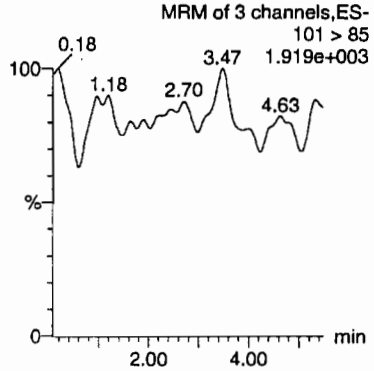

Perchlorate-O(18)

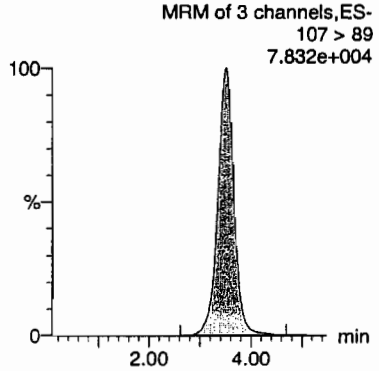

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248860008	Perchlorate	99 > 83	3.55	710.319	710.319	bb			0.0096			9.651	0.00
248860008	Perchlorate-101	101 > 85											
248860008	Perchlorate-O(18)	107 > 89	3.51	28763.783	28763.783	bb			0.5017	100.34	0.34	2538.7...	

MMT
3/30/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13778

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 248860009

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.618	2.47	0.618	ug/kg	U	1	28-MAR-10 23:06	per0328066a
	Perchlorate Isotope Ratio						1	28-MAR-10 23:06	per0328066a
14797-73-0	Perchlorate-101	.618	2.47	0.618	ug/kg	U	1	28-MAR-10 23:06	per0328066a
	Perchlorate-O(18)			5.95	ug/kg		1	28-MAR-10 23:06	per0328066a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328066a
Date: 28-Mar-2010
Time: 23:06:13
ID: 248860009
Vial: 2:4,E

|LANL|964172|50120|1|

03-29-10

Perchlorate

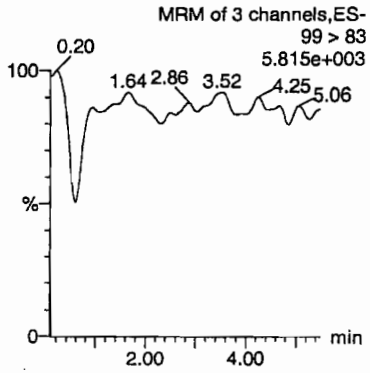

Perchlorate

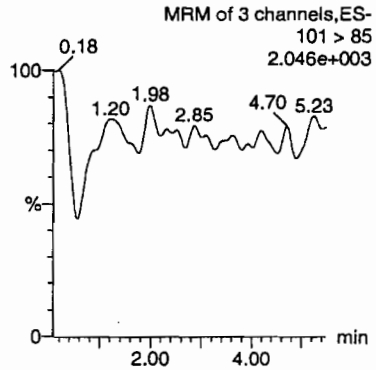

Perchlorate-101

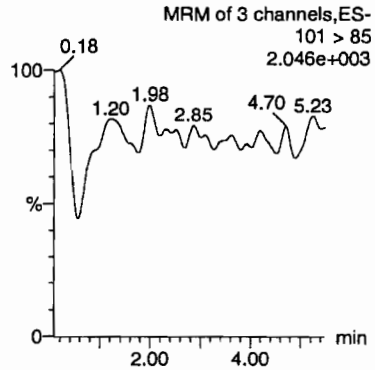

Perchlorate-O(18)

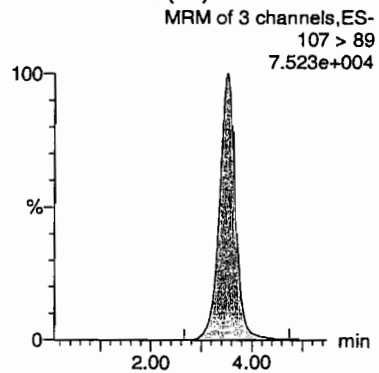

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248860009	Perchlorate	99 > 83											0.00
248860009	Perchlorate-101	101 > 85											
248860009	Perchlorate-O(18)	107 > 89	3.51	27632.113	27632.113	bb			0.4820	96.39	-3.61	9080.1...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-2313

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 28-MAR-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 73726.48

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-2313

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 28-MAR-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 23033

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032810a.mdb 29 Mar 2010 09:32:17
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032810a.cdb 29 Mar 2010 09:32:40

Compound name: Perchlorate
Response Factor: 73726.5
RRF SD: 1732.62, % Relative SD: 2.35006
Response type: External Std, Area
Curve type: RF

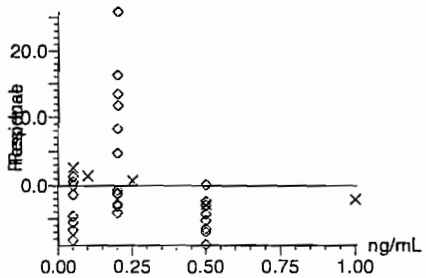

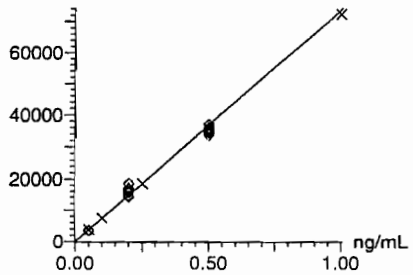

CWW
03-29-10

Compound name: Perchlorate-101
Response Factor: 23033
RRF SD: 903.383, % Relative SD: 3.92213
Response type: External Std, Area
Curve type: RF

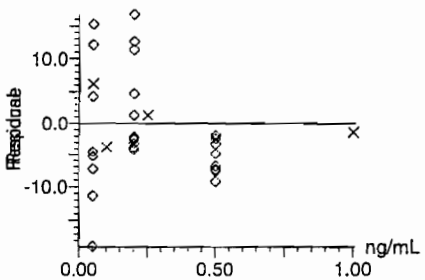

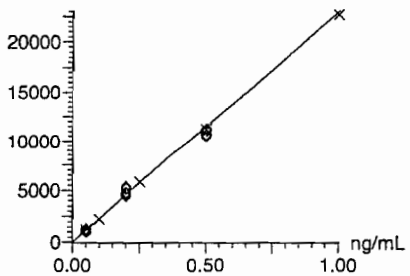

MMT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Calibration Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ıtaset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

st Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
inted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

ompound name: Perchlorate-O(18)
esponse Factor: 57333.8
RF SD: 1178.71, % Relative SD: 2.05586
esponse type: External Std, Area
ırve type: RF

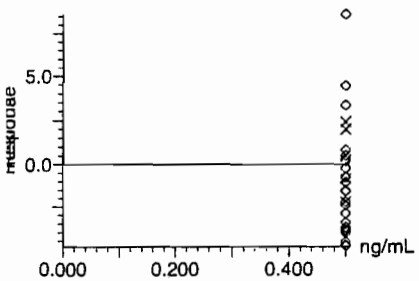

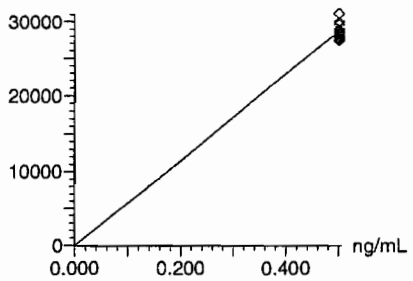

:L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2313

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	97.61	28–MAR–10 14:58	per0328009a
Perchlorate Isotope Ratio		3.19		28–MAR–10 14:58	per0328009a
Perchlorate–101	.5	.49	98.08	28–MAR–10 14:58	per0328009a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Per

CWW 03-24-10

Name: per0328009a
Date: 28-Mar-2010
Time: 14:58:36
ID: WCL100326-06ICV
Vial: 1:2,A

Perchlorate

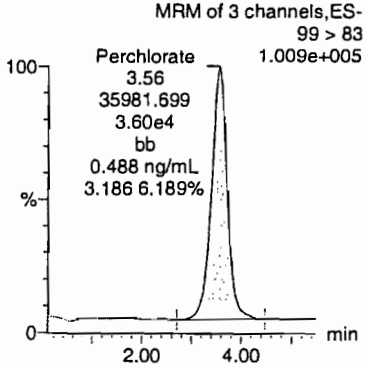

Perchlorate

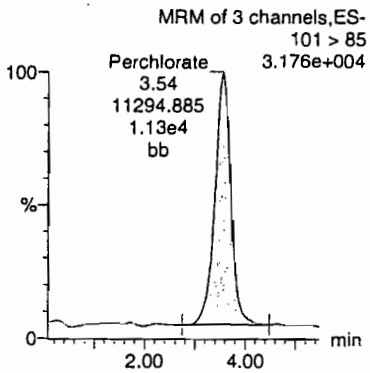

Perchlorate-101

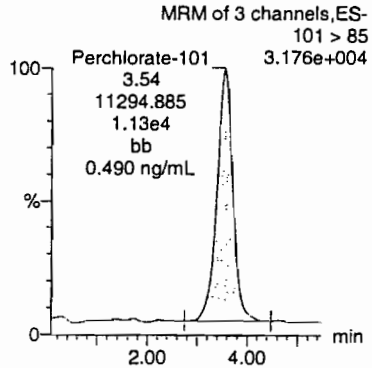

Perchlorate-O(18)

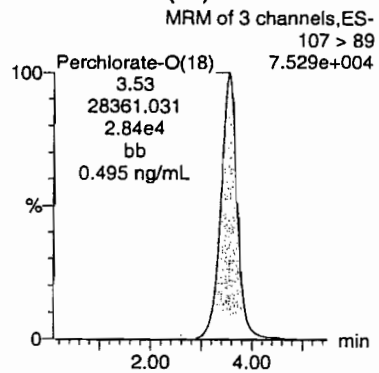

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06ICV	Perchlorate	99 > 83	3.56	35981.699	35981.699	bb			0.4880	97.61	-2.39	915.246	3.19
WCL100326-06ICV	Perchlorate-101	101 > 85	3.54	11294.885	11294.885	bb			0.4904	98.08	-1.92	276.628	
WCL100326-06ICV	Perchlorate-O(18)	107 > 89	3.53	28361.031	28361.031	bb			0.4947	98.93	-1.07	3706.3...	

MHT 3/30/10

$$\frac{35981.699}{73726.5} = 0.4880$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2313

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.47	94.8	28–MAR–10 16:49	per0328022a
Perchlorate Isotope Ratio		3.28		28–MAR–10 16:49	per0328022a
Perchlorate–101	.5	.46	92.59	28–MAR–10 16:49	per0328022a
Perchlorate	.5	.5	100.11	28–MAR–10 18:40	per0328035a
Perchlorate Isotope Ratio		3.31		28–MAR–10 18:40	per0328035a
Perchlorate–101	.5	.48	96.74	28–MAR–10 18:40	per0328035a
Perchlorate	.5	.46	91.16	28–MAR–10 20:31	per0328048a
Perchlorate Isotope Ratio		3.14		28–MAR–10 20:31	per0328048a
Perchlorate–101	.5	.47	93.06	28–MAR–10 20:31	per0328048a
Perchlorate	.5	.48	95.76	28–MAR–10 22:23	per0328061a
Perchlorate Isotope Ratio		3.32		28–MAR–10 22:23	per0328061a
Perchlorate–101	.5	.46	92.35	28–MAR–10 22:23	per0328061a
Perchlorate	.5	.47	93.54	29–MAR–10 00:15	per0328074a

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2313

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.3		29–MAR–10 00:15	per0328074a
Perchlorate–101	.5	.45	90.8	29–MAR–10 00:15	per0328074a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328022a
Date: 28-Mar-2010
Time: 16:49:40
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
AW
03-29-10

Perchlorate

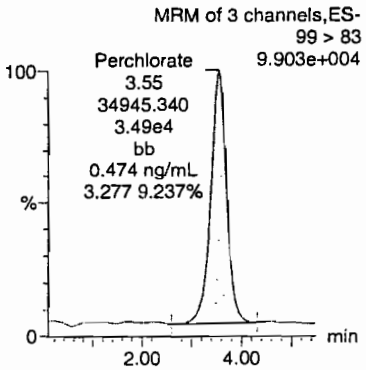

Perchlorate

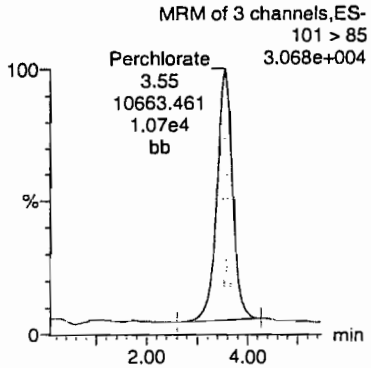

Perchlorate-101

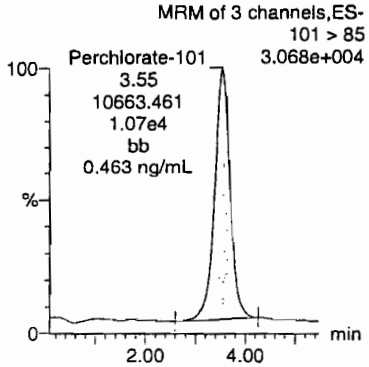

Perchlorate-O(18)

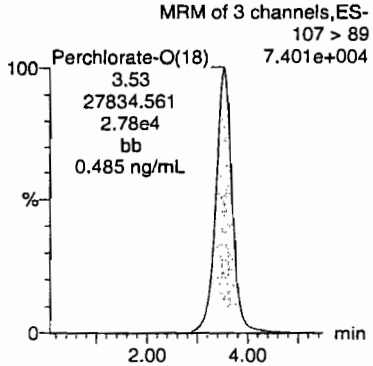

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.55	34945.340	34945.340	bb			0.4740	94.80	-5.20	432.965	3.28
WCL100326-06CCV	Perchlorate-101	101 > 85	3.55	10663.461	10663.461	bb			0.4630	92.59	-7.41	677.245	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.53	27834.561	27834.561	bb			0.4855	97.10	-2.90	5758.9...	

MATT 7/30/10

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The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328035a
Date: 28-Mar-2010
Time: 18:40:39
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
03-29-10

Perchlorate

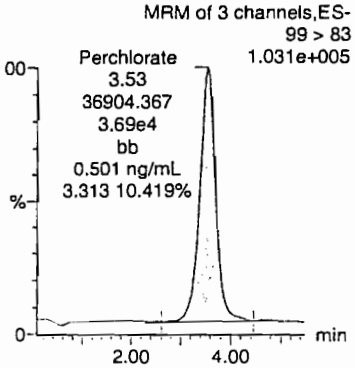

Perchlorate

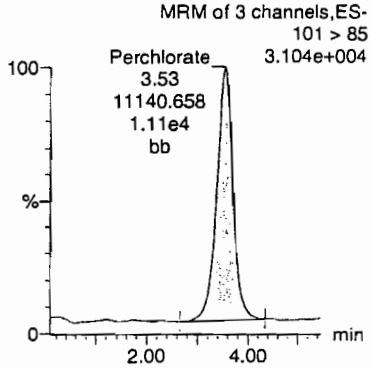

Perchlorate-101

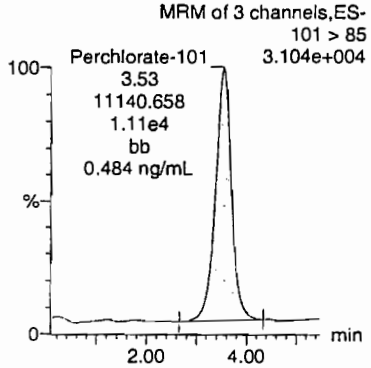

Perchlorate-O(18)

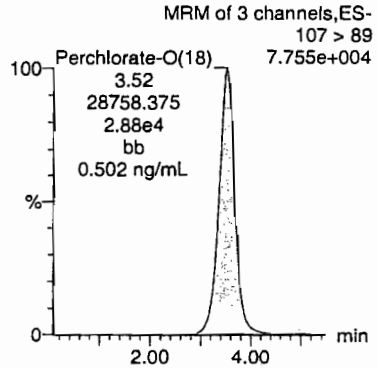

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-06CCV	Perchlorate	99 > 83	3.53	36904.367	36904.367	bb			0.5006	100.11	0.11	986.950	3.31
CL100326-06CCV	Perchlorate-101	101 > 85	3.53	11140.658	11140.658	bb			0.4837	96.74	-3.26	547.613	
CL100326-06CCV	Perchlorate-O(18)	107 > 89	3.52	28758.375	28758.375	bb			0.5016	100.32	0.32	150.701	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328048a
Date: 28-Mar-2010
Time: 20:31:44
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
AWO
03-29-10

Perchlorate

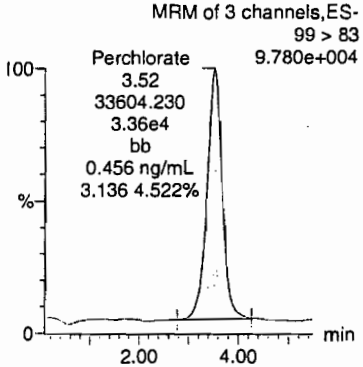

Perchlorate

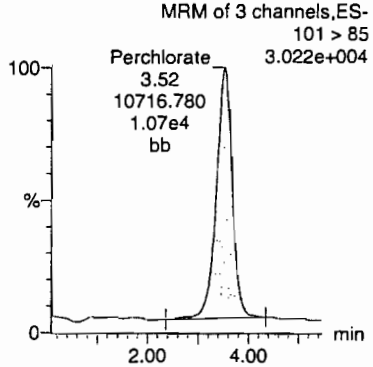

Perchlorate-101

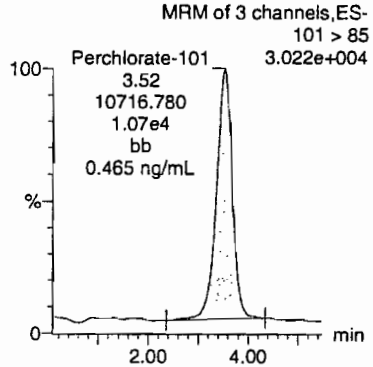

Perchlorate-O(18)

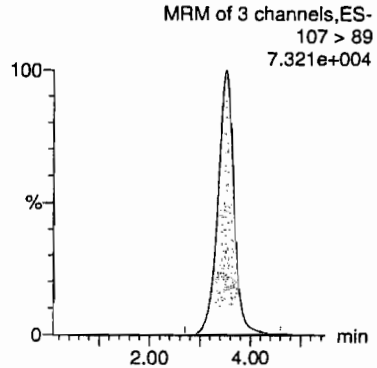

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.52	33604.230	33604.230	bb			0.4558	91.16	-8.84	365.785	3.14
WCL100326-06CCV	Perchlorate-101	101 > 85	3.52	10716.780	10716.780	bb			0.4653	93.06	-6.94	207.895	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.51	27310.855	27310.855	bb			0.4763	95.27	-4.73	3256.2...	

MJT
3/30/10

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328061a
Date: 28-Mar-2010
Time: 22:23:04
ID: WCL100326-06CCV
Vial: 1:2,A

Perch
aw
03-29-10

Perchlorate

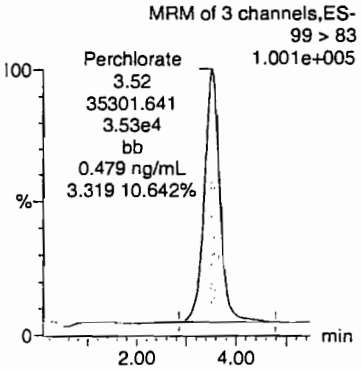

Perchlorate

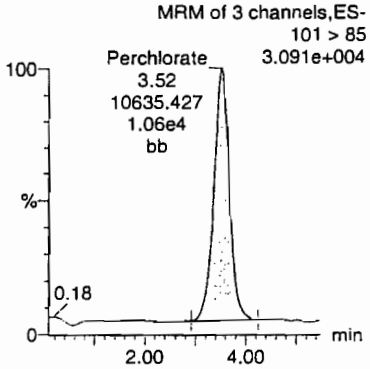

Perchlorate-101

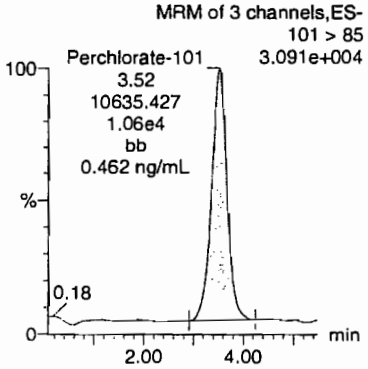

Perchlorate-O(18)

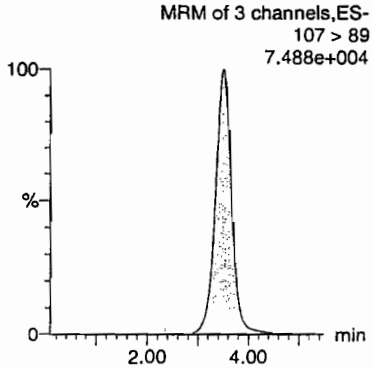

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-06CCV	Perchlorate	99 > 83	3.52	35301.641	35301.641	bb			0.4788	95.76	-4.24	982.679	3.32
CL100326-06CCV	Perchlorate-101	101 > 85	3.52	10635.427	10635.427	bb			0.4617	92.35	-7.65	700.685	
CL100326-06CCV	Perchlorate-O(18)	107 > 89	3.51	27977.967	27977.967	bb			0.4880	97.60	-2.40	6973.2...	

MATT
3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328074a
Date: 29-Mar-2010
Time: 00:15:11
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
aw
03-29-10

Perchlorate

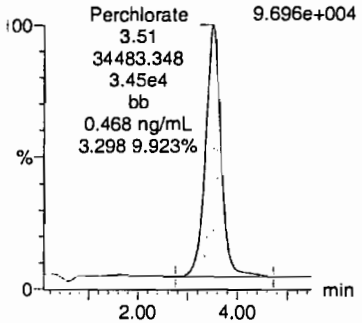

Perchlorate

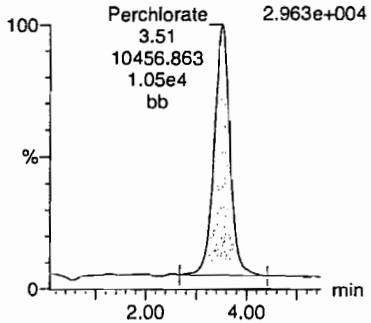

Perchlorate-101

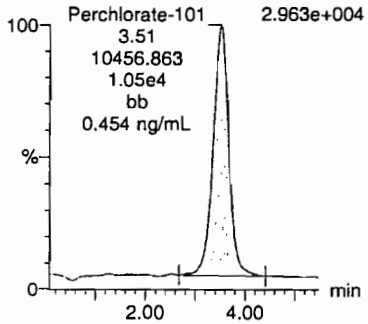

Perchlorate-O(18)

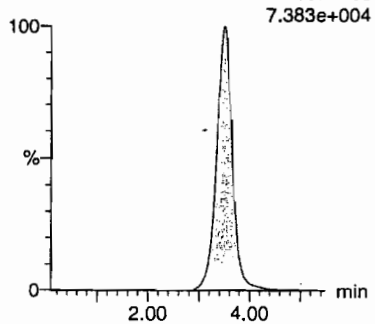

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100326-06CCV	Perchlorate	99 > 83	3.51	34483.348	34483.348	bb			0.4677	93.54	-6.46	623.412	3.30
/CL100326-06CCV	Perchlorate-101	101 > 85	3.51	10456.863	10456.863	bb			0.4540	90.80	-9.20	641.876	
/CL100326-06CCV	Perchlorate-O(18)	107 > 89	3.50	27292.709	27292.709	bb			0.4760	95.21	-4.79	3146.9...	

MAT
3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2313

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	94.53	28–MAR–10 15:15	per0328011a
Perchlorate Isotope Ratio		2.7		28–MAR–10 15:15	per0328011a
Perchlorate–101	.05	.06	112.08	28–MAR–10 15:15	per0328011a
Perchlorate	.05	.05	98.65	28–MAR–10 17:06	per0328024a
Perchlorate Isotope Ratio		3.41		28–MAR–10 17:06	per0328024a
Perchlorate–101	.05	.05	92.66	28–MAR–10 17:06	per0328024a
Perchlorate	.05	.05	93.38	28–MAR–10 18:57	per0328037a
Perchlorate Isotope Ratio		3.15		28–MAR–10 18:57	per0328037a
Perchlorate–101	.05	.05	94.74	28–MAR–10 18:57	per0328037a
Perchlorate	.05	.05	100.05	28–MAR–10 20:49	per0328050a
Perchlorate Isotope Ratio		3.61		28–MAR–10 20:49	per0328050a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2313

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate–101	.05	.04	88.67	28–MAR–10 20:49	per0328050a
Perchlorate	.05	.05	101.33	28–MAR–10 22:40	per0328063a
Perchlorate Isotope Ratio		3.11		28–MAR–10 22:40	per0328063a
Perchlorate–101	.05	.05	104.29	28–MAR–10 22:40	per0328063a
Perchlorate	.05	.05	95.45	29–MAR–10 00:32	per0328076a
Perchlorate Isotope Ratio		2.65		29–MAR–10 00:32	per0328076a
Perchlorate–101	.05	.06	115.26	29–MAR–10 00:32	per0328076a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328011a
Date: 28-Mar-2010
Time: 15:15:40
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
aw
03-29-10

Perchlorate

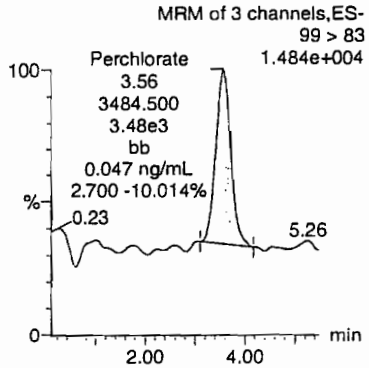

Perchlorate

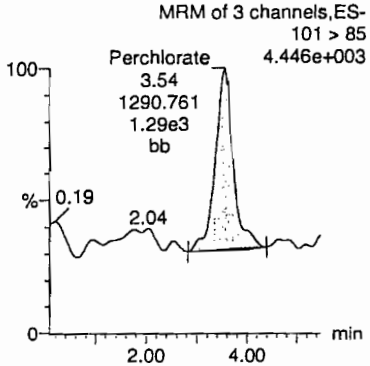

Perchlorate-101

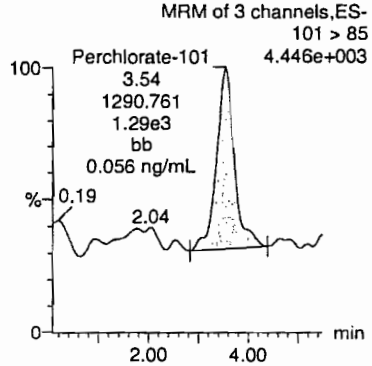

Perchlorate-O(18)

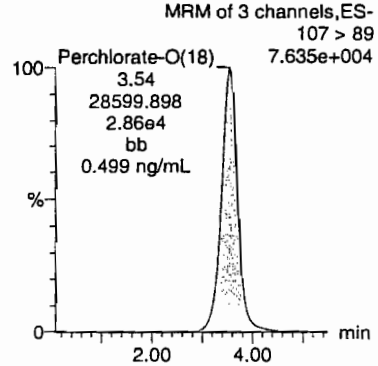

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.56	3484.500	3484.500	bb			0.0473	94.53	-5.47	43.366	2.70
WCL100326-07CRI	Perchlorate-101	101 > 85	3.54	1290.761	1290.761	bb			0.0560	112.08	12.08	18.604	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.54	28599.898	28599.898	bb			0.4988	99.77	-0.23	3124.1...	

MMT 3/30/10

$$\frac{3484.500}{1290.761} = 2.6996$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328024a
Date: 28-Mar-2010
Time: 17:06:44
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
03-24-10

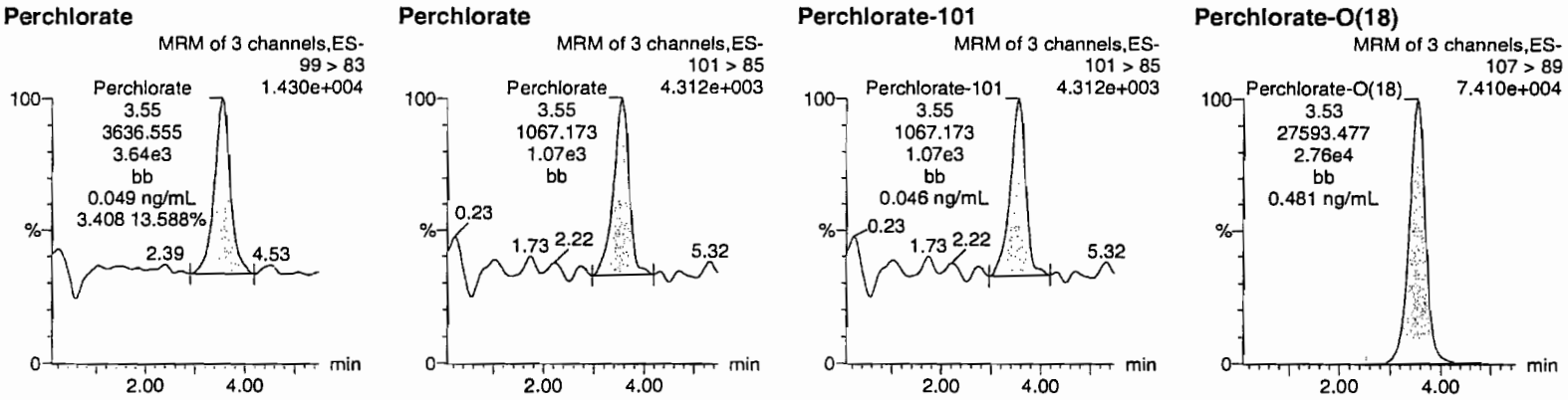

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.55	3636.555	3636.555	bb			0.0493	98.65	-1.35	51.357	3.41
WCL100326-07CRI	Perchlorate-101	101 > 85	3.55	1067.173	1067.173	bb			0.0463	92.66	-7.34	20.263	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.53	27593.477	27593.477	bb			0.4813	96.26	-3.74	1525.0...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328037a
Date: 28-Mar-2010
Time: 18:57:43
ID: WCL100326-07CRI
Vial: 1:2,B

Pers
03-29-10

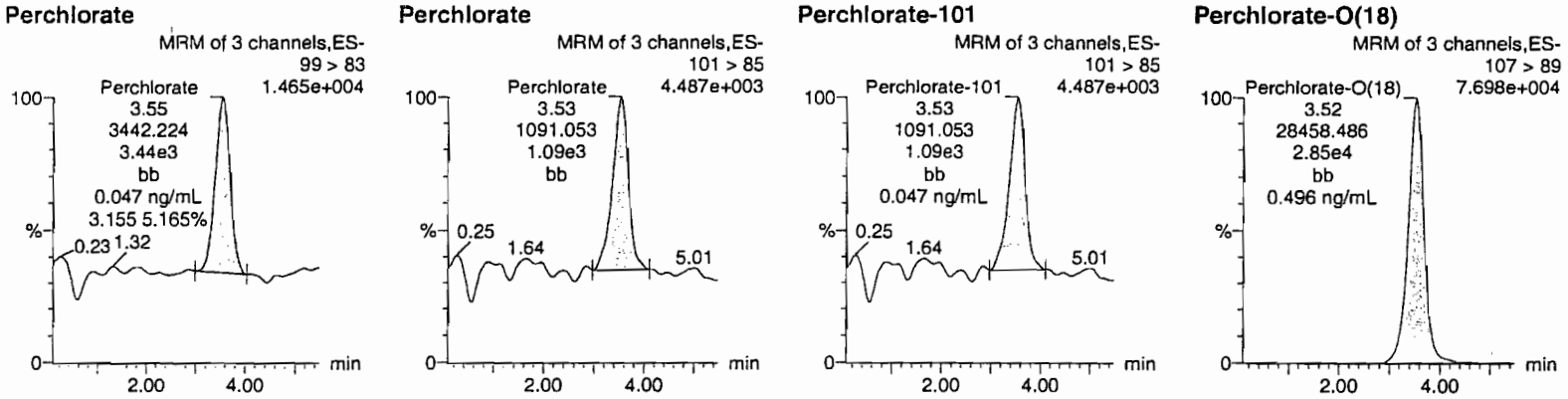

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100326-07CRI	Perchlorate	99 > 83	3.55	3442.224	3442.224	bb			0.0467	93.38	-6.62	71.164	3.15
VCL100326-07CRI	Perchlorate-101	101 > 85	3.53	1091.053	1091.053	bb			0.0474	94.74	-5.26	28.828	
VCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.52	28458.486	28458.486	bb			0.4964	99.27	-0.73	6519.7...	

MHT
3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328050a
Date: 28-Mar-2010
Time: 20:49:03
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
ano
03-29-10

Perchlorate

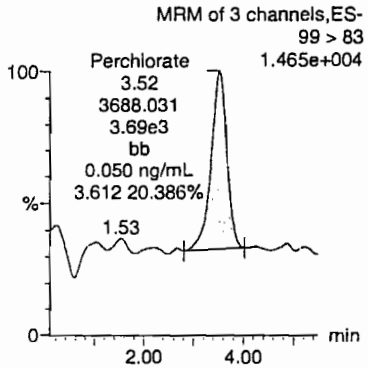

Perchlorate

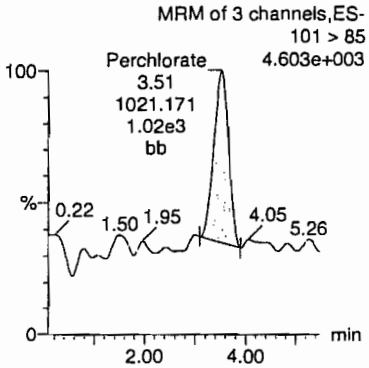

Perchlorate-101

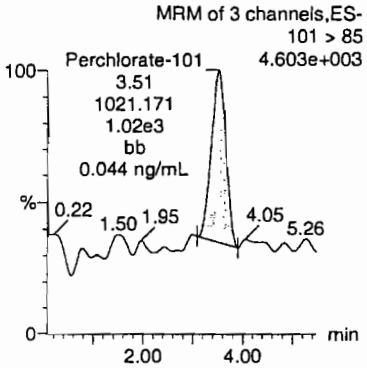

Perchlorate-O(18)

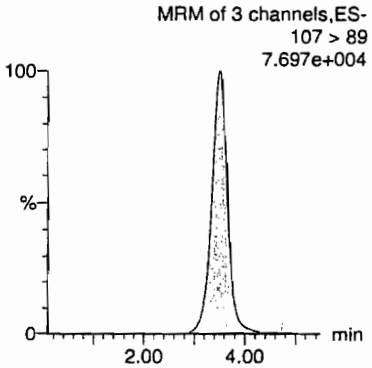

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.52	3688.031	3688.031	bb			0.0500	100.05	0.05	36.473	3.61
WCL100326-07CRI	Perchlorate-101	101 > 85	3.51	1021.171	1021.171	bb			0.0443	88.67	-11.33	22.935	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.50	28234.439	28234.439	bb			0.4925	98.49	-1.51	3832.6...	

MM
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328063a
Date: 28-Mar-2010
Time: 22:40:24
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
CWW
3-29-10

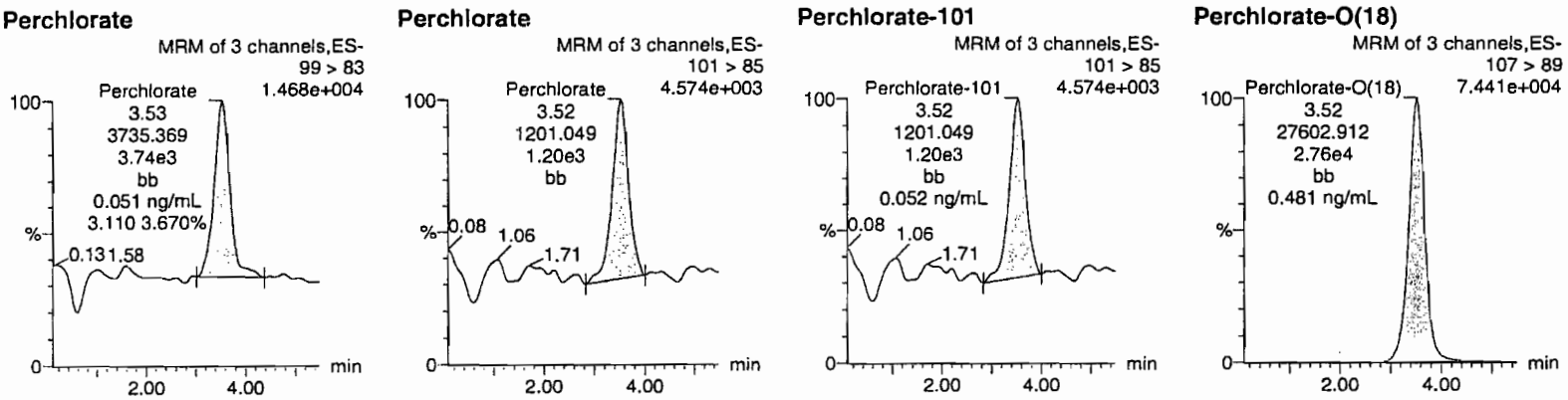

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.53	3735.369	3735.369	bb			0.0507	101.33	1.33	67.720	3.11
WCL100326-07CRI	Perchlorate-101	101 > 85	3.52	1201.049	1201.049	bb			0.0521	104.29	4.29	34.353	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.52	27602.912	27602.912	bb			0.4814	96.29	-3.71	3170.0...	

MAT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328076a
Date: 29-Mar-2010
Time: 00:32:38
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
AWJ
03-24-10

Perchlorate

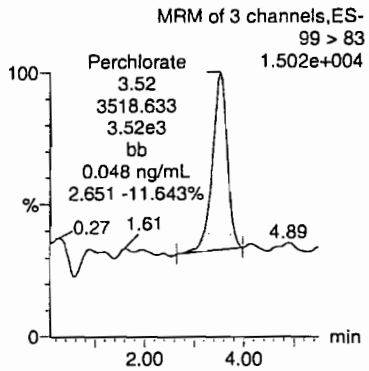

Perchlorate

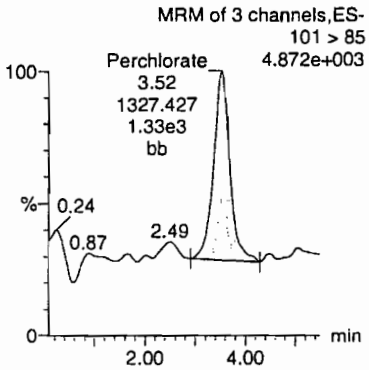

Perchlorate-101

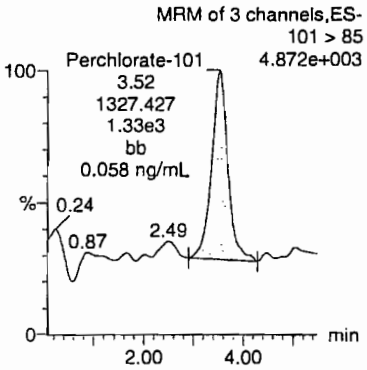

Perchlorate-O(18)

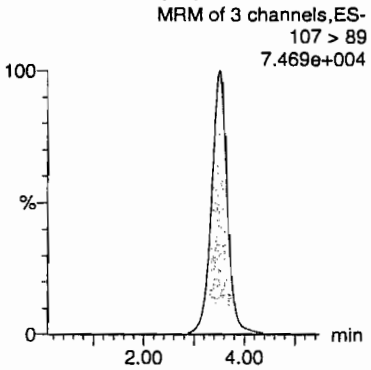

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.52	3518.633	3518.633	bb			0.0477	95.45	-4.55	33.770	2.65
WCL100326-07CRI	Perchlorate-101	101 > 85	3.52	1327.427	1327.427	bb			0.0576	115.26	15.26	26.644	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.50	27545.785	27545.785	bb			0.4804	96.09	-3.91	7167.8...	

LMP
3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 19-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 1202068347

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	28-MAR-10 19:06	per0328038a
	Perchlorate Isotope Ratio						1	28-MAR-10 19:06	per0328038a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	28-MAR-10 19:06	per0328038a
	Perchlorate-O(18)			4.42	ug/kg		1	28-MAR-10 19:06	per0328038a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328038a
Date: 28-Mar-2010
Time: 19:06:17
ID: 1202068347
Vial: 2:1,A

|LANL|961122|50L20|MB|1|

CWO 03-24-10

Perchlorate

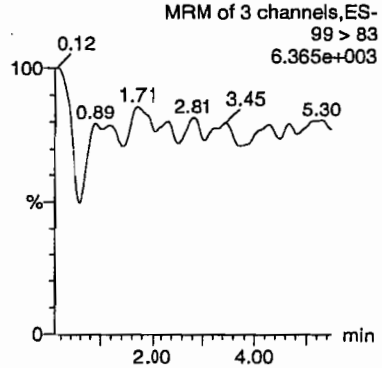

Perchlorate

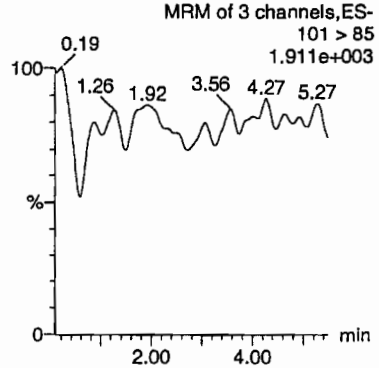

Perchlorate-101

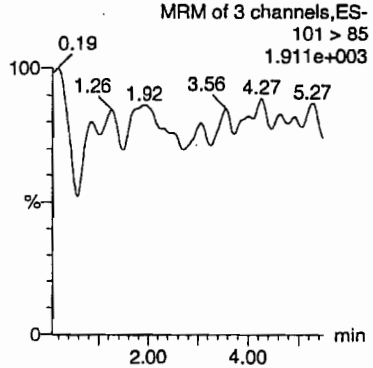

Perchlorate-O(18)

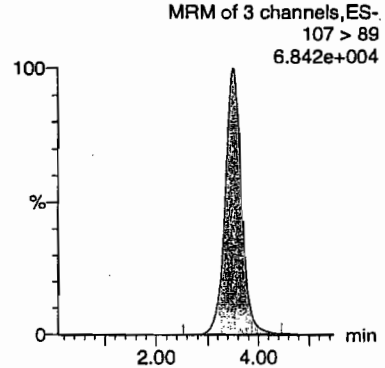

ID	Name	Trace	RT	Area	Response	Flags	ModDate	ModTime	Amt	%Rec	%Dev	S/N	Ion Ratio
1202068347	Perchlorate	99 > 83											0.00
1202068347	Perchlorate-101	101 > 85											
1202068347	Perchlorate-O(18)	107 > 89	3.51	25332.254	25332.254	bb			0.4418	88.37	-11.63	6325.9...	

MT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 19-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 1202068348

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	1.92	ug/kg	J	1	28-MAR-10 19:15	per0328039a
	Perchlorate Isotope Ratio			3.15			1	28-MAR-10 19:15	per0328039a
14797-73-0	Perchlorate-101	.5	2	1.95	ug/kg	J	1	28-MAR-10 19:15	per0328039a
	Perchlorate-O(18)			5.04	ug/kg		1	28-MAR-10 19:15	per0328039a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328039a
Date: 28-Mar-2010
Time: 19:15:00
ID: 1202068348
Vial: 2:1,B

|LANL|964122|30120|LCS|1|

CWO 03-29-10

Perchlorate

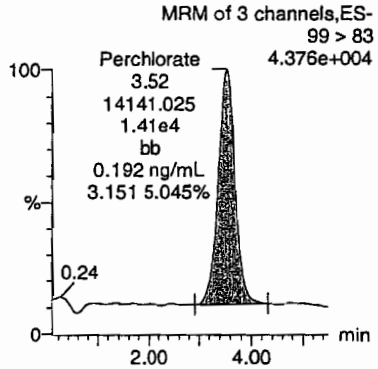

Perchlorate

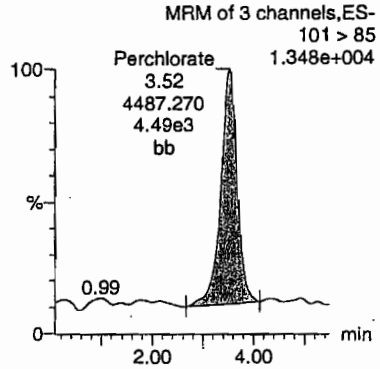

Perchlorate-101

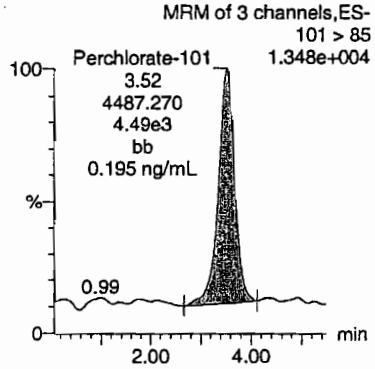

Perchlorate-O(18)

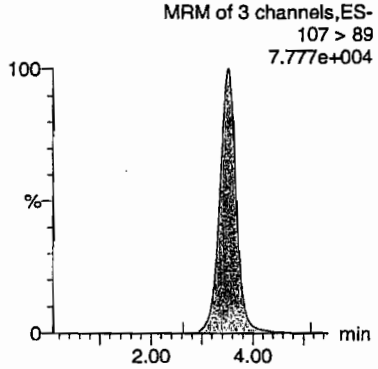

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068348	Perchlorate	99 > 83	3.52	14141.025	14141.025	bb			0.1918	95.90	-4.10	316.795	3.15
1202068348	Perchlorate-101	101 > 85	3.52	4487.270	4487.270	bb			0.1948	97.41	-2.59	159.868	
1202068348	Perchlorate-O(18)	107 > 89	3.51	28902.115	28902.115	bb			0.5041	100.82	0.82	2367.4...	

MAT 3/30/10

$$\frac{14141.025}{73726.5} = 0.1918$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13782MS

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 1202068349

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.581	2.32	2.26	ug/kg	J	1	28-MAR-10 21:23	per0328054a
	Perchlorate Isotope Ratio			3.21			1	28-MAR-10 21:23	per0328054a
14797-73-0	Perchlorate-101	.581	2.32	2.25	ug/kg	J	1	28-MAR-10 21:23	per0328054a
	Perchlorate-O(18)			5.59	ug/kg		1	28-MAR-10 21:23	per0328054a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328054a
Date: 28-Mar-2010
Time: 21:23:21
ID: 1202068349
Vial: 2:3,B

LANL | 964122 | 50120 | MS | 1 |

03-29-10

Perchlorate

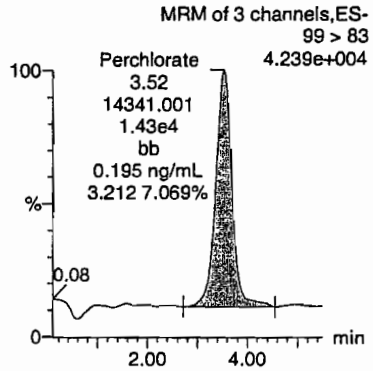

Perchlorate

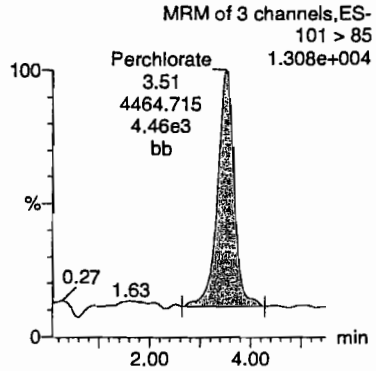

Perchlorate-101

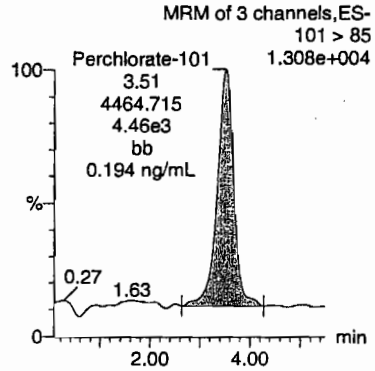

Perchlorate-O(18)

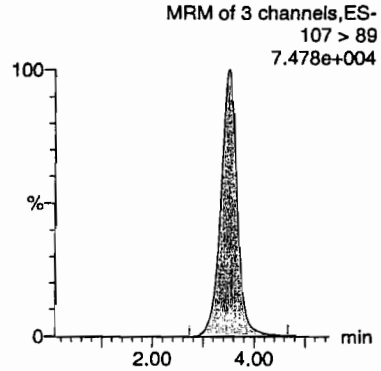

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068349	Perchlorate	99 > 83	3.52	14341.001	14341.001	bb			0.1945	97.26	-2.74	242.006	3.21
1202068349	Perchlorate-101	101 > 85	3.51	4464.715	4464.715	bb			0.1938	96.92	-3.08	265.315	
1202068349	Perchlorate-O(18)	107 > 89	3.51	27562.883	27562.883	bb			0.4807	96.15	-3.85	1840.8...	

MSFT 3/30/10

$$\frac{14341.001}{73726.5} \Big| 10 \Big| \frac{100}{86.1} = 2.26$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13782MSD

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313

GEL Sample ID: 1202068350

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.581	2.32	2.30	ug/kg	J	1	28-MAR-10 21:31	per0328055a
	Perchlorate Isotope Ratio			3.25			1	28-MAR-10 21:31	per0328055a
14797-73-0	Perchlorate-101	.581	2.32	2.26	ug/kg	J	1	28-MAR-10 21:31	per0328055a
	Perchlorate-O(18)			5.72	ug/kg		1	28-MAR-10 21:31	per0328055a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328055a
Date: 28-Mar-2010
Time: 21:31:53
ID: 1202068350
Vial: 2:3,C

|LANL|964122|50120|MSD|11|

03-29-10

Perchlorate

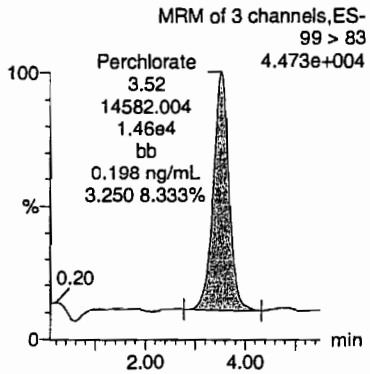

Perchlorate

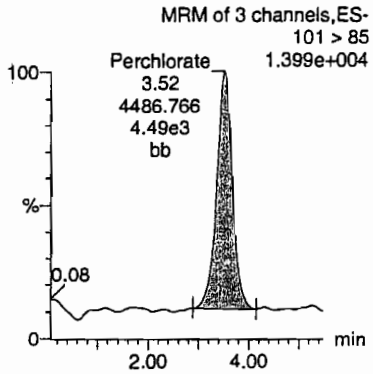

Perchlorate-101

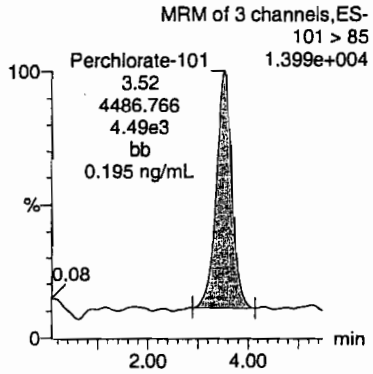

Perchlorate-O(18)

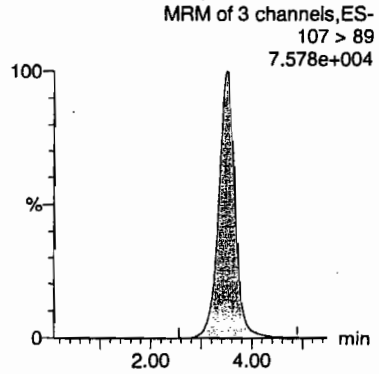

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068350	Perchlorate	99 > 83	3.52	14582.004	14582.004	bb			0.1978	98.89	-1.11	399.468	3.25
1202068350	Perchlorate-101	101 > 85	3.52	4486.766	4486.766	bb			0.1948	97.40	-2.60	89.237	
1202068350	Perchlorate-O(18)	107 > 89	3.50	28228.545	28228.545	bb			0.4924	98.47	-1.53	6115.1...	

MMT 3/30/10

$$\frac{14582.004}{4486.766} = 3.2500$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 964121 **Verified by:** _____

Analyst: Kaylie Westmoreland

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202068347 MB	19-MAR-2010 14:09:00	2	20	10
1202068348 LCS	19-MAR-2010 14:09:00	2	20	10
248814001	19-MAR-2010 14:09:00	2	20	10
248814002	19-MAR-2010 14:09:00	2	20	10
248814003	19-MAR-2010 14:09:00	2	20	10
248814004	19-MAR-2010 14:09:00	2	20	10
248814005	19-MAR-2010 14:09:00	2	20	10
248814006	19-MAR-2010 14:09:00	2	20	10
248814007	19-MAR-2010 14:09:00	2	20	10
248814008	19-MAR-2010 14:09:00	2	20	10
248814009	19-MAR-2010 14:09:00	2	20	10
248860001	19-MAR-2010 14:09:00	2	20	10
1202068349 MS (248860001)	19-MAR-2010 14:09:00	2	20	10
1202068350 MSD (248860001)	19-MAR-2010 14:09:00	2	20	10
248860002	19-MAR-2010 14:09:00	2	20	10
248860003	19-MAR-2010 14:09:00	2	20	10
248860004	19-MAR-2010 14:09:00	2	20	10
248860005	19-MAR-2010 14:09:00	2	20	10
248860006	19-MAR-2010 14:09:00	2	20	10
248860007	19-MAR-2010 14:09:00	2	20	10
248860008	19-MAR-2010 14:09:00	2	20	10
248860009	19-MAR-2010 14:09:00	2	20	10
1202068351 ICS	19-MAR-2010 14:09:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202068351	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
LCS	1202068348	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
MS	1202068349	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
MSD	1202068350	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL

Comments:

Desalting Cartridges used: 100224-1-Ba & 100223-1-H

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/28/10
Extr. Injection Volume: 20uL
Sequence Number: per032810a
Initial Calibration Date: 03/28/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1284736
Standard-Samp Reagent Lot#:: 1284736

Reviewed BY: MH
Date: 3/30/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100326-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0328001a	IPB001	CWW	3/28/2010 13:50			1		USE	B
per0328002a	IPB001	CWW	3/28/2010 13:58			1		USE	B
per0328003a	WCLICAL-01	CWW	3/28/2010 14:07			1		USE	I
per0328004a	WCLICAL-02	CWW	3/28/2010 14:16			1		USE	I
per0328005a	WCLICAL-03	CWW	3/28/2010 14:24			1		USE	I
per0328006a	WCLICAL-04	CWW	3/28/2010 14:33			1		USE	I
per0328007a	WCLICAL-05	CWW	3/28/2010 14:41			1		USE	I
per0328008a	IPB002	CWW	3/28/2010 14:50			1		USE	B
per0328009a	WCLICV	CWW	3/28/2010 14:58			1		USE	C
per0328010a	IPB003	CWW	3/28/2010 15:07			1		USE	B
per0328011a	WCLCRI	CWW	3/28/2010 15:15			1		USE	C
per0328012a	249376001	CWW	3/28/2010 15:24	966566	10-2446	1	LANL	USE	S
per0328013a	249376004	CWW	3/28/2010 15:32	966566	10-2446	1	LANL	USE	S
per0328014a	IPB004	CWW	3/28/2010 15:41			1		USE	B
per0328015a	1202069098	CWW	3/28/2010 15:49	964450	VARIOUS	1	LANL	USE	S
per0328016a	1202069099	CWW	3/28/2010 15:58	964450	VARIOUS	1	LANL	USE	S
per0328017a	1202069102	CWW	3/28/2010 16:06	964450	VARIOUS	1	LANL	USE	S
per0328018a	248863001	CWW	3/28/2010 16:15	964450	10-2315	1	LANL	USE	S
per0328019a	248863002	CWW	3/28/2010 16:24	964450	10-2315	1	LANL	USE	S
per0328020a	1202069100	CWW	3/28/2010 16:32	964450	10-2315	1	LANL	USE	S
per0328021a	1202069101	CWW	3/28/2010 16:41	964450	10-2315	1	LANL	USE	S
per0328022a	WCLCCV	CWW	3/28/2010 16:49			1		USE	C
per0328023a	IPB005	CWW	3/28/2010 16:58			1		USE	B
per0328024a	WCLCRI	CWW	3/28/2010 17:06			1		USE	C
per0328025a	248863003	CWW	3/28/2010 17:15	964450	10-2315	1	LANL	USE	S
per0328026a	248863004	CWW	3/28/2010 17:23	964450	10-2315	1	LANL	USE	S
per0328027a	248865001	CWW	3/28/2010 17:32	964450	10-2318	1	LANL	USE	S
per0328028a	248866001	CWW	3/28/2010 17:40	964450	10-2319	1	LANL	USE	S
per0328029a	248866002	CWW	3/28/2010 17:49	964450	10-2319	1	LANL	USE	S

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per0328030a	248867001	CWW	3/28/2010 17:57	964450	10-2320	1	LANL	USE	S
per0328031a	248867002	CWW	3/28/2010 18:06	964450	10-2320	1	LANL	USE	S
per0328032a	248867003	CWW	3/28/2010 18:15	964450	10-2320	1	LANL	USE	S
per0328033a	248867004	CWW	3/28/2010 18:23	964450	10-2320	1	LANL	USE	S
per0328034a	249055001	CWW	3/28/2010 18:32	964450	10-2349	1	LANL	USE	S
per0328035a	WCLCCV	CWW	3/28/2010 18:40			1		USE	C
per0328036a	IPB006	CWW	3/28/2010 18:49			1		USE	B
per0328037a	WCLCRI	CWW	3/28/2010 18:57			1		USE	C
per0328038a	1202068347	CWW	3/28/2010 19:06	964122	VARIOUS	1	LANL	USE	S
per0328039a	1202068348	CWW	3/28/2010 19:15	964122	VARIOUS	1	LANL	USE	S
per0328040a	1202068351	CWW	3/28/2010 19:23	964122	VARIOUS	1	LANL	USE	S
per0328041a	248814001	CWW	3/28/2010 19:32	964122	10-2303	1	LANL	USE	S
per0328042a	248814002	CWW	3/28/2010 19:40	964122	10-2303	1	LANL	USE	S
per0328043a	248814003	CWW	3/28/2010 19:49	964122	10-2303	1	LANL	USE	S
per0328044a	248814004	CWW	3/28/2010 19:57	964122	10-2303	1	LANL	USE	S
per0328045a	248814005	CWW	3/28/2010 20:06	964122	10-2303	1	LANL	USE	S
per0328046a	248814006	CWW	3/28/2010 20:14	964122	10-2303	1	LANL	USE	S
per0328047a	248814007	CWW	3/28/2010 20:23	964122	10-2303	1	LANL	USE	S
per0328048a	WCLCCV	CWW	3/28/2010 20:31			1		USE	C
per0328049a	IPB007	CWW	3/28/2010 20:40			1		USE	B
per0328050a	WCLCRI	CWW	3/28/2010 20:49			1		USE	C
per0328051a	248814008	CWW	3/28/2010 20:57	964122	10-2303	1	LANL	USE	S
per0328052a	248814009	CWW	3/28/2010 21:06	964122	10-2303	1	LANL	USE	S
per0328053a	248860001	CWW	3/28/2010 21:14	964122	10-2313	1	LANL	USE	S
per0328054a	1202068349	CWW	3/28/2010 21:23	964122	10-2313	1	LANL	USE	S
per0328055a	1202068350	CWW	3/28/2010 21:31	964122	10-2313	1	LANL	USE	S
per0328056a	248860002	CWW	3/28/2010 21:40	964122	10-2313	1	LANL	USE	S
per0328057a	248860003	CWW	3/28/2010 21:48	964122	10-2313	1	LANL	USE	S
per0328058a	248860004	CWW	3/28/2010 21:57	964122	10-2313	1	LANL	USE	S
per0328059a	248860005	CWW	3/28/2010 22:05	964122	10-2313	1	LANL	USE	S
per0328060a	248860006	CWW	3/28/2010 22:14	964122	10-2313	1	LANL	USE	S
per0328061a	WCLCCV	CWW	3/28/2010 22:23			1		USE	C
per0328062a	IPB008	CWW	3/28/2010 22:31			1		USE	B
per0328063a	WCLCRI	CWW	3/28/2010 22:40			1		USE	C
per0328064a	248860007	CWW	3/28/2010 22:48	964122	10-2313	1	LANL	USE	S
per0328065a	248860008	CWW	3/28/2010 22:57	964122	10-2313	1	LANL	USE	S
per0328066a	248860009	CWW	3/28/2010 23:06	964122	10-2313	1	LANL	USE	S

per0328067a	IPB009	CWW	3/28/2010 23:14			1		USE	B
per0328068a	1202069103	CWW	3/28/2010 23:23	964453	10-2357	1	LANL	USE	S
per0328069a	1202069104	CWW	3/28/2010 23:32	964453	10-2357	1	LANL	USE	S
per0328070a	1202069107	CWW	3/28/2010 23:40	964453	10-2357	1	LANL	USE	S
per0328071a	249076003	CWW	3/28/2010 23:49	964453	10-2357	1	LANL	USE	S
per0328072a	1202069105	CWW	3/28/2010 23:57	964453	10-2357	1	LANL	USE	S
per0328073a	1202069106	CWW	3/29/2010 0:06	964453	10-2357	1	LANL	USE	S
per0328074a	WCLCCV	CWW	3/29/2010 0:15			1		USE	C
per0328075a	IPB010	CWW	3/29/2010 0:23			1		USE	B
per0328076a	WCLCRI	CWW	3/29/2010 0:32			1		USE	C
per0328077a	249076004	CWW	3/29/2010 0:41	964453	10-2357	1	LANL	USE	S
per0328078a	249076005	CWW	3/29/2010 0:50	964453	10-2357	1	LANL	USE	S
per0328079a	249076006	CWW	3/29/2010 0:58	964453	10-2357	1	LANL	USE	S
per0328080a	249076007	CWW	3/29/2010 1:07	964453	10-2357	1	LANL	USE	S
per0328081a	249076008	CWW	3/29/2010 1:15	964453	10-2357	1	LANL	USE	S
per0328082a	249076009	CWW	3/29/2010 1:24	964453	10-2357	1	LANL	USE	S
per0328083a	249076010	CWW	3/29/2010 1:32	964453	10-2357	1	LANL	USE	S
per0328084a	249076011	CWW	3/29/2010 1:41	964453	10-2357	1	LANL	USE	S
per0328085a	249076012	CWW	3/29/2010 1:49	964453	10-2357	1	LANL	USE	S
per0328086a	249076013	CWW	3/29/2010 1:58	964453	10-2357	1	LANL	USE	S
per0328087a	WCLCCV	CWW	3/29/2010 2:07			1		USE	C
per0328088a	IPB011	CWW	3/29/2010 2:15			1		USE	B
per0328089a	WCLCRI	CWW	3/29/2010 2:24			1		USE	C
per0328090a	249076014	CWW	3/29/2010 2:32	964453	10-2357	1	LANL	USE	S
per0328091a	249076015	CWW	3/29/2010 2:41	964453	10-2357	1	LANL	USE	S
per0328092a	249076016	CWW	3/29/2010 2:50	964453	10-2357	1	LANL	USE	S
per0328093a	249076017	CWW	3/29/2010 2:58	964453	10-2357	1	LANL	USE	S
per0328094a	249076018	CWW	3/29/2010 3:07	964453	10-2357	1	LANL	USE	S
per0328095a	249076019	CWW	3/29/2010 3:15	964453	10-2357	1	LANL	USE	S
per0328096a	249076020	CWW	3/29/2010 3:24	964453	10-2357	1	LANL	USE	S
per0328097a	WCLCCV	CWW	3/29/2010 3:33			1		USE	C
per0328098a	IPB012	CWW	3/29/2010 3:41			1		USE	B
per0328099a	WCLCRI	CWW	3/29/2010 3:50			1		USE	C

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2313-1

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	964090
Prep Batch Number:	964087

Sample Analysis

Sample ID	Client ID
248861001	RE46-10-13786
248861002	RE46-10-13785
1202068291	Interference Check Sample (ICS)
1202068285	Method Blank (MB)
1202068286	Laboratory Control Sample (LCS)
1202068289	248783001(RE16-10-1125) Matrix Spike (MS)
1202068290	248783001(RE16-10-1125) Matrix Spike Duplicate (MSD)

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

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

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CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 248783001 (RE16-10-1125) from SDG 10-2284 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

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Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

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

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

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

Review Validation:

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

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

Reviewer: Herbert K Mauss **Date:** 03/17/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 964087

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE46-10-13786

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313-1

GEL Sample ID: 248861001

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	12-MAR-10 01:38	per0311043a
	Perchlorate Isotope Ratio						1	12-MAR-10 01:38	per0311043a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	12-MAR-10 01:38	per0311043a
	Perchlorate-O(18)			0.519	ug/L		1	12-MAR-10 01:38	per0311043a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 964087

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE46-10-13785

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313-1

GEL Sample ID: 248861002

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	12-MAR-10 01:47	per0311044a
	Perchlorate Isotope Ratio						1	12-MAR-10 01:47	per0311044a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	12-MAR-10 01:47	per0311044a
	Perchlorate-O(18)			0.501	ug/L		1	12-MAR-10 01:47	per0311044a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Form 5

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2313–1

Extract Batch Code: 964087

Date Filtered: 11–MAR–10

Matrix: WASTE WATER

Sample ID: 1202068286

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.214	ug/L	107		85 – 115
Perchlorate Isotope Ratio		2.91				–
Perchlorate–101	0.200	.211	ug/L	106		85 – 115
Perchlorate–O(18)		.491	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-2313-1

Extract Batch Code: 964087

Date Filtered: 11-MAR-10

Matrix: WATER

Sample ID: 1202068291

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.244	ug/L	122		70 – 130
Perchlorate Isotope Ratio		3.02				
Perchlorate–101	0.200	.232	ug/L	116		70 – 130
Perchlorate–O(18)		.535	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311033a
Date: 12-Mar-2010
Time: 00:08:06
ID: 1202068291
Vial: 1:6,C

|LZNL|964090|LZQ|IC5|1|

CWJ 03-12-10

Perchlorate

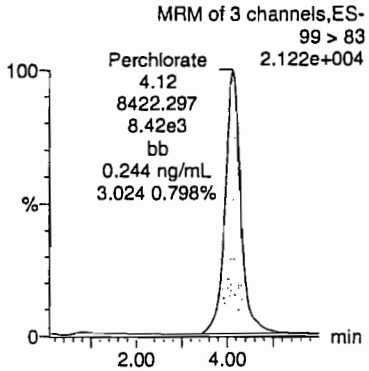

Perchlorate

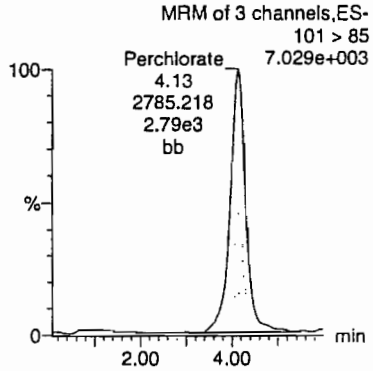

Perchlorate-101

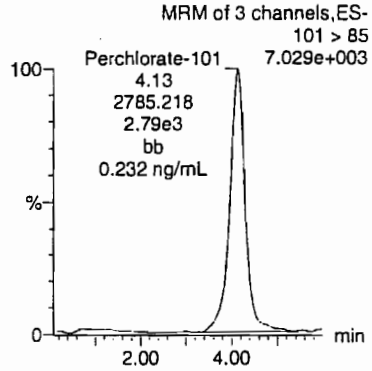

Perchlorate-O(18)

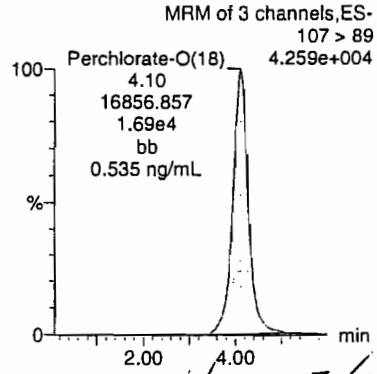

MM 03/14/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068291	Perchlorate	99 > 83	4.12	8422.297	8422.297	bb			0.2442	122.09	22.09	558.717	3.02
1202068291	Perchlorate-101	101 > 85	4.13	2785.218	2785.218	bb			0.2316	115.79	15.79	146.773	
1202068291	Perchlorate-O(18)	107 > 89	4.10	16856.857	16856.857	bb			0.5350	107.01	7.01	1040.0...	

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-2313-1

Extract Batch Code: 964087

Date Extracted: 11-MAR-10

GEL MS/PS ID: 1202068289

Client ID: RE16-10-1125

GEL MSD/PSD ID: 1202068290

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.00217	ug/L	0.224	111	.217	108	3.06	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3		2.94		0		–
Perchlorate-101	0.200	0.00122	ug/L	0.214	106	.212	105	1.01	30	75 – 125
Perchlorate-O(18)	0	0.490	ug/L	0.502		.489		2.68		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2313-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	11-MAR-10	per0311001a	IPB001
Perchlorate-101	0.00	0	NA	11-MAR-10	per0311001a	IPB001
Perchlorate	0.00	0	NA	11-MAR-10	per0311002a	IPB001
Perchlorate-101	0.00	0	NA	11-MAR-10	per0311002a	IPB001

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per031110a.mdb 12 Mar 2010 09:21:58
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031110a.cdb 12 Mar 2010 09:22:30

CWW
03-12-10

Name: per0311001a
Date: 11-Mar-2010
Time: 19:18:55
ID: IPB001
Vial: 1:1,A

Perchlorate

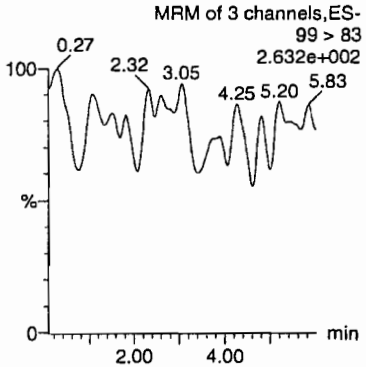

Perchlorate

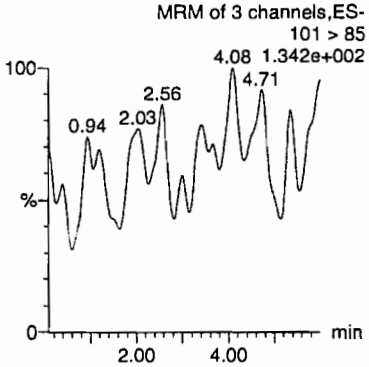

Perchlorate-101

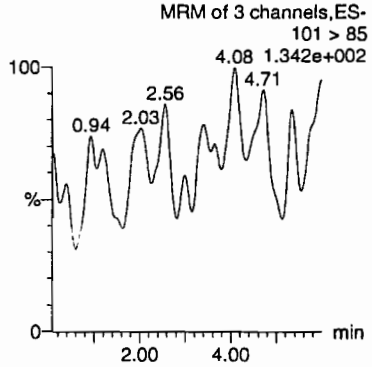

Perchlorate-O(18)

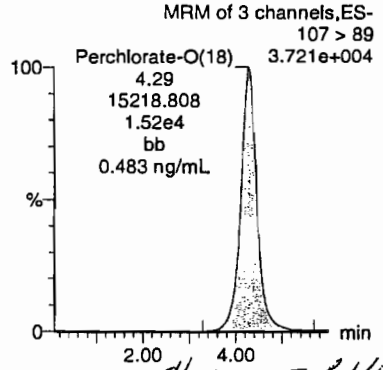

HMC 03/14/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB001	Perchlorate	99 > 83											0.00
PB001	Perchlorate-101	101 > 85											
PB001	Perchlorate-O(18)	107 > 89	4.29	15218.808	15218.808	bb			0.4831	96.61	-3.39	579.981	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311002a
Date: 11-Mar-2010
Time: 19:27:57
ID: IPB001
Vial: 1:1,A

03-12-10

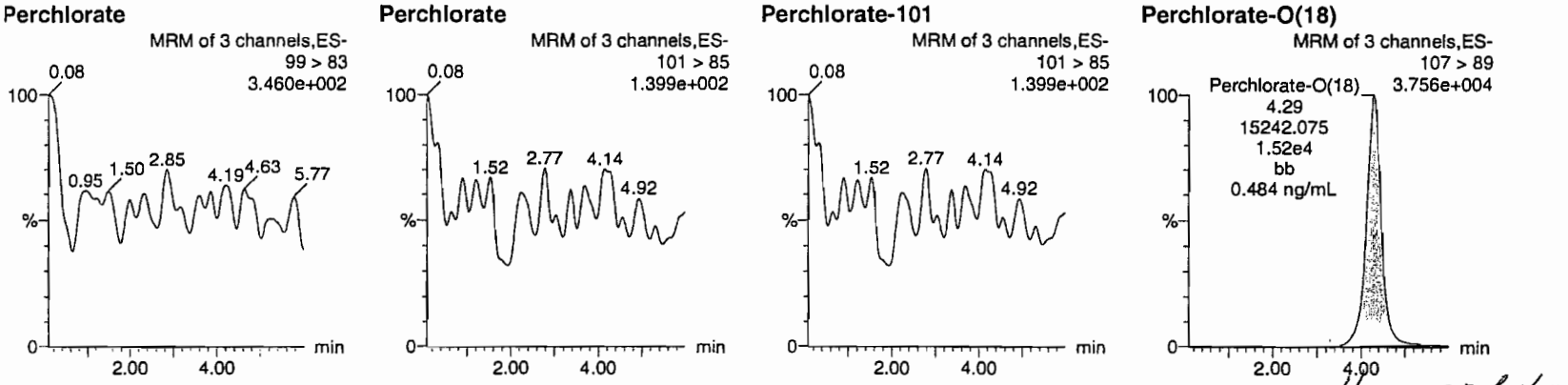

Hnm 03/14/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	4.29	15242.075	15242.075	bb			0.4838	96.76	-3.24	1285.0...	

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2313-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	11-MAR-10	per0311008a	IPB002
Perchlorate-101	0.00	0	NA	11-MAR-10	per0311008a	IPB002
Perchlorate	0.00	0	NA	11-MAR-10	per0311010a	IPB003
Perchlorate-101	0.00	0	NA	11-MAR-10	per0311010a	IPB003
Perchlorate	0.00	0	NA	11-MAR-10	per0311023a	IPB004
Perchlorate-101	0.00	0	NA	11-MAR-10	per0311023a	IPB004
Perchlorate	0.00	0	NA	11-MAR-10	per0311030a	IPB005
Perchlorate-101	0.00	0	NA	11-MAR-10	per0311030a	IPB005
Perchlorate	0.00	0	NA	12-MAR-10	per0311036a	IPB006
Perchlorate-101	0.00	0	NA	12-MAR-10	per0311036a	IPB006
Perchlorate	0.00	0	NA	12-MAR-10	per0311049a	IPB007
Perchlorate-101	0.00	0	NA	12-MAR-10	per0311049a	IPB007

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311008a
Date: 11-Mar-2010
Time: 20:22:05
ID: IPB002
Vial: 1:1,A

03-12-10

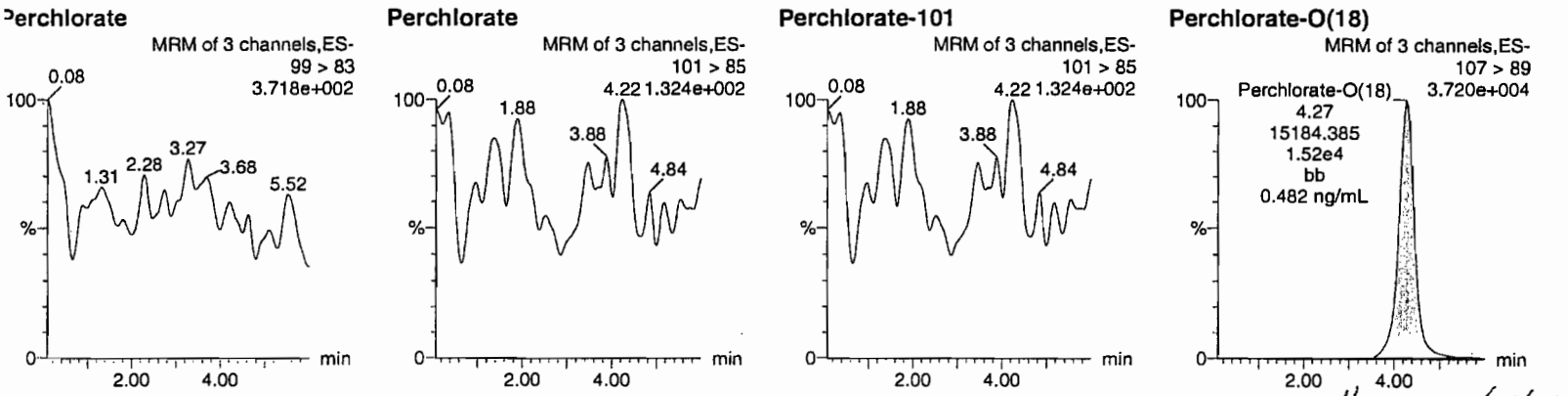

HJW 03/14/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB002	Perchlorate	99 > 83											0.00
PB002	Perchlorate-101	101 > 85											
PB002	Perchlorate-O(18)	107 > 89	4.27	15184.385	15184.385	bb			0.4820	96.39	-3.61	1523.5...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311010a
Date: 11-Mar-2010
Time: 20:40:09
ID: IPB003
Vial: 1:1,A

03-12-10

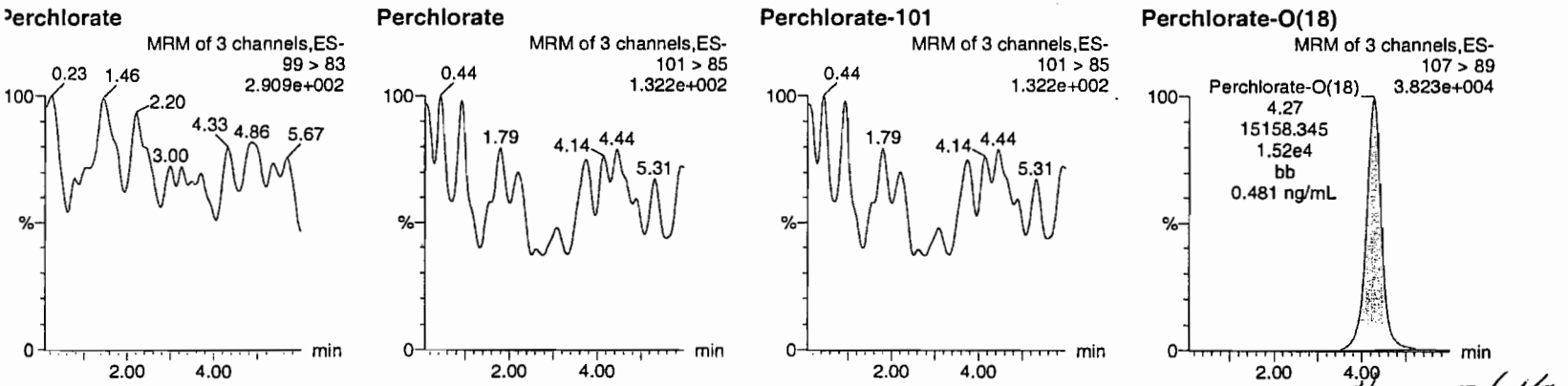

03/14/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB003	Perchlorate	99 > 83											0.00
PB003	Perchlorate-101	101 > 85											
PB003	Perchlorate-O(18)	107 > 89	4.27	15158.345	15158.345	bb			0.4811	96.23	-3.77	3112.7...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311023a
Date: 11-Mar-2010
Time: 22:37:39
ID: IPB004
Vial: 1:1,A

CWW
03-12-10

Perchlorate

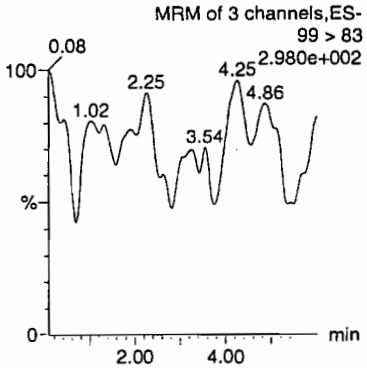

Perchlorate

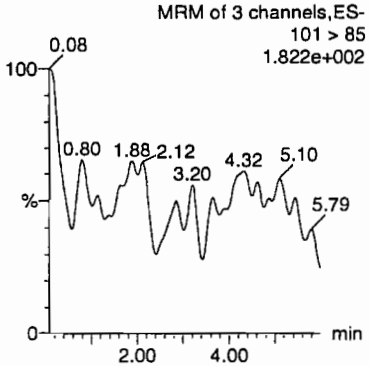

Perchlorate-101

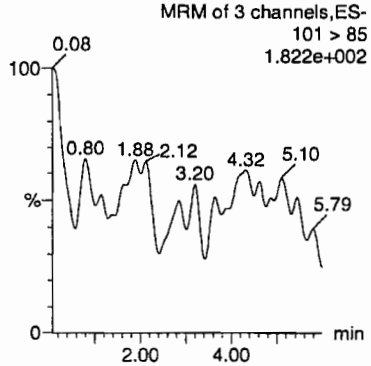

Perchlorate-O(18)

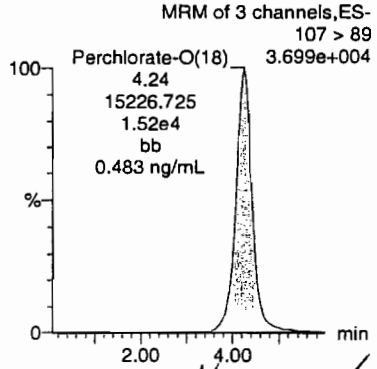

Hmm 03/14/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	4.24	15226.725	15226.725	bb			0.4833	96.66	-3.34	3269.2...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311030a
Date: 11-Mar-2010
Time: 23:40:56
ID: IPB005
Vial: 1:1,A

WS 03-12-10

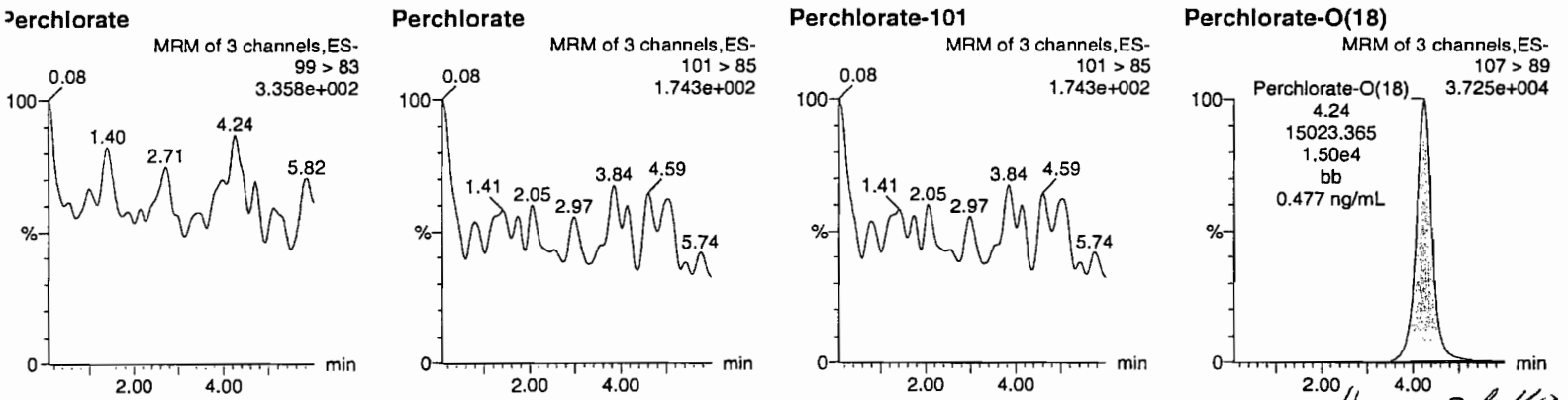

HMW 03/14/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB005	Perchlorate	99 > 83											0.00
PB005	Perchlorate-101	101 > 85											
PB005	Perchlorate-O(18)	107 > 89	4.24	15023.365	15023.365	bb			0.4768	95.37	-4.63	2656.7...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311036a
Date: 12-Mar-2010
Time: 00:35:14
ID: IPB006
Vial: 1:1,A

CWJ 03-12-10

Perchlorate

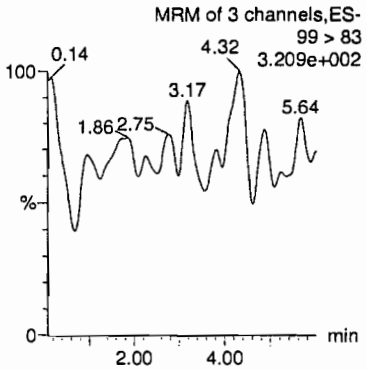

Perchlorate

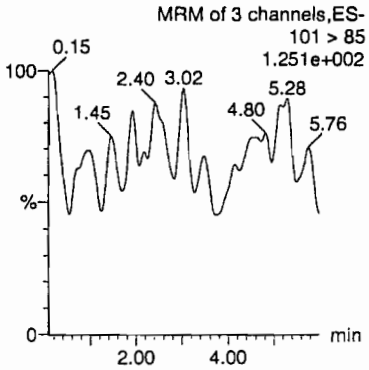

Perchlorate-101

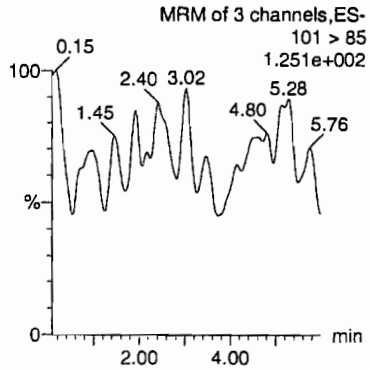

Perchlorate-O(18)

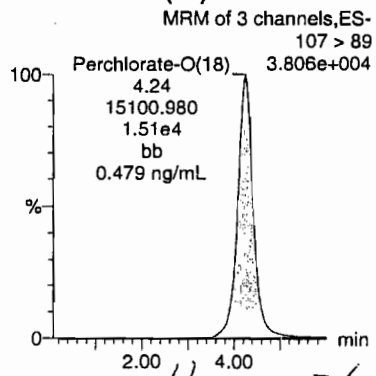

HMM 03/14/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	4.24	15100.980	15100.980	bb			0.4793	95.86	-4.14	320.316	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311049a
Date: 12-Mar-2010
Time: 02:32:56
ID: IPB007
Vial: 1:1,A

CWJ 03-12-10

Perchlorate

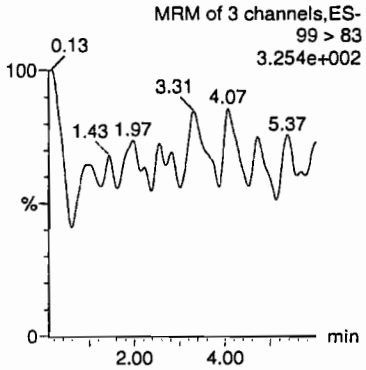

Perchlorate

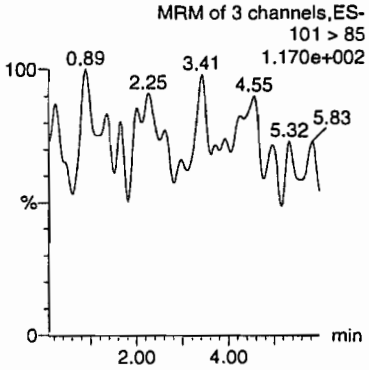

Perchlorate-101

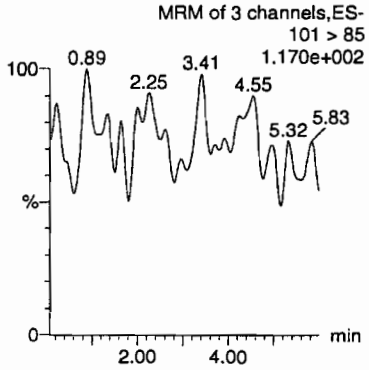

Perchlorate-O(18)

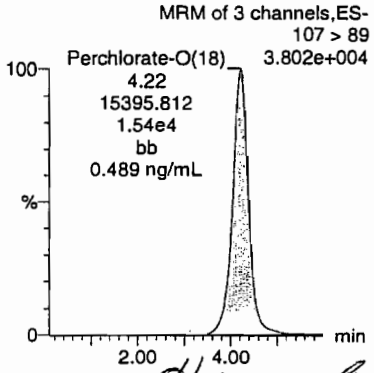

Hme 03/14/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB007	Perchlorate	99 > 83											0.00
PB007	Perchlorate-101	101 > 85											
PB007	Perchlorate-O(18)	107 > 89	4.22	15395.812	15395.812	bb			0.4887	97.73	-2.27	1713.7...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: **Tue Jan 08 12:19:12 2008**

PEAKS HIGHLIGHTED BY CWW 01-09-08

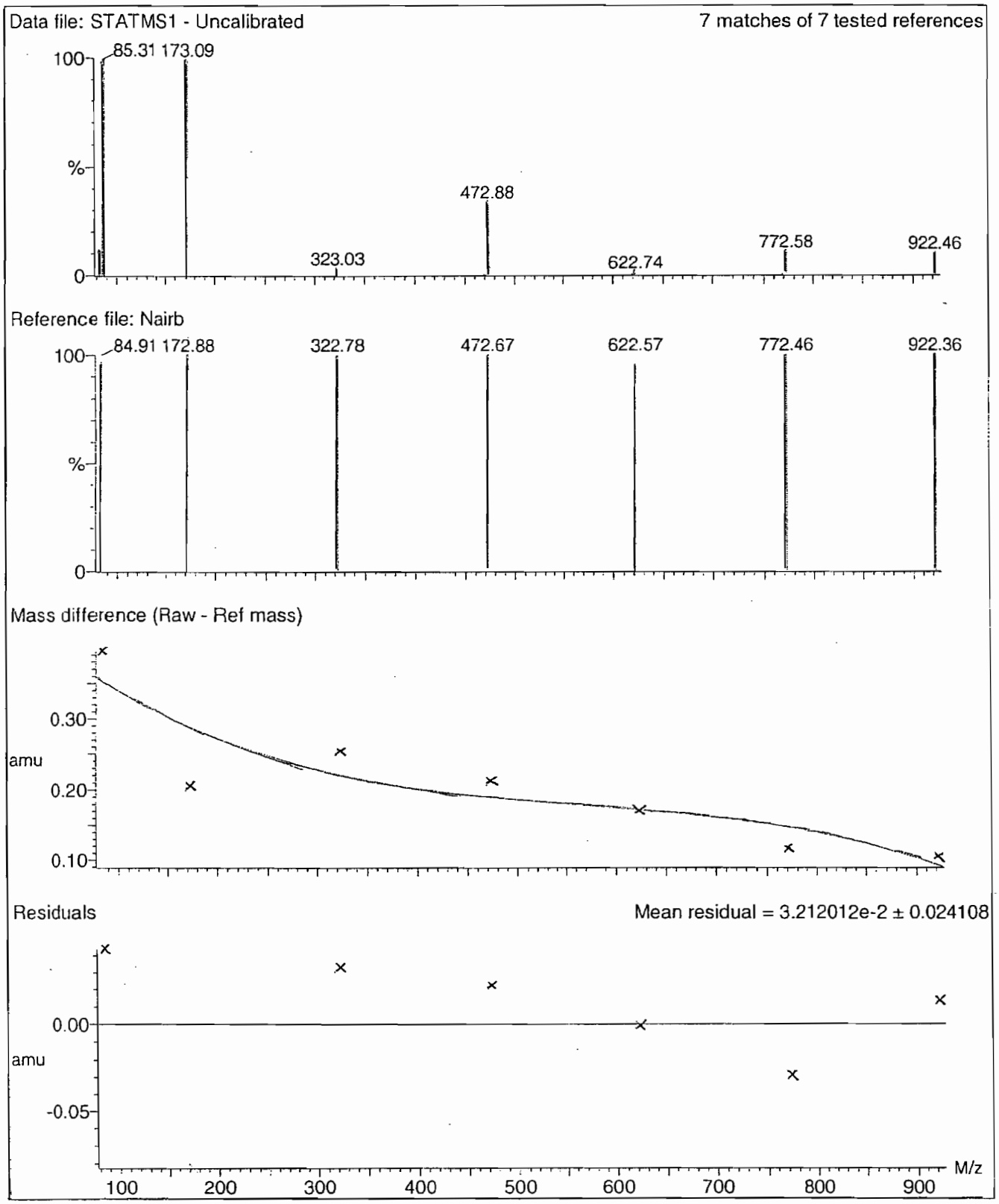

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Calibration Report - MS1 Scanning

Printed: **Tue Jan 08 12:20:09 2008**

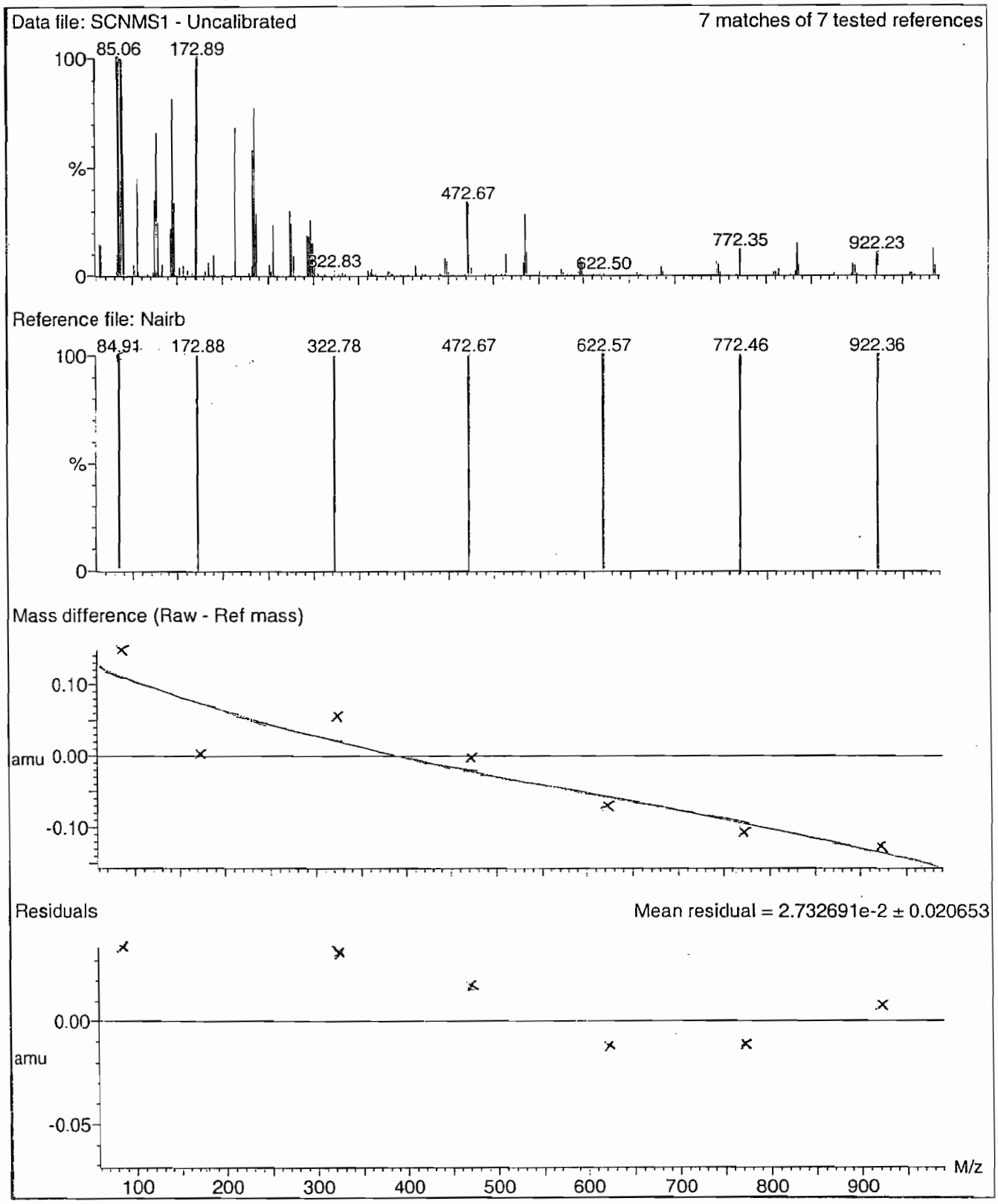

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Calibration Report - MS1 Scan Speed Compensation

Printed: **Tue Jan 08 12:21:04 2008**

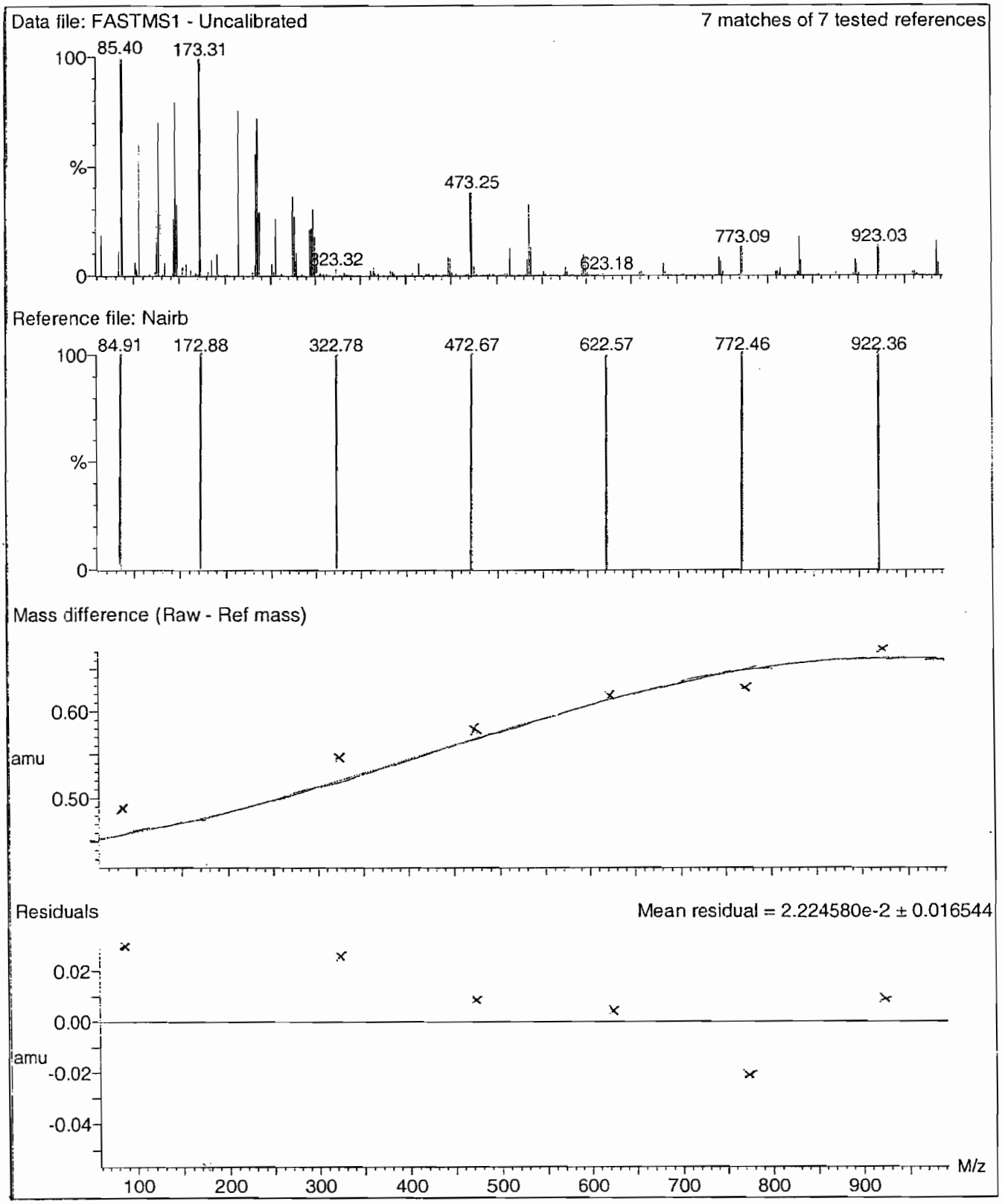

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Calibration Report - MS2 Scan Speed Compensation

Printed: **Tue Jan 08 12:23:51 2008**

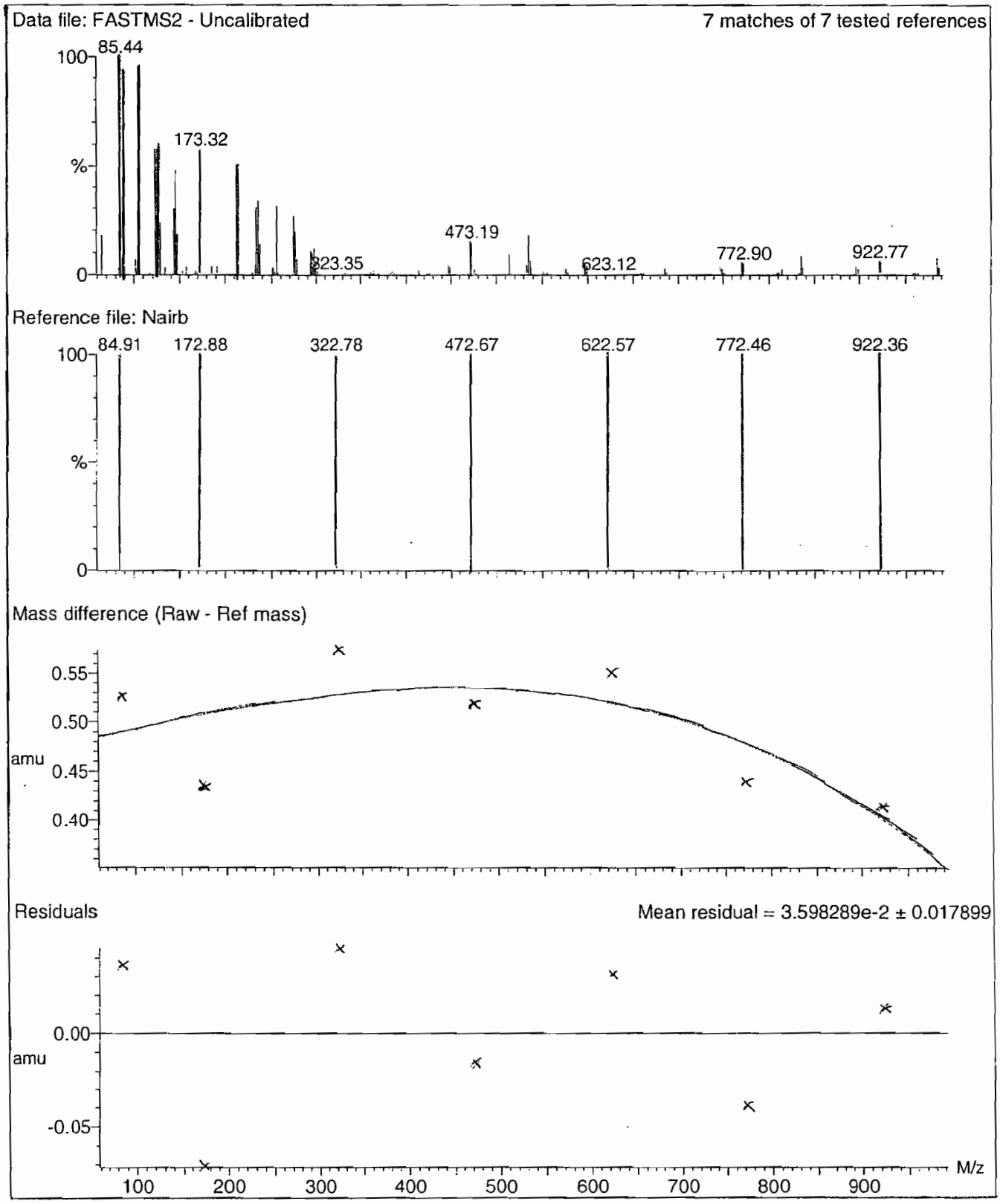

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Calibration Report - MS2 Scanning

Printed: **Tue Jan 08 12:22:56 2008**

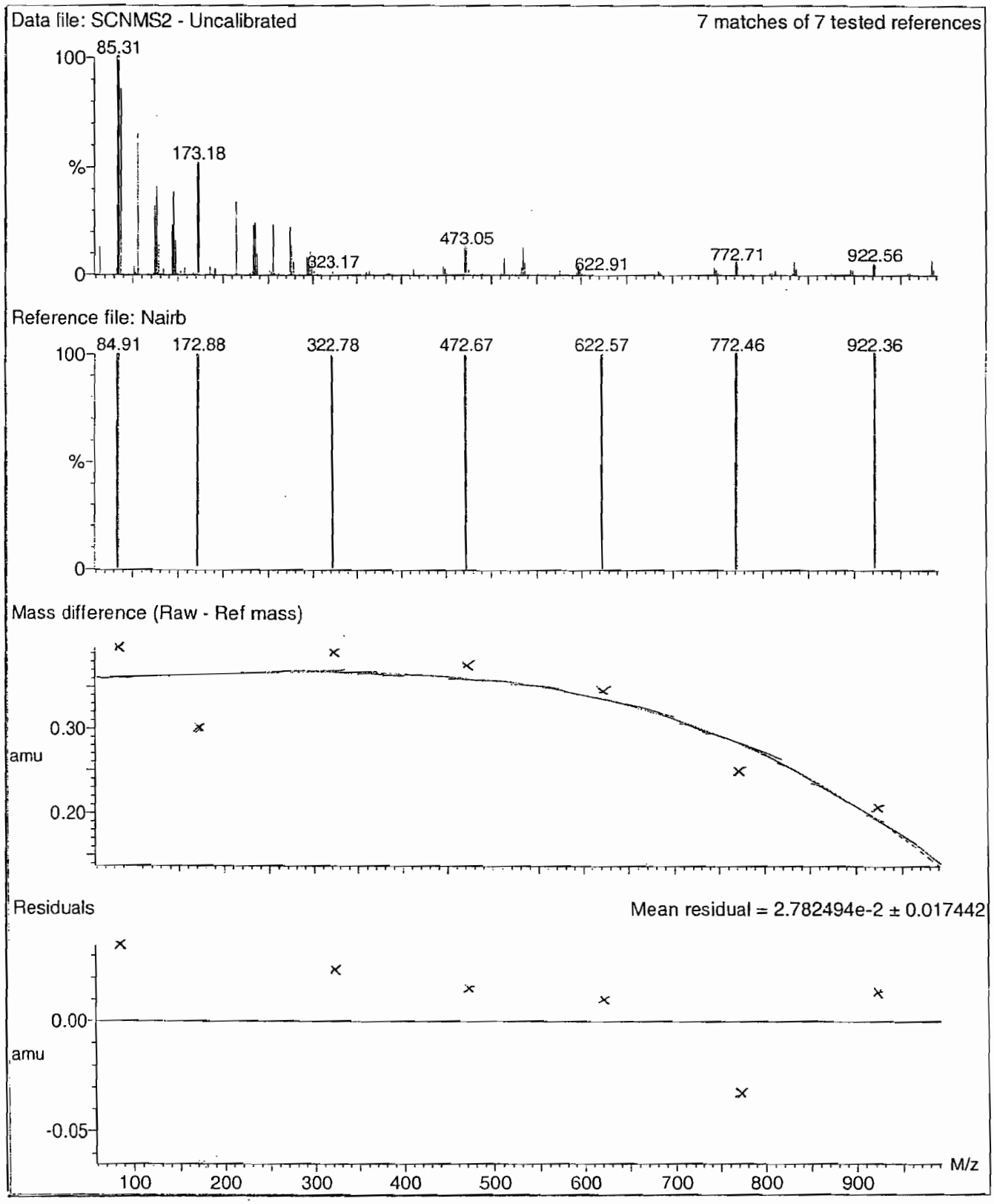

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Calibration Report - MS2 Static

Printed: **Tue Jan 08 12:21:59 2008**

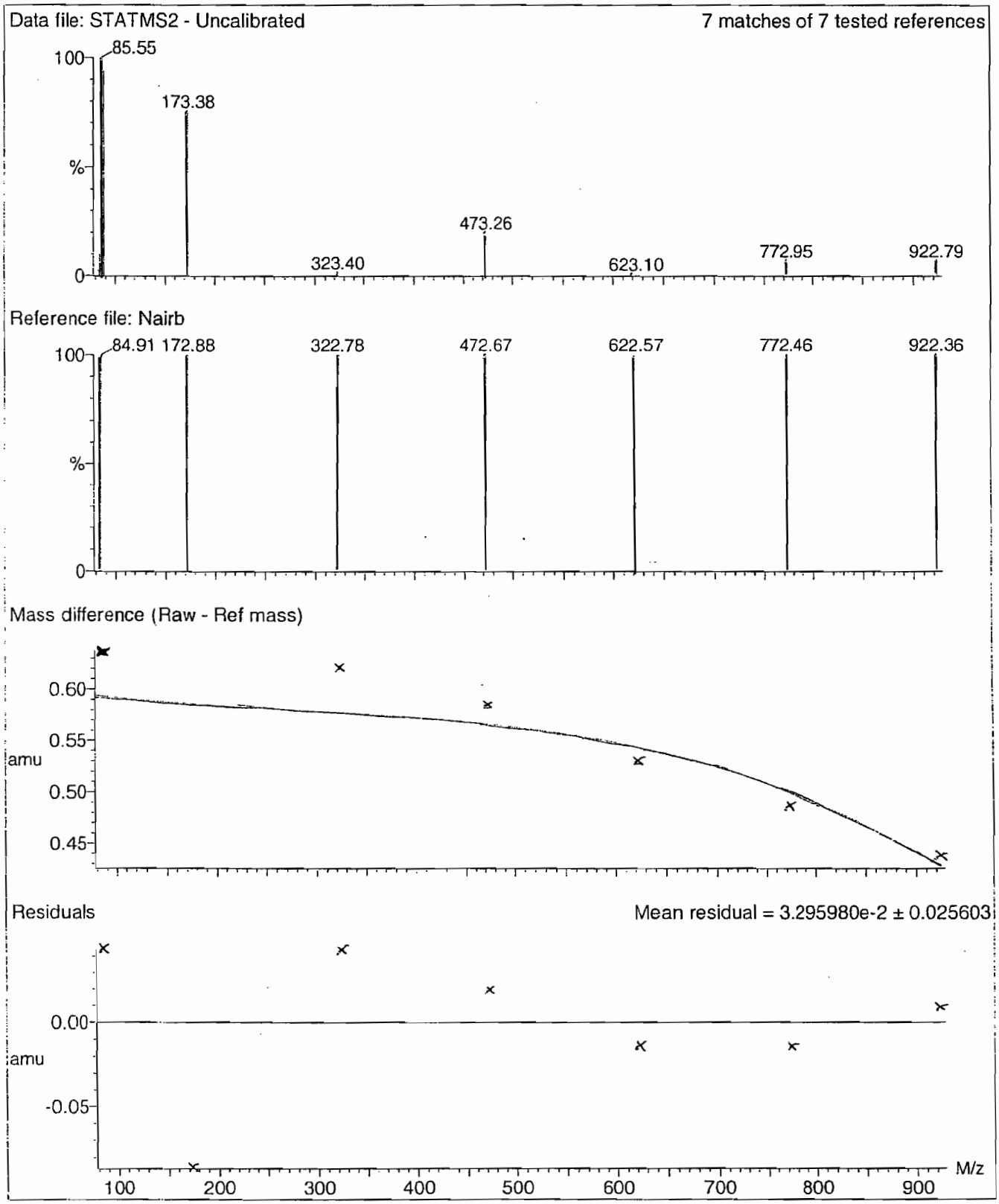

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File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Thursday, March 11, 2010 11:07:17 Eastern Standard Time

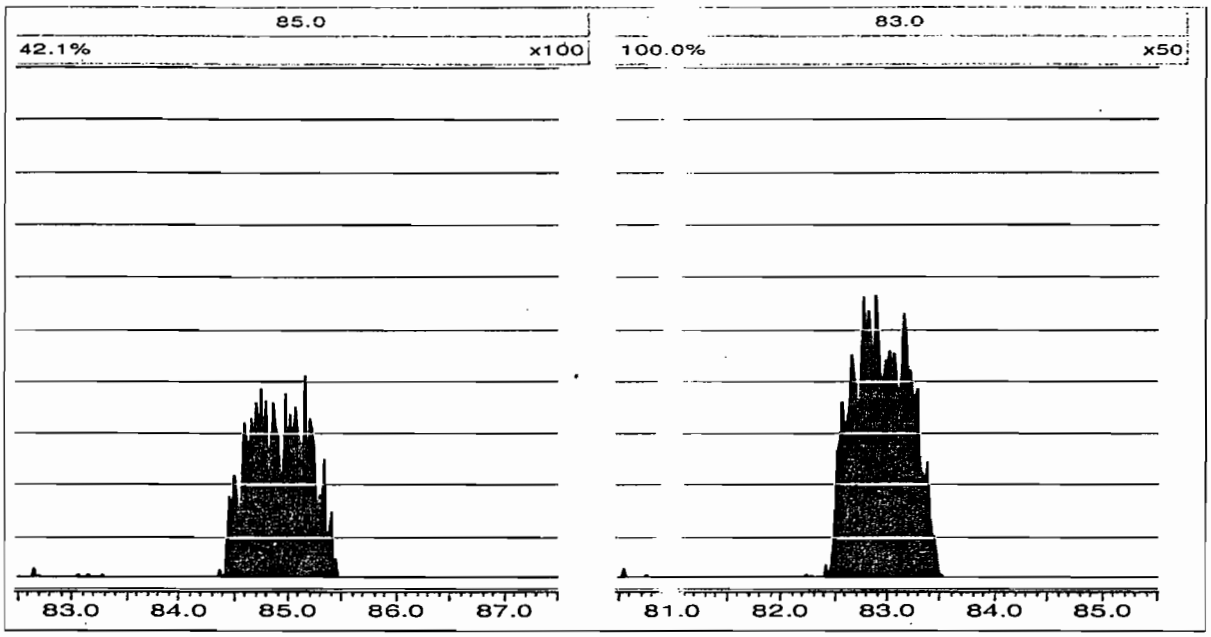

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-2313-1

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	**per0311006a**	**11-MAR-10**	**15049.9**				
Lower Area Limit			**7524.95**				
Upper Area Limit			**30099.8**				
1202068285	per0311031a	11-MAR-10 23:49	14633.8	4.24	4.21577	.994	
1202068286	per0311032a	11-MAR-10 23:59	15483.9	4.23	4.26535	1.008	
1202068291	per0311033a	12-MAR-10 00:08	16856.9	4.1	4.11632	1.004	
248861001	per0311043a	12-MAR-10 01:38	16358.8	4.22			
248861002	per0311044a	12-MAR-10 01:47	15791.4	4.22			

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SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 964087

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE46-10-13786

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313-1

GEL Sample ID: 248861001

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	12-MAR-10 01:38	per0311043a
	Perchlorate Isotope Ratio						1	12-MAR-10 01:38	per0311043a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	12-MAR-10 01:38	per0311043a
	Perchlorate-O(18)			0.519	ug/L		1	12-MAR-10 01:38	per0311043a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311043a
Date: 12-Mar-2010
Time: 01:38:36
ID: 248861001
Vial: 1:7,D

ILZINC | 964090 | BTW | 1 |

CWW 03-12-10

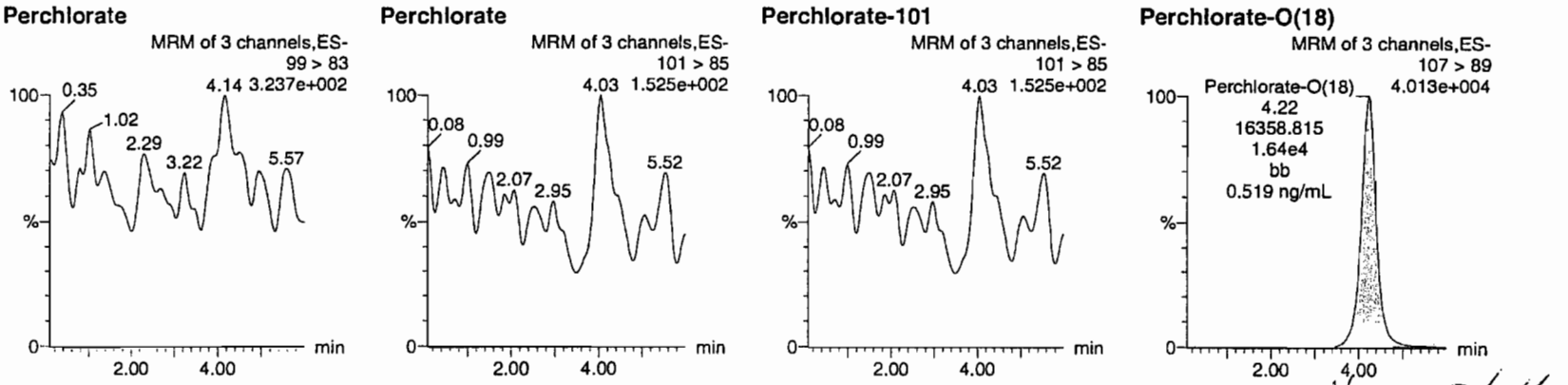

HM 03/14/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248861001	Perchlorate	99 > 83											0.00
248861001	Perchlorate-101	101 > 85											
248861001	Perchlorate-O(18)	107 > 89	4.22	16358.815	16358.815	bb			0.5192	103.85	3.85	2023.7...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 964087

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE46-10-13785

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2313-1

GEL Sample ID: 248861002

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	12-MAR-10 01:47	per0311044a
	Perchlorate Isotope Ratio						1	12-MAR-10 01:47	per0311044a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	12-MAR-10 01:47	per0311044a
	Perchlorate-O(18)			0.501	ug/L		1	12-MAR-10 01:47	per0311044a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311044a
Date: 12-Mar-2010
Time: 01:47:38
ID: 248861002
Vial: 1:7,E

LZW | 964010 | LZW | 11

LWJ 03-12-10

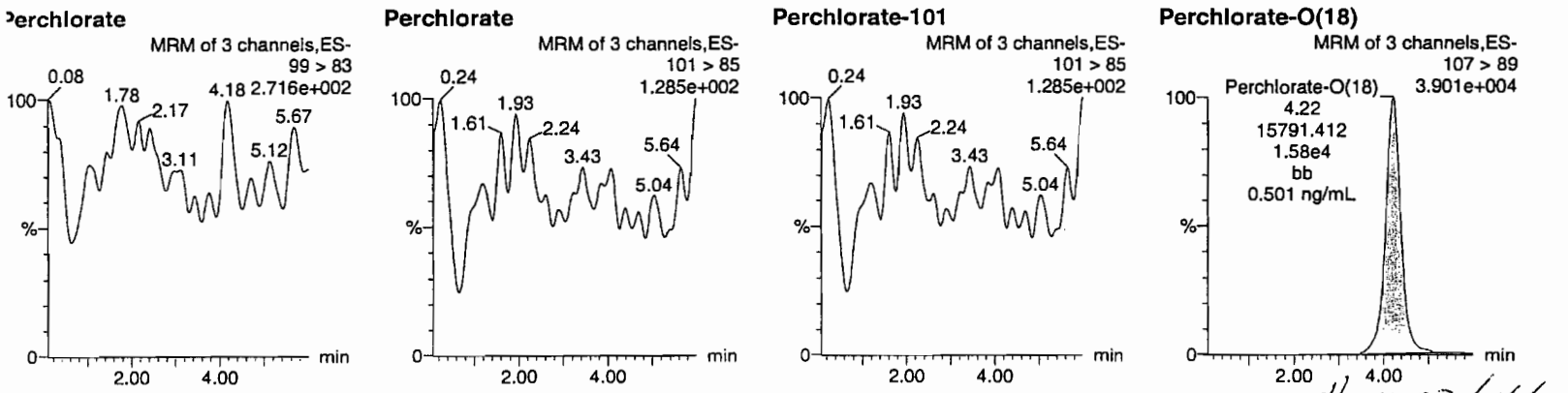

HMW 03/14/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248861002	Perchlorate	99 > 83											0.00
248861002	Perchlorate-101	101 > 85											
248861002	Perchlorate-O(18)	107 > 89	4.22	15791.412	15791.412	bb			0.5012	100.25	0.25	2437.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-2313-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 11-MAR-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 34492.02

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2313–1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 11–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 12027.46

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per031110a.mdb 12 Mar 2010 09:21:58
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031110a.cdb 12 Mar 2010 09:22:30

Compound name: Perchlorate
Response Factor: 34492
RRF SD: 1352.16, % Relative SD: 3.92021
Response type: External Std, Area
Curve type: RF

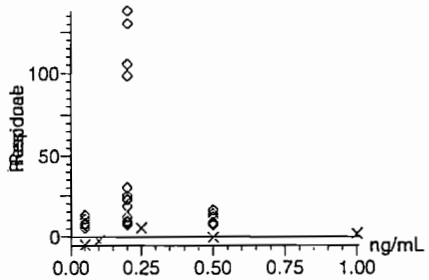

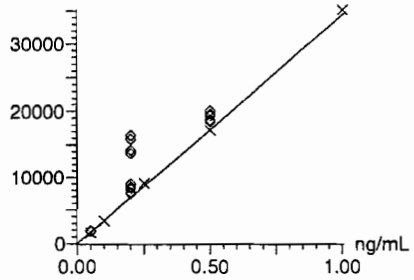

AW
03-12-10

Compound name: Perchlorate-101
Response Factor: 12027.5
RRF SD: 803.4, % Relative SD: 6.67972
Response type: External Std, Area
Curve type: RF

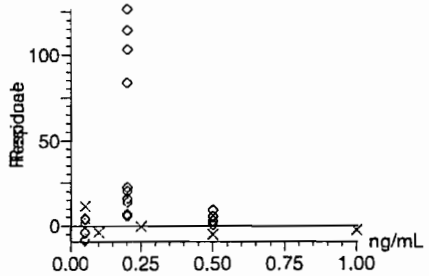

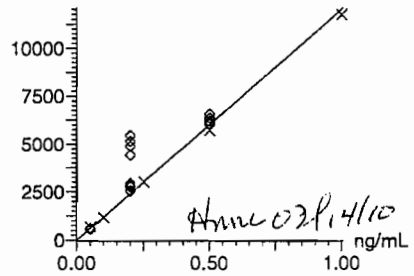

Hmc 02/14/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 31505.6
RRF SD: 855.098, % Relative SD: 2.71411
Response type: External Std, Area
Curve type: RF

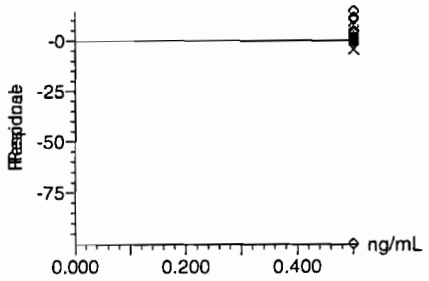

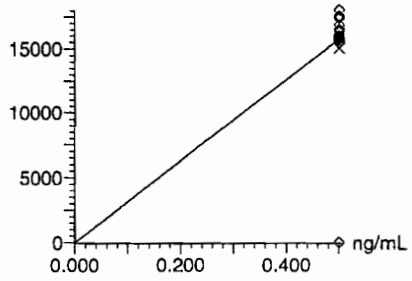

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Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2313–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.53	106.95	11–MAR–10 20:31	per0311009a
Perchlorate Isotope Ratio		3.04		11–MAR–10 20:31	per0311009a
Perchlorate–101	.5	.51	101.05	11–MAR–10 20:31	per0311009a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Pwzo

03-12-10

Name: per0311009a
Date: 11-Mar-2010
Time: 20:31:06
ID: WCL100309-06ICV
Vial: 1:2,A

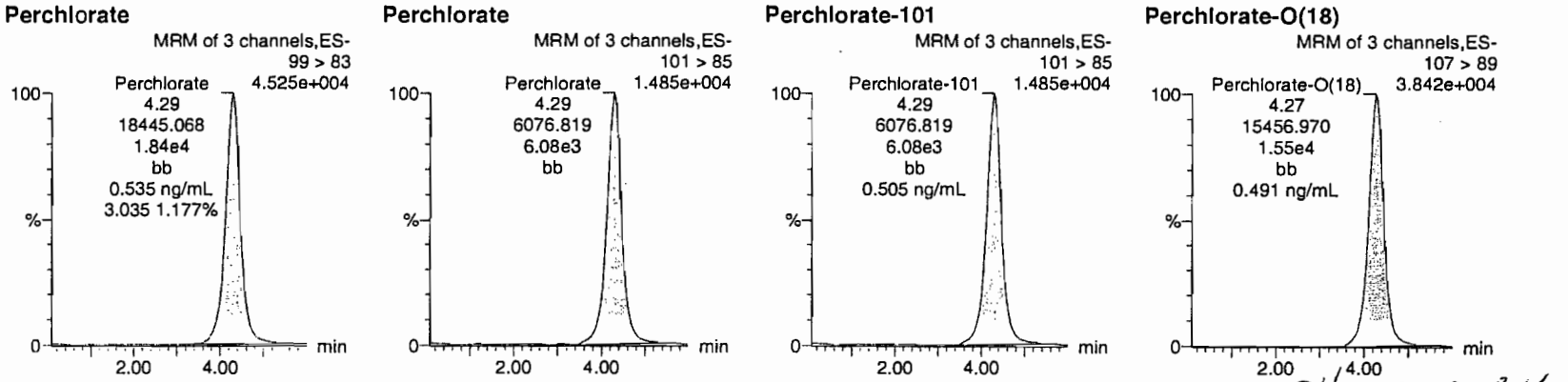

HMW 03/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06ICV	Perchlorate	99 > 83	4.29	18445.068	18445.068	bb			0.5348	106.95	6.95	1033.4...	3.04
WCL100309-06ICV	Perchlorate-101	101 > 85	4.29	6076.819	6076.819	bb			0.5052	101.05	1.05	1290.2...	
WCL100309-06ICV	Perchlorate-O(18)	107 > 89	4.27	15456.970	15456.970	bb			0.4906	98.12	-1.88	634.447	

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2313-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.54	108.85	11-MAR-10 22:28	per0311022a
Perchlorate Isotope Ratio		3.12		11-MAR-10 22:28	per0311022a
Perchlorate-101	.5	.5	100.09	11-MAR-10 22:28	per0311022a
Perchlorate	.5	.54	107.91	12-MAR-10 00:26	per0311035a
Perchlorate Isotope Ratio		3		12-MAR-10 00:26	per0311035a
Perchlorate-101	.5	.52	103.11	12-MAR-10 00:26	per0311035a
Perchlorate	.5	.54	108.4	12-MAR-10 02:23	per0311048a
Perchlorate Isotope Ratio		2.94		12-MAR-10 02:23	per0311048a
Perchlorate-101	.5	.53	105.67	12-MAR-10 02:23	per0311048a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311022a
Date: 11-Mar-2010
Time: 22:28:36
ID: WCL100309-06CCV
Vial: 1:2,A

Pers
aw
03-12-10

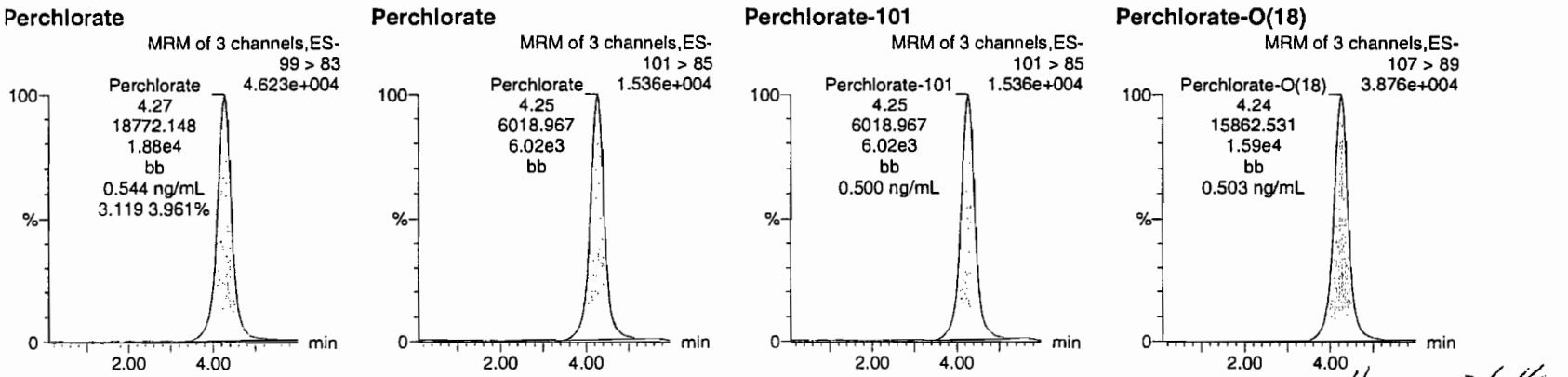

HMC 03/14/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	4.27	18772.148	18772.148	bb			0.5442	108.85	8.85	1139.3...	3.12
WCL100309-06CCV	Perchlorate-101	101 > 85	4.25	6018.967	6018.967	bb			0.5004	100.09	0.09	935.407	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	4.24	15862.531	15862.531	bb			0.5035	100.70	0.70	2333.3...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311035a
Date: 12-Mar-2010
Time: 00:26:12
ID: WCL100309-06CCV
Vial: 1:2,A

03-12-10

Perchlorate

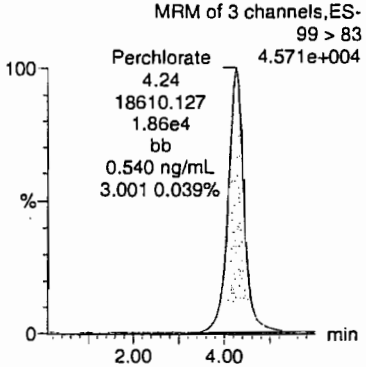

Perchlorate

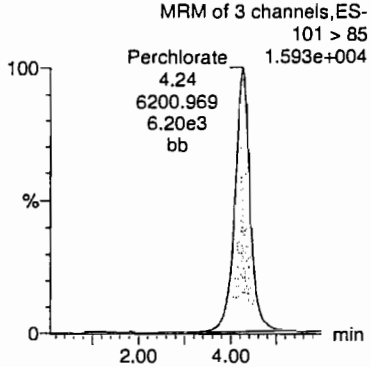

Perchlorate-101

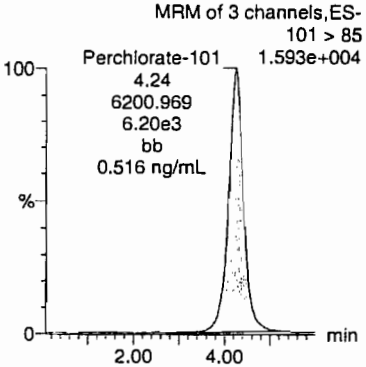

Perchlorate-O(18)

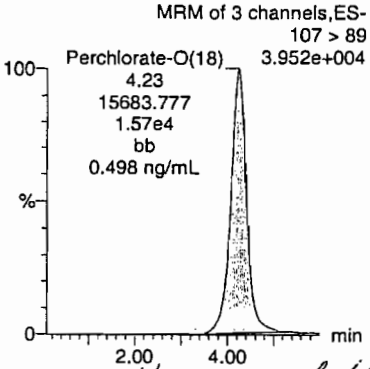

03/14/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	4.24	18610.127	18610.127	bb			0.5395	107.91	7.91	791.852	3.00
WCL100309-06CCV	Perchlorate-101	101 > 85	4.24	6200.969	6200.969	bb			0.5156	103.11	3.11	425.513	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	4.23	15683.777	15683.777	bb			0.4978	99.56	-0.44	2090.4...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311048a
Date: 12-Mar-2010
Time: 02:23:54
ID: WCL100309-06CCV
Vial: 1:2,A

Pass
aw
03-12-10

Perchlorate

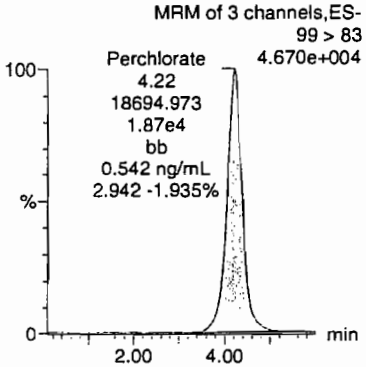

Perchlorate

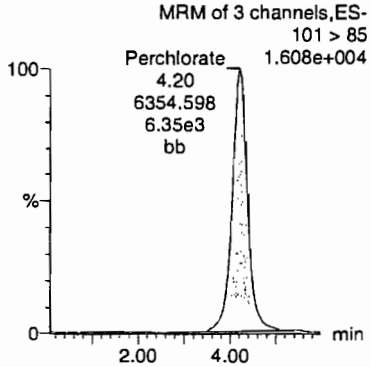

Perchlorate-101

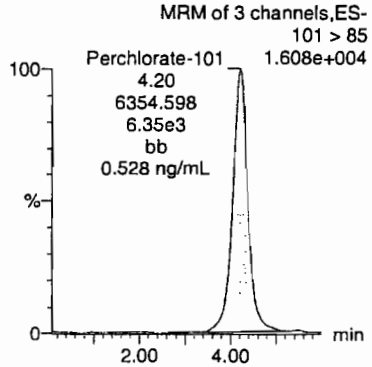

Perchlorate-O(18)

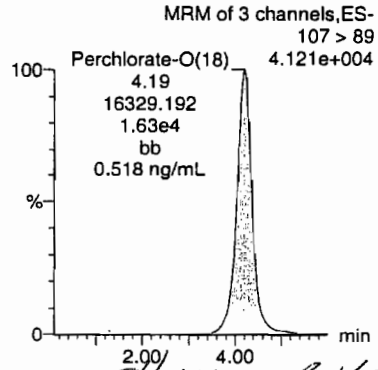

HAM 03/14/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	4.22	18694.973	18694.973	bb			0.5420	108.40	8.40	1301.0...	2.94
WCL100309-06CCV	Perchlorate-101	101 > 85	4.20	6354.598	6354.598	bb			0.5283	105.67	5.67	1043.0...	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	4.19	16329.192	16329.192	bb			0.5183	103.66	3.66	1741.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2313–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	107.08	11–MAR–10 20:49	per0311011a
Perchlorate Isotope Ratio		3.37		11–MAR–10 20:49	per0311011a
Perchlorate–101	.05	.05	91.21	11–MAR–10 20:49	per0311011a
Perchlorate	.05	.05	107.51	11–MAR–10 22:46	per0311024a
Perchlorate Isotope Ratio		3.33		11–MAR–10 22:46	per0311024a
Perchlorate–101	.05	.05	92.57	11–MAR–10 22:46	per0311024a
Perchlorate	.05	.06	113.11	12–MAR–10 00:44	per0311037a
Perchlorate Isotope Ratio		3.36		12–MAR–10 00:44	per0311037a
Perchlorate–101	.05	.05	96.48	12–MAR–10 00:44	per0311037a
Perchlorate	.05	.05	105.48	12–MAR–10 02:41	per0311050a
Perchlorate Isotope Ratio		2.92		12–MAR–10 02:41	per0311050a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2313-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate-101	.05	.05	103.73	12-MAR-10 02:41	per0311050a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Pass
WO
03-12-10

Name: per0311011a
Date: 11-Mar-2010
Time: 20:49:11
ID: WCL100309-07CRI
Vial: 1:2,B

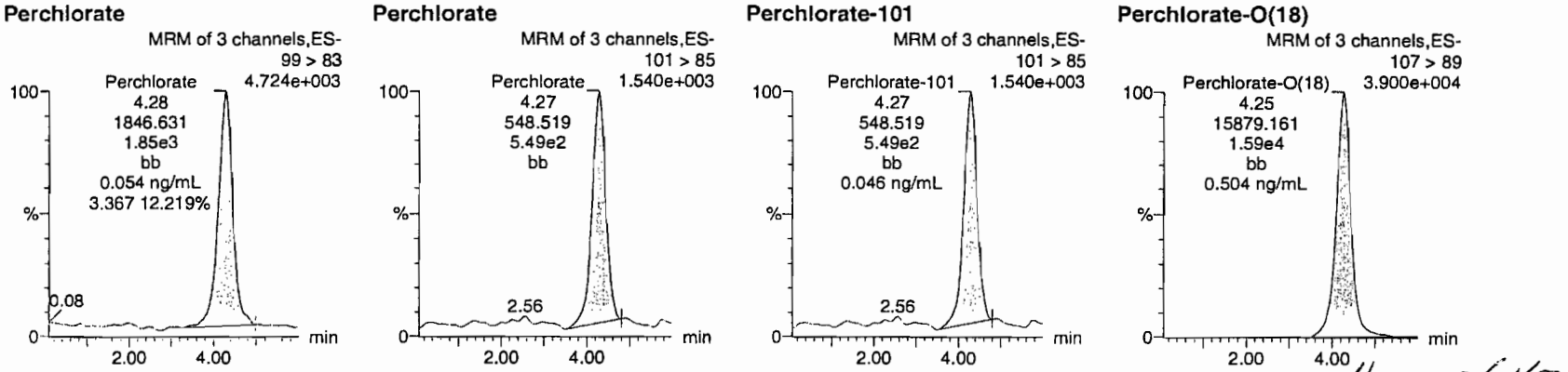

HMM 03/14/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	4.28	1846.631	1846.631	bb			0.0535	107.08	7.08	196.123	3.37
WCL100309-07CRI	Perchlorate-101	101 > 85	4.27	548.519	548.519	bb			0.0456	91.21	-8.79	116.694	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	4.25	15879.161	15879.161	bb			0.5040	100.80	0.80	2750.7...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311024a
Date: 11-Mar-2010
Time: 22:46:41
ID: WCL100309-07CRI
Vial: 1:2,B

Pass
aw
03-12-10

Perchlorate

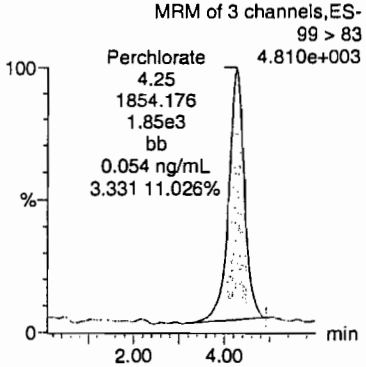

Perchlorate

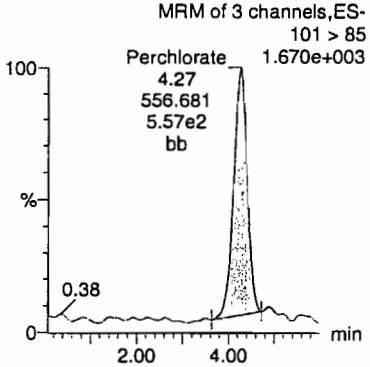

Perchlorate-101

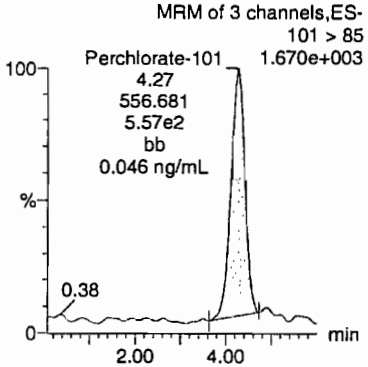

Perchlorate-O(18)

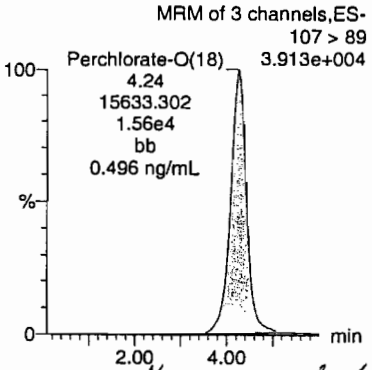

Hmm 03/14/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	4.25	1854.176	1854.176	bb			0.0538	107.51	7.51	103.638	3.33
WCL100309-07CRI	Perchlorate-101	101 > 85	4.27	556.681	556.681	bb			0.0463	92.57	-7.43	103.667	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	4.24	15633.302	15633.302	bb			0.4962	99.24	-0.76	1071.4...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Pwm
CWW
03-12-10

Name: per0311037a
Date: 12-Mar-2010
Time: 00:44:16
ID: WCL100309-07CRI
Vial: 1:2,B

Perchlorate

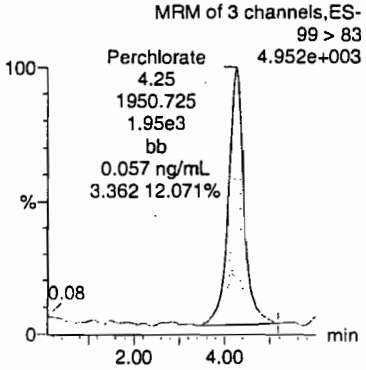

Perchlorate

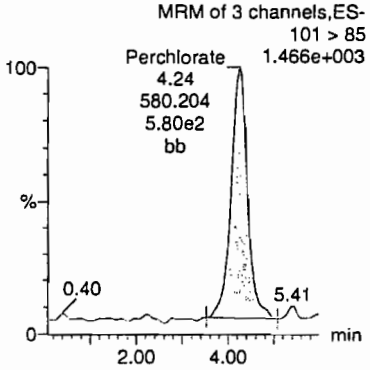

Perchlorate-101

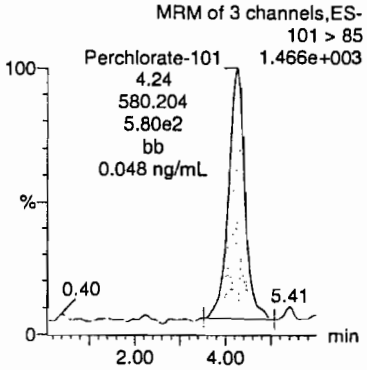

Perchlorate-O(18)

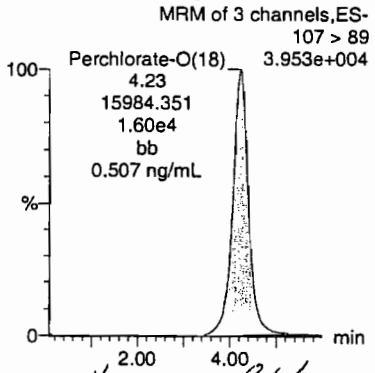

Hmm 03/14/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	4.25	1950.725	1950.725	bb			0.0566	113.11	13.11	247.013	3.36
WCL100309-07CRI	Perchlorate-101	101 > 85	4.24	580.204	580.204	bb			0.0482	96.48	-3.52	43.878	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	4.23	15984.351	15984.351	bb			0.5073	101.47	1.47	1242.9...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311050a
Date: 12-Mar-2010
Time: 02:41:57
ID: WCL100309-07CRI
Vial: 1:2,B

Perc
03-12-10

Perchlorate

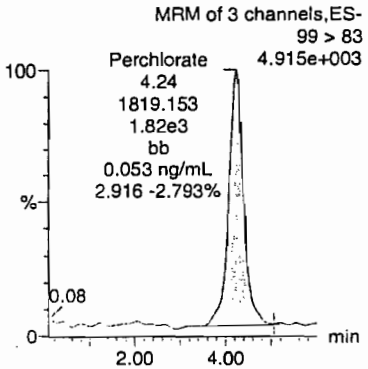

Perchlorate

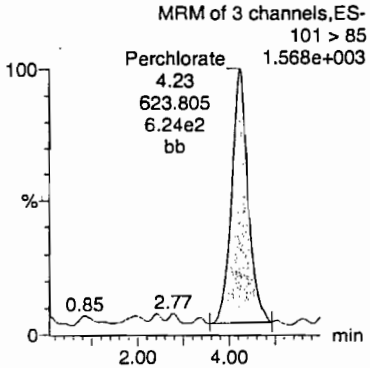

Perchlorate-101

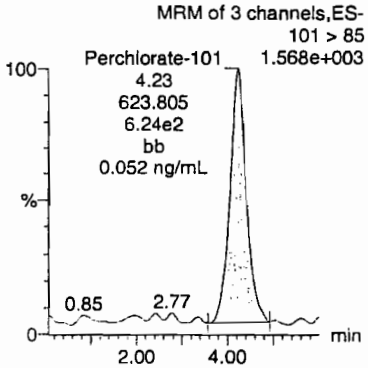

Perchlorate-O(18)

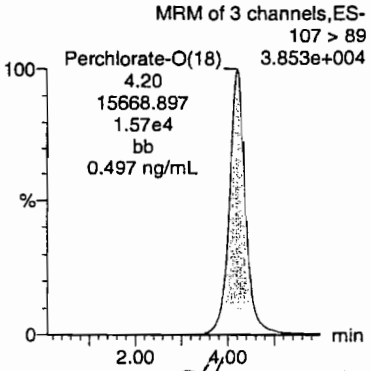

Amc 03/14/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	4.24	1819.153	1819.153	bb			0.0527	105.48	5.48	183.961	2.92
WCL100309-07CRI	Perchlorate-101	101 > 85	4.23	623.805	623.805	bb			0.0519	103.73	3.73	76.460	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	4.20	15668.897	15668.897	bb			0.4973	99.47	-0.53	5031.5...	

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WASTE WATER

Extraction Batch ID: 964087

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 11-MAR-10

GEL Job No (SDG): 10-2313-1

GEL Sample ID: 1202068285

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	11-MAR-10 23:49	per0311031a
	Perchlorate Isotope Ratio						1	11-MAR-10 23:49	per0311031a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	11-MAR-10 23:49	per0311031a
	Perchlorate-O(18)			0.464	ug/L		1	11-MAR-10 23:49	per0311031a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311031a
Date: 11-Mar-2010
Time: 23:49:58
ID: 1202068285
Vial: 1:6,A

|LZNL|964010|LZL2|PMB|11|

CWS 03-12-10

Perchlorate

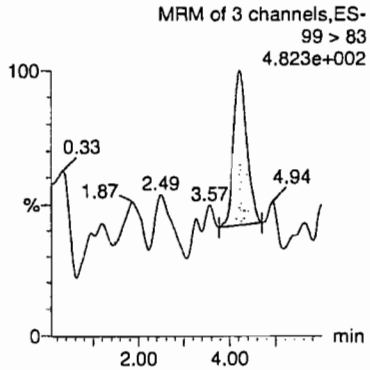

Perchlorate

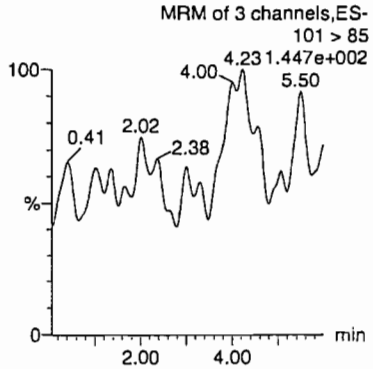

Perchlorate-101

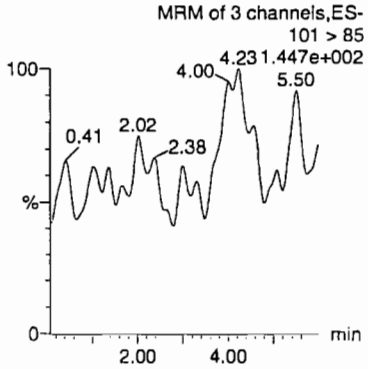

Perchlorate-O(18)

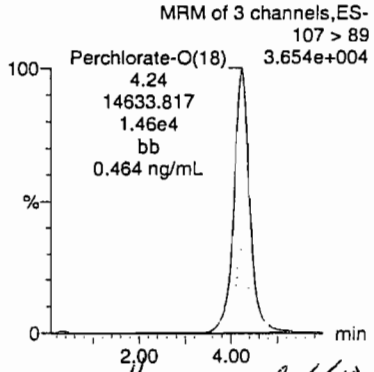

Hmc 03/14/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068285	Perchlorate	99 > 83	4.22	96.234	96.234	bb			0.0028			16.750	0.00
1202068285	Perchlorate-101	101 > 85											
1202068285	Perchlorate-O(18)	107 > 89	4.24	14633.817	14633.817	bb			0.4645	92.90	-7.10	1418.1...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WASTE WATER

Extraction Batch ID: 964087

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 11-MAR-10

GEL Job No (SDG): 10-2313-1

GEL Sample ID: 1202068286

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.214	ug/L		1	11-MAR-10 23:59	per0311032a
	Perchlorate Isotope Ratio			2.91			1	11-MAR-10 23:59	per0311032a
14797-73-0	Perchlorate-101	.05	.2	0.211	ug/L		1	11-MAR-10 23:59	per0311032a
	Perchlorate-O(18)			0.491	ug/L		1	11-MAR-10 23:59	per0311032a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311032a
Date: 11-Mar-2010
Time: 23:59:03
ID: 1202068286
Vial: 1:6,B

|LANL|964090|LZQ|LCS|1|

CWJ 03-12-10

Perchlorate

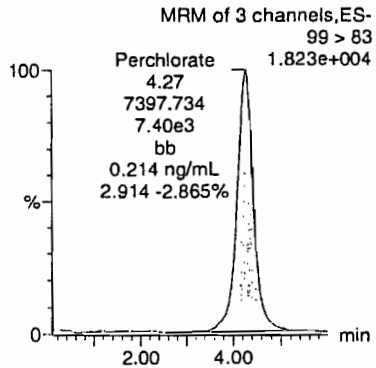

Perchlorate

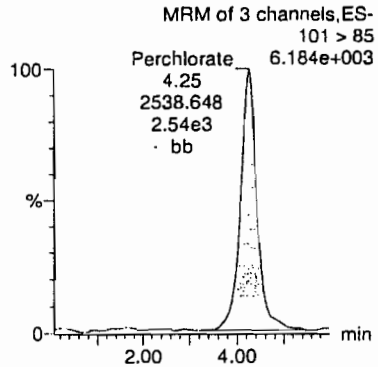

Perchlorate-101

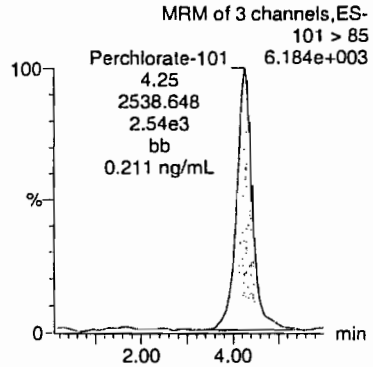

Perchlorate-O(18)

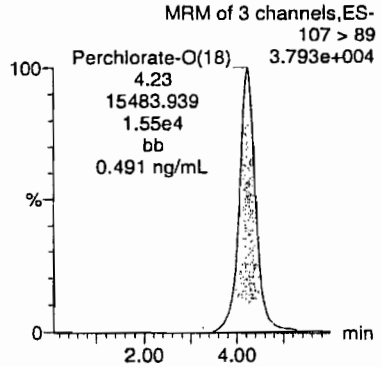

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068286	Perchlorate	99 > 83	4.27	7397.734	7397.734	bb			0.2145	107.24	7.24	983.069	2.91
1202068286	Perchlorate-101	101 > 85	4.25	2538.648	2538.648	bb			0.2111	105.54	5.54	575.838	
1202068286	Perchlorate-O(18)	107 > 89	4.23	15483.939	15483.939	bb			0.4915	98.29	-1.71	3198.5...	

$\frac{7397.734}{34492} = 0.2145$

HMM 03/14/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 964087 Verified by:

Analyst: Kaylie Westmoreland

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202068285 MB	11-MAR-2010 08:59:00	10	10	1
1202068286 LCS	11-MAR-2010 08:59:00	10	10	1
248778001	11-MAR-2010 08:59:00	10	10	1
248783001	11-MAR-2010 08:59:00	10	10	1
1202068289 MS (248783001)	11-MAR-2010 08:59:00	10	10	1
1202068290 MSD (248783001)	11-MAR-2010 08:59:00	10	10	1
248792001	11-MAR-2010 08:59:00	10	10	1
248799001	11-MAR-2010 08:59:00	10	10	1
248861001	11-MAR-2010 08:59:00	10	10	1
248861002	11-MAR-2010 08:59:00	10	10	1
248953001	11-MAR-2010 08:59:00	10	10	1
1202068287 MS (248953001)	11-MAR-2010 08:59:00	10	10	1
1202068288 MSD (248953001)	11-MAR-2010 08:59:00	10	10	1
1202068291 ICS	11-MAR-2010 08:59:00	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202068291	10 ug/L ICV/CCV Second Source	UCL100226-01.2	.2	mL
LCS	1202068286	10 ug/L ICV/CCV Second Source	UCL100226-01.2	.2	mL
MS	1202068287	10 ug/L ICV/CCV Second Source	UCL100226-01.2	.2	mL
MS	1202068289	10 ug/L ICV/CCV Second Source	UCL100226-01.2	.2	mL
MSD	1202068288	10 ug/L ICV/CCV Second Source	UCL100226-01.2	.2	mL
MSD	1202068290	10 ug/L ICV/CCV Second Source	UCL100226-01.2	.2	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1267890	10	mL
RGNT	All	O2SI HPLC Grade Water	1271949	10	mL

Comments:

Desalting Cartridges used : 100216-1-H & 100223-1-Ba

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/11/10
Extr. Injection Volume: 20uL
Sequence Number: per031110a
Initial Calibration Date: 03/11/10

Method: EPA 6850-Modified
Int. Std.: UCL100126-01
Mobile Phase Lot#: 1278668, 1271949
Standard-Samp Reagent Lot#:: 1271949

Reviewed BY: [illegible]
Date: 03/14/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100309-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0311001a	IPB001	CWW	3/11/2010 19:18			1		USE	B
per0311002a	IPB001	CWW	3/11/2010 19:27			1		USE	B
per0311003a	WCLICAL-01	CWW	3/11/2010 19:36			1		USE	I
per0311004a	WCLICAL-02	CWW	3/11/2010 19:46			1		USE	I
per0311005a	WCLICAL-03	CWW	3/11/2010 19:55			1		USE	I
per0311006a	WCLICAL-04	CWW	3/11/2010 20:04			1		USE	I
per0311007a	WCLICAL-05	CWW	3/11/2010 20:13			1		USE	I
per0311008a	IPB002	CWW	3/11/2010 20:22			1		USE	B
per0311009a	WCLICV	CWW	3/11/2010 20:31			1		USE	C
per0311010a	IPB003	CWW	3/11/2010 20:40			1		USE	B
per0311011a	WCLCRI	CWW	3/11/2010 20:49			1		USE	C
per0311012a	247551001	CWW	3/11/2010 20:58	957938	10-1969	1	LANL	USE	S
per0311013a	247551002	CWW	3/11/2010 21:07	957938	10-1969	1	LANL	USE	S
per0311014a	247552002	CWW	3/11/2010 21:16	957938	10-1970	1	LANL	USE	S
per0311015a	247566001	CWW	3/11/2010 21:25	957938	10-1957	1	LANL	USE	S
per0311016a	247566002	CWW	3/11/2010 21:34	957938	10-1957	1	LANL	USE	S
per0311017a	1202054214	CWW	3/11/2010 21:43	957938	10-1957	1	LANL	USE	S
per0311018a	1202054215	CWW	3/11/2010 21:52	957938	10-1957	1	LANL	USE	S
per0311019a	247566003	CWW	3/11/2010 22:01	957938	10-1957	1	LANL	USE	S
per0311020a	247566004	CWW	3/11/2010 22:10	957938	10-1957	1	LANL	USE	S
per0311021a	247566005	CWW	3/11/2010 22:19	957938	10-1957	1	LANL	USE	S
per0311022a	WCLCCV	CWW	3/11/2010 22:28			1		USE	C
per0311023a	IPB004	CWW	3/11/2010 22:37			1		USE	B
per0311024a	WCLCRI	CWW	3/11/2010 22:46			1		USE	C
per0311025a	247566006	CWW	3/11/2010 22:55	957938	10-1957	1	LANL	USE	S
per0311026a	247566007	CWW	3/11/2010 23:04	957938	10-1957	1	LANL	USE	S
per0311027a	247566008	CWW	3/11/2010 23:13	957938	10-1957	1	LANL	USE	S
per0311028a	247566009	CWW	3/11/2010 23:22	957938	10-1957	1	LANL	USE	S
per0311029a	247566010	CWW	3/11/2010 23:31	957938	10-1957	1	LANL	USE	S

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per0311030a	IPB005	CWW	3/11/2010 23:40			1		USE	B
per0311031a	1202068285	CWW	3/11/2010 23:49	964090	VARIOUS	1	LANL	USE	S
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per0311036a	IPB006	CWW	3/12/2010 0:35			1		USE	B
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per0311040a	1202068290	CWW	3/12/2010 1:11	964090	10-2284	1	LANL	USE	S
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per0311042a	248799001	CWW	3/12/2010 1:29	964090	10-2289-1	1	LANL	USE	S
per0311043a	248861001	CWW	3/12/2010 1:38	964090	10-2313-1	1	LANL	USE	S
per0311044a	248861002	CWW	3/12/2010 1:47	964090	10-2313-1	1	LANL	USE	S
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per0311048a	WCLCCV	CWW	3/12/2010 2:23			1		USE	C
per0311049a	IPB007	CWW	3/12/2010 2:32			1		USE	B
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per0311051a	1202068504	CWW	3/12/2010 2:51	964182	VARIOUS	1	LANL	USE	S
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per0311058a	247546001	CWW	3/12/2010 3:54	964182	10-1965	1	LANL	USE	S
per0311059a	247546002	CWW	3/12/2010 4:03	964182	10-1965	1	LANL	USE	S
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per0311061a	WCLCCV	CWW	3/12/2010 4:21			1		USE	C
per0311062a	IPB008	CWW	3/12/2010 4:30			1		USE	B
per0311063a	WCLCRI	CWW	3/12/2010 4:39			1		USE	C
per0311064a	247558001	CWW	3/12/2010 4:48	964182	10-1954	1	LANL	USE	S
per0311065a	247558002	CWW	3/12/2010 4:58	964182	10-1954	1	LANL	USE	S
per0311066a	247558003	CWW	3/12/2010 5:07	964182	10-1954	1	LANL	USE	S

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per0311067a	247558004	CWW	3/12/2010 5:16	964182	10-1954	1	LANL	USE	S
per0311068a	247558005	CWW	3/12/2010 5:25	964182	10-1954	1	LANL	USE	S
per0311069a	247561001	CWW	3/12/2010 5:34	964182	10-1951-1	1	LANL	USE	S
per0311070a	1202068506	CWW	3/12/2010 5:43	964182	10-1951-1	1	LANL	USE	S
per0311071a	1202068507	CWW	3/12/2010 5:52	964182	10-1951-1	1	LANL	USE	S
per0311072a	247561002	CWW	3/12/2010 6:01	964182	10-1951-1	1	LANL	USE	S
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per0311075a	IPB009	CWW	3/12/2010 6:28			1		USE	B
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per0311077a	247561004	CWW	3/12/2010 6:46	964182	10-1951-1	1	LANL	DUSE-RA	S
per0311078a	247561005	CWW	3/12/2010 6:56	964182	10-1951-1	1	LANL	DUSE-RA	S
per0311079a	247561006	CWW	3/12/2010 7:05	964182	10-1951-1	1	LANL	DUSE-RA	S
per0311080a	247561007	CWW	3/12/2010 7:17	964182	10-1951-1	1	LANL	DUSE-RA	S
per0311081a	247561008	CWW	3/12/2010 7:26	964182	10-1951-1	1	LANL	DUSE-RA	S
per0311082a	IPB010	CWW	3/12/2010 7:35			1		DUSE	B
per0311083a	1283765 Suppr.	CWW	3/12/2010 7:45	Screen		1	GEL	DUSE	B
per0311084a	ICL100311-01.1 Sp	CWW	3/12/2010 7:54	Screen		1	GEL	DUSE	B
per0311085a	WCLCCV	CWW	3/12/2010 8:03			1		DUSE	C
per0311086a	IPB011	CWW	3/12/2010 8:12			1		DUSE	B
per0311087a	WCLCRI	CWW	3/12/2010 8:21			1		DUSE	C

antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

st Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
nted: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

me: per0311039a
te: 12-Mar-2010
ne: 01:02:21
: 1202068289
al: 1:6,F

|LANL|9640010|LZQ|MS|1|

CWW 03-12-10

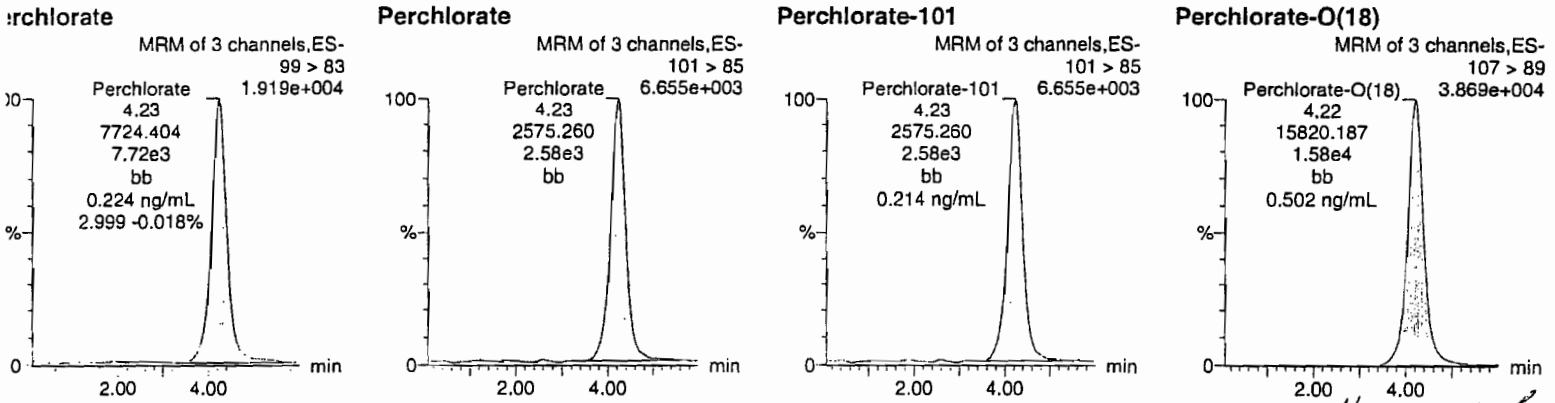

HMW 03/14/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202068289	Perchlorate	99 > 83	4.23	7724.404	7724.404	bb			0.2239	111.97	11.97	694.490	3.00
202068289	Perchlorate-101	101 > 85	4.23	2575.260	2575.260	bb			0.2141	107.06	7.06	251.828	
202068289	Perchlorate-O(18)	107 > 89	4.22	15820.187	15820.187	bb			0.5021	100.43	0.43	1614.5...	

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Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311040a
Date: 12-Mar-2010
Time: 01:11:24
ID: 1202068290
Vial: 1:7,A

|LANL|964040|LIQ|MSD|1|

CWW 03-12-10

Perchlorate

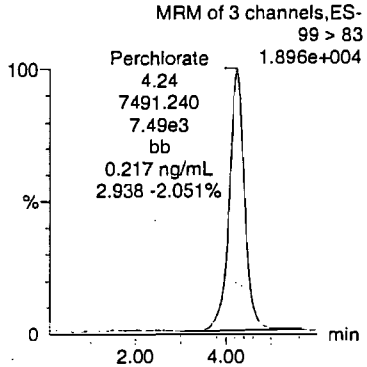

Perchlorate

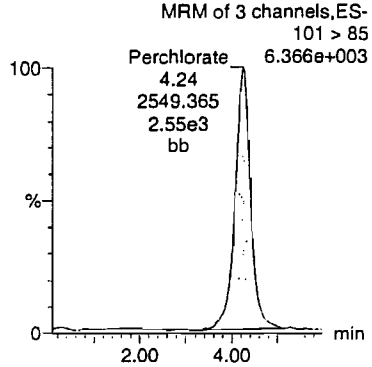

Perchlorate-101

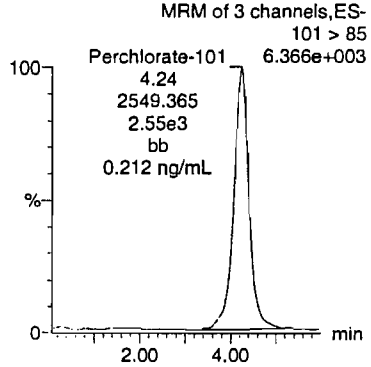

Perchlorate-O(18)

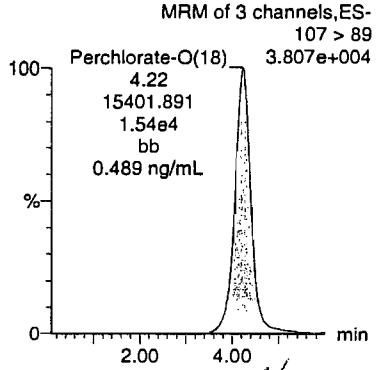

HAW 03/14/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068290	Perchlorate	99 > 83	4.24	7491.240	7491.240	bb			0.2172	108.59	8.59	963.150	2.94
1202068290	Perchlorate-101	101 > 85	4.24	2549.365	2549.365	bb			0.2120	105.98	5.98	278.804	
1202068290	Perchlorate-O(18)	107 > 89	4.22	15401.891	15401.891	bb			0.4889	97.77	-2.23	945.251	

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2313

Sample Analysis

Sample ID	Client ID
248860001	RE46-10-13782
248860002	RE46-10-13783
248860003	RE46-10-13777
248860004	RE46-10-13775
248860005	RE46-10-13776
248860006	RE46-10-13781
248860007	RE46-10-13779
248860008	RE46-10-13780
248860009	RE46-10-13778
1202068097	Method Blank (MB) **ICP**
1202092701	Method Blank (MB) **ICP**
1202068102	Laboratory Control Sample (LCS)
1202092702	Laboratory Control Sample (LCS)
1202068099	248860001(RE46-10-13782L) Serial Dilution (SD)
1202068098	248860001(RE46-10-13782D) Sample Duplicate (DUP)
1202068100	248860001(RE46-10-13782S) Matrix Spike (MS)
1202068101	248860001(RE46-10-13782SD) Matrix Spike Duplicate (MSD)
1202068103	Method Blank (MB) **ICP-MS**
1202068108	Laboratory Control Sample (LCS)
1202068105	248860001(RE46-10-13782L) Serial Dilution (SD)
1202068104	248860001(RE46-10-13782D) Sample Duplicate (DUP)
1202068106	248860001(RE46-10-13782S) Matrix Spike (MS)
1202068107	248860001(RE46-10-13782SD) Matrix Spike Duplicate (MSD)
1202078437	Method Blank (MB) **CVAA**
1202078438	Laboratory Control Sample (LCS)
1202078441	248867001(RE46-10-12931L) Serial Dilution (SD)
1202078439	248867001(RE46-10-12931D) Sample Duplicate (DUP)
1202078440	248867001(RE46-10-12931S) Matrix Spike (MS)
1202078442	248867001(RE46-10-12931SD) Matrix Spike Duplicate (MSD)

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

Method/Analysis Information

Analytical Batch:	964012, 974047, 964014 and 968185
Prep Batch :	964011, 974044, 964013 and 968184
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-009 REV# 20, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System

(FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits with the exception of mercury that recovered outside of the advisory control limits of 70-130%.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS analyzed with this SDG met the acceptance criteria of percent recovery with the exception of antimony. Silver and/or antimony did not meet the recovery acceptance criteria for the LCS. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 248860001 (RE46-10-13782)-ICP and ICP-MS and 248867001 (RE46-10-12931)-CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of manganese, potassium, sodium and aluminum as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, manganese, potassium, sodium and mercury as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of calcium, and chromium as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D) with the exception of potassium as indicated by the "E" qualifier.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as

virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
The following DER was generated for this SDG: 816871 1202068098 (RE46-10-13782)-ICP. Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER ID 809015, 814416 and 816871. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
There were no additional comments needed for this SDG.

Certification Statement

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

Review Validation:

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

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

Reviewer: Ruth-Ann A. Elmore **Date:** 5·19·10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248860001 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13782 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1080000	ug/kg	N	7810	23000	23000	1	P	HSC	04/01/10 08:45	033110B-1	964012
7440-36-0	Antimony	1150	ug/kg	U	379	1150	1150	1	P	HSC	04/01/10 08:45	033110B-1	964012
7440-38-2	Arsenic	1110	ug/kg	U	223	1110	1110	2	MS	BCD1	05/17/10 12:59	100517-3	964014
7440-39-3	Barium	10600	ug/kg		115	574	574	1	P	HSC	04/01/10 08:45	033110B-1	964012
7440-41-7	Beryllium	181	ug/kg		22.3	111	111	2	MS	PRB	05/17/10 20:19	100517-4	964014
7440-43-9	Cadmium	574	ug/kg	U	115	574	574	1	P	HSC	04/01/10 08:45	033110B-1	964012
7440-70-2	Calcium	167000	ug/kg	*	8310	26000	26000	1	P	LS	04/13/10 15:00	041310A-2	974047
7440-47-3	Chromium	3310	ug/kg	*	172	574	574	1	P	HSC	04/01/10 08:45	033110B-1	964012
7440-48-4	Cobalt	296	ug/kg	J	172	574	574	1	P	HSC	04/01/10 08:45	033110B-1	964012
7440-50-8	Copper	1090	ug/kg	J	344	1150	1150	1	P	HSC	04/01/10 08:45	033110B-1	964012
7439-89-6	Iron	4290000	ug/kg		9180	28700	28700	1	P	HSC	04/01/10 08:45	033110B-1	964012
7439-92-1	Lead	2650	ug/kg		287	1150	1150	1	P	HSC	04/01/10 08:45	033110B-1	964012
7439-95-4	Magnesium	52700	ug/kg		9760	34400	34400	1	P	HSC	04/01/10 08:45	033110B-1	964012
7439-96-5	Manganese	180000	ug/kg	N	230	1150	1150	1	P	HSC	04/01/10 08:45	033110B-1	964012
7439-97-6	Mercury	11.8	ug/kg	U	4	11.8	11.8	1	AV	JXL1	03/24/10 10:52	032410S1-5	968185
7440-02-0	Nickel	756	ug/kg		111	445	445	2	MS	BCD1	05/17/10 12:59	100517-3	964014
7440-09-7	Potassium	396000	ug/kg	EN	7350	28700	28700	1	P	HSC	04/01/10 08:45	033110B-1	964012
7782-49-2	Selenium	1110	ug/kg	U	556	1110	1110	2	MS	BCD1	05/17/10 12:59	100517-3	964014
7440-22-4	Silver	574	ug/kg	U	115	574	574	1	P	HSC	04/01/10 08:45	033110B-1	964012
7440-23-5	Sodium	345000	ug/kg	N	8040	28700	28700	1	P	HSC	04/01/10 08:45	033110B-1	964012
7440-28-0	Thallium	87.2	ug/kg	J	66.8	223	223	2	MS	BCD1	05/17/10 12:59	100517-3	964014
7440-62-2	Vanadium	1020	ug/kg		115	574	574	1	P	HSC	04/01/10 08:45	033110B-1	964012
7440-66-6	Zinc	13700	ug/kg		379	1150	1150	1	P	HSC	04/01/10 08:45	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.506	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.522	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.592	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.559	g	50	mL	04/12/10	BXA1

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248860002 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13783 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 90.7

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5190000	ug/kg	N	7450	21900	21900	1	P	HSC	04/01/10 09:00	033110B-1	964012
7440-36-0	Antimony	1100	ug/kg	U	362	1100	1100	1	P	HSC	04/01/10 09:00	033110B-1	964012
7440-38-2	Arsenic	767	ug/kg	J	216	1080	1080	2	MS	BCD1	05/17/10 13:28	100517-3	964014
7440-39-3	Barium	49400	ug/kg		110	548	548	1	P	HSC	04/01/10 09:00	033110B-1	964012
7440-41-7	Beryllium	444	ug/kg		21.6	108	108	2	MS	PRB	05/17/10 20:25	100517-4	964014
7440-43-9	Cadmium	548	ug/kg	U	110	548	548	1	P	HSC	04/01/10 09:00	033110B-1	964012
7440-70-2	Calcium	732000	ug/kg	*	8590	26900	26900	1	P	LS	04/13/10 15:17	041310A-2	974047
7440-47-3	Chromium	3180	ug/kg	*	164	548	548	1	P	HSC	04/01/10 09:00	033110B-1	964012
7440-48-4	Cobalt	1720	ug/kg		164	548	548	1	P	HSC	04/01/10 09:00	033110B-1	964012
7440-50-8	Copper	2930	ug/kg		329	1100	1100	1	P	HSC	04/01/10 09:00	033110B-1	964012
7439-89-6	Iron	8200000	ug/kg		8760	27400	27400	1	P	HSC	04/01/10 09:00	033110B-1	964012
7439-92-1	Lead	5940	ug/kg		274	1100	1100	1	P	HSC	04/01/10 09:00	033110B-1	964012
7439-95-4	Magnesium	543000	ug/kg		9310	32900	32900	1	P	HSC	04/01/10 09:00	033110B-1	964012
7439-96-5	Manganese	229000	ug/kg	N	219	1100	1100	1	P	HSC	04/01/10 09:00	033110B-1	964012
7439-97-6	Mercury	53.9	ug/kg		4.1	12	12	1	AV	JXL1	03/24/10 10:54	032410S1-5	968185
7440-02-0	Nickel	2910	ug/kg		108	431	431	2	MS	BCD1	05/17/10 13:28	100517-3	964014
7440-09-7	Potassium	474000	ug/kg	EN	7010	27400	27400	1	P	HSC	04/01/10 09:00	033110B-1	964012
7782-49-2	Selenium	1080	ug/kg	U	539	1080	1080	2	MS	BCD1	05/17/10 13:28	100517-3	964014
7440-22-4	Silver	548	ug/kg	U	110	548	548	1	P	HSC	04/01/10 09:00	033110B-1	964012
7440-23-5	Sodium	247000	ug/kg	N	7670	27400	27400	1	P	HSC	04/01/10 09:00	033110B-1	964012
7440-28-0	Thallium	89.1	ug/kg	J	64.7	216	216	2	MS	BCD1	05/17/10 13:28	100517-3	964014
7440-62-2	Vanadium	7320	ug/kg		110	548	548	1	P	HSC	04/01/10 09:00	033110B-1	964012
7440-66-6	Zinc	27100	ug/kg		362	1100	1100	1	P	HSC	04/01/10 09:00	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.503	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.511	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.549	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.513	g	50	mL	04/12/10	BXA1

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248860003 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13777 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 80

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2430000	ug/kg	N	8090	23800	23800	1	P	HSC	04/01/10 09:02	033110B-1	964012
7440-36-0	Antimony	1190	ug/kg	U	393	1190	1190	1	P	HSC	04/01/10 09:02	033110B-1	964012
7440-38-2	Arsenic	817	ug/kg	J	248	1240	1240	2	MS	BCD1	05/17/10 13:32	100517-3	964014
7440-39-3	Barium	29100	ug/kg		119	595	595	1	P	HSC	04/01/10 09:02	033110B-1	964012
7440-41-7	Beryllium	335	ug/kg		24.8	124	124	2	MS	PRB	05/17/10 20:26	100517-4	964014
7440-43-9	Cadmium	595	ug/kg	U	119	595	595	1	P	HSC	04/01/10 09:02	033110B-1	964012
7440-70-2	Calcium	758000	ug/kg	*	8990	28100	28100	1	P	LS	04/13/10 15:19	041310A-2	974047
7440-47-3	Chromium	3910	ug/kg	*	179	595	595	1	P	HSC	04/01/10 09:02	033110B-1	964012
7440-48-4	Cobalt	1050	ug/kg		179	595	595	1	P	HSC	04/01/10 09:02	033110B-1	964012
7440-50-8	Copper	11900	ug/kg		357	1190	1190	1	P	HSC	04/01/10 09:02	033110B-1	964012
7439-89-6	Iron	5660000	ug/kg		9520	29800	29800	1	P	HSC	04/01/10 09:02	033110B-1	964012
7439-92-1	Lead	14100	ug/kg		298	1190	1190	1	P	HSC	04/01/10 09:02	033110B-1	964012
7439-95-4	Magnesium	395000	ug/kg		10100	35700	35700	1	P	HSC	04/01/10 09:02	033110B-1	964012
7439-96-5	Manganese	137000	ug/kg	N	238	1190	1190	1	P	HSC	04/01/10 09:02	033110B-1	964012
7439-97-6	Mercury	12.5	ug/kg	J	4.96	14.6	14.6	1	AV	JXL1	03/24/10 10:56	032410S1-5	968185
7440-02-0	Nickel	2680	ug/kg		124	497	497	2	MS	BCD1	05/17/10 13:32	100517-3	964014
7440-09-7	Potassium	356000	ug/kg	EN	7620	29800	29800	1	P	HSC	04/01/10 09:02	033110B-1	964012
7782-49-2	Selenium	1240	ug/kg	U	621	1240	1240	2	MS	BCD1	05/17/10 13:32	100517-3	964014
7440-22-4	Silver	595	ug/kg	U	119	595	595	1	P	HSC	04/01/10 09:02	033110B-1	964012
7440-23-5	Sodium	146000	ug/kg	N	8330	29800	29800	1	P	HSC	04/01/10 09:02	033110B-1	964012
7440-28-0	Thallium	248	ug/kg	U	74.5	248	248	2	MS	BCD1	05/17/10 13:32	100517-3	964014
7440-62-2	Vanadium	5110	ug/kg		119	595	595	1	P	HSC	04/01/10 09:02	033110B-1	964012
7440-66-6	Zinc	29500	ug/kg		393	1190	1190	1	P	HSC	04/01/10 09:02	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.528	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.506	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.517	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.559	g	50	mL	04/12/10	BXA1

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248860004 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13775 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 90.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4720000	ug/kg	N	7370	21700	21700	1	P	HSC	04/01/10 09:04	033110B-1	964012
7440-36-0	Antimony	1080	ug/kg	U	357	1080	1080	1	P	HSC	04/01/10 09:04	033110B-1	964012
7440-38-2	Arsenic	832	ug/kg	J	207	1030	1030	2	MS	BCD1	05/17/10 13:37	100517-3	964014
7440-39-3	Barium	44800	ug/kg		108	542	542	1	P	HSC	04/01/10 09:04	033110B-1	964012
7440-41-7	Beryllium	457	ug/kg		20.7	103	103	2	MS	PRB	05/17/10 20:27	100517-4	964014
7440-43-9	Cadmium	542	ug/kg	U	108	542	542	1	P	HSC	04/01/10 09:04	033110B-1	964012
7440-70-2	Calcium	649000	ug/kg	*	8390	26200	26200	1	P	LS	04/13/10 15:21	041310A-2	974047
7440-47-3	Chromium	3130	ug/kg	*	162	542	542	1	P	HSC	04/01/10 09:04	033110B-1	964012
7440-48-4	Cobalt	1460	ug/kg		162	542	542	1	P	HSC	04/01/10 09:04	033110B-1	964012
7440-50-8	Copper	2700	ug/kg		325	1080	1080	1	P	HSC	04/01/10 09:04	033110B-1	964012
7439-89-6	Iron	7810000	ug/kg		8670	27100	27100	1	P	HSC	04/01/10 09:04	033110B-1	964012
7439-92-1	Lead	5260	ug/kg		271	1080	1080	1	P	HSC	04/01/10 09:04	033110B-1	964012
7439-95-4	Magnesium	539000	ug/kg		9210	32500	32500	1	P	HSC	04/01/10 09:04	033110B-1	964012
7439-96-5	Manganese	220000	ug/kg	N	217	1080	1080	1	P	HSC	04/01/10 09:04	033110B-1	964012
7439-97-6	Mercury	16.9	ug/kg		4.41	13	13	1	AV	JXL1	03/24/10 10:58	032410S1-5	968185
7440-02-0	Nickel	2810	ug/kg		103	414	414	2	MS	BCD1	05/17/10 13:37	100517-3	964014
7440-09-7	Potassium	452000	ug/kg	EN	6930	27100	27100	1	P	HSC	04/01/10 09:04	033110B-1	964012
7782-49-2	Selenium	1030	ug/kg	U	517	1030	1030	2	MS	BCD1	05/17/10 13:37	100517-3	964014
7440-22-4	Silver	542	ug/kg	U	108	542	542	1	P	HSC	04/01/10 09:04	033110B-1	964012
7440-23-5	Sodium	228000	ug/kg	N	7580	27100	27100	1	P	HSC	04/01/10 09:04	033110B-1	964012
7440-28-0	Thallium	74.7	ug/kg	J	62.1	207	207	2	MS	BCD1	05/17/10 13:37	100517-3	964014
7440-62-2	Vanadium	6480	ug/kg		108	542	542	1	P	HSC	04/01/10 09:04	033110B-1	964012
7440-66-6	Zinc	24500	ug/kg		357	1080	1080	1	P	HSC	04/01/10 09:04	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.51	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.534	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.511	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.527	g	50	mL	04/12/10	BXA1

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248860005 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13776 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1470000	ug/kg	N	7290	21400	21400	1	P	HSC	04/01/10 09:07	033110B-1	964012
7440-36-0	Antimony	1070	ug/kg	U	354	1070	1070	1	P	HSC	04/01/10 09:07	033110B-1	964012
7440-38-2	Arsenic	642	ug/kg	J	218	1090	1090	2	MS	BCD1	05/17/10 13:41	100517-3	964014
7440-39-3	Barium	22200	ug/kg		107	536	536	1	P	HSC	04/01/10 09:07	033110B-1	964012
7440-41-7	Beryllium	611	ug/kg		21.8	109	109	2	MS	PRB	05/17/10 20:31	100517-4	964014
7440-43-9	Cadmium	536	ug/kg	U	107	536	536	1	P	HSC	04/01/10 09:07	033110B-1	964012
7440-70-2	Calcium	344000	ug/kg	*	8440	26400	26400	1	P	LS	04/13/10 15:23	041310A-2	974047
7440-47-3	Chromium	5510	ug/kg	*	161	536	536	1	P	HSC	04/01/10 09:07	033110B-1	964012
7440-48-4	Cobalt	316	ug/kg	J	161	536	536	1	P	HSC	04/01/10 09:07	033110B-1	964012
7440-50-8	Copper	1580	ug/kg		322	1070	1070	1	P	HSC	04/01/10 09:07	033110B-1	964012
7439-89-6	Iron	9400000	ug/kg		8570	26800	26800	1	P	HSC	04/01/10 09:07	033110B-1	964012
7439-92-1	Lead	1320	ug/kg		268	1070	1070	1	P	HSC	04/01/10 09:07	033110B-1	964012
7439-95-4	Magnesium	221000	ug/kg		9110	32200	32200	1	P	HSC	04/01/10 09:07	033110B-1	964012
7439-96-5	Manganese	230000	ug/kg	N	214	1070	1070	1	P	HSC	04/01/10 09:07	033110B-1	964012
7439-97-6	Mercury	12.3	ug/kg	J	4.32	12.7	12.7	1	AV	JXL1	03/24/10 10:59	032410S1-5	968185
7440-02-0	Nickel	2610	ug/kg		109	436	436	2	MS	BCD1	05/17/10 13:41	100517-3	964014
7440-09-7	Potassium	245000	ug/kg	EN	6860	26800	26800	1	P	HSC	04/01/10 09:07	033110B-1	964012
7782-49-2	Selenium	1090	ug/kg	U	545	1090	1090	2	MS	BCD1	05/17/10 13:41	100517-3	964014
7440-22-4	Silver	536	ug/kg	U	107	536	536	1	P	HSC	04/01/10 09:07	033110B-1	964012
7440-23-5	Sodium	165000	ug/kg	N	7500	26800	26800	1	P	HSC	04/01/10 09:07	033110B-1	964012
7440-28-0	Thallium	218	ug/kg	U	65.4	218	218	2	MS	BCD1	05/17/10 13:41	100517-3	964014
7440-62-2	Vanadium	3690	ug/kg		107	536	536	1	P	HSC	04/01/10 09:07	033110B-1	964012
7440-66-6	Zinc	17300	ug/kg		354	1070	1070	1	P	HSC	04/01/10 09:07	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.519	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.51	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.525	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.527	g	50	mL	04/12/10	BXA1

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248860006 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13781 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1260000	ug/kg	N	8150	24000	24000	1	P	HSC	04/01/10 09:09	033110B-1	964012
7440-36-0	Antimony	1200	ug/kg	U	395	1200	1200	1	P	HSC	04/01/10 09:09	033110B-1	964012
7440-38-2	Arsenic	548	ug/kg	J	232	1160	1160	2	MS	BCD1	05/17/10 13:45	100517-3	964014
7440-39-3	Barium	16600	ug/kg		120	599	599	1	P	HSC	04/01/10 09:09	033110B-1	964012
7440-41-7	Beryllium	340	ug/kg		23.2	116	116	2	MS	PRB	05/17/10 20:32	100517-4	964014
7440-43-9	Cadmium	599	ug/kg	U	120	599	599	1	P	HSC	04/01/10 09:09	033110B-1	964012
7440-70-2	Calcium	497000	ug/kg	*	9480	29600	29600	1	P	LS	04/13/10 15:25	041310A-2	974047
7440-47-3	Chromium	114000	ug/kg	*	180	599	599	1	P	HSC	04/01/10 09:09	033110B-1	964012
7440-48-4	Cobalt	1690	ug/kg		180	599	599	1	P	HSC	04/01/10 09:09	033110B-1	964012
7440-50-8	Copper	6300	ug/kg		360	1200	1200	1	P	HSC	04/01/10 09:09	033110B-1	964012
7439-89-6	Iron	6040000	ug/kg		9590	30000	30000	1	P	HSC	04/01/10 09:09	033110B-1	964012
7439-92-1	Lead	23400	ug/kg		300	1200	1200	1	P	HSC	04/01/10 09:09	033110B-1	964012
7439-95-4	Magnesium	226000	ug/kg		10200	36000	36000	1	P	HSC	04/01/10 09:09	033110B-1	964012
7439-96-5	Manganese	254000	ug/kg	N	240	1200	1200	1	P	HSC	04/01/10 09:09	033110B-1	964012
7439-97-6	Mercury	121	ug/kg		5.01	14.7	14.7	1	AV	JXL1	03/24/10 11:04	032410S1-5	968185
7440-02-0	Nickel	1000	ug/kg		116	465	465	2	MS	BCD1	05/17/10 13:45	100517-3	964014
7440-09-7	Potassium	327000	ug/kg	EN	7670	30000	30000	1	P	HSC	04/01/10 09:09	033110B-1	964012
7782-49-2	Selenium	1160	ug/kg	U	581	1160	1160	2	MS	BCD1	05/17/10 13:45	100517-3	964014
7440-22-4	Silver	599	ug/kg	U	120	599	599	1	P	HSC	04/01/10 09:09	033110B-1	964012
7440-23-5	Sodium	262000	ug/kg	N	8390	30000	30000	1	P	HSC	04/01/10 09:09	033110B-1	964012
7440-28-0	Thallium	232	ug/kg	U	69.7	232	232	2	MS	BCD1	05/17/10 13:45	100517-3	964014
7440-62-2	Vanadium	2640	ug/kg		120	599	599	1	P	HSC	04/01/10 09:09	033110B-1	964012
7440-66-6	Zinc	29900	ug/kg		395	1200	1200	1	P	HSC	04/01/10 09:09	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.514	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.53	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.502	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.52	g	50	mL	04/12/10	BXA1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248860007 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13779 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 80

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4020000	ug/kg	N	8410	24700	24700	1	P	HSC	04/01/10 09:11	033110B-1	964012
7440-36-0	Antimony	1240	ug/kg	U	408	1240	1240	1	P	HSC	04/01/10 09:11	033110B-1	964012
7440-38-2	Arsenic	953	ug/kg	J	242	1210	1210	2	MS	BCD1	05/17/10 13:49	100517-3	964014
7440-39-3	Barium	38600	ug/kg		124	619	619	1	P	HSC	04/01/10 09:11	033110B-1	964012
7440-41-7	Beryllium	470	ug/kg		24.2	121	121	2	MS	PRB	05/17/10 20:34	100517-4	964014
7440-43-9	Cadmium	619	ug/kg	U	124	619	619	1	P	HSC	04/01/10 09:11	033110B-1	964012
7440-70-2	Calcium	804000	ug/kg	*	8890	27800	27800	1	P	LS	04/13/10 15:27	041310A-2	974047
7440-47-3	Chromium	4330	ug/kg	*	186	619	619	1	P	HSC	04/01/10 09:11	033110B-1	964012
7440-48-4	Cobalt	1250	ug/kg		186	619	619	1	P	HSC	04/01/10 09:11	033110B-1	964012
7440-50-8	Copper	5300	ug/kg		371	1240	1240	1	P	HSC	04/01/10 09:11	033110B-1	964012
7439-89-6	Iron	6780000	ug/kg		9900	30900	30900	1	P	HSC	04/01/10 09:11	033110B-1	964012
7439-92-1	Lead	7910	ug/kg		309	1240	1240	1	P	HSC	04/01/10 09:11	033110B-1	964012
7439-95-4	Magnesium	475000	ug/kg		10500	37100	37100	1	P	HSC	04/01/10 09:11	033110B-1	964012
7439-96-5	Manganese	198000	ug/kg	N	247	1240	1240	1	P	HSC	04/01/10 09:11	033110B-1	964012
7439-97-6	Mercury	23.6	ug/kg		4.46	13.1	13.1	1	AV	JXL1	03/24/10 11:06	032410S1-5	968185
7440-02-0	Nickel	3310	ug/kg		121	483	483	2	MS	BCD1	05/17/10 13:49	100517-3	964014
7440-09-7	Potassium	381000	ug/kg	EN	7920	30900	30900	1	P	HSC	04/01/10 09:11	033110B-1	964012
7782-49-2	Selenium	1210	ug/kg	U	604	1210	1210	2	MS	BCD1	05/17/10 13:49	100517-3	964014
7440-22-4	Silver	619	ug/kg	U	124	619	619	1	P	HSC	04/01/10 09:11	033110B-1	964012
7440-23-5	Sodium	143000	ug/kg	N	8660	30900	30900	1	P	HSC	04/01/10 09:11	033110B-1	964012
7440-28-0	Thallium	73.2	ug/kg	J	72.5	242	242	2	MS	BCD1	05/17/10 13:49	100517-3	964014
7440-62-2	Vanadium	6050	ug/kg		124	619	619	1	P	HSC	04/01/10 09:11	033110B-1	964012
7440-66-6	Zinc	52600	ug/kg		408	1240	1240	1	P	HSC	04/01/10 09:11	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.502	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.514	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.568	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.559	g	50	mL	04/12/10	BXA1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248860008 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13780 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1150000	ug/kg	N	7590	22300	22300	1	P	HSC	04/01/10 09:13	033110B-1	964012
7440-36-0	Antimony	1120	ug/kg	U	368	1120	1120	1	P	HSC	04/01/10 09:13	033110B-1	964012
7440-38-2	Arsenic	582	ug/kg	J	244	1220	1220	2	MS	BCD1	05/17/10 13:53	100517-3	964014
7440-39-3	Barium	13200	ug/kg		112	558	558	1	P	HSC	04/01/10 09:13	033110B-1	964012
7440-41-7	Beryllium	310	ug/kg		24.4	122	122	2	MS	PRB	05/17/10 20:35	100517-4	964014
7440-43-9	Cadmium	558	ug/kg	U	112	558	558	1	P	HSC	04/01/10 09:13	033110B-1	964012
7440-70-2	Calcium	334000	ug/kg	*	9500	29700	29700	1	P	LS	04/13/10 15:29	041310A-2	974047
7440-47-3	Chromium	16400	ug/kg	*	167	558	558	1	P	HSC	04/01/10 09:13	033110B-1	964012
7440-48-4	Cobalt	800	ug/kg		167	558	558	1	P	HSC	04/01/10 09:13	033110B-1	964012
7440-50-8	Copper	1630	ug/kg		335	1120	1120	1	P	HSC	04/01/10 09:13	033110B-1	964012
7439-89-6	Iron	6600000	ug/kg		8930	27900	27900	1	P	HSC	04/01/10 09:13	033110B-1	964012
7439-92-1	Lead	1430	ug/kg		279	1120	1120	1	P	HSC	04/01/10 09:13	033110B-1	964012
7439-95-4	Magnesium	151000	ug/kg		9480	33500	33500	1	P	HSC	04/01/10 09:13	033110B-1	964012
7439-96-5	Manganese	259000	ug/kg	N	223	1120	1120	1	P	HSC	04/01/10 09:13	033110B-1	964012
7439-97-6	Mercury	12.7	ug/kg	U	4.31	12.7	12.7	1	AV	JXL1	03/24/10 11:08	032410S1-5	968185
7440-02-0	Nickel	2080	ug/kg		122	488	488	2	MS	BCD1	05/17/10 13:53	100517-3	964014
7440-09-7	Potassium	322000	ug/kg	EN	7140	27900	27900	1	P	HSC	04/01/10 09:13	033110B-1	964012
7782-49-2	Selenium	1220	ug/kg	U	610	1220	1220	2	MS	BCD1	05/17/10 13:53	100517-3	964014
7440-22-4	Silver	558	ug/kg	U	112	558	558	1	P	HSC	04/01/10 09:13	033110B-1	964012
7440-23-5	Sodium	228000	ug/kg	N	7810	27900	27900	1	P	HSC	04/01/10 09:13	033110B-1	964012
7440-28-0	Thallium	244	ug/kg	U	73.2	244	244	2	MS	BCD1	05/17/10 13:53	100517-3	964014
7440-62-2	Vanadium	1580	ug/kg		112	558	558	1	P	HSC	04/01/10 09:13	033110B-1	964012
7440-66-6	Zinc	17200	ug/kg		368	1120	1120	1	P	HSC	04/01/10 09:13	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.547	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.5	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.578	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.514	g	50	mL	04/12/10	BXA1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248860009 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13778 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1270000	ug/kg	N	8290	24400	24400	1	P	HSC	04/01/10 09:20	033110B-1	964012
7440-36-0	Antimony	1220	ug/kg	U	402	1220	1220	1	P	HSC	04/01/10 09:20	033110B-1	964012
7440-38-2	Arsenic	377	ug/kg	J	242	1210	1210	2	MS	BCD1	05/17/10 13:57	100517-3	964014
7440-39-3	Barium	22300	ug/kg		122	609	609	1	P	HSC	04/01/10 09:20	033110B-1	964012
7440-41-7	Beryllium	174	ug/kg		24.2	121	121	2	MS	PRB	05/17/10 20:36	100517-4	964014
7440-43-9	Cadmium	609	ug/kg	U	122	609	609	1	P	HSC	04/01/10 09:20	033110B-1	964012
7440-70-2	Calcium	166000	ug/kg	*	9490	29600	29600	1	P	LS	04/13/10 15:36	041310A-2	974047
7440-47-3	Chromium	2390	ug/kg	*	183	609	609	1	P	HSC	04/01/10 09:20	033110B-1	964012
7440-48-4	Cobalt	204	ug/kg	J	183	609	609	1	P	HSC	04/01/10 09:20	033110B-1	964012
7440-50-8	Copper	1610	ug/kg		366	1220	1220	1	P	HSC	04/01/10 09:20	033110B-1	964012
7439-89-6	Iron	7290000	ug/kg		9750	30500	30500	1	P	HSC	04/01/10 09:20	033110B-1	964012
7439-92-1	Lead	2060	ug/kg		305	1220	1220	1	P	HSC	04/01/10 09:20	033110B-1	964012
7439-95-4	Magnesium	98900	ug/kg		10400	36600	36600	1	P	HSC	04/01/10 09:20	033110B-1	964012
7439-96-5	Manganese	178000	ug/kg	N	244	1220	1220	1	P	HSC	04/01/10 09:20	033110B-1	964012
7439-97-6	Mercury	13.6	ug/kg	U	4.62	13.6	13.6	1	AV	JXL1	03/24/10 11:09	032410S1-5	968185
7440-02-0	Nickel	767	ug/kg		121	484	484	2	MS	BCD1	05/17/10 13:57	100517-3	964014
7440-09-7	Potassium	269000	ug/kg	EN	7800	30500	30500	1	P	HSC	04/01/10 09:20	033110B-1	964012
7782-49-2	Selenium	1210	ug/kg	U	604	1210	1210	2	MS	BCD1	05/17/10 13:57	100517-3	964014
7440-22-4	Silver	609	ug/kg	U	122	609	609	1	P	HSC	04/01/10 09:20	033110B-1	964012
7440-23-5	Sodium	209000	ug/kg	N	8530	30500	30500	1	P	HSC	04/01/10 09:20	033110B-1	964012
7440-28-0	Thallium	242	ug/kg	U	72.5	242	242	2	MS	BCD1	05/17/10 13:57	100517-3	964014
7440-62-2	Vanadium	1500	ug/kg		122	609	609	1	P	HSC	04/01/10 09:20	033110B-1	964012
7440-66-6	Zinc	14900	ug/kg		402	1220	1220	1	P	HSC	04/01/10 09:20	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.507	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.511	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.545	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.521	g	50	mL	04/12/10	BXA1

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.12	ug/L	5	ug/L	102.4	90.0 – 110.0	AV	24-MAR-10 09:36	032410S1-5
	Aluminum	5150	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Antimony	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Barium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Cadmium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Chromium	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Cobalt	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Copper	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Lead	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Magnesium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Manganese	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Potassium	2520	ug/L	2500	ug/L	100.7	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Silver	258	ug/L	250	ug/L	103.3	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Sodium	2510	ug/L	2500	ug/L	100.5	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Calcium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	13-APR-10 14:05	041310A-2
	Arsenic	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	17-MAY-10 12:10	100517-3
	Nickel	51.1	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	17-MAY-10 12:10	100517-3
	Selenium	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	17-MAY-10 12:10	100517-3
	Thallium	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	17-MAY-10 12:10	100517-3
	Beryllium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	17-MAY-10 19:19	100517-4
CCV01										
	Mercury	5.03	ug/L	5	ug/L	100.6	80.0 – 120.0	AV	24-MAR-10 09:41	032410S1-5
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Antimony	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Barium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Cadmium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	495	ug/L	500	ug/L	99	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Copper	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Lead	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Magnesium	5130	ug/L	5000	ug/L	102.6	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Manganese	496	ug/L	500	ug/L	99.1	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Potassium	5700	ug/L	5000	ug/L	113.9	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Silver	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Vanadium	496	ug/L	500	ug/L	99.1	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Calcium	5190	ug/L	5000	ug/L	103.7	90.0 - 110.0	P	13-APR-10 14:19	041310A-2
	Arsenic	50.6	ug/L	50	ug/L	101.2	90.0 - 110.0	MS	17-MAY-10 12:30	100517-3
	Nickel	50.9	ug/L	50	ug/L	101.8	90.0 - 110.0	MS	17-MAY-10 12:30	100517-3
	Selenium	50.8	ug/L	50	ug/L	101.6	90.0 - 110.0	MS	17-MAY-10 12:30	100517-3
	Thallium	48.5	ug/L	50	ug/L	96.9	90.0 - 110.0	MS	17-MAY-10 12:30	100517-3
	Beryllium	50.8	ug/L	50	ug/L	101.6	90.0 - 110.0	MS	17-MAY-10 19:27	100517-4
CCV02										
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 - 120.0	AV	24-MAR-10 10:01	032410S1-5
	Aluminum	5000	ug/L	5000	ug/L	100	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Antimony	495	ug/L	500	ug/L	99	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Barium	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Cadmium	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Chromium	490	ug/L	500	ug/L	98	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Cobalt	495	ug/L	500	ug/L	99	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Copper	490	ug/L	500	ug/L	98	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Iron	4950	ug/L	5000	ug/L	99.1	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Lead	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Magnesium	5080	ug/L	5000	ug/L	101.6	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Manganese	495	ug/L	500	ug/L	99	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5070	ug/L	5000	ug/L	101.5	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Silver	493	ug/L	500	ug/L	98.7	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Zinc	490	ug/L	500	ug/L	97.9	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Calcium	5080	ug/L	5000	ug/L	101.6	90.0 - 110.0	P	13-APR-10 14:26	041310A-2
	Arsenic	50	ug/L	50	ug/L	100.1	90.0 - 110.0	MS	17-MAY-10 12:43	100517-3
	Nickel	51.4	ug/L	50	ug/L	102.8	90.0 - 110.0	MS	17-MAY-10 12:43	100517-3
	Selenium	50.5	ug/L	50	ug/L	101	90.0 - 110.0	MS	17-MAY-10 12:43	100517-3
	Thallium	50.5	ug/L	50	ug/L	100.9	90.0 - 110.0	MS	17-MAY-10 12:43	100517-3
	Beryllium	48	ug/L	50	ug/L	96	90.0 - 110.0	MS	17-MAY-10 19:32	100517-4
CCV03										
	Mercury	5.29	ug/L	5	ug/L	105.7	80.0 - 120.0	AV	24-MAR-10 10:21	032410S1-5
	Aluminum	4980	ug/L	5000	ug/L	99.7	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Antimony	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Barium	491	ug/L	500	ug/L	98.3	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Cadmium	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Chromium	490	ug/L	500	ug/L	97.9	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Cobalt	493	ug/L	500	ug/L	98.7	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Copper	490	ug/L	500	ug/L	98	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Iron	4950	ug/L	5000	ug/L	99	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Lead	497	ug/L	500	ug/L	99.3	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Manganese	495	ug/L	500	ug/L	99	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Potassium	4970	ug/L	5000	ug/L	99.4	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Silver	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Vanadium	494	ug/L	500	ug/L	98.7	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Zinc	489	ug/L	500	ug/L	97.9	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Calcium	5070	ug/L	5000	ug/L	101.5	90.0 - 110.0	P	13-APR-10 14:34	041310A-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	50	ug/L	50	ug/L	100.1	90.0 - 110.0	MS	17-MAY-10 13:20	100517-3
	Nickel	49.9	ug/L	50	ug/L	99.7	90.0 - 110.0	MS	17-MAY-10 13:20	100517-3
	Selenium	50.3	ug/L	50	ug/L	100.7	90.0 - 110.0	MS	17-MAY-10 13:20	100517-3
	Thallium	49.5	ug/L	50	ug/L	99.1	90.0 - 110.0	MS	17-MAY-10 13:20	100517-3
	Beryllium	47.7	ug/L	50	ug/L	95.4	90.0 - 110.0	MS	17-MAY-10 19:53	100517-4
CCV04										
	Mercury	4.88	ug/L	5	ug/L	97.6	80.0 - 120.0	AV	24-MAR-10 10:41	032410S1-5
	Aluminum	4980	ug/L	5000	ug/L	99.5	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Antimony	486	ug/L	500	ug/L	97.1	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Barium	488	ug/L	500	ug/L	97.5	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Cadmium	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Chromium	485	ug/L	500	ug/L	97	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Cobalt	490	ug/L	500	ug/L	98	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Copper	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Iron	4880	ug/L	5000	ug/L	97.7	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Lead	490	ug/L	500	ug/L	98	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Magnesium	5000	ug/L	5000	ug/L	100	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Manganese	490	ug/L	500	ug/L	98	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Potassium	4870	ug/L	5000	ug/L	97.5	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Silver	489	ug/L	500	ug/L	97.7	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Sodium	9730	ug/L	10000	ug/L	97.3	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Vanadium	490	ug/L	500	ug/L	97.9	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Zinc	483	ug/L	500	ug/L	96.7	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Calcium	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	13-APR-10 15:11	041310A-2
	Arsenic	49.2	ug/L	50	ug/L	98.3	90.0 - 110.0	MS	17-MAY-10 14:10	100517-3
	Nickel	49.9	ug/L	50	ug/L	99.8	90.0 - 110.0	MS	17-MAY-10 14:10	100517-3
	Selenium	50.9	ug/L	50	ug/L	101.7	90.0 - 110.0	MS	17-MAY-10 14:10	100517-3
	Thallium	51.3	ug/L	50	ug/L	102.5	90.0 - 110.0	MS	17-MAY-10 14:10	100517-3
	Beryllium	48.7	ug/L	50	ug/L	97.5	90.0 - 110.0	MS	17-MAY-10 20:11	100517-4

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV05										
	Mercury	5.19	ug/L	5	ug/L	103.7	80.0 - 120.0	AV	24-MAR-10 11:01	032410S1-5
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Antimony	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Barium	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Cadmium	491	ug/L	500	ug/L	98.1	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Chromium	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Copper	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Iron	4910	ug/L	5000	ug/L	98.3	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Lead	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Magnesium	5050	ug/L	5000	ug/L	101.1	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Manganese	491	ug/L	500	ug/L	98.3	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Potassium	4920	ug/L	5000	ug/L	98.3	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Silver	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Sodium	9760	ug/L	10000	ug/L	97.6	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Vanadium	490	ug/L	500	ug/L	98	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Zinc	487	ug/L	500	ug/L	97.5	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 - 110.0	P	13-APR-10 15:31	041310A-2
	Beryllium	49.9	ug/L	50	ug/L	99.8	90.0 - 110.0	MS	17-MAY-10 20:29	100517-4
CCV06										
	Mercury	5.2	ug/L	5	ug/L	104	80.0 - 120.0	AV	24-MAR-10 11:21	032410S1-5
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Antimony	484	ug/L	500	ug/L	96.7	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Barium	485	ug/L	500	ug/L	96.9	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Cadmium	483	ug/L	500	ug/L	96.5	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Chromium	483	ug/L	500	ug/L	96.5	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Copper	483	ug/L	500	ug/L	96.5	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Iron	4860	ug/L	5000	ug/L	97.3	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Lead	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Manganese	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Potassium	4860	ug/L	5000	ug/L	97.1	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Silver	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Sodium	9750	ug/L	10000	ug/L	97.5	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Vanadium	487	ug/L	500	ug/L	97.5	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Zinc	481	ug/L	500	ug/L	96.1	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Calcium	5100	ug/L	5000	ug/L	101.9	90.0 - 110.0	P	13-APR-10 15:49	041310A-2
	Beryllium	51.7	ug/L	50	ug/L	103.3	90.0 - 110.0	MS	17-MAY-10 20:43	100517-4
CCV07										
	Mercury	5.11	ug/L	5	ug/L	102.2	80.0 - 120.0	AV	24-MAR-10 11:41	032410S1-5
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 - 110.0	P	31-MAR-10 21:16	033110B-1
	Antimony	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	31-MAR-10 21:16	033110B-1
	Barium	485	ug/L	500	ug/L	97	90.0 - 110.0	P	31-MAR-10 21:16	033110B-1
	Cadmium	482	ug/L	500	ug/L	96.4	90.0 - 110.0	P	31-MAR-10 21:16	033110B-1
	Chromium	483	ug/L	500	ug/L	96.6	90.0 - 110.0	P	31-MAR-10 21:16	033110B-1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	31-MAR-10 21:16	033110B-1
	Copper	484	ug/L	500	ug/L	96.7	90.0 - 110.0	P	31-MAR-10 21:16	033110B-1
	Iron	4860	ug/L	5000	ug/L	97.1	90.0 - 110.0	P	31-MAR-10 21:16	033110B-1
	Lead	490	ug/L	500	ug/L	98	90.0 - 110.0	P	31-MAR-10 21:16	033110B-1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 - 110.0	P	31-MAR-10 21:16	033110B-1
	Manganese	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	31-MAR-10 21:16	033110B-1
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 - 110.0	P	31-MAR-10 21:16	033110B-1
	Silver	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	31-MAR-10 21:16	033110B-1
	Sodium	9770	ug/L	10000	ug/L	97.7	90.0 - 110.0	P	31-MAR-10 21:16	033110B-1
	Vanadium	487	ug/L	500	ug/L	97.3	90.0 - 110.0	P	31-MAR-10 21:16	033110B-1
	Zinc	480	ug/L	500	ug/L	96	90.0 - 110.0	P	31-MAR-10 21:16	033110B-1
CCV08										
	Aluminum	4980	ug/L	5000	ug/L	99.6	90.0 - 110.0	P	31-MAR-10 21:39	033110B-1
	Antimony	487	ug/L	500	ug/L	97.3	90.0 - 110.0	P	31-MAR-10 21:39	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Cadmium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Chromium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Cobalt	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Copper	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Iron	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Manganese	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Potassium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Silver	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Sodium	9710	ug/L	10000	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Vanadium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Zinc	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
CCV09										
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Antimony	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Barium	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Cadmium	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Chromium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Cobalt	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Iron	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Lead	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Magnesium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Manganese	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Potassium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Silver	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Sodium	9660	ug/L	10000	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Vanadium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	477	ug/L	500	ug/L	95.3	90.0 - 110.0	P	31-MAR-10 21:55	033110B-1
CCV10										
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Antimony	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Barium	480	ug/L	500	ug/L	96	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Cadmium	477	ug/L	500	ug/L	95.4	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Chromium	476	ug/L	500	ug/L	95.3	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Cobalt	481	ug/L	500	ug/L	96.2	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Copper	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Iron	4830	ug/L	5000	ug/L	96.6	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Lead	482	ug/L	500	ug/L	96.4	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Magnesium	4920	ug/L	5000	ug/L	98.5	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Manganese	482	ug/L	500	ug/L	96.5	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Silver	481	ug/L	500	ug/L	96.2	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Sodium	9610	ug/L	10000	ug/L	96.1	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Vanadium	482	ug/L	500	ug/L	96.4	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Zinc	476	ug/L	500	ug/L	95.3	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
CCV11										
	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Antimony	476	ug/L	500	ug/L	95.2	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Barium	478	ug/L	500	ug/L	95.6	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Cadmium	473	ug/L	500	ug/L	94.7	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Chromium	474	ug/L	500	ug/L	94.7	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Cobalt	477	ug/L	500	ug/L	95.4	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Copper	477	ug/L	500	ug/L	95.5	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Iron	4800	ug/L	5000	ug/L	96.1	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Lead	478	ug/L	500	ug/L	95.7	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Magnesium	4890	ug/L	5000	ug/L	97.9	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Manganese	480	ug/L	500	ug/L	95.9	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	4800	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Silver	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Sodium	9560	ug/L	10000	ug/L	95.6	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Vanadium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Zinc	472	ug/L	500	ug/L	94.5	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
CCV12										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Antimony	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Barium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Cadmium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Chromium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Cobalt	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Copper	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Lead	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Magnesium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Manganese	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Silver	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Sodium	9590	ug/L	10000	ug/L	95.9	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Vanadium	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Zinc	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
CCV13										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Antimony	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Cadmium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Chromium	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Lead	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Magnesium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Manganese	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Potassium	4800	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Silver	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Sodium	9620	ug/L	10000	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Vanadium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Zinc	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
CCV14										
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Antimony	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Barium	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Cadmium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Chromium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Copper	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Lead	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Magnesium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Manganese	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Potassium	4790	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Silver	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Sodium	9600	ug/L	10000	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Vanadium	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Zinc	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
CCV15										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Antimony	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Barium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 00:02	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Chromium	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Cobalt	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Iron	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Lead	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Magnesium	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Manganese	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Silver	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Sodium	9580	ug/L	10000	ug/L	95.8	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Vanadium	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Zinc	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
CCV16										
	Aluminum	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Antimony	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Barium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Cadmium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Chromium	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Cobalt	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Lead	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Magnesium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Manganese	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Potassium	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Silver	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Sodium	9650	ug/L	10000	ug/L	96.5	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Vanadium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Zinc	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01–APR–10 00:18	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV17										
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Antimony	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Barium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Cadmium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Chromium	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Cobalt	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Copper	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Iron	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Lead	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Magnesium	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Manganese	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Potassium	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Silver	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Sodium	9630	ug/L	10000	ug/L	96.3	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Vanadium	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
	Zinc	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	01-APR-10 00:42	033110B-1
CCV18										
	Aluminum	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Antimony	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Cadmium	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Chromium	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Cobalt	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Copper	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Lead	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Magnesium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Manganese	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Potassium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Silver	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 01:06	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	9660	ug/L	10000	ug/L	96.6	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Vanadium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
	Zinc	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01-APR-10 01:06	033110B-1
CCV19										
	Aluminum	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Antimony	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Barium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Cadmium	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Chromium	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Cobalt	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Iron	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Lead	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Magnesium	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Manganese	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Potassium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Silver	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Sodium	9650	ug/L	10000	ug/L	96.5	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Vanadium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
	Zinc	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01-APR-10 01:30	033110B-1
CCV20										
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Antimony	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Barium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Cadmium	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Chromium	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Copper	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Iron	4810	ug/L	5000	ug/L	96.3	90.0 – 110.0	P	01-APR-10 01:53	033110B-1
	Lead	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	01-APR-10 01:53	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	4930	ug/L	5000	ug/L	98.7	90.0 - 110.0	P	01-APR-10 01:53	033110B-1
	Manganese	481	ug/L	500	ug/L	96.2	90.0 - 110.0	P	01-APR-10 01:53	033110B-1
	Potassium	4920	ug/L	5000	ug/L	98.4	90.0 - 110.0	P	01-APR-10 01:53	033110B-1
	Silver	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	01-APR-10 01:53	033110B-1
	Sodium	9700	ug/L	10000	ug/L	97	90.0 - 110.0	P	01-APR-10 01:53	033110B-1
	Vanadium	481	ug/L	500	ug/L	96.2	90.0 - 110.0	P	01-APR-10 01:53	033110B-1
	Zinc	474	ug/L	500	ug/L	94.9	90.0 - 110.0	P	01-APR-10 01:53	033110B-1
CCV21										
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 - 110.0	P	01-APR-10 02:19	033110B-1
	Antimony	476	ug/L	500	ug/L	95.2	90.0 - 110.0	P	01-APR-10 02:19	033110B-1
	Barium	477	ug/L	500	ug/L	95.4	90.0 - 110.0	P	01-APR-10 02:19	033110B-1
	Cadmium	473	ug/L	500	ug/L	94.6	90.0 - 110.0	P	01-APR-10 02:19	033110B-1
	Chromium	473	ug/L	500	ug/L	94.5	90.0 - 110.0	P	01-APR-10 02:19	033110B-1
	Cobalt	477	ug/L	500	ug/L	95.5	90.0 - 110.0	P	01-APR-10 02:19	033110B-1
	Copper	475	ug/L	500	ug/L	95	90.0 - 110.0	P	01-APR-10 02:19	033110B-1
	Iron	4780	ug/L	5000	ug/L	95.6	90.0 - 110.0	P	01-APR-10 02:19	033110B-1
	Lead	478	ug/L	500	ug/L	95.7	90.0 - 110.0	P	01-APR-10 02:19	033110B-1
	Magnesium	4920	ug/L	5000	ug/L	98.4	90.0 - 110.0	P	01-APR-10 02:19	033110B-1
	Manganese	478	ug/L	500	ug/L	95.7	90.0 - 110.0	P	01-APR-10 02:19	033110B-1
	Potassium	4970	ug/L	5000	ug/L	99.5	90.0 - 110.0	P	01-APR-10 02:19	033110B-1
	Silver	477	ug/L	500	ug/L	95.4	90.0 - 110.0	P	01-APR-10 02:19	033110B-1
	Sodium	9830	ug/L	10000	ug/L	98.3	90.0 - 110.0	P	01-APR-10 02:19	033110B-1
	Vanadium	480	ug/L	500	ug/L	96	90.0 - 110.0	P	01-APR-10 02:19	033110B-1
	Zinc	471	ug/L	500	ug/L	94.2	90.0 - 110.0	P	01-APR-10 02:19	033110B-1
CCV22										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 - 110.0	P	01-APR-10 02:47	033110B-1
	Antimony	475	ug/L	500	ug/L	95	90.0 - 110.0	P	01-APR-10 02:47	033110B-1
	Barium	476	ug/L	500	ug/L	95.3	90.0 - 110.0	P	01-APR-10 02:47	033110B-1
	Cadmium	472	ug/L	500	ug/L	94.4	90.0 - 110.0	P	01-APR-10 02:47	033110B-1
	Chromium	472	ug/L	500	ug/L	94.4	90.0 - 110.0	P	01-APR-10 02:47	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Iron	4780	ug/L	5000	ug/L	95.5	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Lead	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Magnesium	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Manganese	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Potassium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Silver	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Sodium	11600	ug/L	10000	ug/L	115.7	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Vanadium	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Zinc	470	ug/L	500	ug/L	94.1	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
CCV23										
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Antimony	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Barium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Cadmium	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Chromium	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Cobalt	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Iron	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Lead	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Magnesium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Manganese	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Potassium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Silver	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Sodium	10300	ug/L	10000	ug/L	102.8	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Vanadium	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
	Zinc	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	01–APR–10 03:13	033110B–1
CCV24										
	Aluminum	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	01–APR–10 04:39	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Barium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Cadmium	475	ug/L	500	ug/L	95	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Chromium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Cobalt	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Iron	4790	ug/L	5000	ug/L	95.8	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Lead	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Magnesium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Manganese	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Potassium	4810	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Silver	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Vanadium	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
	Zinc	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	01-APR-10 04:39	033110B-1
CCV25										
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
	Antimony	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
	Barium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
	Cadmium	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
	Chromium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
	Cobalt	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
	Copper	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
	Iron	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
	Lead	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
	Magnesium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
	Manganese	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
	Potassium	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
	Silver	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01-APR-10 05:03	033110B-1
	Sodium	9800	ug/L	10000	ug/L	98	90.0 – 110.0	P	01-APR-10 05:03	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	481	ug/L	500	ug/L	96.1	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
	Zinc	473	ug/L	500	ug/L	94.7	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
CCV26										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Antimony	474	ug/L	500	ug/L	94.8	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Barium	477	ug/L	500	ug/L	95.5	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Cadmium	476	ug/L	500	ug/L	95.1	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Chromium	474	ug/L	500	ug/L	94.7	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Cobalt	480	ug/L	500	ug/L	96	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Copper	477	ug/L	500	ug/L	95.4	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Iron	4810	ug/L	5000	ug/L	96.1	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Lead	478	ug/L	500	ug/L	95.7	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Magnesium	4880	ug/L	5000	ug/L	97.6	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Manganese	480	ug/L	500	ug/L	96	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Potassium	4910	ug/L	5000	ug/L	98.2	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Silver	476	ug/L	500	ug/L	95.2	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Sodium	9780	ug/L	10000	ug/L	97.8	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Vanadium	480	ug/L	500	ug/L	96	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Zinc	473	ug/L	500	ug/L	94.7	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
CCV27										
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 - 110.0	P	01-APR-10 05:48	033110B-1
	Antimony	478	ug/L	500	ug/L	95.5	90.0 - 110.0	P	01-APR-10 05:48	033110B-1
	Barium	477	ug/L	500	ug/L	95.3	90.0 - 110.0	P	01-APR-10 05:48	033110B-1
	Cadmium	474	ug/L	500	ug/L	94.8	90.0 - 110.0	P	01-APR-10 05:48	033110B-1
	Chromium	473	ug/L	500	ug/L	94.6	90.0 - 110.0	P	01-APR-10 05:48	033110B-1
	Cobalt	480	ug/L	500	ug/L	95.9	90.0 - 110.0	P	01-APR-10 05:48	033110B-1
	Copper	477	ug/L	500	ug/L	95.3	90.0 - 110.0	P	01-APR-10 05:48	033110B-1
	Iron	4800	ug/L	5000	ug/L	96.1	90.0 - 110.0	P	01-APR-10 05:48	033110B-1
	Lead	482	ug/L	500	ug/L	96.5	90.0 - 110.0	P	01-APR-10 05:48	033110B-1
	Magnesium	4870	ug/L	5000	ug/L	97.5	90.0 - 110.0	P	01-APR-10 05:48	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Potassium	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Silver	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Sodium	9740	ug/L	10000	ug/L	97.4	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Vanadium	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Zinc	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
CCV28										
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Antimony	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Barium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Cadmium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Chromium	475	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Cobalt	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Iron	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Lead	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Magnesium	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Manganese	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Potassium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Silver	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Sodium	9740	ug/L	10000	ug/L	97.4	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Vanadium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Zinc	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
CCV29										
	Aluminum	4810	ug/L	5000	ug/L	96.3	90.0 – 110.0	P	01-APR-10 06:27	033110B-1
	Antimony	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	01-APR-10 06:27	033110B-1
	Barium	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	01-APR-10 06:27	033110B-1
	Cadmium	463	ug/L	500	ug/L	92.7	90.0 – 110.0	P	01-APR-10 06:27	033110B-1
	Chromium	463	ug/L	500	ug/L	92.6	90.0 – 110.0	P	01-APR-10 06:27	033110B-1
	Cobalt	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	01-APR-10 06:27	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	467	ug/L	500	ug/L	93.5	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
	Iron	4690	ug/L	5000	ug/L	93.7	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
	Lead	470	ug/L	500	ug/L	94	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
	Magnesium	4780	ug/L	5000	ug/L	95.5	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
	Manganese	469	ug/L	500	ug/L	93.8	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
	Potassium	4760	ug/L	5000	ug/L	95.3	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
	Silver	466	ug/L	500	ug/L	93.1	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
	Sodium	9490	ug/L	10000	ug/L	94.9	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
	Vanadium	470	ug/L	500	ug/L	94	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
	Zinc	461	ug/L	500	ug/L	92.2	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
CCV30										
	Aluminum	4860	ug/L	5000	ug/L	97.2	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Antimony	460	ug/L	500	ug/L	92.1	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Barium	468	ug/L	500	ug/L	93.6	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Cadmium	465	ug/L	500	ug/L	93	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Chromium	464	ug/L	500	ug/L	92.8	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Cobalt	470	ug/L	500	ug/L	94	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Copper	468	ug/L	500	ug/L	93.5	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Iron	4730	ug/L	5000	ug/L	94.5	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Lead	466	ug/L	500	ug/L	93.2	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Magnesium	4820	ug/L	5000	ug/L	96.3	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Manganese	471	ug/L	500	ug/L	94.1	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Potassium	4830	ug/L	5000	ug/L	96.5	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Silver	466	ug/L	500	ug/L	93.3	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Sodium	9560	ug/L	10000	ug/L	95.6	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Vanadium	471	ug/L	500	ug/L	94.2	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Zinc	461	ug/L	500	ug/L	92.3	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
CCV31										
	Aluminum	4870	ug/L	5000	ug/L	97.3	90.0 - 110.0	P	01-APR-10 07:15	033110B-1
	Antimony	458	ug/L	500	ug/L	91.6	90.0 - 110.0	P	01-APR-10 07:15	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Cadmium	462	ug/L	500	ug/L	92.4	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Chromium	462	ug/L	500	ug/L	92.4	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Cobalt	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Copper	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Iron	4710	ug/L	5000	ug/L	94.2	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Lead	465	ug/L	500	ug/L	93	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Magnesium	4770	ug/L	5000	ug/L	95.4	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Manganese	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Potassium	4840	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Silver	464	ug/L	500	ug/L	92.9	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Sodium	9480	ug/L	10000	ug/L	94.8	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Vanadium	469	ug/L	500	ug/L	93.9	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Zinc	459	ug/L	500	ug/L	91.7	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
CCV32										
	Aluminum	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Antimony	461	ug/L	500	ug/L	92.1	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Barium	469	ug/L	500	ug/L	93.7	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Cadmium	464	ug/L	500	ug/L	92.8	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Chromium	464	ug/L	500	ug/L	92.8	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Cobalt	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Copper	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Iron	4710	ug/L	5000	ug/L	94.2	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Lead	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Magnesium	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Manganese	470	ug/L	500	ug/L	93.9	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Potassium	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Silver	466	ug/L	500	ug/L	93.1	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Sodium	9500	ug/L	10000	ug/L	95	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Vanadium	470	ug/L	500	ug/L	94	90.0 – 110.0	P	01-APR-10 07:36	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	460	ug/L	500	ug/L	92.1	90.0 – 110.0	P	01–APR–10 07:36	033110B–1
CCV33										
	Aluminum	4900	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Antimony	460	ug/L	500	ug/L	92	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Barium	468	ug/L	500	ug/L	93.5	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Cadmium	461	ug/L	500	ug/L	92.2	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Chromium	462	ug/L	500	ug/L	92.5	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Cobalt	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Copper	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Iron	4730	ug/L	5000	ug/L	94.5	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Lead	464	ug/L	500	ug/L	92.7	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Magnesium	4790	ug/L	5000	ug/L	95.8	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Manganese	469	ug/L	500	ug/L	93.9	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Potassium	4850	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Silver	465	ug/L	500	ug/L	93	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Sodium	9530	ug/L	10000	ug/L	95.3	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Vanadium	471	ug/L	500	ug/L	94.1	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Zinc	458	ug/L	500	ug/L	91.6	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
CCV34										
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Antimony	465	ug/L	500	ug/L	92.9	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Barium	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Cadmium	462	ug/L	500	ug/L	92.5	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Chromium	463	ug/L	500	ug/L	92.6	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Cobalt	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Copper	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Iron	4750	ug/L	5000	ug/L	95.1	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Lead	468	ug/L	500	ug/L	93.5	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Magnesium	4770	ug/L	5000	ug/L	95.4	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Manganese	470	ug/L	500	ug/L	93.9	90.0 – 110.0	P	01–APR–10 08:22	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Silver	465	ug/L	500	ug/L	93	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Sodium	9510	ug/L	10000	ug/L	95.1	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Vanadium	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Zinc	459	ug/L	500	ug/L	91.8	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
CCV35										
	Aluminum	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Antimony	463	ug/L	500	ug/L	92.5	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Barium	470	ug/L	500	ug/L	94	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Cadmium	464	ug/L	500	ug/L	92.9	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Chromium	465	ug/L	500	ug/L	92.9	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Cobalt	470	ug/L	500	ug/L	94	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Copper	470	ug/L	500	ug/L	93.9	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Iron	4730	ug/L	5000	ug/L	94.6	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Lead	469	ug/L	500	ug/L	93.8	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Magnesium	4850	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Manganese	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Potassium	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Silver	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Sodium	9550	ug/L	10000	ug/L	95.5	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Vanadium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Zinc	461	ug/L	500	ug/L	92.3	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
CCV36										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Antimony	462	ug/L	500	ug/L	92.3	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Barium	469	ug/L	500	ug/L	93.8	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Cadmium	464	ug/L	500	ug/L	92.8	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Chromium	465	ug/L	500	ug/L	93.1	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Cobalt	469	ug/L	500	ug/L	93.7	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Copper	469	ug/L	500	ug/L	93.8	90.0 – 110.0	P	01–APR–10 09:15	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	4740	ug/L	5000	ug/L	94.8	90.0 - 110.0	P	01-APR-10 09:15	033110B-1
	Lead	467	ug/L	500	ug/L	93.4	90.0 - 110.0	P	01-APR-10 09:15	033110B-1
	Magnesium	4830	ug/L	5000	ug/L	96.6	90.0 - 110.0	P	01-APR-10 09:15	033110B-1
	Manganese	470	ug/L	500	ug/L	94	90.0 - 110.0	P	01-APR-10 09:15	033110B-1
	Potassium	4840	ug/L	5000	ug/L	96.9	90.0 - 110.0	P	01-APR-10 09:15	033110B-1
	Silver	466	ug/L	500	ug/L	93.3	90.0 - 110.0	P	01-APR-10 09:15	033110B-1
	Sodium	9530	ug/L	10000	ug/L	95.3	90.0 - 110.0	P	01-APR-10 09:15	033110B-1
	Vanadium	472	ug/L	500	ug/L	94.4	90.0 - 110.0	P	01-APR-10 09:15	033110B-1
	Zinc	461	ug/L	500	ug/L	92.2	90.0 - 110.0	P	01-APR-10 09:15	033110B-1
CCV37										
	Aluminum	4840	ug/L	5000	ug/L	96.9	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Antimony	455	ug/L	500	ug/L	91.1	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Barium	462	ug/L	500	ug/L	92.4	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Cadmium	457	ug/L	500	ug/L	91.5	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Chromium	457	ug/L	500	ug/L	91.5	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Cobalt	461	ug/L	500	ug/L	92.3	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Copper	462	ug/L	500	ug/L	92.4	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Iron	4670	ug/L	5000	ug/L	93.4	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Lead	461	ug/L	500	ug/L	92.2	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Magnesium	4750	ug/L	5000	ug/L	95	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Manganese	464	ug/L	500	ug/L	92.7	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Potassium	4760	ug/L	5000	ug/L	95.1	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Silver	460	ug/L	500	ug/L	92	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Sodium	9410	ug/L	10000	ug/L	94.1	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Vanadium	465	ug/L	500	ug/L	93	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Zinc	454	ug/L	500	ug/L	90.7	90.0 - 110.0	P	01-APR-10 09:32	033110B-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.129	ug/L	.2	ug/L	64.5	70.0 – 130.0	AV	24-MAR-10 09:39	032410S1-5
	Nickel	2.4	ug/L	2	ug/L	119.8	70.0 – 130.0	MS	17-MAY-10 12:18	100517-3
	Thallium	1.25	ug/L	1	ug/L	124.7	70.0 – 130.0	MS	17-MAY-10 12:18	100517-3
	Selenium	5.94	ug/L	5	ug/L	118.9	70.0 – 130.0	MS	17-MAY-10 12:18	100517-3
	Arsenic	6.42	ug/L	5	ug/L	128.4	70.0 – 130.0	MS	17-MAY-10 12:18	100517-3
	Beryllium	.574	ug/L	.5	ug/L	114.8	70.0 – 130.0	MS	17-MAY-10 19:22	100517-4
PQL01										
	Vanadium	4.74	ug/L	5	ug/L	94.8	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Manganese	10.3	ug/L	10	ug/L	103.1	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Silver	4.61	ug/L	5	ug/L	92.3	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Copper	10	ug/L	10	ug/L	100	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Cobalt	5.18	ug/L	5	ug/L	103.6	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Chromium	4.91	ug/L	5	ug/L	98.3	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Cadmium	5.05	ug/L	5	ug/L	101	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Barium	4.99	ug/L	5	ug/L	99.9	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Antimony	9.66	ug/L	10	ug/L	96.6	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Sodium	280	ug/L	300	ug/L	93.3	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Potassium	150	ug/L	150	ug/L	99.9	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Magnesium	311	ug/L	300	ug/L	103.7	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Zinc	10.1	ug/L	10	ug/L	101	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Aluminum	204	ug/L	200	ug/L	101.9	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Lead	11.2	ug/L	10	ug/L	112	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Iron	102	ug/L	100	ug/L	102.4	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Calcium	209	ug/L	200	ug/L	104.7	70.0 – 130.0	P	13-APR-10 14:10	041310A-2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	–0.078	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 09:37	032410S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 18:48	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 18:48	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 18:48	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 18:48	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 18:48	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	13–APR–10 14:07	041310A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	17–MAY–10 12:14	100517–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–MAY–10 12:14	100517–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	17–MAY–10 12:14	100517–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	17–MAY–10 12:14	100517–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–MAY–10 19:21	100517–4
CCB01										
	Mercury	–0.081	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 09:42	032410S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:01	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:01	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 19:01	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 19:01	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 19:01	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 19:01	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 19:01	033110B-1
	Potassium	298.29	+/-250		64.0	250	SOL	P	31-MAR-10 19:01	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:01	033110B-1
	Sodium	140.13	+/-250	J	70.0	250	SOL	P	31-MAR-10 19:01	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:01	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 19:01	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	13-APR-10 14:21	041310A-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	17-MAY-10 12:35	100517-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	17-MAY-10 12:35	100517-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	17-MAY-10 12:35	100517-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	17-MAY-10 12:35	100517-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	17-MAY-10 19:29	100517-4
CCB02										
	Mercury	-0.081	+/-.2	J	0.068	0.2	SOL	AV	24-MAR-10 10:02	032410S1-5
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 19:08	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 19:08	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:08	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:08	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 19:08	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 19:08	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 19:08	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 19:08	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 19:08	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 19:08	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 19:08	033110B-1
	Potassium	98.66	+/-250	J	64.0	250	SOL	P	31-MAR-10 19:08	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:08	033110B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 19:08	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	13–APR–10 14:28	041310A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	17–MAY–10 12:47	100517–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–MAY–10 12:47	100517–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	17–MAY–10 12:47	100517–3
	Thallium	0.4	+/–1	J	0.3	1.0	SOL	MS	17–MAY–10 12:47	100517–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–MAY–10 19:34	100517–4
CCB03										
	Mercury	–0.077	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 10:22	032410S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:29	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:29	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:29	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 19:29	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 19:29	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	13–APR–10 14:36	041310A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	17–MAY–10 13:24	100517–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–MAY–10 13:24	100517–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	17–MAY–10 13:24	100517–3

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	17–MAY–10 13:24	100517–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–MAY–10 19:54	100517–4
CCB04										
	Mercury	–0.083	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 10:42	032410S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:50	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:50	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	13–APR–10 15:14	041310A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	17–MAY–10 14:14	100517–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–MAY–10 14:14	100517–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	17–MAY–10 14:14	100517–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	17–MAY–10 14:14	100517–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–MAY–10 20:13	100517–4
CCB05										
	Mercury	–0.084	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 11:03	032410S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 20:21	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 20:21	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Silver	–1.07	+/–5	J	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	13–APR–10 15:33	041310A–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–MAY–10 20:30	100517–4
CCB06										
	Mercury	–0.09	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 11:23	032410S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 20:48	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 20:48	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 20:48	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 20:48	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 20:48	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	13-APR-10 15:51	041310A-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	17-MAY-10 20:45	100517-4
CCB07										
	Mercury	-0.088	+/-.2	J	0.068	0.2	SOL	AV	24-MAR-10 11:43	032410S1-5
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 21:18	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 21:18	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 21:18	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 21:18	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 21:18	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 21:18	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 21:18	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 21:18	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 21:18	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 21:18	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 21:18	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 21:18	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 21:18	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 21:18	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 21:18	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 21:18	033110B-1
CCB08										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 21:41	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 21:41	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 21:41	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 21:41	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 21:41	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 21:41	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 21:41	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 21:41	033110B-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 21:41	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 21:41	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 21:41	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:41	033110B–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 21:57	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 21:57	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:57	033110B–1
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 22:14	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:14	033110B–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 22:14	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 22:14	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 22:14	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 22:14	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 22:14	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 22:14	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 22:14	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 22:14	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 22:14	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 22:14	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 22:14	033110B-1
CCB11										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 22:37	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 22:37	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 22:37	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 22:37	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 22:37	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 22:37	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 22:37	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 22:37	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 22:37	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 22:37	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 22:37	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 22:37	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 22:37	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 22:37	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 22:37	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 22:37	033110B-1
CCB12										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 22:58	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 22:58	033110B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 22:58	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:58	033110B–1
CCB13										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 23:20	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 23:20	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 23:20	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 23:20	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 23:20	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 23:20	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB14										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 23:46	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 23:46	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 23:46	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 23:46	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 23:46	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 23:46	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 23:46	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 23:46	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 23:46	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 23:46	033110B–1
CCB15										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 00:04	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 00:04	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:04	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:04	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 00:04	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 00:04	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 00:04	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 00:04	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 00:04	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 00:04	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 00:04	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–APR–10 00:04	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:04	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 00:04	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:04	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 00:04	033110B–1
CCB16										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 00:20	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 00:20	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:20	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:20	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 00:20	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 00:20	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 00:20	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 00:20	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 00:20	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 00:20	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 00:20	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–APR–10 00:20	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:20	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 00:20	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:20	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 00:20	033110B–1
CCB17										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 00:45	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 00:45	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:45	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:45	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 00:45	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 00:45	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 00:45	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 00:45	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 00:45	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 00:45	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 00:45	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	130.01	+/–250	J	64.0	250	SOL	P	01–APR–10 00:45	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:45	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 00:45	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:45	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 00:45	033110B–1
CCB18										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 01:09	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 01:09	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:09	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:09	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 01:09	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 01:09	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 01:09	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 01:09	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 01:09	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 01:09	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 01:09	033110B–1
	Potassium	195.24	+/–250	J	64.0	250	SOL	P	01–APR–10 01:09	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:09	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 01:09	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:09	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 01:09	033110B–1
CCB19										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 01:32	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 01:32	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:32	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:32	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 01:32	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 01:32	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 01:32	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 01:32	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 01:32	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 01:32	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 01:32	033110B–1
	Potassium	168.28	+/–250	J	64.0	250	SOL	P	01–APR–10 01:32	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:32	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 01:32	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:32	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 01:32	033110B–1
CCB20										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 01:55	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 01:55	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:55	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:55	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 01:55	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 01:55	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 01:55	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 01:55	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 01:55	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 01:55	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 01:55	033110B–1
	Potassium	90.72	+/–250	J	64.0	250	SOL	P	01–APR–10 01:55	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:55	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 01:55	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:55	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 01:55	033110B–1
CCB21										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 02:21	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 02:21	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:21	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:21	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 02:21	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 02:21	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 02:21	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 02:21	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 02:21	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 02:21	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 02:21	033110B–1
	Potassium	135.28	+/–250	J	64.0	250	SOL	P	01–APR–10 02:21	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:21	033110B–1
	Sodium	101.82	+/–250	J	70.0	250	SOL	P	01–APR–10 02:21	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:21	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 02:21	033110B–1
CCB22										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 02:49	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 02:49	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:49	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:49	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 02:49	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 02:49	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 02:49	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 02:49	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 02:49	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 02:49	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 02:49	033110B–1
	Potassium	180.17	+/–250	J	64.0	250	SOL	P	01–APR–10 02:49	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:49	033110B–1
	Sodium	1333.6	+/–250		70.0	250	SOL	P	01–APR–10 02:49	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:49	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 02:49	033110B–1
CCB23										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 03:15	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 03:15	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 03:15	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 03:15	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 03:15	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 03:15	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 03:15	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 03:15	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 03:15	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 03:15	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 03:15	033110B–1
	Potassium	79.28	+/–250	J	64.0	250	SOL	P	01–APR–10 03:15	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 03:15	033110B–1
	Sodium	570.33	+/–250		70.0	250	SOL	P	01–APR–10 03:15	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 03:15	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 03:15	033110B–1
CCB24										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 04:41	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 04:41	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 04:41	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 04:41	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 04:41	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 04:41	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 04:41	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 04:41	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 04:41	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 04:41	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 04:41	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–APR–10 04:41	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 04:41	033110B–1
	Sodium	192.35	+/–250	J	70.0	250	SOL	P	01–APR–10 04:41	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 04:41	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 04:41	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB25										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 05:05	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 05:05	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:05	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:05	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 05:05	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 05:05	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 05:05	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 05:05	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 05:05	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 05:05	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 05:05	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–APR–10 05:05	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:05	033110B–1
	Sodium	165.15	+/–250	J	70.0	250	SOL	P	01–APR–10 05:05	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:05	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 05:05	033110B–1
CCB26										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 05:27	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 05:27	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:27	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:27	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 05:27	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 05:27	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 05:27	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 05:27	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 05:27	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 05:27	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 05:27	033110B–1
	Potassium	94.5	+/–250	J	64.0	250	SOL	P	01–APR–10 05:27	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:27	033110B–1
	Sodium	132.11	+/–250	J	70.0	250	SOL	P	01–APR–10 05:27	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:27	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 05:27	033110B–1
CCB27										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 05:51	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 05:51	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:51	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:51	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 05:51	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 05:51	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 05:51	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 05:51	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 05:51	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 05:51	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 05:51	033110B–1
	Potassium	118.7	+/–250	J	64.0	250	SOL	P	01–APR–10 05:51	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:51	033110B–1
	Sodium	102.83	+/–250	J	70.0	250	SOL	P	01–APR–10 05:51	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:51	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 05:51	033110B–1
CCB28										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 06:06	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 06:06	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:06	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:06	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 06:06	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 06:06	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 06:06	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 06:06	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 06:06	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 06:06	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 06:06	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	99.52	+/-250	J	64.0	250	SOL	P	01-APR-10 06:06	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 06:06	033110B-1
	Sodium	93.82	+/-250	J	70.0	250	SOL	P	01-APR-10 06:06	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 06:06	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 06:06	033110B-1
CCB29										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 06:29	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 06:29	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 06:29	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 06:29	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 06:29	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 06:29	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 06:29	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 06:29	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 06:29	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 06:29	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 06:29	033110B-1
	Potassium	99.45	+/-250	J	64.0	250	SOL	P	01-APR-10 06:29	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 06:29	033110B-1
	Sodium	89.6	+/-250	J	70.0	250	SOL	P	01-APR-10 06:29	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 06:29	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 06:29	033110B-1
CCB30										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 06:52	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 06:52	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 06:52	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 06:52	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 06:52	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 06:52	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 06:52	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 06:52	033110B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 06:52	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 06:52	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 06:52	033110B–1
	Potassium	95.07	+/–250	J	64.0	250	SOL	P	01–APR–10 06:52	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:52	033110B–1
	Sodium	72.63	+/–250	J	70.0	250	SOL	P	01–APR–10 06:52	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:52	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 06:52	033110B–1
CCB31										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 07:17	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 07:17	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:17	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:17	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 07:17	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 07:17	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 07:17	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 07:17	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 07:17	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 07:17	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 07:17	033110B–1
	Potassium	79.16	+/–250	J	64.0	250	SOL	P	01–APR–10 07:17	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:17	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 07:17	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:17	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 07:17	033110B–1
CCB32										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 07:38	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 07:38	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:38	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:38	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 07:38	033110B–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 07:38	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 07:38	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 07:38	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 07:38	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 07:38	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 07:38	033110B-1
	Potassium	82.92	+/-250	J	64.0	250	SOL	P	01-APR-10 07:38	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 07:38	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	01-APR-10 07:38	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 07:38	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 07:38	033110B-1
CCB33										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 08:02	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 08:02	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 08:02	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 08:02	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 08:02	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 08:02	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 08:02	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 08:02	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 08:02	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 08:02	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 08:02	033110B-1
	Potassium	103.22	+/-250	J	64.0	250	SOL	P	01-APR-10 08:02	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 08:02	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	01-APR-10 08:02	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 08:02	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 08:02	033110B-1
CCB34										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 08:25	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 08:25	033110B-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:25	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:25	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 08:25	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 08:25	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 08:25	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 08:25	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 08:25	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 08:25	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 08:25	033110B–1
	Potassium	107.1	+/–250	J	64.0	250	SOL	P	01–APR–10 08:25	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:25	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 08:25	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:25	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 08:25	033110B–1
CCB35										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 08:58	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 08:58	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:58	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:58	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 08:58	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 08:58	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 08:58	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 08:58	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 08:58	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 08:58	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 08:58	033110B–1
	Potassium	103.04	+/–250	J	64.0	250	SOL	P	01–APR–10 08:58	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:58	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 08:58	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 08:58	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 08:58	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB36										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 09:17	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 09:17	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:17	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:17	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 09:17	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 09:17	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 09:17	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 09:17	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 09:17	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 09:17	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 09:17	033110B–1
	Potassium	83.14	+/–250	J	64.0	250	SOL	P	01–APR–10 09:17	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:17	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 09:17	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:17	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 09:17	033110B–1
CCB37										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 09:34	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 09:34	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:34	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:34	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 09:34	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 09:34	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 09:34	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 09:34	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 09:34	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 09:34	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 09:34	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–APR–10 09:34	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:34	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 09:34	033110B–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2313

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 09:34	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 09:34	033110B-1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2313

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202068097								
	Lead	248	ug/kg	+/–992	U	P	248	992
	Magnesium	8430	ug/kg	+/–29800	U	P	8430	29800
	Manganese	198	ug/kg	+/–992	U	P	198	992
	Potassium	8970	ug/kg	+/–24800	J	P	6350	24800
	Silver	99.2	ug/kg	+/–496	U	P	99.2	496
	Sodium	6940	ug/kg	+/–24800	U	P	6940	24800
	Vanadium	99.2	ug/kg	+/–496	U	P	99.2	496
	Zinc	327	ug/kg	+/–992	U	P	327	992
	Iron	7940	ug/kg	+/–24800	U	P	7940	24800
	Copper	298	ug/kg	+/–992	U	P	298	992
	Cobalt	149	ug/kg	+/–496	U	P	149	496
	Chromium	149	ug/kg	+/–496	U	P	149	496
	Cadmium	99.2	ug/kg	+/–496	U	P	99.2	496
	Barium	99.2	ug/kg	+/–496	U	P	99.2	496
	Antimony	327	ug/kg	+/–992	U	P	327	992
	Aluminum	7060	ug/kg	+/–19800	J	P	6750	19800
1202068103								
	Arsenic	194	ug/kg	+/–969	U	MS	194	969
	Beryllium	19.4	ug/kg	+/–96.9	U	MS	19.4	96.9
	Nickel	96.9	ug/kg	+/–388	U	MS	96.9	388
	Selenium	484	ug/kg	+/–969	U	MS	484	969
	Thallium	58.1	ug/kg	+/–194	U	MS	58.1	194
1202078437								
	Mercury	–4.37	ug/kg	+/–10.3	J	AV	3.5	10.3
1202092701								
	Calcium	7840	ug/kg	+/–24500	U	P	7840	24500

METALS
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Interference Check Sample

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	502000	ug/L	500000	ug/L	100	80.0 - 120.0	31-MAR-10 18:53	033110B-1
	Antimony	0.296	ug/L					31-MAR-10 18:53	033110B-1
	Barium	0.205	ug/L					31-MAR-10 18:53	033110B-1
	Cadmium	-1.97	ug/L					31-MAR-10 18:53	033110B-1
	Chromium	1.07	ug/L					31-MAR-10 18:53	033110B-1
	Cobalt	-6.06	ug/L					31-MAR-10 18:53	033110B-1
	Copper	4.63	ug/L					31-MAR-10 18:53	033110B-1
	Iron	190000	ug/L	200000	ug/L	95	80.0 - 120.0	31-MAR-10 18:53	033110B-1
	Lead	-4.1	ug/L					31-MAR-10 18:53	033110B-1
	Magnesium	484000	ug/L	500000	ug/L	96.8	80.0 - 120.0	31-MAR-10 18:53	033110B-1
	Manganese	3.58	ug/L					31-MAR-10 18:53	033110B-1
	Potassium	-119.0	ug/L					31-MAR-10 18:53	033110B-1
	Silver	-2.44	ug/L					31-MAR-10 18:53	033110B-1
	Sodium	38.8	ug/L					31-MAR-10 18:53	033110B-1
	Vanadium	-0.082	ug/L					31-MAR-10 18:53	033110B-1
	Zinc	8.58	ug/L					31-MAR-10 18:53	033110B-1
ICSAB01									
	Aluminum	507000	ug/L	500000	ug/L	101	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Antimony	504	ug/L	500	ug/L	101	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Barium	499	ug/L	500	ug/L	99.8	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Cadmium	476	ug/L	500	ug/L	95.3	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Chromium	484	ug/L	500	ug/L	96.7	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Cobalt	442	ug/L	500	ug/L	88.5	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Copper	542	ug/L	500	ug/L	108	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Iron	192000	ug/L	200000	ug/L	96	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Lead	464	ug/L	500	ug/L	92.8	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Magnesium	485000	ug/L	500000	ug/L	97	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Manganese	486	ug/L	500	ug/L	97.2	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Potassium	5550	ug/L	5000	ug/L	111	80.0 - 120.0	31-MAR-10 18:55	033110B-1

METALS
-4-
Interference Check Sample

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silver	267	ug/L	250	ug/L	107	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Sodium	5330	ug/L	5000	ug/L	107	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Vanadium	513	ug/L	500	ug/L	103	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Zinc	494	ug/L	500	ug/L	98.8	80.0 - 120.0	31-MAR-10 18:55	033110B-1

METALS
-4-
Interference Check Sample

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Calcium	487000	ug/L	500000	ug/L	97.4	80.0 - 120.0	13-APR-10 14:13	041310A-2
ICSAB01									
	Calcium	503000	ug/L	500000	ug/L	101	80.0 - 120.0	13-APR-10 14:15	041310A-2

METALS
-4-
Interference Check Sample

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.243	ug/L					17-MAY-10 12:22	100517-3
	Nickel	2.72	ug/L					17-MAY-10 12:22	100517-3
	Selenium	-0.603	ug/L					17-MAY-10 12:22	100517-3
	Thallium	0.071	ug/L					17-MAY-10 12:22	100517-3
ICSAB01									
	Arsenic	20.4	ug/L	20	ug/L	102	80.0 - 120.0	17-MAY-10 12:26	100517-3
	Nickel	21.2	ug/L	23.31	ug/L	90.9	80.0 - 120.0	17-MAY-10 12:26	100517-3
	Selenium	21.2	ug/L	20	ug/L	106	80.0 - 120.0	17-MAY-10 12:26	100517-3
	Thallium	17.3	ug/L	20	ug/L	86.6	80.0 - 120.0	17-MAY-10 12:26	100517-3

METALS
-4-
Interference Check Sample

SDG No: 10-2313

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si,

Instrument: ICPMS7

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.128	ug/L					17-MAY-10 19:24	100517-4
ICSAB01									
	Beryllium	21.6	ug/L	20	ug/L	108	80.0 - 120.0	17-MAY-10 19:26	100517-4

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2313 **Client ID** RE46–10–13782S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 86

Sample ID: 248860001 **Spike ID:** 1202068100

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Calcium	ug/kg	75–125	706000		167000		543000	99.1		P
Chromium	ug/kg	75–125	56800		3310		57600	92.7		P
Cobalt	ug/kg	75–125	53100		296	J	57600	91.6		P
Copper	ug/kg	75–125	58200		1090	J	57600	99.1		P
Iron	ug/kg		5590000		4290000		576000	225	N/A	P
Lead	ug/kg	75–125	56900		2650		57600	94.1		P
Magnesium	ug/kg	75–125	653000		52700		576000	104		P
Manganese	ug/kg	75–125	257000		180000		57600	133	N	P
Potassium	ug/kg	75–125	1230000		396000		576000	145	N	P
Silver	ug/kg	75–125	53300		115	U	57600	92.5		P
Sodium	ug/kg	75–125	1160000		345000		576000	142	N	P
Vanadium	ug/kg	75–125	54700		1020		57600	93.2		P
Zinc	ug/kg	75–125	69100		13700		57600	96.1		P
Aluminum	ug/kg	75–125	2750000		1080000		576000	291	N	P
Antimony	ug/kg	75–125	50500		379	U	57600	87.6		P
Barium	ug/kg	75–125	68400		10600		57600	100		P
Cadmium	ug/kg	75–125	53800		115	U	57600	93.3		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2313 **Client ID** RE46–10–13782SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 86

Sample ID: 248860001 **Spike ID:** 1202068101

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg	75–125	2530000		1080000		571000	254	N	P
Antimony	ug/kg	75–125	49200		379	U	57100	86.3		P
Barium	ug/kg	75–125	64500		10600		57100	94.3		P
Cadmium	ug/kg	75–125	52400		115	U	57100	91.9		P
Calcium	ug/kg	75–125	759000		167000		542000	109		P
Chromium	ug/kg	75–125	55100		3310		57100	90.7		P
Cobalt	ug/kg	75–125	51800		296	J	57100	90.3		P
Copper	ug/kg	75–125	56900		1090	J	57100	97.7		P
Iron	ug/kg		5290000		4290000		571000	176	N/A	P
Lead	ug/kg	75–125	55400		2650		57100	92.4		P
Magnesium	ug/kg	75–125	640000		52700		571000	103		P
Manganese	ug/kg	75–125	259000		180000		57100	139	N	P
Potassium	ug/kg	75–125	1170000		396000		571000	135	N	P
Silver	ug/kg	75–125	51900		115	U	57100	90.9		P
Sodium	ug/kg	75–125	1100000		345000		571000	133	N	P
Vanadium	ug/kg	75–125	53700		1020		57100	92.3		P
Zinc	ug/kg	75–125	68400		13700		57100	95.9		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2313 **Client ID** RE46–10–13782S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 86

Sample ID: 248860001 **Spike ID:** 1202068106

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	8440		223	U	9220	89.3		MS
Beryllium	ug/kg	75–125	5540		181		5760	93		MS
Nickel	ug/kg	75–125	6150		756		5760	93.5		MS
Selenium	ug/kg	75–125	2100		556	U	2310	86.2		MS
Thallium	ug/kg	75–125	10200		87.2	J	11500	87.8		MS

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-2313 **Client ID** RE46-10-13782SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 86

Sample ID: 248860001 **Spike ID:** 1202068107

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75-125	8520		223	U	9040	92		MS
Beryllium	ug/kg	75-125	5460		181		5650	93.4		MS
Nickel	ug/kg	75-125	5910		756		5650	91.2		MS
Selenium	ug/kg	75-125	2140		556	U	2260	89.8		MS
Thallium	ug/kg	75-125	10100		87.2	J	11300	88.4		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2313 **Client ID** RE46–10–12931S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 81

Sample ID: 248867001 **Spike ID:** 1202078440

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	370		231		128	109		AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2313 **Client ID** RE46–10–12931SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 81

Sample ID: 248867001 **Spike ID:** 1202078442

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	411		231		138	130	N	AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2313

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13782D

Sample ID: 248860001 **Duplicate ID:** 1202068098 **Percent Solids for Dup:** 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	1080000		1060000		1.88		P
Antimony	ug/kg		379	U	370	U			P
Barium	ug/kg	+/–20%	10600		11000		2.94		P
Cadmium	ug/kg		115	U	112	U			P
Calcium	ug/kg	+/–20%	167000		623000		115	*	P
Chromium	ug/kg	+/–20%	3310		4210		23.8	*	P
Cobalt	ug/kg	+/–561	296	J	287	J	2.91		P
Copper	ug/kg	+/–1120	1090	J	1050	J	4.01		P
Iron	ug/kg	+/–20%	4290000		4240000		1.13		P
Lead	ug/kg	+/–1120	2650		2780		4.5		P
Magnesium	ug/kg	+/–33600	52700		63000		17.9		P
Manganese	ug/kg	+/–20%	180000		181000		.228		P
Potassium	ug/kg	+/–20%	396000		378000		4.63		P
Silver	ug/kg		115	U	112	U			P
Sodium	ug/kg	+/–20%	345000		336000		2.77		P
Vanadium	ug/kg	+/–561	1020		1150		12.1		P
Zinc	ug/kg	+/–20%	13700		13200		4.22		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2313

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13782SD

Sample ID: 1202068100 **Duplicate ID:** 1202068101 **Percent Solids for Dup:** 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	2750000		2530000		8.51		P
Antimony	ug/kg	+/–20	50500		49200		2.53		P
Barium	ug/kg	+/–20	68400		64500		5.92		P
Cadmium	ug/kg	+/–20	53800		52400		2.49		P
Calcium	ug/kg	+/–20	706000		759000		7.27		P
Chromium	ug/kg	+/–20	56800		55100		3		P
Cobalt	ug/kg	+/–20	53100		51800		2.34		P
Copper	ug/kg	+/–20	58200		56900		2.39		P
Iron	ug/kg	+/–20	5590000		5290000		5.41		P
Lead	ug/kg	+/–20	56900		55400		2.62		P
Magnesium	ug/kg	+/–20	653000		640000		2.12		P
Manganese	ug/kg	+/–20	257000		259000		.958		P
Potassium	ug/kg	+/–20	1230000		1170000		5.14		P
Silver	ug/kg	+/–20	53300		51900		2.73		P
Sodium	ug/kg	+/–20	1160000		1100000		5.06		P
Vanadium	ug/kg	+/–20	54700		53700		1.91		P
Zinc	ug/kg	+/–20	69100		68400		.987		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2313

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13782D

Sample ID: 248860001 **Duplicate ID:** 1202068104 **Percent Solids for Dup:** 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg		223	U	265	J	200		MS
Beryllium	ug/kg	+/–115	181		192		5.7		MS
Nickel	ug/kg	+/–458	756		1190		44.4		MS
Selenium	ug/kg		556	U	573	U			MS
Thallium	ug/kg		87.2	J	68.7	U	200		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2313

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13782SD

Sample ID: 1202068106 **Duplicate ID:** 1202068107 **Percent Solids for Dup:** 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	8440		8520		.936		MS
Beryllium	ug/kg	+/–20	5540		5460		1.47		MS
Nickel	ug/kg	+/–20	6150		5910		3.88		MS
Selenium	ug/kg	+/–20	2100		2140		2.03		MS
Thallium	ug/kg	+/–20	10200		10100		1.23		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2313

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12931D

Sample ID: 248867001 **Duplicate ID:** 1202078439 **Percent Solids for Dup:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20%	231		192		18.7		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2313

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12931SD

Sample ID: 1202078440 **Duplicate ID:** 1202078442 **Percent Solids for Dup:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	370		411		10.3		AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2313

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202068102								
	Aluminum	ug/kg	10500000	8440000		80.4	56-144	P
	Antimony	ug/kg	173000	109000		63.1	71-130	P
	Barium	ug/kg	198000	166000		83.9	80-120	P
	Cadmium	ug/kg	60700	54600		90	81-120	P
	Chromium	ug/kg	236000	224000		95	80-120	P
	Cobalt	ug/kg	91200	85500		93.8	81-120	P
	Copper	ug/kg	174000	168000		96.3	81-118	P
	Iron	ug/kg	18000000	17000000		94.2	51-149	P
	Lead	ug/kg	86000	73100		85	79-121	P
	Magnesium	ug/kg	4000000	3490000		87.3	79-122	P
	Manganese	ug/kg	558000	513000		92	81-119	P
	Potassium	ug/kg	4300000	3760000		87.4	74-127	P
	Silver	ug/kg	30100	26000		86.2	66-134	P
	Sodium	ug/kg	1020000	943000		92.4	74-127	P
	Vanadium	ug/kg	115000	111000		96.5	79-121	P
	Zinc	ug/kg	594000	532000		89.6	80-121	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2313

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202068108								
	Arsenic	ug/kg	104000	107000		103	78-123	MS
	Beryllium	ug/kg	77600	78900		102	84-116	MS
	Nickel	ug/kg	134000	154000		115	78-123	MS
	Selenium	ug/kg	286000	296000		103	77-123	MS
	Thallium	ug/kg	121000	123000		102	78-122	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2313

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202078438								
	Mercury	ug/kg	5150	5520		107	71.6–128.3	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2313

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202092702								
	Calcium	ug/kg	9870000	9750000		98.8	83–117	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2313 **Client ID** RE46-10-13782L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248860001 **Serial Dilution ID:** 1202068099

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	9400		9700		3.19		10	P
Antimony	3.3	U	16.5	U				P
Barium	92.7		92		.755		10	P
Cadmium	1	U	5	U				P
Calcium	1610		1690		4.97			P
Chromium	28.9		28.9		0			P
Cobalt	2.58	J	7.5	U	100			P
Copper	9.5	J	15	U	100			P
Iron	37300		37800		1.34		10	P
Lead	23.1		17.5	J	24.5			P
Magnesium	459		454	J	1.2			P
Manganese	1570		1580		.318		10	P
Potassium	3450		3830		10.9	E	10	P
Silver	1	U	5	U				P
Sodium	3010		3190		5.81			P
Vanadium	8.91		6.6	J	25.9			P
Zinc	120		117		2.5			P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2313 **Client ID** RE46-10-13782L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248860001 **Serial Dilution ID:** 1202068105

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	1	U	5	U				MS
Beryllium	.813		1.09	J	34.1			MS
Nickel	3.4		3.39	J	.441			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.392	J	1.5	U	100			MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2313 **Client ID** RE46–10–12931L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248867001 **Serial Dilution ID:** 1202078441

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	3.6		3.44		4.44		10	AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2313 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 964011							
1202068097	MB for batch 964011	MB	S	13-MAR-10	.504g	50mL	
1202068102	LCS for batch 964011	LCS	S	13-MAR-10	.506g	50mL	
1202068100	RE46-10-13782S	MS	S	13-MAR-10	.504g	50mL	
1202068101	RE46-10-13782SD	MSD	S	13-MAR-10	.509g	50mL	
1202068098	RE46-10-13782D	DUP	S	13-MAR-10	.518g	50mL	
248860001	RE46-10-13782	SAMPLE	S	13-MAR-10	.506g	50mL	
248860002	RE46-10-13783	SAMPLE	S	13-MAR-10	.503g	50mL	
248860003	RE46-10-13777	SAMPLE	S	13-MAR-10	.528g	50mL	
248860004	RE46-10-13775	SAMPLE	S	13-MAR-10	.51g	50mL	
248860005	RE46-10-13776	SAMPLE	S	13-MAR-10	.519g	50mL	
248860006	RE46-10-13781	SAMPLE	S	13-MAR-10	.514g	50mL	
248860007	RE46-10-13779	SAMPLE	S	13-MAR-10	.502g	50mL	
248860008	RE46-10-13780	SAMPLE	S	13-MAR-10	.547g	50mL	
248860009	RE46-10-13778	SAMPLE	S	13-MAR-10	.507g	50mL	
Batch Number 974044							
1202092701	MB for batch 974044	MB	S	12-APR-10	.51g	50mL	
1202092702	LCS for batch 974044	LCS	S	12-APR-10	.509g	50mL	
1202068100	RE46-10-13782S	MS	S	12-APR-10	.535g	50mL	
1202068101	RE46-10-13782SD	MSD	S	12-APR-10	.536g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2313 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
1202068098	RE46–10–13782D	DUP	S	12–APR–10	.509g	50mL	
248860001	RE46–10–13782	SAMPLE	S	12–APR–10	.559g	50mL	
248860002	RE46–10–13783	SAMPLE	S	12–APR–10	.513g	50mL	
248860003	RE46–10–13777	SAMPLE	S	12–APR–10	.559g	50mL	
248860004	RE46–10–13775	SAMPLE	S	12–APR–10	.527g	50mL	
248860005	RE46–10–13776	SAMPLE	S	12–APR–10	.527g	50mL	
248860006	RE46–10–13781	SAMPLE	S	12–APR–10	.52g	50mL	
248860007	RE46–10–13779	SAMPLE	S	12–APR–10	.559g	50mL	
248860008	RE46–10–13780	SAMPLE	S	12–APR–10	.514g	50mL	
248860009	RE46–10–13778	SAMPLE	S	12–APR–10	.521g	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-2313 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	964013						
1202068103	MB for batch 964013	MB	S	13-MAR-10	.516g	50mL	
1202068108	LCS for batch 964013	LCS	S	13-MAR-10	.502g	50mL	
1202068106	RE46-10-13782S	MS	S	13-MAR-10	.504g	50mL	
1202068107	RE46-10-13782SD	MSD	S	13-MAR-10	.514g	50mL	
1202068104	RE46-10-13782D	DUP	S	13-MAR-10	.507g	50mL	
248860001	RE46-10-13782	SAMPLE	S	13-MAR-10	.522g	50mL	
248860002	RE46-10-13783	SAMPLE	S	13-MAR-10	.511g	50mL	
248860003	RE46-10-13777	SAMPLE	S	13-MAR-10	.506g	50mL	
248860004	RE46-10-13775	SAMPLE	S	13-MAR-10	.534g	50mL	
248860005	RE46-10-13776	SAMPLE	S	13-MAR-10	.51g	50mL	
248860006	RE46-10-13781	SAMPLE	S	13-MAR-10	.53g	50mL	
248860007	RE46-10-13779	SAMPLE	S	13-MAR-10	.514g	50mL	
248860008	RE46-10-13780	SAMPLE	S	13-MAR-10	.5g	50mL	
248860009	RE46-10-13778	SAMPLE	S	13-MAR-10	.511g	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10–2313 **Method Type**: AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	968184						
1202078437	MB for batch 968184	MB	S	23–MAR–10	.583g	30mL	
1202078438	LCS for batch 968184	LCS	S	23–MAR–10	.203g	30mL	
1202078440	RE46–10–12931S	MS	S	23–MAR–10	.578g	30mL	
1202078442	RE46–10–12931SD	MSD	S	23–MAR–10	.537g	30mL	
1202078439	RE46–10–12931D	DUP	S	23–MAR–10	.539g	30mL	
248860001	RE46–10–13782	SAMPLE	S	23–MAR–10	.592g	30mL	
248860002	RE46–10–13783	SAMPLE	S	23–MAR–10	.549g	30mL	
248860003	RE46–10–13777	SAMPLE	S	23–MAR–10	.517g	30mL	
248860004	RE46–10–13775	SAMPLE	S	23–MAR–10	.511g	30mL	
248860005	RE46–10–13776	SAMPLE	S	23–MAR–10	.525g	30mL	
248860006	RE46–10–13781	SAMPLE	S	23–MAR–10	.502g	30mL	
248860007	RE46–10–13779	SAMPLE	S	23–MAR–10	.568g	30mL	
248860008	RE46–10–13780	SAMPLE	S	23–MAR–10	.578g	30mL	
248860009	RE46–10–13778	SAMPLE	S	23–MAR–10	.545g	30mL	

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 24–MAR–10 **End Date:** 24–MAR–10

Client Sdg: 10–2313
Method AV
Data File: 032410S1–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	09:26:00															X								
S0.2	1	09:27:00															X								
S0.5	1	09:29:00															X								
S2.0	1	09:31:00															X								
S5.0	1	09:32:00															X								
S10.0	1	09:34:00															X								
ICV01	1	09:36:00															X								
ICB01	1	09:37:00															X								
CRDL01	1	09:39:00															X								
CCV01	1	09:41:00															X								
CCB01	1	09:42:00															X								
ZZZZZZ	1	09:44:00																							
ZZZZZZ	10	09:46:00																							
ZZZZZZ	1	09:47:00																							
ZZZZZZ	1	09:49:00																							
ZZZZZZ	1	09:51:00																							
ZZZZZZ	1	09:52:00																							
ZZZZZZ	5	09:54:00																							
ZZZZZZ	1	09:56:00																							
ZZZZZZ	1	09:57:00																							
ZZZZZZ	1	09:59:00																							
CCV02	1	10:01:00															X								
CCB02	1	10:02:00															X								
ZZZZZZ	1	10:04:00																							
ZZZZZZ	1	10:06:00																							
ZZZZZZ	1	10:07:00																							
ZZZZZZ	1	10:09:00																							
ZZZZZZ	1	10:11:00																							
ZZZZZZ	1	10:12:00																							
ZZZZZZ	1	10:14:00																							
ZZZZZZ	1	10:16:00																							
ZZZZZZ	1	10:17:00																							
ZZZZZZ	10	10:19:00																							
CCV03	1	10:21:00															X								
CCB03	1	10:22:00															X								
ZZZZZZ	1	10:24:00																							
ZZZZZZ	1	10:26:00																							
ZZZZZZ	1	10:27:00																							
ZZZZZZ	1	10:29:00																							
ZZZZZZ	1	10:31:00																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	10:32:00																						
ZZZZZZ	1	10:34:00																						
ZZZZZZ	1	10:36:00																						
ZZZZZZ	5	10:37:00																						
ZZZZZZ	1	10:39:00																						
CCV04	1	10:41:00													X									
CCB04	1	10:42:00													X									
ZZZZZZ	1	10:44:00																						
ZZZZZZ	1	10:46:00																						
ZZZZZZ	1	10:47:00																						
1202078437	1	10:49:00													X									
1202078438	10	10:51:00													X									
248860001	1	10:52:00													X									
248860002	1	10:54:00													X									
248860003	1	10:56:00													X									
248860004	1	10:58:00													X									
248860005	1	10:59:00													X									
CCV05	1	11:01:00													X									
CCB05	1	11:03:00													X									
248860006	1	11:04:00													X									
248860007	1	11:06:00													X									
248860008	1	11:08:00													X									
248860009	1	11:09:00													X									
ZZZZZZ	1	11:11:00																						
ZZZZZZ	1	11:13:00																						
ZZZZZZ	1	11:14:00																						
ZZZZZZ	1	11:16:00																						
ZZZZZZ	1	11:18:00																						
ZZZZZZ	1	11:19:00																						
CCV06	1	11:21:00													X									
CCB06	1	11:23:00													X									
ZZZZZZ	1	11:24:00																						
1202078439	1	11:26:00													X									
1202078440	1	11:28:00													X									
1202078442	1	11:29:00													X									
1202078441	5	11:31:00													X									
ZZZZZZ	1	11:33:00																						
ZZZZZZ	1	11:34:00																						
ZZZZZZ	1	11:36:00																						
ZZZZZZ	1	11:38:00																						

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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	11:39:00																							
CCV07	1	11:41:00															X								
CCB07	1	11:43:00															X								

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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 31–MAR–10 **End Date:** 01–APR–10

Client Sdg: 10–2313
Method P
Data File: 033110B–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	18:36:30	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
S0.1	1	18:39:45		X		X		X		X	X	X		X		X			X		X			X	X
S0.5	1	18:41:56	X	X		X		X		X	X	X		X	X	X			X		X			X	X
SCAL	1	18:43:55	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
S10	1	18:45:59	X										X		X							X			
ICV01	1	18:47:03	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ICB01	1	18:48:09	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
PQL01	1	18:51:18	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ICSA01	1	18:53:20	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ICSAB01	1	18:55:20	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
LR01	1	18:56:26	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
LR02	1	18:57:44	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCV01	1	18:59:11	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB01	1	19:01:26	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCV02	1	19:06:03	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB02	1	19:08:04	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:11:15																							
ZZZZZZ	1	19:14:12																							
ZZZZZZ	1	19:16:26																							
ZZZZZZ	1	19:19:36																							
ZZZZZZ	1	19:22:32																							
ZZZZZZ	5	19:24:31																							
CCV03	1	19:27:41	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB03	1	19:29:42	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:32:54																							
ZZZZZZ	1	19:35:52																							
ZZZZZZ	1	19:38:50																							
ZZZZZZ	1	19:41:46																							
ZZZZZZ	1	19:44:56																							
CCV04	1	19:48:07	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB04	1	19:50:08	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:53:03																							
ZZZZZZ	1	19:56:16																							
ZZZZZZ	1	19:58:29																							
ZZZZZZ	1	20:01:35																							
ZZZZZZ	1	20:04:41																							
ZZZZZZ	1	20:06:41																							
ZZZZZZ	5	20:09:37																							
ZZZZZZ	1	20:12:33																							
ZZZZZZ	1	20:15:43																							

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Analysis Run Log

Samp No.	D/F	Run Time																								
CCV05	1	20:18:48	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB05	1	20:21:03	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	20:23:58																							
ZZZZZZ	1	20:27:11																							
ZZZZZZ	1	20:29:10																							
ZZZZZZ	1	20:31:22																							
ZZZZZZ	1	20:33:33																							
ZZZZZZ	5	20:35:32																							
ZZZZZZ	1	20:37:44																							
ZZZZZZ	1	20:40:49																							
ZZZZZZ	1	20:43:41																							
CCV06	1	20:46:32	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB06	1	20:48:32	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	20:51:27																							
ZZZZZZ	1	20:54:35																							
ZZZZZZ	1	20:56:32																							
ZZZZZZ	1	20:59:23																							
ZZZZZZ	1	21:02:28																							
ZZZZZZ	1	21:04:25																							
ZZZZZZ	1	21:06:36																							
ZZZZZZ	1	21:08:29																							
ZZZZZZ	1	21:11:20																							
ZZZZZZ	1	21:13:18																							
CCV07	1	21:16:09	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB07	1	21:18:10	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	21:21:05																							
ZZZZZZ	1	21:24:03																							
ZZZZZZ	1	21:25:25																							
ZZZZZZ	1	21:27:23																							
ZZZZZZ	1	21:29:21																							
ZZZZZZ	1	21:31:35																							
ZZZZZZ	1	21:33:49																							
ZZZZZZ	5	21:36:00																							
ZZZZZZ	1	21:37:59																							
CCV08	1	21:39:57	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB08	1	21:41:59	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	21:45:10																							
ZZZZZZ	1	21:47:26																							
ZZZZZZ	1	21:49:39																							
ZZZZZZ	1	21:51:37																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	21:53:37																							
CCV09	1	21:55:36	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB09	1	21:57:52	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	22:00:49																							
ZZZZZZ	1	22:03:08																							
ZZZZZZ	1	22:04:17																							
ZZZZZZ	1	22:06:21																							
ZZZZZZ	1	22:08:25																							
ZZZZZZ	1	22:09:31																							
ZZZZZZ	5	22:10:38																							
CCV10	1	22:12:55	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB10	1	22:14:56	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	22:17:55																							
ZZZZZZ	1	22:20:16																							
ZZZZZZ	1	22:22:28																							
ZZZZZZ	1	22:24:31																							
ZZZZZZ	1	22:26:43																							
ZZZZZZ	1	22:28:56																							
ZZZZZZ	1	22:31:00																							
ZZZZZZ	1	22:33:18																							
CCV11	1	22:35:22	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB11	1	22:37:38	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	22:40:36																							
ZZZZZZ	1	22:42:56																							
ZZZZZZ	1	22:45:10																							
ZZZZZZ	1	22:47:27																							
ZZZZZZ	1	22:49:44																							
ZZZZZZ	1	22:52:02																							
ZZZZZZ	1	22:54:05																							
CCV12	1	22:56:09	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB12	1	22:58:10	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	23:01:21																							
ZZZZZZ	1	23:04:20																							
ZZZZZZ	1	23:05:42																							
ZZZZZZ	1	23:07:45																							
ZZZZZZ	1	23:09:49																							
ZZZZZZ	1	23:10:55																							
ZZZZZZ	5	23:12:15																							
ZZZZZZ	1	23:14:18																							
ZZZZZZ	1	23:16:21																							

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Analysis Run Log

Samp No.	D/F	Run Time																							
CCV13	1	23:18:25	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB13	1	23:20:27	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	23:23:24																							
ZZZZZZ	1	23:25:39																							
ZZZZZZ	1	23:27:42																							
ZZZZZZ	1	23:29:46																							
ZZZZZZ	1	23:32:03																							
ZZZZZZ	1	23:34:01																							
ZZZZZZ	1	23:35:59																							
ZZZZZZ	1	23:38:03																							
ZZZZZZ	1	23:40:15																							
ZZZZZZ	1	23:42:14																							
CCV14	1	23:44:28	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB14	1	23:46:45	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	23:49:43																							
ZZZZZZ	1	23:52:03																							
ZZZZZZ	1	23:53:26																							
ZZZZZZ	1	23:55:39																							
ZZZZZZ	1	23:57:37																							
ZZZZZZ	1	23:58:56																							
ZZZZZZ	5	00:00:16																							
CCV15	1	00:02:20	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB15	1	00:04:36	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	00:07:33																							
ZZZZZZ	1	00:09:52																							
ZZZZZZ	1	00:11:51																							
ZZZZZZ	1	00:14:05																							
ZZZZZZ	1	00:16:18																							
CCV16	1	00:18:32	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB16	1	00:20:34	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	00:23:30																							
ZZZZZZ	1	00:25:35																							
ZZZZZZ	1	00:27:34																							
ZZZZZZ	1	00:29:47																							
ZZZZZZ	1	00:31:45																							
ZZZZZZ	1	00:32:52																							
ZZZZZZ	5	00:34:14																							
ZZZZZZ	1	00:36:32																							
ZZZZZZ	1	00:38:31																							
ZZZZZZ	1	00:40:31																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
CCV17	1	00:42:50	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB17	1	00:45:05	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	00:48:01																							
ZZZZZZ	1	00:50:02																							
ZZZZZZ	1	00:52:07																							
ZZZZZZ	1	00:54:13																							
ZZZZZZ	1	00:56:19																							
ZZZZZZ	1	00:58:24																							
ZZZZZZ	1	01:00:44																							
ZZZZZZ	1	01:02:48																							
ZZZZZZ	1	01:04:53																							
CCV18	1	01:06:58	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB18	1	01:09:13	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	01:12:23																							
ZZZZZZ	1	01:14:32																							
ZZZZZZ	1	01:16:37																							
ZZZZZZ	1	01:18:37																							
ZZZZZZ	1	01:20:36																							
ZZZZZZ	1	01:22:35																							
ZZZZZZ	1	01:24:54																							
ZZZZZZ	1	01:27:13																							
ZZZZZZ	1	01:29:14																							
CCV19	1	01:30:35	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB19	1	01:32:36	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	01:35:33																							
ZZZZZZ	1	01:38:33																							
ZZZZZZ	1	01:40:33																							
ZZZZZZ	1	01:43:44																							
ZZZZZZ	1	01:45:43																							
ZZZZZZ	1	01:48:35																							
ZZZZZZ	5	01:50:35																							
CCV20	1	01:53:27	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB20	1	01:55:42	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	01:58:53																							
ZZZZZZ	1	02:01:52																							
ZZZZZZ	1	02:03:52																							
ZZZZZZ	1	02:05:58																							
ZZZZZZ	1	02:08:18																							
ZZZZZZ	1	02:10:34																							
ZZZZZZ	5	02:12:46																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	02:15:05																							
ZZZZZZ	1	02:17:05																							
CCV21	1	02:19:04	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB21	1	02:21:19	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	02:24:16																							
ZZZZZZ	1	02:27:15																							
ZZZZZZ	1	02:29:15																							
ZZZZZZ	1	02:31:36																							
ZZZZZZ	1	02:33:57																							
ZZZZZZ	1	02:36:19																							
ZZZZZZ	5	02:38:32																							
ZZZZZZ	1	02:40:32																							
ZZZZZZ	1	02:43:48																							
CCV22	1	02:47:00	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB22	1	02:49:00	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	02:51:56																							
ZZZZZZ	1	02:55:08																							
ZZZZZZ	1	02:57:07																							
ZZZZZZ	1	02:59:05																							
ZZZZZZ	1	03:01:03																							
ZZZZZZ	1	03:03:16																							
ZZZZZZ	1	03:05:15																							
ZZZZZZ	5	03:07:15																							
ZZZZZZ	1	03:09:13																							
ZZZZZZ	1	03:11:11																							
CCV23	1	03:13:23	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB23	1	03:15:38	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCV24	1	04:39:15	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB24	1	04:41:28	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	10	04:59:03																							
ZZZZZZ	10	05:01:17																							
CCV25	1	05:03:28	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB25	1	05:05:28	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	05:08:37																							
ZZZZZZ	1	05:10:42																							
ZZZZZZ	1	05:12:05																							
ZZZZZZ	1	05:14:18																							
ZZZZZZ	1	05:16:31																							
ZZZZZZ	1	05:17:52																							
ZZZZZZ	5	05:18:59																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	05:21:10																							
ZZZZZZ	1	05:23:08																							
CCV26	1	05:25:20	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB26	1	05:27:22	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	05:30:31																							
ZZZZZZ	1	05:32:34																							
ZZZZZZ	1	05:34:39																							
ZZZZZZ	1	05:36:38																							
ZZZZZZ	1	05:38:37																							
ZZZZZZ	1	05:40:50																							
ZZZZZZ	1	05:42:48																							
ZZZZZZ	1	05:44:48																							
ZZZZZZ	1	05:46:47																							
CCV27	1	05:48:46	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB27	1	05:51:01	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	10	05:58:10																							
ZZZZZZ	10	06:00:24																							
ZZZZZZ	10	06:02:36																							
CCV28	1	06:04:33	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB28	1	06:06:33	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCV29	1	06:27:45	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB29	1	06:29:44	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	06:32:41																							
ZZZZZZ	1	06:35:40																							
ZZZZZZ	1	06:37:02																							
ZZZZZZ	1	06:39:05																							
ZZZZZZ	1	06:41:22																							
ZZZZZZ	1	06:42:29																							
ZZZZZZ	5	06:43:33																							
ZZZZZZ	1	06:45:50																							
ZZZZZZ	1	06:48:08																							
CCV30	1	06:50:12	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB30	1	06:52:13	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	06:55:08																							
ZZZZZZ	1	06:57:13																							
ZZZZZZ	1	06:59:12																							
ZZZZZZ	1	07:01:10																							
ZZZZZZ	1	07:03:08																							
ZZZZZZ	1	07:05:20																							
ZZZZZZ	1	07:07:23																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	07:09:21																							
ZZZZZZ	1	07:11:34																							
ZZZZZZ	1	07:13:32																							
CCV31	1	07:15:44	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB31	1	07:17:46	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	07:20:41																							
ZZZZZZ	1	07:22:59																							
ZZZZZZ	1	07:24:09																							
ZZZZZZ	1	07:26:13																							
ZZZZZZ	1	07:28:16																							
ZZZZZZ	1	07:29:20																							
ZZZZZZ	5	07:30:25																							
ZZZZZZ	1	07:32:28																							
ZZZZZZ	1	07:34:32																							
CCV32	1	07:36:36	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB32	1	07:38:37	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	07:41:46																							
ZZZZZZ	1	07:44:01																							
ZZZZZZ	1	07:46:06																							
ZZZZZZ	1	07:48:04																							
ZZZZZZ	1	07:50:23																							
ZZZZZZ	1	07:52:35																							
ZZZZZZ	1	07:54:33																							
ZZZZZZ	1	07:56:36																							
ZZZZZZ	1	07:58:53																							
CCV33	1	08:00:59	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB33	1	08:02:58	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	08:06:08																							
ZZZZZZ	1	08:08:22																							
ZZZZZZ	1	08:10:26																							
ZZZZZZ	1	08:12:38																							
ZZZZZZ	1	08:14:36																							
ZZZZZZ	1	08:16:34																							
ZZZZZZ	1	08:18:34																							
ZZZZZZ	1	08:20:47																							
CCV34	1	08:22:47	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB34	1	08:25:02	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
1202068097	1	08:40:59	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
1202068102	1	08:44:11	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
248860001	1	08:45:33	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
1202068098	1	08:47:45	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
1202068100	1	08:49:44	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
1202068101	1	08:51:44	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
1202068099	5	08:53:43	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCV35	1	08:55:59	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB35	1	08:58:01	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
248860002	1	09:00:56	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
248860003	1	09:02:56	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
248860004	1	09:04:54	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
248860005	1	09:07:06	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
248860006	1	09:09:05	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
248860007	1	09:11:22	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
248860008	1	09:13:20	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCV36	1	09:15:23	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB36	1	09:17:23	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
248860009	1	09:20:19	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	09:22:25																							
ZZZZZZ	1	09:24:29																							
ZZZZZZ	1	09:26:41																							
ZZZZZZ	1	09:28:53																							
ZZZZZZ	1	09:30:57																							
CCV37	1	09:32:56	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB37	1	09:34:57	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 13-APR-10 **End Date:** 13-APR-10

Client Sdg: 10-2313
Method P
Data File: 041310A-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	13:54:24							X																
S0.1	1	13:57:35																							
S0.5	1	13:59:33							X																
SCAL	1	14:01:45							X																
S10	1	14:04:02							X																
ICV01	1	14:05:06							X																
ICB01	1	14:07:19							X																
PQL01	1	14:10:15							X																
ICSA01	1	14:13:27							X																
ICSAB01	1	14:15:41							X																
LR01	1	14:17:01							X																
LR02	1	14:18:05							X																
CCV01	1	14:19:32							X																
CCB01	1	14:21:34							X																
CCV02	1	14:26:05							X																
CCB02	1	14:28:18							X																
LR03	1	14:31:14							X																
CCV03	1	14:34:12							X																
CCB03	1	14:36:13							X																
1202092701	1	14:56:34							X																
1202092702	1	14:59:33							X																
248860001	1	15:00:56							X																
1202068098	1	15:03:09							X																
1202068100	1	15:05:07							X																
1202068101	1	15:07:20							X																
1202068099	5	15:09:34							X																
CCV04	1	15:11:51							X																
CCB04	1	15:14:07							X																
248860002	1	15:17:03							X																
248860003	1	15:19:04							X																
248860004	1	15:21:16							X																
248860005	1	15:23:14							X																
248860006	1	15:25:12							X																
248860007	1	15:27:30							X																
248860008	1	15:29:29							X																
CCV05	1	15:31:46							X																
CCB05	1	15:33:46							X																
248860009	1	15:36:56							X																
ZZZZZZ	1	15:39:16																							
ZZZZZZ	1	15:41:20																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	15:43:19																						
ZZZZZZ	1	15:45:23																						
ZZZZZZ	1	15:47:21																						
CCV06	1	15:49:39						X																
CCB06	1	15:51:40						X																

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS7
Start Date: 17-MAY-10 **End Date:** 17-MAY-10

Client Sdg: 10-2313
Method MS
Data File: 100517-4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	19:14:26					X																		
S10	1	19:16:05					X																		
S100	1	19:17:45					X																		
ICV01	1	19:19:25					X																		
ICB01	1	19:21:06					X																		
CRDL01	1	19:22:47					X																		
ICSA01	1	19:24:27					X																		
ICSAB01	1	19:26:07					X																		
CCV01	1	19:27:48					X																		
CCB01	1	19:29:30					X																		
LR01	1	19:31:10					X																		
CCV02	1	19:32:50					X																		
CCB02	1	19:34:32					X																		
ZZZZZZ	2	19:38:01																							
ZZZZZZ	2	19:39:41																							
ZZZZZZ	1000	19:41:21																							
ZZZZZZ	1000	19:43:01																							
ZZZZZZ	1000	19:44:41																							
ZZZZZZ	1000	19:46:22																							
ZZZZZZ	5000	19:48:03																							
ZZZZZZ	1000	19:49:43																							
ZZZZZZ	1000	19:51:23																							
CCV03	1	19:53:04					X																		
CCB03	1	19:54:46					X																		
ZZZZZZ	1000	19:56:26																							
ZZZZZZ	100	19:58:06																							
ZZZZZZ	1000	19:59:46																							
ZZZZZZ	1000	20:01:27																							
ZZZZZZ	10000	20:03:08																							
ZZZZZZ	1000	20:04:48																							
ZZZZZZ	1000	20:06:29																							
ZZZZZZ	10000	20:08:09																							
ZZZZZZ	1000	20:09:49																							
CCV04	1	20:11:30					X																		
CCB04	1	20:13:12					X																		
1202068103	2	20:16:38					X																		
1202068108	40	20:17:52					X																		
248860001	2	20:19:06					X																		
1202068104	2	20:20:20					X																		
1202068106	2	20:21:35					X																		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
1202068107	2	20:22:49					X																	
1202068105	10	20:24:04					X																	
248860002	2	20:25:18					X																	
248860003	2	20:26:33					X																	
248860004	2	20:27:47					X																	
CCV05	1	20:29:02					X																	
CCB05	1	20:30:19					X																	
248860005	2	20:31:33					X																	
248860006	2	20:32:47					X																	
248860007	2	20:34:02					X																	
248860008	2	20:35:17					X																	
248860009	2	20:36:31					X																	
ZZZZZZ	2	20:37:46																						
ZZZZZZ	2	20:39:00																						
ZZZZZZ	2	20:40:15																						
ZZZZZZ	2	20:41:29																						
ZZZZZZ	2	20:42:44																						
CCV06	1	20:43:59					X																	
CCB06	1	20:45:15					X																	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 17–MAY–10 **End Date:** 17–MAY–10

Client Sdg: 10–2313
Method MS
Data File: 100517–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	11:58:00			X													X		X			X		
S10	1	12:02:00			X													X		X			X		
S100	1	12:06:00			X													X		X			X		
ICV01	1	12:10:00			X													X		X			X		
ICB01	1	12:14:00			X													X		X			X		
CRDL01	1	12:18:00			X													X		X			X		
ICSA01	1	12:22:00			X													X		X			X		
ICSAB01	1	12:26:00			X													X		X			X		
CCV01	1	12:30:00			X													X		X			X		
CCB01	1	12:35:00			X													X		X			X		
LR01	1	12:39:00			X													X		X			X		
CCV02	1	12:43:00			X													X		X			X		
CCB02	1	12:47:00			X													X		X			X		
1202068103	2	12:51:00			X													X		X			X		
1202068108	40	12:55:00			X													X		X			X		
248860001	2	12:59:00			X													X		X			X		
1202068104	2	13:03:00			X													X		X			X		
1202068106	2	13:08:00			X													X		X			X		
1202068107	2	13:12:00			X													X		X			X		
1202068105	10	13:16:00			X													X		X			X		
CCV03	1	13:20:00			X													X		X			X		
CCB03	1	13:24:00			X													X		X			X		
248860002	2	13:28:00			X													X		X			X		
248860003	2	13:32:00			X													X		X			X		
248860004	2	13:37:00			X													X		X			X		
248860005	2	13:41:00			X													X		X			X		
248860006	2	13:45:00			X													X		X			X		
248860007	2	13:49:00			X													X		X			X		
248860008	2	13:53:00			X													X		X			X		
248860009	2	13:57:00			X													X		X			X		
ZZZZZZ	2	14:01:00																							
ZZZZZZ	2	14:06:00																							
CCV04	1	14:10:00			X													X		X			X		
CCB04	1	14:14:00			X													X		X			X		

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2313

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2313

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2313

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-2313
Contract: LANL01004
Instrument: OPTIMA4 **Effective Dates:** 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2313
Effective Dates: 22-MAR-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-2313
Contract: LANL01004
Instrument: OPTIMA4 **Effective Dates:** 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-2313
Contract: LANL01004
Instrument: OPTIMA4 **Effective Dates:** 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2313
Effective Dates: 22-MAR-10

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2313
Contract: LANL01004
Instrument: OPTIMA4
Effective Dates: 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–2313

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2313

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS7

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10

METALS
-12-
Linear Ranges

SDG NO. 10-2313

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS4

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

Raw Data

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Analysis Begun

Start Time: 3/31/2010 18:36:27 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/31/2010 18:36:30**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	146983.1	146983.1	101	%	18:37:03
1	Al 396.153Radial†	-46.6	-46.3	[0.00]	µg/L	18:37:23
1	Ca 317.933Radial†	562.9	558.9	[0.00]	µg/L	18:37:23
1	Fe 238.204 Radial†	148.8	147.8	[0.00]	µg/L	18:37:23
1	K 766.490 Radial†	1565.6	1554.3	[0.00]	µg/L	18:37:03
1	Mg 279.077 IEC†	207.4	205.9	[0.00]	µg/L	18:37:23
1	Na 589.592 Radial†	1216.0	1207.3	[0.00]	µg/L	18:37:03
1	Sr 421.552†	-110.9	-110.1	[0.00]	µg/L	18:37:03
1	Sc 361.383	1704607.6	1704607.6	99.208	%	18:38:25
1	Y 371.029	1018376.3	1018376.3	99.190	%	18:38:25
1	Ag 328.068†	3963.8	3995.4	[0.00]	µg/L	18:38:27
1	As 188.979†	-17.7	-17.9	[0.00]	µg/L	18:38:48
1	B 249.677†	3489.7	3517.5	[0.00]	µg/L	18:38:27
1	Ba 233.527†	-145.9	-147.0	[0.00]	µg/L	18:38:48
1	Be 313.107†	-965.4	-973.1	[0.00]	µg/L	18:38:27
1	Cd 226.502†	-106.0	-106.8	[0.00]	µg/L	18:38:48
1	Co 228.616†	-174.9	-176.3	[0.00]	µg/L	18:38:48
1	Cr 267.716†	129.8	130.8	[0.00]	µg/L	18:38:48
1	Cu 324.752†	2846.5	2869.3	[0.00]	µg/L	18:38:27
1	Mn 257.610†	253.9	255.9	[0.00]	µg/L	18:38:48
1	Mo 202.031†	-24.9	-25.1	[0.00]	µg/L	18:38:48
1	Ni 231.604†	-72.6	-73.1	[0.00]	µg/L	18:38:48
1	P 214.914†	-29.6	-29.8	[0.00]	µg/L	18:38:48
1	Pb 220.353†	106.5	107.4	[0.00]	µg/L	18:38:48
1	S 181.975 Axial†	102.6	103.4	[0.00]	µg/L	18:38:48
1	Sb 206.836†	81.9	82.6	[0.00]	µg/L	18:38:48
1	Se 196.026†	14.5	14.6	[0.00]	µg/L	18:38:48
1	SiO2†	1812.7	1827.1	[0.00]	µg/L	18:38:27
1	Si 251.611†	747.0	752.9	[0.00]	µg/L	18:38:27
1	Sn 189.927†	-6.9	-6.9	[0.00]	µg/L	18:38:48
1	Ti 334.940†	920.6	928.0	[0.00]	µg/L	18:38:27
1	Tl 190.801†	-108.2	-109.0	[0.00]	µg/L	18:38:48
1	U 409.014†	-161.2	-162.4	[0.00]	µg/L	18:38:27
1	V 292.402†	343.5	346.2	[0.00]	µg/L	18:38:27
1	Zn 213.857†	560.7	565.2	[0.00]	µg/L	18:38:48
2	Sc RADIAL	145077.9	145077.9	99.4	%	18:37:25
2	Al 396.153Radial†	-80.7	-81.2	[0.00]	µg/L	18:37:45
2	Ca 317.933Radial†	555.7	559.0	[0.00]	µg/L	18:37:45
2	Fe 238.204 Radial†	152.0	152.9	[0.00]	µg/L	18:37:45
2	K 766.490 Radial†	1581.8	1591.1	[0.00]	µg/L	18:37:25
2	Mg 279.077 IEC†	207.4	208.6	[0.00]	µg/L	18:37:45
2	Na 589.592 Radial†	1309.5	1317.2	[0.00]	µg/L	18:37:25
2	Sr 421.552†	-50.0	-50.3	[0.00]	µg/L	18:37:25
2	Sc 361.383	1730517.4	1730517.4	100.72	%	18:38:50
2	Y 371.029	1034150.1	1034150.1	100.73	%	18:38:50
2	Ag 328.068†	4314.8	4284.1	[0.00]	µg/L	18:38:52
2	As 188.979†	-23.3	-23.2	[0.00]	µg/L	18:39:12

2	B 249.677†	3487.4	3462.6	[0.00]	µg/L	18:38:52
2	Ba 233.527†	-138.3	-137.3	[0.00]	µg/L	18:39:12
2	Be 313.107†	-1181.9	-1173.5	[0.00]	µg/L	18:38:52
2	Cd 226.502†	-128.3	-127.3	[0.00]	µg/L	18:39:12
2	Co 228.616†	-207.1	-205.6	[0.00]	µg/L	18:39:12
2	Cr 267.716†	187.0	185.7	[0.00]	µg/L	18:39:12
2	Cu 324.752†	3037.7	3016.1	[0.00]	µg/L	18:38:52
2	Mn 257.610†	235.4	233.7	[0.00]	µg/L	18:39:12
2	Mo 202.031†	-14.8	-14.7	[0.00]	µg/L	18:39:12
2	Ni 231.604†	-77.5	-77.0	[0.00]	µg/L	18:39:12
2	P 214.914†	-7.1	-7.0	[0.00]	µg/L	18:39:12
2	Pb 220.353†	82.7	82.1	[0.00]	µg/L	18:39:12
2	S 181.975 Axial†	101.1	100.4	[0.00]	µg/L	18:39:12
2	Sb 206.836†	84.6	84.0	[0.00]	µg/L	18:39:12
2	Se 196.026†	9.6	9.5	[0.00]	µg/L	18:39:12
2	SiO2†	1764.6	1752.0	[0.00]	µg/L	18:38:52
2	Si 251.611†	909.0	902.5	[0.00]	µg/L	18:38:52
2	Sn 189.927†	4.1	4.0	[0.00]	µg/L	18:39:12
2	Ti 334.940†	1042.4	1035.0	[0.00]	µg/L	18:38:52
2	Tl 190.801†	-124.1	-123.3	[0.00]	µg/L	18:39:12
2	U 409.014†	-390.5	-387.7	[0.00]	µg/L	18:38:52
2	V 292.402†	355.1	352.6	[0.00]	µg/L	18:38:52
2	Zn 213.857†	564.8	560.8	[0.00]	µg/L	18:39:12
3	Sc RADIAL	145728.3	145728.3	99.9	%	18:37:47
3	Al 396.153Radial†	-62.0	-62.1	[0.00]	µg/L	18:38:07
3	Ca 317.933Radial†	563.1	563.9	[0.00]	µg/L	18:38:07
3	Fe 238.204 Radial†	143.5	143.7	[0.00]	µg/L	18:38:07
3	K 766.490 Radial†	1486.8	1488.8	[0.00]	µg/L	18:37:47
3	Mg 279.077 IEC†	157.4	157.6	[0.00]	µg/L	18:38:07
3	Na 589.592 Radial†	1346.0	1347.9	[0.00]	µg/L	18:37:47
3	Sr 421.552†	-245.1	-245.5	[0.00]	µg/L	18:37:47
3	Sc 361.383	1719527.8	1719527.8	100.08	%	18:39:14
3	Y 371.029	1027539.8	1027539.8	100.08	%	18:39:14
3	Ag 328.068†	3997.7	3994.6	[0.00]	µg/L	18:39:16
3	As 188.979†	-20.0	-20.0	[0.00]	µg/L	18:39:36
3	B 249.677†	3540.3	3537.6	[0.00]	µg/L	18:39:16
3	Ba 233.527†	-123.3	-123.2	[0.00]	µg/L	18:39:36
3	Be 313.107†	-1048.2	-1047.4	[0.00]	µg/L	18:39:16
3	Cd 226.502†	-120.5	-120.4	[0.00]	µg/L	18:39:36
3	Co 228.616†	-189.2	-189.0	[0.00]	µg/L	18:39:36
3	Cr 267.716†	219.3	219.2	[0.00]	µg/L	18:39:36
3	Cu 324.752†	3033.6	3031.3	[0.00]	µg/L	18:39:16
3	Mn 257.610†	222.3	222.2	[0.00]	µg/L	18:39:36
3	Mo 202.031†	-20.4	-20.4	[0.00]	µg/L	18:39:36
3	Ni 231.604†	-79.5	-79.4	[0.00]	µg/L	18:39:36
3	P 214.914†	-17.1	-17.1	[0.00]	µg/L	18:39:36
3	Pb 220.353†	69.7	69.7	[0.00]	µg/L	18:39:36
3	S 181.975 Axial†	111.4	111.3	[0.00]	µg/L	18:39:36
3	Sb 206.836†	76.0	76.0	[0.00]	µg/L	18:39:36
3	Se 196.026†	21.7	21.7	[0.00]	µg/L	18:39:36
3	SiO2†	1748.3	1747.0	[0.00]	µg/L	18:39:16
3	Si 251.611†	854.9	854.3	[0.00]	µg/L	18:39:16
3	Sn 189.927†	-0.5	-0.5	[0.00]	µg/L	18:39:36
3	Ti 334.940†	895.3	894.7	[0.00]	µg/L	18:39:16
3	Tl 190.801†	-117.8	-117.8	[0.00]	µg/L	18:39:36
3	U 409.014†	-259.7	-259.5	[0.00]	µg/L	18:39:16
3	V 292.402†	512.9	512.6	[0.00]	µg/L	18:39:16
3	Zn 213.857†	567.7	567.3	[0.00]	µg/L	18:39:36

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1718217.6	13004.50	0.76%	100.00	%
Sc RADIAL	145929.8	968.46	0.66%	100	%
Y 371.029	1026688.7	7921.26	0.77%	100.000	%
Ag 328.068†	4091.4	166.92	4.08%	[0.00]	µg/L
Al 396.153Radial†	-63.2	17.46	27.63%	[0.00]	µg/L
As 188.979†	-20.4	2.68	13.16%	[0.00]	µg/L
B 249.677†	3505.9	38.80	1.11%	[0.00]	µg/L
Ba 233.527†	-135.9	11.99	8.83%	[0.00]	µg/L

Be 313.107†	-1064.7	101.30	9.51%	[0.00]	µg/L
Ca 317.933Radial†	560.6	2.89	0.52%	[0.00]	µg/L
Cd 226.502†	-118.2	10.43	8.83%	[0.00]	µg/L
Co 228.616†	-190.3	14.72	7.73%	[0.00]	µg/L
Cr 267.716†	178.6	44.62	24.99%	[0.00]	µg/L
Cu 324.752†	2972.2	89.48	3.01%	[0.00]	µg/L
Fe 238.204 Radial†	148.1	4.61	3.11%	[0.00]	µg/L
K 766.490 Radial†	1544.8	51.81	3.35%	[0.00]	µg/L
Mg 279.077 IEC†	190.7	28.69	15.04%	[0.00]	µg/L
Mn 257.610†	237.3	17.14	7.23%	[0.00]	µg/L
Mo 202.031†	-20.1	5.18	25.80%	[0.00]	µg/L
Na 589.592 Radial†	1290.8	73.89	5.72%	[0.00]	µg/L
Ni 231.604†	-76.5	3.18	4.16%	[0.00]	µg/L
P 214.914†	-18.0	11.42	63.61%	[0.00]	µg/L
Pb 220.353†	86.4	19.23	22.27%	[0.00]	µg/L
S 181.975 Axial†	105.1	5.63	5.36%	[0.00]	µg/L
Sb 206.836†	80.8	4.27	5.29%	[0.00]	µg/L
Se 196.026†	15.3	6.14	40.18%	[0.00]	µg/L
SiO2†	1775.4	44.90	2.53%	[0.00]	µg/L
Si 251.611†	836.6	76.33	9.12%	[0.00]	µg/L
Sn 189.927†	-1.1	5.51	492.60%	[0.00]	µg/L
Sr 421.552†	-135.3	99.98	73.90%	[0.00]	µg/L
Ti 334.940†	952.5	73.33	7.70%	[0.00]	µg/L
Tl 190.801†	-116.7	7.17	6.15%	[0.00]	µg/L
U 409.014†	-269.9	113.01	41.87%	[0.00]	µg/L
V 292.402†	403.8	94.24	23.34%	[0.00]	µg/L
Zn 213.857†	564.4	3.32	0.59%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/31/2010 18:39:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	144945.8	144945.8	99.3	%	18:40:16
1	K 766.490 Radial†	4177.9	2661.5	[1000]	µg/L	18:40:16
1	Sr 421.552†	48790.2	49256.8	[100]	µg/L	18:40:16
1	Sc 361.383	1738207.5	1738207.5	101.16	%	18:40:38
1	Y 371.029	1035658.2	1035658.2	100.87	%	18:40:38
1	Ag 328.068†	31505.9	27052.2	[100]	µg/L	18:40:40
1	As 188.979†	319.4	336.1	[100]	µg/L	18:41:00
1	B 249.677†	10182.7	6559.7	[100]	µg/L	18:40:40
1	Ba 233.527†	25238.0	25083.6	[100]	µg/L	18:40:40
1	Be 313.107†	372065.7	368851.5	[100]	µg/L	18:40:38
1	Cd 226.502†	16206.1	16137.9	[100]	µg/L	18:40:40
1	Co 228.616†	8180.0	8276.3	[100]	µg/L	18:41:00
1	Cr 267.716†	13182.1	12852.0	[100]	µg/L	18:40:40
1	Cu 324.752†	28766.5	25463.5	[100]	µg/L	18:40:40
1	Mn 257.610†	84629.1	83418.6	[100]	µg/L	18:40:40
1	Mo 202.031†	3388.6	3369.7	[100]	µg/L	18:41:00
1	Ni 231.604†	8784.7	8760.2	[100]	µg/L	18:40:40
1	P 214.914†	2330.2	2321.4	[500]	µg/L	18:41:00
1	Pb 220.353†	1931.7	1823.1	[100]	µg/L	18:41:00
1	S 181.975 Axial†	386.6	277.1	[200]	µg/L	18:41:00
1	Sb 206.836†	932.6	841.0	[100]	µg/L	18:41:00
1	Se 196.026†	288.8	270.2	[100]	µg/L	18:41:00
1	SiO2†	12629.3	10708.7	[1069.5]	µg/L	18:40:40
1	Si 251.611†	34601.6	33367.1	[500]	µg/L	18:40:40
1	Sn 189.927†	1637.3	1619.6	[100]	µg/L	18:41:00
1	Ti 334.940†	108213.7	106016.7	[100]	µg/L	18:40:40
1	Tl 190.801†	724.1	832.5	[100]	µg/L	18:41:00
1	U 409.014†	1714.9	1965.0	[100]	µg/L	18:40:40
1	V 292.402†	20866.1	20222.4	[100]	µg/L	18:40:40
1	Zn 213.857†	18689.8	17910.4	[100]	µg/L	18:40:40
2	Sc RADIAL	144384.1	144384.1	98.9	%	18:40:18
2	K 766.490 Radial†	4099.7	2598.8	[1000]	µg/L	18:40:18
2	Sr 421.552†	48913.4	49572.3	[100]	µg/L	18:40:18
2	Sc 361.383	1718136.8	1718136.8	99.995	%	18:41:02
2	Y 371.029	1023615.0	1023615.0	99.701	%	18:41:02
2	Ag 328.068†	31474.0	27384.1	[100]	µg/L	18:41:04
2	As 188.979†	316.2	336.6	[100]	µg/L	18:41:24
2	B 249.677†	10249.3	6743.9	[100]	µg/L	18:41:04
2	Ba 233.527†	25403.3	25540.3	[100]	µg/L	18:41:04
2	Be 313.107†	368011.0	369093.1	[100]	µg/L	18:41:02
2	Cd 226.502†	16403.0	16522.0	[100]	µg/L	18:41:04
2	Co 228.616†	8194.1	8384.8	[100]	µg/L	18:41:24
2	Cr 267.716†	13299.6	13121.6	[100]	µg/L	18:41:04
2	Cu 324.752†	29042.8	26072.0	[100]	µg/L	18:41:04
2	Mn 257.610†	85481.9	85248.7	[100]	µg/L	18:41:04
2	Mo 202.031†	3415.9	3436.2	[100]	µg/L	18:41:24
2	Ni 231.604†	9104.3	9181.2	[100]	µg/L	18:41:04
2	P 214.914†	2327.9	2346.0	[500]	µg/L	18:41:24
2	Pb 220.353†	1943.3	1857.0	[100]	µg/L	18:41:24
2	S 181.975 Axial†	382.9	277.8	[200]	µg/L	18:41:24
2	Sb 206.836†	933.1	852.4	[100]	µg/L	18:41:24
2	Se 196.026†	282.7	267.4	[100]	µg/L	18:41:24
2	SiO2†	12728.6	10953.9	[1069.5]	µg/L	18:41:04
2	Si 251.611†	35105.7	34270.8	[500]	µg/L	18:41:04
2	Sn 189.927†	1643.4	1644.6	[100]	µg/L	18:41:24
2	Ti 334.940†	109258.0	108310.6	[100]	µg/L	18:41:04
2	Tl 190.801†	742.2	858.9	[100]	µg/L	18:41:24
2	U 409.014†	1747.4	2017.4	[100]	µg/L	18:41:04
2	V 292.402†	20863.1	20460.2	[100]	µg/L	18:41:04

2	Zn 213.857†	18913.1	18349.6	[100]	µg/L	18:41:04
3	Sc RADIAL	144888.2	144888.2	99.3	%	18:40:20
3	K 766.490 Radial†	4194.1	2679.5	[1000]	µg/L	18:40:20
3	Sr 421.552†	48878.7	49365.4	[100]	µg/L	18:40:20
3	Sc 361.383	1720712.1	1720712.1	100.15	%	18:41:26
3	Y 371.029	1025149.2	1025149.2	99.850	%	18:41:26
3	Ag 328.068†	30653.6	26517.7	[100]	µg/L	18:41:28
3	As 188.979†	311.4	331.3	[100]	µg/L	18:41:48
3	B 249.677†	10032.3	6511.9	[100]	µg/L	18:41:28
3	Ba 233.527†	24571.6	24671.8	[100]	µg/L	18:41:28
3	Be 313.107†	369363.0	369892.2	[100]	µg/L	18:41:26
3	Cd 226.502†	15800.2	15895.5	[100]	µg/L	18:41:28
3	Co 228.616†	7941.4	8120.2	[100]	µg/L	18:41:48
3	Cr 267.716†	12878.6	12681.3	[100]	µg/L	18:41:28
3	Cu 324.752†	28237.0	25223.9	[100]	µg/L	18:41:28
3	Mn 257.610†	82709.3	82352.2	[100]	µg/L	18:41:28
3	Mo 202.031†	3317.5	3332.8	[100]	µg/L	18:41:48
3	Ni 231.604†	8579.1	8643.1	[100]	µg/L	18:41:28
3	P 214.914†	2246.6	2261.3	[500]	µg/L	18:41:48
3	Pb 220.353†	1888.8	1799.7	[100]	µg/L	18:41:48
3	S 181.975 Axial†	370.3	264.7	[200]	µg/L	18:41:48
3	Sb 206.836†	914.8	832.6	[100]	µg/L	18:41:48
3	Se 196.026†	294.0	278.3	[100]	µg/L	18:41:48
3	SiO2†	12365.6	10572.3	[1069.5]	µg/L	18:41:28
3	Si 251.611†	33612.6	32727.3	[500]	µg/L	18:41:28
3	Sn 189.927†	1589.9	1588.8	[100]	µg/L	18:41:48
3	Ti 334.940†	106005.7	104899.5	[100]	µg/L	18:41:28
3	Tl 190.801†	699.9	815.6	[100]	µg/L	18:41:48
3	U 409.014†	1493.0	1760.7	[100]	µg/L	18:41:28
3	V 292.402†	20303.9	19870.7	[100]	µg/L	18:41:28
3	Zn 213.857†	18249.8	17659.0	[100]	µg/L	18:41:28

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1725685.5	10920.55	0.63%	100.43	%
Sc RADIAL	144739.3	309.02	0.21%	99.2	%
Y 371.029	1028140.8	6555.30	0.64%	100.14	%
Ag 328.068†	26984.7	437.11	1.62%	[100]	µg/L
As 188.979†	334.7	2.93	0.88%	[100]	µg/L
B 249.677†	6605.2	122.52	1.85%	[100]	µg/L
Ba 233.527†	25098.6	434.45	1.73%	[100]	µg/L
Be 313.107†	369278.9	544.69	0.15%	[100]	µg/L
Cd 226.502†	16185.1	315.91	1.95%	[100]	µg/L
Co 228.616†	8260.4	133.02	1.61%	[100]	µg/L
Cr 267.716†	12885.0	222.00	1.72%	[100]	µg/L
Cu 324.752†	25586.4	437.23	1.71%	[100]	µg/L
K 766.490 Radial†	2646.6	42.33	1.60%	[1000]	µg/L
Mn 257.610†	83673.1	1464.94	1.75%	[100]	µg/L
Mo 202.031†	3379.6	52.39	1.55%	[100]	µg/L
Ni 231.604†	8861.5	282.97	3.19%	[100]	µg/L
P 214.914†	2309.6	43.55	1.89%	[500]	µg/L
Pb 220.353†	1826.6	28.83	1.58%	[100]	µg/L
S 181.975 Axial†	273.2	7.39	2.70%	[200]	µg/L
Sb 206.836†	842.0	9.91	1.18%	[100]	µg/L
Se 196.026†	272.0	5.61	2.06%	[100]	µg/L
SiO2†	10744.9	193.37	1.80%	[1069.5]	µg/L
Si 251.611†	33455.1	775.50	2.32%	[500]	µg/L
Sn 189.927†	1617.7	27.99	1.73%	[100]	µg/L
Sr 421.552†	49398.1	160.32	0.32%	[100]	µg/L
Ti 334.940†	106408.9	1739.07	1.63%	[100]	µg/L
Tl 190.801†	835.7	21.85	2.61%	[100]	µg/L
U 409.014†	1914.4	135.63	7.09%	[100]	µg/L
V 292.402†	20184.4	296.62	1.47%	[100]	µg/L
Zn 213.857†	17973.0	349.52	1.94%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/31/2010 18:41:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139976.0	139976.0	95.9	%	18:42:27
1	Al 396.153Radial†	25919.4	27085.0	[5000]	µg/L	18:42:27
1	Ca 317.933Radial†	87385.1	90541.3	[5000]	µg/L	18:42:27
1	K 766.490 Radial†	14430.7	13499.7	[5000]	µg/L	18:42:27
1	Mg 279.077 IEC†	13338.9	13715.6	[5000]	µg/L	18:42:27
1	Sr 421.552†	229015.2	238891.4	[500]	µg/L	18:42:25
1	Sc 361.383	1645400.7	1645400.7	95.762	%	18:42:40
1	Y 371.029	975342.9	975342.9	94.999	%	18:42:40
1	Ag 328.068†	131294.3	133013.3	[500]	µg/L	18:42:40
1	As 188.979†	1571.6	1661.5	[500]	µg/L	18:43:00
1	B 249.677†	35172.1	33222.7	[500]	µg/L	18:42:40
1	Ba 233.527†	117348.5	122677.6	[500]	µg/L	18:42:40
1	Be 313.107†	1744827.1	1823108.9	[500]	µg/L	18:42:40
1	Cd 226.502†	75312.3	78763.4	[500]	µg/L	18:42:40
1	Co 228.616†	38245.0	40127.8	[500]	µg/L	18:42:40
1	Cr 267.716†	60545.4	63046.3	[500]	µg/L	18:42:40
1	Cu 324.752†	123884.9	126395.2	[500]	µg/L	18:42:40
1	Mn 257.610†	385575.1	402401.4	[500]	µg/L	18:42:40
1	Mo 202.031†	16410.2	17156.5	[500]	µg/L	18:43:00
1	Ni 231.604†	41126.2	43022.7	[500]	µg/L	18:42:40
1	P 214.914†	11303.9	11822.1	[2500]	µg/L	18:43:00
1	Pb 220.353†	8787.6	9090.2	[500]	µg/L	18:43:00
1	S 181.975 Axial†	1381.6	1337.7	[1000]	µg/L	18:43:00
1	Sb 206.836†	4130.5	4232.5	[500]	µg/L	18:43:00
1	Se 196.026†	1340.7	1384.8	[500]	µg/L	18:43:00
1	SiO2†	54250.1	54875.6	[5347.5]	µg/L	18:42:40
1	Si 251.611†	163679.1	170086.1	[2500]	µg/L	18:42:40
1	Sn 189.927†	7746.5	8090.4	[500]	µg/L	18:43:00
1	Ti 334.940†	510093.6	531715.2	[500]	µg/L	18:42:40
1	Tl 190.801†	3808.0	4093.2	[500]	µg/L	18:43:00
1	U 409.014†	6985.6	7564.6	[500]	µg/L	18:42:40
1	V 292.402†	96986.0	100874.3	[500]	µg/L	18:42:40
1	Zn 213.857†	84527.8	87704.2	[500]	µg/L	18:42:40
2	Sc RADIAL	141210.3	141210.3	96.8	%	18:42:31
2	Al 396.153Radial†	26176.8	27114.9	[5000]	µg/L	18:42:31
2	Ca 317.933Radial†	88277.8	90667.6	[5000]	µg/L	18:42:31
2	K 766.490 Radial†	14658.6	13603.8	[5000]	µg/L	18:42:31
2	Mg 279.077 IEC†	13508.7	13769.5	[5000]	µg/L	18:42:31
2	Sr 421.552†	232944.0	240864.6	[500]	µg/L	18:42:29
2	Sc 361.383	1687203.1	1687203.1	98.195	%	18:43:03
2	Y 371.029	998510.1	998510.1	97.255	%	18:43:03
2	Ag 328.068†	134607.0	132990.0	[500]	µg/L	18:43:03
2	As 188.979†	1586.5	1636.0	[500]	µg/L	18:43:23
2	B 249.677†	36433.6	33597.5	[500]	µg/L	18:43:03
2	Ba 233.527†	121232.8	123597.1	[500]	µg/L	18:43:03
2	Be 313.107†	1799842.1	1833991.9	[500]	µg/L	18:43:03
2	Cd 226.502†	78158.8	79713.7	[500]	µg/L	18:43:03
2	Co 228.616†	39721.5	40642.0	[500]	µg/L	18:43:03
2	Cr 267.716†	62227.1	63192.4	[500]	µg/L	18:43:03
2	Cu 324.752†	127576.9	126949.9	[500]	µg/L	18:43:03
2	Mn 257.610†	397913.1	404990.4	[500]	µg/L	18:43:03
2	Mo 202.031†	16475.5	16798.5	[500]	µg/L	18:43:23
2	Ni 231.604†	42320.9	43175.4	[500]	µg/L	18:43:03
2	P 214.914†	11321.5	11547.6	[2500]	µg/L	18:43:23
2	Pb 220.353†	8841.9	8918.0	[500]	µg/L	18:43:23
2	S 181.975 Axial†	1404.5	1325.2	[1000]	µg/L	18:43:23
2	Sb 206.836†	4150.6	4146.1	[500]	µg/L	18:43:23
2	Se 196.026†	1352.6	1362.2	[500]	µg/L	18:43:23
2	SiO2†	55913.1	55165.5	[5347.5]	µg/L	18:43:03

2	Si 251.611†	169027.8	171298.3	[2500]	µg/L	18:43:03
2	Sn 189.927†	7793.7	7938.1	[500]	µg/L	18:43:23
2	Ti 334.940†	524282.8	532967.8	[500]	µg/L	18:43:03
2	Tl 190.801†	3829.1	4016.1	[500]	µg/L	18:43:23
2	U 409.014†	7204.4	7606.8	[500]	µg/L	18:43:03
2	V 292.402†	99476.3	100901.1	[500]	µg/L	18:43:03
2	Zn 213.857†	87574.3	88619.7	[500]	µg/L	18:43:03
3	Sc RADIAL	139845.9	139845.9	95.8	%	18:42:35
3	Al 396.153Radial†	25970.7	27163.8	[5000]	µg/L	18:42:35
3	Ca 317.933Radial†	87048.7	90275.0	[5000]	µg/L	18:42:35
3	K 766.490 Radial†	14322.7	13401.0	[5000]	µg/L	18:42:35
3	Mg 279.077 IEC†	13177.9	13560.5	[5000]	µg/L	18:42:35
3	Sr 421.552†	232490.3	242739.9	[500]	µg/L	18:42:33
3	Sc 361.383	1671427.9	1671427.9	97.277	%	18:43:26
3	Y 371.029	990579.4	990579.4	96.483	%	18:43:26
3	Ag 328.068†	132744.3	132368.9	[500]	µg/L	18:43:26
3	As 188.979†	1563.8	1627.9	[500]	µg/L	18:43:46
3	B 249.677†	35824.9	33321.9	[500]	µg/L	18:43:26
3	Ba 233.527†	119283.9	122759.0	[500]	µg/L	18:43:26
3	Be 313.107†	1775117.0	1825874.0	[500]	µg/L	18:43:26
3	Cd 226.502†	77044.3	79319.2	[500]	µg/L	18:43:26
3	Co 228.616†	39106.1	40391.2	[500]	µg/L	18:43:26
3	Cr 267.716†	61510.3	63053.6	[500]	µg/L	18:43:26
3	Cu 324.752†	125724.5	126271.8	[500]	µg/L	18:43:26
3	Mn 257.610†	391730.1	402458.9	[500]	µg/L	18:43:26
3	Mo 202.031†	16447.7	16928.2	[500]	µg/L	18:43:46
3	Ni 231.604†	41833.4	43081.0	[500]	µg/L	18:43:26
3	P 214.914†	11306.9	11641.3	[2500]	µg/L	18:43:46
3	Pb 220.353†	8817.9	8978.4	[500]	µg/L	18:43:46
3	S 181.975 Axial†	1403.6	1337.8	[1000]	µg/L	18:43:46
3	Sb 206.836†	4107.1	4141.3	[500]	µg/L	18:43:46
3	Se 196.026†	1356.4	1379.1	[500]	µg/L	18:43:46
3	SiO2†	55098.9	54865.9	[5347.5]	µg/L	18:43:26
3	Si 251.611†	166541.0	170366.5	[2500]	µg/L	18:43:26
3	Sn 189.927†	7776.3	7995.1	[500]	µg/L	18:43:46
3	Ti 334.940†	517688.6	531228.1	[500]	µg/L	18:43:26
3	Tl 190.801†	3841.1	4065.3	[500]	µg/L	18:43:46
3	U 409.014†	7259.9	7733.0	[500]	µg/L	18:43:26
3	V 292.402†	98243.7	100590.2	[500]	µg/L	18:43:26
3	Zn 213.857†	86383.4	88237.2	[500]	µg/L	18:43:26

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1668010.6	21109.69	1.27%	97.078	%
Sc RADIAL	140344.1	753.01	0.54%	96.2	%
Y 371.029	988144.1	11774.03	1.19%	96.246	%
Ag 328.068†	132790.8	365.49	0.28%	[500]	µg/L
Al 396.153Radial†	27121.2	39.74	0.15%	[5000]	µg/L
As 188.979†	1641.8	17.55	1.07%	[500]	µg/L
B 249.677†	33380.7	194.18	0.58%	[500]	µg/L
Ba 233.527†	123011.2	509.04	0.41%	[500]	µg/L
Be 313.107†	1827658.3	5656.67	0.31%	[500]	µg/L
Ca 317.933Radial†	90494.7	200.40	0.22%	[5000]	µg/L
Cd 226.502†	79265.5	477.42	0.60%	[500]	µg/L
Co 228.616†	40387.0	257.10	0.64%	[500]	µg/L
Cr 267.716†	63097.4	82.35	0.13%	[500]	µg/L
Cu 324.752†	126538.9	361.18	0.29%	[500]	µg/L
K 766.490 Radial†	13501.5	101.39	0.75%	[5000]	µg/L
Mg 279.077 IEC†	13681.9	108.49	0.79%	[5000]	µg/L
Mn 257.610†	403283.6	1478.44	0.37%	[500]	µg/L
Mo 202.031†	16961.0	181.25	1.07%	[500]	µg/L
Ni 231.604†	43093.0	77.04	0.18%	[500]	µg/L
P 214.914†	11670.4	139.54	1.20%	[2500]	µg/L
Pb 220.353†	8995.5	87.32	0.97%	[500]	µg/L
S 181.975 Axial†	1333.6	7.24	0.54%	[1000]	µg/L
Sb 206.836†	4173.3	51.32	1.23%	[500]	µg/L
Se 196.026†	1375.4	11.73	0.85%	[500]	µg/L
SiO2†	54969.0	170.25	0.31%	[5347.5]	µg/L
Si 251.611†	170583.6	634.61	0.37%	[2500]	µg/L

Sn 189.927†	8007.9	76.96	0.96%	[500] µg/L
Sr 421.552†	240832.0	1924.44	0.80%	[500] µg/L
Ti 334.940†	531970.4	897.45	0.17%	[500] µg/L
Tl 190.801†	4058.2	39.03	0.96%	[500] µg/L
U 409.014†	7634.8	87.65	1.15%	[500] µg/L
V 292.402†	100788.5	172.29	0.17%	[500] µg/L
Zn 213.857†	88187.0	459.83	0.52%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/31/2010 18:43:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	140246.3	140246.3	96.1	%	18:44:26
1	Al 396.153Radial†	52689.3	54887.7	[10000]	µg/L	18:44:26
1	Ca 317.933Radial†	176157.7	182735.9	[10000]	µg/L	18:44:26
1	Fe 238.204 Radial†	157034.9	163250.7	[10000]	µg/L	18:44:26
1	K 766.490 Radial†	27864.8	27449.2	[10000]	µg/L	18:44:26
1	Mg 279.077 IEC†	26628.7	27517.1	[10000]	µg/L	18:44:26
1	Na 589.592 Radial†	71367.5	72968.9	[10000]	µg/L	18:44:26
1	Sr 421.552†	465887.4	484902.9	[1000]	µg/L	18:44:24
1	Sc 361.383	1660058.9	1660058.9	96.615	%	18:44:39
1	Y 371.029	978012.9	978012.9	95.259	%	18:44:39
1	Ag 328.068†	268618.1	273937.5	[1000]	µg/L	18:44:41
1	As 188.979†	3193.8	3326.1	[1000]	µg/L	18:45:01
1	B 249.677†	69762.5	68700.7	[1000]	µg/L	18:44:41
1	Ba 233.527†	242316.3	250941.5	[1000]	µg/L	18:44:41
1	Be 313.107†	3555578.2	3681209.5	[1000]	µg/L	18:44:39
1	Cd 226.502†	156604.8	162209.5	[1000]	µg/L	18:44:41
1	Co 228.616†	78951.1	81907.4	[1000]	µg/L	18:44:41
1	Cr 267.716†	125005.7	129206.6	[1000]	µg/L	18:44:41
1	Cu 324.752†	255303.1	261275.2	[1000]	µg/L	18:44:41
1	Mn 257.610†	781879.7	809034.9	[1000]	µg/L	18:44:39
1	Mo 202.031†	33228.9	34413.1	[1000]	µg/L	18:44:41
1	Ni 231.604†	84765.4	87811.6	[1000]	µg/L	18:44:41
1	P 214.914†	22636.2	23447.2	[5000]	µg/L	18:45:01
1	Pb 220.353†	17407.6	17931.0	[1000]	µg/L	18:45:01
1	S 181.975 Axial†	2706.2	2696.0	[2000]	µg/L	18:45:01
1	Sb 206.836†	8264.7	8473.4	[1000]	µg/L	18:45:01
1	Se 196.026†	2709.4	2789.0	[1000]	µg/L	18:45:01
1	SiO2†	108329.2	110349.0	[10695]	µg/L	18:44:41
1	Si 251.611†	331285.5	342055.2	[5000]	µg/L	18:44:41
1	Sn 189.927†	15541.6	16087.2	[1000]	µg/L	18:45:01
1	Ti 334.940†	1037686.9	1073088.8	[1000]	µg/L	18:44:39
1	Tl 190.801†	7778.7	8167.9	[1000]	µg/L	18:45:01
1	U 409.014†	16858.3	17718.8	[1000]	µg/L	18:44:41
1	V 292.402†	201478.5	208133.3	[1000]	µg/L	18:44:41
1	Zn 213.857†	174510.7	180060.2	[1000]	µg/L	18:44:41
2	Sc RADIAL	138844.4	138844.4	95.1	%	18:44:30
2	Al 396.153Radial†	52161.3	54886.4	[10000]	µg/L	18:44:30
2	Ca 317.933Radial†	173493.6	181786.6	[10000]	µg/L	18:44:30
2	Fe 238.204 Radial†	154887.4	162643.3	[10000]	µg/L	18:44:30
2	K 766.490 Radial†	27455.0	27311.3	[10000]	µg/L	18:44:30
2	Mg 279.077 IEC†	26420.5	27578.1	[10000]	µg/L	18:44:30
2	Na 589.592 Radial†	70508.9	72816.3	[10000]	µg/L	18:44:30
2	Sr 421.552†	460810.9	484461.8	[1000]	µg/L	18:44:28
2	Sc 361.383	1689699.6	1689699.6	98.340	%	18:45:04
2	Y 371.029	993860.1	993860.1	96.802	%	18:45:04
2	Ag 328.068†	266910.5	267323.9	[1000]	µg/L	18:45:06
2	As 188.979†	3218.4	3293.1	[1000]	µg/L	18:45:26
2	B 249.677†	69508.7	67175.9	[1000]	µg/L	18:45:06
2	Ba 233.527†	241134.5	245340.1	[1000]	µg/L	18:45:06
2	Be 313.107†	3627090.7	3689371.8	[1000]	µg/L	18:45:04
2	Cd 226.502†	155509.2	158252.0	[1000]	µg/L	18:45:06
2	Co 228.616†	78490.7	80005.8	[1000]	µg/L	18:45:06
2	Cr 267.716†	124369.4	126289.8	[1000]	µg/L	18:45:06
2	Cu 324.752†	253180.3	254481.2	[1000]	µg/L	18:45:06
2	Mn 257.610†	797903.6	811133.0	[1000]	µg/L	18:45:04
2	Mo 202.031†	33052.4	33630.3	[1000]	µg/L	18:45:06
2	Ni 231.604†	84350.1	85850.2	[1000]	µg/L	18:45:06
2	P 214.914†	22849.9	23253.5	[5000]	µg/L	18:45:26
2	Pb 220.353†	17581.2	17791.6	[1000]	µg/L	18:45:26

2	S 181.975 Axial†	2749.5	2690.8	[2000]	µg/L	18:45:26
2	Sb 206.836†	8294.0	8353.2	[1000]	µg/L	18:45:26
2	Se 196.026†	2710.1	2740.6	[1000]	µg/L	18:45:26
2	SiO2†	107785.0	107828.8	[10695]	µg/L	18:45:06
2	Si 251.611†	329317.5	334039.0	[5000]	µg/L	18:45:06
2	Sn 189.927†	15680.3	15946.1	[1000]	µg/L	18:45:26
2	Ti 334.940†	1057357.1	1074250.2	[1000]	µg/L	18:45:04
2	Tl 190.801†	7829.0	8077.8	[1000]	µg/L	18:45:26
2	U 409.014†	16641.8	17192.5	[1000]	µg/L	18:45:06
2	V 292.402†	200063.6	203036.4	[1000]	µg/L	18:45:06
2	Zn 213.857†	173774.1	176142.5	[1000]	µg/L	18:45:06
3	Sc RADIAL	142431.7	142431.7	97.6	%	18:44:34
3	Al 396.153Radial†	53146.2	54514.7	[10000]	µg/L	18:44:34
3	Ca 317.933Radial†	178392.5	182213.1	[10000]	µg/L	18:44:34
3	Fe 238.204 Radial†	159216.9	162979.1	[10000]	µg/L	18:44:34
3	K 766.490 Radial†	28289.6	27439.6	[10000]	µg/L	18:44:34
3	Mg 279.077 IEC†	27285.4	27764.8	[10000]	µg/L	18:44:34
3	Na 589.592 Radial†	72542.7	73033.5	[10000]	µg/L	18:44:34
3	Sr 421.552†	461335.7	472801.1	[1000]	µg/L	18:44:32
3	Sc 361.383	1671450.9	1671450.9	97.278	%	18:45:29
3	Y 371.029	984698.6	984698.6	95.910	%	18:45:29
3	Ag 328.068†	268839.9	272270.6	[1000]	µg/L	18:45:31
3	As 188.979†	3207.1	3317.1	[1000]	µg/L	18:45:51
3	B 249.677†	69920.1	68370.5	[1000]	µg/L	18:45:31
3	Ba 233.527†	242785.5	249714.4	[1000]	µg/L	18:45:31
3	Be 313.107†	3559181.4	3659831.0	[1000]	µg/L	18:45:29
3	Cd 226.502†	156473.3	160969.5	[1000]	µg/L	18:45:31
3	Co 228.616†	79020.9	81422.2	[1000]	µg/L	18:45:31
3	Cr 267.716†	125294.1	128621.2	[1000]	µg/L	18:45:31
3	Cu 324.752†	255275.0	259445.3	[1000]	µg/L	18:45:31
3	Mn 257.610†	783171.7	804847.3	[1000]	µg/L	18:45:29
3	Mo 202.031†	33174.1	34122.4	[1000]	µg/L	18:45:31
3	Ni 231.604†	84877.1	87328.4	[1000]	µg/L	18:45:31
3	P 214.914†	22811.2	23467.5	[5000]	µg/L	18:45:51
3	Pb 220.353†	17557.7	17962.6	[1000]	µg/L	18:45:51
3	S 181.975 Axial†	2739.9	2711.5	[2000]	µg/L	18:45:51
3	Sb 206.836†	8307.3	8458.9	[1000]	µg/L	18:45:51
3	Se 196.026†	2720.6	2781.4	[1000]	µg/L	18:45:51
3	SiO2†	108495.7	109756.0	[10695]	µg/L	18:45:31
3	Si 251.611†	331529.5	339969.0	[5000]	µg/L	18:45:31
3	Sn 189.927†	15666.1	16105.6	[1000]	µg/L	18:45:51
3	Ti 334.940†	1040566.4	1068728.6	[1000]	µg/L	18:45:29
3	Tl 190.801†	7842.2	8178.3	[1000]	µg/L	18:45:51
3	U 409.014†	16964.7	17709.3	[1000]	µg/L	18:45:31
3	V 292.402†	201223.5	206449.9	[1000]	µg/L	18:45:31
3	Zn 213.857†	174624.2	178945.7	[1000]	µg/L	18:45:31

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1673736.5	14951.98	0.89%	97.411	%
Sc RADIAL	140507.5	1807.88	1.29%	96.3	%
Y 371.029	985523.8	7955.77	0.81%	95.991	%
Ag 328.068†	271177.3	3439.65	1.27%	[1000]	µg/L
Al 396.153Radial†	54762.9	214.99	0.39%	[10000]	µg/L
As 188.979†	3312.1	17.04	0.51%	[1000]	µg/L
B 249.677†	68082.4	802.18	1.18%	[1000]	µg/L
Ba 233.527†	248665.4	2944.35	1.18%	[1000]	µg/L
Be 313.107†	3676804.1	15255.21	0.41%	[1000]	µg/L
Ca 317.933Radial†	182245.2	475.46	0.26%	[10000]	µg/L
Cd 226.502†	160477.0	2024.24	1.26%	[1000]	µg/L
Co 228.616†	81111.8	988.08	1.22%	[1000]	µg/L
Cr 267.716†	128039.2	1543.01	1.21%	[1000]	µg/L
Cu 324.752†	258400.5	3515.45	1.36%	[1000]	µg/L
Fe 238.204 Radial†	162957.7	304.26	0.19%	[10000]	µg/L
K 766.490 Radial†	27400.1	77.00	0.28%	[10000]	µg/L
Mg 279.077 IEC†	27620.0	129.06	0.47%	[10000]	µg/L
Mn 257.610†	808338.4	3200.20	0.40%	[1000]	µg/L
Mo 202.031†	34055.3	395.69	1.16%	[1000]	µg/L
Na 589.592 Radial†	72939.6	111.55	0.15%	[10000]	µg/L

Ni 231.604†	86996.7	1021.87	1.17%	[1000]	µg/L
P 214.914†	23389.4	118.12	0.51%	[5000]	µg/L
Pb 220.353†	17895.1	91.02	0.51%	[1000]	µg/L
S 181.975 Axial†	2699.4	10.77	0.40%	[2000]	µg/L
Sb 206.836†	8428.5	65.64	0.78%	[1000]	µg/L
Se 196.026†	2770.3	26.05	0.94%	[1000]	µg/L
SiO2†	109311.3	1317.66	1.21%	[10695]	µg/L
Si 251.611†	338687.7	4158.85	1.23%	[5000]	µg/L
Sn 189.927†	16046.3	87.25	0.54%	[1000]	µg/L
Sr 421.552†	480721.9	6863.20	1.43%	[1000]	µg/L
Ti 334.940†	1072022.5	2911.16	0.27%	[1000]	µg/L
Tl 190.801†	8141.3	55.30	0.68%	[1000]	µg/L
U 409.014†	17540.2	301.14	1.72%	[1000]	µg/L
V 292.402†	205873.2	2596.95	1.26%	[1000]	µg/L
Zn 213.857†	178382.8	2018.56	1.13%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/31/2010 18:45:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139343.3	139343.3	95.5	%	18:46:28
1	Al 396.153Radial†	256543.2	268732.8	[50000]	µg/L	18:46:28
1	Ca 317.933Radial†	856588.9	896517.6	[50000]	µg/L	18:46:28
1	Fe 238.204 Radial†	309603.0	324089.2	[20000]	µg/L	18:46:28
1	Mg 279.077 IEC†	128261.6	134133.6	[50000]	µg/L	18:46:28
1	Na 589.592 Radial†	141053.4	146429.9	[20000]	µg/L	18:46:28
1	Sc 361.383	1636602.8	1636602.8	95.250	%	18:46:50
1	Y 371.029	965973.5	965973.5	94.086	%	18:46:50
2	Sc RADIAL	137624.0	137624.0	94.3	%	18:46:30
2	Al 396.153Radial†	254363.4	269777.6	[50000]	µg/L	18:46:30
2	Ca 317.933Radial†	846244.8	896755.8	[50000]	µg/L	18:46:30
2	Fe 238.204 Radial†	305781.9	324087.9	[20000]	µg/L	18:46:30
2	Mg 279.077 IEC†	126264.9	133694.4	[50000]	µg/L	18:46:30
2	Na 589.592 Radial†	139489.2	146616.7	[20000]	µg/L	18:46:30
2	Sc 361.383	1622381.6	1622381.6	94.422	%	18:46:53
2	Y 371.029	956849.7	956849.7	93.198	%	18:46:53
3	Sc RADIAL	137980.0	137980.0	94.6	%	18:46:32
3	Al 396.153Radial†	255245.7	270015.0	[50000]	µg/L	18:46:32
3	Ca 317.933Radial†	849307.2	897679.9	[50000]	µg/L	18:46:32
3	Fe 238.204 Radial†	306725.7	324249.8	[20000]	µg/L	18:46:32
3	Mg 279.077 IEC†	127087.0	134218.4	[50000]	µg/L	18:46:32
3	Na 589.592 Radial†	139780.8	146543.6	[20000]	µg/L	18:46:32
3	Sc 361.383	1649813.3	1649813.3	96.019	%	18:46:56
3	Y 371.029	972430.3	972430.3	94.715	%	18:46:56

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1636265.9	13718.97	0.84%	95.230	%
Sc RADIAL	138315.8	907.47	0.66%	94.8	%
Y 371.029	965084.5	7828.26	0.81%	94.000	%
Al 396.153Radial†	269508.5	682.17	0.25%	[50000]	µg/L
Ca 317.933Radial†	896984.4	613.95	0.07%	[50000]	µg/L
Fe 238.204 Radial†	324142.3	93.07	0.03%	[20000]	µg/L
Mg 279.077 IEC†	134015.5	281.29	0.21%	[50000]	µg/L
Na 589.592 Radial†	146530.1	94.09	0.06%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	270.1	0.00000	0.999966	
Al 396.153Radial	3	Lin Thru 0	0.0	5.394	0.00000	0.999995	
As 188.979	3	Lin Thru 0	0.0	3.307	0.00000	0.999994	
B 249.677	3	Lin Thru 0	0.0	67.80	0.00000	0.999967	
Ba 233.527	3	Lin Thru 0	0.0	248.2	0.00000	0.999990	
Be 313.107	3	Lin Thru 0	0.0	3673	0.00000	0.999997	
Ca 317.933Radial	3	Lin Thru 0	0.0	17.95	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	160.1	0.00000	0.999988	
Co 228.616	3	Lin Thru 0	0.0	81.06	0.00000	0.999997	
Cr 267.716	3	Lin Thru 0	0.0	127.7	0.00000	0.999983	
Cu 324.752	3	Lin Thru 0	0.0	257.3	0.00000	0.999966	
Fe 238.204 Radia	2	Lin Thru 0	0.0	16.22	0.00000	0.999998	
K 766.490 Radial	3	Lin Thru 0	0.0	2.731	0.00000	0.999979	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.684	0.00000	0.999981	
Mn 257.610	3	Lin Thru 0	0.0	808.2	0.00000	0.999995	
Mo 202.031	3	Lin Thru 0	0.0	34.03	0.00000	0.999999	
Na 589.592 Radia	2	Lin Thru 0	0.0	7.320	0.00000	0.999998	

Ni 231.604	3	Lin Thru 0	0.0	86.85	0.00000	0.999991
P 214.914	3	Lin Thru 0	0.0	4.675	0.00000	0.999999
Pb 220.353	3	Lin Thru 0	0.0	17.92	0.00000	0.999996
S 181.975 Axial	3	Lin Thru 0	0.0	1.347	0.00000	0.999988
Sb 206.836	3	Lin Thru 0	0.0	8.412	0.00000	0.999992
Se 196.026	3	Lin Thru 0	0.0	2.766	0.00000	0.999995
SiO2	3	Lin Thru 0	0.0	10.23	0.00000	0.999996
Si 251.611	3	Lin Thru 0	0.0	67.83	0.00000	0.999995
Sn 189.927	3	Lin Thru 0	0.0	16.04	0.00000	0.999999
Sr 421.552	3	Lin Thru 0	0.0	481.0	0.00000	0.999997
Ti 334.940	3	Lin Thru 0	0.0	1070	0.00000	0.999995
Tl 190.801	3	Lin Thru 0	0.0	8.138	0.00000	0.999996
U 409.014	3	Lin Thru 0	0.0	17.10	0.00000	0.998547
V 292.402	3	Lin Thru 0	0.0	205.0	0.00000	0.999964
Zn 213.857	3	Lin Thru 0	0.0	178.0	0.00000	0.999990

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/31/2010 18:47:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142728.0	142728.0	97.8	%			18:47:35
1	Al 396.153Radial†	27196.1	27869.4	5141.6	µg/L	5141.6	ppb	18:47:35
1	Ca 317.933Radial†	89393.1	90837.9	5060.0	µg/L	5060.0	ppb	18:47:35
1	Fe 238.204 Radial†	80412.9	82068.7	5058.2	µg/L	5058.2	ppb	18:47:35
1	K 766.490 Radial†	8352.4	6995.0	2558.1	µg/L	2558.1	ppb	18:47:35
1	Mg 279.077 IEC†	14148.2	14274.9	5327.6	µg/L	5327.6	ppb	18:47:35
1	Na 589.592 Radial†	19150.9	18289.7	2496.3	µg/L	2496.3	ppb	18:47:35
1	Sr 421.552†	250356.1	256107.6	532.39	µg/L	532.39	ppb	18:47:33
1	Sc 361.383	1677195.1	1677195.1	97.612	%			18:47:48
1	Y 371.029	995806.6	995806.6	96.992	%			18:47:48
1	Ag 328.068†	70215.3	67841.3	257.54	µg/L	257.54	ppb	18:47:48
1	As 188.979†	1526.8	1584.5	486.58	µg/L	486.58	ppb	18:47:50
1	B 249.677†	37075.8	34476.8	506.67	µg/L	506.67	ppb	18:47:48
1	Ba 233.527†	122696.8	125833.7	507.50	µg/L	507.50	ppb	18:47:48
1	Be 313.107†	933729.3	957632.1	260.88	µg/L	260.88	ppb	18:47:48
1	Cd 226.502†	77657.9	79675.5	497.37	µg/L	497.37	ppb	18:47:48
1	Co 228.616†	40998.4	42191.5	520.85	µg/L	520.85	ppb	18:47:50
1	Cr 267.716†	62225.7	63569.1	497.75	µg/L	497.75	ppb	18:47:50
1	Cu 324.752†	130541.7	130762.4	509.73	µg/L	509.73	ppb	18:47:48
1	Mn 257.610†	407677.2	417411.4	516.24	µg/L	516.24	ppb	18:47:48
1	Mo 202.031†	18097.1	18559.8	545.92	µg/L	545.92	ppb	18:47:50
1	Ni 231.604†	43663.1	44807.6	515.93	µg/L	515.93	ppb	18:47:50
1	P 214.914†	11760.6	12066.2	2571.9	µg/L	2571.9	ppb	18:47:50
1	Pb 220.353†	9089.2	9225.1	516.68	µg/L	516.68	ppb	18:47:50
1	S 181.975 Axial†	3477.6	3457.6	2572.2	µg/L	2572.2	ppb	18:47:50
1	Sb 206.836†	4253.6	4276.8	510.30	µg/L	510.30	ppb	18:47:50
1	Se 196.026†	6905.2	7058.8	2550	µg/L	2550	ppb	18:47:50
1	SiO2†	106599.4	107431.3	10477	µg/L	10477	ppb	18:47:48
1	Si 251.611†	325209.4	332327.1	4888.6	µg/L	4888.6	ppb	18:47:48
1	Sn 189.927†	8509.6	8718.8	545.19	µg/L	545.19	ppb	18:47:50
1	Ti 334.940†	517306.5	529006.8	493.58	µg/L	493.58	ppb	18:47:48
1	Tl 190.801†	4208.4	4428.0	551.50	µg/L	551.50	ppb	18:47:50
1	U 409.014†	7246.7	7693.8	480.75	µg/L	480.75	ppb	18:47:48
1	V 292.402†	101371.8	103447.4	511.74	µg/L	511.74	ppb	18:47:48
1	Zn 213.857†	89039.6	90653.0	505.19	µg/L	505.19	ppb	18:47:48
2	Sc RADIAL	141472.3	141472.3	96.9	%			18:47:39
2	Al 396.153Radial†	26888.4	27798.8	5129.2	µg/L	5129.2	ppb	18:47:39
2	Ca 317.933Radial†	88063.7	90277.8	5028.8	µg/L	5028.8	ppb	18:47:39
2	Fe 238.204 Radial†	79583.4	81942.8	5050.5	µg/L	5050.5	ppb	18:47:39
2	K 766.490 Radial†	8113.5	6824.4	2495.6	µg/L	2495.6	ppb	18:47:39
2	Mg 279.077 IEC†	13969.8	14219.3	5306.5	µg/L	5306.5	ppb	18:47:39
2	Na 589.592 Radial†	19176.1	18489.5	2523.7	µg/L	2523.7	ppb	18:47:39
2	Sr 421.552†	244831.9	252681.3	525.27	µg/L	525.27	ppb	18:47:37
2	Sc 361.383	1698788.6	1698788.6	98.869	%			18:47:53
2	Y 371.029	1007373.3	1007373.3	98.119	%			18:47:53
2	Ag 328.068†	71291.0	68014.9	258.16	µg/L	258.16	ppb	18:47:53
2	As 188.979†	1532.9	1570.8	482.29	µg/L	482.29	ppb	18:47:55
2	B 249.677†	37726.0	34651.6	509.29	µg/L	509.29	ppb	18:47:53
2	Ba 233.527†	124221.9	125778.5	507.27	µg/L	507.27	ppb	18:47:53
2	Be 313.107†	946768.4	958661.3	261.16	µg/L	261.16	ppb	18:47:53
2	Cd 226.502†	78878.8	79899.1	498.76	µg/L	498.76	ppb	18:47:53
2	Co 228.616†	40427.2	41079.9	507.13	µg/L	507.13	ppb	18:47:55
2	Cr 267.716†	61613.4	62139.5	486.55	µg/L	486.55	ppb	18:47:55
2	Cu 324.752†	131991.8	130529.2	508.81	µg/L	508.81	ppb	18:47:53
2	Mn 257.610†	413215.3	417704.0	516.60	µg/L	516.60	ppb	18:47:53
2	Mo 202.031†	17824.6	18048.5	530.89	µg/L	530.89	ppb	18:47:55
2	Ni 231.604†	43042.2	43611.0	502.15	µg/L	502.15	ppb	18:47:55
2	P 214.914†	11581.1	11731.5	2500.3	µg/L	2500.3	ppb	18:47:55
2	Pb 220.353†	8959.4	8975.5	502.70	µg/L	502.70	ppb	18:47:55

2	S 181.975 Axial†	3387.2	3320.9	2470.5 µg/L	2470.5 ppb	18:47:55
2	Sb 206.836†	4183.4	4150.4	495.20 µg/L	495.20 ppb	18:47:55
2	Se 196.026†	6756.5	6818.5	2470 µg/L	2470 ppb	18:47:55
2	SiO2†	108026.4	107486.5	10483 µg/L	10483 ppb	18:47:53
2	Si 251.611†	330001.8	332939.4	4897.9 µg/L	4897.9 ppb	18:47:53
2	Sn 189.927†	8332.5	8429.0	527.12 µg/L	527.12 ppb	18:47:55
2	Ti 334.940†	523598.9	528634.8	493.24 µg/L	493.24 ppb	18:47:53
2	Tl 190.801†	4130.1	4294.0	535.11 µg/L	535.11 ppb	18:47:55
2	U 409.014†	7323.1	7676.7	479.70 µg/L	479.70 ppb	18:47:53
2	V 292.402†	102428.7	103196.4	510.32 µg/L	510.32 ppb	18:47:53
2	Zn 213.857†	90500.4	90971.0	507.07 µg/L	507.07 ppb	18:47:53
3	Sc RADIAL	141074.5	141074.5	96.7 %		18:47:43
3	Al 396.153Radial†	27024.0	28017.2	5169.9 µg/L	5169.9 ppb	18:47:43
3	Ca 317.933Radial†	88402.3	90884.2	5062.6 µg/L	5062.6 ppb	18:47:43
3	Fe 238.204 Radial†	79763.1	82360.1	5076.2 µg/L	5076.2 ppb	18:47:43
3	K 766.490 Radial†	8103.8	6838.0	2500.5 µg/L	2500.5 ppb	18:47:43
3	Mg 279.077 IEC†	14069.6	14363.2	5360.0 µg/L	5360.0 ppb	18:47:43
3	Na 589.592 Radial†	19066.5	18431.9	2515.8 µg/L	2515.8 ppb	18:47:43
3	Sr 421.552†	247012.7	255649.2	531.44 µg/L	531.44 ppb	18:47:41
3	Sc 361.383	1692022.5	1692022.5	98.475 %		18:47:58
3	Y 371.029	1004104.0	1004104.0	97.800 %		18:47:58
3	Ag 328.068†	71156.1	68166.3	258.74 µg/L	258.74 ppb	18:47:58
3	As 188.979†	1530.4	1574.5	483.34 µg/L	483.34 ppb	18:48:00
3	B 249.677†	37553.2	34628.7	508.97 µg/L	508.97 ppb	18:47:58
3	Ba 233.527†	123711.5	125762.6	507.21 µg/L	507.21 ppb	18:47:58
3	Be 313.107†	941930.7	957578.0	260.87 µg/L	260.87 ppb	18:47:58
3	Cd 226.502†	78415.4	79747.6	497.81 µg/L	497.81 ppb	18:47:58
3	Co 228.616†	39781.6	40587.8	501.06 µg/L	501.06 ppb	18:48:00
3	Cr 267.716†	60612.6	61372.4	480.54 µg/L	480.54 ppb	18:48:00
3	Cu 324.752†	131599.2	130664.3	509.34 µg/L	509.34 ppb	18:47:58
3	Mn 257.610†	411605.2	417740.2	516.64 µg/L	516.64 ppb	18:47:58
3	Mo 202.031†	17622.4	17915.3	526.98 µg/L	526.98 ppb	18:48:00
3	Ni 231.604†	42378.9	43111.5	496.40 µg/L	496.40 ppb	18:48:00
3	P 214.914†	11404.8	11599.3	2472.0 µg/L	2472.0 ppb	18:48:00
3	Pb 220.353†	8867.2	8918.1	499.49 µg/L	499.49 ppb	18:48:00
3	S 181.975 Axial†	3288.2	3234.1	2406.0 µg/L	2406.0 ppb	18:48:00
3	Sb 206.836†	4104.8	4087.6	487.75 µg/L	487.75 ppb	18:48:00
3	Se 196.026†	6722.3	6811.1	2460 µg/L	2460 ppb	18:48:00
3	SiO2†	107577.1	107467.2	10482 µg/L	10482 ppb	18:47:58
3	Si 251.611†	328691.1	332943.1	4898.1 µg/L	4898.1 ppb	18:47:58
3	Sn 189.927†	8196.6	8324.7	520.62 µg/L	520.62 ppb	18:48:00
3	Ti 334.940†	522557.7	529695.2	494.23 µg/L	494.23 ppb	18:47:58
3	Tl 190.801†	3987.3	4165.7	519.39 µg/L	519.39 ppb	18:48:00
3	U 409.014†	7372.3	7756.3	484.40 µg/L	484.40 ppb	18:47:58
3	V 292.402†	102179.3	103357.4	511.03 µg/L	511.03 ppb	18:47:58
3	Zn 213.857†	89790.3	90616.0	505.12 µg/L	505.12 ppb	18:47:58

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1689335.4	98.319	%	0.6428				0.65%
Sc RADIAL	141758.3	97.1	%	0.59				0.61%
Y 371.029	1002428.0	97.637	%	0.5808				0.59%
Ag 328.068†	68007.5	258.15	µg/L	0.601	258.15	ppb	0.601	0.23%
QC value within limits for Ag 328.068 Recovery = 103.26%								
Al 396.153Radial†	27895.2	5146.9	µg/L	20.85	5146.9	ppb	20.85	0.41%
QC value within limits for Al 396.153Radial Recovery = 102.94%								
As 188.979†	1576.6	484.07	µg/L	2.239	484.07	ppb	2.239	0.46%
QC value within limits for As 188.979 Recovery = 96.81%								
B 249.677†	34585.7	508.31	µg/L	1.434	508.31	ppb	1.434	0.28%
QC value within limits for B 249.677 Recovery = 101.66%								
Ba 233.527†	125791.6	507.32	µg/L	0.154	507.32	ppb	0.154	0.03%
QC value within limits for Ba 233.527 Recovery = 101.46%								
Be 313.107†	957957.1	260.97	µg/L	0.166	260.97	ppb	0.166	0.06%
QC value within limits for Be 313.107 Recovery = 104.39%								
Ca 317.933Radial†	90666.6	5050.5	µg/L	18.80	5050.5	ppb	18.80	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.01%								
Cd 226.502†	79774.1	497.98	µg/L	0.711	497.98	ppb	0.711	0.14%
QC value within limits for Cd 226.502 Recovery = 99.60%								
Co 228.616†	41286.4	509.68	µg/L	10.138	509.68	ppb	10.138	1.99%

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   QC value within limits for Co 228.616  Recovery = 101.94%
Cr 267.716†            62360.3      488.28 µg/L         8.733      488.28 ppb          8.733   1.79%
   QC value within limits for Cr 267.716  Recovery = 97.66%
Cu 324.752†           130652.0      509.29 µg/L         0.460      509.29 ppb          0.460   0.09%
   QC value within limits for Cu 324.752  Recovery = 101.86%
Fe 238.204 Radial†     82123.9      5061.6 µg/L         13.19      5061.6 ppb          13.19   0.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.23%
K 766.490 Radial†       6885.8      2518.1 µg/L         34.72      2518.1 ppb          34.72   1.38%
   QC value within limits for K 766.490 Radial  Recovery = 100.72%
Mg 279.077 IEC†        14285.8      5331.4 µg/L         26.95      5331.4 ppb          26.95   0.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.63%
Mn 257.610†           417618.5      516.49 µg/L         0.223      516.49 ppb          0.223   0.04%
   QC value within limits for Mn 257.610  Recovery = 103.30%
Mo 202.031†            18174.5      534.59 µg/L         9.999      534.59 ppb          9.999   1.87%
   QC value within limits for Mo 202.031  Recovery = 106.92%
Na 589.592 Radial†     18403.7      2511.9 µg/L         14.08      2511.9 ppb          14.08   0.56%
   QC value within limits for Na 589.592 Radial  Recovery = 100.48%
Ni 231.604†            43843.4      504.82 µg/L        10.036      504.82 ppb         10.036   1.99%
   QC value within limits for Ni 231.604  Recovery = 100.96%
P 214.914†             11799.0      2514.8 µg/L         51.47      2514.8 ppb          51.47   2.05%
   QC value within limits for P 214.914  Recovery = 100.59%
Pb 220.353†             9039.6      506.29 µg/L         9.140      506.29 ppb          9.140   1.81%
   QC value within limits for Pb 220.353  Recovery = 101.26%
S 181.975 Axial†        3337.5      2482.9 µg/L         83.76      2482.9 ppb          83.76   3.37%
   QC value within limits for S 181.975 Axial  Recovery = 99.32%
Sb 206.836†             4171.6      497.75 µg/L        11.489      497.75 ppb         11.489   2.31%
   QC value within limits for Sb 206.836  Recovery = 99.55%
Se 196.026†             6896.1        2500 µg/L          50.9        2500 ppb           50.9   2.04%
   QC value within limits for Se 196.026  Recovery = 99.81%
SiO2†                 107461.7       10481 µg/L           3.1       10481 ppb            3.1   0.03%
   QC value within limits for SiO2  Recovery = 98.00%
Si 251.611†           332736.6      4894.9 µg/L          5.44      4894.9 ppb           5.44   0.11%
   QC value within limits for Si 251.611  Recovery = 97.90%
Sn 189.927†             8490.8      530.98 µg/L        12.731      530.98 ppb         12.731   2.40%
   QC value within limits for Sn 189.927  Recovery = 106.20%
Sr 421.552†           254812.7      529.70 µg/L         3.867      529.70 ppb          3.867   0.73%
   QC value within limits for Sr 421.552  Recovery = 105.94%
Ti 334.940†           529112.2      493.68 µg/L         0.501      493.68 ppb          0.501   0.10%
   QC value within limits for Ti 334.940  Recovery = 98.74%
Tl 190.801†             4295.9      535.33 µg/L        16.060      535.33 ppb         16.060   3.00%
   QC value within limits for Tl 190.801  Recovery = 107.07%
U 409.014†              7709.0      481.62 µg/L         2.468      481.62 ppb          2.468   0.51%
   QC value within limits for U 409.014  Recovery = 96.32%
V 292.402†            103333.7      511.03 µg/L         0.714      511.03 ppb          0.714   0.14%
   QC value within limits for V 292.402  Recovery = 102.21%
Zn 213.857†            90746.7      505.79 µg/L         1.109      505.79 ppb          1.109   0.22%
   QC value within limits for Zn 213.857  Recovery = 101.16%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/31/2010 18:48:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141820.7	141820.7	97.2	%			18:48:38
1	Al 396.153Radial†	-23.3	39.2	7.2759	µg/L	7.2759	ppb	18:48:58
1	Ca 317.933Radial†	601.1	58.0	3.2284	µg/L	3.2284	ppb	18:48:58
1	Fe 238.204 Radial†	172.3	29.2	1.7975	µg/L	1.7975	ppb	18:48:58
1	K 766.490 Radial†	1651.6	154.7	56.635	µg/L	56.635	ppb	18:48:38
1	Mg 279.077 IEC†	178.4	-7.1	-2.6584	µg/L	-2.6584	ppb	18:48:58
1	Na 589.592 Radial†	1421.8	172.2	23.470	µg/L	23.470	ppb	18:48:38
1	Sr 421.552†	-137.1	-5.8	-0.0120	µg/L	-0.0120	ppb	18:48:38
1	Sc 361.383	1683915.8	1683915.8	98.004	%			18:50:00
1	Y 371.029	1008438.2	1008438.2	98.222	%			18:50:00
1	Ag 328.068†	3988.4	-21.8	-0.0966	µg/L	-0.0966	ppb	18:50:02
1	As 188.979†	-16.6	3.4	1.0196	µg/L	1.0196	ppb	18:50:22
1	B 249.677†	3689.5	258.8	3.8157	µg/L	3.8157	ppb	18:50:02
1	Ba 233.527†	-144.6	-11.7	-0.0475	µg/L	-0.0475	ppb	18:50:22
1	Be 313.107†	-835.0	212.7	0.0556	µg/L	0.0556	ppb	18:50:02
1	Cd 226.502†	-86.3	30.1	0.1877	µg/L	0.1877	ppb	18:50:22
1	Co 228.616†	-156.6	30.5	0.3761	µg/L	0.3761	ppb	18:50:22
1	Cr 267.716†	188.6	13.8	0.1142	µg/L	0.1142	ppb	18:50:22
1	Cu 324.752†	2866.9	-46.9	-0.1882	µg/L	-0.1882	ppb	18:50:02
1	Mn 257.610†	237.6	5.2	0.0065	µg/L	0.0065	ppb	18:50:22
1	Mo 202.031†	-20.5	-0.8	-0.0238	µg/L	-0.0238	ppb	18:50:22
1	Ni 231.604†	-85.2	-10.4	-0.1202	µg/L	-0.1202	ppb	18:50:22
1	P 214.914†	-19.5	-2.0	-0.4133	µg/L	-0.4133	ppb	18:50:22
1	Pb 220.353†	104.1	19.8	1.1130	µg/L	1.1130	ppb	18:50:22
1	S 181.975 Axial†	94.9	-8.2	-6.0991	µg/L	-6.0991	ppb	18:50:22
1	Sb 206.836†	83.0	3.9	0.4581	µg/L	0.4581	ppb	18:50:22
1	Se 196.026†	16.9	2.0	0.709	µg/L	0.709	ppb	18:50:22
1	SiO2†	1750.1	10.4	1.0001	µg/L	1.0001	ppb	18:50:22
1	Si 251.611†	692.5	-130.0	-1.9216	µg/L	-1.9216	ppb	18:50:02
1	Sn 189.927†	12.8	14.2	0.8842	µg/L	0.8842	ppb	18:50:22
1	Ti 334.940†	967.2	34.4	0.0355	µg/L	0.0355	ppb	18:50:02
1	Tl 190.801†	-113.3	1.1	0.1286	µg/L	0.1286	ppb	18:50:22
1	U 409.014†	-392.4	-130.5	-7.6641	µg/L	-7.6641	ppb	18:50:02
1	V 292.402†	288.2	-109.7	-0.5404	µg/L	-0.5404	ppb	18:50:02
1	Zn 213.857†	580.6	28.0	0.1584	µg/L	0.1584	ppb	18:50:22
2	Sc RADIAL	141475.5	141475.5	96.9	%			18:49:00
2	Al 396.153Radial†	-59.5	1.9	0.3293	µg/L	0.3293	ppb	18:49:20
2	Ca 317.933Radial†	582.6	40.4	2.2485	µg/L	2.2485	ppb	18:49:20
2	Fe 238.204 Radial†	177.4	34.9	2.1506	µg/L	2.1506	ppb	18:49:20
2	K 766.490 Radial†	1678.4	186.4	68.259	µg/L	68.259	ppb	18:49:00
2	Mg 279.077 IEC†	195.6	11.1	4.1266	µg/L	4.1266	ppb	18:49:20
2	Na 589.592 Radial†	1313.4	64.0	8.6800	µg/L	8.6800	ppb	18:49:00
2	Sr 421.552†	-263.2	-136.2	-0.2832	µg/L	-0.2832	ppb	18:49:00
2	Sc 361.383	1681105.0	1681105.0	97.840	%			18:50:24
2	Y 371.029	1006809.9	1006809.9	98.064	%			18:50:24
2	Ag 328.068†	3899.5	-105.8	-0.4010	µg/L	-0.4010	ppb	18:50:26
2	As 188.979†	-14.2	5.9	1.7810	µg/L	1.7810	ppb	18:50:47
2	B 249.677†	3479.7	50.7	0.7461	µg/L	0.7461	ppb	18:50:26
2	Ba 233.527†	-126.1	7.0	0.0284	µg/L	0.0284	ppb	18:50:47
2	Be 313.107†	-932.6	111.6	0.0281	µg/L	0.0281	ppb	18:50:26
2	Cd 226.502†	-94.6	21.5	0.1342	µg/L	0.1342	ppb	18:50:47
2	Co 228.616†	-159.1	27.7	0.3416	µg/L	0.3416	ppb	18:50:47
2	Cr 267.716†	205.7	31.7	0.2541	µg/L	0.2541	ppb	18:50:47
2	Cu 324.752†	2760.4	-150.9	-0.5921	µg/L	-0.5921	ppb	18:50:26
2	Mn 257.610†	248.9	17.1	0.0210	µg/L	0.0210	ppb	18:50:47
2	Mo 202.031†	-6.8	13.1	0.3848	µg/L	0.3848	ppb	18:50:47
2	Ni 231.604†	-77.1	-2.3	-0.0264	µg/L	-0.0264	ppb	18:50:47
2	P 214.914†	-8.5	9.3	1.9937	µg/L	1.9937	ppb	18:50:47
2	Pb 220.353†	88.9	4.5	0.2582	µg/L	0.2582	ppb	18:50:47

2	S 181.975 Axial†	97.2	-5.7	-4.2111 µg/L	-4.2111 ppb	18:50:47
2	Sb 206.836†	84.7	5.7	0.6836 µg/L	0.6836 ppb	18:50:47
2	Se 196.026†	31.5	16.9	6.11 µg/L	6.11 ppb	18:50:47
2	SiO2†	1754.7	18.0	1.7515 µg/L	1.7515 ppb	18:50:47
2	Si 251.611†	708.6	-112.3	-1.6605 µg/L	-1.6605 ppb	18:50:26
2	Sn 189.927†	-0.8	0.3	0.0171 µg/L	0.0171 ppb	18:50:47
2	Ti 334.940†	917.4	-14.9	-0.0112 µg/L	-0.0112 ppb	18:50:26
2	Tl 190.801†	-109.7	4.5	0.5537 µg/L	0.5537 ppb	18:50:47
2	U 409.014†	-392.0	-130.8	-7.6468 µg/L	-7.6468 ppb	18:50:26
2	V 292.402†	396.5	1.4	0.0068 µg/L	0.0068 ppb	18:50:26
2	Zn 213.857†	557.8	5.7	0.0323 µg/L	0.0323 ppb	18:50:47
3	Sc RADIAL	140788.0	140788.0	96.5 %		18:49:22
3	Al 396.153Radial†	-53.3	8.0	1.4950 µg/L	1.4950 ppb	18:49:42
3	Ca 317.933Radial†	570.5	30.7	1.7106 µg/L	1.7106 ppb	18:49:42
3	Fe 238.204 Radial†	153.8	11.4	0.7002 µg/L	0.7002 ppb	18:49:42
3	K 766.490 Radial†	1509.3	19.7	7.1988 µg/L	7.1988 ppb	18:49:22
3	Mg 279.077 IEC†	187.5	3.6	1.3339 µg/L	1.3339 ppb	18:49:42
3	Na 589.592 Radial†	1241.2	-4.3	-0.5891 µg/L	-0.5891 ppb	18:49:22
3	Sr 421.552†	-62.3	70.7	0.1469 µg/L	0.1469 ppb	18:49:22
3	Sc 361.383	1702475.2	1702475.2	99.084 %		18:50:49
3	Y 371.029	1019278.2	1019278.2	99.278 %		18:50:49
3	Ag 328.068†	3893.2	-162.2	-0.6047 µg/L	-0.6047 ppb	18:50:51
3	As 188.979†	-11.0	9.3	2.8073 µg/L	2.8073 ppb	18:51:11
3	B 249.677†	3493.6	20.0	0.2957 µg/L	0.2957 ppb	18:50:51
3	Ba 233.527†	-155.1	-20.7	-0.0837 µg/L	-0.0837 ppb	18:51:11
3	Be 313.107†	-918.7	137.5	0.0367 µg/L	0.0367 ppb	18:50:51
3	Cd 226.502†	-90.2	27.2	0.1697 µg/L	0.1697 ppb	18:51:11
3	Co 228.616†	-191.5	-3.0	-0.0369 µg/L	-0.0369 ppb	18:51:11
3	Cr 267.716†	192.8	16.1	0.1277 µg/L	0.1277 ppb	18:51:11
3	Cu 324.752†	2902.8	-42.6	-0.1675 µg/L	-0.1675 ppb	18:50:51
3	Mn 257.610†	221.1	-14.1	-0.0175 µg/L	-0.0175 ppb	18:51:11
3	Mo 202.031†	-27.6	-7.7	-0.2274 µg/L	-0.2274 ppb	18:51:11
3	Ni 231.604†	-80.3	-4.5	-0.0519 µg/L	-0.0519 ppb	18:51:11
3	P 214.914†	-10.6	7.3	1.5639 µg/L	1.5639 ppb	18:51:11
3	Pb 220.353†	87.5	1.9	0.1068 µg/L	0.1068 ppb	18:51:11
3	S 181.975 Axial†	108.2	4.2	3.0845 µg/L	3.0845 ppb	18:51:11
3	Sb 206.836†	65.7	-14.5	-1.7326 µg/L	-1.7326 ppb	18:51:11
3	Se 196.026†	1.4	-13.8	-5.00 µg/L	-5.00 ppb	18:51:11
3	SiO2†	1771.9	13.0	1.2622 µg/L	1.2622 ppb	18:51:11
3	Si 251.611†	804.4	-24.7	-0.3658 µg/L	-0.3658 ppb	18:50:51
3	Sn 189.927†	10.9	12.2	0.7583 µg/L	0.7583 ppb	18:51:11
3	Ti 334.940†	1048.8	105.9	0.0999 µg/L	0.0999 ppb	18:50:51
3	Tl 190.801†	-119.3	-3.7	-0.4558 µg/L	-0.4558 ppb	18:51:11
3	U 409.014†	-309.5	-42.5	-2.4891 µg/L	-2.4891 ppb	18:50:51
3	V 292.402†	382.0	-18.2	-0.0926 µg/L	-0.0926 ppb	18:50:51
3	Zn 213.857†	566.8	7.7	0.0435 µg/L	0.0435 ppb	18:51:11

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1689165.4	98.309	%	0.6758				0.69%
Sc RADIAL	141361.4	96.9	%	0.36				0.37%
Y 371.029	1011508.8	98.521	%	0.6601				0.67%
Ag 328.068†	-96.6	-0.3674	µg/L	0.25571	-0.3674	ppb	0.25571	69.60%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	16.4	3.0334	µg/L	3.72004	3.0334	ppb	3.72004	122.63%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	1.8693	µg/L	0.89713	1.8693	ppb	0.89713	47.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	109.8	1.6192	µg/L	1.91554	1.6192	ppb	1.91554	118.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.5	-0.0343	µg/L	0.05718	-0.0343	ppb	0.05718	166.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	153.9	0.0401	µg/L	0.01409	0.0401	ppb	0.01409	35.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	43.0	2.3958	µg/L	0.76955	2.3958	ppb	0.76955	32.12%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	26.3	0.1639	µg/L	0.02723	0.1639	ppb	0.02723	16.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.4	0.2269	µg/L	0.22917	0.2269	ppb	0.22917	100.99%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                20.5      0.1654 µg/L       0.07718      0.1654 ppb        0.07718  46.67%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -80.1     -0.3159 µg/L       0.23936     -0.3159 ppb        0.23936  75.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         25.1      1.5494 µg/L       0.75637      1.5494 ppb        0.75637  48.82%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         120.3      44.031 µg/L       32.4227      44.031 ppb        32.4227  73.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.5      0.9341 µg/L       3.41013      0.9341 ppb        3.41013 365.09%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                2.7      0.0033 µg/L       0.01944      0.0033 ppb        0.01944 582.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.5      0.0446 µg/L       0.31176      0.0446 ppb        0.31176 699.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        77.3      10.520 µg/L       12.1345      10.520 ppb        12.1345 115.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -5.7     -0.0661 µg/L       0.04849     -0.0661 ppb        0.04849  73.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 4.9      1.0481 µg/L       1.28372      1.0481 ppb        1.28372 122.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                8.7      0.4927 µg/L       0.54252      0.4927 ppb        0.54252 110.12%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.2     -2.4085 µg/L       4.84991     -2.4085 ppb        4.84991 201.36%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -1.6     -0.1970 µg/L       1.33468     -0.1970 ppb        1.33468 677.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.7       0.603 µg/L        5.5558       0.603 ppb         5.5558 920.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     13.8      1.3380 µg/L       0.38138      1.3380 ppb        0.38138  28.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -89.0     -1.3160 µg/L       0.83316     -1.3160 ppb        0.83316  63.31%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                8.9      0.5532 µg/L       0.46851      0.5532 ppb        0.46851  84.69%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -23.8     -0.0494 µg/L       0.21749     -0.0494 ppb        0.21749 439.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               41.8      0.0414 µg/L       0.05575      0.0414 ppb        0.05575 134.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.6      0.0755 µg/L       0.50686      0.0755 ppb        0.50686 671.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -101.3     -5.9334 µg/L       2.98281     -5.9334 ppb        2.98281  50.27%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -42.2     -0.2088 µg/L       0.29151     -0.2088 ppb        0.29151 139.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               13.8      0.0780 µg/L       0.06978      0.0780 ppb        0.06978  89.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 3/31/2010 18:51:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140861.4	140861.4	96.5	%			18:51:48
1	Al 396.153Radial†	987.6	1086.3	200.96	µg/L	200.96	ppb	18:51:50
1	Ca 317.933Radial†	4191.0	3781.2	210.63	µg/L	210.63	ppb	18:51:50
1	Fe 238.204 Radial†	1792.5	1708.9	105.32	µg/L	105.32	ppb	18:51:50
1	K 766.490 Radial†	1849.3	371.1	135.70	µg/L	135.70	ppb	18:51:48
1	Mg 279.077 IEC†	1004.6	850.0	316.85	µg/L	316.85	ppb	18:51:50
1	Na 589.592 Radial†	3218.7	2043.7	279.07	µg/L	279.07	ppb	18:51:50
1	Sr 421.552†	2356.1	2576.2	5.3541	µg/L	5.3541	ppb	18:51:50
1	Sc 361.383	1696993.3	1696993.3	98.765	%			18:52:02
1	Y 371.029	1016566.5	1016566.5	99.014	%			18:52:02
1	Ag 328.068†	5094.4	1066.7	4.0516	µg/L	4.0516	ppb	18:52:04
1	As 188.979†	82.8	104.2	31.603	µg/L	31.603	ppb	18:52:24
1	B 249.677†	6532.0	3107.8	45.816	µg/L	45.816	ppb	18:52:04
1	Ba 233.527†	1080.9	1230.2	4.9619	µg/L	4.9619	ppb	18:52:24
1	Be 313.107†	16638.5	17911.3	4.8913	µg/L	4.8913	ppb	18:52:04
1	Cd 226.502†	682.8	809.6	5.0479	µg/L	5.0479	ppb	18:52:24
1	Co 228.616†	230.9	424.1	5.2325	µg/L	5.2325	ppb	18:52:24
1	Cr 267.716†	759.8	590.7	4.5885	µg/L	4.5885	ppb	18:52:24
1	Cu 324.752†	5375.4	2470.4	9.6665	µg/L	9.6665	ppb	18:52:04
1	Mn 257.610†	8461.3	8329.9	10.294	µg/L	10.294	ppb	18:52:04
1	Mo 202.031†	297.2	321.0	9.4457	µg/L	9.4457	ppb	18:52:24
1	Ni 231.604†	359.2	440.2	5.0686	µg/L	5.0686	ppb	18:52:24
1	P 214.914†	662.2	688.4	147.09	µg/L	147.09	ppb	18:52:24
1	Pb 220.353†	275.6	192.6	10.753	µg/L	10.753	ppb	18:52:24
1	S 181.975 Axial†	231.8	129.7	96.360	µg/L	96.360	ppb	18:52:24
1	Sb 206.836†	150.3	71.3	8.5656	µg/L	8.5656	ppb	18:52:24
1	Se 196.026†	92.5	78.4	28.4	µg/L	28.4	ppb	18:52:24
1	SiO2†	3882.7	2155.9	210.31	µg/L	210.31	ppb	18:52:04
1	Si 251.611†	7564.5	6822.6	100.39	µg/L	100.39	ppb	18:52:04
1	Sn 189.927†	162.8	165.9	10.360	µg/L	10.360	ppb	18:52:24
1	Ti 334.940†	6150.6	5275.0	4.8870	µg/L	4.8870	ppb	18:52:04
1	Tl 190.801†	46.5	163.8	20.204	µg/L	20.204	ppb	18:52:24
1	U 409.014†	536.3	812.9	47.827	µg/L	47.827	ppb	18:52:04
1	V 292.402†	1270.3	882.4	4.4384	µg/L	4.4384	ppb	18:52:04
1	Zn 213.857†	2321.2	1785.9	9.9841	µg/L	9.9841	ppb	18:52:24
2	Sc RADIAL	140936.7	140936.7	96.6	%			18:51:52
2	Al 396.153Radial†	972.6	1070.3	198.01	µg/L	198.01	ppb	18:51:54
2	Ca 317.933Radial†	4253.2	3843.3	214.09	µg/L	214.09	ppb	18:51:54
2	Fe 238.204 Radial†	1742.6	1656.2	102.08	µg/L	102.08	ppb	18:51:54
2	K 766.490 Radial†	1908.6	431.4	157.79	µg/L	157.79	ppb	18:51:52
2	Mg 279.077 IEC†	969.9	813.6	303.26	µg/L	303.26	ppb	18:51:54
2	Na 589.592 Radial†	3291.7	2117.5	289.13	µg/L	289.13	ppb	18:51:54
2	Sr 421.552†	2245.5	2460.3	5.1132	µg/L	5.1132	ppb	18:51:54
2	Sc 361.383	1687966.3	1687966.3	98.239	%			18:52:26
2	Y 371.029	1011019.5	1011019.5	98.474	%			18:52:26
2	Ag 328.068†	5292.9	1296.4	4.8998	µg/L	4.8998	ppb	18:52:28
2	As 188.979†	83.0	104.8	31.803	µg/L	31.803	ppb	18:52:48
2	B 249.677†	6698.9	3313.0	48.843	µg/L	48.843	ppb	18:52:28
2	Ba 233.527†	1087.4	1242.7	5.0120	µg/L	5.0120	ppb	18:52:48
2	Be 313.107†	16507.3	17867.9	4.8796	µg/L	4.8796	ppb	18:52:28
2	Cd 226.502†	680.2	810.6	5.0545	µg/L	5.0545	ppb	18:52:48
2	Co 228.616†	236.4	430.9	5.3167	µg/L	5.3167	ppb	18:52:48
2	Cr 267.716†	835.7	672.2	5.2260	µg/L	5.2260	ppb	18:52:48
2	Cu 324.752†	5528.6	2655.4	10.385	µg/L	10.385	ppb	18:52:28
2	Mn 257.610†	8398.7	8312.0	10.272	µg/L	10.272	ppb	18:52:28
2	Mo 202.031†	283.2	308.3	9.0728	µg/L	9.0728	ppb	18:52:48
2	Ni 231.604†	357.6	440.5	5.0722	µg/L	5.0722	ppb	18:52:48
2	P 214.914†	662.1	691.9	147.84	µg/L	147.84	ppb	18:52:48
2	Pb 220.353†	294.5	213.4	11.913	µg/L	11.913	ppb	18:52:48

2	S 181.975 Axial†	239.0	138.2	102.73 µg/L	102.73 ppb	18:52:48
2	Sb 206.836†	162.6	84.7	10.140 µg/L	10.140 ppb	18:52:48
2	Se 196.026†	98.4	84.9	30.8 µg/L	30.8 ppb	18:52:48
2	SiO2†	3912.9	2207.6	215.37 µg/L	215.37 ppb	18:52:28
2	Si 251.611†	7475.2	6772.6	99.658 µg/L	99.658 ppb	18:52:28
2	Sn 189.927†	165.0	169.0	10.554 µg/L	10.554 ppb	18:52:48
2	Ti 334.940†	5906.4	5059.7	4.6867 µg/L	4.6867 ppb	18:52:28
2	Tl 190.801†	41.0	158.5	19.548 µg/L	19.548 ppb	18:52:48
2	U 409.014†	539.0	818.5	48.142 µg/L	48.142 ppb	18:52:28
2	V 292.402†	1219.4	837.5	4.2189 µg/L	4.2189 ppb	18:52:28
2	Zn 213.857†	2338.9	1816.4	10.155 µg/L	10.155 ppb	18:52:48
3	Sc RADIAL	141853.7	141853.7	97.2 %		18:51:56
3	Al 396.153Radial†	1054.0	1147.5	212.32 µg/L	212.32 ppb	18:51:58
3	Ca 317.933Radial†	4255.4	3817.1	212.63 µg/L	212.63 ppb	18:51:58
3	Fe 238.204 Radial†	1716.2	1617.5	99.690 µg/L	99.690 ppb	18:51:58
3	K 766.490 Radial†	1916.0	426.3	155.92 µg/L	155.92 ppb	18:51:56
3	Mg 279.077 IEC†	1001.3	839.3	312.86 µg/L	312.86 ppb	18:51:58
3	Na 589.592 Radial†	3186.5	1987.3	271.34 µg/L	271.34 ppb	18:51:58
3	Sr 421.552†	2248.0	2447.8	5.0873 µg/L	5.0873 ppb	18:51:58
3	Sc 361.383	1703589.6	1703589.6	99.149 %		18:52:50
3	Y 371.029	1020076.1	1020076.1	99.356 %		18:52:50
3	Ag 328.068†	5329.5	1283.9	4.8863 µg/L	4.8863 ppb	18:52:52
3	As 188.979†	68.9	89.8	27.263 µg/L	27.263 ppb	18:53:13
3	B 249.677†	6826.1	3378.8	49.814 µg/L	49.814 ppb	18:52:52
3	Ba 233.527†	1095.4	1240.7	5.0047 µg/L	5.0047 ppb	18:53:13
3	Be 313.107†	16765.5	17974.2	4.9127 µg/L	4.9127 ppb	18:52:52
3	Cd 226.502†	685.3	809.4	5.0473 µg/L	5.0473 ppb	18:53:13
3	Co 228.616†	212.4	404.5	4.9910 µg/L	4.9910 ppb	18:53:13
3	Cr 267.716†	807.3	635.7	4.9297 µg/L	4.9297 ppb	18:53:13
3	Cu 324.752†	5461.8	2536.5	9.9340 µg/L	9.9340 ppb	18:52:52
3	Mn 257.610†	8558.8	8395.0	10.374 µg/L	10.374 ppb	18:52:52
3	Mo 202.031†	286.1	308.6	9.0804 µg/L	9.0804 ppb	18:53:13
3	Ni 231.604†	341.2	420.7	4.8437 µg/L	4.8437 ppb	18:53:13
3	P 214.914†	668.0	691.7	147.81 µg/L	147.81 ppb	18:53:13
3	Pb 220.353†	280.1	196.2	10.941 µg/L	10.941 ppb	18:53:13
3	S 181.975 Axial†	229.3	126.2	93.811 µg/L	93.811 ppb	18:53:13
3	Sb 206.836†	165.2	85.8	10.280 µg/L	10.280 ppb	18:53:13
3	Se 196.026†	109.6	95.3	34.5 µg/L	34.5 ppb	18:53:13
3	SiO2†	3891.1	2149.2	209.66 µg/L	209.66 ppb	18:52:52
3	Si 251.611†	7576.0	6804.5	100.13 µg/L	100.13 ppb	18:52:52
3	Sn 189.927†	163.2	165.7	10.345 µg/L	10.345 ppb	18:53:13
3	Ti 334.940†	6177.6	5278.1	4.8843 µg/L	4.8843 ppb	18:52:52
3	Tl 190.801†	27.8	144.7	17.868 µg/L	17.868 ppb	18:53:13
3	U 409.014†	779.2	1055.8	62.094 µg/L	62.094 ppb	18:52:52
3	V 292.402†	1501.4	1110.5	5.5591 µg/L	5.5591 ppb	18:52:52
3	Zn 213.857†	2359.0	1814.8	10.149 µg/L	10.149 ppb	18:53:13

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1696183.1	98.718	%	0.4565				0.46%
Sc RADIAL	141217.3	96.8	%	0.38				0.39%
Y 371.029	1015887.4	98.948	%	0.4448				0.45%
Ag 328.068†	1215.7	4.6126	µg/L	0.48588	4.6126	ppb	0.48588	10.53%
QC value within limits for Ag 328.068 Recovery = 92.25%								
Al 396.153Radial†	1101.4	203.76	µg/L	7.553	203.76	ppb	7.553	3.71%
QC value within limits for Al 396.153Radial Recovery = 101.88%								
As 188.979†	99.6	30.223	µg/L	2.5657	30.223	ppb	2.5657	8.49%
QC value within limits for As 188.979 Recovery = 100.74%								
B 249.677†	3266.5	48.158	µg/L	2.0851	48.158	ppb	2.0851	4.33%
QC value within limits for B 249.677 Recovery = 96.32%								
Ba 233.527†	1237.9	4.9928	µg/L	0.02706	4.9928	ppb	0.02706	0.54%
QC value within limits for Ba 233.527 Recovery = 99.86%								
Be 313.107†	17917.8	4.8945	µg/L	0.01680	4.8945	ppb	0.01680	0.34%
QC value within limits for Be 313.107 Recovery = 97.89%								
Ca 317.933Radial†	3813.9	212.45	µg/L	1.736	212.45	ppb	1.736	0.82%
QC value within limits for Ca 317.933Radial Recovery = 106.22%								
Cd 226.502†	809.8	5.0499	µg/L	0.00397	5.0499	ppb	0.00397	0.08%
QC value within limits for Cd 226.502 Recovery = 101.00%								
Co 228.616†	419.8	5.1801	µg/L	0.16905	5.1801	ppb	0.16905	3.26%

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   QC value within limits for Co 228.616  Recovery = 103.60%
Cr 267.716†              632.8      4.9147 µg/L       0.31903      4.9147 ppb        0.31903   6.49%
   QC value within limits for Cr 267.716  Recovery = 98.29%
Cu 324.752†             2554.1      9.9952 µg/L       0.36319      9.9952 ppb        0.36319   3.63%
   QC value within limits for Cu 324.752  Recovery = 99.95%
Fe 238.204 Radial†      1660.8      102.36 µg/L         2.828      102.36 ppb          2.828   2.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.36%
K 766.490 Radial†        409.6      149.80 µg/L        12.246      149.80 ppb         12.246   8.17%
   QC value within limits for K 766.490 Radial  Recovery = 99.87%
Mg 279.077 IEC†          834.3      310.99 µg/L         6.984      310.99 ppb          6.984   2.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.66%
Mn 257.610†             8345.6      10.313 µg/L        0.0539      10.313 ppb         0.0539   0.52%
   QC value within limits for Mn 257.610  Recovery = 103.13%
Mo 202.031†              312.7      9.1996 µg/L       0.21314      9.1996 ppb        0.21314   2.32%
   QC value within limits for Mo 202.031  Recovery = 92.00%
Na 589.592 Radial†      2049.5      279.85 µg/L         8.919      279.85 ppb          8.919   3.19%
   QC value within limits for Na 589.592 Radial  Recovery = 93.28%
Ni 231.604†              433.8      4.9948 µg/L       0.13089      4.9948 ppb        0.13089   2.62%
   QC value within limits for Ni 231.604  Recovery = 99.90%
P 214.914†               690.7      147.58 µg/L         0.423      147.58 ppb          0.423   0.29%
   QC value within limits for P 214.914  Recovery = 98.39%
Pb 220.353†              200.7      11.202 µg/L        0.6223      11.202 ppb         0.6223   5.56%
   QC value within limits for Pb 220.353  Recovery = 112.02%
S 181.975 Axial†         131.4      97.634 µg/L        4.5940      97.634 ppb         4.5940   4.71%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†               80.6      9.6618 µg/L       0.95194      9.6618 ppb        0.95194   9.85%
   QC value within limits for Sb 206.836  Recovery = 96.62%
Se 196.026†               86.2        31.2 µg/L          3.09        31.2 ppb           3.09   9.88%
   QC value within limits for Se 196.026  Recovery = 104.17%
SiO2†                   2170.9      211.78 µg/L         3.127      211.78 ppb          3.127   1.48%
   QC value within limits for SiO2  Recovery = 99.43%
Si 251.611†             6799.9      100.06 µg/L         0.371      100.06 ppb          0.371   0.37%
   QC value within limits for Si 251.611  Recovery = 100.06%
Sn 189.927†              166.9      10.420 µg/L        0.1167      10.420 ppb         0.1167   1.12%
   QC value within limits for Sn 189.927  Recovery = 104.20%
Sr 421.552†             2494.8      5.1849 µg/L       0.14714      5.1849 ppb        0.14714   2.84%
   QC value within limits for Sr 421.552  Recovery = 103.70%
Ti 334.940†             5204.3      4.8193 µg/L       0.11489      4.8193 ppb        0.11489   2.38%
   QC value within limits for Ti 334.940  Recovery = 96.39%
Tl 190.801†              155.6      19.207 µg/L        1.2048      19.207 ppb         1.2048   6.27%
   QC value within limits for Tl 190.801  Recovery = 96.03%
U 409.014†               895.8      52.688 µg/L        8.1477      52.688 ppb         8.1477  15.46%
   QC value within limits for U 409.014  Recovery = 105.38%
V 292.402†               943.5      4.7388 µg/L       0.71883      4.7388 ppb        0.71883  15.17%
   QC value within limits for V 292.402  Recovery = 94.78%
Zn 213.857†             1805.7      10.096 µg/L        0.0971      10.096 ppb         0.0971   0.96%
   QC value within limits for Zn 213.857  Recovery = 100.96%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 3/31/2010 18:53:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	132242.6	132242.6	90.6	%			18:53:53
1	Al 396.153Radial†	2422897.8	2673731.8	495710	µg/L	495710	ppb	18:53:51
1	Ca 317.933Radial†	7691621.4	8487146.3	472770	µg/L	472770	ppb	18:53:51
1	Fe 238.204 Radial†	2755313.8	3040341.6	187390	µg/L	187390	ppb	18:53:51
1	K 766.490 Radial†	1640.2	265.2	-138.93	µg/L	-138.93	ppb	18:53:53
1	Mg 279.077 IEC†	1160629.2	1280564.0	476960	µg/L	476960	ppb	18:53:51
1	Na 589.592 Radial†	1484.0	346.8	47.294	µg/L	47.294	ppb	18:53:53
1	Sr 421.552†	1473.7	1761.6	-0.0382	µg/L	-0.0382	ppb	18:53:53
1	Sc 361.383	1517022.4	1517022.4	88.290	%			18:54:06
1	Y 371.029	894868.4	894868.4	87.161	%			18:54:06
1	Ag 328.068†	6255.0	2993.2	-1.9729	µg/L	-1.9729	ppb	18:54:06
1	As 188.979†	-100.1	-93.0	13.877	µg/L	13.877	ppb	18:54:26
1	B 249.677†	3380.9	323.4	4.7554	µg/L	4.7554	ppb	18:54:06
1	Ba 233.527†	434.1	627.6	0.1345	µg/L	0.1345	ppb	18:54:26
1	Be 313.107†	-1147.6	-235.1	-0.0621	µg/L	-0.0621	ppb	18:54:06
1	Cd 226.502†	2412.4	2850.5	-1.8998	µg/L	-1.8998	ppb	18:54:26
1	Co 228.616†	123.8	330.6	-5.6944	µg/L	-5.6944	ppb	18:54:26
1	Cr 267.716†	198.7	46.5	1.0479	µg/L	1.0479	ppb	18:54:26
1	Cu 324.752†	-5619.3	-9336.8	3.9046	µg/L	3.9046	ppb	18:54:06
1	Mn 257.610†	16860.5	18859.4	3.9217	µg/L	3.9217	ppb	18:54:06
1	Mo 202.031†	-556.1	-609.8	-1.7911	µg/L	-1.7911	ppb	18:54:26
1	Ni 231.604†	185.4	286.5	3.2984	µg/L	3.2984	ppb	18:54:26
1	P 214.914†	178.3	219.9	29.959	µg/L	29.959	ppb	18:54:26
1	Pb 220.353†	-392.3	-530.7	-4.9340	µg/L	-4.9340	ppb	18:54:26
1	S 181.975 Axial†	184.5	103.9	77.024	µg/L	77.024	ppb	18:54:26
1	Sb 206.836†	109.1	42.8	-0.8364	µg/L	-0.8364	ppb	18:54:26
1	Se 196.026†	-143.5	-177.8	0.756	µg/L	0.756	ppb	18:54:26
1	SiO2†	1661.3	106.3	10.857	µg/L	10.857	ppb	18:54:26
1	Si 251.611†	457.4	-318.5	-4.4771	µg/L	-4.4771	ppb	18:54:26
1	Sn 189.927†	41.8	48.5	3.1002	µg/L	3.1002	ppb	18:54:26
1	Ti 334.940†	22402.5	24421.1	-3.7208	µg/L	-3.7208	ppb	18:54:06
1	Tl 190.801†	-159.3	-63.8	-7.4175	µg/L	-7.4175	ppb	18:54:26
1	U 409.014†	-141.4	109.7	-14.558	µg/L	-14.558	ppb	18:54:06
1	V 292.402†	4081.9	4219.5	0.6141	µg/L	0.6141	ppb	18:54:06
1	Zn 213.857†	4369.0	4384.0	8.5615	µg/L	8.5615	ppb	18:54:26
2	Sc RADIAL	132040.0	132040.0	90.5	%			18:53:58
2	Al 396.153Radial†	2444947.4	2702202.7	500990	µg/L	500990	ppb	18:53:56
2	Ca 317.933Radial†	7800125.3	8620085.6	480170	µg/L	480170	ppb	18:53:56
2	Fe 238.204 Radial†	2791790.4	3085319.9	190160	µg/L	190160	ppb	18:53:56
2	K 766.490 Radial†	1740.8	379.1	-100.42	µg/L	-100.42	ppb	18:53:58
2	Mg 279.077 IEC†	1178560.0	1302345.9	485070	µg/L	485070	ppb	18:53:56
2	Na 589.592 Radial†	1410.4	267.9	36.479	µg/L	36.479	ppb	18:53:58
2	Sr 421.552†	1434.5	1720.7	-0.1811	µg/L	-0.1811	ppb	18:53:58
2	Sc 361.383	1500109.7	1500109.7	87.306	%			18:54:29
2	Y 371.029	884042.0	884042.0	86.106	%			18:54:29
2	Ag 328.068†	6203.9	3014.6	-2.1211	µg/L	-2.1211	ppb	18:54:29
2	As 188.979†	-119.9	-117.0	7.2444	µg/L	7.2444	ppb	18:54:49
2	B 249.677†	3505.1	508.8	7.4908	µg/L	7.4908	ppb	18:54:29
2	Ba 233.527†	482.5	688.5	0.3435	µg/L	0.3435	ppb	18:54:49
2	Be 313.107†	-1215.4	-327.4	-0.0902	µg/L	-0.0902	ppb	18:54:29
2	Cd 226.502†	2441.6	2914.8	-1.7901	µg/L	-1.7901	ppb	18:54:49
2	Co 228.616†	105.8	311.5	-6.0736	µg/L	-6.0736	ppb	18:54:49
2	Cr 267.716†	217.8	70.9	1.2432	µg/L	1.2432	ppb	18:54:49
2	Cu 324.752†	-5483.5	-9253.0	4.8451	µg/L	4.8451	ppb	18:54:29
2	Mn 257.610†	16639.0	18821.0	3.5450	µg/L	3.5450	ppb	18:54:29
2	Mo 202.031†	-590.4	-656.1	-2.8945	µg/L	-2.8945	ppb	18:54:49
2	Ni 231.604†	122.0	216.3	2.4904	µg/L	2.4904	ppb	18:54:49
2	P 214.914†	170.4	213.2	27.815	µg/L	27.815	ppb	18:54:49
2	Pb 220.353†	-391.2	-534.5	-4.9028	µg/L	-4.9028	ppb	18:54:49

2	S 181.975 Axial†	176.5	97.2	71.982 µg/L	71.982 ppb	18:54:49
2	Sb 206.836†	116.0	52.0	0.1714 µg/L	0.1714 ppb	18:54:49
2	Se 196.026†	-172.4	-212.7	-10.9 µg/L	-10.9 ppb	18:54:49
2	SiO2†	1633.2	95.3	9.7946 µg/L	9.7946 ppb	18:54:49
2	Si 251.611†	508.3	-254.3	-3.5215 µg/L	-3.5215 ppb	18:54:49
2	Sn 189.927†	60.8	70.8	4.4873 µg/L	4.4873 ppb	18:54:49
2	Ti 334.940†	21754.3	23964.7	-4.6112 µg/L	-4.6112 ppb	18:54:29
2	Tl 190.801†	-183.8	-93.9	-11.124 µg/L	-11.124 ppb	18:54:49
2	U 409.014†	-286.0	-57.7	-24.699 µg/L	-24.699 ppb	18:54:29
2	V 292.402†	3918.7	4084.7	-0.3553 µg/L	-0.3553 ppb	18:54:29
2	Zn 213.857†	4368.9	4439.7	8.6032 µg/L	8.6032 ppb	18:54:49
3	Sc RADIAL	128528.5	128528.5	88.1 %		18:54:02
3	Al 396.153Radial†	2425420.2	2753857.9	510560 µg/L	510560 ppb	18:54:00
3	Ca 317.933Radial†	7690261.2	8730875.1	486340 µg/L	486340 ppb	18:54:00
3	Fe 238.204 Radial†	2749581.2	3121695.4	192400 µg/L	192400 ppb	18:54:00
3	K 766.490 Radial†	1659.5	339.4	-118.61 µg/L	-118.61 ppb	18:54:02
3	Mg 279.077 IEC†	1158065.5	1314663.8	489660 µg/L	489660 ppb	18:54:00
3	Na 589.592 Radial†	1347.0	238.6	32.485 µg/L	32.485 ppb	18:54:02
3	Sr 421.552†	1492.5	1829.9	-0.0025 µg/L	-0.0025 ppb	18:54:02
3	Sc 361.383	1514195.4	1514195.4	88.126 %		18:54:52
3	Y 371.029	891947.3	891947.3	86.876 %		18:54:52
3	Ag 328.068†	6032.7	2754.1	-3.2379 µg/L	-3.2379 ppb	18:54:52
3	As 188.979†	-108.0	-102.2	12.211 µg/L	12.211 ppb	18:55:12
3	B 249.677†	3436.5	393.7	5.7936 µg/L	5.7936 ppb	18:54:52
3	Ba 233.527†	448.2	644.5	0.1380 µg/L	0.1380 ppb	18:55:12
3	Be 313.107†	-1158.8	-250.2	-0.0644 µg/L	-0.0644 ppb	18:54:52
3	Cd 226.502†	2438.6	2885.4	-2.2095 µg/L	-2.2095 ppb	18:55:12
3	Co 228.616†	90.0	292.5	-6.4255 µg/L	-6.4255 ppb	18:55:12
3	Cr 267.716†	181.2	27.0	0.9095 µg/L	0.9095 ppb	18:55:12
3	Cu 324.752†	-5570.7	-9293.5	5.1506 µg/L	5.1506 ppb	18:54:52
3	Mn 257.610†	16733.6	18751.0	3.2706 µg/L	3.2706 ppb	18:54:52
3	Mo 202.031†	-556.7	-611.6	-1.4146 µg/L	-1.4146 ppb	18:55:12
3	Ni 231.604†	136.4	231.3	2.6634 µg/L	2.6634 ppb	18:55:12
3	P 214.914†	188.3	231.6	32.331 µg/L	32.331 ppb	18:55:12
3	Pb 220.353†	-364.7	-500.2	-2.4766 µg/L	-2.4766 ppb	18:55:12
3	S 181.975 Axial†	176.2	94.9	70.345 µg/L	70.345 ppb	18:55:12
3	Sb 206.836†	127.8	64.2	1.5521 µg/L	1.5521 ppb	18:55:12
3	Se 196.026†	-157.0	-193.4	-3.16 µg/L	-3.16 ppb	18:55:12
3	SiO2†	1710.0	165.0	16.582 µg/L	16.582 ppb	18:55:12
3	Si 251.611†	438.9	-338.5	-4.7759 µg/L	-4.7759 ppb	18:55:12
3	Sn 189.927†	52.5	60.6	3.8554 µg/L	3.8554 ppb	18:55:12
3	Ti 334.940†	21892.4	23889.7	-4.9005 µg/L	-4.9005 ppb	18:54:52
3	Tl 190.801†	-161.6	-66.7	-7.7840 µg/L	-7.7840 ppb	18:55:12
3	U 409.014†	-54.1	208.5	-9.3710 µg/L	-9.3710 ppb	18:54:52
3	V 292.402†	3967.3	4098.1	-0.5042 µg/L	-0.5042 ppb	18:54:52
3	Zn 213.857†	4428.1	4460.3	8.5816 µg/L	8.5816 ppb	18:55:12

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1510442.5	87.908	%	0.5273				0.60%
Sc RADIAL	130937.0	89.7	%	1.43				1.59%
Y 371.029	890285.9	86.714	%	0.5456				0.63%
Ag 328.068†	2920.6	-2.4440	µg/L	0.69159	-2.4440	ppb	0.69159	28.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2709930.8	502420	µg/L	7530.6	502420	ppb	7530.6	1.50%
QC value within limits for Al 396.153Radial Recovery = 100.48%								
As 188.979†	-104.0	11.111	µg/L	3.4505	11.111	ppb	3.4505	31.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	408.6	6.0133	µg/L	1.38084	6.0133	ppb	1.38084	22.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	653.5	0.2053	µg/L	0.11966	0.2053	ppb	0.11966	58.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-270.9	-0.0722	µg/L	0.01558	-0.0722	ppb	0.01558	21.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8612702.4	479760	µg/L	6797.7	479760	ppb	6797.7	1.42%
QC value within limits for Ca 317.933Radial Recovery = 95.95%								
Cd 226.502†	2883.6	-1.9665	µg/L	0.21751	-1.9665	ppb	0.21751	11.06%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	311.5	-6.0645	µg/L	0.36562	-6.0645	ppb	0.36562	6.03%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              48.1      1.0668 µg/L       0.16765      1.0668 ppb        0.16765  15.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -9294.4      4.6334 µg/L       0.64943      4.6334 ppb        0.64943  14.02%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   3082452.3      189980 µg/L        2511.7      189980 ppb         2511.7   1.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.99%
K 766.490 Radial†        327.9     -119.32 µg/L        19.263     -119.32 ppb         19.263  16.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1299191.2      483900 µg/L        6431.4      483900 ppb         6431.4   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.78%
Mn 257.610†           18810.4      3.5791 µg/L       0.32691      3.5791 ppb        0.32691   9.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -625.9     -2.0334 µg/L       0.76912     -2.0334 ppb        0.76912  37.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       284.5      38.753 µg/L        7.6619      38.753 ppb         7.6619  19.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              244.7      2.8174 µg/L       0.42544      2.8174 ppb        0.42544  15.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               221.6      30.035 µg/L        2.2592      30.035 ppb         2.2592   7.52%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -521.8     -4.1045 µg/L       1.40989     -4.1045 ppb        1.40989  34.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          98.7      73.117 µg/L        3.4814      73.117 ppb         3.4814   4.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               53.0      0.2957 µg/L       1.19909      0.2957 ppb        1.19909 405.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -194.6       -4.44 µg/L         5.948       -4.44 ppb          5.948 133.85%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    122.2      12.411 µg/L        3.6511      12.411 ppb         3.6511  29.42%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            -303.8     -4.2582 µg/L       0.65524     -4.2582 ppb        0.65524  15.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               60.0      3.8143 µg/L       0.69446      3.8143 ppb        0.69446  18.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            1770.7     -0.0740 µg/L       0.09453     -0.0740 ppb        0.09453 127.80%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           24091.8     -4.4108 µg/L       0.61484     -4.4108 ppb        0.61484  13.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -74.8     -8.7751 µg/L       2.04236     -8.7751 ppb        2.04236  23.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                86.8     -16.209 µg/L        7.7964     -16.209 ppb         7.7964  48.10%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             4134.1     -0.0818 µg/L       0.60724     -0.0818 ppb        0.60724 742.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            4428.0      8.5821 µg/L       0.02081      8.5821 ppb        0.02081   0.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 3/31/2010 18:55:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128923.7	128923.7	88.3	%			18:55:52
1	Al 396.153Radial†	2441585.6	2763714.4	512370	µg/L	512370	ppb	18:55:50
1	Ca 317.933Radial†	7758514.8	8781367.4	489160	µg/L	489160	ppb	18:55:50
1	Fe 238.204 Radial†	2782554.2	3149448.4	194110	µg/L	194110	ppb	18:55:50
1	K 766.490 Radial†	15194.3	15653.8	5486.8	µg/L	5486.8	ppb	18:55:52
1	Mg 279.077 IEC†	1148118.0	1299373.7	483970	µg/L	483970	ppb	18:55:52
1	Na 589.592 Radial†	35618.0	39025.6	5326.3	µg/L	5326.3	ppb	18:55:52
1	Sr 421.552†	218553.1	247517.3	510.75	µg/L	510.75	ppb	18:55:52
1	Sc 361.383	1501848.4	1501848.4	87.407	%			18:56:05
1	Y 371.029	885934.6	885934.6	86.290	%			18:56:05
1	Ag 328.068†	68208.1	73943.4	266.87	µg/L	266.87	ppb	18:56:05
1	As 188.979†	1287.3	1493.1	500.98	µg/L	500.98	ppb	18:56:07
1	B 249.677†	33851.7	35222.8	517.92	µg/L	517.92	ppb	18:56:05
1	Ba 233.527†	108371.1	124119.8	498.16	µg/L	498.16	ppb	18:56:05
1	Be 313.107†	784555.4	898650.0	244.84	µg/L	244.84	ppb	18:56:05
1	Cd 226.502†	69032.6	79096.3	473.84	µg/L	473.84	ppb	18:56:05
1	Co 228.616†	31520.5	36252.0	437.70	µg/L	437.70	ppb	18:56:07
1	Cr 267.716†	53782.3	61352.1	481.07	µg/L	481.07	ppb	18:56:07
1	Cu 324.752†	114717.9	128272.9	540.53	µg/L	540.53	ppb	18:56:05
1	Mn 257.610†	356699.6	407851.6	484.93	µg/L	484.93	ppb	18:56:05
1	Mo 202.031†	13953.9	15984.3	486.45	µg/L	486.45	ppb	18:56:07
1	Ni 231.604†	34191.5	39194.0	451.29	µg/L	451.29	ppb	18:56:07
1	P 214.914†	10448.2	11971.4	2535.7	µg/L	2535.7	ppb	18:56:07
1	Pb 220.353†	6755.9	7642.9	453.53	µg/L	453.53	ppb	18:56:07
1	S 181.975 Axial†	3250.1	3613.3	2687.1	µg/L	2687.1	ppb	18:56:07
1	Sb 206.836†	3785.3	4249.8	500.40	µg/L	500.40	ppb	18:56:07
1	Se 196.026†	5624.0	6419.0	2390	µg/L	2390	ppb	18:56:07
1	SiO2†	99846.0	112455.3	10971	µg/L	10971	ppb	18:56:05
1	Si 251.611†	306352.4	349651.7	5145.5	µg/L	5145.5	ppb	18:56:05
1	Sn 189.927†	6636.1	7593.3	475.14	µg/L	475.14	ppb	18:56:07
1	Ti 334.940†	496139.0	566664.5	502.37	µg/L	502.37	ppb	18:56:05
1	Tl 190.801†	3058.5	3615.8	452.56	µg/L	452.56	ppb	18:56:07
1	U 409.014†	7410.9	8748.5	521.43	µg/L	521.43	ppb	18:56:05
1	V 292.402†	94726.2	107969.5	513.01	µg/L	513.01	ppb	18:56:05
1	Zn 213.857†	80178.7	91165.5	492.35	µg/L	492.35	ppb	18:56:05
2	Sc RADIAL	130306.5	130306.5	89.3	%			18:55:57
2	Al 396.153Radial†	2425762.3	2716664.8	503640	µg/L	503640	ppb	18:55:54
2	Ca 317.933Radial†	7696197.0	8618379.7	480080	µg/L	480080	ppb	18:55:54
2	Fe 238.204 Radial†	2760250.1	3091044.9	190510	µg/L	190510	ppb	18:55:54
2	K 766.490 Radial†	15576.4	15899.2	5580.2	µg/L	5580.2	ppb	18:55:57
2	Mg 279.077 IEC†	1163916.5	1303274.7	485430	µg/L	485430	ppb	18:55:57
2	Na 589.592 Radial†	35962.5	38983.4	5320.4	µg/L	5320.4	ppb	18:55:57
2	Sr 421.552†	221063.2	247703.0	511.20	µg/L	511.20	ppb	18:55:57
2	Sc 361.383	1503774.7	1503774.7	87.519	%			18:56:10
2	Y 371.029	887039.9	887039.9	86.398	%			18:56:10
2	Ag 328.068†	68293.1	73940.5	267.10	µg/L	267.10	ppb	18:56:10
2	As 188.979†	1349.3	1562.1	521.08	µg/L	521.08	ppb	18:56:12
2	B 249.677†	33920.1	35251.3	518.32	µg/L	518.32	ppb	18:56:10
2	Ba 233.527†	108643.6	124272.4	498.82	µg/L	498.82	ppb	18:56:10
2	Be 313.107†	786963.6	900251.8	245.27	µg/L	245.27	ppb	18:56:10
2	Cd 226.502†	69426.5	79445.1	476.40	µg/L	476.40	ppb	18:56:10
2	Co 228.616†	32044.4	36804.3	444.70	µg/L	444.70	ppb	18:56:12
2	Cr 267.716†	54375.8	61951.4	485.63	µg/L	485.63	ppb	18:56:12
2	Cu 324.752†	115372.1	128852.4	542.29	µg/L	542.29	ppb	18:56:10
2	Mn 257.610†	357810.4	408598.0	485.80	µg/L	485.80	ppb	18:56:10
2	Mo 202.031†	14059.7	16084.7	489.29	µg/L	489.29	ppb	18:56:12
2	Ni 231.604†	34695.4	39719.6	457.34	µg/L	457.34	ppb	18:56:12
2	P 214.914†	10657.1	12194.8	2584.0	µg/L	2584.0	ppb	18:56:12
2	Pb 220.353†	7007.7	7920.6	468.62	µg/L	468.62	ppb	18:56:12

2	S 181.975 Axial†	3226.8	3581.8	2663.8 µg/L	2663.8 ppb	18:56:12
2	Sb 206.836†	3801.0	4262.2	501.96 µg/L	501.96 ppb	18:56:12
2	Se 196.026†	5730.0	6531.8	2430 µg/L	2430 ppb	18:56:12
2	SiO2†	100449.1	112998.1	11024 µg/L	11024 ppb	18:56:10
2	Si 251.611†	307929.3	351004.4	5165.3 µg/L	5165.3 ppb	18:56:10
2	Sn 189.927†	6796.2	7766.5	485.94 µg/L	485.94 ppb	18:56:12
2	Ti 334.940†	498020.9	568087.6	503.35 µg/L	503.35 ppb	18:56:10
2	Tl 190.801†	3159.1	3726.2	466.12 µg/L	466.12 ppb	18:56:12
2	U 409.014†	7207.8	8505.6	507.68 µg/L	507.68 ppb	18:56:10
2	V 292.402†	94912.3	108043.3	513.79 µg/L	513.79 ppb	18:56:10
2	Zn 213.857†	80541.8	91462.8	494.31 µg/L	494.31 ppb	18:56:10
3	Sc RADIAL	130048.3	130048.3	89.1 %		18:56:01
3	Al 396.153Radial†	2433855.1	2731140.9	506330 µg/L	506330 ppb	18:55:59
3	Ca 317.933Radial†	7718645.4	8660686.5	482430 µg/L	482430 ppb	18:55:59
3	Fe 238.204 Radial†	2766938.5	3104689.2	191350 µg/L	191350 ppb	18:55:59
3	K 766.490 Radial†	15537.1	15889.7	5575.7 µg/L	5575.7 ppb	18:56:01
3	Mg 279.077 IEC†	1162812.5	1304624.6	485930 µg/L	485930 ppb	18:56:01
3	Na 589.592 Radial†	36095.8	39213.0	5351.8 µg/L	5351.8 ppb	18:56:01
3	Sr 421.552†	220343.8	247387.5	510.53 µg/L	510.53 ppb	18:56:01
3	Sc 361.383	1505253.1	1505253.1	87.605 %		18:56:15
3	Y 371.029	887796.9	887796.9	86.472 %		18:56:15
3	Ag 328.068†	68315.0	73888.9	266.85 µg/L	266.85 ppb	18:56:15
3	As 188.979†	1427.8	1650.2	547.91 µg/L	547.91 ppb	18:56:17
3	B 249.677†	34091.4	35408.8	520.64 µg/L	520.64 ppb	18:56:15
3	Ba 233.527†	108923.3	124469.7	499.60 µg/L	499.60 ppb	18:56:15
3	Be 313.107†	788697.2	901347.5	245.57 µg/L	245.57 ppb	18:56:15
3	Cd 226.502†	69816.9	79812.9	478.61 µg/L	478.61 ppb	18:56:15
3	Co 228.616†	32104.8	36837.3	445.06 µg/L	445.06 ppb	18:56:17
3	Cr 267.716†	54241.6	61737.2	483.97 µg/L	483.97 ppb	18:56:17
3	Cu 324.752†	115315.5	128658.2	541.67 µg/L	541.67 ppb	18:56:15
3	Mn 257.610†	358650.2	409155.1	486.47 µg/L	486.47 ppb	18:56:15
3	Mo 202.031†	13985.2	15983.9	486.37 µg/L	486.37 ppb	18:56:17
3	Ni 231.604†	34565.9	39532.8	455.19 µg/L	455.19 ppb	18:56:17
3	P 214.914†	10680.3	12209.4	2587.2 µg/L	2587.2 ppb	18:56:17
3	Pb 220.353†	7037.5	7946.8	470.21 µg/L	470.21 ppb	18:56:17
3	S 181.975 Axial†	3275.8	3634.2	2702.6 µg/L	2702.6 ppb	18:56:17
3	Sb 206.836†	3858.4	4323.5	509.22 µg/L	509.22 ppb	18:56:17
3	Se 196.026†	5760.2	6559.9	2440 µg/L	2440 ppb	18:56:17
3	SiO2†	100355.9	112779.0	11003 µg/L	11003 ppb	18:56:15
3	Si 251.611†	307749.7	350453.9	5157.2 µg/L	5157.2 ppb	18:56:15
3	Sn 189.927†	6900.6	7878.0	492.90 µg/L	492.90 ppb	18:56:17
3	Ti 334.940†	498757.3	568369.4	503.63 µg/L	503.63 ppb	18:56:15
3	Tl 190.801†	3121.0	3679.2	460.34 µg/L	460.34 ppb	18:56:17
3	U 409.014†	7255.1	8551.4	510.28 µg/L	510.28 ppb	18:56:15
3	V 292.402†	95008.3	108046.4	513.68 µg/L	513.68 ppb	18:56:15
3	Zn 213.857†	80688.3	91539.7	494.68 µg/L	494.68 ppb	18:56:15

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1503625.4	87.511	%	0.0994				0.11%
Sc RADIAL	129759.5	88.9	%	0.50				0.57%
Y 371.029	886923.8	86.387	%	0.0912				0.11%
Ag 328.068†	73924.3	266.94	µg/L	0.141	266.94	ppb	0.141	0.05%
QC value within limits for Ag 328.068 Recovery = 106.78%								
Al 396.153Radial†	2737173.4	507450	µg/L	4467.8	507450	ppb	4467.8	0.88%
QC value within limits for Al 396.153Radial Recovery = 101.49%								
As 188.979†	1568.5	523.32	µg/L	23.543	523.32	ppb	23.543	4.50%
QC value within limits for As 188.979 Recovery = 104.66%								
B 249.677†	35294.3	518.96	µg/L	1.468	518.96	ppb	1.468	0.28%
QC value within limits for B 249.677 Recovery = 103.79%								
Ba 233.527†	124287.3	498.86	µg/L	0.724	498.86	ppb	0.724	0.15%
QC value within limits for Ba 233.527 Recovery = 99.77%								
Be 313.107†	900083.1	245.23	µg/L	0.367	245.23	ppb	0.367	0.15%
QC value within limits for Be 313.107 Recovery = 98.09%								
Ca 317.933Radial†	8686811.2	483890	µg/L	4711.2	483890	ppb	4711.2	0.97%
QC value within limits for Ca 317.933Radial Recovery = 96.78%								
Cd 226.502†	79451.4	476.29	µg/L	2.386	476.29	ppb	2.386	0.50%
QC value within limits for Cd 226.502 Recovery = 95.26%								
Co 228.616†	36631.2	442.49	µg/L	4.152	442.49	ppb	4.152	0.94%

```
   QC value within limits for Co 228.616  Recovery = 88.50%
Cr 267.716†            61680.2      483.56 µg/L         2.310      483.56 ppb          2.310   0.48%
   QC value within limits for Cr 267.716  Recovery = 96.71%
Cu 324.752†           128594.5      541.50 µg/L         0.893      541.50 ppb          0.893   0.16%
   QC value within limits for Cu 324.752  Recovery = 108.30%
Fe 238.204 Radial†   3115060.8      191990 µg/L        1883.0      191990 ppb         1883.0   0.98%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.00%
K 766.490 Radial†      15814.2      5547.6 µg/L         52.66      5547.6 ppb          52.66   0.95%
   QC value within limits for K 766.490 Radial  Recovery = 110.95%
Mg 279.077 IEC†      1302424.3      485110 µg/L        1017.4      485110 ppb         1017.4   0.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.02%
Mn 257.610†           408534.9      485.73 µg/L         0.774      485.73 ppb          0.774   0.16%
   QC value within limits for Mn 257.610  Recovery = 97.15%
Mo 202.031†            16017.6      487.37 µg/L         1.662      487.37 ppb          1.662   0.34%
   QC value within limits for Mo 202.031  Recovery = 97.47%
Na 589.592 Radial†     39074.0      5332.8 µg/L         16.68      5332.8 ppb          16.68   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 106.66%
Ni 231.604†            39482.1      454.61 µg/L         3.068      454.61 ppb          3.068   0.67%
   QC value within limits for Ni 231.604  Recovery = 90.92%
P 214.914†             12125.2      2569.0 µg/L         28.88      2569.0 ppb          28.88   1.12%
   QC value within limits for P 214.914  Recovery = 102.76%
Pb 220.353†             7836.8      464.12 µg/L         9.210      464.12 ppb          9.210   1.98%
   QC value within limits for Pb 220.353  Recovery = 92.82%
S 181.975 Axial†        3609.8      2684.5 µg/L         19.56      2684.5 ppb          19.56   0.73%
   QC value within limits for S 181.975 Axial  Recovery = 107.38%
Sb 206.836†             4278.5      503.86 µg/L         4.707      503.86 ppb          4.707   0.93%
   QC value within limits for Sb 206.836  Recovery = 100.77%
Se 196.026†             6503.6        2420 µg/L          26.4        2420 ppb           26.4   1.09%
   QC value within limits for Se 196.026  Recovery = 96.73%
SiO2†                 112744.1       10999 µg/L          26.6       10999 ppb           26.6   0.24%
   QC value within limits for SiO2  Recovery = 102.85%
Si 251.611†           350370.0      5156.0 µg/L          9.97      5156.0 ppb           9.97   0.19%
   QC value within limits for Si 251.611  Recovery = 103.12%
Sn 189.927†             7745.9      484.66 µg/L         8.948      484.66 ppb          8.948   1.85%
   QC value within limits for Sn 189.927  Recovery = 96.93%
Sr 421.552†           247536.0      510.83 µg/L         0.344      510.83 ppb          0.344   0.07%
   QC value within limits for Sr 421.552  Recovery = 102.17%
Ti 334.940†           567707.2      503.12 µg/L         0.662      503.12 ppb          0.662   0.13%
   QC value within limits for Ti 334.940  Recovery = 100.62%
Tl 190.801†             3673.7      459.67 µg/L         6.804      459.67 ppb          6.804   1.48%
   QC value within limits for Tl 190.801  Recovery = 91.93%
U 409.014†              8601.8      513.13 µg/L         7.307      513.13 ppb          7.307   1.42%
   QC value within limits for U 409.014  Recovery = 102.63%
V 292.402†            108019.7      513.49 µg/L         0.422      513.49 ppb          0.422   0.08%
   QC value within limits for V 292.402  Recovery = 102.70%
Zn 213.857†            91389.3      493.78 µg/L         1.251      493.78 ppb          1.251   0.25%
   QC value within limits for Zn 213.857  Recovery = 98.76%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 3/31/2010 18:56:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128043.7	128043.7	87.7	%			18:56:58
1	Al 396.153Radial†	2381304.8	2714005.3	503180	µg/L	503180	ppb	18:56:56
1	Ca 317.933Radial†	7611014.0	8673613.0	483150	µg/L	483150	ppb	18:56:56
1	Fe 238.204 Radial†	6523125.5	7434173.2	458200	µg/L	458200	ppb	18:56:56
1	K 766.490 Radial†	2256.7	1027.2	53.040	µg/L	53.040	ppb	18:56:58
1	Mg 279.077 IEC†	1139739.5	1298755.6	483500	µg/L	483500	ppb	18:56:56
1	Na 589.592 Radial†	3271680.6	3727401.1	509210	µg/L	509210	ppb	18:56:56
1	Sr 421.552†	5079.9	5924.8	8.5355	µg/L	8.5355	ppb	18:56:58
1	Sc 361.383	1451583.4	1451583.4	84.482	%			18:57:26
1	Y 371.029	852879.4	852879.4	83.071	%			18:57:26
1	Ag 328.068†	2264.1	-1411.5	-0.2309	µg/L	-0.2309	ppb	18:57:26
1	As 188.979†	-305.1	-340.8	-0.3436	µg/L	-0.3436	ppb	18:57:28
1	B 249.677†	4415.2	1720.3	25.330	µg/L	25.330	ppb	18:57:26
1	Ba 233.527†	738.1	1009.5	-1.7895	µg/L	-1.7895	ppb	18:57:28
1	Be 313.107†	-15542.1	-17332.3	0.1527	µg/L	0.1527	ppb	18:57:26
1	Cd 226.502†	6136.8	7382.3	-2.0728	µg/L	-2.0728	ppb	18:57:28
1	Co 228.616†	663.9	976.1	-11.855	µg/L	-11.855	ppb	18:57:28
1	Cr 267.716†	326.4	207.8	-1.0531	µg/L	-1.0531	ppb	18:57:28
1	Cu 324.752†	-15976.1	-21882.9	8.0863	µg/L	8.0863	ppb	18:57:26
1	Mn 257.610†	18213.2	21321.4	5.9920	µg/L	5.9920	ppb	18:57:26
1	Mo 202.031†	-937.6	-1089.8	-5.0578	µg/L	-5.0578	ppb	18:57:26
1	Ni 231.604†	147.8	251.5	2.8954	µg/L	2.8954	ppb	18:57:28
1	P 214.914†	945.2	1136.8	44.272	µg/L	44.272	ppb	18:57:28
1	Pb 220.353†	-112.1	-219.1	-7.8626	µg/L	-7.8626	ppb	18:57:28
1	S 181.975 Axial†	176.1	103.3	76.471	µg/L	76.471	ppb	18:57:28
1	Sb 206.836†	186.9	140.4	7.1485	µg/L	7.1485	ppb	18:57:28
1	Se 196.026†	-404.8	-494.4	-4.21	µg/L	-4.21	ppb	18:57:28
1	SiO2†	1963.2	548.4	54.447	µg/L	54.447	ppb	18:57:28
1	Si 251.611†	-2032.7	-3242.6	-47.410	µg/L	-47.410	ppb	18:57:28
1	Sn 189.927†	64.2	77.1	4.9002	µg/L	4.9002	ppb	18:57:28
1	Ti 334.940†	26623.1	30560.8	-4.8606	µg/L	-4.8606	ppb	18:57:26
1	Tl 190.801†	-158.4	-70.8	-8.1165	µg/L	-8.1165	ppb	18:57:28
1	U 409.014†	232638.7	275640.9	16036	µg/L	16036	ppb	18:57:26
1	V 292.402†	7227.0	8150.7	1.9065	µg/L	1.9065	ppb	18:57:28
1	Zn 213.857†	8608.4	9625.2	9.4603	µg/L	9.4603	ppb	18:57:28
2	Sc RADIAL	127587.1	127587.1	87.4	%			18:57:03
2	Al 396.153Radial†	2344707.9	2681859.2	497220	µg/L	497220	ppb	18:57:01
2	Ca 317.933Radial†	7463583.8	8536029.3	475490	µg/L	475490	ppb	18:57:01
2	Fe 238.204 Radial†	6391908.1	7310696.0	450590	µg/L	450590	ppb	18:57:01
2	K 766.490 Radial†	2390.9	1189.8	117.32	µg/L	117.32	ppb	18:57:03
2	Mg 279.077 IEC†	1114206.6	1274200.4	474360	µg/L	474360	ppb	18:57:01
2	Na 589.592 Radial†	3209939.6	3670127.4	501380	µg/L	501380	ppb	18:57:01
2	Sr 421.552†	5135.8	6009.4	8.7715	µg/L	8.7715	ppb	18:57:03
2	Sc 361.383	1456448.3	1456448.3	84.765	%			18:57:30
2	Y 371.029	856251.9	856251.9	83.399	%			18:57:30
2	Ag 328.068†	2013.8	-1715.7	-1.0926	µg/L	-1.0926	ppb	18:57:30
2	As 188.979†	-237.9	-260.3	22.297	µg/L	22.297	ppb	18:57:32
2	B 249.677†	4229.1	1483.4	21.834	µg/L	21.834	ppb	18:57:30
2	Ba 233.527†	835.0	1121.0	-1.2428	µg/L	-1.2428	ppb	18:57:32
2	Be 313.107†	-15397.0	-17099.7	0.2214	µg/L	0.2214	ppb	18:57:30
2	Cd 226.502†	6036.4	7239.5	-2.1644	µg/L	-2.1644	ppb	18:57:32
2	Co 228.616†	696.8	1012.4	-11.010	µg/L	-11.010	ppb	18:57:32
2	Cr 267.716†	355.9	241.2	-0.9572	µg/L	-0.9572	ppb	18:57:32
2	Cu 324.752†	-16236.3	-22126.7	5.7984	µg/L	5.7984	ppb	18:57:30
2	Mn 257.610†	18248.7	21291.3	6.3374	µg/L	6.3374	ppb	18:57:30
2	Mo 202.031†	-933.0	-1080.6	-5.2559	µg/L	-5.2559	ppb	18:57:30
2	Ni 231.604†	134.2	234.9	2.7046	µg/L	2.7046	ppb	18:57:32
2	P 214.914†	1061.2	1269.9	76.619	µg/L	76.619	ppb	18:57:32
2	Pb 220.353†	-99.7	-204.1	-7.1629	µg/L	-7.1629	ppb	18:57:32

2	S 181.975 Axial†	67.9	-24.9	-18.790 µg/L	-18.790 ppb	18:57:32
2	Sb 206.836†	102.8	40.5	-4.5964 µg/L	-4.5964 ppb	18:57:32
2	Se 196.026†	-406.6	-495.0	-7.05 µg/L	-7.05 ppb	18:57:32
2	SiO2†	1830.8	384.5	38.395 µg/L	38.395 ppb	18:57:32
2	Si 251.611†	-1934.6	-3118.9	-45.598 µg/L	-45.598 ppb	18:57:32
2	Sn 189.927†	82.4	98.3	6.2185 µg/L	6.2185 ppb	18:57:32
2	Ti 334.940†	25364.2	28970.4	-5.8085 µg/L	-5.8085 ppb	18:57:30
2	Tl 190.801†	-211.8	-133.2	-15.794 µg/L	-15.794 ppb	18:57:32
2	U 409.014†	233675.5	275944.1	16055 µg/L	16055 ppb	18:57:30
2	V 292.402†	7224.5	8119.2	2.5727 µg/L	2.5727 ppb	18:57:32
2	Zn 213.857†	8699.2	9698.3	10.651 µg/L	10.651 ppb	18:57:32
3	Sc RADIAL	127845.5	127845.5	87.6 %		18:57:07
3	Al 396.153Radial†	2359012.1	2692767.9	499240 µg/L	499240 ppb	18:57:05
3	Ca 317.933Radial†	7510342.6	8572152.9	477500 µg/L	477500 ppb	18:57:05
3	Fe 238.204 Radial†	6434548.4	7344595.4	452680 µg/L	452680 ppb	18:57:05
3	K 766.490 Radial†	2440.5	1241.0	134.70 µg/L	134.70 ppb	18:57:07
3	Mg 279.077 IEC†	1121897.2	1280403.8	476670 µg/L	476670 ppb	18:57:05
3	Na 589.592 Radial†	3229732.0	3685301.0	503460 µg/L	503460 ppb	18:57:05
3	Sr 421.552†	4859.4	5682.0	8.0751 µg/L	8.0751 ppb	18:57:07
3	Sc 361.383	1472435.6	1472435.6	85.696 %		18:57:35
3	Y 371.029	865581.1	865581.1	84.308 %		18:57:35
3	Ag 328.068†	2006.5	-1749.9	-1.2878 µg/L	-1.2878 ppb	18:57:35
3	As 188.979†	-242.4	-262.5	22.088 µg/L	22.088 ppb	18:57:37
3	B 249.677†	4311.3	1525.1	22.443 µg/L	22.443 ppb	18:57:35
3	Ba 233.527†	597.3	832.8	-2.4315 µg/L	-2.4315 ppb	18:57:37
3	Be 313.107†	-15503.1	-17026.2	0.2432 µg/L	0.2432 ppb	18:57:35
3	Cd 226.502†	5998.3	7117.7	-3.1440 µg/L	-3.1440 ppb	18:57:37
3	Co 228.616†	825.0	1153.0	-9.3850 µg/L	-9.3850 ppb	18:57:37
3	Cr 267.716†	265.1	130.8	-1.7837 µg/L	-1.7837 ppb	18:57:37
3	Cu 324.752†	-16427.6	-22141.9	6.1120 µg/L	6.1120 ppb	18:57:35
3	Mn 257.610†	18616.4	21486.6	6.4820 µg/L	6.4820 ppb	18:57:35
3	Mo 202.031†	-951.0	-1089.6	-5.3968 µg/L	-5.3968 ppb	18:57:35
3	Ni 231.604†	238.5	354.9	4.0862 µg/L	4.0862 ppb	18:57:37
3	P 214.914†	1053.2	1246.9	70.775 µg/L	70.775 ppb	18:57:37
3	Pb 220.353†	-34.4	-126.5	-2.7794 µg/L	-2.7794 ppb	18:57:37
3	S 181.975 Axial†	188.2	114.6	84.800 µg/L	84.800 ppb	18:57:37
3	Sb 206.836†	165.1	111.8	3.8601 µg/L	3.8601 ppb	18:57:37
3	Se 196.026†	-442.3	-531.4	-19.5 µg/L	-19.5 ppb	18:57:37
3	SiO2†	1893.1	433.7	43.156 µg/L	43.156 ppb	18:57:37
3	Si 251.611†	-1908.7	-3063.9	-44.810 µg/L	-44.810 ppb	18:57:37
3	Sn 189.927†	139.3	163.7	10.296 µg/L	10.296 ppb	18:57:37
3	Ti 334.940†	26025.3	29416.9	-5.5292 µg/L	-5.5292 ppb	18:57:35
3	Tl 190.801†	-218.6	-138.4	-16.446 µg/L	-16.446 ppb	18:57:37
3	U 409.014†	236329.7	276048.2	16061 µg/L	16061 ppb	18:57:35
3	V 292.402†	7144.2	7933.0	1.4413 µg/L	1.4413 ppb	18:57:37
3	Zn 213.857†	8714.2	9604.4	9.9077 µg/L	9.9077 ppb	18:57:37

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1460155.8	84.981	%	0.6349				0.75%
Sc RADIAL	127825.4	87.6	%	0.16				0.18%
Y 371.029	858237.5	83.593	%	0.6409				0.77%
Ag 328.068†	-1625.7	-0.8704	µg/L	0.56237	-0.8704	ppb	0.56237	64.61%
Al 396.153Radial†	2696210.8	499880	µg/L	3030.8	499880	ppb	3030.8	0.61%
QC value within limits for Al 396.153Radial Recovery = 99.98%								
As 188.979†	-287.9	14.680	µg/L	13.0115	14.680	ppb	13.0115	88.63%
B 249.677†	1576.2	23.202	µg/L	1.8679	23.202	ppb	1.8679	8.05%
Ba 233.527†	987.8	-1.8213	µg/L	0.59497	-1.8213	ppb	0.59497	32.67%
Be 313.107†	-17152.7	0.2058	µg/L	0.04725	0.2058	ppb	0.04725	22.96%
Ca 317.933Radial†	8593931.8	478720	µg/L	3973.4	478720	ppb	3973.4	0.83%
QC value within limits for Ca 317.933Radial Recovery = 95.74%								
Cd 226.502†	7246.5	-2.4604	µg/L	0.59380	-2.4604	ppb	0.59380	24.13%
Co 228.616†	1047.2	-10.750	µg/L	1.2554	-10.750	ppb	1.2554	11.68%
Cr 267.716†	193.3	-1.2647	µg/L	0.45201	-1.2647	ppb	0.45201	35.74%
Cu 324.752†	-22050.5	6.6655	µg/L	1.24035	6.6655	ppb	1.24035	18.61%
Fe 238.204 Radial†	7363154.9	453820	µg/L	3932.0	453820	ppb	3932.0	0.87%
QC value within limits for Fe 238.204 Radial Recovery = 90.76%								
K 766.490 Radial†	1152.7	101.69	µg/L	43.017	101.69	ppb	43.017	42.30%
Mg 279.077 IEC†	1284453.2	478180	µg/L	4754.0	478180	ppb	4754.0	0.99%

QC value within limits for Mg 279.077 IEC Recovery = 95.64%

Mn 257.610†	21366.4	6.2705 µg/L	0.25177	6.2705 ppb	0.25177	4.02%
Mo 202.031†	-1086.7	-5.2368 µg/L	0.17026	-5.2368 ppb	0.17026	3.25%
Na 589.592 Radial†	3694276.5	504680 µg/L	4053.7	504680 ppb	4053.7	0.80%

QC value within limits for Na 589.592 Radial Recovery = 100.94%

Ni 231.604†	280.4	3.2287 µg/L	0.74869	3.2287 ppb	0.74869	23.19%
P 214.914†	1217.9	63.889 µg/L	17.2380	63.889 ppb	17.2380	26.98%
Pb 220.353†	-183.2	-5.9350 µg/L	2.75510	-5.9350 ppb	2.75510	46.42%
S 181.975 Axial†	64.3	47.494 µg/L	57.5543	47.494 ppb	57.5543	121.18%
Sb 206.836†	97.6	2.1374 µg/L	6.05903	2.1374 ppb	6.05903	283.48%
Se 196.026†	-506.9	-10.3 µg/L	8.13	-10.3 ppb	8.13	79.29%
SiO2†	455.6	45.333 µg/L	8.2442	45.333 ppb	8.2442	18.19%
Si 251.611†	-3141.8	-45.939 µg/L	1.3330	-45.939 ppb	1.3330	2.90%
Sn 189.927†	113.0	7.1383 µg/L	2.81321	7.1383 ppb	2.81321	39.41%
Sr 421.552†	5872.1	8.4607 µg/L	0.35414	8.4607 ppb	0.35414	4.19%
Ti 334.940†	29649.4	-5.3994 µg/L	0.48710	-5.3994 ppb	0.48710	9.02%
Tl 190.801†	-114.1	-13.452 µg/L	4.6323	-13.452 ppb	4.6323	34.44%
U 409.014†	275877.8	16051 µg/L	13.0	16051 ppb	13.0	0.08%

QC value within limits for U 409.014 Recovery = 107.00%

V 292.402†	8067.6	1.9735 µg/L	0.56868	1.9735 ppb	0.56868	28.82%
Zn 213.857†	9642.6	10.006 µg/L	0.6012	10.006 ppb	0.6012	6.01%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 3/31/2010 18:57:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138428.5	138428.5	94.9	%			18:58:18
1	Al 396.153Radial†	2589.6	2793.1	65.979	µg/L	65.979	ppb	18:58:20
1	Ca 317.933Radial†	2182.0	1739.6	96.903	µg/L	96.903	ppb	18:58:20
1	Fe 238.204 Radial†	-202.3	-361.4	-22.274	µg/L	-22.274	ppb	18:58:20
1	K 766.490 Radial†	763320.3	803139.1	294040	µg/L	294040	ppb	18:58:18
1	Mg 279.077 IEC†	-318.7	-526.7	41.787	µg/L	41.787	ppb	18:58:20
1	Na 589.592 Radial†	4722.3	3687.4	242.24	µg/L	242.24	ppb	18:58:18
1	Sr 421.552†	4464241.5	4706289.3	9784.1	µg/L	9784.1	ppb	18:58:15
1	Sc 361.383	1644054.1	1644054.1	95.684	%			18:58:42
1	Y 371.029	958940.9	958940.9	93.401	%			18:58:42
1	Ag 328.068†	-28181.7	-33544.4	-7.2060	µg/L	-7.2060	ppb	18:58:44
1	As 188.979†	32117.0	33586.2	10409	µg/L	10409	ppb	18:58:44
1	B 249.677†	322787.1	333842.2	4891.3	µg/L	4891.3	ppb	18:58:42
1	Ba 233.527†	3263599.9	3410957.3	13754	µg/L	13754	ppb	18:58:42
1	Be 313.107†	10059777.2	10514640.1	2862.8	µg/L	2862.8	ppb	18:58:38
1	Cd 226.502†	1463937.1	1530093.7	9561.7	µg/L	9561.7	ppb	18:58:42
1	Co 228.616†	720309.4	752993.0	9307.6	µg/L	9307.6	ppb	18:58:42
1	Cr 267.716†	2891693.7	3021959.9	23671	µg/L	23671	ppb	18:58:42
1	Cu 324.752†	4894436.4	5112253.1	19872	µg/L	19872	ppb	18:58:42
1	Mn 257.610†	7191165.6	7515323.1	9298.7	µg/L	9298.7	ppb	18:58:42
1	Mo 202.031†	316742.4	331050.8	9732.5	µg/L	9732.5	ppb	18:58:44
1	Ni 231.604†	799875.1	836034.2	9626.3	µg/L	9626.3	ppb	18:58:42
1	P 214.914†	68547.5	71657.7	15093	µg/L	15093	ppb	18:58:44
1	Pb 220.353†	401154.4	419164.2	23428	µg/L	23428	ppb	18:58:42
1	S 181.975 Axial†	67316.5	70248.1	52247	µg/L	52247	ppb	18:58:44
1	Sb 206.836†	80773.2	84336.1	9841.1	µg/L	9841.1	ppb	18:58:44
1	Se 196.026†	26033.9	27193.0	9830	µg/L	9830	ppb	18:58:44
1	SiO2†	974638.1	1016828.8	98967	µg/L	98967	ppb	18:58:42
1	Si 251.611†	3010622.9	3145596.0	46180	µg/L	46180	ppb	18:58:42
1	Sn 189.927†	151635.6	158477.0	9912.7	µg/L	9912.7	ppb	18:58:44
1	Ti 334.940†	10132846.9	10588988.8	9885.3	µg/L	9885.3	ppb	18:58:38
1	Tl 190.801†	74051.0	77508.1	9673.9	µg/L	9673.9	ppb	18:58:44
1	U 409.014†	-10469.2	-10671.6	-21.061	µg/L	-21.061	ppb	18:58:44
1	V 292.402†	1944343.2	2031649.1	10104	µg/L	10104	ppb	18:58:42
1	Zn 213.857†	2422227.0	2530929.6	14143	µg/L	14143	ppb	18:58:42
2	Sc RADIAL	138489.8	138489.8	94.9	%			18:58:24
2	Al 396.153Radial†	2632.4	2837.1	80.052	µg/L	80.052	ppb	18:58:26
2	Ca 317.933Radial†	2111.9	1664.8	92.734	µg/L	92.734	ppb	18:58:26
2	Fe 238.204 Radial†	-168.1	-325.2	-20.046	µg/L	-20.046	ppb	18:58:26
2	K 766.490 Radial†	768501.7	808242.3	295910	µg/L	295910	ppb	18:58:24
2	Mg 279.077 IEC†	-343.1	-552.3	29.128	µg/L	29.128	ppb	18:58:26
2	Na 589.592 Radial†	4657.2	3616.6	230.89	µg/L	230.89	ppb	18:58:24
2	Sr 421.552†	4443237.9	4682072.2	9733.8	µg/L	9733.8	ppb	18:58:22
2	Sc 361.383	1654174.4	1654174.4	96.273	%			18:58:52
2	Y 371.029	964160.7	964160.7	93.910	%			18:58:52
2	Ag 328.068†	-27980.3	-33155.0	-5.4230	µg/L	-5.4230	ppb	18:58:54
2	As 188.979†	31657.2	32903.2	10204	µg/L	10204	ppb	18:58:54
2	B 249.677†	326358.6	335488.1	4915.4	µg/L	4915.4	ppb	18:58:52
2	Ba 233.527†	3296633.7	3424402.5	13809	µg/L	13809	ppb	18:58:52
2	Be 313.107†	10113068.4	10505672.2	2860.3	µg/L	2860.3	ppb	18:58:48
2	Cd 226.502†	1483425.3	1540976.0	9629.7	µg/L	9629.7	ppb	18:58:52
2	Co 228.616†	729085.8	757503.5	9363.3	µg/L	9363.3	ppb	18:58:52
2	Cr 267.716†	2922280.8	3035241.6	23775	µg/L	23775	ppb	18:58:52
2	Cu 324.752†	4934401.1	5122469.9	19912	µg/L	19912	ppb	18:58:52
2	Mn 257.610†	7264987.1	7546022.1	9336.7	µg/L	9336.7	ppb	18:58:52
2	Mo 202.031†	314514.5	326711.4	9605.0	µg/L	9605.0	ppb	18:58:54
2	Ni 231.604†	809217.8	840624.1	9679.2	µg/L	9679.2	ppb	18:58:52
2	P 214.914†	67979.1	70628.9	14873	µg/L	14873	ppb	18:58:54
2	Pb 220.353†	406432.6	422081.8	23591	µg/L	23591	ppb	18:58:52

2	S 181.975 Axial†	66600.5	69074.0	51374 µg/L	51374 ppb	18:58:54
2	Sb 206.836†	80074.2	83093.5	9689.8 µg/L	9689.8 ppb	18:58:54
2	Se 196.026†	25686.7	26665.9	9640 µg/L	9640 ppb	18:58:54
2	SiO2†	986400.6	1022814.9	99557 µg/L	99557 ppb	18:58:52
2	Si 251.611†	3046941.6	3164070.8	46455 µg/L	46455 ppb	18:58:52
2	Sn 189.927†	150469.1	156295.8	9776.7 µg/L	9776.7 ppb	18:58:54
2	Ti 334.940†	10189195.0	10582728.8	9879.4 µg/L	9879.4 ppb	18:58:48
2	Tl 190.801†	73611.8	76578.5	9559.6 µg/L	9559.6 ppb	18:58:54
2	U 409.014†	-10364.3	-10495.7	-9.0352 µg/L	-9.0352 ppb	18:58:54
2	V 292.402†	1961854.5	2037406.1	10131 µg/L	10131 ppb	18:58:52
2	Zn 213.857†	2448683.7	2542922.9	14210 µg/L	14210 ppb	18:58:52
3	Sc RADIAL	137437.4	137437.4	94.2 %		18:58:31
3	Al 396.153Radial†	2618.6	2843.6	77.986 µg/L	77.986 ppb	18:58:33
3	Ca 317.933Radial†	2227.5	1804.6	100.52 µg/L	100.52 ppb	18:58:33
3	Fe 238.204 Radial†	-164.9	-323.2	-19.923 µg/L	-19.923 ppb	18:58:33
3	K 766.490 Radial†	765491.4	811247.2	297010 µg/L	297010 ppb	18:58:31
3	Mg 279.077 IEC†	-295.0	-503.9	48.881 µg/L	48.881 ppb	18:58:33
3	Na 589.592 Radial†	4456.0	3440.6	205.87 µg/L	205.87 ppb	18:58:31
3	Sr 421.552†	4441067.4	4715621.3	9803.5 µg/L	9803.5 ppb	18:58:29
3	Sc 361.383	1660837.4	1660837.4	96.660 %		18:59:01
3	Y 371.029	967825.2	967825.2	94.267 %		18:59:01
3	Ag 328.068†	-28451.9	-33526.3	-6.5821 µg/L	-6.5821 ppb	18:59:04
3	As 188.979†	32300.2	33436.5	10365 µg/L	10365 ppb	18:59:04
3	B 249.677†	328722.2	336573.4	4931.3 µg/L	4931.3 ppb	18:59:01
3	Ba 233.527†	3317615.9	3432372.0	13841 µg/L	13841 ppb	18:59:01
3	Be 313.107†	10133998.6	10485182.6	2854.7 µg/L	2854.7 ppb	18:58:58
3	Cd 226.502†	1494854.9	1546618.8	9664.9 µg/L	9664.9 ppb	18:59:01
3	Co 228.616†	734092.5	759645.0	9389.8 µg/L	9389.8 ppb	18:59:01
3	Cr 267.716†	2940364.9	3041773.0	23826 µg/L	23826 ppb	18:59:01
3	Cu 324.752†	4964197.6	5132733.3	19952 µg/L	19952 ppb	18:59:01
3	Mn 257.610†	7309991.3	7562306.7	9356.8 µg/L	9356.8 ppb	18:59:01
3	Mo 202.031†	318101.3	329111.4	9675.5 µg/L	9675.5 ppb	18:59:04
3	Ni 231.604†	815203.0	843443.9	9711.6 µg/L	9711.6 ppb	18:59:01
3	P 214.914†	69129.8	71536.1	15067 µg/L	15067 ppb	18:59:04
3	Pb 220.353†	409679.7	423747.3	23684 µg/L	23684 ppb	18:59:01
3	S 181.975 Axial†	67967.3	70210.4	52219 µg/L	52219 ppb	18:59:04
3	Sb 206.836†	81066.4	83786.4	9772.6 µg/L	9772.6 ppb	18:59:04
3	Se 196.026†	26138.8	27026.6	9770 µg/L	9770 ppb	18:59:04
3	SiO2†	993772.6	1026331.1	99898 µg/L	99898 ppb	18:59:01
3	Si 251.611†	3070650.4	3175901.7	46628 µg/L	46628 ppb	18:59:01
3	Sn 189.927†	152708.7	157985.7	9882.0 µg/L	9882.0 ppb	18:59:04
3	Ti 334.940†	10211863.8	10563720.7	9861.6 µg/L	9861.6 ppb	18:58:58
3	Tl 190.801†	74486.4	77176.5	9633.0 µg/L	9633.0 ppb	18:59:04
3	U 409.014†	-10678.1	-10777.2	-24.287 µg/L	-24.287 ppb	18:59:04
3	V 292.402†	1973672.0	2041456.5	10152 µg/L	10152 ppb	18:59:01
3	Zn 213.857†	2465384.0	2549996.1	14250 µg/L	14250 ppb	18:59:01

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1653021.9	96.206	%	0.4918				0.51%
Sc RADIAL	138118.6	94.6	%	0.40				0.43%
Y 371.029	963642.3	93.859	%	0.4349				0.46%
Ag 328.068†	-33408.6	-6.4037	µg/L	0.90480	-6.4037	ppb	0.90480	14.13%
Al 396.153Radial†	2824.6	74.672	µg/L	7.5994	74.672	ppb	7.5994	10.18%
As 188.979†	33308.6	10326	µg/L	108.5	10326	ppb	108.5	1.05%
QC value within limits for As 188.979 Recovery = 103.26%								
B 249.677†	335301.2	4912.7	µg/L	20.14	4912.7	ppb	20.14	0.41%
QC value within limits for B 249.677 Recovery = 98.25%								
Ba 233.527†	3422577.3	13801	µg/L	43.6	13801	ppb	43.6	0.32%
QC value within limits for Ba 233.527 Recovery = 92.01%								
Be 313.107†	10501831.6	2859.3	µg/L	4.11	2859.3	ppb	4.11	0.14%
QC value within limits for Be 313.107 Recovery = 95.31%								
Ca 317.933Radial†	1736.3	96.720	µg/L	3.8970	96.720	ppb	3.8970	4.03%
Cd 226.502†	1539229.5	9618.8	µg/L	52.49	9618.8	ppb	52.49	0.55%
QC value within limits for Cd 226.502 Recovery = 96.19%								
Co 228.616†	756713.8	9353.6	µg/L	41.95	9353.6	ppb	41.95	0.45%
QC value within limits for Co 228.616 Recovery = 93.54%								
Cr 267.716†	3032991.5	23758	µg/L	79.1	23758	ppb	79.1	0.33%
QC value within limits for Cr 267.716 Recovery = 95.03%								

Cu 324.752†	5122485.4	19912 µg/L	39.8	19912 ppb	39.8	0.20%
QC value within limits for Cu 324.752 Recovery = 99.56%						
Fe 238.204 Radial†	-336.6	-20.748 µg/L	1.3234	-20.748 ppb	1.3234	6.38%
K 766.490 Radial†	807542.9	295650 µg/L	1500.7	295650 ppb	1500.7	0.51%
QC value within limits for K 766.490 Radial Recovery = 98.55%						
Mg 279.077 IEC†	-527.6	39.932 µg/L	10.0061	39.932 ppb	10.0061	25.06%
Mn 257.610†	7541217.3	9330.7 µg/L	29.52	9330.7 ppb	29.52	0.32%
QC value within limits for Mn 257.610 Recovery = 93.31%						
Mo 202.031†	328957.9	9671.0 µg/L	63.88	9671.0 ppb	63.88	0.66%
QC value within limits for Mo 202.031 Recovery = 96.71%						
Na 589.592 Radial†	3581.5	226.33 µg/L	18.607	226.33 ppb	18.607	8.22%
Ni 231.604†	840034.1	9672.4 µg/L	43.06	9672.4 ppb	43.06	0.45%
QC value within limits for Ni 231.604 Recovery = 96.72%						
P 214.914†	71274.3	15011 µg/L	120.3	15011 ppb	120.3	0.80%
QC value within limits for P 214.914 Recovery = 100.07%						
Pb 220.353†	421664.4	23568 µg/L	129.3	23568 ppb	129.3	0.55%
QC value within limits for Pb 220.353 Recovery = 94.27%						
S 181.975 Axial†	69844.2	51947 µg/L	496.0	51947 ppb	496.0	0.95%
QC value within limits for S 181.975 Axial Recovery = 103.89%						
Sb 206.836†	83738.7	9767.8 µg/L	75.75	9767.8 ppb	75.75	0.78%
QC value within limits for Sb 206.836 Recovery = 97.68%						
Se 196.026†	26961.8	9750 µg/L	97.4	9750 ppb	97.4	1.00%
QC value within limits for Se 196.026 Recovery = 97.47%						
SiO2†	1021991.6	99474 µg/L	471.0	99474 ppb	471.0	0.47%
QC value within limits for SiO2 Recovery = 92.97%						
Si 251.611†	3161856.2	46421 µg/L	225.8	46421 ppb	225.8	0.49%
QC value within limits for Si 251.611 Recovery = 92.84%						
Sn 189.927†	157586.2	9857.1 µg/L	71.32	9857.1 ppb	71.32	0.72%
QC value within limits for Sn 189.927 Recovery = 98.57%						
Sr 421.552†	4701327.6	9773.8 µg/L	36.00	9773.8 ppb	36.00	0.37%
QC value within limits for Sr 421.552 Recovery = 97.74%						
Ti 334.940†	10578479.4	9875.4 µg/L	12.32	9875.4 ppb	12.32	0.12%
QC value within limits for Ti 334.940 Recovery = 98.75%						
Tl 190.801†	77087.7	9622.1 µg/L	57.90	9622.1 ppb	57.90	0.60%
QC value within limits for Tl 190.801 Recovery = 96.22%						
U 409.014†	-10648.1	-18.128 µg/L	8.0380	-18.128 ppb	8.0380	44.34%
V 292.402†	2036837.3	10129 µg/L	24.0	10129 ppb	24.0	0.24%
QC value within limits for V 292.402 Recovery = 101.29%						
Zn 213.857†	2541282.9	14201 µg/L	53.8	14201 ppb	53.8	0.38%
QC value within limits for Zn 213.857 Recovery = 94.68%						

All analyte(s) passed QC.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 18:59:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142139.5	142139.5	97.4	%			18:59:45
1	Al 396.153Radial†	26433.8	27201.9	5020.1	µg/L	5020.1	ppb	18:59:45
1	Ca 317.933Radial†	88689.7	90494.1	5040.9	µg/L	5040.9	ppb	18:59:45
1	Fe 238.204 Radial†	79307.5	81274.2	5009.2	µg/L	5009.2	ppb	18:59:45
1	K 766.490 Radial†	16771.4	15673.9	5734.3	µg/L	5734.3	ppb	18:59:45
1	Mg 279.077 IEC†	13660.1	13833.7	5162.1	µg/L	5162.1	ppb	18:59:45
1	Na 589.592 Radial†	73293.1	73956.7	10098	µg/L	10098	ppb	18:59:45
1	Sr 421.552†	230485.0	236766.3	492.18	µg/L	492.18	ppb	18:59:42
1	Sc 361.383	1685039.5	1685039.5	98.069	%			19:00:11
1	Y 371.029	998501.4	998501.4	97.255	%			19:00:11
1	Ag 328.068†	132676.3	131197.3	491.97	µg/L	491.97	ppb	19:00:11
1	As 188.979†	1601.0	1652.9	507.06	µg/L	507.06	ppb	19:00:31
1	B 249.677†	36255.7	33463.6	491.81	µg/L	491.81	ppb	19:00:11
1	Ba 233.527†	119950.7	122448.3	493.83	µg/L	493.83	ppb	19:00:11
1	Be 313.107†	1777442.6	1813504.8	493.92	µg/L	493.92	ppb	19:00:11
1	Cd 226.502†	77121.2	78757.9	491.64	µg/L	491.64	ppb	19:00:11
1	Co 228.616†	39140.7	40101.7	495.05	µg/L	495.05	ppb	19:00:11
1	Cr 267.716†	61794.1	62832.3	491.97	µg/L	491.97	ppb	19:00:11
1	Cu 324.752†	126997.2	126525.5	493.24	µg/L	493.24	ppb	19:00:11
1	Mn 257.610†	392842.9	400340.6	495.12	µg/L	495.12	ppb	19:00:11
1	Mo 202.031†	16539.5	16885.3	496.69	µg/L	496.69	ppb	19:00:31
1	Ni 231.604†	41890.8	42792.1	492.72	µg/L	492.72	ppb	19:00:11
1	P 214.914†	11336.8	11578.0	2467.8	µg/L	2467.8	ppb	19:00:31
1	Pb 220.353†	8936.3	9025.8	505.42	µg/L	505.42	ppb	19:00:31
1	S 181.975 Axial†	1440.2	1363.5	1016.7	µg/L	1016.7	ppb	19:00:31
1	Sb 206.836†	4150.3	4151.2	494.66	µg/L	494.66	ppb	19:00:31
1	Se 196.026†	1355.8	1367.2	496	µg/L	496	ppb	19:00:31
1	SiO2†	55729.4	55051.3	5359.5	µg/L	5359.5	ppb	19:00:11
1	Si 251.611†	167770.7	170237.6	2499.9	µg/L	2499.9	ppb	19:00:11
1	Sn 189.927†	7832.4	7987.8	499.62	µg/L	499.62	ppb	19:00:31
1	Ti 334.940†	519447.4	528722.7	493.33	µg/L	493.33	ppb	19:00:11
1	Tl 190.801†	3833.0	4025.2	501.97	µg/L	501.97	ppb	19:00:31
1	U 409.014†	7396.5	7812.0	486.67	µg/L	486.67	ppb	19:00:11
1	V 292.402†	98795.4	100336.9	496.05	µg/L	496.05	ppb	19:00:11
1	Zn 213.857†	87637.0	88798.1	494.94	µg/L	494.94	ppb	19:00:11
2	Sc RADIAL	141405.1	141405.1	96.9	%			18:59:49
2	Al 396.153Radial†	26316.7	27222.0	5023.9	µg/L	5023.9	ppb	18:59:49
2	Ca 317.933Radial†	88132.2	90391.6	5035.2	µg/L	5035.2	ppb	18:59:49
2	Fe 238.204 Radial†	78428.2	80789.6	4979.4	µg/L	4979.4	ppb	18:59:49
2	K 766.490 Radial†	16577.4	15563.0	5693.7	µg/L	5693.7	ppb	18:59:49
2	Mg 279.077 IEC†	13417.4	13656.1	5095.9	µg/L	5095.9	ppb	18:59:49
2	Na 589.592 Radial†	72730.8	73767.2	10072	µg/L	10072	ppb	18:59:49
2	Sr 421.552†	231214.8	238748.4	496.30	µg/L	496.30	ppb	18:59:47
2	Sc 361.383	1693366.2	1693366.2	98.554	%			19:00:35
2	Y 371.029	1002117.3	1002117.3	97.607	%			19:00:35
2	Ag 328.068†	134028.3	131903.9	494.57	µg/L	494.57	ppb	19:00:35
2	As 188.979†	1592.6	1636.4	502.08	µg/L	502.08	ppb	19:00:55
2	B 249.677†	36515.2	33545.2	493.02	µg/L	493.02	ppb	19:00:35
2	Ba 233.527†	120680.2	122587.1	494.39	µg/L	494.39	ppb	19:00:35
2	Be 313.107†	1789722.9	1817053.1	494.89	µg/L	494.89	ppb	19:00:35
2	Cd 226.502†	77769.6	79029.1	493.33	µg/L	493.33	ppb	19:00:35
2	Co 228.616†	39338.4	40106.1	495.11	µg/L	495.11	ppb	19:00:35
2	Cr 267.716†	62316.9	63052.8	493.70	µg/L	493.70	ppb	19:00:35
2	Cu 324.752†	127673.8	126575.3	493.42	µg/L	493.42	ppb	19:00:35
2	Mn 257.610†	395604.2	401172.7	496.16	µg/L	496.16	ppb	19:00:35
2	Mo 202.031†	16605.0	16868.7	496.20	µg/L	496.20	ppb	19:00:55
2	Ni 231.604†	42250.6	42947.2	494.51	µg/L	494.51	ppb	19:00:35
2	P 214.914†	11392.0	11577.2	2467.6	µg/L	2467.6	ppb	19:00:55
2	Pb 220.353†	8993.4	9039.0	506.15	µg/L	506.15	ppb	19:00:55

2	S 181.975 Axial†	1441.0	1357.1	1011.9 µg/L	1011.9 ppb	19:00:55
2	Sb 206.836†	4173.3	4153.7	494.93 µg/L	494.93 ppb	19:00:55
2	Se 196.026†	1369.6	1374.4	499 µg/L	499 ppb	19:00:55
2	SiO2†	55740.1	54782.8	5333.3 µg/L	5333.3 ppb	19:00:35
2	Si 251.611†	168764.7	170404.9	2502.4 µg/L	2502.4 ppb	19:00:35
2	Sn 189.927†	7855.7	7972.1	498.64 µg/L	498.64 ppb	19:00:55
2	Ti 334.940†	522510.2	529225.9	493.80 µg/L	493.80 ppb	19:00:35
2	Tl 190.801†	3874.1	4047.6	504.73 µg/L	504.73 ppb	19:00:55
2	U 409.014†	7341.8	7719.4	481.23 µg/L	481.23 ppb	19:00:35
2	V 292.402†	99158.5	100210.0	495.43 µg/L	495.43 ppb	19:00:35
2	Zn 213.857†	88086.4	88814.8	495.03 µg/L	495.03 ppb	19:00:35
3	Sc RADIAL	143105.8	143105.8	98.1 %		18:59:53
3	Al 396.153Radial†	26546.6	27133.7	5007.7 µg/L	5007.7 ppb	18:59:53
3	Ca 317.933Radial†	89145.0	90343.6	5032.5 µg/L	5032.5 ppb	18:59:53
3	Fe 238.204 Radial†	79321.5	80738.7	4976.2 µg/L	4976.2 ppb	18:59:53
3	K 766.490 Radial†	16684.6	15469.1	5659.4 µg/L	5659.4 ppb	18:59:53
3	Mg 279.077 IEC†	13656.7	13735.5	5125.4 µg/L	5125.4 ppb	18:59:53
3	Na 589.592 Radial†	73452.5	73611.2	10051 µg/L	10051 ppb	18:59:53
3	Sr 421.552†	233202.1	237939.3	494.62 µg/L	494.62 ppb	18:59:51
3	Sc 361.383	1698557.6	1698557.6	98.856 %		19:00:58
3	Y 371.029	1005300.2	1005300.2	97.917 %		19:00:58
3	Ag 328.068†	134027.1	131487.0	493.03 µg/L	493.03 ppb	19:00:58
3	As 188.979†	1600.3	1639.2	502.90 µg/L	502.90 ppb	19:01:18
3	B 249.677†	36626.1	33544.1	493.00 µg/L	493.00 ppb	19:00:58
3	Ba 233.527†	120865.6	122400.4	493.64 µg/L	493.64 ppb	19:00:58
3	Be 313.107†	1794818.7	1816657.7	494.78 µg/L	494.78 ppb	19:00:58
3	Cd 226.502†	77952.7	78973.1	492.98 µg/L	492.98 ppb	19:00:58
3	Co 228.616†	39410.3	40056.7	494.50 µg/L	494.50 ppb	19:00:58
3	Cr 267.716†	62267.5	62809.6	491.79 µg/L	491.79 ppb	19:00:58
3	Cu 324.752†	127710.6	126216.6	492.03 µg/L	492.03 ppb	19:00:58
3	Mn 257.610†	396581.9	400934.9	495.86 µg/L	495.86 ppb	19:00:58
3	Mo 202.031†	16557.8	16769.5	493.29 µg/L	493.29 ppb	19:01:18
3	Ni 231.604†	42318.2	42884.5	493.78 µg/L	493.78 ppb	19:00:58
3	P 214.914†	11368.7	11518.2	2455.0 µg/L	2455.0 ppb	19:01:18
3	Pb 220.353†	8920.7	8937.6	500.48 µg/L	500.48 ppb	19:01:18
3	S 181.975 Axial†	1449.3	1361.0	1014.8 µg/L	1014.8 ppb	19:01:18
3	Sb 206.836†	4163.9	4131.2	492.23 µg/L	492.23 ppb	19:01:18
3	Se 196.026†	1367.7	1368.2	497 µg/L	497 ppb	19:01:18
3	SiO2†	55966.4	54838.9	5338.9 µg/L	5338.9 ppb	19:00:58
3	Si 251.611†	169027.1	170146.9	2498.6 µg/L	2498.6 ppb	19:00:58
3	Sn 189.927†	7816.0	7907.6	494.62 µg/L	494.62 ppb	19:01:18
3	Ti 334.940†	523522.3	528629.3	493.24 µg/L	493.24 ppb	19:00:58
3	Tl 190.801†	3828.1	3989.1	497.54 µg/L	497.54 ppb	19:01:18
3	U 409.014†	7431.2	7787.1	485.18 µg/L	485.18 ppb	19:00:58
3	V 292.402†	99434.0	100181.1	495.25 µg/L	495.25 ppb	19:00:58
3	Zn 213.857†	87848.2	88300.5	492.15 µg/L	492.15 ppb	19:00:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1692321.1	98.493	%	0.3969				0.40%
Sc RADIAL	142216.8	97.5	%	0.58				0.60%
Y 371.029	1001973.0	97.593	%	0.3313				0.34%
Ag 328.068†	131529.4	493.19	µg/L	1.309	493.19	ppb	1.309	0.27%
QC value within limits for Ag 328.068 Recovery = 98.64%								
Al 396.153Radial†	27185.9	5017.2	µg/L	8.50	5017.2	ppb	8.50	0.17%
QC value within limits for Al 396.153Radial Recovery = 100.34%								
As 188.979†	1642.8	504.02	µg/L	2.669	504.02	ppb	2.669	0.53%
QC value within limits for As 188.979 Recovery = 100.80%								
B 249.677†	33517.6	492.61	µg/L	0.690	492.61	ppb	0.690	0.14%
QC value within limits for B 249.677 Recovery = 98.52%								
Ba 233.527†	122478.6	493.95	µg/L	0.391	493.95	ppb	0.391	0.08%
QC value within limits for Ba 233.527 Recovery = 98.79%								
Be 313.107†	1815738.5	494.53	µg/L	0.529	494.53	ppb	0.529	0.11%
QC value within limits for Be 313.107 Recovery = 98.91%								
Ca 317.933Radial†	90409.8	5036.2	µg/L	4.28	5036.2	ppb	4.28	0.09%
QC value within limits for Ca 317.933Radial Recovery = 100.72%								
Cd 226.502†	78920.1	492.65	µg/L	0.896	492.65	ppb	0.896	0.18%
QC value within limits for Cd 226.502 Recovery = 98.53%								
Co 228.616†	40088.2	494.89	µg/L	0.337	494.89	ppb	0.337	0.07%

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   QC value within limits for Co 228.616  Recovery = 98.98%
Cr 267.716†            62898.2      492.49 µg/L         1.054      492.49 ppb          1.054   0.21%
   QC value within limits for Cr 267.716  Recovery = 98.50%
Cu 324.752†           126439.1      492.90 µg/L         0.756      492.90 ppb          0.756   0.15%
   QC value within limits for Cu 324.752  Recovery = 98.58%
Fe 238.204 Radial†     80934.2      4988.3 µg/L         18.22      4988.3 ppb          18.22   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.77%
K 766.490 Radial†      15568.7      5695.8 µg/L         37.52      5695.8 ppb          37.52   0.66%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 113.92%
Mg 279.077 IEC†        13741.8      5127.8 µg/L         33.15      5127.8 ppb          33.15   0.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.56%
Mn 257.610†           400816.1      495.71 µg/L         0.532      495.71 ppb          0.532   0.11%
   QC value within limits for Mn 257.610  Recovery = 99.14%
Mo 202.031†            16841.2      495.39 µg/L         1.841      495.39 ppb          1.841   0.37%
   QC value within limits for Mo 202.031  Recovery = 99.08%
Na 589.592 Radial†     73778.4       10074 µg/L          23.6       10074 ppb           23.6   0.23%
   QC value within limits for Na 589.592 Radial  Recovery = 100.74%
Ni 231.604†            42874.6      493.67 µg/L         0.898      493.67 ppb          0.898   0.18%
   QC value within limits for Ni 231.604  Recovery = 98.73%
P 214.914†             11557.8      2463.5 µg/L          7.33      2463.5 ppb           7.33   0.30%
   QC value within limits for P 214.914  Recovery = 98.54%
Pb 220.353†             9000.8      504.02 µg/L         3.083      504.02 ppb          3.083   0.61%
   QC value within limits for Pb 220.353  Recovery = 100.80%
S 181.975 Axial†        1360.5      1014.5 µg/L          2.43      1014.5 ppb           2.43   0.24%
   QC value within limits for S 181.975 Axial  Recovery = 101.45%
Sb 206.836†             4145.4      493.94 µg/L         1.484      493.94 ppb          1.484   0.30%
   QC value within limits for Sb 206.836  Recovery = 98.79%
Se 196.026†             1370.0         497 µg/L           1.4         497 ppb            1.4   0.28%
   QC value within limits for Se 196.026  Recovery = 99.49%
SiO2†                  54891.0      5343.9 µg/L         13.80      5343.9 ppb          13.80   0.26%
   QC value within limits for SiO2  Recovery = 99.93%
Si 251.611†           170263.1      2500.3 µg/L          1.90      2500.3 ppb           1.90   0.08%
   QC value within limits for Si 251.611  Recovery = 100.01%
Sn 189.927†             7955.8      497.63 µg/L         2.649      497.63 ppb          2.649   0.53%
   QC value within limits for Sn 189.927  Recovery = 99.53%
Sr 421.552†           237818.0      494.37 µg/L         2.072      494.37 ppb          2.072   0.42%
   QC value within limits for Sr 421.552  Recovery = 98.87%
Ti 334.940†           528859.3      493.46 µg/L         0.302      493.46 ppb          0.302   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.69%
Tl 190.801†             4020.6      501.41 µg/L         3.629      501.41 ppb          3.629   0.72%
   QC value within limits for Tl 190.801  Recovery = 100.28%
U 409.014†              7772.9      484.36 µg/L         2.811      484.36 ppb          2.811   0.58%
   QC value within limits for U 409.014  Recovery = 96.87%
V 292.402†            100242.7      495.58 µg/L         0.417      495.58 ppb          0.417   0.08%
   QC value within limits for V 292.402  Recovery = 99.12%
Zn 213.857†            88637.8      494.04 µg/L         1.641      494.04 ppb          1.641   0.33%
   QC value within limits for Zn 213.857  Recovery = 98.81%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:01:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142576.4	142576.4	97.7	%			19:01:55
1	Al 396.153Radial†	57.6	122.1	22.616	µg/L	22.616	ppb	19:02:15
1	Ca 317.933Radial†	950.3	412.1	22.954	µg/L	22.954	ppb	19:02:15
1	Fe 238.204 Radial†	408.4	269.9	16.636	µg/L	16.636	ppb	19:02:15
1	K 766.490 Radial†	2351.3	861.8	315.49	µg/L	315.49	ppb	19:01:55
1	Mg 279.077 IEC†	256.3	71.6	26.675	µg/L	26.675	ppb	19:02:15
1	Na 589.592 Radial†	2324.7	1088.6	148.44	µg/L	148.44	ppb	19:01:55
1	Sr 421.552†	-47.4	86.8	0.1802	µg/L	0.1802	ppb	19:01:55
1	Sc 361.383	1712993.6	1712993.6	99.696	%			19:03:03
1	Y 371.029	1024574.5	1024574.5	99.794	%			19:03:03
1	Ag 328.068†	3862.6	-217.0	-0.8055	µg/L	-0.8055	ppb	19:03:05
1	As 188.979†	-11.7	8.6	2.6096	µg/L	2.6096	ppb	19:03:25
1	B 249.677†	3681.1	186.4	2.7486	µg/L	2.7486	ppb	19:03:05
1	Ba 233.527†	-102.8	32.7	0.1316	µg/L	0.1316	ppb	19:03:25
1	Be 313.107†	-845.8	216.4	0.0592	µg/L	0.0592	ppb	19:03:05
1	Cd 226.502†	-69.1	48.9	0.3038	µg/L	0.3038	ppb	19:03:25
1	Co 228.616†	-171.2	18.6	0.2289	µg/L	0.2289	ppb	19:03:25
1	Cr 267.716†	235.5	57.6	0.4508	µg/L	0.4508	ppb	19:03:25
1	Cu 324.752†	3139.9	177.3	0.6930	µg/L	0.6930	ppb	19:03:05
1	Mn 257.610†	387.8	151.7	0.1866	µg/L	0.1866	ppb	19:03:25
1	Mo 202.031†	-0.9	19.2	0.5643	µg/L	0.5643	ppb	19:03:25
1	Ni 231.604†	-84.9	-8.7	-0.0996	µg/L	-0.0996	ppb	19:03:25
1	P 214.914†	-24.3	-6.5	-1.3891	µg/L	-1.3891	ppb	19:03:25
1	Pb 220.353†	141.3	55.4	3.0911	µg/L	3.0911	ppb	19:03:25
1	S 181.975 Axial†	113.5	8.8	6.5060	µg/L	6.5060	ppb	19:03:25
1	Sb 206.836†	76.0	-4.6	-0.5451	µg/L	-0.5451	ppb	19:03:25
1	Se 196.026†	20.7	5.5	2.01	µg/L	2.01	ppb	19:03:25
1	SiO2†	1808.7	38.9	3.7615	µg/L	3.7615	ppb	19:03:25
1	Si 251.611†	1158.0	325.0	4.7734	µg/L	4.7734	ppb	19:03:05
1	Sn 189.927†	23.2	24.4	1.5199	µg/L	1.5199	ppb	19:03:25
1	Ti 334.940†	1109.4	160.3	0.1476	µg/L	0.1476	ppb	19:03:05
1	Tl 190.801†	-105.0	11.4	1.4002	µg/L	1.4002	ppb	19:03:25
1	U 409.014†	-251.8	17.3	0.9993	µg/L	0.9993	ppb	19:03:05
1	V 292.402†	359.4	-43.3	-0.2046	µg/L	-0.2046	ppb	19:03:05
1	Zn 213.857†	837.7	275.9	1.5483	µg/L	1.5483	ppb	19:03:25
2	Sc RADIAL	143802.6	143802.6	98.5	%			19:02:17
2	Al 396.153Radial†	-23.6	39.2	7.2646	µg/L	7.2646	ppb	19:02:37
2	Ca 317.933Radial†	724.5	174.6	9.7279	µg/L	9.7279	ppb	19:02:37
2	Fe 238.204 Radial†	241.4	96.9	5.9704	µg/L	5.9704	ppb	19:02:37
2	K 766.490 Radial†	2344.6	834.5	305.50	µg/L	305.50	ppb	19:02:17
2	Mg 279.077 IEC†	184.0	-4.0	-1.5026	µg/L	-1.5026	ppb	19:02:37
2	Na 589.592 Radial†	2222.6	964.7	131.52	µg/L	131.52	ppb	19:02:17
2	Sr 421.552†	-22.7	112.3	0.2333	µg/L	0.2333	ppb	19:02:17
2	Sc 361.383	1715539.4	1715539.4	99.844	%			19:03:27
2	Y 371.029	1025697.2	1025697.2	99.903	%			19:03:27
2	Ag 328.068†	4157.7	72.8	0.2757	µg/L	0.2757	ppb	19:03:30
2	As 188.979†	-16.7	3.7	1.1138	µg/L	1.1138	ppb	19:03:50
2	B 249.677†	3652.6	152.4	2.2465	µg/L	2.2465	ppb	19:03:30
2	Ba 233.527†	-103.8	31.9	0.1289	µg/L	0.1289	ppb	19:03:50
2	Be 313.107†	-800.4	263.0	0.0711	µg/L	0.0711	ppb	19:03:30
2	Cd 226.502†	-101.0	17.0	0.1059	µg/L	0.1059	ppb	19:03:50
2	Co 228.616†	-175.3	14.7	0.1813	µg/L	0.1813	ppb	19:03:50
2	Cr 267.716†	251.6	73.5	0.5772	µg/L	0.5772	ppb	19:03:50
2	Cu 324.752†	3073.4	105.9	0.4112	µg/L	0.4112	ppb	19:03:30
2	Mn 257.610†	351.3	114.6	0.1418	µg/L	0.1418	ppb	19:03:50
2	Mo 202.031†	-12.8	7.2	0.2126	µg/L	0.2126	ppb	19:03:50
2	Ni 231.604†	-67.1	9.3	0.1072	µg/L	0.1072	ppb	19:03:50
2	P 214.914†	-27.6	-9.7	-2.0622	µg/L	-2.0622	ppb	19:03:50
2	Pb 220.353†	95.6	9.4	0.5244	µg/L	0.5244	ppb	19:03:50

2	S 181.975 Axial†	105.7	0.8	0.6240	µg/L	0.6240 ppb	19:03:50
2	Sb 206.836†	85.0	4.3	0.5093	µg/L	0.5093 ppb	19:03:50
2	Se 196.026†	19.1	3.9	1.40	µg/L	1.40 ppb	19:03:50
2	SiO2†	1782.4	9.8	0.9335	µg/L	0.9335 ppb	19:03:50
2	Si 251.611†	944.9	109.8	1.6073	µg/L	1.6073 ppb	19:03:30
2	Sn 189.927†	21.6	22.8	1.4197	µg/L	1.4197 ppb	19:03:50
2	Ti 334.940†	960.9	9.8	0.0100	µg/L	0.0100 ppb	19:03:30
2	Tl 190.801†	-107.7	8.8	1.0828	µg/L	1.0828 ppb	19:03:50
2	U 409.014†	-298.4	-28.9	-1.6511	µg/L	-1.6511 ppb	19:03:30
2	V 292.402†	549.1	146.2	0.7161	µg/L	0.7161 ppb	19:03:30
2	Zn 213.857†	814.7	251.5	1.4114	µg/L	1.4114 ppb	19:03:50
3	Sc RADIAL	143637.2	143637.2	98.4	%		19:02:39
3	Al 396.153Radial†	-43.2	19.4	3.5840	µg/L	3.5840 ppb	19:03:00
3	Ca 317.933Radial†	715.6	166.4	9.2706	µg/L	9.2706 ppb	19:03:00
3	Fe 238.204 Radial†	242.5	98.3	6.0580	µg/L	6.0580 ppb	19:03:00
3	K 766.490 Radial†	2256.9	748.2	273.88	µg/L	273.88 ppb	19:02:39
3	Mg 279.077 IEC†	205.1	17.7	6.5824	µg/L	6.5824 ppb	19:03:00
3	Na 589.592 Radial†	2284.1	1029.7	140.43	µg/L	140.43 ppb	19:02:39
3	Sr 421.552†	11.7	147.2	0.3060	µg/L	0.3060 ppb	19:02:39
3	Sc 361.383	1722456.3	1722456.3	100.25	%		19:03:52
3	Y 371.029	1029533.6	1029533.6	100.28	%		19:03:52
3	Ag 328.068†	4007.1	-94.2	-0.3350	µg/L	-0.3350 ppb	19:03:54
3	As 188.979†	-18.8	1.6	0.4750	µg/L	0.4750 ppb	19:04:14
3	B 249.677†	3639.8	125.0	1.8421	µg/L	1.8421 ppb	19:03:54
3	Ba 233.527†	-117.1	19.1	0.0776	µg/L	0.0776 ppb	19:04:14
3	Be 313.107†	-721.4	345.0	0.0939	µg/L	0.0939 ppb	19:03:54
3	Cd 226.502†	-93.0	25.4	0.1581	µg/L	0.1581 ppb	19:04:14
3	Co 228.616†	-173.2	17.6	0.2167	µg/L	0.2167 ppb	19:04:14
3	Cr 267.716†	211.6	32.5	0.2552	µg/L	0.2552 ppb	19:04:14
3	Cu 324.752†	3092.5	112.7	0.4392	µg/L	0.4392 ppb	19:03:54
3	Mn 257.610†	342.1	104.0	0.1284	µg/L	0.1284 ppb	19:04:14
3	Mo 202.031†	-15.6	4.5	0.1336	µg/L	0.1336 ppb	19:04:14
3	Ni 231.604†	-90.2	-13.4	-0.1547	µg/L	-0.1547 ppb	19:04:14
3	P 214.914†	-22.3	-4.2	-0.9047	µg/L	-0.9047 ppb	19:04:14
3	Pb 220.353†	117.3	30.6	1.7079	µg/L	1.7079 ppb	19:04:14
3	S 181.975 Axial†	114.1	8.7	6.4890	µg/L	6.4890 ppb	19:04:14
3	Sb 206.836†	80.1	-1.0	-0.1107	µg/L	-0.1107 ppb	19:04:14
3	Se 196.026†	9.2	-6.1	-2.20	µg/L	-2.20 ppb	19:04:14
3	SiO2†	1811.5	31.7	3.0742	µg/L	3.0742 ppb	19:04:14
3	Si 251.611†	907.7	68.9	1.0043	µg/L	1.0043 ppb	19:03:54
3	Sn 189.927†	22.3	23.4	1.4577	µg/L	1.4577 ppb	19:04:14
3	Ti 334.940†	846.3	-108.3	-0.1015	µg/L	-0.1015 ppb	19:03:54
3	Tl 190.801†	-114.4	2.6	0.3215	µg/L	0.3215 ppb	19:04:14
3	U 409.014†	-270.6	-0.0	0.0667	µg/L	0.0667 ppb	19:03:54
3	V 292.402†	646.7	241.3	1.1790	µg/L	1.1790 ppb	19:03:54
3	Zn 213.857†	803.7	237.3	1.3332	µg/L	1.3332 ppb	19:04:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716996.5	99.929	%	0.2850				0.29%
Sc RADIAL	143338.8	98.2	%	0.46				0.46%
Y 371.029	1026601.8	99.992	%	0.2533				0.25%
Ag 328.068†	-79.5	-0.2883	µg/L	0.54213	-0.2883	ppb	0.54213	188.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	60.2	11.155	µg/L	10.0946	11.155	ppb	10.0946	90.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.6	1.3995	µg/L	1.09560	1.3995	ppb	1.09560	78.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	154.6	2.2791	µg/L	0.45415	2.2791	ppb	0.45415	19.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	27.9	0.1127	µg/L	0.03047	0.1127	ppb	0.03047	27.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	274.8	0.0748	µg/L	0.01765	0.0748	ppb	0.01765	23.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	251.0	13.984	µg/L	7.7715	13.984	ppb	7.7715	55.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	30.5	0.1893	µg/L	0.10254	0.1893	ppb	0.10254	54.18%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.0	0.2090	µg/L	0.02473	0.2090	ppb	0.02473	11.83%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              54.5      0.4277 µg/L       0.16226      0.4277 ppb        0.16226  37.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             132.0      0.5144 µg/L       0.15523      0.5144 ppb        0.15523  30.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      155.0      9.5549 µg/L       6.13280      9.5549 ppb        6.13280  64.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       814.8      298.29 µg/L        21.721      298.29 ppb         21.721   7.28%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          28.4      10.585 µg/L       14.5091      10.585 ppb        14.5091 137.07%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             123.4      0.1523 µg/L       0.03051      0.1523 ppb        0.03051  20.04%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.3      0.3035 µg/L       0.22930      0.3035 ppb        0.22930  75.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     1027.7      140.13 µg/L         8.461      140.13 ppb          8.461   6.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.3     -0.0490 µg/L       0.13810     -0.0490 ppb        0.13810 281.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -6.8     -1.4520 µg/L       0.58130     -1.4520 ppb        0.58130  40.03%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              31.8      1.7745 µg/L       1.28462      1.7745 ppb        1.28462  72.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.1      4.5397 µg/L       3.39110      4.5397 ppb        3.39110  74.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.4     -0.0489 µg/L       0.52991     -0.0489 ppb        0.52991 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.1       0.402 µg/L        2.2740       0.402 ppb         2.2740 564.97%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    26.8      2.5897 µg/L       1.47490      2.5897 ppb        1.47490  56.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             167.9      2.4617 µg/L       2.02458      2.4617 ppb        2.02458  82.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              23.5      1.4657 µg/L       0.05055      1.4657 ppb        0.05055   3.45%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             115.4      0.2398 µg/L       0.06313      0.2398 ppb        0.06313  26.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              20.6      0.0187 µg/L       0.12478      0.0187 ppb        0.12478 667.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.6      0.9348 µg/L       0.55437      0.9348 ppb        0.55437  59.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -3.9     -0.1950 µg/L       1.34448     -0.1950 ppb        1.34448 689.39%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              114.7      0.5635 µg/L       0.70433      0.5635 ppb        0.70433 125.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             254.9      1.4310 µg/L       0.10892      1.4310 ppb        0.10892   7.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

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Analysis Begun

Start Time: 3/31/2010 19:06:02 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 3/31/2010 18:15:19**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/31/2010 19:06:03**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142053.7	142053.7	97.3	%			19:06:36
1	Al 396.153Radial†	26187.8	26965.5	4976.4	µg/L	4976.4	ppb	19:06:36
1	Ca 317.933Radial†	87895.1	89732.8	4998.5	µg/L	4998.5	ppb	19:06:36
1	Fe 238.204 Radial†	78245.6	80232.5	4945.0	µg/L	4945.0	ppb	19:06:36

1	K 766.490 Radial†	15026.3	13891.5	5081.8 µg/L	5081.8 ppb	19:06:36
1	Mg 279.077 IEC†	13439.2	13615.2	5080.7 µg/L	5080.7 ppb	19:06:36
1	Na 589.592 Radial†	71676.4	72341.3	9878.2 µg/L	9878.2 ppb	19:06:36
1	Sr 421.552†	230855.8	237290.2	493.27 µg/L	493.27 ppb	19:06:34
1	Sc 361.383	1692635.7	1692635.7	98.511 %		19:06:49
1	Y 371.029	1002740.0	1002740.0	97.667 %		19:06:49
1	Ag 328.068†	133490.2	131416.3	492.76 µg/L	492.76 ppb	19:06:49
1	As 188.979†	1592.7	1637.1	502.26 µg/L	502.26 ppb	19:07:09
1	B 249.677†	36019.4	33057.9	485.83 µg/L	485.83 ppb	19:06:49
1	Ba 233.527†	119977.2	121926.4	491.73 µg/L	491.73 ppb	19:06:49
1	Be 313.107†	1788795.8	1816895.8	494.84 µg/L	494.84 ppb	19:06:49
1	Cd 226.502†	77305.4	78591.9	490.61 µg/L	490.61 ppb	19:06:49
1	Co 228.616†	39248.1	40031.6	494.19 µg/L	494.19 ppb	19:06:49
1	Cr 267.716†	61675.1	62428.6	488.81 µg/L	488.81 ppb	19:06:49
1	Cu 324.752†	126554.7	125495.2	489.22 µg/L	489.22 ppb	19:06:49
1	Mn 257.610†	394217.2	399938.0	494.63 µg/L	494.63 ppb	19:06:49
1	Mo 202.031†	16588.6	16859.4	495.93 µg/L	495.93 ppb	19:07:09
1	Ni 231.604†	41959.1	42669.8	491.31 µg/L	491.31 ppb	19:06:49
1	P 214.914†	11467.5	11658.8	2485.2 µg/L	2485.2 ppb	19:07:09
1	Pb 220.353†	8908.4	8956.6	501.56 µg/L	501.56 ppb	19:07:09
1	S 181.975 Axial†	1431.0	1347.6	1004.9 µg/L	1004.9 ppb	19:07:09
1	Sb 206.836†	4198.6	4181.2	498.27 µg/L	498.27 ppb	19:07:09
1	Se 196.026†	1378.4	1384.0	502 µg/L	502 ppb	19:07:09
1	SiO2†	55424.9	54487.2	5304.4 µg/L	5304.4 ppb	19:06:49
1	Si 251.611†	167452.8	169147.1	2483.8 µg/L	2483.8 ppb	19:06:49
1	Sn 189.927†	7877.5	7997.7	500.23 µg/L	500.23 ppb	19:07:09
1	Ti 334.940†	520670.2	527586.9	492.28 µg/L	492.28 ppb	19:06:49
1	Tl 190.801†	3872.9	4048.2	504.78 µg/L	504.78 ppb	19:07:09
1	U 409.014†	7291.5	7671.6	478.40 µg/L	478.40 ppb	19:06:49
1	V 292.402†	98968.4	100060.4	494.68 µg/L	494.68 ppb	19:06:49
1	Zn 213.857†	86928.5	87677.9	488.67 µg/L	488.67 ppb	19:06:49
2	Sc RADIAL	141682.9	141682.9	97.1 %		19:06:40
2	Al 396.153Radial†	26223.0	27072.3	4996.3 µg/L	4996.3 ppb	19:06:40
2	Ca 317.933Radial†	87546.1	89609.7	4991.6 µg/L	4991.6 ppb	19:06:40
2	Fe 238.204 Radial†	78166.5	80361.4	4953.0 µg/L	4953.0 ppb	19:06:40
2	K 766.490 Radial†	14890.1	13791.7	5045.3 µg/L	5045.3 ppb	19:06:40
2	Mg 279.077 IEC†	13407.1	13618.3	5081.7 µg/L	5081.7 ppb	19:06:40
2	Na 589.592 Radial†	71442.4	72293.1	9871.6 µg/L	9871.6 ppb	19:06:40
2	Sr 421.552†	234429.9	241592.0	502.22 µg/L	502.22 ppb	19:06:38
2	Sc 361.383	1693933.2	1693933.2	98.587 %		19:07:12
2	Y 371.029	1002754.3	1002754.3	97.669 %		19:07:12
2	Ag 328.068†	133887.2	131715.3	493.86 µg/L	493.86 ppb	19:07:12
2	As 188.979†	1584.7	1627.8	499.44 µg/L	499.44 ppb	19:07:32
2	B 249.677†	36086.4	33097.9	486.42 µg/L	486.42 ppb	19:07:12
2	Ba 233.527†	120244.1	122103.7	492.44 µg/L	492.44 ppb	19:07:12
2	Be 313.107†	1788194.1	1814894.6	494.30 µg/L	494.30 ppb	19:07:12
2	Cd 226.502†	77647.5	78878.9	492.40 µg/L	492.40 ppb	19:07:12
2	Co 228.616†	39316.5	40070.5	494.67 µg/L	494.67 ppb	19:07:12
2	Cr 267.716†	61922.8	62632.0	490.40 µg/L	490.40 ppb	19:07:12
2	Cu 324.752†	126725.3	125569.8	489.51 µg/L	489.51 ppb	19:07:12
2	Mn 257.610†	394218.9	399633.2	494.25 µg/L	494.25 ppb	19:07:12
2	Mo 202.031†	16463.2	16719.3	491.81 µg/L	491.81 ppb	19:07:32
2	Ni 231.604†	42154.2	42835.0	493.21 µg/L	493.21 ppb	19:07:12
2	P 214.914†	11314.3	11494.4	2450.0 µg/L	2450.0 ppb	19:07:32
2	Pb 220.353†	8825.1	8865.3	496.44 µg/L	496.44 ppb	19:07:32
2	S 181.975 Axial†	1411.2	1326.4	989.11 µg/L	989.11 ppb	19:07:32
2	Sb 206.836†	4167.4	4146.3	494.02 µg/L	494.02 ppb	19:07:32
2	Se 196.026†	1363.3	1367.5	497 µg/L	497 ppb	19:07:32
2	SiO2†	55444.1	54463.6	5302.3 µg/L	5302.3 ppb	19:07:12
2	Si 251.611†	167875.0	169445.1	2488.3 µg/L	2488.3 ppb	19:07:12
2	Sn 189.927†	7786.1	7898.8	494.07 µg/L	494.07 ppb	19:07:32
2	Ti 334.940†	520698.2	527210.5	491.92 µg/L	491.92 ppb	19:07:12
2	Tl 190.801†	3845.2	4017.0	500.93 µg/L	500.93 ppb	19:07:32
2	U 409.014†	7348.6	7723.9	481.39 µg/L	481.39 ppb	19:07:12
2	V 292.402†	98856.0	99869.4	493.71 µg/L	493.71 ppb	19:07:12
2	Zn 213.857†	87044.0	87727.5	488.93 µg/L	488.93 ppb	19:07:12
3	Sc RADIAL	140290.8	140290.8	96.1 %		19:06:44
3	Al 396.153Radial†	26121.4	27234.6	5026.5 µg/L	5026.5 ppb	19:06:44
3	Ca 317.933Radial†	86648.1	89570.3	4989.4 µg/L	4989.4 ppb	19:06:44
3	Fe 238.204 Radial†	77524.7	80492.7	4961.1 µg/L	4961.1 ppb	19:06:44
3	K 766.490 Radial†	14881.5	13934.9	5097.7 µg/L	5097.7 ppb	19:06:44

3	Mg 279.077 IEC†	13262.2	13604.5	5076.6 µg/L	5076.6 ppb	19:06:44
3	Na 589.592 Radial†	70817.9	72373.6	9882.6 µg/L	9882.6 ppb	19:06:44
3	Sr 421.552†	230738.3	240148.1	499.21 µg/L	499.21 ppb	19:06:42
3	Sc 361.383	1701566.9	1701566.9	99.031 %		19:07:35
3	Y 371.029	1007094.6	1007094.6	98.092 %		19:07:35
3	Ag 328.068†	134475.4	131699.9	493.82 µg/L	493.82 ppb	19:07:35
3	As 188.979†	1593.4	1629.4	499.91 µg/L	499.91 ppb	19:07:55
3	B 249.677†	36488.9	33340.1	489.99 µg/L	489.99 ppb	19:07:35
3	Ba 233.527†	120822.0	122140.2	492.59 µg/L	492.59 ppb	19:07:35
3	Be 313.107†	1801771.9	1820467.8	495.82 µg/L	495.82 ppb	19:07:35
3	Cd 226.502†	78139.4	79022.2	493.29 µg/L	493.29 ppb	19:07:35
3	Co 228.616†	39662.8	40241.2	496.77 µg/L	496.77 ppb	19:07:35
3	Cr 267.716†	62197.1	62627.2	490.36 µg/L	490.36 ppb	19:07:35
3	Cu 324.752†	127822.8	126101.4	491.58 µg/L	491.58 ppb	19:07:35
3	Mn 257.610†	397277.8	400928.1	495.85 µg/L	495.85 ppb	19:07:35
3	Mo 202.031†	16490.8	16672.2	490.43 µg/L	490.43 ppb	19:07:55
3	Ni 231.604†	42326.5	42817.2	493.01 µg/L	493.01 ppb	19:07:35
3	P 214.914†	11342.9	11471.9	2445.2 µg/L	2445.2 ppb	19:07:55
3	Pb 220.353†	8843.5	8843.7	495.23 µg/L	495.23 ppb	19:07:55
3	S 181.975 Axial†	1419.8	1328.6	990.72 µg/L	990.72 ppb	19:07:55
3	Sb 206.836†	4178.4	4138.4	493.07 µg/L	493.07 ppb	19:07:55
3	Se 196.026†	1363.2	1361.3	494 µg/L	494 ppb	19:07:55
3	SiO2†	56222.5	54997.3	5354.5 µg/L	5354.5 ppb	19:07:35
3	Si 251.611†	169502.3	170324.4	2501.3 µg/L	2501.3 ppb	19:07:35
3	Sn 189.927†	7808.9	7886.4	493.30 µg/L	493.30 ppb	19:07:55
3	Ti 334.940†	523661.8	527833.6	492.50 µg/L	492.50 ppb	19:07:35
3	Tl 190.801†	3856.9	4011.4	500.25 µg/L	500.25 ppb	19:07:55
3	U 409.014†	7413.7	7756.2	483.37 µg/L	483.37 ppb	19:07:35
3	V 292.402†	99576.3	100146.9	495.05 µg/L	495.05 ppb	19:07:35
3	Zn 213.857†	87808.2	88103.1	491.04 µg/L	491.04 ppb	19:07:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1696045.3	98.710	%	0.2809				0.28%
Sc RADIAL	141342.5	96.9	%	0.64				0.66%
Y 371.029	1004196.3	97.809	%	0.2445				0.25%
Ag 328.068†	131610.5	493.48	µg/L	0.624	493.48	ppb	0.624	0.13%
QC value within limits for Ag 328.068 Recovery = 98.70%								
Al 396.153Radial†	27090.8	4999.7	µg/L	25.24	4999.7	ppb	25.24	0.50%
QC value within limits for Al 396.153Radial Recovery = 99.99%								
As 188.979†	1631.4	500.54	µg/L	1.508	500.54	ppb	1.508	0.30%
QC value within limits for As 188.979 Recovery = 100.11%								
B 249.677†	33165.3	487.41	µg/L	2.247	487.41	ppb	2.247	0.46%
QC value within limits for B 249.677 Recovery = 97.48%								
Ba 233.527†	122056.8	492.25	µg/L	0.460	492.25	ppb	0.460	0.09%
QC value within limits for Ba 233.527 Recovery = 98.45%								
Be 313.107†	1817419.4	494.99	µg/L	0.769	494.99	ppb	0.769	0.16%
QC value within limits for Be 313.107 Recovery = 99.00%								
Ca 317.933Radial†	89637.6	4993.2	µg/L	4.72	4993.2	ppb	4.72	0.09%
QC value within limits for Ca 317.933Radial Recovery = 99.86%								
Cd 226.502†	78831.0	492.10	µg/L	1.368	492.10	ppb	1.368	0.28%
QC value within limits for Cd 226.502 Recovery = 98.42%								
Co 228.616†	40114.4	495.21	µg/L	1.376	495.21	ppb	1.376	0.28%
QC value within limits for Co 228.616 Recovery = 99.04%								
Cr 267.716†	62562.6	489.86	µg/L	0.907	489.86	ppb	0.907	0.19%
QC value within limits for Cr 267.716 Recovery = 97.97%								
Cu 324.752†	125722.1	490.10	µg/L	1.288	490.10	ppb	1.288	0.26%
QC value within limits for Cu 324.752 Recovery = 98.02%								
Fe 238.204 Radial†	80362.2	4953.0	µg/L	8.02	4953.0	ppb	8.02	0.16%
QC value within limits for Fe 238.204 Radial Recovery = 99.06%								
K 766.490 Radial†	13872.7	5074.9	µg/L	26.88	5074.9	ppb	26.88	0.53%
QC value within limits for K 766.490 Radial Recovery = 101.50%								
Mg 279.077 IEC†	13612.7	5079.7	µg/L	2.74	5079.7	ppb	2.74	0.05%
QC value within limits for Mg 279.077 IEC Recovery = 101.59%								
Mn 257.610†	400166.4	494.91	µg/L	0.838	494.91	ppb	0.838	0.17%
QC value within limits for Mn 257.610 Recovery = 98.98%								
Mo 202.031†	16750.3	492.72	µg/L	2.861	492.72	ppb	2.861	0.58%
QC value within limits for Mo 202.031 Recovery = 98.54%								
Na 589.592 Radial†	72336.0	9877.5	µg/L	5.51	9877.5	ppb	5.51	0.06%

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   QC value within limits for Na 589.592 Radial  Recovery = 98.77%
Ni 231.604†            42774.0      492.51 µg/L         1.044      492.51 ppb          1.044   0.21%
   QC value within limits for Ni 231.604  Recovery = 98.50%
P 214.914†             11541.7      2460.1 µg/L        21.83      2460.1 ppb         21.83   0.89%
   QC value within limits for P 214.914  Recovery = 98.40%
Pb 220.353†             8888.5      497.74 µg/L         3.356      497.74 ppb          3.356   0.67%
   QC value within limits for Pb 220.353  Recovery = 99.55%
S 181.975 Axial†        1334.2      994.90 µg/L         8.662      994.90 ppb          8.662   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 99.49%
Sb 206.836†             4155.3      495.12 µg/L         2.767      495.12 ppb          2.767   0.56%
   QC value within limits for Sb 206.836  Recovery = 99.02%
Se 196.026†             1370.9         498 µg/L           4.2         498 ppb            4.2   0.85%
   QC value within limits for Se 196.026  Recovery = 99.56%
SiO2†                  54649.4      5320.4 µg/L        29.56      5320.4 ppb         29.56   0.56%
   QC value within limits for SiO2  Recovery = 99.49%
Si 251.611†           169638.9      2491.1 µg/L         9.08      2491.1 ppb          9.08   0.36%
   QC value within limits for Si 251.611  Recovery = 99.65%
Sn 189.927†             7927.7      495.87 µg/L         3.802      495.87 ppb          3.802   0.77%
   QC value within limits for Sn 189.927  Recovery = 99.17%
Sr 421.552†           239676.8      498.23 µg/L         4.551      498.23 ppb          4.551   0.91%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           527543.7      492.23 µg/L         0.293      492.23 ppb          0.293   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.45%
Tl 190.801†             4025.5      501.99 µg/L         2.440      501.99 ppb          2.440   0.49%
   QC value within limits for Tl 190.801  Recovery = 100.40%
U 409.014†              7717.2      481.05 µg/L         2.502      481.05 ppb          2.502   0.52%
   QC value within limits for U 409.014  Recovery = 96.21%
V 292.402†            100025.5      494.48 µg/L         0.691      494.48 ppb          0.691   0.14%
   QC value within limits for V 292.402  Recovery = 98.90%
Zn 213.857†            87836.2      489.55 µg/L         1.301      489.55 ppb          1.301   0.27%
   QC value within limits for Zn 213.857  Recovery = 97.91%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:08:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143606.3	143606.3	98.4	%			19:08:33
1	Al 396.153Radial†	-40.6	21.9	4.0709	µg/L	4.0709	ppb	19:08:53
1	Ca 317.933Radial†	593.8	42.8	2.3863	µg/L	2.3863	ppb	19:08:53
1	Fe 238.204 Radial†	181.2	36.0	2.2211	µg/L	2.2211	ppb	19:08:53
1	K 766.490 Radial†	1807.5	291.9	106.87	µg/L	106.87	ppb	19:08:33
1	Mg 279.077 IEC†	167.1	-20.9	-7.7799	µg/L	-7.7799	ppb	19:08:53
1	Na 589.592 Radial†	1829.3	568.1	77.508	µg/L	77.508	ppb	19:08:33
1	Sr 421.552†	-159.2	-26.5	-0.0550	µg/L	-0.0550	ppb	19:08:33
1	Sc 361.383	1699498.0	1699498.0	98.911	%			19:09:55
1	Y 371.029	1016806.2	1016806.2	99.037	%			19:09:55
1	Ag 328.068†	3769.0	-280.8	-1.0378	µg/L	-1.0378	ppb	19:09:57
1	As 188.979†	-4.4	15.9	4.8042	µg/L	4.8042	ppb	19:10:17
1	B 249.677†	3588.4	122.0	1.7978	µg/L	1.7978	ppb	19:09:57
1	Ba 233.527†	-115.2	19.4	0.0783	µg/L	0.0783	ppb	19:10:17
1	Be 313.107†	-954.3	99.8	0.0273	µg/L	0.0273	ppb	19:09:57
1	Cd 226.502†	-91.5	25.7	0.1602	µg/L	0.1602	ppb	19:10:17
1	Co 228.616†	-158.7	29.9	0.3690	µg/L	0.3690	ppb	19:10:17
1	Cr 267.716†	173.6	-3.0	-0.0236	µg/L	-0.0236	ppb	19:10:17
1	Cu 324.752†	3195.6	258.6	1.0054	µg/L	1.0054	ppb	19:09:57
1	Mn 257.610†	286.5	52.4	0.0651	µg/L	0.0651	ppb	19:10:17
1	Mo 202.031†	-26.1	-6.3	-0.1854	µg/L	-0.1854	ppb	19:10:17
1	Ni 231.604†	-117.6	-42.4	-0.4885	µg/L	-0.4885	ppb	19:10:17
1	P 214.914†	-30.3	-12.6	-2.7014	µg/L	-2.7014	ppb	19:10:17
1	Pb 220.353†	88.8	3.4	0.1879	µg/L	0.1879	ppb	19:10:17
1	S 181.975 Axial†	97.0	-6.9	-5.1546	µg/L	-5.1546	ppb	19:10:17
1	Sb 206.836†	72.1	-8.0	-0.9474	µg/L	-0.9474	ppb	19:10:17
1	Se 196.026†	15.9	0.8	0.281	µg/L	0.281	ppb	19:10:17
1	SiO2†	1782.8	27.1	2.6348	µg/L	2.6348	ppb	19:09:57
1	Si 251.611†	842.6	15.3	0.2204	µg/L	0.2204	ppb	19:09:57
1	Sn 189.927†	17.4	18.7	1.1657	µg/L	1.1657	ppb	19:10:17
1	Ti 334.940†	982.6	40.9	0.0388	µg/L	0.0388	ppb	19:09:57
1	Tl 190.801†	-115.4	-0.0	-0.0031	µg/L	-0.0031	ppb	19:10:17
1	U 409.014†	-263.1	3.9	0.2381	µg/L	0.2381	ppb	19:09:57
1	V 292.402†	432.1	33.1	0.1592	µg/L	0.1592	ppb	19:09:57
1	Zn 213.857†	662.7	105.6	0.5956	µg/L	0.5956	ppb	19:10:17
2	Sc RADIAL	143906.0	143906.0	98.6	%			19:08:55
2	Al 396.153Radial†	-30.9	31.9	5.9210	µg/L	5.9210	ppb	19:09:15
2	Ca 317.933Radial†	576.5	24.0	1.3374	µg/L	1.3374	ppb	19:09:15
2	Fe 238.204 Radial†	194.8	49.4	3.0451	µg/L	3.0451	ppb	19:09:15
2	K 766.490 Radial†	1821.8	302.6	110.79	µg/L	110.79	ppb	19:08:55
2	Mg 279.077 IEC†	181.6	-6.5	-2.4285	µg/L	-2.4285	ppb	19:09:15
2	Na 589.592 Radial†	1674.8	407.6	55.585	µg/L	55.585	ppb	19:08:55
2	Sr 421.552†	-76.3	57.9	0.1204	µg/L	0.1204	ppb	19:08:55
2	Sc 361.383	1701303.0	1701303.0	99.016	%			19:10:20
2	Y 371.029	1018421.2	1018421.2	99.195	%			19:10:20
2	Ag 328.068†	4174.8	124.9	0.4507	µg/L	0.4507	ppb	19:10:22
2	As 188.979†	-9.4	10.9	3.3020	µg/L	3.3020	ppb	19:10:42
2	B 249.677†	3516.0	45.1	0.6647	µg/L	0.6647	ppb	19:10:22
2	Ba 233.527†	-149.1	-14.7	-0.0595	µg/L	-0.0595	ppb	19:10:42
2	Be 313.107†	-839.9	216.4	0.0569	µg/L	0.0569	ppb	19:10:22
2	Cd 226.502†	-102.1	15.1	0.0939	µg/L	0.0939	ppb	19:10:42
2	Co 228.616†	-188.6	-0.1	-0.0019	µg/L	-0.0019	ppb	19:10:42
2	Cr 267.716†	211.4	34.9	0.2788	µg/L	0.2788	ppb	19:10:42
2	Cu 324.752†	2916.8	-26.4	-0.1080	µg/L	-0.1080	ppb	19:10:22
2	Mn 257.610†	284.4	50.0	0.0619	µg/L	0.0619	ppb	19:10:42
2	Mo 202.031†	-25.0	-5.2	-0.1530	µg/L	-0.1530	ppb	19:10:42
2	Ni 231.604†	-103.9	-28.5	-0.3278	µg/L	-0.3278	ppb	19:10:42
2	P 214.914†	-33.0	-15.3	-3.2711	µg/L	-3.2711	ppb	19:10:42
2	Pb 220.353†	114.7	29.5	1.6503	µg/L	1.6503	ppb	19:10:42

2	S 181.975 Axial†	99.7	-4.4	-3.2387	µg/L	-3.2387 ppb	19:10:42
2	Sb 206.836†	76.2	-3.9	-0.4635	µg/L	-0.4635 ppb	19:10:42
2	Se 196.026†	16.5	1.4	0.491	µg/L	0.491 ppb	19:10:42
2	SiO2†	1763.9	6.1	0.5919	µg/L	0.5919 ppb	19:10:22
2	Si 251.611†	911.5	84.0	1.2359	µg/L	1.2359 ppb	19:10:22
2	Sn 189.927†	8.3	9.5	0.5950	µg/L	0.5950 ppb	19:10:42
2	Ti 334.940†	886.7	-57.0	-0.0503	µg/L	-0.0503 ppb	19:10:22
2	Tl 190.801†	-114.1	1.5	0.1759	µg/L	0.1759 ppb	19:10:42
2	U 409.014†	-383.3	-117.2	-6.8703	µg/L	-6.8703 ppb	19:10:22
2	V 292.402†	344.9	-55.5	-0.2761	µg/L	-0.2761 ppb	19:10:22
2	Zn 213.857†	648.7	90.7	0.5114	µg/L	0.5114 ppb	19:10:42
3	Sc RADIAL	142315.2	142315.2	97.5	%		19:09:17
3	Al 396.153Radial†	-52.2	9.6	1.7667	µg/L	1.7667 ppb	19:09:37
3	Ca 317.933Radial†	577.3	31.3	1.7458	µg/L	1.7458 ppb	19:09:37
3	Fe 238.204 Radial†	193.7	50.5	3.1105	µg/L	3.1105 ppb	19:09:37
3	K 766.490 Radial†	1715.2	213.9	78.318	µg/L	78.318 ppb	19:09:17
3	Mg 279.077 IEC†	194.2	8.4	3.1563	µg/L	3.1563 ppb	19:09:37
3	Na 589.592 Radial†	1682.9	434.8	59.332	µg/L	59.332 ppb	19:09:17
3	Sr 421.552†	-204.0	-73.9	-0.1537	µg/L	-0.1537 ppb	19:09:17
3	Sc 361.383	1707432.2	1707432.2	99.372	%		19:10:44
3	Y 371.029	1021900.0	1021900.0	99.534	%		19:10:44
3	Ag 328.068†	4053.2	-12.6	-0.0528	µg/L	-0.0528 ppb	19:10:46
3	As 188.979†	-2.3	18.1	5.4690	µg/L	5.4690 ppb	19:11:06
3	B 249.677†	3514.8	31.1	0.4591	µg/L	0.4591 ppb	19:10:46
3	Ba 233.527†	-138.9	-3.9	-0.0159	µg/L	-0.0159 ppb	19:11:06
3	Be 313.107†	-1076.7	-18.8	-0.0056	µg/L	-0.0056 ppb	19:10:46
3	Cd 226.502†	-100.3	17.3	0.1074	µg/L	0.1074 ppb	19:11:06
3	Co 228.616†	-200.8	-11.7	-0.1450	µg/L	-0.1450 ppb	19:11:06
3	Cr 267.716†	180.7	3.3	0.0269	µg/L	0.0269 ppb	19:11:06
3	Cu 324.752†	3029.2	76.1	0.2948	µg/L	0.2948 ppb	19:10:46
3	Mn 257.610†	296.9	61.5	0.0760	µg/L	0.0760 ppb	19:11:06
3	Mo 202.031†	-3.7	16.3	0.4802	µg/L	0.4802 ppb	19:11:06
3	Ni 231.604†	-90.5	-14.6	-0.1676	µg/L	-0.1676 ppb	19:11:06
3	P 214.914†	-14.2	3.7	0.7799	µg/L	0.7799 ppb	19:11:06
3	Pb 220.353†	92.0	6.2	0.3485	µg/L	0.3485 ppb	19:11:06
3	S 181.975 Axial†	108.0	3.6	2.6796	µg/L	2.6796 ppb	19:11:06
3	Sb 206.836†	87.9	7.6	0.9107	µg/L	0.9107 ppb	19:11:06
3	Se 196.026†	15.0	-0.2	-0.060	µg/L	-0.060 ppb	19:11:06
3	SiO2†	1735.7	-28.7	-2.8190	µg/L	-2.8190 ppb	19:10:46
3	Si 251.611†	790.1	-41.5	-0.6182	µg/L	-0.6182 ppb	19:10:46
3	Sn 189.927†	-1.2	-0.1	-0.0053	µg/L	-0.0053 ppb	19:11:06
3	Ti 334.940†	766.5	-181.2	-0.1688	µg/L	-0.1688 ppb	19:10:46
3	Tl 190.801†	-101.0	15.0	1.8436	µg/L	1.8436 ppb	19:11:06
3	U 409.014†	-295.6	-27.6	-1.6324	µg/L	-1.6324 ppb	19:10:46
3	V 292.402†	332.8	-68.9	-0.3322	µg/L	-0.3322 ppb	19:10:46
3	Zn 213.857†	625.3	64.8	0.3648	µg/L	0.3648 ppb	19:11:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1702744.4	99.099	%	0.2420				0.24%
Sc RADIAL	143275.8	98.2	%	0.58				0.59%
Y 371.029	1019042.5	99.255	%	0.2535				0.26%
Ag 328.068†	-56.2	-0.2133	µg/L	0.75716	-0.2133	ppb	0.75716	354.96%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	21.2	3.9195	µg/L	2.08128	3.9195	ppb	2.08128	53.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	15.0	4.5251	µg/L	1.11017	4.5251	ppb	1.11017	24.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	66.0	0.9738	µg/L	0.72094	0.9738	ppb	0.72094	74.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.3	0.0009	µg/L	0.07043	0.0009	ppb	0.07043	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	99.2	0.0262	µg/L	0.03124	0.0262	ppb	0.03124	119.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	32.7	1.8232	µg/L	0.52869	1.8232	ppb	0.52869	29.00%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.4	0.1205	µg/L	0.03504	0.1205	ppb	0.03504	29.08%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.0	0.0740	µg/L	0.26530	0.0740	ppb	0.26530	358.50%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              11.7      0.0940 µg/L       0.16198      0.0940 ppb        0.16198 172.24%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             102.8      0.3974 µg/L       0.56376      0.3974 ppb        0.56376 141.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       45.3      2.7923 µg/L       0.49571      2.7923 ppb        0.49571  17.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       269.5     98.660 µg/L       17.7254     98.660 ppb        17.7254  17.97%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -6.3     -2.3507 µg/L       5.46855     -2.3507 ppb        5.46855 232.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              54.6      0.0677 µg/L       0.00738      0.0677 ppb        0.00738  10.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.6      0.0473 µg/L       0.37526      0.0473 ppb        0.37526 793.90%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      470.2     64.142 µg/L       11.7262     64.142 ppb        11.7262  18.28%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -28.5     -0.3280 µg/L       0.16046     -0.3280 ppb        0.16046  48.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.1     -1.7309 µg/L       2.19296     -1.7309 ppb        2.19296 126.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              13.0      0.7289 µg/L       0.80200      0.7289 ppb        0.80200 110.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.6     -1.9046 µg/L       4.08395     -1.9046 ppb        4.08395 214.43%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.4     -0.1667 µg/L       0.96394     -0.1667 ppb        0.96394 578.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.7      0.238 µg/L        0.2782       0.238 ppb         0.2782 117.02%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     1.5      0.1359 µg/L       2.75534      0.1359 ppb        2.75534 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              19.3      0.2794 µg/L       0.92845      0.2794 ppb        0.92845 332.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.4      0.5851 µg/L       0.58554      0.5851 ppb        0.58554 100.07%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -14.1     -0.0294 µg/L       0.13885     -0.0294 ppb        0.13885 471.87%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -65.8     -0.0601 µg/L       0.10414     -0.0601 ppb        0.10414 173.25%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.5      0.6721 µg/L       1.01847      0.6721 ppb        1.01847 151.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -47.0     -2.7549 µg/L       3.68475     -2.7549 ppb        3.68475 133.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -30.4     -0.1497 µg/L       0.26898     -0.1497 ppb        0.26898 179.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              87.0      0.4906 µg/L       0.11682      0.4906 ppb        0.11682  23.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 19:27:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144745.8	144745.8	99.2	%			19:28:15
1	Al 396.153Radial†	26764.4	27046.5	4991.6	µg/L	4991.6	ppb	19:28:15
1	Ca 317.933Radial†	89467.8	89639.1	4993.2	µg/L	4993.2	ppb	19:28:15
1	Fe 238.204 Radial†	79722.2	80226.2	4944.7	µg/L	4944.7	ppb	19:28:15
1	K 766.490 Radial†	14982.5	13560.3	4960.6	µg/L	4960.6	ppb	19:28:15
1	Mg 279.077 IEC†	13759.9	13681.8	5105.4	µg/L	5105.4	ppb	19:28:15
1	Na 589.592 Radial†	72591.2	71894.2	9817.2	µg/L	9817.2	ppb	19:28:15
1	Sr 421.552†	234529.9	236583.6	491.80	µg/L	491.80	ppb	19:28:12
1	Sc 361.383	1725305.4	1725305.4	100.41	%			19:28:27
1	Y 371.029	1020728.0	1020728.0	99.419	%			19:28:27
1	Ag 328.068†	136300.1	131648.8	493.59	µg/L	493.59	ppb	19:28:27
1	As 188.979†	1633.4	1647.0	505.23	µg/L	505.23	ppb	19:28:47
1	B 249.677†	36849.8	33192.5	487.82	µg/L	487.82	ppb	19:28:27
1	Ba 233.527†	122221.5	121855.2	491.44	µg/L	491.44	ppb	19:28:27
1	Be 313.107†	1820741.4	1814326.2	494.14	µg/L	494.14	ppb	19:28:27
1	Cd 226.502†	78844.9	78639.2	490.90	µg/L	490.90	ppb	19:28:27
1	Co 228.616†	39847.3	39874.0	492.24	µg/L	492.24	ppb	19:28:27
1	Cr 267.716†	62843.9	62407.1	488.65	µg/L	488.65	ppb	19:28:27
1	Cu 324.752†	129009.2	125507.0	489.26	µg/L	489.26	ppb	19:28:27
1	Mn 257.610†	401352.4	399466.3	494.04	µg/L	494.04	ppb	19:28:27
1	Mo 202.031†	16754.7	16705.9	491.42	µg/L	491.42	ppb	19:28:47
1	Ni 231.604†	42787.5	42688.2	491.52	µg/L	491.52	ppb	19:28:27
1	P 214.914†	11575.7	11546.1	2461.1	µg/L	2461.1	ppb	19:28:47
1	Pb 220.353†	8987.5	8864.2	496.39	µg/L	496.39	ppb	19:28:47
1	S 181.975 Axial†	1425.3	1314.4	980.21	µg/L	980.21	ppb	19:28:47
1	Sb 206.836†	4236.7	4138.5	493.11	µg/L	493.11	ppb	19:28:47
1	Se 196.026†	1383.3	1362.3	495	µg/L	495	ppb	19:28:47
1	SiO2†	56481.4	54474.0	5303.3	µg/L	5303.3	ppb	19:28:27
1	Si 251.611†	170572.5	169035.2	2482.3	µg/L	2482.3	ppb	19:28:27
1	Sn 189.927†	7932.0	7900.5	494.17	µg/L	494.17	ppb	19:28:47
1	Ti 334.940†	529379.1	526251.8	491.03	µg/L	491.03	ppb	19:28:27
1	Tl 190.801†	3920.2	4020.8	501.40	µg/L	501.40	ppb	19:28:47
1	U 409.014†	7328.3	7568.1	472.22	µg/L	472.22	ppb	19:28:27
1	V 292.402†	100463.2	99646.7	492.61	µg/L	492.61	ppb	19:28:27
1	Zn 213.857†	88617.6	87689.1	488.73	µg/L	488.73	ppb	19:28:27
2	Sc RADIAL	143128.0	143128.0	98.1	%			19:28:19
2	Al 396.153Radial†	26390.4	26970.3	4977.5	µg/L	4977.5	ppb	19:28:19
2	Ca 317.933Radial†	88547.9	89720.6	4997.8	µg/L	4997.8	ppb	19:28:19
2	Fe 238.204 Radial†	78967.6	80365.3	4953.2	µg/L	4953.2	ppb	19:28:19
2	K 766.490 Radial†	14857.2	13603.3	4976.3	µg/L	4976.3	ppb	19:28:19
2	Mg 279.077 IEC†	13593.0	13668.4	5100.4	µg/L	5100.4	ppb	19:28:19
2	Na 589.592 Radial†	71676.1	71788.4	9802.7	µg/L	9802.7	ppb	19:28:19
2	Sr 421.552†	234348.1	239070.9	496.98	µg/L	496.98	ppb	19:28:17
2	Sc 361.383	1734628.6	1734628.6	100.96	%			19:28:51
2	Y 371.029	1025716.4	1025716.4	99.905	%			19:28:51
2	Ag 328.068†	136816.4	131430.6	492.82	µg/L	492.82	ppb	19:28:51
2	As 188.979†	1631.9	1636.9	502.17	µg/L	502.17	ppb	19:29:11
2	B 249.677†	37069.7	33213.1	488.12	µg/L	488.12	ppb	19:28:51
2	Ba 233.527†	122992.1	121964.3	491.88	µg/L	491.88	ppb	19:28:51
2	Be 313.107†	1838526.2	1822196.9	496.29	µg/L	496.29	ppb	19:28:51
2	Cd 226.502†	79892.7	79255.0	494.75	µg/L	494.75	ppb	19:28:51
2	Co 228.616†	40292.1	40101.3	495.05	µg/L	495.05	ppb	19:28:51
2	Cr 267.716†	63389.6	62611.4	490.23	µg/L	490.23	ppb	19:28:51
2	Cu 324.752†	129959.6	125757.9	490.25	µg/L	490.25	ppb	19:28:51
2	Mn 257.610†	404701.1	400635.0	495.49	µg/L	495.49	ppb	19:28:51
2	Mo 202.031†	16826.1	16687.0	490.86	µg/L	490.86	ppb	19:29:11
2	Ni 231.604†	43211.3	42879.0	493.72	µg/L	493.72	ppb	19:28:51
2	P 214.914†	11647.2	11554.9	2462.9	µg/L	2462.9	ppb	19:29:11
2	Pb 220.353†	9025.0	8853.2	495.76	µg/L	495.76	ppb	19:29:11

2	S 181.975 Axial†	1448.9	1330.1	991.87 µg/L	991.87 ppb	19:29:11
2	Sb 206.836†	4260.0	4138.9	493.13 µg/L	493.13 ppb	19:29:11
2	Se 196.026†	1384.1	1355.7	492 µg/L	492 ppb	19:29:11
2	SiO2†	56922.3	54608.4	5316.4 µg/L	5316.4 ppb	19:28:51
2	Si 251.611†	172250.5	169784.3	2493.3 µg/L	2493.3 ppb	19:28:51
2	Sn 189.927†	7982.8	7908.4	494.67 µg/L	494.67 ppb	19:29:11
2	Ti 334.940†	533116.5	527120.2	491.83 µg/L	491.83 ppb	19:28:51
2	Tl 190.801†	3941.1	4020.5	501.37 µg/L	501.37 ppb	19:29:11
2	U 409.014†	7625.6	7823.4	487.25 µg/L	487.25 ppb	19:28:51
2	V 292.402†	101346.4	99983.8	494.26 µg/L	494.26 ppb	19:28:51
2	Zn 213.857†	89423.9	88013.5	490.54 µg/L	490.54 ppb	19:28:51
3	Sc RADIAL	145496.7	145496.7	99.7 %		19:28:23
3	Al 396.153Radial†	26858.9	27002.0	4983.3 µg/L	4983.3 ppb	19:28:23
3	Ca 317.933Radial†	90156.6	89864.4	5005.8 µg/L	5005.8 ppb	19:28:23
3	Fe 238.204 Radial†	80315.1	80406.1	4955.7 µg/L	4955.7 ppb	19:28:23
3	K 766.490 Radial†	15083.0	13583.2	4968.9 µg/L	4968.9 ppb	19:28:23
3	Mg 279.077 IEC†	13878.0	13728.6	5122.9 µg/L	5122.9 ppb	19:28:23
3	Na 589.592 Radial†	72879.8	71805.9	9805.1 µg/L	9805.1 ppb	19:28:23
3	Sr 421.552†	234221.7	235054.0	488.62 µg/L	488.62 ppb	19:28:21
3	Sc 361.383	1725210.5	1725210.5	100.41 %		19:29:14
3	Y 371.029	1019973.4	1019973.4	99.346 %		19:29:14
3	Ag 328.068†	135997.1	131354.5	492.51 µg/L	492.51 ppb	19:29:14
3	As 188.979†	1616.1	1629.9	500.07 µg/L	500.07 ppb	19:29:34
3	B 249.677†	36719.7	33065.0	485.94 µg/L	485.94 ppb	19:29:14
3	Ba 233.527†	122082.7	121723.7	490.91 µg/L	490.91 ppb	19:29:14
3	Be 313.107†	1823924.9	1817596.6	495.03 µg/L	495.03 ppb	19:29:14
3	Cd 226.502†	79138.6	78936.0	492.75 µg/L	492.75 ppb	19:29:14
3	Co 228.616†	39917.6	39946.1	493.13 µg/L	493.13 ppb	19:29:14
3	Cr 267.716†	63023.3	62589.2	490.08 µg/L	490.08 ppb	19:29:14
3	Cu 324.752†	129255.3	125759.2	490.24 µg/L	490.24 ppb	19:29:14
3	Mn 257.610†	401870.3	400004.1	494.71 µg/L	494.71 ppb	19:29:14
3	Mo 202.031†	16781.3	16733.4	492.23 µg/L	492.23 ppb	19:29:34
3	Ni 231.604†	42953.4	42855.8	493.45 µg/L	493.45 ppb	19:29:14
3	P 214.914†	11608.1	11579.0	2468.1 µg/L	2468.1 ppb	19:29:34
3	Pb 220.353†	9009.0	8886.1	497.61 µg/L	497.61 ppb	19:29:34
3	S 181.975 Axial†	1440.9	1330.0	991.78 µg/L	991.78 ppb	19:29:34
3	Sb 206.836†	4230.2	4132.2	492.36 µg/L	492.36 ppb	19:29:34
3	Se 196.026†	1386.3	1365.4	496 µg/L	496 ppb	19:29:34
3	SiO2†	56734.1	54728.8	5328.1 µg/L	5328.1 ppb	19:29:14
3	Si 251.611†	171053.5	169523.6	2489.4 µg/L	2489.4 ppb	19:29:14
3	Sn 189.927†	7957.3	7926.1	495.77 µg/L	495.77 ppb	19:29:34
3	Ti 334.940†	529976.9	526876.1	491.61 µg/L	491.61 ppb	19:29:14
3	Tl 190.801†	3905.9	4006.8	499.68 µg/L	499.68 ppb	19:29:34
3	U 409.014†	7243.0	7483.6	467.35 µg/L	467.35 ppb	19:29:14
3	V 292.402†	100691.8	99879.9	493.76 µg/L	493.76 ppb	19:29:14
3	Zn 213.857†	88689.8	87765.9	489.15 µg/L	489.15 ppb	19:29:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1728381.5	100.59	%	0.315				0.31%
Sc RADIAL	144456.8	99.0	%	0.83				0.84%
Y 371.029	1022139.3	99.557	%	0.3040				0.31%
Ag 328.068†	131478.0	492.97	µg/L	0.557	492.97	ppb	0.557	0.11%
QC value within limits for Ag 328.068 Recovery = 98.59%								
Al 396.153Radial†	27006.3	4984.1	µg/L	7.09	4984.1	ppb	7.09	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.68%								
As 188.979†	1637.9	502.49	µg/L	2.596	502.49	ppb	2.596	0.52%
QC value within limits for As 188.979 Recovery = 100.50%								
B 249.677†	33156.9	487.29	µg/L	1.181	487.29	ppb	1.181	0.24%
QC value within limits for B 249.677 Recovery = 97.46%								
Ba 233.527†	121847.7	491.41	µg/L	0.486	491.41	ppb	0.486	0.10%
QC value within limits for Ba 233.527 Recovery = 98.28%								
Be 313.107†	1818039.9	495.15	µg/L	1.079	495.15	ppb	1.079	0.22%
QC value within limits for Be 313.107 Recovery = 99.03%								
Ca 317.933Radial†	89741.4	4998.9	µg/L	6.35	4998.9	ppb	6.35	0.13%
QC value within limits for Ca 317.933Radial Recovery = 99.98%								
Cd 226.502†	78943.4	492.80	µg/L	1.924	492.80	ppb	1.924	0.39%
QC value within limits for Cd 226.502 Recovery = 98.56%								
Co 228.616†	39973.8	493.47	µg/L	1.433	493.47	ppb	1.433	0.29%

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   QC value within limits for Co 228.616  Recovery = 98.69%
Cr 267.716†            62535.9      489.65 µg/L         0.875      489.65 ppb          0.875   0.18%
   QC value within limits for Cr 267.716  Recovery = 97.93%
Cu 324.752†           125674.7      489.91 µg/L         0.568      489.91 ppb          0.568   0.12%
   QC value within limits for Cu 324.752  Recovery = 97.98%
Fe 238.204 Radial†     80332.5      4951.2 µg/L          5.81      4951.2 ppb           5.81   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.02%
K 766.490 Radial†      13582.3      4968.6 µg/L          7.88      4968.6 ppb           7.88   0.16%
   QC value within limits for K 766.490 Radial  Recovery = 99.37%
Mg 279.077 IEC†        13692.9      5109.5 µg/L         11.80      5109.5 ppb          11.80   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.19%
Mn 257.610†           400035.1      494.75 µg/L         0.724      494.75 ppb          0.724   0.15%
   QC value within limits for Mn 257.610  Recovery = 98.95%
Mo 202.031†            16708.8      491.50 µg/L         0.686      491.50 ppb          0.686   0.14%
   QC value within limits for Mo 202.031  Recovery = 98.30%
Na 589.592 Radial†     71829.5      9808.4 µg/L          7.75      9808.4 ppb           7.75   0.08%
   QC value within limits for Na 589.592 Radial  Recovery = 98.08%
Ni 231.604†            42807.7      492.90 µg/L         1.199      492.90 ppb          1.199   0.24%
   QC value within limits for Ni 231.604  Recovery = 98.58%
P 214.914†             11560.0      2464.0 µg/L          3.63      2464.0 ppb           3.63   0.15%
   QC value within limits for P 214.914  Recovery = 98.56%
Pb 220.353†             8867.8      496.59 µg/L         0.942      496.59 ppb          0.942   0.19%
   QC value within limits for Pb 220.353  Recovery = 99.32%
S 181.975 Axial†        1324.9      987.95 µg/L         6.702      987.95 ppb          6.702   0.68%
   QC value within limits for S 181.975 Axial  Recovery = 98.80%
Sb 206.836†             4136.5      492.87 µg/L         0.436      492.87 ppb          0.436   0.09%
   QC value within limits for Sb 206.836  Recovery = 98.57%
Se 196.026†             1361.2         494 µg/L           1.8         494 ppb            1.8   0.36%
   QC value within limits for Se 196.026  Recovery = 98.85%
SiO2†                  54603.7      5315.9 µg/L         12.44      5315.9 ppb          12.44   0.23%
   QC value within limits for SiO2  Recovery = 99.41%
Si 251.611†           169447.7      2488.3 µg/L          5.61      2488.3 ppb           5.61   0.23%
   QC value within limits for Si 251.611  Recovery = 99.53%
Sn 189.927†             7911.7      494.87 µg/L         0.819      494.87 ppb          0.819   0.17%
   QC value within limits for Sn 189.927  Recovery = 98.97%
Sr 421.552†           236902.8      492.47 µg/L         4.215      492.47 ppb          4.215   0.86%
   QC value within limits for Sr 421.552  Recovery = 98.49%
Ti 334.940†           526749.4      491.49 µg/L         0.416      491.49 ppb          0.416   0.08%
   QC value within limits for Ti 334.940  Recovery = 98.30%
Tl 190.801†             4016.0      500.82 µg/L         0.981      500.82 ppb          0.981   0.20%
   QC value within limits for Tl 190.801  Recovery = 100.16%
U 409.014†              7625.0      475.61 µg/L        10.374      475.61 ppb         10.374   2.18%
   QC value within limits for U 409.014  Recovery = 95.12%
V 292.402†             99836.8      493.54 µg/L         0.847      493.54 ppb          0.847   0.17%
   QC value within limits for V 292.402  Recovery = 98.71%
Zn 213.857†            87822.9      489.47 µg/L         0.946      489.47 ppb          0.946   0.19%
   QC value within limits for Zn 213.857  Recovery = 97.89%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:29:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145475.6	145475.6	99.7	%			19:30:11
1	Al 396.153Radial†	-75.1	-12.2	-2.2232	µg/L	-2.2232	ppb	19:30:31
1	Ca 317.933Radial†	587.7	29.0	1.6154	µg/L	1.6154	ppb	19:30:31
1	Fe 238.204 Radial†	164.7	17.2	1.0571	µg/L	1.0571	ppb	19:30:31
1	K 766.490 Radial†	1612.2	72.5	26.524	µg/L	26.524	ppb	19:30:11
1	Mg 279.077 IEC†	187.3	-2.8	-1.0689	µg/L	-1.0689	ppb	19:30:31
1	Na 589.592 Radial†	1489.8	203.6	27.794	µg/L	27.794	ppb	19:30:11
1	Sr 421.552†	-307.3	-173.0	-0.3597	µg/L	-0.3597	ppb	19:30:11
1	Sc 361.383	1698492.9	1698492.9	98.852	%			19:31:33
1	Y 371.029	1016683.6	1016683.6	99.025	%			19:31:33
1	Ag 328.068†	3801.1	-246.1	-0.8975	µg/L	-0.8975	ppb	19:31:35
1	As 188.979†	-17.7	2.5	0.7531	µg/L	0.7531	ppb	19:31:55
1	B 249.677†	3427.3	-38.8	-0.5719	µg/L	-0.5719	ppb	19:31:35
1	Ba 233.527†	-135.5	-1.2	-0.0047	µg/L	-0.0047	ppb	19:31:55
1	Be 313.107†	-787.7	267.8	0.0745	µg/L	0.0745	ppb	19:31:35
1	Cd 226.502†	-126.1	-9.3	-0.0586	µg/L	-0.0586	ppb	19:31:55
1	Co 228.616†	-187.3	0.8	0.0098	µg/L	0.0098	ppb	19:31:55
1	Cr 267.716†	185.7	9.3	0.0694	µg/L	0.0694	ppb	19:31:55
1	Cu 324.752†	2920.3	-18.0	-0.0655	µg/L	-0.0655	ppb	19:31:35
1	Mn 257.610†	272.9	38.8	0.0481	µg/L	0.0481	ppb	19:31:55
1	Mo 202.031†	-42.5	-22.9	-0.6735	µg/L	-0.6735	ppb	19:31:55
1	Ni 231.604†	-89.8	-14.3	-0.1646	µg/L	-0.1646	ppb	19:31:55
1	P 214.914†	-7.3	10.6	2.2741	µg/L	2.2741	ppb	19:31:55
1	Pb 220.353†	105.5	20.3	1.1296	µg/L	1.1296	ppb	19:31:55
1	S 181.975 Axial†	107.5	3.7	2.7631	µg/L	2.7631	ppb	19:31:55
1	Sb 206.836†	82.4	2.5	0.2868	µg/L	0.2868	ppb	19:31:55
1	Se 196.026†	15.9	0.8	0.284	µg/L	0.284	ppb	19:31:55
1	SiO2†	1750.8	-4.2	-0.4021	µg/L	-0.4021	ppb	19:31:55
1	Si 251.611†	831.1	4.2	0.0667	µg/L	0.0667	ppb	19:31:35
1	Sn 189.927†	9.7	11.0	0.6833	µg/L	0.6833	ppb	19:31:55
1	Ti 334.940†	1069.9	129.8	0.1193	µg/L	0.1193	ppb	19:31:35
1	Tl 190.801†	-107.7	7.8	0.9584	µg/L	0.9584	ppb	19:31:55
1	U 409.014†	-179.0	88.9	5.2323	µg/L	5.2323	ppb	19:31:35
1	V 292.402†	528.0	130.3	0.6323	µg/L	0.6323	ppb	19:31:35
1	Zn 213.857†	590.7	33.1	0.1869	µg/L	0.1869	ppb	19:31:55
2	Sc RADIAL	144319.0	144319.0	98.9	%			19:30:33
2	Al 396.153Radial†	-78.7	-16.4	-3.0556	µg/L	-3.0556	ppb	19:30:53
2	Ca 317.933Radial†	611.2	57.5	3.2020	µg/L	3.2020	ppb	19:30:53
2	Fe 238.204 Radial†	171.3	25.1	1.5453	µg/L	1.5453	ppb	19:30:53
2	K 766.490 Radial†	1571.9	44.7	16.347	µg/L	16.347	ppb	19:30:33
2	Mg 279.077 IEC†	180.9	-7.8	-2.8873	µg/L	-2.8873	ppb	19:30:53
2	Na 589.592 Radial†	1390.8	115.6	15.771	µg/L	15.771	ppb	19:30:33
2	Sr 421.552†	-219.7	-86.8	-0.1805	µg/L	-0.1805	ppb	19:30:33
2	Sc 361.383	1734133.7	1734133.7	100.93	%			19:31:58
2	Y 371.029	1037702.6	1037702.6	101.07	%			19:31:58
2	Ag 328.068†	3823.7	-302.8	-1.1204	µg/L	-1.1204	ppb	19:32:00
2	As 188.979†	-14.9	5.6	1.6918	µg/L	1.6918	ppb	19:32:20
2	B 249.677†	3536.1	-2.3	-0.0340	µg/L	-0.0340	ppb	19:32:00
2	Ba 233.527†	-136.5	0.6	0.0024	µg/L	0.0024	ppb	19:32:20
2	Be 313.107†	-795.6	276.4	0.0756	µg/L	0.0756	ppb	19:32:00
2	Cd 226.502†	-86.6	32.4	0.2024	µg/L	0.2024	ppb	19:32:20
2	Co 228.616†	-173.2	18.7	0.2305	µg/L	0.2305	ppb	19:32:20
2	Cr 267.716†	178.6	-1.6	-0.0131	µg/L	-0.0131	ppb	19:32:20
2	Cu 324.752†	2720.4	-276.8	-1.0746	µg/L	-1.0746	ppb	19:32:00
2	Mn 257.610†	233.8	-5.6	-0.0068	µg/L	-0.0068	ppb	19:32:20
2	Mo 202.031†	-11.0	9.2	0.2711	µg/L	0.2711	ppb	19:32:20
2	Ni 231.604†	-67.5	9.6	0.1106	µg/L	0.1106	ppb	19:32:20
2	P 214.914†	-23.6	-5.5	-1.1584	µg/L	-1.1584	ppb	19:32:20
2	Pb 220.353†	95.4	8.1	0.4532	µg/L	0.4532	ppb	19:32:20

2	S 181.975 Axial†	102.0	-4.0	-2.9595 µg/L	-2.9595 ppb	19:32:20
2	Sb 206.836†	80.5	-1.1	-0.1231 µg/L	-0.1231 ppb	19:32:20
2	Se 196.026†	11.1	-4.2	-1.53 µg/L	-1.53 ppb	19:32:20
2	SiO2†	1780.0	-11.7	-1.1573 µg/L	-1.1573 ppb	19:32:20
2	Si 251.611†	833.5	-10.8	-0.1648 µg/L	-0.1648 ppb	19:32:00
2	Sn 189.927†	4.9	6.0	0.3748 µg/L	0.3748 ppb	19:32:20
2	Ti 334.940†	959.8	-1.5	-0.0015 µg/L	-0.0015 ppb	19:32:00
2	Tl 190.801†	-121.4	-3.6	-0.4439 µg/L	-0.4439 ppb	19:32:20
2	U 409.014†	-253.2	19.1	1.1109 µg/L	1.1109 ppb	19:32:00
2	V 292.402†	396.6	-10.8	-0.0495 µg/L	-0.0495 ppb	19:32:00
2	Zn 213.857†	608.7	38.7	0.2171 µg/L	0.2171 ppb	19:32:20
3	Sc RADIAL	143412.5	143412.5	98.3 %		19:30:55
3	Al 396.153Radial†	-61.2	0.9	0.1676 µg/L	0.1676 ppb	19:31:15
3	Ca 317.933Radial†	592.5	42.3	2.3561 µg/L	2.3561 ppb	19:31:15
3	Fe 238.204 Radial†	168.4	23.2	1.4324 µg/L	1.4324 ppb	19:31:15
3	K 766.490 Radial†	1616.9	100.5	36.805 µg/L	36.805 ppb	19:30:55
3	Mg 279.077 IEC†	171.0	-16.7	-6.2040 µg/L	-6.2040 ppb	19:31:15
3	Na 589.592 Radial†	1303.8	35.9	4.8761 µg/L	4.8761 ppb	19:30:55
3	Sr 421.552†	-236.1	-105.0	-0.2183 µg/L	-0.2183 ppb	19:30:55
3	Sc 361.383	1715805.0	1715805.0	99.860 %		19:32:22
3	Y 371.029	1026242.1	1026242.1	99.956 %		19:32:22
3	Ag 328.068†	4010.0	-75.8	-0.2851 µg/L	-0.2851 ppb	19:32:24
3	As 188.979†	-13.5	6.8	2.0688 µg/L	2.0688 ppb	19:32:44
3	B 249.677†	3513.5	12.5	0.1850 µg/L	0.1850 ppb	19:32:24
3	Ba 233.527†	-128.9	6.8	0.0274 µg/L	0.0274 ppb	19:32:44
3	Be 313.107†	-697.9	365.9	0.0986 µg/L	0.0986 ppb	19:32:24
3	Cd 226.502†	-106.1	12.0	0.0747 µg/L	0.0747 ppb	19:32:44
3	Co 228.616†	-189.4	0.6	0.0078 µg/L	0.0078 ppb	19:32:44
3	Cr 267.716†	196.4	18.1	0.1446 µg/L	0.1446 ppb	19:32:44
3	Cu 324.752†	2902.2	-65.9	-0.2591 µg/L	-0.2591 ppb	19:32:24
3	Mn 257.610†	273.8	36.9	0.0459 µg/L	0.0459 ppb	19:32:44
3	Mo 202.031†	-16.2	3.9	0.1137 µg/L	0.1137 ppb	19:32:44
3	Ni 231.604†	-88.7	-12.3	-0.1412 µg/L	-0.1412 ppb	19:32:44
3	P 214.914†	-24.0	-6.1	-1.2988 µg/L	-1.2988 ppb	19:32:44
3	Pb 220.353†	103.9	17.7	0.9897 µg/L	0.9897 ppb	19:32:44
3	S 181.975 Axial†	107.4	2.5	1.8491 µg/L	1.8491 ppb	19:32:44
3	Sb 206.836†	83.4	2.7	0.3244 µg/L	0.3244 ppb	19:32:44
3	Se 196.026†	19.7	4.5	1.61 µg/L	1.61 ppb	19:32:44
3	SiO2†	1808.2	35.4	3.4538 µg/L	3.4538 ppb	19:32:44
3	Si 251.611†	977.1	141.9	2.0894 µg/L	2.0894 ppb	19:32:24
3	Sn 189.927†	2.2	3.3	0.2061 µg/L	0.2061 ppb	19:32:44
3	Ti 334.940†	999.8	48.7	0.0474 µg/L	0.0474 ppb	19:32:24
3	Tl 190.801†	-111.5	5.0	0.6198 µg/L	0.6198 ppb	19:32:44
3	U 409.014†	-328.9	-59.4	-3.4761 µg/L	-3.4761 ppb	19:32:24
3	V 292.402†	400.2	-3.0	-0.0153 µg/L	-0.0153 ppb	19:32:24
3	Zn 213.857†	599.5	35.9	0.2028 µg/L	0.2028 ppb	19:32:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716143.9	99.879	%	1.0373				1.04%
Sc RADIAL	144402.4	99.0	%	0.71				0.72%
Y 371.029	1026876.1	100.02	%	1.025				1.02%
Ag 328.068†	-208.2	-0.7677	µg/L	0.43252	-0.7677	ppb	0.43252	56.34%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.2	-1.7037	µg/L	1.67317	-1.7037	ppb	1.67317	98.21%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.0	1.5046	µg/L	0.67750	1.5046	ppb	0.67750	45.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-9.5	-0.1403	µg/L	0.38951	-0.1403	ppb	0.38951	277.57%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0084	µg/L	0.01681	0.0084	ppb	0.01681	200.54%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	303.4	0.0829	µg/L	0.01359	0.0829	ppb	0.01359	16.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	42.9	2.3912	µg/L	0.79388	2.3912	ppb	0.79388	33.20%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.7	0.0728	µg/L	0.13050	0.0728	ppb	0.13050	179.15%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.7	0.0827	µg/L	0.12800	0.0827	ppb	0.12800	154.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.6      0.0669 µg/L       0.07889      0.0669 ppb        0.07889 117.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -120.3     -0.4664 µg/L       0.53553     -0.4664 ppb        0.53553 114.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         21.8      1.3449 µg/L       0.25554      1.3449 ppb        0.25554  19.00%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          72.5     26.559 µg/L       10.2293     26.559 ppb        10.2293  38.52%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -9.1     -3.3867 µg/L       2.60377     -3.3867 ppb        2.60377  76.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                23.4      0.0291 µg/L       0.03107      0.0291 ppb        0.03107 106.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.3     -0.0962 µg/L       0.50606     -0.0962 ppb        0.50606 525.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        118.4     16.147 µg/L       11.4636     16.147 ppb        11.4636  70.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.7     -0.0651 µg/L       0.15260     -0.0651 ppb        0.15260 234.56%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.3     -0.0611 µg/L       2.02349     -0.0611 ppb        2.02349 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.4      0.8575 µg/L       0.35710      0.8575 ppb        0.35710  41.64%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.7      0.5509 µg/L       3.07426      0.5509 ppb        3.07426 558.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.4      0.1627 µg/L       0.24819      0.1627 ppb        0.24819 152.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.3       0.122 µg/L        1.5761       0.122 ppb         1.5761 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       6.5      0.6315 µg/L       2.47323      0.6315 ppb        2.47323 391.67%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                45.1      0.6638 µg/L       1.24006      0.6638 ppb        1.24006 186.82%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.8      0.4214 µg/L       0.24200      0.4214 ppb        0.24200  57.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -121.6     -0.2528 µg/L       0.09445     -0.2528 ppb        0.09445  37.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                59.0      0.0550 µg/L       0.06076      0.0550 ppb        0.06076 110.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.1      0.3781 µg/L       0.73174      0.3781 ppb        0.73174 193.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 16.2      0.9557 µg/L       4.35630      0.9557 ppb        4.35630 455.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 38.8      0.1892 µg/L       0.38415      0.1892 ppb        0.38415 203.07%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                35.9      0.2023 µg/L       0.01507      0.2023 ppb        0.01507   7.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 19:48:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142074.6	142074.6	97.4	%			19:48:41
1	Al 396.153Radial†	26307.3	27084.3	4998.9	µg/L	4998.9	ppb	19:48:41
1	Ca 317.933Radial†	86883.3	88680.2	4939.8	µg/L	4939.8	ppb	19:48:41
1	Fe 238.204 Radial†	77361.0	79312.1	4888.3	µg/L	4888.3	ppb	19:48:41
1	K 766.490 Radial†	14600.0	13451.4	4920.7	µg/L	4920.7	ppb	19:48:41
1	Mg 279.077 IEC†	13319.4	13490.1	5033.8	µg/L	5033.8	ppb	19:48:41
1	Na 589.592 Radial†	70751.2	71380.2	9747.0	µg/L	9747.0	ppb	19:48:41
1	Sr 421.552†	226373.4	232651.3	483.63	µg/L	483.63	ppb	19:48:39
1	Sc 361.383	1707292.7	1707292.7	99.364	%			19:48:54
1	Y 371.029	1010159.7	1010159.7	98.390	%			19:48:54
1	Ag 328.068†	133110.0	129870.3	486.98	µg/L	486.98	ppb	19:48:54
1	As 188.979†	1576.3	1606.7	492.97	µg/L	492.97	ppb	19:49:14
1	B 249.677†	35756.1	32479.0	477.32	µg/L	477.32	ppb	19:48:54
1	Ba 233.527†	119643.5	120545.0	486.15	µg/L	486.15	ppb	19:48:54
1	Be 313.107†	1782114.7	1794583.1	488.77	µg/L	488.77	ppb	19:48:54
1	Cd 226.502†	76871.1	77481.2	483.67	µg/L	483.67	ppb	19:48:54
1	Co 228.616†	39104.8	39545.3	488.18	µg/L	488.18	ppb	19:48:54
1	Cr 267.716†	61488.3	61703.2	483.11	µg/L	483.11	ppb	19:48:54
1	Cu 324.752†	126677.7	124516.1	485.41	µg/L	485.41	ppb	19:48:54
1	Mn 257.610†	392328.2	394601.4	488.03	µg/L	488.03	ppb	19:48:54
1	Mo 202.031†	16345.9	16470.5	484.49	µg/L	484.49	ppb	19:49:14
1	Ni 231.604†	41875.3	42219.8	486.13	µg/L	486.13	ppb	19:48:54
1	P 214.914†	11193.1	11282.7	2404.8	µg/L	2404.8	ppb	19:49:14
1	Pb 220.353†	8730.4	8699.9	487.18	µg/L	487.18	ppb	19:49:14
1	S 181.975 Axial†	1383.4	1287.2	959.96	µg/L	959.96	ppb	19:49:14
1	Sb 206.836†	4107.0	4052.4	482.84	µg/L	482.84	ppb	19:49:14
1	Se 196.026†	1342.1	1335.4	485	µg/L	485	ppb	19:49:14
1	SiO2†	55335.6	53914.4	5248.9	µg/L	5248.9	ppb	19:48:54
1	Si 251.611†	167076.9	167309.4	2457.0	µg/L	2457.0	ppb	19:48:54
1	Sn 189.927†	7693.0	7743.4	484.36	µg/L	484.36	ppb	19:49:14
1	Ti 334.940†	519233.7	521603.7	486.68	µg/L	486.68	ppb	19:48:54
1	Tl 190.801†	3814.7	3955.8	493.34	µg/L	493.34	ppb	19:49:14
1	U 409.014†	7610.9	7929.5	493.08	µg/L	493.08	ppb	19:48:54
1	V 292.402†	98525.0	98751.7	488.17	µg/L	488.17	ppb	19:48:54
1	Zn 213.857†	86407.4	86395.9	481.51	µg/L	481.51	ppb	19:48:54
2	Sc RADIAL	141314.4	141314.4	96.8	%			19:48:45
2	Al 396.153Radial†	26070.1	26984.8	4980.3	µg/L	4980.3	ppb	19:48:45
2	Ca 317.933Radial†	86198.1	88452.8	4927.2	µg/L	4927.2	ppb	19:48:45
2	Fe 238.204 Radial†	76905.6	79269.3	4885.7	µg/L	4885.7	ppb	19:48:45
2	K 766.490 Radial†	14469.9	13397.8	4901.1	µg/L	4901.1	ppb	19:48:45
2	Mg 279.077 IEC†	13056.5	13292.2	4960.2	µg/L	4960.2	ppb	19:48:45
2	Na 589.592 Radial†	70248.5	71252.1	9729.5	µg/L	9729.5	ppb	19:48:45
2	Sr 421.552†	230623.8	238291.3	495.36	µg/L	495.36	ppb	19:48:43
2	Sc 361.383	1705432.9	1705432.9	99.256	%			19:49:17
2	Y 371.029	1009468.8	1009468.8	98.323	%			19:49:17
2	Ag 328.068†	133787.0	130698.5	490.05	µg/L	490.05	ppb	19:49:17
2	As 188.979†	1570.4	1602.5	491.73	µg/L	491.73	ppb	19:49:37
2	B 249.677†	35970.0	32733.8	481.06	µg/L	481.06	ppb	19:49:17
2	Ba 233.527†	120220.9	121258.0	489.03	µg/L	489.03	ppb	19:49:17
2	Be 313.107†	1787251.2	1801714.0	490.71	µg/L	490.71	ppb	19:49:17
2	Cd 226.502†	77339.1	78037.0	487.14	µg/L	487.14	ppb	19:49:17
2	Co 228.616†	39270.6	39755.3	490.78	µg/L	490.78	ppb	19:49:17
2	Cr 267.716†	61757.1	62041.5	485.78	µg/L	485.78	ppb	19:49:17
2	Cu 324.752†	126820.0	124798.5	486.50	µg/L	486.50	ppb	19:49:17
2	Mn 257.610†	394508.1	397228.3	491.28	µg/L	491.28	ppb	19:49:17
2	Mo 202.031†	16426.8	16570.0	487.42	µg/L	487.42	ppb	19:49:37
2	Ni 231.604†	41982.9	42374.1	487.91	µg/L	487.91	ppb	19:49:17
2	P 214.914†	11261.9	11364.3	2422.2	µg/L	2422.2	ppb	19:49:37
2	Pb 220.353†	8823.1	8802.9	492.95	µg/L	492.95	ppb	19:49:37

2	S 181.975 Axial†	1396.0	1301.4	970.49 µg/L	970.49 ppb	19:49:37
2	Sb 206.836†	4148.9	4099.2	488.41 µg/L	488.41 ppb	19:49:37
2	Se 196.026†	1355.8	1350.7	490 µg/L	490 ppb	19:49:37
2	SiO2†	55442.9	54083.1	5265.3 µg/L	5265.3 ppb	19:49:17
2	Si 251.611†	167481.5	167900.5	2465.6 µg/L	2465.6 ppb	19:49:17
2	Sn 189.927†.	7735.0	7794.1	487.53 µg/L	487.53 ppb	19:49:37
2	Ti 334.940†	520412.2	523360.9	488.34 µg/L	488.34 ppb	19:49:17
2	Tl 190.801†	3830.1	3975.4	495.78 µg/L	495.78 ppb	19:49:37
2	U 409.014†	7376.5	7701.7	479.90 µg/L	479.90 ppb	19:49:17
2	V 292.402†	98853.0	99190.2	490.34 µg/L	490.34 ppb	19:49:17
2	Zn 213.857†	86774.5	86860.6	484.11 µg/L	484.11 ppb	19:49:17
3	Sc RADIAL	143116.0	143116.0	98.1 %		19:48:49
3	Al 396.153Radial†	26236.6	26815.6	4949.0 µg/L	4949.0 ppb	19:48:49
3	Ca 317.933Radial†	87307.0	88462.9	4927.7 µg/L	4927.7 ppb	19:48:49
3	Fe 238.204 Radial†	77796.7	79178.1	4880.1 µg/L	4880.1 ppb	19:48:49
3	K 766.490 Radial†	14380.3	13118.2	4798.8 µg/L	4798.8 ppb	19:48:49
3	Mg 279.077 IEC†	13346.6	13418.3	5007.1 µg/L	5007.1 ppb	19:48:49
3	Na 589.592 Radial†	71057.8	71164.1	9717.6 µg/L	9717.6 ppb	19:48:49
3	Sr 421.552†	230412.2	235077.6	488.67 µg/L	488.67 ppb	19:48:47
3	Sc 361.383	1721387.2	1721387.2	100.18 %		19:49:40
3	Y 371.029	1018897.4	1018897.4	99.241 %		19:49:40
3	Ag 328.068†	134640.8	130301.5	488.57 µg/L	488.57 ppb	19:49:40
3	As 188.979†	1609.9	1627.2	499.20 µg/L	499.20 ppb	19:50:00
3	B 249.677†	36341.2	32768.4	481.57 µg/L	481.57 ppb	19:49:40
3	Ba 233.527†	121012.1	120925.1	487.69 µg/L	487.69 ppb	19:49:40
3	Be 313.107†	1805276.3	1803016.9	491.06 µg/L	491.06 ppb	19:49:40
3	Cd 226.502†	78051.9	78026.4	487.08 µg/L	487.08 ppb	19:49:40
3	Co 228.616†	39637.9	39755.2	490.78 µg/L	490.78 ppb	19:49:40
3	Cr 267.716†	62404.8	62111.3	486.33 µg/L	486.33 ppb	19:49:40
3	Cu 324.752†	128037.0	124829.0	486.61 µg/L	486.61 ppb	19:49:40
3	Mn 257.610†	397828.4	396858.6	490.82 µg/L	490.82 ppb	19:49:40
3	Mo 202.031†	16520.4	16510.1	485.66 µg/L	485.66 ppb	19:50:00
3	Ni 231.604†	42275.1	42273.8	486.75 µg/L	486.75 ppb	19:49:40
3	P 214.914†	11329.3	11326.4	2414.1 µg/L	2414.1 ppb	19:50:00
3	Pb 220.353†	8851.7	8749.0	489.94 µg/L	489.94 ppb	19:50:00
3	S 181.975 Axial†	1397.8	1290.2	962.16 µg/L	962.16 ppb	19:50:00
3	Sb 206.836†	4164.3	4075.8	485.60 µg/L	485.60 ppb	19:50:00
3	Se 196.026†	1362.5	1344.7	488 µg/L	488 ppb	19:50:00
3	SiO2†	55884.7	54006.4	5257.8 µg/L	5257.8 ppb	19:49:40
3	Si 251.611†	169043.3	167895.4	2465.6 µg/L	2465.6 ppb	19:49:40
3	Sn 189.927†	7803.9	7790.6	487.31 µg/L	487.31 ppb	19:50:00
3	Ti 334.940†	525263.4	523343.7	488.32 µg/L	488.32 ppb	19:49:40
3	Tl 190.801†	3853.4	3963.0	494.25 µg/L	494.25 ppb	19:50:00
3	U 409.014†	7327.8	7584.2	473.02 µg/L	473.02 ppb	19:49:40
3	V 292.402†	99734.3	99146.8	490.11 µg/L	490.11 ppb	19:49:40
3	Zn 213.857†	87677.5	86951.6	484.63 µg/L	484.63 ppb	19:49:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1711370.9	99.602	%	0.5077				0.51%
Sc RADIAL	142168.3	97.4	%	0.62				0.64%
Y 371.029	1012841.9	98.651	%	0.5119				0.52%
Ag 328.068†	130290.1	488.54	µg/L	1.538	488.54	ppb	1.538	0.31%
QC value within limits for Ag 328.068 Recovery = 97.71%								
Al 396.153Radial†	26961.6	4976.1	µg/L	25.20	4976.1	ppb	25.20	0.51%
QC value within limits for Al 396.153Radial Recovery = 99.52%								
As 188.979†	1612.2	494.63	µg/L	4.004	494.63	ppb	4.004	0.81%
QC value within limits for As 188.979 Recovery = 98.93%								
B 249.677†	32660.4	479.98	µg/L	2.326	479.98	ppb	2.326	0.48%
QC value within limits for B 249.677 Recovery = 96.00%								
Ba 233.527†	120909.3	487.62	µg/L	1.439	487.62	ppb	1.439	0.30%
QC value within limits for Ba 233.527 Recovery = 97.52%								
Be 313.107†	1799771.3	490.18	µg/L	1.233	490.18	ppb	1.233	0.25%
QC value within limits for Be 313.107 Recovery = 98.04%								
Ca 317.933Radial†	88532.0	4931.6	µg/L	7.16	4931.6	ppb	7.16	0.15%
QC value within limits for Ca 317.933Radial Recovery = 98.63%								
Cd 226.502†	77848.2	485.96	µg/L	1.986	485.96	ppb	1.986	0.41%
QC value within limits for Cd 226.502 Recovery = 97.19%								
Co 228.616†	39685.3	489.91	µg/L	1.497	489.91	ppb	1.497	0.31%

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   QC value within limits for Co 228.616  Recovery = 97.98%
Cr 267.716†            61952.0      485.07 µg/L         1.718      485.07 ppb          1.718   0.35%
   QC value within limits for Cr 267.716  Recovery = 97.01%
Cu 324.752†           124714.6      486.17 µg/L         0.662      486.17 ppb          0.662   0.14%
   QC value within limits for Cu 324.752  Recovery = 97.23%
Fe 238.204 Radial†     79253.2      4884.7 µg/L          4.22      4884.7 ppb           4.22   0.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.69%
K 766.490 Radial†      13322.5      4873.5 µg/L         65.48      4873.5 ppb          65.48   1.34%
   QC value within limits for K 766.490 Radial  Recovery = 97.47%
Mg 279.077 IEC†        13400.2      5000.4 µg/L         37.28      5000.4 ppb          37.28   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.01%
Mn 257.610†           396229.4      490.04 µg/L         1.761      490.04 ppb          1.761   0.36%
   QC value within limits for Mn 257.610  Recovery = 98.01%
Mo 202.031†            16516.9      485.86 µg/L         1.472      485.86 ppb          1.472   0.30%
   QC value within limits for Mo 202.031  Recovery = 97.17%
Na 589.592 Radial†     71265.4      9731.4 µg/L         14.79      9731.4 ppb          14.79   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 97.31%
Ni 231.604†            42289.2      486.93 µg/L         0.902      486.93 ppb          0.902   0.19%
   QC value within limits for Ni 231.604  Recovery = 97.39%
P 214.914†             11324.5      2413.7 µg/L          8.72      2413.7 ppb           8.72   0.36%
   QC value within limits for P 214.914  Recovery = 96.55%
Pb 220.353†             8750.6      490.02 µg/L         2.885      490.02 ppb          2.885   0.59%
   QC value within limits for Pb 220.353  Recovery = 98.00%
S 181.975 Axial†        1292.9      964.20 µg/L         5.551      964.20 ppb          5.551   0.58%
   QC value within limits for S 181.975 Axial  Recovery = 96.42%
Sb 206.836†             4075.8      485.62 µg/L         2.784      485.62 ppb          2.784   0.57%
   QC value within limits for Sb 206.836  Recovery = 97.12%
Se 196.026†             1343.6         488 µg/L           2.8         488 ppb            2.8   0.57%
   QC value within limits for Se 196.026  Recovery = 97.58%
SiO2†                  54001.3      5257.4 µg/L          8.20      5257.4 ppb           8.20   0.16%
   QC value within limits for SiO2  Recovery = 98.31%
Si 251.611†           167701.8      2462.7 µg/L          4.98      2462.7 ppb           4.98   0.20%
   QC value within limits for Si 251.611  Recovery = 98.51%
Sn 189.927†             7776.0      486.40 µg/L         1.771      486.40 ppb          1.771   0.36%
   QC value within limits for Sn 189.927  Recovery = 97.28%
Sr 421.552†           235340.1      489.22 µg/L         5.882      489.22 ppb          5.882   1.20%
   QC value within limits for Sr 421.552  Recovery = 97.84%
Ti 334.940†           522769.4      487.78 µg/L         0.949      487.78 ppb          0.949   0.19%
   QC value within limits for Ti 334.940  Recovery = 97.56%
Tl 190.801†             3964.8      494.46 µg/L         1.233      494.46 ppb          1.233   0.25%
   QC value within limits for Tl 190.801  Recovery = 98.89%
U 409.014†              7738.5      482.00 µg/L        10.196      482.00 ppb         10.196   2.12%
   QC value within limits for U 409.014  Recovery = 96.40%
V 292.402†             99029.6      489.54 µg/L         1.192      489.54 ppb          1.192   0.24%
   QC value within limits for V 292.402  Recovery = 97.91%
Zn 213.857†            86736.0      483.41 µg/L         1.671      483.41 ppb          1.671   0.35%
   QC value within limits for Zn 213.857  Recovery = 96.68%
All analyte(s) passed QC.
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Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:50:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143600.6	143600.6	98.4	%			19:50:37
1	Al 396.153Radial†	-51.1	11.3	2.1044	µg/L	2.1044	ppb	19:50:57
1	Ca 317.933Radial†	586.6	35.5	1.9797	µg/L	1.9797	ppb	19:50:57
1	Fe 238.204 Radial†	144.0	-1.8	-0.1088	µg/L	-0.1088	ppb	19:50:57
1	K 766.490 Radial†	1486.8	-33.9	-12.412	µg/L	-12.412	ppb	19:50:37
1	Mg 279.077 IEC†	173.5	-14.4	-5.3870	µg/L	-5.3870	ppb	19:50:57
1	Na 589.592 Radial†	1458.3	191.2	26.130	µg/L	26.130	ppb	19:50:37
1	Sr 421.552†	-289.3	-158.8	-0.3301	µg/L	-0.3301	ppb	19:50:37
1	Sc 361.383	1727301.6	1727301.6	100.53	%			19:51:45
1	Y 371.029	1033229.5	1033229.5	100.64	%			19:51:45
1	Ag 328.068†	3918.0	-194.0	-0.7232	µg/L	-0.7232	ppb	19:51:47
1	As 188.979†	-11.4	9.0	2.7325	µg/L	2.7325	ppb	19:52:07
1	B 249.677†	3507.2	-17.2	-0.2546	µg/L	-0.2546	ppb	19:52:07
1	Ba 233.527†	-159.6	-22.9	-0.0923	µg/L	-0.0923	ppb	19:52:07
1	Be 313.107†	-960.5	109.3	0.0290	µg/L	0.0290	ppb	19:51:47
1	Cd 226.502†	-87.8	30.8	0.1926	µg/L	0.1926	ppb	19:52:07
1	Co 228.616†	-159.6	31.5	0.3887	µg/L	0.3887	ppb	19:52:07
1	Cr 267.716†	221.5	41.8	0.3292	µg/L	0.3292	ppb	19:52:07
1	Cu 324.752†	2909.7	-77.8	-0.3046	µg/L	-0.3046	ppb	19:51:47
1	Mn 257.610†	275.7	37.0	0.0460	µg/L	0.0460	ppb	19:52:07
1	Mo 202.031†	-30.5	-10.3	-0.3033	µg/L	-0.3033	ppb	19:52:07
1	Ni 231.604†	-82.7	-5.8	-0.0664	µg/L	-0.0664	ppb	19:52:07
1	P 214.914†	-17.8	0.3	0.0611	µg/L	0.0611	ppb	19:52:07
1	Pb 220.353†	92.7	5.8	0.3254	µg/L	0.3254	ppb	19:52:07
1	S 181.975 Axial†	92.1	-13.5	-10.016	µg/L	-10.016	ppb	19:52:07
1	Sb 206.836†	70.2	-11.0	-1.3187	µg/L	-1.3187	ppb	19:52:07
1	Se 196.026†	23.8	8.4	3.03	µg/L	3.03	ppb	19:52:07
1	SiO2†	1746.0	-38.6	-3.7620	µg/L	-3.7620	ppb	19:52:07
1	Si 251.611†	804.0	-36.7	-0.5381	µg/L	-0.5381	ppb	19:51:47
1	Sn 189.927†	-0.2	0.9	0.0546	µg/L	0.0546	ppb	19:52:07
1	Ti 334.940†	954.9	-2.7	-0.0011	µg/L	-0.0011	ppb	19:51:47
1	Tl 190.801†	-118.5	-1.2	-0.1445	µg/L	-0.1445	ppb	19:52:07
1	U 409.014†	-315.9	-44.3	-2.6009	µg/L	-2.6009	ppb	19:51:47
1	V 292.402†	377.6	-28.1	-0.1408	µg/L	-0.1408	ppb	19:51:47
1	Zn 213.857†	598.1	30.5	0.1719	µg/L	0.1719	ppb	19:52:07
2	Sc RADIAL	143131.7	143131.7	98.1	%			19:50:59
2	Al 396.153Radial†	-32.2	30.3	5.6296	µg/L	5.6296	ppb	19:51:19
2	Ca 317.933Radial†	576.7	27.4	1.5269	µg/L	1.5269	ppb	19:51:19
2	Fe 238.204 Radial†	158.7	13.7	0.8423	µg/L	0.8423	ppb	19:51:19
2	K 766.490 Radial†	1675.4	163.4	59.819	µg/L	59.819	ppb	19:50:59
2	Mg 279.077 IEC†	212.3	25.7	9.5785	µg/L	9.5785	ppb	19:51:19
2	Na 589.592 Radial†	1429.9	167.0	22.764	µg/L	22.764	ppb	19:50:59
2	Sr 421.552†	-273.0	-143.1	-0.2975	µg/L	-0.2975	ppb	19:50:59
2	Sc 361.383	1718494.8	1718494.8	100.02	%			19:52:09
2	Y 371.029	1028699.8	1028699.8	100.20	%			19:52:09
2	Ag 328.068†	4047.8	-44.2	-0.1507	µg/L	-0.1507	ppb	19:52:11
2	As 188.979†	-18.3	2.1	0.6206	µg/L	0.6206	ppb	19:52:32
2	B 249.677†	3519.8	13.3	0.1962	µg/L	0.1962	ppb	19:52:32
2	Ba 233.527†	-147.0	-11.2	-0.0449	µg/L	-0.0449	ppb	19:52:32
2	Be 313.107†	-767.5	297.4	0.0836	µg/L	0.0836	ppb	19:52:11
2	Cd 226.502†	-96.5	21.7	0.1357	µg/L	0.1357	ppb	19:52:32
2	Co 228.616†	-176.2	14.1	0.1739	µg/L	0.1739	ppb	19:52:32
2	Cr 267.716†	180.3	1.7	0.0063	µg/L	0.0063	ppb	19:52:32
2	Cu 324.752†	2889.0	-83.7	-0.3176	µg/L	-0.3176	ppb	19:52:11
2	Mn 257.610†	264.9	27.6	0.0338	µg/L	0.0338	ppb	19:52:32
2	Mo 202.031†	-22.6	-2.5	-0.0728	µg/L	-0.0728	ppb	19:52:32
2	Ni 231.604†	-57.5	19.1	0.2195	µg/L	0.2195	ppb	19:52:32
2	P 214.914†	4.9	22.9	4.9039	µg/L	4.9039	ppb	19:52:32
2	Pb 220.353†	90.9	4.5	0.2430	µg/L	0.2430	ppb	19:52:32

2	S 181.975 Axial†	92.8	-12.3	-9.1413	µg/L	-9.1413 ppb	19:52:32
2	Sb 206.836†	91.0	10.1	1.2060	µg/L	1.2060 ppb	19:52:32
2	Se 196.026†	23.4	8.1	2.95	µg/L	2.95 ppb	19:52:32
2	SiO2†	1770.3	-5.4	-0.5347	µg/L	-0.5347 ppb	19:52:32
2	Si 251.611†	816.5	-20.2	-0.3025	µg/L	-0.3025 ppb	19:52:11
2	Sn 189.927†	13.1	14.3	0.8887	µg/L	0.8887 ppb	19:52:32
2	Ti 334.940†	824.8	-127.9	-0.1238	µg/L	-0.1238 ppb	19:52:11
2	Tl 190.801†	-110.8	5.9	0.7247	µg/L	0.7247 ppb	19:52:32
2	U 409.014†	-118.9	151.0	8.8426	µg/L	8.8426 ppb	19:52:11
2	V 292.402†	441.7	37.8	0.1896	µg/L	0.1896 ppb	19:52:11
2	Zn 213.857†	569.1	4.5	0.0243	µg/L	0.0243 ppb	19:52:32
3	Sc RADIAL	142404.0	142404.0	97.6	%		19:51:21
3	Al 396.153Radial†	-37.8	24.5	4.5543	µg/L	4.5543 ppb	19:51:41
3	Ca 317.933Radial†	603.4	57.8	3.2194	µg/L	3.2194 ppb	19:51:41
3	Fe 238.204 Radial†	154.3	10.0	0.6188	µg/L	0.6188 ppb	19:51:41
3	K 766.490 Radial†	1584.3	78.7	28.824	µg/L	28.824 ppb	19:51:21
3	Mg 279.077 IEC†	168.4	-18.1	-6.7588	µg/L	-6.7588 ppb	19:51:41
3	Na 589.592 Radial†	1217.4	-43.3	-5.9413	µg/L	-5.9413 ppb	19:51:21
3	Sr 421.552†	-213.0	-83.0	-0.1726	µg/L	-0.1726 ppb	19:51:21
3	Sc 361.383	1725113.7	1725113.7	100.40	%		19:52:34
3	Y 371.029	1032434.0	1032434.0	100.56	%		19:52:34
3	Ag 328.068†	4136.4	28.4	0.1103	µg/L	0.1103 ppb	19:52:36
3	As 188.979†	-21.2	-0.8	-0.2286	µg/L	-0.2286 ppb	19:52:56
3	B 249.677†	3487.8	-32.0	-0.4730	µg/L	-0.4730 ppb	19:52:56
3	Ba 233.527†	-148.1	-11.7	-0.0471	µg/L	-0.0471 ppb	19:52:56
3	Be 313.107†	-958.9	109.7	0.0307	µg/L	0.0307 ppb	19:52:36
3	Cd 226.502†	-100.1	18.5	0.1156	µg/L	0.1156 ppb	19:52:56
3	Co 228.616†	-181.7	9.3	0.1151	µg/L	0.1151 ppb	19:52:56
3	Cr 267.716†	179.3	-0.0	-0.0022	µg/L	-0.0022 ppb	19:52:56
3	Cu 324.752†	2944.1	-39.9	-0.1527	µg/L	-0.1527 ppb	19:52:36
3	Mn 257.610†	258.6	20.3	0.0254	µg/L	0.0254 ppb	19:52:56
3	Mo 202.031†	-33.3	-13.1	-0.3839	µg/L	-0.3839 ppb	19:52:56
3	Ni 231.604†	-89.6	-12.8	-0.1471	µg/L	-0.1471 ppb	19:52:56
3	P 214.914†	-5.5	12.5	2.6899	µg/L	2.6899 ppb	19:52:56
3	Pb 220.353†	86.1	-0.6	-0.0367	µg/L	-0.0367 ppb	19:52:56
3	S 181.975 Axial†	105.1	-0.4	-0.3195	µg/L	-0.3195 ppb	19:52:56
3	Sb 206.836†	78.4	-2.7	-0.3234	µg/L	-0.3234 ppb	19:52:56
3	Se 196.026†	32.5	17.1	6.18	µg/L	6.18 ppb	19:52:56
3	SiO2†	1714.4	-67.8	-6.6340	µg/L	-6.6340 ppb	19:52:56
3	Si 251.611†	948.1	107.7	1.5850	µg/L	1.5850 ppb	19:52:36
3	Sn 189.927†	18.5	19.5	1.2178	µg/L	1.2178 ppb	19:52:56
3	Ti 334.940†	1054.7	98.0	0.0910	µg/L	0.0910 ppb	19:52:36
3	Tl 190.801†	-105.2	11.9	1.4675	µg/L	1.4675 ppb	19:52:56
3	U 409.014†	-221.6	49.1	2.8801	µg/L	2.8801 ppb	19:52:36
3	V 292.402†	431.8	26.3	0.1262	µg/L	0.1262 ppb	19:52:36
3	Zn 213.857†	567.6	1.0	0.0065	µg/L	0.0065 ppb	19:52:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1723636.7	100.32	%	0.267				0.27%
Sc RADIAL	143045.4	98.0	%	0.41				0.42%
Y 371.029	1031454.4	100.46	%	0.236				0.23%
Ag 328.068†	-69.9	-0.2546	µg/L	0.42634	-0.2546	ppb	0.42634	167.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	22.0	4.0961	µg/L	1.80672	4.0961	ppb	1.80672	44.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.4	1.0415	µg/L	1.52480	1.0415	ppb	1.52480	146.41%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-12.0	-0.1771	µg/L	0.34126	-0.1771	ppb	0.34126	192.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-15.2	-0.0614	µg/L	0.02676	-0.0614	ppb	0.02676	43.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	172.1	0.0478	µg/L	0.03107	0.0478	ppb	0.03107	65.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	40.2	2.2420	µg/L	0.87622	2.2420	ppb	0.87622	39.08%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.7	0.1480	µg/L	0.03996	0.1480	ppb	0.03996	27.01%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.3	0.2259	µg/L	0.14405	0.2259	ppb	0.14405	63.76%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.5      0.1111 µg/L       0.18892      0.1111 ppb        0.18892 170.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -67.1     -0.2583 µg/L       0.09167     -0.2583 ppb        0.09167  35.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          7.3      0.4508 µg/L       0.49733      0.4508 ppb        0.49733 110.33%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          69.4      25.411 µg/L       36.2364      25.411 ppb        36.2364 142.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.3     -0.8557 µg/L       9.06232     -0.8557 ppb        9.06232 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                28.3      0.0350 µg/L       0.01036      0.0350 ppb        0.01036  29.56%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -8.6     -0.2533 µg/L       0.16143     -0.2533 ppb        0.16143  63.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        105.0      14.318 µg/L       17.6253      14.318 ppb        17.6253 123.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.2      0.0020 µg/L       0.19262      0.0020 ppb        0.19262 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 11.9      2.5516 µg/L       2.42435      2.5516 ppb        2.42435  95.01%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.2      0.1772 µg/L       0.18975      0.1772 ppb        0.18975 107.07%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -8.7     -6.4924 µg/L       5.36374     -6.4924 ppb        5.36374  82.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.2     -0.1454 µg/L       1.27176     -0.1454 ppb        1.27176 874.71%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                11.2        4.05 µg/L         1.843        4.05 ppb          1.843  45.47%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -37.2     -3.6436 µg/L       3.05138     -3.6436 ppb        3.05138  83.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                16.9      0.2481 µg/L       1.16372      0.2481 ppb        1.16372 469.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                11.6      0.7204 µg/L       0.59961      0.7204 ppb        0.59961  83.23%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -128.3     -0.2667 µg/L       0.08309     -0.2667 ppb        0.08309  31.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -10.9     -0.0113 µg/L       0.10776     -0.0113 ppb        0.10776 953.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.6      0.6826 µg/L       0.80682      0.6826 ppb        0.80682 118.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 51.9      3.0406 µg/L       5.72342      3.0406 ppb        5.72342 188.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 12.0      0.0584 µg/L       0.17533      0.0584 ppb        0.17533 300.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                12.0      0.0676 µg/L       0.09081      0.0676 ppb        0.09081 134.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 20:18:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143153.1	143153.1	98.1	%			20:19:22
1	Al 396.153Radial†	26168.1	26738.9	4934.8	µg/L	4934.8	ppb	20:19:22
1	Ca 317.933Radial†	87812.2	88954.8	4955.1	µg/L	4955.1	ppb	20:19:22
1	Fe 238.204 Radial†	78188.9	79557.4	4903.4	µg/L	4903.4	ppb	20:19:22
1	K 766.490 Radial†	14678.9	13418.9	4908.8	µg/L	4908.8	ppb	20:19:22
1	Mg 279.077 IEC†	13438.9	13508.9	5040.9	µg/L	5040.9	ppb	20:19:22
1	Na 589.592 Radial†	71303.4	71395.6	9749.1	µg/L	9749.1	ppb	20:19:22
1	Sr 421.552†	231815.5	236447.2	491.52	µg/L	491.52	ppb	20:19:20
1	Sc 361.383	1733210.9	1733210.9	100.87	%			20:19:49
1	Y 371.029	1024566.6	1024566.6	99.793	%			20:19:49
1	Ag 328.068†	135811.2	130544.9	489.48	µg/L	489.48	ppb	20:19:49
1	As 188.979†	1620.4	1626.8	499.06	µg/L	499.06	ppb	20:20:09
1	B 249.677†	36886.7	33061.7	485.90	µg/L	485.90	ppb	20:19:49
1	Ba 233.527†	122122.4	121201.8	488.80	µg/L	488.80	ppb	20:19:49
1	Be 313.107†	1820796.8	1806110.5	491.91	µg/L	491.91	ppb	20:19:49
1	Cd 226.502†	79174.4	78607.7	490.71	µg/L	490.71	ppb	20:19:49
1	Co 228.616†	39967.4	39811.9	491.48	µg/L	491.48	ppb	20:19:49
1	Cr 267.716†	62802.0	62080.2	486.08	µg/L	486.08	ppb	20:19:49
1	Cu 324.752†	129193.6	125103.8	487.69	µg/L	487.69	ppb	20:19:49
1	Mn 257.610†	400949.3	397243.5	491.30	µg/L	491.30	ppb	20:19:49
1	Mo 202.031†	16640.3	16516.4	485.85	µg/L	485.85	ppb	20:20:09
1	Ni 231.604†	42932.4	42637.5	490.94	µg/L	490.94	ppb	20:19:49
1	P 214.914†	11516.5	11434.8	2437.3	µg/L	2437.3	ppb	20:20:09
1	Pb 220.353†	8939.2	8775.5	491.41	µg/L	491.41	ppb	20:20:09
1	S 181.975 Axial†	1432.0	1314.6	980.26	µg/L	980.26	ppb	20:20:09
1	Sb 206.836†	4200.0	4082.8	486.45	µg/L	486.45	ppb	20:20:09
1	Se 196.026†	1380.3	1353.0	491	µg/L	491	ppb	20:20:09
1	SiO2†	56585.0	54320.2	5288.5	µg/L	5288.5	ppb	20:19:49
1	Si 251.611†	171480.3	169160.3	2484.2	µg/L	2484.2	ppb	20:19:49
1	Sn 189.927†	7899.9	7832.7	489.93	µg/L	489.93	ppb	20:20:09
1	Ti 334.940†	528670.3	523144.4	488.13	µg/L	488.13	ppb	20:19:49
1	Tl 190.801†	3879.4	3962.5	494.19	µg/L	494.19	ppb	20:20:09
1	U 409.014†	7456.1	7661.5	477.56	µg/L	477.56	ppb	20:19:49
1	V 292.402†	100505.8	99232.6	490.53	µg/L	490.53	ppb	20:19:49
1	Zn 213.857†	88711.3	87379.4	487.00	µg/L	487.00	ppb	20:19:49
2	Sc RADIAL	145636.2	145636.2	99.8	%			20:19:26
2	Al 396.153Radial†	26516.1	26632.7	4915.0	µg/L	4915.0	ppb	20:19:26
2	Ca 317.933Radial†	89356.1	88975.7	4956.3	µg/L	4956.3	ppb	20:19:26
2	Fe 238.204 Radial†	79820.2	79833.0	4920.4	µg/L	4920.4	ppb	20:19:26
2	K 766.490 Radial†	14884.7	13369.9	4890.9	µg/L	4890.9	ppb	20:19:26
2	Mg 279.077 IEC†	13655.2	13492.0	5034.7	µg/L	5034.7	ppb	20:19:26
2	Na 589.592 Radial†	72574.2	71429.7	9753.8	µg/L	9753.8	ppb	20:19:26
2	Sr 421.552†	229556.2	230154.3	478.44	µg/L	478.44	ppb	20:19:24
2	Sc 361.383	1728845.1	1728845.1	100.62	%			20:20:12
2	Y 371.029	1022537.6	1022537.6	99.596	%			20:20:12
2	Ag 328.068†	135255.7	130332.9	488.71	µg/L	488.71	ppb	20:20:12
2	As 188.979†	1619.6	1630.0	500.04	µg/L	500.04	ppb	20:20:32
2	B 249.677†	36772.6	33040.7	485.59	µg/L	485.59	ppb	20:20:12
2	Ba 233.527†	121898.2	121284.8	489.14	µg/L	489.14	ppb	20:20:12
2	Be 313.107†	1814391.8	1804303.2	491.42	µg/L	491.42	ppb	20:20:12
2	Cd 226.502†	79019.6	78652.0	490.98	µg/L	490.98	ppb	20:20:12
2	Co 228.616†	39865.2	39810.5	491.46	µg/L	491.46	ppb	20:20:12
2	Cr 267.716†	62636.0	62072.4	486.01	µg/L	486.01	ppb	20:20:12
2	Cu 324.752†	128465.8	124703.9	486.15	µg/L	486.15	ppb	20:20:12
2	Mn 257.610†	400168.4	397471.3	491.58	µg/L	491.58	ppb	20:20:12
2	Mo 202.031†	16701.4	16618.8	488.86	µg/L	488.86	ppb	20:20:32
2	Ni 231.604†	42806.4	42619.8	490.74	µg/L	490.74	ppb	20:20:12
2	P 214.914†	11559.5	11506.4	2452.7	µg/L	2452.7	ppb	20:20:32
2	Pb 220.353†	8967.3	8825.8	494.22	µg/L	494.22	ppb	20:20:32

2	S 181.975 Axial†	1438.1	1324.2	987.46 µg/L	987.46 ppb	20:20:32
2	Sb 206.836†	4222.2	4115.5	490.38 µg/L	490.38 ppb	20:20:32
2	Se 196.026†	1378.4	1354.7	492 µg/L	492 ppb	20:20:32
2	SiO2†	56546.5	54423.5	5298.4 µg/L	5298.4 ppb	20:20:12
2	Si 251.611†	170798.4	168911.9	2480.5 µg/L	2480.5 ppb	20:20:12
2	Sn 189.927†	7975.7	7927.8	495.86 µg/L	495.86 ppb	20:20:32
2	Ti 334.940†	527695.2	523498.9	488.46 µg/L	488.46 ppb	20:20:12
2	Tl 190.801†	3917.6	4010.2	500.05 µg/L	500.05 ppb	20:20:32
2	U 409.014†	7647.3	7870.2	489.74 µg/L	489.74 ppb	20:20:12
2	V 292.402†	100177.9	99158.3	490.21 µg/L	490.21 ppb	20:20:12
2	Zn 213.857†	88577.4	87468.5	487.50 µg/L	487.50 ppb	20:20:12
3	Sc RADIAL	145946.5	145946.5	100 %		20:19:30
3	Al 396.153Radial†	26926.1	26986.3	4980.6 µg/L	4980.6 ppb	20:19:30
3	Ca 317.933Radial†	89888.2	89317.4	4975.3 µg/L	4975.3 ppb	20:19:30
3	Fe 238.204 Radial†	79999.4	79842.2	4921.0 µg/L	4921.0 ppb	20:19:30
3	K 766.490 Radial†	15067.7	13521.2	4946.3 µg/L	4946.3 ppb	20:19:30
3	Mg 279.077 IEC†	13820.0	13627.7	5085.2 µg/L	5085.2 ppb	20:19:30
3	Na 589.592 Radial†	72903.4	71604.2	9777.6 µg/L	9777.6 ppb	20:19:30
3	Sr 421.552†	233932.9	234041.4	486.52 µg/L	486.52 ppb	20:19:28
3	Sc 361.383	1729036.7	1729036.7	100.63 %		20:20:35
3	Y 371.029	1022141.3	1022141.3	99.557 %		20:20:35
3	Ag 328.068†	135415.2	130476.4	489.24 µg/L	489.24 ppb	20:20:35
3	As 188.979†	1624.2	1634.3	501.36 µg/L	501.36 ppb	20:20:55
3	B 249.677†	36712.7	32977.1	484.65 µg/L	484.65 ppb	20:20:35
3	Ba 233.527†	121713.3	121087.6	488.34 µg/L	488.34 ppb	20:20:35
3	Be 313.107†	1816122.4	1805823.1	491.83 µg/L	491.83 ppb	20:20:35
3	Cd 226.502†	78922.7	78547.0	490.33 µg/L	490.33 ppb	20:20:35
3	Co 228.616†	39794.6	39735.9	490.54 µg/L	490.54 ppb	20:20:35
3	Cr 267.716†	62716.2	62145.2	486.58 µg/L	486.58 ppb	20:20:35
3	Cu 324.752†	128635.8	124858.6	486.75 µg/L	486.75 ppb	20:20:35
3	Mn 257.610†	399725.7	396987.2	490.98 µg/L	490.98 ppb	20:20:35
3	Mo 202.031†	16642.9	16558.8	487.09 µg/L	487.09 ppb	20:20:55
3	Ni 231.604†	42654.8	42464.4	488.95 µg/L	488.95 ppb	20:20:35
3	P 214.914†	11489.1	11435.1	2437.4 µg/L	2437.4 ppb	20:20:55
3	Pb 220.353†	8938.2	8795.9	492.55 µg/L	492.55 ppb	20:20:55
3	S 181.975 Axial†	1425.7	1311.7	978.16 µg/L	978.16 ppb	20:20:55
3	Sb 206.836†	4196.0	4088.9	487.18 µg/L	487.18 ppb	20:20:55
3	Se 196.026†	1380.4	1356.5	493 µg/L	493 ppb	20:20:55
3	SiO2†	56405.9	54277.6	5284.2 µg/L	5284.2 ppb	20:20:35
3	Si 251.611†	170675.9	168771.4	2478.4 µg/L	2478.4 ppb	20:20:35
3	Sn 189.927†	7906.9	7858.6	491.55 µg/L	491.55 ppb	20:20:55
3	Ti 334.940†	526963.4	522713.5	487.72 µg/L	487.72 ppb	20:20:35
3	Tl 190.801†	3898.2	3990.5	497.62 µg/L	497.62 ppb	20:20:55
3	U 409.014†	7622.6	7844.8	488.24 µg/L	488.24 ppb	20:20:35
3	V 292.402†	100122.2	99092.0	489.87 µg/L	489.87 ppb	20:20:35
3	Zn 213.857†	88619.8	87500.9	487.69 µg/L	487.69 ppb	20:20:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1730364.2	100.71	%	0.144				0.14%
Sc RADIAL	144911.9	99.3	%	1.05				1.06%
Y 371.029	1023081.8	99.649	%	0.1267				0.13%
Ag 328.068†	130451.4	489.14	µg/L	0.396	489.14	ppb	0.396	0.08%
QC value within limits for Ag 328.068 Recovery = 97.83%								
Al 396.153Radial†	26786.0	4943.5	µg/L	33.66	4943.5	ppb	33.66	0.68%
QC value within limits for Al 396.153Radial Recovery = 98.87%								
As 188.979†	1630.4	500.15	µg/L	1.155	500.15	ppb	1.155	0.23%
QC value within limits for As 188.979 Recovery = 100.03%								
B 249.677†	33026.5	485.38	µg/L	0.648	485.38	ppb	0.648	0.13%
QC value within limits for B 249.677 Recovery = 97.08%								
Ba 233.527†	121191.4	488.76	µg/L	0.399	488.76	ppb	0.399	0.08%
QC value within limits for Ba 233.527 Recovery = 97.75%								
Be 313.107†	1805412.3	491.72	µg/L	0.263	491.72	ppb	0.263	0.05%
QC value within limits for Be 313.107 Recovery = 98.34%								
Ca 317.933Radial†	89082.6	4962.3	µg/L	11.34	4962.3	ppb	11.34	0.23%
QC value within limits for Ca 317.933Radial Recovery = 99.25%								
Cd 226.502†	78602.2	490.67	µg/L	0.330	490.67	ppb	0.330	0.07%
QC value within limits for Cd 226.502 Recovery = 98.13%								
Co 228.616†	39786.1	491.16	µg/L	0.537	491.16	ppb	0.537	0.11%

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   QC value within limits for Co 228.616  Recovery = 98.23%
Cr 267.716†            62099.2      486.22 µg/L         0.311      486.22 ppb          0.311   0.06%
   QC value within limits for Cr 267.716  Recovery = 97.24%
Cu 324.752†           124888.8      486.86 µg/L         0.777      486.86 ppb          0.777   0.16%
   QC value within limits for Cu 324.752  Recovery = 97.37%
Fe 238.204 Radial†     79744.2      4914.9 µg/L          9.97      4914.9 ppb           9.97   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.30%
K 766.490 Radial†      13436.7      4915.3 µg/L         28.26      4915.3 ppb          28.26   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 98.31%
Mg 279.077 IEC†        13542.9      5053.6 µg/L         27.54      5053.6 ppb          27.54   0.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.07%
Mn 257.610†           397234.0      491.28 µg/L         0.301      491.28 ppb          0.301   0.06%
   QC value within limits for Mn 257.610  Recovery = 98.26%
Mo 202.031†            16564.7      487.26 µg/L         1.512      487.26 ppb          1.512   0.31%
   QC value within limits for Mo 202.031  Recovery = 97.45%
Na 589.592 Radial†     71476.5      9760.2 µg/L         15.27      9760.2 ppb          15.27   0.16%
   QC value within limits for Na 589.592 Radial  Recovery = 97.60%
Ni 231.604†            42573.9      490.21 µg/L         1.097      490.21 ppb          1.097   0.22%
   QC value within limits for Ni 231.604  Recovery = 98.04%
P 214.914†             11458.8      2442.5 µg/L          8.83      2442.5 ppb           8.83   0.36%
   QC value within limits for P 214.914  Recovery = 97.70%
Pb 220.353†             8799.1      492.73 µg/L         1.412      492.73 ppb          1.412   0.29%
   QC value within limits for Pb 220.353  Recovery = 98.55%
S 181.975 Axial†        1316.8      981.96 µg/L         4.877      981.96 ppb          4.877   0.50%
   QC value within limits for S 181.975 Axial  Recovery = 98.20%
Sb 206.836†             4095.7      488.00 µg/L         2.090      488.00 ppb          2.090   0.43%
   QC value within limits for Sb 206.836  Recovery = 97.60%
Se 196.026†             1354.7         492 µg/L           0.6         492 ppb            0.6   0.13%
   QC value within limits for Se 196.026  Recovery = 98.38%
SiO2†                  54340.4      5290.4 µg/L          7.26      5290.4 ppb           7.26   0.14%
   QC value within limits for SiO2  Recovery = 98.93%
Si 251.611†           168947.8      2481.0 µg/L          2.92      2481.0 ppb           2.92   0.12%
   QC value within limits for Si 251.611  Recovery = 99.24%
Sn 189.927†             7873.0      492.45 µg/L         3.064      492.45 ppb          3.064   0.62%
   QC value within limits for Sn 189.927  Recovery = 98.49%
Sr 421.552†           233547.6      485.49 µg/L         6.601      485.49 ppb          6.601   1.36%
   QC value within limits for Sr 421.552  Recovery = 97.10%
Ti 334.940†           523118.9      488.10 µg/L         0.369      488.10 ppb          0.369   0.08%
   QC value within limits for Ti 334.940  Recovery = 97.62%
Tl 190.801†             3987.7      497.29 µg/L         2.942      497.29 ppb          2.942   0.59%
   QC value within limits for Tl 190.801  Recovery = 99.46%
U 409.014†              7792.1      485.18 µg/L         6.641      485.18 ppb          6.641   1.37%
   QC value within limits for U 409.014  Recovery = 97.04%
V 292.402†             99160.9      490.20 µg/L         0.333      490.20 ppb          0.333   0.07%
   QC value within limits for V 292.402  Recovery = 98.04%
Zn 213.857†            87449.6      487.40 µg/L         0.359      487.40 ppb          0.359   0.07%
   QC value within limits for Zn 213.857  Recovery = 97.48%
All analyte(s) passed QC.
```

Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 20:21:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146174.9	146174.9	100	%			20:21:32
1	Al 396.153Radial†	-79.4	-16.1	-2.9762	µg/L	-2.9762	ppb	20:21:52
1	Ca 317.933Radial†	607.9	46.3	2.5767	µg/L	2.5767	ppb	20:21:52
1	Fe 238.204 Radial†	175.5	27.1	1.6726	µg/L	1.6726	ppb	20:21:52
1	K 766.490 Radial†	1577.3	29.9	10.948	µg/L	10.948	ppb	20:21:32
1	Mg 279.077 IEC†	206.8	15.8	5.8733	µg/L	5.8733	ppb	20:21:52
1	Na 589.592 Radial†	1475.9	182.7	24.946	µg/L	24.946	ppb	20:21:32
1	Sr 421.552†	-270.2	-134.5	-0.2796	µg/L	-0.2796	ppb	20:21:32
1	Sc 361.383	1719316.1	1719316.1	100.06	%			20:22:40
1	Y 371.029	1027520.1	1027520.1	100.08	%			20:22:40
1	Ag 328.068†	3648.5	-445.2	-1.6556	µg/L	-1.6556	ppb	20:22:42
1	As 188.979†	-10.6	9.8	2.9605	µg/L	2.9605	ppb	20:23:02
1	B 249.677†	3416.1	-91.9	-1.3568	µg/L	-1.3568	ppb	20:22:42
1	Ba 233.527†	-134.2	1.8	0.0069	µg/L	0.0069	ppb	20:23:02
1	Be 313.107†	-785.4	279.8	0.0750	µg/L	0.0750	ppb	20:22:42
1	Cd 226.502†	-108.1	10.2	0.0635	µg/L	0.0635	ppb	20:23:02
1	Co 228.616†	-170.8	19.6	0.2418	µg/L	0.2418	ppb	20:23:02
1	Cr 267.716†	211.4	32.7	0.2593	µg/L	0.2593	ppb	20:23:02
1	Cu 324.752†	2952.3	-21.8	-0.0873	µg/L	-0.0873	ppb	20:22:42
1	Mn 257.610†	205.0	-32.4	-0.0403	µg/L	-0.0403	ppb	20:23:02
1	Mo 202.031†	-26.7	-6.6	-0.1949	µg/L	-0.1949	ppb	20:23:02
1	Ni 231.604†	-85.9	-9.3	-0.1075	µg/L	-0.1075	ppb	20:23:02
1	P 214.914†	-27.5	-9.5	-2.0307	µg/L	-2.0307	ppb	20:23:02
1	Pb 220.353†	49.6	-36.9	-2.0549	µg/L	-2.0549	ppb	20:23:02
1	S 181.975 Axial†	90.7	-14.4	-10.672	µg/L	-10.672	ppb	20:23:02
1	Sb 206.836†	90.3	9.4	1.1175	µg/L	1.1175	ppb	20:23:02
1	Se 196.026†	14.0	-1.3	-0.483	µg/L	-0.483	ppb	20:23:02
1	SiO2†	1815.4	38.8	3.7882	µg/L	3.7882	ppb	20:22:42
1	Si 251.611†	978.4	141.2	2.0787	µg/L	2.0787	ppb	20:22:42
1	Sn 189.927†	12.7	13.8	0.8612	µg/L	0.8612	ppb	20:23:02
1	Ti 334.940†	944.8	-8.3	-0.0067	µg/L	-0.0067	ppb	20:22:42
1	Tl 190.801†	-123.6	-6.9	-0.8478	µg/L	-0.8478	ppb	20:23:02
1	U 409.014†	-334.8	-64.7	-3.7948	µg/L	-3.7948	ppb	20:22:42
1	V 292.402†	364.6	-39.5	-0.1962	µg/L	-0.1962	ppb	20:22:42
1	Zn 213.857†	609.9	45.1	0.2536	µg/L	0.2536	ppb	20:23:02
2	Sc RADIAL	146261.6	146261.6	100	%			20:21:54
2	Al 396.153Radial†	-54.4	8.9	1.6620	µg/L	1.6620	ppb	20:22:14
2	Ca 317.933Radial†	618.8	56.9	3.1671	µg/L	3.1671	ppb	20:22:14
2	Fe 238.204 Radial†	170.1	21.6	1.3318	µg/L	1.3318	ppb	20:22:14
2	K 766.490 Radial†	1690.5	141.9	51.938	µg/L	51.938	ppb	20:21:54
2	Mg 279.077 IEC†	158.6	-32.4	-12.093	µg/L	-12.093	ppb	20:22:14
2	Na 589.592 Radial†	1436.5	142.5	19.415	µg/L	19.415	ppb	20:21:54
2	Sr 421.552†	-283.2	-147.2	-0.3061	µg/L	-0.3061	ppb	20:21:54
2	Sc 361.383	1736802.1	1736802.1	101.08	%			20:23:04
2	Y 371.029	1037454.3	1037454.3	101.05	%			20:23:04
2	Ag 328.068†	3948.2	-185.4	-0.6882	µg/L	-0.6882	ppb	20:23:06
2	As 188.979†	-24.7	-4.1	-1.2374	µg/L	-1.2374	ppb	20:23:27
2	B 249.677†	3576.8	32.6	0.4812	µg/L	0.4812	ppb	20:23:06
2	Ba 233.527†	-102.2	34.7	0.1396	µg/L	0.1396	ppb	20:23:27
2	Be 313.107†	-962.5	112.5	0.0317	µg/L	0.0317	ppb	20:23:06
2	Cd 226.502†	-108.2	11.1	0.0694	µg/L	0.0694	ppb	20:23:27
2	Co 228.616†	-196.2	-3.8	-0.0464	µg/L	-0.0464	ppb	20:23:27
2	Cr 267.716†	207.6	26.8	0.2073	µg/L	0.2073	ppb	20:23:27
2	Cu 324.752†	2974.7	-29.3	-0.1113	µg/L	-0.1113	ppb	20:23:06
2	Mn 257.610†	216.8	-22.8	-0.0277	µg/L	-0.0277	ppb	20:23:27
2	Mo 202.031†	-26.2	-5.9	-0.1726	µg/L	-0.1726	ppb	20:23:27
2	Ni 231.604†	-83.0	-5.6	-0.0648	µg/L	-0.0648	ppb	20:23:27
2	P 214.914†	-18.2	-0.1	-0.0033	µg/L	-0.0033	ppb	20:23:27
2	Pb 220.353†	96.9	9.5	0.5245	µg/L	0.5245	ppb	20:23:27

2	S 181.975 Axial†	101.1	-5.0	-3.7428	µg/L	-3.7428 ppb	20:23:27
2	Sb 206.836†	77.7	-4.0	-0.4743	µg/L	-0.4743 ppb	20:23:27
2	Se 196.026†	10.0	-5.3	-1.93	µg/L	-1.93 ppb	20:23:27
2	SiO2†	1822.3	27.5	2.6742	µg/L	2.6742 ppb	20:23:06
2	Si 251.611†	856.2	10.5	0.1497	µg/L	0.1497 ppb	20:23:06
2	Sn 189.927†	15.8	16.8	1.0464	µg/L	1.0464 ppb	20:23:27
2	Ti 334.940†	965.6	2.7	0.0021	µg/L	0.0021 ppb	20:23:06
2	Tl 190.801†	-105.1	12.7	1.5599	µg/L	1.5599 ppb	20:23:27
2	U 409.014†	-213.8	58.4	3.3839	µg/L	3.3839 ppb	20:23:06
2	V 292.402†	306.8	-100.3	-0.4881	µg/L	-0.4881 ppb	20:23:06
2	Zn 213.857†	601.0	30.1	0.1695	µg/L	0.1695 ppb	20:23:27
3	Sc RADIAL	145163.3	145163.3	99.5	%		20:22:16
3	Al 396.153Radial†	-66.5	-3.7	-0.6680	µg/L	-0.6680 ppb	20:22:36
3	Ca 317.933Radial†	599.5	42.1	2.3456	µg/L	2.3456 ppb	20:22:36
3	Fe 238.204 Radial†	160.3	13.1	0.8047	µg/L	0.8047 ppb	20:22:36
3	K 766.490 Radial†	1445.8	-91.3	-33.426	µg/L	-33.426 ppb	20:22:16
3	Mg 279.077 IEC†	163.3	-26.5	-9.9007	µg/L	-9.9007 ppb	20:22:36
3	Na 589.592 Radial†	1438.5	155.3	21.242	µg/L	21.242 ppb	20:22:16
3	Sr 421.552†	-217.7	-83.6	-0.1738	µg/L	-0.1738 ppb	20:22:16
3	Sc 361.383	1747018.8	1747018.8	101.68	%		20:23:29
3	Y 371.029	1043372.0	1043372.0	101.62	%		20:23:29
3	Ag 328.068†	3928.6	-227.6	-0.8550	µg/L	-0.8550 ppb	20:23:31
3	As 188.979†	-14.6	6.0	1.8114	µg/L	1.8114 ppb	20:23:51
3	B 249.677†	3628.2	62.5	0.9207	µg/L	0.9207 ppb	20:23:31
3	Ba 233.527†	-150.3	-11.9	-0.0482	µg/L	-0.0482 ppb	20:23:51
3	Be 313.107†	-1063.0	19.3	0.0023	µg/L	0.0023 ppb	20:23:31
3	Cd 226.502†	-104.1	15.8	0.0984	µg/L	0.0984 ppb	20:23:51
3	Co 228.616†	-183.5	9.9	0.1217	µg/L	0.1217 ppb	20:23:51
3	Cr 267.716†	179.0	-2.6	-0.0122	µg/L	-0.0122 ppb	20:23:51
3	Cu 324.752†	3108.9	85.4	0.3239	µg/L	0.3239 ppb	20:23:31
3	Mn 257.610†	215.7	-25.1	-0.0307	µg/L	-0.0307 ppb	20:23:51
3	Mo 202.031†	-32.3	-11.7	-0.3450	µg/L	-0.3450 ppb	20:23:51
3	Ni 231.604†	-84.7	-6.8	-0.0779	µg/L	-0.0779 ppb	20:23:51
3	P 214.914†	-27.0	-8.6	-1.8417	µg/L	-1.8417 ppb	20:23:51
3	Pb 220.353†	93.1	5.2	0.2966	µg/L	0.2966 ppb	20:23:51
3	S 181.975 Axial†	107.7	0.8	0.6238	µg/L	0.6238 ppb	20:23:51
3	Sb 206.836†	73.2	-8.8	-1.0551	µg/L	-1.0551 ppb	20:23:51
3	Se 196.026†	-3.4	-18.6	-6.74	µg/L	-6.74 ppb	20:23:51
3	SiO2†	1790.0	-14.9	-1.4424	µg/L	-1.4424 ppb	20:23:31
3	Si 251.611†	917.7	66.0	0.9787	µg/L	0.9787 ppb	20:23:31
3	Sn 189.927†	-2.4	-1.3	-0.0792	µg/L	-0.0792 ppb	20:23:51
3	Ti 334.940†	1230.7	257.8	0.2458	µg/L	0.2458 ppb	20:23:31
3	Tl 190.801†	-121.9	-3.2	-0.3892	µg/L	-0.3892 ppb	20:23:51
3	U 409.014†	-444.6	-167.4	-9.7866	µg/L	-9.7866 ppb	20:23:31
3	V 292.402†	407.2	-3.3	-0.0267	µg/L	-0.0267 ppb	20:23:31
3	Zn 213.857†	572.9	-1.0	-0.0054	µg/L	-0.0054 ppb	20:23:51

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1734379.0	100.94	%	0.815				0.81%
Sc RADIAL	145866.6	100.0	%	0.42				0.42%
Y 371.029	1036115.5	100.92	%	0.780				0.77%
Ag 328.068†	-286.1	-1.0663	µg/L	0.51712	-1.0663	ppb	0.51712	48.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.6	-0.6608	µg/L	2.31909	-0.6608	ppb	2.31909	350.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.9	1.1781	µg/L	2.16942	1.1781	ppb	2.16942	184.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1.0	0.0150	µg/L	1.20824	0.0150	ppb	1.20824	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.2	0.0328	µg/L	0.09650	0.0328	ppb	0.09650	294.60%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	137.2	0.0363	µg/L	0.03660	0.0363	ppb	0.03660	100.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	48.4	2.6965	µg/L	0.42361	2.6965	ppb	0.42361	15.71%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	12.4	0.0771	µg/L	0.01869	0.0771	ppb	0.01869	24.25%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.6	0.1057	µg/L	0.14474	0.1057	ppb	0.14474	136.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.0      0.1515 µg/L       0.14414      0.1515 ppb        0.14414  95.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              11.4      0.0418 µg/L       0.24463      0.0418 ppb        0.24463 585.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       20.6      1.2697 µg/L       0.43727      1.2697 ppb        0.43727  34.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        26.8      9.8201 µg/L      42.69298      9.8201 ppb       42.69298 434.75%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -14.4     -5.3735 µg/L       9.80148     -5.3735 ppb        9.80148 182.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -26.8     -0.0329 µg/L       0.00657     -0.0329 ppb        0.00657  19.97%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -8.1     -0.2375 µg/L       0.09374     -0.2375 ppb        0.09374  39.47%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      160.1      21.868 µg/L        2.8179      21.868 ppb         2.8179  12.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -7.2     -0.0834 µg/L       0.02187     -0.0834 ppb        0.02187  26.22%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -6.1     -1.2919 µg/L       1.11996     -1.2919 ppb        1.11996  86.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -7.4     -0.4112 µg/L       1.42800     -0.4112 ppb        1.42800 347.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -6.2     -4.5969 µg/L       5.69602     -4.5969 ppb        5.69602 123.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.1     -0.1373 µg/L       1.12485     -0.1373 ppb        1.12485 819.31%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -8.4       -3.05 µg/L         3.277       -3.05 ppb          3.277 107.40%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    17.1      1.6733 µg/L       2.75522      1.6733 ppb        2.75522 164.66%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              72.6      1.0690 µg/L       0.96766      1.0690 ppb        0.96766  90.52%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.8      0.6095 µg/L       0.60356      0.6095 ppb        0.60356  99.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -121.8     -0.2532 µg/L       0.06998     -0.2532 ppb        0.06998  27.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              84.1      0.0804 µg/L       0.14329      0.0804 ppb        0.14329 178.21%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.9      0.1076 µg/L       1.27840      0.1076 ppb        1.27840 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -57.9     -3.3992 µg/L       6.59417     -3.3992 ppb        6.59417 193.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -47.7     -0.2370 µg/L       0.23337     -0.2370 ppb        0.23337  98.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              24.7      0.1393 µg/L       0.13213      0.1393 ppb        0.13213  94.89%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 38
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 20:46:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142658.3	142658.3	97.8	%			20:47:06
1	Al 396.153Radial†	26173.0	26836.4	4953.1	µg/L	4953.1	ppb	20:47:06
1	Ca 317.933Radial†	86811.8	88242.0	4915.4	µg/L	4915.4	ppb	20:47:06
1	Fe 238.204 Radial†	77308.1	78932.9	4864.9	µg/L	4864.9	ppb	20:47:06
1	K 766.490 Radial†	14453.8	13240.4	4843.5	µg/L	4843.5	ppb	20:47:06
1	Mg 279.077 IEC†	13219.2	13331.7	4974.8	µg/L	4974.8	ppb	20:47:06
1	Na 589.592 Radial†	70981.3	71318.3	9738.6	µg/L	9738.6	ppb	20:47:06
1	Sr 421.552†	229479.6	234877.4	488.26	µg/L	488.26	ppb	20:47:04
1	Sc 361.383	1717986.8	1717986.8	99.987	%			20:47:18
1	Y 371.029	1016974.2	1016974.2	99.054	%			20:47:18
1	Ag 328.068†	133861.9	129788.4	486.66	µg/L	486.66	ppb	20:47:18
1	As 188.979†	1570.9	1591.4	488.31	µg/L	488.31	ppb	20:47:39
1	B 249.677†	35888.7	32387.7	475.97	µg/L	475.97	ppb	20:47:18
1	Ba 233.527†	120089.3	120241.3	484.93	µg/L	484.93	ppb	20:47:18
1	Be 313.107†	1788228.5	1789533.4	487.39	µg/L	487.39	ppb	20:47:18
1	Cd 226.502†	77187.6	77316.2	482.64	µg/L	482.64	ppb	20:47:18
1	Co 228.616†	39259.0	39454.6	487.07	µg/L	487.07	ppb	20:47:18
1	Cr 267.716†	61734.0	61563.8	482.03	µg/L	482.03	ppb	20:47:18
1	Cu 324.752†	127051.0	124095.8	483.76	µg/L	483.76	ppb	20:47:18
1	Mn 257.610†	394153.9	393969.6	487.25	µg/L	487.25	ppb	20:47:18
1	Mo 202.031†	16323.5	16345.7	480.82	µg/L	480.82	ppb	20:47:39
1	Ni 231.604†	42025.4	42107.6	484.84	µg/L	484.84	ppb	20:47:18
1	P 214.914†	11165.4	11184.8	2383.9	µg/L	2383.9	ppb	20:47:39
1	Pb 220.353†	8721.1	8635.9	483.61	µg/L	483.61	ppb	20:47:39
1	S 181.975 Axial†	1384.6	1279.7	954.32	µg/L	954.32	ppb	20:47:39
1	Sb 206.836†	4121.5	4041.3	481.48	µg/L	481.48	ppb	20:47:39
1	Se 196.026†	1330.1	1315.0	478	µg/L	478	ppb	20:47:39
1	SiO2†	55658.0	53890.1	5246.7	µg/L	5246.7	ppb	20:47:18
1	Si 251.611†	168475.5	167661.6	2462.2	µg/L	2462.2	ppb	20:47:18
1	Sn 189.927†	7694.7	7696.9	481.46	µg/L	481.46	ppb	20:47:39
1	Ti 334.940†	521521.0	520638.5	485.79	µg/L	485.79	ppb	20:47:18
1	Tl 190.801†	3795.7	3912.8	488.05	µg/L	488.05	ppb	20:47:39
1	U 409.014†	7470.6	7741.5	482.06	µg/L	482.06	ppb	20:47:18
1	V 292.402†	99032.8	98642.4	487.59	µg/L	487.59	ppb	20:47:18
1	Zn 213.857†	86847.2	86294.4	480.95	µg/L	480.95	ppb	20:47:18
2	Sc RADIAL	142003.0	142003.0	97.3	%			20:47:10
2	Al 396.153Radial†	25928.5	26708.7	4929.4	µg/L	4929.4	ppb	20:47:10
2	Ca 317.933Radial†	86471.0	88301.6	4918.7	µg/L	4918.7	ppb	20:47:10
2	Fe 238.204 Radial†	76877.1	78854.9	4860.1	µg/L	4860.1	ppb	20:47:10
2	K 766.490 Radial†	14481.3	13337.0	4878.8	µg/L	4878.8	ppb	20:47:10
2	Mg 279.077 IEC†	13250.2	13425.9	5009.9	µg/L	5009.9	ppb	20:47:10
2	Na 589.592 Radial†	70794.9	71461.8	9758.2	µg/L	9758.2	ppb	20:47:10
2	Sr 421.552†	230824.3	237342.5	493.38	µg/L	493.38	ppb	20:47:08
2	Sc 361.383	1705978.0	1705978.0	99.288	%			20:47:42
2	Y 371.029	1010151.3	1010151.3	98.389	%			20:47:42
2	Ag 328.068†	132428.5	129287.2	484.78	µg/L	484.78	ppb	20:47:42
2	As 188.979†	1571.4	1603.0	491.82	µg/L	491.82	ppb	20:48:02
2	B 249.677†	35678.8	32428.9	476.59	µg/L	476.59	ppb	20:47:42
2	Ba 233.527†	119061.0	120051.1	484.16	µg/L	484.16	ppb	20:47:42
2	Be 313.107†	1771852.0	1785628.8	486.33	µg/L	486.33	ppb	20:47:42
2	Cd 226.502†	76647.7	77315.8	482.64	µg/L	482.64	ppb	20:47:42
2	Co 228.616†	38849.5	39318.5	485.39	µg/L	485.39	ppb	20:47:42
2	Cr 267.716†	61408.7	61670.7	482.88	µg/L	482.88	ppb	20:47:42
2	Cu 324.752†	125575.7	123504.5	481.46	µg/L	481.46	ppb	20:47:42
2	Mn 257.610†	390410.2	392973.9	486.01	µg/L	486.01	ppb	20:47:42
2	Mo 202.031†	16220.6	16357.1	481.16	µg/L	481.16	ppb	20:48:02
2	Ni 231.604†	41645.6	42020.9	483.84	µg/L	483.84	ppb	20:47:42
2	P 214.914†	11149.7	11247.7	2397.4	µg/L	2397.4	ppb	20:48:02
2	Pb 220.353†	8713.0	8689.1	486.58	µg/L	486.58	ppb	20:48:02

2	S 181.975 Axial†	1386.6	1291.5	963.10 µg/L	963.10 ppb	20:48:02
2	Sb 206.836†	4077.2	4025.7	479.62 µg/L	479.62 ppb	20:48:02
2	Se 196.026†	1343.8	1338.2	486 µg/L	486 ppb	20:48:02
2	SiO2†	55264.2	53885.3	5246.2 µg/L	5246.2 ppb	20:47:42
2	Si 251.611†	166831.6	167191.9	2455.3 µg/L	2455.3 ppb	20:47:42
2	Sn 189.927†	7685.8	7742.0	484.27 µg/L	484.27 ppb	20:48:02
2	Ti 334.940†	517135.3	519893.0	485.10 µg/L	485.10 ppb	20:47:42
2	Tl 190.801†	3798.0	3941.9	491.62 µg/L	491.62 ppb	20:48:02
2	U 409.014†	7240.4	7562.3	471.53 µg/L	471.53 ppb	20:47:42
2	V 292.402†	98205.8	98506.6	486.93 µg/L	486.93 ppb	20:47:42
2	Zn 213.857†	85981.0	86033.4	479.49 µg/L	479.49 ppb	20:47:42
3	Sc RADIAL	143540.2	143540.2	98.4 %		20:47:14
3	Al 396.153Radial†	26297.7	26798.6	4945.9 µg/L	4945.9 ppb	20:47:14
3	Ca 317.933Radial†	87479.0	88374.7	4922.8 µg/L	4922.8 ppb	20:47:14
3	Fe 238.204 Radial†	77829.6	78977.1	4867.7 µg/L	4867.7 ppb	20:47:14
3	K 766.490 Radial†	14541.2	13238.5	4842.8 µg/L	4842.8 ppb	20:47:14
3	Mg 279.077 IEC†	13331.1	13362.3	4986.3 µg/L	4986.3 ppb	20:47:14
3	Na 589.592 Radial†	71517.8	71417.6	9752.2 µg/L	9752.2 ppb	20:47:14
3	Sr 421.552†	229529.4	233485.7	485.36 µg/L	485.36 ppb	20:47:12
3	Sc 361.383	1697774.9	1697774.9	98.810 %		20:48:05
3	Y 371.029	1005288.7	1005288.7	97.916 %		20:48:05
3	Ag 328.068†	132337.3	129839.4	486.83 µg/L	486.83 ppb	20:48:05
3	As 188.979†	1566.3	1605.5	492.60 µg/L	492.60 ppb	20:48:25
3	B 249.677†	35561.4	32483.7	477.39 µg/L	477.39 ppb	20:48:05
3	Ba 233.527†	118631.6	120195.8	484.75 µg/L	484.75 ppb	20:48:05
3	Be 313.107†	1768996.7	1791361.7	487.89 µg/L	487.89 ppb	20:48:05
3	Cd 226.502†	76298.6	77335.5	482.76 µg/L	482.76 ppb	20:48:05
3	Co 228.616†	38681.6	39337.6	485.62 µg/L	485.62 ppb	20:48:05
3	Cr 267.716†	61122.4	61679.8	482.95 µg/L	482.95 ppb	20:48:05
3	Cu 324.752†	125325.9	123862.7	482.85 µg/L	482.85 ppb	20:48:05
3	Mn 257.610†	389691.1	394146.1	487.47 µg/L	487.47 ppb	20:48:05
3	Mo 202.031†	16294.8	16511.0	485.68 µg/L	485.68 ppb	20:48:25
3	Ni 231.604†	41366.1	41940.7	482.92 µg/L	482.92 ppb	20:48:05
3	P 214.914†	11228.3	11381.4	2426.0 µg/L	2426.0 ppb	20:48:25
3	Pb 220.353†	8735.3	8754.1	490.22 µg/L	490.22 ppb	20:48:25
3	S 181.975 Axial†	1387.1	1298.7	968.51 µg/L	968.51 ppb	20:48:25
3	Sb 206.836†	4142.3	4111.4	489.88 µg/L	489.88 ppb	20:48:25
3	Se 196.026†	1325.9	1326.6	482 µg/L	482 ppb	20:48:25
3	SiO2†	55019.2	53906.4	5248.0 µg/L	5248.0 ppb	20:48:05
3	Si 251.611†	166054.7	167217.6	2455.6 µg/L	2455.6 ppb	20:48:05
3	Sn 189.927†	7713.9	7807.9	488.38 µg/L	488.38 ppb	20:48:25
3	Ti 334.940†	515323.4	520575.8	485.74 µg/L	485.74 ppb	20:48:05
3	Tl 190.801†	3789.8	3952.1	492.88 µg/L	492.88 ppb	20:48:25
3	U 409.014†	7240.2	7597.3	473.61 µg/L	473.61 ppb	20:48:05
3	V 292.402†	97793.8	98567.5	487.28 µg/L	487.28 ppb	20:48:05
3	Zn 213.857†	85880.1	86349.8	481.27 µg/L	481.27 ppb	20:48:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1707246.6	99.361	%	0.5916				0.60%
Sc RADIAL	142733.8	97.8	%	0.53				0.54%
Y 371.029	1010804.8	98.453	%	0.5717				0.58%
Ag 328.068†	129638.4	486.09	µg/L	1.137	486.09	ppb	1.137	0.23%
QC value within limits for Ag 328.068 Recovery = 97.22%								
Al 396.153Radial†	26781.2	4942.8	µg/L	12.14	4942.8	ppb	12.14	0.25%
QC value within limits for Al 396.153Radial Recovery = 98.86%								
As 188.979†	1600.0	490.91	µg/L	2.283	490.91	ppb	2.283	0.47%
QC value within limits for As 188.979 Recovery = 98.18%								
B 249.677†	32433.4	476.65	µg/L	0.713	476.65	ppb	0.713	0.15%
QC value within limits for B 249.677 Recovery = 95.33%								
Ba 233.527†	120162.7	484.61	µg/L	0.401	484.61	ppb	0.401	0.08%
QC value within limits for Ba 233.527 Recovery = 96.92%								
Be 313.107†	1788841.3	487.20	µg/L	0.798	487.20	ppb	0.798	0.16%
QC value within limits for Be 313.107 Recovery = 97.44%								
Ca 317.933Radial†	88306.1	4919.0	µg/L	3.70	4919.0	ppb	3.70	0.08%
QC value within limits for Ca 317.933Radial Recovery = 98.38%								
Cd 226.502†	77322.5	482.68	µg/L	0.070	482.68	ppb	0.070	0.01%
QC value within limits for Cd 226.502 Recovery = 96.54%								
Co 228.616†	39370.2	486.02	µg/L	0.909	486.02	ppb	0.909	0.19%

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   QC value within limits for Co 228.616  Recovery = 97.20%
Cr 267.716†            61638.1      482.62 µg/L         0.509      482.62 ppb          0.509   0.11%
   QC value within limits for Cr 267.716  Recovery = 96.52%
Cu 324.752†           123821.0      482.69 µg/L         1.162      482.69 ppb          1.162   0.24%
   QC value within limits for Cu 324.752  Recovery = 96.54%
Fe 238.204 Radial†     78921.6      4864.2 µg/L          3.82      4864.2 ppb           3.82   0.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.28%
K 766.490 Radial†      13272.0      4855.1 µg/L         20.61      4855.1 ppb          20.61   0.42%
   QC value within limits for K 766.490 Radial  Recovery = 97.10%
Mg 279.077 IEC†        13373.3      4990.3 µg/L         17.90      4990.3 ppb          17.90   0.36%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.81%
Mn 257.610†           393696.5      486.91 µg/L         0.783      486.91 ppb          0.783   0.16%
   QC value within limits for Mn 257.610  Recovery = 97.38%
Mo 202.031†            16404.6      482.56 µg/L         2.714      482.56 ppb          2.714   0.56%
   QC value within limits for Mo 202.031  Recovery = 96.51%
Na 589.592 Radial†     71399.2      9749.7 µg/L         10.02      9749.7 ppb          10.02   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 97.50%
Ni 231.604†            42023.1      483.87 µg/L         0.961      483.87 ppb          0.961   0.20%
   QC value within limits for Ni 231.604  Recovery = 96.77%
P 214.914†             11271.3      2402.4 µg/L         21.48      2402.4 ppb          21.48   0.89%
   QC value within limits for P 214.914  Recovery = 96.10%
Pb 220.353†             8693.1      486.80 µg/L         3.313      486.80 ppb          3.313   0.68%
   QC value within limits for Pb 220.353  Recovery = 97.36%
S 181.975 Axial†        1290.0      961.98 µg/L         7.160      961.98 ppb          7.160   0.74%
   QC value within limits for S 181.975 Axial  Recovery = 96.20%
Sb 206.836†             4059.4      483.66 µg/L         5.466      483.66 ppb          5.466   1.13%
   QC value within limits for Sb 206.836  Recovery = 96.73%
Se 196.026†             1326.6         482 µg/L           4.2         482 ppb            4.2   0.87%
   QC value within limits for Se 196.026  Recovery = 96.34%
SiO2†                  53893.9      5247.0 µg/L          0.96      5247.0 ppb           0.96   0.02%
   QC value within limits for SiO2  Recovery = 98.12%
Si 251.611†           167357.0      2457.7 µg/L          3.93      2457.7 ppb           3.93   0.16%
   QC value within limits for Si 251.611  Recovery = 98.31%
Sn 189.927†             7748.9      484.70 µg/L         3.480      484.70 ppb          3.480   0.72%
   QC value within limits for Sn 189.927  Recovery = 96.94%
Sr 421.552†           235235.2      489.00 µg/L         4.060      489.00 ppb          4.060   0.83%
   QC value within limits for Sr 421.552  Recovery = 97.80%
Ti 334.940†           520369.1      485.54 µg/L         0.386      485.54 ppb          0.386   0.08%
   QC value within limits for Ti 334.940  Recovery = 97.11%
Tl 190.801†             3935.6      490.85 µg/L         2.502      490.85 ppb          2.502   0.51%
   QC value within limits for Tl 190.801  Recovery = 98.17%
U 409.014†              7633.7      475.73 µg/L         5.576      475.73 ppb          5.576   1.17%
   QC value within limits for U 409.014  Recovery = 95.15%
V 292.402†             98572.2      487.27 µg/L         0.331      487.27 ppb          0.331   0.07%
   QC value within limits for V 292.402  Recovery = 97.45%
Zn 213.857†            86225.9      480.57 µg/L         0.949      480.57 ppb          0.949   0.20%
   QC value within limits for Zn 213.857  Recovery = 96.11%
All analyte(s) passed QC.
```

Sequence No.: 39
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 20:48:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143100.4	143100.4	98.1	%			20:49:01
1	Al 396.153Radial†	-68.2	-6.4	-1.1706	µg/L	-1.1706	ppb	20:49:21
1	Ca 317.933Radial†	633.3	85.2	4.7476	µg/L	4.7476	ppb	20:49:21
1	Fe 238.204 Radial†	162.0	17.1	1.0551	µg/L	1.0551	ppb	20:49:21
1	K 766.490 Radial†	1505.7	-9.3	-3.4148	µg/L	-3.4148	ppb	20:49:01
1	Mg 279.077 IEC†	188.6	1.6	0.6053	µg/L	0.6053	ppb	20:49:21
1	Na 589.592 Radial†	1635.8	377.3	51.550	µg/L	51.550	ppb	20:49:01
1	Sr 421.552†	-135.1	-2.5	-0.0052	µg/L	-0.0052	ppb	20:49:01
1	Sc 361.383	1714287.6	1714287.6	99.771	%			20:50:09
1	Y 371.029	1025603.7	1025603.7	99.894	%			20:50:09
1	Ag 328.068†	3929.0	-153.4	-0.5739	µg/L	-0.5739	ppb	20:50:11
1	As 188.979†	-14.7	5.7	1.7126	µg/L	1.7126	ppb	20:50:31
1	B 249.677†	3483.3	-14.6	-0.2161	µg/L	-0.2161	ppb	20:50:31
1	Ba 233.527†	-124.6	11.0	0.0445	µg/L	0.0445	ppb	20:50:31
1	Be 313.107†	-819.1	243.7	0.0640	µg/L	0.0640	ppb	20:50:11
1	Cd 226.502†	-96.3	21.7	0.1352	µg/L	0.1352	ppb	20:50:31
1	Co 228.616†	-181.4	8.5	0.1049	µg/L	0.1049	ppb	20:50:31
1	Cr 267.716†	159.9	-18.3	-0.1371	µg/L	-0.1371	ppb	20:50:31
1	Cu 324.752†	2837.6	-128.1	-0.5041	µg/L	-0.5041	ppb	20:50:11
1	Mn 257.610†	255.9	19.2	0.0238	µg/L	0.0238	ppb	20:50:31
1	Mo 202.031†	-30.3	-10.3	-0.3020	µg/L	-0.3020	ppb	20:50:31
1	Ni 231.604†	-89.5	-13.2	-0.1520	µg/L	-0.1520	ppb	20:50:31
1	P 214.914†	-14.0	3.9	0.8495	µg/L	0.8495	ppb	20:50:31
1	Pb 220.353†	127.8	41.7	2.3324	µg/L	2.3324	ppb	20:50:31
1	S 181.975 Axial†	105.4	0.6	0.4193	µg/L	0.4193	ppb	20:50:31
1	Sb 206.836†	61.7	-18.9	-2.2534	µg/L	-2.2534	ppb	20:50:31
1	Se 196.026†	16.8	1.6	0.564	µg/L	0.564	ppb	20:50:31
1	SiO2†	1750.1	-21.3	-2.0737	µg/L	-2.0737	ppb	20:50:31
1	Si 251.611†	904.3	69.8	1.0310	µg/L	1.0310	ppb	20:50:11
1	Sn 189.927†	3.7	4.9	0.3040	µg/L	0.3040	ppb	20:50:31
1	Ti 334.940†	1043.2	93.0	0.0902	µg/L	0.0902	ppb	20:50:11
1	Tl 190.801†	-125.6	-9.3	-1.1347	µg/L	-1.1347	ppb	20:50:31
1	U 409.014†	-400.9	-131.9	-7.6954	µg/L	-7.6954	ppb	20:50:11
1	V 292.402†	469.6	66.9	0.3171	µg/L	0.3171	ppb	20:50:11
1	Zn 213.857†	595.1	32.0	0.1811	µg/L	0.1811	ppb	20:50:31
2	Sc RADIAL	142884.5	142884.5	97.9	%			20:49:23
2	Al 396.153Radial†	-69.1	-7.4	-1.3818	µg/L	-1.3818	ppb	20:49:43
2	Ca 317.933Radial†	615.2	67.8	3.7747	µg/L	3.7747	ppb	20:49:43
2	Fe 238.204 Radial†	156.5	11.7	0.7231	µg/L	0.7231	ppb	20:49:43
2	K 766.490 Radial†	1609.8	99.3	36.354	µg/L	36.354	ppb	20:49:23
2	Mg 279.077 IEC†	180.2	-6.7	-2.4821	µg/L	-2.4821	ppb	20:49:43
2	Na 589.592 Radial†	1524.3	266.0	36.311	µg/L	36.311	ppb	20:49:23
2	Sr 421.552†	-167.8	-36.0	-0.0750	µg/L	-0.0750	ppb	20:49:23
2	Sc 361.383	1705708.0	1705708.0	99.272	%			20:50:33
2	Y 371.029	1021576.7	1021576.7	99.502	%			20:50:33
2	Ag 328.068†	3789.2	-274.4	-1.0230	µg/L	-1.0230	ppb	20:50:35
2	As 188.979†	-3.7	16.6	5.0206	µg/L	5.0206	ppb	20:50:56
2	B 249.677†	3504.5	24.3	0.3589	µg/L	0.3589	ppb	20:50:56
2	Ba 233.527†	-135.1	-0.3	-0.0007	µg/L	-0.0007	ppb	20:50:56
2	Be 313.107†	-1027.1	30.1	0.0056	µg/L	0.0056	ppb	20:50:35
2	Cd 226.502†	-117.9	-0.5	-0.0035	µg/L	-0.0035	ppb	20:50:56
2	Co 228.616†	-184.4	4.6	0.0565	µg/L	0.0565	ppb	20:50:56
2	Cr 267.716†	197.3	20.1	0.1648	µg/L	0.1648	ppb	20:50:56
2	Cu 324.752†	2986.4	36.0	0.1330	µg/L	0.1330	ppb	20:50:35
2	Mn 257.610†	208.3	-27.5	-0.0339	µg/L	-0.0339	ppb	20:50:56
2	Mo 202.031†	-10.1	9.9	0.2925	µg/L	0.2925	ppb	20:50:56
2	Ni 231.604†	-71.6	4.4	0.0504	µg/L	0.0504	ppb	20:50:56
2	P 214.914†	-25.7	-7.9	-1.7048	µg/L	-1.7048	ppb	20:50:56
2	Pb 220.353†	88.5	2.8	0.1610	µg/L	0.1610	ppb	20:50:56

2	S 181.975 Axial†	98.5	-5.8	-4.3120 µg/L	-4.3120 ppb	20:50:56
2	Sb 206.836†	86.1	5.9	0.7055 µg/L	0.7055 ppb	20:50:56
2	Se 196.026†	6.1	-9.2	-3.32 µg/L	-3.32 ppb	20:50:56
2	SiO2†	1800.3	38.1	3.7206 µg/L	3.7206 ppb	20:50:56
2	Si 251.611†	941.5	111.8	1.6453 µg/L	1.6453 ppb	20:50:35
2	Sn 189.927†	-2.9	-1.8	-0.1151 µg/L	-0.1151 ppb	20:50:56
2	Ti 334.940†	825.1	-121.4	-0.1096 µg/L	-0.1096 ppb	20:50:35
2	Tl 190.801†	-103.9	12.0	1.4793 µg/L	1.4793 ppb	20:50:56
2	U 409.014†	-414.7	-147.9	-8.6275 µg/L	-8.6275 ppb	20:50:35
2	V 292.402†	468.7	68.3	0.3311 µg/L	0.3311 ppb	20:50:35
2	Zn 213.857†	586.6	26.4	0.1479 µg/L	0.1479 ppb	20:50:56
3	Sc RADIAL	143556.4	143556.4	98.4 %		20:49:45
3	Al 396.153Radial†	-49.6	12.8	2.3684 µg/L	2.3684 ppb	20:50:05
3	Ca 317.933Radial†	619.9	69.5	3.8728 µg/L	3.8728 ppb	20:50:05
3	Fe 238.204 Radial†	160.9	15.5	0.9527 µg/L	0.9527 ppb	20:50:05
3	K 766.490 Radial†	1716.2	199.8	73.139 µg/L	73.139 ppb	20:49:45
3	Mg 279.077 IEC†	179.3	-8.5	-3.1618 µg/L	-3.1618 ppb	20:50:05
3	Na 589.592 Radial†	1571.2	306.3	41.786 µg/L	41.786 ppb	20:49:45
3	Sr 421.552†	-111.1	22.4	0.0465 µg/L	0.0465 ppb	20:49:45
3	Sc 361.383	1721625.0	1721625.0	100.20 %		20:50:58
3	Y 371.029	1030085.4	1030085.4	100.33 %		20:50:58
3	Ag 328.068†	3859.6	-239.4	-0.8861 µg/L	-0.8861 ppb	20:51:00
3	As 188.979†	-27.5	-7.1	-2.1453 µg/L	-2.1453 ppb	20:51:20
3	B 249.677†	3491.5	-21.3	-0.3158 µg/L	-0.3158 ppb	20:51:20
3	Ba 233.527†	-142.3	-6.2	-0.0248 µg/L	-0.0248 ppb	20:51:20
3	Be 313.107†	-950.3	116.3	0.0315 µg/L	0.0315 ppb	20:51:00
3	Cd 226.502†	-122.0	-3.6	-0.0224 µg/L	-0.0224 ppb	20:51:20
3	Co 228.616†	-167.0	23.7	0.2921 µg/L	0.2921 ppb	20:51:20
3	Cr 267.716†	146.9	-32.0	-0.2498 µg/L	-0.2498 ppb	20:51:20
3	Cu 324.752†	3019.8	41.6	0.1616 µg/L	0.1616 ppb	20:51:00
3	Mn 257.610†	238.8	1.0	0.0014 µg/L	0.0014 ppb	20:51:20
3	Mo 202.031†	-20.4	-0.3	-0.0095 µg/L	-0.0095 ppb	20:51:20
3	Ni 231.604†	-92.9	-16.2	-0.1861 µg/L	-0.1861 ppb	20:51:20
3	P 214.914†	-16.8	1.2	0.2638 µg/L	0.2638 ppb	20:51:20
3	Pb 220.353†	96.5	9.9	0.5545 µg/L	0.5545 ppb	20:51:20
3	S 181.975 Axial†	97.9	-7.4	-5.4692 µg/L	-5.4692 ppb	20:51:20
3	Sb 206.836†	70.1	-10.9	-1.2853 µg/L	-1.2853 ppb	20:51:20
3	Se 196.026†	24.0	8.7	3.13 µg/L	3.13 ppb	20:51:20
3	SiO2†	1761.3	-17.6	-1.7243 µg/L	-1.7243 ppb	20:51:20
3	Si 251.611†	890.7	52.3	0.7682 µg/L	0.7682 ppb	20:51:00
3	Sn 189.927†	7.5	8.6	0.5361 µg/L	0.5361 ppb	20:51:20
3	Ti 334.940†	901.9	-52.4	-0.0483 µg/L	-0.0483 ppb	20:51:00
3	Tl 190.801†	-111.0	5.9	0.7212 µg/L	0.7212 ppb	20:51:20
3	U 409.014†	-279.5	-9.1	-0.5238 µg/L	-0.5238 ppb	20:51:00
3	V 292.402†	424.3	19.7	0.0944 µg/L	0.0944 ppb	20:51:00
3	Zn 213.857†	577.4	11.9	0.0677 µg/L	0.0677 ppb	20:51:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1713873.5	99.747	%	0.4637				0.46%
Sc RADIAL	143180.4	98.1	%	0.24				0.24%
Y 371.029	1025755.3	99.909	%	0.4146				0.41%
Ag 328.068†	-222.4	-0.8276	µg/L	0.23017	-0.8276	ppb	0.23017	27.81%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.3	-0.0614	µg/L	2.10685	-0.0614	ppb	2.10685	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.1	1.5293	µg/L	3.58647	1.5293	ppb	3.58647	234.51%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-3.9	-0.0576	µg/L	0.36418	-0.0576	ppb	0.36418	631.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.5	0.0063	µg/L	0.03518	0.0063	ppb	0.03518	557.71%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	130.0	0.0337	µg/L	0.02929	0.0337	ppb	0.02929	86.91%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	74.2	4.1317	µg/L	0.53563	4.1317	ppb	0.53563	12.96%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.9	0.0364	µg/L	0.08602	0.0364	ppb	0.08602	236.18%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.3	0.1512	µg/L	0.12445	0.1512	ppb	0.12445	82.31%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -10.0     -0.0740 µg/L       0.21436     -0.0740 ppb        0.21436 289.62%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -16.8     -0.0698 µg/L       0.37636     -0.0698 ppb        0.37636 538.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        14.8      0.9103 µg/L       0.16999      0.9103 ppb        0.16999  18.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         96.6      35.359 µg/L       38.2865      35.359 ppb        38.2865 108.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -4.5     -1.6795 µg/L       2.00766     -1.6795 ppb        2.00766 119.54%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -2.4     -0.0029 µg/L       0.02906     -0.0029 ppb        0.02906 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.2     -0.0064 µg/L       0.29725     -0.0064 ppb        0.29725 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       316.6      43.216 µg/L        7.7194      43.216 ppb         7.7194  17.86%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -8.3     -0.0959 µg/L       0.12783     -0.0959 ppb        0.12783 133.28%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.9     -0.1972 µg/L       1.33806     -0.1972 ppb        1.33806 678.62%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               18.1      1.0159 µg/L       1.15693      1.0159 ppb        1.15693 113.88%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.2     -3.1206 µg/L       3.11977     -3.1206 ppb        3.11977  99.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -8.0     -0.9444 µg/L       1.50862     -0.9444 ppb        1.50862 159.74%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.4       0.124 µg/L        3.2508       0.124 ppb         3.2508 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -0.2     -0.0258 µg/L       3.24918     -0.0258 ppb        3.24918 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               78.0      1.1482 µg/L       0.45012      1.1482 ppb        0.45012  39.20%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.9      0.2417 µg/L       0.33003      0.2417 ppb        0.33003 136.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -5.4     -0.0112 µg/L       0.06093     -0.0112 ppb        0.06093 542.16%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -26.9     -0.0226 µg/L       0.10236     -0.0226 ppb        0.10236 453.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.9      0.3552 µg/L       1.34488      0.3552 ppb        1.34488 378.59%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -96.3     -5.6156 µg/L       4.43418     -5.6156 ppb        4.43418  78.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                51.6      0.2475 µg/L       0.13284      0.2475 ppb        0.13284  53.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               23.4      0.1323 µg/L       0.05829      0.1323 ppb        0.05829  44.08%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 50
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 21:16:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140518.4	140518.4	96.3	%			21:16:42
1	Al 396.153Radial†	25783.9	26840.0	4953.4	µg/L	4953.4	ppb	21:16:42
1	Ca 317.933Radial†	85524.3	88257.2	4916.3	µg/L	4916.3	ppb	21:16:42
1	Fe 238.204 Radial†	76323.1	79114.2	4876.1	µg/L	4876.1	ppb	21:16:42
1	K 766.490 Radial†	14404.9	13414.9	4907.4	µg/L	4907.4	ppb	21:16:42
1	Mg 279.077 IEC†	13081.5	13394.6	4998.4	µg/L	4998.4	ppb	21:16:42
1	Na 589.592 Radial†	70242.3	71656.5	9784.8	µg/L	9784.8	ppb	21:16:42
1	Sr 421.552†	226316.6	235167.3	488.86	µg/L	488.86	ppb	21:16:40
1	Sc 361.383	1669103.9	1669103.9	97.142	%			21:16:55
1	Y 371.029	989417.5	989417.5	96.370	%			21:16:55
1	Ag 328.068†	129569.0	129290.2	484.77	µg/L	484.77	ppb	21:16:55
1	As 188.979†	1551.4	1617.4	496.19	µg/L	496.19	ppb	21:17:15
1	B 249.677†	34680.4	32195.0	473.14	µg/L	473.14	ppb	21:16:55
1	Ba 233.527†	116237.8	119794.0	483.13	µg/L	483.13	ppb	21:16:55
1	Be 313.107†	1725182.2	1777010.7	483.98	µg/L	483.98	ppb	21:16:55
1	Cd 226.502†	74430.6	76738.9	479.03	µg/L	479.03	ppb	21:16:55
1	Co 228.616†	37838.5	39142.2	483.21	µg/L	483.21	ppb	21:16:55
1	Cr 267.716†	59798.9	61379.9	480.59	µg/L	480.59	ppb	21:16:55
1	Cu 324.752†	122989.1	123635.9	481.97	µg/L	481.97	ppb	21:16:55
1	Mn 257.610†	381507.5	392496.1	485.42	µg/L	485.42	ppb	21:16:55
1	Mo 202.031†	16149.2	16644.5	489.61	µg/L	489.61	ppb	21:17:15
1	Ni 231.604†	40427.6	41693.7	480.07	µg/L	480.07	ppb	21:16:55
1	P 214.914†	11040.4	11383.2	2426.3	µg/L	2426.3	ppb	21:17:15
1	Pb 220.353†	8616.0	8783.1	491.85	µg/L	491.85	ppb	21:17:15
1	S 181.975 Axial†	1370.2	1305.5	973.53	µg/L	973.53	ppb	21:17:15
1	Sb 206.836†	4075.4	4114.5	490.34	µg/L	490.34	ppb	21:17:15
1	Se 196.026†	1325.8	1349.6	490	µg/L	490	ppb	21:17:15
1	SiO2†	53789.9	53597.3	5217.7	µg/L	5217.7	ppb	21:16:55
1	Si 251.611†	162739.1	166691.2	2447.8	µg/L	2447.8	ppb	21:16:55
1	Sn 189.927†	7604.8	7829.7	489.73	µg/L	489.73	ppb	21:17:15
1	Ti 334.940†	504929.9	518835.1	484.11	µg/L	484.11	ppb	21:16:55
1	Tl 190.801†	3752.3	3979.4	496.21	µg/L	496.21	ppb	21:17:15
1	U 409.014†	7197.9	7679.6	478.26	µg/L	478.26	ppb	21:16:55
1	V 292.402†	95634.0	98044.3	484.76	µg/L	484.76	ppb	21:16:55
1	Zn 213.857†	83598.9	85494.4	476.49	µg/L	476.49	ppb	21:16:55
2	Sc RADIAL	141583.7	141583.7	97.0	%			21:16:47
2	Al 396.153Radial†	25881.7	26739.3	4934.9	µg/L	4934.9	ppb	21:16:47
2	Ca 317.933Radial†	85790.3	87863.1	4894.3	µg/L	4894.3	ppb	21:16:47
2	Fe 238.204 Radial†	76348.3	78543.7	4841.0	µg/L	4841.0	ppb	21:16:47
2	K 766.490 Radial†	14349.6	13245.3	4845.3	µg/L	4845.3	ppb	21:16:47
2	Mg 279.077 IEC†	13161.7	13375.0	4991.0	µg/L	4991.0	ppb	21:16:47
2	Na 589.592 Radial†	70371.9	71241.2	9728.1	µg/L	9728.1	ppb	21:16:47
2	Sr 421.552†	225549.9	232608.6	483.54	µg/L	483.54	ppb	21:16:44
2	Sc 361.383	1700896.9	1700896.9	98.992	%			21:17:18
2	Y 371.029	1006820.6	1006820.6	98.065	%			21:17:18
2	Ag 328.068†	132249.7	129505.0	485.59	µg/L	485.59	ppb	21:17:18
2	As 188.979†	1564.2	1600.5	491.07	µg/L	491.07	ppb	21:17:38
2	B 249.677†	35612.0	32468.8	477.17	µg/L	477.17	ppb	21:17:18
2	Ba 233.527†	119305.1	120655.9	486.60	µg/L	486.60	ppb	21:17:18
2	Be 313.107†	1771257.8	1790359.7	487.62	µg/L	487.62	ppb	21:17:18
2	Cd 226.502†	76605.7	77504.0	483.82	µg/L	483.82	ppb	21:17:18
2	Co 228.616†	38857.8	39443.8	486.94	µg/L	486.94	ppb	21:17:18
2	Cr 267.716†	61346.5	61792.6	483.83	µg/L	483.83	ppb	21:17:18
2	Cu 324.752†	126079.4	124391.1	484.90	µg/L	484.90	ppb	21:17:18
2	Mn 257.610†	390683.2	394424.4	487.81	µg/L	487.81	ppb	21:17:18
2	Mo 202.031†	16315.1	16501.3	485.39	µg/L	485.39	ppb	21:17:38
2	Ni 231.604†	41564.0	42063.8	484.33	µg/L	484.33	ppb	21:17:18
2	P 214.914†	11170.5	11302.2	2409.0	µg/L	2409.0	ppb	21:17:38
2	Pb 220.353†	8716.3	8718.6	488.24	µg/L	488.24	ppb	21:17:38

2	S 181.975 Axial†	1376.8	1285.7	958.84 µg/L	958.84 ppb	21:17:38
2	Sb 206.836†	4095.5	4056.4	483.32 µg/L	483.32 ppb	21:17:38
2	Se 196.026†	1341.9	1340.3	487 µg/L	487 ppb	21:17:38
2	SiO2†	55368.1	54156.5	5272.5 µg/L	5272.5 ppb	21:17:18
2	Si 251.611†	166631.9	167492.1	2459.6 µg/L	2459.6 ppb	21:17:18
2	Sn 189.927†	7705.9	7785.5	486.98 µg/L	486.98 ppb	21:17:38
2	Ti 334.940†	516370.1	520675.9	485.83 µg/L	485.83 ppb	21:17:18
2	Tl 190.801†	3799.4	3954.7	493.19 µg/L	493.19 ppb	21:17:38
2	U 409.014†	7223.0	7566.5	471.79 µg/L	471.79 ppb	21:17:18
2	V 292.402†	97908.7	98501.9	486.96 µg/L	486.96 ppb	21:17:18
2	Zn 213.857†	86115.5	86428.0	481.70 µg/L	481.70 ppb	21:17:18
3	Sc RADIAL	140610.0	140610.0	96.4 %		21:16:51
3	Al 396.153Radial†	25934.1	26978.5	4979.2 µg/L	4979.2 ppb	21:16:51
3	Ca 317.933Radial†	85400.8	88071.2	4905.9 µg/L	4905.9 ppb	21:16:51
3	Fe 238.204 Radial†	76011.3	78739.0	4853.0 µg/L	4853.0 ppb	21:16:51
3	K 766.490 Radial†	14473.0	13475.8	4929.7 µg/L	4929.7 ppb	21:16:51
3	Mg 279.077 IEC†	13077.3	13381.4	4993.4 µg/L	4993.4 ppb	21:16:51
3	Na 589.592 Radial†	70342.7	71713.3	9792.5 µg/L	9792.5 ppb	21:16:51
3	Sr 421.552†	223908.2	232514.8	483.35 µg/L	483.35 ppb	21:16:49
3	Sc 361.383	1690270.1	1690270.1	98.373 %		21:17:42
3	Y 371.029	1001275.7	1001275.7	97.525 %		21:17:42
3	Ag 328.068†	131972.5	130063.1	487.66 µg/L	487.66 ppb	21:17:42
3	As 188.979†	1560.3	1606.5	492.89 µg/L	492.89 ppb	21:18:02
3	B 249.677†	35493.5	32574.4	478.72 µg/L	478.72 ppb	21:17:42
3	Ba 233.527†	118281.0	120372.5	485.46 µg/L	485.46 ppb	21:17:42
3	Be 313.107†	1758207.7	1788343.2	487.07 µg/L	487.07 ppb	21:17:42
3	Cd 226.502†	76039.5	77415.0	483.26 µg/L	483.26 ppb	21:17:42
3	Co 228.616†	38697.3	39527.5	487.97 µg/L	487.97 ppb	21:17:42
3	Cr 267.716†	61022.9	61853.3	484.31 µg/L	484.31 ppb	21:17:42
3	Cu 324.752†	124975.7	124069.9	483.65 µg/L	483.65 ppb	21:17:42
3	Mn 257.610†	388217.6	394399.3	487.78 µg/L	487.78 ppb	21:17:42
3	Mo 202.031†	16264.5	16553.5	486.93 µg/L	486.93 ppb	21:18:02
3	Ni 231.604†	41303.6	42063.1	484.33 µg/L	484.33 ppb	21:17:42
3	P 214.914†	11171.7	11374.3	2424.5 µg/L	2424.5 ppb	21:18:02
3	Pb 220.353†	8697.8	8755.2	490.29 µg/L	490.29 ppb	21:18:02
3	S 181.975 Axial†	1394.3	1312.3	978.61 µg/L	978.61 ppb	21:18:02
3	Sb 206.836†	4104.7	4091.7	487.54 µg/L	487.54 ppb	21:18:02
3	Se 196.026†	1335.6	1342.4	487 µg/L	487 ppb	21:18:02
3	SiO2†	54853.9	53985.5	5255.7 µg/L	5255.7 ppb	21:17:42
3	Si 251.611†	165452.6	167351.7	2457.5 µg/L	2457.5 ppb	21:17:42
3	Sn 189.927†	7688.5	7816.7	488.93 µg/L	488.93 ppb	21:18:02
3	Ti 334.940†	512939.3	520467.8	485.64 µg/L	485.64 ppb	21:17:42
3	Tl 190.801†	3797.1	3976.5	495.87 µg/L	495.87 ppb	21:18:02
3	U 409.014†	7116.8	7504.3	468.21 µg/L	468.21 ppb	21:17:42
3	V 292.402†	97506.3	98714.7	488.01 µg/L	488.01 ppb	21:17:42
3	Zn 213.857†	85518.8	86368.4	481.37 µg/L	481.37 ppb	21:17:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1686757.0	98.169	%	0.9420				0.96%
Sc RADIAL	140904.0	96.6	%	0.40				0.42%
Y 371.029	999171.3	97.320	%	0.8659				0.89%
Ag 328.068†	129619.5	486.01	µg/L	1.489	486.01	ppb	1.489	0.31%
QC value within limits for Ag 328.068 Recovery = 97.20%								
Al 396.153Radial†	26852.6	4955.8	µg/L	22.23	4955.8	ppb	22.23	0.45%
QC value within limits for Al 396.153Radial Recovery = 99.12%								
As 188.979†	1608.1	493.38	µg/L	2.596	493.38	ppb	2.596	0.53%
QC value within limits for As 188.979 Recovery = 98.68%								
B 249.677†	32412.8	476.35	µg/L	2.879	476.35	ppb	2.879	0.60%
QC value within limits for B 249.677 Recovery = 95.27%								
Ba 233.527†	120274.1	485.06	µg/L	1.771	485.06	ppb	1.771	0.37%
QC value within limits for Ba 233.527 Recovery = 97.01%								
Be 313.107†	1785237.9	486.22	µg/L	1.958	486.22	ppb	1.958	0.40%
QC value within limits for Be 313.107 Recovery = 97.24%								
Ca 317.933Radial†	88063.9	4905.5	µg/L	10.98	4905.5	ppb	10.98	0.22%
QC value within limits for Ca 317.933Radial Recovery = 98.11%								
Cd 226.502†	77219.3	482.04	µg/L	2.617	482.04	ppb	2.617	0.54%
QC value within limits for Cd 226.502 Recovery = 96.41%								
Co 228.616†	39371.2	486.04	µg/L	2.502	486.04	ppb	2.502	0.51%

```
   QC value within limits for Co 228.616  Recovery = 97.21%
Cr 267.716†            61675.3      482.91 µg/L         2.021      482.91 ppb          2.021   0.42%
   QC value within limits for Cr 267.716  Recovery = 96.58%
Cu 324.752†           124032.3      483.51 µg/L         1.468      483.51 ppb          1.468   0.30%
   QC value within limits for Cu 324.752  Recovery = 96.70%
Fe 238.204 Radial†     78799.0      4856.7 µg/L         17.87      4856.7 ppb          17.87   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.13%
K 766.490 Radial†      13378.7      4894.1 µg/L         43.71      4894.1 ppb          43.71   0.89%
   QC value within limits for K 766.490 Radial  Recovery = 97.88%
Mg 279.077 IEC†        13383.7      4994.3 µg/L          3.76      4994.3 ppb           3.76   0.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.89%
Mn 257.610†           393773.3      487.00 µg/L         1.369      487.00 ppb          1.369   0.28%
   QC value within limits for Mn 257.610  Recovery = 97.40%
Mo 202.031†            16566.4      487.31 µg/L         2.131      487.31 ppb          2.131   0.44%
   QC value within limits for Mo 202.031  Recovery = 97.46%
Na 589.592 Radial†     71537.0      9768.5 µg/L         35.17      9768.5 ppb          35.17   0.36%
   QC value within limits for Na 589.592 Radial  Recovery = 97.68%
Ni 231.604†            41940.2      482.91 µg/L         2.458      482.91 ppb          2.458   0.51%
   QC value within limits for Ni 231.604  Recovery = 96.58%
P 214.914†             11353.2      2419.9 µg/L          9.51      2419.9 ppb           9.51   0.39%
   QC value within limits for P 214.914  Recovery = 96.80%
Pb 220.353†             8752.3      490.13 µg/L         1.809      490.13 ppb          1.809   0.37%
   QC value within limits for Pb 220.353  Recovery = 98.03%
S 181.975 Axial†        1301.2      970.33 µg/L        10.267      970.33 ppb         10.267   1.06%
   QC value within limits for S 181.975 Axial  Recovery = 97.03%
Sb 206.836†             4087.6      487.07 µg/L         3.532      487.07 ppb          3.532   0.73%
   QC value within limits for Sb 206.836  Recovery = 97.41%
Se 196.026†             1344.1         488 µg/L           1.8         488 ppb            1.8   0.36%
   QC value within limits for Se 196.026  Recovery = 97.61%
SiO2†                  53913.1      5248.7 µg/L         28.09      5248.7 ppb          28.09   0.54%
   QC value within limits for SiO2  Recovery = 98.15%
Si 251.611†           167178.3      2455.0 µg/L          6.34      2455.0 ppb           6.34   0.26%
   QC value within limits for Si 251.611  Recovery = 98.20%
Sn 189.927†             7810.6      488.55 µg/L         1.414      488.55 ppb          1.414   0.29%
   QC value within limits for Sn 189.927  Recovery = 97.71%
Sr 421.552†           233430.2      485.25 µg/L         3.129      485.25 ppb          3.129   0.64%
   QC value within limits for Sr 421.552  Recovery = 97.05%
Ti 334.940†           519992.9      485.19 µg/L         0.943      485.19 ppb          0.943   0.19%
   QC value within limits for Ti 334.940  Recovery = 97.04%
Tl 190.801†             3970.2      495.09 µg/L         1.653      495.09 ppb          1.653   0.33%
   QC value within limits for Tl 190.801  Recovery = 99.02%
U 409.014†              7583.5      472.76 µg/L         5.091      472.76 ppb          5.091   1.08%
   QC value within limits for U 409.014  Recovery = 94.55%
V 292.402†             98420.3      486.58 µg/L         1.660      486.58 ppb          1.660   0.34%
   QC value within limits for V 292.402  Recovery = 97.32%
Zn 213.857†            86097.0      479.85 µg/L         2.921      479.85 ppb          2.921   0.61%
   QC value within limits for Zn 213.857  Recovery = 95.97%
All analyte(s) passed QC.
```

Sequence No.: 51 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/31/2010 21:18:10**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142340.5	142340.5	97.5	%			21:18:39
1	Al 396.153Radial†	-77.4	-16.2	-2.9808	µg/L	-2.9808	ppb	21:18:59
1	Ca 317.933Radial†	613.3	68.2	3.7996	µg/L	3.7996	ppb	21:18:59
1	Fe 238.204 Radial†	174.0	30.3	1.8673	µg/L	1.8673	ppb	21:18:59
1	K 766.490 Radial†	1617.0	113.0	41.366	µg/L	41.366	ppb	21:18:39
1	Mg 279.077 IEC†	173.7	-12.6	-4.7201	µg/L	-4.7201	ppb	21:18:59
1	Na 589.592 Radial†	1689.2	441.0	60.210	µg/L	60.210	ppb	21:18:39
1	Sr 421.552†	-87.4	45.7	0.0949	µg/L	0.0949	ppb	21:18:39
1	Sc 361.383	1691761.1	1691761.1	98.460	%			21:19:47
1	Y 371.029	1013835.9	1013835.9	98.748	%			21:19:47
1	Ag 328.068†	3999.1	-29.8	-0.1074	µg/L	-0.1074	ppb	21:19:49
1	As 188.979†	-10.2	10.0	3.0117	µg/L	3.0117	ppb	21:20:09
1	B 249.677†	3413.6	-39.0	-0.5756	µg/L	-0.5756	ppb	21:19:49
1	Ba 233.527†	-138.5	-4.8	-0.0197	µg/L	-0.0197	ppb	21:20:09
1	Be 313.107†	-974.4	75.0	0.0212	µg/L	0.0212	ppb	21:19:49
1	Cd 226.502†	-119.6	-3.3	-0.0208	µg/L	-0.0208	ppb	21:20:09
1	Co 228.616†	-162.5	25.3	0.3117	µg/L	0.3117	ppb	21:20:09
1	Cr 267.716†	206.6	31.2	0.2430	µg/L	0.2430	ppb	21:20:09
1	Cu 324.752†	2962.7	36.8	0.1452	µg/L	0.1452	ppb	21:19:49
1	Mn 257.610†	261.8	28.6	0.0356	µg/L	0.0356	ppb	21:20:09
1	Mo 202.031†	-32.6	-13.1	-0.3839	µg/L	-0.3839	ppb	21:20:09
1	Ni 231.604†	-104.8	-29.9	-0.3447	µg/L	-0.3447	ppb	21:20:09
1	P 214.914†	-11.4	6.4	1.3624	µg/L	1.3624	ppb	21:20:09
1	Pb 220.353†	75.5	-9.7	-0.5434	µg/L	-0.5434	ppb	21:20:09
1	S 181.975 Axial†	111.4	8.1	5.9955	µg/L	5.9955	ppb	21:20:09
1	Sb 206.836†	80.6	1.0	0.1122	µg/L	0.1122	ppb	21:20:09
1	Se 196.026†	3.3	-12.0	-4.33	µg/L	-4.33	ppb	21:20:09
1	SiO2†	1809.6	62.5	6.1130	µg/L	6.1130	ppb	21:20:09
1	Si 251.611†	946.2	124.4	1.8365	µg/L	1.8365	ppb	21:19:49
1	Sn 189.927†	4.9	6.1	0.3820	µg/L	0.3820	ppb	21:20:09
1	Ti 334.940†	770.9	-169.6	-0.1590	µg/L	-0.1590	ppb	21:19:49
1	Tl 190.801†	-120.5	-5.8	-0.7102	µg/L	-0.7102	ppb	21:20:09
1	U 409.014†	-225.3	41.0	2.4000	µg/L	2.4000	ppb	21:19:49
1	V 292.402†	398.1	0.6	0.0014	µg/L	0.0014	ppb	21:19:49
1	Zn 213.857†	596.3	41.2	0.2333	µg/L	0.2333	ppb	21:20:09
2	Sc RADIAL	140388.8	140388.8	96.2	%			21:19:01
2	Al 396.153Radial†	-40.1	21.6	4.0106	µg/L	4.0106	ppb	21:19:21
2	Ca 317.933Radial†	583.2	45.7	2.5430	µg/L	2.5430	ppb	21:19:21
2	Fe 238.204 Radial†	163.9	22.3	1.3738	µg/L	1.3738	ppb	21:19:21
2	K 766.490 Radial†	1756.0	280.5	102.70	µg/L	102.70	ppb	21:19:01
2	Mg 279.077 IEC†	185.4	2.0	0.7420	µg/L	0.7420	ppb	21:19:21
2	Na 589.592 Radial†	1757.4	535.9	73.122	µg/L	73.122	ppb	21:19:01
2	Sr 421.552†	-150.8	-21.5	-0.0447	µg/L	-0.0447	ppb	21:19:01
2	Sc 361.383	1725840.2	1725840.2	100.44	%			21:20:11
2	Y 371.029	1031661.1	1031661.1	100.48	%			21:20:11
2	Ag 328.068†	4128.5	18.9	0.0653	µg/L	0.0653	ppb	21:20:13
2	As 188.979†	-6.9	13.5	4.0841	µg/L	4.0841	ppb	21:20:34
2	B 249.677†	3476.1	-45.2	-0.6676	µg/L	-0.6676	ppb	21:20:13
2	Ba 233.527†	-122.5	13.9	0.0557	µg/L	0.0557	ppb	21:20:34
2	Be 313.107†	-1003.4	65.7	0.0171	µg/L	0.0171	ppb	21:20:13
2	Cd 226.502†	-100.9	17.7	0.1106	µg/L	0.1106	ppb	21:20:34
2	Co 228.616†	-165.4	25.6	0.3157	µg/L	0.3157	ppb	21:20:34
2	Cr 267.716†	175.4	-3.9	-0.0289	µg/L	-0.0289	ppb	21:20:34
2	Cu 324.752†	2951.3	-34.0	-0.1338	µg/L	-0.1338	ppb	21:20:13
2	Mn 257.610†	228.4	-9.9	-0.0123	µg/L	-0.0123	ppb	21:20:34
2	Mo 202.031†	-29.3	-9.0	-0.2659	µg/L	-0.2659	ppb	21:20:34
2	Ni 231.604†	-82.5	-5.6	-0.0645	µg/L	-0.0645	ppb	21:20:34
2	P 214.914†	-14.3	3.8	0.8123	µg/L	0.8123	ppb	21:20:34
2	Pb 220.353†	82.1	-4.7	-0.2595	µg/L	-0.2595	ppb	21:20:34

2	S 181.975 Axial†	91.3	-14.1	-10.498 µg/L	-10.498 ppb	21:20:34
2	Sb 206.836†	71.7	-9.4	-1.1204 µg/L	-1.1204 ppb	21:20:34
2	Se 196.026†	16.3	0.9	0.337 µg/L	0.337 ppb	21:20:34
2	SiO2†	1744.2	-38.9	-3.7990 µg/L	-3.7990 ppb	21:20:34
2	Si 251.611†	837.7	-2.5	-0.0368 µg/L	-0.0368 ppb	21:20:13
2	Sn 189.927†	6.2	7.3	0.4532 µg/L	0.4532 ppb	21:20:34
2	Ti 334.940†	756.2	-199.7	-0.1855 µg/L	-0.1855 ppb	21:20:13
2	Tl 190.801†	-123.1	-5.9	-0.7309 µg/L	-0.7309 ppb	21:20:34
2	U 409.014†	-314.2	-43.0	-2.5195 µg/L	-2.5195 ppb	21:20:13
2	V 292.402†	382.0	-23.5	-0.1192 µg/L	-0.1192 ppb	21:20:13
2	Zn 213.857†	586.1	19.1	0.1074 µg/L	0.1074 ppb	21:20:34
3	Sc RADIAL	142445.8	142445.8	97.6 %		21:19:23
3	Al 396.153Radial†	-90.2	-29.2	-5.4175 µg/L	-5.4175 ppb	21:19:43
3	Ca 317.933Radial†	593.8	47.8	2.6599 µg/L	2.6599 ppb	21:19:43
3	Fe 238.204 Radial†	167.0	23.0	1.4166 µg/L	1.4166 ppb	21:19:43
3	K 766.490 Radial†	1597.6	91.9	33.647 µg/L	33.647 ppb	21:19:23
3	Mg 279.077 IEC†	184.4	-1.8	-0.6658 µg/L	-0.6658 ppb	21:19:43
3	Na 589.592 Radial†	1758.3	510.5	69.717 µg/L	69.717 ppb	21:19:23
3	Sr 421.552†	-153.0	-21.4	-0.0445 µg/L	-0.0445 ppb	21:19:23
3	Sc 361.383	1713474.3	1713474.3	99.724 %		21:20:36
3	Y 371.029	1024068.4	1024068.4	99.745 %		21:20:36
3	Ag 328.068†	4150.2	70.3	0.2535 µg/L	0.2535 ppb	21:20:38
3	As 188.979†	-9.9	10.5	3.1681 µg/L	3.1681 ppb	21:20:58
3	B 249.677†	3600.1	104.2	1.5371 µg/L	1.5371 ppb	21:20:38
3	Ba 233.527†	-126.3	9.2	0.0373 µg/L	0.0373 ppb	21:20:58
3	Be 313.107†	-965.7	96.3	0.0240 µg/L	0.0240 ppb	21:20:38
3	Cd 226.502†	-105.6	12.3	0.0767 µg/L	0.0767 ppb	21:20:58
3	Co 228.616†	-193.8	-4.0	-0.0492 µg/L	-0.0492 ppb	21:20:58
3	Cr 267.716†	191.2	13.1	0.1087 µg/L	0.1087 ppb	21:20:58
3	Cu 324.752†	2975.4	11.4	0.0383 µg/L	0.0383 ppb	21:20:38
3	Mn 257.610†	236.4	-0.2	-0.0002 µg/L	-0.0002 ppb	21:20:58
3	Mo 202.031†	-19.1	0.9	0.0276 µg/L	0.0276 ppb	21:20:58
3	Ni 231.604†	-66.0	10.3	0.1188 µg/L	0.1188 ppb	21:20:58
3	P 214.914†	-5.2	12.7	2.7193 µg/L	2.7193 ppb	21:20:58
3	Pb 220.353†	57.4	-28.8	-1.6039 µg/L	-1.6039 ppb	21:20:58
3	S 181.975 Axial†	102.3	-2.4	-1.8005 µg/L	-1.8005 ppb	21:20:58
3	Sb 206.836†	78.7	-1.9	-0.2267 µg/L	-0.2267 ppb	21:20:58
3	Se 196.026†	18.0	2.8	0.995 µg/L	0.995 ppb	21:20:58
3	SiO2†	1745.8	-24.7	-2.4280 µg/L	-2.4280 ppb	21:20:58
3	Si 251.611†	1027.5	193.7	2.8516 µg/L	2.8516 ppb	21:20:38
3	Sn 189.927†	9.3	10.4	0.6506 µg/L	0.6506 ppb	21:20:58
3	Ti 334.940†	1090.0	140.5	0.1344 µg/L	0.1344 ppb	21:20:38
3	Tl 190.801†	-127.7	-11.4	-1.3953 µg/L	-1.3953 ppb	21:20:58
3	U 409.014†	-395.2	-126.4	-7.3813 µg/L	-7.3813 ppb	21:20:38
3	V 292.402†	441.4	38.8	0.1850 µg/L	0.1850 ppb	21:20:38
3	Zn 213.857†	582.7	19.9	0.1107 µg/L	0.1107 ppb	21:20:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1710358.5	99.543	%	1.0041				1.01%
Sc RADIAL	141725.0	97.1	%	0.79				0.82%
Y 371.029	1023188.4	99.659	%	0.8713				0.87%
Ag 328.068†	19.8	0.0705	µg/L	0.18052	0.0705	ppb	0.18052	256.19%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.9	-1.4626	µg/L	4.89399	-1.4626	ppb	4.89399	334.61%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.3	3.4213	µg/L	0.57932	3.4213	ppb	0.57932	16.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	6.7	0.0980	µg/L	1.24716	0.0980	ppb	1.24716	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.1	0.0244	µg/L	0.03927	0.0244	ppb	0.03927	160.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	79.0	0.0208	µg/L	0.00345	0.0208	ppb	0.00345	16.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	53.9	3.0008	µg/L	0.69420	3.0008	ppb	0.69420	23.13%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.9	0.0555	µg/L	0.06825	0.0555	ppb	0.06825	123.01%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	15.6	0.1927	µg/L	0.20954	0.1927	ppb	0.20954	108.73%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              13.5      0.1076 µg/L       0.13596      0.1076 ppb        0.13596 126.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               4.7      0.0166 µg/L       0.14075      0.0166 ppb        0.14075 850.04%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       25.2      1.5526 µg/L       0.27342      1.5526 ppb        0.27342  17.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       161.8      59.237 µg/L       37.8362      59.237 ppb        37.8362  63.87%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -4.1     -1.5480 µg/L       2.83593     -1.5480 ppb        2.83593 183.20%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               6.2      0.0077 µg/L       0.02490      0.0077 ppb        0.02490 322.21%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -7.1     -0.2074 µg/L       0.21190     -0.2074 ppb        0.21190 102.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      495.8      67.683 µg/L        6.6920      67.683 ppb         6.6920   9.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -8.4     -0.0968 µg/L       0.23339     -0.0968 ppb        0.23339 241.07%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                7.6      1.6313 µg/L       0.98157      1.6313 ppb        0.98157  60.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -14.4     -0.8023 µg/L       0.70858     -0.8023 ppb        0.70858  88.32%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.8     -2.1010 µg/L       8.25080     -2.1010 ppb        8.25080 392.71%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.4     -0.4117 µg/L       0.63677     -0.4117 ppb        0.63677 154.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.8      -0.998 µg/L        2.9005      -0.998 ppb         2.9005 290.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -0.4     -0.0380 µg/L       5.37088     -0.0380 ppb        5.37088 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             105.2      1.5504 µg/L       1.46530      1.5504 ppb        1.46530  94.51%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.9      0.4953 µg/L       0.13914      0.4953 ppb        0.13914  28.09%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               0.9      0.0019 µg/L       0.08056      0.0019 ppb        0.08056 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -76.2     -0.0700 µg/L       0.17755     -0.0700 ppb        0.17755 253.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -7.7     -0.9455 µg/L       0.38970     -0.9455 ppb        0.38970  41.22%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -42.8     -2.5003 µg/L       4.89065     -2.5003 ppb        4.89065 195.61%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                5.3      0.0224 µg/L       0.15317      0.0224 ppb        0.15317 684.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              26.7      0.1505 µg/L       0.07173      0.1505 ppb        0.07173  47.67%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 61
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 21:39:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143665.7	143665.7	98.4	%			21:40:31
1	Al 396.153Radial†	26354.7	26833.2	4952.4	µg/L	4952.4	ppb	21:40:31
1	Ca 317.933Radial†	87317.1	88132.5	4909.3	µg/L	4909.3	ppb	21:40:31
1	Fe 238.204 Radial†	78178.3	79262.3	4885.2	µg/L	4885.2	ppb	21:40:31
1	K 766.490 Radial†	14683.9	13370.5	4891.1	µg/L	4891.1	ppb	21:40:31
1	Mg 279.077 IEC†	13397.8	13418.2	5007.1	µg/L	5007.1	ppb	21:40:31
1	Na 589.592 Radial†	71164.9	70995.6	9694.5	µg/L	9694.5	ppb	21:40:31
1	Sr 421.552†	233220.3	237030.9	492.73	µg/L	492.73	ppb	21:40:29
1	Sc 361.383	1721068.9	1721068.9	100.17	%			21:40:44
1	Y 371.029	1018507.5	1018507.5	99.203	%			21:40:44
1	Ag 328.068†	133737.4	129424.5	485.29	µg/L	485.29	ppb	21:40:44
1	As 188.979†	1607.1	1624.8	498.43	µg/L	498.43	ppb	21:41:04
1	B 249.677†	35997.3	32431.8	476.62	µg/L	476.62	ppb	21:40:44
1	Ba 233.527†	120429.2	120365.5	485.43	µg/L	485.43	ppb	21:40:44
1	Be 313.107†	1795349.9	1793440.3	488.46	µg/L	488.46	ppb	21:40:44
1	Cd 226.502†	77524.8	77514.6	483.88	µg/L	483.88	ppb	21:40:44
1	Co 228.616†	39299.3	39424.5	486.69	µg/L	486.69	ppb	21:40:44
1	Cr 267.716†	61864.3	61583.2	482.19	µg/L	482.19	ppb	21:40:44
1	Cu 324.752†	127127.0	123944.2	483.17	µg/L	483.17	ppb	21:40:44
1	Mn 257.610†	395346.6	394454.4	487.85	µg/L	487.85	ppb	21:40:44
1	Mo 202.031†	16480.7	16473.5	484.58	µg/L	484.58	ppb	21:41:04
1	Ni 231.604†	41947.7	41954.7	483.08	µg/L	483.08	ppb	21:40:44
1	P 214.914†	11320.1	11319.3	2412.7	µg/L	2412.7	ppb	21:41:04
1	Pb 220.353†	8845.0	8744.0	489.65	µg/L	489.65	ppb	21:41:04
1	S 181.975 Axial†	1407.4	1300.0	969.45	µg/L	969.45	ppb	21:41:04
1	Sb 206.836†	4164.4	4076.7	485.74	µg/L	485.74	ppb	21:41:04
1	Se 196.026†	1354.0	1336.4	485	µg/L	485	ppb	21:41:04
1	SiO2†	55679.1	53811.5	5238.8	µg/L	5238.8	ppb	21:40:44
1	Si 251.611†	168734.5	167618.4	2461.5	µg/L	2461.5	ppb	21:40:44
1	Sn 189.927†	7779.1	7767.4	485.85	µg/L	485.85	ppb	21:41:04
1	Ti 334.940†	522596.2	520777.9	485.92	µg/L	485.92	ppb	21:40:44
1	Tl 190.801†	3874.4	3984.7	496.88	µg/L	496.88	ppb	21:41:04
1	U 409.014†	7407.3	7664.9	477.49	µg/L	477.49	ppb	21:40:44
1	V 292.402†	98914.4	98346.8	486.18	µg/L	486.18	ppb	21:40:44
1	Zn 213.857†	87152.2	86443.4	481.80	µg/L	481.80	ppb	21:40:44
2	Sc RADIAL	145456.2	145456.2	99.7	%			21:40:35
2	Al 396.153Radial†	26834.6	26985.2	4980.5	µg/L	4980.5	ppb	21:40:35
2	Ca 317.933Radial†	88881.4	88610.2	4935.9	µg/L	4935.9	ppb	21:40:35
2	Fe 238.204 Radial†	79662.0	79773.3	4916.7	µg/L	4916.7	ppb	21:40:35
2	K 766.490 Radial†	14845.0	13348.6	4883.1	µg/L	4883.1	ppb	21:40:35
2	Mg 279.077 IEC†	13510.7	13364.0	4986.9	µg/L	4986.9	ppb	21:40:35
2	Na 589.592 Radial†	72176.6	71120.8	9711.6	µg/L	9711.6	ppb	21:40:35
2	Sr 421.552†	230930.1	231817.3	481.90	µg/L	481.90	ppb	21:40:33
2	Sc 361.383	1718468.2	1718468.2	100.01	%			21:41:07
2	Y 371.029	1016391.1	1016391.1	98.997	%			21:41:07
2	Ag 328.068†	133896.2	129785.3	486.62	µg/L	486.62	ppb	21:41:07
2	As 188.979†	1611.9	1632.1	500.64	µg/L	500.64	ppb	21:41:27
2	B 249.677†	36060.3	32549.2	478.36	µg/L	478.36	ppb	21:41:07
2	Ba 233.527†	120340.6	120458.9	485.81	µg/L	485.81	ppb	21:41:07
2	Be 313.107†	1792650.3	1793453.6	488.45	µg/L	488.45	ppb	21:41:07
2	Cd 226.502†	77583.4	77690.3	484.97	µg/L	484.97	ppb	21:41:07
2	Co 228.616†	39213.4	39398.0	486.37	µg/L	486.37	ppb	21:41:07
2	Cr 267.716†	61991.1	61803.5	483.93	µg/L	483.93	ppb	21:41:07
2	Cu 324.752†	127061.9	124071.2	483.66	µg/L	483.66	ppb	21:41:07
2	Mn 257.610†	395040.3	394745.5	488.21	µg/L	488.21	ppb	21:41:07
2	Mo 202.031†	16505.0	16522.7	486.03	µg/L	486.03	ppb	21:41:27
2	Ni 231.604†	42190.5	42260.9	486.60	µg/L	486.60	ppb	21:41:07
2	P 214.914†	11360.6	11376.9	2425.0	µg/L	2425.0	ppb	21:41:27
2	Pb 220.353†	8840.9	8753.2	490.18	µg/L	490.18	ppb	21:41:27

2	S 181.975 Axial†	1398.8	1293.6	964.68 µg/L	964.68 ppb	21:41:27
2	Sb 206.836†	4174.1	4092.7	487.64 µg/L	487.64 ppb	21:41:27
2	Se 196.026†	1355.3	1339.8	486 µg/L	486 ppb	21:41:27
2	SiO2†	55809.3	54025.8	5259.7 µg/L	5259.7 ppb	21:41:07
2	Si 251.611†	168475.9	167614.8	2461.4 µg/L	2461.4 ppb	21:41:07
2	Sn 189.927†	7806.2	7806.1	488.27 µg/L	488.27 ppb	21:41:27
2	Ti 334.940†	521521.1	520492.6	485.66 µg/L	485.66 ppb	21:41:07
2	Tl 190.801†	3825.2	3941.3	491.55 µg/L	491.55 ppb	21:41:27
2	U 409.014†	7087.5	7356.3	459.54 µg/L	459.54 ppb	21:41:07
2	V 292.402†	99089.1	98670.9	487.77 µg/L	487.77 ppb	21:41:07
2	Zn 213.857†	87415.4	86838.2	483.99 µg/L	483.99 ppb	21:41:07
3	Sc RADIAL	143191.9	143191.9	98.1 %		21:40:39
3	Al 396.153Radial†	26557.8	27128.8	5007.1 µg/L	5007.1 ppb	21:40:39
3	Ca 317.933Radial†	87348.5	88458.0	4927.5 µg/L	4927.5 ppb	21:40:39
3	Fe 238.204 Radial†	78236.9	79584.7	4905.1 µg/L	4905.1 ppb	21:40:39
3	K 766.490 Radial†	14659.9	13395.4	4900.3 µg/L	4900.3 ppb	21:40:39
3	Mg 279.077 IEC†	13262.5	13325.4	4972.5 µg/L	4972.5 ppb	21:40:39
3	Na 589.592 Radial†	71088.0	71156.4	9716.5 µg/L	9716.5 ppb	21:40:39
3	Sr 421.552†	229311.5	233831.2	486.08 µg/L	486.08 ppb	21:40:37
3	Sc 361.383	1712233.1	1712233.1	99.652 %		21:41:30
3	Y 371.029	1012145.6	1012145.6	98.583 %		21:41:30
3	Ag 328.068†	133864.3	130240.8	488.35 µg/L	488.35 ppb	21:41:30
3	As 188.979†	1597.0	1622.9	497.89 µg/L	497.89 ppb	21:41:50
3	B 249.677†	36087.2	32707.4	480.68 µg/L	480.68 ppb	21:41:30
3	Ba 233.527†	120029.4	120584.8	486.32 µg/L	486.32 ppb	21:41:30
3	Be 313.107†	1789689.6	1797009.6	489.43 µg/L	489.43 ppb	21:41:30
3	Cd 226.502†	77607.6	77997.0	486.89 µg/L	486.89 ppb	21:41:30
3	Co 228.616†	39237.2	39564.7	488.42 µg/L	488.42 ppb	21:41:30
3	Cr 267.716†	61895.9	61933.7	484.93 µg/L	484.93 ppb	21:41:30
3	Cu 324.752†	126699.8	124170.4	484.06 µg/L	484.06 ppb	21:41:30
3	Mn 257.610†	394236.6	395377.2	488.99 µg/L	488.99 ppb	21:41:30
3	Mo 202.031†	16435.8	16513.3	485.75 µg/L	485.75 ppb	21:41:50
3	Ni 231.604†	42100.7	42324.4	487.33 µg/L	487.33 ppb	21:41:30
3	P 214.914†	11331.6	11389.1	2427.6 µg/L	2427.6 ppb	21:41:50
3	Pb 220.353†	8803.4	8747.8	489.86 µg/L	489.86 ppb	21:41:50
3	S 181.975 Axial†	1399.9	1299.7	969.26 µg/L	969.26 ppb	21:41:50
3	Sb 206.836†	4147.7	4081.4	486.29 µg/L	486.29 ppb	21:41:50
3	Se 196.026†	1361.2	1350.7	490 µg/L	490 ppb	21:41:50
3	SiO2†	55566.3	53985.2	5255.7 µg/L	5255.7 ppb	21:41:30
3	Si 251.611†	168537.6	168290.1	2471.4 µg/L	2471.4 ppb	21:41:30
3	Sn 189.927†	7783.2	7811.5	488.60 µg/L	488.60 ppb	21:41:50
3	Ti 334.940†	520012.8	520877.8	486.02 µg/L	486.02 ppb	21:41:30
3	Tl 190.801†	3855.0	3985.2	496.95 µg/L	496.95 ppb	21:41:50
3	U 409.014†	7438.0	7733.9	481.69 µg/L	481.69 ppb	21:41:30
3	V 292.402†	98978.3	98920.4	489.01 µg/L	489.01 ppb	21:41:30
3	Zn 213.857†	86968.8	86708.3	483.25 µg/L	483.25 ppb	21:41:30

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1717256.7	99.944	%	0.2643				0.26%
Sc RADIAL	144104.6	98.7	%	0.82				0.83%
Y 371.029	1015681.4	98.928	%	0.3156				0.32%
Ag 328.068†	129816.8	486.75	µg/L	1.535	486.75	ppb	1.535	0.32%
QC value within limits for Ag 328.068 Recovery = 97.35%								
Al 396.153Radial†	26982.4	4980.0	µg/L	27.38	4980.0	ppb	27.38	0.55%
QC value within limits for Al 396.153Radial Recovery = 99.60%								
As 188.979†	1626.6	498.99	µg/L	1.460	498.99	ppb	1.460	0.29%
QC value within limits for As 188.979 Recovery = 99.80%								
B 249.677†	32562.8	478.55	µg/L	2.037	478.55	ppb	2.037	0.43%
QC value within limits for B 249.677 Recovery = 95.71%								
Ba 233.527†	120469.8	485.85	µg/L	0.444	485.85	ppb	0.444	0.09%
QC value within limits for Ba 233.527 Recovery = 97.17%								
Be 313.107†	1794634.5	488.78	µg/L	0.562	488.78	ppb	0.562	0.12%
QC value within limits for Be 313.107 Recovery = 97.76%								
Ca 317.933Radial†	88400.3	4924.2	µg/L	13.59	4924.2	ppb	13.59	0.28%
QC value within limits for Ca 317.933Radial Recovery = 98.48%								
Cd 226.502†	77734.0	485.25	µg/L	1.525	485.25	ppb	1.525	0.31%
QC value within limits for Cd 226.502 Recovery = 97.05%								
Co 228.616†	39462.4	487.16	µg/L	1.106	487.16	ppb	1.106	0.23%

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   QC value within limits for Co 228.616  Recovery = 97.43%
Cr 267.716†            61773.5      483.68 µg/L         1.389      483.68 ppb          1.389   0.29%
   QC value within limits for Cr 267.716  Recovery = 96.74%
Cu 324.752†           124061.9      483.63 µg/L         0.443      483.63 ppb          0.443   0.09%
   QC value within limits for Cu 324.752  Recovery = 96.73%
Fe 238.204 Radial†     79540.1      4902.4 µg/L         15.93      4902.4 ppb          15.93   0.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.05%
K 766.490 Radial†      13371.5      4891.5 µg/L          8.58      4891.5 ppb           8.58   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 97.83%
Mg 279.077 IEC†        13369.2      4988.8 µg/L         17.36      4988.8 ppb          17.36   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.78%
Mn 257.610†           394859.0      488.35 µg/L         0.584      488.35 ppb          0.584   0.12%
   QC value within limits for Mn 257.610  Recovery = 97.67%
Mo 202.031†            16503.2      485.45 µg/L         0.769      485.45 ppb          0.769   0.16%
   QC value within limits for Mo 202.031  Recovery = 97.09%
Na 589.592 Radial†     71090.9      9707.5 µg/L         11.54      9707.5 ppb          11.54   0.12%
   QC value within limits for Na 589.592 Radial  Recovery = 97.08%
Ni 231.604†            42180.0      485.67 µg/L         2.276      485.67 ppb          2.276   0.47%
   QC value within limits for Ni 231.604  Recovery = 97.13%
P 214.914†             11361.8      2421.7 µg/L          7.97      2421.7 ppb           7.97   0.33%
   QC value within limits for P 214.914  Recovery = 96.87%
Pb 220.353†             8748.3      489.90 µg/L         0.268      489.90 ppb          0.268   0.05%
   QC value within limits for Pb 220.353  Recovery = 97.98%
S 181.975 Axial†        1297.8      967.80 µg/L         2.698      967.80 ppb          2.698   0.28%
   QC value within limits for S 181.975 Axial  Recovery = 96.78%
Sb 206.836†             4083.6      486.56 µg/L         0.979      486.56 ppb          0.979   0.20%
   QC value within limits for Sb 206.836  Recovery = 97.31%
Se 196.026†             1342.3         487 µg/L           2.7         487 ppb            2.7   0.55%
   QC value within limits for Se 196.026  Recovery = 97.48%
SiO2†                  53940.8      5251.4 µg/L         11.08      5251.4 ppb          11.08   0.21%
   QC value within limits for SiO2  Recovery = 98.20%
Si 251.611†           167841.1      2464.8 µg/L          5.72      2464.8 ppb           5.72   0.23%
   QC value within limits for Si 251.611  Recovery = 98.59%
Sn 189.927†             7795.0      487.58 µg/L         1.501      487.58 ppb          1.501   0.31%
   QC value within limits for Sn 189.927  Recovery = 97.52%
Sr 421.552†           234226.5      486.90 µg/L         5.466      486.90 ppb          5.466   1.12%
   QC value within limits for Sr 421.552  Recovery = 97.38%
Ti 334.940†           520716.1      485.87 µg/L         0.182      485.87 ppb          0.182   0.04%
   QC value within limits for Ti 334.940  Recovery = 97.17%
Tl 190.801†             3970.4      495.13 µg/L         3.095      495.13 ppb          3.095   0.63%
   QC value within limits for Tl 190.801  Recovery = 99.03%
U 409.014†              7585.0      472.91 µg/L        11.768      472.91 ppb         11.768   2.49%
   QC value within limits for U 409.014  Recovery = 94.58%
V 292.402†             98646.0      487.65 µg/L         1.415      487.65 ppb          1.415   0.29%
   QC value within limits for V 292.402  Recovery = 97.53%
Zn 213.857†            86663.3      483.01 µg/L         1.115      483.01 ppb          1.115   0.23%
   QC value within limits for Zn 213.857  Recovery = 96.60%
All analyte(s) passed QC.
```

Sequence No.: 62 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/31/2010 21:41:59**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	143435.3	143435.3	98.3	%			21:42:30
1	Al 396.153Radial†	-56.2	6.0	1.1301	µg/L	1.1301	ppb	21:42:50
1	Ca 317.933Radial†	581.9	31.5	1.7535	µg/L	1.7535	ppb	21:42:50
1	Fe 238.204 Radial†	220.1	75.9	4.6750	µg/L	4.6750	ppb	21:42:50
1	K 766.490 Radial†	1630.1	113.7	41.604	µg/L	41.604	ppb	21:42:30
1	Mg 279.077 IEC†	185.9	-1.6	-0.5986	µg/L	-0.5986	ppb	21:42:50
1	Na 589.592 Radial†	1456.5	191.1	26.064	µg/L	26.064	ppb	21:42:30
1	Sr 421.552†	-303.2	-173.2	-0.3600	µg/L	-0.3600	ppb	21:42:30
1	Sc 361.383	1716104.0	1716104.0	99.877	%			21:43:52
1	Y 371.029	1026337.9	1026337.9	99.966	%			21:43:52
1	Ag 328.068†	4103.4	17.0	0.0542	µg/L	0.0542	ppb	21:43:54
1	As 188.979†	-11.9	8.5	2.5574	µg/L	2.5574	ppb	21:44:14
1	B 249.677†	3527.0	25.5	0.3738	µg/L	0.3738	ppb	21:43:54
1	Ba 233.527†	-143.0	-7.3	-0.0298	µg/L	-0.0298	ppb	21:44:14
1	Be 313.107†	-770.0	293.7	0.0782	µg/L	0.0782	ppb	21:43:54
1	Cd 226.502†	-77.7	40.4	0.2520	µg/L	0.2520	ppb	21:44:14
1	Co 228.616†	-153.6	36.5	0.4505	µg/L	0.4505	ppb	21:44:14
1	Cr 267.716†	176.1	-2.3	-0.0133	µg/L	-0.0133	ppb	21:44:14
1	Cu 324.752†	3046.8	78.3	0.3006	µg/L	0.3006	ppb	21:43:54
1	Mn 257.610†	328.7	91.9	0.1137	µg/L	0.1137	ppb	21:44:14
1	Mo 202.031†	-27.4	-7.4	-0.2173	µg/L	-0.2173	ppb	21:44:14
1	Ni 231.604†	-77.8	-1.3	-0.0154	µg/L	-0.0154	ppb	21:44:14
1	P 214.914†	-3.8	14.1	3.0202	µg/L	3.0202	ppb	21:44:14
1	Pb 220.353†	91.6	5.4	0.3025	µg/L	0.3025	ppb	21:44:14
1	S 181.975 Axial†	84.3	-20.7	-15.370	µg/L	-15.370	ppb	21:44:14
1	Sb 206.836†	85.3	4.6	0.5436	µg/L	0.5436	ppb	21:44:14
1	Se 196.026†	18.7	3.4	1.24	µg/L	1.24	ppb	21:44:14
1	SiO2†	1789.6	16.4	1.6035	µg/L	1.6035	ppb	21:44:14
1	Si 251.611†	934.5	99.0	1.4600	µg/L	1.4600	ppb	21:43:54
1	Sn 189.927†	6.5	7.6	0.4757	µg/L	0.4757	ppb	21:44:14
1	Ti 334.940†	967.5	16.2	0.0175	µg/L	0.0175	ppb	21:43:54
1	Tl 190.801†	-127.3	-10.8	-1.3305	µg/L	-1.3305	ppb	21:44:14
1	U 409.014†	-367.5	-98.1	-5.7438	µg/L	-5.7438	ppb	21:43:54
1	V 292.402†	375.1	-28.2	-0.1442	µg/L	-0.1442	ppb	21:43:54
1	Zn 213.857†	580.1	16.4	0.0915	µg/L	0.0915	ppb	21:44:14
2	Sc RADIAL	141870.3	141870.3	97.2	%			21:42:52
2	Al 396.153Radial†	-65.2	-3.9	-0.6977	µg/L	-0.6977	ppb	21:43:12
2	Ca 317.933Radial†	617.6	74.7	4.1593	µg/L	4.1593	ppb	21:43:12
2	Fe 238.204 Radial†	216.5	74.5	4.5946	µg/L	4.5946	ppb	21:43:12
2	K 766.490 Radial†	1775.2	281.2	102.95	µg/L	102.95	ppb	21:42:52
2	Mg 279.077 IEC†	182.1	-3.4	-1.2877	µg/L	-1.2877	ppb	21:43:12
2	Na 589.592 Radial†	1482.8	234.5	31.940	µg/L	31.940	ppb	21:42:52
2	Sr 421.552†	-167.3	-36.8	-0.0764	µg/L	-0.0764	ppb	21:42:52
2	Sc 361.383	1723490.8	1723490.8	100.31	%			21:44:16
2	Y 371.029	1031447.1	1031447.1	100.46	%			21:44:16
2	Ag 328.068†	4201.6	97.3	0.3501	µg/L	0.3501	ppb	21:44:18
2	As 188.979†	-15.3	5.1	1.5573	µg/L	1.5573	ppb	21:44:38
2	B 249.677†	3665.3	148.2	2.1841	µg/L	2.1841	ppb	21:44:18
2	Ba 233.527†	-146.0	-9.7	-0.0400	µg/L	-0.0400	ppb	21:44:38
2	Be 313.107†	-1050.7	17.2	0.0045	µg/L	0.0045	ppb	21:44:18
2	Cd 226.502†	-111.8	6.7	0.0414	µg/L	0.0414	ppb	21:44:38
2	Co 228.616†	-164.6	26.2	0.3234	µg/L	0.3234	ppb	21:44:38
2	Cr 267.716†	226.4	47.1	0.3695	µg/L	0.3695	ppb	21:44:38
2	Cu 324.752†	2823.9	-156.9	-0.6096	µg/L	-0.6096	ppb	21:44:18
2	Mn 257.610†	284.0	45.8	0.0568	µg/L	0.0568	ppb	21:44:38
2	Mo 202.031†	-36.4	-16.2	-0.4763	µg/L	-0.4763	ppb	21:44:38
2	Ni 231.604†	-100.6	-23.8	-0.2736	µg/L	-0.2736	ppb	21:44:38
2	P 214.914†	-35.6	-17.5	-3.7362	µg/L	-3.7362	ppb	21:44:38
2	Pb 220.353†	84.0	-2.6	-0.1459	µg/L	-0.1459	ppb	21:44:38

2	S 181.975 Axial†	89.5	-15.8	-11.745	µg/L	-11.745 ppb	21:44:38
2	Sb 206.836†	89.4	8.3	0.9755	µg/L	0.9755 ppb	21:44:38
2	Se 196.026†	9.9	-5.4	-1.96	µg/L	-1.96 ppb	21:44:38
2	SiO2†	1777.4	-3.4	-0.3192	µg/L	-0.3192 ppb	21:44:38
2	Si 251.611†	834.3	-4.8	-0.0658	µg/L	-0.0658 ppb	21:44:18
2	Sn 189.927†	1.7	2.8	0.1770	µg/L	0.1770 ppb	21:44:38
2	Ti 334.940†	895.6	-59.6	-0.0554	µg/L	-0.0554 ppb	21:44:18
2	Tl 190.801†	-122.5	-5.4	-0.6750	µg/L	-0.6750 ppb	21:44:38
2	U 409.014†	-282.1	-11.3	-0.7096	µg/L	-0.7096 ppb	21:44:18
2	V 292.402†	242.6	-162.0	-0.7943	µg/L	-0.7943 ppb	21:44:18
2	Zn 213.857†	573.6	7.4	0.0434	µg/L	0.0434 ppb	21:44:38
3	Sc RADIAL	144958.5	144958.5	99.3	%		21:43:14
3	Al 396.153Radial†	-37.5	25.5	4.7369	µg/L	4.7369 ppb	21:43:34
3	Ca 317.933Radial†	583.6	27.0	1.5021	µg/L	1.5021 ppb	21:43:34
3	Fe 238.204 Radial†	192.7	45.8	2.8253	µg/L	2.8253 ppb	21:43:34
3	K 766.490 Radial†	1497.6	-37.2	-13.616	µg/L	-13.616 ppb	21:43:14
3	Mg 279.077 IEC†	178.6	-10.9	-4.0718	µg/L	-4.0718 ppb	21:43:34
3	Na 589.592 Radial†	1440.0	158.8	21.708	µg/L	21.708 ppb	21:43:14
3	Sr 421.552†	-197.6	-63.6	-0.1322	µg/L	-0.1322 ppb	21:43:14
3	Sc 361.383	1740188.5	1740188.5	101.28	%		21:44:40
3	Y 371.029	1039891.9	1039891.9	101.29	%		21:44:40
3	Ag 328.068†	3928.5	-212.5	-0.7881	µg/L	-0.7881 ppb	21:44:42
3	As 188.979†	-8.6	11.9	3.6004	µg/L	3.6004 ppb	21:45:02
3	B 249.677†	3552.8	2.1	0.0294	µg/L	0.0294 ppb	21:44:42
3	Ba 233.527†	-133.9	3.6	0.0140	µg/L	0.0140 ppb	21:45:02
3	Be 313.107†	-962.7	114.2	0.0329	µg/L	0.0329 ppb	21:44:42
3	Cd 226.502†	-89.8	29.5	0.1840	µg/L	0.1840 ppb	21:45:02
3	Co 228.616†	-162.5	29.8	0.3679	µg/L	0.3679 ppb	21:45:02
3	Cr 267.716†	179.3	-1.5	-0.0165	µg/L	-0.0165 ppb	21:45:02
3	Cu 324.752†	2942.1	-67.2	-0.2559	µg/L	-0.2559 ppb	21:44:42
3	Mn 257.610†	335.1	93.6	0.1159	µg/L	0.1159 ppb	21:45:02
3	Mo 202.031†	-28.8	-8.4	-0.2468	µg/L	-0.2468 ppb	21:45:02
3	Ni 231.604†	-82.6	-5.1	-0.0583	µg/L	-0.0583 ppb	21:45:02
3	P 214.914†	-27.4	-9.1	-1.9410	µg/L	-1.9410 ppb	21:45:02
3	Pb 220.353†	64.5	-22.7	-1.2712	µg/L	-1.2712 ppb	21:45:02
3	S 181.975 Axial†	101.1	-5.2	-3.8697	µg/L	-3.8697 ppb	21:45:02
3	Sb 206.836†	85.4	3.5	0.4065	µg/L	0.4065 ppb	21:45:02
3	Se 196.026†	13.5	-2.0	-0.710	µg/L	-0.710 ppb	21:45:02
3	SiO2†	1812.3	14.0	1.3744	µg/L	1.3744 ppb	21:45:02
3	Si 251.611†	970.3	121.4	1.7924	µg/L	1.7924 ppb	21:44:42
3	Sn 189.927†	1.9	3.0	0.1856	µg/L	0.1856 ppb	21:45:02
3	Ti 334.940†	941.7	-22.7	-0.0233	µg/L	-0.0233 ppb	21:44:42
3	Tl 190.801†	-117.2	1.0	0.1129	µg/L	0.1129 ppb	21:45:02
3	U 409.014†	-171.3	100.7	5.8492	µg/L	5.8492 ppb	21:44:42
3	V 292.402†	265.0	-142.2	-0.6925	µg/L	-0.6925 ppb	21:44:42
3	Zn 213.857†	580.1	8.4	0.0472	µg/L	0.0472 ppb	21:45:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726594.5	100.49	%	0.718				0.71%
Sc RADIAL	143421.3	98.3	%	1.06				1.08%
Y 371.029	1032559.0	100.57	%	0.667				0.66%
Ag 328.068†	-32.7	-0.1280	µg/L	0.59056	-0.1280	ppb	0.59056	461.54%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.2	1.7231	µg/L	2.76540	1.7231	ppb	2.76540	160.49%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.5	2.5717	µg/L	1.02165	2.5717	ppb	1.02165	39.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	58.6	0.8625	µg/L	1.15748	0.8625	ppb	1.15748	134.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.5	-0.0186	µg/L	0.02870	-0.0186	ppb	0.02870	154.38%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	141.7	0.0385	µg/L	0.03721	0.0385	ppb	0.03721	96.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	44.4	2.4716	µg/L	1.46699	2.4716	ppb	1.46699	59.35%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	25.6	0.1591	µg/L	0.10748	0.1591	ppb	0.10748	67.54%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	30.9	0.3806	µg/L	0.06452	0.3806	ppb	0.06452	16.95%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.5      0.1132 µg/L       0.22191      0.1132 ppb        0.22191 195.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -48.6     -0.1883 µg/L       0.45884     -0.1883 ppb        0.45884 243.64%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       65.4      4.0316 µg/L       1.04544      4.0316 ppb        1.04544  25.93%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       119.2     43.647 µg/L       58.3112     43.647 ppb        58.3112 133.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -5.3     -1.9860 µg/L       1.83888     -1.9860 ppb        1.83888  92.59%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              77.1      0.0955 µg/L       0.03352      0.0955 ppb        0.03352  35.12%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -10.7     -0.3135 µg/L       0.14177     -0.3135 ppb        0.14177  45.22%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      194.8     26.570 µg/L        5.1349     26.570 ppb         5.1349  19.33%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -10.1     -0.1158 µg/L       0.13833     -0.1158 ppb        0.13833 119.49%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.2     -0.8857 µg/L       3.49964     -0.8857 ppb        3.49964 395.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.6     -0.3715 µg/L       0.81072     -0.3715 ppb        0.81072 218.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -13.9     -10.328 µg/L        5.8795     -10.328 ppb         5.8795  56.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.5      0.6419 µg/L       0.29695      0.6419 ppb        0.29695  46.26%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.3      -0.475 µg/L        1.6120      -0.475 ppb         1.6120 339.40%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     9.0      0.8862 µg/L       1.05021      0.8862 ppb        1.05021 118.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              71.9      1.0622 µg/L       0.99095      1.0622 ppb        0.99095  93.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.5      0.2794 µg/L       0.17000      0.2794 ppb        0.17000  60.84%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -91.2     -0.1896 µg/L       0.15021     -0.1896 ppb        0.15021  79.25%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -22.1     -0.0204 µg/L       0.03654     -0.0204 ppb        0.03654 179.40%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -5.1     -0.6309 µg/L       0.72270     -0.6309 ppb        0.72270 114.55%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -2.9     -0.2014 µg/L       5.81317     -0.2014 ppb        5.81317 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†            -110.8     -0.5437 µg/L       0.34967     -0.5437 ppb        0.34967  64.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              10.7      0.0607 µg/L       0.02675      0.0607 ppb        0.02675  44.07%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 68 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 3/31/2010 21:55:36**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142583.3	142583.3	97.7	%			21:56:11
1	Al 396.153Radial†	26125.5	26801.9	4946.6	µg/L	4946.6	ppb	21:56:11
1	Ca 317.933Radial†	86256.4	87720.3	4886.4	µg/L	4886.4	ppb	21:56:11
1	Fe 238.204 Radial†	77373.7	79041.6	4871.6	µg/L	4871.6	ppb	21:56:11
1	K 766.490 Radial†	14581.9	13379.4	4894.4	µg/L	4894.4	ppb	21:56:11
1	Mg 279.077 IEC†	13220.1	13339.7	4977.8	µg/L	4977.8	ppb	21:56:11
1	Na 589.592 Radial†	70221.6	70578.9	9637.6	µg/L	9637.6	ppb	21:56:11
1	Sr 421.552†	231094.9	236654.1	491.95	µg/L	491.95	ppb	21:56:08
1	Sc 361.383	1721792.2	1721792.2	100.21	%			21:56:38
1	Y 371.029	1018476.9	1018476.9	99.200	%			21:56:38
1	Ag 328.068†	132257.1	127891.1	479.55	µg/L	479.55	ppb	21:56:38
1	As 188.979†	1611.5	1628.5	499.47	µg/L	499.47	ppb	21:56:58
1	B 249.677†	35480.1	31900.5	468.81	µg/L	468.81	ppb	21:56:38
1	Ba 233.527†	119040.9	118929.6	479.64	µg/L	479.64	ppb	21:56:38
1	Be 313.107†	1767471.5	1764866.8	480.67	µg/L	480.67	ppb	21:56:38
1	Cd 226.502†	76426.9	76386.5	476.83	µg/L	476.83	ppb	21:56:38
1	Co 228.616†	38708.1	38818.0	479.20	µg/L	479.20	ppb	21:56:38
1	Cr 267.716†	61091.8	60786.4	475.95	µg/L	475.95	ppb	21:56:38
1	Cu 324.752†	125542.2	122309.4	476.81	µg/L	476.81	ppb	21:56:38
1	Mn 257.610†	389445.6	388399.8	480.36	µg/L	480.36	ppb	21:56:38
1	Mo 202.031†	16429.4	16415.4	482.87	µg/L	482.87	ppb	21:56:58
1	Ni 231.604†	41557.9	41548.1	478.40	µg/L	478.40	ppb	21:56:38
1	P 214.914†	11328.9	11323.4	2413.6	µg/L	2413.6	ppb	21:56:58
1	Pb 220.353†	8812.2	8707.5	487.61	µg/L	487.61	ppb	21:56:58
1	S 181.975 Axial†	1392.1	1284.2	957.66	µg/L	957.66	ppb	21:56:58
1	Sb 206.836†	4144.5	4055.1	483.24	µg/L	483.24	ppb	21:56:58
1	Se 196.026†	1364.7	1346.6	489	µg/L	489	ppb	21:56:58
1	SiO2†	55188.2	53298.2	5188.7	µg/L	5188.7	ppb	21:56:38
1	Si 251.611†	166961.4	165778.2	2434.4	µg/L	2434.4	ppb	21:56:38
1	Sn 189.927†	7776.6	7761.6	485.47	µg/L	485.47	ppb	21:56:58
1	Ti 334.940†	514606.5	512585.6	478.27	µg/L	478.27	ppb	21:56:38
1	Tl 190.801†	3826.9	3935.6	490.75	µg/L	490.75	ppb	21:56:58
1	U 409.014†	7289.4	7544.1	470.15	µg/L	470.15	ppb	21:56:38
1	V 292.402†	98070.8	97463.4	481.83	µg/L	481.83	ppb	21:56:38
1	Zn 213.857†	85920.7	85177.9	474.72	µg/L	474.72	ppb	21:56:38
2	Sc RADIAL	143543.2	143543.2	98.4	%			21:56:15
2	Al 396.153Radial†	26329.4	26830.4	4951.8	µg/L	4951.8	ppb	21:56:15
2	Ca 317.933Radial†	87214.1	88103.5	4907.7	µg/L	4907.7	ppb	21:56:15
2	Fe 238.204 Radial†	78175.0	79326.6	4889.2	µg/L	4889.2	ppb	21:56:15
2	K 766.490 Radial†	14759.5	13460.1	4923.9	µg/L	4923.9	ppb	21:56:15
2	Mg 279.077 IEC†	13306.4	13336.9	4976.8	µg/L	4976.8	ppb	21:56:15
2	Na 589.592 Radial†	70918.2	70806.4	9668.6	µg/L	9668.6	ppb	21:56:15
2	Sr 421.552†	232565.2	236567.1	491.77	µg/L	491.77	ppb	21:56:13
2	Sc 361.383	1725354.7	1725354.7	100.42	%			21:57:01
2	Y 371.029	1021259.3	1021259.3	99.471	%			21:57:01
2	Ag 328.068†	133310.0	128667.2	482.44	µg/L	482.44	ppb	21:57:01
2	As 188.979†	1621.3	1635.0	501.47	µg/L	501.47	ppb	21:57:21
2	B 249.677†	36007.3	32352.4	475.47	µg/L	475.47	ppb	21:57:01
2	Ba 233.527†	119720.2	119360.8	481.38	µg/L	481.38	ppb	21:57:01
2	Be 313.107†	1782951.5	1776640.9	483.88	µg/L	483.88	ppb	21:57:01
2	Cd 226.502†	77092.6	76891.9	479.99	µg/L	479.99	ppb	21:57:01
2	Co 228.616†	39093.6	39122.2	482.96	µg/L	482.96	ppb	21:57:01
2	Cr 267.716†	61575.2	61141.9	478.73	µg/L	478.73	ppb	21:57:01
2	Cu 324.752†	126592.7	123096.8	479.87	µg/L	479.87	ppb	21:57:01
2	Mn 257.610†	393017.2	391154.2	483.76	µg/L	483.76	ppb	21:57:01
2	Mo 202.031†	16523.6	16475.3	484.63	µg/L	484.63	ppb	21:57:21
2	Ni 231.604†	41848.9	41752.3	480.75	µg/L	480.75	ppb	21:57:01
2	P 214.914†	11396.2	11367.0	2422.9	µg/L	2422.9	ppb	21:57:21
2	Pb 220.353†	8867.2	8744.1	489.65	µg/L	489.65	ppb	21:57:21

2	S 181.975 Axial†	1408.6	1297.7	967.74 µg/L	967.74 ppb	21:57:21
2	Sb 206.836†	4160.8	4062.8	484.14 µg/L	484.14 ppb	21:57:21
2	Se 196.026†	1350.1	1329.2	483 µg/L	483 ppb	21:57:21
2	SiO2†	55415.3	53410.7	5199.6 µg/L	5199.6 ppb	21:57:01
2	Si 251.611†	167453.3	165924.1	2436.5 µg/L	2436.5 ppb	21:57:01
2	Sn 189.927†	7843.1	7811.7	488.60 µg/L	488.60 ppb	21:57:21
2	Ti 334.940†	518046.3	514950.8	480.48 µg/L	480.48 ppb	21:57:01
2	Tl 190.801†	3874.0	3974.7	495.58 µg/L	495.58 ppb	21:57:21
2	U 409.014†	7327.0	7566.6	471.56 µg/L	471.56 ppb	21:57:01
2	V 292.402†	98567.7	97756.1	483.29 µg/L	483.29 ppb	21:57:01
2	Zn 213.857†	86827.5	85903.9	478.78 µg/L	478.78 ppb	21:57:01
3	Sc RADIAL	146360.8	146360.8	100 %		21:56:19
3	Al 396.153Radial†	26877.7	26861.7	4957.8 µg/L	4957.8 ppb	21:56:19
3	Ca 317.933Radial†	89496.1	88672.0	4939.4 µg/L	4939.4 ppb	21:56:19
3	Fe 238.204 Radial†	80024.7	79640.9	4908.6 µg/L	4908.6 ppb	21:56:19
3	K 766.490 Radial†	15000.5	13411.5	4906.1 µg/L	4906.1 ppb	21:56:19
3	Mg 279.077 IEC†	13753.4	13522.1	5045.7 µg/L	5045.7 ppb	21:56:19
3	Na 589.592 Radial†	72413.6	70909.6	9682.7 µg/L	9682.7 ppb	21:56:19
3	Sr 421.552†	230747.3	230203.0	478.54 µg/L	478.54 ppb	21:56:17
3	Sc 361.383	1718966.4	1718966.4	100.04 %		21:57:24
3	Y 371.029	1017028.5	1017028.5	99.059 %		21:57:24
3	Ag 328.068†	132653.9	128504.7	481.80 µg/L	481.80 ppb	21:57:24
3	As 188.979†	1590.5	1610.2	493.94 µg/L	493.94 ppb	21:57:44
3	B 249.677†	35824.6	32303.1	474.74 µg/L	474.74 ppb	21:57:24
3	Ba 233.527†	119070.9	119154.9	480.55 µg/L	480.55 ppb	21:57:24
3	Be 313.107†	1772306.3	1772598.9	482.78 µg/L	482.78 ppb	21:57:24
3	Cd 226.502†	76616.2	76701.1	478.79 µg/L	478.79 ppb	21:57:24
3	Co 228.616†	38830.3	39003.7	481.49 µg/L	481.49 ppb	21:57:24
3	Cr 267.716†	61234.2	61029.0	477.86 µg/L	477.86 ppb	21:57:24
3	Cu 324.752†	125521.6	122494.7	477.53 µg/L	477.53 ppb	21:57:24
3	Mn 257.610†	389961.8	389554.7	481.78 µg/L	481.78 ppb	21:57:24
3	Mo 202.031†	16335.5	16348.5	480.91 µg/L	480.91 ppb	21:57:44
3	Ni 231.604†	41630.1	41688.5	480.01 µg/L	480.01 ppb	21:57:24
3	P 214.914†	11241.7	11254.8	2398.9 µg/L	2398.9 ppb	21:57:44
3	Pb 220.353†	8795.7	8705.5	487.50 µg/L	487.50 ppb	21:57:44
3	S 181.975 Axial†	1388.4	1282.7	956.57 µg/L	956.57 ppb	21:57:44
3	Sb 206.836†	4126.6	4043.9	481.85 µg/L	481.85 ppb	21:57:44
3	Se 196.026†	1345.6	1329.7	483 µg/L	483 ppb	21:57:44
3	SiO2†	54983.2	53183.9	5177.6 µg/L	5177.6 ppb	21:57:24
3	Si 251.611†	166469.4	165560.3	2431.2 µg/L	2431.2 ppb	21:57:24
3	Sn 189.927†	7725.1	7722.8	483.05 µg/L	483.05 ppb	21:57:44
3	Ti 334.940†	514909.1	513732.3	479.34 µg/L	479.34 ppb	21:57:24
3	Tl 190.801†	3822.2	3937.2	490.94 µg/L	490.94 ppb	21:57:44
3	U 409.014†	7179.0	7445.8	464.34 µg/L	464.34 ppb	21:57:24
3	V 292.402†	97706.1	97259.8	480.82 µg/L	480.82 ppb	21:57:24
3	Zn 213.857†	86111.6	85509.7	476.57 µg/L	476.57 ppb	21:57:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1722037.8	100.22	%	0.186				0.19%
Sc RADIAL	144162.4	98.8	%	1.35				1.36%
Y 371.029	1018921.6	99.243	%	0.2094				0.21%
Ag 328.068†	128354.3	481.26	µg/L	1.519	481.26	ppb	1.519	0.32%
QC value within limits for Ag 328.068 Recovery = 96.25%								
Al 396.153Radial†	26831.3	4952.1	µg/L	5.59	4952.1	ppb	5.59	0.11%
QC value within limits for Al 396.153Radial Recovery = 99.04%								
As 188.979†	1624.5	498.29	µg/L	3.898	498.29	ppb	3.898	0.78%
QC value within limits for As 188.979 Recovery = 99.66%								
B 249.677†	32185.3	473.01	µg/L	3.650	473.01	ppb	3.650	0.77%
QC value within limits for B 249.677 Recovery = 94.60%								
Ba 233.527†	119148.4	480.52	µg/L	0.870	480.52	ppb	0.870	0.18%
QC value within limits for Ba 233.527 Recovery = 96.10%								
Be 313.107†	1771368.9	482.44	µg/L	1.629	482.44	ppb	1.629	0.34%
QC value within limits for Be 313.107 Recovery = 96.49%								
Ca 317.933Radial†	88165.3	4911.2	µg/L	26.67	4911.2	ppb	26.67	0.54%
QC value within limits for Ca 317.933Radial Recovery = 98.22%								
Cd 226.502†	76659.8	478.54	µg/L	1.594	478.54	ppb	1.594	0.33%
QC value within limits for Cd 226.502 Recovery = 95.71%								
Co 228.616†	38981.3	481.22	µg/L	1.892	481.22	ppb	1.892	0.39%

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   QC value within limits for Co 228.616  Recovery = 96.24%
Cr 267.716†            60985.7      477.51 µg/L         1.423      477.51 ppb          1.423   0.30%
   QC value within limits for Cr 267.716  Recovery = 95.50%
Cu 324.752†           122633.6      478.07 µg/L         1.603      478.07 ppb          1.603   0.34%
   QC value within limits for Cu 324.752  Recovery = 95.61%
Fe 238.204 Radial†     79336.4      4889.8 µg/L         18.48      4889.8 ppb          18.48   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.80%
K 766.490 Radial†      13417.0      4908.2 µg/L         14.87      4908.2 ppb          14.87   0.30%
   QC value within limits for K 766.490 Radial  Recovery = 98.16%
Mg 279.077 IEC†        13399.6      5000.1 µg/L         39.49      5000.1 ppb          39.49   0.79%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.00%
Mn 257.610†           389702.9      481.97 µg/L         1.712      481.97 ppb          1.712   0.36%
   QC value within limits for Mn 257.610  Recovery = 96.39%
Mo 202.031†            16413.1      482.80 µg/L         1.864      482.80 ppb          1.864   0.39%
   QC value within limits for Mo 202.031  Recovery = 96.56%
Na 589.592 Radial†     70765.0      9663.0 µg/L         23.10      9663.0 ppb          23.10   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 96.63%
Ni 231.604†            41663.0      479.72 µg/L         1.203      479.72 ppb          1.203   0.25%
   QC value within limits for Ni 231.604  Recovery = 95.94%
P 214.914†             11315.0      2411.8 µg/L         12.10      2411.8 ppb          12.10   0.50%
   QC value within limits for P 214.914  Recovery = 96.47%
Pb 220.353†             8719.0      488.25 µg/L         1.215      488.25 ppb          1.215   0.25%
   QC value within limits for Pb 220.353  Recovery = 97.65%
S 181.975 Axial†        1288.2      960.66 µg/L         6.158      960.66 ppb          6.158   0.64%
   QC value within limits for S 181.975 Axial  Recovery = 96.07%
Sb 206.836†             4053.9      483.08 µg/L         1.155      483.08 ppb          1.155   0.24%
   QC value within limits for Sb 206.836  Recovery = 96.62%
Se 196.026†             1335.2         485 µg/L           3.6         485 ppb            3.6   0.74%
   QC value within limits for Se 196.026  Recovery = 96.96%
SiO2†                  53297.6      5188.7 µg/L         10.99      5188.7 ppb          10.99   0.21%
   QC value within limits for SiO2  Recovery = 97.03%
Si 251.611†           165754.2      2434.1 µg/L          2.66      2434.1 ppb           2.66   0.11%
   QC value within limits for Si 251.611  Recovery = 97.36%
Sn 189.927†             7765.4      485.71 µg/L         2.782      485.71 ppb          2.782   0.57%
   QC value within limits for Sn 189.927  Recovery = 97.14%
Sr 421.552†           234474.7      487.42 µg/L         7.692      487.42 ppb          7.692   1.58%
   QC value within limits for Sr 421.552  Recovery = 97.48%
Ti 334.940†           513756.2      479.37 µg/L         1.105      479.37 ppb          1.105   0.23%
   QC value within limits for Ti 334.940  Recovery = 95.87%
Tl 190.801†             3949.2      492.42 µg/L         2.733      492.42 ppb          2.733   0.56%
   QC value within limits for Tl 190.801  Recovery = 98.48%
U 409.014†              7518.8      468.68 µg/L         3.825      468.68 ppb          3.825   0.82%
   QC value within limits for U 409.014  Recovery = 93.74%
V 292.402†             97493.1      481.98 µg/L         1.241      481.98 ppb          1.241   0.26%
   QC value within limits for V 292.402  Recovery = 96.40%
Zn 213.857†            85530.5      476.69 µg/L         2.032      476.69 ppb          2.032   0.43%
   QC value within limits for Zn 213.857  Recovery = 95.34%
All analyte(s) passed QC.
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Sequence No.: 69
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 21:57:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143488.6	143488.6	98.3	%			21:58:23
1	Al 396.153Radial†	-31.2	31.5	5.8461	µg/L	5.8461	ppb	21:58:43
1	Ca 317.933Radial†	626.0	76.1	4.2401	µg/L	4.2401	ppb	21:58:43
1	Fe 238.204 Radial†	255.1	111.3	6.8602	µg/L	6.8602	ppb	21:58:43
1	K 766.490 Radial†	1658.0	141.4	51.764	µg/L	51.764	ppb	21:58:23
1	Mg 279.077 IEC†	183.2	-4.4	-1.6504	µg/L	-1.6504	ppb	21:58:43
1	Na 589.592 Radial†	1420.1	153.5	20.919	µg/L	20.919	ppb	21:58:23
1	Sr 421.552†	-123.6	9.6	0.0200	µg/L	0.0200	ppb	21:58:23
1	Sc 361.383	1741228.6	1741228.6	101.34	%			21:59:30
1	Y 371.029	1041005.9	1041005.9	101.39	%			21:59:30
1	Ag 328.068†	3951.0	-192.6	-0.7198	µg/L	-0.7198	ppb	21:59:33
1	As 188.979†	-17.3	3.3	0.9894	µg/L	0.9894	ppb	21:59:53
1	B 249.677†	3598.6	45.2	0.6651	µg/L	0.6651	ppb	21:59:33
1	Ba 233.527†	-97.3	39.9	0.1606	µg/L	0.1606	ppb	21:59:53
1	Be 313.107†	-658.8	414.6	0.1114	µg/L	0.1114	ppb	21:59:33
1	Cd 226.502†	-98.4	21.1	0.1311	µg/L	0.1311	ppb	21:59:53
1	Co 228.616†	-161.8	30.7	0.3780	µg/L	0.3780	ppb	21:59:53
1	Cr 267.716†	182.4	1.5	0.0155	µg/L	0.0155	ppb	21:59:53
1	Cu 324.752†	3144.1	130.4	0.5038	µg/L	0.5038	ppb	21:59:33
1	Mn 257.610†	336.5	94.8	0.1174	µg/L	0.1174	ppb	21:59:53
1	Mo 202.031†	-24.2	-3.8	-0.1104	µg/L	-0.1104	ppb	21:59:53
1	Ni 231.604†	-79.3	-1.7	-0.0200	µg/L	-0.0200	ppb	21:59:53
1	P 214.914†	-16.3	1.8	0.3858	µg/L	0.3858	ppb	21:59:53
1	Pb 220.353†	84.1	-3.4	-0.1849	µg/L	-0.1849	ppb	21:59:53
1	S 181.975 Axial†	105.7	-0.8	-0.5879	µg/L	-0.5879	ppb	21:59:53
1	Sb 206.836†	91.1	9.1	1.0753	µg/L	1.0753	ppb	21:59:53
1	Se 196.026†	16.7	1.2	0.419	µg/L	0.419	ppb	21:59:53
1	SiO2†	1811.1	11.8	1.1639	µg/L	1.1639	ppb	21:59:53
1	Si 251.611†	939.6	90.6	1.3388	µg/L	1.3388	ppb	21:59:33
1	Sn 189.927†	-4.7	-3.6	-0.2217	µg/L	-0.2217	ppb	21:59:53
1	Ti 334.940†	1178.8	210.6	0.1990	µg/L	0.1990	ppb	21:59:33
1	Tl 190.801†	-99.6	18.4	2.2591	µg/L	2.2591	ppb	21:59:53
1	U 409.014†	-357.9	-83.3	-4.8719	µg/L	-4.8719	ppb	21:59:33
1	V 292.402†	400.4	-8.7	-0.0477	µg/L	-0.0477	ppb	21:59:33
1	Zn 213.857†	586.5	14.3	0.0794	µg/L	0.0794	ppb	21:59:53
2	Sc RADIAL	142543.2	142543.2	97.7	%			21:58:45
2	Al 396.153Radial†	-54.4	7.5	1.4064	µg/L	1.4064	ppb	21:59:05
2	Ca 317.933Radial†	611.6	65.6	3.6535	µg/L	3.6535	ppb	21:59:05
2	Fe 238.204 Radial†	253.5	111.4	6.8653	µg/L	6.8653	ppb	21:59:05
2	K 766.490 Radial†	1678.4	173.5	63.518	µg/L	63.518	ppb	21:58:45
2	Mg 279.077 IEC†	176.5	-10.0	-3.7286	µg/L	-3.7286	ppb	21:59:05
2	Na 589.592 Radial†	1442.2	185.7	25.313	µg/L	25.313	ppb	21:58:45
2	Sr 421.552†	-245.0	-115.6	-0.2403	µg/L	-0.2403	ppb	21:58:45
2	Sc 361.383	1719454.2	1719454.2	100.07	%			21:59:55
2	Y 371.029	1027865.1	1027865.1	100.11	%			21:59:55
2	Ag 328.068†	4168.7	74.3	0.2835	µg/L	0.2835	ppb	21:59:57
2	As 188.979†	-13.3	7.1	2.1498	µg/L	2.1498	ppb	22:00:17
2	B 249.677†	3486.4	-22.0	-0.3249	µg/L	-0.3249	ppb	21:59:57
2	Ba 233.527†	-114.3	21.7	0.0871	µg/L	0.0871	ppb	22:00:17
2	Be 313.107†	-912.6	152.8	0.0438	µg/L	0.0438	ppb	21:59:57
2	Cd 226.502†	-107.0	11.3	0.0695	µg/L	0.0695	ppb	22:00:17
2	Co 228.616†	-180.3	10.1	0.1246	µg/L	0.1246	ppb	22:00:17
2	Cr 267.716†	201.1	22.4	0.1701	µg/L	0.1701	ppb	22:00:17
2	Cu 324.752†	3016.0	41.6	0.1688	µg/L	0.1688	ppb	21:59:57
2	Mn 257.610†	311.1	73.6	0.0912	µg/L	0.0912	ppb	22:00:17
2	Mo 202.031†	-34.1	-14.0	-0.4113	µg/L	-0.4113	ppb	22:00:17
2	Ni 231.604†	-98.0	-21.4	-0.2463	µg/L	-0.2463	ppb	22:00:17
2	P 214.914†	-36.4	-18.4	-3.9363	µg/L	-3.9363	ppb	22:00:17
2	Pb 220.353†	83.9	-2.5	-0.1482	µg/L	-0.1482	ppb	22:00:17

2	S 181.975 Axial†	99.2	-5.9	-4.3840 µg/L	-4.3840 ppb	22:00:17
2	Sb 206.836†	64.9	-16.0	-1.9121 µg/L	-1.9121 ppb	22:00:17
2	Se 196.026†	15.3	0.0	0.021 µg/L	0.021 ppb	22:00:17
2	SiO2†	1788.3	11.6	1.1476 µg/L	1.1476 ppb	22:00:17
2	Si 251.611†	930.7	93.5	1.3835 µg/L	1.3835 ppb	21:59:57
2	Sn 189.927†	-0.8	0.3	0.0189 µg/L	0.0189 ppb	22:00:17
2	Ti 334.940†	1073.2	119.9	0.1093 µg/L	0.1093 ppb	21:59:57
2	Tl 190.801†	-128.3	-11.5	-1.4187 µg/L	-1.4187 ppb	22:00:17
2	U 409.014†	-143.3	126.7	7.4052 µg/L	7.4052 ppb	21:59:57
2	V 292.402†	396.1	-8.0	-0.0385 µg/L	-0.0385 ppb	21:59:57
2	Zn 213.857†	572.5	7.7	0.0442 µg/L	0.0442 ppb	22:00:17
3	Sc RADIAL	144454.1	144454.1	99.0 %		21:59:07
3	Al 396.153Radial†	-50.8	11.9	2.2219 µg/L	2.2219 ppb	21:59:27
3	Ca 317.933Radial†	619.6	65.3	3.6394 µg/L	3.6394 ppb	21:59:27
3	Fe 238.204 Radial†	231.3	85.6	5.2750 µg/L	5.2750 ppb	21:59:27
3	K 766.490 Radial†	1512.1	-17.2	-6.3033 µg/L	-6.3033 ppb	21:59:07
3	Mg 279.077 IEC†	192.0	3.2	1.1976 µg/L	1.1976 ppb	21:59:27
3	Na 589.592 Radial†	1347.2	70.1	9.5868 µg/L	9.5868 ppb	21:59:07
3	Sr 421.552†	-129.4	4.5	0.0094 µg/L	0.0094 ppb	21:59:07
3	Sc 361.383	1726759.9	1726759.9	100.50 %		22:00:19
3	Y 371.029	1032580.6	1032580.6	100.57 %		22:00:19
3	Ag 328.068†	4194.8	82.6	0.3040 µg/L	0.3040 ppb	22:00:21
3	As 188.979†	-19.7	0.7	0.2129 µg/L	0.2129 ppb	22:00:41
3	B 249.677†	3651.6	127.6	1.8815 µg/L	1.8815 ppb	22:00:21
3	Ba 233.527†	-116.8	19.7	0.0794 µg/L	0.0794 ppb	22:00:41
3	Be 313.107†	-870.8	198.2	0.0524 µg/L	0.0524 ppb	22:00:21
3	Cd 226.502†	-85.6	33.0	0.2057 µg/L	0.2057 ppb	22:00:41
3	Co 228.616†	-171.1	20.1	0.2475 µg/L	0.2475 ppb	22:00:41
3	Cr 267.716†	156.8	-22.6	-0.1724 µg/L	-0.1724 ppb	22:00:41
3	Cu 324.752†	2930.7	-56.0	-0.2209 µg/L	-0.2209 ppb	22:00:21
3	Mn 257.610†	308.3	69.5	0.0859 µg/L	0.0859 ppb	22:00:41
3	Mo 202.031†	-28.4	-8.1	-0.2389 µg/L	-0.2389 ppb	22:00:41
3	Ni 231.604†	-67.6	9.2	0.1060 µg/L	0.1060 ppb	22:00:41
3	P 214.914†	-14.4	3.6	0.7813 µg/L	0.7813 ppb	22:00:41
3	Pb 220.353†	81.9	-4.8	-0.2670 µg/L	-0.2670 ppb	22:00:41
3	S 181.975 Axial†	100.0	-5.5	-4.1081 µg/L	-4.1081 ppb	22:00:41
3	Sb 206.836†	58.7	-22.4	-2.6589 µg/L	-2.6589 ppb	22:00:41
3	Se 196.026†	9.4	-5.9	-2.14 µg/L	-2.14 ppb	22:00:41
3	SiO2†	1781.8	-2.4	-0.2353 µg/L	-0.2353 ppb	22:00:41
3	Si 251.611†	974.4	133.0	1.9607 µg/L	1.9607 ppb	22:00:21
3	Sn 189.927†	6.8	7.8	0.4886 µg/L	0.4886 ppb	22:00:41
3	Ti 334.940†	1012.5	55.0	0.0535 µg/L	0.0535 ppb	22:00:21
3	Tl 190.801†	-115.8	1.4	0.1780 µg/L	0.1780 ppb	22:00:41
3	U 409.014†	-360.3	-88.6	-5.1619 µg/L	-5.1619 ppb	22:00:21
3	V 292.402†	483.1	77.0	0.3681 µg/L	0.3681 ppb	22:00:21
3	Zn 213.857†	572.8	5.5	0.0300 µg/L	0.0300 ppb	22:00:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729147.6	100.64	%	0.645				0.64%
Sc RADIAL	143495.3	98.3	%	0.65				0.67%
Y 371.029	1033817.2	100.69	%	0.648				0.64%
Ag 328.068†	-11.9	-0.0441	µg/L	0.58526	-0.0441	ppb	0.58526	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	17.0	3.1581	µg/L	2.36331	3.1581	ppb	2.36331	74.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.7	1.1173	µg/L	0.97478	1.1173	ppb	0.97478	87.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.3	0.7405	µg/L	1.10513	0.7405	ppb	1.10513	149.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	27.1	0.1090	µg/L	0.04480	0.1090	ppb	0.04480	41.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	255.2	0.0692	µg/L	0.03680	0.0692	ppb	0.03680	53.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	69.0	3.8443	µg/L	0.34280	3.8443	ppb	0.34280	8.92%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	21.8	0.1354	µg/L	0.06821	0.1354	ppb	0.06821	50.36%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.3	0.2500	µg/L	0.12669	0.2500	ppb	0.12669	50.67%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.4      0.0044 µg/L       0.17156      0.0044 ppb        0.17156 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               38.7      0.1505 µg/L       0.36269      0.1505 ppb        0.36269 240.92%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       102.8      6.3335 µg/L       0.91666      6.3335 ppb        0.91666  14.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         99.2      36.326 µg/L       37.3832      36.326 ppb        37.3832 102.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -3.7     -1.3938 µg/L       2.47310     -1.3938 ppb        2.47310 177.43%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               79.3      0.0982 µg/L       0.01685      0.0982 ppb        0.01685  17.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -8.6     -0.2535 µg/L       0.15099     -0.2535 ppb        0.15099  59.56%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       136.4      18.606 µg/L        8.1142      18.606 ppb         8.1142  43.61%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -4.6     -0.0534 µg/L       0.17854     -0.0534 ppb        0.17854 334.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.3     -0.9231 µg/L       2.61701     -0.9231 ppb        2.61701 283.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -3.6     -0.2000 µg/L       0.06080     -0.2000 ppb        0.06080  30.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.1     -3.0267 µg/L       2.11654     -3.0267 ppb        2.11654  69.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -9.8     -1.1652 µg/L       1.97594     -1.1652 ppb        1.97594 169.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -1.6      -0.566 µg/L        1.3761      -0.566 ppb         1.3761 243.25%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      7.0      0.6921 µg/L       0.80317      0.6921 ppb        0.80317 116.05%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              105.7      1.5610 µg/L       0.34690      1.5610 ppb        0.34690  22.22%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.5      0.0953 µg/L       0.36125      0.0953 ppb        0.36125 379.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -33.8     -0.0703 µg/L       0.14733     -0.0703 ppb        0.14733 209.53%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              128.5      0.1206 µg/L       0.07341      0.1206 ppb        0.07341  60.86%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.8      0.3394 µg/L       1.84422      0.3394 ppb        1.84422 543.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -15.1     -0.8762 µg/L       7.17337     -0.8762 ppb        7.17337 818.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                20.1      0.0940 µg/L       0.23744      0.0940 ppb        0.23744 252.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                9.2      0.0512 µg/L       0.02545      0.0512 ppb        0.02545  49.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 77
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 22:12:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144265.2	144265.2	98.9	%			22:13:29
1	Al 396.153Radial†	26382.4	26750.0	4937.0	µg/L	4937.0	ppb	22:13:29
1	Ca 317.933Radial†	86791.9	87232.7	4859.2	µg/L	4859.2	ppb	22:13:29
1	Fe 238.204 Radial†	77447.1	78192.6	4819.3	µg/L	4819.3	ppb	22:13:29
1	K 766.490 Radial†	14619.5	13243.4	4844.7	µg/L	4844.7	ppb	22:13:29
1	Mg 279.077 IEC†	13211.3	13173.0	4915.8	µg/L	4915.8	ppb	22:13:29
1	Na 589.592 Radial†	70822.8	70349.2	9606.2	µg/L	9606.2	ppb	22:13:29
1	Sr 421.552†	230249.1	233041.1	484.44	µg/L	484.44	ppb	22:13:27
1	Sc 361.383	1718218.3	1718218.3	100.00	%			22:13:42
1	Y 371.029	1017558.5	1017558.5	99.111	%			22:13:42
1	Ag 328.068†	131861.6	127770.2	479.08	µg/L	479.08	ppb	22:13:42
1	As 188.979†	1610.7	1631.1	500.23	µg/L	500.23	ppb	22:14:02
1	B 249.677†	35422.2	31916.3	469.05	µg/L	469.05	ppb	22:13:42
1	Ba 233.527†	118202.1	118337.9	477.26	µg/L	477.26	ppb	22:13:42
1	Be 313.107†	1762457.8	1763521.9	480.31	µg/L	480.31	ppb	22:13:42
1	Cd 226.502†	75826.8	75945.0	474.08	µg/L	474.08	ppb	22:13:42
1	Co 228.616†	38510.6	38700.9	477.76	µg/L	477.76	ppb	22:13:42
1	Cr 267.716†	60814.9	60636.3	474.77	µg/L	474.77	ppb	22:13:42
1	Cu 324.752†	125406.1	122433.9	477.29	µg/L	477.29	ppb	22:13:42
1	Mn 257.610†	388459.2	388221.8	480.14	µg/L	480.14	ppb	22:13:42
1	Mo 202.031†	16438.1	16458.2	484.12	µg/L	484.12	ppb	22:14:02
1	Ni 231.604†	41348.4	41424.9	476.98	µg/L	476.98	ppb	22:13:42
1	P 214.914†	11268.3	11286.3	2405.7	µg/L	2405.7	ppb	22:14:02
1	Pb 220.353†	8791.6	8705.2	487.48	µg/L	487.48	ppb	22:14:02
1	S 181.975 Axial†	1392.6	1287.6	960.21	µg/L	960.21	ppb	22:14:02
1	Sb 206.836†	4153.0	4072.2	485.30	µg/L	485.30	ppb	22:14:02
1	Se 196.026†	1350.2	1334.9	485	µg/L	485	ppb	22:14:02
1	SiO2†	54803.6	53028.2	5162.3	µg/L	5162.3	ppb	22:13:42
1	Si 251.611†	165311.8	164475.2	2415.2	µg/L	2415.2	ppb	22:13:42
1	Sn 189.927†	7742.7	7743.8	484.36	µg/L	484.36	ppb	22:14:02
1	Ti 334.940†	513691.3	512738.5	478.42	µg/L	478.42	ppb	22:13:42
1	Tl 190.801†	3841.3	3958.0	493.49	µg/L	493.49	ppb	22:14:02
1	U 409.014†	7369.5	7639.3	475.58	µg/L	475.58	ppb	22:13:42
1	V 292.402†	97334.2	96930.4	479.25	µg/L	479.25	ppb	22:13:42
1	Zn 213.857†	85434.2	84869.8	473.01	µg/L	473.01	ppb	22:13:42
2	Sc RADIAL	145847.8	145847.8	99.9	%			22:13:33
2	Al 396.153Radial†	26431.3	26509.4	4892.7	µg/L	4892.7	ppb	22:13:33
2	Ca 317.933Radial†	87616.4	87105.0	4852.1	µg/L	4852.1	ppb	22:13:33
2	Fe 238.204 Radial†	78290.7	78186.6	4818.9	µg/L	4818.9	ppb	22:13:33
2	K 766.490 Radial†	14711.5	13175.0	4819.6	µg/L	4819.6	ppb	22:13:33
2	Mg 279.077 IEC†	13383.0	13199.9	4925.6	µg/L	4925.6	ppb	22:13:33
2	Na 589.592 Radial†	71537.8	70287.2	9597.8	µg/L	9597.8	ppb	22:13:33
2	Sr 421.552†	230007.1	230271.7	478.68	µg/L	478.68	ppb	22:13:31
2	Sc 361.383	1739608.4	1739608.4	101.24	%			22:14:05
2	Y 371.029	1028848.9	1028848.9	100.21	%			22:14:05
2	Ag 328.068†	134324.7	128581.6	482.14	µg/L	482.14	ppb	22:14:05
2	As 188.979†	1606.6	1607.2	493.02	µg/L	493.02	ppb	22:14:25
2	B 249.677†	36291.4	32339.3	475.28	µg/L	475.28	ppb	22:14:05
2	Ba 233.527†	120672.3	119324.3	481.23	µg/L	481.23	ppb	22:14:05
2	Be 313.107†	1801555.4	1780467.6	484.92	µg/L	484.92	ppb	22:14:05
2	Cd 226.502†	77540.6	76705.4	478.83	µg/L	478.83	ppb	22:14:05
2	Co 228.616†	39324.4	39031.1	481.84	µg/L	481.84	ppb	22:14:05
2	Cr 267.716†	61962.6	61022.1	477.79	µg/L	477.79	ppb	22:14:05
2	Cu 324.752†	127723.3	123180.5	480.19	µg/L	480.19	ppb	22:14:05
2	Mn 257.610†	396691.5	391576.4	484.29	µg/L	484.29	ppb	22:14:05
2	Mo 202.031†	16408.8	16227.1	477.33	µg/L	477.33	ppb	22:14:25
2	Ni 231.604†	42066.6	41625.8	479.29	µg/L	479.29	ppb	22:14:05
2	P 214.914†	11256.1	11135.6	2373.5	µg/L	2373.5	ppb	22:14:25
2	Pb 220.353†	8760.6	8566.5	479.72	µg/L	479.72	ppb	22:14:25

2	S 181.975 Axial†	1379.1	1257.1	937.49 µg/L	937.49 ppb	22:14:25
2	Sb 206.836†	4126.7	3995.1	476.00 µg/L	476.00 ppb	22:14:25
2	Se 196.026†	1344.9	1313.1	477 µg/L	477 ppb	22:14:25
2	SiO2†	55878.0	53415.5	5200.4 µg/L	5200.4 ppb	22:14:05
2	Si 251.611†	168787.2	165875.2	2436.0 µg/L	2436.0 ppb	22:14:05
2	Sn 189.927†	7780.5	7685.9	480.76 µg/L	480.76 ppb	22:14:25
2	Ti 334.940†	523148.0	515762.7	481.24 µg/L	481.24 ppb	22:14:05
2	Tl 190.801†	3840.1	3909.5	487.59 µg/L	487.59 ppb	22:14:25
2	U 409.014†	7476.8	7654.7	476.77 µg/L	476.77 ppb	22:14:05
2	V 292.402†	99532.4	97904.8	483.95 µg/L	483.95 ppb	22:14:05
2	Zn 213.857†	87491.3	85851.1	478.50 µg/L	478.50 ppb	22:14:05
3	Sc RADIAL	145510.3	145510.3	99.7 %		22:13:37
3	Al 396.153Radial†	26649.3	26789.4	4944.6 µg/L	4944.6 ppb	22:13:37
3	Ca 317.933Radial†	87905.2	87598.0	4879.6 µg/L	4879.6 ppb	22:13:37
3	Fe 238.204 Radial†	78514.4	78592.6	4844.0 µg/L	4844.0 ppb	22:13:37
3	K 766.490 Radial†	14626.3	13123.7	4800.8 µg/L	4800.8 ppb	22:13:37
3	Mg 279.077 IEC†	13367.9	13215.7	4931.5 µg/L	4931.5 ppb	22:13:37
3	Na 589.592 Radial†	71662.6	70578.3	9637.6 µg/L	9637.6 ppb	22:13:37
3	Sr 421.552†	228923.8	229719.0	477.53 µg/L	477.53 ppb	22:13:35
3	Sc 361.383	1738267.6	1738267.6	101.17 %		22:14:28
3	Y 371.029	1027936.3	1027936.3	100.12 %		22:14:28
3	Ag 328.068†	134212.1	128572.7	482.09 µg/L	482.09 ppb	22:14:28
3	As 188.979†	1598.1	1600.0	490.84 µg/L	490.84 ppb	22:14:48
3	B 249.677†	36163.6	32240.6	473.82 µg/L	473.82 ppb	22:14:28
3	Ba 233.527†	120556.5	119301.7	481.14 µg/L	481.14 ppb	22:14:28
3	Be 313.107†	1796851.1	1777190.1	484.03 µg/L	484.03 ppb	22:14:28
3	Cd 226.502†	77464.7	76689.4	478.73 µg/L	478.73 ppb	22:14:28
3	Co 228.616†	39399.0	39134.9	483.12 µg/L	483.12 ppb	22:14:28
3	Cr 267.716†	61725.8	60835.3	476.33 µg/L	476.33 ppb	22:14:28
3	Cu 324.752†	127349.1	122907.9	479.13 µg/L	479.13 ppb	22:14:28
3	Mn 257.610†	395160.9	390365.7	482.79 µg/L	482.79 ppb	22:14:28
3	Mo 202.031†	16361.5	16192.8	476.33 µg/L	476.33 ppb	22:14:48
3	Ni 231.604†	41980.9	41573.2	478.68 µg/L	478.68 ppb	22:14:28
3	P 214.914†	11184.1	11073.0	2360.1 µg/L	2360.1 ppb	22:14:48
3	Pb 220.353†	8741.7	8554.5	479.05 µg/L	479.05 ppb	22:14:48
3	S 181.975 Axial†	1393.5	1272.4	948.88 µg/L	948.88 ppb	22:14:48
3	Sb 206.836†	4119.1	3990.8	475.48 µg/L	475.48 ppb	22:14:48
3	Se 196.026†	1344.8	1314.0	477 µg/L	477 ppb	22:14:48
3	SiO2†	55631.5	53214.4	5180.9 µg/L	5180.9 ppb	22:14:28
3	Si 251.611†	168426.4	165647.1	2432.6 µg/L	2432.6 ppb	22:14:28
3	Sn 189.927†	7707.1	7619.3	476.60 µg/L	476.60 ppb	22:14:48
3	Ti 334.940†	521295.0	514329.6	479.91 µg/L	479.91 ppb	22:14:28
3	Tl 190.801†	3816.8	3889.5	485.09 µg/L	485.09 ppb	22:14:48
3	U 409.014†	7397.3	7581.9	472.42 µg/L	472.42 ppb	22:14:28
3	V 292.402†	99170.7	97623.1	482.55 µg/L	482.55 ppb	22:14:28
3	Zn 213.857†	87280.4	85709.2	477.71 µg/L	477.71 ppb	22:14:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732031.4	100.80	%	0.697				0.69%
Sc RADIAL	145207.8	99.5	%	0.57				0.57%
Y 371.029	1024781.2	99.814	%	0.6109				0.61%
Ag 328.068†	128308.2	481.10	µg/L	1.752	481.10	ppb	1.752	0.36%
QC value within limits for Ag 328.068 Recovery = 96.22%								
Al 396.153Radial†	26682.9	4924.7	µg/L	28.05	4924.7	ppb	28.05	0.57%
QC value within limits for Al 396.153Radial Recovery = 98.49%								
As 188.979†	1612.8	494.70	µg/L	4.918	494.70	ppb	4.918	0.99%
QC value within limits for As 188.979 Recovery = 98.94%								
B 249.677†	32165.4	472.71	µg/L	3.255	472.71	ppb	3.255	0.69%
QC value within limits for B 249.677 Recovery = 94.54%								
Ba 233.527†	118988.0	479.88	µg/L	2.269	479.88	ppb	2.269	0.47%
QC value within limits for Ba 233.527 Recovery = 95.98%								
Be 313.107†	1773726.5	483.09	µg/L	2.447	483.09	ppb	2.447	0.51%
QC value within limits for Be 313.107 Recovery = 96.62%								
Ca 317.933Radial†	87311.9	4863.6	µg/L	14.25	4863.6	ppb	14.25	0.29%
QC value within limits for Ca 317.933Radial Recovery = 97.27%								
Cd 226.502†	76446.6	477.21	µg/L	2.714	477.21	ppb	2.714	0.57%
QC value within limits for Cd 226.502 Recovery = 95.44%								
Co 228.616†	38955.6	480.91	µg/L	2.798	480.91	ppb	2.798	0.58%

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   QC value within limits for Co 228.616  Recovery = 96.18%
Cr 267.716†            60831.2      476.30 µg/L         1.512      476.30 ppb          1.512   0.32%
   QC value within limits for Cr 267.716  Recovery = 95.26%
Cu 324.752†           122840.8      478.87 µg/L         1.470      478.87 ppb          1.470   0.31%
   QC value within limits for Cu 324.752  Recovery = 95.77%
Fe 238.204 Radial†     78324.0      4827.4 µg/L         14.34      4827.4 ppb          14.34   0.30%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.55%
K 766.490 Radial†      13180.7      4821.7 µg/L         21.99      4821.7 ppb          21.99   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 96.43%
Mg 279.077 IEC†        13196.2      4924.3 µg/L          7.93      4924.3 ppb           7.93   0.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.49%
Mn 257.610†           390054.6      482.41 µg/L         2.102      482.41 ppb          2.102   0.44%
   QC value within limits for Mn 257.610  Recovery = 96.48%
Mo 202.031†            16292.7      479.26 µg/L         4.241      479.26 ppb          4.241   0.88%
   QC value within limits for Mo 202.031  Recovery = 95.85%
Na 589.592 Radial†     70404.9      9613.9 µg/L         20.97      9613.9 ppb          20.97   0.22%
   QC value within limits for Na 589.592 Radial  Recovery = 96.14%
Ni 231.604†            41541.3      478.32 µg/L         1.200      478.32 ppb          1.200   0.25%
   QC value within limits for Ni 231.604  Recovery = 95.66%
P 214.914†             11165.0      2379.7 µg/L         23.45      2379.7 ppb          23.45   0.99%
   QC value within limits for P 214.914  Recovery = 95.19%
Pb 220.353†             8608.8      482.08 µg/L         4.685      482.08 ppb          4.685   0.97%
   QC value within limits for Pb 220.353  Recovery = 96.42%
S 181.975 Axial†        1272.4      948.86 µg/L        11.360      948.86 ppb         11.360   1.20%
   QC value within limits for S 181.975 Axial  Recovery = 94.89%
Sb 206.836†             4019.3      478.92 µg/L         5.524      478.92 ppb          5.524   1.15%
   QC value within limits for Sb 206.836  Recovery = 95.78%
Se 196.026†             1320.7         480 µg/L           4.5         480 ppb            4.5   0.93%
   QC value within limits for Se 196.026  Recovery = 95.91%
SiO2†                  53219.4      5181.2 µg/L         19.05      5181.2 ppb          19.05   0.37%
   QC value within limits for SiO2  Recovery = 96.89%
Si 251.611†           165332.5      2427.9 µg/L         11.15      2427.9 ppb          11.15   0.46%
   QC value within limits for Si 251.611  Recovery = 97.12%
Sn 189.927†             7683.0      480.57 µg/L         3.879      480.57 ppb          3.879   0.81%
   QC value within limits for Sn 189.927  Recovery = 96.11%
Sr 421.552†           231010.6      480.22 µg/L         3.701      480.22 ppb          3.701   0.77%
   QC value within limits for Sr 421.552  Recovery = 96.04%
Ti 334.940†           514276.9      479.86 µg/L         1.412      479.86 ppb          1.412   0.29%
   QC value within limits for Ti 334.940  Recovery = 95.97%
Tl 190.801†             3919.0      488.72 µg/L         4.311      488.72 ppb          4.311   0.88%
   QC value within limits for Tl 190.801  Recovery = 97.74%
U 409.014†              7625.3      474.92 µg/L         2.247      474.92 ppb          2.247   0.47%
   QC value within limits for U 409.014  Recovery = 94.98%
V 292.402†             97486.1      481.92 µg/L         2.411      481.92 ppb          2.411   0.50%
   QC value within limits for V 292.402  Recovery = 96.38%
Zn 213.857†            85476.7      476.40 µg/L         2.970      476.40 ppb          2.970   0.62%
   QC value within limits for Zn 213.857  Recovery = 95.28%
All analyte(s) passed QC.
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Sequence No.: 78
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 22:14:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144616.5	144616.5	99.1	%			22:15:27
1	Al 396.153Radial†	-140.4	-78.5	-14.533	µg/L	-14.533	ppb	22:15:27
1	Ca 317.933Radial†	605.1	50.0	2.7853	µg/L	2.7853	ppb	22:15:47
1	Fe 238.204 Radial†	190.6	44.2	2.7255	µg/L	2.7255	ppb	22:15:47
1	K 766.490 Radial†	1690.5	161.1	58.992	µg/L	58.992	ppb	22:15:27
1	Mg 279.077 IEC†	189.8	0.8	0.2999	µg/L	0.2999	ppb	22:15:47
1	Na 589.592 Radial†	1316.3	37.4	5.0628	µg/L	5.0628	ppb	22:15:27
1	Sr 421.552†	-196.7	-63.2	-0.1315	µg/L	-0.1315	ppb	22:15:27
1	Sc 361.383	1731481.4	1731481.4	100.77	%			22:16:34
1	Y 371.029	1035707.2	1035707.2	100.88	%			22:16:34
1	Ag 328.068†	4207.6	84.0	0.3025	µg/L	0.3025	ppb	22:16:37
1	As 188.979†	-21.2	-0.7	-0.1971	µg/L	-0.1971	ppb	22:16:57
1	B 249.677†	3625.9	92.2	1.3590	µg/L	1.3590	ppb	22:16:37
1	Ba 233.527†	-157.7	-20.7	-0.0841	µg/L	-0.0841	ppb	22:16:57
1	Be 313.107†	-910.7	160.9	0.0444	µg/L	0.0444	ppb	22:16:37
1	Cd 226.502†	-114.4	4.7	0.0290	µg/L	0.0290	ppb	22:16:57
1	Co 228.616†	-176.3	15.4	0.1898	µg/L	0.1898	ppb	22:16:57
1	Cr 267.716†	195.1	15.0	0.1155	µg/L	0.1155	ppb	22:16:57
1	Cu 324.752†	2860.5	-133.6	-0.5170	µg/L	-0.5170	ppb	22:16:37
1	Mn 257.610†	321.7	82.0	0.1014	µg/L	0.1014	ppb	22:16:57
1	Mo 202.031†	-34.6	-14.3	-0.4198	µg/L	-0.4198	ppb	22:16:57
1	Ni 231.604†	-65.6	11.4	0.1312	µg/L	0.1312	ppb	22:16:57
1	P 214.914†	-28.4	-10.2	-2.1783	µg/L	-2.1783	ppb	22:16:57
1	Pb 220.353†	66.3	-20.6	-1.1536	µg/L	-1.1536	ppb	22:16:57
1	S 181.975 Axial†	101.3	-4.5	-3.3505	µg/L	-3.3505	ppb	22:16:57
1	Sb 206.836†	79.6	-1.9	-0.2288	µg/L	-0.2288	ppb	22:16:57
1	Se 196.026†	12.5	-2.8	-1.02	µg/L	-1.02	ppb	22:16:57
1	SiO2†	1786.4	-2.7	-0.2591	µg/L	-0.2591	ppb	22:16:57
1	Si 251.611†	1082.1	237.2	3.4988	µg/L	3.4988	ppb	22:16:37
1	Sn 189.927†	9.2	10.2	0.6390	µg/L	0.6390	ppb	22:16:57
1	Ti 334.940†	1075.1	114.3	0.1060	µg/L	0.1060	ppb	22:16:37
1	Tl 190.801†	-105.3	12.2	1.4953	µg/L	1.4953	ppb	22:16:57
1	U 409.014†	-238.6	33.2	1.8871	µg/L	1.8871	ppb	22:16:37
1	V 292.402†	220.7	-184.8	-0.9046	µg/L	-0.9046	ppb	22:16:37
1	Zn 213.857†	605.7	36.6	0.2048	µg/L	0.2048	ppb	22:16:57
2	Sc RADIAL	144344.2	144344.2	98.9	%			22:15:49
2	Al 396.153Radial†	-228.5	-167.8	-31.103	µg/L	-31.103	ppb	22:15:49
2	Ca 317.933Radial†	612.9	59.1	3.2922	µg/L	3.2922	ppb	22:16:09
2	Fe 238.204 Radial†	199.9	54.0	3.3254	µg/L	3.3254	ppb	22:16:09
2	K 766.490 Radial†	1458.2	-70.5	-25.815	µg/L	-25.815	ppb	22:15:49
2	Mg 279.077 IEC†	169.1	-19.8	-7.3659	µg/L	-7.3659	ppb	22:16:09
2	Na 589.592 Radial†	1297.4	20.8	2.8708	µg/L	2.8708	ppb	22:15:49
2	Sr 421.552†	-320.5	-188.8	-0.3925	µg/L	-0.3925	ppb	22:15:49
2	Sc 361.383	1722284.8	1722284.8	100.24	%			22:16:59
2	Y 371.029	1030621.8	1030621.8	100.38	%			22:16:59
2	Ag 328.068†	3896.9	-203.7	-0.7475	µg/L	-0.7475	ppb	22:17:01
2	As 188.979†	-7.9	12.5	3.7833	µg/L	3.7833	ppb	22:17:21
2	B 249.677†	3506.6	-7.6	-0.1120	µg/L	-0.1120	ppb	22:17:01
2	Ba 233.527†	-125.5	10.7	0.0428	µg/L	0.0428	ppb	22:17:21
2	Be 313.107†	-756.3	310.2	0.0866	µg/L	0.0866	ppb	22:17:01
2	Cd 226.502†	-110.8	7.7	0.0475	µg/L	0.0475	ppb	22:17:21
2	Co 228.616†	-191.9	-1.2	-0.0145	µg/L	-0.0145	ppb	22:17:21
2	Cr 267.716†	200.7	21.6	0.1639	µg/L	0.1639	ppb	22:17:21
2	Cu 324.752†	2989.4	10.2	0.0458	µg/L	0.0458	ppb	22:17:01
2	Mn 257.610†	314.3	76.3	0.0947	µg/L	0.0947	ppb	22:17:21
2	Mo 202.031†	-21.3	-1.1	-0.0337	µg/L	-0.0337	ppb	22:17:21
2	Ni 231.604†	-74.0	2.7	0.0313	µg/L	0.0313	ppb	22:17:21
2	P 214.914†	-16.7	1.3	0.2808	µg/L	0.2808	ppb	22:17:21
2	Pb 220.353†	91.3	4.7	0.2555	µg/L	0.2555	ppb	22:17:21

2	S 181.975 Axial†	95.8	-9.5	-7.0189	µg/L	-7.0189 ppb	22:17:21
2	Sb 206.836†	59.0	-22.0	-2.6184	µg/L	-2.6184 ppb	22:17:21
2	Se 196.026†	19.9	4.6	1.68	µg/L	1.68 ppb	22:17:21
2	SiO2†	1789.5	9.9	0.9655	µg/L	0.9655 ppb	22:17:21
2	Si 251.611†	1004.6	165.6	2.4397	µg/L	2.4397 ppb	22:17:01
2	Sn 189.927†	5.2	6.3	0.3919	µg/L	0.3919 ppb	22:17:21
2	Ti 334.940†	826.1	-128.4	-0.1222	µg/L	-0.1222 ppb	22:17:01
2	Tl 190.801†	-126.0	-9.1	-1.1150	µg/L	-1.1150 ppb	22:17:21
2	U 409.014†	-147.1	123.1	7.1898	µg/L	7.1898 ppb	22:17:01
2	V 292.402†	373.1	-31.5	-0.1489	µg/L	-0.1489 ppb	22:17:01
2	Zn 213.857†	593.5	27.6	0.1540	µg/L	0.1540 ppb	22:17:21
3	Sc RADIAL	145056.9	145056.9	99.4	%		22:16:11
3	Al 396.153Radial†	-231.1	-169.3	-31.367	µg/L	-31.367 ppb	22:16:11
3	Ca 317.933Radial†	599.6	42.6	2.3739	µg/L	2.3739 ppb	22:16:31
3	Fe 238.204 Radial†	195.6	48.6	2.9983	µg/L	2.9983 ppb	22:16:31
3	K 766.490 Radial†	1826.4	292.6	107.12	µg/L	107.12 ppb	22:16:11
3	Mg 279.077 IEC†	196.4	6.8	2.5372	µg/L	2.5372 ppb	22:16:31
3	Na 589.592 Radial†	1266.4	-16.8	-2.3909	µg/L	-2.3909 ppb	22:16:11
3	Sr 421.552†	-165.7	-31.4	-0.0654	µg/L	-0.0654 ppb	22:16:11
3	Sc 361.383	1742676.0	1742676.0	101.42	%		22:17:23
3	Y 371.029	1041139.7	1041139.7	101.41	%		22:17:23
3	Ag 328.068†	4264.5	113.3	0.4163	µg/L	0.4163 ppb	22:17:25
3	As 188.979†	-11.3	9.2	2.7834	µg/L	2.7834 ppb	22:17:45
3	B 249.677†	3554.8	-1.0	-0.0144	µg/L	-0.0144 ppb	22:17:25
3	Ba 233.527†	-135.5	2.2	0.0087	µg/L	0.0087 ppb	22:17:45
3	Be 313.107†	-714.6	360.1	0.0972	µg/L	0.0972 ppb	22:17:25
3	Cd 226.502†	-111.8	8.0	0.0493	µg/L	0.0493 ppb	22:17:45
3	Co 228.616†	-185.9	7.0	0.0867	µg/L	0.0867 ppb	22:17:45
3	Cr 267.716†	198.7	17.4	0.1382	µg/L	0.1382 ppb	22:17:45
3	Cu 324.752†	2855.8	-156.5	-0.6100	µg/L	-0.6100 ppb	22:17:25
3	Mn 257.610†	318.4	76.7	0.0948	µg/L	0.0948 ppb	22:17:45
3	Mo 202.031†	-37.1	-16.5	-0.4859	µg/L	-0.4859 ppb	22:17:45
3	Ni 231.604†	-94.7	-16.9	-0.1940	µg/L	-0.1940 ppb	22:17:45
3	P 214.914†	-18.0	0.2	0.0565	µg/L	0.0565 ppb	22:17:45
3	Pb 220.353†	70.5	-16.9	-0.9439	µg/L	-0.9439 ppb	22:17:45
3	S 181.975 Axial†	101.6	-4.9	-3.6429	µg/L	-3.6429 ppb	22:17:45
3	Sb 206.836†	72.7	-9.2	-1.0967	µg/L	-1.0967 ppb	22:17:45
3	Se 196.026†	9.5	-5.9	-2.14	µg/L	-2.14 ppb	22:17:45
3	SiO2†	1777.4	-22.9	-2.2297	µg/L	-2.2297 ppb	22:17:45
3	Si 251.611†	827.6	-20.5	-0.2986	µg/L	-0.2986 ppb	22:17:25
3	Sn 189.927†	4.4	5.4	0.3390	µg/L	0.3390 ppb	22:17:45
3	Ti 334.940†	1103.2	135.2	0.1273	µg/L	0.1273 ppb	22:17:25
3	Tl 190.801†	-112.8	5.5	0.6715	µg/L	0.6715 ppb	22:17:45
3	U 409.014†	-323.3	-48.8	-2.8536	µg/L	-2.8536 ppb	22:17:25
3	V 292.402†	418.1	8.4	0.0344	µg/L	0.0344 ppb	22:17:25
3	Zn 213.857†	602.9	30.0	0.1695	µg/L	0.1695 ppb	22:17:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732147.4	100.81	%	0.594				0.59%
Sc RADIAL	144672.5	99.1	%	0.25				0.25%
Y 371.029	1035822.9	100.89	%	0.512				0.51%
Ag 328.068†	-2.2	-0.0096	µg/L	0.64157	-0.0096	ppb	0.64157	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-138.5	-25.667	µg/L	9.6439	-25.667	ppb	9.6439	37.57%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	2.1232	µg/L	2.07069	2.1232	ppb	2.07069	97.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	27.9	0.4109	µg/L	0.82253	0.4109	ppb	0.82253	200.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.6	-0.0109	µg/L	0.06567	-0.0109	ppb	0.06567	605.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	277.1	0.0761	µg/L	0.02793	0.0761	ppb	0.02793	36.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	50.6	2.8171	µg/L	0.45995	2.8171	ppb	0.45995	16.33%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.8	0.0420	µg/L	0.01123	0.0420	ppb	0.01123	26.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.1	0.0873	µg/L	0.10216	0.0873	ppb	0.10216	116.98%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                18.0      0.1392 µg/L       0.02421      0.1392 ppb        0.02421  17.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -93.3     -0.3604 µg/L       0.35483     -0.3604 ppb        0.35483  98.44%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         48.9      3.0164 µg/L       0.30037      3.0164 ppb        0.30037   9.96%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         127.7      46.766 µg/L       67.3062      46.766 ppb        67.3062 143.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.0     -1.5096 µg/L       5.19362     -1.5096 ppb        5.19362 344.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                78.3      0.0969 µg/L       0.00386      0.0969 ppb        0.00386   3.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -10.7     -0.3132 µg/L       0.24424     -0.3132 ppb        0.24424  77.99%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         13.8      1.8476 µg/L       3.83078      1.8476 ppb        3.83078 207.34%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -0.9     -0.0105 µg/L       0.16660     -0.0105 ppb        0.16660 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.9     -0.6137 µg/L       1.35968     -0.6137 ppb        1.35968 221.57%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -10.9     -0.6140 µg/L       0.76029     -0.6140 ppb        0.76029 123.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -6.3     -4.6708 µg/L       2.03882     -4.6708 ppb        2.03882  43.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -11.0     -1.3147 µg/L       1.20959     -1.3147 ppb        1.20959  92.01%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.4      -0.495 µg/L        1.9625      -0.495 ppb         1.9625 396.16%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      -5.2     -0.5078 µg/L       1.61206     -0.5078 ppb        1.61206 317.46%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               127.4      1.8800 µg/L       1.95958      1.8800 ppb        1.95958 104.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.3      0.4566 µg/L       0.16011      0.4566 ppb        0.16011  35.06%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -94.5     -0.1965 µg/L       0.17296     -0.1965 ppb        0.17296  88.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                40.4      0.0370 µg/L       0.13834      0.0370 ppb        0.13834 373.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.9      0.3506 µg/L       1.33442      0.3506 ppb        1.33442 380.62%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 35.8      2.0744 µg/L       5.02435      2.0744 ppb        5.02435 242.20%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -69.3     -0.3397 µg/L       0.49772     -0.3397 ppb        0.49772 146.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                31.4      0.1761 µg/L       0.02602      0.1761 ppb        0.02602  14.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 87
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 22:35:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146768.4	146768.4	101	%			22:35:57
1	Al 396.153Radial†	26541.6	26453.2	4882.0	µg/L	4882.0	ppb	22:35:57
1	Ca 317.933Radial†	87649.0	86587.6	4823.3	µg/L	4823.3	ppb	22:35:57
1	Fe 238.204 Radial†	78561.3	77964.3	4805.2	µg/L	4805.2	ppb	22:35:57
1	K 766.490 Radial†	14622.8	12994.5	4753.5	µg/L	4753.5	ppb	22:35:57
1	Mg 279.077 IEC†	13408.4	13141.1	4903.8	µg/L	4903.8	ppb	22:35:57
1	Na 589.592 Radial†	71672.4	69972.1	9554.8	µg/L	9554.8	ppb	22:35:57
1	Sr 421.552†	232413.6	231220.9	480.66	µg/L	480.66	ppb	22:35:55
1	Sc 361.383	1722923.1	1722923.1	100.27	%			22:36:24
1	Y 371.029	1019811.3	1019811.3	99.330	%			22:36:24
1	Ag 328.068†	132254.4	127801.8	479.17	µg/L	479.17	ppb	22:36:24
1	As 188.979†	1604.2	1620.1	496.89	µg/L	496.89	ppb	22:36:44
1	B 249.677†	35283.6	31681.3	465.60	µg/L	465.60	ppb	22:36:24
1	Ba 233.527†	118323.2	118135.9	476.44	µg/L	476.44	ppb	22:36:24
1	Be 313.107†	1761219.9	1757474.5	478.66	µg/L	478.66	ppb	22:36:24
1	Cd 226.502†	75730.6	75642.0	472.19	µg/L	472.19	ppb	22:36:24
1	Co 228.616†	38400.5	38485.9	475.11	µg/L	475.11	ppb	22:36:24
1	Cr 267.716†	60661.3	60317.0	472.27	µg/L	472.27	ppb	22:36:24
1	Cu 324.752†	125755.4	122439.8	477.30	µg/L	477.30	ppb	22:36:24
1	Mn 257.610†	387911.3	386614.6	478.15	µg/L	478.15	ppb	22:36:24
1	Mo 202.031†	16408.6	16383.8	481.94	µg/L	481.94	ppb	22:36:44
1	Ni 231.604†	41320.9	41284.6	475.36	µg/L	475.36	ppb	22:36:24
1	P 214.914†	11214.8	11202.1	2387.7	µg/L	2387.7	ppb	22:36:44
1	Pb 220.353†	8739.6	8629.4	483.24	µg/L	483.24	ppb	22:36:44
1	S 181.975 Axial†	1375.5	1266.7	944.65	µg/L	944.65	ppb	22:36:44
1	Sb 206.836†	4120.0	4027.9	480.04	µg/L	480.04	ppb	22:36:44
1	Se 196.026†	1343.5	1324.5	481	µg/L	481	ppb	22:36:44
1	SiO2†	54771.8	52846.8	5144.7	µg/L	5144.7	ppb	22:36:24
1	Si 251.611†	165253.5	163965.6	2407.7	µg/L	2407.7	ppb	22:36:24
1	Sn 189.927†	7717.2	7697.3	481.45	µg/L	481.45	ppb	22:36:44
1	Ti 334.940†	514309.0	511951.9	477.69	µg/L	477.69	ppb	22:36:24
1	Tl 190.801†	3827.4	3933.6	490.49	µg/L	490.49	ppb	22:36:44
1	U 409.014†	7235.3	7485.4	466.50	µg/L	466.50	ppb	22:36:24
1	V 292.402†	97370.2	96700.5	478.09	µg/L	478.09	ppb	22:36:24
1	Zn 213.857†	85150.2	84353.3	470.11	µg/L	470.11	ppb	22:36:24
2	Sc RADIAL	145116.2	145116.2	99.4	%			22:36:01
2	Al 396.153Radial†	26297.2	26507.8	4892.7	µg/L	4892.7	ppb	22:36:01
2	Ca 317.933Radial†	86940.1	86866.9	4838.8	µg/L	4838.8	ppb	22:36:01
2	Fe 238.204 Radial†	77803.3	78091.3	4813.1	µg/L	4813.1	ppb	22:36:01
2	K 766.490 Radial†	14545.6	13082.4	4785.7	µg/L	4785.7	ppb	22:36:01
2	Mg 279.077 IEC†	13274.5	13158.2	4909.9	µg/L	4909.9	ppb	22:36:01
2	Na 589.592 Radial†	70981.1	70088.2	9570.6	µg/L	9570.6	ppb	22:36:01
2	Sr 421.552†	232627.8	234067.2	486.57	µg/L	486.57	ppb	22:35:59
2	Sc 361.383	1750269.1	1750269.1	101.87	%			22:36:47
2	Y 371.029	1035573.7	1035573.7	100.87	%			22:36:47
2	Ag 328.068†	134676.3	128118.7	480.37	µg/L	480.37	ppb	22:36:47
2	As 188.979†	1582.5	1573.9	482.89	µg/L	482.89	ppb	22:37:07
2	B 249.677†	35971.3	31806.7	467.44	µg/L	467.44	ppb	22:36:47
2	Ba 233.527†	120638.2	118564.9	478.17	µg/L	478.17	ppb	22:36:47
2	Be 313.107†	1795938.6	1764115.6	480.47	µg/L	480.47	ppb	22:36:47
2	Cd 226.502†	77211.3	75915.5	473.90	µg/L	473.90	ppb	22:36:47
2	Co 228.616†	39183.6	38656.4	477.21	µg/L	477.21	ppb	22:36:47
2	Cr 267.716†	61805.5	60495.1	473.67	µg/L	473.67	ppb	22:36:47
2	Cu 324.752†	127636.0	122326.5	476.86	µg/L	476.86	ppb	22:36:47
2	Mn 257.610†	395566.1	388085.1	479.97	µg/L	479.97	ppb	22:36:47
2	Mo 202.031†	16264.4	15986.6	470.26	µg/L	470.26	ppb	22:37:07
2	Ni 231.604†	42110.5	41415.9	476.87	µg/L	476.87	ppb	22:36:47
2	P 214.914†	11123.1	10937.4	2331.1	µg/L	2331.1	ppb	22:37:07
2	Pb 220.353†	8695.2	8449.6	473.18	µg/L	473.18	ppb	22:37:07

2	S 181.975 Axial†	1380.2	1249.8	932.06 µg/L	932.06 ppb	22:37:07
2	Sb 206.836†	4108.8	3952.7	470.89 µg/L	470.89 ppb	22:37:07
2	Se 196.026†	1336.5	1296.8	471 µg/L	471 ppb	22:37:07
2	SiO2†	55876.6	53078.0	5167.8 µg/L	5167.8 ppb	22:36:47
2	Si 251.611†	168292.8	164374.4	2414.0 µg/L	2414.0 ppb	22:36:47
2	Sn 189.927†	7640.8	7502.0	469.28 µg/L	469.28 ppb	22:37:07
2	Ti 334.940†	522795.1	512268.9	477.98 µg/L	477.98 ppb	22:36:47
2	Tl 190.801†	3793.4	3840.6	479.07 µg/L	479.07 ppb	22:37:07
2	U 409.014†	7388.2	7522.7	468.79 µg/L	468.79 ppb	22:36:47
2	V 292.402†	99257.8	97036.4	479.62 µg/L	479.62 ppb	22:36:47
2	Zn 213.857†	87026.0	84867.9	472.99 µg/L	472.99 ppb	22:36:47
3	Sc RADIAL	145049.2	145049.2	99.4 %		22:36:05
3	Al 396.153Radial†	26335.5	26558.6	4901.9 µg/L	4901.9 ppb	22:36:05
3	Ca 317.933Radial†	86672.0	86637.6	4826.1 µg/L	4826.1 ppb	22:36:05
3	Fe 238.204 Radial†	77423.0	77745.0	4791.7 µg/L	4791.7 ppb	22:36:05
3	K 766.490 Radial†	14708.1	13252.7	4848.1 µg/L	4848.1 ppb	22:36:05
3	Mg 279.077 IEC†	13164.0	13053.2	4870.9 µg/L	4870.9 ppb	22:36:05
3	Na 589.592 Radial†	70826.5	69965.7	9553.9 µg/L	9553.9 ppb	22:36:05
3	Sr 421.552†	229385.5	230913.4	480.02 µg/L	480.02 ppb	22:36:03
3	Sc 361.383	1736886.0	1736886.0	101.09 %		22:37:10
3	Y 371.029	1026663.5	1026663.5	99.998 %		22:37:10
3	Ag 328.068†	133353.0	127828.3	479.31 µg/L	479.31 ppb	22:37:10
3	As 188.979†	1594.0	1597.2	489.96 µg/L	489.96 ppb	22:37:30
3	B 249.677†	35849.9	31958.7	469.68 µg/L	469.68 ppb	22:37:10
3	Ba 233.527†	119879.0	118726.4	478.82 µg/L	478.82 ppb	22:37:10
3	Be 313.107†	1785527.0	1767400.4	481.37 µg/L	481.37 ppb	22:37:10
3	Cd 226.502†	76637.4	75931.9	474.00 µg/L	474.00 ppb	22:37:10
3	Co 228.616†	38956.3	38727.9	478.10 µg/L	478.10 ppb	22:37:10
3	Cr 267.716†	61487.6	60648.2	474.86 µg/L	474.86 ppb	22:37:10
3	Cu 324.752†	126940.5	122603.9	477.95 µg/L	477.95 ppb	22:37:10
3	Mn 257.610†	392870.7	388410.8	480.37 µg/L	480.37 ppb	22:37:10
3	Mo 202.031†	16306.3	16151.1	475.10 µg/L	475.10 ppb	22:37:30
3	Ni 231.604†	41574.5	41204.2	474.44 µg/L	474.44 ppb	22:37:10
3	P 214.914†	11178.5	11076.3	2360.8 µg/L	2360.8 ppb	22:37:30
3	Pb 220.353†	8729.7	8549.5	478.76 µg/L	478.76 ppb	22:37:30
3	S 181.975 Axial†	1377.2	1257.3	937.66 µg/L	937.66 ppb	22:37:30
3	Sb 206.836†	4126.4	4001.2	476.72 µg/L	476.72 ppb	22:37:30
3	Se 196.026†	1332.7	1303.1	473 µg/L	473 ppb	22:37:30
3	SiO2†	55324.3	52954.3	5155.5 µg/L	5155.5 ppb	22:37:10
3	Si 251.611†	167461.4	164825.0	2420.5 µg/L	2420.5 ppb	22:37:10
3	Sn 189.927†	7692.4	7610.8	476.07 µg/L	476.07 ppb	22:37:30
3	Ti 334.940†	518784.6	512256.1	477.97 µg/L	477.97 ppb	22:37:10
3	Tl 190.801†	3813.8	3889.5	485.08 µg/L	485.08 ppb	22:37:30
3	U 409.014†	7519.5	7708.6	479.68 µg/L	479.68 ppb	22:37:10
3	V 292.402†	98557.8	97094.7	479.97 µg/L	479.97 ppb	22:37:10
3	Zn 213.857†	86550.8	85056.1	474.07 µg/L	474.07 ppb	22:37:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1736692.7	101.08	%	0.796				0.79%
Sc RADIAL	145644.6	99.8	%	0.67				0.67%
Y 371.029	1027349.5	100.06	%	0.770				0.77%
Ag 328.068†	127916.2	479.62	µg/L	0.654	479.62	ppb	0.654	0.14%
QC value within limits for Ag 328.068 Recovery = 95.92%								
Al 396.153Radial†	26506.5	4892.2	µg/L	9.94	4892.2	ppb	9.94	0.20%
QC value within limits for Al 396.153Radial Recovery = 97.84%								
As 188.979†	1597.1	489.91	µg/L	7.000	489.91	ppb	7.000	1.43%
QC value within limits for As 188.979 Recovery = 97.98%								
B 249.677†	31815.6	467.57	µg/L	2.043	467.57	ppb	2.043	0.44%
QC value within limits for B 249.677 Recovery = 93.51%								
Ba 233.527†	118475.7	477.81	µg/L	1.229	477.81	ppb	1.229	0.26%
QC value within limits for Ba 233.527 Recovery = 95.56%								
Be 313.107†	1762996.8	480.17	µg/L	1.379	480.17	ppb	1.379	0.29%
QC value within limits for Be 313.107 Recovery = 96.03%								
Ca 317.933Radial†	86697.4	4829.4	µg/L	8.30	4829.4	ppb	8.30	0.17%
QC value within limits for Ca 317.933Radial Recovery = 96.59%								
Cd 226.502†	75829.8	473.36	µg/L	1.017	473.36	ppb	1.017	0.21%
QC value within limits for Cd 226.502 Recovery = 94.67%								
Co 228.616†	38623.4	476.81	µg/L	1.535	476.81	ppb	1.535	0.32%

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   QC value within limits for Co 228.616  Recovery = 95.36%
Cr 267.716†            60486.8      473.60 µg/L         1.293      473.60 ppb          1.293   0.27%
   QC value within limits for Cr 267.716  Recovery = 94.72%
Cu 324.752†           122456.7      477.37 µg/L         0.545      477.37 ppb          0.545   0.11%
   QC value within limits for Cu 324.752  Recovery = 95.47%
Fe 238.204 Radial†     77933.5      4803.3 µg/L         10.80      4803.3 ppb          10.80   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.07%
K 766.490 Radial†      13109.8      4795.8 µg/L         48.06      4795.8 ppb          48.06   1.00%
   QC value within limits for K 766.490 Radial  Recovery = 95.92%
Mg 279.077 IEC†        13117.5      4894.9 µg/L         20.99      4894.9 ppb          20.99   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.90%
Mn 257.610†           387703.5      479.50 µg/L         1.185      479.50 ppb          1.185   0.25%
   QC value within limits for Mn 257.610  Recovery = 95.90%
Mo 202.031†            16173.9      475.77 µg/L         5.865      475.77 ppb          5.865   1.23%
   QC value within limits for Mo 202.031  Recovery = 95.15%
Na 589.592 Radial†     70008.7      9559.8 µg/L          9.43      9559.8 ppb           9.43   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 95.60%
Ni 231.604†            41301.6      475.56 µg/L         1.231      475.56 ppb          1.231   0.26%
   QC value within limits for Ni 231.604  Recovery = 95.11%
P 214.914†             11071.9      2359.9 µg/L         28.31      2359.9 ppb          28.31   1.20%
   QC value within limits for P 214.914  Recovery = 94.39%
Pb 220.353†             8542.8      478.39 µg/L         5.044      478.39 ppb          5.044   1.05%
   QC value within limits for Pb 220.353  Recovery = 95.68%
S 181.975 Axial†        1257.9      938.13 µg/L         6.311      938.13 ppb          6.311   0.67%
   QC value within limits for S 181.975 Axial  Recovery = 93.81%
Sb 206.836†             3994.0      475.89 µg/L         4.631      475.89 ppb          4.631   0.97%
   QC value within limits for Sb 206.836  Recovery = 95.18%
Se 196.026†             1308.1         475 µg/L           5.3         475 ppb            5.3   1.11%
   QC value within limits for Se 196.026  Recovery = 95.00%
SiO2†                  52959.7      5156.0 µg/L         11.56      5156.0 ppb          11.56   0.22%
   QC value within limits for SiO2  Recovery = 96.42%
Si 251.611†           164388.3      2414.1 µg/L          6.40      2414.1 ppb           6.40   0.27%
   QC value within limits for Si 251.611  Recovery = 96.56%
Sn 189.927†             7603.3      475.60 µg/L         6.099      475.60 ppb          6.099   1.28%
   QC value within limits for Sn 189.927  Recovery = 95.12%
Sr 421.552†           232067.2      482.42 µg/L         3.615      482.42 ppb          3.615   0.75%
   QC value within limits for Sr 421.552  Recovery = 96.48%
Ti 334.940†           512159.0      477.88 µg/L         0.166      477.88 ppb          0.166   0.03%
   QC value within limits for Ti 334.940  Recovery = 95.58%
Tl 190.801†             3887.9      484.88 µg/L         5.710      484.88 ppb          5.710   1.18%
   QC value within limits for Tl 190.801  Recovery = 96.98%
U 409.014†              7572.3      471.66 µg/L         7.041      471.66 ppb          7.041   1.49%
   QC value within limits for U 409.014  Recovery = 94.33%
V 292.402†             96943.8      479.22 µg/L         0.996      479.22 ppb          0.996   0.21%
   QC value within limits for V 292.402  Recovery = 95.84%
Zn 213.857†            84759.1      472.39 µg/L         2.045      472.39 ppb          2.045   0.43%
   QC value within limits for Zn 213.857  Recovery = 94.48%
All analyte(s) passed QC.
```

Sequence No.: 88 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/31/2010 22:37:38**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146107.1	146107.1	100	%			22:38:09
1	Al 396.153Radial†	-28.6	34.6	6.4326	µg/L	6.4326	ppb	22:38:29
1	Ca 317.933Radial†	565.6	4.4	0.2431	µg/L	0.2431	ppb	22:38:29
1	Fe 238.204 Radial†	221.6	73.2	4.5130	µg/L	4.5130	ppb	22:38:29
1	K 766.490 Radial†	1670.7	123.9	45.355	µg/L	45.355	ppb	22:38:09
1	Mg 279.077 IEC†	188.3	-2.7	-1.0050	µg/L	-1.0050	ppb	22:38:29
1	Na 589.592 Radial†	1308.8	16.4	2.2067	µg/L	2.2067	ppb	22:38:09
1	Sr 421.552†	-138.0	-2.6	-0.0053	µg/L	-0.0053	ppb	22:38:09
1	Sc 361.383	1751605.7	1751605.7	101.94	%			22:39:16
1	Y 371.029	1046872.7	1046872.7	101.97	%			22:39:16
1	Ag 328.068†	3943.9	-222.7	-0.8222	µg/L	-0.8222	ppb	22:39:19
1	As 188.979†	-21.0	-0.2	-0.0602	µg/L	-0.0602	ppb	22:39:39
1	B 249.677†	3436.3	-135.1	-1.9931	µg/L	-1.9931	ppb	22:39:19
1	Ba 233.527†	-130.5	7.8	0.0313	µg/L	0.0313	ppb	22:39:39
1	Be 313.107†	-714.8	363.6	0.1002	µg/L	0.1002	ppb	22:39:19
1	Cd 226.502†	-97.0	23.1	0.1438	µg/L	0.1438	ppb	22:39:39
1	Co 228.616†	-170.5	23.0	0.2839	µg/L	0.2839	ppb	22:39:39
1	Cr 267.716†	208.7	26.1	0.2018	µg/L	0.2018	ppb	22:39:39
1	Cu 324.752†	2943.0	-85.3	-0.3274	µg/L	-0.3274	ppb	22:39:19
1	Mn 257.610†	329.7	86.2	0.1066	µg/L	0.1066	ppb	22:39:39
1	Mo 202.031†	-31.9	-11.2	-0.3304	µg/L	-0.3304	ppb	22:39:39
1	Ni 231.604†	-81.9	-3.9	-0.0443	µg/L	-0.0443	ppb	22:39:39
1	P 214.914†	-23.2	-4.8	-1.0060	µg/L	-1.0060	ppb	22:39:39
1	Pb 220.353†	102.8	14.4	0.8016	µg/L	0.8016	ppb	22:39:39
1	S 181.975 Axial†	97.2	-9.7	-7.2332	µg/L	-7.2332	ppb	22:39:39
1	Sb 206.836†	61.0	-21.0	-2.4992	µg/L	-2.4992	ppb	22:39:39
1	Se 196.026†	8.3	-7.1	-2.58	µg/L	-2.58	ppb	22:39:39
1	SiO2†	1795.0	-14.6	-1.4272	µg/L	-1.4272	ppb	22:39:39
1	Si 251.611†	1014.2	158.3	2.3344	µg/L	2.3344	ppb	22:39:19
1	Sn 189.927†	9.8	10.8	0.6712	µg/L	0.6712	ppb	22:39:39
1	Ti 334.940†	912.7	-57.2	-0.0550	µg/L	-0.0550	ppb	22:39:19
1	Tl 190.801†	-104.8	13.9	1.7060	µg/L	1.7060	ppb	22:39:39
1	U 409.014†	-207.3	66.5	3.8783	µg/L	3.8783	ppb	22:39:19
1	V 292.402†	371.1	-39.7	-0.1942	µg/L	-0.1942	ppb	22:39:19
1	Zn 213.857†	603.0	27.1	0.1525	µg/L	0.1525	ppb	22:39:39
2	Sc RADIAL	143516.2	143516.2	98.3	%			22:38:31
2	Al 396.153Radial†	-59.7	2.6	0.4739	µg/L	0.4739	ppb	22:38:51
2	Ca 317.933Radial†	574.3	23.4	1.3043	µg/L	1.3043	ppb	22:38:51
2	Fe 238.204 Radial†	211.6	67.1	4.1330	µg/L	4.1330	ppb	22:38:51
2	K 766.490 Radial†	1530.2	11.2	4.0876	µg/L	4.0876	ppb	22:38:31
2	Mg 279.077 IEC†	186.7	-0.9	-0.3295	µg/L	-0.3295	ppb	22:38:51
2	Na 589.592 Radial†	1309.3	40.6	5.5370	µg/L	5.5370	ppb	22:38:31
2	Sr 421.552†	-195.1	-63.1	-0.1312	µg/L	-0.1312	ppb	22:38:31
2	Sc 361.383	1725150.1	1725150.1	100.40	%			22:39:41
2	Y 371.029	1031944.0	1031944.0	100.51	%			22:39:41
2	Ag 328.068†	3865.7	-241.3	-0.8900	µg/L	-0.8900	ppb	22:39:43
2	As 188.979†	-15.4	5.0	1.5151	µg/L	1.5151	ppb	22:40:03
2	B 249.677†	3665.2	144.6	2.1317	µg/L	2.1317	ppb	22:39:43
2	Ba 233.527†	-135.5	0.9	0.0032	µg/L	0.0032	ppb	22:40:03
2	Be 313.107†	-881.3	187.0	0.0526	µg/L	0.0526	ppb	22:39:43
2	Cd 226.502†	-123.0	-4.3	-0.0274	µg/L	-0.0274	ppb	22:40:03
2	Co 228.616†	-162.8	28.2	0.3479	µg/L	0.3479	ppb	22:40:03
2	Cr 267.716†	195.8	16.5	0.1246	µg/L	0.1246	ppb	22:40:03
2	Cu 324.752†	2834.1	-149.5	-0.5757	µg/L	-0.5757	ppb	22:39:43
2	Mn 257.610†	312.2	73.7	0.0911	µg/L	0.0911	ppb	22:40:03
2	Mo 202.031†	-20.8	-0.7	-0.0196	µg/L	-0.0196	ppb	22:40:03
2	Ni 231.604†	-63.9	12.8	0.1478	µg/L	0.1478	ppb	22:40:03
2	P 214.914†	-29.3	-11.2	-2.4036	µg/L	-2.4036	ppb	22:40:03
2	Pb 220.353†	74.7	-12.0	-0.6719	µg/L	-0.6719	ppb	22:40:03

2	S 181.975 Axial†	114.1	8.6	6.4080 µg/L	6.4080 ppb	22:40:03
2	Sb 206.836†	83.7	2.5	0.2984 µg/L	0.2984 ppb	22:40:03
2	Se 196.026†	7.4	-7.9	-2.83 µg/L	-2.83 ppb	22:40:03
2	SiO2†	1757.4	-25.0	-2.4389 µg/L	-2.4389 ppb	22:40:03
2	Si 251.611†	1016.3	175.6	2.5912 µg/L	2.5912 ppb	22:39:43
2	Sn 189.927†	-5.9	-4.8	-0.2983 µg/L	-0.2983 ppb	22:40:03
2	Ti 334.940†	1008.8	52.2	0.0465 µg/L	0.0465 ppb	22:39:43
2	Tl 190.801†	-108.8	8.3	1.0191 µg/L	1.0191 ppb	22:40:03
2	U 409.014†	-175.4	95.2	5.5468 µg/L	5.5468 ppb	22:39:43
2	V 292.402†	347.2	-58.0	-0.2792 µg/L	-0.2792 ppb	22:39:43
2	Zn 213.857†	581.3	14.6	0.0808 µg/L	0.0808 ppb	22:40:03
3	Sc RADIAL	142981.4	142981.4	98.0 %		22:38:53
3	Al 396.153Radial†	-63.0	-1.1	-0.2113 µg/L	-0.2113 ppb	22:39:13
3	Ca 317.933Radial†	581.1	32.5	1.8108 µg/L	1.8108 ppb	22:39:13
3	Fe 238.204 Radial†	194.5	50.4	3.1050 µg/L	3.1050 ppb	22:39:13
3	K 766.490 Radial†	1679.9	169.7	62.139 µg/L	62.139 ppb	22:38:53
3	Mg 279.077 IEC†	195.7	9.0	3.3615 µg/L	3.3615 ppb	22:39:13
3	Na 589.592 Radial†	1209.6	-56.3	-7.7449 µg/L	-7.7449 ppb	22:38:53
3	Sr 421.552†	-420.0	-293.4	-0.6100 µg/L	-0.6100 ppb	22:38:53
3	Sc 361.383	1753013.9	1753013.9	102.03 %		22:40:05
3	Y 371.029	1047401.1	1047401.1	102.02 %		22:40:05
3	Ag 328.068†	4060.3	-111.6	-0.4113 µg/L	-0.4113 ppb	22:40:07
3	As 188.979†	-11.1	9.5	2.8753 µg/L	2.8753 ppb	22:40:27
3	B 249.677†	3619.9	42.1	0.6207 µg/L	0.6207 ppb	22:40:07
3	Ba 233.527†	-139.2	-0.6	-0.0023 µg/L	-0.0023 ppb	22:40:27
3	Be 313.107†	-869.8	212.1	0.0585 µg/L	0.0585 ppb	22:40:07
3	Cd 226.502†	-85.5	34.4	0.2145 µg/L	0.2145 ppb	22:40:27
3	Co 228.616†	-181.0	12.9	0.1588 µg/L	0.1588 ppb	22:40:27
3	Cr 267.716†	175.3	-6.8	-0.0550 µg/L	-0.0550 ppb	22:40:27
3	Cu 324.752†	3044.4	11.7	0.0483 µg/L	0.0483 ppb	22:40:07
3	Mn 257.610†	307.5	64.2	0.0793 µg/L	0.0793 ppb	22:40:27
3	Mo 202.031†	-12.0	8.3	0.2441 µg/L	0.2441 ppb	22:40:27
3	Ni 231.604†	-69.0	8.9	0.1028 µg/L	0.1028 ppb	22:40:27
3	P 214.914†	-27.3	-8.8	-1.8805 µg/L	-1.8805 ppb	22:40:27
3	Pb 220.353†	81.8	-6.2	-0.3453 µg/L	-0.3453 ppb	22:40:27
3	S 181.975 Axial†	99.7	-7.4	-5.4573 µg/L	-5.4573 ppb	22:40:27
3	Sb 206.836†	92.0	9.3	1.1113 µg/L	1.1113 ppb	22:40:27
3	Se 196.026†	22.0	6.3	2.27 µg/L	2.27 ppb	22:40:27
3	SiO2†	1796.0	-15.0	-1.4822 µg/L	-1.4822 ppb	22:40:27
3	Si 251.611†	1008.2	151.7	2.2299 µg/L	2.2299 ppb	22:40:07
3	Sn 189.927†	5.8	6.8	0.4238 µg/L	0.4238 ppb	22:40:27
3	Ti 334.940†	774.2	-193.7	-0.1822 µg/L	-0.1822 ppb	22:40:07
3	Tl 190.801†	-131.2	-12.0	-1.4719 µg/L	-1.4719 ppb	22:40:27
3	U 409.014†	-231.1	43.4	2.5310 µg/L	2.5310 ppb	22:40:07
3	V 292.402†	394.8	-16.8	-0.0781 µg/L	-0.0781 ppb	22:40:07
3	Zn 213.857†	584.2	8.2	0.0446 µg/L	0.0446 ppb	22:40:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1743256.5	101.46	%	0.914				0.90%
Sc RADIAL	144201.5	98.8	%	1.15				1.16%
Y 371.029	1042072.6	101.50	%	0.855				0.84%
Ag 328.068†	-191.9	-0.7079	µg/L	0.25904	-0.7079	ppb	0.25904	36.59%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.0	2.2317	µg/L	3.65416	2.2317	ppb	3.65416	163.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.8	1.4434	µg/L	1.46904	1.4434	ppb	1.46904	101.78%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	17.2	0.2531	µg/L	2.08681	0.2531	ppb	2.08681	824.51%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.7	0.0107	µg/L	0.01797	0.0107	ppb	0.01797	167.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	254.2	0.0704	µg/L	0.02593	0.0704	ppb	0.02593	36.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	20.1	1.1194	µg/L	0.80006	1.1194	ppb	0.80006	71.47%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.7	0.1103	µg/L	0.12437	0.1103	ppb	0.12437	112.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	21.4	0.2635	µg/L	0.09616	0.2635	ppb	0.09616	36.49%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              11.9      0.0905 µg/L       0.13175      0.0905 ppb        0.13175 145.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -74.4     -0.2849 µg/L       0.31418     -0.2849 ppb        0.31418 110.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       63.6      3.9170 µg/L       0.72840      3.9170 ppb        0.72840  18.60%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       101.6     37.194 µg/L       29.8738     37.194 ppb        29.8738  80.32%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.8      0.6757 µg/L       2.35038      0.6757 ppb        2.35038 347.86%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              74.7      0.0923 µg/L       0.01373      0.0923 ppb        0.01373  14.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -1.2     -0.0353 µg/L       0.28757     -0.0353 ppb        0.28757 814.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        0.2     -0.0004 µg/L       6.91054     -0.0004 ppb        6.91054 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               6.0      0.0687 µg/L       0.10050      0.0687 ppb        0.10050 146.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.3     -1.7634 µg/L       0.70616     -1.7634 ppb        0.70616  40.05%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -1.2     -0.0719 µg/L       0.77383     -0.0719 ppb        0.77383 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.8     -2.0942 µg/L       7.41644     -2.0942 ppb        7.41644 354.14%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.0     -0.3632 µg/L       1.89399     -0.3632 ppb        1.89399 521.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.9       -1.05 µg/L         2.877       -1.05 ppb          2.877 275.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -18.2     -1.7828 µg/L       0.56893     -1.7828 ppb        0.56893  31.91%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             161.9      2.3852 µg/L       0.18594      2.3852 ppb        0.18594   7.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.3      0.2656 µg/L       0.50378      0.2656 ppb        0.50378 189.70%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -119.7     -0.2488 µg/L       0.31901     -0.2488 ppb        0.31901 128.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -66.2     -0.0636 µg/L       0.11461     -0.0636 ppb        0.11461 180.26%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.4      0.4177 µg/L       1.67214      0.4177 ppb        1.67214 400.28%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               68.3      3.9854 µg/L       1.51076      3.9854 ppb        1.51076  37.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -38.2     -0.1839 µg/L       0.10096     -0.1839 ppb        0.10096  54.91%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              16.6      0.0927 µg/L       0.05489      0.0927 ppb        0.05489  59.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 96
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 22:56:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145631.0	145631.0	99.8	%			22:56:43
1	Al 396.153Radial†	26317.9	26435.1	4879.0	µg/L	4879.0	ppb	22:56:43
1	Ca 317.933Radial†	87097.4	86715.5	4830.4	µg/L	4830.4	ppb	22:56:43
1	Fe 238.204 Radial†	78015.7	78027.6	4809.1	µg/L	4809.1	ppb	22:56:43
1	K 766.490 Radial†	14649.7	13135.0	4805.0	µg/L	4805.0	ppb	22:56:43
1	Mg 279.077 IEC†	13278.4	13115.0	4893.9	µg/L	4893.9	ppb	22:56:43
1	Na 589.592 Radial†	71207.1	70062.4	9567.1	µg/L	9567.1	ppb	22:56:43
1	Sr 421.552†	231874.1	232485.1	483.29	µg/L	483.29	ppb	22:56:41
1	Sc 361.383	1757611.7	1757611.7	102.29	%			22:56:56
1	Y 371.029	1039190.8	1039190.8	101.22	%			22:56:56
1	Ag 328.068†	134897.1	127782.2	479.15	µg/L	479.15	ppb	22:56:56
1	As 188.979†	1621.9	1605.9	492.61	µg/L	492.61	ppb	22:57:16
1	B 249.677†	36392.3	32070.7	471.32	µg/L	471.32	ppb	22:56:56
1	Ba 233.527†	121741.3	119148.6	480.52	µg/L	480.52	ppb	22:56:56
1	Be 313.107†	1813624.8	1774040.0	483.17	µg/L	483.17	ppb	22:56:56
1	Cd 226.502†	78396.2	76757.2	479.15	µg/L	479.15	ppb	22:56:56
1	Co 228.616†	39678.3	38979.3	481.20	µg/L	481.20	ppb	22:56:56
1	Cr 267.716†	62522.7	60942.8	477.17	µg/L	477.17	ppb	22:56:56
1	Cu 324.752†	128539.8	122686.5	478.27	µg/L	478.27	ppb	22:56:56
1	Mn 257.610†	399485.0	390293.9	482.70	µg/L	482.70	ppb	22:56:56
1	Mo 202.031†	16513.7	16163.7	475.47	µg/L	475.47	ppb	22:57:16
1	Ni 231.604†	42651.4	41771.9	480.97	µg/L	480.97	ppb	22:56:56
1	P 214.914†	11360.0	11123.4	2370.9	µg/L	2370.9	ppb	22:57:16
1	Pb 220.353†	8842.6	8558.1	479.24	µg/L	479.24	ppb	22:57:16
1	S 181.975 Axial†	1375.6	1239.7	924.58	µg/L	924.58	ppb	22:57:16
1	Sb 206.836†	4166.7	3992.4	475.65	µg/L	475.65	ppb	22:57:16
1	Se 196.026†	1353.0	1307.4	475	µg/L	475	ppb	22:57:16
1	SiO2†	56776.4	53728.4	5231.1	µg/L	5231.1	ppb	22:56:56
1	Si 251.611†	171826.2	167138.4	2454.6	µg/L	2454.6	ppb	22:56:56
1	Sn 189.927†	7798.3	7624.6	476.93	µg/L	476.93	ppb	22:57:16
1	Ti 334.940†	526436.4	513684.7	479.31	µg/L	479.31	ppb	22:56:56
1	Tl 190.801†	3828.8	3859.7	481.43	µg/L	481.43	ppb	22:57:16
1	U 409.014†	7470.8	7573.2	471.86	µg/L	471.86	ppb	22:56:56
1	V 292.402†	100068.8	97422.2	481.57	µg/L	481.57	ppb	22:56:56
1	Zn 213.857†	87978.3	85442.0	476.19	µg/L	476.19	ppb	22:56:56
2	Sc RADIAL	144482.4	144482.4	99.0	%			22:56:47
2	Al 396.153Radial†	26344.0	26671.1	4922.7	µg/L	4922.7	ppb	22:56:47
2	Ca 317.933Radial†	86633.5	86940.8	4842.9	µg/L	4842.9	ppb	22:56:47
2	Fe 238.204 Radial†	77683.1	78313.2	4826.7	µg/L	4826.7	ppb	22:56:47
2	K 766.490 Radial†	14601.3	13202.8	4829.8	µg/L	4829.8	ppb	22:56:47
2	Mg 279.077 IEC†	13248.2	13190.2	4922.0	µg/L	4922.0	ppb	22:56:47
2	Na 589.592 Radial†	70771.3	70189.4	9584.4	µg/L	9584.4	ppb	22:56:47
2	Sr 421.552†	233206.6	235678.1	489.92	µg/L	489.92	ppb	22:56:45
2	Sc 361.383	1751539.4	1751539.4	101.94	%			22:57:19
2	Y 371.029	1035412.0	1035412.0	100.85	%			22:57:19
2	Ag 328.068†	134751.3	128096.4	480.32	µg/L	480.32	ppb	22:57:19
2	As 188.979†	1631.1	1620.5	497.03	µg/L	497.03	ppb	22:57:39
2	B 249.677†	36471.6	32271.9	474.29	µg/L	474.29	ppb	22:57:19
2	Ba 233.527†	121221.0	119050.7	480.13	µg/L	480.13	ppb	22:57:19
2	Be 313.107†	1805248.5	1771969.6	482.61	µg/L	482.61	ppb	22:57:19
2	Cd 226.502†	78107.8	76740.0	479.04	µg/L	479.04	ppb	22:57:19
2	Co 228.616†	39424.5	38864.8	479.79	µg/L	479.79	ppb	22:57:19
2	Cr 267.716†	62345.8	60981.1	477.48	µg/L	477.48	ppb	22:57:19
2	Cu 324.752†	127964.1	122557.5	477.76	µg/L	477.76	ppb	22:57:19
2	Mn 257.610†	398107.9	390296.9	482.71	µg/L	482.71	ppb	22:57:19
2	Mo 202.031†	16505.0	16211.0	476.86	µg/L	476.86	ppb	22:57:39
2	Ni 231.604†	42337.4	41608.5	479.09	µg/L	479.09	ppb	22:57:19
2	P 214.914†	11365.0	11166.7	2380.1	µg/L	2380.1	ppb	22:57:39
2	Pb 220.353†	8862.8	8607.8	482.03	µg/L	482.03	ppb	22:57:39

2	S 181.975 Axial†	1404.8	1273.1	949.37 µg/L	949.37 ppb	22:57:39
2	Sb 206.836†	4167.5	4007.4	477.45 µg/L	477.45 ppb	22:57:39
2	Se 196.026†	1357.3	1316.2	478 µg/L	478 ppb	22:57:39
2	SiO2†	56527.9	53677.1	5226.0 µg/L	5226.0 ppb	22:57:19
2	Si 251.611†	170943.4	166854.8	2450.4 µg/L	2450.4 ppb	22:57:19
2	Sn 189.927†	7812.4	7664.9	479.44 µg/L	479.44 ppb	22:57:39
2	Ti 334.940†	524724.5	513789.4	479.40 µg/L	479.40 ppb	22:57:19
2	Tl 190.801†	3882.8	3925.7	489.55 µg/L	489.55 ppb	22:57:39
2	U 409.014†	7388.4	7517.7	468.65 µg/L	468.65 ppb	22:57:19
2	V 292.402†	99869.4	97565.6	482.28 µg/L	482.28 ppb	22:57:19
2	Zn 213.857†	87691.1	85458.4	476.30 µg/L	476.30 ppb	22:57:19
3	Sc RADIAL	144138.2	144138.2	98.8 %		22:56:51
3	Al 396.153Radial†	26172.1	26560.6	4902.1 µg/L	4902.1 ppb	22:56:51
3	Ca 317.933Radial†	86609.0	87124.9	4853.2 µg/L	4853.2 ppb	22:56:51
3	Fe 238.204 Radial†	77490.8	78305.8	4826.3 µg/L	4826.3 ppb	22:56:51
3	K 766.490 Radial†	14542.9	13178.9	4821.0 µg/L	4821.0 ppb	22:56:51
3	Mg 279.077 IEC†	13135.4	13108.0	4891.4 µg/L	4891.4 ppb	22:56:51
3	Na 589.592 Radial†	70800.9	70390.1	9611.9 µg/L	9611.9 ppb	22:56:51
3	Sr 421.552†	232137.5	235158.2	488.84 µg/L	488.84 ppb	22:56:49
3	Sc 361.383	1748212.6	1748212.6	101.75 %		22:57:42
3	Y 371.029	1033770.3	1033770.3	100.69 %		22:57:42
3	Ag 328.068†	134805.9	128401.6	481.45 µg/L	481.45 ppb	22:57:42
3	As 188.979†	1610.5	1603.2	491.81 µg/L	491.81 ppb	22:58:02
3	B 249.677†	36492.0	32359.9	475.58 µg/L	475.58 ppb	22:57:42
3	Ba 233.527†	121511.9	119562.9	482.19 µg/L	482.19 ppb	22:57:42
3	Be 313.107†	1811861.4	1781839.1	485.29 µg/L	485.29 ppb	22:57:42
3	Cd 226.502†	78364.1	77137.8	481.53 µg/L	481.53 ppb	22:57:42
3	Co 228.616†	39460.6	38973.8	481.13 µg/L	481.13 ppb	22:57:42
3	Cr 267.716†	62297.9	61050.5	478.02 µg/L	478.02 ppb	22:57:42
3	Cu 324.752†	128147.5	122976.6	479.39 µg/L	479.39 ppb	22:57:42
3	Mn 257.610†	398765.2	391686.1	484.43 µg/L	484.43 ppb	22:57:42
3	Mo 202.031†	16552.7	16288.7	479.14 µg/L	479.14 ppb	22:58:02
3	Ni 231.604†	42492.4	41839.9	481.76 µg/L	481.76 ppb	22:57:42
3	P 214.914†	11389.8	11212.3	2389.9 µg/L	2389.9 ppb	22:58:02
3	Pb 220.353†	8877.9	8639.2	483.79 µg/L	483.79 ppb	22:58:02
3	S 181.975 Axial†	1392.1	1263.1	942.01 µg/L	942.01 ppb	22:58:02
3	Sb 206.836†	4168.0	4015.6	478.46 µg/L	478.46 ppb	22:58:02
3	Se 196.026†	1374.8	1335.9	485 µg/L	485 ppb	22:58:02
3	SiO2†	56586.5	53840.3	5241.9 µg/L	5241.9 ppb	22:57:42
3	Si 251.611†	171481.5	167702.7	2462.9 µg/L	2462.9 ppb	22:57:42
3	Sn 189.927†	7818.8	7685.8	480.75 µg/L	480.75 ppb	22:58:02
3	Ti 334.940†	524855.7	514897.9	480.44 µg/L	480.44 ppb	22:57:42
3	Tl 190.801†	3874.8	3925.0	489.48 µg/L	489.48 ppb	22:58:02
3	U 409.014†	7274.8	7419.8	462.99 µg/L	462.99 ppb	22:57:42
3	V 292.402†	99852.2	97735.2	483.13 µg/L	483.13 ppb	22:57:42
3	Zn 213.857†	87879.4	85807.2	478.24 µg/L	478.24 ppb	22:57:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1752454.6	101.99	%	0.277				0.27%
Sc RADIAL	144750.5	99.2	%	0.54				0.54%
Y 371.029	1036124.4	100.92	%	0.271				0.27%
Ag 328.068†	128093.4	480.30	µg/L	1.150	480.30	ppb	1.150	0.24%
QC value within limits for Ag 328.068 Recovery = 96.06%								
Al 396.153Radial†	26555.6	4901.2	µg/L	21.86	4901.2	ppb	21.86	0.45%
QC value within limits for Al 396.153Radial Recovery = 98.02%								
As 188.979†	1609.8	493.81	µg/L	2.810	493.81	ppb	2.810	0.57%
QC value within limits for As 188.979 Recovery = 98.76%								
B 249.677†	32234.2	473.73	µg/L	2.187	473.73	ppb	2.187	0.46%
QC value within limits for B 249.677 Recovery = 94.75%								
Ba 233.527†	119254.1	480.95	µg/L	1.096	480.95	ppb	1.096	0.23%
QC value within limits for Ba 233.527 Recovery = 96.19%								
Be 313.107†	1775949.6	483.69	µg/L	1.416	483.69	ppb	1.416	0.29%
QC value within limits for Be 313.107 Recovery = 96.74%								
Ca 317.933Radial†	86927.1	4842.2	µg/L	11.42	4842.2	ppb	11.42	0.24%
QC value within limits for Ca 317.933Radial Recovery = 96.84%								
Cd 226.502†	76878.3	479.91	µg/L	1.404	479.91	ppb	1.404	0.29%
QC value within limits for Cd 226.502 Recovery = 95.98%								
Co 228.616†	38939.3	480.71	µg/L	0.798	480.71	ppb	0.798	0.17%

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   QC value within limits for Co 228.616  Recovery = 96.14%
Cr 267.716†            60991.5      477.56 µg/L         0.432      477.56 ppb          0.432   0.09%
   QC value within limits for Cr 267.716  Recovery = 95.51%
Cu 324.752†           122740.2      478.47 µg/L         0.832      478.47 ppb          0.832   0.17%
   QC value within limits for Cu 324.752  Recovery = 95.69%
Fe 238.204 Radial†     78215.5      4820.7 µg/L         10.03      4820.7 ppb          10.03   0.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.41%
K 766.490 Radial†      13172.2      4818.6 µg/L         12.58      4818.6 ppb          12.58   0.26%
   QC value within limits for K 766.490 Radial  Recovery = 96.37%
Mg 279.077 IEC†        13137.7      4902.4 µg/L         16.98      4902.4 ppb          16.98   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.05%
Mn 257.610†           390759.0      483.28 µg/L         0.994      483.28 ppb          0.994   0.21%
   QC value within limits for Mn 257.610  Recovery = 96.66%
Mo 202.031†            16221.2      477.16 µg/L         1.856      477.16 ppb          1.856   0.39%
   QC value within limits for Mo 202.031  Recovery = 95.43%
Na 589.592 Radial†     70214.0      9587.8 µg/L         22.57      9587.8 ppb          22.57   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 95.88%
Ni 231.604†            41740.1      480.61 µg/L         1.369      480.61 ppb          1.369   0.28%
   QC value within limits for Ni 231.604  Recovery = 96.12%
P 214.914†             11167.5      2380.3 µg/L          9.50      2380.3 ppb           9.50   0.40%
   QC value within limits for P 214.914  Recovery = 95.21%
Pb 220.353†             8601.7      481.69 µg/L         2.292      481.69 ppb          2.292   0.48%
   QC value within limits for Pb 220.353  Recovery = 96.34%
S 181.975 Axial†        1258.6      938.65 µg/L        12.730      938.65 ppb         12.730   1.36%
   QC value within limits for S 181.975 Axial  Recovery = 93.87%
Sb 206.836†             4005.1      477.19 µg/L         1.420      477.19 ppb          1.420   0.30%
   QC value within limits for Sb 206.836  Recovery = 95.44%
Se 196.026†             1319.8         479 µg/L           5.3         479 ppb            5.3   1.10%
   QC value within limits for Se 196.026  Recovery = 95.85%
SiO2†                  53748.6      5233.0 µg/L          8.10      5233.0 ppb           8.10   0.15%
   QC value within limits for SiO2  Recovery = 97.86%
Si 251.611†           167232.0      2456.0 µg/L          6.34      2456.0 ppb           6.34   0.26%
   QC value within limits for Si 251.611  Recovery = 98.24%
Sn 189.927†             7658.4      479.04 µg/L         1.940      479.04 ppb          1.940   0.41%
   QC value within limits for Sn 189.927  Recovery = 95.81%
Sr 421.552†           234440.5      487.35 µg/L         3.562      487.35 ppb          3.562   0.73%
   QC value within limits for Sr 421.552  Recovery = 97.47%
Ti 334.940†           514124.0      479.72 µg/L         0.631      479.72 ppb          0.631   0.13%
   QC value within limits for Ti 334.940  Recovery = 95.94%
Tl 190.801†             3903.4      486.82 µg/L         4.666      486.82 ppb          4.666   0.96%
   QC value within limits for Tl 190.801  Recovery = 97.36%
U 409.014†              7503.6      467.83 µg/L         4.493      467.83 ppb          4.493   0.96%
   QC value within limits for U 409.014  Recovery = 93.57%
V 292.402†             97574.3      482.33 µg/L         0.781      482.33 ppb          0.781   0.16%
   QC value within limits for V 292.402  Recovery = 96.47%
Zn 213.857†            85569.2      476.91 µg/L         1.152      476.91 ppb          1.152   0.24%
   QC value within limits for Zn 213.857  Recovery = 95.38%
All analyte(s) passed QC.
```

Sequence No.: 97 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/31/2010 22:58:10**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141781.4	141781.4	97.2	%			22:58:41
1	Al 396.153Radial†	-65.9	-4.6	-0.8469	µg/L	-0.8469	ppb	22:59:01
1	Ca 317.933Radial†	606.5	63.7	3.5473	µg/L	3.5473	ppb	22:59:01
1	Fe 238.204 Radial†	221.5	79.9	4.9227	µg/L	4.9227	ppb	22:59:01
1	K 766.490 Radial†	1686.2	190.7	69.835	µg/L	69.835	ppb	22:58:41
1	Mg 279.077 IEC†	181.6	-3.8	-1.4362	µg/L	-1.4362	ppb	22:59:01
1	Na 589.592 Radial†	1287.3	34.2	4.6057	µg/L	4.6057	ppb	22:58:41
1	Sr 421.552†	-190.2	-60.5	-0.1257	µg/L	-0.1257	ppb	22:58:41
1	Sc 361.383	1743048.5	1743048.5	101.45	%			23:00:02
1	Y 371.029	1041073.0	1041073.0	101.40	%			23:00:02
1	Ag 328.068†	4154.9	4.3	0.0197	µg/L	0.0197	ppb	23:00:05
1	As 188.979†	-19.4	1.2	0.3644	µg/L	0.3644	ppb	23:00:25
1	B 249.677†	3572.5	15.7	0.2315	µg/L	0.2315	ppb	23:00:05
1	Ba 233.527†	-115.3	22.2	0.0893	µg/L	0.0893	ppb	23:00:25
1	Be 313.107†	-922.1	155.7	0.0428	µg/L	0.0428	ppb	23:00:05
1	Cd 226.502†	-111.2	8.6	0.0533	µg/L	0.0533	ppb	23:00:25
1	Co 228.616†	-179.8	13.1	0.1612	µg/L	0.1612	ppb	23:00:25
1	Cr 267.716†	180.6	-0.5	-0.0052	µg/L	-0.0052	ppb	23:00:25
1	Cu 324.752†	2865.9	-147.1	-0.5698	µg/L	-0.5698	ppb	23:00:05
1	Mn 257.610†	329.0	87.1	0.1078	µg/L	0.1078	ppb	23:00:25
1	Mo 202.031†	-23.8	-3.4	-0.1000	µg/L	-0.1000	ppb	23:00:25
1	Ni 231.604†	-90.2	-12.4	-0.1430	µg/L	-0.1430	ppb	23:00:25
1	P 214.914†	-18.9	-0.7	-0.1360	µg/L	-0.1360	ppb	23:00:25
1	Pb 220.353†	97.7	10.0	0.5542	µg/L	0.5542	ppb	23:00:25
1	S 181.975 Axial†	106.4	-0.2	-0.1288	µg/L	-0.1288	ppb	23:00:25
1	Sb 206.836†	101.1	18.9	2.2415	µg/L	2.2415	ppb	23:00:25
1	Se 196.026†	15.2	-0.3	-0.115	µg/L	-0.115	ppb	23:00:25
1	SiO2†	1920.2	117.5	11.486	µg/L	11.486	ppb	23:00:25
1	Si 251.611†	1352.7	496.8	7.3252	µg/L	7.3252	ppb	23:00:05
1	Sn 189.927†	0.5	1.6	0.0974	µg/L	0.0974	ppb	23:00:25
1	Ti 334.940†	839.4	-125.1	-0.1173	µg/L	-0.1173	ppb	23:00:05
1	Tl 190.801†	-111.8	6.4	0.7917	µg/L	0.7917	ppb	23:00:25
1	U 409.014†	-248.6	24.8	1.4614	µg/L	1.4614	ppb	23:00:05
1	V 292.402†	448.0	37.9	0.1842	µg/L	0.1842	ppb	23:00:05
1	Zn 213.857†	592.5	19.7	0.1113	µg/L	0.1113	ppb	23:00:25
2	Sc RADIAL	145003.3	145003.3	99.4	%			22:59:03
2	Al 396.153Radial†	-37.6	25.3	4.6756	µg/L	4.6756	ppb	22:59:23
2	Ca 317.933Radial†	575.8	18.9	1.0553	µg/L	1.0553	ppb	22:59:23
2	Fe 238.204 Radial†	212.8	66.1	4.0710	µg/L	4.0710	ppb	22:59:23
2	K 766.490 Radial†	1744.9	211.3	77.353	µg/L	77.353	ppb	22:59:03
2	Mg 279.077 IEC†	193.4	3.9	1.4593	µg/L	1.4593	ppb	22:59:23
2	Na 589.592 Radial†	1264.0	-18.7	-2.6277	µg/L	-2.6277	ppb	22:59:03
2	Sr 421.552†	-251.3	-117.6	-0.2446	µg/L	-0.2446	ppb	22:59:03
2	Sc 361.383	1760622.4	1760622.4	102.47	%			23:00:27
2	Y 371.029	1051993.8	1051993.8	102.46	%			23:00:27
2	Ag 328.068†	3995.9	-191.7	-0.7159	µg/L	-0.7159	ppb	23:00:29
2	As 188.979†	-7.1	13.4	4.0498	µg/L	4.0498	ppb	23:00:49
2	B 249.677†	3525.8	-65.0	-0.9588	µg/L	-0.9588	ppb	23:00:29
2	Ba 233.527†	-156.5	-16.9	-0.0684	µg/L	-0.0684	ppb	23:00:49
2	Be 313.107†	-952.5	135.1	0.0377	µg/L	0.0377	ppb	23:00:29
2	Cd 226.502†	-136.2	-14.7	-0.0924	µg/L	-0.0924	ppb	23:00:49
2	Co 228.616†	-206.8	-11.5	-0.1422	µg/L	-0.1422	ppb	23:00:49
2	Cr 267.716†	203.7	20.2	0.1559	µg/L	0.1559	ppb	23:00:49
2	Cu 324.752†	2945.2	-98.0	-0.3777	µg/L	-0.3777	ppb	23:00:29
2	Mn 257.610†	295.4	51.0	0.0631	µg/L	0.0631	ppb	23:00:49
2	Mo 202.031†	-5.0	15.2	0.4464	µg/L	0.4464	ppb	23:00:49
2	Ni 231.604†	-100.3	-21.4	-0.2461	µg/L	-0.2461	ppb	23:00:49
2	P 214.914†	-24.8	-6.2	-1.3412	µg/L	-1.3412	ppb	23:00:49
2	Pb 220.353†	104.7	15.8	0.8832	µg/L	0.8832	ppb	23:00:49

2	S 181.975 Axial†	95.9	-11.5	-8.5333 µg/L	-8.5333 ppb	23:00:49
2	Sb 206.836†	88.7	5.7	0.6835 µg/L	0.6835 ppb	23:00:49
2	Se 196.026†	21.7	5.9	2.15 µg/L	2.15 ppb	23:00:49
2	SiO2†	1898.9	77.8	7.5925 µg/L	7.5925 ppb	23:00:49
2	Si 251.611†	1381.8	512.0	7.5445 µg/L	7.5445 ppb	23:00:29
2	Sn 189.927†	-7.0	-5.7	-0.3531 µg/L	-0.3531 ppb	23:00:49
2	Ti 334.940†	1192.4	211.2	0.1959 µg/L	0.1959 ppb	23:00:29
2	Tl 190.801†	-124.7	-5.0	-0.6143 µg/L	-0.6143 ppb	23:00:49
2	U 409.014†	-223.7	51.6	2.9674 µg/L	2.9674 ppb	23:00:29
2	V 292.402†	244.3	-165.3	-0.7998 µg/L	-0.7998 ppb	23:00:29
2	Zn 213.857†	583.4	4.9	0.0292 µg/L	0.0292 ppb	23:00:49
3	Sc RADIAL	144406.4	144406.4	99.0 %		22:59:25
3	Al 396.153Radial†	-65.2	-2.7	-0.5137 µg/L	-0.5137 ppb	22:59:45
3	Ca 317.933Radial†	603.1	48.9	2.7231 µg/L	2.7231 ppb	22:59:45
3	Fe 238.204 Radial†	209.2	63.3	3.9000 µg/L	3.9000 ppb	22:59:45
3	K 766.490 Radial†	1469.9	-59.4	-21.748 µg/L	-21.748 ppb	22:59:25
3	Mg 279.077 IEC†	181.9	-6.9	-2.5712 µg/L	-2.5712 ppb	22:59:45
3	Na 589.592 Radial†	1182.1	-96.2	-13.128 µg/L	-13.128 ppb	22:59:25
3	Sr 421.552†	-255.8	-123.2	-0.2561 µg/L	-0.2561 ppb	22:59:25
3	Sc 361.383	1746264.7	1746264.7	101.63 %		23:00:51
3	Y 371.029	1044189.6	1044189.6	101.70 %		23:00:51
3	Ag 328.068†	4224.2	64.9	0.2383 µg/L	0.2383 ppb	23:00:53
3	As 188.979†	-13.6	7.0	2.1128 µg/L	2.1128 ppb	23:01:13
3	B 249.677†	3523.5	-39.0	-0.5757 µg/L	-0.5757 ppb	23:00:53
3	Ba 233.527†	-133.8	4.2	0.0170 µg/L	0.0170 ppb	23:01:13
3	Be 313.107†	-788.4	289.0	0.0783 µg/L	0.0783 ppb	23:00:53
3	Cd 226.502†	-90.0	29.6	0.1844 µg/L	0.1844 ppb	23:01:13
3	Co 228.616†	-170.7	22.4	0.2760 µg/L	0.2760 ppb	23:01:13
3	Cr 267.716†	211.8	29.8	0.2347 µg/L	0.2347 ppb	23:01:13
3	Cu 324.752†	2885.9	-132.7	-0.5161 µg/L	-0.5161 ppb	23:00:53
3	Mn 257.610†	381.2	137.9	0.1707 µg/L	0.1707 ppb	23:01:13
3	Mo 202.031†	-12.3	8.0	0.2345 µg/L	0.2345 ppb	23:01:13
3	Ni 231.604†	-88.3	-10.3	-0.1190 µg/L	-0.1190 ppb	23:01:13
3	P 214.914†	-16.7	1.5	0.3230 µg/L	0.3230 ppb	23:01:13
3	Pb 220.353†	101.8	13.8	0.7699 µg/L	0.7699 ppb	23:01:13
3	S 181.975 Axial†	95.5	-11.1	-8.2190 µg/L	-8.2190 ppb	23:01:13
3	Sb 206.836†	89.0	6.7	0.8032 µg/L	0.8032 ppb	23:01:13
3	Se 196.026†	12.4	-3.0	-1.09 µg/L	-1.09 ppb	23:01:13
3	SiO2†	1870.7	65.3	6.3610 µg/L	6.3610 ppb	23:01:13
3	Si 251.611†	1192.8	337.1	4.9610 µg/L	4.9610 ppb	23:00:53
3	Sn 189.927†	11.3	12.3	0.7657 µg/L	0.7657 ppb	23:01:13
3	Ti 334.940†	1019.6	50.7	0.0482 µg/L	0.0482 ppb	23:00:53
3	Tl 190.801†	-120.0	-1.4	-0.1679 µg/L	-0.1679 ppb	23:01:13
3	U 409.014†	-299.5	-24.8	-1.4500 µg/L	-1.4500 ppb	23:00:53
3	V 292.402†	406.4	-3.9	-0.0172 µg/L	-0.0172 ppb	23:00:53
3	Zn 213.857†	589.9	16.1	0.0909 µg/L	0.0909 ppb	23:01:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1749978.5	101.85	%	0.545				0.53%
Sc RADIAL	143730.4	98.5	%	1.17				1.19%
Y 371.029	1045752.1	101.86	%	0.548				0.54%
Ag 328.068†	-40.8	-0.1526	µg/L	0.49988	-0.1526	ppb	0.49988	327.49%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.0	1.1050	µg/L	3.09673	1.1050	ppb	3.09673	280.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.2	2.1757	µg/L	1.84349	2.1757	ppb	1.84349	84.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-29.4	-0.4343	µg/L	0.60762	-0.4343	ppb	0.60762	139.91%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.2	0.0126	µg/L	0.07891	0.0126	ppb	0.07891	623.91%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.3	0.0529	µg/L	0.02208	0.0529	ppb	0.02208	41.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	43.8	2.4419	µg/L	1.26955	2.4419	ppb	1.26955	51.99%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.8	0.0484	µg/L	0.13846	0.0484	ppb	0.13846	286.00%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.0	0.0983	µg/L	0.21607	0.0983	ppb	0.21607	219.74%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              16.5      0.1285 µg/L       0.12227      0.1285 ppb        0.12227  95.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -125.9     -0.4879 µg/L       0.09911     -0.4879 ppb        0.09911  20.31%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       69.7      4.2979 µg/L       0.54779      4.2979 ppb        0.54779  12.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       114.2     41.813 µg/L       55.1735     41.813 ppb        55.1735 131.95%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.3     -0.8494 µg/L       2.07835     -0.8494 ppb        2.07835 244.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              92.0      0.1138 µg/L       0.05404      0.1138 ppb        0.05404  47.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.6      0.1936 µg/L       0.27547      0.1936 ppb        0.27547 142.26%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -26.9     -3.7166 µg/L       8.91683     -3.7166 ppb        8.91683 239.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -14.7     -0.1693 µg/L       0.06752     -0.1693 ppb        0.06752  39.87%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.8     -0.3847 µg/L       0.85955     -0.3847 ppb        0.85955 223.42%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              13.2      0.7358 µg/L       0.16715      0.7358 ppb        0.16715  22.72%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -7.6     -5.6270 µg/L       4.76418     -5.6270 ppb        4.76418  84.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              10.4      1.2427 µg/L       0.86705      1.2427 ppb        0.86705  69.77%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.9       0.315 µg/L        1.6662       0.315 ppb         1.6662 528.34%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    86.8      8.4797 µg/L       2.67504      8.4797 ppb        2.67504  31.55%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             448.6      6.6103 µg/L       1.43246      6.6103 ppb        1.43246  21.67%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.7      0.1700 µg/L       0.56292      0.1700 ppb        0.56292 331.12%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -100.4     -0.2088 µg/L       0.07220     -0.2088 ppb        0.07220  34.57%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              45.6      0.0423 µg/L       0.15668      0.0423 ppb        0.15668 370.64%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.0      0.0032 µg/L       0.71841      0.0032 ppb        0.71841 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               17.2      0.9930 µg/L       2.24566      0.9930 ppb        2.24566 226.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -43.8     -0.2109 µg/L       0.51982     -0.2109 ppb        0.51982 246.42%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              13.5      0.0771 µg/L       0.04274      0.0771 ppb        0.04274  55.43%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 107 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 3/31/2010 23:18:25**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144621.4	144621.4	99.1	%			23:18:59
1	Al 396.153Radial†	26323.5	26624.9	4914.2	µg/L	4914.2	ppb	23:18:59
1	Ca 317.933Radial†	86890.8	87116.3	4852.7	µg/L	4852.7	ppb	23:18:59
1	Fe 238.204 Radial†	77681.3	78236.0	4822.0	µg/L	4822.0	ppb	23:18:59
1	K 766.490 Radial†	14559.5	13146.4	4809.1	µg/L	4809.1	ppb	23:18:59
1	Mg 279.077 IEC†	13260.2	13189.4	4921.6	µg/L	4921.6	ppb	23:18:59
1	Na 589.592 Radial†	71065.1	70417.2	9615.6	µg/L	9615.6	ppb	23:18:59
1	Sr 421.552†	226802.4	228989.5	476.02	µg/L	476.02	ppb	23:18:57
1	Sc 361.383	1740302.6	1740302.6	101.29	%			23:19:12
1	Y 371.029	1028952.4	1028952.4	100.22	%			23:19:12
1	Ag 328.068†	133614.5	127827.5	479.30	µg/L	479.30	ppb	23:19:12
1	As 188.979†	1600.2	1600.2	490.89	µg/L	490.89	ppb	23:19:32
1	B 249.677†	35788.1	31828.1	467.74	µg/L	467.74	ppb	23:19:12
1	Ba 233.527†	120219.9	118830.1	479.24	µg/L	479.24	ppb	23:19:12
1	Be 313.107†	1792744.0	1771058.2	482.36	µg/L	482.36	ppb	23:19:12
1	Cd 226.502†	77213.0	76351.3	476.62	µg/L	476.62	ppb	23:19:12
1	Co 228.616†	39286.0	38977.8	481.18	µg/L	481.18	ppb	23:19:12
1	Cr 267.716†	61813.7	60850.7	476.45	µg/L	476.45	ppb	23:19:12
1	Cu 324.752†	127063.4	122478.8	477.46	µg/L	477.46	ppb	23:19:12
1	Mn 257.610†	394634.0	389388.7	481.58	µg/L	481.58	ppb	23:19:12
1	Mo 202.031†	16315.2	16128.2	474.43	µg/L	474.43	ppb	23:19:32
1	Ni 231.604†	42026.4	41569.6	478.64	µg/L	478.64	ppb	23:19:12
1	P 214.914†	11190.5	11066.4	2358.7	µg/L	2358.7	ppb	23:19:32
1	Pb 220.353†	8740.7	8543.3	478.42	µg/L	478.42	ppb	23:19:32
1	S 181.975 Axial†	1377.8	1255.2	936.10	µg/L	936.10	ppb	23:19:32
1	Sb 206.836†	4144.7	4011.3	477.89	µg/L	477.89	ppb	23:19:32
1	Se 196.026†	1340.6	1308.3	475	µg/L	475	ppb	23:19:32
1	SiO2†	55627.7	53146.4	5174.3	µg/L	5174.3	ppb	23:19:12
1	Si 251.611†	168264.2	165292.3	2427.4	µg/L	2427.4	ppb	23:19:12
1	Sn 189.927†	7681.2	7584.9	474.45	µg/L	474.45	ppb	23:19:32
1	Ti 334.940†	520666.2	513106.3	478.76	µg/L	478.76	ppb	23:19:12
1	Tl 190.801†	3808.4	3876.8	483.51	µg/L	483.51	ppb	23:19:32
1	U 409.014†	7415.2	7590.9	472.81	µg/L	472.81	ppb	23:19:12
1	V 292.402†	98786.7	97129.3	480.13	µg/L	480.13	ppb	23:19:12
1	Zn 213.857†	87000.0	85331.6	475.59	µg/L	475.59	ppb	23:19:12
2	Sc RADIAL	142472.1	142472.1	97.6	%			23:19:03
2	Al 396.153Radial†	25927.4	26619.8	4913.0	µg/L	4913.0	ppb	23:19:03
2	Ca 317.933Radial†	85608.6	87125.7	4853.2	µg/L	4853.2	ppb	23:19:03
2	Fe 238.204 Radial†	76614.2	78325.4	4827.5	µg/L	4827.5	ppb	23:19:03
2	K 766.490 Radial†	14271.1	13072.6	4782.1	µg/L	4782.1	ppb	23:19:03
2	Mg 279.077 IEC†	13162.7	13291.5	4959.8	µg/L	4959.8	ppb	23:19:03
2	Na 589.592 Radial†	70188.6	70601.3	9640.7	µg/L	9640.7	ppb	23:19:03
2	Sr 421.552†	229468.1	235172.4	488.87	µg/L	488.87	ppb	23:19:01
2	Sc 361.383	1723519.2	1723519.2	100.31	%			23:19:35
2	Y 371.029	1019447.3	1019447.3	99.295	%			23:19:35
2	Ag 328.068†	132544.4	128045.3	480.11	µg/L	480.11	ppb	23:19:35
2	As 188.979†	1616.7	1632.0	500.53	µg/L	500.53	ppb	23:19:55
2	B 249.677†	35773.7	32157.7	472.61	µg/L	472.61	ppb	23:19:35
2	Ba 233.527†	119609.8	119377.7	481.45	µg/L	481.45	ppb	23:19:35
2	Be 313.107†	1778804.5	1774397.6	483.27	µg/L	483.27	ppb	23:19:35
2	Cd 226.502†	76467.8	76350.8	476.61	µg/L	476.61	ppb	23:19:35
2	Co 228.616†	38765.7	38836.8	479.44	µg/L	479.44	ppb	23:19:35
2	Cr 267.716†	61178.2	60811.4	476.15	µg/L	476.15	ppb	23:19:35
2	Cu 324.752†	126162.4	122802.1	478.71	µg/L	478.71	ppb	23:19:35
2	Mn 257.610†	391126.3	389685.9	481.95	µg/L	481.95	ppb	23:19:35
2	Mo 202.031†	16388.5	16358.2	481.19	µg/L	481.19	ppb	23:19:55
2	Ni 231.604†	41688.5	41636.7	479.42	µg/L	479.42	ppb	23:19:35
2	P 214.914†	11227.5	11210.9	2389.5	µg/L	2389.5	ppb	23:19:55
2	Pb 220.353†	8752.6	8639.3	483.80	µg/L	483.80	ppb	23:19:55

2	S 181.975 Axial†	1387.2	1277.9	952.97 µg/L	952.97 ppb	23:19:55
2	Sb 206.836†	4153.3	4059.7	483.76 µg/L	483.76 ppb	23:19:55
2	Se 196.026†	1345.0	1325.6	481 µg/L	481 ppb	23:19:55
2	SiO2†	55194.2	53249.1	5184.0 µg/L	5184.0 ppb	23:19:35
2	Si 251.611†	166652.6	165303.4	2427.5 µg/L	2427.5 ppb	23:19:35
2	Sn 189.927†	7721.4	7698.8	481.56 µg/L	481.56 ppb	23:19:55
2	Ti 334.940†	516481.7	513940.5	479.54 µg/L	479.54 ppb	23:19:35
2	Tl 190.801†	3825.6	3930.5	490.14 µg/L	490.14 ppb	23:19:55
2	U 409.014†	7186.2	7434.0	463.72 µg/L	463.72 ppb	23:19:35
2	V 292.402†	98156.4	97450.7	481.75 µg/L	481.75 ppb	23:19:35
2	Zn 213.857†	86133.5	85304.1	475.43 µg/L	475.43 ppb	23:19:35
3	Sc RADIAL	143809.9	143809.9	98.5 %		23:19:07
3	Al 396.153Radial†	26240.2	26690.2	4926.1 µg/L	4926.1 ppb	23:19:07
3	Ca 317.933Radial†	86148.8	86858.1	4838.3 µg/L	4838.3 ppb	23:19:07
3	Fe 238.204 Radial†	77300.3	78291.6	4825.4 µg/L	4825.4 ppb	23:19:07
3	K 766.490 Radial†	14495.5	13164.4	4815.7 µg/L	4815.7 ppb	23:19:07
3	Mg 279.077 IEC†	13104.6	13107.1	4891.0 µg/L	4891.0 ppb	23:19:07
3	Na 589.592 Radial†	70560.3	70309.6	9600.9 µg/L	9600.9 ppb	23:19:07
3	Sr 421.552†	228660.9	232166.8	482.62 µg/L	482.62 ppb	23:19:05
3	Sc 361.383	1735011.3	1735011.3	100.98 %		23:19:58
3	Y 371.029	1026280.7	1026280.7	99.960 %		23:19:58
3	Ag 328.068†	133432.9	128050.0	480.14 µg/L	480.14 ppb	23:19:58
3	As 188.979†	1602.2	1607.1	492.96 µg/L	492.96 ppb	23:20:18
3	B 249.677†	35929.6	32076.0	471.40 µg/L	471.40 ppb	23:19:58
3	Ba 233.527†	120028.3	119002.3	479.93 µg/L	479.93 ppb	23:19:58
3	Be 313.107†	1790709.1	1774441.1	483.28 µg/L	483.28 ppb	23:19:58
3	Cd 226.502†	76990.5	76363.5	476.69 µg/L	476.69 ppb	23:19:58
3	Co 228.616†	38992.1	38805.0	479.05 µg/L	479.05 ppb	23:19:58
3	Cr 267.716†	61553.2	60778.9	475.89 µg/L	475.89 ppb	23:19:58
3	Cu 324.752†	126757.9	122558.7	477.77 µg/L	477.77 ppb	23:19:58
3	Mn 257.610†	393545.3	389498.8	481.72 µg/L	481.72 ppb	23:19:58
3	Mo 202.031†	16392.4	16253.8	478.12 µg/L	478.12 ppb	23:20:18
3	Ni 231.604†	41888.6	41559.7	478.53 µg/L	478.53 ppb	23:19:58
3	P 214.914†	11251.6	11160.7	2378.8 µg/L	2378.8 ppb	23:20:18
3	Pb 220.353†	8767.6	8596.3	481.39 µg/L	481.39 ppb	23:20:18
3	S 181.975 Axial†	1362.8	1244.5	928.19 µg/L	928.19 ppb	23:20:18
3	Sb 206.836†	4134.8	4013.9	478.27 µg/L	478.27 ppb	23:20:18
3	Se 196.026†	1346.5	1318.2	479 µg/L	479 ppb	23:20:18
3	SiO2†	55432.8	53120.9	5171.6 µg/L	5171.6 ppb	23:19:58
3	Si 251.611†	167686.3	165226.7	2426.4 µg/L	2426.4 ppb	23:19:58
3	Sn 189.927†	7743.2	7669.3	479.72 µg/L	479.72 ppb	23:20:18
3	Ti 334.940†	520000.5	514014.7	479.61 µg/L	479.61 ppb	23:19:58
3	Tl 190.801†	3827.1	3906.8	487.22 µg/L	487.22 ppb	23:20:18
3	U 409.014†	7368.8	7567.3	471.52 µg/L	471.52 ppb	23:19:58
3	V 292.402†	98829.1	97468.7	481.82 µg/L	481.82 ppb	23:19:58
3	Zn 213.857†	86772.4	85368.1	475.79 µg/L	475.79 ppb	23:19:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1732944.4	100.86	%	0.499				0.50%
Sc RADIAL	143634.5	98.4	%	0.74				0.76%
Y 371.029	1024893.5	99.825	%	0.4775				0.48%
Ag 328.068†	127974.3	479.85	µg/L	0.478	479.85	ppb	0.478	0.10%
QC value within limits for Ag 328.068 Recovery = 95.97%								
Al 396.153Radial†	26645.0	4917.8	µg/L	7.28	4917.8	ppb	7.28	0.15%
QC value within limits for Al 396.153Radial Recovery = 98.36%								
As 188.979†	1613.1	494.79	µg/L	5.073	494.79	ppb	5.073	1.03%
QC value within limits for As 188.979 Recovery = 98.96%								
B 249.677†	32020.6	470.58	µg/L	2.536	470.58	ppb	2.536	0.54%
QC value within limits for B 249.677 Recovery = 94.12%								
Ba 233.527†	119070.1	480.21	µg/L	1.130	480.21	ppb	1.130	0.24%
QC value within limits for Ba 233.527 Recovery = 96.04%								
Be 313.107†	1773298.9	482.97	µg/L	0.528	482.97	ppb	0.528	0.11%
QC value within limits for Be 313.107 Recovery = 96.59%								
Ca 317.933Radial†	87033.4	4848.1	µg/L	8.46	4848.1	ppb	8.46	0.17%
QC value within limits for Ca 317.933Radial Recovery = 96.96%								
Cd 226.502†	76355.2	476.64	µg/L	0.045	476.64	ppb	0.045	0.01%
QC value within limits for Cd 226.502 Recovery = 95.33%								
Co 228.616†	38873.2	479.89	µg/L	1.134	479.89	ppb	1.134	0.24%

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   QC value within limits for Co 228.616  Recovery = 95.98%
Cr 267.716†            60813.7      476.16 µg/L         0.280      476.16 ppb          0.280   0.06%
   QC value within limits for Cr 267.716  Recovery = 95.23%
Cu 324.752†           122613.2      477.98 µg/L         0.651      477.98 ppb          0.651   0.14%
   QC value within limits for Cu 324.752  Recovery = 95.60%
Fe 238.204 Radial†     78284.3      4825.0 µg/L          2.78      4825.0 ppb           2.78   0.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.50%
K 766.490 Radial†      13127.8      4802.3 µg/L         17.82      4802.3 ppb          17.82   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 96.05%
Mg 279.077 IEC†        13196.0      4924.2 µg/L         34.46      4924.2 ppb          34.46   0.70%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.48%
Mn 257.610†           389524.5      481.75 µg/L         0.185      481.75 ppb          0.185   0.04%
   QC value within limits for Mn 257.610  Recovery = 96.35%
Mo 202.031†            16246.8      477.91 µg/L         3.385      477.91 ppb          3.385   0.71%
   QC value within limits for Mo 202.031  Recovery = 95.58%
Na 589.592 Radial†     70442.7      9619.1 µg/L         20.17      9619.1 ppb          20.17   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 96.19%
Ni 231.604†            41588.7      478.86 µg/L         0.483      478.86 ppb          0.483   0.10%
   QC value within limits for Ni 231.604  Recovery = 95.77%
P 214.914†             11146.0      2375.7 µg/L         15.67      2375.7 ppb          15.67   0.66%
   QC value within limits for P 214.914  Recovery = 95.03%
Pb 220.353†             8593.0      481.20 µg/L         2.697      481.20 ppb          2.697   0.56%
   QC value within limits for Pb 220.353  Recovery = 96.24%
S 181.975 Axial†        1259.2      939.09 µg/L        12.659      939.09 ppb         12.659   1.35%
   QC value within limits for S 181.975 Axial  Recovery = 93.91%
Sb 206.836†             4028.3      479.97 µg/L         3.284      479.97 ppb          3.284   0.68%
   QC value within limits for Sb 206.836  Recovery = 95.99%
Se 196.026†             1317.4         478 µg/L           3.1         478 ppb            3.1   0.65%
   QC value within limits for Se 196.026  Recovery = 95.67%
SiO2†                  53172.1      5176.6 µg/L          6.53      5176.6 ppb           6.53   0.13%
   QC value within limits for SiO2  Recovery = 96.80%
Si 251.611†           165274.1      2427.1 µg/L          0.62      2427.1 ppb           0.62   0.03%
   QC value within limits for Si 251.611  Recovery = 97.08%
Sn 189.927†             7651.0      478.58 µg/L         3.688      478.58 ppb          3.688   0.77%
   QC value within limits for Sn 189.927  Recovery = 95.72%
Sr 421.552†           232109.6      482.50 µg/L         6.428      482.50 ppb          6.428   1.33%
   QC value within limits for Sr 421.552  Recovery = 96.50%
Ti 334.940†           513687.1      479.31 µg/L         0.472      479.31 ppb          0.472   0.10%
   QC value within limits for Ti 334.940  Recovery = 95.86%
Tl 190.801†             3904.7      486.96 µg/L         3.327      486.96 ppb          3.327   0.68%
   QC value within limits for Tl 190.801  Recovery = 97.39%
U 409.014†              7530.7      469.35 µg/L         4.918      469.35 ppb          4.918   1.05%
   QC value within limits for U 409.014  Recovery = 93.87%
V 292.402†             97349.6      481.23 µg/L         0.958      481.23 ppb          0.958   0.20%
   QC value within limits for V 292.402  Recovery = 96.25%
Zn 213.857†            85334.6      475.60 µg/L         0.184      475.60 ppb          0.184   0.04%
   QC value within limits for Zn 213.857  Recovery = 95.12%
All analyte(s) passed QC.
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Sequence No.: 108
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 23:20:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144721.0	144721.0	99.2	%			23:20:58
1	Al 396.153Radial†	-83.6	-21.0	-3.8947	µg/L	-3.8947	ppb	23:21:18
1	Ca 317.933Radial†	580.4	24.7	1.3750	µg/L	1.3750	ppb	23:21:18
1	Fe 238.204 Radial†	196.1	49.7	3.0605	µg/L	3.0605	ppb	23:21:18
1	K 766.490 Radial†	1602.1	70.7	25.883	µg/L	25.883	ppb	23:20:58
1	Mg 279.077 IEC†	205.0	16.0	5.9406	µg/L	5.9406	ppb	23:21:18
1	Na 589.592 Radial†	1213.9	-66.8	-9.1423	µg/L	-9.1423	ppb	23:20:58
1	Sr 421.552†	-55.9	78.9	0.1640	µg/L	0.1640	ppb	23:20:58
1	Sc 361.383	1740172.6	1740172.6	101.28	%			23:22:05
1	Y 371.029	1040560.6	1040560.6	101.35	%			23:22:05
1	Ag 328.068†	3851.9	-288.0	-1.0737	µg/L	-1.0737	ppb	23:22:08
1	As 188.979†	-3.9	16.5	4.9867	µg/L	4.9867	ppb	23:22:28
1	B 249.677†	3520.7	-29.6	-0.4370	µg/L	-0.4370	ppb	23:22:08
1	Ba 233.527†	-128.4	9.1	0.0366	µg/L	0.0366	ppb	23:22:28
1	Be 313.107†	-942.4	134.2	0.0343	µg/L	0.0343	ppb	23:22:08
1	Cd 226.502†	-109.3	10.3	0.0637	µg/L	0.0637	ppb	23:22:28
1	Co 228.616†	-168.6	23.8	0.2936	µg/L	0.2936	ppb	23:22:28
1	Cr 267.716†	186.3	5.4	0.0484	µg/L	0.0484	ppb	23:22:28
1	Cu 324.752†	2967.4	-42.3	-0.1696	µg/L	-0.1696	ppb	23:22:08
1	Mn 257.610†	341.2	99.6	0.1230	µg/L	0.1230	ppb	23:22:28
1	Mo 202.031†	-26.0	-5.6	-0.1652	µg/L	-0.1652	ppb	23:22:28
1	Ni 231.604†	-86.6	-8.9	-0.1030	µg/L	-0.1030	ppb	23:22:28
1	P 214.914†	2.1	20.0	4.2896	µg/L	4.2896	ppb	23:22:28
1	Pb 220.353†	89.4	1.9	0.1123	µg/L	0.1123	ppb	23:22:28
1	S 181.975 Axial†	95.7	-10.5	-7.8226	µg/L	-7.8226	ppb	23:22:28
1	Sb 206.836†	91.9	9.9	1.1769	µg/L	1.1769	ppb	23:22:28
1	Se 196.026†	23.5	7.9	2.85	µg/L	2.85	ppb	23:22:28
1	SiO2†	1814.1	15.9	1.5390	µg/L	1.5390	ppb	23:22:28
1	Si 251.611†	917.6	69.4	1.0187	µg/L	1.0187	ppb	23:22:08
1	Sn 189.927†	16.5	17.4	1.0880	µg/L	1.0880	ppb	23:22:28
1	Ti 334.940†	1176.4	209.1	0.1979	µg/L	0.1979	ppb	23:22:08
1	Tl 190.801†	-110.5	7.6	0.9307	µg/L	0.9307	ppb	23:22:28
1	U 409.014†	-401.5	-126.5	-7.3869	µg/L	-7.3869	ppb	23:22:08
1	V 292.402†	444.8	35.4	0.1657	µg/L	0.1657	ppb	23:22:08
1	Zn 213.857†	587.2	15.4	0.0869	µg/L	0.0869	ppb	23:22:28
2	Sc RADIAL	144189.3	144189.3	98.8	%			23:21:20
2	Al 396.153Radial†	-42.6	20.1	3.7335	µg/L	3.7335	ppb	23:21:40
2	Ca 317.933Radial†	605.6	52.4	2.9175	µg/L	2.9175	ppb	23:21:40
2	Fe 238.204 Radial†	235.5	90.2	5.5587	µg/L	5.5587	ppb	23:21:40
2	K 766.490 Radial†	1804.3	281.3	102.99	µg/L	102.99	ppb	23:21:20
2	Mg 279.077 IEC†	185.5	-3.0	-1.1298	µg/L	-1.1298	ppb	23:21:40
2	Na 589.592 Radial†	1392.4	118.4	16.088	µg/L	16.088	ppb	23:21:20
2	Sr 421.552†	-172.0	-38.8	-0.0807	µg/L	-0.0807	ppb	23:21:20
2	Sc 361.383	1750632.4	1750632.4	101.89	%			23:22:30
2	Y 371.029	1045632.3	1045632.3	101.85	%			23:22:30
2	Ag 328.068†	3884.1	-279.2	-1.0517	µg/L	-1.0517	ppb	23:22:32
2	As 188.979†	-9.6	10.9	3.2935	µg/L	3.2935	ppb	23:22:52
2	B 249.677†	3509.8	-61.1	-0.9032	µg/L	-0.9032	ppb	23:22:32
2	Ba 233.527†	-114.7	23.2	0.0931	µg/L	0.0931	ppb	23:22:52
2	Be 313.107†	-767.6	311.3	0.0822	µg/L	0.0822	ppb	23:22:32
2	Cd 226.502†	-108.6	11.6	0.0718	µg/L	0.0718	ppb	23:22:52
2	Co 228.616†	-145.0	48.0	0.5919	µg/L	0.5919	ppb	23:22:52
2	Cr 267.716†	155.6	-25.9	-0.1960	µg/L	-0.1960	ppb	23:22:52
2	Cu 324.752†	2910.6	-115.5	-0.4545	µg/L	-0.4545	ppb	23:22:32
2	Mn 257.610†	337.8	94.3	0.1167	µg/L	0.1167	ppb	23:22:52
2	Mo 202.031†	-28.0	-7.4	-0.2186	µg/L	-0.2186	ppb	23:22:52
2	Ni 231.604†	-82.4	-4.3	-0.0499	µg/L	-0.0499	ppb	23:22:52
2	P 214.914†	-26.2	-7.8	-1.6582	µg/L	-1.6582	ppb	23:22:52
2	Pb 220.353†	84.8	-3.2	-0.1707	µg/L	-0.1707	ppb	23:22:52

2	S 181.975 Axial†	94.4	-12.4	-9.1963	µg/L	-9.1963 ppb	23:22:52
2	Sb 206.836†	90.2	7.7	0.9179	µg/L	0.9179 ppb	23:22:52
2	Se 196.026†	18.0	2.4	0.844	µg/L	0.844 ppb	23:22:52
2	SiO2†	1787.8	-20.7	-2.0247	µg/L	-2.0247 ppb	23:22:52
2	Si 251.611†	881.0	28.1	0.4136	µg/L	0.4136 ppb	23:22:32
2	Sn 189.927†	7.3	8.3	0.5186	µg/L	0.5186 ppb	23:22:52
2	Ti 334.940†	950.4	-19.7	-0.0148	µg/L	-0.0148 ppb	23:22:32
2	Tl 190.801†	-105.4	13.3	1.6208	µg/L	1.6208 ppb	23:22:52
2	U 409.014†	-420.2	-142.5	-8.3714	µg/L	-8.3714 ppb	23:22:32
2	V 292.402†	279.7	-129.3	-0.6400	µg/L	-0.6400 ppb	23:22:32
2	Zn 213.857†	564.2	-10.7	-0.0598	µg/L	-0.0598 ppb	23:22:52
3	Sc RADIAL	144369.9	144369.9	98.9	%		23:21:42
3	Al 396.153Radial†	-72.5	-10.1	-1.8730	µg/L	-1.8730 ppb	23:22:02
3	Ca 317.933Radial†	584.3	30.1	1.6744	µg/L	1.6744 ppb	23:22:02
3	Fe 238.204 Radial†	204.0	58.1	3.5807	µg/L	3.5807 ppb	23:22:02
3	K 766.490 Radial†	1674.9	148.2	54.270	µg/L	54.270 ppb	23:21:42
3	Mg 279.077 IEC†	184.9	-3.8	-1.4254	µg/L	-1.4254 ppb	23:22:02
3	Na 589.592 Radial†	1285.3	8.4	1.0985	µg/L	1.0985 ppb	23:21:42
3	Sr 421.552†	-188.2	-55.0	-0.1143	µg/L	-0.1143 ppb	23:21:42
3	Sc 361.383	1741492.2	1741492.2	101.35	%		23:22:54
3	Y 371.029	1040823.4	1040823.4	101.38	%		23:22:54
3	Ag 328.068†	4356.2	206.6	0.7527	µg/L	0.7527 ppb	23:22:56
3	As 188.979†	-10.3	10.2	3.0901	µg/L	3.0901 ppb	23:23:16
3	B 249.677†	3495.4	-57.2	-0.8448	µg/L	-0.8448 ppb	23:22:56
3	Ba 233.527†	-104.9	32.3	0.1301	µg/L	0.1301 ppb	23:23:16
3	Be 313.107†	-758.4	316.4	0.0840	µg/L	0.0840 ppb	23:22:56
3	Cd 226.502†	-93.1	26.3	0.1638	µg/L	0.1638 ppb	23:23:16
3	Co 228.616†	-177.9	14.8	0.1826	µg/L	0.1826 ppb	23:23:16
3	Cr 267.716†	215.5	34.0	0.2721	µg/L	0.2721 ppb	23:23:16
3	Cu 324.752†	2926.0	-85.3	-0.3369	µg/L	-0.3369 ppb	23:22:56
3	Mn 257.610†	318.8	77.2	0.0956	µg/L	0.0956 ppb	23:23:16
3	Mo 202.031†	-22.0	-1.7	-0.0489	µg/L	-0.0489 ppb	23:23:16
3	Ni 231.604†	-129.1	-50.8	-0.5854	µg/L	-0.5854 ppb	23:23:16
3	P 214.914†	-27.8	-9.5	-2.0268	µg/L	-2.0268 ppb	23:23:16
3	Pb 220.353†	99.2	11.4	0.6440	µg/L	0.6440 ppb	23:23:16
3	S 181.975 Axial†	104.2	-2.2	-1.6435	µg/L	-1.6435 ppb	23:23:16
3	Sb 206.836†	80.2	-1.7	-0.2024	µg/L	-0.2024 ppb	23:23:16
3	Se 196.026†	-2.8	-18.0	-6.52	µg/L	-6.52 ppb	23:23:16
3	SiO2†	1785.7	-13.5	-1.3191	µg/L	-1.3191 ppb	23:23:16
3	Si 251.611†	942.5	93.3	1.3760	µg/L	1.3760 ppb	23:22:56
3	Sn 189.927†	-0.1	1.0	0.0628	µg/L	0.0628 ppb	23:23:16
3	Ti 334.940†	1040.9	74.5	0.0726	µg/L	0.0726 ppb	23:22:56
3	Tl 190.801†	-122.9	-4.6	-0.5664	µg/L	-0.5664 ppb	23:23:16
3	U 409.014†	-398.4	-123.1	-7.2165	µg/L	-7.2165 ppb	23:22:56
3	V 292.402†	352.1	-56.4	-0.2799	µg/L	-0.2799 ppb	23:22:56
3	Zn 213.857†	592.9	20.6	0.1194	µg/L	0.1194 ppb	23:23:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1744099.1	101.51	%	0.332				0.33%
Sc RADIAL	144426.7	99.0	%	0.19				0.19%
Y 371.029	1042338.8	101.52	%	0.278				0.27%
Ag 328.068†	-120.2	-0.4576	µg/L	1.04821	-0.4576	ppb	1.04821	229.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.7	-0.6781	µg/L	3.95199	-0.6781	ppb	3.95199	582.82%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	12.5	3.7901	µg/L	1.04128	3.7901	ppb	1.04128	27.47%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-49.3	-0.7283	µg/L	0.25394	-0.7283	ppb	0.25394	34.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	21.5	0.0866	µg/L	0.04706	0.0866	ppb	0.04706	54.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	254.0	0.0668	µg/L	0.02820	0.0668	ppb	0.02820	42.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	35.7	1.9890	µg/L	0.81790	1.9890	ppb	0.81790	41.12%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.1	0.0998	µg/L	0.05561	0.0998	ppb	0.05561	55.74%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	28.9	0.3560	µg/L	0.21172	0.3560	ppb	0.21172	59.47%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                4.5      0.0415 µg/L       0.23416      0.0415 ppb        0.23416 564.27%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -81.0     -0.3203 µg/L       0.14318     -0.3203 ppb        0.14318  44.70%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        66.0      4.0666 µg/L       1.31807      4.0666 ppb        1.31807  32.41%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        166.7     61.047 µg/L       38.9970     61.047 ppb        38.9970  63.88%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            3.0      1.1285 µg/L       4.17006      1.1285 ppb        4.17006 369.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               90.4      0.1118 µg/L       0.01435      0.1118 ppb        0.01435  12.84%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -4.9     -0.1442 µg/L       0.08677     -0.1442 ppb        0.08677  60.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        20.0      2.6814 µg/L      12.68942      2.6814 ppb       12.68942 473.24%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -21.4     -0.2461 µg/L       0.29505     -0.2461 ppb        0.29505 119.90%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.9      0.2015 µg/L       3.54518      0.2015 ppb        3.54518 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                3.4      0.1952 µg/L       0.41363      0.1952 ppb        0.41363 211.92%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -8.4     -6.2208 µg/L       4.02315     -6.2208 ppb        4.02315  64.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.3      0.6308 µg/L       0.73310      0.6308 ppb        0.73310 116.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.6      -0.941 µg/L        4.9356      -0.941 ppb         4.9356 524.57%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -6.1     -0.6016 µg/L       1.88709     -0.6016 ppb        1.88709 313.69%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               63.6      0.9361 µg/L       0.48651      0.9361 ppb        0.48651  51.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                8.9      0.5565 µg/L       0.51367      0.5565 ppb        0.51367  92.31%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -5.0     -0.0103 µg/L       0.15190     -0.0103 ppb        0.15190 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               87.9      0.0852 µg/L       0.10689      0.0852 ppb        0.10689 125.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.4      0.6617 µg/L       1.11813      0.6617 ppb        1.11813 168.98%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -130.7     -7.6583 µg/L       0.62345     -7.6583 ppb        0.62345   8.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -50.1     -0.2514 µg/L       0.40359     -0.2514 ppb        0.40359 160.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                8.4      0.0488 µg/L       0.09550      0.0488 ppb        0.09550 195.59%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 119
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 23:44:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144132.6	144132.6	98.8	%			23:45:03
1	Al 396.153Radial†	26296.2	26687.3	4925.8	µg/L	4925.8	ppb	23:45:03
1	Ca 317.933Radial†	86285.0	86800.3	4835.1	µg/L	4835.1	ppb	23:45:03
1	Fe 238.204 Radial†	77336.8	78153.0	4816.9	µg/L	4816.9	ppb	23:45:03
1	K 766.490 Radial†	14372.8	13007.2	4758.2	µg/L	4758.2	ppb	23:45:03
1	Mg 279.077 IEC†	13164.6	13138.1	4902.5	µg/L	4902.5	ppb	23:45:03
1	Na 589.592 Radial†	70648.2	70238.4	9591.2	µg/L	9591.2	ppb	23:45:03
1	Sr 421.552†	230039.5	233043.2	484.45	µg/L	484.45	ppb	23:45:01
1	Sc 361.383	1743955.0	1743955.0	101.50	%			23:45:30
1	Y 371.029	1030705.1	1030705.1	100.39	%			23:45:30
1	Ag 328.068†	134389.6	128314.9	481.13	µg/L	481.13	ppb	23:45:30
1	As 188.979†	1617.5	1614.0	495.08	µg/L	495.08	ppb	23:45:50
1	B 249.677†	36323.2	32281.3	474.42	µg/L	474.42	ppb	23:45:30
1	Ba 233.527†	120941.4	119292.4	481.10	µg/L	481.10	ppb	23:45:30
1	Be 313.107†	1804931.8	1779359.2	484.62	µg/L	484.62	ppb	23:45:30
1	Cd 226.502†	77856.9	76826.1	479.58	µg/L	479.58	ppb	23:45:30
1	Co 228.616†	39432.5	39040.8	481.96	µg/L	481.96	ppb	23:45:30
1	Cr 267.716†	62111.2	61016.0	477.74	µg/L	477.74	ppb	23:45:30
1	Cu 324.752†	127832.7	122973.9	479.39	µg/L	479.39	ppb	23:45:30
1	Mn 257.610†	396902.5	390807.7	483.34	µg/L	483.34	ppb	23:45:30
1	Mo 202.031†	16367.7	16146.2	474.96	µg/L	474.96	ppb	23:45:50
1	Ni 231.604†	42121.9	41576.8	478.73	µg/L	478.73	ppb	23:45:30
1	P 214.914†	11245.4	11097.4	2365.3	µg/L	2365.3	ppb	23:45:50
1	Pb 220.353†	8777.1	8561.2	479.42	µg/L	479.42	ppb	23:45:50
1	S 181.975 Axial†	1374.9	1249.5	931.87	µg/L	931.87	ppb	23:45:50
1	Sb 206.836†	4133.7	3991.9	475.58	µg/L	475.58	ppb	23:45:50
1	Se 196.026†	1363.1	1327.7	482	µg/L	482	ppb	23:45:50
1	SiO2†	56167.1	53562.8	5214.9	µg/L	5214.9	ppb	23:45:30
1	Si 251.611†	170045.6	166699.5	2448.2	µg/L	2448.2	ppb	23:45:30
1	Sn 189.927†	7739.8	7626.7	477.06	µg/L	477.06	ppb	23:45:50
1	Ti 334.940†	523080.4	514408.2	479.98	µg/L	479.98	ppb	23:45:30
1	Tl 190.801†	3815.6	3875.9	483.43	µg/L	483.43	ppb	23:45:50
1	U 409.014†	7450.4	7610.3	474.06	µg/L	474.06	ppb	23:45:30
1	V 292.402†	99368.6	97498.3	481.94	µg/L	481.94	ppb	23:45:30
1	Zn 213.857†	87576.9	85720.0	477.77	µg/L	477.77	ppb	23:45:30
2	Sc RADIAL	143500.3	143500.3	98.3	%			23:45:07
2	Al 396.153Radial†	26117.8	26623.2	4913.8	µg/L	4913.8	ppb	23:45:07
2	Ca 317.933Radial†	85980.2	86875.2	4839.3	µg/L	4839.3	ppb	23:45:07
2	Fe 238.204 Radial†	77018.6	78174.4	4818.2	µg/L	4818.2	ppb	23:45:07
2	K 766.490 Radial†	14350.9	13049.0	4773.5	µg/L	4773.5	ppb	23:45:07
2	Mg 279.077 IEC†	13097.3	13128.4	4899.0	µg/L	4899.0	ppb	23:45:07
2	Na 589.592 Radial†	70405.7	70306.9	9600.5	µg/L	9600.5	ppb	23:45:07
2	Sr 421.552†	230191.6	234224.0	486.90	µg/L	486.90	ppb	23:45:05
2	Sc 361.383	1741142.3	1741142.3	101.33	%			23:45:53
2	Y 371.029	1028976.3	1028976.3	100.22	%			23:45:53
2	Ag 328.068†	133876.6	128022.6	480.04	µg/L	480.04	ppb	23:45:53
2	As 188.979†	1611.4	1610.6	494.02	µg/L	494.02	ppb	23:46:13
2	B 249.677†	36111.0	32129.7	472.20	µg/L	472.20	ppb	23:45:53
2	Ba 233.527†	120384.6	118935.4	479.66	µg/L	479.66	ppb	23:45:53
2	Be 313.107†	1798241.9	1775630.2	483.61	µg/L	483.61	ppb	23:45:53
2	Cd 226.502†	77471.2	76569.4	477.98	µg/L	477.98	ppb	23:45:53
2	Co 228.616†	39116.7	38792.0	478.89	µg/L	478.89	ppb	23:45:53
2	Cr 267.716†	61760.5	60768.7	475.81	µg/L	475.81	ppb	23:45:53
2	Cu 324.752†	127313.2	122664.7	478.18	µg/L	478.18	ppb	23:45:53
2	Mn 257.610†	395198.2	389757.6	482.04	µg/L	482.04	ppb	23:45:53
2	Mo 202.031†	16425.2	16229.0	477.39	µg/L	477.39	ppb	23:46:13
2	Ni 231.604†	42030.8	41554.0	478.46	µg/L	478.46	ppb	23:45:53
2	P 214.914†	11285.9	11155.2	2377.7	µg/L	2377.7	ppb	23:46:13
2	Pb 220.353†	8805.0	8602.7	481.74	µg/L	481.74	ppb	23:46:13

2	S 181.975 Axial†	1386.2	1262.9	941.84 µg/L	941.84 ppb	23:46:13
2	Sb 206.836†	4124.1	3989.0	475.29 µg/L	475.29 ppb	23:46:13
2	Se 196.026†	1357.9	1324.8	481 µg/L	481 ppb	23:46:13
2	SiO2†	55814.1	53303.9	5189.5 µg/L	5189.5 ppb	23:45:53
2	Si 251.611†	169030.5	165968.4	2437.3 µg/L	2437.3 ppb	23:45:53
2	Sn 189.927†	7760.3	7659.3	479.09 µg/L	479.09 ppb	23:46:13
2	Ti 334.940†	520780.4	512971.1	478.64 µg/L	478.64 ppb	23:45:53
2	Tl 190.801†	3842.4	3908.4	487.42 µg/L	487.42 ppb	23:46:13
2	U 409.014†	7450.4	7622.2	474.73 µg/L	474.73 ppb	23:45:53
2	V 292.402†	99152.5	97443.2	481.69 µg/L	481.69 ppb	23:45:53
2	Zn 213.857†	86966.1	85256.7	475.17 µg/L	475.17 ppb	23:45:53
3	Sc RADIAL	141926.1	141926.1	97.3 %		23:45:11
3	Al 396.153Radial†	25922.6	26717.1	4931.1 µg/L	4931.1 ppb	23:45:11
3	Ca 317.933Radial†	85061.3	86900.2	4840.7 µg/L	4840.7 ppb	23:45:11
3	Fe 238.204 Radial†	76232.3	78234.7	4821.9 µg/L	4821.9 ppb	23:45:11
3	K 766.490 Radial†	14404.4	13266.0	4852.9 µg/L	4852.9 ppb	23:45:11
3	Mg 279.077 IEC†	13020.1	13196.7	4924.4 µg/L	4924.4 ppb	23:45:11
3	Na 589.592 Radial†	69631.1	70304.6	9600.1 µg/L	9600.1 ppb	23:45:11
3	Sr 421.552†	231949.9	238628.3	496.06 µg/L	496.06 ppb	23:45:09
3	Sc 361.383	1729820.2	1729820.2	100.68 %		23:46:16
3	Y 371.029	1022158.2	1022158.2	99.559 %		23:46:16
3	Ag 328.068†	132876.1	127893.4	479.56 µg/L	479.56 ppb	23:46:16
3	As 188.979†	1593.5	1603.2	491.79 µg/L	491.79 ppb	23:46:36
3	B 249.677†	35994.3	32247.0	473.92 µg/L	473.92 ppb	23:46:16
3	Ba 233.527†	119768.8	119101.4	480.33 µg/L	480.33 ppb	23:46:16
3	Be 313.107†	1786026.7	1775111.9	483.47 µg/L	483.47 ppb	23:46:16
3	Cd 226.502†	76950.6	76552.6	477.87 µg/L	477.87 ppb	23:46:16
3	Co 228.616†	38889.1	38818.6	479.22 µg/L	479.22 ppb	23:46:16
3	Cr 267.716†	61424.2	60833.7	476.31 µg/L	476.31 ppb	23:46:16
3	Cu 324.752†	126247.1	122428.1	477.27 µg/L	477.27 ppb	23:46:16
3	Mn 257.610†	392394.3	389525.1	481.75 µg/L	481.75 ppb	23:46:16
3	Mo 202.031†	16372.3	16282.5	478.96 µg/L	478.96 ppb	23:46:36
3	Ni 231.604†	41712.3	41509.0	477.95 µg/L	477.95 ppb	23:46:16
3	P 214.914†	11238.3	11180.9	2383.2 µg/L	2383.2 ppb	23:46:36
3	Pb 220.353†	8781.7	8636.4	483.62 µg/L	483.62 ppb	23:46:36
3	S 181.975 Axial†	1376.5	1262.2	941.29 µg/L	941.29 ppb	23:46:36
3	Sb 206.836†	4136.7	4028.2	479.97 µg/L	479.97 ppb	23:46:36
3	Se 196.026†	1358.7	1334.3	485 µg/L	485 ppb	23:46:36
3	SiO2†	55649.6	53501.0	5208.7 µg/L	5208.7 ppb	23:46:16
3	Si 251.611†	167782.3	165820.3	2435.1 µg/L	2435.1 ppb	23:46:16
3	Sn 189.927†	7733.5	7682.7	480.55 µg/L	480.55 ppb	23:46:36
3	Ti 334.940†	517675.9	513251.1	478.89 µg/L	478.89 ppb	23:46:16
3	Tl 190.801†	3823.0	3914.0	488.10 µg/L	488.10 ppb	23:46:36
3	U 409.014†	7497.8	7717.4	480.25 µg/L	480.25 ppb	23:46:16
3	V 292.402†	98366.1	97302.5	481.02 µg/L	481.02 ppb	23:46:16
3	Zn 213.857†	86593.9	85448.7	476.25 µg/L	476.25 ppb	23:46:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1738305.8	101.17	%	0.435				0.43%
Sc RADIAL	143186.3	98.1	%	0.78				0.79%
Y 371.029	1027279.9	100.06	%	0.440				0.44%
Ag 328.068†	128076.9	480.24	µg/L	0.801	480.24	ppb	0.801	0.17%
QC value within limits for Ag 328.068 Recovery = 96.05%								
Al 396.153Radial†	26675.9	4923.5	µg/L	8.88	4923.5	ppb	8.88	0.18%
QC value within limits for Al 396.153Radial Recovery = 98.47%								
As 188.979†	1609.3	493.63	µg/L	1.680	493.63	ppb	1.680	0.34%
QC value within limits for As 188.979 Recovery = 98.73%								
B 249.677†	32219.3	473.51	µg/L	1.168	473.51	ppb	1.168	0.25%
QC value within limits for B 249.677 Recovery = 94.70%								
Ba 233.527†	119109.7	480.37	µg/L	0.719	480.37	ppb	0.719	0.15%
QC value within limits for Ba 233.527 Recovery = 96.07%								
Be 313.107†	1776700.4	483.90	µg/L	0.630	483.90	ppb	0.630	0.13%
QC value within limits for Be 313.107 Recovery = 96.78%								
Ca 317.933Radial†	86858.6	4838.4	µg/L	2.90	4838.4	ppb	2.90	0.06%
QC value within limits for Ca 317.933Radial Recovery = 96.77%								
Cd 226.502†	76649.4	478.48	µg/L	0.958	478.48	ppb	0.958	0.20%
QC value within limits for Cd 226.502 Recovery = 95.70%								
Co 228.616†	38883.8	480.02	µg/L	1.687	480.02	ppb	1.687	0.35%

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   QC value within limits for Co 228.616  Recovery = 96.00%
Cr 267.716†            60872.8      476.62 µg/L         1.005      476.62 ppb          1.005   0.21%
   QC value within limits for Cr 267.716  Recovery = 95.32%
Cu 324.752†           122688.9      478.28 µg/L         1.061      478.28 ppb          1.061   0.22%
   QC value within limits for Cu 324.752  Recovery = 95.66%
Fe 238.204 Radial†     78187.4      4819.0 µg/L          2.61      4819.0 ppb           2.61   0.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.38%
K 766.490 Radial†      13107.4      4794.9 µg/L         50.84      4794.9 ppb          50.84   1.06%
   QC value within limits for K 766.490 Radial  Recovery = 95.90%
Mg 279.077 IEC†        13154.4      4908.6 µg/L         13.80      4908.6 ppb          13.80   0.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.17%
Mn 257.610†           390030.2      482.38 µg/L         0.846      482.38 ppb          0.846   0.18%
   QC value within limits for Mn 257.610  Recovery = 96.48%
Mo 202.031†            16219.2      477.10 µg/L         2.018      477.10 ppb          2.018   0.42%
   QC value within limits for Mo 202.031  Recovery = 95.42%
Na 589.592 Radial†     70283.3      9597.3 µg/L          5.29      9597.3 ppb           5.29   0.06%
   QC value within limits for Na 589.592 Radial  Recovery = 95.97%
Ni 231.604†            41546.6      478.38 µg/L         0.397      478.38 ppb          0.397   0.08%
   QC value within limits for Ni 231.604  Recovery = 95.68%
P 214.914†             11144.5      2375.4 µg/L          9.15      2375.4 ppb           9.15   0.39%
   QC value within limits for P 214.914  Recovery = 95.02%
Pb 220.353†             8600.1      481.59 µg/L         2.106      481.59 ppb          2.106   0.44%
   QC value within limits for Pb 220.353  Recovery = 96.32%
S 181.975 Axial†        1258.2      938.33 µg/L         5.605      938.33 ppb          5.605   0.60%
   QC value within limits for S 181.975 Axial  Recovery = 93.83%
Sb 206.836†             4003.0      476.94 µg/L         2.622      476.94 ppb          2.622   0.55%
   QC value within limits for Sb 206.836  Recovery = 95.39%
Se 196.026†             1329.0         483 µg/L           1.8         483 ppb            1.8   0.37%
   QC value within limits for Se 196.026  Recovery = 96.51%
SiO2†                  53455.9      5204.4 µg/L         13.25      5204.4 ppb          13.25   0.25%
   QC value within limits for SiO2  Recovery = 97.32%
Si 251.611†           166162.8      2440.2 µg/L          6.98      2440.2 ppb           6.98   0.29%
   QC value within limits for Si 251.611  Recovery = 97.61%
Sn 189.927†             7656.2      478.90 µg/L         1.752      478.90 ppb          1.752   0.37%
   QC value within limits for Sn 189.927  Recovery = 95.78%
Sr 421.552†           235298.5      489.13 µg/L         6.119      489.13 ppb          6.119   1.25%
   QC value within limits for Sr 421.552  Recovery = 97.83%
Ti 334.940†           513543.5      479.17 µg/L         0.712      479.17 ppb          0.712   0.15%
   QC value within limits for Ti 334.940  Recovery = 95.83%
Tl 190.801†             3899.5      486.32 µg/L         2.525      486.32 ppb          2.525   0.52%
   QC value within limits for Tl 190.801  Recovery = 97.26%
U 409.014†              7650.0      476.34 µg/L         3.400      476.34 ppb          3.400   0.71%
   QC value within limits for U 409.014  Recovery = 95.27%
V 292.402†             97414.7      481.55 µg/L         0.473      481.55 ppb          0.473   0.10%
   QC value within limits for V 292.402  Recovery = 96.31%
Zn 213.857†            85475.1      476.40 µg/L         1.307      476.40 ppb          1.307   0.27%
   QC value within limits for Zn 213.857  Recovery = 95.28%
All analyte(s) passed QC.
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Sequence No.: 120
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 23:46:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143139.1	143139.1	98.1	%			23:47:16
1	Al 396.153Radial†	-44.4	17.9	3.3413	µg/L	3.3413	ppb	23:47:36
1	Ca 317.933Radial†	582.0	32.8	1.8256	µg/L	1.8256	ppb	23:47:36
1	Fe 238.204 Radial†	254.9	111.7	6.8857	µg/L	6.8857	ppb	23:47:36
1	K 766.490 Radial†	1616.9	103.6	37.929	µg/L	37.929	ppb	23:47:16
1	Mg 279.077 IEC†	177.5	-9.8	-3.6543	µg/L	-3.6543	ppb	23:47:36
1	Na 589.592 Radial†	1371.1	107.0	14.589	µg/L	14.589	ppb	23:47:16
1	Sr 421.552†	-218.3	-87.3	-0.1815	µg/L	-0.1815	ppb	23:47:16
1	Sc 361.383	1721067.2	1721067.2	100.17	%			23:48:23
1	Y 371.029	1029992.5	1029992.5	100.32	%			23:48:23
1	Ag 328.068†	4263.3	164.8	0.5898	µg/L	0.5898	ppb	23:48:26
1	As 188.979†	-17.1	3.3	0.9838	µg/L	0.9838	ppb	23:48:46
1	B 249.677†	3587.8	76.0	1.1202	µg/L	1.1202	ppb	23:48:26
1	Ba 233.527†	-139.7	-3.6	-0.0153	µg/L	-0.0153	ppb	23:48:46
1	Be 313.107†	-1283.0	-216.2	-0.0609	µg/L	-0.0609	ppb	23:48:26
1	Cd 226.502†	-112.6	5.8	0.0354	µg/L	0.0354	ppb	23:48:46
1	Co 228.616†	-173.9	16.7	0.2052	µg/L	0.2052	ppb	23:48:46
1	Cr 267.716†	180.0	1.2	0.0142	µg/L	0.0142	ppb	23:48:46
1	Cu 324.752†	2926.2	-50.8	-0.2020	µg/L	-0.2020	ppb	23:48:26
1	Mn 257.610†	341.1	103.2	0.1279	µg/L	0.1279	ppb	23:48:46
1	Mo 202.031†	-33.0	-12.8	-0.3775	µg/L	-0.3775	ppb	23:48:46
1	Ni 231.604†	-84.7	-8.0	-0.0923	µg/L	-0.0923	ppb	23:48:46
1	P 214.914†	-12.9	5.1	1.1019	µg/L	1.1019	ppb	23:48:46
1	Pb 220.353†	98.0	11.4	0.6420	µg/L	0.6420	ppb	23:48:46
1	S 181.975 Axial†	101.0	-4.2	-3.1438	µg/L	-3.1438	ppb	23:48:46
1	Sb 206.836†	91.8	10.9	1.2860	µg/L	1.2860	ppb	23:48:46
1	Se 196.026†	14.8	-0.5	-0.177	µg/L	-0.177	ppb	23:48:46
1	SiO2†	1836.2	57.8	5.6538	µg/L	5.6538	ppb	23:48:46
1	Si 251.611†	1107.2	268.8	3.9640	µg/L	3.9640	ppb	23:48:26
1	Sn 189.927†	7.5	8.6	0.5360	µg/L	0.5360	ppb	23:48:46
1	Ti 334.940†	947.2	-6.9	-0.0034	µg/L	-0.0034	ppb	23:48:26
1	Tl 190.801†	-108.0	8.8	1.0752	µg/L	1.0752	ppb	23:48:46
1	U 409.014†	-383.9	-113.4	-6.6898	µg/L	-6.6898	ppb	23:48:26
1	V 292.402†	195.1	-209.0	-1.0288	µg/L	-1.0288	ppb	23:48:26
1	Zn 213.857†	592.8	27.4	0.1540	µg/L	0.1540	ppb	23:48:46
2	Sc RADIAL	142955.7	142955.7	98.0	%			23:47:38
2	Al 396.153Radial†	-78.4	-16.8	-3.1397	µg/L	-3.1397	ppb	23:47:58
2	Ca 317.933Radial†	568.8	20.0	1.1154	µg/L	1.1154	ppb	23:47:58
2	Fe 238.204 Radial†	246.3	103.3	6.3692	µg/L	6.3692	ppb	23:47:58
2	K 766.490 Radial†	1462.0	-52.3	-19.161	µg/L	-19.161	ppb	23:47:38
2	Mg 279.077 IEC†	183.1	-3.8	-1.4109	µg/L	-1.4109	ppb	23:47:58
2	Na 589.592 Radial†	1236.3	-28.8	-3.9154	µg/L	-3.9154	ppb	23:47:38
2	Sr 421.552†	-279.2	-149.7	-0.3112	µg/L	-0.3112	ppb	23:47:38
2	Sc 361.383	1746509.7	1746509.7	101.65	%			23:48:48
2	Y 371.029	1042959.8	1042959.8	101.58	%			23:48:48
2	Ag 328.068†	4265.0	104.5	0.3736	µg/L	0.3736	ppb	23:48:50
2	As 188.979†	-11.7	8.8	2.6655	µg/L	2.6655	ppb	23:49:10
2	B 249.677†	3506.2	-56.5	-0.8332	µg/L	-0.8332	ppb	23:48:50
2	Ba 233.527†	-121.9	16.0	0.0640	µg/L	0.0640	ppb	23:49:10
2	Be 313.107†	-723.9	352.5	0.0944	µg/L	0.0944	ppb	23:48:50
2	Cd 226.502†	-117.5	2.6	0.0156	µg/L	0.0156	ppb	23:49:10
2	Co 228.616†	-180.5	12.8	0.1572	µg/L	0.1572	ppb	23:49:10
2	Cr 267.716†	177.3	-4.1	-0.0284	µg/L	-0.0284	ppb	23:49:10
2	Cu 324.752†	3022.2	1.1	0.0009	µg/L	0.0009	ppb	23:48:50
2	Mn 257.610†	312.9	70.6	0.0874	µg/L	0.0874	ppb	23:49:10
2	Mo 202.031†	-8.4	11.8	0.3482	µg/L	0.3482	ppb	23:49:10
2	Ni 231.604†	-112.1	-33.8	-0.3893	µg/L	-0.3893	ppb	23:49:10
2	P 214.914†	-28.4	-10.0	-2.1529	µg/L	-2.1529	ppb	23:49:10
2	Pb 220.353†	61.6	-25.8	-1.4338	µg/L	-1.4338	ppb	23:49:10

2	S 181.975 Axial†	110.6	3.7	2.7632 µg/L	2.7632 ppb	23:49:10
2	Sb 206.836†	80.8	-1.3	-0.1519 µg/L	-0.1519 ppb	23:49:10
2	Se 196.026†	7.2	-8.2	-2.97 µg/L	-2.97 ppb	23:49:10
2	SiO2†	1816.0	11.2	1.0819 µg/L	1.0819 ppb	23:49:10
2	Si 251.611†	1081.7	227.6	3.3494 µg/L	3.3494 ppb	23:48:50
2	Sn 189.927†	2.0	3.1	0.1923 µg/L	0.1923 ppb	23:49:10
2	Ti 334.940†	932.7	-34.9	-0.0304 µg/L	-0.0304 ppb	23:48:50
2	Tl 190.801†	-106.3	12.1	1.4842 µg/L	1.4842 ppb	23:49:10
2	U 409.014†	-364.3	-88.6	-5.2117 µg/L	-5.2117 ppb	23:48:50
2	V 292.402†	290.2	-118.3	-0.5776 µg/L	-0.5776 ppb	23:48:50
2	Zn 213.857†	597.7	23.6	0.1343 µg/L	0.1343 ppb	23:49:10
3	Sc RADIAL	142060.8	142060.8	97.3 %		23:48:00
3	Al 396.153Radial†	-74.7	-13.5	-2.5097 µg/L	-2.5097 ppb	23:48:20
3	Ca 317.933Radial†	575.1	30.2	1.6799 µg/L	1.6799 ppb	23:48:20
3	Fe 238.204 Radial†	223.1	81.1	4.9991 µg/L	4.9991 ppb	23:48:20
3	K 766.490 Radial†	1632.6	132.3	48.447 µg/L	48.447 ppb	23:48:00
3	Mg 279.077 IEC†	208.7	23.7	8.8315 µg/L	8.8315 ppb	23:48:20
3	Na 589.592 Radial†	1308.6	53.4	7.2507 µg/L	7.2507 ppb	23:48:00
3	Sr 421.552†	-258.5	-130.3	-0.2709 µg/L	-0.2709 ppb	23:48:00
3	Sc 361.383	1726289.1	1726289.1	100.47 %		23:49:12
3	Y 371.029	1031437.7	1031437.7	100.46 %		23:49:12
3	Ag 328.068†	4170.2	59.3	0.2058 µg/L	0.2058 ppb	23:49:14
3	As 188.979†	-17.6	2.8	0.8598 µg/L	0.8598 ppb	23:49:34
3	B 249.677†	3575.5	52.9	0.7802 µg/L	0.7802 ppb	23:49:14
3	Ba 233.527†	-111.6	24.8	0.0994 µg/L	0.0994 ppb	23:49:34
3	Be 313.107†	-874.1	194.7	0.0518 µg/L	0.0518 ppb	23:49:14
3	Cd 226.502†	-142.0	-23.1	-0.1448 µg/L	-0.1448 ppb	23:49:34
3	Co 228.616†	-193.8	-2.6	-0.0317 µg/L	-0.0317 ppb	23:49:34
3	Cr 267.716†	191.0	11.5	0.0933 µg/L	0.0933 ppb	23:49:34
3	Cu 324.752†	2976.0	-10.1	-0.0417 µg/L	-0.0417 ppb	23:49:14
3	Mn 257.610†	330.2	91.4	0.1127 µg/L	0.1127 ppb	23:49:34
3	Mo 202.031†	-17.5	2.7	0.0796 µg/L	0.0796 ppb	23:49:34
3	Ni 231.604†	-80.8	-3.9	-0.0446 µg/L	-0.0446 ppb	23:49:34
3	P 214.914†	-31.6	-13.5	-2.8878 µg/L	-2.8878 ppb	23:49:34
3	Pb 220.353†	72.3	-14.4	-0.8013 µg/L	-0.8013 ppb	23:49:34
3	S 181.975 Axial†	108.9	3.3	2.4479 µg/L	2.4479 ppb	23:49:34
3	Sb 206.836†	90.6	9.4	1.1111 µg/L	1.1111 ppb	23:49:34
3	Se 196.026†	27.8	12.4	4.47 µg/L	4.47 ppb	23:49:34
3	SiO2†	1848.9	64.9	6.3403 µg/L	6.3403 ppb	23:49:34
3	Si 251.611†	1214.9	372.7	5.4917 µg/L	5.4917 ppb	23:49:14
3	Sn 189.927†	3.0	4.1	0.2558 µg/L	0.2558 ppb	23:49:34
3	Ti 334.940†	1155.8	197.9	0.1859 µg/L	0.1859 ppb	23:49:14
3	Tl 190.801†	-94.9	22.3	2.7336 µg/L	2.7336 ppb	23:49:34
3	U 409.014†	-341.4	-69.9	-4.1301 µg/L	-4.1301 ppb	23:49:14
3	V 292.402†	256.5	-148.5	-0.7266 µg/L	-0.7266 ppb	23:49:14
3	Zn 213.857†	589.1	22.0	0.1232 µg/L	0.1232 ppb	23:49:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1731288.6	100.76	%	0.782				0.78%
Sc RADIAL	142718.5	97.8	%	0.40				0.40%
Y 371.029	1034796.7	100.79	%	0.692				0.69%
Ag 328.068†	109.5	0.3897	µg/L	0.19255	0.3897	ppb	0.19255	49.40%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.1	-0.7694	µg/L	3.57387	-0.7694	ppb	3.57387	464.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.0	1.5030	µg/L	1.00867	1.5030	ppb	1.00867	67.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	24.1	0.3557	µg/L	1.04358	0.3557	ppb	1.04358	293.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.4	0.0494	µg/L	0.05873	0.0494	ppb	0.05873	118.93%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	110.4	0.0284	µg/L	0.08023	0.0284	ppb	0.08023	282.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	27.7	1.5403	µg/L	0.37512	1.5403	ppb	0.37512	24.35%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-4.9	-0.0313	µg/L	0.09882	-0.0313	ppb	0.09882	315.68%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.0	0.1102	µg/L	0.12522	0.1102	ppb	0.12522	113.62%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                2.9      0.0263 µg/L       0.06173      0.0263 ppb        0.06173 234.26%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -20.0     -0.0809 µg/L       0.10696     -0.0809 ppb        0.10696 132.15%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        98.7      6.0847 µg/L       0.97498      6.0847 ppb        0.97498  16.02%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         61.2      22.405 µg/L       36.3791      22.405 ppb        36.3791 162.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            3.4      1.2555 µg/L       6.65627      1.2555 ppb        6.65627 530.18%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               88.4      0.1093 µg/L       0.02047      0.1093 ppb        0.02047  18.73%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                0.6      0.0168 µg/L       0.36692      0.0168 ppb        0.36692 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        43.9      5.9749 µg/L       9.31815      5.9749 ppb        9.31815 155.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -15.2     -0.1754 µg/L       0.18674     -0.1754 ppb        0.18674 106.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -6.1     -1.3129 µg/L       2.12332     -1.3129 ppb        2.12332 161.72%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -9.6     -0.5310 µg/L       1.06398     -0.5310 ppb        1.06398 200.37%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.9      0.6891 µg/L       3.32317      0.6891 ppb        3.32317 482.25%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                6.3      0.7484 µg/L       0.78460      0.7484 ppb        0.78460 104.84%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.2       0.441 µg/L        3.7613       0.441 ppb         3.7613 853.72%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     44.6      4.3586 µg/L       2.85844      4.3586 ppb        2.85844  65.58%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              289.7      4.2683 µg/L       1.10310      4.2683 ppb        1.10310  25.84%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.3      0.3280 µg/L       0.18288      0.3280 ppb        0.18288  55.75%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -122.4     -0.2545 µg/L       0.06637     -0.2545 ppb        0.06637  26.08%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               52.0      0.0507 µg/L       0.11782      0.0507 ppb        0.11782 232.33%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               14.4      1.7643 µg/L       0.86396      1.7643 ppb        0.86396  48.97%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -90.6     -5.3439 µg/L       1.28496     -5.3439 ppb        1.28496  24.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -158.6     -0.7777 µg/L       0.22990     -0.7777 ppb        0.22990  29.56%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               24.3      0.1372 µg/L       0.01563      0.1372 ppb        0.01563  11.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 128 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 4/1/2010 0:02:20**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142272.6	142272.6	97.5	%			00:02:55
1	Al 396.153Radial†	25834.9	26562.2	4902.5	µg/L	4902.5	ppb	00:02:55
1	Ca 317.933Radial†	85088.7	86715.4	4830.4	µg/L	4830.4	ppb	00:02:55
1	Fe 238.204 Radial†	76256.0	78068.0	4811.6	µg/L	4811.6	ppb	00:02:55
1	K 766.490 Radial†	14327.9	13151.4	4811.0	µg/L	4811.0	ppb	00:02:55
1	Mg 279.077 IEC†	13155.4	13302.9	4964.0	µg/L	4964.0	ppb	00:02:55
1	Na 589.592 Radial†	69875.1	70380.5	9610.5	µg/L	9610.5	ppb	00:02:55
1	Sr 421.552†	226540.9	232499.5	483.31	µg/L	483.31	ppb	00:02:53
1	Sc 361.383	1723344.7	1723344.7	100.30	%			00:03:22
1	Y 371.029	1018123.7	1018123.7	99.166	%			00:03:22
1	Ag 328.068†	131945.7	127461.8	477.92	µg/L	477.92	ppb	00:03:22
1	As 188.979†	1604.1	1619.7	496.75	µg/L	496.75	ppb	00:03:42
1	B 249.677†	35591.1	31979.3	469.98	µg/L	469.98	ppb	00:03:22
1	Ba 233.527†	118724.6	118507.2	477.94	µg/L	477.94	ppb	00:03:22
1	Be 313.107†	1771703.0	1767496.7	481.39	µg/L	481.39	ppb	00:03:22
1	Cd 226.502†	76335.7	76226.8	475.84	µg/L	475.84	ppb	00:03:22
1	Co 228.616†	38760.4	38835.4	479.42	µg/L	479.42	ppb	00:03:22
1	Cr 267.716†	60900.3	60540.6	474.03	µg/L	474.03	ppb	00:03:22
1	Cu 324.752†	125251.0	121906.2	475.23	µg/L	475.23	ppb	00:03:22
1	Mn 257.610†	389076.6	387681.8	479.47	µg/L	479.47	ppb	00:03:22
1	Mo 202.031†	16257.1	16228.8	477.38	µg/L	477.38	ppb	00:03:42
1	Ni 231.604†	41472.4	41425.6	476.99	µg/L	476.99	ppb	00:03:22
1	P 214.914†	11164.5	11149.2	2376.4	µg/L	2376.4	ppb	00:03:42
1	Pb 220.353†	8662.0	8549.9	478.80	µg/L	478.80	ppb	00:03:42
1	S 181.975 Axial†	1361.8	1252.7	934.24	µg/L	934.24	ppb	00:03:42
1	Sb 206.836†	4090.1	3997.1	476.28	µg/L	476.28	ppb	00:03:42
1	Se 196.026†	1338.2	1318.9	479	µg/L	479	ppb	00:03:42
1	SiO2†	54668.7	52730.7	5133.5	µg/L	5133.5	ppb	00:03:22
1	Si 251.611†	165532.9	164203.9	2411.3	µg/L	2411.3	ppb	00:03:22
1	Sn 189.927†	7662.0	7640.4	477.90	µg/L	477.90	ppb	00:03:42
1	Ti 334.940†	512908.7	510430.3	476.26	µg/L	476.26	ppb	00:03:22
1	Tl 190.801†	3797.9	3903.2	486.73	µg/L	486.73	ppb	00:03:42
1	U 409.014†	7179.6	7428.1	463.23	µg/L	463.23	ppb	00:03:22
1	V 292.402†	97641.8	96947.5	479.26	µg/L	479.26	ppb	00:03:22
1	Zn 213.857†	85689.4	84870.1	473.01	µg/L	473.01	ppb	00:03:22
2	Sc RADIAL	141674.6	141674.6	97.1	%			00:02:59
2	Al 396.153Radial†	25757.6	26594.5	4908.2	µg/L	4908.2	ppb	00:02:59
2	Ca 317.933Radial†	84226.0	86195.1	4801.4	µg/L	4801.4	ppb	00:02:59
2	Fe 238.204 Radial†	75439.4	77557.1	4780.1	µg/L	4780.1	ppb	00:02:59
2	K 766.490 Radial†	14248.6	13131.7	4803.8	µg/L	4803.8	ppb	00:02:59
2	Mg 279.077 IEC†	12899.8	13096.5	4887.2	µg/L	4887.2	ppb	00:02:59
2	Na 589.592 Radial†	69141.1	69926.9	9548.6	µg/L	9548.6	ppb	00:02:59
2	Sr 421.552†	226612.3	233553.9	485.51	µg/L	485.51	ppb	00:02:57
2	Sc 361.383	1708258.8	1708258.8	99.420	%			00:03:45
2	Y 371.029	1010097.1	1010097.1	98.384	%			00:03:45
2	Ag 328.068†	130950.0	127622.0	478.53	µg/L	478.53	ppb	00:03:45
2	As 188.979†	1596.3	1626.0	498.65	µg/L	498.65	ppb	00:04:05
2	B 249.677†	35330.7	32030.8	470.74	µg/L	470.74	ppb	00:03:45
2	Ba 233.527†	117712.3	118534.4	478.05	µg/L	478.05	ppb	00:03:45
2	Be 313.107†	1753739.6	1765028.3	480.72	µg/L	480.72	ppb	00:03:45
2	Cd 226.502†	75285.2	75842.3	473.44	µg/L	473.44	ppb	00:03:45
2	Co 228.616†	38223.9	38637.1	476.98	µg/L	476.98	ppb	00:03:45
2	Cr 267.716†	60168.0	60340.2	472.45	µg/L	472.45	ppb	00:03:45
2	Cu 324.752†	124409.3	122162.4	476.22	µg/L	476.22	ppb	00:03:45
2	Mn 257.610†	385236.3	387244.9	478.93	µg/L	478.93	ppb	00:03:45
2	Mo 202.031†	16271.7	16386.7	482.02	µg/L	482.02	ppb	00:04:05
2	Ni 231.604†	41015.7	41331.3	475.90	µg/L	475.90	ppb	00:03:45
2	P 214.914†	11176.6	11259.7	2400.0	µg/L	2400.0	ppb	00:04:05
2	Pb 220.353†	8757.4	8722.1	488.42	µg/L	488.42	ppb	00:04:05

2	S 181.975 Axial†	1369.4	1272.3	948.85 µg/L	948.85 ppb	00:04:05
2	Sb 206.836†	4104.3	4047.4	482.36 µg/L	482.36 ppb	00:04:05
2	Se 196.026†	1334.2	1326.7	482 µg/L	482 ppb	00:04:05
2	SiO2†	54367.2	52908.8	5150.7 µg/L	5150.7 ppb	00:03:45
2	Si 251.611†	164236.7	164357.7	2413.5 µg/L	2413.5 ppb	00:03:45
2	Sn 189.927†	7684.5	7730.4	483.52 µg/L	483.52 ppb	00:04:05
2	Ti 334.940†	509083.5	511098.8	476.89 µg/L	476.89 ppb	00:03:45
2	Tl 190.801†	3778.4	3917.1	488.46 µg/L	488.46 ppb	00:04:05
2	U 409.014†	7230.8	7542.9	469.95 µg/L	469.95 ppb	00:03:45
2	V 292.402†	96807.6	96968.1	479.41 µg/L	479.41 ppb	00:03:45
2	Zn 213.857†	85025.4	84956.7	473.50 µg/L	473.50 ppb	00:03:45
3	Sc RADIAL	141547.4	141547.4	97.0 %		00:03:03
3	Al 396.153Radial†	25657.4	26515.0	4893.6 µg/L	4893.6 ppb	00:03:03
3	Ca 317.933Radial†	84401.5	86454.0	4815.8 µg/L	4815.8 ppb	00:03:03
3	Fe 238.204 Radial†	75869.9	78070.8	4811.8 µg/L	4811.8 ppb	00:03:03
3	K 766.490 Radial†	14363.1	13263.0	4851.8 µg/L	4851.8 ppb	00:03:03
3	Mg 279.077 IEC†	13049.5	13262.8	4949.1 µg/L	4949.1 ppb	00:03:03
3	Na 589.592 Radial†	69248.3	70101.5	9572.4 µg/L	9572.4 ppb	00:03:03
3	Sr 421.552†	225485.7	232602.1	483.53 µg/L	483.53 ppb	00:03:01
3	Sc 361.383	1723903.5	1723903.5	100.33 %		00:04:08
3	Y 371.029	1019569.4	1019569.4	99.307 %		00:04:08
3	Ag 328.068†	132444.2	127916.0	479.62 µg/L	479.62 ppb	00:04:08
3	As 188.979†	1613.5	1628.6	499.46 µg/L	499.46 ppb	00:04:28
3	B 249.677†	35582.2	31958.9	469.67 µg/L	469.67 ppb	00:04:08
3	Ba 233.527†	119047.5	118790.7	479.08 µg/L	479.08 ppb	00:04:08
3	Be 313.107†	1772270.1	1767489.4	481.39 µg/L	481.39 ppb	00:04:08
3	Cd 226.502†	76487.5	76353.5	476.63 µg/L	476.63 ppb	00:04:08
3	Co 228.616†	38833.9	38896.2	480.17 µg/L	480.17 ppb	00:04:08
3	Cr 267.716†	61033.0	60653.2	474.91 µg/L	474.91 ppb	00:04:08
3	Cu 324.752†	125468.6	122082.6	475.91 µg/L	475.91 ppb	00:04:08
3	Mn 257.610†	389266.3	387745.1	479.55 µg/L	479.55 ppb	00:04:08
3	Mo 202.031†	16339.7	16305.9	479.65 µg/L	479.65 ppb	00:04:28
3	Ni 231.604†	41581.8	41521.1	478.09 µg/L	478.09 ppb	00:04:08
3	P 214.914†	11255.6	11236.5	2395.1 µg/L	2395.1 ppb	00:04:28
3	Pb 220.353†	8754.3	8639.1	483.78 µg/L	483.78 ppb	00:04:28
3	S 181.975 Axial†	1381.4	1271.8	948.44 µg/L	948.44 ppb	00:04:28
3	Sb 206.836†	4114.1	4019.7	478.99 µg/L	478.99 ppb	00:04:28
3	Se 196.026†	1349.5	1329.8	483 µg/L	483 ppb	00:04:28
3	SiO2†	54853.6	52897.3	5149.7 µg/L	5149.7 ppb	00:04:08
3	Si 251.611†	165883.5	164499.8	2415.6 µg/L	2415.6 ppb	00:04:08
3	Sn 189.927†	7726.9	7702.6	481.78 µg/L	481.78 ppb	00:04:28
3	Ti 334.940†	513749.8	511102.8	476.89 µg/L	476.89 ppb	00:04:08
3	Tl 190.801†	3835.7	3939.7	491.22 µg/L	491.22 ppb	00:04:28
3	U 409.014†	7224.4	7470.4	465.75 µg/L	465.75 ppb	00:04:08
3	V 292.402†	97852.6	97126.1	480.16 µg/L	480.16 ppb	00:04:08
3	Zn 213.857†	85877.0	85029.4	473.89 µg/L	473.89 ppb	00:04:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1718502.3	100.02	%	0.517				0.52%
Sc RADIAL	141831.6	97.2	%	0.27				0.27%
Y 371.029	1015930.0	98.952	%	0.4970				0.50%
Ag 328.068†	127666.6	478.69	µg/L	0.860	478.69	ppb	0.860	0.18%
QC value within limits for Ag 328.068 Recovery = 95.74%								
Al 396.153Radial†	26557.2	4901.4	µg/L	7.37	4901.4	ppb	7.37	0.15%
QC value within limits for Al 396.153Radial Recovery = 98.03%								
As 188.979†	1624.7	498.29	µg/L	1.393	498.29	ppb	1.393	0.28%
QC value within limits for As 188.979 Recovery = 99.66%								
B 249.677†	31989.7	470.13	µg/L	0.552	470.13	ppb	0.552	0.12%
QC value within limits for B 249.677 Recovery = 94.03%								
Ba 233.527†	118610.7	478.35	µg/L	0.631	478.35	ppb	0.631	0.13%
QC value within limits for Ba 233.527 Recovery = 95.67%								
Be 313.107†	1766671.5	481.16	µg/L	0.387	481.16	ppb	0.387	0.08%
QC value within limits for Be 313.107 Recovery = 96.23%								
Ca 317.933Radial†	86454.8	4815.9	µg/L	14.49	4815.9	ppb	14.49	0.30%
QC value within limits for Ca 317.933Radial Recovery = 96.32%								
Cd 226.502†	76140.8	475.30	µg/L	1.661	475.30	ppb	1.661	0.35%
QC value within limits for Cd 226.502 Recovery = 95.06%								
Co 228.616†	38789.5	478.86	µg/L	1.671	478.86	ppb	1.671	0.35%

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   QC value within limits for Co 228.616  Recovery = 95.77%
Cr 267.716†            60511.3      473.80 µg/L         1.244      473.80 ppb          1.244   0.26%
   QC value within limits for Cr 267.716  Recovery = 94.76%
Cu 324.752†           122050.4      475.79 µg/L         0.509      475.79 ppb          0.509   0.11%
   QC value within limits for Cu 324.752  Recovery = 95.16%
Fe 238.204 Radial†     77898.6      4801.2 µg/L         18.23      4801.2 ppb          18.23   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.02%
K 766.490 Radial†      13182.1      4822.2 µg/L         25.92      4822.2 ppb          25.92   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 96.44%
Mg 279.077 IEC†        13220.7      4933.4 µg/L         40.70      4933.4 ppb          40.70   0.82%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.67%
Mn 257.610†           387557.3      479.32 µg/L         0.335      479.32 ppb          0.335   0.07%
   QC value within limits for Mn 257.610  Recovery = 95.86%
Mo 202.031†            16307.1      479.68 µg/L         2.318      479.68 ppb          2.318   0.48%
   QC value within limits for Mo 202.031  Recovery = 95.94%
Na 589.592 Radial†     70136.3      9577.2 µg/L         31.25      9577.2 ppb          31.25   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 95.77%
Ni 231.604†            41426.0      476.99 µg/L         1.093      476.99 ppb          1.093   0.23%
   QC value within limits for Ni 231.604  Recovery = 95.40%
P 214.914†             11215.1      2390.5 µg/L         12.46      2390.5 ppb          12.46   0.52%
   QC value within limits for P 214.914  Recovery = 95.62%
Pb 220.353†             8637.0      483.66 µg/L         4.812      483.66 ppb          4.812   0.99%
   QC value within limits for Pb 220.353  Recovery = 96.73%
S 181.975 Axial†        1265.6      943.84 µg/L         8.319      943.84 ppb          8.319   0.88%
   QC value within limits for S 181.975 Axial  Recovery = 94.38%
Sb 206.836†             4021.4      479.21 µg/L         3.045      479.21 ppb          3.045   0.64%
   QC value within limits for Sb 206.836  Recovery = 95.84%
Se 196.026†             1325.1         481 µg/L           2.0         481 ppb            2.0   0.42%
   QC value within limits for Se 196.026  Recovery = 96.23%
SiO2†                  52845.6      5144.6 µg/L          9.64      5144.6 ppb           9.64   0.19%
   QC value within limits for SiO2  Recovery = 96.21%
Si 251.611†           164353.8      2413.5 µg/L          2.15      2413.5 ppb           2.15   0.09%
   QC value within limits for Si 251.611  Recovery = 96.54%
Sn 189.927†             7691.1      481.07 µg/L         2.875      481.07 ppb          2.875   0.60%
   QC value within limits for Sn 189.927  Recovery = 96.21%
Sr 421.552†           232885.1      484.12 µg/L         1.209      484.12 ppb          1.209   0.25%
   QC value within limits for Sr 421.552  Recovery = 96.82%
Ti 334.940†           510877.3      476.68 µg/L         0.363      476.68 ppb          0.363   0.08%
   QC value within limits for Ti 334.940  Recovery = 95.34%
Tl 190.801†             3920.0      488.80 µg/L         2.267      488.80 ppb          2.267   0.46%
   QC value within limits for Tl 190.801  Recovery = 97.76%
U 409.014†              7480.5      466.31 µg/L         3.394      466.31 ppb          3.394   0.73%
   QC value within limits for U 409.014  Recovery = 93.26%
V 292.402†             97013.9      479.61 µg/L         0.482      479.61 ppb          0.482   0.10%
   QC value within limits for V 292.402  Recovery = 95.92%
Zn 213.857†            84952.0      473.47 µg/L         0.445      473.47 ppb          0.445   0.09%
   QC value within limits for Zn 213.857  Recovery = 94.69%
All analyte(s) passed QC.
```

Sequence No.: 129
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/1/2010 0:04:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143892.3	143892.3	98.6	%			00:05:07
1	Al 396.153Radial†	-53.6	8.8	1.6408	µg/L	1.6408	ppb	00:05:27
1	Ca 317.933Radial†	596.6	44.5	2.4784	µg/L	2.4784	ppb	00:05:27
1	Fe 238.204 Radial†	205.5	60.3	3.7183	µg/L	3.7183	ppb	00:05:27
1	K 766.490 Radial†	1617.6	95.8	35.061	µg/L	35.061	ppb	00:05:07
1	Mg 279.077 IEC†	160.3	-28.1	-10.484	µg/L	-10.484	ppb	00:05:27
1	Na 589.592 Radial†	1235.1	-38.2	-5.2555	µg/L	-5.2555	ppb	00:05:07
1	Sr 421.552†	-186.7	-54.0	-0.1123	µg/L	-0.1123	ppb	00:05:07
1	Sc 361.383	1744559.9	1744559.9	101.53	%			00:06:14
1	Y 371.029	1042741.7	1042741.7	101.56	%			00:06:14
1	Ag 328.068†	4186.7	32.1	0.1193	µg/L	0.1193	ppb	00:06:17
1	As 188.979†	-18.7	2.0	0.5980	µg/L	0.5980	ppb	00:06:37
1	B 249.677†	3571.6	11.8	0.1730	µg/L	0.1730	ppb	00:06:17
1	Ba 233.527†	-139.2	-1.2	-0.0046	µg/L	-0.0046	ppb	00:06:37
1	Be 313.107†	-1043.9	36.6	0.0085	µg/L	0.0085	ppb	00:06:17
1	Cd 226.502†	-108.8	11.0	0.0685	µg/L	0.0685	ppb	00:06:37
1	Co 228.616†	-174.1	18.9	0.2327	µg/L	0.2327	ppb	00:06:37
1	Cr 267.716†	183.3	2.0	0.0199	µg/L	0.0199	ppb	00:06:37
1	Cu 324.752†	3077.4	58.7	0.2245	µg/L	0.2245	ppb	00:06:17
1	Mn 257.610†	338.8	96.5	0.1197	µg/L	0.1197	ppb	00:06:37
1	Mo 202.031†	-20.8	-0.4	-0.0123	µg/L	-0.0123	ppb	00:06:37
1	Ni 231.604†	-93.1	-15.2	-0.1747	µg/L	-0.1747	ppb	00:06:37
1	P 214.914†	-36.4	-17.9	-3.8259	µg/L	-3.8259	ppb	00:06:37
1	Pb 220.353†	57.3	-30.0	-1.6686	µg/L	-1.6686	ppb	00:06:37
1	S 181.975 Axial†	88.1	-18.3	-13.601	µg/L	-13.601	ppb	00:06:37
1	Sb 206.836†	79.5	-2.5	-0.2998	µg/L	-0.2998	ppb	00:06:37
1	Se 196.026†	9.3	-6.1	-2.21	µg/L	-2.21	ppb	00:06:37
1	SiO2†	1791.0	-11.4	-1.1250	µg/L	-1.1250	ppb	00:06:37
1	Si 251.611†	1010.1	158.3	2.3292	µg/L	2.3292	ppb	00:06:17
1	Sn 189.927†	11.2	12.2	0.7593	µg/L	0.7593	ppb	00:06:37
1	Ti 334.940†	1000.8	33.1	0.0339	µg/L	0.0339	ppb	00:06:17
1	Tl 190.801†	-110.0	8.4	1.0319	µg/L	1.0319	ppb	00:06:37
1	U 409.014†	-359.2	-83.8	-4.8714	µg/L	-4.8714	ppb	00:06:17
1	V 292.402†	522.7	111.1	0.5380	µg/L	0.5380	ppb	00:06:17
1	Zn 213.857†	593.2	19.8	0.1119	µg/L	0.1119	ppb	00:06:37
2	Sc RADIAL	143483.1	143483.1	98.3	%			00:05:29
2	Al 396.153Radial†	-16.6	46.3	8.5924	µg/L	8.5924	ppb	00:05:49
2	Ca 317.933Radial†	577.4	26.6	1.4835	µg/L	1.4835	ppb	00:05:49
2	Fe 238.204 Radial†	204.6	60.0	3.6989	µg/L	3.6989	ppb	00:05:49
2	K 766.490 Radial†	1704.3	188.6	69.053	µg/L	69.053	ppb	00:05:29
2	Mg 279.077 IEC†	189.1	1.6	0.6009	µg/L	0.6009	ppb	00:05:49
2	Na 589.592 Radial†	1220.1	-49.9	-6.8835	µg/L	-6.8835	ppb	00:05:29
2	Sr 421.552†	-161.7	-29.2	-0.0607	µg/L	-0.0607	ppb	00:05:29
2	Sc 361.383	1736410.2	1736410.2	101.06	%			00:06:39
2	Y 371.029	1038399.6	1038399.6	101.14	%			00:06:39
2	Ag 328.068†	4135.3	0.6	-0.0060	µg/L	-0.0060	ppb	00:06:41
2	As 188.979†	-19.2	1.4	0.4208	µg/L	0.4208	ppb	00:07:01
2	B 249.677†	3492.1	-50.3	-0.7427	µg/L	-0.7427	ppb	00:06:41
2	Ba 233.527†	-117.3	19.8	0.0792	µg/L	0.0792	ppb	00:07:01
2	Be 313.107†	-747.8	324.8	0.0886	µg/L	0.0886	ppb	00:06:41
2	Cd 226.502†	-105.9	13.4	0.0831	µg/L	0.0831	ppb	00:07:01
2	Co 228.616†	-184.9	7.4	0.0911	µg/L	0.0911	ppb	00:07:01
2	Cr 267.716†	192.3	11.7	0.0910	µg/L	0.0910	ppb	00:07:01
2	Cu 324.752†	2966.8	-36.5	-0.1408	µg/L	-0.1408	ppb	00:06:41
2	Mn 257.610†	298.6	58.2	0.0720	µg/L	0.0720	ppb	00:07:01
2	Mo 202.031†	-25.8	-5.5	-0.1614	µg/L	-0.1614	ppb	00:07:01
2	Ni 231.604†	-94.3	-16.8	-0.1933	µg/L	-0.1933	ppb	00:07:01
2	P 214.914†	-43.0	-24.6	-5.2673	µg/L	-5.2673	ppb	00:07:01
2	Pb 220.353†	50.6	-36.3	-2.0267	µg/L	-2.0267	ppb	00:07:01

2	S 181.975 Axial†	98.0	-8.1	-5.9976 µg/L	-5.9976 ppb	00:07:01
2	Sb 206.836†	73.1	-8.5	-1.0121 µg/L	-1.0121 ppb	00:07:01
2	Se 196.026†	7.4	-8.0	-2.88 µg/L	-2.88 ppb	00:07:01
2	SiO2†	1801.8	7.6	0.7460 µg/L	0.7460 ppb	00:07:01
2	Si 251.611†	1048.9	201.3	2.9711 µg/L	2.9711 ppb	00:06:41
2	Sn 189.927†	-3.4	-2.2	-0.1383 µg/L	-0.1383 ppb	00:07:01
2	Ti 334.940†	957.4	-5.2	-0.0051 µg/L	-0.0051 ppb	00:06:41
2	Tl 190.801†	-118.7	-0.7	-0.0961 µg/L	-0.0961 ppb	00:07:01
2	U 409.014†	-264.8	7.9	0.4182 µg/L	0.4182 ppb	00:06:41
2	V 292.402†	254.9	-151.6	-0.7409 µg/L	-0.7409 ppb	00:06:41
2	Zn 213.857†	612.2	41.4	0.2335 µg/L	0.2335 ppb	00:07:01
3	Sc RADIAL	142535.7	142535.7	97.7 %		00:05:51
3	Al 396.153Radial†	-83.5	-22.3	-4.1548 µg/L	-4.1548 ppb	00:06:11
3	Ca 317.933Radial†	597.4	51.0	2.8434 µg/L	2.8434 ppb	00:06:11
3	Fe 238.204 Radial†	191.0	47.4	2.9218 µg/L	2.9218 ppb	00:06:11
3	K 766.490 Radial†	1524.6	16.2	5.9151 µg/L	5.9151 ppb	00:05:51
3	Mg 279.077 IEC†	219.6	34.1	12.715 µg/L	12.715 ppb	00:06:11
3	Na 589.592 Radial†	1205.9	-56.2	-7.6775 µg/L	-7.6775 ppb	00:05:51
3	Sr 421.552†	-165.9	-34.5	-0.0718 µg/L	-0.0718 ppb	00:05:51
3	Sc 361.383	1751391.9	1751391.9	101.93 %		00:07:03
3	Y 371.029	1047163.4	1047163.4	101.99 %		00:07:03
3	Ag 328.068†	4086.1	-82.7	-0.3037 µg/L	-0.3037 ppb	00:07:05
3	As 188.979†	-20.4	0.3	0.0989 µg/L	0.0989 ppb	00:07:25
3	B 249.677†	3537.9	-35.0	-0.5172 µg/L	-0.5172 ppb	00:07:05
3	Ba 233.527†	-136.9	1.6	0.0063 µg/L	0.0063 ppb	00:07:25
3	Be 313.107†	-940.8	141.7	0.0400 µg/L	0.0400 ppb	00:07:05
3	Cd 226.502†	-99.2	20.8	0.1299 µg/L	0.1299 ppb	00:07:25
3	Co 228.616†	-163.1	30.3	0.3737 µg/L	0.3737 ppb	00:07:25
3	Cr 267.716†	180.0	-1.9	-0.0191 µg/L	-0.0191 ppb	00:07:25
3	Cu 324.752†	2988.8	-40.1	-0.1508 µg/L	-0.1508 ppb	00:07:05
3	Mn 257.610†	300.0	57.1	0.0701 µg/L	0.0701 ppb	00:07:25
3	Mo 202.031†	-9.2	11.0	0.3249 µg/L	0.3249 ppb	00:07:25
3	Ni 231.604†	-68.4	9.4	0.1086 µg/L	0.1086 ppb	00:07:25
3	P 214.914†	-25.2	-6.8	-1.4485 µg/L	-1.4485 ppb	00:07:25
3	Pb 220.353†	102.3	13.9	0.7747 µg/L	0.7747 ppb	00:07:25
3	S 181.975 Axial†	101.0	-6.0	-4.4167 µg/L	-4.4167 ppb	00:07:25
3	Sb 206.836†	94.0	11.4	1.3649 µg/L	1.3649 ppb	00:07:25
3	Se 196.026†	14.1	-1.5	-0.521 µg/L	-0.521 ppb	00:07:25
3	SiO2†	1807.8	-1.8	-0.1882 µg/L	-0.1882 ppb	00:07:25
3	Si 251.611†	933.4	79.1	1.1603 µg/L	1.1603 ppb	00:07:05
3	Sn 189.927†	4.0	5.0	0.3117 µg/L	0.3117 ppb	00:07:25
3	Ti 334.940†	864.7	-104.2	-0.1002 µg/L	-0.1002 ppb	00:07:05
3	Tl 190.801†	-114.3	4.5	0.5538 µg/L	0.5538 ppb	00:07:25
3	U 409.014†	-194.1	79.5	4.6318 µg/L	4.6318 ppb	00:07:05
3	V 292.402†	357.1	-53.4	-0.2545 µg/L	-0.2545 ppb	00:07:05
3	Zn 213.857†	596.1	20.4	0.1133 µg/L	0.1133 ppb	00:07:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1744120.7	101.51	%	0.437				0.43%
Sc RADIAL	143303.7	98.2	%	0.48				0.49%
Y 371.029	1042768.2	101.57	%	0.427				0.42%
Ag 328.068†	-16.6	-0.0635	µg/L	0.21725	-0.0635	ppb	0.21725	342.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.9	2.0261	µg/L	6.38236	2.0261	ppb	6.38236	315.00%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	0.3726	µg/L	0.25303	0.3726	ppb	0.25303	67.91%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-24.5	-0.3623	µg/L	0.47710	-0.3623	ppb	0.47710	131.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.7	0.0270	µg/L	0.04553	0.0270	ppb	0.04553	168.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	167.7	0.0457	µg/L	0.04035	0.0457	ppb	0.04035	88.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	40.7	2.2684	µg/L	0.70382	2.2684	ppb	0.70382	31.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	15.1	0.0938	µg/L	0.03210	0.0938	ppb	0.03210	34.21%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.9	0.2325	µg/L	0.14130	0.2325	ppb	0.14130	60.78%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                3.9      0.0306 µg/L       0.05579      0.0306 ppb        0.05579 182.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -5.9     -0.0224 µg/L       0.21387     -0.0224 ppb        0.21387 955.96%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        55.9      3.4463 µg/L       0.45435      3.4463 ppb        0.45435  13.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        100.2      36.676 µg/L       31.5999      36.676 ppb        31.5999  86.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.5      0.9439 µg/L      11.60357      0.9439 ppb       11.60357 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               70.6      0.0873 µg/L       0.02814      0.0873 ppb        0.02814  32.24%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.7      0.0504 µg/L       0.24911      0.0504 ppb        0.24911 494.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -48.1     -6.6055 µg/L       1.23471     -6.6055 ppb        1.23471  18.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -7.5     -0.0864 µg/L       0.16920     -0.0864 ppb        0.16920 195.76%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -16.4     -3.5139 µg/L       1.92839     -3.5139 ppb        1.92839  54.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -17.4     -0.9735 µg/L       1.52458     -0.9735 ppb        1.52458 156.60%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -10.8     -8.0052 µg/L       4.91049     -8.0052 ppb        4.91049  61.34%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                0.1      0.0176 µg/L       1.21991      0.0176 ppb        1.21991 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -5.2       -1.87 µg/L         1.214       -1.87 ppb          1.214  64.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -1.9     -0.1891 µg/L       0.93549     -0.1891 ppb        0.93549 494.80%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              146.3      2.1535 µg/L       0.91811      2.1535 ppb        0.91811  42.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.0      0.3109 µg/L       0.44879      0.3109 ppb        0.44879 144.35%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -39.2     -0.0816 µg/L       0.02715     -0.0816 ppb        0.02715  33.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -25.4     -0.0238 µg/L       0.06900     -0.0238 ppb        0.06900 289.80%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.1      0.4965 µg/L       0.56617      0.4965 ppb        0.56617 114.03%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 1.2      0.0595 µg/L       4.76174      0.0595 ppb        4.76174 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -31.3     -0.1525 µg/L       0.64551     -0.1525 ppb        0.64551 423.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               27.2      0.1529 µg/L       0.06978      0.1529 ppb        0.06978  45.64%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 135
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 0:18:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143693.3	143693.3	98.5	%			00:19:06
1	Al 396.153Radial†	26289.1	26761.5	4939.5	µg/L	4939.5	ppb	00:19:06
1	Ca 317.933Radial†	86223.9	87005.4	4846.5	µg/L	4846.5	ppb	00:19:06
1	Fe 238.204 Radial†	77323.2	78378.5	4830.8	µg/L	4830.8	ppb	00:19:06
1	K 766.490 Radial†	14642.3	13325.5	4874.7	µg/L	4874.7	ppb	00:19:06
1	Mg 279.077 IEC†	13274.7	13290.6	4959.3	µg/L	4959.3	ppb	00:19:06
1	Na 589.592 Radial†	70897.3	70710.0	9655.5	µg/L	9655.5	ppb	00:19:06
1	Sr 421.552†	232660.3	236416.7	491.46	µg/L	491.46	ppb	00:19:04
1	Sc 361.383	1732669.7	1732669.7	100.84	%			00:19:19
1	Y 371.029	1023558.0	1023558.0	99.695	%			00:19:19
1	Ag 328.068†	133158.4	127956.3	479.77	µg/L	479.77	ppb	00:19:19
1	As 188.979†	1602.0	1609.0	493.54	µg/L	493.54	ppb	00:19:39
1	B 249.677†	35761.2	31957.0	469.65	µg/L	469.65	ppb	00:19:19
1	Ba 233.527†	119556.3	118694.9	478.69	µg/L	478.69	ppb	00:19:19
1	Be 313.107†	1785943.3	1772111.6	482.65	µg/L	482.65	ppb	00:19:19
1	Cd 226.502†	76830.5	76307.9	476.34	µg/L	476.34	ppb	00:19:19
1	Co 228.616†	38954.2	38819.6	479.23	µg/L	479.23	ppb	00:19:19
1	Cr 267.716†	61438.6	60747.5	475.65	µg/L	475.65	ppb	00:19:19
1	Cu 324.752†	126552.0	122524.2	477.63	µg/L	477.63	ppb	00:19:19
1	Mn 257.610†	392610.6	389098.6	481.22	µg/L	481.22	ppb	00:19:19
1	Mo 202.031†	16258.5	16143.0	474.86	µg/L	474.86	ppb	00:19:39
1	Ni 231.604†	41699.2	41427.9	477.01	µg/L	477.01	ppb	00:19:19
1	P 214.914†	11155.2	11080.1	2361.6	µg/L	2361.6	ppb	00:19:39
1	Pb 220.353†	8723.1	8564.0	479.58	µg/L	479.58	ppb	00:19:39
1	S 181.975 Axial†	1371.1	1254.6	935.65	µg/L	935.65	ppb	00:19:39
1	Sb 206.836†	4108.1	3993.0	475.73	µg/L	475.73	ppb	00:19:39
1	Se 196.026†	1329.1	1302.7	473	µg/L	473	ppb	00:19:39
1	SiO2†	54892.2	52659.0	5126.6	µg/L	5126.6	ppb	00:19:19
1	Si 251.611†	165952.1	163731.3	2404.4	µg/L	2404.4	ppb	00:19:19
1	Sn 189.927†	7677.7	7614.8	476.32	µg/L	476.32	ppb	00:19:39
1	Ti 334.940†	518688.0	513409.1	479.05	µg/L	479.05	ppb	00:19:19
1	Tl 190.801†	3776.5	3861.7	481.67	µg/L	481.67	ppb	00:19:39
1	U 409.014†	7234.1	7443.7	464.23	µg/L	464.23	ppb	00:19:19
1	V 292.402†	98487.7	97262.4	480.77	µg/L	480.77	ppb	00:19:19
1	Zn 213.857†	86132.8	84849.9	472.89	µg/L	472.89	ppb	00:19:19
2	Sc RADIAL	143019.1	143019.1	98.0	%			00:19:11
2	Al 396.153Radial†	26072.5	26666.3	4922.0	µg/L	4922.0	ppb	00:19:11
2	Ca 317.933Radial†	85527.1	86707.1	4829.9	µg/L	4829.9	ppb	00:19:11
2	Fe 238.204 Radial†	76547.8	77957.5	4804.8	µg/L	4804.8	ppb	00:19:11
2	K 766.490 Radial†	14325.9	13072.7	4782.1	µg/L	4782.1	ppb	00:19:11
2	Mg 279.077 IEC†	13110.0	13186.1	4920.4	µg/L	4920.4	ppb	00:19:11
2	Na 589.592 Radial†	70292.2	70432.0	9617.6	µg/L	9617.6	ppb	00:19:11
2	Sr 421.552†	230289.2	235111.2	488.74	µg/L	488.74	ppb	00:19:08
2	Sc 361.383	1739470.1	1739470.1	101.24	%			00:19:42
2	Y 371.029	1026926.3	1026926.3	100.02	%			00:19:42
2	Ag 328.068†	133611.7	127887.8	479.55	µg/L	479.55	ppb	00:19:42
2	As 188.979†	1611.8	1612.5	494.58	µg/L	494.58	ppb	00:20:03
2	B 249.677†	36044.8	32098.6	471.73	µg/L	471.73	ppb	00:19:42
2	Ba 233.527†	120143.8	118811.8	479.16	µg/L	479.16	ppb	00:19:42
2	Be 313.107†	1795420.8	1774549.5	483.31	µg/L	483.31	ppb	00:19:42
2	Cd 226.502†	77193.5	76368.5	476.73	µg/L	476.73	ppb	00:19:42
2	Co 228.616†	39216.7	38927.8	480.56	µg/L	480.56	ppb	00:19:42
2	Cr 267.716†	61736.3	60803.5	476.08	µg/L	476.08	ppb	00:19:42
2	Cu 324.752†	127273.9	122746.7	478.50	µg/L	478.50	ppb	00:19:42
2	Mn 257.610†	394321.6	389266.6	481.43	µg/L	481.43	ppb	00:19:42
2	Mo 202.031†	16252.9	16074.4	472.85	µg/L	472.85	ppb	00:20:03
2	Ni 231.604†	41949.4	41513.4	478.00	µg/L	478.00	ppb	00:19:42
2	P 214.914†	11147.1	11028.9	2350.7	µg/L	2350.7	ppb	00:20:03
2	Pb 220.353†	8700.2	8507.6	476.42	µg/L	476.42	ppb	00:20:03

2	S 181.975 Axial†	1373.5	1251.6	933.42 µg/L	933.42 ppb	00:20:03
2	Sb 206.836†	4110.6	3979.5	474.09 µg/L	474.09 ppb	00:20:03
2	Se 196.026†	1335.2	1303.6	473 µg/L	473 ppb	00:20:03
2	SiO2†	55200.8	52751.0	5135.7 µg/L	5135.7 ppb	00:19:42
2	Si 251.611†	166801.0	163926.5	2407.3 µg/L	2407.3 ppb	00:19:42
2	Sn 189.927†	7667.4	7574.8	473.83 µg/L	473.83 ppb	00:20:03
2	Ti 334.940†	521126.8	513807.3	479.42 µg/L	479.42 ppb	00:19:42
2	Tl 190.801†	3808.6	3878.7	483.77 µg/L	483.77 ppb	00:20:03
2	U 409.014†	7502.8	7681.0	478.15 µg/L	478.15 ppb	00:19:42
2	V 292.402†	99014.7	97401.2	481.44 µg/L	481.44 ppb	00:19:42
2	Zn 213.857†	86840.8	85215.4	474.94 µg/L	474.94 ppb	00:19:42
3	Sc RADIAL	143471.6	143471.6	98.3 %		00:19:15
3	Al 396.153Radial†	26187.7	26699.6	4927.9 µg/L	4927.9 ppb	00:19:15
3	Ca 317.933Radial†	86128.1	87043.2	4848.6 µg/L	4848.6 ppb	00:19:15
3	Fe 238.204 Radial†	76980.1	78150.9	4816.7 µg/L	4816.7 ppb	00:19:15
3	K 766.490 Radial†	14484.8	13188.2	4824.4 µg/L	4824.4 ppb	00:19:15
3	Mg 279.077 IEC†	13105.7	13139.6	4903.2 µg/L	4903.2 ppb	00:19:15
3	Na 589.592 Radial†	70971.5	70896.7	9681.1 µg/L	9681.1 ppb	00:19:15
3	Sr 421.552†	228010.1	232051.9	482.38 µg/L	482.38 ppb	00:19:13
3	Sc 361.383	1723745.5	1723745.5	100.32 %		00:20:06
3	Y 371.029	1018567.1	1018567.1	99.209 %		00:20:06
3	Ag 328.068†	132594.6	128078.0	480.26 µg/L	480.26 ppb	00:20:06
3	As 188.979†	1613.1	1628.3	499.38 µg/L	499.38 ppb	00:20:26
3	B 249.677†	35759.3	32138.8	472.33 µg/L	472.33 ppb	00:20:06
3	Ba 233.527†	118916.1	118670.6	478.60 µg/L	478.60 ppb	00:20:06
3	Be 313.107†	1776332.6	1771700.7	482.54 µg/L	482.54 ppb	00:20:06
3	Cd 226.502†	76456.3	76329.3	476.48 µg/L	476.48 ppb	00:20:06
3	Co 228.616†	38757.5	38823.5	479.27 µg/L	479.27 ppb	00:20:06
3	Cr 267.716†	61060.8	60686.4	475.16 µg/L	475.16 ppb	00:20:06
3	Cu 324.752†	125991.6	122615.4	477.99 µg/L	477.99 ppb	00:20:06
3	Mn 257.610†	390315.2	388826.2	480.89 µg/L	480.89 ppb	00:20:06
3	Mo 202.031†	16307.2	16275.0	478.74 µg/L	478.74 ppb	00:20:26
3	Ni 231.604†	41420.9	41364.6	476.28 µg/L	476.28 ppb	00:20:06
3	P 214.914†	11239.1	11221.0	2391.8 µg/L	2391.8 ppb	00:20:26
3	Pb 220.353†	8736.0	8621.6	482.80 µg/L	482.80 ppb	00:20:26
3	S 181.975 Axial†	1373.7	1264.3	942.85 µg/L	942.85 ppb	00:20:26
3	Sb 206.836†	4128.8	4034.7	480.77 µg/L	480.77 ppb	00:20:26
3	Se 196.026†	1340.4	1320.9	480 µg/L	480 ppb	00:20:26
3	SiO2†	54541.9	52591.7	5119.8 µg/L	5119.8 ppb	00:20:06
3	Si 251.611†	164960.5	163595.0	2402.3 µg/L	2402.3 ppb	00:20:06
3	Sn 189.927†	7724.8	7701.2	481.70 µg/L	481.70 ppb	00:20:26
3	Ti 334.940†	516519.7	513910.8	479.51 µg/L	479.51 ppb	00:20:06
3	Tl 190.801†	3789.6	3894.1	485.67 µg/L	485.67 ppb	00:20:26
3	U 409.014†	7419.9	7666.0	477.31 µg/L	477.31 ppb	00:20:06
3	V 292.402†	98262.8	97543.9	482.19 µg/L	482.19 ppb	00:20:06
3	Zn 213.857†	86081.7	85241.2	475.10 µg/L	475.10 ppb	00:20:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1731961.8	100.80	%	0.459				0.46%
Sc RADIAL	143394.7	98.3	%	0.24				0.24%
Y 371.029	1023017.1	99.642	%	0.4096				0.41%
Ag 328.068†	127974.1	479.86	µg/L	0.363	479.86	ppb	0.363	0.08%
QC value within limits for Ag 328.068 Recovery = 95.97%								
Al 396.153Radial†	26709.1	4929.8	µg/L	8.93	4929.8	ppb	8.93	0.18%
QC value within limits for Al 396.153Radial Recovery = 98.60%								
As 188.979†	1616.6	495.84	µg/L	3.115	495.84	ppb	3.115	0.63%
QC value within limits for As 188.979 Recovery = 99.17%								
B 249.677†	32064.8	471.24	µg/L	1.407	471.24	ppb	1.407	0.30%
QC value within limits for B 249.677 Recovery = 94.25%								
Ba 233.527†	118725.8	478.82	µg/L	0.303	478.82	ppb	0.303	0.06%
QC value within limits for Ba 233.527 Recovery = 95.76%								
Be 313.107†	1772787.2	482.83	µg/L	0.420	482.83	ppb	0.420	0.09%
QC value within limits for Be 313.107 Recovery = 96.57%								
Ca 317.933Radial†	86918.5	4841.7	µg/L	10.25	4841.7	ppb	10.25	0.21%
QC value within limits for Ca 317.933Radial Recovery = 96.83%								
Cd 226.502†	76335.3	476.52	µg/L	0.194	476.52	ppb	0.194	0.04%
QC value within limits for Cd 226.502 Recovery = 95.30%								
Co 228.616†	38857.0	479.69	µg/L	0.758	479.69	ppb	0.758	0.16%

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   QC value within limits for Co 228.616  Recovery = 95.94%
Cr 267.716†            60745.8      475.63 µg/L         0.458      475.63 ppb          0.458   0.10%
   QC value within limits for Cr 267.716  Recovery = 95.13%
Cu 324.752†           122628.7      478.04 µg/L         0.438      478.04 ppb          0.438   0.09%
   QC value within limits for Cu 324.752  Recovery = 95.61%
Fe 238.204 Radial†     78162.3      4817.4 µg/L         12.99      4817.4 ppb          12.99   0.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.35%
K 766.490 Radial†      13195.4      4827.1 µg/L         46.33      4827.1 ppb          46.33   0.96%
   QC value within limits for K 766.490 Radial  Recovery = 96.54%
Mg 279.077 IEC†        13205.4      4927.6 µg/L         28.77      4927.6 ppb          28.77   0.58%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.55%
Mn 257.610†           389063.8      481.18 µg/L         0.275      481.18 ppb          0.275   0.06%
   QC value within limits for Mn 257.610  Recovery = 96.24%
Mo 202.031†            16164.1      475.48 µg/L         2.996      475.48 ppb          2.996   0.63%
   QC value within limits for Mo 202.031  Recovery = 95.10%
Na 589.592 Radial†     70679.5      9651.4 µg/L         31.92      9651.4 ppb          31.92   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 96.51%
Ni 231.604†            41435.3      477.10 µg/L         0.860      477.10 ppb          0.860   0.18%
   QC value within limits for Ni 231.604  Recovery = 95.42%
P 214.914†             11110.0      2368.0 µg/L         21.28      2368.0 ppb          21.28   0.90%
   QC value within limits for P 214.914  Recovery = 94.72%
Pb 220.353†             8564.4      479.60 µg/L         3.191      479.60 ppb          3.191   0.67%
   QC value within limits for Pb 220.353  Recovery = 95.92%
S 181.975 Axial†        1256.8      937.31 µg/L         4.928      937.31 ppb          4.928   0.53%
   QC value within limits for S 181.975 Axial  Recovery = 93.73%
Sb 206.836†             4002.4      476.86 µg/L         3.479      476.86 ppb          3.479   0.73%
   QC value within limits for Sb 206.836  Recovery = 95.37%
Se 196.026†             1309.1         475 µg/L           3.7         475 ppb            3.7   0.78%
   QC value within limits for Se 196.026  Recovery = 95.07%
SiO2†                  52667.2      5127.4 µg/L          7.96      5127.4 ppb           7.96   0.16%
   QC value within limits for SiO2  Recovery = 95.88%
Si 251.611†           163751.0      2404.7 µg/L          2.52      2404.7 ppb           2.52   0.10%
   QC value within limits for Si 251.611  Recovery = 96.19%
Sn 189.927†             7630.3      477.28 µg/L         4.026      477.28 ppb          4.026   0.84%
   QC value within limits for Sn 189.927  Recovery = 95.46%
Sr 421.552†           234526.6      487.53 µg/L         4.658      487.53 ppb          4.658   0.96%
   QC value within limits for Sr 421.552  Recovery = 97.51%
Ti 334.940†           513709.0      479.33 µg/L         0.247      479.33 ppb          0.247   0.05%
   QC value within limits for Ti 334.940  Recovery = 95.87%
Tl 190.801†             3878.2      483.70 µg/L         1.997      483.70 ppb          1.997   0.41%
   QC value within limits for Tl 190.801  Recovery = 96.74%
U 409.014†              7596.9      473.23 µg/L         7.805      473.23 ppb          7.805   1.65%
   QC value within limits for U 409.014  Recovery = 94.65%
V 292.402†             97402.5      481.47 µg/L         0.711      481.47 ppb          0.711   0.15%
   QC value within limits for V 292.402  Recovery = 96.29%
Zn 213.857†            85102.2      474.31 µg/L         1.230      474.31 ppb          1.230   0.26%
   QC value within limits for Zn 213.857  Recovery = 94.86%
All analyte(s) passed QC.
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Sequence No.: 136
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 0:20:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143009.9	143009.9	98.0	%			00:21:03
1	Al 396.153Radial†	-51.4	10.8	1.9902	µg/L	1.9902	ppb	00:21:23
1	Ca 317.933Radial†	642.8	95.4	5.3133	µg/L	5.3133	ppb	00:21:23
1	Fe 238.204 Radial†	242.1	99.0	6.0996	µg/L	6.0996	ppb	00:21:23
1	K 766.490 Radial†	1742.8	233.6	85.512	µg/L	85.512	ppb	00:21:03
1	Mg 279.077 IEC†	198.4	11.8	4.3899	µg/L	4.3899	ppb	00:21:23
1	Na 589.592 Radial†	1320.5	56.6	7.6578	µg/L	7.6578	ppb	00:21:03
1	Sr 421.552†	-179.2	-47.6	-0.0989	µg/L	-0.0989	ppb	00:21:03
1	Sc 361.383	1732574.4	1732574.4	100.84	%			00:22:11
1	Y 371.029	1034944.7	1034944.7	100.80	%			00:22:11
1	Ag 328.068†	3967.9	-156.4	-0.6012	µg/L	-0.6012	ppb	00:22:13
1	As 188.979†	-22.3	-1.8	-0.5282	µg/L	-0.5282	ppb	00:22:33
1	B 249.677†	3471.6	-63.1	-0.9312	µg/L	-0.9312	ppb	00:22:13
1	Ba 233.527†	-105.4	31.3	0.1257	µg/L	0.1257	ppb	00:22:33
1	Be 313.107†	-924.2	148.2	0.0371	µg/L	0.0371	ppb	00:22:13
1	Cd 226.502†	-101.6	17.5	0.1086	µg/L	0.1086	ppb	00:22:33
1	Co 228.616†	-161.2	30.5	0.3758	µg/L	0.3758	ppb	00:22:33
1	Cr 267.716†	181.5	1.4	0.0194	µg/L	0.0194	ppb	00:22:33
1	Cu 324.752†	2984.5	-12.4	-0.0561	µg/L	-0.0561	ppb	00:22:13
1	Mn 257.610†	353.9	113.7	0.1405	µg/L	0.1405	ppb	00:22:33
1	Mo 202.031†	-15.2	5.0	0.1471	µg/L	0.1471	ppb	00:22:33
1	Ni 231.604†	-82.1	-4.9	-0.0564	µg/L	-0.0564	ppb	00:22:33
1	P 214.914†	-21.6	-3.4	-0.7405	µg/L	-0.7405	ppb	00:22:33
1	Pb 220.353†	58.7	-28.2	-1.5645	µg/L	-1.5645	ppb	00:22:33
1	S 181.975 Axial†	95.1	-10.7	-7.9545	µg/L	-7.9545	ppb	00:22:33
1	Sb 206.836†	91.5	9.9	1.1817	µg/L	1.1817	ppb	00:22:33
1	Se 196.026†	8.6	-6.7	-2.43	µg/L	-2.43	ppb	00:22:33
1	SiO2†	1790.8	0.6	0.0484	µg/L	0.0484	ppb	00:22:13
1	Si 251.611†	1020.2	175.2	2.5808	µg/L	2.5808	ppb	00:22:13
1	Sn 189.927†	0.3	1.4	0.0914	µg/L	0.0914	ppb	00:22:33
1	Ti 334.940†	1320.8	357.3	0.3381	µg/L	0.3381	ppb	00:22:13
1	Tl 190.801†	-122.8	-5.1	-0.6310	µg/L	-0.6310	ppb	00:22:33
1	U 409.014†	-460.1	-186.4	-10.938	µg/L	-10.938	ppb	00:22:13
1	V 292.402†	259.1	-146.8	-0.7228	µg/L	-0.7228	ppb	00:22:13
1	Zn 213.857†	639.8	70.1	0.3935	µg/L	0.3935	ppb	00:22:33
2	Sc RADIAL	145208.1	145208.1	99.5	%			00:21:25
2	Al 396.153Radial†	-65.6	-2.7	-0.5302	µg/L	-0.5302	ppb	00:21:45
2	Ca 317.933Radial†	617.9	60.4	3.3625	µg/L	3.3625	ppb	00:21:45
2	Fe 238.204 Radial†	235.5	88.5	5.4567	µg/L	5.4567	ppb	00:21:45
2	K 766.490 Radial†	1643.3	106.7	39.066	µg/L	39.066	ppb	00:21:25
2	Mg 279.077 IEC†	181.7	-8.1	-2.9996	µg/L	-2.9996	ppb	00:21:45
2	Na 589.592 Radial†	1254.4	-30.2	-4.1540	µg/L	-4.1540	ppb	00:21:25
2	Sr 421.552†	-222.0	-87.8	-0.1826	µg/L	-0.1826	ppb	00:21:25
2	Sc 361.383	1746141.6	1746141.6	101.63	%			00:22:35
2	Y 371.029	1043093.8	1043093.8	101.60	%			00:22:35
2	Ag 328.068†	4083.1	-73.6	-0.2839	µg/L	-0.2839	ppb	00:22:37
2	As 188.979†	-16.6	4.0	1.2226	µg/L	1.2226	ppb	00:22:58
2	B 249.677†	3623.9	60.1	0.8842	µg/L	0.8842	ppb	00:22:37
2	Ba 233.527†	-136.2	1.9	0.0073	µg/L	0.0073	ppb	00:22:58
2	Be 313.107†	-917.5	161.8	0.0425	µg/L	0.0425	ppb	00:22:37
2	Cd 226.502†	-112.9	7.1	0.0435	µg/L	0.0435	ppb	00:22:58
2	Co 228.616†	-155.9	36.9	0.4553	µg/L	0.4553	ppb	00:22:58
2	Cr 267.716†	191.2	9.5	0.0788	µg/L	0.0788	ppb	00:22:58
2	Cu 324.752†	3030.9	10.2	0.0363	µg/L	0.0363	ppb	00:22:37
2	Mn 257.610†	340.6	97.9	0.1212	µg/L	0.1212	ppb	00:22:58
2	Mo 202.031†	-3.6	16.6	0.4868	µg/L	0.4868	ppb	00:22:58
2	Ni 231.604†	-126.7	-48.2	-0.5549	µg/L	-0.5549	ppb	00:22:58
2	P 214.914†	-18.2	0.0	-0.0021	µg/L	-0.0021	ppb	00:22:58
2	Pb 220.353†	80.1	-7.6	-0.4191	µg/L	-0.4191	ppb	00:22:58

2	S 181.975 Axial†	92.6	-14.0	-10.355 µg/L	-10.355 ppb	00:22:58
2	Sb 206.836†	74.8	-7.3	-0.8573 µg/L	-0.8573 ppb	00:22:58
2	Se 196.026†	29.6	13.8	5.00 µg/L	5.00 ppb	00:22:58
2	SiO2†	1807.1	2.8	0.2551 µg/L	0.2551 ppb	00:22:37
2	Si 251.611†	912.7	61.5	0.8976 µg/L	0.8976 ppb	00:22:37
2	Sn 189.927†	5.4	6.4	0.3994 µg/L	0.3994 ppb	00:22:58
2	Ti 334.940†	911.5	-55.7	-0.0496 µg/L	-0.0496 ppb	00:22:37
2	Tl 190.801†	-107.6	10.8	1.3219 µg/L	1.3219 ppb	00:22:58
2	U 409.014†	-364.0	-88.2	-5.1839 µg/L	-5.1839 ppb	00:22:37
2	V 292.402†	324.6	-84.4	-0.4104 µg/L	-0.4104 ppb	00:22:37
2	Zn 213.857†	602.5	28.4	0.1627 µg/L	0.1627 ppb	00:22:58
3	Sc RADIAL	142939.6	142939.6	98.0 %		00:21:47
3	Al 396.153Radial†	-66.5	-4.7	-0.8930 µg/L	-0.8930 ppb	00:22:07
3	Ca 317.933Radial†	598.8	50.7	2.8256 µg/L	2.8256 ppb	00:22:07
3	Fe 238.204 Radial†	216.5	73.0	4.4964 µg/L	4.4964 ppb	00:22:07
3	K 766.490 Radial†	1593.8	82.4	30.155 µg/L	30.155 ppb	00:21:47
3	Mg 279.077 IEC†	176.4	-10.6	-3.9486 µg/L	-3.9486 ppb	00:22:07
3	Na 589.592 Radial†	1336.7	73.9	10.067 µg/L	10.067 ppb	00:21:47
3	Sr 421.552†	-79.1	54.6	0.1134 µg/L	0.1134 ppb	00:21:47
3	Sc 361.383	1720285.6	1720285.6	100.12 %		00:23:00
3	Y 371.029	1027937.7	1027937.7	100.12 %		00:23:00
3	Ag 328.068†	3952.7	-143.5	-0.5516 µg/L	-0.5516 ppb	00:23:02
3	As 188.979†	-14.9	5.5	1.6581 µg/L	1.6581 ppb	00:23:22
3	B 249.677†	3577.4	67.2	0.9901 µg/L	0.9901 ppb	00:23:02
3	Ba 233.527†	-138.9	-2.8	-0.0116 µg/L	-0.0116 ppb	00:23:22
3	Be 313.107†	-853.9	211.9	0.0539 µg/L	0.0539 ppb	00:23:02
3	Cd 226.502†	-97.9	20.4	0.1268 µg/L	0.1268 ppb	00:23:22
3	Co 228.616†	-169.6	20.9	0.2575 µg/L	0.2575 ppb	00:23:22
3	Cr 267.716†	194.2	15.4	0.1307 µg/L	0.1307 ppb	00:23:22
3	Cu 324.752†	2897.3	-78.4	-0.3143 µg/L	-0.3143 ppb	00:23:02
3	Mn 257.610†	316.9	79.2	0.0982 µg/L	0.0982 ppb	00:23:22
3	Mo 202.031†	-2.4	17.7	0.5206 µg/L	0.5206 ppb	00:23:22
3	Ni 231.604†	-79.7	-3.1	-0.0357 µg/L	-0.0357 ppb	00:23:22
3	P 214.914†	-14.8	3.1	0.6703 µg/L	0.6703 ppb	00:23:22
3	Pb 220.353†	65.3	-21.2	-1.1703 µg/L	-1.1703 ppb	00:23:22
3	S 181.975 Axial†	96.4	-8.8	-6.5340 µg/L	-6.5340 ppb	00:23:22
3	Sb 206.836†	95.7	14.7	1.7585 µg/L	1.7585 ppb	00:23:22
3	Se 196.026†	27.8	12.5	4.51 µg/L	4.51 ppb	00:23:22
3	SiO2†	1722.4	-55.0	-5.4009 µg/L	-5.4009 ppb	00:23:02
3	Si 251.611†	906.7	69.0	1.0061 µg/L	1.0061 ppb	00:23:02
3	Sn 189.927†	9.3	10.4	0.6455 µg/L	0.6455 ppb	00:23:22
3	Ti 334.940†	750.5	-203.0	-0.1841 µg/L	-0.1841 ppb	00:23:02
3	Tl 190.801†	-113.2	3.6	0.4390 µg/L	0.4390 ppb	00:23:22
3	U 409.014†	-484.4	-213.9	-12.531 µg/L	-12.531 ppb	00:23:02
3	V 292.402†	320.4	-83.8	-0.4117 µg/L	-0.4117 ppb	00:23:02
3	Zn 213.857†	604.4	39.2	0.2202 µg/L	0.2202 ppb	00:23:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733000.6	100.86	%	0.753				0.75%
Sc RADIAL	143719.2	98.5	%	0.88				0.90%
Y 371.029	1035325.4	100.84	%	0.739				0.73%
Ag 328.068†	-124.5	-0.4789	µg/L	0.17068	-0.4789	ppb	0.17068	35.64%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.1	0.1890	µg/L	1.57038	0.1890	ppb	1.57038	830.86%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.6	0.7841	µg/L	1.15723	0.7841	ppb	1.15723	147.58%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	21.4	0.3144	µg/L	1.08004	0.3144	ppb	1.08004	343.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.1	0.0405	µg/L	0.07440	0.0405	ppb	0.07440	183.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	174.0	0.0445	µg/L	0.00860	0.0445	ppb	0.00860	19.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	68.8	3.8338	µg/L	1.30912	3.8338	ppb	1.30912	34.15%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	15.0	0.0930	µg/L	0.04379	0.0930	ppb	0.04379	47.11%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	29.4	0.3629	µg/L	0.09956	0.3629	ppb	0.09956	27.44%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.8      0.0763 µg/L       0.05570      0.0763 ppb        0.05570  73.02%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -26.9     -0.1114 µg/L       0.18174     -0.1114 ppb        0.18174 163.21%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         86.8      5.3509 µg/L       0.80679      5.3509 ppb        0.80679  15.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         140.9      51.578 µg/L       29.7235      51.578 ppb        29.7235  57.63%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.3     -0.8527 µg/L       4.56498     -0.8527 ppb        4.56498 535.33%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                96.9      0.1200 µg/L       0.02117      0.1200 ppb        0.02117  17.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.1      0.3848 µg/L       0.20656      0.3848 ppb        0.20656  53.68%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         33.4      4.5235 µg/L       7.61088      4.5235 ppb        7.61088 168.25%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -18.7     -0.2157 µg/L       0.29398     -0.2157 ppb        0.29398 136.32%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.1     -0.0241 µg/L       0.70567     -0.0241 ppb        0.70567 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -19.0     -1.0513 µg/L       0.58190     -1.0513 ppb        0.58190  55.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -11.2     -8.2812 µg/L       1.93130     -8.2812 ppb        1.93130  23.32%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.8      0.6943 µg/L       1.37431      0.6943 ppb        1.37431 197.94%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.5        2.36 µg/L         4.154        2.36 ppb          4.154 176.05%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -17.2     -1.6992 µg/L       3.20748     -1.6992 ppb        3.20748 188.77%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               101.9      1.4948 µg/L       0.94203      1.4948 ppb        0.94203  63.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.1      0.3788 µg/L       0.27765      0.3788 ppb        0.27765  73.30%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -26.9     -0.0560 µg/L       0.15260     -0.0560 ppb        0.15260 272.31%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                32.9      0.0348 µg/L       0.27113      0.0348 ppb        0.27113 779.57%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.1      0.3767 µg/L       0.97795      0.3767 ppb        0.97795 259.64%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -162.8     -9.5509 µg/L       3.86489     -9.5509 ppb        3.86489  40.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -105.0     -0.5150 µg/L       0.18000     -0.5150 ppb        0.18000  34.95%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                45.9      0.2588 µg/L       0.12016      0.2588 ppb        0.12016  46.42%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 147
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 0:42:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145422.4	145422.4	99.7	%			00:43:24
1	Al 396.153Radial†	26455.2	26610.7	4911.5	µg/L	4911.5	ppb	00:43:24
1	Ca 317.933Radial†	86831.3	86573.7	4822.5	µg/L	4822.5	ppb	00:43:24
1	Fe 238.204 Radial†	77746.7	77869.8	4799.4	µg/L	4799.4	ppb	00:43:24
1	K 766.490 Radial†	15151.4	13659.4	4997.0	µg/L	4997.0	ppb	00:43:24
1	Mg 279.077 IEC†	13235.9	13091.4	4885.2	µg/L	4885.2	ppb	00:43:24
1	Na 589.592 Radial†	71616.2	70575.3	9637.0	µg/L	9637.0	ppb	00:43:24
1	Sr 421.552†	232582.8	233529.5	485.46	µg/L	485.46	ppb	00:43:22
1	Sc 361.383	1743598.2	1743598.2	101.48	%			00:43:51
1	Y 371.029	1031066.0	1031066.0	100.43	%			00:43:51
1	Ag 328.068†	133467.0	127432.8	477.84	µg/L	477.84	ppb	00:43:51
1	As 188.979†	1622.1	1618.8	496.49	µg/L	496.49	ppb	00:44:11
1	B 249.677†	35840.6	31813.0	467.53	µg/L	467.53	ppb	00:43:51
1	Ba 233.527†	120186.4	118572.7	478.20	µg/L	478.20	ppb	00:43:51
1	Be 313.107†	1790824.1	1765820.8	480.94	µg/L	480.94	ppb	00:43:51
1	Cd 226.502†	76550.4	75554.3	471.64	µg/L	471.64	ppb	00:43:51
1	Co 228.616†	38943.5	38566.9	476.11	µg/L	476.11	ppb	00:43:51
1	Cr 267.716†	61701.1	60624.4	474.67	µg/L	474.67	ppb	00:43:51
1	Cu 324.752†	126928.7	122108.9	476.02	µg/L	476.02	ppb	00:43:51
1	Mn 257.610†	393495.6	387530.4	479.28	µg/L	479.28	ppb	00:43:51
1	Mo 202.031†	16401.2	16182.5	476.02	µg/L	476.02	ppb	00:44:11
1	Ni 231.604†	41723.3	41192.5	474.30	µg/L	474.30	ppb	00:43:51
1	P 214.914†	11221.8	11076.4	2360.8	µg/L	2360.8	ppb	00:44:11
1	Pb 220.353†	8738.0	8524.4	477.36	µg/L	477.36	ppb	00:44:11
1	S 181.975 Axial†	1370.2	1245.2	928.69	µg/L	928.69	ppb	00:44:11
1	Sb 206.836†	4135.6	3994.6	475.95	µg/L	475.95	ppb	00:44:11
1	Se 196.026†	1352.3	1317.3	478	µg/L	478	ppb	00:44:11
1	SiO2†	55049.3	52472.6	5108.4	µg/L	5108.4	ppb	00:43:51
1	Si 251.611†	166176.8	162921.3	2392.5	µg/L	2392.5	ppb	00:43:51
1	Sn 189.927†	7712.3	7601.2	475.47	µg/L	475.47	ppb	00:44:11
1	Ti 334.940†	521331.2	512790.0	478.47	µg/L	478.47	ppb	00:43:51
1	Tl 190.801†	3813.4	3874.6	483.26	µg/L	483.26	ppb	00:44:11
1	U 409.014†	7540.1	7700.2	479.18	µg/L	479.18	ppb	00:43:51
1	V 292.402†	98936.9	97093.0	479.96	µg/L	479.96	ppb	00:43:51
1	Zn 213.857†	85977.6	84161.6	469.05	µg/L	469.05	ppb	00:43:51
2	Sc RADIAL	145725.8	145725.8	99.9	%			00:43:28
2	Al 396.153Radial†	26577.9	26678.3	4924.3	µg/L	4924.3	ppb	00:43:28
2	Ca 317.933Radial†	86949.3	86510.4	4819.0	µg/L	4819.0	ppb	00:43:28
2	Fe 238.204 Radial†	77908.9	77869.8	4799.4	µg/L	4799.4	ppb	00:43:28
2	K 766.490 Radial†	15116.5	13592.9	4972.6	µg/L	4972.6	ppb	00:43:28
2	Mg 279.077 IEC†	13204.2	13032.0	4862.9	µg/L	4862.9	ppb	00:43:28
2	Na 589.592 Radial†	71600.4	70409.8	9614.4	µg/L	9614.4	ppb	00:43:28
2	Sr 421.552†	232081.7	232541.8	483.40	µg/L	483.40	ppb	00:43:26
2	Sc 361.383	1761627.7	1761627.7	102.53	%			00:44:14
2	Y 371.029	1041782.4	1041782.4	101.47	%			00:44:14
2	Ag 328.068†	135437.6	128008.7	479.98	µg/L	479.98	ppb	00:44:14
2	As 188.979†	1618.9	1599.4	490.58	µg/L	490.58	ppb	00:44:34
2	B 249.677†	36451.8	32047.6	470.98	µg/L	470.98	ppb	00:44:14
2	Ba 233.527†	121402.3	118546.6	478.09	µg/L	478.09	ppb	00:44:14
2	Be 313.107†	1815831.0	1772149.9	482.66	µg/L	482.66	ppb	00:44:14
2	Cd 226.502†	77854.0	76053.7	474.76	µg/L	474.76	ppb	00:44:14
2	Co 228.616†	39625.6	38839.4	479.47	µg/L	479.47	ppb	00:44:14
2	Cr 267.716†	62161.5	60451.1	473.32	µg/L	473.32	ppb	00:44:14
2	Cu 324.752†	128573.2	122432.6	477.28	µg/L	477.28	ppb	00:44:14
2	Mn 257.610†	398371.0	388317.0	480.26	µg/L	480.26	ppb	00:44:14
2	Mo 202.031†	16410.2	16025.9	471.42	µg/L	471.42	ppb	00:44:34
2	Ni 231.604†	42364.7	41397.3	476.66	µg/L	476.66	ppb	00:44:14
2	P 214.914†	11239.3	10980.3	2340.3	µg/L	2340.3	ppb	00:44:34
2	Pb 220.353†	8812.8	8509.3	476.51	µg/L	476.51	ppb	00:44:34

2	S 181.975 Axial†	1368.5	1229.8	917.16 µg/L	917.16 ppb	00:44:34
2	Sb 206.836†	4132.0	3949.3	470.52 µg/L	470.52 ppb	00:44:34
2	Se 196.026†	1324.7	1276.8	464 µg/L	464 ppb	00:44:34
2	SiO2†	55692.7	52545.0	5115.6 µg/L	5115.6 ppb	00:44:14
2	Si 251.611†	168404.8	163418.4	2399.9 µg/L	2399.9 ppb	00:44:14
2	Sn 189.927†	7723.1	7533.9	471.28 µg/L	471.28 ppb	00:44:34
2	Ti 334.940†	526897.4	512961.1	478.63 µg/L	478.63 ppb	00:44:14
2	Tl 190.801†	3822.8	3845.3	479.65 µg/L	479.65 ppb	00:44:34
2	U 409.014†	7487.3	7572.7	471.77 µg/L	471.77 ppb	00:44:14
2	V 292.402†	100123.8	97252.7	480.69 µg/L	480.69 ppb	00:44:14
2	Zn 213.857†	87731.8	85005.5	473.77 µg/L	473.77 ppb	00:44:14
3	Sc RADIAL	145384.0	145384.0	99.6 %		00:43:32
3	Al 396.153Radial†	26816.5	26980.4	4980.1 µg/L	4980.1 ppb	00:43:32
3	Ca 317.933Radial†	87178.4	86945.1	4843.2 µg/L	4843.2 ppb	00:43:32
3	Fe 238.204 Radial†	78269.7	78415.4	4833.0 µg/L	4833.0 ppb	00:43:32
3	K 766.490 Radial†	15108.8	13620.7	4982.8 µg/L	4982.8 ppb	00:43:32
3	Mg 279.077 IEC†	13407.1	13266.7	4950.4 µg/L	4950.4 ppb	00:43:32
3	Na 589.592 Radial†	71569.6	70547.5	9633.2 µg/L	9633.2 ppb	00:43:32
3	Sr 421.552†	232881.6	233891.1	486.21 µg/L	486.21 ppb	00:43:30
3	Sc 361.383	1742785.1	1742785.1	101.43 %		00:44:37
3	Y 371.029	1031123.9	1031123.9	100.43 %		00:44:37
3	Ag 328.068†	133463.3	127490.6	478.04 µg/L	478.04 ppb	00:44:37
3	As 188.979†	1602.4	1600.2	490.85 µg/L	490.85 ppb	00:44:57
3	B 249.677†	35982.1	31968.9	469.83 µg/L	469.83 ppb	00:44:37
3	Ba 233.527†	120198.2	118639.6	478.47 µg/L	478.47 ppb	00:44:37
3	Be 313.107†	1793841.1	1769618.6	481.97 µg/L	481.97 ppb	00:44:37
3	Cd 226.502†	76743.1	75779.4	473.04 µg/L	473.04 ppb	00:44:37
3	Co 228.616†	39088.6	38727.9	478.09 µg/L	478.09 ppb	00:44:37
3	Cr 267.716†	61579.9	60533.3	473.97 µg/L	473.97 ppb	00:44:37
3	Cu 324.752†	127002.6	122240.1	476.52 µg/L	476.52 ppb	00:44:37
3	Mn 257.610†	393720.4	387932.9	479.78 µg/L	479.78 ppb	00:44:37
3	Mo 202.031†	16368.1	16157.5	475.29 µg/L	475.29 ppb	00:44:57
3	Ni 231.604†	41714.9	41203.3	474.43 µg/L	474.43 ppb	00:44:37
3	P 214.914†	11213.9	11073.8	2360.3 µg/L	2360.3 ppb	00:44:57
3	Pb 220.353†	8765.9	8556.0	479.14 µg/L	479.14 ppb	00:44:57
3	S 181.975 Axial†	1369.3	1244.9	928.45 µg/L	928.45 ppb	00:44:57
3	Sb 206.836†	4132.6	3993.6	475.83 µg/L	475.83 ppb	00:44:57
3	Se 196.026†	1350.4	1316.1	478 µg/L	478 ppb	00:44:57
3	SiO2†	54988.6	52438.1	5105.0 µg/L	5105.0 ppb	00:44:37
3	Si 251.611†	166378.2	163196.2	2396.5 µg/L	2396.5 ppb	00:44:37
3	Sn 189.927†	7736.3	7628.4	477.16 µg/L	477.16 ppb	00:44:57
3	Ti 334.940†	521282.1	512981.2	478.65 µg/L	478.65 ppb	00:44:37
3	Tl 190.801†	3826.1	3888.8	485.00 µg/L	485.00 ppb	00:44:57
3	U 409.014†	7233.1	7401.1	461.69 µg/L	461.69 ppb	00:44:37
3	V 292.402†	98911.9	97113.8	480.04 µg/L	480.04 ppb	00:44:37
3	Zn 213.857†	86546.2	84761.8	472.42 µg/L	472.42 ppb	00:44:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1749337.0	101.81	%	0.620				0.61%
Sc RADIAL	145510.7	99.7	%	0.13				0.13%
Y 371.029	1034657.4	100.78	%	0.601				0.60%
Ag 328.068†	127644.0	478.62	µg/L	1.180	478.62	ppb	1.180	0.25%
QC value within limits for Ag 328.068 Recovery = 95.72%								
Al 396.153Radial†	26756.5	4938.6	µg/L	36.47	4938.6	ppb	36.47	0.74%
QC value within limits for Al 396.153Radial Recovery = 98.77%								
As 188.979†	1606.1	492.64	µg/L	3.336	492.64	ppb	3.336	0.68%
QC value within limits for As 188.979 Recovery = 98.53%								
B 249.677†	31943.2	469.45	µg/L	1.755	469.45	ppb	1.755	0.37%
QC value within limits for B 249.677 Recovery = 93.89%								
Ba 233.527†	118586.3	478.25	µg/L	0.193	478.25	ppb	0.193	0.04%
QC value within limits for Ba 233.527 Recovery = 95.65%								
Be 313.107†	1769196.4	481.85	µg/L	0.866	481.85	ppb	0.866	0.18%
QC value within limits for Be 313.107 Recovery = 96.37%								
Ca 317.933Radial†	86676.4	4828.2	µg/L	13.08	4828.2	ppb	13.08	0.27%
QC value within limits for Ca 317.933Radial Recovery = 96.56%								
Cd 226.502†	75795.8	473.15	µg/L	1.563	473.15	ppb	1.563	0.33%
QC value within limits for Cd 226.502 Recovery = 94.63%								
Co 228.616†	38711.4	477.89	µg/L	1.690	477.89	ppb	1.690	0.35%

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   QC value within limits for Co 228.616  Recovery = 95.58%
Cr 267.716†            60536.3      473.99 µg/L         0.676      473.99 ppb          0.676   0.14%
   QC value within limits for Cr 267.716  Recovery = 94.80%
Cu 324.752†           122260.5      476.61 µg/L         0.631      476.61 ppb          0.631   0.13%
   QC value within limits for Cu 324.752  Recovery = 95.32%
Fe 238.204 Radial†     78051.7      4810.6 µg/L         19.41      4810.6 ppb          19.41   0.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.21%
K 766.490 Radial†      13624.4      4984.1 µg/L         12.24      4984.1 ppb          12.24   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 99.68%
Mg 279.077 IEC†        13130.0      4899.5 µg/L         45.49      4899.5 ppb          45.49   0.93%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.99%
Mn 257.610†           387926.8      479.77 µg/L         0.487      479.77 ppb          0.487   0.10%
   QC value within limits for Mn 257.610  Recovery = 95.95%
Mo 202.031†            16121.9      474.24 µg/L         2.474      474.24 ppb          2.474   0.52%
   QC value within limits for Mo 202.031  Recovery = 94.85%
Na 589.592 Radial†     70510.9      9628.2 µg/L         12.09      9628.2 ppb          12.09   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 96.28%
Ni 231.604†            41264.4      475.13 µg/L         1.327      475.13 ppb          1.327   0.28%
   QC value within limits for Ni 231.604  Recovery = 95.03%
P 214.914†             11043.5      2353.8 µg/L         11.71      2353.8 ppb          11.71   0.50%
   QC value within limits for P 214.914  Recovery = 94.15%
Pb 220.353†             8529.9      477.67 µg/L         1.340      477.67 ppb          1.340   0.28%
   QC value within limits for Pb 220.353  Recovery = 95.53%
S 181.975 Axial†        1240.0      924.77 µg/L         6.587      924.77 ppb          6.587   0.71%
   QC value within limits for S 181.975 Axial  Recovery = 92.48%
Sb 206.836†             3979.2      474.10 µg/L         3.102      474.10 ppb          3.102   0.65%
   QC value within limits for Sb 206.836  Recovery = 94.82%
Se 196.026†             1303.4         473 µg/L           8.3         473 ppb            8.3   1.76%
   QC value within limits for Se 196.026  Recovery = 94.66%
SiO2†                  52485.2      5109.7 µg/L          5.44      5109.7 ppb           5.44   0.11%
   QC value within limits for SiO2  Recovery = 95.55%
Si 251.611†           163178.7      2396.3 µg/L          3.71      2396.3 ppb           3.71   0.15%
   QC value within limits for Si 251.611  Recovery = 95.85%
Sn 189.927†             7587.8      474.63 µg/L         3.030      474.63 ppb          3.030   0.64%
   QC value within limits for Sn 189.927  Recovery = 94.93%
Sr 421.552†           233320.8      485.02 µg/L         1.452      485.02 ppb          1.452   0.30%
   QC value within limits for Sr 421.552  Recovery = 97.00%
Ti 334.940†           512910.7      478.58 µg/L         0.100      478.58 ppb          0.100   0.02%
   QC value within limits for Ti 334.940  Recovery = 95.72%
Tl 190.801†             3869.6      482.64 µg/L         2.728      482.64 ppb          2.728   0.57%
   QC value within limits for Tl 190.801  Recovery = 96.53%
U 409.014†              7558.0      470.88 µg/L         8.779      470.88 ppb          8.779   1.86%
   QC value within limits for U 409.014  Recovery = 94.18%
V 292.402†             97153.2      480.23 µg/L         0.396      480.23 ppb          0.396   0.08%
   QC value within limits for V 292.402  Recovery = 96.05%
Zn 213.857†            84643.0      471.74 µg/L         2.432      471.74 ppb          2.432   0.52%
   QC value within limits for Zn 213.857  Recovery = 94.35%
All analyte(s) passed QC.
```

Sequence No.: 148
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 0:45:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145813.7	145813.7	99.9	%			00:45:34
1	Al 396.153Radial†	-21.5	41.7	7.7141	µg/L	7.7141	ppb	00:45:54
1	Ca 317.933Radial†	660.7	100.6	5.6043	µg/L	5.6043	ppb	00:45:54
1	Fe 238.204 Radial†	255.4	107.5	6.6275	µg/L	6.6275	ppb	00:45:54
1	K 766.490 Radial†	1930.6	387.4	141.83	µg/L	141.83	ppb	00:45:34
1	Mg 279.077 IEC†	169.2	-21.4	-7.9590	µg/L	-7.9590	ppb	00:45:54
1	Na 589.592 Radial†	1419.6	130.0	17.627	µg/L	17.627	ppb	00:45:34
1	Sr 421.552†	-123.1	12.1	0.0251	µg/L	0.0251	ppb	00:45:34
1	Sc 361.383	1750408.8	1750408.8	101.87	%			00:46:42
1	Y 371.029	1046340.0	1046340.0	101.91	%			00:46:42
1	Ag 328.068†	4173.7	5.5	0.0313	µg/L	0.0313	ppb	00:46:44
1	As 188.979†	-12.6	8.0	2.4214	µg/L	2.4214	ppb	00:47:04
1	B 249.677†	3555.6	-15.7	-0.2323	µg/L	-0.2323	ppb	00:47:04
1	Ba 233.527†	-101.3	36.4	0.1474	µg/L	0.1474	ppb	00:47:04
1	Be 313.107†	-795.6	283.7	0.0772	µg/L	0.0772	ppb	00:46:44
1	Cd 226.502†	-95.6	24.3	0.1514	µg/L	0.1514	ppb	00:47:04
1	Co 228.616†	-179.6	14.0	0.1728	µg/L	0.1728	ppb	00:47:04
1	Cr 267.716†	177.0	-4.8	-0.0365	µg/L	-0.0365	ppb	00:47:04
1	Cu 324.752†	2909.7	-116.1	-0.4503	µg/L	-0.4503	ppb	00:46:44
1	Mn 257.610†	386.8	142.4	0.1765	µg/L	0.1765	ppb	00:47:04
1	Mo 202.031†	-2.5	17.7	0.5193	µg/L	0.5193	ppb	00:47:04
1	Ni 231.604†	-67.3	10.4	0.1201	µg/L	0.1201	ppb	00:47:04
1	P 214.914†	-26.0	-7.6	-1.6208	µg/L	-1.6208	ppb	00:47:04
1	Pb 220.353†	94.4	6.3	0.3548	µg/L	0.3548	ppb	00:47:04
1	S 181.975 Axial†	101.3	-5.6	-4.1728	µg/L	-4.1728	ppb	00:47:04
1	Sb 206.836†	78.6	-3.7	-0.4248	µg/L	-0.4248	ppb	00:47:04
1	Se 196.026†	14.9	-0.6	-0.221	µg/L	-0.221	ppb	00:47:04
1	SiO2†	1836.9	27.8	2.6939	µg/L	2.6939	ppb	00:47:04
1	Si 251.611†	938.9	85.0	1.2435	µg/L	1.2435	ppb	00:46:44
1	Sn 189.927†	6.9	7.9	0.4933	µg/L	0.4933	ppb	00:47:04
1	Ti 334.940†	1245.9	270.5	0.2536	µg/L	0.2536	ppb	00:46:44
1	Tl 190.801†	-106.7	11.9	1.4748	µg/L	1.4748	ppb	00:47:04
1	U 409.014†	-279.4	-4.3	-0.1987	µg/L	-0.1987	ppb	00:46:44
1	V 292.402†	610.8	195.8	0.9591	µg/L	0.9591	ppb	00:46:44
1	Zn 213.857†	602.2	26.7	0.1490	µg/L	0.1490	ppb	00:47:04
2	Sc RADIAL	145033.3	145033.3	99.4	%			00:45:56
2	Al 396.153Radial†	-65.1	-2.3	-0.4158	µg/L	-0.4158	ppb	00:46:16
2	Ca 317.933Radial†	657.9	101.4	5.6466	µg/L	5.6466	ppb	00:46:16
2	Fe 238.204 Radial†	255.9	109.4	6.7397	µg/L	6.7397	ppb	00:46:16
2	K 766.490 Radial†	1898.9	365.8	133.93	µg/L	133.93	ppb	00:45:56
2	Mg 279.077 IEC†	184.6	-5.0	-1.8665	µg/L	-1.8665	ppb	00:46:16
2	Na 589.592 Radial†	1425.5	143.5	19.480	µg/L	19.480	ppb	00:45:56
2	Sr 421.552†	-181.0	-46.9	-0.0975	µg/L	-0.0975	ppb	00:45:56
2	Sc 361.383	1733689.5	1733689.5	100.90	%			00:47:06
2	Y 371.029	1035932.6	1035932.6	100.90	%			00:47:06
2	Ag 328.068†	4170.2	41.6	0.1255	µg/L	0.1255	ppb	00:47:08
2	As 188.979†	-26.8	-6.2	-1.8781	µg/L	-1.8781	ppb	00:47:28
2	B 249.677†	3534.2	-3.2	-0.0484	µg/L	-0.0484	ppb	00:47:28
2	Ba 233.527†	-142.6	-5.5	-0.0225	µg/L	-0.0225	ppb	00:47:28
2	Be 313.107†	-653.6	416.9	0.1076	µg/L	0.1076	ppb	00:47:08
2	Cd 226.502†	-96.3	22.8	0.1415	µg/L	0.1415	ppb	00:47:28
2	Co 228.616†	-179.3	12.7	0.1558	µg/L	0.1558	ppb	00:47:28
2	Cr 267.716†	198.6	18.3	0.1585	µg/L	0.1585	ppb	00:47:28
2	Cu 324.752†	3088.6	88.8	0.3301	µg/L	0.3301	ppb	00:47:08
2	Mn 257.610†	332.3	92.1	0.1140	µg/L	0.1140	ppb	00:47:28
2	Mo 202.031†	-28.0	-7.7	-0.2262	µg/L	-0.2262	ppb	00:47:28
2	Ni 231.604†	-93.8	-16.5	-0.1899	µg/L	-0.1899	ppb	00:47:28
2	P 214.914†	-21.8	-3.7	-0.7885	µg/L	-0.7885	ppb	00:47:28
2	Pb 220.353†	61.7	-25.2	-1.3944	µg/L	-1.3944	ppb	00:47:28

2	S 181.975 Axial†	90.5	-15.4	-11.437	µg/L	-11.437 ppb	00:47:28
2	Sb 206.836†	79.2	-2.4	-0.2858	µg/L	-0.2858 ppb	00:47:28
2	Se 196.026†	19.9	4.4	1.59	µg/L	1.59 ppb	00:47:28
2	SiO2†	1761.9	-29.2	-2.8510	µg/L	-2.8510 ppb	00:47:28
2	Si 251.611†	952.2	107.2	1.5818	µg/L	1.5818 ppb	00:47:08
2	Sn 189.927†	1.6	2.7	0.1708	µg/L	0.1708 ppb	00:47:28
2	Ti 334.940†	1138.7	176.0	0.1727	µg/L	0.1727 ppb	00:47:08
2	Tl 190.801†	-112.9	4.8	0.5868	µg/L	0.5868 ppb	00:47:28
2	U 409.014†	-610.9	-335.5	-19.639	µg/L	-19.639 ppb	00:47:08
2	V 292.402†	335.6	-71.2	-0.3633	µg/L	-0.3633 ppb	00:47:08
2	Zn 213.857†	609.0	39.1	0.2201	µg/L	0.2201 ppb	00:47:28
3	Sc RADIAL	144640.1	144640.1	99.1	%		00:46:18
3	Al 396.153Radial†	-16.5	46.5	8.6229	µg/L	8.6229 ppb	00:46:38
3	Ca 317.933Radial†	641.2	86.3	4.8083	µg/L	4.8083 ppb	00:46:38
3	Fe 238.204 Radial†	234.4	88.4	5.4482	µg/L	5.4482 ppb	00:46:38
3	K 766.490 Radial†	1840.5	312.1	114.26	µg/L	114.26 ppb	00:46:18
3	Mg 279.077 IEC†	179.1	-10.0	-3.7407	µg/L	-3.7407 ppb	00:46:38
3	Na 589.592 Radial†	1296.3	17.0	2.2230	µg/L	2.2230 ppb	00:46:18
3	Sr 421.552†	-133.6	0.5	0.0010	µg/L	0.0010 ppb	00:46:18
3	Sc 361.383	1767241.8	1767241.8	102.85	%		00:47:31
3	Y 371.029	1055815.3	1055815.3	102.84	%		00:47:31
3	Ag 328.068†	4233.0	24.2	0.0732	µg/L	0.0732 ppb	00:47:33
3	As 188.979†	-18.4	2.5	0.7561	µg/L	0.7561 ppb	00:47:53
3	B 249.677†	3514.8	-88.6	-1.3075	µg/L	-1.3075 ppb	00:47:53
3	Ba 233.527†	-120.1	19.1	0.0763	µg/L	0.0763 ppb	00:47:53
3	Be 313.107†	-970.1	121.5	0.0322	µg/L	0.0322 ppb	00:47:33
3	Cd 226.502†	-78.9	41.4	0.2583	µg/L	0.2583 ppb	00:47:53
3	Co 228.616†	-184.4	11.0	0.1355	µg/L	0.1355 ppb	00:47:53
3	Cr 267.716†	190.1	6.2	0.0509	µg/L	0.0509 ppb	00:47:53
3	Cu 324.752†	2968.8	-85.8	-0.3350	µg/L	-0.3350 ppb	00:47:33
3	Mn 257.610†	335.2	88.6	0.1098	µg/L	0.1098 ppb	00:47:53
3	Mo 202.031†	-18.5	2.1	0.0614	µg/L	0.0614 ppb	00:47:53
3	Ni 231.604†	-69.8	8.6	0.0995	µg/L	0.0995 ppb	00:47:53
3	P 214.914†	-21.0	-2.5	-0.5265	µg/L	-0.5265 ppb	00:47:53
3	Pb 220.353†	70.5	-17.8	-0.9923	µg/L	-0.9923 ppb	00:47:53
3	S 181.975 Axial†	109.4	1.3	0.9740	µg/L	0.9740 ppb	00:47:53
3	Sb 206.836†	82.2	-0.9	-0.1044	µg/L	-0.1044 ppb	00:47:53
3	Se 196.026†	22.8	6.9	2.49	µg/L	2.49 ppb	00:47:53
3	SiO2†	1817.9	-7.9	-0.7787	µg/L	-0.7787 ppb	00:47:53
3	Si 251.611†	954.5	91.5	1.3450	µg/L	1.3450 ppb	00:47:33
3	Sn 189.927†	5.8	6.8	0.4211	µg/L	0.4211 ppb	00:47:53
3	Ti 334.940†	1018.9	38.1	0.0372	µg/L	0.0372 ppb	00:47:33
3	Tl 190.801†	-118.1	1.9	0.2233	µg/L	0.2233 ppb	00:47:53
3	U 409.014†	-329.7	-50.7	-3.0245	µg/L	-3.0245 ppb	00:47:33
3	V 292.402†	193.7	-215.4	-1.0528	µg/L	-1.0528 ppb	00:47:33
3	Zn 213.857†	612.8	31.3	0.1753	µg/L	0.1753 ppb	00:47:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1750446.7	101.88	%	0.976				0.96%
Sc RADIAL	145162.4	99.5	%	0.41				0.41%
Y 371.029	1046029.3	101.88	%	0.969				0.95%
Ag 328.068†	23.8	0.0767	µg/L	0.04716	0.0767	ppb	0.04716	61.52%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	28.7	5.3071	µg/L	4.97697	5.3071	ppb	4.97697	93.78%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.4	0.4331	µg/L	2.16790	0.4331	ppb	2.16790	500.51%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-35.9	-0.5294	µg/L	0.68010	-0.5294	ppb	0.68010	128.47%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.7	0.0671	µg/L	0.08530	0.0671	ppb	0.08530	127.20%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	274.1	0.0723	µg/L	0.03793	0.0723	ppb	0.03793	52.45%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	96.1	5.3530	µg/L	0.47226	5.3530	ppb	0.47226	8.82%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	29.5	0.1837	µg/L	0.06479	0.1837	ppb	0.06479	35.27%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.6	0.1547	µg/L	0.01867	0.1547	ppb	0.01867	12.07%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                6.6      0.0576 µg/L       0.09767      0.0576 ppb        0.09767 169.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -37.7     -0.1518 µg/L       0.42126     -0.1518 ppb        0.42126 277.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       101.8      6.2718 µg/L       0.71549      6.2718 ppb        0.71549  11.41%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        355.1      130.01 µg/L        14.197      130.01 ppb         14.197  10.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -12.1     -4.5221 µg/L       3.12050     -4.5221 ppb        3.12050  69.01%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              107.7      0.1334 µg/L       0.03737      0.1334 ppb        0.03737  28.01%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.0      0.1182 µg/L       0.37600      0.1182 ppb        0.37600 318.18%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        96.8      13.110 µg/L        9.4739      13.110 ppb         9.4739  72.26%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                0.9      0.0099 µg/L       0.17332      0.0099 ppb        0.17332 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.6     -0.9786 µg/L       0.57141     -0.9786 ppb        0.57141  58.39%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -12.3     -0.6773 µg/L       0.91616     -0.6773 ppb        0.91616 135.26%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -6.6     -4.8786 µg/L       6.23561     -4.8786 ppb        6.23561 127.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.3     -0.2716 µg/L       0.16066     -0.2716 ppb        0.16066  59.14%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.6        1.28 µg/L         1.379        1.28 ppb          1.379 107.38%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -3.1     -0.3119 µg/L       2.80175     -0.3119 ppb        2.80175 898.16%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               94.6      1.3901 µg/L       0.17359      1.3901 ppb        0.17359  12.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.8      0.3617 µg/L       0.16924      0.3617 ppb        0.16924  46.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -11.4     -0.0238 µg/L       0.06494     -0.0238 ppb        0.06494 273.03%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              161.5      0.1545 µg/L       0.10934      0.1545 ppb        0.10934  70.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.2      0.7616 µg/L       0.64382      0.7616 ppb        0.64382  84.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -130.2     -7.6208 µg/L      10.50370     -7.6208 ppb       10.50370 137.83%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -30.3     -0.1523 µg/L       1.02242     -0.1523 ppb        1.02242 671.32%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               32.4      0.1815 µg/L       0.03598      0.1815 ppb        0.03598  19.83%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 158
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 1:06:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146522.6	146522.6	100	%			01:07:32
1	Al 396.153Radial†	26773.8	26728.7	4933.4	µg/L	4933.4	ppb	01:07:32
1	Ca 317.933Radial†	87529.0	86614.3	4824.8	µg/L	4824.8	ppb	01:07:32
1	Fe 238.204 Radial†	78541.6	78075.8	4812.1	µg/L	4812.1	ppb	01:07:32
1	K 766.490 Radial†	15525.2	13917.7	5091.5	µg/L	5091.5	ppb	01:07:32
1	Mg 279.077 IEC†	13414.6	13169.6	4914.3	µg/L	4914.3	ppb	01:07:32
1	Na 589.592 Radial†	72095.2	70512.7	9628.4	µg/L	9628.4	ppb	01:07:32
1	Sr 421.552†	235357.5	234540.5	487.56	µg/L	487.56	ppb	01:07:30
1	Sc 361.383	1762084.8	1762084.8	102.55	%			01:07:59
1	Y 371.029	1041330.1	1041330.1	101.43	%			01:07:59
1	Ag 328.068†	134973.9	127522.4	478.16	µg/L	478.16	ppb	01:07:59
1	As 188.979†	1631.3	1611.1	494.16	µg/L	494.16	ppb	01:08:19
1	B 249.677†	36407.7	31995.5	470.22	µg/L	470.22	ppb	01:07:59
1	Ba 233.527†	121835.6	118938.4	479.67	µg/L	479.67	ppb	01:07:59
1	Be 313.107†	1812562.4	1768503.2	481.66	µg/L	481.66	ppb	01:07:59
1	Cd 226.502†	77806.6	75987.8	474.35	µg/L	474.35	ppb	01:07:59
1	Co 228.616†	39537.1	38743.2	478.28	µg/L	478.28	ppb	01:07:59
1	Cr 267.716†	62417.9	60685.5	475.17	µg/L	475.17	ppb	01:07:59
1	Cu 324.752†	128335.3	122168.2	476.24	µg/L	476.24	ppb	01:07:59
1	Mn 257.610†	398229.3	388078.1	479.96	µg/L	479.96	ppb	01:07:59
1	Mo 202.031†	16581.6	16188.8	476.21	µg/L	476.21	ppb	01:08:19
1	Ni 231.604†	42325.1	41347.9	476.09	µg/L	476.09	ppb	01:07:59
1	P 214.914†	11363.6	11098.7	2365.6	µg/L	2365.6	ppb	01:08:19
1	Pb 220.353†	8809.5	8503.8	476.23	µg/L	476.23	ppb	01:08:19
1	S 181.975 Axial†	1388.1	1248.5	931.12	µg/L	931.12	ppb	01:08:19
1	Sb 206.836†	4172.3	3987.6	475.12	µg/L	475.12	ppb	01:08:19
1	Se 196.026†	1355.6	1306.5	474	µg/L	474	ppb	01:08:19
1	SiO2†	55579.1	52420.1	5103.2	µg/L	5103.2	ppb	01:07:59
1	Si 251.611†	167664.3	162653.7	2388.5	µg/L	2388.5	ppb	01:07:59
1	Sn 189.927†	7816.4	7622.9	476.82	µg/L	476.82	ppb	01:08:19
1	Ti 334.940†	526571.2	512509.7	478.21	µg/L	478.21	ppb	01:07:59
1	Tl 190.801†	3871.8	3892.1	485.40	µg/L	485.40	ppb	01:08:19
1	U 409.014†	7269.4	7358.4	459.25	µg/L	459.25	ppb	01:07:59
1	V 292.402†	100190.2	97292.2	480.93	µg/L	480.93	ppb	01:07:59
1	Zn 213.857†	87537.1	84793.4	472.58	µg/L	472.58	ppb	01:07:59
2	Sc RADIAL	146791.9	146791.9	101	%			01:07:36
2	Al 396.153Radial†	27048.5	26952.8	4975.0	µg/L	4975.0	ppb	01:07:36
2	Ca 317.933Radial†	87767.1	86691.0	4829.0	µg/L	4829.0	ppb	01:07:36
2	Fe 238.204 Radial†	78690.1	78079.8	4812.4	µg/L	4812.4	ppb	01:07:36
2	K 766.490 Radial†	15502.6	13866.8	5072.9	µg/L	5072.9	ppb	01:07:36
2	Mg 279.077 IEC†	13437.6	13167.9	4913.6	µg/L	4913.6	ppb	01:07:36
2	Na 589.592 Radial†	72405.6	70689.6	9652.5	µg/L	9652.5	ppb	01:07:36
2	Sr 421.552†	234136.0	232896.1	484.14	µg/L	484.14	ppb	01:07:34
2	Sc 361.383	1778604.4	1778604.4	103.51	%			01:08:22
2	Y 371.029	1050375.8	1050375.8	102.31	%			01:08:22
2	Ag 328.068†	136891.1	128152.0	480.51	µg/L	480.51	ppb	01:08:22
2	As 188.979†	1644.9	1609.4	493.66	µg/L	493.66	ppb	01:08:42
2	B 249.677†	36899.1	32140.4	472.35	µg/L	472.35	ppb	01:08:22
2	Ba 233.527†	123076.9	119034.1	480.06	µg/L	480.06	ppb	01:08:22
2	Be 313.107†	1839423.0	1778036.1	484.26	µg/L	484.26	ppb	01:08:22
2	Cd 226.502†	78945.9	76383.7	476.82	µg/L	476.82	ppb	01:08:22
2	Co 228.616†	40112.8	38941.2	480.73	µg/L	480.73	ppb	01:08:22
2	Cr 267.716†	63218.4	60893.4	476.79	µg/L	476.79	ppb	01:08:22
2	Cu 324.752†	130086.8	122697.9	478.30	µg/L	478.30	ppb	01:08:22
2	Mn 257.610†	403480.0	389543.9	481.77	µg/L	481.77	ppb	01:08:22
2	Mo 202.031†	16656.0	16110.6	473.91	µg/L	473.91	ppb	01:08:42
2	Ni 231.604†	42857.3	41478.7	477.60	µg/L	477.60	ppb	01:08:22
2	P 214.914†	11457.7	11086.6	2363.0	µg/L	2363.0	ppb	01:08:42
2	Pb 220.353†	8947.0	8556.9	479.18	µg/L	479.18	ppb	01:08:42

2	S 181.975 Axial†	1398.9	1246.4	929.54 µg/L	929.54 ppb	01:08:42
2	Sb 206.836†	4203.2	3979.6	474.11 µg/L	474.11 ppb	01:08:42
2	Se 196.026†	1349.5	1288.4	468 µg/L	468 ppb	01:08:42
2	SiO2†	56478.7	52785.7	5139.0 µg/L	5139.0 ppb	01:08:22
2	Si 251.611†	170057.2	163446.9	2400.2 µg/L	2400.2 ppb	01:08:22
2	Sn 189.927†	7878.0	7611.7	476.13 µg/L	476.13 ppb	01:08:42
2	Ti 334.940†	533494.1	514428.5	480.00 µg/L	480.00 ppb	01:08:22
2	Tl 190.801†	3890.7	3875.3	483.36 µg/L	483.36 ppb	01:08:42
2	U 409.014†	7435.4	7452.8	464.82 µg/L	464.82 ppb	01:08:22
2	V 292.402†	101287.4	97444.7	481.66 µg/L	481.66 ppb	01:08:22
2	Zn 213.857†	88719.7	85143.1	474.54 µg/L	474.54 ppb	01:08:22
3	Sc RADIAL	146092.3	146092.3	100 %		01:07:40
3	Al 396.153Radial†	26892.5	26925.8	4970.0 µg/L	4970.0 ppb	01:07:40
3	Ca 317.933Radial†	87875.3	87217.0	4858.3 µg/L	4858.3 ppb	01:07:40
3	Fe 238.204 Radial†	78732.4	78496.7	4838.1 µg/L	4838.1 ppb	01:07:40
3	K 766.490 Radial†	15647.7	14085.6	5152.9 µg/L	5152.9 ppb	01:07:40
3	Mg 279.077 IEC†	13491.9	13286.2	4957.7 µg/L	4957.7 ppb	01:07:40
3	Na 589.592 Radial†	72348.8	70977.5	9691.8 µg/L	9691.8 ppb	01:07:40
3	Sr 421.552†	235009.5	234883.4	488.27 µg/L	488.27 ppb	01:07:38
3	Sc 361.383	1770348.4	1770348.4	103.03 %		01:08:45
3	Y 371.029	1045407.1	1045407.1	101.82 %		01:08:45
3	Ag 328.068†	136122.4	128022.6	480.04 µg/L	480.04 ppb	01:08:45
3	As 188.979†	1638.1	1610.2	493.91 µg/L	493.91 ppb	01:09:05
3	B 249.677†	36651.5	32066.4	471.25 µg/L	471.25 ppb	01:08:45
3	Ba 233.527†	122673.9	119197.4	480.72 µg/L	480.72 ppb	01:08:45
3	Be 313.107†	1829445.6	1776639.3	483.88 µg/L	483.88 ppb	01:08:45
3	Cd 226.502†	78812.0	76609.4	478.23 µg/L	478.23 ppb	01:08:45
3	Co 228.616†	40059.1	39069.8	482.31 µg/L	482.31 ppb	01:08:45
3	Cr 267.716†	62827.7	60799.1	476.05 µg/L	476.05 ppb	01:08:45
3	Cu 324.752†	129210.5	122433.4	477.28 µg/L	477.28 ppb	01:08:45
3	Mn 257.610†	402215.3	390134.2	482.50 µg/L	482.50 ppb	01:08:45
3	Mo 202.031†	16594.4	16125.8	474.36 µg/L	474.36 ppb	01:09:05
3	Ni 231.604†	42691.2	41510.6	477.96 µg/L	477.96 ppb	01:08:45
3	P 214.914†	11386.0	11068.7	2359.2 µg/L	2359.2 ppb	01:09:05
3	Pb 220.353†	8898.6	8550.2	478.81 µg/L	478.81 ppb	01:09:05
3	S 181.975 Axial†	1408.3	1261.7	940.94 µg/L	940.94 ppb	01:09:05
3	Sb 206.836†	4205.9	4001.2	476.70 µg/L	476.70 ppb	01:09:05
3	Se 196.026†	1357.9	1302.6	473 µg/L	473 ppb	01:09:05
3	SiO2†	56197.3	52767.1	5137.2 µg/L	5137.2 ppb	01:08:45
3	Si 251.611†	169573.7	163743.8	2404.6 µg/L	2404.6 ppb	01:08:45
3	Sn 189.927†	7850.8	7620.8	476.69 µg/L	476.69 ppb	01:09:05
3	Ti 334.940†	530475.4	513902.1	479.51 µg/L	479.51 ppb	01:08:45
3	Tl 190.801†	3897.8	3899.7	486.34 µg/L	486.34 ppb	01:09:05
3	U 409.014†	7446.2	7496.8	467.41 µg/L	467.41 ppb	01:08:45
3	V 292.402†	100857.9	97484.1	481.85 µg/L	481.85 ppb	01:08:45
3	Zn 213.857†	88341.1	85175.3	474.71 µg/L	474.71 ppb	01:08:45

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1770345.9	103.03	%	0.481				0.47%
Sc RADIAL	146468.9	100	%	0.2				0.24%
Y 371.029	1045704.3	101.85	%	0.441				0.43%
Ag 328.068†	127899.0	479.57	µg/L	1.241	479.57	ppb	1.241	0.26%
QC value within limits for Ag 328.068 Recovery = 95.91%								
Al 396.153Radial†	26869.1	4959.5	µg/L	22.74	4959.5	ppb	22.74	0.46%
QC value within limits for Al 396.153Radial Recovery = 99.19%								
As 188.979†	1610.2	493.91	µg/L	0.253	493.91	ppb	0.253	0.05%
QC value within limits for As 188.979 Recovery = 98.78%								
B 249.677†	32067.4	471.27	µg/L	1.065	471.27	ppb	1.065	0.23%
QC value within limits for B 249.677 Recovery = 94.25%								
Ba 233.527†	119056.6	480.15	µg/L	0.528	480.15	ppb	0.528	0.11%
QC value within limits for Ba 233.527 Recovery = 96.03%								
Be 313.107†	1774392.9	483.27	µg/L	1.403	483.27	ppb	1.403	0.29%
QC value within limits for Be 313.107 Recovery = 96.65%								
Ca 317.933Radial†	86840.8	4837.4	µg/L	18.28	4837.4	ppb	18.28	0.38%
QC value within limits for Ca 317.933Radial Recovery = 96.75%								
Cd 226.502†	76327.0	476.46	µg/L	1.965	476.46	ppb	1.965	0.41%
QC value within limits for Cd 226.502 Recovery = 95.29%								
Co 228.616†	38918.0	480.44	µg/L	2.030	480.44	ppb	2.030	0.42%

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   QC value within limits for Co 228.616  Recovery = 96.09%
Cr 267.716†            60792.6      476.00 µg/L         0.813      476.00 ppb          0.813   0.17%
   QC value within limits for Cr 267.716  Recovery = 95.20%
Cu 324.752†           122433.2      477.28 µg/L         1.032      477.28 ppb          1.032   0.22%
   QC value within limits for Cu 324.752  Recovery = 95.46%
Fe 238.204 Radial†     78217.4      4820.8 µg/L         14.91      4820.8 ppb          14.91   0.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.42%
K 766.490 Radial†      13956.7      5105.8 µg/L         41.90      5105.8 ppb          41.90   0.82%
   QC value within limits for K 766.490 Radial  Recovery = 102.12%
Mg 279.077 IEC†        13207.9      4928.5 µg/L         25.24      4928.5 ppb          25.24   0.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.57%
Mn 257.610†           389252.0      481.41 µg/L         1.309      481.41 ppb          1.309   0.27%
   QC value within limits for Mn 257.610  Recovery = 96.28%
Mo 202.031†            16141.8      474.83 µg/L         1.219      474.83 ppb          1.219   0.26%
   QC value within limits for Mo 202.031  Recovery = 94.97%
Na 589.592 Radial†     70726.6      9657.6 µg/L         32.02      9657.6 ppb          32.02   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 96.58%
Ni 231.604†            41445.7      477.22 µg/L         0.992      477.22 ppb          0.992   0.21%
   QC value within limits for Ni 231.604  Recovery = 95.44%
P 214.914†             11084.6      2362.6 µg/L          3.23      2362.6 ppb           3.23   0.14%
   QC value within limits for P 214.914  Recovery = 94.50%
Pb 220.353†             8537.0      478.07 µg/L         1.609      478.07 ppb          1.609   0.34%
   QC value within limits for Pb 220.353  Recovery = 95.61%
S 181.975 Axial†        1252.2      933.87 µg/L         6.179      933.87 ppb          6.179   0.66%
   QC value within limits for S 181.975 Axial  Recovery = 93.39%
Sb 206.836†             3989.5      475.31 µg/L         1.305      475.31 ppb          1.305   0.27%
   QC value within limits for Sb 206.836  Recovery = 95.06%
Se 196.026†             1299.2         472 µg/L           3.5         472 ppb            3.5   0.73%
   QC value within limits for Se 196.026  Recovery = 94.36%
SiO2†                  52657.7      5126.5 µg/L         20.17      5126.5 ppb          20.17   0.39%
   QC value within limits for SiO2  Recovery = 95.87%
Si 251.611†           163281.5      2397.8 µg/L          8.32      2397.8 ppb           8.32   0.35%
   QC value within limits for Si 251.611  Recovery = 95.91%
Sn 189.927†             7618.4      476.55 µg/L         0.370      476.55 ppb          0.370   0.08%
   QC value within limits for Sn 189.927  Recovery = 95.31%
Sr 421.552†           234106.7      486.66 µg/L         2.208      486.66 ppb          2.208   0.45%
   QC value within limits for Sr 421.552  Recovery = 97.33%
Ti 334.940†           513613.4      479.24 µg/L         0.924      479.24 ppb          0.924   0.19%
   QC value within limits for Ti 334.940  Recovery = 95.85%
Tl 190.801†             3889.0      485.03 µg/L         1.526      485.03 ppb          1.526   0.31%
   QC value within limits for Tl 190.801  Recovery = 97.01%
U 409.014†              7436.0      463.82 µg/L         4.171      463.82 ppb          4.171   0.90%
   QC value within limits for U 409.014  Recovery = 92.76%
V 292.402†             97407.0      481.48 µg/L         0.487      481.48 ppb          0.487   0.10%
   QC value within limits for V 292.402  Recovery = 96.30%
Zn 213.857†            85037.3      473.94 µg/L         1.182      473.94 ppb          1.182   0.25%
   QC value within limits for Zn 213.857  Recovery = 94.79%
All analyte(s) passed QC.
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Sequence No.: 159
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 1:09:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146128.5	146128.5	100	%			01:09:42
1	Al 396.153Radial†	21.7	84.8	15.716	µg/L	15.716	ppb	01:10:02
1	Ca 317.933Radial†	736.1	174.5	9.7222	µg/L	9.7222	ppb	01:10:02
1	Fe 238.204 Radial†	312.8	164.3	10.127	µg/L	10.127	ppb	01:10:02
1	K 766.490 Radial†	2113.9	566.2	207.29	µg/L	207.29	ppb	01:09:42
1	Mg 279.077 IEC†	213.9	22.9	8.5204	µg/L	8.5204	ppb	01:10:02
1	Na 589.592 Radial†	1401.2	108.5	14.644	µg/L	14.644	ppb	01:09:42
1	Sr 421.552†	-140.7	-5.2	-0.0110	µg/L	-0.0110	ppb	01:09:42
1	Sc 361.383	1779002.1	1779002.1	103.54	%			01:11:04
1	Y 371.029	1062055.8	1062055.8	103.44	%			01:11:04
1	Ag 328.068†	4011.9	-216.6	-0.7870	µg/L	-0.7870	ppb	01:11:06
1	As 188.979†	-3.3	17.2	5.2109	µg/L	5.2109	ppb	01:11:26
1	B 249.677†	3579.4	-48.7	-0.7204	µg/L	-0.7204	ppb	01:11:06
1	Ba 233.527†	-100.8	38.5	0.1554	µg/L	0.1554	ppb	01:11:26
1	Be 313.107†	-912.4	183.5	0.0524	µg/L	0.0524	ppb	01:11:06
1	Cd 226.502†	-113.0	9.1	0.0554	µg/L	0.0554	ppb	01:11:26
1	Co 228.616†	-162.1	33.7	0.4158	µg/L	0.4158	ppb	01:11:26
1	Cr 267.716†	218.6	32.5	0.2490	µg/L	0.2490	ppb	01:11:26
1	Cu 324.752†	2858.4	-211.5	-0.8135	µg/L	-0.8135	ppb	01:11:06
1	Mn 257.610†	394.6	143.8	0.1776	µg/L	0.1776	ppb	01:11:26
1	Mo 202.031†	-10.8	9.7	0.2849	µg/L	0.2849	ppb	01:11:26
1	Ni 231.604†	-102.3	-22.3	-0.2566	µg/L	-0.2566	ppb	01:11:26
1	P 214.914†	-11.8	6.6	1.4104	µg/L	1.4104	ppb	01:11:26
1	Pb 220.353†	58.5	-29.9	-1.6702	µg/L	-1.6702	ppb	01:11:26
1	S 181.975 Axial†	94.9	-13.4	-9.9448	µg/L	-9.9448	ppb	01:11:26
1	Sb 206.836†	73.9	-9.4	-1.1181	µg/L	-1.1181	ppb	01:11:26
1	Se 196.026†	3.0	-12.4	-4.47	µg/L	-4.47	ppb	01:11:26
1	SiO2†	1673.9	-158.6	-15.514	µg/L	-15.514	ppb	01:11:06
1	Si 251.611†	875.4	8.9	0.1281	µg/L	0.1281	ppb	01:11:06
1	Sn 189.927†	-1.0	0.1	0.0104	µg/L	0.0104	ppb	01:11:26
1	Ti 334.940†	1332.9	334.8	0.3090	µg/L	0.3090	ppb	01:11:06
1	Tl 190.801†	-105.0	15.3	1.8866	µg/L	1.8866	ppb	01:11:26
1	U 409.014†	-139.3	135.4	7.9422	µg/L	7.9422	ppb	01:11:06
1	V 292.402†	520.5	98.9	0.4905	µg/L	0.4905	ppb	01:11:06
1	Zn 213.857†	599.7	14.8	0.0844	µg/L	0.0844	ppb	01:11:26
2	Sc RADIAL	146813.6	146813.6	101	%			01:10:04
2	Al 396.153Radial†	-26.8	36.6	6.7739	µg/L	6.7739	ppb	01:10:24
2	Ca 317.933Radial†	799.6	234.2	13.044	µg/L	13.044	ppb	01:10:24
2	Fe 238.204 Radial†	380.9	230.5	14.206	µg/L	14.206	ppb	01:10:24
2	K 766.490 Radial†	2016.0	459.1	168.07	µg/L	168.07	ppb	01:10:04
2	Mg 279.077 IEC†	199.3	7.4	2.7300	µg/L	2.7300	ppb	01:10:24
2	Na 589.592 Radial†	1532.0	232.0	31.539	µg/L	31.539	ppb	01:10:04
2	Sr 421.552†	-276.0	-139.1	-0.2892	µg/L	-0.2892	ppb	01:10:04
2	Sc 361.383	1772846.3	1772846.3	103.18	%			01:11:28
2	Y 371.029	1058367.3	1058367.3	103.09	%			01:11:28
2	Ag 328.068†	3953.0	-260.2	-0.9687	µg/L	-0.9687	ppb	01:11:30
2	As 188.979†	-11.1	9.6	2.9020	µg/L	2.9020	ppb	01:11:51
2	B 249.677†	3504.7	-109.2	-1.6118	µg/L	-1.6118	ppb	01:11:30
2	Ba 233.527†	-93.1	45.6	0.1835	µg/L	0.1835	ppb	01:11:51
2	Be 313.107†	-921.0	172.1	0.0458	µg/L	0.0458	ppb	01:11:30
2	Cd 226.502†	-118.2	3.6	0.0212	µg/L	0.0212	ppb	01:11:51
2	Co 228.616†	-173.4	22.3	0.2745	µg/L	0.2745	ppb	01:11:51
2	Cr 267.716†	185.2	0.9	0.0101	µg/L	0.0101	ppb	01:11:51
2	Cu 324.752†	2984.8	-79.4	-0.3090	µg/L	-0.3090	ppb	01:11:30
2	Mn 257.610†	358.6	110.3	0.1363	µg/L	0.1363	ppb	01:11:51
2	Mo 202.031†	-18.5	2.1	0.0628	µg/L	0.0628	ppb	01:11:51
2	Ni 231.604†	-79.0	-0.0	-0.0005	µg/L	-0.0005	ppb	01:11:51
2	P 214.914†	-17.7	0.8	0.1744	µg/L	0.1744	ppb	01:11:51
2	Pb 220.353†	91.7	2.4	0.1393	µg/L	0.1393	ppb	01:11:51

2	S 181.975 Axial†	93.2	-14.7	-10.902	µg/L	-10.902 ppb	01:11:51
2	Sb 206.836†	88.1	4.5	0.5418	µg/L	0.5418 ppb	01:11:51
2	Se 196.026†	30.0	13.8	4.99	µg/L	4.99 ppb	01:11:51
2	SiO2†	1856.5	23.9	2.3278	µg/L	2.3278 ppb	01:11:30
2	Si 251.611†	711.9	-146.6	-2.1655	µg/L	-2.1655 ppb	01:11:30
2	Sn 189.927†	7.1	8.0	0.4985	µg/L	0.4985 ppb	01:11:51
2	Ti 334.940†	1070.6	85.1	0.0810	µg/L	0.0810 ppb	01:11:30
2	Tl 190.801†	-109.4	10.7	1.3129	µg/L	1.3129 ppb	01:11:51
2	U 409.014†	-338.3	-58.0	-3.3954	µg/L	-3.3954 ppb	01:11:30
2	V 292.402†	407.5	-8.8	-0.0463	µg/L	-0.0463 ppb	01:11:30
2	Zn 213.857†	608.7	25.6	0.1424	µg/L	0.1424 ppb	01:11:51
3	Sc RADIAL	143813.7	143813.7	98.5	%		01:10:26
3	Al 396.153Radial†	-37.9	24.7	4.5852	µg/L	4.5852 ppb	01:10:46
3	Ca 317.933Radial†	675.0	124.4	6.9283	µg/L	6.9283 ppb	01:10:46
3	Fe 238.204 Radial†	268.6	124.4	7.6689	µg/L	7.6689 ppb	01:10:46
3	K 766.490 Radial†	2088.7	574.6	210.37	µg/L	210.37 ppb	01:10:26
3	Mg 279.077 IEC†	196.5	8.7	3.2166	µg/L	3.2166 ppb	01:10:46
3	Na 589.592 Radial†	1456.5	187.1	25.377	µg/L	25.377 ppb	01:10:26
3	Sr 421.552†	-185.3	-52.7	-0.1097	µg/L	-0.1097 ppb	01:10:26
3	Sc 361.383	1766720.8	1766720.8	102.82	%		01:11:53
3	Y 371.029	1055436.7	1055436.7	102.80	%		01:11:53
3	Ag 328.068†	4141.9	-63.2	-0.2377	µg/L	-0.2377 ppb	01:11:55
3	As 188.979†	-13.9	6.9	2.0745	µg/L	2.0745 ppb	01:12:15
3	B 249.677†	3478.7	-122.7	-1.8116	µg/L	-1.8116 ppb	01:11:55
3	Ba 233.527†	-110.8	28.1	0.1129	µg/L	0.1129 ppb	01:12:15
3	Be 313.107†	-876.4	212.4	0.0574	µg/L	0.0574 ppb	01:11:55
3	Cd 226.502†	-103.6	17.5	0.1084	µg/L	0.1084 ppb	01:12:15
3	Co 228.616†	-163.0	31.7	0.3914	µg/L	0.3914 ppb	01:12:15
3	Cr 267.716†	182.9	-0.6	-0.0038	µg/L	-0.0038 ppb	01:12:15
3	Cu 324.752†	2678.2	-367.6	-1.4282	µg/L	-1.4282 ppb	01:11:55
3	Mn 257.610†	398.1	149.9	0.1853	µg/L	0.1853 ppb	01:12:15
3	Mo 202.031†	-22.2	-1.5	-0.0432	µg/L	-0.0432 ppb	01:12:15
3	Ni 231.604†	-66.6	11.8	0.1354	µg/L	0.1354 ppb	01:12:15
3	P 214.914†	-21.4	-2.9	-0.5979	µg/L	-0.5979 ppb	01:12:15
3	Pb 220.353†	84.0	-4.7	-0.2620	µg/L	-0.2620 ppb	01:12:15
3	S 181.975 Axial†	104.4	-3.6	-2.6485	µg/L	-2.6485 ppb	01:12:15
3	Sb 206.836†	79.6	-3.4	-0.4028	µg/L	-0.4028 ppb	01:12:15
3	Se 196.026†	9.2	-6.3	-2.29	µg/L	-2.29 ppb	01:12:15
3	SiO2†	1792.3	-32.2	-3.1590	µg/L	-3.1590 ppb	01:11:55
3	Si 251.611†	915.0	53.3	0.7827	µg/L	0.7827 ppb	01:11:55
3	Sn 189.927†	8.6	9.4	0.5891	µg/L	0.5891 ppb	01:12:15
3	Ti 334.940†	1052.9	71.4	0.0672	µg/L	0.0672 ppb	01:11:55
3	Tl 190.801†	-98.3	21.1	2.5907	µg/L	2.5907 ppb	01:12:15
3	U 409.014†	-302.2	-24.1	-1.4147	µg/L	-1.4147 ppb	01:11:55
3	V 292.402†	386.4	-28.0	-0.1388	µg/L	-0.1388 ppb	01:11:55
3	Zn 213.857†	594.9	14.1	0.0789	µg/L	0.0789 ppb	01:12:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1772856.4	103.18	%	0.357				0.35%
Sc RADIAL	145585.3	99.8	%	1.08				1.08%
Y 371.029	1058619.9	103.11	%	0.323				0.31%
Ag 328.068†	-180.0	-0.6645	µg/L	0.38057	-0.6645	ppb	0.38057	57.27%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	48.7	9.0249	µg/L	5.89678	9.0249	ppb	5.89678	65.34%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.2	3.3958	µg/L	1.62548	3.3958	ppb	1.62548	47.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-93.6	-1.3813	µg/L	0.58098	-1.3813	ppb	0.58098	42.06%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	37.4	0.1506	µg/L	0.03553	0.1506	ppb	0.03553	23.59%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	189.3	0.0519	µg/L	0.00580	0.0519	ppb	0.00580	11.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	177.7	9.8982	µg/L	3.06173	9.8982	ppb	3.06173	30.93%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.1	0.0617	µg/L	0.04391	0.0617	ppb	0.04391	71.22%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	29.3	0.3606	µg/L	0.07550	0.3606	ppb	0.07550	20.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              10.9      0.0851 µg/L       0.14212      0.0851 ppb        0.14212 167.04%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -219.5     -0.8502 µg/L       0.56051     -0.8502 ppb        0.56051  65.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      173.1      10.667 µg/L        3.3019      10.667 ppb         3.3019  30.95%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       533.3      195.24 µg/L        23.585      195.24 ppb         23.585  12.08%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          13.0      4.8223 µg/L       3.21185      4.8223 ppb        3.21185  66.60%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             134.7      0.1664 µg/L       0.02633      0.1664 ppb        0.02633  15.82%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              3.4       0.1015 µg/L       0.16744      0.1015 ppb        0.16744 165.00%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      175.9      23.853 µg/L        8.5497      23.853 ppb         8.5497  35.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -3.5     -0.0406 µg/L       0.19901     -0.0406 ppb        0.19901 490.53%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               1.5       0.3289 µg/L       1.01302      0.3289 ppb        1.01302 307.97%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -10.7     -0.5976 µg/L       0.95031     -0.5976 ppb        0.95031 159.02%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†       -10.5     -7.8319 µg/L       4.51438     -7.8319 ppb        4.51438  57.64%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.8     -0.3264 µg/L       0.83261     -0.3264 ppb        0.83261 255.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.6      -0.590 µg/L        4.9553      -0.590 ppb         4.9553 839.18%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -55.7     -5.4482 µg/L       9.13833     -5.4482 ppb        9.13833 167.73%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -28.1     -0.4183 µg/L       1.54819     -0.4183 ppb        1.54819 370.16%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               5.9      0.3660 µg/L       0.31130      0.3660 ppb        0.31130  85.06%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -65.7     -0.1366 µg/L       0.14107     -0.1366 ppb        0.14107 103.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             163.8      0.1524 µg/L       0.13582      0.1524 ppb        0.13582  89.12%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              15.7      1.9301 µg/L       0.63996      1.9301 ppb        0.63996  33.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               17.8      1.0440 µg/L       6.05550      1.0440 ppb        6.05550 580.00%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               20.7      0.1018 µg/L       0.33976      0.1018 ppb        0.33976 333.78%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              18.2      0.1019 µg/L       0.03517      0.1019 ppb        0.03517  34.52%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 169
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 1:30:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142269.6	142269.6	97.5	%			01:31:08
1	Al 396.153Radial†	26265.9	27004.9	4984.5	µg/L	4984.5	ppb	01:31:08
1	Ca 317.933Radial†	85749.5	87395.0	4868.2	µg/L	4868.2	ppb	01:31:08
1	Fe 238.204 Radial†	76157.7	77968.9	4805.5	µg/L	4805.5	ppb	01:31:08
1	K 766.490 Radial†	14863.6	13701.2	5012.2	µg/L	5012.2	ppb	01:31:08
1	Mg 279.077 IEC†	13087.6	13233.6	4938.2	µg/L	4938.2	ppb	01:31:08
1	Na 589.592 Radial†	70110.3	70623.2	9643.5	µg/L	9643.5	ppb	01:31:08
1	Sr 421.552†	227619.3	233610.5	485.62	µg/L	485.62	ppb	01:31:06
1	Sc 361.383	1737460.4	1737460.4	101.12	%			01:31:21
1	Y 371.029	1026728.3	1026728.3	100.00	%			01:31:21
1	Ag 328.068†	133485.2	127915.4	479.59	µg/L	479.59	ppb	01:31:21
1	As 188.979†	1620.0	1622.4	497.58	µg/L	497.58	ppb	01:31:41
1	B 249.677†	35927.2	32023.4	470.63	µg/L	470.63	ppb	01:31:21
1	Ba 233.527†	119703.8	118513.9	477.96	µg/L	477.96	ppb	01:31:21
1	Be 313.107†	1789882.8	1771124.1	482.37	µg/L	482.37	ppb	01:31:21
1	Cd 226.502†	77069.2	76333.9	476.51	µg/L	476.51	ppb	01:31:21
1	Co 228.616†	38976.7	38735.3	478.19	µg/L	478.19	ppb	01:31:21
1	Cr 267.716†	61508.0	60648.2	474.88	µg/L	474.88	ppb	01:31:21
1	Cu 324.752†	126624.4	122249.8	476.55	µg/L	476.55	ppb	01:31:21
1	Mn 257.610†	392973.5	388384.0	480.34	µg/L	480.34	ppb	01:31:21
1	Mo 202.031†	16410.6	16248.9	477.97	µg/L	477.97	ppb	01:31:41
1	Ni 231.604†	41598.2	41214.0	474.55	µg/L	474.55	ppb	01:31:21
1	P 214.914†	11285.5	11178.5	2382.7	µg/L	2382.7	ppb	01:31:41
1	Pb 220.353†	8747.8	8564.6	479.64	µg/L	479.64	ppb	01:31:41
1	S 181.975 Axial†	1374.4	1254.1	935.33	µg/L	935.33	ppb	01:31:41
1	Sb 206.836†	4142.8	4016.1	478.53	µg/L	478.53	ppb	01:31:41
1	Se 196.026†	1343.3	1313.1	477	µg/L	477	ppb	01:31:41
1	SiO2†	54906.9	52523.5	5113.2	µg/L	5113.2	ppb	01:31:21
1	Si 251.611†	165514.0	162844.3	2391.3	µg/L	2391.3	ppb	01:31:21
1	Sn 189.927†	7741.6	7657.0	478.94	µg/L	478.94	ppb	01:31:41
1	Ti 334.940†	519154.2	512451.9	478.16	µg/L	478.16	ppb	01:31:21
1	Tl 190.801†	3844.3	3918.4	488.62	µg/L	488.62	ppb	01:31:41
1	U 409.014†	7036.4	7228.4	451.59	µg/L	451.59	ppb	01:31:21
1	V 292.402†	98555.4	97060.1	479.81	µg/L	479.81	ppb	01:31:21
1	Zn 213.857†	86480.2	84958.0	473.52	µg/L	473.52	ppb	01:31:21
2	Sc RADIAL	145492.3	145492.3	99.7	%			01:31:12
2	Al 396.153Radial†	26699.5	26843.0	4954.3	µg/L	4954.3	ppb	01:31:12
2	Ca 317.933Radial†	88239.7	87944.4	4898.8	µg/L	4898.8	ppb	01:31:12
2	Fe 238.204 Radial†	78454.6	78542.4	4840.9	µg/L	4840.9	ppb	01:31:12
2	K 766.490 Radial†	15155.4	13656.2	4995.8	µg/L	4995.8	ppb	01:31:12
2	Mg 279.077 IEC†	13542.7	13392.7	4997.5	µg/L	4997.5	ppb	01:31:12
2	Na 589.592 Radial†	71767.1	70692.1	9653.0	µg/L	9653.0	ppb	01:31:12
2	Sr 421.552†	228188.0	229009.4	476.06	µg/L	476.06	ppb	01:31:10
2	Sc 361.383	1723000.0	1723000.0	100.28	%			01:31:44
2	Y 371.029	1017920.8	1017920.8	99.146	%			01:31:44
2	Ag 328.068†	131837.8	127380.5	477.62	µg/L	477.62	ppb	01:31:44
2	As 188.979†	1612.3	1628.2	499.35	µg/L	499.35	ppb	01:32:04
2	B 249.677†	35506.1	31901.7	468.84	µg/L	468.84	ppb	01:31:44
2	Ba 233.527†	118538.3	118345.2	477.28	µg/L	477.28	ppb	01:31:44
2	Be 313.107†	1770416.1	1766566.8	481.14	µg/L	481.14	ppb	01:31:44
2	Cd 226.502†	75820.7	75728.5	472.72	µg/L	472.72	ppb	01:31:44
2	Co 228.616†	38468.3	38551.9	475.92	µg/L	475.92	ppb	01:31:44
2	Cr 267.716†	60774.3	60427.1	473.14	µg/L	473.14	ppb	01:31:44
2	Cu 324.752†	125187.6	121867.9	475.08	µg/L	475.08	ppb	01:31:44
2	Mn 257.610†	388045.5	386731.2	478.29	µg/L	478.29	ppb	01:31:44
2	Mo 202.031†	16407.0	16381.6	481.87	µg/L	481.87	ppb	01:32:04
2	Ni 231.604†	41306.7	41268.5	475.18	µg/L	475.18	ppb	01:31:44
2	P 214.914†	11273.6	11260.3	2400.2	µg/L	2400.2	ppb	01:32:04
2	Pb 220.353†	8792.2	8681.5	486.15	µg/L	486.15	ppb	01:32:04

2	S 181.975 Axial†	1379.3	1270.4	947.45 µg/L	947.45 ppb	01:32:04
2	Sb 206.836†	4139.2	4046.9	482.29 µg/L	482.29 ppb	01:32:04
2	Se 196.026†	1342.4	1323.4	481 µg/L	481 ppb	01:32:04
2	SiO2†	54127.5	52201.9	5081.6 µg/L	5081.6 ppb	01:31:44
2	Si 251.611†	163587.2	162296.6	2383.1 µg/L	2383.1 ppb	01:31:44
2	Sn 189.927†	7748.5	7728.1	483.38 µg/L	483.38 ppb	01:32:04
2	Ti 334.940†	513666.6	511288.3	477.06 µg/L	477.06 ppb	01:31:44
2	Tl 190.801†	3848.1	3954.1	493.00 µg/L	493.00 ppb	01:32:04
2	U 409.014†	7224.9	7474.7	465.94 µg/L	465.94 ppb	01:31:44
2	V 292.402†	97625.8	96951.0	479.31 µg/L	479.31 ppb	01:31:44
2	Zn 213.857†	85297.5	84496.3	470.92 µg/L	470.92 ppb	01:31:44
3	Sc RADIAL	144017.2	144017.2	98.7 %		01:31:16
3	Al 396.153Radial†	26612.6	27029.2	4989.1 µg/L	4989.1 ppb	01:31:16
3	Ca 317.933Radial†	87344.0	87943.4	4898.8 µg/L	4898.8 ppb	01:31:16
3	Fe 238.204 Radial†	77641.1	78524.1	4839.7 µg/L	4839.7 ppb	01:31:16
3	K 766.490 Radial†	15113.2	13769.2	5037.1 µg/L	5037.1 ppb	01:31:16
3	Mg 279.077 IEC†	13475.2	13463.5	5023.8 µg/L	5023.8 ppb	01:31:16
3	Na 589.592 Radial†	71081.3	70734.5	9658.7 µg/L	9658.7 ppb	01:31:16
3	Sr 421.552†	230195.4	233387.7	485.16 µg/L	485.16 ppb	01:31:14
3	Sc 361.383	1737670.0	1737670.0	101.13 %		01:32:07
3	Y 371.029	1026144.0	1026144.0	99.947 %		01:32:07
3	Ag 328.068†	133325.2	127741.3	478.98 µg/L	478.98 ppb	01:32:07
3	As 188.979†	1614.3	1616.6	495.84 µg/L	495.84 ppb	01:32:27
3	B 249.677†	36063.6	32154.0	472.55 µg/L	472.55 ppb	01:32:07
3	Ba 233.527†	119791.6	118586.4	478.26 µg/L	478.26 ppb	01:32:07
3	Be 313.107†	1794420.6	1775397.7	483.54 µg/L	483.54 ppb	01:32:07
3	Cd 226.502†	76706.1	75965.7	474.21 µg/L	474.21 ppb	01:32:07
3	Co 228.616†	39092.4	38845.1	479.54 µg/L	479.54 ppb	01:32:07
3	Cr 267.716†	61552.9	60685.3	475.16 µg/L	475.16 ppb	01:32:07
3	Cu 324.752†	126672.9	122282.6	476.70 µg/L	476.70 ppb	01:32:07
3	Mn 257.610†	392785.8	388151.5	480.05 µg/L	480.05 ppb	01:32:07
3	Mo 202.031†	16368.2	16205.0	476.69 µg/L	476.69 ppb	01:32:27
3	Ni 231.604†	41743.6	41352.8	476.15 µg/L	476.15 ppb	01:32:07
3	P 214.914†	11241.9	11134.0	2373.1 µg/L	2373.1 ppb	01:32:27
3	Pb 220.353†	8768.9	8584.4	480.73 µg/L	480.73 ppb	01:32:27
3	S 181.975 Axial†	1366.4	1246.1	929.32 µg/L	929.32 ppb	01:32:27
3	Sb 206.836†	4129.1	4002.1	476.84 µg/L	476.84 ppb	01:32:27
3	Se 196.026†	1336.5	1306.3	474 µg/L	474 ppb	01:32:27
3	SiO2†	54817.6	52428.6	5104.0 µg/L	5104.0 ppb	01:32:07
3	Si 251.611†	165658.0	162967.0	2393.1 µg/L	2393.1 ppb	01:32:07
3	Sn 189.927†	7715.6	7630.3	477.28 µg/L	477.28 ppb	01:32:27
3	Ti 334.940†	519188.2	512423.6	478.12 µg/L	478.12 ppb	01:32:07
3	Tl 190.801†	3815.9	3889.9	485.12 µg/L	485.12 ppb	01:32:27
3	U 409.014†	7283.4	7471.8	465.86 µg/L	465.86 ppb	01:32:07
3	V 292.402†	98744.6	97235.4	480.66 µg/L	480.66 ppb	01:32:07
3	Zn 213.857†	86568.5	85035.0	473.94 µg/L	473.94 ppb	01:32:07

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1732710.1	100.84	%	0.489				0.49%
Sc RADIAL	143926.4	98.6	%	1.11				1.12%
Y 371.029	1023597.7	99.699	%	0.4797				0.48%
Ag 328.068†	127679.1	478.73	µg/L	1.007	478.73	ppb	1.007	0.21%
QC value within limits for Ag 328.068 Recovery = 95.75%								
Al 396.153Radial†	26959.0	4976.0	µg/L	18.89	4976.0	ppb	18.89	0.38%
QC value within limits for Al 396.153Radial Recovery = 99.52%								
As 188.979†	1622.4	497.59	µg/L	1.754	497.59	ppb	1.754	0.35%
QC value within limits for As 188.979 Recovery = 99.52%								
B 249.677†	32026.3	470.67	µg/L	1.854	470.67	ppb	1.854	0.39%
QC value within limits for B 249.677 Recovery = 94.13%								
Ba 233.527†	118481.8	477.83	µg/L	0.498	477.83	ppb	0.498	0.10%
QC value within limits for Ba 233.527 Recovery = 95.57%								
Be 313.107†	1771029.5	482.35	µg/L	1.202	482.35	ppb	1.202	0.25%
QC value within limits for Be 313.107 Recovery = 96.47%								
Ca 317.933Radial†	87760.9	4888.6	µg/L	17.65	4888.6	ppb	17.65	0.36%
QC value within limits for Ca 317.933Radial Recovery = 97.77%								
Cd 226.502†	76009.3	474.48	µg/L	1.907	474.48	ppb	1.907	0.40%
QC value within limits for Cd 226.502 Recovery = 94.90%								
Co 228.616†	38710.8	477.88	µg/L	1.828	477.88	ppb	1.828	0.38%

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   QC value within limits for Co 228.616  Recovery = 95.58%
Cr 267.716†            60586.9      474.39 µg/L         1.096      474.39 ppb          1.096   0.23%
   QC value within limits for Cr 267.716  Recovery = 94.88%
Cu 324.752†           122133.4      476.11 µg/L         0.893      476.11 ppb          0.893   0.19%
   QC value within limits for Cu 324.752  Recovery = 95.22%
Fe 238.204 Radial†     78345.1      4828.7 µg/L         20.09      4828.7 ppb          20.09   0.42%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.57%
K 766.490 Radial†      13708.9      5015.0 µg/L         20.81      5015.0 ppb          20.81   0.42%
   QC value within limits for K 766.490 Radial  Recovery = 100.30%
Mg 279.077 IEC†        13363.2      4986.5 µg/L         43.85      4986.5 ppb          43.85   0.88%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.73%
Mn 257.610†           387755.6      479.56 µg/L         1.108      479.56 ppb          1.108   0.23%
   QC value within limits for Mn 257.610  Recovery = 95.91%
Mo 202.031†            16278.5      478.84 µg/L         2.702      478.84 ppb          2.702   0.56%
   QC value within limits for Mo 202.031  Recovery = 95.77%
Na 589.592 Radial†     70683.3      9651.7 µg/L          7.67      9651.7 ppb           7.67   0.08%
   QC value within limits for Na 589.592 Radial  Recovery = 96.52%
Ni 231.604†            41278.5      475.29 µg/L         0.805      475.29 ppb          0.805   0.17%
   QC value within limits for Ni 231.604  Recovery = 95.06%
P 214.914†             11190.9      2385.3 µg/L         13.71      2385.3 ppb          13.71   0.57%
   QC value within limits for P 214.914  Recovery = 95.41%
Pb 220.353†             8610.1      482.17 µg/L         3.492      482.17 ppb          3.492   0.72%
   QC value within limits for Pb 220.353  Recovery = 96.43%
S 181.975 Axial†        1256.9      937.36 µg/L         9.234      937.36 ppb          9.234   0.99%
   QC value within limits for S 181.975 Axial  Recovery = 93.74%
Sb 206.836†             4021.7      479.22 µg/L         2.786      479.22 ppb          2.786   0.58%
   QC value within limits for Sb 206.836  Recovery = 95.84%
Se 196.026†             1314.3         477 µg/L           3.1         477 ppb            3.1   0.65%
   QC value within limits for Se 196.026  Recovery = 95.45%
SiO2†                  52384.6      5099.6 µg/L         16.25      5099.6 ppb          16.25   0.32%
   QC value within limits for SiO2  Recovery = 95.36%
Si 251.611†           162702.6      2389.2 µg/L          5.32      2389.2 ppb           5.32   0.22%
   QC value within limits for Si 251.611  Recovery = 95.57%
Sn 189.927†             7671.8      479.87 µg/L         3.150      479.87 ppb          3.150   0.66%
   QC value within limits for Sn 189.927  Recovery = 95.97%
Sr 421.552†           232002.6      482.28 µg/L         5.394      482.28 ppb          5.394   1.12%
   QC value within limits for Sr 421.552  Recovery = 96.46%
Ti 334.940†           512054.6      477.78 µg/L         0.622      477.78 ppb          0.622   0.13%
   QC value within limits for Ti 334.940  Recovery = 95.56%
Tl 190.801†             3920.8      488.92 µg/L         3.950      488.92 ppb          3.950   0.81%
   QC value within limits for Tl 190.801  Recovery = 97.78%
U 409.014†              7391.6      461.13 µg/L         8.265      461.13 ppb          8.265   1.79%
   QC value within limits for U 409.014  Recovery = 92.23%
V 292.402†             97082.1      479.92 µg/L         0.679      479.92 ppb          0.679   0.14%
   QC value within limits for V 292.402  Recovery = 95.98%
Zn 213.857†            84829.8      472.79 µg/L         1.636      472.79 ppb          1.636   0.35%
   QC value within limits for Zn 213.857  Recovery = 94.56%
All analyte(s) passed QC.
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Sequence No.: 170
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 1:32:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144650.2	144650.2	99.1	%			01:33:05
1	Al 396.153Radial†	55.6	119.3	22.113	µg/L	22.113	ppb	01:33:25
1	Ca 317.933Radial†	1021.9	470.4	26.200	µg/L	26.200	ppb	01:33:25
1	Fe 238.204 Radial†	306.2	160.8	9.9101	µg/L	9.9101	ppb	01:33:25
1	K 766.490 Radial†	1926.7	399.0	146.05	µg/L	146.05	ppb	01:33:05
1	Mg 279.077 IEC†	254.5	66.1	24.617	µg/L	24.617	ppb	01:33:25
1	Na 589.592 Radial†	1387.7	109.2	14.783	µg/L	14.783	ppb	01:33:05
1	Sr 421.552†	-207.2	-73.8	-0.1536	µg/L	-0.1536	ppb	01:33:05
1	Sc 361.383	1731773.4	1731773.4	100.79	%			01:34:13
1	Y 371.029	1034993.2	1034993.2	100.81	%			01:34:13
1	Ag 328.068†	4219.4	95.0	0.3480	µg/L	0.3480	ppb	01:34:15
1	As 188.979†	-14.9	5.6	1.6865	µg/L	1.6865	ppb	01:34:35
1	B 249.677†	3568.7	34.9	0.5127	µg/L	0.5127	ppb	01:34:15
1	Ba 233.527†	-137.0	-0.1	-0.0009	µg/L	-0.0009	ppb	01:34:35
1	Be 313.107†	-780.2	290.6	0.0800	µg/L	0.0800	ppb	01:34:15
1	Cd 226.502†	-91.2	27.8	0.1726	µg/L	0.1726	ppb	01:34:35
1	Co 228.616†	-160.4	31.2	0.3844	µg/L	0.3844	ppb	01:34:35
1	Cr 267.716†	211.8	31.6	0.2451	µg/L	0.2451	ppb	01:34:35
1	Cu 324.752†	2967.0	-28.5	-0.1059	µg/L	-0.1059	ppb	01:34:15
1	Mn 257.610†	310.1	70.4	0.0862	µg/L	0.0862	ppb	01:34:35
1	Mo 202.031†	-19.2	1.0	0.0313	µg/L	0.0313	ppb	01:34:35
1	Ni 231.604†	-38.5	38.4	0.4416	µg/L	0.4416	ppb	01:34:35
1	P 214.914†	-26.9	-8.7	-1.8628	µg/L	-1.8628	ppb	01:34:35
1	Pb 220.353†	65.3	-21.6	-1.2051	µg/L	-1.2051	ppb	01:34:35
1	S 181.975 Axial†	106.1	0.2	0.1331	µg/L	0.1331	ppb	01:34:35
1	Sb 206.836†	73.4	-8.0	-0.9578	µg/L	-0.9578	ppb	01:34:35
1	Se 196.026†	15.6	0.2	0.068	µg/L	0.068	ppb	01:34:35
1	SiO2†	1796.3	6.8	0.6595	µg/L	0.6595	ppb	01:34:35
1	Si 251.611†	840.5	-2.6	-0.0425	µg/L	-0.0425	ppb	01:34:15
1	Sn 189.927†	7.4	8.4	0.5243	µg/L	0.5243	ppb	01:34:35
1	Ti 334.940†	956.0	-4.0	-0.0063	µg/L	-0.0063	ppb	01:34:15
1	Tl 190.801†	-113.8	3.8	0.4619	µg/L	0.4619	ppb	01:34:35
1	U 409.014†	-221.8	49.8	2.8783	µg/L	2.8783	ppb	01:34:15
1	V 292.402†	291.0	-115.1	-0.5590	µg/L	-0.5590	ppb	01:34:15
1	Zn 213.857†	611.2	42.0	0.2323	µg/L	0.2323	ppb	01:34:35
2	Sc RADIAL	143480.2	143480.2	98.3	%			01:33:27
2	Al 396.153Radial†	35.4	99.2	18.400	µg/L	18.400	ppb	01:33:47
2	Ca 317.933Radial†	923.3	378.5	21.086	µg/L	21.086	ppb	01:33:47
2	Fe 238.204 Radial†	279.8	136.5	8.4133	µg/L	8.4133	ppb	01:33:47
2	K 766.490 Radial†	2033.7	523.6	191.70	µg/L	191.70	ppb	01:33:27
2	Mg 279.077 IEC†	230.6	43.8	16.325	µg/L	16.325	ppb	01:33:47
2	Na 589.592 Radial†	1388.8	121.8	16.463	µg/L	16.463	ppb	01:33:27
2	Sr 421.552†	-108.3	25.1	0.0520	µg/L	0.0520	ppb	01:33:27
2	Sc 361.383	1749816.9	1749816.9	101.84	%			01:34:37
2	Y 371.029	1045017.7	1045017.7	101.79	%			01:34:37
2	Ag 328.068†	4151.7	-14.6	-0.0529	µg/L	-0.0529	ppb	01:34:40
2	As 188.979†	-13.8	6.8	2.0524	µg/L	2.0524	ppb	01:35:00
2	B 249.677†	3626.5	55.1	0.8113	µg/L	0.8113	ppb	01:34:40
2	Ba 233.527†	-104.2	33.5	0.1349	µg/L	0.1349	ppb	01:35:00
2	Be 313.107†	-899.2	181.7	0.0507	µg/L	0.0507	ppb	01:34:40
2	Cd 226.502†	-104.7	15.4	0.0953	µg/L	0.0953	ppb	01:35:00
2	Co 228.616†	-169.5	23.9	0.2945	µg/L	0.2945	ppb	01:35:00
2	Cr 267.716†	201.1	18.9	0.1446	µg/L	0.1446	ppb	01:35:00
2	Cu 324.752†	2829.6	-193.8	-0.7479	µg/L	-0.7479	ppb	01:34:40
2	Mn 257.610†	297.6	54.9	0.0673	µg/L	0.0673	ppb	01:35:00
2	Mo 202.031†	-24.5	-4.0	-0.1177	µg/L	-0.1177	ppb	01:35:00
2	Ni 231.604†	-90.3	-12.1	-0.1396	µg/L	-0.1396	ppb	01:35:00
2	P 214.914†	-13.7	4.5	0.9779	µg/L	0.9779	ppb	01:35:00
2	Pb 220.353†	69.0	-18.6	-1.0426	µg/L	-1.0426	ppb	01:35:00

2	S 181.975 Axial†	90.5	-16.2	-12.038	µg/L	-12.038 ppb	01:35:00
2	Sb 206.836†	72.9	-9.3	-1.1038	µg/L	-1.1038 ppb	01:35:00
2	Se 196.026†	26.1	10.3	3.74	µg/L	3.74 ppb	01:35:00
2	SiO2†	1690.9	-115.0	-11.246	µg/L	-11.246 ppb	01:35:00
2	Si 251.611†	970.1	116.0	1.7095	µg/L	1.7095 ppb	01:34:40
2	Sn 189.927†	4.5	5.5	0.3461	µg/L	0.3461 ppb	01:35:00
2	Ti 334.940†	1033.1	61.9	0.0554	µg/L	0.0554 ppb	01:34:40
2	Tl 190.801†	-109.0	9.6	1.1795	µg/L	1.1795 ppb	01:35:00
2	U 409.014†	-207.0	66.6	3.8786	µg/L	3.8786 ppb	01:34:40
2	V 292.402†	361.7	-48.6	-0.2362	µg/L	-0.2362 ppb	01:34:40
2	Zn 213.857†	609.4	34.0	0.1917	µg/L	0.1917 ppb	01:35:00
3	Sc RADIAL	144046.9	144046.9	98.7	%		01:33:49
3	Al 396.153Radial†	17.0	80.4	14.927	µg/L	14.927 ppb	01:34:10
3	Ca 317.933Radial†	885.2	336.2	18.727	µg/L	18.727 ppb	01:34:10
3	Fe 238.204 Radial†	250.9	106.1	6.5367	µg/L	6.5367 ppb	01:34:10
3	K 766.490 Radial†	1975.4	456.4	167.09	µg/L	167.09 ppb	01:33:49
3	Mg 279.077 IEC†	216.2	28.3	10.536	µg/L	10.536 ppb	01:34:10
3	Na 589.592 Radial†	1284.3	10.3	1.2517	µg/L	1.2517 ppb	01:33:49
3	Sr 421.552†	-129.3	4.3	0.0087	µg/L	0.0087 ppb	01:33:49
3	Sc 361.383	1747720.5	1747720.5	101.72	%		01:35:02
3	Y 371.029	1042519.0	1042519.0	101.54	%		01:35:02
3	Ag 328.068†	4083.2	-77.1	-0.2760	µg/L	-0.2760 ppb	01:35:04
3	As 188.979†	-23.1	-2.4	-0.7100	µg/L	-0.7100 ppb	01:35:24
3	B 249.677†	3447.3	-116.8	-1.7241	µg/L	-1.7241 ppb	01:35:04
3	Ba 233.527†	-100.7	36.9	0.1482	µg/L	0.1482 ppb	01:35:24
3	Be 313.107†	-1007.0	74.7	0.0236	µg/L	0.0236 ppb	01:35:04
3	Cd 226.502†	-108.8	11.3	0.0697	µg/L	0.0697 ppb	01:35:24
3	Co 228.616†	-158.9	34.1	0.4206	µg/L	0.4206 ppb	01:35:24
3	Cr 267.716†	198.6	16.7	0.1225	µg/L	0.1225 ppb	01:35:24
3	Cu 324.752†	2971.0	-51.4	-0.1894	µg/L	-0.1894 ppb	01:35:04
3	Mn 257.610†	275.0	33.1	0.0405	µg/L	0.0405 ppb	01:35:24
3	Mo 202.031†	-29.3	-8.8	-0.2571	µg/L	-0.2571 ppb	01:35:24
3	Ni 231.604†	-102.1	-23.9	-0.2749	µg/L	-0.2749 ppb	01:35:24
3	P 214.914†	-27.0	-8.6	-1.8213	µg/L	-1.8213 ppb	01:35:24
3	Pb 220.353†	72.1	-15.5	-0.8740	µg/L	-0.8740 ppb	01:35:24
3	S 181.975 Axial†	95.4	-11.3	-8.3648	µg/L	-8.3648 ppb	01:35:24
3	Sb 206.836†	83.3	1.1	0.1275	µg/L	0.1275 ppb	01:35:24
3	Se 196.026†	15.1	-0.5	-0.158	µg/L	-0.158 ppb	01:35:24
3	SiO2†	1778.9	-26.5	-2.5941	µg/L	-2.5941 ppb	01:35:24
3	Si 251.611†	839.8	-10.9	-0.1611	µg/L	-0.1611 ppb	01:35:04
3	Sn 189.927†	6.7	7.7	0.4774	µg/L	0.4774 ppb	01:35:24
3	Ti 334.940†	921.8	-46.3	-0.0480	µg/L	-0.0480 ppb	01:35:04
3	Tl 190.801†	-117.9	0.8	0.0949	µg/L	0.0949 ppb	01:35:24
3	U 409.014†	-88.3	183.1	10.689	µg/L	10.689 ppb	01:35:04
3	V 292.402†	353.6	-56.1	-0.2694	µg/L	-0.2694 ppb	01:35:04
3	Zn 213.857†	615.1	40.3	0.2274	µg/L	0.2274 ppb	01:35:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1743103.6	101.45	%	0.574				0.57%
Sc RADIAL	144059.1	98.7	%	0.40				0.41%
Y 371.029	1040843.3	101.38	%	0.508				0.50%
Ag 328.068†	1.1	0.0064	µg/L	0.31617	0.0064	ppb	0.31617	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	99.6	18.480	µg/L	3.5934	18.480	ppb	3.5934	19.45%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.3	1.0096	µg/L	1.50042	1.0096	ppb	1.50042	148.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-9.0	-0.1334	µg/L	1.38566	-0.1334	ppb	1.38566	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	23.4	0.0941	µg/L	0.08251	0.0941	ppb	0.08251	87.72%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	182.3	0.0514	µg/L	0.02823	0.0514	ppb	0.02823	54.91%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	395.0	22.004	µg/L	3.8206	22.004	ppb	3.8206	17.36%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	18.2	0.1125	µg/L	0.05357	0.1125	ppb	0.05357	47.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	29.7	0.3665	µg/L	0.06493	0.3665	ppb	0.06493	17.72%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                22.4      0.1708 µg/L       0.06537      0.1708 ppb        0.06537  38.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -91.2     -0.3477 µg/L       0.34907     -0.3477 ppb        0.34907 100.39%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        134.5      8.2867 µg/L       1.69027      8.2867 ppb        1.69027  20.40%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         459.7      168.28 µg/L        22.848      168.28 ppb         22.848  13.58%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            46.1      17.159 µg/L        7.0777      17.159 ppb         7.0777  41.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                52.8      0.0647 µg/L       0.02293      0.0647 ppb        0.02293  35.46%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.9     -0.1145 µg/L       0.14420     -0.1145 ppb        0.14420 125.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         80.4      10.833 µg/L        8.3397      10.833 ppb         8.3397  76.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.8      0.0091 µg/L       0.38069      0.0091 ppb        0.38069 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.3     -0.9020 µg/L       1.62822     -0.9020 ppb        1.62822 180.50%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -18.6     -1.0406 µg/L       0.16556     -1.0406 ppb        0.16556  15.91%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -9.1     -6.7567 µg/L       6.24300     -6.7567 ppb        6.24300  92.40%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -5.4     -0.6447 µg/L       0.67274     -0.6447 ppb        0.67274 104.35%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.3        1.22 µg/L         2.190        1.22 ppb          2.190 179.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -44.9     -4.3935 µg/L       6.15338     -4.3935 ppb        6.15338 140.06%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                34.1      0.5020 µg/L       1.04746      0.5020 ppb        1.04746 208.67%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.2      0.4493 µg/L       0.09239      0.4493 ppb        0.09239  20.57%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -14.8     -0.0310 µg/L       0.10839     -0.0310 ppb        0.10839 350.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 3.9      0.0003 µg/L       0.05203      0.0003 ppb        0.05203 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 4.7      0.5788 µg/L       0.55162      0.5788 ppb        0.55162  95.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 99.8      5.8153 µg/L       4.25029      5.8153 ppb        4.25029  73.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -73.3     -0.3549 µg/L       0.17756     -0.3549 ppb        0.17756  50.04%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                38.8      0.2171 µg/L       0.02218      0.2171 ppb        0.02218  10.22%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 178
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 1:53:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144889.1	144889.1	99.3	%			01:54:01
1	Al 396.153Radial†	26444.1	26697.2	4927.6	µg/L	4927.6	ppb	01:54:01
1	Ca 317.933Radial†	86941.0	87004.9	4846.5	µg/L	4846.5	ppb	01:54:01
1	Fe 238.204 Radial†	77758.3	78168.7	4817.8	µg/L	4817.8	ppb	01:54:01
1	K 766.490 Radial†	14897.6	13459.8	4923.9	µg/L	4923.9	ppb	01:54:01
1	Mg 279.077 IEC†	13366.3	13271.6	4952.3	µg/L	4952.3	ppb	01:54:01
1	Na 589.592 Radial†	71709.3	70933.5	9686.0	µg/L	9686.0	ppb	01:54:01
1	Sr 421.552†	230601.0	232392.6	483.09	µg/L	483.09	ppb	01:53:59
1	Sc 361.383	1732100.0	1732100.0	100.81	%			01:54:28
1	Y 371.029	1023099.6	1023099.6	99.650	%			01:54:28
1	Ag 328.068†	133137.6	127979.1	479.85	µg/L	479.85	ppb	01:54:28
1	As 188.979†	1612.3	1619.7	496.76	µg/L	496.76	ppb	01:54:48
1	B 249.677†	35874.9	32081.5	471.48	µg/L	471.48	ppb	01:54:28
1	Ba 233.527†	119611.7	118788.9	479.07	µg/L	479.07	ppb	01:54:28
1	Be 313.107†	1788545.3	1775275.2	483.50	µg/L	483.50	ppb	01:54:28
1	Cd 226.502†	76870.4	76372.5	476.75	µg/L	476.75	ppb	01:54:28
1	Co 228.616†	38991.6	38869.4	479.84	µg/L	479.84	ppb	01:54:28
1	Cr 267.716†	61212.0	60542.8	474.05	µg/L	474.05	ppb	01:54:28
1	Cu 324.752†	126385.1	122399.9	477.14	µg/L	477.14	ppb	01:54:28
1	Mn 257.610†	391844.9	388467.0	480.44	µg/L	480.44	ppb	01:54:28
1	Mo 202.031†	16253.3	16143.1	474.86	µg/L	474.86	ppb	01:54:48
1	Ni 231.604†	41701.3	41443.5	477.19	µg/L	477.19	ppb	01:54:28
1	P 214.914†	11179.5	11107.9	2367.6	µg/L	2367.6	ppb	01:54:48
1	Pb 220.353†	8738.5	8582.1	480.59	µg/L	480.59	ppb	01:54:48
1	S 181.975 Axial†	1413.8	1297.4	967.45	µg/L	967.45	ppb	01:54:48
1	Sb 206.836†	4129.4	4015.5	478.42	µg/L	478.42	ppb	01:54:48
1	Se 196.026†	1321.4	1295.6	470	µg/L	470	ppb	01:54:48
1	SiO2†	54758.0	52543.7	5115.3	µg/L	5115.3	ppb	01:54:28
1	Si 251.611†	165491.5	163328.5	2398.5	µg/L	2398.5	ppb	01:54:28
1	Sn 189.927†	7680.8	7620.3	476.66	µg/L	476.66	ppb	01:54:48
1	Ti 334.940†	517868.9	512765.7	478.45	µg/L	478.45	ppb	01:54:28
1	Tl 190.801†	3805.2	3891.4	485.31	µg/L	485.31	ppb	01:54:48
1	U 409.014†	7130.8	7343.6	458.38	µg/L	458.38	ppb	01:54:28
1	V 292.402†	98453.8	97260.9	480.75	µg/L	480.75	ppb	01:54:28
1	Zn 213.857†	86275.4	85019.5	473.84	µg/L	473.84	ppb	01:54:28
2	Sc RADIAL	144090.9	144090.9	98.7	%			01:54:05
2	Al 396.153Radial†	26312.9	26711.9	4930.1	µg/L	4930.1	ppb	01:54:05
2	Ca 317.933Radial†	86199.8	86739.3	4831.7	µg/L	4831.7	ppb	01:54:05
2	Fe 238.204 Radial†	77277.1	78115.2	4814.5	µg/L	4814.5	ppb	01:54:05
2	K 766.490 Radial†	14795.3	13439.4	4916.4	µg/L	4916.4	ppb	01:54:05
2	Mg 279.077 IEC†	13254.1	13232.5	4937.8	µg/L	4937.8	ppb	01:54:05
2	Na 589.592 Radial†	71224.5	70842.7	9673.6	µg/L	9673.6	ppb	01:54:05
2	Sr 421.552†	226568.0	229594.7	477.28	µg/L	477.28	ppb	01:54:03
2	Sc 361.383	1743024.7	1743024.7	101.44	%			01:54:51
2	Y 371.029	1028485.3	1028485.3	100.17	%			01:54:51
2	Ag 328.068†	133695.0	127700.8	478.84	µg/L	478.84	ppb	01:54:51
2	As 188.979†	1633.2	1630.3	499.98	µg/L	499.98	ppb	01:55:11
2	B 249.677†	35991.2	31973.1	469.88	µg/L	469.88	ppb	01:54:51
2	Ba 233.527†	120399.9	118822.2	479.21	µg/L	479.21	ppb	01:54:51
2	Be 313.107†	1803686.2	1779080.5	484.55	µg/L	484.55	ppb	01:54:51
2	Cd 226.502†	77645.9	76659.1	478.54	µg/L	478.54	ppb	01:54:51
2	Co 228.616†	39225.9	38858.0	479.70	µg/L	479.70	ppb	01:54:51
2	Cr 267.716†	61891.8	60832.4	476.31	µg/L	476.31	ppb	01:54:51
2	Cu 324.752†	127393.6	122608.3	477.96	µg/L	477.96	ppb	01:54:51
2	Mn 257.610†	395069.2	389209.2	481.36	µg/L	481.36	ppb	01:54:51
2	Mo 202.031†	16503.6	16288.8	479.15	µg/L	479.15	ppb	01:55:11
2	Ni 231.604†	41973.3	41452.5	477.30	µg/L	477.30	ppb	01:54:51
2	P 214.914†	11383.8	11239.8	2395.8	µg/L	2395.8	ppb	01:55:11
2	Pb 220.353†	8825.3	8613.3	482.34	µg/L	482.34	ppb	01:55:11

2	S 181.975 Axial†	1446.2	1320.5	984.64 µg/L	984.64 ppb	01:55:11
2	Sb 206.836†	4171.5	4031.4	480.35 µg/L	480.35 ppb	01:55:11
2	Se 196.026†	1358.8	1324.1	481 µg/L	481 ppb	01:55:11
2	SiO2†	55126.8	52566.8	5117.4 µg/L	5117.4 ppb	01:54:51
2	Si 251.611†	166831.3	163620.3	2402.7 µg/L	2402.7 ppb	01:54:51
2	Sn 189.927†	7808.6	7698.6	481.54 µg/L	481.54 ppb	01:55:11
2	Ti 334.940†	521492.7	513118.1	478.77 µg/L	478.77 ppb	01:54:51
2	Tl 190.801†	3856.9	3918.7	488.67 µg/L	488.67 ppb	01:55:11
2	U 409.014†	7461.6	7625.3	474.87 µg/L	474.87 ppb	01:54:51
2	V 292.402†	99126.3	97311.7	481.07 µg/L	481.07 ppb	01:54:51
2	Zn 213.857†	86941.8	85140.0	474.52 µg/L	474.52 ppb	01:54:51
3	Sc RADIAL	143189.9	143189.9	98.1 %		01:54:09
3	Al 396.153Radial†	26288.8	26855.0	4956.7 µg/L	4956.7 ppb	01:54:09
3	Ca 317.933Radial†	85899.6	86982.7	4845.3 µg/L	4845.3 ppb	01:54:09
3	Fe 238.204 Radial†	76674.9	77993.9	4807.1 µg/L	4807.1 ppb	01:54:09
3	K 766.490 Radial†	14694.1	13430.5	4913.1 µg/L	4913.1 ppb	01:54:09
3	Mg 279.077 IEC†	13109.4	13169.5	4914.3 µg/L	4914.3 ppb	01:54:09
3	Na 589.592 Radial†	71187.8	71259.1	9730.5 µg/L	9730.5 ppb	01:54:09
3	Sr 421.552†	229587.3	234115.6	486.67 µg/L	486.67 ppb	01:54:07
3	Sc 361.383	1732756.5	1732756.5	100.85 %		01:55:14
3	Y 371.029	1023226.1	1023226.1	99.663 %		01:55:14
3	Ag 328.068†	132868.9	127662.6	478.70 µg/L	478.70 ppb	01:55:14
3	As 188.979†	1613.1	1619.9	496.83 µg/L	496.83 ppb	01:55:34
3	B 249.677†	36177.8	32368.3	475.71 µg/L	475.71 ppb	01:55:14
3	Ba 233.527†	119703.3	118834.8	479.26 µg/L	479.26 ppb	01:55:14
3	Be 313.107†	1791615.1	1777647.1	484.16 µg/L	484.16 ppb	01:55:14
3	Cd 226.502†	76911.2	76384.1	476.82 µg/L	476.82 ppb	01:55:14
3	Co 228.616†	38990.6	38853.8	479.65 µg/L	479.65 ppb	01:55:14
3	Cr 267.716†	61496.0	60801.5	476.06 µg/L	476.06 ppb	01:55:14
3	Cu 324.752†	126455.9	122422.6	477.24 µg/L	477.24 ppb	01:55:14
3	Mn 257.610†	392850.6	389317.1	481.49 µg/L	481.49 ppb	01:55:14
3	Mo 202.031†	16363.5	16246.3	477.90 µg/L	477.90 ppb	01:55:34
3	Ni 231.604†	41768.3	41494.4	477.78 µg/L	477.78 ppb	01:55:14
3	P 214.914†	11227.0	11150.7	2376.7 µg/L	2376.7 ppb	01:55:34
3	Pb 220.353†	8769.4	8609.4	482.12 µg/L	482.12 ppb	01:55:34
3	S 181.975 Axial†	1409.8	1292.9	964.13 µg/L	964.13 ppb	01:55:34
3	Sb 206.836†	4149.1	4033.4	480.58 µg/L	480.58 ppb	01:55:34
3	Se 196.026†	1348.9	1322.3	480 µg/L	480 ppb	01:55:34
3	SiO2†	54793.8	52558.7	5116.7 µg/L	5116.7 ppb	01:55:14
3	Si 251.611†	165958.9	163729.8	2404.3 µg/L	2404.3 ppb	01:55:14
3	Sn 189.927†	7740.4	7676.6	480.17 µg/L	480.17 ppb	01:55:34
3	Ti 334.940†	518815.4	513509.7	479.14 µg/L	479.14 ppb	01:55:14
3	Tl 190.801†	3816.6	3901.3	486.54 µg/L	486.54 ppb	01:55:34
3	U 409.014†	7409.2	7616.9	474.38 µg/L	474.38 ppb	01:55:14
3	V 292.402†	98541.2	97310.6	481.05 µg/L	481.05 ppb	01:55:14
3	Zn 213.857†	86396.5	85107.2	474.34 µg/L	474.34 ppb	01:55:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1735960.4	101.03	%	0.357				0.35%
Sc RADIAL	144056.6	98.7	%	0.58				0.59%
Y 371.029	1024937.0	99.829	%	0.2994				0.30%
Ag 328.068†	127780.9	479.13	µg/L	0.627	479.13	ppb	0.627	0.13%
QC value within limits for Ag 328.068 Recovery = 95.83%								
Al 396.153Radial†	26754.7	4938.1	µg/L	16.14	4938.1	ppb	16.14	0.33%
QC value within limits for Al 396.153Radial Recovery = 98.76%								
As 188.979†	1623.3	497.86	µg/L	1.841	497.86	ppb	1.841	0.37%
QC value within limits for As 188.979 Recovery = 99.57%								
B 249.677†	32141.0	472.36	µg/L	3.012	472.36	ppb	3.012	0.64%
QC value within limits for B 249.677 Recovery = 94.47%								
Ba 233.527†	118815.3	479.18	µg/L	0.096	479.18	ppb	0.096	0.02%
QC value within limits for Ba 233.527 Recovery = 95.84%								
Be 313.107†	1777334.3	484.07	µg/L	0.526	484.07	ppb	0.526	0.11%
QC value within limits for Be 313.107 Recovery = 96.81%								
Ca 317.933Radial†	86909.0	4841.2	µg/L	8.21	4841.2	ppb	8.21	0.17%
QC value within limits for Ca 317.933Radial Recovery = 96.82%								
Cd 226.502†	76471.9	477.37	µg/L	1.013	477.37	ppb	1.013	0.21%
QC value within limits for Cd 226.502 Recovery = 95.47%								
Co 228.616†	38860.4	479.73	µg/L	0.099	479.73	ppb	0.099	0.02%

```
   QC value within limits for Co 228.616  Recovery = 95.95%
Cr 267.716†            60725.6      475.47 µg/L         1.238      475.47 ppb          1.238   0.26%
   QC value within limits for Cr 267.716  Recovery = 95.09%
Cu 324.752†           122476.9      477.45 µg/L         0.449      477.45 ppb          0.449   0.09%
   QC value within limits for Cu 324.752  Recovery = 95.49%
Fe 238.204 Radial†     78092.6      4813.1 µg/L          5.52      4813.1 ppb           5.52   0.11%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.26%
K 766.490 Radial†      13443.2      4917.8 µg/L          5.50      4917.8 ppb           5.50   0.11%
   QC value within limits for K 766.490 Radial  Recovery = 98.36%
Mg 279.077 IEC†        13224.5      4934.8 µg/L         19.15      4934.8 ppb          19.15   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.70%
Mn 257.610†           388997.8      481.10 µg/L         0.573      481.10 ppb          0.573   0.12%
   QC value within limits for Mn 257.610  Recovery = 96.22%
Mo 202.031†            16226.1      477.30 µg/L         2.201      477.30 ppb          2.201   0.46%
   QC value within limits for Mo 202.031  Recovery = 95.46%
Na 589.592 Radial†     71011.8      9696.7 µg/L         29.92      9696.7 ppb          29.92   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 96.97%
Ni 231.604†            41463.5      477.42 µg/L         0.312      477.42 ppb          0.312   0.07%
   QC value within limits for Ni 231.604  Recovery = 95.48%
P 214.914†             11166.1      2380.0 µg/L         14.38      2380.0 ppb          14.38   0.60%
   QC value within limits for P 214.914  Recovery = 95.20%
Pb 220.353†             8601.6      481.68 µg/L         0.950      481.68 ppb          0.950   0.20%
   QC value within limits for Pb 220.353  Recovery = 96.34%
S 181.975 Axial†        1303.6      972.07 µg/L        11.009      972.07 ppb         11.009   1.13%
   QC value within limits for S 181.975 Axial  Recovery = 97.21%
Sb 206.836†             4026.7      479.79 µg/L         1.184      479.79 ppb          1.184   0.25%
   QC value within limits for Sb 206.836  Recovery = 95.96%
Se 196.026†             1314.0         477 µg/L           5.8         477 ppb            5.8   1.21%
   QC value within limits for Se 196.026  Recovery = 95.43%
SiO2†                  52556.4      5116.5 µg/L          1.05      5116.5 ppb           1.05   0.02%
   QC value within limits for SiO2  Recovery = 95.68%
Si 251.611†           163559.6      2401.8 µg/L          3.02      2401.8 ppb           3.02   0.13%
   QC value within limits for Si 251.611  Recovery = 96.07%
Sn 189.927†             7665.2      479.46 µg/L         2.517      479.46 ppb          2.517   0.53%
   QC value within limits for Sn 189.927  Recovery = 95.89%
Sr 421.552†           232034.3      482.35 µg/L         4.743      482.35 ppb          4.743   0.98%
   QC value within limits for Sr 421.552  Recovery = 96.47%
Ti 334.940†           513131.2      478.79 µg/L         0.346      478.79 ppb          0.346   0.07%
   QC value within limits for Ti 334.940  Recovery = 95.76%
Tl 190.801†             3903.8      486.84 µg/L         1.702      486.84 ppb          1.702   0.35%
   QC value within limits for Tl 190.801  Recovery = 97.37%
U 409.014†              7528.6      469.21 µg/L         9.385      469.21 ppb          9.385   2.00%
   QC value within limits for U 409.014  Recovery = 93.84%
V 292.402†             97294.4      480.96 µg/L         0.176      480.96 ppb          0.176   0.04%
   QC value within limits for V 292.402  Recovery = 96.19%
Zn 213.857†            85088.9      474.23 µg/L         0.349      474.23 ppb          0.349   0.07%
   QC value within limits for Zn 213.857  Recovery = 94.85%
All analyte(s) passed QC.
```

Sequence No.: 179 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/1/2010 1:55:42**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145551.6	145551.6	99.7	%			01:56:11
1	Al 396.153Radial†	-65.8	-2.8	-0.5143	µg/L	-0.5143	ppb	01:56:31
1	Ca 317.933Radial†	666.6	107.8	6.0037	µg/L	6.0037	ppb	01:56:31
1	Fe 238.204 Radial†	142.8	-5.0	-0.3060	µg/L	-0.3060	ppb	01:56:31
1	K 766.490 Radial†	1839.3	299.3	109.59	µg/L	109.59	ppb	01:56:11
1	Mg 279.077 IEC†	181.2	-9.0	-3.3548	µg/L	-3.3548	ppb	01:56:31
1	Na 589.592 Radial†	1588.0	301.3	41.070	µg/L	41.070	ppb	01:56:11
1	Sr 421.552†	-333.1	-198.7	-0.4132	µg/L	-0.4132	ppb	01:56:11
1	Sc 361.383	1751779.3	1751779.3	101.95	%			01:57:33
1	Y 371.029	1045514.8	1045514.8	101.83	%			01:57:33
1	Ag 328.068†	4128.8	-41.7	-0.1593	µg/L	-0.1593	ppb	01:57:35
1	As 188.979†	-12.8	7.8	2.3692	µg/L	2.3692	ppb	01:57:55
1	B 249.677†	3541.5	-32.3	-0.4767	µg/L	-0.4767	ppb	01:57:35
1	Ba 233.527†	-108.9	29.0	0.1170	µg/L	0.1170	ppb	01:57:55
1	Be 313.107†	-1073.9	11.4	0.0014	µg/L	0.0014	ppb	01:57:35
1	Cd 226.502†	-112.0	8.4	0.0522	µg/L	0.0522	ppb	01:57:55
1	Co 228.616†	-179.5	14.2	0.1753	µg/L	0.1753	ppb	01:57:55
1	Cr 267.716†	181.7	-0.3	0.0020	µg/L	0.0020	ppb	01:57:55
1	Cu 324.752†	3003.9	-25.8	-0.1050	µg/L	-0.1050	ppb	01:57:35
1	Mn 257.610†	273.3	30.8	0.0383	µg/L	0.0383	ppb	01:57:55
1	Mo 202.031†	-22.7	-2.2	-0.0633	µg/L	-0.0633	ppb	01:57:55
1	Ni 231.604†	-96.5	-18.1	-0.2088	µg/L	-0.2088	ppb	01:57:55
1	P 214.914†	-18.3	0.0	0.0166	µg/L	0.0166	ppb	01:57:55
1	Pb 220.353†	65.4	-22.2	-1.2353	µg/L	-1.2353	ppb	01:57:55
1	S 181.975 Axial†	114.5	7.3	5.3871	µg/L	5.3871	ppb	01:57:55
1	Sb 206.836†	62.6	-19.4	-2.3048	µg/L	-2.3048	ppb	01:57:55
1	Se 196.026†	0.8	-14.5	-5.25	µg/L	-5.25	ppb	01:57:55
1	SiO2†	1800.8	-9.1	-0.8957	µg/L	-0.8957	ppb	01:57:35
1	Si 251.611†	889.3	35.7	0.5242	µg/L	0.5242	ppb	01:57:35
1	Sn 189.927†	7.5	8.5	0.5302	µg/L	0.5302	ppb	01:57:55
1	Ti 334.940†	969.2	-1.9	0.0010	µg/L	0.0010	ppb	01:57:35
1	Tl 190.801†	-112.3	6.6	0.8079	µg/L	0.8079	ppb	01:57:55
1	U 409.014†	-372.7	-95.6	-5.5813	µg/L	-5.5813	ppb	01:57:35
1	V 292.402†	449.1	36.7	0.1747	µg/L	0.1747	ppb	01:57:35
1	Zn 213.857†	603.1	27.2	0.1540	µg/L	0.1540	ppb	01:57:55
2	Sc RADIAL	142463.2	142463.2	97.6	%			01:56:33
2	Al 396.153Radial†	-76.0	-14.7	-2.7386	µg/L	-2.7386	ppb	01:56:53
2	Ca 317.933Radial†	631.4	86.2	4.8021	µg/L	4.8021	ppb	01:56:53
2	Fe 238.204 Radial†	165.0	20.9	1.2889	µg/L	1.2889	ppb	01:56:53
2	K 766.490 Radial†	1754.3	252.2	92.343	µg/L	92.343	ppb	01:56:33
2	Mg 279.077 IEC†	178.3	-8.0	-2.9828	µg/L	-2.9828	ppb	01:56:53
2	Na 589.592 Radial†	1488.6	234.0	31.890	µg/L	31.890	ppb	01:56:33
2	Sr 421.552†	-267.3	-138.5	-0.2880	µg/L	-0.2880	ppb	01:56:33
2	Sc 361.383	1744511.1	1744511.1	101.53	%			01:57:57
2	Y 371.029	1040880.2	1040880.2	101.38	%			01:57:57
2	Ag 328.068†	4095.8	-57.3	-0.2333	µg/L	-0.2333	ppb	01:58:00
2	As 188.979†	-19.9	0.8	0.2405	µg/L	0.2405	ppb	01:58:20
2	B 249.677†	3689.6	128.1	1.8892	µg/L	1.8892	ppb	01:58:00
2	Ba 233.527†	-127.7	10.1	0.0404	µg/L	0.0404	ppb	01:58:20
2	Be 313.107†	-779.7	296.7	0.0769	µg/L	0.0769	ppb	01:58:00
2	Cd 226.502†	-116.8	3.2	0.0196	µg/L	0.0196	ppb	01:58:20
2	Co 228.616†	-181.5	11.6	0.1430	µg/L	0.1430	ppb	01:58:20
2	Cr 267.716†	210.9	29.2	0.2383	µg/L	0.2383	ppb	01:58:20
2	Cu 324.752†	3046.1	27.9	0.0982	µg/L	0.0982	ppb	01:58:00
2	Mn 257.610†	284.4	42.8	0.0531	µg/L	0.0531	ppb	01:58:20
2	Mo 202.031†	-4.2	15.9	0.4681	µg/L	0.4681	ppb	01:58:20
2	Ni 231.604†	-89.6	-11.8	-0.1354	µg/L	-0.1354	ppb	01:58:20
2	P 214.914†	-29.1	-10.7	-2.2834	µg/L	-2.2834	ppb	01:58:20
2	Pb 220.353†	83.5	-4.1	-0.2188	µg/L	-0.2188	ppb	01:58:20

2	S 181.975 Axial†	133.9	26.8	19.886	µg/L	19.886 ppb	01:58:20
2	Sb 206.836†	67.1	-14.7	-1.7443	µg/L	-1.7443 ppb	01:58:20
2	Se 196.026†	24.1	8.4	3.04	µg/L	3.04 ppb	01:58:20
2	SiO2†	1798.4	-4.0	-0.4169	µg/L	-0.4169 ppb	01:58:00
2	Si 251.611†	966.5	115.4	1.6906	µg/L	1.6906 ppb	01:58:00
2	Sn 189.927†	9.5	10.5	0.6536	µg/L	0.6536 ppb	01:58:20
2	Ti 334.940†	894.2	-71.8	-0.0616	µg/L	-0.0616 ppb	01:58:00
2	Tl 190.801†	-110.7	7.6	0.9340	µg/L	0.9340 ppb	01:58:20
2	U 409.014†	-495.6	-218.2	-12.786	µg/L	-12.786 ppb	01:58:00
2	V 292.402†	320.0	-88.6	-0.4349	µg/L	-0.4349 ppb	01:58:00
2	Zn 213.857†	606.1	32.5	0.1834	µg/L	0.1834 ppb	01:58:20
3	Sc RADIAL	143784.8	143784.8	98.5	%		01:56:55
3	Al 396.153Radial†	-72.4	-10.2	-1.8918	µg/L	-1.8918 ppb	01:57:15
3	Ca 317.933Radial†	626.3	75.1	4.1820	µg/L	4.1820 ppb	01:57:15
3	Fe 238.204 Radial†	157.5	11.8	0.7268	µg/L	0.7268 ppb	01:57:15
3	K 766.490 Radial†	1711.0	191.8	70.214	µg/L	70.214 ppb	01:56:55
3	Mg 279.077 IEC†	214.1	26.6	9.9191	µg/L	9.9191 ppb	01:57:15
3	Na 589.592 Radial†	1356.1	85.6	11.626	µg/L	11.626 ppb	01:56:55
3	Sr 421.552†	-269.5	-138.2	-0.2874	µg/L	-0.2874 ppb	01:56:55
3	Sc 361.383	1767911.3	1767911.3	102.89	%		01:58:22
3	Y 371.029	1054011.1	1054011.1	102.66	%		01:58:22
3	Ag 328.068†	4196.4	-13.0	-0.0637	µg/L	-0.0637 ppb	01:58:24
3	As 188.979†	-5.7	14.8	4.4830	µg/L	4.4830 ppb	01:58:44
3	B 249.677†	3663.7	54.9	0.8087	µg/L	0.8087 ppb	01:58:24
3	Ba 233.527†	-114.6	24.5	0.0982	µg/L	0.0982 ppb	01:58:44
3	Be 313.107†	-1093.4	2.1	-0.0012	µg/L	-0.0012 ppb	01:58:24
3	Cd 226.502†	-92.8	28.0	0.1751	µg/L	0.1751 ppb	01:58:44
3	Co 228.616†	-185.7	9.8	0.1208	µg/L	0.1208 ppb	01:58:44
3	Cr 267.716†	201.6	17.3	0.1401	µg/L	0.1401 ppb	01:58:44
3	Cu 324.752†	2911.8	-142.3	-0.5572	µg/L	-0.5572 ppb	01:58:24
3	Mn 257.610†	263.8	19.2	0.0233	µg/L	0.0233 ppb	01:58:44
3	Mo 202.031†	-26.6	-5.8	-0.1698	µg/L	-0.1698 ppb	01:58:44
3	Ni 231.604†	-69.8	8.7	0.0998	µg/L	0.0998 ppb	01:58:44
3	P 214.914†	-16.2	2.2	0.4867	µg/L	0.4867 ppb	01:58:44
3	Pb 220.353†	83.9	-4.8	-0.2669	µg/L	-0.2669 ppb	01:58:44
3	S 181.975 Axial†	120.1	11.7	8.6560	µg/L	8.6560 ppb	01:58:44
3	Sb 206.836†	85.7	2.5	0.2913	µg/L	0.2913 ppb	01:58:44
3	Se 196.026†	9.9	-5.6	-2.04	µg/L	-2.04 ppb	01:58:44
3	SiO2†	1848.3	21.0	2.0528	µg/L	2.0528 ppb	01:58:24
3	Si 251.611†	874.0	12.9	0.1899	µg/L	0.1899 ppb	01:58:24
3	Sn 189.927†	4.6	5.5	0.3453	µg/L	0.3453 ppb	01:58:44
3	Ti 334.940†	814.2	-161.2	-0.1490	µg/L	-0.1490 ppb	01:58:24
3	Tl 190.801†	-128.8	-8.5	-1.0474	µg/L	-1.0474 ppb	01:58:44
3	U 409.014†	-381.6	-101.0	-5.9442	µg/L	-5.9442 ppb	01:58:24
3	V 292.402†	270.2	-141.1	-0.6936	µg/L	-0.6936 ppb	01:58:24
3	Zn 213.857†	596.7	15.5	0.0866	µg/L	0.0866 ppb	01:58:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1754733.9	102.13	%	0.697				0.68%
Sc RADIAL	143933.2	98.6	%	1.06				1.08%
Y 371.029	1046802.0	101.96	%	0.649				0.64%
Ag 328.068†	-37.3	-0.1521	µg/L	0.08501	-0.1521	ppb	0.08501	55.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.2	-1.7149	µg/L	1.12269	-1.7149	ppb	1.12269	65.47%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.8	2.3642	µg/L	2.12124	2.3642	ppb	2.12124	89.72%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.2	0.7404	µg/L	1.18445	0.7404	ppb	1.18445	159.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	21.2	0.0852	µg/L	0.03992	0.0852	ppb	0.03992	46.87%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	103.4	0.0257	µg/L	0.04438	0.0257	ppb	0.04438	172.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	89.7	4.9959	µg/L	0.92619	4.9959	ppb	0.92619	18.54%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	13.2	0.0823	µg/L	0.08201	0.0823	ppb	0.08201	99.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.9	0.1464	µg/L	0.02744	0.1464	ppb	0.02744	18.74%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              15.4      0.1268 µg/L       0.11872      0.1268 ppb        0.11872  93.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -46.7     -0.1880 µg/L       0.33551     -0.1880 ppb        0.33551 178.43%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        9.2      0.5699 µg/L       0.80892      0.5699 ppb        0.80892 141.94%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       247.8      90.715 µg/L       19.7374      90.715 ppb        19.7374  21.76%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.2      1.1938 µg/L       7.55858      1.1938 ppb        7.55858 633.14%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              30.9      0.0382 µg/L       0.01490      0.0382 ppb        0.01490  38.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.7      0.0783 µg/L       0.34173      0.0783 ppb        0.34173 436.17%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      207.0      28.195 µg/L       15.0656      28.195 ppb        15.0656  53.43%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -7.1     -0.0815 µg/L       0.16123     -0.0815 ppb        0.16123 197.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.8     -0.5934 µg/L       1.48237     -0.5934 ppb        1.48237 249.82%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -10.4     -0.5737 µg/L       0.57348     -0.5737 ppb        0.57348  99.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         15.2      11.310 µg/L        7.6051      11.310 ppb         7.6051  67.24%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -10.5     -1.2526 µg/L       1.36613     -1.2526 ppb        1.36613 109.06%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.9       -1.42 µg/L         4.177       -1.42 ppb          4.177 294.77%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     2.6      0.2467 µg/L       1.58234      0.2467 ppb        1.58234 641.29%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              54.7      0.8015 µg/L       0.78785      0.8015 ppb        0.78785  98.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.2      0.5097 µg/L       0.15517      0.5097 ppb        0.15517  30.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -158.5     -0.3295 µg/L       0.07245     -0.3295 ppb        0.07245  21.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -78.3     -0.0699 µg/L       0.07531     -0.0699 ppb        0.07531 107.82%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.9      0.2315 µg/L       1.10938      0.2315 ppb        1.10938 479.17%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -138.3     -8.1038 µg/L       4.05883     -8.1038 ppb        4.05883  50.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -64.3     -0.3180 µg/L       0.44583     -0.3180 ppb        0.44583 140.21%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              25.1      0.1413 µg/L       0.04962      0.1413 ppb        0.04962  35.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 189
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 2:19:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142482.1	142482.1	97.6	%			02:19:37
1	Al 396.153Radial†	25864.4	26553.4	4900.9	µg/L	4900.9	ppb	02:19:37
1	Ca 317.933Radial†	85331.9	86836.1	4837.1	µg/L	4837.1	ppb	02:19:37
1	Fe 238.204 Radial†	75728.7	77413.1	4771.3	µg/L	4771.3	ppb	02:19:37
1	K 766.490 Radial†	14888.6	13704.1	5013.3	µg/L	5013.3	ppb	02:19:37
1	Mg 279.077 IEC†	12988.0	13111.5	4892.7	µg/L	4892.7	ppb	02:19:37
1	Na 589.592 Radial†	71527.5	71967.5	9827.2	µg/L	9827.2	ppb	02:19:37
1	Sr 421.552†	227636.6	233280.1	484.94	µg/L	484.94	ppb	02:19:35
1	Sc 361.383	1730429.7	1730429.7	100.71	%			02:20:04
1	Y 371.029	1022608.2	1022608.2	99.603	%			02:20:04
1	Ag 328.068†	131919.2	126896.9	475.83	µg/L	475.83	ppb	02:20:04
1	As 188.979†	1608.5	1617.5	496.07	µg/L	496.07	ppb	02:20:24
1	B 249.677†	35428.5	31672.6	465.47	µg/L	465.47	ppb	02:20:04
1	Ba 233.527†	118521.9	117821.3	475.17	µg/L	475.17	ppb	02:20:04
1	Be 313.107†	1771161.4	1759726.5	479.27	µg/L	479.27	ppb	02:20:04
1	Cd 226.502†	75681.8	75265.9	469.84	µg/L	469.84	ppb	02:20:04
1	Co 228.616†	38563.9	38482.0	475.06	µg/L	475.06	ppb	02:20:04
1	Cr 267.716†	60790.8	60183.2	471.23	µg/L	471.23	ppb	02:20:04
1	Cu 324.752†	125721.3	121861.9	475.05	µg/L	475.05	ppb	02:20:04
1	Mn 257.610†	388444.5	385465.8	476.73	µg/L	476.73	ppb	02:20:04
1	Mo 202.031†	16270.9	16176.2	475.83	µg/L	475.83	ppb	02:20:24
1	Ni 231.604†	41269.7	41054.9	472.72	µg/L	472.72	ppb	02:20:04
1	P 214.914†	11152.5	11091.7	2364.2	µg/L	2364.2	ppb	02:20:24
1	Pb 220.353†	8708.1	8560.3	479.37	µg/L	479.37	ppb	02:20:24
1	S 181.975 Axial†	1839.5	1721.4	1282.3	µg/L	1282.3	ppb	02:20:24
1	Sb 206.836†	4096.9	3987.2	475.12	µg/L	475.12	ppb	02:20:24
1	Se 196.026†	1319.7	1295.1	470	µg/L	470	ppb	02:20:24
1	SiO2†	54111.4	51954.2	5057.7	µg/L	5057.7	ppb	02:20:04
1	Si 251.611†	163829.4	161836.7	2376.5	µg/L	2376.5	ppb	02:20:04
1	Sn 189.927†	7696.6	7643.4	478.09	µg/L	478.09	ppb	02:20:24
1	Ti 334.940†	514200.9	509619.5	475.51	µg/L	475.51	ppb	02:20:04
1	Tl 190.801†	3756.8	3847.0	479.82	µg/L	479.82	ppb	02:20:24
1	U 409.014†	7265.9	7484.6	466.47	µg/L	466.47	ppb	02:20:04
1	V 292.402†	97858.9	96764.5	478.34	µg/L	478.34	ppb	02:20:04
1	Zn 213.857†	85251.2	84085.2	468.63	µg/L	468.63	ppb	02:20:04
2	Sc RADIAL	143417.3	143417.3	98.3	%			02:19:41
2	Al 396.153Radial†	26013.9	26532.9	4897.2	µg/L	4897.2	ppb	02:19:41
2	Ca 317.933Radial†	85954.2	86899.4	4840.6	µg/L	4840.6	ppb	02:19:41
2	Fe 238.204 Radial†	76353.0	77542.5	4779.2	µg/L	4779.2	ppb	02:19:41
2	K 766.490 Radial†	14792.4	13506.7	4941.0	µg/L	4941.0	ppb	02:19:41
2	Mg 279.077 IEC†	13150.5	13190.2	4921.9	µg/L	4921.9	ppb	02:19:41
2	Na 589.592 Radial†	72142.5	72115.6	9847.5	µg/L	9847.5	ppb	02:19:41
2	Sr 421.552†	229319.1	233471.7	485.34	µg/L	485.34	ppb	02:19:39
2	Sc 361.383	1743349.5	1743349.5	101.46	%			02:20:27
2	Y 371.029	1028716.5	1028716.5	100.20	%			02:20:27
2	Ag 328.068†	133300.6	127287.6	477.31	µg/L	477.31	ppb	02:20:27
2	As 188.979†	1596.4	1593.8	488.89	µg/L	488.89	ppb	02:20:47
2	B 249.677†	35997.3	31972.5	469.88	µg/L	469.88	ppb	02:20:27
2	Ba 233.527†	120018.6	118424.3	477.60	µg/L	477.60	ppb	02:20:27
2	Be 313.107†	1796503.1	1771669.7	482.53	µg/L	482.53	ppb	02:20:27
2	Cd 226.502†	77106.3	76113.0	475.13	µg/L	475.13	ppb	02:20:27
2	Co 228.616†	39051.0	38678.3	477.48	µg/L	477.48	ppb	02:20:27
2	Cr 267.716†	61466.3	60401.6	472.94	µg/L	472.94	ppb	02:20:27
2	Cu 324.752†	126763.9	121964.2	475.45	µg/L	475.45	ppb	02:20:27
2	Mn 257.610†	393146.3	387241.5	478.93	µg/L	478.93	ppb	02:20:27
2	Mo 202.031†	16303.2	16088.2	473.25	µg/L	473.25	ppb	02:20:47
2	Ni 231.604†	41851.6	41324.8	475.83	µg/L	475.83	ppb	02:20:27
2	P 214.914†	11183.1	11039.8	2353.0	µg/L	2353.0	ppb	02:20:47
2	Pb 220.353†	8703.6	8491.7	475.54	µg/L	475.54	ppb	02:20:47

2	S 181.975 Axial†	1799.8	1668.8	1243.2 µg/L	1243.2 ppb	02:20:47
2	Sb 206.836†	4122.9	3982.7	474.52 µg/L	474.52 ppb	02:20:47
2	Se 196.026†	1342.9	1308.3	475 µg/L	475 ppb	02:20:47
2	SiO2†	55076.9	52507.6	5111.9 µg/L	5111.9 ppb	02:20:27
2	Si 251.611†	165962.8	162733.8	2389.7 µg/L	2389.7 ppb	02:20:27
2	Sn 189.927†	7680.9	7571.3	473.60 µg/L	473.60 ppb	02:20:47
2	Ti 334.940†	519896.2	511448.9	477.22 µg/L	477.22 ppb	02:20:27
2	Tl 190.801†	3764.8	3827.2	477.42 µg/L	477.42 ppb	02:20:47
2	U 409.014†	7312.8	7477.3	466.23 µg/L	466.23 ppb	02:20:27
2	V 292.402†	99237.6	97403.3	481.44 µg/L	481.44 ppb	02:20:27
2	Zn 213.857†	86569.5	84757.1	472.38 µg/L	472.38 ppb	02:20:27
3	Sc RADIAL	142522.4	142522.4	97.7 %		02:19:45
3	Al 396.153Radial†	26049.5	26735.5	4934.6 µg/L	4934.6 ppb	02:19:45
3	Ca 317.933Radial†	85524.1	87008.2	4846.7 µg/L	4846.7 ppb	02:19:45
3	Fe 238.204 Radial†	76071.6	77742.2	4791.5 µg/L	4791.5 ppb	02:19:45
3	K 766.490 Radial†	14775.5	13584.0	4969.3 µg/L	4969.3 ppb	02:19:45
3	Mg 279.077 IEC†	13130.2	13253.4	4945.6 µg/L	4945.6 ppb	02:19:45
3	Na 589.592 Radial†	71535.5	71954.9	9825.5 µg/L	9825.5 ppb	02:19:45
3	Sr 421.552†	230430.6	236074.9	490.75 µg/L	490.75 ppb	02:19:43
3	Sc 361.383	1739029.7	1739029.7	101.21 %		02:20:50
3	Y 371.029	1026889.1	1026889.1	100.02 %		02:20:50
3	Ag 328.068†	133069.1	127385.2	477.66 µg/L	477.66 ppb	02:20:50
3	As 188.979†	1625.4	1626.3	498.73 µg/L	498.73 ppb	02:21:10
3	B 249.677†	35984.4	32047.9	470.99 µg/L	470.99 ppb	02:20:50
3	Ba 233.527†	119885.1	118586.2	478.26 µg/L	478.26 ppb	02:20:50
3	Be 313.107†	1792265.9	1771881.4	482.58 µg/L	482.58 ppb	02:20:50
3	Cd 226.502†	76820.8	76019.6	474.55 µg/L	474.55 ppb	02:20:50
3	Co 228.616†	39099.9	38822.3	479.26 µg/L	479.26 ppb	02:20:50
3	Cr 267.716†	61364.7	60451.8	473.33 µg/L	473.33 ppb	02:20:50
3	Cu 324.752†	126363.1	121878.6	475.12 µg/L	475.12 ppb	02:20:50
3	Mn 257.610†	392632.0	387695.9	479.49 µg/L	479.49 ppb	02:20:50
3	Mo 202.031†	16380.6	16204.6	476.67 µg/L	476.67 ppb	02:21:10
3	Ni 231.604†	41859.0	41434.6	477.09 µg/L	477.09 ppb	02:20:50
3	P 214.914†	11258.2	11141.4	2374.8 µg/L	2374.8 ppb	02:21:10
3	Pb 220.353†	8758.8	8567.6	479.78 µg/L	479.78 ppb	02:21:10
3	S 181.975 Axial†	1801.3	1674.7	1247.6 µg/L	1247.6 ppb	02:21:10
3	Sb 206.836†	4138.4	4008.0	477.59 µg/L	477.59 ppb	02:21:10
3	Se 196.026†	1350.9	1319.5	479 µg/L	479 ppb	02:21:10
3	SiO2†	54848.5	52416.7	5102.8 µg/L	5102.8 ppb	02:20:50
3	Si 251.611†	165580.0	162761.9	2390.1 µg/L	2390.1 ppb	02:20:50
3	Sn 189.927†	7757.7	7666.0	479.50 µg/L	479.50 ppb	02:21:10
3	Ti 334.940†	519132.4	511967.1	477.70 µg/L	477.70 ppb	02:20:50
3	Tl 190.801†	3760.5	3832.2	478.02 µg/L	478.02 ppb	02:21:10
3	U 409.014†	7409.7	7590.9	472.81 µg/L	472.81 ppb	02:20:50
3	V 292.402†	98761.8	97176.0	480.37 µg/L	480.37 ppb	02:20:50
3	Zn 213.857†	86374.1	84776.0	472.48 µg/L	472.48 ppb	02:20:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1737602.9	101.13	%	0.383				0.38%
Sc RADIAL	142807.3	97.9	%	0.36				0.37%
Y 371.029	1026071.2	99.940	%	0.3054				0.31%
Ag 328.068†	127189.9	476.93	µg/L	0.975	476.93	ppb	0.975	0.20%
QC value within limits for Ag 328.068 Recovery = 95.39%								
Al 396.153Radial†	26607.3	4910.9	µg/L	20.62	4910.9	ppb	20.62	0.42%
QC value within limits for Al 396.153Radial Recovery = 98.22%								
As 188.979†	1612.5	494.56	µg/L	5.091	494.56	ppb	5.091	1.03%
QC value within limits for As 188.979 Recovery = 98.91%								
B 249.677†	31897.6	468.78	µg/L	2.921	468.78	ppb	2.921	0.62%
QC value within limits for B 249.677 Recovery = 93.76%								
Ba 233.527†	118277.3	477.01	µg/L	1.625	477.01	ppb	1.625	0.34%
QC value within limits for Ba 233.527 Recovery = 95.40%								
Be 313.107†	1767759.2	481.46	µg/L	1.895	481.46	ppb	1.895	0.39%
QC value within limits for Be 313.107 Recovery = 96.29%								
Ca 317.933Radial†	86914.6	4841.5	µg/L	4.85	4841.5	ppb	4.85	0.10%
QC value within limits for Ca 317.933Radial Recovery = 96.83%								
Cd 226.502†	75799.5	473.17	µg/L	2.901	473.17	ppb	2.901	0.61%
QC value within limits for Cd 226.502 Recovery = 94.63%								
Co 228.616†	38660.9	477.27	µg/L	2.108	477.27	ppb	2.108	0.44%

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   QC value within limits for Co 228.616  Recovery = 95.45%
Cr 267.716†            60345.5      472.50 µg/L         1.117      472.50 ppb          1.117   0.24%
   QC value within limits for Cr 267.716  Recovery = 94.50%
Cu 324.752†           121901.6      475.21 µg/L         0.213      475.21 ppb          0.213   0.04%
   QC value within limits for Cu 324.752  Recovery = 95.04%
Fe 238.204 Radial†     77565.9      4780.7 µg/L         10.22      4780.7 ppb          10.22   0.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.61%
K 766.490 Radial†      13598.3      4974.5 µg/L         36.41      4974.5 ppb          36.41   0.73%
   QC value within limits for K 766.490 Radial  Recovery = 99.49%
Mg 279.077 IEC†        13185.0      4920.1 µg/L         26.48      4920.1 ppb          26.48   0.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.40%
Mn 257.610†           386801.1      478.38 µg/L         1.457      478.38 ppb          1.457   0.30%
   QC value within limits for Mn 257.610  Recovery = 95.68%
Mo 202.031†            16156.3      475.25 µg/L         1.783      475.25 ppb          1.783   0.38%
   QC value within limits for Mo 202.031  Recovery = 95.05%
Na 589.592 Radial†     72012.7      9833.4 µg/L         12.23      9833.4 ppb          12.23   0.12%
   QC value within limits for Na 589.592 Radial  Recovery = 98.33%
Ni 231.604†            41271.4      475.21 µg/L         2.249      475.21 ppb          2.249   0.47%
   QC value within limits for Ni 231.604  Recovery = 95.04%
P 214.914†             11091.0      2364.0 µg/L         10.88      2364.0 ppb          10.88   0.46%
   QC value within limits for P 214.914  Recovery = 94.56%
Pb 220.353†             8539.8      478.23 µg/L         2.340      478.23 ppb          2.340   0.49%
   QC value within limits for Pb 220.353  Recovery = 95.65%
S 181.975 Axial†        1688.3      1257.7 µg/L         21.41      1257.7 ppb          21.41   1.70%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = 125.77%
Sb 206.836†             3992.6      475.74 µg/L         1.625      475.74 ppb          1.625   0.34%
   QC value within limits for Sb 206.836  Recovery = 95.15%
Se 196.026†             1307.6         475 µg/L           4.4         475 ppb            4.4   0.93%
   QC value within limits for Se 196.026  Recovery = 94.96%
SiO2†                  52292.8      5090.8 µg/L         29.05      5090.8 ppb          29.05   0.57%
   QC value within limits for SiO2  Recovery = 95.20%
Si 251.611†           162444.1      2385.4 µg/L          7.77      2385.4 ppb           7.77   0.33%
   QC value within limits for Si 251.611  Recovery = 95.42%
Sn 189.927†             7626.9      477.06 µg/L         3.084      477.06 ppb          3.084   0.65%
   QC value within limits for Sn 189.927  Recovery = 95.41%
Sr 421.552†           234275.6      487.01 µg/L         3.246      487.01 ppb          3.246   0.67%
   QC value within limits for Sr 421.552  Recovery = 97.40%
Ti 334.940†           511011.8      476.81 µg/L         1.149      476.81 ppb          1.149   0.24%
   QC value within limits for Ti 334.940  Recovery = 95.36%
Tl 190.801†             3835.5      478.42 µg/L         1.250      478.42 ppb          1.250   0.26%
   QC value within limits for Tl 190.801  Recovery = 95.68%
U 409.014†              7517.6      468.51 µg/L         3.732      468.51 ppb          3.732   0.80%
   QC value within limits for U 409.014  Recovery = 93.70%
V 292.402†             97114.6      480.05 µg/L         1.572      480.05 ppb          1.572   0.33%
   QC value within limits for V 292.402  Recovery = 96.01%
Zn 213.857†            84539.4      471.17 µg/L         2.196      471.17 ppb          2.196   0.47%
   QC value within limits for Zn 213.857  Recovery = 94.23%
QC Failed.  Continue with analysis.
```

Sequence No.: 190
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 2:21:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142533.7	142533.7	97.7	%			02:21:48
1	Al 396.153Radial†	-46.3	15.8	2.9384	µg/L	2.9384	ppb	02:22:08
1	Ca 317.933Radial†	812.0	270.8	15.085	µg/L	15.085	ppb	02:22:08
1	Fe 238.204 Radial†	148.9	4.3	0.2664	µg/L	0.2664	ppb	02:22:08
1	K 766.490 Radial†	1893.6	393.9	144.21	µg/L	144.21	ppb	02:21:48
1	Mg 279.077 IEC†	191.4	5.2	1.9452	µg/L	1.9452	ppb	02:22:08
1	Na 589.592 Radial†	2030.7	788.2	107.55	µg/L	107.55	ppb	02:21:48
1	Sr 421.552†	35.6	171.7	0.3569	µg/L	0.3569	ppb	02:21:48
1	Sc 361.383	1757302.0	1757302.0	102.27	%			02:22:56
1	Y 371.029	1047691.3	1047691.3	102.05	%			02:22:56
1	Ag 328.068†	4173.8	-10.5	-0.0333	µg/L	-0.0333	ppb	02:22:58
1	As 188.979†	-24.8	-3.9	-1.1733	µg/L	-1.1733	ppb	02:23:18
1	B 249.677†	3656.0	68.8	1.0136	µg/L	1.0136	ppb	02:22:58
1	Ba 233.527†	-145.3	-6.2	-0.0251	µg/L	-0.0251	ppb	02:23:18
1	Be 313.107†	-953.7	132.2	0.0373	µg/L	0.0373	ppb	02:22:58
1	Cd 226.502†	-109.3	11.3	0.0707	µg/L	0.0707	ppb	02:23:18
1	Co 228.616†	-176.7	17.5	0.2164	µg/L	0.2164	ppb	02:23:18
1	Cr 267.716†	172.3	-10.1	-0.0824	µg/L	-0.0824	ppb	02:23:18
1	Cu 324.752†	2966.4	-71.8	-0.2751	µg/L	-0.2751	ppb	02:22:58
1	Mn 257.610†	287.6	44.0	0.0543	µg/L	0.0543	ppb	02:23:18
1	Mo 202.031†	-24.1	-3.5	-0.1021	µg/L	-0.1021	ppb	02:23:18
1	Ni 231.604†	-64.1	13.9	0.1596	µg/L	0.1596	ppb	02:23:18
1	P 214.914†	-11.1	7.1	1.5277	µg/L	1.5277	ppb	02:23:18
1	Pb 220.353†	81.6	-6.6	-0.3717	µg/L	-0.3717	ppb	02:23:18
1	S 181.975 Axial†	419.7	305.3	226.72	µg/L	226.72	ppb	02:23:18
1	Sb 206.836†	83.6	0.9	0.1126	µg/L	0.1126	ppb	02:23:18
1	Se 196.026†	22.7	6.9	2.50	µg/L	2.50	ppb	02:23:18
1	SiO2†	1807.8	-7.8	-0.7674	µg/L	-0.7674	ppb	02:23:18
1	Si 251.611†	1015.5	156.3	2.3014	µg/L	2.3014	ppb	02:22:58
1	Sn 189.927†	11.0	11.9	0.7393	µg/L	0.7393	ppb	02:23:18
1	Ti 334.940†	1008.0	33.1	0.0294	µg/L	0.0294	ppb	02:22:58
1	Tl 190.801†	-73.5	44.8	5.5056	µg/L	5.5056	ppb	02:23:18
1	U 409.014†	-199.5	74.9	4.3804	µg/L	4.3804	ppb	02:22:58
1	V 292.402†	420.5	7.4	0.0374	µg/L	0.0374	ppb	02:22:58
1	Zn 213.857†	628.6	50.2	0.2812	µg/L	0.2812	ppb	02:23:18
2	Sc RADIAL	140995.2	140995.2	96.6	%			02:22:10
2	Al 396.153Radial†	-49.6	11.8	2.2042	µg/L	2.2042	ppb	02:22:30
2	Ca 317.933Radial†	775.8	242.4	13.501	µg/L	13.501	ppb	02:22:30
2	Fe 238.204 Radial†	150.8	8.0	0.4928	µg/L	0.4928	ppb	02:22:30
2	K 766.490 Radial†	1849.8	369.8	135.37	µg/L	135.37	ppb	02:22:10
2	Mg 279.077 IEC†	181.9	-2.5	-0.9202	µg/L	-0.9202	ppb	02:22:30
2	Na 589.592 Radial†	2008.5	787.9	107.52	µg/L	107.52	ppb	02:22:10
2	Sr 421.552†	-96.1	35.9	0.0745	µg/L	0.0745	ppb	02:22:10
2	Sc 361.383	1746876.6	1746876.6	101.67	%			02:23:21
2	Y 371.029	1042581.7	1042581.7	101.55	%			02:23:21
2	Ag 328.068†	4096.2	-62.4	-0.2478	µg/L	-0.2478	ppb	02:23:23
2	As 188.979†	-17.8	2.8	0.8504	µg/L	0.8504	ppb	02:23:43
2	B 249.677†	3611.1	45.9	0.6766	µg/L	0.6766	ppb	02:23:23
2	Ba 233.527†	-113.1	24.6	0.0985	µg/L	0.0985	ppb	02:23:43
2	Be 313.107†	-508.9	564.1	0.1524	µg/L	0.1524	ppb	02:23:23
2	Cd 226.502†	-89.1	30.5	0.1906	µg/L	0.1906	ppb	02:23:43
2	Co 228.616†	-178.9	14.3	0.1770	µg/L	0.1770	ppb	02:23:43
2	Cr 267.716†	186.9	5.3	0.0438	µg/L	0.0438	ppb	02:23:43
2	Cu 324.752†	2747.0	-270.3	-1.0536	µg/L	-1.0536	ppb	02:23:23
2	Mn 257.610†	273.0	31.2	0.0387	µg/L	0.0387	ppb	02:23:43
2	Mo 202.031†	-29.7	-9.1	-0.2682	µg/L	-0.2682	ppb	02:23:43
2	Ni 231.604†	-105.3	-27.1	-0.3115	µg/L	-0.3115	ppb	02:23:43
2	P 214.914†	-22.0	-3.6	-0.7656	µg/L	-0.7656	ppb	02:23:43
2	Pb 220.353†	78.2	-9.5	-0.5265	µg/L	-0.5265	ppb	02:23:43

2	S 181.975 Axial†	415.2	303.3	225.21 µg/L	225.21 ppb	02:23:43
2	Sb 206.836†	72.3	-9.7	-1.1644 µg/L	-1.1644 ppb	02:23:43
2	Se 196.026†	13.2	-2.3	-0.833 µg/L	-0.833 ppb	02:23:43
2	SiO2†	1822.3	17.1	1.6785 µg/L	1.6785 ppb	02:23:43
2	Si 251.611†	1063.6	209.5	3.0940 µg/L	3.0940 ppb	02:23:23
2	Sn 189.927†	-4.2	-3.0	-0.1854 µg/L	-0.1854 ppb	02:23:43
2	Ti 334.940†	904.9	-62.5	-0.0564 µg/L	-0.0564 ppb	02:23:23
2	Tl 190.801†	-70.1	47.7	5.8552 µg/L	5.8552 ppb	02:23:43
2	U 409.014†	-342.8	-67.3	-3.9879 µg/L	-3.9879 ppb	02:23:23
2	V 292.402†	211.0	-196.3	-0.9629 µg/L	-0.9629 ppb	02:23:23
2	Zn 213.857†	601.6	27.3	0.1562 µg/L	0.1562 ppb	02:23:43
3	Sc RADIAL	142382.8	142382.8	97.6 %		02:22:32
3	Al 396.153Radial†	-56.5	5.3	0.9959 µg/L	0.9959 ppb	02:22:53
3	Ca 317.933Radial†	740.0	197.9	11.024 µg/L	11.024 ppb	02:22:53
3	Fe 238.204 Radial†	137.9	-6.8	-0.4201 µg/L	-0.4201 ppb	02:22:53
3	K 766.490 Radial†	1843.8	344.9	126.26 µg/L	126.26 ppb	02:22:32
3	Mg 279.077 IEC†	185.6	-0.4	-0.1653 µg/L	-0.1653 ppb	02:22:53
3	Na 589.592 Radial†	1905.7	662.4	90.378 µg/L	90.378 ppb	02:22:32
3	Sr 421.552†	-190.5	-59.9	-0.1247 µg/L	-0.1247 ppb	02:22:32
3	Sc 361.383	1733759.3	1733759.3	100.90 %		02:23:45
3	Y 371.029	1035483.6	1035483.6	100.86 %		02:23:45
3	Ag 328.068†	3971.4	-155.6	-0.5722 µg/L	-0.5722 ppb	02:23:47
3	As 188.979†	-15.3	5.2	1.5781 µg/L	1.5781 ppb	02:24:07
3	B 249.677†	3495.0	-42.2	-0.6226 µg/L	-0.6226 ppb	02:23:47
3	Ba 233.527†	-129.0	8.0	0.0318 µg/L	0.0318 ppb	02:24:07
3	Be 313.107†	-783.0	288.7	0.0811 µg/L	0.0811 ppb	02:23:47
3	Cd 226.502†	-94.8	24.2	0.1513 µg/L	0.1513 ppb	02:24:07
3	Co 228.616†	-199.6	-7.5	-0.0925 µg/L	-0.0925 ppb	02:24:07
3	Cr 267.716†	165.2	-14.9	-0.1233 µg/L	-0.1233 ppb	02:24:07
3	Cu 324.752†	3082.5	82.7	0.3282 µg/L	0.3282 ppb	02:23:47
3	Mn 257.610†	277.9	38.1	0.0471 µg/L	0.0471 ppb	02:24:07
3	Mo 202.031†	-27.7	-7.4	-0.2175 µg/L	-0.2175 ppb	02:24:07
3	Ni 231.604†	-100.3	-22.8	-0.2630 µg/L	-0.2630 ppb	02:24:07
3	P 214.914†	3.0	20.9	4.4747 µg/L	4.4747 ppb	02:24:07
3	Pb 220.353†	86.0	-1.2	-0.0714 µg/L	-0.0714 ppb	02:24:07
3	S 181.975 Axial†	402.3	293.6	218.02 µg/L	218.02 ppb	02:24:07
3	Sb 206.836†	82.0	0.5	0.0548 µg/L	0.0548 ppb	02:24:07
3	Se 196.026†	21.9	6.5	2.35 µg/L	2.35 ppb	02:24:07
3	SiO2†	1796.2	4.7	0.4621 µg/L	0.4621 ppb	02:24:07
3	Si 251.611†	1001.5	155.9	2.2994 µg/L	2.2994 ppb	02:23:47
3	Sn 189.927†	4.7	5.8	0.3603 µg/L	0.3603 ppb	02:24:07
3	Ti 334.940†	986.8	25.4	0.0207 µg/L	0.0207 ppb	02:23:47
3	Tl 190.801†	-44.3	72.8	8.9372 µg/L	8.9372 ppb	02:24:07
3	U 409.014†	-127.6	143.4	8.3576 µg/L	8.3576 ppb	02:23:47
3	V 292.402†	301.5	-105.0	-0.5092 µg/L	-0.5092 ppb	02:23:47
3	Zn 213.857†	581.7	12.1	0.0693 µg/L	0.0693 ppb	02:24:07

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1745979.3	101.62	%	0.687				0.68%
Sc RADIAL	141970.6	97.3	%	0.58				0.60%
Y 371.029	1041918.9	101.48	%	0.597				0.59%
Ag 328.068†	-76.2	-0.2844	µg/L	0.27132	-0.2844	ppb	0.27132	95.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.0	2.0462	µg/L	0.98085	2.0462	ppb	0.98085	47.94%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.4	0.4184	µg/L	1.42565	0.4184	ppb	1.42565	340.75%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	24.2	0.3559	µg/L	0.86394	0.3559	ppb	0.86394	242.77%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.8	0.0350	µg/L	0.06186	0.0350	ppb	0.06186	176.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	328.3	0.0903	µg/L	0.05810	0.0903	ppb	0.05810	64.34%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	237.0	13.203	µg/L	2.0466	13.203	ppb	2.0466	15.50%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	22.0	0.1375	µg/L	0.06111	0.1375	ppb	0.06111	44.43%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.1	0.1003	µg/L	0.16815	0.1003	ppb	0.16815	167.65%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -6.6     -0.0540 µg/L       0.08710     -0.0540 ppb        0.08710 161.40%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -86.5     -0.3335 µg/L       0.69273     -0.3335 ppb        0.69273 207.71%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.8      0.1130 µg/L       0.47541      0.1130 ppb        0.47541 420.63%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       369.6      135.28 µg/L         8.974      135.28 ppb          8.974   6.63%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.8      0.2866 µg/L       1.48517      0.2866 ppb        1.48517 518.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              37.8      0.0467 µg/L       0.00782      0.0467 ppb        0.00782  16.75%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -6.7     -0.1959 µg/L       0.08513     -0.1959 ppb        0.08513  43.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       746.2      101.82 µg/L         9.907      101.82 ppb          9.907   9.73%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -12.0     -0.1383 µg/L       0.25912     -0.1383 ppb        0.25912 187.35%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                8.1      1.7456 µg/L       2.62689      1.7456 ppb        2.62689 150.49%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -5.7     -0.3232 µg/L       0.23141     -0.3232 ppb        0.23141  71.60%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         300.7      223.31 µg/L         4.649      223.31 ppb          4.649   2.08%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.8     -0.3323 µg/L       0.72115     -0.3323 ppb        0.72115 217.00%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.7        1.34 µg/L         1.882        1.34 ppb          1.882 140.61%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     4.7      0.4577 µg/L       1.22296      0.4577 ppb        1.22296 267.19%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             173.9      2.5649 µg/L       0.45818      2.5649 ppb        0.45818  17.86%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.9      0.3047 µg/L       0.46487      0.3047 ppb        0.46487 152.55%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              49.2      0.1022 µg/L       0.24199      0.1022 ppb        0.24199 236.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -1.3     -0.0021 µg/L       0.04720     -0.0021 ppb        0.04720 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              55.1      6.7660 µg/L       1.88839      6.7660 ppb        1.88839  27.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               50.3      2.9167 µg/L       6.30153      2.9167 ppb        6.30153 216.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -98.0     -0.4782 µg/L       0.50087     -0.4782 ppb        0.50087 104.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              29.9      0.1689 µg/L       0.10651      0.1689 ppb        0.10651  63.06%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 200
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 2:47:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144350.1	144350.1	98.9	%			02:47:33
1	Al 396.153Radial†	26228.7	26578.9	4905.8	µg/L	4905.8	ppb	02:47:33
1	Ca 317.933Radial†	86007.1	86387.7	4812.1	µg/L	4812.1	ppb	02:47:33
1	Fe 238.204 Radial†	76839.4	77532.2	4778.6	µg/L	4778.6	ppb	02:47:33
1	K 766.490 Radial†	15343.0	13966.1	5108.9	µg/L	5108.9	ppb	02:47:33
1	Mg 279.077 IEC†	13163.3	13116.7	4894.5	µg/L	4894.5	ppb	02:47:33
1	Na 589.592 Radial†	85523.5	85168.6	11631	µg/L	11631	ppb	02:47:33
1	Sr 421.552†	229491.2	232137.9	482.56	µg/L	482.56	ppb	02:47:31
1	Sc 361.383	1735080.7	1735080.7	100.98	%			02:47:46
1	Y 371.029	1023835.7	1023835.7	99.722	%			02:47:46
1	Ag 328.068†	132112.4	126737.1	475.24	µg/L	475.24	ppb	02:47:46
1	As 188.979†	1600.3	1605.1	492.29	µg/L	492.29	ppb	02:48:06
1	B 249.677†	35710.3	31857.4	468.19	µg/L	468.19	ppb	02:47:46
1	Ba 233.527†	119099.4	118077.7	476.20	µg/L	476.20	ppb	02:47:46
1	Be 313.107†	1782783.3	1766521.3	481.13	µg/L	481.13	ppb	02:47:46
1	Cd 226.502†	75967.8	75347.7	470.35	µg/L	470.35	ppb	02:47:46
1	Co 228.616†	38757.3	38570.9	476.16	µg/L	476.16	ppb	02:47:46
1	Cr 267.716†	60943.8	60172.9	471.14	µg/L	471.14	ppb	02:47:46
1	Cu 324.752†	126054.9	121857.5	475.04	µg/L	475.04	ppb	02:47:46
1	Mn 257.610†	390617.1	386583.5	478.11	µg/L	478.11	ppb	02:47:46
1	Mo 202.031†	16192.2	16054.9	472.27	µg/L	472.27	ppb	02:48:06
1	Ni 231.604†	41343.1	41017.9	472.29	µg/L	472.29	ppb	02:47:46
1	P 214.914†	11104.9	11015.0	2347.7	µg/L	2347.7	ppb	02:48:06
1	Pb 220.353†	8631.3	8461.0	473.82	µg/L	473.82	ppb	02:48:06
1	S 181.975 Axial†	1898.0	1774.5	1321.7	µg/L	1321.7	ppb	02:48:06
1	Sb 206.836†	4090.9	3970.4	473.06	µg/L	473.06	ppb	02:48:06
1	Se 196.026†	1334.9	1306.7	474	µg/L	474	ppb	02:48:06
1	SiO2†	54695.2	52388.2	5100.2	µg/L	5100.2	ppb	02:47:46
1	Si 251.611†	165090.7	162649.7	2388.5	µg/L	2388.5	ppb	02:47:46
1	Sn 189.927†	7654.2	7581.0	474.20	µg/L	474.20	ppb	02:48:06
1	Ti 334.940†	517218.9	511239.5	477.02	µg/L	477.02	ppb	02:47:46
1	Tl 190.801†	3732.0	3812.4	475.58	µg/L	475.58	ppb	02:48:06
1	U 409.014†	7426.6	7624.3	474.65	µg/L	474.65	ppb	02:47:46
1	V 292.402†	98126.3	96768.8	478.33	µg/L	478.33	ppb	02:47:46
1	Zn 213.857†	85631.0	84234.3	469.47	µg/L	469.47	ppb	02:47:46
2	Sc RADIAL	143197.9	143197.9	98.1	%			02:47:37
2	Al 396.153Radial†	26070.2	26630.7	4915.4	µg/L	4915.4	ppb	02:47:37
2	Ca 317.933Radial†	85328.2	86395.4	4812.6	µg/L	4812.6	ppb	02:47:37
2	Fe 238.204 Radial†	76209.4	77515.2	4777.6	µg/L	4777.6	ppb	02:47:37
2	K 766.490 Radial†	15238.0	13983.9	5115.5	µg/L	5115.5	ppb	02:47:37
2	Mg 279.077 IEC†	12996.4	13053.6	4871.0	µg/L	4871.0	ppb	02:47:37
2	Na 589.592 Radial†	84353.8	84672.3	11563	µg/L	11563	ppb	02:47:37
2	Sr 421.552†	228444.9	232938.2	484.23	µg/L	484.23	ppb	02:47:35
2	Sc 361.383	1729977.8	1729977.8	100.68	%			02:48:09
2	Y 371.029	1021138.1	1021138.1	99.459	%			02:48:09
2	Ag 328.068†	132255.3	127264.8	477.20	µg/L	477.20	ppb	02:48:09
2	As 188.979†	1600.4	1609.8	493.75	µg/L	493.75	ppb	02:48:29
2	B 249.677†	35924.0	32173.9	472.86	µg/L	472.86	ppb	02:48:09
2	Ba 233.527†	118874.7	118202.5	476.71	µg/L	476.71	ppb	02:48:09
2	Be 313.107†	1779803.9	1768769.7	481.74	µg/L	481.74	ppb	02:48:09
2	Cd 226.502†	76106.7	75707.5	472.60	µg/L	472.60	ppb	02:48:09
2	Co 228.616†	38701.0	38628.3	476.87	µg/L	476.87	ppb	02:48:09
2	Cr 267.716†	61014.5	60421.2	473.09	µg/L	473.09	ppb	02:48:09
2	Cu 324.752†	126154.1	122324.3	476.85	µg/L	476.85	ppb	02:48:09
2	Mn 257.610†	389925.2	387037.3	478.68	µg/L	478.68	ppb	02:48:09
2	Mo 202.031†	16171.0	16081.2	473.04	µg/L	473.04	ppb	02:48:29
2	Ni 231.604†	41427.6	41222.5	474.65	µg/L	474.65	ppb	02:48:09
2	P 214.914†	11099.7	11042.2	2353.5	µg/L	2353.5	ppb	02:48:29
2	Pb 220.353†	8601.5	8456.6	473.58	µg/L	473.58	ppb	02:48:29

2	S 181.975 Axial†	1845.1	1727.5	1286.8 µg/L	1286.8 ppb	02:48:29
2	Sb 206.836†	4100.2	3991.5	475.56 µg/L	475.56 ppb	02:48:29
2	Se 196.026†	1327.8	1303.5	473 µg/L	473 ppb	02:48:29
2	SiO2†	54326.1	52181.4	5080.0 µg/L	5080.0 ppb	02:48:09
2	Si 251.611†	164905.6	162948.1	2392.9 µg/L	2392.9 ppb	02:48:09
2	Sn 189.927†	7653.3	7602.4	475.54 µg/L	475.54 ppb	02:48:29
2	Ti 334.940†	516285.7	511823.6	477.57 µg/L	477.57 ppb	02:48:09
2	Tl 190.801†	3663.6	3755.4	468.58 µg/L	468.58 ppb	02:48:29
2	U 409.014†	7377.7	7597.4	473.10 µg/L	473.10 ppb	02:48:09
2	V 292.402†	97929.6	96860.1	478.79 µg/L	478.79 ppb	02:48:09
2	Zn 213.857†	85635.6	84489.1	470.89 µg/L	470.89 ppb	02:48:09
3	Sc RADIAL	145242.2	145242.2	99.5 %		02:47:41
3	Al 396.153Radial†	26268.1	26455.7	4882.8 µg/L	4882.8 ppb	02:47:41
3	Ca 317.933Radial†	86324.1	86172.1	4800.1 µg/L	4800.1 ppb	02:47:41
3	Fe 238.204 Radial†	77185.1	77402.4	4770.6 µg/L	4770.6 ppb	02:47:41
3	K 766.490 Radial†	15378.8	13906.8	5087.2 µg/L	5087.2 ppb	02:47:41
3	Mg 279.077 IEC†	13138.0	13009.5	4854.7 µg/L	4854.7 ppb	02:47:41
3	Na 589.592 Radial†	85226.4	84339.0	11517 µg/L	11517 ppb	02:47:41
3	Sr 421.552†	228321.6	229537.8	477.16 µg/L	477.16 ppb	02:47:39
3	Sc 361.383	1722897.8	1722897.8	100.27 %		02:48:32
3	Y 371.029	1017279.7	1017279.7	99.084 %		02:48:32
3	Ag 328.068†	131579.2	127130.4	476.70 µg/L	476.70 ppb	02:48:32
3	As 188.979†	1572.0	1588.0	487.15 µg/L	487.15 ppb	02:48:52
3	B 249.677†	35666.5	32063.7	471.23 µg/L	471.23 ppb	02:48:32
3	Ba 233.527†	118266.8	118081.4	476.22 µg/L	476.22 ppb	02:48:32
3	Be 313.107†	1769881.6	1766138.5	481.02 µg/L	481.02 ppb	02:48:32
3	Cd 226.502†	75739.9	75652.3	472.25 µg/L	472.25 ppb	02:48:32
3	Co 228.616†	38545.9	38631.5	476.90 µg/L	476.90 ppb	02:48:32
3	Cr 267.716†	60533.7	60190.7	471.28 µg/L	471.28 ppb	02:48:32
3	Cu 324.752†	125338.4	122025.7	475.69 µg/L	475.69 ppb	02:48:32
3	Mn 257.610†	387950.9	386659.8	478.21 µg/L	478.21 ppb	02:48:32
3	Mo 202.031†	16180.5	16156.6	475.26 µg/L	475.26 ppb	02:48:52
3	Ni 231.604†	41057.6	41022.6	472.35 µg/L	472.35 ppb	02:48:32
3	P 214.914†	11090.2	11078.0	2361.2 µg/L	2361.2 ppb	02:48:52
3	Pb 220.353†	8596.5	8486.8	475.26 µg/L	475.26 ppb	02:48:52
3	S 181.975 Axial†	1808.3	1698.3	1265.1 µg/L	1265.1 ppb	02:48:52
3	Sb 206.836†	4086.2	3994.3	475.96 µg/L	475.96 ppb	02:48:52
3	Se 196.026†	1329.9	1311.0	476 µg/L	476 ppb	02:48:52
3	SiO2†	54093.6	52171.3	5078.9 µg/L	5078.9 ppb	02:48:32
3	Si 251.611†	163851.5	162569.8	2387.3 µg/L	2387.3 ppb	02:48:32
3	Sn 189.927†	7645.7	7626.1	477.02 µg/L	477.02 ppb	02:48:52
3	Ti 334.940†	513965.1	511616.4	477.38 µg/L	477.38 ppb	02:48:32
3	Tl 190.801†	3647.7	3754.5	468.47 µg/L	468.47 ppb	02:48:52
3	U 409.014†	7387.3	7637.1	475.41 µg/L	475.41 ppb	02:48:32
3	V 292.402†	97466.6	96798.1	478.51 µg/L	478.51 ppb	02:48:32
3	Zn 213.857†	85311.1	84515.0	471.05 µg/L	471.05 ppb	02:48:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729318.8	100.65	%	0.356				0.35%
Sc RADIAL	144263.4	98.9	%	0.70				0.71%
Y 371.029	1020751.1	99.422	%	0.3209				0.32%
Ag 328.068†	127044.1	476.38	µg/L	1.017	476.38	ppb	1.017	0.21%
QC value within limits for Ag 328.068 Recovery = 95.28%								
Al 396.153Radial†	26555.1	4901.3	µg/L	16.73	4901.3	ppb	16.73	0.34%
QC value within limits for Al 396.153Radial Recovery = 98.03%								
As 188.979†	1601.0	491.06	µg/L	3.468	491.06	ppb	3.468	0.71%
QC value within limits for As 188.979 Recovery = 98.21%								
B 249.677†	32031.7	470.76	µg/L	2.368	470.76	ppb	2.368	0.50%
QC value within limits for B 249.677 Recovery = 94.15%								
Ba 233.527†	118120.5	476.38	µg/L	0.286	476.38	ppb	0.286	0.06%
QC value within limits for Ba 233.527 Recovery = 95.28%								
Be 313.107†	1767143.2	481.30	µg/L	0.387	481.30	ppb	0.387	0.08%
QC value within limits for Be 313.107 Recovery = 96.26%								
Ca 317.933Radial†	86318.4	4808.3	µg/L	7.06	4808.3	ppb	7.06	0.15%
QC value within limits for Ca 317.933Radial Recovery = 96.17%								
Cd 226.502†	75569.2	471.73	µg/L	1.211	471.73	ppb	1.211	0.26%
QC value within limits for Cd 226.502 Recovery = 94.35%								
Co 228.616†	38610.2	476.64	µg/L	0.421	476.64	ppb	0.421	0.09%

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   QC value within limits for Co 228.616  Recovery = 95.33%
Cr 267.716†            60261.6      471.83 µg/L         1.086      471.83 ppb          1.086   0.23%
   QC value within limits for Cr 267.716  Recovery = 94.37%
Cu 324.752†           122069.2      475.86 µg/L         0.918      475.86 ppb          0.918   0.19%
   QC value within limits for Cu 324.752  Recovery = 95.17%
Fe 238.204 Radial†     77483.3      4775.6 µg/L          4.35      4775.6 ppb           4.35   0.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.51%
K 766.490 Radial†      13952.3      5103.9 µg/L         14.77      5103.9 ppb          14.77   0.29%
   QC value within limits for K 766.490 Radial  Recovery = 102.08%
Mg 279.077 IEC†        13059.9      4873.4 µg/L         20.02      4873.4 ppb          20.02   0.41%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.47%
Mn 257.610†           386760.2      478.33 µg/L         0.301      478.33 ppb          0.301   0.06%
   QC value within limits for Mn 257.610  Recovery = 95.67%
Mo 202.031†            16097.6      473.52 µg/L         1.551      473.52 ppb          1.551   0.33%
   QC value within limits for Mo 202.031  Recovery = 94.70%
Na 589.592 Radial†     84726.6       11570 µg/L          57.0       11570 ppb           57.0   0.49%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 115.70%
Ni 231.604†            41087.6      473.09 µg/L         1.345      473.09 ppb          1.345   0.28%
   QC value within limits for Ni 231.604  Recovery = 94.62%
P 214.914†             11045.1      2354.2 µg/L          6.76      2354.2 ppb           6.76   0.29%
   QC value within limits for P 214.914  Recovery = 94.17%
Pb 220.353†             8468.1      474.22 µg/L         0.911      474.22 ppb          0.911   0.19%
   QC value within limits for Pb 220.353  Recovery = 94.84%
S 181.975 Axial†        1733.4      1291.2 µg/L         28.53      1291.2 ppb          28.53   2.21%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = 129.12%
Sb 206.836†             3985.4      474.86 µg/L         1.568      474.86 ppb          1.568   0.33%
   QC value within limits for Sb 206.836  Recovery = 94.97%
Se 196.026†             1307.1         475 µg/L           1.4         475 ppb            1.4   0.29%
   QC value within limits for Se 196.026  Recovery = 94.93%
SiO2†                  52247.0      5086.4 µg/L         12.02      5086.4 ppb          12.02   0.24%
   QC value within limits for SiO2  Recovery = 95.12%
Si 251.611†           162722.5      2389.6 µg/L          2.95      2389.6 ppb           2.95   0.12%
   QC value within limits for Si 251.611  Recovery = 95.58%
Sn 189.927†             7603.1      475.58 µg/L         1.408      475.58 ppb          1.408   0.30%
   QC value within limits for Sn 189.927  Recovery = 95.12%
Sr 421.552†           231538.0      481.32 µg/L         3.696      481.32 ppb          3.696   0.77%
   QC value within limits for Sr 421.552  Recovery = 96.26%
Ti 334.940†           511559.8      477.32 µg/L         0.278      477.32 ppb          0.278   0.06%
   QC value within limits for Ti 334.940  Recovery = 95.46%
Tl 190.801†             3774.1      470.88 µg/L         4.075      470.88 ppb          4.075   0.87%
   QC value within limits for Tl 190.801  Recovery = 94.18%
U 409.014†              7619.6      474.39 µg/L         1.174      474.39 ppb          1.174   0.25%
   QC value within limits for U 409.014  Recovery = 94.88%
V 292.402†             96809.0      478.54 µg/L         0.232      478.54 ppb          0.232   0.05%
   QC value within limits for V 292.402  Recovery = 95.71%
Zn 213.857†            84412.8      470.47 µg/L         0.867      470.47 ppb          0.867   0.18%
   QC value within limits for Zn 213.857  Recovery = 94.09%
QC Failed.  Continue with analysis.
```

Sequence No.: 201
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 2:49:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143285.4	143285.4	98.2	%			02:49:29
1	Al 396.153Radial†	-71.7	-9.8	-1.8058	µg/L	-1.8058	ppb	02:49:49
1	Ca 317.933Radial†	595.1	45.5	2.5347	µg/L	2.5347	ppb	02:49:49
1	Fe 238.204 Radial†	146.6	1.2	0.0760	µg/L	0.0760	ppb	02:49:49
1	K 766.490 Radial†	1934.3	425.2	155.46	µg/L	155.46	ppb	02:49:29
1	Mg 279.077 IEC†	167.1	-20.5	-7.6406	µg/L	-7.6406	ppb	02:49:49
1	Na 589.592 Radial†	11220.6	10136.9	1384.7	µg/L	1384.7	ppb	02:49:29
1	Sr 421.552†	-193.9	-62.2	-0.1292	µg/L	-0.1292	ppb	02:49:29
1	Sc 361.383	1752326.8	1752326.8	101.99	%			02:50:37
1	Y 371.029	1044520.1	1044520.1	101.74	%			02:50:37
1	Ag 328.068†	3984.9	-184.1	-0.6824	µg/L	-0.6824	ppb	02:50:39
1	As 188.979†	-14.0	6.6	1.9969	µg/L	1.9969	ppb	02:50:59
1	B 249.677†	3624.3	47.8	0.7042	µg/L	0.7042	ppb	02:50:39
1	Ba 233.527†	-123.5	14.7	0.0593	µg/L	0.0593	ppb	02:50:59
1	Be 313.107†	-829.9	251.0	0.0684	µg/L	0.0684	ppb	02:50:39
1	Cd 226.502†	-84.0	35.8	0.2237	µg/L	0.2237	ppb	02:50:59
1	Co 228.616†	-162.6	30.8	0.3804	µg/L	0.3804	ppb	02:50:59
1	Cr 267.716†	186.9	4.7	0.0364	µg/L	0.0364	ppb	02:50:59
1	Cu 324.752†	2988.3	-42.0	-0.1631	µg/L	-0.1631	ppb	02:50:39
1	Mn 257.610†	271.5	29.0	0.0361	µg/L	0.0361	ppb	02:50:59
1	Mo 202.031†	-30.2	-9.6	-0.2810	µg/L	-0.2810	ppb	02:50:59
1	Ni 231.604†	-95.4	-17.1	-0.1966	µg/L	-0.1966	ppb	02:50:59
1	P 214.914†	-38.5	-19.8	-4.2327	µg/L	-4.2327	ppb	02:50:59
1	Pb 220.353†	75.5	-12.4	-0.6917	µg/L	-0.6917	ppb	02:50:59
1	S 181.975 Axial†	433.7	320.2	237.80	µg/L	237.80	ppb	02:50:59
1	Sb 206.836†	88.2	5.6	0.6633	µg/L	0.6633	ppb	02:50:59
1	Se 196.026†	18.1	2.5	0.898	µg/L	0.898	ppb	02:50:59
1	SiO2†	1786.4	-23.7	-2.3127	µg/L	-2.3127	ppb	02:50:59
1	Si 251.611†	933.6	78.8	1.1640	µg/L	1.1640	ppb	02:50:39
1	Sn 189.927†	3.6	4.6	0.2882	µg/L	0.2882	ppb	02:50:59
1	Ti 334.940†	1101.4	127.4	0.1196	µg/L	0.1196	ppb	02:50:39
1	Tl 190.801†	-18.8	98.2	12.068	µg/L	12.068	ppb	02:50:59
1	U 409.014†	-269.8	5.3	0.3076	µg/L	0.3076	ppb	02:50:39
1	V 292.402†	393.5	-18.0	-0.0903	µg/L	-0.0903	ppb	02:50:39
1	Zn 213.857†	640.1	63.2	0.3564	µg/L	0.3564	ppb	02:50:59
2	Sc RADIAL	142448.9	142448.9	97.6	%			02:49:51
2	Al 396.153Radial†	-80.1	-18.9	-3.4987	µg/L	-3.4987	ppb	02:50:11
2	Ca 317.933Radial†	604.0	58.1	3.2391	µg/L	3.2391	ppb	02:50:11
2	Fe 238.204 Radial†	136.7	-8.1	-0.4962	µg/L	-0.4962	ppb	02:50:11
2	K 766.490 Radial†	1971.5	474.9	173.64	µg/L	173.64	ppb	02:49:51
2	Mg 279.077 IEC†	181.3	-4.9	-1.8347	µg/L	-1.8347	ppb	02:50:11
2	Na 589.592 Radial†	11007.1	9985.3	1364.0	µg/L	1364.0	ppb	02:49:51
2	Sr 421.552†	-296.7	-168.7	-0.3506	µg/L	-0.3506	ppb	02:49:51
2	Sc 361.383	1743448.5	1743448.5	101.47	%			02:51:01
2	Y 371.029	1039864.1	1039864.1	101.28	%			02:51:01
2	Ag 328.068†	4186.0	34.1	0.0996	µg/L	0.0996	ppb	02:51:04
2	As 188.979†	-18.5	2.2	0.6509	µg/L	0.6509	ppb	02:51:24
2	B 249.677†	3669.2	110.2	1.6256	µg/L	1.6256	ppb	02:51:04
2	Ba 233.527†	-125.5	12.1	0.0485	µg/L	0.0485	ppb	02:51:24
2	Be 313.107†	-764.5	311.2	0.0800	µg/L	0.0800	ppb	02:51:04
2	Cd 226.502†	-111.8	8.0	0.0499	µg/L	0.0499	ppb	02:51:24
2	Co 228.616†	-195.5	-2.4	-0.0291	µg/L	-0.0291	ppb	02:51:24
2	Cr 267.716†	178.0	-3.1	-0.0126	µg/L	-0.0126	ppb	02:51:24
2	Cu 324.752†	3031.4	15.3	0.0464	µg/L	0.0464	ppb	02:51:04
2	Mn 257.610†	270.9	29.7	0.0368	µg/L	0.0368	ppb	02:51:24
2	Mo 202.031†	-18.7	1.6	0.0481	µg/L	0.0481	ppb	02:51:24
2	Ni 231.604†	-92.0	-14.2	-0.1629	µg/L	-0.1629	ppb	02:51:24
2	P 214.914†	-21.9	-3.6	-0.7804	µg/L	-0.7804	ppb	02:51:24
2	Pb 220.353†	94.2	6.4	0.3702	µg/L	0.3702	ppb	02:51:24

2	S 181.975 Axial†	418.8	307.7	228.47 µg/L	228.47 ppb	02:51:24
2	Sb 206.836†	71.8	-10.1	-1.1978 µg/L	-1.1978 ppb	02:51:24
2	Se 196.026†	10.4	-5.0	-1.84 µg/L	-1.84 ppb	02:51:24
2	SiO2†	1814.8	13.2	1.2903 µg/L	1.2903 ppb	02:51:24
2	Si 251.611†	895.5	45.9	0.6794 µg/L	0.6794 ppb	02:51:04
2	Sn 189.927†	-7.6	-6.4	-0.3979 µg/L	-0.3979 ppb	02:51:24
2	Ti 334.940†	806.3	-157.9	-0.1409 µg/L	-0.1409 ppb	02:51:04
2	Tl 190.801†	-3.5	113.3	13.912 µg/L	13.912 ppb	02:51:24
2	U 409.014†	-544.2	-266.5	-15.615 µg/L	-15.615 ppb	02:51:04
2	V 292.402†	282.2	-125.7	-0.6229 µg/L	-0.6229 ppb	02:51:04
2	Zn 213.857†	590.2	17.3	0.0980 µg/L	0.0980 ppb	02:51:24
3	Sc RADIAL	145771.5	145771.5	99.9 %		02:50:13
3	Al 396.153Radial†	-87.3	-24.2	-4.4567 µg/L	-4.4567 ppb	02:50:33
3	Ca 317.933Radial†	622.8	62.9	3.5055 µg/L	3.5055 ppb	02:50:33
3	Fe 238.204 Radial†	153.4	5.5	0.3375 µg/L	0.3375 ppb	02:50:33
3	K 766.490 Radial†	2120.5	578.0	211.41 µg/L	211.41 ppb	02:50:13
3	Mg 279.077 IEC†	197.6	7.1	2.6404 µg/L	2.6404 ppb	02:50:33
3	Na 589.592 Radial†	10446.1	9166.6	1252.1 µg/L	1252.1 ppb	02:50:13
3	Sr 421.552†	-272.9	-137.9	-0.2867 µg/L	-0.2867 ppb	02:50:13
3	Sc 361.383	1749649.9	1749649.9	101.83 %		02:51:26
3	Y 371.029	1043874.1	1043874.1	101.67 %		02:51:26
3	Ag 328.068†	3981.6	-181.3	-0.6631 µg/L	-0.6631 ppb	02:51:28
3	As 188.979†	-17.4	3.3	0.9850 µg/L	0.9850 ppb	02:51:48
3	B 249.677†	3525.0	-44.2	-0.6527 µg/L	-0.6527 ppb	02:51:28
3	Ba 233.527†	-136.8	1.5	0.0057 µg/L	0.0057 ppb	02:51:48
3	Be 313.107†	-989.5	93.0	0.0288 µg/L	0.0288 ppb	02:51:28
3	Cd 226.502†	-106.6	13.6	0.0847 µg/L	0.0847 ppb	02:51:48
3	Co 228.616†	-172.6	20.8	0.2569 µg/L	0.2569 ppb	02:51:48
3	Cr 267.716†	208.9	26.6	0.1986 µg/L	0.1986 ppb	02:51:48
3	Cu 324.752†	2628.4	-391.1	-1.5098 µg/L	-1.5098 ppb	02:51:28
3	Mn 257.610†	274.5	32.3	0.0398 µg/L	0.0398 ppb	02:51:48
3	Mo 202.031†	-38.7	-17.9	-0.5273 µg/L	-0.5273 ppb	02:51:48
3	Ni 231.604†	-80.2	-2.2	-0.0256 µg/L	-0.0256 ppb	02:51:48
3	P 214.914†	-9.6	8.5	1.8368 µg/L	1.8368 ppb	02:51:48
3	Pb 220.353†	66.4	-21.2	-1.1913 µg/L	-1.1913 ppb	02:51:48
3	S 181.975 Axial†	404.6	292.3	217.02 µg/L	217.02 ppb	02:51:48
3	Sb 206.836†	87.9	5.5	0.6461 µg/L	0.6461 ppb	02:51:48
3	Se 196.026†	5.0	-10.4	-3.73 µg/L	-3.73 ppb	02:51:48
3	SiO2†	1783.0	-24.4	-2.3667 µg/L	-2.3667 ppb	02:51:48
3	Si 251.611†	951.4	97.7	1.4500 µg/L	1.4500 ppb	02:51:28
3	Sn 189.927†	-5.8	-4.6	-0.2885 µg/L	-0.2885 ppb	02:51:48
3	Ti 334.940†	790.5	-176.3	-0.1697 µg/L	-0.1697 ppb	02:51:28
3	Tl 190.801†	34.7	150.7	18.513 µg/L	18.513 ppb	02:51:48
3	U 409.014†	-71.7	199.5	11.634 µg/L	11.634 ppb	02:51:28
3	V 292.402†	308.0	-101.3	-0.4907 µg/L	-0.4907 ppb	02:51:28
3	Zn 213.857†	628.3	52.6	0.2965 µg/L	0.2965 ppb	02:51:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1748475.0	101.76	%	0.265				0.26%
Sc RADIAL	143835.3	98.6	%	1.18				1.20%
Y 371.029	1042752.8	101.56	%	0.246				0.24%
Ag 328.068†	-110.4	-0.4153	µg/L	0.44602	-0.4153	ppb	0.44602	107.40%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-17.6	-3.2537	µg/L	1.34234	-3.2537	ppb	1.34234	41.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.0	1.2109	µg/L	0.70088	1.2109	ppb	0.70088	57.88%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	38.0	0.5590	µg/L	1.14606	0.5590	ppb	1.14606	205.01%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.5	0.0379	µg/L	0.02832	0.0379	ppb	0.02832	74.82%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	218.4	0.0591	µg/L	0.02684	0.0591	ppb	0.02684	45.41%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	55.5	3.0931	µg/L	0.50159	3.0931	ppb	0.50159	16.22%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.1	0.1194	µg/L	0.09196	0.1194	ppb	0.09196	77.00%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	16.4	0.2027	µg/L	0.21008	0.2027	ppb	0.21008	103.62%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                9.4      0.0741 µg/L       0.11055      0.0741 ppb        0.11055 149.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -139.3     -0.5421 µg/L       0.84454     -0.5421 ppb        0.84454 155.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.4     -0.0276 µg/L       0.42641     -0.0276 ppb        0.42641 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        492.7      180.17 µg/L        28.541      180.17 ppb         28.541  15.84%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -6.1     -2.2783 µg/L       5.15483     -2.2783 ppb        5.15483 226.26%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               30.3      0.0376 µg/L       0.00196      0.0376 ppb        0.00196   5.21%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -8.6     -0.2534 µg/L       0.28865     -0.2534 ppb        0.28865 113.92%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      9762.9      1333.6 µg/L         71.33      1333.6 ppb          71.33   5.35%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -11.2     -0.1284 µg/L       0.09057     -0.1284 ppb        0.09057  70.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -5.0     -1.0588 µg/L       3.04432     -1.0588 ppb        3.04432 287.53%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -9.0     -0.5043 µg/L       0.79745     -0.5043 ppb        0.79745 158.14%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         306.7      227.76 µg/L        10.409      227.76 ppb         10.409   4.57%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                0.4      0.0372 µg/L       1.06958      0.0372 ppb        1.06958 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -4.3       -1.56 µg/L         2.327       -1.56 ppb          2.327 149.47%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -11.7     -1.1297 µg/L       2.09595     -1.1297 ppb        2.09595 185.53%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               74.2      1.0978 µg/L       0.38957      1.0978 ppb        0.38957  35.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -2.1     -0.1327 µg/L       0.36862     -0.1327 ppb        0.36862 277.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -122.9     -0.2555 µg/L       0.11395     -0.2555 ppb        0.11395  44.59%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -68.9     -0.0636 µg/L       0.15935     -0.0636 ppb        0.15935 250.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              120.7      14.831 µg/L        3.3194      14.831 ppb         3.3194  22.38%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -20.6     -1.2243 µg/L      13.68877     -1.2243 ppb       13.68877 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -81.6     -0.4013 µg/L       0.27732     -0.4013 ppb        0.27732  69.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               44.4      0.2503 µg/L       0.13524      0.2503 ppb        0.13524  54.03%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

==========

Sequence No.: 212
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 3:13:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141609.9	141609.9	97.0	%			03:13:57
1	Al 396.153Radial†	25900.5	26753.8	4938.0	µg/L	4938.0	ppb	03:13:57
1	Ca 317.933Radial†	84686.8	86709.6	4830.1	µg/L	4830.1	ppb	03:13:57
1	Fe 238.204 Radial†	75392.8	77544.5	4779.4	µg/L	4779.4	ppb	03:13:57
1	K 766.490 Radial†	14527.6	13426.0	4911.4	µg/L	4911.4	ppb	03:13:57
1	Mg 279.077 IEC†	12920.6	13124.0	4897.4	µg/L	4897.4	ppb	03:13:57
1	Na 589.592 Radial†	74132.9	75103.5	10256	µg/L	10256	ppb	03:13:57
1	Sr 421.552†	227259.6	234327.5	487.12	µg/L	487.12	ppb	03:13:55
1	Sc 361.383	1724519.1	1724519.1	100.37	%			03:14:24
1	Y 371.029	1016919.2	1016919.2	99.048	%			03:14:24
1	Ag 328.068†	131759.4	127186.5	476.91	µg/L	476.91	ppb	03:14:24
1	As 188.979†	1617.4	1631.9	500.43	µg/L	500.43	ppb	03:14:44
1	B 249.677†	35573.7	31937.8	469.37	µg/L	469.37	ppb	03:14:24
1	Ba 233.527†	118495.9	118198.7	476.69	µg/L	476.69	ppb	03:14:24
1	Be 313.107†	1772888.7	1767475.2	481.39	µg/L	481.39	ppb	03:14:24
1	Cd 226.502†	76042.0	75882.4	473.69	µg/L	473.69	ppb	03:14:24
1	Co 228.616†	38682.7	38731.7	478.14	µg/L	478.14	ppb	03:14:24
1	Cr 267.716†	60883.2	60482.1	473.56	µg/L	473.56	ppb	03:14:24
1	Cu 324.752†	125481.8	122051.1	475.79	µg/L	475.79	ppb	03:14:24
1	Mn 257.610†	388799.5	387141.5	478.80	µg/L	478.80	ppb	03:14:24
1	Mo 202.031†	16283.3	16243.8	477.82	µg/L	477.82	ppb	03:14:44
1	Ni 231.604†	41425.2	41350.3	476.12	µg/L	476.12	ppb	03:14:24
1	P 214.914†	11209.4	11186.4	2384.4	µg/L	2384.4	ppb	03:14:44
1	Pb 220.353†	8704.1	8585.9	480.80	µg/L	480.80	ppb	03:14:44
1	S 181.975 Axial†	1493.0	1382.4	1030.6	µg/L	1030.6	ppb	03:14:44
1	Sb 206.836†	4161.7	4065.7	484.45	µg/L	484.45	ppb	03:14:44
1	Se 196.026†	1343.1	1322.9	480	µg/L	480	ppb	03:14:44
1	SiO2†	54169.2	52195.9	5081.2	µg/L	5081.2	ppb	03:14:24
1	Si 251.611†	163798.3	162363.2	2384.2	µg/L	2384.2	ppb	03:14:24
1	Sn 189.927†	7708.8	7681.8	480.49	µg/L	480.49	ppb	03:14:44
1	Ti 334.940†	514144.0	511312.8	477.09	µg/L	477.09	ppb	03:14:24
1	Tl 190.801†	3782.7	3885.5	484.56	µg/L	484.56	ppb	03:14:44
1	U 409.014†	7391.9	7634.8	475.26	µg/L	475.26	ppb	03:14:24
1	V 292.402†	97528.5	96768.3	478.40	µg/L	478.40	ppb	03:14:24
1	Zn 213.857†	85289.7	84413.7	470.45	µg/L	470.45	ppb	03:14:24
2	Sc RADIAL	143935.9	143935.9	98.6	%			03:14:01
2	Al 396.153Radial†	26331.1	26759.0	4939.2	µg/L	4939.2	ppb	03:14:01
2	Ca 317.933Radial†	86594.3	87233.3	4859.2	µg/L	4859.2	ppb	03:14:01
2	Fe 238.204 Radial†	76913.8	77831.2	4797.0	µg/L	4797.0	ppb	03:14:01
2	K 766.490 Radial†	14816.5	13476.9	4930.0	µg/L	4930.0	ppb	03:14:01
2	Mg 279.077 IEC†	13220.5	13212.9	4930.4	µg/L	4930.4	ppb	03:14:01
2	Na 589.592 Radial†	75550.6	75306.4	10283	µg/L	10283	ppb	03:14:01
2	Sr 421.552†	228497.8	231798.4	481.86	µg/L	481.86	ppb	03:13:59
2	Sc 361.383	1738137.6	1738137.6	101.16	%			03:14:47
2	Y 371.029	1025437.7	1025437.7	99.878	%			03:14:47
2	Ag 328.068†	132376.0	126767.5	475.37	µg/L	475.37	ppb	03:14:47
2	As 188.979†	1591.5	1593.6	488.85	µg/L	488.85	ppb	03:15:07
2	B 249.677†	35851.5	31934.8	469.33	µg/L	469.33	ppb	03:14:47
2	Ba 233.527†	119360.5	118128.5	476.41	µg/L	476.41	ppb	03:14:47
2	Be 313.107†	1783349.2	1763975.7	480.43	µg/L	480.43	ppb	03:14:47
2	Cd 226.502†	76462.8	75704.7	472.58	µg/L	472.58	ppb	03:14:47
2	Co 228.616†	38867.0	38611.9	476.66	µg/L	476.66	ppb	03:14:47
2	Cr 267.716†	61200.5	60320.6	472.29	µg/L	472.29	ppb	03:14:47
2	Cu 324.752†	126080.6	121663.5	474.29	µg/L	474.29	ppb	03:14:47
2	Mn 257.610†	391256.7	386535.4	478.05	µg/L	478.05	ppb	03:14:47
2	Mo 202.031†	16230.4	16064.5	472.55	µg/L	472.55	ppb	03:15:07
2	Ni 231.604†	41463.0	41064.4	472.83	µg/L	472.83	ppb	03:14:47
2	P 214.914†	11143.5	11033.8	2351.8	µg/L	2351.8	ppb	03:15:07
2	Pb 220.353†	8645.1	8459.7	473.74	µg/L	473.74	ppb	03:15:07

2	S 181.975 Axial†	1480.0	1357.9	1012.4 µg/L	1012.4 ppb	03:15:07
2	Sb 206.836†	4116.5	3988.5	475.20 µg/L	475.20 ppb	03:15:07
2	Se 196.026†	1336.1	1305.6	474 µg/L	474 ppb	03:15:07
2	SiO2†	54693.6	52291.4	5090.8 µg/L	5090.8 ppb	03:14:47
2	Si 251.611†	165270.6	162539.9	2386.9 µg/L	2386.9 ppb	03:14:47
2	Sn 189.927†	7648.8	7562.3	473.03 µg/L	473.03 ppb	03:15:07
2	Ti 334.940†	517308.4	510427.2	476.26 µg/L	476.26 ppb	03:14:47
2	Tl 190.801†	3752.9	3826.6	477.32 µg/L	477.32 ppb	03:15:07
2	U 409.014†	7552.0	7735.3	481.16 µg/L	481.16 ppb	03:14:47
2	V 292.402†	98376.4	96845.2	478.71 µg/L	478.71 ppb	03:14:47
2	Zn 213.857†	86281.1	84727.8	472.24 µg/L	472.24 ppb	03:14:47
3	Sc RADIAL	140443.4	140443.4	96.2 %		03:14:05
3	Al 396.153Radial†	25676.7	26743.0	4936.2 µg/L	4936.2 ppb	03:14:05
3	Ca 317.933Radial†	83864.4	86579.9	4822.8 µg/L	4822.8 ppb	03:14:05
3	Fe 238.204 Radial†	74604.1	77370.4	4768.6 µg/L	4768.6 ppb	03:14:05
3	K 766.490 Radial†	14449.6	13469.3	4927.2 µg/L	4927.2 ppb	03:14:05
3	Mg 279.077 IEC†	12779.0	13087.5	4883.7 µg/L	4883.7 ppb	03:14:05
3	Na 589.592 Radial†	73771.5	75362.6	10291 µg/L	10291 ppb	03:14:05
3	Sr 421.552†	229430.1	238528.0	495.85 µg/L	495.85 ppb	03:14:03
3	Sc 361.383	1744274.4	1744274.4	101.52 %		03:15:10
3	Y 371.029	1028879.6	1028879.6	100.21 %		03:15:10
3	Ag 328.068†	133589.1	127502.1	478.11 µg/L	478.11 ppb	03:15:10
3	As 188.979†	1613.5	1609.8	493.74 µg/L	493.74 ppb	03:15:30
3	B 249.677†	36166.0	32119.8	472.05 µg/L	472.05 ppb	03:15:10
3	Ba 233.527†	120009.6	118352.7	477.31 µg/L	477.31 ppb	03:15:10
3	Be 313.107†	1795578.5	1769820.0	482.02 µg/L	482.02 ppb	03:15:10
3	Cd 226.502†	77434.5	76396.0	476.90 µg/L	476.90 ppb	03:15:10
3	Co 228.616†	39130.1	38735.9	478.19 µg/L	478.19 ppb	03:15:10
3	Cr 267.716†	61711.0	60610.6	474.57 µg/L	474.57 ppb	03:15:10
3	Cu 324.752†	126753.5	121887.8	475.15 µg/L	475.15 ppb	03:15:10
3	Mn 257.610†	393731.0	387612.0	479.39 µg/L	479.39 ppb	03:15:10
3	Mo 202.031†	16276.7	16053.6	472.23 µg/L	472.23 ppb	03:15:30
3	Ni 231.604†	41761.2	41213.9	474.55 µg/L	474.55 ppb	03:15:10
3	P 214.914†	11200.9	11051.6	2355.6 µg/L	2355.6 ppb	03:15:30
3	Pb 220.353†	8718.4	8501.8	476.10 µg/L	476.10 ppb	03:15:30
3	S 181.975 Axial†	1486.9	1359.7	1013.6 µg/L	1013.6 ppb	03:15:30
3	Sb 206.836†	4107.0	3964.8	472.37 µg/L	472.37 ppb	03:15:30
3	Se 196.026†	1339.3	1304.0	474 µg/L	474 ppb	03:15:30
3	SiO2†	55056.5	52458.7	5107.1 µg/L	5107.1 ppb	03:15:10
3	Si 251.611†	166125.1	162806.9	2390.8 µg/L	2390.8 ppb	03:15:10
3	Sn 189.927†	7727.3	7613.0	476.20 µg/L	476.20 ppb	03:15:30
3	Ti 334.940†	520001.8	511281.2	477.06 µg/L	477.06 ppb	03:15:10
3	Tl 190.801†	3778.8	3839.0	478.87 µg/L	478.87 ppb	03:15:30
3	U 409.014†	7370.2	7530.0	469.31 µg/L	469.31 ppb	03:15:10
3	V 292.402†	99255.0	97368.5	481.27 µg/L	481.27 ppb	03:15:10
3	Zn 213.857†	86767.5	84906.9	473.24 µg/L	473.24 ppb	03:15:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1735643.7	101.01	%	0.588				0.58%
Sc RADIAL	141996.4	97.3	%	1.22				1.25%
Y 371.029	1023745.5	99.713	%	0.5997				0.60%
Ag 328.068†	127152.0	476.79	µg/L	1.372	476.79	ppb	1.372	0.29%
QC value within limits for Ag 328.068 Recovery = 95.36%								
Al 396.153Radial†	26751.9	4937.8	µg/L	1.49	4937.8	ppb	1.49	0.03%
QC value within limits for Al 396.153Radial Recovery = 98.76%								
As 188.979†	1611.8	494.34	µg/L	5.814	494.34	ppb	5.814	1.18%
QC value within limits for As 188.979 Recovery = 98.87%								
B 249.677†	31997.5	470.25	µg/L	1.562	470.25	ppb	1.562	0.33%
QC value within limits for B 249.677 Recovery = 94.05%								
Ba 233.527†	118226.6	476.81	µg/L	0.463	476.81	ppb	0.463	0.10%
QC value within limits for Ba 233.527 Recovery = 95.36%								
Be 313.107†	1767090.3	481.28	µg/L	0.799	481.28	ppb	0.799	0.17%
QC value within limits for Be 313.107 Recovery = 96.26%								
Ca 317.933Radial†	86840.9	4837.4	µg/L	19.27	4837.4	ppb	19.27	0.40%
QC value within limits for Ca 317.933Radial Recovery = 96.75%								
Cd 226.502†	75994.4	474.39	µg/L	2.244	474.39	ppb	2.244	0.47%
QC value within limits for Cd 226.502 Recovery = 94.88%								
Co 228.616†	38693.1	477.67	µg/L	0.870	477.67	ppb	0.870	0.18%

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   QC value within limits for Co 228.616  Recovery = 95.53%
Cr 267.716†            60471.1      473.47 µg/L         1.143      473.47 ppb          1.143   0.24%
   QC value within limits for Cr 267.716  Recovery = 94.69%
Cu 324.752†           121867.4      475.08 µg/L         0.752      475.08 ppb          0.752   0.16%
   QC value within limits for Cu 324.752  Recovery = 95.02%
Fe 238.204 Radial†     77582.0      4781.7 µg/L         14.34      4781.7 ppb          14.34   0.30%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.63%
K 766.490 Radial†      13457.4      4922.9 µg/L         10.06      4922.9 ppb          10.06   0.20%
   QC value within limits for K 766.490 Radial  Recovery = 98.46%
Mg 279.077 IEC†        13141.5      4903.8 µg/L         24.00      4903.8 ppb          24.00   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.08%
Mn 257.610†           387096.3      478.75 µg/L         0.669      478.75 ppb          0.669   0.14%
   QC value within limits for Mn 257.610  Recovery = 95.75%
Mo 202.031†            16120.7      474.20 µg/L         3.139      474.20 ppb          3.139   0.66%
   QC value within limits for Mo 202.031  Recovery = 94.84%
Na 589.592 Radial†     75257.5       10277 µg/L          18.6       10277 ppb           18.6   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 102.77%
Ni 231.604†            41209.5      474.50 µg/L         1.647      474.50 ppb          1.647   0.35%
   QC value within limits for Ni 231.604  Recovery = 94.90%
P 214.914†             11090.6      2363.9 µg/L         17.85      2363.9 ppb          17.85   0.75%
   QC value within limits for P 214.914  Recovery = 94.56%
Pb 220.353†             8515.8      476.88 µg/L         3.596      476.88 ppb          3.596   0.75%
   QC value within limits for Pb 220.353  Recovery = 95.38%
S 181.975 Axial†        1366.7      1018.9 µg/L         10.18      1018.9 ppb          10.18   1.00%
   QC value within limits for S 181.975 Axial  Recovery = 101.89%
Sb 206.836†             4006.3      477.34 µg/L         6.318      477.34 ppb          6.318   1.32%
   QC value within limits for Sb 206.836  Recovery = 95.47%
Se 196.026†             1310.8         476 µg/L           3.8         476 ppb            3.8   0.80%
   QC value within limits for Se 196.026  Recovery = 95.20%
SiO2†                  52315.3      5093.0 µg/L         13.10      5093.0 ppb          13.10   0.26%
   QC value within limits for SiO2  Recovery = 95.24%
Si 251.611†           162570.0      2387.3 µg/L          3.34      2387.3 ppb           3.34   0.14%
   QC value within limits for Si 251.611  Recovery = 95.49%
Sn 189.927†             7619.0      476.57 µg/L         3.740      476.57 ppb          3.740   0.78%
   QC value within limits for Sn 189.927  Recovery = 95.31%
Sr 421.552†           234884.6      488.27 µg/L         7.067      488.27 ppb          7.067   1.45%
   QC value within limits for Sr 421.552  Recovery = 97.65%
Ti 334.940†           511007.1      476.80 µg/L         0.473      476.80 ppb          0.473   0.10%
   QC value within limits for Ti 334.940  Recovery = 95.36%
Tl 190.801†             3850.4      480.25 µg/L         3.815      480.25 ppb          3.815   0.79%
   QC value within limits for Tl 190.801  Recovery = 96.05%
U 409.014†              7633.4      475.24 µg/L         5.925      475.24 ppb          5.925   1.25%
   QC value within limits for U 409.014  Recovery = 95.05%
V 292.402†             96994.0      479.46 µg/L         1.574      479.46 ppb          1.574   0.33%
   QC value within limits for V 292.402  Recovery = 95.89%
Zn 213.857†            84682.8      471.98 µg/L         1.410      471.98 ppb          1.410   0.30%
   QC value within limits for Zn 213.857  Recovery = 94.40%
All analyte(s) passed QC.
```

Sequence No.: 213 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/1/2010 3:15:38**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146013.2	146013.2	100	%			03:16:07
1	Al 396.153Radial†	-89.2	-25.9	-4.8031	µg/L	-4.8031	ppb	03:16:27
1	Ca 317.933Radial†	761.2	200.2	11.150	µg/L	11.150	ppb	03:16:27
1	Fe 238.204 Radial†	162.9	14.7	0.9060	µg/L	0.9060	ppb	03:16:27
1	K 766.490 Radial†	1654.3	108.5	39.646	µg/L	39.646	ppb	03:16:07
1	Mg 279.077 IEC†	192.8	2.0	0.7445	µg/L	0.7445	ppb	03:16:27
1	Na 589.592 Radial†	5426.7	4132.8	564.56	µg/L	564.56	ppb	03:16:07
1	Sr 421.552†	-218.9	-83.4	-0.1736	µg/L	-0.1736	ppb	03:16:07
1	Sc 361.383	1755516.5	1755516.5	102.17	%			03:17:15
1	Y 371.029	1046303.4	1046303.4	101.91	%			03:17:15
1	Ag 328.068†	4349.4	165.6	0.6100	µg/L	0.6100	ppb	03:17:17
1	As 188.979†	-32.6	-11.5	-3.4798	µg/L	-3.4798	ppb	03:17:37
1	B 249.677†	3627.4	44.4	0.6533	µg/L	0.6533	ppb	03:17:17
1	Ba 233.527†	-142.6	-3.7	-0.0155	µg/L	-0.0155	ppb	03:17:37
1	Be 313.107†	-765.9	315.0	0.0874	µg/L	0.0874	ppb	03:17:17
1	Cd 226.502†	-98.0	22.3	0.1390	µg/L	0.1390	ppb	03:17:37
1	Co 228.616†	-150.7	42.8	0.5276	µg/L	0.5276	ppb	03:17:37
1	Cr 267.716†	198.5	15.7	0.1183	µg/L	0.1183	ppb	03:17:37
1	Cu 324.752†	3047.8	10.9	0.0471	µg/L	0.0471	ppb	03:17:17
1	Mn 257.610†	326.4	82.2	0.1017	µg/L	0.1017	ppb	03:17:37
1	Mo 202.031†	-26.4	-5.8	-0.1704	µg/L	-0.1704	ppb	03:17:37
1	Ni 231.604†	-110.3	-31.4	-0.3616	µg/L	-0.3616	ppb	03:17:37
1	P 214.914†	-26.0	-7.5	-1.5967	µg/L	-1.5967	ppb	03:17:37
1	Pb 220.353†	82.4	-5.8	-0.3262	µg/L	-0.3262	ppb	03:17:37
1	S 181.975 Axial†	207.3	97.8	72.634	µg/L	72.634	ppb	03:17:37
1	Sb 206.836†	77.7	-4.8	-0.5732	µg/L	-0.5732	ppb	03:17:37
1	Se 196.026†	14.9	-0.7	-0.237	µg/L	-0.237	ppb	03:17:37
1	SiO2†	1831.7	17.5	1.7076	µg/L	1.7076	ppb	03:17:37
1	Si 251.611†	802.8	-50.8	-0.7486	µg/L	-0.7486	ppb	03:17:17
1	Sn 189.927†	3.5	4.5	0.2809	µg/L	0.2809	ppb	03:17:37
1	Ti 334.940†	712.4	-255.3	-0.2405	µg/L	-0.2405	ppb	03:17:17
1	Tl 190.801†	-96.0	22.8	2.7858	µg/L	2.7858	ppb	03:17:37
1	U 409.014†	-181.9	91.8	5.3242	µg/L	5.3242	ppb	03:17:17
1	V 292.402†	247.6	-161.5	-0.7853	µg/L	-0.7853	ppb	03:17:17
1	Zn 213.857†	614.2	36.7	0.2080	µg/L	0.2080	ppb	03:17:37
2	Sc RADIAL	141829.3	141829.3	97.2	%			03:16:29
2	Al 396.153Radial†	-77.3	-16.3	-3.0254	µg/L	-3.0254	ppb	03:16:49
2	Ca 317.933Radial†	693.9	153.4	8.5423	µg/L	8.5423	ppb	03:16:49
2	Fe 238.204 Radial†	133.5	-10.7	-0.6592	µg/L	-0.6592	ppb	03:16:49
2	K 766.490 Radial†	1842.1	350.6	128.27	µg/L	128.27	ppb	03:16:29
2	Mg 279.077 IEC†	213.2	28.7	10.681	µg/L	10.681	ppb	03:16:49
2	Na 589.592 Radial†	5347.1	4210.9	575.15	µg/L	575.15	ppb	03:16:29
2	Sr 421.552†	-126.7	4.9	0.0101	µg/L	0.0101	ppb	03:16:29
2	Sc 361.383	1757358.9	1757358.9	102.28	%			03:17:39
2	Y 371.029	1047817.2	1047817.2	102.06	%			03:17:39
2	Ag 328.068†	4203.5	18.4	0.0721	µg/L	0.0721	ppb	03:17:42
2	As 188.979†	-7.7	12.8	3.8720	µg/L	3.8720	ppb	03:18:02
2	B 249.677†	3621.3	34.7	0.5123	µg/L	0.5123	ppb	03:17:42
2	Ba 233.527†	-113.1	25.3	0.1018	µg/L	0.1018	ppb	03:18:02
2	Be 313.107†	-827.3	255.9	0.0718	µg/L	0.0718	ppb	03:17:42
2	Cd 226.502†	-109.0	11.6	0.0724	µg/L	0.0724	ppb	03:18:02
2	Co 228.616†	-206.5	-11.6	-0.1430	µg/L	-0.1430	ppb	03:18:02
2	Cr 267.716†	179.5	-3.1	-0.0299	µg/L	-0.0299	ppb	03:18:02
2	Cu 324.752†	2992.6	-46.2	-0.1738	µg/L	-0.1738	ppb	03:17:42
2	Mn 257.610†	319.5	75.1	0.0925	µg/L	0.0925	ppb	03:18:02
2	Mo 202.031†	-17.2	3.2	0.0951	µg/L	0.0951	ppb	03:18:02
2	Ni 231.604†	-94.1	-15.5	-0.1782	µg/L	-0.1782	ppb	03:18:02
2	P 214.914†	-17.1	1.3	0.2745	µg/L	0.2745	ppb	03:18:02
2	Pb 220.353†	67.0	-20.9	-1.1697	µg/L	-1.1697	ppb	03:18:02

2	S 181.975 Axial†	199.8	90.3	67.037 µg/L	67.037 ppb	03:18:02
2	Sb 206.836†	85.0	2.3	0.2720 µg/L	0.2720 ppb	03:18:02
2	Se 196.026†	11.9	-3.7	-1.31 µg/L	-1.31 ppb	03:18:02
2	SiO2†	1802.0	-13.5	-1.3278 µg/L	-1.3278 ppb	03:18:02
2	Si 251.611†	853.5	-2.1	-0.0332 µg/L	-0.0332 ppb	03:17:42
2	Sn 189.927†	2.7	3.8	0.2351 µg/L	0.2351 ppb	03:18:02
2	Ti 334.940†	1024.2	48.8	0.0421 µg/L	0.0421 ppb	03:17:42
2	Tl 190.801†	-77.9	40.5	4.9714 µg/L	4.9714 ppb	03:18:02
2	U 409.014†	-154.4	118.9	6.9321 µg/L	6.9321 ppb	03:17:42
2	V 292.402†	333.3	-77.9	-0.3746 µg/L	-0.3746 ppb	03:17:42
2	Zn 213.857†	602.9	25.1	0.1422 µg/L	0.1422 ppb	03:18:02
3	Sc RADIAL	143153.6	143153.6	98.1 %		03:16:51
3	Al 396.153Radial†	-75.1	-13.4	-2.4564 µg/L	-2.4564 ppb	03:17:11
3	Ca 317.933Radial†	714.7	168.0	9.3594 µg/L	9.3594 ppb	03:17:11
3	Fe 238.204 Radial†	146.0	0.7	0.0418 µg/L	0.0418 ppb	03:17:11
3	K 766.490 Radial†	1703.0	191.3	69.930 µg/L	69.930 ppb	03:16:51
3	Mg 279.077 IEC†	177.5	-9.7	-3.6301 µg/L	-3.6301 ppb	03:17:11
3	Na 589.592 Radial†	5368.9	4182.2	571.28 µg/L	571.28 ppb	03:16:51
3	Sr 421.552†	-157.6	-25.4	-0.0529 µg/L	-0.0529 ppb	03:16:51
3	Sc 361.383	1742509.2	1742509.2	101.41 %		03:18:04
3	Y 371.029	1039202.5	1039202.5	101.22 %		03:18:04
3	Ag 328.068†	4021.3	-126.2	-0.4729 µg/L	-0.4729 ppb	03:18:06
3	As 188.979†	-17.7	2.9	0.8639 µg/L	0.8639 ppb	03:18:26
3	B 249.677†	3474.3	-80.0	-1.1801 µg/L	-1.1801 ppb	03:18:06
3	Ba 233.527†	-135.7	2.0	0.0074 µg/L	0.0074 ppb	03:18:26
3	Be 313.107†	-1003.8	74.8	0.0214 µg/L	0.0214 ppb	03:18:06
3	Cd 226.502†	-66.8	52.3	0.3269 µg/L	0.3269 ppb	03:18:26
3	Co 228.616†	-182.8	10.1	0.1245 µg/L	0.1245 ppb	03:18:26
3	Cr 267.716†	178.6	-2.5	-0.0225 µg/L	-0.0225 ppb	03:18:26
3	Cu 324.752†	2996.2	-17.8	-0.0665 µg/L	-0.0665 ppb	03:18:06
3	Mn 257.610†	303.6	62.1	0.0770 µg/L	0.0770 ppb	03:18:26
3	Mo 202.031†	-36.1	-15.6	-0.4577 µg/L	-0.4577 ppb	03:18:26
3	Ni 231.604†	-76.5	1.0	0.0119 µg/L	0.0119 ppb	03:18:26
3	P 214.914†	-26.3	-8.0	-1.7122 µg/L	-1.7122 ppb	03:18:26
3	Pb 220.353†	16.7	-69.9	-3.9062 µg/L	-3.9062 ppb	03:18:26
3	S 181.975 Axial†	199.1	91.3	67.801 µg/L	67.801 ppb	03:18:26
3	Sb 206.836†	75.6	-6.2	-0.7491 µg/L	-0.7491 ppb	03:18:26
3	Se 196.026†	21.3	5.7	2.07 µg/L	2.07 ppb	03:18:26
3	SiO2†	1802.2	1.7	0.1875 µg/L	0.1875 ppb	03:18:26
3	Si 251.611†	978.5	128.3	1.8991 µg/L	1.8991 ppb	03:18:06
3	Sn 189.927†	-5.2	-4.0	-0.2499 µg/L	-0.2499 ppb	03:18:26
3	Ti 334.940†	957.8	-8.1	-0.0083 µg/L	-0.0083 ppb	03:18:06
3	Tl 190.801†	-79.3	38.5	4.7229 µg/L	4.7229 ppb	03:18:26
3	U 409.014†	-215.9	57.0	3.2904 µg/L	3.2904 ppb	03:18:06
3	V 292.402†	245.3	-161.9	-0.7924 µg/L	-0.7924 ppb	03:18:06
3	Zn 213.857†	594.0	21.4	0.1198 µg/L	0.1198 ppb	03:18:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1751794.9	101.95	%	0.471				0.46%
Sc RADIAL	143665.3	98.4	%	1.47				1.49%
Y 371.029	1044441.0	101.73	%	0.448				0.44%
Ag 328.068†	19.3	0.0697	µg/L	0.54146	0.0697	ppb	0.54146	776.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-18.5	-3.4283	µg/L	1.22412	-3.4283	ppb	1.22412	35.71%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.4	0.4187	µg/L	3.69605	0.4187	ppb	3.69605	882.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-0.3	-0.0048	µg/L	1.02026	-0.0048	ppb	1.02026	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.9	0.0312	µg/L	0.06218	0.0312	ppb	0.06218	199.06%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	215.2	0.0602	µg/L	0.03450	0.0602	ppb	0.03450	57.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	173.8	9.6837	µg/L	1.33353	9.6837	ppb	1.33353	13.77%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	28.7	0.1794	µg/L	0.13199	0.1794	ppb	0.13199	73.56%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	13.8	0.1697	µg/L	0.33756	0.1697	ppb	0.33756	198.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                3.4      0.0219 µg/L       0.08351      0.0219 ppb        0.08351 380.68%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -17.7     -0.0644 µg/L       0.11047     -0.0644 ppb        0.11047 171.52%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.6      0.0962 µg/L       0.78405      0.0962 ppb        0.78405 815.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        216.8      79.281 µg/L       45.0446      79.281 ppb        45.0446  56.82%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            7.0      2.5984 µg/L       7.33330      2.5984 ppb        7.33330 282.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               73.1      0.0904 µg/L       0.01246      0.0904 ppb        0.01246  13.78%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -6.0     -0.1777 µg/L       0.27645     -0.1777 ppb        0.27645 155.60%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      4175.3      570.33 µg/L         5.360      570.33 ppb          5.360   0.94%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -15.3     -0.1760 µg/L       0.18678     -0.1760 ppb        0.18678 106.15%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.7     -1.0115 µg/L       1.11516     -1.0115 ppb        1.11516 110.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -32.2     -1.8007 µg/L       1.87157     -1.8007 ppb        1.87157 103.93%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          93.1      69.157 µg/L        3.0351      69.157 ppb         3.0351   4.39%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.9     -0.3501 µg/L       0.54589     -0.3501 ppb        0.54589 155.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.5       0.172 µg/L        1.7265       0.172 ppb         1.7265 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      1.9      0.1891 µg/L       1.51771      0.1891 ppb        1.51771 802.57%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               25.1      0.3725 µg/L       1.36967      0.3725 ppb        1.36967 367.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.4      0.0887 µg/L       0.29412      0.0887 ppb        0.29412 331.60%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -34.7     -0.0721 µg/L       0.09333     -0.0721 ppb        0.09333 129.40%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -71.5     -0.0689 µg/L       0.15073     -0.0689 ppb        0.15073 218.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               33.9      4.1600 µg/L       1.19656      4.1600 ppb        1.19656  28.76%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                89.3      5.1822 µg/L       1.82498      5.1822 ppb        1.82498  35.22%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -133.8     -0.6508 µg/L       0.23918     -0.6508 ppb        0.23918  36.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               27.7      0.1566 µg/L       0.04589      0.1566 ppb        0.04589  29.30%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

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Analysis Begun

Start Time: 4/1/2010 4:39:11 **Plasma On Time:** 3/29/2010 18:07:58
Logged In Analyst: optima4 **Technique:** ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 077C0022701 **Autosampler Model:** AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location:** 7
Sample ID: CCV **Date Collected:** 4/1/2010 4:39:15
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143287.7	143287.7	98.2	%			04:39:48
1	Al 396.153Radial†	26097.1	26641.5	4917.1	µg/L	4917.1	ppb	04:39:48
1	Ca 317.933Radial†	85617.7	86635.8	4826.0	µg/L	4826.0	ppb	04:39:48
1	Fe 238.204 Radial†	76602.7	77867.1	4799.3	µg/L	4799.3	ppb	04:39:48
1	K 766.490 Radial†	14400.8	13121.5	4800.0	µg/L	4800.0	ppb	04:39:48
1	Mg 279.077 IEC†	13124.0	13175.3	4916.5	µg/L	4916.5	ppb	04:39:48
1	Na 589.592 Radial†	72250.3	72291.7	9871.7	µg/L	9871.7	ppb	04:39:48
1	Sr 421.552†	228422.2	232769.3	483.88	µg/L	483.88	ppb	04:39:46
1	Sc 361.383	1726307.9	1726307.9	100.47	%			04:40:15
1	Y 371.029	1017838.7	1017838.7	99.138	%			04:40:15
1	Ag 328.068†	131459.1	126751.6	475.29	µg/L	475.29	ppb	04:40:15
1	As 188.979†	1615.7	1628.5	499.42	µg/L	499.42	ppb	04:40:35
1	B 249.677†	35679.8	32006.7	470.38	µg/L	470.38	ppb	04:40:15
1	Ba 233.527†	118546.6	118126.9	476.40	µg/L	476.40	ppb	04:40:15
1	Be 313.107†	1779033.6	1771761.0	482.55	µg/L	482.55	ppb	04:40:15
1	Cd 226.502†	76138.3	75899.6	473.80	µg/L	473.80	ppb	04:40:15
1	Co 228.616†	38752.8	38761.5	478.51	µg/L	478.51	ppb	04:40:15
1	Cr 267.716†	60891.1	60427.2	473.15	µg/L	473.15	ppb	04:40:15
1	Cu 324.752†	125489.3	121928.9	475.31	µg/L	475.31	ppb	04:40:15
1	Mn 257.610†	389201.0	387139.7	478.80	µg/L	478.80	ppb	04:40:15
1	Mo 202.031†	16304.5	16248.1	477.95	µg/L	477.95	ppb	04:40:35
1	Ni 231.604†	41496.9	41378.9	476.45	µg/L	476.45	ppb	04:40:15
1	P 214.914†	11260.2	11225.4	2392.7	µg/L	2392.7	ppb	04:40:35
1	Pb 220.353†	8733.2	8605.9	481.93	µg/L	481.93	ppb	04:40:35
1	S 181.975 Axial†	1431.2	1319.5	983.83	µg/L	983.83	ppb	04:40:35
1	Sb 206.836†	4117.8	4017.7	478.76	µg/L	478.76	ppb	04:40:35
1	Se 196.026†	1330.5	1309.0	475	µg/L	475	ppb	04:40:35
1	SiO2†	54190.9	52161.5	5077.8	µg/L	5077.8	ppb	04:40:15
1	Si 251.611†	164264.5	162658.1	2388.5	µg/L	2388.5	ppb	04:40:15
1	Sn 189.927†	7744.6	7709.4	482.20	µg/L	482.20	ppb	04:40:35
1	Ti 334.940†	513495.3	510136.3	476.00	µg/L	476.00	ppb	04:40:15
1	Tl 190.801†	3787.9	3886.8	484.71	µg/L	484.71	ppb	04:40:35
1	U 409.014†	7087.0	7323.7	457.14	µg/L	457.14	ppb	04:40:15
1	V 292.402†	97888.5	97025.9	479.64	µg/L	479.64	ppb	04:40:15
1	Zn 213.857†	85804.6	84838.1	472.83	µg/L	472.83	ppb	04:40:15
2	Sc RADIAL	142551.2	142551.2	97.7	%			04:39:52
2	Al 396.153Radial†	25918.7	26596.2	4908.8	µg/L	4908.8	ppb	04:39:52
2	Ca 317.933Radial†	85143.9	86601.2	4824.0	µg/L	4824.0	ppb	04:39:52
2	Fe 238.204 Radial†	76012.3	77665.7	4786.8	µg/L	4786.8	ppb	04:39:52
2	K 766.490 Radial†	14216.0	13008.1	4758.5	µg/L	4758.5	ppb	04:39:52
2	Mg 279.077 IEC†	13129.0	13249.5	4944.1	µg/L	4944.1	ppb	04:39:52
2	Na 589.592 Radial†	71942.3	72356.6	9880.6	µg/L	9880.6	ppb	04:39:52
2	Sr 421.552†	228072.6	233613.4	485.63	µg/L	485.63	ppb	04:39:50
2	Sc 361.383	1732601.9	1732601.9	100.84	%			04:40:38
2	Y 371.029	1021854.8	1021854.8	99.529	%			04:40:38
2	Ag 328.068†	132036.8	126849.2	475.64	µg/L	475.64	ppb	04:40:38
2	As 188.979†	1613.9	1620.8	497.09	µg/L	497.09	ppb	04:40:58

2	B 249.677†	35753.7	31951.0	469.56 µg/L	469.56 ppb	04:40:38
2	Ba 233.527†	119080.4	118227.7	476.81 µg/L	476.81 ppb	04:40:38
2	Be 313.107†	1784759.1	1771006.5	482.34 µg/L	482.34 ppb	04:40:38
2	Cd 226.502†	76654.3	76136.1	475.28 µg/L	475.28 ppb	04:40:38
2	Co 228.616†	38853.1	38720.8	478.01 µg/L	478.01 ppb	04:40:38
2	Cr 267.716†	61138.8	60452.7	473.35 µg/L	473.35 ppb	04:40:38
2	Cu 324.752†	125614.8	121599.7	474.02 µg/L	474.02 ppb	04:40:38
2	Mn 257.610†	390618.9	387138.6	478.80 µg/L	478.80 ppb	04:40:38
2	Mo 202.031†	16345.0	16229.4	477.40 µg/L	477.40 ppb	04:40:58
2	Ni 231.604†	41628.9	41359.8	476.23 µg/L	476.23 ppb	04:40:38
2	P 214.914†	11287.1	11211.3	2389.8 µg/L	2389.8 ppb	04:40:58
2	Pb 220.353†	8756.9	8597.8	481.48 µg/L	481.48 ppb	04:40:58
2	S 181.975 Axial†	1433.6	1316.6	981.73 µg/L	981.73 ppb	04:40:58
2	Sb 206.836†	4163.7	4048.4	482.39 µg/L	482.39 ppb	04:40:58
2	Se 196.026†	1356.8	1330.3	483 µg/L	483 ppb	04:40:58
2	SiO2†	54513.7	52285.8	5090.0 µg/L	5090.0 ppb	04:40:38
2	Si 251.611†	164749.7	162545.4	2386.9 µg/L	2386.9 ppb	04:40:38
2	Sn 189.927†	7762.2	7698.9	481.55 µg/L	481.55 ppb	04:40:58
2	Ti 334.940†	515261.7	510031.4	475.90 µg/L	475.90 ppb	04:40:38
2	Tl 190.801†	3793.6	3878.7	483.72 µg/L	483.72 ppb	04:40:58
2	U 409.014†	6995.8	7207.6	450.31 µg/L	450.31 ppb	04:40:38
2	V 292.402†	98077.2	96859.1	478.82 µg/L	478.82 ppb	04:40:38
2	Zn 213.857†	86253.0	84972.5	473.59 µg/L	473.59 ppb	04:40:38
3	Sc RADIAL	145083.0	145083.0	99.4 %		04:39:56
3	Al 396.153Radial†	26230.8	26447.1	4880.9 µg/L	4880.9 ppb	04:39:56
3	Ca 317.933Radial†	86647.7	86592.8	4823.6 µg/L	4823.6 ppb	04:39:56
3	Fe 238.204 Radial†	77399.8	77703.5	4789.2 µg/L	4789.2 ppb	04:39:56
3	K 766.490 Radial†	14738.6	13279.9	4858.0 µg/L	4858.0 ppb	04:39:56
3	Mg 279.077 IEC†	13305.7	13192.7	4923.1 µg/L	4923.1 ppb	04:39:56
3	Na 589.592 Radial†	73184.6	72321.0	9875.6 µg/L	9875.6 ppb	04:39:56
3	Sr 421.552†	226923.1	228382.9	474.76 µg/L	474.76 ppb	04:39:54
3	Sc 361.383	1715600.7	1715600.7	99.848 %		04:41:01
3	Y 371.029	1011465.9	1011465.9	98.517 %		04:41:01
3	Ag 328.068†	131101.9	127210.5	477.01 µg/L	477.01 ppb	04:41:01
3	As 188.979†	1621.5	1644.3	504.20 µg/L	504.20 ppb	04:41:21
3	B 249.677†	35572.5	32120.8	472.07 µg/L	472.07 ppb	04:41:01
3	Ba 233.527†	117882.9	118198.6	476.69 µg/L	476.69 ppb	04:41:01
3	Be 313.107†	1768142.0	1771903.7	482.59 µg/L	482.59 ppb	04:41:01
3	Cd 226.502†	76042.9	76277.0	476.16 µg/L	476.16 ppb	04:41:01
3	Co 228.616†	38526.8	38775.8	478.69 µg/L	478.69 ppb	04:41:01
3	Cr 267.716†	60518.3	60432.1	473.17 µg/L	473.17 ppb	04:41:01
3	Cu 324.752†	124833.7	122051.9	475.80 µg/L	475.80 ppb	04:41:01
3	Mn 257.610†	387412.1	387765.8	479.57 µg/L	479.57 ppb	04:41:01
3	Mo 202.031†	16333.0	16378.0	481.77 µg/L	481.77 ppb	04:41:21
3	Ni 231.604†	41283.4	41422.9	476.95 µg/L	476.95 ppb	04:41:01
3	P 214.914†	11331.2	11366.5	2422.9 µg/L	2422.9 ppb	04:41:21
3	Pb 220.353†	8778.6	8705.6	487.49 µg/L	487.49 ppb	04:41:21
3	S 181.975 Axial†	1431.3	1328.5	990.54 µg/L	990.54 ppb	04:41:21
3	Sb 206.836†	4139.6	4065.1	484.45 µg/L	484.45 ppb	04:41:21
3	Se 196.026†	1365.1	1351.9	491 µg/L	491 ppb	04:41:21
3	SiO2†	53906.3	52213.2	5082.7 µg/L	5082.7 ppb	04:41:01
3	Si 251.611†	163125.7	162537.9	2386.7 µg/L	2386.7 ppb	04:41:01
3	Sn 189.927†	7757.8	7770.8	486.03 µg/L	486.03 ppb	04:41:21
3	Ti 334.940†	510802.1	510628.7	476.45 µg/L	476.45 ppb	04:41:01
3	Tl 190.801†	3813.8	3936.3	490.80 µg/L	490.80 ppb	04:41:21
3	U 409.014†	7313.0	7594.1	472.95 µg/L	472.95 ppb	04:41:01
3	V 292.402†	97247.2	96991.7	479.52 µg/L	479.52 ppb	04:41:01
3	Zn 213.857†	85421.1	84987.0	473.67 µg/L	473.67 ppb	04:41:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1724836.8	100.39	%	0.500				0.50%
Sc RADIAL	143640.6	98.4	%	0.89				0.91%
Y 371.029	1017053.1	99.061	%	0.5103				0.52%
Ag 328.068†	126937.1	475.98	µg/L	0.908	475.98	ppb	0.908	0.19%
QC value within limits for Ag 328.068 Recovery = 95.20%								
Al 396.153Radial†	26561.6	4902.3	µg/L	18.96	4902.3	ppb	18.96	0.39%
QC value within limits for Al 396.153Radial Recovery = 98.05%								
As 188.979†	1631.2	500.24	µg/L	3.626	500.24	ppb	3.626	0.72%

```
   QC value within limits for As 188.979  Recovery = 100.05%
B 249.677†            32026.2      470.67 µg/L        1.276      470.67 ppb         1.276   0.27%
   QC value within limits for B 249.677  Recovery = 94.13%
Ba 233.527†          118184.4      476.64 µg/L        0.209      476.64 ppb         0.209   0.04%
   QC value within limits for Ba 233.527  Recovery = 95.33%
Be 313.107†         1771557.1      482.49 µg/L        0.134      482.49 ppb         0.134   0.03%
   QC value within limits for Be 313.107  Recovery = 96.50%
Ca 317.933Radial†     86610.0      4824.5 µg/L         1.27      4824.5 ppb          1.27   0.03%
   QC value within limits for Ca 317.933Radial  Recovery = 96.49%
Cd 226.502†           76104.3      475.08 µg/L        1.192      475.08 ppb         1.192   0.25%
   QC value within limits for Cd 226.502  Recovery = 95.02%
Co 228.616†           38752.7      478.40 µg/L        0.352      478.40 ppb         0.352   0.07%
   QC value within limits for Co 228.616  Recovery = 95.68%
Cr 267.716†           60437.3      473.22 µg/L        0.111      473.22 ppb         0.111   0.02%
   QC value within limits for Cr 267.716  Recovery = 94.64%
Cu 324.752†          121860.2      475.04 µg/L        0.917      475.04 ppb         0.917   0.19%
   QC value within limits for Cu 324.752  Recovery = 95.01%
Fe 238.204 Radial†    77745.4      4791.8 µg/L         6.60      4791.8 ppb          6.60   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.84%
K 766.490 Radial†     13136.5      4805.5 µg/L        49.98      4805.5 ppb         49.98   1.04%
   QC value within limits for K 766.490 Radial  Recovery = 96.11%
Mg 279.077 IEC†       13205.8      4927.9 µg/L        14.43      4927.9 ppb         14.43   0.29%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.56%
Mn 257.610†          387348.0      479.06 µg/L        0.448      479.06 ppb         0.448   0.09%
   QC value within limits for Mn 257.610  Recovery = 95.81%
Mo 202.031†           16285.2      479.04 µg/L        2.378      479.04 ppb         2.378   0.50%
   QC value within limits for Mo 202.031  Recovery = 95.81%
Na 589.592 Radial†    72323.1      9875.9 µg/L         4.46      9875.9 ppb          4.46   0.05%
   QC value within limits for Na 589.592 Radial  Recovery = 98.76%
Ni 231.604†           41387.2      476.54 µg/L        0.373      476.54 ppb         0.373   0.08%
   QC value within limits for Ni 231.604  Recovery = 95.31%
P 214.914†            11267.7      2401.8 µg/L        18.34      2401.8 ppb         18.34   0.76%
   QC value within limits for P 214.914  Recovery = 96.07%
Pb 220.353†            8636.4      483.63 µg/L        3.350      483.63 ppb         3.350   0.69%
   QC value within limits for Pb 220.353  Recovery = 96.73%
S 181.975 Axial†       1321.5      985.37 µg/L        4.601      985.37 ppb         4.601   0.47%
   QC value within limits for S 181.975 Axial  Recovery = 98.54%
Sb 206.836†            4043.7      481.86 µg/L        2.883      481.86 ppb         2.883   0.60%
   QC value within limits for Sb 206.836  Recovery = 96.37%
Se 196.026†            1330.4         483 µg/L          7.8         483 ppb           7.8   1.61%
   QC value within limits for Se 196.026  Recovery = 96.61%
SiO2†                 52220.2      5083.5 µg/L         6.12      5083.5 ppb          6.12   0.12%
   QC value within limits for SiO2  Recovery = 95.06%
Si 251.611†          162580.5      2387.3 µg/L         1.01      2387.3 ppb          1.01   0.04%
   QC value within limits for Si 251.611  Recovery = 95.49%
Sn 189.927†            7726.3      483.26 µg/L        2.422      483.26 ppb         2.422   0.50%
   QC value within limits for Sn 189.927  Recovery = 96.65%
Sr 421.552†          231588.5      481.42 µg/L        5.838      481.42 ppb         5.838   1.21%
   QC value within limits for Sr 421.552  Recovery = 96.28%
Ti 334.940†          510265.5      476.11 µg/L        0.294      476.11 ppb         0.294   0.06%
   QC value within limits for Ti 334.940  Recovery = 95.22%
Tl 190.801†            3900.6      486.41 µg/L        3.834      486.41 ppb         3.834   0.79%
   QC value within limits for Tl 190.801  Recovery = 97.28%
U 409.014†             7375.1      460.13 µg/L       11.614      460.13 ppb        11.614   2.52%
   QC value within limits for U 409.014  Recovery = 92.03%
V 292.402†            96958.9      479.33 µg/L        0.445      479.33 ppb         0.445   0.09%
   QC value within limits for V 292.402  Recovery = 95.87%
Zn 213.857†           84932.5      473.36 µg/L        0.461      473.36 ppb         0.461   0.10%
   QC value within limits for Zn 213.857  Recovery = 94.67%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 4:41:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143373.6	143373.6	98.2	%			04:41:57
1	Al 396.153Radial†	-59.0	3.2	0.6063	µg/L	0.6063	ppb	04:42:17
1	Ca 317.933Radial†	610.3	60.6	3.3742	µg/L	3.3742	ppb	04:42:17
1	Fe 238.204 Radial†	143.9	-1.6	-0.1011	µg/L	-0.1011	ppb	04:42:17
1	K 766.490 Radial†	1628.1	112.4	41.110	µg/L	41.110	ppb	04:41:57
1	Mg 279.077 IEC†	185.8	-1.6	-0.5987	µg/L	-0.5987	ppb	04:42:17
1	Na 589.592 Radial†	2734.6	1492.5	203.86	µg/L	203.86	ppb	04:41:57
1	Sr 421.552†	-214.3	-82.8	-0.1722	µg/L	-0.1722	ppb	04:41:57
1	Sc 361.383	1732099.1	1732099.1	100.81	%			04:43:19
1	Y 371.029	1032748.2	1032748.2	100.59	%			04:43:19
1	Ag 328.068†	4008.6	-114.9	-0.4361	µg/L	-0.4361	ppb	04:43:21
1	As 188.979†	-17.1	3.4	1.0343	µg/L	1.0343	ppb	04:43:41
1	B 249.677†	3528.4	-5.8	-0.0861	µg/L	-0.0861	ppb	04:43:41
1	Ba 233.527†	-146.5	-9.4	-0.0381	µg/L	-0.0381	ppb	04:43:41
1	Be 313.107†	-845.1	226.4	0.0592	µg/L	0.0592	ppb	04:43:21
1	Cd 226.502†	-90.7	28.2	0.1764	µg/L	0.1764	ppb	04:43:41
1	Co 228.616†	-169.3	22.3	0.2757	µg/L	0.2757	ppb	04:43:41
1	Cr 267.716†	178.0	-2.0	-0.0096	µg/L	-0.0096	ppb	04:43:41
1	Cu 324.752†	2996.2	-0.0	-0.0066	µg/L	-0.0066	ppb	04:43:21
1	Mn 257.610†	282.8	43.2	0.0535	µg/L	0.0535	ppb	04:43:41
1	Mo 202.031†	-29.9	-9.5	-0.2805	µg/L	-0.2805	ppb	04:43:41
1	Ni 231.604†	-73.9	3.2	0.0369	µg/L	0.0369	ppb	04:43:41
1	P 214.914†	-36.9	-18.6	-3.9857	µg/L	-3.9857	ppb	04:43:41
1	Pb 220.353†	70.2	-16.8	-0.9308	µg/L	-0.9308	ppb	04:43:41
1	S 181.975 Axial†	133.9	27.8	20.636	µg/L	20.636	ppb	04:43:41
1	Sb 206.836†	78.1	-3.3	-0.3983	µg/L	-0.3983	ppb	04:43:41
1	Se 196.026†	32.9	17.4	6.28	µg/L	6.28	ppb	04:43:41
1	SiO2†	1779.2	-10.4	-1.0120	µg/L	-1.0120	ppb	04:43:41
1	Si 251.611†	845.5	2.1	0.0358	µg/L	0.0358	ppb	04:43:21
1	Sn 189.927†	-2.5	-1.4	-0.0870	µg/L	-0.0870	ppb	04:43:41
1	Ti 334.940†	882.6	-77.0	-0.0685	µg/L	-0.0685	ppb	04:43:21
1	Tl 190.801†	-105.8	11.7	1.4409	µg/L	1.4409	ppb	04:43:41
1	U 409.014†	-411.3	-138.2	-8.0813	µg/L	-8.0813	ppb	04:43:21
1	V 292.402†	394.9	-12.0	-0.0670	µg/L	-0.0670	ppb	04:43:21
1	Zn 213.857†	593.5	24.3	0.1361	µg/L	0.1361	ppb	04:43:41
2	Sc RADIAL	143802.0	143802.0	98.5	%			04:42:19
2	Al 396.153Radial†	-54.2	8.2	1.5220	µg/L	1.5220	ppb	04:42:39
2	Ca 317.933Radial†	610.8	59.2	3.2991	µg/L	3.2991	ppb	04:42:39
2	Fe 238.204 Radial†	141.6	-4.4	-0.2687	µg/L	-0.2687	ppb	04:42:39
2	K 766.490 Radial†	1509.8	-12.6	-4.6466	µg/L	-4.6466	ppb	04:42:19
2	Mg 279.077 IEC†	191.0	3.1	1.1672	µg/L	1.1672	ppb	04:42:39
2	Na 589.592 Radial†	2525.6	1272.1	173.79	µg/L	173.79	ppb	04:42:19
2	Sr 421.552†	-133.7	-0.4	-0.0008	µg/L	-0.0008	ppb	04:42:19
2	Sc 361.383	1725107.0	1725107.0	100.40	%			04:43:43
2	Y 371.029	1028743.2	1028743.2	100.20	%			04:43:43
2	Ag 328.068†	4338.9	230.2	0.8513	µg/L	0.8513	ppb	04:43:45
2	As 188.979†	-24.2	-3.8	-1.1405	µg/L	-1.1405	ppb	04:44:06
2	B 249.677†	3556.5	36.4	0.5369	µg/L	0.5369	ppb	04:44:06
2	Ba 233.527†	-138.7	-2.3	-0.0093	µg/L	-0.0093	ppb	04:44:06
2	Be 313.107†	-958.2	110.3	0.0305	µg/L	0.0305	ppb	04:43:45
2	Cd 226.502†	-124.6	-5.9	-0.0369	µg/L	-0.0369	ppb	04:44:06
2	Co 228.616†	-183.4	7.7	0.0945	µg/L	0.0945	ppb	04:44:06
2	Cr 267.716†	193.1	13.7	0.1062	µg/L	0.1062	ppb	04:44:06
2	Cu 324.752†	2935.8	-48.1	-0.1859	µg/L	-0.1859	ppb	04:43:45
2	Mn 257.610†	275.2	36.8	0.0455	µg/L	0.0455	ppb	04:44:06
2	Mo 202.031†	-24.3	-4.1	-0.1207	µg/L	-0.1207	ppb	04:44:06
2	Ni 231.604†	-96.5	-19.6	-0.2260	µg/L	-0.2260	ppb	04:44:06
2	P 214.914†	-28.9	-10.9	-2.3173	µg/L	-2.3173	ppb	04:44:06
2	Pb 220.353†	68.9	-17.7	-0.9902	µg/L	-0.9902	ppb	04:44:06

2	S 181.975 Axial†	144.6	39.0	28.959 µg/L	28.959 ppb	04:44:06
2	Sb 206.836†	82.8	1.6	0.1930 µg/L	0.1930 ppb	04:44:06
2	Se 196.026†	13.2	-2.1	-0.772 µg/L	-0.772 ppb	04:44:06
2	SiO2†	1774.3	-8.1	-0.7975 µg/L	-0.7975 ppb	04:44:06
2	Si 251.611†	687.2	-152.1	-2.2442 µg/L	-2.2442 ppb	04:43:45
2	Sn 189.927†	7.2	8.3	0.5190 µg/L	0.5190 ppb	04:44:06
2	Ti 334.940†	945.0	-11.3	-0.0112 µg/L	-0.0112 ppb	04:43:45
2	Tl 190.801†	-90.8	26.2	3.2215 µg/L	3.2215 ppb	04:44:06
2	U 409.014†	-245.8	25.1	1.4530 µg/L	1.4530 ppb	04:43:45
2	V 292.402†	358.7	-46.5	-0.2265 µg/L	-0.2265 ppb	04:43:45
2	Zn 213.857†	578.1	11.4	0.0658 µg/L	0.0658 ppb	04:44:06
3	Sc RADIAL	141813.5	141813.5	97.2 %		04:42:41
3	Al 396.153Radial†	-65.8	-4.5	-0.8345 µg/L	-0.8345 ppb	04:43:01
3	Ca 317.933Radial†	618.1	75.5	4.2049 µg/L	4.2049 ppb	04:43:01
3	Fe 238.204 Radial†	142.6	-1.4	-0.0853 µg/L	-0.0853 ppb	04:43:01
3	K 766.490 Radial†	1729.0	234.4	85.796 µg/L	85.796 ppb	04:42:41
3	Mg 279.077 IEC†	198.0	13.1	4.8715 µg/L	4.8715 ppb	04:43:01
3	Na 589.592 Radial†	2673.4	1460.2	199.40 µg/L	199.40 ppb	04:42:41
3	Sr 421.552†	-143.1	-12.0	-0.0250 µg/L	-0.0250 ppb	04:42:41
3	Sc 361.383	1732501.7	1732501.7	100.83 %		04:44:08
3	Y 371.029	1032645.9	1032645.9	100.58 %		04:44:08
3	Ag 328.068†	3993.4	-130.9	-0.4838 µg/L	-0.4838 ppb	04:44:10
3	As 188.979†	-18.1	2.4	0.7230 µg/L	0.7230 ppb	04:44:30
3	B 249.677†	3533.8	-1.3	-0.0196 µg/L	-0.0196 ppb	04:44:30
3	Ba 233.527†	-129.6	7.4	0.0296 µg/L	0.0296 ppb	04:44:30
3	Be 313.107†	-1067.5	6.0	0.0021 µg/L	0.0021 ppb	04:44:10
3	Cd 226.502†	-108.9	10.2	0.0637 µg/L	0.0637 ppb	04:44:30
3	Co 228.616†	-170.6	21.1	0.2607 µg/L	0.2607 ppb	04:44:30
3	Cr 267.716†	195.5	15.4	0.1189 µg/L	0.1189 ppb	04:44:30
3	Cu 324.752†	2879.6	-116.3	-0.4504 µg/L	-0.4504 ppb	04:44:10
3	Mn 257.610†	262.7	23.2	0.0286 µg/L	0.0286 ppb	04:44:30
3	Mo 202.031†	-19.1	1.1	0.0321 µg/L	0.0321 ppb	04:44:30
3	Ni 231.604†	-96.0	-18.7	-0.2148 µg/L	-0.2148 ppb	04:44:30
3	P 214.914†	-20.0	-1.8	-0.3852 µg/L	-0.3852 ppb	04:44:30
3	Pb 220.353†	56.6	-30.2	-1.6887 µg/L	-1.6887 ppb	04:44:30
3	S 181.975 Axial†	141.1	34.9	25.923 µg/L	25.923 ppb	04:44:30
3	Sb 206.836†	81.1	-0.4	-0.0510 µg/L	-0.0510 ppb	04:44:30
3	Se 196.026†	12.9	-2.5	-0.899 µg/L	-0.899 ppb	04:44:30
3	SiO2†	1779.3	-10.8	-1.0593 µg/L	-1.0593 ppb	04:44:30
3	Si 251.611†	861.9	18.2	0.2649 µg/L	0.2649 ppb	04:44:10
3	Sn 189.927†	5.8	6.8	0.4260 µg/L	0.4260 ppb	04:44:30
3	Ti 334.940†	938.4	-21.9	-0.0215 µg/L	-0.0215 ppb	04:44:10
3	Tl 190.801†	-79.9	37.4	4.5956 µg/L	4.5956 ppb	04:44:30
3	U 409.014†	-243.8	28.1	1.6356 µg/L	1.6356 ppb	04:44:10
3	V 292.402†	389.1	-17.9	-0.0856 µg/L	-0.0856 ppb	04:44:10
3	Zn 213.857†	585.6	16.3	0.0935 µg/L	0.0935 ppb	04:44:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729902.6	100.68	%	0.242				0.24%
Sc RADIAL	142996.4	98.0	%	0.72				0.73%
Y 371.029	1031379.1	100.46	%	0.222				0.22%
Ag 328.068†	-5.2	-0.0229	µg/L	0.75745	-0.0229	ppb	0.75745	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.3	0.4313	µg/L	1.18793	0.4313	ppb	1.18793	275.45%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.7	0.2056	µg/L	1.17610	0.2056	ppb	1.17610	571.96%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	9.8	0.1437	µg/L	0.34209	0.1437	ppb	0.34209	237.99%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.4	-0.0059	µg/L	0.03400	-0.0059	ppb	0.03400	572.37%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	114.2	0.0306	µg/L	0.02853	0.0306	ppb	0.02853	93.24%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	65.1	3.6261	µg/L	0.50270	3.6261	ppb	0.50270	13.86%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.9	0.0678	µg/L	0.10671	0.0678	ppb	0.10671	157.49%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.0	0.2103	µg/L	0.10057	0.2103	ppb	0.10057	47.83%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                9.0      0.0718 µg/L       0.07083      0.0718 ppb        0.07083  98.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -54.8     -0.2143 µg/L       0.22327     -0.2143 ppb        0.22327 104.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.5     -0.1517 µg/L       0.10163     -0.1517 ppb        0.10163  67.00%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        111.4      40.753 µg/L       45.2224      40.753 ppb        45.2224 110.97%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            4.9      1.8133 µg/L       2.79173      1.8133 ppb        2.79173 153.96%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               34.4      0.0425 µg/L       0.01273      0.0425 ppb        0.01273  29.95%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -4.2     -0.1230 µg/L       0.15627     -0.1230 ppb        0.15627 127.01%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      1408.3      192.35 µg/L        16.225      192.35 ppb         16.225   8.43%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -11.7     -0.1346 µg/L       0.14863     -0.1346 ppb        0.14863 110.41%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -10.5     -2.2294 µg/L       1.80186     -2.2294 ppb        1.80186  80.82%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -21.6     -1.2032 µg/L       0.42148     -1.2032 ppb        0.42148  35.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          33.9      25.173 µg/L        4.2121      25.173 ppb         4.2121  16.73%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.7     -0.0854 µg/L       0.29713     -0.0854 ppb        0.29713 347.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.3        1.54 µg/L         4.109        1.54 ppb          4.109 267.42%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -9.8     -0.9563 µg/L       0.13954     -0.9563 ppb        0.13954  14.59%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -43.9     -0.6479 µg/L       1.38724     -0.6479 ppb        1.38724 214.13%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                4.6      0.2860 µg/L       0.32637      0.2860 ppb        0.32637 114.11%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -31.7     -0.0660 µg/L       0.09279     -0.0660 ppb        0.09279 140.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -36.7     -0.0337 µg/L       0.03052     -0.0337 ppb        0.03052  90.51%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               25.1      3.0860 µg/L       1.58170      3.0860 ppb        1.58170  51.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -28.3     -1.6643 µg/L       5.55810     -1.6643 ppb        5.55810 333.97%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -25.5     -0.1264 µg/L       0.08722     -0.1264 ppb        0.08722  69.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               17.4      0.0985 µg/L       0.03542      0.0985 ppb        0.03542  35.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 5:03:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142807.7	142807.7	97.9	%			05:04:01
1	Al 396.153Radial†	25827.6	26455.4	4882.8	µg/L	4882.8	ppb	05:04:01
1	Ca 317.933Radial†	85131.8	86432.4	4814.6	µg/L	4814.6	ppb	05:04:01
1	Fe 238.204 Radial†	76139.6	77656.0	4786.2	µg/L	4786.2	ppb	05:04:01
1	K 766.490 Radial†	14464.3	13235.7	4841.8	µg/L	4841.8	ppb	05:04:01
1	Mg 279.077 IEC†	13031.2	13125.4	4897.8	µg/L	4897.8	ppb	05:04:01
1	Na 589.592 Radial†	71380.8	71650.5	9784.0	µg/L	9784.0	ppb	05:04:01
1	Sr 421.552†	227350.2	232455.8	483.22	µg/L	483.22	ppb	05:03:59
1	Sc 361.383	1717799.5	1717799.5	99.976	%			05:04:14
1	Y 371.029	1012953.8	1012953.8	98.662	%			05:04:14
1	Ag 328.068†	130945.5	126886.0	475.82	µg/L	475.82	ppb	05:04:14
1	As 188.979†	1607.9	1628.6	499.44	µg/L	499.44	ppb	05:04:34
1	B 249.677†	35595.1	32097.9	471.73	µg/L	471.73	ppb	05:04:14
1	Ba 233.527†	118233.7	118398.3	477.50	µg/L	477.50	ppb	05:04:14
1	Be 313.107†	1774199.8	1775696.3	483.62	µg/L	483.62	ppb	05:04:14
1	Cd 226.502†	76081.9	76218.6	475.79	µg/L	475.79	ppb	05:04:14
1	Co 228.616†	38613.8	38813.5	479.15	µg/L	479.15	ppb	05:04:14
1	Cr 267.716†	60590.4	60426.6	473.13	µg/L	473.13	ppb	05:04:14
1	Cu 324.752†	125518.0	122576.4	477.83	µg/L	477.83	ppb	05:04:14
1	Mn 257.610†	388744.5	388601.9	480.61	µg/L	480.61	ppb	05:04:14
1	Mo 202.031†	16098.9	16122.9	474.27	µg/L	474.27	ppb	05:04:34
1	Ni 231.604†	41299.4	41386.0	476.53	µg/L	476.53	ppb	05:04:14
1	P 214.914†	11164.5	11185.1	2384.1	µg/L	2384.1	ppb	05:04:34
1	Pb 220.353†	8658.1	8573.8	480.12	µg/L	480.12	ppb	05:04:34
1	S 181.975 Axial†	1400.4	1295.7	966.14	µg/L	966.14	ppb	05:04:34
1	Sb 206.836†	4069.8	3989.9	475.40	µg/L	475.40	ppb	05:04:34
1	Se 196.026†	1337.9	1323.0	480	µg/L	480	ppb	05:04:34
1	SiO2†	54209.1	52446.9	5105.9	µg/L	5105.9	ppb	05:04:14
1	Si 251.611†	164159.3	163362.7	2399.0	µg/L	2399.0	ppb	05:04:14
1	Sn 189.927†	7642.2	7645.2	478.20	µg/L	478.20	ppb	05:04:34
1	Ti 334.940†	511471.4	510643.4	476.46	µg/L	476.46	ppb	05:04:14
1	Tl 190.801†	3776.4	3894.0	485.62	µg/L	485.62	ppb	05:04:34
1	U 409.014†	7331.2	7602.9	473.54	µg/L	473.54	ppb	05:04:14
1	V 292.402†	97611.9	97231.8	480.62	µg/L	480.62	ppb	05:04:14
1	Zn 213.857†	85344.1	84800.5	472.62	µg/L	472.62	ppb	05:04:14
2	Sc RADIAL	142177.1	142177.1	97.4	%			05:04:05
2	Al 396.153Radial†	25933.0	26680.7	4924.5	µg/L	4924.5	ppb	05:04:05
2	Ca 317.933Radial†	84882.8	86562.6	4821.9	µg/L	4821.9	ppb	05:04:05
2	Fe 238.204 Radial†	75981.4	77838.8	4797.5	µg/L	4797.5	ppb	05:04:05
2	K 766.490 Radial†	14617.1	13458.2	4923.2	µg/L	4923.2	ppb	05:04:05
2	Mg 279.077 IEC†	13046.8	13200.5	4925.8	µg/L	4925.8	ppb	05:04:05
2	Na 589.592 Radial†	71119.0	71705.3	9791.4	µg/L	9791.4	ppb	05:04:05
2	Sr 421.552†	226461.7	232574.3	483.47	µg/L	483.47	ppb	05:04:03
2	Sc 361.383	1718896.3	1718896.3	100.04	%			05:04:37
2	Y 371.029	1012872.8	1012872.8	98.654	%			05:04:37
2	Ag 328.068†	131183.7	127040.5	476.38	µg/L	476.38	ppb	05:04:37
2	As 188.979†	1601.5	1621.2	497.20	µg/L	497.20	ppb	05:04:57
2	B 249.677†	35702.0	32182.0	472.96	µg/L	472.96	ppb	05:04:37
2	Ba 233.527†	118547.9	118637.0	478.46	µg/L	478.46	ppb	05:04:37
2	Be 313.107†	1777707.2	1778070.0	484.27	µg/L	484.27	ppb	05:04:37
2	Cd 226.502†	76355.4	76443.4	477.19	µg/L	477.19	ppb	05:04:37
2	Co 228.616†	38719.9	38894.9	480.16	µg/L	480.16	ppb	05:04:37
2	Cr 267.716†	60616.0	60413.5	473.03	µg/L	473.03	ppb	05:04:37
2	Cu 324.752†	125459.3	122437.5	477.29	µg/L	477.29	ppb	05:04:37
2	Mn 257.610†	388816.5	388425.7	480.39	µg/L	480.39	ppb	05:04:37
2	Mo 202.031†	16138.4	16152.1	475.13	µg/L	475.13	ppb	05:04:57
2	Ni 231.604†	41418.0	41478.1	477.59	µg/L	477.59	ppb	05:04:37
2	P 214.914†	11169.5	11183.1	2383.7	µg/L	2383.7	ppb	05:04:57
2	Pb 220.353†	8675.4	8585.6	480.78	µg/L	480.78	ppb	05:04:57

2	S 181.975 Axial†	1419.5	1313.8	979.63 µg/L	979.63 ppb	05:04:57
2	Sb 206.836†	4079.9	3997.5	476.31 µg/L	476.31 ppb	05:04:57
2	Se 196.026†	1332.5	1316.7	478 µg/L	478 ppb	05:04:57
2	SiO2†	54300.2	52503.4	5111.4 µg/L	5111.4 ppb	05:04:37
2	Si 251.611†	164532.5	163631.0	2402.9 µg/L	2402.9 ppb	05:04:37
2	Sn 189.927†	7645.3	7643.4	478.09 µg/L	478.09 ppb	05:04:57
2	Ti 334.940†	511854.9	510700.3	476.52 µg/L	476.52 ppb	05:04:37
2	Tl 190.801†	3771.1	3886.3	484.66 µg/L	484.66 ppb	05:04:57
2	U 409.014†	7189.9	7456.9	465.01 µg/L	465.01 ppb	05:04:37
2	V 292.402†	97709.7	97267.3	480.79 µg/L	480.79 ppb	05:04:37
2	Zn 213.857†	85652.3	85054.1	474.04 µg/L	474.04 ppb	05:04:37
3	Sc RADIAL	142516.5	142516.5	97.7 %		05:04:10
3	Al 396.153Radial†	26016.1	26702.4	4928.5 µg/L	4928.5 ppb	05:04:10
3	Ca 317.933Radial†	85309.6	86792.2	4834.7 µg/L	4834.7 ppb	05:04:10
3	Fe 238.204 Radial†	76361.8	78042.5	4810.1 µg/L	4810.1 ppb	05:04:10
3	K 766.490 Radial†	14534.2	13337.5	4879.1 µg/L	4879.1 ppb	05:04:10
3	Mg 279.077 IEC†	13094.3	13217.2	4932.1 µg/L	4932.1 ppb	05:04:10
3	Na 589.592 Radial†	71498.7	71920.3	9820.8 µg/L	9820.8 ppb	05:04:10
3	Sr 421.552†	226956.2	232527.1	483.37 µg/L	483.37 ppb	05:04:07
3	Sc 361.383	1715888.7	1715888.7	99.864 %		05:05:00
3	Y 371.029	1012085.0	1012085.0	98.578 %		05:05:00
3	Ag 328.068†	130932.7	127019.0	476.29 µg/L	476.29 ppb	05:05:00
3	As 188.979†	1600.5	1623.0	497.74 µg/L	497.74 ppb	05:05:21
3	B 249.677†	35703.4	32246.0	473.91 µg/L	473.91 ppb	05:05:00
3	Ba 233.527†	118252.2	118548.6	478.10 µg/L	478.10 ppb	05:05:00
3	Be 313.107†	1772238.1	1775708.2	483.62 µg/L	483.62 ppb	05:05:00
3	Cd 226.502†	75982.3	76203.6	475.70 µg/L	475.70 ppb	05:05:00
3	Co 228.616†	38592.7	38835.4	479.42 µg/L	479.42 ppb	05:05:00
3	Cr 267.716†	60479.0	60382.5	472.79 µg/L	472.79 ppb	05:05:00
3	Cu 324.752†	125163.3	122361.0	476.99 µg/L	476.99 ppb	05:05:00
3	Mn 257.610†	387741.8	388030.8	479.90 µg/L	479.90 ppb	05:05:00
3	Mo 202.031†	16166.2	16208.2	476.78 µg/L	476.78 ppb	05:05:21
3	Ni 231.604†	41397.3	41530.0	478.19 µg/L	478.19 ppb	05:05:00
3	P 214.914†	11229.6	11262.8	2400.7 µg/L	2400.7 ppb	05:05:21
3	Pb 220.353†	8666.5	8591.9	481.14 µg/L	481.14 ppb	05:05:21
3	S 181.975 Axial†	1402.0	1298.8	968.50 µg/L	968.50 ppb	05:05:21
3	Sb 206.836†	4079.3	4004.1	477.12 µg/L	477.12 ppb	05:05:21
3	Se 196.026†	1348.8	1335.4	485 µg/L	485 ppb	05:05:21
3	SiO2†	54197.4	52495.6	5110.5 µg/L	5110.5 ppb	05:05:00
3	Si 251.611†	164034.6	163420.6	2399.8 µg/L	2399.8 ppb	05:05:00
3	Sn 189.927†	7674.5	7686.0	480.75 µg/L	480.75 ppb	05:05:21
3	Ti 334.940†	510082.1	509821.9	475.70 µg/L	475.70 ppb	05:05:00
3	Tl 190.801†	3787.1	3908.9	487.43 µg/L	487.43 ppb	05:05:21
3	U 409.014†	7110.7	7390.3	461.07 µg/L	461.07 ppb	05:05:00
3	V 292.402†	97399.7	97128.1	480.12 µg/L	480.12 ppb	05:05:00
3	Zn 213.857†	85456.2	85007.8	473.77 µg/L	473.77 ppb	05:05:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1717528.2	99.960	%	0.0886				0.09%
Sc RADIAL	142500.4	97.7	%	0.22				0.22%
Y 371.029	1012637.2	98.631	%	0.0467				0.05%
Ag 328.068†	126981.9	476.17	µg/L	0.302	476.17	ppb	0.302	0.06%
QC value within limits for Ag 328.068 Recovery = 95.23%								
Al 396.153Radial†	26612.8	4911.9	µg/L	25.30	4911.9	ppb	25.30	0.52%
QC value within limits for Al 396.153Radial Recovery = 98.24%								
As 188.979†	1624.3	498.13	µg/L	1.168	498.13	ppb	1.168	0.23%
QC value within limits for As 188.979 Recovery = 99.63%								
B 249.677†	32175.3	472.87	µg/L	1.095	472.87	ppb	1.095	0.23%
QC value within limits for B 249.677 Recovery = 94.57%								
Ba 233.527†	118528.0	478.02	µg/L	0.486	478.02	ppb	0.486	0.10%
QC value within limits for Ba 233.527 Recovery = 95.60%								
Be 313.107†	1776491.5	483.84	µg/L	0.372	483.84	ppb	0.372	0.08%
QC value within limits for Be 313.107 Recovery = 96.77%								
Ca 317.933Radial†	86595.7	4823.7	µg/L	10.15	4823.7	ppb	10.15	0.21%
QC value within limits for Ca 317.933Radial Recovery = 96.47%								
Cd 226.502†	76288.5	476.23	µg/L	0.839	476.23	ppb	0.839	0.18%
QC value within limits for Cd 226.502 Recovery = 95.25%								
Co 228.616†	38847.9	479.58	µg/L	0.520	479.58	ppb	0.520	0.11%

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   QC value within limits for Co 228.616  Recovery = 95.92%
Cr 267.716†            60407.5      472.98 µg/L         0.173      472.98 ppb          0.173   0.04%
   QC value within limits for Cr 267.716  Recovery = 94.60%
Cu 324.752†           122458.3      477.37 µg/L         0.427      477.37 ppb          0.427   0.09%
   QC value within limits for Cu 324.752  Recovery = 95.47%
Fe 238.204 Radial†     77845.8      4797.9 µg/L         11.92      4797.9 ppb          11.92   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.96%
K 766.490 Radial†      13343.8      4881.4 µg/L         40.76      4881.4 ppb          40.76   0.83%
   QC value within limits for K 766.490 Radial  Recovery = 97.63%
Mg 279.077 IEC†        13181.0      4918.5 µg/L         18.24      4918.5 ppb          18.24   0.37%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.37%
Mn 257.610†           388352.8      480.30 µg/L         0.362      480.30 ppb          0.362   0.08%
   QC value within limits for Mn 257.610  Recovery = 96.06%
Mo 202.031†            16161.0      475.39 µg/L         1.275      475.39 ppb          1.275   0.27%
   QC value within limits for Mo 202.031  Recovery = 95.08%
Na 589.592 Radial†     71758.7      9798.8 µg/L         19.47      9798.8 ppb          19.47   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 97.99%
Ni 231.604†            41464.7      477.44 µg/L         0.840      477.44 ppb          0.840   0.18%
   QC value within limits for Ni 231.604  Recovery = 95.49%
P 214.914†             11210.3      2389.5 µg/L          9.72      2389.5 ppb           9.72   0.41%
   QC value within limits for P 214.914  Recovery = 95.58%
Pb 220.353†             8583.8      480.68 µg/L         0.522      480.68 ppb          0.522   0.11%
   QC value within limits for Pb 220.353  Recovery = 96.14%
S 181.975 Axial†        1302.8      971.42 µg/L         7.208      971.42 ppb          7.208   0.74%
   QC value within limits for S 181.975 Axial  Recovery = 97.14%
Sb 206.836†             3997.2      476.28 µg/L         0.861      476.28 ppb          0.861   0.18%
   QC value within limits for Sb 206.836  Recovery = 95.26%
Se 196.026†             1325.0         481 µg/L           3.4         481 ppb            3.4   0.71%
   QC value within limits for Se 196.026  Recovery = 96.22%
SiO2†                  52482.0      5109.3 µg/L          2.96      5109.3 ppb           2.96   0.06%
   QC value within limits for SiO2  Recovery = 95.54%
Si 251.611†           163471.4      2400.6 µg/L          2.08      2400.6 ppb           2.08   0.09%
   QC value within limits for Si 251.611  Recovery = 96.02%
Sn 189.927†             7658.2      479.01 µg/L         1.501      479.01 ppb          1.501   0.31%
   QC value within limits for Sn 189.927  Recovery = 95.80%
Sr 421.552†           232519.1      483.36 µg/L         0.124      483.36 ppb          0.124   0.03%
   QC value within limits for Sr 421.552  Recovery = 96.67%
Ti 334.940†           510388.5      476.23 µg/L         0.458      476.23 ppb          0.458   0.10%
   QC value within limits for Ti 334.940  Recovery = 95.25%
Tl 190.801†             3896.4      485.90 µg/L         1.405      485.90 ppb          1.405   0.29%
   QC value within limits for Tl 190.801  Recovery = 97.18%
U 409.014†              7483.4      466.54 µg/L         6.373      466.54 ppb          6.373   1.37%
   QC value within limits for U 409.014  Recovery = 93.31%
V 292.402†             97209.1      480.51 µg/L         0.345      480.51 ppb          0.345   0.07%
   QC value within limits for V 292.402  Recovery = 96.10%
Zn 213.857†            84954.1      473.48 µg/L         0.754      473.48 ppb          0.754   0.16%
   QC value within limits for Zn 213.857  Recovery = 94.70%
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 5:05:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145743.0	145743.0	99.9	%			05:05:57
1	Al 396.153Radial†	-25.5	37.7	6.9946	µg/L	6.9946	ppb	05:06:17
1	Ca 317.933Radial†	624.7	64.9	3.6148	µg/L	3.6148	ppb	05:06:17
1	Fe 238.204 Radial†	160.3	12.4	0.7656	µg/L	0.7656	ppb	05:06:17
1	K 766.490 Radial†	1619.2	76.5	27.962	µg/L	27.962	ppb	05:05:57
1	Mg 279.077 IEC†	177.4	-13.0	-4.8668	µg/L	-4.8668	ppb	05:06:17
1	Na 589.592 Radial†	2580.0	1292.5	176.54	µg/L	176.54	ppb	05:05:57
1	Sr 421.552†	-206.7	-71.7	-0.1490	µg/L	-0.1490	ppb	05:05:57
1	Sc 361.383	1758359.3	1758359.3	102.34	%			05:07:19
1	Y 371.029	1047204.1	1047204.1	102.00	%			05:07:19
1	Ag 328.068†	4319.7	129.7	0.4450	µg/L	0.4450	ppb	05:07:21
1	As 188.979†	-5.9	14.6	4.3999	µg/L	4.3999	ppb	05:07:41
1	B 249.677†	3629.0	40.2	0.5931	µg/L	0.5931	ppb	05:07:21
1	Ba 233.527†	-169.9	-30.2	-0.1218	µg/L	-0.1218	ppb	05:07:41
1	Be 313.107†	-1022.3	65.7	0.0101	µg/L	0.0101	ppb	05:07:21
1	Cd 226.502†	-89.3	30.9	0.1929	µg/L	0.1929	ppb	05:07:41
1	Co 228.616†	-193.1	1.7	0.0204	µg/L	0.0204	ppb	05:07:41
1	Cr 267.716†	166.1	-16.3	-0.1072	µg/L	-0.1072	ppb	05:07:41
1	Cu 324.752†	2915.1	-123.7	-0.5021	µg/L	-0.5021	ppb	05:07:21
1	Mn 257.610†	289.9	46.0	0.0571	µg/L	0.0571	ppb	05:07:41
1	Mo 202.031†	-26.5	-5.8	-0.1707	µg/L	-0.1707	ppb	05:07:41
1	Ni 231.604†	-96.2	-17.5	-0.2015	µg/L	-0.2015	ppb	05:07:41
1	P 214.914†	-38.6	-19.8	-4.2211	µg/L	-4.2211	ppb	05:07:41
1	Pb 220.353†	57.3	-30.4	-1.6754	µg/L	-1.6754	ppb	05:07:41
1	S 181.975 Axial†	137.0	28.8	21.413	µg/L	21.413	ppb	05:07:41
1	Sb 206.836†	81.3	-1.4	-0.1639	µg/L	-0.1639	ppb	05:07:41
1	Se 196.026†	14.5	-1.1	-0.428	µg/L	-0.428	ppb	05:07:41
1	SiO2†	1795.9	-20.4	-2.0072	µg/L	-2.0072	ppb	05:07:41
1	Si 251.611†	842.2	-13.6	-0.2043	µg/L	-0.2043	ppb	05:07:21
1	Sn 189.927†	14.5	15.3	0.9535	µg/L	0.9535	ppb	05:07:41
1	Ti 334.940†	896.1	-76.9	-0.0607	µg/L	-0.0607	ppb	05:07:21
1	Tl 190.801†	-107.4	11.8	1.4419	µg/L	1.4419	ppb	05:07:41
1	U 409.014†	-728.7	-442.1	-25.868	µg/L	-25.868	ppb	05:07:21
1	V 292.402†	356.0	-55.9	-0.2924	µg/L	-0.2924	ppb	05:07:21
1	Zn 213.857†	611.8	33.4	0.1892	µg/L	0.1892	ppb	05:07:41
2	Sc RADIAL	143898.7	143898.7	98.6	%			05:06:19
2	Al 396.153Radial†	-55.8	6.7	1.2330	µg/L	1.2330	ppb	05:06:39
2	Ca 317.933Radial†	606.4	54.4	3.0284	µg/L	3.0284	ppb	05:06:39
2	Fe 238.204 Radial†	158.8	12.9	0.7968	µg/L	0.7968	ppb	05:06:39
2	K 766.490 Radial†	1417.0	-107.8	-39.494	µg/L	-39.494	ppb	05:06:19
2	Mg 279.077 IEC†	183.4	-4.7	-1.7523	µg/L	-1.7523	ppb	05:06:39
2	Na 589.592 Radial†	2345.9	1088.2	148.69	µg/L	148.69	ppb	05:06:19
2	Sr 421.552†	-178.6	-45.8	-0.0953	µg/L	-0.0953	ppb	05:06:19
2	Sc 361.383	1742400.7	1742400.7	101.41	%			05:07:43
2	Y 371.029	1037760.1	1037760.1	101.08	%			05:07:43
2	Ag 328.068†	4154.9	5.9	0.0126	µg/L	0.0126	ppb	05:07:46
2	As 188.979†	-12.6	8.0	2.4108	µg/L	2.4108	ppb	05:08:06
2	B 249.677†	3668.4	111.6	1.6444	µg/L	1.6444	ppb	05:07:46
2	Ba 233.527†	-119.9	17.6	0.0702	µg/L	0.0702	ppb	05:08:06
2	Be 313.107†	-953.3	124.6	0.0347	µg/L	0.0347	ppb	05:07:46
2	Cd 226.502†	-98.5	21.1	0.1314	µg/L	0.1314	ppb	05:08:06
2	Co 228.616†	-169.6	23.1	0.2846	µg/L	0.2846	ppb	05:08:06
2	Cr 267.716†	210.1	28.6	0.2214	µg/L	0.2214	ppb	05:08:06
2	Cu 324.752†	3022.7	8.5	0.0356	µg/L	0.0356	ppb	05:07:46
2	Mn 257.610†	280.0	38.8	0.0481	µg/L	0.0481	ppb	05:08:06
2	Mo 202.031†	-19.8	0.6	0.0163	µg/L	0.0163	ppb	05:08:06
2	Ni 231.604†	-119.3	-41.2	-0.4741	µg/L	-0.4741	ppb	05:08:06
2	P 214.914†	-19.4	-1.2	-0.2554	µg/L	-0.2554	ppb	05:08:06
2	Pb 220.353†	78.8	-8.6	-0.4842	µg/L	-0.4842	ppb	05:08:06

2	S 181.975 Axial†	123.0	16.3	12.075 µg/L	12.075 ppb	05:08:06
2	Sb 206.836†	74.6	-7.2	-0.8639 µg/L	-0.8639 ppb	05:08:06
2	Se 196.026†	21.6	6.0	2.19 µg/L	2.19 ppb	05:08:06
2	SiO2†	1761.0	-38.8	-3.8022 µg/L	-3.8022 ppb	05:08:06
2	Si 251.611†	806.3	-41.5	-0.6147 µg/L	-0.6147 ppb	05:07:46
2	Sn 189.927†	5.9	6.9	0.4326 µg/L	0.4326 ppb	05:08:06
2	Ti 334.940†	926.6	-38.8	-0.0372 µg/L	-0.0372 ppb	05:07:46
2	Tl 190.801†	-119.0	-0.7	-0.0930 µg/L	-0.0930 ppb	05:08:06
2	U 409.014†	-227.2	45.8	2.6178 µg/L	2.6178 ppb	05:07:46
2	V 292.402†	193.5	-213.0	-1.0360 µg/L	-1.0360 ppb	05:07:46
2	Zn 213.857†	609.0	36.1	0.2058 µg/L	0.2058 ppb	05:08:06
3	Sc RADIAL	142638.4	142638.4	97.7 %		05:06:41
3	Al 396.153Radial†	-22.0	40.7	7.5557 µg/L	7.5557 ppb	05:07:01
3	Ca 317.933Radial†	630.0	84.0	4.6771 µg/L	4.6771 ppb	05:07:01
3	Fe 238.204 Radial†	132.8	-12.2	-0.7538 µg/L	-0.7538 ppb	05:07:01
3	K 766.490 Radial†	1613.6	106.1	38.801 µg/L	38.801 ppb	05:06:41
3	Mg 279.077 IEC†	175.0	-11.7	-4.3601 µg/L	-4.3601 ppb	05:07:01
3	Na 589.592 Radial†	2479.7	1246.1	170.20 µg/L	170.20 ppb	05:06:41
3	Sr 421.552†	-208.4	-77.9	-0.1620 µg/L	-0.1620 ppb	05:06:41
3	Sc 361.383	1738163.3	1738163.3	101.16 %		05:08:08
3	Y 371.029	1035970.5	1035970.5	100.90 %		05:08:08
3	Ag 328.068†	4302.8	162.0	0.5833 µg/L	0.5833 ppb	05:08:10
3	As 188.979†	-21.8	-1.2	-0.3610 µg/L	-0.3610 ppb	05:08:30
3	B 249.677†	3574.8	27.9	0.4114 µg/L	0.4114 ppb	05:08:10
3	Ba 233.527†	-149.0	-11.4	-0.0465 µg/L	-0.0465 ppb	05:08:30
3	Be 313.107†	-873.2	201.5	0.0526 µg/L	0.0526 ppb	05:08:10
3	Cd 226.502†	-120.0	-0.4	-0.0024 µg/L	-0.0024 ppb	05:08:30
3	Co 228.616†	-182.7	9.7	0.1193 µg/L	0.1193 ppb	05:08:30
3	Cr 267.716†	174.3	-6.2	-0.0433 µg/L	-0.0433 ppb	05:08:30
3	Cu 324.752†	2971.9	-34.4	-0.1402 µg/L	-0.1402 ppb	05:08:10
3	Mn 257.610†	245.6	5.5	0.0070 µg/L	0.0070 ppb	05:08:30
3	Mo 202.031†	-34.6	-14.1	-0.4150 µg/L	-0.4150 ppb	05:08:30
3	Ni 231.604†	-92.5	-15.0	-0.1724 µg/L	-0.1724 ppb	05:08:30
3	P 214.914†	-13.5	4.6	0.9950 µg/L	0.9950 ppb	05:08:30
3	Pb 220.353†	106.1	18.5	1.0399 µg/L	1.0399 ppb	05:08:30
3	S 181.975 Axial†	143.8	37.1	27.534 µg/L	27.534 ppb	05:08:30
3	Sb 206.836†	58.1	-23.4	-2.7867 µg/L	-2.7867 ppb	05:08:30
3	Se 196.026†	4.1	-11.2	-4.05 µg/L	-4.05 ppb	05:08:30
3	SiO2†	1756.7	-38.8	-3.7752 µg/L	-3.7752 ppb	05:08:30
3	Si 251.611†	899.3	52.4	0.7804 µg/L	0.7804 ppb	05:08:10
3	Sn 189.927†	-7.1	-5.9	-0.3704 µg/L	-0.3704 ppb	05:08:30
3	Ti 334.940†	1084.8	119.8	0.1155 µg/L	0.1155 ppb	05:08:10
3	Tl 190.801†	-119.1	-1.1	-0.1349 µg/L	-0.1349 ppb	05:08:30
3	U 409.014†	-403.1	-128.6	-7.5533 µg/L	-7.5533 ppb	05:08:10
3	V 292.402†	284.4	-122.7	-0.6080 µg/L	-0.6080 ppb	05:08:10
3	Zn 213.857†	580.8	9.7	0.0558 µg/L	0.0558 ppb	05:08:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1746307.8	101.63	%	0.620				0.61%
Sc RADIAL	144093.4	98.7	%	1.07				1.08%
Y 371.029	1040311.6	101.33	%	0.588				0.58%
Ag 328.068†	99.2	0.3470	µg/L	0.29770	0.3470	ppb	0.29770	85.80%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	28.3	5.2611	µg/L	3.49970	5.2611	ppb	3.49970	66.52%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.1	2.1499	µg/L	2.39113	2.1499	ppb	2.39113	111.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	59.9	0.8830	µg/L	0.66564	0.8830	ppb	0.66564	75.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.0	-0.0327	µg/L	0.09673	-0.0327	ppb	0.09673	295.93%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	130.6	0.0325	µg/L	0.02135	0.0325	ppb	0.02135	65.76%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	67.7	3.7735	µg/L	0.83573	3.7735	ppb	0.83573	22.15%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.2	0.1073	µg/L	0.09986	0.1073	ppb	0.09986	93.05%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.5	0.1414	µg/L	0.13348	0.1414	ppb	0.13348	94.37%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                2.0      0.0236 µg/L       0.17422      0.0236 ppb        0.17422 737.23%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -49.9     -0.2022 µg/L       0.27414     -0.2022 ppb        0.27414 135.56%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         4.4      0.2695 µg/L       0.88639      0.2695 ppb        0.88639 328.85%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         24.9      9.0894 µg/L      42.42237      9.0894 ppb       42.42237 466.72%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -9.8     -3.6597 µg/L       1.67122     -3.6597 ppb        1.67122  45.67%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               30.1      0.0374 µg/L       0.02669      0.0374 ppb        0.02669  71.39%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -6.4     -0.1898 µg/L       0.21627     -0.1898 ppb        0.21627 113.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      1208.9      165.15 µg/L        14.597      165.15 ppb         14.597   8.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -24.5     -0.2827 µg/L       0.16642     -0.2827 ppb        0.16642  58.87%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -5.5     -1.1605 µg/L       2.72331     -1.1605 ppb        2.72331 234.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -6.8     -0.3732 µg/L       1.36106     -0.3732 ppb        1.36106 364.65%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          27.4      20.340 µg/L        7.7851      20.340 ppb         7.7851  38.27%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -10.7     -1.2715 µg/L       1.35806     -1.2715 ppb        1.35806 106.81%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.1      -0.764 µg/L        3.1328      -0.764 ppb         3.1328 410.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -32.7     -3.1949 µg/L       1.02864     -3.1949 ppb        1.02864  32.20%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -0.9     -0.0129 µg/L       0.71695     -0.0129 ppb        0.71695 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.4      0.3386 µg/L       0.66691      0.3386 ppb        0.66691 196.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -65.1     -0.1354 µg/L       0.03536     -0.1354 ppb        0.03536  26.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                1.4      0.0059 µg/L       0.09568      0.0059 ppb        0.09568 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.3      0.4047 µg/L       0.89852      0.4047 ppb        0.89852 222.02%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -175.0     -10.268 µg/L       14.4354     -10.268 ppb        14.4354 140.59%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -130.5     -0.6455 µg/L       0.37319     -0.6455 ppb        0.37319  57.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               26.4      0.1503 µg/L       0.08227      0.1503 ppb        0.08227  54.74%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 5:25:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142109.2	142109.2	97.4	%			05:25:54
1	Al 396.153Radial†	25776.4	26532.6	4897.2	µg/L	4897.2	ppb	05:25:54
1	Ca 317.933Radial†	84821.4	86541.3	4820.7	µg/L	4820.7	ppb	05:25:54
1	Fe 238.204 Radial†	76100.5	77998.3	4807.3	µg/L	4807.3	ppb	05:25:54
1	K 766.490 Radial†	14457.5	13301.4	4865.9	µg/L	4865.9	ppb	05:25:54
1	Mg 279.077 IEC†	12927.9	13084.8	4882.6	µg/L	4882.6	ppb	05:25:54
1	Na 589.592 Radial†	70953.9	71570.7	9773.1	µg/L	9773.1	ppb	05:25:54
1	Sr 421.552†	225114.8	231302.2	480.83	µg/L	480.83	ppb	05:25:52
1	Sc 361.383	1720021.0	1720021.0	100.10	%			05:26:07
1	Y 371.029	1014640.3	1014640.3	98.826	%			05:26:07
1	Ag 328.068†	131353.4	127124.2	476.69	µg/L	476.69	ppb	05:26:07
1	As 188.979†	1548.2	1566.9	480.79	µg/L	480.79	ppb	05:26:27
1	B 249.677†	35677.1	32133.8	472.25	µg/L	472.25	ppb	05:26:07
1	Ba 233.527†	118456.3	118468.0	477.78	µg/L	477.78	ppb	05:26:07
1	Be 313.107†	1773301.1	1772506.5	482.75	µg/L	482.75	ppb	05:26:07
1	Cd 226.502†	76144.4	76182.7	475.57	µg/L	475.57	ppb	05:26:07
1	Co 228.616†	38814.2	38963.8	481.01	µg/L	481.01	ppb	05:26:07
1	Cr 267.716†	60767.8	60525.5	473.92	µg/L	473.92	ppb	05:26:07
1	Cu 324.752†	125732.9	122628.8	478.03	µg/L	478.03	ppb	05:26:07
1	Mn 257.610†	389049.0	388403.8	480.37	µg/L	480.37	ppb	05:26:07
1	Mo 202.031†	16074.3	16077.5	472.94	µg/L	472.94	ppb	05:26:27
1	Ni 231.604†	41434.5	41467.6	477.47	µg/L	477.47	ppb	05:26:07
1	P 214.914†	11070.6	11076.9	2360.9	µg/L	2360.9	ppb	05:26:27
1	Pb 220.353†	8624.5	8529.0	477.63	µg/L	477.63	ppb	05:26:27
1	S 181.975 Axial†	1382.5	1276.0	951.51	µg/L	951.51	ppb	05:26:27
1	Sb 206.836†	4042.7	3957.6	471.52	µg/L	471.52	ppb	05:26:27
1	Se 196.026†	1318.0	1301.4	473	µg/L	473	ppb	05:26:27
1	SiO2†	54725.0	52892.3	5149.5	µg/L	5149.5	ppb	05:26:07
1	Si 251.611†	165361.4	164351.5	2413.6	µg/L	2413.6	ppb	05:26:07
1	Sn 189.927†	7550.2	7543.4	471.86	µg/L	471.86	ppb	05:26:27
1	Ti 334.940†	512626.4	511136.4	476.93	µg/L	476.93	ppb	05:26:07
1	Tl 190.801†	3775.0	3887.7	484.84	µg/L	484.84	ppb	05:26:27
1	U 409.014†	7058.9	7321.4	457.10	µg/L	457.10	ppb	05:26:07
1	V 292.402†	97846.4	97340.0	481.12	µg/L	481.12	ppb	05:26:07
1	Zn 213.857†	85664.4	85010.2	473.79	µg/L	473.79	ppb	05:26:07
2	Sc RADIAL	141199.5	141199.5	96.8	%			05:25:58
2	Al 396.153Radial†	25565.2	26484.9	4888.2	µg/L	4888.2	ppb	05:25:58
2	Ca 317.933Radial†	84361.1	86626.7	4825.4	µg/L	4825.4	ppb	05:25:58
2	Fe 238.204 Radial†	75494.7	77875.7	4799.8	µg/L	4799.8	ppb	05:25:58
2	K 766.490 Radial†	14378.9	13315.8	4871.1	µg/L	4871.1	ppb	05:25:58
2	Mg 279.077 IEC†	12864.9	13105.1	4890.3	µg/L	4890.3	ppb	05:25:58
2	Na 589.592 Radial†	70502.5	71573.6	9773.5	µg/L	9773.5	ppb	05:25:58
2	Sr 421.552†	225485.6	233174.7	484.72	µg/L	484.72	ppb	05:25:56
2	Sc 361.383	1714706.6	1714706.6	99.796	%			05:26:30
2	Y 371.029	1012156.1	1012156.1	98.585	%			05:26:30
2	Ag 328.068†	130751.1	126927.5	475.95	µg/L	475.95	ppb	05:26:30
2	As 188.979†	1581.6	1605.2	492.35	µg/L	492.35	ppb	05:26:50
2	B 249.677†	35530.5	32097.4	471.72	µg/L	471.72	ppb	05:26:30
2	Ba 233.527†	118013.0	118390.5	477.47	µg/L	477.47	ppb	05:26:30
2	Be 313.107†	1765713.5	1770393.6	482.18	µg/L	482.18	ppb	05:26:30
2	Cd 226.502†	75961.6	76235.3	475.89	µg/L	475.89	ppb	05:26:30
2	Co 228.616†	38581.1	38850.4	479.61	µg/L	479.61	ppb	05:26:30
2	Cr 267.716†	60576.5	60522.0	473.88	µg/L	473.88	ppb	05:26:30
2	Cu 324.752†	125190.1	122474.3	477.44	µg/L	477.44	ppb	05:26:30
2	Mn 257.610†	388016.0	388573.2	480.57	µg/L	480.57	ppb	05:26:30
2	Mo 202.031†	16143.1	16196.2	476.42	µg/L	476.42	ppb	05:26:50
2	Ni 231.604†	41114.6	41275.3	475.25	µg/L	475.25	ppb	05:26:30
2	P 214.914†	11143.5	11184.3	2383.9	µg/L	2383.9	ppb	05:26:50
2	Pb 220.353†	8667.0	8598.3	481.49	µg/L	481.49	ppb	05:26:50

2	S 181.975 Axial†	1406.7	1304.5	972.73 µg/L	972.73 ppb	05:26:50
2	Sb 206.836†	4072.2	3999.7	476.57 µg/L	476.57 ppb	05:26:50
2	Se 196.026†	1332.7	1320.2	479 µg/L	479 ppb	05:26:50
2	SiO2†	54308.5	52644.4	5125.1 µg/L	5125.1 ppb	05:26:30
2	Si 251.611†	164475.8	163976.0	2408.0 µg/L	2408.0 ppb	05:26:30
2	Sn 189.927†	7621.3	7638.0	477.75 µg/L	477.75 ppb	05:26:50
2	Ti 334.940†	510463.7	510556.4	476.39 µg/L	476.39 ppb	05:26:30
2	Tl 190.801†	3772.9	3897.3	486.00 µg/L	486.00 ppb	05:26:50
2	U 409.014†	7234.6	7519.3	468.54 µg/L	468.54 ppb	05:26:30
2	V 292.402†	97054.2	96849.2	478.77 µg/L	478.77 ppb	05:26:30
2	Zn 213.857†	85259.7	84869.8	473.02 µg/L	473.02 ppb	05:26:30
3	Sc RADIAL	140766.0	140766.0	96.5 %		05:26:03
3	Al 396.153Radial†	25588.2	26590.1	4907.9 µg/L	4907.9 ppb	05:26:03
3	Ca 317.933Radial†	83962.6	86482.1	4817.4 µg/L	4817.4 ppb	05:26:03
3	Fe 238.204 Radial†	75418.7	78037.2	4809.7 µg/L	4809.7 ppb	05:26:03
3	K 766.490 Radial†	14639.8	13632.1	4986.9 µg/L	4986.9 ppb	05:26:03
3	Mg 279.077 IEC†	12762.5	13040.0	4865.9 µg/L	4865.9 ppb	05:26:03
3	Na 589.592 Radial†	70478.6	71773.2	9800.7 µg/L	9800.7 ppb	05:26:03
3	Sr 421.552†	226456.8	234899.3	488.30 µg/L	488.30 ppb	05:26:01
3	Sc 361.383	1728398.3	1728398.3	100.59 %		05:26:54
3	Y 371.029	1020054.8	1020054.8	99.354 %		05:26:54
3	Ag 328.068†	131808.1	126940.3	475.98 µg/L	475.98 ppb	05:26:54
3	As 188.979†	1576.6	1587.7	487.06 µg/L	487.06 ppb	05:27:14
3	B 249.677†	35623.6	31907.9	468.93 µg/L	468.93 ppb	05:26:54
3	Ba 233.527†	118888.6	118324.1	477.20 µg/L	477.20 ppb	05:26:54
3	Be 313.107†	1775775.0	1766380.0	481.08 µg/L	481.08 ppb	05:26:54
3	Cd 226.502†	76473.6	76141.3	475.31 µg/L	475.31 ppb	05:26:54
3	Co 228.616†	38807.3	38769.0	478.60 µg/L	478.60 ppb	05:26:54
3	Cr 267.716†	60978.6	60440.9	473.26 µg/L	473.26 ppb	05:26:54
3	Cu 324.752†	125716.1	122003.4	475.59 µg/L	475.59 ppb	05:26:54
3	Mn 257.610†	390074.1	387539.2	479.30 µg/L	479.30 ppb	05:26:54
3	Mo 202.031†	16123.4	16048.6	472.08 µg/L	472.08 ppb	05:27:14
3	Ni 231.604†	41447.0	41279.4	475.30 µg/L	475.30 ppb	05:26:54
3	P 214.914†	11104.3	11056.9	2356.7 µg/L	2356.7 ppb	05:27:14
3	Pb 220.353†	8630.8	8493.6	475.65 µg/L	475.65 ppb	05:27:14
3	S 181.975 Axial†	1393.5	1280.2	954.65 µg/L	954.65 ppb	05:27:14
3	Sb 206.836†	4077.0	3972.1	473.24 µg/L	473.24 ppb	05:27:14
3	Se 196.026†	1316.6	1293.6	470 µg/L	470 ppb	05:27:14
3	SiO2†	54892.1	52793.4	5139.9 µg/L	5139.9 ppb	05:26:54
3	Si 251.611†	165940.5	164126.5	2410.3 µg/L	2410.3 ppb	05:26:54
3	Sn 189.927†	7579.1	7535.6	471.37 µg/L	471.37 ppb	05:27:14
3	Ti 334.940†	513415.9	509439.2	475.35 µg/L	475.35 ppb	05:26:54
3	Tl 190.801†	3764.6	3859.1	481.31 µg/L	481.31 ppb	05:27:14
3	U 409.014†	7012.8	7241.4	452.32 µg/L	452.32 ppb	05:26:54
3	V 292.402†	97958.8	96978.0	479.34 µg/L	479.34 ppb	05:26:54
3	Zn 213.857†	85992.9	84922.0	473.31 µg/L	473.31 ppb	05:26:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1721042.0	100.16	%	0.402				0.40%
Sc RADIAL	141358.2	96.9	%	0.47				0.48%
Y 371.029	1015617.1	98.922	%	0.3934				0.40%
Ag 328.068†	126997.3	476.21	µg/L	0.419	476.21	ppb	0.419	0.09%
QC value within limits for Ag 328.068 Recovery = 95.24%								
Al 396.153Radial†	26535.9	4897.7	µg/L	9.87	4897.7	ppb	9.87	0.20%
QC value within limits for Al 396.153Radial Recovery = 97.95%								
As 188.979†	1586.6	486.74	µg/L	5.788	486.74	ppb	5.788	1.19%
QC value within limits for As 188.979 Recovery = 97.35%								
B 249.677†	32046.4	470.96	µg/L	1.785	470.96	ppb	1.785	0.38%
QC value within limits for B 249.677 Recovery = 94.19%								
Ba 233.527†	118394.2	477.48	µg/L	0.291	477.48	ppb	0.291	0.06%
QC value within limits for Ba 233.527 Recovery = 95.50%								
Be 313.107†	1769760.0	482.00	µg/L	0.848	482.00	ppb	0.848	0.18%
QC value within limits for Be 313.107 Recovery = 96.40%								
Ca 317.933Radial†	86550.0	4821.2	µg/L	4.05	4821.2	ppb	4.05	0.08%
QC value within limits for Ca 317.933Radial Recovery = 96.42%								
Cd 226.502†	76186.5	475.59	µg/L	0.295	475.59	ppb	0.295	0.06%
QC value within limits for Cd 226.502 Recovery = 95.12%								
Co 228.616†	38861.1	479.74	µg/L	1.208	479.74	ppb	1.208	0.25%

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   QC value within limits for Co 228.616  Recovery = 95.95%
Cr 267.716†            60496.1      473.68 µg/L         0.370      473.68 ppb          0.370   0.08%
   QC value within limits for Cr 267.716  Recovery = 94.74%
Cu 324.752†           122368.8      477.02 µg/L         1.270      477.02 ppb          1.270   0.27%
   QC value within limits for Cu 324.752  Recovery = 95.40%
Fe 238.204 Radial†     77970.4      4805.6 µg/L          5.20      4805.6 ppb           5.20   0.11%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.11%
K 766.490 Radial†      13416.5      4908.0 µg/L         68.42      4908.0 ppb          68.42   1.39%
   QC value within limits for K 766.490 Radial  Recovery = 98.16%
Mg 279.077 IEC†        13076.6      4879.6 µg/L         12.46      4879.6 ppb          12.46   0.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.59%
Mn 257.610†           388172.1      480.08 µg/L         0.686      480.08 ppb          0.686   0.14%
   QC value within limits for Mn 257.610  Recovery = 96.02%
Mo 202.031†            16107.4      473.81 µg/L         2.300      473.81 ppb          2.300   0.49%
   QC value within limits for Mo 202.031  Recovery = 94.76%
Na 589.592 Radial†     71639.1      9782.4 µg/L         15.80      9782.4 ppb          15.80   0.16%
   QC value within limits for Na 589.592 Radial  Recovery = 97.82%
Ni 231.604†            41340.7      476.01 µg/L         1.265      476.01 ppb          1.265   0.27%
   QC value within limits for Ni 231.604  Recovery = 95.20%
P 214.914†             11106.0      2367.2 µg/L         14.66      2367.2 ppb          14.66   0.62%
   QC value within limits for P 214.914  Recovery = 94.69%
Pb 220.353†             8540.3      478.26 µg/L         2.974      478.26 ppb          2.974   0.62%
   QC value within limits for Pb 220.353  Recovery = 95.65%
S 181.975 Axial†        1286.9      959.63 µg/L        11.455      959.63 ppb         11.455   1.19%
   QC value within limits for S 181.975 Axial  Recovery = 95.96%
Sb 206.836†             3976.5      473.78 µg/L         2.571      473.78 ppb          2.571   0.54%
   QC value within limits for Sb 206.836  Recovery = 94.76%
Se 196.026†             1305.0         474 µg/L           5.0         474 ppb            5.0   1.05%
   QC value within limits for Se 196.026  Recovery = 94.78%
SiO2†                  52776.7      5138.2 µg/L         12.30      5138.2 ppb          12.30   0.24%
   QC value within limits for SiO2  Recovery = 96.09%
Si 251.611†           164151.3      2410.6 µg/L          2.83      2410.6 ppb           2.83   0.12%
   QC value within limits for Si 251.611  Recovery = 96.43%
Sn 189.927†             7572.3      473.66 µg/L         3.553      473.66 ppb          3.553   0.75%
   QC value within limits for Sn 189.927  Recovery = 94.73%
Sr 421.552†           233125.4      484.62 µg/L         3.740      484.62 ppb          3.740   0.77%
   QC value within limits for Sr 421.552  Recovery = 96.92%
Ti 334.940†           510377.3      476.22 µg/L         0.804      476.22 ppb          0.804   0.17%
   QC value within limits for Ti 334.940  Recovery = 95.24%
Tl 190.801†             3881.4      484.05 µg/L         2.444      484.05 ppb          2.444   0.50%
   QC value within limits for Tl 190.801  Recovery = 96.81%
U 409.014†              7360.7      459.32 µg/L         8.335      459.32 ppb          8.335   1.81%
   QC value within limits for U 409.014  Recovery = 91.86%
V 292.402†             97055.7      479.74 µg/L         1.225      479.74 ppb          1.225   0.26%
   QC value within limits for V 292.402  Recovery = 95.95%
Zn 213.857†            84934.0      473.37 µg/L         0.390      473.37 ppb          0.390   0.08%
   QC value within limits for Zn 213.857  Recovery = 94.67%
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 5:27:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145094.0	145094.0	99.4	%			05:27:51
1	Al 396.153Radial†	-59.9	3.0	0.5652	µg/L	0.5652	ppb	05:28:11
1	Ca 317.933Radial†	628.5	71.6	3.9876	µg/L	3.9876	ppb	05:28:11
1	Fe 238.204 Radial†	231.1	84.3	5.1988	µg/L	5.1988	ppb	05:28:11
1	K 766.490 Radial†	1820.3	286.0	104.68	µg/L	104.68	ppb	05:27:51
1	Mg 279.077 IEC†	165.9	-23.8	-8.8786	µg/L	-8.8786	ppb	05:28:11
1	Na 589.592 Radial†	2325.2	1047.8	143.05	µg/L	143.05	ppb	05:27:51
1	Sr 421.552†	-266.7	-132.9	-0.2764	µg/L	-0.2764	ppb	05:27:51
1	Sc 361.383	1722926.7	1722926.7	100.27	%			05:29:12
1	Y 371.029	1027333.0	1027333.0	100.06	%			05:29:12
1	Ag 328.068†	4191.9	89.0	0.3300	µg/L	0.3300	ppb	05:29:14
1	As 188.979†	-14.3	6.1	1.8420	µg/L	1.8420	ppb	05:29:35
1	B 249.677†	3542.8	27.2	0.3995	µg/L	0.3995	ppb	05:29:14
1	Ba 233.527†	-162.8	-26.5	-0.1069	µg/L	-0.1069	ppb	05:29:35
1	Be 313.107†	-852.4	214.6	0.0591	µg/L	0.0591	ppb	05:29:14
1	Cd 226.502†	-86.1	32.3	0.2010	µg/L	0.2010	ppb	05:29:35
1	Co 228.616†	-156.4	34.4	0.4236	µg/L	0.4236	ppb	05:29:35
1	Cr 267.716†	203.5	24.4	0.1896	µg/L	0.1896	ppb	05:29:35
1	Cu 324.752†	2961.9	-18.5	-0.0692	µg/L	-0.0692	ppb	05:29:14
1	Mn 257.610†	392.9	154.6	0.1916	µg/L	0.1916	ppb	05:29:35
1	Mo 202.031†	-28.3	-8.1	-0.2386	µg/L	-0.2386	ppb	05:29:35
1	Ni 231.604†	-88.9	-12.2	-0.1403	µg/L	-0.1403	ppb	05:29:35
1	P 214.914†	-15.1	2.9	0.6266	µg/L	0.6266	ppb	05:29:35
1	Pb 220.353†	85.7	-0.9	-0.0513	µg/L	-0.0513	ppb	05:29:35
1	S 181.975 Axial†	131.0	25.6	19.013	µg/L	19.013	ppb	05:29:35
1	Sb 206.836†	80.9	-0.1	-0.0219	µg/L	-0.0219	ppb	05:29:35
1	Se 196.026†	19.7	4.3	1.57	µg/L	1.57	ppb	05:29:35
1	SiO2†	1905.1	124.5	12.167	µg/L	12.167	ppb	05:29:35
1	Si 251.611†	1275.1	435.1	6.4120	µg/L	6.4120	ppb	05:29:14
1	Sn 189.927†	11.4	12.5	0.7792	µg/L	0.7792	ppb	05:29:35
1	Ti 334.940†	919.0	-36.1	-0.0338	µg/L	-0.0338	ppb	05:29:14
1	Tl 190.801†	-127.5	-10.5	-1.2909	µg/L	-1.2909	ppb	05:29:35
1	U 409.014†	-235.2	35.4	2.0582	µg/L	2.0582	ppb	05:29:14
1	V 292.402†	370.1	-34.7	-0.1702	µg/L	-0.1702	ppb	05:29:14
1	Zn 213.857†	634.8	68.7	0.3862	µg/L	0.3862	ppb	05:29:35
2	Sc RADIAL	144080.7	144080.7	98.7	%			05:28:13
2	Al 396.153Radial†	-53.3	9.2	1.7250	µg/L	1.7250	ppb	05:28:33
2	Ca 317.933Radial†	591.5	38.5	2.1464	µg/L	2.1464	ppb	05:28:33
2	Fe 238.204 Radial†	210.0	64.6	3.9798	µg/L	3.9798	ppb	05:28:33
2	K 766.490 Radial†	1746.6	224.2	82.066	µg/L	82.066	ppb	05:28:13
2	Mg 279.077 IEC†	193.0	4.8	1.7636	µg/L	1.7636	ppb	05:28:33
2	Na 589.592 Radial†	2300.1	1038.8	141.84	µg/L	141.84	ppb	05:28:13
2	Sr 421.552†	-165.2	-32.0	-0.0666	µg/L	-0.0666	ppb	05:28:13
2	Sc 361.383	1740859.5	1740859.5	101.32	%			05:29:37
2	Y 371.029	1036711.8	1036711.8	100.98	%			05:29:37
2	Ag 328.068†	4348.9	200.9	0.7572	µg/L	0.7572	ppb	05:29:39
2	As 188.979†	-20.1	0.5	0.1512	µg/L	0.1512	ppb	05:29:59
2	B 249.677†	3481.8	-69.4	-1.0237	µg/L	-1.0237	ppb	05:29:39
2	Ba 233.527†	-139.2	-1.6	-0.0061	µg/L	-0.0061	ppb	05:29:59
2	Be 313.107†	-922.0	154.7	0.0434	µg/L	0.0434	ppb	05:29:39
2	Cd 226.502†	-72.0	47.2	0.2941	µg/L	0.2941	ppb	05:29:59
2	Co 228.616†	-175.5	17.1	0.2107	µg/L	0.2107	ppb	05:29:59
2	Cr 267.716†	196.7	15.6	0.1188	µg/L	0.1188	ppb	05:29:59
2	Cu 324.752†	2833.0	-176.1	-0.6798	µg/L	-0.6798	ppb	05:29:39
2	Mn 257.610†	379.8	137.6	0.1701	µg/L	0.1701	ppb	05:29:59
2	Mo 202.031†	-32.1	-11.6	-0.3419	µg/L	-0.3419	ppb	05:29:59
2	Ni 231.604†	-73.2	4.3	0.0493	µg/L	0.0493	ppb	05:29:59
2	P 214.914†	-25.7	-7.4	-1.5832	µg/L	-1.5832	ppb	05:29:59
2	Pb 220.353†	91.3	3.7	0.2019	µg/L	0.2019	ppb	05:29:59

2	S 181.975 Axial†	123.5	16.9	12.513 µg/L	12.513 ppb	05:29:59
2	Sb 206.836†	64.2	-17.5	-2.0852 µg/L	-2.0852 ppb	05:29:59
2	Se 196.026†	10.7	-4.7	-1.68 µg/L	-1.68 ppb	05:29:59
2	SiO2†	1876.6	76.9	7.5240 µg/L	7.5240 ppb	05:29:59
2	Si 251.611†	1432.5	577.3	8.5170 µg/L	8.5170 ppb	05:29:39
2	Sn 189.927†	-4.1	-2.9	-0.1802 µg/L	-0.1802 ppb	05:29:59
2	Ti 334.940†	871.5	-92.4	-0.0882 µg/L	-0.0882 ppb	05:29:39
2	Tl 190.801†	-105.4	12.6	1.5543 µg/L	1.5543 ppb	05:29:59
2	U 409.014†	-197.5	74.9	4.4195 µg/L	4.4195 ppb	05:29:39
2	V 292.402†	546.5	135.6	0.6611 µg/L	0.6611 ppb	05:29:39
2	Zn 213.857†	610.3	38.0	0.2130 µg/L	0.2130 ppb	05:29:59
3	Sc RADIAL	142537.5	142537.5	97.7 %		05:28:35
3	Al 396.153Radial†	-60.6	1.2	0.2221 µg/L	0.2221 ppb	05:28:55
3	Ca 317.933Radial†	625.4	79.7	4.4403 µg/L	4.4403 ppb	05:28:55
3	Fe 238.204 Radial†	216.0	73.0	4.4993 µg/L	4.4993 ppb	05:28:55
3	K 766.490 Radial†	1767.0	264.3	96.750 µg/L	96.750 ppb	05:28:35
3	Mg 279.077 IEC†	187.3	1.1	0.4011 µg/L	0.4011 ppb	05:28:55
3	Na 589.592 Radial†	2058.1	816.3	111.43 µg/L	111.43 ppb	05:28:35
3	Sr 421.552†	-153.3	-21.6	-0.0450 µg/L	-0.0450 ppb	05:28:35
3	Sc 361.383	1734315.4	1734315.4	100.94 %		05:30:01
3	Y 371.029	1034008.1	1034008.1	100.71 %		05:30:01
3	Ag 328.068†	3960.1	-168.1	-0.6218 µg/L	-0.6218 ppb	05:30:03
3	As 188.979†	-1.8	18.5	5.6093 µg/L	5.6093 ppb	05:30:23
3	B 249.677†	3485.6	-52.6	-0.7772 µg/L	-0.7772 ppb	05:30:03
3	Ba 233.527†	-157.6	-20.3	-0.0820 µg/L	-0.0820 ppb	05:30:23
3	Be 313.107†	-656.4	414.4	0.1129 µg/L	0.1129 ppb	05:30:03
3	Cd 226.502†	-113.8	5.5	0.0337 µg/L	0.0337 ppb	05:30:23
3	Co 228.616†	-169.5	22.4	0.2758 µg/L	0.2758 ppb	05:30:23
3	Cr 267.716†	226.0	45.3	0.3548 µg/L	0.3548 ppb	05:30:23
3	Cu 324.752†	2923.9	-75.5	-0.2921 µg/L	-0.2921 ppb	05:30:03
3	Mn 257.610†	366.0	125.3	0.1550 µg/L	0.1550 ppb	05:30:23
3	Mo 202.031†	-25.2	-4.9	-0.1429 µg/L	-0.1429 ppb	05:30:23
3	Ni 231.604†	-101.4	-24.0	-0.2758 µg/L	-0.2758 ppb	05:30:23
3	P 214.914†	-13.1	5.0	1.0675 µg/L	1.0675 ppb	05:30:23
3	Pb 220.353†	64.9	-22.1	-1.2346 µg/L	-1.2346 ppb	05:30:23
3	S 181.975 Axial†	129.8	23.6	17.494 µg/L	17.494 ppb	05:30:23
3	Sb 206.836†	87.0	5.4	0.6334 µg/L	0.6334 ppb	05:30:23
3	Se 196.026†	10.7	-4.7	-1.70 µg/L	-1.70 ppb	05:30:23
3	SiO2†	1882.5	89.6	8.7541 µg/L	8.7541 ppb	05:30:23
3	Si 251.611†	1382.2	532.8	7.8517 µg/L	7.8517 ppb	05:30:03
3	Sn 189.927†	11.8	12.8	0.7982 µg/L	0.7982 ppb	05:30:23
3	Ti 334.940†	879.1	-81.6	-0.0764 µg/L	-0.0764 ppb	05:30:03
3	Tl 190.801†	-116.9	0.8	0.1011 µg/L	0.1011 ppb	05:30:23
3	U 409.014†	-266.9	5.4	0.3199 µg/L	0.3199 ppb	05:30:03
3	V 292.402†	413.0	5.4	0.0263 µg/L	0.0263 ppb	05:30:03
3	Zn 213.857†	613.4	43.3	0.2445 µg/L	0.2445 ppb	05:30:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732700.5	100.84	%	0.528				0.52%
Sc RADIAL	143904.1	98.6	%	0.88				0.89%
Y 371.029	1032684.3	100.58	%	0.470				0.47%
Ag 328.068†	40.6	0.1551	µg/L	0.70592	0.1551	ppb	0.70592	455.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.5	0.8374	µg/L	0.78760	0.8374	ppb	0.78760	94.05%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.4	2.5342	µg/L	2.79413	2.5342	ppb	2.79413	110.26%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-31.6	-0.4672	µg/L	0.76060	-0.4672	ppb	0.76060	162.81%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-16.1	-0.0650	µg/L	0.05251	-0.0650	ppb	0.05251	80.77%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	261.2	0.0718	µg/L	0.03646	0.0718	ppb	0.03646	50.77%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	63.3	3.5248	µg/L	1.21495	3.5248	ppb	1.21495	34.47%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	28.3	0.1763	µg/L	0.13198	0.1763	ppb	0.13198	74.87%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	24.6	0.3034	µg/L	0.10911	0.3034	ppb	0.10911	35.97%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              28.4      0.2211 µg/L       0.12108      0.2211 ppb        0.12108  54.77%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -90.0     -0.3471 µg/L       0.30898     -0.3471 ppb        0.30898  89.03%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       74.0      4.5593 µg/L       0.61170      4.5593 ppb        0.61170  13.42%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       258.2      94.499 µg/L       11.4743      94.499 ppb        11.4743  12.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -6.0     -2.2380 µg/L       5.79119     -2.2380 ppb        5.79119 258.77%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             139.1      0.1722 µg/L       0.01838      0.1722 ppb        0.01838  10.67%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -8.2     -0.2411 µg/L       0.09951     -0.2411 ppb        0.09951  41.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      967.6      132.11 µg/L        17.919      132.11 ppb         17.919  13.56%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -10.6     -0.1222 µg/L       0.16331     -0.1222 ppb        0.16331 133.60%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.1      0.0370 µg/L       1.42036      0.0370 ppb        1.42036 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.4     -0.3613 µg/L       0.76677     -0.3613 ppb        0.76677 212.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         22.0      16.340 µg/L        3.4002      16.340 ppb         3.4002  20.81%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.1     -0.4912 µg/L       1.41878     -0.4912 ppb        1.41878 288.83%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.7      -0.603 µg/L        1.8834      -0.603 ppb         1.8834 312.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    97.0      9.4816 µg/L       2.40526      9.4816 ppb        2.40526  25.37%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             515.1      7.5935 µg/L       1.07596      7.5935 ppb        1.07596  14.17%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.5      0.4657 µg/L       0.55945      0.4657 ppb        0.55945 120.12%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -62.2     -0.1293 µg/L       0.12779     -0.1293 ppb        0.12779  98.81%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -70.0     -0.0661 µg/L       0.02865     -0.0661 ppb        0.02865  43.32%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.0      0.1215 µg/L       1.42267      0.1215 ppb        1.42267 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               38.6      2.2659 µg/L       2.05768      2.2659 ppb        2.05768  90.81%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               35.4      0.1724 µg/L       0.43447      0.1724 ppb        0.43447 252.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              50.0      0.2812 µg/L       0.09229      0.2812 ppb        0.09229  32.82%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 5:48:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143412.4	143412.4	98.3	%			05:49:20
1	Al 396.153Radial†	26401.8	26928.4	4970.4	µg/L	4970.4	ppb	05:49:20
1	Ca 317.933Radial†	85354.2	86291.8	4806.8	µg/L	4806.8	ppb	05:49:20
1	Fe 238.204 Radial†	76673.8	77871.6	4799.5	µg/L	4799.5	ppb	05:49:20
1	K 766.490 Radial†	14895.1	13611.7	4979.5	µg/L	4979.5	ppb	05:49:20
1	Mg 279.077 IEC†	13059.8	13098.4	4887.8	µg/L	4887.8	ppb	05:49:20
1	Na 589.592 Radial†	71028.8	70984.7	9692.9	µg/L	9692.9	ppb	05:49:20
1	Sr 421.552†	229178.2	233336.3	485.05	µg/L	485.05	ppb	05:49:18
1	Sc 361.383	1730211.6	1730211.6	100.70	%			05:49:47
1	Y 371.029	1019921.2	1019921.2	99.341	%			05:49:47
1	Ag 328.068†	132371.2	127362.2	477.57	µg/L	477.57	ppb	05:49:47
1	As 188.979†	1580.3	1589.7	487.69	µg/L	487.69	ppb	05:50:07
1	B 249.677†	35992.5	32237.1	473.77	µg/L	473.77	ppb	05:49:47
1	Ba 233.527†	119122.3	118432.3	477.63	µg/L	477.63	ppb	05:49:47
1	Be 313.107†	1783529.6	1772230.7	482.68	µg/L	482.68	ppb	05:49:47
1	Cd 226.502†	76519.0	76106.7	475.09	µg/L	475.09	ppb	05:49:47
1	Co 228.616†	39087.0	39006.3	481.53	µg/L	481.53	ppb	05:49:47
1	Cr 267.716†	61067.6	60465.7	473.44	µg/L	473.44	ppb	05:49:47
1	Cu 324.752†	126249.6	122402.2	477.15	µg/L	477.15	ppb	05:49:47
1	Mn 257.610†	390842.1	387895.4	479.74	µg/L	479.74	ppb	05:49:47
1	Mo 202.031†	16272.1	16179.3	475.93	µg/L	475.93	ppb	05:50:07
1	Ni 231.604†	41554.3	41342.8	476.03	µg/L	476.03	ppb	05:49:47
1	P 214.914†	11229.3	11169.4	2380.7	µg/L	2380.7	ppb	05:50:07
1	Pb 220.353†	8733.4	8586.5	480.84	µg/L	480.84	ppb	05:50:07
1	S 181.975 Axial†	1425.4	1310.4	977.11	µg/L	977.11	ppb	05:50:07
1	Sb 206.836†	4105.8	3996.5	476.20	µg/L	476.20	ppb	05:50:07
1	Se 196.026†	1349.6	1324.9	481	µg/L	481	ppb	05:50:07
1	SiO2†	54887.0	52731.2	5133.6	µg/L	5133.6	ppb	05:49:47
1	Si 251.611†	166441.0	164450.6	2415.0	µg/L	2415.0	ppb	05:49:47
1	Sn 189.927†	7680.6	7628.5	477.17	µg/L	477.17	ppb	05:50:07
1	Ti 334.940†	515593.8	511067.1	476.86	µg/L	476.86	ppb	05:49:47
1	Tl 190.801†	3810.3	3900.6	486.41	µg/L	486.41	ppb	05:50:07
1	U 409.014†	7255.0	7474.6	465.99	µg/L	465.99	ppb	05:49:47
1	V 292.402†	98177.3	97092.9	479.95	µg/L	479.95	ppb	05:49:47
1	Zn 213.857†	86203.6	85041.6	473.98	µg/L	473.98	ppb	05:49:47
2	Sc RADIAL	142196.1	142196.1	97.4	%			05:49:24
2	Al 396.153Radial†	26051.6	26798.8	4946.2	µg/L	4946.2	ppb	05:49:24
2	Ca 317.933Radial†	84815.3	86481.7	4817.4	µg/L	4817.4	ppb	05:49:24
2	Fe 238.204 Radial†	76151.2	78002.6	4807.6	µg/L	4807.6	ppb	05:49:24
2	K 766.490 Radial†	14651.7	13491.6	4935.5	µg/L	4935.5	ppb	05:49:24
2	Mg 279.077 IEC†	12902.3	13050.4	4870.0	µg/L	4870.0	ppb	05:49:24
2	Na 589.592 Radial†	70951.4	71523.6	9766.6	µg/L	9766.6	ppb	05:49:24
2	Sr 421.552†	226963.0	233057.6	484.48	µg/L	484.48	ppb	05:49:22
2	Sc 361.383	1711422.3	1711422.3	99.605	%			05:50:10
2	Y 371.029	1009637.8	1009637.8	98.339	%			05:50:10
2	Ag 328.068†	130850.2	127278.3	477.22	µg/L	477.22	ppb	05:50:10
2	As 188.979†	1598.7	1625.4	498.49	µg/L	498.49	ppb	05:50:30
2	B 249.677†	35154.5	31788.2	467.16	µg/L	467.16	ppb	05:50:10
2	Ba 233.527†	117404.2	118006.2	475.92	µg/L	475.92	ppb	05:50:10
2	Be 313.107†	1756284.2	1764322.3	480.52	µg/L	480.52	ppb	05:50:10
2	Cd 226.502†	75197.1	75613.9	472.01	µg/L	472.01	ppb	05:50:10
2	Co 228.616†	38365.9	38708.5	477.85	µg/L	477.85	ppb	05:50:10
2	Cr 267.716†	60355.4	60416.4	473.07	µg/L	473.07	ppb	05:50:10
2	Cu 324.752†	124533.5	122055.7	475.79	µg/L	475.79	ppb	05:50:10
2	Mn 257.610†	385706.8	387001.0	478.63	µg/L	478.63	ppb	05:50:10
2	Mo 202.031†	16262.3	16346.9	480.85	µg/L	480.85	ppb	05:50:30
2	Ni 231.604†	41042.2	41281.7	475.33	µg/L	475.33	ppb	05:50:10
2	P 214.914†	11266.0	11328.7	2414.8	µg/L	2414.8	ppb	05:50:30
2	Pb 220.353†	8729.0	8677.3	485.93	µg/L	485.93	ppb	05:50:30

2	S 181.975 Axial†	1419.3	1319.9	984.19 µg/L	984.19 ppb	05:50:30
2	Sb 206.836†	4110.4	4045.9	482.15 µg/L	482.15 ppb	05:50:30
2	Se 196.026†	1329.1	1319.1	479 µg/L	479 ppb	05:50:30
2	SiO2†	54209.3	52649.2	5125.4 µg/L	5125.4 ppb	05:50:10
2	Si 251.611†	164109.6	163924.7	2407.1 µg/L	2407.1 ppb	05:50:10
2	Sn 189.927†	7715.7	7747.5	484.58 µg/L	484.58 ppb	05:50:30
2	Ti 334.940†	508781.4	509849.0	475.74 µg/L	475.74 ppb	05:50:10
2	Tl 190.801†	3813.9	3945.7	491.95 µg/L	491.95 ppb	05:50:30
2	U 409.014†	6854.2	7151.3	447.01 µg/L	447.01 ppb	05:50:10
2	V 292.402†	96859.0	96839.8	478.75 µg/L	478.75 ppb	05:50:10
2	Zn 213.857†	84794.5	84566.7	471.31 µg/L	471.31 ppb	05:50:10
3	Sc RADIAL	141335.7	141335.7	96.9 %		05:49:28
3	Al 396.153Radial†	26120.4	27032.6	4989.8 µg/L	4989.8 ppb	05:49:28
3	Ca 317.933Radial†	84304.0	86483.7	4817.5 µg/L	4817.5 ppb	05:49:28
3	Fe 238.204 Radial†	75608.4	77917.9	4802.4 µg/L	4802.4 ppb	05:49:28
3	K 766.490 Radial†	14536.3	13464.0	4925.4 µg/L	4925.4 ppb	05:49:28
3	Mg 279.077 IEC†	12814.7	13040.5	4866.2 µg/L	4866.2 ppb	05:49:28
3	Na 589.592 Radial†	70539.5	71541.6	9769.1 µg/L	9769.1 ppb	05:49:28
3	Sr 421.552†	227249.7	234771.7	488.04 µg/L	488.04 ppb	05:49:26
3	Sc 361.383	1733201.8	1733201.8	100.87 %		05:50:33
3	Y 371.029	1022663.1	1022663.1	99.608 %		05:50:33
3	Ag 328.068†	132633.2	127395.2	477.67 µg/L	477.67 ppb	05:50:33
3	As 188.979†	1582.5	1589.2	487.52 µg/L	487.52 ppb	05:50:53
3	B 249.677†	36094.1	32276.2	474.35 µg/L	474.35 ppb	05:50:33
3	Ba 233.527†	119057.4	118163.9	476.55 µg/L	476.55 ppb	05:50:33
3	Be 313.107†	1787762.0	1773370.8	482.99 µg/L	482.99 ppb	05:50:33
3	Cd 226.502†	76586.0	76042.1	474.69 µg/L	474.69 ppb	05:50:33
3	Co 228.616†	38990.5	38843.7	479.52 µg/L	479.52 ppb	05:50:33
3	Cr 267.716†	61083.4	60376.7	472.75 µg/L	472.75 ppb	05:50:33
3	Cu 324.752†	126318.2	122253.9	476.57 µg/L	476.57 ppb	05:50:33
3	Mn 257.610†	391061.7	387443.6	479.18 µg/L	479.18 ppb	05:50:33
3	Mo 202.031†	16268.9	16148.3	475.02 µg/L	475.02 ppb	05:50:53
3	Ni 231.604†	41668.5	41384.8	476.52 µg/L	476.52 ppb	05:50:33
3	P 214.914†	11230.7	11151.6	2376.9 µg/L	2376.9 ppb	05:50:53
3	Pb 220.353†	8738.5	8576.5	480.29 µg/L	480.29 ppb	05:50:53
3	S 181.975 Axial†	1428.3	1310.9	977.43 µg/L	977.43 ppb	05:50:53
3	Sb 206.836†	4099.1	3982.8	474.57 µg/L	474.57 ppb	05:50:53
3	Se 196.026†	1336.9	1310.1	476 µg/L	476 ppb	05:50:53
3	SiO2†	55101.1	52849.4	5145.2 µg/L	5145.2 ppb	05:50:33
3	Si 251.611†	166788.7	164510.2	2415.9 µg/L	2415.9 ppb	05:50:33
3	Sn 189.927†	7690.0	7624.6	476.92 µg/L	476.92 ppb	05:50:53
3	Ti 334.940†	516020.5	510606.7	476.44 µg/L	476.44 ppb	05:50:33
3	Tl 190.801†	3800.5	3884.3	484.40 µg/L	484.40 ppb	05:50:53
3	U 409.014†	7160.9	7368.9	459.75 µg/L	459.75 ppb	05:50:33
3	V 292.402†	98149.4	96897.1	478.98 µg/L	478.98 ppb	05:50:33
3	Zn 213.857†	86284.5	84974.1	473.60 µg/L	473.60 ppb	05:50:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1724945.2	100.39	%	0.687				0.68%
Sc RADIAL	142314.7	97.5	%	0.72				0.73%
Y 371.029	1017407.4	99.096	%	0.6688				0.67%
Ag 328.068†	127345.2	477.49	µg/L	0.237	477.49	ppb	0.237	0.05%
QC value within limits for Ag 328.068 Recovery = 95.50%								
Al 396.153Radial†	26919.9	4968.8	µg/L	21.86	4968.8	ppb	21.86	0.44%
QC value within limits for Al 396.153Radial Recovery = 99.38%								
As 188.979†	1601.5	491.23	µg/L	6.288	491.23	ppb	6.288	1.28%
QC value within limits for As 188.979 Recovery = 98.25%								
B 249.677†	32100.5	471.76	µg/L	3.994	471.76	ppb	3.994	0.85%
QC value within limits for B 249.677 Recovery = 94.35%								
Ba 233.527†	118200.8	476.70	µg/L	0.868	476.70	ppb	0.868	0.18%
QC value within limits for Ba 233.527 Recovery = 95.34%								
Be 313.107†	1769974.6	482.06	µg/L	1.344	482.06	ppb	1.344	0.28%
QC value within limits for Be 313.107 Recovery = 96.41%								
Ca 317.933Radial†	86419.1	4813.9	µg/L	6.14	4813.9	ppb	6.14	0.13%
QC value within limits for Ca 317.933Radial Recovery = 96.28%								
Cd 226.502†	75920.9	473.93	µg/L	1.674	473.93	ppb	1.674	0.35%
QC value within limits for Cd 226.502 Recovery = 94.79%								
Co 228.616†	38852.9	479.64	µg/L	1.841	479.64	ppb	1.841	0.38%

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   QC value within limits for Co 228.616  Recovery = 95.93%
Cr 267.716†            60419.6      473.09 µg/L         0.346      473.09 ppb          0.346   0.07%
   QC value within limits for Cr 267.716  Recovery = 94.62%
Cu 324.752†           122237.3      476.51 µg/L         0.684      476.51 ppb          0.684   0.14%
   QC value within limits for Cu 324.752  Recovery = 95.30%
Fe 238.204 Radial†     77930.7      4803.2 µg/L          4.09      4803.2 ppb           4.09   0.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.06%
K 766.490 Radial†      13522.5      4946.8 µg/L         28.77      4946.8 ppb          28.77   0.58%
   QC value within limits for K 766.490 Radial  Recovery = 98.94%
Mg 279.077 IEC†        13063.1      4874.6 µg/L         11.52      4874.6 ppb          11.52   0.24%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.49%
Mn 257.610†           387446.7      479.18 µg/L         0.553      479.18 ppb          0.553   0.12%
   QC value within limits for Mn 257.610  Recovery = 95.84%
Mo 202.031†            16224.9      477.27 µg/L         3.139      477.27 ppb          3.139   0.66%
   QC value within limits for Mo 202.031  Recovery = 95.45%
Na 589.592 Radial†     71350.0      9742.9 µg/L         43.25      9742.9 ppb          43.25   0.44%
   QC value within limits for Na 589.592 Radial  Recovery = 97.43%
Ni 231.604†            41336.4      475.96 µg/L         0.597      475.96 ppb          0.597   0.13%
   QC value within limits for Ni 231.604  Recovery = 95.19%
P 214.914†             11216.5      2390.8 µg/L         20.86      2390.8 ppb          20.86   0.87%
   QC value within limits for P 214.914  Recovery = 95.63%
Pb 220.353†             8613.4      482.35 µg/L         3.112      482.35 ppb          3.112   0.65%
   QC value within limits for Pb 220.353  Recovery = 96.47%
S 181.975 Axial†        1313.7      979.57 µg/L         4.000      979.57 ppb          4.000   0.41%
   QC value within limits for S 181.975 Axial  Recovery = 97.96%
Sb 206.836†             4008.4      477.64 µg/L         3.993      477.64 ppb          3.993   0.84%
   QC value within limits for Sb 206.836  Recovery = 95.53%
Se 196.026†             1318.0         479 µg/L           2.7         479 ppb            2.7   0.56%
   QC value within limits for Se 196.026  Recovery = 95.72%
SiO2†                  52743.2      5134.7 µg/L          9.97      5134.7 ppb           9.97   0.19%
   QC value within limits for SiO2  Recovery = 96.02%
Si 251.611†           164295.2      2412.7 µg/L          4.82      2412.7 ppb           4.82   0.20%
   QC value within limits for Si 251.611  Recovery = 96.51%
Sn 189.927†             7666.9      479.55 µg/L         4.353      479.55 ppb          4.353   0.91%
   QC value within limits for Sn 189.927  Recovery = 95.91%
Sr 421.552†           233721.9      485.86 µg/L         1.912      485.86 ppb          1.912   0.39%
   QC value within limits for Sr 421.552  Recovery = 97.17%
Ti 334.940†           510507.6      476.35 µg/L         0.570      476.35 ppb          0.570   0.12%
   QC value within limits for Ti 334.940  Recovery = 95.27%
Tl 190.801†             3910.2      487.59 µg/L         3.906      487.59 ppb          3.906   0.80%
   QC value within limits for Tl 190.801  Recovery = 97.52%
U 409.014†              7331.6      457.58 µg/L         9.674      457.58 ppb          9.674   2.11%
   QC value within limits for U 409.014  Recovery = 91.52%
V 292.402†             96943.2      479.23 µg/L         0.636      479.23 ppb          0.636   0.13%
   QC value within limits for V 292.402  Recovery = 95.85%
Zn 213.857†            84860.8      472.96 µg/L         1.440      472.96 ppb          1.440   0.30%
   QC value within limits for Zn 213.857  Recovery = 94.59%
All analyte(s) passed QC.
```

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 5:51:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143857.1	143857.1	98.6	%			05:51:30
1	Al 396.153Radial†	-190.3	-129.8	-24.073	µg/L	-24.073	ppb	05:51:30
1	Ca 317.933Radial†	662.4	111.4	6.2040	µg/L	6.2040	ppb	05:51:50
1	Fe 238.204 Radial†	240.6	95.9	5.9120	µg/L	5.9120	ppb	05:51:50
1	K 766.490 Radial†	1827.4	309.0	113.10	µg/L	113.10	ppb	05:51:30
1	Mg 279.077 IEC†	175.4	-12.8	-4.7672	µg/L	-4.7672	ppb	05:51:50
1	Na 589.592 Radial†	2010.1	748.3	102.12	µg/L	102.12	ppb	05:51:30
1	Sr 421.552†	-121.3	12.2	0.0254	µg/L	0.0254	ppb	05:51:30
1	Sc 361.383	1744647.3	1744647.3	101.54	%			05:52:38
1	Y 371.029	1039852.7	1039852.7	101.28	%			05:52:38
1	Ag 328.068†	4231.3	75.8	0.2964	µg/L	0.2964	ppb	05:52:40
1	As 188.979†	-7.4	13.0	3.9399	µg/L	3.9399	ppb	05:53:00
1	B 249.677†	3576.6	16.5	0.2423	µg/L	0.2423	ppb	05:52:40
1	Ba 233.527†	-119.0	18.7	0.0755	µg/L	0.0755	ppb	05:53:00
1	Be 313.107†	-677.2	397.7	0.1113	µg/L	0.1113	ppb	05:52:40
1	Cd 226.502†	-106.3	13.5	0.0838	µg/L	0.0838	ppb	05:53:00
1	Co 228.616†	-169.0	23.9	0.2944	µg/L	0.2944	ppb	05:53:00
1	Cr 267.716†	182.7	1.3	0.0029	µg/L	0.0029	ppb	05:53:00
1	Cu 324.752†	2933.5	-83.2	-0.3139	µg/L	-0.3139	ppb	05:52:40
1	Mn 257.610†	360.3	117.6	0.1457	µg/L	0.1457	ppb	05:53:00
1	Mo 202.031†	-13.1	7.1	0.2103	µg/L	0.2103	ppb	05:53:00
1	Ni 231.604†	-81.2	-3.4	-0.0393	µg/L	-0.0393	ppb	05:53:00
1	P 214.914†	-3.1	15.0	3.1893	µg/L	3.1893	ppb	05:53:00
1	Pb 220.353†	103.2	15.2	0.8412	µg/L	0.8412	ppb	05:53:00
1	S 181.975 Axial†	129.0	22.0	16.316	µg/L	16.316	ppb	05:53:00
1	Sb 206.836†	84.3	2.2	0.2646	µg/L	0.2646	ppb	05:53:00
1	Se 196.026†	21.1	5.5	2.01	µg/L	2.01	ppb	05:53:00
1	SiO2†	1943.3	138.5	13.536	µg/L	13.536	ppb	05:52:40
1	Si 251.611†	1317.1	460.6	6.7875	µg/L	6.7875	ppb	05:52:40
1	Sn 189.927†	-1.7	-0.6	-0.0361	µg/L	-0.0361	ppb	05:53:00
1	Ti 334.940†	1048.3	79.9	0.0710	µg/L	0.0710	ppb	05:52:40
1	Tl 190.801†	-113.2	5.2	0.6447	µg/L	0.6447	ppb	05:53:00
1	U 409.014†	-98.4	172.9	10.129	µg/L	10.129	ppb	05:52:40
1	V 292.402†	473.1	62.1	0.3114	µg/L	0.3114	ppb	05:52:40
1	Zn 213.857†	651.9	77.6	0.4356	µg/L	0.4356	ppb	05:53:00
2	Sc RADIAL	142277.4	142277.4	97.5	%			05:51:52
2	Al 396.153Radial†	-195.3	-137.1	-25.405	µg/L	-25.405	ppb	05:51:52
2	Ca 317.933Radial†	631.6	87.2	4.8601	µg/L	4.8601	ppb	05:52:12
2	Fe 238.204 Radial†	243.7	101.8	6.2746	µg/L	6.2746	ppb	05:52:12
2	K 766.490 Radial†	1831.8	334.1	122.30	µg/L	122.30	ppb	05:51:52
2	Mg 279.077 IEC†	198.1	12.5	4.6598	µg/L	4.6598	ppb	05:52:12
2	Na 589.592 Radial†	1973.8	733.7	100.12	µg/L	100.12	ppb	05:51:52
2	Sr 421.552†	-198.1	-68.0	-0.1413	µg/L	-0.1413	ppb	05:51:52
2	Sc 361.383	1755613.8	1755613.8	102.18	%			05:53:02
2	Y 371.029	1045342.2	1045342.2	101.82	%			05:53:02
2	Ag 328.068†	4084.8	-93.6	-0.3512	µg/L	-0.3512	ppb	05:53:05
2	As 188.979†	-11.6	9.0	2.7333	µg/L	2.7333	ppb	05:53:25
2	B 249.677†	3520.0	-60.9	-0.8996	µg/L	-0.8996	ppb	05:53:05
2	Ba 233.527†	-151.0	-11.9	-0.0485	µg/L	-0.0485	ppb	05:53:25
2	Be 313.107†	-734.9	345.5	0.0944	µg/L	0.0944	ppb	05:53:05
2	Cd 226.502†	-81.7	38.3	0.2382	µg/L	0.2382	ppb	05:53:25
2	Co 228.616†	-166.1	27.8	0.3426	µg/L	0.3426	ppb	05:53:25
2	Cr 267.716†	197.3	14.5	0.1126	µg/L	0.1126	ppb	05:53:25
2	Cu 324.752†	2823.4	-209.0	-0.8098	µg/L	-0.8098	ppb	05:53:05
2	Mn 257.610†	296.5	52.9	0.0653	µg/L	0.0653	ppb	05:53:25
2	Mo 202.031†	-26.0	-5.3	-0.1565	µg/L	-0.1565	ppb	05:53:25
2	Ni 231.604†	-104.8	-26.1	-0.3005	µg/L	-0.3005	ppb	05:53:25
2	P 214.914†	-27.4	-8.8	-1.8872	µg/L	-1.8872	ppb	05:53:25
2	Pb 220.353†	67.2	-20.6	-1.1524	µg/L	-1.1524	ppb	05:53:25

2	S 181.975 Axial†	133.6	25.7	19.101 µg/L	19.101 ppb	05:53:25
2	Sb 206.836†	85.0	2.4	0.2820 µg/L	0.2820 ppb	05:53:25
2	Se 196.026†	5.0	-10.4	-3.75 µg/L	-3.75 ppb	05:53:25
2	SiO2†	1920.1	103.8	10.144 µg/L	10.144 ppb	05:53:05
2	Si 251.611†	1212.7	350.3	5.1635 µg/L	5.1635 ppb	05:53:05
2	Sn 189.927†	6.6	7.5	0.4712 µg/L	0.4712 ppb	05:53:25
2	Ti 334.940†	1263.1	283.7	0.2643 µg/L	0.2643 ppb	05:53:05
2	Tl 190.801†	-114.3	4.8	0.5878 µg/L	0.5878 ppb	05:53:25
2	U 409.014†	-255.6	19.7	1.1243 µg/L	1.1243 ppb	05:53:05
2	V 292.402†	308.3	-102.1	-0.4992 µg/L	-0.4992 ppb	05:53:05
2	Zn 213.857†	622.2	44.6	0.2519 µg/L	0.2519 ppb	05:53:25
3	Sc RADIAL	143992.1	143992.1	98.7 %		05:52:14
3	Al 396.153Radial†	-137.4	-76.1	-14.103 µg/L	-14.103 ppb	05:52:14
3	Ca 317.933Radial†	645.0	93.1	5.1853 µg/L	5.1853 ppb	05:52:34
3	Fe 238.204 Radial†	216.1	70.9	4.3718 µg/L	4.3718 ppb	05:52:34
3	K 766.490 Radial†	1849.6	329.7	120.69 µg/L	120.69 ppb	05:52:14
3	Mg 279.077 IEC†	181.7	-6.5	-2.4380 µg/L	-2.4380 ppb	05:52:34
3	Na 589.592 Radial†	2041.7	778.4	106.23 µg/L	106.23 ppb	05:52:14
3	Sr 421.552†	-161.6	-28.5	-0.0593 µg/L	-0.0593 ppb	05:52:14
3	Sc 361.383	1751304.2	1751304.2	101.93 %		05:53:27
3	Y 371.029	1043123.9	1043123.9	101.60 %		05:53:27
3	Ag 328.068†	4042.1	-125.7	-0.4738 µg/L	-0.4738 ppb	05:53:29
3	As 188.979†	-14.7	5.9	1.7883 µg/L	1.7883 ppb	05:53:49
3	B 249.677†	3573.4	-0.0	-0.0007 µg/L	-0.0007 ppb	05:53:29
3	Ba 233.527†	-123.8	14.4	0.0582 µg/L	0.0582 ppb	05:53:49
3	Be 313.107†	-862.8	218.2	0.0565 µg/L	0.0565 ppb	05:53:29
3	Cd 226.502†	-104.2	16.0	0.0993 µg/L	0.0993 ppb	05:53:49
3	Co 228.616†	-189.1	4.8	0.0589 µg/L	0.0589 ppb	05:53:49
3	Cr 267.716†	233.6	50.6	0.4042 µg/L	0.4042 ppb	05:53:49
3	Cu 324.752†	2978.5	-50.0	-0.2016 µg/L	-0.2016 ppb	05:53:29
3	Mn 257.610†	332.2	88.6	0.1098 µg/L	0.1098 ppb	05:53:49
3	Mo 202.031†	-22.9	-2.4	-0.0712 µg/L	-0.0712 ppb	05:53:49
3	Ni 231.604†	-83.0	-4.9	-0.0567 µg/L	-0.0567 ppb	05:53:49
3	P 214.914†	-31.5	-13.0	-2.7749 µg/L	-2.7749 ppb	05:53:49
3	Pb 220.353†	87.3	-0.8	-0.0374 µg/L	-0.0374 ppb	05:53:49
3	S 181.975 Axial†	135.1	27.5	20.442 µg/L	20.442 ppb	05:53:49
3	Sb 206.836†	71.7	-10.5	-1.2527 µg/L	-1.2527 ppb	05:53:49
3	Se 196.026†	24.8	9.1	3.28 µg/L	3.28 ppb	05:53:49
3	SiO2†	1960.3	147.9	14.451 µg/L	14.451 ppb	05:53:29
3	Si 251.611†	1381.3	518.6	7.6414 µg/L	7.6414 ppb	05:53:29
3	Sn 189.927†	11.5	12.4	0.7700 µg/L	0.7700 ppb	05:53:49
3	Ti 334.940†	924.1	-45.9	-0.0388 µg/L	-0.0388 ppb	05:53:29
3	Tl 190.801†	-113.9	4.9	0.6058 µg/L	0.6058 ppb	05:53:49
3	U 409.014†	-442.0	-163.8	-9.5606 µg/L	-9.5606 ppb	05:53:29
3	V 292.402†	473.5	60.7	0.2903 µg/L	0.2903 ppb	05:53:29
3	Zn 213.857†	619.3	43.1	0.2421 µg/L	0.2421 ppb	05:53:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1750521.8	101.88	%	0.322				0.32%
Sc RADIAL	143375.5	98.2	%	0.65				0.66%
Y 371.029	1042772.9	101.57	%	0.269				0.26%
Ag 328.068†	-47.8	-0.1762	µg/L	0.41384	-0.1762	ppb	0.41384	234.86%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-114.3	-21.194	µg/L	6.1769	-21.194	ppb	6.1769	29.14%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.3	2.8205	µg/L	1.07844	2.8205	ppb	1.07844	38.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-14.8	-0.2194	µg/L	0.60155	-0.2194	ppb	0.60155	274.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.1	0.0284	µg/L	0.06714	0.0284	ppb	0.06714	236.17%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	320.5	0.0874	µg/L	0.02807	0.0874	ppb	0.02807	32.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	97.2	5.4165	µg/L	0.70116	5.4165	ppb	0.70116	12.94%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	22.6	0.1404	µg/L	0.08503	0.1404	ppb	0.08503	60.56%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.8	0.2320	µg/L	0.15179	0.2320	ppb	0.15179	65.44%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              22.2      0.1732 µg/L       0.20743      0.1732 ppb        0.20743 119.74%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -114.0     -0.4418 µg/L       0.32363     -0.4418 ppb        0.32363  73.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       89.6      5.5195 µg/L       1.01034      5.5195 ppb        1.01034  18.30%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       324.2      118.70 µg/L         4.914      118.70 ppb          4.914   4.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.3     -0.8485 µg/L       4.91038     -0.8485 ppb        4.91038 578.73%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              86.4      0.1069 µg/L       0.04026      0.1069 ppb        0.04026  37.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -0.2     -0.0058 µg/L       0.19198     -0.0058 ppb        0.19198 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      753.5      102.83 µg/L         3.115      102.83 ppb          3.115   3.03%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -11.5     -0.1322 µg/L       0.14601     -0.1322 ppb        0.14601 110.48%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.3     -0.4909 µg/L       3.21789     -0.4909 ppb        3.21789 655.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -2.1     -0.1162 µg/L       0.99914     -0.1162 ppb        0.99914 859.83%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         25.1      18.620 µg/L        2.1044      18.620 ppb         2.1044  11.30%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.0     -0.2354 µg/L       0.88107     -0.2354 ppb        0.88107 374.30%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.4       0.512 µg/L        3.7435       0.512 ppb         3.7435 730.53%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   130.1      12.710 µg/L        2.2688      12.710 ppb         2.2688  17.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             443.2      6.5308 µg/L       1.25874      6.5308 ppb        1.25874  19.27%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.4      0.4017 µg/L       0.40750      0.4017 ppb        0.40750 101.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -28.1     -0.0584 µg/L       0.08335     -0.0584 ppb        0.08335 142.66%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             105.9      0.0989 µg/L       0.15342      0.0989 ppb        0.15342 155.20%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.0      0.6127 µg/L       0.02907      0.6127 ppb        0.02907   4.74%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                9.6      0.5642 µg/L       9.85669      0.5642 ppb        9.85669 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                6.9      0.0342 µg/L       0.46201      0.0342 ppb        0.46201 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              55.1      0.3099 µg/L       0.10900      0.3099 ppb        0.10900  35.18%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 6:04:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142848.8	142848.8	97.9	%			06:05:06
1	Al 396.153Radial†	26284.1	26914.2	4967.7	µg/L	4967.7	ppb	06:05:06
1	Ca 317.933Radial†	85756.1	87045.1	4848.8	µg/L	4848.8	ppb	06:05:06
1	Fe 238.204 Radial†	76615.7	78120.0	4814.8	µg/L	4814.8	ppb	06:05:06
1	K 766.490 Radial†	14635.7	13406.6	4904.4	µg/L	4904.4	ppb	06:05:06
1	Mg 279.077 IEC†	13109.8	13201.8	4926.4	µg/L	4926.4	ppb	06:05:06
1	Na 589.592 Radial†	71209.9	71454.9	9757.2	µg/L	9757.2	ppb	06:05:06
1	Sr 421.552†	229336.0	234417.5	487.30	µg/L	487.30	ppb	06:05:04
1	Sc 361.383	1722533.9	1722533.9	100.25	%			06:05:19
1	Y 371.029	1016004.9	1016004.9	98.959	%			06:05:19
1	Ag 328.068†	131502.2	127081.2	476.52	µg/L	476.52	ppb	06:05:19
1	As 188.979†	1603.1	1619.4	496.68	µg/L	496.68	ppb	06:05:39
1	B 249.677†	35665.3	32070.0	471.31	µg/L	471.31	ppb	06:05:19
1	Ba 233.527†	118687.8	118526.2	478.01	µg/L	478.01	ppb	06:05:19
1	Be 313.107†	1774677.2	1771294.9	482.42	µg/L	482.42	ppb	06:05:19
1	Cd 226.502†	76426.8	76353.5	476.63	µg/L	476.63	ppb	06:05:19
1	Co 228.616†	38731.3	38824.5	479.29	µg/L	479.29	ppb	06:05:19
1	Cr 267.716†	61003.8	60672.4	475.06	µg/L	475.06	ppb	06:05:19
1	Cu 324.752†	125233.2	121947.2	475.39	µg/L	475.39	ppb	06:05:19
1	Mn 257.610†	388434.4	387223.8	478.90	µg/L	478.90	ppb	06:05:19
1	Mo 202.031†	16274.4	16253.7	478.11	µg/L	478.11	ppb	06:05:39
1	Ni 231.604†	41552.7	41525.1	478.13	µg/L	478.13	ppb	06:05:19
1	P 214.914†	11262.8	11252.5	2398.5	µg/L	2398.5	ppb	06:05:39
1	Pb 220.353†	8749.1	8640.8	483.88	µg/L	483.88	ppb	06:05:39
1	S 181.975 Axial†	1398.8	1290.2	962.13	µg/L	962.13	ppb	06:05:39
1	Sb 206.836†	4130.9	4039.7	481.34	µg/L	481.34	ppb	06:05:39
1	Se 196.026†	1348.3	1329.7	483	µg/L	483	ppb	06:05:39
1	SiO2†	54482.6	52570.7	5117.8	µg/L	5117.8	ppb	06:05:19
1	Si 251.611†	165149.6	163899.2	2406.8	µg/L	2406.8	ppb	06:05:19
1	Sn 189.927†	7696.2	7678.0	480.25	µg/L	480.25	ppb	06:05:39
1	Ti 334.940†	511528.2	509293.9	475.20	µg/L	475.20	ppb	06:05:19
1	Tl 190.801†	3814.7	3921.9	489.01	µg/L	489.01	ppb	06:05:39
1	U 409.014†	7216.3	7468.1	465.59	µg/L	465.59	ppb	06:05:19
1	V 292.402†	97722.3	97073.6	479.89	µg/L	479.89	ppb	06:05:19
1	Zn 213.857†	85933.0	85153.3	474.59	µg/L	474.59	ppb	06:05:19
2	Sc RADIAL	143157.1	143157.1	98.1	%			06:05:11
2	Al 396.153Radial†	26258.8	26830.6	4952.3	µg/L	4952.3	ppb	06:05:11
2	Ca 317.933Radial†	85806.3	86907.6	4841.1	µg/L	4841.1	ppb	06:05:11
2	Fe 238.204 Radial†	76698.8	78036.1	4809.7	µg/L	4809.7	ppb	06:05:11
2	K 766.490 Radial†	14842.8	13585.5	4969.9	µg/L	4969.9	ppb	06:05:11
2	Mg 279.077 IEC†	13118.0	13181.3	4918.7	µg/L	4918.7	ppb	06:05:11
2	Na 589.592 Radial†	71063.7	71149.2	9715.4	µg/L	9715.4	ppb	06:05:11
2	Sr 421.552†	227333.3	231871.5	482.01	µg/L	482.01	ppb	06:05:08
2	Sc 361.383	1723631.7	1723631.7	100.32	%			06:05:42
2	Y 371.029	1016796.5	1016796.5	99.036	%			06:05:42
2	Ag 328.068†	131746.9	127241.7	477.09	µg/L	477.09	ppb	06:05:42
2	As 188.979†	1596.7	1612.1	494.45	µg/L	494.45	ppb	06:06:03
2	B 249.677†	35726.6	32108.4	471.89	µg/L	471.89	ppb	06:05:42
2	Ba 233.527†	118582.9	118346.3	477.29	µg/L	477.29	ppb	06:05:42
2	Be 313.107†	1774613.3	1770103.8	482.09	µg/L	482.09	ppb	06:05:42
2	Cd 226.502†	76324.6	76203.0	475.69	µg/L	475.69	ppb	06:05:42
2	Co 228.616†	38620.9	38689.9	477.62	µg/L	477.62	ppb	06:05:42
2	Cr 267.716†	60898.2	60528.3	473.95	µg/L	473.95	ppb	06:05:42
2	Cu 324.752†	125590.6	122223.9	476.44	µg/L	476.44	ppb	06:05:42
2	Mn 257.610†	388871.4	387412.6	479.14	µg/L	479.14	ppb	06:05:42
2	Mo 202.031†	16208.5	16177.7	475.88	µg/L	475.88	ppb	06:06:03
2	Ni 231.604†	41345.4	41292.0	475.45	µg/L	475.45	ppb	06:05:42
2	P 214.914†	11244.3	11227.0	2393.1	µg/L	2393.1	ppb	06:06:03
2	Pb 220.353†	8700.1	8586.4	480.84	µg/L	480.84	ppb	06:06:03

2	S 181.975 Axial†	1408.7	1299.2	968.77 µg/L	968.77 ppb	06:06:03
2	Sb 206.836†	4113.4	4019.6	478.94 µg/L	478.94 ppb	06:06:03
2	Se 196.026†	1341.4	1321.9	480 µg/L	480 ppb	06:06:03
2	SiO2†	54603.8	52657.0	5126.3 µg/L	5126.3 ppb	06:05:42
2	Si 251.611†	165044.8	163689.8	2403.8 µg/L	2403.8 ppb	06:05:42
2	Sn 189.927†	7680.7	7657.7	478.98 µg/L	478.98 ppb	06:06:03
2	Ti 334.940†	512566.6	510004.0	475.88 µg/L	475.88 ppb	06:05:42
2	Tl 190.801†	3806.4	3911.1	487.71 µg/L	487.71 ppb	06:06:03
2	U 409.014†	6895.7	7144.0	446.60 µg/L	446.60 ppb	06:05:42
2	V 292.402†	97622.9	96912.5	479.06 µg/L	479.06 ppb	06:05:42
2	Zn 213.857†	85650.2	84816.7	472.72 µg/L	472.72 ppb	06:05:42
3	Sc RADIAL	141046.6	141046.6	96.7 %		06:05:15
3	Al 396.153Radial†	25865.4	26824.1	4951.0 µg/L	4951.0 ppb	06:05:15
3	Ca 317.933Radial†	84124.5	86476.5	4817.1 µg/L	4817.1 ppb	06:05:15
3	Fe 238.204 Radial†	75443.5	77907.3	4801.7 µg/L	4801.7 ppb	06:05:15
3	K 766.490 Radial†	14628.9	13590.6	4971.7 µg/L	4971.7 ppb	06:05:15
3	Mg 279.077 IEC†	12956.9	13214.8	4931.2 µg/L	4931.2 ppb	06:05:15
3	Na 589.592 Radial†	70294.6	71437.4	9754.8 µg/L	9754.8 ppb	06:05:15
3	Sr 421.552†	227562.4	235576.2	489.71 µg/L	489.71 ppb	06:05:13
3	Sc 361.383	1728559.5	1728559.5	100.60 %		06:06:06
3	Y 371.029	1019765.4	1019765.4	99.326 %		06:06:06
3	Ag 328.068†	131608.2	126729.4	475.23 µg/L	475.23 ppb	06:06:06
3	As 188.979†	1615.5	1626.2	498.73 µg/L	498.73 ppb	06:06:26
3	B 249.677†	35907.2	32186.5	473.03 µg/L	473.03 ppb	06:06:06
3	Ba 233.527†	118992.7	118416.6	477.57 µg/L	477.57 ppb	06:06:06
3	Be 313.107†	1782275.3	1772676.8	482.80 µg/L	482.80 ppb	06:06:06
3	Cd 226.502†	76844.3	76502.7	477.56 µg/L	477.56 ppb	06:06:06
3	Co 228.616†	38816.6	38774.7	478.67 µg/L	478.67 ppb	06:06:06
3	Cr 267.716†	61167.4	60622.9	474.68 µg/L	474.68 ppb	06:06:06
3	Cu 324.752†	125851.5	122126.3	476.08 µg/L	476.08 ppb	06:06:06
3	Mn 257.610†	390603.4	388029.2	479.90 µg/L	479.90 ppb	06:06:06
3	Mo 202.031†	16349.4	16271.6	478.64 µg/L	478.64 ppb	06:06:26
3	Ni 231.604†	41595.0	41422.7	476.95 µg/L	476.95 ppb	06:06:06
3	P 214.914†	11332.2	11282.4	2404.9 µg/L	2404.9 ppb	06:06:26
3	Pb 220.353†	8802.7	8663.7	485.16 µg/L	485.16 ppb	06:06:26
3	S 181.975 Axial†	1418.6	1305.1	973.15 µg/L	973.15 ppb	06:06:26
3	Sb 206.836†	4127.2	4021.6	479.21 µg/L	479.21 ppb	06:06:26
3	Se 196.026†	1358.4	1335.0	485 µg/L	485 ppb	06:06:26
3	SiO2†	55113.6	53008.4	5160.6 µg/L	5160.6 ppb	06:06:06
3	Si 251.611†	165801.1	163972.6	2407.9 µg/L	2407.9 ppb	06:06:06
3	Sn 189.927†	7751.7	7706.5	482.02 µg/L	482.02 ppb	06:06:26
3	Ti 334.940†	514213.3	510184.3	476.04 µg/L	476.04 ppb	06:06:06
3	Tl 190.801†	3835.7	3929.4	489.97 µg/L	489.97 ppb	06:06:26
3	U 409.014†	7159.6	7386.7	460.91 µg/L	460.91 ppb	06:06:06
3	V 292.402†	98291.0	97299.1	480.99 µg/L	480.99 ppb	06:06:06
3	Zn 213.857†	86223.5	85143.2	474.54 µg/L	474.54 ppb	06:06:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1724908.4	100.39	%	0.187				0.19%
Sc RADIAL	142350.8	97.5	%	0.78				0.80%
Y 371.029	1017522.3	99.107	%	0.1931				0.19%
Ag 328.068†	127017.5	476.28	µg/L	0.952	476.28	ppb	0.952	0.20%
QC value within limits for Ag 328.068 Recovery = 95.26%								
Al 396.153Radial†	26856.3	4957.0	µg/L	9.30	4957.0	ppb	9.30	0.19%
QC value within limits for Al 396.153Radial Recovery = 99.14%								
As 188.979†	1619.2	496.62	µg/L	2.139	496.62	ppb	2.139	0.43%
QC value within limits for As 188.979 Recovery = 99.32%								
B 249.677†	32121.6	472.08	µg/L	0.876	472.08	ppb	0.876	0.19%
QC value within limits for B 249.677 Recovery = 94.42%								
Ba 233.527†	118429.7	477.62	µg/L	0.366	477.62	ppb	0.366	0.08%
QC value within limits for Ba 233.527 Recovery = 95.52%								
Be 313.107†	1771358.5	482.44	µg/L	0.353	482.44	ppb	0.353	0.07%
QC value within limits for Be 313.107 Recovery = 96.49%								
Ca 317.933Radial†	86809.7	4835.6	µg/L	16.53	4835.6	ppb	16.53	0.34%
QC value within limits for Ca 317.933Radial Recovery = 96.71%								
Cd 226.502†	76353.1	476.63	µg/L	0.937	476.63	ppb	0.937	0.20%
QC value within limits for Cd 226.502 Recovery = 95.33%								
Co 228.616†	38763.0	478.53	µg/L	0.840	478.53	ppb	0.840	0.18%

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   QC value within limits for Co 228.616  Recovery = 95.71%
Cr 267.716†            60607.9      474.56 µg/L         0.566      474.56 ppb          0.566   0.12%
   QC value within limits for Cr 267.716  Recovery = 94.91%
Cu 324.752†           122099.1      475.97 µg/L         0.537      475.97 ppb          0.537   0.11%
   QC value within limits for Cu 324.752  Recovery = 95.19%
Fe 238.204 Radial†     78021.2      4808.7 µg/L          6.60      4808.7 ppb           6.60   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.17%
K 766.490 Radial†      13527.5      4948.6 µg/L         38.37      4948.6 ppb          38.37   0.78%
   QC value within limits for K 766.490 Radial  Recovery = 98.97%
Mg 279.077 IEC†        13199.3      4925.4 µg/L          6.33      4925.4 ppb           6.33   0.13%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.51%
Mn 257.610†           387555.2      479.31 µg/L         0.521      479.31 ppb          0.521   0.11%
   QC value within limits for Mn 257.610  Recovery = 95.86%
Mo 202.031†            16234.3      477.55 µg/L         1.466      477.55 ppb          1.466   0.31%
   QC value within limits for Mo 202.031  Recovery = 95.51%
Na 589.592 Radial†     71347.2      9742.5 µg/L         23.47      9742.5 ppb          23.47   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 97.42%
Ni 231.604†            41413.3      476.84 µg/L         1.345      476.84 ppb          1.345   0.28%
   QC value within limits for Ni 231.604  Recovery = 95.37%
P 214.914†             11254.0      2398.8 µg/L          5.93      2398.8 ppb           5.93   0.25%
   QC value within limits for P 214.914  Recovery = 95.95%
Pb 220.353†             8630.3      483.29 µg/L         2.215      483.29 ppb          2.215   0.46%
   QC value within limits for Pb 220.353  Recovery = 96.66%
S 181.975 Axial†        1298.2      968.01 µg/L         5.544      968.01 ppb          5.544   0.57%
   QC value within limits for S 181.975 Axial  Recovery = 96.80%
Sb 206.836†             4027.0      479.83 µg/L         1.314      479.83 ppb          1.314   0.27%
   QC value within limits for Sb 206.836  Recovery = 95.97%
Se 196.026†             1328.8         482 µg/L           2.4         482 ppb            2.4   0.50%
   QC value within limits for Se 196.026  Recovery = 96.50%
SiO2†                  52745.4      5134.9 µg/L         22.63      5134.9 ppb          22.63   0.44%
   QC value within limits for SiO2  Recovery = 96.02%
Si 251.611†           163853.8      2406.2 µg/L          2.13      2406.2 ppb           2.13   0.09%
   QC value within limits for Si 251.611  Recovery = 96.25%
Sn 189.927†             7680.7      480.42 µg/L         1.529      480.42 ppb          1.529   0.32%
   QC value within limits for Sn 189.927  Recovery = 96.08%
Sr 421.552†           233955.1      486.34 µg/L         3.940      486.34 ppb          3.940   0.81%
   QC value within limits for Sr 421.552  Recovery = 97.27%
Ti 334.940†           509827.4      475.71 µg/L         0.442      475.71 ppb          0.442   0.09%
   QC value within limits for Ti 334.940  Recovery = 95.14%
Tl 190.801†             3920.8      488.90 µg/L         1.135      488.90 ppb          1.135   0.23%
   QC value within limits for Tl 190.801  Recovery = 97.78%
U 409.014†              7332.9      457.70 µg/L         9.895      457.70 ppb          9.895   2.16%
   QC value within limits for U 409.014  Recovery = 91.54%
V 292.402†             97095.1      479.98 µg/L         0.967      479.98 ppb          0.967   0.20%
   QC value within limits for V 292.402  Recovery = 96.00%
Zn 213.857†            85037.8      473.95 µg/L         1.068      473.95 ppb          1.068   0.23%
   QC value within limits for Zn 213.857  Recovery = 94.79%
All analyte(s) passed QC.
```

Sequence No.: 5
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 6:06:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141464.9	141464.9	96.9	%			06:07:02
1	Al 396.153Radial†	-69.9	-8.9	-1.6257	µg/L	-1.6257	ppb	06:07:22
1	Ca 317.933Radial†	620.8	79.8	4.4479	µg/L	4.4479	ppb	06:07:22
1	Fe 238.204 Radial†	188.4	46.2	2.8471	µg/L	2.8471	ppb	06:07:22
1	K 766.490 Radial†	1672.9	180.9	66.223	µg/L	66.223	ppb	06:07:02
1	Mg 279.077 IEC†	181.5	-3.5	-1.3105	µg/L	-1.3105	ppb	06:07:22
1	Na 589.592 Radial†	2015.0	787.8	107.57	µg/L	107.57	ppb	06:07:02
1	Sr 421.552†	-160.4	-30.2	-0.0629	µg/L	-0.0629	ppb	06:07:02
1	Sc 361.383	1739256.7	1739256.7	101.22	%			06:08:10
1	Y 371.029	1037512.8	1037512.8	101.05	%			06:08:10
1	Ag 328.068†	4217.1	74.7	0.2549	µg/L	0.2549	ppb	06:08:12
1	As 188.979†	-29.9	-9.2	-2.7714	µg/L	-2.7714	ppb	06:08:32
1	B 249.677†	3555.1	6.2	0.0910	µg/L	0.0910	ppb	06:08:12
1	Ba 233.527†	-107.8	29.4	0.1178	µg/L	0.1178	ppb	06:08:32
1	Be 313.107†	-895.9	179.7	0.0448	µg/L	0.0448	ppb	06:08:12
1	Cd 226.502†	-119.8	-0.2	-0.0016	µg/L	-0.0016	ppb	06:08:32
1	Co 228.616†	-192.4	0.3	0.0035	µg/L	0.0035	ppb	06:08:32
1	Cr 267.716†	247.4	65.8	0.5261	µg/L	0.5261	ppb	06:08:32
1	Cu 324.752†	2980.0	-28.3	-0.1208	µg/L	-0.1208	ppb	06:08:12
1	Mn 257.610†	284.9	44.2	0.0548	µg/L	0.0548	ppb	06:08:32
1	Mo 202.031†	-36.1	-15.6	-0.4591	µg/L	-0.4591	ppb	06:08:32
1	Ni 231.604†	-102.1	-24.4	-0.2804	µg/L	-0.2804	ppb	06:08:32
1	P 214.914†	-26.6	-8.3	-1.7798	µg/L	-1.7798	ppb	06:08:32
1	Pb 220.353†	103.2	15.6	0.8803	µg/L	0.8803	ppb	06:08:32
1	S 181.975 Axial†	117.0	10.5	7.8121	µg/L	7.8121	ppb	06:08:32
1	Sb 206.836†	71.9	-9.8	-1.1826	µg/L	-1.1826	ppb	06:08:32
1	Se 196.026†	30.7	15.1	5.45	µg/L	5.45	ppb	06:08:32
1	SiO2†	1811.8	14.5	1.4364	µg/L	1.4364	ppb	06:08:32
1	Si 251.611†	1024.9	175.9	2.6015	µg/L	2.6015	ppb	06:08:12
1	Sn 189.927†	-6.3	-5.1	-0.3193	µg/L	-0.3193	ppb	06:08:32
1	Ti 334.940†	984.3	19.9	0.0242	µg/L	0.0242	ppb	06:08:12
1	Tl 190.801†	-119.7	-1.6	-0.1978	µg/L	-0.1978	ppb	06:08:32
1	U 409.014†	-508.9	-232.9	-13.640	µg/L	-13.640	ppb	06:08:12
1	V 292.402†	323.8	-83.9	-0.4213	µg/L	-0.4213	ppb	06:08:12
1	Zn 213.857†	596.6	24.9	0.1416	µg/L	0.1416	ppb	06:08:32
2	Sc RADIAL	141541.1	141541.1	97.0	%			06:07:24
2	Al 396.153Radial†	-92.5	-32.2	-5.9364	µg/L	-5.9364	ppb	06:07:44
2	Ca 317.933Radial†	647.1	106.6	5.9380	µg/L	5.9380	ppb	06:07:44
2	Fe 238.204 Radial†	166.0	23.1	1.4211	µg/L	1.4211	ppb	06:07:44
2	K 766.490 Radial†	1883.9	397.6	145.54	µg/L	145.54	ppb	06:07:24
2	Mg 279.077 IEC†	188.4	3.5	1.2984	µg/L	1.2984	ppb	06:07:44
2	Na 589.592 Radial†	1902.0	670.2	91.429	µg/L	91.429	ppb	06:07:24
2	Sr 421.552†	-162.1	-31.8	-0.0662	µg/L	-0.0662	ppb	06:07:24
2	Sc 361.383	1753065.4	1753065.4	102.03	%			06:08:34
2	Y 371.029	1044680.5	1044680.5	101.75	%			06:08:34
2	Ag 328.068†	4104.7	-68.3	-0.2518	µg/L	-0.2518	ppb	06:08:36
2	As 188.979†	-5.8	14.7	4.4380	µg/L	4.4380	ppb	06:08:57
2	B 249.677†	3555.2	-21.3	-0.3162	µg/L	-0.3162	ppb	06:08:36
2	Ba 233.527†	-108.8	29.2	0.1173	µg/L	0.1173	ppb	06:08:57
2	Be 313.107†	-992.9	91.6	0.0261	µg/L	0.0261	ppb	06:08:36
2	Cd 226.502†	-129.6	-8.8	-0.0553	µg/L	-0.0553	ppb	06:08:57
2	Co 228.616†	-159.5	34.0	0.4197	µg/L	0.4197	ppb	06:08:57
2	Cr 267.716†	159.1	-22.7	-0.1807	µg/L	-0.1807	ppb	06:08:57
2	Cu 324.752†	2960.7	-70.3	-0.2696	µg/L	-0.2696	ppb	06:08:36
2	Mn 257.610†	249.8	7.6	0.0093	µg/L	0.0093	ppb	06:08:57
2	Mo 202.031†	-38.7	-17.9	-0.5247	µg/L	-0.5247	ppb	06:08:57
2	Ni 231.604†	-95.8	-17.4	-0.2000	µg/L	-0.2000	ppb	06:08:57
2	P 214.914†	-25.9	-7.4	-1.5857	µg/L	-1.5857	ppb	06:08:57
2	Pb 220.353†	91.9	3.7	0.2024	µg/L	0.2024	ppb	06:08:57

2	S 181.975 Axial†	117.0	9.6	7.1513 µg/L	7.1513 ppb	06:08:57
2	Sb 206.836†	80.1	-2.3	-0.2809 µg/L	-0.2809 ppb	06:08:57
2	Se 196.026†	9.0	-6.4	-2.31 µg/L	-2.31 ppb	06:08:57
2	SiO2†	1834.9	23.0	2.2679 µg/L	2.2679 ppb	06:08:57
2	Si 251.611†	1128.6	269.6	3.9822 µg/L	3.9822 ppb	06:08:36
2	Sn 189.927†	-1.4	-0.3	-0.0169 µg/L	-0.0169 ppb	06:08:57
2	Ti 334.940†	1073.2	99.3	0.0913 µg/L	0.0913 ppb	06:08:36
2	Tl 190.801†	-124.6	-5.4	-0.6669 µg/L	-0.6669 ppb	06:08:57
2	U 409.014†	-207.9	66.1	3.8481 µg/L	3.8481 ppb	06:08:36
2	V 292.402†	352.2	-58.6	-0.2898 µg/L	-0.2898 ppb	06:08:36
2	Zn 213.857†	609.0	32.5	0.1836 µg/L	0.1836 ppb	06:08:57
3	Sc RADIAL	144453.8	144453.8	99.0 %		06:07:46
3	Al 396.153Radial†	-42.6	20.2	3.7469 µg/L	3.7469 ppb	06:08:06
3	Ca 317.933Radial†	626.5	72.3	4.0283 µg/L	4.0283 ppb	06:08:06
3	Fe 238.204 Radial†	173.7	27.3	1.6854 µg/L	1.6854 ppb	06:08:06
3	K 766.490 Radial†	1763.8	237.1	86.784 µg/L	86.784 ppb	06:07:46
3	Mg 279.077 IEC†	167.7	-21.3	-7.9299 µg/L	-7.9299 ppb	06:08:06
3	Na 589.592 Radial†	1875.8	604.1	82.457 µg/L	82.457 ppb	06:07:46
3	Sr 421.552†	-228.9	-96.0	-0.1996 µg/L	-0.1996 ppb	06:07:46
3	Sc 361.383	1745062.4	1745062.4	101.56 %		06:08:59
3	Y 371.029	1040171.5	1040171.5	101.31 %		06:08:59
3	Ag 328.068†	4134.6	-20.3	-0.0602 µg/L	-0.0602 ppb	06:09:01
3	As 188.979†	-25.0	-4.3	-1.2996 µg/L	-1.2996 ppb	06:09:21
3	B 249.677†	3548.1	-12.4	-0.1830 µg/L	-0.1830 ppb	06:09:01
3	Ba 233.527†	-155.6	-17.4	-0.0701 µg/L	-0.0701 ppb	06:09:21
3	Be 313.107†	-930.2	148.8	0.0443 µg/L	0.0443 ppb	06:09:01
3	Cd 226.502†	-114.6	5.4	0.0333 µg/L	0.0333 ppb	06:09:21
3	Co 228.616†	-195.2	-1.9	-0.0238 µg/L	-0.0238 ppb	06:09:21
3	Cr 267.716†	183.3	1.9	0.0050 µg/L	0.0050 ppb	06:09:21
3	Cu 324.752†	2946.5	-71.0	-0.2656 µg/L	-0.2656 ppb	06:09:01
3	Mn 257.610†	289.0	47.2	0.0588 µg/L	0.0588 ppb	06:09:21
3	Mo 202.031†	-22.9	-2.5	-0.0730 µg/L	-0.0730 ppb	06:09:21
3	Ni 231.604†	-82.4	-4.6	-0.0527 µg/L	-0.0527 ppb	06:09:21
3	P 214.914†	-14.4	3.8	0.8236 µg/L	0.8236 ppb	06:09:21
3	Pb 220.353†	97.7	9.8	0.5376 µg/L	0.5376 ppb	06:09:21
3	S 181.975 Axial†	113.1	6.3	4.7120 µg/L	4.7120 ppb	06:09:21
3	Sb 206.836†	70.8	-11.2	-1.3260 µg/L	-1.3260 ppb	06:09:21
3	Se 196.026†	8.7	-6.7	-2.39 µg/L	-2.39 ppb	06:09:21
3	SiO2†	1871.0	66.8	6.5242 µg/L	6.5242 ppb	06:09:21
3	Si 251.611†	887.7	37.5	0.5500 µg/L	0.5500 ppb	06:09:01
3	Sn 189.927†	7.2	8.2	0.5133 µg/L	0.5133 ppb	06:09:21
3	Ti 334.940†	729.6	-234.2	-0.2232 µg/L	-0.2232 ppb	06:09:01
3	Tl 190.801†	-130.3	-11.6	-1.4299 µg/L	-1.4299 ppb	06:09:21
3	U 409.014†	-56.7	214.0	12.514 µg/L	12.514 ppb	06:09:01
3	V 292.402†	408.3	-1.8	-0.0011 µg/L	-0.0011 ppb	06:09:01
3	Zn 213.857†	612.1	38.3	0.2153 µg/L	0.2153 ppb	06:09:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1745794.8	101.60	%	0.404				0.40%
Sc RADIAL	142486.6	97.6	%	1.17				1.20%
Y 371.029	1040788.3	101.37	%	0.353				0.35%
Ag 328.068†	-4.6	-0.0190	µg/L	0.25586	-0.0190	ppb	0.25586	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.9	-1.2717	µg/L	4.85131	-1.2717	ppb	4.85131	381.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.4	0.1223	µg/L	3.80923	0.1223	ppb	3.80923	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-9.2	-0.1361	µg/L	0.20761	-0.1361	ppb	0.20761	152.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.7	0.0550	µg/L	0.10831	0.0550	ppb	0.10831	196.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	140.0	0.0384	µg/L	0.01065	0.0384	ppb	0.01065	27.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	86.3	4.8047	µg/L	1.00363	4.8047	ppb	1.00363	20.89%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-1.2	-0.0078	µg/L	0.04462	-0.0078	ppb	0.04462	568.50%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.8	0.1331	µg/L	0.24853	0.1331	ppb	0.24853	186.69%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              15.0      0.1168 µg/L       0.36641      0.1168 ppb        0.36641 313.73%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -56.5     -0.2187 µg/L       0.08480     -0.2187 ppb        0.08480  38.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       32.2      1.9846 µg/L       0.75860      1.9846 ppb        0.75860  38.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       271.9     99.516 µg/L       41.1633     99.516 ppb        41.1633  41.36%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -7.1     -2.6474 µg/L       4.75720     -2.6474 ppb        4.75720 179.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              33.0      0.0409 µg/L       0.02746      0.0409 ppb        0.02746  67.07%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -12.0     -0.3523 µg/L       0.24406     -0.3523 ppb        0.24406  69.28%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      687.4     93.818 µg/L       12.7246     93.818 ppb        12.7246  13.56%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -15.4     -0.1777 µg/L       0.11551     -0.1777 ppb        0.11551  65.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.0     -0.8473 µg/L       1.45028     -0.8473 ppb        1.45028 171.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               9.7      0.5401 µg/L       0.33897      0.5401 ppb        0.33897  62.76%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          8.8      6.5585 µg/L       1.63285      6.5585 ppb        1.63285  24.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -7.8     -0.9298 µg/L       0.56654     -0.9298 ppb        0.56654  60.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.7       0.246 µg/L        4.5033       0.246 ppb         4.5033 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    34.8      3.4095 µg/L       2.72927      3.4095 ppb        2.72927  80.05%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             161.0      2.3779 µg/L       1.72699      2.3779 ppb        1.72699  72.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.9      0.0591 µg/L       0.42147      0.0591 ppb        0.42147 713.75%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -52.7     -0.1095 µg/L       0.07802     -0.1095 ppb        0.07802  71.22%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -38.3     -0.0359 µg/L       0.16561     -0.0359 ppb        0.16561 461.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -6.2     -0.7649 µg/L       0.62189     -0.7649 ppb        0.62189  81.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               15.8      0.9074 µg/L      13.32231      0.9074 ppb       13.32231 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -48.1     -0.2374 µg/L       0.21493     -0.2374 ppb        0.21493  90.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              31.9      0.1802 µg/L       0.03700      0.1802 ppb        0.03700  20.54%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/1/2010 6:27:43 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701 **Autosampler Model: AS-93plus**

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/1/2010 6:27:45**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142254.8	142254.8	97.5	%			06:28:17
1	Al 396.153Radial†	25351.8	26070.0	4811.6	µg/L	4811.6	ppb	06:28:17
1	Ca 317.933Radial†	82833.4	84412.8	4702.1	µg/L	4702.1	ppb	06:28:17
1	Fe 238.204 Radial†	74224.8	75994.2	4683.8	µg/L	4683.8	ppb	06:28:17
1	K 766.490 Radial†	14203.4	13025.6	4765.0	µg/L	4765.0	ppb	06:28:17
1	Mg 279.077 IEC†	12729.5	12867.6	4801.7	µg/L	4801.7	ppb	06:28:17
1	Na 589.592 Radial†	69060.0	69553.3	9497.6	µg/L	9497.6	ppb	06:28:17
1	Sr 421.552†	223018.1	228914.8	475.86	µg/L	475.86	ppb	06:28:15
1	Sc 361.383	1709225.5	1709225.5	99.477	%			06:28:30
1	Y 371.029	1008536.9	1008536.9	98.232	%			06:28:30
1	Ag 328.068†	127499.0	124078.4	465.29	µg/L	465.29	ppb	06:28:30
1	As 188.979†	1559.7	1588.3	487.09	µg/L	487.09	ppb	06:28:50
1	B 249.677†	34379.1	31054.0	456.37	µg/L	456.37	ppb	06:28:30
1	Ba 233.527†	114708.8	115448.1	465.60	µg/L	465.60	ppb	06:28:30
1	Be 313.107†	1722557.3	1732684.2	471.91	µg/L	471.91	ppb	06:28:30
1	Cd 226.502†	73453.0	73957.6	461.67	µg/L	461.67	ppb	06:28:30
1	Co 228.616†	37435.6	37822.8	466.92	µg/L	466.92	ppb	06:28:30
1	Cr 267.716†	58912.5	59043.9	462.30	µg/L	462.30	ppb	06:28:30
1	Cu 324.752†	121839.3	119508.1	465.88	µg/L	465.88	ppb	06:28:30
1	Mn 257.610†	376566.3	378310.1	467.88	µg/L	467.88	ppb	06:28:30
1	Mo 202.031†	15809.6	15912.8	468.09	µg/L	468.09	ppb	06:28:50
1	Ni 231.604†	40079.7	40367.1	464.80	µg/L	464.80	ppb	06:28:30
1	P 214.914†	10882.7	10957.9	2335.7	µg/L	2335.7	ppb	06:28:50
1	Pb 220.353†	8419.0	8376.9	469.10	µg/L	469.10	ppb	06:28:50
1	S 181.975 Axial†	1354.7	1256.8	937.21	µg/L	937.21	ppb	06:28:50
1	Sb 206.836†	3976.4	3916.5	466.71	µg/L	466.71	ppb	06:28:50
1	Se 196.026†	1296.0	1287.5	468	µg/L	468	ppb	06:28:50
1	SiO2†	51445.1	49940.4	4861.2	µg/L	4861.2	ppb	06:28:30
1	Si 251.611†	155651.5	155633.8	2285.2	µg/L	2285.2	ppb	06:28:30
1	Sn 189.927†	7454.8	7495.1	468.81	µg/L	468.81	ppb	06:28:50
1	Ti 334.940†	496730.0	498390.7	465.03	µg/L	465.03	ppb	06:28:30
1	Tl 190.801†	3688.4	3824.5	476.91	µg/L	476.91	ppb	06:28:50
1	U 409.014†	7196.3	7504.0	467.06	µg/L	467.06	ppb	06:28:30
1	V 292.402†	94845.1	94940.3	469.34	µg/L	469.34	ppb	06:28:30
1	Zn 213.857†	82623.8	82494.0	459.76	µg/L	459.76	ppb	06:28:30
2	Sc RADIAL	142096.3	142096.3	97.4	%			06:28:21
2	Al 396.153Radial†	25425.8	26174.9	4831.2	µg/L	4831.2	ppb	06:28:21
2	Ca 317.933Radial†	82979.4	84657.4	4715.8	µg/L	4715.8	ppb	06:28:21
2	Fe 238.204 Radial†	74308.8	76165.4	4694.4	µg/L	4694.4	ppb	06:28:21
2	K 766.490 Radial†	14267.2	13107.3	4794.9	µg/L	4794.9	ppb	06:28:21
2	Mg 279.077 IEC†	12650.1	12800.7	4776.7	µg/L	4776.7	ppb	06:28:21
2	Na 589.592 Radial†	68986.7	69557.0	9498.1	µg/L	9498.1	ppb	06:28:21
2	Sr 421.552†	223055.3	229208.2	476.47	µg/L	476.47	ppb	06:28:19
2	Sc 361.383	1720198.8	1720198.8	100.12	%			06:28:53
2	Y 371.029	1013824.9	1013824.9	98.747	%			06:28:53
2	Ag 328.068†	128161.3	123922.3	464.69	µg/L	464.69	ppb	06:28:53
2	As 188.979†	1572.8	1591.3	488.02	µg/L	488.02	ppb	06:29:13

2	B 249.677†	34759.1	31213.1	458.71 µg/L	458.71 ppb	06:28:53
2	Ba 233.527†	115738.2	115740.7	466.78 µg/L	466.78 ppb	06:28:53
2	Be 313.107†	1738612.5	1737674.9	473.26 µg/L	473.26 ppb	06:28:53
2	Cd 226.502†	74240.3	74273.0	463.64 µg/L	463.64 ppb	06:28:53
2	Co 228.616†	37829.3	37976.1	468.81 µg/L	468.81 ppb	06:28:53
2	Cr 267.716†	59360.9	59114.0	462.86 µg/L	462.86 ppb	06:28:53
2	Cu 324.752†	123058.6	119944.7	467.56 µg/L	467.56 ppb	06:28:53
2	Mn 257.610†	379406.8	378732.6	468.40 µg/L	468.40 ppb	06:28:53
2	Mo 202.031†	15799.9	15801.8	464.82 µg/L	464.82 ppb	06:29:13
2	Ni 231.604†	40270.8	40300.9	464.04 µg/L	464.04 ppb	06:28:53
2	P 214.914†	10903.0	10908.4	2325.1 µg/L	2325.1 ppb	06:29:13
2	Pb 220.353†	8483.6	8387.5	469.70 µg/L	469.70 ppb	06:29:13
2	S 181.975 Axial†	1349.2	1242.6	926.62 µg/L	926.62 ppb	06:29:13
2	Sb 206.836†	3983.6	3898.2	464.48 µg/L	464.48 ppb	06:29:13
2	Se 196.026†	1289.4	1272.6	462 µg/L	462 ppb	06:29:13
2	SiO2†	52137.7	50302.3	4896.7 µg/L	4896.7 ppb	06:28:53
2	Si 251.611†	157050.5	156033.0	2291.1 µg/L	2291.1 ppb	06:28:53
2	Sn 189.927†	7489.7	7482.2	468.01 µg/L	468.01 ppb	06:29:13
2	Ti 334.940†	500704.0	499174.8	465.77 µg/L	465.77 ppb	06:28:53
2	Tl 190.801†	3707.3	3819.7	476.32 µg/L	476.32 ppb	06:29:13
2	U 409.014†	6877.2	7139.1	445.73 µg/L	445.73 ppb	06:28:53
2	V 292.402†	95466.4	94952.6	469.36 µg/L	469.36 ppb	06:28:53
2	Zn 213.857†	83420.7	82760.2	461.25 µg/L	461.25 ppb	06:28:53
3	Sc RADIAL	142990.0	142990.0	98.0 %		06:28:25
3	Al 396.153Radial†	25399.8	25985.2	4795.9 µg/L	4795.9 ppb	06:28:25
3	Ca 317.933Radial†	83117.4	84265.6	4693.9 µg/L	4693.9 ppb	06:28:25
3	Fe 238.204 Radial†	74586.1	75971.4	4682.4 µg/L	4682.4 ppb	06:28:25
3	K 766.490 Radial†	14192.8	12939.8	4733.6 µg/L	4733.6 ppb	06:28:25
3	Mg 279.077 IEC†	12667.0	12736.8	4753.0 µg/L	4753.0 ppb	06:28:25
3	Na 589.592 Radial†	69339.7	69474.5	9486.8 µg/L	9486.8 ppb	06:28:25
3	Sr 421.552†	223827.0	228564.0	475.13 µg/L	475.13 ppb	06:28:23
3	Sc 361.383	1705034.2	1705034.2	99.233 %		06:29:16
3	Y 371.029	1005547.4	1005547.4	97.941 %		06:29:16
3	Ag 328.068†	127662.0	124557.7	467.06 µg/L	467.06 ppb	06:29:16
3	As 188.979†	1560.2	1592.6	488.42 µg/L	488.42 ppb	06:29:36
3	B 249.677†	34496.6	31257.5	459.37 µg/L	459.37 ppb	06:29:16
3	Ba 233.527†	115151.6	116177.8	468.54 µg/L	468.54 ppb	06:29:16
3	Be 313.107†	1725198.8	1739602.9	473.79 µg/L	473.79 ppb	06:29:16
3	Cd 226.502†	73700.4	74388.4	464.37 µg/L	464.37 ppb	06:29:16
3	Co 228.616†	37478.0	37958.1	468.59 µg/L	468.59 ppb	06:29:16
3	Cr 267.716†	59005.2	59282.8	464.19 µg/L	464.19 ppb	06:29:16
3	Cu 324.752†	122158.9	120131.2	468.28 µg/L	468.28 ppb	06:29:16
3	Mn 257.610†	377644.3	380327.0	470.38 µg/L	470.38 ppb	06:29:16
3	Mo 202.031†	15792.1	15934.3	468.72 µg/L	468.72 ppb	06:29:36
3	Ni 231.604†	40233.2	40620.8	467.72 µg/L	467.72 ppb	06:29:16
3	P 214.914†	10905.3	11007.5	2346.3 µg/L	2346.3 ppb	06:29:36
3	Pb 220.353†	8444.2	8423.1	471.70 µg/L	471.70 ppb	06:29:36
3	S 181.975 Axial†	1340.7	1246.0	929.22 µg/L	929.22 ppb	06:29:36
3	Sb 206.836†	3978.4	3928.4	468.11 µg/L	468.11 ppb	06:29:36
3	Se 196.026†	1276.1	1270.7	461 µg/L	461 ppb	06:29:36
3	SiO2†	51678.2	50302.4	4896.5 µg/L	4896.5 ppb	06:29:16
3	Si 251.611†	156314.3	156686.4	2300.7 µg/L	2300.7 ppb	06:29:16
3	Sn 189.927†	7464.4	7523.3	470.57 µg/L	470.57 ppb	06:29:36
3	Ti 334.940†	497732.0	500628.0	467.13 µg/L	467.13 ppb	06:29:16
3	Tl 190.801†	3700.1	3845.4	479.51 µg/L	479.51 ppb	06:29:36
3	U 409.014†	6783.9	7106.3	443.92 µg/L	443.92 ppb	06:29:16
3	V 292.402†	94974.4	95304.9	471.12 µg/L	471.12 ppb	06:29:16
3	Zn 213.857†	82842.8	82918.9	462.12 µg/L	462.12 ppb	06:29:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1711486.1	99.608	%	0.4558				0.46%
Sc RADIAL	142447.0	97.6	%	0.33				0.33%
Y 371.029	1009303.1	98.307	%	0.4083				0.42%
Ag 328.068†	124186.1	465.68	µg/L	1.232	465.68	ppb	1.232	0.26%
QC value within limits for Ag 328.068 Recovery = 93.14%								
Al 396.153Radial†	26076.7	4812.9	µg/L	17.71	4812.9	ppb	17.71	0.37%
QC value within limits for Al 396.153Radial Recovery = 96.26%								
As 188.979†	1590.7	487.84	µg/L	0.680	487.84	ppb	0.680	0.14%

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   QC value within limits for As 188.979  Recovery = 97.57%
B 249.677†            31174.9      458.15 µg/L         1.574      458.15 ppb          1.574   0.34%
   QC value within limits for B 249.677  Recovery = 91.63%
Ba 233.527†          115788.9      466.97 µg/L         1.481      466.97 ppb          1.481   0.32%
   QC value within limits for Ba 233.527  Recovery = 93.39%
Be 313.107†         1736654.0      472.99 µg/L         0.968      472.99 ppb          0.968   0.20%
   QC value within limits for Be 313.107  Recovery = 94.60%
Ca 317.933Radial†      84445.3      4703.9 µg/L        11.02      4703.9 ppb         11.02   0.23%
   QC value within limits for Ca 317.933Radial  Recovery = 94.08%
Cd 226.502†            74206.4      463.23 µg/L         1.393      463.23 ppb          1.393   0.30%
   QC value within limits for Cd 226.502  Recovery = 92.65%
Co 228.616†            37919.0      468.11 µg/L         1.035      468.11 ppb          1.035   0.22%
   QC value within limits for Co 228.616  Recovery = 93.62%
Cr 267.716†            59146.9      463.12 µg/L         0.970      463.12 ppb          0.970   0.21%
   QC value within limits for Cr 267.716  Recovery = 92.62%
Cu 324.752†           119861.3      467.24 µg/L         1.232      467.24 ppb          1.232   0.26%
   QC value within limits for Cu 324.752  Recovery = 93.45%
Fe 238.204 Radial†     76043.7      4686.9 µg/L          6.54      4686.9 ppb          6.54   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.74%
K 766.490 Radial†      13024.2      4764.5 µg/L         30.66      4764.5 ppb         30.66   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 95.29%
Mg 279.077 IEC†        12801.7      4777.1 µg/L         24.37      4777.1 ppb         24.37   0.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.54%
Mn 257.610†           379123.2      468.89 µg/L         1.317      468.89 ppb          1.317   0.28%
   QC value within limits for Mn 257.610  Recovery = 93.78%
Mo 202.031†            15882.9      467.21 µg/L         2.090      467.21 ppb          2.090   0.45%
   QC value within limits for Mo 202.031  Recovery = 93.44%
Na 589.592 Radial†     69528.3      9494.2 µg/L          6.34      9494.2 ppb          6.34   0.07%
   QC value within limits for Na 589.592 Radial  Recovery = 94.94%
Ni 231.604†            40429.6      465.52 µg/L         1.944      465.52 ppb          1.944   0.42%
   QC value within limits for Ni 231.604  Recovery = 93.10%
P 214.914†             10957.9      2335.7 µg/L         10.59      2335.7 ppb         10.59   0.45%
   QC value within limits for P 214.914  Recovery = 93.43%
Pb 220.353†             8395.9      470.17 µg/L         1.361      470.17 ppb          1.361   0.29%
   QC value within limits for Pb 220.353  Recovery = 94.03%
S 181.975 Axial†        1248.5      931.02 µg/L         5.521      931.02 ppb          5.521   0.59%
   QC value within limits for S 181.975 Axial  Recovery = 93.10%
Sb 206.836†             3914.3      466.43 µg/L         1.834      466.43 ppb          1.834   0.39%
   QC value within limits for Sb 206.836  Recovery = 93.29%
Se 196.026†             1277.0         464 µg/L           3.3         464 ppb            3.3   0.72%
   QC value within limits for Se 196.026  Recovery = 92.74%
SiO2†                  50181.7      4884.8 µg/L         20.44      4884.8 ppb         20.44   0.42%
   QC value within limits for SiO2  Recovery = 91.35%
Si 251.611†           156117.7      2292.3 µg/L          7.82      2292.3 ppb          7.82   0.34%
   QC value within limits for Si 251.611  Recovery = 91.69%
Sn 189.927†             7500.2      469.13 µg/L         1.312      469.13 ppb          1.312   0.28%
   QC value within limits for Sn 189.927  Recovery = 93.83%
Sr 421.552†           228895.7      475.82 µg/L         0.670      475.82 ppb          0.670   0.14%
   QC value within limits for Sr 421.552  Recovery = 95.16%
Ti 334.940†           499397.8      465.98 µg/L         1.066      465.98 ppb          1.066   0.23%
   QC value within limits for Ti 334.940  Recovery = 93.20%
Tl 190.801†             3829.9      477.58 µg/L         1.698      477.58 ppb          1.698   0.36%
   QC value within limits for Tl 190.801  Recovery = 95.52%
U 409.014†              7249.8      452.24 µg/L        12.870      452.24 ppb         12.870   2.85%
   QC value within limits for U 409.014  Recovery = 90.45%
V 292.402†             95066.0      469.94 µg/L         1.022      469.94 ppb          1.022   0.22%
   QC value within limits for V 292.402  Recovery = 93.99%
Zn 213.857†            82724.4      461.04 µg/L         1.197      461.04 ppb          1.197   0.26%
   QC value within limits for Zn 213.857  Recovery = 92.21%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 6:29:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142437.0	142437.0	97.6	%			06:30:13
1	Al 396.153Radial†	-264.5	-207.8	-38.519	µg/L	-38.519	ppb	06:30:13
1	Ca 317.933Radial†	646.6	101.9	5.6752	µg/L	5.6752	ppb	06:30:33
1	Fe 238.204 Radial†	170.0	26.1	1.6062	µg/L	1.6062	ppb	06:30:33
1	K 766.490 Radial†	1709.6	206.7	75.676	µg/L	75.676	ppb	06:30:13
1	Mg 279.077 IEC†	178.7	-7.7	-2.8591	µg/L	-2.8591	ppb	06:30:33
1	Na 589.592 Radial†	1934.1	690.7	94.296	µg/L	94.296	ppb	06:30:13
1	Sr 421.552†	-70.7	62.8	0.1305	µg/L	0.1305	ppb	06:30:13
1	Sc 361.383	1727133.1	1727133.1	100.52	%			06:31:21
1	Y 371.029	1029243.1	1029243.1	100.25	%			06:31:21
1	Ag 328.068†	4082.8	-29.6	-0.1055	µg/L	-0.1055	ppb	06:31:23
1	As 188.979†	-17.7	2.7	0.8318	µg/L	0.8318	ppb	06:31:43
1	B 249.677†	3469.9	-53.9	-0.7957	µg/L	-0.7957	ppb	06:31:23
1	Ba 233.527†	-140.5	-3.9	-0.0161	µg/L	-0.0161	ppb	06:31:43
1	Be 313.107†	-798.9	270.0	0.0757	µg/L	0.0757	ppb	06:31:23
1	Cd 226.502†	-112.3	6.5	0.0401	µg/L	0.0401	ppb	06:31:43
1	Co 228.616†	-180.6	10.7	0.1314	µg/L	0.1314	ppb	06:31:43
1	Cr 267.716†	197.5	17.9	0.1345	µg/L	0.1345	ppb	06:31:43
1	Cu 324.752†	3041.8	53.9	0.2156	µg/L	0.2156	ppb	06:31:23
1	Mn 257.610†	261.0	22.4	0.0278	µg/L	0.0278	ppb	06:31:43
1	Mo 202.031†	-23.5	-3.3	-0.0969	µg/L	-0.0969	ppb	06:31:43
1	Ni 231.604†	-113.3	-36.2	-0.4169	µg/L	-0.4169	ppb	06:31:43
1	P 214.914†	-25.7	-7.6	-1.6214	µg/L	-1.6214	ppb	06:31:43
1	Pb 220.353†	75.0	-11.7	-0.6633	µg/L	-0.6633	ppb	06:31:43
1	S 181.975 Axial†	112.8	7.2	5.3207	µg/L	5.3207	ppb	06:31:43
1	Sb 206.836†	71.6	-9.6	-1.1441	µg/L	-1.1441	ppb	06:31:43
1	Se 196.026†	22.4	7.0	2.55	µg/L	2.55	ppb	06:31:43
1	SiO2†	1753.3	-31.1	-3.0512	µg/L	-3.0512	ppb	06:31:43
1	Si 251.611†	758.7	-81.8	-1.2113	µg/L	-1.2113	ppb	06:31:23
1	Sn 189.927†	14.5	15.5	0.9660	µg/L	0.9660	ppb	06:31:43
1	Ti 334.940†	832.4	-124.4	-0.1189	µg/L	-0.1189	ppb	06:31:23
1	Tl 190.801†	-134.3	-16.9	-2.0804	µg/L	-2.0804	ppb	06:31:43
1	U 409.014†	-144.5	126.1	7.3508	µg/L	7.3508	ppb	06:31:23
1	V 292.402†	324.9	-80.6	-0.3886	µg/L	-0.3886	ppb	06:31:23
1	Zn 213.857†	590.9	23.5	0.1334	µg/L	0.1334	ppb	06:31:43
2	Sc RADIAL	142082.4	142082.4	97.4	%			06:30:35
2	Al 396.153Radial†	-251.5	-195.1	-36.147	µg/L	-36.147	ppb	06:30:35
2	Ca 317.933Radial†	615.4	71.5	3.9821	µg/L	3.9821	ppb	06:30:55
2	Fe 238.204 Radial†	161.6	17.9	1.1031	µg/L	1.1031	ppb	06:30:55
2	K 766.490 Radial†	1860.0	365.6	133.83	µg/L	133.83	ppb	06:30:35
2	Mg 279.077 IEC†	190.9	5.4	2.0027	µg/L	2.0027	ppb	06:30:55
2	Na 589.592 Radial†	2043.7	808.3	110.30	µg/L	110.30	ppb	06:30:35
2	Sr 421.552†	-138.2	-6.7	-0.0139	µg/L	-0.0139	ppb	06:30:35
2	Sc 361.383	1744201.5	1744201.5	101.51	%			06:31:46
2	Y 371.029	1039175.9	1039175.9	101.22	%			06:31:46
2	Ag 328.068†	4330.8	174.9	0.6455	µg/L	0.6455	ppb	06:31:48
2	As 188.979†	-1.2	19.1	5.7890	µg/L	5.7890	ppb	06:32:08
2	B 249.677†	3476.4	-81.3	-1.1995	µg/L	-1.1995	ppb	06:31:48
2	Ba 233.527†	-110.4	27.1	0.1090	µg/L	0.1090	ppb	06:32:08
2	Be 313.107†	-822.7	254.2	0.0692	µg/L	0.0692	ppb	06:31:48
2	Cd 226.502†	-100.5	19.2	0.1197	µg/L	0.1197	ppb	06:32:08
2	Co 228.616†	-173.6	19.3	0.2384	µg/L	0.2384	ppb	06:32:08
2	Cr 267.716†	196.6	15.1	0.1180	µg/L	0.1180	ppb	06:32:08
2	Cu 324.752†	2788.4	-225.4	-0.8755	µg/L	-0.8755	ppb	06:31:48
2	Mn 257.610†	300.8	59.0	0.0729	µg/L	0.0729	ppb	06:32:08
2	Mo 202.031†	-33.8	-13.2	-0.3873	µg/L	-0.3873	ppb	06:32:08
2	Ni 231.604†	-73.8	3.8	0.0442	µg/L	0.0442	ppb	06:32:08
2	P 214.914†	-28.1	-9.7	-2.0766	µg/L	-2.0766	ppb	06:32:08
2	Pb 220.353†	86.9	-0.8	-0.0481	µg/L	-0.0481	ppb	06:32:08

2	S 181.975 Axial†	99.7	-6.8	-5.0788 µg/L	-5.0788 ppb	06:32:08
2	Sb 206.836†	68.8	-13.0	-1.5530 µg/L	-1.5530 ppb	06:32:08
2	Se 196.026†	19.9	4.3	1.57 µg/L	1.57 ppb	06:32:08
2	SiO2†	1780.5	-21.4	-2.0759 µg/L	-2.0759 ppb	06:32:08
2	Si 251.611†	990.9	139.5	2.0624 µg/L	2.0624 ppb	06:31:48
2	Sn 189.927†	-1.2	-0.1	-0.0044 µg/L	-0.0044 ppb	06:32:08
2	Ti 334.940†	899.3	-66.7	-0.0624 µg/L	-0.0624 ppb	06:31:48
2	Tl 190.801†	-123.0	-4.5	-0.5578 µg/L	-0.5578 ppb	06:32:08
2	U 409.014†	-273.1	0.9	0.0412 µg/L	0.0412 ppb	06:31:48
2	V 292.402†	373.6	-35.8	-0.1780 µg/L	-0.1780 ppb	06:31:48
2	Zn 213.857†	599.5	26.2	0.1467 µg/L	0.1467 ppb	06:32:08
3	Sc RADIAL	142957.2	142957.2	98.0 %		06:30:57
3	Al 396.153Radial†	-270.8	-213.2	-39.533 µg/L	-39.533 ppb	06:30:57
3	Ca 317.933Radial†	645.8	98.6	5.4929 µg/L	5.4929 ppb	06:31:18
3	Fe 238.204 Radial†	151.9	6.9	0.4263 µg/L	0.4263 ppb	06:31:18
3	K 766.490 Radial†	1751.1	242.7	88.850 µg/L	88.850 ppb	06:30:57
3	Mg 279.077 IEC†	199.0	12.4	4.6386 µg/L	4.6386 ppb	06:31:18
3	Na 589.592 Radial†	1725.5	470.6	64.209 µg/L	64.209 ppb	06:30:57
3	Sr 421.552†	-148.0	-15.8	-0.0329 µg/L	-0.0329 ppb	06:30:57
3	Sc 361.383	1746609.7	1746609.7	101.65 %		06:32:10
3	Y 371.029	1040286.8	1040286.8	101.32 %		06:32:10
3	Ag 328.068†	3940.8	-214.7	-0.7963 µg/L	-0.7963 ppb	06:32:12
3	As 188.979†	-11.6	9.0	2.7184 µg/L	2.7184 ppb	06:32:32
3	B 249.677†	3585.2	21.1	0.3100 µg/L	0.3100 ppb	06:32:12
3	Ba 233.527†	-118.6	19.2	0.0770 µg/L	0.0770 ppb	06:32:32
3	Be 313.107†	-993.1	87.8	0.0252 µg/L	0.0252 ppb	06:32:12
3	Cd 226.502†	-88.0	31.6	0.1970 µg/L	0.1970 ppb	06:32:32
3	Co 228.616†	-178.2	15.0	0.1849 µg/L	0.1849 ppb	06:32:32
3	Cr 267.716†	188.9	7.3	0.0532 µg/L	0.0532 ppb	06:32:32
3	Cu 324.752†	3035.3	13.7	0.0571 µg/L	0.0571 ppb	06:32:12
3	Mn 257.610†	265.0	23.4	0.0287 µg/L	0.0287 ppb	06:32:32
3	Mo 202.031†	-15.5	4.8	0.1409 µg/L	0.1409 ppb	06:32:32
3	Ni 231.604†	-130.8	-52.2	-0.6005 µg/L	-0.6005 ppb	06:32:32
3	P 214.914†	-23.0	-4.6	-0.9969 µg/L	-0.9969 ppb	06:32:32
3	Pb 220.353†	60.4	-26.9	-1.5089 µg/L	-1.5089 ppb	06:32:32
3	S 181.975 Axial†	111.8	4.9	3.6683 µg/L	3.6683 ppb	06:32:32
3	Sb 206.836†	67.9	-14.1	-1.6687 µg/L	-1.6687 ppb	06:32:32
3	Se 196.026†	16.3	0.7	0.275 µg/L	0.275 ppb	06:32:32
3	SiO2†	1774.8	-29.4	-2.8940 µg/L	-2.8940 ppb	06:32:32
3	Si 251.611†	970.8	118.5	1.7392 µg/L	1.7392 ppb	06:32:12
3	Sn 189.927†	12.6	13.5	0.8437 µg/L	0.8437 ppb	06:32:32
3	Ti 334.940†	940.4	-27.4	-0.0276 µg/L	-0.0276 ppb	06:32:12
3	Tl 190.801†	-115.7	2.9	0.3509 µg/L	0.3509 ppb	06:32:32
3	U 409.014†	-199.4	73.7	4.2787 µg/L	4.2787 ppb	06:32:12
3	V 292.402†	297.6	-111.1	-0.5373 µg/L	-0.5373 ppb	06:32:12
3	Zn 213.857†	584.0	10.1	0.0598 µg/L	0.0598 ppb	06:32:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1739314.8	101.23	%	0.618				0.61%
Sc RADIAL	142492.2	97.6	%	0.30				0.31%
Y 371.029	1036235.3	100.93	%	0.592				0.59%
Ag 328.068†	-23.1	-0.0854	µg/L	0.72113	-0.0854	ppb	0.72113	844.11%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-205.4	-38.066	µg/L	1.7374	-38.066	ppb	1.7374	4.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	10.3	3.1131	µg/L	2.50205	3.1131	ppb	2.50205	80.37%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-38.0	-0.5618	µg/L	0.78148	-0.5618	ppb	0.78148	139.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	14.1	0.0567	µg/L	0.06498	0.0567	ppb	0.06498	114.71%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	204.0	0.0567	µg/L	0.02749	0.0567	ppb	0.02749	48.47%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	90.7	5.0501	µg/L	0.92933	5.0501	ppb	0.92933	18.40%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.1	0.1190	µg/L	0.07846	0.1190	ppb	0.07846	65.95%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	15.0	0.1849	µg/L	0.05350	0.1849	ppb	0.05350	28.93%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              13.4      0.1019 µg/L       0.04297      0.1019 ppb        0.04297  42.19%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -52.6     -0.2009 µg/L       0.58952     -0.2009 ppb        0.58952 293.42%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       17.0      1.0452 µg/L       0.59209      1.0452 ppb        0.59209  56.65%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       271.7      99.450 µg/L       30.4895      99.450 ppb        30.4895  30.66%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.4      1.2607 µg/L       3.80350      1.2607 ppb        3.80350 301.69%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              34.9      0.0432 µg/L       0.02579      0.0432 ppb        0.02579  59.72%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -3.9     -0.1145 µg/L       0.26452     -0.1145 ppb        0.26452 231.11%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      656.5      89.602 µg/L       23.4021      89.602 ppb        23.4021  26.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -28.2     -0.3244 µg/L       0.33218     -0.3244 ppb        0.33218 102.39%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -7.3     -1.5650 µg/L       0.54207     -1.5650 ppb        0.54207  34.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -13.2     -0.7401 µg/L       0.73343     -0.7401 ppb        0.73343  99.10%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.8      1.3034 µg/L       5.58858      1.3034 ppb        5.58858 428.77%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -12.2     -1.4553 µg/L       0.27561     -1.4553 ppb        0.27561  18.94%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               4.0        1.46 µg/L         1.139        1.46 ppb          1.139  77.90%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -27.3     -2.6737 µg/L       0.52363     -2.6737 ppb        0.52363  19.58%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              58.7      0.8634 µg/L       1.80402      0.8634 ppb        1.80402 208.94%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.7      0.6018 µg/L       0.52852      0.6018 ppb        0.52852  87.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              13.4      0.0279 µg/L       0.08939      0.0279 ppb        0.08939 320.26%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -72.8     -0.0696 µg/L       0.04609     -0.0696 ppb        0.04609  66.18%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -6.2     -0.7624 µg/L       1.22852     -0.7624 ppb        1.22852 161.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               66.9      3.8902 µg/L       3.67023      3.8902 ppb        3.67023  94.34%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -75.8     -0.3679 µg/L       0.18055     -0.3679 ppb        0.18055  49.07%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              19.9      0.1133 µg/L       0.04681      0.1133 ppb        0.04681  41.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 6:50:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143844.4	143844.4	98.6	%			06:50:47
1	Al 396.153Radial†	25788.9	26226.0	4840.9	µg/L	4840.9	ppb	06:50:47
1	Ca 317.933Radial†	84255.8	84916.7	4730.2	µg/L	4730.2	ppb	06:50:47
1	Fe 238.204 Radial†	75761.9	76712.2	4728.1	µg/L	4728.1	ppb	06:50:47
1	K 766.490 Radial†	14566.5	13232.9	4840.9	µg/L	4840.9	ppb	06:50:47
1	Mg 279.077 IEC†	12924.3	12920.9	4821.4	µg/L	4821.4	ppb	06:50:47
1	Na 589.592 Radial†	70314.2	70042.8	9564.4	µg/L	9564.4	ppb	06:50:47
1	Sr 421.552†	225416.9	228820.2	475.67	µg/L	475.67	ppb	06:50:44
1	Sc 361.383	1738802.7	1738802.7	101.20	%			06:50:59
1	Y 371.029	1024681.2	1024681.2	99.804	%			06:50:59
1	Ag 328.068†	129631.3	124005.2	465.02	µg/L	465.02	ppb	06:50:59
1	As 188.979†	1581.0	1582.6	485.39	µg/L	485.39	ppb	06:51:19
1	B 249.677†	35075.1	31154.0	457.84	µg/L	457.84	ppb	06:50:59
1	Ba 233.527†	117058.2	115808.2	467.05	µg/L	467.05	ppb	06:50:59
1	Be 313.107†	1762033.6	1742238.2	474.51	µg/L	474.51	ppb	06:50:59
1	Cd 226.502†	75208.7	74436.5	464.66	µg/L	464.66	ppb	06:50:59
1	Co 228.616†	38308.7	38045.5	469.67	µg/L	469.67	ppb	06:50:59
1	Cr 267.716†	60115.1	59224.8	463.73	µg/L	463.73	ppb	06:50:59
1	Cu 324.752†	124300.0	119856.3	467.23	µg/L	467.23	ppb	06:50:59
1	Mn 257.610†	385186.9	380389.5	470.45	µg/L	470.45	ppb	06:50:59
1	Mo 202.031†	15845.4	15677.9	461.18	µg/L	461.18	ppb	06:51:19
1	Ni 231.604†	40875.3	40467.9	465.96	µg/L	465.96	ppb	06:50:59
1	P 214.914†	10897.9	10786.9	2299.1	µg/L	2299.1	ppb	06:51:19
1	Pb 220.353†	8501.2	8314.1	465.59	µg/L	465.59	ppb	06:51:19
1	S 181.975 Axial†	1349.3	1228.3	916.01	µg/L	916.01	ppb	06:51:19
1	Sb 206.836†	3999.9	3871.7	461.25	µg/L	461.25	ppb	06:51:19
1	Se 196.026†	1285.5	1255.0	456	µg/L	456	ppb	06:51:19
1	SiO2†	52927.4	50525.5	4918.7	µg/L	4918.7	ppb	06:50:59
1	Si 251.611†	159817.6	157089.0	2306.8	µg/L	2306.8	ppb	06:50:59
1	Sn 189.927†	7465.8	7378.6	461.55	µg/L	461.55	ppb	06:51:19
1	Ti 334.940†	507519.3	500558.4	467.06	µg/L	467.06	ppb	06:50:59
1	Tl 190.801†	3702.1	3775.0	470.84	µg/L	470.84	ppb	06:51:19
1	U 409.014†	7100.0	7285.8	454.39	µg/L	454.39	ppb	06:50:59
1	V 292.402†	96772.7	95223.2	470.64	µg/L	470.64	ppb	06:50:59
1	Zn 213.857†	84427.7	82863.8	461.82	µg/L	461.82	ppb	06:50:59
2	Sc RADIAL	142781.7	142781.7	97.8	%			06:50:51
2	Al 396.153Radial†	25806.6	26438.8	4880.2	µg/L	4880.2	ppb	06:50:51
2	Ca 317.933Radial†	83572.5	84854.5	4726.7	µg/L	4726.7	ppb	06:50:51
2	Fe 238.204 Radial†	75153.5	76662.4	4725.0	µg/L	4725.0	ppb	06:50:51
2	K 766.490 Radial†	14406.6	13179.5	4821.3	µg/L	4821.3	ppb	06:50:51
2	Mg 279.077 IEC†	12796.4	12887.8	4809.1	µg/L	4809.1	ppb	06:50:51
2	Na 589.592 Radial†	69989.1	70241.4	9591.5	µg/L	9591.5	ppb	06:50:51
2	Sr 421.552†	227567.6	232720.4	483.78	µg/L	483.78	ppb	06:50:49
2	Sc 361.383	1732312.8	1732312.8	100.82	%			06:51:23
2	Y 371.029	1021720.9	1021720.9	99.516	%			06:51:23
2	Ag 328.068†	129719.1	124572.2	467.10	µg/L	467.10	ppb	06:51:23
2	As 188.979†	1588.2	1595.6	489.32	µg/L	489.32	ppb	06:51:43
2	B 249.677†	35156.8	31364.8	460.95	µg/L	460.95	ppb	06:51:23
2	Ba 233.527†	116694.9	115881.2	467.35	µg/L	467.35	ppb	06:51:23
2	Be 313.107†	1753037.6	1739838.5	473.85	µg/L	473.85	ppb	06:51:23
2	Cd 226.502†	74807.8	74317.3	463.92	µg/L	463.92	ppb	06:51:23
2	Co 228.616†	38055.2	37935.8	468.31	µg/L	468.31	ppb	06:51:23
2	Cr 267.716†	59835.7	59170.3	463.31	µg/L	463.31	ppb	06:51:23
2	Cu 324.752†	123823.7	119844.0	467.18	µg/L	467.18	ppb	06:51:23
2	Mn 257.610†	383468.0	380110.6	470.11	µg/L	470.11	ppb	06:51:23
2	Mo 202.031†	15844.0	15735.2	462.87	µg/L	462.87	ppb	06:51:43
2	Ni 231.604†	40639.5	40385.3	465.01	µg/L	465.01	ppb	06:51:23
2	P 214.914†	10909.8	10839.0	2310.2	µg/L	2310.2	ppb	06:51:43
2	Pb 220.353†	8480.2	8324.8	466.20	µg/L	466.20	ppb	06:51:43

2	S 181.975 Axial†	1346.9	1230.9	917.91 µg/L	917.91 ppb	06:51:43
2	Sb 206.836†	3980.2	3867.0	460.73 µg/L	460.73 ppb	06:51:43
2	Se 196.026†	1300.3	1274.5	463 µg/L	463 ppb	06:51:43
2	SiO2†	52827.4	50622.2	4928.0 µg/L	4928.0 ppb	06:51:23
2	Si 251.611†	159326.9	157194.0	2308.3 µg/L	2308.3 ppb	06:51:23
2	Sn 189.927†	7476.6	7416.8	463.94 µg/L	463.94 ppb	06:51:43
2	Ti 334.940†	505139.1	500076.4	466.61 µg/L	466.61 ppb	06:51:23
2	Tl 190.801†	3698.1	3784.7	472.04 µg/L	472.04 ppb	06:51:43
2	U 409.014†	6942.0	7155.4	446.72 µg/L	446.72 ppb	06:51:23
2	V 292.402†	96267.9	95080.8	469.96 µg/L	469.96 ppb	06:51:23
2	Zn 213.857†	83720.5	82474.9	459.64 µg/L	459.64 ppb	06:51:23
3	Sc RADIAL	143836.3	143836.3	98.6 %		06:50:55
3	Al 396.153Radial†	25907.3	26347.6	4863.4 µg/L	4863.4 ppb	06:50:55
3	Ca 317.933Radial†	84074.3	84737.4	4720.2 µg/L	4720.2 ppb	06:50:55
3	Fe 238.204 Radial†	75677.4	76630.7	4723.0 µg/L	4723.0 ppb	06:50:55
3	K 766.490 Radial†	14497.0	13163.2	4815.3 µg/L	4815.3 ppb	06:50:55
3	Mg 279.077 IEC†	12916.7	12914.0	4818.8 µg/L	4818.8 ppb	06:50:55
3	Na 589.592 Radial†	70095.9	69825.3	9534.7 µg/L	9534.7 ppb	06:50:55
3	Sr 421.552†	224937.6	228346.7	474.68 µg/L	474.68 ppb	06:50:53
3	Sc 361.383	1745167.1	1745167.1	101.57 %		06:51:46
3	Y 371.029	1027608.6	1027608.6	100.09 %		06:51:46
3	Ag 328.068†	130622.1	124513.6	466.91 µg/L	466.91 ppb	06:51:46
3	As 188.979†	1580.0	1575.9	483.36 µg/L	483.36 ppb	06:52:06
3	B 249.677†	35677.0	31620.2	464.70 µg/L	464.70 ppb	06:51:46
3	Ba 233.527†	117945.5	116260.0	468.87 µg/L	468.87 ppb	06:51:46
3	Be 313.107†	1774480.0	1748142.5	476.11 µg/L	476.11 ppb	06:51:46
3	Cd 226.502†	75852.8	74799.7	466.93 µg/L	466.93 ppb	06:51:46
3	Co 228.616†	38673.3	38266.4	472.39 µg/L	472.39 ppb	06:51:46
3	Cr 267.716†	60484.3	59371.7	464.88 µg/L	464.88 ppb	06:51:46
3	Cu 324.752†	125032.7	120129.7	468.29 µg/L	468.29 ppb	06:51:46
3	Mn 257.610†	387230.7	381013.6	471.22 µg/L	471.22 ppb	06:51:46
3	Mo 202.031†	15902.9	15677.4	461.17 µg/L	461.17 ppb	06:52:06
3	Ni 231.604†	41266.5	40705.8	468.70 µg/L	468.70 ppb	06:51:46
3	P 214.914†	10969.1	10817.6	2305.7 µg/L	2305.7 ppb	06:52:06
3	Pb 220.353†	8529.9	8311.8	465.47 µg/L	465.47 ppb	06:52:06
3	S 181.975 Axial†	1357.3	1231.3	918.20 µg/L	918.20 ppb	06:52:06
3	Sb 206.836†	3998.4	3855.8	459.36 µg/L	459.36 ppb	06:52:06
3	Se 196.026†	1305.2	1269.7	461 µg/L	461 ppb	06:52:06
3	SiO2†	53325.5	50726.6	4938.3 µg/L	4938.3 ppb	06:51:46
3	Si 251.611†	161035.0	157711.7	2315.9 µg/L	2315.9 ppb	06:51:46
3	Sn 189.927†	7518.0	7403.0	463.08 µg/L	463.08 ppb	06:52:06
3	Ti 334.940†	510430.4	501595.6	468.03 µg/L	468.03 ppb	06:51:46
3	Tl 190.801†	3716.0	3775.3	470.89 µg/L	470.89 ppb	06:52:06
3	U 409.014†	7028.8	7190.1	448.87 µg/L	448.87 ppb	06:51:46
3	V 292.402†	97382.5	95474.9	471.87 µg/L	471.87 ppb	06:51:46
3	Zn 213.857†	84926.8	83050.9	462.85 µg/L	462.85 ppb	06:51:46

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1738760.9	101.20	%	0.374				0.37%
Sc RADIAL	143487.5	98.3	%	0.42				0.43%
Y 371.029	1024670.2	99.803	%	0.2867				0.29%
Ag 328.068†	124363.7	466.34	µg/L	1.151	466.34	ppb	1.151	0.25%
QC value within limits for Ag 328.068 Recovery = 93.27%								
Al 396.153Radial†	26337.5	4861.5	µg/L	19.75	4861.5	ppb	19.75	0.41%
QC value within limits for Al 396.153Radial Recovery = 97.23%								
As 188.979†	1584.7	486.02	µg/L	3.027	486.02	ppb	3.027	0.62%
QC value within limits for As 188.979 Recovery = 97.20%								
B 249.677†	31379.7	461.16	µg/L	3.438	461.16	ppb	3.438	0.75%
QC value within limits for B 249.677 Recovery = 92.23%								
Ba 233.527†	115983.2	467.76	µg/L	0.978	467.76	ppb	0.978	0.21%
QC value within limits for Ba 233.527 Recovery = 93.55%								
Be 313.107†	1743406.4	474.83	µg/L	1.164	474.83	ppb	1.164	0.25%
QC value within limits for Be 313.107 Recovery = 94.97%								
Ca 317.933Radial†	84836.2	4725.7	µg/L	5.07	4725.7	ppb	5.07	0.11%
QC value within limits for Ca 317.933Radial Recovery = 94.51%								
Cd 226.502†	74517.8	465.17	µg/L	1.570	465.17	ppb	1.570	0.34%
QC value within limits for Cd 226.502 Recovery = 93.03%								
Co 228.616†	38082.6	470.13	µg/L	2.078	470.13	ppb	2.078	0.44%

```
   QC value within limits for Co 228.616  Recovery = 94.03%
Cr 267.716†            59255.6      463.97 µg/L         0.816      463.97 ppb          0.816   0.18%
   QC value within limits for Cr 267.716  Recovery = 92.79%
Cu 324.752†           119943.3      467.57 µg/L         0.628      467.57 ppb          0.628   0.13%
   QC value within limits for Cu 324.752  Recovery = 93.51%
Fe 238.204 Radial†     76668.4      4725.4 µg/L          2.53      4725.4 ppb           2.53   0.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.51%
K 766.490 Radial†      13191.9      4825.8 µg/L         13.36      4825.8 ppb          13.36   0.28%
   QC value within limits for K 766.490 Radial  Recovery = 96.52%
Mg 279.077 IEC†        12907.6      4816.4 µg/L          6.48      4816.4 ppb           6.48   0.13%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.33%
Mn 257.610†           380504.6      470.59 µg/L         0.572      470.59 ppb          0.572   0.12%
   QC value within limits for Mn 257.610  Recovery = 94.12%
Mo 202.031†            15696.8      461.74 µg/L         0.976      461.74 ppb          0.976   0.21%
   QC value within limits for Mo 202.031  Recovery = 92.35%
Na 589.592 Radial†     70036.5      9563.5 µg/L         28.43      9563.5 ppb          28.43   0.30%
   QC value within limits for Na 589.592 Radial  Recovery = 95.64%
Ni 231.604†            40519.7      466.55 µg/L         1.916      466.55 ppb          1.916   0.41%
   QC value within limits for Ni 231.604  Recovery = 93.31%
P 214.914†             10814.5      2305.0 µg/L          5.61      2305.0 ppb           5.61   0.24%
   QC value within limits for P 214.914  Recovery = 92.20%
Pb 220.353†             8316.9      465.75 µg/L         0.390      465.75 ppb          0.390   0.08%
   QC value within limits for Pb 220.353  Recovery = 93.15%
S 181.975 Axial†        1230.1      917.38 µg/L         1.192      917.38 ppb          1.192   0.13%
   QC value within limits for S 181.975 Axial  Recovery = 91.74%
Sb 206.836†             3864.8      460.45 µg/L         0.981      460.45 ppb          0.981   0.21%
   QC value within limits for Sb 206.836  Recovery = 92.09%
Se 196.026†             1266.4         460 µg/L           3.7         460 ppb            3.7   0.80%
   QC value within limits for Se 196.026  Recovery = 91.98%
SiO2†                  50624.8      4928.3 µg/L          9.82      4928.3 ppb           9.82   0.20%
   QC value within limits for SiO2  Recovery = 92.16%
Si 251.611†           157331.5      2310.3 µg/L          4.92      2310.3 ppb           4.92   0.21%
   QC value within limits for Si 251.611  Recovery = 92.41%
Sn 189.927†             7399.5      462.85 µg/L         1.208      462.85 ppb          1.208   0.26%
   QC value within limits for Sn 189.927  Recovery = 92.57%
Sr 421.552†           229962.4      478.04 µg/L         4.990      478.04 ppb          4.990   1.04%
   QC value within limits for Sr 421.552  Recovery = 95.61%
Ti 334.940†           500743.5      467.23 µg/L         0.725      467.23 ppb          0.725   0.16%
   QC value within limits for Ti 334.940  Recovery = 93.45%
Tl 190.801†             3778.3      471.26 µg/L         0.677      471.26 ppb          0.677   0.14%
   QC value within limits for Tl 190.801  Recovery = 94.25%
U 409.014†              7210.4      449.99 µg/L         3.955      449.99 ppb          3.955   0.88%
   QC value less than the lower limit for U 409.014  Recovery = 90.00%
V 292.402†             95259.6      470.83 µg/L         0.969      470.83 ppb          0.969   0.21%
   QC value within limits for V 292.402  Recovery = 94.17%
Zn 213.857†            82796.5      461.44 µg/L         1.639      461.44 ppb          1.639   0.36%
   QC value within limits for Zn 213.857  Recovery = 92.29%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 6:52:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144633.2	144633.2	99.1	%			06:52:42
1	Al 396.153Radial†	-68.4	-5.8	-1.0604	µg/L	-1.0604	ppb	06:53:02
1	Ca 317.933Radial†	627.1	72.2	4.0193	µg/L	4.0193	ppb	06:53:02
1	Fe 238.204 Radial†	233.5	87.5	5.3928	µg/L	5.3928	ppb	06:53:02
1	K 766.490 Radial†	1744.4	215.2	78.786	µg/L	78.786	ppb	06:52:42
1	Mg 279.077 IEC†	179.5	-9.6	-3.5729	µg/L	-3.5729	ppb	06:53:02
1	Na 589.592 Radial†	1752.6	477.5	65.161	µg/L	65.161	ppb	06:52:42
1	Sr 421.552†	-155.4	-21.5	-0.0447	µg/L	-0.0447	ppb	06:52:42
1	Sc 361.383	1733964.7	1733964.7	100.92	%			06:53:50
1	Y 371.029	1033335.7	1033335.7	100.65	%			06:53:50
1	Ag 328.068†	3981.0	-146.5	-0.5452	µg/L	-0.5452	ppb	06:53:52
1	As 188.979†	-23.1	-2.6	-0.7719	µg/L	-0.7719	ppb	06:54:12
1	B 249.677†	3532.8	-5.2	-0.0776	µg/L	-0.0776	ppb	06:54:12
1	Ba 233.527†	-131.9	5.2	0.0210	µg/L	0.0210	ppb	06:54:12
1	Be 313.107†	-928.7	144.4	0.0373	µg/L	0.0373	ppb	06:53:52
1	Cd 226.502†	-128.3	-9.0	-0.0567	µg/L	-0.0567	ppb	06:54:12
1	Co 228.616†	-169.5	22.4	0.2756	µg/L	0.2756	ppb	06:54:12
1	Cr 267.716†	204.4	24.0	0.1936	µg/L	0.1936	ppb	06:54:12
1	Cu 324.752†	2997.4	-2.1	-0.0126	µg/L	-0.0126	ppb	06:53:52
1	Mn 257.610†	376.2	135.5	0.1678	µg/L	0.1678	ppb	06:54:12
1	Mo 202.031†	-28.0	-7.7	-0.2256	µg/L	-0.2256	ppb	06:54:12
1	Ni 231.604†	-89.9	-12.5	-0.1442	µg/L	-0.1442	ppb	06:54:12
1	P 214.914†	-16.5	1.6	0.3492	µg/L	0.3492	ppb	06:54:12
1	Pb 220.353†	87.5	0.3	0.0206	µg/L	0.0206	ppb	06:54:12
1	S 181.975 Axial†	110.0	3.9	2.9188	µg/L	2.9188	ppb	06:54:12
1	Sb 206.836†	75.8	-5.7	-0.6867	µg/L	-0.6867	ppb	06:54:12
1	Se 196.026†	7.0	-8.4	-3.02	µg/L	-3.02	ppb	06:54:12
1	SiO2†	1830.0	38.1	3.7253	µg/L	3.7253	ppb	06:54:12
1	Si 251.611†	1070.4	224.1	3.3062	µg/L	3.3062	ppb	06:53:52
1	Sn 189.927†	-0.2	0.9	0.0580	µg/L	0.0580	ppb	06:54:12
1	Ti 334.940†	1176.4	213.2	0.2022	µg/L	0.2022	ppb	06:53:52
1	Tl 190.801†	-127.5	-9.7	-1.1871	µg/L	-1.1871	ppb	06:54:12
1	U 409.014†	-385.9	-112.5	-6.5491	µg/L	-6.5491	ppb	06:53:52
1	V 292.402†	504.0	95.6	0.4597	µg/L	0.4597	ppb	06:53:52
1	Zn 213.857†	627.6	57.5	0.3235	µg/L	0.3235	ppb	06:54:12
2	Sc RADIAL	144549.4	144549.4	99.1	%			06:53:04
2	Al 396.153Radial†	-66.1	-3.6	-0.6440	µg/L	-0.6440	ppb	06:53:24
2	Ca 317.933Radial†	630.2	75.6	4.2130	µg/L	4.2130	ppb	06:53:24
2	Fe 238.204 Radial†	209.7	63.5	3.9168	µg/L	3.9168	ppb	06:53:24
2	K 766.490 Radial†	1826.5	299.2	109.53	µg/L	109.53	ppb	06:53:04
2	Mg 279.077 IEC†	186.3	-2.6	-0.9787	µg/L	-0.9787	ppb	06:53:24
2	Na 589.592 Radial†	1914.4	641.9	87.598	µg/L	87.598	ppb	06:53:04
2	Sr 421.552†	-167.6	-33.9	-0.0705	µg/L	-0.0705	ppb	06:53:04
2	Sc 361.383	1749772.9	1749772.9	101.84	%			06:54:14
2	Y 371.029	1042212.3	1042212.3	101.51	%			06:54:14
2	Ag 328.068†	4047.6	-116.8	-0.4517	µg/L	-0.4517	ppb	06:54:16
2	As 188.979†	-10.3	10.2	3.0888	µg/L	3.0888	ppb	06:54:37
2	B 249.677†	3499.3	-69.7	-1.0282	µg/L	-1.0282	ppb	06:54:37
2	Ba 233.527†	-107.2	30.6	0.1230	µg/L	0.1230	ppb	06:54:37
2	Be 313.107†	-1027.0	56.2	0.0118	µg/L	0.0118	ppb	06:54:16
2	Cd 226.502†	-124.9	-4.4	-0.0280	µg/L	-0.0280	ppb	06:54:37
2	Co 228.616†	-180.8	12.8	0.1577	µg/L	0.1577	ppb	06:54:37
2	Cr 267.716†	221.6	39.0	0.3148	µg/L	0.3148	ppb	06:54:37
2	Cu 324.752†	2983.5	-42.5	-0.1744	µg/L	-0.1744	ppb	06:54:16
2	Mn 257.610†	338.1	94.7	0.1173	µg/L	0.1173	ppb	06:54:37
2	Mo 202.031†	-32.1	-11.5	-0.3367	µg/L	-0.3367	ppb	06:54:37
2	Ni 231.604†	-88.8	-10.7	-0.1227	µg/L	-0.1227	ppb	06:54:37
2	P 214.914†	-17.5	0.7	0.1629	µg/L	0.1629	ppb	06:54:37
2	Pb 220.353†	69.6	-18.0	-0.9973	µg/L	-0.9973	ppb	06:54:37

2	S 181.975 Axial†	96.6	-10.2	-7.5881 µg/L	-7.5881 ppb	06:54:37
2	Sb 206.836†	74.0	-8.1	-0.9755 µg/L	-0.9755 ppb	06:54:37
2	Se 196.026†	13.5	-2.0	-0.745 µg/L	-0.745 ppb	06:54:37
2	SiO2†	1845.3	36.6	3.5813 µg/L	3.5813 ppb	06:54:37
2	Si 251.611†	1001.8	147.2	2.1707 µg/L	2.1707 ppb	06:54:16
2	Sn 189.927†	7.7	8.6	0.5383 µg/L	0.5383 ppb	06:54:37
2	Ti 334.940†	1051.0	79.5	0.0792 µg/L	0.0792 ppb	06:54:16
2	Tl 190.801†	-106.8	11.8	1.4462 µg/L	1.4462 ppb	06:54:37
2	U 409.014†	-479.7	-201.2	-11.784 µg/L	-11.784 ppb	06:54:16
2	V 292.402†	330.2	-79.6	-0.3988 µg/L	-0.3988 ppb	06:54:16
2	Zn 213.857†	607.0	31.7	0.1784 µg/L	0.1784 ppb	06:54:37
3	Sc RADIAL	142441.9	142441.9	97.6 %		06:53:26
3	Al 396.153Radial†	-51.7	10.2	1.9232 µg/L	1.9232 ppb	06:53:46
3	Ca 317.933Radial†	620.5	75.1	4.1845 µg/L	4.1845 ppb	06:53:46
3	Fe 238.204 Radial†	216.2	73.4	4.5263 µg/L	4.5263 ppb	06:53:46
3	K 766.490 Radial†	1766.2	264.7	96.906 µg/L	96.906 ppb	06:53:26
3	Mg 279.077 IEC†	171.5	-15.0	-5.6050 µg/L	-5.6050 ppb	06:53:46
3	Na 589.592 Radial†	1726.0	477.4	65.136 µg/L	65.136 ppb	06:53:26
3	Sr 421.552†	-147.2	-15.5	-0.0323 µg/L	-0.0323 ppb	06:53:26
3	Sc 361.383	1739482.2	1739482.2	101.24 %		06:54:39
3	Y 371.029	1036358.4	1036358.4	100.94 %		06:54:39
3	Ag 328.068†	4348.3	203.8	0.7416 µg/L	0.7416 ppb	06:54:41
3	As 188.979†	-11.6	8.8	2.6733 µg/L	2.6733 ppb	06:55:01
3	B 249.677†	3500.3	-48.4	-0.7140 µg/L	-0.7140 ppb	06:55:01
3	Ba 233.527†	-129.2	8.3	0.0326 µg/L	0.0326 ppb	06:55:01
3	Be 313.107†	-933.4	142.7	0.0379 µg/L	0.0379 ppb	06:54:41
3	Cd 226.502†	-123.7	-4.0	-0.0256 µg/L	-0.0256 ppb	06:55:01
3	Co 228.616†	-184.7	7.9	0.0972 µg/L	0.0972 ppb	06:55:01
3	Cr 267.716†	159.4	-21.1	-0.1630 µg/L	-0.1630 ppb	06:55:01
3	Cu 324.752†	3020.7	11.5	0.0429 µg/L	0.0429 ppb	06:54:41
3	Mn 257.610†	327.3	86.0	0.1066 µg/L	0.1066 ppb	06:55:01
3	Mo 202.031†	-39.0	-18.5	-0.5424 µg/L	-0.5424 ppb	06:55:01
3	Ni 231.604†	-116.1	-38.2	-0.4397 µg/L	-0.4397 ppb	06:55:01
3	P 214.914†	-19.9	-1.7	-0.3559 µg/L	-0.3559 ppb	06:55:01
3	Pb 220.353†	78.3	-9.1	-0.5065 µg/L	-0.5065 ppb	06:55:01
3	S 181.975 Axial†	111.6	5.2	3.8338 µg/L	3.8338 ppb	06:55:01
3	Sb 206.836†	81.6	-0.2	-0.0275 µg/L	-0.0275 ppb	06:55:01
3	Se 196.026†	5.2	-10.2	-3.68 µg/L	-3.68 ppb	06:55:01
3	SiO2†	1803.0	5.6	0.5590 µg/L	0.5590 ppb	06:55:01
3	Si 251.611†	1132.3	281.9	4.1624 µg/L	4.1624 ppb	06:54:41
3	Sn 189.927†	0.1	1.2	0.0775 µg/L	0.0775 ppb	06:55:01
3	Ti 334.940†	1053.6	88.1	0.0842 µg/L	0.0842 ppb	06:54:41
3	Tl 190.801†	-105.8	12.2	1.4893 µg/L	1.4893 ppb	06:55:01
3	U 409.014†	-325.3	-51.5	-3.0531 µg/L	-3.0531 ppb	06:54:41
3	V 292.402†	251.0	-155.8	-0.7691 µg/L	-0.7691 ppb	06:54:41
3	Zn 213.857†	649.7	77.3	0.4369 µg/L	0.4369 ppb	06:55:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1741073.3	101.33	%	0.467				0.46%
Sc RADIAL	143874.8	98.6	%	0.85				0.86%
Y 371.029	1037302.1	101.03	%	0.440				0.44%
Ag 328.068†	-19.8	-0.0851	µg/L	0.71750	-0.0851	ppb	0.71750	843.15%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.3	0.0729	µg/L	1.61581	0.0729	ppb	1.61581	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.5	1.6634	µg/L	2.11924	1.6634	ppb	2.11924	127.41%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-41.1	-0.6066	µg/L	0.48430	-0.6066	ppb	0.48430	79.84%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	14.7	0.0589	µg/L	0.05582	0.0589	ppb	0.05582	94.82%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	114.4	0.0290	µg/L	0.01494	0.0290	ppb	0.01494	51.51%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	74.3	4.1389	µg/L	0.10460	4.1389	ppb	0.10460	2.53%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-5.8	-0.0368	µg/L	0.01731	-0.0368	ppb	0.01731	47.05%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	14.3	0.1768	µg/L	0.09071	0.1768	ppb	0.09071	51.30%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.0      0.1151 µg/L       0.24835      0.1151 ppb        0.24835 215.69%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -11.0     -0.0480 µg/L       0.11290     -0.0480 ppb        0.11290 235.07%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       74.8      4.6120 µg/L       0.74173      4.6120 ppb        0.74173  16.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       259.7     95.073 µg/L       15.4520     95.073 ppb        15.4520  16.25%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -9.1     -3.3855 µg/L       2.31885     -3.3855 ppb        2.31885  68.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             105.4      0.1306 µg/L       0.03271      0.1306 ppb        0.03271  25.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -12.5     -0.3682 µg/L       0.16075     -0.3682 ppb        0.16075  43.65%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      532.3     72.632 µg/L       12.9611     72.632 ppb        12.9611  17.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -20.5     -0.2356 µg/L       0.17715     -0.2356 ppb        0.17715  75.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.2      0.0521 µg/L       0.36541      0.0521 ppb        0.36541 701.97%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -8.9     -0.4944 µg/L       0.50904     -0.4944 ppb        0.50904 102.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.4     -0.2785 µg/L       6.34683     -0.2785 ppb        6.34683 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -4.7     -0.5632 µg/L       0.48593     -0.5632 ppb        0.48593  86.28%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -6.9       -2.48 µg/L         1.540       -2.48 ppb          1.540  62.03%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     26.8      2.6219 µg/L       1.78796      2.6219 ppb        1.78796  68.19%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             217.7      3.2131 µg/L       0.99909      3.2131 ppb        0.99909  31.09%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.6      0.2246 µg/L       0.27185      0.2246 ppb        0.27185 121.04%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -23.6     -0.0492 µg/L       0.01953     -0.0492 ppb        0.01953  39.72%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             127.0      0.1219 µg/L       0.06963      0.1219 ppb        0.06963  57.13%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               4.8      0.5828 µg/L       1.53292      0.5828 ppb        1.53292 263.02%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -121.7     -7.1289 µg/L       4.39443     -7.1289 ppb        4.39443  61.64%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -46.6     -0.2361 µg/L       0.63031     -0.2361 ppb        0.63031 267.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               55.5      0.3129 µg/L       0.12957      0.3129 ppb        0.12957  41.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 7:15:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143231.7	143231.7	98.2	%			07:16:18
1	Al 396.153Radial†	25811.0	26360.4	4865.8	µg/L	4865.8	ppb	07:16:18
1	Ca 317.933Radial†	83249.0	84256.6	4693.4	µg/L	4693.4	ppb	07:16:18
1	Fe 238.204 Radial†	75045.0	76310.5	4703.3	µg/L	4703.3	ppb	07:16:18
1	K 766.490 Radial†	14476.5	13204.4	4830.5	µg/L	4830.5	ppb	07:16:18
1	Mg 279.077 IEC†	12766.9	12816.7	4782.5	µg/L	4782.5	ppb	07:16:18
1	Na 589.592 Radial†	69514.8	69533.5	9494.8	µg/L	9494.8	ppb	07:16:18
1	Sr 421.552†	225787.8	230176.3	478.49	µg/L	478.49	ppb	07:16:16
1	Sc 361.383	1750472.3	1750472.3	101.88	%			07:16:31
1	Y 371.029	1032081.8	1032081.8	100.53	%			07:16:31
1	Ag 328.068†	130816.8	124315.0	466.14	µg/L	466.14	ppb	07:16:31
1	As 188.979†	1591.5	1582.5	485.34	µg/L	485.34	ppb	07:16:51
1	B 249.677†	35273.1	31117.3	457.31	µg/L	457.31	ppb	07:16:31
1	Ba 233.527†	117743.1	115709.4	466.65	µg/L	466.65	ppb	07:16:31
1	Be 313.107†	1769884.6	1738336.9	473.44	µg/L	473.44	ppb	07:16:31
1	Cd 226.502†	75237.5	73969.4	461.75	µg/L	461.75	ppb	07:16:31
1	Co 228.616†	38300.7	37785.3	466.46	µg/L	466.46	ppb	07:16:31
1	Cr 267.716†	60334.7	59044.4	462.32	µg/L	462.32	ppb	07:16:31
1	Cu 324.752†	124729.7	119459.2	465.67	µg/L	465.67	ppb	07:16:31
1	Mn 257.610†	386052.5	378701.8	468.37	µg/L	468.37	ppb	07:16:31
1	Mo 202.031†	15962.9	15688.8	461.50	µg/L	461.50	ppb	07:16:51
1	Ni 231.604†	41025.4	40346.0	464.56	µg/L	464.56	ppb	07:16:31
1	P 214.914†	10932.1	10748.7	2290.9	µg/L	2290.9	ppb	07:16:51
1	Pb 220.353†	8545.2	8301.4	464.89	µg/L	464.89	ppb	07:16:51
1	S 181.975 Axial†	1344.3	1214.5	905.73	µg/L	905.73	ppb	07:16:51
1	Sb 206.836†	4008.2	3853.5	459.12	µg/L	459.12	ppb	07:16:51
1	Se 196.026†	1297.1	1257.9	457	µg/L	457	ppb	07:16:51
1	SiO2†	52974.9	50223.4	4889.2	µg/L	4889.2	ppb	07:16:31
1	Si 251.611†	160634.4	156838.0	2303.1	µg/L	2303.1	ppb	07:16:31
1	Sn 189.927†	7507.2	7370.0	461.01	µg/L	461.01	ppb	07:16:51
1	Ti 334.940†	509488.3	499147.7	465.74	µg/L	465.74	ppb	07:16:31
1	Tl 190.801†	3735.0	3782.9	471.81	µg/L	471.81	ppb	07:16:51
1	U 409.014†	7000.5	7141.4	445.88	µg/L	445.88	ppb	07:16:31
1	V 292.402†	97221.7	95026.5	469.68	µg/L	469.68	ppb	07:16:31
1	Zn 213.857†	84347.9	82229.2	458.27	µg/L	458.27	ppb	07:16:31
2	Sc RADIAL	143830.0	143830.0	98.6	%			07:16:22
2	Al 396.153Radial†	25997.1	26439.8	4880.6	µg/L	4880.6	ppb	07:16:22
2	Ca 317.933Radial†	83529.5	84188.4	4689.6	µg/L	4689.6	ppb	07:16:22
2	Fe 238.204 Radial†	75506.4	76460.6	4712.6	µg/L	4712.6	ppb	07:16:22
2	K 766.490 Radial†	14487.3	13154.1	4812.0	µg/L	4812.0	ppb	07:16:22
2	Mg 279.077 IEC†	12725.8	12720.9	4746.8	µg/L	4746.8	ppb	07:16:22
2	Na 589.592 Radial†	69625.8	69351.5	9470.0	µg/L	9470.0	ppb	07:16:22
2	Sr 421.552†	226337.7	229777.2	477.66	µg/L	477.66	ppb	07:16:20
2	Sc 361.383	1752200.8	1752200.8	101.98	%			07:16:54
2	Y 371.029	1031083.0	1031083.0	100.43	%			07:16:54
2	Ag 328.068†	130131.1	123515.9	463.20	µg/L	463.20	ppb	07:16:54
2	As 188.979†	1570.4	1560.3	478.61	µg/L	478.61	ppb	07:17:14
2	B 249.677†	35303.3	31112.7	457.24	µg/L	457.24	ppb	07:16:54
2	Ba 233.527†	117702.2	115555.3	466.03	µg/L	466.03	ppb	07:16:54
2	Be 313.107†	1772824.2	1739505.8	473.77	µg/L	473.77	ppb	07:16:54
2	Cd 226.502†	75437.4	74092.5	462.51	µg/L	462.51	ppb	07:16:54
2	Co 228.616†	38435.2	37880.0	467.63	µg/L	467.63	ppb	07:16:54
2	Cr 267.716†	60494.4	59142.5	463.07	µg/L	463.07	ppb	07:16:54
2	Cu 324.752†	125065.3	119667.5	466.50	µg/L	466.50	ppb	07:16:54
2	Mn 257.610†	386854.1	379114.0	468.88	µg/L	468.88	ppb	07:16:54
2	Mo 202.031†	15890.6	15602.5	458.97	µg/L	458.97	ppb	07:17:14
2	Ni 231.604†	40997.7	40279.1	463.78	µg/L	463.78	ppb	07:16:54
2	P 214.914†	10932.4	10738.3	2288.7	µg/L	2288.7	ppb	07:17:14
2	Pb 220.353†	8481.9	8231.0	460.94	µg/L	460.94	ppb	07:17:14

2	S 181.975 Axial†	1343.4	1212.2	904.05 µg/L	904.05 ppb	07:17:14
2	Sb 206.836†	3985.9	3827.7	456.01 µg/L	456.01 ppb	07:17:14
2	Se 196.026†	1302.9	1262.3	458 µg/L	458 ppb	07:17:14
2	SiO2†	53203.1	50395.9	4906.1 µg/L	4906.1 ppb	07:16:54
2	Si 251.611†	160563.7	156613.1	2299.8 µg/L	2299.8 ppb	07:16:54
2	Sn 189.927†	7505.7	7361.2	460.47 µg/L	460.47 ppb	07:17:14
2	Ti 334.940†	509577.5	498741.9	465.36 µg/L	465.36 ppb	07:16:54
2	Tl 190.801†	3714.7	3759.3	468.90 µg/L	468.90 ppb	07:17:14
2	U 409.014†	7323.9	7451.8	464.00 µg/L	464.00 ppb	07:16:54
2	V 292.402†	97209.2	94920.0	469.15 µg/L	469.15 ppb	07:16:54
2	Zn 213.857†	84688.5	82481.6	459.69 µg/L	459.69 ppb	07:16:54
3	Sc RADIAL	145082.6	145082.6	99.4 %		07:16:26
3	Al 396.153Radial†	26074.1	26289.6	4852.5 µg/L	4852.5 ppb	07:16:26
3	Ca 317.933Radial†	84338.7	84270.6	4694.2 µg/L	4694.2 ppb	07:16:26
3	Fe 238.204 Radial†	76184.1	76480.8	4713.8 µg/L	4713.8 ppb	07:16:26
3	K 766.490 Radial†	14759.8	13301.2	4865.9 µg/L	4865.9 ppb	07:16:26
3	Mg 279.077 IEC†	12907.4	12792.0	4773.4 µg/L	4773.4 ppb	07:16:26
3	Na 589.592 Radial†	70316.5	69436.3	9481.5 µg/L	9481.5 ppb	07:16:26
3	Sr 421.552†	225883.1	227337.3	472.58 µg/L	472.58 ppb	07:16:24
3	Sc 361.383	1740208.6	1740208.6	101.28 %		07:17:17
3	Y 371.029	1024774.2	1024774.2	99.814 %		07:17:17
3	Ag 328.068†	129441.3	123714.1	463.91 µg/L	463.91 ppb	07:17:17
3	As 188.979†	1581.9	1582.2	485.25 µg/L	485.25 ppb	07:17:37
3	B 249.677†	35141.2	31191.2	458.40 µg/L	458.40 ppb	07:17:17
3	Ba 233.527†	116769.3	115429.5	465.53 µg/L	465.53 ppb	07:17:17
3	Be 313.107†	1754966.8	1733854.0	472.22 µg/L	472.22 ppb	07:17:17
3	Cd 226.502†	74790.7	73963.8	461.71 µg/L	461.71 ppb	07:17:17
3	Co 228.616†	37989.5	37699.7	465.40 µg/L	465.40 ppb	07:17:17
3	Cr 267.716†	59786.0	58851.9	460.81 µg/L	460.81 ppb	07:17:17
3	Cu 324.752†	124076.7	119536.5	465.97 µg/L	465.97 ppb	07:17:17
3	Mn 257.610†	383042.2	377964.4	467.45 µg/L	467.45 ppb	07:17:17
3	Mo 202.031†	15970.9	15789.2	464.45 µg/L	464.45 ppb	07:17:37
3	Ni 231.604†	40665.5	40228.1	463.20 µg/L	463.20 ppb	07:17:17
3	P 214.914†	10982.3	10861.5	2315.0 µg/L	2315.0 ppb	07:17:37
3	Pb 220.353†	8559.5	8364.9	468.44 µg/L	468.44 ppb	07:17:37
3	S 181.975 Axial†	1355.7	1233.5	919.92 µg/L	919.92 ppb	07:17:37
3	Sb 206.836†	3981.6	3850.4	458.82 µg/L	458.82 ppb	07:17:37
3	Se 196.026†	1286.4	1254.8	456 µg/L	456 ppb	07:17:37
3	SiO2†	52793.3	50350.8	4901.5 µg/L	4901.5 ppb	07:17:17
3	Si 251.611†	159252.9	156403.8	2296.6 µg/L	2296.6 ppb	07:17:17
3	Sn 189.927†	7511.8	7418.0	464.00 µg/L	464.00 ppb	07:17:37
3	Ti 334.940†	505621.1	498279.0	464.94 µg/L	464.94 ppb	07:17:17
3	Tl 190.801†	3705.1	3775.0	470.82 µg/L	470.82 ppb	07:17:37
3	U 409.014†	6917.7	7100.1	443.43 µg/L	443.43 ppb	07:17:17
3	V 292.402†	96535.4	94911.7	469.14 µg/L	469.14 ppb	07:17:17
3	Zn 213.857†	83785.0	82161.8	457.90 µg/L	457.90 ppb	07:17:17

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1747627.2	101.71	%	0.377				0.37%
Sc RADIAL	144048.1	98.7	%	0.65				0.66%
Y 371.029	1029313.0	100.26	%	0.386				0.38%
Ag 328.068†	123848.3	464.42	µg/L	1.536	464.42	ppb	1.536	0.33%
QC value within limits for Ag 328.068 Recovery = 92.88%								
Al 396.153Radial†	26363.3	4866.3	µg/L	14.06	4866.3	ppb	14.06	0.29%
QC value within limits for Al 396.153Radial Recovery = 97.33%								
As 188.979†	1575.0	483.07	µg/L	3.863	483.07	ppb	3.863	0.80%
QC value within limits for As 188.979 Recovery = 96.61%								
B 249.677†	31140.4	457.65	µg/L	0.653	457.65	ppb	0.653	0.14%
QC value within limits for B 249.677 Recovery = 91.53%								
Ba 233.527†	115564.7	466.07	µg/L	0.565	466.07	ppb	0.565	0.12%
QC value within limits for Ba 233.527 Recovery = 93.21%								
Be 313.107†	1737232.2	473.14	µg/L	0.815	473.14	ppb	0.815	0.17%
QC value within limits for Be 313.107 Recovery = 94.63%								
Ca 317.933Radial†	84238.5	4692.4	µg/L	2.45	4692.4	ppb	2.45	0.05%
QC value within limits for Ca 317.933Radial Recovery = 93.85%								
Cd 226.502†	74008.6	461.99	µg/L	0.454	461.99	ppb	0.454	0.10%
QC value within limits for Cd 226.502 Recovery = 92.40%								
Co 228.616†	37788.3	466.49	µg/L	1.113	466.49	ppb	1.113	0.24%

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   QC value within limits for Co 228.616  Recovery = 93.30%
Cr 267.716†            59013.0      462.07 µg/L         1.151      462.07 ppb          1.151   0.25%
   QC value within limits for Cr 267.716  Recovery = 92.41%
Cu 324.752†           119554.4      466.05 µg/L         0.418      466.05 ppb          0.418   0.09%
   QC value within limits for Cu 324.752  Recovery = 93.21%
Fe 238.204 Radial†     76417.3      4709.9 µg/L          5.74      4709.9 ppb           5.74   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.20%
K 766.490 Radial†      13219.9      4836.1 µg/L         27.38      4836.1 ppb          27.38   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 96.72%
Mg 279.077 IEC†        12776.5      4767.6 µg/L         18.58      4767.6 ppb          18.58   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.35%
Mn 257.610†           378593.4      468.23 µg/L         0.721      468.23 ppb          0.721   0.15%
   QC value within limits for Mn 257.610  Recovery = 93.65%
Mo 202.031†            15693.5      461.64 µg/L         2.746      461.64 ppb          2.746   0.59%
   QC value within limits for Mo 202.031  Recovery = 92.33%
Na 589.592 Radial†     69440.4      9482.1 µg/L         12.43      9482.1 ppb          12.43   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 94.82%
Ni 231.604†            40284.4      463.85 µg/L         0.681      463.85 ppb          0.681   0.15%
   QC value within limits for Ni 231.604  Recovery = 92.77%
P 214.914†             10782.8      2298.2 µg/L         14.60      2298.2 ppb          14.60   0.64%
   QC value within limits for P 214.914  Recovery = 91.93%
Pb 220.353†             8299.1      464.75 µg/L         3.754      464.75 ppb          3.754   0.81%
   QC value within limits for Pb 220.353  Recovery = 92.95%
S 181.975 Axial†        1220.1      909.90 µg/L         8.718      909.90 ppb          8.718   0.96%
   QC value within limits for S 181.975 Axial  Recovery = 90.99%
Sb 206.836†             3843.9      457.98 µg/L         1.718      457.98 ppb          1.718   0.38%
   QC value within limits for Sb 206.836  Recovery = 91.60%
Se 196.026†             1258.3         457 µg/L           1.4         457 ppb            1.4   0.30%
   QC value within limits for Se 196.026  Recovery = 91.39%
SiO2†                  50323.4      4898.9 µg/L          8.76      4898.9 ppb           8.76   0.18%
   QC value within limits for SiO2  Recovery = 91.61%
Si 251.611†           156618.3      2299.8 µg/L          3.23      2299.8 ppb           3.23   0.14%
   QC value within limits for Si 251.611  Recovery = 91.99%
Sn 189.927†             7383.1      461.83 µg/L         1.904      461.83 ppb          1.904   0.41%
   QC value within limits for Sn 189.927  Recovery = 92.37%
Sr 421.552†           229097.0      476.24 µg/L         3.195      476.24 ppb          3.195   0.67%
   QC value within limits for Sr 421.552  Recovery = 95.25%
Ti 334.940†           498722.9      465.35 µg/L         0.405      465.35 ppb          0.405   0.09%
   QC value within limits for Ti 334.940  Recovery = 93.07%
Tl 190.801†             3772.4      470.51 µg/L         1.479      470.51 ppb          1.479   0.31%
   QC value within limits for Tl 190.801  Recovery = 94.10%
U 409.014†              7231.1      451.10 µg/L        11.236      451.10 ppb         11.236   2.49%
   QC value within limits for U 409.014  Recovery = 90.22%
V 292.402†             94952.7      469.32 µg/L         0.308      469.32 ppb          0.308   0.07%
   QC value within limits for V 292.402  Recovery = 93.86%
Zn 213.857†            82290.9      458.62 µg/L         0.946      458.62 ppb          0.946   0.21%
   QC value within limits for Zn 213.857  Recovery = 91.72%
All analyte(s) passed QC.
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Sequence No.: 25
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 7:17:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144894.0	144894.0	99.3	%			07:18:15
1	Al 396.153Radial†	-60.2	2.5	0.4745	µg/L	0.4745	ppb	07:18:35
1	Ca 317.933Radial†	650.2	94.2	5.2485	µg/L	5.2485	ppb	07:18:35
1	Fe 238.204 Radial†	260.9	114.7	7.0666	µg/L	7.0666	ppb	07:18:35
1	K 766.490 Radial†	1743.9	211.6	77.460	µg/L	77.460	ppb	07:18:15
1	Mg 279.077 IEC†	168.3	-21.2	-7.8905	µg/L	-7.8905	ppb	07:18:35
1	Na 589.592 Radial†	1784.9	506.9	69.180	µg/L	69.180	ppb	07:18:15
1	Sr 421.552†	-213.5	-79.7	-0.1658	µg/L	-0.1658	ppb	07:18:15
1	Sc 361.383	1770863.5	1770863.5	103.06	%			07:19:23
1	Y 371.029	1054490.2	1054490.2	102.71	%			07:19:23
1	Ag 328.068†	4158.3	-56.7	-0.2179	µg/L	-0.2179	ppb	07:19:25
1	As 188.979†	-13.5	7.3	2.2031	µg/L	2.2031	ppb	07:19:45
1	B 249.677†	3391.4	-215.3	-3.1773	µg/L	-3.1773	ppb	07:19:25
1	Ba 233.527†	-132.3	7.5	0.0299	µg/L	0.0299	ppb	07:19:45
1	Be 313.107†	-856.5	233.6	0.0622	µg/L	0.0622	ppb	07:19:25
1	Cd 226.502†	-126.3	-4.4	-0.0280	µg/L	-0.0280	ppb	07:19:45
1	Co 228.616†	-166.9	28.3	0.3493	µg/L	0.3493	ppb	07:19:45
1	Cr 267.716†	189.8	5.6	0.0481	µg/L	0.0481	ppb	07:19:45
1	Cu 324.752†	3068.4	4.9	0.0163	µg/L	0.0163	ppb	07:19:25
1	Mn 257.610†	366.1	117.9	0.1462	µg/L	0.1462	ppb	07:19:45
1	Mo 202.031†	-24.1	-3.4	-0.0984	µg/L	-0.0984	ppb	07:19:45
1	Ni 231.604†	-96.2	-16.9	-0.1942	µg/L	-0.1942	ppb	07:19:45
1	P 214.914†	-30.9	-12.1	-2.5847	µg/L	-2.5847	ppb	07:19:45
1	Pb 220.353†	45.1	-42.6	-2.3754	µg/L	-2.3754	ppb	07:19:45
1	S 181.975 Axial†	97.2	-10.7	-7.9562	µg/L	-7.9562	ppb	07:19:45
1	Sb 206.836†	73.2	-9.8	-1.1686	µg/L	-1.1686	ppb	07:19:45
1	Se 196.026†	23.2	7.3	2.62	µg/L	2.62	ppb	07:19:45
1	SiO2†	1871.6	40.6	3.9693	µg/L	3.9693	ppb	07:19:45
1	Si 251.611†	1059.6	191.5	2.8238	µg/L	2.8238	ppb	07:19:25
1	Sn 189.927†	0.3	1.4	0.0884	µg/L	0.0884	ppb	07:19:45
1	Ti 334.940†	1196.8	208.7	0.1977	µg/L	0.1977	ppb	07:19:25
1	Tl 190.801†	-120.5	-0.2	-0.0259	µg/L	-0.0259	ppb	07:19:45
1	U 409.014†	-361.9	-81.3	-4.7620	µg/L	-4.7620	ppb	07:19:25
1	V 292.402†	384.8	-30.5	-0.1536	µg/L	-0.1536	ppb	07:19:25
1	Zn 213.857†	611.3	28.7	0.1616	µg/L	0.1616	ppb	07:19:45
2	Sc RADIAL	145521.1	145521.1	99.7	%			07:18:37
2	Al 396.153Radial†	-35.2	27.9	5.1474	µg/L	5.1474	ppb	07:18:57
2	Ca 317.933Radial†	623.9	65.1	3.6261	µg/L	3.6261	ppb	07:18:57
2	Fe 238.204 Radial†	222.2	74.7	4.6055	µg/L	4.6055	ppb	07:18:57
2	K 766.490 Radial†	1793.6	253.9	92.936	µg/L	92.936	ppb	07:18:37
2	Mg 279.077 IEC†	165.1	-25.1	-9.3623	µg/L	-9.3623	ppb	07:18:57
2	Na 589.592 Radial†	1538.6	252.1	34.354	µg/L	34.354	ppb	07:18:37
2	Sr 421.552†	-146.5	-11.7	-0.0243	µg/L	-0.0243	ppb	07:18:37
2	Sc 361.383	1759397.0	1759397.0	102.40	%			07:19:47
2	Y 371.029	1047911.7	1047911.7	102.07	%			07:19:47
2	Ag 328.068†	4258.3	67.2	0.2316	µg/L	0.2316	ppb	07:19:49
2	As 188.979†	-12.7	7.9	2.4012	µg/L	2.4012	ppb	07:20:10
2	B 249.677†	3505.2	-82.7	-1.2213	µg/L	-1.2213	ppb	07:19:49
2	Ba 233.527†	-104.4	33.9	0.1364	µg/L	0.1364	ppb	07:20:10
2	Be 313.107†	-1051.8	37.5	0.0076	µg/L	0.0076	ppb	07:19:49
2	Cd 226.502†	-125.2	-4.0	-0.0256	µg/L	-0.0256	ppb	07:20:10
2	Co 228.616†	-173.0	21.4	0.2638	µg/L	0.2638	ppb	07:20:10
2	Cr 267.716†	207.8	24.3	0.1972	µg/L	0.1972	ppb	07:20:10
2	Cu 324.752†	2833.5	-205.0	-0.8032	µg/L	-0.8032	ppb	07:19:49
2	Mn 257.610†	340.4	95.2	0.1182	µg/L	0.1182	ppb	07:20:10
2	Mo 202.031†	-4.2	16.0	0.4695	µg/L	0.4695	ppb	07:20:10
2	Ni 231.604†	-70.6	7.6	0.0871	µg/L	0.0871	ppb	07:20:10
2	P 214.914†	-18.2	0.2	0.0525	µg/L	0.0525	ppb	07:20:10
2	Pb 220.353†	52.6	-35.0	-1.9478	µg/L	-1.9478	ppb	07:20:10

2	S 181.975 Axial†	114.5	6.7	5.0067 µg/L	5.0067 ppb	07:20:10
2	Sb 206.836†	82.8	0.0	0.0059 µg/L	0.0059 ppb	07:20:10
2	Se 196.026†	17.9	2.2	0.800 µg/L	0.800 ppb	07:20:10
2	SiO2†	1868.1	49.0	4.7661 µg/L	4.7661 ppb	07:20:10
2	Si 251.611†	1373.5	504.8	7.4316 µg/L	7.4316 ppb	07:19:49
2	Sn 189.927†	9.6	10.5	0.6533 µg/L	0.6533 ppb	07:20:10
2	Ti 334.940†	1069.2	91.6	0.0899 µg/L	0.0899 ppb	07:19:49
2	Tl 190.801†	-122.3	-2.7	-0.3381 µg/L	-0.3381 ppb	07:20:10
2	U 409.014†	-424.3	-144.5	-8.4800 µg/L	-8.4800 ppb	07:19:49
2	V 292.402†	294.1	-116.6	-0.5692 µg/L	-0.5692 ppb	07:19:49
2	Zn 213.857†	656.8	77.0	0.4324 µg/L	0.4324 ppb	07:20:10
3	Sc RADIAL	146586.0	146586.0	100 %		07:18:59
3	Al 396.153Radial†	-94.7	-31.1	-5.7709 µg/L	-5.7709 ppb	07:19:19
3	Ca 317.933Radial†	627.7	64.3	3.5843 µg/L	3.5843 ppb	07:19:19
3	Fe 238.204 Radial†	209.2	60.2	3.7093 µg/L	3.7093 ppb	07:19:19
3	K 766.490 Radial†	1735.8	183.3	67.094 µg/L	67.094 ppb	07:18:59
3	Mg 279.077 IEC†	202.0	10.4	3.8715 µg/L	3.8715 ppb	07:19:19
3	Na 589.592 Radial†	1601.1	303.1	41.345 µg/L	41.345 ppb	07:18:59
3	Sr 421.552†	-166.1	-30.0	-0.0625 µg/L	-0.0625 ppb	07:18:59
3	Sc 361.383	1760888.9	1760888.9	102.48 %		07:20:12
3	Y 371.029	1048920.3	1048920.3	102.17 %		07:20:12
3	Ag 328.068†	4208.1	14.8	0.0389 µg/L	0.0389 ppb	07:20:14
3	As 188.979†	-5.2	15.3	4.6193 µg/L	4.6193 ppb	07:20:34
3	B 249.677†	3595.2	2.2	0.0320 µg/L	0.0320 ppb	07:20:14
3	Ba 233.527†	-113.4	25.2	0.1014 µg/L	0.1014 ppb	07:20:34
3	Be 313.107†	-831.8	253.1	0.0658 µg/L	0.0658 ppb	07:20:14
3	Cd 226.502†	-79.9	40.2	0.2505 µg/L	0.2505 ppb	07:20:34
3	Co 228.616†	-186.7	8.2	0.1004 µg/L	0.1004 ppb	07:20:34
3	Cr 267.716†	164.0	-18.5	-0.1369 µg/L	-0.1369 ppb	07:20:34
3	Cu 324.752†	2963.0	-81.0	-0.3227 µg/L	-0.3227 ppb	07:20:14
3	Mn 257.610†	342.7	97.2	0.1201 µg/L	0.1201 ppb	07:20:34
3	Mo 202.031†	-17.0	3.5	0.1023 µg/L	0.1023 ppb	07:20:34
3	Ni 231.604†	-117.2	-37.8	-0.4353 µg/L	-0.4353 ppb	07:20:34
3	P 214.914†	-46.5	-27.4	-5.8531 µg/L	-5.8531 ppb	07:20:34
3	Pb 220.353†	64.1	-23.8	-1.3218 µg/L	-1.3218 ppb	07:20:34
3	S 181.975 Axial†	98.0	-9.4	-6.9851 µg/L	-6.9851 ppb	07:20:34
3	Sb 206.836†	75.4	-7.2	-0.8539 µg/L	-0.8539 ppb	07:20:34
3	Se 196.026†	23.0	7.1	2.57 µg/L	2.57 ppb	07:20:34
3	SiO2†	1939.7	117.3	11.456 µg/L	11.456 ppb	07:20:34
3	Si 251.611†	1281.6	414.0	6.0982 µg/L	6.0982 ppb	07:20:14
3	Sn 189.927†	8.6	9.5	0.5921 µg/L	0.5921 ppb	07:20:34
3	Ti 334.940†	988.0	11.5	0.0148 µg/L	0.0148 ppb	07:20:14
3	Tl 190.801†	-115.0	4.5	0.5455 µg/L	0.5455 ppb	07:20:34
3	U 409.014†	-457.5	-176.5	-10.337 µg/L	-10.337 ppb	07:20:14
3	V 292.402†	360.5	-52.1	-0.2609 µg/L	-0.2609 ppb	07:20:14
3	Zn 213.857†	610.0	30.8	0.1755 µg/L	0.1755 ppb	07:20:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1763716.4	102.65	%	0.363				0.35%
Sc RADIAL	145667.0	99.8	%	0.59				0.59%
Y 371.029	1050440.7	102.31	%	0.345				0.34%
Ag 328.068†	8.4	0.0175	µg/L	0.22552	0.0175	ppb	0.22552	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.2	-0.0497	µg/L	5.47798	-0.0497	ppb	5.47798	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	10.2	3.0745	µg/L	1.34146	3.0745	ppb	1.34146	43.63%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-98.6	-1.4555	µg/L	1.61740	-1.4555	ppb	1.61740	111.12%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	22.2	0.0892	µg/L	0.05424	0.0892	ppb	0.05424	60.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	174.7	0.0452	µg/L	0.03257	0.0452	ppb	0.03257	72.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	74.6	4.1530	µg/L	0.94897	4.1530	ppb	0.94897	22.85%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.6	0.0656	µg/L	0.16011	0.0656	ppb	0.16011	244.04%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	19.3	0.2378	µg/L	0.12645	0.2378	ppb	0.12645	53.17%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                3.8      0.0361 µg/L       0.16737      0.0361 ppb        0.16737 462.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -93.7     -0.3699 µg/L       0.41180     -0.3699 ppb        0.41180 111.34%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        83.2      5.1271 µg/L       1.73839      5.1271 ppb        1.73839  33.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        216.2      79.163 µg/L       13.0045      79.163 ppb        13.0045  16.43%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -12.0     -4.4604 µg/L       7.25307     -4.4604 ppb        7.25307 162.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              103.4      0.1281 µg/L       0.01567      0.1281 ppb        0.01567  12.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.4      0.1578 µg/L       0.28799      0.1578 ppb        0.28799 182.51%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       354.0      48.293 µg/L       18.4231      48.293 ppb        18.4231  38.15%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -15.7     -0.1808 µg/L       0.26146     -0.1808 ppb        0.26146 144.62%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -13.1     -2.7951 µg/L       2.95840     -2.7951 ppb        2.95840 105.84%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -33.8     -1.8816 µg/L       0.52992     -1.8816 ppb        0.52992  28.16%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.5     -3.3115 µg/L       7.22011     -3.3115 ppb        7.22011 218.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -5.7     -0.6722 µg/L       0.60798     -0.6722 ppb        0.60798  90.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.5        2.00 µg/L         1.038        2.00 ppb          1.038  51.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     69.0      6.7304 µg/L       4.11166      6.7304 ppb        4.11166  61.09%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              370.1      5.4512 µg/L       2.37108      5.4512 ppb        2.37108  43.50%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                7.1      0.4446 µg/L       0.30998      0.4446 ppb        0.30998  69.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -40.5     -0.0842 µg/L       0.07323     -0.0842 ppb        0.07323  86.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              103.9      0.1008 µg/L       0.09194      0.1008 ppb        0.09194  91.24%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.5      0.0605 µg/L       0.44806      0.0605 ppb        0.44806 740.90%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -134.1     -7.8596 µg/L       2.83865     -7.8596 ppb        2.83865  36.12%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -66.4     -0.3279 µg/L       0.21579     -0.3279 ppb        0.21579  65.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               45.5      0.2565 µg/L       0.15245      0.2565 ppb        0.15245  59.43%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 35
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 7:36:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146332.2	146332.2	100	%			07:37:10
1	Al 396.153Radial†	26483.2	26473.6	4886.8	µg/L	4886.8	ppb	07:37:10
1	Ca 317.933Radial†	85410.3	84614.8	4713.4	µg/L	4713.4	ppb	07:37:10
1	Fe 238.204 Radial†	76905.7	76546.1	4717.8	µg/L	4717.8	ppb	07:37:10
1	K 766.490 Radial†	14725.5	13140.2	4806.9	µg/L	4806.9	ppb	07:37:10
1	Mg 279.077 IEC†	13076.5	12849.9	4794.9	µg/L	4794.9	ppb	07:37:10
1	Na 589.592 Radial†	70949.5	69463.5	9485.3	µg/L	9485.3	ppb	07:37:10
1	Sr 421.552†	227490.4	227000.0	471.88	µg/L	471.88	ppb	07:37:08
1	Sc 361.383	1755231.6	1755231.6	102.15	%			07:37:23
1	Y 371.029	1032858.8	1032858.8	100.60	%			07:37:23
1	Ag 328.068†	131287.2	124427.2	466.57	µg/L	466.57	ppb	07:37:23
1	As 188.979†	1606.3	1592.8	488.46	µg/L	488.46	ppb	07:37:43
1	B 249.677†	35587.4	31331.1	460.45	µg/L	460.45	ppb	07:37:23
1	Ba 233.527†	118532.4	116168.7	468.50	µg/L	468.50	ppb	07:37:23
1	Be 313.107†	1788909.7	1752250.2	477.23	µg/L	477.23	ppb	07:37:23
1	Cd 226.502†	76081.4	74595.2	465.65	µg/L	465.65	ppb	07:37:23
1	Co 228.616†	38631.1	38006.8	469.19	µg/L	469.19	ppb	07:37:23
1	Cr 267.716†	60873.7	59411.5	465.19	µg/L	465.19	ppb	07:37:23
1	Cu 324.752†	125667.5	120045.2	467.96	µg/L	467.96	ppb	07:37:23
1	Mn 257.610†	389098.7	380656.2	470.78	µg/L	470.78	ppb	07:37:23
1	Mo 202.031†	15951.4	15635.1	459.93	µg/L	459.93	ppb	07:37:43
1	Ni 231.604†	41430.3	40633.1	467.86	µg/L	467.86	ppb	07:37:23
1	P 214.914†	10955.5	10742.4	2289.6	µg/L	2289.6	ppb	07:37:43
1	Pb 220.353†	8573.3	8306.1	465.15	µg/L	465.15	ppb	07:37:43
1	S 181.975 Axial†	1341.1	1207.7	900.72	µg/L	900.72	ppb	07:37:43
1	Sb 206.836†	3999.7	3834.5	456.79	µg/L	456.79	ppb	07:37:43
1	Se 196.026†	1291.4	1248.9	454	µg/L	454	ppb	07:37:43
1	SiO2†	53486.7	50583.4	4924.4	µg/L	4924.4	ppb	07:37:23
1	Si 251.611†	161279.1	157041.5	2306.1	µg/L	2306.1	ppb	07:37:23
1	Sn 189.927†	7483.5	7326.8	458.32	µg/L	458.32	ppb	07:37:43
1	Ti 334.940†	511921.3	500173.5	466.70	µg/L	466.70	ppb	07:37:23
1	Tl 190.801†	3750.3	3787.9	472.43	µg/L	472.43	ppb	07:37:43
1	U 409.014†	7033.0	7154.6	446.72	µg/L	446.72	ppb	07:37:23
1	V 292.402†	97690.8	95226.9	470.65	µg/L	470.65	ppb	07:37:23
1	Zn 213.857†	85107.7	82748.5	461.16	µg/L	461.16	ppb	07:37:23
2	Sc RADIAL	144707.9	144707.9	99.2	%			07:37:14
2	Al 396.153Radial†	26071.0	26354.4	4864.4	µg/L	4864.4	ppb	07:37:14
2	Ca 317.933Radial†	84110.0	84259.6	4693.6	µg/L	4693.6	ppb	07:37:14
2	Fe 238.204 Radial†	75848.7	76341.0	4705.2	µg/L	4705.2	ppb	07:37:14
2	K 766.490 Radial†	14646.3	13225.2	4838.1	µg/L	4838.1	ppb	07:37:14
2	Mg 279.077 IEC†	12854.6	12772.4	4766.2	µg/L	4766.2	ppb	07:37:14
2	Na 589.592 Radial†	70049.9	69350.6	9469.8	µg/L	9469.8	ppb	07:37:14
2	Sr 421.552†	225976.1	228019.4	474.00	µg/L	474.00	ppb	07:37:12
2	Sc 361.383	1732373.4	1732373.4	100.82	%			07:37:46
2	Y 371.029	1019781.4	1019781.4	99.327	%			07:37:46
2	Ag 328.068†	128939.1	123794.1	464.22	µg/L	464.22	ppb	07:37:46
2	As 188.979†	1606.1	1613.3	494.68	µg/L	494.68	ppb	07:38:06
2	B 249.677†	34981.4	31189.6	458.37	µg/L	458.37	ppb	07:37:46
2	Ba 233.527†	116962.9	116143.0	468.40	µg/L	468.40	ppb	07:37:46
2	Be 313.107†	1757200.1	1743906.2	474.96	µg/L	474.96	ppb	07:37:46
2	Cd 226.502†	74602.4	74111.0	462.63	µg/L	462.63	ppb	07:37:46
2	Co 228.616†	37925.3	37805.7	466.71	µg/L	466.71	ppb	07:37:46
2	Cr 267.716†	59873.6	59205.8	463.58	µg/L	463.58	ppb	07:37:46
2	Cu 324.752†	123849.5	119865.3	467.26	µg/L	467.26	ppb	07:37:46
2	Mn 257.610†	382644.8	379280.8	469.08	µg/L	469.08	ppb	07:37:46
2	Mo 202.031†	15964.6	15854.2	466.36	µg/L	466.36	ppb	07:38:06
2	Ni 231.604†	40667.9	40412.1	465.32	µg/L	465.32	ppb	07:37:46
2	P 214.914†	10979.6	10907.8	2324.9	µg/L	2324.9	ppb	07:38:06
2	Pb 220.353†	8578.3	8421.9	471.62	µg/L	471.62	ppb	07:38:06

2	S 181.975 Axial†	1356.5	1240.4	925.03 µg/L	925.03 ppb	07:38:06
2	Sb 206.836†	4023.2	3909.5	465.83 µg/L	465.83 ppb	07:38:06
2	Se 196.026†	1307.9	1282.0	466 µg/L	466 ppb	07:38:06
2	SiO2†	52465.9	50261.8	4892.7 µg/L	4892.7 ppb	07:37:46
2	Si 251.611†	158344.0	156213.6	2293.7 µg/L	2293.7 ppb	07:37:46
2	Sn 189.927†	7531.9	7471.5	467.34 µg/L	467.34 ppb	07:38:06
2	Ti 334.940†	504721.3	499644.5	466.21 µg/L	466.21 ppb	07:37:46
2	Tl 190.801†	3747.8	3833.9	478.07 µg/L	478.07 ppb	07:38:06
2	U 409.014†	6972.2	7185.1	448.44 µg/L	448.44 ppb	07:37:46
2	V 292.402†	96211.2	95021.2	469.71 µg/L	469.71 ppb	07:37:46
2	Zn 213.857†	83793.7	82544.6	460.03 µg/L	460.03 ppb	07:37:46
3	Sc RADIAL	141223.7	141223.7	96.8 %		07:37:18
3	Al 396.153Radial†	25588.7	26504.6	4892.4 µg/L	4892.4 ppb	07:37:18
3	Ca 317.933Radial†	81996.3	84168.1	4688.5 µg/L	4688.5 ppb	07:37:18
3	Fe 238.204 Radial†	74078.2	76398.7	4708.7 µg/L	4708.7 ppb	07:37:18
3	K 766.490 Radial†	14283.7	13215.0	4834.3 µg/L	4834.3 ppb	07:37:18
3	Mg 279.077 IEC†	12579.8	12808.3	4779.5 µg/L	4779.5 ppb	07:37:18
3	Na 589.592 Radial†	68912.4	69918.0	9547.3 µg/L	9547.3 ppb	07:37:18
3	Sr 421.552†	225704.2	233360.7	485.11 µg/L	485.11 ppb	07:37:16
3	Sc 361.383	1737200.3	1737200.3	101.10 %		07:38:09
3	Y 371.029	1023000.6	1023000.6	99.641 %		07:38:09
3	Ag 328.068†	129804.6	124294.8	466.08 µg/L	466.08 ppb	07:38:09
3	As 188.979†	1584.4	1587.5	486.86 µg/L	486.86 ppb	07:38:29
3	B 249.677†	35144.5	31254.5	459.33 µg/L	459.33 ppb	07:38:09
3	Ba 233.527†	117342.7	116196.3	468.62 µg/L	468.62 ppb	07:38:09
3	Be 313.107†	1762901.5	1744702.7	475.18 µg/L	475.18 ppb	07:38:09
3	Cd 226.502†	74911.5	74211.1	463.25 µg/L	463.25 ppb	07:38:09
3	Co 228.616†	38084.9	37859.1	467.37 µg/L	467.37 ppb	07:38:09
3	Cr 267.716†	60063.8	59228.9	463.76 µg/L	463.76 ppb	07:38:09
3	Cu 324.752†	123874.8	119549.0	466.03 µg/L	466.03 ppb	07:38:09
3	Mn 257.610†	383642.9	379213.5	469.00 µg/L	469.00 ppb	07:38:09
3	Mo 202.031†	15929.7	15775.7	464.06 µg/L	464.06 ppb	07:38:29
3	Ni 231.604†	40689.2	40321.1	464.27 µg/L	464.27 ppb	07:38:09
3	P 214.914†	10943.5	10841.9	2310.9 µg/L	2310.9 ppb	07:38:29
3	Pb 220.353†	8527.3	8347.7	467.48 µg/L	467.48 ppb	07:38:29
3	S 181.975 Axial†	1341.1	1221.4	910.88 µg/L	910.88 ppb	07:38:29
3	Sb 206.836†	3977.1	3852.9	459.06 µg/L	459.06 ppb	07:38:29
3	Se 196.026†	1304.9	1275.4	463 µg/L	463 ppb	07:38:29
3	SiO2†	52742.2	50390.5	4905.4 µg/L	4905.4 ppb	07:38:09
3	Si 251.611†	159183.6	156607.6	2299.6 µg/L	2299.6 ppb	07:38:09
3	Sn 189.927†	7518.9	7437.9	465.24 µg/L	465.24 ppb	07:38:29
3	Ti 334.940†	505645.2	499167.4	465.76 µg/L	465.76 ppb	07:38:09
3	Tl 190.801†	3722.8	3798.8	473.75 µg/L	473.75 ppb	07:38:29
3	U 409.014†	7129.1	7321.1	456.39 µg/L	456.39 ppb	07:38:09
3	V 292.402†	96480.4	95022.4	469.70 µg/L	469.70 ppb	07:38:09
3	Zn 213.857†	83941.5	82459.8	459.57 µg/L	459.57 ppb	07:38:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1741601.8	101.36	%	0.701				0.69%
Sc RADIAL	144087.9	98.7	%	1.79				1.81%
Y 371.029	1025213.6	99.856	%	0.6637				0.66%
Ag 328.068†	124172.0	465.62	µg/L	1.242	465.62	ppb	1.242	0.27%
QC value within limits for Ag 328.068 Recovery = 93.12%								
Al 396.153Radial†	26444.2	4881.2	µg/L	14.80	4881.2	ppb	14.80	0.30%
QC value within limits for Al 396.153Radial Recovery = 97.62%								
As 188.979†	1597.9	490.00	µg/L	4.134	490.00	ppb	4.134	0.84%
QC value within limits for As 188.979 Recovery = 98.00%								
B 249.677†	31258.4	459.38	µg/L	1.040	459.38	ppb	1.040	0.23%
QC value within limits for B 249.677 Recovery = 91.88%								
Ba 233.527†	116169.3	468.51	µg/L	0.107	468.51	ppb	0.107	0.02%
QC value within limits for Ba 233.527 Recovery = 93.70%								
Be 313.107†	1746953.0	475.79	µg/L	1.253	475.79	ppb	1.253	0.26%
QC value within limits for Be 313.107 Recovery = 95.16%								
Ca 317.933Radial†	84347.5	4698.5	µg/L	13.15	4698.5	ppb	13.15	0.28%
QC value within limits for Ca 317.933Radial Recovery = 93.97%								
Cd 226.502†	74305.8	463.85	µg/L	1.597	463.85	ppb	1.597	0.34%
QC value within limits for Cd 226.502 Recovery = 92.77%								
Co 228.616†	37890.5	467.76	µg/L	1.285	467.76	ppb	1.285	0.27%

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   QC value within limits for Co 228.616  Recovery = 93.55%
Cr 267.716†            59282.1      464.18 µg/L         0.885      464.18 ppb          0.885   0.19%
   QC value within limits for Cr 267.716  Recovery = 92.84%
Cu 324.752†           119819.8      467.08 µg/L         0.973      467.08 ppb          0.973   0.21%
   QC value within limits for Cu 324.752  Recovery = 93.42%
Fe 238.204 Radial†     76428.6      4710.6 µg/L          6.52      4710.6 ppb           6.52   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.21%
K 766.490 Radial†      13193.5      4826.4 µg/L         16.99      4826.4 ppb          16.99   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 96.53%
Mg 279.077 IEC†        12810.2      4780.2 µg/L         14.35      4780.2 ppb          14.35   0.30%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.60%
Mn 257.610†           379716.8      469.62 µg/L         1.007      469.62 ppb          1.007   0.21%
   QC value within limits for Mn 257.610  Recovery = 93.92%
Mo 202.031†            15755.0      463.45 µg/L         3.262      463.45 ppb          3.262   0.70%
   QC value within limits for Mo 202.031  Recovery = 92.69%
Na 589.592 Radial†     69577.4      9500.8 µg/L         41.02      9500.8 ppb          41.02   0.43%
   QC value within limits for Na 589.592 Radial  Recovery = 95.01%
Ni 231.604†            40455.5      465.82 µg/L         1.848      465.82 ppb          1.848   0.40%
   QC value within limits for Ni 231.604  Recovery = 93.16%
P 214.914†             10830.7      2308.5 µg/L         17.82      2308.5 ppb          17.82   0.77%
   QC value within limits for P 214.914  Recovery = 92.34%
Pb 220.353†             8358.6      468.08 µg/L         3.280      468.08 ppb          3.280   0.70%
   QC value within limits for Pb 220.353  Recovery = 93.62%
S 181.975 Axial†        1223.2      912.21 µg/L        12.211      912.21 ppb         12.211   1.34%
   QC value within limits for S 181.975 Axial  Recovery = 91.22%
Sb 206.836†             3865.6      460.56 µg/L         4.702      460.56 ppb          4.702   1.02%
   QC value within limits for Sb 206.836  Recovery = 92.11%
Se 196.026†             1268.7         461 µg/L           6.3         461 ppb            6.3   1.37%
   QC value within limits for Se 196.026  Recovery = 92.15%
SiO2†                  50411.9      4907.5 µg/L         15.98      4907.5 ppb          15.98   0.33%
   QC value within limits for SiO2  Recovery = 91.77%
Si 251.611†           156620.9      2299.8 µg/L          6.18      2299.8 ppb           6.18   0.27%
   QC value within limits for Si 251.611  Recovery = 91.99%
Sn 189.927†             7412.1      463.64 µg/L         4.721      463.64 ppb          4.721   1.02%
   QC value within limits for Sn 189.927  Recovery = 92.73%
Sr 421.552†           229460.1      477.00 µg/L         7.102      477.00 ppb          7.102   1.49%
   QC value within limits for Sr 421.552  Recovery = 95.40%
Ti 334.940†           499661.8      466.22 µg/L         0.472      466.22 ppb          0.472   0.10%
   QC value within limits for Ti 334.940  Recovery = 93.24%
Tl 190.801†             3806.8      474.75 µg/L         2.949      474.75 ppb          2.949   0.62%
   QC value within limits for Tl 190.801  Recovery = 94.95%
U 409.014†              7220.3      450.52 µg/L         5.160      450.52 ppb          5.160   1.15%
   QC value within limits for U 409.014  Recovery = 90.10%
V 292.402†             95090.2      470.02 µg/L         0.547      470.02 ppb          0.547   0.12%
   QC value within limits for V 292.402  Recovery = 94.00%
Zn 213.857†            82584.3      460.25 µg/L         0.820      460.25 ppb          0.820   0.18%
   QC value within limits for Zn 213.857  Recovery = 92.05%
All analyte(s) passed QC.
```

Sequence No.: 36
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 7:38:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144865.0	144865.0	99.3	%			07:39:06
1	Al 396.153Radial†	-66.2	-3.5	-0.6374	µg/L	-0.6374	ppb	07:39:26
1	Ca 317.933Radial†	646.3	90.4	5.0369	µg/L	5.0369	ppb	07:39:26
1	Fe 238.204 Radial†	209.7	63.1	3.8916	µg/L	3.8916	ppb	07:39:26
1	K 766.490 Radial†	1684.9	152.5	55.831	µg/L	55.831	ppb	07:39:06
1	Mg 279.077 IEC†	193.5	4.2	1.5669	µg/L	1.5669	ppb	07:39:26
1	Na 589.592 Radial†	1877.6	600.6	82.000	µg/L	82.000	ppb	07:39:06
1	Sr 421.552†	-73.3	61.5	0.1277	µg/L	0.1277	ppb	07:39:06
1	Sc 361.383	1773972.1	1773972.1	103.24	%			07:40:28
1	Y 371.029	1054718.2	1054718.2	102.73	%			07:40:28
1	Ag 328.068†	4048.7	-169.9	-0.6302	µg/L	-0.6302	ppb	07:40:30
1	As 188.979†	-24.0	-2.9	-0.8728	µg/L	-0.8728	ppb	07:40:50
1	B 249.677†	3528.9	-87.9	-1.2976	µg/L	-1.2976	ppb	07:40:30
1	Ba 233.527†	-121.1	18.6	0.0744	µg/L	0.0744	ppb	07:40:50
1	Be 313.107†	-1294.9	-189.5	-0.0502	µg/L	-0.0502	ppb	07:40:30
1	Cd 226.502†	-130.2	-7.9	-0.0499	µg/L	-0.0499	ppb	07:40:50
1	Co 228.616†	-161.9	33.5	0.4127	µg/L	0.4127	ppb	07:40:50
1	Cr 267.716†	184.3	-0.1	-0.0047	µg/L	-0.0047	ppb	07:40:50
1	Cu 324.752†	2904.6	-158.9	-0.6127	µg/L	-0.6127	ppb	07:40:30
1	Mn 257.610†	324.4	76.9	0.0951	µg/L	0.0951	ppb	07:40:50
1	Mo 202.031†	-23.3	-2.5	-0.0725	µg/L	-0.0725	ppb	07:40:50
1	Ni 231.604†	-135.9	-55.1	-0.6345	µg/L	-0.6345	ppb	07:40:50
1	P 214.914†	-41.1	-21.9	-4.6744	µg/L	-4.6744	ppb	07:40:50
1	Pb 220.353†	68.5	-20.0	-1.1214	µg/L	-1.1214	ppb	07:40:50
1	S 181.975 Axial†	100.6	-7.6	-5.6585	µg/L	-5.6585	ppb	07:40:50
1	Sb 206.836†	68.4	-14.6	-1.7404	µg/L	-1.7404	ppb	07:40:50
1	Se 196.026†	18.3	2.5	0.908	µg/L	0.908	ppb	07:40:50
1	SiO2†	1820.7	-11.9	-1.1560	µg/L	-1.1560	ppb	07:40:50
1	Si 251.611†	1068.4	198.3	2.9249	µg/L	2.9249	ppb	07:40:30
1	Sn 189.927†	-3.3	-2.1	-0.1293	µg/L	-0.1293	ppb	07:40:50
1	Ti 334.940†	988.4	4.8	0.0025	µg/L	0.0025	ppb	07:40:30
1	Tl 190.801†	-106.3	13.7	1.6801	µg/L	1.6801	ppb	07:40:50
1	U 409.014†	-194.8	81.2	4.7170	µg/L	4.7170	ppb	07:40:30
1	V 292.402†	299.5	-113.7	-0.5526	µg/L	-0.5526	ppb	07:40:30
1	Zn 213.857†	620.0	36.1	0.2071	µg/L	0.2071	ppb	07:40:50
2	Sc RADIAL	144677.4	144677.4	99.1	%			07:39:28
2	Al 396.153Radial†	-26.2	36.8	6.7962	µg/L	6.7962	ppb	07:39:48
2	Ca 317.933Radial†	616.3	61.0	3.3989	µg/L	3.3989	ppb	07:39:48
2	Fe 238.204 Radial†	188.1	41.6	2.5644	µg/L	2.5644	ppb	07:39:48
2	K 766.490 Radial†	1793.5	264.2	96.730	µg/L	96.730	ppb	07:39:28
2	Mg 279.077 IEC†	186.7	-2.4	-0.8687	µg/L	-0.8687	ppb	07:39:48
2	Na 589.592 Radial†	1666.4	390.0	53.197	µg/L	53.197	ppb	07:39:28
2	Sr 421.552†	-22.1	112.9	0.2348	µg/L	0.2348	ppb	07:39:28
2	Sc 361.383	1735344.8	1735344.8	101.00	%			07:40:52
2	Y 371.029	1033478.9	1033478.9	100.66	%			07:40:52
2	Ag 328.068†	4113.3	-18.7	-0.0838	µg/L	-0.0838	ppb	07:40:54
2	As 188.979†	-13.0	7.5	2.2661	µg/L	2.2661	ppb	07:41:15
2	B 249.677†	3521.9	-18.8	-0.2777	µg/L	-0.2777	ppb	07:40:54
2	Ba 233.527†	-142.6	-5.3	-0.0217	µg/L	-0.0217	ppb	07:41:15
2	Be 313.107†	-1309.9	-232.3	-0.0650	µg/L	-0.0650	ppb	07:40:54
2	Cd 226.502†	-113.5	5.9	0.0362	µg/L	0.0362	ppb	07:41:15
2	Co 228.616†	-176.9	15.2	0.1873	µg/L	0.1873	ppb	07:41:15
2	Cr 267.716†	160.2	-20.0	-0.1524	µg/L	-0.1524	ppb	07:41:15
2	Cu 324.752†	2852.4	-148.0	-0.5794	µg/L	-0.5794	ppb	07:40:54
2	Mn 257.610†	315.5	75.1	0.0930	µg/L	0.0930	ppb	07:41:15
2	Mo 202.031†	-7.2	12.9	0.3792	µg/L	0.3792	ppb	07:41:15
2	Ni 231.604†	-99.6	-22.1	-0.2540	µg/L	-0.2540	ppb	07:41:15
2	P 214.914†	-15.0	3.1	0.6539	µg/L	0.6539	ppb	07:41:15
2	Pb 220.353†	70.7	-16.4	-0.9094	µg/L	-0.9094	ppb	07:41:15

2	S 181.975 Axial†	109.8	3.6	2.7121	µg/L	2.7121 ppb	07:41:15
2	Sb 206.836†	77.7	-3.8	-0.4510	µg/L	-0.4510 ppb	07:41:15
2	Se 196.026†	17.9	2.5	0.895	µg/L	0.895 ppb	07:41:15
2	SiO2†	1835.6	42.1	4.1047	µg/L	4.1047 ppb	07:41:15
2	Si 251.611†	942.4	96.6	1.4199	µg/L	1.4199 ppb	07:40:54
2	Sn 189.927†	-4.2	-3.0	-0.1897	µg/L	-0.1897 ppb	07:41:15
2	Ti 334.940†	926.0	-35.7	-0.0308	µg/L	-0.0308 ppb	07:40:54
2	Tl 190.801†	-106.4	11.4	1.3896	µg/L	1.3896 ppb	07:41:15
2	U 409.014†	-370.7	-97.2	-5.7184	µg/L	-5.7184 ppb	07:40:54
2	V 292.402†	279.0	-127.6	-0.6232	µg/L	-0.6232 ppb	07:40:54
2	Zn 213.857†	604.2	33.8	0.1918	µg/L	0.1918 ppb	07:41:15
3	Sc RADIAL	144023.3	144023.3	98.7	%		07:39:50
3	Al 396.153Radial†	-82.0	-19.8	-3.6906	µg/L	-3.6906 ppb	07:40:10
3	Ca 317.933Radial†	602.8	50.2	2.7958	µg/L	2.7958 ppb	07:40:10
3	Fe 238.204 Radial†	180.4	34.7	2.1375	µg/L	2.1375 ppb	07:40:10
3	K 766.490 Radial†	1784.0	262.8	96.205	µg/L	96.205 ppb	07:39:50
3	Mg 279.077 IEC†	175.6	-12.7	-4.7423	µg/L	-4.7423 ppb	07:40:10
3	Na 589.592 Radial†	1732.1	464.3	63.340	µg/L	63.340 ppb	07:39:50
3	Sr 421.552†	-195.2	-62.5	-0.1299	µg/L	-0.1299 ppb	07:39:50
3	Sc 361.383	1741408.4	1741408.4	101.35	%		07:41:17
3	Y 371.029	1036750.9	1036750.9	100.98	%		07:41:17
3	Ag 328.068†	4133.8	-12.7	-0.0489	µg/L	-0.0489 ppb	07:41:19
3	As 188.979†	-23.0	-2.3	-0.6982	µg/L	-0.6982 ppb	07:41:39
3	B 249.677†	3567.6	14.2	0.2094	µg/L	0.2094 ppb	07:41:19
3	Ba 233.527†	-111.8	25.5	0.1031	µg/L	0.1031 ppb	07:41:39
3	Be 313.107†	-1058.7	20.1	0.0047	µg/L	0.0047 ppb	07:41:19
3	Cd 226.502†	-95.9	23.6	0.1471	µg/L	0.1471 ppb	07:41:39
3	Co 228.616†	-177.4	15.3	0.1888	µg/L	0.1888 ppb	07:41:39
3	Cr 267.716†	169.4	-11.4	-0.0874	µg/L	-0.0874 ppb	07:41:39
3	Cu 324.752†	2962.9	-48.8	-0.1916	µg/L	-0.1916 ppb	07:41:19
3	Mn 257.610†	307.6	66.3	0.0822	µg/L	0.0822 ppb	07:41:39
3	Mo 202.031†	-10.0	10.2	0.3008	µg/L	0.3008 ppb	07:41:39
3	Ni 231.604†	-92.4	-14.6	-0.1686	µg/L	-0.1686 ppb	07:41:39
3	P 214.914†	-29.9	-11.6	-2.4772	µg/L	-2.4772 ppb	07:41:39
3	Pb 220.353†	85.8	-1.7	-0.0930	µg/L	-0.0930 ppb	07:41:39
3	S 181.975 Axial†	103.2	-3.3	-2.4139	µg/L	-2.4139 ppb	07:41:39
3	Sb 206.836†	82.0	0.1	0.0120	µg/L	0.0120 ppb	07:41:39
3	Se 196.026†	16.4	0.9	0.318	µg/L	0.318 ppb	07:41:39
3	SiO2†	1798.2	-1.1	-0.1172	µg/L	-0.1172 ppb	07:41:39
3	Si 251.611†	1068.4	217.6	3.2043	µg/L	3.2043 ppb	07:41:19
3	Sn 189.927†	-2.9	-1.8	-0.1096	µg/L	-0.1096 ppb	07:41:39
3	Ti 334.940†	1014.3	48.3	0.0467	µg/L	0.0467 ppb	07:41:19
3	Tl 190.801†	-117.5	0.7	0.0900	µg/L	0.0900 ppb	07:41:39
3	U 409.014†	-319.9	-45.8	-2.6697	µg/L	-2.6697 ppb	07:41:19
3	V 292.402†	434.4	24.9	0.1219	µg/L	0.1219 ppb	07:41:19
3	Zn 213.857†	631.5	58.7	0.3307	µg/L	0.3307 ppb	07:41:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1750241.8	101.86	%	1.209				1.19%
Sc RADIAL	144521.9	99.0	%	0.30				0.31%
Y 371.029	1041649.4	101.46	%	1.114				1.10%
Ag 328.068†	-67.1	-0.2543	µg/L	0.32602	-0.2543	ppb	0.32602	128.19%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.5	0.8227	µg/L	5.39375	0.8227	ppb	5.39375	655.58%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.8	0.2317	µg/L	1.76401	0.2317	ppb	1.76401	761.32%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-30.8	-0.4553	µg/L	0.76905	-0.4553	ppb	0.76905	168.90%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.9	0.0519	µg/L	0.06535	0.0519	ppb	0.06535	125.85%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-133.9	-0.0368	µg/L	0.03667	-0.0368	ppb	0.03667	99.59%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	67.2	3.7438	µg/L	1.15972	3.7438	ppb	1.15972	30.98%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.2	0.0445	µg/L	0.09877	0.0445	ppb	0.09877	222.10%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	21.3	0.2629	µg/L	0.12972	0.2629	ppb	0.12972	49.34%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -10.5     -0.0815 µg/L       0.07399     -0.0815 ppb        0.07399  90.79%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -118.6     -0.4613 µg/L       0.23410     -0.4613 ppb        0.23410  50.75%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        46.5      2.8645 µg/L       0.91478      2.8645 ppb        0.91478  31.94%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        226.5     82.922 µg/L       23.4629     82.922 ppb        23.4629  28.30%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -3.6     -1.3480 µg/L       3.18177     -1.3480 ppb        3.18177 236.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               72.8      0.0901 µg/L       0.00694      0.0901 ppb        0.00694   7.70%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                6.9      0.2025 µg/L       0.24136      0.2025 ppb        0.24136 119.21%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       485.0     66.179 µg/L       14.6100     66.179 ppb        14.6100  22.08%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -30.6     -0.3524 µg/L       0.24803     -0.3524 ppb        0.24803  70.39%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -10.1     -2.1659 µg/L       2.67771     -2.1659 ppb        2.67771 123.63%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -12.7     -0.7079 µg/L       0.54301     -0.7079 ppb        0.54301  76.70%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.4     -1.7867 µg/L       4.22040     -1.7867 ppb        4.22040 236.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -6.1     -0.7264 µg/L       0.90810     -0.7264 ppb        0.90810 125.01%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.0       0.707 µg/L        0.3367       0.707 ppb         0.3367  47.63%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      9.7      0.9439 µg/L       2.78623      0.9439 ppb        2.78623 295.20%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              170.8      2.5163 µg/L       0.95980      2.5163 ppb        0.95980  38.14%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -2.3     -0.1429 µg/L       0.04173     -0.1429 ppb        0.04173  29.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               37.3      0.0775 µg/L       0.18746      0.0775 ppb        0.18746 241.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                5.8      0.0061 µg/L       0.03889      0.0061 ppb        0.03889 633.97%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.6      1.0532 µg/L       0.84670      1.0532 ppb        0.84670  80.39%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -20.6     -1.2237 µg/L       5.36587     -1.2237 ppb        5.36587 438.49%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -72.1     -0.3513 µg/L       0.41132     -0.3513 ppb        0.41132 117.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               42.9      0.2432 µg/L       0.07619      0.2432 ppb        0.07619  31.33%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 46
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 8:00:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145715.3	145715.3	99.9	%			08:01:32
1	Al 396.153Radial†	26381.9	26484.0	4888.7	µg/L	4888.7	ppb	08:01:32
1	Ca 317.933Radial†	85101.3	84666.0	4716.2	µg/L	4716.2	ppb	08:01:32
1	Fe 238.204 Radial†	76948.8	76914.0	4740.5	µg/L	4740.5	ppb	08:01:32
1	K 766.490 Radial†	14844.0	13321.1	4873.1	µg/L	4873.1	ppb	08:01:32
1	Mg 279.077 IEC†	13019.7	12848.2	4794.2	µg/L	4794.2	ppb	08:01:32
1	Na 589.592 Radial†	71029.4	69843.2	9537.1	µg/L	9537.1	ppb	08:01:32
1	Sr 421.552†	226733.7	227202.7	472.30	µg/L	472.30	ppb	08:01:30
1	Sc 361.383	1733278.7	1733278.7	100.88	%			08:01:44
1	Y 371.029	1020878.7	1020878.7	99.434	%			08:01:44
1	Ag 328.068†	128877.0	123665.7	463.80	µg/L	463.80	ppb	08:01:44
1	As 188.979†	1571.7	1578.4	484.08	µg/L	484.08	ppb	08:02:05
1	B 249.677†	34899.0	31089.9	456.91	µg/L	456.91	ppb	08:01:44
1	Ba 233.527†	116754.5	115875.8	467.32	µg/L	467.32	ppb	08:01:44
1	Be 313.107†	1755392.5	1741204.0	474.24	µg/L	474.24	ppb	08:01:44
1	Cd 226.502†	74106.8	73581.0	459.31	µg/L	459.31	ppb	08:01:44
1	Co 228.616†	37838.7	37700.2	465.41	µg/L	465.41	ppb	08:01:44
1	Cr 267.716†	59758.3	59060.5	462.42	µg/L	462.42	ppb	08:01:44
1	Cu 324.752†	124172.2	120121.0	468.28	µg/L	468.28	ppb	08:01:44
1	Mn 257.610†	383112.4	379546.1	469.41	µg/L	469.41	ppb	08:01:44
1	Mo 202.031†	15799.6	15682.4	461.32	µg/L	461.32	ppb	08:02:05
1	Ni 231.604†	40408.5	40133.9	462.11	µg/L	462.11	ppb	08:01:44
1	P 214.914†	10759.6	10684.0	2277.0	µg/L	2277.0	ppb	08:02:05
1	Pb 220.353†	8394.7	8235.4	461.17	µg/L	461.17	ppb	08:02:05
1	S 181.975 Axial†	1311.6	1195.1	891.37	µg/L	891.37	ppb	08:02:05
1	Sb 206.836†	3976.3	3860.9	459.99	µg/L	459.99	ppb	08:02:05
1	Se 196.026†	1284.2	1257.8	457	µg/L	457	ppb	08:02:05
1	SiO2†	52555.6	50323.5	4899.0	µg/L	4899.0	ppb	08:01:44
1	Si 251.611†	158981.4	156763.4	2302.0	µg/L	2302.0	ppb	08:01:44
1	Sn 189.927†	7415.3	7352.0	459.90	µg/L	459.90	ppb	08:02:05
1	Ti 334.940†	506659.0	501304.0	467.74	µg/L	467.74	ppb	08:01:44
1	Tl 190.801†	3686.3	3771.0	470.38	µg/L	470.38	ppb	08:02:05
1	U 409.014†	7619.8	7823.5	485.81	µg/L	485.81	ppb	08:01:44
1	V 292.402†	96428.5	95186.8	470.48	µg/L	470.48	ppb	08:01:44
1	Zn 213.857†	83338.3	82049.7	457.27	µg/L	457.27	ppb	08:01:44
2	Sc RADIAL	142027.8	142027.8	97.3	%			08:01:36
2	Al 396.153Radial†	25747.8	26518.3	4894.9	µg/L	4894.9	ppb	08:01:36
2	Ca 317.933Radial†	82471.3	84176.5	4689.0	µg/L	4689.0	ppb	08:01:36
2	Fe 238.204 Radial†	74613.7	76515.5	4715.9	µg/L	4715.9	ppb	08:01:36
2	K 766.490 Radial†	14349.4	13198.9	4828.4	µg/L	4828.4	ppb	08:01:36
2	Mg 279.077 IEC†	12706.1	12864.4	4800.4	µg/L	4800.4	ppb	08:01:36
2	Na 589.592 Radial†	69331.4	69945.4	9551.1	µg/L	9551.1	ppb	08:01:36
2	Sr 421.552†	226873.5	233241.8	484.86	µg/L	484.86	ppb	08:01:34
2	Sc 361.383	1733104.6	1733104.6	100.87	%			08:02:08
2	Y 371.029	1021120.9	1021120.9	99.458	%			08:02:08
2	Ag 328.068†	129426.2	124223.1	465.82	µg/L	465.82	ppb	08:02:08
2	As 188.979†	1592.6	1599.3	490.42	µg/L	490.42	ppb	08:02:28
2	B 249.677†	35033.3	31226.5	458.92	µg/L	458.92	ppb	08:02:08
2	Ba 233.527†	116849.2	115981.4	467.75	µg/L	467.75	ppb	08:02:08
2	Be 313.107†	1758090.3	1744053.5	475.00	µg/L	475.00	ppb	08:02:08
2	Cd 226.502†	74443.5	73922.3	461.45	µg/L	461.45	ppb	08:02:08
2	Co 228.616†	37979.7	37843.7	467.18	µg/L	467.18	ppb	08:02:08
2	Cr 267.716†	59778.2	59086.2	462.64	µg/L	462.64	ppb	08:02:08
2	Cu 324.752†	124226.8	120187.5	468.52	µg/L	468.52	ppb	08:02:08
2	Mn 257.610†	383186.5	379657.8	469.55	µg/L	469.55	ppb	08:02:08
2	Mo 202.031†	15940.4	15823.5	465.46	µg/L	465.46	ppb	08:02:28
2	Ni 231.604†	40586.3	40314.2	464.19	µg/L	464.19	ppb	08:02:08
2	P 214.914†	10880.3	10804.8	2302.9	µg/L	2302.9	ppb	08:02:28
2	Pb 220.353†	8511.6	8352.1	467.72	µg/L	467.72	ppb	08:02:28

2	S 181.975 Axial†	1348.0	1231.4	918.34 µg/L	918.34 ppb	08:02:28
2	Sb 206.836†	4000.0	3884.8	462.89 µg/L	462.89 ppb	08:02:28
2	Se 196.026†	1293.9	1267.5	460 µg/L	460 ppb	08:02:28
2	SiO2†	52562.2	50335.3	4900.0 µg/L	4900.0 ppb	08:02:08
2	Si 251.611†	159042.6	156839.9	2303.0 µg/L	2303.0 ppb	08:02:08
2	Sn 189.927†	7463.6	7400.6	462.92 µg/L	462.92 ppb	08:02:28
2	Ti 334.940†	506039.5	500740.2	467.23 µg/L	467.23 ppb	08:02:08
2	Tl 190.801†	3699.3	3784.2	471.98 µg/L	471.98 ppb	08:02:28
2	U 409.014†	7125.9	7334.6	457.19 µg/L	457.19 ppb	08:02:08
2	V 292.402†	96287.2	95056.4	469.87 µg/L	469.87 ppb	08:02:08
2	Zn 213.857†	83549.5	82267.4	458.48 µg/L	458.48 ppb	08:02:08
3	Sc RADIAL	143341.2	143341.2	98.2 %		08:01:40
3	Al 396.153Radial†	26044.6	26578.1	4906.2 µg/L	4906.2 ppb	08:01:40
3	Ca 317.933Radial†	83104.8	84044.9	4681.6 µg/L	4681.6 ppb	08:01:40
3	Fe 238.204 Radial†	75412.0	76625.7	4722.7 µg/L	4722.7 ppb	08:01:40
3	K 766.490 Radial†	14496.9	13214.0	4833.9 µg/L	4833.9 ppb	08:01:40
3	Mg 279.077 IEC†	12748.0	12787.5	4771.6 µg/L	4771.6 ppb	08:01:40
3	Na 589.592 Radial†	69624.2	69590.7	9502.6 µg/L	9502.6 ppb	08:01:40
3	Sr 421.552†	225785.0	229997.6	478.11 µg/L	478.11 ppb	08:01:38
3	Sc 361.383	1744356.0	1744356.0	101.52 %		08:02:31
3	Y 371.029	1026919.1	1026919.1	100.02 %		08:02:31
3	Ag 328.068†	130072.0	124031.6	465.13 µg/L	465.13 ppb	08:02:31
3	As 188.979†	1587.7	1584.3	485.87 µg/L	485.87 ppb	08:02:51
3	B 249.677†	35315.9	31280.9	459.71 µg/L	459.71 ppb	08:02:31
3	Ba 233.527†	117642.8	116015.8	467.89 µg/L	467.89 ppb	08:02:31
3	Be 313.107†	1771054.6	1745580.9	475.42 µg/L	475.42 ppb	08:02:31
3	Cd 226.502†	74986.7	73981.3	461.82 µg/L	461.82 ppb	08:02:31
3	Co 228.616†	38300.5	37916.9	468.08 µg/L	468.08 ppb	08:02:31
3	Cr 267.716†	60087.1	59008.1	462.03 µg/L	462.03 ppb	08:02:31
3	Cu 324.752†	125055.9	120209.8	468.61 µg/L	468.61 ppb	08:02:31
3	Mn 257.610†	385650.6	379634.5	469.52 µg/L	469.52 ppb	08:02:31
3	Mo 202.031†	15861.8	15644.2	460.19 µg/L	460.19 ppb	08:02:51
3	Ni 231.604†	40921.5	40384.8	465.00 µg/L	465.00 ppb	08:02:31
3	P 214.914†	10852.0	10707.3	2282.0 µg/L	2282.0 ppb	08:02:51
3	Pb 220.353†	8455.9	8242.8	461.61 µg/L	461.61 ppb	08:02:51
3	S 181.975 Axial†	1319.7	1194.9	891.17 µg/L	891.17 ppb	08:02:51
3	Sb 206.836†	3977.3	3836.9	457.12 µg/L	457.12 ppb	08:02:51
3	Se 196.026†	1290.9	1256.3	456 µg/L	456 ppb	08:02:51
3	SiO2†	52909.6	50341.4	4900.8 µg/L	4900.8 ppb	08:02:31
3	Si 251.611†	160085.1	156849.7	2303.3 µg/L	2303.3 ppb	08:02:31
3	Sn 189.927†	7427.1	7317.0	457.71 µg/L	457.71 ppb	08:02:51
3	Ti 334.940†	509665.6	501076.0	467.54 µg/L	467.54 ppb	08:02:31
3	Tl 190.801†	3698.9	3760.1	469.03 µg/L	469.03 ppb	08:02:51
3	U 409.014†	7194.6	7356.7	458.58 µg/L	458.58 ppb	08:02:31
3	V 292.402†	97277.5	95416.1	471.57 µg/L	471.57 ppb	08:02:31
3	Zn 213.857†	84150.2	82324.8	458.80 µg/L	458.80 ppb	08:02:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1736913.1	101.09	%	0.375				0.37%
Sc RADIAL	143694.8	98.5	%	1.28				1.30%
Y 371.029	1022972.9	99.638	%	0.3331				0.33%
Ag 328.068†	123973.4	464.92	µg/L	1.028	464.92	ppb	1.028	0.22%
QC value within limits for Ag 328.068 Recovery = 92.98%								
Al 396.153Radial†	26526.8	4896.6	µg/L	8.88	4896.6	ppb	8.88	0.18%
QC value within limits for Al 396.153Radial Recovery = 97.93%								
As 188.979†	1587.3	486.79	µg/L	3.266	486.79	ppb	3.266	0.67%
QC value within limits for As 188.979 Recovery = 97.36%								
B 249.677†	31199.1	458.51	µg/L	1.446	458.51	ppb	1.446	0.32%
QC value within limits for B 249.677 Recovery = 91.70%								
Ba 233.527†	115957.7	467.65	µg/L	0.294	467.65	ppb	0.294	0.06%
QC value within limits for Ba 233.527 Recovery = 93.53%								
Be 313.107†	1743612.8	474.89	µg/L	0.600	474.89	ppb	0.600	0.13%
QC value within limits for Be 313.107 Recovery = 94.98%								
Ca 317.933Radial†	84295.8	4695.6	µg/L	18.23	4695.6	ppb	18.23	0.39%
QC value within limits for Ca 317.933Radial Recovery = 93.91%								
Cd 226.502†	73828.2	460.86	µg/L	1.352	460.86	ppb	1.352	0.29%
QC value within limits for Cd 226.502 Recovery = 92.17%								
Co 228.616†	37820.3	466.89	µg/L	1.360	466.89	ppb	1.360	0.29%

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   QC value within limits for Co 228.616  Recovery = 93.38%
Cr 267.716†            59051.6      462.36 µg/L         0.309      462.36 ppb          0.309   0.07%
   QC value within limits for Cr 267.716  Recovery = 92.47%
Cu 324.752†           120172.8      468.47 µg/L         0.166      468.47 ppb          0.166   0.04%
   QC value within limits for Cu 324.752  Recovery = 93.69%
Fe 238.204 Radial†     76685.1      4726.4 µg/L         12.68      4726.4 ppb          12.68   0.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.53%
K 766.490 Radial†      13244.6      4845.2 µg/L         24.40      4845.2 ppb          24.40   0.50%
   QC value within limits for K 766.490 Radial  Recovery = 96.90%
Mg 279.077 IEC†        12833.4      4788.8 µg/L         15.15      4788.8 ppb          15.15   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.78%
Mn 257.610†           379612.8      469.49 µg/L         0.073      469.49 ppb          0.073   0.02%
   QC value within limits for Mn 257.610  Recovery = 93.90%
Mo 202.031†            15716.7      462.32 µg/L         2.775      462.32 ppb          2.775   0.60%
   QC value within limits for Mo 202.031  Recovery = 92.46%
Na 589.592 Radial†     69793.1      9530.3 µg/L         24.94      9530.3 ppb          24.94   0.26%
   QC value within limits for Na 589.592 Radial  Recovery = 95.30%
Ni 231.604†            40277.6      463.77 µg/L         1.490      463.77 ppb          1.490   0.32%
   QC value within limits for Ni 231.604  Recovery = 92.75%
P 214.914†             10732.1      2287.3 µg/L         13.70      2287.3 ppb          13.70   0.60%
   QC value within limits for P 214.914  Recovery = 91.49%
Pb 220.353†             8276.8      463.50 µg/L         3.661      463.50 ppb          3.661   0.79%
   QC value within limits for Pb 220.353  Recovery = 92.70%
S 181.975 Axial†        1207.1      900.29 µg/L        15.630      900.29 ppb         15.630   1.74%
   QC value within limits for S 181.975 Axial  Recovery = 90.03%
Sb 206.836†             3860.9      460.00 µg/L         2.884      460.00 ppb          2.884   0.63%
   QC value within limits for Sb 206.836  Recovery = 92.00%
Se 196.026†             1260.5         458 µg/L           2.2         458 ppb            2.2   0.48%
   QC value within limits for Se 196.026  Recovery = 91.55%
SiO2†                  50333.4      4899.9 µg/L          0.91      4899.9 ppb           0.91   0.02%
   QC value within limits for SiO2  Recovery = 91.63%
Si 251.611†           156817.7      2302.8 µg/L          0.69      2302.8 ppb           0.69   0.03%
   QC value within limits for Si 251.611  Recovery = 92.11%
Sn 189.927†             7356.5      460.18 µg/L         2.617      460.18 ppb          2.617   0.57%
   QC value within limits for Sn 189.927  Recovery = 92.04%
Sr 421.552†           230147.4      478.43 µg/L         6.283      478.43 ppb          6.283   1.31%
   QC value within limits for Sr 421.552  Recovery = 95.69%
Ti 334.940†           501040.1      467.50 µg/L         0.260      467.50 ppb          0.260   0.06%
   QC value within limits for Ti 334.940  Recovery = 93.50%
Tl 190.801†             3771.8      470.46 µg/L         1.474      470.46 ppb          1.474   0.31%
   QC value within limits for Tl 190.801  Recovery = 94.09%
U 409.014†              7504.9      467.19 µg/L        16.134      467.19 ppb         16.134   3.45%
   QC value within limits for U 409.014  Recovery = 93.44%
V 292.402†             95219.8      470.64 µg/L         0.860      470.64 ppb          0.860   0.18%
   QC value within limits for V 292.402  Recovery = 94.13%
Zn 213.857†            82214.0      458.18 µg/L         0.807      458.18 ppb          0.807   0.18%
   QC value within limits for Zn 213.857  Recovery = 91.64%
All analyte(s) passed QC.
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Sequence No.: 47
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 8:02:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145628.2	145628.2	99.8	%			08:03:27
1	Al 396.153Radial†	-41.4	21.8	4.0267	µg/L	4.0267	ppb	08:03:47
1	Ca 317.933Radial†	662.1	102.9	5.7304	µg/L	5.7304	ppb	08:03:47
1	Fe 238.204 Radial†	220.3	72.7	4.4780	µg/L	4.4780	ppb	08:03:47
1	K 766.490 Radial†	1855.8	314.9	115.28	µg/L	115.28	ppb	08:03:27
1	Mg 279.077 IEC†	185.7	-4.6	-1.7242	µg/L	-1.7242	ppb	08:03:47
1	Na 589.592 Radial†	1645.9	358.5	48.877	µg/L	48.877	ppb	08:03:27
1	Sr 421.552†	-216.0	-81.2	-0.1688	µg/L	-0.1688	ppb	08:03:27
1	Sc 361.383	1772962.4	1772962.4	103.19	%			08:04:49
1	Y 371.029	1055359.7	1055359.7	102.79	%			08:04:49
1	Ag 328.068†	3845.9	-364.2	-1.3449	µg/L	-1.3449	ppb	08:04:51
1	As 188.979†	-19.6	1.4	0.4131	µg/L	0.4131	ppb	08:05:11
1	B 249.677†	3453.9	-158.7	-2.3413	µg/L	-2.3413	ppb	08:05:11
1	Ba 233.527†	-154.1	-13.5	-0.0539	µg/L	-0.0539	ppb	08:05:11
1	Be 313.107†	-982.1	112.9	0.0301	µg/L	0.0301	ppb	08:04:51
1	Cd 226.502†	-101.4	19.9	0.1238	µg/L	0.1238	ppb	08:05:11
1	Co 228.616†	-169.9	25.6	0.3161	µg/L	0.3161	ppb	08:05:11
1	Cr 267.716†	209.9	24.9	0.1968	µg/L	0.1968	ppb	08:05:11
1	Cu 324.752†	2963.7	-100.0	-0.3898	µg/L	-0.3898	ppb	08:04:51
1	Mn 257.610†	342.0	94.2	0.1166	µg/L	0.1166	ppb	08:05:11
1	Mo 202.031†	-15.5	5.0	0.1485	µg/L	0.1485	ppb	08:05:11
1	Ni 231.604†	-76.3	2.6	0.0298	µg/L	0.0298	ppb	08:05:11
1	P 214.914†	-34.8	-15.8	-3.3664	µg/L	-3.3664	ppb	08:05:11
1	Pb 220.353†	88.2	-0.9	-0.0505	µg/L	-0.0505	ppb	08:05:11
1	S 181.975 Axial†	106.5	-1.8	-1.3434	µg/L	-1.3434	ppb	08:05:11
1	Sb 206.836†	82.2	-1.2	-0.1403	µg/L	-0.1403	ppb	08:05:11
1	Se 196.026†	9.5	-6.1	-2.19	µg/L	-2.19	ppb	08:05:11
1	SiO2†	1849.6	17.1	1.6601	µg/L	1.6601	ppb	08:05:11
1	Si 251.611†	1439.7	558.6	8.2303	µg/L	8.2303	ppb	08:04:51
1	Sn 189.927†	8.5	9.4	0.5836	µg/L	0.5836	ppb	08:05:11
1	Ti 334.940†	1110.7	123.9	0.1168	µg/L	0.1168	ppb	08:04:51
1	Tl 190.801†	-120.9	-0.5	-0.0523	µg/L	-0.0523	ppb	08:05:11
1	U 409.014†	-317.2	-37.5	-2.1586	µg/L	-2.1586	ppb	08:04:51
1	V 292.402†	536.8	116.5	0.5684	µg/L	0.5684	ppb	08:04:51
1	Zn 213.857†	622.5	38.8	0.2178	µg/L	0.2178	ppb	08:05:11
2	Sc RADIAL	144736.8	144736.8	99.2	%			08:03:49
2	Al 396.153Radial†	-5.4	57.8	10.716	µg/L	10.716	ppb	08:04:09
2	Ca 317.933Radial†	638.8	83.5	4.6507	µg/L	4.6507	ppb	08:04:09
2	Fe 238.204 Radial†	199.0	52.5	3.2358	µg/L	3.2358	ppb	08:04:09
2	K 766.490 Radial†	1832.5	302.9	110.87	µg/L	110.87	ppb	08:03:49
2	Mg 279.077 IEC†	172.3	-17.0	-6.3459	µg/L	-6.3459	ppb	08:04:09
2	Na 589.592 Radial†	1559.6	281.7	38.384	µg/L	38.384	ppb	08:03:49
2	Sr 421.552†	-158.9	-25.0	-0.0520	µg/L	-0.0520	ppb	08:03:49
2	Sc 361.383	1755862.9	1755862.9	102.19	%			08:05:13
2	Y 371.029	1046433.4	1046433.4	101.92	%			08:05:13
2	Ag 328.068†	4113.9	-65.7	-0.2519	µg/L	-0.2519	ppb	08:05:15
2	As 188.979†	-10.1	10.4	3.1568	µg/L	3.1568	ppb	08:05:36
2	B 249.677†	3507.8	-73.3	-1.0826	µg/L	-1.0826	ppb	08:05:36
2	Ba 233.527†	-110.8	27.5	0.1103	µg/L	0.1103	ppb	08:05:36
2	Be 313.107†	-1103.6	-15.2	-0.0050	µg/L	-0.0050	ppb	08:05:15
2	Cd 226.502†	-117.5	3.3	0.0199	µg/L	0.0199	ppb	08:05:36
2	Co 228.616†	-168.0	25.9	0.3197	µg/L	0.3197	ppb	08:05:36
2	Cr 267.716†	175.1	-7.2	-0.0542	µg/L	-0.0542	ppb	08:05:36
2	Cu 324.752†	3054.7	17.0	0.0642	µg/L	0.0642	ppb	08:05:15
2	Mn 257.610†	329.2	84.8	0.1052	µg/L	0.1052	ppb	08:05:36
2	Mo 202.031†	-20.1	0.4	0.0130	µg/L	0.0130	ppb	08:05:36
2	Ni 231.604†	-91.7	-13.2	-0.1524	µg/L	-0.1524	ppb	08:05:36
2	P 214.914†	-21.8	-3.3	-0.7117	µg/L	-0.7117	ppb	08:05:36
2	Pb 220.353†	84.3	-3.9	-0.2136	µg/L	-0.2136	ppb	08:05:36

2	S 181.975 Axial†	104.3	-3.0	-2.2411 µg/L	-2.2411 ppb	08:05:36
2	Sb 206.836†	89.8	7.0	0.8387 µg/L	0.8387 ppb	08:05:36
2	Se 196.026†	1.4	-13.9	-5.02 µg/L	-5.02 ppb	08:05:36
2	SiO2†	1846.4	31.5	3.0716 µg/L	3.0716 ppb	08:05:36
2	Si 251.611†	1143.4	282.3	4.1596 µg/L	4.1596 ppb	08:05:15
2	Sn 189.927†	4.4	5.4	0.3386 µg/L	0.3386 ppb	08:05:36
2	Ti 334.940†	1120.6	144.0	0.1364 µg/L	0.1364 ppb	08:05:15
2	Tl 190.801†	-106.6	12.4	1.5171 µg/L	1.5171 ppb	08:05:36
2	U 409.014†	-325.4	-48.5	-2.8597 µg/L	-2.8597 ppb	08:05:15
2	V 292.402†	323.4	-87.3	-0.4283 µg/L	-0.4283 ppb	08:05:15
2	Zn 213.857†	622.8	45.0	0.2539 µg/L	0.2539 ppb	08:05:36
3	Sc RADIAL	145477.8	145477.8	99.7 %		08:04:11
3	Al 396.153Radial†	-77.3	-14.3	-2.6373 µg/L	-2.6373 ppb	08:04:31
3	Ca 317.933Radial†	622.0	63.4	3.5300 µg/L	3.5300 ppb	08:04:31
3	Fe 238.204 Radial†	209.6	62.1	3.8302 µg/L	3.8302 ppb	08:04:31
3	K 766.490 Radial†	1767.4	228.1	83.522 µg/L	83.522 ppb	08:04:11
3	Mg 279.077 IEC†	189.8	-0.3	-0.1200 µg/L	-0.1200 ppb	08:04:31
3	Na 589.592 Radial†	1542.1	256.1	34.912 µg/L	34.912 ppb	08:04:11
3	Sr 421.552†	-247.0	-112.5	-0.2339 µg/L	-0.2339 ppb	08:04:11
3	Sc 361.383	1757498.0	1757498.0	102.29 %		08:05:38
3	Y 371.029	1046163.2	1046163.2	101.90 %		08:05:38
3	Ag 328.068†	4081.5	-101.1	-0.3861 µg/L	-0.3861 ppb	08:05:40
3	As 188.979†	-21.7	-0.9	-0.2729 µg/L	-0.2729 ppb	08:06:00
3	B 249.677†	3497.6	-86.4	-1.2757 µg/L	-1.2757 ppb	08:06:00
3	Ba 233.527†	-117.5	20.9	0.0838 µg/L	0.0838 ppb	08:06:00
3	Be 313.107†	-1224.2	-132.1	-0.0374 µg/L	-0.0374 ppb	08:05:40
3	Cd 226.502†	-120.6	0.3	0.0016 µg/L	0.0016 ppb	08:06:00
3	Co 228.616†	-167.5	26.5	0.3275 µg/L	0.3275 ppb	08:06:00
3	Cr 267.716†	212.2	28.9	0.2299 µg/L	0.2299 ppb	08:06:00
3	Cu 324.752†	2960.9	-77.5	-0.3044 µg/L	-0.3044 ppb	08:05:40
3	Mn 257.610†	341.8	96.9	0.1199 µg/L	0.1199 ppb	08:06:00
3	Mo 202.031†	-35.9	-15.0	-0.4404 µg/L	-0.4404 ppb	08:06:00
3	Ni 231.604†	-80.0	-1.7	-0.0190 µg/L	-0.0190 ppb	08:06:00
3	P 214.914†	-29.9	-11.3	-2.4030 µg/L	-2.4030 ppb	08:06:00
3	Pb 220.353†	74.9	-13.1	-0.7302 µg/L	-0.7302 ppb	08:06:00
3	S 181.975 Axial†	96.2	-11.0	-8.1599 µg/L	-8.1599 ppb	08:06:00
3	Sb 206.836†	86.8	4.0	0.4695 µg/L	0.4695 ppb	08:06:00
3	Se 196.026†	25.3	9.5	3.43 µg/L	3.43 ppb	08:06:00
3	SiO2†	1863.2	46.2	4.5164 µg/L	4.5164 ppb	08:06:00
3	Si 251.611†	1191.6	328.4	4.8443 µg/L	4.8443 ppb	08:05:40
3	Sn 189.927†	7.1	8.1	0.5052 µg/L	0.5052 ppb	08:06:00
3	Ti 334.940†	1016.0	40.7	0.0401 µg/L	0.0401 ppb	08:05:40
3	Tl 190.801†	-114.6	4.6	0.5612 µg/L	0.5612 ppb	08:06:00
3	U 409.014†	-360.8	-82.8	-4.8696 µg/L	-4.8696 ppb	08:05:40
3	V 292.402†	312.2	-98.5	-0.4880 µg/L	-0.4880 ppb	08:05:40
3	Zn 213.857†	619.5	41.2	0.2313 µg/L	0.2313 ppb	08:06:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1762107.8	102.55	%	0.549				0.54%
Sc RADIAL	145280.9	99.6	%	0.33				0.33%
Y 371.029	1049318.7	102.20	%	0.510				0.50%
Ag 328.068†	-177.0	-0.6610	µg/L	0.59608	-0.6610	ppb	0.59608	90.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	21.7	4.0352	µg/L	6.67681	4.0352	ppb	6.67681	165.46%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.6	1.0990	µg/L	1.81480	1.0990	ppb	1.81480	165.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-106.1	-1.5665	µg/L	0.67790	-1.5665	ppb	0.67790	43.27%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.6	0.0468	µg/L	0.08818	0.0468	ppb	0.08818	188.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-11.5	-0.0041	µg/L	0.03377	-0.0041	ppb	0.03377	820.09%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	83.2	4.6370	µg/L	1.10025	4.6370	ppb	1.10025	23.73%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.8	0.0484	µg/L	0.06589	0.0484	ppb	0.06589	136.09%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	26.0	0.3211	µg/L	0.00580	0.3211	ppb	0.00580	1.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              15.5      0.1242 µg/L       0.15538      0.1242 ppb        0.15538 125.13%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -53.5     -0.2100 µg/L       0.24125     -0.2100 ppb        0.24125 114.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       62.4      3.8480 µg/L       0.62128      3.8480 ppb        0.62128  16.15%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       282.0      103.22 µg/L        17.204      103.22 ppb         17.204  16.67%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -7.3     -2.7300 µg/L       3.23251     -2.7300 ppb        3.23251 118.41%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              92.0      0.1139 µg/L       0.00772      0.1139 ppb        0.00772   6.77%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -3.2     -0.0930 µg/L       0.30846     -0.0930 ppb        0.30846 331.79%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      298.8      40.725 µg/L        7.2706      40.725 ppb         7.2706  17.85%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.1     -0.0472 µg/L       0.09431     -0.0472 ppb        0.09431 199.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -10.1     -2.1604 µg/L       1.34386     -2.1604 ppb        1.34386  62.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.0     -0.3314 µg/L       0.35480     -0.3314 ppb        0.35480 107.05%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -5.3     -3.9148 µg/L       3.70368     -3.9148 ppb        3.70368  94.61%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.3      0.3893 µg/L       0.49436      0.3893 ppb        0.49436 126.99%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.5       -1.26 µg/L         4.304       -1.26 ppb          4.304 341.67%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    31.6      3.0827 µg/L       1.42818      3.0827 ppb        1.42818  46.33%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             389.8      5.7447 µg/L       2.17958      5.7447 ppb        2.17958  37.94%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.6      0.4758 µg/L       0.12512      0.4758 ppb        0.12512  26.30%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -72.9     -0.1515 µg/L       0.09218     -0.1515 ppb        0.09218  60.83%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             102.9      0.0978 µg/L       0.05090      0.0978 ppb        0.05090  52.07%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.5      0.6753 µg/L       0.79088      0.6753 ppb        0.79088 117.11%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -56.3     -3.2960 µg/L       1.40720     -3.2960 ppb        1.40720  42.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -23.1     -0.1160 µg/L       0.59344     -0.1160 ppb        0.59344 511.79%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              41.7      0.2343 µg/L       0.01822      0.2343 ppb        0.01822   7.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 56
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 8:22:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145023.7	145023.7	99.4	%			08:23:21
1	Al 396.153Radial†	26605.8	26835.2	4953.8	µg/L	4953.8	ppb	08:23:21
1	Ca 317.933Radial†	84755.5	84724.4	4719.5	µg/L	4719.5	ppb	08:23:21
1	Fe 238.204 Radial†	77816.7	78154.8	4817.0	µg/L	4817.0	ppb	08:23:21
1	K 766.490 Radial†	14700.0	13247.0	4846.0	µg/L	4846.0	ppb	08:23:21
1	Mg 279.077 IEC†	12943.9	12834.1	4788.9	µg/L	4788.9	ppb	08:23:21
1	Na 589.592 Radial†	70170.3	69317.9	9465.4	µg/L	9465.4	ppb	08:23:21
1	Sr 421.552†	226954.7	228507.9	475.02	µg/L	475.02	ppb	08:23:19
1	Sc 361.383	1749033.4	1749033.4	101.79	%			08:23:48
1	Y 371.029	1029735.6	1029735.6	100.30	%			08:23:48
1	Ag 328.068†	130447.0	124057.3	465.21	µg/L	465.21	ppb	08:23:48
1	As 188.979†	1579.9	1572.5	482.32	µg/L	482.32	ppb	08:24:08
1	B 249.677†	35292.3	31164.6	458.00	µg/L	458.00	ppb	08:23:48
1	Ba 233.527†	118145.5	116199.8	468.63	µg/L	468.63	ppb	08:23:48
1	Be 313.107†	1777066.9	1746821.9	475.75	µg/L	475.75	ppb	08:23:48
1	Cd 226.502†	75442.6	74231.6	463.37	µg/L	463.37	ppb	08:23:48
1	Co 228.616†	38412.6	37926.1	468.19	µg/L	468.19	ppb	08:23:48
1	Cr 267.716†	60277.2	59036.6	462.26	µg/L	462.26	ppb	08:23:48
1	Cu 324.752†	125110.5	119934.0	467.54	µg/L	467.54	ppb	08:23:48
1	Mn 257.610†	386877.6	379824.1	469.75	µg/L	469.75	ppb	08:23:48
1	Mo 202.031†	15949.4	15688.4	461.50	µg/L	461.50	ppb	08:24:08
1	Ni 231.604†	40898.3	40254.3	463.50	µg/L	463.50	ppb	08:23:48
1	P 214.914†	10941.0	10766.2	2294.6	µg/L	2294.6	ppb	08:24:08
1	Pb 220.353†	8516.9	8280.5	463.72	µg/L	463.72	ppb	08:24:08
1	S 181.975 Axial†	1334.7	1206.2	899.56	µg/L	899.56	ppb	08:24:08
1	Sb 206.836†	4023.3	3871.6	461.28	µg/L	461.28	ppb	08:24:08
1	Se 196.026†	1307.6	1269.3	461	µg/L	461	ppb	08:24:08
1	SiO2†	53301.9	50587.4	4924.7	µg/L	4924.7	ppb	08:23:48
1	Si 251.611†	160785.6	157116.2	2307.2	µg/L	2307.2	ppb	08:23:48
1	Sn 189.927†	7513.4	7382.2	461.78	µg/L	461.78	ppb	08:24:08
1	Ti 334.940†	510901.2	500947.2	467.43	µg/L	467.43	ppb	08:23:48
1	Tl 190.801†	3716.2	3767.4	469.92	µg/L	469.92	ppb	08:24:08
1	U 409.014†	7026.6	7172.7	447.77	µg/L	447.77	ppb	08:23:48
1	V 292.402†	97429.9	95309.5	471.05	µg/L	471.05	ppb	08:23:48
1	Zn 213.857†	84520.6	82467.0	459.60	µg/L	459.60	ppb	08:23:48
2	Sc RADIAL	143346.3	143346.3	98.2	%			08:23:25
2	Al 396.153Radial†	26087.0	26620.4	4913.7	µg/L	4913.7	ppb	08:23:25
2	Ca 317.933Radial†	83586.5	84532.3	4708.8	µg/L	4708.8	ppb	08:23:25
2	Fe 238.204 Radial†	75427.7	76638.9	4723.6	µg/L	4723.6	ppb	08:23:25
2	K 766.490 Radial†	14587.0	13305.1	4867.3	µg/L	4867.3	ppb	08:23:25
2	Mg 279.077 IEC†	12683.7	12721.6	4747.3	µg/L	4747.3	ppb	08:23:25
2	Na 589.592 Radial†	69837.0	69804.9	9531.9	µg/L	9531.9	ppb	08:23:25
2	Sr 421.552†	226513.3	230730.9	479.64	µg/L	479.64	ppb	08:23:23
2	Sc 361.383	1731973.2	1731973.2	100.80	%			08:24:11
2	Y 371.029	1020279.7	1020279.7	99.376	%			08:24:11
2	Ag 328.068†	129413.4	124294.2	466.09	µg/L	466.09	ppb	08:24:11
2	As 188.979†	1610.6	1618.1	496.13	µg/L	496.13	ppb	08:24:31
2	B 249.677†	35094.6	31310.0	460.14	µg/L	460.14	ppb	08:24:11
2	Ba 233.527†	117004.6	116211.2	468.68	µg/L	468.68	ppb	08:24:11
2	Be 313.107†	1761232.0	1748308.7	476.16	µg/L	476.16	ppb	08:24:11
2	Cd 226.502†	74492.8	74019.4	462.06	µg/L	462.06	ppb	08:24:11
2	Co 228.616†	38028.9	37917.2	468.09	µg/L	468.09	ppb	08:24:11
2	Cr 267.716†	59832.9	59179.1	463.37	µg/L	463.37	ppb	08:24:11
2	Cu 324.752†	124054.0	120096.5	468.16	µg/L	468.16	ppb	08:24:11
2	Mn 257.610†	383564.9	380281.3	470.32	µg/L	470.32	ppb	08:24:11
2	Mo 202.031†	16033.2	15925.9	468.47	µg/L	468.47	ppb	08:24:31
2	Ni 231.604†	40607.5	40361.5	464.73	µg/L	464.73	ppb	08:24:11
2	P 214.914†	10972.8	10903.6	2324.0	µg/L	2324.0	ppb	08:24:31
2	Pb 220.353†	8523.2	8369.1	468.69	µg/L	468.69	ppb	08:24:31

2	S 181.975 Axial†	1342.3	1226.6	914.79 µg/L	914.79 ppb	08:24:31
2	Sb 206.836†	4035.3	3922.4	467.40 µg/L	467.40 ppb	08:24:31
2	Se 196.026†	1310.9	1285.2	467 µg/L	467 ppb	08:24:31
2	SiO2†	52742.2	50547.9	4920.6 µg/L	4920.6 ppb	08:24:11
2	Si 251.611†	159439.6	157336.7	2310.3 µg/L	2310.3 ppb	08:24:11
2	Sn 189.927†	7564.4	7505.5	469.46 µg/L	469.46 ppb	08:24:31
2	Ti 334.940†	505818.2	500848.4	467.34 µg/L	467.34 ppb	08:24:11
2	Tl 190.801†	3743.1	3830.0	477.62 µg/L	477.62 ppb	08:24:31
2	U 409.014†	6991.6	7206.0	449.76 µg/L	449.76 ppb	08:24:11
2	V 292.402†	96520.6	95350.2	471.34 µg/L	471.34 ppb	08:24:11
2	Zn 213.857†	83581.5	82353.3	458.96 µg/L	458.96 ppb	08:24:11
3	Sc RADIAL	144444.1	144444.1	99.0 %		08:23:29
3	Al 396.153Radial†	26227.0	26560.0	4902.5 µg/L	4902.5 ppb	08:23:29
3	Ca 317.933Radial†	84057.6	84361.6	4699.3 µg/L	4699.3 ppb	08:23:29
3	Fe 238.204 Radial†	75889.7	76522.2	4716.4 µg/L	4716.4 ppb	08:23:29
3	K 766.490 Radial†	14794.5	13401.9	4902.7 µg/L	4902.7 ppb	08:23:29
3	Mg 279.077 IEC†	12835.8	12777.1	4767.9 µg/L	4767.9 ppb	08:23:29
3	Na 589.592 Radial†	70359.5	69792.3	9530.1 µg/L	9530.1 ppb	08:23:29
3	Sr 421.552†	226221.0	228683.1	475.38 µg/L	475.38 ppb	08:23:27
3	Sc 361.383	1743351.1	1743351.1	101.46 %		08:24:34
3	Y 371.029	1026255.2	1026255.2	99.958 %		08:24:34
3	Ag 328.068†	129719.8	123758.3	464.11 µg/L	464.11 ppb	08:24:34
3	As 188.979†	1630.0	1626.9	498.78 µg/L	498.78 ppb	08:24:54
3	B 249.677†	35324.2	31309.0	460.13 µg/L	460.13 ppb	08:24:34
3	Ba 233.527†	117524.8	115966.4	467.69 µg/L	467.69 ppb	08:24:34
3	Be 313.107†	1769070.4	1744630.9	475.16 µg/L	475.16 ppb	08:24:34
3	Cd 226.502†	74950.5	73988.1	461.86 µg/L	461.86 ppb	08:24:34
3	Co 228.616†	38305.8	37943.9	468.41 µg/L	468.41 ppb	08:24:34
3	Cr 267.716†	60179.9	59133.7	463.01 µg/L	463.01 ppb	08:24:34
3	Cu 324.752†	124985.9	120211.8	468.61 µg/L	468.61 ppb	08:24:34
3	Mn 257.610†	384879.8	379093.8	468.85 µg/L	468.85 ppb	08:24:34
3	Mo 202.031†	16125.2	15912.8	468.09 µg/L	468.09 ppb	08:24:54
3	Ni 231.604†	40765.7	40254.5	463.50 µg/L	463.50 ppb	08:24:34
3	P 214.914†	11079.6	10937.8	2331.3 µg/L	2331.3 ppb	08:24:54
3	Pb 220.353†	8613.8	8403.2	470.58 µg/L	470.58 ppb	08:24:54
3	S 181.975 Axial†	1358.6	1234.0	920.26 µg/L	920.26 ppb	08:24:54
3	Sb 206.836†	4040.8	3901.7	464.95 µg/L	464.95 ppb	08:24:54
3	Se 196.026†	1297.8	1263.8	459 µg/L	459 ppb	08:24:54
3	SiO2†	52914.0	50375.8	4903.7 µg/L	4903.7 ppb	08:24:34
3	Si 251.611†	159915.1	156773.1	2302.0 µg/L	2302.0 ppb	08:24:34
3	Sn 189.927†	7612.7	7504.1	469.37 µg/L	469.37 ppb	08:24:54
3	Ti 334.940†	508439.6	500157.0	466.68 µg/L	466.68 ppb	08:24:34
3	Tl 190.801†	3764.4	3826.9	477.21 µg/L	477.21 ppb	08:24:54
3	U 409.014†	7195.6	7361.8	458.81 µg/L	458.81 ppb	08:24:34
3	V 292.402†	96989.0	95186.9	470.54 µg/L	470.54 ppb	08:24:34
3	Zn 213.857†	84147.5	82370.0	459.06 µg/L	459.06 ppb	08:24:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1741452.6	101.35	%	0.506				0.50%
Sc RADIAL	144271.4	98.9	%	0.58				0.59%
Y 371.029	1025423.5	99.877	%	0.4658				0.47%
Ag 328.068†	124036.6	465.14	µg/L	0.993	465.14	ppb	0.993	0.21%
QC value within limits for Ag 328.068 Recovery = 93.03%								
Al 396.153Radial†	26671.9	4923.3	µg/L	27.00	4923.3	ppb	27.00	0.55%
QC value within limits for Al 396.153Radial Recovery = 98.47%								
As 188.979†	1605.8	492.41	µg/L	8.838	492.41	ppb	8.838	1.79%
QC value within limits for As 188.979 Recovery = 98.48%								
B 249.677†	31261.2	459.42	µg/L	1.234	459.42	ppb	1.234	0.27%
QC value within limits for B 249.677 Recovery = 91.88%								
Ba 233.527†	116125.8	468.33	µg/L	0.556	468.33	ppb	0.556	0.12%
QC value within limits for Ba 233.527 Recovery = 93.67%								
Be 313.107†	1746587.1	475.69	µg/L	0.502	475.69	ppb	0.502	0.11%
QC value within limits for Be 313.107 Recovery = 95.14%								
Ca 317.933Radial†	84539.4	4709.2	µg/L	10.11	4709.2	ppb	10.11	0.21%
QC value within limits for Ca 317.933Radial Recovery = 94.18%								
Cd 226.502†	74079.7	462.43	µg/L	0.821	462.43	ppb	0.821	0.18%
QC value within limits for Cd 226.502 Recovery = 92.49%								
Co 228.616†	37929.1	468.23	µg/L	0.168	468.23	ppb	0.168	0.04%

```
   QC value within limits for Co 228.616  Recovery = 93.65%
Cr 267.716†            59116.5      462.88 µg/L         0.567      462.88 ppb          0.567   0.12%
   QC value within limits for Cr 267.716  Recovery = 92.58%
Cu 324.752†           120080.8      468.10 µg/L         0.539      468.10 ppb          0.539   0.12%
   QC value within limits for Cu 324.752  Recovery = 93.62%
Fe 238.204 Radial†     77105.3      4752.3 µg/L         56.13      4752.3 ppb          56.13   1.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.05%
K 766.490 Radial†      13318.0      4872.0 µg/L         28.65      4872.0 ppb          28.65   0.59%
   QC value within limits for K 766.490 Radial  Recovery = 97.44%
Mg 279.077 IEC†        12777.6      4768.0 µg/L         20.83      4768.0 ppb          20.83   0.44%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.36%
Mn 257.610†           379733.1      469.64 µg/L         0.741      469.64 ppb          0.741   0.16%
   QC value within limits for Mn 257.610  Recovery = 93.93%
Mo 202.031†            15842.4      466.02 µg/L         3.920      466.02 ppb          3.920   0.84%
   QC value within limits for Mo 202.031  Recovery = 93.20%
Na 589.592 Radial†     69638.4      9509.1 µg/L         37.90      9509.1 ppb          37.90   0.40%
   QC value within limits for Na 589.592 Radial  Recovery = 95.09%
Ni 231.604†            40290.1      463.91 µg/L         0.712      463.91 ppb          0.712   0.15%
   QC value within limits for Ni 231.604  Recovery = 92.78%
P 214.914†             10869.2      2316.7 µg/L         19.45      2316.7 ppb          19.45   0.84%
   QC value within limits for P 214.914  Recovery = 92.67%
Pb 220.353†             8350.9      467.66 µg/L         3.541      467.66 ppb          3.541   0.76%
   QC value within limits for Pb 220.353  Recovery = 93.53%
S 181.975 Axial†        1222.2      911.54 µg/L        10.724      911.54 ppb         10.724   1.18%
   QC value within limits for S 181.975 Axial  Recovery = 91.15%
Sb 206.836†             3898.6      464.54 µg/L         3.085      464.54 ppb          3.085   0.66%
   QC value within limits for Sb 206.836  Recovery = 92.91%
Se 196.026†             1272.7         462 µg/L           4.0         462 ppb            4.0   0.87%
   QC value within limits for Se 196.026  Recovery = 92.44%
SiO2†                  50503.7      4916.3 µg/L         11.11      4916.3 ppb          11.11   0.23%
   QC value within limits for SiO2  Recovery = 91.94%
Si 251.611†           157075.3      2306.5 µg/L          4.20      2306.5 ppb           4.20   0.18%
   QC value within limits for Si 251.611  Recovery = 92.26%
Sn 189.927†             7463.9      466.87 µg/L         4.413      466.87 ppb          4.413   0.95%
   QC value within limits for Sn 189.927  Recovery = 93.37%
Sr 421.552†           229307.3      476.68 µg/L         2.570      476.68 ppb          2.570   0.54%
   QC value within limits for Sr 421.552  Recovery = 95.34%
Ti 334.940†           500650.9      467.15 µg/L         0.405      467.15 ppb          0.405   0.09%
   QC value within limits for Ti 334.940  Recovery = 93.43%
Tl 190.801†             3808.1      474.92 µg/L         4.331      474.92 ppb          4.331   0.91%
   QC value within limits for Tl 190.801  Recovery = 94.98%
U 409.014†              7246.8      452.11 µg/L         5.885      452.11 ppb          5.885   1.30%
   QC value within limits for U 409.014  Recovery = 90.42%
V 292.402†             95282.2      470.97 µg/L         0.402      470.97 ppb          0.402   0.09%
   QC value within limits for V 292.402  Recovery = 94.19%
Zn 213.857†            82396.7      459.21 µg/L         0.343      459.21 ppb          0.343   0.07%
   QC value within limits for Zn 213.857  Recovery = 91.84%
All analyte(s) passed QC.
```

Sequence No.: 57
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 8:25:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144745.7	144745.7	99.2	%			08:25:31
1	Al 396.153Radial†	-27.7	35.3	6.5646	µg/L	6.5646	ppb	08:25:51
1	Ca 317.933Radial†	686.9	132.0	7.3520	µg/L	7.3520	ppb	08:25:51
1	Fe 238.204 Radial†	256.6	110.6	6.8188	µg/L	6.8188	ppb	08:25:51
1	K 766.490 Radial†	1924.7	395.7	144.85	µg/L	144.85	ppb	08:25:31
1	Mg 279.077 IEC†	168.4	-20.9	-7.7958	µg/L	-7.7958	ppb	08:25:51
1	Na 589.592 Radial†	1474.1	195.3	26.557	µg/L	26.557	ppb	08:25:31
1	Sr 421.552†	-51.7	83.1	0.1727	µg/L	0.1727	ppb	08:25:31
1	Sc 361.383	1769762.7	1769762.7	103.00	%			08:26:53
1	Y 371.029	1053390.5	1053390.5	102.60	%			08:26:53
1	Ag 328.068†	4618.3	392.4	1.4458	µg/L	1.4458	ppb	08:26:55
1	As 188.979†	-14.6	6.2	1.8706	µg/L	1.8706	ppb	08:27:15
1	B 249.677†	3508.6	-99.5	-1.4694	µg/L	-1.4694	ppb	08:27:15
1	Ba 233.527†	-137.1	2.8	0.0105	µg/L	0.0105	ppb	08:27:15
1	Be 313.107†	-1055.8	39.6	0.0111	µg/L	0.0111	ppb	08:26:55
1	Cd 226.502†	-122.4	-0.7	-0.0050	µg/L	-0.0050	ppb	08:27:15
1	Co 228.616†	-156.4	38.4	0.4739	µg/L	0.4739	ppb	08:27:15
1	Cr 267.716†	199.8	15.4	0.1201	µg/L	0.1201	ppb	08:27:15
1	Cu 324.752†	3018.4	-41.7	-0.1604	µg/L	-0.1604	ppb	08:26:55
1	Mn 257.610†	318.5	71.9	0.0893	µg/L	0.0893	ppb	08:27:15
1	Mo 202.031†	-35.0	-13.9	-0.4098	µg/L	-0.4098	ppb	08:27:15
1	Ni 231.604†	-100.7	-21.2	-0.2445	µg/L	-0.2445	ppb	08:27:15
1	P 214.914†	-26.8	-8.1	-1.7258	µg/L	-1.7258	ppb	08:27:15
1	Pb 220.353†	73.7	-14.8	-0.8297	µg/L	-0.8297	ppb	08:27:15
1	S 181.975 Axial†	91.9	-15.9	-11.791	µg/L	-11.791	ppb	08:27:15
1	Sb 206.836†	77.0	-6.0	-0.7256	µg/L	-0.7256	ppb	08:27:15
1	Se 196.026†	21.8	5.9	2.14	µg/L	2.14	ppb	08:27:15
1	SiO2†	1841.7	12.7	1.2473	µg/L	1.2473	ppb	08:27:15
1	Si 251.611†	1073.9	206.1	3.0429	µg/L	3.0429	ppb	08:26:55
1	Sn 189.927†	0.3	1.4	0.0868	µg/L	0.0868	ppb	08:27:15
1	Ti 334.940†	935.5	-44.3	-0.0410	µg/L	-0.0410	ppb	08:26:55
1	Tl 190.801†	-104.0	15.7	1.9265	µg/L	1.9265	ppb	08:27:15
1	U 409.014†	-261.3	16.2	0.9099	µg/L	0.9099	ppb	08:26:55
1	V 292.402†	273.6	-138.1	-0.6776	µg/L	-0.6776	ppb	08:26:55
1	Zn 213.857†	628.6	45.8	0.2585	µg/L	0.2585	ppb	08:27:15
2	Sc RADIAL	144804.5	144804.5	99.2	%			08:25:53
2	Al 396.153Radial†	-75.9	-13.2	-2.4545	µg/L	-2.4545	ppb	08:26:13
2	Ca 317.933Radial†	627.1	71.4	3.9763	µg/L	3.9763	ppb	08:26:13
2	Fe 238.204 Radial†	218.2	71.7	4.4221	µg/L	4.4221	ppb	08:26:13
2	K 766.490 Radial†	1766.9	235.9	86.349	µg/L	86.349	ppb	08:25:53
2	Mg 279.077 IEC†	149.5	-40.0	-14.917	µg/L	-14.917	ppb	08:26:13
2	Na 589.592 Radial†	1524.4	245.5	33.460	µg/L	33.460	ppb	08:25:53
2	Sr 421.552†	-211.2	-77.6	-0.1613	µg/L	-0.1613	ppb	08:25:53
2	Sc 361.383	1768953.0	1768953.0	102.95	%			08:27:17
2	Y 371.029	1052168.6	1052168.6	102.48	%			08:27:17
2	Ag 328.068†	4066.8	-141.2	-0.5193	µg/L	-0.5193	ppb	08:27:19
2	As 188.979†	-10.9	9.8	2.9563	µg/L	2.9563	ppb	08:27:39
2	B 249.677†	3510.5	-96.1	-1.4180	µg/L	-1.4180	ppb	08:27:39
2	Ba 233.527†	-145.8	-5.8	-0.0233	µg/L	-0.0233	ppb	08:27:39
2	Be 313.107†	-1214.9	-115.4	-0.0305	µg/L	-0.0305	ppb	08:27:19
2	Cd 226.502†	-104.8	16.4	0.1019	µg/L	0.1019	ppb	08:27:39
2	Co 228.616†	-188.7	7.1	0.0870	µg/L	0.0870	ppb	08:27:39
2	Cr 267.716†	203.0	18.6	0.1441	µg/L	0.1441	ppb	08:27:39
2	Cu 324.752†	3044.7	-14.8	-0.0549	µg/L	-0.0549	ppb	08:27:19
2	Mn 257.610†	318.6	72.2	0.0899	µg/L	0.0899	ppb	08:27:39
2	Mo 202.031†	-21.7	-1.0	-0.0303	µg/L	-0.0303	ppb	08:27:39
2	Ni 231.604†	-90.0	-10.9	-0.1258	µg/L	-0.1258	ppb	08:27:39
2	P 214.914†	-33.3	-14.4	-3.0832	µg/L	-3.0832	ppb	08:27:39
2	Pb 220.353†	78.5	-10.2	-0.5691	µg/L	-0.5691	ppb	08:27:39

2	S 181.975 Axial†	107.6	-0.5	-0.3868	µg/L	-0.3868 ppb	08:27:39
2	Sb 206.836†	91.7	8.2	0.9770	µg/L	0.9770 ppb	08:27:39
2	Se 196.026†	16.8	1.1	0.394	µg/L	0.394 ppb	08:27:39
2	SiO2†	1854.5	26.0	2.5390	µg/L	2.5390 ppb	08:27:39
2	Si 251.611†	1065.5	198.4	2.9257	µg/L	2.9257 ppb	08:27:19
2	Sn 189.927†	-2.7	-1.5	-0.0929	µg/L	-0.0929 ppb	08:27:39
2	Ti 334.940†	1005.0	23.6	0.0221	µg/L	0.0221 ppb	08:27:19
2	Tl 190.801†	-112.9	7.0	0.8619	µg/L	0.8619 ppb	08:27:39
2	U 409.014†	-227.1	49.3	2.8851	µg/L	2.8851 ppb	08:27:19
2	V 292.402†	420.7	4.9	0.0256	µg/L	0.0256 ppb	08:27:19
2	Zn 213.857†	625.3	42.9	0.2415	µg/L	0.2415 ppb	08:27:39
3	Sc RADIAL	144272.3	144272.3	98.9	%		08:26:15
3	Al 396.153Radial†	-71.2	-8.8	-1.6381	µg/L	-1.6381 ppb	08:26:35
3	Ca 317.933Radial†	630.6	77.2	4.3029	µg/L	4.3029 ppb	08:26:35
3	Fe 238.204 Radial†	172.8	26.7	1.6431	µg/L	1.6431 ppb	08:26:35
3	K 766.490 Radial†	1770.5	246.1	90.098	µg/L	90.098 ppb	08:26:15
3	Mg 279.077 IEC†	185.3	-3.3	-1.2328	µg/L	-1.2328 ppb	08:26:35
3	Na 589.592 Radial†	1475.1	201.2	27.407	µg/L	27.407 ppb	08:26:15
3	Sr 421.552†	-177.7	-44.5	-0.0925	µg/L	-0.0925 ppb	08:26:15
3	Sc 361.383	1768766.0	1768766.0	102.94	%		08:27:41
3	Y 371.029	1051479.0	1051479.0	102.41	%		08:27:41
3	Ag 328.068†	4233.5	21.2	0.0627	µg/L	0.0627 ppb	08:27:43
3	As 188.979†	-7.1	13.5	4.0791	µg/L	4.0791 ppb	08:28:04
3	B 249.677†	3482.5	-122.9	-1.8145	µg/L	-1.8145 ppb	08:28:04
3	Ba 233.527†	-134.9	4.8	0.0196	µg/L	0.0196 ppb	08:28:04
3	Be 313.107†	-1281.6	-180.3	-0.0533	µg/L	-0.0533 ppb	08:27:43
3	Cd 226.502†	-88.4	32.4	0.2018	µg/L	0.2018 ppb	08:28:04
3	Co 228.616†	-167.4	27.7	0.3422	µg/L	0.3422 ppb	08:28:04
3	Cr 267.716†	208.1	23.6	0.1956	µg/L	0.1956 ppb	08:28:04
3	Cu 324.752†	2964.7	-92.2	-0.3696	µg/L	-0.3696 ppb	08:27:43
3	Mn 257.610†	336.0	89.1	0.1103	µg/L	0.1103 ppb	08:28:04
3	Mo 202.031†	-17.3	3.3	0.0976	µg/L	0.0976 ppb	08:28:04
3	Ni 231.604†	-105.3	-25.8	-0.2966	µg/L	-0.2966 ppb	08:28:04
3	P 214.914†	-67.2	-47.3	-10.108	µg/L	-10.108 ppb	08:28:04
3	Pb 220.353†	51.8	-36.1	-2.0017	µg/L	-2.0017 ppb	08:28:04
3	S 181.975 Axial†	100.5	-7.5	-5.5440	µg/L	-5.5440 ppb	08:28:04
3	Sb 206.836†	75.8	-7.2	-0.8535	µg/L	-0.8535 ppb	08:28:04
3	Se 196.026†	20.7	4.8	1.72	µg/L	1.72 ppb	08:28:04
3	SiO2†	1863.3	34.7	3.3872	µg/L	3.3872 ppb	08:28:04
3	Si 251.611†	1029.6	163.6	2.4093	µg/L	2.4093 ppb	08:27:43
3	Sn 189.927†	2.0	3.1	0.1911	µg/L	0.1911 ppb	08:28:04
3	Ti 334.940†	930.6	-48.6	-0.0395	µg/L	-0.0395 ppb	08:27:43
3	Tl 190.801†	-112.4	7.5	0.9172	µg/L	0.9172 ppb	08:28:04
3	U 409.014†	-524.4	-239.5	-13.996	µg/L	-13.996 ppb	08:27:43
3	V 292.402†	446.7	30.1	0.1391	µg/L	0.1391 ppb	08:27:43
3	Zn 213.857†	632.8	50.3	0.2847	µg/L	0.2847 ppb	08:28:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769160.5	102.96	%	0.031				0.03%
Sc RADIAL	144607.5	99.1	%	0.20				0.20%
Y 371.029	1052346.0	102.50	%	0.094				0.09%
Ag 328.068†	90.8	0.3297	µg/L	1.00938	0.3297	ppb	1.00938	306.14%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.4	0.8240	µg/L	4.98825	0.8240	ppb	4.98825	605.37%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.8	2.9687	µg/L	1.10430	2.9687	ppb	1.10430	37.20%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-106.2	-1.5673	µg/L	0.21560	-1.5673	ppb	0.21560	13.76%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.6	0.0023	µg/L	0.02260	0.0023	ppb	0.02260	993.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-85.4	-0.0243	µg/L	0.03266	-0.0243	ppb	0.03266	134.56%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	93.5	5.2104	µg/L	1.86189	5.2104	ppb	1.86189	35.73%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.0	0.0996	µg/L	0.10342	0.0996	ppb	0.10342	103.86%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	24.4	0.3010	µg/L	0.19673	0.3010	ppb	0.19673	65.35%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.2      0.1532 µg/L       0.03857      0.1532 ppb        0.03857  25.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -49.6     -0.1950 µg/L       0.16021     -0.1950 ppb        0.16021  82.18%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       69.7      4.2947 µg/L       2.59021      4.2947 ppb        2.59021  60.31%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       292.5      107.10 µg/L        32.747      107.10 ppb         32.747  30.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -21.4     -7.9817 µg/L       6.84380     -7.9817 ppb        6.84380  85.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              77.7      0.0965 µg/L       0.01199      0.0965 ppb        0.01199  12.42%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -3.9     -0.1142 µg/L       0.26387     -0.1142 ppb        0.26387 231.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      214.0      29.141 µg/L        3.7642      29.141 ppb         3.7642  12.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -19.3     -0.2223 µg/L       0.08755     -0.2223 ppb        0.08755  39.38%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -23.3     -4.9725 µg/L       4.49935     -4.9725 ppb        4.49935  90.49%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -20.3     -1.1335 µg/L       0.76307     -1.1335 ppb        0.76307  67.32%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -8.0     -5.9073 µg/L       5.71085     -5.9073 ppb        5.71085  96.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.7     -0.2007 µg/L       1.02189     -0.2007 ppb        1.02189 509.13%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.9        1.42 µg/L         0.912        1.42 ppb          0.912  64.28%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    24.4      2.3912 µg/L       1.07760      2.3912 ppb        1.07760  45.07%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             189.3      2.7926 µg/L       0.33713      2.7926 ppb        0.33713  12.07%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.0      0.0616 µg/L       0.14369      0.0616 ppb        0.14369 233.07%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -13.0     -0.0270 µg/L       0.17639     -0.0270 ppb        0.17639 652.33%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -23.1     -0.0194 µg/L       0.03603     -0.0194 ppb        0.03603 185.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              10.1      1.2352 µg/L       0.59930      1.2352 ppb        0.59930  48.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -58.0     -3.4005 µg/L       9.22934     -3.4005 ppb        9.22934 271.41%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -34.4     -0.1710 µg/L       0.44239     -0.1710 ppb        0.44239 258.77%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              46.4      0.2616 µg/L       0.02175      0.2616 ppb        0.02175   8.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/1/2010 8:40:55 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 301**
Sample ID: 1202068097|964012|1 **Date Collected: 4/1/2010 8:40:59**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202068097|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140881.9	140881.9	96.5	%			08:41:30
1	Al 396.153Radial†	367.0	443.4	82.224	µg/L	82.224	ppb	08:41:30
1	Ca 317.933Radial†	4206.8	3797.0	211.51	µg/L	211.51	ppb	08:41:51
1	Fe 238.204 Radial†	526.4	397.1	24.476	µg/L	24.476	ppb	08:41:51
1	K 766.490 Radial†	1730.6	247.8	90.665	µg/L	90.665	ppb	08:41:30
1	Mg 279.077 IEC†	192.3	8.4	3.1108	µg/L	3.1108	ppb	08:41:51
1	Na 589.592 Radial†	1709.5	479.9	65.485	µg/L	65.485	ppb	08:41:30
1	Sr 421.552†	708.6	869.3	1.8056	µg/L	1.8056	ppb	08:41:30
1	Sc 361.383	1729701.0	1729701.0	100.67	%			08:42:52
1	Y 371.029	1026851.4	1026851.4	100.02	%			08:42:52
1	Ag 328.068†	4245.6	126.1	0.4491	µg/L	0.4491	ppb	08:42:54
1	As 188.979†	-20.5	-0.0	-0.0052	µg/L	-0.0052	ppb	08:43:15
1	B 249.677†	4090.3	557.3	8.2173	µg/L	8.2173	ppb	08:42:54
1	Ba 233.527†	-34.7	101.3	0.4078	µg/L	0.4078	ppb	08:43:15
1	Be 313.107†	-946.1	124.9	0.0317	µg/L	0.0317	ppb	08:42:54
1	Cd 226.502†	-100.3	18.6	0.1133	µg/L	0.1133	ppb	08:43:15
1	Co 228.616†	-160.5	30.9	0.3807	µg/L	0.3807	ppb	08:43:15
1	Cr 267.716†	229.2	49.1	0.3907	µg/L	0.3907	ppb	08:43:15
1	Cu 324.752†	3162.4	169.2	0.6551	µg/L	0.6551	ppb	08:42:54
1	Mn 257.610†	807.0	564.4	0.6981	µg/L	0.6981	ppb	08:43:15
1	Mo 202.031†	-35.4	-15.1	-0.4438	µg/L	-0.4438	ppb	08:43:15
1	Ni 231.604†	-101.6	-24.4	-0.2809	µg/L	-0.2809	ppb	08:43:15
1	P 214.914†	-5.4	12.6	2.7088	µg/L	2.7088	ppb	08:43:15
1	Pb 220.353†	64.9	-21.9	-1.2155	µg/L	-1.2155	ppb	08:43:15
1	S 181.975 Axial†	118.0	12.1	8.9957	µg/L	8.9957	ppb	08:43:15
1	Sb 206.836†	65.7	-15.6	-1.8604	µg/L	-1.8604	ppb	08:43:15
1	Se 196.026†	-0.7	-16.0	-5.78	µg/L	-5.78	ppb	08:43:15
1	SiO2†	2178.9	389.0	38.022	µg/L	38.022	ppb	08:42:54
1	Si 251.611†	2264.9	1413.3	20.835	µg/L	20.835	ppb	08:42:54
1	Sn 189.927†	16.8	17.8	1.1137	µg/L	1.1137	ppb	08:43:15
1	Ti 334.940†	1413.2	451.3	0.4298	µg/L	0.4298	ppb	08:42:54
1	Tl 190.801†	-118.1	-0.6	-0.0774	µg/L	-0.0774	ppb	08:43:15
1	U 409.014†	-400.5	-127.9	-7.4849	µg/L	-7.4849	ppb	08:42:54
1	V 292.402†	359.5	-46.7	-0.2386	µg/L	-0.2386	ppb	08:42:54
1	Zn 213.857†	779.1	209.5	1.1752	µg/L	1.1752	ppb	08:43:15
2	Sc RADIAL	142756.2	142756.2	97.8	%			08:41:53
2	Al 396.153Radial†	294.0	363.8	67.454	µg/L	67.454	ppb	08:41:53
2	Ca 317.933Radial†	4232.7	3766.2	209.79	µg/L	209.79	ppb	08:42:13
2	Fe 238.204 Radial†	549.3	413.4	25.477	µg/L	25.477	ppb	08:42:13
2	K 766.490 Radial†	1883.2	380.3	139.18	µg/L	139.18	ppb	08:41:53
2	Mg 279.077 IEC†	199.1	12.8	4.7364	µg/L	4.7364	ppb	08:42:13
2	Na 589.592 Radial†	1534.1	277.5	37.779	µg/L	37.779	ppb	08:41:53
2	Sr 421.552†	724.0	875.4	1.8182	µg/L	1.8182	ppb	08:41:53
2	Sc 361.383	1747084.4	1747084.4	101.68	%			08:43:17
2	Y 371.029	1036479.7	1036479.7	100.95	%			08:43:17
2	Ag 328.068†	4325.6	162.7	0.5983	µg/L	0.5983	ppb	08:43:19
2	As 188.979†	-15.3	5.3	1.6012	µg/L	1.6012	ppb	08:43:39

2	B 249.677†	4207.4	632.0	9.3198 µg/L	9.3198 ppb		08:43:19
2	Ba 233.527†	-1.9	134.0	0.5398 µg/L	0.5398 ppb		08:43:39
2	Be 313.107†	-1233.5	-148.5	-0.0403 µg/L	-0.0403 ppb		08:43:19
2	Cd 226.502†	-145.5	-24.9	-0.1585 µg/L	-0.1585 ppb		08:43:39
2	Co 228.616†	-169.1	24.0	0.2954 µg/L	0.2954 ppb		08:43:39
2	Cr 267.716†	203.1	21.2	0.1662 µg/L	0.1662 ppb		08:43:39
2	Cu 324.752†	3192.4	167.4	0.6549 µg/L	0.6549 ppb		08:43:19
2	Mn 257.610†	820.7	569.8	0.7048 µg/L	0.7048 ppb		08:43:39
2	Mo 202.031†	-26.4	-5.9	-0.1729 µg/L	-0.1729 ppb		08:43:39
2	Ni 231.604†	-82.4	-4.5	-0.0520 µg/L	-0.0520 ppb		08:43:39
2	P 214.914†	-10.9	7.3	1.5597 µg/L	1.5597 ppb		08:43:39
2	Pb 220.353†	72.7	-14.9	-0.8280 µg/L	-0.8280 ppb		08:43:39
2	S 181.975 Axial†	114.5	7.6	5.6329 µg/L	5.6329 ppb		08:43:39
2	Sb 206.836†	61.3	-20.5	-2.4404 µg/L	-2.4404 ppb		08:43:39
2	Se 196.026†	10.1	-5.3	-1.91 µg/L	-1.91 ppb		08:43:39
2	SiO2†	2234.6	422.3	41.266 µg/L	41.266 ppb		08:43:19
2	Si 251.611†	2303.2	1428.6	21.057 µg/L	21.057 ppb		08:43:19
2	Sn 189.927†	17.4	18.3	1.1397 µg/L	1.1397 ppb		08:43:39
2	Ti 334.940†	1216.3	243.7	0.2326 µg/L	0.2326 ppb		08:43:19
2	Tl 190.801†	-108.5	10.0	1.2275 µg/L	1.2275 ppb		08:43:39
2	U 409.014†	-269.2	5.1	0.3120 µg/L	0.3120 ppb		08:43:19
2	V 292.402†	428.5	17.6	0.0823 µg/L	0.0823 ppb		08:43:19
2	Zn 213.857†	789.5	212.0	1.1874 µg/L	1.1874 ppb		08:43:39
3	Sc RADIAL	141970.3	141970.3	97.3 %			08:42:15
3	Al 396.153Radial†	274.1	344.9	63.952 µg/L	63.952 ppb		08:42:15
3	Ca 317.933Radial†	4185.5	3741.6	208.42 µg/L	208.42 ppb		08:42:35
3	Fe 238.204 Radial†	546.3	413.4	25.479 µg/L	25.479 ppb		08:42:35
3	K 766.490 Radial†	1613.2	113.4	41.449 µg/L	41.449 ppb		08:42:15
3	Mg 279.077 IEC†	212.6	27.8	10.346 µg/L	10.346 ppb		08:42:35
3	Na 589.592 Radial†	1464.9	214.9	29.326 µg/L	29.326 ppb		08:42:15
3	Sr 421.552†	608.0	760.2	1.5788 µg/L	1.5788 ppb		08:42:15
3	Sc 361.383	1738671.6	1738671.6	101.19 %			08:43:41
3	Y 371.029	1032012.1	1032012.1	100.52 %			08:43:41
3	Ag 328.068†	4025.3	-113.4	-0.4197 µg/L	-0.4197 ppb		08:43:43
3	As 188.979†	-13.0	7.5	2.2760 µg/L	2.2760 ppb		08:44:03
3	B 249.677†	4068.0	514.3	7.5838 µg/L	7.5838 ppb		08:43:43
3	Ba 233.527†	-35.7	100.6	0.4043 µg/L	0.4043 ppb		08:44:03
3	Be 313.107†	-1120.4	-42.5	-0.0076 µg/L	-0.0076 ppb		08:43:43
3	Cd 226.502†	-123.8	-4.1	-0.0283 µg/L	-0.0283 ppb		08:44:03
3	Co 228.616†	-171.1	21.2	0.2611 µg/L	0.2611 ppb		08:44:03
3	Cr 267.716†	160.9	-19.6	-0.1635 µg/L	-0.1635 ppb		08:44:03
3	Cu 324.752†	3046.5	38.5	0.1646 µg/L	0.1646 ppb		08:43:43
3	Mn 257.610†	814.3	567.4	0.7016 µg/L	0.7016 ppb		08:44:03
3	Mo 202.031†	-21.2	-0.9	-0.0253 µg/L	-0.0253 ppb		08:44:03
3	Ni 231.604†	-74.9	2.5	0.0285 µg/L	0.0285 ppb		08:44:03
3	P 214.914†	-30.6	-12.3	-2.6310 µg/L	-2.6310 ppb		08:44:03
3	Pb 220.353†	70.9	-16.3	-0.9147 µg/L	-0.9147 ppb		08:44:03
3	S 181.975 Axial†	109.1	2.8	2.0663 µg/L	2.0663 ppb		08:44:03
3	Sb 206.836†	64.2	-17.4	-2.0663 µg/L	-2.0663 ppb		08:44:03
3	Se 196.026†	10.7	-4.7	-1.67 µg/L	-1.67 ppb		08:44:03
3	SiO2†	2285.4	483.2	47.227 µg/L	47.227 ppb		08:43:43
3	Si 251.611†	2295.2	1431.6	21.107 µg/L	21.107 ppb		08:43:43
3	Sn 189.927†	-1.6	-0.5	-0.0278 µg/L	-0.0278 ppb		08:44:03
3	Ti 334.940†	1353.1	384.6	0.3586 µg/L	0.3586 ppb		08:43:43
3	Tl 190.801†	-119.6	-1.6	-0.1929 µg/L	-0.1929 ppb		08:44:03
3	U 409.014†	-45.6	224.8	13.105 µg/L	13.105 ppb		08:43:43
3	V 292.402†	231.4	-175.1	-0.8494 µg/L	-0.8494 ppb		08:43:43
3	Zn 213.857†	752.6	179.3	1.0034 µg/L	1.0034 ppb		08:44:03

Mean Data: 1202068097|964012|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1738485.7	101.18	%	0.506				0.50%
Sc RADIAL	141869.5	97.2	%	0.64				0.66%
Y 371.029	1031781.1	100.50	%	0.469				0.47%
Ag 328.068†	58.5	0.2093	µg/L	0.54976	0.2093	ppb	0.54976	262.73%
Al 396.153Radial†	384.0	71.210	µg/L	9.6975	71.210	ppb	9.6975	13.62%
As 188.979†	4.2	1.2906	µg/L	1.17185	1.2906	ppb	1.17185	90.80%
B 249.677†	567.8	8.3736	µg/L	0.87846	8.3736	ppb	0.87846	10.49%
Ba 233.527†	112.0	0.4506	µg/L	0.07721	0.4506	ppb	0.07721	17.14%

Be 313.107†	-22.0	-0.0054	µg/L	0.03609	-0.0054	ppb	0.03609 669.04%
Ca 317.933Radial†	3768.3	209.91	µg/L	1.545	209.91	ppb	1.545 0.74%
Cd 226.502†	-3.5	-0.0245	µg/L	0.13593	-0.0245	ppb	0.13593 554.43%
Co 228.616†	25.4	0.3124	µg/L	0.06158	0.3124	ppb	0.06158 19.71%
Cr 267.716†	16.9	0.1312	µg/L	0.27876	0.1312	ppb	0.27876 212.52%
Cu 324.752†	125.0	0.4915	µg/L	0.28317	0.4915	ppb	0.28317 57.61%
Fe 238.204 Radial†	408.0	25.144	µg/L	0.5783	25.144	ppb	0.5783 2.30%
K 766.490 Radial†	247.2	90.432	µg/L	48.8668	90.432	ppb	48.8668 54.04%
Mg 279.077 IEC†	16.3	6.0645	µg/L	3.79613	6.0645	ppb	3.79613 62.60%
Mn 257.610†	567.2	0.7015	µg/L	0.00336	0.7015	ppb	0.00336 0.48%
Mo 202.031†	-7.3	-0.2140	µg/L	0.21225	-0.2140	ppb	0.21225 99.16%
Na 589.592 Radial†	324.1	44.197	µg/L	18.9144	44.197	ppb	18.9144 42.80%
Ni 231.604†	-8.8	-0.1014	µg/L	0.16051	-0.1014	ppb	0.16051 158.24%
P 214.914†	2.5	0.5458	µg/L	2.81057	0.5458	ppb	2.81057 514.95%
Pb 220.353†	-17.7	-0.9860	µg/L	0.20338	-0.9860	ppb	0.20338 20.63%
S 181.975 Axial†	7.5	5.5649	µg/L	3.46518	5.5649	ppb	3.46518 62.27%
Sb 206.836†	-17.8	-2.1224	µg/L	0.29403	-2.1224	ppb	0.29403 13.85%
Se 196.026†	-8.7	-3.12	µg/L	2.307	-3.12	ppb	2.307 73.90%
SiO2†	431.5	42.172	µg/L	4.6689	42.172	ppb	4.6689 11.07%
Si 251.611†	1424.5	21.000	µg/L	0.1445	21.000	ppb	0.1445 0.69%
Sn 189.927†	11.9	0.7419	µg/L	0.66672	0.7419	ppb	0.66672 89.87%
Sr 421.552†	835.0	1.7342	µg/L	0.13474	1.7342	ppb	0.13474 7.77%
Ti 334.940†	359.9	0.3403	µg/L	0.09989	0.3403	ppb	0.09989 29.35%
Tl 190.801†	2.6	0.3191	µg/L	0.78885	0.3191	ppb	0.78885 247.22%
U 409.014†	34.0	1.9774	µg/L	10.39559	1.9774	ppb	10.39559 525.71%
V 292.402†	-68.1	-0.3353	µg/L	0.47331	-0.3353	ppb	0.47331 141.18%
Zn 213.857†	200.3	1.1220	µg/L	0.10286	1.1220	ppb	0.10286 9.17%

Sequence No.: 2
Sample ID: 1202068102|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 302
Date Collected: 4/1/2010 8:44:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068102|964012|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	147882.7	147882.7	101	%			08:44:43
1	Al 396.153Radial†	466410.4	460314.2	85320	µg/L	85320	ppb	08:44:43
1	Ca 317.933Radial†	1641174.1	1618940.3	90181	µg/L	90181	ppb	08:44:43
1	Fe 238.204 Radial†	2807372.1	2770150.0	170740	µg/L	170740	ppb	08:44:41
1	K 766.490 Radial†	107267.1	104305.8	38147	µg/L	38147	ppb	08:44:43
1	Mg 279.077 IEC†	97099.7	95626.7	35494	µg/L	35494	ppb	08:44:43
1	Na 589.592 Radial†	72389.3	70142.5	9548.4	µg/L	9548.4	ppb	08:44:43
1	Sr 421.552†	1054328.6	1040540.5	2162.5	µg/L	2162.5	ppb	08:44:41
1	Sc 361.383	1735657.8	1735657.8	101.02	%			08:45:12
1	Y 371.029	1095765.7	1095765.7	106.73	%			08:45:12
1	Ag 328.068†	73282.1	68454.4	262.00	µg/L	262.00	ppb	08:45:12
1	As 188.979†	3215.1	3203.1	1029.8	µg/L	1029.8	ppb	08:45:14
1	B 249.677†	97494.9	93009.4	1368.7	µg/L	1368.7	ppb	08:45:12
1	Ba 233.527†	421234.9	417138.2	1679.6	µg/L	1679.6	ppb	08:45:12
1	Be 313.107†	2695087.1	2669071.1	726.66	µg/L	726.66	ppb	08:45:12
1	Cd 226.502†	91838.5	91033.9	551.26	µg/L	551.26	ppb	08:45:12
1	Co 228.616†	71074.2	70550.4	863.55	µg/L	863.55	ppb	08:45:12
1	Cr 267.716†	291669.9	288560.6	2265.0	µg/L	2265.0	ppb	08:45:12
1	Cu 324.752†	436514.9	429156.5	1693.9	µg/L	1693.9	ppb	08:45:12
1	Mn 257.610†	4239189.9	4196356.5	5190.3	µg/L	5190.3	ppb	08:45:12
1	Mo 202.031†	16037.6	15896.5	474.96	µg/L	474.96	ppb	08:45:14
1	Ni 231.604†	111368.4	110325.8	1270.3	µg/L	1270.3	ppb	08:45:12
1	P 214.914†	34284.4	33957.9	7150.5	µg/L	7150.5	ppb	08:45:14
1	Pb 220.353†	13468.3	13246.5	747.05	µg/L	747.05	ppb	08:45:14
1	S 181.975 Axial†	4832.9	4679.2	3478.7	µg/L	3478.7	ppb	08:45:14
1	Sb 206.836†	9749.7	9570.9	1111.2	µg/L	1111.2	ppb	08:45:14
1	Se 196.026†	7329.5	7240.6	2680	µg/L	2680	ppb	08:45:14
1	SiO2†	851669.3	841336.2	82207	µg/L	82207	ppb	08:45:12
1	Si 251.611†	2627414.7	2600177.5	38322	µg/L	38322	ppb	08:45:12
1	Sn 189.927†	14682.7	14536.3	924.06	µg/L	924.06	ppb	08:45:14
1	Ti 334.940†	5734138.2	5675568.1	5301.3	µg/L	5301.3	ppb	08:45:12
1	Tl 190.801†	8391.5	8423.8	1105.7	µg/L	1105.7	ppb	08:45:14
1	U 409.014†	-4752.5	-4434.8	-198.12	µg/L	-198.12	ppb	08:45:12
1	V 292.402†	234745.0	231982.5	1123.1	µg/L	1123.1	ppb	08:45:12
1	Zn 213.857†	971639.6	961312.0	5376.1	µg/L	5376.1	ppb	08:45:12
2	Sc RADIAL	145546.6	145546.6	99.7	%			08:44:47
2	Al 396.153Radial†	459435.9	460708.6	85393	µg/L	85393	ppb	08:44:47
2	Ca 317.933Radial†	1608481.5	1612155.1	89803	µg/L	89803	ppb	08:44:47
2	Fe 238.204 Radial†	2816807.6	2824074.6	174060	µg/L	174060	ppb	08:44:45
2	K 766.490 Radial†	104941.0	103672.5	37916	µg/L	37916	ppb	08:44:47
2	Mg 279.077 IEC†	94894.3	94953.4	35240	µg/L	35240	ppb	08:44:47
2	Na 589.592 Radial†	71208.6	70105.3	9543.5	µg/L	9543.5	ppb	08:44:47
2	Sr 421.552†	1057843.8	1060763.7	2204.6	µg/L	2204.6	ppb	08:44:45
2	Sc 361.383	1738154.5	1738154.5	101.16	%			08:45:18
2	Y 371.029	1096947.8	1096947.8	106.84	%			08:45:18
2	Ag 328.068†	73717.7	68780.7	263.19	µg/L	263.19	ppb	08:45:18
2	As 188.979†	3201.6	3185.2	1025.1	µg/L	1025.1	ppb	08:45:20
2	B 249.677†	97962.8	93333.3	1373.5	µg/L	1373.5	ppb	08:45:18
2	Ba 233.527†	422259.3	417551.8	1681.2	µg/L	1681.2	ppb	08:45:18
2	Be 313.107†	2702352.1	2672420.4	727.57	µg/L	727.57	ppb	08:45:18
2	Cd 226.502†	92134.6	91196.0	551.92	µg/L	551.92	ppb	08:45:18
2	Co 228.616†	71513.6	70883.7	867.49	µg/L	867.49	ppb	08:45:18
2	Cr 267.716†	292492.3	288958.8	2268.2	µg/L	2268.2	ppb	08:45:18
2	Cu 324.752†	437598.9	429607.3	1696.1	µg/L	1696.1	ppb	08:45:18
2	Mn 257.610†	4248676.8	4199706.6	5194.4	µg/L	5194.4	ppb	08:45:18
2	Mo 202.031†	15992.3	15829.0	473.10	µg/L	473.10	ppb	08:45:20
2	Ni 231.604†	111268.0	110068.2	1267.4	µg/L	1267.4	ppb	08:45:18
2	P 214.914†	34199.6	33825.3	7119.8	µg/L	7119.8	ppb	08:45:20
2	Pb 220.353†	13360.0	13120.4	739.91	µg/L	739.91	ppb	08:45:20

2	S 181.975 Axial†	4815.9	4655.6	3461.1	µg/L	3461.1 ppb	08:45:20
2	Sb 206.836†	9758.3	9565.6	1110.4	µg/L	1110.4 ppb	08:45:20
2	Se 196.026†	7399.5	7299.3	2700	µg/L	2700 ppb	08:45:20
2	SiO2†	853125.7	841564.8	82230	µg/L	82230 ppb	08:45:18
2	Si 251.611†	2632554.4	2601522.0	38342	µg/L	38342 ppb	08:45:18
2	Sn 189.927†	14481.2	14316.3	910.36	µg/L	910.36 ppb	08:45:20
2	Ti 334.940†	5746503.4	5679637.6	5305.1	µg/L	5305.1 ppb	08:45:18
2	Tl 190.801†	8412.2	8432.4	1106.8	µg/L	1106.8 ppb	08:45:20
2	U 409.014†	-4922.6	-4596.2	-208.32	µg/L	-208.32 ppb	08:45:18
2	V 292.402†	235044.1	231944.3	1122.6	µg/L	1122.6 ppb	08:45:18
2	Zn 213.857†	973785.5	962051.6	5379.9	µg/L	5379.9 ppb	08:45:18
3	Sc RADIAL	146634.7	146634.7	100	%		08:44:52
3	Al 396.153Radial†	464178.7	462010.3	85635	µg/L	85635 ppb	08:44:52
3	Ca 317.933Radial†	1621868.2	1613510.4	89879	µg/L	89879 ppb	08:44:52
3	Fe 238.204 Radial†	2774875.2	2761386.8	170190	µg/L	170190 ppb	08:44:50
3	K 766.490 Radial†	105966.9	103912.7	38004	µg/L	38004 ppb	08:44:52
3	Mg 279.077 IEC†	95784.9	95133.7	35311	µg/L	35311 ppb	08:44:52
3	Na 589.592 Radial†	71672.1	70036.7	9534.0	µg/L	9534.0 ppb	08:44:52
3	Sr 421.552†	1044840.8	1039953.0	2161.3	µg/L	2161.3 ppb	08:44:50
3	Sc 361.383	1760918.8	1760918.8	102.49	%		08:45:24
3	Y 371.029	1111557.7	1111557.7	108.27	%		08:45:24
3	Ag 328.068†	74591.7	68691.5	262.90	µg/L	262.90 ppb	08:45:24
3	As 188.979†	3224.2	3166.3	1018.6	µg/L	1018.6 ppb	08:45:26
3	B 249.677†	99450.3	93532.8	1376.4	µg/L	1376.4 ppb	08:45:24
3	Ba 233.527†	428621.3	418363.3	1684.6	µg/L	1684.6 ppb	08:45:24
3	Be 313.107†	2742809.3	2677362.6	728.92	µg/L	728.92 ppb	08:45:24
3	Cd 226.502†	93779.7	91623.8	555.00	µg/L	555.00 ppb	08:45:24
3	Co 228.616†	72315.0	70751.7	866.06	µg/L	866.06 ppb	08:45:24
3	Cr 267.716†	296746.8	289372.4	2271.3	µg/L	2271.3 ppb	08:45:24
3	Cu 324.752†	443355.5	429632.2	1695.7	µg/L	1695.7 ppb	08:45:24
3	Mn 257.610†	4310290.7	4205531.7	5201.6	µg/L	5201.6 ppb	08:45:24
3	Mo 202.031†	16014.0	15645.8	467.57	µg/L	467.57 ppb	08:45:26
3	Ni 231.604†	113011.5	110347.6	1270.6	µg/L	1270.6 ppb	08:45:24
3	P 214.914†	34484.9	33666.6	7088.6	µg/L	7088.6 ppb	08:45:26
3	Pb 220.353†	13379.2	12968.3	731.56	µg/L	731.56 ppb	08:45:26
3	S 181.975 Axial†	4838.6	4616.2	3431.8	µg/L	3431.8 ppb	08:45:26
3	Sb 206.836†	9748.7	9431.5	1094.4	µg/L	1094.4 ppb	08:45:26
3	Se 196.026†	7349.3	7155.8	2650	µg/L	2650 ppb	08:45:26
3	SiO2†	865980.4	843205.6	82390	µg/L	82390 ppb	08:45:24
3	Si 251.611†	2673142.9	2607484.4	38430	µg/L	38430 ppb	08:45:24
3	Sn 189.927†	14639.2	14285.3	908.45	µg/L	908.45 ppb	08:45:26
3	Ti 334.940†	5829113.7	5686808.9	5311.8	µg/L	5311.8 ppb	08:45:24
3	Tl 190.801†	8379.1	8292.6	1089.7	µg/L	1089.7 ppb	08:45:26
3	U 409.014†	-4968.8	-4578.4	-206.23	µg/L	-206.23 ppb	08:45:24
3	V 292.402†	238575.3	232386.2	1125.1	µg/L	1125.1 ppb	08:45:24
3	Zn 213.857†	989404.0	964847.2	5396.0	µg/L	5396.0 ppb	08:45:24

Mean Data: 1202068102|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1744910.4	101.55	%	0.810				0.80%
Sc RADIAL	146688.0	101	%	0.8				0.80%
Y 371.029	1101423.7	107.28	%	0.857				0.80%
Ag 328.068†	68642.2	262.70	µg/L	0.617	262.70	ppb	0.617	0.23%
Al 396.153Radial†	461011.0	85449	µg/L	164.7	85449	ppb	164.7	0.19%
As 188.979†	3184.9	1024.5	µg/L	5.63	1024.5	ppb	5.63	0.55%
B 249.677†	93291.8	1372.9	µg/L	3.89	1372.9	ppb	3.89	0.28%
Ba 233.527†	417684.4	1681.8	µg/L	2.52	1681.8	ppb	2.52	0.15%
Be 313.107†	2672951.4	727.72	µg/L	1.135	727.72	ppb	1.135	0.16%
Ca 317.933Radial†	1614868.6	89955	µg/L	200.0	89955	ppb	200.0	0.22%
Cd 226.502†	91284.6	552.73	µg/L	1.997	552.73	ppb	1.997	0.36%
Co 228.616†	70728.6	865.70	µg/L	1.995	865.70	ppb	1.995	0.23%
Cr 267.716†	288963.9	2268.2	µg/L	3.17	2268.2	ppb	3.17	0.14%
Cu 324.752†	429465.4	1695.2	µg/L	1.17	1695.2	ppb	1.17	0.07%
Fe 238.204 Radial†	2785203.8	171660	µg/L	2092.3	171660	ppb	2092.3	1.22%
K 766.490 Radial†	103963.7	38022	µg/L	117.0	38022	ppb	117.0	0.31%
Mg 279.077 IEC†	95237.9	35348	µg/L	131.0	35348	ppb	131.0	0.37%
Mn 257.610†	4200531.6	5195.5	µg/L	5.75	5195.5	ppb	5.75	0.11%
Mo 202.031†	15790.4	471.88	µg/L	3.845	471.88	ppb	3.845	0.81%
Na 589.592 Radial†	70094.8	9542.0	µg/L	7.28	9542.0	ppb	7.28	0.08%

Ni 231.604†	110247.2	1269.4	µg/L	1.79	1269.4	ppb	1.79	0.14%
P 214.914†	33816.6	7119.6	µg/L	30.97	7119.6	ppb	30.97	0.43%
Pb 220.353†	13111.8	739.51	µg/L	7.754	739.51	ppb	7.754	1.05%
S 181.975 Axial†	4650.4	3457.2	µg/L	23.66	3457.2	ppb	23.66	0.68%
Sb 206.836†	9522.7	1105.3	µg/L	9.48	1105.3	ppb	9.48	0.86%
Se 196.026†	7231.9	2670	µg/L	26.7	2670	ppb	26.7	1.00%
SiO2†	842035.5	82276	µg/L	99.9	82276	ppb	99.9	0.12%
Si 251.611†	2603061.3	38365	µg/L	57.4	38365	ppb	57.4	0.15%
Sn 189.927†	14379.3	914.29	µg/L	8.516	914.29	ppb	8.516	0.93%
Sr 421.552†	1047085.7	2176.1	µg/L	24.63	2176.1	ppb	24.63	1.13%
Ti 334.940†	5680671.5	5306.1	µg/L	5.32	5306.1	ppb	5.32	0.10%
Tl 190.801†	8383.0	1100.8	µg/L	9.56	1100.8	ppb	9.56	0.87%
U 409.014†	-4536.5	-204.22	µg/L	5.387	-204.22	ppb	5.387	2.64%
Concentration less than lower limit for U 409.014.								
V 292.402†	232104.3	1123.6	µg/L	1.32	1123.6	ppb	1.32	0.12%
Zn 213.857†	962736.9	5384.0	µg/L	10.57	5384.0	ppb	10.57	0.20%

Sequence No.: 3
Sample ID: 248860001|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 303
Date Collected: 4/1/2010 8:45:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248860001|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146261.2	146261.2	100	%			08:46:03
1	Al 396.153Radial†	50990.6	50938.3	9442.1	µg/L	9442.1	ppb	08:46:03
1	Ca 317.933Radial†	23705.0	23090.7	1286.2	µg/L	1286.2	ppb	08:46:05
1	Fe 238.204 Radial†	608193.0	606666.5	37391	µg/L	37391	ppb	08:46:03
1	K 766.490 Radial†	11108.0	9538.0	3489.1	µg/L	3489.1	ppb	08:46:03
1	Mg 279.077 IEC†	1485.3	1291.2	449.94	µg/L	449.94	ppb	08:46:05
1	Na 589.592 Radial†	23424.0	22080.1	3013.3	µg/L	3013.3	ppb	08:46:03
1	Sr 421.552†	31280.5	31344.9	65.154	µg/L	65.154	ppb	08:46:03
1	Sc 361.383	1748951.9	1748951.9	101.79	%			08:46:32
1	Y 371.029	1198649.8	1198649.8	116.75	%			08:46:32
1	Ag 328.068†	4099.2	-64.2	-1.0622	µg/L	-1.0622	ppb	08:46:32
1	As 188.979†	-0.1	20.2	14.876	µg/L	14.876	ppb	08:46:52
1	B 249.677†	3883.7	309.5	4.5495	µg/L	4.5495	ppb	08:46:32
1	Ba 233.527†	23382.0	23106.9	92.655	µg/L	92.655	ppb	08:46:52
1	Be 313.107†	8204.3	9124.8	2.4172	µg/L	2.4172	ppb	08:46:32
1	Cd 226.502†	497.8	607.3	-0.1317	µg/L	-0.1317	ppb	08:46:52
1	Co 228.616†	181.0	368.1	2.6877	µg/L	2.6877	ppb	08:46:52
1	Cr 267.716†	3765.5	3520.8	28.653	µg/L	28.653	ppb	08:46:52
1	Cu 324.752†	4203.9	1157.8	9.7767	µg/L	9.7767	ppb	08:46:32
1	Mn 257.610†	1292340.4	1269392.9	1570.5	µg/L	1570.5	ppb	08:46:32
1	Mo 202.031†	1297.8	1295.1	39.552	µg/L	39.552	ppb	08:46:52
1	Ni 231.604†	1254.4	1308.9	15.071	µg/L	15.071	ppb	08:46:52
1	P 214.914†	1780.4	1767.0	354.23	µg/L	354.23	ppb	08:46:52
1	Pb 220.353†	497.3	402.1	22.995	µg/L	22.995	ppb	08:46:52
1	S 181.975 Axial†	781.7	662.9	492.56	µg/L	492.56	ppb	08:46:52
1	Sb 206.836†	74.5	-7.6	-1.2818	µg/L	-1.2818	ppb	08:46:52
1	Se 196.026†	-29.7	-44.4	-3.29	µg/L	-3.29	ppb	08:46:52
1	SiO2†	402079.6	393238.5	38435	µg/L	38435	ppb	08:46:32
1	Si 251.611†	1239352.2	1216736.5	17938	µg/L	17938	ppb	08:46:32
1	Sn 189.927†	126.9	125.8	10.134	µg/L	10.134	ppb	08:46:52
1	Ti 334.940†	741699.1	727712.7	679.96	µg/L	679.96	ppb	08:46:32
1	Tl 190.801†	-219.4	-98.8	-1.1901	µg/L	-1.1901	ppb	08:46:52
1	U 409.014†	-4149.5	-3806.6	-220.12	µg/L	-220.12	ppb	08:46:32
1	V 292.402†	3161.3	2701.9	8.9682	µg/L	8.9682	ppb	08:46:52
1	Zn 213.857†	22996.8	22028.3	120.13	µg/L	120.13	ppb	08:46:52
2	Sc RADIAL	145843.6	145843.6	99.9	%			08:46:07
2	Al 396.153Radial†	50519.4	50612.5	9381.7	µg/L	9381.7	ppb	08:46:07
2	Ca 317.933Radial†	23778.6	23232.0	1294.1	µg/L	1294.1	ppb	08:46:09
2	Fe 238.204 Radial†	605856.1	606065.7	37354	µg/L	37354	ppb	08:46:07
2	K 766.490 Radial†	10925.3	9387.0	3433.8	µg/L	3433.8	ppb	08:46:07
2	Mg 279.077 IEC†	1493.0	1303.2	454.44	µg/L	454.44	ppb	08:46:09
2	Na 589.592 Radial†	23358.8	22081.8	3013.6	µg/L	3013.6	ppb	08:46:07
2	Sr 421.552†	31106.4	31260.0	64.978	µg/L	64.978	ppb	08:46:07
2	Sc 361.383	1729860.3	1729860.3	100.68	%			08:46:54
2	Y 371.029	1185573.1	1185573.1	115.48	%			08:46:54
2	Ag 328.068†	3942.2	-175.7	-1.4873	µg/L	-1.4873	ppb	08:46:54
2	As 188.979†	2.0	22.3	15.506	µg/L	15.506	ppb	08:47:14
2	B 249.677†	3805.4	273.9	4.0232	µg/L	4.0232	ppb	08:46:54
2	Ba 233.527†	23271.5	23250.7	93.235	µg/L	93.235	ppb	08:47:14
2	Be 313.107†	8117.4	9127.4	2.4142	µg/L	2.4142	ppb	08:46:54
2	Cd 226.502†	495.1	610.0	-0.1110	µg/L	-0.1110	ppb	08:47:14
2	Co 228.616†	178.9	368.0	2.6885	µg/L	2.6885	ppb	08:47:14
2	Cr 267.716†	3803.7	3599.6	29.279	µg/L	29.279	ppb	08:47:14
2	Cu 324.752†	4082.4	1082.7	9.4694	µg/L	9.4694	ppb	08:46:54
2	Mn 257.610†	1276705.4	1267875.4	1568.6	µg/L	1568.6	ppb	08:46:54
2	Mo 202.031†	1295.1	1306.5	39.887	µg/L	39.887	ppb	08:47:14
2	Ni 231.604†	1239.4	1307.5	15.055	µg/L	15.055	ppb	08:47:14
2	P 214.914†	1770.7	1776.7	356.31	µg/L	356.31	ppb	08:47:14
2	Pb 220.353†	499.4	409.7	23.423	µg/L	23.423	ppb	08:47:14

2	S 181.975 Axial†	777.1	666.8	495.47 µg/L	495.47 ppb	08:47:14
2	Sb 206.836†	73.2	-8.1	-1.3444 µg/L	-1.3444 ppb	08:47:14
2	Se 196.026†	-24.2	-39.3	-1.49 µg/L	-1.49 ppb	08:47:14
2	SiO2†	397627.6	393176.1	38429 µg/L	38429 ppb	08:46:54
2	Si 251.611†	1225779.2	1216692.6	17937 µg/L	17937 ppb	08:46:54
2	Sn 189.927†	128.2	128.5	10.301 µg/L	10.301 ppb	08:47:14
2	Ti 334.940†	733529.1	727639.6	679.89 µg/L	679.89 ppb	08:46:54
2	Tl 190.801†	-220.4	-102.3	-1.6129 µg/L	-1.6129 ppb	08:47:14
2	U 409.014†	-4316.0	-4017.1	-232.42 µg/L	-232.42 ppb	08:46:54
2	V 292.402†	3164.3	2739.2	9.1519 µg/L	9.1519 ppb	08:47:14
2	Zn 213.857†	22781.4	22063.6	120.33 µg/L	120.33 ppb	08:47:14
3	Sc RADIAL	147395.0	147395.0	101 %		08:46:11
3	Al 396.153Radial†	51023.9	50579.9	9375.7 µg/L	9375.7 ppb	08:46:11
3	Ca 317.933Radial†	23466.7	22672.8	1263.0 µg/L	1263.0 ppb	08:46:13
3	Fe 238.204 Radial†	611296.9	605072.0	37293 µg/L	37293 ppb	08:46:11
3	K 766.490 Radial†	11040.6	9386.1	3433.5 µg/L	3433.5 ppb	08:46:11
3	Mg 279.077 IEC†	1557.2	1351.0	472.29 µg/L	472.29 ppb	08:46:13
3	Na 589.592 Radial†	23497.0	21972.6	2998.7 µg/L	2998.7 ppb	08:46:11
3	Sr 421.552†	31318.3	31142.3	64.733 µg/L	64.733 ppb	08:46:11
3	Sc 361.383	1763254.5	1763254.5	102.62 %		08:47:17
3	Y 371.029	1209967.4	1209967.4	117.85 %		08:47:17
3	Ag 328.068†	3916.1	-275.3	-1.8606 µg/L	-1.8606 ppb	08:47:17
3	As 188.979†	-1.9	18.5	14.335 µg/L	14.335 ppb	08:47:37
3	B 249.677†	3950.5	343.7	5.0549 µg/L	5.0549 ppb	08:47:17
3	Ba 233.527†	23450.4	22987.3	92.174 µg/L	92.174 ppb	08:47:37
3	Be 313.107†	8302.9	9155.6	2.4222 µg/L	2.4222 ppb	08:47:17
3	Cd 226.502†	498.7	604.1	-0.1410 µg/L	-0.1410 ppb	08:47:37
3	Co 228.616†	154.7	341.0	2.3579 µg/L	2.3579 ppb	08:47:37
3	Cr 267.716†	3798.4	3522.8	28.675 µg/L	28.675 ppb	08:47:37
3	Cu 324.752†	4102.6	1025.6	9.2396 µg/L	9.2396 ppb	08:47:17
3	Mn 257.610†	1302388.3	1268885.6	1569.9 µg/L	1569.9 ppb	08:47:17
3	Mo 202.031†	1291.5	1278.6	39.064 µg/L	39.064 ppb	08:47:37
3	Ni 231.604†	1250.7	1295.3	14.914 µg/L	14.914 ppb	08:47:37
3	P 214.914†	1763.9	1736.8	347.83 µg/L	347.83 ppb	08:47:37
3	Pb 220.353†	499.6	400.5	22.909 µg/L	22.909 ppb	08:47:37
3	S 181.975 Axial†	779.4	654.4	486.26 µg/L	486.26 ppb	08:47:37
3	Sb 206.836†	68.3	-14.3	-2.0781 µg/L	-2.0781 ppb	08:47:37
3	Se 196.026†	-25.2	-39.8	-1.68 µg/L	-1.68 ppb	08:47:37
3	SiO2†	406384.0	394228.8	38531 µg/L	38531 ppb	08:47:17
3	Si 251.611†	1253748.0	1220888.3	17999 µg/L	17999 ppb	08:47:17
3	Sn 189.927†	124.0	121.9	9.8955 µg/L	9.8955 ppb	08:47:37
3	Ti 334.940†	747925.8	727869.8	680.10 µg/L	680.10 ppb	08:47:17
3	Tl 190.801†	-217.4	-95.2	-0.7438 µg/L	-0.7438 ppb	08:47:37
3	U 409.014†	-4383.4	-4001.5	-231.52 µg/L	-231.52 ppb	08:47:17
3	V 292.402†	3112.0	2628.7	8.6085 µg/L	8.6085 ppb	08:47:37
3	Zn 213.857†	22859.2	21710.9	118.36 µg/L	118.36 ppb	08:47:37

Mean Data: 248860001|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1747355.6	101.70	%	0.975				0.96%
Sc RADIAL	146500.0	100	%	0.6				0.55%
Y 371.029	1198063.4	116.69	%	1.189				1.02%
Ag 328.068†	-171.7	-1.4700	µg/L	0.39950	-1.4700	ppb	0.39950	27.18%
Al 396.153Radial†	50710.2	9399.9	µg/L	36.74	9399.9	ppb	36.74	0.39%
As 188.979†	20.4	14.906	µg/L	0.5861	14.906	ppb	0.5861	3.93%
B 249.677†	309.0	4.5426	µg/L	0.51591	4.5426	ppb	0.51591	11.36%
Ba 233.527†	23115.0	92.688	µg/L	0.5314	92.688	ppb	0.5314	0.57%
Be 313.107†	9135.9	2.4179	µg/L	0.00400	2.4179	ppb	0.00400	0.17%
Ca 317.933Radial†	22998.5	1281.1	µg/L	16.20	1281.1	ppb	16.20	1.26%
Cd 226.502†	607.1	-0.1279	µg/L	0.01535	-0.1279	ppb	0.01535	12.00%
Co 228.616†	359.0	2.5780	µg/L	0.19065	2.5780	ppb	0.19065	7.40%
Cr 267.716†	3547.7	28.869	µg/L	0.3554	28.869	ppb	0.3554	1.23%
Cu 324.752†	1088.7	9.4952	µg/L	0.26950	9.4952	ppb	0.26950	2.84%
Fe 238.204 Radial†	605934.7	37346	µg/L	49.6	37346	ppb	49.6	0.13%
K 766.490 Radial†	9437.0	3452.2	µg/L	32.01	3452.2	ppb	32.01	0.93%
Mg 279.077 IEC†	1315.1	458.89	µg/L	11.820	458.89	ppb	11.820	2.58%
Mn 257.610†	1268717.9	1569.7	µg/L	0.96	1569.7	ppb	0.96	0.06%
Mo 202.031†	1293.4	39.501	µg/L	0.4137	39.501	ppb	0.4137	1.05%
Na 589.592 Radial†	22044.8	3008.5	µg/L	8.54	3008.5	ppb	8.54	0.28%

Ni 231.604†	1303.9	15.014	µg/L	0.0866	15.014	ppb	0.0866	0.58%
P 214.914†	1760.2	352.79	µg/L	4.421	352.79	ppb	4.421	1.25%
Pb 220.353†	404.1	23.109	µg/L	0.2757	23.109	ppb	0.2757	1.19%
S 181.975 Axial†	661.4	491.43	µg/L	4.708	491.43	ppb	4.708	0.96%
Sb 206.836†	-10.0	-1.5681	µg/L	0.44279	-1.5681	ppb	0.44279	28.24%
Se 196.026†	-41.2	-2.15	µg/L	0.991	-2.15	ppb	0.991	46.01%
SiO2†	393547.8	38465	µg/L	57.7	38465	ppb	57.7	0.15%
Si 251.611†	1218105.8	17958	µg/L	35.5	17958	ppb	35.5	0.20%
Sn 189.927†	125.4	10.110	µg/L	0.2038	10.110	ppb	0.2038	2.02%
Sr 421.552†	31249.1	64.955	µg/L	0.2114	64.955	ppb	0.2114	0.33%
Ti 334.940†	727740.7	679.98	µg/L	0.109	679.98	ppb	0.109	0.02%
Tl 190.801†	-98.8	-1.1823	µg/L	0.43462	-1.1823	ppb	0.43462	36.76%
U 409.014†	-3941.8	-228.02	µg/L	6.855	-228.02	ppb	6.855	3.01%
Concentration less than lower limit for U 409.014.								
V 292.402†	2689.9	8.9095	µg/L	0.27638	8.9095	ppb	0.27638	3.10%
Zn 213.857†	21934.3	119.60	µg/L	1.086	119.60	ppb	1.086	0.91%

Sequence No.: 4
Sample ID: 1202068098|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 304
Date Collected: 4/1/2010 8:47:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068098|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144572.7	144572.7	99.1	%			08:48:15
1	Al 396.153Radial†	50331.4	50867.1	9428.9	µg/L	9428.9	ppb	08:48:15
1	Ca 317.933Radial†	26205.3	25890.7	1442.2	µg/L	1442.2	ppb	08:48:17
1	Fe 238.204 Radial†	607116.8	612667.3	37761	µg/L	37761	ppb	08:48:15
1	K 766.490 Radial†	10794.4	9350.9	3420.6	µg/L	3420.6	ppb	08:48:15
1	Mg 279.077 IEC†	1708.0	1533.4	539.87	µg/L	539.87	ppb	08:48:17
1	Na 589.592 Radial†	23041.3	21966.7	2997.9	µg/L	2997.9	ppb	08:48:15
1	Sr 421.552†	31149.4	31577.1	65.636	µg/L	65.636	ppb	08:48:15
1	Sc 361.383	1741548.7	1741548.7	101.36	%			08:48:30
1	Y 371.029	1203345.8	1203345.8	117.21	%			08:48:30
1	Ag 328.068†	3716.2	-424.9	-2.4124	µg/L	-2.4124	ppb	08:48:30
1	As 188.979†	3.5	23.8	16.137	µg/L	16.137	ppb	08:48:50
1	B 249.677†	3731.4	175.6	2.5731	µg/L	2.5731	ppb	08:48:30
1	Ba 233.527†	24767.3	24571.4	98.552	µg/L	98.552	ppb	08:48:50
1	Be 313.107†	8535.5	9485.9	2.5118	µg/L	2.5118	ppb	08:48:30
1	Cd 226.502†	503.4	614.8	-0.1215	µg/L	-0.1215	ppb	08:48:50
1	Co 228.616†	189.3	377.0	2.7859	µg/L	2.7859	ppb	08:48:50
1	Cr 267.716†	4934.9	4690.2	37.826	µg/L	37.826	ppb	08:48:50
1	Cu 324.752†	4178.2	1150.1	9.7927	µg/L	9.7927	ppb	08:48:30
1	Mn 257.610†	1316224.5	1298354.1	1606.3	µg/L	1606.3	ppb	08:48:30
1	Mo 202.031†	1314.2	1316.6	40.202	µg/L	40.202	ppb	08:48:50
1	Ni 231.604†	1580.9	1636.2	18.840	µg/L	18.840	ppb	08:48:50
1	P 214.914†	1845.2	1838.4	369.22	µg/L	369.22	ppb	08:48:50
1	Pb 220.353†	546.7	453.0	25.820	µg/L	25.820	ppb	08:48:50
1	S 181.975 Axial†	805.8	690.0	512.68	µg/L	512.68	ppb	08:48:50
1	Sb 206.836†	81.4	-0.5	-0.5718	µg/L	-0.5718	ppb	08:48:50
1	Se 196.026†	-23.2	-38.1	-0.907	µg/L	-0.907	ppb	08:48:50
1	SiO2†	405305.5	398100.4	38910	µg/L	38910	ppb	08:48:30
1	Si 251.611†	1249967.5	1232385.4	18168	µg/L	18168	ppb	08:48:30
1	Sn 189.927†	118.5	118.0	9.6276	µg/L	9.6276	ppb	08:48:50
1	Ti 334.940†	731337.3	720587.2	673.30	µg/L	673.30	ppb	08:48:30
1	Tl 190.801†	-227.7	-108.0	-2.2781	µg/L	-2.2781	ppb	08:48:50
1	U 409.014†	-4347.1	-4019.0	-232.31	µg/L	-232.31	ppb	08:48:30
1	V 292.402†	3433.4	2983.6	10.347	µg/L	10.347	ppb	08:48:50
1	Zn 213.857†	22643.7	21775.9	118.64	µg/L	118.64	ppb	08:48:50
2	Sc RADIAL	144917.8	144917.8	99.3	%			08:48:19
2	Al 396.153Radial†	50640.9	51057.7	9464.2	µg/L	9464.2	ppb	08:48:19
2	Ca 317.933Radial†	25898.1	25518.4	1421.5	µg/L	1421.5	ppb	08:48:21
2	Fe 238.204 Radial†	609936.7	614047.6	37846	µg/L	37846	ppb	08:48:19
2	K 766.490 Radial†	10612.8	9142.1	3344.2	µg/L	3344.2	ppb	08:48:19
2	Mg 279.077 IEC†	1749.6	1571.1	553.87	µg/L	553.87	ppb	08:48:21
2	Na 589.592 Radial†	23158.4	22029.3	3006.5	µg/L	3006.5	ppb	08:48:19
2	Sr 421.552†	31143.6	31496.3	65.468	µg/L	65.468	ppb	08:48:19
2	Sc 361.383	1762837.7	1762837.7	102.60	%			08:48:52
2	Y 371.029	1216152.3	1216152.3	118.45	%			08:48:52
2	Ag 328.068†	3953.1	-238.3	-1.7342	µg/L	-1.7342	ppb	08:48:52
2	As 188.979†	-5.0	15.4	13.613	µg/L	13.613	ppb	08:49:12
2	B 249.677†	3638.7	40.7	0.5852	µg/L	0.5852	ppb	08:48:52
2	Ba 233.527†	24773.6	24282.4	97.386	µg/L	97.386	ppb	08:49:12
2	Be 313.107†	8496.0	9345.7	2.4713	µg/L	2.4713	ppb	08:48:52
2	Cd 226.502†	514.4	619.6	-0.1009	µg/L	-0.1009	ppb	08:49:12
2	Co 228.616†	171.5	357.5	2.5390	µg/L	2.5390	ppb	08:49:12
2	Cr 267.716†	4932.0	4628.6	37.350	µg/L	37.350	ppb	08:49:12
2	Cu 324.752†	4077.0	1001.6	9.2223	µg/L	9.2223	ppb	08:48:52
2	Mn 257.610†	1337760.1	1303662.1	1612.9	µg/L	1612.9	ppb	08:48:52
2	Mo 202.031†	1335.0	1321.3	40.343	µg/L	40.343	ppb	08:49:12
2	Ni 231.604†	1554.4	1591.5	18.325	µg/L	18.325	ppb	08:49:12
2	P 214.914†	1876.5	1847.0	371.01	µg/L	371.01	ppb	08:49:12
2	Pb 220.353†	513.3	413.9	23.648	µg/L	23.648	ppb	08:49:12

2	S 181.975 Axial†	798.7	673.4	500.38	µg/L	500.38 ppb	08:49:12
2	Sb 206.836†	77.7	-5.1	-1.1099	µg/L	-1.1099 ppb	08:49:12
2	Se 196.026†	-29.1	-43.6	-2.87	µg/L	-2.87 ppb	08:49:12
2	SiO2†	411439.7	399250.1	39022	µg/L	39022 ppb	08:48:52
2	Si 251.611†	1268544.7	1235599.3	18216	µg/L	18216 ppb	08:48:52
2	Sn 189.927†	125.7	123.6	9.9833	µg/L	9.9833 ppb	08:49:12
2	Ti 334.940†	741889.0	722158.1	674.77	µg/L	674.77 ppb	08:48:52
2	Tl 190.801†	-229.3	-106.8	-2.1037	µg/L	-2.1037 ppb	08:49:12
2	U 409.014†	-4532.2	-4147.6	-239.82	µg/L	-239.82 ppb	08:48:52
2	V 292.402†	3448.2	2957.1	10.202	µg/L	10.202 ppb	08:49:12
2	Zn 213.857†	22602.8	21466.2	116.89	µg/L	116.89 ppb	08:49:12
3	Sc RADIAL	147208.9	147208.9	101	%		08:48:23
3	Al 396.153Radial†	51303.5	50920.9	9438.9	µg/L	9438.9 ppb	08:48:23
3	Ca 317.933Radial†	25997.8	25211.3	1404.4	µg/L	1404.4 ppb	08:48:25
3	Fe 238.204 Radial†	618847.9	613322.3	37801	µg/L	37801 ppb	08:48:23
3	K 766.490 Radial†	10817.9	9179.2	3357.7	µg/L	3357.7 ppb	08:48:23
3	Mg 279.077 IEC†	1882.5	1675.4	592.76	µg/L	592.76 ppb	08:48:25
3	Na 589.592 Radial†	23349.5	21855.8	2982.8	µg/L	2982.8 ppb	08:48:23
3	Sr 421.552†	31653.6	31513.8	65.504	µg/L	65.504 ppb	08:48:23
3	Sc 361.383	1764846.5	1764846.5	102.71	%		08:49:15
3	Y 371.029	1218363.0	1218363.0	118.67	%		08:49:15
3	Ag 328.068†	4125.6	-74.8	-1.1417	µg/L	-1.1417 ppb	08:49:15
3	As 188.979†	-4.3	16.2	13.827	µg/L	13.827 ppb	08:49:35
3	B 249.677†	3766.7	161.3	2.3635	µg/L	2.3635 ppb	08:49:15
3	Ba 233.527†	24760.4	24242.0	97.225	µg/L	97.225 ppb	08:49:35
3	Be 313.107†	8440.6	9282.3	2.4503	µg/L	2.4503 ppb	08:49:15
3	Cd 226.502†	490.7	596.0	-0.2439	µg/L	-0.2439 ppb	08:49:35
3	Co 228.616†	157.1	343.2	2.3653	µg/L	2.3653 ppb	08:49:35
3	Cr 267.716†	4951.1	4641.7	37.461	µg/L	37.461 ppb	08:49:35
3	Cu 324.752†	4027.2	948.6	9.0003	µg/L	9.0003 ppb	08:49:15
3	Mn 257.610†	1339048.3	1303432.1	1612.6	µg/L	1612.6 ppb	08:49:15
3	Mo 202.031†	1338.9	1323.6	40.410	µg/L	40.410 ppb	08:49:35
3	Ni 231.604†	1563.7	1598.9	18.410	µg/L	18.410 ppb	08:49:35
3	P 214.914†	1875.5	1843.9	370.39	µg/L	370.39 ppb	08:49:35
3	Pb 220.353†	534.3	433.8	24.770	µg/L	24.770 ppb	08:49:35
3	S 181.975 Axial†	791.9	665.9	494.84	µg/L	494.84 ppb	08:49:35
3	Sb 206.836†	82.0	-1.0	-0.6196	µg/L	-0.6196 ppb	08:49:35
3	Se 196.026†	-37.3	-51.6	-5.77	µg/L	-5.77 ppb	08:49:35
3	SiO2†	413589.5	400886.7	39182	µg/L	39182 ppb	08:49:15
3	Si 251.611†	1274675.8	1240161.1	18283	µg/L	18283 ppb	08:49:15
3	Sn 189.927†	129.5	127.2	10.203	µg/L	10.203 ppb	08:49:35
3	Ti 334.940†	743130.3	722543.5	675.13	µg/L	675.13 ppb	08:49:15
3	Tl 190.801†	-252.2	-128.8	-4.8027	µg/L	-4.8027 ppb	08:49:35
3	U 409.014†	-4756.7	-4361.1	-252.28	µg/L	-252.28 ppb	08:49:15
3	V 292.402†	3478.8	2983.1	10.326	µg/L	10.326 ppb	08:49:35
3	Zn 213.857†	22574.8	21413.9	116.60	µg/L	116.60 ppb	08:49:35

Mean Data: 1202068098|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1756411.0	102.22	%	0.751				0.74%
Sc RADIAL	145566.5	99.8	%	0.98				0.98%
Y 371.029	1212620.3	118.11	%	0.790				0.67%
Ag 328.068†	-246.0	-1.7628	µg/L	0.63586	-1.7628	ppb	0.63586	36.07%
Al 396.153Radial†	50948.6	9444.0	µg/L	18.22	9444.0	ppb	18.22	0.19%
As 188.979†	18.5	14.526	µg/L	1.3996	14.526	ppb	1.3996	9.64%
B 249.677†	125.8	1.8406	µg/L	1.09222	1.8406	ppb	1.09222	59.34%
Ba 233.527†	24365.3	97.721	µg/L	0.7243	97.721	ppb	0.7243	0.74%
Be 313.107†	9371.3	2.4778	µg/L	0.03125	2.4778	ppb	0.03125	1.26%
Ca 317.933Radial†	25540.1	1422.7	µg/L	18.95	1422.7	ppb	18.95	1.33%
Cd 226.502†	610.1	-0.1555	µg/L	0.07731	-0.1555	ppb	0.07731	49.73%
Co 228.616†	359.3	2.5634	µg/L	0.21138	2.5634	ppb	0.21138	8.25%
Cr 267.716†	4653.5	37.546	µg/L	0.2490	37.546	ppb	0.2490	0.66%
Cu 324.752†	1033.4	9.3384	µg/L	0.40878	9.3384	ppb	0.40878	4.38%
Fe 238.204 Radial†	613345.7	37803	µg/L	42.6	37803	ppb	42.6	0.11%
K 766.490 Radial†	9224.1	3374.2	µg/L	40.80	3374.2	ppb	40.80	1.21%
Mg 279.077 IEC†	1593.3	562.17	µg/L	27.402	562.17	ppb	27.402	4.87%
Mn 257.610†	1301816.1	1610.6	µg/L	3.71	1610.6	ppb	3.71	0.23%
Mo 202.031†	1320.5	40.319	µg/L	0.1061	40.319	ppb	0.1061	0.26%
Na 589.592 Radial†	21950.6	2995.7	µg/L	12.01	2995.7	ppb	12.01	0.40%

Ni 231.604†	1608.9	18.525	µg/L	0.2757	18.525	ppb	0.2757	1.49%
P 214.914†	1843.1	370.21	µg/L	0.908	370.21	ppb	0.908	0.25%
Pb 220.353†	433.6	24.746	µg/L	1.0859	24.746	ppb	1.0859	4.39%
S 181.975 Axial†	676.4	502.63	µg/L	9.132	502.63	ppb	9.132	1.82%
Sb 206.836†	-2.2	-0.7671	µg/L	0.29786	-0.7671	ppb	0.29786	38.83%
Se 196.026†	-44.4	-3.18	µg/L	2.448	-3.18	ppb	2.448	76.89%
SiO2†	399412.4	39038	µg/L	136.9	39038	ppb	136.9	0.35%
Si 251.611†	1236048.6	18222	µg/L	57.6	18222	ppb	57.6	0.32%
Sn 189.927†	122.9	9.9380	µg/L	0.29034	9.9380	ppb	0.29034	2.92%
Sr 421.552†	31529.1	65.536	µg/L	0.0882	65.536	ppb	0.0882	0.13%
Ti 334.940†	721762.9	674.40	µg/L	0.970	674.40	ppb	0.970	0.14%
Tl 190.801†	-114.5	-3.0615	µg/L	1.51045	-3.0615	ppb	1.51045	49.34%
U 409.014†	-4175.9	-241.47	µg/L	10.089	-241.47	ppb	10.089	4.18%
Concentration less than lower limit for U 409.014.								
V 292.402†	2974.6	10.292	µg/L	0.0785	10.292	ppb	0.0785	0.76%
Zn 213.857†	21552.0	117.38	µg/L	1.100	117.38	ppb	1.100	0.94%

Sequence No.: 5
Sample ID: 1202068100|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 305
Date Collected: 4/1/2010 8:49:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068100|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144122.6	144122.6	98.8	%			08:50:16
1	Al 396.153Radial†	127172.0	128829.9	23861	µg/L	23861	ppb	08:50:16
1	Ca 317.933Radial†	113853.8	114720.8	6390.4	µg/L	6390.4	ppb	08:50:16
1	Fe 238.204 Radial†	783501.0	793177.4	48887	µg/L	48887	ppb	08:50:14
1	K 766.490 Radial†	30481.3	29318.7	10725	µg/L	10725	ppb	08:50:16
1	Mg 279.077 IEC†	15371.5	15373.5	5698.6	µg/L	5698.6	ppb	08:50:16
1	Na 589.592 Radial†	74373.2	74015.0	10102	µg/L	10102	ppb	08:50:16
1	Sr 421.552†	271936.6	275481.8	572.66	µg/L	572.66	ppb	08:50:14
1	Sc 361.383	1721634.6	1721634.6	100.20	%			08:50:29
1	Y 371.029	1228026.2	1228026.2	119.61	%			08:50:29
1	Ag 328.068†	128263.8	123917.8	463.67	µg/L	463.67	ppb	08:50:29
1	As 188.979†	1611.0	1628.1	509.46	µg/L	509.46	ppb	08:50:49
1	B 249.677†	35510.8	31934.4	469.38	µg/L	469.38	ppb	08:50:29
1	Ba 233.527†	147168.5	147012.2	592.25	µg/L	592.25	ppb	08:50:29
1	Be 313.107†	1798691.7	1796186.5	489.12	µg/L	489.12	ppb	08:50:29
1	Cd 226.502†	75374.5	75343.1	465.69	µg/L	465.69	ppb	08:50:29
1	Co 228.616†	37297.4	37413.7	459.70	µg/L	459.70	ppb	08:50:29
1	Cr 267.716†	62920.6	62617.2	491.59	µg/L	491.59	ppb	08:50:29
1	Cu 324.752†	131261.8	128029.1	505.23	µg/L	505.23	ppb	08:50:29
1	Mn 257.610†	1804263.3	1800445.1	2227.3	µg/L	2227.3	ppb	08:50:29
1	Mo 202.031†	17479.2	17464.6	515.46	µg/L	515.46	ppb	08:50:49
1	Ni 231.604†	41941.2	41934.5	482.85	µg/L	482.85	ppb	08:50:29
1	P 214.914†	4715.3	4723.9	975.63	µg/L	975.63	ppb	08:50:49
1	Pb 220.353†	8892.9	8788.8	493.73	µg/L	493.73	ppb	08:50:49
1	S 181.975 Axial†	7851.6	7731.0	5745.2	µg/L	5745.2	ppb	08:50:49
1	Sb 206.836†	3773.8	3685.5	438.80	µg/L	438.80	ppb	08:50:49
1	Se 196.026†	1284.1	1266.3	475	µg/L	475	ppb	08:50:49
1	SiO2†	756898.8	753621.2	73639	µg/L	73639	ppb	08:50:29
1	Si 251.611†	2323681.1	2318232.7	34168	µg/L	34168	ppb	08:50:29
1	Sn 189.927†	7465.4	7451.7	470.07	µg/L	470.07	ppb	08:50:49
1	Ti 334.940†	1762704.1	1758253.1	1642.1	µg/L	1642.1	ppb	08:50:29
1	Tl 190.801†	3537.3	3646.9	471.55	µg/L	471.55	ppb	08:50:49
1	U 409.014†	2502.1	2767.0	192.08	µg/L	192.08	ppb	08:50:29
1	V 292.402†	97680.6	97082.9	474.45	µg/L	474.45	ppb	08:50:29
1	Zn 213.857†	108539.6	107759.7	597.74	µg/L	597.74	ppb	08:50:29
2	Sc RADIAL	142988.3	142988.3	98.0	%			08:50:20
2	Al 396.153Radial†	126525.6	129191.6	23928	µg/L	23928	ppb	08:50:20
2	Ca 317.933Radial†	112419.9	114171.9	6359.8	µg/L	6359.8	ppb	08:50:20
2	Fe 238.204 Radial†	765603.6	781205.0	48149	µg/L	48149	ppb	08:50:18
2	K 766.490 Radial†	29907.4	28977.8	10601	µg/L	10601	ppb	08:50:20
2	Mg 279.077 IEC†	15131.1	15251.6	5653.7	µg/L	5653.7	ppb	08:50:20
2	Na 589.592 Radial†	73498.3	73719.4	10062	µg/L	10062	ppb	08:50:20
2	Sr 421.552†	267577.4	273217.1	567.95	µg/L	567.95	ppb	08:50:18
2	Sc 361.383	1745857.4	1745857.4	101.61	%			08:50:52
2	Y 371.029	1244503.2	1244503.2	121.22	%			08:50:52
2	Ag 328.068†	129377.7	123238.1	461.15	µg/L	461.15	ppb	08:50:52
2	As 188.979†	1622.9	1617.5	506.10	µg/L	506.10	ppb	08:51:12
2	B 249.677†	36076.9	31999.8	470.33	µg/L	470.33	ppb	08:50:52
2	Ba 233.527†	149527.9	147296.5	593.40	µg/L	593.40	ppb	08:50:52
2	Be 313.107†	1825285.3	1797452.7	489.46	µg/L	489.46	ppb	08:50:52
2	Cd 226.502†	76611.0	75516.3	466.85	µg/L	466.85	ppb	08:50:52
2	Co 228.616†	37940.4	37530.0	461.17	µg/L	461.17	ppb	08:50:52
2	Cr 267.716†	64040.9	62848.5	493.38	µg/L	493.38	ppb	08:50:52
2	Cu 324.752†	133116.6	128036.9	505.14	µg/L	505.14	ppb	08:50:52
2	Mn 257.610†	1833461.8	1804197.8	2232.0	µg/L	2232.0	ppb	08:50:52
2	Mo 202.031†	17607.6	17348.9	512.03	µg/L	512.03	ppb	08:51:12
2	Ni 231.604†	42733.9	42133.9	485.14	µg/L	485.14	ppb	08:50:52
2	P 214.914†	4763.8	4706.3	972.42	µg/L	972.42	ppb	08:51:12
2	Pb 220.353†	8960.2	8732.0	490.58	µg/L	490.58	ppb	08:51:12

2	S 181.975 Axial†	7925.2	7694.6	5718.2	µg/L	5718.2 ppb	08:51:12
2	Sb 206.836†	3805.0	3663.9	436.17	µg/L	436.17 ppb	08:51:12
2	Se 196.026†	1274.0	1238.6	465	µg/L	465 ppb	08:51:12
2	SiO2†	769065.7	755114.8	73785	µg/L	73785 ppb	08:50:52
2	Si 251.611†	2359565.5	2321373.1	34214	µg/L	34214 ppb	08:50:52
2	Sn 189.927†	7541.8	7423.5	468.32	µg/L	468.32 ppb	08:51:12
2	Ti 334.940†	1788157.3	1758895.3	1642.8	µg/L	1642.8 ppb	08:50:52
2	Tl 190.801†	3549.7	3610.2	467.05	µg/L	467.05 ppb	08:51:12
2	U 409.014†	2468.8	2699.6	188.34	µg/L	188.34 ppb	08:50:52
2	V 292.402†	99082.5	97110.1	474.63	µg/L	474.63 ppb	08:50:52
2	Zn 213.857†	110591.0	108275.8	600.70	µg/L	600.70 ppb	08:50:52
3	Sc RADIAL	144517.9	144517.9	99.0	%		08:50:24
3	Al 396.153Radial†	127748.6	129059.9	23904	µg/L	23904 ppb	08:50:24
3	Ca 317.933Radial†	114060.8	114614.6	6384.5	µg/L	6384.5 ppb	08:50:24
3	Fe 238.204 Radial†	777262.7	784708.2	48365	µg/L	48365 ppb	08:50:22
3	K 766.490 Radial†	30429.4	29181.9	10675	µg/L	10675 ppb	08:50:24
3	Mg 279.077 IEC†	15285.9	15244.5	5651.0	µg/L	5651.0 ppb	08:50:24
3	Na 589.592 Radial†	74366.6	73802.4	10073	µg/L	10073 ppb	08:50:24
3	Sr 421.552†	271449.3	274236.6	570.07	µg/L	570.07 ppb	08:50:22
3	Sc 361.383	1734240.9	1734240.9	100.93	%		08:51:15
3	Y 371.029	1237174.5	1237174.5	120.50	%		08:51:15
3	Ag 328.068†	129090.7	123806.6	463.26	µg/L	463.26 ppb	08:51:15
3	As 188.979†	1609.4	1614.9	505.34	µg/L	505.34 ppb	08:51:35
3	B 249.677†	35857.6	32020.4	470.64	µg/L	470.64 ppb	08:51:15
3	Ba 233.527†	148743.7	147505.3	594.24	µg/L	594.24 ppb	08:51:15
3	Be 313.107†	1812583.6	1796901.1	489.31	µg/L	489.31 ppb	08:51:15
3	Cd 226.502†	76098.4	75513.5	466.81	µg/L	466.81 ppb	08:51:15
3	Co 228.616†	37601.0	37443.9	460.10	µg/L	460.10 ppb	08:51:15
3	Cr 267.716†	63480.7	62715.6	492.34	µg/L	492.34 ppb	08:51:15
3	Cu 324.752†	132229.2	128035.3	505.17	µg/L	505.17 ppb	08:51:15
3	Mn 257.610†	1819647.2	1802597.5	2230.0	µg/L	2230.0 ppb	08:51:15
3	Mo 202.031†	17665.1	17521.9	517.12	µg/L	517.12 ppb	08:51:35
3	Ni 231.604†	42420.4	42105.0	484.81	µg/L	484.81 ppb	08:51:15
3	P 214.914†	4771.8	4745.6	980.67	µg/L	980.67 ppb	08:51:35
3	Pb 220.353†	8990.9	8821.4	495.58	µg/L	495.58 ppb	08:51:35
3	S 181.975 Axial†	8003.9	7824.9	5815.0	µg/L	5815.0 ppb	08:51:35
3	Sb 206.836†	3808.5	3692.5	439.66	µg/L	439.66 ppb	08:51:35
3	Se 196.026†	1301.4	1274.1	478	µg/L	478 ppb	08:51:35
3	SiO2†	763417.7	754588.8	73733	µg/L	73733 ppb	08:51:15
3	Si 251.611†	2342280.0	2319802.2	34191	µg/L	34191 ppb	08:51:15
3	Sn 189.927†	7590.3	7521.3	474.42	µg/L	474.42 ppb	08:51:35
3	Ti 334.940†	1777102.7	1759730.8	1643.5	µg/L	1643.5 ppb	08:51:15
3	Tl 190.801†	3546.0	3629.9	469.48	µg/L	469.48 ppb	08:51:35
3	U 409.014†	2474.9	2721.9	189.61	µg/L	189.61 ppb	08:51:15
3	V 292.402†	98519.9	97205.9	475.12	µg/L	475.12 ppb	08:51:15
3	Zn 213.857†	109774.4	108195.8	600.23	µg/L	600.23 ppb	08:51:15

Mean Data: 1202068100|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733911.0	100.91	%	0.705				0.70%
Sc RADIAL	143876.2	98.6	%	0.54				0.55%
Y 371.029	1236568.0	120.44	%	0.804				0.67%
Ag 328.068†	123654.2	462.69	µg/L	1.351	462.69	ppb	1.351	0.29%
Al 396.153Radial†	129027.1	23898	µg/L	34.0	23898	ppb	34.0	0.14%
As 188.979†	1620.2	506.97	µg/L	2.194	506.97	ppb	2.194	0.43%
B 249.677†	31984.9	470.12	µg/L	0.661	470.12	ppb	0.661	0.14%
Ba 233.527†	147271.3	593.30	µg/L	1.001	593.30	ppb	1.001	0.17%
Be 313.107†	1796846.8	489.30	µg/L	0.172	489.30	ppb	0.172	0.04%
Ca 317.933Radial†	114502.4	6378.2	µg/L	16.22	6378.2	ppb	16.22	0.25%
Cd 226.502†	75457.6	466.45	µg/L	0.659	466.45	ppb	0.659	0.14%
Co 228.616†	37462.5	460.32	µg/L	0.763	460.32	ppb	0.763	0.17%
Cr 267.716†	62727.1	492.44	µg/L	0.898	492.44	ppb	0.898	0.18%
Cu 324.752†	128033.8	505.18	µg/L	0.041	505.18	ppb	0.041	0.01%
Fe 238.204 Radial†	786363.5	48467	µg/L	379.4	48467	ppb	379.4	0.78%
K 766.490 Radial†	29159.5	10667	µg/L	62.8	10667	ppb	62.8	0.59%
Mg 279.077 IEC†	15289.9	5667.7	µg/L	26.72	5667.7	ppb	26.72	0.47%
Mn 257.610†	1802413.5	2229.8	µg/L	2.33	2229.8	ppb	2.33	0.10%
Mo 202.031†	17445.2	514.87	µg/L	2.597	514.87	ppb	2.597	0.50%
Na 589.592 Radial†	73845.6	10079	µg/L	20.8	10079	ppb	20.8	0.21%

Ni 231.604†	42057.8	484.26 µg/L	1.241	484.26 ppb	1.241	0.26%
P 214.914†	4725.3	976.24 µg/L	4.160	976.24 ppb	4.160	0.43%
Pb 220.353†	8780.7	493.30 µg/L	2.528	493.30 ppb	2.528	0.51%
S 181.975 Axial†	7750.2	5759.5 µg/L	49.95	5759.5 ppb	49.95	0.87%
Sb 206.836†	3680.7	438.21 µg/L	1.822	438.21 ppb	1.822	0.42%
Se 196.026†	1259.7	472 µg/L	6.8	472 ppb	6.8	1.45%
SiO2†	754441.6	73719 µg/L	74.1	73719 ppb	74.1	0.10%
Si 251.611†	2319802.7	34191 µg/L	23.2	34191 ppb	23.2	0.07%
Sn 189.927†	7465.5	470.94 µg/L	3.138	470.94 ppb	3.138	0.67%
Sr 421.552†	274311.8	570.23 µg/L	2.358	570.23 ppb	2.358	0.41%
Ti 334.940†	1758959.7	1642.8 µg/L	0.69	1642.8 ppb	0.69	0.04%
Tl 190.801†	3629.0	469.36 µg/L	2.251	469.36 ppb	2.251	0.48%
U 409.014†	2729.5	190.01 µg/L	1.902	190.01 ppb	1.902	1.00%
V 292.402†	97133.0	474.73 µg/L	0.348	474.73 ppb	0.348	0.07%
Zn 213.857†	108077.1	599.56 µg/L	1.593	599.56 ppb	1.593	0.27%

Sequence No.: 6
Sample ID: 1202068101|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 306
Date Collected: 4/1/2010 8:51:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068101|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144627.7	144627.7	99.1	%			08:52:16
1	Al 396.153Radial†	118364.8	119493.7	22130	µg/L	22130	ppb	08:52:16
1	Ca 317.933Radial†	114064.7	114531.0	6379.8	µg/L	6379.8	ppb	08:52:16
1	Fe 238.204 Radial†	745919.6	752487.0	46379	µg/L	46379	ppb	08:52:14
1	K 766.490 Radial†	29283.9	28002.7	10244	µg/L	10244	ppb	08:52:16
1	Mg 279.077 IEC†	15163.4	15109.2	5602.2	µg/L	5602.2	ppb	08:52:16
1	Na 589.592 Radial†	71571.4	70924.9	9680.1	µg/L	9680.1	ppb	08:52:16
1	Sr 421.552†	257498.7	259952.3	540.38	µg/L	540.38	ppb	08:52:14
1	Sc 361.383	1720973.6	1720973.6	100.16	%			08:52:29
1	Y 371.029	1265170.3	1265170.3	123.23	%			08:52:29
1	Ag 328.068†	125768.7	121475.9	454.45	µg/L	454.45	ppb	08:52:29
1	As 188.979†	1590.0	1607.8	502.66	µg/L	502.66	ppb	08:52:49
1	B 249.677†	34837.4	31275.8	459.68	µg/L	459.68	ppb	08:52:29
1	Ba 233.527†	140249.1	140160.4	564.67	µg/L	564.67	ppb	08:52:29
1	Be 313.107†	1770057.5	1768287.6	481.49	µg/L	481.49	ppb	08:52:29
1	Cd 226.502†	74083.7	74083.3	458.08	µg/L	458.08	ppb	08:52:29
1	Co 228.616†	36806.9	36938.2	453.93	µg/L	453.93	ppb	08:52:29
1	Cr 267.716†	61662.1	61384.8	481.91	µg/L	481.91	ppb	08:52:29
1	Cu 324.752†	129416.4	126237.0	497.81	µg/L	497.81	ppb	08:52:29
1	Mn 257.610†	1838865.6	1835683.5	2270.9	µg/L	2270.9	ppb	08:52:29
1	Mo 202.031†	17344.0	17336.3	511.58	µg/L	511.58	ppb	08:52:49
1	Ni 231.604†	41361.1	41371.3	476.36	µg/L	476.36	ppb	08:52:29
1	P 214.914†	4579.6	4590.2	948.45	µg/L	948.45	ppb	08:52:49
1	Pb 220.353†	8735.6	8635.2	485.33	µg/L	485.33	ppb	08:52:49
1	S 181.975 Axial†	7364.7	7247.9	5386.4	µg/L	5386.4	ppb	08:52:49
1	Sb 206.836†	3714.7	3627.9	432.08	µg/L	432.08	ppb	08:52:49
1	Se 196.026†	1263.4	1246.1	467	µg/L	467	ppb	08:52:49
1	SiO2†	710745.2	707831.6	69164	µg/L	69164	ppb	08:52:29
1	Si 251.611†	2181881.7	2177551.0	32094	µg/L	32094	ppb	08:52:29
1	Sn 189.927†	7406.9	7396.1	466.94	µg/L	466.94	ppb	08:52:49
1	Ti 334.940†	1866575.2	1862633.5	1739.7	µg/L	1739.7	ppb	08:52:29
1	Tl 190.801†	3447.9	3559.1	461.84	µg/L	461.84	ppb	08:52:49
1	U 409.014†	828.9	1097.4	95.030	µg/L	95.030	ppb	08:52:29
1	V 292.402†	96604.9	96046.4	469.42	µg/L	469.42	ppb	08:52:29
1	Zn 213.857†	108543.8	107805.5	598.33	µg/L	598.33	ppb	08:52:29
2	Sc RADIAL	144273.4	144273.4	98.9	%			08:52:20
2	Al 396.153Radial†	118216.6	119637.0	22157	µg/L	22157	ppb	08:52:20
2	Ca 317.933Radial†	113255.8	113995.4	6350.0	µg/L	6350.0	ppb	08:52:20
2	Fe 238.204 Radial†	744740.0	753142.0	46419	µg/L	46419	ppb	08:52:18
2	K 766.490 Radial†	29142.8	27932.6	10218	µg/L	10218	ppb	08:52:20
2	Mg 279.077 IEC†	15105.5	15088.2	5594.2	µg/L	5594.2	ppb	08:52:20
2	Na 589.592 Radial†	71259.6	70786.9	9661.3	µg/L	9661.3	ppb	08:52:20
2	Sr 421.552†	257202.8	260290.9	541.08	µg/L	541.08	ppb	08:52:18
2	Sc 361.383	1738077.6	1738077.6	101.16	%			08:52:52
2	Y 371.029	1277546.9	1277546.9	124.43	%			08:52:52
2	Ag 328.068†	126862.2	121321.2	453.89	µg/L	453.89	ppb	08:52:52
2	As 188.979†	1594.1	1596.2	499.14	µg/L	499.14	ppb	08:53:12
2	B 249.677†	35547.2	31635.1	464.98	µg/L	464.98	ppb	08:52:52
2	Ba 233.527†	141553.0	140071.4	564.31	µg/L	564.31	ppb	08:52:52
2	Be 313.107†	1787887.8	1768523.3	481.56	µg/L	481.56	ppb	08:52:52
2	Cd 226.502†	75224.1	74482.8	460.57	µg/L	460.57	ppb	08:52:52
2	Co 228.616†	37118.9	36885.1	453.28	µg/L	453.28	ppb	08:52:52
2	Cr 267.716†	62349.7	61458.7	482.49	µg/L	482.49	ppb	08:52:52
2	Cu 324.752†	130708.2	126242.5	497.84	µg/L	497.84	ppb	08:52:52
2	Mn 257.610†	1857946.9	1836479.9	2271.9	µg/L	2271.9	ppb	08:52:52
2	Mo 202.031†	17391.2	17212.6	507.95	µg/L	507.95	ppb	08:53:12
2	Ni 231.604†	41848.8	41447.2	477.23	µg/L	477.23	ppb	08:52:52
2	P 214.914†	4547.6	4513.6	932.05	µg/L	932.05	ppb	08:53:12
2	Pb 220.353†	8762.0	8575.5	481.97	µg/L	481.97	ppb	08:53:12

2	S 181.975 Axial†	7405.3	7215.6	5362.5 µg/L	5362.5 ppb	08:53:12
2	Sb 206.836†	3721.6	3598.2	428.48 µg/L	428.48 ppb	08:53:12
2	Se 196.026†	1274.7	1244.8	466 µg/L	466 ppb	08:53:12
2	SiO2†	718233.6	708251.4	69205 µg/L	69205 ppb	08:52:52
2	Si 251.611†	2205107.6	2179074.5	32116 µg/L	32116 ppb	08:52:52
2	Sn 189.927†	7423.3	7339.6	463.40 µg/L	463.40 ppb	08:53:12
2	Ti 334.940†	1882328.8	1859868.0	1737.1 µg/L	1737.1 ppb	08:52:52
2	Tl 190.801†	3460.1	3537.2	459.14 µg/L	459.14 ppb	08:53:12
2	U 409.014†	963.3	1222.2	102.36 µg/L	102.36 ppb	08:52:52
2	V 292.402†	97705.3	96185.1	470.06 µg/L	470.06 ppb	08:52:52
2	Zn 213.857†	109914.0	108093.6	599.94 µg/L	599.94 ppb	08:52:52
3	Sc RADIAL	144620.3	144620.3	99.1 %		08:52:24
3	Al 396.153Radial†	118782.3	119921.0	22209 µg/L	22209 ppb	08:52:24
3	Ca 317.933Radial†	114006.3	114478.0	6376.9 µg/L	6376.9 ppb	08:52:24
3	Fe 238.204 Radial†	744839.1	751435.1	46314 µg/L	46314 ppb	08:52:22
3	K 766.490 Radial†	29262.3	27982.5	10237 µg/L	10237 ppb	08:52:24
3	Mg 279.077 IEC†	15197.1	15144.0	5615.2 µg/L	5615.2 ppb	08:52:24
3	Na 589.592 Radial†	71619.1	70976.8	9687.2 µg/L	9687.2 ppb	08:52:24
3	Sr 421.552†	257537.6	260004.8	540.48 µg/L	540.48 ppb	08:52:22
3	Sc 361.383	1719136.9	1719136.9	100.05 %		08:53:15
3	Y 371.029	1264930.2	1264930.2	123.20 %		08:53:15
3	Ag 328.068†	125973.7	121814.9	455.75 µg/L	455.75 ppb	08:53:15
3	As 188.979†	1602.0	1621.5	506.80 µg/L	506.80 ppb	08:53:35
3	B 249.677†	34961.9	31437.3	462.06 µg/L	462.06 ppb	08:53:15
3	Ba 233.527†	140229.2	140290.1	565.19 µg/L	565.19 ppb	08:53:15
3	Be 313.107†	1770173.4	1770291.5	482.04 µg/L	482.04 ppb	08:53:15
3	Cd 226.502†	74280.9	74359.3	459.81 µg/L	459.81 ppb	08:53:15
3	Co 228.616†	36871.9	37042.5	455.22 µg/L	455.22 ppb	08:53:15
3	Cr 267.716†	61801.3	61589.7	483.50 µg/L	483.50 ppb	08:53:15
3	Cu 324.752†	129524.3	126482.8	498.77 µg/L	498.77 ppb	08:53:15
3	Mn 257.610†	1842663.8	1841441.2	2278.1 µg/L	2278.1 ppb	08:53:15
3	Mo 202.031†	17421.0	17431.8	514.39 µg/L	514.39 ppb	08:53:35
3	Ni 231.604†	41569.2	41623.5	479.26 µg/L	479.26 ppb	08:53:15
3	P 214.914†	4587.2	4602.7	951.17 µg/L	951.17 ppb	08:53:35
3	Pb 220.353†	8786.5	8695.4	488.69 µg/L	488.69 ppb	08:53:35
3	S 181.975 Axial†	7416.3	7307.3	5430.6 µg/L	5430.6 ppb	08:53:35
3	Sb 206.836†	3726.7	3643.9	434.00 µg/L	434.00 ppb	08:53:35
3	Se 196.026†	1273.3	1257.4	471 µg/L	471 ppb	08:53:35
3	SiO2†	711342.1	709186.4	69296 µg/L	69296 ppb	08:53:15
3	Si 251.611†	2184351.2	2182346.6	32164 µg/L	32164 ppb	08:53:15
3	Sn 189.927†	7445.7	7442.8	469.85 µg/L	469.85 ppb	08:53:35
3	Ti 334.940†	1866347.2	1864396.7	1741.4 µg/L	1741.4 ppb	08:53:15
3	Tl 190.801†	3491.6	3606.4	467.70 µg/L	467.70 ppb	08:53:35
3	U 409.014†	1200.5	1469.7	116.99 µg/L	116.99 ppb	08:53:15
3	V 292.402†	96956.3	96500.6	471.69 µg/L	471.69 ppb	08:53:15
3	Zn 213.857†	108797.0	108174.4	600.39 µg/L	600.39 ppb	08:53:15

Mean Data: 1202068101|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726062.7	100.46	%	0.608				0.61%
Sc RADIAL	144507.1	99.0	%	0.14				0.14%
Y 371.029	1269215.8	123.62	%	0.703				0.57%
Ag 328.068†	121537.3	454.70	µg/L	0.956	454.70	ppb	0.956	0.21%
Al 396.153Radial†	119683.9	22166	µg/L	40.2	22166	ppb	40.2	0.18%
As 188.979†	1608.5	502.86	µg/L	3.834	502.86	ppb	3.834	0.76%
B 249.677†	31449.4	462.24	µg/L	2.656	462.24	ppb	2.656	0.57%
Ba 233.527†	140174.0	564.72	µg/L	0.445	564.72	ppb	0.445	0.08%
Be 313.107†	1769034.1	481.70	µg/L	0.301	481.70	ppb	0.301	0.06%
Ca 317.933Radial†	114334.8	6368.9	µg/L	16.44	6368.9	ppb	16.44	0.26%
Cd 226.502†	74308.5	459.49	µg/L	1.277	459.49	ppb	1.277	0.28%
Co 228.616†	36955.3	454.14	µg/L	0.992	454.14	ppb	0.992	0.22%
Cr 267.716†	61477.7	482.63	µg/L	0.802	482.63	ppb	0.802	0.17%
Cu 324.752†	126320.8	498.14	µg/L	0.548	498.14	ppb	0.548	0.11%
Fe 238.204 Radial†	752354.7	46371	µg/L	53.1	46371	ppb	53.1	0.11%
K 766.490 Radial†	27972.6	10233	µg/L	13.2	10233	ppb	13.2	0.13%
Mg 279.077 IEC†	15113.8	5603.9	µg/L	10.62	5603.9	ppb	10.62	0.19%
Mn 257.610†	1837868.2	2273.6	µg/L	3.86	2273.6	ppb	3.86	0.17%
Mo 202.031†	17326.9	511.31	µg/L	3.228	511.31	ppb	3.228	0.63%
Na 589.592 Radial†	70896.2	9676.2	µg/L	13.39	9676.2	ppb	13.39	0.14%

Ni 231.604†	41480.7	477.62	µg/L	1.490	477.62	ppb	1.490	0.31%
P 214.914†	4568.8	943.89	µg/L	10.346	943.89	ppb	10.346	1.10%
Pb 220.353†	8635.4	485.33	µg/L	3.357	485.33	ppb	3.357	0.69%
S 181.975 Axial†	7256.9	5393.2	µg/L	34.55	5393.2	ppb	34.55	0.64%
Sb 206.836†	3623.4	431.52	µg/L	2.802	431.52	ppb	2.802	0.65%
Se 196.026†	1249.4	468	µg/L	2.5	468	ppb	2.5	0.53%
SiO2†	708423.1	69221	µg/L	67.7	69221	ppb	67.7	0.10%
Si 251.611†	2179657.4	32125	µg/L	36.1	32125	ppb	36.1	0.11%
Sn 189.927†	7392.8	466.73	µg/L	3.230	466.73	ppb	3.230	0.69%
Sr 421.552†	260082.7	540.65	µg/L	0.379	540.65	ppb	0.379	0.07%
Ti 334.940†	1862299.4	1739.4	µg/L	2.13	1739.4	ppb	2.13	0.12%
Tl 190.801†	3567.6	462.89	µg/L	4.379	462.89	ppb	4.379	0.95%
U 409.014†	1263.1	104.79	µg/L	11.179	104.79	ppb	11.179	10.67%
V 292.402†	96244.0	470.39	µg/L	1.171	470.39	ppb	1.171	0.25%
Zn 213.857†	108024.5	599.56	µg/L	1.083	599.56	ppb	1.083	0.18%

Sequence No.: 7
Sample ID: 1202068099|964012|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 307
Date Collected: 4/1/2010 8:53:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068099|964012|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146112.6	146112.6	100	%			08:54:13
1	Al 396.153Radial†	10325.4	10375.7	1923.3	µg/L	1923.3	ppb	08:54:15
1	Ca 317.933Radial†	5239.5	4672.4	260.27	µg/L	260.27	ppb	08:54:15
1	Fe 238.204 Radial†	122805.2	122503.5	7550.4	µg/L	7550.4	ppb	08:54:13
1	K 766.490 Radial†	3659.2	2109.9	771.86	µg/L	771.86	ppb	08:54:13
1	Mg 279.077 IEC†	496.4	305.0	107.36	µg/L	107.36	ppb	08:54:15
1	Na 589.592 Radial†	5969.8	4671.5	637.50	µg/L	637.50	ppb	08:54:13
1	Sr 421.552†	6158.7	6286.3	13.067	µg/L	13.067	ppb	08:54:15
1	Sc 361.383	1771041.6	1771041.6	103.07	%			08:54:41
1	Y 371.029	1082796.1	1082796.1	105.46	%			08:54:41
1	Ag 328.068†	4205.4	-11.4	-0.2071	µg/L	-0.2071	ppb	08:54:43
1	As 188.979†	-7.2	13.4	5.8066	µg/L	5.8066	ppb	08:55:03
1	B 249.677†	3502.9	-107.5	-1.5888	µg/L	-1.5888	ppb	08:54:43
1	Ba 233.527†	4587.0	4586.0	18.387	µg/L	18.387	ppb	08:55:03
1	Be 313.107†	1083.4	2115.8	0.5644	µg/L	0.5644	ppb	08:54:43
1	Cd 226.502†	27.4	144.8	0.1119	µg/L	0.1119	ppb	08:55:03
1	Co 228.616†	-110.0	83.6	0.6571	µg/L	0.6571	ppb	08:55:03
1	Cr 267.716†	913.8	707.9	5.7578	µg/L	5.7578	ppb	08:55:03
1	Cu 324.752†	3300.4	229.7	1.9642	µg/L	1.9642	ppb	08:54:43
1	Mn 257.610†	261210.9	253182.6	313.24	µg/L	313.24	ppb	08:54:43
1	Mo 202.031†	240.5	253.4	7.7488	µg/L	7.7488	ppb	08:55:03
1	Ni 231.604†	198.8	269.4	3.1014	µg/L	3.1014	ppb	08:55:03
1	P 214.914†	317.7	326.2	64.991	µg/L	64.991	ppb	08:55:03
1	Pb 220.353†	150.0	59.1	3.3995	µg/L	3.3995	ppb	08:55:03
1	S 181.975 Axial†	243.3	131.0	97.319	µg/L	97.319	ppb	08:55:03
1	Sb 206.836†	70.2	-12.7	-1.5944	µg/L	-1.5944	ppb	08:55:03
1	Se 196.026†	19.6	3.7	3.92	µg/L	3.92	ppb	08:55:03
1	SiO2†	80771.6	76587.1	7485.5	µg/L	7485.5	ppb	08:54:43
1	Si 251.611†	244391.1	236265.2	3483.1	µg/L	3483.1	ppb	08:54:43
1	Sn 189.927†	35.6	35.7	2.6712	µg/L	2.6712	ppb	08:55:03
1	Ti 334.940†	147623.6	142268.0	132.93	µg/L	132.93	ppb	08:54:43
1	Tl 190.801†	-132.7	-12.1	0.6681	µg/L	0.6681	ppb	08:55:03
1	U 409.014†	-957.3	-658.9	-38.090	µg/L	-38.090	ppb	08:54:43
1	V 292.402†	845.9	416.9	1.1887	µg/L	1.1887	ppb	08:54:43
1	Zn 213.857†	5006.9	4293.1	23.384	µg/L	23.384	ppb	08:55:03
2	Sc RADIAL	143732.6	143732.6	98.5	%			08:54:17
2	Al 396.153Radial†	10355.2	10576.7	1960.6	µg/L	1960.6	ppb	08:54:19
2	Ca 317.933Radial†	5249.9	4769.6	265.68	µg/L	265.68	ppb	08:54:19
2	Fe 238.204 Radial†	121146.4	122850.2	7571.7	µg/L	7571.7	ppb	08:54:17
2	K 766.490 Radial†	3621.9	2132.5	780.13	µg/L	780.13	ppb	08:54:17
2	Mg 279.077 IEC†	403.0	218.4	75.065	µg/L	75.065	ppb	08:54:19
2	Na 589.592 Radial†	5934.4	4734.3	646.07	µg/L	646.07	ppb	08:54:17
2	Sr 421.552†	6349.5	6581.9	13.681	µg/L	13.681	ppb	08:54:19
2	Sc 361.383	1776012.9	1776012.9	103.36	%			08:55:05
2	Y 371.029	1085468.2	1085468.2	105.73	%			08:55:05
2	Ag 328.068†	4316.9	85.0	0.1566	µg/L	0.1566	ppb	08:55:07
2	As 188.979†	-9.0	11.6	5.2922	µg/L	5.2922	ppb	08:55:27
2	B 249.677†	3581.0	-41.4	-0.6154	µg/L	-0.6154	ppb	08:55:07
2	Ba 233.527†	4618.0	4603.5	18.457	µg/L	18.457	ppb	08:55:27
2	Be 313.107†	625.6	1669.9	0.4444	µg/L	0.4444	ppb	08:55:07
2	Cd 226.502†	17.5	135.1	0.0489	µg/L	0.0489	ppb	08:55:27
2	Co 228.616†	-96.2	97.3	0.8242	µg/L	0.8242	ppb	08:55:27
2	Cr 267.716†	909.5	701.3	5.7033	µg/L	5.7033	ppb	08:55:27
2	Cu 324.752†	3279.3	200.4	1.8564	µg/L	1.8564	ppb	08:55:07
2	Mn 257.610†	263303.0	254497.3	314.87	µg/L	314.87	ppb	08:55:07
2	Mo 202.031†	240.4	252.7	7.7267	µg/L	7.7267	ppb	08:55:27
2	Ni 231.604†	177.4	248.2	2.8575	µg/L	2.8575	ppb	08:55:27
2	P 214.914†	320.3	327.8	65.334	µg/L	65.334	ppb	08:55:27
2	Pb 220.353†	169.9	78.0	4.4530	µg/L	4.4530	ppb	08:55:27

2	S 181.975 Axial†	243.5	130.5	96.951	µg/L	96.951 ppb	08:55:27
2	Sb 206.836†	80.5	-2.9	-0.4250	µg/L	-0.4250 ppb	08:55:27
2	Se 196.026†	21.4	5.4	4.56	µg/L	4.56 ppb	08:55:27
2	SiO2†	81545.2	77116.2	7537.2	µg/L	7537.2 ppb	08:55:07
2	Si 251.611†	246568.9	237708.5	3504.4	µg/L	3504.4 ppb	08:55:07
2	Sn 189.927†	30.7	30.8	2.3717	µg/L	2.3717 ppb	08:55:27
2	Ti 334.940†	149078.5	143274.6	133.87	µg/L	133.87 ppb	08:55:07
2	Tl 190.801†	-117.6	2.9	2.5182	µg/L	2.5182 ppb	08:55:27
2	U 409.014†	-878.5	-580.0	-33.463	µg/L	-33.463 ppb	08:55:07
2	V 292.402†	878.4	446.0	1.3303	µg/L	1.3303 ppb	08:55:07
2	Zn 213.857†	5007.2	4279.8	23.310	µg/L	23.310 ppb	08:55:27
3	Sc RADIAL	145017.0	145017.0	99.4	%		08:54:21
3	Al 396.153Radial†	10355.8	10484.2	1943.4	µg/L	1943.4 ppb	08:54:23
3	Ca 317.933Radial†	5246.8	4719.3	262.88	µg/L	262.88 ppb	08:54:23
3	Fe 238.204 Radial†	122110.4	122730.9	7564.4	µg/L	7564.4 ppb	08:54:21
3	K 766.490 Radial†	3557.3	2034.9	744.41	µg/L	744.41 ppb	08:54:21
3	Mg 279.077 IEC†	445.7	257.8	89.757	µg/L	89.757 ppb	08:54:23
3	Na 589.592 Radial†	5848.7	4594.7	627.03	µg/L	627.03 ppb	08:54:21
3	Sr 421.552†	6345.6	6520.8	13.554	µg/L	13.554 ppb	08:54:23
3	Sc 361.383	1760867.1	1760867.1	102.48	%		08:55:29
3	Y 371.029	1075239.5	1075239.5	104.73	%		08:55:29
3	Ag 328.068†	4100.4	-90.3	-0.5049	µg/L	-0.5049 ppb	08:55:31
3	As 188.979†	-5.5	15.0	6.3018	µg/L	6.3018 ppb	08:55:52
3	B 249.677†	3522.7	-68.5	-1.0142	µg/L	-1.0142 ppb	08:55:31
3	Ba 233.527†	4569.7	4594.8	18.423	µg/L	18.423 ppb	08:55:52
3	Be 313.107†	764.2	1810.4	0.4795	µg/L	0.4795 ppb	08:55:31
3	Cd 226.502†	24.2	141.8	0.0919	µg/L	0.0919 ppb	08:55:52
3	Co 228.616†	-108.1	84.8	0.6711	µg/L	0.6711 ppb	08:55:52
3	Cr 267.716†	924.4	723.4	5.8834	µg/L	5.8834 ppb	08:55:52
3	Cu 324.752†	3296.6	244.6	2.0186	µg/L	2.0186 ppb	08:55:31
3	Mn 257.610†	262916.7	256311.4	317.11	µg/L	317.11 ppb	08:55:31
3	Mo 202.031†	239.1	253.4	7.7489	µg/L	7.7489 ppb	08:55:52
3	Ni 231.604†	175.1	247.4	2.8483	µg/L	2.8483 ppb	08:55:52
3	P 214.914†	337.3	347.1	69.443	µg/L	69.443 ppb	08:55:52
3	Pb 220.353†	134.6	44.9	2.6148	µg/L	2.6148 ppb	08:55:52
3	S 181.975 Axial†	248.0	137.0	101.78	µg/L	101.78 ppb	08:55:52
3	Sb 206.836†	64.3	-18.0	-2.2253	µg/L	-2.2253 ppb	08:55:52
3	Se 196.026†	9.6	-5.9	0.456	µg/L	0.456 ppb	08:55:52
3	SiO2†	81266.5	77522.8	7577.0	µg/L	7577.0 ppb	08:55:31
3	Si 251.611†	245617.8	238832.2	3521.0	µg/L	3521.0 ppb	08:55:31
3	Sn 189.927†	28.9	29.3	2.2803	µg/L	2.2803 ppb	08:55:52
3	Ti 334.940†	148265.0	143721.4	134.29	µg/L	134.29 ppb	08:55:31
3	Tl 190.801†	-128.8	-9.0	1.0731	µg/L	1.0731 ppb	08:55:52
3	U 409.014†	-1054.6	-759.2	-43.920	µg/L	-43.920 ppb	08:55:31
3	V 292.402†	894.2	468.7	1.4355	µg/L	1.4355 ppb	08:55:31
3	Zn 213.857†	4995.0	4309.6	23.478	µg/L	23.478 ppb	08:55:52

Mean Data: 1202068099|964012|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769307.2	102.97	%	0.449				0.44%
Sc RADIAL	144954.1	99.3	%	0.82				0.82%
Y 371.029	1081168.0	105.31	%	0.517				0.49%
Ag 328.068†	-5.6	-0.1852	µg/L	0.33130	-0.1852	ppb	0.33130	178.91%
Al 396.153Radial†	10478.9	1942.4	µg/L	18.66	1942.4	ppb	18.66	0.96%
As 188.979†	13.3	5.8002	µg/L	0.50485	5.8002	ppb	0.50485	8.70%
B 249.677†	-72.5	-1.0728	µg/L	0.48936	-1.0728	ppb	0.48936	45.62%
Ba 233.527†	4594.8	18.422	µg/L	0.0352	18.422	ppb	0.0352	0.19%
Be 313.107†	1865.4	0.4961	µg/L	0.06170	0.4961	ppb	0.06170	12.44%
Ca 317.933Radial†	4720.4	262.95	µg/L	2.707	262.95	ppb	2.707	1.03%
Cd 226.502†	140.6	0.0842	µg/L	0.03222	0.0842	ppb	0.03222	38.26%
Co 228.616†	88.6	0.7174	µg/L	0.09269	0.7174	ppb	0.09269	12.92%
Cr 267.716†	710.9	5.7815	µg/L	0.09236	5.7815	ppb	0.09236	1.60%
Cu 324.752†	224.9	1.9464	µg/L	0.08255	1.9464	ppb	0.08255	4.24%
Fe 238.204 Radial†	122694.9	7562.2	µg/L	10.86	7562.2	ppb	10.86	0.14%
K 766.490 Radial†	2092.4	765.47	µg/L	18.700	765.47	ppb	18.700	2.44%
Mg 279.077 IEC†	260.4	90.728	µg/L	16.1705	90.728	ppb	16.1705	17.82%
Mn 257.610†	254663.8	315.07	µg/L	1.944	315.07	ppb	1.944	0.62%
Mo 202.031†	253.2	7.7415	µg/L	0.01279	7.7415	ppb	0.01279	0.17%
Na 589.592 Radial†	4666.8	636.87	µg/L	9.539	636.87	ppb	9.539	1.50%

Ni 231.604†	255.0	2.9357	µg/L	0.14354	2.9357	ppb	0.14354	4.89%
P 214.914†	333.7	66.590	µg/L	2.4774	66.590	ppb	2.4774	3.72%
Pb 220.353†	60.7	3.4891	µg/L	0.92235	3.4891	ppb	0.92235	26.44%
S 181.975 Axial†	132.8	98.682	µg/L	2.6861	98.682	ppb	2.6861	2.72%
Sb 206.836†	-11.2	-1.4149	µg/L	0.91345	-1.4149	ppb	0.91345	64.56%
Se 196.026†	1.1	2.98	µg/L	2.210	2.98	ppb	2.210	74.13%
SiO2†	77075.4	7533.3	µg/L	45.86	7533.3	ppb	45.86	0.61%
Si 251.611†	237602.0	3502.8	µg/L	18.97	3502.8	ppb	18.97	0.54%
Sn 189.927†	31.9	2.4411	µg/L	0.20450	2.4411	ppb	0.20450	8.38%
Sr 421.552†	6463.0	13.434	µg/L	0.3244	13.434	ppb	0.3244	2.41%
Ti 334.940†	143088.0	133.70	µg/L	0.697	133.70	ppb	0.697	0.52%
Tl 190.801†	-6.1	1.4198	µg/L	0.97254	1.4198	ppb	0.97254	68.50%
U 409.014†	-666.0	-38.491	µg/L	5.2401	-38.491	ppb	5.2401	13.61%
V 292.402†	443.9	1.3182	µg/L	0.12386	1.3182	ppb	0.12386	9.40%
Zn 213.857†	4294.2	23.391	µg/L	0.0842	23.391	ppb	0.0842	0.36%

Sequence No.: 8 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/1/2010 8:55:59**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142758.4	142758.4	97.8	%			08:56:33
1	Al 396.153Radial†	26037.1	26678.7	4924.6	µg/L	4924.6	ppb	08:56:33
1	Ca 317.933Radial†	83414.9	84707.3	4718.5	µg/L	4718.5	ppb	08:56:33
1	Fe 238.204 Radial†	75141.2	76662.3	4725.0	µg/L	4725.0	ppb	08:56:33
1	K 766.490 Radial†	14448.8	13225.0	4837.9	µg/L	4837.9	ppb	08:56:33
1	Mg 279.077 IEC†	12884.9	12980.4	4843.6	µg/L	4843.6	ppb	08:56:33
1	Na 589.592 Radial†	69489.9	69742.8	9523.4	µg/L	9523.4	ppb	08:56:33
1	Sr 421.552†	225279.1	230418.9	478.99	µg/L	478.99	ppb	08:56:31
1	Sc 361.383	1736865.2	1736865.2	101.09	%			08:56:46
1	Y 371.029	1021299.3	1021299.3	99.475	%			08:56:46
1	Ag 328.068†	129678.1	124194.4	465.73	µg/L	465.73	ppb	08:56:46
1	As 188.979†	1613.2	1616.2	495.56	µg/L	495.56	ppb	08:57:06
1	B 249.677†	35118.2	31235.3	459.04	µg/L	459.04	ppb	08:56:46
1	Ba 233.527†	117499.9	116374.2	469.33	µg/L	469.33	ppb	08:56:46
1	Be 313.107†	1772385.8	1754421.6	477.82	µg/L	477.82	ppb	08:56:46
1	Cd 226.502†	75369.9	74678.9	466.18	µg/L	466.18	ppb	08:56:46
1	Co 228.616†	38275.3	38054.7	469.78	µg/L	469.78	ppb	08:56:46
1	Cr 267.716†	60119.5	59295.4	464.29	µg/L	464.29	ppb	08:56:46
1	Cu 324.752†	124618.6	120308.4	468.98	µg/L	468.98	ppb	08:56:46
1	Mn 257.610†	384855.7	380486.5	470.57	µg/L	470.57	ppb	08:56:46
1	Mo 202.031†	15949.5	15798.3	464.72	µg/L	464.72	ppb	08:57:06
1	Ni 231.604†	40956.4	40593.2	467.40	µg/L	467.40	ppb	08:56:46
1	P 214.914†	10966.3	10866.6	2316.1	µg/L	2316.1	ppb	08:57:06
1	Pb 220.353†	8549.0	8370.9	468.78	µg/L	468.78	ppb	08:57:06
1	S 181.975 Axial†	1332.1	1212.7	904.46	µg/L	904.46	ppb	08:57:06
1	Sb 206.836†	4000.5	3876.7	461.90	µg/L	461.90	ppb	08:57:06
1	Se 196.026†	1301.9	1272.6	462	µg/L	462	ppb	08:57:06
1	SiO2†	52811.2	50468.9	4913.0	µg/L	4913.0	ppb	08:56:46
1	Si 251.611†	159310.8	156763.8	2301.9	µg/L	2301.9	ppb	08:56:46
1	Sn 189.927†	7502.2	7422.8	464.31	µg/L	464.31	ppb	08:57:06
1	Ti 334.940†	507828.8	501424.1	467.87	µg/L	467.87	ppb	08:56:46
1	Tl 190.801†	3732.9	3809.5	475.11	µg/L	475.11	ppb	08:57:06
1	U 409.014†	6941.1	7136.5	445.78	µg/L	445.78	ppb	08:56:46
1	V 292.402†	97091.4	95645.2	472.74	µg/L	472.74	ppb	08:56:46
1	Zn 213.857†	84330.7	82860.9	461.79	µg/L	461.79	ppb	08:56:46
2	Sc RADIAL	142316.2	142316.2	97.5	%			08:56:37
2	Al 396.153Radial†	25957.0	26679.3	4924.7	µg/L	4924.7	ppb	08:56:37
2	Ca 317.933Radial†	83031.6	84579.3	4711.4	µg/L	4711.4	ppb	08:56:37
2	Fe 238.204 Radial†	74954.1	76709.2	4727.9	µg/L	4727.9	ppb	08:56:37
2	K 766.490 Radial†	14483.4	13306.4	4867.8	µg/L	4867.8	ppb	08:56:37
2	Mg 279.077 IEC†	12823.3	12958.2	4835.3	µg/L	4835.3	ppb	08:56:37
2	Na 589.592 Radial†	69443.9	69916.4	9547.1	µg/L	9547.1	ppb	08:56:37
2	Sr 421.552†	222074.4	227848.5	473.65	µg/L	473.65	ppb	08:56:35
2	Sc 361.383	1723774.9	1723774.9	100.32	%			08:57:09
2	Y 371.029	1014397.5	1014397.5	98.803	%			08:57:09
2	Ag 328.068†	129022.9	124515.6	466.94	µg/L	466.94	ppb	08:57:09
2	As 188.979†	1594.1	1609.3	493.46	µg/L	493.46	ppb	08:57:29
2	B 249.677†	34910.7	31292.3	459.88	µg/L	459.88	ppb	08:57:09
2	Ba 233.527†	116857.7	116616.8	470.31	µg/L	470.31	ppb	08:57:09
2	Be 313.107†	1759791.1	1755182.4	478.03	µg/L	478.03	ppb	08:57:09
2	Cd 226.502†	74536.3	74414.2	464.52	µg/L	464.52	ppb	08:57:09
2	Co 228.616†	38007.8	38075.6	470.04	µg/L	470.04	ppb	08:57:09
2	Cr 267.716†	59624.3	59253.5	463.95	µg/L	463.95	ppb	08:57:09
2	Cu 324.752†	123935.8	120564.0	469.98	µg/L	469.98	ppb	08:57:09
2	Mn 257.610†	382421.3	380951.1	471.15	µg/L	471.15	ppb	08:57:09
2	Mo 202.031†	15844.9	15813.9	465.18	µg/L	465.18	ppb	08:57:29
2	Ni 231.604†	40730.4	40675.6	468.35	µg/L	468.35	ppb	08:57:09
2	P 214.914†	10855.5	10838.5	2310.1	µg/L	2310.1	ppb	08:57:29
2	Pb 220.353†	8464.3	8350.6	467.65	µg/L	467.65	ppb	08:57:29

2	S 181.975 Axial†	1335.2	1225.8	914.18 µg/L	914.18 ppb	08:57:29
2	Sb 206.836†	3961.1	3867.5	460.82 µg/L	460.82 ppb	08:57:29
2	Se 196.026†	1293.6	1274.1	463 µg/L	463 ppb	08:57:29
2	SiO2†	52498.1	50553.5	4921.2 µg/L	4921.2 ppb	08:57:09
2	Si 251.611†	158264.8	156918.0	2304.2 µg/L	2304.2 ppb	08:57:09
2	Sn 189.927†	7462.3	7439.4	465.35 µg/L	465.35 ppb	08:57:29
2	Ti 334.940†	504432.3	501853.5	468.27 µg/L	468.27 ppb	08:57:09
2	Tl 190.801†	3696.4	3801.1	474.09 µg/L	474.09 ppb	08:57:29
2	U 409.014†	7016.2	7263.5	453.22 µg/L	453.22 ppb	08:57:09
2	V 292.402†	96420.7	95706.1	473.04 µg/L	473.04 ppb	08:57:09
2	Zn 213.857†	83533.9	82700.2	460.89 µg/L	460.89 ppb	08:57:09
3	Sc RADIAL	144044.7	144044.7	98.7 %		08:56:41
3	Al 396.153Radial†	26298.2	26705.5	4929.4 µg/L	4929.4 ppb	08:56:41
3	Ca 317.933Radial†	84427.4	84971.7	4733.3 µg/L	4733.3 ppb	08:56:41
3	Fe 238.204 Radial†	76105.5	76953.4	4742.9 µg/L	4742.9 ppb	08:56:41
3	K 766.490 Radial†	14773.4	13421.9	4910.0 µg/L	4910.0 ppb	08:56:41
3	Mg 279.077 IEC†	13042.0	13022.0	4859.2 µg/L	4859.2 ppb	08:56:41
3	Na 589.592 Radial†	70484.3	70115.9	9574.3 µg/L	9574.3 ppb	08:56:41
3	Sr 421.552†	225421.9	228507.3	475.02 µg/L	475.02 ppb	08:56:39
3	Sc 361.383	1719340.6	1719340.6	100.07 %		08:57:32
3	Y 371.029	1012837.9	1012837.9	98.651 %		08:57:32
3	Ag 328.068†	128605.2	124429.8	466.60 µg/L	466.60 ppb	08:57:32
3	As 188.979†	1599.4	1618.7	496.33 µg/L	496.33 ppb	08:57:52
3	B 249.677†	35086.4	31557.5	463.79 µg/L	463.79 ppb	08:57:32
3	Ba 233.527†	116420.3	116480.1	469.76 µg/L	469.76 ppb	08:57:32
3	Be 313.107†	1754836.1	1754754.7	477.91 µg/L	477.91 ppb	08:57:32
3	Cd 226.502†	74057.1	74126.9	462.73 µg/L	462.73 ppb	08:57:32
3	Co 228.616†	37888.8	38054.4	469.78 µg/L	469.78 ppb	08:57:32
3	Cr 267.716†	59664.2	59446.7	465.48 µg/L	465.48 ppb	08:57:32
3	Cu 324.752†	123575.4	120522.5	469.81 µg/L	469.81 ppb	08:57:32
3	Mn 257.610†	381528.1	381041.7	471.26 µg/L	471.26 ppb	08:57:32
3	Mo 202.031†	15924.6	15934.3	468.72 µg/L	468.72 ppb	08:57:52
3	Ni 231.604†	40602.7	40652.7	468.09 µg/L	468.09 ppb	08:57:32
3	P 214.914†	10951.6	10962.4	2336.6 µg/L	2336.6 ppb	08:57:52
3	Pb 220.353†	8480.3	8388.4	469.77 µg/L	469.77 ppb	08:57:52
3	S 181.975 Axial†	1330.4	1224.5	913.23 µg/L	913.23 ppb	08:57:52
3	Sb 206.836†	3987.6	3904.2	465.22 µg/L	465.22 ppb	08:57:52
3	Se 196.026†	1290.5	1274.4	463 µg/L	463 ppb	08:57:52
3	SiO2†	52263.4	50453.9	4911.3 µg/L	4911.3 ppb	08:57:32
3	Si 251.611†	158147.4	157207.5	2308.4 µg/L	2308.4 ppb	08:57:32
3	Sn 189.927†	7514.1	7510.4	469.77 µg/L	469.77 ppb	08:57:52
3	Ti 334.940†	503747.9	502466.3	468.84 µg/L	468.84 ppb	08:57:32
3	Tl 190.801†	3711.9	3826.1	477.17 µg/L	477.17 ppb	08:57:52
3	U 409.014†	6796.9	7062.4	441.47 µg/L	441.47 ppb	08:57:32
3	V 292.402†	96194.9	95728.3	473.18 µg/L	473.18 ppb	08:57:32
3	Zn 213.857†	83451.1	82832.1	461.63 µg/L	461.63 ppb	08:57:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1726660.2	100.49	%	0.530				0.53%
Sc RADIAL	143039.8	98.0	%	0.62				0.63%
Y 371.029	1016178.3	98.976	%	0.4386				0.44%
Ag 328.068†	124379.9	466.42	µg/L	0.621	466.42	ppb	0.621	0.13%
QC value within limits for Ag 328.068 Recovery = 93.28%								
Al 396.153Radial†	26687.9	4926.3	µg/L	2.74	4926.3	ppb	2.74	0.06%
QC value within limits for Al 396.153Radial Recovery = 98.53%								
As 188.979†	1614.7	495.12	µg/L	1.486	495.12	ppb	1.486	0.30%
QC value within limits for As 188.979 Recovery = 99.02%								
B 249.677†	31361.7	460.90	µg/L	2.537	460.90	ppb	2.537	0.55%
QC value within limits for B 249.677 Recovery = 92.18%								
Ba 233.527†	116490.4	469.80	µg/L	0.490	469.80	ppb	0.490	0.10%
QC value within limits for Ba 233.527 Recovery = 93.96%								
Be 313.107†	1754786.2	477.92	µg/L	0.105	477.92	ppb	0.105	0.02%
QC value within limits for Be 313.107 Recovery = 95.58%								
Ca 317.933Radial†	84752.8	4721.1	µg/L	11.15	4721.1	ppb	11.15	0.24%
QC value within limits for Ca 317.933Radial Recovery = 94.42%								
Cd 226.502†	74406.7	464.48	µg/L	1.725	464.48	ppb	1.725	0.37%
QC value within limits for Cd 226.502 Recovery = 92.90%								
Co 228.616†	38061.6	469.87	µg/L	0.150	469.87	ppb	0.150	0.03%

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   QC value within limits for Co 228.616  Recovery = 93.97%
Cr 267.716†            59331.9      464.57 µg/L         0.800      464.57 ppb          0.800   0.17%
   QC value within limits for Cr 267.716  Recovery = 92.91%
Cu 324.752†           120465.0      469.59 µg/L         0.535      469.59 ppb          0.535   0.11%
   QC value within limits for Cu 324.752  Recovery = 93.92%
Fe 238.204 Radial†     76775.0      4731.9 µg/L          9.63      4731.9 ppb           9.63   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.64%
K 766.490 Radial†      13317.8      4871.9 µg/L         36.22      4871.9 ppb          36.22   0.74%
   QC value within limits for K 766.490 Radial  Recovery = 97.44%
Mg 279.077 IEC†        12986.9      4846.0 µg/L         12.12      4846.0 ppb          12.12   0.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.92%
Mn 257.610†           380826.4      470.99 µg/L         0.368      470.99 ppb          0.368   0.08%
   QC value within limits for Mn 257.610  Recovery = 94.20%
Mo 202.031†            15848.8      466.21 µg/L         2.187      466.21 ppb          2.187   0.47%
   QC value within limits for Mo 202.031  Recovery = 93.24%
Na 589.592 Radial†     69925.0      9548.3 µg/L         25.47      9548.3 ppb          25.47   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 95.48%
Ni 231.604†            40640.5      467.95 µg/L         0.489      467.95 ppb          0.489   0.10%
   QC value within limits for Ni 231.604  Recovery = 93.59%
P 214.914†             10889.2      2320.9 µg/L         13.90      2320.9 ppb          13.90   0.60%
   QC value within limits for P 214.914  Recovery = 92.84%
Pb 220.353†             8370.0      468.73 µg/L         1.063      468.73 ppb          1.063   0.23%
   QC value within limits for Pb 220.353  Recovery = 93.75%
S 181.975 Axial†        1221.0      910.63 µg/L         5.357      910.63 ppb          5.357   0.59%
   QC value within limits for S 181.975 Axial  Recovery = 91.06%
Sb 206.836†             3882.8      462.65 µg/L         2.290      462.65 ppb          2.290   0.49%
   QC value within limits for Sb 206.836  Recovery = 92.53%
Se 196.026†             1273.7         463 µg/L           0.4         463 ppb            0.4   0.08%
   QC value within limits for Se 196.026  Recovery = 92.51%
SiO2†                  50492.1      4915.2 µg/L          5.30      4915.2 ppb           5.30   0.11%
   QC value within limits for SiO2  Recovery = 91.92%
Si 251.611†           156963.1      2304.8 µg/L          3.27      2304.8 ppb           3.27   0.14%
   QC value within limits for Si 251.611  Recovery = 92.19%
Sn 189.927†             7457.5      466.48 µg/L         2.901      466.48 ppb          2.901   0.62%
   QC value within limits for Sn 189.927  Recovery = 93.30%
Sr 421.552†           228924.9      475.88 µg/L         2.776      475.88 ppb          2.776   0.58%
   QC value within limits for Sr 421.552  Recovery = 95.18%
Ti 334.940†           501914.7      468.32 µg/L         0.490      468.32 ppb          0.490   0.10%
   QC value within limits for Ti 334.940  Recovery = 93.66%
Tl 190.801†             3812.3      475.45 µg/L         1.570      475.45 ppb          1.570   0.33%
   QC value within limits for Tl 190.801  Recovery = 95.09%
U 409.014†              7154.1      446.82 µg/L         5.947      446.82 ppb          5.947   1.33%
   QC value less than the lower limit for U 409.014  Recovery = 89.36%
V 292.402†             95693.2      472.99 µg/L         0.228      472.99 ppb          0.228   0.05%
   QC value within limits for V 292.402  Recovery = 94.60%
Zn 213.857†            82797.7      461.44 µg/L         0.484      461.44 ppb          0.484   0.10%
   QC value within limits for Zn 213.857  Recovery = 92.29%
QC Failed.  Continue with analysis.
```

Sequence No.: 9 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/1/2010 8:58:01**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144930.6	144930.6	99.3	%			08:58:30
1	Al 396.153Radial†	-70.5	-7.7	-1.4357	µg/L	-1.4357	ppb	08:58:50
1	Ca 317.933Radial†	780.8	225.6	12.567	µg/L	12.567	ppb	08:58:50
1	Fe 238.204 Radial†	181.0	34.2	2.1059	µg/L	2.1059	ppb	08:58:50
1	K 766.490 Radial†	1768.7	236.1	86.440	µg/L	86.440	ppb	08:58:30
1	Mg 279.077 IEC†	163.7	-25.9	-9.6408	µg/L	-9.6408	ppb	08:58:50
1	Na 589.592 Radial†	1511.7	231.3	31.523	µg/L	31.523	ppb	08:58:30
1	Sr 421.552†	-121.9	12.5	0.0259	µg/L	0.0259	ppb	08:58:30
1	Sc 361.383	1734239.5	1734239.5	100.93	%			08:59:38
1	Y 371.029	1032662.2	1032662.2	100.58	%			08:59:38
1	Ag 328.068†	4230.2	99.7	0.3770	µg/L	0.3770	ppb	08:59:40
1	As 188.979†	-3.2	17.2	5.1896	µg/L	5.1896	ppb	09:00:00
1	B 249.677†	3559.4	20.6	0.3032	µg/L	0.3032	ppb	09:00:00
1	Ba 233.527†	-110.7	26.1	0.1052	µg/L	0.1052	ppb	09:00:00
1	Be 313.107†	-798.6	273.5	0.0770	µg/L	0.0770	ppb	08:59:40
1	Cd 226.502†	-95.0	24.1	0.1502	µg/L	0.1502	ppb	09:00:00
1	Co 228.616†	-184.5	7.5	0.0931	µg/L	0.0931	ppb	09:00:00
1	Cr 267.716†	178.8	-1.5	-0.0180	µg/L	-0.0180	ppb	09:00:00
1	Cu 324.752†	3034.1	33.8	0.1385	µg/L	0.1385	ppb	08:59:40
1	Mn 257.610†	285.9	46.0	0.0573	µg/L	0.0573	ppb	09:00:00
1	Mo 202.031†	-20.1	0.2	0.0044	µg/L	0.0044	ppb	09:00:00
1	Ni 231.604†	-106.1	-28.6	-0.3297	µg/L	-0.3297	ppb	09:00:00
1	P 214.914†	-24.6	-6.4	-1.3686	µg/L	-1.3686	ppb	09:00:00
1	Pb 220.353†	52.5	-34.3	-1.9233	µg/L	-1.9233	ppb	09:00:00
1	S 181.975 Axial†	102.4	-3.6	-2.6753	µg/L	-2.6753	ppb	09:00:00
1	Sb 206.836†	83.0	1.4	0.1638	µg/L	0.1638	ppb	09:00:00
1	Se 196.026†	13.8	-1.6	-0.580	µg/L	-0.580	ppb	09:00:00
1	SiO2†	1844.8	52.4	5.1107	µg/L	5.1107	ppb	09:00:00
1	Si 251.611†	1042.4	196.2	2.8879	µg/L	2.8879	ppb	08:59:40
1	Sn 189.927†	11.4	12.4	0.7749	µg/L	0.7749	ppb	09:00:00
1	Ti 334.940†	1136.3	173.3	0.1596	µg/L	0.1596	ppb	08:59:40
1	Tl 190.801†	-103.8	13.8	1.6944	µg/L	1.6944	ppb	09:00:00
1	U 409.014†	-126.4	144.7	8.4502	µg/L	8.4502	ppb	08:59:40
1	V 292.402†	368.8	-38.4	-0.1818	µg/L	-0.1818	ppb	08:59:40
1	Zn 213.857†	603.6	33.6	0.1905	µg/L	0.1905	ppb	09:00:00
2	Sc RADIAL	143298.2	143298.2	98.2	%			08:58:52
2	Al 396.153Radial†	-36.0	26.6	4.9237	µg/L	4.9237	ppb	08:59:12
2	Ca 317.933Radial†	760.9	214.3	11.937	µg/L	11.937	ppb	08:59:12
2	Fe 238.204 Radial†	181.4	36.6	2.2582	µg/L	2.2582	ppb	08:59:12
2	K 766.490 Radial†	1814.5	303.1	110.94	µg/L	110.94	ppb	08:58:52
2	Mg 279.077 IEC†	184.9	-2.4	-0.8854	µg/L	-0.8854	ppb	08:59:12
2	Na 589.592 Radial†	1507.7	244.6	33.316	µg/L	33.316	ppb	08:58:52
2	Sr 421.552†	-138.9	-6.2	-0.0129	µg/L	-0.0129	ppb	08:58:52
2	Sc 361.383	1755637.6	1755637.6	102.18	%			09:00:02
2	Y 371.029	1044668.6	1044668.6	101.75	%			09:00:02
2	Ag 328.068†	4265.9	83.6	0.2998	µg/L	0.2998	ppb	09:00:04
2	As 188.979†	-18.0	2.7	0.8170	µg/L	0.8170	ppb	09:00:25
2	B 249.677†	3550.1	-31.5	-0.4644	µg/L	-0.4644	ppb	09:00:25
2	Ba 233.527†	-152.7	-13.6	-0.0555	µg/L	-0.0555	ppb	09:00:25
2	Be 313.107†	-922.1	162.2	0.0443	µg/L	0.0443	ppb	09:00:04
2	Cd 226.502†	-90.8	29.3	0.1829	µg/L	0.1829	ppb	09:00:25
2	Co 228.616†	-184.8	9.5	0.1166	µg/L	0.1166	ppb	09:00:25
2	Cr 267.716†	176.9	-5.4	-0.0430	µg/L	-0.0430	ppb	09:00:25
2	Cu 324.752†	3080.0	42.1	0.1643	µg/L	0.1643	ppb	09:00:04
2	Mn 257.610†	291.6	48.1	0.0595	µg/L	0.0595	ppb	09:00:25
2	Mo 202.031†	-18.4	2.1	0.0615	µg/L	0.0615	ppb	09:00:25
2	Ni 231.604†	-96.5	-18.0	-0.2070	µg/L	-0.2070	ppb	09:00:25
2	P 214.914†	-30.1	-11.5	-2.4673	µg/L	-2.4673	ppb	09:00:25
2	Pb 220.353†	51.5	-36.0	-2.0082	µg/L	-2.0082	ppb	09:00:25

2	S 181.975 Axial†	103.0	-4.2	-3.1525	µg/L	-3.1525 ppb	09:00:25
2	Sb 206.836†	76.9	-5.6	-0.6645	µg/L	-0.6645 ppb	09:00:25
2	Se 196.026†	22.4	6.6	2.40	µg/L	2.40 ppb	09:00:25
2	SiO2†	1832.3	17.9	1.7405	µg/L	1.7405 ppb	09:00:25
2	Si 251.611†	1016.9	158.7	2.3376	µg/L	2.3376 ppb	09:00:04
2	Sn 189.927†	1.7	2.8	0.1731	µg/L	0.1731 ppb	09:00:25
2	Ti 334.940†	983.2	9.7	0.0093	µg/L	0.0093 ppb	09:00:04
2	Tl 190.801†	-108.1	10.9	1.3283	µg/L	1.3283 ppb	09:00:25
2	U 409.014†	-268.6	7.0	0.3616	µg/L	0.3616 ppb	09:00:04
2	V 292.402†	242.0	-166.9	-0.8139	µg/L	-0.8139 ppb	09:00:04
2	Zn 213.857†	616.0	38.5	0.2172	µg/L	0.2172 ppb	09:00:25
3	Sc RADIAL	144059.2	144059.2	98.7	%		08:59:14
3	Al 396.153Radial†	-54.2	8.3	1.5281	µg/L	1.5281 ppb	08:59:34
3	Ca 317.933Radial†	777.7	227.2	12.655	µg/L	12.655 ppb	08:59:34
3	Fe 238.204 Radial†	170.3	24.4	1.5063	µg/L	1.5063 ppb	08:59:34
3	K 766.490 Radial†	1826.2	305.2	111.72	µg/L	111.72 ppb	08:59:14
3	Mg 279.077 IEC†	166.7	-21.8	-8.1304	µg/L	-8.1304 ppb	08:59:34
3	Na 589.592 Radial†	1416.4	144.0	19.578	µg/L	19.578 ppb	08:59:14
3	Sr 421.552†	-137.6	-4.1	-0.0087	µg/L	-0.0087 ppb	08:59:14
3	Sc 361.383	1737927.9	1737927.9	101.15	%		09:00:27
3	Y 371.029	1034400.0	1034400.0	100.75	%		09:00:27
3	Ag 328.068†	4118.6	-19.5	-0.0696	µg/L	-0.0696 ppb	09:00:29
3	As 188.979†	-12.6	7.9	2.3767	µg/L	2.3767 ppb	09:00:49
3	B 249.677†	3549.0	2.9	0.0430	µg/L	0.0430 ppb	09:00:49
3	Ba 233.527†	-111.2	25.9	0.1043	µg/L	0.1043 ppb	09:00:49
3	Be 313.107†	-1094.4	-17.3	-0.0034	µg/L	-0.0034 ppb	09:00:29
3	Cd 226.502†	-96.1	23.2	0.1446	µg/L	0.1446 ppb	09:00:49
3	Co 228.616†	-197.4	-4.8	-0.0594	µg/L	-0.0594 ppb	09:00:49
3	Cr 267.716†	181.1	0.4	0.0000	µg/L	0.0000 ppb	09:00:49
3	Cu 324.752†	2911.1	-94.1	-0.3622	µg/L	-0.3622 ppb	09:00:29
3	Mn 257.610†	288.2	47.7	0.0593	µg/L	0.0593 ppb	09:00:49
3	Mo 202.031†	-17.9	2.4	0.0695	µg/L	0.0695 ppb	09:00:49
3	Ni 231.604†	-109.0	-31.2	-0.3597	µg/L	-0.3597 ppb	09:00:49
3	P 214.914†	-40.2	-21.8	-4.6518	µg/L	-4.6518 ppb	09:00:49
3	Pb 220.353†	90.8	3.4	0.1890	µg/L	0.1890 ppb	09:00:49
3	S 181.975 Axial†	93.2	-12.9	-9.5726	µg/L	-9.5726 ppb	09:00:49
3	Sb 206.836†	63.6	-17.9	-2.1311	µg/L	-2.1311 ppb	09:00:49
3	Se 196.026†	9.0	-6.4	-2.31	µg/L	-2.31 ppb	09:00:49
3	SiO2†	1828.5	32.4	3.1530	µg/L	3.1530 ppb	09:00:49
3	Si 251.611†	1188.2	338.2	4.9816	µg/L	4.9816 ppb	09:00:29
3	Sn 189.927†	7.9	8.9	0.5579	µg/L	0.5579 ppb	09:00:49
3	Ti 334.940†	1294.5	327.3	0.3050	µg/L	0.3050 ppb	09:00:29
3	Tl 190.801†	-105.5	12.4	1.5213	µg/L	1.5213 ppb	09:00:49
3	U 409.014†	-197.6	74.5	4.3458	µg/L	4.3458 ppb	09:00:29
3	V 292.402†	365.2	-42.8	-0.2055	µg/L	-0.2055 ppb	09:00:29
3	Zn 213.857†	602.8	31.5	0.1797	µg/L	0.1797 ppb	09:00:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1742601.6	101.42	%	0.666				0.66%
Sc RADIAL	144096.0	98.7	%	0.56				0.57%
Y 371.029	1037243.6	101.03	%	0.632				0.63%
Ag 328.068†	54.6	0.2024	µg/L	0.23871	0.2024	ppb	0.23871	117.95%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.0	1.6720	µg/L	3.18216	1.6720	ppb	3.18216	190.32%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.2	2.7944	µg/L	2.21605	2.7944	ppb	2.21605	79.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-2.7	-0.0394	µg/L	0.39040	-0.0394	ppb	0.39040	991.25%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.8	0.0513	µg/L	0.09252	0.0513	ppb	0.09252	180.23%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	139.5	0.0393	µg/L	0.04044	0.0393	ppb	0.04044	102.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	222.4	12.386	µg/L	0.3917	12.386	ppb	0.3917	3.16%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	25.6	0.1592	µg/L	0.02071	0.1592	ppb	0.02071	13.01%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.1	0.0501	µg/L	0.09556	0.0501	ppb	0.09556	190.87%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.1     -0.0203 µg/L       0.02164     -0.0203 ppb        0.02164 106.44%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -6.1     -0.0198 µg/L       0.29681     -0.0198 ppb        0.29681 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       31.7      1.9568 µg/L       0.39753      1.9568 ppb        0.39753  20.32%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       281.4      103.04 µg/L        14.377      103.04 ppb         14.377  13.95%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -16.7     -6.2189 µg/L       4.68028     -6.2189 ppb        4.68028  75.26%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              47.3      0.0587 µg/L       0.00122      0.0587 ppb        0.00122   2.08%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.5      0.0451 µg/L       0.03552      0.0451 ppb        0.03552  78.75%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      206.6      28.139 µg/L        7.4683      28.139 ppb         7.4683  26.54%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -26.0     -0.2988 µg/L       0.08092     -0.2988 ppb        0.08092  27.08%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -13.2     -2.8292 µg/L       1.67125     -2.8292 ppb        1.67125  59.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -22.3     -1.2475 µg/L       1.24474     -1.2475 ppb        1.24474  99.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -6.9     -5.1335 µg/L       3.85183     -5.1335 ppb        3.85183  75.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -7.4     -0.8773 µg/L       1.16217     -0.8773 ppb        1.16217 132.47%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.5      -0.161 µg/L        2.3844      -0.161 ppb         2.3844 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    34.2      3.3348 µg/L       1.69244      3.3348 ppb        1.69244  50.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             231.0      3.4023 µg/L       1.39504      3.4023 ppb        1.39504  41.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.0      0.5020 µg/L       0.30478      0.5020 ppb        0.30478  60.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               0.7      0.0015 µg/L       0.02132      0.0015 ppb        0.02132 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             170.1      0.1579 µg/L       0.14787      0.1579 ppb        0.14787  93.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              12.3      1.5146 µg/L       0.18313      1.5146 ppb        0.18313  12.09%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               75.4      4.3859 µg/L       4.04447      4.3859 ppb        4.04447  92.22%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -82.7     -0.4004 µg/L       0.35829     -0.4004 ppb        0.35829  89.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              34.5      0.1958 µg/L       0.01928      0.1958 ppb        0.01928   9.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: 248860002|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 308
Date Collected: 4/1/2010 9:00:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248860002|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145444.1	145444.1	99.7	%			09:01:30
1	Al 396.153Radial†	252900.3	253808.0	47055	µg/L	47055	ppb	09:01:28
1	Ca 317.933Radial†	113116.8	112934.0	6290.9	µg/L	6290.9	ppb	09:01:30
1	Fe 238.204 Radial†	1203402.7	1207273.4	74409	µg/L	74409	ppb	09:01:28
1	K 766.490 Radial†	13445.3	11945.4	4361.0	µg/L	4361.0	ppb	09:01:30
1	Mg 279.077 IEC†	13660.0	13514.9	4971.9	µg/L	4971.9	ppb	09:01:30
1	Na 589.592 Radial†	17801.1	16569.7	2259.7	µg/L	2259.7	ppb	09:01:30
1	Sr 421.552†	32990.0	33235.4	69.045	µg/L	69.045	ppb	09:01:30
1	Sc 361.383	1754998.8	1754998.8	102.14	%			09:01:43
1	Y 371.029	1238722.4	1238722.4	120.65	%			09:01:43
1	Ag 328.068†	4019.9	-155.7	-1.3812	µg/L	-1.3812	ppb	09:01:43
1	As 188.979†	20.2	40.1	29.117	µg/L	29.117	ppb	09:02:03
1	B 249.677†	4074.6	483.3	7.0617	µg/L	7.0617	ppb	09:01:43
1	Ba 233.527†	114359.0	112098.1	450.82	µg/L	450.82	ppb	09:01:43
1	Be 313.107†	21699.8	22309.8	5.9512	µg/L	5.9512	ppb	09:01:43
1	Cd 226.502†	1107.3	1202.3	-0.3013	µg/L	-0.3013	ppb	09:02:03
1	Co 228.616†	1386.9	1548.2	15.668	µg/L	15.668	ppb	09:02:03
1	Cr 267.716†	3651.7	3396.6	28.952	µg/L	28.952	ppb	09:02:03
1	Cu 324.752†	7274.5	4149.8	26.774	µg/L	26.774	ppb	09:01:43
1	Mn 257.610†	1728726.6	1692258.7	2093.4	µg/L	2093.4	ppb	09:01:43
1	Mo 202.031†	348.1	360.9	13.665	µg/L	13.665	ppb	09:02:03
1	Ni 231.604†	2528.8	2552.4	29.388	µg/L	29.388	ppb	09:02:03
1	P 214.914†	4583.1	4505.0	923.11	µg/L	923.11	ppb	09:02:03
1	Pb 220.353†	997.3	890.0	53.568	µg/L	53.568	ppb	09:02:03
1	S 181.975 Axial†	326.3	214.5	159.34	µg/L	159.34	ppb	09:02:03
1	Sb 206.836†	76.3	-6.2	-2.1020	µg/L	-2.1020	ppb	09:02:03
1	Se 196.026†	-63.8	-77.7	-2.68	µg/L	-2.68	ppb	09:02:03
1	SiO2†	742837.3	725493.5	70911	µg/L	70911	ppb	09:01:43
1	Si 251.611†	2279772.5	2231156.6	32893	µg/L	32893	ppb	09:01:43
1	Sn 189.927†	67.2	66.9	11.910	µg/L	11.910	ppb	09:02:03
1	Ti 334.940†	2510599.4	2457029.9	2295.4	µg/L	2295.4	ppb	09:01:43
1	Tl 190.801†	-361.5	-237.2	-0.2216	µg/L	-0.2216	ppb	09:02:03
1	U 409.014†	-7403.3	-6978.2	-406.71	µg/L	-406.71	ppb	09:01:43
1	V 292.402†	16487.7	15738.4	66.747	µg/L	66.747	ppb	09:01:43
1	Zn 213.857†	46692.4	45149.4	247.47	µg/L	247.47	ppb	09:01:43
2	Sc RADIAL	145623.4	145623.4	99.8	%			09:01:34
2	Al 396.153Radial†	254653.6	255252.6	47323	µg/L	47323	ppb	09:01:32
2	Ca 317.933Radial†	112877.2	112554.1	6269.7	µg/L	6269.7	ppb	09:01:34
2	Fe 238.204 Radial†	1210086.4	1212484.3	74730	µg/L	74730	ppb	09:01:32
2	K 766.490 Radial†	13331.2	11814.5	4313.0	µg/L	4313.0	ppb	09:01:34
2	Mg 279.077 IEC†	13658.8	13496.8	4964.9	µg/L	4964.9	ppb	09:01:34
2	Na 589.592 Radial†	17724.4	16470.9	2246.3	µg/L	2246.3	ppb	09:01:34
2	Sr 421.552†	33059.9	33264.7	69.106	µg/L	69.106	ppb	09:01:34
2	Sc 361.383	1745393.1	1745393.1	101.58	%			09:02:06
2	Y 371.029	1234050.3	1234050.3	120.20	%			09:02:06
2	Ag 328.068†	3899.6	-252.5	-1.7156	µg/L	-1.7156	ppb	09:02:06
2	As 188.979†	22.8	42.8	29.994	µg/L	29.994	ppb	09:02:26
2	B 249.677†	3982.5	414.6	6.0471	µg/L	6.0471	ppb	09:02:06
2	Ba 233.527†	113731.6	112096.6	450.81	µg/L	450.81	ppb	09:02:06
2	Be 313.107†	21641.2	22368.9	5.9720	µg/L	5.9720	ppb	09:02:06
2	Cd 226.502†	1176.6	1276.5	0.1286	µg/L	0.1286	ppb	09:02:26
2	Co 228.616†	1396.6	1565.2	15.861	µg/L	15.861	ppb	09:02:26
2	Cr 267.716†	3640.5	3405.3	29.020	µg/L	29.020	ppb	09:02:26
2	Cu 324.752†	7157.5	4073.8	26.538	µg/L	26.538	ppb	09:02:06
2	Mn 257.610†	1715431.0	1688484.7	2088.8	µg/L	2088.8	ppb	09:02:06
2	Mo 202.031†	359.0	373.5	14.049	µg/L	14.049	ppb	09:02:26
2	Ni 231.604†	2537.9	2574.9	29.648	µg/L	29.648	ppb	09:02:26
2	P 214.914†	4628.4	4574.3	937.77	µg/L	937.77	ppb	09:02:26
2	Pb 220.353†	1009.6	907.5	54.540	µg/L	54.540	ppb	09:02:26

2	S 181.975 Axial†	330.0	219.8	163.28	µg/L	163.28 ppb	09:02:26
2	Sb 206.836†	84.4	2.3	-1.1004	µg/L	-1.1004 ppb	09:02:26
2	Se 196.026†	-72.8	-86.9	-5.88	µg/L	-5.88 ppb	09:02:26
2	SiO2†	737205.3	723951.8	70760	µg/L	70760 ppb	09:02:06
2	Si 251.611†	2263016.9	2226945.5	32831	µg/L	32831 ppb	09:02:06
2	Sn 189.927†	60.7	60.9	11.540	µg/L	11.540 ppb	09:02:26
2	Ti 334.940†	2497995.4	2458149.5	2296.5	µg/L	2296.5 ppb	09:02:06
2	Tl 190.801†	-382.3	-259.6	-2.9751	µg/L	-2.9751 ppb	09:02:26
2	U 409.014†	-7092.6	-6712.3	-391.24	µg/L	-391.24 ppb	09:02:06
2	V 292.402†	16486.9	15826.4	67.157	µg/L	67.157 ppb	09:02:06
2	Zn 213.857†	46226.0	44941.9	246.27	µg/L	246.27 ppb	09:02:06
3	Sc RADIAL	144112.9	144112.9	98.8	%		09:01:38
3	Al 396.153Radial†	254384.1	257654.4	47768	µg/L	47768 ppb	09:01:36
3	Ca 317.933Radial†	111504.6	112349.8	6258.3	µg/L	6258.3 ppb	09:01:38
3	Fe 238.204 Radial†	1207634.3	1222710.9	75360	µg/L	75360 ppb	09:01:36
3	K 766.490 Radial†	13181.8	11803.2	4308.8	µg/L	4308.8 ppb	09:01:38
3	Mg 279.077 IEC†	13463.1	13442.1	4944.0	µg/L	4944.0 ppb	09:01:38
3	Na 589.592 Radial†	17596.7	16527.8	2254.1	µg/L	2254.1 ppb	09:01:38
3	Sr 421.552†	32628.0	33174.6	68.919	µg/L	68.919 ppb	09:01:38
3	Sc 361.383	1755834.9	1755834.9	102.19	%		09:02:29
3	Y 371.029	1241366.1	1241366.1	120.91	%		09:02:29
3	Ag 328.068†	4185.5	4.4	-0.7854	µg/L	-0.7854 ppb	09:02:29
3	As 188.979†	16.1	36.1	28.116	µg/L	28.116 ppb	09:02:49
3	B 249.677†	4099.7	505.9	7.3956	µg/L	7.3956 ppb	09:02:29
3	Ba 233.527†	114779.2	112456.0	452.25	µg/L	452.25 ppb	09:02:29
3	Be 313.107†	21650.2	22251.1	5.9372	µg/L	5.9372 ppb	09:02:29
3	Cd 226.502†	1140.1	1233.9	-0.2041	µg/L	-0.2041 ppb	09:02:49
3	Co 228.616†	1382.8	1543.5	15.562	µg/L	15.562 ppb	09:02:49
3	Cr 267.716†	3652.7	3395.8	28.975	µg/L	28.975 ppb	09:02:49
3	Cu 324.752†	7263.5	4135.6	26.862	µg/L	26.862 ppb	09:02:29
3	Mn 257.610†	1729084.7	1691803.2	2092.9	µg/L	2092.9 ppb	09:02:29
3	Mo 202.031†	345.5	358.2	13.625	µg/L	13.625 ppb	09:02:49
3	Ni 231.604†	2517.7	2540.3	29.250	µg/L	29.250 ppb	09:02:49
3	P 214.914†	4595.5	4515.0	924.76	µg/L	924.76 ppb	09:02:49
3	Pb 220.353†	1016.0	907.9	54.576	µg/L	54.576 ppb	09:02:49
3	S 181.975 Axial†	311.4	199.6	148.33	µg/L	148.33 ppb	09:02:49
3	Sb 206.836†	79.6	-2.9	-1.7352	µg/L	-1.7352 ppb	09:02:49
3	Se 196.026†	-59.5	-73.5	-0.813	µg/L	-0.813 ppb	09:02:49
3	SiO2†	742943.5	725251.2	70887	µg/L	70887 ppb	09:02:29
3	Si 251.611†	2280683.2	2230984.9	32891	µg/L	32891 ppb	09:02:29
3	Sn 189.927†	69.0	68.6	12.028	µg/L	12.028 ppb	09:02:49
3	Ti 334.940†	2515090.5	2460254.3	2298.4	µg/L	2298.4 ppb	09:02:29
3	Tl 190.801†	-379.9	-255.1	-2.3866	µg/L	-2.3866 ppb	09:02:49
3	U 409.014†	-7295.0	-6868.8	-400.54	µg/L	-400.54 ppb	09:02:29
3	V 292.402†	16497.4	15740.2	66.657	µg/L	66.657 ppb	09:02:29
3	Zn 213.857†	46666.3	45102.1	247.12	µg/L	247.12 ppb	09:02:29

Mean Data: 248860002|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1752075.6	101.97	%	0.338				0.33%
Sc RADIAL	145060.1	99.4	%	0.57				0.57%
Y 371.029	1238046.3	120.59	%	0.361				0.30%
Ag 328.068†	-134.6	-1.2941	µg/L	0.47116	-1.2941	ppb	0.47116	36.41%
Al 396.153Radial†	255571.7	47382	µg/L	360.2	47382	ppb	360.2	0.76%
As 188.979†	39.7	29.076	µg/L	0.9398	29.076	ppb	0.9398	3.23%
B 249.677†	467.9	6.8348	µg/L	0.70232	6.8348	ppb	0.70232	10.28%
Ba 233.527†	112216.9	451.29	µg/L	0.828	451.29	ppb	0.828	0.18%
Be 313.107†	22309.9	5.9535	µg/L	0.01754	5.9535	ppb	0.01754	0.29%
Ca 317.933Radial†	112612.6	6273.0	µg/L	16.52	6273.0	ppb	16.52	0.26%
Cd 226.502†	1237.5	-0.1256	µg/L	0.22543	-0.1256	ppb	0.22543	179.49%
Co 228.616†	1552.3	15.697	µg/L	0.1514	15.697	ppb	0.1514	0.96%
Cr 267.716†	3399.2	28.982	µg/L	0.0348	28.982	ppb	0.0348	0.12%
Cu 324.752†	4119.8	26.725	µg/L	0.1673	26.725	ppb	0.1673	0.63%
Fe 238.204 Radial†	1214156.2	74833	µg/L	484.0	74833	ppb	484.0	0.65%
K 766.490 Radial†	11854.4	4327.6	µg/L	29.00	4327.6	ppb	29.00	0.67%
Mg 279.077 IEC†	13484.6	4960.2	µg/L	14.53	4960.2	ppb	14.53	0.29%
Mn 257.610†	1690848.9	2091.7	µg/L	2.55	2091.7	ppb	2.55	0.12%
Mo 202.031†	364.2	13.780	µg/L	0.2341	13.780	ppb	0.2341	1.70%
Na 589.592 Radial†	16522.8	2253.4	µg/L	6.76	2253.4	ppb	6.76	0.30%

Ni 231.604†	2555.8	29.429	µg/L	0.2019	29.429	ppb	0.2019	0.69%
P 214.914†	4531.4	928.55	µg/L	8.033	928.55	ppb	8.033	0.87%
Pb 220.353†	901.8	54.228	µg/L	0.5722	54.228	ppb	0.5722	1.06%
S 181.975 Axial†	211.3	156.98	µg/L	7.747	156.98	ppb	7.747	4.93%
Sb 206.836†	-2.3	-1.6458	µg/L	0.50672	-1.6458	ppb	0.50672	30.79%
Se 196.026†	-79.4	-3.12	µg/L	2.561	-3.12	ppb	2.561	82.00%
SiO2†	724898.9	70853	µg/L	81.0	70853	ppb	81.0	0.11%
Si 251.611†	2229695.7	32872	µg/L	35.1	32872	ppb	35.1	0.11%
Sn 189.927†	65.4	11.826	µg/L	0.2544	11.826	ppb	0.2544	2.15%
Sr 421.552†	33224.9	69.024	µg/L	0.0955	69.024	ppb	0.0955	0.14%
Ti 334.940†	2458477.9	2296.8	µg/L	1.53	2296.8	ppb	1.53	0.07%
Tl 190.801†	-250.6	-1.8611	µg/L	1.45003	-1.8611	ppb	1.45003	77.91%
U 409.014†	-6853.1	-399.50	µg/L	7.788	-399.50	ppb	7.788	1.95%
Concentration less than lower limit for U 409.014.								
V 292.402†	15768.3	66.854	µg/L	0.2664	66.854	ppb	0.2664	0.40%
Zn 213.857†	45064.5	246.95	µg/L	0.615	246.95	ppb	0.615	0.25%

Sequence No.: 11
Sample ID: 248860003|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 309
Date Collected: 4/1/2010 9:02:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248860003|964012|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145512.4	145512.4	99.7	%			09:03:26
1	Al 396.153Radial†	109435.1	109812.1	20359	µg/L	20359	ppb	09:03:26
1	Ca 317.933Radial†	161761.6	161664.9	9005.4	µg/L	9005.4	ppb	09:03:28
1	Fe 238.204 Radial†	768814.2	770871.1	47512	µg/L	47512	ppb	09:03:26
1	K 766.490 Radial†	9605.6	8088.3	2954.6	µg/L	2954.6	ppb	09:03:28
1	Mg 279.077 IEC†	9163.0	8998.6	3312.2	µg/L	3312.2	ppb	09:03:28
1	Na 589.592 Radial†	10186.5	8924.9	1216.6	µg/L	1216.6	ppb	09:03:28
1	Sr 421.552†	24051.1	24255.3	50.355	µg/L	50.355	ppb	09:03:28
1	Sc 361.383	1748502.0	1748502.0	101.76	%			09:03:41
1	Y 371.029	1198856.2	1198856.2	116.77	%			09:03:41
1	Ag 328.068†	4155.6	-7.7	-0.6824	µg/L	-0.6824	ppb	09:03:41
1	As 188.979†	23.1	43.1	24.013	µg/L	24.013	ppb	09:04:01
1	B 249.677†	4115.3	538.1	7.8984	µg/L	7.8984	ppb	09:03:41
1	Ba 233.527†	61717.8	60784.7	244.37	µg/L	244.37	ppb	09:03:41
1	Be 313.107†	11828.7	12688.5	3.3608	µg/L	3.3608	ppb	09:03:41
1	Cd 226.502†	739.2	844.6	0.2878	µg/L	0.2878	ppb	09:04:01
1	Co 228.616†	709.3	887.3	8.7153	µg/L	8.7153	ppb	09:04:01
1	Cr 267.716†	4253.0	4000.8	32.918	µg/L	32.918	ppb	09:04:01
1	Cu 324.752†	27307.5	23862.3	99.492	µg/L	99.492	ppb	09:03:41
1	Mn 257.610†	949029.4	932354.8	1153.3	µg/L	1153.3	ppb	09:03:41
1	Mo 202.031†	301.8	316.7	11.263	µg/L	11.263	ppb	09:04:01
1	Ni 231.604†	1531.1	1581.1	18.205	µg/L	18.205	ppb	09:04:01
1	P 214.914†	2558.0	2531.7	512.62	µg/L	512.62	ppb	09:04:01
1	Pb 220.353†	2217.6	2092.8	118.10	µg/L	118.10	ppb	09:04:01
1	S 181.975 Axial†	556.6	441.9	328.24	µg/L	328.24	ppb	09:04:01
1	Sb 206.836†	91.6	9.2	0.1133	µg/L	0.1133	ppb	09:04:01
1	Se 196.026†	-22.9	-37.8	2.53	µg/L	2.53	ppb	09:04:01
1	SiO2†	502375.5	491898.9	48079	µg/L	48079	ppb	09:03:41
1	Si 251.611†	1548784.9	1521123.1	22426	µg/L	22426	ppb	09:03:41
1	Sn 189.927†	88.7	88.3	8.9201	µg/L	8.9201	ppb	09:04:01
1	Ti 334.940†	1103594.8	1083527.8	1012.4	µg/L	1012.4	ppb	09:03:41
1	Tl 190.801†	-238.1	-117.3	-0.9692	µg/L	-0.9692	ppb	09:04:01
1	U 409.014†	-5690.9	-5322.5	-311.38	µg/L	-311.38	ppb	09:03:41
1	V 292.402†	10596.2	10008.9	42.897	µg/L	42.897	ppb	09:04:01
1	Zn 213.857†	46166.9	44802.8	247.24	µg/L	247.24	ppb	09:03:41
2	Sc RADIAL	143454.8	143454.8	98.3	%			09:03:30
2	Al 396.153Radial†	108432.9	110366.9	20461	µg/L	20461	ppb	09:03:30
2	Ca 317.933Radial†	160142.9	162345.1	9043.3	µg/L	9043.3	ppb	09:03:32
2	Fe 238.204 Radial†	759583.9	772540.4	47615	µg/L	47615	ppb	09:03:30
2	K 766.490 Radial†	9561.7	8181.9	2988.8	µg/L	2988.8	ppb	09:03:32
2	Mg 279.077 IEC†	9083.5	9049.5	3331.1	µg/L	3331.1	ppb	09:03:32
2	Na 589.592 Radial†	10356.6	9244.4	1260.2	µg/L	1260.2	ppb	09:03:32
2	Sr 421.552†	23851.3	24398.0	50.651	µg/L	50.651	ppb	09:03:32
2	Sc 361.383	1753911.0	1753911.0	102.08	%			09:04:04
2	Y 371.029	1203460.4	1203460.4	117.22	%			09:04:04
2	Ag 328.068†	4050.2	-123.7	-1.1214	µg/L	-1.1214	ppb	09:04:04
2	As 188.979†	21.4	41.3	23.502	µg/L	23.502	ppb	09:04:24
2	B 249.677†	4038.4	450.3	6.6029	µg/L	6.6029	ppb	09:04:04
2	Ba 233.527†	61863.0	60739.9	244.19	µg/L	244.19	ppb	09:04:04
2	Be 313.107†	12250.4	13065.7	3.4609	µg/L	3.4609	ppb	09:04:04
2	Cd 226.502†	744.2	847.3	0.2937	µg/L	0.2937	ppb	09:04:24
2	Co 228.616†	719.0	894.7	8.8004	µg/L	8.8004	ppb	09:04:24
2	Cr 267.716†	4259.5	3994.2	32.877	µg/L	32.877	ppb	09:04:24
2	Cu 324.752†	27468.5	23937.3	99.792	µg/L	99.792	ppb	09:04:04
2	Mn 257.610†	951744.3	932138.4	1153.1	µg/L	1153.1	ppb	09:04:04
2	Mo 202.031†	321.6	335.1	11.810	µg/L	11.810	ppb	09:04:24
2	Ni 231.604†	1525.8	1571.3	18.092	µg/L	18.092	ppb	09:04:24
2	P 214.914†	2565.1	2530.8	512.38	µg/L	512.38	ppb	09:04:24
2	Pb 220.353†	2234.8	2103.0	118.68	µg/L	118.68	ppb	09:04:24

2	S 181.975 Axial†	548.9	432.6	321.35 µg/L	321.35 ppb	09:04:24
2	Sb 206.836†	77.3	-5.1	-1.5837 µg/L	-1.5837 ppb	09:04:24
2	Se 196.026†	-33.3	-47.9	-1.10 µg/L	-1.10 ppb	09:04:24
2	SiO2†	503285.2	491267.6	48017 µg/L	48017 ppb	09:04:04
2	Si 251.611†	1550069.5	1517687.9	22375 µg/L	22375 ppb	09:04:04
2	Sn 189.927†	82.9	82.4	8.5479 µg/L	8.5479 ppb	09:04:24
2	Ti 334.940†	1107120.3	1083637.0	1012.5 µg/L	1012.5 ppb	09:04:04
2	Tl 190.801†	-240.6	-119.0	-1.1709 µg/L	-1.1709 ppb	09:04:24
2	U 409.014†	-5855.7	-5466.7	-319.82 µg/L	-319.82 ppb	09:04:04
2	V 292.402†	10666.8	10045.9	43.066 µg/L	43.066 ppb	09:04:24
2	Zn 213.857†	46457.4	44947.5	248.05 µg/L	248.05 ppb	09:04:04
3	Sc RADIAL	144534.0	144534.0	99.0 %		09:03:34
3	Al 396.153Radial†	108659.3	109771.9	20351 µg/L	20351 ppb	09:03:34
3	Ca 317.933Radial†	160660.1	161651.1	9004.6 µg/L	9004.6 ppb	09:03:36
3	Fe 238.204 Radial†	764564.7	771800.0	47569 µg/L	47569 ppb	09:03:34
3	K 766.490 Radial†	9734.8	8284.0	3026.2 µg/L	3026.2 ppb	09:03:36
3	Mg 279.077 IEC†	9081.0	8978.0	3304.5 µg/L	3304.5 ppb	09:03:36
3	Na 589.592 Radial†	9977.0	8782.6	1197.1 µg/L	1197.1 ppb	09:03:36
3	Sr 421.552†	23961.0	24327.7	50.505 µg/L	50.505 ppb	09:03:36
3	Sc 361.383	1750651.1	1750651.1	101.89 %		09:04:27
3	Y 371.029	1200562.6	1200562.6	116.94 %		09:04:27
3	Ag 328.068†	4266.5	96.1	-0.2949 µg/L	-0.2949 ppb	09:04:27
3	As 188.979†	23.3	43.2	24.062 µg/L	24.062 ppb	09:04:47
3	B 249.677†	4093.4	511.6	7.5070 µg/L	7.5070 ppb	09:04:27
3	Ba 233.527†	62079.5	61065.3	245.50 µg/L	245.50 ppb	09:04:27
3	Be 313.107†	12190.3	13029.1	3.4545 µg/L	3.4545 ppb	09:04:27
3	Cd 226.502†	746.8	851.1	0.3225 µg/L	0.3225 ppb	09:04:47
3	Co 228.616†	725.9	902.8	8.9041 µg/L	8.9041 ppb	09:04:47
3	Cr 267.716†	4234.5	3977.5	32.735 µg/L	32.735 ppb	09:04:47
3	Cu 324.752†	27344.9	23866.1	99.517 µg/L	99.517 ppb	09:04:27
3	Mn 257.610†	951224.0	933363.9	1154.6 µg/L	1154.6 ppb	09:04:27
3	Mo 202.031†	318.3	332.5	11.731 µg/L	11.731 ppb	09:04:47
3	Ni 231.604†	1510.2	1558.7	17.947 µg/L	17.947 ppb	09:04:47
3	P 214.914†	2569.1	2539.4	514.23 µg/L	514.23 ppb	09:04:47
3	Pb 220.353†	2232.8	2105.0	118.79 µg/L	118.79 ppb	09:04:47
3	S 181.975 Axial†	556.1	440.8	327.40 µg/L	327.40 ppb	09:04:47
3	Sb 206.836†	80.0	-2.3	-1.2521 µg/L	-1.2521 ppb	09:04:47
3	Se 196.026†	-29.9	-44.6	0.088 µg/L	0.088 ppb	09:04:47
3	SiO2†	503407.1	492305.3	48119 µg/L	48119 ppb	09:04:27
3	Si 251.611†	1550882.1	1521313.1	22428 µg/L	22428 ppb	09:04:27
3	Sn 189.927†	75.5	75.3	8.1116 µg/L	8.1116 ppb	09:04:47
3	Ti 334.940†	1106906.0	1085446.4	1014.2 µg/L	1014.2 ppb	09:04:27
3	Tl 190.801†	-260.6	-139.1	-3.6270 µg/L	-3.6270 ppb	09:04:47
3	U 409.014†	-5642.7	-5268.2	-308.21 µg/L	-308.21 ppb	09:04:27
3	V 292.402†	10608.3	10008.0	42.891 µg/L	42.891 ppb	09:04:47
3	Zn 213.857†	46361.8	44938.5	248.00 µg/L	248.00 ppb	09:04:27

Mean Data: 248860003|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1751021.3	101.91	%	0.159				0.16%
Sc RADIAL	144500.4	99.0	%	0.71				0.71%
Y 371.029	1200959.7	116.97	%	0.227				0.19%
Ag 328.068†	-11.8	-0.6996	µg/L	0.41352	-0.6996	ppb	0.41352	59.11%
Al 396.153Radial†	109983.6	20390	µg/L	61.6	20390	ppb	61.6	0.30%
As 188.979†	42.5	23.859	µg/L	0.3102	23.859	ppb	0.3102	1.30%
B 249.677†	500.0	7.3361	µg/L	0.66444	7.3361	ppb	0.66444	9.06%
Ba 233.527†	60863.3	244.68	µg/L	0.711	244.68	ppb	0.711	0.29%
Be 313.107†	12927.8	3.4254	µg/L	0.05606	3.4254	ppb	0.05606	1.64%
Ca 317.933Radial†	161887.0	9017.7	µg/L	22.10	9017.7	ppb	22.10	0.25%
Cd 226.502†	847.7	0.3013	µg/L	0.01854	0.3013	ppb	0.01854	6.15%
Co 228.616†	894.9	8.8066	µg/L	0.09455	8.8066	ppb	0.09455	1.07%
Cr 267.716†	3990.8	32.844	µg/L	0.0960	32.844	ppb	0.0960	0.29%
Cu 324.752†	23888.6	99.600	µg/L	0.1663	99.600	ppb	0.1663	0.17%
Fe 238.204 Radial†	771737.1	47565	µg/L	51.6	47565	ppb	51.6	0.11%
K 766.490 Radial†	8184.8	2989.9	µg/L	35.84	2989.9	ppb	35.84	1.20%
Mg 279.077 IEC†	9008.7	3315.9	µg/L	13.68	3315.9	ppb	13.68	0.41%
Mn 257.610†	932619.0	1153.7	µg/L	0.81	1153.7	ppb	0.81	0.07%
Mo 202.031†	328.1	11.601	µg/L	0.2952	11.601	ppb	0.2952	2.54%
Na 589.592 Radial†	8984.0	1224.7	µg/L	32.32	1224.7	ppb	32.32	2.64%

Ni 231.604†	1570.4	18.082	µg/L	0.1293	18.082	ppb	0.1293	0.71%
P 214.914†	2534.0	513.07	µg/L	1.005	513.07	ppb	1.005	0.20%
Pb 220.353†	2100.3	118.52	µg/L	0.367	118.52	ppb	0.367	0.31%
S 181.975 Axial†	438.4	325.66	µg/L	3.760	325.66	ppb	3.760	1.15%
Sb 206.836†	0.6	-0.9075	µg/L	0.89941	-0.9075	ppb	0.89941	99.11%
Se 196.026†	-43.4	0.506	µg/L	1.8551	0.506	ppb	1.8551	366.50%
SiO2†	491824.0	48071	µg/L	51.1	48071	ppb	51.1	0.11%
Si 251.611†	1520041.4	22410	µg/L	30.1	22410	ppb	30.1	0.13%
Sn 189.927†	82.0	8.5265	µg/L	0.40466	8.5265	ppb	0.40466	4.75%
Sr 421.552†	24327.0	50.504	µg/L	0.1482	50.504	ppb	0.1482	0.29%
Ti 334.940†	1084203.7	1013.0	µg/L	1.01	1013.0	ppb	1.01	0.10%
Tl 190.801†	-125.2	-1.9224	µg/L	1.47970	-1.9224	ppb	1.47970	76.97%
U 409.014†	-5352.5	-313.14	µg/L	6.001	-313.14	ppb	6.001	1.92%
Concentration less than lower limit for U 409.014.								
V 292.402†	10020.9	42.951	µg/L	0.0996	42.951	ppb	0.0996	0.23%
Zn 213.857†	44896.3	247.76	µg/L	0.452	247.76	ppb	0.452	0.18%

Sequence No.: 12
Sample ID: 248860004|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 310
Date Collected: 4/1/2010 9:04:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248860004|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145762.3	145762.3	99.9	%			09:05:26
1	Al 396.153Radial†	235417.7	235751.5	43707	µg/L	43707	ppb	09:05:24
1	Ca 317.933Radial†	114610.4	114181.5	6360.4	µg/L	6360.4	ppb	09:05:26
1	Fe 238.204 Radial†	1172808.6	1174008.3	72359	µg/L	72359	ppb	09:05:24
1	K 766.490 Radial†	13012.4	11482.6	4192.3	µg/L	4192.3	ppb	09:05:26
1	Mg 279.077 IEC†	13765.7	13590.8	5002.1	µg/L	5002.1	ppb	09:05:26
1	Na 589.592 Radial†	16653.5	15381.9	2097.6	µg/L	2097.6	ppb	09:05:26
1	Sr 421.552†	33764.4	33938.5	70.506	µg/L	70.506	ppb	09:05:26
1	Sc 361.383	1760654.9	1760654.9	102.47	%			09:05:53
1	Y 371.029	1247195.0	1247195.0	121.48	%			09:05:53
1	Ag 328.068†	3916.2	-269.6	-1.8467	µg/L	-1.8467	ppb	09:05:53
1	As 188.979†	20.3	40.2	28.675	µg/L	28.675	ppb	09:06:13
1	B 249.677†	4211.8	604.4	8.8556	µg/L	8.8556	ppb	09:05:53
1	Ba 233.527†	105410.4	103005.5	414.20	µg/L	414.20	ppb	09:05:53
1	Be 313.107†	21631.6	22174.9	5.9204	µg/L	5.9204	ppb	09:05:53
1	Cd 226.502†	1080.0	1172.1	-0.2734	µg/L	-0.2734	ppb	09:06:13
1	Co 228.616†	1191.4	1353.0	13.330	µg/L	13.330	ppb	09:06:13
1	Cr 267.716†	3652.1	3385.6	28.790	µg/L	28.790	ppb	09:06:13
1	Cu 324.752†	6870.0	3732.2	24.868	µg/L	24.868	ppb	09:05:53
1	Mn 257.610†	1686390.8	1645506.3	2035.6	µg/L	2035.6	ppb	09:05:53
1	Mo 202.031†	538.3	545.4	19.006	µg/L	19.006	ppb	09:06:13
1	Ni 231.604†	2612.3	2625.8	30.235	µg/L	30.235	ppb	09:06:13
1	P 214.914†	4292.8	4207.3	860.08	µg/L	860.08	ppb	09:06:13
1	Pb 220.353†	923.3	814.6	48.762	µg/L	48.762	ppb	09:06:13
1	S 181.975 Axial†	355.6	242.0	179.85	µg/L	179.85	ppb	09:06:13
1	Sb 206.836†	64.2	-18.2	-3.4124	µg/L	-3.4124	ppb	09:06:13
1	Se 196.026†	-65.7	-79.4	-3.97	µg/L	-3.97	ppb	09:06:13
1	SiO2†	703409.4	684679.6	66921	µg/L	66921	ppb	09:05:53
1	Si 251.611†	2159825.1	2106930.0	31062	µg/L	31062	ppb	09:05:53
1	Sn 189.927†	109.7	108.2	13.327	µg/L	13.327	ppb	09:06:13
1	Ti 334.940†	2142566.6	2089971.5	1952.5	µg/L	1952.5	ppb	09:05:53
1	Tl 190.801†	-347.7	-222.6	-2.0644	µg/L	-2.0644	ppb	09:06:13
1	U 409.014†	-7081.8	-6641.2	-387.37	µg/L	-387.37	ppb	09:05:53
1	V 292.402†	14860.5	14098.5	59.351	µg/L	59.351	ppb	09:06:13
1	Zn 213.857†	42995.8	41395.0	226.34	µg/L	226.34	ppb	09:05:53
2	Sc RADIAL	146394.2	146394.2	100	%			09:05:30
2	Al 396.153Radial†	233863.7	233185.0	43231	µg/L	43231	ppb	09:05:28
2	Ca 317.933Radial†	114955.3	114030.0	6351.9	µg/L	6351.9	ppb	09:05:30
2	Fe 238.204 Radial†	1164249.9	1160408.3	71520	µg/L	71520	ppb	09:05:28
2	K 766.490 Radial†	13066.8	11480.6	4191.7	µg/L	4191.7	ppb	09:05:30
2	Mg 279.077 IEC†	13683.8	13449.7	4950.2	µg/L	4950.2	ppb	09:05:30
2	Na 589.592 Radial†	16686.7	15343.0	2092.3	µg/L	2092.3	ppb	09:05:30
2	Sr 421.552†	33578.0	33606.8	69.817	µg/L	69.817	ppb	09:05:30
2	Sc 361.383	1753121.8	1753121.8	102.03	%			09:06:16
2	Y 371.029	1241998.8	1241998.8	120.97	%			09:06:16
2	Ag 328.068†	4451.2	271.2	0.1682	µg/L	0.1682	ppb	09:06:16
2	As 188.979†	17.5	37.5	27.674	µg/L	27.674	ppb	09:06:36
2	B 249.677†	4051.9	465.3	6.8037	µg/L	6.8037	ppb	09:06:16
2	Ba 233.527†	104736.9	102787.5	413.33	µg/L	413.33	ppb	09:06:16
2	Be 313.107†	21399.5	22038.2	5.8831	µg/L	5.8831	ppb	09:06:16
2	Cd 226.502†	1114.9	1210.9	0.0567	µg/L	0.0567	ppb	09:06:36
2	Co 228.616†	1211.5	1377.7	13.679	µg/L	13.679	ppb	09:06:36
2	Cr 267.716†	3647.4	3396.2	28.846	µg/L	28.846	ppb	09:06:36
2	Cu 324.752†	6795.4	3687.8	24.572	µg/L	24.572	ppb	09:06:16
2	Mn 257.610†	1675766.5	1642165.2	2031.5	µg/L	2031.5	ppb	09:06:16
2	Mo 202.031†	534.4	543.9	18.927	µg/L	18.927	ppb	09:06:36
2	Ni 231.604†	2609.3	2633.9	30.327	µg/L	30.327	ppb	09:06:36
2	P 214.914†	4297.4	4229.8	865.36	µg/L	865.36	ppb	09:06:36
2	Pb 220.353†	890.6	786.5	47.187	µg/L	47.187	ppb	09:06:36

2	S 181.975 Axial†	360.0	247.8	184.13 µg/L	184.13 ppb	09:06:36
2	Sb 206.836†	78.7	-3.7	-1.6820 µg/L	-1.6820 ppb	09:06:36
2	Se 196.026†	-58.8	-72.9	-1.91 µg/L	-1.91 ppb	09:06:36
2	SiO2†	698817.2	683128.6	66770 µg/L	66770 ppb	09:06:16
2	Si 251.611†	2144058.0	2100533.9	30968 µg/L	30968 ppb	09:06:16
2	Sn 189.927†	103.8	102.8	12.986 µg/L	12.986 ppb	09:06:36
2	Ti 334.940†	2130188.8	2086824.8	1949.6 µg/L	1949.6 ppb	09:06:16
2	Tl 190.801†	-354.1	-230.3	-3.0530 µg/L	-3.0530 ppb	09:06:36
2	U 409.014†	-7058.0	-6647.6	-387.55 µg/L	-387.55 ppb	09:06:16
2	V 292.402†	14903.6	14203.1	59.952 µg/L	59.952 ppb	09:06:36
2	Zn 213.857†	42802.2	41385.6	226.37 µg/L	226.37 ppb	09:06:16
3	Sc RADIAL	145086.1	145086.1	99.4 %		09:05:34
3	Al 396.153Radial†	234620.1	236047.5	43762 µg/L	43762 ppb	09:05:32
3	Ca 317.933Radial†	113868.1	113969.6	6348.6 µg/L	6348.6 ppb	09:05:34
3	Fe 238.204 Radial†	1169568.3	1176220.7	72495 µg/L	72495 ppb	09:05:32
3	K 766.490 Radial†	12801.0	11330.7	4136.7 µg/L	4136.7 ppb	09:05:34
3	Mg 279.077 IEC†	13603.2	13491.6	4965.0 µg/L	4965.0 ppb	09:05:34
3	Na 589.592 Radial†	16677.9	15484.0	2111.6 µg/L	2111.6 ppb	09:05:34
3	Sr 421.552†	33514.6	33844.7	70.312 µg/L	70.312 ppb	09:05:34
3	Sc 361.383	1752374.5	1752374.5	101.99 %		09:06:39
3	Y 371.029	1241866.0	1241866.0	120.96 %		09:06:39
3	Ag 328.068†	4197.3	24.1	-0.7545 µg/L	-0.7545 ppb	09:06:39
3	As 188.979†	12.6	32.7	26.466 µg/L	26.466 ppb	09:06:59
3	B 249.677†	4124.6	538.4	7.8816 µg/L	7.8816 ppb	09:06:39
3	Ba 233.527†	104468.6	102568.1	412.44 µg/L	412.44 ppb	09:06:39
3	Be 313.107†	21298.7	21948.2	5.8575 µg/L	5.8575 ppb	09:06:39
3	Cd 226.502†	1093.7	1190.6	-0.1721 µg/L	-0.1721 ppb	09:06:59
3	Co 228.616†	1192.6	1359.6	13.404 µg/L	13.404 ppb	09:06:59
3	Cr 267.716†	3664.0	3414.0	29.023 µg/L	29.023 ppb	09:06:59
3	Cu 324.752†	6971.8	3863.7	25.394 µg/L	25.394 ppb	09:06:39
3	Mn 257.610†	1673026.6	1640179.1	2029.0 µg/L	2029.0 ppb	09:06:39
3	Mo 202.031†	538.9	548.5	19.102 µg/L	19.102 ppb	09:06:59
3	Ni 231.604†	2626.6	2651.9	30.535 µg/L	30.535 ppb	09:06:59
3	P 214.914†	4306.1	4240.1	866.99 µg/L	866.99 ppb	09:06:59
3	Pb 220.353†	936.1	831.5	49.703 µg/L	49.703 ppb	09:06:59
3	S 181.975 Axial†	362.7	250.6	186.21 µg/L	186.21 ppb	09:06:59
3	Sb 206.836†	83.5	1.0	-1.1308 µg/L	-1.1308 ppb	09:06:59
3	Se 196.026†	-57.3	-71.4	-1.05 µg/L	-1.05 ppb	09:06:59
3	SiO2†	697900.9	682522.3	66710 µg/L	66710 ppb	09:06:39
3	Si 251.611†	2142183.2	2099591.8	30954 µg/L	30954 ppb	09:06:39
3	Sn 189.927†	103.9	103.0	12.995 µg/L	12.995 ppb	09:06:59
3	Ti 334.940†	2129510.0	2087049.6	1949.8 µg/L	1949.8 ppb	09:06:39
3	Tl 190.801†	-341.3	-217.9	-1.5322 µg/L	-1.5322 ppb	09:06:59
3	U 409.014†	-7119.4	-6710.8	-391.48 µg/L	-391.48 ppb	09:06:39
3	V 292.402†	14932.1	14237.2	60.015 µg/L	60.015 ppb	09:06:59
3	Zn 213.857†	42732.7	41335.3	225.99 µg/L	225.99 ppb	09:06:39

Mean Data: 248860004|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1755383.7	102.16	%	0.267				0.26%
Sc RADIAL	145747.5	99.9	%	0.45				0.45%
Y 371.029	1243686.6	121.14	%	0.296				0.24%
Ag 328.068†	8.6	-0.8110	µg/L	1.00865	-0.8110	ppb	1.00865	124.37%
Al 396.153Radial†	234994.6	43567	µg/L	291.9	43567	ppb	291.9	0.67%
As 188.979†	36.8	27.605	µg/L	1.1059	27.605	ppb	1.1059	4.01%
B 249.677†	536.0	7.8470	µg/L	1.02638	7.8470	ppb	1.02638	13.08%
Ba 233.527†	102787.0	413.32	µg/L	0.882	413.32	ppb	0.882	0.21%
Be 313.107†	22053.8	5.8870	µg/L	0.03166	5.8870	ppb	0.03166	0.54%
Ca 317.933Radial†	114060.4	6353.6	µg/L	6.08	6353.6	ppb	6.08	0.10%
Cd 226.502†	1191.2	-0.1296	µg/L	0.16915	-0.1296	ppb	0.16915	130.50%
Co 228.616†	1363.4	13.471	µg/L	0.1837	13.471	ppb	0.1837	1.36%
Cr 267.716†	3398.6	28.886	µg/L	0.1218	28.886	ppb	0.1218	0.42%
Cu 324.752†	3761.3	24.945	µg/L	0.4166	24.945	ppb	0.4166	1.67%
Fe 238.204 Radial†	1170212.4	72125	µg/L	527.7	72125	ppb	527.7	0.73%
K 766.490 Radial†	11431.3	4173.5	µg/L	31.94	4173.5	ppb	31.94	0.77%
Mg 279.077 IEC†	13510.7	4972.4	µg/L	26.73	4972.4	ppb	26.73	0.54%
Mn 257.610†	1642616.8	2032.0	µg/L	3.33	2032.0	ppb	3.33	0.16%
Mo 202.031†	545.9	19.012	µg/L	0.0875	19.012	ppb	0.0875	0.46%
Na 589.592 Radial†	15403.0	2100.5	µg/L	9.98	2100.5	ppb	9.98	0.48%

Ni 231.604†	2637.2	30.366	µg/L	0.1539	30.366	ppb	0.1539	0.51%
P 214.914†	4225.7	864.14	µg/L	3.615	864.14	ppb	3.615	0.42%
Pb 220.353†	810.9	48.551	µg/L	1.2711	48.551	ppb	1.2711	2.62%
S 181.975 Axial†	246.8	183.39	µg/L	3.243	183.39	ppb	3.243	1.77%
Sb 206.836†	-7.0	-2.0751	µg/L	1.19049	-2.0751	ppb	1.19049	57.37%
Se 196.026†	-74.6	-2.31	µg/L	1.500	-2.31	ppb	1.500	64.89%
SiO2†	683443.5	66801	µg/L	108.7	66801	ppb	108.7	0.16%
Si 251.611†	2102351.9	30994	µg/L	58.9	30994	ppb	58.9	0.19%
Sn 189.927†	104.7	13.103	µg/L	0.1946	13.103	ppb	0.1946	1.49%
Sr 421.552†	33796.7	70.212	µg/L	0.3555	70.212	ppb	0.3555	0.51%
Ti 334.940†	2087948.6	1950.6	µg/L	1.64	1950.6	ppb	1.64	0.08%
Tl 190.801†	-223.6	-2.2165	µg/L	0.77173	-2.2165	ppb	0.77173	34.82%
U 409.014†	-6666.5	-388.80	µg/L	2.320	-388.80	ppb	2.320	0.60%
Concentration less than lower limit for U 409.014.								
V 292.402†	14179.6	59.773	µg/L	0.3664	59.773	ppb	0.3664	0.61%
Zn 213.857†	41372.0	226.23	µg/L	0.211	226.23	ppb	0.211	0.09%

Sequence No.: 13
Sample ID: 248860005|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 311
Date Collected: 4/1/2010 9:07:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248860005|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145156.2	145156.2	99.5	%			09:07:36
1	Al 396.153Radial†	73335.0	73789.0	13680	µg/L	13680	ppb	09:07:36
1	Ca 317.933Radial†	53135.3	52857.9	2944.4	µg/L	2944.4	ppb	09:07:38
1	Fe 238.204 Radial†	1415916.5	1423314.5	87724	µg/L	87724	ppb	09:07:36
1	K 766.490 Radial†	7772.5	6269.1	2291.2	µg/L	2291.2	ppb	09:07:38
1	Mg 279.077 IEC†	5896.1	5736.8	2062.6	µg/L	2062.6	ppb	09:07:38
1	Na 589.592 Radial†	12651.1	11427.7	1559.1	µg/L	1559.1	ppb	09:07:38
1	Sr 421.552†	15273.9	15490.6	32.181	µg/L	32.181	ppb	09:07:38
1	Sc 361.383	1775120.7	1775120.7	103.31	%			09:07:51
1	Y 371.029	1484319.5	1484319.5	144.57	%			09:07:51
1	Ag 328.068†	3953.7	-264.4	-2.2216	µg/L	-2.2216	ppb	09:07:51
1	As 188.979†	0.0	20.4	26.345	µg/L	26.345	ppb	09:08:11
1	B 249.677†	4268.5	625.8	9.2040	µg/L	9.2040	ppb	09:07:51
1	Ba 233.527†	53376.7	51801.5	207.65	µg/L	207.65	ppb	09:07:51
1	Be 313.107†	27638.1	27816.8	7.4404	µg/L	7.4404	ppb	09:07:51
1	Cd 226.502†	1311.1	1387.3	-0.5369	µg/L	-0.5369	ppb	09:08:11
1	Co 228.616†	421.5	598.3	3.0190	µg/L	3.0190	ppb	09:08:11
1	Cr 267.716†	6573.9	6184.6	51.283	µg/L	51.283	ppb	09:08:11
1	Cu 324.752†	3592.1	504.7	14.434	µg/L	14.434	ppb	09:07:51
1	Mn 257.610†	1793553.7	1735822.5	2147.4	µg/L	2147.4	ppb	09:07:51
1	Mo 202.031†	554.0	556.3	19.872	µg/L	19.872	ppb	09:08:11
1	Ni 231.604†	4260.7	4200.6	48.367	µg/L	48.367	ppb	09:08:11
1	P 214.914†	3351.5	3262.0	640.98	µg/L	640.98	ppb	09:08:11
1	Pb 220.353†	315.8	219.3	12.145	µg/L	12.145	ppb	09:08:11
1	S 181.975 Axial†	304.9	190.1	141.29	µg/L	141.29	ppb	09:08:11
1	Sb 206.836†	80.4	-3.0	-1.9547	µg/L	-1.9547	ppb	09:08:11
1	Se 196.026†	-68.4	-81.5	0.564	µg/L	0.564	ppb	09:08:11
1	SiO2†	436745.3	420969.6	41146	µg/L	41146	ppb	09:07:51
1	Si 251.611†	1347243.5	1303219.9	19213	µg/L	19213	ppb	09:07:51
1	Sn 189.927†	187.3	182.4	15.231	µg/L	15.231	ppb	09:08:11
1	Ti 334.940†	1267106.8	1225536.0	1145.0	µg/L	1145.0	ppb	09:07:51
1	Tl 190.801†	-329.4	-202.1	-7.5034	µg/L	-7.5034	ppb	09:08:11
1	U 409.014†	-8086.1	-7557.0	-445.25	µg/L	-445.25	ppb	09:07:51
1	V 292.402†	9868.7	9148.5	34.393	µg/L	34.393	ppb	09:08:11
1	Zn 213.857†	31886.4	30299.8	161.34	µg/L	161.34	ppb	09:07:51
2	Sc RADIAL	146354.0	146354.0	100	%			09:07:40
2	Al 396.153Radial†	73881.1	73730.1	13669	µg/L	13669	ppb	09:07:40
2	Ca 317.933Radial†	52918.5	52204.5	2908.0	µg/L	2908.0	ppb	09:07:42
2	Fe 238.204 Radial†	1428208.0	1423919.6	87762	µg/L	87762	ppb	09:07:40
2	K 766.490 Radial†	7772.8	6205.5	2267.9	µg/L	2267.9	ppb	09:07:42
2	Mg 279.077 IEC†	5871.9	5664.1	2035.5	µg/L	2035.5	ppb	09:07:42
2	Na 589.592 Radial†	12472.5	11145.6	1520.6	µg/L	1520.6	ppb	09:07:42
2	Sr 421.552†	15212.3	15303.5	31.792	µg/L	31.792	ppb	09:07:42
2	Sc 361.383	1770544.5	1770544.5	103.05	%			09:08:14
2	Y 371.029	1481243.2	1481243.2	144.27	%			09:08:14
2	Ag 328.068†	3710.4	-490.7	-3.0428	µg/L	-3.0428	ppb	09:08:14
2	As 188.979†	8.6	28.7	28.877	µg/L	28.877	ppb	09:08:34
2	B 249.677†	4268.8	636.8	9.3660	µg/L	9.3660	ppb	09:08:14
2	Ba 233.527†	53085.6	51652.6	207.05	µg/L	207.05	ppb	09:08:14
2	Be 313.107†	27434.3	27688.2	7.4084	µg/L	7.4084	ppb	09:08:14
2	Cd 226.502†	1311.1	1390.6	-0.5201	µg/L	-0.5201	ppb	09:08:34
2	Co 228.616†	415.4	593.4	2.9570	µg/L	2.9570	ppb	09:08:34
2	Cr 267.716†	6594.8	6221.3	51.565	µg/L	51.565	ppb	09:08:34
2	Cu 324.752†	3739.2	656.5	15.037	µg/L	15.037	ppb	09:08:14
2	Mn 257.610†	1784278.3	1731308.3	2141.8	µg/L	2141.8	ppb	09:08:14
2	Mo 202.031†	538.3	542.5	19.468	µg/L	19.468	ppb	09:08:34
2	Ni 231.604†	4241.9	4193.0	48.279	µg/L	48.279	ppb	09:08:34
2	P 214.914†	3356.0	3274.8	643.68	µg/L	643.68	ppb	09:08:34
2	Pb 220.353†	302.1	206.8	11.437	µg/L	11.437	ppb	09:08:34

2	S 181.975 Axial†	301.5	187.5	139.40	µg/L	139.40 ppb	09:08:34
2	Sb 206.836†	95.0	11.3	-0.2576	µg/L	-0.2576 ppb	09:08:34
2	Se 196.026†	-66.4	-79.7	1.22	µg/L	1.22 ppb	09:08:34
2	SiO2†	435602.0	420952.8	41144	µg/L	41144 ppb	09:08:14
2	Si 251.611†	1342445.8	1301934.4	19194	µg/L	19194 ppb	09:08:14
2	Sn 189.927†	194.0	189.4	15.662	µg/L	15.662 ppb	09:08:34
2	Ti 334.940†	1262651.3	1224382.2	1144.0	µg/L	1144.0 ppb	09:08:14
2	Tl 190.801†	-300.2	-174.6	-4.1489	µg/L	-4.1489 ppb	09:08:34
2	U 409.014†	-7889.1	-7386.0	-435.29	µg/L	-435.29 ppb	09:08:14
2	V 292.402†	9881.3	9185.4	34.574	µg/L	34.574 ppb	09:08:34
2	Zn 213.857†	31835.3	30330.0	161.51	µg/L	161.51 ppb	09:08:14
3	Sc RADIAL	145411.0	145411.0	99.6	%		09:07:44
3	Al 396.153Radial†	73544.5	73870.1	13695	µg/L	13695 ppb	09:07:44
3	Ca 317.933Radial†	53024.0	52652.6	2933.0	µg/L	2933.0 ppb	09:07:46
3	Fe 238.204 Radial†	1419195.2	1424110.0	87773	µg/L	87773 ppb	09:07:44
3	K 766.490 Radial†	7828.9	6312.0	2306.9	µg/L	2306.9 ppb	09:07:46
3	Mg 279.077 IEC†	5938.5	5769.0	2074.6	µg/L	2074.6 ppb	09:07:46
3	Na 589.592 Radial†	12611.9	11366.1	1550.7	µg/L	1550.7 ppb	09:07:46
3	Sr 421.552†	15186.6	15376.0	31.943	µg/L	31.943 ppb	09:07:46
3	Sc 361.383	1770275.7	1770275.7	103.03	%		09:08:37
3	Y 371.029	1482572.5	1482572.5	144.40	%		09:08:37
3	Ag 328.068†	3979.3	-229.1	-2.0941	µg/L	-2.0941 ppb	09:08:37
3	As 188.979†	5.9	26.0	28.076	µg/L	28.076 ppb	09:08:57
3	B 249.677†	4211.8	582.0	8.5586	µg/L	8.5586 ppb	09:08:37
3	Ba 233.527†	53170.0	51742.2	207.41	µg/L	207.41 ppb	09:08:37
3	Be 313.107†	27596.4	27849.6	7.4488	µg/L	7.4488 ppb	09:08:37
3	Cd 226.502†	1332.7	1411.7	-0.3893	µg/L	-0.3893 ppb	09:08:57
3	Co 228.616†	407.3	585.7	2.8608	µg/L	2.8608 ppb	09:08:57
3	Cr 267.716†	6587.0	6214.7	51.521	µg/L	51.521 ppb	09:08:57
3	Cu 324.752†	3640.9	561.6	14.661	µg/L	14.661 ppb	09:08:37
3	Mn 257.610†	1788208.5	1735385.7	2146.9	µg/L	2146.9 ppb	09:08:37
3	Mo 202.031†	547.7	551.7	19.739	µg/L	19.739 ppb	09:08:57
3	Ni 231.604†	4261.1	4212.3	48.502	µg/L	48.502 ppb	09:08:57
3	P 214.914†	3330.7	3250.7	638.53	µg/L	638.53 ppb	09:08:57
3	Pb 220.353†	338.7	242.4	13.436	µg/L	13.436 ppb	09:08:57
3	S 181.975 Axial†	301.0	187.1	139.07	µg/L	139.07 ppb	09:08:57
3	Sb 206.836†	90.3	6.8	-0.7919	µg/L	-0.7919 ppb	09:08:57
3	Se 196.026†	-81.6	-94.4	-4.12	µg/L	-4.12 ppb	09:08:57
3	SiO2†	435333.5	420756.4	41125	µg/L	41125 ppb	09:08:37
3	Si 251.611†	1341364.9	1301083.1	19181	µg/L	19181 ppb	09:08:37
3	Sn 189.927†	185.6	181.3	15.164	µg/L	15.164 ppb	09:08:57
3	Ti 334.940†	1264954.7	1226803.9	1146.2	µg/L	1146.2 ppb	09:08:37
3	Tl 190.801†	-317.7	-191.7	-6.2060	µg/L	-6.2060 ppb	09:08:57
3	U 409.014†	-8096.9	-7588.9	-447.14	µg/L	-447.14 ppb	09:08:37
3	V 292.402†	9825.8	9133.0	34.310	µg/L	34.310 ppb	09:08:57
3	Zn 213.857†	31905.8	30403.1	161.92	µg/L	161.92 ppb	09:08:37

Mean Data: 248860005|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1771980.3	103.13	%	0.158				0.15%
Sc RADIAL	145640.4	99.8	%	0.43				0.43%
Y 371.029	1482711.8	144.42	%	0.150				0.10%
Ag 328.068†	-328.1	-2.4528	µg/L	0.51488	-2.4528	ppb	0.51488	20.99%
Al 396.153Radial†	73796.4	13681	µg/L	13.0	13681	ppb	13.0	0.10%
As 188.979†	25.0	27.766	µg/L	1.2943	27.766	ppb	1.2943	4.66%
B 249.677†	614.9	9.0429	µg/L	0.42713	9.0429	ppb	0.42713	4.72%
Ba 233.527†	51732.1	207.37	µg/L	0.302	207.37	ppb	0.302	0.15%
Be 313.107†	27784.9	7.4326	µg/L	0.02129	7.4326	ppb	0.02129	0.29%
Ca 317.933Radial†	52571.7	2928.4	µg/L	18.61	2928.4	ppb	18.61	0.64%
Cd 226.502†	1396.5	-0.4821	µg/L	0.08079	-0.4821	ppb	0.08079	16.76%
Co 228.616†	592.5	2.9456	µg/L	0.07972	2.9456	ppb	0.07972	2.71%
Cr 267.716†	6206.9	51.456	µg/L	0.1520	51.456	ppb	0.1520	0.30%
Cu 324.752†	574.3	14.711	µg/L	0.3045	14.711	ppb	0.3045	2.07%
Fe 238.204 Radial†	1423781.4	87753	µg/L	25.6	87753	ppb	25.6	0.03%
K 766.490 Radial†	6262.2	2288.7	µg/L	19.61	2288.7	ppb	19.61	0.86%
Mg 279.077 IEC†	5723.3	2057.6	µg/L	20.02	2057.6	ppb	20.02	0.97%
Mn 257.610†	1734172.2	2145.4	µg/L	3.08	2145.4	ppb	3.08	0.14%
Mo 202.031†	550.2	19.693	µg/L	0.2061	19.693	ppb	0.2061	1.05%
Na 589.592 Radial†	11313.1	1543.5	µg/L	20.25	1543.5	ppb	20.25	1.31%

Ni 231.604†	4202.0	48.383	µg/L	0.1119	48.383	ppb	0.1119	0.23%
P 214.914†	3262.5	641.06	µg/L	2.577	641.06	ppb	2.577	0.40%
Pb 220.353†	222.8	12.339	µg/L	1.0139	12.339	ppb	1.0139	8.22%
S 181.975 Axial†	188.2	139.92	µg/L	1.196	139.92	ppb	1.196	0.86%
Sb 206.836†	5.0	-1.0014	µg/L	0.86776	-1.0014	ppb	0.86776	86.65%
Se 196.026†	-85.2	-0.778	µg/L	2.9106	-0.778	ppb	2.9106	374.29%
SiO2†	420893.0	41138	µg/L	11.6	41138	ppb	11.6	0.03%
Si 251.611†	1302079.1	19196	µg/L	15.9	19196	ppb	15.9	0.08%
Sn 189.927†	184.3	15.352	µg/L	0.2699	15.352	ppb	0.2699	1.76%
Sr 421.552†	15390.0	31.972	µg/L	0.1959	31.972	ppb	0.1959	0.61%
Ti 334.940†	1225574.0	1145.1	µg/L	1.13	1145.1	ppb	1.13	0.10%
Tl 190.801†	-189.5	-5.9528	µg/L	1.69153	-5.9528	ppb	1.69153	28.42%
U 409.014†	-7510.6	-442.56	µg/L	6.365	-442.56	ppb	6.365	1.44%
Concentration less than lower limit for U 409.014.								
V 292.402†	9155.7	34.425	µg/L	0.1351	34.425	ppb	0.1351	0.39%
Zn 213.857†	30344.3	161.59	µg/L	0.296	161.59	ppb	0.296	0.18%

Sequence No.: 14
Sample ID: 248860006|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 312
Date Collected: 4/1/2010 9:09:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248860006|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145065.1	145065.1	99.4	%			09:09:35
1	Al 396.153Radial†	56249.5	56647.9	10501	µg/L	10501	ppb	09:09:37
1	Ca 317.933Radial†	87627.3	87589.0	4879.1	µg/L	4879.1	ppb	09:09:37
1	Fe 238.204 Radial†	813370.5	818070.2	50421	µg/L	50421	ppb	09:09:35
1	K 766.490 Radial†	9008.5	7517.4	2748.5	µg/L	2748.5	ppb	09:09:37
1	Mg 279.077 IEC†	5256.7	5097.3	1856.5	µg/L	1856.5	ppb	09:09:37
1	Na 589.592 Radial†	17308.0	16120.3	2199.8	µg/L	2199.8	ppb	09:09:37
1	Sr 421.552†	8953.3	9141.9	18.967	µg/L	18.967	ppb	09:09:37
1	Sc 361.383	1735955.1	1735955.1	101.03	%			09:10:03
1	Y 371.029	1274766.4	1274766.4	124.16	%			09:10:03
1	Ag 328.068†	3861.5	-269.4	-1.9982	µg/L	-1.9982	ppb	09:10:05
1	As 188.979†	-34.3	-13.6	16.337	µg/L	16.337	ppb	09:10:25
1	B 249.677†	3845.6	300.4	4.3728	µg/L	4.3728	ppb	09:10:05
1	Ba 233.527†	35157.1	34933.7	140.15	µg/L	140.15	ppb	09:10:05
1	Be 313.107†	11632.2	12578.1	3.3436	µg/L	3.3436	ppb	09:10:05
1	Cd 226.502†	728.2	839.0	0.1441	µg/L	0.1441	ppb	09:10:25
1	Co 228.616†	1174.3	1352.7	14.372	µg/L	14.372	ppb	09:10:25
1	Cr 267.716†	123532.5	122091.7	957.65	µg/L	957.65	ppb	09:10:05
1	Cu 324.752†	14929.7	11805.0	53.058	µg/L	53.058	ppb	09:10:05
1	Mn 257.610†	1727898.7	1710006.3	2115.6	µg/L	2115.6	ppb	09:10:03
1	Mo 202.031†	723.0	735.7	23.657	µg/L	23.657	ppb	09:10:25
1	Ni 231.604†	37267.8	36963.5	425.61	µg/L	425.61	ppb	09:10:05
1	P 214.914†	2224.7	2219.9	442.19	µg/L	442.19	ppb	09:10:25
1	Pb 220.353†	3633.8	3510.3	196.92	µg/L	196.92	ppb	09:10:25
1	S 181.975 Axial†	270.0	162.2	120.60	µg/L	120.60	ppb	09:10:25
1	Sb 206.836†	207.0	124.0	0.0600	µg/L	0.0600	ppb	09:10:25
1	Se 196.026†	-50.0	-64.8	-6.19	µg/L	-6.19	ppb	09:10:25
1	SiO2†	423060.6	416962.6	40754	µg/L	40754	ppb	09:10:03
1	Si 251.611†	1303968.9	1289808.8	19015	µg/L	19015	ppb	09:10:03
1	Sn 189.927†	151.1	150.7	13.798	µg/L	13.798	ppb	09:10:25
1	Ti 334.940†	1412596.1	1397210.0	1305.1	µg/L	1305.1	ppb	09:10:03
1	Tl 190.801†	-300.1	-180.3	-3.4864	µg/L	-3.4864	ppb	09:10:25
1	U 409.014†	-4911.6	-4591.5	-265.71	µg/L	-265.71	ppb	09:10:03
1	V 292.402†	5566.1	5105.5	22.531	µg/L	22.531	ppb	09:10:05
1	Zn 213.857†	47228.4	46181.5	251.98	µg/L	251.98	ppb	09:10:05
2	Sc RADIAL	146013.0	146013.0	100	%			09:09:39
2	Al 396.153Radial†	56651.5	56682.4	10508	µg/L	10508	ppb	09:09:41
2	Ca 317.933Radial†	88466.8	87855.8	4893.9	µg/L	4893.9	ppb	09:09:41
2	Fe 238.204 Radial†	816964.0	816350.1	50315	µg/L	50315	ppb	09:09:39
2	K 766.490 Radial†	8917.7	7367.9	2693.7	µg/L	2693.7	ppb	09:09:41
2	Mg 279.077 IEC†	5431.2	5237.4	1908.7	µg/L	1908.7	ppb	09:09:41
2	Na 589.592 Radial†	17284.2	15983.6	2181.2	µg/L	2181.2	ppb	09:09:41
2	Sr 421.552†	8988.4	9118.6	18.919	µg/L	18.919	ppb	09:09:41
2	Sc 361.383	1746551.8	1746551.8	101.65	%			09:10:28
2	Y 371.029	1282540.2	1282540.2	124.92	%			09:10:28
2	Ag 328.068†	4291.7	130.6	-0.5429	µg/L	-0.5429	ppb	09:10:30
2	As 188.979†	-35.2	-14.3	16.000	µg/L	16.000	ppb	09:10:50
2	B 249.677†	3723.2	156.9	2.2569	µg/L	2.2569	ppb	09:10:30
2	Ba 233.527†	34864.2	34434.5	138.14	µg/L	138.14	ppb	09:10:30
2	Be 313.107†	11545.7	12423.1	3.2984	µg/L	3.2984	ppb	09:10:30
2	Cd 226.502†	767.6	873.4	0.3685	µg/L	0.3685	ppb	09:10:50
2	Co 228.616†	1172.5	1343.8	14.264	µg/L	14.264	ppb	09:10:50
2	Cr 267.716†	122874.2	120702.2	946.77	µg/L	946.77	ppb	09:10:30
2	Cu 324.752†	14948.6	11733.9	52.760	µg/L	52.760	ppb	09:10:30
2	Mn 257.610†	1740307.5	1711837.3	2117.8	µg/L	2117.8	ppb	09:10:28
2	Mo 202.031†	713.4	721.9	23.248	µg/L	23.248	ppb	09:10:50
2	Ni 231.604†	37206.5	36679.4	422.34	µg/L	422.34	ppb	09:10:30
2	P 214.914†	2216.1	2198.1	437.61	µg/L	437.61	ppb	09:10:50
2	Pb 220.353†	3644.9	3499.4	196.32	µg/L	196.32	ppb	09:10:50

2	S 181.975 Axial†	283.3	173.6	129.09 µg/L	129.09 ppb	09:10:50
2	Sb 206.836†	219.9	135.6	1.5865 µg/L	1.5865 ppb	09:10:50
2	Se 196.026†	-35.3	-50.0	-0.895 µg/L	-0.895 ppb	09:10:50
2	SiO2†	427671.2	418957.7	40949 µg/L	40949 ppb	09:10:28
2	Si 251.611†	1318126.6	1295906.2	19105 µg/L	19105 ppb	09:10:28
2	Sn 189.927†	155.9	154.5	14.042 µg/L	14.042 ppb	09:10:50
2	Ti 334.940†	1423163.8	1399123.4	1306.9 µg/L	1306.9 ppb	09:10:28
2	Tl 190.801†	-307.5	-185.8	-4.1484 µg/L	-4.1484 ppb	09:10:50
2	U 409.014†	-5117.6	-4764.7	-275.85 µg/L	-275.85 ppb	09:10:28
2	V 292.402†	5386.1	4895.0	21.456 µg/L	21.456 ppb	09:10:30
2	Zn 213.857†	46948.0	45621.9	248.87 µg/L	248.87 ppb	09:10:30
3	Sc RADIAL	145442.8	145442.8	99.7 %		09:09:43
3	Al 396.153Radial†	56132.0	56383.1	10452 µg/L	10452 ppb	09:09:45
3	Ca 317.933Radial†	87449.8	87182.0	4856.4 µg/L	4856.4 ppb	09:09:45
3	Fe 238.204 Radial†	814380.7	816959.0	50352 µg/L	50352 ppb	09:09:43
3	K 766.490 Radial†	9030.9	7516.4	2748.1 µg/L	2748.1 ppb	09:09:45
3	Mg 279.077 IEC†	5356.2	5183.5	1888.6 µg/L	1888.6 ppb	09:09:45
3	Na 589.592 Radial†	17121.6	15888.1	2168.1 µg/L	2168.1 ppb	09:09:45
3	Sr 421.552†	9013.3	9178.7	19.044 µg/L	19.044 ppb	09:09:45
3	Sc 361.383	1774891.8	1774891.8	103.30 %		09:10:52
3	Y 371.029	1303314.8	1303314.8	126.94 %		09:10:52
3	Ag 328.068†	4385.0	153.6	-0.4498 µg/L	-0.4498 ppb	09:10:55
3	As 188.979†	-29.2	-7.9	17.945 µg/L	17.945 ppb	09:11:15
3	B 249.677†	3717.6	93.0	1.3160 µg/L	1.3160 ppb	09:10:55
3	Ba 233.527†	35450.2	34454.1	138.22 µg/L	138.22 ppb	09:10:55
3	Be 313.107†	11745.0	12434.7	3.3013 µg/L	3.3013 ppb	09:10:55
3	Cd 226.502†	755.2	849.2	0.2130 µg/L	0.2130 ppb	09:11:15
3	Co 228.616†	1148.8	1302.4	13.752 µg/L	13.752 ppb	09:11:15
3	Cr 267.716†	124757.0	120594.8	945.93 µg/L	945.93 ppb	09:10:55
3	Cu 324.752†	14931.2	11482.2	51.786 µg/L	51.786 ppb	09:10:55
3	Mn 257.610†	1769660.5	1712916.0	2119.2 µg/L	2119.2 ppb	09:10:52
3	Mo 202.031†	708.2	705.6	22.773 µg/L	22.773 ppb	09:11:15
3	Ni 231.604†	37661.0	36535.0	420.67 µg/L	420.67 ppb	09:10:55
3	P 214.914†	2210.4	2157.8	428.96 µg/L	428.96 ppb	09:11:15
3	Pb 220.353†	3653.1	3450.1	193.57 µg/L	193.57 ppb	09:11:15
3	S 181.975 Axial†	270.3	156.6	116.44 µg/L	116.44 ppb	09:11:15
3	Sb 206.836†	242.8	154.2	3.8139 µg/L	3.8139 ppb	09:11:15
3	Se 196.026†	-27.2	-41.6	2.16 µg/L	2.16 ppb	09:11:15
3	SiO2†	434067.3	418431.7	40898 µg/L	40898 ppb	09:10:52
3	Si 251.611†	1338405.5	1294832.2	19089 µg/L	19089 ppb	09:10:52
3	Sn 189.927†	152.5	148.8	13.684 µg/L	13.684 ppb	09:11:15
3	Ti 334.940†	1446853.5	1399701.3	1307.5 µg/L	1307.5 ppb	09:10:52
3	Tl 190.801†	-302.1	-175.8	-2.8981 µg/L	-2.8981 ppb	09:11:15
3	U 409.014†	-5211.0	-4774.7	-276.39 µg/L	-276.39 ppb	09:10:52
3	V 292.402†	5625.7	5042.3	22.161 µg/L	22.161 ppb	09:10:55
3	Zn 213.857†	47660.3	45574.1	248.61 µg/L	248.61 ppb	09:10:55

Mean Data: 248860006|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1752466.2	101.99	%	1.172				1.15%
Sc RADIAL	145507.0	99.7	%	0.33				0.33%
Y 371.029	1286873.8	125.34	%	1.438				1.15%
Ag 328.068†	5.0	-0.9970	µg/L	0.86832	-0.9970	ppb	0.86832	87.10%
Al 396.153Radial†	56571.1	10487	µg/L	30.3	10487	ppb	30.3	0.29%
As 188.979†	-11.9	16.761	µg/L	1.0391	16.761	ppb	1.0391	6.20%
B 249.677†	183.5	2.6486	µg/L	1.56558	2.6486	ppb	1.56558	59.11%
Ba 233.527†	34607.4	138.83	µg/L	1.139	138.83	ppb	1.139	0.82%
Be 313.107†	12478.6	3.3144	µg/L	0.02532	3.3144	ppb	0.02532	0.76%
Ca 317.933Radial†	87542.3	4876.4	µg/L	18.90	4876.4	ppb	18.90	0.39%
Cd 226.502†	853.9	0.2419	µg/L	0.11496	0.2419	ppb	0.11496	47.53%
Co 228.616†	1332.9	14.129	µg/L	0.3314	14.129	ppb	0.3314	2.35%
Cr 267.716†	121129.6	950.12	µg/L	6.537	950.12	ppb	6.537	0.69%
Cu 324.752†	11673.7	52.535	µg/L	0.6654	52.535	ppb	0.6654	1.27%
Fe 238.204 Radial†	817126.4	50363	µg/L	53.8	50363	ppb	53.8	0.11%
K 766.490 Radial†	7467.2	2730.1	µg/L	31.52	2730.1	ppb	31.52	1.15%
Mg 279.077 IEC†	5172.7	1884.6	µg/L	26.36	1884.6	ppb	26.36	1.40%
Mn 257.610†	1711586.6	2117.5	µg/L	1.82	2117.5	ppb	1.82	0.09%
Mo 202.031†	721.1	23.226	µg/L	0.4426	23.226	ppb	0.4426	1.91%
Na 589.592 Radial†	15997.3	2183.0	µg/L	15.94	2183.0	ppb	15.94	0.73%

Ni 231.604†	36726.0	422.87	µg/L	2.510	422.87	ppb	2.510	0.59%
P 214.914†	2191.9	436.25	µg/L	6.719	436.25	ppb	6.719	1.54%
Pb 220.353†	3486.6	195.60	µg/L	1.789	195.60	ppb	1.789	0.91%
S 181.975 Axial†	164.1	122.05	µg/L	6.448	122.05	ppb	6.448	5.28%
Sb 206.836†	137.9	1.8201	µg/L	1.88783	1.8201	ppb	1.88783	103.72%
Se 196.026†	-52.1	-1.64	µg/L	4.225	-1.64	ppb	4.225	257.25%
SiO2†	418117.3	40867	µg/L	101.1	40867	ppb	101.1	0.25%
Si 251.611†	1293515.7	19070	µg/L	48.0	19070	ppb	48.0	0.25%
Sn 189.927†	151.3	13.841	µg/L	0.1826	13.841	ppb	0.1826	1.32%
Sr 421.552†	9146.4	18.977	µg/L	0.0632	18.977	ppb	0.0632	0.33%
Ti 334.940†	1398678.3	1306.5	µg/L	1.22	1306.5	ppb	1.22	0.09%
Tl 190.801†	-180.6	-3.5110	µg/L	0.62551	-3.5110	ppb	0.62551	17.82%
U 409.014†	-4710.3	-272.65	µg/L	6.014	-272.65	ppb	6.014	2.21%
Concentration less than lower limit for U 409.014.								
V 292.402†	5014.2	22.049	µg/L	0.5462	22.049	ppb	0.5462	2.48%
Zn 213.857†	45792.5	249.82	µg/L	1.875	249.82	ppb	1.875	0.75%

Sequence No.: 15
Sample ID: 248860007|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 313
Date Collected: 4/1/2010 9:11:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248860007|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144531.0	144531.0	99.0	%			09:11:52
1	Al 396.153Radial†	173792.3	175537.5	32544	µg/L	32544	ppb	09:11:52
1	Ca 317.933Radial†	97511.8	97894.9	5453.1	µg/L	5453.1	ppb	09:11:54
1	Fe 238.204 Radial†	883188.9	891588.2	54952	µg/L	54952	ppb	09:11:52
1	K 766.490 Radial†	9900.7	8451.8	3085.6	µg/L	3085.6	ppb	09:11:54
1	Mg 279.077 IEC†	10499.0	10409.9	3831.6	µg/L	3831.6	ppb	09:11:54
1	Na 589.592 Radial†	9562.6	8364.4	1139.9	µg/L	1139.9	ppb	09:11:54
1	Sr 421.552†	27842.8	28247.5	58.682	µg/L	58.682	ppb	09:11:54
1	Sc 361.383	1755500.7	1755500.7	102.17	%			09:12:07
1	Y 371.029	1198139.4	1198139.4	116.70	%			09:12:07
1	Ag 328.068†	3862.1	-311.3	-1.7996	µg/L	-1.7996	ppb	09:12:07
1	As 188.979†	8.7	28.8	21.386	µg/L	21.386	ppb	09:12:27
1	B 249.677†	3889.9	301.4	4.4019	µg/L	4.4019	ppb	09:12:07
1	Ba 233.527†	79034.2	77491.5	311.60	µg/L	311.60	ppb	09:12:07
1	Be 313.107†	16482.4	17197.0	4.5892	µg/L	4.5892	ppb	09:12:07
1	Cd 226.502†	967.9	1065.6	0.8907	µg/L	0.8907	ppb	09:12:27
1	Co 228.616†	843.4	1015.8	9.9786	µg/L	9.9786	ppb	09:12:27
1	Cr 267.716†	4526.4	4251.7	35.025	µg/L	35.025	ppb	09:12:27
1	Cu 324.752†	12248.4	9016.0	42.898	µg/L	42.898	ppb	09:12:07
1	Mn 257.610†	1320324.6	1292046.5	1598.4	µg/L	1598.4	ppb	09:12:07
1	Mo 202.031†	201.9	217.7	8.6601	µg/L	8.6601	ppb	09:12:27
1	Ni 231.604†	2468.8	2492.9	28.704	µg/L	28.704	ppb	09:12:27
1	P 214.914†	2734.8	2694.6	545.77	µg/L	545.77	ppb	09:12:27
1	Pb 220.353†	1213.9	1101.7	63.878	µg/L	63.878	ppb	09:12:27
1	S 181.975 Axial†	405.7	292.1	216.94	µg/L	216.94	ppb	09:12:27
1	Sb 206.836†	85.0	2.4	-0.9308	µg/L	-0.9308	ppb	09:12:27
1	Se 196.026†	-31.3	-45.9	2.17	µg/L	2.17	ppb	09:12:27
1	SiO2†	622657.1	607657.9	59393	µg/L	59393	ppb	09:12:07
1	Si 251.611†	1913202.0	1871733.1	27595	µg/L	27595	ppb	09:12:07
1	Sn 189.927†	86.1	85.4	10.172	µg/L	10.172	ppb	09:12:27
1	Ti 334.940†	1572472.6	1538124.1	1437.0	µg/L	1437.0	ppb	09:12:07
1	Tl 190.801†	-301.8	-178.7	-3.0490	µg/L	-3.0490	ppb	09:12:27
1	U 409.014†	-5665.4	-5275.2	-307.16	µg/L	-307.16	ppb	09:12:07
1	V 292.402†	12123.5	11462.2	48.788	µg/L	48.788	ppb	09:12:27
1	Zn 213.857†	78436.4	76206.1	423.31	µg/L	423.31	ppb	09:12:07
2	Sc RADIAL	144098.3	144098.3	98.7	%			09:11:56
2	Al 396.153Radial†	172915.7	175176.7	32477	µg/L	32477	ppb	09:11:56
2	Ca 317.933Radial†	97353.8	98030.6	5460.7	µg/L	5460.7	ppb	09:11:58
2	Fe 238.204 Radial†	877460.8	888465.3	54760	µg/L	54760	ppb	09:11:56
2	K 766.490 Radial†	9776.5	8356.0	3050.5	µg/L	3050.5	ppb	09:11:58
2	Mg 279.077 IEC†	10452.6	10394.8	3826.1	µg/L	3826.1	ppb	09:11:58
2	Na 589.592 Radial†	9676.6	8508.8	1159.7	µg/L	1159.7	ppb	09:11:58
2	Sr 421.552†	27974.5	28465.3	59.135	µg/L	59.135	ppb	09:11:58
2	Sc 361.383	1744734.4	1744734.4	101.54	%			09:12:30
2	Y 371.029	1190078.4	1190078.4	115.91	%			09:12:30
2	Ag 328.068†	3788.5	-360.4	-1.9542	µg/L	-1.9542	ppb	09:12:30
2	As 188.979†	19.1	39.2	24.464	µg/L	24.464	ppb	09:12:50
2	B 249.677†	3861.1	296.6	4.3289	µg/L	4.3289	ppb	09:12:30
2	Ba 233.527†	78700.4	77640.2	312.20	µg/L	312.20	ppb	09:12:30
2	Be 313.107†	16348.2	17164.5	4.5848	µg/L	4.5848	ppb	09:12:30
2	Cd 226.502†	939.0	1043.0	0.7697	µg/L	0.7697	ppb	09:12:50
2	Co 228.616†	864.9	1042.1	10.314	µg/L	10.314	ppb	09:12:50
2	Cr 267.716†	4542.6	4295.0	35.346	µg/L	35.346	ppb	09:12:50
2	Cu 324.752†	12285.8	9126.9	43.313	µg/L	43.313	ppb	09:12:30
2	Mn 257.610†	1314492.6	1294277.4	1601.1	µg/L	1601.1	ppb	09:12:30
2	Mo 202.031†	187.5	204.7	8.2707	µg/L	8.2707	ppb	09:12:50
2	Ni 231.604†	2460.1	2499.2	28.777	µg/L	28.777	ppb	09:12:50
2	P 214.914†	2729.7	2706.2	548.36	µg/L	548.36	ppb	09:12:50
2	Pb 220.353†	1224.2	1119.2	64.850	µg/L	64.850	ppb	09:12:50

2	S 181.975 Axial†	410.7	299.4	222.35 µg/L	222.35 ppb	09:12:50
2	Sb 206.836†	86.1	3.9	-0.7587 µg/L	-0.7587 ppb	09:12:50
2	Se 196.026†	-40.6	-55.3	-1.27 µg/L	-1.27 ppb	09:12:50
2	SiO2†	618797.8	607617.8	59389 µg/L	59389 ppb	09:12:30
2	Si 251.611†	1903257.6	1873495.0	27621 µg/L	27621 ppb	09:12:30
2	Sn 189.927†	84.3	84.1	10.100 µg/L	10.100 ppb	09:12:50
2	Ti 334.940†	1566063.7	1541309.9	1439.9 µg/L	1439.9 ppb	09:12:30
2	Tl 190.801†	-293.9	-172.7	-2.2764 µg/L	-2.2764 ppb	09:12:50
2	U 409.014†	-5374.9	-5023.3	-292.33 µg/L	-292.33 ppb	09:12:30
2	V 292.402†	12201.9	11612.7	49.547 µg/L	49.547 ppb	09:12:50
2	Zn 213.857†	78336.8	76581.8	425.44 µg/L	425.44 ppb	09:12:30
3	Sc RADIAL	145025.7	145025.7	99.4 %		09:12:00
3	Al 396.153Radial†	174323.4	175473.3	32532 µg/L	32532 ppb	09:12:00
3	Ca 317.933Radial†	98246.8	98298.7	5475.6 µg/L	5475.6 ppb	09:12:02
3	Fe 238.204 Radial†	882955.0	888310.9	54750 µg/L	54750 ppb	09:12:00
3	K 766.490 Radial†	9966.1	8483.5	3097.2 µg/L	3097.2 ppb	09:12:02
3	Mg 279.077 IEC†	10597.1	10472.4	3855.1 µg/L	3855.1 ppb	09:12:02
3	Na 589.592 Radial†	9858.7	8629.4	1176.1 µg/L	1176.1 ppb	09:12:02
3	Sr 421.552†	28002.4	28312.2	58.817 µg/L	58.817 ppb	09:12:02
3	Sc 361.383	1779613.1	1779613.1	103.57 %		09:12:52
3	Y 371.029	1213516.0	1213516.0	118.20 %		09:12:52
3	Ag 328.068†	4038.9	-191.8	-1.3709 µg/L	-1.3709 ppb	09:12:52
3	As 188.979†	18.1	37.8	24.051 µg/L	24.051 ppb	09:13:12
3	B 249.677†	3829.0	191.0	2.7728 µg/L	2.7728 ppb	09:12:52
3	Ba 233.527†	80216.1	77584.5	311.98 µg/L	311.98 ppb	09:12:52
3	Be 313.107†	16735.7	17223.0	4.5944 µg/L	4.5944 ppb	09:12:52
3	Cd 226.502†	947.2	1032.7	0.7066 µg/L	0.7066 ppb	09:13:12
3	Co 228.616†	858.6	1019.2	10.032 µg/L	10.032 ppb	09:13:12
3	Cr 267.716†	4539.3	4204.1	34.649 µg/L	34.649 ppb	09:13:12
3	Cu 324.752†	12294.0	8897.6	42.404 µg/L	42.404 ppb	09:12:52
3	Mn 257.610†	1340928.1	1294429.7	1601.3 µg/L	1601.3 ppb	09:12:52
3	Mo 202.031†	187.9	201.5	8.1775 µg/L	8.1775 ppb	09:13:12
3	Ni 231.604†	2480.9	2471.8	28.462 µg/L	28.462 ppb	09:13:12
3	P 214.914†	2738.3	2661.7	538.88 µg/L	538.88 ppb	09:13:12
3	Pb 220.353†	1216.3	1088.0	63.123 µg/L	63.123 ppb	09:13:12
3	S 181.975 Axial†	422.7	303.1	225.12 µg/L	225.12 ppb	09:13:12
3	Sb 206.836†	108.4	23.8	1.6160 µg/L	1.6160 ppb	09:13:12
3	Se 196.026†	-31.7	-45.9	2.09 µg/L	2.09 ppb	09:13:12
3	SiO2†	632100.0	608517.6	59477 µg/L	59477 ppb	09:12:52
3	Si 251.611†	1944213.4	1876302.8	27662 µg/L	27662 ppb	09:12:52
3	Sn 189.927†	84.5	82.7	10.008 µg/L	10.008 ppb	09:13:12
3	Ti 334.940†	1596885.5	1540841.5	1439.5 µg/L	1439.5 ppb	09:12:52
3	Tl 190.801†	-310.1	-182.7	-3.5171 µg/L	-3.5171 ppb	09:13:12
3	U 409.014†	-5852.2	-5380.4	-313.28 µg/L	-313.28 ppb	09:12:52
3	V 292.402†	12180.3	11356.3	48.280 µg/L	48.280 ppb	09:13:12
3	Zn 213.857†	80026.7	76701.4	426.12 µg/L	426.12 ppb	09:12:52

Mean Data: 248860007|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1759949.4	102.43	%	1.039				1.01%
Sc RADIAL	144551.7	99.1	%	0.32				0.32%
Y 371.029	1200578.0	116.94	%	1.160				0.99%
Ag 328.068†	-287.9	-1.7082	µg/L	0.30222	-1.7082	ppb	0.30222	17.69%
Al 396.153Radial†	175395.8	32518	µg/L	35.7	32518	ppb	35.7	0.11%
As 188.979†	35.3	23.300	µg/L	1.6709	23.300	ppb	1.6709	7.17%
B 249.677†	263.0	3.8345	µg/L	0.92024	3.8345	ppb	0.92024	24.00%
Ba 233.527†	77572.1	311.92	µg/L	0.304	311.92	ppb	0.304	0.10%
Be 313.107†	17194.8	4.5895	µg/L	0.00482	4.5895	ppb	0.00482	0.10%
Ca 317.933Radial†	98074.8	5463.1	µg/L	11.45	5463.1	ppb	11.45	0.21%
Cd 226.502†	1047.1	0.7890	µg/L	0.09358	0.7890	ppb	0.09358	11.86%
Co 228.616†	1025.7	10.108	µg/L	0.1802	10.108	ppb	0.1802	1.78%
Cr 267.716†	4250.3	35.007	µg/L	0.3489	35.007	ppb	0.3489	1.00%
Cu 324.752†	9013.5	42.872	µg/L	0.4551	42.872	ppb	0.4551	1.06%
Fe 238.204 Radial†	889454.8	54821	µg/L	114.0	54821	ppb	114.0	0.21%
K 766.490 Radial†	8430.4	3077.7	µg/L	24.29	3077.7	ppb	24.29	0.79%
Mg 279.077 IEC†	10425.7	3837.6	µg/L	15.37	3837.6	ppb	15.37	0.40%
Mn 257.610†	1293584.5	1600.3	µg/L	1.65	1600.3	ppb	1.65	0.10%
Mo 202.031†	208.0	8.3694	µg/L	0.25596	8.3694	ppb	0.25596	3.06%
Na 589.592 Radial†	8500.8	1158.6	µg/L	18.12	1158.6	ppb	18.12	1.56%

Ni 231.604†	2488.0	28.647	µg/L	0.1649	28.647	ppb	0.1649	0.58%
P 214.914†	2687.5	544.33	µg/L	4.900	544.33	ppb	4.900	0.90%
Pb 220.353†	1103.0	63.950	µg/L	0.8656	63.950	ppb	0.8656	1.35%
S 181.975 Axial†	298.2	221.47	µg/L	4.158	221.47	ppb	4.158	1.88%
Sb 206.836†	10.1	-0.0245	µg/L	1.42331	-0.0245	ppb	1.42331	>999.9%
Se 196.026†	-49.0	0.997	µg/L	1.9632	0.997	ppb	1.9632	196.92%
SiO2†	607931.1	59420	µg/L	49.7	59420	ppb	49.7	0.08%
Si 251.611†	1873843.6	27626	µg/L	34.0	27626	ppb	34.0	0.12%
Sn 189.927†	84.1	10.093	µg/L	0.0824	10.093	ppb	0.0824	0.82%
Sr 421.552†	28341.7	58.878	µg/L	0.2325	58.878	ppb	0.2325	0.39%
Ti 334.940†	1540091.8	1438.8	µg/L	1.61	1438.8	ppb	1.61	0.11%
Tl 190.801†	-178.0	-2.9475	µg/L	0.62655	-2.9475	ppb	0.62655	21.26%
U 409.014†	-5226.3	-304.26	µg/L	10.772	-304.26	ppb	10.772	3.54%
Concentration less than lower limit for U 409.014.								
V 292.402†	11477.1	48.872	µg/L	0.6377	48.872	ppb	0.6377	1.30%
Zn 213.857†	76496.4	424.95	µg/L	1.465	424.95	ppb	1.465	0.34%

Sequence No.: 16
Sample ID: 248860008|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 314
Date Collected: 4/1/2010 9:13:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248860008|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144200.3	144200.3	98.8	%			09:13:50
1	Al 396.153Radial†	55173.1	55898.0	10362	µg/L	10362	ppb	09:13:52
1	Ca 317.933Radial†	48524.5	48545.8	2704.2	µg/L	2704.2	ppb	09:13:52
1	Fe 238.204 Radial†	948901.1	960133.4	59177	µg/L	59177	ppb	09:13:50
1	K 766.490 Radial†	9169.6	7734.8	2828.6	µg/L	2828.6	ppb	09:13:52
1	Mg 279.077 IEC†	3888.2	3744.1	1344.8	µg/L	1344.8	ppb	09:13:52
1	Na 589.592 Radial†	15961.4	14862.0	2027.8	µg/L	2027.8	ppb	09:13:52
1	Sr 421.552†	10590.3	10852.6	22.541	µg/L	22.541	ppb	09:13:52
1	Sc 361.383	1762394.9	1762394.9	102.57	%			09:14:04
1	Y 371.029	1364727.9	1364727.9	132.93	%			09:14:04
1	Ag 328.068†	4286.3	87.5	-0.8694	µg/L	-0.8694	ppb	09:14:06
1	As 188.979†	-0.9	19.5	20.602	µg/L	20.602	ppb	09:14:26
1	B 249.677†	3967.1	361.8	5.3010	µg/L	5.3010	ppb	09:14:06
1	Ba 233.527†	30098.3	29479.7	118.05	µg/L	118.05	ppb	09:14:06
1	Be 313.107†	15384.5	16063.6	4.2864	µg/L	4.2864	ppb	09:14:06
1	Cd 226.502†	830.5	927.8	-0.3898	µg/L	-0.3898	ppb	09:14:26
1	Co 228.616†	640.2	814.5	7.1051	µg/L	7.1051	ppb	09:14:26
1	Cr 267.716†	19149.4	18490.8	146.51	µg/L	146.51	ppb	09:14:06
1	Cu 324.752†	4561.8	1475.2	14.156	µg/L	14.156	ppb	09:14:06
1	Mn 257.610†	1923465.9	1875013.9	2319.7	µg/L	2319.7	ppb	09:14:04
1	Mo 202.031†	685.9	688.8	22.615	µg/L	22.615	ppb	09:14:26
1	Ni 231.604†	6895.1	6798.7	78.283	µg/L	78.283	ppb	09:14:06
1	P 214.914†	2282.3	2243.0	441.56	µg/L	441.56	ppb	09:14:26
1	Pb 220.353†	323.7	229.2	13.315	µg/L	13.315	ppb	09:14:26
1	S 181.975 Axial†	242.4	131.3	97.647	µg/L	97.647	ppb	09:14:26
1	Sb 206.836†	119.7	35.9	1.6062	µg/L	1.6062	ppb	09:14:26
1	Se 196.026†	-48.3	-62.4	-2.29	µg/L	-2.29	ppb	09:14:26
1	SiO2†	397777.6	386031.3	37731	µg/L	37731	ppb	09:14:04
1	Si 251.611†	1226325.7	1194749.3	17614	µg/L	17614	ppb	09:14:04
1	Sn 189.927†	76.2	75.4	8.5634	µg/L	8.5634	ppb	09:14:26
1	Ti 334.940†	1259031.9	1226519.7	1145.9	µg/L	1145.9	ppb	09:14:04
1	Tl 190.801†	-300.3	-176.1	-4.0442	µg/L	-4.0442	ppb	09:14:26
1	U 409.014†	-5348.8	-4944.9	-286.41	µg/L	-286.41	ppb	09:14:04
1	V 292.402†	4766.9	4243.7	14.034	µg/L	14.034	ppb	09:14:06
1	Zn 213.857†	29494.7	28191.0	152.24	µg/L	152.24	ppb	09:14:06
2	Sc RADIAL	145561.9	145561.9	99.7	%			09:13:54
2	Al 396.153Radial†	55358.6	55561.7	10300	µg/L	10300	ppb	09:13:56
2	Ca 317.933Radial†	48888.7	48451.7	2699.0	µg/L	2699.0	ppb	09:13:56
2	Fe 238.204 Radial†	958859.2	961134.6	59238	µg/L	59238	ppb	09:13:54
2	K 766.490 Radial†	9461.7	7940.9	2904.0	µg/L	2904.0	ppb	09:13:56
2	Mg 279.077 IEC†	3949.4	3768.7	1353.8	µg/L	1353.8	ppb	09:13:56
2	Na 589.592 Radial†	16274.9	15025.3	2050.0	µg/L	2050.0	ppb	09:13:56
2	Sr 421.552†	10604.9	10767.0	22.363	µg/L	22.363	ppb	09:13:56
2	Sc 361.383	1762927.6	1762927.6	102.60	%			09:14:29
2	Y 371.029	1366158.8	1366158.8	133.06	%			09:14:29
2	Ag 328.068†	4173.9	-23.3	-1.3030	µg/L	-1.3030	ppb	09:14:31
2	As 188.979†	-1.5	18.8	20.425	µg/L	20.425	ppb	09:14:51
2	B 249.677†	3944.0	338.1	4.9513	µg/L	4.9513	ppb	09:14:31
2	Ba 233.527†	30018.9	29393.4	117.71	µg/L	117.71	ppb	09:14:31
2	Be 313.107†	15496.7	16168.3	4.3080	µg/L	4.3080	ppb	09:14:31
2	Cd 226.502†	865.8	962.1	-0.1821	µg/L	-0.1821	ppb	09:14:51
2	Co 228.616†	634.2	808.5	7.0270	µg/L	7.0270	ppb	09:14:51
2	Cr 267.716†	19152.3	18488.0	146.51	µg/L	146.51	ppb	09:14:31
2	Cu 324.752†	4717.1	1625.3	14.729	µg/L	14.729	ppb	09:14:31
2	Mn 257.610†	1928210.1	1879071.1	2324.8	µg/L	2324.8	ppb	09:14:29
2	Mo 202.031†	699.1	701.4	22.989	µg/L	22.989	ppb	09:14:51
2	Ni 231.604†	6959.5	6859.5	78.983	µg/L	78.983	ppb	09:14:31
2	P 214.914†	2280.0	2240.2	440.88	µg/L	440.88	ppb	09:14:51
2	Pb 220.353†	304.7	210.5	12.287	µg/L	12.287	ppb	09:14:51

2	S 181.975 Axial†	241.6	130.4	97.022	µg/L	97.022 ppb	09:14:51
2	Sb 206.836†	91.9	8.7	-1.6174	µg/L	-1.6174 ppb	09:14:51
2	Se 196.026†	-35.4	-49.8	2.25	µg/L	2.25 ppb	09:14:51
2	SiO2†	397415.5	385561.2	37685	µg/L	37685 ppb	09:14:29
2	Si 251.611†	1225666.5	1193745.6	17599	µg/L	17599 ppb	09:14:29
2	Sn 189.927†	63.4	62.9	7.7938	µg/L	7.7938 ppb	09:14:51
2	Ti 334.940†	1261372.4	1228430.0	1147.7	µg/L	1147.7 ppb	09:14:29
2	Tl 190.801†	-306.5	-182.1	-4.7424	µg/L	-4.7424 ppb	09:14:51
2	U 409.014†	-5751.2	-5335.4	-309.20	µg/L	-309.20 ppb	09:14:29
2	V 292.402†	4883.3	4355.7	14.561	µg/L	14.561 ppb	09:14:31
2	Zn 213.857†	29705.1	28387.4	153.33	µg/L	153.33 ppb	09:14:31
3	Sc RADIAL	145002.1	145002.1	99.4	%		09:13:58
3	Al 396.153Radial†	55459.4	55877.5	10359	µg/L	10359 ppb	09:14:00
3	Ca 317.933Radial†	48904.1	48656.4	2710.4	µg/L	2710.4 ppb	09:14:00
3	Fe 238.204 Radial†	951775.4	957716.6	59028	µg/L	59028 ppb	09:13:58
3	K 766.490 Radial†	9478.5	7994.4	2923.6	µg/L	2923.6 ppb	09:14:00
3	Mg 279.077 IEC†	3976.8	3811.6	1370.0	µg/L	1370.0 ppb	09:14:00
3	Na 589.592 Radial†	16274.0	15087.3	2058.5	µg/L	2058.5 ppb	09:14:00
3	Sr 421.552†	10744.5	10948.5	22.740	µg/L	22.740 ppb	09:14:00
3	Sc 361.383	1756688.9	1756688.9	102.24	%		09:14:53
3	Y 371.029	1361982.4	1361982.4	132.66	%		09:14:53
3	Ag 328.068†	4195.0	11.8	-1.1458	µg/L	-1.1458 ppb	09:14:55
3	As 188.979†	4.5	24.8	22.189	µg/L	22.189 ppb	09:15:15
3	B 249.677†	4002.0	408.5	5.9887	µg/L	5.9887 ppb	09:14:55
3	Ba 233.527†	30389.2	29859.5	119.59	µg/L	119.59 ppb	09:14:55
3	Be 313.107†	15397.0	16124.5	4.3043	µg/L	4.3043 ppb	09:14:55
3	Cd 226.502†	829.9	929.9	-0.3607	µg/L	-0.3607 ppb	09:15:15
3	Co 228.616†	659.3	835.2	7.3697	µg/L	7.3697 ppb	09:15:15
3	Cr 267.716†	19385.2	18782.1	148.78	µg/L	148.78 ppb	09:14:55
3	Cu 324.752†	4742.1	1666.0	14.880	µg/L	14.880 ppb	09:14:55
3	Mn 257.610†	1918815.0	1876555.9	2321.6	µg/L	2321.6 ppb	09:14:53
3	Mo 202.031†	700.8	705.5	23.101	µg/L	23.101 ppb	09:15:15
3	Ni 231.604†	7002.1	6925.3	79.739	µg/L	79.739 ppb	09:14:55
3	P 214.914†	2269.9	2238.2	440.61	µg/L	440.61 ppb	09:15:15
3	Pb 220.353†	313.8	220.5	12.832	µg/L	12.832 ppb	09:15:15
3	S 181.975 Axial†	238.0	127.7	95.001	µg/L	95.001 ppb	09:15:15
3	Sb 206.836†	103.3	20.2	-0.2794	µg/L	-0.2794 ppb	09:15:15
3	Se 196.026†	-32.5	-47.1	3.19	µg/L	3.19 ppb	09:15:15
3	SiO2†	395676.6	385235.9	37653	µg/L	37653 ppb	09:14:53
3	Si 251.611†	1220885.4	1193311.6	17593	µg/L	17593 ppb	09:14:53
3	Sn 189.927†	64.7	64.4	7.8836	µg/L	7.8836 ppb	09:15:15
3	Ti 334.940†	1255661.8	1227210.4	1146.6	µg/L	1146.6 ppb	09:14:53
3	Tl 190.801†	-292.2	-169.2	-3.1789	µg/L	-3.1789 ppb	09:15:15
3	U 409.014†	-5257.2	-4872.2	-282.13	µg/L	-282.13 ppb	09:14:53
3	V 292.402†	4722.8	4215.6	13.930	µg/L	13.930 ppb	09:14:55
3	Zn 213.857†	30040.8	28818.5	155.77	µg/L	155.77 ppb	09:14:55

Mean Data: 248860008|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1760670.4	102.47	%	0.201				0.20%
Sc RADIAL	144921.4	99.3	%	0.47				0.47%
Y 371.029	1364289.7	132.88	%	0.207				0.16%
Ag 328.068†	25.3	-1.1061	µg/L	0.21952	-1.1061	ppb	0.21952	19.85%
Al 396.153Radial†	55779.1	10340	µg/L	35.0	10340	ppb	35.0	0.34%
As 188.979†	21.0	21.072	µg/L	0.9714	21.072	ppb	0.9714	4.61%
B 249.677†	369.5	5.4137	µg/L	0.52781	5.4137	ppb	0.52781	9.75%
Ba 233.527†	29577.5	118.45	µg/L	1.001	118.45	ppb	1.001	0.84%
Be 313.107†	16118.8	4.2996	µg/L	0.01155	4.2996	ppb	0.01155	0.27%
Ca 317.933Radial†	48551.3	2704.5	µg/L	5.71	2704.5	ppb	5.71	0.21%
Cd 226.502†	939.9	-0.3109	µg/L	0.11245	-0.3109	ppb	0.11245	36.17%
Co 228.616†	819.4	7.1673	µg/L	0.17963	7.1673	ppb	0.17963	2.51%
Cr 267.716†	18587.0	147.27	µg/L	1.313	147.27	ppb	1.313	0.89%
Cu 324.752†	1588.8	14.589	µg/L	0.3821	14.589	ppb	0.3821	2.62%
Fe 238.204 Radial†	959661.5	59148	µg/L	108.3	59148	ppb	108.3	0.18%
K 766.490 Radial†	7890.0	2885.4	µg/L	50.18	2885.4	ppb	50.18	1.74%
Mg 279.077 IEC†	3774.8	1356.2	µg/L	12.79	1356.2	ppb	12.79	0.94%
Mn 257.610†	1876880.3	2322.1	µg/L	2.53	2322.1	ppb	2.53	0.11%
Mo 202.031†	698.6	22.902	µg/L	0.2547	22.902	ppb	0.2547	1.11%
Na 589.592 Radial†	14991.5	2045.5	µg/L	15.86	2045.5	ppb	15.86	0.78%

Ni 231.604†	6861.2	79.002	µg/L	0.7286	79.002	ppb	0.7286	0.92%
P 214.914†	2240.4	441.02	µg/L	0.491	441.02	ppb	0.491	0.11%
Pb 220.353†	220.1	12.811	µg/L	0.5144	12.811	ppb	0.5144	4.02%
S 181.975 Axial†	129.8	96.557	µg/L	1.3827	96.557	ppb	1.3827	1.43%
Sb 206.836†	21.6	-0.0968	µg/L	1.61953	-0.0968	ppb	1.61953	>999.9%
Se 196.026†	-53.1	1.05	µg/L	2.931	1.05	ppb	2.931	278.80%
SiO2†	385609.4	37690	µg/L	39.1	37690	ppb	39.1	0.10%
Si 251.611†	1193935.5	17602	µg/L	10.9	17602	ppb	10.9	0.06%
Sn 189.927†	67.6	8.0803	µg/L	0.42082	8.0803	ppb	0.42082	5.21%
Sr 421.552†	10856.0	22.548	µg/L	0.1888	22.548	ppb	0.1888	0.84%
Ti 334.940†	1227386.7	1146.7	µg/L	0.91	1146.7	ppb	0.91	0.08%
Tl 190.801†	-175.8	-3.9885	µg/L	0.78324	-3.9885	ppb	0.78324	19.64%
U 409.014†	-5050.8	-292.58	µg/L	14.553	-292.58	ppb	14.553	4.97%
Concentration less than lower limit for U 409.014.								
V 292.402†	4271.6	14.175	µg/L	0.3383	14.175	ppb	0.3383	2.39%
Zn 213.857†	28465.6	153.78	µg/L	1.808	153.78	ppb	1.808	1.18%

Sequence No.: 17
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 9:15:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142720.5	142720.5	97.8	%			09:15:56
1	Al 396.153Radial†	25914.7	26560.7	4902.9	µg/L	4902.9	ppb	09:15:56
1	Ca 317.933Radial†	83000.0	84305.8	4696.2	µg/L	4696.2	ppb	09:15:56
1	Fe 238.204 Radial†	75111.1	76652.0	4724.4	µg/L	4724.4	ppb	09:15:56
1	K 766.490 Radial†	14402.9	13182.0	4822.2	µg/L	4822.2	ppb	09:15:56
1	Mg 279.077 IEC†	12808.8	12906.1	4815.9	µg/L	4815.9	ppb	09:15:56
1	Na 589.592 Radial†	69346.9	69615.4	9506.0	µg/L	9506.0	ppb	09:15:56
1	Sr 421.552†	227631.5	232885.3	484.12	µg/L	484.12	ppb	09:15:54
1	Sc 361.383	1739182.8	1739182.8	101.22	%			09:16:09
1	Y 371.029	1023647.0	1023647.0	99.704	%			09:16:09
1	Ag 328.068†	130007.3	124348.7	466.29	µg/L	466.29	ppb	09:16:09
1	As 188.979†	1619.6	1620.5	496.84	µg/L	496.84	ppb	09:16:29
1	B 249.677†	35111.7	31182.5	458.26	µg/L	458.26	ppb	09:16:09
1	Ba 233.527†	117413.7	116134.2	468.36	µg/L	468.36	ppb	09:16:09
1	Be 313.107†	1772413.9	1752112.9	477.20	µg/L	477.20	ppb	09:16:09
1	Cd 226.502†	75069.8	74283.1	463.70	µg/L	463.70	ppb	09:16:09
1	Co 228.616†	38210.7	37940.3	468.37	µg/L	468.37	ppb	09:16:09
1	Cr 267.716†	60298.5	59393.0	465.04	µg/L	465.04	ppb	09:16:09
1	Cu 324.752†	124427.2	119955.1	467.61	µg/L	467.61	ppb	09:16:09
1	Mn 257.610†	384985.1	380107.0	470.10	µg/L	470.10	ppb	09:16:09
1	Mo 202.031†	15882.6	15711.2	462.16	µg/L	462.16	ppb	09:16:29
1	Ni 231.604†	40915.0	40498.3	466.31	µg/L	466.31	ppb	09:16:09
1	P 214.914†	10897.8	10784.4	2298.5	µg/L	2298.5	ppb	09:16:29
1	Pb 220.353†	8501.1	8312.3	465.49	µg/L	465.49	ppb	09:16:29
1	S 181.975 Axial†	1329.6	1208.6	901.35	µg/L	901.35	ppb	09:16:29
1	Sb 206.836†	3997.2	3868.2	460.84	µg/L	460.84	ppb	09:16:29
1	Se 196.026†	1283.3	1252.5	455	µg/L	455	ppb	09:16:29
1	SiO2†	52757.6	50346.2	4901.1	µg/L	4901.1	ppb	09:16:09
1	Si 251.611†	159563.6	156803.6	2302.5	µg/L	2302.5	ppb	09:16:09
1	Sn 189.927†	7475.3	7386.3	462.03	µg/L	462.03	ppb	09:16:29
1	Ti 334.940†	507312.8	500244.8	466.76	µg/L	466.76	ppb	09:16:09
1	Tl 190.801†	3705.7	3777.7	471.18	µg/L	471.18	ppb	09:16:29
1	U 409.014†	7101.8	7286.1	454.41	µg/L	454.41	ppb	09:16:09
1	V 292.402†	96822.7	95251.7	470.80	µg/L	470.80	ppb	09:16:09
1	Zn 213.857†	84223.8	82644.1	460.58	µg/L	460.58	ppb	09:16:09
2	Sc RADIAL	143698.7	143698.7	98.5	%			09:16:00
2	Al 396.153Radial†	26180.7	26650.4	4919.4	µg/L	4919.4	ppb	09:16:00
2	Ca 317.933Radial†	83645.8	84384.0	4700.5	µg/L	4700.5	ppb	09:16:00
2	Fe 238.204 Radial†	75952.4	76983.6	4744.8	µg/L	4744.8	ppb	09:16:00
2	K 766.490 Radial†	14556.8	13238.0	4842.7	µg/L	4842.7	ppb	09:16:00
2	Mg 279.077 IEC†	12951.4	12961.8	4836.6	µg/L	4836.6	ppb	09:16:00
2	Na 589.592 Radial†	69801.9	69594.9	9503.2	µg/L	9503.2	ppb	09:16:00
2	Sr 421.552†	225333.1	228967.0	475.97	µg/L	475.97	ppb	09:15:58
2	Sc 361.383	1731776.9	1731776.9	100.79	%			09:16:32
2	Y 371.029	1018706.8	1018706.8	99.223	%			09:16:32
2	Ag 328.068†	129384.6	124280.2	466.07	µg/L	466.07	ppb	09:16:32
2	As 188.979†	1598.7	1606.6	492.65	µg/L	492.65	ppb	09:16:52
2	B 249.677†	35227.6	31445.9	462.15	µg/L	462.15	ppb	09:16:32
2	Ba 233.527†	117106.0	116324.9	469.13	µg/L	469.13	ppb	09:16:32
2	Be 313.107†	1765692.9	1752932.8	477.42	µg/L	477.42	ppb	09:16:32
2	Cd 226.502†	74778.6	74311.3	463.88	µg/L	463.88	ppb	09:16:32
2	Co 228.616†	38104.8	37996.8	469.07	µg/L	469.07	ppb	09:16:32
2	Cr 267.716†	60129.2	59479.9	465.72	µg/L	465.72	ppb	09:16:32
2	Cu 324.752†	124214.9	120270.1	468.84	µg/L	468.84	ppb	09:16:32
2	Mn 257.610†	383158.7	379921.4	469.87	µg/L	469.87	ppb	09:16:32
2	Mo 202.031†	15866.4	15762.2	463.66	µg/L	463.66	ppb	09:16:52
2	Ni 231.604†	40717.2	40474.9	466.04	µg/L	466.04	ppb	09:16:32
2	P 214.914†	10914.4	10846.9	2311.9	µg/L	2311.9	ppb	09:16:52
2	Pb 220.353†	8495.6	8342.7	467.19	µg/L	467.19	ppb	09:16:52

2	S 181.975 Axial†	1322.2	1206.8	900.03 µg/L	900.03 ppb	09:16:52
2	Sb 206.836†	3971.5	3859.6	459.83 µg/L	459.83 ppb	09:16:52
2	Se 196.026†	1292.9	1267.5	460 µg/L	460 ppb	09:16:52
2	SiO2†	52661.0	50473.3	4913.5 µg/L	4913.5 ppb	09:16:32
2	Si 251.611†	158766.1	156686.4	2300.8 µg/L	2300.8 ppb	09:16:32
2	Sn 189.927†	7490.6	7433.1	464.95 µg/L	464.95 ppb	09:16:52
2	Ti 334.940†	505365.8	500456.4	466.96 µg/L	466.96 ppb	09:16:32
2	Tl 190.801†	3703.0	3790.7	472.79 µg/L	472.79 ppb	09:16:52
2	U 409.014†	7111.9	7326.1	456.86 µg/L	456.86 ppb	09:16:32
2	V 292.402†	96842.9	95680.9	472.91 µg/L	472.91 ppb	09:16:32
2	Zn 213.857†	83738.0	82518.0	459.87 µg/L	459.87 ppb	09:16:32
3	Sc RADIAL	142406.1	142406.1	97.6 %		09:16:04
3	Al 396.153Radial†	26011.2	26718.0	4931.9 µg/L	4931.9 ppb	09:16:04
3	Ca 317.933Radial†	83220.8	84719.4	4719.2 µg/L	4719.2 ppb	09:16:04
3	Fe 238.204 Radial†	75398.1	77115.7	4752.9 µg/L	4752.9 ppb	09:16:04
3	K 766.490 Radial†	14496.2	13310.1	4869.1 µg/L	4869.1 ppb	09:16:04
3	Mg 279.077 IEC†	12824.0	12950.6	4832.5 µg/L	4832.5 ppb	09:16:04
3	Na 589.592 Radial†	69646.3	70078.8	9569.3 µg/L	9569.3 ppb	09:16:04
3	Sr 421.552†	224502.5	230192.8	478.52 µg/L	478.52 ppb	09:16:02
3	Sc 361.383	1731150.1	1731150.1	100.75 %		09:16:55
3	Y 371.029	1018095.1	1018095.1	99.163 %		09:16:55
3	Ag 328.068†	129601.7	124542.1	467.03 µg/L	467.03 ppb	09:16:55
3	As 188.979†	1607.1	1615.4	495.34 µg/L	495.34 ppb	09:17:15
3	B 249.677†	35255.6	31486.3	462.74 µg/L	462.74 ppb	09:16:55
3	Ba 233.527†	117171.4	116431.9	469.57 µg/L	469.57 ppb	09:16:55
3	Be 313.107†	1771145.4	1758978.9	479.07 µg/L	479.07 ppb	09:16:55
3	Cd 226.502†	74795.8	74355.2	464.15 µg/L	464.15 ppb	09:16:55
3	Co 228.616†	38018.1	37924.4	468.17 µg/L	468.17 ppb	09:16:55
3	Cr 267.716†	60018.6	59391.7	465.04 µg/L	465.04 ppb	09:16:55
3	Cu 324.752†	124565.0	120662.2	470.36 µg/L	470.36 ppb	09:16:55
3	Mn 257.610†	383611.7	380508.7	470.60 µg/L	470.60 ppb	09:16:55
3	Mo 202.031†	15941.9	15842.9	466.04 µg/L	466.04 ppb	09:17:15
3	Ni 231.604†	40762.3	40534.3	466.72 µg/L	466.72 ppb	09:16:55
3	P 214.914†	10932.7	10869.0	2316.6 µg/L	2316.6 ppb	09:17:15
3	Pb 220.353†	8511.1	8361.1	468.23 µg/L	468.23 ppb	09:17:15
3	S 181.975 Axial†	1334.9	1219.8	909.74 µg/L	909.74 ppb	09:17:15
3	Sb 206.836†	4006.7	3896.0	464.20 µg/L	464.20 ppb	09:17:15
3	Se 196.026†	1301.5	1276.5	464 µg/L	464 ppb	09:17:15
3	SiO2†	52640.5	50471.8	4913.2 µg/L	4913.2 ppb	09:16:55
3	Si 251.611†	159281.3	157254.8	2309.1 µg/L	2309.1 ppb	09:16:55
3	Sn 189.927†	7523.3	7468.2	467.14 µg/L	467.14 ppb	09:17:15
3	Ti 334.940†	506629.5	501892.2	468.30 µg/L	468.30 ppb	09:16:55
3	Tl 190.801†	3714.2	3803.1	474.33 µg/L	474.33 ppb	09:17:15
3	U 409.014†	7013.0	7230.5	451.28 µg/L	451.28 ppb	09:16:55
3	V 292.402†	96801.7	95674.8	472.90 µg/L	472.90 ppb	09:16:55
3	Zn 213.857†	84088.5	82895.9	461.99 µg/L	461.99 ppb	09:16:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1734036.6	100.92	%	0.260				0.26%
Sc RADIAL	142941.8	98.0	%	0.46				0.47%
Y 371.029	1020149.6	99.363	%	0.2965				0.30%
Ag 328.068†	124390.4	466.46	µg/L	0.503	466.46	ppb	0.503	0.11%
QC value within limits for Ag 328.068 Recovery = 93.29%								
Al 396.153Radial†	26643.0	4918.1	µg/L	14.55	4918.1	ppb	14.55	0.30%
QC value within limits for Al 396.153Radial Recovery = 98.36%								
As 188.979†	1614.2	494.95	µg/L	2.124	494.95	ppb	2.124	0.43%
QC value within limits for As 188.979 Recovery = 98.99%								
B 249.677†	31371.6	461.05	µg/L	2.433	461.05	ppb	2.433	0.53%
QC value within limits for B 249.677 Recovery = 92.21%								
Ba 233.527†	116297.0	469.02	µg/L	0.609	469.02	ppb	0.609	0.13%
QC value within limits for Ba 233.527 Recovery = 93.80%								
Be 313.107†	1754674.8	477.89	µg/L	1.020	477.89	ppb	1.020	0.21%
QC value within limits for Be 313.107 Recovery = 95.58%								
Ca 317.933Radial†	84469.7	4705.3	µg/L	12.24	4705.3	ppb	12.24	0.26%
QC value within limits for Ca 317.933Radial Recovery = 94.11%								
Cd 226.502†	74316.5	463.91	µg/L	0.226	463.91	ppb	0.226	0.05%
QC value within limits for Cd 226.502 Recovery = 92.78%								
Co 228.616†	37953.8	468.54	µg/L	0.469	468.54	ppb	0.469	0.10%

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   QC value within limits for Co 228.616  Recovery = 93.71%
Cr 267.716†            59421.5      465.27 µg/L         0.394      465.27 ppb          0.394   0.08%
   QC value within limits for Cr 267.716  Recovery = 93.05%
Cu 324.752†           120295.8      468.94 µg/L         1.377      468.94 ppb          1.377   0.29%
   QC value within limits for Cu 324.752  Recovery = 93.79%
Fe 238.204 Radial†     76917.1      4740.7 µg/L         14.72      4740.7 ppb          14.72   0.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.81%
K 766.490 Radial†      13243.4      4844.7 µg/L         23.50      4844.7 ppb          23.50   0.48%
   QC value within limits for K 766.490 Radial  Recovery = 96.89%
Mg 279.077 IEC†        12939.5      4828.3 µg/L         10.99      4828.3 ppb          10.99   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.57%
Mn 257.610†           380179.0      470.19 µg/L         0.371      470.19 ppb          0.371   0.08%
   QC value within limits for Mn 257.610  Recovery = 94.04%
Mo 202.031†            15772.1      463.95 µg/L         1.952      463.95 ppb          1.952   0.42%
   QC value within limits for Mo 202.031  Recovery = 92.79%
Na 589.592 Radial†     69763.0      9526.2 µg/L         37.36      9526.2 ppb          37.36   0.39%
   QC value within limits for Na 589.592 Radial  Recovery = 95.26%
Ni 231.604†            40502.5      466.36 µg/L         0.344      466.36 ppb          0.344   0.07%
   QC value within limits for Ni 231.604  Recovery = 93.27%
P 214.914†             10833.5      2309.0 µg/L          9.37      2309.0 ppb           9.37   0.41%
   QC value within limits for P 214.914  Recovery = 92.36%
Pb 220.353†             8338.7      466.97 µg/L         1.384      466.97 ppb          1.384   0.30%
   QC value within limits for Pb 220.353  Recovery = 93.39%
S 181.975 Axial†        1211.7      903.71 µg/L         5.268      903.71 ppb          5.268   0.58%
   QC value within limits for S 181.975 Axial  Recovery = 90.37%
Sb 206.836†             3874.6      461.62 µg/L         2.290      461.62 ppb          2.290   0.50%
   QC value within limits for Sb 206.836  Recovery = 92.32%
Se 196.026†             1265.5         460 µg/L           4.4         460 ppb            4.4   0.95%
   QC value within limits for Se 196.026  Recovery = 91.91%
SiO2†                  50430.5      4909.3 µg/L          7.05      4909.3 ppb           7.05   0.14%
   QC value within limits for SiO2  Recovery = 91.80%
Si 251.611†           156914.9      2304.1 µg/L          4.39      2304.1 ppb           4.39   0.19%
   QC value within limits for Si 251.611  Recovery = 92.17%
Sn 189.927†             7429.2      464.71 µg/L         2.564      464.71 ppb          2.564   0.55%
   QC value within limits for Sn 189.927  Recovery = 92.94%
Sr 421.552†           230681.7      479.54 µg/L         4.167      479.54 ppb          4.167   0.87%
   QC value within limits for Sr 421.552  Recovery = 95.91%
Ti 334.940†           500864.5      467.34 µg/L         0.838      467.34 ppb          0.838   0.18%
   QC value within limits for Ti 334.940  Recovery = 93.47%
Tl 190.801†             3790.5      472.77 µg/L         1.579      472.77 ppb          1.579   0.33%
   QC value within limits for Tl 190.801  Recovery = 94.55%
U 409.014†              7280.9      454.18 µg/L         2.800      454.18 ppb          2.800   0.62%
   QC value within limits for U 409.014  Recovery = 90.84%
V 292.402†             95535.8      472.20 µg/L         1.215      472.20 ppb          1.215   0.26%
   QC value within limits for V 292.402  Recovery = 94.44%
Zn 213.857†            82686.0      460.82 µg/L         1.078      460.82 ppb          1.078   0.23%
   QC value within limits for Zn 213.857  Recovery = 92.16%
All analyte(s) passed QC.
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Sequence No.: 18 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/1/2010 9:17:23**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146508.3	146508.3	100	%			09:17:52
1	Al 396.153Radial†	-42.1	21.3	3.9436	µg/L	3.9436	ppb	09:18:12
1	Ca 317.933Radial†	770.8	207.2	11.540	µg/L	11.540	ppb	09:18:12
1	Fe 238.204 Radial†	236.5	87.5	5.3919	µg/L	5.3919	ppb	09:18:12
1	K 766.490 Radial†	1742.2	190.6	69.763	µg/L	69.763	ppb	09:17:52
1	Mg 279.077 IEC†	163.8	-27.5	-10.261	µg/L	-10.261	ppb	09:18:12
1	Na 589.592 Radial†	1317.5	21.5	2.8763	µg/L	2.8763	ppb	09:17:52
1	Sr 421.552†	-320.3	-183.7	-0.3821	µg/L	-0.3821	ppb	09:17:52
1	Sc 361.383	1765466.2	1765466.2	102.75	%			09:19:00
1	Y 371.029	1051106.2	1051106.2	102.38	%			09:19:00
1	Ag 328.068†	4296.1	89.7	0.3320	µg/L	0.3320	ppb	09:19:02
1	As 188.979†	-16.4	4.4	1.3323	µg/L	1.3323	ppb	09:19:22
1	B 249.677†	3441.7	-156.3	-2.3076	µg/L	-2.3076	ppb	09:19:02
1	Ba 233.527†	-137.3	2.2	0.0087	µg/L	0.0087	ppb	09:19:22
1	Be 313.107†	-1040.7	51.9	0.0154	µg/L	0.0154	ppb	09:19:02
1	Cd 226.502†	-99.2	21.7	0.1345	µg/L	0.1345	ppb	09:19:22
1	Co 228.616†	-147.6	46.6	0.5751	µg/L	0.5751	ppb	09:19:22
1	Cr 267.716†	155.6	-27.1	-0.2157	µg/L	-0.2157	ppb	09:19:22
1	Cu 324.752†	2956.0	-95.3	-0.3661	µg/L	-0.3661	ppb	09:19:02
1	Mn 257.610†	322.1	76.2	0.0947	µg/L	0.0947	ppb	09:19:22
1	Mo 202.031†	-22.1	-1.5	-0.0429	µg/L	-0.0429	ppb	09:19:22
1	Ni 231.604†	-123.3	-43.5	-0.5009	µg/L	-0.5009	ppb	09:19:22
1	P 214.914†	-51.4	-32.0	-6.8406	µg/L	-6.8406	ppb	09:19:22
1	Pb 220.353†	92.0	3.1	0.1709	µg/L	0.1709	ppb	09:19:22
1	S 181.975 Axial†	109.2	1.2	0.8829	µg/L	0.8829	ppb	09:19:22
1	Sb 206.836†	84.0	0.9	0.1132	µg/L	0.1132	ppb	09:19:22
1	Se 196.026†	6.8	-8.7	-3.12	µg/L	-3.12	ppb	09:19:22
1	SiO2†	1821.1	-3.0	-0.3026	µg/L	-0.3026	ppb	09:19:22
1	Si 251.611†	995.9	132.7	1.9521	µg/L	1.9521	ppb	09:19:02
1	Sn 189.927†	11.5	12.4	0.7701	µg/L	0.7701	ppb	09:19:22
1	Ti 334.940†	1022.8	42.9	0.0396	µg/L	0.0396	ppb	09:19:02
1	Tl 190.801†	-107.5	12.0	1.4741	µg/L	1.4741	ppb	09:19:22
1	U 409.014†	-205.5	69.9	4.0612	µg/L	4.0612	ppb	09:19:02
1	V 292.402†	329.3	-83.3	-0.4056	µg/L	-0.4056	ppb	09:19:02
1	Zn 213.857†	621.3	40.2	0.2288	µg/L	0.2288	ppb	09:19:22
2	Sc RADIAL	145418.6	145418.6	99.6	%			09:18:14
2	Al 396.153Radial†	-47.7	15.3	2.8430	µg/L	2.8430	ppb	09:18:34
2	Ca 317.933Radial†	761.0	203.1	11.314	µg/L	11.314	ppb	09:18:34
2	Fe 238.204 Radial†	223.6	76.3	4.7037	µg/L	4.7037	ppb	09:18:34
2	K 766.490 Radial†	1827.8	289.5	105.98	µg/L	105.98	ppb	09:18:14
2	Mg 279.077 IEC†	168.3	-21.8	-8.1364	µg/L	-8.1364	ppb	09:18:34
2	Na 589.592 Radial†	1409.7	123.8	16.822	µg/L	16.822	ppb	09:18:14
2	Sr 421.552†	-215.8	-81.2	-0.1690	µg/L	-0.1690	ppb	09:18:14
2	Sc 361.383	1771445.2	1771445.2	103.10	%			09:19:24
2	Y 371.029	1053904.6	1053904.6	102.65	%			09:19:24
2	Ag 328.068†	4214.4	-3.6	0.0007	µg/L	0.0007	ppb	09:19:27
2	As 188.979†	-7.8	12.8	3.8773	µg/L	3.8773	ppb	09:19:47
2	B 249.677†	3468.6	-141.6	-2.0893	µg/L	-2.0893	ppb	09:19:27
2	Ba 233.527†	-90.8	47.8	0.1926	µg/L	0.1926	ppb	09:19:47
2	Be 313.107†	-1022.4	73.0	0.0227	µg/L	0.0227	ppb	09:19:27
2	Cd 226.502†	-113.7	7.9	0.0487	µg/L	0.0487	ppb	09:19:47
2	Co 228.616†	-160.0	35.1	0.4327	µg/L	0.4327	ppb	09:19:47
2	Cr 267.716†	178.6	-5.4	-0.0490	µg/L	-0.0490	ppb	09:19:47
2	Cu 324.752†	3045.6	-18.1	-0.0621	µg/L	-0.0621	ppb	09:19:27
2	Mn 257.610†	298.5	52.3	0.0650	µg/L	0.0650	ppb	09:19:47
2	Mo 202.031†	-20.0	0.7	0.0209	µg/L	0.0209	ppb	09:19:47
2	Ni 231.604†	-121.1	-41.0	-0.4719	µg/L	-0.4719	ppb	09:19:47
2	P 214.914†	-40.3	-21.2	-4.5321	µg/L	-4.5321	ppb	09:19:47
2	Pb 220.353†	68.6	-19.9	-1.1170	µg/L	-1.1170	ppb	09:19:47

2	S 181.975 Axial†	98.3	-9.7	-7.1956	µg/L	-7.1956 ppb	09:19:47
2	Sb 206.836†	77.5	-5.7	-0.6711	µg/L	-0.6711 ppb	09:19:47
2	Se 196.026†	23.8	7.8	2.82	µg/L	2.82 ppb	09:19:47
2	SiO2†	1844.0	13.2	1.2917	µg/L	1.2917 ppb	09:19:47
2	Si 251.611†	937.2	72.5	1.0700	µg/L	1.0700 ppb	09:19:27
2	Sn 189.927†	-5.6	-4.3	-0.2703	µg/L	-0.2703 ppb	09:19:47
2	Ti 334.940†	905.9	-73.9	-0.0719	µg/L	-0.0719 ppb	09:19:27
2	Tl 190.801†	-109.5	10.5	1.2907	µg/L	1.2907 ppb	09:19:47
2	U 409.014†	-114.4	158.9	9.3055	µg/L	9.3055 ppb	09:19:27
2	V 292.402†	469.3	51.4	0.2568	µg/L	0.2568 ppb	09:19:27
2	Zn 213.857†	618.7	35.7	0.2030	µg/L	0.2030 ppb	09:19:47
3	Sc RADIAL	142887.6	142887.6	97.9	%		09:18:36
3	Al 396.153Radial†	-59.9	2.0	0.3551	µg/L	0.3551 ppb	09:18:56
3	Ca 317.933Radial†	748.3	203.7	11.345	µg/L	11.345 ppb	09:18:56
3	Fe 238.204 Radial†	192.3	48.3	2.9782	µg/L	2.9782 ppb	09:18:56
3	K 766.490 Radial†	1709.6	201.2	73.665	µg/L	73.665 ppb	09:18:36
3	Mg 279.077 IEC†	166.8	-20.3	-7.5569	µg/L	-7.5569 ppb	09:18:56
3	Na 589.592 Radial†	1256.8	-7.3	-1.0567	µg/L	-1.0567 ppb	09:18:36
3	Sr 421.552†	-290.8	-161.7	-0.3362	µg/L	-0.3362 ppb	09:18:36
3	Sc 361.383	1771549.2	1771549.2	103.10	%		09:19:49
3	Y 371.029	1053491.0	1053491.0	102.61	%		09:19:49
3	Ag 328.068†	4216.0	-2.3	-0.0293	µg/L	-0.0293 ppb	09:19:51
3	As 188.979†	-22.6	-1.5	-0.4584	µg/L	-0.4584 ppb	09:20:11
3	B 249.677†	3542.6	-70.0	-1.0335	µg/L	-1.0335 ppb	09:19:51
3	Ba 233.527†	-108.8	30.3	0.1223	µg/L	0.1223 ppb	09:20:11
3	Be 313.107†	-1076.7	20.4	-0.0001	µg/L	-0.0001 ppb	09:19:51
3	Cd 226.502†	-114.8	6.9	0.0425	µg/L	0.0425 ppb	09:20:11
3	Co 228.616†	-165.3	30.0	0.3696	µg/L	0.3696 ppb	09:20:11
3	Cr 267.716†	182.3	-1.8	0.0011	µg/L	0.0011 ppb	09:20:11
3	Cu 324.752†	3066.6	2.1	-0.0069	µg/L	-0.0069 ppb	09:19:51
3	Mn 257.610†	295.4	49.2	0.0612	µg/L	0.0612 ppb	09:20:11
3	Mo 202.031†	-5.8	14.5	0.4253	µg/L	0.4253 ppb	09:20:11
3	Ni 231.604†	-95.8	-16.4	-0.1892	µg/L	-0.1892 ppb	09:20:11
3	P 214.914†	-48.0	-28.6	-6.1161	µg/L	-6.1161 ppb	09:20:11
3	Pb 220.353†	95.0	5.7	0.3355	µg/L	0.3355 ppb	09:20:11
3	S 181.975 Axial†	105.8	-2.5	-1.8176	µg/L	-1.8176 ppb	09:20:11
3	Sb 206.836†	69.2	-13.7	-1.6256	µg/L	-1.6256 ppb	09:20:11
3	Se 196.026†	27.0	10.9	3.93	µg/L	3.93 ppb	09:20:11
3	SiO2†	1819.3	-10.8	-1.0719	µg/L	-1.0719 ppb	09:20:11
3	Si 251.611†	940.3	75.4	1.1059	µg/L	1.1059 ppb	09:19:51
3	Sn 189.927†	-1.5	-0.3	-0.0187	µg/L	-0.0187 ppb	09:20:11
3	Ti 334.940†	1117.6	131.4	0.1313	µg/L	0.1313 ppb	09:19:51
3	Tl 190.801†	-110.7	9.4	1.1507	µg/L	1.1507 ppb	09:20:11
3	U 409.014†	-606.9	-318.8	-18.627	µg/L	-18.627 ppb	09:19:51
3	V 292.402†	462.7	45.0	0.2108	µg/L	0.2108 ppb	09:19:51
3	Zn 213.857†	594.2	11.9	0.0679	µg/L	0.0679 ppb	09:20:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769486.9	102.98	%	0.203				0.20%
Sc RADIAL	144938.2	99.3	%	1.27				1.28%
Y 371.029	1052833.9	102.55	%	0.147				0.14%
Ag 328.068†	27.9	0.1011	µg/L	0.20048	0.1011	ppb	0.20048	198.24%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.9	2.3806	µg/L	1.83843	2.3806	ppb	1.83843	77.23%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.2	1.5838	µg/L	2.17878	1.5838	ppb	2.17878	137.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-122.6	-1.8101	µg/L	0.68138	-1.8101	ppb	0.68138	37.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	26.8	0.1079	µg/L	0.09277	0.1079	ppb	0.09277	86.00%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	48.4	0.0127	µg/L	0.01162	0.0127	ppb	0.01162	91.82%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	204.7	11.400	µg/L	0.1226	11.400	ppb	0.1226	1.08%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	12.1	0.0752	µg/L	0.05140	0.0752	ppb	0.05140	68.32%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	37.2	0.4591	µg/L	0.10528	0.4591	ppb	0.10528	22.93%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -11.4     -0.0879 µg/L       0.11351     -0.0879 ppb        0.11351 129.15%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -37.1     -0.1450 µg/L       0.19343     -0.1450 ppb        0.19343 133.37%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        70.7      4.3579 µg/L       1.24344      4.3579 ppb        1.24344  28.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        227.1     83.136 µg/L       19.8802     83.136 ppb        19.8802  23.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -23.2     -8.6515 µg/L       1.42383     -8.6515 ppb        1.42383  16.46%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               59.3      0.0736 µg/L       0.01835      0.0736 ppb        0.01835  24.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.6      0.1344 µg/L       0.25391      0.1344 ppb        0.25391 188.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        46.0      6.2138 µg/L       9.39480      6.2138 ppb        9.39480 151.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -33.6     -0.3873 µg/L       0.17217     -0.3873 ppb        0.17217  44.45%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -27.3     -5.8296 µg/L       1.18065     -5.8296 ppb        1.18065  20.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -3.7     -0.2035 µg/L       0.79535     -0.2035 ppb        0.79535 390.74%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.7     -2.7101 µg/L       4.11255     -2.7101 ppb        4.11255 151.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -6.2     -0.7278 µg/L       0.87080     -0.7278 ppb        0.87080 119.65%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.3        1.21 µg/L         3.790        1.21 ppb          3.790 313.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -0.2     -0.0276 µg/L       1.20554     -0.0276 ppb        1.20554 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               93.5      1.3760 µg/L       0.49927      1.3760 ppb        0.49927  36.28%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.6      0.1604 µg/L       0.54277      0.1604 ppb        0.54277 338.42%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -142.2     -0.2958 µg/L       0.11215     -0.2958 ppb        0.11215  37.92%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               33.5      0.0330 µg/L       0.10174      0.0330 ppb        0.10174 308.06%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               10.6      1.3051 µg/L       0.16220      1.3051 ppb        0.16220  12.43%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -30.0     -1.7535 µg/L      14.84641     -1.7535 ppb       14.84641 846.67%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 4.4      0.0207 µg/L       0.36987      0.0207 ppb        0.36987 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               29.3      0.1666 µg/L       0.08640      0.1666 ppb        0.08640  51.87%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: 248860009|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 315
Date Collected: 4/1/2010 9:20:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248860009|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144604.3	144604.3	99.1	%			09:20:51
1	Al 396.153Radial†	57145.1	57732.1	10703	µg/L	10703	ppb	09:20:53
1	Ca 317.933Radial†	28354.3	28053.6	1562.7	µg/L	1562.7	ppb	09:20:53
1	Fe 238.204 Radial†	964796.1	973491.6	60000	µg/L	60000	ppb	09:20:51
1	K 766.490 Radial†	7580.2	6104.9	2232.1	µg/L	2232.1	ppb	09:20:53
1	Mg 279.077 IEC†	2544.8	2377.5	834.55	µg/L	834.55	ppb	09:20:53
1	Na 589.592 Radial†	14063.1	12901.2	1760.5	µg/L	1760.5	ppb	09:20:53
1	Sr 421.552†	21588.7	21921.9	45.562	µg/L	45.562	ppb	09:20:53
1	Sc 361.383	1765636.0	1765636.0	102.76	%			09:21:05
1	Y 371.029	1408819.2	1408819.2	137.22	%			09:21:05
1	Ag 328.068†	4241.3	36.0	-0.7660	µg/L	-0.7660	ppb	09:21:07
1	As 188.979†	-13.7	7.0	15.768	µg/L	15.768	ppb	09:21:27
1	B 249.677†	5033.0	1392.0	20.513	µg/L	20.513	ppb	09:21:07
1	Ba 233.527†	46745.8	45626.2	183.10	µg/L	183.10	ppb	09:21:07
1	Be 313.107†	9322.5	10136.8	2.6858	µg/L	2.6858	ppb	09:21:07
1	Cd 226.502†	863.7	958.7	-0.3155	µg/L	-0.3155	ppb	09:21:27
1	Co 228.616†	193.5	378.6	1.7252	µg/L	1.7252	ppb	09:21:27
1	Cr 267.716†	2404.1	2161.0	18.830	µg/L	18.830	ppb	09:21:07
1	Cu 324.752†	4333.2	1244.6	13.399	µg/L	13.399	ppb	09:21:07
1	Mn 257.610†	1210449.0	1177703.6	1457.0	µg/L	1457.0	ppb	09:21:05
1	Mo 202.031†	266.2	279.1	10.598	µg/L	10.598	ppb	09:21:27
1	Ni 231.604†	1054.0	1102.2	12.691	µg/L	12.691	ppb	09:21:27
1	P 214.914†	2338.1	2293.3	451.99	µg/L	451.99	ppb	09:21:27
1	Pb 220.353†	427.8	329.9	18.127	µg/L	18.127	ppb	09:21:27
1	S 181.975 Axial†	294.9	182.0	135.19	µg/L	135.19	ppb	09:21:27
1	Sb 206.836†	84.6	1.5	-0.7409	µg/L	-0.7409	ppb	09:21:27
1	Se 196.026†	-59.3	-73.0	-5.80	µg/L	-5.80	ppb	09:21:27
1	SiO2†	334030.4	323284.2	31598	µg/L	31598	ppb	09:21:07
1	Si 251.611†	1025199.2	996829.6	14696	µg/L	14696	ppb	09:21:05
1	Sn 189.927†	130.6	128.2	9.9898	µg/L	9.9898	ppb	09:21:27
1	Ti 334.940†	652288.7	633818.1	592.22	µg/L	592.22	ppb	09:21:05
1	Tl 190.801†	-236.5	-113.5	-4.1140	µg/L	-4.1140	ppb	09:21:27
1	U 409.014†	-4592.2	-4198.9	-248.55	µg/L	-248.55	ppb	09:21:05
1	V 292.402†	4504.5	3979.7	12.528	µg/L	12.528	ppb	09:21:07
1	Zn 213.857†	24097.9	22886.3	122.55	µg/L	122.55	ppb	09:21:07
2	Sc RADIAL	148005.9	148005.9	101	%			09:20:55
2	Al 396.153Radial†	55694.0	54976.0	10192	µg/L	10192	ppb	09:20:57
2	Ca 317.933Radial†	27594.0	26646.4	1484.3	µg/L	1484.3	ppb	09:20:57
2	Fe 238.204 Radial†	982784.6	968850.7	59714	µg/L	59714	ppb	09:20:55
2	K 766.490 Radial†	7575.3	5924.3	2166.1	µg/L	2166.1	ppb	09:20:57
2	Mg 279.077 IEC†	2503.2	2277.4	797.51	µg/L	797.51	ppb	09:20:57
2	Na 589.592 Radial†	13765.6	12281.7	1675.9	µg/L	1675.9	ppb	09:20:57
2	Sr 421.552†	20945.3	20786.8	43.203	µg/L	43.203	ppb	09:20:57
2	Sc 361.383	1763943.7	1763943.7	102.66	%			09:21:29
2	Y 371.029	1407457.0	1407457.0	137.09	%			09:21:29
2	Ag 328.068†	3977.7	-216.8	-1.7001	µg/L	-1.7001	ppb	09:21:31
2	As 188.979†	-20.0	0.9	13.862	µg/L	13.862	ppb	09:21:52
2	B 249.677†	4823.5	1192.6	17.573	µg/L	17.573	ppb	09:21:31
2	Ba 233.527†	46618.9	45546.2	182.79	µg/L	182.79	ppb	09:21:31
2	Be 313.107†	8950.4	9783.1	2.5903	µg/L	2.5903	ppb	09:21:31
2	Cd 226.502†	881.7	977.1	-0.1706	µg/L	-0.1706	ppb	09:21:52
2	Co 228.616†	193.4	378.7	1.7411	µg/L	1.7411	ppb	09:21:52
2	Cr 267.716†	2511.3	2267.6	19.653	µg/L	19.653	ppb	09:21:31
2	Cu 324.752†	4253.3	1170.8	13.071	µg/L	13.071	ppb	09:21:31
2	Mn 257.610†	1210076.0	1178470.4	1457.9	µg/L	1457.9	ppb	09:21:29
2	Mo 202.031†	276.4	289.3	10.884	µg/L	10.884	ppb	09:21:52
2	Ni 231.604†	1037.2	1086.8	12.514	µg/L	12.514	ppb	09:21:52
2	P 214.914†	2383.8	2340.0	462.06	µg/L	462.06	ppb	09:21:52
2	Pb 220.353†	402.8	306.0	16.771	µg/L	16.771	ppb	09:21:52

2	S 181.975 Axial†	298.4	185.6	137.91 µg/L	137.91 ppb	09:21:52
2	Sb 206.836†	66.0	-16.6	-2.8872 µg/L	-2.8872 ppb	09:21:52
2	Se 196.026†	-43.4	-57.5	-0.314 µg/L	-0.314 ppb	09:21:52
2	SiO2†	331185.8	320825.2	31358 µg/L	31358 ppb	09:21:31
2	Si 251.611†	1023256.3	995894.2	14682 µg/L	14682 ppb	09:21:29
2	Sn 189.927†	129.5	127.3	9.9327 µg/L	9.9327 ppb	09:21:52
2	Ti 334.940†	652538.9	634670.8	593.02 µg/L	593.02 ppb	09:21:29
2	Tl 190.801†	-245.0	-122.0	-5.1563 µg/L	-5.1563 ppb	09:21:52
2	U 409.014†	-4542.8	-4155.2	-245.95 µg/L	-245.95 ppb	09:21:29
2	V 292.402†	4412.2	3894.1	12.148 µg/L	12.148 ppb	09:21:31
2	Zn 213.857†	23980.9	22794.8	122.06 µg/L	122.06 ppb	09:21:31
3	Sc RADIAL	146680.6	146680.6	101 %		09:20:59
3	Al 396.153Radial†	56218.0	55993.4	10381 µg/L	10381 ppb	09:21:01
3	Ca 317.933Radial†	27806.0	27103.0	1509.7 µg/L	1509.7 ppb	09:21:01
3	Fe 238.204 Radial†	973855.1	968722.0	59706 µg/L	59706 ppb	09:20:59
3	K 766.490 Radial†	7682.6	6098.5	2229.8 µg/L	2229.8 ppb	09:21:01
3	Mg 279.077 IEC†	2493.8	2290.3	802.35 µg/L	802.35 ppb	09:21:01
3	Na 589.592 Radial†	13885.4	12523.5	1708.9 µg/L	1708.9 ppb	09:21:01
3	Sr 421.552†	21005.2	21033.0	43.715 µg/L	43.715 ppb	09:21:01
3	Sc 361.383	1785425.1	1785425.1	103.91 %		09:21:54
3	Y 371.029	1424447.5	1424447.5	138.74 %		09:21:54
3	Ag 328.068†	4003.9	-238.2	-1.7843 µg/L	-1.7843 ppb	09:21:56
3	As 188.979†	-5.3	15.3	18.212 µg/L	18.212 ppb	09:22:16
3	B 249.677†	4960.6	1268.0	18.685 µg/L	18.685 ppb	09:21:56
3	Ba 233.527†	47132.6	45494.2	182.58 µg/L	182.58 ppb	09:21:56
3	Be 313.107†	9442.0	10151.3	2.6890 µg/L	2.6890 ppb	09:21:56
3	Cd 226.502†	843.6	930.0	-0.4638 µg/L	-0.4638 ppb	09:22:16
3	Co 228.616†	180.9	364.4	1.5647 µg/L	1.5647 ppb	09:22:16
3	Cr 267.716†	2632.6	2355.0	20.342 µg/L	20.342 ppb	09:21:56
3	Cu 324.752†	4341.4	1205.8	13.202 µg/L	13.202 ppb	09:21:56
3	Mn 257.610†	1223462.4	1177171.2	1456.3 µg/L	1456.3 ppb	09:21:54
3	Mo 202.031†	279.4	289.0	10.876 µg/L	10.876 ppb	09:22:16
3	Ni 231.604†	1016.5	1054.7	12.144 µg/L	12.144 ppb	09:22:16
3	P 214.914†	2356.1	2285.4	450.43 µg/L	450.43 ppb	09:22:16
3	Pb 220.353†	389.7	288.7	15.817 µg/L	15.817 ppb	09:22:16
3	S 181.975 Axial†	295.1	178.9	132.93 µg/L	132.93 ppb	09:22:16
3	Sb 206.836†	81.9	-2.0	-1.1677 µg/L	-1.1677 ppb	09:22:16
3	Se 196.026†	-38.5	-52.3	1.56 µg/L	1.56 ppb	09:22:16
3	SiO2†	335366.8	320967.5	31372 µg/L	31372 ppb	09:21:56
3	Si 251.611†	1036897.8	997030.0	14699 µg/L	14699 ppb	09:21:54
3	Sn 189.927†	129.6	125.8	9.8379 µg/L	9.8379 ppb	09:22:16
3	Ti 334.940†	658375.2	632640.0	591.12 µg/L	591.12 ppb	09:21:54
3	Tl 190.801†	-227.5	-102.3	-2.7525 µg/L	-2.7525 ppb	09:22:16
3	U 409.014†	-4689.9	-4243.5	-251.11 µg/L	-251.11 ppb	09:21:54
3	V 292.402†	4493.6	3920.6	12.279 µg/L	12.279 ppb	09:21:56
3	Zn 213.857†	24181.7	22707.0	121.57 µg/L	121.57 ppb	09:21:56

Mean Data: 248860009|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1771668.3	103.11	%	0.695				0.67%
Sc RADIAL	146430.3	100	%	1.2				1.17%
Y 371.029	1413574.5	137.68	%	0.920				0.67%
Ag 328.068†	-139.7	-1.4168	µg/L	0.56516	-1.4168	ppb	0.56516	39.89%
Al 396.153Radial†	56233.8	10425	µg/L	258.4	10425	ppb	258.4	2.48%
As 188.979†	7.7	15.947	µg/L	2.1804	15.947	ppb	2.1804	13.67%
B 249.677†	1284.2	18.924	µg/L	1.4847	18.924	ppb	1.4847	7.85%
Ba 233.527†	45555.6	182.82	µg/L	0.266	182.82	ppb	0.266	0.15%
Be 313.107†	10023.7	2.6551	µg/L	0.05609	2.6551	ppb	0.05609	2.11%
Ca 317.933Radial†	27267.7	1518.9	µg/L	39.99	1518.9	ppb	39.99	2.63%
Cd 226.502†	955.3	-0.3166	µg/L	0.14663	-0.3166	ppb	0.14663	46.31%
Co 228.616†	373.9	1.6770	µg/L	0.09761	1.6770	ppb	0.09761	5.82%
Cr 267.716†	2261.2	19.609	µg/L	0.7566	19.609	ppb	0.7566	3.86%
Cu 324.752†	1207.1	13.224	µg/L	0.1648	13.224	ppb	0.1648	1.25%
Fe 238.204 Radial†	970354.8	59807	µg/L	167.5	59807	ppb	167.5	0.28%
K 766.490 Radial†	6042.6	2209.3	µg/L	37.45	2209.3	ppb	37.45	1.70%
Mg 279.077 IEC†	2315.1	811.47	µg/L	20.134	811.47	ppb	20.134	2.48%
Mn 257.610†	1177781.7	1457.1	µg/L	0.81	1457.1	ppb	0.81	0.06%
Mo 202.031†	285.8	10.786	µg/L	0.1629	10.786	ppb	0.1629	1.51%
Na 589.592 Radial†	12568.8	1715.1	µg/L	42.63	1715.1	ppb	42.63	2.49%

Ni 231.604†	1081.2	12.450	µg/L	0.2788	12.450	ppb	0.2788	2.24%
P 214.914†	2306.2	454.83	µg/L	6.313	454.83	ppb	6.313	1.39%
Pb 220.353†	308.2	16.905	µg/L	1.1608	16.905	ppb	1.1608	6.87%
S 181.975 Axial†	182.2	135.34	µg/L	2.497	135.34	ppb	2.497	1.84%
Sb 206.836†	-5.7	-1.5986	µg/L	1.13621	-1.5986	ppb	1.13621	71.07%
Se 196.026†	-60.9	-1.52	µg/L	3.826	-1.52	ppb	3.826	251.96%
SiO2†	321692.3	31442	µg/L	134.9	31442	ppb	134.9	0.43%
Si 251.611†	996584.6	14692	µg/L	8.9	14692	ppb	8.9	0.06%
Sn 189.927†	127.1	9.9201	µg/L	0.07671	9.9201	ppb	0.07671	0.77%
Sr 421.552†	21247.2	44.160	µg/L	1.2411	44.160	ppb	1.2411	2.81%
Ti 334.940†	633709.6	592.12	µg/L	0.952	592.12	ppb	0.952	0.16%
Tl 190.801†	-112.6	-4.0076	µg/L	1.20542	-4.0076	ppb	1.20542	30.08%
U 409.014†	-4199.2	-248.54	µg/L	2.582	-248.54	ppb	2.582	1.04%
Concentration less than lower limit for U 409.014.								
V 292.402†	3931.5	12.318	µg/L	0.1930	12.318	ppb	0.1930	1.57%
Zn 213.857†	22796.1	122.06	µg/L	0.489	122.06	ppb	0.489	0.40%

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 9:32:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144284.4	144284.4	98.9	%			09:33:30
1	Al 396.153Radial†	25868.7	26226.9	4841.2	µg/L	4841.2	ppb	09:33:30
1	Ca 317.933Radial†	83006.9	83392.9	4645.3	µg/L	4645.3	ppb	09:33:30
1	Fe 238.204 Radial†	75153.4	75862.3	4675.7	µg/L	4675.7	ppb	09:33:30
1	K 766.490 Radial†	14402.7	13022.2	4763.8	µg/L	4763.8	ppb	09:33:30
1	Mg 279.077 IEC†	12789.4	12744.5	4755.6	µg/L	4755.6	ppb	09:33:30
1	Na 589.592 Radial†	69255.5	68754.5	9388.5	µg/L	9388.5	ppb	09:33:30
1	Sr 421.552†	226479.8	229197.7	476.45	µg/L	476.45	ppb	09:33:28
1	Sc 361.383	1757367.8	1757367.8	102.28	%			09:33:43
1	Y 371.029	1034784.4	1034784.4	100.79	%			09:33:43
1	Ag 328.068†	129687.4	122706.9	460.14	µg/L	460.14	ppb	09:33:43
1	As 188.979†	1594.8	1579.6	484.39	µg/L	484.39	ppb	09:34:03
1	B 249.677†	34967.2	30682.3	450.91	µg/L	450.91	ppb	09:33:43
1	Ba 233.527†	116792.1	114326.1	461.07	µg/L	461.07	ppb	09:33:43
1	Be 313.107†	1761591.0	1723411.5	469.38	µg/L	469.38	ppb	09:33:43
1	Cd 226.502†	74712.8	73166.5	456.73	µg/L	456.73	ppb	09:33:43
1	Co 228.616†	38020.4	37363.7	461.25	µg/L	461.25	ppb	09:33:43
1	Cr 267.716†	59806.0	58295.1	456.45	µg/L	456.45	ppb	09:33:43
1	Cu 324.752†	124199.5	118460.4	461.79	µg/L	461.79	ppb	09:33:43
1	Mn 257.610†	383646.4	374862.3	463.62	µg/L	463.62	ppb	09:33:43
1	Mo 202.031†	15894.4	15560.4	457.72	µg/L	457.72	ppb	09:34:03
1	Ni 231.604†	40665.3	39835.9	458.68	µg/L	458.68	ppb	09:33:43
1	P 214.914†	10910.6	10685.5	2277.5	µg/L	2277.5	ppb	09:34:03
1	Pb 220.353†	8497.3	8221.6	460.42	µg/L	460.42	ppb	09:34:03
1	S 181.975 Axial†	1332.6	1197.8	893.35	µg/L	893.35	ppb	09:34:03
1	Sb 206.836†	3985.5	3815.9	454.67	µg/L	454.67	ppb	09:34:03
1	Se 196.026†	1284.2	1240.3	450	µg/L	450	ppb	09:34:03
1	SiO2†	52572.0	49625.5	4830.9	µg/L	4830.9	ppb	09:33:43
1	Si 251.611†	159167.2	154784.7	2272.9	µg/L	2272.9	ppb	09:33:43
1	Sn 189.927†	7490.1	7324.4	458.15	µg/L	458.15	ppb	09:34:03
1	Ti 334.940†	506158.2	493929.6	460.87	µg/L	460.87	ppb	09:33:43
1	Tl 190.801†	3716.5	3750.4	467.74	µg/L	467.74	ppb	09:34:03
1	U 409.014†	7061.9	7174.5	447.54	µg/L	447.54	ppb	09:33:43
1	V 292.402†	96679.8	94122.2	465.21	µg/L	465.21	ppb	09:33:43
1	Zn 213.857†	83757.1	81326.7	453.24	µg/L	453.24	ppb	09:33:43
2	Sc RADIAL	145148.3	145148.3	99.5	%			09:33:34
2	Al 396.153Radial†	26106.1	26309.8	4856.7	µg/L	4856.7	ppb	09:33:34
2	Ca 317.933Radial†	83440.2	83328.8	4641.7	µg/L	4641.7	ppb	09:33:34
2	Fe 238.204 Radial†	75493.5	75751.9	4668.9	µg/L	4668.9	ppb	09:33:34
2	K 766.490 Radial†	14468.2	13001.4	4756.1	µg/L	4756.1	ppb	09:33:34
2	Mg 279.077 IEC†	12865.7	12744.3	4755.4	µg/L	4755.4	ppb	09:33:34
2	Na 589.592 Radial†	69910.1	68995.7	9421.4	µg/L	9421.4	ppb	09:33:34
2	Sr 421.552†	226154.4	227507.4	472.94	µg/L	472.94	ppb	09:33:32
2	Sc 361.383	1768675.2	1768675.2	102.94	%			09:34:06
2	Y 371.029	1041358.1	1041358.1	101.43	%			09:34:06
2	Ag 328.068†	130392.7	122581.4	459.68	µg/L	459.68	ppb	09:34:06
2	As 188.979†	1600.0	1574.7	482.91	µg/L	482.91	ppb	09:34:26
2	B 249.677†	35432.1	30915.3	454.35	µg/L	454.35	ppb	09:34:06
2	Ba 233.527†	117919.7	114691.4	462.55	µg/L	462.55	ppb	09:34:06
2	Be 313.107†	1775807.2	1726210.8	470.14	µg/L	470.14	ppb	09:34:06
2	Cd 226.502†	75331.9	73301.0	457.57	µg/L	457.57	ppb	09:34:06
2	Co 228.616†	38237.7	37337.1	460.93	µg/L	460.93	ppb	09:34:06
2	Cr 267.716†	60351.6	58451.3	457.67	µg/L	457.67	ppb	09:34:06
2	Cu 324.752†	124942.0	118405.3	461.57	µg/L	461.57	ppb	09:34:06
2	Mn 257.610†	386118.6	374866.0	463.62	µg/L	463.62	ppb	09:34:06
2	Mo 202.031†	15926.5	15492.2	455.72	µg/L	455.72	ppb	09:34:26
2	Ni 231.604†	40762.5	39676.2	456.84	µg/L	456.84	ppb	09:34:06
2	P 214.914†	10965.1	10670.2	2274.2	µg/L	2274.2	ppb	09:34:26
2	Pb 220.353†	8518.0	8188.6	458.57	µg/L	458.57	ppb	09:34:26

2	S 181.975 Axial†	1308.6	1166.2	869.87 µg/L	869.87 ppb	09:34:26
2	Sb 206.836†	3992.2	3797.5	452.43 µg/L	452.43 ppb	09:34:26
2	Se 196.026†	1300.0	1247.6	453 µg/L	453 ppb	09:34:26
2	SiO2†	53013.2	49725.4	4840.7 µg/L	4840.7 ppb	09:34:06
2	Si 251.611†	160550.7	155133.9	2278.0 µg/L	2278.0 ppb	09:34:06
2	Sn 189.927†	7495.0	7282.3	455.53 µg/L	455.53 ppb	09:34:26
2	Ti 334.940†	509208.8	493729.3	460.68 µg/L	460.68 ppb	09:34:06
2	Tl 190.801†	3729.1	3739.4	466.39 µg/L	466.39 ppb	09:34:26
2	U 409.014†	7164.7	7230.2	450.79 µg/L	450.79 ppb	09:34:06
2	V 292.402†	97270.4	94091.6	465.05 µg/L	465.05 ppb	09:34:06
2	Zn 213.857†	84440.2	81466.8	454.04 µg/L	454.04 ppb	09:34:06
3	Sc RADIAL	145019.7	145019.7	99.4 %		09:33:38
3	Al 396.153Radial†	25971.4	26197.5	4835.7 µg/L	4835.7 ppb	09:33:38
3	Ca 317.933Radial†	83466.1	83429.3	4647.3 µg/L	4647.3 ppb	09:33:38
3	Fe 238.204 Radial†	75479.4	75804.9	4672.2 µg/L	4672.2 ppb	09:33:38
3	K 766.490 Radial†	14442.9	12988.8	4751.5 µg/L	4751.5 ppb	09:33:38
3	Mg 279.077 IEC†	12807.6	12697.3	4738.0 µg/L	4738.0 ppb	09:33:38
3	Na 589.592 Radial†	69801.6	68948.9	9415.0 µg/L	9415.0 ppb	09:33:38
3	Sr 421.552†	224811.3	226357.4	470.55 µg/L	470.55 ppb	09:33:36
3	Sc 361.383	1752639.0	1752639.0	102.00 %		09:34:29
3	Y 371.029	1031380.4	1031380.4	100.46 %		09:34:29
3	Ag 328.068†	129209.1	122580.1	459.67 µg/L	459.67 ppb	09:34:29
3	As 188.979†	1612.6	1601.3	490.96 µg/L	490.96 ppb	09:34:49
3	B 249.677†	35166.6	30970.0	455.15 µg/L	455.15 ppb	09:34:29
3	Ba 233.527†	116882.3	114722.6	462.67 µg/L	462.67 ppb	09:34:29
3	Be 313.107†	1760064.8	1726562.3	470.24 µg/L	470.24 ppb	09:34:29
3	Cd 226.502†	74628.5	73281.0	457.45 µg/L	457.45 ppb	09:34:29
3	Co 228.616†	37960.2	37405.0	461.76 µg/L	461.76 ppb	09:34:29
3	Cr 267.716†	59855.8	58501.7	458.07 µg/L	458.07 ppb	09:34:29
3	Cu 324.752†	124052.1	118643.6	462.49 µg/L	462.49 ppb	09:34:29
3	Mn 257.610†	382427.8	374679.8	463.39 µg/L	463.39 ppb	09:34:29
3	Mo 202.031†	15911.0	15618.6	459.44 µg/L	459.44 ppb	09:34:49
3	Ni 231.604†	40417.4	39700.1	457.12 µg/L	457.12 ppb	09:34:29
3	P 214.914†	10956.0	10758.8	2293.2 µg/L	2293.2 ppb	09:34:49
3	Pb 220.353†	8527.2	8273.3	463.31 µg/L	463.31 ppb	09:34:49
3	S 181.975 Axial†	1336.3	1205.0	898.67 µg/L	898.67 ppb	09:34:49
3	Sb 206.836†	4014.3	3854.6	459.28 µg/L	459.28 ppb	09:34:49
3	Se 196.026†	1287.9	1247.3	453 µg/L	453 ppb	09:34:49
3	SiO2†	52528.5	49721.5	4840.1 µg/L	4840.1 ppb	09:34:29
3	Si 251.611†	158492.5	154543.2	2269.3 µg/L	2269.3 ppb	09:34:29
3	Sn 189.927†	7522.2	7375.6	461.34 µg/L	461.34 ppb	09:34:49
3	Ti 334.940†	504141.1	493287.3	460.28 µg/L	460.28 ppb	09:34:29
3	Tl 190.801†	3732.6	3776.0	470.88 µg/L	470.88 ppb	09:34:49
3	U 409.014†	6944.9	7078.4	441.92 µg/L	441.92 ppb	09:34:29
3	V 292.402†	96426.9	94129.3	465.27 µg/L	465.27 ppb	09:34:29
3	Zn 213.857†	83611.1	81404.6	453.69 µg/L	453.69 ppb	09:34:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1759560.7	102.41	%	0.480				0.47%
Sc RADIAL	144817.4	99.2	%	0.32				0.32%
Y 371.029	1035841.0	100.89	%	0.494				0.49%
Ag 328.068†	122622.8	459.83	µg/L	0.271	459.83	ppb	0.271	0.06%
QC value within limits for Ag 328.068 Recovery = 91.97%								
Al 396.153Radial†	26244.8	4844.5	µg/L	10.88	4844.5	ppb	10.88	0.22%
QC value within limits for Al 396.153Radial Recovery = 96.89%								
As 188.979†	1585.2	486.09	µg/L	4.288	486.09	ppb	4.288	0.88%
QC value within limits for As 188.979 Recovery = 97.22%								
B 249.677†	30855.9	453.47	µg/L	2.253	453.47	ppb	2.253	0.50%
QC value within limits for B 249.677 Recovery = 90.69%								
Ba 233.527†	114580.0	462.10	µg/L	0.889	462.10	ppb	0.889	0.19%
QC value within limits for Ba 233.527 Recovery = 92.42%								
Be 313.107†	1725394.9	469.92	µg/L	0.470	469.92	ppb	0.470	0.10%
QC value within limits for Be 313.107 Recovery = 93.98%								
Ca 317.933Radial†	83383.7	4644.8	µg/L	2.83	4644.8	ppb	2.83	0.06%
QC value within limits for Ca 317.933Radial Recovery = 92.90%								
Cd 226.502†	73249.5	457.25	µg/L	0.453	457.25	ppb	0.453	0.10%
QC value within limits for Cd 226.502 Recovery = 91.45%								
Co 228.616†	37368.6	461.31	µg/L	0.422	461.31	ppb	0.422	0.09%

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   QC value within limits for Co 228.616  Recovery = 92.26%
Cr 267.716†            58416.0      457.40 µg/L         0.845      457.40 ppb          0.845   0.18%
   QC value within limits for Cr 267.716  Recovery = 91.48%
Cu 324.752†           118503.1      461.95 µg/L         0.481      461.95 ppb          0.481   0.10%
   QC value within limits for Cu 324.752  Recovery = 92.39%
Fe 238.204 Radial†     75806.4      4672.2 µg/L          3.40      4672.2 ppb           3.40   0.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.44%
K 766.490 Radial†      13004.1      4757.1 µg/L          6.18      4757.1 ppb           6.18   0.13%
   QC value within limits for K 766.490 Radial  Recovery = 95.14%
Mg 279.077 IEC†        12728.7      4749.7 µg/L         10.10      4749.7 ppb          10.10   0.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 94.99%
Mn 257.610†           374802.7      463.54 µg/L         0.131      463.54 ppb          0.131   0.03%
   QC value within limits for Mn 257.610  Recovery = 92.71%
Mo 202.031†            15557.1      457.63 µg/L         1.859      457.63 ppb          1.859   0.41%
   QC value within limits for Mo 202.031  Recovery = 91.53%
Na 589.592 Radial†     68899.7      9408.3 µg/L         17.48      9408.3 ppb          17.48   0.19%
   QC value within limits for Na 589.592 Radial  Recovery = 94.08%
Ni 231.604†            39737.4      457.55 µg/L         0.992      457.55 ppb          0.992   0.22%
   QC value within limits for Ni 231.604  Recovery = 91.51%
P 214.914†             10704.8      2281.6 µg/L         10.13      2281.6 ppb          10.13   0.44%
   QC value within limits for P 214.914  Recovery = 91.27%
Pb 220.353†             8227.9      460.77 µg/L         2.391      460.77 ppb          2.391   0.52%
   QC value within limits for Pb 220.353  Recovery = 92.15%
S 181.975 Axial†        1189.7      887.30 µg/L        15.326      887.30 ppb         15.326   1.73%
   QC value less than the lower limit for S 181.975 Axial  Recovery = 88.73%
Sb 206.836†             3822.6      455.46 µg/L         3.494      455.46 ppb          3.494   0.77%
   QC value within limits for Sb 206.836  Recovery = 91.09%
Se 196.026†             1245.1         452 µg/L           1.5         452 ppb            1.5   0.33%
   QC value within limits for Se 196.026  Recovery = 90.43%
SiO2†                  49690.8      4837.2 µg/L          5.54      4837.2 ppb           5.54   0.11%
   QC value within limits for SiO2  Recovery = 90.46%
Si 251.611†           154820.6      2273.4 µg/L          4.42      2273.4 ppb           4.42   0.19%
   QC value within limits for Si 251.611  Recovery = 90.94%
Sn 189.927†             7327.4      458.34 µg/L         2.913      458.34 ppb          2.913   0.64%
   QC value within limits for Sn 189.927  Recovery = 91.67%
Sr 421.552†           227687.5      473.31 µg/L         2.970      473.31 ppb          2.970   0.63%
   QC value within limits for Sr 421.552  Recovery = 94.66%
Ti 334.940†           493648.8      460.61 µg/L         0.305      460.61 ppb          0.305   0.07%
   QC value within limits for Ti 334.940  Recovery = 92.12%
Tl 190.801†             3755.2      468.34 µg/L         2.300      468.34 ppb          2.300   0.49%
   QC value within limits for Tl 190.801  Recovery = 93.67%
U 409.014†              7161.0      446.75 µg/L         4.487      446.75 ppb          4.487   1.00%
   QC value less than the lower limit for U 409.014  Recovery = 89.35%
V 292.402†             94114.4      465.18 µg/L         0.113      465.18 ppb          0.113   0.02%
   QC value within limits for V 292.402  Recovery = 93.04%
Zn 213.857†            81399.4      453.66 µg/L         0.401      453.66 ppb          0.401   0.09%
   QC value within limits for Zn 213.857  Recovery = 90.73%
QC Failed.  Continue with analysis.
```

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 9:34:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	149117.0	149117.0	102	%			09:35:26
1	Al 396.153Radial†	-36.5	27.4	5.0602	µg/L	5.0602	ppb	09:35:46
1	Ca 317.933Radial†	796.3	218.7	12.185	µg/L	12.185	ppb	09:35:46
1	Fe 238.204 Radial†	216.1	63.3	3.9041	µg/L	3.9041	ppb	09:35:46
1	K 766.490 Radial†	1658.1	77.9	28.516	µg/L	28.516	ppb	09:35:26
1	Mg 279.077 IEC†	184.1	-10.5	-3.9161	µg/L	-3.9161	ppb	09:35:46
1	Na 589.592 Radial†	1406.0	85.1	11.604	µg/L	11.604	ppb	09:35:26
1	Sr 421.552†	-178.4	-39.3	-0.0818	µg/L	-0.0818	ppb	09:35:26
1	Sc 361.383	1778233.5	1778233.5	103.49	%			09:36:34
1	Y 371.029	1058361.6	1058361.6	103.08	%			09:36:34
1	Ag 328.068†	4263.2	28.0	0.1004	µg/L	0.1004	ppb	09:36:36
1	As 188.979†	-9.8	10.9	3.3043	µg/L	3.3043	ppb	09:36:56
1	B 249.677†	3582.7	-44.1	-0.6507	µg/L	-0.6507	ppb	09:36:36
1	Ba 233.527†	-102.3	37.0	0.1490	µg/L	0.1490	ppb	09:36:56
1	Be 313.107†	-868.8	225.2	0.0624	µg/L	0.0624	ppb	09:36:36
1	Cd 226.502†	-91.2	30.0	0.1873	µg/L	0.1873	ppb	09:36:56
1	Co 228.616†	-191.5	5.2	0.0646	µg/L	0.0646	ppb	09:36:56
1	Cr 267.716†	214.5	28.7	0.2220	µg/L	0.2220	ppb	09:36:56
1	Cu 324.752†	2913.6	-157.0	-0.6065	µg/L	-0.6065	ppb	09:36:36
1	Mn 257.610†	318.7	70.7	0.0876	µg/L	0.0876	ppb	09:36:56
1	Mo 202.031†	0.4	20.5	0.6017	µg/L	0.6017	ppb	09:36:56
1	Ni 231.604†	-73.9	5.2	0.0594	µg/L	0.0594	ppb	09:36:56
1	P 214.914†	-41.3	-22.0	-4.7003	µg/L	-4.7003	ppb	09:36:56
1	Pb 220.353†	73.1	-15.7	-0.8788	µg/L	-0.8788	ppb	09:36:56
1	S 181.975 Axial†	86.2	-21.7	-16.141	µg/L	-16.141	ppb	09:36:56
1	Sb 206.836†	88.8	5.0	0.5927	µg/L	0.5927	ppb	09:36:56
1	Se 196.026†	12.6	-3.1	-1.10	µg/L	-1.10	ppb	09:36:56
1	SiO2†	1819.9	-16.9	-1.6687	µg/L	-1.6687	ppb	09:36:56
1	Si 251.611†	962.0	93.0	1.3641	µg/L	1.3641	ppb	09:36:36
1	Sn 189.927†	-3.7	-2.4	-0.1523	µg/L	-0.1523	ppb	09:36:56
1	Ti 334.940†	834.6	-146.1	-0.1374	µg/L	-0.1374	ppb	09:36:36
1	Tl 190.801†	-121.9	-1.1	-0.1417	µg/L	-0.1417	ppb	09:36:56
1	U 409.014†	-214.6	62.5	3.6191	µg/L	3.6191	ppb	09:36:36
1	V 292.402†	288.2	-125.3	-0.6019	µg/L	-0.6019	ppb	09:36:36
1	Zn 213.857†	611.2	26.1	0.1465	µg/L	0.1465	ppb	09:36:56
2	Sc RADIAL	147555.0	147555.0	101	%			09:35:48
2	Al 396.153Radial†	-77.3	-13.3	-2.4699	µg/L	-2.4699	ppb	09:36:08
2	Ca 317.933Radial†	790.4	221.1	12.318	µg/L	12.318	ppb	09:36:08
2	Fe 238.204 Radial†	202.1	51.8	3.1929	µg/L	3.1929	ppb	09:36:08
2	K 766.490 Radial†	1679.3	116.0	42.464	µg/L	42.464	ppb	09:35:48
2	Mg 279.077 IEC†	198.2	5.3	1.9713	µg/L	1.9713	ppb	09:36:08
2	Na 589.592 Radial†	1402.5	96.3	13.116	µg/L	13.116	ppb	09:35:48
2	Sr 421.552†	-157.4	-20.4	-0.0424	µg/L	-0.0424	ppb	09:35:48
2	Sc 361.383	1774778.8	1774778.8	103.29	%			09:36:58
2	Y 371.029	1055168.7	1055168.7	102.77	%			09:36:58
2	Ag 328.068†	4285.2	57.2	0.2215	µg/L	0.2215	ppb	09:37:00
2	As 188.979†	-18.5	2.4	0.7410	µg/L	0.7410	ppb	09:37:21
2	B 249.677†	3525.0	-93.3	-1.3758	µg/L	-1.3758	ppb	09:37:00
2	Ba 233.527†	-111.8	27.7	0.1117	µg/L	0.1117	ppb	09:37:21
2	Be 313.107†	-969.6	126.0	0.0358	µg/L	0.0358	ppb	09:37:00
2	Cd 226.502†	-105.2	16.4	0.1018	µg/L	0.1018	ppb	09:37:21
2	Co 228.616†	-193.7	2.7	0.0339	µg/L	0.0339	ppb	09:37:21
2	Cr 267.716†	196.8	11.9	0.0898	µg/L	0.0898	ppb	09:37:21
2	Cu 324.752†	2966.7	-100.1	-0.3843	µg/L	-0.3843	ppb	09:37:00
2	Mn 257.610†	328.5	80.8	0.0999	µg/L	0.0999	ppb	09:37:21
2	Mo 202.031†	-15.1	5.5	0.1615	µg/L	0.1615	ppb	09:37:21
2	Ni 231.604†	-102.4	-22.7	-0.2609	µg/L	-0.2609	ppb	09:37:21
2	P 214.914†	-44.2	-24.9	-5.3206	µg/L	-5.3206	ppb	09:37:21
2	Pb 220.353†	60.3	-28.0	-1.5643	µg/L	-1.5643	ppb	09:37:21

2	S 181.975 Axial†	95.5	-12.6	-9.3834 µg/L	-9.3834 ppb	09:37:21
2	Sb 206.836†	84.0	0.5	0.0616 µg/L	0.0616 ppb	09:37:21
2	Se 196.026†	4.3	-11.1	-4.01 µg/L	-4.01 ppb	09:37:21
2	SiO2†	1831.8	-1.9	-0.1945 µg/L	-0.1945 ppb	09:37:21
2	Si 251.611†	838.5	-24.8	-0.3680 µg/L	-0.3680 ppb	09:37:00
2	Sn 189.927†	0.8	1.9	0.1157 µg/L	0.1157 ppb	09:37:21
2	Ti 334.940†	945.4	-37.2	-0.0366 µg/L	-0.0366 ppb	09:37:00
2	Tl 190.801†	-113.4	6.9	0.8453 µg/L	0.8453 ppb	09:37:21
2	U 409.014†	-192.8	83.3	4.8881 µg/L	4.8881 ppb	09:37:00
2	V 292.402†	488.3	68.9	0.3413 µg/L	0.3413 ppb	09:37:00
2	Zn 213.857†	598.2	14.7	0.0841 µg/L	0.0841 ppb	09:37:21
3	Sc RADIAL	146214.0	146214.0	100 %		09:36:10
3	Al 396.153Radial†	-83.9	-20.5	-3.8025 µg/L	-3.8025 ppb	09:36:30
3	Ca 317.933Radial†	767.4	205.3	11.436 µg/L	11.436 ppb	09:36:30
3	Fe 238.204 Radial†	214.9	66.4	4.0916 µg/L	4.0916 ppb	09:36:30
3	K 766.490 Radial†	1638.4	90.5	33.126 µg/L	33.126 ppb	09:36:10
3	Mg 279.077 IEC†	176.3	-14.8	-5.5119 µg/L	-5.5119 ppb	09:36:30
3	Na 589.592 Radial†	1342.5	49.1	6.6742 µg/L	6.6742 ppb	09:36:10
3	Sr 421.552†	-105.5	30.0	0.0623 µg/L	0.0623 ppb	09:36:10
3	Sc 361.383	1792756.9	1792756.9	104.34 %		09:37:23
3	Y 371.029	1066361.6	1066361.6	103.86 %		09:37:23
3	Ag 328.068†	4459.8	183.0	0.6718 µg/L	0.6718 ppb	09:37:25
3	As 188.979†	-13.5	7.5	2.2576 µg/L	2.2576 ppb	09:37:45
3	B 249.677†	3753.0	91.1	1.3413 µg/L	1.3413 ppb	09:37:25
3	Ba 233.527†	-125.5	15.6	0.0619 µg/L	0.0619 ppb	09:37:45
3	Be 313.107†	-1179.8	-66.0	-0.0155 µg/L	-0.0155 ppb	09:37:25
3	Cd 226.502†	-117.6	5.5	0.0336 µg/L	0.0336 ppb	09:37:45
3	Co 228.616†	-151.3	45.3	0.5582 µg/L	0.5582 ppb	09:37:45
3	Cr 267.716†	227.6	39.5	0.3027 µg/L	0.3027 ppb	09:37:45
3	Cu 324.752†	3132.4	29.9	0.1238 µg/L	0.1238 ppb	09:37:25
3	Mn 257.610†	311.7	61.5	0.0763 µg/L	0.0763 ppb	09:37:45
3	Mo 202.031†	-19.0	1.8	0.0535 µg/L	0.0535 ppb	09:37:45
3	Ni 231.604†	-95.5	-15.0	-0.1726 µg/L	-0.1726 ppb	09:37:45
3	P 214.914†	-30.2	-11.0	-2.3458 µg/L	-2.3458 ppb	09:37:45
3	Pb 220.353†	50.8	-37.7	-2.1112 µg/L	-2.1112 ppb	09:37:45
3	S 181.975 Axial†	103.2	-6.2	-4.5862 µg/L	-4.5862 ppb	09:37:45
3	Sb 206.836†	70.9	-12.8	-1.5311 µg/L	-1.5311 ppb	09:37:45
3	Se 196.026†	1.1	-14.2	-5.14 µg/L	-5.14 ppb	09:37:45
3	SiO2†	1809.5	-41.1	-4.0229 µg/L	-4.0229 ppb	09:37:45
3	Si 251.611†	1160.5	275.7	4.0613 µg/L	4.0613 ppb	09:37:25
3	Sn 189.927†	3.6	4.6	0.2847 µg/L	0.2847 ppb	09:37:45
3	Ti 334.940†	915.1	-75.5	-0.0732 µg/L	-0.0732 ppb	09:37:25
3	Tl 190.801†	-103.2	17.8	2.1686 µg/L	2.1686 ppb	09:37:45
3	U 409.014†	-136.3	139.2	8.0654 µg/L	8.0654 ppb	09:37:25
3	V 292.402†	144.3	-265.5	-1.2880 µg/L	-1.2880 ppb	09:37:25
3	Zn 213.857†	597.5	8.3	0.0468 µg/L	0.0468 ppb	09:37:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1781923.0	103.71	%	0.555				0.54%
Sc RADIAL	147628.7	101	%	1.0				0.98%
Y 371.029	1059964.0	103.24	%	0.562				0.54%
Ag 328.068†	89.4	0.3312	µg/L	0.30109	0.3312	ppb	0.30109	90.90%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.1	-0.4040	µg/L	4.77889	-0.4040	ppb	4.77889	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.9	2.1010	µg/L	1.28878	2.1010	ppb	1.28878	61.34%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-15.4	-0.2284	µg/L	1.40692	-0.2284	ppb	1.40692	615.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	26.8	0.1075	µg/L	0.04372	0.1075	ppb	0.04372	40.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	95.1	0.0276	µg/L	0.03961	0.0276	ppb	0.03961	143.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	215.1	11.980	µg/L	0.4755	11.980	ppb	0.4755	3.97%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.3	0.1076	µg/L	0.07700	0.1076	ppb	0.07700	71.58%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.7	0.2189	µg/L	0.29426	0.2189	ppb	0.29426	134.42%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              26.7      0.2048 µg/L       0.10750      0.2048 ppb        0.10750  52.48%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -75.7     -0.2890 µg/L       0.37440     -0.2890 ppb        0.37440 129.55%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       60.5      3.7295 µg/L       0.47411      3.7295 ppb        0.47411  12.71%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        94.8      34.702 µg/L        7.1067      34.702 ppb         7.1067  20.48%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -6.7     -2.4856 µg/L       3.94138     -2.4856 ppb        3.94138 158.57%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              71.0      0.0879 µg/L       0.01179      0.0879 ppb        0.01179  13.41%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.3      0.2723 µg/L       0.29040      0.2723 ppb        0.29040 106.67%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       76.8      10.464 µg/L        3.3684      10.464 ppb         3.3684  32.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -10.8     -0.1247 µg/L       0.16543     -0.1247 ppb        0.16543 132.62%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -19.3     -4.1222 µg/L       1.56938     -4.1222 ppb        1.56938  38.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -27.1     -1.5181 µg/L       0.61750     -1.5181 ppb        0.61750  40.68%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -13.5     -10.037 µg/L        5.8049     -10.037 ppb         5.8049  57.84%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.5     -0.2923 µg/L       1.10521     -0.2923 ppb        1.10521 378.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -9.5       -3.41 µg/L         2.083       -3.41 ppb          2.083  61.03%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -20.0     -1.9621 µg/L       1.93100     -1.9621 ppb        1.93100  98.42%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             114.6      1.6858 µg/L       2.23212      1.6858 ppb        2.23212 132.41%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.3      0.0827 µg/L       0.22033      0.0827 ppb        0.22033 266.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -9.9     -0.0207 µg/L       0.07448     -0.0207 ppb        0.07448 360.50%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -86.3     -0.0824 µg/L       0.05103     -0.0824 ppb        0.05103  61.90%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.8      0.9574 µg/L       1.15922      0.9574 ppb        1.15922 121.09%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               95.0      5.5242 µg/L       2.29040      5.5242 ppb        2.29040  41.46%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -107.3     -0.5162 µg/L       0.81806     -0.5162 ppb        0.81806 158.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              16.4      0.0925 µg/L       0.05035      0.0925 ppb        0.05035  54.44%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/13/2010 13:54:23
Logged In Analyst: optima4
Spectrometer Model: Optima 7300 DV, S/N 077C0022701

Plasma On Time: 3/29/2010 18:07:58
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\041310.SIF
Batch ID:
Results Data Set: 041310A
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1
Sample ID: S0
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/13/2010 13:54:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	114598.4	114598.4	100	%	13:54:54
1	Al 396.153Radial†	-66.9	-66.8	[0.00]	µg/L	13:55:14
1	Ca 317.933Radial†	458.7	457.8	[0.00]	µg/L	13:55:14
1	Fe 238.204 Radial†	131.0	130.8	[0.00]	µg/L	13:55:14
1	K 766.490 Radial†	1394.5	1391.9	[0.00]	µg/L	13:54:54
1	Mg 279.077 IEC†	158.0	157.7	[0.00]	µg/L	13:55:14
1	Na 589.592 Radial†	845.2	843.7	[0.00]	µg/L	13:54:54
1	Sr 421.552†	-40.2	-40.1	[0.00]	µg/L	13:54:54
1	Sc 361.383	1709992.4	1709992.4	101.05	%	13:56:16
1	Y 371.029	967471.1	967471.1	101.09	%	13:56:16
1	Ag 328.068†	5143.2	5089.9	[0.00]	µg/L	13:56:18
1	As 188.979†	-12.9	-12.8	[0.00]	µg/L	13:56:38
1	B 249.677†	4108.0	4065.4	[0.00]	µg/L	13:56:18
1	Ba 233.527†	-146.3	-144.8	[0.00]	µg/L	13:56:38
1	Be 313.107†	-1019.9	-1009.3	[0.00]	µg/L	13:56:18
1	Cd 226.502†	-63.8	-63.1	[0.00]	µg/L	13:56:38
1	Co 228.616†	-230.4	-228.0	[0.00]	µg/L	13:56:38
1	Cr 267.716†	339.5	336.0	[0.00]	µg/L	13:56:38
1	Cu 324.752†	3232.7	3199.2	[0.00]	µg/L	13:56:18
1	Mn 257.610†	213.2	210.9	[0.00]	µg/L	13:56:38
1	Mo 202.031†	-15.1	-14.9	[0.00]	µg/L	13:56:38
1	Ni 231.604†	-59.0	-58.3	[0.00]	µg/L	13:56:38
1	P 214.914†	-15.3	-15.2	[0.00]	µg/L	13:56:38
1	Pb 220.353†	116.6	115.4	[0.00]	µg/L	13:56:38
1	S 181.975 Axial†	105.8	104.7	[0.00]	µg/L	13:56:38
1	Sb 206.836†	86.3	85.4	[0.00]	µg/L	13:56:38
1	Se 196.026†	25.6	25.3	[0.00]	µg/L	13:56:38
1	SiO2†	1749.7	1731.5	[0.00]	µg/L	13:56:18
1	Si 251.611†	784.1	776.0	[0.00]	µg/L	13:56:18
1	Sn 189.927†	10.7	10.6	[0.00]	µg/L	13:56:38
1	Ti 334.940†	888.1	878.8	[0.00]	µg/L	13:56:18
1	Tl 190.801†	-116.5	-115.3	[0.00]	µg/L	13:56:38
1	U 409.014†	-496.6	-491.4	[0.00]	µg/L	13:56:18
1	V 292.402†	543.2	537.6	[0.00]	µg/L	13:56:18
1	Zn 213.857†	623.7	617.2	[0.00]	µg/L	13:56:38
2	Sc RADIAL	115518.6	115518.6	101	%	13:55:16
2	Al 396.153Radial†	-88.5	-87.6	[0.00]	µg/L	13:55:36
2	Ca 317.933Radial†	446.9	442.5	[0.00]	µg/L	13:55:36
2	Fe 238.204 Radial†	117.0	115.8	[0.00]	µg/L	13:55:36
2	K 766.490 Radial†	1437.5	1423.4	[0.00]	µg/L	13:55:16
2	Mg 279.077 IEC†	153.1	151.6	[0.00]	µg/L	13:55:36
2	Na 589.592 Radial†	860.2	851.8	[0.00]	µg/L	13:55:16
2	Sr 421.552†	-48.4	-48.0	[0.00]	µg/L	13:55:16
2	Sc 361.383	1687736.4	1687736.4	99.732	%	13:56:40
2	Y 371.029	953891.3	953891.3	99.672	%	13:56:40
2	Ag 328.068†	5113.5	5127.2	[0.00]	µg/L	13:56:42
2	As 188.979†	-6.3	-6.3	[0.00]	µg/L	13:57:02

2	B 249.677†	4025.8	4036.6	[0.00]	µg/L	13:56:42
2	Ba 233.527†	-138.6	-139.0	[0.00]	µg/L	13:57:02
2	Be 313.107†	-1228.5	-1231.8	[0.00]	µg/L	13:56:42
2	Cd 226.502†	-61.5	-61.7	[0.00]	µg/L	13:57:02
2	Co 228.616†	-211.1	-211.6	[0.00]	µg/L	13:57:02
2	Cr 267.716†	324.0	324.9	[0.00]	µg/L	13:57:02
2	Cu 324.752†	3236.0	3244.7	[0.00]	µg/L	13:56:42
2	Mn 257.610†	221.5	222.1	[0.00]	µg/L	13:57:02
2	Mo 202.031†	-20.1	-20.2	[0.00]	µg/L	13:57:02
2	Ni 231.604†	-71.5	-71.7	[0.00]	µg/L	13:57:02
2	P 214.914†	-10.5	-10.5	[0.00]	µg/L	13:57:02
2	Pb 220.353†	123.7	124.0	[0.00]	µg/L	13:57:02
2	S 181.975 Axial†	100.6	100.8	[0.00]	µg/L	13:57:02
2	Sb 206.836†	68.9	69.1	[0.00]	µg/L	13:57:02
2	Se 196.026†	22.7	22.8	[0.00]	µg/L	13:57:02
2	SiO2†	1685.1	1689.6	[0.00]	µg/L	13:56:42
2	Si 251.611†	850.1	852.4	[0.00]	µg/L	13:56:42
2	Sn 189.927†	13.0	13.0	[0.00]	µg/L	13:57:02
2	Ti 334.940†	885.7	888.1	[0.00]	µg/L	13:56:42
2	Tl 190.801†	-111.5	-111.8	[0.00]	µg/L	13:57:02
2	U 409.014†	-313.9	-314.7	[0.00]	µg/L	13:56:42
2	V 292.402†	467.8	469.0	[0.00]	µg/L	13:56:42
2	Zn 213.857†	621.3	623.0	[0.00]	µg/L	13:57:02
3	Sc RADIAL	113047.2	113047.2	98.8	%	13:55:38
3	Al 396.153Radial†	-99.4	-100.5	[0.00]	µg/L	13:55:58
3	Ca 317.933Radial†	464.4	469.9	[0.00]	µg/L	13:55:58
3	Fe 238.204 Radial†	124.8	126.3	[0.00]	µg/L	13:55:58
3	K 766.490 Radial†	1396.0	1412.5	[0.00]	µg/L	13:55:38
3	Mg 279.077 IEC†	160.8	162.7	[0.00]	µg/L	13:55:58
3	Na 589.592 Radial†	801.0	810.5	[0.00]	µg/L	13:55:38
3	Sr 421.552†	-110.8	-112.1	[0.00]	µg/L	13:55:38
3	Sc 361.383	1679067.9	1679067.9	99.220	%	13:57:04
3	Y 371.029	949726.9	949726.9	99.237	%	13:57:04
3	Ag 328.068†	5052.1	5091.8	[0.00]	µg/L	13:57:06
3	As 188.979†	-21.0	-21.1	[0.00]	µg/L	13:57:26
3	B 249.677†	4200.8	4233.8	[0.00]	µg/L	13:57:06
3	Ba 233.527†	-152.7	-153.9	[0.00]	µg/L	13:57:26
3	Be 313.107†	-730.2	-735.9	[0.00]	µg/L	13:57:06
3	Cd 226.502†	-68.4	-68.9	[0.00]	µg/L	13:57:26
3	Co 228.616†	-239.7	-241.5	[0.00]	µg/L	13:57:26
3	Cr 267.716†	325.5	328.0	[0.00]	µg/L	13:57:26
3	Cu 324.752†	3254.3	3279.9	[0.00]	µg/L	13:57:06
3	Mn 257.610†	211.4	213.1	[0.00]	µg/L	13:57:26
3	Mo 202.031†	-29.5	-29.7	[0.00]	µg/L	13:57:26
3	Ni 231.604†	-90.9	-91.7	[0.00]	µg/L	13:57:26
3	P 214.914†	-31.7	-32.0	[0.00]	µg/L	13:57:26
3	Pb 220.353†	111.3	112.2	[0.00]	µg/L	13:57:26
3	S 181.975 Axial†	99.4	100.2	[0.00]	µg/L	13:57:26
3	Sb 206.836†	77.5	78.1	[0.00]	µg/L	13:57:26
3	Se 196.026†	11.7	11.8	[0.00]	µg/L	13:57:26
3	SiO2†	1632.7	1645.5	[0.00]	µg/L	13:57:06
3	Si 251.611†	725.5	731.2	[0.00]	µg/L	13:57:06
3	Sn 189.927†	1.7	1.7	[0.00]	µg/L	13:57:26
3	Ti 334.940†	884.4	891.3	[0.00]	µg/L	13:57:06
3	Tl 190.801†	-117.7	-118.6	[0.00]	µg/L	13:57:26
3	U 409.014†	-424.2	-427.6	[0.00]	µg/L	13:57:06
3	V 292.402†	477.7	481.5	[0.00]	µg/L	13:57:06
3	Zn 213.857†	612.9	617.7	[0.00]	µg/L	13:57:26

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1692265.5	15951.98	0.94%	100.00	%
Sc RADIAL	114388.1	1249.02	1.09%	100	%
Y 371.029	957029.8	9279.07	0.97%	100.00	%
Ag 328.068†	5103.0	21.01	0.41%	[0.00]	µg/L
Al 396.153Radial†	-85.0	17.03	20.04%	[0.00]	µg/L
As 188.979†	-13.4	7.42	55.27%	[0.00]	µg/L
B 249.677†	4111.9	106.52	2.59%	[0.00]	µg/L
Ba 233.527†	-145.9	7.51	5.15%	[0.00]	µg/L

Be 313.107†	-992.3	248.35	25.03%	[0.00]	µg/L
Ca 317.933Radial†	456.7	13.71	3.00%	[0.00]	µg/L
Cd 226.502†	-64.6	3.83	5.93%	[0.00]	µg/L
Co 228.616†	-227.1	14.98	6.60%	[0.00]	µg/L
Cr 267.716†	329.6	5.76	1.75%	[0.00]	µg/L
Cu 324.752†	3241.3	40.46	1.25%	[0.00]	µg/L
Fe 238.204 Radial†	124.3	7.65	6.16%	[0.00]	µg/L
K 766.490 Radial†	1409.3	16.00	1.13%	[0.00]	µg/L
Mg 279.077 IEC†	157.3	5.56	3.53%	[0.00]	µg/L
Mn 257.610†	215.4	5.91	2.74%	[0.00]	µg/L
Mo 202.031†	-21.6	7.51	34.73%	[0.00]	µg/L
Na 589.592 Radial†	835.3	21.89	2.62%	[0.00]	µg/L
Ni 231.604†	-73.9	16.76	22.68%	[0.00]	µg/L
P 214.914†	-19.2	11.29	58.79%	[0.00]	µg/L
Pb 220.353†	117.2	6.12	5.22%	[0.00]	µg/L
S 181.975 Axial†	101.9	2.43	2.38%	[0.00]	µg/L
Sb 206.836†	77.5	8.16	10.52%	[0.00]	µg/L
Se 196.026†	20.0	7.17	35.86%	[0.00]	µg/L
SiO2†	1688.9	43.02	2.55%	[0.00]	µg/L
Si 251.611†	786.5	61.28	7.79%	[0.00]	µg/L
Sn 189.927†	8.4	5.97	70.92%	[0.00]	µg/L
Sr 421.552†	-66.7	39.51	59.22%	[0.00]	µg/L
Ti 334.940†	886.1	6.48	0.73%	[0.00]	µg/L
Tl 190.801†	-115.2	3.39	2.94%	[0.00]	µg/L
U 409.014†	-411.2	89.46	21.75%	[0.00]	µg/L
V 292.402†	496.0	36.51	7.36%	[0.00]	µg/L
Zn 213.857†	619.3	3.19	0.52%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 4/13/2010 13:57:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	115662.7	115662.7	101	%	13:58:06
1	K 766.490 Radial†	4010.8	2557.3	[1000]	µg/L	13:58:06
1	Sr 421.552†	40565.9	40185.6	[100]	µg/L	13:58:06
1	Sc 361.383	1679936.2	1679936.2	99.271	%	13:58:14
1	Y 371.029	946833.3	946833.3	98.935	%	13:58:14
1	Ag 328.068†	29744.5	24859.8	[100]	µg/L	13:58:16
1	As 188.979†	270.5	285.9	[100]	µg/L	13:58:36
1	B 249.677†	10722.8	6689.5	[100]	µg/L	13:58:16
1	Ba 233.527†	22383.5	22693.6	[100]	µg/L	13:58:16
1	Be 313.107†	348195.3	351743.1	[100]	µg/L	13:58:14
1	Cd 226.502†	15347.5	15524.8	[100]	µg/L	13:58:16
1	Co 228.616†	7541.4	7823.8	[100]	µg/L	13:58:36
1	Cr 267.716†	11924.3	11682.2	[100]	µg/L	13:58:16
1	Cu 324.752†	27630.0	24591.5	[100]	µg/L	13:58:16
1	Mn 257.610†	80028.7	80400.7	[100]	µg/L	13:58:16
1	Mo 202.031†	2918.0	2961.0	[100]	µg/L	13:58:36
1	Ni 231.604†	8218.6	8352.8	[100]	µg/L	13:58:16
1	P 214.914†	2141.9	2176.9	[500]	µg/L	13:58:36
1	Pb 220.353†	1756.2	1651.8	[100]	µg/L	13:58:36
1	S 181.975 Axial†	331.2	231.7	[200]	µg/L	13:58:36
1	Sb 206.836†	853.1	781.9	[100]	µg/L	13:58:36
1	Se 196.026†	269.7	251.7	[100]	µg/L	13:58:36
1	SiO2†	12030.0	10429.4	[1069.5]	µg/L	13:58:16
1	Si 251.611†	33399.6	32858.2	[500]	µg/L	13:58:16
1	Sn 189.927†	1452.7	1454.9	[100]	µg/L	13:58:36
1	Ti 334.940†	96021.2	95839.9	[100]	µg/L	13:58:16
1	Tl 190.801†	609.2	728.9	[100]	µg/L	13:58:36
1	U 409.014†	1131.7	1551.2	[100]	µg/L	13:58:16
1	V 292.402†	20487.6	20142.0	[100]	µg/L	13:58:16
1	Zn 213.857†	18222.9	17737.3	[100]	µg/L	13:58:16
2	Sc RADIAL	115417.9	115417.9	101	%	13:58:08
2	K 766.490 Radial†	4085.6	2639.9	[1000]	µg/L	13:58:08
2	Sr 421.552†	40433.3	40139.3	[100]	µg/L	13:58:08
2	Sc 361.383	1665766.3	1665766.3	98.434	%	13:58:38
2	Y 371.029	939221.7	939221.7	98.139	%	13:58:38
2	Ag 328.068†	29804.6	25175.7	[100]	µg/L	13:58:40
2	As 188.979†	273.7	291.5	[100]	µg/L	13:59:00
2	B 249.677†	10828.6	6889.0	[100]	µg/L	13:58:40
2	Ba 233.527†	22233.6	22733.2	[100]	µg/L	13:58:40
2	Be 313.107†	345908.5	352403.6	[100]	µg/L	13:58:38
2	Cd 226.502†	15193.5	15499.8	[100]	µg/L	13:58:40
2	Co 228.616†	7524.7	7871.4	[100]	µg/L	13:59:00
2	Cr 267.716†	11768.2	11625.8	[100]	µg/L	13:58:40
2	Cu 324.752†	27135.9	24326.3	[100]	µg/L	13:58:40
2	Mn 257.610†	79277.8	80323.6	[100]	µg/L	13:58:40
2	Mo 202.031†	2925.7	2993.8	[100]	µg/L	13:59:00
2	Ni 231.604†	8098.9	8301.6	[100]	µg/L	13:58:40
2	P 214.914†	2130.2	2183.3	[500]	µg/L	13:59:00
2	Pb 220.353†	1725.2	1635.4	[100]	µg/L	13:59:00
2	S 181.975 Axial†	331.6	234.9	[200]	µg/L	13:59:00
2	Sb 206.836†	876.9	813.4	[100]	µg/L	13:59:00
2	Se 196.026†	275.3	259.7	[100]	µg/L	13:59:00
2	SiO2†	11946.9	10448.0	[1069.5]	µg/L	13:58:40
2	Si 251.611†	33198.3	32939.9	[500]	µg/L	13:58:40
2	Sn 189.927†	1454.5	1469.2	[100]	µg/L	13:59:00
2	Ti 334.940†	95388.0	96019.4	[100]	µg/L	13:58:40
2	Tl 190.801†	607.6	732.5	[100]	µg/L	13:59:00
2	U 409.014†	1595.3	2031.9	[100]	µg/L	13:58:40
2	V 292.402†	20527.6	20358.1	[100]	µg/L	13:58:40

2	Zn 213.857†	18003.3	17670.4	[100]	µg/L	13:58:40
3	Sc RADIAL	114124.7	114124.7	99.8	%	13:58:10
3	K 766.490 Radial†	4003.4	2603.4	[1000]	µg/L	13:58:10
3	Sr 421.552†	40289.2	40448.9	[100]	µg/L	13:58:10
3	Sc 361.383	1688518.0	1688518.0	99.779	%	13:59:02
3	Y 371.029	951515.1	951515.1	99.424	%	13:59:02
3	Ag 328.068†	29717.6	24680.6	[100]	µg/L	13:59:04
3	As 188.979†	276.0	290.0	[100]	µg/L	13:59:24
3	B 249.677†	10763.6	6675.6	[100]	µg/L	13:59:04
3	Ba 233.527†	22593.3	22789.3	[100]	µg/L	13:59:04
3	Be 313.107†	349199.9	350967.2	[100]	µg/L	13:59:02
3	Cd 226.502†	15385.6	15484.3	[100]	µg/L	13:59:04
3	Co 228.616†	7604.2	7848.1	[100]	µg/L	13:59:24
3	Cr 267.716†	11907.6	11604.4	[100]	µg/L	13:59:04
3	Cu 324.752†	27488.5	24308.2	[100]	µg/L	13:59:04
3	Mn 257.610†	80200.2	80162.8	[100]	µg/L	13:59:04
3	Mo 202.031†	2935.2	2963.4	[100]	µg/L	13:59:24
3	Ni 231.604†	8386.7	8479.2	[100]	µg/L	13:59:04
3	P 214.914†	2144.7	2168.6	[500]	µg/L	13:59:24
3	Pb 220.353†	1733.5	1620.1	[100]	µg/L	13:59:24
3	S 181.975 Axial†	335.2	234.0	[200]	µg/L	13:59:24
3	Sb 206.836†	869.2	793.6	[100]	µg/L	13:59:24
3	Se 196.026†	288.3	269.0	[100]	µg/L	13:59:24
3	SiO2†	12124.5	10462.6	[1069.5]	µg/L	13:59:04
3	Si 251.611†	33644.8	32932.9	[500]	µg/L	13:59:04
3	Sn 189.927†	1470.0	1464.9	[100]	µg/L	13:59:24
3	Ti 334.940†	96832.1	96160.9	[100]	µg/L	13:59:04
3	Tl 190.801†	594.0	710.5	[100]	µg/L	13:59:24
3	U 409.014†	1362.6	1776.9	[100]	µg/L	13:59:04
3	V 292.402†	20719.6	20269.6	[100]	µg/L	13:59:04
3	Zn 213.857†	18019.5	17440.2	[100]	µg/L	13:59:04

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1678073.5	11489.66	0.68%	99.161	%
Sc RADIAL	115068.4	826.39	0.72%	101	%
Y 371.029	945856.7	6204.61	0.66%	98.833	%
Ag 328.068†	24905.4	250.71	1.01%	[100]	µg/L
As 188.979†	289.1	2.89	1.00%	[100]	µg/L
B 249.677†	6751.4	119.37	1.77%	[100]	µg/L
Ba 233.527†	22738.7	48.10	0.21%	[100]	µg/L
Be 313.107†	351704.7	718.98	0.20%	[100]	µg/L
Cd 226.502†	15503.0	20.42	0.13%	[100]	µg/L
Co 228.616†	7847.8	23.82	0.30%	[100]	µg/L
Cr 267.716†	11637.5	40.19	0.35%	[100]	µg/L
Cu 324.752†	24408.7	158.60	0.65%	[100]	µg/L
K 766.490 Radial†	2600.2	41.39	1.59%	[1000]	µg/L
Mn 257.610†	80295.7	121.34	0.15%	[100]	µg/L
Mo 202.031†	2972.7	18.29	0.62%	[100]	µg/L
Ni 231.604†	8377.9	91.40	1.09%	[100]	µg/L
P 214.914†	2176.3	7.35	0.34%	[500]	µg/L
Pb 220.353†	1635.8	15.87	0.97%	[100]	µg/L
S 181.975 Axial†	233.5	1.67	0.72%	[200]	µg/L
Sb 206.836†	796.3	15.92	2.00%	[100]	µg/L
Se 196.026†	260.1	8.67	3.33%	[100]	µg/L
SiO2†	10446.7	16.63	0.16%	[1069.5]	µg/L
Si 251.611†	32910.4	45.29	0.14%	[500]	µg/L
Sn 189.927†	1463.0	7.34	0.50%	[100]	µg/L
Sr 421.552†	40257.9	167.00	0.41%	[100]	µg/L
Ti 334.940†	96006.7	160.89	0.17%	[100]	µg/L
Tl 190.801†	724.0	11.79	1.63%	[100]	µg/L
U 409.014†	1786.7	240.48	13.46%	[100]	µg/L
V 292.402†	20256.6	108.66	0.54%	[100]	µg/L
Zn 213.857†	17616.0	155.82	0.88%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 4/13/2010 13:59:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	113312.7	113312.7	99.1	%	14:00:04
1	Al 396.153Radial†	21478.4	21767.2	[5000]	µg/L	14:00:04
1	Ca 317.933Radial†	61609.5	61737.4	[5000]	µg/L	14:00:04
1	K 766.490 Radial†	13916.9	12639.7	[5000]	µg/L	14:00:04
1	Mg 279.077 IEC†	9455.7	9388.1	[5000]	µg/L	14:00:04
1	Sr 421.552†	193082.9	194982.0	[500]	µg/L	14:00:02
1	Sc 361.383	1682640.5	1682640.5	99.431	%	14:00:31
1	Y 371.029	940830.0	940830.0	98.307	%	14:00:31
1	Ag 328.068†	124557.5	120167.1	[500]	µg/L	14:00:31
1	As 188.979†	1423.2	1444.7	[500]	µg/L	14:00:51
1	B 249.677†	37136.1	33236.5	[500]	µg/L	14:00:31
1	Ba 233.527†	109569.2	110341.8	[500]	µg/L	14:00:31
1	Be 313.107†	1752248.6	1763264.1	[500]	µg/L	14:00:31
1	Cd 226.502†	75136.1	75630.5	[500]	µg/L	14:00:31
1	Co 228.616†	37848.6	38292.1	[500]	µg/L	14:00:31
1	Cr 267.716†	56766.7	56761.8	[500]	µg/L	14:00:31
1	Cu 324.752†	122552.8	120012.6	[500]	µg/L	14:00:31
1	Mn 257.610†	381154.0	383119.0	[500]	µg/L	14:00:31
1	Mo 202.031†	14608.3	14713.5	[500]	µg/L	14:00:51
1	Ni 231.604†	39990.8	40293.5	[500]	µg/L	14:00:31
1	P 214.914†	10778.1	10859.0	[2500]	µg/L	14:00:51
1	Pb 220.353†	8037.0	7965.8	[500]	µg/L	14:00:51
1	S 181.975 Axial†	1254.8	1160.1	[1000]	µg/L	14:00:51
1	Sb 206.836†	3937.2	3882.2	[500]	µg/L	14:00:51
1	Se 196.026†	1285.1	1272.5	[500]	µg/L	14:00:51
1	SiO2†	52983.6	51597.8	[5347.5]	µg/L	14:00:31
1	Si 251.611†	163127.4	163274.0	[2500]	µg/L	14:00:31
1	Sn 189.927†	7126.0	7158.4	[500]	µg/L	14:00:51
1	Ti 334.940†	474216.5	476043.0	[500]	µg/L	14:00:31
1	Tl 190.801†	3404.2	3538.9	[500]	µg/L	14:00:51
1	U 409.014†	6934.6	7385.5	[500]	µg/L	14:00:31
1	V 292.402†	99950.1	100025.9	[500]	µg/L	14:00:31
1	Zn 213.857†	86546.3	86422.0	[500]	µg/L	14:00:31
2	Sc RADIAL	113273.4	113273.4	99.0	%	14:00:08
2	Al 396.153Radial†	21386.1	21681.6	[5000]	µg/L	14:00:08
2	Ca 317.933Radial†	61198.7	61344.2	[5000]	µg/L	14:00:08
2	K 766.490 Radial†	13915.4	12643.1	[5000]	µg/L	14:00:08
2	Mg 279.077 IEC†	9306.8	9241.0	[5000]	µg/L	14:00:08
2	Sr 421.552†	195960.0	197955.1	[500]	µg/L	14:00:06
2	Sc 361.383	1675433.5	1675433.5	99.005	%	14:00:54
2	Y 371.029	936252.4	936252.4	97.829	%	14:00:54
2	Ag 328.068†	124128.4	120272.4	[500]	µg/L	14:00:54
2	As 188.979†	1427.9	1455.6	[500]	µg/L	14:01:14
2	B 249.677†	37314.9	33577.9	[500]	µg/L	14:00:54
2	Ba 233.527†	109487.2	110733.0	[500]	µg/L	14:00:54
2	Be 313.107†	1745681.0	1764211.1	[500]	µg/L	14:00:54
2	Cd 226.502†	74829.2	75645.6	[500]	µg/L	14:00:54
2	Co 228.616†	37636.5	38241.7	[500]	µg/L	14:00:54
2	Cr 267.716†	56528.9	56767.1	[500]	µg/L	14:00:54
2	Cu 324.752†	121959.0	119943.0	[500]	µg/L	14:00:54
2	Mn 257.610†	379591.3	383189.4	[500]	µg/L	14:00:54
2	Mo 202.031†	14759.8	14929.7	[500]	µg/L	14:01:14
2	Ni 231.604†	39870.3	40344.7	[500]	µg/L	14:00:54
2	P 214.914†	10917.2	11046.1	[2500]	µg/L	14:01:14
2	Pb 220.353†	8142.4	8107.0	[500]	µg/L	14:01:14
2	S 181.975 Axial†	1271.8	1182.6	[1000]	µg/L	14:01:14
2	Sb 206.836†	3982.4	3944.8	[500]	µg/L	14:01:14
2	Se 196.026†	1314.2	1307.4	[500]	µg/L	14:01:14
2	SiO2†	52951.0	51794.1	[5347.5]	µg/L	14:00:54

2	Si 251.611†	163146.3	163998.8	[2500]	µg/L	14:00:54
2	Sn 189.927†	7224.3	7288.5	[500]	µg/L	14:01:14
2	Ti 334.940†	471991.2	475846.9	[500]	µg/L	14:00:54
2	Tl 190.801†	3433.8	3583.5	[500]	µg/L	14:01:14
2	U 409.014†	7090.3	7572.7	[500]	µg/L	14:00:54
2	V 292.402†	99867.3	100374.6	[500]	µg/L	14:00:54
2	Zn 213.857†	86594.2	86844.9	[500]	µg/L	14:00:54
3	Sc RADIAL	114467.9	114467.9	100	%	14:00:12
3	Al 396.153Radial†	21684.8	21754.6	[5000]	µg/L	14:00:12
3	Ca 317.933Radial†	61887.3	61387.4	[5000]	µg/L	14:00:12
3	K 766.490 Radial†	13951.7	12532.7	[5000]	µg/L	14:00:12
3	Mg 279.077 IEC†	9385.5	9221.6	[5000]	µg/L	14:00:12
3	Sr 421.552†	196872.3	196801.7	[500]	µg/L	14:00:10
3	Sc 361.383	1678505.5	1678505.5	99.187	%	14:01:17
3	Y 371.029	938771.8	938771.8	98.092	%	14:01:17
3	Ag 328.068†	124457.9	120375.2	[500]	µg/L	14:01:17
3	As 188.979†	1426.5	1451.6	[500]	µg/L	14:01:37
3	B 249.677†	37334.9	33529.0	[500]	µg/L	14:01:17
3	Ba 233.527†	109657.9	110702.7	[500]	µg/L	14:01:17
3	Be 313.107†	1753559.4	1768927.0	[500]	µg/L	14:01:17
3	Cd 226.502†	75192.1	75873.1	[500]	µg/L	14:01:17
3	Co 228.616†	37823.5	38360.6	[500]	µg/L	14:01:17
3	Cr 267.716†	56711.6	56846.9	[500]	µg/L	14:01:17
3	Cu 324.752†	122644.2	120408.3	[500]	µg/L	14:01:17
3	Mn 257.610†	381725.4	384639.3	[500]	µg/L	14:01:17
3	Mo 202.031†	14814.5	14957.6	[500]	µg/L	14:01:37
3	Ni 231.604†	40081.7	40484.2	[500]	µg/L	14:01:17
3	P 214.914†	10959.6	11068.6	[2500]	µg/L	14:01:37
3	Pb 220.353†	8165.6	8115.3	[500]	µg/L	14:01:37
3	S 181.975 Axial†	1266.2	1174.7	[1000]	µg/L	14:01:37
3	Sb 206.836†	4002.3	3957.6	[500]	µg/L	14:01:37
3	Se 196.026†	1319.2	1310.0	[500]	µg/L	14:01:37
3	SiO2†	53297.9	52046.0	[5347.5]	µg/L	14:01:17
3	Si 251.611†	163951.7	164509.2	[2500]	µg/L	14:01:17
3	Sn 189.927†	7245.9	7296.9	[500]	µg/L	14:01:37
3	Ti 334.940†	474632.8	477637.6	[500]	µg/L	14:01:17
3	Tl 190.801†	3427.0	3570.4	[500]	µg/L	14:01:37
3	U 409.014†	7331.9	7803.3	[500]	µg/L	14:01:17
3	V 292.402†	100178.9	100504.2	[500]	µg/L	14:01:17
3	Zn 213.857†	86822.2	86914.6	[500]	µg/L	14:01:17

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1678859.8	3616.52	0.22%	99.208	%
Sc RADIAL	113684.6	678.57	0.60%	99.4	%
Y 371.029	938618.1	2292.64	0.24%	98.076	%
Ag 328.068†	120271.5	104.06	0.09%	[500]	µg/L
Al 396.153Radial†	21734.5	46.26	0.21%	[5000]	µg/L
As 188.979†	1450.7	5.52	0.38%	[500]	µg/L
B 249.677†	33447.8	184.58	0.55%	[500]	µg/L
Ba 233.527†	110592.5	217.65	0.20%	[500]	µg/L
Be 313.107†	1765467.4	3033.28	0.17%	[500]	µg/L
Ca 317.933Radial†	61489.7	215.62	0.35%	[5000]	µg/L
Cd 226.502†	75716.4	135.93	0.18%	[500]	µg/L
Co 228.616†	38298.2	59.70	0.16%	[500]	µg/L
Cr 267.716†	56792.0	47.66	0.08%	[500]	µg/L
Cu 324.752†	120121.3	251.00	0.21%	[500]	µg/L
K 766.490 Radial†	12605.1	62.79	0.50%	[5000]	µg/L
Mg 279.077 IEC†	9283.6	91.05	0.98%	[5000]	µg/L
Mn 257.610†	383649.2	858.14	0.22%	[500]	µg/L
Mo 202.031†	14866.9	133.60	0.90%	[500]	µg/L
Ni 231.604†	40374.1	98.68	0.24%	[500]	µg/L
P 214.914†	10991.2	115.10	1.05%	[2500]	µg/L
Pb 220.353†	8062.7	84.03	1.04%	[500]	µg/L
S 181.975 Axial†	1172.5	11.44	0.98%	[1000]	µg/L
Sb 206.836†	3928.2	40.35	1.03%	[500]	µg/L
Se 196.026†	1296.6	20.96	1.62%	[500]	µg/L
SiO2†	51812.6	224.66	0.43%	[5347.5]	µg/L
Si 251.611†	163927.3	620.73	0.38%	[2500]	µg/L

Sn 189.927†	7247.9	77.66	1.07%	[500]	µg/L
Sr 421.552†	196579.6	1498.94	0.76%	[500]	µg/L
Ti 334.940†	476509.2	982.14	0.21%	[500]	µg/L
Tl 190.801†	3564.3	22.94	0.64%	[500]	µg/L
U 409.014†	7587.2	209.27	2.76%	[500]	µg/L
V 292.402†	100301.5	247.37	0.25%	[500]	µg/L
Zn 213.857†	86727.2	266.57	0.31%	[500]	µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 4/13/2010 14:01:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	114834.2	114834.2	100	%	14:02:16
1	Al 396.153Radial†	43192.0	43109.1	[10000]	µg/L	14:02:16
1	Ca 317.933Radial†	123466.7	122530.3	[10000]	µg/L	14:02:16
1	Fe 238.204 Radial†	118908.2	118321.9	[10000]	µg/L	14:02:16
1	K 766.490 Radial†	26527.9	25015.6	[10000]	µg/L	14:02:16
1	Mg 279.077 IEC†	18679.8	18449.9	[10000]	µg/L	14:02:16
1	Na 589.592 Radial†	63912.5	62828.9	[10000]	µg/L	14:02:16
1	Sr 421.552†	390369.6	388919.6	[1000]	µg/L	14:02:14
1	Sc 361.383	1667730.2	1667730.2	98.550	%	14:02:43
1	Y 371.029	928107.5	928107.5	96.978	%	14:02:43
1	Ag 328.068†	244379.5	242871.8	[1000]	µg/L	14:02:45
1	As 188.979†	2863.0	2918.5	[1000]	µg/L	14:03:05
1	B 249.677†	70534.4	67460.1	[1000]	µg/L	14:02:45
1	Ba 233.527†	217804.1	221154.3	[1000]	µg/L	14:02:45
1	Be 313.107†	3473218.5	3525308.1	[1000]	µg/L	14:02:43
1	Cd 226.502†	149111.1	151369.4	[1000]	µg/L	14:02:45
1	Co 228.616†	74990.8	76321.1	[1000]	µg/L	14:02:45
1	Cr 267.716†	112900.0	114231.3	[1000]	µg/L	14:02:45
1	Cu 324.752†	241770.1	242085.7	[1000]	µg/L	14:02:45
1	Mn 257.610†	754879.3	765769.5	[1000]	µg/L	14:02:45
1	Mo 202.031†	29200.7	29651.9	[1000]	µg/L	14:03:05
1	Ni 231.604†	79120.1	80358.1	[1000]	µg/L	14:02:45
1	P 214.914†	21724.9	22063.7	[5000]	µg/L	14:03:05
1	Pb 220.353†	15920.8	16037.8	[1000]	µg/L	14:03:05
1	S 181.975 Axial†	2437.8	2371.7	[2000]	µg/L	14:03:05
1	Sb 206.836†	7823.2	7860.7	[1000]	µg/L	14:03:05
1	Se 196.026†	2601.2	2619.5	[1000]	µg/L	14:03:05
1	SiO2†	103588.9	103424.0	[10695]	µg/L	14:02:45
1	Si 251.611†	323493.7	327466.3	[5000]	µg/L	14:02:45
1	Sn 189.927†	14228.2	14429.1	[1000]	µg/L	14:03:05
1	Ti 334.940†	939664.2	952602.2	[1000]	µg/L	14:02:43
1	Tl 190.801†	6919.0	7136.0	[1000]	µg/L	14:03:05
1	U 409.014†	16041.0	16688.3	[1000]	µg/L	14:02:45
1	V 292.402†	200113.4	202561.4	[1000]	µg/L	14:02:45
1	Zn 213.857†	171446.6	173349.5	[1000]	µg/L	14:02:45
2	Sc RADIAL	115211.8	115211.8	101	%	14:02:20
2	Al 396.153Radial†	43071.5	42848.6	[10000]	µg/L	14:02:20
2	Ca 317.933Radial†	123899.3	122556.7	[10000]	µg/L	14:02:20
2	Fe 238.204 Radial†	118997.4	118022.3	[10000]	µg/L	14:02:20
2	K 766.490 Radial†	26508.9	24910.1	[10000]	µg/L	14:02:20
2	Mg 279.077 IEC†	18832.1	18540.1	[10000]	µg/L	14:02:20
2	Na 589.592 Radial†	63795.8	62504.4	[10000]	µg/L	14:02:20
2	Sr 421.552†	388119.6	385411.3	[1000]	µg/L	14:02:18
2	Sc 361.383	1697269.8	1697269.8	100.30	%	14:03:08
2	Y 371.029	943343.3	943343.3	98.570	%	14:03:08
2	Ag 328.068†	247249.1	241417.1	[1000]	µg/L	14:03:10
2	As 188.979†	2848.8	2853.8	[1000]	µg/L	14:03:30
2	B 249.677†	71633.5	67310.4	[1000]	µg/L	14:03:10
2	Ba 233.527†	219971.1	219468.4	[1000]	µg/L	14:03:10
2	Be 313.107†	3539239.2	3529796.4	[1000]	µg/L	14:03:08
2	Cd 226.502†	150771.2	150391.3	[1000]	µg/L	14:03:10
2	Co 228.616†	75690.7	75694.6	[1000]	µg/L	14:03:10
2	Cr 267.716†	113953.4	113287.8	[1000]	µg/L	14:03:10
2	Cu 324.752†	244569.6	240607.2	[1000]	µg/L	14:03:10
2	Mn 257.610†	762356.7	759893.6	[1000]	µg/L	14:03:10
2	Mo 202.031†	29156.4	29092.1	[1000]	µg/L	14:03:30
2	Ni 231.604†	79920.1	79758.4	[1000]	µg/L	14:03:10
2	P 214.914†	21661.3	21616.6	[5000]	µg/L	14:03:30
2	Pb 220.353†	15908.6	15744.5	[1000]	µg/L	14:03:30

2	S 181.975 Axial†	2422.7	2313.6	[2000]	µg/L	14:03:30
2	Sb 206.836†	7816.3	7715.7	[1000]	µg/L	14:03:30
2	Se 196.026†	2569.9	2542.3	[1000]	µg/L	14:03:30
2	SiO2†	105093.2	103094.5	[10695]	µg/L	14:03:10
2	Si 251.611†	327910.7	326157.4	[5000]	µg/L	14:03:10
2	Sn 189.927†	14249.2	14198.8	[1000]	µg/L	14:03:30
2	Ti 334.940†	955746.6	952042.6	[1000]	µg/L	14:03:08
2	Tl 190.801†	6944.7	7039.5	[1000]	µg/L	14:03:30
2	U 409.014†	16268.4	16631.7	[1000]	µg/L	14:03:10
2	V 292.402†	202015.2	200923.5	[1000]	µg/L	14:03:10
2	Zn 213.857†	173209.0	172079.0	[1000]	µg/L	14:03:10
3	Sc RADIAL	113957.9	113957.9	99.6	%	14:02:25
3	Al 396.153Radial†	42520.9	42766.4	[10000]	µg/L	14:02:25
3	Ca 317.933Radial†	121747.8	121750.6	[10000]	µg/L	14:02:25
3	Fe 238.204 Radial†	117098.8	117416.5	[10000]	µg/L	14:02:25
3	K 766.490 Radial†	26132.1	24821.5	[10000]	µg/L	14:02:25
3	Mg 279.077 IEC†	18381.6	18293.7	[10000]	µg/L	14:02:25
3	Na 589.592 Radial†	62818.0	62219.8	[10000]	µg/L	14:02:25
3	Sr 421.552†	388706.1	390240.0	[1000]	µg/L	14:02:22
3	Sc 361.383	1677848.1	1677848.1	99.148	%	14:03:32
3	Y 371.029	933166.9	933166.9	97.507	%	14:03:32
3	Ag 328.068†	246276.8	243290.0	[1000]	µg/L	14:03:35
3	As 188.979†	2843.5	2881.4	[1000]	µg/L	14:03:55
3	B 249.677†	71177.6	67677.3	[1000]	µg/L	14:03:35
3	Ba 233.527†	219681.3	221714.8	[1000]	µg/L	14:03:35
3	Be 313.107†	3510497.3	3541654.7	[1000]	µg/L	14:03:32
3	Cd 226.502†	150345.4	151701.8	[1000]	µg/L	14:03:35
3	Co 228.616†	75675.0	76552.3	[1000]	µg/L	14:03:35
3	Cr 267.716†	113544.7	114190.7	[1000]	µg/L	14:03:35
3	Cu 324.752†	244032.2	242887.9	[1000]	µg/L	14:03:35
3	Mn 257.610†	760280.3	766597.9	[1000]	µg/L	14:03:35
3	Mo 202.031†	29145.7	29417.8	[1000]	µg/L	14:03:55
3	Ni 231.604†	80008.0	80769.5	[1000]	µg/L	14:03:35
3	P 214.914†	21689.6	21895.2	[5000]	µg/L	14:03:55
3	Pb 220.353†	15950.0	15969.8	[1000]	µg/L	14:03:55
3	S 181.975 Axial†	2451.9	2371.0	[2000]	µg/L	14:03:55
3	Sb 206.836†	7791.6	7781.1	[1000]	µg/L	14:03:55
3	Se 196.026†	2588.0	2590.2	[1000]	µg/L	14:03:55
3	SiO2†	104932.5	104145.3	[10695]	µg/L	14:03:35
3	Si 251.611†	327564.2	329592.4	[5000]	µg/L	14:03:35
3	Sn 189.927†	14229.7	14343.6	[1000]	µg/L	14:03:55
3	Ti 334.940†	948984.7	956253.1	[1000]	µg/L	14:03:32
3	Tl 190.801†	6907.2	7081.8	[1000]	µg/L	14:03:55
3	U 409.014†	16373.1	16925.1	[1000]	µg/L	14:03:35
3	V 292.402†	201146.7	202379.1	[1000]	µg/L	14:03:35
3	Zn 213.857†	172995.9	173863.1	[1000]	µg/L	14:03:35

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1680949.4	15011.98	0.89%	99.331	%
Sc RADIAL	114668.0	643.26	0.56%	100	%
Y 371.029	934872.6	7759.83	0.83%	97.685	%
Ag 328.068†	242526.3	983.06	0.41%	[1000]	µg/L
Al 396.153Radial†	42908.0	178.94	0.42%	[10000]	µg/L
As 188.979†	2884.6	32.48	1.13%	[1000]	µg/L
B 249.677†	67482.6	184.46	0.27%	[1000]	µg/L
Ba 233.527†	220779.2	1169.24	0.53%	[1000]	µg/L
Be 313.107†	3532253.1	8445.67	0.24%	[1000]	µg/L
Ca 317.933Radial†	122279.2	457.93	0.37%	[10000]	µg/L
Cd 226.502†	151154.2	681.27	0.45%	[1000]	µg/L
Co 228.616†	76189.3	443.74	0.58%	[1000]	µg/L
Cr 267.716†	113903.3	533.40	0.47%	[1000]	µg/L
Cu 324.752†	241860.3	1156.93	0.48%	[1000]	µg/L
Fe 238.204 Radial†	117920.2	461.25	0.39%	[10000]	µg/L
K 766.490 Radial†	24915.7	97.19	0.39%	[10000]	µg/L
Mg 279.077 IEC†	18427.9	124.69	0.68%	[10000]	µg/L
Mn 257.610†	764087.0	3655.15	0.48%	[1000]	µg/L
Mo 202.031†	29387.3	281.18	0.96%	[1000]	µg/L
Na 589.592 Radial†	62517.7	304.76	0.49%	[10000]	µg/L

Ni 231.604†	80295.3	508.46	0.63%	[1000]	µg/L
P 214.914†	21858.5	225.78	1.03%	[5000]	µg/L
Pb 220.353†	15917.4	153.49	0.96%	[1000]	µg/L
S 181.975 Axial†	2352.1	33.35	1.42%	[2000]	µg/L
Sb 206.836†	7785.8	72.62	0.93%	[1000]	µg/L
Se 196.026†	2584.0	38.96	1.51%	[1000]	µg/L
SiO2†	103554.6	537.46	0.52%	[10695]	µg/L
Si 251.611†	327738.7	1733.61	0.53%	[5000]	µg/L
Sn 189.927†	14323.8	116.43	0.81%	[1000]	µg/L
Sr 421.552†	388190.3	2495.56	0.64%	[1000]	µg/L
Ti 334.940†	953632.6	2286.56	0.24%	[1000]	µg/L
Tl 190.801†	7085.8	48.40	0.68%	[1000]	µg/L
U 409.014†	16748.3	155.65	0.93%	[1000]	µg/L
V 292.402†	201954.7	897.63	0.44%	[1000]	µg/L
Zn 213.857†	173097.2	918.45	0.53%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 4/13/2010 14:04:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	111326.0	111326.0	97.3	%	14:04:31
1	Al 396.153Radial†	205248.7	210979.2	[50000]	µg/L	14:04:31
1	Ca 317.933Radial†	590258.0	606036.7	[50000]	µg/L	14:04:31
1	Fe 238.204 Radial†	227697.9	233836.5	[20000]	µg/L	14:04:31
1	Mg 279.077 IEC†	87919.7	90180.7	[50000]	µg/L	14:04:31
1	Na 589.592 Radial†	122439.7	124972.2	[20000]	µg/L	14:04:31
1	Sc 361.383	1627528.8	1627528.8	96.175	%	14:04:53
1	Y 371.029	906736.0	906736.0	94.745	%	14:04:53
2	Sc RADIAL	110554.8	110554.8	96.6	%	14:04:33
2	Al 396.153Radial†	205614.2	212828.4	[50000]	µg/L	14:04:33
2	Ca 317.933Radial†	589278.4	609253.6	[50000]	µg/L	14:04:33
2	Fe 238.204 Radial†	227105.1	234855.2	[20000]	µg/L	14:04:33
2	Mg 279.077 IEC†	87634.1	90515.3	[50000]	µg/L	14:04:33
2	Na 589.592 Radial†	122793.8	126216.1	[20000]	µg/L	14:04:33
2	Sc 361.383	1632835.1	1632835.1	96.488	%	14:04:56
2	Y 371.029	909755.9	909755.9	95.060	%	14:04:56
3	Sc RADIAL	112055.6	112055.6	98.0	%	14:04:35
3	Al 396.153Radial†	207380.3	211781.8	[50000]	µg/L	14:04:35
3	Ca 317.933Radial†	593806.8	605710.0	[50000]	µg/L	14:04:35
3	Fe 238.204 Radial†	228996.4	233638.6	[20000]	µg/L	14:04:35
3	Mg 279.077 IEC†	88565.6	90251.7	[50000]	µg/L	14:04:35
3	Na 589.592 Radial†	123354.3	125086.6	[20000]	µg/L	14:04:35
3	Sc 361.383	1631104.2	1631104.2	96.386	%	14:04:59
3	Y 371.029	908829.1	908829.1	94.964	%	14:04:59

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1630489.4	2706.03	0.17%	96.349	%
Sc RADIAL	111312.1	750.51	0.67%	97.3	%
Y 371.029	908440.3	1547.02	0.17%	94.923	%
Al 396.153Radial†	211863.1	927.26	0.44%	[50000]	µg/L
Ca 317.933Radial†	607000.1	1958.42	0.32%	[50000]	µg/L
Fe 238.204 Radial†	234110.1	652.83	0.28%	[20000]	µg/L
Mg 279.077 IEC†	90315.9	176.28	0.20%	[50000]	µg/L
Na 589.592 Radial†	125425.0	687.53	0.55%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	242.2	0.00000	0.999991	
Al 396.153Radial	3	Lin Thru 0	0.0	4.240	0.00000	0.999994	
As 188.979	3	Lin Thru 0	0.0	2.888	0.00000	0.999997	
B 249.677	3	Lin Thru 0	0.0	67.37	0.00000	0.999994	
Ba 233.527	3	Lin Thru 0	0.0	220.9	0.00000	0.999996	
Be 313.107	3	Lin Thru 0	0.0	3532	0.00000	1.000000	
Ca 317.933Radial	3	Lin Thru 0	0.0	12.14	0.00000	0.999998	
Cd 226.502	3	Lin Thru 0	0.0	151.2	0.00000	0.999997	
Co 228.616	3	Lin Thru 0	0.0	76.29	0.00000	0.999994	
Cr 267.716	3	Lin Thru 0	0.0	113.9	0.00000	0.999997	
Cu 324.752	3	Lin Thru 0	0.0	241.6	0.00000	0.999996	
Fe 238.204 Radia	2	Lin Thru 0	0.0	11.72	0.00000	0.999996	
K 766.490 Radial	3	Lin Thru 0	0.0	2.498	0.00000	0.999982	
Mg 279.077 IEC	3	Lin Thru 0	0.0	1.808	0.00000	0.999989	
Mn 257.610	3	Lin Thru 0	0.0	765.0	0.00000	0.999989	
Mo 202.031	3	Lin Thru 0	0.0	29.46	0.00000	0.999989	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.267	0.00000	0.999999	

Ni 231.604	3	Lin Thru 0	0.0	80.41	0.00000	0.999990
P 214.914	3	Lin Thru 0	0.0	4.376	0.00000	0.999997
Pb 220.353	3	Lin Thru 0	0.0	15.96	0.00000	0.999984
S 181.975 Axial	3	Lin Thru 0	0.0	1.175	0.00000	0.999999
Sb 206.836	3	Lin Thru 0	0.0	7.801	0.00000	0.999992
Se 196.026	3	Lin Thru 0	0.0	2.586	0.00000	0.999999
SiO2	3	Lin Thru 0	0.0	9.685	0.00000	1.000000
Si 251.611	3	Lin Thru 0	0.0	65.55	0.00000	1.000000
Sn 189.927	3	Lin Thru 0	0.0	14.36	0.00000	0.999987
Sr 421.552	3	Lin Thru 0	0.0	389.3	0.00000	0.999982
Ti 334.940	3	Lin Thru 0	0.0	953.6	0.00000	1.000000
Tl 190.801	3	Lin Thru 0	0.0	7.095	0.00000	0.999995
U 409.014	3	Lin Thru 0	0.0	16.44	0.00000	0.999244
V 292.402	3	Lin Thru 0	0.0	201.7	0.00000	0.999996
Zn 213.857	3	Lin Thru 0	0.0	173.2	0.00000	0.999998

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 4/13/2010 14:05:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114679.5	114679.5	100	%			14:05:38
1	Al 396.153Radial†	22571.7	22599.3	5304.0	µg/L	5304.0	ppb	14:05:38
1	Ca 317.933Radial†	63687.7	63069.1	5193.1	µg/L	5193.1	ppb	14:05:38
1	Fe 238.204 Radial†	60965.6	60686.4	5176.8	µg/L	5176.8	ppb	14:05:38
1	K 766.490 Radial†	8120.2	6690.3	2675.0	µg/L	2675.0	ppb	14:05:38
1	Mg 279.077 IEC†	9930.8	9748.2	5400.2	µg/L	5400.2	ppb	14:05:38
1	Na 589.592 Radial†	16770.8	15892.9	2533.4	µg/L	2533.4	ppb	14:05:38
1	Sr 421.552†	213677.5	213201.3	547.63	µg/L	547.63	ppb	14:05:36
1	Sc 361.383	1688876.0	1688876.0	99.800	%			14:06:05
1	Y 371.029	946580.4	946580.4	98.908	%			14:06:05
1	Ag 328.068†	67855.6	62888.8	266.10	µg/L	266.10	ppb	14:06:05
1	As 188.979†	1375.4	1391.6	489.41	µg/L	489.41	ppb	14:06:25
1	B 249.677†	40096.8	36065.3	533.51	µg/L	533.51	ppb	14:06:05
1	Ba 233.527†	114762.7	115138.8	521.63	µg/L	521.63	ppb	14:06:05
1	Be 313.107†	932024.2	934887.1	264.84	µg/L	264.84	ppb	14:06:05
1	Cd 226.502†	77949.4	78170.4	516.56	µg/L	516.56	ppb	14:06:05
1	Co 228.616†	40261.9	40569.7	532.13	µg/L	532.13	ppb	14:06:05
1	Cr 267.716†	57854.0	57640.5	506.11	µg/L	506.11	ppb	14:06:05
1	Cu 324.752†	129322.9	126341.2	524.63	µg/L	524.63	ppb	14:06:05
1	Mn 257.610†	400247.6	400835.6	523.72	µg/L	523.72	ppb	14:06:05
1	Mo 202.031†	16189.4	16243.5	551.88	µg/L	551.88	ppb	14:06:25
1	Ni 231.604†	40843.7	40999.6	509.86	µg/L	509.86	ppb	14:06:05
1	P 214.914†	11171.5	11213.1	2553.0	µg/L	2553.0	ppb	14:06:25
1	Pb 220.353†	8354.8	8254.3	518.94	µg/L	518.94	ppb	14:06:25
1	S 181.975 Axial†	3060.5	2964.7	2527.2	µg/L	2527.2	ppb	14:06:25
1	Sb 206.836†	4037.3	3967.9	510.49	µg/L	510.49	ppb	14:06:25
1	Se 196.026†	6624.7	6618.0	2560	µg/L	2560	ppb	14:06:25
1	SiO2†	103682.7	102201.9	10530	µg/L	10530	ppb	14:06:05
1	Si 251.611†	322867.9	322729.4	4912.1	µg/L	4912.1	ppb	14:06:05
1	Sn 189.927†	7746.8	7754.0	541.65	µg/L	541.65	ppb	14:06:25
1	Ti 334.940†	480246.9	480324.6	503.05	µg/L	503.05	ppb	14:06:05
1	Tl 190.801†	3708.5	3831.2	547.46	µg/L	547.46	ppb	14:06:25
1	U 409.014†	7137.8	7563.4	491.28	µg/L	491.28	ppb	14:06:05
1	V 292.402†	103677.1	103389.1	519.79	µg/L	519.79	ppb	14:06:05
1	Zn 213.857†	90749.6	90312.4	517.37	µg/L	517.37	ppb	14:06:05
2	Sc RADIAL	114636.8	114636.8	100	%			14:05:42
2	Al 396.153Radial†	22462.2	22498.4	5280.2	µg/L	5280.2	ppb	14:05:42
2	Ca 317.933Radial†	63786.8	63191.7	5203.2	µg/L	5203.2	ppb	14:05:42
2	Fe 238.204 Radial†	61338.3	61080.9	5210.4	µg/L	5210.4	ppb	14:05:42
2	K 766.490 Radial†	7948.7	6522.2	2607.7	µg/L	2607.7	ppb	14:05:42
2	Mg 279.077 IEC†	10015.9	9836.8	5449.2	µg/L	5449.2	ppb	14:05:42
2	Na 589.592 Radial†	17084.5	16212.2	2584.4	µg/L	2584.4	ppb	14:05:42
2	Sr 421.552†	211595.0	211202.6	542.49	µg/L	542.49	ppb	14:05:40
2	Sc 361.383	1686369.4	1686369.4	99.652	%			14:06:28
2	Y 371.029	945099.5	945099.5	98.753	%			14:06:28
2	Ag 328.068†	68737.2	63874.5	270.15	µg/L	270.15	ppb	14:06:28
2	As 188.979†	1366.7	1384.9	487.07	µg/L	487.07	ppb	14:06:48
2	B 249.677†	40112.6	36141.0	534.63	µg/L	534.63	ppb	14:06:28
2	Ba 233.527†	114539.2	115085.6	521.39	µg/L	521.39	ppb	14:06:28
2	Be 313.107†	931472.8	935721.9	265.07	µg/L	265.07	ppb	14:06:28
2	Cd 226.502†	77546.0	77881.7	514.65	µg/L	514.65	ppb	14:06:28
2	Co 228.616†	40235.3	40603.0	532.57	µg/L	532.57	ppb	14:06:28
2	Cr 267.716†	57690.5	57562.5	505.42	µg/L	505.42	ppb	14:06:28
2	Cu 324.752†	129289.7	126500.4	525.29	µg/L	525.29	ppb	14:06:28
2	Mn 257.610†	399527.2	400708.7	523.55	µg/L	523.55	ppb	14:06:28
2	Mo 202.031†	16173.8	16252.0	552.17	µg/L	552.17	ppb	14:06:48
2	Ni 231.604†	40988.7	41205.9	512.43	µg/L	512.43	ppb	14:06:28
2	P 214.914†	11159.0	11217.2	2553.9	µg/L	2553.9	ppb	14:06:48
2	Pb 220.353†	8355.7	8267.7	519.78	µg/L	519.78	ppb	14:06:48

2	S 181.975 Axial†	3046.5	2955.2	2519.1 µg/L	2519.1 ppb	14:06:48
2	Sb 206.836†	4038.6	3975.2	511.43 µg/L	511.43 ppb	14:06:48
2	Se 196.026†	6613.8	6617.0	2560 µg/L	2560 ppb	14:06:48
2	SiO2†	103340.4	102012.9	10510 µg/L	10510 ppb	14:06:28
2	Si 251.611†	322880.2	323222.6	4919.7 µg/L	4919.7 ppb	14:06:28
2	Sn 189.927†	7743.2	7761.9	542.20 µg/L	542.20 ppb	14:06:48
2	Ti 334.940†	479937.5	480729.5	503.48 µg/L	503.48 ppb	14:06:28
2	Tl 190.801†	3722.2	3850.4	550.17 µg/L	550.17 ppb	14:06:48
2	U 409.014†	7060.5	7496.5	487.11 µg/L	487.11 ppb	14:06:28
2	V 292.402†	103192.9	103057.7	518.14 µg/L	518.14 ppb	14:06:28
2	Zn 213.857†	90838.9	90537.1	518.65 µg/L	518.65 ppb	14:06:28
3	Sc RADIAL	114430.7	114430.7	100 %		14:05:46
3	Al 396.153Radial†	22424.7	22501.3	5280.7 µg/L	5280.7 ppb	14:05:46
3	Ca 317.933Radial†	63949.3	63468.7	5226.0 µg/L	5226.0 ppb	14:05:46
3	Fe 238.204 Radial†	61429.3	61282.2	5227.6 µg/L	5227.6 ppb	14:05:46
3	K 766.490 Radial†	8032.3	6620.1	2646.8 µg/L	2646.8 ppb	14:05:46
3	Mg 279.077 IEC†	9978.9	9817.9	5438.8 µg/L	5438.8 ppb	14:05:46
3	Na 589.592 Radial†	17114.3	16272.6	2594.1 µg/L	2594.1 ppb	14:05:46
3	Sr 421.552†	214292.0	214278.9	550.39 µg/L	550.39 ppb	14:05:44
3	Sc 361.383	1674918.8	1674918.8	98.975 %		14:06:51
3	Y 371.029	939425.7	939425.7	98.161 %		14:06:51
3	Ag 328.068†	67277.9	62871.7	265.99 µg/L	265.99 ppb	14:06:51
3	As 188.979†	1367.5	1395.1	490.63 µg/L	490.63 ppb	14:07:11
3	B 249.677†	39754.0	36053.8	533.34 µg/L	533.34 ppb	14:06:51
3	Ba 233.527†	113771.7	115095.9	521.44 µg/L	521.44 ppb	14:06:51
3	Be 313.107†	923054.0	933606.2	264.48 µg/L	264.48 ppb	14:06:51
3	Cd 226.502†	77072.1	77934.9	515.00 µg/L	515.00 ppb	14:06:51
3	Co 228.616†	39880.0	40520.0	531.48 µg/L	531.48 ppb	14:06:51
3	Cr 267.716†	57292.2	57555.9	505.37 µg/L	505.37 ppb	14:06:51
3	Cu 324.752†	128101.8	126187.2	524.00 µg/L	524.00 ppb	14:06:51
3	Mn 257.610†	395412.4	399292.2	521.70 µg/L	521.70 ppb	14:06:51
3	Mo 202.031†	16159.2	16348.2	555.43 µg/L	555.43 ppb	14:07:11
3	Ni 231.604†	40472.1	40965.2	509.44 µg/L	509.44 ppb	14:06:51
3	P 214.914†	11108.8	11243.1	2559.8 µg/L	2559.8 ppb	14:07:11
3	Pb 220.353†	8339.6	8308.7	522.36 µg/L	522.36 ppb	14:07:11
3	S 181.975 Axial†	3051.0	2980.7	2540.8 µg/L	2540.8 ppb	14:07:11
3	Sb 206.836†	4026.5	3990.7	513.47 µg/L	513.47 ppb	14:07:11
3	Se 196.026†	6591.2	6639.5	2570 µg/L	2570 ppb	14:07:11
3	SiO2†	102622.4	101996.4	10508 µg/L	10508 ppb	14:06:51
3	Si 251.611†	320030.8	322558.8	4909.5 µg/L	4909.5 ppb	14:06:51
3	Sn 189.927†	7712.8	7784.2	543.76 µg/L	543.76 ppb	14:07:11
3	Ti 334.940†	475445.5	479483.5	502.17 µg/L	502.17 ppb	14:06:51
3	Tl 190.801†	3705.9	3859.5	551.42 µg/L	551.42 ppb	14:07:11
3	U 409.014†	7019.8	7503.7	487.47 µg/L	487.47 ppb	14:06:51
3	V 292.402†	102240.5	102803.4	516.91 µg/L	516.91 ppb	14:06:51
3	Zn 213.857†	89776.9	90087.4	516.07 µg/L	516.07 ppb	14:06:51

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1683388.1	99.475	%	0.4397				0.44%
Sc RADIAL	114582.3	100	%	0.1				0.12%
Y 371.029	943701.9	98.607	%	0.3946				0.40%
Ag 328.068†	63211.7	267.41	µg/L	2.368	267.41	ppb	2.368	0.89%
QC value within limits for Ag 328.068 Recovery = 106.96%								
Al 396.153Radial†	22533.0	5288.3	µg/L	13.59	5288.3	ppb	13.59	0.26%
QC value within limits for Al 396.153Radial Recovery = 105.77%								
As 188.979†	1390.5	489.04	µg/L	1.806	489.04	ppb	1.806	0.37%
QC value within limits for As 188.979 Recovery = 97.81%								
B 249.677†	36086.7	533.83	µg/L	0.701	533.83	ppb	0.701	0.13%
QC value within limits for B 249.677 Recovery = 106.77%								
Ba 233.527†	115106.8	521.49	µg/L	0.129	521.49	ppb	0.129	0.02%
QC value within limits for Ba 233.527 Recovery = 104.30%								
Be 313.107†	934738.4	264.80	µg/L	0.302	264.80	ppb	0.302	0.11%
QC value within limits for Be 313.107 Recovery = 105.92%								
Ca 317.933Radial†	63243.2	5207.4	µg/L	16.86	5207.4	ppb	16.86	0.32%
QC value within limits for Ca 317.933Radial Recovery = 104.15%								
Cd 226.502†	77995.7	515.41	µg/L	1.018	515.41	ppb	1.018	0.20%
QC value within limits for Cd 226.502 Recovery = 103.08%								
Co 228.616†	40564.3	532.06	µg/L	0.548	532.06	ppb	0.548	0.10%

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   QC value within limits for Co 228.616  Recovery = 106.41%
Cr 267.716†            57586.3      505.63 µg/L        0.411      505.63 ppb          0.411   0.08%
   QC value within limits for Cr 267.716  Recovery = 101.13%
Cu 324.752†           126342.9      524.64 µg/L        0.647      524.64 ppb          0.647   0.12%
   QC value within limits for Cu 324.752  Recovery = 104.93%
Fe 238.204 Radial†     61016.5      5204.9 µg/L        25.85      5204.9 ppb          25.85   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.10%
K 766.490 Radial†       6610.8      2643.2 µg/L        33.79      2643.2 ppb          33.79   1.28%
   QC value within limits for K 766.490 Radial  Recovery = 105.73%
Mg 279.077 IEC†         9800.9      5429.4 µg/L        25.81      5429.4 ppb          25.81   0.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.59%
Mn 257.610†           400278.8      522.99 µg/L        1.120      522.99 ppb          1.120   0.21%
   QC value within limits for Mn 257.610  Recovery = 104.60%
Mo 202.031†            16281.2      553.16 µg/L        1.974      553.16 ppb          1.974   0.36%
   QC value greater than the upper limit for Mo 202.031  Recovery = 110.63%
Na 589.592 Radial†     16125.9      2570.6 µg/L        32.57      2570.6 ppb          32.57   1.27%
   QC value within limits for Na 589.592 Radial  Recovery = 102.83%
Ni 231.604†            41056.9      510.58 µg/L        1.619      510.58 ppb          1.619   0.32%
   QC value within limits for Ni 231.604  Recovery = 102.12%
P 214.914†             11224.5      2555.6 µg/L         3.69      2555.6 ppb           3.69   0.14%
   QC value within limits for P 214.914  Recovery = 102.22%
Pb 220.353†             8276.9      520.36 µg/L        1.781      520.36 ppb          1.781   0.34%
   QC value within limits for Pb 220.353  Recovery = 104.07%
S 181.975 Axial†        2966.9      2529.1 µg/L        10.97      2529.1 ppb          10.97   0.43%
   QC value within limits for S 181.975 Axial  Recovery = 101.16%
Sb 206.836†             3977.9      511.79 µg/L        1.524      511.79 ppb          1.524   0.30%
   QC value within limits for Sb 206.836  Recovery = 102.36%
Se 196.026†             6624.8        2560 µg/L          4.9        2560 ppb            4.9   0.19%
   QC value within limits for Se 196.026  Recovery = 102.56%
SiO2†                 102070.4       10516 µg/L         11.8       10516 ppb           11.8   0.11%
   QC value within limits for SiO2  Recovery = 98.33%
Si 251.611†           322836.9      4913.8 µg/L         5.28      4913.8 ppb           5.28   0.11%
   QC value within limits for Si 251.611  Recovery = 98.28%
Sn 189.927†             7766.7      542.54 µg/L        1.092      542.54 ppb          1.092   0.20%
   QC value within limits for Sn 189.927  Recovery = 108.51%
Sr 421.552†           212894.3      546.84 µg/L        4.010      546.84 ppb          4.010   0.73%
   QC value within limits for Sr 421.552  Recovery = 109.37%
Ti 334.940†           480179.2      502.90 µg/L        0.666      502.90 ppb          0.666   0.13%
   QC value within limits for Ti 334.940  Recovery = 100.58%
Tl 190.801†             3847.0      549.69 µg/L        2.024      549.69 ppb          2.024   0.37%
   QC value within limits for Tl 190.801  Recovery = 109.94%
U 409.014†              7521.2      488.62 µg/L        2.313      488.62 ppb          2.313   0.47%
   QC value within limits for U 409.014  Recovery = 97.72%
V 292.402†            103083.4      518.28 µg/L        1.444      518.28 ppb          1.444   0.28%
   QC value within limits for V 292.402  Recovery = 103.66%
Zn 213.857†            90312.3      517.36 µg/L        1.289      517.36 ppb          1.289   0.25%
   QC value within limits for Zn 213.857  Recovery = 103.47%
QC Failed.  Continue with analysis.
```

Sequence No.: 7 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 4/13/2010 14:07:19**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114752.6	114752.6	100	%			14:07:48
1	Al 396.153Radial†	-96.4	-11.1	-2.6301	µg/L	-2.6301	ppb	14:08:08
1	Ca 317.933Radial†	472.7	14.4	1.1879	µg/L	1.1879	ppb	14:08:08
1	Fe 238.204 Radial†	117.5	-7.1	-0.6073	µg/L	-0.6073	ppb	14:08:08
1	K 766.490 Radial†	1351.1	-62.5	-25.010	µg/L	-25.010	ppb	14:07:48
1	Mg 279.077 IEC†	148.2	-9.7	-5.3294	µg/L	-5.3294	ppb	14:08:08
1	Na 589.592 Radial†	797.3	-40.6	-6.4518	µg/L	-6.4518	ppb	14:07:48
1	Sr 421.552†	41.2	107.8	0.2770	µg/L	0.2770	ppb	14:07:48
1	Sc 361.383	1690118.5	1690118.5	99.873	%			14:08:56
1	Y 371.029	956294.5	956294.5	99.923	%			14:08:56
1	Ag 328.068†	5093.0	-3.5	-0.0196	µg/L	-0.0196	ppb	14:08:58
1	As 188.979†	-8.7	4.7	1.6152	µg/L	1.6152	ppb	14:09:18
1	B 249.677†	4278.5	172.0	2.5526	µg/L	2.5526	ppb	14:08:58
1	Ba 233.527†	-140.1	5.6	0.0252	µg/L	0.0252	ppb	14:09:18
1	Be 313.107†	-703.0	288.4	0.0821	µg/L	0.0821	ppb	14:08:58
1	Cd 226.502†	-36.2	28.3	0.1876	µg/L	0.1876	ppb	14:09:18
1	Co 228.616†	-224.7	2.0	0.0268	µg/L	0.0268	ppb	14:09:18
1	Cr 267.716†	311.9	-17.4	-0.1538	µg/L	-0.1538	ppb	14:09:18
1	Cu 324.752†	3170.8	-66.4	-0.2739	µg/L	-0.2739	ppb	14:08:58
1	Mn 257.610†	179.3	-35.8	-0.0466	µg/L	-0.0466	ppb	14:09:18
1	Mo 202.031†	-10.7	10.9	0.3702	µg/L	0.3702	ppb	14:09:18
1	Ni 231.604†	-56.8	17.0	0.2117	µg/L	0.2117	ppb	14:09:18
1	P 214.914†	-17.8	1.4	0.3160	µg/L	0.3160	ppb	14:09:18
1	Pb 220.353†	140.6	23.5	1.4747	µg/L	1.4747	ppb	14:09:18
1	S 181.975 Axial†	102.2	0.4	0.3564	µg/L	0.3564	ppb	14:09:18
1	Sb 206.836†	91.6	14.2	1.8263	µg/L	1.8263	ppb	14:09:18
1	Se 196.026†	30.5	10.6	4.09	µg/L	4.09	ppb	14:09:18
1	SiO2†	1732.4	45.7	4.7038	µg/L	4.7038	ppb	14:08:58
1	Si 251.611†	790.9	5.3	0.0730	µg/L	0.0730	ppb	14:08:58
1	Sn 189.927†	16.3	7.9	0.5464	µg/L	0.5464	ppb	14:09:18
1	Ti 334.940†	673.9	-211.3	-0.2217	µg/L	-0.2217	ppb	14:08:58
1	Tl 190.801†	-91.2	24.0	3.3695	µg/L	3.3695	ppb	14:09:18
1	U 409.014†	-386.7	24.0	1.4281	µg/L	1.4281	ppb	14:08:58
1	V 292.402†	378.6	-116.9	-0.5753	µg/L	-0.5753	ppb	14:08:58
1	Zn 213.857†	620.9	2.4	0.0125	µg/L	0.0125	ppb	14:09:18
2	Sc RADIAL	115224.8	115224.8	101	%			14:08:10
2	Al 396.153Radial†	-102.3	-16.6	-3.9252	µg/L	-3.9252	ppb	14:08:30
2	Ca 317.933Radial†	446.7	-13.3	-1.0910	µg/L	-1.0910	ppb	14:08:30
2	Fe 238.204 Radial†	120.7	-4.4	-0.3793	µg/L	-0.3793	ppb	14:08:30
2	K 766.490 Radial†	1465.3	45.4	18.171	µg/L	18.171	ppb	14:08:10
2	Mg 279.077 IEC†	146.3	-12.1	-6.6654	µg/L	-6.6654	ppb	14:08:30
2	Na 589.592 Radial†	1001.0	158.4	25.263	µg/L	25.263	ppb	14:08:10
2	Sr 421.552†	8.3	75.0	0.1926	µg/L	0.1926	ppb	14:08:10
2	Sc 361.383	1699339.5	1699339.5	100.42	%			14:09:20
2	Y 371.029	960943.9	960943.9	100.41	%			14:09:20
2	Ag 328.068†	5151.2	26.8	0.1058	µg/L	0.1058	ppb	14:09:22
2	As 188.979†	-15.4	-1.9	-0.6530	µg/L	-0.6530	ppb	14:09:42
2	B 249.677†	4295.4	165.6	2.4585	µg/L	2.4585	ppb	14:09:22
2	Ba 233.527†	-146.8	-0.3	-0.0013	µg/L	-0.0013	ppb	14:09:42
2	Be 313.107†	-932.7	63.5	0.0169	µg/L	0.0169	ppb	14:09:22
2	Cd 226.502†	-71.0	-6.1	-0.0403	µg/L	-0.0403	ppb	14:09:42
2	Co 228.616†	-241.1	-13.0	-0.1706	µg/L	-0.1706	ppb	14:09:42
2	Cr 267.716†	292.6	-38.2	-0.3329	µg/L	-0.3329	ppb	14:09:42
2	Cu 324.752†	3256.0	1.2	0.0017	µg/L	0.0017	ppb	14:09:22
2	Mn 257.610†	232.7	16.3	0.0216	µg/L	0.0216	ppb	14:09:42
2	Mo 202.031†	-12.9	8.8	0.2980	µg/L	0.2980	ppb	14:09:42
2	Ni 231.604†	-80.4	-6.1	-0.0761	µg/L	-0.0761	ppb	14:09:42
2	P 214.914†	9.3	28.5	6.5043	µg/L	6.5043	ppb	14:09:42
2	Pb 220.353†	121.4	3.7	0.2341	µg/L	0.2341	ppb	14:09:42

2	S 181.975 Axial†	100.9	-1.4	-1.2155 µg/L	-1.2155 ppb	14:09:42
2	Sb 206.836†	87.8	9.9	1.2793 µg/L	1.2793 ppb	14:09:42
2	Se 196.026†	32.1	12.0	4.64 µg/L	4.64 ppb	14:09:42
2	SiO2†	1730.1	34.0	3.4978 µg/L	3.4978 ppb	14:09:22
2	Si 251.611†	838.8	48.8	0.7359 µg/L	0.7359 ppb	14:09:22
2	Sn 189.927†	16.9	8.4	0.5846 µg/L	0.5846 ppb	14:09:42
2	Ti 334.940†	606.9	-281.7	-0.2934 µg/L	-0.2934 ppb	14:09:22
2	Tl 190.801†	-101.3	14.3	2.0167 µg/L	2.0167 ppb	14:09:42
2	U 409.014†	-470.4	-57.2	-3.4824 µg/L	-3.4824 ppb	14:09:22
2	V 292.402†	488.4	-9.6	-0.0482 µg/L	-0.0482 ppb	14:09:22
2	Zn 213.857†	596.9	-24.9	-0.1432 µg/L	-0.1432 ppb	14:09:42
3	Sc RADIAL	115162.2	115162.2	101 %		14:08:32
3	Al 396.153Radial†	-84.8	0.8	0.1725 µg/L	0.1725 ppb	14:08:52
3	Ca 317.933Radial†	466.4	6.5	0.5356 µg/L	0.5356 ppb	14:08:52
3	Fe 238.204 Radial†	108.8	-16.2	-1.3812 µg/L	-1.3812 ppb	14:08:52
3	K 766.490 Radial†	1435.6	16.7	6.6830 µg/L	6.6830 ppb	14:08:32
3	Mg 279.077 IEC†	149.6	-8.7	-4.8230 µg/L	-4.8230 ppb	14:08:52
3	Na 589.592 Radial†	785.9	-54.6	-8.7235 µg/L	-8.7235 ppb	14:08:32
3	Sr 421.552†	-180.5	-112.6	-0.2893 µg/L	-0.2893 ppb	14:08:32
3	Sc 361.383	1681677.0	1681677.0	99.374 %		14:09:45
3	Y 371.029	951126.6	951126.6	99.383 %		14:09:45
3	Ag 328.068†	5160.5	90.0	0.3715 µg/L	0.3715 ppb	14:09:47
3	As 188.979†	-11.6	1.7	0.6009 µg/L	0.6009 ppb	14:10:07
3	B 249.677†	4146.2	60.3	0.8958 µg/L	0.8958 ppb	14:09:47
3	Ba 233.527†	-168.9	-24.1	-0.1094 µg/L	-0.1094 ppb	14:10:07
3	Be 313.107†	-758.5	229.0	0.0662 µg/L	0.0662 ppb	14:09:47
3	Cd 226.502†	-56.0	8.3	0.0547 µg/L	0.0547 ppb	14:10:07
3	Co 228.616†	-231.7	-6.1	-0.0798 µg/L	-0.0798 ppb	14:10:07
3	Cr 267.716†	301.6	-26.2	-0.2334 µg/L	-0.2334 ppb	14:10:07
3	Cu 324.752†	3110.9	-110.8	-0.4556 µg/L	-0.4556 ppb	14:09:47
3	Mn 257.610†	215.0	1.0	0.0015 µg/L	0.0015 ppb	14:10:07
3	Mo 202.031†	-15.6	6.0	0.2022 µg/L	0.2022 ppb	14:10:07
3	Ni 231.604†	-81.9	-8.5	-0.1052 µg/L	-0.1052 ppb	14:10:07
3	P 214.914†	-9.5	9.6	2.2032 µg/L	2.2032 ppb	14:10:07
3	Pb 220.353†	118.0	1.5	0.0910 µg/L	0.0910 ppb	14:10:07
3	S 181.975 Axial†	105.4	4.2	3.5347 µg/L	3.5347 ppb	14:10:07
3	Sb 206.836†	85.9	8.9	1.1434 µg/L	1.1434 ppb	14:10:07
3	Se 196.026†	20.0	0.1	0.045 µg/L	0.045 ppb	14:10:07
3	SiO2†	1865.0	187.8	19.385 µg/L	19.385 ppb	14:09:47
3	Si 251.611†	680.5	-101.7	-1.5566 µg/L	-1.5566 ppb	14:09:47
3	Sn 189.927†	14.0	5.7	0.3944 µg/L	0.3944 ppb	14:10:07
3	Ti 334.940†	827.1	-53.8	-0.0577 µg/L	-0.0577 ppb	14:09:47
3	Tl 190.801†	-105.3	9.2	1.2991 µg/L	1.2991 ppb	14:10:07
3	U 409.014†	-336.9	72.2	4.3643 µg/L	4.3643 ppb	14:09:47
3	V 292.402†	402.5	-90.9	-0.4466 µg/L	-0.4466 ppb	14:09:47
3	Zn 213.857†	594.5	-21.1	-0.1205 µg/L	-0.1205 ppb	14:10:07

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1690378.3	99.888	%	0.5220				0.52%
Sc RADIAL	115046.5	101	%	0.2				0.22%
Y 371.029	956121.7	99.905	%	0.5131				0.51%
Ag 328.068†	37.8	0.1526	µg/L	0.19970	0.1526	ppb	0.19970	130.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.0	-2.1276	µg/L	2.09452	-2.1276	ppb	2.09452	98.45%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.5	0.5210	µg/L	1.13621	0.5210	ppb	1.13621	218.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	132.6	1.9690	µg/L	0.93057	1.9690	ppb	0.93057	47.26%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.3	-0.0285	µg/L	0.07128	-0.0285	ppb	0.07128	250.30%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.7	0.0551	µg/L	0.03397	0.0551	ppb	0.03397	61.69%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.6	0.2108	µg/L	1.17364	0.2108	ppb	1.17364	556.76%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.2	0.0673	µg/L	0.11443	0.0673	ppb	0.11443	169.97%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-5.7	-0.0745	µg/L	0.09879	-0.0745	ppb	0.09879	132.58%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -27.2     -0.2400 µg/L       0.08975     -0.2400 ppb        0.08975  37.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -58.7     -0.2426 µg/L       0.23027     -0.2426 ppb        0.23027  94.92%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -9.3     -0.7893 µg/L       0.52511     -0.7893 ppb        0.52511  66.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -0.1     -0.0519 µg/L      22.36431     -0.0519 ppb       22.36431 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -10.2     -5.6059 µg/L       0.95179     -5.6059 ppb        0.95179  16.98%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -6.2     -0.0078 µg/L       0.03504     -0.0078 ppb        0.03504 447.36%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                8.6      0.2901 µg/L       0.08425      0.2901 ppb        0.08425  29.04%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        21.1      3.3625 µg/L      19.00019      3.3625 ppb       19.00019 565.06%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                0.8      0.0101 µg/L       0.17516      0.0101 ppb        0.17516 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                13.1      3.0078 µg/L       3.17165      3.0078 ppb        3.17165 105.45%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                9.6      0.5999 µg/L       0.76094      0.5999 ppb        0.76094 126.84%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.0      0.8919 µg/L       2.41996      0.8919 ppb        2.41996 271.33%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               11.0      1.4163 µg/L       0.36149      1.4163 ppb        0.36149  25.52%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                7.6        2.92 µg/L         2.507        2.92 ppb          2.507  85.78%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     89.2      9.1955 µg/L       8.84473      9.1955 ppb        8.84473  96.19%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -15.9     -0.2492 µg/L       1.17974     -0.2492 ppb        1.17974 473.37%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                7.3      0.5085 µg/L       0.10059      0.5085 ppb        0.10059  19.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               23.4      0.0601 µg/L       0.30548      0.0601 ppb        0.30548 508.19%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -182.3     -0.1909 µg/L       0.12080     -0.1909 ppb        0.12080  63.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               15.8      2.2284 µg/L       1.05127      2.2284 ppb        1.05127  47.18%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                13.0      0.7700 µg/L       3.96451      0.7700 ppb        3.96451 514.87%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -72.5     -0.3567 µg/L       0.27480     -0.3567 ppb        0.27480  77.04%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -14.5     -0.0837 µg/L       0.08412     -0.0837 ppb        0.08412 100.47%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 4/13/2010 14:10:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	115870.6	115870.6	101	%			14:10:45
1	Al 396.153Radial†	810.3	884.9	208.26	µg/L	208.26	ppb	14:11:05
1	Ca 317.933Radial†	3005.7	2510.5	206.72	µg/L	206.72	ppb	14:11:05
1	Fe 238.204 Radial†	1327.6	1186.3	101.20	µg/L	101.20	ppb	14:11:05
1	K 766.490 Radial†	1865.8	432.7	173.03	µg/L	173.03	ppb	14:10:45
1	Mg 279.077 IEC†	734.6	567.9	314.21	µg/L	314.21	ppb	14:11:05
1	Na 589.592 Radial†	2899.0	2026.6	323.20	µg/L	323.20	ppb	14:10:45
1	Sr 421.552†	1997.7	2038.9	5.2358	µg/L	5.2358	ppb	14:10:45
1	Sc 361.383	1663979.2	1663979.2	98.328	%			14:12:07
1	Y 371.029	940482.1	940482.1	98.271	%			14:12:07
1	Ag 328.068†	6281.2	1285.0	5.4473	µg/L	5.4473	ppb	14:12:09
1	As 188.979†	77.0	91.8	31.866	µg/L	31.866	ppb	14:12:29
1	B 249.677†	7449.1	3463.8	51.400	µg/L	51.400	ppb	14:12:09
1	Ba 233.527†	997.0	1159.8	5.2549	µg/L	5.2549	ppb	14:12:29
1	Be 313.107†	16414.0	17685.4	5.0292	µg/L	5.0292	ppb	14:12:09
1	Cd 226.502†	694.9	771.3	5.0916	µg/L	5.0916	ppb	14:12:29
1	Co 228.616†	150.7	380.3	4.9857	µg/L	4.9857	ppb	14:12:29
1	Cr 267.716†	871.9	557.1	4.8352	µg/L	4.8352	ppb	14:12:29
1	Cu 324.752†	5546.8	2399.8	10.021	µg/L	10.021	ppb	14:12:09
1	Mn 257.610†	8170.6	8094.2	10.567	µg/L	10.567	ppb	14:12:09
1	Mo 202.031†	246.2	272.0	9.2460	µg/L	9.2460	ppb	14:12:29
1	Ni 231.604†	310.8	390.0	4.8505	µg/L	4.8505	ppb	14:12:29
1	P 214.914†	654.2	684.5	156.27	µg/L	156.27	ppb	14:12:29
1	Pb 220.353†	292.0	179.7	11.245	µg/L	11.245	ppb	14:12:29
1	S 181.975 Axial†	233.2	135.2	115.12	µg/L	115.12	ppb	14:12:29
1	Sb 206.836†	145.2	70.1	9.0722	µg/L	9.0722	ppb	14:12:29
1	Se 196.026†	105.9	87.7	34.0	µg/L	34.0	ppb	14:12:29
1	SiO2†	3856.6	2233.3	230.19	µg/L	230.19	ppb	14:12:09
1	Si 251.611†	7085.3	6419.3	97.730	µg/L	97.730	ppb	14:12:09
1	Sn 189.927†	157.2	151.4	10.562	µg/L	10.562	ppb	14:12:29
1	Ti 334.940†	5444.4	4650.9	4.8259	µg/L	4.8259	ppb	14:12:09
1	Tl 190.801†	37.7	153.6	21.740	µg/L	21.740	ppb	14:12:29
1	U 409.014†	766.1	1190.4	72.728	µg/L	72.728	ppb	14:12:09
1	V 292.402†	1492.2	1021.6	5.2151	µg/L	5.2151	ppb	14:12:09
1	Zn 213.857†	2410.7	1832.3	10.533	µg/L	10.533	ppb	14:12:29
2	Sc RADIAL	114830.0	114830.0	100	%			14:11:07
2	Al 396.153Radial†	801.1	883.0	207.77	µg/L	207.77	ppb	14:11:27
2	Ca 317.933Radial†	3001.9	2533.6	208.61	µg/L	208.61	ppb	14:11:27
2	Fe 238.204 Radial†	1321.5	1192.1	101.69	µg/L	101.69	ppb	14:11:27
2	K 766.490 Radial†	1794.4	378.2	151.23	µg/L	151.23	ppb	14:11:07
2	Mg 279.077 IEC†	716.3	556.2	307.76	µg/L	307.76	ppb	14:11:27
2	Na 589.592 Radial†	2678.4	1832.8	292.30	µg/L	292.30	ppb	14:11:07
2	Sr 421.552†	1964.0	2023.2	5.1955	µg/L	5.1955	ppb	14:11:07
2	Sc 361.383	1688831.4	1688831.4	99.797	%			14:12:31
2	Y 371.029	954649.8	954649.8	99.751	%			14:12:31
2	Ag 328.068†	6438.1	1348.2	5.6926	µg/L	5.6926	ppb	14:12:33
2	As 188.979†	69.6	83.2	28.900	µg/L	28.900	ppb	14:12:54
2	B 249.677†	7355.1	3258.2	48.348	µg/L	48.348	ppb	14:12:33
2	Ba 233.527†	982.1	1130.0	5.1198	µg/L	5.1198	ppb	14:12:54
2	Be 313.107†	16510.6	17536.5	4.9848	µg/L	4.9848	ppb	14:12:33
2	Cd 226.502†	697.0	763.0	5.0369	µg/L	5.0369	ppb	14:12:54
2	Co 228.616†	147.7	375.1	4.9173	µg/L	4.9173	ppb	14:12:54
2	Cr 267.716†	877.7	549.9	4.7778	µg/L	4.7778	ppb	14:12:54
2	Cu 324.752†	5271.6	2041.0	8.5292	µg/L	8.5292	ppb	14:12:33
2	Mn 257.610†	8117.5	7918.7	10.338	µg/L	10.338	ppb	14:12:33
2	Mo 202.031†	277.7	299.8	10.189	µg/L	10.189	ppb	14:12:54
2	Ni 231.604†	328.3	402.8	5.0097	µg/L	5.0097	ppb	14:12:54
2	P 214.914†	622.9	643.3	146.87	µg/L	146.87	ppb	14:12:54
2	Pb 220.353†	276.3	159.7	9.9965	µg/L	9.9965	ppb	14:12:54

2	S 181.975 Axial†	242.7	141.3	120.32 µg/L	120.32 ppb	14:12:54
2	Sb 206.836†	142.1	64.8	8.4020 µg/L	8.4020 ppb	14:12:54
2	Se 196.026†	103.9	84.1	32.6 µg/L	32.6 ppb	14:12:54
2	SiO2†	3818.6	2137.5	220.27 µg/L	220.27 ppb	14:12:33
2	Si 251.611†	7271.2	6499.4	98.941 µg/L	98.941 ppb	14:12:33
2	Sn 189.927†	158.2	150.1	10.468 µg/L	10.468 ppb	14:12:54
2	Ti 334.940†	5403.6	4528.5	4.7012 µg/L	4.7012 ppb	14:12:33
2	Tl 190.801†	23.4	138.7	19.626 µg/L	19.626 ppb	14:12:54
2	U 409.014†	654.1	1066.7	65.171 µg/L	65.171 ppb	14:12:33
2	V 292.402†	1405.2	912.0	4.6765 µg/L	4.6765 ppb	14:12:33
2	Zn 213.857†	2428.9	1814.5	10.430 µg/L	10.430 ppb	14:12:54
3	Sc RADIAL	114031.0	114031.0	99.7 %		14:11:29
3	Al 396.153Radial†	807.5	895.0	210.59 µg/L	210.59 ppb	14:11:49
3	Ca 317.933Radial†	3028.5	2581.3	212.54 µg/L	212.54 ppb	14:11:49
3	Fe 238.204 Radial†	1319.5	1199.4	102.31 µg/L	102.31 ppb	14:11:49
3	K 766.490 Radial†	1896.1	492.8	197.09 µg/L	197.09 ppb	14:11:29
3	Mg 279.077 IEC†	715.3	560.2	310.00 µg/L	310.00 ppb	14:11:49
3	Na 589.592 Radial†	2713.5	1886.7	300.87 µg/L	300.87 ppb	14:11:29
3	Sr 421.552†	2035.6	2108.7	5.4150 µg/L	5.4150 ppb	14:11:29
3	Sc 361.383	1694447.3	1694447.3	100.13 %		14:12:56
3	Y 371.029	958144.4	958144.4	100.12 %		14:12:56
3	Ag 328.068†	6291.5	1180.4	5.0125 µg/L	5.0125 ppb	14:12:58
3	As 188.979†	77.2	90.5	31.426 µg/L	31.426 ppb	14:13:18
3	B 249.677†	7438.9	3317.4	49.225 µg/L	49.225 ppb	14:12:58
3	Ba 233.527†	994.9	1139.5	5.1631 µg/L	5.1631 ppb	14:13:18
3	Be 313.107†	16605.4	17576.3	4.9982 µg/L	4.9982 ppb	14:12:58
3	Cd 226.502†	684.7	748.4	4.9403 µg/L	4.9403 ppb	14:13:18
3	Co 228.616†	182.6	409.4	5.3676 µg/L	5.3676 ppb	14:13:18
3	Cr 267.716†	877.9	547.1	4.7481 µg/L	4.7481 ppb	14:13:18
3	Cu 324.752†	5461.0	2212.7	9.2462 µg/L	9.2462 ppb	14:12:58
3	Mn 257.610†	8073.1	7847.3	10.245 µg/L	10.245 ppb	14:12:58
3	Mo 202.031†	282.0	303.3	10.306 µg/L	10.306 ppb	14:13:18
3	Ni 231.604†	315.2	388.7	4.8338 µg/L	4.8338 ppb	14:13:18
3	P 214.914†	631.4	649.8	148.34 µg/L	148.34 ppb	14:13:18
3	Pb 220.353†	277.3	159.8	9.9974 µg/L	9.9974 ppb	14:13:18
3	S 181.975 Axial†	238.8	136.6	116.33 µg/L	116.33 ppb	14:13:18
3	Sb 206.836†	169.0	91.2	11.788 µg/L	11.788 ppb	14:13:18
3	Se 196.026†	98.9	78.8	30.6 µg/L	30.6 ppb	14:13:18
3	SiO2†	3732.9	2039.2	210.12 µg/L	210.12 ppb	14:12:58
3	Si 251.611†	7118.1	6322.4	96.240 µg/L	96.240 ppb	14:12:58
3	Sn 189.927†	156.5	147.8	10.311 µg/L	10.311 ppb	14:13:18
3	Ti 334.940†	5380.9	4487.9	4.6557 µg/L	4.6557 ppb	14:12:58
3	Tl 190.801†	26.0	141.2	19.976 µg/L	19.976 ppb	14:13:18
3	U 409.014†	772.8	1183.0	72.265 µg/L	72.265 ppb	14:12:58
3	V 292.402†	1482.3	984.4	5.0412 µg/L	5.0412 ppb	14:12:58
3	Zn 213.857†	2419.2	1796.8	10.328 µg/L	10.328 ppb	14:13:18

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1682419.3	99.418	%	0.9582				0.96%
Sc RADIAL	114910.5	100	%	0.8				0.80%
Y 371.029	951092.1	99.380	%	0.9773				0.98%
Ag 328.068†	1271.2	5.3841	µg/L	0.34441	5.3841	ppb	0.34441	6.40%
QC value within limits for Ag 328.068 Recovery = 107.68%								
Al 396.153Radial†	887.6	208.87	µg/L	1.506	208.87	ppb	1.506	0.72%
QC value within limits for Al 396.153Radial Recovery = 104.44%								
As 188.979†	88.5	30.731	µg/L	1.6006	30.731	ppb	1.6006	5.21%
QC value within limits for As 188.979 Recovery = 102.44%								
B 249.677†	3346.4	49.658	µg/L	1.5711	49.658	ppb	1.5711	3.16%
QC value within limits for B 249.677 Recovery = 99.32%								
Ba 233.527†	1143.1	5.1793	µg/L	0.06899	5.1793	ppb	0.06899	1.33%
QC value within limits for Ba 233.527 Recovery = 103.59%								
Be 313.107†	17599.4	5.0041	µg/L	0.02279	5.0041	ppb	0.02279	0.46%
QC value within limits for Be 313.107 Recovery = 100.08%								
Ca 317.933Radial†	2541.8	209.29	µg/L	2.970	209.29	ppb	2.970	1.42%
QC value within limits for Ca 317.933Radial Recovery = 104.64%								
Cd 226.502†	760.9	5.0229	µg/L	0.07662	5.0229	ppb	0.07662	1.53%
QC value within limits for Cd 226.502 Recovery = 100.46%								
Co 228.616†	388.3	5.0902	µg/L	0.24268	5.0902	ppb	0.24268	4.77%

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   QC value within limits for Co 228.616  Recovery = 101.80%
Cr 267.716†              551.4      4.7870 µg/L       0.04428      4.7870 ppb        0.04428   0.93%
   QC value within limits for Cr 267.716  Recovery = 95.74%
Cu 324.752†             2217.9      9.2654 µg/L       0.74600      9.2654 ppb        0.74600   8.05%
   QC value within limits for Cu 324.752  Recovery = 92.65%
Fe 238.204 Radial†      1192.6      101.74 µg/L         0.557      101.74 ppb          0.557   0.55%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.74%
K 766.490 Radial†        434.6      173.78 µg/L        22.940      173.78 ppb         22.940  13.20%
   QC value within limits for K 766.490 Radial  Recovery = 115.86%
Mg 279.077 IEC†          561.4      310.66 µg/L         3.277      310.66 ppb          3.277   1.05%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.55%
Mn 257.610†             7953.4      10.384 µg/L        0.1659      10.384 ppb         0.1659   1.60%
   QC value within limits for Mn 257.610  Recovery = 103.84%
Mo 202.031†              291.7      9.9140 µg/L       0.58139      9.9140 ppb        0.58139   5.86%
   QC value within limits for Mo 202.031  Recovery = 99.14%
Na 589.592 Radial†      1915.4      305.46 µg/L        15.955      305.46 ppb         15.955   5.22%
   QC value within limits for Na 589.592 Radial  Recovery = 101.82%
Ni 231.604†              393.9      4.8980 µg/L       0.09710      4.8980 ppb        0.09710   1.98%
   QC value within limits for Ni 231.604  Recovery = 97.96%
P 214.914†               659.2      150.49 µg/L         5.057      150.49 ppb          5.057   3.36%
   QC value within limits for P 214.914  Recovery = 100.33%
Pb 220.353†              166.4      10.413 µg/L        0.7206      10.413 ppb         0.7206   6.92%
   QC value within limits for Pb 220.353  Recovery = 104.13%
S 181.975 Axial†         137.7      117.26 µg/L         2.721      117.26 ppb          2.721   2.32%
   QC value within limits for S 181.975 Axial  Recovery = 117.26%
Sb 206.836†               75.4      9.7541 µg/L       1.79307      9.7541 ppb        1.79307  18.38%
   QC value within limits for Sb 206.836  Recovery = 97.54%
Se 196.026†               83.5        32.4 µg/L          1.73        32.4 ppb           1.73   5.33%
   QC value within limits for Se 196.026  Recovery = 108.02%
SiO2†                   2136.7      220.19 µg/L        10.036      220.19 ppb         10.036   4.56%
   QC value within limits for SiO2  Recovery = 103.38%
Si 251.611†             6413.7      97.637 µg/L        1.3527      97.637 ppb         1.3527   1.39%
   QC value within limits for Si 251.611  Recovery = 97.64%
Sn 189.927†              149.8      10.447 µg/L        0.1268      10.447 ppb         0.1268   1.21%
   QC value within limits for Sn 189.927  Recovery = 104.47%
Sr 421.552†             2056.9      5.2821 µg/L       0.11685      5.2821 ppb        0.11685   2.21%
   QC value within limits for Sr 421.552  Recovery = 105.64%
Ti 334.940†             4555.8      4.7276 µg/L       0.08810      4.7276 ppb        0.08810   1.86%
   QC value within limits for Ti 334.940  Recovery = 94.55%
Tl 190.801†              144.5      20.447 µg/L        1.1328      20.447 ppb         1.1328   5.54%
   QC value within limits for Tl 190.801  Recovery = 102.24%
U 409.014†              1146.7      70.054 µg/L        4.2359      70.054 ppb         4.2359   6.05%
   QC value greater than the upper limit for U 409.014  Recovery = 140.11%
V 292.402†               972.7      4.9776 µg/L       0.27486      4.9776 ppb        0.27486   5.52%
   QC value within limits for V 292.402  Recovery = 99.55%
Zn 213.857†             1814.6      10.430 µg/L        0.1024      10.430 ppb         0.1024   0.98%
   QC value within limits for Zn 213.857  Recovery = 104.30%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 4/13/2010 14:13:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	106980.2	106980.2	93.5	%			14:14:00
1	Al 396.153Radial†	1974515.2	2111326.5	497910	µg/L	497910	ppb	14:13:58
1	Ca 317.933Radial†	5511724.5	5892930.0	485220	µg/L	485220	ppb	14:13:58
1	Fe 238.204 Radial†	2083707.3	2227870.4	190050	µg/L	190050	ppb	14:13:58
1	K 766.490 Radial†	1431.2	121.0	-190.93	µg/L	-190.93	ppb	14:14:00
1	Mg 279.077 IEC†	817510.7	873962.4	483170	µg/L	483170	ppb	14:13:58
1	Na 589.592 Radial†	1341.8	599.4	95.592	µg/L	95.592	ppb	14:14:00
1	Sr 421.552†	4406.5	4778.3	8.4766	µg/L	8.4766	ppb	14:14:00
1	Sc 361.383	1501217.1	1501217.1	88.710	%			14:14:28
1	Y 371.029	836125.4	836125.4	87.367	%			14:14:28
1	Ag 328.068†	7406.8	3246.4	0.0494	µg/L	0.0494	ppb	14:14:28
1	As 188.979†	-102.7	-102.3	7.1552	µg/L	7.1552	ppb	14:14:48
1	B 249.677†	4385.1	831.3	12.327	µg/L	12.327	ppb	14:14:28
1	Ba 233.527†	413.6	612.1	0.3432	µg/L	0.3432	ppb	14:14:48
1	Be 313.107†	-419.2	519.8	0.1518	µg/L	0.1518	ppb	14:14:28
1	Cd 226.502†	2374.7	2741.5	-1.8569	µg/L	-1.8569	ppb	14:14:48
1	Co 228.616†	45.4	278.2	-6.2642	µg/L	-6.2642	ppb	14:14:48
1	Cr 267.716†	304.1	13.2	0.8100	µg/L	0.8100	ppb	14:14:48
1	Cu 324.752†	-5786.3	-9763.9	0.3302	µg/L	0.3302	ppb	14:14:28
1	Mn 257.610†	15583.3	17351.1	3.0137	µg/L	3.0137	ppb	14:14:28
1	Mo 202.031†	-519.5	-564.0	-2.7952	µg/L	-2.7952	ppb	14:14:48
1	Ni 231.604†	131.5	222.1	2.7621	µg/L	2.7621	ppb	14:14:48
1	P 214.914†	142.2	179.6	22.694	µg/L	22.694	ppb	14:14:48
1	Pb 220.353†	-267.1	-418.3	-1.4748	µg/L	-1.4748	ppb	14:14:48
1	S 181.975 Axial†	153.8	71.4	60.596	µg/L	60.596	ppb	14:14:48
1	Sb 206.836†	98.4	33.4	-1.7007	µg/L	-1.7007	ppb	14:14:48
1	Se 196.026†	-138.2	-175.7	-2.00	µg/L	-2.00	ppb	14:14:48
1	SiO2†	1629.1	147.6	15.727	µg/L	15.727	ppb	14:14:48
1	Si 251.611†	537.5	-180.7	-2.5260	µg/L	-2.5260	ppb	14:14:48
1	Sn 189.927†	56.6	55.4	3.9424	µg/L	3.9424	ppb	14:14:48
1	Ti 334.940†	21752.9	23635.1	-1.9360	µg/L	-1.9360	ppb	14:14:28
1	Tl 190.801†	-180.2	-88.0	-11.939	µg/L	-11.939	ppb	14:14:48
1	U 409.014†	-140.2	253.2	-5.5257	µg/L	-5.5257	ppb	14:14:28
1	V 292.402†	4511.8	4590.0	2.4975	µg/L	2.4975	ppb	14:14:28
1	Zn 213.857†	4310.5	4239.8	8.0554	µg/L	8.0554	ppb	14:14:48
2	Sc RADIAL	105749.8	105749.8	92.4	%			14:14:05
2	Al 396.153Radial†	1957961.1	2117984.4	499480	µg/L	499480	ppb	14:14:03
2	Ca 317.933Radial†	5463069.9	5908870.5	486530	µg/L	486530	ppb	14:14:03
2	Fe 238.204 Radial†	2063257.0	2231672.3	190370	µg/L	190370	ppb	14:14:03
2	K 766.490 Radial†	1385.7	89.6	-204.14	µg/L	-204.14	ppb	14:14:05
2	Mg 279.077 IEC†	809012.1	874939.8	483710	µg/L	483710	ppb	14:14:03
2	Na 589.592 Radial†	1120.4	376.7	60.070	µg/L	60.070	ppb	14:14:05
2	Sr 421.552†	4367.7	4791.2	8.4993	µg/L	8.4993	ppb	14:14:05
2	Sc 361.383	1502151.4	1502151.4	88.766	%			14:14:51
2	Y 371.029	836238.7	836238.7	87.379	%			14:14:51
2	Ag 328.068†	7339.1	3165.0	-0.3144	µg/L	-0.3144	ppb	14:14:51
2	As 188.979†	-92.5	-90.8	11.218	µg/L	11.218	ppb	14:15:11
2	B 249.677†	4347.8	786.1	11.656	µg/L	11.656	ppb	14:14:51
2	Ba 233.527†	461.5	665.8	0.5828	µg/L	0.5828	ppb	14:15:11
2	Be 313.107†	-147.4	826.3	0.2389	µg/L	0.2389	ppb	14:14:51
2	Cd 226.502†	2372.9	2737.8	-1.9158	µg/L	-1.9158	ppb	14:15:11
2	Co 228.616†	67.0	302.5	-5.9628	µg/L	-5.9628	ppb	14:15:11
2	Cr 267.716†	242.5	-56.4	0.2028	µg/L	0.2028	ppb	14:15:11
2	Cu 324.752†	-5737.3	-9704.7	0.6382	µg/L	0.6382	ppb	14:14:51
2	Mn 257.610†	15652.7	17418.4	3.0793	µg/L	3.0793	ppb	14:14:51
2	Mo 202.031†	-518.3	-562.3	-2.7154	µg/L	-2.7154	ppb	14:15:11
2	Ni 231.604†	75.7	159.2	1.9803	µg/L	1.9803	ppb	14:15:11
2	P 214.914†	92.8	123.7	10.060	µg/L	10.060	ppb	14:15:11
2	Pb 220.353†	-260.1	-410.2	-0.8817	µg/L	-0.8817	ppb	14:15:11

2	S 181.975 Axial†	167.0	86.2	73.204 µg/L	73.204 ppb	14:15:11
2	Sb 206.836†	104.9	40.6	-0.7717 µg/L	-0.7717 ppb	14:15:11
2	Se 196.026†	-140.3	-178.0	-2.78 µg/L	-2.78 ppb	14:15:11
2	SiO2†	1573.8	84.1	9.1730 µg/L	9.1730 ppb	14:15:11
2	Si 251.611†	544.9	-172.6	-2.4035 µg/L	-2.4035 ppb	14:15:11
2	Sn 189.927†	55.8	54.5	3.8774 µg/L	3.8774 ppb	14:15:11
2	Ti 334.940†	21661.2	23516.5	-2.0703 µg/L	-2.0703 ppb	14:14:51
2	Tl 190.801†	-143.0	-45.8	-6.0016 µg/L	-6.0016 ppb	14:15:11
2	U 409.014†	-127.5	267.6	-4.6328 µg/L	-4.6328 ppb	14:14:51
2	V 292.402†	4621.3	4710.1	3.0578 µg/L	3.0578 ppb	14:14:51
2	Zn 213.857†	4373.3	4307.5	8.4302 µg/L	8.4302 ppb	14:15:11
3	Sc RADIAL	106552.2	106552.2	93.1 %		14:14:09
3	Al 396.153Radial†	1980421.5	2126147.6	501410 µg/L	501410 ppb	14:14:07
3	Ca 317.933Radial†	5539384.4	5946296.6	489610 µg/L	489610 ppb	14:14:07
3	Fe 238.204 Radial†	2093288.7	2247105.9	191690 µg/L	191690 ppb	14:14:07
3	K 766.490 Radial†	1556.6	261.8	-136.50 µg/L	-136.50 ppb	14:14:09
3	Mg 279.077 IEC†	821065.1	881289.2	487220 µg/L	487220 ppb	14:14:07
3	Na 589.592 Radial†	1396.2	663.6	105.79 µg/L	105.79 ppb	14:14:09
3	Sr 421.552†	4358.3	4745.5	8.3579 µg/L	8.3579 ppb	14:14:09
3	Sc 361.383	1510747.3	1510747.3	89.274 %		14:15:14
3	Y 371.029	840652.7	840652.7	87.840 %		14:15:14
3	Ag 328.068†	7646.6	3462.4	0.8299 µg/L	0.8299 ppb	14:15:14
3	As 188.979†	-92.6	-90.3	11.685 µg/L	11.685 ppb	14:15:34
3	B 249.677†	4303.9	709.0	10.512 µg/L	10.512 ppb	14:15:14
3	Ba 233.527†	452.0	652.2	0.5050 µg/L	0.5050 ppb	14:15:34
3	Be 313.107†	-465.6	470.7	0.1372 µg/L	0.1372 ppb	14:15:14
3	Cd 226.502†	2368.8	2718.0	-2.1851 µg/L	-2.1851 ppb	14:15:34
3	Co 228.616†	58.5	292.6	-6.1615 µg/L	-6.1615 ppb	14:15:34
3	Cr 267.716†	290.3	-4.4	0.6654 µg/L	0.6654 ppb	14:15:34
3	Cu 324.752†	-5845.0	-9788.6	0.5747 µg/L	0.5747 ppb	14:15:14
3	Mn 257.610†	15773.6	17453.4	2.9824 µg/L	2.9824 ppb	14:15:14
3	Mo 202.031†	-488.1	-525.1	-1.3367 µg/L	-1.3367 ppb	14:15:34
3	Ni 231.604†	120.6	209.0	2.5989 µg/L	2.5989 ppb	14:15:34
3	P 214.914†	134.9	170.3	20.221 µg/L	20.221 ppb	14:15:34
3	Pb 220.353†	-269.2	-418.8	-1.3372 µg/L	-1.3372 ppb	14:15:34
3	S 181.975 Axial†	166.9	85.0	72.199 µg/L	72.199 ppb	14:15:34
3	Sb 206.836†	124.6	62.0	1.9474 µg/L	1.9474 ppb	14:15:34
3	Se 196.026†	-137.9	-174.5	-0.951 µg/L	-0.951 ppb	14:15:34
3	SiO2†	1588.1	90.0	9.7554 µg/L	9.7554 ppb	14:15:34
3	Si 251.611†	625.6	-85.8	-1.0907 µg/L	-1.0907 ppb	14:15:34
3	Sn 189.927†	47.0	44.3	3.1666 µg/L	3.1666 ppb	14:15:34
3	Ti 334.940†	21809.0	23543.3	-2.2467 µg/L	-2.2467 ppb	14:15:14
3	Tl 190.801†	-146.7	-49.1	-6.4553 µg/L	-6.4553 ppb	14:15:34
3	U 409.014†	-176.6	213.4	-8.0552 µg/L	-8.0552 ppb	14:15:14
3	V 292.402†	4764.3	4840.7	3.5789 µg/L	3.5789 ppb	14:15:14
3	Zn 213.857†	4371.9	4277.8	8.1187 µg/L	8.1187 ppb	14:15:34

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1504705.3	88.917	%	0.3104				0.35%
Sc RADIAL	106427.4	93.0	%	0.55				0.59%
Y 371.029	837672.3	87.528	%	0.2698				0.31%
Ag 328.068†	3291.2	0.1883	µg/L	0.58464	0.1883	ppb	0.58464	310.52%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2118486.2	499600	µg/L	1750.6	499600	ppb	1750.6	0.35%
QC value within limits for Al 396.153Radial Recovery = 99.92%								
As 188.979†	-94.5	10.019	µg/L	2.4913	10.019	ppb	2.4913	24.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	775.5	11.498	µg/L	0.9177	11.498	ppb	0.9177	7.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	643.4	0.4770	µg/L	0.12224	0.4770	ppb	0.12224	25.63%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	605.6	0.1760	µg/L	0.05496	0.1760	ppb	0.05496	31.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5916032.3	487120	µg/L	2255.7	487120	ppb	2255.7	0.46%
QC value within limits for Ca 317.933Radial Recovery = 97.42%								
Cd 226.502†	2732.5	-1.9859	µg/L	0.17496	-1.9859	ppb	0.17496	8.81%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	291.1	-6.1295	µg/L	0.15323	-6.1295	ppb	0.15323	2.50%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -15.9      0.5594 µg/L       0.31719      0.5594 ppb        0.31719  56.70%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -9752.4      0.5144 µg/L       0.16258      0.5144 ppb        0.16258  31.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2235549.5      190700 µg/L         869.0      190700 ppb          869.0   0.46%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.35%
K 766.490 Radial†        157.5     -177.19 µg/L        35.852     -177.19 ppb         35.852  20.23%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       876730.5      484700 µg/L        2199.3      484700 ppb         2199.3   0.45%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.94%
Mn 257.610†            17407.7      3.0252 µg/L       0.04945      3.0252 ppb        0.04945   1.63%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -550.5     -2.2825 µg/L       0.82000     -2.2825 ppb        0.82000  35.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       546.6      87.152 µg/L       24.0022      87.152 ppb        24.0022  27.54%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              196.8      2.4471 µg/L       0.41242      2.4471 ppb        0.41242  16.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               157.9      17.658 µg/L        6.6952      17.658 ppb         6.6952  37.92%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -415.8     -1.2312 µg/L       0.31047     -1.2312 ppb        0.31047  25.22%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          80.9      68.666 µg/L        7.0067      68.666 ppb         7.0067  10.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               45.3     -0.1750 µg/L       1.89585     -0.1750 ppb        1.89585 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -176.1       -1.91 µg/L         0.919       -1.91 ppb          0.919  48.09%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    107.2      11.552 µg/L        3.6274      11.552 ppb         3.6274  31.40%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -146.3     -2.0067 µg/L       0.79569     -2.0067 ppb        0.79569  39.65%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               51.4      3.6621 µg/L       0.43038      3.6621 ppb        0.43038  11.75%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             4771.7      8.4446 µg/L       0.07591      8.4446 ppb        0.07591   0.90%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            23565.0     -2.0843 µg/L       0.15584     -2.0843 ppb        0.15584   7.48%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -61.0     -8.1318 µg/L       3.30453     -8.1318 ppb        3.30453  40.64%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               244.7     -6.0713 µg/L       1.77524     -6.0713 ppb        1.77524  29.24%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             4713.6      3.0447 µg/L       0.54079      3.0447 ppb        0.54079  17.76%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            4275.0      8.2014 µg/L       0.20064      8.2014 ppb        0.20064   2.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 4/13/2010 14:15:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	106223.0	106223.0	92.9	%			14:16:13
1	Al 396.153Radial†	2010708.9	2165350.9	510630	µg/L	510630	ppb	14:16:11
1	Ca 317.933Radial†	5642547.1	6075815.7	500280	µg/L	500280	ppb	14:16:11
1	Fe 238.204 Radial†	2137562.5	2301746.0	196350	µg/L	196350	ppb	14:16:11
1	K 766.490 Radial†	14643.5	14359.8	5500.8	µg/L	5500.8	ppb	14:16:13
1	Mg 279.077 IEC†	838133.6	902401.1	498910	µg/L	498910	ppb	14:16:13
1	Na 589.592 Radial†	32516.1	34180.3	5448.6	µg/L	5448.6	ppb	14:16:13
1	Sr 421.552†	192158.4	206995.7	527.81	µg/L	527.81	ppb	14:16:13
1	Sc 361.383	1499397.8	1499397.8	88.603	%			14:16:41
1	Y 371.029	834580.4	834580.4	87.205	%			14:16:41
1	Ag 328.068†	64997.7	68255.4	274.70	µg/L	274.70	ppb	14:16:41
1	As 188.979†	1188.4	1354.7	519.25	µg/L	519.25	ppb	14:16:43
1	B 249.677†	35482.5	35934.7	531.78	µg/L	531.78	ppb	14:16:41
1	Ba 233.527†	99053.3	111940.4	504.70	µg/L	504.70	ppb	14:16:41
1	Be 313.107†	774060.6	874620.5	247.79	µg/L	247.79	ppb	14:16:41
1	Cd 226.502†	68029.3	76844.5	487.67	µg/L	487.67	ppb	14:16:41
1	Co 228.616†	31628.9	35924.4	461.25	µg/L	461.25	ppb	14:16:43
1	Cr 267.716†	50218.9	56349.0	495.36	µg/L	495.36	ppb	14:16:43
1	Cu 324.752†	111159.8	122217.0	548.72	µg/L	548.72	ppb	14:16:41
1	Mn 257.610†	347052.2	391478.2	491.41	µg/L	491.41	ppb	14:16:41
1	Mo 202.031†	12828.2	14499.9	509.27	µg/L	509.27	ppb	14:16:43
1	Ni 231.604†	33045.9	37370.5	464.73	µg/L	464.73	ppb	14:16:43
1	P 214.914†	10271.0	11611.3	2626.2	µg/L	2626.2	ppb	14:16:43
1	Pb 220.353†	6372.2	7074.7	470.08	µg/L	470.08	ppb	14:16:43
1	S 181.975 Axial†	3008.4	3293.4	2806.4	µg/L	2806.4	ppb	14:16:43
1	Sb 206.836†	3712.3	4112.3	522.47	µg/L	522.47	ppb	14:16:43
1	Se 196.026†	5453.3	6134.8	2440	µg/L	2440	ppb	14:16:43
1	SiO2†	98016.0	108934.9	11227	µg/L	11227	ppb	14:16:41
1	Si 251.611†	307173.4	345898.6	5266.7	µg/L	5266.7	ppb	14:16:41
1	Sn 189.927†	6249.0	7044.4	492.37	µg/L	492.37	ppb	14:16:43
1	Ti 334.940†	459015.3	517172.4	514.39	µg/L	514.39	ppb	14:16:41
1	Tl 190.801†	2863.0	3346.5	480.00	µg/L	480.00	ppb	14:16:43
1	U 409.014†	6834.9	8125.4	504.59	µg/L	504.59	ppb	14:16:41
1	V 292.402†	96422.1	108328.9	523.44	µg/L	523.44	ppb	14:16:41
1	Zn 213.857†	81315.3	91155.5	506.04	µg/L	506.04	ppb	14:16:41
2	Sc RADIAL	103812.5	103812.5	90.8	%			14:16:18
2	Al 396.153Radial†	2013692.9	2218916.0	523260	µg/L	523260	ppb	14:16:16
2	Ca 317.933Radial†	5613708.1	6185128.6	509280	µg/L	509280	ppb	14:16:16
2	Fe 238.204 Radial†	2127616.4	2344235.8	199970	µg/L	199970	ppb	14:16:16
2	K 766.490 Radial†	14393.8	14450.8	5532.7	µg/L	5532.7	ppb	14:16:18
2	Mg 279.077 IEC†	818451.0	901670.6	498500	µg/L	498500	ppb	14:16:18
2	Na 589.592 Radial†	31974.8	34396.8	5483.1	µg/L	5483.1	ppb	14:16:18
2	Sr 421.552†	188508.5	207778.9	529.75	µg/L	529.75	ppb	14:16:18
2	Sc 361.383	1503602.0	1503602.0	88.851	%			14:16:46
2	Y 371.029	837931.6	837931.6	87.555	%			14:16:46
2	Ag 328.068†	64380.0	67355.0	270.71	µg/L	270.71	ppb	14:16:46
2	As 188.979†	1246.7	1416.6	541.50	µg/L	541.50	ppb	14:16:48
2	B 249.677†	35491.5	35832.8	530.27	µg/L	530.27	ppb	14:16:46
2	Ba 233.527†	98724.7	111258.0	501.56	µg/L	501.56	ppb	14:16:46
2	Be 313.107†	770311.0	867957.7	245.91	µg/L	245.91	ppb	14:16:46
2	Cd 226.502†	67739.4	76303.5	483.72	µg/L	483.72	ppb	14:16:46
2	Co 228.616†	31720.8	35928.0	461.11	µg/L	461.11	ppb	14:16:48
2	Cr 267.716†	50544.1	56556.5	497.29	µg/L	497.29	ppb	14:16:48
2	Cu 324.752†	110774.3	121432.3	546.02	µg/L	546.02	ppb	14:16:46
2	Mn 257.610†	345757.6	388925.9	488.08	µg/L	488.08	ppb	14:16:46
2	Mo 202.031†	12857.4	14492.3	509.15	µg/L	509.15	ppb	14:16:48
2	Ni 231.604†	33216.1	37457.8	465.82	µg/L	465.82	ppb	14:16:48
2	P 214.914†	10155.5	11448.9	2589.5	µg/L	2589.5	ppb	14:16:48
2	Pb 220.353†	6566.8	7273.6	483.18	µg/L	483.18	ppb	14:16:48

2	S 181.975 Axial†	3053.9	3335.1	2841.9 µg/L	2841.9 ppb	14:16:48
2	Sb 206.836†	3723.7	4113.4	522.45 µg/L	522.45 ppb	14:16:48
2	Se 196.026†	5491.7	6160.7	2450 µg/L	2450 ppb	14:16:48
2	SiO2†	97214.6	107723.7	11102 µg/L	11102 ppb	14:16:46
2	Si 251.611†	305391.7	342924.1	5221.3 µg/L	5221.3 ppb	14:16:46
2	Sn 189.927†	6321.2	7105.9	496.65 µg/L	496.65 ppb	14:16:48
2	Ti 334.940†	458296.4	514914.8	512.27 µg/L	512.27 ppb	14:16:46
2	Tl 190.801†	2846.1	3318.4	475.97 µg/L	475.97 ppb	14:16:48
2	U 409.014†	7352.7	8686.5	537.97 µg/L	537.97 ppb	14:16:46
2	V 292.402†	95810.2	107335.9	518.16 µg/L	518.16 ppb	14:16:46
2	Zn 213.857†	80624.4	90121.4	499.80 µg/L	499.80 ppb	14:16:46
3	Sc RADIAL	104466.8	104466.8	91.3 %		14:16:22
3	Al 396.153Radial†	1989321.2	2178332.6	513690 µg/L	513690 ppb	14:16:20
3	Ca 317.933Radial†	5538632.9	6064181.9	499320 µg/L	499320 ppb	14:16:20
3	Fe 238.204 Radial†	2098275.3	2297424.9	195980 µg/L	195980 ppb	14:16:20
3	K 766.490 Radial†	14671.2	14655.2	5618.4 µg/L	5618.4 ppb	14:16:22
3	Mg 279.077 IEC†	826093.4	904390.4	500010 µg/L	500010 ppb	14:16:22
3	Na 589.592 Radial†	32061.2	34270.8	5462.9 µg/L	5462.9 ppb	14:16:22
3	Sr 421.552†	189860.8	207958.6	530.29 µg/L	530.29 ppb	14:16:22
3	Sc 361.383	1505306.3	1505306.3	88.952 %		14:16:51
3	Y 371.029	838292.0	838292.0	87.593 %		14:16:51
3	Ag 328.068†	64553.7	67468.3	271.49 µg/L	271.49 ppb	14:16:51
3	As 188.979†	1216.9	1381.5	528.40 µg/L	528.40 ppb	14:16:53
3	B 249.677†	35439.6	35729.2	528.76 µg/L	528.76 ppb	14:16:51
3	Ba 233.527†	98763.8	111176.1	501.24 µg/L	501.24 ppb	14:16:51
3	Be 313.107†	770732.2	867449.6	245.77 µg/L	245.77 ppb	14:16:51
3	Cd 226.502†	67691.8	76163.7	483.21 µg/L	483.21 ppb	14:16:51
3	Co 228.616†	31338.1	35457.3	455.14 µg/L	455.14 ppb	14:16:53
3	Cr 267.716†	50152.5	56051.9	492.70 µg/L	492.70 ppb	14:16:53
3	Cu 324.752†	110966.1	121506.8	545.79 µg/L	545.79 ppb	14:16:51
3	Mn 257.610†	345610.7	388320.3	487.24 µg/L	487.24 ppb	14:16:51
3	Mo 202.031†	12702.0	14301.2	502.53 µg/L	502.53 ppb	14:16:53
3	Ni 231.604†	32767.5	36911.1	459.02 µg/L	459.02 ppb	14:16:53
3	P 214.914†	10142.4	11421.3	2583.9 µg/L	2583.9 ppb	14:16:53
3	Pb 220.353†	6507.1	7198.1	477.97 µg/L	477.97 ppb	14:16:53
3	S 181.975 Axial†	2928.8	3190.6	2718.9 µg/L	2718.9 ppb	14:16:53
3	Sb 206.836†	3702.7	4085.0	518.91 µg/L	518.91 ppb	14:16:53
3	Se 196.026†	5437.6	6092.9	2420 µg/L	2420 ppb	14:16:53
3	SiO2†	97419.6	107830.3	11113 µg/L	11113 ppb	14:16:51
3	Si 251.611†	305460.1	342611.7	5216.6 µg/L	5216.6 ppb	14:16:51
3	Sn 189.927†	6336.5	7115.1	497.28 µg/L	497.28 ppb	14:16:53
3	Ti 334.940†	457676.9	513634.3	510.55 µg/L	510.55 ppb	14:16:51
3	Tl 190.801†	2846.1	3314.8	475.50 µg/L	475.50 ppb	14:16:53
3	U 409.014†	7374.8	8702.0	539.52 µg/L	539.52 ppb	14:16:51
3	V 292.402†	96330.4	107798.7	520.79 µg/L	520.79 ppb	14:16:51
3	Zn 213.857†	80758.3	90169.2	500.48 µg/L	500.48 ppb	14:16:51

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1502768.7	88.802	%	0.1797				0.20%
Sc RADIAL	104834.1	91.6	%	1.09				1.19%
Y 371.029	836934.7	87.451	%	0.2139				0.24%
Ag 328.068†	67692.9	272.30	µg/L	2.114	272.30	ppb	2.114	0.78%
QC value within limits for Ag 328.068 Recovery = 108.92%								
Al 396.153Radial†	2187533.2	515860	µg/L	6589.7	515860	ppb	6589.7	1.28%
QC value within limits for Al 396.153Radial Recovery = 103.17%								
As 188.979†	1384.3	529.71	µg/L	11.182	529.71	ppb	11.182	2.11%
QC value within limits for As 188.979 Recovery = 105.94%								
B 249.677†	35832.3	530.27	µg/L	1.514	530.27	ppb	1.514	0.29%
QC value within limits for B 249.677 Recovery = 106.05%								
Ba 233.527†	111458.2	502.50	µg/L	1.911	502.50	ppb	1.911	0.38%
QC value within limits for Ba 233.527 Recovery = 100.50%								
Be 313.107†	870009.2	246.49	µg/L	1.127	246.49	ppb	1.127	0.46%
QC value within limits for Be 313.107 Recovery = 98.59%								
Ca 317.933Radial†	6108375.4	502960	µg/L	5494.0	502960	ppb	5494.0	1.09%
QC value within limits for Ca 317.933Radial Recovery = 100.59%								
Cd 226.502†	76437.2	484.87	µg/L	2.445	484.87	ppb	2.445	0.50%
QC value within limits for Cd 226.502 Recovery = 96.97%								
Co 228.616†	35769.9	459.17	µg/L	3.485	459.17	ppb	3.485	0.76%

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   QC value within limits for Co 228.616  Recovery = 91.83%
Cr 267.716†            56319.1      495.12 µg/L         2.304      495.12 ppb          2.304   0.47%
   QC value within limits for Cr 267.716  Recovery = 99.02%
Cu 324.752†           121718.7      546.84 µg/L         1.633      546.84 ppb          1.633   0.30%
   QC value within limits for Cu 324.752  Recovery = 109.37%
Fe 238.204 Radial†   2314468.9      197430 µg/L        2206.7      197430 ppb         2206.7   1.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.72%
K 766.490 Radial†      14488.6      5550.6 µg/L         60.84      5550.6 ppb          60.84   1.10%
   QC value within limits for K 766.490 Radial  Recovery = 111.01%
Mg 279.077 IEC†       902820.7      499140 µg/L         779.8      499140 ppb          779.8   0.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.83%
Mn 257.610†           389574.8      488.91 µg/L         2.206      488.91 ppb          2.206   0.45%
   QC value within limits for Mn 257.610  Recovery = 97.78%
Mo 202.031†            14431.1      506.98 µg/L         3.857      506.98 ppb          3.857   0.76%
   QC value within limits for Mo 202.031  Recovery = 101.40%
Na 589.592 Radial†     34282.6      5464.9 µg/L         17.34      5464.9 ppb          17.34   0.32%
   QC value within limits for Na 589.592 Radial  Recovery = 109.30%
Ni 231.604†            37246.4      463.19 µg/L         3.652      463.19 ppb          3.652   0.79%
   QC value within limits for Ni 231.604  Recovery = 92.64%
P 214.914†             11493.9      2599.9 µg/L         22.99      2599.9 ppb          22.99   0.88%
   QC value within limits for P 214.914  Recovery = 104.00%
Pb 220.353†             7182.1      477.08 µg/L         6.595      477.08 ppb          6.595   1.38%
   QC value within limits for Pb 220.353  Recovery = 95.42%
S 181.975 Axial†        3273.1      2789.1 µg/L         63.30      2789.1 ppb          63.30   2.27%
   QC value within limits for S 181.975 Axial  Recovery = 111.56%
Sb 206.836†             4103.6      521.27 µg/L         2.052      521.27 ppb          2.052   0.39%
   QC value within limits for Sb 206.836  Recovery = 104.25%
Se 196.026†             6129.5        2440 µg/L          13.9        2440 ppb           13.9   0.57%
   QC value within limits for Se 196.026  Recovery = 97.57%
SiO2†                 108162.9       11148 µg/L          69.2       11148 ppb           69.2   0.62%
   QC value within limits for SiO2  Recovery = 104.23%
Si 251.611†           343811.5      5234.9 µg/L         27.66      5234.9 ppb          27.66   0.53%
   QC value within limits for Si 251.611  Recovery = 104.70%
Sn 189.927†             7088.5      495.43 µg/L         2.669      495.43 ppb          2.669   0.54%
   QC value within limits for Sn 189.927  Recovery = 99.09%
Sr 421.552†           207577.7      529.28 µg/L         1.305      529.28 ppb          1.305   0.25%
   QC value within limits for Sr 421.552  Recovery = 105.86%
Ti 334.940†           515240.5      512.40 µg/L         1.923      512.40 ppb          1.923   0.38%
   QC value within limits for Ti 334.940  Recovery = 102.48%
Tl 190.801†             3326.6      477.16 µg/L         2.471      477.16 ppb          2.471   0.52%
   QC value within limits for Tl 190.801  Recovery = 95.43%
U 409.014†              8504.6      527.36 µg/L        19.736      527.36 ppb         19.736   3.74%
   QC value within limits for U 409.014  Recovery = 105.47%
V 292.402†            107821.2      520.80 µg/L         2.638      520.80 ppb          2.638   0.51%
   QC value within limits for V 292.402  Recovery = 104.16%
Zn 213.857†            90482.0      502.11 µg/L         3.421      502.11 ppb          3.421   0.68%
   QC value within limits for Zn 213.857  Recovery = 100.42%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 4/13/2010 14:17:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	101618.4	101618.4	88.8	%			14:17:33
1	Al 396.153Radial†	1943210.1	2187483.6	515880	µg/L	515880	ppb	14:17:31
1	Ca 317.933Radial†	5408483.1	6087669.7	501260	µg/L	501260	ppb	14:17:31
1	Fe 238.204 Radial†	4964166.3	5587851.5	476660	µg/L	476660	ppb	14:17:31
1	K 766.490 Radial†	1644.8	442.2	-155.17	µg/L	-155.17	ppb	14:17:33
1	Mg 279.077 IEC†	785677.1	884249.9	488620	µg/L	488620	ppb	14:17:33
1	Na 589.592 Radial†	2921118.1	3287357.7	524520	µg/L	524520	ppb	14:17:31
1	Sr 421.552†	4353.4	4967.2	8.8363	µg/L	8.8363	ppb	14:17:33
1	Sc 361.383	1451048.9	1451048.9	85.746	%			14:17:46
1	Y 371.029	805183.5	805183.5	84.134	%			14:17:46
1	Ag 328.068†	4051.2	-378.3	3.1073	µg/L	3.1073	ppb	14:17:46
1	As 188.979†	-228.7	-253.3	19.155	µg/L	19.155	ppb	14:17:48
1	B 249.677†	4969.3	1683.5	24.945	µg/L	24.945	ppb	14:17:46
1	Ba 233.527†	806.8	1086.8	-1.1700	µg/L	-1.1700	ppb	14:17:48
1	Be 313.107†	-15029.4	-16535.5	0.2344	µg/L	0.2344	ppb	14:17:46
1	Cd 226.502†	5903.4	6949.3	-4.1753	µg/L	-4.1753	ppb	14:17:48
1	Co 228.616†	637.5	970.6	-12.137	µg/L	-12.137	ppb	14:17:48
1	Cr 267.716†	504.9	259.2	0.0608	µg/L	0.0608	ppb	14:17:48
1	Cu 324.752†	-16422.5	-22393.8	3.3698	µg/L	3.3698	ppb	14:17:46
1	Mn 257.610†	17552.6	20255.1	5.8354	µg/L	5.8354	ppb	14:17:46
1	Mo 202.031†	-785.2	-894.1	-2.5554	µg/L	-2.5554	ppb	14:17:48
1	Ni 231.604†	234.8	347.7	4.3240	µg/L	4.3240	ppb	14:17:48
1	P 214.914†	968.2	1148.4	53.892	µg/L	53.892	ppb	14:17:48
1	Pb 220.353†	134.0	39.0	6.8944	µg/L	6.8944	ppb	14:17:48
1	S 181.975 Axial†	183.6	112.1	95.158	µg/L	95.158	ppb	14:17:48
1	Sb 206.836†	114.4	55.9	-2.6688	µg/L	-2.6688	ppb	14:17:48
1	Se 196.026†	-375.8	-458.2	3.88	µg/L	3.88	ppb	14:17:48
1	SiO2†	1940.8	574.5	60.057	µg/L	60.057	ppb	14:17:48
1	Si 251.611†	-2012.3	-3133.3	-47.449	µg/L	-47.449	ppb	14:17:48
1	Sn 189.927†	113.8	124.3	8.7464	µg/L	8.7464	ppb	14:17:48
1	Ti 334.940†	22993.9	25930.2	-6.2256	µg/L	-6.2256	ppb	14:17:46
1	Tl 190.801†	-239.8	-164.5	-22.560	µg/L	-22.560	ppb	14:17:48
1	U 409.014†	228975.2	267450.4	16179	µg/L	16179	ppb	14:17:46
1	V 292.402†	8387.4	9285.7	6.3554	µg/L	6.3554	ppb	14:17:48
1	Zn 213.857†	8658.3	9478.3	8.1931	µg/L	8.1931	ppb	14:17:48
2	Sc RADIAL	102321.2	102321.2	89.5	%			14:17:38
2	Al 396.153Radial†	1946639.3	2176294.8	513240	µg/L	513240	ppb	14:17:36
2	Ca 317.933Radial†	5403416.6	6040193.8	497350	µg/L	497350	ppb	14:17:36
2	Fe 238.204 Radial†	4952835.0	5536806.9	472310	µg/L	472310	ppb	14:17:36
2	K 766.490 Radial†	1697.8	488.7	-134.37	µg/L	-134.37	ppb	14:17:38
2	Mg 279.077 IEC†	789460.4	882405.5	487600	µg/L	487600	ppb	14:17:38
2	Na 589.592 Radial†	2914785.7	3257696.0	519790	µg/L	519790	ppb	14:17:36
2	Sr 421.552†	4392.5	4977.2	8.8926	µg/L	8.8926	ppb	14:17:38
2	Sc 361.383	1443441.1	1443441.1	85.296	%			14:17:51
2	Y 371.029	800939.8	800939.8	83.690	%			14:17:51
2	Ag 328.068†	4124.8	-267.2	3.7115	µg/L	3.7115	ppb	14:17:51
2	As 188.979†	-226.0	-251.6	18.808	µg/L	18.808	ppb	14:17:53
2	B 249.677†	5172.5	1952.2	28.930	µg/L	28.930	ppb	14:17:51
2	Ba 233.527†	727.0	998.2	-1.5148	µg/L	-1.5148	ppb	14:17:53
2	Be 313.107†	-15035.4	-16635.0	0.2078	µg/L	0.2078	ppb	14:17:51
2	Cd 226.502†	5968.0	7061.3	-2.9762	µg/L	-2.9762	ppb	14:17:53
2	Co 228.616†	732.9	1086.3	-10.393	µg/L	-10.393	ppb	14:17:53
2	Cr 267.716†	613.1	389.1	1.0597	µg/L	1.0597	ppb	14:17:53
2	Cu 324.752†	-16257.3	-22301.1	3.0973	µg/L	3.0973	ppb	14:17:51
2	Mn 257.610†	17311.8	20080.7	5.6594	µg/L	5.6594	ppb	14:17:51
2	Mo 202.031†	-773.8	-885.6	-2.4578	µg/L	-2.4578	ppb	14:17:53
2	Ni 231.604†	307.5	434.4	5.4020	µg/L	5.4020	ppb	14:17:53
2	P 214.914†	838.3	1002.1	22.793	µg/L	22.793	ppb	14:17:53
2	Pb 220.353†	-74.9	-205.0	-8.4162	µg/L	-8.4162	ppb	14:17:53

2	S 181.975 Axial†	172.1	99.8	84.675 µg/L	84.675 ppb	14:17:53
2	Sb 206.836†	130.0	74.9	-0.1769 µg/L	-0.1769 ppb	14:17:53
2	Se 196.026†	-357.8	-439.5	9.62 µg/L	9.62 ppb	14:17:53
2	SiO2†	1907.5	547.5	57.320 µg/L	57.320 ppb	14:17:53
2	Si 251.611†	-1844.0	-2948.4	-44.606 µg/L	-44.606 ppb	14:17:53
2	Sn 189.927†	63.4	65.9	4.6843 µg/L	4.6843 ppb	14:17:53
2	Ti 334.940†	23049.9	26137.2	-6.0299 µg/L	-6.0299 ppb	14:17:51
2	Tl 190.801†	-252.7	-181.0	-24.888 µg/L	-24.888 ppb	14:17:53
2	U 409.014†	227848.4	267536.8	16185 µg/L	16185 ppb	14:17:51
2	V 292.402†	8499.3	9468.4	7.7317 µg/L	7.7317 ppb	14:17:53
2	Zn 213.857†	8749.4	9638.3	9.5633 µg/L	9.5633 ppb	14:17:53
3	Sc RADIAL	102776.7	102776.7	89.8 %		14:17:42
3	Al 396.153Radial†	1944918.6	2164733.5	510510 µg/L	510510 ppb	14:17:40
3	Ca 317.933Radial†	5395053.8	6004110.7	494370 µg/L	494370 ppb	14:17:40
3	Fe 238.204 Radial†	4944761.9	5503278.9	469450 µg/L	469450 ppb	14:17:40
3	K 766.490 Radial†	1556.1	322.6	-199.36 µg/L	-199.36 ppb	14:17:42
3	Mg 279.077 IEC†	792672.2	882068.1	487420 µg/L	487420 ppb	14:17:42
3	Na 589.592 Radial†	2915975.4	3244576.5	517690 µg/L	517690 ppb	14:17:40
3	Sr 421.552†	4386.8	4949.1	8.8437 µg/L	8.8437 ppb	14:17:42
3	Sc 361.383	1441855.7	1441855.7	85.203 %		14:17:56
3	Y 371.029	800135.8	800135.8	83.606 %		14:17:56
3	Ag 328.068†	3930.4	-490.0	2.9115 µg/L	2.9115 ppb	14:17:56
3	As 188.979†	-223.7	-249.1	19.005 µg/L	19.005 ppb	14:17:58
3	B 249.677†	4889.6	1626.9	24.105 µg/L	24.105 ppb	14:17:56
3	Ba 233.527†	656.6	916.5	-1.8485 µg/L	-1.8485 ppb	14:17:58
3	Be 313.107†	-15019.5	-16635.6	0.2128 µg/L	0.2128 ppb	14:17:56
3	Cd 226.502†	5902.7	6992.4	-3.1320 µg/L	-3.1320 ppb	14:17:58
3	Co 228.616†	655.4	996.2	-11.425 µg/L	-11.425 ppb	14:17:58
3	Cr 267.716†	510.7	269.7	-0.0990 µg/L	-0.0990 ppb	14:17:58
3	Cu 324.752†	-16176.0	-22226.5	2.9978 µg/L	2.9978 ppb	14:17:56
3	Mn 257.610†	17396.2	20202.0	5.8328 µg/L	5.8328 ppb	14:17:56
3	Mo 202.031†	-835.6	-959.1	-5.0674 µg/L	-5.0674 ppb	14:17:58
3	Ni 231.604†	214.2	325.3	4.0460 µg/L	4.0460 ppb	14:17:58
3	P 214.914†	771.2	924.4	6.4274 µg/L	6.4274 ppb	14:17:58
3	Pb 220.353†	47.6	-61.4	0.4844 µg/L	0.4844 ppb	14:17:58
3	S 181.975 Axial†	146.3	69.7	59.070 µg/L	59.070 ppb	14:17:58
3	Sb 206.836†	223.3	184.6	13.925 µg/L	13.925 ppb	14:17:58
3	Se 196.026†	-446.7	-544.2	-31.9 µg/L	-31.9 ppb	14:17:58
3	SiO2†	1948.9	598.5	62.609 µg/L	62.609 ppb	14:17:58
3	Si 251.611†	-1800.7	-2899.9	-43.856 µg/L	-43.856 ppb	14:17:58
3	Sn 189.927†	106.8	117.0	8.2367 µg/L	8.2367 ppb	14:17:58
3	Ti 334.940†	22940.7	26038.8	-6.2021 µg/L	-6.2021 ppb	14:17:56
3	Tl 190.801†	-163.9	-77.1	-10.240 µg/L	-10.240 ppb	14:17:58
3	U 409.014†	227839.0	267819.5	16203 µg/L	16203 ppb	14:17:56
3	V 292.402†	8559.5	9550.0	8.4195 µg/L	8.4195 ppb	14:17:58
3	Zn 213.857†	8617.8	9495.1	9.0308 µg/L	9.0308 ppb	14:17:58

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1445448.6	85.415	%	0.2904				0.34%
Sc RADIAL	102238.8	89.4	%	0.51				0.57%
Y 371.029	802086.4	83.810	%	0.2834				0.34%
Ag 328.068†	-378.5	3.2434	µg/L	0.41706	3.2434	ppb	0.41706	12.86%
Al 396.153Radial†	2176170.6	513210	µg/L	2682.7	513210	ppb	2682.7	0.52%
QC value within limits for Al 396.153Radial Recovery = 102.64%								
As 188.979†	-251.3	18.989	µg/L	0.1741	18.989	ppb	0.1741	0.92%
B 249.677†	1754.2	25.993	µg/L	2.5778	25.993	ppb	2.5778	9.92%
Ba 233.527†	1000.5	-1.5111	µg/L	0.33925	-1.5111	ppb	0.33925	22.45%
Be 313.107†	-16602.0	0.2184	µg/L	0.01411	0.2184	ppb	0.01411	6.46%
Ca 317.933Radial†	6043991.4	497660	µg/L	3450.7	497660	ppb	3450.7	0.69%
QC value within limits for Ca 317.933Radial Recovery = 99.53%								
Cd 226.502†	7001.0	-3.4278	µg/L	0.65201	-3.4278	ppb	0.65201	19.02%
Co 228.616†	1017.7	-11.319	µg/L	0.8771	-11.319	ppb	0.8771	7.75%
Cr 267.716†	306.0	0.3405	µg/L	0.62793	0.3405	ppb	0.62793	184.42%
Cu 324.752†	-22307.2	3.1550	µg/L	0.19260	3.1550	ppb	0.19260	6.10%
Fe 238.204 Radial†	5542645.8	472810	µg/L	3632.9	472810	ppb	3632.9	0.77%
QC value within limits for Fe 238.204 Radial Recovery = 94.56%								
K 766.490 Radial†	417.8	-162.97	µg/L	33.187	-162.97	ppb	33.187	20.36%
Mg 279.077 IEC†	882907.8	487880	µg/L	646.5	487880	ppb	646.5	0.13%

QC value within limits for Mg 279.077 IEC Recovery = 97.58%

Mn 257.610†	20179.3	5.7759 µg/L	0.10089	5.7759 ppb	0.10089	1.75%
Mo 202.031†	-912.9	-3.3602 µg/L	1.47930	-3.3602 ppb	1.47930	44.02%
Na 589.592 Radial†	3263210.1	520670 µg/L	3497.0	520670 ppb	3497.0	0.67%

QC value within limits for Na 589.592 Radial Recovery = 104.13%

Ni 231.604†	369.1	4.5907 µg/L	0.71624	4.5907 ppb	0.71624	15.60%
P 214.914†	1024.9	27.704 µg/L	24.1102	27.704 ppb	24.1102	87.03%
Pb 220.353†	-75.8	-0.3458 µg/L	7.68897	-0.3458 ppb	7.68897	>999.9%
S 181.975 Axial†	93.9	79.634 µg/L	18.5646	79.634 ppb	18.5646	23.31%
Sb 206.836†	105.1	3.6930 µg/L	8.94807	3.6930 ppb	8.94807	242.30%
Se 196.026†	-480.7	-6.12 µg/L	22.477	-6.12 ppb	22.477	367.13%
SiO2†	573.5	59.995 µg/L	2.6451	59.995 ppb	2.6451	4.41%
Si 251.611†	-2993.9	-45.304 µg/L	1.8957	-45.304 ppb	1.8957	4.18%
Sn 189.927†	102.4	7.2225 µg/L	2.21285	7.2225 ppb	2.21285	30.64%
Sr 421.552†	4964.5	8.8575 µg/L	0.03063	8.8575 ppb	0.03063	0.35%
Ti 334.940†	26035.4	-6.1525 µg/L	0.10684	-6.1525 ppb	0.10684	1.74%
Tl 190.801†	-140.8	-19.230 µg/L	7.8717	-19.230 ppb	7.8717	40.94%
U 409.014†	267602.2	16189 µg/L	12.4	16189 ppb	12.4	0.08%

QC value within limits for U 409.014 Recovery = 107.93%

V 292.402†	9434.7	7.5022 µg/L	1.05102	7.5022 ppb	1.05102	14.01%
Zn 213.857†	9537.2	8.9291 µg/L	0.69073	8.9291 ppb	0.69073	7.74%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 4/13/2010 14:18:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113057.1	113057.1	98.8	%			14:18:39
1	Al 396.153Radial†	1979.7	2088.0	28.253	µg/L	28.253	ppb	14:18:41
1	Ca 317.933Radial†	1178.8	735.9	60.595	µg/L	60.595	ppb	14:18:41
1	Fe 238.204 Radial†	-386.1	-514.9	-43.927	µg/L	-43.927	ppb	14:18:41
1	K 766.490 Radial†	740197.3	747501.7	299210	µg/L	299210	ppb	14:18:39
1	Mg 279.077 IEC†	-269.8	-430.4	6.5176	µg/L	6.5176	ppb	14:18:41
1	Na 589.592 Radial†	2408.3	1601.3	-10.601	µg/L	-10.601	ppb	14:18:41
1	Sr 421.552†	3757575.8	3801877.0	9766.2	µg/L	9766.2	ppb	14:18:37
1	Sc 361.383	1627056.1	1627056.1	96.147	%			14:19:03
1	Y 371.029	896254.3	896254.3	93.650	%			14:19:03
1	Ag 328.068†	-21181.0	-27132.8	7.9518	µg/L	7.9518	ppb	14:19:05
1	As 188.979†	27513.5	28629.6	10175	µg/L	10175	ppb	14:19:05
1	B 249.677†	332796.8	342022.7	5043.2	µg/L	5043.2	ppb	14:19:03
1	Ba 233.527†	2731023.6	2840624.0	12868	µg/L	12868	ppb	14:19:03
1	Be 313.107†	10023230.3	10425935.4	2951.9	µg/L	2951.9	ppb	14:18:59
1	Cd 226.502†	1438589.6	1496310.2	9898.4	µg/L	9898.4	ppb	14:19:03
1	Co 228.616†	713699.8	742530.6	9750.4	µg/L	9750.4	ppb	14:19:03
1	Cr 267.716†	2691360.1	2798895.3	24585	µg/L	24585	ppb	14:19:03
1	Cu 324.752†	4756253.5	4943634.1	20471	µg/L	20471	ppb	14:19:03
1	Mn 257.610†	7004818.2	7285343.2	9522.9	µg/L	9522.9	ppb	14:19:03
1	Mo 202.031†	283045.3	294410.8	9997.4	µg/L	9997.4	ppb	14:19:05
1	Ni 231.604†	767548.0	798383.8	9928.6	µg/L	9928.6	ppb	14:19:03
1	P 214.914†	64525.6	67130.9	15097	µg/L	15097	ppb	14:19:05
1	Pb 220.353†	369576.8	384271.6	24108	µg/L	24108	ppb	14:19:03
1	S 181.975 Axial†	59080.3	61346.2	52281	µg/L	52281	ppb	14:19:05
1	Sb 206.836†	76097.6	79070.0	9941.6	µg/L	9941.6	ppb	14:19:05
1	Se 196.026†	24505.6	25467.8	9850	µg/L	9850	ppb	14:19:05
1	SiO2†	957701.9	994395.9	102250	µg/L	102250	ppb	14:19:03
1	Si 251.611†	3023960.8	3144369.1	47767	µg/L	47767	ppb	14:19:03
1	Sn 189.927†	137061.4	142546.1	9961.0	µg/L	9961.0	ppb	14:19:05
1	Ti 334.940†	9419561.6	9796194.4	10265	µg/L	10265	ppb	14:18:59
1	Tl 190.801†	65725.3	68474.7	9804.0	µg/L	9804.0	ppb	14:19:05
1	U 409.014†	-5128.7	-4923.0	316.31	µg/L	316.31	ppb	14:19:05
1	V 292.402†	1964093.0	2042314.2	10325	µg/L	10325	ppb	14:19:03
1	Zn 213.857†	2451285.7	2548909.5	14639	µg/L	14639	ppb	14:19:03
2	Sc RADIAL	111791.4	111791.4	97.7	%			14:18:45
2	Al 396.153Radial†	1955.0	2085.4	26.986	µg/L	26.986	ppb	14:18:47
2	Ca 317.933Radial†	993.7	560.0	46.110	µg/L	46.110	ppb	14:18:47
2	Fe 238.204 Radial†	-493.4	-629.1	-53.668	µg/L	-53.668	ppb	14:18:47
2	K 766.490 Radial†	738179.0	753915.8	301770	µg/L	301770	ppb	14:18:45
2	Mg 279.077 IEC†	-354.4	-520.0	-42.678	µg/L	-42.678	ppb	14:18:47
2	Na 589.592 Radial†	2259.9	1477.1	-32.705	µg/L	-32.705	ppb	14:18:47
2	Sr 421.552†	3820347.3	3909151.0	10042	µg/L	10042	ppb	14:18:43
2	Sc 361.383	1633949.6	1633949.6	96.554	%			14:19:13
2	Y 371.029	900415.6	900415.6	94.084	%			14:19:13
2	Ag 328.068†	-21328.4	-27192.6	7.1208	µg/L	7.1208	ppb	14:19:15
2	As 188.979†	27764.9	28769.3	10223	µg/L	10223	ppb	14:19:15
2	B 249.677†	332666.5	340427.5	5019.7	µg/L	5019.7	ppb	14:19:13
2	Ba 233.527†	2729926.4	2827503.9	12809	µg/L	12809	ppb	14:19:13
2	Be 313.107†	9898126.5	10252384.9	2902.7	µg/L	2902.7	ppb	14:19:09
2	Cd 226.502†	1435333.2	1486625.1	9834.3	µg/L	9834.3	ppb	14:19:13
2	Co 228.616†	711992.2	737630.4	9686.1	µg/L	9686.1	ppb	14:19:13
2	Cr 267.716†	2688281.6	2783897.3	24453	µg/L	24453	ppb	14:19:13
2	Cu 324.752†	4752584.8	4918964.2	20369	µg/L	20369	ppb	14:19:13
2	Mn 257.610†	6997905.1	7247446.3	9473.4	µg/L	9473.4	ppb	14:19:13
2	Mo 202.031†	284646.2	294826.9	10012	µg/L	10012	ppb	14:19:15
2	Ni 231.604†	766144.9	793562.6	9868.6	µg/L	9868.6	ppb	14:19:13
2	P 214.914†	64919.2	67255.4	15127	µg/L	15127	ppb	14:19:15
2	Pb 220.353†	368356.6	381386.1	23928	µg/L	23928	ppb	14:19:13

2	S 181.975 Axial†	59321.7	61337.0	52274	µg/L	52274	ppb	14:19:15
2	Sb 206.836†	76388.8	79037.6	9939.6	µg/L	9939.6	ppb	14:19:15
2	Se 196.026†	24615.4	25473.9	9850	µg/L	9850	ppb	14:19:15
2	SiO2†	958315.6	990829.1	101880	µg/L	101880	ppb	14:19:13
2	Si 251.611†	3025752.0	3132955.2	47592	µg/L	47592	ppb	14:19:13
2	Sn 189.927†	138059.0	142977.9	9990.5	µg/L	9990.5	ppb	14:19:15
2	Ti 334.940†	9311775.6	9643228.6	10105	µg/L	10105	ppb	14:19:09
2	Tl 190.801†	65883.1	68349.7	9784.6	µg/L	9784.6	ppb	14:19:15
2	U 409.014†	-5181.6	-4955.2	311.35	µg/L	311.35	ppb	14:19:15
2	V 292.402†	1962839.4	2032397.5	10276	µg/L	10276	ppb	14:19:13
2	Zn 213.857†	2447290.1	2534015.0	14554	µg/L	14554	ppb	14:19:13
3	Sc RADIAL	111474.3	111474.3	97.5	%			14:18:52
3	Al 396.153Radial†	2221.8	2364.8	85.955	µg/L	85.955	ppb	14:18:54
3	Ca 317.933Radial†	1483.9	1066.0	87.771	µg/L	87.771	ppb	14:18:54
3	Fe 238.204 Radial†	-45.9	-171.4	-14.618	µg/L	-14.618	ppb	14:18:54
3	K 766.490 Radial†	741039.7	759000.3	303810	µg/L	303810	ppb	14:18:52
3	Mg 279.077 IEC†	-288.4	-453.3	-2.2053	µg/L	-2.2053	ppb	14:18:54
3	Na 589.592 Radial†	2434.6	1662.9	-4.8658	µg/L	-4.8658	ppb	14:18:54
3	Sr 421.552†	3806040.0	3905592.2	10033	µg/L	10033	ppb	14:18:50
3	Sc 361.383	1616630.6	1616630.6	95.531	%			14:19:22
3	Y 371.029	890258.4	890258.4	93.023	%			14:19:22
3	Ag 328.068†	-22052.3	-28187.0	3.2889	µg/L	3.2889	ppb	14:19:25
3	As 188.979†	28082.0	29409.2	10445	µg/L	10445	ppb	14:19:25
3	B 249.677†	330052.1	341381.9	5033.8	µg/L	5033.8	ppb	14:19:22
3	Ba 233.527†	2708661.7	2835533.8	12845	µg/L	12845	ppb	14:19:22
3	Be 313.107†	9845255.5	10306863.5	2918.2	µg/L	2918.2	ppb	14:19:19
3	Cd 226.502†	1421588.9	1488163.3	9844.5	µg/L	9844.5	ppb	14:19:22
3	Co 228.616†	706473.4	739753.2	9714.0	µg/L	9714.0	ppb	14:19:22
3	Cr 267.716†	2665538.6	2789917.7	24506	µg/L	24506	ppb	14:19:22
3	Cu 324.752†	4720530.1	4938141.5	20449	µg/L	20449	ppb	14:19:22
3	Mn 257.610†	6940639.6	7265145.9	9496.5	µg/L	9496.5	ppb	14:19:22
3	Mo 202.031†	285828.6	299222.8	10161	µg/L	10161	ppb	14:19:25
3	Ni 231.604†	758915.0	794495.1	9880.2	µg/L	9880.2	ppb	14:19:22
3	P 214.914†	65258.4	68330.8	15372	µg/L	15372	ppb	14:19:25
3	Pb 220.353†	365201.9	382170.9	23977	µg/L	23977	ppb	14:19:22
3	S 181.975 Axial†	59689.8	62380.5	53163	µg/L	53163	ppb	14:19:25
3	Sb 206.836†	76727.7	80239.9	10095	µg/L	10095	ppb	14:19:25
3	Se 196.026†	24687.4	25822.5	9990	µg/L	9990	ppb	14:19:25
3	SiO2†	952195.5	995055.6	102310	µg/L	102310	ppb	14:19:22
3	Si 251.611†	3007396.0	3147312.2	47808	µg/L	47808	ppb	14:19:22
3	Sn 189.927†	138667.0	145146.2	10142	µg/L	10142	ppb	14:19:25
3	Ti 334.940†	9266032.1	9698662.5	10163	µg/L	10163	ppb	14:19:19
3	Tl 190.801†	66198.5	69410.9	9934.8	µg/L	9934.8	ppb	14:19:25
3	U 409.014†	-4988.6	-4810.8	321.48	µg/L	321.48	ppb	14:19:25
3	V 292.402†	1946274.3	2036835.8	10300	µg/L	10300	ppb	14:19:22
3	Zn 213.857†	2427801.1	2540767.8	14593	µg/L	14593	ppb	14:19:22

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1625878.7	96.077	%	0.5152				0.54%
Sc RADIAL	112107.6	98.0	%	0.73				0.75%
Y 371.029	895642.8	93.586	%	0.5335				0.57%
Ag 328.068†	-27504.1	6.1205	µg/L	2.48720	6.1205	ppb	2.48720	40.64%
Al 396.153Radial†	2179.4	47.065	µg/L	33.6857	47.065	ppb	33.6857	71.57%
As 188.979†	28936.0	10281	µg/L	144.0	10281	ppb	144.0	1.40%
QC value within limits for As 188.979 Recovery = 102.81%								
B 249.677†	341277.3	5032.3	µg/L	11.81	5032.3	ppb	11.81	0.23%
QC value within limits for B 249.677 Recovery = 100.65%								
Ba 233.527†	2834553.9	12841	µg/L	30.0	12841	ppb	30.0	0.23%
QC value less than the lower limit for Ba 233.527 Recovery = 85.61%								
Be 313.107†	10328394.6	2924.3	µg/L	25.13	2924.3	ppb	25.13	0.86%
QC value within limits for Be 313.107 Recovery = 97.48%								
Ca 317.933Radial†	787.3	64.825	µg/L	21.1501	64.825	ppb	21.1501	32.63%
Cd 226.502†	1490366.2	9859.1	µg/L	34.43	9859.1	ppb	34.43	0.35%
QC value within limits for Cd 226.502 Recovery = 98.59%								
Co 228.616†	739971.4	9716.8	µg/L	32.25	9716.8	ppb	32.25	0.33%
QC value within limits for Co 228.616 Recovery = 97.17%								
Cr 267.716†	2790903.4	24514	µg/L	66.3	24514	ppb	66.3	0.27%
QC value within limits for Cr 267.716 Recovery = 98.06%								

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Cu 324.752†          4933579.9       20430 µg/L          53.6       20430 ppb          53.6   0.26%
   QC value within limits for Cu 324.752  Recovery = 102.15%
Fe 238.204 Radial†      -438.5     -37.404 µg/L       20.3260     -37.404 ppb       20.3260  54.34%
K 766.490 Radial†     753472.6      301600 µg/L        2306.4      301600 ppb        2306.4   0.76%
   QC value within limits for K 766.490 Radial  Recovery = 100.53%
Mg 279.077 IEC†         -467.9     -12.789 µg/L       26.2498     -12.789 ppb       26.2498 205.26%
Mn 257.610†          7265978.4      9497.6 µg/L         24.79      9497.6 ppb         24.79   0.26%
   QC value within limits for Mn 257.610  Recovery = 94.98%
Mo 202.031†           296153.5      10057 µg/L          90.5       10057 ppb          90.5   0.90%
   QC value within limits for Mo 202.031  Recovery = 100.57%
Na 589.592 Radial†      1580.5     -16.057 µg/L       14.6997     -16.057 ppb       14.6997  91.54%
Ni 231.604†           795480.5      9892.5 µg/L         31.80      9892.5 ppb         31.80   0.32%
   QC value within limits for Ni 231.604  Recovery = 98.92%
P 214.914†             67572.3      15199 µg/L         150.5       15199 ppb         150.5   0.99%
   QC value within limits for P 214.914  Recovery = 101.32%
Pb 220.353†           382609.5      24004 µg/L          93.5       24004 ppb          93.5   0.39%
   QC value within limits for Pb 220.353  Recovery = 96.02%
S 181.975 Axial†       61687.9      52573 µg/L         511.1       52573 ppb         511.1   0.97%
   QC value within limits for S 181.975 Axial  Recovery = 105.15%
Sb 206.836†            79449.2      9992.2 µg/L         89.34      9992.2 ppb         89.34   0.89%
   QC value within limits for Sb 206.836  Recovery = 99.92%
Se 196.026†            25588.1       9890 µg/L          78.5        9890 ppb          78.5   0.79%
   QC value within limits for Se 196.026  Recovery = 98.95%
SiO2†                 993426.9     102150 µg/L         232.7      102150 ppb         232.7   0.23%
   QC value within limits for SiO2  Recovery = 95.47%
Si 251.611†          3141545.5      47723 µg/L         114.6       47723 ppb         114.6   0.24%
   QC value within limits for Si 251.611  Recovery = 95.45%
Sn 189.927†           143556.7      10031 µg/L          96.9       10031 ppb          96.9   0.97%
   QC value within limits for Sn 189.927  Recovery = 100.31%
Sr 421.552†          3872206.7      9946.8 µg/L        156.52      9946.8 ppb        156.52   1.57%
   QC value within limits for Sr 421.552  Recovery = 99.47%
Ti 334.940†          9712695.1      10178 µg/L          81.2       10178 ppb          81.2   0.80%
   QC value within limits for Ti 334.940  Recovery = 101.78%
Tl 190.801†            68745.1      9841.2 µg/L         81.71      9841.2 ppb         81.71   0.83%
   QC value within limits for Tl 190.801  Recovery = 98.41%
U 409.014†             -4896.3      316.38 µg/L         5.066      316.38 ppb         5.066   1.60%
V 292.402†           2037182.5      10300 µg/L          24.7       10300 ppb          24.7   0.24%
   QC value within limits for V 292.402  Recovery = 103.00%
Zn 213.857†          2541230.8      14595 µg/L          42.9       14595 ppb          42.9   0.29%
   QC value within limits for Zn 213.857  Recovery = 97.30%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/13/2010 14:19:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	112203.8	112203.8	98.1	%			14:20:06
1	Al 396.153Radial†	21489.9	21993.2	5162.9	µg/L	5162.9	ppb	14:20:06
1	Ca 317.933Radial†	61613.2	62355.9	5134.3	µg/L	5134.3	ppb	14:20:06
1	Fe 238.204 Radial†	59068.1	60093.7	5126.2	µg/L	5126.2	ppb	14:20:06
1	K 766.490 Radial†	15049.0	13932.7	5572.7	µg/L	5572.7	ppb	14:20:06
1	Mg 279.077 IEC†	9386.0	9411.4	5213.0	µg/L	5213.0	ppb	14:20:06
1	Na 589.592 Radial†	64068.9	64480.9	10283	µg/L	10283	ppb	14:20:04
1	Sr 421.552†	196127.7	200012.4	513.75	µg/L	513.75	ppb	14:20:04
1	Sc 361.383	1663650.0	1663650.0	98.309	%			14:20:19
1	Y 371.029	930876.1	930876.1	97.267	%			14:20:19
1	Ag 328.068†	125303.2	122355.5	511.54	µg/L	511.54	ppb	14:20:19
1	As 188.979†	1417.3	1455.1	511.27	µg/L	511.27	ppb	14:20:39
1	B 249.677†	38223.4	34769.0	514.34	µg/L	514.34	ppb	14:20:19
1	Ba 233.527†	110371.5	112415.8	509.29	µg/L	509.29	ppb	14:20:19
1	Be 313.107†	1754134.0	1785298.2	505.62	µg/L	505.62	ppb	14:20:19
1	Cd 226.502†	76017.7	77389.8	511.41	µg/L	511.41	ppb	14:20:19
1	Co 228.616†	38086.1	38968.3	511.13	µg/L	511.13	ppb	14:20:19
1	Cr 267.716†	57242.2	57897.1	508.36	µg/L	508.36	ppb	14:20:19
1	Cu 324.752†	124009.6	122901.4	510.36	µg/L	510.36	ppb	14:20:19
1	Mn 257.610†	383714.0	390098.7	509.69	µg/L	509.69	ppb	14:20:19
1	Mo 202.031†	14766.9	15042.5	511.10	µg/L	511.10	ppb	14:20:39
1	Ni 231.604†	40209.4	40974.9	509.56	µg/L	509.56	ppb	14:20:19
1	P 214.914†	10884.8	11091.3	2525.5	µg/L	2525.5	ppb	14:20:39
1	Pb 220.353†	8325.6	8351.6	524.93	µg/L	524.93	ppb	14:20:39
1	S 181.975 Axial†	1314.8	1235.5	1055.6	µg/L	1055.6	ppb	14:20:39
1	Sb 206.836†	3971.7	3962.5	509.12	µg/L	509.12	ppb	14:20:39
1	Se 196.026†	1332.0	1334.9	518	µg/L	518	ppb	14:20:39
1	SiO2†	53455.9	52686.4	5418.3	µg/L	5418.3	ppb	14:20:19
1	Si 251.611†	165269.8	167326.0	2542.3	µg/L	2542.3	ppb	14:20:19
1	Sn 189.927†	7215.1	7330.8	512.20	µg/L	512.20	ppb	14:20:39
1	Ti 334.940†	478219.0	485558.5	508.56	µg/L	508.56	ppb	14:20:19
1	Tl 190.801†	3441.0	3615.4	517.12	µg/L	517.12	ppb	14:20:39
1	U 409.014†	7002.5	7534.2	488.93	µg/L	488.93	ppb	14:20:19
1	V 292.402†	100424.5	101655.8	510.78	µg/L	510.78	ppb	14:20:19
1	Zn 213.857†	87874.3	88766.5	508.47	µg/L	508.47	ppb	14:20:19
2	Sc RADIAL	111485.0	111485.0	97.5	%			14:20:10
2	Al 396.153Radial†	21686.2	22335.9	5244.0	µg/L	5244.0	ppb	14:20:10
2	Ca 317.933Radial†	62036.2	63194.9	5203.4	µg/L	5203.4	ppb	14:20:10
2	Fe 238.204 Radial†	59099.2	60513.8	5162.1	µg/L	5162.1	ppb	14:20:10
2	K 766.490 Radial†	15114.4	14098.7	5639.1	µg/L	5639.1	ppb	14:20:10
2	Mg 279.077 IEC†	9440.1	9528.6	5277.6	µg/L	5277.6	ppb	14:20:10
2	Na 589.592 Radial†	63223.6	64034.7	10212	µg/L	10212	ppb	14:20:08
2	Sr 421.552†	193487.6	198592.8	510.10	µg/L	510.10	ppb	14:20:08
2	Sc 361.383	1684649.2	1684649.2	99.550	%			14:20:42
2	Y 371.029	942088.8	942088.8	98.439	%			14:20:42
2	Ag 328.068†	126565.4	122034.6	510.21	µg/L	510.21	ppb	14:20:42
2	As 188.979†	1414.0	1433.8	503.88	µg/L	503.88	ppb	14:21:02
2	B 249.677†	38415.8	34477.6	510.02	µg/L	510.02	ppb	14:20:42
2	Ba 233.527†	111543.9	112194.1	508.28	µg/L	508.28	ppb	14:20:42
2	Be 313.107†	1772159.3	1781163.6	504.45	µg/L	504.45	ppb	14:20:42
2	Cd 226.502†	76829.4	77241.3	510.42	µg/L	510.42	ppb	14:20:42
2	Co 228.616†	38456.0	38856.9	509.67	µg/L	509.67	ppb	14:20:42
2	Cr 267.716†	57736.0	57667.4	506.34	µg/L	506.34	ppb	14:20:42
2	Cu 324.752†	124574.4	121896.3	506.21	µg/L	506.21	ppb	14:20:42
2	Mn 257.610†	387164.3	388699.3	507.86	µg/L	507.86	ppb	14:20:42
2	Mo 202.031†	14777.1	14865.5	505.09	µg/L	505.09	ppb	14:21:02
2	Ni 231.604†	40823.3	41081.8	510.89	µg/L	510.89	ppb	14:20:42
2	P 214.914†	10900.2	10968.7	2497.5	µg/L	2497.5	ppb	14:21:02
2	Pb 220.353†	8257.1	8177.2	513.98	µg/L	513.98	ppb	14:21:02

2	S 181.975 Axial†	1299.2	1203.2	1028.0 µg/L	1028.0 ppb	14:21:02
2	Sb 206.836†	3974.3	3914.7	502.92 µg/L	502.92 ppb	14:21:02
2	Se 196.026†	1306.9	1292.8	502 µg/L	502 ppb	14:21:02
2	SiO2†	53943.0	52498.0	5399.2 µg/L	5399.2 ppb	14:20:42
2	Si 251.611†	166874.4	166842.3	2535.0 µg/L	2535.0 ppb	14:20:42
2	Sn 189.927†	7194.7	7218.9	504.40 µg/L	504.40 ppb	14:21:02
2	Ti 334.940†	481648.5	482939.9	505.80 µg/L	505.80 ppb	14:20:42
2	Tl 190.801†	3446.2	3577.0	511.67 µg/L	511.67 ppb	14:21:02
2	U 409.014†	7194.5	7638.3	495.19 µg/L	495.19 ppb	14:20:42
2	V 292.402†	101490.1	101452.9	509.71 µg/L	509.71 ppb	14:20:42
2	Zn 213.857†	88574.5	88355.7	506.08 µg/L	506.08 ppb	14:20:42
3	Sc RADIAL	111168.9	111168.9	97.2 %		14:20:14
3	Al 396.153Radial†	21699.3	22412.6	5261.7 µg/L	5261.7 ppb	14:20:14
3	Ca 317.933Radial†	62059.5	63399.8	5220.3 µg/L	5220.3 ppb	14:20:14
3	Fe 238.204 Radial†	59000.9	60585.2	5168.1 µg/L	5168.1 ppb	14:20:14
3	K 766.490 Radial†	14976.1	14000.5	5599.8 µg/L	5599.8 ppb	14:20:14
3	Mg 279.077 IEC†	9531.8	9650.4	5345.2 µg/L	5345.2 ppb	14:20:14
3	Na 589.592 Radial†	64449.2	65480.2	10443 µg/L	10443 ppb	14:20:12
3	Sr 421.552†	197345.4	203126.8	521.75 µg/L	521.75 ppb	14:20:12
3	Sc 361.383	1667850.3	1667850.3	98.557 %		14:21:05
3	Y 371.029	933777.1	933777.1	97.570 %		14:21:05
3	Ag 328.068†	124700.3	121422.8	507.67 µg/L	507.67 ppb	14:21:05
3	As 188.979†	1421.1	1455.3	511.33 µg/L	511.33 ppb	14:21:25
3	B 249.677†	37695.1	34135.0	504.94 µg/L	504.94 ppb	14:21:05
3	Ba 233.527†	109824.4	111578.0	505.49 µg/L	505.49 ppb	14:21:05
3	Be 313.107†	1748485.2	1775073.2	502.73 µg/L	502.73 ppb	14:21:05
3	Cd 226.502†	75160.0	76324.8	504.36 µg/L	504.36 ppb	14:21:05
3	Co 228.616†	37938.9	38721.3	507.89 µg/L	507.89 ppb	14:21:05
3	Cr 267.716†	56714.7	57215.3	502.36 µg/L	502.36 ppb	14:21:05
3	Cu 324.752†	122905.3	121463.2	504.43 µg/L	504.43 ppb	14:21:05
3	Mn 257.610†	382135.2	387513.8	506.31 µg/L	506.31 ppb	14:21:05
3	Mo 202.031†	14861.6	15100.8	513.08 µg/L	513.08 ppb	14:21:25
3	Ni 231.604†	40100.8	40761.7	506.91 µg/L	506.91 ppb	14:21:05
3	P 214.914†	10963.3	11143.0	2537.4 µg/L	2537.4 ppb	14:21:25
3	Pb 220.353†	8289.4	8293.5	521.29 µg/L	521.29 ppb	14:21:25
3	S 181.975 Axial†	1308.9	1226.1	1047.6 µg/L	1047.6 ppb	14:21:25
3	Sb 206.836†	3998.2	3979.2	511.37 µg/L	511.37 ppb	14:21:25
3	Se 196.026†	1335.5	1335.0	519 µg/L	519 ppb	14:21:25
3	SiO2†	53112.4	52201.0	5368.2 µg/L	5368.2 ppb	14:21:05
3	Si 251.611†	164521.7	166143.6	2524.2 µg/L	2524.2 ppb	14:21:05
3	Sn 189.927†	7246.9	7344.5	513.15 µg/L	513.15 ppb	14:21:25
3	Ti 334.940†	475815.9	481895.2	504.70 µg/L	504.70 ppb	14:21:05
3	Tl 190.801†	3458.7	3624.5	518.35 µg/L	518.35 ppb	14:21:25
3	U 409.014†	7277.3	7795.1	504.58 µg/L	504.58 ppb	14:21:05
3	V 292.402†	99997.8	100965.6	507.36 µg/L	507.36 ppb	14:21:05
3	Zn 213.857†	87256.3	87914.3	503.56 µg/L	503.56 ppb	14:21:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1672049.8	98.805	%	0.6566				0.66%
Sc RADIAL	111619.2	97.6	%	0.46				0.48%
Y 371.029	935580.6	97.759	%	0.6081				0.62%
Ag 328.068†	121937.6	509.81	µg/L	1.969	509.81	ppb	1.969	0.39%
QC value within limits for Ag 328.068 Recovery = 101.96%								
Al 396.153Radial†	22247.2	5222.9	µg/L	52.68	5222.9	ppb	52.68	1.01%
QC value within limits for Al 396.153Radial Recovery = 104.46%								
As 188.979†	1448.1	508.83	µg/L	4.283	508.83	ppb	4.283	0.84%
QC value within limits for As 188.979 Recovery = 101.77%								
B 249.677†	34460.5	509.77	µg/L	4.705	509.77	ppb	4.705	0.92%
QC value within limits for B 249.677 Recovery = 101.95%								
Ba 233.527†	112062.6	507.69	µg/L	1.966	507.69	ppb	1.966	0.39%
QC value within limits for Ba 233.527 Recovery = 101.54%								
Be 313.107†	1780511.7	504.27	µg/L	1.454	504.27	ppb	1.454	0.29%
QC value within limits for Be 313.107 Recovery = 100.85%								
Ca 317.933Radial†	62983.5	5186.0	µg/L	45.54	5186.0	ppb	45.54	0.88%
QC value within limits for Ca 317.933Radial Recovery = 103.72%								
Cd 226.502†	76985.3	508.73	µg/L	3.816	508.73	ppb	3.816	0.75%
QC value within limits for Cd 226.502 Recovery = 101.75%								
Co 228.616†	38848.8	509.56	µg/L	1.625	509.56	ppb	1.625	0.32%

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   QC value within limits for Co 228.616  Recovery = 101.91%
Cr 267.716†            57593.3      505.69 µg/L         3.054      505.69 ppb          3.054   0.60%
   QC value within limits for Cr 267.716  Recovery = 101.14%
Cu 324.752†           122087.0      507.00 µg/L         3.044      507.00 ppb          3.044   0.60%
   QC value within limits for Cu 324.752  Recovery = 101.40%
Fe 238.204 Radial†     60397.6      5152.1 µg/L        22.65      5152.1 ppb         22.65   0.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.04%
K 766.490 Radial†      14010.6      5603.9 µg/L        33.39      5603.9 ppb         33.39   0.60%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 112.08%
Mg 279.077 IEC†         9530.1      5278.6 µg/L        66.11      5278.6 ppb         66.11   1.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.57%
Mn 257.610†           388770.6      507.95 µg/L         1.694      507.95 ppb         1.694   0.33%
   QC value within limits for Mn 257.610  Recovery = 101.59%
Mo 202.031†            15002.9      509.76 µg/L         4.159      509.76 ppb         4.159   0.82%
   QC value within limits for Mo 202.031  Recovery = 101.95%
Na 589.592 Radial†     64665.2       10313 µg/L       118.1        10313 ppb        118.1   1.15%
   QC value within limits for Na 589.592 Radial  Recovery = 103.13%
Ni 231.604†            40939.5      509.12 µg/L         2.026      509.12 ppb         2.026   0.40%
   QC value within limits for Ni 231.604  Recovery = 101.82%
P 214.914†             11067.7      2520.1 µg/L        20.46      2520.1 ppb        20.46   0.81%
   QC value within limits for P 214.914  Recovery = 100.81%
Pb 220.353†             8274.1      520.07 µg/L         5.576      520.07 ppb         5.576   1.07%
   QC value within limits for Pb 220.353  Recovery = 104.01%
S 181.975 Axial†        1221.6      1043.7 µg/L        14.19      1043.7 ppb        14.19   1.36%
   QC value within limits for S 181.975 Axial  Recovery = 104.37%
Sb 206.836†             3952.1      507.80 µg/L         4.375      507.80 ppb         4.375   0.86%
   QC value within limits for Sb 206.836  Recovery = 101.56%
Se 196.026†             1320.9         513 µg/L           9.4         513 ppb           9.4   1.83%
   QC value within limits for Se 196.026  Recovery = 102.61%
SiO2†                  52461.8      5395.2 µg/L        25.33      5395.2 ppb        25.33   0.47%
   QC value within limits for SiO2  Recovery = 100.89%
Si 251.611†           166770.6      2533.9 µg/L         9.09      2533.9 ppb         9.09   0.36%
   QC value within limits for Si 251.611  Recovery = 101.35%
Sn 189.927†             7298.0      509.92 µg/L         4.801      509.92 ppb         4.801   0.94%
   QC value within limits for Sn 189.927  Recovery = 101.98%
Sr 421.552†           200577.3      515.20 µg/L         5.957      515.20 ppb         5.957   1.16%
   QC value within limits for Sr 421.552  Recovery = 103.04%
Ti 334.940†           483464.5      506.35 µg/L         1.985      506.35 ppb         1.985   0.39%
   QC value within limits for Ti 334.940  Recovery = 101.27%
Tl 190.801†             3605.7      515.71 µg/L         3.553      515.71 ppb         3.553   0.69%
   QC value within limits for Tl 190.801  Recovery = 103.14%
U 409.014†              7655.9      496.23 µg/L         7.875      496.23 ppb         7.875   1.59%
   QC value within limits for U 409.014  Recovery = 99.25%
V 292.402†            101358.1      509.28 µg/L         1.748      509.28 ppb         1.748   0.34%
   QC value within limits for V 292.402  Recovery = 101.86%
Zn 213.857†            88345.5      506.04 µg/L         2.452      506.04 ppb         2.452   0.48%
   QC value within limits for Zn 213.857  Recovery = 101.21%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/13/2010 14:21:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114703.5	114703.5	100	%			14:22:03
1	Al 396.153Radial†	-66.8	18.4	4.2925	µg/L	4.2925	ppb	14:22:23
1	Ca 317.933Radial†	516.1	58.0	4.7733	µg/L	4.7733	ppb	14:22:23
1	Fe 238.204 Radial†	198.0	73.2	6.2429	µg/L	6.2429	ppb	14:22:23
1	K 766.490 Radial†	1866.6	452.2	180.99	µg/L	180.99	ppb	14:22:03
1	Mg 279.077 IEC†	177.2	19.3	10.704	µg/L	10.704	ppb	14:22:23
1	Na 589.592 Radial†	1301.1	462.2	73.587	µg/L	73.587	ppb	14:22:03
1	Sr 421.552†	9.1	75.8	0.1947	µg/L	0.1947	ppb	14:22:03
1	Sc 361.383	1686563.7	1686563.7	99.663	%			14:23:25
1	Y 371.029	953976.9	953976.9	99.681	%			14:23:25
1	Ag 328.068†	5099.1	13.4	0.0513	µg/L	0.0513	ppb	14:23:27
1	As 188.979†	-11.8	1.6	0.5453	µg/L	0.5453	ppb	14:23:47
1	B 249.677†	4361.4	264.2	3.9223	µg/L	3.9223	ppb	14:23:27
1	Ba 233.527†	-147.4	-2.1	-0.0092	µg/L	-0.0092	ppb	14:23:47
1	Be 313.107†	-565.2	425.2	0.1195	µg/L	0.1195	ppb	14:23:27
1	Cd 226.502†	26.6	91.3	0.6031	µg/L	0.6031	ppb	14:23:47
1	Co 228.616†	-231.0	-4.8	-0.0628	µg/L	-0.0628	ppb	14:23:47
1	Cr 267.716†	333.6	5.1	0.0475	µg/L	0.0475	ppb	14:23:47
1	Cu 324.752†	3305.5	75.4	0.3108	µg/L	0.3108	ppb	14:23:27
1	Mn 257.610†	298.5	84.1	0.1095	µg/L	0.1095	ppb	14:23:47
1	Mo 202.031†	1.8	23.4	0.7964	µg/L	0.7964	ppb	14:23:47
1	Ni 231.604†	-56.3	17.4	0.2161	µg/L	0.2161	ppb	14:23:47
1	P 214.914†	-34.6	-15.5	-3.5505	µg/L	-3.5505	ppb	14:23:47
1	Pb 220.353†	170.2	53.5	3.3582	µg/L	3.3582	ppb	14:23:47
1	S 181.975 Axial†	110.4	8.8	7.5339	µg/L	7.5339	ppb	14:23:47
1	Sb 206.836†	85.6	8.3	1.0810	µg/L	1.0810	ppb	14:23:47
1	Se 196.026†	41.2	21.4	8.27	µg/L	8.27	ppb	14:23:47
1	SiO2†	1827.2	144.5	14.891	µg/L	14.891	ppb	14:23:27
1	Si 251.611†	811.8	28.0	0.4115	µg/L	0.4115	ppb	14:23:27
1	Sn 189.927†	19.5	11.1	0.7738	µg/L	0.7738	ppb	14:23:47
1	Ti 334.940†	787.1	-96.3	-0.1005	µg/L	-0.1005	ppb	14:23:27
1	Tl 190.801†	-112.7	2.1	0.2993	µg/L	0.2993	ppb	14:23:47
1	U 409.014†	-459.7	-50.0	-3.0405	µg/L	-3.0405	ppb	14:23:27
1	V 292.402†	492.6	-1.8	-0.0030	µg/L	-0.0030	ppb	14:23:27
1	Zn 213.857†	773.5	156.8	0.9032	µg/L	0.9032	ppb	14:23:47
2	Sc RADIAL	113535.1	113535.1	99.3	%			14:22:25
2	Al 396.153Radial†	-73.2	11.2	2.6255	µg/L	2.6255	ppb	14:22:45
2	Ca 317.933Radial†	474.8	21.6	1.7819	µg/L	1.7819	ppb	14:22:45
2	Fe 238.204 Radial†	158.2	35.1	2.9908	µg/L	2.9908	ppb	14:22:45
2	K 766.490 Radial†	1863.5	468.2	187.41	µg/L	187.41	ppb	14:22:25
2	Mg 279.077 IEC†	144.2	-12.0	-6.6399	µg/L	-6.6399	ppb	14:22:45
2	Na 589.592 Radial†	1342.9	517.7	82.435	µg/L	82.435	ppb	14:22:25
2	Sr 421.552†	317.3	386.4	0.9927	µg/L	0.9927	ppb	14:22:25
2	Sc 361.383	1678691.8	1678691.8	99.198	%			14:23:50
2	Y 371.029	949781.6	949781.6	99.243	%			14:23:50
2	Ag 328.068†	5150.1	88.8	0.3809	µg/L	0.3809	ppb	14:23:52
2	As 188.979†	-9.8	3.5	1.2170	µg/L	1.2170	ppb	14:24:12
2	B 249.677†	4385.0	308.5	4.5810	µg/L	4.5810	ppb	14:23:52
2	Ba 233.527†	-128.9	15.9	0.0720	µg/L	0.0720	ppb	14:24:12
2	Be 313.107†	-506.1	482.1	0.1409	µg/L	0.1409	ppb	14:23:52
2	Cd 226.502†	23.9	88.7	0.5863	µg/L	0.5863	ppb	14:24:12
2	Co 228.616†	-244.8	-19.8	-0.2592	µg/L	-0.2592	ppb	14:24:12
2	Cr 267.716†	351.3	24.5	0.2038	µg/L	0.2038	ppb	14:24:12
2	Cu 324.752†	3267.9	53.0	0.2316	µg/L	0.2316	ppb	14:23:52
2	Mn 257.610†	264.5	51.3	0.0673	µg/L	0.0673	ppb	14:24:12
2	Mo 202.031†	-6.8	14.8	0.5025	µg/L	0.5025	ppb	14:24:12
2	Ni 231.604†	-75.1	-1.8	-0.0218	µg/L	-0.0218	ppb	14:24:12
2	P 214.914†	-22.7	-3.7	-0.8446	µg/L	-0.8446	ppb	14:24:12
2	Pb 220.353†	148.1	32.1	2.0019	µg/L	2.0019	ppb	14:24:12

2	S 181.975 Axial†	124.7	23.7	20.202	µg/L	20.202 ppb	14:24:12
2	Sb 206.836†	74.9	-2.0	-0.2562	µg/L	-0.2562 ppb	14:24:12
2	Se 196.026†	25.1	5.3	2.05	µg/L	2.05 ppb	14:24:12
2	SiO2†	1694.8	19.6	1.9987	µg/L	1.9987 ppb	14:23:52
2	Si 251.611†	1040.9	262.8	3.9963	µg/L	3.9963 ppb	14:23:52
2	Sn 189.927†	21.7	13.4	0.9346	µg/L	0.9346 ppb	14:24:12
2	Ti 334.940†	968.2	89.9	0.0888	µg/L	0.0888 ppb	14:23:52
2	Tl 190.801†	-122.2	-7.9	-1.1202	µg/L	-1.1202 ppb	14:24:12
2	U 409.014†	-168.6	241.3	14.655	µg/L	14.655 ppb	14:23:52
2	V 292.402†	429.6	-62.9	-0.2963	µg/L	-0.2963 ppb	14:23:52
2	Zn 213.857†	744.1	130.8	0.7553	µg/L	0.7553 ppb	14:24:12
3	Sc RADIAL	114385.5	114385.5	100.0	%		14:22:47
3	Al 396.153Radial†	-107.4	-22.4	-5.3267	µg/L	-5.3267 ppb	14:23:07
3	Ca 317.933Radial†	470.3	13.5	1.1156	µg/L	1.1156 ppb	14:23:07
3	Fe 238.204 Radial†	162.0	37.8	3.2207	µg/L	3.2207 ppb	14:23:07
3	K 766.490 Radial†	1913.3	504.1	201.77	µg/L	201.77 ppb	14:22:47
3	Mg 279.077 IEC†	155.6	-1.7	-0.9201	µg/L	-0.9201 ppb	14:23:07
3	Na 589.592 Radial†	1169.8	334.5	53.199	µg/L	53.199 ppb	14:22:47
3	Sr 421.552†	-78.5	-11.8	-0.0303	µg/L	-0.0303 ppb	14:22:47
3	Sc 361.383	1694798.9	1694798.9	100.15	%		14:24:14
3	Y 371.029	957606.3	957606.3	100.06	%		14:24:14
3	Ag 328.068†	5225.0	114.2	0.4742	µg/L	0.4742 ppb	14:24:16
3	As 188.979†	-7.3	6.2	2.1422	µg/L	2.1422 ppb	14:24:36
3	B 249.677†	4280.2	161.9	2.4017	µg/L	2.4017 ppb	14:24:16
3	Ba 233.527†	-129.6	16.5	0.0744	µg/L	0.0744 ppb	14:24:36
3	Be 313.107†	-705.8	287.6	0.0837	µg/L	0.0837 ppb	14:24:16
3	Cd 226.502†	-2.6	61.9	0.4093	µg/L	0.4093 ppb	14:24:36
3	Co 228.616†	-195.8	31.5	0.4132	µg/L	0.4132 ppb	14:24:36
3	Cr 267.716†	361.8	31.7	0.2720	µg/L	0.2720 ppb	14:24:36
3	Cu 324.752†	3303.6	57.4	0.2445	µg/L	0.2445 ppb	14:24:16
3	Mn 257.610†	252.2	36.4	0.0476	µg/L	0.0476 ppb	14:24:36
3	Mo 202.031†	8.9	30.5	1.0349	µg/L	1.0349 ppb	14:24:36
3	Ni 231.604†	-63.0	11.0	0.1366	µg/L	0.1366 ppb	14:24:36
3	P 214.914†	-13.2	6.0	1.3698	µg/L	1.3698 ppb	14:24:36
3	Pb 220.353†	168.9	51.5	3.2211	µg/L	3.2211 ppb	14:24:36
3	S 181.975 Axial†	105.4	3.3	2.8487	µg/L	2.8487 ppb	14:24:36
3	Sb 206.836†	86.0	8.4	1.0838	µg/L	1.0838 ppb	14:24:36
3	Se 196.026†	26.6	6.5	2.54	µg/L	2.54 ppb	14:24:36
3	SiO2†	1763.2	71.7	7.3576	µg/L	7.3576 ppb	14:24:16
3	Si 251.611†	889.8	101.9	1.5353	µg/L	1.5353 ppb	14:24:16
3	Sn 189.927†	20.6	12.2	0.8482	µg/L	0.8482 ppb	14:24:36
3	Ti 334.940†	698.1	-189.1	-0.2013	µg/L	-0.2013 ppb	14:24:16
3	Tl 190.801†	-114.9	0.5	0.0599	µg/L	0.0599 ppb	14:24:36
3	U 409.014†	-288.5	123.1	7.4564	µg/L	7.4564 ppb	14:24:16
3	V 292.402†	386.7	-109.9	-0.5283	µg/L	-0.5283 ppb	14:24:16
3	Zn 213.857†	736.4	116.0	0.6683	µg/L	0.6683 ppb	14:24:36

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1686684.8	99.670	%	0.4759				0.48%
Sc RADIAL	114208.0	99.8	%	0.53				0.53%
Y 371.029	953788.3	99.661	%	0.4092				0.41%
Ag 328.068†	72.1	0.3021	µg/L	0.22217	0.3021	ppb	0.22217	73.53%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.4	0.5304	µg/L	5.14048	0.5304	ppb	5.14048	969.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.7	1.3015	µg/L	0.80181	1.3015	ppb	0.80181	61.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	244.9	3.6350	µg/L	1.11768	3.6350	ppb	1.11768	30.75%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.1	0.0458	µg/L	0.04757	0.0458	ppb	0.04757	103.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	398.3	0.1147	µg/L	0.02892	0.1147	ppb	0.02892	25.22%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	31.1	2.5569	µg/L	1.94812	2.5569	ppb	1.94812	76.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	80.7	0.5329	µg/L	0.10738	0.5329	ppb	0.10738	20.15%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.3	0.0304	µg/L	0.34576	0.0304	ppb	0.34576	>999.9%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              20.4      0.1745 µg/L       0.11508      0.1745 ppb        0.11508  65.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              61.9      0.2623 µg/L       0.04249      0.2623 ppb        0.04249  16.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       48.7      4.1515 µg/L       1.81490      4.1515 ppb        1.81490  43.72%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       474.8      190.05 µg/L        10.640      190.05 ppb         10.640   5.60%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.9      1.0481 µg/L       8.83794      1.0481 ppb        8.83794 843.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              57.3      0.0748 µg/L       0.03162      0.0748 ppb        0.03162  42.26%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              22.9      0.7779 µg/L       0.26667      0.7779 ppb        0.26667  34.28%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      438.1      69.740 µg/L       14.9928      69.740 ppb        14.9928  21.50%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               8.9      0.1103 µg/L       0.12111      0.1103 ppb        0.12111 109.81%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.4     -1.0084 µg/L       2.46419     -1.0084 ppb        2.46419 244.36%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              45.7      2.8604 µg/L       0.74666      2.8604 ppb        0.74666  26.10%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         12.0      10.195 µg/L        8.9773      10.195 ppb         8.9773  88.06%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.9      0.6362 µg/L       0.77281      0.6362 ppb        0.77281 121.47%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              11.1        4.29 µg/L         3.458        4.29 ppb          3.458  80.65%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    78.6      8.0823 µg/L       6.47643      8.0823 ppb        6.47643  80.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             130.9      1.9810 µg/L       1.83351      1.9810 ppb        1.83351  92.55%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              12.2      0.8522 µg/L       0.08043      0.8522 ppb        0.08043   9.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             150.2      0.3857 µg/L       0.53757      0.3857 ppb        0.53757 139.38%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -65.2     -0.0710 µg/L       0.14728     -0.0710 ppb        0.14728 207.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -1.8     -0.2537 µg/L       0.75993     -0.2537 ppb        0.75993 299.58%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              104.8      6.3569 µg/L       8.89875      6.3569 ppb        8.89875 139.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -58.2     -0.2759 µg/L       0.26326     -0.2759 ppb        0.26326  95.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             134.6      0.7756 µg/L       0.11877      0.7756 ppb        0.11877  15.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

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Analysis Begun

Start Time: 4/13/2010 14:26:03 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\041310.SIF
Batch ID:
Results Data Set: 041310A
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 4/13/2010 13:42:53**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/13/2010 14:26:05**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114153.9	114153.9	99.8	%			14:26:37
1	Al 396.153Radial†	21542.4	21671.6	5087.5	µg/L	5087.5	ppb	14:26:37
1	Ca 317.933Radial†	62108.9	61779.5	5086.9	µg/L	5086.9	ppb	14:26:37
1	Fe 238.204 Radial†	59230.2	59227.4	5052.3	µg/L	5052.3	ppb	14:26:37

1	K 766.490 Radial†	14338.0	12958.2	5182.7 µg/L	5182.7 ppb	14:26:37
1	Mg 279.077 IEC†	9390.1	9252.0	5124.7 µg/L	5124.7 ppb	14:26:37
1	Na 589.592 Radial†	63653.4	62948.7	10039 µg/L	10039 ppb	14:26:35
1	Sr 421.552†	195196.4	195663.5	502.58 µg/L	502.58 ppb	14:26:35
1	Sc 361.383	1680728.7	1680728.7	99.318 %		14:27:04
1	Y 371.029	940068.0	940068.0	98.228 %		14:27:04
1	Ag 328.068†	125006.2	120761.3	504.94 µg/L	504.94 ppb	14:27:04
1	As 188.979†	1400.3	1423.3	500.19 µg/L	500.19 ppb	14:27:24
1	B 249.677†	37688.3	33835.1	500.49 µg/L	500.49 ppb	14:27:04
1	Ba 233.527†	110370.8	111274.3	504.12 µg/L	504.12 ppb	14:27:04
1	Be 313.107†	1757092.2	1770145.6	501.33 µg/L	501.33 ppb	14:27:04
1	Cd 226.502†	75941.1	76526.9	505.71 µg/L	505.71 ppb	14:27:04
1	Co 228.616†	38191.1	38680.3	507.35 µg/L	507.35 ppb	14:27:04
1	Cr 267.716†	57170.7	57233.5	502.52 µg/L	502.52 ppb	14:27:04
1	Cu 324.752†	123330.3	120935.6	502.22 µg/L	502.22 ppb	14:27:04
1	Mn 257.610†	383314.1	385729.9	503.98 µg/L	503.98 ppb	14:27:04
1	Mo 202.031†	14655.4	14777.6	502.10 µg/L	502.10 ppb	14:27:24
1	Ni 231.604†	40419.2	40770.6	507.02 µg/L	507.02 ppb	14:27:04
1	P 214.914†	10885.8	10979.7	2500.1 µg/L	2500.1 ppb	14:27:24
1	Pb 220.353†	8089.9	8028.3	504.63 µg/L	504.63 ppb	14:27:24
1	S 181.975 Axial†	1276.5	1183.3	1011.1 µg/L	1011.1 ppb	14:27:24
1	Sb 206.836†	3950.5	3900.1	501.06 µg/L	501.06 ppb	14:27:24
1	Se 196.026†	1309.4	1298.4	504 µg/L	504 ppb	14:27:24
1	SiO2†	53281.1	51957.9	5343.5 µg/L	5343.5 ppb	14:27:04
1	Si 251.611†	164820.3	165165.2	2509.5 µg/L	2509.5 ppb	14:27:04
1	Sn 189.927†	7145.8	7186.4	502.13 µg/L	502.13 ppb	14:27:24
1	Ti 334.940†	476912.6	479300.1	502.00 µg/L	502.00 ppb	14:27:04
1	Tl 190.801†	3402.9	3541.5	506.62 µg/L	506.62 ppb	14:27:24
1	U 409.014†	7275.3	7736.5	501.04 µg/L	501.04 ppb	14:27:04
1	V 292.402†	100833.2	101029.3	507.58 µg/L	507.58 ppb	14:27:04
1	Zn 213.857†	87704.1	87686.8	502.26 µg/L	502.26 ppb	14:27:04
2	Sc RADIAL	112326.9	112326.9	98.2 %		14:26:41
2	Al 396.153Radial†	21299.4	21775.2	5111.9 µg/L	5111.9 ppb	14:26:41
2	Ca 317.933Radial†	60862.5	61522.5	5065.7 µg/L	5065.7 ppb	14:26:41
2	Fe 238.204 Radial†	58178.2	59121.5	5043.3 µg/L	5043.3 ppb	14:26:41
2	K 766.490 Radial†	14076.1	12925.1	5169.5 µg/L	5169.5 ppb	14:26:41
2	Mg 279.077 IEC†	9290.6	9303.8	5153.3 µg/L	5153.3 ppb	14:26:41
2	Na 589.592 Radial†	63507.0	63837.0	10181 µg/L	10181 ppb	14:26:39
2	Sr 421.552†	194064.0	197691.7	507.79 µg/L	507.79 ppb	14:26:39
2	Sc 361.383	1680636.9	1680636.9	99.313 %		14:27:27
2	Y 371.029	940462.8	940462.8	98.269 %		14:27:27
2	Ag 328.068†	124086.1	119841.7	501.07 µg/L	501.07 ppb	14:27:27
2	As 188.979†	1411.5	1434.7	504.10 µg/L	504.10 ppb	14:27:47
2	B 249.677†	37543.1	33690.9	498.37 µg/L	498.37 ppb	14:27:27
2	Ba 233.527†	109743.9	110649.1	501.29 µg/L	501.29 ppb	14:27:27
2	Be 313.107†	1744655.1	1757719.0	497.81 µg/L	497.81 ppb	14:27:27
2	Cd 226.502†	75364.7	75950.8	501.90 µg/L	501.90 ppb	14:27:27
2	Co 228.616†	37791.4	38280.0	502.10 µg/L	502.10 ppb	14:27:27
2	Cr 267.716†	56795.3	56858.7	499.24 µg/L	499.24 ppb	14:27:27
2	Cu 324.752†	122589.2	120196.1	499.14 µg/L	499.14 ppb	14:27:27
2	Mn 257.610†	381076.0	383497.4	501.07 µg/L	501.07 ppb	14:27:27
2	Mo 202.031†	14700.0	14823.3	503.65 µg/L	503.65 ppb	14:27:47
2	Ni 231.604†	40042.7	40393.7	502.33 µg/L	502.33 ppb	14:27:27
2	P 214.914†	10884.7	10979.2	2500.1 µg/L	2500.1 ppb	14:27:47
2	Pb 220.353†	8154.4	8093.6	508.74 µg/L	508.74 ppb	14:27:47
2	S 181.975 Axial†	1290.7	1197.7	1023.4 µg/L	1023.4 ppb	14:27:47
2	Sb 206.836†	3962.4	3912.3	502.70 µg/L	502.70 ppb	14:27:47
2	Se 196.026†	1300.3	1289.3	501 µg/L	501 ppb	14:27:47
2	SiO2†	53006.4	51684.3	5315.2 µg/L	5315.2 ppb	14:27:27
2	Si 251.611†	164171.7	164521.1	2499.7 µg/L	2499.7 ppb	14:27:27
2	Sn 189.927†	7176.2	7217.4	504.28 µg/L	504.28 ppb	14:27:47
2	Ti 334.940†	473648.0	476039.1	498.58 µg/L	498.58 ppb	14:27:27
2	Tl 190.801†	3418.2	3557.1	508.76 µg/L	508.76 ppb	14:27:47
2	U 409.014†	7080.4	7540.6	488.82 µg/L	488.82 ppb	14:27:27
2	V 292.402†	99806.2	100000.8	502.48 µg/L	502.48 ppb	14:27:27
2	Zn 213.857†	86958.5	86940.8	497.99 µg/L	497.99 ppb	14:27:27
3	Sc RADIAL	113750.4	113750.4	99.4 %		14:26:45
3	Al 396.153Radial†	21522.5	21728.1	5100.4 µg/L	5100.4 ppb	14:26:45
3	Ca 317.933Radial†	61905.3	61795.6	5088.2 µg/L	5088.2 ppb	14:26:45
3	Fe 238.204 Radial†	59117.3	59324.4	5060.6 µg/L	5060.6 ppb	14:26:45
3	K 766.490 Radial†	14210.4	12880.8	5151.7 µg/L	5151.7 ppb	14:26:45

3	Mg 279.077 IEC†	9384.7	9279.9	5140.3 µg/L	5140.3 ppb	14:26:45
3	Na 589.592 Radial†	63260.5	62779.8	10012 µg/L	10012 ppb	14:26:43
3	Sr 421.552†	193682.0	194834.4	500.45 µg/L	500.45 ppb	14:26:43
3	Sc 361.383	1659399.4	1659399.4	98.058 %		14:27:50
3	Y 371.029	929182.0	929182.0	97.090 %		14:27:50
3	Ag 328.068†	123376.4	120717.0	504.69 µg/L	504.69 ppb	14:27:50
3	As 188.979†	1423.0	1464.6	514.48 µg/L	514.48 ppb	14:28:10
3	B 249.677†	36938.4	33558.1	496.39 µg/L	496.39 ppb	14:27:50
3	Ba 233.527†	108243.4	110533.2	500.76 µg/L	500.76 ppb	14:27:50
3	Be 313.107†	1723993.9	1759131.7	498.21 µg/L	498.21 ppb	14:27:50
3	Cd 226.502†	74111.9	75644.3	499.87 µg/L	499.87 ppb	14:27:50
3	Co 228.616†	37422.5	38390.7	503.55 µg/L	503.55 ppb	14:27:50
3	Cr 267.716†	56111.8	56893.5	499.55 µg/L	499.55 ppb	14:27:50
3	Cu 324.752†	121113.6	120271.1	499.45 µg/L	499.45 ppb	14:27:50
3	Mn 257.610†	376644.0	383888.5	501.58 µg/L	501.58 ppb	14:27:50
3	Mo 202.031†	14749.0	15062.8	511.78 µg/L	511.78 ppb	14:28:10
3	Ni 231.604†	39678.3	40538.1	504.12 µg/L	504.12 ppb	14:27:50
3	P 214.914†	10878.7	11113.4	2530.7 µg/L	2530.7 ppb	14:28:10
3	Pb 220.353†	8131.7	8175.6	513.90 µg/L	513.90 ppb	14:28:10
3	S 181.975 Axial†	1272.6	1195.9	1021.9 µg/L	1021.9 ppb	14:28:10
3	Sb 206.836†	3962.5	3963.4	509.37 µg/L	509.37 ppb	14:28:10
3	Se 196.026†	1304.8	1310.6	509 µg/L	509 ppb	14:28:10
3	SiO2†	52670.9	52025.2	5350.1 µg/L	5350.1 ppb	14:27:50
3	Si 251.611†	162195.0	164621.0	2501.0 µg/L	2501.0 ppb	14:27:50
3	Sn 189.927†	7186.8	7320.7	511.47 µg/L	511.47 ppb	14:28:10
3	Ti 334.940†	468396.3	476787.2	499.37 µg/L	499.37 ppb	14:27:50
3	Tl 190.801†	3428.1	3611.2	516.39 µg/L	516.39 ppb	14:28:10
3	U 409.014†	6949.2	7498.1	486.28 µg/L	486.28 ppb	14:27:50
3	V 292.402†	98715.7	100174.9	503.42 µg/L	503.42 ppb	14:27:50
3	Zn 213.857†	85685.9	86763.7	496.95 µg/L	496.95 ppb	14:27:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1673588.4	98.896	%	0.7261				0.73%
Sc RADIAL	113410.4	99.1	%	0.84				0.85%
Y 371.029	936570.9	97.862	%	0.6690				0.68%
Ag 328.068†	120440.0	503.57	µg/L	2.166	503.57	ppb	2.166	0.43%
QC value within limits for Ag 328.068 Recovery = 100.71%								
Al 396.153Radial†	21725.0	5099.9	µg/L	12.18	5099.9	ppb	12.18	0.24%
QC value within limits for Al 396.153Radial Recovery = 102.00%								
As 188.979†	1440.9	506.26	µg/L	7.384	506.26	ppb	7.384	1.46%
QC value within limits for As 188.979 Recovery = 101.25%								
B 249.677†	33694.7	498.42	µg/L	2.050	498.42	ppb	2.050	0.41%
QC value within limits for B 249.677 Recovery = 99.68%								
Ba 233.527†	110818.9	502.06	µg/L	1.805	502.06	ppb	1.805	0.36%
QC value within limits for Ba 233.527 Recovery = 100.41%								
Be 313.107†	1762332.1	499.12	µg/L	1.929	499.12	ppb	1.929	0.39%
QC value within limits for Be 313.107 Recovery = 99.82%								
Ca 317.933Radial†	61699.2	5080.3	µg/L	12.62	5080.3	ppb	12.62	0.25%
QC value within limits for Ca 317.933Radial Recovery = 101.61%								
Cd 226.502†	76040.7	502.49	µg/L	2.964	502.49	ppb	2.964	0.59%
QC value within limits for Cd 226.502 Recovery = 100.50%								
Co 228.616†	38450.3	504.34	µg/L	2.711	504.34	ppb	2.711	0.54%
QC value within limits for Co 228.616 Recovery = 100.87%								
Cr 267.716†	56995.2	500.43	µg/L	1.814	500.43	ppb	1.814	0.36%
QC value within limits for Cr 267.716 Recovery = 100.09%								
Cu 324.752†	120467.6	500.27	µg/L	1.693	500.27	ppb	1.693	0.34%
QC value within limits for Cu 324.752 Recovery = 100.05%								
Fe 238.204 Radial†	59224.4	5052.1	µg/L	8.66	5052.1	ppb	8.66	0.17%
QC value within limits for Fe 238.204 Radial Recovery = 101.04%								
K 766.490 Radial†	12921.4	5168.0	µg/L	15.55	5168.0	ppb	15.55	0.30%
QC value within limits for K 766.490 Radial Recovery = 103.36%								
Mg 279.077 IEC†	9278.6	5139.4	µg/L	14.37	5139.4	ppb	14.37	0.28%
QC value within limits for Mg 279.077 IEC Recovery = 102.79%								
Mn 257.610†	384371.9	502.21	µg/L	1.559	502.21	ppb	1.559	0.31%
QC value within limits for Mn 257.610 Recovery = 100.44%								
Mo 202.031†	14887.9	505.84	µg/L	5.199	505.84	ppb	5.199	1.03%
QC value within limits for Mo 202.031 Recovery = 101.17%								
Na 589.592 Radial†	63188.5	10078	µg/L	90.6	10078	ppb	90.6	0.90%

```
   QC value within limits for Na 589.592 Radial  Recovery = 100.78%
Ni 231.604†            40567.4      504.49 µg/L         2.365      504.49 ppb          2.365   0.47%
   QC value within limits for Ni 231.604  Recovery = 100.90%
P 214.914†             11024.1      2510.3 µg/L         17.66      2510.3 ppb          17.66   0.70%
   QC value within limits for P 214.914  Recovery = 100.41%
Pb 220.353†             8099.2      509.09 µg/L         4.643      509.09 ppb          4.643   0.91%
   QC value within limits for Pb 220.353  Recovery = 101.82%
S 181.975 Axial†        1192.3      1018.8 µg/L          6.70      1018.8 ppb           6.70   0.66%
   QC value within limits for S 181.975 Axial  Recovery = 101.88%
Sb 206.836†             3925.3      504.37 µg/L         4.400      504.37 ppb          4.400   0.87%
   QC value within limits for Sb 206.836  Recovery = 100.87%
Se 196.026†             1299.5         505 µg/L           4.1         505 ppb            4.1   0.82%
   QC value within limits for Se 196.026  Recovery = 100.94%
SiO2†                  51889.1      5336.3 µg/L         18.54      5336.3 ppb          18.54   0.35%
   QC value within limits for SiO2  Recovery = 99.79%
Si 251.611†           164769.1      2503.4 µg/L          5.34      2503.4 ppb           5.34   0.21%
   QC value within limits for Si 251.611  Recovery = 100.14%
Sn 189.927†             7241.5      505.96 µg/L         4.894      505.96 ppb          4.894   0.97%
   QC value within limits for Sn 189.927  Recovery = 101.19%
Sr 421.552†           196063.2      503.60 µg/L         3.776      503.60 ppb          3.776   0.75%
   QC value within limits for Sr 421.552  Recovery = 100.72%
Ti 334.940†           477375.5      499.98 µg/L         1.789      499.98 ppb          1.789   0.36%
   QC value within limits for Ti 334.940  Recovery = 100.00%
Tl 190.801†             3569.9      510.59 µg/L         5.138      510.59 ppb          5.138   1.01%
   QC value within limits for Tl 190.801  Recovery = 102.12%
U 409.014†              7591.7      492.04 µg/L         7.890      492.04 ppb          7.890   1.60%
   QC value within limits for U 409.014  Recovery = 98.41%
V 292.402†            100401.6      504.49 µg/L         2.714      504.49 ppb          2.714   0.54%
   QC value within limits for V 292.402  Recovery = 100.90%
Zn 213.857†            87130.5      499.06 µg/L         2.814      499.06 ppb          2.814   0.56%
   QC value within limits for Zn 213.857  Recovery = 99.81%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/13/2010 14:28:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113653.9	113653.9	99.4	%			14:28:47
1	Al 396.153Radial†	-78.8	5.7	1.3199	µg/L	1.3199	ppb	14:29:07
1	Ca 317.933Radial†	504.0	50.5	4.1564	µg/L	4.1564	ppb	14:29:07
1	Fe 238.204 Radial†	149.0	25.7	2.1885	µg/L	2.1885	ppb	14:29:07
1	K 766.490 Radial†	1703.2	304.9	122.04	µg/L	122.04	ppb	14:28:47
1	Mg 279.077 IEC†	143.6	-12.8	-7.0943	µg/L	-7.0943	ppb	14:29:07
1	Na 589.592 Radial†	1200.5	373.0	59.404	µg/L	59.404	ppb	14:28:47
1	Sr 421.552†	-110.5	-44.5	-0.1143	µg/L	-0.1143	ppb	14:28:47
1	Sc 361.383	1691399.3	1691399.3	99.949	%			14:29:55
1	Y 371.029	955660.1	955660.1	99.857	%			14:29:55
1	Ag 328.068†	5157.4	57.0	0.2550	µg/L	0.2550	ppb	14:29:57
1	As 188.979†	-19.1	-5.7	-1.9797	µg/L	-1.9797	ppb	14:30:17
1	B 249.677†	4226.1	116.4	1.7282	µg/L	1.7282	ppb	14:29:57
1	Ba 233.527†	-138.3	7.4	0.0343	µg/L	0.0343	ppb	14:30:17
1	Be 313.107†	-633.9	358.1	0.1041	µg/L	0.1041	ppb	14:29:57
1	Cd 226.502†	-12.0	52.5	0.3472	µg/L	0.3472	ppb	14:30:17
1	Co 228.616†	-241.2	-14.2	-0.1868	µg/L	-0.1868	ppb	14:30:17
1	Cr 267.716†	340.6	11.1	0.0911	µg/L	0.0911	ppb	14:30:17
1	Cu 324.752†	3251.9	12.2	0.0580	µg/L	0.0580	ppb	14:29:57
1	Mn 257.610†	244.9	29.7	0.0391	µg/L	0.0391	ppb	14:30:17
1	Mo 202.031†	-8.7	12.9	0.4380	µg/L	0.4380	ppb	14:30:17
1	Ni 231.604†	-66.3	7.6	0.0947	µg/L	0.0947	ppb	14:30:17
1	P 214.914†	-32.7	-13.5	-3.0902	µg/L	-3.0902	ppb	14:30:17
1	Pb 220.353†	143.2	26.1	1.6291	µg/L	1.6291	ppb	14:30:17
1	S 181.975 Axial†	108.8	6.9	5.8886	µg/L	5.8886	ppb	14:30:17
1	Sb 206.836†	85.2	7.7	0.9911	µg/L	0.9911	ppb	14:30:17
1	Se 196.026†	23.1	3.2	1.23	µg/L	1.23	ppb	14:30:17
1	SiO2†	1706.4	18.4	1.8818	µg/L	1.8818	ppb	14:30:17
1	Si 251.611†	806.1	20.0	0.2965	µg/L	0.2965	ppb	14:29:57
1	Sn 189.927†	15.3	6.8	0.4769	µg/L	0.4769	ppb	14:30:17
1	Ti 334.940†	1107.9	222.4	0.2303	µg/L	0.2303	ppb	14:29:57
1	Tl 190.801†	-125.7	-10.5	-1.4720	µg/L	-1.4720	ppb	14:30:17
1	U 409.014†	-266.7	144.4	8.8224	µg/L	8.8224	ppb	14:29:57
1	V 292.402†	645.7	150.0	0.7543	µg/L	0.7543	ppb	14:29:57
1	Zn 213.857†	685.2	66.2	0.3815	µg/L	0.3815	ppb	14:30:17
2	Sc RADIAL	114946.2	114946.2	100	%			14:29:09
2	Al 396.153Radial†	-81.0	4.4	1.0084	µg/L	1.0084	ppb	14:29:29
2	Ca 317.933Radial†	441.3	-17.6	-1.4487	µg/L	-1.4487	ppb	14:29:29
2	Fe 238.204 Radial†	130.8	5.9	0.5048	µg/L	0.5048	ppb	14:29:29
2	K 766.490 Radial†	1720.0	302.4	121.05	µg/L	121.05	ppb	14:29:09
2	Mg 279.077 IEC†	144.7	-13.4	-7.3721	µg/L	-7.3721	ppb	14:29:29
2	Na 589.592 Radial†	1078.3	237.8	37.831	µg/L	37.831	ppb	14:29:09
2	Sr 421.552†	-183.0	-115.4	-0.2965	µg/L	-0.2965	ppb	14:29:09
2	Sc 361.383	1694824.4	1694824.4	100.15	%			14:30:19
2	Y 371.029	958260.6	958260.6	100.13	%			14:30:19
2	Ag 328.068†	5167.4	56.6	0.2464	µg/L	0.2464	ppb	14:30:21
2	As 188.979†	-12.8	0.7	0.2335	µg/L	0.2335	ppb	14:30:42
2	B 249.677†	4238.5	120.1	1.7822	µg/L	1.7822	ppb	14:30:21
2	Ba 233.527†	-144.3	1.7	0.0085	µg/L	0.0085	ppb	14:30:42
2	Be 313.107†	-637.9	355.4	0.1020	µg/L	0.1020	ppb	14:30:21
2	Cd 226.502†	-21.5	43.1	0.2848	µg/L	0.2848	ppb	14:30:42
2	Co 228.616†	-202.8	24.6	0.3219	µg/L	0.3219	ppb	14:30:42
2	Cr 267.716†	344.8	14.6	0.1250	µg/L	0.1250	ppb	14:30:42
2	Cu 324.752†	3314.5	68.2	0.2864	µg/L	0.2864	ppb	14:30:21
2	Mn 257.610†	263.1	47.3	0.0622	µg/L	0.0622	ppb	14:30:42
2	Mo 202.031†	-2.6	19.0	0.6453	µg/L	0.6453	ppb	14:30:42
2	Ni 231.604†	-75.6	-1.6	-0.0194	µg/L	-0.0194	ppb	14:30:42
2	P 214.914†	-11.8	7.5	1.7053	µg/L	1.7053	ppb	14:30:42
2	Pb 220.353†	124.6	7.2	0.4465	µg/L	0.4465	ppb	14:30:42

2	S 181.975 Axial†	113.2	11.1	9.4905 µg/L	9.4905 ppb	14:30:42
2	Sb 206.836†	87.2	9.5	1.2273 µg/L	1.2273 ppb	14:30:42
2	Se 196.026†	19.2	-0.8	-0.305 µg/L	-0.305 ppb	14:30:42
2	SiO2†	1686.0	-5.5	-0.5965 µg/L	-0.5965 ppb	14:30:42
2	Si 251.611†	780.4	-7.3	-0.1263 µg/L	-0.1263 ppb	14:30:21
2	Sn 189.927†	22.5	14.1	0.9778 µg/L	0.9778 ppb	14:30:42
2	Ti 334.940†	578.7	-308.3	-0.3247 µg/L	-0.3247 ppb	14:30:21
2	Tl 190.801†	-109.3	6.1	0.8535 µg/L	0.8535 ppb	14:30:42
2	U 409.014†	-335.4	76.4	4.6772 µg/L	4.6772 ppb	14:30:21
2	V 292.402†	613.5	116.6	0.5885 µg/L	0.5885 ppb	14:30:21
2	Zn 213.857†	688.5	68.1	0.3931 µg/L	0.3931 ppb	14:30:42
3	Sc RADIAL	114071.3	114071.3	99.7 %		14:29:31
3	Al 396.153Radial†	-105.0	-20.4	-4.7958 µg/L	-4.7958 ppb	14:29:51
3	Ca 317.933Radial†	458.4	2.9	0.2383 µg/L	0.2383 ppb	14:29:51
3	Fe 238.204 Radial†	142.9	19.1	1.6257 µg/L	1.6257 ppb	14:29:51
3	K 766.490 Radial†	1673.9	269.3	107.79 µg/L	107.79 ppb	14:29:31
3	Mg 279.077 IEC†	170.0	13.2	7.2865 µg/L	7.2865 ppb	14:29:51
3	Na 589.592 Radial†	1145.1	313.0	49.846 µg/L	49.846 ppb	14:29:31
3	Sr 421.552†	-23.5	43.2	0.1109 µg/L	0.1109 ppb	14:29:31
3	Sc 361.383	1677977.5	1677977.5	99.156 %		14:30:44
3	Y 371.029	949652.6	949652.6	99.229 %		14:30:44
3	Ag 328.068†	5147.0	87.8	0.3793 µg/L	0.3793 ppb	14:30:46
3	As 188.979†	-13.3	-0.0	-0.0053 µg/L	-0.0053 ppb	14:31:06
3	B 249.677†	4303.7	228.4	3.3902 µg/L	3.3902 ppb	14:30:46
3	Ba 233.527†	-122.1	22.7	0.1025 µg/L	0.1025 ppb	14:31:06
3	Be 313.107†	-774.5	211.3	0.0647 µg/L	0.0647 ppb	14:30:46
3	Cd 226.502†	13.9	78.6	0.5195 µg/L	0.5195 ppb	14:31:06
3	Co 228.616†	-207.1	18.2	0.2389 µg/L	0.2389 ppb	14:31:06
3	Cr 267.716†	368.5	42.0	0.3558 µg/L	0.3558 ppb	14:31:06
3	Cu 324.752†	3039.3	-176.1	-0.7150 µg/L	-0.7150 ppb	14:30:46
3	Mn 257.610†	305.4	92.7	0.1208 µg/L	0.1208 ppb	14:31:06
3	Mo 202.031†	-25.0	-3.6	-0.1211 µg/L	-0.1211 ppb	14:31:06
3	Ni 231.604†	-69.4	3.9	0.0490 µg/L	0.0490 ppb	14:31:06
3	P 214.914†	-5.5	13.6	3.1240 µg/L	3.1240 ppb	14:31:06
3	Pb 220.353†	129.4	13.3	0.8185 µg/L	0.8185 ppb	14:31:06
3	S 181.975 Axial†	110.5	9.5	8.0980 µg/L	8.0980 ppb	14:31:06
3	Sb 206.836†	89.8	13.0	1.6662 µg/L	1.6662 ppb	14:31:06
3	Se 196.026†	41.7	22.1	8.56 µg/L	8.56 ppb	14:31:06
3	SiO2†	1725.4	51.2	5.2768 µg/L	5.2768 ppb	14:31:06
3	Si 251.611†	790.8	11.0	0.1656 µg/L	0.1656 ppb	14:30:46
3	Sn 189.927†	17.5	9.2	0.6409 µg/L	0.6409 ppb	14:31:06
3	Ti 334.940†	911.4	33.1	0.0273 µg/L	0.0273 ppb	14:30:46
3	Tl 190.801†	-118.5	-4.2	-0.6001 µg/L	-0.6001 ppb	14:31:06
3	U 409.014†	-144.4	265.7	16.139 µg/L	16.139 ppb	14:30:46
3	V 292.402†	439.4	-52.9	-0.2511 µg/L	-0.2511 ppb	14:30:46
3	Zn 213.857†	677.0	63.4	0.3662 µg/L	0.3662 ppb	14:31:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1688067.1	99.752	%	0.5262				0.53%
Sc RADIAL	114223.8	99.9	%	0.58				0.58%
Y 371.029	954524.4	99.738	%	0.4613				0.46%
Ag 328.068†	67.1	0.2936	µg/L	0.07436	0.2936	ppb	0.07436	25.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.4	-0.8225	µg/L	3.44451	-0.8225	ppb	3.44451	418.78%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.7	-0.5838	µg/L	1.21477	-0.5838	ppb	1.21477	208.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	155.0	2.3002	µg/L	0.94435	2.3002	ppb	0.94435	41.06%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.6	0.0484	µg/L	0.04856	0.0484	ppb	0.04856	100.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	308.3	0.0903	µg/L	0.02216	0.0903	ppb	0.02216	24.55%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	11.9	0.9820	µg/L	2.87562	0.9820	ppb	2.87562	292.83%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	58.1	0.3839	µg/L	0.12156	0.3839	ppb	0.12156	31.67%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.5	0.1247	µg/L	0.27290	0.1247	ppb	0.27290	218.93%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 22.6      0.1906 µg/L       0.14402      0.1906 ppb        0.14402  75.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -31.9     -0.1236 µg/L       0.52482     -0.1236 ppb        0.52482 424.74%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          16.9      1.4397 µg/L       0.85709      1.4397 ppb        0.85709  59.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          292.2      116.96 µg/L         7.954      116.96 ppb          7.954   6.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.3     -2.3933 µg/L       8.38409     -2.3933 ppb        8.38409 350.32%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                56.6      0.0740 µg/L       0.04215      0.0740 ppb        0.04215  56.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.4      0.3208 µg/L       0.39644      0.3208 ppb        0.39644 123.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         307.9      49.027 µg/L       10.8096      49.027 ppb        10.8096  22.05%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 3.3      0.0414 µg/L       0.05744      0.0414 ppb        0.05744 138.60%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.5      0.5797 µg/L       3.25644      0.5797 ppb        3.25644 561.75%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.5      0.9647 µg/L       0.60471      0.9647 ppb        0.60471  62.68%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            9.2      7.8257 µg/L       1.81633      7.8257 ppb        1.81633  23.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                10.1      1.2949 µg/L       0.34256      1.2949 ppb        0.34256  26.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 8.1        3.16 µg/L         4.738        3.16 ppb          4.738 149.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      21.4      2.1874 µg/L       2.94855      2.1874 ppb        2.94855 134.80%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                 7.9      0.1119 µg/L       0.21646      0.1119 ppb        0.21646 193.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.0      0.6985 µg/L       0.25539      0.6985 ppb        0.25539  36.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -38.9     -0.1000 µg/L       0.20411     -0.1000 ppb        0.20411 204.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -17.6     -0.0224 µg/L       0.28080     -0.0224 ppb        0.28080 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.9     -0.4062 µg/L       1.17482     -0.4062 ppb        1.17482 289.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                162.1      9.8795 µg/L       5.80355      9.8795 ppb        5.80355  58.74%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 71.2      0.3639 µg/L       0.53902      0.3639 ppb        0.53902 148.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                65.9      0.3803 µg/L       0.01351      0.3803 ppb        0.01351   3.55%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: LR2
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 125
Date Collected: 4/13/2010 14:31:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113995.2	113995.2	99.7	%			14:31:45
1	Al 396.153Radial†	-48.5	36.3	8.5687	µg/L	8.5687	ppb	14:32:05
1	Ca 317.933Radial†	459.8	4.6	0.3828	µg/L	0.3828	ppb	14:32:05
1	Fe 238.204 Radial†	141.9	18.1	1.5472	µg/L	1.5472	ppb	14:32:05
1	K 766.490 Radial†	1600.8	197.0	78.848	µg/L	78.848	ppb	14:31:45
1	Mg 279.077 IEC†	156.9	0.1	0.0497	µg/L	0.0497	ppb	14:32:05
1	Na 589.592 Radial†	1081.4	249.9	39.797	µg/L	39.797	ppb	14:31:45
1	Sr 421.552†	-104.7	-38.4	-0.0986	µg/L	-0.0986	ppb	14:31:45
1	Sc 361.383	1699694.8	1699694.8	100.44	%			14:32:53
1	Y 371.029	963460.8	963460.8	100.67	%			14:32:53
1	Ag 328.068†	5291.1	165.0	0.6869	µg/L	0.6869	ppb	14:32:55
1	As 188.979†	-14.5	-1.0	-0.3431	µg/L	-0.3431	ppb	14:33:15
1	B 249.677†	4312.4	181.6	2.7310	µg/L	2.7310	ppb	14:32:55
1	Ba 233.527†	2284321.0	2274482.3	10296	µg/L	10296	ppb	14:32:53
1	Be 313.107†	-859.9	136.2	0.0410	µg/L	0.0410	ppb	14:32:55
1	Cd 226.502†	-51.0	13.8	0.0914	µg/L	0.0914	ppb	14:33:15
1	Co 228.616†	-994.6	-763.2	0.1239	µg/L	0.1239	ppb	14:33:15
1	Cr 267.716†	358.3	27.1	0.2314	µg/L	0.2314	ppb	14:33:15
1	Cu 324.752†	3312.8	57.0	0.2368	µg/L	0.2368	ppb	14:32:55
1	Mn 257.610†	253.1	36.6	0.0479	µg/L	0.0479	ppb	14:33:15
1	Mo 202.031†	-30.2	-8.4	-0.2866	µg/L	-0.2866	ppb	14:33:15
1	Ni 231.604†	3.9	77.8	0.9681	µg/L	0.9681	ppb	14:33:15
1	P 214.914†	-4.6	14.7	3.3583	µg/L	3.3583	ppb	14:33:15
1	Pb 220.353†	104.7	-13.0	-0.8211	µg/L	-0.8211	ppb	14:33:15
1	S 181.975 Axial†	107.8	5.4	4.5652	µg/L	4.5652	ppb	14:33:15
1	Sb 206.836†	63.6	-14.2	-1.8239	µg/L	-1.8239	ppb	14:33:15
1	Se 196.026†	30.9	10.8	4.18	µg/L	4.18	ppb	14:33:15
1	SiO2†	1567.4	-128.3	-13.245	µg/L	-13.245	ppb	14:32:55
1	Si 251.611†	600.5	-188.6	-2.8753	µg/L	-2.8753	ppb	14:32:55
1	Sn 189.927†	12.0	3.5	0.2414	µg/L	0.2414	ppb	14:33:15
1	Ti 334.940†	565.5	-323.0	-0.3421	µg/L	-0.3421	ppb	14:32:55
1	Tl 190.801†	-125.3	-9.5	-1.2914	µg/L	-1.2914	ppb	14:33:15
1	U 409.014†	-281.1	131.4	7.9683	µg/L	7.9683	ppb	14:32:55
1	V 292.402†	430.8	-67.1	-0.3293	µg/L	-0.3293	ppb	14:32:55
1	Zn 213.857†	693.0	70.6	0.4023	µg/L	0.4023	ppb	14:33:15
2	Sc RADIAL	113980.1	113980.1	99.6	%			14:32:07
2	Al 396.153Radial†	-79.3	5.4	1.2671	µg/L	1.2671	ppb	14:32:27
2	Ca 317.933Radial†	487.1	32.1	2.6449	µg/L	2.6449	ppb	14:32:27
2	Fe 238.204 Radial†	133.1	9.3	0.7949	µg/L	0.7949	ppb	14:32:27
2	K 766.490 Radial†	1637.7	234.3	93.793	µg/L	93.793	ppb	14:32:07
2	Mg 279.077 IEC†	158.1	1.4	0.7486	µg/L	0.7486	ppb	14:32:27
2	Na 589.592 Radial†	1005.0	173.3	27.562	µg/L	27.562	ppb	14:32:07
2	Sr 421.552†	-242.4	-176.5	-0.4534	µg/L	-0.4534	ppb	14:32:07
2	Sc 361.383	1697722.2	1697722.2	100.32	%			14:33:17
2	Y 371.029	962224.7	962224.7	100.54	%			14:33:17
2	Ag 328.068†	5133.7	14.2	0.0650	µg/L	0.0650	ppb	14:33:20
2	As 188.979†	-11.0	2.4	0.8425	µg/L	0.8425	ppb	14:33:40
2	B 249.677†	4297.7	171.9	2.5877	µg/L	2.5877	ppb	14:33:20
2	Ba 233.527†	2287183.7	2279978.4	10321	µg/L	10321	ppb	14:33:17
2	Be 313.107†	-928.2	67.1	0.0206	µg/L	0.0206	ppb	14:33:20
2	Cd 226.502†	-38.2	26.5	0.1757	µg/L	0.1757	ppb	14:33:40
2	Co 228.616†	-1014.8	-784.5	-0.1308	µg/L	-0.1308	ppb	14:33:40
2	Cr 267.716†	339.6	8.9	0.0736	µg/L	0.0736	ppb	14:33:40
2	Cu 324.752†	3107.4	-143.9	-0.5972	µg/L	-0.5972	ppb	14:33:20
2	Mn 257.610†	253.8	37.6	0.0492	µg/L	0.0492	ppb	14:33:40
2	Mo 202.031†	-21.4	0.3	0.0113	µg/L	0.0113	ppb	14:33:40
2	Ni 231.604†	-3.1	70.9	0.8813	µg/L	0.8813	ppb	14:33:40
2	P 214.914†	-22.7	-3.4	-0.7802	µg/L	-0.7802	ppb	14:33:40
2	Pb 220.353†	130.8	13.1	0.8184	µg/L	0.8184	ppb	14:33:40

2	S 181.975 Axial†	111.5	9.2	7.8098	µg/L	7.8098 ppb	14:33:40
2	Sb 206.836†	70.4	-7.4	-0.9458	µg/L	-0.9458 ppb	14:33:40
2	Se 196.026†	20.6	0.5	0.201	µg/L	0.201 ppb	14:33:40
2	SiO2†	1638.9	-55.2	-5.7026	µg/L	-5.7026 ppb	14:33:20
2	Si 251.611†	602.4	-186.0	-2.8385	µg/L	-2.8385 ppb	14:33:20
2	Sn 189.927†	9.4	0.9	0.0639	µg/L	0.0639 ppb	14:33:40
2	Ti 334.940†	840.7	-48.1	-0.0527	µg/L	-0.0527 ppb	14:33:20
2	Tl 190.801†	-116.1	-0.5	-0.0209	µg/L	-0.0209 ppb	14:33:40
2	U 409.014†	-324.3	88.0	5.3509	µg/L	5.3509 ppb	14:33:20
2	V 292.402†	495.1	-2.5	-0.0085	µg/L	-0.0085 ppb	14:33:20
2	Zn 213.857†	696.4	74.8	0.4279	µg/L	0.4279 ppb	14:33:40
3	Sc RADIAL	114281.6	114281.6	99.9	%		14:32:29
3	Al 396.153Radial†	-76.5	8.4	1.9890	µg/L	1.9890 ppb	14:32:49
3	Ca 317.933Radial†	458.5	2.2	0.1815	µg/L	0.1815 ppb	14:32:49
3	Fe 238.204 Radial†	124.3	0.2	0.0129	µg/L	0.0129 ppb	14:32:49
3	K 766.490 Radial†	1651.9	244.2	97.733	µg/L	97.733 ppb	14:32:29
3	Mg 279.077 IEC†	156.6	-0.6	-0.3222	µg/L	-0.3222 ppb	14:32:49
3	Na 589.592 Radial†	1055.9	221.6	35.274	µg/L	35.274 ppb	14:32:29
3	Sr 421.552†	44.9	111.7	0.2869	µg/L	0.2869 ppb	14:32:29
3	Sc 361.383	1680656.7	1680656.7	99.314	%		14:33:42
3	Y 371.029	953102.5	953102.5	99.590	%		14:33:42
3	Ag 328.068†	5323.8	257.6	1.0587	µg/L	1.0587 ppb	14:33:44
3	As 188.979†	9.0	22.5	7.7981	µg/L	7.7981 ppb	14:34:04
3	B 249.677†	4123.2	39.8	0.6267	µg/L	0.6267 ppb	14:33:44
3	Ba 233.527†	2255056.1	2270778.3	10279	µg/L	10279 ppb	14:33:42
3	Be 313.107†	-1010.1	-24.7	-0.0092	µg/L	-0.0092 ppb	14:33:44
3	Cd 226.502†	-59.6	4.5	0.0303	µg/L	0.0303 ppb	14:34:04
3	Co 228.616†	-1009.0	-789.0	-0.2305	µg/L	-0.2305 ppb	14:34:04
3	Cr 267.716†	330.2	2.8	0.0306	µg/L	0.0306 ppb	14:34:04
3	Cu 324.752†	3098.9	-121.0	-0.5130	µg/L	-0.5130 ppb	14:33:44
3	Mn 257.610†	250.6	37.0	0.0484	µg/L	0.0484 ppb	14:34:04
3	Mo 202.031†	-21.7	-0.2	-0.0078	µg/L	-0.0078 ppb	14:34:04
3	Ni 231.604†	-2.9	71.0	0.8829	µg/L	0.8829 ppb	14:34:04
3	P 214.914†	-21.9	-2.8	-0.6280	µg/L	-0.6280 ppb	14:34:04
3	Pb 220.353†	109.5	-7.0	-0.4308	µg/L	-0.4308 ppb	14:34:04
3	S 181.975 Axial†	105.6	4.4	3.7180	µg/L	3.7180 ppb	14:34:04
3	Sb 206.836†	67.8	-9.3	-1.1919	µg/L	-1.1919 ppb	14:34:04
3	Se 196.026†	17.1	-2.8	-1.08	µg/L	-1.08 ppb	14:34:04
3	SiO2†	1714.9	37.9	3.9024	µg/L	3.9024 ppb	14:33:44
3	Si 251.611†	591.0	-191.4	-2.9244	µg/L	-2.9244 ppb	14:33:44
3	Sn 189.927†	17.8	9.5	0.6586	µg/L	0.6586 ppb	14:34:04
3	Ti 334.940†	660.1	-221.4	-0.2292	µg/L	-0.2292 ppb	14:33:44
3	Tl 190.801†	-110.3	4.2	0.6391	µg/L	0.6391 ppb	14:34:04
3	U 409.014†	-526.8	-119.2	-7.2308	µg/L	-7.2308 ppb	14:33:44
3	V 292.402†	562.0	69.9	0.3418	µg/L	0.3418 ppb	14:33:44
3	Zn 213.857†	686.6	72.0	0.4117	µg/L	0.4117 ppb	14:34:04

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1692691.2	100.03	%	0.619				0.62%
Sc RADIAL	114085.6	99.7	%	0.15				0.15%
Y 371.029	959596.0	100.27	%	0.591				0.59%
Ag 328.068†	145.6	0.6036	µg/L	0.50207	0.6036	ppb	0.50207	83.19%
Al 396.153Radial†	16.7	3.9416	µg/L	4.02338	3.9416	ppb	4.02338	102.07%
As 188.979†	8.0	2.7658	µg/L	4.39825	2.7658	ppb	4.39825	159.02%
B 249.677†	131.1	1.9818	µg/L	1.17574	1.9818	ppb	1.17574	59.33%
Ba 233.527†	2275079.7	10299	µg/L	21.0	10299	ppb	21.0	0.20%
Be 313.107†	59.5	0.0175	µg/L	0.02524	0.0175	ppb	0.02524	144.48%
Ca 317.933Radial†	13.0	1.0697	µg/L	1.36783	1.0697	ppb	1.36783	127.87%
Cd 226.502†	14.9	0.0991	µg/L	0.07300	0.0991	ppb	0.07300	73.64%
Co 228.616†	-778.9	-0.0791	µg/L	0.18275	-0.0791	ppb	0.18275	231.04%
Cr 267.716†	12.9	0.1119	µg/L	0.10572	0.1119	ppb	0.10572	94.50%
Cu 324.752†	-69.3	-0.2912	µg/L	0.45915	-0.2912	ppb	0.45915	157.69%
Fe 238.204 Radial†	9.2	0.7850	µg/L	0.76722	0.7850	ppb	0.76722	97.74%
K 766.490 Radial†	225.2	90.125	µg/L	9.9622	90.125	ppb	9.9622	11.05%
Mg 279.077 IEC†	0.3	0.1587	µg/L	0.54368	0.1587	ppb	0.54368	342.54%
Mn 257.610†	37.1	0.0485	µg/L	0.00066	0.0485	ppb	0.00066	1.36%
Mo 202.031†	-2.8	-0.0944	µg/L	0.16671	-0.0944	ppb	0.16671	176.66%
Na 589.592 Radial†	214.9	34.211	µg/L	6.1864	34.211	ppb	6.1864	18.08%

Ni 231.604†	73.2	0.9107	µg/L	0.04966	0.9107	ppb	0.04966 5.45%
P 214.914†	2.8	0.6500	µg/L	2.34663	0.6500	ppb	2.34663 361.01%
Pb 220.353†	-2.3	-0.1445	µg/L	0.85646	-0.1445	ppb	0.85646 592.62%
S 181.975 Axial†	6.3	5.3644	µg/L	2.15979	5.3644	ppb	2.15979 40.26%
Sb 206.836†	-10.3	-1.3205	µg/L	0.45298	-1.3205	ppb	0.45298 34.30%
Se 196.026†	2.8	1.10	µg/L	2.742	1.10	ppb	2.742 249.22%
SiO2†	-48.5	-5.0149	µg/L	8.59419	-5.0149	ppb	8.59419 171.37%
Si 251.611†	-188.7	-2.8794	µg/L	0.04309	-2.8794	ppb	0.04309 1.50%
Sn 189.927†	4.6	0.3213	µg/L	0.30527	0.3213	ppb	0.30527 95.01%
Sr 421.552†	-34.4	-0.0884	µg/L	0.37026	-0.0884	ppb	0.37026 418.94%
Ti 334.940†	-197.5	-0.2080	µg/L	0.14588	-0.2080	ppb	0.14588 70.14%
Tl 190.801†	-1.9	-0.2244	µg/L	0.98117	-0.2244	ppb	0.98117 437.26%
U 409.014†	33.4	2.0295	µg/L	8.12569	2.0295	ppb	8.12569 400.39%
V 292.402†	0.1	0.0013	µg/L	0.33566	0.0013	ppb	0.33566 >999.9%
Zn 213.857†	72.5	0.4140	µg/L	0.01295	0.4140	ppb	0.01295 3.13%

Sequence No.: 4 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/13/2010 14:34:12**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113240.2	113240.2	99.0	%			14:34:45
1	Al 396.153Radial†	21302.7	21603.6	5071.5	µg/L	5071.5	ppb	14:34:45
1	Ca 317.933Radial†	61422.1	61587.9	5071.1	µg/L	5071.1	ppb	14:34:45
1	Fe 238.204 Radial†	58690.8	59161.5	5046.7	µg/L	5046.7	ppb	14:34:45
1	K 766.490 Radial†	13960.5	12692.7	5076.5	µg/L	5076.5	ppb	14:34:45
1	Mg 279.077 IEC†	9324.1	9261.3	5129.8	µg/L	5129.8	ppb	14:34:45
1	Na 589.592 Radial†	63353.4	63160.3	10073	µg/L	10073	ppb	14:34:43
1	Sr 421.552†	194495.8	196534.1	504.81	µg/L	504.81	ppb	14:34:43
1	Sc 361.383	1695901.3	1695901.3	100.21	%			14:34:58
1	Y 371.029	949027.3	949027.3	99.164	%			14:34:58
1	Ag 328.068†	126474.9	121100.8	506.32	µg/L	506.32	ppb	14:34:58
1	As 188.979†	1404.7	1415.1	497.33	µg/L	497.33	ppb	14:35:18
1	B 249.677†	37905.0	33711.8	498.66	µg/L	498.66	ppb	14:34:58
1	Ba 233.527†	111594.7	111501.3	505.14	µg/L	505.14	ppb	14:34:58
1	Be 313.107†	1775252.9	1772439.3	501.98	µg/L	501.98	ppb	14:34:58
1	Cd 226.502†	76648.7	76549.0	505.86	µg/L	505.86	ppb	14:34:58
1	Co 228.616†	38628.4	38772.6	508.56	µg/L	508.56	ppb	14:34:58
1	Cr 267.716†	57693.6	57240.2	502.58	µg/L	502.58	ppb	14:34:58
1	Cu 324.752†	124309.8	120802.1	501.66	µg/L	501.66	ppb	14:34:58
1	Mn 257.610†	387113.8	386068.5	504.43	µg/L	504.43	ppb	14:34:58
1	Mo 202.031†	14749.3	14739.3	500.80	µg/L	500.80	ppb	14:35:18
1	Ni 231.604†	40806.7	40793.2	507.30	µg/L	507.30	ppb	14:34:58
1	P 214.914†	10894.1	10890.0	2479.6	µg/L	2479.6	ppb	14:35:18
1	Pb 220.353†	8132.9	7998.2	502.75	µg/L	502.75	ppb	14:35:18
1	S 181.975 Axial†	1275.7	1171.1	1000.6	µg/L	1000.6	ppb	14:35:18
1	Sb 206.836†	3973.0	3887.0	499.35	µg/L	499.35	ppb	14:35:18
1	Se 196.026†	1303.3	1280.5	497	µg/L	497	ppb	14:35:18
1	SiO2†	53534.3	51730.6	5320.1	µg/L	5320.1	ppb	14:34:58
1	Si 251.611†	166249.2	165106.3	2508.6	µg/L	2508.6	ppb	14:34:58
1	Sn 189.927†	7192.8	7169.0	500.91	µg/L	500.91	ppb	14:35:18
1	Ti 334.940†	481280.4	479362.5	502.06	µg/L	502.06	ppb	14:34:58
1	Tl 190.801†	3429.0	3536.9	505.95	µg/L	505.95	ppb	14:35:18
1	U 409.014†	7261.9	7657.6	496.16	µg/L	496.16	ppb	14:34:58
1	V 292.402†	101442.3	100728.8	506.07	µg/L	506.07	ppb	14:34:58
1	Zn 213.857†	88554.0	87744.9	502.59	µg/L	502.59	ppb	14:34:58
2	Sc RADIAL	113959.5	113959.5	99.6	%			14:34:49
2	Al 396.153Radial†	21595.0	21761.2	5108.1	µg/L	5108.1	ppb	14:34:49
2	Ca 317.933Radial†	62072.1	61848.8	5092.6	µg/L	5092.6	ppb	14:34:49
2	Fe 238.204 Radial†	59433.7	59532.9	5078.4	µg/L	5078.4	ppb	14:34:49
2	K 766.490 Radial†	14016.3	12659.7	5063.3	µg/L	5063.3	ppb	14:34:49
2	Mg 279.077 IEC†	9458.8	9337.1	5172.0	µg/L	5172.0	ppb	14:34:49
2	Na 589.592 Radial†	63402.7	62805.9	10017	µg/L	10017	ppb	14:34:47
2	Sr 421.552†	193642.2	194437.2	499.43	µg/L	499.43	ppb	14:34:47
2	Sc 361.383	1659159.7	1659159.7	98.044	%			14:35:21
2	Y 371.029	928632.1	928632.1	97.033	%			14:35:21
2	Ag 328.068†	123758.6	121125.0	506.42	µg/L	506.42	ppb	14:35:21
2	As 188.979†	1414.2	1455.8	511.45	µg/L	511.45	ppb	14:35:41
2	B 249.677†	37102.0	33730.4	498.95	µg/L	498.95	ppb	14:35:21
2	Ba 233.527†	108638.7	110952.3	502.66	µg/L	502.66	ppb	14:35:21
2	Be 313.107†	1728125.6	1763599.8	499.48	µg/L	499.48	ppb	14:35:21
2	Cd 226.502†	74439.6	75989.5	502.15	µg/L	502.15	ppb	14:35:21
2	Co 228.616†	37438.4	38412.5	503.84	µg/L	503.84	ppb	14:35:21
2	Cr 267.716†	56224.0	57016.2	500.62	µg/L	500.62	ppb	14:35:21
2	Cu 324.752†	121370.3	120550.7	500.62	µg/L	500.62	ppb	14:35:21
2	Mn 257.610†	377917.9	385243.3	503.35	µg/L	503.35	ppb	14:35:21
2	Mo 202.031†	14788.7	15105.4	513.23	µg/L	513.23	ppb	14:35:41
2	Ni 231.604†	39745.1	40612.1	505.04	µg/L	505.04	ppb	14:35:21
2	P 214.914†	10959.6	11197.5	2549.9	µg/L	2549.9	ppb	14:35:41
2	Pb 220.353†	8172.5	8218.3	516.58	µg/L	516.58	ppb	14:35:41

2	S 181.975 Axial†	1280.9	1204.5	1029.2 µg/L	1029.2 ppb	14:35:41
2	Sb 206.836†	3988.3	3990.4	512.84 µg/L	512.84 ppb	14:35:41
2	Se 196.026†	1316.8	1323.0	514 µg/L	514 ppb	14:35:41
2	SiO2†	52510.8	51869.7	5333.9 µg/L	5333.9 ppb	14:35:21
2	Si 251.611†	162146.2	164595.0	2500.6 µg/L	2500.6 ppb	14:35:21
2	Sn 189.927†	7244.4	7380.5	515.64 µg/L	515.64 ppb	14:35:41
2	Ti 334.940†	469830.8	478319.4	500.97 µg/L	500.97 ppb	14:35:21
2	Tl 190.801†	3456.2	3640.4	520.55 µg/L	520.55 ppb	14:35:41
2	U 409.014†	7058.0	7610.1	493.28 µg/L	493.28 ppb	14:35:21
2	V 292.402†	99337.5	100823.6	506.66 µg/L	506.66 ppb	14:35:21
2	Zn 213.857†	86193.0	87293.5	500.00 µg/L	500.00 ppb	14:35:21
3	Sc RADIAL	113378.4	113378.4	99.1 %		14:34:53
3	Al 396.153Radial†	21480.8	21757.0	5107.5 µg/L	5107.5 ppb	14:34:53
3	Ca 317.933Radial†	61309.5	61398.8	5055.5 µg/L	5055.5 ppb	14:34:53
3	Fe 238.204 Radial†	58726.0	59124.6	5043.6 µg/L	5043.6 ppb	14:34:53
3	K 766.490 Radial†	13911.3	12625.9	5049.7 µg/L	5049.7 ppb	14:34:53
3	Mg 279.077 IEC†	9449.6	9376.4	5193.5 µg/L	5193.5 ppb	14:34:53
3	Na 589.592 Radial†	62979.6	62705.2	10001 µg/L	10001 ppb	14:34:51
3	Sr 421.552†	193250.1	195037.8	500.97 µg/L	500.97 ppb	14:34:51
3	Sc 361.383	1675612.4	1675612.4	99.016 %		14:35:44
3	Y 371.029	937898.4	937898.4	98.001 %		14:35:44
3	Ag 328.068†	124647.8	120783.6	505.01 µg/L	505.01 ppb	14:35:44
3	As 188.979†	1412.0	1439.4	505.75 µg/L	505.75 ppb	14:36:04
3	B 249.677†	37336.7	33595.8	496.94 µg/L	496.94 ppb	14:35:44
3	Ba 233.527†	109746.1	110982.7	502.80 µg/L	502.80 ppb	14:35:44
3	Be 313.107†	1746684.2	1765036.0	499.89 µg/L	499.89 ppb	14:35:44
3	Cd 226.502†	75488.7	76303.5	504.23 µg/L	504.23 ppb	14:35:44
3	Co 228.616†	37977.1	38581.6	506.06 µg/L	506.06 ppb	14:35:44
3	Cr 267.716†	56895.0	57130.8	501.62 µg/L	501.62 ppb	14:35:44
3	Cu 324.752†	122865.7	120845.5	501.85 µg/L	501.85 ppb	14:35:44
3	Mn 257.610†	382222.8	385806.2	504.08 µg/L	504.08 ppb	14:35:44
3	Mo 202.031†	14702.0	14869.8	505.23 µg/L	505.23 ppb	14:36:04
3	Ni 231.604†	40137.0	40609.8	505.02 µg/L	505.02 ppb	14:35:44
3	P 214.914†	10894.1	11021.6	2509.7 µg/L	2509.7 ppb	14:36:04
3	Pb 220.353†	8151.7	8115.5	510.11 µg/L	510.11 ppb	14:36:04
3	S 181.975 Axial†	1286.4	1197.2	1022.9 µg/L	1022.9 ppb	14:36:04
3	Sb 206.836†	3964.2	3926.1	504.46 µg/L	504.46 ppb	14:36:04
3	Se 196.026†	1323.1	1316.2	511 µg/L	511 ppb	14:36:04
3	SiO2†	53036.6	51874.8	5334.8 µg/L	5334.8 ppb	14:35:44
3	Si 251.611†	163924.4	164767.1	2503.4 µg/L	2503.4 ppb	14:35:44
3	Sn 189.927†	7190.9	7254.0	506.83 µg/L	506.83 ppb	14:36:04
3	Ti 334.940†	474934.0	478768.1	501.43 µg/L	501.43 ppb	14:35:44
3	Tl 190.801†	3431.8	3581.1	512.19 µg/L	512.19 ppb	14:36:04
3	U 409.014†	7271.0	7754.5	502.03 µg/L	502.03 ppb	14:35:44
3	V 292.402†	100159.4	100658.9	505.77 µg/L	505.77 ppb	14:35:44
3	Zn 213.857†	87194.3	87441.6	500.86 µg/L	500.86 ppb	14:35:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1676891.2	99.091	%	1.0875				1.10%
Sc RADIAL	113526.0	99.2	%	0.33				0.34%
Y 371.029	938519.2	98.066	%	1.0670				1.09%
Ag 328.068†	121003.1	505.92	µg/L	0.785	505.92	ppb	0.785	0.16%
QC value within limits for Ag 328.068 Recovery = 101.18%								
Al 396.153Radial†	21707.3	5095.7	µg/L	20.95	5095.7	ppb	20.95	0.41%
QC value within limits for Al 396.153Radial Recovery = 101.91%								
As 188.979†	1436.8	504.85	µg/L	7.105	504.85	ppb	7.105	1.41%
QC value within limits for As 188.979 Recovery = 100.97%								
B 249.677†	33679.3	498.18	µg/L	1.083	498.18	ppb	1.083	0.22%
QC value within limits for B 249.677 Recovery = 99.64%								
Ba 233.527†	111145.4	503.54	µg/L	1.395	503.54	ppb	1.395	0.28%
QC value within limits for Ba 233.527 Recovery = 100.71%								
Be 313.107†	1767025.0	500.45	µg/L	1.343	500.45	ppb	1.343	0.27%
QC value within limits for Be 313.107 Recovery = 100.09%								
Ca 317.933Radial†	61611.8	5073.1	µg/L	18.61	5073.1	ppb	18.61	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.46%								
Cd 226.502†	76280.6	504.08	µg/L	1.857	504.08	ppb	1.857	0.37%
QC value within limits for Cd 226.502 Recovery = 100.82%								
Co 228.616†	38588.9	506.15	µg/L	2.364	506.15	ppb	2.364	0.47%

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   QC value within limits for Co 228.616  Recovery = 101.23%
Cr 267.716†            57129.1      501.61 µg/L        0.982      501.61 ppb          0.982   0.20%
   QC value within limits for Cr 267.716  Recovery = 100.32%
Cu 324.752†           120732.8      501.38 µg/L        0.660      501.38 ppb          0.660   0.13%
   QC value within limits for Cu 324.752  Recovery = 100.28%
Fe 238.204 Radial†     59273.0      5056.2 µg/L        19.26      5056.2 ppb          19.26   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.12%
K 766.490 Radial†      12659.5      5063.2 µg/L        13.36      5063.2 ppb          13.36   0.26%
   QC value within limits for K 766.490 Radial  Recovery = 101.26%
Mg 279.077 IEC†         9324.9      5165.1 µg/L        32.42      5165.1 ppb          32.42   0.63%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.30%
Mn 257.610†           385706.0      503.95 µg/L        0.552      503.95 ppb          0.552   0.11%
   QC value within limits for Mn 257.610  Recovery = 100.79%
Mo 202.031†            14904.8      506.42 µg/L        6.300      506.42 ppb          6.300   1.24%
   QC value within limits for Mo 202.031  Recovery = 101.28%
Na 589.592 Radial†     62890.5       10030 µg/L         38.1       10030 ppb           38.1   0.38%
   QC value within limits for Na 589.592 Radial  Recovery = 100.30%
Ni 231.604†            40671.7      505.79 µg/L        1.308      505.79 ppb          1.308   0.26%
   QC value within limits for Ni 231.604  Recovery = 101.16%
P 214.914†             11036.3      2513.1 µg/L        35.25      2513.1 ppb          35.25   1.40%
   QC value within limits for P 214.914  Recovery = 100.52%
Pb 220.353†             8110.7      509.81 µg/L        6.918      509.81 ppb          6.918   1.36%
   QC value within limits for Pb 220.353  Recovery = 101.96%
S 181.975 Axial†        1190.9      1017.6 µg/L        15.02      1017.6 ppb          15.02   1.48%
   QC value within limits for S 181.975 Axial  Recovery = 101.76%
Sb 206.836†             3934.5      505.55 µg/L        6.809      505.55 ppb          6.809   1.35%
   QC value within limits for Sb 206.836  Recovery = 101.11%
Se 196.026†             1306.6         507 µg/L          8.8         507 ppb            8.8   1.74%
   QC value within limits for Se 196.026  Recovery = 101.49%
SiO2†                  51825.0      5329.6 µg/L        8.23      5329.6 ppb          8.23   0.15%
   QC value within limits for SiO2  Recovery = 99.67%
Si 251.611†           164822.8      2504.2 µg/L        4.09      2504.2 ppb          4.09   0.16%
   QC value within limits for Si 251.611  Recovery = 100.17%
Sn 189.927†             7267.8      507.79 µg/L        7.410      507.79 ppb          7.410   1.46%
   QC value within limits for Sn 189.927  Recovery = 101.56%
Sr 421.552†           195336.4      501.74 µg/L        2.774      501.74 ppb          2.774   0.55%
   QC value within limits for Sr 421.552  Recovery = 100.35%
Ti 334.940†           478816.6      501.49 µg/L        0.550      501.49 ppb          0.550   0.11%
   QC value within limits for Ti 334.940  Recovery = 100.30%
Tl 190.801†             3586.1      512.90 µg/L        7.324      512.90 ppb          7.324   1.43%
   QC value within limits for Tl 190.801  Recovery = 102.58%
U 409.014†              7674.1      497.16 µg/L        4.457      497.16 ppb          4.457   0.90%
   QC value within limits for U 409.014  Recovery = 99.43%
V 292.402†            100737.1      506.17 µg/L        0.451      506.17 ppb          0.451   0.09%
   QC value within limits for V 292.402  Recovery = 101.23%
Zn 213.857†            87493.3      501.15 µg/L        1.321      501.15 ppb          1.321   0.26%
   QC value within limits for Zn 213.857  Recovery = 100.23%
All analyte(s) passed QC.
```

Sequence No.: 5
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/13/2010 14:36:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114242.2	114242.2	99.9	%			14:36:42
1	Al 396.153Radial†	-88.0	-3.1	-0.7468	µg/L	-0.7468	ppb	14:37:02
1	Ca 317.933Radial†	474.8	18.6	1.5333	µg/L	1.5333	ppb	14:37:02
1	Fe 238.204 Radial†	138.6	14.4	1.2323	µg/L	1.2323	ppb	14:37:02
1	K 766.490 Radial†	1539.7	132.4	52.981	µg/L	52.981	ppb	14:36:42
1	Mg 279.077 IEC†	166.2	9.1	5.0516	µg/L	5.0516	ppb	14:37:02
1	Na 589.592 Radial†	961.9	127.8	20.345	µg/L	20.345	ppb	14:36:42
1	Sr 421.552†	14.8	81.5	0.2093	µg/L	0.2093	ppb	14:36:42
1	Sc 361.383	1691996.5	1691996.5	99.984	%			14:37:50
1	Y 371.029	957245.2	957245.2	100.02	%			14:37:50
1	Ag 328.068†	5292.0	189.8	0.7895	µg/L	0.7895	ppb	14:37:52
1	As 188.979†	-14.6	-1.1	-0.3903	µg/L	-0.3903	ppb	14:38:12
1	B 249.677†	4150.5	39.2	0.5812	µg/L	0.5812	ppb	14:37:52
1	Ba 233.527†	-127.0	18.8	0.0851	µg/L	0.0851	ppb	14:38:12
1	Be 313.107†	-962.6	29.6	0.0111	µg/L	0.0111	ppb	14:37:52
1	Cd 226.502†	-40.8	23.7	0.1568	µg/L	0.1568	ppb	14:38:12
1	Co 228.616†	-217.9	9.1	0.1199	µg/L	0.1199	ppb	14:38:12
1	Cr 267.716†	353.1	23.5	0.1992	µg/L	0.1992	ppb	14:38:12
1	Cu 324.752†	3176.8	-64.0	-0.2569	µg/L	-0.2569	ppb	14:37:52
1	Mn 257.610†	237.3	22.0	0.0286	µg/L	0.0286	ppb	14:38:12
1	Mo 202.031†	-10.9	10.7	0.3643	µg/L	0.3643	ppb	14:38:12
1	Ni 231.604†	-67.8	6.1	0.0753	µg/L	0.0753	ppb	14:38:12
1	P 214.914†	-11.4	7.8	1.7830	µg/L	1.7830	ppb	14:38:12
1	Pb 220.353†	158.8	41.6	2.6032	µg/L	2.6032	ppb	14:38:12
1	S 181.975 Axial†	99.1	-2.8	-2.4037	µg/L	-2.4037	ppb	14:38:12
1	Sb 206.836†	69.9	-7.6	-0.9701	µg/L	-0.9701	ppb	14:38:12
1	Se 196.026†	22.2	2.3	0.885	µg/L	0.885	ppb	14:38:12
1	SiO2†	1774.0	85.4	8.8083	µg/L	8.8083	ppb	14:37:52
1	Si 251.611†	665.0	-121.5	-1.8588	µg/L	-1.8588	ppb	14:37:52
1	Sn 189.927†	11.1	2.7	0.1856	µg/L	0.1856	ppb	14:38:12
1	Ti 334.940†	711.8	-174.1	-0.1868	µg/L	-0.1868	ppb	14:37:52
1	Tl 190.801†	-106.2	9.0	1.2653	µg/L	1.2653	ppb	14:38:12
1	U 409.014†	-261.4	149.8	9.0823	µg/L	9.0823	ppb	14:37:52
1	V 292.402†	403.2	-92.8	-0.4492	µg/L	-0.4492	ppb	14:37:52
1	Zn 213.857†	672.2	53.0	0.3056	µg/L	0.3056	ppb	14:38:12
2	Sc RADIAL	113917.7	113917.7	99.6	%			14:37:04
2	Al 396.153Radial†	-95.9	-11.3	-2.6826	µg/L	-2.6826	ppb	14:37:24
2	Ca 317.933Radial†	464.2	9.4	0.7740	µg/L	0.7740	ppb	14:37:24
2	Fe 238.204 Radial†	140.5	16.8	1.4295	µg/L	1.4295	ppb	14:37:24
2	K 766.490 Radial†	1689.6	287.3	115.00	µg/L	115.00	ppb	14:37:04
2	Mg 279.077 IEC†	147.8	-8.9	-4.9025	µg/L	-4.9025	ppb	14:37:24
2	Na 589.592 Radial†	1049.9	219.0	34.836	µg/L	34.836	ppb	14:37:04
2	Sr 421.552†	20.2	87.0	0.2234	µg/L	0.2234	ppb	14:37:04
2	Sc 361.383	1731059.2	1731059.2	102.29	%			14:38:14
2	Y 371.029	978761.8	978761.8	102.27	%			14:38:14
2	Ag 328.068†	5131.6	-86.3	-0.3506	µg/L	-0.3506	ppb	14:38:16
2	As 188.979†	-20.7	-6.8	-2.3539	µg/L	-2.3539	ppb	14:38:37
2	B 249.677†	4408.6	197.8	2.9359	µg/L	2.9359	ppb	14:38:16
2	Ba 233.527†	-104.8	43.4	0.1953	µg/L	0.1953	ppb	14:38:37
2	Be 313.107†	-908.3	104.4	0.0369	µg/L	0.0369	ppb	14:38:16
2	Cd 226.502†	-59.3	6.6	0.0431	µg/L	0.0431	ppb	14:38:37
2	Co 228.616†	-212.5	19.4	0.2538	µg/L	0.2538	ppb	14:38:37
2	Cr 267.716†	325.8	-11.1	-0.1177	µg/L	-0.1177	ppb	14:38:37
2	Cu 324.752†	3037.6	-271.8	-1.1048	µg/L	-1.1048	ppb	14:38:16
2	Mn 257.610†	235.2	14.6	0.0193	µg/L	0.0193	ppb	14:38:37
2	Mo 202.031†	-8.0	13.8	0.4674	µg/L	0.4674	ppb	14:38:37
2	Ni 231.604†	-97.0	-20.9	-0.2604	µg/L	-0.2604	ppb	14:38:37
2	P 214.914†	-8.3	11.1	2.5432	µg/L	2.5432	ppb	14:38:37
2	Pb 220.353†	95.1	-24.3	-1.5387	µg/L	-1.5387	ppb	14:38:37

2	S 181.975 Axial†	108.5	4.2	3.5409 µg/L	3.5409 ppb	14:38:37
2	Sb 206.836†	81.2	1.8	0.2409 µg/L	0.2409 ppb	14:38:37
2	Se 196.026†	36.3	15.5	6.04 µg/L	6.04 ppb	14:38:37
2	SiO2†	1745.7	17.7	1.8049 µg/L	1.8049 ppb	14:38:16
2	Si 251.611†	800.6	-3.8	-0.0680 µg/L	-0.0680 ppb	14:38:16
2	Sn 189.927†	16.1	7.3	0.5070 µg/L	0.5070 ppb	14:38:37
2	Ti 334.940†	800.5	-103.5	-0.1180 µg/L	-0.1180 ppb	14:38:16
2	Tl 190.801†	-102.4	15.2	2.1215 µg/L	2.1215 ppb	14:38:37
2	U 409.014†	-13.0	398.6	24.120 µg/L	24.120 ppb	14:38:16
2	V 292.402†	94.3	-403.9	-1.9818 µg/L	-1.9818 ppb	14:38:16
2	Zn 213.857†	673.2	38.8	0.2266 µg/L	0.2266 ppb	14:38:37
3	Sc RADIAL	114950.9	114950.9	100 %		14:37:26
3	Al 396.153Radial†	-101.6	-16.1	-3.8179 µg/L	-3.8179 ppb	14:37:46
3	Ca 317.933Radial†	468.0	9.0	0.7384 µg/L	0.7384 ppb	14:37:46
3	Fe 238.204 Radial†	137.6	12.7	1.0798 µg/L	1.0798 ppb	14:37:46
3	K 766.490 Radial†	1513.9	97.3	38.928 µg/L	38.928 ppb	14:37:26
3	Mg 279.077 IEC†	138.9	-19.1	-10.566 µg/L	-10.566 ppb	14:37:46
3	Na 589.592 Radial†	894.1	54.4	8.6531 µg/L	8.6531 ppb	14:37:26
3	Sr 421.552†	-96.9	-29.7	-0.0764 µg/L	-0.0764 ppb	14:37:26
3	Sc 361.383	1707197.9	1707197.9	100.88 %		14:38:39
3	Y 371.029	965197.5	965197.5	100.85 %		14:38:39
3	Ag 328.068†	5056.5	-90.7	-0.3684 µg/L	-0.3684 ppb	14:38:41
3	As 188.979†	-19.0	-5.4	-1.8561 µg/L	-1.8561 ppb	14:39:01
3	B 249.677†	4249.9	100.8	1.4959 µg/L	1.4959 ppb	14:38:41
3	Ba 233.527†	-122.1	24.8	0.1122 µg/L	0.1122 ppb	14:39:01
3	Be 313.107†	-636.6	361.3	0.1042 µg/L	0.1042 ppb	14:38:41
3	Cd 226.502†	-46.6	18.4	0.1215 µg/L	0.1215 ppb	14:39:01
3	Co 228.616†	-231.6	-2.5	-0.0333 µg/L	-0.0333 ppb	14:39:01
3	Cr 267.716†	354.3	21.6	0.1847 µg/L	0.1847 ppb	14:39:01
3	Cu 324.752†	3086.5	-181.8	-0.7475 µg/L	-0.7475 ppb	14:38:41
3	Mn 257.610†	254.4	36.8	0.0485 µg/L	0.0485 ppb	14:39:01
3	Mo 202.031†	-12.9	8.9	0.3007 µg/L	0.3007 ppb	14:39:01
3	Ni 231.604†	-79.3	-4.6	-0.0578 µg/L	-0.0578 ppb	14:39:01
3	P 214.914†	-7.6	11.7	2.6690 µg/L	2.6690 ppb	14:39:01
3	Pb 220.353†	131.3	13.0	0.8074 µg/L	0.8074 ppb	14:39:01
3	S 181.975 Axial†	97.1	-5.7	-4.8574 µg/L	-4.8574 ppb	14:39:01
3	Sb 206.836†	85.6	7.4	0.9467 µg/L	0.9467 ppb	14:39:01
3	Se 196.026†	23.1	2.9	1.12 µg/L	1.12 ppb	14:39:01
3	SiO2†	1790.4	85.8	8.8474 µg/L	8.8474 ppb	14:38:41
3	Si 251.611†	819.1	25.4	0.3816 µg/L	0.3816 ppb	14:38:41
3	Sn 189.927†	13.3	4.7	0.3296 µg/L	0.3296 ppb	14:39:01
3	Ti 334.940†	927.8	33.6	0.0334 µg/L	0.0334 ppb	14:38:41
3	Tl 190.801†	-118.6	-2.3	-0.3241 µg/L	-0.3241 ppb	14:39:01
3	U 409.014†	-308.3	105.6	6.4152 µg/L	6.4152 ppb	14:38:41
3	V 292.402†	471.5	-28.7	-0.1341 µg/L	-0.1341 ppb	14:38:41
3	Zn 213.857†	654.5	29.4	0.1707 µg/L	0.1707 ppb	14:39:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1710084.5	101.05	%	1.164				1.15%
Sc RADIAL	114370.3	100.0	%	0.46				0.46%
Y 371.029	967068.2	101.05	%	1.137				1.13%
Ag 328.068†	4.3	0.0235	µg/L	0.66345	0.0235	ppb	0.66345	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.2	-2.4158	µg/L	1.55284	-2.4158	ppb	1.55284	64.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.4	-1.5334	µg/L	1.02077	-1.5334	ppb	1.02077	66.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	112.6	1.6710	µg/L	1.18706	1.6710	ppb	1.18706	71.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	29.0	0.1309	µg/L	0.05743	0.1309	ppb	0.05743	43.88%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	165.1	0.0508	µg/L	0.04808	0.0508	ppb	0.04808	94.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	12.3	1.0153	µg/L	0.44900	1.0153	ppb	0.44900	44.23%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.2	0.1072	µg/L	0.05820	0.1072	ppb	0.05820	54.31%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.6	0.1134	µg/L	0.14364	0.1134	ppb	0.14364	126.62%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                11.3      0.0887 µg/L       0.17894      0.0887 ppb        0.17894 201.70%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -172.5     -0.7031 µg/L       0.42567     -0.7031 ppb        0.42567  60.55%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         14.6      1.2472 µg/L       0.17536      1.2472 ppb        0.17536  14.06%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         172.3     68.969 µg/L       40.4762     68.969 ppb        40.4762  58.69%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -6.3     -3.4723 µg/L       7.90644     -3.4723 ppb        7.90644 227.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                24.5      0.0321 µg/L       0.01496      0.0321 ppb        0.01496  46.58%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                11.1      0.3775 µg/L       0.08413      0.3775 ppb        0.08413  22.29%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        133.7     21.278 µg/L       13.1164     21.278 ppb        13.1164  61.64%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -6.5     -0.0809 µg/L       0.16906     -0.0809 ppb        0.16906 208.86%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 10.2      2.3317 µg/L       0.47937      2.3317 ppb        0.47937  20.56%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                10.1      0.6240 µg/L       2.07705      0.6240 ppb        2.07705 332.88%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.5     -1.2401 µg/L       4.31838     -1.2401 ppb        4.31838 348.24%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.5      0.0725 µg/L       0.96945      0.0725 ppb        0.96945 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.9        2.68 µg/L         2.908        2.68 ppb          2.908 108.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      63.0      6.4869 µg/L       4.05478      6.4869 ppb        4.05478  62.51%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -33.3     -0.5151 µg/L       1.18521     -0.5151 ppb        1.18521 230.12%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.9      0.3407 µg/L       0.16097      0.3407 ppb        0.16097  47.24%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                46.2      0.1188 µg/L       0.16919      0.1188 ppb        0.16919 142.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -81.4     -0.0905 µg/L       0.11265     -0.0905 ppb        0.11265 124.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 7.3      1.0209 µg/L       1.24097      1.0209 ppb        1.24097 121.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                218.0     13.206 µg/L        9.5459     13.206 ppb         9.5459  72.28%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -175.1     -0.8550 µg/L       0.98845     -0.8550 ppb        0.98845 115.61%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                40.4      0.2343 µg/L       0.06773      0.2343 ppb        0.06773  28.91%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 4/13/2010 14:56:32 Plasma On Time: 3/29/2010 18:07:58
Logged In Analyst: optima4 Technique: ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\041310B.SIF
Batch ID:
Results Data Set: 041310A
Results Library: C:\pe\optima4\Results\Results.mdb

Sequence No.: 1 Autosampler Location: 301
Sample ID: 1202092701|974047|1 Date Collected: 4/13/2010 14:56:34
Analyst: LS Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: 1202092701|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	112304.8	112304.8	98.2	%			14:57:06
1	Al 396.153Radial†	-89.6	-6.3	-1.4898	µg/L	-1.4898	ppb	14:57:26
1	Ca 317.933Radial†	661.6	217.1	17.879	µg/L	17.879	ppb	14:57:26
1	Fe 238.204 Radial†	750.5	640.1	54.604	µg/L	54.604	ppb	14:57:26
1	K 766.490 Radial†	1559.5	179.1	71.691	µg/L	71.691	ppb	14:57:06
1	Mg 279.077 IEC†	168.3	14.1	7.7447	µg/L	7.7447	ppb	14:57:26
1	Na 589.592 Radial†	1066.2	250.7	39.935	µg/L	39.935	ppb	14:57:06
1	Sr 421.552†	-5.8	60.9	0.1562	µg/L	0.1562	ppb	14:57:06
1	Sc 361.383	1661156.9	1661156.9	98.162	%			14:58:13
1	Y 371.029	935087.0	935087.0	97.707	%			14:58:13
1	Ag 328.068†	5401.5	399.7	1.6339	µg/L	1.6339	ppb	14:58:16
1	As 188.979†	-10.0	3.3	1.1662	µg/L	1.1662	ppb	14:58:36
1	B 249.677†	4127.2	92.5	1.3740	µg/L	1.3740	ppb	14:58:16
1	Ba 233.527†	-65.2	79.5	0.3588	µg/L	0.3588	ppb	14:58:36
1	Be 313.107†	-993.1	-19.4	-0.0085	µg/L	-0.0085	ppb	14:58:16
1	Cd 226.502†	-69.7	-6.4	-0.0476	µg/L	-0.0476	ppb	14:58:36
1	Co 228.616†	-239.2	-16.7	-0.2207	µg/L	-0.2207	ppb	14:58:36
1	Cr 267.716†	569.4	250.4	2.2086	µg/L	2.2086	ppb	14:58:36
1	Cu 324.752†	3147.0	-35.3	-0.1464	µg/L	-0.1464	ppb	14:58:16
1	Mn 257.610†	877.4	678.5	0.8864	µg/L	0.8864	ppb	14:58:36
1	Mo 202.031†	-20.8	0.4	0.0170	µg/L	0.0170	ppb	14:58:36
1	Ni 231.604†	-12.0	61.6	0.7666	µg/L	0.7666	ppb	14:58:36
1	P 214.914†	12.6	32.1	7.3102	µg/L	7.3102	ppb	14:58:36
1	Pb 220.353†	133.3	18.6	1.1724	µg/L	1.1724	ppb	14:58:36
1	S 181.975 Axial†	120.6	20.9	17.816	µg/L	17.816	ppb	14:58:36
1	Sb 206.836†	73.9	-2.3	-0.3226	µg/L	-0.3226	ppb	14:58:36
1	Se 196.026†	5.0	-14.8	-5.73	µg/L	-5.73	ppb	14:58:36
1	SiO2†	2288.2	642.2	66.282	µg/L	66.282	ppb	14:58:16
1	Si 251.611†	2425.1	1684.0	25.674	µg/L	25.674	ppb	14:58:16
1	Sn 189.927†	38.0	30.3	2.1133	µg/L	2.1133	ppb	14:58:36
1	Ti 334.940†	1185.1	321.2	0.3399	µg/L	0.3399	ppb	14:58:16
1	Tl 190.801†	-128.9	-16.0	-2.2569	µg/L	-2.2569	ppb	14:58:36
1	U 409.014†	-562.2	-161.5	-9.8471	µg/L	-9.8471	ppb	14:58:16
1	V 292.402†	427.7	-60.3	-0.3021	µg/L	-0.3021	ppb	14:58:16
1	Zn 213.857†	900.4	298.0	1.7096	µg/L	1.7096	ppb	14:58:36
2	Sc RADIAL	112380.0	112380.0	98.2	%			14:57:28
2	Al 396.153Radial†	-57.6	26.4	6.2159	µg/L	6.2159	ppb	14:57:48
2	Ca 317.933Radial†	635.2	189.8	15.629	µg/L	15.629	ppb	14:57:48
2	Fe 238.204 Radial†	764.0	653.3	55.732	µg/L	55.732	ppb	14:57:48
2	K 766.490 Radial†	1445.6	62.1	24.859	µg/L	24.859	ppb	14:57:28
2	Mg 279.077 IEC†	178.6	24.4	13.451	µg/L	13.451	ppb	14:57:48
2	Na 589.592 Radial†	896.2	77.0	12.256	µg/L	12.256	ppb	14:57:28
2	Sr 421.552†	-83.8	-18.6	-0.0479	µg/L	-0.0479	ppb	14:57:28
2	Sc 361.383	1661153.8	1661153.8	98.162	%			14:58:38
2	Y 371.029	935237.7	935237.7	97.723	%			14:58:38
2	Ag 328.068†	5191.1	185.4	0.7581	µg/L	0.7581	ppb	14:58:40
2	As 188.979†	-23.4	-10.4	-3.5851	µg/L	-3.5851	ppb	14:59:00

2	B 249.677†	4174.0	140.2	2.0813 µg/L	2.0813 ppb	14:58:40
2	Ba 233.527†	-59.4	85.3	0.3855 µg/L	0.3855 ppb	14:59:00
2	Be 313.107†	-621.0	359.7	0.1009 µg/L	0.1009 ppb	14:58:40
2	Cd 226.502†	-71.0	-7.8	-0.0572 µg/L	-0.0572 ppb	14:59:00
2	Co 228.616†	-218.8	4.2	0.0528 µg/L	0.0528 ppb	14:59:00
2	Cr 267.716†	504.7	184.5	1.6248 µg/L	1.6248 ppb	14:59:00
2	Cu 324.752†	3154.0	-28.2	-0.1109 µg/L	-0.1109 ppb	14:58:40
2	Mn 257.610†	849.3	649.8	0.8488 µg/L	0.8488 ppb	14:59:00
2	Mo 202.031†	-20.3	0.9	0.0331 µg/L	0.0331 ppb	14:59:00
2	Ni 231.604†	-69.0	3.6	0.0448 µg/L	0.0448 ppb	14:59:00
2	P 214.914†	-0.7	18.5	4.2206 µg/L	4.2206 ppb	14:59:00
2	Pb 220.353†	145.0	30.4	1.9088 µg/L	1.9088 ppb	14:59:00
2	S 181.975 Axial†	105.9	6.0	5.0814 µg/L	5.0814 ppb	14:59:00
2	Sb 206.836†	88.3	12.4	1.5719 µg/L	1.5719 ppb	14:59:00
2	Se 196.026†	27.6	8.1	3.15 µg/L	3.15 ppb	14:59:00
2	SiO2†	2284.9	638.8	65.929 µg/L	65.929 ppb	14:58:40
2	Si 251.611†	2569.7	1831.3	27.922 µg/L	27.922 ppb	14:58:40
2	Sn 189.927†	38.2	30.5	2.1223 µg/L	2.1223 ppb	14:59:00
2	Ti 334.940†	925.8	57.0	0.0599 µg/L	0.0599 ppb	14:58:40
2	Tl 190.801†	-120.1	-7.1	-1.0056 µg/L	-1.0056 ppb	14:59:00
2	U 409.014†	-456.0	-53.3	-3.2616 µg/L	-3.2616 ppb	14:58:40
2	V 292.402†	447.3	-40.3	-0.2006 µg/L	-0.2006 ppb	14:58:40
2	Zn 213.857†	898.4	295.9	1.7023 µg/L	1.7023 ppb	14:59:00
3	Sc RADIAL	110505.9	110505.9	96.6 %		14:57:50
3	Al 396.153Radial†	-84.0	-2.0	-0.4739 µg/L	-0.4739 ppb	14:58:10
3	Ca 317.933Radial†	679.5	246.6	20.307 µg/L	20.307 ppb	14:58:10
3	Fe 238.204 Radial†	792.0	695.6	59.336 µg/L	59.336 ppb	14:58:10
3	K 766.490 Radial†	1698.8	349.2	139.78 µg/L	139.78 ppb	14:57:50
3	Mg 279.077 IEC†	155.5	3.6	1.9453 µg/L	1.9453 ppb	14:58:10
3	Na 589.592 Radial†	950.2	148.3	23.542 µg/L	23.542 ppb	14:57:50
3	Sr 421.552†	13.5	80.6	0.2070 µg/L	0.2070 ppb	14:57:50
3	Sc 361.383	1668480.8	1668480.8	98.595 %		14:59:02
3	Y 371.029	939209.7	939209.7	98.138 %		14:59:02
3	Ag 328.068†	5410.1	384.2	1.5863 µg/L	1.5863 ppb	14:59:04
3	As 188.979†	-22.9	-9.8	-3.3472 µg/L	-3.3472 ppb	14:59:24
3	B 249.677†	4126.6	73.5	1.0918 µg/L	1.0918 ppb	14:59:04
3	Ba 233.527†	-63.1	81.8	0.3695 µg/L	0.3695 ppb	14:59:24
3	Be 313.107†	-716.4	265.7	0.0771 µg/L	0.0771 ppb	14:59:04
3	Cd 226.502†	-59.2	4.5	0.0238 µg/L	0.0238 ppb	14:59:24
3	Co 228.616†	-225.4	-1.5	-0.0225 µg/L	-0.0225 ppb	14:59:24
3	Cr 267.716†	535.0	213.0	1.8673 µg/L	1.8673 ppb	14:59:24
3	Cu 324.752†	3409.7	217.0	0.9122 µg/L	0.9122 ppb	14:59:04
3	Mn 257.610†	843.4	640.0	0.8364 µg/L	0.8364 ppb	14:59:24
3	Mo 202.031†	-15.1	6.3	0.2176 µg/L	0.2176 ppb	14:59:24
3	Ni 231.604†	-46.1	27.1	0.3372 µg/L	0.3372 ppb	14:59:24
3	P 214.914†	-10.0	9.1	2.0451 µg/L	2.0451 ppb	14:59:24
3	Pb 220.353†	145.4	30.3	1.8922 µg/L	1.8922 ppb	14:59:24
3	S 181.975 Axial†	121.1	20.9	17.783 µg/L	17.783 ppb	14:59:24
3	Sb 206.836†	68.6	-8.0	-1.0440 µg/L	-1.0440 ppb	14:59:24
3	Se 196.026†	13.3	-6.5	-2.49 µg/L	-2.49 ppb	14:59:24
3	SiO2†	2424.7	770.4	79.508 µg/L	79.508 ppb	14:59:04
3	Si 251.611†	2469.2	1717.9	26.189 µg/L	26.189 ppb	14:59:04
3	Sn 189.927†	39.0	31.2	2.1700 µg/L	2.1700 ppb	14:59:24
3	Ti 334.940†	850.9	-23.1	-0.0270 µg/L	-0.0270 ppb	14:59:04
3	Tl 190.801†	-114.8	-1.2	-0.1661 µg/L	-0.1661 ppb	14:59:24
3	U 409.014†	-304.9	102.0	6.1585 µg/L	6.1585 ppb	14:59:04
3	V 292.402†	374.8	-115.9	-0.5664 µg/L	-0.5664 ppb	14:59:04
3	Zn 213.857†	886.5	279.8	1.6058 µg/L	1.6058 ppb	14:59:24

Mean Data: 1202092701|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1663597.2	98.306	%	0.2499				0.25%
Sc RADIAL	111730.2	97.7	%	0.93				0.95%
Y 371.029	936511.5	97.856	%	0.2443				0.25%
Ag 328.068†	323.1	1.3261	µg/L	0.49248	1.3261	ppb	0.49248	37.14%
Al 396.153Radial†	6.0	1.4174	µg/L	4.18655	1.4174	ppb	4.18655	295.37%
As 188.979†	-5.6	-1.9220	µg/L	2.67710	-1.9220	ppb	2.67710	139.28%
B 249.677†	102.1	1.5157	µg/L	0.50975	1.5157	ppb	0.50975	33.63%
Ba 233.527†	82.2	0.3713	µg/L	0.01341	0.3713	ppb	0.01341	3.61%

Be 313.107†	202.0	0.0565	µg/L	0.05750	0.0565	ppb	0.05750 101.76%
Ca 317.933Radial†	217.9	17.938	µg/L	2.3396	17.938	ppb	2.3396 13.04%
Cd 226.502†	-3.2	-0.0270	µg/L	0.04426	-0.0270	ppb	0.04426 163.90%
Co 228.616†	-4.7	-0.0634	µg/L	0.14126	-0.0634	ppb	0.14126 222.66%
Cr 267.716†	216.0	1.9002	µg/L	0.29328	1.9002	ppb	0.29328 15.43%
Cu 324.752†	51.2	0.2183	µg/L	0.60119	0.2183	ppb	0.60119 275.36%
Fe 238.204 Radial†	663.0	56.557	µg/L	2.4714	56.557	ppb	2.4714 4.37%
K 766.490 Radial†	196.8	78.777	µg/L	57.7877	78.777	ppb	57.7877 73.36%
Mg 279.077 IEC†	14.0	7.7138	µg/L	5.75303	7.7138	ppb	5.75303 74.58%
Mn 257.610†	656.1	0.8572	µg/L	0.02606	0.8572	ppb	0.02606 3.04%
Mo 202.031†	2.6	0.0892	µg/L	0.11146	0.0892	ppb	0.11146 124.96%
Na 589.592 Radial†	158.7	25.245	µg/L	13.9179	25.245	ppb	13.9179 55.13%
Ni 231.604†	30.8	0.3828	µg/L	0.36304	0.3828	ppb	0.36304 94.82%
P 214.914†	19.9	4.5253	µg/L	2.64574	4.5253	ppb	2.64574 58.47%
Pb 220.353†	26.5	1.6578	µg/L	0.42044	1.6578	ppb	0.42044 25.36%
S 181.975 Axial†	15.9	13.560	µg/L	7.3430	13.560	ppb	7.3430 54.15%
Sb 206.836†	0.7	0.0684	µg/L	1.35111	0.0684	ppb	1.35111 >999.9%
Se 196.026†	-4.4	-1.69	µg/L	4.492	-1.69	ppb	4.492 265.47%
SiO2†	683.8	70.573	µg/L	7.7400	70.573	ppb	7.7400 10.97%
Si 251.611†	1744.4	26.595	µg/L	1.1775	26.595	ppb	1.1775 4.43%
Sn 189.927†	30.7	2.1352	µg/L	0.03051	2.1352	ppb	0.03051 1.43%
Sr 421.552†	41.0	0.1051	µg/L	0.13489	0.1051	ppb	0.13489 128.32%
Ti 334.940†	118.4	0.1243	µg/L	0.19174	0.1243	ppb	0.19174 154.30%
Tl 190.801†	-8.1	-1.1428	µg/L	1.05216	-1.1428	ppb	1.05216 92.06%
U 409.014†	-37.6	-2.3167	µg/L	8.04454	-2.3167	ppb	8.04454 347.23%
V 292.402†	-72.2	-0.3563	µg/L	0.18881	-0.3563	ppb	0.18881 52.99%
Zn 213.857†	291.2	1.6726	µg/L	0.05791	1.6726	ppb	0.05791 3.46%

Sequence No.: 2
Sample ID: 1202092702|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 302
Date Collected: 4/13/2010 14:59:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202092702|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	118063.9	118063.9	103	%			15:00:05
1	Al 396.153Radial†	416733.7	403843.9	95214	µg/L	95214	ppb	15:00:03
1	Ca 317.933Radial†	1244203.2	1205008.9	99220	µg/L	99220	ppb	15:00:03
1	Fe 238.204 Radial†	2430978.1	2355166.7	200900	µg/L	200900	ppb	15:00:03
1	K 766.490 Radial†	113706.5	108757.1	43488	µg/L	43488	ppb	15:00:05
1	Mg 279.077 IEC†	74214.6	71746.6	39520	µg/L	39520	ppb	15:00:05
1	Na 589.592 Radial†	64287.1	61450.3	9766.1	µg/L	9766.1	ppb	15:00:05
1	Sr 421.552†	939814.1	910620.3	2338.4	µg/L	2338.4	ppb	15:00:03
1	Sc 361.383	1696759.5	1696759.5	100.27	%			15:00:34
1	Y 371.029	1020817.5	1020817.5	106.67	%			15:00:34
1	Ag 328.068†	80564.3	75247.9	320.34	µg/L	320.34	ppb	15:00:34
1	As 188.979†	2963.3	2968.9	1097.7	µg/L	1097.7	ppb	15:00:36
1	B 249.677†	108102.4	103704.1	1536.1	µg/L	1536.1	ppb	15:00:34
1	Ba 233.527†	425662.8	424681.2	1920.8	µg/L	1920.8	ppb	15:00:34
1	Be 313.107†	2866497.3	2859897.6	809.68	µg/L	809.68	ppb	15:00:34
1	Cd 226.502†	94777.7	94591.2	604.98	µg/L	604.98	ppb	15:00:34
1	Co 228.616†	73558.7	73590.9	956.50	µg/L	956.50	ppb	15:00:34
1	Cr 267.716†	277875.9	276810.3	2437.0	µg/L	2437.0	ppb	15:00:34
1	Cu 324.752†	449415.4	444983.8	1872.9	µg/L	1872.9	ppb	15:00:34
1	Mn 257.610†	4145723.4	4134527.9	5402.3	µg/L	5402.3	ppb	15:00:34
1	Mo 202.031†	15807.5	15787.3	545.01	µg/L	545.01	ppb	15:00:36
1	Ni 231.604†	111180.4	110959.8	1379.9	µg/L	1379.9	ppb	15:00:34
1	P 214.914†	36948.8	36870.2	8292.7	µg/L	8292.7	ppb	15:00:36
1	Pb 220.353†	13482.7	13329.8	843.81	µg/L	843.81	ppb	15:00:36
1	S 181.975 Axial†	4893.6	4778.7	4070.5	µg/L	4070.5	ppb	15:00:36
1	Sb 206.836†	16192.7	16072.3	2032.1	µg/L	2032.1	ppb	15:00:36
1	Se 196.026†	7475.2	7435.4	2940	µg/L	2940	ppb	15:00:36
1	SiO2†	204862.5	202631.0	20892	µg/L	20892	ppb	15:00:34
1	Si 251.611†	643583.8	641092.7	9765.3	µg/L	9765.3	ppb	15:00:34
1	Sn 189.927†	15438.4	15389.1	1092.7	µg/L	1092.7	ppb	15:00:36
1	Ti 334.940†	5979964.1	5963239.8	6252.3	µg/L	6252.3	ppb	15:00:34
1	Tl 190.801†	8283.6	8376.9	1261.8	µg/L	1261.8	ppb	15:00:36
1	U 409.014†	-3935.8	-3514.1	-150.45	µg/L	-150.45	ppb	15:00:34
1	V 292.402†	255170.7	253998.8	1248.2	µg/L	1248.2	ppb	15:00:34
1	Zn 213.857†	1047605.3	1044211.4	6001.1	µg/L	6001.1	ppb	15:00:34
2	Sc RADIAL	116835.2	116835.2	102	%			15:00:09
2	Al 396.153Radial†	415633.0	407012.5	95960	µg/L	95960	ppb	15:00:07
2	Ca 317.933Radial†	1237997.8	1211610.9	99763	µg/L	99763	ppb	15:00:07
2	Fe 238.204 Radial†	2419111.7	2368318.5	202030	µg/L	202030	ppb	15:00:07
2	K 766.490 Radial†	112779.1	109007.6	43588	µg/L	43588	ppb	15:00:09
2	Mg 279.077 IEC†	73204.5	71513.9	39390	µg/L	39390	ppb	15:00:09
2	Na 589.592 Radial†	63886.5	61713.1	9808.0	µg/L	9808.0	ppb	15:00:09
2	Sr 421.552†	934943.3	915427.4	2350.7	µg/L	2350.7	ppb	15:00:07
2	Sc 361.383	1668991.0	1668991.0	98.625	%			15:00:40
2	Y 371.029	1004287.3	1004287.3	104.94	%			15:00:40
2	Ag 328.068†	79440.8	75445.6	321.11	µg/L	321.11	ppb	15:00:40
2	As 188.979†	2975.5	3030.4	1119.3	µg/L	1119.3	ppb	15:00:42
2	B 249.677†	106145.2	103513.4	1533.2	µg/L	1533.2	ppb	15:00:40
2	Ba 233.527†	418296.4	424275.5	1918.9	µg/L	1918.9	ppb	15:00:40
2	Be 313.107†	2817224.1	2857503.3	809.00	µg/L	809.00	ppb	15:00:40
2	Cd 226.502†	92760.7	94118.8	601.73	µg/L	601.73	ppb	15:00:40
2	Co 228.616†	72350.7	73586.7	956.39	µg/L	956.39	ppb	15:00:40
2	Cr 267.716†	273051.8	276529.9	2434.6	µg/L	2434.6	ppb	15:00:40
2	Cu 324.752†	443086.8	446024.5	1877.3	µg/L	1877.3	ppb	15:00:40
2	Mn 257.610†	4076376.0	4133006.8	5400.3	µg/L	5400.3	ppb	15:00:40
2	Mo 202.031†	15771.8	16013.3	552.72	µg/L	552.72	ppb	15:00:42
2	Ni 231.604†	109113.6	110709.2	1376.8	µg/L	1376.8	ppb	15:00:40
2	P 214.914†	37163.5	37700.9	8482.1	µg/L	8482.1	ppb	15:00:42
2	Pb 220.353†	13402.6	13472.3	852.78	µg/L	852.78	ppb	15:00:42

2	S 181.975 Axial†	4951.1	4918.2	4189.3 µg/L	4189.3 ppb	15:00:42
2	Sb 206.836†	16268.0	16417.3	2076.5 µg/L	2076.5 ppb	15:00:42
2	Se 196.026†	7362.8	7445.4	2950 µg/L	2950 ppb	15:00:42
2	SiO2†	200916.1	202029.1	20830 µg/L	20830 ppb	15:00:40
2	Si 251.611†	632313.2	640344.4	9753.6 µg/L	9753.6 ppb	15:00:40
2	Sn 189.927†	15681.0	15891.2	1127.7 µg/L	1127.7 ppb	15:00:42
2	Ti 334.940†	5889768.8	5971017.1	6260.5 µg/L	6260.5 ppb	15:00:40
2	Tl 190.801†	8306.8	8537.9	1284.5 µg/L	1284.5 ppb	15:00:42
2	U 409.014†	-3892.5	-3535.6	-152.09 µg/L	-152.09 ppb	15:00:40
2	V 292.402†	250663.3	253662.8	1246.5 µg/L	1246.5 ppb	15:00:40
2	Zn 213.857†	1027517.0	1041226.6	5983.7 µg/L	5983.7 ppb	15:00:40
3	Sc RADIAL	116048.7	116048.7	101 %		15:00:14
3	Al 396.153Radial†	408327.4	402569.4	94913 µg/L	94913 ppb	15:00:12
3	Ca 317.933Radial†	1218484.6	1200591.9	98856 µg/L	98856 ppb	15:00:12
3	Fe 238.204 Radial†	2380917.1	2346723.0	200180 µg/L	200180 ppb	15:00:12
3	K 766.490 Radial†	111734.5	108726.4	43476 µg/L	43476 ppb	15:00:14
3	Mg 279.077 IEC†	72221.1	71030.3	39124 µg/L	39124 ppb	15:00:14
3	Na 589.592 Radial†	63261.0	61520.4	9777.3 µg/L	9777.3 ppb	15:00:14
3	Sr 421.552†	924479.7	911317.6	2340.2 µg/L	2340.2 ppb	15:00:12
3	Sc 361.383	1691894.2	1691894.2	99.978 %		15:00:46
3	Y 371.029	1018061.2	1018061.2	106.38 %		15:00:46
3	Ag 328.068†	80367.0	75281.7	320.47 µg/L	320.47 ppb	15:00:46
3	As 188.979†	2944.4	2958.4	1093.9 µg/L	1093.9 ppb	15:00:48
3	B 249.677†	107534.9	103446.6	1532.2 µg/L	1532.2 ppb	15:00:46
3	Ba 233.527†	422921.6	423160.3	1913.9 µg/L	1913.9 ppb	15:00:46
3	Be 313.107†	2847449.8	2849067.1	806.61 µg/L	806.61 ppb	15:00:46
3	Cd 226.502†	94138.5	94223.7	602.62 µg/L	602.62 ppb	15:00:46
3	Co 228.616†	73231.2	73474.4	955.00 µg/L	955.00 ppb	15:00:46
3	Cr 267.716†	276276.8	276007.8	2430.0 µg/L	2430.0 ppb	15:00:46
3	Cu 324.752†	446886.2	443743.0	1867.6 µg/L	1867.6 ppb	15:00:46
3	Mn 257.610†	4121383.9	4122073.2	5386.0 µg/L	5386.0 ppb	15:00:46
3	Mo 202.031†	15676.4	15701.4	542.06 µg/L	542.06 ppb	15:00:48
3	Ni 231.604†	110527.7	110625.9	1375.7 µg/L	1375.7 ppb	15:00:46
3	P 214.914†	36922.2	36949.5	8311.3 µg/L	8311.3 ppb	15:00:48
3	Pb 220.353†	13479.4	13365.1	846.00 µg/L	846.00 ppb	15:00:48
3	S 181.975 Axial†	4873.4	4772.5	4065.2 µg/L	4065.2 ppb	15:00:48
3	Sb 206.836†	16175.3	16101.3	2035.9 µg/L	2035.9 ppb	15:00:48
3	Se 196.026†	7439.1	7420.8	2940 µg/L	2940 ppb	15:00:48
3	SiO2†	203543.2	201899.0	20817 µg/L	20817 ppb	15:00:46
3	Si 251.611†	640316.9	639670.9	9743.6 µg/L	9743.6 ppb	15:00:46
3	Sn 189.927†	15455.2	15450.2	1096.9 µg/L	1096.9 ppb	15:00:48
3	Ti 334.940†	5950613.7	5951033.7	6239.5 µg/L	6239.5 ppb	15:00:46
3	Tl 190.801†	8209.1	8326.1	1254.4 µg/L	1254.4 ppb	15:00:48
3	U 409.014†	-3716.5	-3306.1	-137.96 µg/L	-137.96 ppb	15:00:46
3	V 292.402†	253708.5	253268.2	1244.6 µg/L	1244.6 ppb	15:00:46
3	Zn 213.857†	1040858.2	1040467.4	5979.5 µg/L	5979.5 ppb	15:00:46

Mean Data: 1202092702|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1685881.6	99.623	%	0.8763				0.88%
Sc RADIAL	116982.6	102	%	0.9				0.87%
Y 371.029	1014388.7	105.99	%	0.925				0.87%
Ag 328.068†	75325.1	320.64	µg/L	0.415	320.64	ppb	0.415	0.13%
Al 396.153Radial†	404475.2	95362	µg/L	539.3	95362	ppb	539.3	0.57%
As 188.979†	2985.9	1103.6	µg/L	13.70	1103.6	ppb	13.70	1.24%
B 249.677†	103554.7	1533.8	µg/L	1.98	1533.8	ppb	1.98	0.13%
Ba 233.527†	424039.0	1917.9	µg/L	3.56	1917.9	ppb	3.56	0.19%
Be 313.107†	2855489.4	808.43	µg/L	1.609	808.43	ppb	1.609	0.20%
Ca 317.933Radial†	1205737.2	99280	µg/L	456.6	99280	ppb	456.6	0.46%
Cd 226.502†	94311.2	603.11	µg/L	1.676	603.11	ppb	1.676	0.28%
Co 228.616†	73550.7	955.96	µg/L	0.834	955.96	ppb	0.834	0.09%
Cr 267.716†	276449.3	2433.9	µg/L	3.60	2433.9	ppb	3.60	0.15%
Cu 324.752†	444917.1	1872.6	µg/L	4.86	1872.6	ppb	4.86	0.26%
Fe 238.204 Radial†	2356736.1	201040	µg/L	928.4	201040	ppb	928.4	0.46%
K 766.490 Radial†	108830.3	43517	µg/L	61.5	43517	ppb	61.5	0.14%
Mg 279.077 IEC†	71430.3	39345	µg/L	201.7	39345	ppb	201.7	0.51%
Mn 257.610†	4129869.3	5396.2	µg/L	8.87	5396.2	ppb	8.87	0.16%
Mo 202.031†	15834.0	546.60	µg/L	5.508	546.60	ppb	5.508	1.01%
Na 589.592 Radial†	61561.3	9783.8	µg/L	21.66	9783.8	ppb	21.66	0.22%

Ni 231.604†	110765.0	1377.5	µg/L	2.16	1377.5	ppb	2.16	0.16%
P 214.914†	37173.5	8362.0	µg/L	104.38	8362.0	ppb	104.38	1.25%
Pb 220.353†	13389.1	847.53	µg/L	4.677	847.53	ppb	4.677	0.55%
S 181.975 Axial†	4823.1	4108.4	µg/L	70.15	4108.4	ppb	70.15	1.71%
Sb 206.836†	16197.0	2048.2	µg/L	24.62	2048.2	ppb	24.62	1.20%
Se 196.026†	7433.9	2940	µg/L	5.1	2940	ppb	5.1	0.17%
SiO2†	202186.4	20846	µg/L	40.5	20846	ppb	40.5	0.19%
Si 251.611†	640369.4	9754.2	µg/L	10.85	9754.2	ppb	10.85	0.11%
Sn 189.927†	15576.8	1105.8	µg/L	19.10	1105.8	ppb	19.10	1.73%
Sr 421.552†	912455.1	2343.1	µg/L	6.67	2343.1	ppb	6.67	0.28%
Ti 334.940†	5961763.5	6250.7	µg/L	10.57	6250.7	ppb	10.57	0.17%
Tl 190.801†	8413.6	1266.9	µg/L	15.69	1266.9	ppb	15.69	1.24%
U 409.014†	-3451.9	-146.83	µg/L	7.730	-146.83	ppb	7.730	5.26%
Concentration less than lower limit for U 409.014.								
V 292.402†	253643.3	1246.4	µg/L	1.79	1246.4	ppb	1.79	0.14%
Zn 213.857†	1041968.5	5988.1	µg/L	11.41	5988.1	ppb	11.41	0.19%

Sequence No.: 3
Sample ID: 248860001|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 303
Date Collected: 4/13/2010 15:00:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248860001|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	115806.7	115806.7	101	%			15:01:26
1	Al 396.153Radial†	32831.3	32514.1	7665.1	µg/L	7665.1	ppb	15:01:26
1	Ca 317.933Radial†	20057.3	19354.8	1593.7	µg/L	1593.7	ppb	15:01:28
1	Fe 238.204 Radial†	605552.6	598010.3	51013	µg/L	51013	ppb	15:01:26
1	K 766.490 Radial†	6804.6	5312.0	2123.9	µg/L	2123.9	ppb	15:01:26
1	Mg 279.077 IEC†	1437.8	1262.9	656.08	µg/L	656.08	ppb	15:01:28
1	Na 589.592 Radial†	11416.0	10440.9	1664.0	µg/L	1664.0	ppb	15:01:26
1	Sr 421.552†	36736.3	36353.0	93.370	µg/L	93.370	ppb	15:01:26
1	Sc 361.383	1674173.5	1674173.5	98.931	%			15:01:55
1	Y 371.029	1128798.2	1128798.2	117.95	%			15:01:55
1	Ag 328.068†	5055.4	7.1	-1.0433	µg/L	-1.0433	ppb	15:01:55
1	As 188.979†	1.8	15.2	17.229	µg/L	17.229	ppb	15:02:15
1	B 249.677†	4620.1	558.0	8.2653	µg/L	8.2653	ppb	15:01:55
1	Ba 233.527†	27101.0	27539.8	124.04	µg/L	124.04	ppb	15:02:15
1	Be 313.107†	12838.9	13969.9	3.8683	µg/L	3.8683	ppb	15:01:55
1	Cd 226.502†	710.3	782.6	-0.1810	µg/L	-0.1810	ppb	15:02:15
1	Co 228.616†	176.8	405.7	2.7863	µg/L	2.7863	ppb	15:02:15
1	Cr 267.716†	4366.7	4084.2	37.335	µg/L	37.335	ppb	15:02:15
1	Cu 324.752†	4630.1	1438.9	13.170	µg/L	13.170	ppb	15:01:55
1	Mn 257.610†	1608239.2	1625403.3	2124.5	µg/L	2124.5	ppb	15:01:55
1	Mo 202.031†	1669.9	1709.6	60.070	µg/L	60.070	ppb	15:02:15
1	Ni 231.604†	1399.8	1488.8	18.515	µg/L	18.515	ppb	15:02:15
1	P 214.914†	2403.1	2448.2	525.86	µg/L	525.86	ppb	15:02:15
1	Pb 220.353†	528.9	417.4	26.625	µg/L	26.625	ppb	15:02:15
1	S 181.975 Axial†	907.1	815.0	693.95	µg/L	693.95	ppb	15:02:15
1	Sb 206.836†	92.9	16.4	1.7376	µg/L	1.7376	ppb	15:02:15
1	Se 196.026†	8.6	-11.3	13.1	µg/L	13.1	ppb	15:02:15
1	SiO2†	135309.0	135082.4	13946	µg/L	13946	ppb	15:01:55
1	Si 251.611†	423138.0	426924.2	6511.6	µg/L	6511.6	ppb	15:01:55
1	Sn 189.927†	187.5	181.1	15.844	µg/L	15.844	ppb	15:02:15
1	Ti 334.940†	905500.9	914400.2	959.02	µg/L	959.02	ppb	15:01:55
1	Tl 190.801†	-261.3	-148.9	-5.7468	µg/L	-5.7468	ppb	15:02:15
1	U 409.014†	-5091.9	-4735.7	-284.62	µg/L	-284.62	ppb	15:01:55
1	V 292.402†	4472.3	4024.6	14.244	µg/L	14.244	ppb	15:02:15
1	Zn 213.857†	28037.1	27720.8	155.05	µg/L	155.05	ppb	15:02:15
2	Sc RADIAL	116102.0	116102.0	101	%			15:01:30
2	Al 396.153Radial†	32906.1	32505.4	7663.1	µg/L	7663.1	ppb	15:01:30
2	Ca 317.933Radial†	20313.3	19556.7	1610.3	µg/L	1610.3	ppb	15:01:32
2	Fe 238.204 Radial†	604871.2	595817.8	50826	µg/L	50826	ppb	15:01:30
2	K 766.490 Radial†	6708.8	5200.5	2079.3	µg/L	2079.3	ppb	15:01:30
2	Mg 279.077 IEC†	1401.0	1223.0	634.19	µg/L	634.19	ppb	15:01:32
2	Na 589.592 Radial†	11222.8	10221.8	1629.1	µg/L	1629.1	ppb	15:01:30
2	Sr 421.552†	36852.9	36375.6	93.428	µg/L	93.428	ppb	15:01:30
2	Sc 361.383	1669576.5	1669576.5	98.659	%			15:02:17
2	Y 371.029	1125210.6	1125210.6	117.57	%			15:02:17
2	Ag 328.068†	5006.8	-28.1	-1.1986	µg/L	-1.1986	ppb	15:02:17
2	As 188.979†	9.2	22.7	19.786	µg/L	19.786	ppb	15:02:37
2	B 249.677†	4643.3	594.5	8.8058	µg/L	8.8058	ppb	15:02:17
2	Ba 233.527†	27111.2	27625.5	124.43	µg/L	124.43	ppb	15:02:37
2	Be 313.107†	12634.9	13798.9	3.8172	µg/L	3.8172	ppb	15:02:17
2	Cd 226.502†	701.4	775.5	-0.2085	µg/L	-0.2085	ppb	15:02:37
2	Co 228.616†	180.7	410.2	2.8557	µg/L	2.8557	ppb	15:02:37
2	Cr 267.716†	4376.8	4106.6	37.533	µg/L	37.533	ppb	15:02:37
2	Cu 324.752†	4662.8	1484.9	13.325	µg/L	13.325	ppb	15:02:17
2	Mn 257.610†	1603072.5	1624642.5	2123.5	µg/L	2123.5	ppb	15:02:17
2	Mo 202.031†	1645.7	1689.6	59.385	µg/L	59.385	ppb	15:02:37
2	Ni 231.604†	1376.8	1469.4	18.273	µg/L	18.273	ppb	15:02:37
2	P 214.914†	2356.6	2407.8	516.75	µg/L	516.75	ppb	15:02:37
2	Pb 220.353†	523.2	413.1	26.370	µg/L	26.370	ppb	15:02:37

2	S 181.975 Axial†	897.2	807.5	687.55 µg/L	687.55 ppb	15:02:37
2	Sb 206.836†	91.9	15.6	1.6268 µg/L	1.6268 ppb	15:02:37
2	Se 196.026†	-24.3	-44.6	0.094 µg/L	0.094 ppb	15:02:37
2	SiO2†	136900.0	137071.5	14152 µg/L	14152 ppb	15:02:17
2	Si 251.611†	429102.6	434147.5	6621.8 µg/L	6621.8 ppb	15:02:17
2	Sn 189.927†	181.3	175.3	15.458 µg/L	15.458 ppb	15:02:37
2	Ti 334.940†	906945.5	918384.5	963.21 µg/L	963.21 ppb	15:02:17
2	Tl 190.801†	-257.6	-145.9	-5.2882 µg/L	-5.2882 ppb	15:02:37
2	U 409.014†	-5226.1	-4885.9	-293.72 µg/L	-293.72 ppb	15:02:17
2	V 292.402†	4462.8	4027.4	14.262 µg/L	14.262 ppb	15:02:37
2	Zn 213.857†	27968.6	27729.4	155.13 µg/L	155.13 ppb	15:02:37
3	Sc RADIAL	115493.3	115493.3	101 %		15:01:34
3	Al 396.153Radial†	32631.1	32403.8	7639.1 µg/L	7639.1 ppb	15:01:34
3	Ca 317.933Radial†	20402.6	19750.6	1626.3 µg/L	1626.3 ppb	15:01:36
3	Fe 238.204 Radial†	599563.3	593701.5	50645 µg/L	50645 ppb	15:01:34
3	K 766.490 Radial†	6613.2	5140.7	2055.4 µg/L	2055.4 ppb	15:01:34
3	Mg 279.077 IEC†	1515.2	1343.4	700.91 µg/L	700.91 ppb	15:01:36
3	Na 589.592 Radial†	11084.8	10143.4	1616.6 µg/L	1616.6 ppb	15:01:34
3	Sr 421.552†	36485.1	36202.7	92.984 µg/L	92.984 ppb	15:01:34
3	Sc 361.383	1692897.1	1692897.1	100.04 %		15:02:40
3	Y 371.029	1141339.0	1141339.0	119.26 %		15:02:40
3	Ag 328.068†	5073.4	-31.5	-1.2189 µg/L	-1.2189 ppb	15:02:40
3	As 188.979†	4.0	17.4	17.897 µg/L	17.897 ppb	15:03:00
3	B 249.677†	4585.8	472.1	6.9890 µg/L	6.9890 ppb	15:02:40
3	Ba 233.527†	27215.6	27351.3	123.19 µg/L	123.19 ppb	15:03:00
3	Be 313.107†	12407.0	13394.7	3.7022 µg/L	3.7022 ppb	15:02:40
3	Cd 226.502†	701.2	765.5	-0.2555 µg/L	-0.2555 ppb	15:03:00
3	Co 228.616†	198.1	425.0	3.0579 µg/L	3.0579 ppb	15:03:00
3	Cr 267.716†	4417.7	4086.4	37.348 µg/L	37.348 ppb	15:03:00
3	Cu 324.752†	4506.1	1263.1	12.381 µg/L	12.381 ppb	15:02:40
3	Mn 257.610†	1629502.1	1628678.9	2128.7 µg/L	2128.7 ppb	15:02:40
3	Mo 202.031†	1644.4	1665.4	58.556 µg/L	58.556 ppb	15:03:00
3	Ni 231.604†	1388.3	1461.7	18.177 µg/L	18.177 ppb	15:03:00
3	P 214.914†	2385.3	2403.7	515.94 µg/L	515.94 ppb	15:03:00
3	Pb 220.353†	522.7	405.2	25.876 µg/L	25.876 ppb	15:03:00
3	S 181.975 Axial†	922.4	820.1	698.29 µg/L	698.29 ppb	15:03:00
3	Sb 206.836†	97.0	19.4	2.1127 µg/L	2.1127 ppb	15:03:00
3	Se 196.026†	-11.7	-31.6	5.05 µg/L	5.05 ppb	15:03:00
3	SiO2†	136026.2	134286.5	13864 µg/L	13864 ppb	15:02:40
3	Si 251.611†	426118.7	425173.2	6485.0 µg/L	6485.0 ppb	15:02:40
3	Sn 189.927†	182.0	173.5	15.315 µg/L	15.315 ppb	15:03:00
3	Ti 334.940†	915505.7	914278.1	958.90 µg/L	958.90 ppb	15:02:40
3	Tl 190.801†	-233.5	-118.1	-1.4099 µg/L	-1.4099 ppb	15:03:00
3	U 409.014†	-5327.6	-4914.4	-295.39 µg/L	-295.39 ppb	15:02:40
3	V 292.402†	4468.5	3970.8	13.994 µg/L	13.994 ppb	15:03:00
3	Zn 213.857†	28041.8	27412.1	153.31 µg/L	153.31 ppb	15:03:00

Mean Data: 248860001|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1678882.3	99.209	%	0.7300				0.74%
Sc RADIAL	115800.6	101	%	0.3				0.26%
Y 371.029	1131782.6	118.26	%	0.885				0.75%
Ag 328.068†	-17.5	-1.1536	µg/L	0.09604	-1.1536	ppb	0.09604	8.32%
Al 396.153Radial†	32474.4	7655.8	µg/L	14.43	7655.8	ppb	14.43	0.19%
As 188.979†	18.5	18.304	µg/L	1.3260	18.304	ppb	1.3260	7.24%
B 249.677†	541.5	8.0200	µg/L	0.93291	8.0200	ppb	0.93291	11.63%
Ba 233.527†	27505.5	123.89	µg/L	0.634	123.89	ppb	0.634	0.51%
Be 313.107†	13721.2	3.7959	µg/L	0.08509	3.7959	ppb	0.08509	2.24%
Ca 317.933Radial†	19554.0	1610.1	µg/L	16.29	1610.1	ppb	16.29	1.01%
Cd 226.502†	774.5	-0.2150	µg/L	0.03765	-0.2150	ppb	0.03765	17.51%
Co 228.616†	413.7	2.9000	µg/L	0.14111	2.9000	ppb	0.14111	4.87%
Cr 267.716†	4092.4	37.405	µg/L	0.1108	37.405	ppb	0.1108	0.30%
Cu 324.752†	1395.6	12.959	µg/L	0.5063	12.959	ppb	0.5063	3.91%
Fe 238.204 Radial†	595843.2	50828	µg/L	183.8	50828	ppb	183.8	0.36%
K 766.490 Radial†	5217.7	2086.2	µg/L	34.81	2086.2	ppb	34.81	1.67%
Mg 279.077 IEC†	1276.4	663.72	µg/L	34.010	663.72	ppb	34.010	5.12%
Mn 257.610†	1626241.6	2125.6	µg/L	2.80	2125.6	ppb	2.80	0.13%
Mo 202.031†	1688.2	59.337	µg/L	0.7580	59.337	ppb	0.7580	1.28%
Na 589.592 Radial†	10268.7	1636.6	µg/L	24.57	1636.6	ppb	24.57	1.50%

Ni 231.604†	1473.3	18.322	µg/L	0.1738	18.322	ppb	0.1738	0.95%
P 214.914†	2419.9	519.52	µg/L	5.509	519.52	ppb	5.509	1.06%
Pb 220.353†	411.9	26.290	µg/L	0.3810	26.290	ppb	0.3810	1.45%
S 181.975 Axial†	814.2	693.26	µg/L	5.404	693.26	ppb	5.404	0.78%
Sb 206.836†	17.1	1.8257	µg/L	0.25461	1.8257	ppb	0.25461	13.95%
Se 196.026†	-29.2	6.07	µg/L	6.540	6.07	ppb	6.540	107.82%
SiO2†	135480.2	13988	µg/L	148.1	13988	ppb	148.1	1.06%
Si 251.611†	428748.3	6539.5	µg/L	72.56	6539.5	ppb	72.56	1.11%
Sn 189.927†	176.6	15.539	µg/L	0.2734	15.539	ppb	0.2734	1.76%
Sr 421.552†	36310.4	93.261	µg/L	0.2415	93.261	ppb	0.2415	0.26%
Ti 334.940†	915687.6	960.37	µg/L	2.453	960.37	ppb	2.453	0.26%
Tl 190.801†	-137.6	-4.1483	µg/L	2.38259	-4.1483	ppb	2.38259	57.44%
U 409.014†	-4845.3	-291.25	µg/L	5.796	-291.25	ppb	5.796	1.99%
Concentration less than lower limit for U 409.014.								
V 292.402†	4007.6	14.166	µg/L	0.1500	14.166	ppb	0.1500	1.06%
Zn 213.857†	27620.7	154.50	µg/L	1.028	154.50	ppb	1.028	0.67%

Sequence No.: 4
Sample ID: 1202068098|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 304
Date Collected: 4/13/2010 15:03:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068098|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114710.1	114710.1	100	%			15:03:39
1	Al 396.153Radial†	26669.2	26679.4	6289.3	µg/L	6289.3	ppb	15:03:39
1	Ca 317.933Radial†	66332.5	65689.5	5408.8	µg/L	5408.8	ppb	15:03:41
1	Fe 238.204 Radial†	499674.4	498147.4	42494	µg/L	42494	ppb	15:03:39
1	K 766.490 Radial†	5791.5	4366.0	1744.9	µg/L	1744.9	ppb	15:03:39
1	Mg 279.077 IEC†	1137.6	977.1	505.25	µg/L	505.25	ppb	15:03:41
1	Na 589.592 Radial†	9308.2	8446.7	1346.2	µg/L	1346.2	ppb	15:03:39
1	Sr 421.552†	28908.6	28894.2	74.180	µg/L	74.180	ppb	15:03:39
1	Sc 361.383	1687045.2	1687045.2	99.692	%			15:03:53
1	Y 371.029	1143745.3	1143745.3	119.51	%			15:03:53
1	Ag 328.068†	5010.5	-77.0	-1.3589	µg/L	-1.3589	ppb	15:03:53
1	As 188.979†	6.6	20.0	16.908	µg/L	16.908	ppb	15:04:14
1	B 249.677†	4428.0	329.8	4.8792	µg/L	4.8792	ppb	15:03:53
1	Ba 233.527†	21324.4	21536.3	96.972	µg/L	96.972	ppb	15:04:14
1	Be 313.107†	11162.6	12189.5	3.3649	µg/L	3.3649	ppb	15:03:53
1	Cd 226.502†	566.5	632.9	-0.2764	µg/L	-0.2764	ppb	15:04:14
1	Co 228.616†	137.5	365.0	2.6692	µg/L	2.6692	ppb	15:04:14
1	Cr 267.716†	3903.6	3586.0	32.755	µg/L	32.755	ppb	15:04:14
1	Cu 324.752†	4527.4	1300.1	11.352	µg/L	11.352	ppb	15:03:53
1	Mn 257.610†	1339304.6	1343233.6	1755.7	µg/L	1755.7	ppb	15:03:53
1	Mo 202.031†	1559.3	1585.8	55.527	µg/L	55.527	ppb	15:04:14
1	Ni 231.604†	1200.0	1277.7	15.889	µg/L	15.889	ppb	15:04:14
1	P 214.914†	2058.7	2084.3	448.22	µg/L	448.22	ppb	15:04:14
1	Pb 220.353†	418.5	302.6	19.552	µg/L	19.552	ppb	15:04:14
1	S 181.975 Axial†	821.9	722.5	615.19	µg/L	615.19	ppb	15:04:14
1	Sb 206.836†	83.4	6.2	0.5442	µg/L	0.5442	ppb	15:04:14
1	Se 196.026†	-12.6	-32.7	1.84	µg/L	1.84	ppb	15:04:14
1	SiO2†	116454.9	115126.3	11886	µg/L	11886	ppb	15:03:53
1	Si 251.611†	363981.1	364320.8	5556.7	µg/L	5556.7	ppb	15:03:53
1	Sn 189.927†	146.1	138.1	12.708	µg/L	12.708	ppb	15:04:14
1	Ti 334.940†	872074.8	873887.2	916.65	µg/L	916.65	ppb	15:03:53
1	Tl 190.801†	-243.0	-128.5	-4.2667	µg/L	-4.2667	ppb	15:04:14
1	U 409.014†	-5097.5	-4702.0	-283.01	µg/L	-283.01	ppb	15:03:53
1	V 292.402†	3996.5	3512.9	12.584	µg/L	12.584	ppb	15:04:14
1	Zn 213.857†	23299.9	22752.6	127.23	µg/L	127.23	ppb	15:04:14
2	Sc RADIAL	115144.3	115144.3	101	%			15:03:43
2	Al 396.153Radial†	26891.7	26800.1	6317.7	µg/L	6317.7	ppb	15:03:43
2	Ca 317.933Radial†	66945.5	66049.0	5438.4	µg/L	5438.4	ppb	15:03:45
2	Fe 238.204 Radial†	502509.8	499085.0	42574	µg/L	42574	ppb	15:03:43
2	K 766.490 Radial†	5957.4	4509.0	1802.1	µg/L	1802.1	ppb	15:03:43
2	Mg 279.077 IEC†	1132.4	967.7	499.97	µg/L	499.97	ppb	15:03:45
2	Na 589.592 Radial†	9525.8	8628.0	1375.0	µg/L	1375.0	ppb	15:03:43
2	Sr 421.552†	28915.6	28792.4	73.919	µg/L	73.919	ppb	15:03:43
2	Sc 361.383	1662112.5	1662112.5	98.218	%			15:04:16
2	Y 371.029	1127332.2	1127332.2	117.79	%			15:04:16
2	Ag 328.068†	4961.3	-51.6	-1.2774	µg/L	-1.2774	ppb	15:04:16
2	As 188.979†	-2.7	10.6	13.693	µg/L	13.693	ppb	15:04:36
2	B 249.677†	4225.9	190.6	2.8141	µg/L	2.8141	ppb	15:04:16
2	Ba 233.527†	21356.5	21889.8	98.571	µg/L	98.571	ppb	15:04:36
2	Be 313.107†	11393.0	12592.0	3.4728	µg/L	3.4728	ppb	15:04:16
2	Cd 226.502†	550.9	625.5	-0.3333	µg/L	-0.3333	ppb	15:04:36
2	Co 228.616†	119.8	349.0	2.4574	µg/L	2.4574	ppb	15:04:36
2	Cr 267.716†	3863.0	3603.4	32.927	µg/L	32.927	ppb	15:04:36
2	Cu 324.752†	4333.5	1170.8	10.812	µg/L	10.812	ppb	15:04:16
2	Mn 257.610†	1319052.0	1342766.1	1755.0	µg/L	1755.0	ppb	15:04:16
2	Mo 202.031†	1555.3	1605.2	56.188	µg/L	56.188	ppb	15:04:36
2	Ni 231.604†	1233.6	1329.9	16.538	µg/L	16.538	ppb	15:04:36
2	P 214.914†	2049.7	2106.1	453.14	µg/L	453.14	ppb	15:04:36
2	Pb 220.353†	408.6	298.8	19.325	µg/L	19.325	ppb	15:04:36

2	S 181.975 Axial†	817.9	730.8	622.25 µg/L	622.25 ppb	15:04:36
2	Sb 206.836†	70.2	-6.1	-1.0183 µg/L	-1.0183 ppb	15:04:36
2	Se 196.026†	-23.5	-43.9	-2.49 µg/L	-2.49 ppb	15:04:36
2	SiO2†	115528.0	115935.0	11969 µg/L	11969 ppb	15:04:16
2	Si 251.611†	361025.1	366788.0	5594.4 µg/L	5594.4 ppb	15:04:16
2	Sn 189.927†	137.0	131.1	12.208 µg/L	12.208 ppb	15:04:36
2	Ti 334.940†	855790.0	870429.1	913.03 µg/L	913.03 ppb	15:04:16
2	Tl 190.801†	-235.1	-124.1	-3.6858 µg/L	-3.6858 ppb	15:04:36
2	U 409.014†	-5343.9	-5029.6	-302.94 µg/L	-302.94 ppb	15:04:16
2	V 292.402†	3975.3	3551.4	12.764 µg/L	12.764 ppb	15:04:36
2	Zn 213.857†	23286.6	23089.8	129.16 µg/L	129.16 ppb	15:04:36
3	Sc RADIAL	112602.4	112602.4	98.4 %		15:03:47
3	Al 396.153Radial†	26242.8	26744.0	6304.5 µg/L	6304.5 ppb	15:03:47
3	Ca 317.933Radial†	66531.8	67130.1	5527.5 µg/L	5527.5 ppb	15:03:49
3	Fe 238.204 Radial†	490470.9	498124.7	42492 µg/L	42492 ppb	15:03:47
3	K 766.490 Radial†	5878.3	4562.3	1823.5 µg/L	1823.5 ppb	15:03:47
3	Mg 279.077 IEC†	1175.5	1036.8	538.25 µg/L	538.25 ppb	15:03:49
3	Na 589.592 Radial†	9019.4	8327.1	1327.0 µg/L	1327.0 ppb	15:03:47
3	Sr 421.552†	28544.5	29063.9	74.615 µg/L	74.615 ppb	15:03:47
3	Sc 361.383	1668281.2	1668281.2	98.583 %		15:04:39
3	Y 371.029	1131970.0	1131970.0	118.28 %		15:04:39
3	Ag 328.068†	4866.8	-166.2	-1.7480 µg/L	-1.7480 ppb	15:04:39
3	As 188.979†	9.4	23.0	17.932 µg/L	17.932 ppb	15:04:59
3	B 249.677†	4395.6	346.9	5.1321 µg/L	5.1321 ppb	15:04:39
3	Ba 233.527†	21235.9	21687.1	97.654 µg/L	97.654 ppb	15:04:59
3	Be 313.107†	11159.1	12311.9	3.3957 µg/L	3.3957 ppb	15:04:39
3	Cd 226.502†	561.1	633.8	-0.2699 µg/L	-0.2699 ppb	15:04:59
3	Co 228.616†	138.4	367.4	2.7018 µg/L	2.7018 ppb	15:04:59
3	Cr 267.716†	3833.5	3559.0	32.528 µg/L	32.528 ppb	15:04:59
3	Cu 324.752†	4274.8	1095.0	10.493 µg/L	10.493 ppb	15:04:39
3	Mn 257.610†	1320075.4	1338838.3	1749.9 µg/L	1749.9 ppb	15:04:39
3	Mo 202.031†	1534.3	1577.9	55.261 µg/L	55.261 ppb	15:04:59
3	Ni 231.604†	1226.5	1318.0	16.391 µg/L	16.391 ppb	15:04:59
3	P 214.914†	2044.6	2093.2	450.28 µg/L	450.28 ppb	15:04:59
3	Pb 220.353†	451.1	340.3	21.917 µg/L	21.917 ppb	15:04:59
3	S 181.975 Axial†	814.3	724.1	616.58 µg/L	616.58 ppb	15:04:59
3	Sb 206.836†	66.8	-9.8	-1.4980 µg/L	-1.4980 ppb	15:04:59
3	Se 196.026†	3.3	-16.6	8.02 µg/L	8.02 ppb	15:04:59
3	SiO2†	116223.8	116205.8	11997 µg/L	11997 ppb	15:04:39
3	Si 251.611†	363371.4	367809.0	5610.0 µg/L	5610.0 ppb	15:04:39
3	Sn 189.927†	146.2	139.8	12.805 µg/L	12.805 ppb	15:04:59
3	Ti 334.940†	855951.2	867370.9	909.82 µg/L	909.82 ppb	15:04:39
3	Tl 190.801†	-242.0	-130.2	-4.6011 µg/L	-4.6011 ppb	15:04:59
3	U 409.014†	-5243.4	-4907.5	-295.55 µg/L	-295.55 ppb	15:04:39
3	V 292.402†	3885.9	3445.8	12.246 µg/L	12.246 ppb	15:04:59
3	Zn 213.857†	23159.4	22873.0	127.91 µg/L	127.91 ppb	15:04:59

Mean Data: 1202068098|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1672479.6	98.831	%	0.7674				0.78%
Sc RADIAL	114152.3	99.8	%	1.19				1.19%
Y 371.029	1134349.2	118.53	%	0.884				0.75%
Ag 328.068†	-98.3	-1.4615	µg/L	0.25152	-1.4615	ppb	0.25152	17.21%
Al 396.153Radial†	26741.1	6303.9	µg/L	14.23	6303.9	ppb	14.23	0.23%
As 188.979†	17.9	16.177	µg/L	2.2120	16.177	ppb	2.2120	13.67%
B 249.677†	289.1	4.2752	µg/L	1.27159	4.2752	ppb	1.27159	29.74%
Ba 233.527†	21704.4	97.732	µg/L	0.8027	97.732	ppb	0.8027	0.82%
Be 313.107†	12364.5	3.4111	µg/L	0.05560	3.4111	ppb	0.05560	1.63%
Ca 317.933Radial†	66289.6	5458.2	µg/L	61.74	5458.2	ppb	61.74	1.13%
Cd 226.502†	630.7	-0.2932	µg/L	0.03487	-0.2932	ppb	0.03487	11.89%
Co 228.616†	360.5	2.6095	µg/L	0.13268	2.6095	ppb	0.13268	5.08%
Cr 267.716†	3582.8	32.737	µg/L	0.1999	32.737	ppb	0.1999	0.61%
Cu 324.752†	1188.6	10.886	µg/L	0.4343	10.886	ppb	0.4343	3.99%
Fe 238.204 Radial†	498452.4	42520	µg/L	46.7	42520	ppb	46.7	0.11%
K 766.490 Radial†	4479.1	1790.2	µg/L	40.62	1790.2	ppb	40.62	2.27%
Mg 279.077 IEC†	993.8	514.49	µg/L	20.746	514.49	ppb	20.746	4.03%
Mn 257.610†	1341612.7	1753.5	µg/L	3.16	1753.5	ppb	3.16	0.18%
Mo 202.031†	1589.6	55.659	µg/L	0.4770	55.659	ppb	0.4770	0.86%
Na 589.592 Radial†	8467.3	1349.4	µg/L	24.18	1349.4	ppb	24.18	1.79%

Ni 231.604†	1308.5	16.272	µg/L	0.3405	16.272	ppb	0.3405	2.09%
P 214.914†	2094.5	450.55	µg/L	2.473	450.55	ppb	2.473	0.55%
Pb 220.353†	313.9	20.265	µg/L	1.4356	20.265	ppb	1.4356	7.08%
S 181.975 Axial†	725.8	618.01	µg/L	3.737	618.01	ppb	3.737	0.60%
Sb 206.836†	-3.2	-0.6574	µg/L	1.06789	-0.6574	ppb	1.06789	162.45%
Se 196.026†	-31.1	2.45	µg/L	5.283	2.45	ppb	5.283	215.38%
SiO2†	115755.7	11951	µg/L	58.0	11951	ppb	58.0	0.49%
Si 251.611†	366306.0	5587.0	µg/L	27.36	5587.0	ppb	27.36	0.49%
Sn 189.927†	136.4	12.574	µg/L	0.3207	12.574	ppb	0.3207	2.55%
Sr 421.552†	28916.8	74.238	µg/L	0.3520	74.238	ppb	0.3520	0.47%
Ti 334.940†	870562.4	913.17	µg/L	3.416	913.17	ppb	3.416	0.37%
Tl 190.801†	-127.6	-4.1845	µg/L	0.46317	-4.1845	ppb	0.46317	11.07%
U 409.014†	-4879.7	-293.83	µg/L	10.078	-293.83	ppb	10.078	3.43%
Concentration less than lower limit for U 409.014.								
V 292.402†	3503.4	12.531	µg/L	0.2633	12.531	ppb	0.2633	2.10%
Zn 213.857†	22905.1	128.10	µg/L	0.980	128.10	ppb	0.980	0.76%

Sequence No.: 5
Sample ID: 1202068100|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 305
Date Collected: 4/13/2010 15:05:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068100|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	112245.5	112245.5	98.1	%			15:05:39
1	Al 396.153Radial†	63565.5	64863.8	15270	µg/L	15270	ppb	15:05:37
1	Ca 317.933Radial†	77815.4	78844.0	6492.0	µg/L	6492.0	ppb	15:05:39
1	Fe 238.204 Radial†	544884.2	555160.8	47357	µg/L	47357	ppb	15:05:37
1	K 766.490 Radial†	19198.6	18155.8	7261.2	µg/L	7261.2	ppb	15:05:39
1	Mg 279.077 IEC†	10498.2	10541.3	5803.1	µg/L	5803.1	ppb	15:05:39
1	Na 589.592 Radial†	40699.5	40641.1	6478.1	µg/L	6478.1	ppb	15:05:39
1	Sr 421.552†	233359.6	237880.7	611.01	µg/L	611.01	ppb	15:05:37
1	Sc 361.383	1661815.0	1661815.0	98.201	%			15:06:06
1	Y 371.029	1124210.4	1124210.4	117.47	%			15:06:06
1	Ag 328.068†	123198.0	120352.4	502.25	µg/L	502.25	ppb	15:06:06
1	As 188.979†	1386.4	1425.2	510.92	µg/L	510.92	ppb	15:06:26
1	B 249.677†	37740.7	34320.3	507.70	µg/L	507.70	ppb	15:06:06
1	Ba 233.527†	134369.6	136977.6	619.95	µg/L	619.95	ppb	15:06:06
1	Be 313.107†	1765737.0	1799084.1	509.45	µg/L	509.45	ppb	15:06:06
1	Cd 226.502†	74698.3	76131.6	498.65	µg/L	498.65	ppb	15:06:06
1	Co 228.616†	37664.9	38582.1	503.98	µg/L	503.98	ppb	15:06:06
1	Cr 267.716†	61199.8	61991.6	545.53	µg/L	545.53	ppb	15:06:06
1	Cu 324.752†	127651.3	126749.1	532.26	µg/L	532.26	ppb	15:06:06
1	Mn 257.610†	1679280.4	1709835.6	2234.6	µg/L	2234.6	ppb	15:06:06
1	Mo 202.031†	16496.3	16820.1	573.12	µg/L	573.12	ppb	15:06:26
1	Ni 231.604†	41192.0	42020.7	522.56	µg/L	522.56	ppb	15:06:06
1	P 214.914†	4385.1	4484.7	988.59	µg/L	988.59	ppb	15:06:26
1	Pb 220.353†	8233.1	8266.8	520.85	µg/L	520.85	ppb	15:06:26
1	S 181.975 Axial†	7208.3	7238.5	6163.7	µg/L	6163.7	ppb	15:06:26
1	Sb 206.836†	3843.9	3836.8	492.71	µg/L	492.71	ppb	15:06:26
1	Se 196.026†	1262.1	1265.2	506	µg/L	506	ppb	15:06:26
1	SiO2†	247615.4	250463.7	25839	µg/L	25839	ppb	15:06:06
1	Si 251.611†	779788.0	793290.1	12090	µg/L	12090	ppb	15:06:06
1	Sn 189.927†	7116.2	7238.2	509.91	µg/L	509.91	ppb	15:06:26
1	Ti 334.940†	1632000.9	1661019.0	1741.3	µg/L	1741.3	ppb	15:06:06
1	Tl 190.801†	3247.8	3422.6	506.82	µg/L	506.82	ppb	15:06:26
1	U 409.014†	3244.5	3715.2	258.52	µg/L	258.52	ppb	15:06:06
1	V 292.402†	101072.6	102428.6	509.64	µg/L	509.64	ppb	15:06:06
1	Zn 213.857†	115329.9	116823.8	666.65	µg/L	666.65	ppb	15:06:06
2	Sc RADIAL	112975.4	112975.4	98.8	%			15:05:43
2	Al 396.153Radial†	63374.0	64251.4	15126	µg/L	15126	ppb	15:05:41
2	Ca 317.933Radial†	78325.3	78848.0	6492.3	µg/L	6492.3	ppb	15:05:43
2	Fe 238.204 Radial†	544213.9	550894.7	46993	µg/L	46993	ppb	15:05:41
2	K 766.490 Radial†	19448.7	18282.6	7312.0	µg/L	7312.0	ppb	15:05:43
2	Mg 279.077 IEC†	10652.5	10628.4	5851.4	µg/L	5851.4	ppb	15:05:43
2	Na 589.592 Radial†	41168.1	40847.5	6511.0	µg/L	6511.0	ppb	15:05:43
2	Sr 421.552†	233886.8	236878.2	608.44	µg/L	608.44	ppb	15:05:41
2	Sc 361.383	1678885.1	1678885.1	99.209	%			15:06:29
2	Y 371.029	1135406.7	1135406.7	118.64	%			15:06:29
2	Ag 328.068†	123803.4	119687.1	499.45	µg/L	499.45	ppb	15:06:29
2	As 188.979†	1404.6	1429.2	512.20	µg/L	512.20	ppb	15:06:49
2	B 249.677†	37850.0	34039.8	503.54	µg/L	503.54	ppb	15:06:29
2	Ba 233.527†	135581.2	136807.6	619.19	µg/L	619.19	ppb	15:06:29
2	Be 313.107†	1779877.3	1795054.9	508.30	µg/L	508.30	ppb	15:06:29
2	Cd 226.502†	75565.0	76231.8	499.35	µg/L	499.35	ppb	15:06:29
2	Co 228.616†	37953.8	38483.3	502.70	µg/L	502.70	ppb	15:06:29
2	Cr 267.716†	61695.8	61857.9	544.37	µg/L	544.37	ppb	15:06:29
2	Cu 324.752†	128402.7	126184.8	529.85	µg/L	529.85	ppb	15:06:29
2	Mn 257.610†	1692264.9	1705536.5	2229.0	µg/L	2229.0	ppb	15:06:29
2	Mo 202.031†	16499.7	16652.8	567.43	µg/L	567.43	ppb	15:06:49
2	Ni 231.604†	41395.9	41799.8	519.81	µg/L	519.81	ppb	15:06:29
2	P 214.914†	4356.6	4410.6	971.91	µg/L	971.91	ppb	15:06:49
2	Pb 220.353†	8202.0	8150.2	513.55	µg/L	513.55	ppb	15:06:49

2	S 181.975 Axial†	7216.5	7172.1	6107.3 µg/L	6107.3 ppb	15:06:49
2	Sb 206.836†	3855.8	3809.0	489.08 µg/L	489.08 ppb	15:06:49
2	Se 196.026†	1235.3	1225.1	490 µg/L	490 ppb	15:06:49
2	SiO2†	249685.4	249986.5	25790 µg/L	25790 ppb	15:06:29
2	Si 251.611†	787076.5	792562.8	12079 µg/L	12079 ppb	15:06:29
2	Sn 189.927†	7101.2	7149.3	503.70 µg/L	503.70 ppb	15:06:49
2	Ti 334.940†	1641608.6	1653805.8	1733.8 µg/L	1733.8 ppb	15:06:29
2	Tl 190.801†	3226.4	3367.4	498.95 µg/L	498.95 ppb	15:06:49
2	U 409.014†	2739.8	3172.9	225.50 µg/L	225.50 ppb	15:06:29
2	V 292.402†	101822.1	102137.6	508.15 µg/L	508.15 ppb	15:06:29
2	Zn 213.857†	116178.9	116485.5	664.74 µg/L	664.74 ppb	15:06:29
3	Sc RADIAL	113773.0	113773.0	99.5 %		15:05:47
3	Al 396.153Radial†	63158.7	63585.2	14969 µg/L	14969 ppb	15:05:45
3	Ca 317.933Radial†	79101.9	79072.8	6510.8 µg/L	6510.8 ppb	15:05:47
3	Fe 238.204 Radial†	541868.2	544673.5	46463 µg/L	46463 ppb	15:05:45
3	K 766.490 Radial†	19473.4	18169.4	7266.7 µg/L	7266.7 ppb	15:05:47
3	Mg 279.077 IEC†	10698.0	10598.5	5835.5 µg/L	5835.5 ppb	15:05:47
3	Na 589.592 Radial†	41331.2	40719.4	6490.6 µg/L	6490.6 ppb	15:05:47
3	Sr 421.552†	233071.3	234398.1	602.07 µg/L	602.07 ppb	15:05:45
3	Sc 361.383	1667431.9	1667431.9	98.533 %		15:06:52
3	Y 371.029	1127480.6	1127480.6	117.81 %		15:06:52
3	Ag 328.068†	122832.4	119558.8	498.95 µg/L	498.95 ppb	15:06:52
3	As 188.979†	1398.3	1432.6	513.25 µg/L	513.25 ppb	15:07:13
3	B 249.677†	37665.5	34114.5	504.65 µg/L	504.65 ppb	15:06:52
3	Ba 233.527†	134815.4	136969.1	619.93 µg/L	619.93 ppb	15:06:52
3	Be 313.107†	1768465.2	1795795.9	508.52 µg/L	508.52 ppb	15:06:52
3	Cd 226.502†	74990.3	76171.7	499.01 µg/L	499.01 ppb	15:06:52
3	Co 228.616†	37591.1	38378.0	501.35 µg/L	501.35 ppb	15:06:52
3	Cr 267.716†	61186.9	61768.6	543.54 µg/L	543.54 ppb	15:06:52
3	Cu 324.752†	127923.5	126587.4	531.46 µg/L	531.46 ppb	15:06:52
3	Mn 257.610†	1681468.1	1706295.4	2230.0 µg/L	2230.0 ppb	15:06:52
3	Mo 202.031†	16568.9	16837.3	573.67 µg/L	573.67 ppb	15:07:13
3	Ni 231.604†	41096.8	41782.8	519.60 µg/L	519.60 ppb	15:06:52
3	P 214.914†	4381.1	4465.5	984.76 µg/L	984.76 ppb	15:07:13
3	Pb 220.353†	8256.3	8262.1	520.55 µg/L	520.55 ppb	15:07:13
3	S 181.975 Axial†	7256.0	7262.1	6183.9 µg/L	6183.9 ppb	15:07:13
3	Sb 206.836†	3840.9	3820.6	490.68 µg/L	490.68 ppb	15:07:13
3	Se 196.026†	1245.9	1244.5	498 µg/L	498 ppb	15:07:13
3	SiO2†	249342.8	251367.5	25932 µg/L	25932 ppb	15:06:52
3	Si 251.611†	785029.7	795934.9	12131 µg/L	12131 ppb	15:06:52
3	Sn 189.927†	7140.1	7238.1	509.86 µg/L	509.86 ppb	15:07:13
3	Ti 334.940†	1626406.6	1649743.2	1729.5 µg/L	1729.5 ppb	15:06:52
3	Tl 190.801†	3248.4	3412.0	505.20 µg/L	505.20 ppb	15:07:13
3	U 409.014†	3216.1	3675.3	256.14 µg/L	256.14 ppb	15:06:52
3	V 292.402†	100995.3	102003.5	507.63 µg/L	507.63 ppb	15:06:52
3	Zn 213.857†	115610.2	116712.7	666.11 µg/L	666.11 ppb	15:06:52

Mean Data: 1202068100|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1669377.4	98.647	%	0.5141				0.52%
Sc RADIAL	112997.9	98.8	%	0.67				0.68%
Y 371.029	1129032.6	117.97	%	0.602				0.51%
Ag 328.068†	119866.1	500.22	µg/L	1.778	500.22	ppb	1.778	0.36%
Al 396.153Radial†	64233.5	15122	µg/L	150.8	15122	ppb	150.8	1.00%
As 188.979†	1429.0	512.12	µg/L	1.166	512.12	ppb	1.166	0.23%
B 249.677†	34158.2	505.30	µg/L	2.154	505.30	ppb	2.154	0.43%
Ba 233.527†	136918.1	619.69	µg/L	0.435	619.69	ppb	0.435	0.07%
Be 313.107†	1796644.9	508.76	µg/L	0.611	508.76	ppb	0.611	0.12%
Ca 317.933Radial†	78921.6	6498.4	µg/L	10.78	6498.4	ppb	10.78	0.17%
Cd 226.502†	76178.4	499.01	µg/L	0.350	499.01	ppb	0.350	0.07%
Co 228.616†	38481.1	502.68	µg/L	1.314	502.68	ppb	1.314	0.26%
Cr 267.716†	61872.7	544.48	µg/L	0.999	544.48	ppb	0.999	0.18%
Cu 324.752†	126507.1	531.19	µg/L	1.230	531.19	ppb	1.230	0.23%
Fe 238.204 Radial†	550243.0	46938	µg/L	449.9	46938	ppb	449.9	0.96%
K 766.490 Radial†	18202.6	7280.0	µg/L	27.87	7280.0	ppb	27.87	0.38%
Mg 279.077 IEC†	10589.4	5830.0	µg/L	24.64	5830.0	ppb	24.64	0.42%
Mn 257.610†	1707222.5	2231.2	µg/L	3.00	2231.2	ppb	3.00	0.13%
Mo 202.031†	16770.1	571.41	µg/L	3.457	571.41	ppb	3.457	0.61%
Na 589.592 Radial†	40736.0	6493.2	µg/L	16.61	6493.2	ppb	16.61	0.26%

Ni 231.604†	41867.8	520.66 µg/L	1.651	520.66 ppb	1.651	0.32%
P 214.914†	4453.6	981.75 µg/L	8.738	981.75 ppb	8.738	0.89%
Pb 220.353†	8226.3	518.32 µg/L	4.132	518.32 ppb	4.132	0.80%
S 181.975 Axial†	7224.2	6151.6 µg/L	39.73	6151.6 ppb	39.73	0.65%
Sb 206.836†	3822.1	490.82 µg/L	1.820	490.82 ppb	1.820	0.37%
Se 196.026†	1244.9	498 µg/L	7.8	498 ppb	7.8	1.57%
SiO2†	250605.9	25854 µg/L	72.3	25854 ppb	72.3	0.28%
Si 251.611†	793929.3	12100 µg/L	27.0	12100 ppb	27.0	0.22%
Sn 189.927†	7208.5	507.82 µg/L	3.573	507.82 ppb	3.573	0.70%
Sr 421.552†	236385.7	607.17 µg/L	4.605	607.17 ppb	4.605	0.76%
Ti 334.940†	1654856.0	1734.9 µg/L	5.99	1734.9 ppb	5.99	0.35%
Tl 190.801†	3400.6	503.66 µg/L	4.157	503.66 ppb	4.157	0.83%
U 409.014†	3521.1	246.72 µg/L	18.414	246.72 ppb	18.414	7.46%
V 292.402†	102189.9	508.47 µg/L	1.041	508.47 ppb	1.041	0.20%
Zn 213.857†	116674.0	665.83 µg/L	0.980	665.83 ppb	0.980	0.15%

Sequence No.: 6
Sample ID: 1202068101|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 306
Date Collected: 4/13/2010 15:07:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068101|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113245.6	113245.6	99.0	%			15:07:52
1	Al 396.153Radial†	67091.9	67853.7	15975	µg/L	15975	ppb	15:07:50
1	Ca 317.933Radial†	85148.7	85550.9	7044.2	µg/L	7044.2	ppb	15:07:52
1	Fe 238.204 Radial†	603823.9	609790.9	52017	µg/L	52017	ppb	15:07:50
1	K 766.490 Radial†	19485.5	18272.8	7307.7	µg/L	7307.7	ppb	15:07:52
1	Mg 279.077 IEC†	11209.5	11165.3	6144.4	µg/L	6144.4	ppb	15:07:52
1	Na 589.592 Radial†	40761.0	40336.9	6429.5	µg/L	6429.5	ppb	15:07:52
1	Sr 421.552†	230394.5	232785.4	597.92	µg/L	597.92	ppb	15:07:50
1	Sc 361.383	1664504.7	1664504.7	98.360	%			15:08:19
1	Y 371.029	1145694.2	1145694.2	119.71	%			15:08:19
1	Ag 328.068†	123793.5	120755.2	503.82	µg/L	503.82	ppb	15:08:19
1	As 188.979†	1419.9	1457.0	523.08	µg/L	523.08	ppb	15:08:39
1	B 249.677†	37937.3	34458.1	509.74	µg/L	509.74	ppb	15:08:19
1	Ba 233.527†	135755.8	138165.8	625.28	µg/L	625.28	ppb	15:08:19
1	Be 313.107†	1777939.9	1808585.0	512.13	µg/L	512.13	ppb	15:08:19
1	Cd 226.502†	75613.7	76939.4	503.51	µg/L	503.51	ppb	15:08:19
1	Co 228.616†	37878.3	38737.1	505.78	µg/L	505.78	ppb	15:08:19
1	Cr 267.716†	62003.1	62707.5	551.95	µg/L	551.95	ppb	15:08:19
1	Cu 324.752†	128750.6	127656.6	536.68	µg/L	536.68	ppb	15:08:19
1	Mn 257.610†	1842028.6	1872534.9	2447.3	µg/L	2447.3	ppb	15:08:19
1	Mo 202.031†	16810.4	17112.4	583.24	µg/L	583.24	ppb	15:08:39
1	Ni 231.604†	41196.9	41957.9	521.78	µg/L	521.78	ppb	15:08:19
1	P 214.914†	4957.0	5058.9	1116.7	µg/L	1116.7	ppb	15:08:39
1	Pb 220.353†	8379.5	8402.0	529.37	µg/L	529.37	ppb	15:08:39
1	S 181.975 Axial†	7339.8	7360.3	6267.5	µg/L	6267.5	ppb	15:08:39
1	Sb 206.836†	3889.4	3876.8	497.83	µg/L	497.83	ppb	15:08:39
1	Se 196.026†	1244.6	1245.3	500	µg/L	500	ppb	15:08:39
1	SiO2†	224154.0	226203.6	23333	µg/L	23333	ppb	15:08:19
1	Si 251.611†	705285.1	716261.4	10915	µg/L	10915	ppb	15:08:19
1	Sn 189.927†	7188.2	7299.6	514.44	µg/L	514.44	ppb	15:08:39
1	Ti 334.940†	1704412.9	1731953.3	1815.7	µg/L	1815.7	ppb	15:08:19
1	Tl 190.801†	3274.0	3443.9	511.15	µg/L	511.15	ppb	15:08:39
1	U 409.014†	2652.1	3107.5	222.17	µg/L	222.17	ppb	15:08:19
1	V 292.402†	102186.5	103394.7	513.97	µg/L	513.97	ppb	15:08:19
1	Zn 213.857†	118208.2	119560.4	681.99	µg/L	681.99	ppb	15:08:19
2	Sc RADIAL	113889.8	113889.8	99.6	%			15:07:56
2	Al 396.153Radial†	66268.6	66643.5	15690	µg/L	15690	ppb	15:07:54
2	Ca 317.933Radial†	84948.8	84863.8	6987.6	µg/L	6987.6	ppb	15:07:56
2	Fe 238.204 Radial†	592076.4	594542.5	50717	µg/L	50717	ppb	15:07:54
2	K 766.490 Radial†	19748.9	18426.1	7369.2	µg/L	7369.2	ppb	15:07:56
2	Mg 279.077 IEC†	11235.9	11127.7	6124.7	µg/L	6124.7	ppb	15:07:56
2	Na 589.592 Radial†	40865.3	40208.8	6409.0	µg/L	6409.0	ppb	15:07:56
2	Sr 421.552†	227770.5	228833.7	587.77	µg/L	587.77	ppb	15:07:54
2	Sc 361.383	1671103.9	1671103.9	98.750	%			15:08:42
2	Y 371.029	1150278.9	1150278.9	120.19	%			15:08:42
2	Ag 328.068†	124193.1	120662.8	503.44	µg/L	503.44	ppb	15:08:42
2	As 188.979†	1415.5	1446.8	519.23	µg/L	519.23	ppb	15:09:02
2	B 249.677†	38034.9	34404.6	508.94	µg/L	508.94	ppb	15:08:42
2	Ba 233.527†	136062.3	137931.2	624.23	µg/L	624.23	ppb	15:08:42
2	Be 313.107†	1787877.4	1811510.0	512.96	µg/L	512.96	ppb	15:08:42
2	Cd 226.502†	75996.6	77023.6	504.20	µg/L	504.20	ppb	15:08:42
2	Co 228.616†	38127.3	38837.2	507.15	µg/L	507.15	ppb	15:08:42
2	Cr 267.716†	62129.3	62586.4	550.84	µg/L	550.84	ppb	15:08:42
2	Cu 324.752†	129226.0	127621.1	536.34	µg/L	536.34	ppb	15:08:42
2	Mn 257.610†	1850368.5	1873584.8	2448.6	µg/L	2448.6	ppb	15:08:42
2	Mo 202.031†	16800.2	17034.5	580.54	µg/L	580.54	ppb	15:09:02
2	Ni 231.604†	41365.4	41963.1	521.85	µg/L	521.85	ppb	15:08:42
2	P 214.914†	4935.9	5017.6	1108.1	µg/L	1108.1	ppb	15:09:02
2	Pb 220.353†	8376.8	8365.6	527.11	µg/L	527.11	ppb	15:09:02

2	S 181.975 Axial†	7328.3	7319.2	6232.5 µg/L	6232.5 ppb	15:09:02
2	Sb 206.836†	3917.6	3889.7	499.48 µg/L	499.48 ppb	15:09:02
2	Se 196.026†	1246.7	1242.5	498 µg/L	498 ppb	15:09:02
2	SiO2†	222788.8	223921.2	23098 µg/L	23098 ppb	15:08:42
2	Si 251.611†	700304.9	708386.5	10795 µg/L	10795 ppb	15:08:42
2	Sn 189.927†	7173.2	7255.7	511.38 µg/L	511.38 ppb	15:09:02
2	Ti 334.940†	1712426.4	1733225.2	1817.1 µg/L	1817.1 ppb	15:08:42
2	Tl 190.801†	3259.9	3416.5	507.29 µg/L	507.29 ppb	15:09:02
2	U 409.014†	2662.0	3107.0	222.41 µg/L	222.41 ppb	15:08:42
2	V 292.402†	102487.9	103289.7	513.55 µg/L	513.55 ppb	15:08:42
2	Zn 213.857†	118938.5	119825.4	683.65 µg/L	683.65 ppb	15:08:42
3	Sc RADIAL	114659.6	114659.6	100 %		15:08:00
3	Al 396.153Radial†	68224.5	68147.9	16045 µg/L	16045 ppb	15:07:58
3	Ca 317.933Radial†	85348.8	84689.9	6973.3 µg/L	6973.3 ppb	15:08:00
3	Fe 238.204 Radial†	610093.2	608524.0	51909 µg/L	51909 ppb	15:07:58
3	K 766.490 Radial†	19694.0	18238.1	7293.9 µg/L	7293.9 ppb	15:08:00
3	Mg 279.077 IEC†	11308.7	11124.6	6121.9 µg/L	6121.9 ppb	15:08:00
3	Na 589.592 Radial†	41088.5	40155.9	6400.7 µg/L	6400.7 ppb	15:08:00
3	Sr 421.552†	233394.1	232908.0	598.23 µg/L	598.23 ppb	15:07:58
3	Sc 361.383	1690841.3	1690841.3	99.916 %		15:09:05
3	Y 371.029	1163950.6	1163950.6	121.62 %		15:09:05
3	Ag 328.068†	125845.5	120848.5	504.22 µg/L	504.22 ppb	15:09:05
3	As 188.979†	1428.8	1443.5	518.33 µg/L	518.33 ppb	15:09:25
3	B 249.677†	38624.4	34545.0	511.02 µg/L	511.02 ppb	15:09:05
3	Ba 233.527†	138099.7	138361.9	626.17 µg/L	626.17 ppb	15:09:05
3	Be 313.107†	1814531.5	1817052.3	514.53 µg/L	514.53 ppb	15:09:05
3	Cd 226.502†	77356.6	77486.3	507.13 µg/L	507.13 ppb	15:09:05
3	Co 228.616†	38531.5	38791.1	506.49 µg/L	506.49 ppb	15:09:05
3	Cr 267.716†	62946.3	62669.7	551.62 µg/L	551.62 ppb	15:09:05
3	Cu 324.752†	130846.4	127715.3	536.90 µg/L	536.90 ppb	15:09:05
3	Mn 257.610†	1876771.4	1878136.9	2454.6 µg/L	2454.6 ppb	15:09:05
3	Mo 202.031†	16835.9	16871.7	575.06 µg/L	575.06 ppb	15:09:25
3	Ni 231.604†	42016.9	42126.2	523.87 µg/L	523.87 ppb	15:09:05
3	P 214.914†	4975.5	4998.9	1103.1 µg/L	1103.1 ppb	15:09:25
3	Pb 220.353†	8427.5	8317.4	524.06 µg/L	524.06 ppb	15:09:25
3	S 181.975 Axial†	7342.6	7246.8	6170.9 µg/L	6170.9 ppb	15:09:25
3	Sb 206.836†	3906.3	3832.1	491.98 µg/L	491.98 ppb	15:09:25
3	Se 196.026†	1247.9	1228.9	493 µg/L	493 ppb	15:09:25
3	SiO2†	228319.2	226822.6	23398 µg/L	23398 ppb	15:09:05
3	Si 251.611†	718829.7	718648.7	10952 µg/L	10952 ppb	15:09:05
3	Sn 189.927†	7195.7	7193.4	507.06 µg/L	507.06 ppb	15:09:25
3	Ti 334.940†	1735091.0	1735666.4	1819.6 µg/L	1819.6 ppb	15:09:05
3	Tl 190.801†	3277.0	3395.0	504.32 µg/L	504.32 ppb	15:09:25
3	U 409.014†	2656.9	3070.4	220.03 µg/L	220.03 ppb	15:09:05
3	V 292.402†	103970.2	103561.8	514.72 µg/L	514.72 ppb	15:09:05
3	Zn 213.857†	120765.6	120248.0	685.96 µg/L	685.96 ppb	15:09:05

Mean Data: 1202068101|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1675483.3	99.008	%	0.8098				0.82%
Sc RADIAL	113931.7	99.6	%	0.62				0.62%
Y 371.029	1153307.9	120.51	%	0.992				0.82%
Ag 328.068†	120755.5	503.83	µg/L	0.386	503.83	ppb	0.386	0.08%
Al 396.153Radial†	67548.4	15903	µg/L	188.1	15903	ppb	188.1	1.18%
As 188.979†	1449.1	520.21	µg/L	2.520	520.21	ppb	2.520	0.48%
B 249.677†	34469.2	509.90	µg/L	1.053	509.90	ppb	1.053	0.21%
Ba 233.527†	138153.0	625.23	µg/L	0.968	625.23	ppb	0.968	0.15%
Be 313.107†	1812382.5	513.21	µg/L	1.217	513.21	ppb	1.217	0.24%
Ca 317.933Radial†	85034.9	7001.7	µg/L	37.49	7001.7	ppb	37.49	0.54%
Cd 226.502†	77149.7	504.95	µg/L	1.926	504.95	ppb	1.926	0.38%
Co 228.616†	38788.4	506.47	µg/L	0.689	506.47	ppb	0.689	0.14%
Cr 267.716†	62654.6	551.47	µg/L	0.569	551.47	ppb	0.569	0.10%
Cu 324.752†	127664.4	536.64	µg/L	0.283	536.64	ppb	0.283	0.05%
Fe 238.204 Radial†	604285.8	51548	µg/L	721.8	51548	ppb	721.8	1.40%
K 766.490 Radial†	18312.3	7323.6	µg/L	40.08	7323.6	ppb	40.08	0.55%
Mg 279.077 IEC†	11139.2	6130.3	µg/L	12.30	6130.3	ppb	12.30	0.20%
Mn 257.610†	1874752.2	2450.2	µg/L	3.89	2450.2	ppb	3.89	0.16%
Mo 202.031†	17006.2	579.61	µg/L	4.166	579.61	ppb	4.166	0.72%
Na 589.592 Radial†	40233.9	6413.1	µg/L	14.85	6413.1	ppb	14.85	0.23%

Ni 231.604†	42015.7	522.50 µg/L	1.190	522.50 ppb	1.190	0.23%
P 214.914†	5025.1	1109.3 µg/L	6.87	1109.3 ppb	6.87	0.62%
Pb 220.353†	8361.7	526.85 µg/L	2.665	526.85 ppb	2.665	0.51%
S 181.975 Axial†	7308.8	6223.6 µg/L	48.90	6223.6 ppb	48.90	0.79%
Sb 206.836†	3866.2	496.43 µg/L	3.940	496.43 ppb	3.940	0.79%
Se 196.026†	1238.9	497 µg/L	3.3	497 ppb	3.3	0.67%
SiO2†	225649.1	23276 µg/L	157.9	23276 ppb	157.9	0.68%
Si 251.611†	714432.2	10887 µg/L	81.9	10887 ppb	81.9	0.75%
Sn 189.927†	7249.6	510.96 µg/L	3.712	510.96 ppb	3.712	0.73%
Sr 421.552†	231509.1	594.64 µg/L	5.954	594.64 ppb	5.954	1.00%
Ti 334.940†	1733615.0	1817.5 µg/L	1.98	1817.5 ppb	1.98	0.11%
Tl 190.801†	3418.5	507.59 µg/L	3.424	507.59 ppb	3.424	0.67%
U 409.014†	3095.0	221.54 µg/L	1.311	221.54 ppb	1.311	0.59%
V 292.402†	103415.4	514.08 µg/L	0.590	514.08 ppb	0.590	0.11%
Zn 213.857†	119877.9	683.87 µg/L	1.994	683.87 ppb	1.994	0.29%

Sequence No.: 7
Sample ID: 1202068099|974047|5
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 307
Date Collected: 4/13/2010 15:09:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068099|974047|5

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	116443.9	116443.9	102	%			15:10:04
1	Al 396.153Radial†	7084.6	7044.5	1660.8	µg/L	1660.8	ppb	15:10:06
1	Ca 317.933Radial†	4734.8	4194.5	345.37	µg/L	345.37	ppb	15:10:06
1	Fe 238.204 Radial†	126635.5	124275.4	10601	µg/L	10601	ppb	15:10:04
1	K 766.490 Radial†	2594.4	1139.3	455.54	µg/L	455.54	ppb	15:10:04
1	Mg 279.077 IEC†	444.4	279.2	145.63	µg/L	145.63	ppb	15:10:06
1	Na 589.592 Radial†	2877.5	1991.4	317.34	µg/L	317.34	ppb	15:10:06
1	Sr 421.552†	7792.9	7722.1	19.834	µg/L	19.834	ppb	15:10:06
1	Sc 361.383	1707083.7	1707083.7	100.88	%			15:10:32
1	Y 371.029	1001496.5	1001496.5	104.65	%			15:10:32
1	Ag 328.068†	5078.6	-68.5	-0.4956	µg/L	-0.4956	ppb	15:10:34
1	As 188.979†	-11.0	2.5	3.3456	µg/L	3.3456	ppb	15:10:54
1	B 249.677†	4232.6	84.0	1.2425	µg/L	1.2425	ppb	15:10:34
1	Ba 233.527†	5551.7	5649.3	25.443	µg/L	25.443	ppb	15:10:54
1	Be 313.107†	2281.0	3253.5	0.9054	µg/L	0.9054	ppb	15:10:34
1	Cd 226.502†	124.3	187.8	0.1289	µg/L	0.1289	ppb	15:10:54
1	Co 228.616†	-143.2	85.1	0.5891	µg/L	0.5891	ppb	15:10:54
1	Cr 267.716†	1135.0	795.5	7.2844	µg/L	7.2844	ppb	15:10:54
1	Cu 324.752†	3386.0	115.3	1.9831	µg/L	1.9831	ppb	15:10:34
1	Mn 257.610†	343069.3	339876.0	444.23	µg/L	444.23	ppb	15:10:34
1	Mo 202.031†	321.4	340.2	11.972	µg/L	11.972	ppb	15:10:54
1	Ni 231.604†	229.6	301.5	3.7493	µg/L	3.7493	ppb	15:10:54
1	P 214.914†	492.6	507.5	109.02	µg/L	109.02	ppb	15:10:54
1	Pb 220.353†	194.1	75.2	4.8036	µg/L	4.8036	ppb	15:10:54
1	S 181.975 Axial†	262.0	157.8	134.40	µg/L	134.40	ppb	15:10:54
1	Sb 206.836†	63.6	-14.5	-1.9349	µg/L	-1.9349	ppb	15:10:54
1	Se 196.026†	-1.8	-21.8	-4.79	µg/L	-4.79	ppb	15:10:54
1	SiO2†	29895.3	27946.9	2885.4	µg/L	2885.4	ppb	15:10:34
1	Si 251.611†	90312.6	88742.1	1353.5	µg/L	1353.5	ppb	15:10:34
1	Sn 189.927†	35.3	26.5	2.5075	µg/L	2.5075	ppb	15:10:54
1	Ti 334.940†	188875.3	186349.6	195.44	µg/L	195.44	ppb	15:10:34
1	Tl 190.801†	-156.0	-39.5	-2.4257	µg/L	-2.4257	ppb	15:10:54
1	U 409.014†	-1280.8	-858.4	-51.476	µg/L	-51.476	ppb	15:10:34
1	V 292.402†	1378.1	870.1	3.1287	µg/L	3.1287	ppb	15:10:34
1	Zn 213.857†	6327.2	5653.0	31.600	µg/L	31.600	ppb	15:10:54
2	Sc RADIAL	115218.5	115218.5	101	%			15:10:08
2	Al 396.153Radial†	7027.0	7061.3	1664.7	µg/L	1664.7	ppb	15:10:10
2	Ca 317.933Radial†	4625.1	4135.0	340.47	µg/L	340.47	ppb	15:10:10
2	Fe 238.204 Radial†	125912.4	124880.5	10653	µg/L	10653	ppb	15:10:08
2	K 766.490 Radial†	2747.0	1317.9	527.02	µg/L	527.02	ppb	15:10:08
2	Mg 279.077 IEC†	455.0	294.4	153.96	µg/L	153.96	ppb	15:10:10
2	Na 589.592 Radial†	2870.6	2014.6	320.97	µg/L	320.97	ppb	15:10:10
2	Sr 421.552†	7655.3	7666.8	19.692	µg/L	19.692	ppb	15:10:10
2	Sc 361.383	1712555.5	1712555.5	101.20	%			15:10:56
2	Y 371.029	1005032.5	1005032.5	105.02	%			15:10:56
2	Ag 328.068†	5253.8	88.5	0.1486	µg/L	0.1486	ppb	15:10:58
2	As 188.979†	1.1	14.5	7.5275	µg/L	7.5275	ppb	15:11:18
2	B 249.677†	4335.5	172.2	2.5515	µg/L	2.5515	ppb	15:10:58
2	Ba 233.527†	5557.1	5637.1	25.387	µg/L	25.387	ppb	15:11:18
2	Be 313.107†	2219.4	3185.4	0.8875	µg/L	0.8875	ppb	15:10:58
2	Cd 226.502†	126.0	189.1	0.1316	µg/L	0.1316	ppb	15:11:18
2	Co 228.616†	-124.8	103.7	0.8298	µg/L	0.8298	ppb	15:11:18
2	Cr 267.716†	1133.9	790.8	7.2414	µg/L	7.2414	ppb	15:11:18
2	Cu 324.752†	3501.3	218.6	2.4221	µg/L	2.4221	ppb	15:10:58
2	Mn 257.610†	340911.5	336657.1	440.02	µg/L	440.02	ppb	15:10:58
2	Mo 202.031†	335.2	352.8	12.402	µg/L	12.402	ppb	15:11:18
2	Ni 231.604†	194.4	266.0	3.3078	µg/L	3.3078	ppb	15:11:18
2	P 214.914†	494.4	507.7	109.03	µg/L	109.03	ppb	15:11:18
2	Pb 220.353†	161.1	42.0	2.7159	µg/L	2.7159	ppb	15:11:18

2	S 181.975 Axial†	260.8	155.8	132.67 µg/L	132.67 ppb	15:11:18
2	Sb 206.836†	83.7	5.2	0.5996 µg/L	0.5996 ppb	15:11:18
2	Se 196.026†	10.8	-9.3	0.060 µg/L	0.060 ppb	15:11:18
2	SiO2†	29937.0	27893.4	2879.8 µg/L	2879.8 ppb	15:10:58
2	Si 251.611†	90107.9	88253.8	1346.1 µg/L	1346.1 ppb	15:10:58
2	Sn 189.927†	50.3	41.3	3.5297 µg/L	3.5297 ppb	15:11:18
2	Ti 334.940†	187844.1	184732.5	193.74 µg/L	193.74 ppb	15:10:58
2	Tl 190.801†	-150.1	-33.0	-1.5575 µg/L	-1.5575 ppb	15:11:18
2	U 409.014†	-1207.3	-781.7	-46.903 µg/L	-46.903 ppb	15:10:58
2	V 292.402†	1194.8	684.6	2.2128 µg/L	2.2128 ppb	15:10:58
2	Zn 213.857†	6301.2	5607.2	31.332 µg/L	31.332 ppb	15:11:18
3	Sc RADIAL	115822.7	115822.7	101 %		15:10:12
3	Al 396.153Radial†	6837.8	6838.1	1612.1 µg/L	1612.1 ppb	15:10:14
3	Ca 317.933Radial†	4503.6	3991.1	328.62 µg/L	328.62 ppb	15:10:14
3	Fe 238.204 Radial†	126016.9	124331.8	10606 µg/L	10606 ppb	15:10:12
3	K 766.490 Radial†	2635.2	1193.3	477.18 µg/L	477.18 ppb	15:10:12
3	Mg 279.077 IEC†	418.0	255.5	132.47 µg/L	132.47 ppb	15:10:14
3	Na 589.592 Radial†	2825.0	1954.7	311.46 µg/L	311.46 ppb	15:10:14
3	Sr 421.552†	7617.8	7590.1	19.495 µg/L	19.495 ppb	15:10:14
3	Sc 361.383	1729193.8	1729193.8	102.18 %		15:11:20
3	Y 371.029	1014001.4	1014001.4	105.95 %		15:11:20
3	Ag 328.068†	5160.9	-52.3	-0.4331 µg/L	-0.4331 ppb	15:11:22
3	As 188.979†	6.7	20.0	9.4107 µg/L	9.4107 ppb	15:11:42
3	B 249.677†	4258.9	56.1	0.8284 µg/L	0.8284 ppb	15:11:22
3	Ba 233.527†	5585.9	5612.5	25.277 µg/L	25.277 ppb	15:11:42
3	Be 313.107†	2400.1	3341.2	0.9286 µg/L	0.9286 ppb	15:11:22
3	Cd 226.502†	104.5	166.9	-0.0103 µg/L	-0.0103 ppb	15:11:42
3	Co 228.616†	-149.1	81.1	0.5367 µg/L	0.5367 ppb	15:11:42
3	Cr 267.716†	1158.6	804.2	7.3667 µg/L	7.3667 ppb	15:11:42
3	Cu 324.752†	3446.7	131.8	2.0471 µg/L	2.0471 ppb	15:11:22
3	Mn 257.610†	342193.2	334670.0	437.43 µg/L	437.43 ppb	15:11:22
3	Mo 202.031†	330.5	345.0	12.135 µg/L	12.135 ppb	15:11:42
3	Ni 231.604†	207.6	277.1	3.4456 µg/L	3.4456 ppb	15:11:42
3	P 214.914†	473.4	482.5	103.29 µg/L	103.29 ppb	15:11:42
3	Pb 220.353†	200.4	78.9	5.0327 µg/L	5.0327 ppb	15:11:42
3	S 181.975 Axial†	266.2	158.6	135.06 µg/L	135.06 ppb	15:11:42
3	Sb 206.836†	83.4	4.1	0.4545 µg/L	0.4545 ppb	15:11:42
3	Se 196.026†	10.7	-9.5	-0.047 µg/L	-0.047 ppb	15:11:42
3	SiO2†	29257.7	26944.0	2781.8 µg/L	2781.8 ppb	15:11:22
3	Si 251.611†	88510.6	85833.9	1309.2 µg/L	1309.2 ppb	15:11:22
3	Sn 189.927†	52.0	42.5	3.6117 µg/L	3.6117 ppb	15:11:42
3	Ti 334.940†	190038.4	185093.9	194.13 µg/L	194.13 ppb	15:11:22
3	Tl 190.801†	-140.5	-22.2	-0.0294 µg/L	-0.0294 ppb	15:11:42
3	U 409.014†	-1387.8	-946.9	-56.901 µg/L	-56.901 ppb	15:11:22
3	V 292.402†	1391.8	866.1	3.1080 µg/L	3.1080 ppb	15:11:22
3	Zn 213.857†	6280.3	5526.9	30.872 µg/L	30.872 ppb	15:11:42

Mean Data: 1202068099|974047|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716277.7	101.42	%	0.680				0.67%
Sc RADIAL	115828.4	101	%	0.5				0.53%
Y 371.029	1006843.4	105.21	%	0.674				0.64%
Ag 328.068†	-10.7	-0.2600	µg/L	0.35526	-0.2600	ppb	0.35526	136.64%
Al 396.153Radial†	6981.3	1645.9	µg/L	29.31	1645.9	ppb	29.31	1.78%
As 188.979†	12.4	6.7612	µg/L	3.10430	6.7612	ppb	3.10430	45.91%
B 249.677†	104.1	1.5408	µg/L	0.89944	1.5408	ppb	0.89944	58.38%
Ba 233.527†	5633.0	25.369	µg/L	0.0848	25.369	ppb	0.0848	0.33%
Be 313.107†	3260.0	0.9072	µg/L	0.02059	0.9072	ppb	0.02059	2.27%
Ca 317.933Radial†	4106.8	338.16	µg/L	8.611	338.16	ppb	8.611	2.55%
Cd 226.502†	181.3	0.0834	µg/L	0.08116	0.0834	ppb	0.08116	97.31%
Co 228.616†	90.0	0.6519	µg/L	0.15630	0.6519	ppb	0.15630	23.98%
Cr 267.716†	796.8	7.2975	µg/L	0.06363	7.2975	ppb	0.06363	0.87%
Cu 324.752†	155.2	2.1508	µg/L	0.23715	2.1508	ppb	0.23715	11.03%
Fe 238.204 Radial†	124495.9	10620	µg/L	28.5	10620	ppb	28.5	0.27%
K 766.490 Radial†	1216.8	486.58	µg/L	36.655	486.58	ppb	36.655	7.53%
Mg 279.077 IEC†	276.4	144.02	µg/L	10.837	144.02	ppb	10.837	7.52%
Mn 257.610†	337067.7	440.56	µg/L	3.434	440.56	ppb	3.434	0.78%
Mo 202.031†	346.0	12.170	µg/L	0.2171	12.170	ppb	0.2171	1.78%
Na 589.592 Radial†	1986.9	316.59	µg/L	4.799	316.59	ppb	4.799	1.52%

Ni 231.604†	281.5	3.5009	µg/L	0.22590	3.5009	ppb	0.22590	6.45%
P 214.914†	499.2	107.11	µg/L	3.314	107.11	ppb	3.314	3.09%
Pb 220.353†	65.4	4.1840	µg/L	1.27663	4.1840	ppb	1.27663	30.51%
S 181.975 Axial†	157.4	134.04	µg/L	1.232	134.04	ppb	1.232	0.92%
Sb 206.836†	-1.7	-0.2936	µg/L	1.42324	-0.2936	ppb	1.42324	484.74%
Se 196.026†	-13.5	-1.59	µg/L	2.768	-1.59	ppb	2.768	173.94%
SiO2†	27594.8	2849.0	µg/L	58.27	2849.0	ppb	58.27	2.05%
Si 251.611†	87610.0	1336.3	µg/L	23.76	1336.3	ppb	23.76	1.78%
Sn 189.927†	36.8	3.2163	µg/L	0.61520	3.2163	ppb	0.61520	19.13%
Sr 421.552†	7659.7	19.673	µg/L	0.1701	19.673	ppb	0.1701	0.86%
Ti 334.940†	185392.0	194.44	µg/L	0.891	194.44	ppb	0.891	0.46%
Tl 190.801†	-31.6	-1.3375	µg/L	1.21317	-1.3375	ppb	1.21317	90.70%
U 409.014†	-862.3	-51.760	µg/L	5.0050	-51.760	ppb	5.0050	9.67%
Concentration less than lower limit for U 409.014.								
V 292.402†	806.9	2.8165	µg/L	0.52293	2.8165	ppb	0.52293	18.57%
Zn 213.857†	5595.7	31.268	µg/L	0.3679	31.268	ppb	0.3679	1.18%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/13/2010 15:11:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113827.0	113827.0	99.5	%			15:12:25
1	Al 396.153Radial†	21500.0	21690.9	5092.1	µg/L	5092.1	ppb	15:12:25
1	Ca 317.933Radial†	61893.6	61742.0	5083.8	µg/L	5083.8	ppb	15:12:25
1	Fe 238.204 Radial†	59191.9	59359.3	5063.6	µg/L	5063.6	ppb	15:12:25
1	K 766.490 Radial†	14025.7	12685.6	5073.6	µg/L	5073.6	ppb	15:12:25
1	Mg 279.077 IEC†	9443.3	9332.5	5169.1	µg/L	5169.1	ppb	15:12:25
1	Na 589.592 Radial†	64016.8	63497.1	10127	µg/L	10127	ppb	15:12:23
1	Sr 421.552†	196718.6	197754.9	507.95	µg/L	507.95	ppb	15:12:23
1	Sc 361.383	1690317.5	1690317.5	99.885	%			15:12:52
1	Y 371.029	946754.9	946754.9	98.926	%			15:12:52
1	Ag 328.068†	125179.7	120221.0	502.66	µg/L	502.66	ppb	15:12:52
1	As 188.979†	1390.9	1405.9	494.13	µg/L	494.13	ppb	15:13:12
1	B 249.677†	37332.3	33263.4	492.02	µg/L	492.02	ppb	15:12:52
1	Ba 233.527†	110310.6	110583.6	500.99	µg/L	500.99	ppb	15:12:52
1	Be 313.107†	1755738.9	1758754.7	498.11	µg/L	498.11	ppb	15:12:52
1	Cd 226.502†	75268.4	75419.8	498.39	µg/L	498.39	ppb	15:12:52
1	Co 228.616†	37998.6	38269.5	501.96	µg/L	501.96	ppb	15:12:52
1	Cr 267.716†	57050.2	56786.4	498.60	µg/L	498.60	ppb	15:12:52
1	Cu 324.752†	123249.9	120150.6	498.96	µg/L	498.96	ppb	15:12:52
1	Mn 257.610†	383997.1	384224.2	502.01	µg/L	502.01	ppb	15:12:52
1	Mo 202.031†	14722.9	14761.5	501.56	µg/L	501.56	ppb	15:13:12
1	Ni 231.604†	40180.9	40301.1	501.18	µg/L	501.18	ppb	15:12:52
1	P 214.914†	10888.5	10920.2	2486.6	µg/L	2486.6	ppb	15:13:12
1	Pb 220.353†	8076.5	7968.6	500.90	µg/L	500.90	ppb	15:13:12
1	S 181.975 Axial†	1272.5	1172.1	1001.5	µg/L	1001.5	ppb	15:13:12
1	Sb 206.836†	3961.2	3888.3	499.59	µg/L	499.59	ppb	15:13:12
1	Se 196.026†	1301.8	1283.3	498	µg/L	498	ppb	15:13:12
1	SiO2†	53272.9	51645.4	5311.3	µg/L	5311.3	ppb	15:12:52
1	Si 251.611†	164568.5	163971.6	2491.3	µg/L	2491.3	ppb	15:12:52
1	Sn 189.927†	7159.8	7159.6	500.26	µg/L	500.26	ppb	15:13:12
1	Ti 334.940†	477785.5	477450.0	500.06	µg/L	500.06	ppb	15:12:52
1	Tl 190.801†	3427.6	3546.8	507.34	µg/L	507.34	ppb	15:13:12
1	U 409.014†	7099.1	7518.5	487.59	µg/L	487.59	ppb	15:12:52
1	V 292.402†	100768.0	100388.1	504.37	µg/L	504.37	ppb	15:12:52
1	Zn 213.857†	87253.0	86734.2	496.80	µg/L	496.80	ppb	15:12:52
2	Sc RADIAL	113900.0	113900.0	99.6	%			15:12:29
2	Al 396.153Radial†	21398.2	21574.8	5064.8	µg/L	5064.8	ppb	15:12:29
2	Ca 317.933Radial†	61412.5	61218.9	5040.7	µg/L	5040.7	ppb	15:12:29
2	Fe 238.204 Radial†	58755.9	58883.4	5023.0	µg/L	5023.0	ppb	15:12:29
2	K 766.490 Radial†	13875.1	12525.3	5009.4	µg/L	5009.4	ppb	15:12:29
2	Mg 279.077 IEC†	9351.8	9234.5	5115.0	µg/L	5115.0	ppb	15:12:29
2	Na 589.592 Radial†	64201.6	63641.4	10150	µg/L	10150	ppb	15:12:27
2	Sr 421.552†	197257.8	198169.7	509.01	µg/L	509.01	ppb	15:12:27
2	Sc 361.383	1694008.1	1694008.1	100.10	%			15:13:15
2	Y 371.029	948333.9	948333.9	99.091	%			15:13:15
2	Ag 328.068†	125608.6	120376.4	503.30	µg/L	503.30	ppb	15:13:15
2	As 188.979†	1409.8	1421.8	499.60	µg/L	499.60	ppb	15:13:35
2	B 249.677†	37663.0	33512.3	495.71	µg/L	495.71	ppb	15:13:15
2	Ba 233.527†	110639.4	110671.4	501.39	µg/L	501.39	ppb	15:13:15
2	Be 313.107†	1758697.9	1757881.1	497.86	µg/L	497.86	ppb	15:13:15
2	Cd 226.502†	75729.3	75716.0	500.35	µg/L	500.35	ppb	15:13:15
2	Co 228.616†	38205.7	38393.5	503.59	µg/L	503.59	ppb	15:13:15
2	Cr 267.716†	57193.5	56805.0	498.76	µg/L	498.76	ppb	15:13:15
2	Cu 324.752†	123481.1	120112.8	498.80	µg/L	498.80	ppb	15:13:15
2	Mn 257.610†	384870.4	384259.1	502.06	µg/L	502.06	ppb	15:13:15
2	Mo 202.031†	14696.2	14702.7	499.55	µg/L	499.55	ppb	15:13:35
2	Ni 231.604†	40433.1	40465.5	503.22	µg/L	503.22	ppb	15:13:15
2	P 214.914†	10820.7	10828.8	2465.7	µg/L	2465.7	ppb	15:13:35
2	Pb 220.353†	8060.9	7935.4	498.81	µg/L	498.81	ppb	15:13:35

2	S 181.975 Axial†	1262.4	1159.2	990.49 µg/L	990.49 ppb	15:13:35
2	Sb 206.836†	3956.7	3875.1	497.87 µg/L	497.87 ppb	15:13:35
2	Se 196.026†	1298.2	1276.9	496 µg/L	496 ppb	15:13:35
2	SiO2†	53538.4	51794.5	5326.8 µg/L	5326.8 ppb	15:13:15
2	Si 251.611†	165310.8	164354.2	2497.2 µg/L	2497.2 ppb	15:13:15
2	Sn 189.927†	7164.3	7148.5	499.48 µg/L	499.48 ppb	15:13:35
2	Ti 334.940†	478631.0	477252.5	499.85 µg/L	499.85 ppb	15:13:15
2	Tl 190.801†	3409.6	3521.3	503.74 µg/L	503.74 ppb	15:13:35
2	U 409.014†	7182.2	7586.1	491.69 µg/L	491.69 ppb	15:13:15
2	V 292.402†	100943.1	100343.2	504.13 µg/L	504.13 ppb	15:13:15
2	Zn 213.857†	87600.5	86891.1	497.69 µg/L	497.69 ppb	15:13:15
3	Sc RADIAL	115279.9	115279.9	101 %		15:12:33
3	Al 396.153Radial†	21637.1	21554.7	5060.0 µg/L	5060.0 ppb	15:12:33
3	Ca 317.933Radial†	62333.6	61394.6	5055.2 µg/L	5055.2 ppb	15:12:33
3	Fe 238.204 Radial†	59573.9	58988.8	5032.0 µg/L	5032.0 ppb	15:12:33
3	K 766.490 Radial†	14274.5	12754.8	5101.3 µg/L	5101.3 ppb	15:12:33
3	Mg 279.077 IEC†	9515.5	9284.6	5142.7 µg/L	5142.7 ppb	15:12:33
3	Na 589.592 Radial†	64324.4	62991.5	10046 µg/L	10046 ppb	15:12:31
3	Sr 421.552†	197592.9	196131.1	503.78 µg/L	503.78 ppb	15:12:31
3	Sc 361.383	1693105.0	1693105.0	100.05 %		15:13:38
3	Y 371.029	946341.5	946341.5	98.883 %		15:13:38
3	Ag 328.068†	125984.3	120818.9	505.13 µg/L	505.13 ppb	15:13:38
3	As 188.979†	1398.8	1411.6	496.09 µg/L	496.09 ppb	15:13:58
3	B 249.677†	37768.6	33637.9	497.57 µg/L	497.57 ppb	15:13:38
3	Ba 233.527†	110664.0	110755.0	501.77 µg/L	501.77 ppb	15:13:38
3	Be 313.107†	1766246.1	1766362.8	500.26 µg/L	500.26 ppb	15:13:38
3	Cd 226.502†	76043.8	76070.7	502.69 µg/L	502.69 ppb	15:13:38
3	Co 228.616†	38292.3	38500.4	504.99 µg/L	504.99 ppb	15:13:38
3	Cr 267.716†	57378.9	57020.9	500.65 µg/L	500.65 ppb	15:13:38
3	Cu 324.752†	124234.8	120931.9	502.20 µg/L	502.20 ppb	15:13:38
3	Mn 257.610†	385821.5	385414.9	503.57 µg/L	503.57 ppb	15:13:38
3	Mo 202.031†	14755.5	14769.8	501.83 µg/L	501.83 ppb	15:13:58
3	Ni 231.604†	40482.0	40535.8	504.10 µg/L	504.10 ppb	15:13:38
3	P 214.914†	10851.3	10865.1	2473.9 µg/L	2473.9 ppb	15:13:58
3	Pb 220.353†	8084.1	7962.9	500.54 µg/L	500.54 ppb	15:13:58
3	S 181.975 Axial†	1275.6	1173.0	1002.3 µg/L	1002.3 ppb	15:13:58
3	Sb 206.836†	3958.0	3878.5	498.31 µg/L	498.31 ppb	15:13:58
3	Se 196.026†	1296.0	1275.3	495 µg/L	495 ppb	15:13:58
3	SiO2†	53963.0	52247.4	5373.4 µg/L	5373.4 ppb	15:13:38
3	Si 251.611†	166503.5	165634.4	2516.7 µg/L	2516.7 ppb	15:13:38
3	Sn 189.927†	7176.7	7164.7	500.61 µg/L	500.61 ppb	15:13:58
3	Ti 334.940†	480124.9	479000.8	501.68 µg/L	501.68 ppb	15:13:38
3	Tl 190.801†	3427.1	3540.7	506.48 µg/L	506.48 ppb	15:13:58
3	U 409.014†	7265.8	7673.4	497.00 µg/L	497.00 ppb	15:13:38
3	V 292.402†	100847.3	100301.3	503.96 µg/L	503.96 ppb	15:13:38
3	Zn 213.857†	88039.7	87376.8	500.49 µg/L	500.49 ppb	15:13:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1692476.8	100.01	%	0.114				0.11%
Sc RADIAL	114335.6	100.0	%	0.72				0.72%
Y 371.029	947143.5	98.967	%	0.1099				0.11%
Ag 328.068†	120472.1	503.70	µg/L	1.284	503.70	ppb	1.284	0.25%
QC value within limits for Ag 328.068 Recovery = 100.74%								
Al 396.153Radial†	21606.8	5072.3	µg/L	17.32	5072.3	ppb	17.32	0.34%
QC value within limits for Al 396.153Radial Recovery = 101.45%								
As 188.979†	1413.1	496.61	µg/L	2.774	496.61	ppb	2.774	0.56%
QC value within limits for As 188.979 Recovery = 99.32%								
B 249.677†	33471.2	495.10	µg/L	2.824	495.10	ppb	2.824	0.57%
QC value within limits for B 249.677 Recovery = 99.02%								
Ba 233.527†	110670.0	501.38	µg/L	0.388	501.38	ppb	0.388	0.08%
QC value within limits for Ba 233.527 Recovery = 100.28%								
Be 313.107†	1760999.5	498.74	µg/L	1.322	498.74	ppb	1.322	0.27%
QC value within limits for Be 313.107 Recovery = 99.75%								
Ca 317.933Radial†	61451.8	5059.9	µg/L	21.92	5059.9	ppb	21.92	0.43%
QC value within limits for Ca 317.933Radial Recovery = 101.20%								
Cd 226.502†	75735.5	500.48	µg/L	2.157	500.48	ppb	2.157	0.43%
QC value within limits for Cd 226.502 Recovery = 100.10%								
Co 228.616†	38387.8	503.52	µg/L	1.516	503.52	ppb	1.516	0.30%

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   QC value within limits for Co 228.616  Recovery = 100.70%
Cr 267.716†            56870.7      499.34 µg/L         1.141      499.34 ppb          1.141   0.23%
   QC value within limits for Cr 267.716  Recovery = 99.87%
Cu 324.752†           120398.4      499.98 µg/L         1.918      499.98 ppb          1.918   0.38%
   QC value within limits for Cu 324.752  Recovery = 100.00%
Fe 238.204 Radial†     59077.2      5039.5 µg/L         21.32      5039.5 ppb          21.32   0.42%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.79%
K 766.490 Radial†      12655.2      5061.4 µg/L         47.12      5061.4 ppb          47.12   0.93%
   QC value within limits for K 766.490 Radial  Recovery = 101.23%
Mg 279.077 IEC†         9283.9      5142.3 µg/L         27.10      5142.3 ppb          27.10   0.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.85%
Mn 257.610†           384632.8      502.55 µg/L         0.886      502.55 ppb          0.886   0.18%
   QC value within limits for Mn 257.610  Recovery = 100.51%
Mo 202.031†            14744.7      500.98 µg/L         1.243      500.98 ppb          1.243   0.25%
   QC value within limits for Mo 202.031  Recovery = 100.20%
Na 589.592 Radial†     63376.7       10108 µg/L          54.5       10108 ppb           54.5   0.54%
   QC value within limits for Na 589.592 Radial  Recovery = 101.08%
Ni 231.604†            40434.1      502.83 µg/L         1.498      502.83 ppb          1.498   0.30%
   QC value within limits for Ni 231.604  Recovery = 100.57%
P 214.914†             10871.4      2475.4 µg/L         10.51      2475.4 ppb          10.51   0.42%
   QC value within limits for P 214.914  Recovery = 99.02%
Pb 220.353†             7955.6      500.08 µg/L         1.116      500.08 ppb          1.116   0.22%
   QC value within limits for Pb 220.353  Recovery = 100.02%
S 181.975 Axial†        1168.1      998.09 µg/L         6.593      998.09 ppb          6.593   0.66%
   QC value within limits for S 181.975 Axial  Recovery = 99.81%
Sb 206.836†             3880.6      498.59 µg/L         0.893      498.59 ppb          0.893   0.18%
   QC value within limits for Sb 206.836  Recovery = 99.72%
Se 196.026†             1278.5         497 µg/L           1.6         497 ppb            1.6   0.33%
   QC value within limits for Se 196.026  Recovery = 99.32%
SiO2†                  51895.7      5337.2 µg/L         32.35      5337.2 ppb          32.35   0.61%
   QC value within limits for SiO2  Recovery = 99.81%
Si 251.611†           164653.4      2501.7 µg/L         13.28      2501.7 ppb          13.28   0.53%
   QC value within limits for Si 251.611  Recovery = 100.07%
Sn 189.927†             7157.6      500.12 µg/L         0.580      500.12 ppb          0.580   0.12%
   QC value within limits for Sn 189.927  Recovery = 100.02%
Sr 421.552†           197351.9      506.91 µg/L         2.768      506.91 ppb          2.768   0.55%
   QC value within limits for Sr 421.552  Recovery = 101.38%
Ti 334.940†           477901.1      500.53 µg/L         1.002      500.53 ppb          1.002   0.20%
   QC value within limits for Ti 334.940  Recovery = 100.11%
Tl 190.801†             3536.3      505.85 µg/L         1.878      505.85 ppb          1.878   0.37%
   QC value within limits for Tl 190.801  Recovery = 101.17%
U 409.014†              7592.7      492.09 µg/L         4.717      492.09 ppb          4.717   0.96%
   QC value within limits for U 409.014  Recovery = 98.42%
V 292.402†            100344.2      504.15 µg/L         0.206      504.15 ppb          0.206   0.04%
   QC value within limits for V 292.402  Recovery = 100.83%
Zn 213.857†            87000.7      498.33 µg/L         1.926      498.33 ppb          1.926   0.39%
   QC value within limits for Zn 213.857  Recovery = 99.67%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/13/2010 15:14:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113500.1	113500.1	99.2	%			15:14:36
1	Al 396.153Radial†	-82.4	1.9	0.4328	µg/L	0.4328	ppb	15:14:56
1	Ca 317.933Radial†	460.4	7.2	0.5952	µg/L	0.5952	ppb	15:14:56
1	Fe 238.204 Radial†	139.4	16.2	1.3857	µg/L	1.3857	ppb	15:14:56
1	K 766.490 Radial†	1535.2	137.9	55.208	µg/L	55.208	ppb	15:14:36
1	Mg 279.077 IEC†	139.6	-16.6	-9.1930	µg/L	-9.1930	ppb	15:14:56
1	Na 589.592 Radial†	955.3	127.4	20.285	µg/L	20.285	ppb	15:14:36
1	Sr 421.552†	-63.6	2.6	0.0067	µg/L	0.0067	ppb	15:14:36
1	Sc 361.383	1693791.6	1693791.6	100.09	%			15:15:44
1	Y 371.029	958031.9	958031.9	100.10	%			15:15:44
1	Ag 328.068†	5169.2	61.6	0.2654	µg/L	0.2654	ppb	15:15:46
1	As 188.979†	-17.0	-3.6	-1.2485	µg/L	-1.2485	ppb	15:16:06
1	B 249.677†	4109.8	-5.8	-0.0865	µg/L	-0.0865	ppb	15:15:46
1	Ba 233.527†	-143.0	3.0	0.0139	µg/L	0.0139	ppb	15:16:06
1	Be 313.107†	-729.9	263.1	0.0762	µg/L	0.0762	ppb	15:15:46
1	Cd 226.502†	-41.6	23.0	0.1519	µg/L	0.1519	ppb	15:16:06
1	Co 228.616†	-228.0	-0.8	-0.0100	µg/L	-0.0100	ppb	15:16:06
1	Cr 267.716†	327.1	-2.8	-0.0289	µg/L	-0.0289	ppb	15:16:06
1	Cu 324.752†	3104.4	-139.7	-0.5738	µg/L	-0.5738	ppb	15:15:46
1	Mn 257.610†	254.6	39.0	0.0514	µg/L	0.0514	ppb	15:16:06
1	Mo 202.031†	-6.1	15.5	0.5271	µg/L	0.5271	ppb	15:16:06
1	Ni 231.604†	-55.3	18.7	0.2327	µg/L	0.2327	ppb	15:16:06
1	P 214.914†	-22.4	-3.1	-0.7152	µg/L	-0.7152	ppb	15:16:06
1	Pb 220.353†	145.9	28.6	1.7877	µg/L	1.7877	ppb	15:16:06
1	S 181.975 Axial†	111.5	9.5	8.0906	µg/L	8.0906	ppb	15:16:06
1	Sb 206.836†	56.6	-21.0	-2.6776	µg/L	-2.6776	ppb	15:16:06
1	Se 196.026†	24.8	4.8	1.87	µg/L	1.87	ppb	15:16:06
1	SiO2†	1713.5	23.1	2.3649	µg/L	2.3649	ppb	15:15:46
1	Si 251.611†	798.5	11.2	0.1643	µg/L	0.1643	ppb	15:15:46
1	Sn 189.927†	8.7	0.2	0.0159	µg/L	0.0159	ppb	15:16:06
1	Ti 334.940†	811.5	-75.4	-0.0806	µg/L	-0.0806	ppb	15:15:46
1	Tl 190.801†	-129.9	-14.6	-2.0488	µg/L	-2.0488	ppb	15:16:06
1	U 409.014†	-318.7	92.9	5.6673	µg/L	5.6673	ppb	15:15:46
1	V 292.402†	568.5	72.0	0.3658	µg/L	0.3658	ppb	15:15:46
1	Zn 213.857†	621.6	1.7	0.0086	µg/L	0.0086	ppb	15:16:06
2	Sc RADIAL	114112.5	114112.5	99.8	%			15:14:58
2	Al 396.153Radial†	-86.5	-1.7	-0.4209	µg/L	-0.4209	ppb	15:15:18
2	Ca 317.933Radial†	456.6	1.0	0.0813	µg/L	0.0813	ppb	15:15:18
2	Fe 238.204 Radial†	146.1	22.2	1.8909	µg/L	1.8909	ppb	15:15:18
2	K 766.490 Radial†	1472.3	66.6	26.640	µg/L	26.640	ppb	15:14:58
2	Mg 279.077 IEC†	138.1	-18.9	-10.424	µg/L	-10.424	ppb	15:15:18
2	Na 589.592 Radial†	1025.7	192.8	30.747	µg/L	30.747	ppb	15:14:58
2	Sr 421.552†	-72.7	-6.1	-0.0158	µg/L	-0.0158	ppb	15:14:58
2	Sc 361.383	1706699.4	1706699.4	100.85	%			15:16:08
2	Y 371.029	965414.3	965414.3	100.88	%			15:16:08
2	Ag 328.068†	4917.1	-227.4	-0.9462	µg/L	-0.9462	ppb	15:16:10
2	As 188.979†	-10.2	3.3	1.1430	µg/L	1.1430	ppb	15:16:31
2	B 249.677†	4215.8	68.2	1.0120	µg/L	1.0120	ppb	15:16:10
2	Ba 233.527†	-121.9	25.0	0.1132	µg/L	0.1132	ppb	15:16:31
2	Be 313.107†	-642.5	355.2	0.0993	µg/L	0.0993	ppb	15:16:10
2	Cd 226.502†	-53.4	11.6	0.0766	µg/L	0.0766	ppb	15:16:31
2	Co 228.616†	-211.1	17.7	0.2319	µg/L	0.2319	ppb	15:16:31
2	Cr 267.716†	370.1	37.4	0.3317	µg/L	0.3317	ppb	15:16:31
2	Cu 324.752†	3129.6	-138.1	-0.5752	µg/L	-0.5752	ppb	15:16:10
2	Mn 257.610†	285.9	68.2	0.0895	µg/L	0.0895	ppb	15:16:31
2	Mo 202.031†	-15.1	6.7	0.2257	µg/L	0.2257	ppb	15:16:31
2	Ni 231.604†	-104.2	-29.4	-0.3660	µg/L	-0.3660	ppb	15:16:31
2	P 214.914†	-33.6	-14.1	-3.2103	µg/L	-3.2103	ppb	15:16:31
2	Pb 220.353†	115.2	-2.9	-0.1807	µg/L	-0.1807	ppb	15:16:31

2	S 181.975 Axial†	102.9	0.1	0.0601 µg/L	0.0601 ppb	15:16:31
2	Sb 206.836†	94.4	16.1	2.0627 µg/L	2.0627 ppb	15:16:31
2	Se 196.026†	26.1	5.9	2.29 µg/L	2.29 ppb	15:16:31
2	SiO2†	1707.9	4.6	0.4717 µg/L	0.4717 ppb	15:16:10
2	Si 251.611†	743.4	-49.4	-0.7556 µg/L	-0.7556 ppb	15:16:10
2	Sn 189.927†	7.4	-1.1	-0.0757 µg/L	-0.0757 ppb	15:16:31
2	Ti 334.940†	1033.8	139.0	0.1482 µg/L	0.1482 ppb	15:16:10
2	Tl 190.801†	-116.1	0.2	0.0213 µg/L	0.0213 ppb	15:16:31
2	U 409.014†	-484.1	-68.8	-4.1938 µg/L	-4.1938 ppb	15:16:10
2	V 292.402†	466.6	-33.3	-0.1647 µg/L	-0.1647 ppb	15:16:10
2	Zn 213.857†	653.1	28.2	0.1658 µg/L	0.1658 ppb	15:16:31
3	Sc RADIAL	114670.2	114670.2	100 %		15:15:20
3	Al 396.153Radial†	-126.7	-41.4	-9.7734 µg/L	-9.7734 ppb	15:15:40
3	Ca 317.933Radial†	450.9	-6.9	-0.5714 µg/L	-0.5714 ppb	15:15:40
3	Fe 238.204 Radial†	136.2	11.6	0.9862 µg/L	0.9862 ppb	15:15:40
3	K 766.490 Radial†	1327.7	-84.8	-33.960 µg/L	-33.960 ppb	15:15:20
3	Mg 279.077 IEC†	159.6	1.8	1.0207 µg/L	1.0207 ppb	15:15:40
3	Na 589.592 Radial†	867.6	30.1	4.8405 µg/L	4.8405 ppb	15:15:20
3	Sr 421.552†	-41.8	25.0	0.0642 µg/L	0.0642 ppb	15:15:20
3	Sc 361.383	1711395.5	1711395.5	101.13 %		15:16:33
3	Y 371.029	967520.8	967520.8	101.10 %		15:16:33
3	Ag 328.068†	5244.7	83.1	0.3380 µg/L	0.3380 ppb	15:16:35
3	As 188.979†	-22.1	-8.4	-2.9176 µg/L	-2.9176 ppb	15:16:55
3	B 249.677†	4214.0	55.0	0.8161 µg/L	0.8161 ppb	15:16:35
3	Ba 233.527†	-140.0	7.4	0.0337 µg/L	0.0337 ppb	15:16:55
3	Be 313.107†	-598.3	400.7	0.1122 µg/L	0.1122 ppb	15:16:35
3	Cd 226.502†	-47.0	18.1	0.1196 µg/L	0.1196 ppb	15:16:55
3	Co 228.616†	-231.0	-1.4	-0.0180 µg/L	-0.0180 ppb	15:16:55
3	Cr 267.716†	349.7	16.1	0.1449 µg/L	0.1449 ppb	15:16:55
3	Cu 324.752†	2995.5	-279.3	-1.1595 µg/L	-1.1595 ppb	15:16:35
3	Mn 257.610†	302.7	84.0	0.1097 µg/L	0.1097 ppb	15:16:55
3	Mo 202.031†	-13.6	8.1	0.2760 µg/L	0.2760 ppb	15:16:55
3	Ni 231.604†	-67.6	7.1	0.0885 µg/L	0.0885 ppb	15:16:55
3	P 214.914†	-0.4	18.8	4.3128 µg/L	4.3128 ppb	15:16:55
3	Pb 220.353†	131.7	13.1	0.8218 µg/L	0.8218 ppb	15:16:55
3	S 181.975 Axial†	113.3	10.1	8.6167 µg/L	8.6167 ppb	15:16:55
3	Sb 206.836†	91.8	13.3	1.7045 µg/L	1.7045 ppb	15:16:55
3	Se 196.026†	17.1	-3.1	-1.20 µg/L	-1.20 ppb	15:16:55
3	SiO2†	1684.8	-22.9	-2.3847 µg/L	-2.3847 ppb	15:16:35
3	Si 251.611†	750.1	-44.8	-0.6931 µg/L	-0.6931 ppb	15:16:35
3	Sn 189.927†	22.7	14.0	0.9753 µg/L	0.9753 ppb	15:16:55
3	Ti 334.940†	852.7	-42.9	-0.0434 µg/L	-0.0434 ppb	15:16:35
3	Tl 190.801†	-124.2	-7.6	-1.0678 µg/L	-1.0678 ppb	15:16:55
3	U 409.014†	-486.3	-69.6	-4.2337 µg/L	-4.2337 ppb	15:16:35
3	V 292.402†	500.1	-1.5	-0.0070 µg/L	-0.0070 ppb	15:16:35
3	Zn 213.857†	645.9	19.3	0.1117 µg/L	0.1117 ppb	15:16:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1703962.1	100.69	%	0.539				0.53%
Sc RADIAL	114094.3	99.7	%	0.51				0.51%
Y 371.029	963655.7	100.69	%	0.521				0.52%
Ag 328.068†	-27.6	-0.1143	µg/L	0.72138	-0.1143	ppb	0.72138	631.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.7	-3.2538	µg/L	5.66220	-3.2538	ppb	5.66220	174.02%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.9	-1.0077	µg/L	2.04099	-1.0077	ppb	2.04099	202.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	39.1	0.5805	µg/L	0.58593	0.5805	ppb	0.58593	100.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.8	0.0536	µg/L	0.05256	0.0536	ppb	0.05256	98.00%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	339.7	0.0959	µg/L	0.01823	0.0959	ppb	0.01823	19.01%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.4	0.0350	µg/L	0.58468	0.0350	ppb	0.58468	>999.9%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.6	0.1160	µg/L	0.03779	0.1160	ppb	0.03779	32.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.2	0.0680	µg/L	0.14206	0.0680	ppb	0.14206	209.00%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                16.9      0.1492 µg/L       0.18032      0.1492 ppb        0.18032 120.83%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -185.7     -0.7695 µg/L       0.33775     -0.7695 ppb        0.33775  43.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         16.7      1.4210 µg/L       0.45338      1.4210 ppb        0.45338  31.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          39.9      15.962 µg/L       45.5331      15.962 ppb        45.5331 285.25%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -11.2     -6.1989 µg/L       6.28254     -6.1989 ppb        6.28254 101.35%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                63.7      0.0835 µg/L       0.02963      0.0835 ppb        0.02963  35.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.1      0.3429 µg/L       0.16148      0.3429 ppb        0.16148  47.09%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        116.8      18.624 µg/L       13.0327      18.624 ppb        13.0327  69.98%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -1.2     -0.0149 µg/L       0.31248     -0.0149 ppb        0.31248 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  0.5      0.1291 µg/L       3.83196      0.1291 ppb        3.83196 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                12.9      0.8096 µg/L       0.98425      0.8096 ppb        0.98425 121.58%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            6.6      5.5891 µg/L       4.79547      5.5891 ppb        4.79547  85.80%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.8      0.3632 µg/L       2.63947      0.3632 ppb        2.63947 726.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.6       0.987 µg/L        1.9020       0.987 ppb         1.9020 192.69%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       1.6      0.1506 µg/L       2.39104      0.1506 ppb        2.39104 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -27.6     -0.4281 µg/L       0.51403     -0.4281 ppb        0.51403 120.06%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.4      0.3052 µg/L       0.58217      0.3052 ppb        0.58217 190.76%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 7.2      0.0184 µg/L       0.04122      0.0184 ppb        0.04122 224.33%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 6.9      0.0081 µg/L       0.12277      0.0081 ppb        0.12277 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -7.3     -1.0318 µg/L       1.03554     -1.0318 ppb        1.03554 100.37%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -15.2     -0.9201 µg/L       5.70483     -0.9201 ppb        5.70483 620.03%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 12.4      0.0647 µg/L       0.27242      0.0647 ppb        0.27242 420.86%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                16.4      0.0954 µg/L       0.07984      0.0954 ppb        0.07984  83.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: 248860002|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 308
Date Collected: 4/13/2010 15:17:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248860002|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	115690.4	115690.4	101	%			15:17:37
1	Al 396.153Radial†	203585.9	201379.1	47491	µg/L	47491	ppb	15:17:35
1	Ca 317.933Radial†	84269.7	82864.3	6823.0	µg/L	6823.0	ppb	15:17:37
1	Fe 238.204 Radial†	998170.5	986809.7	84179	µg/L	84179	ppb	15:17:35
1	K 766.490 Radial†	11252.2	9716.2	3876.6	µg/L	3876.6	ppb	15:17:37
1	Mg 279.077 IEC†	10276.9	10003.8	5460.7	µg/L	5460.7	ppb	15:17:37
1	Na 589.592 Radial†	11374.3	10411.0	1657.7	µg/L	1657.7	ppb	15:17:37
1	Sr 421.552†	26255.3	26026.5	66.803	µg/L	66.803	ppb	15:17:37
1	Sc 361.383	1674723.7	1674723.7	98.963	%			15:17:50
1	Y 371.029	1162892.1	1162892.1	121.51	%			15:17:50
1	Ag 328.068†	4723.8	-329.7	-2.1815	µg/L	-2.1815	ppb	15:17:50
1	As 188.979†	27.9	41.6	33.713	µg/L	33.713	ppb	15:18:10
1	B 249.677†	4599.0	535.2	7.8446	µg/L	7.8446	ppb	15:17:50
1	Ba 233.527†	116603.2	117970.4	533.01	µg/L	533.01	ppb	15:17:50
1	Be 313.107†	25664.6	26925.8	7.4714	µg/L	7.4714	ppb	15:17:50
1	Cd 226.502†	1226.2	1303.6	-0.2129	µg/L	-0.2129	ppb	15:18:10
1	Co 228.616†	1948.3	2195.8	24.925	µg/L	24.925	ppb	15:18:10
1	Cr 267.716†	4938.1	4660.2	43.452	µg/L	43.452	ppb	15:18:10
1	Cu 324.752†	9866.0	6728.0	39.863	µg/L	39.863	ppb	15:17:50
1	Mn 257.610†	2351294.9	2375708.1	3104.9	µg/L	3104.9	ppb	15:17:50
1	Mo 202.031†	410.9	436.9	18.298	µg/L	18.298	ppb	15:18:10
1	Ni 231.604†	3216.3	3324.0	41.336	µg/L	41.336	ppb	15:18:10
1	P 214.914†	5539.1	5616.4	1236.2	µg/L	1236.2	ppb	15:18:10
1	Pb 220.353†	1106.6	1001.0	67.059	µg/L	67.059	ppb	15:18:10
1	S 181.975 Axial†	300.2	201.4	171.48	µg/L	171.48	ppb	15:18:10
1	Sb 206.836†	68.2	-8.7	-2.7001	µg/L	-2.7001	ppb	15:18:10
1	Se 196.026†	-63.9	-84.6	-3.98	µg/L	-3.98	ppb	15:18:10
1	SiO2†	245909.8	246796.7	25483	µg/L	25483	ppb	15:17:50
1	Si 251.611†	772756.8	780064.5	11899	µg/L	11899	ppb	15:17:50
1	Sn 189.927†	50.1	42.2	12.371	µg/L	12.371	ppb	15:18:10
1	Ti 334.940†	2639463.6	2666224.5	2796.0	µg/L	2796.0	ppb	15:17:50
1	Tl 190.801†	-428.9	-318.2	-8.0376	µg/L	-8.0376	ppb	15:18:10
1	U 409.014†	-8604.1	-8282.9	-495.81	µg/L	-495.81	ppb	15:17:50
1	V 292.402†	23507.7	23258.0	103.83	µg/L	103.83	ppb	15:17:50
1	Zn 213.857†	48330.3	48217.2	271.31	µg/L	271.31	ppb	15:17:50
2	Sc RADIAL	115892.9	115892.9	101	%			15:17:41
2	Al 396.153Radial†	207231.8	204625.9	48256	µg/L	48256	ppb	15:17:39
2	Ca 317.933Radial†	84477.2	82923.5	6827.9	µg/L	6827.9	ppb	15:17:41
2	Fe 238.204 Radial†	1020621.7	1007244.9	85922	µg/L	85922	ppb	15:17:39
2	K 766.490 Radial†	11161.9	9607.7	3833.0	µg/L	3833.0	ppb	15:17:41
2	Mg 279.077 IEC†	10219.8	9929.7	5418.2	µg/L	5418.2	ppb	15:17:41
2	Na 589.592 Radial†	11346.8	10364.1	1650.3	µg/L	1650.3	ppb	15:17:41
2	Sr 421.552†	26331.2	26056.0	66.879	µg/L	66.879	ppb	15:17:41
2	Sc 361.383	1659744.4	1659744.4	98.078	%			15:18:13
2	Y 371.029	1152880.6	1152880.6	120.46	%			15:18:13
2	Ag 328.068†	4910.7	-96.1	-1.2478	µg/L	-1.2478	ppb	15:18:13
2	As 188.979†	28.2	42.2	34.306	µg/L	34.306	ppb	15:18:33
2	B 249.677†	4774.9	756.5	11.129	µg/L	11.129	ppb	15:18:13
2	Ba 233.527†	116054.7	118474.5	535.27	µg/L	535.27	ppb	15:18:13
2	Be 313.107†	25271.5	26759.0	7.4210	µg/L	7.4210	ppb	15:18:13
2	Cd 226.502†	1220.3	1308.8	-0.3615	µg/L	-0.3615	ppb	15:18:33
2	Co 228.616†	1944.1	2209.2	25.012	µg/L	25.012	ppb	15:18:33
2	Cr 267.716†	4893.4	4659.6	43.514	µg/L	43.514	ppb	15:18:33
2	Cu 324.752†	9530.8	6476.3	39.065	µg/L	39.065	ppb	15:18:13
2	Mn 257.610†	2339269.2	2384889.6	3116.9	µg/L	3116.9	ppb	15:18:13
2	Mo 202.031†	408.6	438.2	18.413	µg/L	18.413	ppb	15:18:33
2	Ni 231.604†	3198.7	3335.3	41.477	µg/L	41.477	ppb	15:18:33
2	P 214.914†	5540.6	5668.4	1247.1	µg/L	1247.1	ppb	15:18:33
2	Pb 220.353†	1081.2	985.2	66.084	µg/L	66.084	ppb	15:18:33

2	S 181.975 Axial†	306.7	210.8	179.47	µg/L	179.47 ppb	15:18:33
2	Sb 206.836†	62.8	-13.5	-3.3424	µg/L	-3.3424 ppb	15:18:33
2	Se 196.026†	-55.9	-77.0	-0.443	µg/L	-0.443 ppb	15:18:33
2	SiO2†	243121.3	246196.2	25421	µg/L	25421 ppb	15:18:13
2	Si 251.611†	764662.5	778858.8	11881	µg/L	11881 ppb	15:18:13
2	Sn 189.927†	66.6	59.5	13.613	µg/L	13.613 ppb	15:18:33
2	Ti 334.940†	2626495.0	2677072.7	2807.4	µg/L	2807.4 ppb	15:18:13
2	Tl 190.801†	-430.6	-323.8	-8.6933	µg/L	-8.6933 ppb	15:18:33
2	U 409.014†	-8698.3	-8457.4	-506.75	µg/L	-506.75 ppb	15:18:13
2	V 292.402†	23243.3	23202.7	103.36	µg/L	103.36 ppb	15:18:13
2	Zn 213.857†	48181.9	48506.7	272.82	µg/L	272.82 ppb	15:18:13
3	Sc RADIAL	114866.8	114866.8	100	%		15:17:45
3	Al 396.153Radial†	205535.8	204764.1	48289	µg/L	48289 ppb	15:17:43
3	Ca 317.933Radial†	83405.9	82601.5	6801.4	µg/L	6801.4 ppb	15:17:45
3	Fe 238.204 Radial†	1008790.0	1004461.1	85684	µg/L	85684 ppb	15:17:43
3	K 766.490 Radial†	11281.6	9825.3	3920.1	µg/L	3920.1 ppb	15:17:45
3	Mg 279.077 IEC†	10102.5	9903.0	5403.7	µg/L	5403.7 ppb	15:17:45
3	Na 589.592 Radial†	11334.0	10451.5	1664.1	µg/L	1664.1 ppb	15:17:45
3	Sr 421.552†	26269.2	26226.4	67.317	µg/L	67.317 ppb	15:17:45
3	Sc 361.383	1689049.9	1689049.9	99.810	%		15:18:36
3	Y 371.029	1171705.4	1171705.4	122.43	%		15:18:36
3	Ag 328.068†	5105.6	12.4	-0.7914	µg/L	-0.7914 ppb	15:18:36
3	As 188.979†	23.7	37.2	32.528	µg/L	32.528 ppb	15:18:56
3	B 249.677†	4844.6	741.9	10.914	µg/L	10.914 ppb	15:18:36
3	Ba 233.527†	117559.7	117929.4	532.81	µg/L	532.81 ppb	15:18:36
3	Be 313.107†	25448.3	26489.1	7.3438	µg/L	7.3438 ppb	15:18:36
3	Cd 226.502†	1242.7	1309.7	-0.3312	µg/L	-0.3312 ppb	15:18:56
3	Co 228.616†	1940.9	2171.7	24.530	µg/L	24.530 ppb	15:18:56
3	Cr 267.716†	4885.5	4565.2	42.683	µg/L	42.683 ppb	15:18:56
3	Cu 324.752†	9838.6	6616.1	39.606	µg/L	39.606 ppb	15:18:36
3	Mn 257.610†	2367529.9	2371822.0	3099.8	µg/L	3099.8 ppb	15:18:36
3	Mo 202.031†	426.5	449.0	18.768	µg/L	18.768 ppb	15:18:56
3	Ni 231.604†	3202.4	3282.4	40.819	µg/L	40.819 ppb	15:18:56
3	P 214.914†	5556.0	5585.8	1228.3	µg/L	1228.3 ppb	15:18:56
3	Pb 220.353†	1065.4	950.2	63.885	µg/L	63.885 ppb	15:18:56
3	S 181.975 Axial†	316.1	214.8	182.87	µg/L	182.87 ppb	15:18:56
3	Sb 206.836†	60.3	-17.1	-3.7915	µg/L	-3.7915 ppb	15:18:56
3	Se 196.026†	-35.7	-55.8	7.66	µg/L	7.66 ppb	15:18:56
3	SiO2†	245829.8	244608.9	25257	µg/L	25257 ppb	15:18:36
3	Si 251.611†	775169.5	775858.8	11835	µg/L	11835 ppb	15:18:36
3	Sn 189.927†	60.2	51.9	13.033	µg/L	13.033 ppb	15:18:56
3	Ti 334.940†	2659305.7	2663482.5	2793.1	µg/L	2793.1 ppb	15:18:36
3	Tl 190.801†	-437.7	-323.3	-8.8008	µg/L	-8.8008 ppb	15:18:56
3	U 409.014†	-8892.5	-8498.2	-509.26	µg/L	-509.26 ppb	15:18:36
3	V 292.402†	23734.3	23283.5	103.79	µg/L	103.79 ppb	15:18:36
3	Zn 213.857†	48726.7	48200.2	271.07	µg/L	271.07 ppb	15:18:36

Mean Data: 248860002|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1674506.0	98.951	%	0.8659				0.88%
Sc RADIAL	115483.4	101	%	0.5				0.47%
Y 371.029	1162492.7	121.47	%	0.984				0.81%
Ag 328.068†	-137.8	-1.4069	µg/L	0.70854	-1.4069	ppb	0.70854	50.36%
Al 396.153Radial†	203589.7	48012	µg/L	451.8	48012	ppb	451.8	0.94%
As 188.979†	40.3	33.516	µg/L	0.9050	33.516	ppb	0.9050	2.70%
B 249.677†	677.9	9.9627	µg/L	1.83747	9.9627	ppb	1.83747	18.44%
Ba 233.527†	118124.8	533.70	µg/L	1.367	533.70	ppb	1.367	0.26%
Be 313.107†	26724.6	7.4121	µg/L	0.06426	7.4121	ppb	0.06426	0.87%
Ca 317.933Radial†	82796.5	6817.4	µg/L	14.11	6817.4	ppb	14.11	0.21%
Cd 226.502†	1307.4	-0.3018	µg/L	0.07852	-0.3018	ppb	0.07852	26.01%
Co 228.616†	2192.2	24.822	µg/L	0.2568	24.822	ppb	0.2568	1.03%
Cr 267.716†	4628.3	43.216	µg/L	0.4631	43.216	ppb	0.4631	1.07%
Cu 324.752†	6606.8	39.511	µg/L	0.4074	39.511	ppb	0.4074	1.03%
Fe 238.204 Radial†	999505.2	85262	µg/L	945.4	85262	ppb	945.4	1.11%
K 766.490 Radial†	9716.4	3876.6	µg/L	43.54	3876.6	ppb	43.54	1.12%
Mg 279.077 IEC†	9945.5	5427.5	µg/L	29.63	5427.5	ppb	29.63	0.55%
Mn 257.610†	2377473.2	3107.2	µg/L	8.77	3107.2	ppb	8.77	0.28%
Mo 202.031†	441.3	18.493	µg/L	0.2450	18.493	ppb	0.2450	1.32%
Na 589.592 Radial†	10408.9	1657.4	µg/L	6.94	1657.4	ppb	6.94	0.42%

Ni 231.604†	3313.9	41.211	µg/L	0.3461	41.211	ppb	0.3461	0.84%
P 214.914†	5623.5	1237.2	µg/L	9.40	1237.2	ppb	9.40	0.76%
Pb 220.353†	978.8	65.676	µg/L	1.6259	65.676	ppb	1.6259	2.48%
S 181.975 Axial†	209.0	177.94	µg/L	5.843	177.94	ppb	5.843	3.28%
Sb 206.836†	-13.1	-3.2780	µg/L	0.54859	-3.2780	ppb	0.54859	16.74%
Se 196.026†	-72.4	1.08	µg/L	5.968	1.08	ppb	5.968	551.72%
SiO2†	245867.3	25387	µg/L	116.7	25387	ppb	116.7	0.46%
Si 251.611†	778260.7	11872	µg/L	33.0	11872	ppb	33.0	0.28%
Sn 189.927†	51.2	13.006	µg/L	0.6215	13.006	ppb	0.6215	4.78%
Sr 421.552†	26103.0	66.999	µg/L	0.2774	66.999	ppb	0.2774	0.41%
Ti 334.940†	2668926.5	2798.8	µg/L	7.54	2798.8	ppb	7.54	0.27%
Tl 190.801†	-321.8	-8.5105	µg/L	0.41309	-8.5105	ppb	0.41309	4.85%
U 409.014†	-8412.9	-503.94	µg/L	7.155	-503.94	ppb	7.155	1.42%
Concentration less than lower limit for U 409.014.								
V 292.402†	23248.1	103.66	µg/L	0.264	103.66	ppb	0.264	0.25%
Zn 213.857†	48308.0	271.73	µg/L	0.947	271.73	ppb	0.947	0.35%

Sequence No.: 11
Sample ID: 248860003|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 309
Date Collected: 4/13/2010 15:19:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248860003|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	112915.3	112915.3	98.7	%			15:19:36
1	Al 396.153Radial†	71087.8	72100.0	17003	µg/L	17003	ppb	15:19:34
1	Ca 317.933Radial†	81164.7	81766.6	6732.6	µg/L	6732.6	ppb	15:19:36
1	Fe 238.204 Radial†	522027.9	528712.4	45101	µg/L	45101	ppb	15:19:34
1	K 766.490 Radial†	8053.2	6749.0	2696.0	µg/L	2696.0	ppb	15:19:36
1	Mg 279.077 IEC†	6559.0	6487.2	3549.2	µg/L	3549.2	ppb	15:19:36
1	Na 589.592 Radial†	6746.0	5998.7	954.73	µg/L	954.73	ppb	15:19:36
1	Sr 421.552†	13707.2	13952.7	35.789	µg/L	35.789	ppb	15:19:36
1	Sc 361.383	1675368.5	1675368.5	99.002	%			15:20:03
1	Y 371.029	1111814.5	1111814.5	116.17	%			15:20:03
1	Ag 328.068†	4908.7	-144.8	-1.2427	µg/L	-1.2427	ppb	15:20:03
1	As 188.979†	16.2	29.8	20.760	µg/L	20.760	ppb	15:20:23
1	B 249.677†	4689.3	624.7	9.2352	µg/L	9.2352	ppb	15:20:03
1	Ba 233.527†	47152.5	47773.9	215.71	µg/L	215.71	ppb	15:20:03
1	Be 313.107†	11835.0	12946.7	3.5615	µg/L	3.5615	ppb	15:20:03
1	Cd 226.502†	638.3	709.3	-0.0436	µg/L	-0.0436	ppb	15:20:23
1	Co 228.616†	601.3	834.5	8.8040	µg/L	8.8040	ppb	15:20:23
1	Cr 267.716†	3914.1	3624.0	33.338	µg/L	33.338	ppb	15:20:23
1	Cu 324.752†	22089.7	19071.2	85.338	µg/L	85.338	ppb	15:20:03
1	Mn 257.610†	917820.4	926861.7	1211.3	µg/L	1211.3	ppb	15:20:03
1	Mo 202.031†	216.6	240.4	10.027	µg/L	10.027	ppb	15:20:23
1	Ni 231.604†	1451.6	1540.2	19.153	µg/L	19.153	ppb	15:20:23
1	P 214.914†	2684.2	2730.5	596.08	µg/L	596.08	ppb	15:20:23
1	Pb 220.353†	1939.8	1842.1	116.58	µg/L	116.58	ppb	15:20:23
1	S 181.975 Axial†	457.4	360.1	306.47	µg/L	306.47	ppb	15:20:23
1	Sb 206.836†	83.9	7.2	-0.0368	µg/L	-0.0368	ppb	15:20:23
1	Se 196.026†	-13.9	-34.1	2.15	µg/L	2.15	ppb	15:20:23
1	SiO2†	202423.9	202776.6	20938	µg/L	20938	ppb	15:20:03
1	Si 251.611†	636006.9	641634.8	9787.7	µg/L	9787.7	ppb	15:20:03
1	Sn 189.927†	55.2	47.3	6.6520	µg/L	6.6520	ppb	15:20:23
1	Ti 334.940†	940155.8	948751.7	994.97	µg/L	994.97	ppb	15:20:03
1	Tl 190.801†	-246.6	-133.9	-5.4508	µg/L	-5.4508	ppb	15:20:23
1	U 409.014†	-6017.1	-5666.5	-343.95	µg/L	-343.95	ppb	15:20:03
1	V 292.402†	10115.0	9720.9	42.506	µg/L	42.506	ppb	15:20:23
1	Zn 213.857†	41043.3	40837.9	231.54	µg/L	231.54	ppb	15:20:03
2	Sc RADIAL	113444.8	113444.8	99.2	%			15:19:40
2	Al 396.153Radial†	71233.4	71910.7	16958	µg/L	16958	ppb	15:19:38
2	Ca 317.933Radial†	81848.2	82072.0	6757.8	µg/L	6757.8	ppb	15:19:40
2	Fe 238.204 Radial†	519694.7	523891.6	44690	µg/L	44690	ppb	15:19:38
2	K 766.490 Radial†	8082.2	6740.1	2692.4	µg/L	2692.4	ppb	15:19:40
2	Mg 279.077 IEC†	6634.8	6532.7	3574.7	µg/L	3574.7	ppb	15:19:40
2	Na 589.592 Radial†	6899.6	6121.6	974.35	µg/L	974.35	ppb	15:19:40
2	Sr 421.552†	14019.9	14203.1	36.432	µg/L	36.432	ppb	15:19:40
2	Sc 361.383	1675151.3	1675151.3	98.989	%			15:20:26
2	Y 371.029	1112418.9	1112418.9	116.24	%			15:20:26
2	Ag 328.068†	4874.8	-178.4	-1.3664	µg/L	-1.3664	ppb	15:20:26
2	As 188.979†	25.4	39.1	23.897	µg/L	23.897	ppb	15:20:46
2	B 249.677†	4470.2	403.9	5.9581	µg/L	5.9581	ppb	15:20:26
2	Ba 233.527†	46926.4	47551.7	214.71	µg/L	214.71	ppb	15:20:26
2	Be 313.107†	11951.4	13065.8	3.5977	µg/L	3.5977	ppb	15:20:26
2	Cd 226.502†	660.9	732.3	0.1514	µg/L	0.1514	ppb	15:20:46
2	Co 228.616†	601.6	834.7	8.8284	µg/L	8.8284	ppb	15:20:46
2	Cr 267.716†	3912.1	3622.5	33.304	µg/L	33.304	ppb	15:20:46
2	Cu 324.752†	21994.9	18978.3	84.901	µg/L	84.901	ppb	15:20:26
2	Mn 257.610†	916109.9	925254.0	1209.2	µg/L	1209.2	ppb	15:20:26
2	Mo 202.031†	222.5	246.4	10.214	µg/L	10.214	ppb	15:20:46
2	Ni 231.604†	1452.5	1541.3	19.167	µg/L	19.167	ppb	15:20:46
2	P 214.914†	2660.0	2706.4	590.85	µg/L	590.85	ppb	15:20:46
2	Pb 220.353†	1954.7	1857.5	117.54	µg/L	117.54	ppb	15:20:46

2	S 181.975 Axial†	451.6	354.3	301.54	µg/L	301.54 ppb	15:20:46
2	Sb 206.836†	72.4	-4.4	-1.5136	µg/L	-1.5136 ppb	15:20:46
2	Se 196.026†	-9.9	-30.0	3.57	µg/L	3.57 ppb	15:20:46
2	SiO2†	201754.5	202126.8	20871	µg/L	20871 ppb	15:20:26
2	Si 251.611†	633183.3	638865.7	9745.4	µg/L	9745.4 ppb	15:20:26
2	Sn 189.927†	57.0	49.2	6.7757	µg/L	6.7757 ppb	15:20:46
2	Ti 334.940†	939128.1	947836.6	994.00	µg/L	994.00 ppb	15:20:26
2	Tl 190.801†	-245.2	-132.5	-5.2610	µg/L	-5.2610 ppb	15:20:46
2	U 409.014†	-5884.1	-5532.9	-335.73	µg/L	-335.73 ppb	15:20:26
2	V 292.402†	10158.5	9766.3	42.782	µg/L	42.782 ppb	15:20:46
2	Zn 213.857†	40909.5	40708.1	230.83	µg/L	230.83 ppb	15:20:26
3	Sc RADIAL	114034.5	114034.5	99.7	%		15:19:44
3	Al 396.153Radial†	71983.8	72291.9	17048	µg/L	17048 ppb	15:19:42
3	Ca 317.933Radial†	82123.7	81921.5	6745.4	µg/L	6745.4 ppb	15:19:44
3	Fe 238.204 Radial†	525440.5	526945.2	44950	µg/L	44950 ppb	15:19:42
3	K 766.490 Radial†	8147.1	6763.1	2701.6	µg/L	2701.6 ppb	15:19:44
3	Mg 279.077 IEC†	6690.3	6553.7	3586.1	µg/L	3586.1 ppb	15:19:44
3	Na 589.592 Radial†	6836.6	6022.5	958.53	µg/L	958.53 ppb	15:19:44
3	Sr 421.552†	14022.8	14133.0	36.252	µg/L	36.252 ppb	15:19:44
3	Sc 361.383	1687197.5	1687197.5	99.701	%		15:20:49
3	Y 371.029	1120651.4	1120651.4	117.10	%		15:20:49
3	Ag 328.068†	4834.2	-254.3	-1.6835	µg/L	-1.6835 ppb	15:20:49
3	As 188.979†	20.7	34.2	22.239	µg/L	22.239 ppb	15:21:09
3	B 249.677†	4734.6	636.9	9.4145	µg/L	9.4145 ppb	15:20:49
3	Ba 233.527†	47453.6	47742.0	215.57	µg/L	215.57 ppb	15:20:49
3	Be 313.107†	11842.9	12870.8	3.5427	µg/L	3.5427 ppb	15:20:49
3	Cd 226.502†	639.7	706.2	-0.0482	µg/L	-0.0482 ppb	15:21:09
3	Co 228.616†	648.1	877.1	9.3702	µg/L	9.3702 ppb	15:21:09
3	Cr 267.716†	3929.8	3612.0	33.219	µg/L	33.219 ppb	15:21:09
3	Cu 324.752†	22324.4	19150.2	85.652	µg/L	85.652 ppb	15:20:49
3	Mn 257.610†	925876.5	928442.3	1213.3	µg/L	1213.3 ppb	15:20:49
3	Mo 202.031†	216.1	238.3	9.9507	µg/L	9.9507 ppb	15:21:09
3	Ni 231.604†	1437.4	1515.6	18.848	µg/L	18.848 ppb	15:21:09
3	P 214.914†	2694.2	2721.5	594.14	µg/L	594.14 ppb	15:21:09
3	Pb 220.353†	1969.7	1858.4	117.60	µg/L	117.60 ppb	15:21:09
3	S 181.975 Axial†	470.1	369.6	314.53	µg/L	314.53 ppb	15:21:09
3	Sb 206.836†	82.4	5.1	-0.2970	µg/L	-0.2970 ppb	15:21:09
3	Se 196.026†	-28.7	-48.7	-3.57	µg/L	-3.57 ppb	15:21:09
3	SiO2†	204442.5	203367.7	20999	µg/L	20999 ppb	15:20:49
3	Si 251.611†	642661.7	643805.6	9820.8	µg/L	9820.8 ppb	15:20:49
3	Sn 189.927†	59.9	51.7	6.9654	µg/L	6.9654 ppb	15:21:09
3	Ti 334.940†	950397.8	952366.5	998.75	µg/L	998.75 ppb	15:20:49
3	Tl 190.801†	-241.9	-127.4	-4.4981	µg/L	-4.4981 ppb	15:21:09
3	U 409.014†	-5915.1	-5521.7	-335.09	µg/L	-335.09 ppb	15:20:49
3	V 292.402†	10193.8	9728.4	42.560	µg/L	42.560 ppb	15:21:09
3	Zn 213.857†	41494.2	40999.6	232.49	µg/L	232.49 ppb	15:20:49

Mean Data: 248860003|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1679239.1	99.230	%	0.4073				0.41%
Sc RADIAL	113464.9	99.2	%	0.49				0.49%
Y 371.029	1114961.6	116.50	%	0.516				0.44%
Ag 328.068†	-192.5	-1.4309	µg/L	0.22733	-1.4309	ppb	0.22733	15.89%
Al 396.153Radial†	72100.9	17003	µg/L	45.0	17003	ppb	45.0	0.26%
As 188.979†	34.4	22.298	µg/L	1.5695	22.298	ppb	1.5695	7.04%
B 249.677†	555.2	8.2026	µg/L	1.94588	8.2026	ppb	1.94588	23.72%
Ba 233.527†	47689.2	215.33	µg/L	0.541	215.33	ppb	0.541	0.25%
Be 313.107†	12961.1	3.5673	µg/L	0.02795	3.5673	ppb	0.02795	0.78%
Ca 317.933Radial†	81920.0	6745.2	µg/L	12.58	6745.2	ppb	12.58	0.19%
Cd 226.502†	715.9	0.0199	µg/L	0.11395	0.0199	ppb	0.11395	573.84%
Co 228.616†	848.8	9.0009	µg/L	0.32007	9.0009	ppb	0.32007	3.56%
Cr 267.716†	3619.5	33.287	µg/L	0.0611	33.287	ppb	0.0611	0.18%
Cu 324.752†	19066.6	85.297	µg/L	0.3771	85.297	ppb	0.3771	0.44%
Fe 238.204 Radial†	526516.4	44914	µg/L	208.0	44914	ppb	208.0	0.46%
K 766.490 Radial†	6750.8	2696.7	µg/L	4.63	2696.7	ppb	4.63	0.17%
Mg 279.077 IEC†	6524.5	3570.0	µg/L	18.90	3570.0	ppb	18.90	0.53%
Mn 257.610†	926852.7	1211.3	µg/L	2.08	1211.3	ppb	2.08	0.17%
Mo 202.031†	241.7	10.064	µg/L	0.1352	10.064	ppb	0.1352	1.34%
Na 589.592 Radial†	6047.6	962.53	µg/L	10.408	962.53	ppb	10.408	1.08%

Ni 231.604†	1532.4	19.056	µg/L	0.1805	19.056	ppb	0.1805	0.95%
P 214.914†	2719.5	593.69	µg/L	2.646	593.69	ppb	2.646	0.45%
Pb 220.353†	1852.6	117.24	µg/L	0.575	117.24	ppb	0.575	0.49%
S 181.975 Axial†	361.3	307.51	µg/L	6.558	307.51	ppb	6.558	2.13%
Sb 206.836†	2.6	-0.6158	µg/L	0.78834	-0.6158	ppb	0.78834	128.02%
Se 196.026†	-37.6	0.717	µg/L	3.7813	0.717	ppb	3.7813	527.59%
SiO2†	202757.0	20936	µg/L	64.1	20936	ppb	64.1	0.31%
Si 251.611†	641435.4	9784.6	µg/L	37.77	9784.6	ppb	37.77	0.39%
Sn 189.927†	49.4	6.7977	µg/L	0.15785	6.7977	ppb	0.15785	2.32%
Sr 421.552†	14096.3	36.157	µg/L	0.3318	36.157	ppb	0.3318	0.92%
Ti 334.940†	949651.6	995.91	µg/L	2.510	995.91	ppb	2.510	0.25%
Tl 190.801†	-131.3	-5.0700	µg/L	0.50429	-5.0700	ppb	0.50429	9.95%
U 409.014†	-5573.7	-338.26	µg/L	4.940	-338.26	ppb	4.940	1.46%
Concentration less than lower limit for U 409.014.								
V 292.402†	9738.5	42.616	µg/L	0.1465	42.616	ppb	0.1465	0.34%
Zn 213.857†	40848.5	231.62	µg/L	0.833	231.62	ppb	0.833	0.36%

Sequence No.: 12
Sample ID: 248860004|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 310
Date Collected: 4/13/2010 15:21:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248860004|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	112383.6	112383.6	98.2	%			15:21:48
1	Al 396.153Radial†	154848.0	157694.8	37188	µg/L	37188	ppb	15:21:46
1	Ca 317.933Radial†	74091.8	74956.6	6171.9	µg/L	6171.9	ppb	15:21:48
1	Fe 238.204 Radial†	879003.7	894557.2	76309	µg/L	76309	ppb	15:21:46
1	K 766.490 Radial†	10823.5	9607.3	3835.5	µg/L	3835.5	ppb	15:21:48
1	Mg 279.077 IEC†	10006.7	10027.8	5480.9	µg/L	5480.9	ppb	15:21:48
1	Na 589.592 Radial†	9888.4	9229.5	1469.2	µg/L	1469.2	ppb	15:21:48
1	Sr 421.552†	27085.3	27635.1	70.940	µg/L	70.940	ppb	15:21:48
1	Sc 361.383	1683832.3	1683832.3	99.502	%			15:22:01
1	Y 371.029	1133239.8	1133239.8	118.41	%			15:22:01
1	Ag 328.068†	4986.2	-91.8	-1.2793	µg/L	-1.2793	ppb	15:22:01
1	As 188.979†	21.7	35.2	29.630	µg/L	29.630	ppb	15:22:21
1	B 249.677†	4798.7	710.9	10.499	µg/L	10.499	ppb	15:22:01
1	Ba 233.527†	88041.7	88628.5	400.27	µg/L	400.27	ppb	15:22:01
1	Be 313.107†	22147.3	23250.5	6.4682	µg/L	6.4682	ppb	15:22:01
1	Cd 226.502†	1017.5	1087.2	-0.8224	µg/L	-0.8224	ppb	15:22:21
1	Co 228.616†	935.4	1167.1	11.718	µg/L	11.718	ppb	15:22:21
1	Cr 267.716†	3358.1	3045.3	29.120	µg/L	29.120	ppb	15:22:21
1	Cu 324.752†	5841.0	2629.0	21.842	µg/L	21.842	ppb	15:22:01
1	Mn 257.610†	1618959.3	1626852.3	2126.1	µg/L	2126.1	ppb	15:22:01
1	Mo 202.031†	704.8	730.0	27.921	µg/L	27.921	ppb	15:22:21
1	Ni 231.604†	2241.1	2326.2	28.928	µg/L	28.928	ppb	15:22:21
1	P 214.914†	2946.5	2980.5	637.06	µg/L	637.06	ppb	15:22:21
1	Pb 220.353†	913.1	800.5	52.619	µg/L	52.619	ppb	15:22:21
1	S 181.975 Axial†	321.8	221.5	188.70	µg/L	188.70	ppb	15:22:21
1	Sb 206.836†	79.5	2.4	-0.8274	µg/L	-0.8274	ppb	15:22:21
1	Se 196.026†	-43.9	-64.1	1.33	µg/L	1.33	ppb	15:22:21
1	SiO2†	192425.6	191700.5	19794	µg/L	19794	ppb	15:22:01
1	Si 251.611†	604350.7	606591.0	9252.8	µg/L	9252.8	ppb	15:22:01
1	Sn 189.927†	125.2	117.4	13.969	µg/L	13.969	ppb	15:22:21
1	Ti 334.940†	1630125.6	1637403.8	1717.0	µg/L	1717.0	ppb	15:22:01
1	Tl 190.801†	-309.5	-195.8	-4.4464	µg/L	-4.4464	ppb	15:22:21
1	U 409.014†	-6628.4	-6250.3	-379.53	µg/L	-379.53	ppb	15:22:01
1	V 292.402†	14012.5	13586.6	57.836	µg/L	57.836	ppb	15:22:21
1	Zn 213.857†	40391.1	39974.1	223.94	µg/L	223.94	ppb	15:22:01
2	Sc RADIAL	113655.0	113655.0	99.4	%			15:21:52
2	Al 396.153Radial†	154118.6	155197.5	36599	µg/L	36599	ppb	15:21:50
2	Ca 317.933Radial†	75423.3	75453.0	6212.8	µg/L	6212.8	ppb	15:21:52
2	Fe 238.204 Radial†	878244.6	883784.5	75390	µg/L	75390	ppb	15:21:50
2	K 766.490 Radial†	10870.9	9531.7	3805.3	µg/L	3805.3	ppb	15:21:52
2	Mg 279.077 IEC†	10228.5	10137.1	5542.2	µg/L	5542.2	ppb	15:21:52
2	Na 589.592 Radial†	10173.3	9403.6	1497.0	µg/L	1497.0	ppb	15:21:52
2	Sr 421.552†	27567.3	27811.8	71.394	µg/L	71.394	ppb	15:21:52
2	Sc 361.383	1698496.0	1698496.0	100.37	%			15:22:23
2	Y 371.029	1142572.3	1142572.3	119.39	%			15:22:23
2	Ag 328.068†	5326.0	203.5	-0.0375	µg/L	-0.0375	ppb	15:22:23
2	As 188.979†	17.7	31.0	27.973	µg/L	27.973	ppb	15:22:44
2	B 249.677†	4790.6	661.1	9.7616	µg/L	9.7616	ppb	15:22:23
2	Ba 233.527†	89027.3	88846.6	401.26	µg/L	401.26	ppb	15:22:23
2	Be 313.107†	22364.0	23274.3	6.4806	µg/L	6.4806	ppb	15:22:23
2	Cd 226.502†	1034.6	1095.4	-0.6713	µg/L	-0.6713	ppb	15:22:44
2	Co 228.616†	922.4	1146.0	11.490	µg/L	11.490	ppb	15:22:44
2	Cr 267.716†	3341.2	2999.3	28.669	µg/L	28.669	ppb	15:22:44
2	Cu 324.752†	5910.5	2647.6	21.802	µg/L	21.802	ppb	15:22:23
2	Mn 257.610†	1633843.0	1627634.3	2127.1	µg/L	2127.1	ppb	15:22:23
2	Mo 202.031†	701.6	720.6	27.569	µg/L	27.569	ppb	15:22:44
2	Ni 231.604†	2223.2	2288.9	28.465	µg/L	28.465	ppb	15:22:44
2	P 214.914†	2976.8	2985.1	638.62	µg/L	638.62	ppb	15:22:44
2	Pb 220.353†	864.6	744.2	49.070	µg/L	49.070	ppb	15:22:44

2	S 181.975 Axial†	330.3	227.2	193.52	µg/L	193.52 ppb	15:22:44
2	Sb 206.836†	76.2	-1.6	-1.3213	µg/L	-1.3213 ppb	15:22:44
2	Se 196.026†	-44.2	-64.0	1.05	µg/L	1.05 ppb	15:22:44
2	SiO2†	194212.9	191811.6	19805	µg/L	19805 ppb	15:22:23
2	Si 251.611†	609531.0	606508.6	9251.6	µg/L	9251.6 ppb	15:22:23
2	Sn 189.927†	143.5	134.6	15.164	µg/L	15.164 ppb	15:22:44
2	Ti 334.940†	1645224.0	1638302.8	1717.9	µg/L	1717.9 ppb	15:22:23
2	Tl 190.801†	-310.2	-193.8	-4.1502	µg/L	-4.1502 ppb	15:22:44
2	U 409.014†	-6374.7	-5940.1	-360.47	µg/L	-360.47 ppb	15:22:23
2	V 292.402†	14050.0	13502.4	57.522	µg/L	57.522 ppb	15:22:44
2	Zn 213.857†	40722.6	39953.9	223.91	µg/L	223.91 ppb	15:22:23
3	Sc RADIAL	114264.7	114264.7	99.9	%		15:21:56
3	Al 396.153Radial†	154841.5	155093.6	36575	µg/L	36575 ppb	15:21:54
3	Ca 317.933Radial†	75651.6	75276.5	6198.2	µg/L	6198.2 ppb	15:21:56
3	Fe 238.204 Radial†	877992.7	878816.2	74966	µg/L	74966 ppb	15:21:54
3	K 766.490 Radial†	10865.7	9468.1	3779.9	µg/L	3779.9 ppb	15:21:56
3	Mg 279.077 IEC†	10187.8	10041.4	5489.6	µg/L	5489.6 ppb	15:21:56
3	Na 589.592 Radial†	10190.8	9366.6	1491.1	µg/L	1491.1 ppb	15:21:56
3	Sr 421.552†	27692.0	27788.6	71.334	µg/L	71.334 ppb	15:21:56
3	Sc 361.383	1681944.7	1681944.7	99.390	%		15:22:46
3	Y 371.029	1133705.8	1133705.8	118.46	%		15:22:46
3	Ag 328.068†	5298.4	227.9	0.0683	µg/L	0.0683 ppb	15:22:46
3	As 188.979†	21.4	34.9	29.232	µg/L	29.232 ppb	15:23:06
3	B 249.677†	4792.5	710.0	10.485	µg/L	10.485 ppb	15:22:46
3	Ba 233.527†	88296.0	88983.7	401.89	µg/L	401.89 ppb	15:22:46
3	Be 313.107†	22094.8	23222.7	6.4639	µg/L	6.4639 ppb	15:22:46
3	Cd 226.502†	1054.9	1126.0	-0.4245	µg/L	-0.4245 ppb	15:23:06
3	Co 228.616†	944.8	1177.7	11.928	µg/L	11.928 ppb	15:23:06
3	Cr 267.716†	3362.6	3053.6	29.136	µg/L	29.136 ppb	15:23:06
3	Cu 324.752†	5995.4	2790.9	22.327	µg/L	22.327 ppb	15:22:46
3	Mn 257.610†	1624420.6	1634173.0	2135.7	µg/L	2135.7 ppb	15:22:46
3	Mo 202.031†	709.2	735.2	28.045	µg/L	28.045 ppb	15:23:06
3	Ni 231.604†	2266.2	2354.0	29.274	µg/L	29.274 ppb	15:23:06
3	P 214.914†	2973.9	3011.4	644.90	µg/L	644.90 ppb	15:23:06
3	Pb 220.353†	878.7	766.9	50.520	µg/L	50.520 ppb	15:23:06
3	S 181.975 Axial†	326.1	226.2	192.68	µg/L	192.68 ppb	15:23:06
3	Sb 206.836†	69.3	-7.8	-2.1190	µg/L	-2.1190 ppb	15:23:06
3	Se 196.026†	-48.4	-68.7	-0.897	µg/L	-0.897 ppb	15:23:06
3	SiO2†	191898.9	191387.5	19761	µg/L	19761 ppb	15:22:46
3	Si 251.611†	603044.5	605958.4	9243.2	µg/L	9243.2 ppb	15:22:46
3	Sn 189.927†	127.2	119.5	14.139	µg/L	14.139 ppb	15:23:06
3	Ti 334.940†	1635161.9	1644309.5	1724.2	µg/L	1724.2 ppb	15:22:46
3	Tl 190.801†	-339.4	-226.3	-8.6373	µg/L	-8.6373 ppb	15:23:06
3	U 409.014†	-6427.7	-6055.9	-367.30	µg/L	-367.30 ppb	15:22:46
3	V 292.402†	14130.1	13720.8	58.646	µg/L	58.646 ppb	15:23:06
3	Zn 213.857†	40436.5	40065.3	224.59	µg/L	224.59 ppb	15:22:46

Mean Data: 248860004|974047|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1688091.0	99.753	%	0.5354				0.54%
Sc RADIAL	113434.5	99.2	%	0.84				0.85%
Y 371.029	1136506.0	118.75	%	0.549				0.46%
Ag 328.068†	113.2	-0.4162	µg/L	0.74937	-0.4162	ppb	0.74937	180.06%
Al 396.153Radial†	155995.3	36787	µg/L	347.3	36787	ppb	347.3	0.94%
As 188.979†	33.7	28.945	µg/L	0.8649	28.945	ppb	0.8649	2.99%
B 249.677†	694.0	10.249	µg/L	0.4218	10.249	ppb	0.4218	4.12%
Ba 233.527†	88819.6	401.14	µg/L	0.820	401.14	ppb	0.820	0.20%
Be 313.107†	23249.2	6.4709	µg/L	0.00869	6.4709	ppb	0.00869	0.13%
Ca 317.933Radial†	75228.7	6194.3	µg/L	20.72	6194.3	ppb	20.72	0.33%
Cd 226.502†	1102.8	-0.6394	µg/L	0.20088	-0.6394	ppb	0.20088	31.42%
Co 228.616†	1163.6	11.712	µg/L	0.2190	11.712	ppb	0.2190	1.87%
Cr 267.716†	3032.7	28.975	µg/L	0.2652	28.975	ppb	0.2652	0.92%
Cu 324.752†	2689.2	21.990	µg/L	0.2922	21.990	ppb	0.2922	1.33%
Fe 238.204 Radial†	885719.3	75555	µg/L	686.4	75555	ppb	686.4	0.91%
K 766.490 Radial†	9535.7	3806.9	µg/L	27.82	3806.9	ppb	27.82	0.73%
Mg 279.077 IEC†	10068.8	5504.2	µg/L	33.12	5504.2	ppb	33.12	0.60%
Mn 257.610†	1629553.2	2129.6	µg/L	5.26	2129.6	ppb	5.26	0.25%
Mo 202.031†	728.6	27.845	µg/L	0.2470	27.845	ppb	0.2470	0.89%
Na 589.592 Radial†	9333.2	1485.8	µg/L	14.65	1485.8	ppb	14.65	0.99%

Ni 231.604†	2323.0	28.889	µg/L	0.4061	28.889	ppb	0.4061	1.41%
P 214.914†	2992.3	640.19	µg/L	4.148	640.19	ppb	4.148	0.65%
Pb 220.353†	770.5	50.736	µg/L	1.7843	50.736	ppb	1.7843	3.52%
S 181.975 Axial†	225.0	191.63	µg/L	2.577	191.63	ppb	2.577	1.34%
Sb 206.836†	-2.3	-1.4226	µg/L	0.65172	-1.4226	ppb	0.65172	45.81%
Se 196.026†	-65.6	0.496	µg/L	1.2150	0.496	ppb	1.2150	244.73%
SiO2†	191633.2	19787	µg/L	22.7	19787	ppb	22.7	0.11%
Si 251.611†	606352.7	9249.2	µg/L	5.25	9249.2	ppb	5.25	0.06%
Sn 189.927†	123.8	14.424	µg/L	0.6464	14.424	ppb	0.6464	4.48%
Sr 421.552†	27745.2	71.223	µg/L	0.2464	71.223	ppb	0.2464	0.35%
Ti 334.940†	1640005.4	1719.7	µg/L	3.94	1719.7	ppb	3.94	0.23%
Tl 190.801†	-205.3	-5.7446	µg/L	2.50951	-5.7446	ppb	2.50951	43.68%
U 409.014†	-6082.1	-369.10	µg/L	9.657	-369.10	ppb	9.657	2.62%
Concentration less than lower limit for U 409.014.								
V 292.402†	13603.3	58.002	µg/L	0.5800	58.002	ppb	0.5800	1.00%
Zn 213.857†	39997.8	224.15	µg/L	0.388	224.15	ppb	0.388	0.17%

Sequence No.: 13
Sample ID: 248860005|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 311
Date Collected: 4/13/2010 15:23:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248860005|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114660.0	114660.0	100	%			15:23:46
1	Al 396.153Radial†	59999.6	59942.3	14135	µg/L	14135	ppb	15:23:44
1	Ca 317.933Radial†	40063.0	39511.2	3253.3	µg/L	3253.3	ppb	15:23:46
1	Fe 238.204 Radial†	1170287.1	1167387.6	99583	µg/L	99583	ppb	15:23:44
1	K 766.490 Radial†	6301.3	4877.1	1948.1	µg/L	1948.1	ppb	15:23:46
1	Mg 279.077 IEC†	4854.7	4685.9	2506.5	µg/L	2506.5	ppb	15:23:46
1	Na 589.592 Radial†	7325.8	6473.1	1031.1	µg/L	1031.1	ppb	15:23:46
1	Sr 421.552†	12666.6	12703.2	32.606	µg/L	32.606	ppb	15:23:46
1	Sc 361.383	1703391.1	1703391.1	100.66	%			15:23:59
1	Y 371.029	1351056.5	1351056.5	141.17	%			15:23:59
1	Ag 328.068†	4363.4	-768.1	-4.3897	µg/L	-4.3897	ppb	15:23:59
1	As 188.979†	6.6	20.0	29.687	µg/L	29.687	ppb	15:24:19
1	B 249.677†	5090.2	945.1	14.002	µg/L	14.002	ppb	15:23:59
1	Ba 233.527†	27278.1	27245.8	122.09	µg/L	122.09	ppb	15:23:59
1	Be 313.107†	33013.3	33790.0	9.4501	µg/L	9.4501	ppb	15:23:59
1	Cd 226.502†	1386.1	1441.6	-0.9211	µg/L	-0.9211	ppb	15:24:19
1	Co 228.616†	366.6	591.3	2.6845	µg/L	2.6845	ppb	15:24:19
1	Cr 267.716†	4793.1	4432.1	42.110	µg/L	42.110	ppb	15:24:19
1	Cu 324.752†	3699.1	433.6	16.053	µg/L	16.053	ppb	15:23:59
1	Mn 257.610†	1729651.5	1718139.0	2245.5	µg/L	2245.5	ppb	15:23:59
1	Mo 202.031†	537.2	555.3	22.852	µg/L	22.852	ppb	15:24:19
1	Ni 231.604†	3153.4	3206.7	39.878	µg/L	39.878	ppb	15:24:19
1	P 214.914†	3065.6	3064.8	635.62	µg/L	635.62	ppb	15:24:19
1	Pb 220.353†	223.1	104.4	6.4362	µg/L	6.4362	ppb	15:24:19
1	S 181.975 Axial†	292.5	188.7	160.71	µg/L	160.71	ppb	15:24:19
1	Sb 206.836†	67.7	-10.3	-2.8787	µg/L	-2.8787	ppb	15:24:19
1	Se 196.026†	-56.0	-75.6	4.94	µg/L	4.94	ppb	15:24:19
1	SiO2†	155701.2	152995.4	15797	µg/L	15797	ppb	15:23:59
1	Si 251.611†	487905.7	483932.5	7381.8	µg/L	7381.8	ppb	15:23:59
1	Sn 189.927†	208.3	198.5	18.641	µg/L	18.641	ppb	15:24:19
1	Ti 334.940†	1372316.6	1362467.3	1428.8	µg/L	1428.8	ppb	15:23:59
1	Tl 190.801†	-314.6	-197.3	-7.3276	µg/L	-7.3276	ppb	15:24:19
1	U 409.014†	-6822.2	-6366.4	-392.23	µg/L	-392.23	ppb	15:23:59
1	V 292.402†	10728.9	10162.8	38.659	µg/L	38.659	ppb	15:24:19
1	Zn 213.857†	34117.1	33275.0	182.20	µg/L	182.20	ppb	15:23:59
2	Sc RADIAL	116745.4	116745.4	102	%			15:23:50
2	Al 396.153Radial†	60220.7	59089.7	13934	µg/L	13934	ppb	15:23:48
2	Ca 317.933Radial†	41046.4	39760.9	3273.9	µg/L	3273.9	ppb	15:23:50
2	Fe 238.204 Radial†	1168402.5	1144686.1	97646	µg/L	97646	ppb	15:23:48
2	K 766.490 Radial†	6574.1	5032.1	2010.1	µg/L	2010.1	ppb	15:23:50
2	Mg 279.077 IEC†	4930.6	4673.7	2501.5	µg/L	2501.5	ppb	15:23:50
2	Na 589.592 Radial†	7592.8	6604.2	1051.9	µg/L	1051.9	ppb	15:23:50
2	Sr 421.552†	12798.1	12606.4	32.357	µg/L	32.357	ppb	15:23:50
2	Sc 361.383	1696864.3	1696864.3	100.27	%			15:24:21
2	Y 371.029	1345682.3	1345682.3	140.61	%			15:24:21
2	Ag 328.068†	4867.3	-248.8	-2.2500	µg/L	-2.2500	ppb	15:24:21
2	As 188.979†	-1.8	11.6	26.349	µg/L	26.349	ppb	15:24:42
2	B 249.677†	4901.2	776.0	11.491	µg/L	11.491	ppb	15:24:21
2	Ba 233.527†	27042.4	27114.9	121.53	µg/L	121.53	ppb	15:24:21
2	Be 313.107†	32270.6	33175.5	9.2708	µg/L	9.2708	ppb	15:24:21
2	Cd 226.502†	1416.5	1477.3	-0.4812	µg/L	-0.4812	ppb	15:24:42
2	Co 228.616†	376.4	602.4	2.9305	µg/L	2.9305	ppb	15:24:42
2	Cr 267.716†	4762.7	4420.1	41.954	µg/L	41.954	ppb	15:24:42
2	Cu 324.752†	3793.3	541.7	16.204	µg/L	16.204	ppb	15:24:21
2	Mn 257.610†	1717214.7	1712345.4	2237.9	µg/L	2237.9	ppb	15:24:21
2	Mo 202.031†	538.2	558.4	22.880	µg/L	22.880	ppb	15:24:42
2	Ni 231.604†	3167.0	3232.3	40.196	µg/L	40.196	ppb	15:24:42
2	P 214.914†	3071.3	3082.2	640.85	µg/L	640.85	ppb	15:24:42
2	Pb 220.353†	202.6	84.8	5.2612	µg/L	5.2612	ppb	15:24:42

2	S 181.975 Axial†	278.8	176.1	150.03 µg/L	150.03 ppb	15:24:42
2	Sb 206.836†	64.3	-13.4	-3.2449 µg/L	-3.2449 ppb	15:24:42
2	Se 196.026†	-64.3	-84.1	0.961 µg/L	0.961 ppb	15:24:42
2	SiO2†	153488.0	151383.1	15631 µg/L	15631 ppb	15:24:21
2	Si 251.611†	481634.8	479543.0	7314.8 µg/L	7314.8 ppb	15:24:21
2	Sn 189.927†	190.8	181.9	17.462 µg/L	17.462 ppb	15:24:42
2	Ti 334.940†	1360798.4	1356224.3	1422.3 µg/L	1422.3 ppb	15:24:21
2	Tl 190.801†	-309.6	-193.5	-6.8785 µg/L	-6.8785 ppb	15:24:42
2	U 409.014†	-7085.3	-6654.9	-409.36 µg/L	-409.36 ppb	15:24:21
2	V 292.402†	10741.1	10215.9	39.122 µg/L	39.122 ppb	15:24:42
2	Zn 213.857†	33917.2	33206.0	182.00 µg/L	182.00 ppb	15:24:21
3	Sc RADIAL	116428.2	116428.2	102 %		15:23:54
3	Al 396.153Radial†	60683.4	59705.1	14079 µg/L	14079 ppb	15:23:52
3	Ca 317.933Radial†	40575.0	39407.2	3244.8 µg/L	3244.8 ppb	15:23:54
3	Fe 238.204 Radial†	1179262.9	1158474.4	98822 µg/L	98822 ppb	15:23:52
3	K 766.490 Radial†	6615.0	5089.8	2033.2 µg/L	2033.2 ppb	15:23:54
3	Mg 279.077 IEC†	4775.0	4534.0	2423.2 µg/L	2423.2 ppb	15:23:54
3	Na 589.592 Radial†	7328.9	6365.1	1013.8 µg/L	1013.8 ppb	15:23:54
3	Sr 421.552†	12772.3	12615.2	32.380 µg/L	32.380 ppb	15:23:54
3	Sc 361.383	1688886.1	1688886.1	99.800 %		15:24:44
3	Y 371.029	1341289.4	1341289.4	140.15 %		15:24:44
3	Ag 328.068†	4747.4	-346.1	-2.6272 µg/L	-2.6272 ppb	15:24:44
3	As 188.979†	-3.9	9.5	25.885 µg/L	25.885 ppb	15:25:04
3	B 249.677†	4875.2	773.1	11.448 µg/L	11.448 ppb	15:24:44
3	Ba 233.527†	27059.2	27259.2	122.17 µg/L	122.17 ppb	15:24:44
3	Be 313.107†	32361.0	33418.1	9.3466 µg/L	9.3466 ppb	15:24:44
3	Cd 226.502†	1406.1	1473.5	-0.6302 µg/L	-0.6302 ppb	15:25:04
3	Co 228.616†	377.2	605.0	2.9037 µg/L	2.9037 ppb	15:25:04
3	Cr 267.716†	4762.5	4442.4	42.169 µg/L	42.169 ppb	15:25:04
3	Cu 324.752†	3608.8	374.7	15.701 µg/L	15.701 ppb	15:24:44
3	Mn 257.610†	1718670.0	1721893.7	2250.4 µg/L	2250.4 ppb	15:24:44
3	Mo 202.031†	542.6	565.3	23.159 µg/L	23.159 ppb	15:25:04
3	Ni 231.604†	3145.8	3226.0	40.118 µg/L	40.118 ppb	15:25:04
3	P 214.914†	3063.1	3088.4	641.52 µg/L	641.52 ppb	15:25:04
3	Pb 220.353†	207.8	91.0	5.6159 µg/L	5.6159 ppb	15:25:04
3	S 181.975 Axial†	294.7	193.3	164.67 µg/L	164.67 ppb	15:25:04
3	Sb 206.836†	105.5	28.2	2.0763 µg/L	2.0763 ppb	15:25:04
3	Se 196.026†	-65.0	-85.2	0.986 µg/L	0.986 ppb	15:25:04
3	SiO2†	153476.9	152095.1	15704 µg/L	15704 ppb	15:24:44
3	Si 251.611†	481411.1	481587.9	7346.0 µg/L	7346.0 ppb	15:24:44
3	Sn 189.927†	202.8	194.8	18.391 µg/L	18.391 ppb	15:25:04
3	Ti 334.940†	1362284.6	1364124.5	1430.6 µg/L	1430.6 ppb	15:24:44
3	Tl 190.801†	-304.5	-189.9	-6.2476 µg/L	-6.2476 ppb	15:25:04
3	U 409.014†	-6666.5	-6268.6	-386.03 µg/L	-386.03 ppb	15:24:44
3	V 292.402†	10784.9	10310.5	39.477 µg/L	39.477 ppb	15:25:04
3	Zn 213.857†	33787.5	33235.8	182.05 µg/L	182.05 ppb	15:24:44

Mean Data: 248860005|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1696380.5	100.24	%	0.429				0.43%
Sc RADIAL	115944.5	101	%	1.0				0.97%
Y 371.029	1346009.4	140.64	%	0.511				0.36%
Ag 328.068†	-454.3	-3.0890	µg/L	1.14212	-3.0890	ppb	1.14212	36.97%
Al 396.153Radial†	59579.0	14050	µg/L	103.8	14050	ppb	103.8	0.74%
As 188.979†	13.7	27.307	µg/L	2.0743	27.307	ppb	2.0743	7.60%
B 249.677†	831.4	12.314	µg/L	1.4620	12.314	ppb	1.4620	11.87%
Ba 233.527†	27206.6	121.93	µg/L	0.350	121.93	ppb	0.350	0.29%
Be 313.107†	33461.2	9.3559	µg/L	0.09001	9.3559	ppb	0.09001	0.96%
Ca 317.933Radial†	39559.8	3257.3	µg/L	14.96	3257.3	ppb	14.96	0.46%
Cd 226.502†	1464.1	-0.6775	µg/L	0.22370	-0.6775	ppb	0.22370	33.02%
Co 228.616†	599.6	2.8396	µg/L	0.13496	2.8396	ppb	0.13496	4.75%
Cr 267.716†	4431.5	42.078	µg/L	0.1114	42.078	ppb	0.1114	0.26%
Cu 324.752†	450.0	15.986	µg/L	0.2580	15.986	ppb	0.2580	1.61%
Fe 238.204 Radial†	1156849.4	98684	µg/L	975.7	98684	ppb	975.7	0.99%
K 766.490 Radial†	4999.7	1997.1	µg/L	44.04	1997.1	ppb	44.04	2.21%
Mg 279.077 IEC†	4631.2	2477.1	µg/L	46.73	2477.1	ppb	46.73	1.89%
Mn 257.610†	1717459.4	2244.6	µg/L	6.29	2244.6	ppb	6.29	0.28%
Mo 202.031†	559.6	22.964	µg/L	0.1695	22.964	ppb	0.1695	0.74%
Na 589.592 Radial†	6480.8	1032.3	µg/L	19.11	1032.3	ppb	19.11	1.85%

Ni 231.604†	3221.7	40.064	µg/L	0.1659	40.064	ppb	0.1659	0.41%
P 214.914†	3078.5	639.33	µg/L	3.229	639.33	ppb	3.229	0.51%
Pb 220.353†	93.4	5.7711	µg/L	0.60265	5.7711	ppb	0.60265	10.44%
S 181.975 Axial†	186.1	158.47	µg/L	7.575	158.47	ppb	7.575	4.78%
Sb 206.836†	1.5	-1.3491	µg/L	2.97215	-1.3491	ppb	2.97215	220.31%
Se 196.026†	-81.6	2.30	µg/L	2.291	2.30	ppb	2.291	99.76%
SiO2†	152157.9	15711	µg/L	83.4	15711	ppb	83.4	0.53%
Si 251.611†	481687.8	7347.6	µg/L	33.50	7347.6	ppb	33.50	0.46%
Sn 189.927†	191.7	18.165	µg/L	0.6214	18.165	ppb	0.6214	3.42%
Sr 421.552†	12641.6	32.448	µg/L	0.1376	32.448	ppb	0.1376	0.42%
Ti 334.940†	1360938.7	1427.2	µg/L	4.37	1427.2	ppb	4.37	0.31%
Tl 190.801†	-193.6	-6.8179	µg/L	0.54254	-6.8179	ppb	0.54254	7.96%
U 409.014†	-6430.0	-395.88	µg/L	12.084	-395.88	ppb	12.084	3.05%
Concentration less than lower limit for U 409.014.								
V 292.402†	10229.7	39.086	µg/L	0.4104	39.086	ppb	0.4104	1.05%
Zn 213.857†	33238.9	182.08	µg/L	0.105	182.08	ppb	0.105	0.06%

Sequence No.: 14
Sample ID: 248860006|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 312
Date Collected: 4/13/2010 15:25:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248860006|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113275.7	113275.7	99.0	%			15:25:42
1	Al 396.153Radial†	29200.6	29572.3	6973.7	µg/L	6973.7	ppb	15:25:42
1	Ca 317.933Radial†	51786.6	51838.4	4268.3	µg/L	4268.3	ppb	15:25:44
1	Fe 238.204 Radial†	540014.2	545192.8	46507	µg/L	46507	ppb	15:25:42
1	K 766.490 Radial†	5309.0	3951.8	1579.2	µg/L	1579.2	ppb	15:25:42
1	Mg 279.077 IEC†	2678.9	2547.9	1369.3	µg/L	1369.3	ppb	15:25:44
1	Na 589.592 Radial†	6927.7	6160.4	981.53	µg/L	981.53	ppb	15:25:42
1	Sr 421.552†	6062.8	6189.1	15.865	µg/L	15.865	ppb	15:25:44
1	Sc 361.383	1694757.4	1694757.4	100.15	%			15:26:10
1	Y 371.029	1177054.2	1177054.2	122.99	%			15:26:10
1	Ag 328.068†	5180.6	70.0	-0.7437	µg/L	-0.7437	ppb	15:26:12
1	As 188.979†	10.1	23.5	18.744	µg/L	18.744	ppb	15:26:32
1	B 249.677†	4404.0	285.6	4.2140	µg/L	4.2140	ppb	15:26:12
1	Ba 233.527†	17887.0	18006.5	80.931	µg/L	80.931	ppb	15:26:12
1	Be 313.107†	12275.5	13249.8	3.6676	µg/L	3.6676	ppb	15:26:12
1	Cd 226.502†	679.1	742.7	0.0257	µg/L	0.0257	ppb	15:26:32
1	Co 228.616†	324.5	551.0	4.8802	µg/L	4.8802	ppb	15:26:32
1	Cr 267.716†	2210.4	1877.5	17.813	µg/L	17.813	ppb	15:26:12
1	Cu 324.752†	8184.1	4930.8	26.999	µg/L	26.999	ppb	15:26:12
1	Mn 257.610†	1532231.6	1529763.3	1999.4	µg/L	1999.4	ppb	15:26:10
1	Mo 202.031†	180.9	202.3	8.7387	µg/L	8.7387	ppb	15:26:32
1	Ni 231.604†	839.3	912.0	11.341	µg/L	11.341	ppb	15:26:32
1	P 214.914†	1756.8	1773.4	374.91	µg/L	374.91	ppb	15:26:32
1	Pb 220.353†	965.9	847.3	53.878	µg/L	53.878	ppb	15:26:32
1	S 181.975 Axial†	241.3	139.0	118.35	µg/L	118.35	ppb	15:26:32
1	Sb 206.836†	73.9	-3.8	-1.2122	µg/L	-1.2122	ppb	15:26:32
1	Se 196.026†	-15.7	-35.7	2.07	µg/L	2.07	ppb	15:26:32
1	SiO2†	141063.1	139166.8	14370	µg/L	14370	ppb	15:26:12
1	Si 251.611†	432398.7	430976.4	6574.2	µg/L	6574.2	ppb	15:26:10
1	Sn 189.927†	110.7	102.1	11.300	µg/L	11.300	ppb	15:26:32
1	Ti 334.940†	1186445.7	1183815.1	1241.6	µg/L	1241.6	ppb	15:26:10
1	Tl 190.801†	-279.9	-164.2	-5.3843	µg/L	-5.3843	ppb	15:26:32
1	U 409.014†	-4981.4	-4562.8	-273.59	µg/L	-273.59	ppb	15:26:10
1	V 292.402†	5118.0	4614.5	16.776	µg/L	16.776	ppb	15:26:12
1	Zn 213.857†	37591.1	36916.5	208.79	µg/L	208.79	ppb	15:26:12
2	Sc RADIAL	115502.4	115502.4	101	%			15:25:46
2	Al 396.153Radial†	29287.1	29089.5	6859.9	µg/L	6859.9	ppb	15:25:46
2	Ca 317.933Radial†	51169.8	50219.4	4135.0	µg/L	4135.0	ppb	15:25:48
2	Fe 238.204 Radial†	545094.6	539711.4	46039	µg/L	46039	ppb	15:25:46
2	K 766.490 Radial†	5300.6	3840.2	1534.6	µg/L	1534.6	ppb	15:25:46
2	Mg 279.077 IEC†	2619.8	2437.2	1308.5	µg/L	1308.5	ppb	15:25:48
2	Na 589.592 Radial†	6781.9	5881.2	937.02	µg/L	937.02	ppb	15:25:46
2	Sr 421.552†	5776.0	5787.0	14.833	µg/L	14.833	ppb	15:25:48
2	Sc 361.383	1692514.2	1692514.2	100.01	%			15:26:35
2	Y 371.029	1176264.3	1176264.3	122.91	%			15:26:35
2	Ag 328.068†	5015.5	-88.3	-1.3988	µg/L	-1.3988	ppb	15:26:37
2	As 188.979†	11.8	25.2	19.222	µg/L	19.222	ppb	15:26:57
2	B 249.677†	4361.7	249.1	3.6723	µg/L	3.6723	ppb	15:26:37
2	Ba 233.527†	17705.8	17849.1	80.224	µg/L	80.224	ppb	15:26:37
2	Be 313.107†	11962.5	12953.1	3.5806	µg/L	3.5806	ppb	15:26:37
2	Cd 226.502†	701.4	765.9	0.2283	µg/L	0.2283	ppb	15:26:57
2	Co 228.616†	325.5	552.5	4.9227	µg/L	4.9227	ppb	15:26:57
2	Cr 267.716†	2095.8	1765.9	16.823	µg/L	16.823	ppb	15:26:37
2	Cu 324.752†	7917.4	4674.9	25.862	µg/L	25.862	ppb	15:26:37
2	Mn 257.610†	1539491.9	1539050.4	2011.6	µg/L	2011.6	ppb	15:26:35
2	Mo 202.031†	166.7	188.3	8.2437	µg/L	8.2437	ppb	15:26:57
2	Ni 231.604†	880.7	954.5	11.870	µg/L	11.870	ppb	15:26:57
2	P 214.914†	1770.0	1788.9	378.76	µg/L	378.76	ppb	15:26:57
2	Pb 220.353†	991.9	874.5	55.607	µg/L	55.607	ppb	15:26:57

2	S 181.975 Axial†	231.3	129.3	110.06 µg/L	110.06 ppb	15:26:57
2	Sb 206.836†	89.0	11.5	0.7537 µg/L	0.7537 ppb	15:26:57
2	Se 196.026†	1.5	-18.5	8.55 µg/L	8.55 ppb	15:26:57
2	SiO2†	137816.7	136107.6	14054 µg/L	14054 ppb	15:26:37
2	Si 251.611†	436399.7	435549.1	6643.9 µg/L	6643.9 ppb	15:26:35
2	Sn 189.927†	104.2	95.8	10.874 µg/L	10.874 ppb	15:26:57
2	Ti 334.940†	1189421.9	1188361.1	1246.3 µg/L	1246.3 ppb	15:26:35
2	Tl 190.801†	-272.0	-156.8	-4.2482 µg/L	-4.2482 ppb	15:26:57
2	U 409.014†	-5140.9	-4728.9	-283.47 µg/L	-283.47 ppb	15:26:35
2	V 292.402†	5241.2	4744.4	17.450 µg/L	17.450 ppb	15:26:37
2	Zn 213.857†	37248.7	36623.9	207.15 µg/L	207.15 ppb	15:26:37
3	Sc RADIAL	114498.4	114498.4	100 %		15:25:50
3	Al 396.153Radial†	29176.1	29233.0	6893.7 µg/L	6893.7 ppb	15:25:50
3	Ca 317.933Radial†	51309.6	50803.4	4183.1 µg/L	4183.1 ppb	15:25:52
3	Fe 238.204 Radial†	540539.0	539893.6	46055 µg/L	46055 ppb	15:25:50
3	K 766.490 Radial†	5290.7	3876.3	1549.0 µg/L	1549.0 ppb	15:25:50
3	Mg 279.077 IEC†	2681.3	2521.4	1355.1 µg/L	1355.1 ppb	15:25:52
3	Na 589.592 Radial†	6832.6	5990.8	954.49 µg/L	954.49 ppb	15:25:50
3	Sr 421.552†	5804.5	5865.6	15.035 µg/L	15.035 ppb	15:25:52
3	Sc 361.383	1720804.9	1720804.9	101.69 %		15:26:59
3	Y 371.029	1192266.8	1192266.8	124.58 %		15:26:59
3	Ag 328.068†	5366.8	174.8	-0.3059 µg/L	-0.3059 ppb	15:27:01
3	As 188.979†	19.4	32.5	21.744 µg/L	21.744 ppb	15:27:21
3	B 249.677†	4444.5	258.8	3.8181 µg/L	3.8181 ppb	15:27:01
3	Ba 233.527†	17692.4	17544.8	78.846 µg/L	78.846 ppb	15:27:01
3	Be 313.107†	11855.2	12650.9	3.4980 µg/L	3.4980 ppb	15:27:01
3	Cd 226.502†	682.9	736.1	0.0297 µg/L	0.0297 ppb	15:27:21
3	Co 228.616†	298.9	521.0	4.5073 µg/L	4.5073 ppb	15:27:21
3	Cr 267.716†	2164.0	1798.4	17.107 µg/L	17.107 ppb	15:27:01
3	Cu 324.752†	8071.5	4696.4	25.962 µg/L	25.962 ppb	15:27:01
3	Mn 257.610†	1543971.1	1518149.1	1984.2 µg/L	1984.2 ppb	15:26:59
3	Mo 202.031†	174.7	193.4	8.4192 µg/L	8.4192 ppb	15:27:21
3	Ni 231.604†	881.8	941.1	11.703 µg/L	11.703 ppb	15:27:21
3	P 214.914†	1755.2	1745.3	368.78 µg/L	368.78 ppb	15:27:21
3	Pb 220.353†	1016.4	882.3	56.070 µg/L	56.070 ppb	15:27:21
3	S 181.975 Axial†	246.3	140.3	119.40 µg/L	119.40 ppb	15:27:21
3	Sb 206.836†	76.0	-2.8	-1.0843 µg/L	-1.0843 ppb	15:27:21
3	Se 196.026†	-6.0	-25.9	5.69 µg/L	5.69 ppb	15:27:21
3	SiO2†	138415.5	134431.1	13881 µg/L	13881 ppb	15:27:01
3	Si 251.611†	433388.5	425414.3	6489.3 µg/L	6489.3 ppb	15:26:59
3	Sn 189.927†	98.7	88.6	10.324 µg/L	10.324 ppb	15:27:21
3	Ti 334.940†	1195494.8	1174781.6	1232.1 µg/L	1232.1 ppb	15:26:59
3	Tl 190.801†	-280.4	-160.5	-4.9985 µg/L	-4.9985 ppb	15:27:21
3	U 409.014†	-5061.0	-4565.8	-273.79 µg/L	-273.79 ppb	15:26:59
3	V 292.402†	5123.1	4542.1	16.468 µg/L	16.468 ppb	15:27:01
3	Zn 213.857†	37144.6	35909.2	203.02 µg/L	203.02 ppb	15:27:01

Mean Data: 248860006|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1702692.2	100.62	%	0.929				0.92%
Sc RADIAL	114425.5	100	%	1.0				0.97%
Y 371.029	1181861.8	123.49	%	0.942				0.76%
Ag 328.068†	52.2	-0.8161	µg/L	0.55001	-0.8161	ppb	0.55001	67.39%
Al 396.153Radial†	29298.3	6909.1	µg/L	58.45	6909.1	ppb	58.45	0.85%
As 188.979†	27.1	19.903	µg/L	1.6119	19.903	ppb	1.6119	8.10%
B 249.677†	264.5	3.9015	µg/L	0.28032	3.9015	ppb	0.28032	7.19%
Ba 233.527†	17800.1	80.000	µg/L	1.0601	80.000	ppb	1.0601	1.33%
Be 313.107†	12951.2	3.5821	µg/L	0.08482	3.5821	ppb	0.08482	2.37%
Ca 317.933Radial†	50953.7	4195.5	µg/L	67.51	4195.5	ppb	67.51	1.61%
Cd 226.502†	748.2	0.0946	µg/L	0.11580	0.0946	ppb	0.11580	122.43%
Co 228.616†	541.5	4.7701	µg/L	0.22854	4.7701	ppb	0.22854	4.79%
Cr 267.716†	1814.0	17.248	µg/L	0.5101	17.248	ppb	0.5101	2.96%
Cu 324.752†	4767.4	26.274	µg/L	0.6297	26.274	ppb	0.6297	2.40%
Fe 238.204 Radial†	541599.2	46200	µg/L	265.6	46200	ppb	265.6	0.57%
K 766.490 Radial†	3889.4	1554.3	µg/L	22.77	1554.3	ppb	22.77	1.46%
Mg 279.077 IEC†	2502.1	1344.3	µg/L	31.81	1344.3	ppb	31.81	2.37%
Mn 257.610†	1528987.6	1998.4	µg/L	13.69	1998.4	ppb	13.69	0.69%
Mo 202.031†	194.6	8.4672	µg/L	0.25095	8.4672	ppb	0.25095	2.96%
Na 589.592 Radial†	6010.8	957.68	µg/L	22.426	957.68	ppb	22.426	2.34%

Ni 231.604†	935.9	11.638	µg/L	0.2703	11.638	ppb	0.2703	2.32%
P 214.914†	1769.2	374.15	µg/L	5.030	374.15	ppb	5.030	1.34%
Pb 220.353†	868.0	55.185	µg/L	1.1556	55.185	ppb	1.1556	2.09%
S 181.975 Axial†	136.2	115.94	µg/L	5.114	115.94	ppb	5.114	4.41%
Sb 206.836†	1.6	-0.5143	µg/L	1.09996	-0.5143	ppb	1.09996	213.89%
Se 196.026†	-26.7	5.44	µg/L	3.248	5.44	ppb	3.248	59.75%
SiO2†	136568.5	14101	µg/L	247.9	14101	ppb	247.9	1.76%
Si 251.611†	430646.6	6569.2	µg/L	77.42	6569.2	ppb	77.42	1.18%
Sn 189.927†	95.5	10.833	µg/L	0.4893	10.833	ppb	0.4893	4.52%
Sr 421.552†	5947.2	15.244	µg/L	0.5469	15.244	ppb	0.5469	3.59%
Ti 334.940†	1182319.3	1240.0	µg/L	7.25	1240.0	ppb	7.25	0.58%
Tl 190.801†	-160.5	-4.8770	µg/L	0.57774	-4.8770	ppb	0.57774	11.85%
U 409.014†	-4619.2	-276.95	µg/L	5.647	-276.95	ppb	5.647	2.04%
Concentration less than lower limit for U 409.014.								
V 292.402†	4633.7	16.898	µg/L	0.5022	16.898	ppb	0.5022	2.97%
Zn 213.857†	36483.2	206.32	µg/L	2.976	206.32	ppb	2.976	1.44%

Sequence No.: 15
Sample ID: 248860007|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 313
Date Collected: 4/13/2010 15:27:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248860007|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	116209.0	116209.0	102	%			15:28:02
1	Al 396.153Radial†	144520.8	142341.1	33568	µg/L	33568	ppb	15:28:00
1	Ca 317.933Radial†	89609.8	87748.9	7225.2	µg/L	7225.2	ppb	15:28:02
1	Fe 238.204 Radial†	793024.1	780473.3	66577	µg/L	66577	ppb	15:28:00
1	K 766.490 Radial†	9947.2	8382.1	3345.8	µg/L	3345.8	ppb	15:28:02
1	Mg 279.077 IEC†	8971.0	8673.1	4739.7	µg/L	4739.7	ppb	15:28:02
1	Na 589.592 Radial†	6719.9	5779.3	919.14	µg/L	919.14	ppb	15:28:02
1	Sr 421.552†	28975.8	28588.5	73.381	µg/L	73.381	ppb	15:28:02
1	Sc 361.383	1692553.2	1692553.2	100.02	%			15:28:15
1	Y 371.029	1148623.3	1148623.3	120.02	%			15:28:15
1	Ag 328.068†	4973.6	-130.2	-1.4816	µg/L	-1.4816	ppb	15:28:15
1	As 188.979†	26.3	39.7	29.141	µg/L	29.141	ppb	15:28:35
1	B 249.677†	4560.1	447.4	6.5867	µg/L	6.5867	ppb	15:28:15
1	Ba 233.527†	85490.7	85622.1	386.77	µg/L	386.77	ppb	15:28:15
1	Be 313.107†	21470.6	22459.2	6.2391	µg/L	6.2391	ppb	15:28:15
1	Cd 226.502†	1117.0	1181.4	0.8278	µg/L	0.8278	ppb	15:28:35
1	Co 228.616†	974.8	1201.7	12.668	µg/L	12.668	ppb	15:28:35
1	Cr 267.716†	5446.8	5116.3	46.976	µg/L	46.976	ppb	15:28:35
1	Cu 324.752†	15350.4	12106.5	59.626	µg/L	59.626	ppb	15:28:15
1	Mn 257.610†	1681495.1	1680993.9	2196.9	µg/L	2196.9	ppb	15:28:15
1	Mo 202.031†	270.4	292.0	12.653	µg/L	12.653	ppb	15:28:35
1	Ni 231.604†	2868.4	2941.8	36.584	µg/L	36.584	ppb	15:28:35
1	P 214.914†	3501.5	3520.1	765.90	µg/L	765.90	ppb	15:28:35
1	Pb 220.353†	1467.2	1349.7	86.924	µg/L	86.924	ppb	15:28:35
1	S 181.975 Axial†	577.9	475.8	404.95	µg/L	404.95	ppb	15:28:35
1	Sb 206.836†	92.4	14.9	0.4301	µg/L	0.4301	ppb	15:28:35
1	Se 196.026†	-29.3	-49.3	3.65	µg/L	3.65	ppb	15:28:35
1	SiO2†	170736.8	169018.9	17452	µg/L	17452	ppb	15:28:15
1	Si 251.611†	535836.8	534959.3	8160.3	µg/L	8160.3	ppb	15:28:15
1	Sn 189.927†	115.8	107.3	12.885	µg/L	12.885	ppb	15:28:35
1	Ti 334.940†	1530879.6	1529733.3	1604.2	µg/L	1604.2	ppb	15:28:15
1	Tl 190.801†	-299.6	-184.3	-3.8042	µg/L	-3.8042	ppb	15:28:35
1	U 409.014†	-6935.5	-6523.1	-393.61	µg/L	-393.61	ppb	15:28:15
1	V 292.402†	13424.7	12926.4	55.607	µg/L	55.607	ppb	15:28:35
1	Zn 213.857†	92364.4	91729.4	523.57	µg/L	523.57	ppb	15:28:15
2	Sc RADIAL	115033.3	115033.3	101	%			15:28:06
2	Al 396.153Radial†	147066.3	146326.3	34508	µg/L	34508	ppb	15:28:04
2	Ca 317.933Radial†	88739.0	87784.5	7228.1	µg/L	7228.1	ppb	15:28:06
2	Fe 238.204 Radial†	809306.7	804642.9	68639	µg/L	68639	ppb	15:28:04
2	K 766.490 Radial†	9969.1	8503.9	3394.3	µg/L	3394.3	ppb	15:28:06
2	Mg 279.077 IEC†	9029.8	8821.8	4820.2	µg/L	4820.2	ppb	15:28:06
2	Na 589.592 Radial†	6578.8	5706.6	907.50	µg/L	907.50	ppb	15:28:06
2	Sr 421.552†	28737.2	28642.7	73.520	µg/L	73.520	ppb	15:28:06
2	Sc 361.383	1704618.2	1704618.2	100.73	%			15:28:38
2	Y 371.029	1155629.1	1155629.1	120.75	%			15:28:38
2	Ag 328.068†	4913.2	-225.4	-1.8775	µg/L	-1.8775	ppb	15:28:38
2	As 188.979†	26.2	39.4	29.502	µg/L	29.502	ppb	15:28:58
2	B 249.677†	4613.4	468.1	6.8923	µg/L	6.8923	ppb	15:28:38
2	Ba 233.527†	85632.6	85157.9	384.65	µg/L	384.65	ppb	15:28:38
2	Be 313.107†	21716.6	22551.6	6.2685	µg/L	6.2685	ppb	15:28:38
2	Cd 226.502†	1123.8	1180.2	0.6027	µg/L	0.6027	ppb	15:28:58
2	Co 228.616†	1009.2	1228.9	12.916	µg/L	12.916	ppb	15:28:58
2	Cr 267.716†	5463.4	5094.1	46.846	µg/L	46.846	ppb	15:28:58
2	Cu 324.752†	15240.5	11888.8	59.036	µg/L	59.036	ppb	15:28:38
2	Mn 257.610†	1683703.9	1671287.3	2184.2	µg/L	2184.2	ppb	15:28:38
2	Mo 202.031†	282.2	301.8	13.070	µg/L	13.070	ppb	15:28:58
2	Ni 231.604†	2820.6	2874.1	35.741	µg/L	35.741	ppb	15:28:58
2	P 214.914†	3480.6	3474.6	754.31	µg/L	754.31	ppb	15:28:58
2	Pb 220.353†	1503.7	1375.6	88.522	µg/L	88.522	ppb	15:28:58

2	S 181.975 Axial†	585.4	479.2	407.81 µg/L	407.81 ppb	15:28:58
2	Sb 206.836†	95.1	16.9	0.6581 µg/L	0.6581 ppb	15:28:58
2	Se 196.026†	-48.7	-68.3	-2.98 µg/L	-2.98 ppb	15:28:58
2	SiO2†	170852.0	167925.0	17339 µg/L	17339 ppb	15:28:38
2	Si 251.611†	535525.2	530858.0	8097.8 µg/L	8097.8 ppb	15:28:38
2	Sn 189.927†	109.7	100.4	12.383 µg/L	12.383 ppb	15:28:58
2	Ti 334.940†	1535915.5	1523899.3	1598.0 µg/L	1598.0 ppb	15:28:38
2	Tl 190.801†	-316.1	-198.6	-5.9121 µg/L	-5.9121 ppb	15:28:58
2	U 409.014†	-6805.9	-6345.3	-383.38 µg/L	-383.38 ppb	15:28:38
2	V 292.402†	13409.5	12816.3	54.860 µg/L	54.860 ppb	15:28:58
2	Zn 213.857†	92645.2	91354.5	521.21 µg/L	521.21 ppb	15:28:38
3	Sc RADIAL	117392.4	117392.4	103 %		15:28:10
3	Al 396.153Radial†	146310.9	142651.5	33641 µg/L	33641 ppb	15:28:08
3	Ca 317.933Radial†	90714.0	87935.7	7240.6 µg/L	7240.6 ppb	15:28:10
3	Fe 238.204 Radial†	803396.3	782711.5	66768 µg/L	66768 ppb	15:28:08
3	K 766.490 Radial†	9924.1	8260.9	3297.3 µg/L	3297.3 ppb	15:28:10
3	Mg 279.077 IEC†	9145.4	8754.1	4784.3 µg/L	4784.3 ppb	15:28:10
3	Na 589.592 Radial†	6858.6	5847.8	930.11 µg/L	930.11 ppb	15:28:10
3	Sr 421.552†	29370.6	28685.6	73.630 µg/L	73.630 ppb	15:28:10
3	Sc 361.383	1701790.4	1701790.4	100.56 %		15:29:01
3	Y 371.029	1154258.7	1154258.7	120.61 %		15:29:01
3	Ag 328.068†	4830.4	-299.6	-2.1676 µg/L	-2.1676 ppb	15:29:01
3	As 188.979†	17.5	30.9	26.120 µg/L	26.120 ppb	15:29:21
3	B 249.677†	4560.3	422.9	6.2215 µg/L	6.2215 ppb	15:29:01
3	Ba 233.527†	85722.2	85388.3	385.71 µg/L	385.71 ppb	15:29:01
3	Be 313.107†	21574.0	22445.5	6.2378 µg/L	6.2378 ppb	15:29:01
3	Cd 226.502†	1101.5	1159.9	0.6659 µg/L	0.6659 ppb	15:29:21
3	Co 228.616†	1007.2	1228.7	13.011 µg/L	13.011 ppb	15:29:21
3	Cr 267.716†	5469.8	5109.5	46.919 µg/L	46.919 ppb	15:29:21
3	Cu 324.752†	15186.0	11859.7	58.640 µg/L	58.640 ppb	15:29:01
3	Mn 257.610†	1679900.6	1670282.9	2182.9 µg/L	2182.9 ppb	15:29:01
3	Mo 202.031†	268.5	288.6	12.548 µg/L	12.548 ppb	15:29:21
3	Ni 231.604†	2895.8	2953.5	36.729 µg/L	36.729 ppb	15:29:21
3	P 214.914†	3505.1	3504.7	762.28 µg/L	762.28 ppb	15:29:21
3	Pb 220.353†	1518.1	1392.4	89.576 µg/L	89.576 ppb	15:29:21
3	S 181.975 Axial†	583.7	478.5	407.24 µg/L	407.24 ppb	15:29:21
3	Sb 206.836†	95.0	16.9	0.6868 µg/L	0.6868 ppb	15:29:21
3	Se 196.026†	-16.6	-36.5	8.69 µg/L	8.69 ppb	15:29:21
3	SiO2†	169224.3	166588.3	17201 µg/L	17201 ppb	15:29:01
3	Si 251.611†	531416.5	527655.7	8048.9 µg/L	8048.9 ppb	15:29:01
3	Sn 189.927†	100.5	91.6	11.753 µg/L	11.753 ppb	15:29:21
3	Ti 334.940†	1530069.0	1520619.1	1594.6 µg/L	1594.6 ppb	15:29:01
3	Tl 190.801†	-317.8	-200.7	-6.2491 µg/L	-6.2491 ppb	15:29:21
3	U 409.014†	-6835.4	-6385.9	-385.40 µg/L	-385.40 ppb	15:29:01
3	V 292.402†	13513.0	12941.3	55.674 µg/L	55.674 ppb	15:29:21
3	Zn 213.857†	92424.9	91288.3	521.00 µg/L	521.00 ppb	15:29:01

Mean Data: 248860007|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1699654.0	100.44	%	0.373				0.37%
Sc RADIAL	116211.6	102	%	1.0				1.01%
Y 371.029	1152837.0	120.46	%	0.388				0.32%
Ag 328.068†	-218.4	-1.8422	µg/L	0.34438	-1.8422	ppb	0.34438	18.69%
Al 396.153Radial†	143773.0	33905	µg/L	522.8	33905	ppb	522.8	1.54%
As 188.979†	36.7	28.254	µg/L	1.8572	28.254	ppb	1.8572	6.57%
B 249.677†	446.1	6.5668	µg/L	0.33584	6.5668	ppb	0.33584	5.11%
Ba 233.527†	85389.4	385.71	µg/L	1.064	385.71	ppb	1.064	0.28%
Be 313.107†	22485.5	6.2485	µg/L	0.01739	6.2485	ppb	0.01739	0.28%
Ca 317.933Radial†	87823.0	7231.3	µg/L	8.17	7231.3	ppb	8.17	0.11%
Cd 226.502†	1173.8	0.6988	µg/L	0.11606	0.6988	ppb	0.11606	16.61%
Co 228.616†	1219.7	12.865	µg/L	0.1771	12.865	ppb	0.1771	1.38%
Cr 267.716†	5106.6	46.914	µg/L	0.0650	46.914	ppb	0.0650	0.14%
Cu 324.752†	11951.7	59.101	µg/L	0.4960	59.101	ppb	0.4960	0.84%
Fe 238.204 Radial†	789275.9	67328	µg/L	1139.2	67328	ppb	1139.2	1.69%
K 766.490 Radial†	8382.3	3345.8	µg/L	48.54	3345.8	ppb	48.54	1.45%
Mg 279.077 IEC†	8749.7	4781.4	µg/L	40.34	4781.4	ppb	40.34	0.84%
Mn 257.610†	1674188.1	2188.0	µg/L	7.74	2188.0	ppb	7.74	0.35%
Mo 202.031†	294.1	12.757	µg/L	0.2761	12.757	ppb	0.2761	2.16%
Na 589.592 Radial†	5777.9	918.92	µg/L	11.309	918.92	ppb	11.309	1.23%

Ni 231.604†	2923.1	36.351 µg/L	0.5332	36.351 ppb	0.5332	1.47%
P 214.914†	3499.8	760.83 µg/L	5.929	760.83 ppb	5.929	0.78%
Pb 220.353†	1372.5	88.341 µg/L	1.3354	88.341 ppb	1.3354	1.51%
S 181.975 Axial†	477.9	406.67 µg/L	1.514	406.67 ppb	1.514	0.37%
Sb 206.836†	16.2	0.5917 µg/L	0.14066	0.5917 ppb	0.14066	23.77%
Se 196.026†	-51.4	3.12 µg/L	5.852	3.12 ppb	5.852	187.48%
SiO2†	167844.1	17331 µg/L	125.7	17331 ppb	125.7	0.73%
Si 251.611†	531157.6	8102.4 µg/L	55.84	8102.4 ppb	55.84	0.69%
Sn 189.927†	99.8	12.341 µg/L	0.5674	12.341 ppb	0.5674	4.60%
Sr 421.552†	28639.0	73.510 µg/L	0.1250	73.510 ppb	0.1250	0.17%
Ti 334.940†	1524750.6	1598.9 µg/L	4.85	1598.9 ppb	4.85	0.30%
Tl 190.801†	-194.6	-5.3218 µg/L	1.32503	-5.3218 ppb	1.32503	24.90%
U 409.014†	-6418.1	-387.46 µg/L	5.418	-387.46 ppb	5.418	1.40%
Concentration less than lower limit for U 409.014.						
V 292.402†	12894.7	55.380 µg/L	0.4522	55.380 ppb	0.4522	0.82%
Zn 213.857†	91457.4	521.93 µg/L	1.428	521.93 ppb	1.428	0.27%

Sequence No.: 16
Sample ID: 248860008|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 314
Date Collected: 4/13/2010 15:29:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248860008|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114962.4	114962.4	101	%			15:29:59
1	Al 396.153Radial†	28062.2	28007.0	6603.8	µg/L	6603.8	ppb	15:29:59
1	Ca 317.933Radial†	34925.3	34294.1	2823.8	µg/L	2823.8	ppb	15:30:01
1	Fe 238.204 Radial†	766426.5	762473.1	65042	µg/L	65042	ppb	15:29:59
1	K 766.490 Radial†	5089.9	3655.2	1460.9	µg/L	1460.9	ppb	15:29:59
1	Mg 279.077 IEC†	2715.1	2544.2	1351.8	µg/L	1351.8	ppb	15:30:01
1	Na 589.592 Radial†	5467.8	4605.2	733.49	µg/L	733.49	ppb	15:30:01
1	Sr 421.552†	8591.4	8615.2	22.108	µg/L	22.108	ppb	15:30:01
1	Sc 361.383	1686299.7	1686299.7	99.647	%			15:30:27
1	Y 371.029	1246855.0	1246855.0	130.28	%			15:30:27
1	Ag 328.068†	5057.5	-27.6	-1.4157	µg/L	-1.4157	ppb	15:30:29
1	As 188.979†	1.5	14.9	21.205	µg/L	21.205	ppb	15:30:49
1	B 249.677†	4471.6	375.4	5.5369	µg/L	5.5369	ppb	15:30:29
1	Ba 233.527†	27387.7	27630.5	124.26	µg/L	124.26	ppb	15:30:29
1	Be 313.107†	17206.0	18259.2	5.0729	µg/L	5.0729	ppb	15:30:29
1	Cd 226.502†	881.0	948.7	-0.5295	µg/L	-0.5295	ppb	15:30:49
1	Co 228.616†	566.7	795.8	7.1880	µg/L	7.1880	ppb	15:30:49
1	Cr 267.716†	16885.5	16615.6	147.81	µg/L	147.81	ppb	15:30:29
1	Cu 324.752†	4634.4	1409.5	15.087	µg/L	15.087	ppb	15:30:29
1	Mn 257.610†	1892314.4	1898793.7	2481.8	µg/L	2481.8	ppb	15:30:27
1	Mo 202.031†	664.6	688.6	25.979	µg/L	25.979	ppb	15:30:49
1	Ni 231.604†	6142.7	6238.3	77.579	µg/L	77.579	ppb	15:30:29
1	P 214.914†	2589.4	2617.8	555.12	µg/L	555.12	ppb	15:30:49
1	Pb 220.353†	336.0	219.9	14.009	µg/L	14.009	ppb	15:30:49
1	S 181.975 Axial†	232.7	131.6	112.16	µg/L	112.16	ppb	15:30:49
1	Sb 206.836†	105.9	28.8	1.0107	µg/L	1.0107	ppb	15:30:49
1	Se 196.026†	-23.9	-44.0	5.26	µg/L	5.26	ppb	15:30:49
1	SiO2†	117663.2	116390.6	12017	µg/L	12017	ppb	15:30:29
1	Si 251.611†	362811.3	363308.3	5541.7	µg/L	5541.7	ppb	15:30:27
1	Sn 189.927†	81.5	73.3	9.2234	µg/L	9.2234	ppb	15:30:49
1	Ti 334.940†	1160984.5	1164205.8	1220.9	µg/L	1220.9	ppb	15:30:27
1	Tl 190.801†	-303.9	-189.7	-7.9629	µg/L	-7.9629	ppb	15:30:49
1	U 409.014†	-5667.5	-5276.3	-318.33	µg/L	-318.33	ppb	15:30:27
1	V 292.402†	4929.5	4450.9	14.727	µg/L	14.727	ppb	15:30:29
1	Zn 213.857†	28588.0	28069.8	155.29	µg/L	155.29	ppb	15:30:29
2	Sc RADIAL	114250.8	114250.8	99.9	%			15:30:03
2	Al 396.153Radial†	27951.9	28070.4	6618.8	µg/L	6618.8	ppb	15:30:03
2	Ca 317.933Radial†	34752.1	34337.1	2827.3	µg/L	2827.3	ppb	15:30:05
2	Fe 238.204 Radial†	758085.9	758872.0	64735	µg/L	64735	ppb	15:30:03
2	K 766.490 Radial†	5016.2	3612.9	1443.9	µg/L	1443.9	ppb	15:30:03
2	Mg 279.077 IEC†	2616.0	2461.8	1306.5	µg/L	1306.5	ppb	15:30:05
2	Na 589.592 Radial†	5389.4	4560.5	726.38	µg/L	726.38	ppb	15:30:05
2	Sr 421.552†	8527.1	8604.0	22.080	µg/L	22.080	ppb	15:30:05
2	Sc 361.383	1728455.2	1728455.2	102.14	%			15:30:52
2	Y 371.029	1275893.7	1275893.7	133.32	%			15:30:52
2	Ag 328.068†	5017.6	-190.4	-2.0587	µg/L	-2.0587	ppb	15:30:54
2	As 188.979†	-8.1	5.5	17.869	µg/L	17.869	ppb	15:31:14
2	B 249.677†	4599.8	391.6	5.7776	µg/L	5.7776	ppb	15:30:54
2	Ba 233.527†	28049.7	27608.3	124.17	µg/L	124.17	ppb	15:30:54
2	Be 313.107†	17630.1	18253.3	5.0763	µg/L	5.0763	ppb	15:30:54
2	Cd 226.502†	879.2	925.4	-0.6512	µg/L	-0.6512	ppb	15:31:14
2	Co 228.616†	561.2	776.5	6.9512	µg/L	6.9512	ppb	15:31:14
2	Cr 267.716†	17354.9	16661.9	148.20	µg/L	148.20	ppb	15:30:54
2	Cu 324.752†	4556.9	1220.2	14.271	µg/L	14.271	ppb	15:30:54
2	Mn 257.610†	1924809.6	1884293.4	2462.8	µg/L	2462.8	ppb	15:30:52
2	Mo 202.031†	676.3	683.8	25.804	µg/L	25.804	ppb	15:31:14
2	Ni 231.604†	6293.4	6235.6	77.545	µg/L	77.545	ppb	15:30:54
2	P 214.914†	2609.9	2574.5	545.46	µg/L	545.46	ppb	15:31:14
2	Pb 220.353†	311.3	187.6	11.966	µg/L	11.966	ppb	15:31:14

2	S 181.975 Axial†	238.5	131.6	112.14	µg/L	112.14 ppb	15:31:14
2	Sb 206.836†	97.4	17.8	-0.3962	µg/L	-0.3962 ppb	15:31:14
2	Se 196.026†	-46.6	-65.6	-3.20	µg/L	-3.20 ppb	15:31:14
2	SiO2†	121251.1	117023.5	12083	µg/L	12083 ppb	15:30:54
2	Si 251.611†	373590.9	364982.3	5567.3	µg/L	5567.3 ppb	15:30:52
2	Sn 189.927†	84.5	74.3	9.2534	µg/L	9.2534 ppb	15:31:14
2	Ti 334.940†	1179634.9	1154050.1	1210.3	µg/L	1210.3 ppb	15:30:52
2	Tl 190.801†	-291.8	-170.4	-5.3984	µg/L	-5.3984 ppb	15:31:14
2	U 409.014†	-5524.5	-4997.6	-301.43	µg/L	-301.43 ppb	15:30:52
2	V 292.402†	5073.7	4471.4	14.883	µg/L	14.883 ppb	15:30:54
2	Zn 213.857†	29431.0	28195.5	156.04	µg/L	156.04 ppb	15:30:54
3	Sc RADIAL	116015.7	116015.7	101	%		15:30:07
3	Al 396.153Radial†	28277.2	27965.4	6594.0	µg/L	6594.0 ppb	15:30:07
3	Ca 317.933Radial†	34685.3	33742.0	2778.3	µg/L	2778.3 ppb	15:30:09
3	Fe 238.204 Radial†	769396.8	758478.2	64701	µg/L	64701 ppb	15:30:07
3	K 766.490 Radial†	5083.8	3603.2	1440.1	µg/L	1440.1 ppb	15:30:07
3	Mg 279.077 IEC†	2610.5	2416.6	1281.6	µg/L	1281.6 ppb	15:30:09
3	Na 589.592 Radial†	5419.0	4507.7	717.96	µg/L	717.96 ppb	15:30:09
3	Sr 421.552†	8385.5	8334.6	21.388	µg/L	21.388 ppb	15:30:09
3	Sc 361.383	1699517.3	1699517.3	100.43	%		15:31:16
3	Y 371.029	1256203.6	1256203.6	131.26	%		15:31:16
3	Ag 328.068†	5061.4	-63.1	-1.5578	µg/L	-1.5578 ppb	15:31:18
3	As 188.979†	6.5	19.9	22.859	µg/L	22.859 ppb	15:31:38
3	B 249.677†	4572.8	441.4	6.5164	µg/L	6.5164 ppb	15:31:18
3	Ba 233.527†	27777.1	27804.4	125.05	µg/L	125.05 ppb	15:31:18
3	Be 313.107†	17072.0	17991.5	4.9970	µg/L	4.9970 ppb	15:31:18
3	Cd 226.502†	873.8	934.7	-0.5867	µg/L	-0.5867 ppb	15:31:38
3	Co 228.616†	547.9	772.6	6.9035	µg/L	6.9035 ppb	15:31:38
3	Cr 267.716†	17218.1	16815.0	149.55	µg/L	149.55 ppb	15:31:18
3	Cu 324.752†	4767.2	1505.6	15.432	µg/L	15.432 ppb	15:31:18
3	Mn 257.610†	1897506.2	1889194.3	2469.2	µg/L	2469.2 ppb	15:31:16
3	Mo 202.031†	672.4	691.2	26.053	µg/L	26.053 ppb	15:31:38
3	Ni 231.604†	6117.3	6165.1	76.668	µg/L	76.668 ppb	15:31:18
3	P 214.914†	2594.2	2602.3	551.81	µg/L	551.81 ppb	15:31:38
3	Pb 220.353†	351.9	233.2	14.838	µg/L	14.838 ppb	15:31:38
3	S 181.975 Axial†	222.9	120.0	102.34	µg/L	102.34 ppb	15:31:38
3	Sb 206.836†	71.6	-6.2	-3.4902	µg/L	-3.4902 ppb	15:31:38
3	Se 196.026†	-35.8	-55.6	0.637	µg/L	0.637 ppb	15:31:38
3	SiO2†	118738.1	116542.6	12033	µg/L	12033 ppb	15:31:18
3	Si 251.611†	368278.6	365920.7	5581.6	µg/L	5581.6 ppb	15:31:16
3	Sn 189.927†	81.6	72.9	9.1632	µg/L	9.1632 ppb	15:31:38
3	Ti 334.940†	1162245.0	1156399.7	1212.8	µg/L	1212.8 ppb	15:31:16
3	Tl 190.801†	-292.4	-176.0	-6.1347	µg/L	-6.1347 ppb	15:31:38
3	U 409.014†	-5717.7	-5282.0	-318.70	µg/L	-318.70 ppb	15:31:16
3	V 292.402†	4935.8	4418.8	14.620	µg/L	14.620 ppb	15:31:18
3	Zn 213.857†	29030.0	28286.8	156.58	µg/L	156.58 ppb	15:31:18

Mean Data: 248860008|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1704757.4	100.74	%	1.274				1.26%
Sc RADIAL	115076.3	101	%	0.8				0.77%
Y 371.029	1259650.8	131.62	%	1.549				1.18%
Ag 328.068†	-93.7	-1.6774	µg/L	0.33775	-1.6774	ppb	0.33775	20.14%
Al 396.153Radial†	28014.3	6605.5	µg/L	12.48	6605.5	ppb	12.48	0.19%
As 188.979†	13.4	20.645	µg/L	2.5419	20.645	ppb	2.5419	12.31%
B 249.677†	402.8	5.9437	µg/L	0.51044	5.9437	ppb	0.51044	8.59%
Ba 233.527†	27681.1	124.49	µg/L	0.487	124.49	ppb	0.487	0.39%
Be 313.107†	18168.0	5.0487	µg/L	0.04485	5.0487	ppb	0.04485	0.89%
Ca 317.933Radial†	34124.4	2809.8	µg/L	27.33	2809.8	ppb	27.33	0.97%
Cd 226.502†	936.3	-0.5891	µg/L	0.06088	-0.5891	ppb	0.06088	10.33%
Co 228.616†	781.6	7.0142	µg/L	0.15235	7.0142	ppb	0.15235	2.17%
Cr 267.716†	16697.5	148.52	µg/L	0.915	148.52	ppb	0.915	0.62%
Cu 324.752†	1378.4	14.930	µg/L	0.5965	14.930	ppb	0.5965	4.00%
Fe 238.204 Radial†	759941.1	64826	µg/L	187.8	64826	ppb	187.8	0.29%
K 766.490 Radial†	3623.8	1448.3	µg/L	11.06	1448.3	ppb	11.06	0.76%
Mg 279.077 IEC†	2474.2	1313.3	µg/L	35.62	1313.3	ppb	35.62	2.71%
Mn 257.610†	1890760.5	2471.3	µg/L	9.64	2471.3	ppb	9.64	0.39%
Mo 202.031†	687.8	25.945	µg/L	0.1280	25.945	ppb	0.1280	0.49%
Na 589.592 Radial†	4557.8	725.94	µg/L	7.777	725.94	ppb	7.777	1.07%

Ni 231.604†	6213.0	77.264	µg/L	0.5164	77.264	ppb	0.5164	0.67%
P 214.914†	2598.2	550.80	µg/L	4.913	550.80	ppb	4.913	0.89%
Pb 220.353†	213.6	13.604	µg/L	1.4778	13.604	ppb	1.4778	10.86%
S 181.975 Axial†	127.7	108.88	µg/L	5.662	108.88	ppb	5.662	5.20%
Sb 206.836†	13.5	-0.9586	µg/L	2.30257	-0.9586	ppb	2.30257	240.20%
Se 196.026†	-55.0	0.901	µg/L	4.2346	0.901	ppb	4.2346	470.05%
SiO2†	116652.2	12044	µg/L	34.1	12044	ppb	34.1	0.28%
Si 251.611†	364737.1	5563.5	µg/L	20.19	5563.5	ppb	20.19	0.36%
Sn 189.927†	73.5	9.2133	µg/L	0.04592	9.2133	ppb	0.04592	0.50%
Sr 421.552†	8517.9	21.859	µg/L	0.4080	21.859	ppb	0.4080	1.87%
Ti 334.940†	1158218.5	1214.7	µg/L	5.58	1214.7	ppb	5.58	0.46%
Tl 190.801†	-178.7	-6.4987	µg/L	1.32043	-6.4987	ppb	1.32043	20.32%
U 409.014†	-5185.3	-312.82	µg/L	9.865	-312.82	ppb	9.865	3.15%
Concentration less than lower limit for U 409.014.								
V 292.402†	4447.0	14.743	µg/L	0.1323	14.743	ppb	0.1323	0.90%
Zn 213.857†	28184.1	155.97	µg/L	0.649	155.97	ppb	0.649	0.42%

Sequence No.: 17
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/13/2010 15:31:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	115943.5	115943.5	101	%			15:32:19
1	Al 396.153Radial†	21784.9	21577.6	5065.3	µg/L	5065.3	ppb	15:32:19
1	Ca 317.933Radial†	63085.9	61782.8	5087.2	µg/L	5087.2	ppb	15:32:19
1	Fe 238.204 Radial†	60474.9	59539.3	5078.9	µg/L	5078.9	ppb	15:32:19
1	K 766.490 Radial†	14088.3	12490.1	4995.3	µg/L	4995.3	ppb	15:32:19
1	Mg 279.077 IEC†	9545.4	9260.1	5129.1	µg/L	5129.1	ppb	15:32:19
1	Na 589.592 Radial†	64872.2	63166.6	10074	µg/L	10074	ppb	15:32:17
1	Sr 421.552†	200154.8	197536.3	507.39	µg/L	507.39	ppb	15:32:17
1	Sc 361.383	1701873.6	1701873.6	100.57	%			15:32:32
1	Y 371.029	953824.9	953824.9	99.665	%			15:32:32
1	Ag 328.068†	125653.4	119841.0	501.07	µg/L	501.07	ppb	15:32:32
1	As 188.979†	1409.7	1415.2	497.33	µg/L	497.33	ppb	15:32:52
1	B 249.677†	37252.4	32930.1	487.07	µg/L	487.07	ppb	15:32:32
1	Ba 233.527†	110849.7	110369.8	500.02	µg/L	500.02	ppb	15:32:32
1	Be 313.107†	1761453.1	1752501.0	496.34	µg/L	496.34	ppb	15:32:32
1	Cd 226.502†	75766.7	75403.6	498.28	µg/L	498.28	ppb	15:32:32
1	Co 228.616†	38361.7	38372.1	503.31	µg/L	503.31	ppb	15:32:32
1	Cr 267.716†	57392.4	56738.7	498.18	µg/L	498.18	ppb	15:32:32
1	Cu 324.752†	123993.5	120052.2	498.55	µg/L	498.55	ppb	15:32:32
1	Mn 257.610†	385995.4	383600.8	501.20	µg/L	501.20	ppb	15:32:32
1	Mo 202.031†	14870.9	14808.6	503.15	µg/L	503.15	ppb	15:32:52
1	Ni 231.604†	40490.9	40336.2	501.61	µg/L	501.61	ppb	15:32:32
1	P 214.914†	10942.7	10900.1	2481.9	µg/L	2481.9	ppb	15:32:52
1	Pb 220.353†	8151.9	7988.7	502.16	µg/L	502.16	ppb	15:32:52
1	S 181.975 Axial†	1285.0	1175.8	1004.7	µg/L	1004.7	ppb	15:32:52
1	Sb 206.836†	4008.0	3907.8	502.12	µg/L	502.12	ppb	15:32:52
1	Se 196.026†	1307.0	1279.6	497	µg/L	497	ppb	15:32:52
1	SiO2†	53459.6	51468.9	5293.1	µg/L	5293.1	ppb	15:32:32
1	Si 251.611†	165036.7	163318.5	2481.4	µg/L	2481.4	ppb	15:32:32
1	Sn 189.927†	7186.1	7137.1	498.69	µg/L	498.69	ppb	15:32:52
1	Ti 334.940†	480935.9	477334.7	499.94	µg/L	499.94	ppb	15:32:32
1	Tl 190.801†	3459.7	3555.4	508.54	µg/L	508.54	ppb	15:32:52
1	U 409.014†	7205.5	7576.1	490.99	µg/L	490.99	ppb	15:32:32
1	V 292.402†	101144.6	100077.6	502.85	µg/L	502.85	ppb	15:32:32
1	Zn 213.857†	87614.4	86500.4	495.44	µg/L	495.44	ppb	15:32:32
2	Sc RADIAL	114403.2	114403.2	100	%			15:32:23
2	Al 396.153Radial†	21832.2	21914.2	5144.6	µg/L	5144.6	ppb	15:32:23
2	Ca 317.933Radial†	62078.7	61613.8	5073.2	µg/L	5073.2	ppb	15:32:23
2	Fe 238.204 Radial†	59597.5	59465.3	5072.6	µg/L	5072.6	ppb	15:32:23
2	K 766.490 Radial†	14097.9	12686.8	5074.1	µg/L	5074.1	ppb	15:32:23
2	Mg 279.077 IEC†	9453.6	9295.0	5148.5	µg/L	5148.5	ppb	15:32:23
2	Na 589.592 Radial†	63824.1	62980.3	10044	µg/L	10044	ppb	15:32:21
2	Sr 421.552†	196583.2	196623.9	505.04	µg/L	505.04	ppb	15:32:21
2	Sc 361.383	1691683.2	1691683.2	99.966	%			15:32:55
2	Y 371.029	947869.3	947869.3	99.043	%			15:32:55
2	Ag 328.068†	125396.8	120337.0	503.11	µg/L	503.11	ppb	15:32:55
2	As 188.979†	1410.9	1424.8	500.64	µg/L	500.64	ppb	15:33:15
2	B 249.677†	37277.6	33178.5	490.77	µg/L	490.77	ppb	15:32:55
2	Ba 233.527†	110068.0	110251.8	499.49	µg/L	499.49	ppb	15:32:55
2	Be 313.107†	1746376.7	1747970.2	495.05	µg/L	495.05	ppb	15:32:55
2	Cd 226.502†	75233.2	75323.7	497.75	µg/L	497.75	ppb	15:32:55
2	Co 228.616†	37973.6	38213.8	501.23	µg/L	501.23	ppb	15:32:55
2	Cr 267.716†	56860.8	56550.7	496.53	µg/L	496.53	ppb	15:32:55
2	Cu 324.752†	123027.2	119828.3	497.63	µg/L	497.63	ppb	15:32:55
2	Mn 257.610†	383905.7	383822.5	501.49	µg/L	501.49	ppb	15:32:55
2	Mo 202.031†	14835.9	14862.6	504.99	µg/L	504.99	ppb	15:33:15
2	Ni 231.604†	40197.5	40285.2	500.98	µg/L	500.98	ppb	15:32:55
2	P 214.914†	10963.8	10986.7	2501.8	µg/L	2501.8	ppb	15:33:15
2	Pb 220.353†	8127.7	8013.3	503.71	µg/L	503.71	ppb	15:33:15

2	S 181.975 Axial†	1279.2	1177.7	1006.3 µg/L	1006.3 ppb	15:33:15
2	Sb 206.836†	3989.4	3913.2	502.87 µg/L	502.87 ppb	15:33:15
2	Se 196.026†	1307.2	1287.6	500 µg/L	500 ppb	15:33:15
2	SiO2†	53195.0	51524.4	5298.7 µg/L	5298.7 ppb	15:32:55
2	Si 251.611†	164561.6	163831.7	2489.1 µg/L	2489.1 ppb	15:32:55
2	Sn 189.927†	7220.7	7214.8	504.09 µg/L	504.09 ppb	15:33:15
2	Ti 334.940†	477243.2	476521.4	499.09 µg/L	499.09 ppb	15:32:55
2	Tl 190.801†	3454.9	3571.3	510.77 µg/L	510.77 ppb	15:33:15
2	U 409.014†	7180.5	7594.2	492.03 µg/L	492.03 ppb	15:32:55
2	V 292.402†	100292.9	99831.4	501.64 µg/L	501.64 ppb	15:32:55
2	Zn 213.857†	87223.1	86633.8	496.22 µg/L	496.22 ppb	15:32:55
3	Sc RADIAL	115565.4	115565.4	101 %		15:32:27
3	Al 396.153Radial†	21693.1	21557.1	5060.6 µg/L	5060.6 ppb	15:32:27
3	Ca 317.933Radial†	62348.6	61256.7	5043.8 µg/L	5043.8 ppb	15:32:27
3	Fe 238.204 Radial†	59765.5	59032.3	5035.7 µg/L	5035.7 ppb	15:32:27
3	K 766.490 Radial†	14118.7	12565.6	5025.6 µg/L	5025.6 ppb	15:32:27
3	Mg 279.077 IEC†	9418.3	9165.0	5076.5 µg/L	5076.5 ppb	15:32:27
3	Na 589.592 Radial†	63686.5	62202.4	9920.4 µg/L	9920.4 ppb	15:32:25
3	Sr 421.552†	195926.5	193997.2	498.30 µg/L	498.30 ppb	15:32:25
3	Sc 361.383	1714077.6	1714077.6	101.29 %		15:33:18
3	Y 371.029	959082.2	959082.2	100.21 %		15:33:18
3	Ag 328.068†	127424.9	120700.4	504.63 µg/L	504.63 ppb	15:33:18
3	As 188.979†	1405.4	1401.0	492.40 µg/L	492.40 ppb	15:33:38
3	B 249.677†	38032.6	33436.7	494.59 µg/L	494.59 ppb	15:33:18
3	Ba 233.527†	112015.2	110735.6	501.68 µg/L	501.68 ppb	15:33:18
3	Be 313.107†	1780228.7	1758567.3	498.05 µg/L	498.05 ppb	15:33:18
3	Cd 226.502†	76729.0	75817.2	501.02 µg/L	501.02 ppb	15:33:18
3	Co 228.616†	38739.6	38473.7	504.64 µg/L	504.64 ppb	15:33:18
3	Cr 267.716†	57886.5	56820.2	498.90 µg/L	498.90 ppb	15:33:18
3	Cu 324.752†	125228.6	120393.8	499.96 µg/L	499.96 ppb	15:33:18
3	Mn 257.610†	389981.8	384803.9	502.78 µg/L	502.78 ppb	15:33:18
3	Mo 202.031†	14878.3	14710.6	499.82 µg/L	499.82 ppb	15:33:38
3	Ni 231.604†	40973.3	40525.8	503.97 µg/L	503.97 ppb	15:33:18
3	P 214.914†	10941.3	10821.3	2463.9 µg/L	2463.9 ppb	15:33:38
3	Pb 220.353†	8147.1	7926.2	498.24 µg/L	498.24 ppb	15:33:38
3	S 181.975 Axial†	1283.1	1164.8	995.31 µg/L	995.31 ppb	15:33:38
3	Sb 206.836†	4005.5	3877.0	498.11 µg/L	498.11 ppb	15:33:38
3	Se 196.026†	1325.6	1288.7	501 µg/L	501 ppb	15:33:38
3	SiO2†	54369.8	51989.1	5346.9 µg/L	5346.9 ppb	15:33:18
3	Si 251.611†	168387.2	165458.0	2514.0 µg/L	2514.0 ppb	15:33:18
3	Sn 189.927†	7220.1	7119.8	497.49 µg/L	497.49 ppb	15:33:38
3	Ti 334.940†	485030.3	477972.0	500.61 µg/L	500.61 ppb	15:33:18
3	Tl 190.801†	3462.8	3534.0	505.53 µg/L	505.53 ppb	15:33:38
3	U 409.014†	7172.3	7492.2	485.98 µg/L	485.98 ppb	15:33:18
3	V 292.402†	102126.6	100331.0	504.07 µg/L	504.07 ppb	15:33:18
3	Zn 213.857†	88685.1	86937.2	497.95 µg/L	497.95 ppb	15:33:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1702544.8	100.61	%	0.663				0.66%
Sc RADIAL	115304.0	101	%	0.7				0.70%
Y 371.029	953592.2	99.641	%	0.5862				0.59%
Ag 328.068†	120292.8	502.94	µg/L	1.785	502.94	ppb	1.785	0.35%
QC value within limits for Ag 328.068 Recovery = 100.59%								
Al 396.153Radial†	21683.0	5090.2	µg/L	47.20	5090.2	ppb	47.20	0.93%
QC value within limits for Al 396.153Radial Recovery = 101.80%								
As 188.979†	1413.6	496.79	µg/L	4.147	496.79	ppb	4.147	0.83%
QC value within limits for As 188.979 Recovery = 99.36%								
B 249.677†	33181.8	490.81	µg/L	3.758	490.81	ppb	3.758	0.77%
QC value within limits for B 249.677 Recovery = 98.16%								
Ba 233.527†	110452.4	500.39	µg/L	1.142	500.39	ppb	1.142	0.23%
QC value within limits for Ba 233.527 Recovery = 100.08%								
Be 313.107†	1753012.8	496.48	µg/L	1.504	496.48	ppb	1.504	0.30%
QC value within limits for Be 313.107 Recovery = 99.30%								
Ca 317.933Radial†	61551.1	5068.1	µg/L	22.12	5068.1	ppb	22.12	0.44%
QC value within limits for Ca 317.933Radial Recovery = 101.36%								
Cd 226.502†	75514.8	499.01	µg/L	1.755	499.01	ppb	1.755	0.35%
QC value within limits for Cd 226.502 Recovery = 99.80%								
Co 228.616†	38353.2	503.06	µg/L	1.719	503.06	ppb	1.719	0.34%

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   QC value within limits for Co 228.616  Recovery = 100.61%
Cr 267.716†          56703.2      497.87 µg/L        1.217      497.87 ppb          1.217   0.24%
   QC value within limits for Cr 267.716  Recovery = 99.57%
Cu 324.752†         120091.4      498.71 µg/L        1.173      498.71 ppb          1.173   0.24%
   QC value within limits for Cu 324.752  Recovery = 99.74%
Fe 238.204 Radial†   59345.6      5062.4 µg/L        23.36      5062.4 ppb          23.36   0.46%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.25%
K 766.490 Radial†    12580.8      5031.7 µg/L        39.71      5031.7 ppb          39.71   0.79%
   QC value within limits for K 766.490 Radial  Recovery = 100.63%
Mg 279.077 IEC†       9240.0      5118.0 µg/L        37.25      5118.0 ppb          37.25   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.36%
Mn 257.610†         384075.7      501.82 µg/L        0.838      501.82 ppb          0.838   0.17%
   QC value within limits for Mn 257.610  Recovery = 100.36%
Mo 202.031†          14793.9      502.65 µg/L        2.618      502.65 ppb          2.618   0.52%
   QC value within limits for Mo 202.031  Recovery = 100.53%
Na 589.592 Radial†   62783.1       10013 µg/L         81.6       10013 ppb           81.6   0.82%
   QC value within limits for Na 589.592 Radial  Recovery = 100.13%
Ni 231.604†          40382.4      502.19 µg/L        1.577      502.19 ppb          1.577   0.31%
   QC value within limits for Ni 231.604  Recovery = 100.44%
P 214.914†           10902.7      2482.5 µg/L        18.92      2482.5 ppb          18.92   0.76%
   QC value within limits for P 214.914  Recovery = 99.30%
Pb 220.353†           7976.0      501.37 µg/L        2.819      501.37 ppb          2.819   0.56%
   QC value within limits for Pb 220.353  Recovery = 100.27%
S 181.975 Axial†      1172.8      1002.1 µg/L         5.93      1002.1 ppb           5.93   0.59%
   QC value within limits for S 181.975 Axial  Recovery = 100.21%
Sb 206.836†           3899.3      501.03 µg/L        2.558      501.03 ppb          2.558   0.51%
   QC value within limits for Sb 206.836  Recovery = 100.21%
Se 196.026†           1285.3         499 µg/L          1.9         499 ppb            1.9   0.38%
   QC value within limits for Se 196.026  Recovery = 99.85%
SiO2†                51660.8      5312.9 µg/L        29.59      5312.9 ppb          29.59   0.56%
   QC value within limits for SiO2  Recovery = 99.35%
Si 251.611†         164202.7      2494.8 µg/L        17.08      2494.8 ppb          17.08   0.68%
   QC value within limits for Si 251.611  Recovery = 99.79%
Sn 189.927†           7157.3      500.09 µg/L        3.520      500.09 ppb          3.520   0.70%
   QC value within limits for Sn 189.927  Recovery = 100.02%
Sr 421.552†         196052.5      503.58 µg/L        4.720      503.58 ppb          4.720   0.94%
   QC value within limits for Sr 421.552  Recovery = 100.72%
Ti 334.940†         477276.0      499.88 µg/L        0.766      499.88 ppb          0.766   0.15%
   QC value within limits for Ti 334.940  Recovery = 99.98%
Tl 190.801†           3553.6      508.28 µg/L        2.627      508.28 ppb          2.627   0.52%
   QC value within limits for Tl 190.801  Recovery = 101.66%
U 409.014†            7554.2      489.67 µg/L        3.234      489.67 ppb          3.234   0.66%
   QC value within limits for U 409.014  Recovery = 97.93%
V 292.402†          100080.0      502.85 µg/L        1.216      502.85 ppb          1.216   0.24%
   QC value within limits for V 292.402  Recovery = 100.57%
Zn 213.857†          86690.5      496.54 µg/L        1.285      496.54 ppb          1.285   0.26%
   QC value within limits for Zn 213.857  Recovery = 99.31%
All analyte(s) passed QC.
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Sequence No.: 18
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/13/2010 15:33:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114111.8	114111.8	99.8	%			15:34:15
1	Al 396.153Radial†	-71.7	13.1	3.0730	µg/L	3.0730	ppb	15:34:35
1	Ca 317.933Radial†	472.5	16.9	1.3890	µg/L	1.3890	ppb	15:34:35
1	Fe 238.204 Radial†	152.1	28.2	2.4040	µg/L	2.4040	ppb	15:34:35
1	K 766.490 Radial†	1512.4	106.8	42.758	µg/L	42.758	ppb	15:34:15
1	Mg 279.077 IEC†	166.9	10.0	5.5128	µg/L	5.5128	ppb	15:34:35
1	Na 589.592 Radial†	963.4	130.5	20.779	µg/L	20.779	ppb	15:34:15
1	Sr 421.552†	-60.1	6.4	0.0166	µg/L	0.0166	ppb	15:34:15
1	Sc 361.383	1707720.4	1707720.4	100.91	%			15:35:37
1	Y 371.029	966443.9	966443.9	100.98	%			15:35:37
1	Ag 328.068†	4995.8	-152.4	-0.6221	µg/L	-0.6221	ppb	15:35:39
1	As 188.979†	-10.7	2.8	0.9603	µg/L	0.9603	ppb	15:35:59
1	B 249.677†	4169.6	19.9	0.2949	µg/L	0.2949	ppb	15:35:39
1	Ba 233.527†	-150.5	-3.2	-0.0145	µg/L	-0.0145	ppb	15:35:59
1	Be 313.107†	-328.9	666.4	0.1902	µg/L	0.1902	ppb	15:35:39
1	Cd 226.502†	-44.2	20.8	0.1372	µg/L	0.1372	ppb	15:35:59
1	Co 228.616†	-215.9	13.1	0.1715	µg/L	0.1715	ppb	15:35:59
1	Cr 267.716†	321.2	-11.3	-0.1035	µg/L	-0.1035	ppb	15:35:59
1	Cu 324.752†	3054.7	-214.2	-0.8822	µg/L	-0.8822	ppb	15:35:39
1	Mn 257.610†	429.9	210.6	0.2751	µg/L	0.2751	ppb	15:35:59
1	Mo 202.031†	-13.9	7.8	0.2656	µg/L	0.2656	ppb	15:35:59
1	Ni 231.604†	-71.9	2.7	0.0337	µg/L	0.0337	ppb	15:35:59
1	P 214.914†	-3.2	16.0	3.6742	µg/L	3.6742	ppb	15:35:59
1	Pb 220.353†	98.7	-19.4	-1.2192	µg/L	-1.2192	ppb	15:35:59
1	S 181.975 Axial†	103.4	0.5	0.4655	µg/L	0.4655	ppb	15:35:59
1	Sb 206.836†	81.6	3.3	0.4295	µg/L	0.4295	ppb	15:35:59
1	Se 196.026†	34.6	14.3	5.55	µg/L	5.55	ppb	15:35:59
1	SiO2†	1849.8	144.2	14.870	µg/L	14.870	ppb	15:35:39
1	Si 251.611†	1034.4	238.5	3.6292	µg/L	3.6292	ppb	15:35:39
1	Sn 189.927†	21.8	13.2	0.9199	µg/L	0.9199	ppb	15:35:59
1	Ti 334.940†	923.4	28.9	0.0279	µg/L	0.0279	ppb	15:35:39
1	Tl 190.801†	-112.2	4.1	0.5725	µg/L	0.5725	ppb	15:35:59
1	U 409.014†	-333.8	80.5	4.9007	µg/L	4.9007	ppb	15:35:39
1	V 292.402†	524.8	24.1	0.1247	µg/L	0.1247	ppb	15:35:39
1	Zn 213.857†	634.8	9.7	0.0562	µg/L	0.0562	ppb	15:35:59
2	Sc RADIAL	114949.9	114949.9	100	%			15:34:37
2	Al 396.153Radial†	-94.9	-9.5	-2.2533	µg/L	-2.2533	ppb	15:34:57
2	Ca 317.933Radial†	480.4	21.3	1.7515	µg/L	1.7515	ppb	15:34:57
2	Fe 238.204 Radial†	203.3	78.0	6.6560	µg/L	6.6560	ppb	15:34:57
2	K 766.490 Radial†	1603.2	186.1	74.491	µg/L	74.491	ppb	15:34:37
2	Mg 279.077 IEC†	168.7	10.6	5.8444	µg/L	5.8444	ppb	15:34:57
2	Na 589.592 Radial†	918.0	78.3	12.420	µg/L	12.420	ppb	15:34:37
2	Sr 421.552†	-201.1	-133.4	-0.3428	µg/L	-0.3428	ppb	15:34:37
2	Sc 361.383	1709598.0	1709598.0	101.02	%			15:36:02
2	Y 371.029	967704.1	967704.1	101.12	%			15:36:02
2	Ag 328.068†	5012.4	-141.4	-0.5720	µg/L	-0.5720	ppb	15:36:04
2	As 188.979†	-16.7	-3.1	-1.0627	µg/L	-1.0627	ppb	15:36:24
2	B 249.677†	4199.1	44.6	0.6626	µg/L	0.6626	ppb	15:36:04
2	Ba 233.527†	-140.5	6.8	0.0308	µg/L	0.0308	ppb	15:36:24
2	Be 313.107†	-794.1	206.3	0.0609	µg/L	0.0609	ppb	15:36:04
2	Cd 226.502†	-56.6	8.6	0.0562	µg/L	0.0562	ppb	15:36:24
2	Co 228.616†	-228.2	1.2	0.0150	µg/L	0.0150	ppb	15:36:24
2	Cr 267.716†	342.7	9.6	0.0784	µg/L	0.0784	ppb	15:36:24
2	Cu 324.752†	2957.2	-314.1	-1.2925	µg/L	-1.2925	ppb	15:36:04
2	Mn 257.610†	327.0	108.3	0.1413	µg/L	0.1413	ppb	15:36:24
2	Mo 202.031†	-11.0	10.7	0.3643	µg/L	0.3643	ppb	15:36:24
2	Ni 231.604†	-47.6	26.8	0.3330	µg/L	0.3330	ppb	15:36:24
2	P 214.914†	-5.4	13.9	3.1806	µg/L	3.1806	ppb	15:36:24
2	Pb 220.353†	148.8	30.1	1.8777	µg/L	1.8777	ppb	15:36:24

2	S 181.975 Axial†	111.4	8.4	7.1453 µg/L	7.1453 ppb	15:36:24
2	Sb 206.836†	79.5	1.2	0.1581 µg/L	0.1581 ppb	15:36:24
2	Se 196.026†	19.7	-0.5	-0.182 µg/L	-0.182 ppb	15:36:24
2	SiO2†	1754.6	48.0	4.9360 µg/L	4.9360 ppb	15:36:04
2	Si 251.611†	955.5	159.3	2.4224 µg/L	2.4224 ppb	15:36:04
2	Sn 189.927†	13.8	5.3	0.3665 µg/L	0.3665 ppb	15:36:24
2	Ti 334.940†	836.3	-58.2	-0.0648 µg/L	-0.0648 ppb	15:36:04
2	Tl 190.801†	-107.0	9.3	1.3185 µg/L	1.3185 ppb	15:36:24
2	U 409.014†	-280.7	133.4	8.1178 µg/L	8.1178 ppb	15:36:04
2	V 292.402†	532.9	31.5	0.1649 µg/L	0.1649 ppb	15:36:04
2	Zn 213.857†	640.2	14.4	0.0811 µg/L	0.0811 ppb	15:36:24
3	Sc RADIAL	115878.1	115878.1	101 %		15:34:59
3	Al 396.153Radial†	-65.3	20.6	4.8310 µg/L	4.8310 ppb	15:35:19
3	Ca 317.933Radial†	462.0	-0.7	-0.0547 µg/L	-0.0547 ppb	15:35:19
3	Fe 238.204 Radial†	200.7	73.9	6.3023 µg/L	6.3023 ppb	15:35:19
3	K 766.490 Radial†	1521.7	92.8	37.160 µg/L	37.160 ppb	15:34:59
3	Mg 279.077 IEC†	159.9	0.5	0.3002 µg/L	0.3002 ppb	15:35:19
3	Na 589.592 Radial†	965.1	117.4	18.701 µg/L	18.701 ppb	15:34:59
3	Sr 421.552†	-232.8	-163.1	-0.4188 µg/L	-0.4188 ppb	15:34:59
3	Sc 361.383	1713556.7	1713556.7	101.26 %		15:36:26
3	Y 371.029	969829.7	969829.7	101.34 %		15:36:26
3	Ag 328.068†	5031.8	-133.7	-0.5364 µg/L	-0.5364 ppb	15:36:28
3	As 188.979†	-11.4	2.2	0.7499 µg/L	0.7499 ppb	15:36:48
3	B 249.677†	4023.7	-138.2	-2.0514 µg/L	-2.0514 ppb	15:36:28
3	Ba 233.527†	-168.6	-20.7	-0.0933 µg/L	-0.0933 ppb	15:36:48
3	Be 313.107†	-485.1	513.3	0.1482 µg/L	0.1482 ppb	15:36:28
3	Cd 226.502†	-54.4	10.8	0.0708 µg/L	0.0708 ppb	15:36:48
3	Co 228.616†	-240.9	-10.9	-0.1430 µg/L	-0.1430 ppb	15:36:48
3	Cr 267.716†	340.3	6.4	0.0493 µg/L	0.0493 ppb	15:36:48
3	Cu 324.752†	3137.5	-142.8	-0.5825 µg/L	-0.5825 ppb	15:36:28
3	Mn 257.610†	327.9	108.5	0.1418 µg/L	0.1418 ppb	15:36:48
3	Mo 202.031†	-10.6	11.1	0.3782 µg/L	0.3782 ppb	15:36:48
3	Ni 231.604†	-74.9	-0.1	-0.0007 µg/L	-0.0007 ppb	15:36:48
3	P 214.914†	-14.6	4.8	1.1059 µg/L	1.1059 ppb	15:36:48
3	Pb 220.353†	121.7	3.0	0.1811 µg/L	0.1811 ppb	15:36:48
3	S 181.975 Axial†	105.1	1.9	1.5787 µg/L	1.5787 ppb	15:36:48
3	Sb 206.836†	80.9	2.3	0.3037 µg/L	0.3037 ppb	15:36:48
3	Se 196.026†	13.4	-6.8	-2.60 µg/L	-2.60 ppb	15:36:48
3	SiO2†	1879.5	167.3	17.253 µg/L	17.253 ppb	15:36:28
3	Si 251.611†	1041.1	241.6	3.6761 µg/L	3.6761 ppb	15:36:28
3	Sn 189.927†	19.4	10.8	0.7490 µg/L	0.7490 ppb	15:36:48
3	Ti 334.940†	826.3	-70.1	-0.0774 µg/L	-0.0774 ppb	15:36:28
3	Tl 190.801†	-101.7	14.8	2.0824 µg/L	2.0824 ppb	15:36:48
3	U 409.014†	-260.2	154.2	9.3985 µg/L	9.3985 ppb	15:36:28
3	V 292.402†	571.6	68.4	0.3492 µg/L	0.3492 ppb	15:36:28
3	Zn 213.857†	634.2	7.0	0.0403 µg/L	0.0403 ppb	15:36:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1710291.7	101.07	%	0.176				0.17%
Sc RADIAL	114979.9	101	%	0.8				0.77%
Y 371.029	967992.6	101.15	%	0.179				0.18%
Ag 328.068†	-142.5	-0.5768	µg/L	0.04303	-0.5768	ppb	0.04303	7.46%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.1	1.8835	µg/L	3.68888	1.8835	ppb	3.68888	195.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.6	0.2158	µg/L	1.11219	0.2158	ppb	1.11219	515.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-24.6	-0.3646	µg/L	1.47232	-0.3646	ppb	1.47232	403.79%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.7	-0.0257	µg/L	0.06282	-0.0257	ppb	0.06282	244.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	462.0	0.1331	µg/L	0.06596	0.1331	ppb	0.06596	49.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	12.5	1.0286	µg/L	0.95553	1.0286	ppb	0.95553	92.90%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	13.4	0.0881	µg/L	0.04318	0.0881	ppb	0.04318	49.04%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.1	0.0145	µg/L	0.15726	0.0145	ppb	0.15726	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                1.6      0.0081 µg/L       0.09770      0.0081 ppb        0.09770 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -223.7     -0.9191 µg/L       0.35640     -0.9191 ppb        0.35640  38.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        60.0      5.1208 µg/L       2.35941      5.1208 ppb        2.35941  46.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        128.6      51.470 µg/L       20.1323      51.470 ppb        20.1323  39.11%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            7.0      3.8858 µg/L       3.10964      3.8858 ppb        3.10964  80.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              142.5      0.1861 µg/L       0.07707      0.1861 ppb        0.07707  41.42%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.9      0.3361 µg/L       0.06139      0.3361 ppb        0.06139  18.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       108.7      17.300 µg/L        4.3521      17.300 ppb         4.3521  25.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                9.8      0.1220 µg/L       0.18352      0.1220 ppb        0.18352 150.45%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                11.6      2.6536 µg/L       1.36284      2.6536 ppb        1.36284  51.36%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                4.5      0.2799 µg/L       1.55080      0.2799 ppb        1.55080 554.13%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           3.6      3.0632 µg/L       3.57877      3.0632 ppb        3.57877 116.83%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                2.3      0.2971 µg/L       0.13579      0.2971 ppb        0.13579  45.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.4       0.923 µg/L        4.1854       0.923 ppb         4.1854 453.68%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    119.8      12.353 µg/L        6.5328      12.353 ppb         6.5328  52.88%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              213.2      3.2426 µg/L       0.71066      3.2426 ppb        0.71066  21.92%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                9.7      0.6785 µg/L       0.28335      0.6785 ppb        0.28335  41.76%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -96.7     -0.2484 µg/L       0.23255     -0.2484 ppb        0.23255  93.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -33.1     -0.0381 µg/L       0.05752     -0.0381 ppb        0.05752 151.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                9.4      1.3244 µg/L       0.75497      1.3244 ppb        0.75497  57.00%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               122.7      7.4723 µg/L       2.31734      7.4723 ppb        2.31734  31.01%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                41.3      0.2129 µg/L       0.11973      0.2129 ppb        0.11973  56.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               10.4      0.0592 µg/L       0.02059      0.0592 ppb        0.02059  34.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: 248860009|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 315
Date Collected: 4/13/2010 15:36:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248860009|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113280.8	113280.8	99.0	%			15:37:28
1	Al 396.153Radial†	35787.4	36222.2	8541.9	µg/L	8541.9	ppb	15:37:28
1	Ca 317.933Radial†	17339.4	17052.1	1404.1	µg/L	1404.1	ppb	15:37:30
1	Fe 238.204 Radial†	575881.8	581386.7	49594	µg/L	49594	ppb	15:37:28
1	K 766.490 Radial†	4190.4	2822.1	1127.3	µg/L	1127.3	ppb	15:37:28
1	Mg 279.077 IEC†	1612.1	1470.5	770.88	µg/L	770.88	ppb	15:37:30
1	Na 589.592 Radial†	5525.4	4744.1	755.95	µg/L	755.95	ppb	15:37:28
1	Sr 421.552†	17458.8	17696.2	45.447	µg/L	45.447	ppb	15:37:28
1	Sc 361.383	1688790.2	1688790.2	99.795	%			15:37:56
1	Y 371.029	1194598.1	1194598.1	124.82	%			15:37:56
1	Ag 328.068†	5128.8	36.4	-0.5506	µg/L	-0.5506	ppb	15:37:58
1	As 188.979†	5.5	19.0	17.855	µg/L	17.855	ppb	15:38:18
1	B 249.677†	5424.5	1323.7	19.637	µg/L	19.637	ppb	15:37:58
1	Ba 233.527†	43387.0	43622.2	196.84	µg/L	196.84	ppb	15:37:58
1	Be 313.107†	9442.6	10454.3	2.9046	µg/L	2.9046	ppb	15:37:58
1	Cd 226.502†	639.5	705.4	-0.5462	µg/L	-0.5462	ppb	15:38:18
1	Co 228.616†	29.5	256.6	0.9733	µg/L	0.9733	ppb	15:38:18
1	Cr 267.716†	1985.4	1659.9	16.148	µg/L	16.148	ppb	15:37:58
1	Cu 324.752†	4335.2	1102.8	11.661	µg/L	11.661	ppb	15:37:58
1	Mn 257.610†	885056.4	886662.4	1158.8	µg/L	1158.8	ppb	15:37:56
1	Mo 202.031†	188.8	210.8	9.1385	µg/L	9.1385	ppb	15:38:18
1	Ni 231.604†	711.5	786.9	9.7852	µg/L	9.7852	ppb	15:38:18
1	P 214.914†	2302.5	2326.4	499.69	µg/L	499.69	ppb	15:38:18
1	Pb 220.353†	447.7	331.4	20.518	µg/L	20.518	ppb	15:38:18
1	S 181.975 Axial†	294.5	193.2	164.46	µg/L	164.46	ppb	15:38:18
1	Sb 206.836†	61.3	-16.1	-2.8187	µg/L	-2.8187	ppb	15:38:18
1	Se 196.026†	-35.7	-55.8	-4.54	µg/L	-4.54	ppb	15:38:18
1	SiO2†	116025.0	114574.9	11830	µg/L	11830	ppb	15:37:58
1	Si 251.611†	359612.4	359566.0	5484.8	µg/L	5484.8	ppb	15:37:56
1	Sn 189.927†	116.2	108.0	9.2343	µg/L	9.2343	ppb	15:38:18
1	Ti 334.940†	484728.2	484839.6	508.49	µg/L	508.49	ppb	15:37:56
1	Tl 190.801†	-205.4	-90.6	-4.5639	µg/L	-4.5639	ppb	15:38:18
1	U 409.014†	-3420.3	-3016.1	-186.16	µg/L	-186.16	ppb	15:37:58
1	V 292.402†	3867.2	3379.2	11.064	µg/L	11.064	ppb	15:37:58
1	Zn 213.857†	19497.4	18918.3	104.26	µg/L	104.26	ppb	15:37:58
2	Sc RADIAL	116479.6	116479.6	102	%			15:37:32
2	Al 396.153Radial†	36503.0	35932.5	8473.6	µg/L	8473.6	ppb	15:37:32
2	Ca 317.933Radial†	17694.9	16920.4	1393.2	µg/L	1393.2	ppb	15:37:34
2	Fe 238.204 Radial†	589508.4	578798.9	49374	µg/L	49374	ppb	15:37:32
2	K 766.490 Radial†	4309.7	2823.0	1127.7	µg/L	1127.7	ppb	15:37:32
2	Mg 279.077 IEC†	1596.3	1410.3	737.81	µg/L	737.81	ppb	15:37:34
2	Na 589.592 Radial†	5683.2	4745.8	756.23	µg/L	756.23	ppb	15:37:32
2	Sr 421.552†	17848.3	17594.6	45.186	µg/L	45.186	ppb	15:37:32
2	Sc 361.383	1686936.4	1686936.4	99.685	%			15:38:21
2	Y 371.029	1191852.6	1191852.6	124.54	%			15:38:21
2	Ag 328.068†	4992.5	-94.7	-1.0923	µg/L	-1.0923	ppb	15:38:23
2	As 188.979†	-9.4	4.0	12.631	µg/L	12.631	ppb	15:38:43
2	B 249.677†	5453.5	1358.8	20.159	µg/L	20.159	ppb	15:38:23
2	Ba 233.527†	43188.0	43470.3	196.16	µg/L	196.16	ppb	15:38:23
2	Be 313.107†	8787.7	9807.8	2.7203	µg/L	2.7203	ppb	15:38:23
2	Cd 226.502†	637.7	704.3	-0.5305	µg/L	-0.5305	ppb	15:38:43
2	Co 228.616†	30.9	258.1	1.0036	µg/L	1.0036	ppb	15:38:43
2	Cr 267.716†	1969.3	1645.8	16.021	µg/L	16.021	ppb	15:38:23
2	Cu 324.752†	4205.9	977.9	11.107	µg/L	11.107	ppb	15:38:23
2	Mn 257.610†	884977.5	887557.8	1160.0	µg/L	1160.0	ppb	15:38:21
2	Mo 202.031†	204.9	227.2	9.6850	µg/L	9.6850	ppb	15:38:43
2	Ni 231.604†	688.8	764.8	9.5115	µg/L	9.5115	ppb	15:38:43
2	P 214.914†	2302.8	2329.3	500.48	µg/L	500.48	ppb	15:38:43
2	Pb 220.353†	424.9	309.0	19.127	µg/L	19.127	ppb	15:38:43

2	S 181.975 Axial†	278.1	177.0	150.69 µg/L	150.69 ppb	15:38:43
2	Sb 206.836†	83.2	6.0	0.0206 µg/L	0.0206 ppb	15:38:43
2	Se 196.026†	-21.1	-41.2	1.02 µg/L	1.02 ppb	15:38:43
2	SiO2†	115517.1	114193.1	11791 µg/L	11791 ppb	15:38:23
2	Si 251.611†	361351.9	361706.9	5517.5 µg/L	5517.5 ppb	15:38:21
2	Sn 189.927†	103.4	95.3	8.3574 µg/L	8.3574 ppb	15:38:43
2	Ti 334.940†	485654.3	486302.4	510.03 µg/L	510.03 ppb	15:38:21
2	Tl 190.801†	-195.4	-80.7	-3.1545 µg/L	-3.1545 ppb	15:38:43
2	U 409.014†	-3480.3	-3080.1	-189.98 µg/L	-189.98 ppb	15:38:23
2	V 292.402†	3916.7	3433.0	11.355 µg/L	11.355 ppb	15:38:23
2	Zn 213.857†	19427.9	18869.9	104.01 µg/L	104.01 ppb	15:38:23
3	Sc RADIAL	113297.8	113297.8	99.0 %		15:37:36
3	Al 396.153Radial†	35847.5	36277.4	8554.9 µg/L	8554.9 ppb	15:37:36
3	Ca 317.933Radial†	17383.9	17094.4	1407.5 µg/L	1407.5 ppb	15:37:38
3	Fe 238.204 Radial†	571767.8	577145.8	49233 µg/L	49233 ppb	15:37:36
3	K 766.490 Radial†	4128.9	2759.4	1102.2 µg/L	1102.2 ppb	15:37:36
3	Mg 279.077 IEC†	1590.5	1448.4	759.01 µg/L	759.01 ppb	15:37:38
3	Na 589.592 Radial†	5634.2	4853.1	773.37 µg/L	773.37 ppb	15:37:36
3	Sr 421.552†	17415.0	17649.3	45.326 µg/L	45.326 ppb	15:37:36
3	Sc 361.383	1696851.4	1696851.4	100.27 %		15:38:45
3	Y 371.029	1200302.9	1200302.9	125.42 %		15:38:45
3	Ag 328.068†	4860.3	-255.8	-1.7800 µg/L	-1.7800 ppb	15:38:47
3	As 188.979†	-13.2	0.2	11.284 µg/L	11.284 ppb	15:39:07
3	B 249.677†	5282.0	1155.7	17.144 µg/L	17.144 ppb	15:38:47
3	Ba 233.527†	43520.1	43548.4	196.51 µg/L	196.51 ppb	15:38:47
3	Be 313.107†	9046.6	10014.5	2.7742 µg/L	2.7742 ppb	15:38:47
3	Cd 226.502†	657.5	720.3	-0.4100 µg/L	-0.4100 ppb	15:39:07
3	Co 228.616†	32.9	259.9	1.0348 µg/L	1.0348 ppb	15:39:07
3	Cr 267.716†	1947.7	1612.8	15.737 µg/L	15.737 ppb	15:38:47
3	Cu 324.752†	4257.6	1004.8	11.186 µg/L	11.186 ppb	15:38:47
3	Mn 257.610†	890649.6	888027.2	1160.6 µg/L	1160.6 ppb	15:38:45
3	Mo 202.031†	208.8	229.8	9.7686 µg/L	9.7686 ppb	15:39:07
3	Ni 231.604†	714.6	786.6	9.7818 µg/L	9.7818 ppb	15:39:07
3	P 214.914†	2333.0	2345.9	504.36 µg/L	504.36 ppb	15:39:07
3	Pb 220.353†	464.0	345.5	21.434 µg/L	21.434 ppb	15:39:07
3	S 181.975 Axial†	288.7	186.0	158.33 µg/L	158.33 ppb	15:39:07
3	Sb 206.836†	91.1	13.3	0.9647 µg/L	0.9647 ppb	15:39:07
3	Se 196.026†	-7.7	-27.6	6.19 µg/L	6.19 ppb	15:39:07
3	SiO2†	116235.3	114232.3	11795 µg/L	11795 ppb	15:38:47
3	Si 251.611†	360132.6	358372.8	5466.7 µg/L	5466.7 ppb	15:38:45
3	Sn 189.927†	87.6	79.0	7.2166 µg/L	7.2166 ppb	15:39:07
3	Ti 334.940†	488139.0	485933.7	509.65 µg/L	509.65 ppb	15:38:45
3	Tl 190.801†	-216.1	-100.3	-5.9168 µg/L	-5.9168 ppb	15:39:07
3	U 409.014†	-3751.9	-3330.5	-205.20 µg/L	-205.20 ppb	15:38:47
3	V 292.402†	3867.4	3360.9	11.002 µg/L	11.002 ppb	15:38:47
3	Zn 213.857†	19504.9	18832.9	103.81 µg/L	103.81 ppb	15:38:47

Mean Data: 248860009|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1690859.3	99.917	%	0.3115				0.31%
Sc RADIAL	114352.7	100.0	%	1.61				1.61%
Y 371.029	1195584.5	124.93	%	0.450				0.36%
Ag 328.068†	-104.7	-1.1409	µg/L	0.61614	-1.1409	ppb	0.61614	54.00%
Al 396.153Radial†	36144.0	8523.5	µg/L	43.69	8523.5	ppb	43.69	0.51%
As 188.979†	7.7	13.923	µg/L	3.4713	13.923	ppb	3.4713	24.93%
B 249.677†	1279.4	18.980	µg/L	1.6111	18.980	ppb	1.6111	8.49%
Ba 233.527†	43547.0	196.50	µg/L	0.342	196.50	ppb	0.342	0.17%
Be 313.107†	10092.2	2.7997	µg/L	0.09472	2.7997	ppb	0.09472	3.38%
Ca 317.933Radial†	17022.3	1401.6	µg/L	7.47	1401.6	ppb	7.47	0.53%
Cd 226.502†	710.0	-0.4956	µg/L	0.07453	-0.4956	ppb	0.07453	15.04%
Co 228.616†	258.2	1.0039	µg/L	0.03077	1.0039	ppb	0.03077	3.07%
Cr 267.716†	1639.5	15.969	µg/L	0.2106	15.969	ppb	0.2106	1.32%
Cu 324.752†	1028.5	11.318	µg/L	0.2993	11.318	ppb	0.2993	2.64%
Fe 238.204 Radial†	579110.5	49400	µg/L	182.3	49400	ppb	182.3	0.37%
K 766.490 Radial†	2801.5	1119.0	µg/L	14.61	1119.0	ppb	14.61	1.31%
Mg 279.077 IEC†	1443.1	755.90	µg/L	16.753	755.90	ppb	16.753	2.22%
Mn 257.610†	887415.8	1159.8	µg/L	0.91	1159.8	ppb	0.91	0.08%
Mo 202.031†	222.6	9.5307	µg/L	0.34221	9.5307	ppb	0.34221	3.59%
Na 589.592 Radial†	4781.0	761.85	µg/L	9.975	761.85	ppb	9.975	1.31%

Ni 231.604†	779.4	9.6928	µg/L	0.15704	9.6928	ppb	0.15704	1.62%
P 214.914†	2333.9	501.51	µg/L	2.501	501.51	ppb	2.501	0.50%
Pb 220.353†	328.7	20.360	µg/L	1.1618	20.360	ppb	1.1618	5.71%
S 181.975 Axial†	185.4	157.83	µg/L	6.900	157.83	ppb	6.900	4.37%
Sb 206.836†	1.1	-0.6111	µg/L	1.96925	-0.6111	ppb	1.96925	322.24%
Se 196.026†	-41.5	0.891	µg/L	5.3708	0.891	ppb	5.3708	602.84%
SiO2†	114333.4	11805	µg/L	21.7	11805	ppb	21.7	0.18%
Si 251.611†	359881.9	5489.7	µg/L	25.77	5489.7	ppb	25.77	0.47%
Sn 189.927†	94.1	8.2694	µg/L	1.01172	8.2694	ppb	1.01172	12.23%
Sr 421.552†	17646.7	45.319	µg/L	0.1306	45.319	ppb	0.1306	0.29%
Ti 334.940†	485691.9	509.39	µg/L	0.801	509.39	ppb	0.801	0.16%
Tl 190.801†	-90.5	-4.5451	µg/L	1.38127	-4.5451	ppb	1.38127	30.39%
U 409.014†	-3142.2	-193.78	µg/L	10.069	-193.78	ppb	10.069	5.20%
Concentration less than lower limit for U 409.014.								
V 292.402†	3391.0	11.141	µg/L	0.1885	11.141	ppb	0.1885	1.69%
Zn 213.857†	18873.7	104.03	µg/L	0.227	104.03	ppb	0.227	0.22%

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/13/2010 15:49:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114198.9	114198.9	99.8	%			15:50:13
1	Al 396.153Radial†	21668.7	21789.6	5115.3	µg/L	5115.3	ppb	15:50:13
1	Ca 317.933Radial†	62362.3	62008.9	5105.8	µg/L	5105.8	ppb	15:50:13
1	Fe 238.204 Radial†	60169.5	60144.9	5130.6	µg/L	5130.6	ppb	15:50:13
1	K 766.490 Radial†	14195.5	12809.7	5123.3	µg/L	5123.3	ppb	15:50:13
1	Mg 279.077 IEC†	9472.1	9330.4	5168.0	µg/L	5168.0	ppb	15:50:13
1	Na 589.592 Radial†	63931.5	63202.1	10080	µg/L	10080	ppb	15:50:11
1	Sr 421.552†	196962.7	197355.7	506.92	µg/L	506.92	ppb	15:50:11
1	Sc 361.383	1691811.1	1691811.1	99.973	%			15:50:26
1	Y 371.029	947452.4	947452.4	98.999	%			15:50:26
1	Ag 328.068†	126209.9	121140.8	506.51	µg/L	506.51	ppb	15:50:26
1	As 188.979†	1396.6	1410.4	495.72	µg/L	495.72	ppb	15:50:46
1	B 249.677†	37486.6	33384.7	493.81	µg/L	493.81	ppb	15:50:26
1	Ba 233.527†	110833.5	111009.1	502.92	µg/L	502.92	ppb	15:50:26
1	Be 313.107†	1759299.1	1760764.0	498.68	µg/L	498.68	ppb	15:50:26
1	Cd 226.502†	75902.2	75987.1	502.13	µg/L	502.13	ppb	15:50:26
1	Co 228.616†	38325.1	38562.5	505.80	µg/L	505.80	ppb	15:50:26
1	Cr 267.716†	57420.7	57106.4	501.40	µg/L	501.40	ppb	15:50:26
1	Cu 324.752†	124399.5	121191.7	503.30	µg/L	503.30	ppb	15:50:26
1	Mn 257.610†	387036.4	386925.0	505.54	µg/L	505.54	ppb	15:50:26
1	Mo 202.031†	14769.0	14794.6	502.68	µg/L	502.68	ppb	15:50:46
1	Ni 231.604†	40584.5	40669.3	505.76	µg/L	505.76	ppb	15:50:26
1	P 214.914†	10843.4	10865.6	2474.0	µg/L	2474.0	ppb	15:50:46
1	Pb 220.353†	8096.3	7981.2	501.68	µg/L	501.68	ppb	15:50:46
1	S 181.975 Axial†	1259.2	1157.6	989.17	µg/L	989.17	ppb	15:50:46
1	Sb 206.836†	3983.4	3906.9	501.95	µg/L	501.95	ppb	15:50:46
1	Se 196.026†	1300.9	1281.3	498	µg/L	498	ppb	15:50:46
1	SiO2†	53634.4	51959.9	5343.8	µg/L	5343.8	ppb	15:50:26
1	Si 251.611†	165839.5	165097.5	2508.5	µg/L	2508.5	ppb	15:50:26
1	Sn 189.927†	7148.8	7142.2	499.06	µg/L	499.06	ppb	15:50:46
1	Ti 334.940†	480930.0	480173.0	502.90	µg/L	502.90	ppb	15:50:26
1	Tl 190.801†	3434.9	3551.1	507.98	µg/L	507.98	ppb	15:50:46
1	U 409.014†	7491.1	7904.3	511.19	µg/L	511.19	ppb	15:50:26
1	V 292.402†	101334.0	100865.2	506.76	µg/L	506.76	ppb	15:50:26
1	Zn 213.857†	88041.6	87445.9	500.87	µg/L	500.87	ppb	15:50:26
2	Sc RADIAL	114000.1	114000.1	99.7	%			15:50:17
2	Al 396.153Radial†	21602.4	21760.9	5108.2	µg/L	5108.2	ppb	15:50:17
2	Ca 317.933Radial†	61953.6	61707.7	5081.0	µg/L	5081.0	ppb	15:50:17
2	Fe 238.204 Radial†	59601.2	59679.7	5090.9	µg/L	5090.9	ppb	15:50:17
2	K 766.490 Radial†	14059.0	12697.6	5078.4	µg/L	5078.4	ppb	15:50:17
2	Mg 279.077 IEC†	9394.9	9269.5	5134.5	µg/L	5134.5	ppb	15:50:17
2	Na 589.592 Radial†	63296.0	62676.1	9995.9	µg/L	9995.9	ppb	15:50:15
2	Sr 421.552†	194813.1	195542.8	502.27	µg/L	502.27	ppb	15:50:15
2	Sc 361.383	1668820.4	1668820.4	98.615	%			15:50:49
2	Y 371.029	935630.4	935630.4	97.764	%			15:50:49
2	Ag 328.068†	124594.7	121242.2	506.91	µg/L	506.91	ppb	15:50:49
2	As 188.979†	1386.4	1419.2	498.80	µg/L	498.80	ppb	15:51:09
2	B 249.677†	37079.2	33488.2	495.35	µg/L	495.35	ppb	15:50:49
2	Ba 233.527†	109489.2	111173.2	503.66	µg/L	503.66	ppb	15:50:49
2	Be 313.107†	1733975.4	1759328.1	498.27	µg/L	498.27	ppb	15:50:49
2	Cd 226.502†	74876.5	75993.0	502.18	µg/L	502.18	ppb	15:50:49
2	Co 228.616†	37806.7	38564.8	505.84	µg/L	505.84	ppb	15:50:49
2	Cr 267.716†	56774.2	57242.1	502.60	µg/L	502.60	ppb	15:50:49
2	Cu 324.752†	122458.1	120937.2	502.22	µg/L	502.22	ppb	15:50:49
2	Mn 257.610†	381294.2	386435.6	504.91	µg/L	504.91	ppb	15:50:49
2	Mo 202.031†	14767.1	14996.2	509.52	µg/L	509.52	ppb	15:51:09
2	Ni 231.604†	40035.1	40671.5	505.78	µg/L	505.78	ppb	15:50:49
2	P 214.914†	10891.1	11063.3	2519.2	µg/L	2519.2	ppb	15:51:09
2	Pb 220.353†	8097.6	8094.1	508.79	µg/L	508.79	ppb	15:51:09

2	S 181.975 Axial†	1266.0	1181.8	1009.9	µg/L	1009.9 ppb	15:51:09
2	Sb 206.836†	3998.0	3976.6	510.98	µg/L	510.98 ppb	15:51:09
2	Se 196.026†	1299.7	1298.0	504	µg/L	504 ppb	15:51:09
2	SiO2†	53035.3	52091.5	5357.0	µg/L	5357.0 ppb	15:50:49
2	Si 251.611†	163571.3	165082.7	2508.1	µg/L	2508.1 ppb	15:50:49
2	Sn 189.927†	7177.9	7270.3	507.97	µg/L	507.97 ppb	15:51:09
2	Ti 334.940†	474367.8	480146.1	502.89	µg/L	502.89 ppb	15:50:49
2	Tl 190.801†	3439.3	3602.8	515.27	µg/L	515.27 ppb	15:51:09
2	U 409.014†	7077.9	7588.6	492.01	µg/L	492.01 ppb	15:50:49
2	V 292.402†	100009.6	100918.6	507.10	µg/L	507.10 ppb	15:50:49
2	Zn 213.857†	86526.3	87122.6	499.01	µg/L	499.01 ppb	15:50:49
3	Sc RADIAL	113895.8	113895.8	99.6	%		15:50:21
3	Al 396.153Radial†	21539.7	21717.8	5098.5	µg/L	5098.5 ppb	15:50:21
3	Ca 317.933Radial†	62184.2	61996.2	5104.7	µg/L	5104.7 ppb	15:50:21
3	Fe 238.204 Radial†	59787.7	59921.8	5111.6	µg/L	5111.6 ppb	15:50:21
3	K 766.490 Radial†	14019.9	12671.2	5067.8	µg/L	5067.8 ppb	15:50:21
3	Mg 279.077 IEC†	9474.1	9357.7	5183.0	µg/L	5183.0 ppb	15:50:21
3	Na 589.592 Radial†	63709.3	63149.3	10071	µg/L	10071 ppb	15:50:19
3	Sr 421.552†	195444.3	196355.6	504.35	µg/L	504.35 ppb	15:50:19
3	Sc 361.383	1698609.9	1698609.9	100.37	%		15:51:12
3	Y 371.029	951230.2	951230.2	99.394	%		15:51:12
3	Ag 328.068†	126547.3	120971.6	505.78	µg/L	505.78 ppb	15:51:12
3	As 188.979†	1376.5	1384.7	486.81	µg/L	486.81 ppb	15:51:32
3	B 249.677†	37633.2	33380.7	493.76	µg/L	493.76 ppb	15:51:12
3	Ba 233.527†	111204.6	110935.1	502.58	µg/L	502.58 ppb	15:51:12
3	Be 313.107†	1764224.4	1758627.3	498.07	µg/L	498.07 ppb	15:51:12
3	Cd 226.502†	76044.9	75825.5	501.07	µg/L	501.07 ppb	15:51:12
3	Co 228.616†	38379.2	38462.9	504.50	µg/L	504.50 ppb	15:51:12
3	Cr 267.716†	57539.6	56995.0	500.43	µg/L	500.43 ppb	15:51:12
3	Cu 324.752†	124404.7	120698.7	501.25	µg/L	501.25 ppb	15:51:12
3	Mn 257.610†	386861.2	385200.9	503.29	µg/L	503.29 ppb	15:51:12
3	Mo 202.031†	14771.7	14738.1	500.76	µg/L	500.76 ppb	15:51:32
3	Ni 231.604†	40755.9	40677.6	505.86	µg/L	505.86 ppb	15:51:12
3	P 214.914†	10869.4	10848.1	2470.0	µg/L	2470.0 ppb	15:51:32
3	Pb 220.353†	8088.2	7940.8	499.14	µg/L	499.14 ppb	15:51:32
3	S 181.975 Axial†	1275.0	1168.3	998.25	µg/L	998.25 ppb	15:51:32
3	Sb 206.836†	3977.2	3884.8	499.11	µg/L	499.11 ppb	15:51:32
3	Se 196.026†	1287.9	1263.1	491	µg/L	491 ppb	15:51:32
3	SiO2†	54075.6	52184.7	5367.0	µg/L	5367.0 ppb	15:51:12
3	Si 251.611†	166698.4	165289.3	2511.4	µg/L	2511.4 ppb	15:51:12
3	Sn 189.927†	7174.2	7139.0	498.82	µg/L	498.82 ppb	15:51:32
3	Ti 334.940†	481718.8	479033.4	501.71	µg/L	501.71 ppb	15:51:12
3	Tl 190.801†	3435.3	3537.7	506.08	µg/L	506.08 ppb	15:51:32
3	U 409.014†	7395.7	7779.4	503.48	µg/L	503.48 ppb	15:51:12
3	V 292.402†	101401.5	100526.7	505.06	µg/L	505.06 ppb	15:51:12
3	Zn 213.857†	88323.3	87374.1	500.46	µg/L	500.46 ppb	15:51:12

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1686413.8	99.654	%	0.9225				0.93%
Sc RADIAL	114031.6	99.7	%	0.13				0.13%
Y 371.029	944771.0	98.719	%	0.8504				0.86%
Ag 328.068†	121118.2	506.40	µg/L	0.571	506.40	ppb	0.571	0.11%
QC value within limits for Ag 328.068 Recovery = 101.28%								
Al 396.153Radial†	21756.1	5107.3	µg/L	8.46	5107.3	ppb	8.46	0.17%
QC value within limits for Al 396.153Radial Recovery = 102.15%								
As 188.979†	1404.8	493.78	µg/L	6.229	493.78	ppb	6.229	1.26%
QC value within limits for As 188.979 Recovery = 98.76%								
B 249.677†	33417.9	494.31	µg/L	0.903	494.31	ppb	0.903	0.18%
QC value within limits for B 249.677 Recovery = 98.86%								
Ba 233.527†	111039.2	503.05	µg/L	0.554	503.05	ppb	0.554	0.11%
QC value within limits for Ba 233.527 Recovery = 100.61%								
Be 313.107†	1759573.1	498.34	µg/L	0.310	498.34	ppb	0.310	0.06%
QC value within limits for Be 313.107 Recovery = 99.67%								
Ca 317.933Radial†	61904.3	5097.2	µg/L	14.03	5097.2	ppb	14.03	0.28%
QC value within limits for Ca 317.933Radial Recovery = 101.94%								
Cd 226.502†	75935.2	501.79	µg/L	0.629	501.79	ppb	0.629	0.13%
QC value within limits for Cd 226.502 Recovery = 100.36%								
Co 228.616†	38530.1	505.38	µg/L	0.764	505.38	ppb	0.764	0.15%

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   QC value within limits for Co 228.616  Recovery = 101.08%
Cr 267.716†            57114.5      501.48 µg/L        1.092      501.48 ppb          1.092   0.22%
   QC value within limits for Cr 267.716  Recovery = 100.30%
Cu 324.752†           120942.5      502.26 µg/L        1.025      502.26 ppb          1.025   0.20%
   QC value within limits for Cu 324.752  Recovery = 100.45%
Fe 238.204 Radial†     59915.5      5111.0 µg/L        19.85      5111.0 ppb          19.85   0.39%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.22%
K 766.490 Radial†      12726.2      5089.8 µg/L        29.44      5089.8 ppb          29.44   0.58%
   QC value within limits for K 766.490 Radial  Recovery = 101.80%
Mg 279.077 IEC†         9319.2      5161.8 µg/L        24.85      5161.8 ppb          24.85   0.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.24%
Mn 257.610†           386187.2      504.58 µg/L        1.162      504.58 ppb          1.162   0.23%
   QC value within limits for Mn 257.610  Recovery = 100.92%
Mo 202.031†            14843.0      504.32 µg/L        4.605      504.32 ppb          4.605   0.91%
   QC value within limits for Mo 202.031  Recovery = 100.86%
Na 589.592 Radial†     63009.2       10049 µg/L         46.2       10049 ppb           46.2   0.46%
   QC value within limits for Na 589.592 Radial  Recovery = 100.49%
Ni 231.604†            40672.8      505.80 µg/L        0.054      505.80 ppb          0.054   0.01%
   QC value within limits for Ni 231.604  Recovery = 101.16%
P 214.914†             10925.7      2487.7 µg/L        27.33      2487.7 ppb          27.33   1.10%
   QC value within limits for P 214.914  Recovery = 99.51%
Pb 220.353†             8005.4      503.20 µg/L        4.999      503.20 ppb          4.999   0.99%
   QC value within limits for Pb 220.353  Recovery = 100.64%
S 181.975 Axial†        1169.2      999.09 µg/L       10.370      999.09 ppb         10.370   1.04%
   QC value within limits for S 181.975 Axial  Recovery = 99.91%
Sb 206.836†             3922.8      504.01 µg/L        6.200      504.01 ppb          6.200   1.23%
   QC value within limits for Sb 206.836  Recovery = 100.80%
Se 196.026†             1280.8         498 µg/L          6.7         498 ppb            6.7   1.36%
   QC value within limits for Se 196.026  Recovery = 99.50%
SiO2†                  52078.7      5355.9 µg/L        11.68      5355.9 ppb          11.68   0.22%
   QC value within limits for SiO2  Recovery = 100.16%
Si 251.611†           165156.5      2509.4 µg/L         1.82      2509.4 ppb           1.82   0.07%
   QC value within limits for Si 251.611  Recovery = 100.37%
Sn 189.927†             7183.9      501.95 µg/L        5.217      501.95 ppb          5.217   1.04%
   QC value within limits for Sn 189.927  Recovery = 100.39%
Sr 421.552†           196418.0      504.51 µg/L        2.333      504.51 ppb          2.333   0.46%
   QC value within limits for Sr 421.552  Recovery = 100.90%
Ti 334.940†           479784.2      502.50 µg/L        0.683      502.50 ppb          0.683   0.14%
   QC value within limits for Ti 334.940  Recovery = 100.50%
Tl 190.801†             3563.9      509.78 µg/L        4.854      509.78 ppb          4.854   0.95%
   QC value within limits for Tl 190.801  Recovery = 101.96%
U 409.014†              7757.4      502.23 µg/L        9.653      502.23 ppb          9.653   1.92%
   QC value within limits for U 409.014  Recovery = 100.45%
V 292.402†            100770.2      506.31 µg/L        1.093      506.31 ppb          1.093   0.22%
   QC value within limits for V 292.402  Recovery = 101.26%
Zn 213.857†            87314.2      500.11 µg/L        0.978      500.11 ppb          0.978   0.20%
   QC value within limits for Zn 213.857  Recovery = 100.02%
All analyte(s) passed QC.
```

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/13/2010 15:51:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	112743.2	112743.2	98.6	%			15:52:09
1	Al 396.153Radial†	-75.9	8.0	1.8688	µg/L	1.8688	ppb	15:52:29
1	Ca 317.933Radial†	483.0	33.3	2.7390	µg/L	2.7390	ppb	15:52:29
1	Fe 238.204 Radial†	190.0	68.5	5.8393	µg/L	5.8393	ppb	15:52:29
1	K 766.490 Radial†	1403.3	14.5	5.8111	µg/L	5.8111	ppb	15:52:09
1	Mg 279.077 IEC†	162.9	8.0	4.4175	µg/L	4.4175	ppb	15:52:29
1	Na 589.592 Radial†	985.9	165.0	26.315	µg/L	26.315	ppb	15:52:09
1	Sr 421.552†	-32.4	33.9	0.0870	µg/L	0.0870	ppb	15:52:09
1	Sc 361.383	1680509.1	1680509.1	99.305	%			15:53:17
1	Y 371.029	952089.9	952089.9	99.484	%			15:53:17
1	Ag 328.068†	4812.8	-256.5	-1.0336	µg/L	-1.0336	ppb	15:53:19
1	As 188.979†	-7.7	5.6	1.9569	µg/L	1.9569	ppb	15:53:39
1	B 249.677†	4126.6	43.5	0.6472	µg/L	0.6472	ppb	15:53:19
1	Ba 233.527†	-136.8	8.1	0.0365	µg/L	0.0365	ppb	15:53:39
1	Be 313.107†	-592.8	395.3	0.1193	µg/L	0.1193	ppb	15:53:19
1	Cd 226.502†	-58.9	5.3	0.0343	µg/L	0.0343	ppb	15:53:39
1	Co 228.616†	-252.3	-27.0	-0.3545	µg/L	-0.3545	ppb	15:53:39
1	Cr 267.716†	366.5	39.4	0.3272	µg/L	0.3272	ppb	15:53:39
1	Cu 324.752†	2931.9	-288.9	-1.1749	µg/L	-1.1749	ppb	15:53:19
1	Mn 257.610†	289.8	76.4	0.0997	µg/L	0.0997	ppb	15:53:39
1	Mo 202.031†	-9.0	12.5	0.4259	µg/L	0.4259	ppb	15:53:39
1	Ni 231.604†	-66.3	7.1	0.0884	µg/L	0.0884	ppb	15:53:39
1	P 214.914†	-4.1	15.1	3.4565	µg/L	3.4565	ppb	15:53:39
1	Pb 220.353†	122.3	5.9	0.3533	µg/L	0.3533	ppb	15:53:39
1	S 181.975 Axial†	110.4	9.2	7.8567	µg/L	7.8567	ppb	15:53:39
1	Sb 206.836†	92.9	16.0	2.0569	µg/L	2.0569	ppb	15:53:39
1	Se 196.026†	2.3	-17.7	-6.82	µg/L	-6.82	ppb	15:53:39
1	SiO2†	1640.9	-36.5	-3.7876	µg/L	-3.7876	ppb	15:53:19
1	Si 251.611†	770.5	-10.6	-0.1697	µg/L	-0.1697	ppb	15:53:19
1	Sn 189.927†	12.4	4.1	0.2849	µg/L	0.2849	ppb	15:53:39
1	Ti 334.940†	753.2	-127.6	-0.1442	µg/L	-0.1442	ppb	15:53:19
1	Tl 190.801†	-126.1	-11.8	-1.6586	µg/L	-1.6586	ppb	15:53:39
1	U 409.014†	-9.6	401.6	24.400	µg/L	24.400	ppb	15:53:19
1	V 292.402†	420.7	-72.3	-0.3368	µg/L	-0.3368	ppb	15:53:19
1	Zn 213.857†	633.1	18.2	0.1047	µg/L	0.1047	ppb	15:53:39
2	Sc RADIAL	113250.6	113250.6	99.0	%			15:52:31
2	Al 396.153Radial†	-90.8	-6.7	-1.6008	µg/L	-1.6008	ppb	15:52:51
2	Ca 317.933Radial†	468.3	16.2	1.3361	µg/L	1.3361	ppb	15:52:51
2	Fe 238.204 Radial†	134.7	11.8	1.0037	µg/L	1.0037	ppb	15:52:51
2	K 766.490 Radial†	1371.0	-24.5	-9.7867	µg/L	-9.7867	ppb	15:52:31
2	Mg 279.077 IEC†	160.6	4.9	2.7058	µg/L	2.7058	ppb	15:52:51
2	Na 589.592 Radial†	790.9	-36.5	-5.8144	µg/L	-5.8144	ppb	15:52:31
2	Sr 421.552†	-146.4	-81.2	-0.2085	µg/L	-0.2085	ppb	15:52:31
2	Sc 361.383	1684012.1	1684012.1	99.512	%			15:53:41
2	Y 371.029	953509.5	953509.5	99.632	%			15:53:41
2	Ag 328.068†	4964.5	-114.2	-0.4598	µg/L	-0.4598	ppb	15:53:44
2	As 188.979†	-4.5	8.9	3.0905	µg/L	3.0905	ppb	15:54:04
2	B 249.677†	3967.8	-124.7	-1.8526	µg/L	-1.8526	ppb	15:53:44
2	Ba 233.527†	-157.1	-12.0	-0.0542	µg/L	-0.0542	ppb	15:54:04
2	Be 313.107†	-715.0	273.8	0.0811	µg/L	0.0811	ppb	15:53:44
2	Cd 226.502†	-77.6	-13.4	-0.0886	µg/L	-0.0886	ppb	15:54:04
2	Co 228.616†	-196.0	30.1	0.3940	µg/L	0.3940	ppb	15:54:04
2	Cr 267.716†	326.4	-1.6	-0.0238	µg/L	-0.0238	ppb	15:54:04
2	Cu 324.752†	2934.5	-292.4	-1.2004	µg/L	-1.2004	ppb	15:53:44
2	Mn 257.610†	277.6	63.6	0.0830	µg/L	0.0830	ppb	15:54:04
2	Mo 202.031†	-15.3	6.3	0.2123	µg/L	0.2123	ppb	15:54:04
2	Ni 231.604†	-93.4	-19.9	-0.2475	µg/L	-0.2475	ppb	15:54:04
2	P 214.914†	-8.3	10.9	2.5060	µg/L	2.5060	ppb	15:54:04
2	Pb 220.353†	114.1	-2.5	-0.1651	µg/L	-0.1651	ppb	15:54:04

2	S 181.975 Axial†	109.6	8.3	7.0278 µg/L	7.0278 ppb	15:54:04
2	Sb 206.836†	88.4	11.3	1.4476 µg/L	1.4476 ppb	15:54:04
2	Se 196.026†	23.2	3.3	1.29 µg/L	1.29 ppb	15:54:04
2	SiO2†	1756.0	75.7	7.8027 µg/L	7.8027 ppb	15:53:44
2	Si 251.611†	791.6	8.9	0.1299 µg/L	0.1299 ppb	15:53:44
2	Sn 189.927†	16.5	8.2	0.5709 µg/L	0.5709 ppb	15:54:04
2	Ti 334.940†	754.0	-128.4	-0.1396 µg/L	-0.1396 ppb	15:53:44
2	Tl 190.801†	-119.3	-4.7	-0.6651 µg/L	-0.6651 ppb	15:54:04
2	U 409.014†	-217.4	192.8	11.710 µg/L	11.710 ppb	15:53:44
2	V 292.402†	447.2	-46.7	-0.2213 µg/L	-0.2213 ppb	15:53:44
2	Zn 213.857†	640.6	24.4	0.1431 µg/L	0.1431 ppb	15:54:04
3	Sc RADIAL	114599.6	114599.6	100 %		15:52:53
3	Al 396.153Radial†	-71.4	13.7	3.2003 µg/L	3.2003 ppb	15:53:13
3	Ca 317.933Radial†	464.5	6.9	0.5688 µg/L	0.5688 ppb	15:53:13
3	Fe 238.204 Radial†	134.5	10.0	0.8519 µg/L	0.8519 ppb	15:53:13
3	K 766.490 Radial†	1419.1	7.2	2.8938 µg/L	2.8938 ppb	15:52:53
3	Mg 279.077 IEC†	163.5	5.9	3.2605 µg/L	3.2605 ppb	15:53:13
3	Na 589.592 Radial†	817.2	-19.6	-3.1289 µg/L	-3.1289 ppb	15:52:53
3	Sr 421.552†	-19.5	47.2	0.1213 µg/L	0.1213 ppb	15:52:53
3	Sc 361.383	1692860.9	1692860.9	100.04 %		15:54:06
3	Y 371.029	958440.2	958440.2	100.15 %		15:54:06
3	Ag 328.068†	4930.1	-174.6	-0.7260 µg/L	-0.7260 ppb	15:54:08
3	As 188.979†	-6.7	6.7	2.3325 µg/L	2.3325 ppb	15:54:28
3	B 249.677†	4241.2	127.7	1.8954 µg/L	1.8954 ppb	15:54:08
3	Ba 233.527†	-158.5	-12.6	-0.0567 µg/L	-0.0567 ppb	15:54:28
3	Be 313.107†	-731.8	260.8	0.0728 µg/L	0.0728 ppb	15:54:08
3	Cd 226.502†	-60.1	4.5	0.0298 µg/L	0.0298 ppb	15:54:28
3	Co 228.616†	-214.0	13.1	0.1723 µg/L	0.1723 ppb	15:54:28
3	Cr 267.716†	364.5	34.7	0.3074 µg/L	0.3074 ppb	15:54:28
3	Cu 324.752†	3056.7	-185.6	-0.7708 µg/L	-0.7708 ppb	15:54:08
3	Mn 257.610†	293.0	77.6	0.1013 µg/L	0.1013 ppb	15:54:28
3	Mo 202.031†	-7.8	13.8	0.4677 µg/L	0.4677 ppb	15:54:28
3	Ni 231.604†	-55.6	18.3	0.2274 µg/L	0.2274 ppb	15:54:28
3	P 214.914†	7.1	26.3	6.0261 µg/L	6.0261 ppb	15:54:28
3	Pb 220.353†	130.2	12.9	0.8118 µg/L	0.8118 ppb	15:54:28
3	S 181.975 Axial†	100.5	-1.4	-1.2192 µg/L	-1.2192 ppb	15:54:28
3	Sb 206.836†	85.9	8.3	1.0700 µg/L	1.0700 ppb	15:54:28
3	Se 196.026†	24.4	4.4	1.69 µg/L	1.69 ppb	15:54:28
3	SiO2†	1735.5	46.0	4.7311 µg/L	4.7311 ppb	15:54:08
3	Si 251.611†	883.6	96.8	1.4659 µg/L	1.4659 ppb	15:54:08
3	Sn 189.927†	18.4	10.0	0.6950 µg/L	0.6950 ppb	15:54:28
3	Ti 334.940†	694.5	-191.8	-0.2002 µg/L	-0.2002 ppb	15:54:08
3	Tl 190.801†	-109.3	6.0	0.8435 µg/L	0.8435 ppb	15:54:28
3	U 409.014†	-465.7	-54.3	-3.3072 µg/L	-3.3072 ppb	15:54:08
3	V 292.402†	480.9	-15.3	-0.0716 µg/L	-0.0716 ppb	15:54:08
3	Zn 213.857†	614.2	-5.3	-0.0317 µg/L	-0.0317 ppb	15:54:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1685794.0	99.618	%	0.3762				0.38%
Sc RADIAL	113531.2	99.3	%	0.84				0.85%
Y 371.029	954679.9	99.754	%	0.3483				0.35%
Ag 328.068†	-181.8	-0.7398	µg/L	0.28718	-0.7398	ppb	0.28718	38.82%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.0	1.1561	µg/L	2.47862	1.1561	ppb	2.47862	214.39%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.1	2.4600	µg/L	0.57742	2.4600	ppb	0.57742	23.47%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	15.5	0.2300	µg/L	1.90854	0.2300	ppb	1.90854	829.76%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.5	-0.0248	µg/L	0.05310	-0.0248	ppb	0.05310	213.81%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	310.0	0.0911	µg/L	0.02480	0.0911	ppb	0.02480	27.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	18.8	1.5480	µg/L	1.10049	1.5480	ppb	1.10049	71.09%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-1.2	-0.0081	µg/L	0.06970	-0.0081	ppb	0.06970	857.00%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.4	0.0706	µg/L	0.38449	0.0706	ppb	0.38449	544.69%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                24.2      0.2036 µg/L       0.19715      0.2036 ppb        0.19715  96.83%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -255.6     -1.0487 µg/L       0.24099     -1.0487 ppb        0.24099  22.98%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         30.1      2.5650 µg/L       2.83671      2.5650 ppb        2.83671 110.59%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -0.9     -0.3606 µg/L       8.29253     -0.3606 ppb        8.29253 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             6.2      3.4613 µg/L       0.87335      3.4613 ppb        0.87335  25.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                72.5      0.0947 µg/L       0.01011      0.0947 ppb        0.01011  10.68%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.9      0.3686 µg/L       0.13698      0.3686 ppb        0.13698  37.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         36.3      5.7907 µg/L      17.82560      5.7907 ppb       17.82560 307.83%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.8      0.0228 µg/L       0.24419      0.0228 ppb        0.24419 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 17.4      3.9962 µg/L       1.82106      3.9962 ppb        1.82106  45.57%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 5.4      0.3333 µg/L       0.48877      0.3333 ppb        0.48877 146.63%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.3      4.5551 µg/L       5.01786      4.5551 ppb        5.01786 110.16%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                11.9      1.5248 µg/L       0.49800      1.5248 ppb        0.49800  32.66%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.3       -1.28 µg/L         4.799       -1.28 ppb          4.799 374.76%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      28.4      2.9154 µg/L       6.00468      2.9154 ppb        6.00468 205.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                31.7      0.4754 µg/L       0.87084      0.4754 ppb        0.87084 183.19%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.4      0.5170 µg/L       0.21032      0.5170 ppb        0.21032  40.68%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -0.0     -0.0001 µg/L       0.18133     -0.0001 ppb        0.18133 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -149.3     -0.1614 µg/L       0.03371     -0.1614 ppb        0.03371  20.89%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -3.5     -0.4934 µg/L       1.25982     -0.4934 ppb        1.25982 255.33%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                180.0      10.934 µg/L       13.8701      10.934 ppb        13.8701 126.85%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -44.8     -0.2099 µg/L       0.13298     -0.2099 ppb        0.13298  63.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                12.4      0.0720 µg/L       0.09184      0.0720 ppb        0.09184 127.47%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, May 17, 2010 11:48:24
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.1013
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1117.8	1117.844	44.525	4.0
	Mg	24.0	20310.2	20310.229	233.625	1.2
	Co	58.9	57428.2	57428.211	680.981	1.2
	Rh	102.9	100655.3	100655.253	1862.310	1.9
	In	114.9	111401.8	111401.799	2109.154	1.9
	Pb	208.0	41823.5	41823.534	183.549	0.4
⌈>	Ba	137.9	103306.7	103306.711	1183.412	1.1
⌊	Ba++	69.0	1819.1	0.018	0.000	1.8
⌈>	Ce	139.9	123182.8	123182.820	601.913	0.5
⌊	CeO	155.9	1934.6	0.016	0.000	2.1
	Bkgd	220.0	10.1	10.100	2.903	28.7

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.30	Lens Voltage
1000.00	ICP RF Power
-1800.00	Analog Stage Voltage
1200.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	5.5	1151.7
Co	59	17	6.8	44063.2
In	115	17	8.0	94714.3

ICPMS #4 TUNING REPORT

File Name: 100517.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	605	2080	0.621
Be	9.0	9.0	2043	2080	0.604
Mg	24.0	24.0	5669	2100	0.597
Mg	25.0	25.0	5954	2100	0.632
Mg	26.0	26.0	6144	2120	0.619
Co	58.9	58.9	14163	2150	0.651
Rh	102.9	102.9	24868	2240	0.658
In	114.9	114.9	27760	2275	0.635
Ce	139.9	139.9	33842	2310	0.679
Pb	206.0	206.0	49931	2485	0.686
Pb	207.0	207.0	50101	2400	0.648
Pb	208.0	208.0	50448	2510	0.683
U	238.1	238.0	57684	2520	0.643

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, May 17, 2010 11:58:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani soil short list.mth
Dataset File: C:\elandata\Dataset\100517\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		8	
>	Sc	45		ug/L		668864	
	Ni	60		ug/L		108	
>	Ge	74		ug/L		280595	
	As	75		ug/L		379	
	Se	77		ug/L		5709	
	Se	82		ug/L		18	
	Kr	83		ug/L		67	
>	Lu	175		ug/L		122735	
	Tl	205		ug/L		174	
	U	238		ug/L		340	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Simple Linear	
Ni	60	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, May 17, 2010 12:02:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**10.000**	**ug/L**	2.600	1477	0.002
|>	Sc	45		**ug/L**		684394	684393.607
⌊	Ni	60	**10.000**	**ug/L**	1.356	11535	0.017
⌈>	Ge	74		**ug/L**		288843	288843.387
|	As	75	**10.000**	**ug/L**	4.386	8859	0.029
|	Se	77		**ug/L**		7519	0.006
|	Se	82	**10.000**	**ug/L**	4.591	751	0.003
⌊	Kr	83		**ug/L**		67	-0.000
⌈>	Lu	175		**ug/L**		124497	124496.719
|	Tl	205	**10.000**	**ug/L**	1.033	22076	0.176
⌊	U	238	**10.000**	**ug/L**	0.975	95159	0.762

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45					
⌊	Ni	60					
⌈>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175					
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, May 17, 2010 12:06:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.881**	**ug/L**	2.203	13483	0.019
>	Sc	45		**ug/L**		703435	703435.144
	Ni	60	**99.997**	**ug/L**	1.011	117244	0.167
>	Ge	74		**ug/L**		296006	296006.239
	As	75	**100.006**	**ug/L**	0.963	87757	0.295
	Se	77		**ug/L**		12723	0.023
	Se	82	**100.007**	**ug/L**	1.218	7590	0.026
	Kr	83		**ug/L**		81	0.000
>	Lu	175		**ug/L**		128574	128574.052
	Tl	205	**99.986**	**ug/L**	2.892	223101	1.734
	U	238	**99.964**	**ug/L**	1.408	944901	7.347

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, May 17, 2010 12:10:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.257**	**ug/L**	1.011	6970	0.010
>	Sc	45		**ug/L**		722183	722183.130
	Ni	60	**51.131**	**ug/L**	1.125	61615	0.085
>	Ge	74		**ug/L**		295888	295887.827
	As	75	**51.356**	**ug/L**	1.444	45240	0.152
	Se	77		**ug/L**		10243	0.014
	Se	82	**51.285**	**ug/L**	2.078	3900	0.013
	Kr	83		**ug/L**		77	0.000
>	Lu	175		**ug/L**		126974	126974.327
	Tl	205	**50.232**	**ug/L**	2.363	110768	0.871
	U	238	**53.898**	**ug/L**	2.176	503173	3.962

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	100.513				
>	Sc	45		108.0			
	Ni	60	102.261				
>	Ge	74		105.5			
	As	75	102.712				
	Se	77					
	Se	82	102.570				
	Kr	83					
>	Lu	175		103.5			
	Tl	205	100.465				
	U	238	107.796				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, May 17, 2010 12:14:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.011**	**ug/L**	74.699	10	0.000
>	Sc	45		**ug/L**		711887	711886.573
	Ni	60	**0.004**	**ug/L**	204.973	120	0.000
>	Ge	74		**ug/L**		296627	296626.984
	As	75	**0.033**	**ug/L**	1779.047	427	0.000
	Se	77		**ug/L**		7277	0.004
	Se	82	**0.119**	**ug/L**	130.901	28	0.000
	Kr	83		**ug/L**		72	0.000
>	Lu	175		**ug/L**		124741	124741.228
	Tl	205	**0.201**	**ug/L**	3.986	611	0.003
	U	238	**-0.017**	**ug/L**	1.924	193	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		106.4			
	Ni	60					
>	Ge	74		105.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, May 17, 2010 12:18:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.653**	ug/L	0.547	98	0.000
>	Sc	45		ug/L		717000	717000.088
	Ni	60	**2.396**	ug/L	1.520	2977	0.004
>	Ge	74		ug/L		298862	298862.120
	As	75	**6.419**	ug/L	5.752	6061	0.019
	Se	77		ug/L		8236	0.007
	Se	82	**5.943**	ug/L	11.664	473	0.002
	Kr	83		ug/L		75	0.000
>	Lu	175		ug/L		125510	125510.287
	Tl	205	**1.247**	ug/L	2.467	2893	0.022
	U	238	**0.311**	ug/L	0.408	3218	0.023

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	130.536				
>	Sc	45		107.2			
	Ni	60	119.824				
>	Ge	74		106.5			
	As	75	128.380				
	Se	77					
	Se	82	118.851				
	Kr	83					
>	Lu	175		102.3			
	Tl	205	124.721				
	U	238	155.578				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Be	9	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, May 17, 2010 12:22:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.080**	**ug/L**	49.467	19	0.000
>	Sc	45		**ug/L**		697106	697106.019
	Ni	60	**2.724**	**ug/L**	4.387	3274	0.005
>	Ge	74		**ug/L**		286731	286731.102
	As	75	**0.243**	**ug/L**	136.723	595	0.001
	Se	77		**ug/L**		8982	0.011
	Se	82	**-0.603**	**ug/L**	71.581	-26	-0.000
	Kr	83		**ug/L**		164	0.000
>	Lu	175		**ug/L**		126302	126302.171
	Tl	205	**0.071**	**ug/L**	12.522	334	0.001
	U	238	**-0.029**	**ug/L**	8.519	83	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		104.2			
	Ni	60	82.283				
>	Ge	74		102.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, May 17, 2010 12:26:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**22.745**	**ug/L**	2.167	2960	0.004
>	Sc	45		**ug/L**		676646	676646.240
	Ni	60	**21.183**	**ug/L**	2.019	23978	0.035
>	Ge	74		**ug/L**		278447	278446.868
	As	75	**20.418**	**ug/L**	0.397	17153	0.060
	Se	77		**ug/L**		8960	0.012
	Se	82	**21.201**	**ug/L**	3.099	1528	0.005
	Kr	83		**ug/L**		142	0.000
>	Lu	175		**ug/L**		121299	121299.401
	Tl	205	**17.316**	**ug/L**	0.622	36604	0.300
	U	238	**19.870**	**ug/L**	1.337	177488	1.460

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	113.724				
>	Sc	45		101.2			
	Ni	60	90.873				
>	Ge	74		99.2			
	As	75	102.091				
	Se	77					
	Se	82	106.003				
	Kr	83					
>	Lu	175		98.8			
	Tl	205	86.581				
	U	238	99.351				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 12:30:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**56.941**	**ug/L**	1.272	7629	0.011
>	Sc	45		**ug/L**		697769	697769.371
	Ni	60	**50.911**	**ug/L**	0.487	59271	0.085
>	Ge	74		**ug/L**		292247	292246.863
	As	75	**50.601**	**ug/L**	1.228	44031	0.149
	Se	77		**ug/L**		9826	0.013
	Se	82	**50.778**	**ug/L**	1.473	3814	0.013
	Kr	83		**ug/L**		80	0.000
>	Lu	175		**ug/L**		123965	123965.442
	Tl	205	**48.454**	**ug/L**	1.730	104364	0.840
	U	238	**51.738**	**ug/L**	1.201	471742	3.803

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	113.882				
>	Sc	45		104.3			
	Ni	60	101.822				
>	Ge	74		104.2			
	As	75	101.201				
	Se	77					
	Se	82	101.555				
	Kr	83					
>	Lu	175		101.0			
	Tl	205	96.907				
	U	238	103.475				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 12:35:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.014**	**ug/L**	240.980	10	0.000
>	Sc	45		**ug/L**		682770	682769.605
	Ni	60	**0.001**	**ug/L**	1455.646	112	0.000
>	Ge	74		**ug/L**		289012	289011.662
	As	75	**0.704**	**ug/L**	60.380	994	0.002
	Se	77		**ug/L**		6540	0.002
	Se	82	**0.011**	**ug/L**	2368.680	19	0.000
	Kr	83		**ug/L**		83	0.000
>	Lu	175		**ug/L**		119235	119234.535
	Tl	205	**0.198**	**ug/L**	6.184	578	0.003
	U	238	**-0.008**	**ug/L**	207.969	259	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		102.1			
	Ni	60					
>	Ge	74		103.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Monday, May 17, 2010 12:39:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 10.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1159.827**	**ug/L**	0.650	143199	0.222
>	Sc	45		**ug/L**		643663	643662.726
	Ni	60	**891.573**	**ug/L**	0.601	955774	1.485
>	Ge	74		**ug/L**		269860	269860.164
	As	75	**941.281**	**ug/L**	2.228	749726	2.778
	Se	77		**ug/L**		31926	0.098
	Se	82	**478.383**	**ug/L**	3.246	33023	0.122
	Kr	83		**ug/L**		96	0.000
>	Lu	175		**ug/L**		120018	120017.608
	Tl	205	**439.441**	**ug/L**	2.322	914839	7.622
	U	238	**4845.832**	**ug/L**	0.521	42746267	356.173

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	115.983				
>	Sc	45		96.2			
	Ni	60	89.157				
>	Ge	74		96.2			
	As	75	94.128				
	Se	77					
	Se	82	95.677				
	Kr	83					
>	Lu	175		97.8			
	Tl	205	87.888				
	U	238	96.917				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Be	9	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Tl	205	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Monday, May 17, 2010 12:43:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 11.012

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**61.381**	**ug/L**	1.594	7971	0.012
>	Sc	45		**ug/L**		676460	676459.733
	Ni	60	**51.403**	**ug/L**	1.331	58007	0.086
>	Ge	74		**ug/L**		288853	288853.124
	As	75	**50.028**	**ug/L**	2.957	43023	0.148
	Se	77		**ug/L**		9441	0.012
	Se	82	**50.477**	**ug/L**	1.874	3748	0.013
	Kr	83		**ug/L**		78	0.000
>	Lu	175		**ug/L**		120978	120977.671
	Tl	205	**50.451**	**ug/L**	1.857	106026	0.875
	U	238	**53.063**	**ug/L**	1.022	472135	3.900

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	122.762				
>	Sc	45		101.1			
	Ni	60	102.805				
>	Ge	74		102.9			
	As	75	100.057				
	Se	77					
	Se	82	100.954				
	Kr	83					
>	Lu	175		98.6			
	Tl	205	100.902				
	U	238	106.126				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Monday, May 17, 2010 12:47:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 12.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.056	ug/L	76.224	15	0.000
>	Sc	45		ug/L		674221	674220.677
	Ni	60	0.026	ug/L	84.050	138	0.000
>	Ge	74		ug/L		290459	290458.783
	As	75	0.118	ug/L	519.993	494	0.000
	Se	77		ug/L		6580	0.002
	Se	82	0.369	ug/L	38.724	46	0.000
	Kr	83		ug/L		72	0.000
>	Lu	175		ug/L		118996	118995.843
	Tl	205	0.400	ug/L	2.105	994	0.007
	U	238	0.076	ug/L	7.348	990	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		100.8			
	Ni	60					
>	Ge	74		103.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202068103
Sample Date/Time: Monday, May 17, 2010 12:51:35
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\1202068103.014

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.011**	**ug/L**	62.891	10	0.000
>	Sc	45		**ug/L**		705960	705959.802
	Ni	60	**-0.021**	**ug/L**	49.379	90	-0.000
>	Ge	74		**ug/L**		294072	294071.836
	As	75	**-0.032**	**ug/L**	427.170	369	-0.000
	Se	77		**ug/L**		5014	-0.003
	Se	82	**-0.065**	**ug/L**	93.662	14	-0.000
	Kr	83		**ug/L**		74	0.000
>	Lu	175		**ug/L**		124810	124809.771
	Tl	205	**0.207**	**ug/L**	7.497	624	0.004
	U	238	**0.011**	**ug/L**	65.794	444	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		105.5			
	Ni	60					
>	Ge	74		104.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202068108
Sample Date/Time: Monday, May 17, 2010 12:55:42
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 964014|40|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\1202068108.015

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**25.603**	**ug/L**	2.549	3292	0.005
>	Sc	45		**ug/L**		668877	668876.686
	Ni	60	**38.733**	**ug/L**	3.038	43240	0.065
>	Ge	74		**ug/L**		290440	290439.608
	As	75	**26.808**	**ug/L**	3.682	23367	0.079
	Se	77		**ug/L**		10644	0.016
	Se	82	**74.254**	**ug/L**	3.056	5534	0.019
	Kr	83		**ug/L**		70	-0.000
>	Lu	175		**ug/L**		120483	120482.817
	Tl	205	**30.915**	**ug/L**	1.310	64776	0.536
	U	238	**0.472**	**ug/L**	3.546	4514	0.035

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		100.0			
	Ni	60					
>	Ge	74		103.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 248860001
Sample Date/Time: Monday, May 17, 2010 12:59:49
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\248860001.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.132**	**ug/L**	4.849	160	0.000
>	Sc	45		**ug/L**		698198	698198.427
	Ni	60	**3.397**	**ug/L**	2.997	4063	0.006
>	Ge	74		**ug/L**		282701	282700.930
	As	75	**0.893**	**ug/L**	9.688	1126	0.003
	Se	77		**ug/L**		3974	-0.006
	Se	82	**0.493**	**ug/L**	64.716	53	0.000
	Kr	83		**ug/L**		138	0.000
>	Lu	175		**ug/L**		130285	130285.089
	Tl	205	**0.392**	**ug/L**	4.982	1071	0.007
	U	238	**3.509**	**ug/L**	0.862	33963	0.258

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		104.4			
	Ni	60					
>	Ge	74		100.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		106.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202068104
Sample Date/Time: Monday, May 17, 2010 13:03:57
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\1202068104.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.090**	**ug/L**	3.924	149	0.000
>	Sc	45		**ug/L**		672563	672562.921
	Ni	60	**5.182**	**ug/L**	1.187	5913	0.009
>	Ge	74		**ug/L**		274727	274727.386
	As	75	**1.156**	**ug/L**	40.744	1309	0.003
	Se	77		**ug/L**		3636	-0.007
	Se	82	**0.406**	**ug/L**	97.754	46	0.000
	Kr	83		**ug/L**		130	0.000
>	Lu	175		**ug/L**		130699	130698.526
	Tl	205	**0.228**	**ug/L**	5.108	703	0.004
	U	238	**3.259**	**ug/L**	3.557	31664	0.240

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		100.6			
	Ni	60					
>	Ge	74		97.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		106.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202068106
Sample Date/Time: Monday, May 17, 2010 13:08:05
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\1202068106.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**31.521**	**ug/L**	3.729	3938	0.006
>	Sc	45		**ug/L**		650123	650123.077
	Ni	60	**26.659**	**ug/L**	0.663	28968	0.044
>	Ge	74		**ug/L**		263677	263676.678
	As	75	**36.598**	**ug/L**	1.522	28830	0.108
	Se	77		**ug/L**		3876	-0.006
	Se	82	**9.092**	**ug/L**	0.289	630	0.002
	Kr	83		**ug/L**		136	0.000
>	Lu	175		**ug/L**		130726	130726.427
	Tl	205	**44.269**	**ug/L**	2.666	100551	0.768
	U	238	**27.658**	**ug/L**	1.165	266101	2.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		97.2			
	Ni	60					
>	Ge	74		94.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		106.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202068107
Sample Date/Time: Monday, May 17, 2010 13:12:14
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\1202068107.019

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**32.371**	**ug/L**	2.697	3919	0.006
>	Sc	45		**ug/L**		630053	630053.185
	Ni	60	**26.152**	**ug/L**	1.273	27539	0.044
>	Ge	74		**ug/L**		253547	253546.752
	As	75	**37.675**	**ug/L**	1.163	28529	0.111
	Se	77		**ug/L**		3581	-0.006
	Se	82	**9.463**	**ug/L**	4.459	630	0.002
	Kr	83		**ug/L**		125	0.000
>	Lu	175		**ug/L**		129562	129561.670
	Tl	205	**44.595**	**ug/L**	2.169	100372	0.774
	U	238	**28.522**	**ug/L**	3.922	271823	2.096

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		94.2			
	Ni	60					
>	Ge	74		90.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		105.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202068105
Sample Date/Time: Monday, May 17, 2010 13:16:23
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 964014|10|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\1202068105.020

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.194**	**ug/L**	7.947	29	0.000
>	Sc	45		**ug/L**		588723	588723.040
	Ni	60	**0.677**	**ug/L**	1.257	759	0.001
>	Ge	74		**ug/L**		248175	248174.644
	As	75	**0.418**	**ug/L**	19.781	641	0.001
	Se	77		**ug/L**		4172	-0.004
	Se	82	**-0.006**	**ug/L**	1617.375	15	-0.000
	Kr	83		**ug/L**		79	0.000
>	Lu	175		**ug/L**		120379	120378.609
	Tl	205	**0.099**	**ug/L**	13.981	377	0.002
	U	238	**0.694**	**ug/L**	1.895	6473	0.051

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		88.0			
	Ni	60					
>	Ge	74		88.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 13:20:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.021

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**67.865**	**ug/L**	2.191	7728	0.013
>	Sc	45		**ug/L**		593223	593223.152
	Ni	60	**49.872**	**ug/L**	2.485	49356	0.083
>	Ge	74		**ug/L**		251538	251538.005
	As	75	**50.025**	**ug/L**	1.413	37468	0.148
	Se	77		**ug/L**		7420	0.009
	Se	82	**50.330**	**ug/L**	0.939	3254	0.013
	Kr	83		**ug/L**		62	0.000
>	Lu	175		**ug/L**		116636	116636.415
	Tl	205	**49.531**	**ug/L**	0.952	100366	0.859
	U	238	**53.524**	ug/L	1.786	459161	3.934

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	135.731				
>	Sc	45		88.7			
	Ni	60	99.744				
>	Ge	74		89.6			
	As	75	100.049				
	Se	77					
	Se	82	100.661				
	Kr	83					
>	Lu	175		95.0			
	Tl	205	99.062				
	U	238	107.047				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 13:24:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.022

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.031**	**ug/L**	93.313	11	0.000
|>	Sc	45		**ug/L**		598803	598802.884
⌊	Ni	60	**0.010**	**ug/L**	62.042	107	0.000
⌈>	Ge	74		**ug/L**		253671	253670.927
|	As	75	**0.068**	**ug/L**	481.179	392	0.000
|	Se	77		**ug/L**		4733	-0.002
|	Se	82	**-0.137**	**ug/L**	154.970	7	-0.000
⌊	Kr	83		**ug/L**		62	0.000
⌈>	Lu	175		**ug/L**		114891	114891.032
|	Tl	205	**0.184**	**ug/L**	5.706	529	0.003
⌊	U	238	**0.013**	**ug/L**	16.971	426	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		89.5			
⌊	Ni	60					
⌈>	Ge	74		90.4			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		93.6			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 248860002
Sample Date/Time: Monday, May 17, 2010 13:28:49
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\248860002.023

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.727**	**ug/L**	4.302	338	0.001
>	Sc	45		**ug/L**		632748	632747.748
	Ni	60	**13.504**	**ug/L**	2.186	14329	0.022
>	Ge	74		**ug/L**		244626	244625.581
	As	75	**3.557**	**ug/L**	8.839	2896	0.010
	Se	77		**ug/L**		3048	-0.008
	Se	82	**0.266**	**ug/L**	89.865	32	0.000
	Kr	83		**ug/L**		139	0.000
>	Lu	175		**ug/L**		126360	126359.789
	Tl	205	**0.413**	**ug/L**	0.955	1084	0.007
	U	238	**2.363**	**ug/L**	1.916	22292	0.174

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		94.6			
	Ni	60					
>	Ge	74		87.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 248860003
Sample Date/Time: Monday, May 17, 2010 13:32:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\248860003.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.797**	**ug/L**	4.709	215	0.000
>	Sc	45		**ug/L**		603716	603715.591
	Ni	60	**10.784**	**ug/L**	1.182	10940	0.018
>	Ge	74		**ug/L**		243740	243740.070
	As	75	**3.291**	**ug/L**	13.107	2699	0.010
	Se	77		**ug/L**		2875	-0.009
	Se	82	**0.808**	**ug/L**	18.806	66	0.000
	Kr	83		**ug/L**		115	0.000
>	Lu	175		**ug/L**		126221	126221.128
	Tl	205	**0.233**	**ug/L**	3.443	690	0.004
	U	238	**2.497**	**ug/L**	2.759	23507	0.183

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		90.3			
	Ni	60					
>	Ge	74		86.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 248860004
Sample Date/Time: Monday, May 17, 2010 13:37:04
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\248860004.025

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.036**	**ug/L**	7.484	371	0.001
>	Sc	45		**ug/L**		624828	624827.556
	Ni	60	**13.571**	**ug/L**	0.720	14223	0.023
>	Ge	74		**ug/L**		238967	238966.886
	As	75	**4.019**	**ug/L**	7.580	3155	0.012
	Se	77		**ug/L**		2836	-0.008
	Se	82	**0.815**	**ug/L**	55.736	65	0.000
	Kr	83		**ug/L**		139	0.000
>	Lu	175		**ug/L**		127868	127867.727
	Tl	205	**0.361**	**ug/L**	1.997	981	0.006
	U	238	**2.707**	**ug/L**	0.285	25794	0.199

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		93.4			
	Ni	60					
>	Ge	74		85.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 248860005
Sample Date/Time: Monday, May 17, 2010 13:41:12
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\248860005.026

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.726**	**ug/L**	1.664	438	0.001
>	Sc	45		**ug/L**		602862	602861.934
	Ni	60	**11.955**	**ug/L**	0.760	12100	0.020
>	Ge	74		**ug/L**		237739	237738.596
	As	75	**2.941**	**ug/L**	3.493	2384	0.009
	Se	77		**ug/L**		2858	-0.008
	Se	82	**1.487**	**ug/L**	16.537	105	0.000
	Kr	83		**ug/L**		181	0.001
>	Lu	175		**ug/L**		132727	132727.441
	Tl	205	**0.110**	**ug/L**	5.766	441	0.002
	U	238	**3.315**	**ug/L**	0.818	32704	0.244

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		90.1			
	Ni	60					
>	Ge	74		84.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		108.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 248860006
Sample Date/Time: Monday, May 17, 2010 13:45:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\248860006.027

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.793**	**ug/L**	2.240	212	0.000
>	Sc	45		**ug/L**		595832	595831.832
	Ni	60	**4.307**	**ug/L**	1.028	4370	0.007
>	Ge	74		**ug/L**		241322	241321.744
	As	75	**2.359**	**ug/L**	4.063	2005	0.007
	Se	77		**ug/L**		2822	-0.009
	Se	82	**0.665**	**ug/L**	57.987	56	0.000
	Kr	83		**ug/L**		134	0.000
>	Lu	175		**ug/L**		128632	128631.997
	Tl	205	**0.163**	**ug/L**	5.872	546	0.003
	U	238	**4.709**	**ug/L**	2.183	44867	0.346

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		89.1			
	Ni	60					
>	Ge	74		86.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 248860007
Sample Date/Time: Monday, May 17, 2010 13:49:30
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\248860007.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.718**	**ug/L**	3.544	322	0.001
>	Sc	45		**ug/L**		604573	604572.728
	Ni	60	**13.681**	**ug/L**	1.869	13871	0.023
>	Ge	74		**ug/L**		239236	239236.037
	As	75	**3.945**	**ug/L**	5.990	3108	0.012
	Se	77		**ug/L**		2793	-0.009
	Se	82	**0.266**	**ug/L**	64.396	31	0.000
	Kr	83		**ug/L**		136	0.000
>	Lu	175		**ug/L**		126598	126598.069
	Tl	205	**0.303**	**ug/L**	10.796	844	0.005
	U	238	**2.829**	**ug/L**	1.523	26676	0.208

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		90.4			
	Ni	60					
>	Ge	74		85.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 248860008
Sample Date/Time: Monday, May 17, 2010 13:53:40
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\248860008.029

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.830**	**ug/L**	5.287	214	0.000
>	Sc	45		**ug/L**		589245	589245.083
	Ni	60	**8.524**	**ug/L**	1.847	8459	0.014
>	Ge	74		**ug/L**		235999	235998.807
	As	75	**2.383**	**ug/L**	14.502	1977	0.007
	Se	77		**ug/L**		2784	-0.009
	Se	82	**1.307**	**ug/L**	20.176	94	0.000
	Kr	83		**ug/L**		144	0.000
>	Lu	175		**ug/L**		129900	129899.965
	Tl	205	**0.084**	**ug/L**	9.374	373	0.001
	U	238	**3.070**	**ug/L**	1.814	29671	0.226

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		88.1			
	Ni	60					
>	Ge	74		84.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		105.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 248860009
Sample Date/Time: Monday, May 17, 2010 13:57:49
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\248860009.030

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.069**	**ug/L**	5.497	128	0.000
>	Sc	45		**ug/L**		588541	588541.146
	Ni	60	**3.173**	**ug/L**	2.010	3205	0.005
>	Ge	74		**ug/L**		236381	236381.184
	As	75	**1.561**	**ug/L**	17.496	1409	0.005
	Se	77		**ug/L**		2750	-0.009
	Se	82	**1.144**	**ug/L**	15.465	84	0.000
	Kr	83		**ug/L**		129	0.000
>	Lu	175		**ug/L**		130135	130135.072
	Tl	205	**0.030**	**ug/L**	16.323	251	0.001
	U	238	**2.574**	**ug/L**	1.645	24983	0.189

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		88.0			
	Ni	60					
>	Ge	74		84.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		106.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 14:10:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**69.979**	**ug/L**	1.690	7687	0.013
>	Sc	45		**ug/L**		572221	572220.779
	Ni	60	**49.882**	**ug/L**	1.024	47629	0.083
>	Ge	74		**ug/L**		243990	243989.723
	As	75	**49.162**	**ug/L**	2.259	35723	0.145
	Se	77		**ug/L**		6512	0.006
	Se	82	**50.852**	**ug/L**	1.964	3189	0.013
	Kr	83		**ug/L**		57	-0.000
>	Lu	175		**ug/L**		116590	116589.683
	Tl	205	**51.254**	**ug/L**	1.223	103812	0.889
	U	238	**54.011**	**ug/L**	0.827	463142	3.970

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	139.958				
>	Sc	45		85.6			
	Ni	60	99.765				
>	Ge	74		87.0			
	As	75	98.324				
	Se	77					
	Se	82	101.704				
	Kr	83					
>	Lu	175		95.0			
	Tl	205	102.509				
	U	238	108.021				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 14:14:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.034

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.023**	**ug/L**	128.213	9	0.000
>	Sc	45		**ug/L**		568627	568627.349
	Ni	60	**-0.003**	**ug/L**	170.524	89	-0.000
>	Ge	74		**ug/L**		245876	245875.926
	As	75	**0.174**	**ug/L**	78.715	458	0.001
	Se	77		**ug/L**		3848	-0.005
	Se	82	**-0.025**	**ug/L**	1003.662	14	-0.000
	Kr	83		**ug/L**		65	0.000
>	Lu	175		**ug/L**		115982	115981.826
	Tl	205	**0.114**	**ug/L**	13.313	395	0.002
	U	238	**0.001**	**ug/L**	209.526	334	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		85.0			
	Ni	60					
>	Ge	74		87.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #7 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, May 17, 2010 11:11:51
Sample Description:
Method File: C:\elandata\Method\daily2.mth
Dataset File: C:\elandata\Dataset\default\Sample.549
Tuning File: C:\elandata\Tuning\Default.tun
Optimization File: C:\elandata\Optimize\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 80
Current Dead Time (ns): 80

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1543.6	1543.591	19.519	1.3
	Mg	24.0	21761.4	21761.438	545.643	2.5
	Co	58.9	65762.6	65762.589	597.892	0.9
	Rh	102.9	104925.5	104925.512	1227.139	1.2
	In	114.9	122602.1	122602.055	730.862	0.6
	Pb	208.0	75108.0	75108.025	602.402	0.8
⌈>	Ba	137.9	111138.0	111138.003	804.294	0.7
⌊	Ba++	69.0	1939.1	0.017	0.000	1.6
⌈>	Ce	139.9	139600.9	139600.892	795.223	0.6
⌊	CeO	155.9	2565.3	0.018	0.001	3.2
	Bkgd	220.0	11.5	11.500	1.696	14.7

Current Optimization File Data

Current Value	Description
0.95	Nebulizer Gas Flow
5.75	Lens Voltage
1000.00	ICP RF Power
-1525.00	Analog Stage Voltage
750.00	Pulse Stage Voltage
14.00	Discriminator Threshold
-3.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	33	5.0	3910.2
Co	59	33	6.0	92923.7
In	115	33	7.0	151737.9

Instrument #7 Tuning Report

File Name: 100517.tun
File Path: C:\Elandata\Tuning\100517.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	566	2064	0.691
Be	9.0	9.0	2009	2060	0.660
Mg	24.0	24.0	5687	2080	0.640
Mg	25.0	25.0	5880	2070	0.560
Mg	26.0	26.0	6184	2070	0.601
Co	58.9	58.9	14157	2040	0.680
Rh	102.9	102.9	24855	2030	0.669
In	114.9	114.9	27787	2033	0.651
Ce	139.9	140.0	33870	2020	0.666
Pb	206.0	205.9	49930	1980	0.720
Pb	207.0	207.0	50179	2000	0.690
Pb	208.0	208.1	50458	1990	0.670
U	238.1	238.1	57747	1980	0.709

ICPMS#7 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, May 17, 2010 19:14:26
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\Blank.227

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		10	
>	Sc	45		ug/L		691240	
	Ni	60		ug/L		52	
	Cu	63		ug/L		191	
	Cu	65		ug/L		94	
	Zn	66		ug/L		153	
	Zn	67		ug/L		3139	
	Zn	68		ug/L		301	
>	Ge	74		ug/L		222804	
>	Lu	175		ug/L		158670	
	Pb	208		ug/L		841	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
>	Lu	175					
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, May 17, 2010 19:16:05
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\Standard 1.228

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	8.431	1453	0.002
>	Sc	45		ug/L		684508	684507.665
	Ni	60	10.000	ug/L	2.417	9835	0.014
	Cu	63		ug/L		22323	0.032
	Cu	65	10.000	ug/L	2.511	10510	0.015
	Zn	66	10.000	ug/L	1.545	5462	0.024
	Zn	67		ug/L		4447	0.006
	Zn	68		ug/L		3994	0.017
>	Ge	74		ug/L		221069	221068.813
>	Lu	175		ug/L		157682	157682.029
	Pb	208	10.000	ug/L	1.949	90870	0.571

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
>	Lu	175					
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, May 17, 2010 19:17:45
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\Standard 2.229

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.937**	**ug/L**	4.794	13428	0.020
>	Sc	45		**ug/L**		677233	677232.779
	Ni	60	**99.955**	**ug/L**	3.301	92568	0.137
	Cu	63		**ug/L**		206143	0.304
	Cu	65	**99.938**	**ug/L**	3.560	97009	0.143
	Zn	66	**99.931**	**ug/L**	3.310	49100	0.225
	Zn	67		**ug/L**		11565	0.039
	Zn	68		**ug/L**		35466	0.161
>	Ge	74		**ug/L**		218175	218174.647
>	Lu	175		**ug/L**		156335	156334.718
	Pb	208	**99.955**	**ug/L**	2.095	854741	5.464

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
>	Lu	175					
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, May 17, 2010 19:19:25
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 1.230

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.576**	**ug/L**	5.107	6874	0.010
>	Sc	45		**ug/L**		671371	671370.632
	Ni	60	**51.933**	**ug/L**	3.327	47704	0.071
	Cu	63		**ug/L**		105757	0.157
	Cu	65	**51.228**	**ug/L**	4.159	49330	0.073
	Zn	66	**49.891**	**ug/L**	3.920	24705	0.112
	Zn	67		**ug/L**		7638	0.021
	Zn	68		**ug/L**		18031	0.081
>	Ge	74		**ug/L**		219229	219229.377
>	Lu	175		**ug/L**		156772	156772.069
	Pb	208	**50.251**	**ug/L**	3.571	431153	2.747

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	103.152				
>	Sc	45		97.1			
	Ni	60	103.865				
	Cu	63					
	Cu	65	102.456				
	Zn	66	99.783				
	Zn	67					
	Zn	68					
>	Ge	74		98.4			
>	Lu	175		98.8			
	Pb	208	100.502				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, May 17, 2010 19:21:06
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 2.231

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	**0.021**	**ug/L**	72.128	12	0.000
> Sc	45		**ug/L**		656568	656568.194
Ni	60	**-0.002**	**ug/L**	197.747	48	-0.000
Cu	63		**ug/L**		183	0.000
Cu	65	**0.005**	**ug/L**	309.126	94	0.000
Zn	66	**0.014**	**ug/L**	337.368	152	0.000
Zn	67		**ug/L**		3849	0.004
Zn	68		**ug/L**		328	0.000
> Ge	74		**ug/L**		212623	212622.975
> Lu	175		**ug/L**		153730	153730.480
Pb	208	**0.005**	**ug/L**	121.353	859	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
> Sc	45		95.0			
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		95.4			
> Lu	175		96.9			
Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, May 17, 2010 19:22:47
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 3.232

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.574**	**ug/L**	11.565	88	0.000
>	Sc	45		**ug/L**		685667	685666.712
	Ni	60	**2.324**	**ug/L**	1.857	2231	0.003
	Cu	63		**ug/L**		2758	0.004
	Cu	65	**1.185**	**ug/L**	1.064	1258	0.002
	Zn	66	**11.706**	**ug/L**	2.386	6026	0.026
	Zn	67		**ug/L**		4693	0.007
	Zn	68		**ug/L**		4373	0.018
>	Ge	74		**ug/L**		223280	223279.648
>	Lu	175		**ug/L**		161644	161643.737
	Pb	208	**2.249**	**ug/L**	3.376	20723	0.123

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	114.766				
>	Sc	45		99.2			
	Ni	60	116.198				
	Cu	63					
	Cu	65	118.485				
	Zn	66	117.059				
	Zn	67					
	Zn	68					
>	Ge	74		100.2			
>	Lu	175		101.9			
	Pb	208	112.474				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, May 17, 2010 19:24:27
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 4.233

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.128**	**ug/L**	5.447	27	0.000
>	Sc	45		**ug/L**		670009	670008.979
	Ni	60	**2.702**	**ug/L**	1.459	2527	0.004
	Cu	63		**ug/L**		4596	0.007
	Cu	65	**2.405**	**ug/L**	2.411	2399	0.003
	Zn	66	**3.700**	**ug/L**	2.251	1872	0.008
	Zn	67		**ug/L**		4416	0.007
	Zn	68		**ug/L**		774	0.002
>	Ge	74		**ug/L**		208133	208132.660
>	Lu	175		**ug/L**		154157	154156.965
	Pb	208	**0.200**	**ug/L**	3.102	2498	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		96.9			
	Ni	60	81.636				
	Cu	63					
	Cu	65	71.991				
	Zn	66	98.401				
	Zn	67					
	Zn	68					
>	Ge	74		93.4			
>	Lu	175		97.2			
	Pb	208	105.582				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, May 17, 2010 19:26:07
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 5.234

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**21.608**	**ug/L**	4.538	2906	0.004
>	Sc	45		**ug/L**		675896	675895.835
	Ni	60	**21.301**	**ug/L**	1.434	19738	0.029
	Cu	63		**ug/L**		42313	0.062
	Cu	65	**20.600**	**ug/L**	2.216	20038	0.030
	Zn	66	**22.879**	**ug/L**	4.118	10940	0.051
	Zn	67		**ug/L**		5826	0.014
	Zn	68		**ug/L**		7242	0.033
>	Ge	74		**ug/L**		210185	210184.659
>	Lu	175		**ug/L**		155661	155661.073
	Pb	208	**18.782**	**ug/L**	2.603	160554	1.027

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	108.039				
>	Sc	45		97.8			
	Ni	60	91.380				
	Cu	63					
	Cu	65	88.261				
	Zn	66	96.293				
	Zn	67					
	Zn	68					
>	Ge	74		94.3			
>	Lu	175		98.1			
	Pb	208	93.030				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 19:27:48
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.235

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.790**	**ug/L**	3.513	6852	0.010
>	Sc	45		**ug/L**		679093	679093.039
	Ni	60	**50.479**	**ug/L**	1.951	46926	0.069
	Cu	63		**ug/L**		103892	0.153
	Cu	65	**49.870**	**ug/L**	3.283	48606	0.071
	Zn	66	**51.970**	**ug/L**	2.460	25579	0.117
	Zn	67		**ug/L**		7934	0.022
	Zn	68		**ug/L**		18236	0.082
>	Ge	74		**ug/L**		217839	217839.394
>	Lu	175		**ug/L**		160223	160223.155
	Pb	208	**49.787**	**ug/L**	2.261	436729	2.721

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	101.581				
>	Sc	45		98.2			
	Ni	60	100.957				
	Cu	63					
	Cu	65	99.741				
	Zn	66	103.940				
	Zn	67					
	Zn	68					
>	Ge	74		97.8			
>	Lu	175		101.0			
	Pb	208	99.573				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 19:29:30
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.236

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	**-0.001**	**ug/L**	2819.688	10	-0.000
> Sc	45		**ug/L**		675510	675509.526
Ni	60	**-0.005**	**ug/L**	98.992	47	-0.000
Cu	63		**ug/L**		175	-0.000
Cu	65	**0.019**	**ug/L**	36.413	110	0.000
Zn	66	**0.008**	**ug/L**	325.207	151	0.000
Zn	67		**ug/L**		3903	0.004
Zn	68		**ug/L**		320	0.000
> Ge	74		**ug/L**		215388	215388.309
> Lu	175		**ug/L**		156753	156752.748
Pb	208	**0.007**	**ug/L**	100.884	888	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
> Sc	45		97.7			
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		96.7			
> Lu	175		98.8			
Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Monday, May 17, 2010 19:31:10
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 10.237

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**990.110**	**ug/L**	5.366	129200	0.197
>	Sc	45		**ug/L**		657851	657851.118
	Ni	60	**919.268**	**ug/L**	2.831	826891	1.257
	Cu	63		**ug/L**		1843341	2.803
	Cu	65	**913.077**	**ug/L**	2.804	860602	1.309
	Zn	66	**2331.763**	**ug/L**	3.844	1098364	5.239
	Zn	67		**ug/L**		171876	0.806
	Zn	68		**ug/L**		773399	3.689
>	Ge	74		**ug/L**		209761	209761.447
>	Lu	175		**ug/L**		156503	156502.533
	Pb	208	**4471.484**	**ug/L**	3.113	38242113	244.421

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	99.011				
>	Sc	45			95.2		
	Ni	60	91.927				
	Cu	63					
	Cu	65	91.308				
	Zn	66	93.271				
	Zn	67					
	Zn	68					
>	Ge	74			94.1		
>	Lu	175			98.6		
	Pb	208	89.430				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Pb	208	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Monday, May 17, 2010 19:32:50
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 11.238

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.022**	**ug/L**	2.078	6311	0.010
>	Sc	45		**ug/L**		661110	661109.797
	Ni	60	**49.600**	**ug/L**	0.659	44897	0.068
	Cu	63		**ug/L**		99396	0.150
	Cu	65	**49.514**	**ug/L**	1.469	46997	0.071
	Zn	66	**49.367**	**ug/L**	0.584	24084	0.111
	Zn	67		**ug/L**		7686	0.022
	Zn	68		**ug/L**		17468	0.080
>	Ge	74		**ug/L**		215792	215792.038
>	Lu	175		**ug/L**		160211	160211.147
	Pb	208	**48.694**	**ug/L**	1.116	427268	2.662

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	96.044				
>	Sc	45		95.6			
	Ni	60	99.200				
	Cu	63					
	Cu	65	99.027				
	Zn	66	98.734				
	Zn	67					
	Zn	68					
>	Ge	74		96.9			
>	Lu	175		101.0			
	Pb	208	97.388				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Monday, May 17, 2010 19:34:32
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 12.239

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.040**	**ug/L**	28.062	15	0.000
>	Sc	45		**ug/L**		652420	652419.659
	Ni	60	**0.024**	**ug/L**	56.334	70	0.000
	Cu	63		**ug/L**		251	0.000
	Cu	65	**0.046**	**ug/L**	19.970	132	0.000
	Zn	66	**0.034**	**ug/L**	90.203	162	0.000
	Zn	67		**ug/L**		3934	0.004
	Zn	68		**ug/L**		371	0.000
>	Ge	74		**ug/L**		212069	212069.288
>	Lu	175		**ug/L**		156839	156839.300
	Pb	208	**0.071**	**ug/L**	22.845	1437	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		94.4			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.2			
>	Lu	175		98.8			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 19:53:04
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.249

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.697**	**ug/L**	0.700	6451	0.009
>	Sc	45		**ug/L**		680462	680461.914
	Ni	60	**48.685**	**ug/L**	1.315	45359	0.067
	Cu	63		**ug/L**		100989	0.148
	Cu	65	**48.311**	**ug/L**	1.646	47200	0.069
	Zn	66	**50.387**	**ug/L**	1.616	24334	0.113
	Zn	67		**ug/L**		7656	0.022
	Zn	68		**ug/L**		17416	0.080
>	Ge	74		**ug/L**		213659	213658.654
>	Lu	175		**ug/L**		157614	157614.309
	Pb	208	**49.000**	**ug/L**	1.095	422995	2.678

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	95.394				
>	Sc	45		98.4			
	Ni	60	97.370				
	Cu	63					
	Cu	65	96.623				
	Zn	66	100.773				
	Zn	67					
	Zn	68					
>	Ge	74		95.9			
>	Lu	175		99.3			
	Pb	208	98.000				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 19:54:46
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.250

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.024**	**ug/L**	116.261	13	0.000
>	Sc	45		**ug/L**		660970	660970.038
	Ni	60	**0.001**	**ug/L**	844.290	51	0.000
	Cu	63		**ug/L**		205	0.000
	Cu	65	**0.011**	**ug/L**	166.081	100	0.000
	Zn	66	**0.005**	**ug/L**	273.895	148	0.000
	Zn	67		**ug/L**		4015	0.005
	Zn	68		**ug/L**		348	0.000
>	Ge	74		**ug/L**		212328	212328.433
>	Lu	175		**ug/L**		155125	155125.005
	Pb	208	**0.008**	**ug/L**	31.296	888	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		95.6			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.3			
>	Lu	175		97.8			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 20:11:30
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.260

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**48.743**	**ug/L**	2.459	6542	0.010
|>	Sc	45		**ug/L**		675375	675375.490
|	Ni	60	**48.522**	**ug/L**	1.896	44863	0.066
|	Cu	63		**ug/L**		100860	0.149
⌊	Cu	65	**48.654**	**ug/L**	2.941	47167	0.070
⌈	Zn	66	**50.171**	**ug/L**	3.326	24536	0.113
|	Zn	67		**ug/L**		7610	0.021
|	Zn	68		**ug/L**		17616	0.080
⌊>	Ge	74		**ug/L**		216416	216415.745
⌈>	Lu	175		**ug/L**		157494	157494.336
⌊	Pb	208	**48.125**	**ug/L**	2.186	415138	2.631

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	97.487				
|>	Sc	45		97.7			
|	Ni	60	97.044				
|	Cu	63					
⌊	Cu	65	97.307				
⌈	Zn	66	100.341				
|	Zn	67					
|	Zn	68					
⌊>	Ge	74		97.1			
⌈>	Lu	175		99.3			
⌊	Pb	208	96.250				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 20:13:12
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.261

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.009**	**ug/L**	135.331	11	0.000
>	Sc	45		**ug/L**		674877	674877.269
	Ni	60	**0.007**	**ug/L**	55.908	58	0.000
	Cu	63		**ug/L**		419	0.000
	Cu	65	**0.131**	**ug/L**	3.012	218	0.000
	Zn	66	**-0.010**	**ug/L**	192.270	141	-0.000
	Zn	67		**ug/L**		3991	0.005
	Zn	68		**ug/L**		360	0.000
>	Ge	74		**ug/L**		212925	212924.549
>	Lu	175		**ug/L**		152086	152086.309
	Pb	208	**0.000**	**ug/L**	852.898	811	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		97.6			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.6			
>	Lu	175		95.9			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068103
Sample Date/Time: Monday, May 17, 2010 20:16:38
Sample Type: Sample
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\1202068103.262

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.046**	**ug/L**	107.716	16	0.000
>	Sc	45		**ug/L**		668043	668043.314
	Ni	60	**0.037**	**ug/L**	38.010	84	0.000
	Cu	63		**ug/L**		1752	0.002
	Cu	65	**0.771**	**ug/L**	3.341	829	0.001
	Zn	66	**0.511**	**ug/L**	11.165	384	0.001
	Zn	67		**ug/L**		3387	0.002
	Zn	68		**ug/L**		482	0.001
>	Ge	74		**ug/L**		209758	209758.271
>	Lu	175		**ug/L**		159684	159683.976
	Pb	208	**0.064**	**ug/L**	16.512	1405	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		96.6			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.1			
>	Lu	175		100.6			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068108
Sample Date/Time: Monday, May 17, 2010 20:17:52
Sample Type: Sample
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 964014|40|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\1202068108.263

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.812**	**ug/L**	2.752	2747	0.004
>	Sc	45		**ug/L**		696019	696018.942
	Ni	60	**37.529**	**ug/L**	1.637	35779	0.051
	Cu	63		**ug/L**		96451	0.138
	Cu	65	**45.735**	**ug/L**	1.140	45713	0.066
	Zn	66	**159.287**	**ug/L**	1.914	79622	0.358
	Zn	67		**ug/L**		15528	0.056
	Zn	68		**ug/L**		56742	0.254
>	Ge	74		**ug/L**		222068	222068.494
>	Lu	175		**ug/L**		160192	160191.668
	Pb	208	**20.719**	**ug/L**	2.501	182198	1.133

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		100.7			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.7			
>	Lu	175		101.0			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248860001
Sample Date/Time: Monday, May 17, 2010 20:19:06
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\248860001.264

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.813**	**ug/L**	14.324	127	0.000
|>	Sc	45		**ug/L**		720347	720347.063
|	Ni	60	**3.295**	**ug/L**	1.248	3301	0.005
|	Cu	63		**ug/L**		7631	0.010
⌊	Cu	65	**3.492**	**ug/L**	2.378	3704	0.005
⌈	Zn	66	**24.148**	**ug/L**	2.792	12076	0.054
|	Zn	67		**ug/L**		4927	0.008
|	Zn	68		**ug/L**		9285	0.041
⌊>	Ge	74		**ug/L**		219824	219824.174
⌈>	Lu	175		**ug/L**		173368	173368.135
⌊	Pb	208	**13.672**	**ug/L**	3.786	130392	0.747

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		104.2			
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
⌊>	Ge	74		98.7			
⌈>	Lu	175		109.3			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068104
Sample Date/Time: Monday, May 17, 2010 20:20:20
Sample Type: Sample
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\1202068104.265

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.836**	**ug/L**	9.269	134	0.000
>	Sc	45		**ug/L**		741935	741934.646
	Ni	60	**4.975**	**ug/L**	6.523	5094	0.007
	Cu	63		**ug/L**		7914	0.010
	Cu	65	**3.484**	**ug/L**	6.022	3798	0.005
	Zn	66	**22.305**	**ug/L**	4.909	11392	0.050
	Zn	67		**ug/L**		4625	0.007
	Zn	68		**ug/L**		8587	0.037
>	Ge	74		**ug/L**		224462	224462.073
>	Lu	175		**ug/L**		177302	177301.725
	Pb	208	**12.585**	**ug/L**	4.973	122794	0.688

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		107.3			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.7			
>	Lu	175		111.7			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068106
Sample Date/Time: Monday, May 17, 2010 20:21:35
Sample Type: Sample
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\1202068106.266

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**24.025**	ug/L	0.875	3450	0.005
>	Sc	45		ug/L		721369	721368.573
	Ni	60	**26.268**	ug/L	3.081	25964	0.036
	Cu	63		ug/L		57933	0.080
	Cu	65	**26.492**	ug/L	1.629	27481	0.038
	Zn	66	**45.878**	ug/L	1.529	22693	0.103
	Zn	67		ug/L		6383	0.015
	Zn	68		ug/L		17152	0.077
>	Ge	74		ug/L		218715	218714.678
>	Lu	175		ug/L		171389	171389.256
	Pb	208	**101.537**	ug/L	1.662	952104	5.550

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		104.4			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.2			
>	Lu	175		108.0			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068107
Sample Date/Time: Monday, May 17, 2010 20:22:49
Sample Type: Sample
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\1202068107.267

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**24.144**	**ug/L**	2.157	3512	0.005
>	Sc	45		**ug/L**		730752	730751.672
	Ni	60	**25.698**	**ug/L**	2.143	25736	0.035
	Cu	63		**ug/L**		60154	0.082
	Cu	65	**26.930**	**ug/L**	3.047	28295	0.039
	Zn	66	**43.148**	**ug/L**	2.707	21585	0.097
	Zn	67		**ug/L**		5997	0.013
	Zn	68		**ug/L**		16027	0.071
>	Ge	74		**ug/L**		221099	221098.527
>	Lu	175		**ug/L**		169714	169713.977
	Pb	208	**103.947**	**ug/L**	1.655	965086	5.682

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		105.7			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.2			
>	Lu	175		107.0			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068105
Sample Date/Time: Monday, May 17, 2010 20:24:04
Sample Type: Sample
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 964014|10|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\1202068105.268

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.218**	**ug/L**	20.555	43	0.000
>	Sc	45		**ug/L**		741721	741720.690
	Ni	60	**0.651**	**ug/L**	2.258	717	0.001
	Cu	63		**ug/L**		1891	0.002
	Cu	65	**0.753**	**ug/L**	5.272	901	0.001
	Zn	66	**4.759**	**ug/L**	2.264	2617	0.011
	Zn	67		**ug/L**		3159	-0.000
	Zn	68		**ug/L**		2131	0.008
>	Ge	74		**ug/L**		230023	230022.683
>	Lu	175		**ug/L**		165161	165161.397
	Pb	208	**2.864**	**ug/L**	1.669	26733	0.157

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		107.3			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.2			
>	Lu	175		104.1			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248860002
Sample Date/Time: Monday, May 17, 2010 20:25:18
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\248860002.269

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.057**	**ug/L**	3.918	326	0.000
>	Sc	45		**ug/L**		772318	772317.680
	Ni	60	**12.971**	**ug/L**	3.963	13748	0.018
	Cu	63		**ug/L**		26539	0.034
	Cu	65	**11.182**	**ug/L**	3.516	12473	0.016
	Zn	66	**103.059**	**ug/L**	4.429	51346	0.232
	Zn	67		**ug/L**		11046	0.036
	Zn	68		**ug/L**		38244	0.172
>	Ge	74		**ug/L**		221201	221201.136
>	Lu	175		**ug/L**		173886	173885.628
	Pb	208	**26.321**	**ug/L**	2.320	251037	1.439

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		111.7			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.3			
>	Lu	175		109.6			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248860003
Sample Date/Time: Monday, May 17, 2010 20:26:33
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\248860003.270

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.349**	**ug/L**	6.175	206	0.000
>	Sc	45		**ug/L**		730685	730685.193
	Ni	60	**10.609**	**ug/L**	3.028	10653	0.015
	Cu	63		**ug/L**		109754	0.150
	Cu	65	**48.939**	**ug/L**	3.846	51319	0.070
	Zn	66	**121.119**	**ug/L**	2.847	59146	0.272
	Zn	67		**ug/L**		11591	0.039
	Zn	68		**ug/L**		42627	0.195
>	Ge	74		**ug/L**		216821	216821.261
>	Lu	175		**ug/L**		168785	168785.016
	Pb	208	**58.417**	**ug/L**	3.530	539603	3.193

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		105.7			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.3			
>	Lu	175		106.4			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248860004
Sample Date/Time: Monday, May 17, 2010 20:27:47
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\248860004.271

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.208**	**ug/L**	4.981	344	0.000
>	Sc	45		**ug/L**		761433	761433.500
	Ni	60	**13.426**	**ug/L**	3.839	14029	0.018
	Cu	63		**ug/L**		23455	0.031
	Cu	65	**10.190**	**ug/L**	3.138	11217	0.015
	Zn	66	**82.733**	**ug/L**	2.811	41375	0.186
	Zn	67		**ug/L**		9378	0.028
	Zn	68		**ug/L**		30981	0.138
>	Ge	74		**ug/L**		221823	221822.712
>	Lu	175		**ug/L**		175720	175720.436
	Pb	208	**20.040**	**ug/L**	3.337	193351	1.095

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		110.2			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.6			
>	Lu	175		110.7			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 20:29:02
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.272

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.893**	**ug/L**	2.332	7040	0.010
>	Sc	45		**ug/L**		709882	709882.251
	Ni	60	**46.053**	**ug/L**	1.503	44767	0.063
	Cu	63		**ug/L**		100512	0.141
	Cu	65	**46.298**	**ug/L**	0.977	47196	0.066
	Zn	66	**47.927**	**ug/L**	2.199	24229	0.108
	Zn	67		**ug/L**		6741	0.016
	Zn	68		**ug/L**		17518	0.077
>	Ge	74		**ug/L**		223589	223589.116
>	Lu	175		**ug/L**		160628	160628.351
	Pb	208	**47.655**	**ug/L**	1.528	419243	2.605

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	99.786				
>	Sc	45		102.7			
	Ni	60	92.106				
	Cu	63					
	Cu	65	92.596				
	Zn	66	95.854				
	Zn	67					
	Zn	68					
>	Ge	74		100.4			
>	Lu	175		101.2			
	Pb	208	95.309				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 20:30:19
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.273

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.058**	**ug/L**	60.516	19	0.000
>	Sc	45		**ug/L**		716290	716290.397
	Ni	60	**0.029**	**ug/L**	121.155	83	0.000
	Cu	63		**ug/L**		336	0.000
	Cu	65	**0.062**	**ug/L**	62.917	162	0.000
	Zn	66	**-0.015**	**ug/L**	54.991	145	-0.000
	Zn	67		**ug/L**		3164	0.000
	Zn	68		**ug/L**		281	-0.000
>	Ge	74		**ug/L**		223004	223004.149
>	Lu	175		**ug/L**		159216	159216.358
	Pb	208	**0.070**	**ug/L**	60.918	1451	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		103.6			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.1			
>	Lu	175		100.3			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248860005
Sample Date/Time: Monday, May 17, 2010 20:31:33
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\248860005.274

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.799**	**ug/L**	4.419	420	0.001
>	Sc	45		**ug/L**		737249	737248.656
	Ni	60	**11.503**	**ug/L**	2.191	11652	0.016
	Cu	63		**ug/L**		12107	0.016
	Cu	65	**5.306**	**ug/L**	2.537	5706	0.008
	Zn	66	**32.775**	**ug/L**	1.150	16076	0.074
	Zn	67		**ug/L**		5297	0.010
	Zn	68		**ug/L**		11936	0.054
>	Ge	74		**ug/L**		216295	216294.781
>	Lu	175		**ug/L**		176143	176143.395
	Pb	208	**4.299**	**ug/L**	1.748	42321	0.235

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		106.7			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.1			
>	Lu	175		111.0			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248860006
Sample Date/Time: Monday, May 17, 2010 20:32:47
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\248860006.275

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.463**	ug/L	5.830	228	0.000
>	Sc	45		ug/L		747757	747757.115
	Ni	60	**4.116**	ug/L	4.580	4263	0.006
	Cu	63		ug/L		26521	0.035
	Cu	65	**11.652**	ug/L	3.252	12582	0.017
	Zn	66	**81.568**	ug/L	2.697	40653	0.183
	Zn	67		ug/L		8643	0.025
	Zn	68		ug/L		28805	0.129
>	Ge	74		ug/L		221048	221048.344
>	Lu	175		ug/L		177279	177278.983
	Pb	208	**38.166**	ug/L	2.274	370660	2.086

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		108.2			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.2			
>	Lu	175		111.7			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248860007
Sample Date/Time: Monday, May 17, 2010 20:34:02
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\248860007.276

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.945**	**ug/L**	2.712	310	0.000
>	Sc	45		**ug/L**		774922	774922.304
	Ni	60	**12.724**	**ug/L**	3.355	13538	0.017
	Cu	63		**ug/L**		64299	0.083
	Cu	65	**27.018**	**ug/L**	4.676	30091	0.039
	Zn	66	**258.317**	**ug/L**	2.625	129008	0.580
	Zn	67		**ug/L**		22362	0.087
	Zn	68		**ug/L**		91753	0.412
>	Ge	74		**ug/L**		222018	222017.540
>	Lu	175		**ug/L**		174836	174835.797
	Pb	208	**37.862**	**ug/L**	2.259	362721	2.070

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		112.1			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.6			
>	Lu	175		110.2			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248860008
Sample Date/Time: Monday, May 17, 2010 20:35:17
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\248860008.277

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.269**	**ug/L**	6.235	199	0.000
>	Sc	45		**ug/L**		746879	746879.135
	Ni	60	**8.382**	**ug/L**	2.569	8616	0.011
	Cu	63		**ug/L**		10397	0.014
	Cu	65	**4.496**	**ug/L**	3.088	4912	0.006
	Zn	66	**34.566**	**ug/L**	3.528	17173	0.078
	Zn	67		**ug/L**		4997	0.009
	Zn	68		**ug/L**		12612	0.056
>	Ge	74		**ug/L**		219292	219291.688
>	Lu	175		**ug/L**		177194	177194.191
	Pb	208	**5.335**	**ug/L**	2.690	52591	0.292

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		108.0			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.4			
>	Lu	175		111.7			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248860009
Sample Date/Time: Monday, May 17, 2010 20:36:31
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\248860009.278

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.719**	**ug/L**	10.627	119	0.000
|>	Sc	45		**ug/L**		757596	757595.587
|	Ni	60	**3.042**	**ug/L**	3.811	3207	0.004
|	Cu	63		**ug/L**		8836	0.011
⌊	Cu	65	**3.683**	**ug/L**	3.393	4100	0.005
⌈	Zn	66	**19.496**	**ug/L**	1.801	9985	0.044
|	Zn	67		**ug/L**		4018	0.004
|	Zn	68		**ug/L**		7684	0.033
⌊>	Ge	74		**ug/L**		224459	224458.596
⌈>	Lu	175		**ug/L**		181423	181422.659
⌊	Pb	208	**5.184**	**ug/L**	2.381	52364	0.283

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		109.6			
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
⌊>	Ge	74		100.7			
⌈>	Lu	175		114.3			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 20:43:59
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.284

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.668**	**ug/L**	6.105	7512	0.010
>	Sc	45		**ug/L**		732456	732455.819
	Ni	60	**45.013**	**ug/L**	3.065	45119	0.062
	Cu	63		**ug/L**		101239	0.138
	Cu	65	**44.916**	**ug/L**	3.846	47207	0.064
	Zn	66	**48.307**	**ug/L**	3.539	24520	0.109
	Zn	67		**ug/L**		6537	0.015
	Zn	68		**ug/L**		17649	0.077
>	Ge	74		**ug/L**		224639	224638.571
>	Lu	175		**ug/L**		165276	165276.048
	Pb	208	**48.152**	**ug/L**	3.638	435622	2.632

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	103.335				
>	Sc	45		106.0			
	Ni	60	90.026				
	Cu	63					
	Cu	65	89.833				
	Zn	66	96.613				
	Zn	67					
	Zn	68					
>	Ge	74		100.8			
>	Lu	175		104.2			
	Pb	208	96.303				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Cu	65	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 20:45:15
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.285

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.043**	**ug/L**	129.443	16	0.000
>	Sc	45		**ug/L**		720366	720365.869
	Ni	60	**0.029**	**ug/L**	106.685	82	0.000
	Cu	63		**ug/L**		260	0.000
	Cu	65	**0.029**	**ug/L**	115.540	127	0.000
	Zn	66	**-0.037**	**ug/L**	81.828	133	-0.000
	Zn	67		**ug/L**		2936	-0.001
	Zn	68		**ug/L**		268	-0.000
>	Ge	74		**ug/L**		221544	221544.133
>	Lu	175		**ug/L**		161945	161944.859
	Pb	208	**0.081**	**ug/L**	50.325	1571	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		104.2			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.4			
>	Lu	175		102.1			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\032410S1.SIF
Batch ID:
Results Data Set: 032410S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 3/16/2010 09:36:57**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/24/2010 09:24:39**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0007	0.0033	0.0007	09:25:32	Yes
2		[0.00]	0.0006	0.0026	0.0006	09:26:02	Yes
Mean:		[0.00]	0.0006				
SD:		0.00	0.0001				
%RSD:		0.00	7.96				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/24/2010 09:26:20**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0025	0.0155	0.0031	09:27:11	Yes
2		[0.2]	0.0025	0.0156	0.0031	09:27:40	Yes
Mean:		[0.2]	0.0025				
SD:		0.0	0.0000				
%RSD:		0.0	0.38				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01232 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/24/2010 09:28:00**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0064	0.0356	0.0070	09:28:51	Yes
2		[0.5]	0.0063	0.0345	0.0069	09:29:21	Yes
Mean:		[0.5]	0.0063				
SD:		0.0	0.0001				
%RSD:		0.0	1.27				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999934 Slope: 0.01265 Intercept: -0.00003

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/24/2010 09:29:40**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0258	0.1358	0.0265	09:30:31	Yes
2		[2.0]	0.0256	0.1334	0.0262	09:31:01	Yes
Mean:		[2.0]	0.0257				
SD:		0.0	0.0002				
%RSD:		0.0	0.65				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999988 Slope: 0.01288 Intercept: -0.00007

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/24/2010 09:31:21**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0621	0.3243	0.0627	09:32:13	Yes
2		[5.0]	0.0616	0.3190	0.0622	09:32:43	Yes
Mean:		[5.0]	0.0618				
SD:		0.0	0.0004				
%RSD:		0.0	0.58				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999865 Slope: 0.01238 Intercept: 0.00019

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/24/2010 09:33:03**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1178	0.6163	0.1185	09:33:54	Yes
2		[10.0]	0.1194	0.6216	0.1201	09:34:23	Yes
Mean:		[10.0]	0.1186				
SD:		0.0	0.0011				
%RSD:		0.0	0.95				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999718 Slope: 0.01189 Intercept: 0.00075

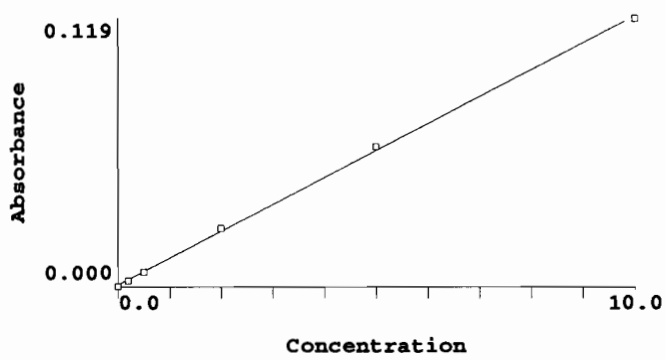

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.063	0.00	8.0
S0.2	0.0025	0.2	0.144	0.00	0.4
S0.5	0.0063	0.5	0.469	0.00	1.3
S2.0	0.0257	2.0	2.099	0.00	0.6

S5.0	0.0618	5.0	5.136	0.00	0.6
S10.0	0.1186	10.0	9.915	0.00	1.0

Correlation Coef.: 0.999718 Slope: 0.01189 Intercept: 0.00075

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/24/2010 09:34:42**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.181	5.181	0.0623	0.3260	0.0630	09:35:34	Yes
2	5.062	5.062	0.0609	0.3154	0.0616	09:36:04	Yes
Mean:	5.122	5.122	0.0616				
SD:	0.084	0.084	0.0010				
%RSD:	1.634	1.634	1.61				

QC value within limits for Hg 253.7 Recovery = 102.43%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/24/2010 09:36:23**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.079	-0.079	-0.0002	0.0016	0.0004	09:37:14	Yes
2	-0.077	-0.077	-0.0002	0.0018	0.0005	09:37:44	Yes
Mean:	-0.078	-0.078	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	2.384	2.384	12.14				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/24/2010 09:38:04**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.132	0.132	0.0023	0.0144	0.0030	09:38:55	Yes
2	0.126	0.126	0.0022	0.0144	0.0029	09:39:25	Yes
Mean:	0.129	0.129	0.0023				
SD:	0.005	0.005	0.0001				
%RSD:	3.623	3.623	2.44				

QC value within limits for Hg 253.7 Recovery = 64.54%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 09:39:45**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.060	5.060	0.0609	0.3200	0.0615	09:40:36	Yes
2	4.996	4.996	0.0601	0.3122	0.0608	09:41:06	Yes
Mean:	5.028	5.028	0.0605				
SD:	0.045	0.045	0.0005				
%RSD:	0.902	0.902	0.89				

QC value within limits for Hg 253.7 Recovery = 100.56%
All analyte(s) passed QC.

==========

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 09:41:25**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.081	-0.081	-0.0002	0.0018	0.0004	09:42:15	Yes
2	-0.081	-0.081	-0.0002	0.0019	0.0004	09:42:45	Yes
Mean:	-0.081	-0.081	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.212	0.212	0.95				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202076821|967600|1 **Date Collected: 3/24/2010 09:43:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076821|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.082	-0.082	-0.0002	0.0017	0.0004	09:43:56	Yes
2	-0.085	-0.085	-0.0003	0.0016	0.0004	09:44:26	Yes
Mean:	-0.083	-0.083	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	2.755	2.755	11.15				

==========

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202076822|967600|10 **Date Collected: 3/24/2010 09:44:46**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076822|967600|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.136	3.136	0.0380	0.1988	0.0387	09:45:38	Yes
2	3.174	3.174	0.0385	0.2027	0.0391	09:46:08	Yes
Mean:	3.155	3.155	0.0383				
SD:	0.027	0.027	0.0003				
%RSD:	0.857	0.857	0.84				

==========

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 248834001|967600|1 **Date Collected: 3/24/2010 09:46:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834001|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.044	-0.044	0.0002	0.0040	0.0009	09:47:19	Yes
2	-0.050	-0.050	0.0002	0.0033	0.0008	09:47:49	Yes
Mean:	-0.047	-0.047	0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	8.317	8.317	25.32				

==========

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202076823|967600|1 **Date Collected: 3/24/2010 09:48:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076823|967600|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 248834003|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.322	0.322	0.0046	0.0264	0.0052	09:57:16	Yes
2	0.319	0.319	0.0045	0.0264	0.0052	09:57:45	Yes
Mean:	0.320	0.320	0.0046				
SD:	0.002	0.002	0.0000				
%RSD:	0.753	0.753	0.63				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 248834004|967600|1 **Date Collected: 3/24/2010 09:58:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834004|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.065	-0.065	-0.0000	0.0032	0.0006	09:58:56	Yes
2	-0.066	-0.066	-0.0000	0.0035	0.0006	09:59:26	Yes
Mean:	-0.066	-0.066	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	0.765	0.765	17.62				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 09:59:46**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.192	5.192	0.0625	0.3277	0.0631	10:00:36	Yes
2	5.091	5.091	0.0613	0.3179	0.0619	10:01:06	Yes
Mean:	5.141	5.141	0.0619				
SD:	0.072	0.072	0.0009				
%RSD:	1.399	1.399	1.38				

QC value within limits for Hg 253.7 Recovery = 102.83%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 10:01:25**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.081	-0.081	-0.0002	0.0021	0.0004	10:02:16	Yes
2	-0.082	-0.082	-0.0002	0.0023	0.0004	10:02:46	Yes
Mean:	-0.081	-0.081	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.458	0.458	2.00				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 248834005|967600|1 **Date Collected: 3/24/2010 10:03:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834005|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.910	5.910	0.0710	0.3730	0.0716	10:03:57	Yes
2	5.838	5.838	0.0702	0.3674	0.0708	10:04:27	Yes

SD:	0.060	0.060	0.0007
%RSD:	1.687	1.687	1.66

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 10:19:49**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.300	5.300	0.0638	0.3306	0.0644	10:20:39	Yes
2	5.271	5.271	0.0634	0.3268	0.0640	10:21:09	Yes
Mean:	5.286	5.286	0.0636				
SD:	0.021	0.021	0.0003				
%RSD:	0.398	0.398	0.39				

QC value within limits for Hg 253.7 Recovery = 105.71%
All analyte(s) passed QC.

==========

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 10:21:27**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.077	-0.077	-0.0002	0.0019	0.0005	10:22:19	Yes
2	-0.077	-0.077	-0.0002	0.0018	0.0005	10:22:49	Yes
Mean:	-0.077	-0.077	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.039	0.039	0.21				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 249072002|967577|1 **Date Collected: 3/24/2010 10:23:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 249072002|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.230	0.230	0.0035	0.0213	0.0041	10:23:59	Yes
2	0.239	0.239	0.0036	0.0212	0.0042	10:24:29	Yes
Mean:	0.235	0.235	0.0035				
SD:	0.006	0.006	0.0001				
%RSD:	2.731	2.731	2.16				

==========

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 249072003|967577|1 **Date Collected: 3/24/2010 10:24:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 249072003|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.306	0.306	0.0044	0.0257	0.0050	10:25:39	Yes
2	0.311	0.311	0.0044	0.0259	0.0051	10:26:09	Yes
Mean:	0.309	0.309	0.0044				
SD:	0.004	0.004	0.0000				
%RSD:	1.245	1.245	1.03				

==========

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 249072004|967577|1 **Date Collected: 3/24/2010 10:26:29**
Analyst: JXL **Data Type: Original**

Sequence No.: 43 **Autosampler Location: 39**
Sample ID: 1202076769|967577|1 **Date Collected: 3/24/2010 10:34:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076769|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.162	2.162	0.0264	0.1380	0.0271	10:35:46	Yes
2	2.193	2.193	0.0268	0.1399	0.0275	10:36:16	Yes
Mean:	2.178	2.178	0.0266				
SD:	0.023	0.023	0.0003				
%RSD:	1.037	1.037	1.01				

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 1202076768|967577|5 **Date Collected: 3/24/2010 10:36:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076768|967577|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.074	-0.074	-0.0001	0.0026	0.0005	10:37:26	Yes
2	-0.074	-0.074	-0.0001	0.0028	0.0005	10:37:56	Yes
Mean:	-0.074	-0.074	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.631	0.631	4.13				

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 249102003|967577|1 **Date Collected: 3/24/2010 10:38:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102003|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.047	-0.047	0.0002	0.0045	0.0008	10:39:07	Yes
2	-0.051	-0.051	0.0001	0.0041	0.0008	10:39:37	Yes
Mean:	-0.049	-0.049	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	5.014	5.014	17.75				

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 10:39:56**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.819	4.819	0.0580	0.2999	0.0587	10:40:46	Yes
2	4.944	4.944	0.0595	0.3056	0.0602	10:41:16	Yes
Mean:	4.881	4.881	0.0588				
SD:	0.089	0.089	0.0011				
%RSD:	1.819	1.819	1.80				

QC value within limits for Hg 253.7 Recovery = 97.63%
All analyte(s) passed QC.

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 10:41:35**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	-0.083	-0.083	-0.0002	0.0019	0.0004	10:42:26	Yes
2	-0.082	-0.082	-0.0002	0.0022	0.0004	10:42:56	Yes
Mean:	-0.083	-0.083	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.048	1.048	4.33				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 48 **Autosampler Location: 42**
Sample ID: 249102004|967577|1 **Date Collected: 3/24/2010 10:43:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102004|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.075	0.075	0.0016	0.0115	0.0023	10:44:06	Yes
2	0.080	0.080	0.0017	0.0119	0.0023	10:44:36	Yes
Mean:	0.078	0.078	0.0017				
SD:	0.004	0.004	0.0000				
%RSD:	4.576	4.576	2.53				

==========

Sequence No.: 49 **Autosampler Location: 43**
Sample ID: 249102005|967577|1 **Date Collected: 3/24/2010 10:44:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102005|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.048	-0.048	0.0002	0.0043	0.0008	10:45:46	Yes
2	-0.049	-0.049	0.0002	0.0041	0.0008	10:46:16	Yes
Mean:	-0.049	-0.049	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.335	0.335	1.14				

==========

Sequence No.: 50 **Autosampler Location: 44**
Sample ID: 249102006|967577|1 **Date Collected: 3/24/2010 10:46:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102006|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.052	-0.052	0.0001	0.0037	0.0008	10:47:26	Yes
2	-0.051	-0.051	0.0001	0.0038	0.0008	10:47:56	Yes
Mean:	-0.052	-0.052	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	1.201	1.201	5.52				

==========

Sequence No.: 51 **Autosampler Location: 45**
Sample ID: 1202078437|968185|1 **Date Collected: 3/24/2010 10:48:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078437|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.085	-0.085	-0.0003	0.0019	0.0004	10:49:06	Yes
2	-0.085	-0.085	-0.0003	0.0019	0.0004	10:49:36	Yes
Mean:	-0.085	-0.085	-0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	0.593	0.593	2.27				

==========

Sequence No.: 52 **Autosampler Location: 46**
Sample ID: 1202078438|968185|10 **Date Collected: 3/24/2010 10:49:55**

Analyst: JXL Data Type: Original

Replicate Data: 1202078438|968185|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.834	3.834	0.0463	0.2373	0.0470	10:50:47	Yes
2	3.642	3.642	0.0440	0.2262	0.0447	10:51:16	Yes
Mean:	3.738	3.738	0.0452				
SD:	0.136	0.136	0.0016				
%RSD:	3.635	3.635	3.57				

Sequence No.: 53 Autosampler Location: 47
Sample ID: 248860001|968185|1 Date Collected: 3/24/2010 10:51:36
Analyst: JXL Data Type: Original

Replicate Data: 248860001|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.062	0.062	0.0015	0.0106	0.0021	10:52:28	Yes
2	0.059	0.059	0.0014	0.0106	0.0021	10:52:58	Yes
Mean:	0.060	0.060	0.0015				
SD:	0.002	0.002	0.0000				
%RSD:	3.523	3.523	1.73				

Sequence No.: 54 Autosampler Location: 48
Sample ID: 248860002|968185|1 Date Collected: 3/24/2010 10:53:18
Analyst: JXL Data Type: Original

Replicate Data: 248860002|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.882	0.882	0.0112	0.0601	0.0119	10:54:09	Yes
2	0.908	0.908	0.0115	0.0620	0.0122	10:54:39	Yes
Mean:	0.895	0.895	0.0114				
SD:	0.018	0.018	0.0002				
%RSD:	2.040	2.040	1.91				

Sequence No.: 55 Autosampler Location: 49
Sample ID: 248860003|968185|1 Date Collected: 3/24/2010 10:54:59
Analyst: JXL Data Type: Original

Replicate Data: 248860003|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.173	0.173	0.0028	0.0176	0.0034	10:55:51	Yes
2	0.170	0.170	0.0028	0.0170	0.0034	10:56:21	Yes
Mean:	0.171	0.171	0.0028				
SD:	0.003	0.003	0.0000				
%RSD:	1.626	1.626	1.19				

Sequence No.: 56 Autosampler Location: 50
Sample ID: 248860004|968185|1 Date Collected: 3/24/2010 10:56:41
Analyst: JXL Data Type: Original

Replicate Data: 248860004|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.262	0.262	0.0039	0.0225	0.0045	10:57:32	Yes
2	0.259	0.259	0.0038	0.0225	0.0045	10:58:02	Yes
Mean:	0.260	0.260	0.0038				
SD:	0.002	0.002	0.0000				
%RSD:	0.878	0.878	0.71				

Sequence No.: 57 **Autosampler Location: 51**
Sample ID: 248860005|968185|1 **Date Collected: 3/24/2010 10:58:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 248860005|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.190	0.190	0.0030	0.0183	0.0036	10:59:13	Yes
2	0.196	0.196	0.0031	0.0188	0.0037	10:59:43	Yes
Mean:	0.193	0.193	0.0030				
SD:	0.005	0.005	0.0001				
%RSD:	2.435	2.435	1.84				

Sequence No.: 58 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 11:00:03**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.182	5.182	0.0624	0.3187	0.0630	11:00:53	Yes
2	5.191	5.191	0.0625	0.3195	0.0631	11:01:23	Yes
Mean:	5.187	5.187	0.0624				
SD:	0.007	0.007	0.0001				
%RSD:	0.129	0.129	0.13				

QC value within limits for Hg 253.7 Recovery = 103.73%
All analyte(s) passed QC.

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 11:01:42**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.085	-0.085	-0.0003	0.0019	0.0004	11:02:32	Yes
2	-0.084	-0.084	-0.0003	0.0019	0.0004	11:03:02	Yes
Mean:	-0.084	-0.084	-0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	0.839	0.839	3.27				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 60 **Autosampler Location: 52**
Sample ID: 248860006|968185|1 **Date Collected: 3/24/2010 11:03:21**
Analyst: JXL **Data Type: Original**

Replicate Data: 248860006|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.644	1.644	0.0203	0.1066	0.0209	11:04:13	Yes
2	1.649	1.649	0.0203	0.1060	0.0210	11:04:43	Yes
Mean:	1.647	1.647	0.0203				
SD:	0.003	0.003	0.0000				
%RSD:	0.188	0.188	0.18				

Sequence No.: 61 **Autosampler Location: 53**
Sample ID: 248860007|968185|1 **Date Collected: 3/24/2010 11:05:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 248860007|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.368	0.368	0.0051	0.0290	0.0058	11:05:53	Yes
2	0.352	0.352	0.0049	0.0278	0.0056	11:06:23	Yes
Mean:	0.360	0.360	0.0050				
SD:	0.011	0.011	0.0001				
%RSD:	3.158	3.158	2.69				

==========

Sequence No.: 62 Autosampler Location: 54
Sample ID: 248860008|968185|1 Date Collected: 3/24/2010 11:06:43
Analyst: JXL Data Type: Original

Replicate Data: 248860008|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.020	-0.020	0.0005	0.0054	0.0011	11:07:33	Yes
2	-0.020	-0.020	0.0005	0.0055	0.0011	11:08:03	Yes
Mean:	-0.020	-0.020	0.0005				
SD:	0.000	0.000	0.0000				
%RSD:	0.391	0.391	0.18				

==========

Sequence No.: 63 Autosampler Location: 55
Sample ID: 248860009|968185|1 Date Collected: 3/24/2010 11:08:23
Analyst: JXL Data Type: Original

Replicate Data: 248860009|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.015	-0.015	0.0006	0.0060	0.0012	11:09:14	Yes
2	-0.018	-0.018	0.0005	0.0056	0.0012	11:09:43	Yes
Mean:	-0.016	-0.016	0.0006				
SD:	0.003	0.003	0.0000				
%RSD:	15.33	15.33	5.39				

==========

Sequence No.: 64 Autosampler Location: 56
Sample ID: 248863001|968185|1 Date Collected: 3/24/2010 11:10:03
Analyst: JXL Data Type: Original

Replicate Data: 248863001|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0010	0.0078	0.0016	11:10:54	Yes
2	0.012	0.012	0.0009	0.0075	0.0015	11:11:24	Yes
Mean:	0.015	0.015	0.0009				
SD:	0.004	0.004	0.0001				
%RSD:	27.74	27.74	5.44				

==========

Sequence No.: 65 Autosampler Location: 57
Sample ID: 248863002|968185|1 Date Collected: 3/24/2010 11:11:43
Analyst: JXL Data Type: Original

Replicate Data: 248863002|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.207	0.207	0.0032	0.0193	0.0038	11:12:34	Yes
2	0.201	0.201	0.0031	0.0188	0.0038	11:13:04	Yes
Mean:	0.204	0.204	0.0032				
SD:	0.005	0.005	0.0001				
%RSD:	2.291	2.291	1.75				

==========

Sequence No.: 66 Autosampler Location: 58

Sample ID: 248863003|968185|1 Date Collected: 3/24/2010 11:13:23
Analyst: JXL Data Type: Original

Replicate Data: 248863003|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.287	0.287	0.0042	0.0244	0.0048	11:14:15	Yes
2	0.286	0.286	0.0042	0.0240	0.0048	11:14:45	Yes
Mean:	0.286	0.286	0.0042				
SD:	0.000	0.000	0.0000				
%RSD:	0.048	0.048	0.04				

Sequence No.: 67 Autosampler Location: 59
Sample ID: 248863004|968185|1 Date Collected: 3/24/2010 11:15:05
Analyst: JXL Data Type: Original

Replicate Data: 248863004|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0011	0.0089	0.0018	11:15:56	Yes
2	0.028	0.028	0.0011	0.0086	0.0017	11:16:26	Yes
Mean:	0.031	0.031	0.0011				
SD:	0.004	0.004	0.0000				
%RSD:	12.64	12.64	4.14				

Sequence No.: 68 Autosampler Location: 60
Sample ID: 248866001|968185|1 Date Collected: 3/24/2010 11:16:46
Analyst: JXL Data Type: Original

Replicate Data: 248866001|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.508	1.508	0.0187	0.0974	0.0193	11:17:38	Yes
2	1.505	1.505	0.0186	0.0967	0.0193	11:18:07	Yes
Mean:	1.506	1.506	0.0187				
SD:	0.002	0.002	0.0000				
%RSD:	0.161	0.161	0.15				

Sequence No.: 69 Autosampler Location: 61
Sample ID: 248866002|968185|1 Date Collected: 3/24/2010 11:18:28
Analyst: JXL Data Type: Original

Replicate Data: 248866002|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0011	0.0085	0.0017	11:19:19	Yes
2	0.028	0.028	0.0011	0.0086	0.0017	11:19:49	Yes
Mean:	0.028	0.028	0.0011				
SD:	0.001	0.001	0.0000				
%RSD:	2.614	2.614	0.81				

Sequence No.: 70 Autosampler Location: 7
Sample ID: CCV Date Collected: 3/24/2010 11:20:09
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.300	5.300	0.0638	0.3270	0.0644	11:21:00	Yes
2	5.102	5.102	0.0614	0.3147	0.0620	11:21:29	Yes
Mean:	5.201	5.201	0.0626				
SD:	0.140	0.140	0.0017				

%RSD: 2.687 2.687 2.66
QC value within limits for Hg 253.7 Recovery = 104.02%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 11:21:48**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.089	-0.089	-0.0003	0.0015	0.0003	11:22:40	Yes
2	-0.092	-0.092	-0.0003	0.0012	0.0003	11:23:09	Yes
Mean:	-0.090	-0.090	-0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	2.647	2.647	8.70				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 72 **Autosampler Location: 62**
Sample ID: 248867001|968185|1 **Date Collected: 3/24/2010 11:23:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 248867001|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.609	3.609	0.0437	0.2267	0.0443	11:24:20	Yes
2	3.588	3.588	0.0434	0.2255	0.0440	11:24:50	Yes
Mean:	3.598	3.598	0.0435				
SD:	0.015	0.015	0.0002				
%RSD:	0.408	0.408	0.40				

==========

Sequence No.: 73 **Autosampler Location: 63**
Sample ID: 1202078439|968185|1 **Date Collected: 3/24/2010 11:25:10**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078439|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.811	2.811	0.0342	0.1764	0.0348	11:26:01	Yes
2	2.779	2.779	0.0338	0.1738	0.0344	11:26:31	Yes
Mean:	2.795	2.795	0.0340				
SD:	0.023	0.023	0.0003				
%RSD:	0.808	0.808	0.79				

==========

Sequence No.: 74 **Autosampler Location: 64**
Sample ID: 1202078440|968185|1 **Date Collected: 3/24/2010 11:26:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078440|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.813	5.813	0.0699	0.3587	0.0705	11:27:41	Yes
2	5.767	5.767	0.0693	0.3561	0.0699	11:28:11	Yes
Mean:	5.790	5.790	0.0696				
SD:	0.033	0.033	0.0004				
%RSD:	0.567	0.567	0.56				

==========

Sequence No.: 75 **Autosampler Location: 65**
Sample ID: 1202078442|968185|1 **Date Collected: 3/24/2010 11:28:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078442|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.960	5.960	0.0716	0.3690	0.0722	11:29:22	Yes
2	5.970	5.970	0.0717	0.3668	0.0724	11:29:52	Yes
Mean:	5.965	5.965	0.0717				
SD:	0.007	0.007	0.0001				
%RSD:	0.119	0.119	0.12				

Sequence No.: 76 **Autosampler Location: 66**
Sample ID: 1202078441|968185|5 **Date Collected: 3/24/2010 11:30:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078441|968185|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.692	0.692	0.0090	0.0482	0.0096	11:31:03	Yes
2	0.685	0.685	0.0089	0.0480	0.0095	11:31:33	Yes
Mean:	0.688	0.688	0.0089				
SD:	0.005	0.005	0.0001				
%RSD:	0.674	0.674	0.62				

Sequence No.: 77 **Autosampler Location: 67**
Sample ID: 248867002|968185|1 **Date Collected: 3/24/2010 11:31:53**
Analyst: JXL **Data Type: Original**

Replicate Data: 248867002|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.779	2.779	0.0338	0.1735	0.0344	11:32:45	Yes
2	2.746	2.746	0.0334	0.1716	0.0340	11:33:14	Yes
Mean:	2.762	2.762	0.0336				
SD:	0.023	0.023	0.0003				
%RSD:	0.844	0.844	0.83				

Sequence No.: 78 **Autosampler Location: 68**
Sample ID: 248867003|968185|1 **Date Collected: 3/24/2010 11:33:34**
Analyst: JXL **Data Type: Original**

Replicate Data: 248867003|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.577	3.577	0.0433	0.2227	0.0439	11:34:26	Yes
2	3.537	3.537	0.0428	0.2181	0.0434	11:34:56	Yes
Mean:	3.557	3.557	0.0430				
SD:	0.028	0.028	0.0003				
%RSD:	0.798	0.798	0.78				

Sequence No.: 79 **Autosampler Location: 69**
Sample ID: 248867004|968185|1 **Date Collected: 3/24/2010 11:35:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 248867004|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	12.72	12.72	0.1520	0.7783	0.1526	11:36:07	Yes
Sample concentration is greater than that of the highest standard.							
2	12.26	12.26	0.1466	0.7462	0.1472	11:36:37	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	12.49	12.49	0.1493				
SD:	0.322	0.322	0.0038				
%RSD:	2.574	2.574	2.56				

Sample concentration is greater than that of the highest standard.

==========

Sequence No.: 80 **Autosampler Location: 70**
Sample ID: 1202076742|967570|1 **Date Collected: 3/24/2010 11:36:57**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076742|967570|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.089	-0.089	-0.0003	0.0009	0.0003	11:37:48	Yes
2	-0.086	-0.086	-0.0003	0.0015	0.0004	11:38:18	Yes
Mean:	-0.088	-0.088	-0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	2.030	2.030	7.16				

==========

Sequence No.: 81 **Autosampler Location: 71**
Sample ID: 1202076743|967570|1 **Date Collected: 3/24/2010 11:38:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076743|967570|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.182	2.182	0.0267	0.1380	0.0273	11:39:29	Yes
2	2.193	2.193	0.0268	0.1380	0.0275	11:39:59	Yes
Mean:	2.187	2.187	0.0268				
SD:	0.008	0.008	0.0001				
%RSD:	0.356	0.356	0.35				

==========

Sequence No.: 82 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 11:40:19**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.125	5.125	0.0617	0.3141	0.0623	11:41:09	Yes
2	5.096	5.096	0.0613	0.3103	0.0620	11:41:39	Yes
Mean:	5.111	5.111	0.0615				
SD:	0.021	0.021	0.0002				
%RSD:	0.401	0.401	0.40				

QC value within limits for Hg 253.7 Recovery = 102.21%
All analyte(s) passed QC.

==========

Sequence No.: 83 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 11:41:58**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.090	-0.090	-0.0003	0.0012	0.0003	11:42:48	Yes
2	-0.085	-0.085	-0.0003	0.0016	0.0004	11:43:18	Yes
Mean:	-0.088	-0.088	-0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	3.961	3.961	13.86				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 84 **Autosampler Location: 72**
Sample ID: 249476001|967570|1 **Date Collected: 3/24/2010 11:43:38**
Analyst: JXL **Data Type: Original**

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 964013.0 **Verified by:** _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: Sartorius Balance B-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202068103 MB	13-MAR-2010 03:00:00	0.516	50	96.89922	
1202068108 LCS	13-MAR-2010 03:00:00	0.502	50	99.60159	
248860001	13-MAR-2010 03:00:00	0.522	50	95.78544	
1202068104 DUP (248860001)	13-MAR-2010 03:00:00	0.507	50	98.61933	
1202068105 SDILT (248860001)	13-MAR-2010 03:00:00	0.522	50	95.78544	
1202068106 MS (248860001)	13-MAR-2010 03:00:00	0.504	50	99.20635	
1202068107 MSD (248860001)	13-MAR-2010 03:00:00	0.514	50	97.27626	
248860002	13-MAR-2010 03:00:00	0.511	50	97.84736	
248860003	13-MAR-2010 03:00:00	0.506	50	98.81423	
248860004	13-MAR-2010 03:00:00	0.534	50	93.63296	
248860005	13-MAR-2010 03:00:00	0.51	50	98.03922	
248860006	13-MAR-2010 03:00:00	0.53	50	94.33962	
248860007	13-MAR-2010 03:00:00	0.514	50	97.27626	
248860008	13-MAR-2010 03:00:00	0.5	50	100	
248860009	13-MAR-2010 03:00:00	0.511	50	97.84736	
248863001	13-MAR-2010 03:00:00	0.5	50	100	
248863002	13-MAR-2010 03:00:00	0.552	50	90.57971	
248863003	13-MAR-2010 03:00:00	0.522	50	95.78544	
248863004	13-MAR-2010 03:00:00	0.534	50	93.63296	
248865001	13-MAR-2010 03:00:00	0.531	50	94.16196	

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202068108	Metals Soil LCS SRM ICPMS	UI062540-MS	.502	g
MS	1202068106	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MS	1202068106	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
MSD	1202068107	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MSD	1202068107	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1282566	5	mL

Comments:

Sample 248860001 consist of gray soil.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **974044.0** Verified by: _____

Analyst: Barry Audain

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202092702	Metals Soil LCS SRM ICP/Hg	UI062540-I	.509	g
MS	1202068100	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202068100	Metals Spike Mix II	UI1286774-06	.25	mL
MSD	1202068101	Metals Spike Mix I	UI1286772-01	.25	mL
MSD	1202068101	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202092701 MB	12-APR-2010 22:34:00	Soil	0.51	50	98.03922	
1202092702 LCS	12-APR-2010 22:34:00	Soil	0.509	50	98.23183	
248860001 - 2	12-APR-2010 22:34:00	Soil	0.559	50	89.44544	
1202068098 - 2 DUP (248860001)	12-APR-2010 22:34:00	Soil	0.509	50	98.23183	
1202068099 - 2 SDILT (248860001)	12-APR-2010 22:34:00	Soil	0.559	50	89.44544	
1202068100 - 2 MS (248860001)	12-APR-2010 22:34:00	Soil	0.535	50	93.45794	
1202068101 - 2 MSD (248860001)	12-APR-2010 22:34:00	Soil	0.536	50	93.28358	
248860002 - 2	12-APR-2010 22:34:00	Soil	0.513	50	97.46589	
248860003 - 2	12-APR-2010 22:34:00	Soil	0.559	50	89.44544	
248860004 - 2	12-APR-2010 22:34:00	Soil	0.527	50	94.87666	
248860005 - 2	12-APR-2010 22:34:00	Soil	0.527	50	94.87666	
248860006 - 2	12-APR-2010 22:34:00	Soil	0.52	50	96.15385	
248860007 - 2	12-APR-2010 22:34:00	Soil	0.559	50	89.44544	
248860008 - 2	12-APR-2010 22:34:00	Soil	0.514	50	97.27626	
248860009 - 2	12-APR-2010 22:34:00	Soil	0.521	50	95.96929	
248863001 - 2	12-APR-2010 22:34:00	Soil	0.535	50	93.45794	
248863002 - 2	12-APR-2010 22:34:00	Soil	0.515	50	97.08738	
248863003 - 2	12-APR-2010 22:34:00	Soil	0.533	50	93.80863	
248863004 - 2	12-APR-2010 22:34:00	Soil	0.562	50	88.96797	
248865001 - 2	12-APR-2010 22:34:00	Soil	0.522	50	95.78544	

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL

Comments:

sample#248860001 is a brown, medium soil.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **964011.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202068102	Metals Soil LCS SRM ICP/Hg	U1062540-I	.506	g
MS	1202068100	Metals Spike Mix I	U11268741-01	.25	mL
MS	1202068100	Metals Spike Mix II	U11268744-06	.25	mL
MSD	1202068101	Metals Spike Mix I	U11268741-01	.25	mL
MSD	1202068101	Metals Spike Mix II	U11268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202068097 MB	13-MAR-2010 03:00:00	Soil	0.504	50	99.20635	
1202068102 LCS	13-MAR-2010 03:00:00	Soil	0.506	50	98.81423	
248860001	13-MAR-2010 03:00:00	Soil	0.506	50	98.81423	
1202068098 DUP (248860001)	13-MAR-2010 03:00:00	Soil	0.518	50	96.5251	
1202068099 SDILT (248860001)	13-MAR-2010 03:00:00	Soil	0.509	50	98.23183	
1202068100 MS (248860001)	13-MAR-2010 03:00:00	Soil	0.504	50	99.20635	
1202068101 MSD (248860001)	13-MAR-2010 03:00:00	Soil	0.509	50	98.23183	
248860002	13-MAR-2010 03:00:00	Soil	0.503	50	99.40358	
248860003	13-MAR-2010 03:00:00	Soil	0.528	50	94.69697	
248860004	13-MAR-2010 03:00:00	Soil	0.51	50	98.03922	
248860005	13-MAR-2010 03:00:00	Soil	0.519	50	96.33911	
248860006	13-MAR-2010 03:00:00	Soil	0.514	50	97.27626	
248860007	13-MAR-2010 03:00:00	Soil	0.502	50	99.60159	
248860008	13-MAR-2010 03:00:00	Soil	0.547	50	91.40768	
248860009	13-MAR-2010 03:00:00	Soil	0.507	50	98.61933	
248863001	13-MAR-2010 03:00:00	Soil	0.508	50	98.4252	
248863002	13-MAR-2010 03:00:00	Soil	0.503	50	99.40358	
248863003	13-MAR-2010 03:00:00	Soil	0.553	50	90.41591	
248863004	13-MAR-2010 03:00:00	Soil	0.508	50	98.4252	
248865001	13-MAR-2010 03:00:00	Soil	0.525	50	95.2381	

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL

Comments:

Sample 248860001 consist of gray. soil.

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **968184.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202078438	Metals LCS Soil SRM	UI031809A	.203	g
MS	1202078440	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL
MSD	1202078442	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202078437 MB	23-MAR-2010 14:45:00	Soil	0.583	30	51.45798	
1202078438 LCS	23-MAR-2010 14:45:00	Soil	0.203	30	147.78325	
248860001	23-MAR-2010 14:45:00	Soil	0.592	30	50.67568	
248860002	23-MAR-2010 14:45:00	Soil	0.549	30	54.64481	
248860003	23-MAR-2010 14:45:00	Soil	0.517	30	58.02708	
248860004	23-MAR-2010 14:45:00	Soil	0.511	30	58.70841	
248860005	23-MAR-2010 14:45:00	Soil	0.525	30	57.14286	
248860006	23-MAR-2010 14:45:00	Soil	0.502	30	59.76096	
248860007	23-MAR-2010 14:45:00	Soil	0.568	30	52.8169	
248860008	23-MAR-2010 14:45:00	Soil	0.578	30	51.90311	
248860009	23-MAR-2010 14:45:00	Soil	0.545	30	55.04587	
248863001	23-MAR-2010 14:45:00	Soil	0.541	30	55.45287	
248863002	23-MAR-2010 14:45:00	Soil	0.557	30	53.85996	
248863003	23-MAR-2010 14:45:00	Soil	0.523	30	57.36138	
248863004	23-MAR-2010 14:45:00	Soil	0.558	30	53.76344	
248866001	23-MAR-2010 14:45:00	Soil	0.522	30	57.47126	
248866002	23-MAR-2010 14:45:00	Soil	0.555	30	54.05405	
248867001	23-MAR-2010 14:45:00	Soil	0.575	30	52.17391	
1202078439 DUP (248867001)	23-MAR-2010 14:45:00	Soil	0.539	30	55.65863	
1202078440 MS (248867001)	23-MAR-2010 14:45:00	Soil	0.578	30	51.90311	
1202078442 MSD (248867001)	23-MAR-2010 14:45:00	Soil	0.537	30	55.86592	
1202078441 SDILT (248867001)	23-MAR-2010 14:45:00	Soil	0.575	30	52.17391	
248867002	23-MAR-2010 14:45:00	Soil	0.565	30	53.09735	
248867003	23-MAR-2010 14:45:00	Soil	0.518	30	57.91506	
248867004	23-MAR-2010 14:45:00	Soil	0.535	30	56.07477	

Reagent/Solvent Lot ID	Description	Amount

Prep Logbook

Batch ID: **968184.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202078438	Metals LCS Soil SRM	UI031809A	.203	g
MS	1202078440	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL
MSD	1202078442	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1

Reagent/Solvent Lot ID	Description	Amount
1255532-C	Hg reducing agent	2 mL
1274391-1	NITRIC ACID	.375 mL
1277235-A	Hydrochloric Acid Conc.	1.125 mL
1277238-C	5% KMnO4 solution	7.5 mL
WHG100323-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL
WHG100323-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL
WHG100323-09	Mercury Working 1st Source CAL S 2.0	300 uL
WHG100323-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL
WHG100323-11	Mercury Working 1st Source CAL S 10.0	1.5 mL
WHG100323-12	Mercury Working 2nd Source S 5.0/ICV	750 uL

Comments:

Sample 248867001 is a rocky brown soil.

Digestion Start Date: 23-MAR-10 14:45

Digestion End Date: 23-MAR-10 15:15

DER Report No.: 809015
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
MERCURY	SW846 7471A	Solid	LANL
Batch ID:	**Sample Numbers:**		
968185	See Below		

Potentially affected work order(s)(SDG): 248860(10-2313),248863(10-2315),248866(10-2319),248867(10-2320)

Application Issues:

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MSD/PSD: QC 1202078442MSD	1. The matrix spike recovery failed outside of the control limits for Hg due to possible matrix interferences and/or non-homogeneity. Sample is a rocky, brown soil. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Jason Loy 24-MAR-10

Data Validator/Group Leader:

Eric Lawson 25-MAR-10

DER Report No.: 814416
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
06-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
964012	See Below		

Potentially affected work order(s)(SDG): 248860(10-2313),248863(10-2315),248865(10-2318)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for LCS/LCSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202068100MS 2. Failed RPD for DUP: QC 1202068098DUP 3. Failed Recovery for LCS/LCSD: QC 1202068102LCS 4. Failed Recovery for MSD/PSD: QC 1202068101MSD	1./4. The matrix spike and matrix spike duplicate recovery failed outside of the control limits for aluminum,manganese,potassium and sodium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for chromium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. Silver and/or antimony did not meet the recovery acceptance criteria for the LCS. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures.

Originator's Name:
Helen Camello 09-APR-10

Data Validator/Group Leader:
Christopher Louviere 12-APR-10

DER Report No.: 816871
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
13-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
974047	See Below		

Potentially affected work order(s)(SDG): 248860(10-2313),248863(10-2315),248865(10-2318)

Application Issues:

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202068098DUP	1. The sample and sample duplicate % RPD failed outside the control limits for calcium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Christopher Louviere 13-APR-10

Data Validator/Group Leader:

Louise Smith 14-APR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Cesium	1.68 mg/kg	Chromium	236 mg/kg
Cobalt	91.2 mg/kg	Copper	174 mg/kg
Iron	18000 mg/kg	Lead	86 mg/kg
Lithium	10.6 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	755 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silver	30.1 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	1020 mg/kg	Strontium	227 mg/kg
Thallium	121 mg/kg	Thorium	9.84 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Uranium	2.13 mg/kg	Uranium-235	.0153 mg/kg
Uranium-238	2.11 mg/kg	Vanadium	92.4 mg/kg
Zinc	594 mg/kg	Zirconium	10.6 mg/kg

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 22-APR-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID:	UI090701-09	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #1	**Received:**	01-JUL-09	**Catalog Number :**	160044-09-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016477
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Master Soln #1				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	30 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	30 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	100 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID:	UI090701-10	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #2	**Received:**	01-JUL-09	**Catalog Number :**	160044-08-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016476
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Soln #2				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	3 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	5 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID:	UI090701-40	**Opened:**	01-JUL-09	**Amount :**	500 mL
Name:	TRACE ICP Stock PQL Sta	**Received:**	30-JUN-09	**Catalog Number :**	160543-01-03
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016475
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3+TrHF
Supplier:	02si				
Description:	TRACE ICP Stock PQL Standard				
Comments:	None				

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090827-A **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 27-AUG-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090827-B **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 27-AUG-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L

Analyte	Concentration	Analyte	Concentration
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100310-49.13 **Opened:** 31-MAR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 01-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100317-06 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-MAR-10 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019161
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI100317-07 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-MAR-10 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019162
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Standard Logbook

Serial ID:	UI100317-08	**Opened:**	17-MAR-10	**Amount :**	250 mL
Name:	ICP-MS ICV/CCV Master C	**Received:**	17-MAR-10	**Catalog Number :**	160054-03
Type:	Source Material	**Expires:**	17-MAR-11	**Lot Number :**	1019163
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% in 5% HNO3 100 cm2
Supplier:	02SI				

Description: ICPMS ICV/CCV Soln C - 10ppm

Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID:	UI100325-41	**Opened:**	25-MAR-10	**Amount :**	500 mL
Name:	ICP HIGH RANGE STD B	**Received:**	25-MAR-10	**Catalog Number :**	160211-05-03
Type:	Source Material	**Expires:**	25-MAR-11	**Lot Number :**	1019348
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3
Supplier:	02SI				

Description: ICP HIGH RANGE STD SOLUTION B

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID:	UI100329-40	**Opened:**	08-APR-10	**Amount :**	500 mL
Name:	TRACE CALSTD#1A SOUF	**Received:**	29-MAR-10	**Catalog Number :**	HP2270-1-500
Type:	Source Material	**Expires:**	26-MAR-11	**Lot Number :**	1008325
Employee:	Helen Camello			**Solvent :**	HNO3
Supplier:	Environmental Express				

Description: Trace Calibration Std #1A

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI100329-41 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008323
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI100329-42 **Opened:** 01-APR-10 **Amount :** 200 mL
Name: SILICON **Received:** 29-MAR-10 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 01-APR-11 **Lot Number :** 1004838
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100331-42 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 31-MAR-10 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 08-APR-11 **Lot Number :** 1019414
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100401-48 **Opened:** 02-APR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-APR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 16-APR-10 **Lot Number :** 1019463
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A

Standard Logbook

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100405-40 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100405-41 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100407-49.3 **Opened:** 13-APR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 08-APR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 14-APR-10 **Lot Number :** 1019511
Employee: Louise Smith **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100509-11 **Opened:** 09-MAY-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 09-MAY-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 09-MAY-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100515-60 **Opened:** 15-MAY-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 15-MAY-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 15-MAY-11 **Lot Number :** 1019850
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Zinc	250 mg/L		

Serial ID: UI100515-61 **Opened:** 15-MAY-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 15-MAY-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 15-MAY-11 **Lot Number :** 1019850
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI1268741-01 **Opened:** 11-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1268744-06 **Opened:** 11-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI1286772-01 **Opened:** 16-MAR-10 **Lot Number :** 1019097
Name: METALSPIKE-1 **Received:** 16-MAR-10
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1286774-06 **Opened:** 16-MAR-10 **Lot Number :** 1018913
Name: METALSPIKE-2 **Received:** 16-MAR-10
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100415-03 **Opened:** 15-APR-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Standard Logbook

Serial ID: IHG100323-01 **Opened:** 23-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 23-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 24-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100323-02 **Opened:** 23-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 24-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100323-07 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100323-08 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Standard Logbook

Serial ID: WHG100323-09 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100323-10 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100323-11 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100323-12 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: WHG100323-14 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100331-42 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100331-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100331-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100331-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100331-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100331-43 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100331-44 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1293083
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100331-45 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100331-46 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1293083
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100331-47 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL &1%HNO3-1293083
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100413-42 **Opened:** 13-APR-10 **Balance Id :** 216

Name: TRACE ICP 0.1 PPM STD. **Received:** 29-MAR-10 **Pipet Id :** 3581809

Type: Working **Expires:** 14-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1300128

Employee: Louise Smith

Supplier: GEL

Description: TRACE ICP 0.1 PPM CALIBRATION STD.

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100413-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100413-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100413-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100413-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100413-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100413-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100413-43 **Opened:** 13-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 14-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1300128
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI100329-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI100329-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100331-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L

Standard Logbook

Serial ID: WI100413-44 **Opened:** 13-APR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 14-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1300128
Employee: Louise Smith
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI100329-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100331-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Standard Logbook

Serial ID: WI100413-45 **Opened:** 13-APR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 14-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1300128
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100413-46 **Opened:** 13-APR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 14-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1300128
Employee: Louise Smith
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100329-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI100329-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100413-47 **Opened:** 13-APR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 14-APR-10 **Solvent :** 3%HCL &1%HNO3-1300128
Employee: Louise Smith
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100517-04 **Opened:** 17-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 17-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 18-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1339608
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100517-04A **Opened:** 17-MAY-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 17-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100517-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100517-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100517-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100517-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100517-05 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 17-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100517-06 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 17-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	30 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	200 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100517-07 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 17-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 18-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1339608
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100517-08 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 17-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100517-70 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 17-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100515-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100515-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100515-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100515-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100515-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100515-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100515-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100515-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100515-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100515-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100515-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100515-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100515-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100515-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100515-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100515-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100515-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100515-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-08
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Standard Logbook

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1277235-A **Opened:** 01-MAR-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 01-MAR-11
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1282564 **Opened:** 09-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 09-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID

Comments: None

Serial ID: 1282566 **Opened:** 09-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 09-MAR-10
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1291278 **Opened:** 25-MAR-10 **Lot Number :** J 08035 L
Name: I-HNO3 **Received:** 25-MAR-10
Type: Reagent/Solvent **Expires:** 25-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1293083 **Opened:** 29-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 29-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 04-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1300128 **Opened:** 12-APR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 02-APR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 18-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1302252 **Opened:** 15-APR-10 **Lot Number :** J 10027 L
Name: I-HNO3 **Received:** 15-APR-10
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1338237 **Opened:** 13-MAY-10 **Lot Number :** J11034
Name: I-HCL **Received:** 13-MAY-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 13-MAY-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1339608 **Opened:** 17-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 17-MAY-10
Type: Reagent/Solvent **Expires:** 24-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1338237	I-HCL	36.5-38.0	80 mL	8 l	N/A

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2313-1

Sample Analysis

Sample ID	**Client ID**
248861001	RE46-10-13786
248861002	RE46-10-13785
1202065849	Method Blank (MB) **ICP**
1202065850	Laboratory Control Sample (LCS)
1202065853	248861001(RE46-10-13786L) Serial Dilution (SD)
1202065851	248861001(RE46-10-13786D) Sample Duplicate (DUP)
1202065852	248861001(RE46-10-13786S) Matrix Spike (MS)
1202065854	Method Blank (MB) **ICP-MS**
1202065855	Laboratory Control Sample (LCS)
1202065858	248861001(RE46-10-13786L) Serial Dilution (SD)
1202065856	248861001(RE46-10-13786D) Sample Duplicate (DUP)
1202065857	248861001(RE46-10-13786S) Matrix Spike (MS)
1202069578	Method Blank (MB) **CVAA**
1202069579	Laboratory Control Sample (LCS)
1202069582	248861001(RE46-10-13786L) Serial Dilution (SD)
1202069580	248861001(RE46-10-13786D) Sample Duplicate (DUP)
1202069581	248861001(RE46-10-13786S) Matrix Spike (MS)

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

Method/Analysis Information

Analytical Batch:	962982, 962984 and 964665
Prep Batch :	962981, 962983 and 964663
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
Prep Method :	SW846 3005A and SW846 7470A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standards met the advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 248861001 (RE46-10-13786).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

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

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

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

Review Validation:

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

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

Reviewer: Kristen Parson **Date:** 5/25/10

Sample Data Summary

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248861001 **BASIS:** As Received **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13786 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	RMJ	05/11/10 08:42	100510-2	962984
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	RMJ	05/11/10 08:42	100510-2	962984
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	RMJ	05/11/10 08:42	100510-2	962984
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	03/31/10 19:16	033110B-1	962982
7439-89-6	Iron	47.2	ug/L	J	30	100	100	1	P	HSC	03/31/10 19:16	033110B-1	962982
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	RMJ	05/12/10 03:20	100511-3	962984
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/31/10 19:16	033110B-1	962982
7439-96-5	Manganese	1.6	ug/L	J	1	5	5	1	MS	RMJ	05/12/10 03:20	100511-3	962984
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/13/10 09:18	031310W1-4	964665
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-09-7	Potassium	74.3	ug/L	J	50	150	150	1	P	HSC	03/31/10 19:16	033110B-1	962982
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-23-5	Sodium	166	ug/L	J	100	300	300	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	RMJ	05/11/10 08:42	100510-2	962984
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:16	033110B-1	962982
7440-66-6	Zinc	3.51	ug/L	J	3.3	10	10	1	P	HSC	03/31/10 19:16	033110B-1	962982

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
962982	962981	SW846 3005A	50	mL	50	mL	03/13/10	LYH1
962984	962983	SW846 3005A	50	mL	50	mL	03/13/10	LYH1
964665	964663	SW846 7470A Prep	20	mL	20	mL	03/12/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2313-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248861002 **BASIS:** As Received **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-13785 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	RMJ	05/11/10 09:01	100510-2	962984
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	RMJ	05/11/10 09:01	100510-2	962984
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	RMJ	05/11/10 09:01	100510-2	962984
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	03/31/10 19:44	033110B-1	962982
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	03/31/10 19:44	033110B-1	962982
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	RMJ	05/12/10 03:37	100511-3	962984
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/31/10 19:44	033110B-1	962982
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	RMJ	05/12/10 03:37	100511-3	962984
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/13/10 09:30	031310W1-4	964665
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	03/31/10 19:44	033110B-1	962982
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-28-0	Thallium	0.423	ug/L	J	0.3	1	1	1	MS	RMJ	05/11/10 09:01	100510-2	962984
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:44	033110B-1	962982
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	03/31/10 19:44	033110B-1	962982

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
962982	962981	SW846 3005A	50	mL	50	mL	03/13/10	LYH1
962984	962983	SW846 3005A	50	mL	50	mL	03/13/10	LYH1
964665	964663	SW846 7470A Prep	20	mL	20	mL	03/12/10	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2313–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.1	ug/L	5	ug/L	101.9	90.0 – 110.0	AV	13–MAR–10 07:19	031310W1–4
	Aluminum	5150	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Arsenic	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Barium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Calcium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Chromium	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Cobalt	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Copper	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Magnesium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Nickel	505	ug/L	500	ug/L	101	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Potassium	2520	ug/L	2500	ug/L	100.7	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Selenium	2500	ug/L	2500	ug/L	100	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Silver	258	ug/L	250	ug/L	103.3	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Sodium	2510	ug/L	2500	ug/L	100.5	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Antimony	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	11–MAY–10 07:15	100510–2
	Beryllium	53.8	ug/L	50	ug/L	107.7	90.0 – 110.0	MS	11–MAY–10 07:15	100510–2
	Cadmium	53.5	ug/L	50	ug/L	106.9	90.0 – 110.0	MS	11–MAY–10 07:15	100510–2
	Thallium	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	11–MAY–10 07:15	100510–2
	Lead	51.6	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	12–MAY–10 02:06	100511–3
	Manganese	52.5	ug/L	50	ug/L	105.1	90.0 – 110.0	MS	12–MAY–10 02:06	100511–3
CCV01										
	Mercury	5.04	ug/L	5	ug/L	100.8	80.0 – 120.0	AV	13–MAR–10 07:24	031310W1–4
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Arsenic	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Barium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2313-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	495	ug/L	500	ug/L	99	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Copper	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Magnesium	5130	ug/L	5000	ug/L	102.6	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Nickel	494	ug/L	500	ug/L	98.7	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Potassium	5700	ug/L	5000	ug/L	113.9	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Selenium	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Silver	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Vanadium	496	ug/L	500	ug/L	99.1	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Antimony	53.3	ug/L	50	ug/L	106.5	90.0 - 110.0	MS	11-MAY-10 07:39	100510-2
	Beryllium	51.9	ug/L	50	ug/L	103.8	90.0 - 110.0	MS	11-MAY-10 07:39	100510-2
	Cadmium	54.6	ug/L	50	ug/L	109.1	90.0 - 110.0	MS	11-MAY-10 07:39	100510-2
	Thallium	54.9	ug/L	50	ug/L	109.9	90.0 - 110.0	MS	11-MAY-10 07:39	100510-2
	Lead	52.3	ug/L	50	ug/L	104.6	90.0 - 110.0	MS	12-MAY-10 02:27	100511-3
	Manganese	46.3	ug/L	50	ug/L	92.5	90.0 - 110.0	MS	12-MAY-10 02:27	100511-3
CCV02										
	Mercury	4.97	ug/L	5	ug/L	99.4	80.0 - 120.0	AV	13-MAR-10 07:47	031310W1-4
	Aluminum	5000	ug/L	5000	ug/L	100	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Arsenic	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Barium	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Calcium	4990	ug/L	5000	ug/L	99.9	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Chromium	490	ug/L	500	ug/L	98	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Cobalt	495	ug/L	500	ug/L	99	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Copper	490	ug/L	500	ug/L	98	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Iron	4950	ug/L	5000	ug/L	99.1	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Magnesium	5080	ug/L	5000	ug/L	101.6	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Nickel	493	ug/L	500	ug/L	98.5	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Potassium	5070	ug/L	5000	ug/L	101.5	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2313–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Selenium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Silver	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Zinc	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Antimony	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	11–MAY–10 07:54	100510–2
	Beryllium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	11–MAY–10 07:54	100510–2
	Cadmium	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	11–MAY–10 07:54	100510–2
	Thallium	53.2	ug/L	50	ug/L	106.4	90.0 – 110.0	MS	11–MAY–10 07:54	100510–2
	Lead	52.3	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	12–MAY–10 02:39	100511–3
	Manganese	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	12–MAY–10 02:39	100511–3
CCV03										
	Mercury	5.01	ug/L	5	ug/L	100.2	80.0 – 120.0	AV	13–MAR–10 08:11	031310W1–4
	Aluminum	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Arsenic	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Barium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Chromium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Cobalt	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Iron	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Nickel	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Potassium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Selenium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Vanadium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Zinc	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Antimony	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	11–MAY–10 08:32	100510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2313–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Beryllium	48.1	ug/L	50	ug/L	96.3	90.0 – 110.0	MS	11–MAY–10 08:32	100510–2
	Cadmium	53	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	11–MAY–10 08:32	100510–2
	Thallium	51.6	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	11–MAY–10 08:32	100510–2
	Lead	52.9	ug/L	50	ug/L	105.7	90.0 – 110.0	MS	12–MAY–10 03:12	100511–3
	Manganese	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	12–MAY–10 03:12	100511–3
CCV04										
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 – 120.0	AV	13–MAR–10 08:34	031310W1–4
	Aluminum	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Arsenic	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Barium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Chromium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Copper	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Iron	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Magnesium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Nickel	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Potassium	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Selenium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Silver	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Sodium	9730	ug/L	10000	ug/L	97.3	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Vanadium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Zinc	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Antimony	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	11–MAY–10 09:06	100510–2
	Beryllium	49.3	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	11–MAY–10 09:06	100510–2
	Cadmium	53.7	ug/L	50	ug/L	107.3	90.0 – 110.0	MS	11–MAY–10 09:06	100510–2
	Thallium	51.3	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	11–MAY–10 09:06	100510–2
	Lead	53.5	ug/L	50	ug/L	106.9	90.0 – 110.0	MS	12–MAY–10 03:41	100511–3
	Manganese	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	12–MAY–10 03:41	100511–3

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2313-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV05										
	Mercury	5.25	ug/L	5	ug/L	105.1	80.0 - 120.0	AV	13-MAR-10 08:57	031310W1-4
CCV06										
	Mercury	5.13	ug/L	5	ug/L	102.6	80.0 - 120.0	AV	13-MAR-10 09:20	031310W1-4
CCV07										
	Mercury	5.09	ug/L	5	ug/L	101.7	80.0 - 120.0	AV	13-MAR-10 09:43	031310W1-4

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-2313-1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.199	ug/L	.2	ug/L	99.5	70.0 – 130.0	AV	13-MAR-10 07:23	031310W1-4
	Thallium	1.14	ug/L	1	ug/L	113.9	70.0 – 130.0	MS	11-MAY-10 07:25	100510-2
	Antimony	3.26	ug/L	3	ug/L	108.8	70.0 – 130.0	MS	11-MAY-10 07:25	100510-2
	Beryllium	.572	ug/L	.5	ug/L	114.4	70.0 – 130.0	MS	11-MAY-10 07:25	100510-2
	Cadmium	1.14	ug/L	1	ug/L	114.3	70.0 – 130.0	MS	11-MAY-10 07:25	100510-2
	Lead	2.31	ug/L	2	ug/L	115.3	70.0 – 130.0	MS	12-MAY-10 02:14	100511-3
	Manganese	6	ug/L	5	ug/L	119.9	70.0 – 130.0	MS	12-MAY-10 02:14	100511-3
PQL01										
	Cobalt	5.18	ug/L	5	ug/L	103.6	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Magnesium	311	ug/L	300	ug/L	103.7	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Chromium	4.91	ug/L	5	ug/L	98.3	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Barium	4.99	ug/L	5	ug/L	99.9	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Arsenic	30.2	ug/L	30	ug/L	100.7	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Sodium	280	ug/L	300	ug/L	93.3	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Silver	4.61	ug/L	5	ug/L	92.3	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Potassium	150	ug/L	150	ug/L	99.9	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Nickel	4.99	ug/L	5	ug/L	99.9	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Iron	102	ug/L	100	ug/L	102.4	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Copper	10	ug/L	10	ug/L	100	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Vanadium	4.74	ug/L	5	ug/L	94.8	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Zinc	10.1	ug/L	10	ug/L	101	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Aluminum	204	ug/L	200	ug/L	101.9	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Calcium	212	ug/L	200	ug/L	106.2	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Selenium	31.2	ug/L	30	ug/L	104	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	13–MAR–10 07:21	031310W1–4
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	31–MAR–10 18:48	033110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	31–MAR–10 18:48	033110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	31–MAR–10 18:48	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	31–MAR–10 18:48	033110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	31–MAR–10 18:48	033110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	31–MAR–10 18:48	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	11–MAY–10 07:20	100510–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	11–MAY–10 07:20	100510–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	11–MAY–10 07:20	100510–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	11–MAY–10 07:20	100510–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	12–MAY–10 02:10	100511–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	12–MAY–10 02:10	100511–3
CCB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	13–MAR–10 07:26	031310W1–4
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	31–MAR–10 19:01	033110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	31–MAR–10 19:01	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:01	033110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	31–MAR–10 19:01	033110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:01	033110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:01	033110B–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2313-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	31-MAR-10 19:01	033110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	31-MAR-10 19:01	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	31-MAR-10 19:01	033110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	31-MAR-10 19:01	033110B-1
	Potassium	298.29	+/-150		50.0	150	LIQ	P	31-MAR-10 19:01	033110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	31-MAR-10 19:01	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 19:01	033110B-1
	Sodium	140.13	+/-300	J	100	300	LIQ	P	31-MAR-10 19:01	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 19:01	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	31-MAR-10 19:01	033110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	11-MAY-10 07:44	100510-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	11-MAY-10 07:44	100510-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	11-MAY-10 07:44	100510-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	11-MAY-10 07:44	100510-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	12-MAY-10 02:31	100511-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	12-MAY-10 02:31	100511-3
CCB02										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	13-MAR-10 07:49	031310W1-4
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	31-MAR-10 19:08	033110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	31-MAR-10 19:08	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 19:08	033110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	31-MAR-10 19:08	033110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 19:08	033110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 19:08	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	31-MAR-10 19:08	033110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	31-MAR-10 19:08	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	31-MAR-10 19:08	033110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	31-MAR-10 19:08	033110B-1
	Potassium	98.66	+/-150	J	50.0	150	LIQ	P	31-MAR-10 19:08	033110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	31-MAR-10 19:08	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 19:08	033110B-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	100	+/–300	U	100	300	LIQ	P	31–MAR–10 19:08	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:08	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	31–MAR–10 19:08	033110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	11–MAY–10 07:58	100510–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	11–MAY–10 07:58	100510–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	11–MAY–10 07:58	100510–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	11–MAY–10 07:58	100510–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	12–MAY–10 02:43	100511–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	12–MAY–10 02:43	100511–3
CCB03										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	13–MAR–10 08:12	031310W1–4
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	31–MAR–10 19:29	033110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	31–MAR–10 19:29	033110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	31–MAR–10 19:29	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	31–MAR–10 19:29	033110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	31–MAR–10 19:29	033110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	31–MAR–10 19:29	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	11–MAY–10 08:37	100510–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	11–MAY–10 08:37	100510–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	11–MAY–10 08:37	100510–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	11–MAY–10 08:37	100510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	12–MAY–10 03:16	100511–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	12–MAY–10 03:16	100511–3
CCB04										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	13–MAR–10 08:36	031310W1–4
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	31–MAR–10 19:50	033110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	31–MAR–10 19:50	033110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	31–MAR–10 19:50	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	31–MAR–10 19:50	033110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	31–MAR–10 19:50	033110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	31–MAR–10 19:50	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	11–MAY–10 09:10	100510–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	11–MAY–10 09:10	100510–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	11–MAY–10 09:10	100510–2
	Thallium	0.489	+/–1	J	0.3	1.0	LIQ	MS	11–MAY–10 09:10	100510–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	12–MAY–10 03:45	100511–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	12–MAY–10 03:45	100511–3
CCB05										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	13–MAR–10 08:59	031310W1–4
CCB06										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	13–MAR–10 09:22	031310W1–4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2313–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB07										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	13–MAR–10 09:45	031310W1–4

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-2313-1

Contract: LANL01004

Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202065849								
	Barium	1	ug/L	+/-5	U	P	1	5
	Calcium	50	ug/L	+/-200	U	P	50	200
	Chromium	1	ug/L	+/-5	U	P	1	5
	Cobalt	1	ug/L	+/-5	U	P	1	5
	Copper	3	ug/L	+/-10	U	P	3	10
	Iron	30	ug/L	+/-100	U	P	30	100
	Magnesium	85	ug/L	+/-300	U	P	85	300
	Nickel	1.5	ug/L	+/-5	U	P	1.5	5
	Potassium	79.5	ug/L	+/-150	J	P	50	150
	Arsenic	5	ug/L	+/-30	U	P	5	30
	Aluminum	68	ug/L	+/-200	U	P	68	200
	Selenium	5	ug/L	+/-30	U	P	5	30
	Silver	1	ug/L	+/-5	U	P	1	5
	Sodium	100	ug/L	+/-300	U	P	100	300
	Vanadium	1	ug/L	+/-5	U	P	1	5
	Zinc	3.3	ug/L	+/-10	U	P	3.3	10
1202065854								
	Antimony	1	ug/L	+/-3	U	MS	1	3
	Beryllium	0.1	ug/L	+/-0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/-1	U	MS	0.11	1
	Lead	0.5	ug/L	+/-2	U	MS	0.5	2
	Manganese	1	ug/L	+/-5	U	MS	1	5
	Thallium	0.3	ug/L	+/-1	U	MS	0.3	1
1202069578								
	Mercury	0.066	ug/L	+/-0.2	U	AV	0.066	0.2

METALS
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Interference Check Sample

SDG No: 10-2313-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	502000	ug/L	500000	ug/L	100	80.0 - 120.0	31-MAR-10 18:53	033110B-1
	Arsenic	11.1	ug/L					31-MAR-10 18:53	033110B-1
	Barium	0.205	ug/L					31-MAR-10 18:53	033110B-1
	Calcium	480000	ug/L	500000	ug/L	96	80.0 - 120.0	31-MAR-10 18:53	033110B-1
	Chromium	1.07	ug/L					31-MAR-10 18:53	033110B-1
	Cobalt	-6.06	ug/L					31-MAR-10 18:53	033110B-1
	Copper	4.63	ug/L					31-MAR-10 18:53	033110B-1
	Iron	190000	ug/L	200000	ug/L	95	80.0 - 120.0	31-MAR-10 18:53	033110B-1
	Magnesium	484000	ug/L	500000	ug/L	96.8	80.0 - 120.0	31-MAR-10 18:53	033110B-1
	Nickel	2.82	ug/L					31-MAR-10 18:53	033110B-1
	Potassium	-119.0	ug/L					31-MAR-10 18:53	033110B-1
	Selenium	-4.44	ug/L					31-MAR-10 18:53	033110B-1
	Silver	-2.44	ug/L					31-MAR-10 18:53	033110B-1
	Sodium	38.8	ug/L					31-MAR-10 18:53	033110B-1
	Vanadium	-0.082	ug/L					31-MAR-10 18:53	033110B-1
	Zinc	8.58	ug/L					31-MAR-10 18:53	033110B-1
ICSAB01									
	Aluminum	507000	ug/L	500000	ug/L	101	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Arsenic	523	ug/L	500	ug/L	105	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Barium	499	ug/L	500	ug/L	99.8	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Calcium	484000	ug/L	500000	ug/L	96.8	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Chromium	484	ug/L	500	ug/L	96.7	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Cobalt	442	ug/L	500	ug/L	88.5	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Copper	542	ug/L	500	ug/L	108	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Iron	192000	ug/L	200000	ug/L	96	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Magnesium	485000	ug/L	500000	ug/L	97	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Nickel	455	ug/L	500	ug/L	90.9	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Potassium	5550	ug/L	5000	ug/L	111	80.0 - 120.0	31-MAR-10 18:55	033110B-1
	Selenium	2420	ug/L	2500	ug/L	96.8	80.0 - 120.0	31-MAR-10 18:55	033110B-1

METALS
-4-
Interference Check Sample

SDG No: 10-2313-1

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silver	267	ug/L	250	ug/L	107	80.0 – 120.0	31-MAR-10 18:55	033110B-1
	Sodium	5330	ug/L	5000	ug/L	107	80.0 – 120.0	31-MAR-10 18:55	033110B-1
	Vanadium	513	ug/L	500	ug/L	103	80.0 – 120.0	31-MAR-10 18:55	033110B-1
	Zinc	494	ug/L	500	ug/L	98.8	80.0 – 120.0	31-MAR-10 18:55	033110B-1

METALS
–4–
Interference Check Sample

SDG No: 10–2313–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.02	ug/L					11–MAY–10 07:30	100510–2
	Beryllium	0.074	ug/L					11–MAY–10 07:30	100510–2
	Cadmium	0.312	ug/L					11–MAY–10 07:30	100510–2
	Thallium	–0.002	ug/L					11–MAY–10 07:30	100510–2
ICSAB01									
	Antimony	19.2	ug/L	20	ug/L	96.2	80.0 – 120.0	11–MAY–10 07:34	100510–2
	Beryllium	18.6	ug/L	20	ug/L	93	80.0 – 120.0	11–MAY–10 07:34	100510–2
	Cadmium	20.2	ug/L	20.44	ug/L	98.7	80.0 – 120.0	11–MAY–10 07:34	100510–2
	Thallium	18.2	ug/L	20	ug/L	90.8	80.0 – 120.0	11–MAY–10 07:34	100510–2

METALS
-4-
Interference Check Sample

SDG No: 10-2313-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lead	0.22	ug/L					12-MAY-10 02:18	100511-3
	Manganese	5.53	ug/L					12-MAY-10 02:18	100511-3
ICSAB01									
	Lead	19.8	ug/L	20.19	ug/L	97.9	80.0 - 120.0	12-MAY-10 02:22	100511-3
	Manganese	25.0	ug/L	25.8	ug/L	96.7	80.0 - 120.0	12-MAY-10 02:22	100511-3

METALS
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Matrix Spike Summary

SDG NO. 10-2313-1 **Client ID** RE46-10-13786S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 248861001 **Spike ID:** 1202065852

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75-125	5140		68	U	5000	102		P
Arsenic	ug/L	75-125	510		5	U	500	102		P
Barium	ug/L	75-125	508		1	U	500	101		P
Calcium	ug/L	75-125	5120		50	U	5000	102		P
Chromium	ug/L	75-125	500		1	U	500	99.9		P
Cobalt	ug/L	75-125	495		1	U	500	99		P
Copper	ug/L	75-125	506		3	U	500	101		P
Iron	ug/L	75-125	5080		47.2	J	5000	101		P
Magnesium	ug/L	75-125	5210		85	U	5000	104		P
Nickel	ug/L	75-125	506		1.5	U	500	101		P
Potassium	ug/L	75-125	5060		74.3	J	5000	99.7		P
Selenium	ug/L	75-125	491		5	U	500	98.1		P
Silver	ug/L	75-125	485		1	U	500	97		P
Sodium	ug/L	75-125	5170		166	J	5000	100		P
Vanadium	ug/L	75-125	507		1	U	500	101		P
Zinc	ug/L	75-125	489		3.51	J	500	97.2		P

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-2313-1 **Client ID** RE46-10-13786S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 248861001 **Spike ID:** 1202065857

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75-125	203		1	U	200	101		MS
Beryllium	ug/L	75-125	54.5		0.1	U	50	109		MS
Cadmium	ug/L	75-125	10.7		0.11	U	10	107		MS
Lead	ug/L	75-125	46		0.5	U	40	115		MS
Manganese	ug/L	75-125	53.1		1.6	J	50	103		MS
Thallium	ug/L	75-125	91.4		0.3	U	100	91.4		MS

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–2313–1 **Client ID** RE46–10–13786S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 248861001 **Spike ID:** 1202069581

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	2.1		0.066	U	2	105		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2313–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE46–10–13786D

Sample ID: 248861001 **Duplicate ID:** 1202065851 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Arsenic	ug/L		5	U	5	U			P
Barium	ug/L		1	U	1	U			P
Calcium	ug/L		50	U	50	U			P
Chromium	ug/L		1	U	1	U			P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L	+/–100	47.2	J	46.1	J	2.48		P
Magnesium	ug/L		85	U	85	U			P
Nickel	ug/L		1.5	U	1.5	U			P
Potassium	ug/L		74.3	J	50	U	200		P
Selenium	ug/L		5	U	5	U			P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L	+/–300	166	J	152	J	9.12		P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L		3.51	J	3.3	U	200		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2313–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE46–10–13786D

Sample ID: 248861001 **Duplicate ID:** 1202065856 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		1	U	1	U			MS
Beryllium	ug/L		0.1	U	0.1	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Manganese	ug/L	+/–5	1.6	J	1.76	J	9.23		MS
Thallium	ug/L		0.3	U	0.3	U			MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2313–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE46–10–13786D

Sample ID: 248861001 **Duplicate ID:** 1202069580 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2313-1

Contract: LANL01004

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202065850								
	Selenium	ug/L	500	485		97	80-120	P
	Silver	ug/L	500	478		95.6	80-120	P
	Sodium	ug/L	5000	4960		99.2	80-120	P
	Aluminum	ug/L	5000	5000		100	80-120	P
	Arsenic	ug/L	500	505		101	80-120	P
	Barium	ug/L	500	499		99.8	80-120	P
	Calcium	ug/L	5000	5000		100	80-120	P
	Chromium	ug/L	500	491		98.2	80-120	P
	Cobalt	ug/L	500	487		97.3	80-120	P
	Copper	ug/L	500	495		99.1	80-120	P
	Iron	ug/L	5000	4920		98.4	80-120	P
	Magnesium	ug/L	5000	5080		102	80-120	P
	Nickel	ug/L	500	496		99.3	80-120	P
	Potassium	ug/L	5000	4950		98.9	80-120	P
	Vanadium	ug/L	500	496		99.1	80-120	P
	Zinc	ug/L	500	483		96.5	80-120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2313-1

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202065855								
	Antimony	ug/L	50	52.6		105	80-120	MS
	Beryllium	ug/L	50	54.7		109	80-120	MS
	Cadmium	ug/L	50	54		108	80-120	MS
	Lead	ug/L	50	55.3		111	80-120	MS
	Manganese	ug/L	50	54.9		110	80-120	MS
	Thallium	ug/L	50	49		98.1	80-120	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2313–1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202069579								
	Mercury	ug/L	2	2.12		106	80–120	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2313-1 **Client ID** RE46-10-13786L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 248861001 **Serial Dilution ID:** 1202065853

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	5	U	25	U				P
Barium	1	U	5	U				P
Calcium	50	U	250	U				P
Chromium	1	U	5	U				P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	47.2	J	150	U	100			P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	74.3	J	250	U	100			P
Selenium	5	U	25	U				P
Silver	1	U	5	U				P
Sodium	166	J	500	U	100			P
Vanadium	1	U	5	U				P
Zinc	3.51	J	16.5	U	100			P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2313-1 **Client ID** RE46-10-13786L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 248861001 **Serial Dilution ID:** 1202065858

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1	U	5	U				MS
Beryllium	.1	U	.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Manganese	1.6	J	5	U	100			MS
Thallium	.3	U	6.7					MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2313-1 **Client ID** RE46-10-13786L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 248861001 **Serial Dilution ID:** 1202069582

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2313-1 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	962981						
1202065849	MB for batch 962981	MB	W	13-MAR-10	50mL	50mL	
1202065850	LCS for batch 962981	LCS	W	13-MAR-10	50mL	50mL	
1202065852	RE46-10-13786S	MS	W	13-MAR-10	50mL	50mL	
1202065851	RE46-10-13786D	DUP	W	13-MAR-10	50mL	50mL	
248861001	RE46-10-13786	SAMPLE	W	13-MAR-10	50mL	50mL	
248861002	RE46-10-13785	SAMPLE	W	13-MAR-10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2313-1 **Method Type**: MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	962983						
1202065854	MB for batch 962983	MB	W	13-MAR-10	50mL	50mL	
1202065855	LCS for batch 962983	LCS	W	13-MAR-10	50mL	50mL	
1202065857	RE46-10-13786S	MS	W	13-MAR-10	50mL	50mL	
1202065856	RE46-10-13786D	DUP	W	13-MAR-10	50mL	50mL	
248861001	RE46-10-13786	SAMPLE	W	13-MAR-10	50mL	50mL	
248861002	RE46-10-13785	SAMPLE	W	13-MAR-10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2313-1 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	964663						
1202069578	MB for batch 964663	MB	W	12-MAR-10	20mL	20mL	
1202069579	LCS for batch 964663	LCS	W	12-MAR-10	20mL	20mL	
1202069581	RE46-10-13786S	MS	W	12-MAR-10	20mL	20mL	
1202069580	RE46-10-13786D	DUP	W	12-MAR-10	20mL	20mL	
248861001	RE46-10-13786	SAMPLE	W	12-MAR-10	20mL	20mL	
248861002	RE46-10-13785	SAMPLE	W	12-MAR-10	20mL	20mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 11–MAY–10 **End Date:** 11–MAY–10

Client Sdg: 10–2313–1
Method MS
Data File: 100510–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	07:01:00		X			X	X															X		
S10	1	07:06:00		X			X	X															X		
S100	1	07:11:00		X			X	X															X		
ICV01	1	07:15:00		X			X	X															X		
ICB01	1	07:20:00		X			X	X															X		
CRDL01	1	07:25:00		X			X	X															X		
ICSA01	1	07:30:00		X			X	X															X		
ICSAB01	1	07:34:00		X			X	X															X		
CCV01	1	07:39:00		X			X	X															X		
CCB01	1	07:44:00		X			X	X															X		
LR01	1	07:49:00		X			X	X															X		
CCV02	1	07:54:00		X			X	X															X		
CCB02	1	07:58:00		X			X	X															X		
1202065854	1	08:03:00		X			X	X															X		
1202065855	1	08:08:00		X			X	X															X		
ZZZZZZ	1	08:13:00																							
ZZZZZZ	1	08:18:00																							
ZZZZZZ	1	08:22:00																							
ZZZZZZ	1	08:27:00																							
CCV03	1	08:32:00		X			X	X															X		
CCB03	1	08:37:00		X			X	X															X		
248861001	1	08:42:00		X			X	X															X		
1202065856	1	08:46:00		X			X	X															X		
1202065857	1	08:51:00		X			X	X															X		
1202065858	5	08:56:00		X			X	X															X		
248861002	1	09:01:00		X			X	X															X		
CCV04	1	09:06:00		X			X	X															X		
CCB04	1	09:10:00		X			X	X															X		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 12-MAY-10 **End Date:** 12-MAY-10

Client Sdg: 10-2313-1
Method MS
Data File: 100511-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	01:54:00												X		X									
S10	1	01:58:00												X		X									
S100	1	02:02:00												X		X									
ICV01	1	02:06:00												X		X									
ICB01	1	02:10:00												X		X									
CRDL01	1	02:14:00												X		X									
ICSA01	1	02:18:00												X		X									
ICSAB01	1	02:22:00												X		X									
CCV01	1	02:27:00												X		X									
CCB01	1	02:31:00												X		X									
LR01	1	02:35:00												X		X									
CCV02	1	02:39:00												X		X									
CCB02	1	02:43:00												X		X									
1202065854	1	02:47:00												X		X									
1202065855	1	02:51:00												X		X									
ZZZZZZ	1	02:55:00																							
ZZZZZZ	1	03:00:00																							
ZZZZZZ	1	03:04:00																							
ZZZZZZ	1	03:08:00																							
CCV03	1	03:12:00												X		X									
CCB03	1	03:16:00												X		X									
248861001	1	03:20:00												X		X									
1202065856	1	03:24:00												X		X									
1202065857	1	03:28:00												X		X									
1202065858	5	03:33:00												X		X									
248861002	1	03:37:00												X		X									
CCV04	1	03:41:00												X		X									
CCB04	1	03:45:00												X		X									

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 13–MAR–10 **End Date:** 13–MAR–10

Client Sdg: 10–2313–1
Method AV
Data File: 031310W1–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	07:07:00															X								
S0.2	1	07:09:00															X								
S0.5	1	07:11:00															X								
S2.0	1	07:13:00															X								
S5.0	1	07:15:00															X								
S10.0	1	07:17:00															X								
ICV01	1	07:19:00															X								
ICB01	1	07:21:00															X								
CRDL01	1	07:23:00															X								
CCV01	1	07:24:00															X								
CCB01	1	07:26:00															X								
ZZZZZZ	1	07:28:00																							
ZZZZZZ	1	07:30:00																							
ZZZZZZ	1	07:32:00																							
ZZZZZZ	1	07:34:00																							
ZZZZZZ	1	07:36:00																							
ZZZZZZ	100	07:38:00																							
ZZZZZZ	100	07:40:00																							
ZZZZZZ	100	07:42:00																							
ZZZZZZ	500	07:44:00																							
ZZZZZZ	100	07:46:00																							
CCV02	1	07:47:00															X								
CCB02	1	07:49:00															X								
ZZZZZZ	1	07:51:00																							
ZZZZZZ	1	07:53:00																							
ZZZZZZ	1	07:55:00																							
ZZZZZZ	1	07:57:00																							
ZZZZZZ	1	07:59:00																							
ZZZZZZ	1	08:01:00																							
ZZZZZZ	1	08:03:00																							
ZZZZZZ	1	08:05:00																							
ZZZZZZ	1	08:07:00																							
ZZZZZZ	1	08:09:00																							
CCV03	1	08:11:00															X								
CCB03	1	08:12:00															X								
ZZZZZZ	1	08:14:00																							
ZZZZZZ	1	08:16:00																							
ZZZZZZ	1	08:18:00																							
ZZZZZZ	1	08:20:00																							
ZZZZZZ	1	08:22:00																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	08:24:00																						
ZZZZZZ	1	08:26:00																						
ZZZZZZ	1	08:28:00																						
ZZZZZZ	5	08:30:00																						
ZZZZZZ	1	08:32:00																						
CCV04	1	08:34:00													X									
CCB04	1	08:36:00													X									
1202069578	1	08:38:00													X									
1202069579	1	08:39:00													X									
ZZZZZZ	1	08:41:00																						
ZZZZZZ	1	08:43:00																						
ZZZZZZ	1	08:45:00																						
ZZZZZZ	1	08:47:00																						
ZZZZZZ	1	08:49:00																						
ZZZZZZ	1	08:51:00																						
ZZZZZZ	1	08:53:00																						
ZZZZZZ	1	08:55:00																						
CCV05	1	08:57:00													X									
CCB05	1	08:59:00													X									
ZZZZZZ	1	09:01:00																						
ZZZZZZ	1	09:03:00																						
ZZZZZZ	1	09:05:00																						
ZZZZZZ	1	09:06:00																						
ZZZZZZ	1	09:08:00																						
ZZZZZZ	1	09:10:00																						
ZZZZZZ	1	09:12:00																						
ZZZZZZ	1	09:14:00																						
ZZZZZZ	1	09:16:00																						
248861001	1	09:18:00													X									
CCV06	1	09:20:00													X									
CCB06	1	09:22:00													X									
1202069580	1	09:24:00													X									
1202069581	1	09:26:00													X									
1202069582	5	09:28:00													X									
248861002	1	09:30:00													X									
ZZZZZZ	1	09:32:00																						
ZZZZZZ	1	09:34:00																						
ZZZZZZ	1	09:35:00																						
ZZZZZZ	1	09:37:00																						
ZZZZZZ	1	09:39:00																						

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	09:41:00																							
CCV07	1	09:43:00															X								
CCB07	1	09:45:00															X								

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 31–MAR–10 **End Date:** 31–MAR–10

Client Sdg: 10–2313–1
Method P
Data File: 033110B–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	18:36:30	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
S0.1	1	18:39:45			X	X				X	X	X						X	X	X	X			X	X
S0.5	1	18:41:56	X		X	X			X	X	X	X			X			X	X	X	X			X	X
SCAL	1	18:43:55	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
S10	1	18:45:59	X						X				X		X							X			
ICV01	1	18:47:03	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ICB01	1	18:48:09	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
PQL01	1	18:51:18	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ICSA01	1	18:53:20	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ICSAB01	1	18:55:20	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
LR01	1	18:56:26	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
LR02	1	18:57:44	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCV01	1	18:59:11	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB01	1	19:01:26	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCV02	1	19:06:03	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB02	1	19:08:04	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202065849	1	19:11:15	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202065850	1	19:14:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
248861001	1	19:16:26	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202065851	1	19:19:36	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202065852	1	19:22:32	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202065853	5	19:24:31	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCV03	1	19:27:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB03	1	19:29:42	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	19:32:54																							
ZZZZZZ	1	19:35:52																							
ZZZZZZ	1	19:38:50																							
ZZZZZZ	1	19:41:46																							
248861002	1	19:44:56	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCV04	1	19:48:07	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB04	1	19:50:08	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2313-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2313–1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Mercury		0.066	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2313-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2313-1
Contract: LANL01004
Instrument: OPTIMA4
Effective Dates: 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2313-1
Effective Dates: 22-MAR-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2313-1
Effective Dates: 22-MAR-10

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2313-1
Effective Dates: 22-MAR-10

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2313-1
Effective Dates: 22-MAR-10

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2313-1
Effective Dates: 22-MAR-10

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-2313-1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10

METALS
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Linear Ranges

SDG NO. 10–2313–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 052510

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

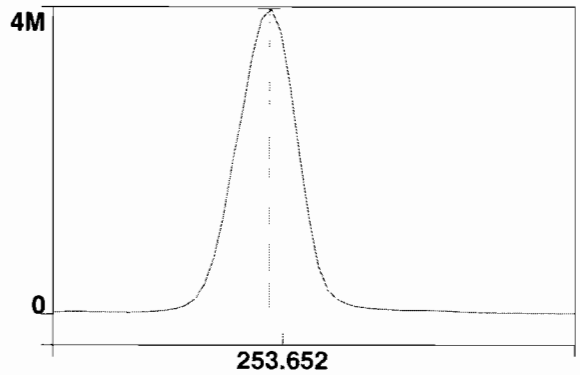

Intensity: 4075711.9 cps
Conc:

1

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Analysis Begun

Start Time: 3/31/2010 18:36:27 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/31/2010 18:36:30**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	146983.1	146983.1	101	%	18:37:03
1	Al 396.153Radial†	-46.6	-46.3	[0.00]	µg/L	18:37:23
1	Ca 317.933Radial†	562.9	558.9	[0.00]	µg/L	18:37:23
1	Fe 238.204 Radial†	148.8	147.8	[0.00]	µg/L	18:37:23
1	K 766.490 Radial†	1565.6	1554.3	[0.00]	µg/L	18:37:03
1	Mg 279.077 IEC†	207.4	205.9	[0.00]	µg/L	18:37:23
1	Na 589.592 Radial†	1216.0	1207.3	[0.00]	µg/L	18:37:03
1	Sr 421.552†	-110.9	-110.1	[0.00]	µg/L	18:37:03
1	Sc 361.383	1704607.6	1704607.6	99.208	%	18:38:25
1	Y 371.029	1018376.3	1018376.3	99.190	%	18:38:25
1	Ag 328.068†	3963.8	3995.4	[0.00]	µg/L	18:38:27
1	As 188.979†	-17.7	-17.9	[0.00]	µg/L	18:38:48
1	B 249.677†	3489.7	3517.5	[0.00]	µg/L	18:38:27
1	Ba 233.527†	-145.9	-147.0	[0.00]	µg/L	18:38:48
1	Be 313.107†	-965.4	-973.1	[0.00]	µg/L	18:38:27
1	Cd 226.502†	-106.0	-106.8	[0.00]	µg/L	18:38:48
1	Co 228.616†	-174.9	-176.3	[0.00]	µg/L	18:38:48
1	Cr 267.716†	129.8	130.8	[0.00]	µg/L	18:38:48
1	Cu 324.752†	2846.5	2869.3	[0.00]	µg/L	18:38:27
1	Mn 257.610†	253.9	255.9	[0.00]	µg/L	18:38:48
1	Mo 202.031†	-24.9	-25.1	[0.00]	µg/L	18:38:48
1	Ni 231.604†	-72.6	-73.1	[0.00]	µg/L	18:38:48
1	P 214.914†	-29.6	-29.8	[0.00]	µg/L	18:38:48
1	Pb 220.353†	106.5	107.4	[0.00]	µg/L	18:38:48
1	S 181.975 Axial†	102.6	103.4	[0.00]	µg/L	18:38:48
1	Sb 206.836†	81.9	82.6	[0.00]	µg/L	18:38:48
1	Se 196.026†	14.5	14.6	[0.00]	µg/L	18:38:48
1	SiO2†	1812.7	1827.1	[0.00]	µg/L	18:38:27
1	Si 251.611†	747.0	752.9	[0.00]	µg/L	18:38:27
1	Sn 189.927†	-6.9	-6.9	[0.00]	µg/L	18:38:48
1	Ti 334.940†	920.6	928.0	[0.00]	µg/L	18:38:27
1	Tl 190.801†	-108.2	-109.0	[0.00]	µg/L	18:38:48
1	U 409.014†	-161.2	-162.4	[0.00]	µg/L	18:38:27
1	V 292.402†	343.5	346.2	[0.00]	µg/L	18:38:27
1	Zn 213.857†	560.7	565.2	[0.00]	µg/L	18:38:48
2	Sc RADIAL	145077.9	145077.9	99.4	%	18:37:25
2	Al 396.153Radial†	-80.7	-81.2	[0.00]	µg/L	18:37:45
2	Ca 317.933Radial†	555.7	559.0	[0.00]	µg/L	18:37:45
2	Fe 238.204 Radial†	152.0	152.9	[0.00]	µg/L	18:37:45
2	K 766.490 Radial†	1581.8	1591.1	[0.00]	µg/L	18:37:25
2	Mg 279.077 IEC†	207.4	208.6	[0.00]	µg/L	18:37:45
2	Na 589.592 Radial†	1309.5	1317.2	[0.00]	µg/L	18:37:25
2	Sr 421.552†	-50.0	-50.3	[0.00]	µg/L	18:37:25
2	Sc 361.383	1730517.4	1730517.4	100.72	%	18:38:50
2	Y 371.029	1034150.1	1034150.1	100.73	%	18:38:50
2	Ag 328.068†	4314.8	4284.1	[0.00]	µg/L	18:38:52
2	As 188.979†	-23.3	-23.2	[0.00]	µg/L	18:39:12

2	B 249.677†	3487.4	3462.6	[0.00]	µg/L	18:38:52
2	Ba 233.527†	-138.3	-137.3	[0.00]	µg/L	18:39:12
2	Be 313.107†	-1181.9	-1173.5	[0.00]	µg/L	18:38:52
2	Cd 226.502†	-128.3	-127.3	[0.00]	µg/L	18:39:12
2	Co 228.616†	-207.1	-205.6	[0.00]	µg/L	18:39:12
2	Cr 267.716†	187.0	185.7	[0.00]	µg/L	18:39:12
2	Cu 324.752†	3037.7	3016.1	[0.00]	µg/L	18:38:52
2	Mn 257.610†	235.4	233.7	[0.00]	µg/L	18:39:12
2	Mo 202.031†	-14.8	-14.7	[0.00]	µg/L	18:39:12
2	Ni 231.604†	-77.5	-77.0	[0.00]	µg/L	18:39:12
2	P 214.914†	-7.1	-7.0	[0.00]	µg/L	18:39:12
2	Pb 220.353†	82.7	82.1	[0.00]	µg/L	18:39:12
2	S 181.975 Axial†	101.1	100.4	[0.00]	µg/L	18:39:12
2	Sb 206.836†	84.6	84.0	[0.00]	µg/L	18:39:12
2	Se 196.026†	9.6	9.5	[0.00]	µg/L	18:39:12
2	SiO2†	1764.6	1752.0	[0.00]	µg/L	18:38:52
2	Si 251.611†	909.0	902.5	[0.00]	µg/L	18:38:52
2	Sn 189.927†	4.1	4.0	[0.00]	µg/L	18:39:12
2	Ti 334.940†	1042.4	1035.0	[0.00]	µg/L	18:38:52
2	Tl 190.801†	-124.1	-123.3	[0.00]	µg/L	18:39:12
2	U 409.014†	-390.5	-387.7	[0.00]	µg/L	18:38:52
2	V 292.402†	355.1	352.6	[0.00]	µg/L	18:38:52
2	Zn 213.857†	564.8	560.8	[0.00]	µg/L	18:39:12
3	Sc RADIAL	145728.3	145728.3	99.9	%	18:37:47
3	Al 396.153Radial†	-62.0	-62.1	[0.00]	µg/L	18:38:07
3	Ca 317.933Radial†	563.1	563.9	[0.00]	µg/L	18:38:07
3	Fe 238.204 Radial†	143.5	143.7	[0.00]	µg/L	18:38:07
3	K 766.490 Radial†	1486.8	1488.8	[0.00]	µg/L	18:37:47
3	Mg 279.077 IEC†	157.4	157.6	[0.00]	µg/L	18:38:07
3	Na 589.592 Radial†	1346.0	1347.9	[0.00]	µg/L	18:37:47
3	Sr 421.552†	-245.1	-245.5	[0.00]	µg/L	18:37:47
3	Sc 361.383	1719527.8	1719527.8	100.08	%	18:39:14
3	Y 371.029	1027539.8	1027539.8	100.08	%	18:39:14
3	Ag 328.068†	3997.7	3994.6	[0.00]	µg/L	18:39:16
3	As 188.979†	-20.0	-20.0	[0.00]	µg/L	18:39:36
3	B 249.677†	3540.3	3537.6	[0.00]	µg/L	18:39:16
3	Ba 233.527†	-123.3	-123.2	[0.00]	µg/L	18:39:36
3	Be 313.107†	-1048.2	-1047.4	[0.00]	µg/L	18:39:16
3	Cd 226.502†	-120.5	-120.4	[0.00]	µg/L	18:39:36
3	Co 228.616†	-189.2	-189.0	[0.00]	µg/L	18:39:36
3	Cr 267.716†	219.3	219.2	[0.00]	µg/L	18:39:36
3	Cu 324.752†	3033.6	3031.3	[0.00]	µg/L	18:39:16
3	Mn 257.610†	222.3	222.2	[0.00]	µg/L	18:39:36
3	Mo 202.031†	-20.4	-20.4	[0.00]	µg/L	18:39:36
3	Ni 231.604†	-79.5	-79.4	[0.00]	µg/L	18:39:36
3	P 214.914†	-17.1	-17.1	[0.00]	µg/L	18:39:36
3	Pb 220.353†	69.7	69.7	[0.00]	µg/L	18:39:36
3	S 181.975 Axial†	111.4	111.3	[0.00]	µg/L	18:39:36
3	Sb 206.836†	76.0	76.0	[0.00]	µg/L	18:39:36
3	Se 196.026†	21.7	21.7	[0.00]	µg/L	18:39:36
3	SiO2†	1748.3	1747.0	[0.00]	µg/L	18:39:16
3	Si 251.611†	854.9	854.3	[0.00]	µg/L	18:39:16
3	Sn 189.927†	-0.5	-0.5	[0.00]	µg/L	18:39:36
3	Ti 334.940†	895.3	894.7	[0.00]	µg/L	18:39:16
3	Tl 190.801†	-117.8	-117.8	[0.00]	µg/L	18:39:36
3	U 409.014†	-259.7	-259.5	[0.00]	µg/L	18:39:16
3	V 292.402†	512.9	512.6	[0.00]	µg/L	18:39:16
3	Zn 213.857†	567.7	567.3	[0.00]	µg/L	18:39:36

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1718217.6	13004.50	0.76%	100.00	%
Sc RADIAL	145929.8	968.46	0.66%	100	%
Y 371.029	1026688.7	7921.26	0.77%	100.000	%
Ag 328.068†	4091.4	166.92	4.08%	[0.00]	µg/L
Al 396.153Radial†	-63.2	17.46	27.63%	[0.00]	µg/L
As 188.979†	-20.4	2.68	13.16%	[0.00]	µg/L
B 249.677†	3505.9	38.80	1.11%	[0.00]	µg/L
Ba 233.527†	-135.9	11.99	8.83%	[0.00]	µg/L

Be 313.107†	-1064.7	101.30	9.51%	[0.00] µg/L
Ca 317.933Radial†	560.6	2.89	0.52%	[0.00] µg/L
Cd 226.502†	-118.2	10.43	8.83%	[0.00] µg/L
Co 228.616†	-190.3	14.72	7.73%	[0.00] µg/L
Cr 267.716†	178.6	44.62	24.99%	[0.00] µg/L
Cu 324.752†	2972.2	89.48	3.01%	[0.00] µg/L
Fe 238.204 Radial†	148.1	4.61	3.11%	[0.00] µg/L
K 766.490 Radial†	1544.8	51.81	3.35%	[0.00] µg/L
Mg 279.077 IEC†	190.7	28.69	15.04%	[0.00] µg/L
Mn 257.610†	237.3	17.14	7.23%	[0.00] µg/L
Mo 202.031†	-20.1	5.18	25.80%	[0.00] µg/L
Na 589.592 Radial†	1290.8	73.89	5.72%	[0.00] µg/L
Ni 231.604†	-76.5	3.18	4.16%	[0.00] µg/L
P 214.914†	-18.0	11.42	63.61%	[0.00] µg/L
Pb 220.353†	86.4	19.23	22.27%	[0.00] µg/L
S 181.975 Axial†	105.1	5.63	5.36%	[0.00] µg/L
Sb 206.836†	80.8	4.27	5.29%	[0.00] µg/L
Se 196.026†	15.3	6.14	40.18%	[0.00] µg/L
SiO2†	1775.4	44.90	2.53%	[0.00] µg/L
Si 251.611†	836.6	76.33	9.12%	[0.00] µg/L
Sn 189.927†	-1.1	5.51	492.60%	[0.00] µg/L
Sr 421.552†	-135.3	99.98	73.90%	[0.00] µg/L
Ti 334.940†	952.5	73.33	7.70%	[0.00] µg/L
Tl 190.801†	-116.7	7.17	6.15%	[0.00] µg/L
U 409.014†	-269.9	113.01	41.87%	[0.00] µg/L
V 292.402†	403.8	94.24	23.34%	[0.00] µg/L
Zn 213.857†	564.4	3.32	0.59%	[0.00] µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/31/2010 18:39:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	144945.8	144945.8	99.3	%	18:40:16
1	K 766.490 Radial†	4177.9	2661.5	[1000]	µg/L	18:40:16
1	Sr 421.552†	48790.2	49256.8	[100]	µg/L	18:40:16
1	Sc 361.383	1738207.5	1738207.5	101.16	%	18:40:38
1	Y 371.029	1035658.2	1035658.2	100.87	%	18:40:38
1	Ag 328.068†	31505.9	27052.2	[100]	µg/L	18:40:40
1	As 188.979†	319.4	336.1	[100]	µg/L	18:41:00
1	B 249.677†	10182.7	6559.7	[100]	µg/L	18:40:40
1	Ba 233.527†	25238.0	25083.6	[100]	µg/L	18:40:40
1	Be 313.107†	372065.7	368851.5	[100]	µg/L	18:40:38
1	Cd 226.502†	16206.1	16137.9	[100]	µg/L	18:40:40
1	Co 228.616†	8180.0	8276.3	[100]	µg/L	18:41:00
1	Cr 267.716†	13182.1	12852.0	[100]	µg/L	18:40:40
1	Cu 324.752†	28766.5	25463.5	[100]	µg/L	18:40:40
1	Mn 257.610†	84629.1	83418.6	[100]	µg/L	18:40:40
1	Mo 202.031†	3388.6	3369.7	[100]	µg/L	18:41:00
1	Ni 231.604†	8784.7	8760.2	[100]	µg/L	18:40:40
1	P 214.914†	2330.2	2321.4	[500]	µg/L	18:41:00
1	Pb 220.353†	1931.7	1823.1	[100]	µg/L	18:41:00
1	S 181.975 Axial†	386.6	277.1	[200]	µg/L	18:41:00
1	Sb 206.836†	932.6	841.0	[100]	µg/L	18:41:00
1	Se 196.026†	288.8	270.2	[100]	µg/L	18:41:00
1	SiO2†	12629.3	10708.7	[1069.5]	µg/L	18:40:40
1	Si 251.611†	34601.6	33367.1	[500]	µg/L	18:40:40
1	Sn 189.927†	1637.3	1619.6	[100]	µg/L	18:41:00
1	Ti 334.940†	108213.7	106016.7	[100]	µg/L	18:40:40
1	Tl 190.801†	724.1	832.5	[100]	µg/L	18:41:00
1	U 409.014†	1714.9	1965.0	[100]	µg/L	18:40:40
1	V 292.402†	20866.1	20222.4	[100]	µg/L	18:40:40
1	Zn 213.857†	18689.8	17910.4	[100]	µg/L	18:40:40
2	Sc RADIAL	144384.1	144384.1	98.9	%	18:40:18
2	K 766.490 Radial†	4099.7	2598.8	[1000]	µg/L	18:40:18
2	Sr 421.552†	48913.4	49572.3	[100]	µg/L	18:40:18
2	Sc 361.383	1718136.8	1718136.8	99.995	%	18:41:02
2	Y 371.029	1023615.0	1023615.0	99.701	%	18:41:02
2	Ag 328.068†	31474.0	27384.1	[100]	µg/L	18:41:04
2	As 188.979†	316.2	336.6	[100]	µg/L	18:41:24
2	B 249.677†	10249.3	6743.9	[100]	µg/L	18:41:04
2	Ba 233.527†	25403.3	25540.3	[100]	µg/L	18:41:04
2	Be 313.107†	368011.0	369093.1	[100]	µg/L	18:41:02
2	Cd 226.502†	16403.0	16522.0	[100]	µg/L	18:41:04
2	Co 228.616†	8194.1	8384.8	[100]	µg/L	18:41:24
2	Cr 267.716†	13299.6	13121.6	[100]	µg/L	18:41:04
2	Cu 324.752†	29042.8	26072.0	[100]	µg/L	18:41:04
2	Mn 257.610†	85481.9	85248.7	[100]	µg/L	18:41:04
2	Mo 202.031†	3415.9	3436.2	[100]	µg/L	18:41:24
2	Ni 231.604†	9104.3	9181.2	[100]	µg/L	18:41:04
2	P 214.914†	2327.9	2346.0	[500]	µg/L	18:41:24
2	Pb 220.353†	1943.3	1857.0	[100]	µg/L	18:41:24
2	S 181.975 Axial†	382.9	277.8	[200]	µg/L	18:41:24
2	Sb 206.836†	933.1	852.4	[100]	µg/L	18:41:24
2	Se 196.026†	282.7	267.4	[100]	µg/L	18:41:24
2	SiO2†	12728.6	10953.9	[1069.5]	µg/L	18:41:04
2	Si 251.611†	35105.7	34270.8	[500]	µg/L	18:41:04
2	Sn 189.927†	1643.4	1644.6	[100]	µg/L	18:41:24
2	Ti 334.940†	109258.0	108310.6	[100]	µg/L	18:41:04
2	Tl 190.801†	742.2	858.9	[100]	µg/L	18:41:24
2	U 409.014†	1747.4	2017.4	[100]	µg/L	18:41:04
2	V 292.402†	20863.1	20460.2	[100]	µg/L	18:41:04

2	Zn 213.857†	18913.1	18349.6	[100]	µg/L	18:41:04
3	Sc RADIAL	144888.2	144888.2	99.3	%	18:40:20
3	K 766.490 Radial†	4194.1	2679.5	[1000]	µg/L	18:40:20
3	Sr 421.552†	48878.7	49365.4	[100]	µg/L	18:40:20
3	Sc 361.383	1720712.1	1720712.1	100.15	%	18:41:26
3	Y 371.029	1025149.2	1025149.2	99.850	%	18:41:26
3	Ag 328.068†	30653.6	26517.7	[100]	µg/L	18:41:28
3	As 188.979†	311.4	331.3	[100]	µg/L	18:41:48
3	B 249.677†	10032.3	6511.9	[100]	µg/L	18:41:28
3	Ba 233.527†	24571.6	24671.8	[100]	µg/L	18:41:28
3	Be 313.107†	369363.0	369892.2	[100]	µg/L	18:41:26
3	Cd 226.502†	15800.2	15895.5	[100]	µg/L	18:41:28
3	Co 228.616†	7941.4	8120.2	[100]	µg/L	18:41:48
3	Cr 267.716†	12878.6	12681.3	[100]	µg/L	18:41:28
3	Cu 324.752†	28237.0	25223.9	[100]	µg/L	18:41:28
3	Mn 257.610†	82709.3	82352.2	[100]	µg/L	18:41:28
3	Mo 202.031†	3317.5	3332.8	[100]	µg/L	18:41:48
3	Ni 231.604†	8579.1	8643.1	[100]	µg/L	18:41:28
3	P 214.914†	2246.6	2261.3	[500]	µg/L	18:41:48
3	Pb 220.353†	1888.8	1799.7	[100]	µg/L	18:41:48
3	S 181.975 Axial†	370.3	264.7	[200]	µg/L	18:41:48
3	Sb 206.836†	914.8	832.6	[100]	µg/L	18:41:48
3	Se 196.026†	294.0	278.3	[100]	µg/L	18:41:48
3	SiO2†	12365.6	10572.3	[1069.5]	µg/L	18:41:28
3	Si 251.611†	33612.6	32727.3	[500]	µg/L	18:41:28
3	Sn 189.927†	1589.9	1588.8	[100]	µg/L	18:41:48
3	Ti 334.940†	106005.7	104899.5	[100]	µg/L	18:41:28
3	Tl 190.801†	699.9	815.6	[100]	µg/L	18:41:48
3	U 409.014†	1493.0	1760.7	[100]	µg/L	18:41:28
3	V 292.402†	20303.9	19870.7	[100]	µg/L	18:41:28
3	Zn 213.857†	18249.8	17659.0	[100]	µg/L	18:41:28

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1725685.5	10920.55	0.63%	100.43	%
Sc RADIAL	144739.3	309.02	0.21%	99.2	%
Y 371.029	1028140.8	6555.30	0.64%	100.14	%
Ag 328.068†	26984.7	437.11	1.62%	[100]	µg/L
As 188.979†	334.7	2.93	0.88%	[100]	µg/L
B 249.677†	6605.2	122.52	1.85%	[100]	µg/L
Ba 233.527†	25098.6	434.45	1.73%	[100]	µg/L
Be 313.107†	369278.9	544.69	0.15%	[100]	µg/L
Cd 226.502†	16185.1	315.91	1.95%	[100]	µg/L
Co 228.616†	8260.4	133.02	1.61%	[100]	µg/L
Cr 267.716†	12885.0	222.00	1.72%	[100]	µg/L
Cu 324.752†	25586.4	437.23	1.71%	[100]	µg/L
K 766.490 Radial†	2646.6	42.33	1.60%	[1000]	µg/L
Mn 257.610†	83673.1	1464.94	1.75%	[100]	µg/L
Mo 202.031†	3379.6	52.39	1.55%	[100]	µg/L
Ni 231.604†	8861.5	282.97	3.19%	[100]	µg/L
P 214.914†	2309.6	43.55	1.89%	[500]	µg/L
Pb 220.353†	1826.6	28.83	1.58%	[100]	µg/L
S 181.975 Axial†	273.2	7.39	2.70%	[200]	µg/L
Sb 206.836†	842.0	9.91	1.18%	[100]	µg/L
Se 196.026†	272.0	5.61	2.06%	[100]	µg/L
SiO2†	10744.9	193.37	1.80%	[1069.5]	µg/L
Si 251.611†	33455.1	775.50	2.32%	[500]	µg/L
Sn 189.927†	1617.7	27.99	1.73%	[100]	µg/L
Sr 421.552†	49398.1	160.32	0.32%	[100]	µg/L
Ti 334.940†	106408.9	1739.07	1.63%	[100]	µg/L
Tl 190.801†	835.7	21.85	2.61%	[100]	µg/L
U 409.014†	1914.4	135.63	7.09%	[100]	µg/L
V 292.402†	20184.4	296.62	1.47%	[100]	µg/L
Zn 213.857†	17973.0	349.52	1.94%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/31/2010 18:41:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139976.0	139976.0	95.9	%	18:42:27
1	Al 396.153Radial†	25919.4	27085.0	[5000]	µg/L	18:42:27
1	Ca 317.933Radial†	87385.1	90541.3	[5000]	µg/L	18:42:27
1	K 766.490 Radial†	14430.7	13499.7	[5000]	µg/L	18:42:27
1	Mg 279.077 IEC†	13338.9	13715.6	[5000]	µg/L	18:42:27
1	Sr 421.552†	229015.2	238891.4	[500]	µg/L	18:42:25
1	Sc 361.383	1645400.7	1645400.7	95.762	%	18:42:40
1	Y 371.029	975342.9	975342.9	94.999	%	18:42:40
1	Ag 328.068†	131294.3	133013.3	[500]	µg/L	18:42:40
1	As 188.979†	1571.6	1661.5	[500]	µg/L	18:43:00
1	B 249.677†	35172.1	33222.7	[500]	µg/L	18:42:40
1	Ba 233.527†	117348.5	122677.6	[500]	µg/L	18:42:40
1	Be 313.107†	1744827.1	1823108.9	[500]	µg/L	18:42:40
1	Cd 226.502†	75312.3	78763.4	[500]	µg/L	18:42:40
1	Co 228.616†	38245.0	40127.8	[500]	µg/L	18:42:40
1	Cr 267.716†	60545.4	63046.3	[500]	µg/L	18:42:40
1	Cu 324.752†	123884.9	126395.2	[500]	µg/L	18:42:40
1	Mn 257.610†	385575.1	402401.4	[500]	µg/L	18:42:40
1	Mo 202.031†	16410.2	17156.5	[500]	µg/L	18:43:00
1	Ni 231.604†	41126.2	43022.7	[500]	µg/L	18:42:40
1	P 214.914†	11303.9	11822.1	[2500]	µg/L	18:43:00
1	Pb 220.353†	8787.6	9090.2	[500]	µg/L	18:43:00
1	S 181.975 Axial†	1381.6	1337.7	[1000]	µg/L	18:43:00
1	Sb 206.836†	4130.5	4232.5	[500]	µg/L	18:43:00
1	Se 196.026†	1340.7	1384.8	[500]	µg/L	18:43:00
1	SiO2†	54250.1	54875.6	[5347.5]	µg/L	18:42:40
1	Si 251.611†	163679.1	170086.1	[2500]	µg/L	18:42:40
1	Sn 189.927†	7746.5	8090.4	[500]	µg/L	18:43:00
1	Ti 334.940†	510093.6	531715.2	[500]	µg/L	18:42:40
1	Tl 190.801†	3808.0	4093.2	[500]	µg/L	18:43:00
1	U 409.014†	6985.6	7564.6	[500]	µg/L	18:42:40
1	V 292.402†	96986.0	100874.3	[500]	µg/L	18:42:40
1	Zn 213.857†	84527.8	87704.2	[500]	µg/L	18:42:40
2	Sc RADIAL	141210.3	141210.3	96.8	%	18:42:31
2	Al 396.153Radial†	26176.8	27114.9	[5000]	µg/L	18:42:31
2	Ca 317.933Radial†	88277.8	90667.6	[5000]	µg/L	18:42:31
2	K 766.490 Radial†	14658.6	13603.8	[5000]	µg/L	18:42:31
2	Mg 279.077 IEC†	13508.7	13769.5	[5000]	µg/L	18:42:31
2	Sr 421.552†	232944.0	240864.6	[500]	µg/L	18:42:29
2	Sc 361.383	1687203.1	1687203.1	98.195	%	18:43:03
2	Y 371.029	998510.1	998510.1	97.255	%	18:43:03
2	Ag 328.068†	134607.0	132990.0	[500]	µg/L	18:43:03
2	As 188.979†	1586.5	1636.0	[500]	µg/L	18:43:23
2	B 249.677†	36433.6	33597.5	[500]	µg/L	18:43:03
2	Ba 233.527†	121232.8	123597.1	[500]	µg/L	18:43:03
2	Be 313.107†	1799842.1	1833991.9	[500]	µg/L	18:43:03
2	Cd 226.502†	78158.8	79713.7	[500]	µg/L	18:43:03
2	Co 228.616†	39721.5	40642.0	[500]	µg/L	18:43:03
2	Cr 267.716†	62227.1	63192.4	[500]	µg/L	18:43:03
2	Cu 324.752†	127576.9	126949.9	[500]	µg/L	18:43:03
2	Mn 257.610†	397913.1	404990.4	[500]	µg/L	18:43:03
2	Mo 202.031†	16475.5	16798.5	[500]	µg/L	18:43:23
2	Ni 231.604†	42320.9	43175.4	[500]	µg/L	18:43:03
2	P 214.914†	11321.5	11547.6	[2500]	µg/L	18:43:23
2	Pb 220.353†	8841.9	8918.0	[500]	µg/L	18:43:23
2	S 181.975 Axial†	1404.5	1325.2	[1000]	µg/L	18:43:23
2	Sb 206.836†	4150.6	4146.1	[500]	µg/L	18:43:23
2	Se 196.026†	1352.6	1362.2	[500]	µg/L	18:43:23
2	SiO2†	55913.1	55165.5	[5347.5]	µg/L	18:43:03

2	Si 251.611†	169027.8	171298.3	[2500]	µg/L	18:43:03
2	Sn 189.927†	7793.7	7938.1	[500]	µg/L	18:43:23
2	Ti 334.940†	524282.8	532967.8	[500]	µg/L	18:43:03
2	Tl 190.801†	3829.1	4016.1	[500]	µg/L	18:43:23
2	U 409.014†	7204.4	7606.8	[500]	µg/L	18:43:03
2	V 292.402†	99476.3	100901.1	[500]	µg/L	18:43:03
2	Zn 213.857†	87574.3	88619.7	[500]	µg/L	18:43:03
3	Sc RADIAL	139845.9	139845.9	95.8	%	18:42:35
3	Al 396.153Radial†	25970.7	27163.8	[5000]	µg/L	18:42:35
3	Ca 317.933Radial†	87048.7	90275.0	[5000]	µg/L	18:42:35
3	K 766.490 Radial†	14322.7	13401.0	[5000]	µg/L	18:42:35
3	Mg 279.077 IEC†	13177.9	13560.5	[5000]	µg/L	18:42:35
3	Sr 421.552†	232490.3	242739.9	[500]	µg/L	18:42:33
3	Sc 361.383	1671427.9	1671427.9	97.277	%	18:43:26
3	Y 371.029	990579.4	990579.4	96.483	%	18:43:26
3	Ag 328.068†	132744.3	132368.9	[500]	µg/L	18:43:26
3	As 188.979†	1563.8	1627.9	[500]	µg/L	18:43:46
3	B 249.677†	35824.9	33321.9	[500]	µg/L	18:43:26
3	Ba 233.527†	119283.9	122759.0	[500]	µg/L	18:43:26
3	Be 313.107†	1775117.0	1825874.0	[500]	µg/L	18:43:26
3	Cd 226.502†	77044.3	79319.2	[500]	µg/L	18:43:26
3	Co 228.616†	39106.1	40391.2	[500]	µg/L	18:43:26
3	Cr 267.716†	61510.3	63053.6	[500]	µg/L	18:43:26
3	Cu 324.752†	125724.5	126271.8	[500]	µg/L	18:43:26
3	Mn 257.610†	391730.1	402458.9	[500]	µg/L	18:43:26
3	Mo 202.031†	16447.7	16928.2	[500]	µg/L	18:43:46
3	Ni 231.604†	41833.4	43081.0	[500]	µg/L	18:43:26
3	P 214.914†	11306.9	11641.3	[2500]	µg/L	18:43:46
3	Pb 220.353†	8817.9	8978.4	[500]	µg/L	18:43:46
3	S 181.975 Axial†	1403.6	1337.8	[1000]	µg/L	18:43:46
3	Sb 206.836†	4107.1	4141.3	[500]	µg/L	18:43:46
3	Se 196.026†	1356.4	1379.1	[500]	µg/L	18:43:46
3	SiO2†	55098.9	54865.9	[5347.5]	µg/L	18:43:26
3	Si 251.611†	166541.0	170366.5	[2500]	µg/L	18:43:26
3	Sn 189.927†	7776.3	7995.1	[500]	µg/L	18:43:46
3	Ti 334.940†	517688.6	531228.1	[500]	µg/L	18:43:26
3	Tl 190.801†	3841.1	4065.3	[500]	µg/L	18:43:46
3	U 409.014†	7259.9	7733.0	[500]	µg/L	18:43:26
3	V 292.402†	98243.7	100590.2	[500]	µg/L	18:43:26
3	Zn 213.857†	86383.4	88237.2	[500]	µg/L	18:43:26

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1668010.6	21109.69	1.27%	97.078	%
Sc RADIAL	140344.1	753.01	0.54%	96.2	%
Y 371.029	988144.1	11774.03	1.19%	96.246	%
Ag 328.068†	132790.8	365.49	0.28%	[500]	µg/L
Al 396.153Radial†	27121.2	39.74	0.15%	[5000]	µg/L
As 188.979†	1641.8	17.55	1.07%	[500]	µg/L
B 249.677†	33380.7	194.18	0.58%	[500]	µg/L
Ba 233.527†	123011.2	509.04	0.41%	[500]	µg/L
Be 313.107†	1827658.3	5656.67	0.31%	[500]	µg/L
Ca 317.933Radial†	90494.7	200.40	0.22%	[5000]	µg/L
Cd 226.502†	79265.5	477.42	0.60%	[500]	µg/L
Co 228.616†	40387.0	257.10	0.64%	[500]	µg/L
Cr 267.716†	63097.4	82.35	0.13%	[500]	µg/L
Cu 324.752†	126538.9	361.18	0.29%	[500]	µg/L
K 766.490 Radial†	13501.5	101.39	0.75%	[5000]	µg/L
Mg 279.077 IEC†	13681.9	108.49	0.79%	[5000]	µg/L
Mn 257.610†	403283.6	1478.44	0.37%	[500]	µg/L
Mo 202.031†	16961.0	181.25	1.07%	[500]	µg/L
Ni 231.604†	43093.0	77.04	0.18%	[500]	µg/L
P 214.914†	11670.4	139.54	1.20%	[2500]	µg/L
Pb 220.353†	8995.5	87.32	0.97%	[500]	µg/L
S 181.975 Axial†	1333.6	7.24	0.54%	[1000]	µg/L
Sb 206.836†	4173.3	51.32	1.23%	[500]	µg/L
Se 196.026†	1375.4	11.73	0.85%	[500]	µg/L
SiO2†	54969.0	170.25	0.31%	[5347.5]	µg/L
Si 251.611†	170583.6	634.61	0.37%	[2500]	µg/L

Sn 189.927†	8007.9	76.96	0.96%	[500] µg/L
Sr 421.552†	240832.0	1924.44	0.80%	[500] µg/L
Ti 334.940†	531970.4	897.45	0.17%	[500] µg/L
Tl 190.801†	4058.2	39.03	0.96%	[500] µg/L
U 409.014†	7634.8	87.65	1.15%	[500] µg/L
V 292.402†	100788.5	172.29	0.17%	[500] µg/L
Zn 213.857†	88187.0	459.83	0.52%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/31/2010 18:43:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	140246.3	140246.3	96.1	%	18:44:26
1	Al 396.153Radial†	52689.3	54887.7	[10000]	µg/L	18:44:26
1	Ca 317.933Radial†	176157.7	182735.9	[10000]	µg/L	18:44:26
1	Fe 238.204 Radial†	157034.9	163250.7	[10000]	µg/L	18:44:26
1	K 766.490 Radial†	27864.8	27449.2	[10000]	µg/L	18:44:26
1	Mg 279.077 IEC†	26628.7	27517.1	[10000]	µg/L	18:44:26
1	Na 589.592 Radial†	71367.5	72968.9	[10000]	µg/L	18:44:26
1	Sr 421.552†	465887.4	484902.9	[1000]	µg/L	18:44:24
1	Sc 361.383	1660058.9	1660058.9	96.615	%	18:44:39
1	Y 371.029	978012.9	978012.9	95.259	%	18:44:39
1	Ag 328.068†	268618.1	273937.5	[1000]	µg/L	18:44:41
1	As 188.979†	3193.8	3326.1	[1000]	µg/L	18:45:01
1	B 249.677†	69762.5	68700.7	[1000]	µg/L	18:44:41
1	Ba 233.527†	242316.3	250941.5	[1000]	µg/L	18:44:41
1	Be 313.107†	3555578.2	3681209.5	[1000]	µg/L	18:44:39
1	Cd 226.502†	156604.8	162209.5	[1000]	µg/L	18:44:41
1	Co 228.616†	78951.1	81907.4	[1000]	µg/L	18:44:41
1	Cr 267.716†	125005.7	129206.6	[1000]	µg/L	18:44:41
1	Cu 324.752†	255303.1	261275.2	[1000]	µg/L	18:44:41
1	Mn 257.610†	781879.7	809034.9	[1000]	µg/L	18:44:39
1	Mo 202.031†	33228.9	34413.1	[1000]	µg/L	18:44:41
1	Ni 231.604†	84765.4	87811.6	[1000]	µg/L	18:44:41
1	P 214.914†	22636.2	23447.2	[5000]	µg/L	18:45:01
1	Pb 220.353†	17407.6	17931.0	[1000]	µg/L	18:45:01
1	S 181.975 Axial†	2706.2	2696.0	[2000]	µg/L	18:45:01
1	Sb 206.836†	8264.7	8473.4	[1000]	µg/L	18:45:01
1	Se 196.026†	2709.4	2789.0	[1000]	µg/L	18:45:01
1	SiO2†	108329.2	110349.0	[10695]	µg/L	18:44:41
1	Si 251.611†	331285.5	342055.2	[5000]	µg/L	18:44:41
1	Sn 189.927†	15541.6	16087.2	[1000]	µg/L	18:45:01
1	Ti 334.940†	1037686.9	1073088.8	[1000]	µg/L	18:44:39
1	Tl 190.801†	7778.7	8167.9	[1000]	µg/L	18:45:01
1	U 409.014†	16858.3	17718.8	[1000]	µg/L	18:44:41
1	V 292.402†	201478.5	208133.3	[1000]	µg/L	18:44:41
1	Zn 213.857†	174510.7	180060.2	[1000]	µg/L	18:44:41
2	Sc RADIAL	138844.4	138844.4	95.1	%	18:44:30
2	Al 396.153Radial†	52161.3	54886.4	[10000]	µg/L	18:44:30
2	Ca 317.933Radial†	173493.6	181786.6	[10000]	µg/L	18:44:30
2	Fe 238.204 Radial†	154887.4	162643.3	[10000]	µg/L	18:44:30
2	K 766.490 Radial†	27455.0	27311.3	[10000]	µg/L	18:44:30
2	Mg 279.077 IEC†	26420.5	27578.1	[10000]	µg/L	18:44:30
2	Na 589.592 Radial†	70508.9	72816.3	[10000]	µg/L	18:44:30
2	Sr 421.552†	460810.9	484461.8	[1000]	µg/L	18:44:28
2	Sc 361.383	1689699.6	1689699.6	98.340	%	18:45:04
2	Y 371.029	993860.1	993860.1	96.802	%	18:45:04
2	Ag 328.068†	266910.5	267323.9	[1000]	µg/L	18:45:06
2	As 188.979†	3218.4	3293.1	[1000]	µg/L	18:45:26
2	B 249.677†	69508.7	67175.9	[1000]	µg/L	18:45:06
2	Ba 233.527†	241134.5	245340.1	[1000]	µg/L	18:45:06
2	Be 313.107†	3627090.7	3689371.8	[1000]	µg/L	18:45:04
2	Cd 226.502†	155509.2	158252.0	[1000]	µg/L	18:45:06
2	Co 228.616†	78490.7	80005.8	[1000]	µg/L	18:45:06
2	Cr 267.716†	124369.4	126289.8	[1000]	µg/L	18:45:06
2	Cu 324.752†	253180.3	254481.2	[1000]	µg/L	18:45:06
2	Mn 257.610†	797903.6	811133.0	[1000]	µg/L	18:45:04
2	Mo 202.031†	33052.4	33630.3	[1000]	µg/L	18:45:06
2	Ni 231.604†	84350.1	85850.2	[1000]	µg/L	18:45:06
2	P 214.914†	22849.9	23253.5	[5000]	µg/L	18:45:26
2	Pb 220.353†	17581.2	17791.6	[1000]	µg/L	18:45:26

2	S 181.975 Axial†	2749.5	2690.8	[2000]	µg/L	18:45:26
2	Sb 206.836†	8294.0	8353.2	[1000]	µg/L	18:45:26
2	Se 196.026†	2710.1	2740.6	[1000]	µg/L	18:45:26
2	SiO2†	107785.0	107828.8	[10695]	µg/L	18:45:06
2	Si 251.611†	329317.5	334039.0	[5000]	µg/L	18:45:06
2	Sn 189.927†	15680.3	15946.1	[1000]	µg/L	18:45:26
2	Ti 334.940†	1057357.1	1074250.2	[1000]	µg/L	18:45:04
2	Tl 190.801†	7829.0	8077.8	[1000]	µg/L	18:45:26
2	U 409.014†	16641.8	17192.5	[1000]	µg/L	18:45:06
2	V 292.402†	200063.6	203036.4	[1000]	µg/L	18:45:06
2	Zn 213.857†	173774.1	176142.5	[1000]	µg/L	18:45:06
3	Sc RADIAL	142431.7	142431.7	97.6	%	18:44:34
3	Al 396.153Radial†	53146.2	54514.7	[10000]	µg/L	18:44:34
3	Ca 317.933Radial†	178392.5	182213.1	[10000]	µg/L	18:44:34
3	Fe 238.204 Radial†	159216.9	162979.1	[10000]	µg/L	18:44:34
3	K 766.490 Radial†	28289.6	27439.6	[10000]	µg/L	18:44:34
3	Mg 279.077 IEC†	27285.4	27764.8	[10000]	µg/L	18:44:34
3	Na 589.592 Radial†	72542.7	73033.5	[10000]	µg/L	18:44:34
3	Sr 421.552†	461335.7	472801.1	[1000]	µg/L	18:44:32
3	Sc 361.383	1671450.9	1671450.9	97.278	%	18:45:29
3	Y 371.029	984698.6	984698.6	95.910	%	18:45:29
3	Ag 328.068†	268839.9	272270.6	[1000]	µg/L	18:45:31
3	As 188.979†	3207.1	3317.1	[1000]	µg/L	18:45:51
3	B 249.677†	69920.1	68370.5	[1000]	µg/L	18:45:31
3	Ba 233.527†	242785.5	249714.4	[1000]	µg/L	18:45:31
3	Be 313.107†	3559181.4	3659831.0	[1000]	µg/L	18:45:29
3	Cd 226.502†	156473.3	160969.5	[1000]	µg/L	18:45:31
3	Co 228.616†	79020.9	81422.2	[1000]	µg/L	18:45:31
3	Cr 267.716†	125294.1	128621.2	[1000]	µg/L	18:45:31
3	Cu 324.752†	255275.0	259445.3	[1000]	µg/L	18:45:31
3	Mn 257.610†	783171.7	804847.3	[1000]	µg/L	18:45:29
3	Mo 202.031†	33174.1	34122.4	[1000]	µg/L	18:45:31
3	Ni 231.604†	84877.1	87328.4	[1000]	µg/L	18:45:31
3	P 214.914†	22811.2	23467.5	[5000]	µg/L	18:45:51
3	Pb 220.353†	17557.7	17962.6	[1000]	µg/L	18:45:51
3	S 181.975 Axial†	2739.9	2711.5	[2000]	µg/L	18:45:51
3	Sb 206.836†	8307.3	8458.9	[1000]	µg/L	18:45:51
3	Se 196.026†	2720.6	2781.4	[1000]	µg/L	18:45:51
3	SiO2†	108495.7	109756.0	[10695]	µg/L	18:45:31
3	Si 251.611†	331529.5	339969.0	[5000]	µg/L	18:45:31
3	Sn 189.927†	15666.1	16105.6	[1000]	µg/L	18:45:51
3	Ti 334.940†	1040566.4	1068728.6	[1000]	µg/L	18:45:29
3	Tl 190.801†	7842.2	8178.3	[1000]	µg/L	18:45:51
3	U 409.014†	16964.7	17709.3	[1000]	µg/L	18:45:31
3	V 292.402†	201223.5	206449.9	[1000]	µg/L	18:45:31
3	Zn 213.857†	174624.2	178945.7	[1000]	µg/L	18:45:31

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1673736.5	14951.98	0.89%	97.411	%
Sc RADIAL	140507.5	1807.88	1.29%	96.3	%
Y 371.029	985523.8	7955.77	0.81%	95.991	%
Ag 328.068†	271177.3	3439.65	1.27%	[1000]	µg/L
Al 396.153Radial†	54762.9	214.99	0.39%	[10000]	µg/L
As 188.979†	3312.1	17.04	0.51%	[1000]	µg/L
B 249.677†	68082.4	802.18	1.18%	[1000]	µg/L
Ba 233.527†	248665.4	2944.35	1.18%	[1000]	µg/L
Be 313.107†	3676804.1	15255.21	0.41%	[1000]	µg/L
Ca 317.933Radial†	182245.2	475.46	0.26%	[10000]	µg/L
Cd 226.502†	160477.0	2024.24	1.26%	[1000]	µg/L
Co 228.616†	81111.8	988.08	1.22%	[1000]	µg/L
Cr 267.716†	128039.2	1543.01	1.21%	[1000]	µg/L
Cu 324.752†	258400.5	3515.45	1.36%	[1000]	µg/L
Fe 238.204 Radial†	162957.7	304.26	0.19%	[10000]	µg/L
K 766.490 Radial†	27400.1	77.00	0.28%	[10000]	µg/L
Mg 279.077 IEC†	27620.0	129.06	0.47%	[10000]	µg/L
Mn 257.610†	808338.4	3200.20	0.40%	[1000]	µg/L
Mo 202.031†	34055.3	395.69	1.16%	[1000]	µg/L
Na 589.592 Radial†	72939.6	111.55	0.15%	[10000]	µg/L

Ni 231.604†	86996.7	1021.87	1.17%	[1000]	µg/L
P 214.914†	23389.4	118.12	0.51%	[5000]	µg/L
Pb 220.353†	17895.1	91.02	0.51%	[1000]	µg/L
S 181.975 Axial†	2699.4	10.77	0.40%	[2000]	µg/L
Sb 206.836†	8428.5	65.64	0.78%	[1000]	µg/L
Se 196.026†	2770.3	26.05	0.94%	[1000]	µg/L
SiO2†	109311.3	1317.66	1.21%	[10695]	µg/L
Si 251.611†	338687.7	4158.85	1.23%	[5000]	µg/L
Sn 189.927†	16046.3	87.25	0.54%	[1000]	µg/L
Sr 421.552†	480721.9	6863.20	1.43%	[1000]	µg/L
Ti 334.940†	1072022.5	2911.16	0.27%	[1000]	µg/L
Tl 190.801†	8141.3	55.30	0.68%	[1000]	µg/L
U 409.014†	17540.2	301.14	1.72%	[1000]	µg/L
V 292.402†	205873.2	2596.95	1.26%	[1000]	µg/L
Zn 213.857†	178382.8	2018.56	1.13%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/31/2010 18:45:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139343.3	139343.3	95.5	%	18:46:28
1	Al 396.153Radial†	256543.2	268732.8	[50000]	µg/L	18:46:28
1	Ca 317.933Radial†	856588.9	896517.6	[50000]	µg/L	18:46:28
1	Fe 238.204 Radial†	309603.0	324089.2	[20000]	µg/L	18:46:28
1	Mg 279.077 IEC†	128261.6	134133.6	[50000]	µg/L	18:46:28
1	Na 589.592 Radial†	141053.4	146429.9	[20000]	µg/L	18:46:28
1	Sc 361.383	1636602.8	1636602.8	95.250	%	18:46:50
1	Y 371.029	965973.5	965973.5	94.086	%	18:46:50
2	Sc RADIAL	137624.0	137624.0	94.3	%	18:46:30
2	Al 396.153Radial†	254363.4	269777.6	[50000]	µg/L	18:46:30
2	Ca 317.933Radial†	846244.8	896755.8	[50000]	µg/L	18:46:30
2	Fe 238.204 Radial†	305781.9	324087.9	[20000]	µg/L	18:46:30
2	Mg 279.077 IEC†	126264.9	133694.4	[50000]	µg/L	18:46:30
2	Na 589.592 Radial†	139489.2	146616.7	[20000]	µg/L	18:46:30
2	Sc 361.383	1622381.6	1622381.6	94.422	%	18:46:53
2	Y 371.029	956849.7	956849.7	93.198	%	18:46:53
3	Sc RADIAL	137980.0	137980.0	94.6	%	18:46:32
3	Al 396.153Radial†	255245.7	270015.0	[50000]	µg/L	18:46:32
3	Ca 317.933Radial†	849307.2	897679.9	[50000]	µg/L	18:46:32
3	Fe 238.204 Radial†	306725.7	324249.8	[20000]	µg/L	18:46:32
3	Mg 279.077 IEC†	127087.0	134218.4	[50000]	µg/L	18:46:32
3	Na 589.592 Radial†	139780.8	146543.6	[20000]	µg/L	18:46:32
3	Sc 361.383	1649813.3	1649813.3	96.019	%	18:46:56
3	Y 371.029	972430.3	972430.3	94.715	%	18:46:56

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1636265.9	13718.97	0.84%	95.230	%
Sc RADIAL	138315.8	907.47	0.66%	94.8	%
Y 371.029	965084.5	7828.26	0.81%	94.000	%
Al 396.153Radial†	269508.5	682.17	0.25%	[50000]	µg/L
Ca 317.933Radial†	896984.4	613.95	0.07%	[50000]	µg/L
Fe 238.204 Radial†	324142.3	93.07	0.03%	[20000]	µg/L
Mg 279.077 IEC†	134015.5	281.29	0.21%	[50000]	µg/L
Na 589.592 Radial†	146530.1	94.09	0.06%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	270.1	0.00000	0.999966	
Al 396.153Radial	3	Lin Thru 0	0.0	5.394	0.00000	0.999995	
As 188.979	3	Lin Thru 0	0.0	3.307	0.00000	0.999994	
B 249.677	3	Lin Thru 0	0.0	67.80	0.00000	0.999967	
Ba 233.527	3	Lin Thru 0	0.0	248.2	0.00000	0.999990	
Be 313.107	3	Lin Thru 0	0.0	3673	0.00000	0.999997	
Ca 317.933Radial	3	Lin Thru 0	0.0	17.95	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	160.1	0.00000	0.999988	
Co 228.616	3	Lin Thru 0	0.0	81.06	0.00000	0.999997	
Cr 267.716	3	Lin Thru 0	0.0	127.7	0.00000	0.999983	
Cu 324.752	3	Lin Thru 0	0.0	257.3	0.00000	0.999966	
Fe 238.204 Radia	2	Lin Thru 0	0.0	16.22	0.00000	0.999998	
K 766.490 Radial	3	Lin Thru 0	0.0	2.731	0.00000	0.999979	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.684	0.00000	0.999981	
Mn 257.610	3	Lin Thru 0	0.0	808.2	0.00000	0.999995	
Mo 202.031	3	Lin Thru 0	0.0	34.03	0.00000	0.999999	
Na 589.592 Radia	2	Lin Thru 0	0.0	7.320	0.00000	0.999998	

Ni 231.604	3	Lin Thru 0	0.0	86.85	0.00000	0.999991
P 214.914	3	Lin Thru 0	0.0	4.675	0.00000	0.999999
Pb 220.353	3	Lin Thru 0	0.0	17.92	0.00000	0.999996
S 181.975 Axial	3	Lin Thru 0	0.0	1.347	0.00000	0.999988
Sb 206.836	3	Lin Thru 0	0.0	8.412	0.00000	0.999992
Se 196.026	3	Lin Thru 0	0.0	2.766	0.00000	0.999995
SiO2	3	Lin Thru 0	0.0	10.23	0.00000	0.999996
Si 251.611	3	Lin Thru 0	0.0	67.83	0.00000	0.999995
Sn 189.927	3	Lin Thru 0	0.0	16.04	0.00000	0.999999
Sr 421.552	3	Lin Thru 0	0.0	481.0	0.00000	0.999997
Ti 334.940	3	Lin Thru 0	0.0	1070	0.00000	0.999995
Tl 190.801	3	Lin Thru 0	0.0	8.138	0.00000	0.999996
U 409.014	3	Lin Thru 0	0.0	17.10	0.00000	0.998547
V 292.402	3	Lin Thru 0	0.0	205.0	0.00000	0.999964
Zn 213.857	3	Lin Thru 0	0.0	178.0	0.00000	0.999990

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/31/2010 18:47:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142728.0	142728.0	97.8	%			18:47:35
1	Al 396.153Radial†	27196.1	27869.4	5141.6	µg/L	5141.6	ppb	18:47:35
1	Ca 317.933Radial†	89393.1	90837.9	5060.0	µg/L	5060.0	ppb	18:47:35
1	Fe 238.204 Radial†	80412.9	82068.7	5058.2	µg/L	5058.2	ppb	18:47:35
1	K 766.490 Radial†	8352.4	6995.0	2558.1	µg/L	2558.1	ppb	18:47:35
1	Mg 279.077 IEC†	14148.2	14274.9	5327.6	µg/L	5327.6	ppb	18:47:35
1	Na 589.592 Radial†	19150.9	18289.7	2496.3	µg/L	2496.3	ppb	18:47:35
1	Sr 421.552†	250356.1	256107.6	532.39	µg/L	532.39	ppb	18:47:33
1	Sc 361.383	1677195.1	1677195.1	97.612	%			18:47:48
1	Y 371.029	995806.6	995806.6	96.992	%			18:47:48
1	Ag 328.068†	70215.3	67841.3	257.54	µg/L	257.54	ppb	18:47:48
1	As 188.979†	1526.8	1584.5	486.58	µg/L	486.58	ppb	18:47:50
1	B 249.677†	37075.8	34476.8	506.67	µg/L	506.67	ppb	18:47:48
1	Ba 233.527†	122696.8	125833.7	507.50	µg/L	507.50	ppb	18:47:48
1	Be 313.107†	933729.3	957632.1	260.88	µg/L	260.88	ppb	18:47:48
1	Cd 226.502†	77657.9	79675.5	497.37	µg/L	497.37	ppb	18:47:48
1	Co 228.616†	40998.4	42191.5	520.85	µg/L	520.85	ppb	18:47:50
1	Cr 267.716†	62225.7	63569.1	497.75	µg/L	497.75	ppb	18:47:50
1	Cu 324.752†	130541.7	130762.4	509.73	µg/L	509.73	ppb	18:47:48
1	Mn 257.610†	407677.2	417411.4	516.24	µg/L	516.24	ppb	18:47:48
1	Mo 202.031†	18097.1	18559.8	545.92	µg/L	545.92	ppb	18:47:50
1	Ni 231.604†	43663.1	44807.6	515.93	µg/L	515.93	ppb	18:47:50
1	P 214.914†	11760.6	12066.2	2571.9	µg/L	2571.9	ppb	18:47:50
1	Pb 220.353†	9089.2	9225.1	516.68	µg/L	516.68	ppb	18:47:50
1	S 181.975 Axial†	3477.6	3457.6	2572.2	µg/L	2572.2	ppb	18:47:50
1	Sb 206.836†	4253.6	4276.8	510.30	µg/L	510.30	ppb	18:47:50
1	Se 196.026†	6905.2	7058.8	2550	µg/L	2550	ppb	18:47:50
1	SiO2†	106599.4	107431.3	10477	µg/L	10477	ppb	18:47:48
1	Si 251.611†	325209.4	332327.1	4888.6	µg/L	4888.6	ppb	18:47:48
1	Sn 189.927†	8509.6	8718.8	545.19	µg/L	545.19	ppb	18:47:50
1	Ti 334.940†	517306.5	529006.8	493.58	µg/L	493.58	ppb	18:47:48
1	Tl 190.801†	4208.4	4428.0	551.50	µg/L	551.50	ppb	18:47:50
1	U 409.014†	7246.7	7693.8	480.75	µg/L	480.75	ppb	18:47:48
1	V 292.402†	101371.8	103447.4	511.74	µg/L	511.74	ppb	18:47:48
1	Zn 213.857†	89039.6	90653.0	505.19	µg/L	505.19	ppb	18:47:48
2	Sc RADIAL	141472.3	141472.3	96.9	%			18:47:39
2	Al 396.153Radial†	26888.4	27798.8	5129.2	µg/L	5129.2	ppb	18:47:39
2	Ca 317.933Radial†	88063.7	90277.8	5028.8	µg/L	5028.8	ppb	18:47:39
2	Fe 238.204 Radial†	79583.4	81942.8	5050.5	µg/L	5050.5	ppb	18:47:39
2	K 766.490 Radial†	8113.5	6824.4	2495.6	µg/L	2495.6	ppb	18:47:39
2	Mg 279.077 IEC†	13969.8	14219.3	5306.5	µg/L	5306.5	ppb	18:47:39
2	Na 589.592 Radial†	19176.1	18489.5	2523.7	µg/L	2523.7	ppb	18:47:39
2	Sr 421.552†	244831.9	252681.3	525.27	µg/L	525.27	ppb	18:47:37
2	Sc 361.383	1698788.6	1698788.6	98.869	%			18:47:53
2	Y 371.029	1007373.3	1007373.3	98.119	%			18:47:53
2	Ag 328.068†	71291.0	68014.9	258.16	µg/L	258.16	ppb	18:47:53
2	As 188.979†	1532.9	1570.8	482.29	µg/L	482.29	ppb	18:47:55
2	B 249.677†	37726.0	34651.6	509.29	µg/L	509.29	ppb	18:47:53
2	Ba 233.527†	124221.9	125778.5	507.27	µg/L	507.27	ppb	18:47:53
2	Be 313.107†	946768.4	958661.3	261.16	µg/L	261.16	ppb	18:47:53
2	Cd 226.502†	78878.8	79899.1	498.76	µg/L	498.76	ppb	18:47:53
2	Co 228.616†	40427.2	41079.9	507.13	µg/L	507.13	ppb	18:47:55
2	Cr 267.716†	61613.4	62139.5	486.55	µg/L	486.55	ppb	18:47:55
2	Cu 324.752†	131991.8	130529.2	508.81	µg/L	508.81	ppb	18:47:53
2	Mn 257.610†	413215.3	417704.0	516.60	µg/L	516.60	ppb	18:47:53
2	Mo 202.031†	17824.6	18048.5	530.89	µg/L	530.89	ppb	18:47:55
2	Ni 231.604†	43042.2	43611.0	502.15	µg/L	502.15	ppb	18:47:55
2	P 214.914†	11581.1	11731.5	2500.3	µg/L	2500.3	ppb	18:47:55
2	Pb 220.353†	8959.4	8975.5	502.70	µg/L	502.70	ppb	18:47:55

2	S 181.975 Axial†	3387.2	3320.9	2470.5 µg/L	2470.5 ppb	18:47:55
2	Sb 206.836†	4183.4	4150.4	495.20 µg/L	495.20 ppb	18:47:55
2	Se 196.026†	6756.5	6818.5	2470 µg/L	2470 ppb	18:47:55
2	SiO2†	108026.4	107486.5	10483 µg/L	10483 ppb	18:47:53
2	Si 251.611†	330001.8	332939.4	4897.9 µg/L	4897.9 ppb	18:47:53
2	Sn 189.927†	8332.5	8429.0	527.12 µg/L	527.12 ppb	18:47:55
2	Ti 334.940†	523598.9	528634.8	493.24 µg/L	493.24 ppb	18:47:53
2	Tl 190.801†	4130.1	4294.0	535.11 µg/L	535.11 ppb	18:47:55
2	U 409.014†	7323.1	7676.7	479.70 µg/L	479.70 ppb	18:47:53
2	V 292.402†	102428.7	103196.4	510.32 µg/L	510.32 ppb	18:47:53
2	Zn 213.857†	90500.4	90971.0	507.07 µg/L	507.07 ppb	18:47:53
3	Sc RADIAL	141074.5	141074.5	96.7 %		18:47:43
3	Al 396.153Radial†	27024.0	28017.2	5169.9 µg/L	5169.9 ppb	18:47:43
3	Ca 317.933Radial†	88402.3	90884.2	5062.6 µg/L	5062.6 ppb	18:47:43
3	Fe 238.204 Radial†	79763.1	82360.1	5076.2 µg/L	5076.2 ppb	18:47:43
3	K 766.490 Radial†	8103.8	6838.0	2500.5 µg/L	2500.5 ppb	18:47:43
3	Mg 279.077 IEC†	14069.6	14363.2	5360.0 µg/L	5360.0 ppb	18:47:43
3	Na 589.592 Radial†	19066.5	18431.9	2515.8 µg/L	2515.8 ppb	18:47:43
3	Sr 421.552†	247012.7	255649.2	531.44 µg/L	531.44 ppb	18:47:41
3	Sc 361.383	1692022.5	1692022.5	98.475 %		18:47:58
3	Y 371.029	1004104.0	1004104.0	97.800 %		18:47:58
3	Ag 328.068†	71156.1	68166.3	258.74 µg/L	258.74 ppb	18:47:58
3	As 188.979†	1530.4	1574.5	483.34 µg/L	483.34 ppb	18:48:00
3	B 249.677†	37553.2	34628.7	508.97 µg/L	508.97 ppb	18:47:58
3	Ba 233.527†	123711.5	125762.6	507.21 µg/L	507.21 ppb	18:47:58
3	Be 313.107†	941930.7	957578.0	260.87 µg/L	260.87 ppb	18:47:58
3	Cd 226.502†	78415.4	79747.6	497.81 µg/L	497.81 ppb	18:47:58
3	Co 228.616†	39781.6	40587.8	501.06 µg/L	501.06 ppb	18:48:00
3	Cr 267.716†	60612.6	61372.4	480.54 µg/L	480.54 ppb	18:48:00
3	Cu 324.752†	131599.2	130664.3	509.34 µg/L	509.34 ppb	18:47:58
3	Mn 257.610†	411605.2	417740.2	516.64 µg/L	516.64 ppb	18:47:58
3	Mo 202.031†	17622.4	17915.3	526.98 µg/L	526.98 ppb	18:48:00
3	Ni 231.604†	42378.9	43111.5	496.40 µg/L	496.40 ppb	18:48:00
3	P 214.914†	11404.8	11599.3	2472.0 µg/L	2472.0 ppb	18:48:00
3	Pb 220.353†	8867.2	8918.1	499.49 µg/L	499.49 ppb	18:48:00
3	S 181.975 Axial†	3288.2	3234.1	2406.0 µg/L	2406.0 ppb	18:48:00
3	Sb 206.836†	4104.8	4087.6	487.75 µg/L	487.75 ppb	18:48:00
3	Se 196.026†	6722.3	6811.1	2460 µg/L	2460 ppb	18:48:00
3	SiO2†	107577.1	107467.2	10482 µg/L	10482 ppb	18:47:58
3	Si 251.611†	328691.1	332943.1	4898.1 µg/L	4898.1 ppb	18:47:58
3	Sn 189.927†	8196.6	8324.7	520.62 µg/L	520.62 ppb	18:48:00
3	Ti 334.940†	522557.7	529695.2	494.23 µg/L	494.23 ppb	18:47:58
3	Tl 190.801†	3987.3	4165.7	519.39 µg/L	519.39 ppb	18:48:00
3	U 409.014†	7372.3	7756.3	484.40 µg/L	484.40 ppb	18:47:58
3	V 292.402†	102179.3	103357.4	511.03 µg/L	511.03 ppb	18:47:58
3	Zn 213.857†	89790.3	90616.0	505.12 µg/L	505.12 ppb	18:47:58

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1689335.4	98.319	%	0.6428				0.65%
Sc RADIAL	141758.3	97.1	%	0.59				0.61%
Y 371.029	1002428.0	97.637	%	0.5808				0.59%
Ag 328.068†	68007.5	258.15	µg/L	0.601	258.15	ppb	0.601	0.23%
QC value within limits for Ag 328.068 Recovery = 103.26%								
Al 396.153Radial†	27895.2	5146.9	µg/L	20.85	5146.9	ppb	20.85	0.41%
QC value within limits for Al 396.153Radial Recovery = 102.94%								
As 188.979†	1576.6	484.07	µg/L	2.239	484.07	ppb	2.239	0.46%
QC value within limits for As 188.979 Recovery = 96.81%								
B 249.677†	34585.7	508.31	µg/L	1.434	508.31	ppb	1.434	0.28%
QC value within limits for B 249.677 Recovery = 101.66%								
Ba 233.527†	125791.6	507.32	µg/L	0.154	507.32	ppb	0.154	0.03%
QC value within limits for Ba 233.527 Recovery = 101.46%								
Be 313.107†	957957.1	260.97	µg/L	0.166	260.97	ppb	0.166	0.06%
QC value within limits for Be 313.107 Recovery = 104.39%								
Ca 317.933Radial†	90666.6	5050.5	µg/L	18.80	5050.5	ppb	18.80	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.01%								
Cd 226.502†	79774.1	497.98	µg/L	0.711	497.98	ppb	0.711	0.14%
QC value within limits for Cd 226.502 Recovery = 99.60%								
Co 228.616†	41286.4	509.68	µg/L	10.138	509.68	ppb	10.138	1.99%

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   QC value within limits for Co 228.616  Recovery = 101.94%
Cr 267.716†            62360.3      488.28 µg/L         8.733      488.28 ppb          8.733   1.79%
   QC value within limits for Cr 267.716  Recovery = 97.66%
Cu 324.752†           130652.0      509.29 µg/L         0.460      509.29 ppb          0.460   0.09%
   QC value within limits for Cu 324.752  Recovery = 101.86%
Fe 238.204 Radial†     82123.9      5061.6 µg/L         13.19      5061.6 ppb          13.19   0.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.23%
K 766.490 Radial†       6885.8      2518.1 µg/L         34.72      2518.1 ppb          34.72   1.38%
   QC value within limits for K 766.490 Radial  Recovery = 100.72%
Mg 279.077 IEC†        14285.8      5331.4 µg/L         26.95      5331.4 ppb          26.95   0.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.63%
Mn 257.610†           417618.5      516.49 µg/L         0.223      516.49 ppb          0.223   0.04%
   QC value within limits for Mn 257.610  Recovery = 103.30%
Mo 202.031†            18174.5      534.59 µg/L         9.999      534.59 ppb          9.999   1.87%
   QC value within limits for Mo 202.031  Recovery = 106.92%
Na 589.592 Radial†     18403.7      2511.9 µg/L         14.08      2511.9 ppb          14.08   0.56%
   QC value within limits for Na 589.592 Radial  Recovery = 100.48%
Ni 231.604†            43843.4      504.82 µg/L        10.036      504.82 ppb         10.036   1.99%
   QC value within limits for Ni 231.604  Recovery = 100.96%
P 214.914†             11799.0      2514.8 µg/L         51.47      2514.8 ppb          51.47   2.05%
   QC value within limits for P 214.914  Recovery = 100.59%
Pb 220.353†             9039.6      506.29 µg/L         9.140      506.29 ppb          9.140   1.81%
   QC value within limits for Pb 220.353  Recovery = 101.26%
S 181.975 Axial†        3337.5      2482.9 µg/L         83.76      2482.9 ppb          83.76   3.37%
   QC value within limits for S 181.975 Axial  Recovery = 99.32%
Sb 206.836†             4171.6      497.75 µg/L        11.489      497.75 ppb         11.489   2.31%
   QC value within limits for Sb 206.836  Recovery = 99.55%
Se 196.026†             6896.1        2500 µg/L          50.9        2500 ppb           50.9   2.04%
   QC value within limits for Se 196.026  Recovery = 99.81%
SiO2†                 107461.7       10481 µg/L           3.1       10481 ppb            3.1   0.03%
   QC value within limits for SiO2  Recovery = 98.00%
Si 251.611†           332736.6      4894.9 µg/L          5.44      4894.9 ppb          5.44   0.11%
   QC value within limits for Si 251.611  Recovery = 97.90%
Sn 189.927†             8490.8      530.98 µg/L        12.731      530.98 ppb         12.731   2.40%
   QC value within limits for Sn 189.927  Recovery = 106.20%
Sr 421.552†           254812.7      529.70 µg/L         3.867      529.70 ppb          3.867   0.73%
   QC value within limits for Sr 421.552  Recovery = 105.94%
Ti 334.940†           529112.2      493.68 µg/L         0.501      493.68 ppb          0.501   0.10%
   QC value within limits for Ti 334.940  Recovery = 98.74%
Tl 190.801†             4295.9      535.33 µg/L        16.060      535.33 ppb         16.060   3.00%
   QC value within limits for Tl 190.801  Recovery = 107.07%
U 409.014†              7709.0      481.62 µg/L         2.468      481.62 ppb          2.468   0.51%
   QC value within limits for U 409.014  Recovery = 96.32%
V 292.402†            103333.7      511.03 µg/L         0.714      511.03 ppb          0.714   0.14%
   QC value within limits for V 292.402  Recovery = 102.21%
Zn 213.857†            90746.7      505.79 µg/L         1.109      505.79 ppb          1.109   0.22%
   QC value within limits for Zn 213.857  Recovery = 101.16%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/31/2010 18:48:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141820.7	141820.7	97.2	%			18:48:38
1	Al 396.153Radial†	-23.3	39.2	7.2759	µg/L	7.2759	ppb	18:48:58
1	Ca 317.933Radial†	601.1	58.0	3.2284	µg/L	3.2284	ppb	18:48:58
1	Fe 238.204 Radial†	172.3	29.2	1.7975	µg/L	1.7975	ppb	18:48:58
1	K 766.490 Radial†	1651.6	154.7	56.635	µg/L	56.635	ppb	18:48:38
1	Mg 279.077 IEC†	178.4	-7.1	-2.6584	µg/L	-2.6584	ppb	18:48:58
1	Na 589.592 Radial†	1421.8	172.2	23.470	µg/L	23.470	ppb	18:48:38
1	Sr 421.552†	-137.1	-5.8	-0.0120	µg/L	-0.0120	ppb	18:48:38
1	Sc 361.383	1683915.8	1683915.8	98.004	%			18:50:00
1	Y 371.029	1008438.2	1008438.2	98.222	%			18:50:00
1	Ag 328.068†	3988.4	-21.8	-0.0966	µg/L	-0.0966	ppb	18:50:02
1	As 188.979†	-16.6	3.4	1.0196	µg/L	1.0196	ppb	18:50:22
1	B 249.677†	3689.5	258.8	3.8157	µg/L	3.8157	ppb	18:50:02
1	Ba 233.527†	-144.6	-11.7	-0.0475	µg/L	-0.0475	ppb	18:50:22
1	Be 313.107†	-835.0	212.7	0.0556	µg/L	0.0556	ppb	18:50:02
1	Cd 226.502†	-86.3	30.1	0.1877	µg/L	0.1877	ppb	18:50:22
1	Co 228.616†	-156.6	30.5	0.3761	µg/L	0.3761	ppb	18:50:22
1	Cr 267.716†	188.6	13.8	0.1142	µg/L	0.1142	ppb	18:50:22
1	Cu 324.752†	2866.9	-46.9	-0.1882	µg/L	-0.1882	ppb	18:50:02
1	Mn 257.610†	237.6	5.2	0.0065	µg/L	0.0065	ppb	18:50:22
1	Mo 202.031†	-20.5	-0.8	-0.0238	µg/L	-0.0238	ppb	18:50:22
1	Ni 231.604†	-85.2	-10.4	-0.1202	µg/L	-0.1202	ppb	18:50:22
1	P 214.914†	-19.5	-2.0	-0.4133	µg/L	-0.4133	ppb	18:50:22
1	Pb 220.353†	104.1	19.8	1.1130	µg/L	1.1130	ppb	18:50:22
1	S 181.975 Axial†	94.9	-8.2	-6.0991	µg/L	-6.0991	ppb	18:50:22
1	Sb 206.836†	83.0	3.9	0.4581	µg/L	0.4581	ppb	18:50:22
1	Se 196.026†	16.9	2.0	0.709	µg/L	0.709	ppb	18:50:22
1	SiO2†	1750.1	10.4	1.0001	µg/L	1.0001	ppb	18:50:22
1	Si 251.611†	692.5	-130.0	-1.9216	µg/L	-1.9216	ppb	18:50:02
1	Sn 189.927†	12.8	14.2	0.8842	µg/L	0.8842	ppb	18:50:22
1	Ti 334.940†	967.2	34.4	0.0355	µg/L	0.0355	ppb	18:50:02
1	Tl 190.801†	-113.3	1.1	0.1286	µg/L	0.1286	ppb	18:50:22
1	U 409.014†	-392.4	-130.5	-7.6641	µg/L	-7.6641	ppb	18:50:02
1	V 292.402†	288.2	-109.7	-0.5404	µg/L	-0.5404	ppb	18:50:02
1	Zn 213.857†	580.6	28.0	0.1584	µg/L	0.1584	ppb	18:50:22
2	Sc RADIAL	141475.5	141475.5	96.9	%			18:49:00
2	Al 396.153Radial†	-59.5	1.9	0.3293	µg/L	0.3293	ppb	18:49:20
2	Ca 317.933Radial†	582.6	40.4	2.2485	µg/L	2.2485	ppb	18:49:20
2	Fe 238.204 Radial†	177.4	34.9	2.1506	µg/L	2.1506	ppb	18:49:20
2	K 766.490 Radial†	1678.4	186.4	68.259	µg/L	68.259	ppb	18:49:00
2	Mg 279.077 IEC†	195.6	11.1	4.1266	µg/L	4.1266	ppb	18:49:20
2	Na 589.592 Radial†	1313.4	64.0	8.6800	µg/L	8.6800	ppb	18:49:00
2	Sr 421.552†	-263.2	-136.2	-0.2832	µg/L	-0.2832	ppb	18:49:00
2	Sc 361.383	1681105.0	1681105.0	97.840	%			18:50:24
2	Y 371.029	1006809.9	1006809.9	98.064	%			18:50:24
2	Ag 328.068†	3899.5	-105.8	-0.4010	µg/L	-0.4010	ppb	18:50:26
2	As 188.979†	-14.2	5.9	1.7810	µg/L	1.7810	ppb	18:50:47
2	B 249.677†	3479.7	50.7	0.7461	µg/L	0.7461	ppb	18:50:26
2	Ba 233.527†	-126.1	7.0	0.0284	µg/L	0.0284	ppb	18:50:47
2	Be 313.107†	-932.6	111.6	0.0281	µg/L	0.0281	ppb	18:50:26
2	Cd 226.502†	-94.6	21.5	0.1342	µg/L	0.1342	ppb	18:50:47
2	Co 228.616†	-159.1	27.7	0.3416	µg/L	0.3416	ppb	18:50:47
2	Cr 267.716†	205.7	31.7	0.2541	µg/L	0.2541	ppb	18:50:47
2	Cu 324.752†	2760.4	-150.9	-0.5921	µg/L	-0.5921	ppb	18:50:26
2	Mn 257.610†	248.9	17.1	0.0210	µg/L	0.0210	ppb	18:50:47
2	Mo 202.031†	-6.8	13.1	0.3848	µg/L	0.3848	ppb	18:50:47
2	Ni 231.604†	-77.1	-2.3	-0.0264	µg/L	-0.0264	ppb	18:50:47
2	P 214.914†	-8.5	9.3	1.9937	µg/L	1.9937	ppb	18:50:47
2	Pb 220.353†	88.9	4.5	0.2582	µg/L	0.2582	ppb	18:50:47

2	S 181.975 Axial†	97.2	-5.7	-4.2111 µg/L	-4.2111 ppb	18:50:47
2	Sb 206.836†	84.7	5.7	0.6836 µg/L	0.6836 ppb	18:50:47
2	Se 196.026†	31.5	16.9	6.11 µg/L	6.11 ppb	18:50:47
2	SiO2†	1754.7	18.0	1.7515 µg/L	1.7515 ppb	18:50:47
2	Si 251.611†	708.6	-112.3	-1.6605 µg/L	-1.6605 ppb	18:50:26
2	Sn 189.927†	-0.8	0.3	0.0171 µg/L	0.0171 ppb	18:50:47
2	Ti 334.940†	917.4	-14.9	-0.0112 µg/L	-0.0112 ppb	18:50:26
2	Tl 190.801†	-109.7	4.5	0.5537 µg/L	0.5537 ppb	18:50:47
2	U 409.014†	-392.0	-130.8	-7.6468 µg/L	-7.6468 ppb	18:50:26
2	V 292.402†	396.5	1.4	0.0068 µg/L	0.0068 ppb	18:50:26
2	Zn 213.857†	557.8	5.7	0.0323 µg/L	0.0323 ppb	18:50:47
3	Sc RADIAL	140788.0	140788.0	96.5 %		18:49:22
3	Al 396.153Radial†	-53.3	8.0	1.4950 µg/L	1.4950 ppb	18:49:42
3	Ca 317.933Radial†	570.5	30.7	1.7106 µg/L	1.7106 ppb	18:49:42
3	Fe 238.204 Radial†	153.8	11.4	0.7002 µg/L	0.7002 ppb	18:49:42
3	K 766.490 Radial†	1509.3	19.7	7.1988 µg/L	7.1988 ppb	18:49:22
3	Mg 279.077 IEC†	187.5	3.6	1.3339 µg/L	1.3339 ppb	18:49:42
3	Na 589.592 Radial†	1241.2	-4.3	-0.5891 µg/L	-0.5891 ppb	18:49:22
3	Sr 421.552†	-62.3	70.7	0.1469 µg/L	0.1469 ppb	18:49:22
3	Sc 361.383	1702475.2	1702475.2	99.084 %		18:50:49
3	Y 371.029	1019278.2	1019278.2	99.278 %		18:50:49
3	Ag 328.068†	3893.2	-162.2	-0.6047 µg/L	-0.6047 ppb	18:50:51
3	As 188.979†	-11.0	9.3	2.8073 µg/L	2.8073 ppb	18:51:11
3	B 249.677†	3493.6	20.0	0.2957 µg/L	0.2957 ppb	18:50:51
3	Ba 233.527†	-155.1	-20.7	-0.0837 µg/L	-0.0837 ppb	18:51:11
3	Be 313.107†	-918.7	137.5	0.0367 µg/L	0.0367 ppb	18:50:51
3	Cd 226.502†	-90.2	27.2	0.1697 µg/L	0.1697 ppb	18:51:11
3	Co 228.616†	-191.5	-3.0	-0.0369 µg/L	-0.0369 ppb	18:51:11
3	Cr 267.716†	192.8	16.1	0.1277 µg/L	0.1277 ppb	18:51:11
3	Cu 324.752†	2902.8	-42.6	-0.1675 µg/L	-0.1675 ppb	18:50:51
3	Mn 257.610†	221.1	-14.1	-0.0175 µg/L	-0.0175 ppb	18:51:11
3	Mo 202.031†	-27.6	-7.7	-0.2274 µg/L	-0.2274 ppb	18:51:11
3	Ni 231.604†	-80.3	-4.5	-0.0519 µg/L	-0.0519 ppb	18:51:11
3	P 214.914†	-10.6	7.3	1.5639 µg/L	1.5639 ppb	18:51:11
3	Pb 220.353†	87.5	1.9	0.1068 µg/L	0.1068 ppb	18:51:11
3	S 181.975 Axial†	108.2	4.2	3.0845 µg/L	3.0845 ppb	18:51:11
3	Sb 206.836†	65.7	-14.5	-1.7326 µg/L	-1.7326 ppb	18:51:11
3	Se 196.026†	1.4	-13.8	-5.00 µg/L	-5.00 ppb	18:51:11
3	SiO2†	1771.9	13.0	1.2622 µg/L	1.2622 ppb	18:51:11
3	Si 251.611†	804.4	-24.7	-0.3658 µg/L	-0.3658 ppb	18:50:51
3	Sn 189.927†	10.9	12.2	0.7583 µg/L	0.7583 ppb	18:51:11
3	Ti 334.940†	1048.8	105.9	0.0999 µg/L	0.0999 ppb	18:50:51
3	Tl 190.801†	-119.3	-3.7	-0.4558 µg/L	-0.4558 ppb	18:51:11
3	U 409.014†	-309.5	-42.5	-2.4891 µg/L	-2.4891 ppb	18:50:51
3	V 292.402†	382.0	-18.2	-0.0926 µg/L	-0.0926 ppb	18:50:51
3	Zn 213.857†	566.8	7.7	0.0435 µg/L	0.0435 ppb	18:51:11

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1689165.4	98.309	%	0.6758				0.69%
Sc RADIAL	141361.4	96.9	%	0.36				0.37%
Y 371.029	1011508.8	98.521	%	0.6601				0.67%
Ag 328.068†	-96.6	-0.3674	µg/L	0.25571	-0.3674	ppb	0.25571	69.60%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	16.4	3.0334	µg/L	3.72004	3.0334	ppb	3.72004	122.63%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	1.8693	µg/L	0.89713	1.8693	ppb	0.89713	47.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	109.8	1.6192	µg/L	1.91554	1.6192	ppb	1.91554	118.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.5	-0.0343	µg/L	0.05718	-0.0343	ppb	0.05718	166.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	153.9	0.0401	µg/L	0.01409	0.0401	ppb	0.01409	35.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	43.0	2.3958	µg/L	0.76955	2.3958	ppb	0.76955	32.12%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	26.3	0.1639	µg/L	0.02723	0.1639	ppb	0.02723	16.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.4	0.2269	µg/L	0.22917	0.2269	ppb	0.22917	100.99%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                20.5      0.1654 µg/L       0.07718      0.1654 ppb        0.07718  46.67%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -80.1     -0.3159 µg/L       0.23936     -0.3159 ppb        0.23936  75.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         25.1      1.5494 µg/L       0.75637      1.5494 ppb        0.75637  48.82%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         120.3      44.031 µg/L       32.4227      44.031 ppb        32.4227  73.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.5      0.9341 µg/L       3.41013      0.9341 ppb        3.41013 365.09%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                2.7      0.0033 µg/L       0.01944      0.0033 ppb        0.01944 582.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.5      0.0446 µg/L       0.31176      0.0446 ppb        0.31176 699.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         77.3      10.520 µg/L       12.1345      10.520 ppb        12.1345 115.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.7     -0.0661 µg/L       0.04849     -0.0661 ppb        0.04849  73.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 4.9      1.0481 µg/L       1.28372      1.0481 ppb        1.28372 122.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                8.7      0.4927 µg/L       0.54252      0.4927 ppb        0.54252 110.12%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.2     -2.4085 µg/L       4.84991     -2.4085 ppb        4.84991 201.36%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -1.6     -0.1970 µg/L       1.33468     -0.1970 ppb        1.33468 677.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.7       0.603 µg/L        5.5558       0.603 ppb         5.5558 920.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     13.8      1.3380 µg/L       0.38138      1.3380 ppb        0.38138  28.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -89.0     -1.3160 µg/L       0.83316     -1.3160 ppb        0.83316  63.31%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                8.9      0.5532 µg/L       0.46851      0.5532 ppb        0.46851  84.69%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -23.8     -0.0494 µg/L       0.21749     -0.0494 ppb        0.21749 439.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               41.8      0.0414 µg/L       0.05575      0.0414 ppb        0.05575 134.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.6      0.0755 µg/L       0.50686      0.0755 ppb        0.50686 671.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -101.3     -5.9334 µg/L       2.98281     -5.9334 ppb        2.98281  50.27%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -42.2     -0.2088 µg/L       0.29151     -0.2088 ppb        0.29151 139.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               13.8      0.0780 µg/L       0.06978      0.0780 ppb        0.06978  89.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 3/31/2010 18:51:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140861.4	140861.4	96.5	%			18:51:48
1	Al 396.153Radial†	987.6	1086.3	200.96	µg/L	200.96	ppb	18:51:50
1	Ca 317.933Radial†	4191.0	3781.2	210.63	µg/L	210.63	ppb	18:51:50
1	Fe 238.204 Radial†	1792.5	1708.9	105.32	µg/L	105.32	ppb	18:51:50
1	K 766.490 Radial†	1849.3	371.1	135.70	µg/L	135.70	ppb	18:51:48
1	Mg 279.077 IEC†	1004.6	850.0	316.85	µg/L	316.85	ppb	18:51:50
1	Na 589.592 Radial†	3218.7	2043.7	279.07	µg/L	279.07	ppb	18:51:50
1	Sr 421.552†	2356.1	2576.2	5.3541	µg/L	5.3541	ppb	18:51:50
1	Sc 361.383	1696993.3	1696993.3	98.765	%			18:52:02
1	Y 371.029	1016566.5	1016566.5	99.014	%			18:52:02
1	Ag 328.068†	5094.4	1066.7	4.0516	µg/L	4.0516	ppb	18:52:04
1	As 188.979†	82.8	104.2	31.603	µg/L	31.603	ppb	18:52:24
1	B 249.677†	6532.0	3107.8	45.816	µg/L	45.816	ppb	18:52:04
1	Ba 233.527†	1080.9	1230.2	4.9619	µg/L	4.9619	ppb	18:52:24
1	Be 313.107†	16638.5	17911.3	4.8913	µg/L	4.8913	ppb	18:52:04
1	Cd 226.502†	682.8	809.6	5.0479	µg/L	5.0479	ppb	18:52:24
1	Co 228.616†	230.9	424.1	5.2325	µg/L	5.2325	ppb	18:52:24
1	Cr 267.716†	759.8	590.7	4.5885	µg/L	4.5885	ppb	18:52:24
1	Cu 324.752†	5375.4	2470.4	9.6665	µg/L	9.6665	ppb	18:52:04
1	Mn 257.610†	8461.3	8329.9	10.294	µg/L	10.294	ppb	18:52:04
1	Mo 202.031†	297.2	321.0	9.4457	µg/L	9.4457	ppb	18:52:24
1	Ni 231.604†	359.2	440.2	5.0686	µg/L	5.0686	ppb	18:52:24
1	P 214.914†	662.2	688.4	147.09	µg/L	147.09	ppb	18:52:24
1	Pb 220.353†	275.6	192.6	10.753	µg/L	10.753	ppb	18:52:24
1	S 181.975 Axial†	231.8	129.7	96.360	µg/L	96.360	ppb	18:52:24
1	Sb 206.836†	150.3	71.3	8.5656	µg/L	8.5656	ppb	18:52:24
1	Se 196.026†	92.5	78.4	28.4	µg/L	28.4	ppb	18:52:24
1	SiO2†	3882.7	2155.9	210.31	µg/L	210.31	ppb	18:52:04
1	Si 251.611†	7564.5	6822.6	100.39	µg/L	100.39	ppb	18:52:04
1	Sn 189.927†	162.8	165.9	10.360	µg/L	10.360	ppb	18:52:24
1	Ti 334.940†	6150.6	5275.0	4.8870	µg/L	4.8870	ppb	18:52:04
1	Tl 190.801†	46.5	163.8	20.204	µg/L	20.204	ppb	18:52:24
1	U 409.014†	536.3	812.9	47.827	µg/L	47.827	ppb	18:52:04
1	V 292.402†	1270.3	882.4	4.4384	µg/L	4.4384	ppb	18:52:04
1	Zn 213.857†	2321.2	1785.9	9.9841	µg/L	9.9841	ppb	18:52:24
2	Sc RADIAL	140936.7	140936.7	96.6	%			18:51:52
2	Al 396.153Radial†	972.6	1070.3	198.01	µg/L	198.01	ppb	18:51:54
2	Ca 317.933Radial†	4253.2	3843.3	214.09	µg/L	214.09	ppb	18:51:54
2	Fe 238.204 Radial†	1742.6	1656.2	102.08	µg/L	102.08	ppb	18:51:54
2	K 766.490 Radial†	1908.6	431.4	157.79	µg/L	157.79	ppb	18:51:52
2	Mg 279.077 IEC†	969.9	813.6	303.26	µg/L	303.26	ppb	18:51:54
2	Na 589.592 Radial†	3291.7	2117.5	289.13	µg/L	289.13	ppb	18:51:54
2	Sr 421.552†	2245.5	2460.3	5.1132	µg/L	5.1132	ppb	18:51:54
2	Sc 361.383	1687966.3	1687966.3	98.239	%			18:52:26
2	Y 371.029	1011019.5	1011019.5	98.474	%			18:52:26
2	Ag 328.068†	5292.9	1296.4	4.8998	µg/L	4.8998	ppb	18:52:28
2	As 188.979†	83.0	104.8	31.803	µg/L	31.803	ppb	18:52:48
2	B 249.677†	6698.9	3313.0	48.843	µg/L	48.843	ppb	18:52:28
2	Ba 233.527†	1087.4	1242.7	5.0120	µg/L	5.0120	ppb	18:52:48
2	Be 313.107†	16507.3	17867.9	4.8796	µg/L	4.8796	ppb	18:52:28
2	Cd 226.502†	680.2	810.6	5.0545	µg/L	5.0545	ppb	18:52:48
2	Co 228.616†	236.4	430.9	5.3167	µg/L	5.3167	ppb	18:52:48
2	Cr 267.716†	835.7	672.2	5.2260	µg/L	5.2260	ppb	18:52:48
2	Cu 324.752†	5528.6	2655.4	10.385	µg/L	10.385	ppb	18:52:28
2	Mn 257.610†	8398.7	8312.0	10.272	µg/L	10.272	ppb	18:52:28
2	Mo 202.031†	283.2	308.3	9.0728	µg/L	9.0728	ppb	18:52:48
2	Ni 231.604†	357.6	440.5	5.0722	µg/L	5.0722	ppb	18:52:48
2	P 214.914†	662.1	691.9	147.84	µg/L	147.84	ppb	18:52:48
2	Pb 220.353†	294.5	213.4	11.913	µg/L	11.913	ppb	18:52:48

2	S 181.975 Axial†	239.0	138.2	102.73 µg/L	102.73 ppb	18:52:48
2	Sb 206.836†	162.6	84.7	10.140 µg/L	10.140 ppb	18:52:48
2	Se 196.026†	98.4	84.9	30.8 µg/L	30.8 ppb	18:52:48
2	SiO2†	3912.9	2207.6	215.37 µg/L	215.37 ppb	18:52:28
2	Si 251.611†	7475.2	6772.6	99.658 µg/L	99.658 ppb	18:52:28
2	Sn 189.927†	165.0	169.0	10.554 µg/L	10.554 ppb	18:52:48
2	Ti 334.940†	5906.4	5059.7	4.6867 µg/L	4.6867 ppb	18:52:28
2	Tl 190.801†	41.0	158.5	19.548 µg/L	19.548 ppb	18:52:48
2	U 409.014†	539.0	818.5	48.142 µg/L	48.142 ppb	18:52:28
2	V 292.402†	1219.4	837.5	4.2189 µg/L	4.2189 ppb	18:52:28
2	Zn 213.857†	2338.9	1816.4	10.155 µg/L	10.155 ppb	18:52:48
3	Sc RADIAL	141853.7	141853.7	97.2 %		18:51:56
3	Al 396.153Radial†	1054.0	1147.5	212.32 µg/L	212.32 ppb	18:51:58
3	Ca 317.933Radial†	4255.4	3817.1	212.63 µg/L	212.63 ppb	18:51:58
3	Fe 238.204 Radial†	1716.2	1617.5	99.690 µg/L	99.690 ppb	18:51:58
3	K 766.490 Radial†	1916.0	426.3	155.92 µg/L	155.92 ppb	18:51:56
3	Mg 279.077 IEC†	1001.3	839.3	312.86 µg/L	312.86 ppb	18:51:58
3	Na 589.592 Radial†	3186.5	1987.3	271.34 µg/L	271.34 ppb	18:51:58
3	Sr 421.552†	2248.0	2447.8	5.0873 µg/L	5.0873 ppb	18:51:58
3	Sc 361.383	1703589.6	1703589.6	99.149 %		18:52:50
3	Y 371.029	1020076.1	1020076.1	99.356 %		18:52:50
3	Ag 328.068†	5329.5	1283.9	4.8863 µg/L	4.8863 ppb	18:52:52
3	As 188.979†	68.9	89.8	27.263 µg/L	27.263 ppb	18:53:13
3	B 249.677†	6826.1	3378.8	49.814 µg/L	49.814 ppb	18:52:52
3	Ba 233.527†	1095.4	1240.7	5.0047 µg/L	5.0047 ppb	18:53:13
3	Be 313.107†	16765.5	17974.2	4.9127 µg/L	4.9127 ppb	18:52:52
3	Cd 226.502†	685.3	809.4	5.0473 µg/L	5.0473 ppb	18:53:13
3	Co 228.616†	212.4	404.5	4.9910 µg/L	4.9910 ppb	18:53:13
3	Cr 267.716†	807.3	635.7	4.9297 µg/L	4.9297 ppb	18:53:13
3	Cu 324.752†	5461.8	2536.5	9.9340 µg/L	9.9340 ppb	18:52:52
3	Mn 257.610†	8558.8	8395.0	10.374 µg/L	10.374 ppb	18:52:52
3	Mo 202.031†	286.1	308.6	9.0804 µg/L	9.0804 ppb	18:53:13
3	Ni 231.604†	341.2	420.7	4.8437 µg/L	4.8437 ppb	18:53:13
3	P 214.914†	668.0	691.7	147.81 µg/L	147.81 ppb	18:53:13
3	Pb 220.353†	280.1	196.2	10.941 µg/L	10.941 ppb	18:53:13
3	S 181.975 Axial†	229.3	126.2	93.811 µg/L	93.811 ppb	18:53:13
3	Sb 206.836†	165.2	85.8	10.280 µg/L	10.280 ppb	18:53:13
3	Se 196.026†	109.6	95.3	34.5 µg/L	34.5 ppb	18:53:13
3	SiO2†	3891.1	2149.2	209.66 µg/L	209.66 ppb	18:52:52
3	Si 251.611†	7576.0	6804.5	100.13 µg/L	100.13 ppb	18:52:52
3	Sn 189.927†	163.2	165.7	10.345 µg/L	10.345 ppb	18:53:13
3	Ti 334.940†	6177.6	5278.1	4.8843 µg/L	4.8843 ppb	18:52:52
3	Tl 190.801†	27.8	144.7	17.868 µg/L	17.868 ppb	18:53:13
3	U 409.014†	779.2	1055.8	62.094 µg/L	62.094 ppb	18:52:52
3	V 292.402†	1501.4	1110.5	5.5591 µg/L	5.5591 ppb	18:52:52
3	Zn 213.857†	2359.0	1814.8	10.149 µg/L	10.149 ppb	18:53:13

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1696183.1	98.718	%	0.4565				0.46%
Sc RADIAL	141217.3	96.8	%	0.38				0.39%
Y 371.029	1015887.4	98.948	%	0.4448				0.45%
Ag 328.068†	1215.7	4.6126	µg/L	0.48588	4.6126	ppb	0.48588	10.53%
QC value within limits for Ag 328.068 Recovery = 92.25%								
Al 396.153Radial†	1101.4	203.76	µg/L	7.553	203.76	ppb	7.553	3.71%
QC value within limits for Al 396.153Radial Recovery = 101.88%								
As 188.979†	99.6	30.223	µg/L	2.5657	30.223	ppb	2.5657	8.49%
QC value within limits for As 188.979 Recovery = 100.74%								
B 249.677†	3266.5	48.158	µg/L	2.0851	48.158	ppb	2.0851	4.33%
QC value within limits for B 249.677 Recovery = 96.32%								
Ba 233.527†	1237.9	4.9928	µg/L	0.02706	4.9928	ppb	0.02706	0.54%
QC value within limits for Ba 233.527 Recovery = 99.86%								
Be 313.107†	17917.8	4.8945	µg/L	0.01680	4.8945	ppb	0.01680	0.34%
QC value within limits for Be 313.107 Recovery = 97.89%								
Ca 317.933Radial†	3813.9	212.45	µg/L	1.736	212.45	ppb	1.736	0.82%
QC value within limits for Ca 317.933Radial Recovery = 106.22%								
Cd 226.502†	809.8	5.0499	µg/L	0.00397	5.0499	ppb	0.00397	0.08%
QC value within limits for Cd 226.502 Recovery = 101.00%								
Co 228.616†	419.8	5.1801	µg/L	0.16905	5.1801	ppb	0.16905	3.26%

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   QC value within limits for Co 228.616  Recovery = 103.60%
Cr 267.716†              632.8      4.9147 µg/L       0.31903      4.9147 ppb        0.31903   6.49%
   QC value within limits for Cr 267.716  Recovery = 98.29%
Cu 324.752†             2554.1      9.9952 µg/L       0.36319      9.9952 ppb        0.36319   3.63%
   QC value within limits for Cu 324.752  Recovery = 99.95%
Fe 238.204 Radial†      1660.8      102.36 µg/L         2.828      102.36 ppb          2.828   2.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.36%
K 766.490 Radial†        409.6      149.80 µg/L        12.246      149.80 ppb         12.246   8.17%
   QC value within limits for K 766.490 Radial  Recovery = 99.87%
Mg 279.077 IEC†          834.3      310.99 µg/L         6.984      310.99 ppb          6.984   2.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.66%
Mn 257.610†             8345.6      10.313 µg/L        0.0539      10.313 ppb         0.0539   0.52%
   QC value within limits for Mn 257.610  Recovery = 103.13%
Mo 202.031†              312.7      9.1996 µg/L       0.21314      9.1996 ppb        0.21314   2.32%
   QC value within limits for Mo 202.031  Recovery = 92.00%
Na 589.592 Radial†      2049.5      279.85 µg/L         8.919      279.85 ppb          8.919   3.19%
   QC value within limits for Na 589.592 Radial  Recovery = 93.28%
Ni 231.604†              433.8      4.9948 µg/L       0.13089      4.9948 ppb        0.13089   2.62%
   QC value within limits for Ni 231.604  Recovery = 99.90%
P 214.914†               690.7      147.58 µg/L         0.423      147.58 ppb          0.423   0.29%
   QC value within limits for P 214.914  Recovery = 98.39%
Pb 220.353†              200.7      11.202 µg/L        0.6223      11.202 ppb         0.6223   5.56%
   QC value within limits for Pb 220.353  Recovery = 112.02%
S 181.975 Axial†         131.4      97.634 µg/L        4.5940      97.634 ppb         4.5940   4.71%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†               80.6      9.6618 µg/L       0.95194      9.6618 ppb        0.95194   9.85%
   QC value within limits for Sb 206.836  Recovery = 96.62%
Se 196.026†               86.2        31.2 µg/L          3.09        31.2 ppb           3.09   9.88%
   QC value within limits for Se 196.026  Recovery = 104.17%
SiO2†                   2170.9      211.78 µg/L         3.127      211.78 ppb          3.127   1.48%
   QC value within limits for SiO2  Recovery = 99.43%
Si 251.611†             6799.9      100.06 µg/L         0.371      100.06 ppb          0.371   0.37%
   QC value within limits for Si 251.611  Recovery = 100.06%
Sn 189.927†              166.9      10.420 µg/L        0.1167      10.420 ppb         0.1167   1.12%
   QC value within limits for Sn 189.927  Recovery = 104.20%
Sr 421.552†             2494.8      5.1849 µg/L       0.14714      5.1849 ppb        0.14714   2.84%
   QC value within limits for Sr 421.552  Recovery = 103.70%
Ti 334.940†             5204.3      4.8193 µg/L       0.11489      4.8193 ppb        0.11489   2.38%
   QC value within limits for Ti 334.940  Recovery = 96.39%
Tl 190.801†              155.6      19.207 µg/L        1.2048      19.207 ppb         1.2048   6.27%
   QC value within limits for Tl 190.801  Recovery = 96.03%
U 409.014†               895.8      52.688 µg/L        8.1477      52.688 ppb         8.1477  15.46%
   QC value within limits for U 409.014  Recovery = 105.38%
V 292.402†               943.5      4.7388 µg/L       0.71883      4.7388 ppb        0.71883  15.17%
   QC value within limits for V 292.402  Recovery = 94.78%
Zn 213.857†             1805.7      10.096 µg/L        0.0971      10.096 ppb         0.0971   0.96%
   QC value within limits for Zn 213.857  Recovery = 100.96%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 3/31/2010 18:53:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	132242.6	132242.6	90.6	%			18:53:53
1	Al 396.153Radial†	2422897.8	2673731.8	495710	µg/L	495710	ppb	18:53:51
1	Ca 317.933Radial†	7691621.4	8487146.3	472770	µg/L	472770	ppb	18:53:51
1	Fe 238.204 Radial†	2755313.8	3040341.6	187390	µg/L	187390	ppb	18:53:51
1	K 766.490 Radial†	1640.2	265.2	-138.93	µg/L	-138.93	ppb	18:53:53
1	Mg 279.077 IEC†	1160629.2	1280564.0	476960	µg/L	476960	ppb	18:53:51
1	Na 589.592 Radial†	1484.0	346.8	47.294	µg/L	47.294	ppb	18:53:53
1	Sr 421.552†	1473.7	1761.6	-0.0382	µg/L	-0.0382	ppb	18:53:53
1	Sc 361.383	1517022.4	1517022.4	88.290	%			18:54:06
1	Y 371.029	894868.4	894868.4	87.161	%			18:54:06
1	Ag 328.068†	6255.0	2993.2	-1.9729	µg/L	-1.9729	ppb	18:54:06
1	As 188.979†	-100.1	-93.0	13.877	µg/L	13.877	ppb	18:54:26
1	B 249.677†	3380.9	323.4	4.7554	µg/L	4.7554	ppb	18:54:06
1	Ba 233.527†	434.1	627.6	0.1345	µg/L	0.1345	ppb	18:54:26
1	Be 313.107†	-1147.6	-235.1	-0.0621	µg/L	-0.0621	ppb	18:54:06
1	Cd 226.502†	2412.4	2850.5	-1.8998	µg/L	-1.8998	ppb	18:54:26
1	Co 228.616†	123.8	330.6	-5.6944	µg/L	-5.6944	ppb	18:54:26
1	Cr 267.716†	198.7	46.5	1.0479	µg/L	1.0479	ppb	18:54:26
1	Cu 324.752†	-5619.3	-9336.8	3.9046	µg/L	3.9046	ppb	18:54:06
1	Mn 257.610†	16860.5	18859.4	3.9217	µg/L	3.9217	ppb	18:54:06
1	Mo 202.031†	-556.1	-609.8	-1.7911	µg/L	-1.7911	ppb	18:54:26
1	Ni 231.604†	185.4	286.5	3.2984	µg/L	3.2984	ppb	18:54:26
1	P 214.914†	178.3	219.9	29.959	µg/L	29.959	ppb	18:54:26
1	Pb 220.353†	-392.3	-530.7	-4.9340	µg/L	-4.9340	ppb	18:54:26
1	S 181.975 Axial†	184.5	103.9	77.024	µg/L	77.024	ppb	18:54:26
1	Sb 206.836†	109.1	42.8	-0.8364	µg/L	-0.8364	ppb	18:54:26
1	Se 196.026†	-143.5	-177.8	0.756	µg/L	0.756	ppb	18:54:26
1	SiO2†	1661.3	106.3	10.857	µg/L	10.857	ppb	18:54:26
1	Si 251.611†	457.4	-318.5	-4.4771	µg/L	-4.4771	ppb	18:54:26
1	Sn 189.927†	41.8	48.5	3.1002	µg/L	3.1002	ppb	18:54:26
1	Ti 334.940†	22402.5	24421.1	-3.7208	µg/L	-3.7208	ppb	18:54:06
1	Tl 190.801†	-159.3	-63.8	-7.4175	µg/L	-7.4175	ppb	18:54:26
1	U 409.014†	-141.4	109.7	-14.558	µg/L	-14.558	ppb	18:54:06
1	V 292.402†	4081.9	4219.5	0.6141	µg/L	0.6141	ppb	18:54:06
1	Zn 213.857†	4369.0	4384.0	8.5615	µg/L	8.5615	ppb	18:54:26
2	Sc RADIAL	132040.0	132040.0	90.5	%			18:53:58
2	Al 396.153Radial†	2444947.4	2702202.7	500990	µg/L	500990	ppb	18:53:56
2	Ca 317.933Radial†	7800125.3	8620085.6	480170	µg/L	480170	ppb	18:53:56
2	Fe 238.204 Radial†	2791790.4	3085319.9	190160	µg/L	190160	ppb	18:53:56
2	K 766.490 Radial†	1740.8	379.1	-100.42	µg/L	-100.42	ppb	18:53:58
2	Mg 279.077 IEC†	1178560.0	1302345.9	485070	µg/L	485070	ppb	18:53:56
2	Na 589.592 Radial†	1410.4	267.9	36.479	µg/L	36.479	ppb	18:53:58
2	Sr 421.552†	1434.5	1720.7	-0.1811	µg/L	-0.1811	ppb	18:53:58
2	Sc 361.383	1500109.7	1500109.7	87.306	%			18:54:29
2	Y 371.029	884042.0	884042.0	86.106	%			18:54:29
2	Ag 328.068†	6203.9	3014.6	-2.1211	µg/L	-2.1211	ppb	18:54:29
2	As 188.979†	-119.9	-117.0	7.2444	µg/L	7.2444	ppb	18:54:49
2	B 249.677†	3505.1	508.8	7.4908	µg/L	7.4908	ppb	18:54:29
2	Ba 233.527†	482.5	688.5	0.3435	µg/L	0.3435	ppb	18:54:49
2	Be 313.107†	-1215.4	-327.4	-0.0902	µg/L	-0.0902	ppb	18:54:29
2	Cd 226.502†	2441.6	2914.8	-1.7901	µg/L	-1.7901	ppb	18:54:49
2	Co 228.616†	105.8	311.5	-6.0736	µg/L	-6.0736	ppb	18:54:49
2	Cr 267.716†	217.8	70.9	1.2432	µg/L	1.2432	ppb	18:54:49
2	Cu 324.752†	-5483.5	-9253.0	4.8451	µg/L	4.8451	ppb	18:54:29
2	Mn 257.610†	16639.0	18821.0	3.5450	µg/L	3.5450	ppb	18:54:29
2	Mo 202.031†	-590.4	-656.1	-2.8945	µg/L	-2.8945	ppb	18:54:49
2	Ni 231.604†	122.0	216.3	2.4904	µg/L	2.4904	ppb	18:54:49
2	P 214.914†	170.4	213.2	27.815	µg/L	27.815	ppb	18:54:49
2	Pb 220.353†	-391.2	-534.5	-4.9028	µg/L	-4.9028	ppb	18:54:49

2	S 181.975 Axial†	176.5	97.2	71.982	µg/L	71.982 ppb	18:54:49
2	Sb 206.836†	116.0	52.0	0.1714	µg/L	0.1714 ppb	18:54:49
2	Se 196.026†	-172.4	-212.7	-10.9	µg/L	-10.9 ppb	18:54:49
2	SiO2†	1633.2	95.3	9.7946	µg/L	9.7946 ppb	18:54:49
2	Si 251.611†	508.3	-254.3	-3.5215	µg/L	-3.5215 ppb	18:54:49
2	Sn 189.927†	60.8	70.8	4.4873	µg/L	4.4873 ppb	18:54:49
2	Ti 334.940†	21754.3	23964.7	-4.6112	µg/L	-4.6112 ppb	18:54:29
2	Tl 190.801†	-183.8	-93.9	-11.124	µg/L	-11.124 ppb	18:54:49
2	U 409.014†	-286.0	-57.7	-24.699	µg/L	-24.699 ppb	18:54:29
2	V 292.402†	3918.7	4084.7	-0.3553	µg/L	-0.3553 ppb	18:54:29
2	Zn 213.857†	4368.9	4439.7	8.6032	µg/L	8.6032 ppb	18:54:49
3	Sc RADIAL	128528.5	128528.5	88.1	%		18:54:02
3	Al 396.153Radial†	2425420.2	2753857.9	510560	µg/L	510560 ppb	18:54:00
3	Ca 317.933Radial†	7690261.2	8730875.1	486340	µg/L	486340 ppb	18:54:00
3	Fe 238.204 Radial†	2749581.2	3121695.4	192400	µg/L	192400 ppb	18:54:00
3	K 766.490 Radial†	1659.5	339.4	-118.61	µg/L	-118.61 ppb	18:54:02
3	Mg 279.077 IEC†	1158065.5	1314663.8	489660	µg/L	489660 ppb	18:54:00
3	Na 589.592 Radial†	1347.0	238.6	32.485	µg/L	32.485 ppb	18:54:02
3	Sr 421.552†	1492.5	1829.9	-0.0025	µg/L	-0.0025 ppb	18:54:02
3	Sc 361.383	1514195.4	1514195.4	88.126	%		18:54:52
3	Y 371.029	891947.3	891947.3	86.876	%		18:54:52
3	Ag 328.068†	6032.7	2754.1	-3.2379	µg/L	-3.2379 ppb	18:54:52
3	As 188.979†	-108.0	-102.2	12.211	µg/L	12.211 ppb	18:55:12
3	B 249.677†	3436.5	393.7	5.7936	µg/L	5.7936 ppb	18:54:52
3	Ba 233.527†	448.2	644.5	0.1380	µg/L	0.1380 ppb	18:55:12
3	Be 313.107†	-1158.8	-250.2	-0.0644	µg/L	-0.0644 ppb	18:54:52
3	Cd 226.502†	2438.6	2885.4	-2.2095	µg/L	-2.2095 ppb	18:55:12
3	Co 228.616†	90.0	292.5	-6.4255	µg/L	-6.4255 ppb	18:55:12
3	Cr 267.716†	181.2	27.0	0.9095	µg/L	0.9095 ppb	18:55:12
3	Cu 324.752†	-5570.7	-9293.5	5.1506	µg/L	5.1506 ppb	18:54:52
3	Mn 257.610†	16733.6	18751.0	3.2706	µg/L	3.2706 ppb	18:54:52
3	Mo 202.031†	-556.7	-611.6	-1.4146	µg/L	-1.4146 ppb	18:55:12
3	Ni 231.604†	136.4	231.3	2.6634	µg/L	2.6634 ppb	18:55:12
3	P 214.914†	188.3	231.6	32.331	µg/L	32.331 ppb	18:55:12
3	Pb 220.353†	-364.7	-500.2	-2.4766	µg/L	-2.4766 ppb	18:55:12
3	S 181.975 Axial†	176.2	94.9	70.345	µg/L	70.345 ppb	18:55:12
3	Sb 206.836†	127.8	64.2	1.5521	µg/L	1.5521 ppb	18:55:12
3	Se 196.026†	-157.0	-193.4	-3.16	µg/L	-3.16 ppb	18:55:12
3	SiO2†	1710.0	165.0	16.582	µg/L	16.582 ppb	18:55:12
3	Si 251.611†	438.9	-338.5	-4.7759	µg/L	-4.7759 ppb	18:55:12
3	Sn 189.927†	52.5	60.6	3.8554	µg/L	3.8554 ppb	18:55:12
3	Ti 334.940†	21892.4	23889.7	-4.9005	µg/L	-4.9005 ppb	18:54:52
3	Tl 190.801†	-161.6	-66.7	-7.7840	µg/L	-7.7840 ppb	18:55:12
3	U 409.014†	-54.1	208.5	-9.3710	µg/L	-9.3710 ppb	18:54:52
3	V 292.402†	3967.3	4098.1	-0.5042	µg/L	-0.5042 ppb	18:54:52
3	Zn 213.857†	4428.1	4460.3	8.5816	µg/L	8.5816 ppb	18:55:12

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1510442.5	87.908	%	0.5273				0.60%
Sc RADIAL	130937.0	89.7	%	1.43				1.59%
Y 371.029	890285.9	86.714	%	0.5456				0.63%
Ag 328.068†	2920.6	-2.4440	µg/L	0.69159	-2.4440	ppb	0.69159	28.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2709930.8	502420	µg/L	7530.6	502420	ppb	7530.6	1.50%
QC value within limits for Al 396.153Radial Recovery = 100.48%								
As 188.979†	-104.0	11.111	µg/L	3.4505	11.111	ppb	3.4505	31.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	408.6	6.0133	µg/L	1.38084	6.0133	ppb	1.38084	22.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	653.5	0.2053	µg/L	0.11966	0.2053	ppb	0.11966	58.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-270.9	-0.0722	µg/L	0.01558	-0.0722	ppb	0.01558	21.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8612702.4	479760	µg/L	6797.7	479760	ppb	6797.7	1.42%
QC value within limits for Ca 317.933Radial Recovery = 95.95%								
Cd 226.502†	2883.6	-1.9665	µg/L	0.21751	-1.9665	ppb	0.21751	11.06%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	311.5	-6.0645	µg/L	0.36562	-6.0645	ppb	0.36562	6.03%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              48.1      1.0668 µg/L      0.16765      1.0668 ppb       0.16765  15.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -9294.4      4.6334 µg/L      0.64943      4.6334 ppb       0.64943  14.02%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   3082452.3      189980 µg/L       2511.7      189980 ppb        2511.7   1.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.99%
K 766.490 Radial†        327.9     -119.32 µg/L       19.263     -119.32 ppb        19.263  16.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1299191.2      483900 µg/L       6431.4      483900 ppb        6431.4   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.78%
Mn 257.610†           18810.4      3.5791 µg/L      0.32691      3.5791 ppb       0.32691   9.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -625.9     -2.0334 µg/L      0.76912     -2.0334 ppb       0.76912  37.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       284.5      38.753 µg/L       7.6619      38.753 ppb        7.6619  19.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              244.7      2.8174 µg/L      0.42544      2.8174 ppb       0.42544  15.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               221.6      30.035 µg/L       2.2592      30.035 ppb        2.2592   7.52%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -521.8     -4.1045 µg/L      1.40989     -4.1045 ppb       1.40989  34.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          98.7      73.117 µg/L       3.4814      73.117 ppb        3.4814   4.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               53.0      0.2957 µg/L      1.19909      0.2957 ppb       1.19909 405.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -194.6       -4.44 µg/L        5.948       -4.44 ppb         5.948 133.85%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    122.2      12.411 µg/L       3.6511      12.411 ppb        3.6511  29.42%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            -303.8     -4.2582 µg/L      0.65524     -4.2582 ppb       0.65524  15.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               60.0      3.8143 µg/L      0.69446      3.8143 ppb       0.69446  18.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            1770.7     -0.0740 µg/L      0.09453     -0.0740 ppb       0.09453 127.80%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           24091.8     -4.4108 µg/L      0.61484     -4.4108 ppb       0.61484  13.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -74.8     -8.7751 µg/L      2.04236     -8.7751 ppb       2.04236  23.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               86.8     -16.209 µg/L       7.7964     -16.209 ppb        7.7964  48.10%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†            4134.1     -0.0818 µg/L      0.60724     -0.0818 ppb       0.60724 742.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†           4428.0      8.5821 µg/L      0.02081      8.5821 ppb       0.02081   0.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 3/31/2010 18:55:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128923.7	128923.7	88.3	%			18:55:52
1	Al 396.153Radial†	2441585.6	2763714.4	512370	µg/L	512370	ppb	18:55:50
1	Ca 317.933Radial†	7758514.8	8781367.4	489160	µg/L	489160	ppb	18:55:50
1	Fe 238.204 Radial†	2782554.2	3149448.4	194110	µg/L	194110	ppb	18:55:50
1	K 766.490 Radial†	15194.3	15653.8	5486.8	µg/L	5486.8	ppb	18:55:52
1	Mg 279.077 IEC†	1148118.0	1299373.7	483970	µg/L	483970	ppb	18:55:52
1	Na 589.592 Radial†	35618.0	39025.6	5326.3	µg/L	5326.3	ppb	18:55:52
1	Sr 421.552†	218553.1	247517.3	510.75	µg/L	510.75	ppb	18:55:52
1	Sc 361.383	1501848.4	1501848.4	87.407	%			18:56:05
1	Y 371.029	885934.6	885934.6	86.290	%			18:56:05
1	Ag 328.068†	68208.1	73943.4	266.87	µg/L	266.87	ppb	18:56:05
1	As 188.979†	1287.3	1493.1	500.98	µg/L	500.98	ppb	18:56:07
1	B 249.677†	33851.7	35222.8	517.92	µg/L	517.92	ppb	18:56:05
1	Ba 233.527†	108371.1	124119.8	498.16	µg/L	498.16	ppb	18:56:05
1	Be 313.107†	784555.4	898650.0	244.84	µg/L	244.84	ppb	18:56:05
1	Cd 226.502†	69032.6	79096.3	473.84	µg/L	473.84	ppb	18:56:05
1	Co 228.616†	31520.5	36252.0	437.70	µg/L	437.70	ppb	18:56:07
1	Cr 267.716†	53782.3	61352.1	481.07	µg/L	481.07	ppb	18:56:07
1	Cu 324.752†	114717.9	128272.9	540.53	µg/L	540.53	ppb	18:56:05
1	Mn 257.610†	356699.6	407851.6	484.93	µg/L	484.93	ppb	18:56:05
1	Mo 202.031†	13953.9	15984.3	486.45	µg/L	486.45	ppb	18:56:07
1	Ni 231.604†	34191.5	39194.0	451.29	µg/L	451.29	ppb	18:56:07
1	P 214.914†	10448.2	11971.4	2535.7	µg/L	2535.7	ppb	18:56:07
1	Pb 220.353†	6755.9	7642.9	453.53	µg/L	453.53	ppb	18:56:07
1	S 181.975 Axial†	3250.1	3613.3	2687.1	µg/L	2687.1	ppb	18:56:07
1	Sb 206.836†	3785.3	4249.8	500.40	µg/L	500.40	ppb	18:56:07
1	Se 196.026†	5624.0	6419.0	2390	µg/L	2390	ppb	18:56:07
1	SiO2†	99846.0	112455.3	10971	µg/L	10971	ppb	18:56:05
1	Si 251.611†	306352.4	349651.7	5145.5	µg/L	5145.5	ppb	18:56:05
1	Sn 189.927†	6636.1	7593.3	475.14	µg/L	475.14	ppb	18:56:07
1	Ti 334.940†	496139.0	566664.5	502.37	µg/L	502.37	ppb	18:56:05
1	Tl 190.801†	3058.5	3615.8	452.56	µg/L	452.56	ppb	18:56:07
1	U 409.014†	7410.9	8748.5	521.43	µg/L	521.43	ppb	18:56:05
1	V 292.402†	94726.2	107969.5	513.01	µg/L	513.01	ppb	18:56:05
1	Zn 213.857†	80178.7	91165.5	492.35	µg/L	492.35	ppb	18:56:05
2	Sc RADIAL	130306.5	130306.5	89.3	%			18:55:57
2	Al 396.153Radial†	2425762.3	2716664.8	503640	µg/L	503640	ppb	18:55:54
2	Ca 317.933Radial†	7696197.0	8618379.7	480080	µg/L	480080	ppb	18:55:54
2	Fe 238.204 Radial†	2760250.1	3091044.9	190510	µg/L	190510	ppb	18:55:54
2	K 766.490 Radial†	15576.4	15899.2	5580.2	µg/L	5580.2	ppb	18:55:57
2	Mg 279.077 IEC†	1163916.5	1303274.7	485430	µg/L	485430	ppb	18:55:57
2	Na 589.592 Radial†	35962.5	38983.4	5320.4	µg/L	5320.4	ppb	18:55:57
2	Sr 421.552†	221063.2	247703.0	511.20	µg/L	511.20	ppb	18:55:57
2	Sc 361.383	1503774.7	1503774.7	87.519	%			18:56:10
2	Y 371.029	887039.9	887039.9	86.398	%			18:56:10
2	Ag 328.068†	68293.1	73940.5	267.10	µg/L	267.10	ppb	18:56:10
2	As 188.979†	1349.3	1562.1	521.08	µg/L	521.08	ppb	18:56:12
2	B 249.677†	33920.1	35251.3	518.32	µg/L	518.32	ppb	18:56:10
2	Ba 233.527†	108643.6	124272.4	498.82	µg/L	498.82	ppb	18:56:10
2	Be 313.107†	786963.6	900251.8	245.27	µg/L	245.27	ppb	18:56:10
2	Cd 226.502†	69426.5	79445.1	476.40	µg/L	476.40	ppb	18:56:10
2	Co 228.616†	32044.4	36804.3	444.70	µg/L	444.70	ppb	18:56:12
2	Cr 267.716†	54375.8	61951.4	485.63	µg/L	485.63	ppb	18:56:12
2	Cu 324.752†	115372.1	128852.4	542.29	µg/L	542.29	ppb	18:56:10
2	Mn 257.610†	357810.4	408598.0	485.80	µg/L	485.80	ppb	18:56:10
2	Mo 202.031†	14059.7	16084.7	489.29	µg/L	489.29	ppb	18:56:12
2	Ni 231.604†	34695.4	39719.6	457.34	µg/L	457.34	ppb	18:56:12
2	P 214.914†	10657.1	12194.8	2584.0	µg/L	2584.0	ppb	18:56:12
2	Pb 220.353†	7007.7	7920.6	468.62	µg/L	468.62	ppb	18:56:12

2	S 181.975 Axial†	3226.8	3581.8	2663.8 µg/L	2663.8 ppb	18:56:12
2	Sb 206.836†	3801.0	4262.2	501.96 µg/L	501.96 ppb	18:56:12
2	Se 196.026†	5730.0	6531.8	2430 µg/L	2430 ppb	18:56:12
2	SiO2†	100449.1	112998.1	11024 µg/L	11024 ppb	18:56:10
2	Si 251.611†	307929.3	351004.4	5165.3 µg/L	5165.3 ppb	18:56:10
2	Sn 189.927†	6796.2	7766.5	485.94 µg/L	485.94 ppb	18:56:12
2	Ti 334.940†	498020.9	568087.6	503.35 µg/L	503.35 ppb	18:56:10
2	Tl 190.801†	3159.1	3726.2	466.12 µg/L	466.12 ppb	18:56:12
2	U 409.014†	7207.8	8505.6	507.68 µg/L	507.68 ppb	18:56:10
2	V 292.402†	94912.3	108043.3	513.79 µg/L	513.79 ppb	18:56:10
2	Zn 213.857†	80541.8	91462.8	494.31 µg/L	494.31 ppb	18:56:10
3	Sc RADIAL	130048.3	130048.3	89.1 %		18:56:01
3	Al 396.153Radial†	2433855.1	2731140.9	506330 µg/L	506330 ppb	18:55:59
3	Ca 317.933Radial†	7718645.4	8660686.5	482430 µg/L	482430 ppb	18:55:59
3	Fe 238.204 Radial†	2766938.5	3104689.2	191350 µg/L	191350 ppb	18:55:59
3	K 766.490 Radial†	15537.1	15889.7	5575.7 µg/L	5575.7 ppb	18:56:01
3	Mg 279.077 IEC†	1162812.5	1304624.6	485930 µg/L	485930 ppb	18:56:01
3	Na 589.592 Radial†	36095.8	39213.0	5351.8 µg/L	5351.8 ppb	18:56:01
3	Sr 421.552†	220343.8	247387.5	510.53 µg/L	510.53 ppb	18:56:01
3	Sc 361.383	1505253.1	1505253.1	87.605 %		18:56:15
3	Y 371.029	887796.9	887796.9	86.472 %		18:56:15
3	Ag 328.068†	68315.0	73888.9	266.85 µg/L	266.85 ppb	18:56:15
3	As 188.979†	1427.8	1650.2	547.91 µg/L	547.91 ppb	18:56:17
3	B 249.677†	34091.4	35408.8	520.64 µg/L	520.64 ppb	18:56:15
3	Ba 233.527†	108923.3	124469.7	499.60 µg/L	499.60 ppb	18:56:15
3	Be 313.107†	788697.2	901347.5	245.57 µg/L	245.57 ppb	18:56:15
3	Cd 226.502†	69816.9	79812.9	478.61 µg/L	478.61 ppb	18:56:15
3	Co 228.616†	32104.8	36837.3	445.06 µg/L	445.06 ppb	18:56:17
3	Cr 267.716†	54241.6	61737.2	483.97 µg/L	483.97 ppb	18:56:17
3	Cu 324.752†	115315.5	128658.2	541.67 µg/L	541.67 ppb	18:56:15
3	Mn 257.610†	358650.2	409155.1	486.47 µg/L	486.47 ppb	18:56:15
3	Mo 202.031†	13985.2	15983.9	486.37 µg/L	486.37 ppb	18:56:17
3	Ni 231.604†	34565.9	39532.8	455.19 µg/L	455.19 ppb	18:56:17
3	P 214.914†	10680.3	12209.4	2587.2 µg/L	2587.2 ppb	18:56:17
3	Pb 220.353†	7037.5	7946.8	470.21 µg/L	470.21 ppb	18:56:17
3	S 181.975 Axial†	3275.8	3634.2	2702.6 µg/L	2702.6 ppb	18:56:17
3	Sb 206.836†	3858.4	4323.5	509.22 µg/L	509.22 ppb	18:56:17
3	Se 196.026†	5760.2	6559.9	2440 µg/L	2440 ppb	18:56:17
3	SiO2†	100355.9	112779.0	11003 µg/L	11003 ppb	18:56:15
3	Si 251.611†	307749.7	350453.9	5157.2 µg/L	5157.2 ppb	18:56:15
3	Sn 189.927†	6900.6	7878.0	492.90 µg/L	492.90 ppb	18:56:17
3	Ti 334.940†	498757.3	568369.4	503.63 µg/L	503.63 ppb	18:56:15
3	Tl 190.801†	3121.0	3679.2	460.34 µg/L	460.34 ppb	18:56:17
3	U 409.014†	7255.1	8551.4	510.28 µg/L	510.28 ppb	18:56:15
3	V 292.402†	95008.3	108046.4	513.68 µg/L	513.68 ppb	18:56:15
3	Zn 213.857†	80688.3	91539.7	494.68 µg/L	494.68 ppb	18:56:15

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1503625.4	87.511	%	0.0994				0.11%
Sc RADIAL	129759.5	88.9	%	0.50				0.57%
Y 371.029	886923.8	86.387	%	0.0912				0.11%
Ag 328.068†	73924.3	266.94	µg/L	0.141	266.94	ppb	0.141	0.05%
QC value within limits for Ag 328.068 Recovery = 106.78%								
Al 396.153Radial†	2737173.4	507450	µg/L	4467.8	507450	ppb	4467.8	0.88%
QC value within limits for Al 396.153Radial Recovery = 101.49%								
As 188.979†	1568.5	523.32	µg/L	23.543	523.32	ppb	23.543	4.50%
QC value within limits for As 188.979 Recovery = 104.66%								
B 249.677†	35294.3	518.96	µg/L	1.468	518.96	ppb	1.468	0.28%
QC value within limits for B 249.677 Recovery = 103.79%								
Ba 233.527†	124287.3	498.86	µg/L	0.724	498.86	ppb	0.724	0.15%
QC value within limits for Ba 233.527 Recovery = 99.77%								
Be 313.107†	900083.1	245.23	µg/L	0.367	245.23	ppb	0.367	0.15%
QC value within limits for Be 313.107 Recovery = 98.09%								
Ca 317.933Radial†	8686811.2	483890	µg/L	4711.2	483890	ppb	4711.2	0.97%
QC value within limits for Ca 317.933Radial Recovery = 96.78%								
Cd 226.502†	79451.4	476.29	µg/L	2.386	476.29	ppb	2.386	0.50%
QC value within limits for Cd 226.502 Recovery = 95.26%								
Co 228.616†	36631.2	442.49	µg/L	4.152	442.49	ppb	4.152	0.94%

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   QC value within limits for Co 228.616  Recovery = 88.50%
Cr 267.716†            61680.2      483.56 µg/L         2.310      483.56 ppb          2.310   0.48%
   QC value within limits for Cr 267.716  Recovery = 96.71%
Cu 324.752†           128594.5      541.50 µg/L         0.893      541.50 ppb          0.893   0.16%
   QC value within limits for Cu 324.752  Recovery = 108.30%
Fe 238.204 Radial†   3115060.8      191990 µg/L        1883.0      191990 ppb         1883.0   0.98%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.00%
K 766.490 Radial†      15814.2      5547.6 µg/L         52.66      5547.6 ppb          52.66   0.95%
   QC value within limits for K 766.490 Radial  Recovery = 110.95%
Mg 279.077 IEC†      1302424.3      485110 µg/L        1017.4      485110 ppb         1017.4   0.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.02%
Mn 257.610†           408534.9      485.73 µg/L         0.774      485.73 ppb          0.774   0.16%
   QC value within limits for Mn 257.610  Recovery = 97.15%
Mo 202.031†            16017.6      487.37 µg/L         1.662      487.37 ppb          1.662   0.34%
   QC value within limits for Mo 202.031  Recovery = 97.47%
Na 589.592 Radial†     39074.0      5332.8 µg/L         16.68      5332.8 ppb          16.68   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 106.66%
Ni 231.604†            39482.1      454.61 µg/L         3.068      454.61 ppb          3.068   0.67%
   QC value within limits for Ni 231.604  Recovery = 90.92%
P 214.914†             12125.2      2569.0 µg/L         28.88      2569.0 ppb          28.88   1.12%
   QC value within limits for P 214.914  Recovery = 102.76%
Pb 220.353†             7836.8      464.12 µg/L         9.210      464.12 ppb          9.210   1.98%
   QC value within limits for Pb 220.353  Recovery = 92.82%
S 181.975 Axial†        3609.8      2684.5 µg/L         19.56      2684.5 ppb          19.56   0.73%
   QC value within limits for S 181.975 Axial  Recovery = 107.38%
Sb 206.836†             4278.5      503.86 µg/L         4.707      503.86 ppb          4.707   0.93%
   QC value within limits for Sb 206.836  Recovery = 100.77%
Se 196.026†             6503.6        2420 µg/L          26.4        2420 ppb           26.4   1.09%
   QC value within limits for Se 196.026  Recovery = 96.73%
SiO2†                 112744.1       10999 µg/L          26.6       10999 ppb           26.6   0.24%
   QC value within limits for SiO2  Recovery = 102.85%
Si 251.611†           350370.0      5156.0 µg/L         9.97      5156.0 ppb           9.97   0.19%
   QC value within limits for Si 251.611  Recovery = 103.12%
Sn 189.927†             7745.9      484.66 µg/L         8.948      484.66 ppb          8.948   1.85%
   QC value within limits for Sn 189.927  Recovery = 96.93%
Sr 421.552†           247536.0      510.83 µg/L         0.344      510.83 ppb          0.344   0.07%
   QC value within limits for Sr 421.552  Recovery = 102.17%
Ti 334.940†           567707.2      503.12 µg/L         0.662      503.12 ppb          0.662   0.13%
   QC value within limits for Ti 334.940  Recovery = 100.62%
Tl 190.801†             3673.7      459.67 µg/L         6.804      459.67 ppb          6.804   1.48%
   QC value within limits for Tl 190.801  Recovery = 91.93%
U 409.014†              8601.8      513.13 µg/L         7.307      513.13 ppb          7.307   1.42%
   QC value within limits for U 409.014  Recovery = 102.63%
V 292.402†            108019.7      513.49 µg/L         0.422      513.49 ppb          0.422   0.08%
   QC value within limits for V 292.402  Recovery = 102.70%
Zn 213.857†            91389.3      493.78 µg/L         1.251      493.78 ppb          1.251   0.25%
   QC value within limits for Zn 213.857  Recovery = 98.76%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 3/31/2010 18:56:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128043.7	128043.7	87.7	%			18:56:58
1	Al 396.153Radial†	2381304.8	2714005.3	503180	µg/L	503180	ppb	18:56:56
1	Ca 317.933Radial†	7611014.0	8673613.0	483150	µg/L	483150	ppb	18:56:56
1	Fe 238.204 Radial†	6523125.5	7434173.2	458200	µg/L	458200	ppb	18:56:56
1	K 766.490 Radial†	2256.7	1027.2	53.040	µg/L	53.040	ppb	18:56:58
1	Mg 279.077 IEC†	1139739.5	1298755.6	483500	µg/L	483500	ppb	18:56:56
1	Na 589.592 Radial†	3271680.6	3727401.1	509210	µg/L	509210	ppb	18:56:56
1	Sr 421.552†	5079.9	5924.8	8.5355	µg/L	8.5355	ppb	18:56:58
1	Sc 361.383	1451583.4	1451583.4	84.482	%			18:57:26
1	Y 371.029	852879.4	852879.4	83.071	%			18:57:26
1	Ag 328.068†	2264.1	-1411.5	-0.2309	µg/L	-0.2309	ppb	18:57:26
1	As 188.979†	-305.1	-340.8	-0.3436	µg/L	-0.3436	ppb	18:57:28
1	B 249.677†	4415.2	1720.3	25.330	µg/L	25.330	ppb	18:57:26
1	Ba 233.527†	738.1	1009.5	-1.7895	µg/L	-1.7895	ppb	18:57:28
1	Be 313.107†	-15542.1	-17332.3	0.1527	µg/L	0.1527	ppb	18:57:26
1	Cd 226.502†	6136.8	7382.3	-2.0728	µg/L	-2.0728	ppb	18:57:28
1	Co 228.616†	663.9	976.1	-11.855	µg/L	-11.855	ppb	18:57:28
1	Cr 267.716†	326.4	207.8	-1.0531	µg/L	-1.0531	ppb	18:57:28
1	Cu 324.752†	-15976.1	-21882.9	8.0863	µg/L	8.0863	ppb	18:57:26
1	Mn 257.610†	18213.2	21321.4	5.9920	µg/L	5.9920	ppb	18:57:26
1	Mo 202.031†	-937.6	-1089.8	-5.0578	µg/L	-5.0578	ppb	18:57:26
1	Ni 231.604†	147.8	251.5	2.8954	µg/L	2.8954	ppb	18:57:28
1	P 214.914†	945.2	1136.8	44.272	µg/L	44.272	ppb	18:57:28
1	Pb 220.353†	-112.1	-219.1	-7.8626	µg/L	-7.8626	ppb	18:57:28
1	S 181.975 Axial†	176.1	103.3	76.471	µg/L	76.471	ppb	18:57:28
1	Sb 206.836†	186.9	140.4	7.1485	µg/L	7.1485	ppb	18:57:28
1	Se 196.026†	-404.8	-494.4	-4.21	µg/L	-4.21	ppb	18:57:28
1	SiO2†	1963.2	548.4	54.447	µg/L	54.447	ppb	18:57:28
1	Si 251.611†	-2032.7	-3242.6	-47.410	µg/L	-47.410	ppb	18:57:28
1	Sn 189.927†	64.2	77.1	4.9002	µg/L	4.9002	ppb	18:57:28
1	Ti 334.940†	26623.1	30560.8	-4.8606	µg/L	-4.8606	ppb	18:57:26
1	Tl 190.801†	-158.4	-70.8	-8.1165	µg/L	-8.1165	ppb	18:57:28
1	U 409.014†	232638.7	275640.9	16036	µg/L	16036	ppb	18:57:26
1	V 292.402†	7227.0	8150.7	1.9065	µg/L	1.9065	ppb	18:57:28
1	Zn 213.857†	8608.4	9625.2	9.4603	µg/L	9.4603	ppb	18:57:28
2	Sc RADIAL	127587.1	127587.1	87.4	%			18:57:03
2	Al 396.153Radial†	2344707.9	2681859.2	497220	µg/L	497220	ppb	18:57:01
2	Ca 317.933Radial†	7463583.8	8536029.3	475490	µg/L	475490	ppb	18:57:01
2	Fe 238.204 Radial†	6391908.1	7310696.0	450590	µg/L	450590	ppb	18:57:01
2	K 766.490 Radial†	2390.9	1189.8	117.32	µg/L	117.32	ppb	18:57:03
2	Mg 279.077 IEC†	1114206.6	1274200.4	474360	µg/L	474360	ppb	18:57:01
2	Na 589.592 Radial†	3209939.6	3670127.4	501380	µg/L	501380	ppb	18:57:01
2	Sr 421.552†	5135.8	6009.4	8.7715	µg/L	8.7715	ppb	18:57:03
2	Sc 361.383	1456448.3	1456448.3	84.765	%			18:57:30
2	Y 371.029	856251.9	856251.9	83.399	%			18:57:30
2	Ag 328.068†	2013.8	-1715.7	-1.0926	µg/L	-1.0926	ppb	18:57:30
2	As 188.979†	-237.9	-260.3	22.297	µg/L	22.297	ppb	18:57:32
2	B 249.677†	4229.1	1483.4	21.834	µg/L	21.834	ppb	18:57:30
2	Ba 233.527†	835.0	1121.0	-1.2428	µg/L	-1.2428	ppb	18:57:32
2	Be 313.107†	-15397.0	-17099.7	0.2214	µg/L	0.2214	ppb	18:57:30
2	Cd 226.502†	6036.4	7239.5	-2.1644	µg/L	-2.1644	ppb	18:57:32
2	Co 228.616†	696.8	1012.4	-11.010	µg/L	-11.010	ppb	18:57:32
2	Cr 267.716†	355.9	241.2	-0.9572	µg/L	-0.9572	ppb	18:57:32
2	Cu 324.752†	-16236.3	-22126.7	5.7984	µg/L	5.7984	ppb	18:57:30
2	Mn 257.610†	18248.7	21291.3	6.3374	µg/L	6.3374	ppb	18:57:30
2	Mo 202.031†	-933.0	-1080.6	-5.2559	µg/L	-5.2559	ppb	18:57:30
2	Ni 231.604†	134.2	234.9	2.7046	µg/L	2.7046	ppb	18:57:32
2	P 214.914†	1061.2	1269.9	76.619	µg/L	76.619	ppb	18:57:32
2	Pb 220.353†	-99.7	-204.1	-7.1629	µg/L	-7.1629	ppb	18:57:32

2	S 181.975 Axial†	67.9	-24.9	-18.790 µg/L	-18.790 ppb	18:57:32
2	Sb 206.836†	102.8	40.5	-4.5964 µg/L	-4.5964 ppb	18:57:32
2	Se 196.026†	-406.6	-495.0	-7.05 µg/L	-7.05 ppb	18:57:32
2	SiO2†	1830.8	384.5	38.395 µg/L	38.395 ppb	18:57:32
2	Si 251.611†	-1934.6	-3118.9	-45.598 µg/L	-45.598 ppb	18:57:32
2	Sn 189.927†	82.4	98.3	6.2185 µg/L	6.2185 ppb	18:57:32
2	Ti 334.940†	25364.2	28970.4	-5.8085 µg/L	-5.8085 ppb	18:57:30
2	Tl 190.801†	-211.8	-133.2	-15.794 µg/L	-15.794 ppb	18:57:32
2	U 409.014†	233675.5	275944.1	16055 µg/L	16055 ppb	18:57:30
2	V 292.402†	7224.5	8119.2	2.5727 µg/L	2.5727 ppb	18:57:32
2	Zn 213.857†	8699.2	9698.3	10.651 µg/L	10.651 ppb	18:57:32
3	Sc RADIAL	127845.5	127845.5	87.6 %		18:57:07
3	Al 396.153Radial†	2359012.1	2692767.9	499240 µg/L	499240 ppb	18:57:05
3	Ca 317.933Radial†	7510342.6	8572152.9	477500 µg/L	477500 ppb	18:57:05
3	Fe 238.204 Radial†	6434548.4	7344595.4	452680 µg/L	452680 ppb	18:57:05
3	K 766.490 Radial†	2440.5	1241.0	134.70 µg/L	134.70 ppb	18:57:07
3	Mg 279.077 IEC†	1121897.2	1280403.8	476670 µg/L	476670 ppb	18:57:05
3	Na 589.592 Radial†	3229732.0	3685301.0	503460 µg/L	503460 ppb	18:57:05
3	Sr 421.552†	4859.4	5682.0	8.0751 µg/L	8.0751 ppb	18:57:07
3	Sc 361.383	1472435.6	1472435.6	85.696 %		18:57:35
3	Y 371.029	865581.1	865581.1	84.308 %		18:57:35
3	Ag 328.068†	2006.5	-1749.9	-1.2878 µg/L	-1.2878 ppb	18:57:35
3	As 188.979†	-242.4	-262.5	22.088 µg/L	22.088 ppb	18:57:37
3	B 249.677†	4311.3	1525.1	22.443 µg/L	22.443 ppb	18:57:35
3	Ba 233.527†	597.3	832.8	-2.4315 µg/L	-2.4315 ppb	18:57:37
3	Be 313.107†	-15503.1	-17026.2	0.2432 µg/L	0.2432 ppb	18:57:35
3	Cd 226.502†	5998.3	7117.7	-3.1440 µg/L	-3.1440 ppb	18:57:37
3	Co 228.616†	825.0	1153.0	-9.3850 µg/L	-9.3850 ppb	18:57:37
3	Cr 267.716†	265.1	130.8	-1.7837 µg/L	-1.7837 ppb	18:57:37
3	Cu 324.752†	-16427.6	-22141.9	6.1120 µg/L	6.1120 ppb	18:57:35
3	Mn 257.610†	18616.4	21486.6	6.4820 µg/L	6.4820 ppb	18:57:35
3	Mo 202.031†	-951.0	-1089.6	-5.3968 µg/L	-5.3968 ppb	18:57:35
3	Ni 231.604†	238.5	354.9	4.0862 µg/L	4.0862 ppb	18:57:37
3	P 214.914†	1053.2	1246.9	70.775 µg/L	70.775 ppb	18:57:37
3	Pb 220.353†	-34.4	-126.5	-2.7794 µg/L	-2.7794 ppb	18:57:37
3	S 181.975 Axial†	188.2	114.6	84.800 µg/L	84.800 ppb	18:57:37
3	Sb 206.836†	165.1	111.8	3.8601 µg/L	3.8601 ppb	18:57:37
3	Se 196.026†	-442.3	-531.4	-19.5 µg/L	-19.5 ppb	18:57:37
3	SiO2†	1893.1	433.7	43.156 µg/L	43.156 ppb	18:57:37
3	Si 251.611†	-1908.7	-3063.9	-44.810 µg/L	-44.810 ppb	18:57:37
3	Sn 189.927†	139.3	163.7	10.296 µg/L	10.296 ppb	18:57:37
3	Ti 334.940†	26025.3	29416.9	-5.5292 µg/L	-5.5292 ppb	18:57:35
3	Tl 190.801†	-218.6	-138.4	-16.446 µg/L	-16.446 ppb	18:57:37
3	U 409.014†	236329.7	276048.2	16061 µg/L	16061 ppb	18:57:35
3	V 292.402†	7144.2	7933.0	1.4413 µg/L	1.4413 ppb	18:57:37
3	Zn 213.857†	8714.2	9604.4	9.9077 µg/L	9.9077 ppb	18:57:37

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1460155.8	84.981	%	0.6349				0.75%
Sc RADIAL	127825.4	87.6	%	0.16				0.18%
Y 371.029	858237.5	83.593	%	0.6409				0.77%
Ag 328.068†	-1625.7	-0.8704	µg/L	0.56237	-0.8704	ppb	0.56237	64.61%
Al 396.153Radial†	2696210.8	499880	µg/L	3030.8	499880	ppb	3030.8	0.61%
QC value within limits for Al 396.153Radial Recovery = 99.98%								
As 188.979†	-287.9	14.680	µg/L	13.0115	14.680	ppb	13.0115	88.63%
B 249.677†	1576.2	23.202	µg/L	1.8679	23.202	ppb	1.8679	8.05%
Ba 233.527†	987.8	-1.8213	µg/L	0.59497	-1.8213	ppb	0.59497	32.67%
Be 313.107†	-17152.7	0.2058	µg/L	0.04725	0.2058	ppb	0.04725	22.96%
Ca 317.933Radial†	8593931.8	478720	µg/L	3973.4	478720	ppb	3973.4	0.83%
QC value within limits for Ca 317.933Radial Recovery = 95.74%								
Cd 226.502†	7246.5	-2.4604	µg/L	0.59380	-2.4604	ppb	0.59380	24.13%
Co 228.616†	1047.2	-10.750	µg/L	1.2554	-10.750	ppb	1.2554	11.68%
Cr 267.716†	193.3	-1.2647	µg/L	0.45201	-1.2647	ppb	0.45201	35.74%
Cu 324.752†	-22050.5	6.6655	µg/L	1.24035	6.6655	ppb	1.24035	18.61%
Fe 238.204 Radial†	7363154.9	453820	µg/L	3932.0	453820	ppb	3932.0	0.87%
QC value within limits for Fe 238.204 Radial Recovery = 90.76%								
K 766.490 Radial†	1152.7	101.69	µg/L	43.017	101.69	ppb	43.017	42.30%
Mg 279.077 IEC†	1284453.2	478180	µg/L	4754.0	478180	ppb	4754.0	0.99%

QC value within limits for Mg 279.077 IEC Recovery = 95.64%

Mn 257.610†	21366.4	6.2705 µg/L	0.25177	6.2705 ppb	0.25177	4.02%
Mo 202.031†	-1086.7	-5.2368 µg/L	0.17026	-5.2368 ppb	0.17026	3.25%
Na 589.592 Radial†	3694276.5	504680 µg/L	4053.7	504680 ppb	4053.7	0.80%

QC value within limits for Na 589.592 Radial Recovery = 100.94%

Ni 231.604†	280.4	3.2287 µg/L	0.74869	3.2287 ppb	0.74869	23.19%
P 214.914†	1217.9	63.889 µg/L	17.2380	63.889 ppb	17.2380	26.98%
Pb 220.353†	-183.2	-5.9350 µg/L	2.75510	-5.9350 ppb	2.75510	46.42%
S 181.975 Axial†	64.3	47.494 µg/L	57.5543	47.494 ppb	57.5543	121.18%
Sb 206.836†	97.6	2.1374 µg/L	6.05903	2.1374 ppb	6.05903	283.48%
Se 196.026†	-506.9	-10.3 µg/L	8.13	-10.3 ppb	8.13	79.29%
SiO2†	455.6	45.333 µg/L	8.2442	45.333 ppb	8.2442	18.19%
Si 251.611†	-3141.8	-45.939 µg/L	1.3330	-45.939 ppb	1.3330	2.90%
Sn 189.927†	113.0	7.1383 µg/L	2.81321	7.1383 ppb	2.81321	39.41%
Sr 421.552†	5872.1	8.4607 µg/L	0.35414	8.4607 ppb	0.35414	4.19%
Ti 334.940†	29649.4	-5.3994 µg/L	0.48710	-5.3994 ppb	0.48710	9.02%
Tl 190.801†	-114.1	-13.452 µg/L	4.6323	-13.452 ppb	4.6323	34.44%
U 409.014†	275877.8	16051 µg/L	13.0	16051 ppb	13.0	0.08%

QC value within limits for U 409.014 Recovery = 107.00%

V 292.402†	8067.6	1.9735 µg/L	0.56868	1.9735 ppb	0.56868	28.82%
Zn 213.857†	9642.6	10.006 µg/L	0.6012	10.006 ppb	0.6012	6.01%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 3/31/2010 18:57:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138428.5	138428.5	94.9	%			18:58:18
1	Al 396.153Radial†	2589.6	2793.1	65.979	µg/L	65.979	ppb	18:58:20
1	Ca 317.933Radial†	2182.0	1739.6	96.903	µg/L	96.903	ppb	18:58:20
1	Fe 238.204 Radial†	-202.3	-361.4	-22.274	µg/L	-22.274	ppb	18:58:20
1	K 766.490 Radial†	763320.3	803139.1	294040	µg/L	294040	ppb	18:58:18
1	Mg 279.077 IEC†	-318.7	-526.7	41.787	µg/L	41.787	ppb	18:58:20
1	Na 589.592 Radial†	4722.3	3687.4	242.24	µg/L	242.24	ppb	18:58:18
1	Sr 421.552†	4464241.5	4706289.3	9784.1	µg/L	9784.1	ppb	18:58:15
1	Sc 361.383	1644054.1	1644054.1	95.684	%			18:58:42
1	Y 371.029	958940.9	958940.9	93.401	%			18:58:42
1	Ag 328.068†	-28181.7	-33544.4	-7.2060	µg/L	-7.2060	ppb	18:58:44
1	As 188.979†	32117.0	33586.2	10409	µg/L	10409	ppb	18:58:44
1	B 249.677†	322787.1	333842.2	4891.3	µg/L	4891.3	ppb	18:58:42
1	Ba 233.527†	3263599.9	3410957.3	13754	µg/L	13754	ppb	18:58:42
1	Be 313.107†	10059777.2	10514640.1	2862.8	µg/L	2862.8	ppb	18:58:38
1	Cd 226.502†	1463937.1	1530093.7	9561.7	µg/L	9561.7	ppb	18:58:42
1	Co 228.616†	720309.4	752993.0	9307.6	µg/L	9307.6	ppb	18:58:42
1	Cr 267.716†	2891693.7	3021959.9	23671	µg/L	23671	ppb	18:58:42
1	Cu 324.752†	4894436.4	5112253.1	19872	µg/L	19872	ppb	18:58:42
1	Mn 257.610†	7191165.6	7515323.1	9298.7	µg/L	9298.7	ppb	18:58:42
1	Mo 202.031†	316742.4	331050.8	9732.5	µg/L	9732.5	ppb	18:58:44
1	Ni 231.604†	799875.1	836034.2	9626.3	µg/L	9626.3	ppb	18:58:42
1	P 214.914†	68547.5	71657.7	15093	µg/L	15093	ppb	18:58:44
1	Pb 220.353†	401154.4	419164.2	23428	µg/L	23428	ppb	18:58:42
1	S 181.975 Axial†	67316.5	70248.1	52247	µg/L	52247	ppb	18:58:44
1	Sb 206.836†	80773.2	84336.1	9841.1	µg/L	9841.1	ppb	18:58:44
1	Se 196.026†	26033.9	27193.0	9830	µg/L	9830	ppb	18:58:44
1	SiO2†	974638.1	1016828.8	98967	µg/L	98967	ppb	18:58:42
1	Si 251.611†	3010622.9	3145596.0	46180	µg/L	46180	ppb	18:58:42
1	Sn 189.927†	151635.6	158477.0	9912.7	µg/L	9912.7	ppb	18:58:44
1	Ti 334.940†	10132846.9	10588988.8	9885.3	µg/L	9885.3	ppb	18:58:38
1	Tl 190.801†	74051.0	77508.1	9673.9	µg/L	9673.9	ppb	18:58:44
1	U 409.014†	-10469.2	-10671.6	-21.061	µg/L	-21.061	ppb	18:58:44
1	V 292.402†	1944343.2	2031649.1	10104	µg/L	10104	ppb	18:58:42
1	Zn 213.857†	2422227.0	2530929.6	14143	µg/L	14143	ppb	18:58:42
2	Sc RADIAL	138489.8	138489.8	94.9	%			18:58:24
2	Al 396.153Radial†	2632.4	2837.1	80.052	µg/L	80.052	ppb	18:58:26
2	Ca 317.933Radial†	2111.9	1664.8	92.734	µg/L	92.734	ppb	18:58:26
2	Fe 238.204 Radial†	-168.1	-325.2	-20.046	µg/L	-20.046	ppb	18:58:26
2	K 766.490 Radial†	768501.7	808242.3	295910	µg/L	295910	ppb	18:58:24
2	Mg 279.077 IEC†	-343.1	-552.3	29.128	µg/L	29.128	ppb	18:58:26
2	Na 589.592 Radial†	4657.2	3616.6	230.89	µg/L	230.89	ppb	18:58:24
2	Sr 421.552†	4443237.9	4682072.2	9733.8	µg/L	9733.8	ppb	18:58:22
2	Sc 361.383	1654174.4	1654174.4	96.273	%			18:58:52
2	Y 371.029	964160.7	964160.7	93.910	%			18:58:52
2	Ag 328.068†	-27980.3	-33155.0	-5.4230	µg/L	-5.4230	ppb	18:58:54
2	As 188.979†	31657.2	32903.2	10204	µg/L	10204	ppb	18:58:54
2	B 249.677†	326358.6	335488.1	4915.4	µg/L	4915.4	ppb	18:58:52
2	Ba 233.527†	3296633.7	3424402.5	13809	µg/L	13809	ppb	18:58:52
2	Be 313.107†	10113068.4	10505672.2	2860.3	µg/L	2860.3	ppb	18:58:48
2	Cd 226.502†	1483425.3	1540976.0	9629.7	µg/L	9629.7	ppb	18:58:52
2	Co 228.616†	729085.8	757503.5	9363.3	µg/L	9363.3	ppb	18:58:52
2	Cr 267.716†	2922280.8	3035241.6	23775	µg/L	23775	ppb	18:58:52
2	Cu 324.752†	4934401.1	5122469.9	19912	µg/L	19912	ppb	18:58:52
2	Mn 257.610†	7264987.1	7546022.1	9336.7	µg/L	9336.7	ppb	18:58:52
2	Mo 202.031†	314514.5	326711.4	9605.0	µg/L	9605.0	ppb	18:58:54
2	Ni 231.604†	809217.8	840624.1	9679.2	µg/L	9679.2	ppb	18:58:52
2	P 214.914†	67979.1	70628.9	14873	µg/L	14873	ppb	18:58:54
2	Pb 220.353†	406432.6	422081.8	23591	µg/L	23591	ppb	18:58:52

2	S 181.975 Axial†	66600.5	69074.0	51374 µg/L	51374 ppb	18:58:54
2	Sb 206.836†	80074.2	83093.5	9689.8 µg/L	9689.8 ppb	18:58:54
2	Se 196.026†	25686.7	26665.9	9640 µg/L	9640 ppb	18:58:54
2	SiO2†	986400.6	1022814.9	99557 µg/L	99557 ppb	18:58:52
2	Si 251.611†	3046941.6	3164070.8	46455 µg/L	46455 ppb	18:58:52
2	Sn 189.927†	150469.1	156295.8	9776.7 µg/L	9776.7 ppb	18:58:54
2	Ti 334.940†	10189195.0	10582728.8	9879.4 µg/L	9879.4 ppb	18:58:48
2	Tl 190.801†	73611.8	76578.5	9559.6 µg/L	9559.6 ppb	18:58:54
2	U 409.014†	-10364.3	-10495.7	-9.0352 µg/L	-9.0352 ppb	18:58:54
2	V 292.402†	1961854.5	2037406.1	10131 µg/L	10131 ppb	18:58:52
2	Zn 213.857†	2448683.7	2542922.9	14210 µg/L	14210 ppb	18:58:52
3	Sc RADIAL	137437.4	137437.4	94.2 %		18:58:31
3	Al 396.153Radial†	2618.6	2843.6	77.986 µg/L	77.986 ppb	18:58:33
3	Ca 317.933Radial†	2227.5	1804.6	100.52 µg/L	100.52 ppb	18:58:33
3	Fe 238.204 Radial†	-164.9	-323.2	-19.923 µg/L	-19.923 ppb	18:58:33
3	K 766.490 Radial†	765491.4	811247.2	297010 µg/L	297010 ppb	18:58:31
3	Mg 279.077 IEC†	-295.0	-503.9	48.881 µg/L	48.881 ppb	18:58:33
3	Na 589.592 Radial†	4456.0	3440.6	205.87 µg/L	205.87 ppb	18:58:31
3	Sr 421.552†	4441067.4	4715621.3	9803.5 µg/L	9803.5 ppb	18:58:29
3	Sc 361.383	1660837.4	1660837.4	96.660 %		18:59:01
3	Y 371.029	967825.2	967825.2	94.267 %		18:59:01
3	Ag 328.068†	-28451.9	-33526.3	-6.5821 µg/L	-6.5821 ppb	18:59:04
3	As 188.979†	32300.2	33436.5	10365 µg/L	10365 ppb	18:59:04
3	B 249.677†	328722.2	336573.4	4931.3 µg/L	4931.3 ppb	18:59:01
3	Ba 233.527†	3317615.9	3432372.0	13841 µg/L	13841 ppb	18:59:01
3	Be 313.107†	10133998.6	10485182.6	2854.7 µg/L	2854.7 ppb	18:58:58
3	Cd 226.502†	1494854.9	1546618.8	9664.9 µg/L	9664.9 ppb	18:59:01
3	Co 228.616†	734092.5	759645.0	9389.8 µg/L	9389.8 ppb	18:59:01
3	Cr 267.716†	2940364.9	3041773.0	23826 µg/L	23826 ppb	18:59:01
3	Cu 324.752†	4964197.6	5132733.3	19952 µg/L	19952 ppb	18:59:01
3	Mn 257.610†	7309991.3	7562306.7	9356.8 µg/L	9356.8 ppb	18:59:01
3	Mo 202.031†	318101.3	329111.4	9675.5 µg/L	9675.5 ppb	18:59:04
3	Ni 231.604†	815203.0	843443.9	9711.6 µg/L	9711.6 ppb	18:59:01
3	P 214.914†	69129.8	71536.1	15067 µg/L	15067 ppb	18:59:04
3	Pb 220.353†	409679.7	423747.3	23684 µg/L	23684 ppb	18:59:01
3	S 181.975 Axial†	67967.3	70210.4	52219 µg/L	52219 ppb	18:59:04
3	Sb 206.836†	81066.4	83786.4	9772.6 µg/L	9772.6 ppb	18:59:04
3	Se 196.026†	26138.8	27026.6	9770 µg/L	9770 ppb	18:59:04
3	SiO2†	993772.6	1026331.1	99898 µg/L	99898 ppb	18:59:01
3	Si 251.611†	3070650.4	3175901.7	46628 µg/L	46628 ppb	18:59:01
3	Sn 189.927†	152708.7	157985.7	9882.0 µg/L	9882.0 ppb	18:59:04
3	Ti 334.940†	10211863.8	10563720.7	9861.6 µg/L	9861.6 ppb	18:58:58
3	Tl 190.801†	74486.4	77176.5	9633.0 µg/L	9633.0 ppb	18:59:04
3	U 409.014†	-10678.1	-10777.2	-24.287 µg/L	-24.287 ppb	18:59:04
3	V 292.402†	1973672.0	2041456.5	10152 µg/L	10152 ppb	18:59:01
3	Zn 213.857†	2465384.0	2549996.1	14250 µg/L	14250 ppb	18:59:01

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1653021.9	96.206	%	0.4918				0.51%
Sc RADIAL	138118.6	94.6	%	0.40				0.43%
Y 371.029	963642.3	93.859	%	0.4349				0.46%
Ag 328.068†	-33408.6	-6.4037	µg/L	0.90480	-6.4037	ppb	0.90480	14.13%
Al 396.153Radial†	2824.6	74.672	µg/L	7.5994	74.672	ppb	7.5994	10.18%
As 188.979†	33308.6	10326	µg/L	108.5	10326	ppb	108.5	1.05%
QC value within limits for As 188.979 Recovery = 103.26%								
B 249.677†	335301.2	4912.7	µg/L	20.14	4912.7	ppb	20.14	0.41%
QC value within limits for B 249.677 Recovery = 98.25%								
Ba 233.527†	3422577.3	13801	µg/L	43.6	13801	ppb	43.6	0.32%
QC value within limits for Ba 233.527 Recovery = 92.01%								
Be 313.107†	10501831.6	2859.3	µg/L	4.11	2859.3	ppb	4.11	0.14%
QC value within limits for Be 313.107 Recovery = 95.31%								
Ca 317.933Radial†	1736.3	96.720	µg/L	3.8970	96.720	ppb	3.8970	4.03%
Cd 226.502†	1539229.5	9618.8	µg/L	52.49	9618.8	ppb	52.49	0.55%
QC value within limits for Cd 226.502 Recovery = 96.19%								
Co 228.616†	756713.8	9353.6	µg/L	41.95	9353.6	ppb	41.95	0.45%
QC value within limits for Co 228.616 Recovery = 93.54%								
Cr 267.716†	3032991.5	23758	µg/L	79.1	23758	ppb	79.1	0.33%
QC value within limits for Cr 267.716 Recovery = 95.03%								

Cu 324.752†	5122485.4	19912 µg/L	39.8	19912 ppb	39.8	0.20%
QC value within limits for Cu 324.752 Recovery = 99.56%						
Fe 238.204 Radial†	-336.6	-20.748 µg/L	1.3234	-20.748 ppb	1.3234	6.38%
K 766.490 Radial†	807542.9	295650 µg/L	1500.7	295650 ppb	1500.7	0.51%
QC value within limits for K 766.490 Radial Recovery = 98.55%						
Mg 279.077 IEC†	-527.6	39.932 µg/L	10.0061	39.932 ppb	10.0061	25.06%
Mn 257.610†	7541217.3	9330.7 µg/L	29.52	9330.7 ppb	29.52	0.32%
QC value within limits for Mn 257.610 Recovery = 93.31%						
Mo 202.031†	328957.9	9671.0 µg/L	63.88	9671.0 ppb	63.88	0.66%
QC value within limits for Mo 202.031 Recovery = 96.71%						
Na 589.592 Radial†	3581.5	226.33 µg/L	18.607	226.33 ppb	18.607	8.22%
Ni 231.604†	840034.1	9672.4 µg/L	43.06	9672.4 ppb	43.06	0.45%
QC value within limits for Ni 231.604 Recovery = 96.72%						
P 214.914†	71274.3	15011 µg/L	120.3	15011 ppb	120.3	0.80%
QC value within limits for P 214.914 Recovery = 100.07%						
Pb 220.353†	421664.4	23568 µg/L	129.3	23568 ppb	129.3	0.55%
QC value within limits for Pb 220.353 Recovery = 94.27%						
S 181.975 Axial†	69844.2	51947 µg/L	496.0	51947 ppb	496.0	0.95%
QC value within limits for S 181.975 Axial Recovery = 103.89%						
Sb 206.836†	83738.7	9767.8 µg/L	75.75	9767.8 ppb	75.75	0.78%
QC value within limits for Sb 206.836 Recovery = 97.68%						
Se 196.026†	26961.8	9750 µg/L	97.4	9750 ppb	97.4	1.00%
QC value within limits for Se 196.026 Recovery = 97.47%						
SiO2†	1021991.6	99474 µg/L	471.0	99474 ppb	471.0	0.47%
QC value within limits for SiO2 Recovery = 92.97%						
Si 251.611†	3161856.2	46421 µg/L	225.8	46421 ppb	225.8	0.49%
QC value within limits for Si 251.611 Recovery = 92.84%						
Sn 189.927†	157586.2	9857.1 µg/L	71.32	9857.1 ppb	71.32	0.72%
QC value within limits for Sn 189.927 Recovery = 98.57%						
Sr 421.552†	4701327.6	9773.8 µg/L	36.00	9773.8 ppb	36.00	0.37%
QC value within limits for Sr 421.552 Recovery = 97.74%						
Ti 334.940†	10578479.4	9875.4 µg/L	12.32	9875.4 ppb	12.32	0.12%
QC value within limits for Ti 334.940 Recovery = 98.75%						
Tl 190.801†	77087.7	9622.1 µg/L	57.90	9622.1 ppb	57.90	0.60%
QC value within limits for Tl 190.801 Recovery = 96.22%						
U 409.014†	-10648.1	-18.128 µg/L	8.0380	-18.128 ppb	8.0380	44.34%
V 292.402†	2036837.3	10129 µg/L	24.0	10129 ppb	24.0	0.24%
QC value within limits for V 292.402 Recovery = 101.29%						
Zn 213.857†	2541282.9	14201 µg/L	53.8	14201 ppb	53.8	0.38%
QC value within limits for Zn 213.857 Recovery = 94.68%						

All analyte(s) passed QC.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 18:59:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142139.5	142139.5	97.4	%			18:59:45
1	Al 396.153Radial†	26433.8	27201.9	5020.1	µg/L	5020.1	ppb	18:59:45
1	Ca 317.933Radial†	88689.7	90494.1	5040.9	µg/L	5040.9	ppb	18:59:45
1	Fe 238.204 Radial†	79307.5	81274.2	5009.2	µg/L	5009.2	ppb	18:59:45
1	K 766.490 Radial†	16771.4	15673.9	5734.3	µg/L	5734.3	ppb	18:59:45
1	Mg 279.077 IEC†	13660.1	13833.7	5162.1	µg/L	5162.1	ppb	18:59:45
1	Na 589.592 Radial†	73293.1	73956.7	10098	µg/L	10098	ppb	18:59:45
1	Sr 421.552†	230485.0	236766.3	492.18	µg/L	492.18	ppb	18:59:42
1	Sc 361.383	1685039.5	1685039.5	98.069	%			19:00:11
1	Y 371.029	998501.4	998501.4	97.255	%			19:00:11
1	Ag 328.068†	132676.3	131197.3	491.97	µg/L	491.97	ppb	19:00:11
1	As 188.979†	1601.0	1652.9	507.06	µg/L	507.06	ppb	19:00:31
1	B 249.677†	36255.7	33463.6	491.81	µg/L	491.81	ppb	19:00:11
1	Ba 233.527†	119950.7	122448.3	493.83	µg/L	493.83	ppb	19:00:11
1	Be 313.107†	1777442.6	1813504.8	493.92	µg/L	493.92	ppb	19:00:11
1	Cd 226.502†	77121.2	78757.9	491.64	µg/L	491.64	ppb	19:00:11
1	Co 228.616†	39140.7	40101.7	495.05	µg/L	495.05	ppb	19:00:11
1	Cr 267.716†	61794.1	62832.3	491.97	µg/L	491.97	ppb	19:00:11
1	Cu 324.752†	126997.2	126525.5	493.24	µg/L	493.24	ppb	19:00:11
1	Mn 257.610†	392842.9	400340.6	495.12	µg/L	495.12	ppb	19:00:11
1	Mo 202.031†	16539.5	16885.3	496.69	µg/L	496.69	ppb	19:00:31
1	Ni 231.604†	41890.8	42792.1	492.72	µg/L	492.72	ppb	19:00:11
1	P 214.914†	11336.8	11578.0	2467.8	µg/L	2467.8	ppb	19:00:31
1	Pb 220.353†	8936.3	9025.8	505.42	µg/L	505.42	ppb	19:00:31
1	S 181.975 Axial†	1440.2	1363.5	1016.7	µg/L	1016.7	ppb	19:00:31
1	Sb 206.836†	4150.3	4151.2	494.66	µg/L	494.66	ppb	19:00:31
1	Se 196.026†	1355.8	1367.2	496	µg/L	496	ppb	19:00:31
1	SiO2†	55729.4	55051.3	5359.5	µg/L	5359.5	ppb	19:00:11
1	Si 251.611†	167770.7	170237.6	2499.9	µg/L	2499.9	ppb	19:00:11
1	Sn 189.927†	7832.4	7987.8	499.62	µg/L	499.62	ppb	19:00:31
1	Ti 334.940†	519447.4	528722.7	493.33	µg/L	493.33	ppb	19:00:11
1	Tl 190.801†	3833.0	4025.2	501.97	µg/L	501.97	ppb	19:00:31
1	U 409.014†	7396.5	7812.0	486.67	µg/L	486.67	ppb	19:00:11
1	V 292.402†	98795.4	100336.9	496.05	µg/L	496.05	ppb	19:00:11
1	Zn 213.857†	87637.0	88798.1	494.94	µg/L	494.94	ppb	19:00:11
2	Sc RADIAL	141405.1	141405.1	96.9	%			18:59:49
2	Al 396.153Radial†	26316.7	27222.0	5023.9	µg/L	5023.9	ppb	18:59:49
2	Ca 317.933Radial†	88132.2	90391.6	5035.2	µg/L	5035.2	ppb	18:59:49
2	Fe 238.204 Radial†	78428.2	80789.6	4979.4	µg/L	4979.4	ppb	18:59:49
2	K 766.490 Radial†	16577.4	15563.0	5693.7	µg/L	5693.7	ppb	18:59:49
2	Mg 279.077 IEC†	13417.4	13656.1	5095.9	µg/L	5095.9	ppb	18:59:49
2	Na 589.592 Radial†	72730.8	73767.2	10072	µg/L	10072	ppb	18:59:49
2	Sr 421.552†	231214.8	238748.4	496.30	µg/L	496.30	ppb	18:59:47
2	Sc 361.383	1693366.2	1693366.2	98.554	%			19:00:35
2	Y 371.029	1002117.3	1002117.3	97.607	%			19:00:35
2	Ag 328.068†	134028.3	131903.9	494.57	µg/L	494.57	ppb	19:00:35
2	As 188.979†	1592.6	1636.4	502.08	µg/L	502.08	ppb	19:00:55
2	B 249.677†	36515.2	33545.2	493.02	µg/L	493.02	ppb	19:00:35
2	Ba 233.527†	120680.2	122587.1	494.39	µg/L	494.39	ppb	19:00:35
2	Be 313.107†	1789722.9	1817053.1	494.89	µg/L	494.89	ppb	19:00:35
2	Cd 226.502†	77769.6	79029.1	493.33	µg/L	493.33	ppb	19:00:35
2	Co 228.616†	39338.4	40106.1	495.11	µg/L	495.11	ppb	19:00:35
2	Cr 267.716†	62316.9	63052.8	493.70	µg/L	493.70	ppb	19:00:35
2	Cu 324.752†	127673.8	126575.3	493.42	µg/L	493.42	ppb	19:00:35
2	Mn 257.610†	395604.2	401172.7	496.16	µg/L	496.16	ppb	19:00:35
2	Mo 202.031†	16605.0	16868.7	496.20	µg/L	496.20	ppb	19:00:55
2	Ni 231.604†	42250.6	42947.2	494.51	µg/L	494.51	ppb	19:00:35
2	P 214.914†	11392.0	11577.2	2467.6	µg/L	2467.6	ppb	19:00:55
2	Pb 220.353†	8993.4	9039.0	506.15	µg/L	506.15	ppb	19:00:55

2	S 181.975 Axial†	1441.0	1357.1	1011.9 µg/L	1011.9 ppb	19:00:55
2	Sb 206.836†	4173.3	4153.7	494.93 µg/L	494.93 ppb	19:00:55
2	Se 196.026†	1369.6	1374.4	499 µg/L	499 ppb	19:00:55
2	SiO2†	55740.1	54782.8	5333.3 µg/L	5333.3 ppb	19:00:35
2	Si 251.611†	168764.7	170404.9	2502.4 µg/L	2502.4 ppb	19:00:35
2	Sn 189.927†	7855.7	7972.1	498.64 µg/L	498.64 ppb	19:00:55
2	Ti 334.940†	522510.2	529225.9	493.80 µg/L	493.80 ppb	19:00:35
2	Tl 190.801†	3874.1	4047.6	504.73 µg/L	504.73 ppb	19:00:55
2	U 409.014†	7341.8	7719.4	481.23 µg/L	481.23 ppb	19:00:35
2	V 292.402†	99158.5	100210.0	495.43 µg/L	495.43 ppb	19:00:35
2	Zn 213.857†	88086.4	88814.8	495.03 µg/L	495.03 ppb	19:00:35
3	Sc RADIAL	143105.8	143105.8	98.1 %		18:59:53
3	Al 396.153Radial†	26546.6	27133.7	5007.7 µg/L	5007.7 ppb	18:59:53
3	Ca 317.933Radial†	89145.0	90343.6	5032.5 µg/L	5032.5 ppb	18:59:53
3	Fe 238.204 Radial†	79321.5	80738.7	4976.2 µg/L	4976.2 ppb	18:59:53
3	K 766.490 Radial†	16684.6	15469.1	5659.4 µg/L	5659.4 ppb	18:59:53
3	Mg 279.077 IEC†	13656.7	13735.5	5125.4 µg/L	5125.4 ppb	18:59:53
3	Na 589.592 Radial†	73452.5	73611.2	10051 µg/L	10051 ppb	18:59:53
3	Sr 421.552†	233202.1	237939.3	494.62 µg/L	494.62 ppb	18:59:51
3	Sc 361.383	1698557.6	1698557.6	98.856 %		19:00:58
3	Y 371.029	1005300.2	1005300.2	97.917 %		19:00:58
3	Ag 328.068†	134027.1	131487.0	493.03 µg/L	493.03 ppb	19:00:58
3	As 188.979†	1600.3	1639.2	502.90 µg/L	502.90 ppb	19:01:18
3	B 249.677†	36626.1	33544.1	493.00 µg/L	493.00 ppb	19:00:58
3	Ba 233.527†	120865.6	122400.4	493.64 µg/L	493.64 ppb	19:00:58
3	Be 313.107†	1794818.7	1816657.7	494.78 µg/L	494.78 ppb	19:00:58
3	Cd 226.502†	77952.7	78973.1	492.98 µg/L	492.98 ppb	19:00:58
3	Co 228.616†	39410.3	40056.7	494.50 µg/L	494.50 ppb	19:00:58
3	Cr 267.716†	62267.5	62809.6	491.79 µg/L	491.79 ppb	19:00:58
3	Cu 324.752†	127710.6	126216.6	492.03 µg/L	492.03 ppb	19:00:58
3	Mn 257.610†	396581.9	400934.9	495.86 µg/L	495.86 ppb	19:00:58
3	Mo 202.031†	16557.8	16769.5	493.29 µg/L	493.29 ppb	19:01:18
3	Ni 231.604†	42318.2	42884.5	493.78 µg/L	493.78 ppb	19:00:58
3	P 214.914†	11368.7	11518.2	2455.0 µg/L	2455.0 ppb	19:01:18
3	Pb 220.353†	8920.7	8937.6	500.48 µg/L	500.48 ppb	19:01:18
3	S 181.975 Axial†	1449.3	1361.0	1014.8 µg/L	1014.8 ppb	19:01:18
3	Sb 206.836†	4163.9	4131.2	492.23 µg/L	492.23 ppb	19:01:18
3	Se 196.026†	1367.7	1368.2	497 µg/L	497 ppb	19:01:18
3	SiO2†	55966.4	54838.9	5338.9 µg/L	5338.9 ppb	19:00:58
3	Si 251.611†	169027.1	170146.9	2498.6 µg/L	2498.6 ppb	19:00:58
3	Sn 189.927†	7816.0	7907.6	494.62 µg/L	494.62 ppb	19:01:18
3	Ti 334.940†	523522.3	528629.3	493.24 µg/L	493.24 ppb	19:00:58
3	Tl 190.801†	3828.1	3989.1	497.54 µg/L	497.54 ppb	19:01:18
3	U 409.014†	7431.2	7787.1	485.18 µg/L	485.18 ppb	19:00:58
3	V 292.402†	99434.0	100181.1	495.25 µg/L	495.25 ppb	19:00:58
3	Zn 213.857†	87848.2	88300.5	492.15 µg/L	492.15 ppb	19:00:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1692321.1	98.493	%	0.3969				0.40%
Sc RADIAL	142216.8	97.5	%	0.58				0.60%
Y 371.029	1001973.0	97.593	%	0.3313				0.34%
Ag 328.068†	131529.4	493.19	µg/L	1.309	493.19	ppb	1.309	0.27%
QC value within limits for Ag 328.068 Recovery = 98.64%								
Al 396.153Radial†	27185.9	5017.2	µg/L	8.50	5017.2	ppb	8.50	0.17%
QC value within limits for Al 396.153Radial Recovery = 100.34%								
As 188.979†	1642.8	504.02	µg/L	2.669	504.02	ppb	2.669	0.53%
QC value within limits for As 188.979 Recovery = 100.80%								
B 249.677†	33517.6	492.61	µg/L	0.690	492.61	ppb	0.690	0.14%
QC value within limits for B 249.677 Recovery = 98.52%								
Ba 233.527†	122478.6	493.95	µg/L	0.391	493.95	ppb	0.391	0.08%
QC value within limits for Ba 233.527 Recovery = 98.79%								
Be 313.107†	1815738.5	494.53	µg/L	0.529	494.53	ppb	0.529	0.11%
QC value within limits for Be 313.107 Recovery = 98.91%								
Ca 317.933Radial†	90409.8	5036.2	µg/L	4.28	5036.2	ppb	4.28	0.09%
QC value within limits for Ca 317.933Radial Recovery = 100.72%								
Cd 226.502†	78920.1	492.65	µg/L	0.896	492.65	ppb	0.896	0.18%
QC value within limits for Cd 226.502 Recovery = 98.53%								
Co 228.616†	40088.2	494.89	µg/L	0.337	494.89	ppb	0.337	0.07%

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   QC value within limits for Co 228.616  Recovery = 98.98%
Cr 267.716†            62898.2      492.49 µg/L         1.054      492.49 ppb          1.054   0.21%
   QC value within limits for Cr 267.716  Recovery = 98.50%
Cu 324.752†           126439.1      492.90 µg/L         0.756      492.90 ppb          0.756   0.15%
   QC value within limits for Cu 324.752  Recovery = 98.58%
Fe 238.204 Radial†     80934.2      4988.3 µg/L         18.22      4988.3 ppb          18.22   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.77%
K 766.490 Radial†      15568.7      5695.8 µg/L         37.52      5695.8 ppb          37.52   0.66%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 113.92%
Mg 279.077 IEC†        13741.8      5127.8 µg/L         33.15      5127.8 ppb          33.15   0.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.56%
Mn 257.610†           400816.1      495.71 µg/L         0.532      495.71 ppb          0.532   0.11%
   QC value within limits for Mn 257.610  Recovery = 99.14%
Mo 202.031†            16841.2      495.39 µg/L         1.841      495.39 ppb          1.841   0.37%
   QC value within limits for Mo 202.031  Recovery = 99.08%
Na 589.592 Radial†     73778.4       10074 µg/L          23.6       10074 ppb           23.6   0.23%
   QC value within limits for Na 589.592 Radial  Recovery = 100.74%
Ni 231.604†            42874.6      493.67 µg/L         0.898      493.67 ppb          0.898   0.18%
   QC value within limits for Ni 231.604  Recovery = 98.73%
P 214.914†             11557.8      2463.5 µg/L          7.33      2463.5 ppb           7.33   0.30%
   QC value within limits for P 214.914  Recovery = 98.54%
Pb 220.353†             9000.8      504.02 µg/L         3.083      504.02 ppb          3.083   0.61%
   QC value within limits for Pb 220.353  Recovery = 100.80%
S 181.975 Axial†        1360.5      1014.5 µg/L          2.43      1014.5 ppb           2.43   0.24%
   QC value within limits for S 181.975 Axial  Recovery = 101.45%
Sb 206.836†             4145.4      493.94 µg/L         1.484      493.94 ppb          1.484   0.30%
   QC value within limits for Sb 206.836  Recovery = 98.79%
Se 196.026†             1370.0         497 µg/L           1.4         497 ppb            1.4   0.28%
   QC value within limits for Se 196.026  Recovery = 99.49%
SiO2†                  54891.0      5343.9 µg/L         13.80      5343.9 ppb          13.80   0.26%
   QC value within limits for SiO2  Recovery = 99.93%
Si 251.611†           170263.1      2500.3 µg/L          1.90      2500.3 ppb           1.90   0.08%
   QC value within limits for Si 251.611  Recovery = 100.01%
Sn 189.927†             7955.8      497.63 µg/L         2.649      497.63 ppb          2.649   0.53%
   QC value within limits for Sn 189.927  Recovery = 99.53%
Sr 421.552†           237818.0      494.37 µg/L         2.072      494.37 ppb          2.072   0.42%
   QC value within limits for Sr 421.552  Recovery = 98.87%
Ti 334.940†           528859.3      493.46 µg/L         0.302      493.46 ppb          0.302   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.69%
Tl 190.801†             4020.6      501.41 µg/L         3.629      501.41 ppb          3.629   0.72%
   QC value within limits for Tl 190.801  Recovery = 100.28%
U 409.014†              7772.9      484.36 µg/L         2.811      484.36 ppb          2.811   0.58%
   QC value within limits for U 409.014  Recovery = 96.87%
V 292.402†            100242.7      495.58 µg/L         0.417      495.58 ppb          0.417   0.08%
   QC value within limits for V 292.402  Recovery = 99.12%
Zn 213.857†            88637.8      494.04 µg/L         1.641      494.04 ppb          1.641   0.33%
   QC value within limits for Zn 213.857  Recovery = 98.81%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:01:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142576.4	142576.4	97.7	%			19:01:55
1	Al 396.153Radial†	57.6	122.1	22.616	µg/L	22.616	ppb	19:02:15
1	Ca 317.933Radial†	950.3	412.1	22.954	µg/L	22.954	ppb	19:02:15
1	Fe 238.204 Radial†	408.4	269.9	16.636	µg/L	16.636	ppb	19:02:15
1	K 766.490 Radial†	2351.3	861.8	315.49	µg/L	315.49	ppb	19:01:55
1	Mg 279.077 IEC†	256.3	71.6	26.675	µg/L	26.675	ppb	19:02:15
1	Na 589.592 Radial†	2324.7	1088.6	148.44	µg/L	148.44	ppb	19:01:55
1	Sr 421.552†	-47.4	86.8	0.1802	µg/L	0.1802	ppb	19:01:55
1	Sc 361.383	1712993.6	1712993.6	99.696	%			19:03:03
1	Y 371.029	1024574.5	1024574.5	99.794	%			19:03:03
1	Ag 328.068†	3862.6	-217.0	-0.8055	µg/L	-0.8055	ppb	19:03:05
1	As 188.979†	-11.7	8.6	2.6096	µg/L	2.6096	ppb	19:03:25
1	B 249.677†	3681.1	186.4	2.7486	µg/L	2.7486	ppb	19:03:05
1	Ba 233.527†	-102.8	32.7	0.1316	µg/L	0.1316	ppb	19:03:25
1	Be 313.107†	-845.8	216.4	0.0592	µg/L	0.0592	ppb	19:03:05
1	Cd 226.502†	-69.1	48.9	0.3038	µg/L	0.3038	ppb	19:03:25
1	Co 228.616†	-171.2	18.6	0.2289	µg/L	0.2289	ppb	19:03:25
1	Cr 267.716†	235.5	57.6	0.4508	µg/L	0.4508	ppb	19:03:25
1	Cu 324.752†	3139.9	177.3	0.6930	µg/L	0.6930	ppb	19:03:05
1	Mn 257.610†	387.8	151.7	0.1866	µg/L	0.1866	ppb	19:03:25
1	Mo 202.031†	-0.9	19.2	0.5643	µg/L	0.5643	ppb	19:03:25
1	Ni 231.604†	-84.9	-8.7	-0.0996	µg/L	-0.0996	ppb	19:03:25
1	P 214.914†	-24.3	-6.5	-1.3891	µg/L	-1.3891	ppb	19:03:25
1	Pb 220.353†	141.3	55.4	3.0911	µg/L	3.0911	ppb	19:03:25
1	S 181.975 Axial†	113.5	8.8	6.5060	µg/L	6.5060	ppb	19:03:25
1	Sb 206.836†	76.0	-4.6	-0.5451	µg/L	-0.5451	ppb	19:03:25
1	Se 196.026†	20.7	5.5	2.01	µg/L	2.01	ppb	19:03:25
1	SiO2†	1808.7	38.9	3.7615	µg/L	3.7615	ppb	19:03:25
1	Si 251.611†	1158.0	325.0	4.7734	µg/L	4.7734	ppb	19:03:05
1	Sn 189.927†	23.2	24.4	1.5199	µg/L	1.5199	ppb	19:03:25
1	Ti 334.940†	1109.4	160.3	0.1476	µg/L	0.1476	ppb	19:03:05
1	Tl 190.801†	-105.0	11.4	1.4002	µg/L	1.4002	ppb	19:03:25
1	U 409.014†	-251.8	17.3	0.9993	µg/L	0.9993	ppb	19:03:05
1	V 292.402†	359.4	-43.3	-0.2046	µg/L	-0.2046	ppb	19:03:05
1	Zn 213.857†	837.7	275.9	1.5483	µg/L	1.5483	ppb	19:03:25
2	Sc RADIAL	143802.6	143802.6	98.5	%			19:02:17
2	Al 396.153Radial†	-23.6	39.2	7.2646	µg/L	7.2646	ppb	19:02:37
2	Ca 317.933Radial†	724.5	174.6	9.7279	µg/L	9.7279	ppb	19:02:37
2	Fe 238.204 Radial†	241.4	96.9	5.9704	µg/L	5.9704	ppb	19:02:37
2	K 766.490 Radial†	2344.6	834.5	305.50	µg/L	305.50	ppb	19:02:17
2	Mg 279.077 IEC†	184.0	-4.0	-1.5026	µg/L	-1.5026	ppb	19:02:37
2	Na 589.592 Radial†	2222.6	964.7	131.52	µg/L	131.52	ppb	19:02:17
2	Sr 421.552†	-22.7	112.3	0.2333	µg/L	0.2333	ppb	19:02:17
2	Sc 361.383	1715539.4	1715539.4	99.844	%			19:03:27
2	Y 371.029	1025697.2	1025697.2	99.903	%			19:03:27
2	Ag 328.068†	4157.7	72.8	0.2757	µg/L	0.2757	ppb	19:03:30
2	As 188.979†	-16.7	3.7	1.1138	µg/L	1.1138	ppb	19:03:50
2	B 249.677†	3652.6	152.4	2.2465	µg/L	2.2465	ppb	19:03:30
2	Ba 233.527†	-103.8	31.9	0.1289	µg/L	0.1289	ppb	19:03:50
2	Be 313.107†	-800.4	263.0	0.0711	µg/L	0.0711	ppb	19:03:30
2	Cd 226.502†	-101.0	17.0	0.1059	µg/L	0.1059	ppb	19:03:50
2	Co 228.616†	-175.3	14.7	0.1813	µg/L	0.1813	ppb	19:03:50
2	Cr 267.716†	251.6	73.5	0.5772	µg/L	0.5772	ppb	19:03:50
2	Cu 324.752†	3073.4	105.9	0.4112	µg/L	0.4112	ppb	19:03:30
2	Mn 257.610†	351.3	114.6	0.1418	µg/L	0.1418	ppb	19:03:50
2	Mo 202.031†	-12.8	7.2	0.2126	µg/L	0.2126	ppb	19:03:50
2	Ni 231.604†	-67.1	9.3	0.1072	µg/L	0.1072	ppb	19:03:50
2	P 214.914†	-27.6	-9.7	-2.0622	µg/L	-2.0622	ppb	19:03:50
2	Pb 220.353†	95.6	9.4	0.5244	µg/L	0.5244	ppb	19:03:50

2	S 181.975 Axial†	105.7	0.8	0.6240 µg/L	0.6240 ppb		19:03:50
2	Sb 206.836†	85.0	4.3	0.5093 µg/L	0.5093 ppb		19:03:50
2	Se 196.026†	19.1	3.9	1.40 µg/L	1.40 ppb		19:03:50
2	SiO2†	1782.4	9.8	0.9335 µg/L	0.9335 ppb		19:03:50
2	Si 251.611†	944.9	109.8	1.6073 µg/L	1.6073 ppb		19:03:30
2	Sn 189.927†	21.6	22.8	1.4197 µg/L	1.4197 ppb		19:03:50
2	Ti 334.940†	960.9	9.8	0.0100 µg/L	0.0100 ppb		19:03:30
2	Tl 190.801†	-107.7	8.8	1.0828 µg/L	1.0828 ppb		19:03:50
2	U 409.014†	-298.4	-28.9	-1.6511 µg/L	-1.6511 ppb		19:03:30
2	V 292.402†	549.1	146.2	0.7161 µg/L	0.7161 ppb		19:03:30
2	Zn 213.857†	814.7	251.5	1.4114 µg/L	1.4114 ppb		19:03:50
3	Sc RADIAL	143637.2	143637.2	98.4 %			19:02:39
3	Al 396.153Radial†	-43.2	19.4	3.5840 µg/L	3.5840 ppb		19:03:00
3	Ca 317.933Radial†	715.6	166.4	9.2706 µg/L	9.2706 ppb		19:03:00
3	Fe 238.204 Radial†	242.5	98.3	6.0580 µg/L	6.0580 ppb		19:03:00
3	K 766.490 Radial†	2256.9	748.2	273.88 µg/L	273.88 ppb		19:02:39
3	Mg 279.077 IEC†	205.1	17.7	6.5824 µg/L	6.5824 ppb		19:03:00
3	Na 589.592 Radial†	2284.1	1029.7	140.43 µg/L	140.43 ppb		19:02:39
3	Sr 421.552†	11.7	147.2	0.3060 µg/L	0.3060 ppb		19:02:39
3	Sc 361.383	1722456.3	1722456.3	100.25 %			19:03:52
3	Y 371.029	1029533.6	1029533.6	100.28 %			19:03:52
3	Ag 328.068†	4007.1	-94.2	-0.3350 µg/L	-0.3350 ppb		19:03:54
3	As 188.979†	-18.8	1.6	0.4750 µg/L	0.4750 ppb		19:04:14
3	B 249.677†	3639.8	125.0	1.8421 µg/L	1.8421 ppb		19:03:54
3	Ba 233.527†	-117.1	19.1	0.0776 µg/L	0.0776 ppb		19:04:14
3	Be 313.107†	-721.4	345.0	0.0939 µg/L	0.0939 ppb		19:03:54
3	Cd 226.502†	-93.0	25.4	0.1581 µg/L	0.1581 ppb		19:04:14
3	Co 228.616†	-173.2	17.6	0.2167 µg/L	0.2167 ppb		19:04:14
3	Cr 267.716†	211.6	32.5	0.2552 µg/L	0.2552 ppb		19:04:14
3	Cu 324.752†	3092.5	112.7	0.4392 µg/L	0.4392 ppb		19:03:54
3	Mn 257.610†	342.1	104.0	0.1284 µg/L	0.1284 ppb		19:04:14
3	Mo 202.031†	-15.6	4.5	0.1336 µg/L	0.1336 ppb		19:04:14
3	Ni 231.604†	-90.2	-13.4	-0.1547 µg/L	-0.1547 ppb		19:04:14
3	P 214.914†	-22.3	-4.2	-0.9047 µg/L	-0.9047 ppb		19:04:14
3	Pb 220.353†	117.3	30.6	1.7079 µg/L	1.7079 ppb		19:04:14
3	S 181.975 Axial†	114.1	8.7	6.4890 µg/L	6.4890 ppb		19:04:14
3	Sb 206.836†	80.1	-1.0	-0.1107 µg/L	-0.1107 ppb		19:04:14
3	Se 196.026†	9.2	-6.1	-2.20 µg/L	-2.20 ppb		19:04:14
3	SiO2†	1811.5	31.7	3.0742 µg/L	3.0742 ppb		19:04:14
3	Si 251.611†	907.7	68.9	1.0043 µg/L	1.0043 ppb		19:03:54
3	Sn 189.927†	22.3	23.4	1.4577 µg/L	1.4577 ppb		19:04:14
3	Ti 334.940†	846.3	-108.3	-0.1015 µg/L	-0.1015 ppb		19:03:54
3	Tl 190.801†	-114.4	2.6	0.3215 µg/L	0.3215 ppb		19:04:14
3	U 409.014†	-270.6	-0.0	0.0667 µg/L	0.0667 ppb		19:03:54
3	V 292.402†	646.7	241.3	1.1790 µg/L	1.1790 ppb		19:03:54
3	Zn 213.857†	803.7	237.3	1.3332 µg/L	1.3332 ppb		19:04:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716996.5	99.929	%	0.2850				0.29%
Sc RADIAL	143338.8	98.2	%	0.46				0.46%
Y 371.029	1026601.8	99.992	%	0.2533				0.25%
Ag 328.068†	-79.5	-0.2883	µg/L	0.54213	-0.2883	ppb	0.54213	188.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	60.2	11.155	µg/L	10.0946	11.155	ppb	10.0946	90.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.6	1.3995	µg/L	1.09560	1.3995	ppb	1.09560	78.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	154.6	2.2791	µg/L	0.45415	2.2791	ppb	0.45415	19.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	27.9	0.1127	µg/L	0.03047	0.1127	ppb	0.03047	27.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	274.8	0.0748	µg/L	0.01765	0.0748	ppb	0.01765	23.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	251.0	13.984	µg/L	7.7715	13.984	ppb	7.7715	55.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	30.5	0.1893	µg/L	0.10254	0.1893	ppb	0.10254	54.18%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.0	0.2090	µg/L	0.02473	0.2090	ppb	0.02473	11.83%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              54.5      0.4277 µg/L       0.16226      0.4277 ppb        0.16226  37.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             132.0      0.5144 µg/L       0.15523      0.5144 ppb        0.15523  30.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      155.0      9.5549 µg/L       6.13280      9.5549 ppb        6.13280  64.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       814.8      298.29 µg/L        21.721      298.29 ppb         21.721   7.28%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          28.4      10.585 µg/L       14.5091      10.585 ppb        14.5091 137.07%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             123.4      0.1523 µg/L       0.03051      0.1523 ppb        0.03051  20.04%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.3      0.3035 µg/L       0.22930      0.3035 ppb        0.22930  75.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      1027.7      140.13 µg/L         8.461      140.13 ppb          8.461   6.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.3     -0.0490 µg/L       0.13810     -0.0490 ppb        0.13810 281.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -6.8     -1.4520 µg/L       0.58130     -1.4520 ppb        0.58130  40.03%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              31.8      1.7745 µg/L       1.28462      1.7745 ppb        1.28462  72.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.1      4.5397 µg/L       3.39110      4.5397 ppb        3.39110  74.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.4     -0.0489 µg/L       0.52991     -0.0489 ppb        0.52991 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.1       0.402 µg/L        2.2740       0.402 ppb         2.2740 564.97%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    26.8      2.5897 µg/L       1.47490      2.5897 ppb        1.47490  56.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             167.9      2.4617 µg/L       2.02458      2.4617 ppb        2.02458  82.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              23.5      1.4657 µg/L       0.05055      1.4657 ppb        0.05055   3.45%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             115.4      0.2398 µg/L       0.06313      0.2398 ppb        0.06313  26.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              20.6      0.0187 µg/L       0.12478      0.0187 ppb        0.12478 667.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.6      0.9348 µg/L       0.55437      0.9348 ppb        0.55437  59.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -3.9     -0.1950 µg/L       1.34448     -0.1950 ppb        1.34448 689.39%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              114.7      0.5635 µg/L       0.70433      0.5635 ppb        0.70433 125.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             254.9      1.4310 µg/L       0.10892      1.4310 ppb        0.10892   7.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

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Analysis Begun

Start Time: 3/31/2010 19:06:02 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 3/31/2010 18:15:19**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/31/2010 19:06:03**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142053.7	142053.7	97.3	%			19:06:36
1	Al 396.153Radial†	26187.8	26965.5	4976.4	µg/L	4976.4	ppb	19:06:36
1	Ca 317.933Radial†	87895.1	89732.8	4998.5	µg/L	4998.5	ppb	19:06:36
1	Fe 238.204 Radial†	78245.6	80232.5	4945.0	µg/L	4945.0	ppb	19:06:36

1	K 766.490 Radial†	15026.3	13891.5	5081.8 µg/L	5081.8 ppb	19:06:36
1	Mg 279.077 IEC†	13439.2	13615.2	5080.7 µg/L	5080.7 ppb	19:06:36
1	Na 589.592 Radial†	71676.4	72341.3	9878.2 µg/L	9878.2 ppb	19:06:36
1	Sr 421.552†	230855.8	237290.2	493.27 µg/L	493.27 ppb	19:06:34
1	Sc 361.383	1692635.7	1692635.7	98.511 %		19:06:49
1	Y 371.029	1002740.0	1002740.0	97.667 %		19:06:49
1	Ag 328.068†	133490.2	131416.3	492.76 µg/L	492.76 ppb	19:06:49
1	As 188.979†	1592.7	1637.1	502.26 µg/L	502.26 ppb	19:07:09
1	B 249.677†	36019.4	33057.9	485.83 µg/L	485.83 ppb	19:06:49
1	Ba 233.527†	119977.2	121926.4	491.73 µg/L	491.73 ppb	19:06:49
1	Be 313.107†	1788795.8	1816895.8	494.84 µg/L	494.84 ppb	19:06:49
1	Cd 226.502†	77305.4	78591.9	490.61 µg/L	490.61 ppb	19:06:49
1	Co 228.616†	39248.1	40031.6	494.19 µg/L	494.19 ppb	19:06:49
1	Cr 267.716†	61675.1	62428.6	488.81 µg/L	488.81 ppb	19:06:49
1	Cu 324.752†	126554.7	125495.2	489.22 µg/L	489.22 ppb	19:06:49
1	Mn 257.610†	394217.2	399938.0	494.63 µg/L	494.63 ppb	19:06:49
1	Mo 202.031†	16588.6	16859.4	495.93 µg/L	495.93 ppb	19:07:09
1	Ni 231.604†	41959.1	42669.8	491.31 µg/L	491.31 ppb	19:06:49
1	P 214.914†	11467.5	11658.8	2485.2 µg/L	2485.2 ppb	19:07:09
1	Pb 220.353†	8908.4	8956.6	501.56 µg/L	501.56 ppb	19:07:09
1	S 181.975 Axial†	1431.0	1347.6	1004.9 µg/L	1004.9 ppb	19:07:09
1	Sb 206.836†	4198.6	4181.2	498.27 µg/L	498.27 ppb	19:07:09
1	Se 196.026†	1378.4	1384.0	502 µg/L	502 ppb	19:07:09
1	SiO2†	55424.9	54487.2	5304.4 µg/L	5304.4 ppb	19:06:49
1	Si 251.611†	167452.8	169147.1	2483.8 µg/L	2483.8 ppb	19:06:49
1	Sn 189.927†	7877.5	7997.7	500.23 µg/L	500.23 ppb	19:07:09
1	Ti 334.940†	520670.2	527586.9	492.28 µg/L	492.28 ppb	19:06:49
1	Tl 190.801†	3872.9	4048.2	504.78 µg/L	504.78 ppb	19:07:09
1	U 409.014†	7291.5	7671.6	478.40 µg/L	478.40 ppb	19:06:49
1	V 292.402†	98968.4	100060.4	494.68 µg/L	494.68 ppb	19:06:49
1	Zn 213.857†	86928.5	87677.9	488.67 µg/L	488.67 ppb	19:06:49
2	Sc RADIAL	141682.9	141682.9	97.1 %		19:06:40
2	Al 396.153Radial†	26223.0	27072.3	4996.3 µg/L	4996.3 ppb	19:06:40
2	Ca 317.933Radial†	87546.1	89609.7	4991.6 µg/L	4991.6 ppb	19:06:40
2	Fe 238.204 Radial†	78166.5	80361.4	4953.0 µg/L	4953.0 ppb	19:06:40
2	K 766.490 Radial†	14890.1	13791.7	5045.3 µg/L	5045.3 ppb	19:06:40
2	Mg 279.077 IEC†	13407.1	13618.3	5081.7 µg/L	5081.7 ppb	19:06:40
2	Na 589.592 Radial†	71442.4	72293.1	9871.6 µg/L	9871.6 ppb	19:06:40
2	Sr 421.552†	234429.9	241592.0	502.22 µg/L	502.22 ppb	19:06:38
2	Sc 361.383	1693933.2	1693933.2	98.587 %		19:07:12
2	Y 371.029	1002754.3	1002754.3	97.669 %		19:07:12
2	Ag 328.068†	133887.2	131715.3	493.86 µg/L	493.86 ppb	19:07:12
2	As 188.979†	1584.7	1627.8	499.44 µg/L	499.44 ppb	19:07:32
2	B 249.677†	36086.4	33097.9	486.42 µg/L	486.42 ppb	19:07:12
2	Ba 233.527†	120244.1	122103.7	492.44 µg/L	492.44 ppb	19:07:12
2	Be 313.107†	1788194.1	1814894.6	494.30 µg/L	494.30 ppb	19:07:12
2	Cd 226.502†	77647.5	78878.9	492.40 µg/L	492.40 ppb	19:07:12
2	Co 228.616†	39316.5	40070.5	494.67 µg/L	494.67 ppb	19:07:12
2	Cr 267.716†	61922.8	62632.0	490.40 µg/L	490.40 ppb	19:07:12
2	Cu 324.752†	126725.3	125569.8	489.51 µg/L	489.51 ppb	19:07:12
2	Mn 257.610†	394218.9	399633.2	494.25 µg/L	494.25 ppb	19:07:12
2	Mo 202.031†	16463.2	16719.3	491.81 µg/L	491.81 ppb	19:07:32
2	Ni 231.604†	42154.2	42835.0	493.21 µg/L	493.21 ppb	19:07:12
2	P 214.914†	11314.3	11494.4	2450.0 µg/L	2450.0 ppb	19:07:32
2	Pb 220.353†	8825.1	8865.3	496.44 µg/L	496.44 ppb	19:07:32
2	S 181.975 Axial†	1411.2	1326.4	989.11 µg/L	989.11 ppb	19:07:32
2	Sb 206.836†	4167.4	4146.3	494.02 µg/L	494.02 ppb	19:07:32
2	Se 196.026†	1363.3	1367.5	497 µg/L	497 ppb	19:07:32
2	SiO2†	55444.1	54463.6	5302.3 µg/L	5302.3 ppb	19:07:12
2	Si 251.611†	167875.0	169445.1	2488.3 µg/L	2488.3 ppb	19:07:12
2	Sn 189.927†	7786.1	7898.8	494.07 µg/L	494.07 ppb	19:07:32
2	Ti 334.940†	520698.2	527210.5	491.92 µg/L	491.92 ppb	19:07:12
2	Tl 190.801†	3845.2	4017.0	500.93 µg/L	500.93 ppb	19:07:32
2	U 409.014†	7348.6	7723.9	481.39 µg/L	481.39 ppb	19:07:12
2	V 292.402†	98856.0	99869.4	493.71 µg/L	493.71 ppb	19:07:12
2	Zn 213.857†	87044.0	87727.5	488.93 µg/L	488.93 ppb	19:07:12
3	Sc RADIAL	140290.8	140290.8	96.1 %		19:06:44
3	Al 396.153Radial†	26121.4	27234.6	5026.5 µg/L	5026.5 ppb	19:06:44
3	Ca 317.933Radial†	86648.1	89570.3	4989.4 µg/L	4989.4 ppb	19:06:44
3	Fe 238.204 Radial†	77524.7	80492.7	4961.1 µg/L	4961.1 ppb	19:06:44
3	K 766.490 Radial†	14881.5	13934.9	5097.7 µg/L	5097.7 ppb	19:06:44

3	Mg 279.077 IEC†	13262.2	13604.5	5076.6 µg/L	5076.6 ppb	19:06:44
3	Na 589.592 Radial†	70817.9	72373.6	9882.6 µg/L	9882.6 ppb	19:06:44
3	Sr 421.552†	230738.3	240148.1	499.21 µg/L	499.21 ppb	19:06:42
3	Sc 361.383	1701566.9	1701566.9	99.031 %		19:07:35
3	Y 371.029	1007094.6	1007094.6	98.092 %		19:07:35
3	Ag 328.068†	134475.4	131699.9	493.82 µg/L	493.82 ppb	19:07:35
3	As 188.979†	1593.4	1629.4	499.91 µg/L	499.91 ppb	19:07:55
3	B 249.677†	36488.9	33340.1	489.99 µg/L	489.99 ppb	19:07:35
3	Ba 233.527†	120822.0	122140.2	492.59 µg/L	492.59 ppb	19:07:35
3	Be 313.107†	1801771.9	1820467.8	495.82 µg/L	495.82 ppb	19:07:35
3	Cd 226.502†	78139.4	79022.2	493.29 µg/L	493.29 ppb	19:07:35
3	Co 228.616†	39662.8	40241.2	496.77 µg/L	496.77 ppb	19:07:35
3	Cr 267.716†	62197.1	62627.2	490.36 µg/L	490.36 ppb	19:07:35
3	Cu 324.752†	127822.8	126101.4	491.58 µg/L	491.58 ppb	19:07:35
3	Mn 257.610†	397277.8	400928.1	495.85 µg/L	495.85 ppb	19:07:35
3	Mo 202.031†	16490.8	16672.2	490.43 µg/L	490.43 ppb	19:07:55
3	Ni 231.604†	42326.5	42817.2	493.01 µg/L	493.01 ppb	19:07:35
3	P 214.914†	11342.9	11471.9	2445.2 µg/L	2445.2 ppb	19:07:55
3	Pb 220.353†	8843.5	8843.7	495.23 µg/L	495.23 ppb	19:07:55
3	S 181.975 Axial†	1419.8	1328.6	990.72 µg/L	990.72 ppb	19:07:55
3	Sb 206.836†	4178.4	4138.4	493.07 µg/L	493.07 ppb	19:07:55
3	Se 196.026†	1363.2	1361.3	494 µg/L	494 ppb	19:07:55
3	SiO2†	56222.5	54997.3	5354.5 µg/L	5354.5 ppb	19:07:35
3	Si 251.611†	169502.3	170324.4	2501.3 µg/L	2501.3 ppb	19:07:35
3	Sn 189.927†	7808.9	7886.4	493.30 µg/L	493.30 ppb	19:07:55
3	Ti 334.940†	523661.8	527833.6	492.50 µg/L	492.50 ppb	19:07:35
3	Tl 190.801†	3856.9	4011.4	500.25 µg/L	500.25 ppb	19:07:55
3	U 409.014†	7413.7	7756.2	483.37 µg/L	483.37 ppb	19:07:35
3	V 292.402†	99576.3	100146.9	495.05 µg/L	495.05 ppb	19:07:35
3	Zn 213.857†	87808.2	88103.1	491.04 µg/L	491.04 ppb	19:07:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1696045.3	98.710	%	0.2809				0.28%
Sc RADIAL	141342.5	96.9	%	0.64				0.66%
Y 371.029	1004196.3	97.809	%	0.2445				0.25%
Ag 328.068†	131610.5	493.48	µg/L	0.624	493.48	ppb	0.624	0.13%
QC value within limits for Ag 328.068 Recovery = 98.70%								
Al 396.153Radial†	27090.8	4999.7	µg/L	25.24	4999.7	ppb	25.24	0.50%
QC value within limits for Al 396.153Radial Recovery = 99.99%								
As 188.979†	1631.4	500.54	µg/L	1.508	500.54	ppb	1.508	0.30%
QC value within limits for As 188.979 Recovery = 100.11%								
B 249.677†	33165.3	487.41	µg/L	2.247	487.41	ppb	2.247	0.46%
QC value within limits for B 249.677 Recovery = 97.48%								
Ba 233.527†	122056.8	492.25	µg/L	0.460	492.25	ppb	0.460	0.09%
QC value within limits for Ba 233.527 Recovery = 98.45%								
Be 313.107†	1817419.4	494.99	µg/L	0.769	494.99	ppb	0.769	0.16%
QC value within limits for Be 313.107 Recovery = 99.00%								
Ca 317.933Radial†	89637.6	4993.2	µg/L	4.72	4993.2	ppb	4.72	0.09%
QC value within limits for Ca 317.933Radial Recovery = 99.86%								
Cd 226.502†	78831.0	492.10	µg/L	1.368	492.10	ppb	1.368	0.28%
QC value within limits for Cd 226.502 Recovery = 98.42%								
Co 228.616†	40114.4	495.21	µg/L	1.376	495.21	ppb	1.376	0.28%
QC value within limits for Co 228.616 Recovery = 99.04%								
Cr 267.716†	62562.6	489.86	µg/L	0.907	489.86	ppb	0.907	0.19%
QC value within limits for Cr 267.716 Recovery = 97.97%								
Cu 324.752†	125722.1	490.10	µg/L	1.288	490.10	ppb	1.288	0.26%
QC value within limits for Cu 324.752 Recovery = 98.02%								
Fe 238.204 Radial†	80362.2	4953.0	µg/L	8.02	4953.0	ppb	8.02	0.16%
QC value within limits for Fe 238.204 Radial Recovery = 99.06%								
K 766.490 Radial†	13872.7	5074.9	µg/L	26.88	5074.9	ppb	26.88	0.53%
QC value within limits for K 766.490 Radial Recovery = 101.50%								
Mg 279.077 IEC†	13612.7	5079.7	µg/L	2.74	5079.7	ppb	2.74	0.05%
QC value within limits for Mg 279.077 IEC Recovery = 101.59%								
Mn 257.610†	400166.4	494.91	µg/L	0.838	494.91	ppb	0.838	0.17%
QC value within limits for Mn 257.610 Recovery = 98.98%								
Mo 202.031†	16750.3	492.72	µg/L	2.861	492.72	ppb	2.861	0.58%
QC value within limits for Mo 202.031 Recovery = 98.54%								
Na 589.592 Radial†	72336.0	9877.5	µg/L	5.51	9877.5	ppb	5.51	0.06%

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   QC value within limits for Na 589.592 Radial  Recovery = 98.77%
Ni 231.604†            42774.0      492.51 µg/L         1.044      492.51 ppb          1.044   0.21%
   QC value within limits for Ni 231.604  Recovery = 98.50%
P 214.914†             11541.7      2460.1 µg/L         21.83      2460.1 ppb          21.83   0.89%
   QC value within limits for P 214.914  Recovery = 98.40%
Pb 220.353†             8888.5      497.74 µg/L         3.356      497.74 ppb          3.356   0.67%
   QC value within limits for Pb 220.353  Recovery = 99.55%
S 181.975 Axial†        1334.2      994.90 µg/L         8.662      994.90 ppb          8.662   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 99.49%
Sb 206.836†             4155.3      495.12 µg/L         2.767      495.12 ppb          2.767   0.56%
   QC value within limits for Sb 206.836  Recovery = 99.02%
Se 196.026†             1370.9         498 µg/L           4.2         498 ppb            4.2   0.85%
   QC value within limits for Se 196.026  Recovery = 99.56%
SiO2†                  54649.4      5320.4 µg/L         29.56      5320.4 ppb          29.56   0.56%
   QC value within limits for SiO2  Recovery = 99.49%
Si 251.611†           169638.9      2491.1 µg/L          9.08      2491.1 ppb           9.08   0.36%
   QC value within limits for Si 251.611  Recovery = 99.65%
Sn 189.927†             7927.7      495.87 µg/L         3.802      495.87 ppb          3.802   0.77%
   QC value within limits for Sn 189.927  Recovery = 99.17%
Sr 421.552†           239676.8      498.23 µg/L         4.551      498.23 ppb          4.551   0.91%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           527543.7      492.23 µg/L         0.293      492.23 ppb          0.293   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.45%
Tl 190.801†             4025.5      501.99 µg/L         2.440      501.99 ppb          2.440   0.49%
   QC value within limits for Tl 190.801  Recovery = 100.40%
U 409.014†              7717.2      481.05 µg/L         2.502      481.05 ppb          2.502   0.52%
   QC value within limits for U 409.014  Recovery = 96.21%
V 292.402†            100025.5      494.48 µg/L         0.691      494.48 ppb          0.691   0.14%
   QC value within limits for V 292.402  Recovery = 98.90%
Zn 213.857†            87836.2      489.55 µg/L         1.301      489.55 ppb          1.301   0.27%
   QC value within limits for Zn 213.857  Recovery = 97.91%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:08:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143606.3	143606.3	98.4	%			19:08:33
1	Al 396.153Radial†	-40.6	21.9	4.0709	µg/L	4.0709	ppb	19:08:53
1	Ca 317.933Radial†	593.8	42.8	2.3863	µg/L	2.3863	ppb	19:08:53
1	Fe 238.204 Radial†	181.2	36.0	2.2211	µg/L	2.2211	ppb	19:08:53
1	K 766.490 Radial†	1807.5	291.9	106.87	µg/L	106.87	ppb	19:08:33
1	Mg 279.077 IEC†	167.1	-20.9	-7.7799	µg/L	-7.7799	ppb	19:08:53
1	Na 589.592 Radial†	1829.3	568.1	77.508	µg/L	77.508	ppb	19:08:33
1	Sr 421.552†	-159.2	-26.5	-0.0550	µg/L	-0.0550	ppb	19:08:33
1	Sc 361.383	1699498.0	1699498.0	98.911	%			19:09:55
1	Y 371.029	1016806.2	1016806.2	99.037	%			19:09:55
1	Ag 328.068†	3769.0	-280.8	-1.0378	µg/L	-1.0378	ppb	19:09:57
1	As 188.979†	-4.4	15.9	4.8042	µg/L	4.8042	ppb	19:10:17
1	B 249.677†	3588.4	122.0	1.7978	µg/L	1.7978	ppb	19:09:57
1	Ba 233.527†	-115.2	19.4	0.0783	µg/L	0.0783	ppb	19:10:17
1	Be 313.107†	-954.3	99.8	0.0273	µg/L	0.0273	ppb	19:09:57
1	Cd 226.502†	-91.5	25.7	0.1602	µg/L	0.1602	ppb	19:10:17
1	Co 228.616†	-158.7	29.9	0.3690	µg/L	0.3690	ppb	19:10:17
1	Cr 267.716†	173.6	-3.0	-0.0236	µg/L	-0.0236	ppb	19:10:17
1	Cu 324.752†	3195.6	258.6	1.0054	µg/L	1.0054	ppb	19:09:57
1	Mn 257.610†	286.5	52.4	0.0651	µg/L	0.0651	ppb	19:10:17
1	Mo 202.031†	-26.1	-6.3	-0.1854	µg/L	-0.1854	ppb	19:10:17
1	Ni 231.604†	-117.6	-42.4	-0.4885	µg/L	-0.4885	ppb	19:10:17
1	P 214.914†	-30.3	-12.6	-2.7014	µg/L	-2.7014	ppb	19:10:17
1	Pb 220.353†	88.8	3.4	0.1879	µg/L	0.1879	ppb	19:10:17
1	S 181.975 Axial†	97.0	-6.9	-5.1546	µg/L	-5.1546	ppb	19:10:17
1	Sb 206.836†	72.1	-8.0	-0.9474	µg/L	-0.9474	ppb	19:10:17
1	Se 196.026†	15.9	0.8	0.281	µg/L	0.281	ppb	19:10:17
1	SiO2†	1782.8	27.1	2.6348	µg/L	2.6348	ppb	19:09:57
1	Si 251.611†	842.6	15.3	0.2204	µg/L	0.2204	ppb	19:09:57
1	Sn 189.927†	17.4	18.7	1.1657	µg/L	1.1657	ppb	19:10:17
1	Ti 334.940†	982.6	40.9	0.0388	µg/L	0.0388	ppb	19:09:57
1	Tl 190.801†	-115.4	-0.0	-0.0031	µg/L	-0.0031	ppb	19:10:17
1	U 409.014†	-263.1	3.9	0.2381	µg/L	0.2381	ppb	19:09:57
1	V 292.402†	432.1	33.1	0.1592	µg/L	0.1592	ppb	19:09:57
1	Zn 213.857†	662.7	105.6	0.5956	µg/L	0.5956	ppb	19:10:17
2	Sc RADIAL	143906.0	143906.0	98.6	%			19:08:55
2	Al 396.153Radial†	-30.9	31.9	5.9210	µg/L	5.9210	ppb	19:09:15
2	Ca 317.933Radial†	576.5	24.0	1.3374	µg/L	1.3374	ppb	19:09:15
2	Fe 238.204 Radial†	194.8	49.4	3.0451	µg/L	3.0451	ppb	19:09:15
2	K 766.490 Radial†	1821.8	302.6	110.79	µg/L	110.79	ppb	19:08:55
2	Mg 279.077 IEC†	181.6	-6.5	-2.4285	µg/L	-2.4285	ppb	19:09:15
2	Na 589.592 Radial†	1674.8	407.6	55.585	µg/L	55.585	ppb	19:08:55
2	Sr 421.552†	-76.3	57.9	0.1204	µg/L	0.1204	ppb	19:08:55
2	Sc 361.383	1701303.0	1701303.0	99.016	%			19:10:20
2	Y 371.029	1018421.2	1018421.2	99.195	%			19:10:20
2	Ag 328.068†	4174.8	124.9	0.4507	µg/L	0.4507	ppb	19:10:22
2	As 188.979†	-9.4	10.9	3.3020	µg/L	3.3020	ppb	19:10:42
2	B 249.677†	3516.0	45.1	0.6647	µg/L	0.6647	ppb	19:10:22
2	Ba 233.527†	-149.1	-14.7	-0.0595	µg/L	-0.0595	ppb	19:10:42
2	Be 313.107†	-839.9	216.4	0.0569	µg/L	0.0569	ppb	19:10:22
2	Cd 226.502†	-102.1	15.1	0.0939	µg/L	0.0939	ppb	19:10:42
2	Co 228.616†	-188.6	-0.1	-0.0019	µg/L	-0.0019	ppb	19:10:42
2	Cr 267.716†	211.4	34.9	0.2788	µg/L	0.2788	ppb	19:10:42
2	Cu 324.752†	2916.8	-26.4	-0.1080	µg/L	-0.1080	ppb	19:10:22
2	Mn 257.610†	284.4	50.0	0.0619	µg/L	0.0619	ppb	19:10:42
2	Mo 202.031†	-25.0	-5.2	-0.1530	µg/L	-0.1530	ppb	19:10:42
2	Ni 231.604†	-103.9	-28.5	-0.3278	µg/L	-0.3278	ppb	19:10:42
2	P 214.914†	-33.0	-15.3	-3.2711	µg/L	-3.2711	ppb	19:10:42
2	Pb 220.353†	114.7	29.5	1.6503	µg/L	1.6503	ppb	19:10:42

2	S 181.975 Axial†	99.7	-4.4	-3.2387	µg/L	-3.2387 ppb	19:10:42
2	Sb 206.836†	76.2	-3.9	-0.4635	µg/L	-0.4635 ppb	19:10:42
2	Se 196.026†	16.5	1.4	0.491	µg/L	0.491 ppb	19:10:42
2	SiO2†	1763.9	6.1	0.5919	µg/L	0.5919 ppb	19:10:22
2	Si 251.611†	911.5	84.0	1.2359	µg/L	1.2359 ppb	19:10:22
2	Sn 189.927†	8.3	9.5	0.5950	µg/L	0.5950 ppb	19:10:42
2	Ti 334.940†	886.7	-57.0	-0.0503	µg/L	-0.0503 ppb	19:10:22
2	Tl 190.801†	-114.1	1.5	0.1759	µg/L	0.1759 ppb	19:10:42
2	U 409.014†	-383.3	-117.2	-6.8703	µg/L	-6.8703 ppb	19:10:22
2	V 292.402†	344.9	-55.5	-0.2761	µg/L	-0.2761 ppb	19:10:22
2	Zn 213.857†	648.7	90.7	0.5114	µg/L	0.5114 ppb	19:10:42
3	Sc RADIAL	142315.2	142315.2	97.5	%		19:09:17
3	Al 396.153Radial†	-52.2	9.6	1.7667	µg/L	1.7667 ppb	19:09:37
3	Ca 317.933Radial†	577.3	31.3	1.7458	µg/L	1.7458 ppb	19:09:37
3	Fe 238.204 Radial†	193.7	50.5	3.1105	µg/L	3.1105 ppb	19:09:37
3	K 766.490 Radial†	1715.2	213.9	78.318	µg/L	78.318 ppb	19:09:17
3	Mg 279.077 IEC†	194.2	8.4	3.1563	µg/L	3.1563 ppb	19:09:37
3	Na 589.592 Radial†	1682.9	434.8	59.332	µg/L	59.332 ppb	19:09:17
3	Sr 421.552†	-204.0	-73.9	-0.1537	µg/L	-0.1537 ppb	19:09:17
3	Sc 361.383	1707432.2	1707432.2	99.372	%		19:10:44
3	Y 371.029	1021900.0	1021900.0	99.534	%		19:10:44
3	Ag 328.068†	4053.2	-12.6	-0.0528	µg/L	-0.0528 ppb	19:10:46
3	As 188.979†	-2.3	18.1	5.4690	µg/L	5.4690 ppb	19:11:06
3	B 249.677†	3514.8	31.1	0.4591	µg/L	0.4591 ppb	19:10:46
3	Ba 233.527†	-138.9	-3.9	-0.0159	µg/L	-0.0159 ppb	19:11:06
3	Be 313.107†	-1076.7	-18.8	-0.0056	µg/L	-0.0056 ppb	19:10:46
3	Cd 226.502†	-100.3	17.3	0.1074	µg/L	0.1074 ppb	19:11:06
3	Co 228.616†	-200.8	-11.7	-0.1450	µg/L	-0.1450 ppb	19:11:06
3	Cr 267.716†	180.7	3.3	0.0269	µg/L	0.0269 ppb	19:11:06
3	Cu 324.752†	3029.2	76.1	0.2948	µg/L	0.2948 ppb	19:10:46
3	Mn 257.610†	296.9	61.5	0.0760	µg/L	0.0760 ppb	19:11:06
3	Mo 202.031†	-3.7	16.3	0.4802	µg/L	0.4802 ppb	19:11:06
3	Ni 231.604†	-90.5	-14.6	-0.1676	µg/L	-0.1676 ppb	19:11:06
3	P 214.914†	-14.2	3.7	0.7799	µg/L	0.7799 ppb	19:11:06
3	Pb 220.353†	92.0	6.2	0.3485	µg/L	0.3485 ppb	19:11:06
3	S 181.975 Axial†	108.0	3.6	2.6796	µg/L	2.6796 ppb	19:11:06
3	Sb 206.836†	87.9	7.6	0.9107	µg/L	0.9107 ppb	19:11:06
3	Se 196.026†	15.0	-0.2	-0.060	µg/L	-0.060 ppb	19:11:06
3	SiO2†	1735.7	-28.7	-2.8190	µg/L	-2.8190 ppb	19:10:46
3	Si 251.611†	790.1	-41.5	-0.6182	µg/L	-0.6182 ppb	19:10:46
3	Sn 189.927†	-1.2	-0.1	-0.0053	µg/L	-0.0053 ppb	19:11:06
3	Ti 334.940†	766.5	-181.2	-0.1688	µg/L	-0.1688 ppb	19:10:46
3	Tl 190.801†	-101.0	15.0	1.8436	µg/L	1.8436 ppb	19:11:06
3	U 409.014†	-295.6	-27.6	-1.6324	µg/L	-1.6324 ppb	19:10:46
3	V 292.402†	332.8	-68.9	-0.3322	µg/L	-0.3322 ppb	19:10:46
3	Zn 213.857†	625.3	64.8	0.3648	µg/L	0.3648 ppb	19:11:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1702744.4	99.099	%	0.2420				0.24%
Sc RADIAL	143275.8	98.2	%	0.58				0.59%
Y 371.029	1019042.5	99.255	%	0.2535				0.26%
Ag 328.068†	-56.2	-0.2133	µg/L	0.75716	-0.2133	ppb	0.75716	354.96%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	21.2	3.9195	µg/L	2.08128	3.9195	ppb	2.08128	53.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	15.0	4.5251	µg/L	1.11017	4.5251	ppb	1.11017	24.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	66.0	0.9738	µg/L	0.72094	0.9738	ppb	0.72094	74.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.3	0.0009	µg/L	0.07043	0.0009	ppb	0.07043	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	99.2	0.0262	µg/L	0.03124	0.0262	ppb	0.03124	119.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	32.7	1.8232	µg/L	0.52869	1.8232	ppb	0.52869	29.00%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.4	0.1205	µg/L	0.03504	0.1205	ppb	0.03504	29.08%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.0	0.0740	µg/L	0.26530	0.0740	ppb	0.26530	358.50%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              11.7      0.0940 µg/L       0.16198      0.0940 ppb        0.16198 172.24%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             102.8      0.3974 µg/L       0.56376      0.3974 ppb        0.56376 141.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       45.3      2.7923 µg/L       0.49571      2.7923 ppb        0.49571  17.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       269.5      98.660 µg/L       17.7254      98.660 ppb        17.7254  17.97%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -6.3     -2.3507 µg/L       5.46855     -2.3507 ppb        5.46855 232.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              54.6      0.0677 µg/L       0.00738      0.0677 ppb        0.00738  10.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.6      0.0473 µg/L       0.37526      0.0473 ppb        0.37526 793.90%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      470.2      64.142 µg/L       11.7262      64.142 ppb        11.7262  18.28%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -28.5     -0.3280 µg/L       0.16046     -0.3280 ppb        0.16046  48.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.1     -1.7309 µg/L       2.19296     -1.7309 ppb        2.19296 126.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              13.0      0.7289 µg/L       0.80200      0.7289 ppb        0.80200 110.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.6     -1.9046 µg/L       4.08395     -1.9046 ppb        4.08395 214.43%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.4     -0.1667 µg/L       0.96394     -0.1667 ppb        0.96394 578.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.7       0.238 µg/L        0.2782       0.238 ppb         0.2782 117.02%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     1.5      0.1359 µg/L       2.75534      0.1359 ppb        2.75534 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              19.3      0.2794 µg/L       0.92845      0.2794 ppb        0.92845 332.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.4      0.5851 µg/L       0.58554      0.5851 ppb        0.58554 100.07%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -14.1     -0.0294 µg/L       0.13885     -0.0294 ppb        0.13885 471.87%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -65.8     -0.0601 µg/L       0.10414     -0.0601 ppb        0.10414 173.25%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.5      0.6721 µg/L       1.01847      0.6721 ppb        1.01847 151.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -47.0     -2.7549 µg/L       3.68475     -2.7549 ppb        3.68475 133.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -30.4     -0.1497 µg/L       0.26898     -0.1497 ppb        0.26898 179.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              87.0      0.4906 µg/L       0.11682      0.4906 ppb        0.11682  23.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: 1202065849|962982|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 113
Date Collected: 3/31/2010 19:11:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065849|962982|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143632.4	143632.4	98.4	%			19:11:46
1	Al 396.153Radial†	-211.0	-151.2	-28.027	µg/L	-28.027	ppb	19:11:46
1	Ca 317.933Radial†	656.8	106.8	5.9472	µg/L	5.9472	ppb	19:12:06
1	Fe 238.204 Radial†	202.0	57.1	3.5206	µg/L	3.5206	ppb	19:12:06
1	K 766.490 Radial†	1640.5	121.9	44.633	µg/L	44.633	ppb	19:11:46
1	Mg 279.077 IEC†	185.5	-2.2	-0.8300	µg/L	-0.8300	ppb	19:12:06
1	Na 589.592 Radial†	1633.5	368.8	50.345	µg/L	50.345	ppb	19:11:46
1	Sr 421.552†	-290.6	-160.0	-0.3326	µg/L	-0.3326	ppb	19:11:46
1	Sc 361.383	1722554.4	1722554.4	100.25	%			19:12:53
1	Y 371.029	1027067.1	1027067.1	100.04	%			19:12:53
1	Ag 328.068†	3997.6	-103.9	-0.3944	µg/L	-0.3944	ppb	19:12:56
1	As 188.979†	-22.0	-1.6	-0.4790	µg/L	-0.4790	ppb	19:13:16
1	B 249.677†	3603.2	88.2	1.3008	µg/L	1.3008	ppb	19:12:56
1	Ba 233.527†	-146.9	-10.7	-0.0435	µg/L	-0.0435	ppb	19:13:16
1	Be 313.107†	-771.3	295.3	0.0796	µg/L	0.0796	ppb	19:12:56
1	Cd 226.502†	-102.6	15.8	0.0984	µg/L	0.0984	ppb	19:13:16
1	Co 228.616†	-187.9	2.8	0.0349	µg/L	0.0349	ppb	19:13:16
1	Cr 267.716†	197.2	18.1	0.1437	µg/L	0.1437	ppb	19:13:16
1	Cu 324.752†	3169.4	189.2	0.7338	µg/L	0.7338	ppb	19:12:56
1	Mn 257.610†	425.8	187.5	0.2320	µg/L	0.2320	ppb	19:13:16
1	Mo 202.031†	-26.1	-6.0	-0.1754	µg/L	-0.1754	ppb	19:13:16
1	Ni 231.604†	-101.6	-24.9	-0.2864	µg/L	-0.2864	ppb	19:13:16
1	P 214.914†	-15.4	2.6	0.5342	µg/L	0.5342	ppb	19:13:16
1	Pb 220.353†	89.1	2.5	0.1367	µg/L	0.1367	ppb	19:13:16
1	S 181.975 Axial†	98.0	-7.3	-5.4236	µg/L	-5.4236	ppb	19:13:16
1	Sb 206.836†	92.5	11.5	1.3559	µg/L	1.3559	ppb	19:13:16
1	Se 196.026†	20.6	5.2	1.89	µg/L	1.89	ppb	19:13:16
1	SiO2†	1934.3	154.0	15.060	µg/L	15.060	ppb	19:13:16
1	Si 251.611†	1453.6	613.4	9.0453	µg/L	9.0453	ppb	19:12:56
1	Sn 189.927†	-0.9	0.2	0.0133	µg/L	0.0133	ppb	19:13:16
1	Ti 334.940†	952.3	-2.6	-0.0012	µg/L	-0.0012	ppb	19:12:56
1	Tl 190.801†	-115.0	1.9	0.2327	µg/L	0.2327	ppb	19:13:16
1	U 409.014†	-314.3	-43.7	-2.5836	µg/L	-2.5836	ppb	19:12:56
1	V 292.402†	293.0	-111.5	-0.5473	µg/L	-0.5473	ppb	19:12:56
1	Zn 213.857†	750.9	184.6	1.0372	µg/L	1.0372	ppb	19:13:16
2	Sc RADIAL	144624.9	144624.9	99.1	%			19:12:08
2	Al 396.153Radial†	-249.1	-188.1	-34.865	µg/L	-34.865	ppb	19:12:08
2	Ca 317.933Radial†	653.7	99.0	5.5133	µg/L	5.5133	ppb	19:12:28
2	Fe 238.204 Radial†	208.4	62.1	3.8297	µg/L	3.8297	ppb	19:12:28
2	K 766.490 Radial†	1755.6	226.7	82.994	µg/L	82.994	ppb	19:12:08
2	Mg 279.077 IEC†	215.1	26.4	9.8068	µg/L	9.8068	ppb	19:12:28
2	Na 589.592 Radial†	1596.5	320.1	43.657	µg/L	43.657	ppb	19:12:08
2	Sr 421.552†	-170.4	-36.6	-0.0761	µg/L	-0.0761	ppb	19:12:08
2	Sc 361.383	1702901.1	1702901.1	99.109	%			19:13:18
2	Y 371.029	1016600.9	1016600.9	99.017	%			19:13:18
2	Ag 328.068†	3687.5	-370.7	-1.3612	µg/L	-1.3612	ppb	19:13:20
2	As 188.979†	-8.6	11.7	3.5440	µg/L	3.5440	ppb	19:13:40
2	B 249.677†	3621.9	148.6	2.1914	µg/L	2.1914	ppb	19:13:20
2	Ba 233.527†	-150.4	-15.9	-0.0640	µg/L	-0.0640	ppb	19:13:40
2	Be 313.107†	-1107.7	-52.9	-0.0126	µg/L	-0.0126	ppb	19:13:20
2	Cd 226.502†	-100.1	17.2	0.1072	µg/L	0.1072	ppb	19:13:40
2	Co 228.616†	-181.7	7.0	0.0859	µg/L	0.0859	ppb	19:13:40
2	Cr 267.716†	176.5	-0.4	-0.0080	µg/L	-0.0080	ppb	19:13:40
2	Cu 324.752†	2984.6	39.2	0.1582	µg/L	0.1582	ppb	19:13:20
2	Mn 257.610†	420.0	186.5	0.2304	µg/L	0.2304	ppb	19:13:40
2	Mo 202.031†	-31.2	-11.4	-0.3358	µg/L	-0.3358	ppb	19:13:40
2	Ni 231.604†	-74.8	1.0	0.0120	µg/L	0.0120	ppb	19:13:40
2	P 214.914†	-7.3	10.6	2.2602	µg/L	2.2602	ppb	19:13:40
2	Pb 220.353†	112.6	27.3	1.5147	µg/L	1.5147	ppb	19:13:40

2	S 181.975 Axial†	108.3	4.2	3.1255 µg/L	3.1255 ppb	19:13:40
2	Sb 206.836†	71.0	-9.2	-1.0925 µg/L	-1.0925 ppb	19:13:40
2	Se 196.026†	17.8	2.7	0.989 µg/L	0.989 ppb	19:13:40
2	SiO2†	1970.2	212.6	20.778 µg/L	20.778 ppb	19:13:40
2	Si 251.611†	1454.5	631.0	9.3029 µg/L	9.3029 ppb	19:13:20
2	Sn 189.927†	8.9	10.0	0.6269 µg/L	0.6269 ppb	19:13:40
2	Ti 334.940†	1084.1	141.3	0.1290 µg/L	0.1290 ppb	19:13:20
2	Tl 190.801†	-116.9	-1.2	-0.1485 µg/L	-0.1485 ppb	19:13:40
2	U 409.014†	-168.3	100.1	5.8758 µg/L	5.8758 ppb	19:13:20
2	V 292.402†	476.2	76.6	0.3738 µg/L	0.3738 ppb	19:13:20
2	Zn 213.857†	712.1	154.1	0.8644 µg/L	0.8644 ppb	19:13:40
3	Sc RADIAL	145304.2	145304.2	99.6 %		19:12:30
3	Al 396.153Radial†	-244.6	-182.4	-33.839 µg/L	-33.839 ppb	19:12:30
3	Ca 317.933Radial†	653.3	95.6	5.3238 µg/L	5.3238 ppb	19:12:50
3	Fe 238.204 Radial†	214.8	67.6	4.1686 µg/L	4.1686 ppb	19:12:50
3	K 766.490 Radial†	1839.8	302.9	110.91 µg/L	110.91 ppb	19:12:30
3	Mg 279.077 IEC†	196.9	7.0	2.6155 µg/L	2.6155 ppb	19:12:50
3	Na 589.592 Radial†	1603.5	319.6	43.566 µg/L	43.566 ppb	19:12:30
3	Sr 421.552†	-100.5	34.4	0.0714 µg/L	0.0714 ppb	19:12:30
3	Sc 361.383	1734905.2	1734905.2	100.97 %		19:13:42
3	Y 371.029	1034855.5	1034855.5	100.80 %		19:13:42
3	Ag 328.068†	3795.3	-332.6	-1.2419 µg/L	-1.2419 ppb	19:13:44
3	As 188.979†	-24.2	-3.6	-1.0988 µg/L	-1.0988 ppb	19:14:04
3	B 249.677†	3554.7	14.7	0.2175 µg/L	0.2175 ppb	19:13:44
3	Ba 233.527†	-134.7	2.5	0.0101 µg/L	0.0101 ppb	19:14:04
3	Be 313.107†	-907.0	166.4	0.0424 µg/L	0.0424 ppb	19:13:44
3	Cd 226.502†	-117.6	1.7	0.0101 µg/L	0.0101 ppb	19:14:04
3	Co 228.616†	-223.3	-30.9	-0.3808 µg/L	-0.3808 ppb	19:14:04
3	Cr 267.716†	206.6	26.1	0.2117 µg/L	0.2117 ppb	19:14:04
3	Cu 324.752†	2994.6	-6.4	-0.0323 µg/L	-0.0323 ppb	19:13:44
3	Mn 257.610†	426.4	185.0	0.2288 µg/L	0.2288 ppb	19:14:04
3	Mo 202.031†	-9.1	11.1	0.3268 µg/L	0.3268 ppb	19:14:04
3	Ni 231.604†	-87.6	-10.2	-0.1178 µg/L	-0.1178 ppb	19:14:04
3	P 214.914†	-0.1	17.8	3.8093 µg/L	3.8093 ppb	19:14:04
3	Pb 220.353†	75.7	-11.4	-0.6306 µg/L	-0.6306 ppb	19:14:04
3	S 181.975 Axial†	119.7	13.5	10.046 µg/L	10.046 ppb	19:14:04
3	Sb 206.836†	82.9	1.2	0.1507 µg/L	0.1507 ppb	19:14:04
3	Se 196.026†	22.7	7.2	2.60 µg/L	2.60 ppb	19:14:04
3	SiO2†	1966.7	172.5	16.832 µg/L	16.832 ppb	19:14:04
3	Si 251.611†	1543.3	691.9	10.189 µg/L	10.189 ppb	19:13:44
3	Sn 189.927†	15.3	16.2	1.0118 µg/L	1.0118 ppb	19:14:04
3	Ti 334.940†	1021.1	58.8	0.0587 µg/L	0.0587 ppb	19:13:44
3	Tl 190.801†	-122.8	-4.9	-0.5979 µg/L	-0.5979 ppb	19:14:04
3	U 409.014†	-437.2	-163.2	-9.5318 µg/L	-9.5318 ppb	19:13:44
3	V 292.402†	433.9	26.0	0.1240 µg/L	0.1240 ppb	19:13:44
3	Zn 213.857†	727.4	156.0	0.8760 µg/L	0.8760 ppb	19:14:04

Mean Data: 1202065849|962982|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1720120.2	100.11	%	0.939				0.94%
Sc RADIAL	144520.5	99.0	%	0.58				0.58%
Y 371.029	1026174.5	99.950	%	0.8922				0.89%
Ag 328.068†	-269.0	-0.9992	µg/L	0.52713	-0.9992	ppb	0.52713	52.75%
Al 396.153Radial†	-173.9	-32.244	µg/L	3.6877	-32.244	ppb	3.6877	11.44%
As 188.979†	2.2	0.6554	µg/L	2.52074	0.6554	ppb	2.52074	384.62%
B 249.677†	83.8	1.2366	µg/L	0.98851	1.2366	ppb	0.98851	79.94%
Ba 233.527†	-8.0	-0.0325	µg/L	0.03828	-0.0325	ppb	0.03828	117.79%
Be 313.107†	136.3	0.0365	µg/L	0.04643	0.0365	ppb	0.04643	127.28%
Ca 317.933Radial†	100.4	5.5948	µg/L	0.31959	5.5948	ppb	0.31959	5.71%
Cd 226.502†	11.6	0.0719	µg/L	0.05367	0.0719	ppb	0.05367	74.64%
Co 228.616†	-7.0	-0.0867	µg/L	0.25604	-0.0867	ppb	0.25604	295.47%
Cr 267.716†	14.6	0.1158	µg/L	0.11248	0.1158	ppb	0.11248	97.10%
Cu 324.752†	74.0	0.2866	µg/L	0.39885	0.2866	ppb	0.39885	139.17%
Fe 238.204 Radial†	62.3	3.8396	µg/L	0.32412	3.8396	ppb	0.32412	8.44%
K 766.490 Radial†	217.2	79.512	µg/L	33.2753	79.512	ppb	33.2753	41.85%
Mg 279.077 IEC†	10.4	3.8641	µg/L	5.42723	3.8641	ppb	5.42723	140.45%
Mn 257.610†	186.3	0.2304	µg/L	0.00158	0.2304	ppb	0.00158	0.69%
Mo 202.031†	-2.1	-0.0615	µg/L	0.34571	-0.0615	ppb	0.34571	562.28%
Na 589.592 Radial†	336.2	45.856	µg/L	3.8879	45.856	ppb	3.8879	8.48%

Ni 231.604†	-11.4	-0.1307	µg/L	0.14959	-0.1307	ppb	0.14959 114.42%
P 214.914†	10.3	2.2012	µg/L	1.63835	2.2012	ppb	1.63835 74.43%
Pb 220.353†	6.1	0.3402	µg/L	1.08703	0.3402	ppb	1.08703 319.49%
S 181.975 Axial†	3.5	2.5826	µg/L	7.74896	2.5826	ppb	7.74896 300.05%
Sb 206.836†	1.2	0.1381	µg/L	1.22427	0.1381	ppb	1.22427 886.82%
Se 196.026†	5.1	1.83	µg/L	0.809	1.83	ppb	0.809 44.24%
SiO2†	179.7	17.557	µg/L	2.9271	17.557	ppb	2.9271 16.67%
Si 251.611†	645.4	9.5125	µg/L	0.60007	9.5125	ppb	0.60007 6.31%
Sn 189.927†	8.8	0.5507	µg/L	0.50363	0.5507	ppb	0.50363 91.46%
Sr 421.552†	-54.1	-0.1125	µg/L	0.20442	-0.1125	ppb	0.20442 181.78%
Ti 334.940†	65.8	0.0621	µg/L	0.06519	0.0621	ppb	0.06519 104.91%
Tl 190.801†	-1.4	-0.1712	µg/L	0.41579	-0.1712	ppb	0.41579 242.81%
U 409.014†	-35.6	-2.0799	µg/L	7.71613	-2.0799	ppb	7.71613 370.99%
V 292.402†	-3.0	-0.0165	µg/L	0.47636	-0.0165	ppb	0.47636 >999.9%
Zn 213.857†	164.9	0.9259	µg/L	0.09661	0.9259	ppb	0.09661 10.43%

Sequence No.: 4
Sample ID: 1202065850|962982|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 114
Date Collected: 3/31/2010 19:14:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065850|962982|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143858.0	143858.0	98.6	%			19:14:44
1	Al 396.153Radial†	26698.4	27146.1	5010.1	µg/L	5010.1	ppb	19:14:44
1	Ca 317.933Radial†	88981.0	89701.8	4996.7	µg/L	4996.7	ppb	19:14:44
1	Fe 238.204 Radial†	78803.1	79789.9	4917.8	µg/L	4917.8	ppb	19:14:44
1	K 766.490 Radial†	14784.5	13452.7	4922.0	µg/L	4922.0	ppb	19:14:44
1	Mg 279.077 IEC†	13586.5	13591.4	5071.7	µg/L	5071.7	ppb	19:14:44
1	Na 589.592 Radial†	36958.6	36200.1	4941.0	µg/L	4941.0	ppb	19:14:44
1	Sr 421.552†	232413.7	235896.0	490.37	µg/L	490.37	ppb	19:14:42
1	Sc 361.383	1709674.8	1709674.8	99.503	%			19:15:11
1	Y 371.029	1011749.6	1011749.6	98.545	%			19:15:11
1	Ag 328.068†	130873.9	127436.5	478.06	µg/L	478.06	ppb	19:15:11
1	As 188.979†	1633.9	1662.4	509.90	µg/L	509.90	ppb	19:15:31
1	B 249.677†	36232.7	32907.8	483.64	µg/L	483.64	ppb	19:15:11
1	Ba 233.527†	122930.9	123681.0	498.80	µg/L	498.80	ppb	19:15:11
1	Be 313.107†	1803396.0	1813471.8	493.92	µg/L	493.92	ppb	19:15:11
1	Cd 226.502†	78018.4	78526.5	490.20	µg/L	490.20	ppb	19:15:11
1	Co 228.616†	39093.5	39479.2	487.38	µg/L	487.38	ppb	19:15:11
1	Cr 267.716†	62545.6	62679.6	490.76	µg/L	490.76	ppb	19:15:11
1	Cu 324.752†	129350.9	127025.0	495.17	µg/L	495.17	ppb	19:15:11
1	Mn 257.610†	398404.7	400158.1	494.90	µg/L	494.90	ppb	19:15:11
1	Mo 202.031†	16583.9	16686.8	490.85	µg/L	490.85	ppb	19:15:31
1	Ni 231.604†	42850.2	43140.8	496.74	µg/L	496.74	ppb	19:15:11
1	P 214.914†	2325.5	2355.1	495.29	µg/L	495.29	ppb	19:15:31
1	Pb 220.353†	9031.7	8990.4	503.41	µg/L	503.41	ppb	19:15:31
1	S 181.975 Axial†	6835.0	6764.1	5027.0	µg/L	5027.0	ppb	19:15:31
1	Sb 206.836†	4211.8	4152.0	494.69	µg/L	494.69	ppb	19:15:31
1	Se 196.026†	1346.3	1337.8	486	µg/L	486	ppb	19:15:31
1	SiO2†	106677.6	105435.3	10284	µg/L	10284	ppb	19:15:11
1	Si 251.611†	326024.0	326816.5	4808.4	µg/L	4808.4	ppb	19:15:11
1	Sn 189.927†	7945.3	7986.1	499.50	µg/L	499.50	ppb	19:15:31
1	Ti 334.940†	523144.4	524805.9	489.67	µg/L	489.67	ppb	19:15:11
1	Tl 190.801†	3921.5	4057.7	505.97	µg/L	505.97	ppb	19:15:31
1	U 409.014†	7688.7	7997.0	497.49	µg/L	497.49	ppb	19:15:11
1	V 292.402†	100203.8	100300.7	495.82	µg/L	495.82	ppb	19:15:11
1	Zn 213.857†	86716.3	86585.2	482.49	µg/L	482.49	ppb	19:15:11
2	Sc RADIAL	145480.8	145480.8	99.7	%			19:14:48
2	Al 396.153Radial†	26936.0	27082.4	4998.3	µg/L	4998.3	ppb	19:14:48
2	Ca 317.933Radial†	90320.5	90038.7	5015.5	µg/L	5015.5	ppb	19:14:48
2	Fe 238.204 Radial†	79852.2	79950.6	4927.7	µg/L	4927.7	ppb	19:14:48
2	K 766.490 Radial†	15007.5	13509.0	4942.6	µg/L	4942.6	ppb	19:14:48
2	Mg 279.077 IEC†	13843.3	13695.3	5110.4	µg/L	5110.4	ppb	19:14:48
2	Na 589.592 Radial†	37572.0	36397.1	4967.9	µg/L	4967.9	ppb	19:14:48
2	Sr 421.552†	238761.8	239633.9	498.15	µg/L	498.15	ppb	19:14:46
2	Sc 361.383	1711117.3	1711117.3	99.587	%			19:15:34
2	Y 371.029	1012770.8	1012770.8	98.644	%			19:15:34
2	Ag 328.068†	130948.3	127400.3	477.93	µg/L	477.93	ppb	19:15:34
2	As 188.979†	1624.4	1651.5	506.61	µg/L	506.61	ppb	19:15:54
2	B 249.677†	36208.2	32852.5	482.84	µg/L	482.84	ppb	19:15:34
2	Ba 233.527†	123015.5	123661.8	498.72	µg/L	498.72	ppb	19:15:34
2	Be 313.107†	1800082.9	1808617.1	492.60	µg/L	492.60	ppb	19:15:34
2	Cd 226.502†	77686.1	78126.6	487.70	µg/L	487.70	ppb	19:15:34
2	Co 228.616†	38923.2	39275.0	484.86	µg/L	484.86	ppb	19:15:34
2	Cr 267.716†	62560.9	62642.0	490.46	µg/L	490.46	ppb	19:15:34
2	Cu 324.752†	129380.4	126945.0	494.87	µg/L	494.87	ppb	19:15:34
2	Mn 257.610†	398583.7	400000.4	494.70	µg/L	494.70	ppb	19:15:34
2	Mo 202.031†	16607.1	16696.0	491.13	µg/L	491.13	ppb	19:15:54
2	Ni 231.604†	42645.5	42898.9	493.95	µg/L	493.95	ppb	19:15:34
2	P 214.914†	2366.4	2394.2	503.65	µg/L	503.65	ppb	19:15:54
2	Pb 220.353†	9056.0	9007.2	504.34	µg/L	504.34	ppb	19:15:54

2	S 181.975 Axial†	6885.6	6809.2	5060.5 µg/L	5060.5 ppb	19:15:54
2	Sb 206.836†	4247.6	4184.4	498.56 µg/L	498.56 ppb	19:15:54
2	Se 196.026†	1365.6	1356.0	492 µg/L	492 ppb	19:15:54
2	SiO2†	106630.6	105297.7	10271 µg/L	10271 ppb	19:15:34
2	Si 251.611†	326357.5	326875.1	4809.2 µg/L	4809.2 ppb	19:15:34
2	Sn 189.927†	7973.2	8007.4	500.83 µg/L	500.83 ppb	19:15:54
2	Ti 334.940†	523700.9	524921.5	489.77 µg/L	489.77 ppb	19:15:34
2	Tl 190.801†	3934.5	4067.5	507.18 µg/L	507.18 ppb	19:15:54
2	U 409.014†	7824.8	8127.1	505.09 µg/L	505.09 ppb	19:15:34
2	V 292.402†	100252.2	100264.4	495.65 µg/L	495.65 ppb	19:15:34
2	Zn 213.857†	86546.8	86341.5	481.14 µg/L	481.14 ppb	19:15:34
3	Sc RADIAL	143065.2	143065.2	98.0 %		19:14:52
3	Al 396.153Radial†	26422.1	27014.4	4986.1 µg/L	4986.1 ppb	19:14:52
3	Ca 317.933Radial†	88499.6	89711.0	4997.3 µg/L	4997.3 ppb	19:14:52
3	Fe 238.204 Radial†	78279.5	79698.8	4912.1 µg/L	4912.1 ppb	19:14:52
3	K 766.490 Radial†	14835.2	13587.4	4971.3 µg/L	4971.3 ppb	19:14:52
3	Mg 279.077 IEC†	13500.4	13580.0	5067.3 µg/L	5067.3 ppb	19:14:52
3	Na 589.592 Radial†	37019.7	36470.2	4977.8 µg/L	4977.8 ppb	19:14:52
3	Sr 421.552†	232165.8	236949.6	492.57 µg/L	492.57 ppb	19:14:50
3	Sc 361.383	1738528.1	1738528.1	101.18 %		19:15:57
3	Y 371.029	1028097.6	1028097.6	100.14 %		19:15:57
3	Ag 328.068†	133162.0	127514.9	478.34 µg/L	478.34 ppb	19:15:57
3	As 188.979†	1622.6	1624.0	498.26 µg/L	498.26 ppb	19:16:17
3	B 249.677†	36987.3	33049.3	485.73 µg/L	485.73 ppb	19:15:57
3	Ba 233.527†	125281.2	123953.5	499.89 µg/L	499.89 ppb	19:15:57
3	Be 313.107†	1835659.1	1815278.6	494.41 µg/L	494.41 ppb	19:15:57
3	Cd 226.502†	79438.1	78628.3	490.84 µg/L	490.84 ppb	19:15:57
3	Co 228.616†	39744.9	39470.9	487.28 µg/L	487.28 ppb	19:15:57
3	Cr 267.716†	63658.4	62736.1	491.21 µg/L	491.21 ppb	19:15:57
3	Cu 324.752†	131728.7	127217.6	495.91 µg/L	495.91 ppb	19:15:57
3	Mn 257.610†	405452.9	400478.8	495.30 µg/L	495.30 ppb	19:15:57
3	Mo 202.031†	16548.9	16375.6	481.71 µg/L	481.71 ppb	19:16:17
3	Ni 231.604†	43732.5	43298.1	498.55 µg/L	498.55 ppb	19:15:57
3	P 214.914†	2333.5	2324.2	488.68 µg/L	488.68 ppb	19:16:17
3	Pb 220.353†	8982.2	8790.9	492.25 µg/L	492.25 ppb	19:16:17
3	S 181.975 Axial†	6806.5	6622.0	4921.4 µg/L	4921.4 ppb	19:16:17
3	Sb 206.836†	4227.7	4097.5	488.06 µg/L	488.06 ppb	19:16:17
3	Se 196.026†	1340.1	1309.1	475 µg/L	475 ppb	19:16:17
3	SiO2†	108526.4	105483.1	10289 µg/L	10289 ppb	19:15:57
3	Si 251.611†	332042.0	327326.3	4816.1 µg/L	4816.1 ppb	19:15:57
3	Sn 189.927†	7935.1	7843.5	490.62 µg/L	490.62 ppb	19:16:17
3	Ti 334.940†	532484.8	525311.5	490.15 µg/L	490.15 ppb	19:15:57
3	Tl 190.801†	3906.9	3977.9	496.17 µg/L	496.17 ppb	19:16:17
3	U 409.014†	7715.6	7895.3	491.55 µg/L	491.55 ppb	19:15:57
3	V 292.402†	101871.9	100277.9	495.62 µg/L	495.62 ppb	19:15:57
3	Zn 213.857†	88429.4	86831.9	483.87 µg/L	483.87 ppb	19:15:57

Mean Data: 1202065850|962982|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1719773.4	100.09	%	0.946				0.95%
Sc RADIAL	144134.7	98.8	%	0.84				0.85%
Y 371.029	1017539.3	99.109	%	0.8920				0.90%
Ag 328.068†	127450.6	478.11	µg/L	0.209	478.11	ppb	0.209	0.04%
Al 396.153Radial†	27081.0	4998.1	µg/L	12.00	4998.1	ppb	12.00	0.24%
As 188.979†	1646.0	504.93	µg/L	6.001	504.93	ppb	6.001	1.19%
B 249.677†	32936.5	484.07	µg/L	1.493	484.07	ppb	1.493	0.31%
Ba 233.527†	123765.4	499.14	µg/L	0.656	499.14	ppb	0.656	0.13%
Be 313.107†	1812455.8	493.64	µg/L	0.936	493.64	ppb	0.936	0.19%
Ca 317.933Radial†	89817.2	5003.2	µg/L	10.69	5003.2	ppb	10.69	0.21%
Cd 226.502†	78427.1	489.58	µg/L	1.658	489.58	ppb	1.658	0.34%
Co 228.616†	39408.4	486.51	µg/L	1.426	486.51	ppb	1.426	0.29%
Cr 267.716†	62685.9	490.81	µg/L	0.376	490.81	ppb	0.376	0.08%
Cu 324.752†	127062.5	495.32	µg/L	0.538	495.32	ppb	0.538	0.11%
Fe 238.204 Radial†	79813.1	4919.2	µg/L	7.86	4919.2	ppb	7.86	0.16%
K 766.490 Radial†	13516.4	4945.3	µg/L	24.78	4945.3	ppb	24.78	0.50%
Mg 279.077 IEC†	13622.3	5083.2	µg/L	23.74	5083.2	ppb	23.74	0.47%
Mn 257.610†	400212.4	494.97	µg/L	0.302	494.97	ppb	0.302	0.06%
Mo 202.031†	16586.2	487.90	µg/L	5.361	487.90	ppb	5.361	1.10%
Na 589.592 Radial†	36355.8	4962.2	µg/L	19.07	4962.2	ppb	19.07	0.38%

Ni 231.604†	43112.6	496.41 µg/L	2.315	496.41 ppb	2.315	0.47%
P 214.914†	2357.8	495.87 µg/L	7.499	495.87 ppb	7.499	1.51%
Pb 220.353†	8929.5	500.00 µg/L	6.727	500.00 ppb	6.727	1.35%
S 181.975 Axial†	6731.7	5003.0 µg/L	72.60	5003.0 ppb	72.60	1.45%
Sb 206.836†	4144.6	493.77 µg/L	5.306	493.77 ppb	5.306	1.07%
Se 196.026†	1334.3	485 µg/L	8.6	485 ppb	8.6	1.76%
SiO2†	105405.4	10281 µg/L	9.6	10281 ppb	9.6	0.09%
Si 251.611†	327006.0	4811.2 µg/L	4.22	4811.2 ppb	4.22	0.09%
Sn 189.927†	7945.7	496.98 µg/L	5.552	496.98 ppb	5.552	1.12%
Sr 421.552†	237493.2	493.70 µg/L	4.007	493.70 ppb	4.007	0.81%
Ti 334.940†	525012.9	489.86 µg/L	0.250	489.86 ppb	0.250	0.05%
Tl 190.801†	4034.4	503.11 µg/L	6.037	503.11 ppb	6.037	1.20%
U 409.014†	8006.5	498.04 µg/L	6.790	498.04 ppb	6.790	1.36%
V 292.402†	100281.0	495.70 µg/L	0.111	495.70 ppb	0.111	0.02%
Zn 213.857†	86586.2	482.50 µg/L	1.363	482.50 ppb	1.363	0.28%

Sequence No.: 5
Sample ID: 248861001|962982|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 115
Date Collected: 3/31/2010 19:16:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248861001|962982|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145049.7	145049.7	99.4	%			19:16:56
1	Al 396.153Radial†	145.9	210.0	38.933	µg/L	38.933	ppb	19:17:16
1	Ca 317.933Radial†	1219.6	666.4	37.123	µg/L	37.123	ppb	19:17:16
1	Fe 238.204 Radial†	903.8	761.2	46.917	µg/L	46.917	ppb	19:17:16
1	K 766.490 Radial†	1706.8	172.4	63.087	µg/L	63.087	ppb	19:16:56
1	Mg 279.077 IEC†	189.2	-0.3	-0.1599	µg/L	-0.1599	ppb	19:17:16
1	Na 589.592 Radial†	2513.6	1238.1	169.08	µg/L	169.08	ppb	19:16:56
1	Sr 421.552†	-9.9	125.4	0.2604	µg/L	0.2604	ppb	19:16:56
1	Sc 361.383	1729279.4	1729279.4	100.64	%			19:18:18
1	Y 371.029	1031067.5	1031067.5	100.43	%			19:18:18
1	Ag 328.068†	4191.7	73.5	0.2704	µg/L	0.2704	ppb	19:18:20
1	As 188.979†	-21.9	-1.4	-0.4120	µg/L	-0.4120	ppb	19:18:40
1	B 249.677†	3685.0	155.6	2.2942	µg/L	2.2942	ppb	19:18:20
1	Ba 233.527†	-24.1	111.9	0.4502	µg/L	0.4502	ppb	19:18:40
1	Be 313.107†	-700.3	368.9	0.1001	µg/L	0.1001	ppb	19:18:20
1	Cd 226.502†	-112.5	6.4	0.0351	µg/L	0.0351	ppb	19:18:40
1	Co 228.616†	-189.5	2.0	0.0230	µg/L	0.0230	ppb	19:18:40
1	Cr 267.716†	250.6	70.4	0.5537	µg/L	0.5537	ppb	19:18:40
1	Cu 324.752†	3044.4	52.7	0.2108	µg/L	0.2108	ppb	19:18:20
1	Mn 257.610†	1380.0	1134.0	1.4029	µg/L	1.4029	ppb	19:18:40
1	Mo 202.031†	-22.3	-2.1	-0.0594	µg/L	-0.0594	ppb	19:18:40
1	Ni 231.604†	-42.1	34.7	0.3993	µg/L	0.3993	ppb	19:18:40
1	P 214.914†	3.4	21.3	4.5437	µg/L	4.5437	ppb	19:18:40
1	Pb 220.353†	75.7	-11.2	-0.6209	µg/L	-0.6209	ppb	19:18:40
1	S 181.975 Axial†	125.5	19.6	14.566	µg/L	14.566	ppb	19:18:40
1	Sb 206.836†	96.0	14.6	1.7256	µg/L	1.7256	ppb	19:18:40
1	Se 196.026†	17.2	1.8	0.669	µg/L	0.669	ppb	19:18:40
1	SiO2†	3267.2	1471.0	143.76	µg/L	143.76	ppb	19:18:20
1	Si 251.611†	5473.1	4601.5	67.833	µg/L	67.833	ppb	19:18:20
1	Sn 189.927†	18.0	19.0	1.1864	µg/L	1.1864	ppb	19:18:40
1	Ti 334.940†	1910.3	945.5	0.8847	µg/L	0.8847	ppb	19:18:20
1	Tl 190.801†	-126.2	-8.7	-1.0587	µg/L	-1.0587	ppb	19:18:40
1	U 409.014†	-294.0	-22.2	-1.2907	µg/L	-1.2907	ppb	19:18:20
1	V 292.402†	433.0	26.5	0.1241	µg/L	0.1241	ppb	19:18:20
1	Zn 213.857†	1208.3	636.1	3.5669	µg/L	3.5669	ppb	19:18:40
2	Sc RADIAL	144363.5	144363.5	98.9	%			19:17:18
2	Al 396.153Radial†	86.2	150.3	27.875	µg/L	27.875	ppb	19:17:38
2	Ca 317.933Radial†	1233.5	686.3	38.232	µg/L	38.232	ppb	19:17:38
2	Fe 238.204 Radial†	903.8	765.5	47.180	µg/L	47.180	ppb	19:17:38
2	K 766.490 Radial†	1739.8	213.9	78.281	µg/L	78.281	ppb	19:17:18
2	Mg 279.077 IEC†	190.4	1.8	0.6095	µg/L	0.6095	ppb	19:17:38
2	Na 589.592 Radial†	2516.7	1253.2	171.14	µg/L	171.14	ppb	19:17:18
2	Sr 421.552†	-136.7	-2.9	-0.0064	µg/L	-0.0064	ppb	19:17:18
2	Sc 361.383	1729563.0	1729563.0	100.66	%			19:18:42
2	Y 371.029	1030666.8	1030666.8	100.39	%			19:18:42
2	Ag 328.068†	4112.3	-6.0	-0.0165	µg/L	-0.0165	ppb	19:18:44
2	As 188.979†	-23.5	-3.0	-0.8863	µg/L	-0.8863	ppb	19:19:04
2	B 249.677†	3768.6	238.0	3.5090	µg/L	3.5090	ppb	19:18:44
2	Ba 233.527†	-45.6	90.5	0.3641	µg/L	0.3641	ppb	19:19:04
2	Be 313.107†	-773.6	296.1	0.0825	µg/L	0.0825	ppb	19:18:44
2	Cd 226.502†	-116.5	2.4	0.0104	µg/L	0.0104	ppb	19:19:04
2	Co 228.616†	-182.7	8.8	0.1064	µg/L	0.1064	ppb	19:19:04
2	Cr 267.716†	258.8	78.6	0.6117	µg/L	0.6117	ppb	19:19:04
2	Cu 324.752†	2987.5	-4.3	-0.0046	µg/L	-0.0046	ppb	19:18:44
2	Mn 257.610†	1407.8	1161.3	1.4367	µg/L	1.4367	ppb	19:19:04
2	Mo 202.031†	-24.2	-3.9	-0.1135	µg/L	-0.1135	ppb	19:19:04
2	Ni 231.604†	-61.4	15.5	0.1782	µg/L	0.1782	ppb	19:19:04
2	P 214.914†	6.6	24.5	5.2222	µg/L	5.2222	ppb	19:19:04
2	Pb 220.353†	81.0	-5.9	-0.3352	µg/L	-0.3352	ppb	19:19:04

2	S 181.975 Axial†	120.2	14.4	10.674	µg/L	10.674 ppb	19:19:04
2	Sb 206.836†	69.7	-11.5	-1.3824	µg/L	-1.3824 ppb	19:19:04
2	Se 196.026†	24.6	9.1	3.32	µg/L	3.32 ppb	19:19:04
2	SiO2†	3363.4	1566.0	153.06	µg/L	153.06 ppb	19:18:44
2	Si 251.611†	5472.7	4600.3	67.821	µg/L	67.821 ppb	19:18:44
2	Sn 189.927†	4.1	5.2	0.3261	µg/L	0.3261 ppb	19:19:04
2	Ti 334.940†	1564.1	601.3	0.5600	µg/L	0.5600 ppb	19:18:44
2	Tl 190.801†	-119.3	-1.9	-0.2227	µg/L	-0.2227 ppb	19:19:04
2	U 409.014†	-164.4	106.6	6.2305	µg/L	6.2305 ppb	19:18:44
2	V 292.402†	402.8	-3.6	-0.0176	µg/L	-0.0176 ppb	19:18:44
2	Zn 213.857†	1196.8	624.5	3.5029	µg/L	3.5029 ppb	19:19:04
3	Sc RADIAL	143222.9	143222.9	98.1	%		19:17:40
3	Al 396.153Radial†	72.9	137.5	25.470	µg/L	25.470 ppb	19:18:00
3	Ca 317.933Radial†	1221.4	683.9	38.095	µg/L	38.095 ppb	19:18:00
3	Fe 238.204 Radial†	903.3	772.3	47.599	µg/L	47.599 ppb	19:18:00
3	K 766.490 Radial†	1735.1	223.2	81.662	µg/L	81.662 ppb	19:17:40
3	Mg 279.077 IEC†	223.5	37.0	13.742	µg/L	13.742 ppb	19:18:00
3	Na 589.592 Radial†	2409.9	1164.7	159.03	µg/L	159.03 ppb	19:17:40
3	Sr 421.552†	-73.5	60.4	0.1253	µg/L	0.1253 ppb	19:17:40
3	Sc 361.383	1730604.8	1730604.8	100.72	%		19:19:07
3	Y 371.029	1031702.1	1031702.1	100.49	%		19:19:07
3	Ag 328.068†	3958.2	-161.5	-0.5962	µg/L	-0.5962 ppb	19:19:09
3	As 188.979†	-26.4	-5.8	-1.7429	µg/L	-1.7429 ppb	19:19:29
3	B 249.677†	3764.4	231.6	3.4148	µg/L	3.4148 ppb	19:19:09
3	Ba 233.527†	-47.8	88.4	0.3559	µg/L	0.3559 ppb	19:19:29
3	Be 313.107†	-840.6	230.1	0.0626	µg/L	0.0626 ppb	19:19:09
3	Cd 226.502†	-85.5	33.4	0.2033	µg/L	0.2033 ppb	19:19:29
3	Co 228.616†	-179.6	12.0	0.1462	µg/L	0.1462 ppb	19:19:29
3	Cr 267.716†	262.9	82.5	0.6474	µg/L	0.6474 ppb	19:19:29
3	Cu 324.752†	3033.4	39.4	0.1604	µg/L	0.1604 ppb	19:19:09
3	Mn 257.610†	1359.3	1112.3	1.3756	µg/L	1.3756 ppb	19:19:29
3	Mo 202.031†	-7.8	12.3	0.3646	µg/L	0.3646 ppb	19:19:29
3	Ni 231.604†	-78.9	-1.8	-0.0209	µg/L	-0.0209 ppb	19:19:29
3	P 214.914†	6.5	24.4	5.1986	µg/L	5.1986 ppb	19:19:29
3	Pb 220.353†	88.6	1.6	0.0909	µg/L	0.0909 ppb	19:19:29
3	S 181.975 Axial†	119.3	13.4	9.9643	µg/L	9.9643 ppb	19:19:29
3	Sb 206.836†	69.0	-12.3	-1.4678	µg/L	-1.4678 ppb	19:19:29
3	Se 196.026†	9.9	-5.5	-1.97	µg/L	-1.97 ppb	19:19:29
3	SiO2†	3279.1	1480.2	144.66	µg/L	144.66 ppb	19:19:09
3	Si 251.611†	5427.9	4552.5	67.109	µg/L	67.109 ppb	19:19:09
3	Sn 189.927†	7.0	8.1	0.5077	µg/L	0.5077 ppb	19:19:29
3	Ti 334.940†	1847.1	881.3	0.8232	µg/L	0.8232 ppb	19:19:09
3	Tl 190.801†	-127.1	-9.5	-1.1573	µg/L	-1.1573 ppb	19:19:29
3	U 409.014†	-276.6	-4.8	-0.2612	µg/L	-0.2612 ppb	19:19:09
3	V 292.402†	474.6	67.4	0.3292	µg/L	0.3292 ppb	19:19:09
3	Zn 213.857†	1189.2	616.3	3.4577	µg/L	3.4577 ppb	19:19:29

Mean Data: 248861001|962982|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729815.7	100.68	%	0.041				0.04%
Sc RADIAL	144212.0	98.8	%	0.63				0.64%
Y 371.029	1031145.5	100.43	%	0.051				0.05%
Ag 328.068†	-31.4	-0.1141	µg/L	0.44145	-0.1141	ppb	0.44145	386.89%
Al 396.153Radial†	165.9	30.760	µg/L	7.1802	30.760	ppb	7.1802	23.34%
As 188.979†	-3.4	-1.0137	µg/L	0.67457	-1.0137	ppb	0.67457	66.54%
B 249.677†	208.4	3.0727	µg/L	0.67580	3.0727	ppb	0.67580	21.99%
Ba 233.527†	96.9	0.3901	µg/L	0.05223	0.3901	ppb	0.05223	13.39%
Be 313.107†	298.4	0.0817	µg/L	0.01875	0.0817	ppb	0.01875	22.95%
Ca 317.933Radial†	678.9	37.817	µg/L	0.6047	37.817	ppb	0.6047	1.60%
Cd 226.502†	14.1	0.0829	µg/L	0.10499	0.0829	ppb	0.10499	126.61%
Co 228.616†	7.6	0.0918	µg/L	0.06286	0.0918	ppb	0.06286	68.46%
Cr 267.716†	77.1	0.6043	µg/L	0.04729	0.6043	ppb	0.04729	7.83%
Cu 324.752†	29.3	0.1222	µg/L	0.11263	0.1222	ppb	0.11263	92.18%
Fe 238.204 Radial†	766.3	47.232	µg/L	0.3440	47.232	ppb	0.3440	0.73%
K 766.490 Radial†	203.2	74.344	µg/L	9.8938	74.344	ppb	9.8938	13.31%
Mg 279.077 IEC†	12.8	4.7305	µg/L	7.81354	4.7305	ppb	7.81354	165.17%
Mn 257.610†	1135.9	1.4051	µg/L	0.03061	1.4051	ppb	0.03061	2.18%
Mo 202.031†	2.1	0.0639	µg/L	0.26181	0.0639	ppb	0.26181	409.81%
Na 589.592 Radial†	1218.7	166.42	µg/L	6.477	166.42	ppb	6.477	3.89%

Ni 231.604†	16.1	0.1855	µg/L	0.21020	0.1855	ppb	0.21020 113.31%
P 214.914†	23.4	4.9882	µg/L	0.38508	4.9882	ppb	0.38508 7.72%
Pb 220.353†	-5.2	-0.2884	µg/L	0.35823	-0.2884	ppb	0.35823 124.21%
S 181.975 Axial†	15.8	11.735	µg/L	2.4775	11.735	ppb	2.4775 21.11%
Sb 206.836†	-3.1	-0.3748	µg/L	1.81953	-0.3748	ppb	1.81953 485.41%
Se 196.026†	1.8	0.674	µg/L	2.6452	0.674	ppb	2.6452 392.68%
SiO2†	1505.7	147.16	µg/L	5.128	147.16	ppb	5.128 3.48%
Si 251.611†	4584.8	67.587	µg/L	0.4146	67.587	ppb	0.4146 0.61%
Sn 189.927†	10.8	0.6734	µg/L	0.45348	0.6734	ppb	0.45348 67.34%
Sr 421.552†	60.9	0.1264	µg/L	0.13339	0.1264	ppb	0.13339 105.53%
Ti 334.940†	809.4	0.7559	µg/L	0.17250	0.7559	ppb	0.17250 22.82%
Tl 190.801†	-6.7	-0.8129	µg/L	0.51350	-0.8129	ppb	0.51350 63.17%
U 409.014†	26.5	1.5595	µg/L	4.07779	1.5595	ppb	4.07779 261.48%
V 292.402†	30.1	0.1453	µg/L	0.17434	0.1453	ppb	0.17434 120.02%
Zn 213.857†	625.7	3.5091	µg/L	0.05485	3.5091	ppb	0.05485 1.56%

Sequence No.: 6
Sample ID: 1202065851|962982|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 116
Date Collected: 3/31/2010 19:19:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065851|962982|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146899.9	146899.9	101	%			19:20:06
1	Al 396.153Radial†	-5.2	58.1	10.803	µg/L	10.803	ppb	19:20:06
1	Ca 317.933Radial†	1216.5	647.9	36.090	µg/L	36.090	ppb	19:20:26
1	Fe 238.204 Radial†	889.5	735.5	45.331	µg/L	45.331	ppb	19:20:26
1	K 766.490 Radial†	1692.3	136.4	49.891	µg/L	49.891	ppb	19:20:06
1	Mg 279.077 IEC†	236.7	44.4	16.480	µg/L	16.480	ppb	19:20:26
1	Na 589.592 Radial†	2354.3	1047.9	143.12	µg/L	143.12	ppb	19:20:06
1	Sr 421.552†	-168.8	-32.4	-0.0676	µg/L	-0.0676	ppb	19:20:06
1	Sc 361.383	1719079.0	1719079.0	100.05	%			19:21:14
1	Y 371.029	1024705.7	1024705.7	99.807	%			19:21:14
1	Ag 328.068†	3935.4	-158.0	-0.5861	µg/L	-0.5861	ppb	19:21:16
1	As 188.979†	-19.2	1.1	0.3561	µg/L	0.3561	ppb	19:21:36
1	B 249.677†	3606.3	98.6	1.4544	µg/L	1.4544	ppb	19:21:16
1	Ba 233.527†	-46.0	89.8	0.3610	µg/L	0.3610	ppb	19:21:36
1	Be 313.107†	-567.5	497.5	0.1366	µg/L	0.1366	ppb	19:21:16
1	Cd 226.502†	-92.0	26.3	0.1597	µg/L	0.1597	ppb	19:21:36
1	Co 228.616†	-186.9	3.6	0.0420	µg/L	0.0420	ppb	19:21:36
1	Cr 267.716†	291.6	112.8	0.8815	µg/L	0.8815	ppb	19:21:36
1	Cu 324.752†	3025.7	51.9	0.2121	µg/L	0.2121	ppb	19:21:16
1	Mn 257.610†	1456.0	1218.0	1.5062	µg/L	1.5062	ppb	19:21:36
1	Mo 202.031†	-46.7	-26.6	-0.7806	µg/L	-0.7806	ppb	19:21:36
1	Ni 231.604†	-36.8	39.7	0.4575	µg/L	0.4575	ppb	19:21:36
1	P 214.914†	-14.5	3.4	0.7127	µg/L	0.7127	ppb	19:21:36
1	Pb 220.353†	78.2	-8.2	-0.4621	µg/L	-0.4621	ppb	19:21:36
1	S 181.975 Axial†	107.8	2.6	1.9591	µg/L	1.9591	ppb	19:21:36
1	Sb 206.836†	87.4	6.6	0.7557	µg/L	0.7557	ppb	19:21:36
1	Se 196.026†	28.0	12.7	4.61	µg/L	4.61	ppb	19:21:36
1	SiO2†	3436.2	1659.1	162.18	µg/L	162.18	ppb	19:21:16
1	Si 251.611†	6062.7	5223.1	77.009	µg/L	77.009	ppb	19:21:16
1	Sn 189.927†	8.3	9.4	0.5878	µg/L	0.5878	ppb	19:21:36
1	Ti 334.940†	1671.3	717.9	0.6684	µg/L	0.6684	ppb	19:21:16
1	Tl 190.801†	-129.7	-12.9	-1.5804	µg/L	-1.5804	ppb	19:21:36
1	U 409.014†	-203.0	67.0	3.8983	µg/L	3.8983	ppb	19:21:16
1	V 292.402†	329.1	-74.9	-0.3724	µg/L	-0.3724	ppb	19:21:16
1	Zn 213.857†	713.2	148.4	0.8259	µg/L	0.8259	ppb	19:21:36
2	Sc RADIAL	146902.9	146902.9	101	%			19:20:28
2	Al 396.153Radial†	-60.6	3.0	0.5602	µg/L	0.5602	ppb	19:20:28
2	Ca 317.933Radial†	1180.5	612.1	34.098	µg/L	34.098	ppb	19:20:48
2	Fe 238.204 Radial†	908.2	754.0	46.475	µg/L	46.475	ppb	19:20:48
2	K 766.490 Radial†	1651.1	95.4	34.904	µg/L	34.904	ppb	19:20:28
2	Mg 279.077 IEC†	220.5	28.3	10.516	µg/L	10.516	ppb	19:20:48
2	Na 589.592 Radial†	2511.3	1203.9	164.43	µg/L	164.43	ppb	19:20:28
2	Sr 421.552†	-162.6	-26.2	-0.0548	µg/L	-0.0548	ppb	19:20:28
2	Sc 361.383	1739745.4	1739745.4	101.25	%			19:21:38
2	Y 371.029	1035904.4	1035904.4	100.90	%			19:21:38
2	Ag 328.068†	4076.7	-65.1	-0.2500	µg/L	-0.2500	ppb	19:21:40
2	As 188.979†	-25.8	-5.1	-1.5331	µg/L	-1.5331	ppb	19:22:00
2	B 249.677†	3593.2	42.9	0.6320	µg/L	0.6320	ppb	19:21:40
2	Ba 233.527†	-56.7	79.9	0.3215	µg/L	0.3215	ppb	19:22:00
2	Be 313.107†	-1064.7	13.1	0.0005	µg/L	0.0005	ppb	19:21:40
2	Cd 226.502†	-98.9	20.5	0.1232	µg/L	0.1232	ppb	19:22:00
2	Co 228.616†	-186.9	5.7	0.0683	µg/L	0.0683	ppb	19:22:00
2	Cr 267.716†	296.3	114.0	0.9025	µg/L	0.9025	ppb	19:22:00
2	Cu 324.752†	3080.1	69.8	0.2698	µg/L	0.2698	ppb	19:21:40
2	Mn 257.610†	1481.9	1226.3	1.5167	µg/L	1.5167	ppb	19:22:00
2	Mo 202.031†	-27.8	-7.4	-0.2147	µg/L	-0.2147	ppb	19:22:00
2	Ni 231.604†	-57.9	19.3	0.2227	µg/L	0.2227	ppb	19:22:00
2	P 214.914†	-4.7	13.3	2.8156	µg/L	2.8156	ppb	19:22:00
2	Pb 220.353†	97.0	9.4	0.5315	µg/L	0.5315	ppb	19:22:00

2	S 181.975 Axial†	118.0	11.5	8.5038	µg/L	8.5038 ppb	19:22:00
2	Sb 206.836†	71.5	-10.2	-1.2238	µg/L	-1.2238 ppb	19:22:00
2	Se 196.026†	13.8	-1.6	-0.589	µg/L	-0.589 ppb	19:22:00
2	SiO2†	3487.2	1668.7	163.10	µg/L	163.10 ppb	19:21:40
2	Si 251.611†	6231.5	5317.8	78.400	µg/L	78.400 ppb	19:21:40
2	Sn 189.927†	5.3	6.4	0.3985	µg/L	0.3985 ppb	19:22:00
2	Ti 334.940†	1624.6	652.0	0.6131	µg/L	0.6131 ppb	19:21:40
2	Tl 190.801†	-119.8	-1.6	-0.1847	µg/L	-0.1847 ppb	19:22:00
2	U 409.014†	-452.0	-176.5	-10.296	µg/L	-10.296 ppb	19:21:40
2	V 292.402†	501.8	91.7	0.4368	µg/L	0.4368 ppb	19:21:40
2	Zn 213.857†	726.5	153.1	0.8535	µg/L	0.8535 ppb	19:22:00
3	Sc RADIAL	146176.8	146176.8	100	%		19:20:50
3	Al 396.153Radial†	-77.8	-14.5	-2.6438	µg/L	-2.6438 ppb	19:20:50
3	Ca 317.933Radial†	1184.4	621.8	34.636	µg/L	34.636 ppb	19:21:10
3	Fe 238.204 Radial†	902.7	753.1	46.416	µg/L	46.416 ppb	19:21:10
3	K 766.490 Radial†	1690.7	143.1	52.356	µg/L	52.356 ppb	19:20:50
3	Mg 279.077 IEC†	178.5	-12.5	-4.7066	µg/L	-4.7066 ppb	19:21:10
3	Na 589.592 Radial†	2379.6	1084.8	148.15	µg/L	148.15 ppb	19:20:50
3	Sr 421.552†	-87.2	48.2	0.1000	µg/L	0.1000 ppb	19:20:50
3	Sc 361.383	1748739.2	1748739.2	101.78	%		19:22:02
3	Y 371.029	1041731.1	1041731.1	101.47	%		19:22:02
3	Ag 328.068†	3992.3	-168.8	-0.6183	µg/L	-0.6183 ppb	19:22:04
3	As 188.979†	-16.8	3.9	1.1884	µg/L	1.1884 ppb	19:22:25
3	B 249.677†	3602.0	33.2	0.4892	µg/L	0.4892 ppb	19:22:04
3	Ba 233.527†	-54.5	82.3	0.3309	µg/L	0.3309 ppb	19:22:25
3	Be 313.107†	-757.8	320.1	0.0884	µg/L	0.0884 ppb	19:22:04
3	Cd 226.502†	-105.4	14.7	0.0867	µg/L	0.0867 ppb	19:22:25
3	Co 228.616†	-169.3	23.9	0.2932	µg/L	0.2932 ppb	19:22:25
3	Cr 267.716†	291.2	107.6	0.8409	µg/L	0.8409 ppb	19:22:25
3	Cu 324.752†	2979.8	-44.4	-0.1624	µg/L	-0.1624 ppb	19:22:04
3	Mn 257.610†	1489.2	1226.0	1.5169	µg/L	1.5169 ppb	19:22:25
3	Mo 202.031†	-50.6	-29.6	-0.8682	µg/L	-0.8682 ppb	19:22:25
3	Ni 231.604†	-69.1	8.6	0.0993	µg/L	0.0993 ppb	19:22:25
3	P 214.914†	-1.0	17.0	3.6127	µg/L	3.6127 ppb	19:22:25
3	Pb 220.353†	83.5	-4.3	-0.2462	µg/L	-0.2462 ppb	19:22:25
3	S 181.975 Axial†	116.2	9.1	6.7809	µg/L	6.7809 ppb	19:22:25
3	Sb 206.836†	92.8	10.4	1.2062	µg/L	1.2062 ppb	19:22:25
3	Se 196.026†	1.4	-13.9	-5.02	µg/L	-5.02 ppb	19:22:25
3	SiO2†	3523.4	1686.5	164.86	µg/L	164.86 ppb	19:22:04
3	Si 251.611†	6024.0	5082.3	74.938	µg/L	74.938 ppb	19:22:04
3	Sn 189.927†	4.4	5.4	0.3411	µg/L	0.3411 ppb	19:22:25
3	Ti 334.940†	1833.1	848.6	0.7922	µg/L	0.7922 ppb	19:22:04
3	Tl 190.801†	-124.4	-5.5	-0.6694	µg/L	-0.6694 ppb	19:22:25
3	U 409.014†	-204.1	69.4	4.0708	µg/L	4.0708 ppb	19:22:04
3	V 292.402†	467.1	55.1	0.2607	µg/L	0.2607 ppb	19:22:04
3	Zn 213.857†	713.3	136.4	0.7607	µg/L	0.7607 ppb	19:22:25

Mean Data: 1202065851|962982|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1735854.6	101.03	%	0.885				0.88%
Sc RADIAL	146659.9	101	%	0.3				0.29%
Y 371.029	1034113.7	100.72	%	0.843				0.84%
Ag 328.068†	-130.6	-0.4848	µg/L	0.20399	-0.4848	ppb	0.20399	42.08%
Al 396.153Radial†	15.5	2.9064	µg/L	7.02366	2.9064	ppb	7.02366	241.66%
As 188.979†	-0.0	0.0038	µg/L	1.39456	0.0038	ppb	1.39456	>999.9%
B 249.677†	58.2	0.8585	µg/L	0.52095	0.8585	ppb	0.52095	60.68%
Ba 233.527†	84.0	0.3378	µg/L	0.02063	0.3378	ppb	0.02063	6.11%
Be 313.107†	276.9	0.0752	µg/L	0.06905	0.0752	ppb	0.06905	91.87%
Ca 317.933Radial†	627.3	34.941	µg/L	1.0306	34.941	ppb	1.0306	2.95%
Cd 226.502†	20.5	0.1232	µg/L	0.03647	0.1232	ppb	0.03647	29.60%
Co 228.616†	11.1	0.1345	µg/L	0.13808	0.1345	ppb	0.13808	102.66%
Cr 267.716†	111.5	0.8750	µg/L	0.03136	0.8750	ppb	0.03136	3.58%
Cu 324.752†	25.8	0.1065	µg/L	0.23469	0.1065	ppb	0.23469	220.36%
Fe 238.204 Radial†	747.5	46.074	µg/L	0.6439	46.074	ppb	0.6439	1.40%
K 766.490 Radial†	125.0	45.717	µg/L	9.4453	45.717	ppb	9.4453	20.66%
Mg 279.077 IEC†	20.1	7.4297	µg/L	10.92523	7.4297	ppb	10.92523	147.05%
Mn 257.610†	1223.4	1.5133	µg/L	0.00613	1.5133	ppb	0.00613	0.40%
Mo 202.031†	-21.2	-0.6212	µg/L	0.35472	-0.6212	ppb	0.35472	57.11%
Na 589.592 Radial†	1112.2	151.90	µg/L	11.141	151.90	ppb	11.141	7.33%

Ni 231.604†	22.6	0.2599	µg/L	0.18195	0.2599	ppb	0.18195 70.02%
P 214.914†	11.2	2.3803	µg/L	1.49819	2.3803	ppb	1.49819 62.94%
Pb 220.353†	-1.0	-0.0590	µg/L	0.52262	-0.0590	ppb	0.52262 886.53%
S 181.975 Axial†	7.7	5.7479	µg/L	3.39242	5.7479	ppb	3.39242 59.02%
Sb 206.836†	2.2	0.2460	µg/L	1.29272	0.2460	ppb	1.29272 525.46%
Se 196.026†	-1.0	-0.334	µg/L	4.8198	-0.334	ppb	4.8198 >999.9%
SiO2†	1671.5	163.38	µg/L	1.363	163.38	ppb	1.363 0.83%
Si 251.611†	5207.7	76.782	µg/L	1.7422	76.782	ppb	1.7422 2.27%
Sn 189.927†	7.1	0.4425	µg/L	0.12908	0.4425	ppb	0.12908 29.17%
Sr 421.552†	-3.5	-0.0075	µg/L	0.09329	-0.0075	ppb	0.09329 >999.9%
Ti 334.940†	739.5	0.6912	µg/L	0.09169	0.6912	ppb	0.09169 13.26%
Tl 190.801†	-6.7	-0.8115	µg/L	0.70859	-0.8115	ppb	0.70859 87.32%
U 409.014†	-13.4	-0.7756	µg/L	8.24514	-0.7756	ppb	8.24514 >999.9%
V 292.402†	24.0	0.1084	µg/L	0.42556	0.1084	ppb	0.42556 392.71%
Zn 213.857†	146.0	0.8134	µg/L	0.04765	0.8134	ppb	0.04765 5.86%

Sequence No.: 7
Sample ID: 1202065852|962982|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 117
Date Collected: 3/31/2010 19:22:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065852|962982|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145110.4	145110.4	99.4	%			19:23:04
1	Al 396.153Radial†	27603.0	27822.1	5135.1	µg/L	5135.1	ppb	19:23:04
1	Ca 317.933Radial†	92084.6	92044.0	5127.2	µg/L	5127.2	ppb	19:23:04
1	Fe 238.204 Radial†	82105.5	82421.0	5079.9	µg/L	5079.9	ppb	19:23:04
1	K 766.490 Radial†	15271.9	13813.4	5053.9	µg/L	5053.9	ppb	19:23:04
1	Mg 279.077 IEC†	14107.5	13996.4	5222.7	µg/L	5222.7	ppb	19:23:04
1	Na 589.592 Radial†	38938.3	37867.4	5168.6	µg/L	5168.6	ppb	19:23:04
1	Sr 421.552†	237517.4	238993.8	496.81	µg/L	496.81	ppb	19:23:02
1	Sc 361.383	1731810.2	1731810.2	100.79	%			19:23:17
1	Y 371.029	1024766.9	1024766.9	99.813	%			19:23:17
1	Ag 328.068†	134343.8	129198.0	484.71	µg/L	484.71	ppb	19:23:17
1	As 188.979†	1650.8	1658.2	508.76	µg/L	508.76	ppb	19:23:37
1	B 249.677†	37123.3	33326.1	489.79	µg/L	489.79	ppb	19:23:17
1	Ba 233.527†	126606.9	125749.0	507.14	µg/L	507.14	ppb	19:23:17
1	Be 313.107†	1855223.6	1841727.2	501.61	µg/L	501.61	ppb	19:23:17
1	Cd 226.502†	80025.5	79515.6	496.37	µg/L	496.37	ppb	19:23:17
1	Co 228.616†	40132.2	40007.5	493.90	µg/L	493.90	ppb	19:23:17
1	Cr 267.716†	64548.4	63863.2	500.04	µg/L	500.04	ppb	19:23:17
1	Cu 324.752†	133739.3	129717.4	505.66	µg/L	505.66	ppb	19:23:17
1	Mn 257.610†	412174.6	408702.2	505.47	µg/L	505.47	ppb	19:23:17
1	Mo 202.031†	17027.3	16913.7	497.54	µg/L	497.54	ppb	19:23:37
1	Ni 231.604†	44055.2	43785.9	504.16	µg/L	504.16	ppb	19:23:17
1	P 214.914†	2374.7	2374.0	499.11	µg/L	499.11	ppb	19:23:37
1	Pb 220.353†	9221.7	9063.0	507.49	µg/L	507.49	ppb	19:23:37
1	S 181.975 Axial†	6998.2	6838.2	5082.1	µg/L	5082.1	ppb	19:23:37
1	Sb 206.836†	4307.0	4192.3	499.47	µg/L	499.47	ppb	19:23:37
1	Se 196.026†	1368.2	1342.1	487	µg/L	487	ppb	19:23:37
1	SiO2†	112986.9	110324.8	10762	µg/L	10762	ppb	19:23:17
1	Si 251.611†	345543.1	341994.4	5032.0	µg/L	5032.0	ppb	19:23:17
1	Sn 189.927†	8133.1	8070.4	504.79	µg/L	504.79	ppb	19:23:37
1	Ti 334.940†	541792.3	536587.3	500.67	µg/L	500.67	ppb	19:23:17
1	Tl 190.801†	4008.1	4093.3	510.53	µg/L	510.53	ppb	19:23:37
1	U 409.014†	7792.2	8000.9	498.38	µg/L	498.38	ppb	19:23:17
1	V 292.402†	103766.4	102548.2	506.87	µg/L	506.87	ppb	19:23:17
1	Zn 213.857†	89072.4	87808.9	489.30	µg/L	489.30	ppb	19:23:17
2	Sc RADIAL	144273.5	144273.5	98.9	%			19:23:08
2	Al 396.153Radial†	27373.5	27751.0	5121.8	µg/L	5121.8	ppb	19:23:08
2	Ca 317.933Radial†	91516.5	92006.6	5125.1	µg/L	5125.1	ppb	19:23:08
2	Fe 238.204 Radial†	81703.4	82493.2	5084.4	µg/L	5084.4	ppb	19:23:08
2	K 766.490 Radial†	15180.0	13809.5	5052.5	µg/L	5052.5	ppb	19:23:08
2	Mg 279.077 IEC†	13843.7	13811.9	5153.9	µg/L	5153.9	ppb	19:23:08
2	Na 589.592 Radial†	38671.7	37824.9	5162.8	µg/L	5162.8	ppb	19:23:08
2	Sr 421.552†	242048.8	244962.9	509.22	µg/L	509.22	ppb	19:23:06
2	Sc 361.383	1719333.7	1719333.7	100.06	%			19:23:40
2	Y 371.029	1017297.1	1017297.1	99.085	%			19:23:40
2	Ag 328.068†	133270.6	129092.7	484.32	µg/L	484.32	ppb	19:23:40
2	As 188.979†	1646.6	1665.9	511.09	µg/L	511.09	ppb	19:24:00
2	B 249.677†	36903.5	33373.6	490.49	µg/L	490.49	ppb	19:23:40
2	Ba 233.527†	125844.5	125898.7	507.74	µg/L	507.74	ppb	19:23:40
2	Be 313.107†	1841720.0	1841589.2	501.58	µg/L	501.58	ppb	19:23:40
2	Cd 226.502†	79474.0	79540.6	496.52	µg/L	496.52	ppb	19:23:40
2	Co 228.616†	39947.9	40112.3	495.19	µg/L	495.19	ppb	19:23:40
2	Cr 267.716†	64088.8	63868.6	500.07	µg/L	500.07	ppb	19:23:40
2	Cu 324.752†	132983.2	129924.7	506.48	µg/L	506.48	ppb	19:23:40
2	Mn 257.610†	409217.4	408714.5	505.48	µg/L	505.48	ppb	19:23:40
2	Mo 202.031†	16979.9	16988.9	499.75	µg/L	499.75	ppb	19:24:00
2	Ni 231.604†	43798.6	43846.6	504.86	µg/L	504.86	ppb	19:23:40
2	P 214.914†	2397.2	2413.5	507.56	µg/L	507.56	ppb	19:24:00
2	Pb 220.353†	9181.0	9088.6	508.92	µg/L	508.92	ppb	19:24:00

2	S 181.975 Axial†	6968.1	6858.5	5097.2 µg/L	5097.2 ppb	19:24:00
2	Sb 206.836†	4292.4	4208.8	501.46 µg/L	501.46 ppb	19:24:00
2	Se 196.026†	1367.2	1351.0	491 µg/L	491 ppb	19:24:00
2	SiO2†	112286.7	110438.5	10773 µg/L	10773 ppb	19:23:40
2	Si 251.611†	343122.8	342063.5	5033.0 µg/L	5033.0 ppb	19:23:40
2	Sn 189.927†	8132.4	8128.3	508.40 µg/L	508.40 ppb	19:24:00
2	Ti 334.940†	537774.0	536472.4	500.56 µg/L	500.56 ppb	19:23:40
2	Tl 190.801†	3984.3	4098.4	511.14 µg/L	511.14 ppb	19:24:00
2	U 409.014†	7896.6	8161.4	507.70 µg/L	507.70 ppb	19:23:40
2	V 292.402†	102800.8	102330.2	505.84 µg/L	505.84 ppb	19:23:40
2	Zn 213.857†	88484.6	87862.7	489.59 µg/L	489.59 ppb	19:23:40
3	Sc RADIAL	144351.3	144351.3	98.9 %		19:23:12
3	Al 396.153Radial†	27586.9	27951.8	5159.2 µg/L	5159.2 ppb	19:23:12
3	Ca 317.933Radial†	91513.0	91953.1	5122.1 µg/L	5122.1 ppb	19:23:12
3	Fe 238.204 Radial†	81716.6	82462.1	5082.5 µg/L	5082.5 ppb	19:23:12
3	K 766.490 Radial†	15255.3	13877.3	5077.3 µg/L	5077.3 ppb	19:23:12
3	Mg 279.077 IEC†	14105.4	14068.9	5249.6 µg/L	5249.6 ppb	19:23:12
3	Na 589.592 Radial†	38763.4	37896.5	5172.6 µg/L	5172.6 ppb	19:23:12
3	Sr 421.552†	239753.3	242510.3	504.12 µg/L	504.12 ppb	19:23:10
3	Sc 361.383	1729361.7	1729361.7	100.65 %		19:24:03
3	Y 371.029	1023502.6	1023502.6	99.690 %		19:24:03
3	Ag 328.068†	134577.1	129618.5	486.29 µg/L	486.29 ppb	19:24:03
3	As 188.979†	1657.1	1666.8	511.38 µg/L	511.38 ppb	19:24:23
3	B 249.677†	37335.5	33589.0	493.66 µg/L	493.66 ppb	19:24:03
3	Ba 233.527†	126618.3	125938.2	507.90 µg/L	507.90 ppb	19:24:03
3	Be 313.107†	1856258.9	1845361.8	502.60 µg/L	502.60 ppb	19:24:03
3	Cd 226.502†	80030.7	79633.2	497.10 µg/L	497.10 ppb	19:24:03
3	Co 228.616†	40276.5	40207.2	496.37 µg/L	496.37 ppb	19:24:03
3	Cr 267.716†	64547.9	63953.3	500.74 µg/L	500.74 ppb	19:24:03
3	Cu 324.752†	133860.3	130025.5	506.87 µg/L	506.87 ppb	19:24:03
3	Mn 257.610†	412170.8	409277.5	506.18 µg/L	506.18 ppb	19:24:03
3	Mo 202.031†	16978.6	16889.2	496.82 µg/L	496.82 ppb	19:24:23
3	Ni 231.604†	44389.2	44179.7	508.70 µg/L	508.70 ppb	19:24:03
3	P 214.914†	2382.2	2384.8	501.42 µg/L	501.42 ppb	19:24:23
3	Pb 220.353†	9204.3	9058.6	507.24 µg/L	507.24 ppb	19:24:23
3	S 181.975 Axial†	6958.9	6809.0	5060.4 µg/L	5060.4 ppb	19:24:23
3	Sb 206.836†	4304.2	4195.6	499.84 µg/L	499.84 ppb	19:24:23
3	Se 196.026†	1384.1	1359.9	494 µg/L	494 ppb	19:24:23
3	SiO2†	113143.0	110638.5	10793 µg/L	10793 ppb	19:24:03
3	Si 251.611†	346219.6	343151.9	5049.1 µg/L	5049.1 ppb	19:24:03
3	Sn 189.927†	8115.4	8064.2	504.41 µg/L	504.41 ppb	19:24:23
3	Ti 334.940†	542009.6	537564.3	501.57 µg/L	501.57 ppb	19:24:03
3	Tl 190.801†	4000.1	4091.0	510.25 µg/L	510.25 ppb	19:24:23
3	U 409.014†	7918.6	8137.5	506.43 µg/L	506.43 ppb	19:24:03
3	V 292.402†	103832.7	102759.8	507.90 µg/L	507.90 ppb	19:24:03
3	Zn 213.857†	89001.3	87863.3	489.57 µg/L	489.57 ppb	19:24:03

Mean Data: 1202065852|962982|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726835.2	100.50	%	0.385				0.38%
Sc RADIAL	144578.4	99.1	%	0.32				0.32%
Y 371.029	1021855.6	99.529	%	0.3894				0.39%
Ag 328.068†	129303.1	485.10	µg/L	1.043	485.10	ppb	1.043	0.22%
Al 396.153Radial†	27841.6	5138.7	µg/L	18.94	5138.7	ppb	18.94	0.37%
As 188.979†	1663.6	510.41	µg/L	1.436	510.41	ppb	1.436	0.28%
B 249.677†	33429.6	491.31	µg/L	2.063	491.31	ppb	2.063	0.42%
Ba 233.527†	125862.0	507.59	µg/L	0.402	507.59	ppb	0.402	0.08%
Be 313.107†	1842892.7	501.93	µg/L	0.583	501.93	ppb	0.583	0.12%
Ca 317.933Radial†	92001.2	5124.8	µg/L	2.54	5124.8	ppb	2.54	0.05%
Cd 226.502†	79563.2	496.66	µg/L	0.388	496.66	ppb	0.388	0.08%
Co 228.616†	40109.0	495.15	µg/L	1.233	495.15	ppb	1.233	0.25%
Cr 267.716†	63895.1	500.28	µg/L	0.394	500.28	ppb	0.394	0.08%
Cu 324.752†	129889.2	506.34	µg/L	0.615	506.34	ppb	0.615	0.12%
Fe 238.204 Radial†	82458.8	5082.3	µg/L	2.23	5082.3	ppb	2.23	0.04%
K 766.490 Radial†	13833.4	5061.2	µg/L	13.94	5061.2	ppb	13.94	0.28%
Mg 279.077 IEC†	13959.1	5208.8	µg/L	49.34	5208.8	ppb	49.34	0.95%
Mn 257.610†	408898.1	505.71	µg/L	0.405	505.71	ppb	0.405	0.08%
Mo 202.031†	16930.6	498.03	µg/L	1.526	498.03	ppb	1.526	0.31%
Na 589.592 Radial†	37862.9	5168.0	µg/L	4.91	5168.0	ppb	4.91	0.10%

Ni 231.604†	43937.4	505.91 µg/L	2.441	505.91 ppb	2.441	0.48%
P 214.914†	2390.8	502.70 µg/L	4.369	502.70 ppb	4.369	0.87%
Pb 220.353†	9070.1	507.89 µg/L	0.906	507.89 ppb	0.906	0.18%
S 181.975 Axial†	6835.2	5079.9 µg/L	18.48	5079.9 ppb	18.48	0.36%
Sb 206.836†	4198.9	500.26 µg/L	1.059	500.26 ppb	1.059	0.21%
Se 196.026†	1351.0	491 µg/L	3.2	491 ppb	3.2	0.65%
SiO2†	110467.3	10776 µg/L	15.6	10776 ppb	15.6	0.14%
Si 251.611†	342403.3	5038.0 µg/L	9.59	5038.0 ppb	9.59	0.19%
Sn 189.927†	8087.6	505.87 µg/L	2.202	505.87 ppb	2.202	0.44%
Sr 421.552†	242155.6	503.39 µg/L	6.237	503.39 ppb	6.237	1.24%
Ti 334.940†	536874.7	500.93 µg/L	0.557	500.93 ppb	0.557	0.11%
Tl 190.801†	4094.2	510.64 µg/L	0.452	510.64 ppb	0.452	0.09%
U 409.014†	8099.9	504.17 µg/L	5.054	504.17 ppb	5.054	1.00%
V 292.402†	102546.1	506.87 µg/L	1.033	506.87 ppb	1.033	0.20%
Zn 213.857†	87845.0	489.49 µg/L	0.165	489.49 ppb	0.165	0.03%

Sequence No.: 8
Sample ID: 1202065853|962982|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 118
Date Collected: 3/31/2010 19:24:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065853|962982|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145655.2	145655.2	99.8	%			19:25:01
1	Al 396.153Radial†	-25.0	38.2	7.0941	µg/L	7.0941	ppb	19:25:21
1	Ca 317.933Radial†	904.8	345.9	19.270	µg/L	19.270	ppb	19:25:21
1	Fe 238.204 Radial†	305.3	157.7	9.7217	µg/L	9.7217	ppb	19:25:21
1	K 766.490 Radial†	1716.2	174.7	63.931	µg/L	63.931	ppb	19:25:01
1	Mg 279.077 IEC†	193.7	3.3	1.2238	µg/L	1.2238	ppb	19:25:21
1	Na 589.592 Radial†	1612.8	325.1	44.349	µg/L	44.349	ppb	19:25:01
1	Sr 421.552†	-305.7	-171.0	-0.3557	µg/L	-0.3557	ppb	19:25:01
1	Sc 361.383	1739846.2	1739846.2	101.26	%			19:26:23
1	Y 371.029	1037840.4	1037840.4	101.09	%			19:26:23
1	Ag 328.068†	3995.5	-145.6	-0.5379	µg/L	-0.5379	ppb	19:26:25
1	As 188.979†	-28.0	-7.3	-2.2041	µg/L	-2.2041	ppb	19:26:45
1	B 249.677†	3680.2	128.5	1.8962	µg/L	1.8962	ppb	19:26:25
1	Ba 233.527†	-40.1	96.3	0.3879	µg/L	0.3879	ppb	19:26:45
1	Be 313.107†	-823.2	251.8	0.0682	µg/L	0.0682	ppb	19:26:25
1	Cd 226.502†	-92.1	27.3	0.1694	µg/L	0.1694	ppb	19:26:45
1	Co 228.616†	-202.7	-9.9	-0.1221	µg/L	-0.1221	ppb	19:26:45
1	Cr 267.716†	190.5	9.5	0.0758	µg/L	0.0758	ppb	19:26:45
1	Cu 324.752†	2859.2	-148.5	-0.5767	µg/L	-0.5767	ppb	19:26:25
1	Mn 257.610†	531.8	287.9	0.3561	µg/L	0.3561	ppb	19:26:45
1	Mo 202.031†	-27.8	-7.4	-0.2168	µg/L	-0.2168	ppb	19:26:45
1	Ni 231.604†	-91.8	-14.2	-0.1630	µg/L	-0.1630	ppb	19:26:45
1	P 214.914†	-1.0	17.0	3.6479	µg/L	3.6479	ppb	19:26:45
1	Pb 220.353†	95.5	7.9	0.4436	µg/L	0.4436	ppb	19:26:45
1	S 181.975 Axial†	114.5	8.0	5.9603	µg/L	5.9603	ppb	19:26:45
1	Sb 206.836†	67.4	-14.3	-1.7030	µg/L	-1.7030	ppb	19:26:45
1	Se 196.026†	22.0	6.4	2.32	µg/L	2.32	ppb	19:26:45
1	SiO2†	2056.5	255.6	24.978	µg/L	24.978	ppb	19:26:25
1	Si 251.611†	1733.0	874.9	12.898	µg/L	12.898	ppb	19:26:25
1	Sn 189.927†	8.3	9.3	0.5802	µg/L	0.5802	ppb	19:26:45
1	Ti 334.940†	1144.8	178.0	0.1671	µg/L	0.1671	ppb	19:26:25
1	Tl 190.801†	-118.8	-0.7	-0.0765	µg/L	-0.0765	ppb	19:26:45
1	U 409.014†	-292.4	-18.9	-1.0895	µg/L	-1.0895	ppb	19:26:25
1	V 292.402†	466.4	56.8	0.2731	µg/L	0.2731	ppb	19:26:25
1	Zn 213.857†	736.7	163.2	0.9172	µg/L	0.9172	ppb	19:26:45
2	Sc RADIAL	145714.6	145714.6	99.9	%			19:25:23
2	Al 396.153Radial†	-35.7	27.5	5.1031	µg/L	5.1031	ppb	19:25:43
2	Ca 317.933Radial†	894.9	335.6	18.694	µg/L	18.694	ppb	19:25:43
2	Fe 238.204 Radial†	322.5	174.9	10.778	µg/L	10.778	ppb	19:25:43
2	K 766.490 Radial†	1577.5	35.0	12.803	µg/L	12.803	ppb	19:25:23
2	Mg 279.077 IEC†	200.9	10.5	3.8953	µg/L	3.8953	ppb	19:25:43
2	Na 589.592 Radial†	1743.0	454.8	62.122	µg/L	62.122	ppb	19:25:23
2	Sr 421.552†	-164.4	-29.3	-0.0611	µg/L	-0.0611	ppb	19:25:23
2	Sc 361.383	1725534.7	1725534.7	100.43	%			19:26:47
2	Y 371.029	1029930.3	1029930.3	100.32	%			19:26:47
2	Ag 328.068†	3883.4	-224.5	-0.8357	µg/L	-0.8357	ppb	19:26:49
2	As 188.979†	-18.0	2.5	0.7443	µg/L	0.7443	ppb	19:27:09
2	B 249.677†	3532.0	11.1	0.1630	µg/L	0.1630	ppb	19:26:49
2	Ba 233.527†	-87.2	49.0	0.1977	µg/L	0.1977	ppb	19:27:09
2	Be 313.107†	-588.0	479.2	0.1281	µg/L	0.1281	ppb	19:26:49
2	Cd 226.502†	-118.4	0.3	0.0007	µg/L	0.0007	ppb	19:27:09
2	Co 228.616†	-165.9	25.1	0.3092	µg/L	0.3092	ppb	19:27:09
2	Cr 267.716†	158.5	-20.7	-0.1555	µg/L	-0.1555	ppb	19:27:09
2	Cu 324.752†	3096.3	111.0	0.4267	µg/L	0.4267	ppb	19:26:49
2	Mn 257.610†	516.3	276.9	0.3424	µg/L	0.3424	ppb	19:27:09
2	Mo 202.031†	-29.8	-9.6	-0.2809	µg/L	-0.2809	ppb	19:27:09
2	Ni 231.604†	-98.0	-21.1	-0.2431	µg/L	-0.2431	ppb	19:27:09
2	P 214.914†	-6.2	11.8	2.5181	µg/L	2.5181	ppb	19:27:09
2	Pb 220.353†	107.1	20.3	1.1377	µg/L	1.1377	ppb	19:27:09

2	S 181.975 Axial†	112.1	6.6	4.9016 µg/L	4.9016 ppb	19:27:09
2	Sb 206.836†	93.2	11.9	1.4192 µg/L	1.4192 ppb	19:27:09
2	Se 196.026†	17.4	2.0	0.722 µg/L	0.722 ppb	19:27:09
2	SiO2†	2003.5	219.6	21.462 µg/L	21.462 ppb	19:26:49
2	Si 251.611†	1680.8	837.1	12.341 µg/L	12.341 ppb	19:26:49
2	Sn 189.927†	9.8	10.9	0.6811 µg/L	0.6811 ppb	19:27:09
2	Ti 334.940†	1148.1	190.7	0.1815 µg/L	0.1815 ppb	19:26:49
2	Tl 190.801†	-116.3	0.9	0.1128 µg/L	0.1128 ppb	19:27:09
2	U 409.014†	-404.6	-133.0	-7.7456 µg/L	-7.7456 ppb	19:26:49
2	V 292.402†	505.5	99.6	0.4757 µg/L	0.4757 ppb	19:26:49
2	Zn 213.857†	729.4	161.9	0.9094 µg/L	0.9094 ppb	19:27:09
3	Sc RADIAL	147580.0	147580.0	101 %		19:25:45
3	Al 396.153Radial†	-18.4	45.1	8.3847 µg/L	8.3847 ppb	19:26:05
3	Ca 317.933Radial†	903.2	332.6	18.525 µg/L	18.525 ppb	19:26:05
3	Fe 238.204 Radial†	328.8	177.0	10.911 µg/L	10.911 ppb	19:26:05
3	K 766.490 Radial†	1668.1	104.7	38.321 µg/L	38.321 ppb	19:25:45
3	Mg 279.077 IEC†	202.6	9.6	3.5668 µg/L	3.5668 ppb	19:26:05
3	Na 589.592 Radial†	1593.5	284.9	38.888 µg/L	38.888 ppb	19:25:45
3	Sr 421.552†	-201.4	-63.9	-0.1330 µg/L	-0.1330 ppb	19:25:45
3	Sc 361.383	1729546.3	1729546.3	100.66 %		19:27:11
3	Y 371.029	1032097.6	1032097.6	100.53 %		19:27:11
3	Ag 328.068†	4027.5	-90.2	-0.3277 µg/L	-0.3277 ppb	19:27:13
3	As 188.979†	-21.7	-1.2	-0.3704 µg/L	-0.3704 ppb	19:27:34
3	B 249.677†	3432.0	-96.4	-1.4230 µg/L	-1.4230 ppb	19:27:13
3	Ba 233.527†	-53.1	83.1	0.3345 µg/L	0.3345 ppb	19:27:34
3	Be 313.107†	-1050.9	20.7	0.0074 µg/L	0.0074 ppb	19:27:13
3	Cd 226.502†	-91.2	27.6	0.1712 µg/L	0.1712 ppb	19:27:34
3	Co 228.616†	-166.8	24.6	0.3030 µg/L	0.3030 ppb	19:27:34
3	Cr 267.716†	205.8	25.9	0.1986 µg/L	0.1986 ppb	19:27:34
3	Cu 324.752†	2993.7	1.9	0.0140 µg/L	0.0140 ppb	19:27:13
3	Mn 257.610†	535.6	294.8	0.3646 µg/L	0.3646 ppb	19:27:34
3	Mo 202.031†	-43.1	-22.7	-0.6673 µg/L	-0.6673 ppb	19:27:34
3	Ni 231.604†	-86.7	-9.7	-0.1112 µg/L	-0.1112 ppb	19:27:34
3	P 214.914†	-0.3	17.6	3.7826 µg/L	3.7826 ppb	19:27:34
3	Pb 220.353†	93.0	6.0	0.3303 µg/L	0.3303 ppb	19:27:34
3	S 181.975 Axial†	112.2	6.4	4.7244 µg/L	4.7244 ppb	19:27:34
3	Sb 206.836†	79.4	-2.0	-0.2447 µg/L	-0.2447 ppb	19:27:34
3	Se 196.026†	28.1	12.7	4.60 µg/L	4.60 ppb	19:27:34
3	SiO2†	2181.2	391.5	38.279 µg/L	38.279 ppb	19:27:13
3	Si 251.611†	1777.8	929.6	13.709 µg/L	13.709 ppb	19:27:13
3	Sn 189.927†	10.8	11.9	0.7412 µg/L	0.7412 ppb	19:27:34
3	Ti 334.940†	946.5	-12.3	-0.0137 µg/L	-0.0137 ppb	19:27:13
3	Tl 190.801†	-116.7	0.7	0.0848 µg/L	0.0848 ppb	19:27:34
3	U 409.014†	-171.2	99.8	5.8361 µg/L	5.8361 ppb	19:27:13
3	V 292.402†	405.6	-0.9	-0.0076 µg/L	-0.0076 ppb	19:27:13
3	Zn 213.857†	725.1	155.9	0.8753 µg/L	0.8753 ppb	19:27:34

Mean Data: 1202065853|962982|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1731642.4	100.78	%	0.430				0.43%
Sc RADIAL	146316.6	100	%	0.8				0.75%
Y 371.029	1033289.4	100.64	%	0.398				0.40%
Ag 328.068†	-153.4	-0.5671	µg/L	0.25527	-0.5671	ppb	0.25527	45.02%
Al 396.153Radial†	36.9	6.8606	µg/L	1.65325	6.8606	ppb	1.65325	24.10%
As 188.979†	-2.0	-0.6101	µg/L	1.48877	-0.6101	ppb	1.48877	244.04%
B 249.677†	14.4	0.2121	µg/L	1.66016	0.2121	ppb	1.66016	782.81%
Ba 233.527†	76.1	0.3067	µg/L	0.09811	0.3067	ppb	0.09811	31.99%
Be 313.107†	250.6	0.0679	µg/L	0.06037	0.0679	ppb	0.06037	88.88%
Ca 317.933Radial†	338.0	18.830	µg/L	0.3905	18.830	ppb	0.3905	2.07%
Cd 226.502†	18.4	0.1138	µg/L	0.09791	0.1138	ppb	0.09791	86.07%
Co 228.616†	13.3	0.1634	µg/L	0.24725	0.1634	ppb	0.24725	151.36%
Cr 267.716†	4.9	0.0397	µg/L	0.17984	0.0397	ppb	0.17984	453.52%
Cu 324.752†	-11.9	-0.0454	µg/L	0.50435	-0.0454	ppb	0.50435	>999.9%
Fe 238.204 Radial†	169.9	10.470	µg/L	0.6515	10.470	ppb	0.6515	6.22%
K 766.490 Radial†	104.8	38.352	µg/L	25.5640	38.352	ppb	25.5640	66.66%
Mg 279.077 IEC†	7.8	2.8953	µg/L	1.45682	2.8953	ppb	1.45682	50.32%
Mn 257.610†	286.5	0.3544	µg/L	0.01120	0.3544	ppb	0.01120	3.16%
Mo 202.031†	-13.2	-0.3883	µg/L	0.24372	-0.3883	ppb	0.24372	62.76%
Na 589.592 Radial†	354.9	48.453	µg/L	12.1484	48.453	ppb	12.1484	25.07%

Ni 231.604†	-15.0	-0.1724	µg/L	0.06648	-0.1724	ppb	0.06648	38.55%
P 214.914†	15.5	3.3162	µg/L	0.69448	3.3162	ppb	0.69448	20.94%
Pb 220.353†	11.4	0.6372	µg/L	0.43716	0.6372	ppb	0.43716	68.61%
S 181.975 Axial†	7.0	5.1954	µg/L	0.66829	5.1954	ppb	0.66829	12.86%
Sb 206.836†	-1.4	-0.1762	µg/L	1.56220	-0.1762	ppb	1.56220	886.74%
Se 196.026†	7.0	2.55	µg/L	1.946	2.55	ppb	1.946	76.41%
SiO2†	288.9	28.240	µg/L	8.8701	28.240	ppb	8.8701	31.41%
Si 251.611†	880.6	12.983	µg/L	0.6883	12.983	ppb	0.6883	5.30%
Sn 189.927†	10.7	0.6675	µg/L	0.08136	0.6675	ppb	0.08136	12.19%
Sr 421.552†	-88.1	-0.1833	µg/L	0.15356	-0.1833	ppb	0.15356	83.79%
Ti 334.940†	118.8	0.1116	µg/L	0.10883	0.1116	ppb	0.10883	97.48%
Tl 190.801†	0.3	0.0404	µg/L	0.10214	0.0404	ppb	0.10214	252.97%
U 409.014†	-17.4	-0.9997	µg/L	6.79128	-0.9997	ppb	6.79128	679.35%
V 292.402†	51.8	0.2471	µg/L	0.24271	0.2471	ppb	0.24271	98.24%
Zn 213.857†	160.3	0.9006	µg/L	0.02227	0.9006	ppb	0.02227	2.47%

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 19:27:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144745.8	144745.8	99.2	%			19:28:15
1	Al 396.153Radial†	26764.4	27046.5	4991.6	µg/L	4991.6	ppb	19:28:15
1	Ca 317.933Radial†	89467.8	89639.1	4993.2	µg/L	4993.2	ppb	19:28:15
1	Fe 238.204 Radial†	79722.2	80226.2	4944.7	µg/L	4944.7	ppb	19:28:15
1	K 766.490 Radial†	14982.5	13560.3	4960.6	µg/L	4960.6	ppb	19:28:15
1	Mg 279.077 IEC†	13759.9	13681.8	5105.4	µg/L	5105.4	ppb	19:28:15
1	Na 589.592 Radial†	72591.2	71894.2	9817.2	µg/L	9817.2	ppb	19:28:15
1	Sr 421.552†	234529.9	236583.6	491.80	µg/L	491.80	ppb	19:28:12
1	Sc 361.383	1725305.4	1725305.4	100.41	%			19:28:27
1	Y 371.029	1020728.0	1020728.0	99.419	%			19:28:27
1	Ag 328.068†	136300.1	131648.8	493.59	µg/L	493.59	ppb	19:28:27
1	As 188.979†	1633.4	1647.0	505.23	µg/L	505.23	ppb	19:28:47
1	B 249.677†	36849.8	33192.5	487.82	µg/L	487.82	ppb	19:28:27
1	Ba 233.527†	122221.5	121855.2	491.44	µg/L	491.44	ppb	19:28:27
1	Be 313.107†	1820741.4	1814326.2	494.14	µg/L	494.14	ppb	19:28:27
1	Cd 226.502†	78844.9	78639.2	490.90	µg/L	490.90	ppb	19:28:27
1	Co 228.616†	39847.3	39874.0	492.24	µg/L	492.24	ppb	19:28:27
1	Cr 267.716†	62843.9	62407.1	488.65	µg/L	488.65	ppb	19:28:27
1	Cu 324.752†	129009.2	125507.0	489.26	µg/L	489.26	ppb	19:28:27
1	Mn 257.610†	401352.4	399466.3	494.04	µg/L	494.04	ppb	19:28:27
1	Mo 202.031†	16754.7	16705.9	491.42	µg/L	491.42	ppb	19:28:47
1	Ni 231.604†	42787.5	42688.2	491.52	µg/L	491.52	ppb	19:28:27
1	P 214.914†	11575.7	11546.1	2461.1	µg/L	2461.1	ppb	19:28:47
1	Pb 220.353†	8987.5	8864.2	496.39	µg/L	496.39	ppb	19:28:47
1	S 181.975 Axial†	1425.3	1314.4	980.21	µg/L	980.21	ppb	19:28:47
1	Sb 206.836†	4236.7	4138.5	493.11	µg/L	493.11	ppb	19:28:47
1	Se 196.026†	1383.3	1362.3	495	µg/L	495	ppb	19:28:47
1	SiO2†	56481.4	54474.0	5303.3	µg/L	5303.3	ppb	19:28:27
1	Si 251.611†	170572.5	169035.2	2482.3	µg/L	2482.3	ppb	19:28:27
1	Sn 189.927†	7932.0	7900.5	494.17	µg/L	494.17	ppb	19:28:47
1	Ti 334.940†	529379.1	526251.8	491.03	µg/L	491.03	ppb	19:28:27
1	Tl 190.801†	3920.2	4020.8	501.40	µg/L	501.40	ppb	19:28:47
1	U 409.014†	7328.3	7568.1	472.22	µg/L	472.22	ppb	19:28:27
1	V 292.402†	100463.2	99646.7	492.61	µg/L	492.61	ppb	19:28:27
1	Zn 213.857†	88617.6	87689.1	488.73	µg/L	488.73	ppb	19:28:27
2	Sc RADIAL	143128.0	143128.0	98.1	%			19:28:19
2	Al 396.153Radial†	26390.4	26970.3	4977.5	µg/L	4977.5	ppb	19:28:19
2	Ca 317.933Radial†	88547.9	89720.6	4997.8	µg/L	4997.8	ppb	19:28:19
2	Fe 238.204 Radial†	78967.6	80365.3	4953.2	µg/L	4953.2	ppb	19:28:19
2	K 766.490 Radial†	14857.2	13603.3	4976.3	µg/L	4976.3	ppb	19:28:19
2	Mg 279.077 IEC†	13593.0	13668.4	5100.4	µg/L	5100.4	ppb	19:28:19
2	Na 589.592 Radial†	71676.1	71788.4	9802.7	µg/L	9802.7	ppb	19:28:19
2	Sr 421.552†	234348.1	239070.9	496.98	µg/L	496.98	ppb	19:28:17
2	Sc 361.383	1734628.6	1734628.6	100.96	%			19:28:51
2	Y 371.029	1025716.4	1025716.4	99.905	%			19:28:51
2	Ag 328.068†	136816.4	131430.6	492.82	µg/L	492.82	ppb	19:28:51
2	As 188.979†	1631.9	1636.9	502.17	µg/L	502.17	ppb	19:29:11
2	B 249.677†	37069.7	33213.1	488.12	µg/L	488.12	ppb	19:28:51
2	Ba 233.527†	122992.1	121964.3	491.88	µg/L	491.88	ppb	19:28:51
2	Be 313.107†	1838526.2	1822196.9	496.29	µg/L	496.29	ppb	19:28:51
2	Cd 226.502†	79892.7	79255.0	494.75	µg/L	494.75	ppb	19:28:51
2	Co 228.616†	40292.1	40101.3	495.05	µg/L	495.05	ppb	19:28:51
2	Cr 267.716†	63389.6	62611.4	490.23	µg/L	490.23	ppb	19:28:51
2	Cu 324.752†	129959.6	125757.9	490.25	µg/L	490.25	ppb	19:28:51
2	Mn 257.610†	404701.1	400635.0	495.49	µg/L	495.49	ppb	19:28:51
2	Mo 202.031†	16826.1	16687.0	490.86	µg/L	490.86	ppb	19:29:11
2	Ni 231.604†	43211.3	42879.0	493.72	µg/L	493.72	ppb	19:28:51
2	P 214.914†	11647.2	11554.9	2462.9	µg/L	2462.9	ppb	19:29:11
2	Pb 220.353†	9025.0	8853.2	495.76	µg/L	495.76	ppb	19:29:11

2	S 181.975 Axial†	1448.9	1330.1	991.87 µg/L	991.87 ppb	19:29:11
2	Sb 206.836†	4260.0	4138.9	493.13 µg/L	493.13 ppb	19:29:11
2	Se 196.026†	1384.1	1355.7	492 µg/L	492 ppb	19:29:11
2	SiO2†	56922.3	54608.4	5316.4 µg/L	5316.4 ppb	19:28:51
2	Si 251.611†	172250.5	169784.3	2493.3 µg/L	2493.3 ppb	19:28:51
2	Sn 189.927†	7982.8	7908.4	494.67 µg/L	494.67 ppb	19:29:11
2	Ti 334.940†	533116.5	527120.2	491.83 µg/L	491.83 ppb	19:28:51
2	Tl 190.801†	3941.1	4020.5	501.37 µg/L	501.37 ppb	19:29:11
2	U 409.014†	7625.6	7823.4	487.25 µg/L	487.25 ppb	19:28:51
2	V 292.402†	101346.4	99983.8	494.26 µg/L	494.26 ppb	19:28:51
2	Zn 213.857†	89423.9	88013.5	490.54 µg/L	490.54 ppb	19:28:51
3	Sc RADIAL	145496.7	145496.7	99.7 %		19:28:23
3	Al 396.153Radial†	26858.9	27002.0	4983.3 µg/L	4983.3 ppb	19:28:23
3	Ca 317.933Radial†	90156.6	89864.4	5005.8 µg/L	5005.8 ppb	19:28:23
3	Fe 238.204 Radial†	80315.1	80406.1	4955.7 µg/L	4955.7 ppb	19:28:23
3	K 766.490 Radial†	15083.0	13583.2	4968.9 µg/L	4968.9 ppb	19:28:23
3	Mg 279.077 IEC†	13878.0	13728.6	5122.9 µg/L	5122.9 ppb	19:28:23
3	Na 589.592 Radial†	72879.8	71805.9	9805.1 µg/L	9805.1 ppb	19:28:23
3	Sr 421.552†	234221.7	235054.0	488.62 µg/L	488.62 ppb	19:28:21
3	Sc 361.383	1725210.5	1725210.5	100.41 %		19:29:14
3	Y 371.029	1019973.4	1019973.4	99.346 %		19:29:14
3	Ag 328.068†	135997.1	131354.5	492.51 µg/L	492.51 ppb	19:29:14
3	As 188.979†	1616.1	1629.9	500.07 µg/L	500.07 ppb	19:29:34
3	B 249.677†	36719.7	33065.0	485.94 µg/L	485.94 ppb	19:29:14
3	Ba 233.527†	122082.7	121723.7	490.91 µg/L	490.91 ppb	19:29:14
3	Be 313.107†	1823924.9	1817596.6	495.03 µg/L	495.03 ppb	19:29:14
3	Cd 226.502†	79138.6	78936.0	492.75 µg/L	492.75 ppb	19:29:14
3	Co 228.616†	39917.6	39946.1	493.13 µg/L	493.13 ppb	19:29:14
3	Cr 267.716†	63023.3	62589.2	490.08 µg/L	490.08 ppb	19:29:14
3	Cu 324.752†	129255.3	125759.2	490.24 µg/L	490.24 ppb	19:29:14
3	Mn 257.610†	401870.3	400004.1	494.71 µg/L	494.71 ppb	19:29:14
3	Mo 202.031†	16781.3	16733.4	492.23 µg/L	492.23 ppb	19:29:34
3	Ni 231.604†	42953.4	42855.8	493.45 µg/L	493.45 ppb	19:29:14
3	P 214.914†	11608.1	11579.0	2468.1 µg/L	2468.1 ppb	19:29:34
3	Pb 220.353†	9009.0	8886.1	497.61 µg/L	497.61 ppb	19:29:34
3	S 181.975 Axial†	1440.9	1330.0	991.78 µg/L	991.78 ppb	19:29:34
3	Sb 206.836†	4230.2	4132.2	492.36 µg/L	492.36 ppb	19:29:34
3	Se 196.026†	1386.3	1365.4	496 µg/L	496 ppb	19:29:34
3	SiO2†	56734.1	54728.8	5328.1 µg/L	5328.1 ppb	19:29:14
3	Si 251.611†	171053.5	169523.6	2489.4 µg/L	2489.4 ppb	19:29:14
3	Sn 189.927†	7957.3	7926.1	495.77 µg/L	495.77 ppb	19:29:34
3	Ti 334.940†	529976.9	526876.1	491.61 µg/L	491.61 ppb	19:29:14
3	Tl 190.801†	3905.9	4006.8	499.68 µg/L	499.68 ppb	19:29:34
3	U 409.014†	7243.0	7483.6	467.35 µg/L	467.35 ppb	19:29:14
3	V 292.402†	100691.8	99879.9	493.76 µg/L	493.76 ppb	19:29:14
3	Zn 213.857†	88689.8	87765.9	489.15 µg/L	489.15 ppb	19:29:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1728381.5	100.59	%	0.315				0.31%
Sc RADIAL	144456.8	99.0	%	0.83				0.84%
Y 371.029	1022139.3	99.557	%	0.3040				0.31%
Ag 328.068†	131478.0	492.97	µg/L	0.557	492.97	ppb	0.557	0.11%
QC value within limits for Ag 328.068 Recovery = 98.59%								
Al 396.153Radial†	27006.3	4984.1	µg/L	7.09	4984.1	ppb	7.09	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.68%								
As 188.979†	1637.9	502.49	µg/L	2.596	502.49	ppb	2.596	0.52%
QC value within limits for As 188.979 Recovery = 100.50%								
B 249.677†	33156.9	487.29	µg/L	1.181	487.29	ppb	1.181	0.24%
QC value within limits for B 249.677 Recovery = 97.46%								
Ba 233.527†	121847.7	491.41	µg/L	0.486	491.41	ppb	0.486	0.10%
QC value within limits for Ba 233.527 Recovery = 98.28%								
Be 313.107†	1818039.9	495.15	µg/L	1.079	495.15	ppb	1.079	0.22%
QC value within limits for Be 313.107 Recovery = 99.03%								
Ca 317.933Radial†	89741.4	4998.9	µg/L	6.35	4998.9	ppb	6.35	0.13%
QC value within limits for Ca 317.933Radial Recovery = 99.98%								
Cd 226.502†	78943.4	492.80	µg/L	1.924	492.80	ppb	1.924	0.39%
QC value within limits for Cd 226.502 Recovery = 98.56%								
Co 228.616†	39973.8	493.47	µg/L	1.433	493.47	ppb	1.433	0.29%

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   QC value within limits for Co 228.616  Recovery = 98.69%
Cr 267.716†            62535.9      489.65 µg/L         0.875      489.65 ppb          0.875   0.18%
   QC value within limits for Cr 267.716  Recovery = 97.93%
Cu 324.752†           125674.7      489.91 µg/L         0.568      489.91 ppb          0.568   0.12%
   QC value within limits for Cu 324.752  Recovery = 97.98%
Fe 238.204 Radial†     80332.5      4951.2 µg/L          5.81      4951.2 ppb           5.81   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.02%
K 766.490 Radial†      13582.3      4968.6 µg/L          7.88      4968.6 ppb           7.88   0.16%
   QC value within limits for K 766.490 Radial  Recovery = 99.37%
Mg 279.077 IEC†        13692.9      5109.5 µg/L         11.80      5109.5 ppb          11.80   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.19%
Mn 257.610†           400035.1      494.75 µg/L         0.724      494.75 ppb          0.724   0.15%
   QC value within limits for Mn 257.610  Recovery = 98.95%
Mo 202.031†            16708.8      491.50 µg/L         0.686      491.50 ppb          0.686   0.14%
   QC value within limits for Mo 202.031  Recovery = 98.30%
Na 589.592 Radial†     71829.5      9808.4 µg/L          7.75      9808.4 ppb           7.75   0.08%
   QC value within limits for Na 589.592 Radial  Recovery = 98.08%
Ni 231.604†            42807.7      492.90 µg/L         1.199      492.90 ppb          1.199   0.24%
   QC value within limits for Ni 231.604  Recovery = 98.58%
P 214.914†             11560.0      2464.0 µg/L          3.63      2464.0 ppb           3.63   0.15%
   QC value within limits for P 214.914  Recovery = 98.56%
Pb 220.353†             8867.8      496.59 µg/L         0.942      496.59 ppb          0.942   0.19%
   QC value within limits for Pb 220.353  Recovery = 99.32%
S 181.975 Axial†        1324.9      987.95 µg/L         6.702      987.95 ppb          6.702   0.68%
   QC value within limits for S 181.975 Axial  Recovery = 98.80%
Sb 206.836†             4136.5      492.87 µg/L         0.436      492.87 ppb          0.436   0.09%
   QC value within limits for Sb 206.836  Recovery = 98.57%
Se 196.026†             1361.2         494 µg/L           1.8         494 ppb            1.8   0.36%
   QC value within limits for Se 196.026  Recovery = 98.85%
SiO2†                  54603.7      5315.9 µg/L         12.44      5315.9 ppb          12.44   0.23%
   QC value within limits for SiO2  Recovery = 99.41%
Si 251.611†           169447.7      2488.3 µg/L          5.61      2488.3 ppb           5.61   0.23%
   QC value within limits for Si 251.611  Recovery = 99.53%
Sn 189.927†             7911.7      494.87 µg/L         0.819      494.87 ppb          0.819   0.17%
   QC value within limits for Sn 189.927  Recovery = 98.97%
Sr 421.552†           236902.8      492.47 µg/L         4.215      492.47 ppb          4.215   0.86%
   QC value within limits for Sr 421.552  Recovery = 98.49%
Ti 334.940†           526749.4      491.49 µg/L         0.416      491.49 ppb          0.416   0.08%
   QC value within limits for Ti 334.940  Recovery = 98.30%
Tl 190.801†             4016.0      500.82 µg/L         0.981      500.82 ppb          0.981   0.20%
   QC value within limits for Tl 190.801  Recovery = 100.16%
U 409.014†              7625.0      475.61 µg/L        10.374      475.61 ppb         10.374   2.18%
   QC value within limits for U 409.014  Recovery = 95.12%
V 292.402†             99836.8      493.54 µg/L         0.847      493.54 ppb          0.847   0.17%
   QC value within limits for V 292.402  Recovery = 98.71%
Zn 213.857†            87822.9      489.47 µg/L         0.946      489.47 ppb          0.946   0.19%
   QC value within limits for Zn 213.857  Recovery = 97.89%
All analyte(s) passed QC.
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Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:29:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145475.6	145475.6	99.7	%			19:30:11
1	Al 396.153Radial†	-75.1	-12.2	-2.2232	µg/L	-2.2232	ppb	19:30:31
1	Ca 317.933Radial†	587.7	29.0	1.6154	µg/L	1.6154	ppb	19:30:31
1	Fe 238.204 Radial†	164.7	17.2	1.0571	µg/L	1.0571	ppb	19:30:31
1	K 766.490 Radial†	1612.2	72.5	26.524	µg/L	26.524	ppb	19:30:11
1	Mg 279.077 IEC†	187.3	-2.8	-1.0689	µg/L	-1.0689	ppb	19:30:31
1	Na 589.592 Radial†	1489.8	203.6	27.794	µg/L	27.794	ppb	19:30:11
1	Sr 421.552†	-307.3	-173.0	-0.3597	µg/L	-0.3597	ppb	19:30:11
1	Sc 361.383	1698492.9	1698492.9	98.852	%			19:31:33
1	Y 371.029	1016683.6	1016683.6	99.025	%			19:31:33
1	Ag 328.068†	3801.1	-246.1	-0.8975	µg/L	-0.8975	ppb	19:31:35
1	As 188.979†	-17.7	2.5	0.7531	µg/L	0.7531	ppb	19:31:55
1	B 249.677†	3427.3	-38.8	-0.5719	µg/L	-0.5719	ppb	19:31:35
1	Ba 233.527†	-135.5	-1.2	-0.0047	µg/L	-0.0047	ppb	19:31:55
1	Be 313.107†	-787.7	267.8	0.0745	µg/L	0.0745	ppb	19:31:35
1	Cd 226.502†	-126.1	-9.3	-0.0586	µg/L	-0.0586	ppb	19:31:55
1	Co 228.616†	-187.3	0.8	0.0098	µg/L	0.0098	ppb	19:31:55
1	Cr 267.716†	185.7	9.3	0.0694	µg/L	0.0694	ppb	19:31:55
1	Cu 324.752†	2920.3	-18.0	-0.0655	µg/L	-0.0655	ppb	19:31:35
1	Mn 257.610†	272.9	38.8	0.0481	µg/L	0.0481	ppb	19:31:55
1	Mo 202.031†	-42.5	-22.9	-0.6735	µg/L	-0.6735	ppb	19:31:55
1	Ni 231.604†	-89.8	-14.3	-0.1646	µg/L	-0.1646	ppb	19:31:55
1	P 214.914†	-7.3	10.6	2.2741	µg/L	2.2741	ppb	19:31:55
1	Pb 220.353†	105.5	20.3	1.1296	µg/L	1.1296	ppb	19:31:55
1	S 181.975 Axial†	107.5	3.7	2.7631	µg/L	2.7631	ppb	19:31:55
1	Sb 206.836†	82.4	2.5	0.2868	µg/L	0.2868	ppb	19:31:55
1	Se 196.026†	15.9	0.8	0.284	µg/L	0.284	ppb	19:31:55
1	SiO2†	1750.8	-4.2	-0.4021	µg/L	-0.4021	ppb	19:31:55
1	Si 251.611†	831.1	4.2	0.0667	µg/L	0.0667	ppb	19:31:35
1	Sn 189.927†	9.7	11.0	0.6833	µg/L	0.6833	ppb	19:31:55
1	Ti 334.940†	1069.9	129.8	0.1193	µg/L	0.1193	ppb	19:31:35
1	Tl 190.801†	-107.7	7.8	0.9584	µg/L	0.9584	ppb	19:31:55
1	U 409.014†	-179.0	88.9	5.2323	µg/L	5.2323	ppb	19:31:35
1	V 292.402†	528.0	130.3	0.6323	µg/L	0.6323	ppb	19:31:35
1	Zn 213.857†	590.7	33.1	0.1869	µg/L	0.1869	ppb	19:31:55
2	Sc RADIAL	144319.0	144319.0	98.9	%			19:30:33
2	Al 396.153Radial†	-78.7	-16.4	-3.0556	µg/L	-3.0556	ppb	19:30:53
2	Ca 317.933Radial†	611.2	57.5	3.2020	µg/L	3.2020	ppb	19:30:53
2	Fe 238.204 Radial†	171.3	25.1	1.5453	µg/L	1.5453	ppb	19:30:53
2	K 766.490 Radial†	1571.9	44.7	16.347	µg/L	16.347	ppb	19:30:33
2	Mg 279.077 IEC†	180.9	-7.8	-2.8873	µg/L	-2.8873	ppb	19:30:53
2	Na 589.592 Radial†	1390.8	115.6	15.771	µg/L	15.771	ppb	19:30:33
2	Sr 421.552†	-219.7	-86.8	-0.1805	µg/L	-0.1805	ppb	19:30:33
2	Sc 361.383	1734133.7	1734133.7	100.93	%			19:31:58
2	Y 371.029	1037702.6	1037702.6	101.07	%			19:31:58
2	Ag 328.068†	3823.7	-302.8	-1.1204	µg/L	-1.1204	ppb	19:32:00
2	As 188.979†	-14.9	5.6	1.6918	µg/L	1.6918	ppb	19:32:20
2	B 249.677†	3536.1	-2.3	-0.0340	µg/L	-0.0340	ppb	19:32:00
2	Ba 233.527†	-136.5	0.6	0.0024	µg/L	0.0024	ppb	19:32:20
2	Be 313.107†	-795.6	276.4	0.0756	µg/L	0.0756	ppb	19:32:00
2	Cd 226.502†	-86.6	32.4	0.2024	µg/L	0.2024	ppb	19:32:20
2	Co 228.616†	-173.2	18.7	0.2305	µg/L	0.2305	ppb	19:32:20
2	Cr 267.716†	178.6	-1.6	-0.0131	µg/L	-0.0131	ppb	19:32:20
2	Cu 324.752†	2720.4	-276.8	-1.0746	µg/L	-1.0746	ppb	19:32:00
2	Mn 257.610†	233.8	-5.6	-0.0068	µg/L	-0.0068	ppb	19:32:20
2	Mo 202.031†	-11.0	9.2	0.2711	µg/L	0.2711	ppb	19:32:20
2	Ni 231.604†	-67.5	9.6	0.1106	µg/L	0.1106	ppb	19:32:20
2	P 214.914†	-23.6	-5.5	-1.1584	µg/L	-1.1584	ppb	19:32:20
2	Pb 220.353†	95.4	8.1	0.4532	µg/L	0.4532	ppb	19:32:20

2	S 181.975 Axial†	102.0	-4.0	-2.9595 µg/L	-2.9595 ppb	19:32:20
2	Sb 206.836†	80.5	-1.1	-0.1231 µg/L	-0.1231 ppb	19:32:20
2	Se 196.026†	11.1	-4.2	-1.53 µg/L	-1.53 ppb	19:32:20
2	SiO2†	1780.0	-11.7	-1.1573 µg/L	-1.1573 ppb	19:32:20
2	Si 251.611†	833.5	-10.8	-0.1648 µg/L	-0.1648 ppb	19:32:00
2	Sn 189.927†	4.9	6.0	0.3748 µg/L	0.3748 ppb	19:32:20
2	Ti 334.940†	959.8	-1.5	-0.0015 µg/L	-0.0015 ppb	19:32:00
2	Tl 190.801†	-121.4	-3.6	-0.4439 µg/L	-0.4439 ppb	19:32:20
2	U 409.014†	-253.2	19.1	1.1109 µg/L	1.1109 ppb	19:32:00
2	V 292.402†	396.6	-10.8	-0.0495 µg/L	-0.0495 ppb	19:32:00
2	Zn 213.857†	608.7	38.7	0.2171 µg/L	0.2171 ppb	19:32:20
3	Sc RADIAL	143412.5	143412.5	98.3 %		19:30:55
3	Al 396.153Radial†	-61.2	0.9	0.1676 µg/L	0.1676 ppb	19:31:15
3	Ca 317.933Radial†	592.5	42.3	2.3561 µg/L	2.3561 ppb	19:31:15
3	Fe 238.204 Radial†	168.4	23.2	1.4324 µg/L	1.4324 ppb	19:31:15
3	K 766.490 Radial†	1616.9	100.5	36.805 µg/L	36.805 ppb	19:30:55
3	Mg 279.077 IEC†	171.0	-16.7	-6.2040 µg/L	-6.2040 ppb	19:31:15
3	Na 589.592 Radial†	1303.8	35.9	4.8761 µg/L	4.8761 ppb	19:30:55
3	Sr 421.552†	-236.1	-105.0	-0.2183 µg/L	-0.2183 ppb	19:30:55
3	Sc 361.383	1715805.0	1715805.0	99.860 %		19:32:22
3	Y 371.029	1026242.1	1026242.1	99.956 %		19:32:22
3	Ag 328.068†	4010.0	-75.8	-0.2851 µg/L	-0.2851 ppb	19:32:24
3	As 188.979†	-13.5	6.8	2.0688 µg/L	2.0688 ppb	19:32:44
3	B 249.677†	3513.5	12.5	0.1850 µg/L	0.1850 ppb	19:32:24
3	Ba 233.527†	-128.9	6.8	0.0274 µg/L	0.0274 ppb	19:32:44
3	Be 313.107†	-697.9	365.9	0.0986 µg/L	0.0986 ppb	19:32:24
3	Cd 226.502†	-106.1	12.0	0.0747 µg/L	0.0747 ppb	19:32:44
3	Co 228.616†	-189.4	0.6	0.0078 µg/L	0.0078 ppb	19:32:44
3	Cr 267.716†	196.4	18.1	0.1446 µg/L	0.1446 ppb	19:32:44
3	Cu 324.752†	2902.2	-65.9	-0.2591 µg/L	-0.2591 ppb	19:32:24
3	Mn 257.610†	273.8	36.9	0.0459 µg/L	0.0459 ppb	19:32:44
3	Mo 202.031†	-16.2	3.9	0.1137 µg/L	0.1137 ppb	19:32:44
3	Ni 231.604†	-88.7	-12.3	-0.1412 µg/L	-0.1412 ppb	19:32:44
3	P 214.914†	-24.0	-6.1	-1.2988 µg/L	-1.2988 ppb	19:32:44
3	Pb 220.353†	103.9	17.7	0.9897 µg/L	0.9897 ppb	19:32:44
3	S 181.975 Axial†	107.4	2.5	1.8491 µg/L	1.8491 ppb	19:32:44
3	Sb 206.836†	83.4	2.7	0.3244 µg/L	0.3244 ppb	19:32:44
3	Se 196.026†	19.7	4.5	1.61 µg/L	1.61 ppb	19:32:44
3	SiO2†	1808.2	35.4	3.4538 µg/L	3.4538 ppb	19:32:44
3	Si 251.611†	977.1	141.9	2.0894 µg/L	2.0894 ppb	19:32:24
3	Sn 189.927†	2.2	3.3	0.2061 µg/L	0.2061 ppb	19:32:44
3	Ti 334.940†	999.8	48.7	0.0474 µg/L	0.0474 ppb	19:32:24
3	Tl 190.801†	-111.5	5.0	0.6198 µg/L	0.6198 ppb	19:32:44
3	U 409.014†	-328.9	-59.4	-3.4761 µg/L	-3.4761 ppb	19:32:24
3	V 292.402†	400.2	-3.0	-0.0153 µg/L	-0.0153 ppb	19:32:24
3	Zn 213.857†	599.5	35.9	0.2028 µg/L	0.2028 ppb	19:32:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716143.9	99.879	%	1.0373				1.04%
Sc RADIAL	144402.4	99.0	%	0.71				0.72%
Y 371.029	1026876.1	100.02	%	1.025				1.02%
Ag 328.068†	-208.2	-0.7677	µg/L	0.43252	-0.7677	ppb	0.43252	56.34%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.2	-1.7037	µg/L	1.67317	-1.7037	ppb	1.67317	98.21%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.0	1.5046	µg/L	0.67750	1.5046	ppb	0.67750	45.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-9.5	-0.1403	µg/L	0.38951	-0.1403	ppb	0.38951	277.57%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0084	µg/L	0.01681	0.0084	ppb	0.01681	200.54%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	303.4	0.0829	µg/L	0.01359	0.0829	ppb	0.01359	16.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	42.9	2.3912	µg/L	0.79388	2.3912	ppb	0.79388	33.20%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.7	0.0728	µg/L	0.13050	0.0728	ppb	0.13050	179.15%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.7	0.0827	µg/L	0.12800	0.0827	ppb	0.12800	154.81%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.6      0.0669 µg/L       0.07889      0.0669 ppb        0.07889 117.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -120.3     -0.4664 µg/L       0.53553     -0.4664 ppb        0.53553 114.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         21.8      1.3449 µg/L       0.25554      1.3449 ppb        0.25554  19.00%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          72.5      26.559 µg/L       10.2293      26.559 ppb        10.2293  38.52%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -9.1     -3.3867 µg/L       2.60377     -3.3867 ppb        2.60377  76.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                23.4      0.0291 µg/L       0.03107      0.0291 ppb        0.03107 106.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.3     -0.0962 µg/L       0.50606     -0.0962 ppb        0.50606 525.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        118.4      16.147 µg/L       11.4636      16.147 ppb        11.4636  70.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.7     -0.0651 µg/L       0.15260     -0.0651 ppb        0.15260 234.56%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.3     -0.0611 µg/L       2.02349     -0.0611 ppb        2.02349 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.4      0.8575 µg/L       0.35710      0.8575 ppb        0.35710  41.64%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.7      0.5509 µg/L       3.07426      0.5509 ppb        3.07426 558.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.4      0.1627 µg/L       0.24819      0.1627 ppb        0.24819 152.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.3       0.122 µg/L        1.5761       0.122 ppb         1.5761 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       6.5      0.6315 µg/L       2.47323      0.6315 ppb        2.47323 391.67%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                45.1      0.6638 µg/L       1.24006      0.6638 ppb        1.24006 186.82%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.8      0.4214 µg/L       0.24200      0.4214 ppb        0.24200  57.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -121.6     -0.2528 µg/L       0.09445     -0.2528 ppb        0.09445  37.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                59.0      0.0550 µg/L       0.06076      0.0550 ppb        0.06076 110.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.1      0.3781 µg/L       0.73174      0.3781 ppb        0.73174 193.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 16.2      0.9557 µg/L       4.35630      0.9557 ppb        4.35630 455.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 38.8      0.1892 µg/L       0.38415      0.1892 ppb        0.38415 203.07%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                35.9      0.2023 µg/L       0.01507      0.2023 ppb        0.01507   7.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: 248861002|962982|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 123
Date Collected: 3/31/2010 19:44:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248861002|962982|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142280.8	142280.8	97.5	%			19:45:26
1	Al 396.153Radial†	-65.4	-3.8	-0.7083	µg/L	-0.7083	ppb	19:45:46
1	Ca 317.933Radial†	670.9	127.5	7.1041	µg/L	7.1041	ppb	19:45:46
1	Fe 238.204 Radial†	344.7	205.4	12.662	µg/L	12.662	ppb	19:45:46
1	K 766.490 Radial†	1527.3	21.7	7.9471	µg/L	7.9471	ppb	19:45:26
1	Mg 279.077 IEC†	179.2	-6.9	-2.5983	µg/L	-2.5983	ppb	19:45:46
1	Na 589.592 Radial†	1193.7	-66.5	-9.0956	µg/L	-9.0956	ppb	19:45:26
1	Sr 421.552†	-201.7	-71.6	-0.1490	µg/L	-0.1490	ppb	19:45:26
1	Sc 361.383	1729273.1	1729273.1	100.64	%			19:46:48
1	Y 371.029	1031670.7	1031670.7	100.49	%			19:46:48
1	Ag 328.068†	4030.4	-86.7	-0.3360	µg/L	-0.3360	ppb	19:46:50
1	As 188.979†	-13.0	7.4	2.2400	µg/L	2.2400	ppb	19:47:10
1	B 249.677†	3541.3	12.8	0.1884	µg/L	0.1884	ppb	19:46:50
1	Ba 233.527†	-142.2	-5.5	-0.0227	µg/L	-0.0227	ppb	19:47:10
1	Be 313.107†	-1165.8	-93.7	-0.0269	µg/L	-0.0269	ppb	19:46:50
1	Cd 226.502†	-116.4	2.6	0.0146	µg/L	0.0146	ppb	19:47:10
1	Co 228.616†	-199.8	-8.2	-0.1018	µg/L	-0.1018	ppb	19:47:10
1	Cr 267.716†	192.4	12.6	0.1021	µg/L	0.1021	ppb	19:47:10
1	Cu 324.752†	2863.0	-127.6	-0.4978	µg/L	-0.4978	ppb	19:46:50
1	Mn 257.610†	375.3	135.6	0.1679	µg/L	0.1679	ppb	19:47:10
1	Mo 202.031†	-23.0	-2.8	-0.0810	µg/L	-0.0810	ppb	19:47:10
1	Ni 231.604†	-99.6	-22.4	-0.2579	µg/L	-0.2579	ppb	19:47:10
1	P 214.914†	-0.9	17.0	3.6436	µg/L	3.6436	ppb	19:47:10
1	Pb 220.353†	37.1	-49.5	-2.7586	µg/L	-2.7586	ppb	19:47:10
1	S 181.975 Axial†	102.5	-3.2	-2.3930	µg/L	-2.3930	ppb	19:47:10
1	Sb 206.836†	90.4	9.0	1.0611	µg/L	1.0611	ppb	19:47:10
1	Se 196.026†	33.2	17.7	6.41	µg/L	6.41	ppb	19:47:10
1	SiO2†	1897.3	109.8	10.726	µg/L	10.726	ppb	19:47:10
1	Si 251.611†	1195.2	351.0	5.1721	µg/L	5.1721	ppb	19:46:50
1	Sn 189.927†	8.4	9.4	0.5888	µg/L	0.5888	ppb	19:47:10
1	Ti 334.940†	928.4	-30.1	-0.0259	µg/L	-0.0259	ppb	19:46:50
1	Tl 190.801†	-108.6	8.8	1.0758	µg/L	1.0758	ppb	19:47:10
1	U 409.014†	-350.8	-78.7	-4.6466	µg/L	-4.6466	ppb	19:46:50
1	V 292.402†	253.6	-151.8	-0.7455	µg/L	-0.7455	ppb	19:46:50
1	Zn 213.857†	759.3	190.0	1.0680	µg/L	1.0680	ppb	19:47:10
2	Sc RADIAL	144072.7	144072.7	98.7	%			19:45:48
2	Al 396.153Radial†	-46.6	16.0	2.9734	µg/L	2.9734	ppb	19:46:08
2	Ca 317.933Radial†	668.5	116.6	6.4925	µg/L	6.4925	ppb	19:46:08
2	Fe 238.204 Radial†	336.6	192.8	11.883	µg/L	11.883	ppb	19:46:08
2	K 766.490 Radial†	1566.9	42.3	15.480	µg/L	15.480	ppb	19:45:48
2	Mg 279.077 IEC†	172.1	-16.3	-6.1064	µg/L	-6.1064	ppb	19:46:08
2	Na 589.592 Radial†	1338.7	65.1	8.8863	µg/L	8.8863	ppb	19:45:48
2	Sr 421.552†	-150.6	-17.3	-0.0359	µg/L	-0.0359	ppb	19:45:48
2	Sc 361.383	1713843.2	1713843.2	99.745	%			19:47:13
2	Y 371.029	1021598.1	1021598.1	99.504	%			19:47:13
2	Ag 328.068†	3914.4	-167.0	-0.6089	µg/L	-0.6089	ppb	19:47:15
2	As 188.979†	-5.8	14.6	4.4103	µg/L	4.4103	ppb	19:47:35
2	B 249.677†	3625.4	128.8	1.9000	µg/L	1.9000	ppb	19:47:15
2	Ba 233.527†	-120.6	15.0	0.0596	µg/L	0.0596	ppb	19:47:35
2	Be 313.107†	-931.1	131.2	0.0406	µg/L	0.0406	ppb	19:47:15
2	Cd 226.502†	-124.4	-6.5	-0.0417	µg/L	-0.0417	ppb	19:47:35
2	Co 228.616†	-197.3	-7.5	-0.0930	µg/L	-0.0930	ppb	19:47:35
2	Cr 267.716†	202.8	24.8	0.1816	µg/L	0.1816	ppb	19:47:35
2	Cu 324.752†	3074.9	110.5	0.4443	µg/L	0.4443	ppb	19:47:15
2	Mn 257.610†	361.1	124.8	0.1546	µg/L	0.1546	ppb	19:47:35
2	Mo 202.031†	-29.1	-9.1	-0.2664	µg/L	-0.2664	ppb	19:47:35
2	Ni 231.604†	-72.8	3.5	0.0404	µg/L	0.0404	ppb	19:47:35
2	P 214.914†	5.5	23.5	5.0222	µg/L	5.0222	ppb	19:47:35
2	Pb 220.353†	89.0	2.8	0.1439	µg/L	0.1439	ppb	19:47:35

2	S 181.975 Axial†	109.6	4.8	3.5980 µg/L	3.5980 ppb	19:47:35
2	Sb 206.836†	84.1	3.5	0.4093 µg/L	0.4093 ppb	19:47:35
2	Se 196.026†	27.5	12.3	4.47 µg/L	4.47 ppb	19:47:35
2	SiO2†	1837.2	66.5	6.4924 µg/L	6.4924 ppb	19:47:35
2	Si 251.611†	1225.6	392.1	5.7785 µg/L	5.7785 ppb	19:47:15
2	Sn 189.927†	13.9	15.1	0.9400 µg/L	0.9400 ppb	19:47:35
2	Ti 334.940†	906.7	-43.5	-0.0466 µg/L	-0.0466 ppb	19:47:15
2	Tl 190.801†	-139.8	-23.5	-2.8880 µg/L	-2.8880 ppb	19:47:35
2	U 409.014†	5.9	275.8	16.077 µg/L	16.077 ppb	19:47:15
2	V 292.402†	230.5	-172.7	-0.8348 µg/L	-0.8348 ppb	19:47:15
2	Zn 213.857†	746.1	183.6	1.0296 µg/L	1.0296 ppb	19:47:35
3	Sc RADIAL	141864.4	141864.4	97.2 %		19:46:10
3	Al 396.153Radial†	-21.7	40.9	7.5842 µg/L	7.5842 ppb	19:46:30
3	Ca 317.933Radial†	685.6	144.6	8.0567 µg/L	8.0567 ppb	19:46:30
3	Fe 238.204 Radial†	332.0	193.4	11.920 µg/L	11.920 ppb	19:46:30
3	K 766.490 Radial†	1598.1	99.1	36.276 µg/L	36.276 ppb	19:46:10
3	Mg 279.077 IEC†	164.9	-21.0	-7.8561 µg/L	-7.8561 ppb	19:46:30
3	Na 589.592 Radial†	1221.0	-34.8	-4.7900 µg/L	-4.7900 ppb	19:46:10
3	Sr 421.552†	-27.7	106.7	0.2219 µg/L	0.2219 ppb	19:46:10
3	Sc 361.383	1696659.8	1696659.8	98.745 %		19:47:37
3	Y 371.029	1013044.1	1013044.1	98.671 %		19:47:37
3	Ag 328.068†	3988.1	-52.6	-0.2113 µg/L	-0.2113 ppb	19:47:39
3	As 188.979†	-22.0	-1.9	-0.5751 µg/L	-0.5751 ppb	19:47:59
3	B 249.677†	3530.8	69.8	1.0283 µg/L	1.0283 ppb	19:47:39
3	Ba 233.527†	-137.2	-3.1	-0.0132 µg/L	-0.0132 ppb	19:47:59
3	Be 313.107†	-973.4	78.9	0.0205 µg/L	0.0205 ppb	19:47:39
3	Cd 226.502†	-108.8	8.0	0.0488 µg/L	0.0488 ppb	19:47:59
3	Co 228.616†	-169.8	18.4	0.2260 µg/L	0.2260 ppb	19:47:59
3	Cr 267.716†	181.9	5.7	0.0471 µg/L	0.0471 ppb	19:47:59
3	Cu 324.752†	2862.3	-73.5	-0.2866 µg/L	-0.2866 ppb	19:47:39
3	Mn 257.610†	384.3	151.9	0.1882 µg/L	0.1882 ppb	19:47:59
3	Mo 202.031†	-24.6	-4.9	-0.1436 µg/L	-0.1436 ppb	19:47:59
3	Ni 231.604†	-105.8	-30.7	-0.3529 µg/L	-0.3529 ppb	19:47:59
3	P 214.914†	6.1	24.1	5.1695 µg/L	5.1695 ppb	19:47:59
3	Pb 220.353†	101.8	16.7	0.9368 µg/L	0.9368 ppb	19:47:59
3	S 181.975 Axial†	92.9	-11.0	-8.1641 µg/L	-8.1641 ppb	19:47:59
3	Sb 206.836†	89.2	9.5	1.1260 µg/L	1.1260 ppb	19:47:59
3	Se 196.026†	18.6	3.6	1.29 µg/L	1.29 ppb	19:47:59
3	SiO2†	1895.4	144.2	14.080 µg/L	14.080 ppb	19:47:59
3	Si 251.611†	1231.7	410.8	6.0517 µg/L	6.0517 ppb	19:47:39
3	Sn 189.927†	15.7	17.0	1.0606 µg/L	1.0606 ppb	19:47:59
3	Ti 334.940†	933.5	-7.2	-0.0046 µg/L	-0.0046 ppb	19:47:39
3	Tl 190.801†	-103.2	12.1	1.4841 µg/L	1.4841 ppb	19:47:59
3	U 409.014†	-320.9	-55.1	-3.2790 µg/L	-3.2790 ppb	19:47:39
3	V 292.402†	194.5	-206.9	-1.0139 µg/L	-1.0139 ppb	19:47:39
3	Zn 213.857†	742.6	187.7	1.0555 µg/L	1.0555 ppb	19:47:59

Mean Data: 248861002|962982|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1713258.7	99.711	%	0.9495				0.95%
Sc RADIAL	142739.3	97.8	%	0.80				0.82%
Y 371.029	1022104.3	99.553	%	0.9081				0.91%
Ag 328.068†	-102.1	-0.3854	µg/L	0.20335	-0.3854	ppb	0.20335	52.77%
Al 396.153Radial†	17.7	3.2831	µg/L	4.15488	3.2831	ppb	4.15488	126.55%
As 188.979†	6.7	2.0250	µg/L	2.49964	2.0250	ppb	2.49964	123.44%
B 249.677†	70.4	1.0389	µg/L	0.85581	1.0389	ppb	0.85581	82.38%
Ba 233.527†	2.1	0.0079	µg/L	0.04501	0.0079	ppb	0.04501	570.64%
Be 313.107†	38.8	0.0114	µg/L	0.03466	0.0114	ppb	0.03466	303.92%
Ca 317.933Radial†	129.6	7.2178	µg/L	0.78828	7.2178	ppb	0.78828	10.92%
Cd 226.502†	1.4	0.0072	µg/L	0.04570	0.0072	ppb	0.04570	632.61%
Co 228.616†	0.9	0.0104	µg/L	0.18676	0.0104	ppb	0.18676	>999.9%
Cr 267.716†	14.4	0.1103	µg/L	0.06763	0.1103	ppb	0.06763	61.34%
Cu 324.752†	-30.2	-0.1134	µg/L	0.49436	-0.1134	ppb	0.49436	436.02%
Fe 238.204 Radial†	197.2	12.155	µg/L	0.4395	12.155	ppb	0.4395	3.62%
K 766.490 Radial†	54.4	19.901	µg/L	14.6729	19.901	ppb	14.6729	73.73%
Mg 279.077 IEC†	-14.8	-5.5203	µg/L	2.67750	-5.5203	ppb	2.67750	48.50%
Mn 257.610†	137.4	0.1702	µg/L	0.01695	0.1702	ppb	0.01695	9.96%
Mo 202.031†	-5.6	-0.1637	µg/L	0.09431	-0.1637	ppb	0.09431	57.63%
Na 589.592 Radial†	-12.1	-1.6664	µg/L	9.38909	-1.6664	ppb	9.38909	563.42%

Ni 231.604†	-16.5	-0.1902	µg/L	0.20525	-0.1902	ppb	0.20525 107.94%
P 214.914†	21.5	4.6118	µg/L	0.84167	4.6118	ppb	0.84167 18.25%
Pb 220.353†	-10.0	-0.5593	µg/L	1.94544	-0.5593	ppb	1.94544 347.84%
S 181.975 Axial†	-3.1	-2.3197	µg/L	5.88141	-2.3197	ppb	5.88141 253.54%
Sb 206.836†	7.3	0.8655	µg/L	0.39635	0.8655	ppb	0.39635 45.80%
Se 196.026†	11.2	4.06	µg/L	2.581	4.06	ppb	2.581 63.65%
SiO2†	106.8	10.432	µg/L	3.8021	10.432	ppb	3.8021 36.44%
Si 251.611†	384.7	5.6674	µg/L	0.45017	5.6674	ppb	0.45017 7.94%
Sn 189.927†	13.8	0.8631	µg/L	0.24510	0.8631	ppb	0.24510 28.40%
Sr 421.552†	6.0	0.0123	µg/L	0.19006	0.0123	ppb	0.19006 >999.9%
Ti 334.940†	-26.9	-0.0257	µg/L	0.02104	-0.0257	ppb	0.02104 81.93%
Tl 190.801†	-0.8	-0.1094	µg/L	2.41499	-0.1094	ppb	2.41499 >999.9%
U 409.014†	47.3	2.7170	µg/L	11.59005	2.7170	ppb	11.59005 426.57%
V 292.402†	-177.1	-0.8647	µg/L	0.13664	-0.8647	ppb	0.13664 15.80%
Zn 213.857†	187.1	1.0511	µg/L	0.01960	1.0511	ppb	0.01960 1.86%

Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 19:48:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142074.6	142074.6	97.4	%			19:48:41
1	Al 396.153Radial†	26307.3	27084.3	4998.9	µg/L	4998.9	ppb	19:48:41
1	Ca 317.933Radial†	86883.3	88680.2	4939.8	µg/L	4939.8	ppb	19:48:41
1	Fe 238.204 Radial†	77361.0	79312.1	4888.3	µg/L	4888.3	ppb	19:48:41
1	K 766.490 Radial†	14600.0	13451.4	4920.7	µg/L	4920.7	ppb	19:48:41
1	Mg 279.077 IEC†	13319.4	13490.1	5033.8	µg/L	5033.8	ppb	19:48:41
1	Na 589.592 Radial†	70751.2	71380.2	9747.0	µg/L	9747.0	ppb	19:48:41
1	Sr 421.552†	226373.4	232651.3	483.63	µg/L	483.63	ppb	19:48:39
1	Sc 361.383	1707292.7	1707292.7	99.364	%			19:48:54
1	Y 371.029	1010159.7	1010159.7	98.390	%			19:48:54
1	Ag 328.068†	133110.0	129870.3	486.98	µg/L	486.98	ppb	19:48:54
1	As 188.979†	1576.3	1606.7	492.97	µg/L	492.97	ppb	19:49:14
1	B 249.677†	35756.1	32479.0	477.32	µg/L	477.32	ppb	19:48:54
1	Ba 233.527†	119643.5	120545.0	486.15	µg/L	486.15	ppb	19:48:54
1	Be 313.107†	1782114.7	1794583.1	488.77	µg/L	488.77	ppb	19:48:54
1	Cd 226.502†	76871.1	77481.2	483.67	µg/L	483.67	ppb	19:48:54
1	Co 228.616†	39104.8	39545.3	488.18	µg/L	488.18	ppb	19:48:54
1	Cr 267.716†	61488.3	61703.2	483.11	µg/L	483.11	ppb	19:48:54
1	Cu 324.752†	126677.7	124516.1	485.41	µg/L	485.41	ppb	19:48:54
1	Mn 257.610†	392328.2	394601.4	488.03	µg/L	488.03	ppb	19:48:54
1	Mo 202.031†	16345.9	16470.5	484.49	µg/L	484.49	ppb	19:49:14
1	Ni 231.604†	41875.3	42219.8	486.13	µg/L	486.13	ppb	19:48:54
1	P 214.914†	11193.1	11282.7	2404.8	µg/L	2404.8	ppb	19:49:14
1	Pb 220.353†	8730.4	8699.9	487.18	µg/L	487.18	ppb	19:49:14
1	S 181.975 Axial†	1383.4	1287.2	959.96	µg/L	959.96	ppb	19:49:14
1	Sb 206.836†	4107.0	4052.4	482.84	µg/L	482.84	ppb	19:49:14
1	Se 196.026†	1342.1	1335.4	485	µg/L	485	ppb	19:49:14
1	SiO2†	55335.6	53914.4	5248.9	µg/L	5248.9	ppb	19:48:54
1	Si 251.611†	167076.9	167309.4	2457.0	µg/L	2457.0	ppb	19:48:54
1	Sn 189.927†	7693.0	7743.4	484.36	µg/L	484.36	ppb	19:49:14
1	Ti 334.940†	519233.7	521603.7	486.68	µg/L	486.68	ppb	19:48:54
1	Tl 190.801†	3814.7	3955.8	493.34	µg/L	493.34	ppb	19:49:14
1	U 409.014†	7610.9	7929.5	493.08	µg/L	493.08	ppb	19:48:54
1	V 292.402†	98525.0	98751.7	488.17	µg/L	488.17	ppb	19:48:54
1	Zn 213.857†	86407.4	86395.9	481.51	µg/L	481.51	ppb	19:48:54
2	Sc RADIAL	141314.4	141314.4	96.8	%			19:48:45
2	Al 396.153Radial†	26070.1	26984.8	4980.3	µg/L	4980.3	ppb	19:48:45
2	Ca 317.933Radial†	86198.1	88452.8	4927.2	µg/L	4927.2	ppb	19:48:45
2	Fe 238.204 Radial†	76905.6	79269.3	4885.7	µg/L	4885.7	ppb	19:48:45
2	K 766.490 Radial†	14469.9	13397.8	4901.1	µg/L	4901.1	ppb	19:48:45
2	Mg 279.077 IEC†	13056.5	13292.2	4960.2	µg/L	4960.2	ppb	19:48:45
2	Na 589.592 Radial†	70248.5	71252.1	9729.5	µg/L	9729.5	ppb	19:48:45
2	Sr 421.552†	230623.8	238291.3	495.36	µg/L	495.36	ppb	19:48:43
2	Sc 361.383	1705432.9	1705432.9	99.256	%			19:49:17
2	Y 371.029	1009468.8	1009468.8	98.323	%			19:49:17
2	Ag 328.068†	133787.0	130698.5	490.05	µg/L	490.05	ppb	19:49:17
2	As 188.979†	1570.4	1602.5	491.73	µg/L	491.73	ppb	19:49:37
2	B 249.677†	35970.0	32733.8	481.06	µg/L	481.06	ppb	19:49:17
2	Ba 233.527†	120220.9	121258.0	489.03	µg/L	489.03	ppb	19:49:17
2	Be 313.107†	1787251.2	1801714.0	490.71	µg/L	490.71	ppb	19:49:17
2	Cd 226.502†	77339.1	78037.0	487.14	µg/L	487.14	ppb	19:49:17
2	Co 228.616†	39270.6	39755.3	490.78	µg/L	490.78	ppb	19:49:17
2	Cr 267.716†	61757.1	62041.5	485.78	µg/L	485.78	ppb	19:49:17
2	Cu 324.752†	126820.0	124798.5	486.50	µg/L	486.50	ppb	19:49:17
2	Mn 257.610†	394508.1	397228.3	491.28	µg/L	491.28	ppb	19:49:17
2	Mo 202.031†	16426.8	16570.0	487.42	µg/L	487.42	ppb	19:49:37
2	Ni 231.604†	41982.9	42374.1	487.91	µg/L	487.91	ppb	19:49:17
2	P 214.914†	11261.9	11364.3	2422.2	µg/L	2422.2	ppb	19:49:37
2	Pb 220.353†	8823.1	8802.9	492.95	µg/L	492.95	ppb	19:49:37

2	S 181.975 Axial†	1396.0	1301.4	970.49 µg/L	970.49 ppb	19:49:37
2	Sb 206.836†	4148.9	4099.2	488.41 µg/L	488.41 ppb	19:49:37
2	Se 196.026†	1355.8	1350.7	490 µg/L	490 ppb	19:49:37
2	SiO2†	55442.9	54083.1	5265.3 µg/L	5265.3 ppb	19:49:17
2	Si 251.611†	167481.5	167900.5	2465.6 µg/L	2465.6 ppb	19:49:17
2	Sn 189.927†	7735.0	7794.1	487.53 µg/L	487.53 ppb	19:49:37
2	Ti 334.940†	520412.2	523360.9	488.34 µg/L	488.34 ppb	19:49:17
2	Tl 190.801†	3830.1	3975.4	495.78 µg/L	495.78 ppb	19:49:37
2	U 409.014†	7376.5	7701.7	479.90 µg/L	479.90 ppb	19:49:17
2	V 292.402†	98853.0	99190.2	490.34 µg/L	490.34 ppb	19:49:17
2	Zn 213.857†	86774.5	86860.6	484.11 µg/L	484.11 ppb	19:49:17
3	Sc RADIAL	143116.0	143116.0	98.1 %		19:48:49
3	Al 396.153Radial†	26236.6	26815.6	4949.0 µg/L	4949.0 ppb	19:48:49
3	Ca 317.933Radial†	87307.0	88462.9	4927.7 µg/L	4927.7 ppb	19:48:49
3	Fe 238.204 Radial†	77796.7	79178.1	4880.1 µg/L	4880.1 ppb	19:48:49
3	K 766.490 Radial†	14380.3	13118.2	4798.8 µg/L	4798.8 ppb	19:48:49
3	Mg 279.077 IEC†	13346.6	13418.3	5007.1 µg/L	5007.1 ppb	19:48:49
3	Na 589.592 Radial†	71057.8	71164.1	9717.6 µg/L	9717.6 ppb	19:48:49
3	Sr 421.552†	230412.2	235077.6	488.67 µg/L	488.67 ppb	19:48:47
3	Sc 361.383	1721387.2	1721387.2	100.18 %		19:49:40
3	Y 371.029	1018897.4	1018897.4	99.241 %		19:49:40
3	Ag 328.068†	134640.8	130301.5	488.57 µg/L	488.57 ppb	19:49:40
3	As 188.979†	1609.9	1627.2	499.20 µg/L	499.20 ppb	19:50:00
3	B 249.677†	36341.2	32768.4	481.57 µg/L	481.57 ppb	19:49:40
3	Ba 233.527†	121012.1	120925.1	487.69 µg/L	487.69 ppb	19:49:40
3	Be 313.107†	1805276.3	1803016.9	491.06 µg/L	491.06 ppb	19:49:40
3	Cd 226.502†	78051.9	78026.4	487.08 µg/L	487.08 ppb	19:49:40
3	Co 228.616†	39637.9	39755.2	490.78 µg/L	490.78 ppb	19:49:40
3	Cr 267.716†	62404.8	62111.3	486.33 µg/L	486.33 ppb	19:49:40
3	Cu 324.752†	128037.0	124829.0	486.61 µg/L	486.61 ppb	19:49:40
3	Mn 257.610†	397828.4	396858.6	490.82 µg/L	490.82 ppb	19:49:40
3	Mo 202.031†	16520.4	16510.1	485.66 µg/L	485.66 ppb	19:50:00
3	Ni 231.604†	42275.1	42273.8	486.75 µg/L	486.75 ppb	19:49:40
3	P 214.914†	11329.3	11326.4	2414.1 µg/L	2414.1 ppb	19:50:00
3	Pb 220.353†	8851.7	8749.0	489.94 µg/L	489.94 ppb	19:50:00
3	S 181.975 Axial†	1397.8	1290.2	962.16 µg/L	962.16 ppb	19:50:00
3	Sb 206.836†	4164.3	4075.8	485.60 µg/L	485.60 ppb	19:50:00
3	Se 196.026†	1362.5	1344.7	488 µg/L	488 ppb	19:50:00
3	SiO2†	55884.7	54006.4	5257.8 µg/L	5257.8 ppb	19:49:40
3	Si 251.611†	169043.3	167895.4	2465.6 µg/L	2465.6 ppb	19:49:40
3	Sn 189.927†	7803.9	7790.6	487.31 µg/L	487.31 ppb	19:50:00
3	Ti 334.940†	525263.4	523343.7	488.32 µg/L	488.32 ppb	19:49:40
3	Tl 190.801†	3853.4	3963.0	494.25 µg/L	494.25 ppb	19:50:00
3	U 409.014†	7327.8	7584.2	473.02 µg/L	473.02 ppb	19:49:40
3	V 292.402†	99734.3	99146.8	490.11 µg/L	490.11 ppb	19:49:40
3	Zn 213.857†	87677.5	86951.6	484.63 µg/L	484.63 ppb	19:49:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1711370.9	99.602	%	0.5077				0.51%
Sc RADIAL	142168.3	97.4	%	0.62				0.64%
Y 371.029	1012841.9	98.651	%	0.5119				0.52%
Ag 328.068†	130290.1	488.54	µg/L	1.538	488.54	ppb	1.538	0.31%
QC value within limits for Ag 328.068 Recovery = 97.71%								
Al 396.153Radial†	26961.6	4976.1	µg/L	25.20	4976.1	ppb	25.20	0.51%
QC value within limits for Al 396.153Radial Recovery = 99.52%								
As 188.979†	1612.2	494.63	µg/L	4.004	494.63	ppb	4.004	0.81%
QC value within limits for As 188.979 Recovery = 98.93%								
B 249.677†	32660.4	479.98	µg/L	2.326	479.98	ppb	2.326	0.48%
QC value within limits for B 249.677 Recovery = 96.00%								
Ba 233.527†	120909.3	487.62	µg/L	1.439	487.62	ppb	1.439	0.30%
QC value within limits for Ba 233.527 Recovery = 97.52%								
Be 313.107†	1799771.3	490.18	µg/L	1.233	490.18	ppb	1.233	0.25%
QC value within limits for Be 313.107 Recovery = 98.04%								
Ca 317.933Radial†	88532.0	4931.6	µg/L	7.16	4931.6	ppb	7.16	0.15%
QC value within limits for Ca 317.933Radial Recovery = 98.63%								
Cd 226.502†	77848.2	485.96	µg/L	1.986	485.96	ppb	1.986	0.41%
QC value within limits for Cd 226.502 Recovery = 97.19%								
Co 228.616†	39685.3	489.91	µg/L	1.497	489.91	ppb	1.497	0.31%

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   QC value within limits for Co 228.616  Recovery = 97.98%
Cr 267.716†            61952.0      485.07 µg/L         1.718      485.07 ppb          1.718   0.35%
   QC value within limits for Cr 267.716  Recovery = 97.01%
Cu 324.752†           124714.6      486.17 µg/L         0.662      486.17 ppb          0.662   0.14%
   QC value within limits for Cu 324.752  Recovery = 97.23%
Fe 238.204 Radial†     79253.2      4884.7 µg/L          4.22      4884.7 ppb           4.22   0.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.69%
K 766.490 Radial†      13322.5      4873.5 µg/L         65.48      4873.5 ppb          65.48   1.34%
   QC value within limits for K 766.490 Radial  Recovery = 97.47%
Mg 279.077 IEC†        13400.2      5000.4 µg/L         37.28      5000.4 ppb          37.28   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.01%
Mn 257.610†           396229.4      490.04 µg/L         1.761      490.04 ppb          1.761   0.36%
   QC value within limits for Mn 257.610  Recovery = 98.01%
Mo 202.031†            16516.9      485.86 µg/L         1.472      485.86 ppb          1.472   0.30%
   QC value within limits for Mo 202.031  Recovery = 97.17%
Na 589.592 Radial†     71265.4      9731.4 µg/L         14.79      9731.4 ppb          14.79   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 97.31%
Ni 231.604†            42289.2      486.93 µg/L         0.902      486.93 ppb          0.902   0.19%
   QC value within limits for Ni 231.604  Recovery = 97.39%
P 214.914†             11324.5      2413.7 µg/L          8.72      2413.7 ppb           8.72   0.36%
   QC value within limits for P 214.914  Recovery = 96.55%
Pb 220.353†             8750.6      490.02 µg/L         2.885      490.02 ppb          2.885   0.59%
   QC value within limits for Pb 220.353  Recovery = 98.00%
S 181.975 Axial†        1292.9      964.20 µg/L         5.551      964.20 ppb          5.551   0.58%
   QC value within limits for S 181.975 Axial  Recovery = 96.42%
Sb 206.836†             4075.8      485.62 µg/L         2.784      485.62 ppb          2.784   0.57%
   QC value within limits for Sb 206.836  Recovery = 97.12%
Se 196.026†             1343.6         488 µg/L           2.8         488 ppb            2.8   0.57%
   QC value within limits for Se 196.026  Recovery = 97.58%
SiO2†                  54001.3      5257.4 µg/L          8.20      5257.4 ppb           8.20   0.16%
   QC value within limits for SiO2  Recovery = 98.31%
Si 251.611†           167701.8      2462.7 µg/L          4.98      2462.7 ppb           4.98   0.20%
   QC value within limits for Si 251.611  Recovery = 98.51%
Sn 189.927†             7776.0      486.40 µg/L         1.771      486.40 ppb          1.771   0.36%
   QC value within limits for Sn 189.927  Recovery = 97.28%
Sr 421.552†           235340.1      489.22 µg/L         5.882      489.22 ppb          5.882   1.20%
   QC value within limits for Sr 421.552  Recovery = 97.84%
Ti 334.940†           522769.4      487.78 µg/L         0.949      487.78 ppb          0.949   0.19%
   QC value within limits for Ti 334.940  Recovery = 97.56%
Tl 190.801†             3964.8      494.46 µg/L         1.233      494.46 ppb          1.233   0.25%
   QC value within limits for Tl 190.801  Recovery = 98.89%
U 409.014†              7738.5      482.00 µg/L        10.196      482.00 ppb         10.196   2.12%
   QC value within limits for U 409.014  Recovery = 96.40%
V 292.402†             99029.6      489.54 µg/L         1.192      489.54 ppb          1.192   0.24%
   QC value within limits for V 292.402  Recovery = 97.91%
Zn 213.857†            86736.0      483.41 µg/L         1.671      483.41 ppb          1.671   0.35%
   QC value within limits for Zn 213.857  Recovery = 96.68%
All analyte(s) passed QC.
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Sequence No.: 17 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/31/2010 19:50:08**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143600.6	143600.6	98.4	%			19:50:37
1	Al 396.153Radial†	-51.1	11.3	2.1044	µg/L	2.1044	ppb	19:50:57
1	Ca 317.933Radial†	586.6	35.5	1.9797	µg/L	1.9797	ppb	19:50:57
1	Fe 238.204 Radial†	144.0	-1.8	-0.1088	µg/L	-0.1088	ppb	19:50:57
1	K 766.490 Radial†	1486.8	-33.9	-12.412	µg/L	-12.412	ppb	19:50:37
1	Mg 279.077 IEC†	173.5	-14.4	-5.3870	µg/L	-5.3870	ppb	19:50:57
1	Na 589.592 Radial†	1458.3	191.2	26.130	µg/L	26.130	ppb	19:50:37
1	Sr 421.552†	-289.3	-158.8	-0.3301	µg/L	-0.3301	ppb	19:50:37
1	Sc 361.383	1727301.6	1727301.6	100.53	%			19:51:45
1	Y 371.029	1033229.5	1033229.5	100.64	%			19:51:45
1	Ag 328.068†	3918.0	-194.0	-0.7232	µg/L	-0.7232	ppb	19:51:47
1	As 188.979†	-11.4	9.0	2.7325	µg/L	2.7325	ppb	19:52:07
1	B 249.677†	3507.2	-17.2	-0.2546	µg/L	-0.2546	ppb	19:52:07
1	Ba 233.527†	-159.6	-22.9	-0.0923	µg/L	-0.0923	ppb	19:52:07
1	Be 313.107†	-960.5	109.3	0.0290	µg/L	0.0290	ppb	19:51:47
1	Cd 226.502†	-87.8	30.8	0.1926	µg/L	0.1926	ppb	19:52:07
1	Co 228.616†	-159.6	31.5	0.3887	µg/L	0.3887	ppb	19:52:07
1	Cr 267.716†	221.5	41.8	0.3292	µg/L	0.3292	ppb	19:52:07
1	Cu 324.752†	2909.7	-77.8	-0.3046	µg/L	-0.3046	ppb	19:51:47
1	Mn 257.610†	275.7	37.0	0.0460	µg/L	0.0460	ppb	19:52:07
1	Mo 202.031†	-30.5	-10.3	-0.3033	µg/L	-0.3033	ppb	19:52:07
1	Ni 231.604†	-82.7	-5.8	-0.0664	µg/L	-0.0664	ppb	19:52:07
1	P 214.914†	-17.8	0.3	0.0611	µg/L	0.0611	ppb	19:52:07
1	Pb 220.353†	92.7	5.8	0.3254	µg/L	0.3254	ppb	19:52:07
1	S 181.975 Axial†	92.1	-13.5	-10.016	µg/L	-10.016	ppb	19:52:07
1	Sb 206.836†	70.2	-11.0	-1.3187	µg/L	-1.3187	ppb	19:52:07
1	Se 196.026†	23.8	8.4	3.03	µg/L	3.03	ppb	19:52:07
1	SiO2†	1746.0	-38.6	-3.7620	µg/L	-3.7620	ppb	19:52:07
1	Si 251.611†	804.0	-36.7	-0.5381	µg/L	-0.5381	ppb	19:51:47
1	Sn 189.927†	-0.2	0.9	0.0546	µg/L	0.0546	ppb	19:52:07
1	Ti 334.940†	954.9	-2.7	-0.0011	µg/L	-0.0011	ppb	19:51:47
1	Tl 190.801†	-118.5	-1.2	-0.1445	µg/L	-0.1445	ppb	19:52:07
1	U 409.014†	-315.9	-44.3	-2.6009	µg/L	-2.6009	ppb	19:51:47
1	V 292.402†	377.6	-28.1	-0.1408	µg/L	-0.1408	ppb	19:51:47
1	Zn 213.857†	598.1	30.5	0.1719	µg/L	0.1719	ppb	19:52:07
2	Sc RADIAL	143131.7	143131.7	98.1	%			19:50:59
2	Al 396.153Radial†	-32.2	30.3	5.6296	µg/L	5.6296	ppb	19:51:19
2	Ca 317.933Radial†	576.7	27.4	1.5269	µg/L	1.5269	ppb	19:51:19
2	Fe 238.204 Radial†	158.7	13.7	0.8423	µg/L	0.8423	ppb	19:51:19
2	K 766.490 Radial†	1675.4	163.4	59.819	µg/L	59.819	ppb	19:50:59
2	Mg 279.077 IEC†	212.3	25.7	9.5785	µg/L	9.5785	ppb	19:51:19
2	Na 589.592 Radial†	1429.9	167.0	22.764	µg/L	22.764	ppb	19:50:59
2	Sr 421.552†	-273.0	-143.1	-0.2975	µg/L	-0.2975	ppb	19:50:59
2	Sc 361.383	1718494.8	1718494.8	100.02	%			19:52:09
2	Y 371.029	1028699.8	1028699.8	100.20	%			19:52:09
2	Ag 328.068†	4047.8	-44.2	-0.1507	µg/L	-0.1507	ppb	19:52:11
2	As 188.979†	-18.3	2.1	0.6206	µg/L	0.6206	ppb	19:52:32
2	B 249.677†	3519.8	13.3	0.1962	µg/L	0.1962	ppb	19:52:32
2	Ba 233.527†	-147.0	-11.2	-0.0449	µg/L	-0.0449	ppb	19:52:32
2	Be 313.107†	-767.5	297.4	0.0836	µg/L	0.0836	ppb	19:52:11
2	Cd 226.502†	-96.5	21.7	0.1357	µg/L	0.1357	ppb	19:52:32
2	Co 228.616†	-176.2	14.1	0.1739	µg/L	0.1739	ppb	19:52:32
2	Cr 267.716†	180.3	1.7	0.0063	µg/L	0.0063	ppb	19:52:32
2	Cu 324.752†	2889.0	-83.7	-0.3176	µg/L	-0.3176	ppb	19:52:11
2	Mn 257.610†	264.9	27.6	0.0338	µg/L	0.0338	ppb	19:52:32
2	Mo 202.031†	-22.6	-2.5	-0.0728	µg/L	-0.0728	ppb	19:52:32
2	Ni 231.604†	-57.5	19.1	0.2195	µg/L	0.2195	ppb	19:52:32
2	P 214.914†	4.9	22.9	4.9039	µg/L	4.9039	ppb	19:52:32
2	Pb 220.353†	90.9	4.5	0.2430	µg/L	0.2430	ppb	19:52:32

2	S 181.975 Axial†	92.8	-12.3	-9.1413 µg/L	-9.1413 ppb	19:52:32
2	Sb 206.836†	91.0	10.1	1.2060 µg/L	1.2060 ppb	19:52:32
2	Se 196.026†	23.4	8.1	2.95 µg/L	2.95 ppb	19:52:32
2	SiO2†	1770.3	-5.4	-0.5347 µg/L	-0.5347 ppb	19:52:32
2	Si 251.611†	816.5	-20.2	-0.3025 µg/L	-0.3025 ppb	19:52:11
2	Sn 189.927†	13.1	14.3	0.8887 µg/L	0.8887 ppb	19:52:32
2	Ti 334.940†	824.8	-127.9	-0.1238 µg/L	-0.1238 ppb	19:52:11
2	Tl 190.801†	-110.8	5.9	0.7247 µg/L	0.7247 ppb	19:52:32
2	U 409.014†	-118.9	151.0	8.8426 µg/L	8.8426 ppb	19:52:11
2	V 292.402†	441.7	37.8	0.1896 µg/L	0.1896 ppb	19:52:11
2	Zn 213.857†	569.1	4.5	0.0243 µg/L	0.0243 ppb	19:52:32
3	Sc RADIAL	142404.0	142404.0	97.6 %		19:51:21
3	Al 396.153Radial†	-37.8	24.5	4.5543 µg/L	4.5543 ppb	19:51:41
3	Ca 317.933Radial†	603.4	57.8	3.2194 µg/L	3.2194 ppb	19:51:41
3	Fe 238.204 Radial†	154.3	10.0	0.6188 µg/L	0.6188 ppb	19:51:41
3	K 766.490 Radial†	1584.3	78.7	28.824 µg/L	28.824 ppb	19:51:21
3	Mg 279.077 IEC†	168.4	-18.1	-6.7588 µg/L	-6.7588 ppb	19:51:41
3	Na 589.592 Radial†	1217.4	-43.3	-5.9413 µg/L	-5.9413 ppb	19:51:21
3	Sr 421.552†	-213.0	-83.0	-0.1726 µg/L	-0.1726 ppb	19:51:21
3	Sc 361.383	1725113.7	1725113.7	100.40 %		19:52:34
3	Y 371.029	1032434.0	1032434.0	100.56 %		19:52:34
3	Ag 328.068†	4136.4	28.4	0.1103 µg/L	0.1103 ppb	19:52:36
3	As 188.979†	-21.2	-0.8	-0.2286 µg/L	-0.2286 ppb	19:52:56
3	B 249.677†	3487.8	-32.0	-0.4730 µg/L	-0.4730 ppb	19:52:56
3	Ba 233.527†	-148.1	-11.7	-0.0471 µg/L	-0.0471 ppb	19:52:56
3	Be 313.107†	-958.9	109.7	0.0307 µg/L	0.0307 ppb	19:52:36
3	Cd 226.502†	-100.1	18.5	0.1156 µg/L	0.1156 ppb	19:52:56
3	Co 228.616†	-181.7	9.3	0.1151 µg/L	0.1151 ppb	19:52:56
3	Cr 267.716†	179.3	-0.0	-0.0022 µg/L	-0.0022 ppb	19:52:56
3	Cu 324.752†	2944.1	-39.9	-0.1527 µg/L	-0.1527 ppb	19:52:36
3	Mn 257.610†	258.6	20.3	0.0254 µg/L	0.0254 ppb	19:52:56
3	Mo 202.031†	-33.3	-13.1	-0.3839 µg/L	-0.3839 ppb	19:52:56
3	Ni 231.604†	-89.6	-12.8	-0.1471 µg/L	-0.1471 ppb	19:52:56
3	P 214.914†	-5.5	12.5	2.6899 µg/L	2.6899 ppb	19:52:56
3	Pb 220.353†	86.1	-0.6	-0.0367 µg/L	-0.0367 ppb	19:52:56
3	S 181.975 Axial†	105.1	-0.4	-0.3195 µg/L	-0.3195 ppb	19:52:56
3	Sb 206.836†	78.4	-2.7	-0.3234 µg/L	-0.3234 ppb	19:52:56
3	Se 196.026†	32.5	17.1	6.18 µg/L	6.18 ppb	19:52:56
3	SiO2†	1714.4	-67.8	-6.6340 µg/L	-6.6340 ppb	19:52:56
3	Si 251.611†	948.1	107.7	1.5850 µg/L	1.5850 ppb	19:52:36
3	Sn 189.927†	18.5	19.5	1.2178 µg/L	1.2178 ppb	19:52:56
3	Ti 334.940†	1054.7	98.0	0.0910 µg/L	0.0910 ppb	19:52:36
3	Tl 190.801†	-105.2	11.9	1.4675 µg/L	1.4675 ppb	19:52:56
3	U 409.014†	-221.6	49.1	2.8801 µg/L	2.8801 ppb	19:52:36
3	V 292.402†	431.8	26.3	0.1262 µg/L	0.1262 ppb	19:52:36
3	Zn 213.857†	567.6	1.0	0.0065 µg/L	0.0065 ppb	19:52:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1723636.7	100.32	%	0.267				0.27%
Sc RADIAL	143045.4	98.0	%	0.41				0.42%
Y 371.029	1031454.4	100.46	%	0.236				0.23%
Ag 328.068†	-69.9	-0.2546	µg/L	0.42634	-0.2546	ppb	0.42634	167.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	22.0	4.0961	µg/L	1.80672	4.0961	ppb	1.80672	44.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.4	1.0415	µg/L	1.52480	1.0415	ppb	1.52480	146.41%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-12.0	-0.1771	µg/L	0.34126	-0.1771	ppb	0.34126	192.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-15.2	-0.0614	µg/L	0.02676	-0.0614	ppb	0.02676	43.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	172.1	0.0478	µg/L	0.03107	0.0478	ppb	0.03107	65.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	40.2	2.2420	µg/L	0.87622	2.2420	ppb	0.87622	39.08%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.7	0.1480	µg/L	0.03996	0.1480	ppb	0.03996	27.01%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.3	0.2259	µg/L	0.14405	0.2259	ppb	0.14405	63.76%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.5      0.1111 µg/L       0.18892      0.1111 ppb        0.18892 170.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -67.1     -0.2583 µg/L       0.09167     -0.2583 ppb        0.09167  35.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        7.3      0.4508 µg/L       0.49733      0.4508 ppb        0.49733 110.33%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        69.4      25.411 µg/L       36.2364      25.411 ppb        36.2364 142.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.3     -0.8557 µg/L       9.06232     -0.8557 ppb        9.06232 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              28.3      0.0350 µg/L       0.01036      0.0350 ppb        0.01036  29.56%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -8.6     -0.2533 µg/L       0.16143     -0.2533 ppb        0.16143  63.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      105.0      14.318 µg/L       17.6253      14.318 ppb        17.6253 123.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.2      0.0020 µg/L       0.19262      0.0020 ppb        0.19262 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               11.9      2.5516 µg/L       2.42435      2.5516 ppb        2.42435  95.01%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               3.2      0.1772 µg/L       0.18975      0.1772 ppb        0.18975 107.07%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -8.7     -6.4924 µg/L       5.36374     -6.4924 ppb        5.36374  82.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.2     -0.1454 µg/L       1.27176     -0.1454 ppb        1.27176 874.71%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              11.2        4.05 µg/L         1.843        4.05 ppb          1.843  45.47%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -37.2     -3.6436 µg/L       3.05138     -3.6436 ppb        3.05138  83.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              16.9      0.2481 µg/L       1.16372      0.2481 ppb        1.16372 469.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              11.6      0.7204 µg/L       0.59961      0.7204 ppb        0.59961  83.23%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -128.3     -0.2667 µg/L       0.08309     -0.2667 ppb        0.08309  31.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -10.9     -0.0113 µg/L       0.10776     -0.0113 ppb        0.10776 953.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.6      0.6826 µg/L       0.80682      0.6826 ppb        0.80682 118.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               51.9      3.0406 µg/L       5.72342      3.0406 ppb        5.72342 188.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               12.0      0.0584 µg/L       0.17533      0.0584 ppb        0.17533 300.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              12.0      0.0676 µg/L       0.09081      0.0676 ppb        0.09081 134.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, May 10, 2010 23:55:35
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100506\Sample.241
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1764.7	1764.709	38.538	2.2
	Mg	24.0	153346.5	153346.512	1657.789	1.1
	Co	58.9	21859.9	21859.913	156.616	0.7
	Rh	102.9	46595.3	46595.268	324.589	0.7
	In	114.9	59279.7	59279.745	492.193	0.8
	Pb	208.0	40999.4	40999.361	661.389	1.6
⌈>	Ba	137.9	61842.9	61842.883	691.306	1.1
⌊	Ba++	69.0	715.3	0.012	0.000	2.7
⌈>	Ce	139.9	66427.3	66427.299	780.909	1.2
⌊	CeO	155.9	1078.4	0.016	0.000	1.6
	Bkgd	220.0	21.4	21.400	3.090	14.4

Current Optimization File Data

Current Value	Description
0.74	Nebulizer Gas Flow
9.00	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	15	7.5	2598.2
Co	59	15	8.5	21396.7
In	115	15	9.8	56650.4

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	577	2080	0.635
Be	9.0	9.0	2048	2080	0.659
Mg	24.0	24.0	5682	2120	0.619
Mg	25.0	25.0	5921	2080	0.663
Mg	26.0	25.9	6160	2120	0.677
Co	58.9	58.9	14160	2170	0.637
Rh	102.9	102.9	24851	2230	0.696
In	114.9	114.9	27778	2260	0.683
Ce	139.9	139.9	33852	2280	0.745
Pb	206.0	205.9	49936	2424	0.759
Pb	207.0	207.0	50137	2385	0.662
Pb	208.0	208.0	50463	2430	0.717
U	238.1	238.0	57727	2470	0.700

Report Date/Time: Monday, May 10, 2010 23:54:27

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, May 11, 2010 07:01:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\Blank.091

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9		ug/L		26	
|>	Sc	45		ug/L		672675	
⌊	Mn	55		ug/L		774	
	Ge	74		ug/L		181025	
⌈	Cd	111		ug/L		25	
|	Cd	114		ug/L		37	
|>	In	115		ug/L		107140	
|	Sb	121		ug/L		104	
⌊	Sb	123		ug/L		104	
⌈>	Lu	175		ug/L		180588	
|	Tl	205		ug/L		702	
|	Pb	208		ug/L		341	
⌊	U	238		ug/L		249	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Linear Thru Zero	
Mn	55	Simple Linear	
Ge	74	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, May 11, 2010 07:06:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\Standard 1.092

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**10.000**	**ug/L**	2.220	2516	0.004
| >	Sc	45		**ug/L**		663579	663578.520
⌊	Mn	55	**10.000**	**ug/L**	2.061	34255	0.050
	Ge	74		**ug/L**		179107	-1917.500
⌈	Cd	111	**10.000**	**ug/L**	3.452	5311	0.050
|	Cd	114		**ug/L**		12533	0.118
| >	In	115		**ug/L**		106380	106380.493
|	Sb	121	**10.000**	**ug/L**	2.661	22695	0.212
⌊	Sb	123		**ug/L**		17668	0.165
⌈>	Lu	175		**ug/L**		179206	179206.052
|	Tl	205	**10.000**	**ug/L**	2.169	57495	0.317
|	Pb	208	**10.000**	**ug/L**	2.374	90581	0.504
⌊	U	238	**10.000**	**ug/L**	0.832	100577	0.560

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, May 11, 2010 07:11:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\Standard 2.093

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.995**	**ug/L**	0.902	24881	0.037
>	Sc	45		**ug/L**		665190	665190.186
	Mn	55	**99.989**	**ug/L**	1.801	332829	0.499
	Ge	74		**ug/L**		179276	-1748.625
	Cd	111	**99.997**	**ug/L**	2.074	53447	0.495
	Cd	114		**ug/L**		125686	1.165
>	In	115		**ug/L**		107868	107868.360
	Sb	121	**100.015**	**ug/L**	2.777	232740	2.157
	Sb	123		**ug/L**		177802	1.648
>	Lu	175		**ug/L**		183768	183768.122
	Tl	205	**100.034**	**ug/L**	2.187	604107	3.284
	Pb	208	**99.975**	**ug/L**	1.357	903463	4.915
	U	238	**99.991**	**ug/L**	1.181	1019777	5.549

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, May 11, 2010 07:15:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 1.094

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**53.823**	**ug/L**	2.025	13331	0.020
|>	Sc	45		**ug/L**		661641	661641.366
⌊	Mn	55	**56.112**	**ug/L**	2.053	186129	0.280
	Ge	74		**ug/L**		180589	-436.140
⌈	Cd	111	**53.461**	**ug/L**	2.400	28594	0.265
|	Cd	114		**ug/L**		67828	0.628
|>	In	115		**ug/L**		107921	107921.095
|	Sb	121	**50.671**	**ug/L**	1.923	118016	1.093
⌊	Sb	123		**ug/L**		92522	0.857
⌈>	Lu	175		**ug/L**		181279	181279.451
|	Tl	205	**52.487**	**ug/L**	0.387	313079	1.723
|	Pb	208	**54.369**	**ug/L**	1.746	484867	2.673
⌊	U	238	**56.428**	**ug/L**	1.695	567877	3.131

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	107.646				
>	Sc	45		98.4			
	Mn	55	112.224				
	Ge	74					
	Cd	111	106.921				
	Cd	114					
>	In	115		100.7			
	Sb	121	101.342				
	Sb	123					
>	Lu	175		100.4			
	Tl	205	104.973				
	Pb	208	108.739				
	U	238	112.857				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Mn	55	ICV is out of limits (+/- 10%)
QC Std 1	U	238	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, May 11, 2010 07:20:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 2.095

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	**-0.010**	**ug/L**	156.150	23	-0.000
|>	Sc	45		**ug/L**		670536	670536.188
[	Mn	55	**-0.017**	**ug/L**	7.861	714	-0.000
	Ge	74		**ug/L**		184297	3272.068
[	Cd	111	**-0.009**	**ug/L**	352.871	21	-0.000
|	Cd	114		**ug/L**		39	0.000
|>	In	115		**ug/L**		110610	110610.356
|	Sb	121	**0.015**	**ug/L**	6.540	143	0.000
[	Sb	123		**ug/L**		114	0.000
[>	Lu	175		**ug/L**		184219	184219.022
|	Tl	205	**0.170**	**ug/L**	17.226	1745	0.006
|	Pb	208	**-0.003**	**ug/L**	51.714	322	-0.000
[	U	238	**-0.001**	**ug/L**	105.344	240	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.7			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		103.2			
	Sb	121					
	Sb	123					
>	Lu	175		102.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, May 11, 2010 07:25:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 3.096

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.572**	**ug/L**	7.533	170	0.000
|>	Sc	45		**ug/L**		672161	672160.918
⌊	Mn	55	**5.983**	**ug/L**	2.002	20854	0.030
	Ge	74		**ug/L**		176489	-4536.303
⌈	Cd	111	**1.143**	**ug/L**	2.724	628	0.006
|	Cd	114		**ug/L**		1535	0.014
|>	In	115		**ug/L**		106436	106436.381
|	Sb	121	**3.263**	**ug/L**	1.997	7593	0.070
⌊	Sb	123		**ug/L**		5993	0.055
⌈>	Lu	175		**ug/L**		176991	176991.308
|	Tl	205	**1.139**	**ug/L**	2.536	7306	0.037
|	Pb	208	**2.384**	**ug/L**	2.064	21072	0.117
⌊	U	238	**0.323**	**ug/L**	5.368	3417	0.018

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	114.430				
>	Sc	45		99.9			
	Mn	55	119.653				
	Ge	74					
	Cd	111	114.295				
	Cd	114					
>	In	115		99.3			
	Sb	121	163.171				
	Sb	123					
>	Lu	175		98.0			
	Tl	205	113.908				
	Pb	208	119.194				
	U	238	161.624				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Sb	121	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, May 11, 2010 07:30:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 4.097

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.074**	**ug/L**	31.687	38	0.000
>	Sc	45		**ug/L**		572869	572868.902
	Mn	55	**5.497**	**ug/L**	1.640	16384	0.027
	Ge	74		**ug/L**		161390	-19634.829
	Cd	111	**0.312**	**ug/L**	16.060	173	0.002
	Cd	114		**ug/L**		2273	0.023
>	In	115		**ug/L**		97041	97040.903
	Sb	121	**0.020**	**ug/L**	39.525	136	0.000
	Sb	123		**ug/L**		119	0.000
>	Lu	175		**ug/L**		174134	174134.369
	Tl	205	**-0.002**	**ug/L**	599.628	667	-0.000
	Pb	208	**0.206**	**ug/L**	1.464	2095	0.010
	U	238	**-0.018**	**ug/L**	7.319	67	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		85.2			
	Mn	55	94.783				
	Ge	74					
	Cd	111	77.970				
	Cd	114					
>	In	115		90.6			
	Sb	121	20.005				
	Sb	123					
>	Lu	175		96.4			
	Tl	205					
	Pb	208	103.184				
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, May 11, 2010 07:34:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 5.098

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**18.594**	**ug/L**	3.147	4045	0.007
|>	Sc	45		**ug/L**		579198	579197.505
⌊	Mn	55	**25.055**	**ug/L**	1.280	73121	0.125
	Ge	74		**ug/L**		161717	-19308.092
⌈	Cd	111	**20.179**	**ug/L**	1.925	9698	0.100
|	Cd	114		**ug/L**		24342	0.251
|>	In	115		**ug/L**		96804	96804.183
|	Sb	121	**19.235**	**ug/L**	1.890	40247	0.415
⌊	Sb	123		**ug/L**		31785	0.327
⌈>	Lu	175		**ug/L**		171014	171013.616
|	Tl	205	**18.151**	**ug/L**	1.787	102563	0.596
|	Pb	208	**20.029**	**ug/L**	1.808	168695	0.985
⌊	U	238	**20.904**	**ug/L**	0.577	198600	1.160

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	92.970				
>	Sc	45		86.1			
	Mn	55	97.111				
	Ge	74					
	Cd	111	98.916				
	Cd	114					
>	In	115		90.4			
	Sb	121	95.696				
	Sb	123					
>	Lu	175		94.7			
	Tl	205	90.754				
	Pb	208	99.151				
	U	238	104.519				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 5

Report Date/Time: Tuesday, May 11, 2010 07:36:01

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 11, 2010 07:39:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 6.099

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.898**	**ug/L**	0.795	11765	0.019
>	Sc	45		**ug/L**		605521	605521.388
	Mn	55	**55.752**	**ug/L**	1.757	169239	0.278
	Ge	74		**ug/L**		169524	-11500.839
	Cd	111	**54.548**	**ug/L**	1.579	27530	0.270
	Cd	114		**ug/L**		64352	0.632
>	In	115		**ug/L**		101815	101815.454
	Sb	121	**53.256**	**ug/L**	3.324	117003	1.149
	Sb	123		**ug/L**		90714	0.890
>	Lu	175		**ug/L**		172901	172900.827
	Tl	205	**54.930**	**ug/L**	2.207	312433	1.803
	Pb	208	**56.116**	**ug/L**	1.333	477282	2.759
	U	238	**58.370**	**ug/L**	0.248	560266	3.239

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	103.795				
>	Sc	45		90.0			
	Mn	55	111.503				
	Ge	74					
	Cd	111	109.096				
	Cd	114					
>	In	115		95.0			
	Sb	121	106.511				
	Sb	123					
>	Lu	175		95.7			
	Tl	205	109.861				
	Pb	208	112.231				
	U	238	116.739				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Mn	55	CCV is out of limits (+/- 10%)
QC Std 6	Pb	208	CCV is out of limits (+/- 10%)
QC Std 6	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 11, 2010 07:44:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 7.100

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.009**	**ug/L**	217.901	26	0.000
|>	Sc	45		**ug/L**		625767	625767.140
⌊	Mn	55	**-0.030**	**ug/L**	44.309	628	-0.000
	Ge	74		**ug/L**		175173	-5851.546
⌈	Cd	111	**-0.024**	**ug/L**	71.728	13	-0.000
|	Cd	114		**ug/L**		53	0.000
|>	In	115		**ug/L**		106380	106380.324
|	Sb	121	**0.013**	**ug/L**	14.448	134	0.000
⌊	Sb	123		**ug/L**		120	0.000
⌈>	Lu	175		**ug/L**		180402	180402.248
|	Tl	205	**0.127**	**ug/L**	13.079	1454	0.004
|	Pb	208	**-0.001**	**ug/L**	167.701	333	-0.000
⌊	U	238	**0.003**	**ug/L**	91.305	274	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.0			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		99.3			
	Sb	121					
	Sb	123					
>	Lu	175		99.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Tuesday, May 11, 2010 07:45:36

ICPMS#6 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Tuesday, May 11, 2010 07:49:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 10.101

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**956.001**	**ug/L**	1.243	196484	0.357
|>	Sc	45		**ug/L**		550016	550016.448
⌊	Mn	55	**1013.834**	**ug/L**	1.281	2784961	5.063
	Ge	74		**ug/L**		155758	-25266.794
⌈	Cd	111	**1008.411**	**ug/L**	2.332	466810	4.995
|	Cd	114		**ug/L**		1122981	12.016
|>	In	115		**ug/L**		93468	93468.363
|	Sb	121	**261.736**	**ug/L**	2.416	527598	5.645
⌊	Sb	123		**ug/L**		417928	4.471
⌈>	Lu	175		**ug/L**		165867	165866.823
|	Tl	205	**478.785**	**ug/L**	1.099	2607840	15.719
|	Pb	208	**5108.331**	**ug/L**	1.474	41651327	251.142
⌊	U	238	**5354.436**	**ug/L**	2.258	49271250	297.120

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	95.600				
>	Sc	45		81.8			
	Mn	55	101.383				
	Ge	74					
	Cd	111	100.841				
	Cd	114					
>	In	115		87.2			
	Sb	121	104.694				
	Sb	123					
>	Lu	175		91.8			
	Tl	205	95.757				
	Pb	208	102.167				
	U	238	107.089				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Tuesday, May 11, 2010 07:54:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 11.102

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**49.903**	**ug/L**	1.871	11296	0.019
|>	Sc	45		**ug/L**		604531	604530.892
⌊	Mn	55	**55.689**	**ug/L**	0.994	168793	0.278
	Ge	74		**ug/L**		174409	-6616.379
⌈	Cd	111	**51.906**	**ug/L**	1.516	27245	0.257
|	Cd	114		**ug/L**		64388	0.608
|>	In	115		**ug/L**		105873	105873.206
|	Sb	121	**50.232**	**ug/L**	1.038	114800	1.083
⌊	Sb	123		**ug/L**		89676	0.846
⌈>	Lu	175		**ug/L**		180643	180643.482
|	Tl	205	**53.189**	**ug/L**	1.279	316150	1.746
|	Pb	208	**54.150**	**ug/L**	1.314	481208	2.662
⌊	U	238	**56.265**	**ug/L**	1.484	564195	3.122

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	99.806				
>	Sc	45		89.9			
	Mn	55	111.378				
	Ge	74					
	Cd	111	103.811				
	Cd	114					
>	In	115		98.8			
	Sb	121	100.464				
	Sb	123					
>	Lu	175		100.0			
	Tl	205	106.379				
	Pb	208	108.299				
	U	238	112.531				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Mn	55	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Tuesday, May 11, 2010 07:58:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 12.103

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.039**	**ug/L**	36.134	33	0.000
>	Sc	45		**ug/L**		625440	625439.523
	Mn	55	**0.072**	**ug/L**	21.183	944	0.000
	Ge	74		**ug/L**		177537	-3487.804
	Cd	111	**-0.020**	**ug/L**	96.213	15	-0.000
	Cd	114		**ug/L**		49	0.000
>	In	115		**ug/L**		107985	107985.007
	Sb	121	**0.023**	**ug/L**	28.119	157	0.000
	Sb	123		**ug/L**		138	0.000
>	Lu	175		**ug/L**		179929	179929.147
	Tl	205	**0.277**	**ug/L**	4.691	2336	0.009
	Pb	208	**0.008**	**ug/L**	24.547	412	0.000
	U	238	**0.018**	**ug/L**	8.861	432	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.0			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		100.8			
	Sb	121					
	Sb	123					
>	Lu	175		99.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065854
Sample Date/Time: Tuesday, May 11, 2010 08:03:40
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\1202065854.104

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.002**	**ug/L**	190.759	27	0.000
>	Sc	45		**ug/L**		690771	690771.382
	Mn	55	**0.239**	**ug/L**	3.710	1620	0.001
	Ge	74		**ug/L**		192174	11149.005
	Cd	111	**-0.023**	**ug/L**	78.481	14	-0.000
	Cd	114		**ug/L**		45	0.000
>	In	115		**ug/L**		111682	111681.825
	Sb	121	**0.012**	**ug/L**	6.725	138	0.000
	Sb	123		**ug/L**		148	0.000
>	Lu	175		**ug/L**		179249	179248.738
	Tl	205	**0.061**	**ug/L**	5.726	1057	0.002
	Pb	208	**0.014**	**ug/L**	9.491	463	0.001
	U	238	**-0.007**	**ug/L**	8.359	178	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.7			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		104.2			
	Sb	121					
	Sb	123					
>	Lu	175		99.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065855
Sample Date/Time: Tuesday, May 11, 2010 08:08:27
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\1202065855.105

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**54.732**	**ug/L**	3.084	14689	0.020
|>	Sc	45		**ug/L**		716949	716948.699
⌊	Mn	55	**52.447**	**ug/L**	1.827	188571	0.262
	Ge	74		**ug/L**		190145	9120.197
⌈	Cd	111	**53.951**	**ug/L**	1.731	29021	0.267
|	Cd	114		**ug/L**		67087	0.618
|>	In	115		**ug/L**		108523	108523.182
|	Sb	121	**52.552**	**ug/L**	2.065	123075	1.133
⌊	Sb	123		**ug/L**		95824	0.882
⌈>	Lu	175		**ug/L**		177607	177606.673
|	Tl	205	**49.028**	**ug/L**	1.906	286556	1.610
|	Pb	208	**53.702**	**ug/L**	0.466	469239	2.640
⌊	U	238	**53.017**	**ug/L**	1.354	522751	2.942

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		106.6			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		101.3			
	Sb	121					
	Sb	123					
>	Lu	175		98.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Tuesday, May 11, 2010 08:32:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 8.110

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.138**	**ug/L**	1.660	11197	0.018
>	Sc	45		**ug/L**		621253	621252.899
	Mn	55	**53.273**	**ug/L**	1.732	165970	0.266
	Ge	74		**ug/L**		168974	-12051.044
	Cd	111	**52.955**	**ug/L**	1.019	26931	0.262
	Cd	114		**ug/L**		63150	0.615
>	In	115		**ug/L**		102582	102582.246
	Sb	121	**51.575**	**ug/L**	2.417	114175	1.112
	Sb	123		**ug/L**		89449	0.871
>	Lu	175		**ug/L**		175568	175567.618
	Tl	205	**51.571**	**ug/L**	2.053	297859	1.693
	Pb	208	**55.280**	**ug/L**	1.188	477406	2.718
	U	238	**56.090**	**ug/L**	1.737	546567	3.112

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

Sample ID: QC Std 8

Report Date/Time: Tuesday, May 11, 2010 08:33:31

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	96.275				
>	Sc	45		92.4			
	Mn	55	106.546				
	Ge	74					
	Cd	111	105.910				
	Cd	114					
>	In	115		95.7			
	Sb	121	103.150				
	Sb	123					
>	Lu	175		97.2			
	Tl	205	103.142				
	Pb	208	110.560				
	U	238	112.180				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Pb	208	CCV is out of limits (+/- 10%)
QC Std 8	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Tuesday, May 11, 2010 08:37:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 9.111

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.007	ug/L	145.643	23	-0.000
>	Sc	45		ug/L		628006	628005.786
	Mn	55	-0.007	ug/L	202.225	699	-0.000
	Ge	74		ug/L		176850	-4175.275
	Cd	111	-0.026	ug/L	108.671	11	-0.000
	Cd	114		ug/L		35	-0.000
>	In	115		ug/L		106153	106153.394
	Sb	121	0.001	ug/L	619.221	105	0.000
	Sb	123		ug/L		102	-0.000
>	Lu	175		ug/L		178452	178452.401
	Tl	205	0.283	ug/L	9.762	2352	0.009
	Pb	208	0.002	ug/L	221.528	353	0.000
	U	238	0.011	ug/L	7.136	351	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.4			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		99.1			
	Sb	121					
	Sb	123					
>	Lu	175		98.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248861001
Sample Date/Time: Tuesday, May 11, 2010 08:42:04
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\248861001.112

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.010**	**ug/L**	114.449	24	-0.000
|>	Sc	45		**ug/L**		693310	693310.308
⌊	Mn	55	**1.539**	**ug/L**	2.268	6128	0.008
	Ge	74		**ug/L**		189957	8932.432
⌈	Cd	111	**-0.008**	**ug/L**	270.869	22	-0.000
|	Cd	114		**ug/L**		44	0.000
|>	In	115		**ug/L**		111012	111012.290
|	Sb	121	**0.006**	**ug/L**	21.644	121	0.000
⌊	Sb	123		**ug/L**		137	0.000
⌈>	Lu	175		**ug/L**		178843	178843.142
|	Tl	205	**0.045**	**ug/L**	8.907	960	0.001
|	Pb	208	**0.067**	**ug/L**	1.756	925	0.003
⌊	U	238	**-0.011**	**ug/L**	5.064	138	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.1			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		103.6			
	Sb	121					
	Sb	123					
>	Lu	175		99.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065856
Sample Date/Time: Tuesday, May 11, 2010 08:46:53
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\1202065856.113

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.009**	**ug/L**	192.820	25	-0.000
|>	Sc	45		**ug/L**		705063	705062.654
⌊	Mn	55	**1.657**	**ug/L**	1.060	6645	0.008
	Ge	74		**ug/L**		191957	10932.123
⌈	Cd	111	**-0.011**	**ug/L**	93.155	21	-0.000
|	Cd	114		**ug/L**		36	-0.000
|>	In	115		**ug/L**		111428	111428.439
|	Sb	121	**-0.007**	**ug/L**	49.461	91	-0.000
⌊	Sb	123		**ug/L**		112	0.000
⌈>	Lu	175		**ug/L**		178771	178771.206
|	Tl	205	**-0.003**	**ug/L**	95.512	677	-0.000
|	Pb	208	**0.059**	**ug/L**	3.553	856	0.003
⌊	U	238	**-0.018**	**ug/L**	3.525	65	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		104.8			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		104.0			
	Sb	121					
	Sb	123					
>	Lu	175		99.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065857
Sample Date/Time: Tuesday, May 11, 2010 08:51:41
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\1202065857.114

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.484**	**ug/L**	0.844	14145	0.020
>	Sc	45		**ug/L**		693518	693518.308
	Mn	55	**52.564**	**ug/L**	1.275	182813	0.262
	Ge	74		**ug/L**		186173	5148.257
	Cd	111	**10.735**	**ug/L**	1.310	5772	0.053
	Cd	114		**ug/L**		12884	0.119
>	In	115		**ug/L**		108069	108069.439
	Sb	121	**202.731**	**ug/L**	2.843	472457	4.372
	Sb	123		**ug/L**		364584	3.373
>	Lu	175		**ug/L**		177248	177248.298
	Tl	205	**91.420**	**ug/L**	0.986	532691	3.001
	Pb	208	**42.102**	**ug/L**	0.740	367202	2.070
	U	238	**53.232**	**ug/L**	0.583	523816	2.954

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.1			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		100.9			
	Sb	121					
	Sb	123					
>	Lu	175		98.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065858
Sample Date/Time: Tuesday, May 11, 2010 08:56:29
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 962984|5|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\1202065858.115

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.021**	**ug/L**	83.696	21	-0.000
|>	Sc	45		**ug/L**		679446	679446.400
⌊	Mn	55	**0.277**	**ug/L**	3.530	1722	0.001
	Ge	74		**ug/L**		182875	1849.769
⌈	Cd	111	**-0.025**	**ug/L**	106.847	13	-0.000
|	Cd	114		**ug/L**		30	-0.000
|>	In	115		**ug/L**		110833	110832.725
|	Sb	121	**0.046**	**ug/L**	18.275	217	0.001
⌊	Sb	123		**ug/L**		173	0.001
⌈>	Lu	175		**ug/L**		184600	184600.253
|	Tl	205	**1.335**	**ug/L**	7.223	8812	0.044
|	Pb	208	**0.023**	**ug/L**	9.396	560	0.001
⌊	U	238	**-0.011**	**ug/L**	2.893	141	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.0			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		103.4			
	Sb	121					
	Sb	123					
>	Lu	175		102.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248861002
Sample Date/Time: Tuesday, May 11, 2010 09:01:18
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\248861002.116

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.015	ug/L	170.647	23	-0.000
>	Sc	45		ug/L		698353	698352.731
	Mn	55	0.228	ug/L	3.463	1600	0.001
	Ge	74		ug/L		192061	11036.222
	Cd	111	-0.022	ug/L	61.677	14	-0.000
	Cd	114		ug/L		34	-0.000
>	In	115		ug/L		111697	111696.741
	Sb	121	-0.003	ug/L	160.983	102	-0.000
	Sb	123		ug/L		118	0.000
>	Lu	175		ug/L		181699	181699.085
	Tl	205	0.423	ug/L	5.878	3230	0.014
	Pb	208	0.003	ug/L	72.136	373	0.000
	U	238	-0.019	ug/L	2.630	63	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.8			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		104.3			
	Sb	121					
	Sb	123					
>	Lu	175		100.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 11, 2010 09:06:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 6.117

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.261**	**ug/L**	0.760	11344	0.018
>	Sc	45		**ug/L**		615095	615094.913
	Mn	55	**54.310**	**ug/L**	1.186	167531	0.271
	Ge	74		**ug/L**		168824	-12200.797
	Cd	111	**53.646**	**ug/L**	1.992	27228	0.266
	Cd	114		**ug/L**		64127	0.626
>	In	115		**ug/L**		102385	102385.342
	Sb	121	**51.412**	**ug/L**	2.575	113611	1.109
	Sb	123		**ug/L**		89172	0.870
>	Lu	175		**ug/L**		177235	177234.854
	Tl	205	**51.328**	**ug/L**	1.455	299327	1.685
	Pb	208	**54.964**	**ug/L**	1.189	479217	2.702
	U	238	**56.204**	**ug/L**	0.405	552980	3.119

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	98.522				
>	Sc	45		91.4			
	Mn	55	108.621				
	Ge	74					
	Cd	111	107.291				
	Cd	114					
>	In	115		95.6			
	Sb	121	102.824				
	Sb	123					
>	Lu	175		98.1			
	Tl	205	102.657				
	Pb	208	109.928				
	U	238	112.407				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 11, 2010 09:10:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 7.118

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.007**	**ug/L**	354.006	23	-0.000
>	Sc	45		**ug/L**		639448	639447.789
	Mn	55	**-0.024**	**ug/L**	48.021	660	-0.000
	Ge	74		**ug/L**		174404	-6621.403
	Cd	111	**0.003**	**ug/L**	185.551	27	0.000
	Cd	114		**ug/L**		40	0.000
>	In	115		**ug/L**		104225	104225.069
	Sb	121	**0.010**	**ug/L**	57.905	124	0.000
	Sb	123		**ug/L**		129	0.000
>	Lu	175		**ug/L**		175389	175388.818
	Tl	205	**0.489**	**ug/L**	4.590	3496	0.016
	Pb	208	**0.005**	**ug/L**	28.707	376	0.000
	U	238	**0.006**	**ug/L**	12.541	304	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.1			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		97.3			
	Sb	121					
	Sb	123					
>	Lu	175		97.1			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, May 11, 2010 23:34:39
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100506\Sample.242
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1776.7	1776.711	42.074	2.4
	Mg	24.0	44428.2	44428.183	415.223	0.9
	Co	58.9	20750.9	20750.860	94.875	0.5
	Rh	102.9	44715.7	44715.680	489.551	1.1
	In	114.9	52761.9	52761.859	408.680	0.8
	Pb	208.0	45381.6	45381.570	276.280	0.6
⌈>	Ba	137.9	54651.5	54651.516	242.066	0.4
⌊	Ba++	69.0	625.9	0.011	0.000	1.5
⌈>	Ce	139.9	65021.6	65021.643	448.821	0.7
⌊	CeO	155.9	904.2	0.014	0.000	3.4
	Bkgd	220.0	19.5	19.500	1.581	8.1

Current Optimization File Data

Current Value	Description
0.73	Nebulizer Gas Flow
9.00	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	15	7.8	2463.9
Co	59	15	8.5	20243.0
In	115	15	10.0	53142.0

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	579	2080	0.639
Be	9.0	9.0	2040	2080	0.662
Mg	24.0	24.0	5680	2120	0.615
Mg	25.0	24.9	5907	2080	0.692
Mg	26.0	26.0	6158	2120	0.670
Co	58.9	59.0	14182	2170	0.648
Rh	102.9	102.9	24844	2230	0.697
In	114.9	114.9	27784	2260	0.688
Ce	139.9	139.9	33845	2280	0.755
Pb	206.0	206.0	49948	2424	0.727
Pb	207.0	206.9	50125	2385	0.672
Pb	208.0	207.9	50451	2430	0.731
U	238.1	238.1	57733	2470	0.724

Report Date/Time: Tuesday, May 11, 2010 23:33:18

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, May 12, 2010 01:54:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\Blank.025

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		418260	
	Mn	55		**ug/L**		647	
>	Lu	175		**ug/L**		161522	
	Pb	208		**ug/L**		169	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45					
	Mn	55					
>	Lu	175					
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Blank

Report Date/Time: Wednesday, May 12, 2010 01:54:39

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, May 12, 2010 01:58:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\Standard 1.026

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		414388	414388.288
	Mn	55	**10.000**	**ug/L**	1.748	28273	0.067
>	Lu	175		**ug/L**		165171	165171.313
	Pb	208	**10.000**	**ug/L**	1.695	85841	0.519

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45					
⌊	Mn	55					
⌈>	Lu	175					
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, May 12, 2010 02:02:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\Standard 2.027

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		395001	395000.937
⌊	Mn	55	100.038	ug/L	2.379	274511	0.694
⌈>	Lu	175		ug/L		162557	162556.655
⌊	Pb	208	100.032	ug/L	3.009	871747	5.363

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45					
	Mn	55					
>	Lu	175					
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, May 12, 2010 02:06:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 1.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		411208	411207.691
	Mn	55	52.524	ug/L	2.675	150356	0.364
>	Lu	175		ug/L		166689	166688.580
	Pb	208	51.625	ug/L	1.180	461483	2.768

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

Sample ID: QC Std 1

Report Date/Time: Wednesday, May 12, 2010 02:06:54

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		98.3			
	Mn	55	105.048				
>	Lu	175		103.2			
	Pb	208	103.250				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, May 12, 2010 02:10:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 2.029

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		418361	418361.207
	Mn	55	**0.003**	**ug/L**	413.081	657	0.000
>	Lu	175		**ug/L**		162114	162114.273
	Pb	208	**0.001**	**ug/L**	189.025	179	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

Sample ID: QC Std 2

Report Date/Time: Wednesday, May 12, 2010 02:11:03

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		100.0			
⌊	Mn	55					
⌈>	Lu	175		100.4			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, May 12, 2010 02:14:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 3.030

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		424695	424695.399
	Mn	55	**5.996**	**ug/L**	1.946	18310	0.042
>	Lu	175		**ug/L**		165989	165988.771
	Pb	208	**2.305**	**ug/L**	1.865	20687	0.124

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		101.5			
⌊	Mn	55	119.922				
⌈>	Lu	175		102.8			
⌊	Pb	208	115.265				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 3

Report Date/Time: Wednesday, May 12, 2010 02:15:09

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, May 12, 2010 02:18:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 4.031

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		352616	352615.747
⌊	Mn	55	**5.527**	**ug/L**	0.569	14057	0.038
⌈>	Lu	175		**ug/L**		149115	149114.904
⌊	Pb	208	**0.220**	**ug/L**	4.671	1910	0.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		84.3			
	Mn	55	95.285				
>	Lu	175		92.3			
	Pb	208	109.781				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, May 12, 2010 02:22:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 5.032

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		352007	352006.502
	Mn	55	**24.952**	**ug/L**	1.383	61440	0.173
>	Lu	175		**ug/L**		148526	148525.811
	Pb	208	**19.756**	**ug/L**	1.188	157440	1.059

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		84.2			
⌊	Mn	55	96.712				
⌈>	Lu	175		92.0			
⌊	Pb	208	97.802				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 5

Report Date/Time: Wednesday, May 12, 2010 02:23:22

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 12, 2010 02:27:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 6.033

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		451562	451561.899
⌊	Mn	55	**46.253**	**ug/L**	1.981	145505	0.321
⌈>	Lu	175		**ug/L**		161602	161601.964
⌊	Pb	208	**52.316**	**ug/L**	2.696	453304	2.805

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		108.0			
⌊	Mn	55	92.507				
⌈>	Lu	175		100.0			
⌊	Pb	208	104.632				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 12, 2010 02:31:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 7.034

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		411523	411523.263
⌊	Mn	55	-0.007	ug/L	98.627	616	-0.000
⌈>	Lu	175		ug/L		157690	157690.333
⌊	Pb	208	0.004	ug/L	55.425	195	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		98.4			
⌊	Mn	55					
⌈>	Lu	175		97.6			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Wednesday, May 12, 2010 02:31:37

ICPMS#6 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Wednesday, May 12, 2010 02:35:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 10.035

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		383751	383751.326
	Mn	55	**933.248**	**ug/L**	1.578	2483136	6.471
>	Lu	175		**ug/L**		160838	160837.736
	Pb	208	**4665.014**	**ug/L**	1.636	40218476	250.095

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		91.7			
⌊	Mn	55	93.325				
⌈>	Lu	175		99.6			
⌊	Pb	208	93.300				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 10

Report Date/Time: Wednesday, May 12, 2010 02:35:41

ICPMS#6 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Wednesday, May 12, 2010 02:39:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 11.036

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		411891	411890.828
⌊	Mn	55	**52.601**	**ug/L**	2.133	150840	0.365
⌈>	Lu	175		**ug/L**		163486	163485.662
⌊	Pb	208	**52.266**	**ug/L**	1.707	458178	2.802

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		98.5			
⌊	Mn	55	105.202				
⌈>	Lu	175		101.2			
⌊	Pb	208	104.533				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Wednesday, May 12, 2010 02:43:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 12.037

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		423957	423957.491
⌊	Mn	55	**0.118**	**ug/L**	12.983	1003	0.001
⌈>	Lu	175		**ug/L**		158901	158901.338
⌊	Pb	208	**0.020**	**ug/L**	17.294	334	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		101.4			
	Mn	55					
>	Lu	175		98.4			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 12

Report Date/Time: Wednesday, May 12, 2010 02:43:56

ICPMS#6 - Summary Report

Sample ID: 1202065854
Sample Date/Time: Wednesday, May 12, 2010 02:47:40
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\1202065854.038

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		461979	461978.580
	Mn	55	**0.282**	**ug/L**	5.699	1620	0.002
>	Lu	175		**ug/L**		154963	154962.585
	Pb	208	**0.051**	**ug/L**	9.642	583	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		110.5			
⌊	Mn	55					
⌈>	Lu	175		95.9			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065855
Sample Date/Time: Wednesday, May 12, 2010 02:51:47
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\1202065855.039

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		465296	465295.553
⌊	Mn	55	**54.949**	**ug/L**	1.993	177984	0.381
⌈>	Lu	175		**ug/L**		157732	157731.655
⌊	Pb	208	**55.308**	**ug/L**	1.600	467802	2.965

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		111.2			
	Mn	55					
>	Lu	175		97.7			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Wednesday, May 12, 2010 03:12:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 8.044

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		419096	419096.076
	Mn	55	**50.004**	**ug/L**	2.072	145949	0.347
>	Lu	175		**ug/L**		160773	160773.392
	Pb	208	**52.850**	**ug/L**	2.546	455561	2.833

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		100.2			
⌊	Mn	55	100.008				
⌈>	Lu	175		99.5			
⌊	Pb	208	105.700				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Wednesday, May 12, 2010 03:16:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 9.045

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		450362	450361.765
⌊	Mn	55	**0.003**	**ug/L**	689.158	706	0.000
⌈>	Lu	175		**ug/L**		162330	162330.220
⌊	Pb	208	**0.005**	**ug/L**	54.144	216	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		107.7			
	Mn	55					
>	Lu	175		100.5			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248861001
Sample Date/Time: Wednesday, May 12, 2010 03:20:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\248861001.046

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		457539	457539.029
	Mn	55	**1.602**	**ug/L**	2.397	5790	0.011
>	Lu	175		**ug/L**		152602	152602.163
	Pb	208	**0.092**	**ug/L**	6.562	914	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		109.4			
	Mn	55					
>	Lu	175		94.5			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065856
Sample Date/Time: Wednesday, May 12, 2010 03:24:50
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\1202065856.047

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		457887	457886.831
	Mn	55	1.757	ug/L	2.664	6287	0.012
>	Lu	175		ug/L		153111	153111.452
	Pb	208	0.082	ug/L	5.887	836	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		109.5			
	Mn	55					
>	Lu	175		94.8			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065857
Sample Date/Time: Wednesday, May 12, 2010 03:28:58
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\1202065857.048

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		463874	463873.966
⌊	Mn	55	**53.116**	**ug/L**	2.557	171537	0.368
⌈>	Lu	175		**ug/L**		150442	150442.128
⌊	Pb	208	**45.961**	**ug/L**	2.828	370684	2.464

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		110.9			
	Mn	55					
>	Lu	175		93.1			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065858
Sample Date/Time: Wednesday, May 12, 2010 03:33:06
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 962984|5|rmj
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\1202065858.049

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		449542	449541.943
⌊	Mn	55	**0.312**	**ug/L**	13.183	1665	0.002
⌈>	Lu	175		**ug/L**		160933	160933.029
⌊	Pb	208	**0.051**	**ug/L**	4.302	612	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		107.5			
	Mn	55					
>	Lu	175		99.6			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248861002
Sample Date/Time: Wednesday, May 12, 2010 03:37:14
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\248861002.050

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		478185	478185.138
	Mn	55	**0.274**	**ug/L**	0.612	1649	0.002
>	Lu	175		**ug/L**		156609	156609.428
	Pb	208	**0.022**	**ug/L**	11.603	351	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		114.3			
⌊	Mn	55					
⌈>	Lu	175		97.0			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 12, 2010 03:41:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 6.051

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		416996	416996.254
	Mn	55	**50.516**	**ug/L**	0.599	146704	0.350
>	Lu	175		**ug/L**		160330	160329.700
	Pb	208	**53.466**	**ug/L**	1.396	459680	2.866

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		99.7			
⌊	Mn	55	101.033				
⌈>	Lu	175		99.3			
⌊	Pb	208	106.932				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Wednesday, May 12, 2010 03:41:43

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 12, 2010 03:45:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 7.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		453604	453604.385
⌊	Mn	55	-0.008	ug/L	60.431	677	-0.000
⌈>	Lu	175		ug/L		160711	160711.374
⌊	Pb	208	0.005	ug/L	25.793	211	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		108.5			
	Mn	55					
>	Lu	175		99.5			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Wednesday, May 12, 2010 03:45:53

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\031310W1.SIF
Batch ID:
Results Data Set: 031310W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 2/8/2010 13:04:57**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/13/2010 07:06:01**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0003	0.0001	0.0003	07:07:03	Yes
2		[0.00]	0.0003	0.0003	0.0003	07:07:38	Yes
Mean:		[0.00]	0.0003				
SD:		0.00	0.0000				
%RSD:		0.00	3.76				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/13/2010 07:07:57**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0024	0.0110	0.0026	07:08:57	Yes
2		[0.2]	0.0023	0.0104	0.0025	07:09:32	Yes
Mean:		[0.2]	0.0023				
SD:		0.0	0.0001				
%RSD:		0.0	3.43				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01159 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/13/2010 07:09:51**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0056	0.0261	0.0059	07:10:52	Yes
2		[0.5]	0.0056	0.0259	0.0059	07:11:27	Yes
Mean:		[0.5]	0.0056				
SD:		0.0	0.0000				
%RSD:		0.0	0.01				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999927 Slope: 0.01128 Intercept: 0.00002

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/13/2010 07:11:46**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0231	0.1060	0.0233	07:12:48	Yes
2		[2.0]	0.0232	0.1057	0.0235	07:13:23	Yes
Mean:		[2.0]	0.0231				
SD:		0.0	0.0001				
%RSD:		0.0	0.38				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999978 Slope: 0.01158 Intercept: -0.00004

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/13/2010 07:13:43**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0576	0.2651	0.0579	07:14:44	Yes
2		[5.0]	0.0576	0.2650	0.0578	07:15:19	Yes
Mean:		[5.0]	0.0576				
SD:		0.0	0.0000				
%RSD:		0.0	0.08				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999995 Slope: 0.01153 Intercept: -0.00001

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/13/2010 07:15:39**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1155	0.5378	0.1158	07:16:40	Yes
2		[10.0]	0.1157	0.5387	0.1159	07:17:14	Yes
Mean:		[10.0]	0.1156				
SD:		0.0	0.0001				
%RSD:		0.0	0.08				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999998 Slope: 0.01156 Intercept: -0.00005

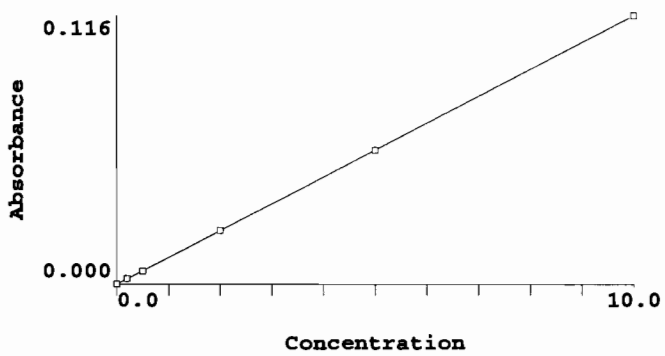

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	0.004	0.00	3.8
S0.2	0.0023	0.2	0.205	0.00	3.4
S0.5	0.0056	0.5	0.493	0.00	0.0
S2.0	0.0231	2.0	2.006	0.00	0.4

S5.0	0.0576	5.0	4.987	0.00	0.1
S10.0	0.1156	10.0	10.006	0.00	0.1

Correlation Coef.: 0.999998 Slope: 0.01156 Intercept: -0.00005

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/13/2010 07:17:33**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.116	5.116	0.0591	0.2724	0.0593	07:18:34	Yes
2	5.078	5.078	0.0586	0.2706	0.0589	07:19:10	Yes
Mean:	5.097	5.097	0.0589				
SD:	0.027	0.027	0.0003				
%RSD:	0.521	0.521	0.52				

QC value within limits for Hg 253.7 Recovery = 101.94%
All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/13/2010 07:19:29**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	-0.0001	-0.0006	0.0002	07:20:31	Yes
2	0.000	0.000	-0.0000	-0.0005	0.0002	07:21:06	Yes
Mean:	-0.001	-0.001	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	159.4	159.4	42.51				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/13/2010 07:21:25**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.198	0.198	0.0022	0.0107	0.0025	07:22:27	Yes
2	0.199	0.199	0.0023	0.0108	0.0025	07:23:02	Yes
Mean:	0.199	0.199	0.0022				
SD:	0.001	0.001	0.0000				
%RSD:	0.293	0.293	0.30				

QC value within limits for Hg 253.7 Recovery = 99.29%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/13/2010 07:23:22**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.047	5.047	0.0583	0.2704	0.0586	07:24:22	Yes
2	5.032	5.032	0.0581	0.2689	0.0584	07:24:57	Yes
Mean:	5.039	5.039	0.0582				
SD:	0.011	0.011	0.0001				
%RSD:	0.215	0.215	0.21				

QC value within limits for Hg 253.7 Recovery = 100.79%
All analyte(s) passed QC.

==========

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/13/2010 07:25:16**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	-0.0001	-0.0004	0.0002	07:26:17	Yes
2	0.006	0.006	0.0000	0.0001	0.0003	07:26:51	Yes
Mean:	0.002	0.002	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	230.2	230.2	281.11				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202056683|959019|1 **Date Collected: 3/13/2010 07:27:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202056683|959019|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	-0.0000	-0.0003	0.0002	07:28:12	Yes
2	0.003	0.003	-0.0000	0.0001	0.0003	07:28:47	Yes
Mean:	0.002	0.002	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	54.12	54.12	61.22				

==========

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 247669001|959019|1 **Date Collected: 3/13/2010 07:29:07**
Analyst: JXL **Data Type: Original**

Replicate Data: 247669001|959019|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.285	0.285	0.0033	0.0150	0.0035	07:30:09	Yes
2	0.291	0.291	0.0033	0.0151	0.0036	07:30:44	Yes
Mean:	0.288	0.288	0.0033				
SD:	0.004	0.004	0.0000				
%RSD:	1.257	1.257	1.28				

==========

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 247669002|959019|1 **Date Collected: 3/13/2010 07:31:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 247669002|959019|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.429	0.429	0.0049	0.0230	0.0052	07:32:05	Yes
2	0.426	0.426	0.0049	0.0229	0.0051	07:32:40	Yes
Mean:	0.427	0.427	0.0049				
SD:	0.002	0.002	0.0000				
%RSD:	0.463	0.463	0.47				

==========

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202069597|964675|1 **Date Collected: 3/13/2010 07:32:59**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069597|964675|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 1202069601|964675|500

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	-0.0000	0.0005	0.0002	07:43:33	Yes
2	0.003	0.003	-0.0000	0.0008	0.0003	07:44:08	Yes
Mean:	0.002	0.002	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	20.17	20.17	29.29				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 249148002|964675|100 **Date Collected: 3/13/2010 07:44:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 249148002|964675|100

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.004	0.004	-0.0000	0.0010	0.0003	07:45:29	Yes
2	0.009	0.009	0.0001	0.0013	0.0003	07:46:04	Yes
Mean:	0.006	0.006	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	51.00	51.00	144.96				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/13/2010 07:46:23**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.999	4.999	0.0577	0.2686	0.0580	07:47:24	Yes
2	4.942	4.942	0.0571	0.2675	0.0573	07:47:59	Yes
Mean:	4.971	4.971	0.0574				
SD:	0.040	0.040	0.0005				
%RSD:	0.811	0.811	0.81				

QC value within limits for Hg 253.7 Recovery = 99.42%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/13/2010 07:48:18**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.014	0.014	0.0001	0.0024	0.0004	07:49:18	Yes
2	0.017	0.017	0.0001	0.0032	0.0004	07:49:53	Yes
Mean:	0.016	0.016	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	12.14	12.14	16.46				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 1202056673|959008|1 **Date Collected: 3/13/2010 07:50:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202056673|959008|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0001	0.0018	0.0004	07:51:14	Yes
2	0.012	0.012	0.0001	0.0018	0.0004	07:51:49	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.013	0.013	0.0001	0.0020	0.0004	08:00:54	Yes
2	0.021	0.021	0.0002	0.0033	0.0005	08:01:28	Yes
Mean:	0.017	0.017	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	33.77	33.77	44.57				

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 248390001|964196|1 **Date Collected: 3/13/2010 08:01:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 248390001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.013	0.013	0.0001	0.0022	0.0004	08:02:48	Yes
2	0.016	0.016	0.0001	0.0021	0.0004	08:03:23	Yes
Mean:	0.014	0.014	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	13.65	13.65	19.08				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 248402001|964196|1 **Date Collected: 3/13/2010 08:03:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 248402001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.013	0.013	0.0001	0.0028	0.0004	08:04:43	Yes
2	0.020	0.020	0.0002	0.0038	0.0004	08:05:18	Yes
Mean:	0.016	0.016	0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	30.84	30.84	41.23				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 248516001|964196|1 **Date Collected: 3/13/2010 08:05:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 248516001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0001	0.0020	0.0003	08:06:38	Yes
2	0.004	0.004	-0.0000	0.0012	0.0003	08:07:12	Yes
Mean:	0.007	0.007	0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	67.34	67.34	164.84				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 248516002|964196|1 **Date Collected: 3/13/2010 08:07:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 248516002|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0000	0.0014	0.0003	08:08:33	Yes
2	0.008	0.008	0.0000	0.0016	0.0003	08:09:07	Yes
Mean:	0.006	0.006	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	26.39	26.39	73.83				

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/13/2010 08:09:27**

Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.004	5.004	0.0578	0.2733	0.0581	08:10:27	Yes
2	5.016	5.016	0.0579	0.2728	0.0582	08:11:02	Yes
Mean:	5.010	5.010	0.0579				
SD:	0.008	0.008	0.0001				
%RSD:	0.163	0.163	0.16				

QC value within limits for Hg 253.7 Recovery = 100.20%
All analyte(s) passed QC.

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/13/2010 08:11:21**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0001	0.0014	0.0003	08:12:22	Yes
2	0.009	0.009	0.0001	0.0015	0.0003	08:12:57	Yes
Mean:	0.009	0.009	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	3.974	3.974	7.44				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 248518001|964196|1 **Date Collected: 3/13/2010 08:13:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 248518001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0000	0.0016	0.0003	08:14:17	Yes
2	0.008	0.008	0.0000	0.0019	0.0003	08:14:52	Yes
Mean:	0.007	0.007	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	19.79	19.79	45.55				

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 248523001|964196|1 **Date Collected: 3/13/2010 08:15:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 248523001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0000	0.0016	0.0003	08:16:13	Yes
2	0.005	0.005	0.0000	0.0015	0.0003	08:16:48	Yes
Mean:	0.006	0.006	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	9.345	9.345	32.53				

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 248533001|964196|1 **Date Collected: 3/13/2010 08:17:07**
Analyst: JXL **Data Type: Original**

Replicate Data: 248533001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.007	0.007	0.0000	0.0017	0.0003	08:18:09	Yes

Replicate Data: 1202068543|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.086	2.086	0.0241	0.1153	0.0243	08:27:50	Yes
2	2.102	2.102	0.0242	0.1155	0.0245	08:28:25	Yes
Mean:	2.094	2.094	0.0242				
SD:	0.011	0.011	0.0001				
%RSD:	0.523	0.523	0.52				

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 1202068544|964196|5 **Date Collected: 3/13/2010 08:28:45**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202068544|964196|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0001	0.0016	0.0003	08:29:45	Yes
2	0.007	0.007	0.0000	0.0016	0.0003	08:30:20	Yes
Mean:	0.008	0.008	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	22.97	22.97	46.36				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 248551002|964196|1 **Date Collected: 3/13/2010 08:30:40**
Analyst: JXL **Data Type: Original**

Replicate Data: 248551002|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0000	0.0012	0.0003	08:31:41	Yes
2	0.005	0.005	0.0000	0.0013	0.0003	08:32:15	Yes
Mean:	0.005	0.005	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	5.023	5.023	38.58				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/13/2010 08:32:35**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.139	5.139	0.0594	0.2801	0.0596	08:33:35	Yes
2	5.137	5.137	0.0593	0.2796	0.0596	08:34:10	Yes
Mean:	5.138	5.138	0.0593				
SD:	0.002	0.002	0.0000				
%RSD:	0.030	0.030	0.03				

QC value within limits for Hg 253.7 Recovery = 102.76%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/13/2010 08:34:29**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0001	0.0014	0.0003	08:35:30	Yes
2	0.007	0.007	0.0000	0.0013	0.0003	08:36:05	Yes
Mean:	0.008	0.008	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	25.04	25.04	51.72				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 48 **Autosampler Location: 42**
Sample ID: 1202069578|964665|1 **Date Collected: 3/13/2010 08:36:24**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069578|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	-0.0000	0.0009	0.0002	08:37:25	Yes
2	0.002	0.002	-0.0000	0.0013	0.0002	08:38:00	Yes
Mean:	0.002	0.002	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	43.40	43.40	32.96				

Sequence No.: 49 **Autosampler Location: 43**
Sample ID: 1202069579|964665|1 **Date Collected: 3/13/2010 08:38:19**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069579|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.123	2.123	0.0245	0.1160	0.0248	08:39:20	Yes
2	2.111	2.111	0.0244	0.1146	0.0246	08:39:55	Yes
Mean:	2.117	2.117	0.0244				
SD:	0.009	0.009	0.0001				
%RSD:	0.411	0.411	0.41				

Sequence No.: 50 **Autosampler Location: 44**
Sample ID: 248550001|964665|1 **Date Collected: 3/13/2010 08:40:14**
Analyst: JXL **Data Type: Original**

Replicate Data: 248550001|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	-0.0000	0.0006	0.0002	08:41:15	Yes
2	0.003	0.003	-0.0000	0.0012	0.0003	08:41:50	Yes
Mean:	0.002	0.002	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	82.77	82.77	80.49				

Sequence No.: 51 **Autosampler Location: 45**
Sample ID: 248557001|964665|1 **Date Collected: 3/13/2010 08:42:10**
Analyst: JXL **Data Type: Original**

Replicate Data: 248557001|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	-0.0000	0.0010	0.0002	08:43:11	Yes
2	0.006	0.006	0.0000	0.0014	0.0003	08:43:46	Yes
Mean:	0.004	0.004	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	65.07	65.07	>999.9%				

Sequence No.: 52 **Autosampler Location: 46**
Sample ID: 248638001|964665|1 **Date Collected: 3/13/2010 08:44:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 248638001|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

---

Replicate Data: 248697003|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	-0.0000	0.0006	0.0002	08:54:49	Yes
2	0.005	0.005	0.0000	0.0011	0.0003	08:55:24	Yes
Mean:	0.003	0.003	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	83.79	83.79	188.06				

==========

Sequence No.: 58 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/13/2010 08:55:44**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.239	5.239	0.0605	0.2848	0.0608	08:56:44	Yes
2	5.269	5.269	0.0608	0.2848	0.0611	08:57:19	Yes
Mean:	5.254	5.254	0.0607				
SD:	0.021	0.021	0.0002				
%RSD:	0.403	0.403	0.40				

QC value within limits for Hg 253.7 Recovery = 105.07%
All analyte(s) passed QC.

==========

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/13/2010 08:57:38**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	-0.0000	0.0008	0.0003	08:58:39	Yes
2	0.003	0.003	-0.0000	0.0009	0.0002	08:59:14	Yes
Mean:	0.003	0.003	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	11.12	11.12	23.12				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 60 **Autosampler Location: 52**
Sample ID: 248697004|964665|1 **Date Collected: 3/13/2010 08:59:33**
Analyst: JXL **Data Type: Original**

Replicate Data: 248697004|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	-0.0000	0.0008	0.0002	09:00:34	Yes
2	0.001	0.001	-0.0000	0.0007	0.0002	09:01:09	Yes
Mean:	0.002	0.002	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	38.87	38.87	38.59				

==========

Sequence No.: 61 **Autosampler Location: 53**
Sample ID: 248778001|964665|1 **Date Collected: 3/13/2010 09:01:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 248778001|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	-0.0001	0.0006	0.0002	09:02:30	Yes
2	0.004	0.004	-0.0000	0.0009	0.0003	09:03:05	Yes
Mean:	0.001	0.001	-0.0000				

#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.009	0.009	0.0001	0.0013	0.0003	09:12:08	Yes
2	0.010	0.010	0.0001	0.0015	0.0003	09:12:43	Yes
Mean:	0.010	0.010	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	5.211	5.211	9.09				

==========

Sequence No.: 67 **Autosampler Location: 59**
Sample ID: 248839002|964665|1 **Date Collected: 3/13/2010 09:13:03**
Analyst: JXL **Data Type: Original**

Replicate Data: 248839002|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0000	0.0012	0.0003	09:14:04	Yes
2	0.004	0.004	-0.0000	0.0013	0.0003	09:14:39	Yes
Mean:	0.005	0.005	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	18.09	18.09	144.22				

==========

Sequence No.: 68 **Autosampler Location: 60**
Sample ID: 248859001|964665|1 **Date Collected: 3/13/2010 09:14:59**
Analyst: JXL **Data Type: Original**

Replicate Data: 248859001|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0000	0.0012	0.0003	09:16:01	Yes
2	0.005	0.005	0.0000	0.0012	0.0003	09:16:36	Yes
Mean:	0.005	0.005	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	7.733	7.733	41.81				

==========

Sequence No.: 69 **Autosampler Location: 61**
Sample ID: 248861001|964665|1 **Date Collected: 3/13/2010 09:16:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 248861001|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	-0.0000	0.0011	0.0003	09:17:58	Yes
2	0.003	0.003	-0.0000	0.0009	0.0003	09:18:33	Yes
Mean:	0.003	0.003	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	5.396	5.396	13.88				

==========

Sequence No.: 70 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/13/2010 09:18:53**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.121	5.121	0.0591	0.2763	0.0594	09:19:54	Yes
2	5.143	5.143	0.0594	0.2773	0.0597	09:20:29	Yes
Mean:	5.132	5.132	0.0593				
SD:	0.016	0.016	0.0002				
%RSD:	0.305	0.305	0.31				

QC value within 1imits for Hg 253.7 Recovery = 102.64%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**

Sample ID: CCB **Date Collected: 3/13/2010 09:20:48**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.004	0.004	-0.0000	0.0008	0.0003	09:21:49	Yes
2	0.003	0.003	-0.0000	0.0011	0.0003	09:22:24	Yes
Mean:	0.003	0.003	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	14.38	14.38	79.36				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 72 **Autosampler Location: 62**
Sample ID: 1202069580|964665|1 **Date Collected: 3/13/2010 09:22:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069580|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	-0.0000	0.0011	0.0003	09:23:44	Yes
2	0.003	0.003	-0.0000	0.0013	0.0003	09:24:19	Yes
Mean:	0.003	0.003	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	5.570	5.570	24.65				

==========

Sequence No.: 73 **Autosampler Location: 63**
Sample ID: 1202069581|964665|1 **Date Collected: 3/13/2010 09:24:39**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069581|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.088	2.088	0.0241	0.1149	0.0244	09:25:41	Yes
2	2.113	2.113	0.0244	0.1157	0.0246	09:26:15	Yes
Mean:	2.101	2.101	0.0242				
SD:	0.018	0.018	0.0002				
%RSD:	0.835	0.835	0.84				

==========

Sequence No.: 74 **Autosampler Location: 64**
Sample ID: 1202069582|964665|5 **Date Collected: 3/13/2010 09:26:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069582|964665|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.007	0.007	0.0000	0.0014	0.0003	09:27:36	Yes
2	0.004	0.004	0.0000	0.0012	0.0003	09:28:11	Yes
Mean:	0.006	0.006	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	35.35	35.35	117.49				

==========

Sequence No.: 75 **Autosampler Location: 65**
Sample ID: 248861002|964665|1 **Date Collected: 3/13/2010 09:28:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 248861002|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	-0.0000	0.0011	0.0003	09:29:32	Yes
2	0.006	0.006	0.0000	0.0014	0.0003	09:30:08	Yes

Mean:	0.004	0.004	0.0000
SD:	0.002	0.002	0.0000
%RSD:	44.21	44.21	>999.9%

==========

Sequence No.: 76 **Autosampler Location: 66**
Sample ID: 1202065343|963587|1 **Date Collected: 3/13/2010 09:30:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202065343|963587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	-0.0000	0.0010	0.0003	09:31:30	Yes
2	0.003	0.003	-0.0000	0.0011	0.0003	09:32:04	Yes
Mean:	0.003	0.003	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	10.19	10.19	31.80				

==========

Sequence No.: 77 **Autosampler Location: 67**
Sample ID: 1202067240|963587|1 **Date Collected: 3/13/2010 09:32:24**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202067240|963587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0000	0.0014	0.0003	09:33:25	Yes
2	0.006	0.006	0.0000	0.0014	0.0003	09:34:00	Yes
Mean:	0.005	0.005	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	13.37	13.37	58.36				

==========

Sequence No.: 78 **Autosampler Location: 68**
Sample ID: 1202067241|963587|1 **Date Collected: 3/13/2010 09:34:20**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202067241|963587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.288	2.288	0.0264	0.1231	0.0267	09:35:21	Yes
2	2.261	2.261	0.0261	0.1214	0.0264	09:35:56	Yes
Mean:	2.275	2.275	0.0262				
SD:	0.019	0.019	0.0002				
%RSD:	0.840	0.840	0.84				

==========

Sequence No.: 79 **Autosampler Location: 69**
Sample ID: 248146001|963587|1 **Date Collected: 3/13/2010 09:36:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 248146001|963587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0000	0.0013	0.0003	09:37:17	Yes
2	0.004	0.004	0.0000	0.0011	0.0003	09:37:52	Yes
Mean:	0.005	0.005	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	7.204	7.204	68.30				

==========

Sequence No.: 80 **Autosampler Location: 70**
Sample ID: 1202065340|963587|1 **Date Collected: 3/13/2010 09:38:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202065340|963587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.717	1.717	0.0198	0.0936	0.0201	09:39:13	Yes
2	1.727	1.727	0.0199	0.0930	0.0202	09:39:49	Yes
Mean:	1.722	1.722	0.0199				
SD:	0.007	0.007	0.0001				
%RSD:	0.415	0.415	0.42				

Sequence No.: 81 **Autosampler Location: 71**
Sample ID: 1202067242|963587|1 **Date Collected: 3/13/2010 09:40:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202067242|963587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	-0.0000	0.0009	0.0003	09:41:10	Yes
2	0.003	0.003	-0.0000	0.0011	0.0003	09:41:45	Yes
Mean:	0.003	0.003	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	2.959	2.959	10.30				

Sequence No.: 82 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/13/2010 09:42:05**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.072	5.072	0.0586	0.2749	0.0588	09:43:05	Yes
2	5.101	5.101	0.0589	0.2750	0.0592	09:43:40	Yes
Mean:	5.087	5.087	0.0587				
SD:	0.021	0.021	0.0002				
%RSD:	0.406	0.406	0.41				

QC value within limits for Hg 253.7 Recovery = 101.73%
All analyte(s) passed QC.

Sequence No.: 83 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/13/2010 09:43:59**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.008	0.008	0.0000	0.0014	0.0003	09:45:00	Yes
2	0.007	0.007	0.0000	0.0013	0.0003	09:45:35	Yes
Mean:	0.007	0.007	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	5.224	5.224	11.97				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 84 **Autosampler Location: 72**
Sample ID: 1202067245|963587|5 **Date Collected: 3/13/2010 09:45:54**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202067245|963587|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.008	0.008	0.0000	0.0013	0.0003	09:46:56	Yes
2	0.008	0.008	0.0000	0.0013	0.0003	09:47:31	Yes
Mean:	0.008	0.008	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.710	0.710	1.40				

Miscellaneous

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **964663.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7470A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: No analytical instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202069579	Mercury working intermediate standard for LCS/MS	WHG100312-13	.2	mL
MS	1202069581	Mercury working intermediate standard for LCS/MS	WHG100312-13	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202069578 MB	12-MAR-2010 15:10:00	Water	20	20	1	<2
1202069579 LCS	12-MAR-2010 15:10:00	Water	20	20	1	<2
248550001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248557001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248638001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248685001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248685002	12-MAR-2010 15:10:00	Water	20	20	1	<2
248697001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248697002	12-MAR-2010 15:10:00	Water	20	20	1	<2
248697003	12-MAR-2010 15:10:00	Water	20	20	1	<2
248697004	12-MAR-2010 15:10:00	Water	20	20	1	<2
248778001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248783001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248792001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248799001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248809001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248839001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248839002	12-MAR-2010 15:10:00	Water	20	20	1	<2
248859001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248861001	12-MAR-2010 15:10:00	Water	20	20	1	<2
1202069580 DUP (248861001)	12-MAR-2010 15:10:00	Water	20	20	1	<2
1202069581 MS (248861001)	12-MAR-2010 15:10:00	Water	20	20	1	<2
1202069582 SDILT (248861001)	12-MAR-2010 15:10:00	Water	20	20	1	<2
248861002	12-MAR-2010 21:56:00	Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1176183	Sulfuric Acid, Concentrated	1 mL

Comments:

Digestion Start Date: 12-MAR-10 15:10

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **962981.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Metals Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202065850	Metals Spike Mix I	UI1268741-01	.25	mL
LCS	1202065850	Metals Spike Mix II	UI1268744-06	.25	mL
MS	1202065852	Metals Spike Mix I	UI1268741-01	.25	mL
MS	1202065852	Metals Spike Mix II	UI1268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202065849 MB	13-MAR-2010 03:15:00	Water	50	50	1	<2
1202065850 LCS	13-MAR-2010 03:15:00	Water	50	50	1	<2
248809001	13-MAR-2010 03:15:00	Water	50	50	1	<2
248839001	13-MAR-2010 03:15:00	Water	50	50	1	<2
248839002	13-MAR-2010 03:15:00	Water	50	50	1	<2
248859001	13-MAR-2010 03:15:00	Water	50	50	1	<2
248861001	13-MAR-2010 03:15:00	Water	50	50	1	<2
1202065851 DUP (248861001)	13-MAR-2010 03:15:00	Water	50	50	1	<2
1202065852 MS (248861001)	13-MAR-2010 03:15:00	Water	50	50	1	<2
1202065853 SDILT (248861001)	13-MAR-2010 03:15:00	Water	50	50	1	<2
248861002	13-MAR-2010 03:15:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1277916	HYDROCHLORIC ACID	2.5 mL
1282566	Nitric Acid CONC.	1 mL

Comments:

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **962983.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Metals Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202065855	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	UI1268746-A	.5	mL
LCS	1202065855	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).	UI1268749-B	.5	mL
MS	1202065857	ICP-MS DOE liquid Spike Solution A	UI090930-A	.5	mL
MS	1202065857	ICP-MS DOE Liquid Spike Solution B	UI090930-B	.5	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202065854 MB	13-MAR-2010 03:15:00	Water	50	50	1	<2
1202065855 LCS	13-MAR-2010 03:15:00	Water	50	50	1	<2
248809001	13-MAR-2010 03:15:00	Water	50	50	1	<2
248839001	13-MAR-2010 03:15:00	Water	50	50	1	<2
248839002	13-MAR-2010 03:15:00	Water	50	50	1	<2
248859001	13-MAR-2010 03:15:00	Water	50	50	1	<2
248861001	13-MAR-2010 03:15:00	Water	50	50	1	<2
1202065856 DUP (248861001)	13-MAR-2010 03:15:00	Water	50	50	1	<2
1202065857 MS (248861001)	13-MAR-2010 03:15:00	Water	50	50	1	<2
1202065858 SDILT (248861001)	13-MAR-2010 03:15:00	Water	50	50	1	<2
248861002	13-MAR-2010 03:15:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1277916	HYDROCHLORIC ACID	2.5 mL
1282566	Nitric Acid CONC.	1 mL

Comments:

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 22-APR-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Standard Logbook

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	30 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	30 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	100 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	3 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	5 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID:	UI090925-41	**Opened:**	23-OCT-09	**Amount :**	500 mL
Name:	SECOND SOURCE STD -1	**Received:**	25-SEP-09	**Catalog Number :**	SGELMX39-500B
Type:	Source Material	**Expires:**	30-SEP-10	**Lot Number :**	4909130
Employee:	Helen Camello			**Solvent :**	5%HNO3,TR.HF
Supplier:	SPECTRO PURE				
Description:	SECOND SOURCE STD #1B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID:	UI090930-A	**Opened:**	30-SEP-09	**Catalog Number :**	160067-02
Name:	ICP-MS DOE Liquid SPIKE	**Received:**	28-SEP-09	**Lot Number :**	1017141
Type:	Source Material	**Expires:**	30-SEP-10		
Employee:	Francena Armstrong	**Verified:**	21-NOV-08		
Supplier:	O2Si				
Description:	ICP-MS DOE liquid Spike Solution A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100310-49.13 **Opened:** 31-MAR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 01-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100325-41 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L

Analyte	Concentration	Analyte	Concentration
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100509-11 **Opened:** 09-MAY-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 09-MAY-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 09-MAY-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI1268741-01 **Opened:** 11-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1268744-06 **Opened:** 11-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI1268746-A **Opened:** 11-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 11-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI1268749-B **Opened:** 11-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 11-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX

Standard Logbook

Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100415-03 **Opened:** 15-APR-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100312-01 **Opened:** 12-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 12-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 13-MAR-10 **Solvent :** 1mL HNO3 + TypeI H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100312-02 **Opened:** 12-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 13-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: WHG100312-01a **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100312-02 **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100312-03 **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100312-04 **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Standard Logbook

Serial ID: WHG100312-05 **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100312-06 **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100312-13 **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100331-42 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100331-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100331-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100331-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100331-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100331-43 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100331-44 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1293083
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100331-45 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100331-46 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1293083
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals

Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100331-47 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL &1%HNO3-1293083
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100510-04AB **Opened:** 10-MAY-10 **Balance Id :** 40245216

Name: ICPMS Cal Standard 10 **Received:** 10-MAY-10 **Pipet Id :** 3541598

Type: Working **Expires:** 11-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588

Employee: Rose Jenkins

Supplier: GEL

Description: ICPMS Calibration Standard (10 ppb)

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100510-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100510-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100510-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100510-04B **Opened:** 10-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 10-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 11-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1336588
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100510-06B **Opened:** 10-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 10-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 11-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100510-07B **Opened:** 10-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 10-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 11-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1336588
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100510-08B
Name: ICPMS ICSAB
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Opened: 10-MAY-10
Received: 10-MAY-10
Expires: 11-MAY-10

Balance Id : 40245216
Pipet Id : 3541598/1758088
Solvent : 2%HNO3/1%HCl- 1336588

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100511-04AB **Opened:** 11-MAY-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 11-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 12-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100511-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100511-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100511-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Serial ID: WMS100511-04B **Opened:** 11-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 11-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 12-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1336588
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Serial ID: WMS100511-06B
Name: ICPMS CRDL
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Opened: 11-MAY-10
Received: 11-MAY-10
Expires: 12-MAY-10

Balance Id : 40245216
Pipet Id : 3820544
Solvent : 2%HNO3/1%HCl - 1336588

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100511-07B **Opened:** 11-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 11-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 12-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1336588
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100511-08B **Opened:** 11-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 11-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 12-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-08
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Standard Logbook

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1276435-C **Opened:** 28-FEB-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-FEB-10
Type: Reagent/Solvent **Expires:** 28-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution

Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1277916 **Opened:** 02-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 02-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1282566 **Opened:** 09-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 09-MAR-10
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1293083 **Opened:** 29-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 29-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 04-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1302252 **Opened:** 15-APR-10 **Lot Number :** J 10027 L
Name: I-HNO3 **Received:** 15-APR-10
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1302255 **Opened:** 15-APR-10 **Lot Number :** J07033
Name: I-HCL **Received:** 15-APR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: J.T. BAKER

Standard Logbook

Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1336568 **Opened:** 10-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 10-MAY-10
Type: Reagent/Solvent **Expires:** 17-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1302255	I-HCL	36.5-38.0	80 mL	8 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2313

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	962273	**Method:**	SW9012A Cyanide and Total
Prep Batch :	962272	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
248860001	RE46-10-13782
248860002	RE46-10-13783
248860003	RE46-10-13777
248860004	RE46-10-13775
248860005	RE46-10-13776
248860006	RE46-10-13781
248860007	RE46-10-13779
248860008	RE46-10-13780
248860009	RE46-10-13778
1202064177	Method Blank (MB)
1202064178	248860009(RE46-10-13778) Sample Duplicate (DUP)
1202064179	248860009(RE46-10-13778) Matrix Spike (MS)
1202064180	248860009(RE46-10-13778) Matrix Spike Duplicate (MSD)
1202064181	Laboratory Control Sample (LCS)

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

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 248860009 (RE46-10-13778).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery for this sample set was within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202064181 (LCS).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

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

Review Validation:

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

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

Reviewer:_____ **Date:** 04/01/10

Sample Data Summary

GEL LABORATORIES LLC

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Certificate of Analysis Report
for

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

Client SDG: 10-2313 GEL Work Order: 248860

The Qualifiers in this report are defined as follows:

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

** Indicates the analyte is a surrogate compound.

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

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

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

Reviewed by _____

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2313

Client Sample ID:	RE46-10-13782	Project:	LANL01004
Sample ID:	248860001	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	13.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.5	274	ug/kg	1	AXC2 03/18/10	1320	962273	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: April 1, 2010

Client SDG: 10-2313

Client Sample ID:	RE46-10-13783	Project:	LANL01004
Sample ID:	248860002	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	9.26%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.4	255	ug/kg	1	AXC2 03/18/10	1321	962273	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: April 1, 2010

Client SDG: 10-2313

Client Sample ID:	RE46-10-13777	Project:	LANL01004
Sample ID:	248860003	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	20.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.7	286	ug/kg	1	AXC2 03/18/10	1322	962273	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2313

Client Sample ID:	RE46-10-13776	Project:	LANL01004
Sample ID:	248860005	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	10.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.6	278	ug/kg	1	AXC2 03/18/10	1324	962273	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2313

Client Sample ID:	RE46-10-13781	Project:	LANL01004
Sample ID:	248860006	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	18.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	82.1	302	ug/kg	1	AXC2 03/18/10	1325	962273	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2313

Client Sample ID:	RE46-10-13779	Project:	LANL01004
Sample ID:	248860007	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	19.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.1	272	ug/kg	1	AXC2 03/18/10	1325	962273	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2313

Client Sample ID:	RE46-10-13780	Project:	LANL01004
Sample ID:	248860008	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	18.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.9	283	ug/kg	1	AXC2 03/18/10	1326	962273	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

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

Report Date: April 1, 2010

Client SDG: 10-2313

Client Sample ID:	RE46-10-13778	Project:	LANL01004
Sample ID:	248860009	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	19.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	80.8	297	ug/kg	1	AXC2 03/18/10	1331	962273	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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

Report Date: April 1, 2010

Client SDG: 10-2313

Client Sample ID:	RE46-10-13775	Project:	LANL01004
Sample ID:	248860004	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	9.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	69.6	256	ug/kg	1	AXC2	03/18/10	1323	962273	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: April 1, 2010

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

Contact: Ms. Joylene Valdez

Workorder: 248860

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis											
Batch 962273											
QC1202064178 248860009 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			AXC2	03/18/10 13:32
QC1202064181 LCS											
Cyanide, Total	67900				60500	ug/kg		89.1	(32%-157%)		03/18/10 13:19
QC1202064177 MB											
Cyanide, Total				U	250	ug/kg					03/18/10 13:18
QC1202064179 248860009 MS											
Cyanide, Total	5620	U	ND		5780	ug/kg		103	(26%-158%)		03/18/10 13:33
QC1202064180 248860009 MSD											
Cyanide, Total	5420	U	ND		5910	ug/kg	2.09	109	(0%-30%)		03/18/10 13:33

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%

QC Summary

Workorder: 248860

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

R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

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

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

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-APR-2010 13:40

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-2313**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**18-MAR-2010 11:05:53**	**OM_3-18-2010_10-55-24**	**156**	**150**	**104**	**(90%-110%)**	**Yes**
CCV	18-MAR-2010 13:15:12	OM_3-18-2010_13-11-52	105	100	105	(90%-110%)	Yes
CCV	18-MAR-2010 13:27:39	OM_3-18-2010_13-11-52	103	100	103	(90%-110%)	Yes
CCV	18-MAR-2010 13:35:37	OM_3-18-2010_13-11-52	105	100	105	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**18-MAR-2010 11:07:43**	**OM_3-18-2010_10-55-24**	**-1.39**	**10**	**Yes**
CCB	18-MAR-2010 13:17:02	OM_3-18-2010_13-11-52	-1.63	10	Yes
CCB	18-MAR-2010 13:29:29	OM_3-18-2010_13-11-52	-1.75	10	Yes
CCB	18-MAR-2010 13:37:28	OM_3-18-2010_13-11-52	-2.08	10	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **962272.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064181	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202064179	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064180	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202064177 MB	18-MAR-2010 12:16:00	Soil	0.5	25	50	>12
1202064181 LCS	18-MAR-2010 12:16:00	Soil	0.25	25	100	>12
248860001	18-MAR-2010 12:16:00	Soil	0.53	25	47.16981	>12
248860002	18-MAR-2010 12:16:00	Soil	0.54	25	46.2963	>12
248860003	18-MAR-2010 12:16:00	Soil	0.55	25	45.45455	>12
248860004	18-MAR-2010 12:16:00	Soil	0.54	25	46.2963	>12
248860005	18-MAR-2010 12:16:00	Soil	0.5	25	50	>12
248860006	18-MAR-2010 12:16:00	Soil	0.51	25	49.01961	>12
248860007	18-MAR-2010 12:16:00	Soil	0.57	25	43.85965	>12
248860008	18-MAR-2010 12:16:00	Soil	0.54	25	46.2963	>12
248860009	18-MAR-2010 12:16:00	Soil	0.52	25	48.07692	>12
1202064178 DUP (248860009)	18-MAR-2010 12:16:00	Soil	0.57	25	43.85965	>12
1202064179 MS (248860009)	18-MAR-2010 12:16:00	Soil	0.55	25	45.45455	>12
1202064180 MSD (248860009)	18-MAR-2010 12:16:00	Soil	0.57	25	43.85965	>12
248865001	18-MAR-2010 12:16:00	Soil	0.57	25	43.85965	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100318-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/18/2010 10:58:44	OM_3-18-2010_10-55-24
150 ppb		1	axc2	3/18/2010 10:59:36	OM_3-18-2010_10-55-24
100 ppb		1	axc2	3/18/2010 11:00:28	OM_3-18-2010_10-55-24
50 ppb		1	axc2	3/18/2010 11:01:21	OM_3-18-2010_10-55-24
10 ppb		1	axc2	3/18/2010 11:02:14	OM_3-18-2010_10-55-24
CRDL 5.0 ppb		1	axc2	3/18/2010 11:03:08	OM_3-18-2010_10-55-24
ICAL-00		1	axc2	3/18/2010 11:04:02	OM_3-18-2010_10-55-24
ICV		1	axc2	3/18/2010 11:05:53	OM_3-18-2010_10-55-24
ICB		1	axc2	3/18/2010 11:07:43	OM_3-18-2010_10-55-24
CRDL		1	axc2	3/18/2010 11:09:33	OM_3-18-2010_10-55-24
1202068594	964227	1	axc2	3/18/2010 11:11:22	OM_3-18-2010_10-55-24
1202068598	964227	25	axc2	3/18/2010 11:12:16	OM_3-18-2010_10-55-24
249060002	964227	1	axc2	3/18/2010 11:13:09	OM_3-18-2010_10-55-24
1202068595	964227	1	axc2	3/18/2010 11:14:02	OM_3-18-2010_10-55-24
1202068596	964227	1	axc2	3/18/2010 11:14:55	OM_3-18-2010_10-55-24
1202068597	964227	1	axc2	3/18/2010 11:15:48	OM_3-18-2010_10-55-24
249064003	964227	1	axc2	3/18/2010 11:16:40	OM_3-18-2010_10-55-24
249064004	964227	1	axc2	3/18/2010 11:17:33	OM_3-18-2010_10-55-24
249064005	964227	1	axc2	3/18/2010 11:18:25	OM_3-18-2010_10-55-24
249102002	964227	1	axc2	3/18/2010 11:19:17	OM_3-18-2010_10-55-24
CCV		1	axc2	3/18/2010 11:20:10	OM_3-18-2010_10-55-24
CCB		1	axc2	3/18/2010 11:22:00	OM_3-18-2010_10-55-24
249102003	964227	1	axc2	3/18/2010 11:23:49	OM_3-18-2010_10-55-24
249102004	964227	1	axc2	3/18/2010 11:24:41	OM_3-18-2010_10-55-24
249102005	964227	1	axc2	3/18/2010 11:25:32	OM_3-18-2010_10-55-24
249102006	964227	1	axc2	3/18/2010 11:26:24	OM_3-18-2010_10-55-24
249106003	964227	1	axc2	3/18/2010 11:27:16	OM_3-18-2010_10-55-24
1202070655	965130	1	axc2	3/18/2010 11:28:09	OM_3-18-2010_10-55-24
1202070668	965130	1	axc2	3/18/2010 11:29:03	OM_3-18-2010_10-55-24
248736002	965130	1	axc2	3/18/2010 11:29:56	OM_3-18-2010_10-55-24
248990008	965130	1	axc2	3/18/2010 11:30:49	OM_3-18-2010_10-55-24
1202070656	965130	1	axc2	3/18/2010 11:31:43	OM_3-18-2010_10-55-24
CCV		1	axc2	3/18/2010 11:32:35	OM_3-18-2010_10-55-24
CCB		1	axc2	3/18/2010 11:34:25	OM_3-18-2010_10-55-24
1202070660	965130	1	axc2	3/18/2010 11:36:14	OM_3-18-2010_10-55-24
1202070664	965130	1	axc2	3/18/2010 11:37:07	OM_3-18-2010_10-55-24
248990020	965130	1	axc2	3/18/2010 11:38:00	OM_3-18-2010_10-55-24
248990033	965130	1	axc2	3/18/2010 11:38:52	OM_3-18-2010_10-55-24
248990047	965130	1	axc2	3/18/2010 11:39:45	OM_3-18-2010_10-55-24
248990060	965130	1	axc2	3/18/2010 11:40:37	OM_3-18-2010_10-55-24
248990072	965130	1	axc2	3/18/2010 11:41:29	OM_3-18-2010_10-55-24
248990083	965130	1	axc2	3/18/2010 11:42:21	OM_3-18-2010_10-55-24
249202001	965130	1	axc2	3/18/2010 11:43:13	OM_3-18-2010_10-55-24
249210001	965130	1	axc2	3/18/2010 11:44:05	OM_3-18-2010_10-55-24
CCV		1	axc2	3/18/2010 11:44:57	OM_3-18-2010_10-55-24
CCB		1	axc2	3/18/2010 11:46:47	OM_3-18-2010_10-55-24
1202070659	965130	1	axc2	3/18/2010 11:48:38	OM_3-18-2010_10-55-24
1202070663	965130	1	axc2	3/18/2010 11:49:31	OM_3-18-2010_10-55-24
1202070667	965130	1	axc2	3/18/2010 11:50:25	OM_3-18-2010_10-55-24
249210002	965130	1	axc2	3/18/2010 11:51:18	OM_3-18-2010_10-55-24
249210003	965130	1	axc2	3/18/2010 11:52:11	OM_3-18-2010_10-55-24
249210004	965130	1	axc2	3/18/2010 11:53:05	OM_3-18-2010_10-55-24
249210005	965130	1	axc2	3/18/2010 11:53:58	OM_3-18-2010_10-55-24
249210006	965130	1	axc2	3/18/2010 11:54:50	OM_3-18-2010_10-55-24
249250002	965130	1	axc2	3/18/2010 11:55:43	OM_3-18-2010_10-55-24
1202070657	965130	1	axc2	3/18/2010 11:56:36	OM_3-18-2010_10-55-24
CCV		1	axc2	3/18/2010 11:57:28	OM_3-18-2010_10-55-24
CCB		1	axc2	3/18/2010 11:59:18	OM_3-18-2010_10-55-24

1202070661	965130	1	axc2	3/18/2010	12:01:06	OM_3-18-2010_10-55-24
1202070665	965130	1	axc2	3/18/2010	12:01:59	OM_3-18-2010_10-55-24
249269001	965130	1	axc2	3/18/2010	12:02:51	OM_3-18-2010_10-55-24
249275003	965130	1	axc2	3/18/2010	12:03:43	OM_3-18-2010_10-55-24
1202070658	965130	1	axc2	3/18/2010	12:04:35	OM_3-18-2010_10-55-24
1202070662	965130	1	axc2	3/18/2010	12:05:29	OM_3-18-2010_10-55-24
1202070666	965130	1	axc2	3/18/2010	12:06:23	OM_3-18-2010_10-55-24
249326001	965130	1	axc2	3/18/2010	12:07:17	OM_3-18-2010_10-55-24
249326002	965130	1	axc2	3/18/2010	12:08:11	OM_3-18-2010_10-55-24
1202073347	966119	1	axc2	3/18/2010	12:09:04	OM_3-18-2010_10-55-24
CCV		1	axc2	3/18/2010	12:09:57	OM_3-18-2010_10-55-24
CCB		1	axc2	3/18/2010	12:11:46	OM_3-18-2010_10-55-24
1202073348	966119	25	axc2	3/18/2010	12:13:36	OM_3-18-2010_10-55-24
1202073349	966119	25	axc2	3/18/2010	12:14:28	OM_3-18-2010_10-55-24
249265001	966119	1	axc2	3/18/2010	12:15:22	OM_3-18-2010_10-55-24
249268001	966119	1	axc2	3/18/2010	12:16:14	OM_3-18-2010_10-55-24
1202068602	964230	1	axc2	3/18/2010	12:17:08	OM_3-18-2010_10-55-24
1202068607	964230	1	axc2	3/18/2010	12:18:00	OM_3-18-2010_10-55-24
1202068606	964230	1	axc2	3/18/2010	12:18:53	OM_3-18-2010_10-55-24
249066001	964230	1	axc2	3/18/2010	12:19:45	OM_3-18-2010_10-55-24
1202068603	964230	1	axc2	3/18/2010	12:20:37	OM_3-18-2010_10-55-24
1202068604	964230	1	axc2	3/18/2010	12:21:29	OM_3-18-2010_10-55-24
CCV		1	axc2	3/18/2010	12:22:22	OM_3-18-2010_10-55-24
CCB		1	axc2	3/18/2010	12:24:12	OM_3-18-2010_10-55-24
1202068605	964230	1	axc2	3/18/2010	12:26:02	OM_3-18-2010_10-55-24
249070001	964230	1	axc2	3/18/2010	12:26:57	OM_3-18-2010_10-55-24
1202068623	964235	1	axc2	3/18/2010	12:27:51	OM_3-18-2010_10-55-24
1202068626	964235	1	axc2	3/18/2010	12:28:45	OM_3-18-2010_10-55-24
1202068625	964235	1	axc2	3/18/2010	12:29:38	OM_3-18-2010_10-55-24
249066001	964235	1	axc2	3/18/2010	12:30:31	OM_3-18-2010_10-55-24
249070001	964235	1	axc2	3/18/2010	12:31:25	OM_3-18-2010_10-55-24
1202068624	964235	1	axc2	3/18/2010	12:32:18	OM_3-18-2010_10-55-24
1202073341	966115	1	axc2	3/18/2010	12:33:12	OM_3-18-2010_10-55-24
1202073342	966115	1	axc2	3/18/2010	12:34:04	OM_3-18-2010_10-55-24
CCV		1	axc2	3/18/2010	12:34:57	OM_3-18-2010_10-55-24
CCB		1	axc2	3/18/2010	12:36:47	OM_3-18-2010_10-55-24
1202073343	966115	1	axc2	3/18/2010	12:38:36	OM_3-18-2010_10-55-24
249265001	966115	1	axc2	3/18/2010	12:39:29	OM_3-18-2010_10-55-24
249268001	966115	1	axc2	3/18/2010	12:40:22	OM_3-18-2010_10-55-24
1202073367	966127	1	axc2	3/18/2010	12:41:14	OM_3-18-2010_10-55-24
1202073369	966127	250	axc2	3/18/2010	12:42:06	OM_3-18-2010_10-55-24
249013001	966127	1	axc2	3/18/2010	12:43:00	OM_3-18-2010_10-55-24
1202073368	966127	1	axc2	3/18/2010	12:43:55	OM_3-18-2010_10-55-24
249326001	965130	5	axc2	3/18/2010	12:44:48	OM_3-18-2010_10-55-24
249326002	965130	5	axc2	3/18/2010	12:45:41	OM_3-18-2010_10-55-24
1202073369	966127	500	axc2	3/18/2010	12:46:34	OM_3-18-2010_10-55-24
CCV		1	axc2	3/18/2010	12:47:26	OM_3-18-2010_10-55-24
CCB		1	axc2	3/18/2010	12:49:17	OM_3-18-2010_10-55-24

Author: axc2 Date : 3/23/2010

Original Run Filename: OM_3-18-2010_10-55-24.OMN created 3/18/2010 10:55:24
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-18-2010_10-55-24.OMN last modified 3/18/2010 12:50:22
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100318-01	1	S1	200	10.2	3/18/2010@10:58:44			200 ppb
WCN100318-02	1	S2	150	7.77	3/18/2010@10:59:36			150 ppb
WCN100318-03	1	S3	100	5.00	3/18/2010@11:00:28			100 ppb
WCN100318-04	1	S4	50.0	2.78	3/18/2010@11:01:21			50 ppb
WCN100318-05	1	S5	10.0	0.648	3/18/2010@11:02:14			10 ppb
WCN100318-06	1	S6	5.00	0.370	3/18/2010@11:03:08			CRDL 5.0 ppb
WCN100318-08	1	S7	0.00	0.0253	3/18/2010@11:04:02			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99967 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100318-07	1	S8	156	7.99	3/18/2010@11:05:53			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	3.9 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.9 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100318-08	1	S7	-1.39	0.0356	3/18/2010@11:07:43			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.39 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.39 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100318-06	1	S6	5.67	0.393	3/18/2010@11:09:33			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.67 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.67 > 2.50					
		Message	Pass					
		Action	None					
1202068594|964227|MB	1	1	-2.10	0.00	3/18/2010@11:11:22			
1202068598||LCS	1	2	25.3	1.39	3/18/2010@11:12:16		25.00	
249060002	1	3	-0.961	0.0574	3/18/2010@11:13:09			
1202068595||DUP	1	4	-1.06	0.0522	3/18/2010@11:14:02			
1202068596||MS	1	5	103	5.31	3/18/2010@11:14:55			
1202068597||MSD	1	6	98.4	5.09	3/18/2010@11:15:48			
249064003	1	7	-1.27	0.0418	3/18/2010@11:16:40			
249064004	1	8	-0.582	0.0766	3/18/2010@11:17:33			
249064005	1	9	-1.44	0.0331	3/18/2010@11:18:25			
249102002	1	10	-1.72	0.0189	3/18/2010@11:19:17			
WCN100318-03	1	S3	103	5.34	3/18/2010@11:20:10			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.4 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100318-08	1	S7	-1.43	0.0337	3/18/2010@11:22:00			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.43 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.43 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249102003	1	11	-1.48	0.0311	3/18/2010@11:23:49			
249102004	1	12	-1.26	0.0422	3/18/2010@11:24:41			
249102005	1	13	4.25	0.321	3/18/2010@11:25:32			
249102006	1	14	-1.46	0.0320	3/18/2010@11:26:24			
249106003	1	15	6.39	0.429	3/18/2010@11:27:16			
1202070655|965130|MB	1	16	-1.36	0.0371	3/18/2010@11:28:09			
1202070668||LCS	1	17	50.5	2.66	3/18/2010@11:29:03			
248736002	1	18	-0.0761	0.102	3/18/2010@11:29:56			
248990008	1	19	-1.28	0.0412	3/18/2010@11:30:49			
1202070656||DUP	1	20	-1.60	0.0252	3/18/2010@11:31:43			
WCN100318-03	1	S3	104	5.35	3/18/2010@11:32:35			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100318-08	1	S7	-1.80	0.0151	3/18/2010@11:34:25			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.80 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.80 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202070660||MS	1	21	106	5.47	3/18/2010@11:36:14			
1202070664||MSD	1	22	109	5.62	3/18/2010@11:37:07			
248990020	1	23	-2.09	4.51e-4	3/18/2010@11:38:00			
248990033	1	24	-1.50	0.0301	3/18/2010@11:38:52			
248990047	1	25	-2.09	1.42e-4	3/18/2010@11:39:45			
248990060	1	26	-1.61	0.0246	3/18/2010@11:40:37			
248990072	1	27	-2.03	0.00359	3/18/2010@11:41:29			
248990083	1	28	-2.09	9.52e-5	3/18/2010@11:42:21			
249202001	1	29	0.126	0.112	3/18/2010@11:43:13			
249210001	1	30	-1.99	0.00528	3/18/2010@11:44:05			
WCN100318-03	1	S3	104	5.37	3/18/2010@11:44:57			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100318-08	1	S7	-2.09	1.38e-4	3/18/2010@11:46:47			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-2.09 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.09 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202070659||DUP	1	31	-2.09	1.99e-4	3/18/2010@11:48:38			
1202070663||MS	1	32	80.6	4.19	3/18/2010@11:49:31			
1202070667||MSD	1	33	93.0	4.81	3/18/2010@11:50:25			
249210002	1	34	-1.96	0.00690	3/18/2010@11:51:18			
249210003	1	35	-2.09	2.61e-4	3/18/2010@11:52:11			
249210004	1	36	-1.94	0.00789	3/18/2010@11:53:05			
249210005	1	37	-2.05	0.00246	3/18/2010@11:53:58			
249210006	1	38	-1.99	0.00531	3/18/2010@11:54:50			
249250002	1	39	-1.95	0.00750	3/18/2010@11:55:43			
1202070657||DUP	1	40	-2.10	0.00	3/18/2010@11:56:36			
WCN100318-03	1	S3	104	5.39	3/18/2010@11:57:28			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100318-08	1	S7	-1.60	0.0253	3/18/2010@11:59:18			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.60 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.60 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202070661||MS	1	41	91.7	4.75	3/18/2010@12:01:06			
1202070665||MSD	1	42	106	5.45	3/18/2010@12:01:59			
249269001	1	43	-1.04	0.0532	3/18/2010@12:02:51			
249275003	1	44	-1.95	0.00731	3/18/2010@12:03:43			
1202070658||DUP	1	45	-1.69	0.0206	3/18/2010@12:04:35			
1202070662||MS	1	46	112	5.80	3/18/2010@12:05:29			
1202070666||MSD	1	47	111	5.70	3/18/2010@12:06:23			
249326001	1	48	235	12.0	3/18/2010@12:07:17			
249326002	1	49	234	11.9	3/18/2010@12:08:11			
1202073347|966119|MB	1	50	-1.55	0.0276	3/18/2010@12:09:04			
WCN100318-03	1	S3	105	5.41	3/18/2010@12:09:57			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100318-08	1	S7	-1.70	0.0198	3/18/2010@12:11:46			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.70 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.70 > -5.00					
		Message	CCB Passed					
		Action	Continue					

1202073348||LCS	1	51	29.7	1.61	3/18/2010@12:13:36		25.00	
1202073349||LCSD	1	52	29.1	1.58	3/18/2010@12:14:28		25.00	
249265001	1	53	33.0	1.78	3/18/2010@12:15:22			
249268001	1	54	-0.645	0.0734	3/18/2010@12:16:14			
1202068602|964230|MB	1	55	-2.09	2.18e-4	3/18/2010@12:17:08			
1202068607||TB	1	56	-2.09	2.63e-4	3/18/2010@12:18:00			
1202068606||LCS	1	57	27.2	1.48	3/18/2010@12:18:53		25.00	
249066001	1	58	65.4	3.42	3/18/2010@12:19:45			
1202068603||DUP	1	59	38.7	2.06	3/18/2010@12:20:37			
1202068604||MS	1	60	174	8.93	3/18/2010@12:21:29			
WCN100318-03	1	S3	106	5.45	3/18/2010@12:22:22			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		5.6 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		5.6 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100318-08	1	S7	-1.61	0.0247	3/18/2010@12:24:12			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.61 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.61 > -5.00					
	Message		CCB Passed					
	Action		Continue					
1202068605||MSD	1	61	163	8.37	3/18/2010@12:26:02			
249070001	1	62	82.9	4.30	3/18/2010@12:26:57			
1202068623|964235|MB	1	63	-1.32	0.0391	3/18/2010@12:27:51			
1202068626||TB	1	64	-2.42	-0.0162	3/18/2010@12:28:45			
1202068625||LCS	1	65	-1.70	0.0202	3/18/2010@12:29:38			
249066001	1	66	66.8	3.48	3/18/2010@12:30:31			
249070001	1	67	-1.49	0.0309	3/18/2010@12:31:25			
1202068624||DUP	1	68	69.4	3.62	3/18/2010@12:32:18			
1202073341|966115|MB	1	69	-1.49	0.0305	3/18/2010@12:33:12			
1202073342||LCS	1	70	-1.93	0.00838	3/18/2010@12:34:04			
WCN100318-03	1	S3	106	5.45	3/18/2010@12:34:57			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		5.7 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		5.7 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100318-08	1	S7	-1.56	0.0272	3/18/2010@12:36:47			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.56 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.56 > -5.00					
	Message		CCB Passed					
	Action		Continue					
1202073343||LCSD	1	71	-2.09	1.04e-4	3/18/2010@12:38:36			
249265001	1	72	74.9	3.90	3/18/2010@12:39:29			
249268001	1	73	0.916	0.152	3/18/2010@12:40:22			
1202073367|966127|MB	1	74	35.2	1.89	3/18/2010@12:41:14			
1202073369||LCS	1	75	206	10.5	3/18/2010@12:42:06		250.00	
249013001	1	76	-1.37	0.0368	3/18/2010@12:43:00			
1202073368||DUP	1	77	1.05	0.159	3/18/2010@12:43:55			
249326001|965130|	1	48	46.1	2.44	3/18/2010@12:44:48		5.00	

249326002	1	49	37.0	1.98	3/18/2010@12:45:41		5.00	
1202073369|966127|LCS	1	75	73.3	3.81	3/18/2010@12:46:34		500.00	
WCN100318-03	1	S3	106	5.46	3/18/2010@12:47:26			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100318-08	1	S7	-1.55	0.0275	3/18/2010@12:49:17			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.55 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.55 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_3-18-2010_10-55-24.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 3/23/2010

Channel 1: Current View

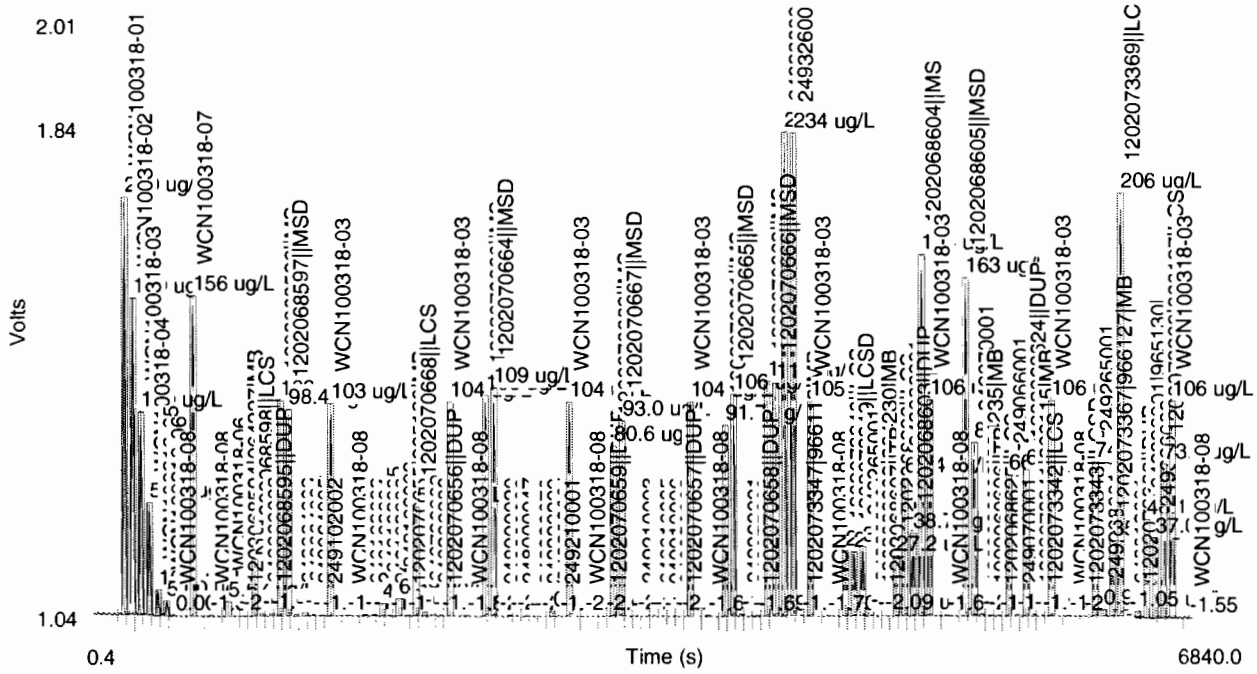

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.2	0.681	0.1	3/18/2010	10:59:47
2	150	1	7.77	0.516	-1.0	3/18/2010	11:00:39
3	100	1	5.00	0.332	3.3	3/18/2010	11:01:31
4	50.0	1	2.78	0.184	-5.5	3/18/2010	11:02:24
5	10.0	1	0.648	0.0421	-5.5	3/18/2010	11:03:17
6	5.00	1	0.370	0.0245	-2.4	3/18/2010	11:04:11
7	0.00	1	0.0253	8.95e-4		3/18/2010	11:05:05

Figure 1: TCYANIDE

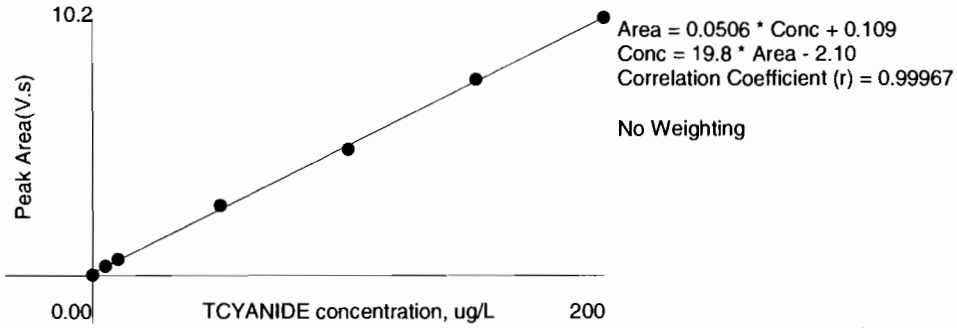

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	3/18/2010 13:15:12	OM_3-18-2010_13-11-52
CCB		1	axc2	3/18/2010 13:17:02	OM_3-18-2010_13-11-52
1202064177	962273	1	axc2	3/18/2010 13:18:52	OM_3-18-2010_13-11-52
1202064181	962273	25	axc2	3/18/2010 13:19:45	OM_3-18-2010_13-11-52
248860001	962273	1	axc2	3/18/2010 13:20:38	OM_3-18-2010_13-11-52
248860002	962273	1	axc2	3/18/2010 13:21:31	OM_3-18-2010_13-11-52
248860003	962273	1	axc2	3/18/2010 13:22:24	OM_3-18-2010_13-11-52
248860004	962273	1	axc2	3/18/2010 13:23:17	OM_3-18-2010_13-11-52
248860005	962273	1	axc2	3/18/2010 13:24:09	OM_3-18-2010_13-11-52
248860006	962273	1	axc2	3/18/2010 13:25:02	OM_3-18-2010_13-11-52
248860007	962273	1	axc2	3/18/2010 13:25:54	OM_3-18-2010_13-11-52
248860008	962273	1	axc2	3/18/2010 13:26:47	OM_3-18-2010_13-11-52
CCV		1	axc2	3/18/2010 13:27:39	OM_3-18-2010_13-11-52
CCB		1	axc2	3/18/2010 13:29:29	OM_3-18-2010_13-11-52
248860009	962273	1	axc2	3/18/2010 13:31:18	OM_3-18-2010_13-11-52
1202064178	962273	1	axc2	3/18/2010 13:32:10	OM_3-18-2010_13-11-52
1202064179	962273	1	axc2	3/18/2010 13:33:02	OM_3-18-2010_13-11-52
1202064180	962273	1	axc2	3/18/2010 13:33:53	OM_3-18-2010_13-11-52
248865001	962273	1	axc2	3/18/2010 13:34:45	OM_3-18-2010_13-11-52
CCV		1	axc2	3/18/2010 13:35:37	OM_3-18-2010_13-11-52
CCB		1	axc2	3/18/2010 13:37:28	OM_3-18-2010_13-11-52

Author: axc2 Date : 3/18/2010

Original Run Filename: OM_3-18-2010_13-11-52.OMN created 3/18/2010 13:11:52
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-18-2010_13-11-52.OMN last modified 3/18/2010 13:38:33
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100318-03	1	S3	105	5.40	3/18/2010@13:15:12			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100318-08	1	S7	-1.63	0.0235	3/18/2010@13:17:02			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.63 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.63 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064177|962273|MB	1	1	-1.98	0.00583	3/18/2010@13:18:52			
1202064181||LCS	1	2	24.2	1.33	3/18/2010@13:19:45		25.00	
248860001	1	3	-1.64	0.0232	3/18/2010@13:20:38			
248860002	1	4	-1.55	0.0275	3/18/2010@13:21:31			
248860003	1	5	-2.09	1.33e-4	3/18/2010@13:22:24			
248860004	1	6	-1.80	0.0149	3/18/2010@13:23:17			
248860005	1	7	-1.56	0.0272	3/18/2010@13:24:09			
248860006	1	8	-1.43	0.0336	3/18/2010@13:25:02			
248860007	1	9	-1.12	0.0496	3/18/2010@13:25:54			
248860008	1	10	-2.07	0.00121	3/18/2010@13:26:47			
WCN100318-03	1	S3	103	5.32	3/18/2010@13:27:39			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100318-08	1	S7	-1.75	0.0176	3/18/2010@13:29:29			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.75 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.75 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248860009	1	11	-2.09	3.07e-4	3/18/2010@13:31:18			
1202064178||DUP	1	12	-2.34	-0.0125	3/18/2010@13:32:10			
1202064179||MS	1	13	103	5.33	3/18/2010@13:33:02			
1202064180||MSD	1	14	109	5.64	3/18/2010@13:33:53			
248865001	1	15	-1.37	0.0368	3/18/2010@13:34:45			

WCN100318-03	1	S3	105	5.44	3/18/2010@13:35:37			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100318-08	1	S7	-2.08	7.04e-4	3/18/2010@13:37:28			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.08 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.08 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_3-18-2010_13-11-52.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 3/18/2010

Channel 1: Current View

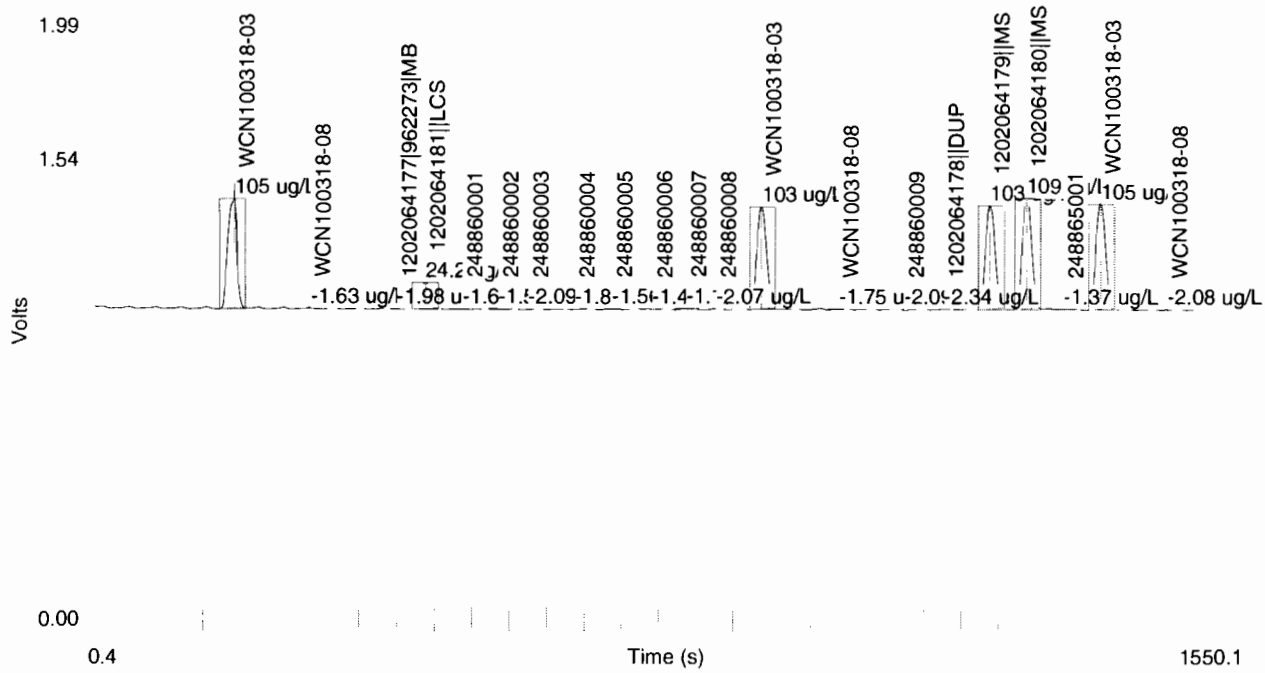

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.2	0.681	0.1	3/18/2010	10:59:47
2	150	1	7.77	0.516	-1.0	3/18/2010	11:00:39
3	100	1	5.00	0.332	3.3	3/18/2010	11:01:31
4	50.0	1	2.78	0.184	-5.5	3/18/2010	11:02:24
5	10.0	1	0.648	0.0421	-5.5	3/18/2010	11:03:17
6	5.00	1	0.370	0.0245	-2.4	3/18/2010	11:04:11
7	0.00	1	0.0253	8.95e-4		3/18/2010	11:05:05

Figure 1: TCYANIDE

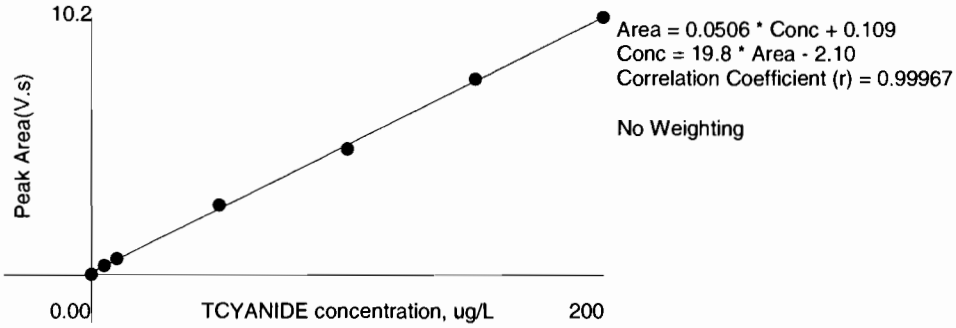

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2313-1

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	962268	**Method:**	SW9012A Cyanide and Total
Prep Batch :	962267	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
248861001	RE46-10-13786
248861002	RE46-10-13785
1202064160	Method Blank (MB)
1202064161	248638001(RE11-10-1778) Sample Duplicate (DUP)
1202064162	248805001(CAPA-10-12903) Sample Duplicate (DUP)
1202064163	248786001(NPDES03A185-10-13615) Sample Duplicate (DUP)
1202064164	248638001(RE11-10-1778) Matrix Spike (MS)
1202064165	248805001(CAPA-10-12903) Matrix Spike (MS)
1202064166	248786001(NPDES03A185-10-13615) Matrix Spike (MS)
1202064167	248638001(RE11-10-1778) Matrix Spike Duplicate (MSD)
1202064168	248805001(CAPA-10-12903) Matrix Spike Duplicate (MSD)
1202064169	248786001(NPDES03A185-10-13615) Matrix Spike Duplicate (MSD)
1202064170	Laboratory Control Sample (LCS)

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

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 248638001 (RE11-10-1778), 248786001 (NPDES03A185-10-13615) and 248805001 (CAPA-10-12903).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) between the Spike and Spike Duplicate was outside of the required acceptance limits. However, both the Spike and Spike Duplicate recoveries were within the required acceptance limits; therefore, the data is deemed acceptable. 1202064164 (RE11-10-1778) and 1202064167 (RE11-10-1778).

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202064161 (RE11-10-1778) and 1202064162 (CAPA-10-12903).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were reanalyzed due to PS failure: 1202064163 (NPDES03A185-10-13615), 1202064166 (NPDES03A185-10-13615) and 1202064169 (NPDES03A185-10-13615).

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 803187 1202064164 (RE11-10-1778) and 1202064167 (RE11-10-1778).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

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

Review Validation:

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

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

Reviewer: Nick Cole A. Elmore **Date:** 3-29-10

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-2313-1 GEL Work Order: 248861

The Qualifiers in this report are defined as follows:

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

** Indicates the analyte is a surrogate compound.

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

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

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

Reviewed by Nick Cole A. Elmore 3.29.10

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2313-1

Client Sample ID: RE46-10-13786
Sample ID: 248861001
Matrix: W
Collect Date: 04-MAR-10 12:00
Receive Date: 06-MAR-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/11/10	1841	962268	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/11/10	1416	962267

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2313-1

Client Sample ID:	RE46-10-13785	Project:	LANL01004
Sample ID:	248861002	Client ID:	LANL010
Matrix:	W		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/11/10	1842	962268	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/11/10	1416	962267

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 27, 2010

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

Contact: **Ms. Joylene Valdez**

Workorder: **248861**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 962268										
QC1202064161 248638001 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A			AXC2	03/11/10 18:11
QC1202064162 248805001 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A				03/11/10 18:36
QC1202064163 248786001 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A				03/11/10 18:48
QC1202064170 LCS										
Cyanide, Total	50.0			54.8	ug/L		110	(90%-110%)		03/11/10 18:06
QC1202064160 MB										
Cyanide, Total			U	5.00	ug/L					03/11/10 18:05
QC1202064164 248638001 MS										
Cyanide, Total	100	U ND		103	ug/L		103	(60%-144%)		03/11/10 18:12
QC1202064165 248805001 MS										
Cyanide, Total	100	U ND		107	ug/L		107	(60%-144%)		03/11/10 18:37
QC1202064166 248786001 MS										
Cyanide, Total	100	U ND		93.1	ug/L		93.1	(60%-144%)		03/11/10 18:49
QC1202064167 248638001 MSD										
Cyanide, Total	100	U ND		82.4	ug/L	22.2*	82.4	(0%-20%)		03/11/10 18:13
QC1202064168 248805001 MSD										
Cyanide, Total	100	U ND		106	ug/L	0.939	106	(0%-20%)		03/11/10 18:38
QC1202064169 248786001 MSD										
Cyanide, Total	100	U ND		96.0	ug/L	3.07	96	(0%-20%)		03/11/10 18:50

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded

QC Summary

Workorder: 248861

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

J	Value is estimated
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

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

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

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 27-MAR-2010 13:12

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-2313-1**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**11-MAR-2010 16:25:47**	**OM_3-11-2010_16-17-08**	**146**	**150**	**97.3**	**(90%-110%)**	**Yes**
CCV	11-MAR-2010 17:54:54	OM_3-11-2010_16-17-08	108	100	108	(90%-110%)	Yes
CCV	11-MAR-2010 18:07:26	OM_3-11-2010_16-17-08	107	100	107	(90%-110%)	Yes
CCV	11-MAR-2010 18:19:56	OM_3-11-2010_16-17-08	107	100	107	(90%-110%)	Yes
CCV	11-MAR-2010 18:32:34	OM_3-11-2010_16-17-08	107	100	107	(90%-110%)	Yes
CCV	11-MAR-2010 18:45:10	OM_3-11-2010_16-17-08	107	100	107	(90%-110%)	Yes
CCV	11-MAR-2010 18:52:24	OM_3-11-2010_16-17-08	108	100	108	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**11-MAR-2010 16:27:38**	**OM_3-11-2010_16-17-08**	**-0.946**	**10**	**Yes**
CCB	11-MAR-2010 17:56:45	OM_3-11-2010_16-17-08	-0.875	10	Yes
CCB	11-MAR-2010 18:09:16	OM_3-11-2010_16-17-08	-1.32	10	Yes
CCB	11-MAR-2010 18:21:46	OM_3-11-2010_16-17-08	-1.35	10	Yes
CCB	11-MAR-2010 18:34:25	OM_3-11-2010_16-17-08	-1.21	10	Yes
CCB	11-MAR-2010 18:47:01	OM_3-11-2010_16-17-08	-0.623	10	Yes
CCB	11-MAR-2010 18:54:14	OM_3-11-2010_16-17-08	-1.15	10	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **962267.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064170	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202064164	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064165	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064166	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064167	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064168	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064169	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202064160 MB	11-MAR-2010 14:16:00	Water	25	25	1	>12
1202064170 LCS	11-MAR-2010 14:16:00	Water	25	25	1	>12
248638001	11-MAR-2010 14:16:00	Water	25	25	1	>12
1202064161 DUP (248638001)	11-MAR-2010 14:16:00	Water	25	25	1	>12
1202064164 MS (248638001)	11-MAR-2010 14:16:00	Water	25	25	1	>12
1202064167 MSD (248638001)	11-MAR-2010 14:16:00	Water	25	25	1	>12
248685001	11-MAR-2010 14:16:00	Water	25	25	1	>12
248685002	11-MAR-2010 14:16:00	Water	25	25	1	>12
248697001	11-MAR-2010 14:16:00	Water	25	25	1	>12
248697002	11-MAR-2010 14:16:00	Water	25	25	1	>12
248697003	11-MAR-2010 14:16:00	Water	25	25	1	>12
248697004	11-MAR-2010 14:16:00	Water	25	25	1	>12
248719001	11-MAR-2010 14:16:00	Waste Water	25	25	1	>12
248719002	11-MAR-2010 14:16:00	Waste Water	25	25	1	>12
248736002	11-MAR-2010 14:16:00	Waste Water	25	25	1	>12
248778001	11-MAR-2010 14:16:00	Water	25	25	1	>12

Prep Logbook

Batch ID: **962267.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064170	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202064164	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064165	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064166	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064167	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064168	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064169	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
248786001	11-MAR-2010 14:16:00	Waste Water	25	25	1	>12
1202064163 DUP (248786001)	11-MAR-2010 14:16:00	Waste Water	25	25	1	>12
1202064166 MS (248786001)	11-MAR-2010 14:16:00	Waste Water	25	25	1	>12
1202064169 MSD (248786001)	11-MAR-2010 14:16:00	Waste Water	25	25	1	>12
248799001	11-MAR-2010 14:16:00	Water	25	25	1	>12
248805001	11-MAR-2010 14:16:00	Ground Water	25	25	1	>12
1202064162 DUP (248805001)	11-MAR-2010 14:16:00	Ground Water	25	25	1	>12
1202064165 MS (248805001)	11-MAR-2010 14:16:00	Ground Water	25	25	1	>12
1202064168 MSD (248805001)	11-MAR-2010 14:16:00	Ground Water	25	25	1	>12
248805003	11-MAR-2010 14:16:00	Ground Water	25	25	1	>12
248839001	11-MAR-2010 14:16:00	Water	25	25	1	>12
248839002	11-MAR-2010 14:16:00	Water	25	25	1	>12
248861001	11-MAR-2010 14:16:00	Water	25	25	1	>12
248861002	11-MAR-2010 14:16:00	Water	25	25	1	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/11/2010 16:18:39	OM_3-11-2010_16-17-08
150 ppb		1	axc2	3/11/2010 16:19:30	OM_3-11-2010_16-17-08
100 ppb		1	axc2	3/11/2010 16:20:23	OM_3-11-2010_16-17-08
50 ppb		1	axc2	3/11/2010 16:21:16	OM_3-11-2010_16-17-08
10 ppb		1	axc2	3/11/2010 16:22:09	OM_3-11-2010_16-17-08
CRDL 5.0 ppb		1	axc2	3/11/2010 16:23:03	OM_3-11-2010_16-17-08
ICAL-00		1	axc2	3/11/2010 16:23:57	OM_3-11-2010_16-17-08
ICV		1	axc2	3/11/2010 16:25:47	OM_3-11-2010_16-17-08
ICB		1	axc2	3/11/2010 16:27:38	OM_3-11-2010_16-17-08
CRDL		1	axc2	3/11/2010 16:29:27	OM_3-11-2010_16-17-08
1202061957	961288	1	axc2	3/11/2010 16:31:17	OM_3-11-2010_16-17-08
1202061964	961288	25	axc2	3/11/2010 16:32:10	OM_3-11-2010_16-17-08
248520001	961288	1	axc2	3/11/2010 16:33:03	OM_3-11-2010_16-17-08
1202061958	961288	1	axc2	3/11/2010 16:33:56	OM_3-11-2010_16-17-08
1202061960	961288	1	axc2	3/11/2010 16:34:49	OM_3-11-2010_16-17-08
1202061962*	961288	1	axc2	3/11/2010 16:35:42	OM_3-11-2010_16-17-08
248520002	961288	1	axc2	3/11/2010 16:36:34	OM_3-11-2010_16-17-08
1202061959	961288	1	axc2	3/11/2010 16:37:27	OM_3-11-2010_16-17-08
1202061961	961288	1	axc2	3/11/2010 16:38:19	OM_3-11-2010_16-17-08
1202061963	961288	1	axc2	3/11/2010 16:39:12	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010 16:40:04	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010 16:41:54	OM_3-11-2010_16-17-08
248520003	961288	1	axc2	3/11/2010 16:43:43	OM_3-11-2010_16-17-08
248520004	961288	1	axc2	3/11/2010 16:44:34	OM_3-11-2010_16-17-08
248520005	961288	1	axc2	3/11/2010 16:45:27	OM_3-11-2010_16-17-08
248520006	961288	1	axc2	3/11/2010 16:46:18	OM_3-11-2010_16-17-08
248520007	961288	1	axc2	3/11/2010 16:47:10	OM_3-11-2010_16-17-08
248520008	961288	1	axc2	3/11/2010 16:48:03	OM_3-11-2010_16-17-08
248520009	961288	1	axc2	3/11/2010 16:48:57	OM_3-11-2010_16-17-08
248520010	961288	1	axc2	3/11/2010 16:49:50	OM_3-11-2010_16-17-08
248520011	961288	1	axc2	3/11/2010 16:50:44	OM_3-11-2010_16-17-08
248549001	961288	1	axc2	3/11/2010 16:51:37	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010 16:52:29	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010 16:54:20	OM_3-11-2010_16-17-08
1202061962	961288	1	axc2	3/11/2010 16:56:08	OM_3-11-2010_16-17-08
248549002	961288	1	axc2	3/11/2010 16:57:01	OM_3-11-2010_16-17-08
248549003	961288	1	axc2	3/11/2010 16:57:55	OM_3-11-2010_16-17-08
248549004	961288	1	axc2	3/11/2010 16:58:47	OM_3-11-2010_16-17-08
248549005	961288	1	axc2	3/11/2010 16:59:40	OM_3-11-2010_16-17-08
248549006	961288	1	axc2	3/11/2010 17:00:32	OM_3-11-2010_16-17-08
1202061949	961286	1	axc2	3/11/2010 17:01:25	OM_3-11-2010_16-17-08
1202061956*	961286	25	axc2	3/11/2010 17:02:16	OM_3-11-2010_16-17-08
248517001	961286	1	axc2	3/11/2010 17:03:09	OM_3-11-2010_16-17-08
1202061950	961286	1	axc2	3/11/2010 17:04:01	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010 17:04:53	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010 17:06:44	OM_3-11-2010_16-17-08
1202061952	961286	1	axc2	3/11/2010 17:08:31	OM_3-11-2010_16-17-08
1202061954	961286	1	axc2	3/11/2010 17:09:25	OM_3-11-2010_16-17-08
248527002	961286	1	axc2	3/11/2010 17:10:19	OM_3-11-2010_16-17-08
1202061951	961286	1	axc2	3/11/2010 17:11:13	OM_3-11-2010_16-17-08
1202061953	961286	1	axc2	3/11/2010 17:12:06	OM_3-11-2010_16-17-08
1202061955	961286	1	axc2	3/11/2010 17:12:59	OM_3-11-2010_16-17-08
248527003	961286	1	axc2	3/11/2010 17:13:52	OM_3-11-2010_16-17-08
248527004	961286	1	axc2	3/11/2010 17:14:46	OM_3-11-2010_16-17-08
248527005	961286	1	axc2	3/11/2010 17:15:39	OM_3-11-2010_16-17-08
248527006	961286	1	axc2	3/11/2010 17:16:31	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010 17:17:24	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010 17:19:14	OM_3-11-2010_16-17-08

248527007	961286	1	axc2	3/11/2010	17:21:04	OM_3-11-2010_16-17-08
248527008	961286	1	axc2	3/11/2010	17:21:55	OM_3-11-2010_16-17-08
248527009	961286	1	axc2	3/11/2010	17:22:48	OM_3-11-2010_16-17-08
248527010	961286	1	axc2	3/11/2010	17:23:41	OM_3-11-2010_16-17-08
248527011	961286	1	axc2	3/11/2010	17:24:32	OM_3-11-2010_16-17-08
248527012	961286	1	axc2	3/11/2010	17:25:24	OM_3-11-2010_16-17-08
248527013	961286	1	axc2	3/11/2010	17:26:18	OM_3-11-2010_16-17-08
248527014	961286	1	axc2	3/11/2010	17:27:13	OM_3-11-2010_16-17-08
248527015	961286	1	axc2	3/11/2010	17:28:06	OM_3-11-2010_16-17-08
248527016	961286	1	axc2	3/11/2010	17:29:00	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	17:29:52	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	17:31:43	OM_3-11-2010_16-17-08
1202061933	961281	1	axc2	3/11/2010	17:33:32	OM_3-11-2010_16-17-08
1202061940	961281	25	axc2	3/11/2010	17:34:25	OM_3-11-2010_16-17-08
248511001	961281	1	axc2	3/11/2010	17:35:18	OM_3-11-2010_16-17-08
1202061934	961281	1	axc2	3/11/2010	17:36:11	OM_3-11-2010_16-17-08
1202061936	961281	1	axc2	3/11/2010	17:37:04	OM_3-11-2010_16-17-08
1202061938	961281	1	axc2	3/11/2010	17:37:57	OM_3-11-2010_16-17-08
248511002	961281	1	axc2	3/11/2010	17:38:50	OM_3-11-2010_16-17-08
1202061935	961281	1	axc2	3/11/2010	17:39:42	OM_3-11-2010_16-17-08
1202061937	961281	1	axc2	3/11/2010	17:40:35	OM_3-11-2010_16-17-08
1202061939	961281	1	axc2	3/11/2010	17:41:27	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	17:42:19	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	17:44:10	OM_3-11-2010_16-17-08
248511003	961281	1	axc2	3/11/2010	17:45:58	OM_3-11-2010_16-17-08
248511004	961281	1	axc2	3/11/2010	17:46:53	OM_3-11-2010_16-17-08
248511005	961281	1	axc2	3/11/2010	17:47:46	OM_3-11-2010_16-17-08
248511006	961281	1	axc2	3/11/2010	17:48:41	OM_3-11-2010_16-17-08
248511007	961281	1	axc2	3/11/2010	17:49:35	OM_3-11-2010_16-17-08
248511008	961281	1	axc2	3/11/2010	17:50:28	OM_3-11-2010_16-17-08
248511009	961281	1	axc2	3/11/2010	17:51:22	OM_3-11-2010_16-17-08
248511010	961281	1	axc2	3/11/2010	17:52:16	OM_3-11-2010_16-17-08
248511011	961281	1	axc2	3/11/2010	17:53:08	OM_3-11-2010_16-17-08
248511012	961281	1	axc2	3/11/2010	17:54:01	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	17:54:54	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	17:56:45	OM_3-11-2010_16-17-08
248511013	961281	1	axc2	3/11/2010	17:58:34	OM_3-11-2010_16-17-08
248511014	961281	1	axc2	3/11/2010	17:59:27	OM_3-11-2010_16-17-08
248511015	961281	1	axc2	3/11/2010	18:00:19	OM_3-11-2010_16-17-08
248511016	961281	1	axc2	3/11/2010	18:01:12	OM_3-11-2010_16-17-08
248511017	961281	1	axc2	3/11/2010	18:02:04	OM_3-11-2010_16-17-08
248511018	961281	1	axc2	3/11/2010	18:02:57	OM_3-11-2010_16-17-08
248511019	961281	1	axc2	3/11/2010	18:03:50	OM_3-11-2010_16-17-08
248511020	961281	1	axc2	3/11/2010	18:04:45	OM_3-11-2010_16-17-08
1202064160	962268	1	axc2	3/11/2010	18:05:39	OM_3-11-2010_16-17-08
1202064170	962268	1	axc2	3/11/2010	18:06:33	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	18:07:26	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	18:09:16	OM_3-11-2010_16-17-08
248638001	962268	1	axc2	3/11/2010	18:11:06	OM_3-11-2010_16-17-08
1202064161	962268	1	axc2	3/11/2010	18:11:59	OM_3-11-2010_16-17-08
1202064164	962268	1	axc2	3/11/2010	18:12:52	OM_3-11-2010_16-17-08
1202064167	962268	1	axc2	3/11/2010	18:13:46	OM_3-11-2010_16-17-08
248685001	962268	1	axc2	3/11/2010	18:14:39	OM_3-11-2010_16-17-08
248685002	962268	1	axc2	3/11/2010	18:15:32	OM_3-11-2010_16-17-08
248697001	962268	1	axc2	3/11/2010	18:16:25	OM_3-11-2010_16-17-08
248697002	962268	1	axc2	3/11/2010	18:17:18	OM_3-11-2010_16-17-08
248697003	962268	1	axc2	3/11/2010	18:18:10	OM_3-11-2010_16-17-08
248697004	962268	1	axc2	3/11/2010	18:19:03	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	18:19:56	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	18:21:46	OM_3-11-2010_16-17-08

248719001	962268	1	axc2	3/11/2010	18:23:35	OM_3-11-2010_16-17-08
248719002	962268	1	axc2	3/11/2010	18:24:30	OM_3-11-2010_16-17-08
248736002	962268	1	axc2	3/11/2010	18:25:24	OM_3-11-2010_16-17-08
248778001	962268	1	axc2	3/11/2010	18:26:18	OM_3-11-2010_16-17-08
248786001*	962268	1	axc2	3/11/2010	18:27:13	OM_3-11-2010_16-17-08
1202064163*	962268	1	axc2	3/11/2010	18:28:07	OM_3-11-2010_16-17-08
1202064166*	962268	1	axc2	3/11/2010	18:29:01	OM_3-11-2010_16-17-08
1202064169*	962268	1	axc2	3/11/2010	18:29:55	OM_3-11-2010_16-17-08
248799001	962268	1	axc2	3/11/2010	18:30:48	OM_3-11-2010_16-17-08
248805001	962268	1	axc2	3/11/2010	18:31:42	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	18:32:34	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	18:34:25	OM_3-11-2010_16-17-08
1202064162	962268	1	axc2	3/11/2010	18:36:14	OM_3-11-2010_16-17-08
1202064165	962268	1	axc2	3/11/2010	18:37:07	OM_3-11-2010_16-17-08
1202064168	962268	1	axc2	3/11/2010	18:38:00	OM_3-11-2010_16-17-08
248805003	962268	1	axc2	3/11/2010	18:38:53	OM_3-11-2010_16-17-08
248839001	962268	1	axc2	3/11/2010	18:39:46	OM_3-11-2010_16-17-08
248839002	962268	1	axc2	3/11/2010	18:40:39	OM_3-11-2010_16-17-08
248861001	962268	1	axc2	3/11/2010	18:41:34	OM_3-11-2010_16-17-08
248861002	962268	1	axc2	3/11/2010	18:42:29	OM_3-11-2010_16-17-08
248736002	962268	10	axc2	3/11/2010	18:43:23	OM_3-11-2010_16-17-08
248786001	962268	1	axc2	3/11/2010	18:44:18	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	18:45:10	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	18:47:01	OM_3-11-2010_16-17-08
1202064163	962268	1	axc2	3/11/2010	18:48:51	OM_3-11-2010_16-17-08
1202064166	962268	1	axc2	3/11/2010	18:49:45	OM_3-11-2010_16-17-08
1202064169	962268	1	axc2	3/11/2010	18:50:39	OM_3-11-2010_16-17-08
1202061956	961286	25	axc2	3/11/2010	18:51:31	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	18:52:24	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	18:54:14	OM_3-11-2010_16-17-08

Author: axc2 Date : 3/11/2010

Original Run Filename: OM_3-11-2010_16-17-08.OMN created 3/11/2010 16:17:08
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-11-2010_16-17-08.OMN last modified 3/11/2010 18:55:19
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100311-01	1	S1	200	10.2	3/11/2010@16:18:39			200 ppb
WCN100311-02	1	S2	150	7.64	3/11/2010@16:19:30			150 ppb
WCN100311-03	1	S3	100	5.21	3/11/2010@16:20:23			100 ppb
WCN100311-04	1	S4	50.0	2.71	3/11/2010@16:21:16			50 ppb
WCN100311-05	1	S5	10.0	0.668	3/11/2010@16:22:09			10 ppb
WCN100311-06	1	S6	5.00	0.372	3/11/2010@16:23:03			CRDL 5.0 ppb
WCN100311-08	1	S7	0.00	0.0704	3/11/2010@16:23:57			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99994 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100311-07	1	S8	146	7.51	3/11/2010@16:25:47			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-2.4 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.4 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100311-08	1	S7	-0.946	0.0856	3/11/2010@16:27:38			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.946 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.946 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100311-06	1	S6	5.52	0.411	3/11/2010@16:29:27			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.52 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.52 > 2.50					
		Message	Pass					
		Action	None					
1202061957|961288|MB	1	1	-1.65	0.0501	3/11/2010@16:31:17			
1202061964||LCS	1	2	18.0	1.04	3/11/2010@16:32:10		25.00	
248520001	1	3	3.00	0.284	3/11/2010@16:33:03			
1202061958||DUP	1	4	3.06	0.287	3/11/2010@16:33:56			
1202061960||MS	1	5	38.6	2.08	3/11/2010@16:34:49			
1202061962||MSD	1	6	7.88	0.530	3/11/2010@16:35:42			
248520002	1	7	16.2	0.950	3/11/2010@16:36:34			
1202061959||DUP	1	8	23.4	1.31	3/11/2010@16:37:27			
1202061961||MS	1	9	59.4	3.12	3/11/2010@16:38:19			
1202061963||MSD	1	10	63.5	3.33	3/11/2010@16:39:12			
WCN100311-03	1	S3	105	5.42	3/11/2010@16:40:04			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.0 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.15	0.0753	3/11/2010@16:41:54			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.15 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.15 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248520003	1	11	6.30	0.451	3/11/2010@16:43:43			
248520004	1	12	23.1	1.29	3/11/2010@16:44:34			
248520005	1	13	6.76	0.473	3/11/2010@16:45:27			
248520006	1	14	2.15	0.241	3/11/2010@16:46:18			
248520007	1	15	16.8	0.981	3/11/2010@16:47:10			
248520008	1	16	7.48	0.510	3/11/2010@16:48:03			
248520009	1	17	6.44	0.457	3/11/2010@16:48:57			
248520010	1	18	5.87	0.429	3/11/2010@16:49:50			
248520011	1	19	9.72	0.623	3/11/2010@16:50:44			
248549001	1	20	-1.77	0.0439	3/11/2010@16:51:37			
WCN100311-03	1	S3	106	5.47	3/11/2010@16:52:29			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.18	0.0738	3/11/2010@16:54:20			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.18 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.18 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202061962||MSD	1	6	39.9	2.14	3/11/2010@16:56:08			
248549002	1	21	-1.77	0.0440	3/11/2010@16:57:01			
248549003	1	22	-1.69	0.0479	3/11/2010@16:57:55			
248549004	1	23	-1.69	0.0483	3/11/2010@16:58:47			
248549005	1	24	-1.77	0.0443	3/11/2010@16:59:40			
248549006	1	25	-1.23	0.0714	3/11/2010@17:00:32			
1202061949|961286|MB	1	26	-1.96	0.0344	3/11/2010@17:01:25			
1202061956||LCS	1	27	12.1	0.745	3/11/2010@17:02:16		25.00	
248517001	1	28	4.40	0.355	3/11/2010@17:03:09			
1202061950||DUP	1	29	6.52	0.462	3/11/2010@17:04:01			
WCN100311-03	1	S3	107	5.50	3/11/2010@17:04:53			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.02	0.0816	3/11/2010@17:06:44			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.02 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.02 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202061952||MS	1	30	51.0	2.70	3/11/2010@17:08:31			
1202061954||MSD	1	31	87.1	4.52	3/11/2010@17:09:25			
248527002	1	32	0.589	0.163	3/11/2010@17:10:19			
1202061951||DUP	1	33	2.24	0.246	3/11/2010@17:11:13			
1202061953||MS	1	34	77.9	4.06	3/11/2010@17:12:06			
1202061955||MSD	1	35	86.4	4.48	3/11/2010@17:12:59			
248527003	1	36	-0.0758	0.129	3/11/2010@17:13:52			
248527004	1	37	-1.69	0.0479	3/11/2010@17:14:46			
248527005	1	38	-2.12	0.0267	3/11/2010@17:15:39			
248527006	1	39	-2.11	0.0268	3/11/2010@17:16:31			
WCN100311-03	1	S3	106	5.46	3/11/2010@17:17:24			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.03	0.0814	3/11/2010@17:19:14			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.03 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.03 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248527007	1	40	-0.0659	0.130	3/11/2010@17:21:04			
248527008	1	41	0.415	0.154	3/11/2010@17:21:55			
248527009	1	42	-2.53	0.00599	3/11/2010@17:22:48			
248527010	1	43	-1.32	0.0670	3/11/2010@17:23:41			
248527011	1	44	-1.51	0.0572	3/11/2010@17:24:32			
248527012	1	45	-1.76	0.0445	3/11/2010@17:25:24			
248527013	1	46	-0.984	0.0837	3/11/2010@17:26:18			
248527014	1	47	-1.98	0.0337	3/11/2010@17:27:13			
248527015	1	48	-1.88	0.0385	3/11/2010@17:28:06			
248527016	1	49	-0.201	0.123	3/11/2010@17:29:00			
WCN100311-03	1	S3	106	5.49	3/11/2010@17:29:52			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.04	0.0811	3/11/2010@17:31:43			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.04 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.04 > -5.00					
		Message	CCB Passed					
		Action	Continue					

1202061933|961281|MB	1	50	-2.14	0.0257	3/11/2010@17:33:32			
1202061940||LCS	1	51	25.5	1.42	3/11/2010@17:34:25		25.00	
248511001	1	52	9.89	0.631	3/11/2010@17:35:18			
1202061934||DUP	1	53	11.3	0.701	3/11/2010@17:36:11			
1202061936||MS	1	54	103	5.30	3/11/2010@17:37:04			
1202061938||MSD	1	55	118	6.07	3/11/2010@17:37:57			
248511002	1	56	1.23	0.195	3/11/2010@17:38:50			
1202061935||DUP	1	57	3.46	0.307	3/11/2010@17:39:42			
1202061937||MS	1	58	94.9	4.91	3/11/2010@17:40:35			
1202061939||MSD	1	59	88.8	4.61	3/11/2010@17:41:27			
WCN100311-03	1	S3	108	5.56	3/11/2010@17:42:19			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		7.8 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		7.8 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100311-08	1	S7	-3.25	-0.0302	3/11/2010@17:44:10			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-3.25 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-3.25 > -5.00					
	Message		CCB Passed					
	Action		Continue					
248511003	1	60	0.545	0.161	3/11/2010@17:45:58			
248511004	1	61	41.2	2.21	3/11/2010@17:46:53			
248511005	1	62	9.25	0.599	3/11/2010@17:47:46			
248511006	1	63	10.9	0.683	3/11/2010@17:48:41			
248511007	1	64	1.48	0.208	3/11/2010@17:49:35			
248511008	1	65	5.88	0.429	3/11/2010@17:50:28			
248511009	1	66	16.7	0.973	3/11/2010@17:51:22			
248511010	1	67	25.4	1.41	3/11/2010@17:52:16			
248511011	1	68	5.04	0.387	3/11/2010@17:53:08			
248511012	1	69	68.8	3.60	3/11/2010@17:54:01			
WCN100311-03	1	S3	108	5.56	3/11/2010@17:54:54			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		7.7 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		7.7 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100311-08	1	S7	-0.875	0.0892	3/11/2010@17:56:45			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-0.875 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-0.875 > -5.00					
	Message		CCB Passed					
	Action		Continue					
248511013	1	70	17.0	0.990	3/11/2010@17:58:34			
248511014	1	71	3.20	0.294	3/11/2010@17:59:27			
248511015	1	72	1.31	0.199	3/11/2010@18:00:19			
248511016	1	73	4.92	0.381	3/11/2010@18:01:12			
248511017	1	74	1.34	0.201	3/11/2010@18:02:04			
248511018	1	75	-0.129	0.127	3/11/2010@18:02:57			
248511019	1	76	-0.510	0.108	3/11/2010@18:03:50			
248511020	1	77	2.83	0.276	3/11/2010@18:04:45			

1202064160|962268|MB	1	78	-1.64	0.0508	3/11/2010@18:05:39			
1202064170||LCS	1	79	54.8	2.89	3/11/2010@18:06:33			
WCN100311-03	1	S3	107	5.53	3/11/2010@18:07:26			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	7.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.32	0.0667	3/11/2010@18:09:16			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.32 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.32 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248638001	1	80	-2.08	0.0287	3/11/2010@18:11:06			
1202064161||DUP	1	81	-1.44	0.0607	3/11/2010@18:11:59			
1202064164||MS	1	82	103	5.32	3/11/2010@18:12:52			
1202064167||MSD	1	83	82.4	4.28	3/11/2010@18:13:46			
248685001	1	84	-1.85	0.0401	3/11/2010@18:14:39			
248685002	1	85	-1.89	0.0380	3/11/2010@18:15:32			
248697001	1	86	-1.97	0.0339	3/11/2010@18:16:25			
248697002	1	87	-2.87	-0.0112	3/11/2010@18:17:18			
248697003	1	88	-1.96	0.0344	3/11/2010@18:18:10			
248697004	1	89	-2.14	0.0255	3/11/2010@18:19:03			
WCN100311-03	1	S3	107	5.52	3/11/2010@18:19:56			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.35	0.0655	3/11/2010@18:21:46			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.35 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.35 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248719001	1	90	-1.29	0.0683	3/11/2010@18:23:35			
248719002	1	91	-1.02	0.0818	3/11/2010@18:24:30			
248736002	1	92	414	21.0	3/11/2010@18:25:24			
248778001	1	93	0.0656	0.137	3/11/2010@18:26:18			
248786001	1	94	1.35	0.201	3/11/2010@18:27:13			
1202064163||DUP	1	95	11.2	0.700	3/11/2010@18:28:07			
1202064166||MS	1	96	2.13	0.241	3/11/2010@18:29:01			
1202064169||MSD	1	97	1.76	0.222	3/11/2010@18:29:55			
248799001	1	98	-1.85	0.0403	3/11/2010@18:30:48			
248805001	1	99	-2.65	-1.59e-4	3/11/2010@18:31:42			
WCN100311-03	1	S3	107	5.53	3/11/2010@18:32:34			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					

DQM Test: < - Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.21	0.0725	3/11/2010@18:34:25			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.21 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.21 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064162||DUP	1	100	-2.10	0.0276	3/11/2010@18:36:14			
1202064165||MS	1	101	107	5.51	3/11/2010@18:37:07			
1202064168||MSD	1	102	106	5.49	3/11/2010@18:38:00			
248805003	1	103	-1.44	0.0608	3/11/2010@18:38:53			
248839001	1	104	-2.65	-1.99e-4	3/11/2010@18:39:46			
248839002	1	105	-1.74	0.0457	3/11/2010@18:40:39			
248861001	1	106	-2.18	0.0232	3/11/2010@18:41:34			
248861002	1	107	-2.91	-0.0132	3/11/2010@18:42:29			
248736002	1	92	75.6	3.94	3/11/2010@18:43:23		10.00	
248786001	1	94	-1.60	0.0526	3/11/2010@18:44:18			
WCN100311-03	1	S3	107	5.53	3/11/2010@18:45:10			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-0.623	0.102	3/11/2010@18:47:01			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.623 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.623 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064163||DUP	1	95	-1.89	0.0383	3/11/2010@18:48:51			
1202064166||MS	1	96	93.1	4.82	3/11/2010@18:49:45			
1202064169||MSD	1	97	96.0	4.97	3/11/2010@18:50:39			
1202061956|961286|LCS	1	27	26.3	1.46	3/11/2010@18:51:31		25.00	
WCN100311-03	1	S3	108	5.58	3/11/2010@18:52:24			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	8.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	8.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.15	0.0752	3/11/2010@18:54:14			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.15 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.15 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Author: axc2 Date : 3/11/2010

Analyte Properties Table for OM_3-11-2010_16-17-08.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

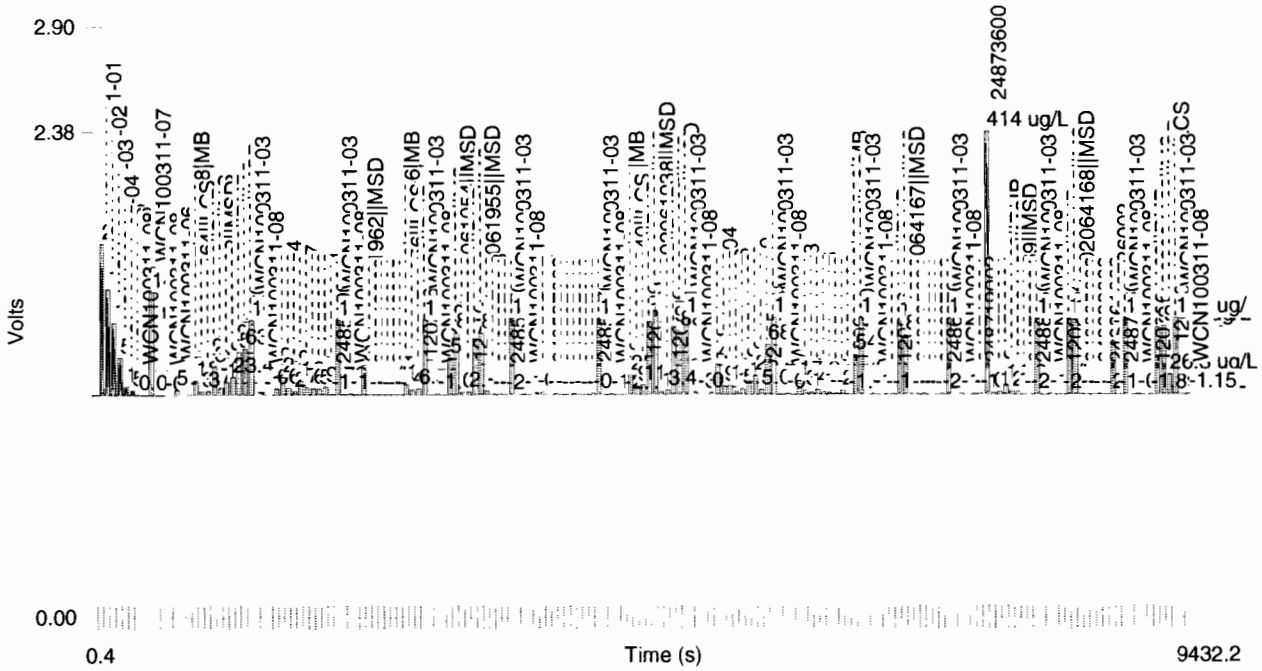

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.2	0.739	-0.0	3/11/2010	16:19:41
2	150	1	7.64	0.520	0.7	3/11/2010	16:20:33
3	100	1	5.21	0.356	-0.7	3/11/2010	16:21:26
4	50.0	1	2.71	0.184	-2.1	3/11/2010	16:22:19
5	10.0	1	0.668	0.0430	-4.8	3/11/2010	16:23:12
6	5.00	1	0.372	0.0248	3.4	3/11/2010	16:24:06
7	0.00	1	0.0704	0.00376		3/11/2010	16:25:00

Author: axc2 Date : 3/11/2010

Figure 1: TCYANIDE

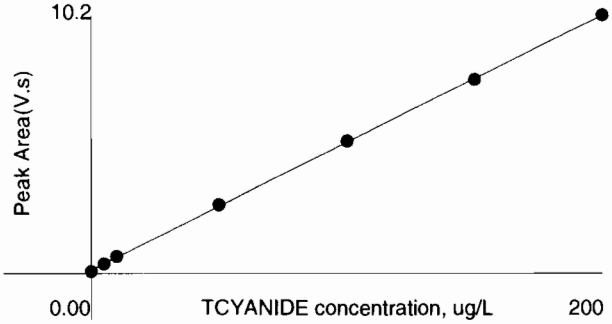

Area = 0.0503 * Conc + 0.134
Conc = 19.9 * Area - 2.65
Correlation Coefficient (r) = 0.99994

No Weighting

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
12-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 335.4	Liquid	DTYN, EASV, ESHL, LANL
Batch ID:	**Sample Numbers:**		
962268	See Below		

Potentially affected work order(s)(SDG): 248638(10-2234-1),248685(10-2259-1),248697(10-2262),248719,248736,248778(10-2281-1),248786(10-2310),248799(10-2289-1),248805(10-2295),248839(10-2299-1),248861(10-2313-1)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for MS/MSD: QC 1202064164MS 1202064167MSD	1. The relative percent difference (RPD) between the Spike and Spike Duplicate was outside of the required acceptance limits. However, both the Spike and Spike Duplicate recoveries were within the required acceptance limits; therefore, the data is deemed acceptable.

Originator's Name:

Ashley Earl 12-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc 12-MAR-10

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2313

Method/Analysis Information

Procedure:	**Dry Weight-Percent Moisture**
Analytical Method:	Dry Soil Prep
Analytical Batch Number:	962374

Sample ID	Client ID
248860001	RE46-10-13782
248860002	RE46-10-13783
248860003	RE46-10-13777
248860004	RE46-10-13775
248860005	RE46-10-13776
248860006	RE46-10-13781
248860007	RE46-10-13779
248860008	RE46-10-13780
248860009	RE46-10-13778
1202064431	248824001(RE46-10-11926) Sample Duplicate (DUP)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

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

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 248824001 (RE46-10-11926). The QC was from LANL work order 248824.

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

CSU

Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

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

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

Miscellaneous Information:

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

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

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965811
Prep Batch Number:	962374

Sample ID	Client ID
248860001	RE46-10-13782
248860002	RE46-10-13783
248860003	RE46-10-13777
248860004	RE46-10-13775
248860005	RE46-10-13776
248860006	RE46-10-13781
248860007	RE46-10-13779
248860008	RE46-10-13780
248860009	RE46-10-13778
1202072522	Method Blank (MB)
1202072523	248867001(RE46-10-12931) Sample Duplicate (DUP)
1202072524	Laboratory Control Sample (LCS)

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

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

Calibration Information:

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

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

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

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202072522 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248867001 (RE46-10-12931). The QC was from LANL work order 248867.

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

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

Technical Information:

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

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

Miscellaneous Information:

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

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

Additional Comments
The MDCs are calculated using a blank population.

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

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965813
Prep Batch Number:	962374

Sample ID	Client ID
248860001	RE46-10-13782
248860002	RE46-10-13783
248860003	RE46-10-13777
248860004	RE46-10-13775
248860005	RE46-10-13776
248860006	RE46-10-13781
248860007	RE46-10-13779
248860008	RE46-10-13780
248860009	RE46-10-13778
1202072525	Method Blank (MB)
1202072526	248867001(RE46-10-12931) Sample Duplicate (DUP)
1202072527	Laboratory Control Sample (LCS)

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

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

Calibration Information:

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

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

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

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202072525 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248867001 (RE46-10-12931). The QC was from LANL work order 248867.

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

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

Technical Information:

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

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

Miscellaneous Information:

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

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

Additional Comments
The MDCs are calculated using a blank population.

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

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	971197
Prep Batch Number:	962374

Sample ID	Client ID
248860001	RE46-10-13782
248860002	RE46-10-13783
248860003	RE46-10-13777
248860004	RE46-10-13775
248860005	RE46-10-13776
248860006	RE46-10-13781
248860007	RE46-10-13779
248860008	RE46-10-13780
248860009	RE46-10-13778
1202085875	Method Blank (MB)
1202085876	248867001(RE46-10-12931) Sample Duplicate (DUP)
1202085877	Laboratory Control Sample (LCS)

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

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

Calibration Information:

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

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

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

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202085875 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248867001 (RE46-10-12931). The QC was from LANL work order 248867.

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

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

Technical Information:

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

Sample Re-prep/Re-analysis
Sample 248860003 (RE46-10-13777) was recounted due to high MDA. Sample 248860002 (RE46-10-13783) was recounted due to a peak shift. Samples were reprepped due to high relative percent difference/relative error ratio.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG:
DER 813673 was generated due to RDL less than MDA. 1. Sample 248860003 does not meet the client's tracer yield requirement of 50 - 105%, nor the required detection limit for U235. 1. The sample has been prepped two times and the original analysis meets the client's tracer yield requirements and required detection limits. The results of the first and second analysis meet the relative error ratio duplication requirement. Reporting results.

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

Additional Comments
The MDCs are calculated using a blank population. Samples 248860002 (RE46-10-13783) and 248860007 (RE46-10-13779) did not meet the client's yield requirement. However, there are 400 tracer counts, GEL's standard tracer yield requirements are met, and the client's detection limits are met.

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

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962633
Prep Batch Number:	962374

Sample ID	Client ID
248860001	RE46-10-13782
248860002	RE46-10-13783
248860003	RE46-10-13777
248860004	RE46-10-13775
248860005	RE46-10-13776
248860006	RE46-10-13781
248860007	RE46-10-13779
248860008	RE46-10-13780
248860009	RE46-10-13778

1202065188	Method Blank (MB)
1202065189	248867001(RE46-10-12931) Sample Duplicate (DUP)
1202065190	Laboratory Control Sample (LCS)

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

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 19.

Calibration Information:

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

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

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

Quality Control (QC) Information:

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

Designated QC
The following sample was used for QC: 248867001 (RE46-10-12931). The QC was from LANL work order 248867.

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

CSU
The blank, 1202065188 (MB), results for Co-60 and Ra-224 are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

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

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

Miscellaneous Information:

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

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

Blank Decision Level
The blank, 1202065188 (MB), results for Co-60 and Ra-224 are greater than the decision level but less than the MDC.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	248860001	RE46-10-13782
			248860002	RE46-10-13783
			248860003	RE46-10-13777
			248860004	RE46-10-13775
			248860005	RE46-10-13776
			248860006	RE46-10-13781
			248860007	RE46-10-13779
			248860008	RE46-10-13780
			248860009	RE46-10-13778
			1202065189	RE46-10-12931(248867001DUP)
		Cadmium-109	248860001	RE46-10-13782
			248860002	RE46-10-13783
			248860003	RE46-10-13777
			248860004	RE46-10-13775
			248860005	RE46-10-13776
			248860007	RE46-10-13779
			248860008	RE46-10-13780
			248860009	RE46-10-13778
			1202065189	RE46-10-12931(248867001DUP)
		Mercury-203	248860003	RE46-10-13777
		Radium-224	248860001	RE46-10-13782
			248860002	RE46-10-13783
			248860003	RE46-10-13777
			248860004	RE46-10-13775
			248860005	RE46-10-13776

			248860006	RE46-10-13781
			248860007	RE46-10-13779
			248860008	RE46-10-13780
			248860009	RE46-10-13778
			1202065189	RE46-10-12931(248867001DUP)
UI	Data rejected due to low abundance.	Americium-241	248860005	RE46-10-13776
		Cadmium-109	248860006	RE46-10-13781
		Cesium-134	248860001	RE46-10-13782
			248860002	RE46-10-13783
			248860003	RE46-10-13777
			248860005	RE46-10-13776
			248860008	RE46-10-13780
			1202065189	RE46-10-12931(248867001DUP)
		Mercury-203	248860002	RE46-10-13783
		Strontium-85	248860001	RE46-10-13782
			248860002	RE46-10-13783
			248860003	RE46-10-13777
			248860007	RE46-10-13779
			248860008	RE46-10-13780
			248860009	RE46-10-13778

Certification Statement

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

Review Validation:

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

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

Reviewer/Date: Thomas Austin 4/27/2010

DER Report No.: 813673
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
05-APR-10	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ALPHA SPECTROMETER	DOE EML HASL-300, U-02-RC Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
971197	See Below		

Potentially affected work order(s)(SDG): 248824(10-2305),248860(10-2313),248867(10-2320)

Application Issues:

RDL less than MDA

Specification and Requirements Exception Description:	DER Disposition:
1. Sample 248860003 does not meet the client's tracer yield requirement of 50 - 105%, nor the required detection limit for U235.	1. The sample has been prepped two times and the original analysis meets the client's tracer yield requirements and required detection limits. The results of the first and second analysis meet the relative error ratio duplication requirement. Reporting results.

Originator's Name:

Joseph Moulden 05-APR-10

Data Validator/Group Leader:

Jessica Downey 05-APR-10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-2313 GEL Work Order: 248860

The Qualifiers in this report are defined as follows:

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

** Indicates the analyte is a surrogate compound.

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

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

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

Reviewed by _____

GEL LABORATORIES LLC

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

Certificate of Analysis

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

Report Date: April 5, 2010

Client Sample ID:	RE46-10-13782	Project:	LANL01004
Sample ID:	248860001	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	13.9%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00355	0.0222	+/-0.00288	0.050	pCi/g		AYB1	03/29/10	1201	965811	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00512	0.018	+/-0.00572	0.050	pCi/g		AYB1	03/27/10	1340	965813	3
Plutonium-239/240	U	-0.00128	0.0152	+/-0.00384	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.746	0.114	+/-0.0773	0.100	pCi/g		AYB1	04/02/10	1137	971197	4
Uranium-235/236	U	0.0451	0.0698	+/-0.0169	0.100	pCi/g						
Uranium-238		0.717	0.0803	+/-0.0751	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.399	0.550	+/-0.168	0.200	pCi/g		MXR1	03/24/10	1615	962633	6
Bismuth-211	UI	4.73	0.447	+/-0.355		pCi/g						
Bismuth-214		1.24	0.140	+/-0.113	0.200	pCi/g						
Cadmium-109	UI	2.31	1.92	+/-0.701		pCi/g						
Cerium-139	U	-0.0071	0.0713	+/-0.0222	0.050	pCi/g						
Cesium-134	UI	0.195	0.121	+/-0.0436	0.100	pCi/g						
Cesium-137	U	-0.0285	0.0731	+/-0.0226	0.100	pCi/g						
Cobalt-60	U	-0.0157	0.0739	+/-0.024	0.100	pCi/g						
Europium-152	U	0.0699	0.218	+/-0.0718	0.200	pCi/g						
Lanthanum-140	U	-0.0782	0.208	+/-0.0703		pCi/g						
Lead-212		2.03	0.127	+/-0.143	0.100	pCi/g						
Lead-214		1.72	0.160	+/-0.137	0.100	pCi/g						
Mercury-203	U	0.0386	0.0945	+/-0.0269	0.100	pCi/g						
Potassium-40		39.7	0.756	+/-2.27	1.00	pCi/g						
Radium-223	U	-0.265	1.46	+/-0.506		pCi/g						
Radium-224	UI	3.77	1.36	+/-0.843		pCi/g						
Radium-226		1.24	0.140	+/-0.113		pCi/g						
Radium-228		1.90	0.310	+/-0.234	0.500	pCi/g						
Ruthenium-106	U	-0.0524	0.691	+/-0.214	0.800	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13782
Sample ID: 248860001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Sodium-22	U	0.0277	0.101	+/-0.0299	0.080	pCi/g						
Strontium-85	UI	0.124	0.104	+/-0.0319		pCi/g						
Thallium-208		0.599	0.0697	+/-0.0557	0.080	pCi/g						
Thorium-227	U	-0.14	0.581	+/-0.173		pCi/g						
Thorium-231	U	-0.265	1.46	+/-0.506		pCi/g						
Thorium-234	U	0.311	4.55	+/-1.31	2.00	pCi/g						
Tin-113	U	-0.0581	0.0991	+/-0.0314	0.100	pCi/g						
Uranium-235	U	0.107	0.474	+/-0.142	0.500	pCi/g						
Yttrium-88	U	0.0136	0.073	+/-0.0223	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.8	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	89.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	82.7	(50%-105%)

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

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

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13782
Sample ID: 248860001

Project: LANL01004
Client ID: LANL010

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

E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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

Report Date: April 5, 2010

Client Sample ID: RE46-10-13783
Sample ID: 248860002
Matrix: S
Collect Date: 04-MAR-10
Receive Date: 06-MAR-10
Collector: Client
Moisture: 9.26%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00114	0.024	+/-0.00292	0.050	pCi/g		AYB1	03/29/10	1201	965811	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00492	0.0224	+/-0.00759	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
Plutonium-239/240	U	0.006	0.0189	+/-0.00415	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.685	0.173	+/-0.0838	0.100	pCi/g		AYB1	04/03/10	1618	971197	4
Uranium-235/236	U	0.038	0.106	+/-0.0172	0.100	pCi/g						
Uranium-238		0.683	0.122	+/-0.0832	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.117	0.308	+/-0.0863	0.200	pCi/g		MXR1	03/24/10	1615	962633	6
Bismuth-211	UI	3.58	0.278	+/-0.228		pCi/g						
Bismuth-214		1.18	0.106	+/-0.0863	0.200	pCi/g						
Cadmium-109	UI	2.39	1.31	+/-0.531		pCi/g						
Cerium-139	U	-0.00245	0.0451	+/-0.013	0.050	pCi/g						
Cesium-134	UI	0.090	0.0759	+/-0.027	0.100	pCi/g						
Cesium-137	U	0.0172	0.0543	+/-0.0156	0.100	pCi/g						
Cobalt-60	U	-0.00605	0.0579	+/-0.018	0.100	pCi/g						
Europium-152	U	-0.034	0.140	+/-0.0505	0.200	pCi/g						
Lanthanum-140	U	0.0591	0.131	+/-0.0404		pCi/g						
Lead-212		1.80	0.0842	+/-0.0833	0.100	pCi/g						
Lead-214		1.30	0.101	+/-0.0903	0.100	pCi/g						
Mercury-203	UI	0.067	0.0655	+/-0.0205	0.100	pCi/g						
Potassium-40		34.4	0.442	+/-1.53	1.00	pCi/g						
Radium-223	U	0.333	0.882	+/-0.296		pCi/g						
Radium-224	UI	3.79	0.902	+/-0.579		pCi/g						
Radium-226		1.18	0.106	+/-0.0863		pCi/g						
Radium-228		1.74	0.200	+/-0.182	0.500	pCi/g						
Ruthenium-106	U	-0.117	0.390	+/-0.124	0.800	pCi/g						
Sodium-22	U	-0.0549	0.0561	+/-0.0194	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13783
Sample ID: 248860002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.0948	0.063	+/-0.0186		pCi/g						
Thallium-208		0.525	0.0489	+/-0.0404	0.080	pCi/g						
Thorium-227	U	-0.0985	0.354	+/-0.108		pCi/g						
Thorium-231	U	0.333	0.882	+/-0.296		pCi/g						
Thorium-234	U	1.92	2.75	+/-0.780	2.00	pCi/g						
Tin-113	U	-0.0171	0.0614	+/-0.0185	0.100	pCi/g						
Uranium-235	U	0.119	0.313	+/-0.0949	0.500	pCi/g						
Yttrium-88	U	0.00587	0.0421	+/-0.0124	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	76.4	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	86.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	41.6 *	(50%-105%)

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

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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

Report Date: April 5, 2010

Client Sample ID: RE46-10-13783
Sample ID: 248860002

Project: LANL01004
Client ID: LANL010

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

E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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

Report Date: April 5, 2010

Client Sample ID: RE46-10-13777
Sample ID: 248860003
Matrix: S
Collect Date: 04-MAR-10
Receive Date: 06-MAR-10
Collector: Client
Moisture: 20.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0022	0.0265	+/-0.002	0.050	pCi/g		AYB1	03/29/10	2147	965811	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00491	0.0254	+/-0.00431	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
Plutonium-239/240	U	0.00023	0.0215	+/-0.00432	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.973	0.240	+/-0.121	0.100	pCi/g		AYB1	04/03/10	1618	971197	4
Uranium-235/236	U	0.063	0.146	+/-0.0301	0.100	pCi/g						
Uranium-238		1.10	0.168	+/-0.131	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0284	0.216	+/-0.0618	0.200	pCi/g		MXR1	03/24/10	1615	962633	6
Bismuth-211	UI	3.86	0.304	+/-0.303		pCi/g						
Bismuth-214		0.963	0.101	+/-0.0931	0.200	pCi/g						
Cadmium-109	UI	3.64	1.09	+/-0.504		pCi/g						
Cerium-139	U	0.00167	0.0492	+/-0.0142	0.050	pCi/g						
Cesium-134	UI	0.105	0.079	+/-0.027	0.100	pCi/g						
Cesium-137	U	0.0378	0.0636	+/-0.0182	0.100	pCi/g						
Cobalt-60	U	0.00315	0.0591	+/-0.0177	0.100	pCi/g						
Europium-152	U	-0.0757	0.141	+/-0.0644	0.200	pCi/g						
Lanthanum-140	U	-0.192	0.152	+/-0.0576		pCi/g						
Lead-212		1.65	0.0878	+/-0.120	0.100	pCi/g						
Lead-214		1.40	0.110	+/-0.117	0.100	pCi/g						
Mercury-203	UI	0.112	0.0589	+/-0.0326	0.100	pCi/g						
Potassium-40		34.4	0.477	+/-1.77	1.00	pCi/g						
Radium-223	U	0.116	0.966	+/-0.320		pCi/g						
Radium-224	UI	4.46	0.940	+/-0.625		pCi/g						
Radium-226		0.963	0.101	+/-0.0931		pCi/g						
Radium-228		1.84	0.212	+/-0.178	0.500	pCi/g						
Ruthenium-106	U	0.0221	0.466	+/-0.138	0.800	pCi/g						
Sodium-22	U	-0.0381	0.0603	+/-0.0196	0.080	pCi/g						

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

Report Date: April 5, 2010

Client Sample ID: RE46-10-13777
Sample ID: 248860003
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.167	0.0741	+/-0.0224		pCi/g						
Thallium-208		0.478	0.0509	+/-0.0432	0.080	pCi/g						
Thorium-227	U	-0.204	0.380	+/-0.120		pCi/g						
Thorium-231	U	0.116	0.966	+/-0.320		pCi/g						
Thorium-234	U	0.661	2.08	+/-0.579	2.00	pCi/g						
Tin-113	U	-0.0342	0.0641	+/-0.0199	0.100	pCi/g						
Uranium-235	U	-0.0113	0.317	+/-0.0922	0.500	pCi/g						
Yttrium-88	U	-0.0265	0.0437	+/-0.0185	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	71.1	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	77.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	33.9*	(50%-105%)

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

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13777
Sample ID: 248860003

Project: LANL01004
Client ID: LANL010

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

E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13775
Sample ID: 248860004
Matrix: S
Collect Date: 04-MAR-10
Receive Date: 06-MAR-10
Collector: Client
Moisture: 9.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	8.16E-05	0.022	+/-0.00151	0.050	pCi/g		AYB1	03/29/10	2147	965811	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00347	0.023	+/-0.00246	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
Plutonium-239/240	U	0.0052	0.0195	+/-0.00302	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.854	0.182	+/-0.0996	0.100	pCi/g		AYB1	04/02/10	1137	971197	4
Uranium-235/236	U	0.0479	0.111	+/-0.0229	0.100	pCi/g						
Uranium-238		0.691	0.128	+/-0.0853	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.15	0.320	+/-0.0912	0.200	pCi/g		MXR1	03/24/10	1616	962633	6
Bismuth-211	UI	3.07	0.336	+/-0.229		pCi/g						
Bismuth-214		0.945	0.128	+/-0.0753	0.200	pCi/g						
Cadmium-109	UI	1.94	1.44	+/-0.616		pCi/g						
Cerium-139	U	-0.0175	0.0509	+/-0.0155	0.050	pCi/g						
Cesium-134	U	0.0706	0.0948	+/-0.0253	0.100	pCi/g						
Cesium-137	U	-0.00236	0.0651	+/-0.0197	0.100	pCi/g						
Cobalt-60	U	-0.0149	0.0633	+/-0.0203	0.100	pCi/g						
Europium-152	U	-0.0179	0.160	+/-0.0803	0.200	pCi/g						
Lanthanum-140	U	-0.133	0.146	+/-0.0554		pCi/g						
Lead-212		1.50	0.0913	+/-0.054	0.100	pCi/g						
Lead-214		1.11	0.123	+/-0.0831	0.100	pCi/g						
Mercury-203	U	0.0389	0.0751	+/-0.0232	0.100	pCi/g						
Potassium-40		26.9	0.619	+/-0.876	1.00	pCi/g						
Radium-223	U	-1.07	1.13	+/-0.356		pCi/g						
Radium-224	UI	3.75	0.978	+/-0.482		pCi/g						
Radium-226		0.945	0.128	+/-0.0753		pCi/g						
Radium-228		1.31	0.216	+/-0.153	0.500	pCi/g						
Ruthenium-106	U	0.262	0.589	+/-0.167	0.800	pCi/g						
Sodium-22	U	0.0237	0.0764	+/-0.022	0.080	pCi/g						

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Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13775
Sample ID: 248860004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0447	0.0726	+/-0.0227		pCi/g						
Thallium-208		0.453	0.0508	+/-0.034	0.080	pCi/g						
Thorium-227	U	0.0337	0.443	+/-0.132		pCi/g						
Thorium-231	U	-1.07	1.13	+/-0.356		pCi/g						
Thorium-234	U	1.76	2.87	+/-0.777	2.00	pCi/g						
Tin-113	U	-0.0165	0.0754	+/-0.0224	0.100	pCi/g						
Uranium-235	U	-0.161	0.337	+/-0.103	0.500	pCi/g						
Yttrium-88	U	0.0234	0.0642	+/-0.0172	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	84.4	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	84.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	51.9	(50%-105%)

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

- ** Analyte is a surrogate compound
- < Result is less than value reported
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- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13775
Sample ID: 248860004

Project: LANL01004
Client ID: LANL010

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

E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13776
Sample ID: 248860005
Matrix: S
Collect Date: 04-MAR-10
Receive Date: 06-MAR-10
Collector: Client
Moisture: 10.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00102	0.0205	+/-0.00172	0.050	pCi/g		AYB1	03/29/10	2147	965811	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00997	0.0265	+/-0.0045	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
Plutonium-239/240	U	0.0185	0.0224	+/-0.00656	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.779	0.140	+/-0.0852	0.100	pCi/g		AYB1	04/02/10	1137	971197	4
Uranium-235/236	U	0.0368	0.0854	+/-0.0153	0.100	pCi/g						
Uranium-238		0.773	0.0983	+/-0.0848	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	UI	0.0871	0.0864	+/-0.0264	0.200	pCi/g		MXR1	03/24/10	1616	962633	6
Bismuth-211	UI	4.83	0.332	+/-0.333		pCi/g						
Bismuth-214		1.42	0.113	+/-0.118	0.200	pCi/g						
Cadmium-109	UI	4.74	0.739	+/-0.468		pCi/g						
Cerium-139	U	-0.0113	0.0439	+/-0.0131	0.050	pCi/g						
Cesium-134	UI	0.167	0.106	+/-0.0353	0.100	pCi/g						
Cesium-137	U	-0.029	0.0828	+/-0.0245	0.100	pCi/g						
Cobalt-60	U	-0.0139	0.0683	+/-0.0217	0.100	pCi/g						
Europium-152	U	0.00742	0.157	+/-0.0492	0.200	pCi/g						
Lanthanum-140	U	-0.0797	0.206	+/-0.0672		pCi/g						
Lead-212		2.03	0.0854	+/-0.130	0.100	pCi/g						
Lead-214		1.75	0.116	+/-0.130	0.100	pCi/g						
Mercury-203	U	0.0355	0.0688	+/-0.0226	0.100	pCi/g						
Potassium-40		39.4	0.573	+/-1.97	1.00	pCi/g						
Radium-223	U	0.552	1.06	+/-0.333		pCi/g						
Radium-224	UI	5.00	0.916	+/-0.612		pCi/g						
Radium-226		1.42	0.113	+/-0.118		pCi/g						
Radium-228		2.19	0.245	+/-0.209	0.500	pCi/g						
Ruthenium-106	U	0.183	0.585	+/-0.165	0.800	pCi/g						
Sodium-22	U	0.010	0.0925	+/-0.0276	0.080	pCi/g						

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Report Date: April 5, 2010

Client Sample ID: RE46-10-13776
Sample ID: 248860005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0529	0.0767	+/-0.0244		pCi/g						
Thallium-208		0.619	0.0596	+/-0.0555	0.080	pCi/g						
Thorium-227	U	-0.136	0.355	+/-0.113		pCi/g						
Thorium-231	U	0.552	1.06	+/-0.333		pCi/g						
Thorium-234		1.43	0.808	+/-0.464	2.00	pCi/g						
Tin-113	U	0.00839	0.0771	+/-0.0226	0.100	pCi/g						
Uranium-235	U	0.112	0.310	+/-0.0888	0.500	pCi/g						
Yttrium-88	U	0.0295	0.0751	+/-0.0204	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	90.2	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	79.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	65.8	(50%-105%)

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

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Report Date: April 5, 2010

Client Sample ID: RE46-10-13776
Sample ID: 248860005

Project: LANL01004
Client ID: LANL010

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

E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13781
Sample ID: 248860006
Matrix: S
Collect Date: 04-MAR-10
Receive Date: 06-MAR-10
Collector: Client
Moisture: 18.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00355	0.0243	+/-0.00244	0.050	pCi/g		AYB1	03/29/10	2147	965811	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.000875	0.0223	+/-0.00739	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
Plutonium-239/240	U	0.0151	0.0189	+/-0.00512	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.755	0.151	+/-0.0851	0.100	pCi/g		AYB1	04/02/10	1138	971197	4
Uranium-235/236	U	0.0396	0.0921	+/-0.0211	0.100	pCi/g						
Uranium-238		0.855	0.106	+/-0.0941	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.119	0.309	+/-0.0881	0.200	pCi/g		MXR1	03/24/10	1627	962633	6
Bismuth-211	UI	4.18	0.357	+/-0.340		pCi/g						
Bismuth-214		1.15	0.132	+/-0.116	0.200	pCi/g						
Cadmium-109	UI	3.86	1.78	+/-0.489		pCi/g						
Cerium-139	U	-0.0164	0.0569	+/-0.0173	0.050	pCi/g						
Cesium-134	U	0.0467	0.096	+/-0.0273	0.100	pCi/g						
Cesium-137	U	0.0627	0.0749	+/-0.0292	0.100	pCi/g						
Cobalt-60	U	0.0305	0.0772	+/-0.0218	0.100	pCi/g						
Europium-152	U	-0.084	0.178	+/-0.0549	0.200	pCi/g						
Lanthanum-140	U	-0.0937	0.125	+/-0.0498		pCi/g						
Lead-212		1.77	0.136	+/-0.136	0.100	pCi/g						
Lead-214		1.52	0.130	+/-0.130	0.100	pCi/g						
Mercury-203	U	0.0333	0.0803	+/-0.0253	0.100	pCi/g						
Potassium-40		36.4	0.512	+/-2.01	1.00	pCi/g						
Radium-223	U	-0.592	1.21	+/-0.427		pCi/g						
Radium-224	UI	3.31	1.46	+/-0.536		pCi/g						
Radium-226		1.15	0.132	+/-0.116		pCi/g						
Radium-228		1.96	0.278	+/-0.201	0.500	pCi/g						
Ruthenium-106	U	-0.17	0.554	+/-0.170	0.800	pCi/g						
Sodium-22	U	-0.0456	0.0753	+/-0.0253	0.080	pCi/g						

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TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13781
Sample ID: 248860006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0475	0.0718	+/-0.0227		pCi/g						
Thallium-208		0.601	0.0637	+/-0.0547	0.080	pCi/g						
Thorium-227	U	0.197	0.494	+/-0.138		pCi/g						
Thorium-231	U	-0.592	1.21	+/-0.427		pCi/g						
Thorium-234	U	1.16	3.07	+/-0.843	2.00	pCi/g						
Tin-113	U	0.00309	0.0859	+/-0.0255	0.100	pCi/g						
Uranium-235	U	-0.0268	0.383	+/-0.115	0.500	pCi/g						
Yttrium-88	U	-0.00592	0.0598	+/-0.0187	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	72.2	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	83.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	64.4	(50%-105%)

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

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13781
Sample ID: 248860006

Project: LANL01004
Client ID: LANL010

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

E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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

Report Date: April 5, 2010

Client Sample ID: RE46-10-13779
Sample ID: 248860007
Matrix: S
Collect Date: 04-MAR-10
Receive Date: 06-MAR-10
Collector: Client
Moisture: 19.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	5.86E-05	0.0217	+/-0.00148	0.050	pCi/g		AYB1	03/29/10	2147	965811	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0125	0.0225	+/-0.00629	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
Plutonium-239/240	U	0.00603	0.019	+/-0.00418	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.967	0.226	+/-0.119	0.100	pCi/g		AYB1	04/02/10	1138	971197	4
Uranium-235/236	U	0.0298	0.138	+/-0.0223	0.100	pCi/g						
Uranium-238		0.947	0.159	+/-0.116	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0974	0.125	+/-0.039	0.200	pCi/g		MXR1	03/24/10	1627	962633	6
Bismuth-211	UI	4.04	0.368	+/-0.299		pCi/g						
Bismuth-214		1.41	0.145	+/-0.106	0.200	pCi/g						
Cadmium-109	UI	4.83	1.03	+/-0.462		pCi/g						
Cerium-139	U	-0.00892	0.0576	+/-0.0175	0.050	pCi/g						
Cesium-134	U	0.088	0.108	+/-0.0328	0.100	pCi/g						
Cesium-137	U	0.0688	0.0769	+/-0.0322	0.100	pCi/g						
Cobalt-60	U	0.00582	0.0862	+/-0.0263	0.100	pCi/g						
Europium-152	U	0.114	0.201	+/-0.0728	0.200	pCi/g						
Lanthanum-140	U	-0.151	0.179	+/-0.0743		pCi/g						
Lead-212		1.88	0.104	+/-0.119	0.100	pCi/g						
Lead-214		1.47	0.135	+/-0.116	0.100	pCi/g						
Mercury-203	U	0.0654	0.0855	+/-0.0237	0.100	pCi/g						
Potassium-40		34.0	0.605	+/-1.46	1.00	pCi/g						
Radium-223	U	-0.176	1.30	+/-0.447		pCi/g						
Radium-224	UI	5.41	1.12	+/-0.712		pCi/g						
Radium-226		1.41	0.145	+/-0.106		pCi/g						
Radium-228		1.85	0.303	+/-0.235	0.500	pCi/g						
Ruthenium-106	U	0.0582	0.686	+/-0.208	0.800	pCi/g						
Sodium-22	U	0.00767	0.097	+/-0.0295	0.080	pCi/g						

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Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13779
Sample ID: 248860007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.111	0.0927	+/-0.0279		pCi/g						
Thallium-208		0.572	0.0694	+/-0.0494	0.080	pCi/g						
Thorium-227	U	0.123	0.518	+/-0.148		pCi/g						
Thorium-231	U	-0.176	1.30	+/-0.447		pCi/g						
Thorium-234		1.61	1.23	+/-0.564	2.00	pCi/g						
Tin-113	U	-0.0434	0.0868	+/-0.0271	0.100	pCi/g						
Uranium-235	U	0.115	0.398	+/-0.117	0.500	pCi/g						
Yttrium-88	U	0.00399	0.0692	+/-0.0207	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.3	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	82.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	43.2 *	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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< Result is less than value reported
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A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Client Sample ID: RE46-10-13779
Sample ID: 248860007

Project: LANL01004
Client ID: LANL010

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

E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13780
Sample ID: 248860008
Matrix: S
Collect Date: 04-MAR-10
Receive Date: 06-MAR-10
Collector: Client
Moisture: 18.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00476	0.0226	+/-0.00273	0.050	pCi/g		AYB1	03/29/10	2147	965811	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0226	0.0255	+/-0.0111	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
Plutonium-239/240	U	0.00491	0.0215	+/-0.00432	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.825	0.114	+/-0.0832	0.100	pCi/g		AYB1	04/02/10	1138	971197	4
Uranium-235/236	U	0.0448	0.0693	+/-0.0153	0.100	pCi/g						
Uranium-238		0.837	0.0798	+/-0.0841	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0265	0.392	+/-0.111	0.200	pCi/g		MXR1	03/24/10	1628	962633	6
Bismuth-211	UI	3.84	0.339	+/-0.299		pCi/g						
Bismuth-214		1.25	0.112	+/-0.100	0.200	pCi/g						
Cadmium-109	UI	2.88	1.24	+/-0.539		pCi/g						
Cerium-139	U	0.00647	0.0528	+/-0.0158	0.050	pCi/g						
Cesium-134	UI	0.134	0.102	+/-0.0391	0.100	pCi/g						
Cesium-137	U	-0.0609	0.0534	+/-0.0184	0.100	pCi/g						
Cobalt-60	U	0.00743	0.0725	+/-0.0214	0.100	pCi/g						
Europium-152	U	-0.0713	0.156	+/-0.0558	0.200	pCi/g						
Lanthanum-140	U	-0.0336	0.179	+/-0.0577		pCi/g						
Lead-212		1.84	0.102	+/-0.116	0.100	pCi/g						
Lead-214		1.39	0.123	+/-0.115	0.100	pCi/g						
Mercury-203	U	0.0355	0.0755	+/-0.0213	0.100	pCi/g						
Potassium-40		37.5	0.529	+/-2.06	1.00	pCi/g						
Radium-223	U	0.416	1.11	+/-0.359		pCi/g						
Radium-224	UI	3.20	1.09	+/-0.635		pCi/g						
Radium-226		1.25	0.112	+/-0.100		pCi/g						
Radium-228		1.84	0.228	+/-0.214	0.500	pCi/g						
Ruthenium-106	U	-0.125	0.516	+/-0.156	0.800	pCi/g						
Sodium-22	U	-0.027	0.0814	+/-0.0257	0.080	pCi/g						

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Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13780
Sample ID: 248860008
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.0929	0.0776	+/-0.0233		pCi/g						
Thallium-208		0.552	0.0592	+/-0.0505	0.080	pCi/g						
Thorium-227	U	-0.0141	0.423	+/-0.123		pCi/g						
Thorium-231	U	0.416	1.11	+/-0.359		pCi/g						
Thorium-234	U	1.44	3.27	+/-0.925	2.00	pCi/g						
Tin-113	U	-0.0252	0.0755	+/-0.0234	0.100	pCi/g						
Uranium-235	U	0.0636	0.347	+/-0.105	0.500	pCi/g						
Yttrium-88	U	-0.0024	0.0487	+/-0.0154	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.5	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	77.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	86.5	(50%-105%)

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

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13780
Sample ID: 248860008

Project: LANL01004
Client ID: LANL010

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

E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13778
Sample ID: 248860009
Matrix: S
Collect Date: 04-MAR-10
Receive Date: 06-MAR-10
Collector: Client
Moisture: 19.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.000934	0.0269	+/-0.00243	0.050	pCi/g		AYB1	03/29/10	2147	965811	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00536	0.0212	+/-0.00681	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
Plutonium-239/240	U	0.00363	0.0179	+/-0.003	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.719	0.117	+/-0.0761	0.100	pCi/g		AYB1	04/02/10	1137	971197	4
Uranium-235/236	U	0.046	0.0712	+/-0.0173	0.100	pCi/g						
Uranium-238		0.847	0.0819	+/-0.0855	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0836	0.267	+/-0.0735	0.200	pCi/g		MXR1	03/24/10	1628	962633	6
Bismuth-211	UI	4.10	0.309	+/-0.293		pCi/g						
Bismuth-214		1.19	0.110	+/-0.103	0.200	pCi/g						
Cadmium-109	UI	3.44	1.19	+/-0.521		pCi/g						
Cerium-139	U	-0.0113	0.0539	+/-0.0164	0.050	pCi/g						
Cesium-134	U	0.0891	0.0952	+/-0.0258	0.100	pCi/g						
Cesium-137	U	-0.00538	0.0675	+/-0.0206	0.100	pCi/g						
Cobalt-60	U	-0.00156	0.0695	+/-0.0212	0.100	pCi/g						
Europium-152	U	0.061	0.169	+/-0.0545	0.200	pCi/g						
Lanthanum-140	U	-0.00211	0.147	+/-0.0455		pCi/g						
Lead-212		1.62	0.112	+/-0.108	0.100	pCi/g						
Lead-214		1.49	0.113	+/-0.114	0.100	pCi/g						
Mercury-203	U	0.0162	0.0717	+/-0.0204	0.100	pCi/g						
Potassium-40		37.1	0.534	+/-1.96	1.00	pCi/g						
Radium-223	U	-0.40	1.06	+/-0.324		pCi/g						
Radium-224	UI	2.52	1.49	+/-0.551		pCi/g						
Radium-226		1.19	0.110	+/-0.103		pCi/g						
Radium-228		1.82	0.243	+/-0.205	0.500	pCi/g						
Ruthenium-106	U	-0.0333	0.520	+/-0.154	0.800	pCi/g						
Sodium-22	U	-0.0403	0.0709	+/-0.0234	0.080	pCi/g						

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Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-13778
Sample ID: 248860009
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.102	0.0803	+/-0.023		pCi/g						
Thallium-208		0.561	0.0546	+/-0.0495	0.080	pCi/g						
Thorium-227	U	0.116	0.447	+/-0.126		pCi/g						
Thorium-231	U	-0.40	1.06	+/-0.324		pCi/g						
Thorium-234	U	0.632	2.45	+/-0.683	2.00	pCi/g						
Tin-113	U	0.0182	0.0823	+/-0.024	0.100	pCi/g						
Uranium-235	U	-0.0667	0.342	+/-0.103	0.500	pCi/g						
Yttrium-88	U	0.00475	0.0547	+/-0.016	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	67.0	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	93.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	81.3	(50%-105%)

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

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Certificate of Analysis

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

Report Date: April 5, 2010

Client Sample ID: RE46-10-13778
Sample ID: 248860009
Project: LANL01004
Client ID: LANL010

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

E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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QC Summary

Report Date: April 5, 2010

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

Contact: **Ms. Joylene Valdez**

Workorder: **248860**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965811										
QC1202072523 248867001 DUP										
Americium-241	U	-0.00415	U	-0.00142	pCi/g	0.342		(0-1)	AYB1	03/29/1021:46
	TPU:	+/-0.00255		+/-0.00145						
	Yield:	86.5		85.7						
QC1202072524 LCS										
Americium-241	33.1			29.0	pCi/g		87.5	(75%-125%)		03/29/1021:46
	TPU:			+/-2.19						
	Yield:			100						
QC1202072522 MB										
Americium-241			U	-0.00591	pCi/g					03/29/1021:46
	TPU:			+/-0.00361						
	Yield:			85.7						
Batch 965813										
QC1202072526 248867001 DUP										
Plutonium-238	U	-0.00699	U	-0.0017	pCi/g	0.241		(0-1)	AYB1	03/29/1009:33
	TPU:	+/-0.00461		+/-0.00635						
	Yield:	90.1		94.2						
Plutonium-239/240	U	0.0098	U	-0.00321	pCi/g	0.737		(0-1)		
	TPU:	+/-0.00478		+/-0.00406						
	Yield:	90.1		94.2						
QC1202072527 LCS										
Plutonium-238				2.79	pCi/g			(75%-125%)		
	TPU:			+/-0.306						
	Yield:			89.4						
Plutonium-239/240	41.8			38.2	pCi/g		91.3	(75%-125%)		
	TPU:			+/-2.65						
	Yield:			89.4						
QC1202072525 MB										
Plutonium-238			U	0.00642	pCi/g					
	TPU:			+/-0.00852						
	Yield:			92.8						
Plutonium-239/240			U	0.00683	pCi/g					
	TPU:			+/-0.00445						
	Yield:			92.8						
Batch 971197										
QC1202085876 248867001 DUP										
Uranium-233/234		1.71		2.17	pCi/g	0.634		(0-1)	AYB1	04/02/1011:37
	TPU:	+/-0.155		+/-0.205						
	Yield:	72.9		52.6						
Uranium-235/236		0.0812	U	0.0804	pCi/g	0.00756		(0-1)		
	TPU:	+/-0.0225		+/-0.0285						
	Yield:	72.9		52.6						
Uranium-238		0.863		0.950	pCi/g	0.219		(0-1)		
	TPU:	+/-0.0905		+/-0.107						

QC Summary

Workorder: 248860

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 971197										
	Yield:	72.9		52.6						
QC1202085877 LCS										
Uranium-233/234				5.33	pCi/g					04/02/1011:37
	TPU:			+/-0.523						
	Yield:			89.3						
Uranium-235/236			U	0.231	pCi/g					
	TPU:			+/-0.0753						
	Yield:			89.3						
Uranium-238	5.75			5.72	pCi/g		99.5	(75%-125%)		
	TPU:			+/-0.555						
	Yield:			89.3						
QC1202085875 MB										
Uranium-233/234			U	0.00363	pCi/g					04/02/1011:37
	TPU:			+/-0.00376						
	Yield:			89.8						
Uranium-235/236			U	0.00234	pCi/g					
	TPU:			+/-0.00524						
	Yield:			89.8						
Uranium-238			U	0.00568	pCi/g					
	TPU:			+/-0.00425						
	Yield:			89.8						
Rad Gamma Spec										
Batch 962633										
QC1202065189 248867001 DUP										
Americium-241	U	-0.0252	U	-0.0361	pCi/g	0.0477		(0-1)	MXR1	03/24/1023:00
	TPU:	+/-0.0965		+/-0.0183						
Bismuth-211	UI	3.83	UI	3.94	pCi/g	0.0946		(0-1)		
	TPU:	+/-0.303		+/-0.247						
Bismuth-214		1.17		1.48	pCi/g	0.715		(0-1)		
	TPU:	+/-0.103		+/-0.116						
Cadmium-109	UI	2.48	UI	4.66	pCi/g	1.14		(0-1)		
	TPU:	+/-0.596		+/-0.357						
Cerium-139	U	0.00997	U	-0.00147	pCi/g	0.207		(0-1)		
	TPU:	+/-0.0185		+/-0.00912						
Cesium-134	UI	0.141	UI	0.110	pCi/g	0.204		(0-1)		
	TPU:	+/-0.0479		+/-0.0293						
Cesium-137	UI	0.126		0.113	pCi/g	0.118		(0-1)		
	TPU:	+/-0.0246		+/-0.0324						
Cobalt-60	U	-0.0193	U	-0.000883	pCi/g	0.241		(0-1)		
	TPU:	+/-0.0213		+/-0.0169						
Europium-152	U	0.00124	U	0.0619	pCi/g	0.297		(0-1)		
	TPU:	+/-0.0666		+/-0.0356						
Lanthanum-140	U	-0.056	U	0.0733	pCi/g	0.559		(0-1)		
	TPU:	+/-0.0648		+/-0.0509						
Lead-212		1.84		1.91	pCi/g	0.165		(0-1)		
	TPU:	+/-0.111		+/-0.105						
Lead-214		1.39		1.43	pCi/g	0.0887		(0-1)		
	TPU:	+/-0.117		+/-0.0978						
Mercury-203	U	0.028	U	0.0029	pCi/g	0.308		(0-1)		
	TPU:	+/-0.0246		+/-0.0161						

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QC Summary

Workorder: 248860

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962633										
Potassium-40		35.2		33.1	pCi/g	0.282		(0-1)		
	TPU:	+/-2.16		+/-1.65						
Radium-223	U	0.0653	U	0.0788	pCi/g	0.010		(0-1)		
	TPU:	+/-0.415		+/-0.260						
Radium-224	UI	4.78	UI	4.63	pCi/g	0.0588		(0-1)		
	TPU:	+/-0.778		+/-0.473						
Radium-226		1.17		1.48	pCi/g	0.715		(0-1)		
	TPU:	+/-0.103		+/-0.116						
Radium-228		1.69		1.98	pCi/g	0.356		(0-1)		
	TPU:	+/-0.213		+/-0.186						
Ruthenium-106	U	-0.102	U	0.201	pCi/g	0.492		(0-1)		
	TPU:	+/-0.172		+/-0.136						
Sodium-22	U	-0.0499	U	-0.00156	pCi/g	0.536		(0-1)		
	TPU:	+/-0.024		+/-0.0211						
Strontium-85	U	-0.18	U	0.0208	pCi/g	2.02		(0-1)		
	TPU:	+/-0.0321		+/-0.0177						
Thallium-208		0.586		0.584	pCi/g	0.0121		(0-1)		
	TPU:	+/-0.0518		+/-0.0471						
Thorium-227	U	0.00176	U	-0.102	pCi/g	0.224		(0-1)		
	TPU:	+/-0.142		+/-0.0906						
Thorium-231	U	0.0653	U	0.0788	pCi/g	0.010		(0-1)		
	TPU:	+/-0.415		+/-0.260						
Thorium-234	U	0.746		1.78	pCi/g	0.428		(0-1)		
	TPU:	+/-0.855		+/-0.350						
Tin-113	U	0.0304	U	-0.0268	pCi/g	0.631		(0-1)		
	TPU:	+/-0.0265		+/-0.0188						
Uranium-235	U	0.341	U	0.110	pCi/g	0.573		(0-1)		
	TPU:	+/-0.134		+/-0.0669						
Yttrium-88	U	-0.0065	U	0.0289	pCi/g	0.481		(0-1)		
	TPU:	+/-0.0191		+/-0.0177						
QC1202065190 LCS										
Americium-241	16.3			13.9	pCi/g		85.2	(75%-125%)		03/25/1009:16
	TPU:			+/-0.638						
Bismuth-211				3.46	pCi/g					
	TPU:			+/-0.367						
Bismuth-214				0.890	pCi/g					
	TPU:			+/-0.108						
Cadmium-109				35.4	pCi/g					
	TPU:			+/-2.11						
Cerium-139			U	0.0101	pCi/g					
	TPU:			+/-0.0215						
Cesium-134			U	0.071	pCi/g					
	TPU:			+/-0.0385						
Cesium-137	5.69			5.89	pCi/g		104	(75%-125%)		
	TPU:			+/-0.331						
Cobalt-60	6.49			6.90	pCi/g		106	(75%-125%)		
	TPU:			+/-0.337						
Europium-152			U	0.0108	pCi/g					
	TPU:			+/-0.0883						
Lanthanum-140			U	-0.0747	pCi/g					
	TPU:			+/-0.0628						

QC Summary

Workorder: 248860

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 962633											
Lead-212				1.43	pCi/g						
	TPU:			+/-0.119							
Lead-214				1.26	pCi/g						
	TPU:			+/-0.138							
Mercury-203			U	-0.0163	pCi/g						
	TPU:			+/-0.0331							
Potassium-40				1.02	pCi/g						
	TPU:			+/-0.254							
Radium-223			U	-0.894	pCi/g						
	TPU:			+/-0.541							
Radium-224				2.93	pCi/g						
	TPU:			+/-0.863							
Radium-226				0.890	pCi/g						
	TPU:			+/-0.108							
Radium-228				1.59	pCi/g						
	TPU:			+/-0.301							
Ruthenium-106			U	-0.181	pCi/g						
	TPU:			+/-0.248							
Sodium-22			U	0.0353	pCi/g						
	TPU:			+/-0.0239							
Strontium-85			U	-0.0677	pCi/g						
	TPU:			+/-0.0364							
Thallium-208				0.427	pCi/g						
	TPU:			+/-0.054							
Thorium-227			U	-0.0226	pCi/g						
	TPU:			+/-0.208							
Thorium-231			U	-0.894	pCi/g						
	TPU:			+/-0.541							
Thorium-234			U	-0.854	pCi/g						
	TPU:			+/-0.967							
Tin-113			U	-0.0231	pCi/g						
	TPU:			+/-0.0386							
Uranium-235			U	-0.147	pCi/g						
	TPU:			+/-0.135							
Yttrium-88			U	0.0459	pCi/g						
	TPU:			+/-0.0238							
QC1202065188 MB											
Americium-241			U	-0.0948	pCi/g					03/24/10	22:59
	TPU:			+/-0.0289							
Bismuth-211			U	0.0297	pCi/g						
	TPU:			+/-0.0459							
Bismuth-214			U	-0.0119	pCi/g						
	TPU:			+/-0.0183							
Cadmium-109			U	-0.612	pCi/g						
	TPU:			+/-0.169							
Cerium-139			U	-0.0106	pCi/g						
	TPU:			+/-0.00641							
Cesium-134			U	-0.00286	pCi/g						
	TPU:			+/-0.00786							
Cesium-137			U	-0.00571	pCi/g						
	TPU:			+/-0.00718							

QC Summary

Workorder: **248860**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962633										
Cobalt-60			U	0.0175	pCi/g					
	TPU:			+/-0.00761						
Europium-152			U	-0.017	pCi/g					
	TPU:			+/-0.0203						
Lanthanum-140			U	0.0232	pCi/g					
	TPU:			+/-0.0181						
Lead-212			U	-0.0174	pCi/g					
	TPU:			+/-0.0172						
Lead-214			U	0.0115	pCi/g					
	TPU:			+/-0.0166						
Mercury-203			U	-0.0075	pCi/g					
	TPU:			+/-0.00762						
Potassium-40			U	-0.0404	pCi/g					
	TPU:			+/-0.105						
Radium-223			U	-0.0221	pCi/g					
	TPU:			+/-0.128						
Radium-224			U	0.304	pCi/g					
	TPU:			+/-0.137						
Radium-226			U	-0.0119	pCi/g					
	TPU:			+/-0.0183						
Radium-228			U	-0.0353	pCi/g					
	TPU:			+/-0.0343						
Ruthenium-106			U	-0.0657	pCi/g					
	TPU:			+/-0.0658						
Sodium-22			U	-2.09E-06	pCi/g					
	TPU:			+/-0.00745						
Strontium-85			U	-0.0416	pCi/g					
	TPU:			+/-0.0134						
Thallium-208			U	0.00936	pCi/g					
	TPU:			+/-0.00937						
Thorium-227			U	0.0445	pCi/g					
	TPU:			+/-0.0518						
Thorium-231			U	-0.0221	pCi/g					
	TPU:			+/-0.128						
Thorium-234			U	0.199	pCi/g					
	TPU:			+/-0.296						
Tin-113			U	-0.00326	pCi/g					
	TPU:			+/-0.00929						
Uranium-235			U	-0.0127	pCi/g					
	TPU:			+/-0.0458						
Yttrium-88			U	-0.0106	pCi/g					
	TPU:			+/-0.00801						

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

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

QC Summary

Workorder: 248860

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

A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

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

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

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 9105811 Product: Am Date: 3/30/10

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

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 3/30/10

Secondary Review Performed By: [illegible] 3/30/10

4/2

p 1

Am/Cm Que Sheet

16-MAR-10

Batch #: 965811 Analyst: AYB1 First Client Due Date: 02-APR-10 Internal Due Date22-MAR-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-96-2-VV Expiration Date: 03/9/11 Vol: 0.1

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

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

Prep Date: 3/25/10 Initials: AYB Pipet ID: 11042319 Balance ID: 193502098 Witness: AW 3/21/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #
248824001-1	RE46-10-11926	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	1	1	1.251	231
248824002-1	RE46-10-11925	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	2	2	1.259	232
248860001-1	RE46-10-13782	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	3	3	1.251	233
248860002-1	RE46-10-13783	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	4	4	1.259	234
248860003-1	RE46-10-13777	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	5	5	1.258	240
248860004-1	RE46-10-13775	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	6	6	1.253	241
248860005-1	RE46-10-13776	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	7	7	1.258	242
248860006-1	RE46-10-13781	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	8	8	1.259	243
248860007-1	RE46-10-13779	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	9	9	1.252	244
248860008-1	RE46-10-13780	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	10	10	1.259	245
248860009-1	RE46-10-13778	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	11	11	1.259	246
248867001-1	RE46-10-12931	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	12	12	1.253	247
248867002-1	RE46-10-12932	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	13	13	1.252	248
248867003-1	RE46-10-12934	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	14	14	1.255	235
248867004-1	RE46-10-12933	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	15	15	1.253	236
1202072522-1	MB for batch 965811	MB		.05 pCi/g	SOIL	QC ACCOUNT		16	16	1	237
1202072523-1	RE46-10-12931(248867001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	05-MAR-10	17	17	1.255	238
1202072524-1	LCS for batch 965811	LCS		.05 pCi/g	SOIL	QC ACCOUNT		18	18	0.102	239

#SRM 0244-B EXP: 04/30/20

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

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: 3/30/10

Blank Correction Report

Batch ID 965811

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202072523	DUP	Americium-241	1.26 g	-0.00142	0.00145	0.0212	-.00469048	pCi/g	NO
1202072524	LCS	Americium-241	0.102 g	29.0	2.19	0.228	-.05794118	pCi/g	NO
1202072522	MB	Americium-241	1.00 g	-0.00591	0.00361	0.0261	-.00591	pCi/g	NO
248824001	RE46-10-11926	Americium-241	1.25 g	0.00195	0.00237	0.0217	-.004728	pCi/g	NO
248824002	RE46-10-11925	Americium-241	1.26 g	-0.00838	0.00327	0.0236	-.00469048	pCi/g	NO
248860001	RE46-10-13782	Americium-241	1.25 g	0.00355	0.00288	0.0222	-.004728	pCi/g	NO
248860002	RE46-10-13783	Americium-241	1.26 g	0.00114	0.00292	0.024	-.00469048	pCi/g	NO
248860003	RE46-10-13777	Americium-241	1.26 g	0.0022	0.002	0.0265	-.00469048	pCi/g	NO
248860004	RE46-10-13775	Americium-241	1.25 g	8.16E-05	0.00151	0.022	-.004728	pCi/g	NO
248860005	RE46-10-13776	Americium-241	1.26 g	-0.00102	0.00172	0.0205	-.00469048	pCi/g	NO
248860006	RE46-10-13781	Americium-241	1.26 g	0.00355	0.00244	0.0243	-.00469048	pCi/g	NO
248860007	RE46-10-13779	Americium-241	1.25 g	5.86E-05	0.00148	0.0217	-.004728	pCi/g	NO
248860008	RE46-10-13780	Americium-241	1.26 g	0.00476	0.00273	0.0226	-.00469048	pCi/g	NO
248860009	RE46-10-13778	Americium-241	1.26 g	0.000934	0.00243	0.0269	-.00469048	pCi/g	NO
248867001	RE46-10-12931	Americium-241	1.25 g	-0.00415	0.00255	0.0213	-.004728	pCi/g	NO
248867002	RE46-10-12932	Americium-241	1.25 g	-0.00165	0.00225	0.0206	-.004728	pCi/g	NO
248867003	RE46-10-12934	Americium-241	1.26 g	0.00204	0.00244	0.0223	-.00469048	pCi/g	NO
248867004	RE46-10-12933	Americium-241	1.25 g	-0.000954	0.00206	0.0245	-.004728	pCi/g	NO

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

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 233	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248860001_AM	DETECTOR S/N : 79426	BKG FILE : B233.CNF;94
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 39.4029	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 12:01:14	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W233.CNF;31
% YIELD : 83.771		CAL DATE : 2-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.9061E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5522.031	4.925	4.000	2.341	0.720	2.7707	99.94000	3.55E-03	2.88E-03	9.06E-03	2.22E-02	2.87E-03
AM243	5270.000	5277.359	37.129	541.000	539.560	1.440	1.2000	99.78000	8.19E-01	6.52E-02	3.93E-03	1.20E-02	3.54E-02
CM-242	6102.000	6187.818	4.925	1.000	1.000	0.000	4.0092	100.0000	1.69E-03	1.69E-03	1.31E-02	3.03E-02	1.69E-03
CM-3/4	5795.020	5751.765	118.206	4.000	4.000	0.000	4.8510	100.0000	6.08E-03	3.07E-03	1.59E-02	3.58E-02	3.04E-03
CM-5/6	5386.000	5378.400	0.000	9.000	9.000	0.000	6.1294	86.09000	1.58E-02	5.38E-03	2.33E-02	5.13E-02	5.28E-03
CM-247	4946.000	4927.253	115.744	10.000	10.000	0.000	6.3427	79.30000	1.91E-02	6.18E-03	2.61E-02	5.75E-02	6.04E-03
CM-248	5078.600	5057.580	0.000	11.000	11.000	0.000	11.0244	91.00000	1.83E-02	5.66E-03	3.96E-02	8.37E-02	5.52E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

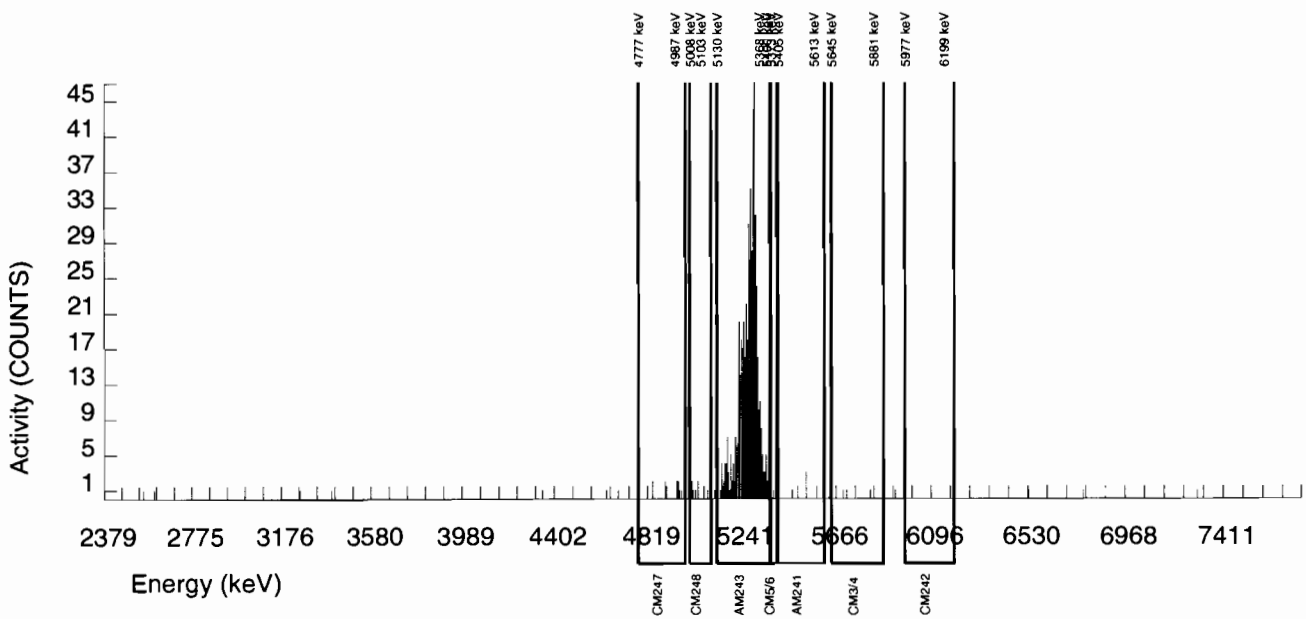

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 234	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248860002_AM	DETECTOR S/N : 79427	BKG FILE : B234.CNF;94
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 39.7384	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 12:01:18	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W234.CNF;30
% YIELD : 76.401		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.7384E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5521.232	108.107	3.000	0.697	1.440	2.7707	99.94000	1.14E-03	2.92E-03	9.79E-03	2.40E-02	2.92E-03
AM243	5270.000	5271.096	39.989	497.000	496.280	0.720	0.8485	99.78000	8.14E-01	6.64E-02	3.00E-03	1.05E-02	3.66E-02
CM-242	6102.000	6088.257	0.000	0.000	0.000	0.000	4.0092	100.0000	0.00E+00	1.83E-03	1.42E-02	3.27E-02	1.83E-03
CM-3/4	5795.020	5731.101	132.677	2.000	1.280	0.720	4.8510	100.0000	2.10E-03	2.61E-03	1.71E-02	3.87E-02	2.60E-03
CM-5/6	5386.000	5377.763	7.217	3.000	2.280	0.720	6.1294	86.09000	4.33E-03	3.58E-03	2.51E-02	5.54E-02	3.57E-03
CM-247	4946.000	4891.668	117.935	4.000	4.000	0.000	6.3427	79.30000	8.26E-03	4.17E-03	2.82E-02	6.21E-02	4.13E-03
CM-248	5078.600	5068.868	36.855	9.000	9.000	0.000	11.0244	91.00000	1.62E-02	5.51E-03	4.28E-02	9.04E-02	5.40E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

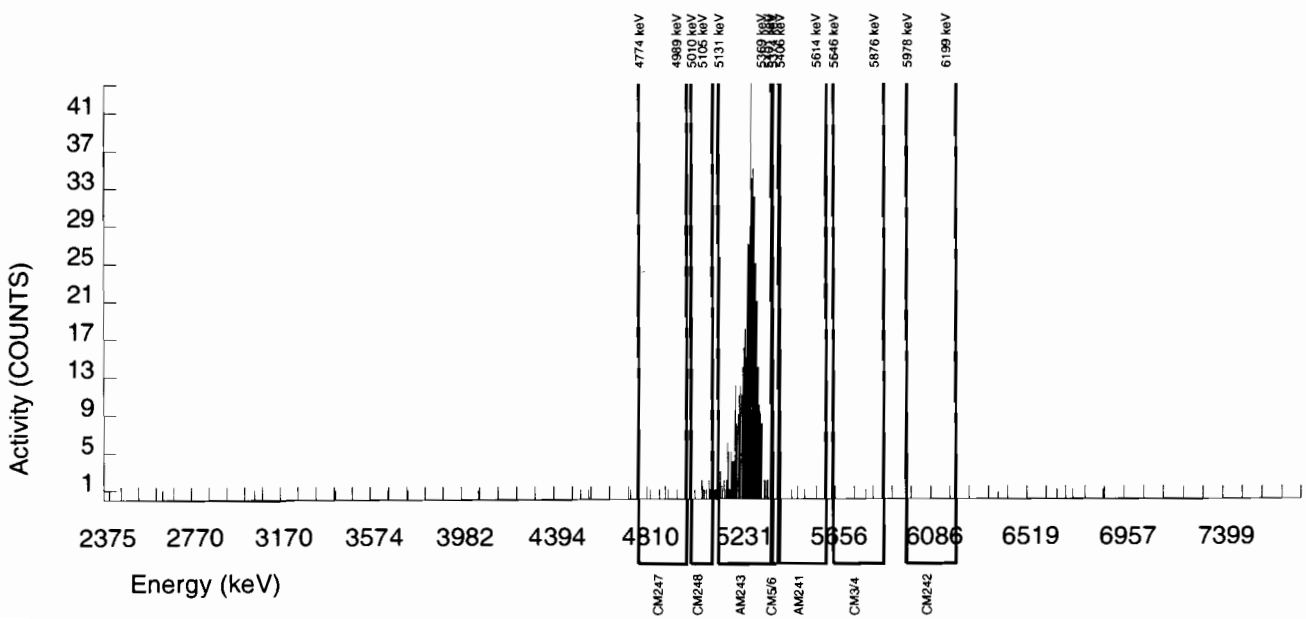

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 240	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248860003_AM	DETECTOR S/N : 79433	BKG FILE : B240.CNF;93
SAMPLE QTY : 1.258 G	AVERAGE %EFFICIENCY : 38.7048	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 21:47:02	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W240.CNF;30
% YIELD : 71.146		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.6188E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5491.326	34.329	2.000	1.217	0.000	2.7707	99.94000	2.20E-03	2.00E-03	1.08E-02	2.65E-02	1.99E-03
AM243	5270.000	5276.923	53.042	453.000	450.120	2.880	1.6971	99.78000	8.15E-01	6.87E-02	6.63E-03	1.82E-02	3.86E-02
CM-242	6102.000	5990.644	4.904	1.000	1.000	0.000	4.0092	100.0000	2.02E-03	2.02E-03	1.56E-02	3.61E-02	2.02E-03
CM-3/4	5795.020	5737.532	122.602	3.000	3.000	0.000	4.8510	100.0000	5.43E-03	3.16E-03	1.89E-02	4.27E-02	3.14E-03
CM-5/6	5386.000	5387.411	0.000	1.000	1.000	0.000	6.1294	86.09000	2.10E-03	2.10E-03	2.77E-02	6.12E-02	2.10E-03
CM-247	4946.000	4883.056	152.027	8.000	7.280	0.720	6.3427	79.30000	1.66E-02	6.75E-03	3.12E-02	6.85E-02	6.65E-03
CM-248	5078.600	5063.562	6.079	10.000	9.280	0.720	11.0244	91.00000	1.84E-02	6.56E-03	4.72E-02	9.98E-02	6.44E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

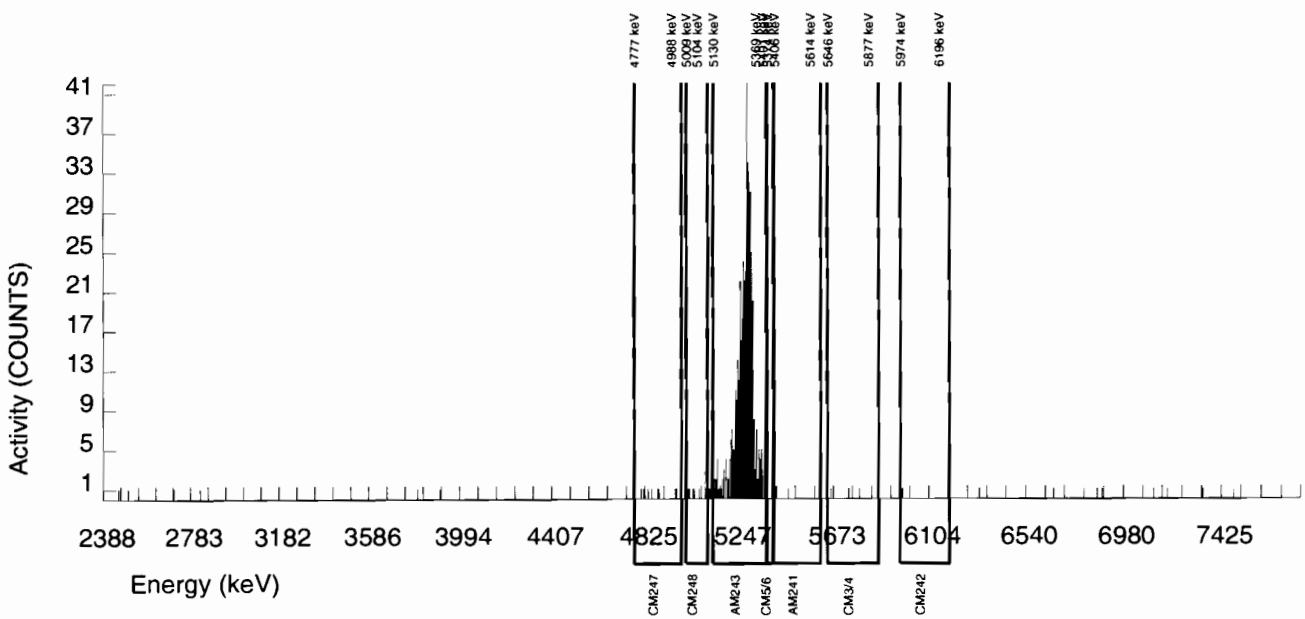

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 241	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248860004_AM	DETECTOR S/N : 79434	BKG FILE : B241.CNF;93
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 39.4182	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 21:47:04	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W241.CNF;30
% YIELD : 84.360		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.9195E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5521.003	4.917	1.000	0.054	0.000	2.7707	99.94000	8.16E-05	1.51E-03	8.98E-03	2.20E-02	1.50E-03
AM243	5270.000	5270.296	47.248	545.000	543.560	1.440	1.2000	99.78000	8.18E-01	6.50E-02	3.90E-03	1.19E-02	3.52E-02
CM-242	6102.000	6048.611	4.917	4.000	4.000	0.000	4.0092	100.0000	6.71E-03	3.39E-03	1.30E-02	3.00E-02	3.36E-03
CM-3/4	5795.020	5773.242	66.220	16.000	15.280	0.720	4.8510	100.0000	2.30E-02	6.31E-03	1.57E-02	3.55E-02	6.12E-03
CM-5/6	5386.000	5376.283	0.000	6.000	6.000	0.000	6.1294	86.09000	1.05E-02	4.33E-03	2.31E-02	5.09E-02	4.27E-03
CM-247	4946.000	4938.142	83.582	2.000	0.560	1.440	6.3427	79.30000	1.06E-03	3.30E-03	2.59E-02	5.70E-02	3.30E-03
CM-248	5078.600	5059.679	63.915	15.000	15.000	0.000	11.0244	91.00000	2.48E-02	6.60E-03	3.92E-02	8.30E-02	6.39E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

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

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

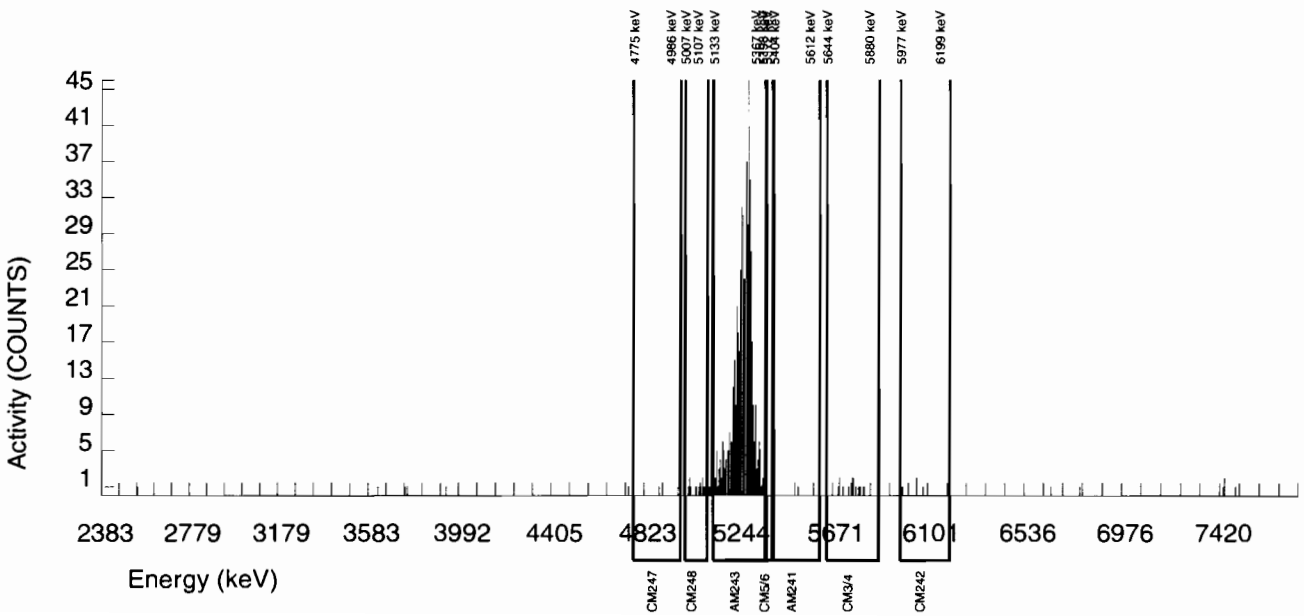

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 242	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248860005_AM	DETECTOR S/N : 79435	BKG FILE : B242.CNF;93
SAMPLE QTY : 1.258 G	AVERAGE %EFFICIENCY : 39.5199	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 21:47:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W242.CNF;30
% YIELD : 90.248		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 2.0534E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5450.151	4.912	1.000	-0.734	0.720	2.7707	99.94000	-1.02E-03	1.72E-03	8.34E-03	2.05E-02	1.72E-03
AM243	5270.000	5267.173	65.157	583.000	583.000	0.000	0.0000	99.78000	8.15E-01	6.33E-02	0.00E+00	3.79E-03	3.37E-02
CM-242	6102.000	6094.573	4.912	1.000	1.000	0.000	4.0092	100.0000	1.56E-03	1.56E-03	1.21E-02	2.79E-02	1.56E-03
CM-3/4	5795.020	5719.231	54.032	3.000	2.280	0.720	4.8510	100.0000	3.19E-03	2.63E-03	1.46E-02	3.30E-02	2.62E-03
CM-5/6	5386.000	5386.259	14.122	3.000	3.000	0.000	6.1294	86.09000	4.86E-03	2.82E-03	2.14E-02	4.72E-02	2.81E-03
CM-247	4946.000	4936.559	0.000	2.000	2.000	0.000	6.3427	79.30000	3.52E-03	2.50E-03	2.41E-02	5.29E-02	2.49E-03
CM-248	5078.600	5067.171	0.000	14.000	14.000	0.000	11.0244	91.00000	2.15E-02	5.90E-03	3.64E-02	7.70E-02	5.73E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

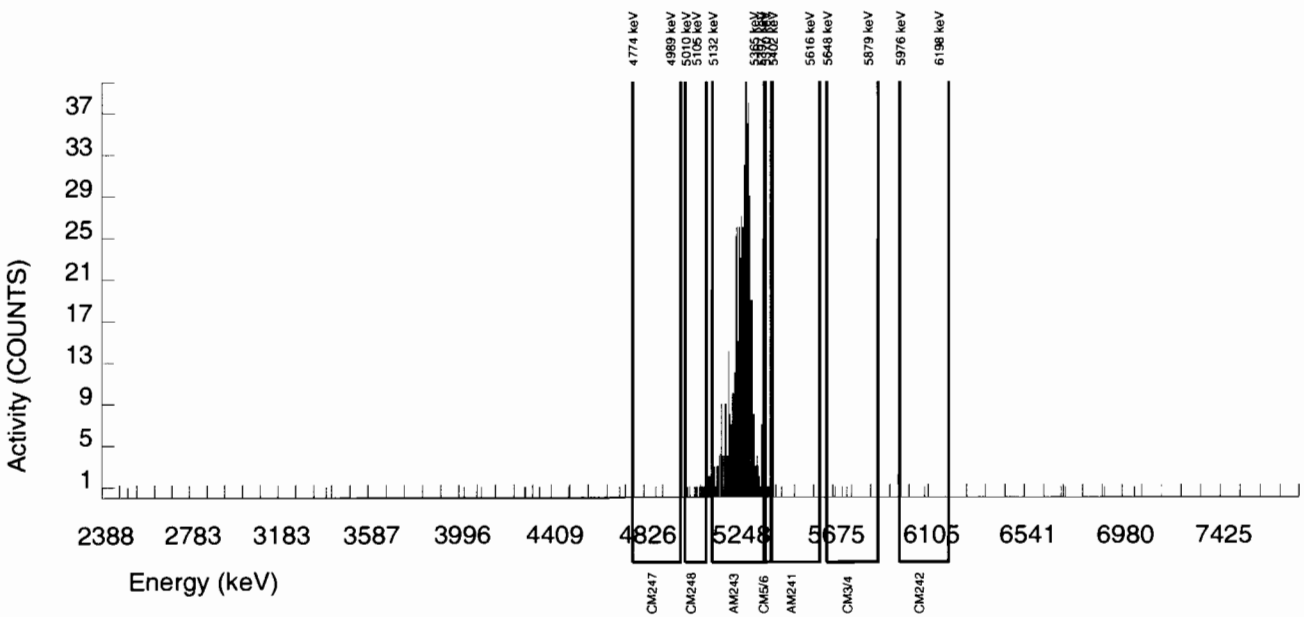

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 243	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248860006_AM	DETECTOR S/N : 79436	BKG FILE : B243.CNF;93
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 41.6202	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 21:47:09	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W243.CNF;30
% YIELD : 72.212		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.6431E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5499.836	68.576	3.000	2.145	0.000	2.7707	99.94000	3.55E-03	2.44E-03	9.89E-03	2.43E-02	2.42E-03
AM243	5270.000	5266.035	50.636	492.000	491.280	0.720	0.8485	99.78000	8.14E-01	6.66E-02	3.03E-03	1.06E-02	3.68E-02
CM-242	6102.000	6111.870	151.846	2.000	2.000	0.000	4.0092	100.0000	3.70E-03	2.63E-03	1.43E-02	3.31E-02	2.61E-03
CM-3/4	5795.020	5724.629	121.845	7.000	4.840	2.160	4.8510	100.0000	8.02E-03	4.88E-03	1.73E-02	3.91E-02	4.85E-03
CM-5/6	5386.000	5383.355	0.000	0.000	-0.720	0.720	6.1294	86.09000	-1.38E-03	2.37E-03	2.54E-02	5.60E-02	2.37E-03
CM-247	4946.000	4929.125	0.000	11.000	10.280	0.720	6.3427	79.30000	2.14E-02	7.23E-03	2.85E-02	6.27E-02	7.08E-03
CM-248	5078.600	5065.486	6.072	12.000	12.000	0.000	11.0244	91.00000	2.18E-02	6.47E-03	4.32E-02	9.14E-02	6.29E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

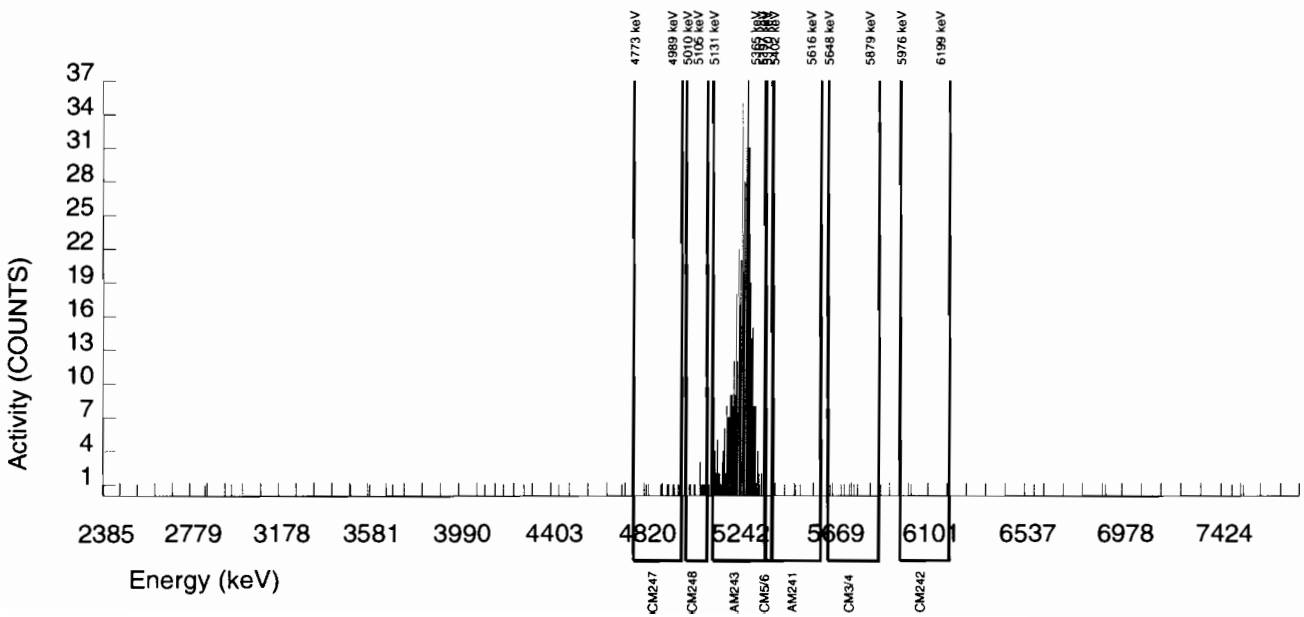

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 244	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248860007_AM	DETECTOR S/N : 79437	BKG FILE : B244.CNF;93
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 39.5742	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 21:47:11	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W244.CNF;30
% YIELD : 85.332		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.9416E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5501.621	4.906	1.000	0.040	0.000	2.7707	99.94000	5.86E-05	1.48E-03	8.85E-03	2.17E-02	1.48E-03
AM243	5270.000	5269.838	46.942	552.000	552.000	0.000	0.0000	99.78000	8.19E-01	6.47E-02	0.00E+00	4.02E-03	3.48E-02
CM-242	6102.000	6001.695	4.906	1.000	0.280	0.720	4.0092	100.0000	4.63E-04	2.04E-03	1.28E-02	2.96E-02	2.04E-03
CM-3/4	5795.020	5769.706	24.532	2.000	2.000	0.000	4.8510	100.0000	2.97E-03	2.11E-03	1.55E-02	3.50E-02	2.10E-03
CM-5/6	5386.000	5378.905	4.906	1.000	1.000	0.000	6.1294	86.09000	1.72E-03	1.72E-03	2.27E-02	5.01E-02	1.72E-03
CM-247	4946.000	4901.195	0.000	9.000	6.840	2.160	6.3427	79.30000	1.28E-02	6.12E-03	2.55E-02	5.61E-02	6.06E-03
CM-248	5078.600	5052.112	0.000	10.000	10.000	0.000	11.0244	91.00000	1.63E-02	5.25E-03	3.87E-02	8.18E-02	5.14E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

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

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

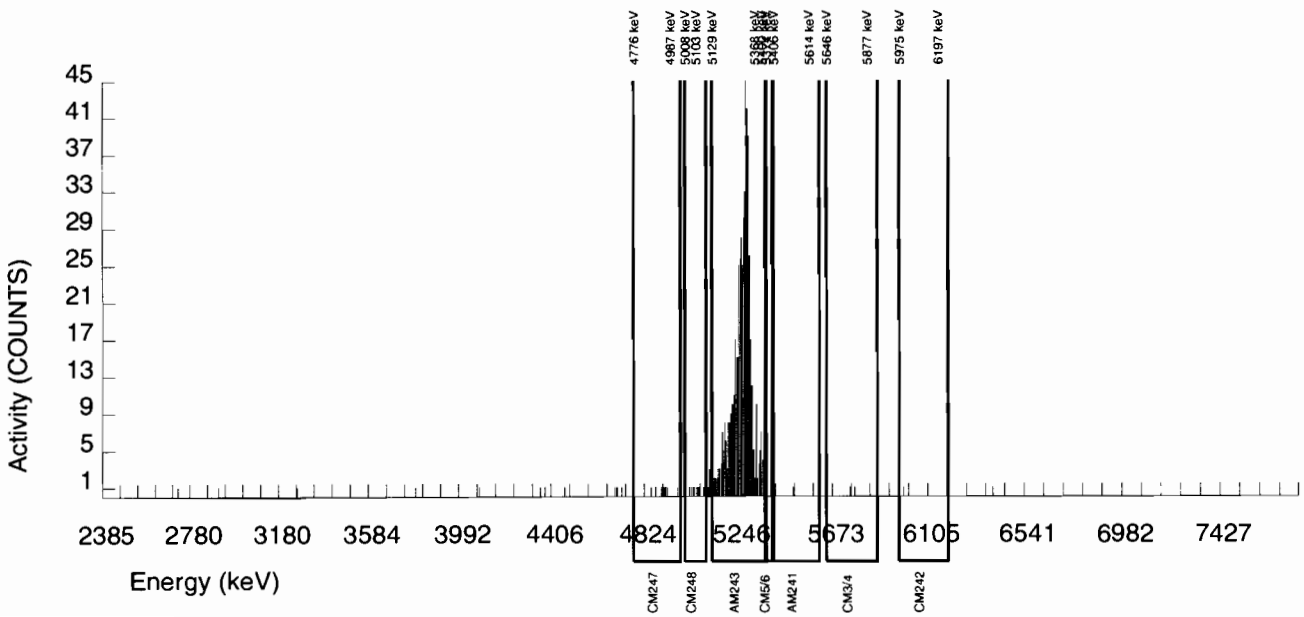

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 245	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248860008_AM	DETECTOR S/N : 79438	BKG FILE : B245.CNF;93
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 40.5519	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 21:47:14	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W245.CNF;31
% YIELD : 79.503		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.8089E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5516.044	123.383	4.000	3.083	0.000	2.7707	99.94000	4.76E-03	2.73E-03	9.22E-03	2.26E-02	2.71E-03
AM243	5270.000	5269.874	57.345	527.000	527.000	0.000	0.0000	99.78000	8.14E-01	6.52E-02	0.00E+00	4.19E-03	3.55E-02
CM-242	6102.000	6015.708	29.612	4.000	4.000	0.000	4.0092	100.0000	6.89E-03	3.48E-03	1.33E-02	3.08E-02	3.45E-03
CM-3/4	5795.020	5793.371	4.935	4.000	4.000	0.000	4.8510	100.0000	6.18E-03	3.12E-03	1.61E-02	3.64E-02	3.09E-03
CM-5/6	5386.000	5376.321	0.000	5.000	4.280	0.720	6.1294	86.09000	7.66E-03	4.24E-03	2.37E-02	5.22E-02	4.21E-03
CM-247	4946.000	4898.922	108.577	8.000	5.840	2.160	6.3427	79.30000	1.14E-02	6.06E-03	2.66E-02	5.85E-02	6.01E-03
CM-248	5078.600	5074.704	7.172	19.000	19.000	0.000	11.0244	91.00000	3.22E-02	7.69E-03	4.03E-02	8.52E-02	7.38E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

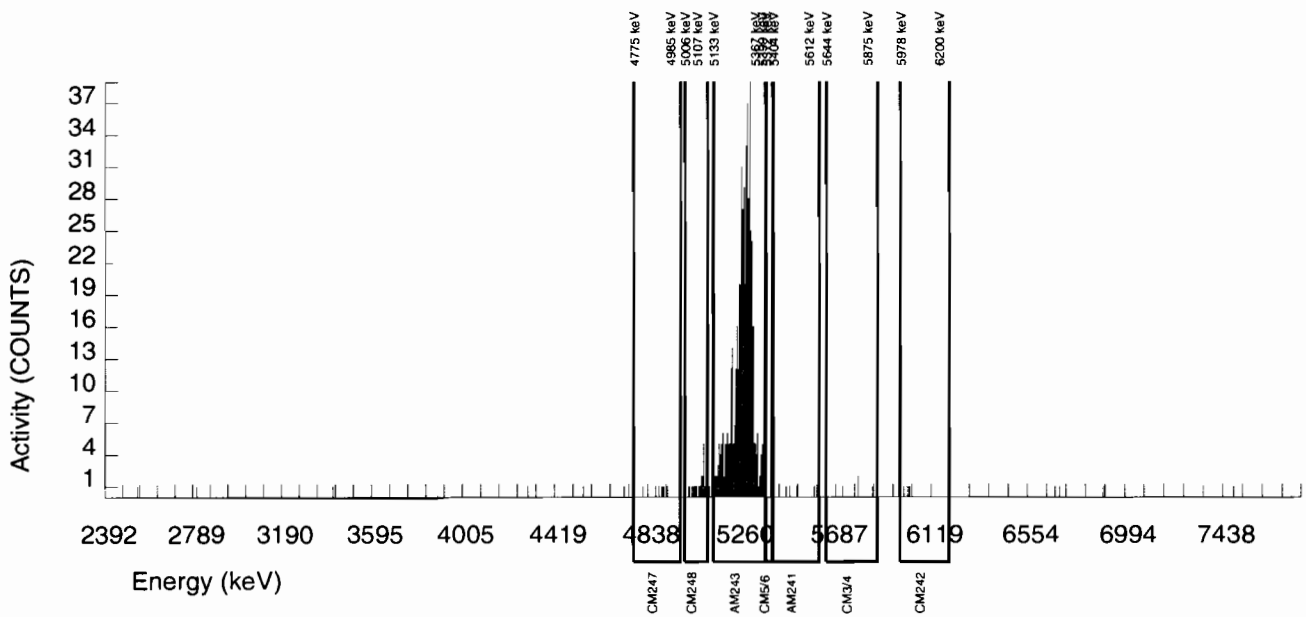

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 246	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248860009_AM	DETECTOR S/N : 78912	BKG FILE : B246.CNF;93
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 40.4448	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 21:47:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W246.CNF;32
% YIELD : 67.008		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.5246E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5512.787	93.760	2.000	0.509	0.720	2.7707	99.94000	9.34E-04	2.43E-03	1.10E-02	2.69E-02	2.43E-03
AM243	5270.000	5270.258	48.326	443.000	443.000	0.000	0.0000	99.78000	8.14E-01	6.87E-02	0.00E+00	4.98E-03	3.87E-02
CM-242	6102.000	6033.617	0.000	4.000	4.000	0.000	4.0092	100.0000	8.20E-03	4.14E-03	1.59E-02	3.67E-02	4.10E-03
CM-3/4	5795.020	5823.464	39.478	3.000	2.280	0.720	4.8510	100.0000	4.19E-03	3.46E-03	1.92E-02	4.33E-02	3.45E-03
CM-5/6	5386.000	5377.787	0.000	3.000	3.000	0.000	6.1294	86.09000	6.39E-03	3.72E-03	2.82E-02	6.21E-02	3.69E-03
CM-247	4946.000	4885.332	7.248	7.000	6.280	0.720	6.3427	79.30000	1.45E-02	6.42E-03	3.16E-02	6.95E-02	6.34E-03
CM-248	5078.600	5065.728	49.348	15.000	15.000	0.000	11.0244	91.00000	3.02E-02	8.08E-03	4.79E-02	1.01E-01	7.80E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

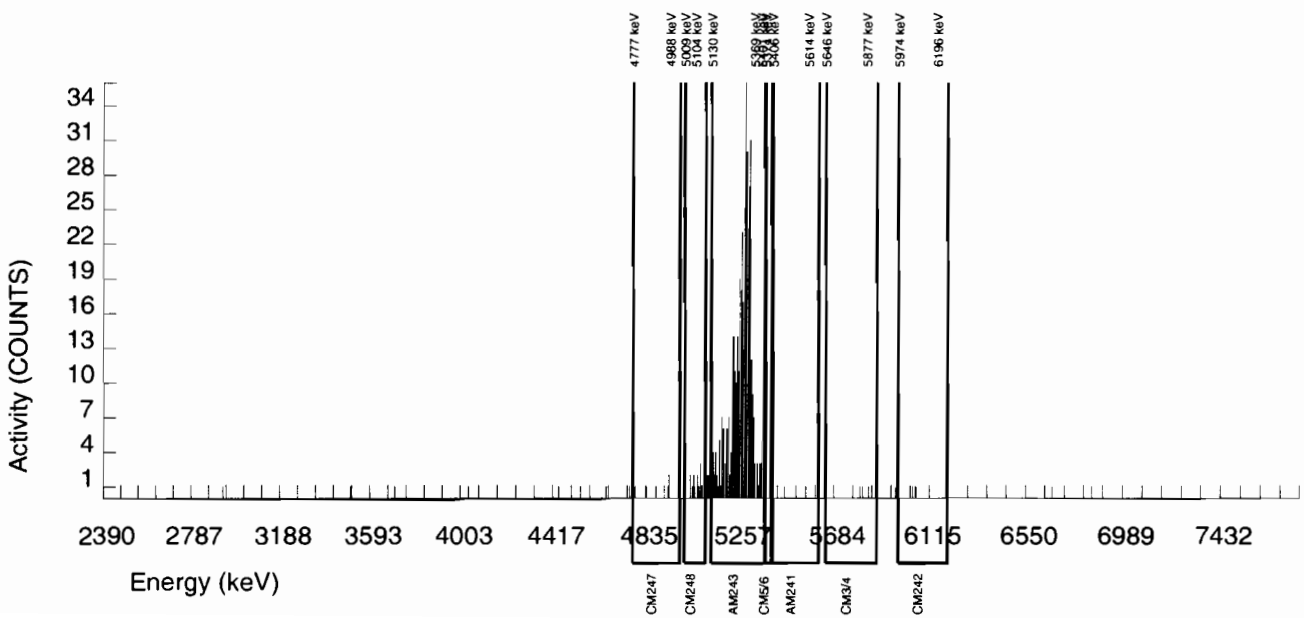

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 247	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248867001_AM	DETECTOR S/N : 79440	BKG FILE : B247.CNF;94
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 39.7832	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 21:47:19	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W247.CNF;31
% YIELD : 86.483		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.9678E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5567.438	4.925	1.000	-2.858	2.880	2.7707	99.94000	-4.15E-03	2.55E-03	8.68E-03	2.13E-02	2.55E-03
AM243	5270.000	5277.115	56.870	566.000	562.400	3.600	1.8974	99.78000	8.18E-01	6.45E-02	5.95E-03	1.58E-02	3.47E-02
CM-242	6102.000	6027.518	9.234	2.000	2.000	0.000	4.0092	100.0000	3.23E-03	2.29E-03	1.26E-02	2.90E-02	2.28E-03
CM-3/4	5795.020	5764.574	93.573	4.000	1.840	2.160	4.8510	100.0000	2.68E-03	3.43E-03	1.52E-02	3.43E-02	3.43E-03
CM-5/6	5386.000	5373.456	0.000	6.000	6.000	0.000	6.1294	86.09000	1.01E-02	4.18E-03	2.23E-02	4.92E-02	4.13E-03
CM-247	4946.000	4864.947	128.047	5.000	4.280	0.720	6.3427	79.30000	7.83E-03	4.33E-03	2.50E-02	5.50E-02	4.30E-03
CM-248	5078.600	5073.172	9.850	12.000	11.280	0.720	11.0244	91.00000	1.80E-02	5.77E-03	3.79E-02	8.02E-02	5.64E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

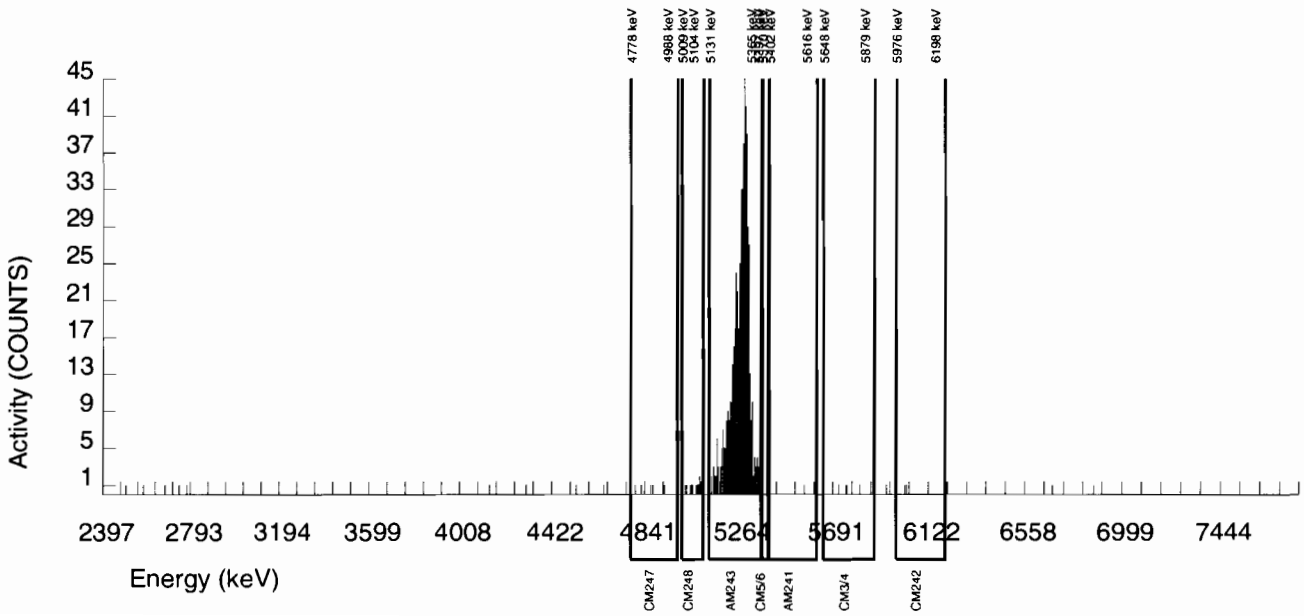

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 237	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202072522_AM	DETECTOR S/N : 79430	BKG FILE : B237.CNF;93
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 41.0426	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 21:46:54	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W237.CNF;30
% YIELD : 85.684		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3148E+01 pCi/G	NOMINAL : 3.3148E+01 pCi/G
RESULTS : 1.9496E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5505.079	34.542	2.000	-3.320	4.320	2.7707	99.94000	-5.91E-03	3.61E-03	1.06E-02	2.61E-02	3.61E-03
AM243	5270.000	5277.094	55.959	577.000	574.840	2.160	1.4697	99.78000	1.02E+00	8.02E-02	5.65E-03	1.61E-02	4.29E-02
CM-242	6102.000	6046.952	14.187	3.000	3.000	0.000	4.0092	100.0000	5.46E-03	3.17E-03	1.54E-02	3.56E-02	3.15E-03
CM-3/4	5795.020	5820.809	0.000	3.000	3.000	0.000	4.8510	100.0000	5.34E-03	3.10E-03	1.86E-02	4.21E-02	3.08E-03
CM-5/6	5386.000	5375.778	0.000	7.000	7.000	0.000	6.1294	86.09000	1.45E-02	5.55E-03	2.73E-02	6.03E-02	5.47E-03
CM-247	4946.000	4931.275	0.000	6.000	6.000	0.000	6.3427	79.30000	1.35E-02	5.57E-03	3.07E-02	6.75E-02	5.50E-03
CM-248	5078.600	5077.306	9.869	16.000	16.000	0.000	11.0244	91.00000	3.13E-02	8.09E-03	4.65E-02	9.83E-02	7.82E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

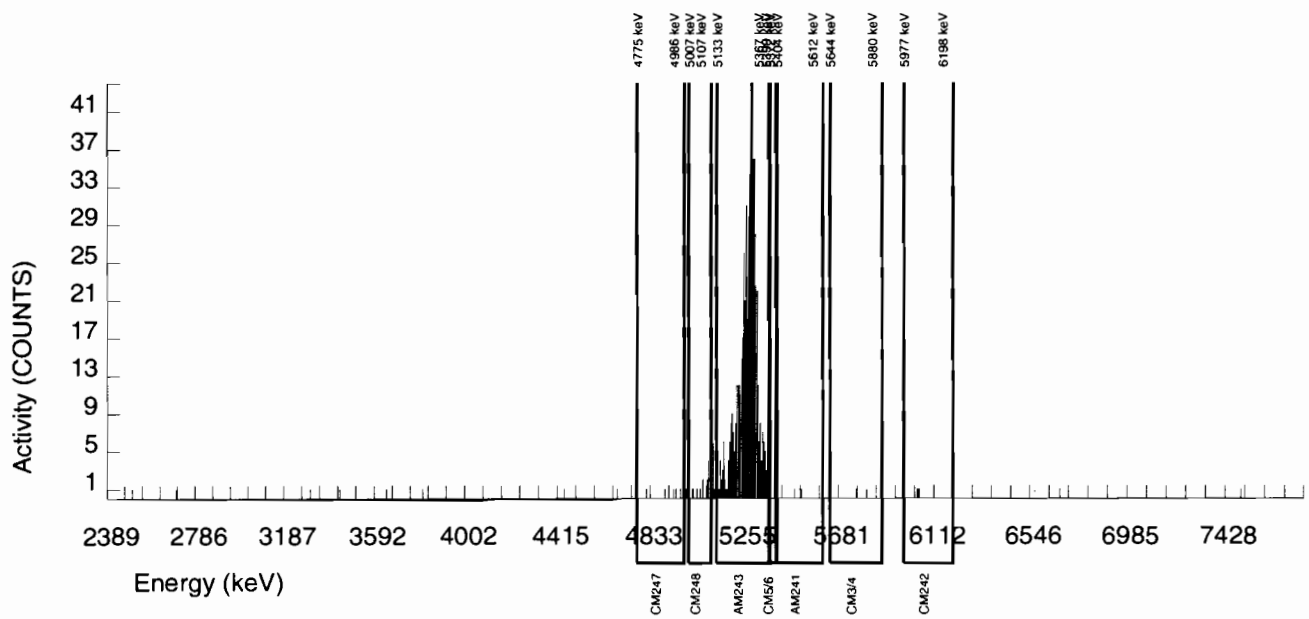

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 238	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202072523_AM	DETECTOR S/N : 79431	BKG FILE : B238.CNF;97
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 40.1819	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 21:46:57	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W238.CNF;32
% YIELD : 85.716		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.9503E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5508.446	0.000	0.000	-0.980	0.000	2.7707	99.94000	-1.42E-03	1.45E-03	8.66E-03	2.12E-02	1.45E-03
AM243	5270.000	5269.723	47.087	563.000	563.000	0.000	0.0000	99.78000	8.17E-01	6.41E-02	0.00E+00	3.93E-03	3.44E-02
CM-242	6102.000	6033.972	7.205	6.000	6.000	0.000	4.0092	100.0000	9.67E-03	4.00E-03	1.25E-02	2.90E-02	3.95E-03
CM-3/4	5795.020	5765.440	127.535	4.000	3.280	0.720	4.8510	100.0000	4.76E-03	3.10E-03	1.51E-02	3.42E-02	3.08E-03
CM-5/6	5386.000	5377.899	4.905	1.000	1.000	0.000	6.1294	86.09000	1.68E-03	1.68E-03	2.22E-02	4.90E-02	1.68E-03
CM-247	4946.000	4939.447	4.905	8.000	8.000	0.000	6.3427	79.30000	1.46E-02	5.25E-03	2.50E-02	5.49E-02	5.16E-03
CM-248	5078.600	5061.650	0.000	19.000	19.000	0.000	11.0244	91.00000	3.02E-02	7.22E-03	3.78E-02	8.00E-02	6.93E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

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

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

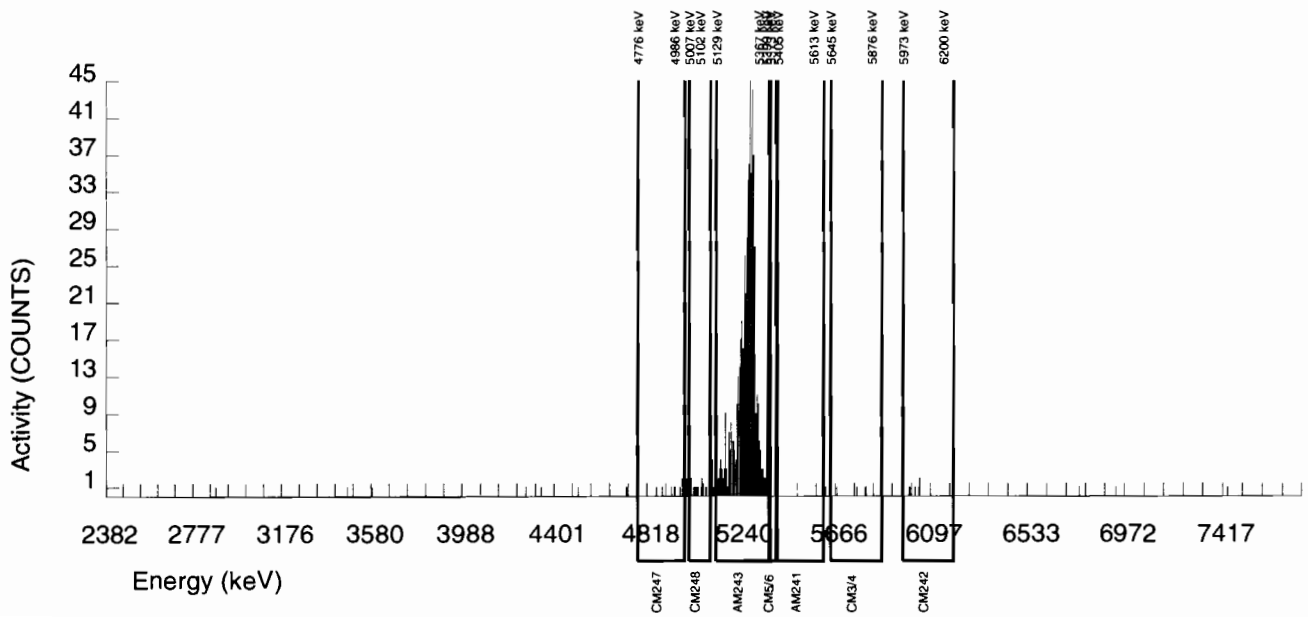

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 239	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202072524_AM	DETECTOR S/N : 79432	BKG FILE : B239.CNF;93
SAMPLE QTY : 0.102 G	AVERAGE %EFFICIENCY : 39.3422	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 21:46:58	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W239.CNF;30
% YIELD : 100.185		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3148E+01 pCi/G	NOMINAL : 3.3148E+01 pCi/G
RESULTS : 2.2795E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5491.419	70.872	1863.000	1861.879	0.000	2.7707	99.94000	2.90E+01	2.19E+00	9.31E-02	2.28E-01	6.72E-01
AM243	5270.000	5275.718	60.577	645.000	644.280	0.720	0.8485	99.78000	1.00E+01	8.24E-01	2.86E-02	9.94E-02	3.96E-01
CM-242	6102.000	6029.619	43.745	3.000	3.000	0.000	4.0092	100.0000	4.77E-02	2.78E-02	1.35E-01	3.11E-01	2.76E-02
CM-3/4	5795.020	5751.902	0.000	7.000	4.840	2.160	4.8510	100.0000	7.54E-02	4.59E-02	1.63E-01	3.68E-01	4.55E-02
CM-5/6	5386.000	5383.977	0.000	95.000	95.000	0.000	6.1294	86.09000	1.72E+00	2.15E-01	2.39E-01	5.27E-01	1.76E-01
CM-247	4946.000	4921.181	4.929	7.000	4.840	2.160	6.3427	79.30000	9.50E-02	5.78E-02	2.69E-01	5.90E-01	5.74E-02
CM-248	5078.600	5062.772	0.000	29.000	29.000	0.000	11.0244	91.00000	4.96E-01	9.87E-02	4.07E-01	8.60E-01	9.21E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

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

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

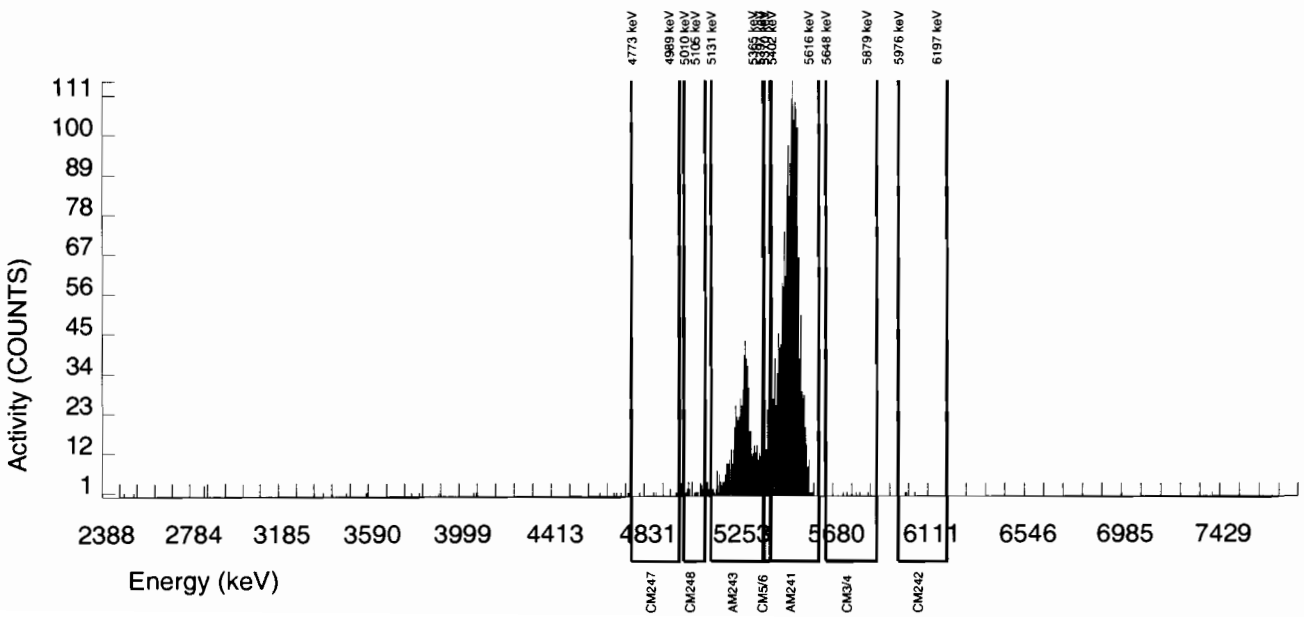

Radiochemistry Batch Checklist, Rev10

Batch# 965813 Product: PU Date: 3/30/10

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

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 3/30/10

Secondary Review Performed By: [illegible] 3/30/10

4/2

Plutonium Que Sheet

16-MAR-10

Batch #: 965813 Analyst: AYB1 First Client Due Date:02-APR-10 Internal Due Date:22-MAR-10

Tracer Isotope(s): ~~Pu-242/Pu-238~~ PU236 Tracer Code: 1430-C Expiration Date: 03/4/11 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: Expiration Date: Vol:

Spike Isotope(s): Pu-239/Pu-238 Spike Code: Expiration Date: Vol:

Prep Date: 3/25/10 Initials: AYB Pipet ID: 11642319 Balance ID: 19350208 Witness: AM 3/25/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) l / f)	Pu Det #
248824001-1	RE46-10-11926	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	1	1	1.264	86
248824002-1	RE46-10-11925	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	2	2	1.259	87
248860001-1	RE46-10-13782	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	3	3	1.261	88
248860002-1	RE46-10-13783	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	4	4	1.259	25
248860003-1	RE46-10-13777	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	5	5	1.258	26
248860004-1	RE46-10-13775	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	6	6	1.253	27
248860005-1	RE46-10-13776	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	7	7	1.258	28
248860006-1	RE46-10-13781	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	8	8	1.259	30
248860007-1	RE46-10-13779	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	9	9	1.252	13
248860008-1	RE46-10-13780	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	10	10	1.259	14
248860009-1	RE46-10-13778	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	11	11	1.259	16
248867001-1	RE46-10-12931	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	12	12	1.259	17
248867002-1	RE46-10-12932	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	13	13	1.253	18
248867003-1	RE46-10-12934	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	14	14	1.253	19
248867004-1	RE46-10-12933	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	15	15	1.255	20
1202072525-1	MB for batch 965813	MB		.05 pCi/g	SOIL	QC ACCOUNT		16 DG 3/30/10	16	1.0 ~~1.255~~	22
1202072526-1	RE46-10-12931(248867001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	05-MAR-10	17	17	~~1.255~~	23
1202072527-1	LCS for batch 965813	LCS		.05 pCi/g	SOIL	QC ACCOUNT		18	18	0.102	24

SRM 0244-B exp. 4/30/2010

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

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

Data Reviewed By: 3/30/10

Blank Correction Report

Batch ID 965813

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202072526	DUP	Plutonium-238	1.26 g	-0.0017	0.00635	0.0209	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	-0.00321	0.00406	0.0177	.005420635	pCi/g	YES
1202072527	LCS	Plutonium-238	0.102 g	2.79	0.306	0.266	.062941176	pCi/g	NO
		Plutonium-239/240	0.102 g	38.2	2.65	0.225	.066960784	pCi/g	NO
1202072525	MB	Plutonium-238	1.00 g	0.00642	0.00852	0.0277	.00642	pCi/g	YES
		Plutonium-239/240	1.00 g	0.00683	0.00445	0.0234	.00683	pCi/g	YES
248824001	RE46-10-11926	Plutonium-238	1.25 g	1.58E-10	0.00266	0.0187	.005136	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00398	0.00398	0.0158	.005464	pCi/g	YES
248824002	RE46-10-11925	Plutonium-238	1.26 g	-0.00269	0.00465	0.0189	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00403	0.00586	0.016	.005420635	pCi/g	YES
248860001	RE46-10-13782	Plutonium-238	1.25 g	-0.00512	0.00572	0.018	.005136	pCi/g	YES
		Plutonium-239/240	1.25 g	-0.00128	0.00384	0.0152	.005464	pCi/g	YES
248860002	RE46-10-13783	Plutonium-238	1.26 g	0.00492	0.00759	0.0224	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.006	0.00415	0.0189	.005420635	pCi/g	YES
248860003	RE46-10-13777	Plutonium-238	1.26 g	0.00491	0.00431	0.0254	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00023	0.00432	0.0215	.005420635	pCi/g	YES
248860004	RE46-10-13775	Plutonium-238	1.25 g	0.00347	0.00246	0.023	.005136	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0052	0.00302	0.0195	.005464	pCi/g	YES
248860005	RE46-10-13776	Plutonium-238	1.26 g	0.00997	0.0045	0.0265	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0185	0.00656	0.0224	.005420635	pCi/g	YES
248860006	RE46-10-13781	Plutonium-238	1.26 g	-0.000875	0.00739	0.0223	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0151	0.00512	0.0189	.005420635	pCi/g	YES
248860007	RE46-10-13779	Plutonium-238	1.25 g	0.0125	0.00629	0.0225	.005136	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00603	0.00418	0.019	.005464	pCi/g	YES
248860008	RE46-10-13780	Plutonium-238	1.26 g	0.0226	0.0111	0.0255	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00491	0.00432	0.0215	.005420635	pCi/g	YES
248860009	RE46-10-13778	Plutonium-238	1.26 g	0.00536	0.00681	0.0212	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00363	0.003	0.0179	.005420635	pCi/g	YES
248867001	RE46-10-12931	Plutonium-238	1.26 g	-0.00699	0.00461	0.0247	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0098	0.00478	0.0208	.005420635	pCi/g	YES
248867002	RE46-10-12932	Plutonium-238	1.25 g	0.00853	0.00636	0.0242	.005136	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0109	0.00451	0.0204	.005464	pCi/g	YES
248867003	RE46-10-12934	Plutonium-238	1.25 g	0.0042	0.008	0.0268	.005136	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0101	0.00455	0.0226	.005464	pCi/g	YES
248867004	RE46-10-12933	Plutonium-238	1.26 g	0.00534	0.0071	0.023	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00395	0.00326	0.0195	.005420635	pCi/g	YES

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

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 088	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248860001_PU	DETECTOR S/N : 33452	BKG FILE : B088.CNF;1029
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 31.6430	BKG DATE : 21-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:31	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W088.CNF;288
% YIELD : 89.098		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0019E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6746E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5785.622	61.463	839.000	833.000	6.000	2.4495	100.0000	1.08E+00	6.98E-02	7.28E-03	1.80E-02	3.77E-02
PU-238	5499.000	5444.117	24.998	8.000	-4.000	12.000	2.4495	99.90000	-5.12E-03	5.72E-03	7.29E-03	1.80E-02	5.72E-03
PU-9/0	5155.000	5192.559	5.000	4.000	-1.000	5.000	1.9732	99.90000	-1.28E-03	3.84E-03	5.87E-03	1.52E-02	3.84E-03
PU242	4890.000	4869.588	209.983	6.000	5.000	1.000	*******	100.0000	6.39E-03	3.40E-03	3.70E-01	7.44E-01	3.38E-03
PU-244	4589.000	4588.531	5.000	1.000	1.000	0.000	6.4609	99.90000	1.28E-03	1.28E-03	1.92E-02	4.19E-02	1.28E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

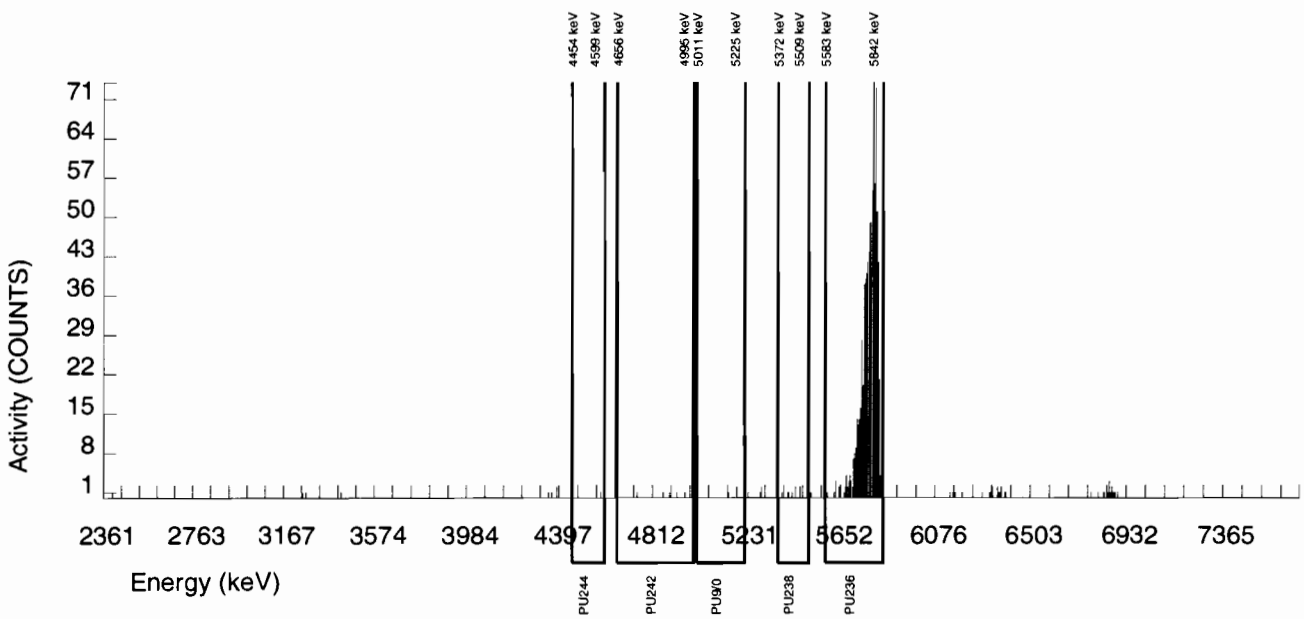

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 025	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248860002_PU	DETECTOR S/N : 45-149AA5	BKG FILE : B025.CNF;1125
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 34.1770	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 09:33:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W025.CNF;330
% YIELD : 86.407		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0020E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.5939E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5765.542	58.106	634.000	627.520	6.480	2.5456	100.0000	1.07E+00	7.58E-02	9.24E-03	2.30E-02	4.33E-02
PU-238	5499.000	5459.355	55.936	13.000	2.920	10.080	2.4495	99.90000	4.92E-03	7.59E-03	8.90E-03	2.24E-02	7.59E-03
PU-9/0	5155.000	5094.746	140.449	5.000	3.560	1.440	1.9732	99.90000	6.00E-03	4.15E-03	7.17E-03	1.89E-02	4.14E-03
PU242	4890.000	4779.338	111.873	2.000	-0.880	2.880	*******	100.0000	-1.48E-03	3.40E-03	4.52E-01	9.10E-01	3.40E-03
PU-244	4589.000	4526.817	0.000	0.000	-0.720	0.720	6.4609	99.90000	-1.21E-03	2.08E-03	2.35E-02	5.15E-02	2.08E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

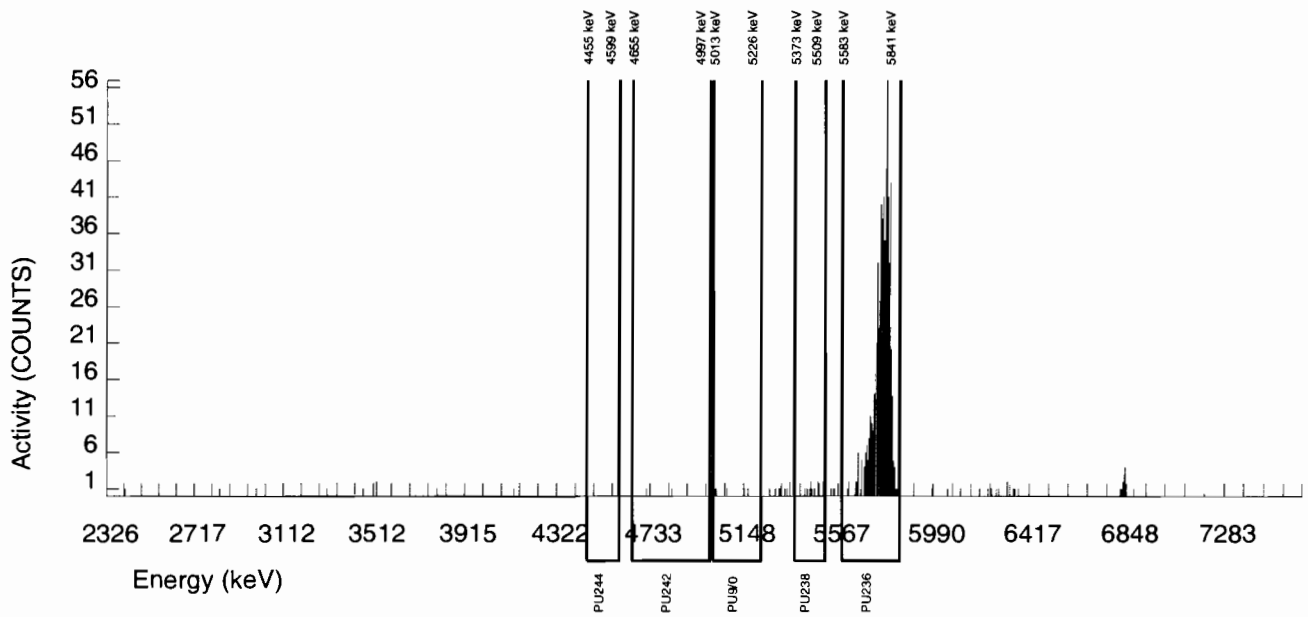

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 026	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248860003_PU	DETECTOR S/N : 78204	BKG FILE : B026.CNF;1126
SAMPLE QTY : 1.258 G	AVERAGE %EFFICIENCY : 33.6708	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 09:33:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W026.CNF;304
% YIELD : 77.190		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0020E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.3172E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5763.680	25.273	553.000	552.280	0.720	0.8485	100.0000	1.07E+00	7.88E-02	3.50E-03	1.22E-02	4.58E-02
PU-238	5499.000	5436.110	59.046	4.000	2.560	1.440	2.4495	99.90000	4.91E-03	4.31E-03	1.01E-02	2.54E-02	4.30E-03
PU-9/0	5155.000	5130.978	123.012	3.000	0.120	2.880	1.9732	99.90000	2.30E-04	4.32E-03	8.15E-03	2.15E-02	4.31E-03
PU242	4890.000	4812.782	4.920	1.000	1.000	0.000	*******	100.0000	1.91E-03	1.92E-03	5.15E-01	1.03E+00	1.91E-03
PU-244	4589.000	4514.461	54.125	2.000	1.280	0.720	6.4609	99.90000	2.45E-03	3.04E-03	2.67E-02	5.86E-02	3.04E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

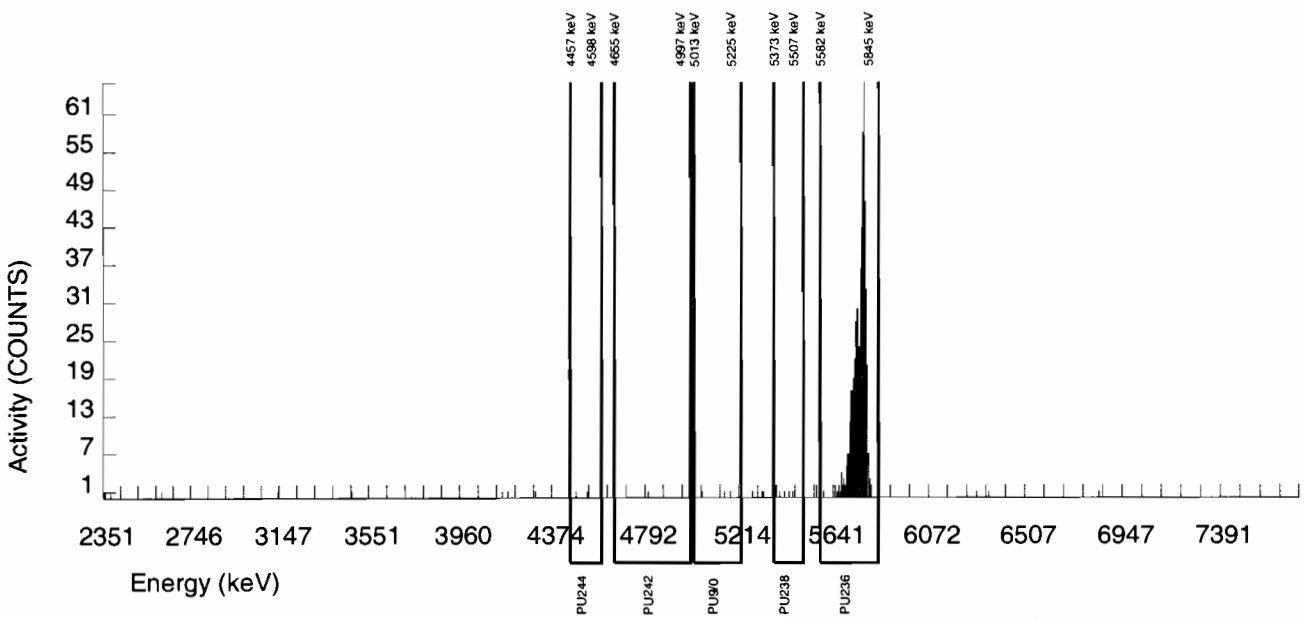

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 027	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248860004_PU	DETECTOR S/N : 42484	BKG FILE : B027.CNF;1132
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 34.2191	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 09:33:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W027.CNF;331
% YIELD : 84.205		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0020E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.5278E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5764.390	46.953	613.000	612.280	0.720	0.8485	100.0000	1.08E+00	7.64E-02	3.17E-03	1.10E-02	4.37E-02
PU-238	5499.000	5455.533	89.408	2.000	2.000	0.000	2.4495	99.90000	3.47E-03	2.46E-03	9.17E-03	2.30E-02	2.45E-03
PU-9/0	5155.000	5138.512	4.967	3.000	3.000	0.000	1.9732	99.90000	5.20E-03	3.02E-03	7.38E-03	1.95E-02	3.00E-03
PU242	4890.000	4710.541	64.573	4.000	1.840	2.160	*******	100.0000	3.19E-03	4.09E-03	4.66E-01	9.37E-01	4.08E-03
PU-244	4589.000	4524.284	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.74E-03	2.42E-02	5.31E-02	1.73E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

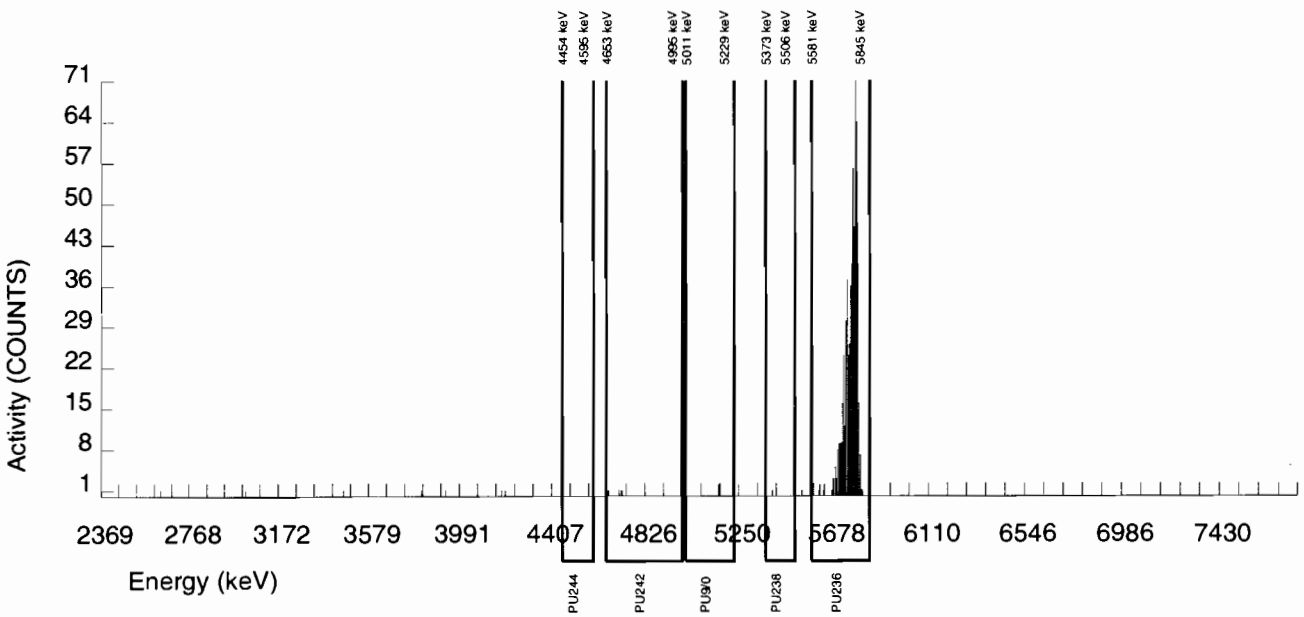

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 028	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248860005_PU	DETECTOR S/N : 78792	BKG FILE : B028.CNF;1136
SAMPLE QTY : 1.258 G	AVERAGE %EFFICIENCY : 31.5679	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 09:33:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W028.CNF;323
% YIELD : 79.094		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0020E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.3744E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5762.577	27.468	532.000	530.560	1.440	1.2000	100.0000	1.07E+00	8.00E-02	5.16E-03	1.57E-02	4.68E-02
PU-238	5499.000	5423.177	0.000	5.000	5.000	0.000	2.4495	99.90000	9.97E-03	4.50E-03	1.05E-02	2.65E-02	4.46E-03
PU-9/0	5155.000	5147.913	24.719	10.000	9.280	0.720	1.9732	99.90000	1.85E-02	6.56E-03	8.49E-03	2.24E-02	6.47E-03
PU242	4890.000	4872.120	207.638	6.000	3.840	2.160	*******	100.0000	7.65E-03	5.49E-03	5.36E-01	1.08E+00	5.47E-03
PU-244	4589.000	4516.816	79.100	2.000	1.280	0.720	6.4609	99.90000	2.55E-03	3.17E-03	2.78E-02	6.10E-02	3.16E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

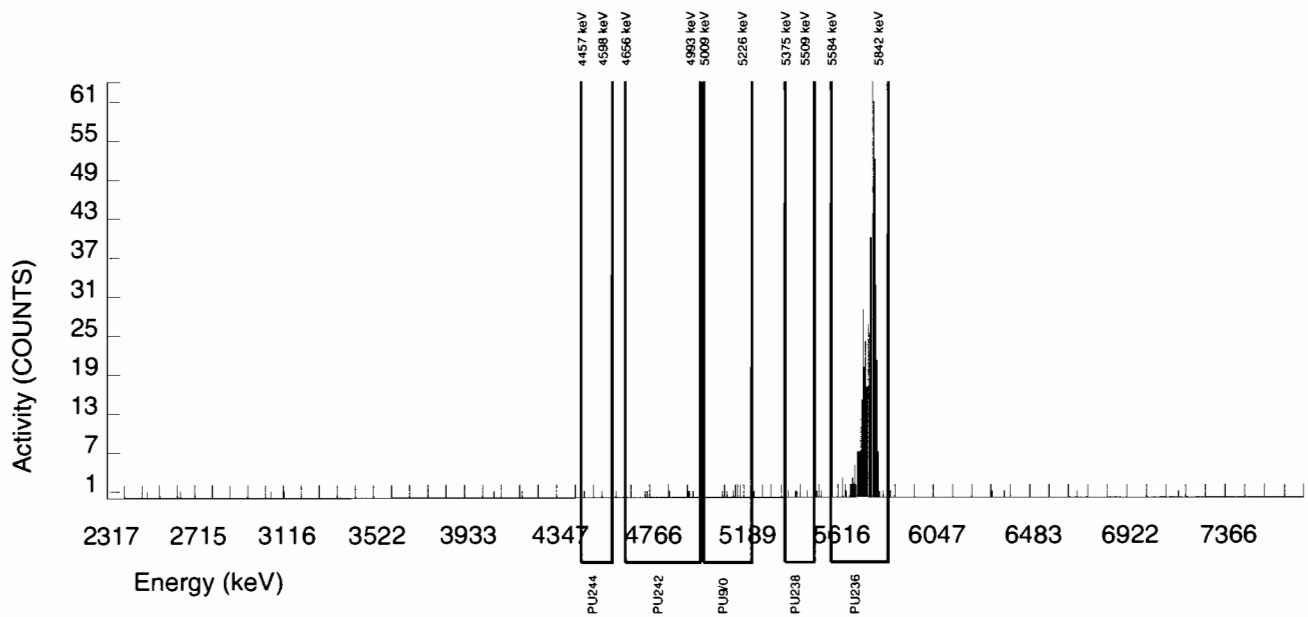

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 030	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248860006_PU	DETECTOR S/N : 33447	BKG FILE : B030.CNF;1124
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 35.2784	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 09:33:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W030.CNF;307
% YIELD : 83.875		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0020E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.5179E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5782.460	42.147	641.000	628.760	12.240	3.4986	100.0000	1.07E+00	7.62E-02	1.27E-02	2.99E-02	4.35E-02
PU-238	5499.000	5457.798	39.350	11.000	-0.520	11.520	2.4495	99.90000	-8.75E-04	7.39E-03	8.88E-03	2.23E-02	7.39E-03
PU-9/0	5155.000	5155.774	0.000	9.000	9.000	0.000	1.9732	99.90000	1.51E-02	5.12E-03	7.16E-03	1.89E-02	5.04E-03
PU242	4890.000	4834.232	265.613	4.000	0.400	3.600	*******	100.0000	6.72E-04	4.31E-03	4.52E-01	9.08E-01	4.31E-03
PU-244	4589.000	4525.159	103.294	4.000	4.000	0.000	6.4609	99.90000	6.72E-03	3.38E-03	2.34E-02	5.14E-02	3.36E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

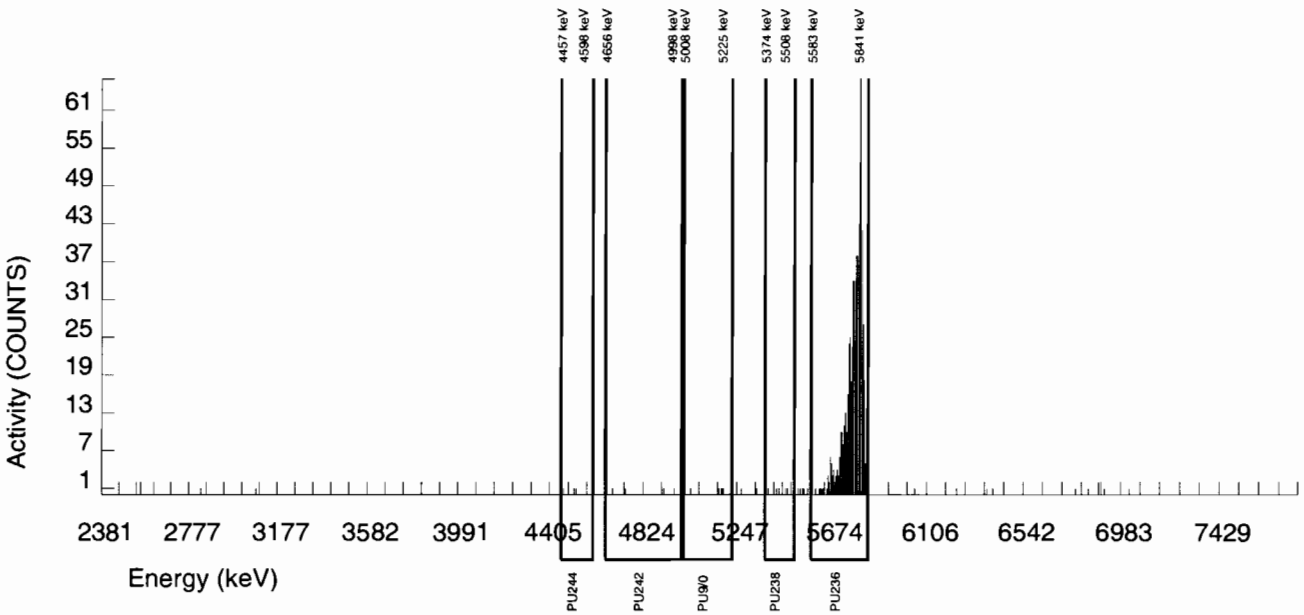

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 013	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248860007_PU	DETECTOR S/N : 78790	BKG FILE : B013.CNF;1107
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 35.8414	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 09:33:15	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W013.CNF;330
% YIELD : 82.358		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0020E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.4724E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5751.217	52.286	633.000	627.240	5.760	2.4000	100.0000	1.08E+00	7.62E-02	8.77E-03	2.21E-02	4.35E-02
PU-238	5499.000	5442.283	9.419	11.000	7.400	3.600	2.4495	99.90000	1.25E-02	6.29E-03	8.95E-03	2.25E-02	6.25E-03
PU-9/0	5155.000	5129.222	162.162	5.000	3.560	1.440	1.9732	99.90000	6.03E-03	4.18E-03	7.21E-03	1.90E-02	4.16E-03
PU242	4890.000	4807.410	270.270	6.000	3.120	2.880	*******	100.0000	5.28E-03	4.82E-03	4.55E-01	9.15E-01	4.81E-03
PU-244	4589.000	4527.583	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.70E-03	2.36E-02	5.18E-02	1.69E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

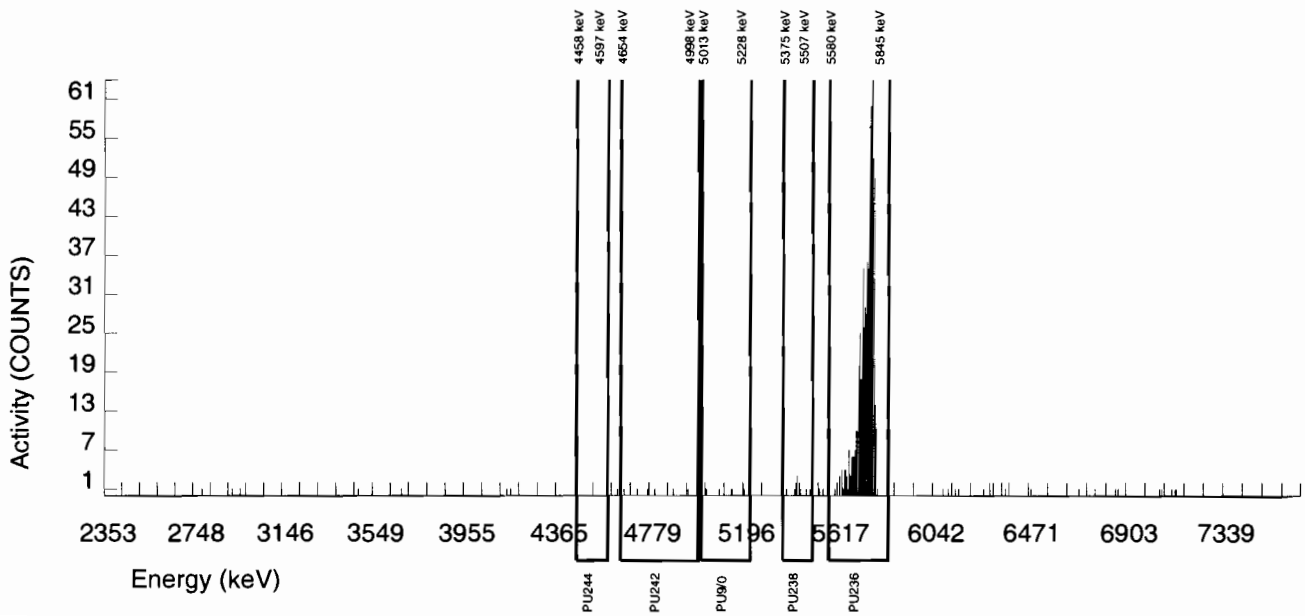

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 014	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248860008_PU	DETECTOR S/N : 67616	BKG FILE : B014.CNF;1108
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 33.5532	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 09:33:15	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W014.CNF;328
% YIELD : 77.286		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0020E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.3201E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5756.559	31.440	564.000	551.040	12.960	3.6000	100.0000	1.07E+00	7.97E-02	1.49E-02	3.50E-02	4.67E-02
PU-238	5499.000	5448.168	13.626	24.000	11.760	12.240	2.4495	99.90000	2.26E-02	1.11E-02	1.01E-02	2.55E-02	1.10E-02
PU-9/0	5155.000	5157.193	49.548	4.000	2.560	1.440	1.9732	99.90000	4.91E-03	4.32E-03	8.17E-03	2.15E-02	4.30E-03
PU242	4890.000	4768.204	4.955	1.000	-0.440	1.440	*******	100.0000	-8.43E-04	2.74E-03	5.15E-01	1.04E+00	2.73E-03
PU-244	4589.000	4584.791	4.955	1.000	1.000	0.000	6.4609	99.90000	1.92E-03	1.92E-03	2.67E-02	5.87E-02	1.92E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

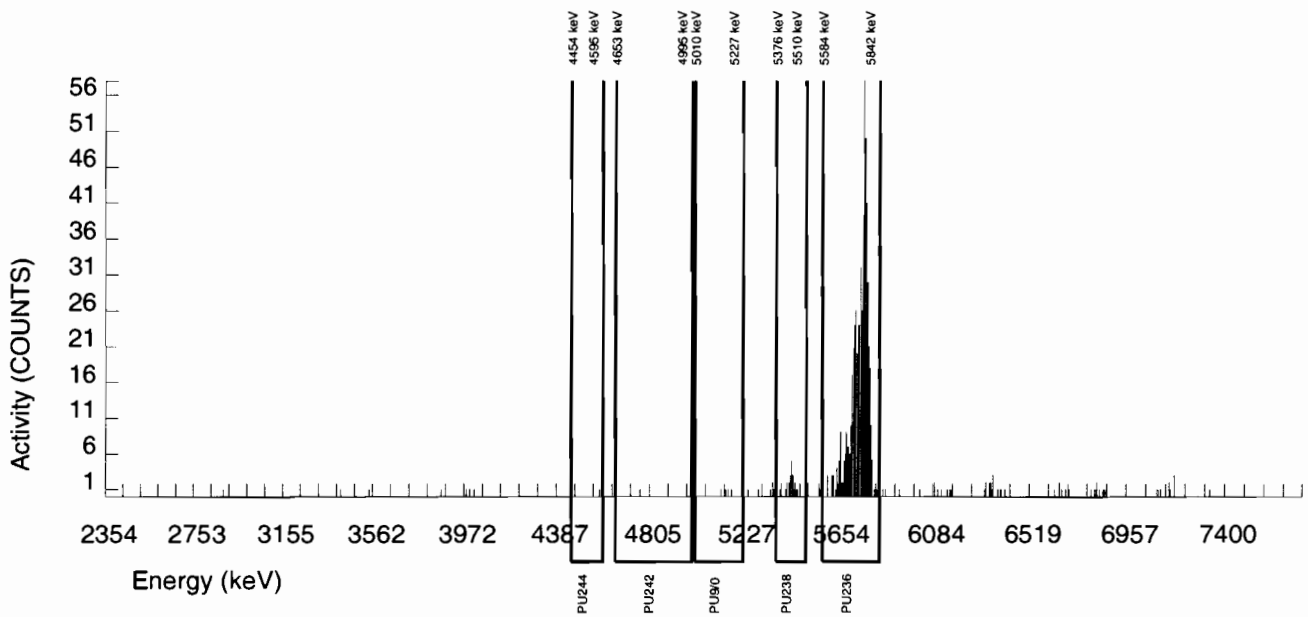

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 016	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248860009_PU	DETECTOR S/N : 78774	BKG FILE : B016.CNF;1103
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 33.4863	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 09:33:15	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W016.CNF;313
% YIELD : 93.243		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0020E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7991E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5765.794	31.608	675.000	663.480	11.520	3.3941	100.0000	1.07E+00	7.47E-02	1.17E-02	2.76E-02	4.23E-02
PU-238	5499.000	5431.815	0.000	12.000	3.360	8.640	2.4495	99.90000	5.36E-03	6.81E-03	8.42E-03	2.12E-02	6.80E-03
PU-9/0	5155.000	5205.337	0.000	3.000	2.280	0.720	1.9732	99.90000	3.63E-03	3.00E-03	6.78E-03	1.79E-02	2.99E-03
PU242	4890.000	4774.909	229.785	4.000	2.560	1.440	*******	100.0000	4.07E-03	3.58E-03	4.28E-01	8.60E-01	3.57E-03
PU-244	4589.000	4526.445	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.60E-03	2.22E-02	4.87E-02	1.59E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

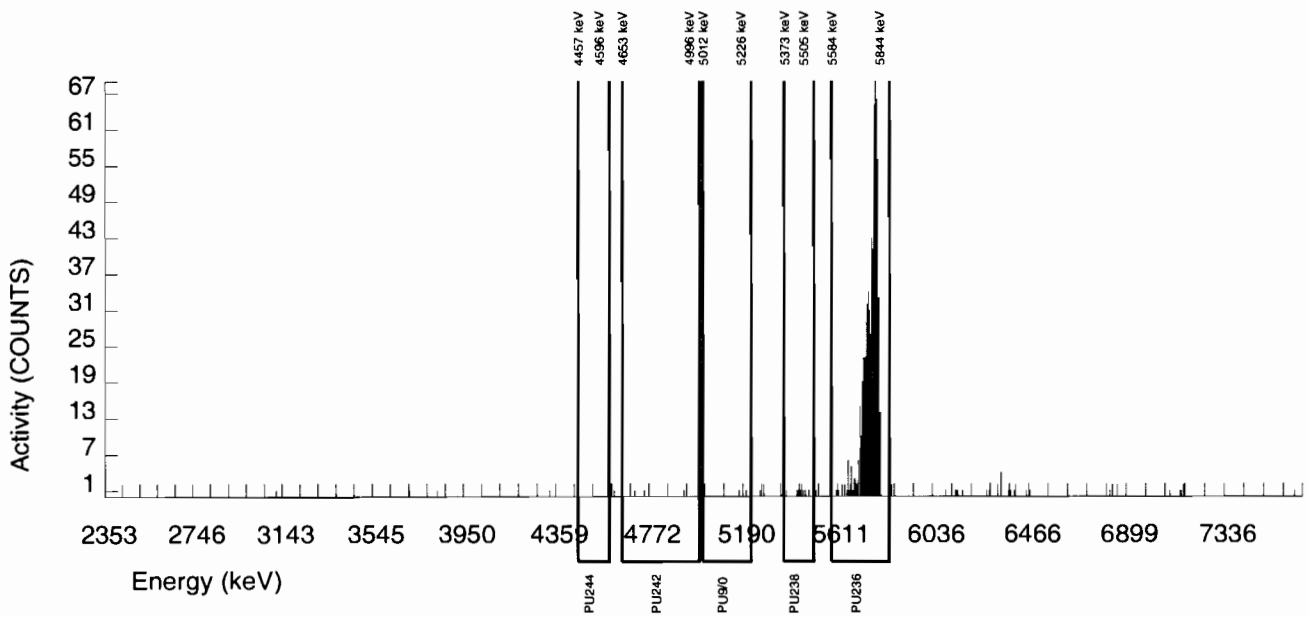

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 017	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248867001_PU	DETECTOR S/N : 78791	BKG FILE : B017.CNF;1950
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 29.7179	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 09:33:15	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W017.CNF;1264
% YIELD : 90.137		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0000E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7041E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5761.216	57.930	580.000	569.200	10.800	3.2863	100.0000	1.07E+00	7.86E-02	1.32E-02	3.13E-02	4.57E-02
PU-238	5499.000	5452.533	19.836	2.000	-3.760	5.760	2.4495	99.90000	-6.99E-03	4.61E-03	9.81E-03	2.47E-02	4.61E-03
PU-9/0	5155.000	5158.643	0.000	6.000	5.280	0.720	1.9732	99.90000	9.80E-03	4.78E-03	7.91E-03	2.08E-02	4.74E-03
PU242	4890.000	4822.817	0.000	0.000	-0.720	0.720	*******	100.0000	-1.34E-03	2.29E-03	4.99E-01	1.00E+00	2.29E-03
PU-244	4589.000	4524.268	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.86E-03	2.59E-02	5.68E-02	1.86E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

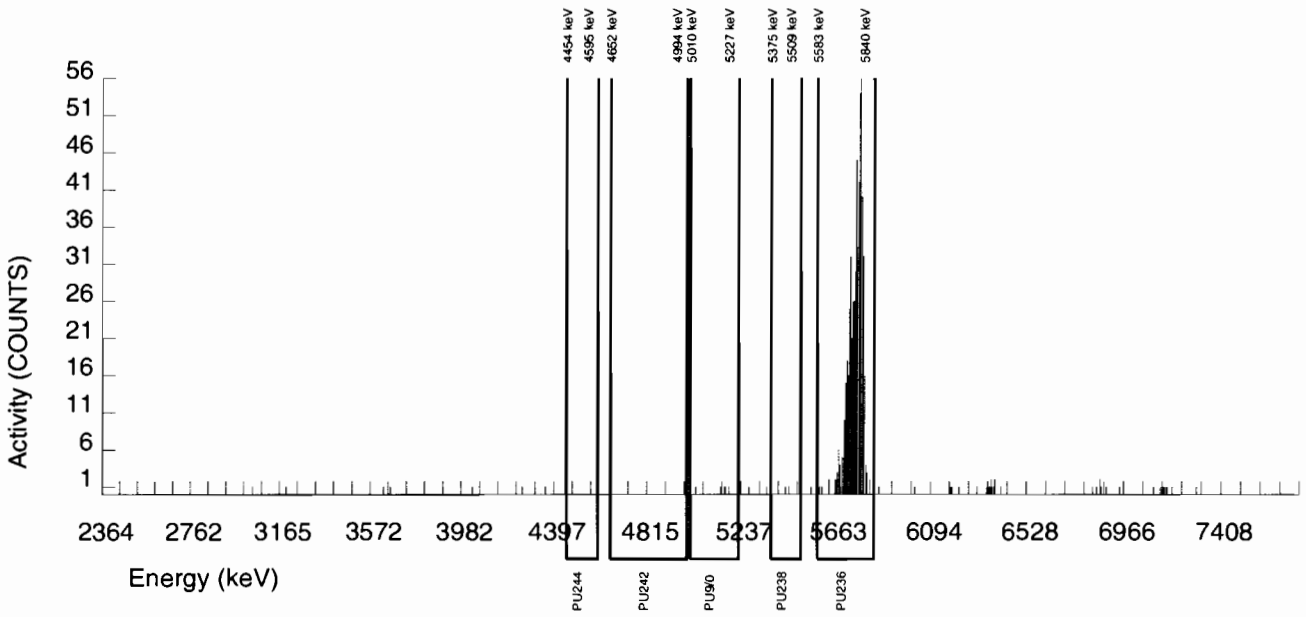

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 022	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202072525_PU	DETECTOR S/N : 72530	BKG FILE : B022.CNF;1121
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 32.3779	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 09:33:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W022.CNF;320
% YIELD : 92.836		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9604E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7483E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5772.790	50.094	656.000	638.720	17.280	4.1569	100.0000	1.33E+00	9.45E-02	1.87E-02	4.30E-02	5.40E-02
PU-238	5499.000	5443.001	57.406	11.000	3.080	7.920	2.4495	99.90000	6.42E-03	8.52E-03	1.10E-02	2.77E-02	8.52E-03
PU-9/0	5155.000	5129.756	169.723	4.000	3.280	0.720	1.9732	99.90000	6.83E-03	4.45E-03	8.87E-03	2.34E-02	4.43E-03
PU242	4890.000	4889.131	0.000	4.000	1.120	2.880	*******	100.0000	2.33E-03	5.13E-03	5.60E-01	1.13E+00	5.13E-03
PU-244	4589.000	4523.068	4.992	1.000	0.280	0.720	6.4609	99.90000	5.83E-04	2.57E-03	2.90E-02	6.37E-02	2.57E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

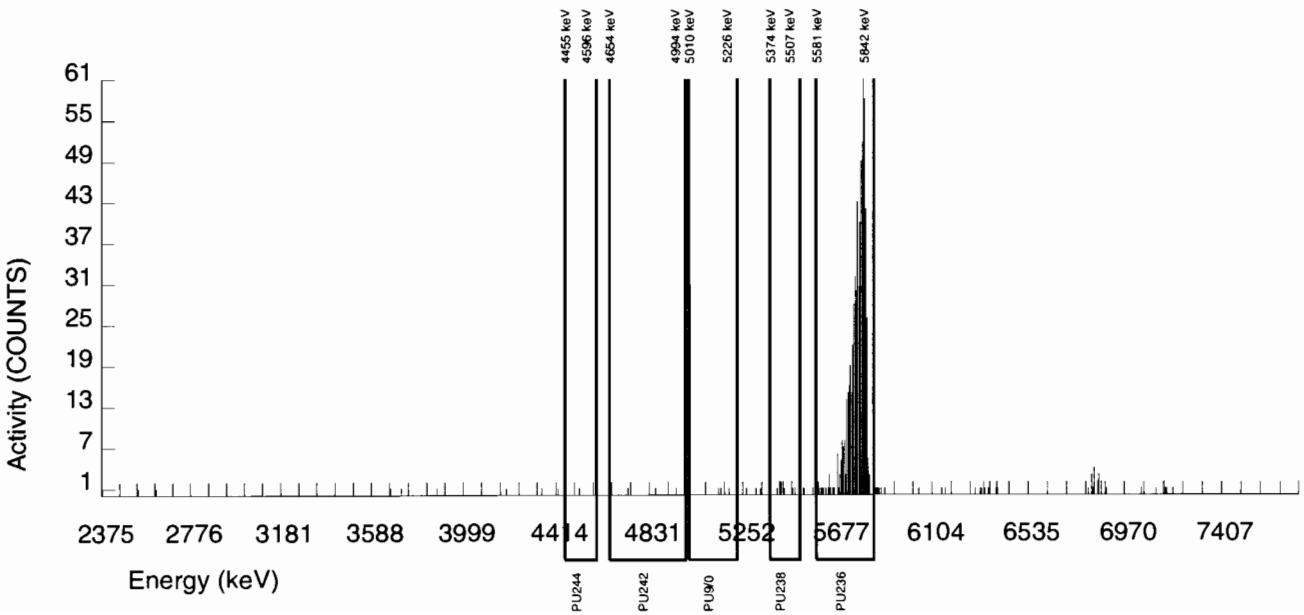

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 023	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202072526_PU	DETECTOR S/N : 78264	BKG FILE : B023.CNF;1121
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 33.6228	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 09:33:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W023.CNF;303
% YIELD : 94.225		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0000E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8267E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5771.276	31.189	684.000	673.200	10.800	3.2863	100.0000	1.08E+00	7.45E-02	1.12E-02	2.66E-02	4.21E-02
PU-238	5499.000	5445.841	83.533	9.000	-1.080	10.080	2.4495	99.90000	-1.70E-03	6.35E-03	8.32E-03	2.09E-02	6.35E-03
PU-9/0	5155.000	5179.405	0.000	3.000	-2.040	5.040	1.9732	99.90000	-3.21E-03	4.06E-03	6.71E-03	1.77E-02	4.06E-03
PU242	4890.000	4840.904	269.302	5.000	-8.680	13.680	*******	100.0000	-1.37E-02	6.06E-03	4.23E-01	8.51E-01	6.06E-03
PU-244	4589.000	4575.782	4.987	1.000	-1.880	2.880	6.4609	99.90000	-2.96E-03	2.76E-03	2.20E-02	4.82E-02	2.76E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

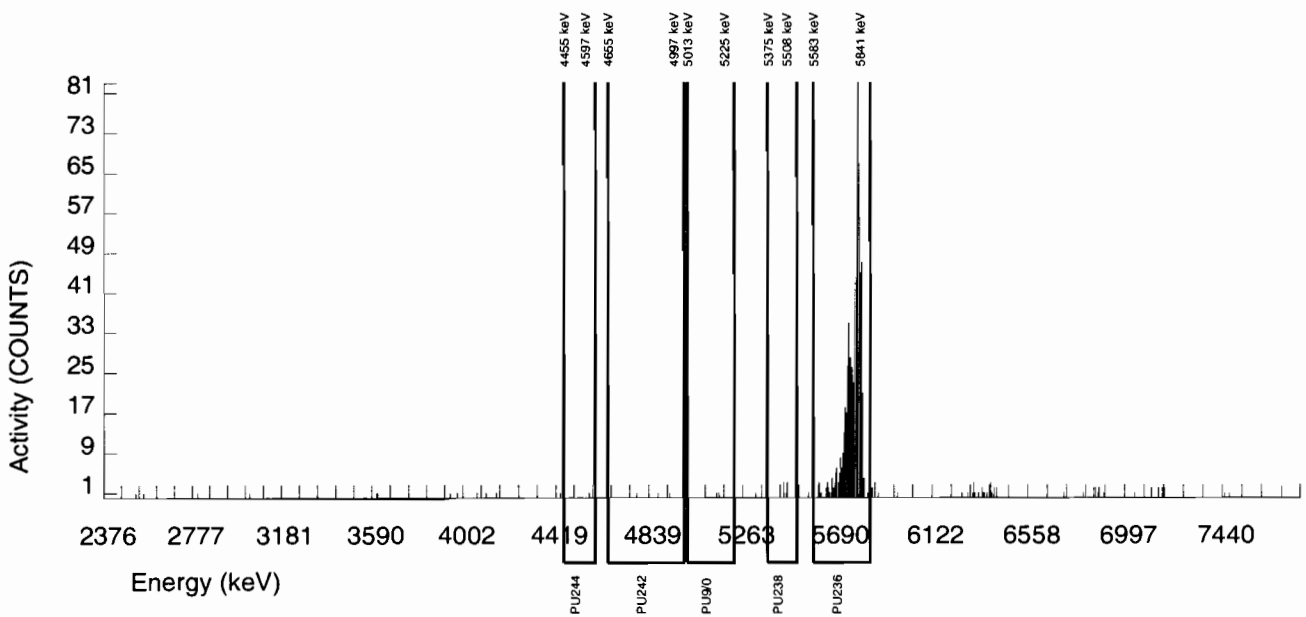

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 024	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202072527_PU	DETECTOR S/N : 76542	BKG FILE : B024.CNF;1114
SAMPLE QTY : 0.102 G	AVERAGE %EFFICIENCY : 34.2324	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 09:33:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W024.CNF;303
% YIELD : 89.445		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9604E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6480E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5778.125	48.844	660.000	650.640	9.360	3.0594	100.0000	1.31E+01	1.00E+00	1.32E-01	3.19E-01	5.19E-01
PU-238	5499.000	5483.209	0.000	145.000	139.240	5.760	2.4495	99.90000	2.79E+00	3.06E-01	1.06E-01	2.66E-01	2.45E-01
PU-9/0	5155.000	5163.137	35.601	1904.000	1902.560	1.440	1.9732	99.90000	3.81E+01	2.65E+00	8.54E-02	2.25E-01	8.75E-01
PU242	4890.000	4865.821	269.540	13.000	11.560	1.440	*******	100.0000	2.32E-01	7.66E-02	5.39E+00	1.08E+01	7.51E-02
PU-244	4589.000	4533.554	104.821	2.000	-0.880	2.880	6.4609	99.90000	-1.76E-02	4.05E-02	2.79E-01	6.13E-01	4.05E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

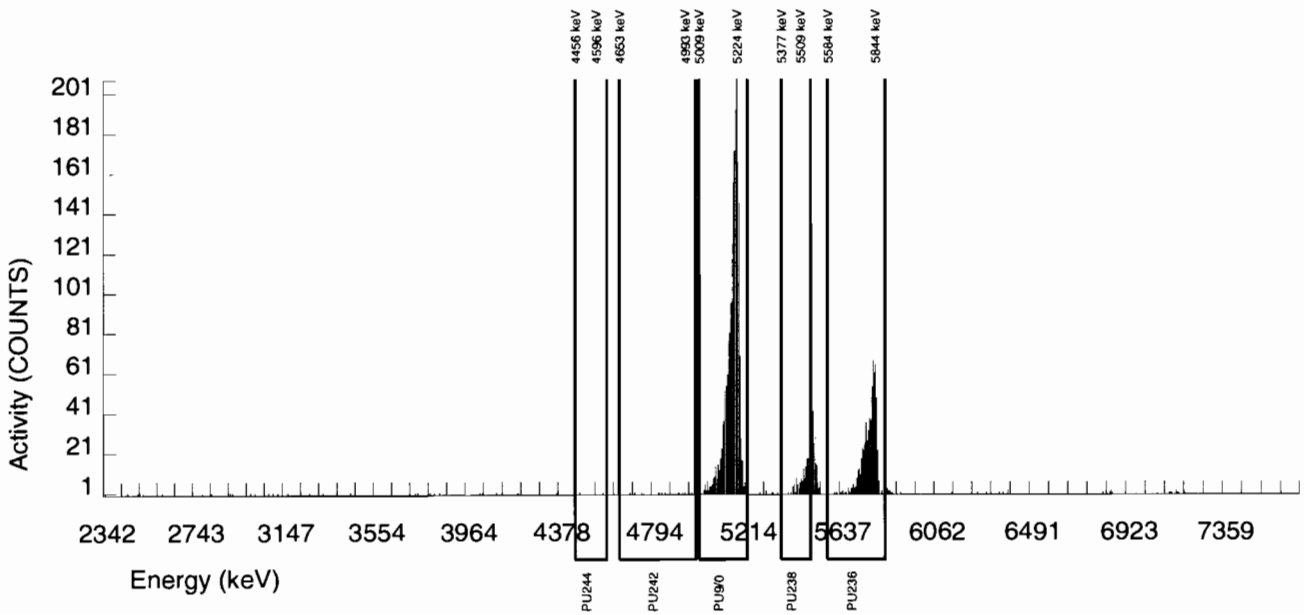

Radiochemistry Batch Checklist, Rev10

Batch# 971197 Product: U Date: 4/5/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.		✓	DER 813673
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.		✓	Case Narrative / DER 813673
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	✓		DER 813673
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	✓		DER 813673
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JpLMr 4/5/10

Secondary Review Performed By: [signature] 4/5/10

4/2

P ✓

Uranium Que Sheet

01-APR-10

Batch #: 971197 Analyst: AYB1 First Client Due Date:02-APR-10 Internal Due Date:27-MAR-10

Tracer Isotope: U-232/U-236 Tracer Code: A83-17 Expiration Date: 12/9/10 Vol: 0.1 Analyzed Sequentially with Pu: AYB 4/1/10

LCS Isotope: U-238 LCS Code: AP 4/1/10 Expiration Date: AP 4/1/10 Vol: AP 4/1/10 Pu-236 ID:

Spike Isotope: U-238 Spike Code: Expiration Date: Vol: Vol.:

Prep Date: 4/1/10 Initials: ~~16423~~ AYB Pipet ID: 16423 19 Balance ID: 19350208 Witness: MDA 4/1/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g / l / f)	U Det #
248824001-2	RE46-10-11926	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	1	1	0.516	132
248824002-2	RE46-10-11925	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	2	2	0.517	135
248860001-2	RE46-10-13782	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	3	3	0.501	136
248860002-2	RE46-10-13783	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	4	4	0.506	~~137~~ 1
248860003-2	RE46-10-13777	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	5	5	0.513	~~138~~ 2
248860004-2	RE46-10-13775	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	6	6	0.508	139
248860005-2	RE46-10-13776	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	7	7	0.509	140
248860006-2	RE46-10-13781	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	8	8	0.504	141
248860007-2	RE46-10-13779	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	9	9	0.501	142
248860008-2	RE46-10-13780	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	10	10	0.511	143
248860009-2	RE46-10-13778	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	11	11	0.508	115
248867001-2	RE46-10-12931	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	12	12	0.507	116
248867002-2	RE46-10-12932	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	13	13	0.510	126
248867003-2	RE46-10-12934	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	14	14	0.502	127
248867004-2	RE46-10-12933	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	15	15	0.508	128
1202085875-1	MB for batch 971197	MB		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		16	16	1.00	129
1202085876-2	RE46-10-12931(248867001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	05-MAR-10	17	17	0.509	130
1202085877-1	LCS for batch 971197	LCS		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		18	18	0.106	131

*SRM 0244 -A exp: 10/31/20

Dan 4/5/10

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: JLM 4/5/10

Blank Correction Report

Batch ID 971197

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202085876	DUP	Uranium-233/234	0.509 g	2.17	0.205	0.183	.007131631	pCi/g	NO
		Uranium-235/236	0.509 g	0.0804	0.0285	0.112	.004597250	pCi/g	NO
		Uranium-238	0.509 g	0.950	0.107	0.129	.011159136	pCi/g	NO
1202085877	LCS	Uranium-233/234	0.106 g	5.33	0.523	0.527	.034245283	pCi/g	NO
		Uranium-235/236	0.106 g	0.231	0.0753	0.322	.022075472	pCi/g	NO
		Uranium-238	0.106 g	5.72	0.555	0.371	.053584906	pCi/g	NO
1202085875	MB	Uranium-233/234	1.00 g	0.00363	0.00376	0.0534	.00363	pCi/g	YES
		Uranium-235/236	1.00 g	0.00234	0.00524	0.0326	.00234	pCi/g	YES
		Uranium-238	1.00 g	0.00568	0.00425	0.0375	.00568	pCi/g	YES
248824001	RE46-10-11926	Uranium-233/234	0.516 g	0.855	0.0851	0.112	.007034884	pCi/g	NO
		Uranium-235/236	0.516 g	0.0881	0.0217	0.0682	.004534884	pCi/g	NO
		Uranium-238	0.516 g	1.14	0.107	0.0785	.011007752	pCi/g	NO
248824002	RE46-10-11925	Uranium-233/234	0.517 g	0.902	0.0875	0.106	.007021277	pCi/g	NO
		Uranium-235/236	0.517 g	0.0513	0.0159	0.065	.004526112	pCi/g	NO
		Uranium-238	0.517 g	1.01	0.0955	0.0748	.010986460	pCi/g	NO
248860001	RE46-10-13782	Uranium-233/234	0.501 g	0.746	0.0773	0.114	.007245509	pCi/g	NO
		Uranium-235/236	0.501 g	0.0451	0.0169	0.0698	.004670659	pCi/g	NO
		Uranium-238	0.501 g	0.717	0.0751	0.0803	.011337325	pCi/g	NO
248860002	RE46-10-13783	Uranium-233/234	0.506 g	0.685	0.0838	0.173	.007173913	pCi/g	NO
		Uranium-235/236	0.506 g	0.038	0.0172	0.106	.004624506	pCi/g	NO
		Uranium-238	0.506 g	0.683	0.0832	0.122	.011225296	pCi/g	NO
248860003	RE46-10-13777	Uranium-233/234	0.513 g	0.973	0.121	0.240	.007076023	pCi/g	NO
		Uranium-235/236	0.513 g	0.063	0.0301	0.146	.004561404	pCi/g	NO
		Uranium-238	0.513 g	1.10	0.131	0.168	.011072125	pCi/g	NO
248860004	RE46-10-13775	Uranium-233/234	0.508 g	0.854	0.0996	0.182	.007145669	pCi/g	NO
		Uranium-235/236	0.508 g	0.0479	0.0229	0.111	.004606299	pCi/g	NO
		Uranium-238	0.508 g	0.691	0.0853	0.128	.011181102	pCi/g	NO
248860005	RE46-10-13776	Uranium-233/234	0.509 g	0.779	0.0852	0.140	.007131631	pCi/g	NO
		Uranium-235/236	0.509 g	0.0368	0.0153	0.0854	.004597250	pCi/g	NO
		Uranium-238	0.509 g	0.773	0.0848	0.0983	.011159136	pCi/g	NO
248860006	RE46-10-13781	Uranium-233/234	0.504 g	0.755	0.0851	0.151	.007202381	pCi/g	NO
		Uranium-235/236	0.504 g	0.0396	0.0211	0.0921	.004642857	pCi/g	NO
		Uranium-238	0.504 g	0.855	0.0941	0.106	.011269841	pCi/g	NO
248860007	RE46-10-13779	Uranium-233/234	0.501 g	0.967	0.119	0.226	.007245509	pCi/g	NO
		Uranium-235/236	0.501 g	0.0298	0.0223	0.138	.004670659	pCi/g	NO
		Uranium-238	0.501 g	0.947	0.116	0.159	.011337325	pCi/g	NO
248860008	RE46-10-13780	Uranium-233/234	0.511 g	0.825	0.0832	0.114	.007103718	pCi/g	NO
		Uranium-235/236	0.511 g	0.0448	0.0153	0.0693	.004579256	pCi/g	NO
		Uranium-238	0.511 g	0.837	0.0841	0.0798	.011115460	pCi/g	NO
248860009	RE46-10-13778	Uranium-233/234	0.508 g	0.719	0.0761	0.117	.007145669	pCi/g	NO
		Uranium-235/236	0.508 g	0.046	0.0173	0.0712	.004606299	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248860009	RE46-10-13778	Uranium-238	0.508 g	0.847	0.0855	0.0819	.011181102	pCi/g	NO
248867001	RE46-10-12931	Uranium-233/234	0.507 g	1.71	0.155	0.132	.007159763	pCi/g	NO
		Uranium-235/236	0.507 g	0.0812	0.0225	0.0808	.004615385	pCi/g	NO
		Uranium-238	0.507 g	0.863	0.0905	0.093	.011203156	pCi/g	NO
248867002	RE46-10-12932	Uranium-233/234	0.510 g	0.748	0.0912	0.188	.007117647	pCi/g	NO
		Uranium-235/236	0.510 g	0.00823	0.0143	0.115	.004588235	pCi/g	YES
		Uranium-238	0.510 g	0.878	0.102	0.132	.011137255	pCi/g	NO
248867003	RE46-10-12934	Uranium-233/234	0.502 g	2.64	0.241	0.181	.007231076	pCi/g	NO
		Uranium-235/236	0.502 g	0.111	0.0309	0.111	.004661355	pCi/g	NO
		Uranium-238	0.502 g	0.938	0.106	0.127	.011314741	pCi/g	NO
248867004	RE46-10-12933	Uranium-233/234	0.508 g	0.898	0.098	0.158	.007145669	pCi/g	NO
		Uranium-235/236	0.508 g	0.0346	0.0157	0.0965	.004606299	pCi/g	NO
		Uranium-238	0.508 g	0.840	0.0933	0.111	.011181102	pCi/g	NO

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

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 136	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248860001_UU	DETECTOR S/N : 80006	BKG FILE : B136.CNF;457
SAMPLE QTY : 0.501 G	AVERAGE %EFFICIENCY : 26.8353	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:49	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W136.CNF;143
% YIELD : 82.678		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5018E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.7220E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5309.881	66.901	998.000	998.000	0.000	0.0000	100.0000	4.05E+00	3.20E-01	0.00E+00	1.10E-02	1.28E-01
U-3/4	4763.020	4756.445	58.729	186.000	183.989	1.000	5.4790	100.0000	7.46E-01	7.73E-02	5.17E-02	1.14E-01	5.53E-02
U-235	4391.000	4394.706	4.959	10.000	9.000	1.000	2.4127	80.90000	4.51E-02	1.69E-02	2.81E-02	6.98E-02	1.66E-02
U-238	4184.730	4189.254	33.793	178.000	177.000	1.000	3.6781	100.0000	7.17E-01	7.51E-02	3.47E-02	8.03E-02	5.42E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

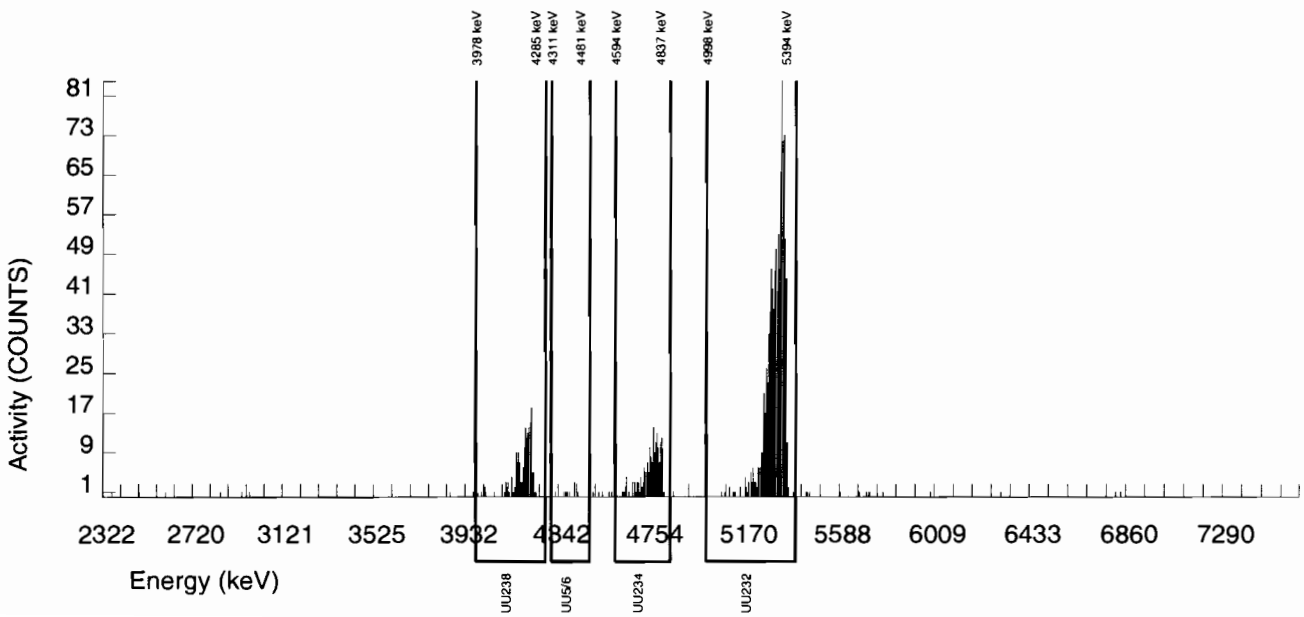

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 001	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248860002_UU	DETECTOR S/N : 79451	BKG FILE : B001.CNF;1137
SAMPLE QTY : 0.506 G	AVERAGE %EFFICIENCY : 34.8147	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 3-APR-2010 16:18:01	BKG LIVE TIME(SEC) : 59999.99
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W001.CNF;384
% YIELD : 41.572		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5018E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 1.8715E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.706	27.889	660.000	651.000	9.000	3.0000	100.0000	4.01E+00	3.45E-01	4.29E-02	1.03E-01	1.59E-01
U-3/4	4763.020	4755.717	44.396	113.000	111.340	1.000	5.4790	100.0000	6.85E-01	8.38E-02	7.84E-02	1.73E-01	6.55E-02
U-235	4391.000	4400.223	68.679	5.000	5.000	0.000	2.4127	80.90000	3.80E-02	1.72E-02	4.27E-02	1.06E-01	1.70E-02
U-238	4184.730	4190.118	44.798	111.000	111.000	0.000	3.6781	100.0000	6.83E-01	8.32E-02	5.26E-02	1.22E-01	6.48E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

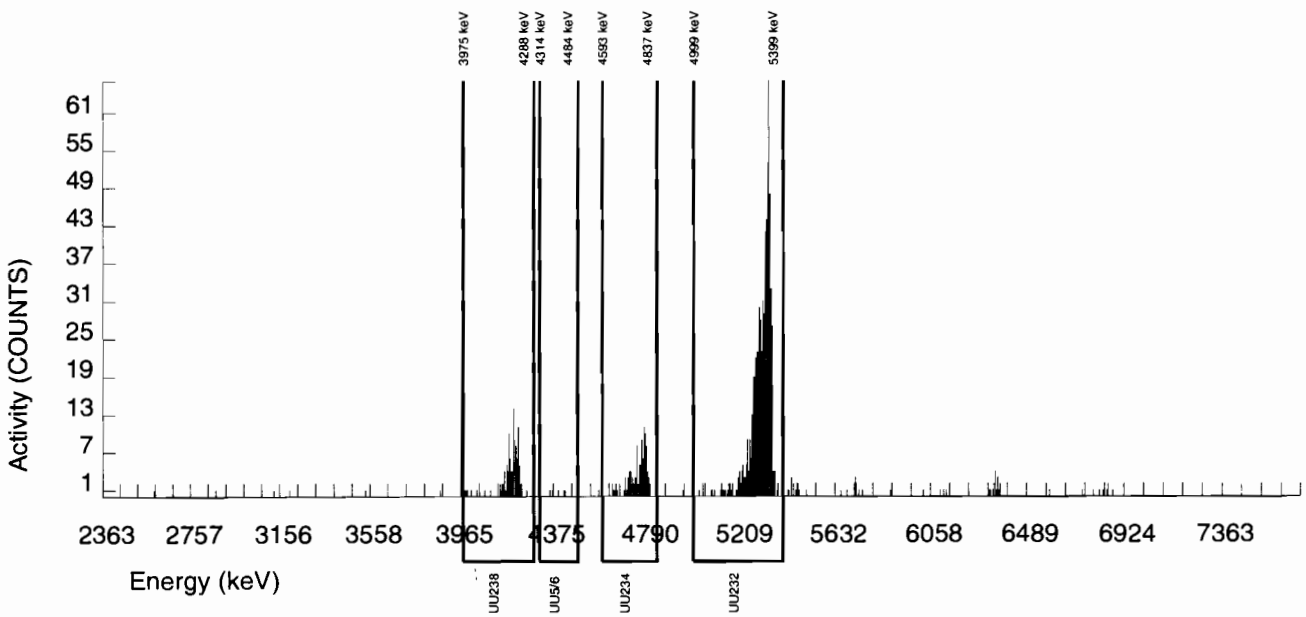

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 002	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248860003_UU	DETECTOR S/N : 79452	BKG FILE : B002.CNF;1127
SAMPLE QTY : 0.513 G	AVERAGE %EFFICIENCY : 30.4967	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 3-APR-2010 16:18:01	BKG LIVE TIME(SEC) : 59999.99
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W002.CNF;330
% YIELD : 33.899		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5018E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 1.5261E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5295.045	58.929	469.000	465.000	4.000	2.0000	100.0000	3.95E+00	3.67E-01	3.95E-02	1.02E-01	1.85E-01
U-3/4	4763.020	4741.008	85.930	117.000	114.529	2.000	5.4790	100.0000	9.73E-01	1.21E-01	1.08E-01	2.40E-01	9.25E-02
U-235	4391.000	4403.739	4.943	7.000	6.000	1.000	2.4127	80.90000	6.30E-02	3.01E-02	5.89E-02	1.46E-01	2.97E-02
U-238	4184.730	4175.037	62.598	129.000	129.000	0.000	3.6781	100.0000	1.10E+00	1.31E-01	7.27E-02	1.68E-01	9.65E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

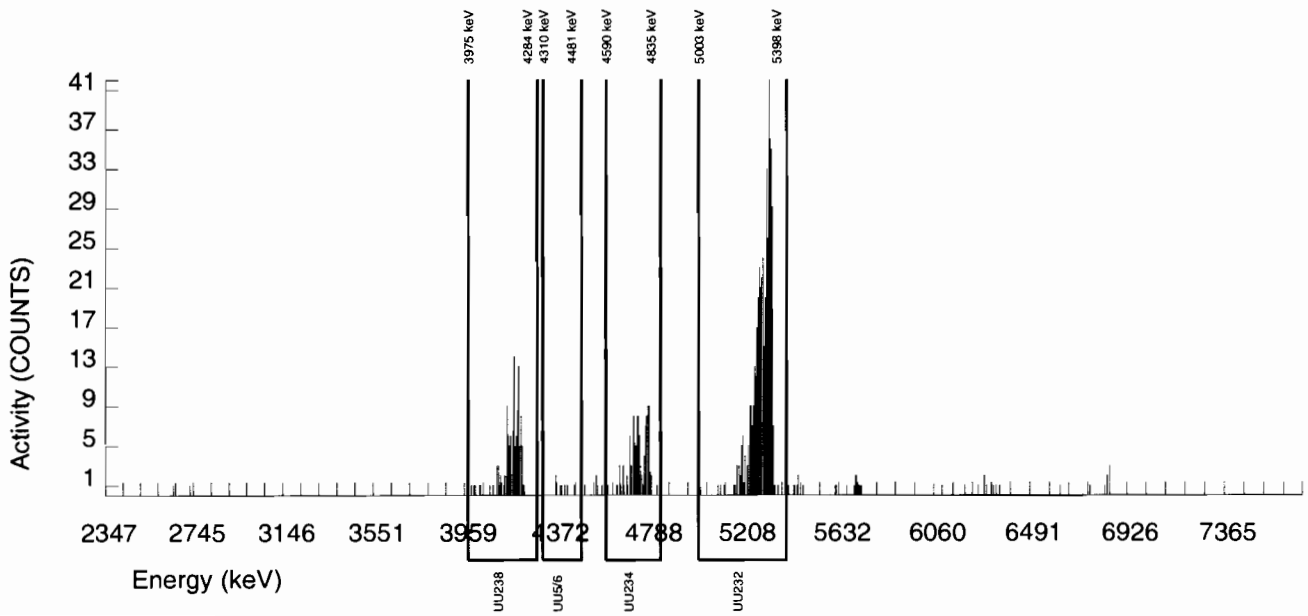

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 139	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248860004_UU	DETECTOR S/N : 76231	BKG FILE : B139.CNF;409
SAMPLE QTY : 0.508 G	AVERAGE %EFFICIENCY : 26.4887	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:57	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W139.CNF;106
% YIELD : 51.867		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5018E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.3350E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5294.141	73.593	625.000	618.000	7.000	2.6458	100.0000	3.99E+00	3.47E-01	3.97E-02	9.69E-02	1.62E-01
U-3/4	4763.020	4742.875	40.471	134.000	132.374	1.000	5.4790	100.0000	8.54E-01	9.96E-02	8.23E-02	1.82E-01	7.48E-02
U-235	4391.000	4384.027	137.384	7.000	6.000	1.000	2.4127	80.90000	4.79E-02	2.29E-02	4.48E-02	1.11E-01	2.26E-02
U-238	4184.730	4165.282	51.928	107.000	107.000	0.000	3.6781	100.0000	6.91E-01	8.53E-02	5.52E-02	1.28E-01	6.68E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

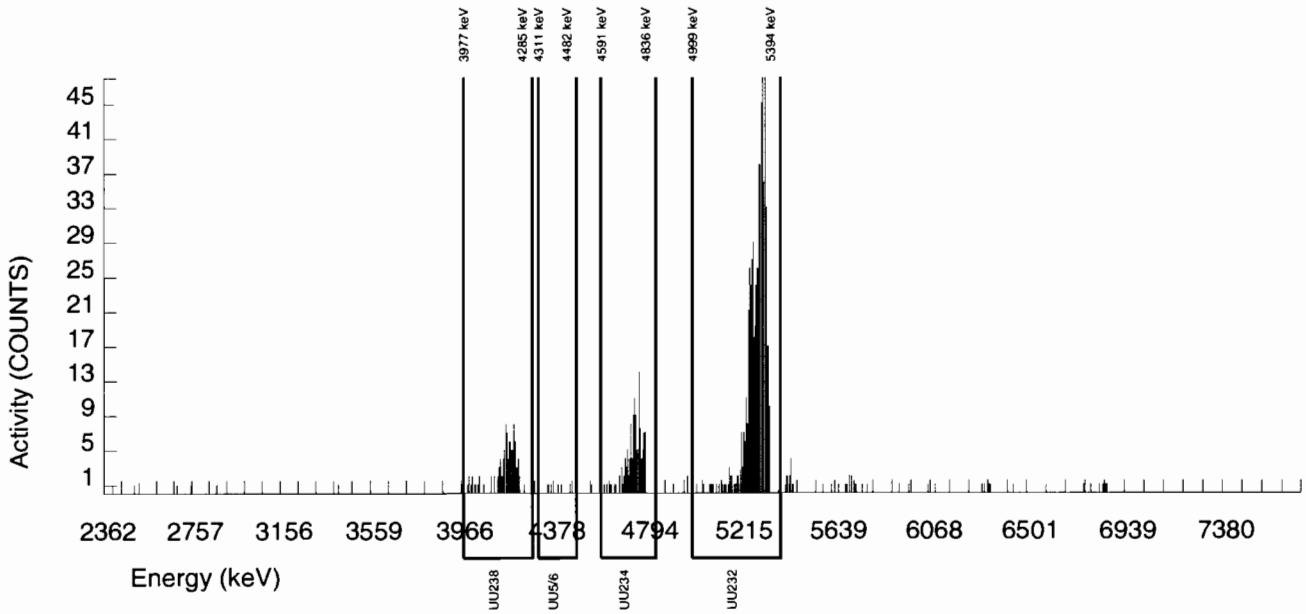

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 140	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248860005_UU	DETECTOR S/N : 78771	BKG FILE : B140.CNF;409
SAMPLE QTY : 0.509 G	AVERAGE %EFFICIENCY : 27.1322	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:59	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W140.CNF;111
% YIELD : 65.796		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5018E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.9620E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5287.437	60.212	806.000	803.000	3.000	1.7321	100.0000	3.98E+00	3.28E-01	2.00E-02	5.34E-02	1.41E-01
U-3/4	4763.020	4739.498	75.574	159.000	157.186	1.000	5.4790	100.0000	7.79E-01	8.52E-02	6.32E-02	1.40E-01	6.25E-02
U-235	4391.000	4395.945	4.971	6.000	6.000	0.000	2.4127	80.90000	3.68E-02	1.53E-02	3.44E-02	8.54E-02	1.50E-02
U-238	4184.730	4166.864	22.424	157.000	156.000	1.000	3.6781	100.0000	7.73E-01	8.48E-02	4.24E-02	9.83E-02	6.23E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

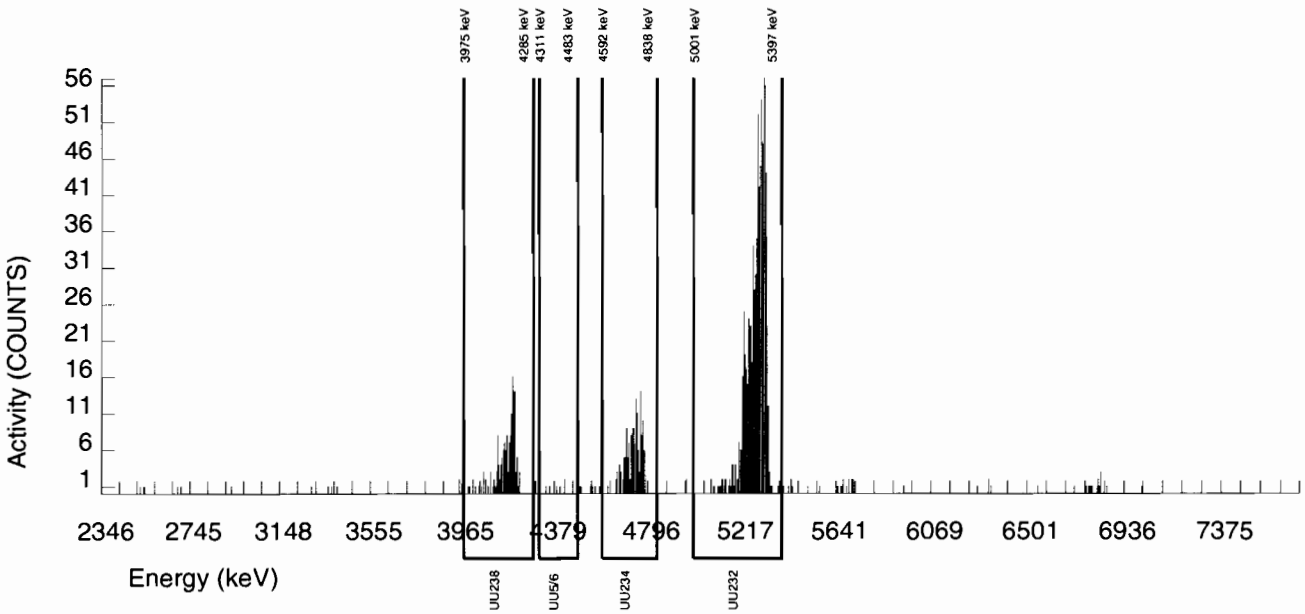

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 141	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248860006_UU	DETECTOR S/N : 76232	BKG FILE : B141.CNF;412
SAMPLE QTY : 0.504 G	AVERAGE %EFFICIENCY : 25.9624	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:38:02	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W141.CNF;109
% YIELD : 64.393		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5018E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.8989E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5298.819	47.352	759.000	752.000	7.000	2.6458	100.0000	4.02E+00	3.36E-01	3.29E-02	8.03E-02	1.48E-01
U-3/4	4763.020	4740.526	54.072	142.000	141.238	0.000	5.4790	100.0000	7.55E-01	8.51E-02	6.81E-02	1.51E-01	6.35E-02
U-235	4391.000	4380.759	34.582	8.000	6.000	2.000	2.4127	80.90000	3.96E-02	2.11E-02	3.71E-02	9.21E-02	2.09E-02
U-238	4184.730	4179.439	48.931	163.000	160.000	3.000	3.6781	100.0000	8.55E-01	9.41E-02	4.57E-02	1.06E-01	6.89E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

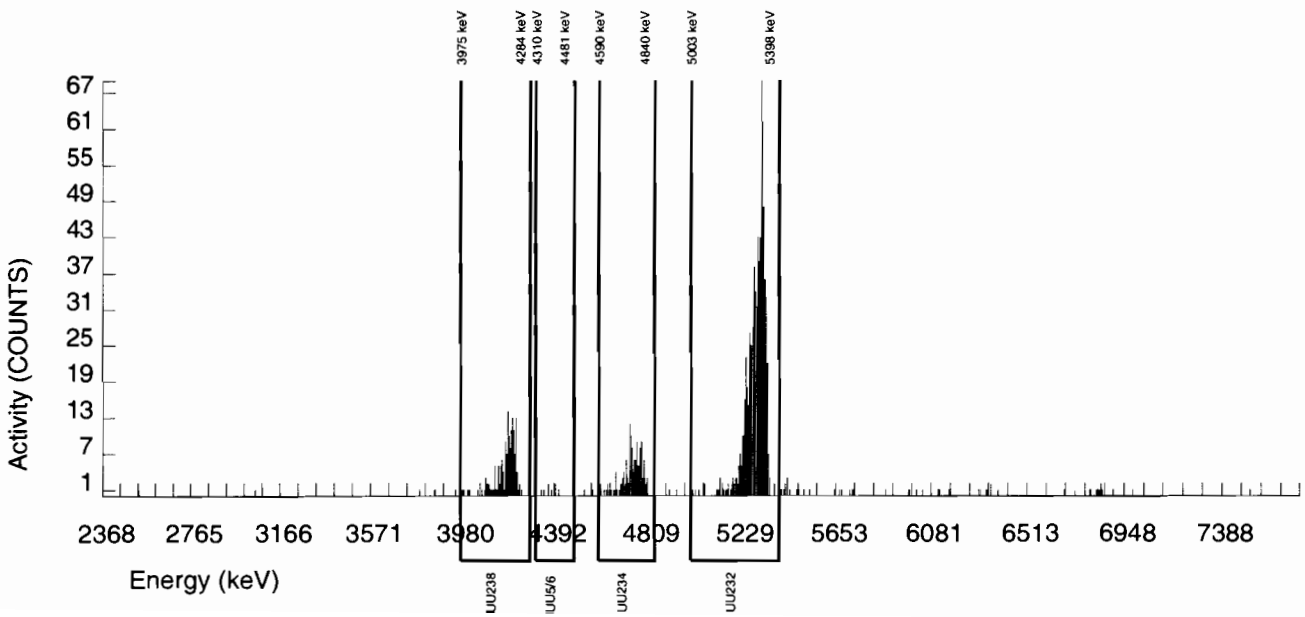

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 142	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248860007_UU	DETECTOR S/N : 64261	BKG FILE : B142.CNF;406
SAMPLE QTY : 0.501 G	AVERAGE %EFFICIENCY : 25.9474	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:38:05	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W142.CNF;113
% YIELD : 43.182		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5018E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 1.9440E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5290.603	66.673	510.000	504.000	6.000	2.4495	100.0000	4.05E+00	3.69E-01	4.57E-02	1.13E-01	1.82E-01
U-3/4	4763.020	4746.959	80.262	125.000	120.489	4.000	5.4790	100.0000	9.67E-01	1.19E-01	1.02E-01	2.26E-01	9.10E-02
U-235	4391.000	4350.965	0.000	4.000	3.000	1.000	2.4127	80.90000	2.98E-02	2.23E-02	5.57E-02	1.38E-01	2.22E-02
U-238	4184.730	4169.064	72.909	119.000	118.000	1.000	3.6781	100.0000	9.47E-01	1.16E-01	6.87E-02	1.59E-01	8.79E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

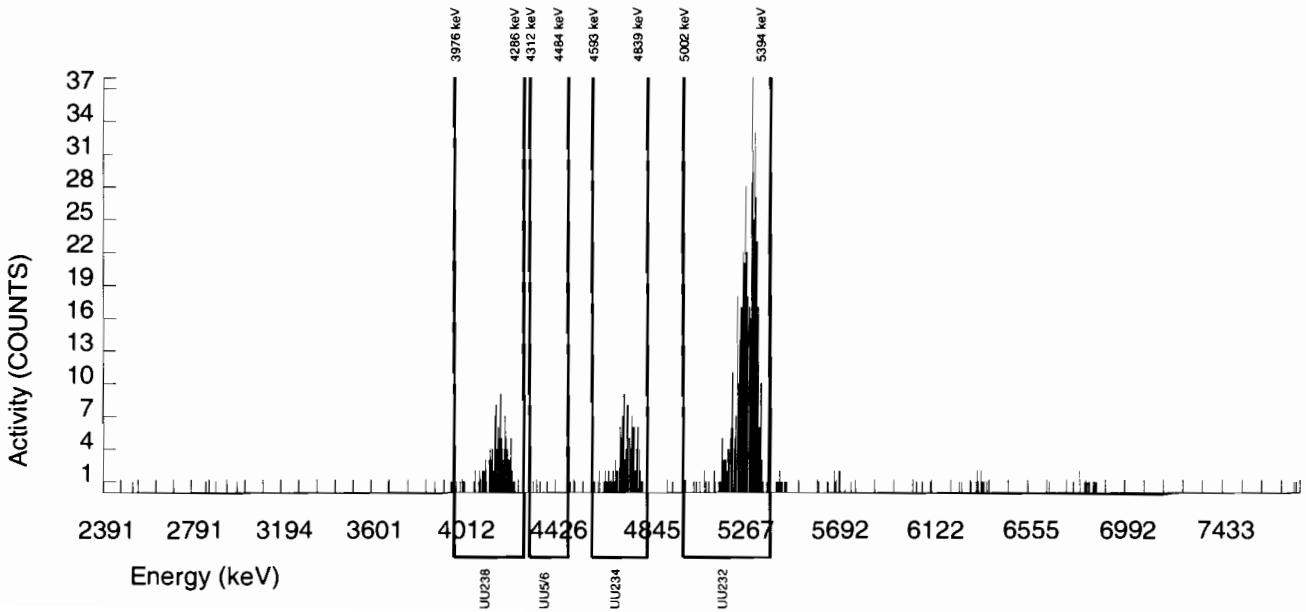

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 143	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248860008_UU	DETECTOR S/N : 65882	BKG FILE : B143.CNF;408
SAMPLE QTY : 0.511 G	AVERAGE %EFFICIENCY : 25.3082	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:38:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W143.CNF;116
% YIELD : 86.525		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5018E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.8952E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5298.059	39.016	985.000	985.000	0.000	0.0000	100.0000	3.97E+00	3.15E-01	0.00E+00	1.09E-02	1.26E-01
U-3/4	4763.020	4751.972	31.630	206.000	205.002	0.000	5.4790	100.0000	8.25E-01	8.32E-02	5.13E-02	1.14E-01	5.76E-02
U-235	4391.000	4394.548	5.744	9.000	9.000	0.000	2.4127	80.90000	4.48E-02	1.53E-02	2.79E-02	6.93E-02	1.49E-02
U-238	4184.730	4175.156	58.706	208.000	208.000	0.000	3.6781	100.0000	8.37E-01	8.41E-02	3.44E-02	7.98E-02	5.81E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

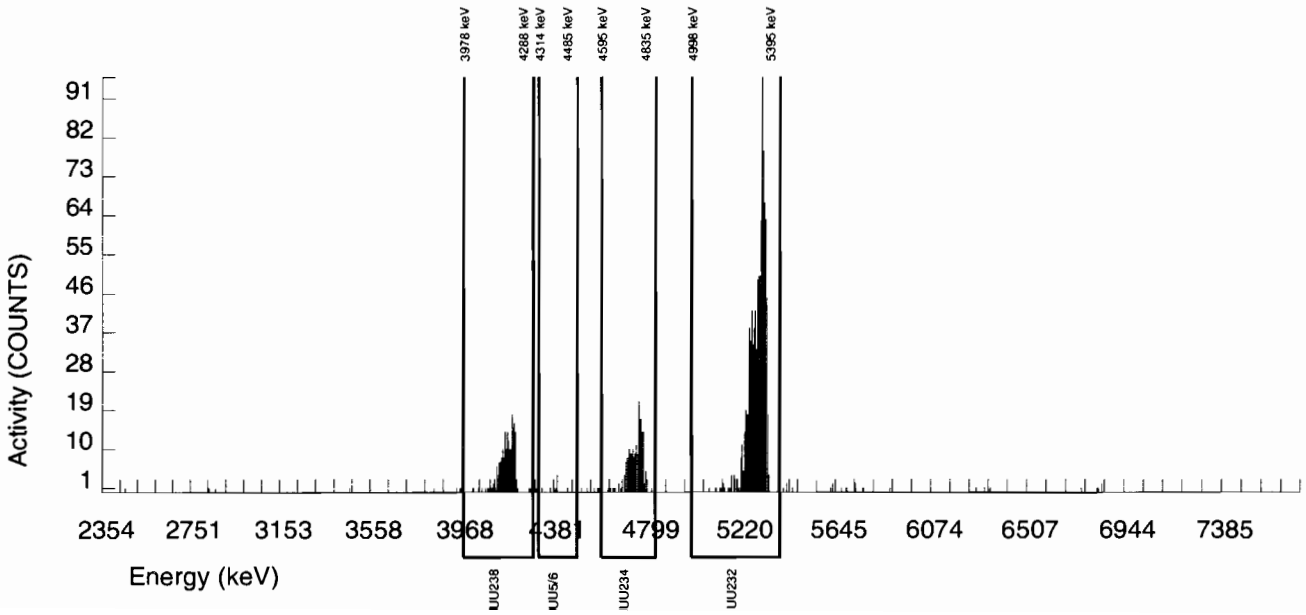

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 115	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248860009_UU	DETECTOR S/N : 79995	BKG FILE : B115.CNF;469
SAMPLE QTY : 0.508 G	AVERAGE %EFFICIENCY : 26.3873	BKG DATE : 28-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:03	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W115.CNF;151
% YIELD : 81.302		CAL DATE : 19-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5018E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.6601E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.876	69.962	971.000	965.000	6.000	2.4495	100.0000	3.99E+00	3.18E-01	2.36E-02	5.83E-02	1.29E-01
U-3/4	4763.020	4755.917	71.856	177.000	174.022	2.000	5.4790	100.0000	7.19E-01	7.61E-02	5.27E-02	1.17E-01	5.51E-02
U-235	4391.000	4386.452	139.366	10.000	9.000	1.000	2.4127	80.90000	4.60E-02	1.73E-02	2.87E-02	7.12E-02	1.69E-02
U-238	4184.730	4187.406	44.771	205.000	205.000	0.000	3.6781	100.0000	8.47E-01	8.55E-02	3.54E-02	8.19E-02	5.92E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

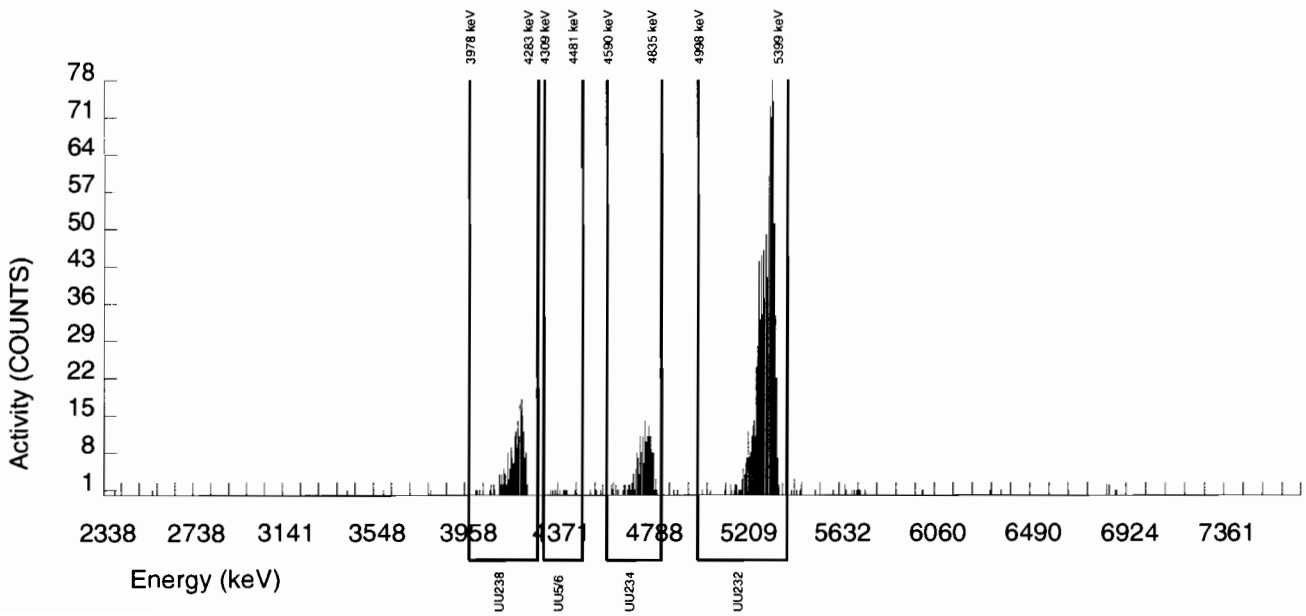

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 116	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248867001_UU	DETECTOR S/N : 80004	BKG FILE : B116.CNF;454
SAMPLE QTY : 0.507 G	AVERAGE %EFFICIENCY : 25.9691	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:05	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W116.CNF;113
% YIELD : 72.937		CAL DATE : 19-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5017E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.2834E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5282.761	67.215	852.000	852.000	0.000	0.0000	100.0000	4.00E+00	3.25E-01	0.00E+00	1.27E-02	1.37E-01
U-3/4	4763.020	4742.157	61.352	367.000	365.137	1.000	5.4790	100.0000	1.71E+00	1.55E-01	5.98E-02	1.32E-01	8.99E-02
U-235	4391.000	4384.421	7.334	14.000	14.000	0.000	2.4127	80.90000	8.12E-02	2.25E-02	3.25E-02	8.08E-02	2.17E-02
U-238	4184.730	4167.612	80.033	186.000	184.000	2.000	3.6781	100.0000	8.63E-01	9.05E-02	4.01E-02	9.30E-02	6.43E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

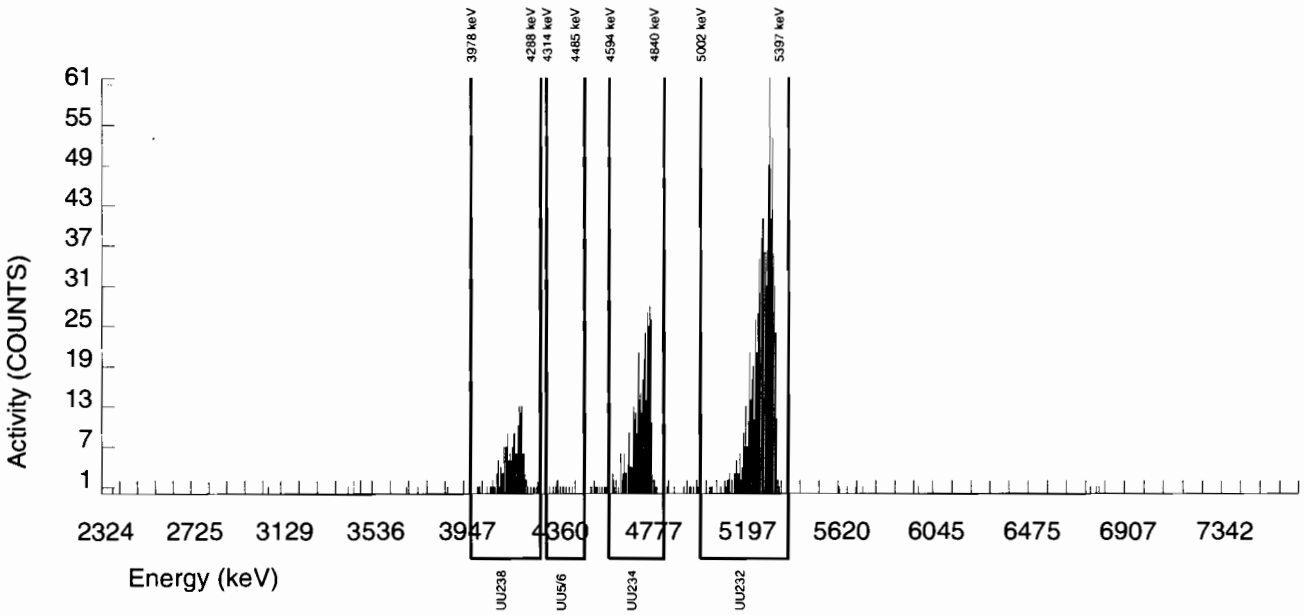

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 129	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202085875_UU	DETECTOR S/N : 76227	BKG FILE : B129.CNF;463
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 26.5015	BKG DATE : 28-MAR-2010
SAMPLE DATE : 1-APR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W129.CNF;132
% YIELD : 89.760		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4984E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.0377E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5313.450	35.925	1075.000	1070.000	5.000	2.2361	100.0000	2.03E+00	1.58E-01	9.85E-03	2.48E-02	6.22E-02
U-3/4	4763.020	4715.794	4.947	4.000	1.916	1.000	5.4790	100.0000	3.63E-03	3.76E-03	2.41E-02	5.34E-02	3.75E-03
U-235	4391.000	4384.568	98.946	3.000	1.000	2.000	2.4127	80.90000	2.34E-03	5.24E-03	1.31E-02	3.26E-02	5.23E-03
U-238	4184.730	4185.691	173.156	4.000	3.000	1.000	3.6781	100.0000	5.68E-03	4.25E-03	1.62E-02	3.75E-02	4.23E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

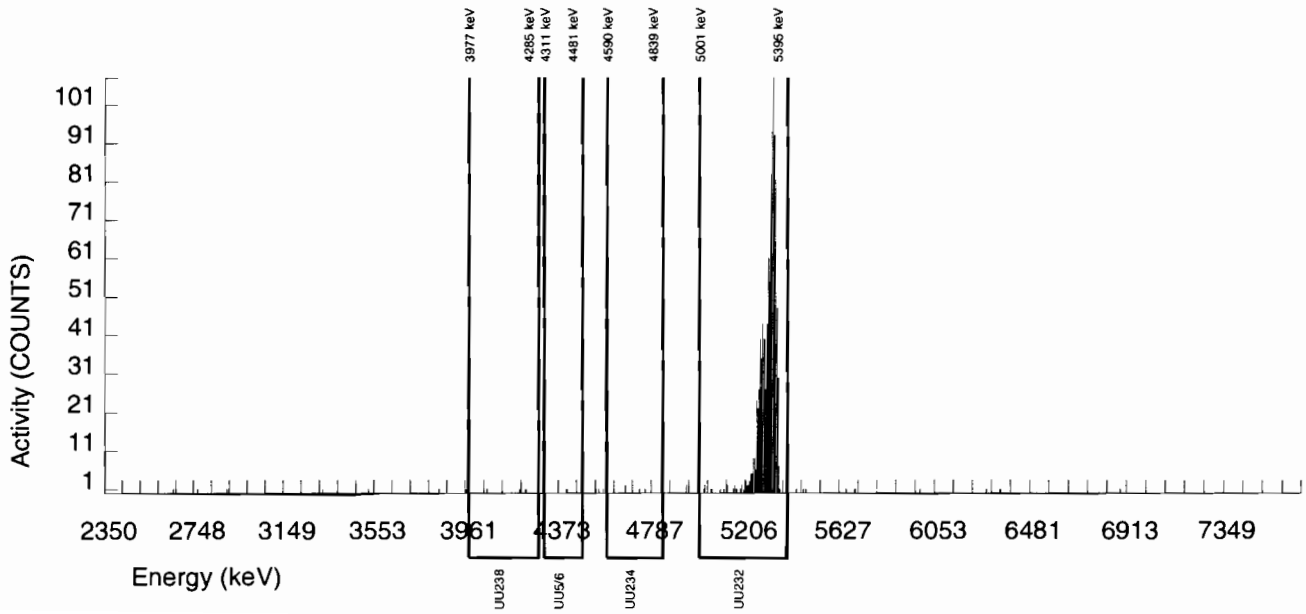

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 130	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202085876_UU	DETECTOR S/N : 76228	BKG FILE : B130.CNF;463
SAMPLE QTY : 0.509 G	AVERAGE %EFFICIENCY : 25.8660	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W130.CNF;134
% YIELD : 52.601		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5017E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.3679E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5283.543	80.711	613.000	612.000	1.000	1.0000	100.0000	3.98E+00	3.46E-01	1.51E-02	4.79E-02	1.61E-01
U-3/4	4763.020	4738.464	54.129	334.000	333.380	0.000	5.4790	100.0000	2.17E+00	2.05E-01	8.29E-02	1.83E-01	1.19E-01
U-235	4391.000	4415.515	34.839	11.000	10.000	1.000	2.4127	80.90000	8.04E-02	2.85E-02	4.51E-02	1.12E-01	2.79E-02
U-238	4184.730	4164.388	77.944	146.000	146.000	0.000	3.6781	100.0000	9.50E-01	1.07E-01	5.57E-02	1.29E-01	7.86E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

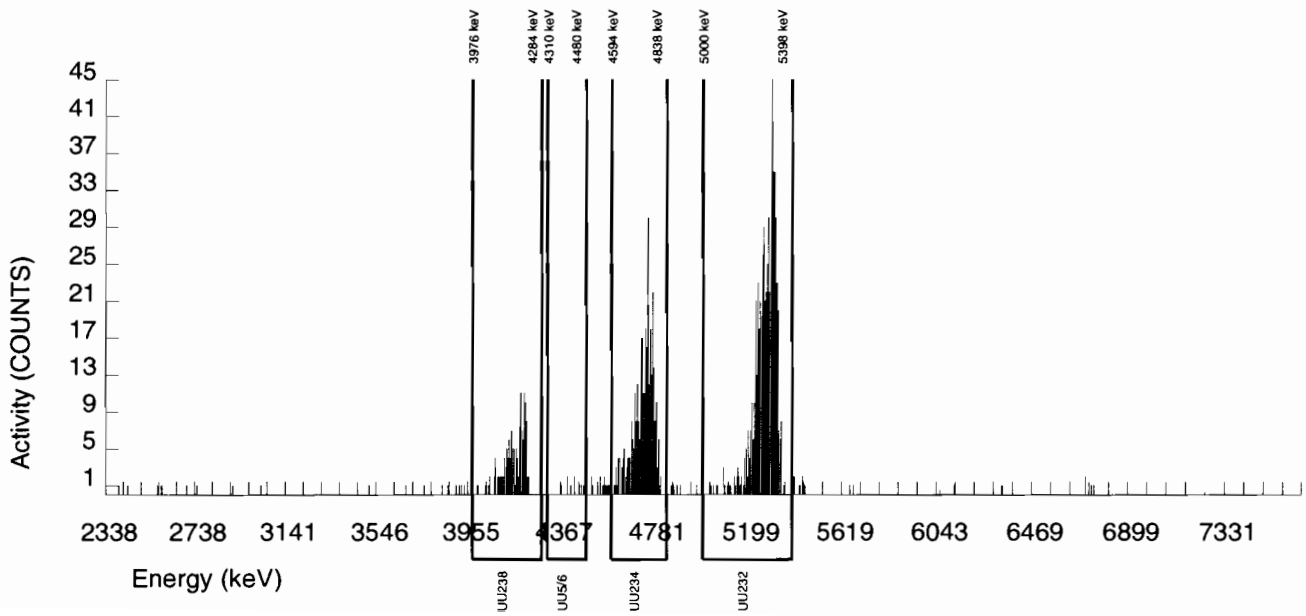

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 131	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202085877_UU	DETECTOR S/N : 80008	BKG FILE : B131.CNF;461
SAMPLE QTY : 0.106 G	AVERAGE %EFFICIENCY : 25.4483	BKG DATE : 28-MAR-2010
SAMPLE DATE : 1-APR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:35	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W131.CNF;136
% YIELD : 89.281		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4984E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.0162E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.589	32.753	1026.000	1022.000	4.000	2.0000	100.0000	1.91E+01	1.61E+00	8.70E-02	2.25E-01	6.00E-01
U-3/4	4763.020	4759.419	35.822	286.000	284.964	0.000	5.4790	100.0000	5.33E+00	5.23E-01	2.38E-01	5.27E-01	3.16E-01
U-235	4391.000	4398.254	11.946	10.000	10.000	0.000	2.4127	80.90000	2.31E-01	7.53E-02	1.30E-01	3.22E-01	7.31E-02
U-238	4184.730	4189.255	39.676	306.000	306.000	0.000	3.6781	100.0000	5.72E+00	5.55E-01	1.60E-01	3.71E-01	3.27E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

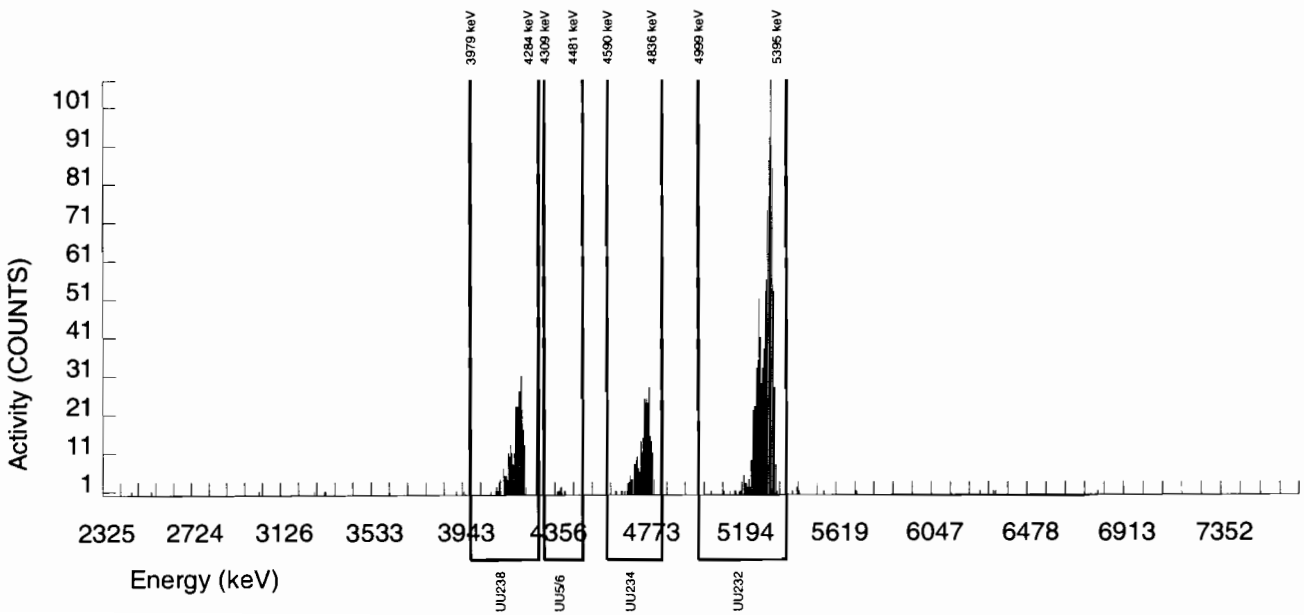

Radiochemistry Batch Checklist, Rev10

Batch# 962633 **Product:** Gamma Solid **Date:** 03/26/10

LANL

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 3/26/10

Secondary Review Performed By: M Stamper 3/29/10

4/3

Gamma Spec Que Sheet 1.G.- 3/16/10

03/08/2010

Batch #:962633 Analyst: MXR1 First Client DueDate04/03/2010 Internal Due Date: 03/23/2010

Gamma Spike Isotope: Mixed Gamma Spike Code: Na Expiration Date: Na Vol: Na Nominal Concentration: Na

Gamma LCS Isotope: Mixed Gamma LCS Code: 1032-A Expiration Date: 12/2/10 Vol: 10ml Nominal Concentration:

Cs137-5.685
Co60-6.485
Am241-16.29

Initials: US Prep Date: 3/9/10 Library: SOLID Witness: Na

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Wet/Dry Aliquot (1/0/F)	Detector	Sealing Date/Time (if Applicable)
248860001-1	RE46-10-13782	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF	can	125.52	15	3/9/10
248860002-1	RE46-10-13783	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		124.16	18	
248860003-1	RE46-10-13777	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		133.02	22	
248860004-1	RE46-10-13775	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		143.70	23	
248860005-1	RE46-10-13776	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		127.04	25	
248860006-1	RE46-10-13781	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		132.12	2	
248860007-1	RE46-10-13779	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		129.80	5	
248860008-1	RE46-10-13780	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		129.23	10	
248860009-1	RE46-10-13778	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		143.35	12	
248863001-1	RE46-10-12936	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 U		125.19	15	
248863002-1	RE46-10-12930	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 U		123.50	22	
248863003-1	RE46-10-12929	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 U		122.05	23	
248863004-1	RE46-10-12935	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 U		126.96	4	
248865001-1	RE46-10-11924	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 U		125.14	7	
248866001-1	RE46-10-11885	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 U		133.00	15	
248866002-1	RE46-10-11886	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 U		115.19	17	
248867001-1	RE46-10-12931	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 U		122.07	29	
248867002-1	RE46-10-12932	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 U		143.48	22	
248867003-1	RE46-10-12934	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 U		112.39	5	
248867004-1	RE46-10-12933	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 U		121.04	15	
1202065188-1	MB	MB		QC ACCOUNT	SOIL	3/9/10 U		143.70	29	
1202065189-1	DUP RE46-10-12931(248867001)	DUP		QC ACCOUNT	SOIL	05-MAR-10 12:00:00 U		122.07	21	
1202065190-1	LCS	LCS		QC ACCOUNT	SOIL	3/9/10 RF		151.73	22	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: [illegible] 3/26/10
M Stamps 3/29/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
962633	248860001	SAMPLE	24-MAR-10		Americium-241	-0.3988	0.5503	0.200
					Cerium-139	-0.0071	0.0713	0.050
					Europium-152	0.06987	0.2181	0.200
					Sodium-22	0.02774	0.101	0.080
					Thorium-234	0.3111	4.547	2.00
962633	248860002	SAMPLE	24-MAR-10		Americium-241	0.1165	0.3079	0.200
					Thorium-234	1.922	2.747	2.00
962633	248860003	SAMPLE	24-MAR-10		Americium-241	-0.02836	0.2157	0.200
					Thorium-234	0.6605	2.082	2.00
962633	248860004	SAMPLE	24-MAR-10		Americium-241	-0.15	0.3195	0.200
					Cerium-139	-0.01747	0.05093	0.050
					Thorium-234	1.76	2.867	2.00
962633	248860005	SAMPLE	24-MAR-10		Sodium-22	0.01003	0.09245	0.080
962633	248860006	SAMPLE	24-MAR-10		Americium-241	-0.1191	0.3087	0.200
					Cerium-139	-0.01638	0.0569	0.050
					Thorium-234	1.156	3.073	2.00
962633	248860007	SAMPLE	24-MAR-10		Cerium-139	-0.00892	0.05761	0.050
					Cesium-134	0.08795	0.1079	0.100
					Europium-152	0.1143	0.2013	0.200
					Sodium-22	0.00767	0.09701	0.080
962633	248860008	SAMPLE	24-MAR-10		Americium-241	0.02648	0.392	0.200
					Cerium-139	0.00647	0.05278	0.050
					Sodium-22	-0.02702	0.08143	0.080
					Thorium-234	1.437	3.271	2.00
962633	248860009	SAMPLE	24-MAR-10		Americium-241	0.08355	0.2671	0.200
					Cerium-139	-0.01125	0.05385	0.050
					Thorium-234	0.6321	2.451	2.00
962633	248863001	SAMPLE	24-MAR-10		Americium-241	-0.2062	0.5504	0.200
					Cerium-139	0.00164	0.06933	0.050
					Cesium-134	0.09766	0.1196	0.100
					Europium-152	0.00035	0.2226	0.200
					Mercury-203	0.0466	0.1027	0.100
					Sodium-22	-0.03472	0.09586	0.080
					Thorium-234	1.347	4.581	2.00
962633	248863002	SAMPLE	24-MAR-10		Americium-241	0.2093	0.245	0.200
					Cerium-139	0.02473	0.05406	0.050
962633	248863003	SAMPLE	24-MAR-10		Americium-241	0.06604	0.3876	0.200
					Cerium-139	-0.0204	0.06107	0.050
					Cesium-134	0.07323	0.1031	0.100
					Sodium-22	-0.01091	0.08483	0.080
962633	248863004	SAMPLE	24-MAR-10		Americium-241	0.1208	0.4152	0.200
					Thorium-234	-0.4912	3.22	2.00
962633	248865001	SAMPLE	24-MAR-10		Cerium-139	-0.00785	0.05556	0.050
					Sodium-22	0.01389	0.08378	0.080

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
962633	248866001	SAMPLE	24-MAR-10		Americium-241	-0.3335	0.5114	0.200
					Cerium-139	0.00101	0.06824	0.050
					Europium-152	-0.05316	0.2073	0.200
					Sodium-22	0.00914	0.09725	0.080
					Thorium-234	2.229	4.463	2.00
					Tin-113	0.02021	0.1026	0.100
962633	248866002	SAMPLE	24-MAR-10		Cerium-139	0.00257	0.05962	0.050
					Cobalt-60	0.04517	0.1039	0.100
					Sodium-22	-0.03833	0.1005	0.080
					Yttrium-88	0.0586	0.1006	0.100
962633	248867001	SAMPLE	24-MAR-10		Americium-241	-0.02518	0.3301	0.200
					Cerium-139	0.00997	0.06152	0.050
					Thorium-234	0.7463	2.926	2.00
962633	248867002	SAMPLE	24-MAR-10					
962633	248867003	SAMPLE	24-MAR-10		Cerium-139	-0.00662	0.06122	0.050
					Cesium-134	0.103	0.1249	0.100
					Sodium-22	0.02208	0.1114	0.080
962633	248867004	SAMPLE	24-MAR-10		Americium-241	-0.1815	0.3894	0.200
					Thorium-234	1.582	3.174	2.00
962633	1202065188	MB	24-MAR-10					
962633	1202065189	DUP	24-MAR-10					
962633	1202065190	LCS	25-MAR-10		Cerium-139	0.01006	0.07681	0.050
					Cesium-134	0.07098	0.1333	0.100
					Europium-152	0.01084	0.2676	0.200
					Mercury-203	-0.0163	0.1102	0.100
					Ruthenium-106	-0.1807	0.8255	0.800
					Sodium-22	0.0353	0.08544	0.080
					Thorium-234	-0.8535	3.134	2.00
					Tin-113	-0.02312	0.1307	0.100

Gamma Review Report based on Result > MDA for Batch:962633

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860001	04-MAR-10 12:00	24-MAR-10 16:15	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.904	0.2344	pCi/g	0.3102	N	911.2	3	1.685	IDENTIFIED	10.72	☐	
Annihilation Rad.		0.2352	0.04407	pCi/g	0.06345	N	510.6	1	1.904	IDENTIFIED	18.23	☐	
Bismuth-211	int	4.727	0.3554	pCi/g	0.4474	Y	352.1	2	1.367	IDENTIFIED	5.644	☐ ui	
Bismuth-212	HE	2.345	0.5085	pCi/g	1.505	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.243	0.1128	pCi/g	0.1403	0.200	609.4	3	1.637	IDENTIFIED	7.585	☐	
Cadmium-109	int	2.31	0.7012	pCi/g	1.92	Y	87.42	3	1.229	IDENTIFIED	29.73	☐ ui	
Cerium-143		13160	2149	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.195	0.04362	pCi/g	0.121	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		11.45	1.686	pCi/g	4.76	N		0				☐	
Iodine-135		1.74E+21	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212	✔	2.027	0.1428	pCi/g	0.1271	0.100	238.8	2	1.375	IDENTIFIED	3.727	☐	
Lead-214	✔	1.716	0.1374	pCi/g	0.1601	0.100	352.1	2	1.367	IDENTIFIED	5.644	☐	
Neptunium-237	HE	0.6685	0.2147	pCi/g	0.5708	N	87.42	3	1.229	IDENTIFIED	29.73	☐	
Niobium-95m	HE	0.4874	0.1088	pCi/g	0.3509	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40	✔	39.73	2.271	pCi/g	0.7555	1.00	1460	1	2.215	IDENTIFIED	2.922	☐	
Promethium-149		656.2	302.6	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Radium-224	int	3.765	0.8432	pCi/g	1.362	Y	241.8	1	1.802	IDENTIFIED	21.71	☐ ui	
Radium-226	✔	1.243	0.1128	pCi/g	0.1403	Y	609.4	3	1.637	IDENTIFIED	7.585	☐	
Radium-228	✔	1.904	0.2344	pCi/g	0.3102	0.500	911.2	3	1.685	IDENTIFIED	10.72	☐	
Strontium-85	la	0.124	0.03193	pCi/g	0.1041	Y	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✔	0.5989	0.05573	pCi/g	0.06969	0.080	583.1	1	1.569	IDENTIFIED	8.104	☐	
Thorium-228	nr	2.027	0.1428	pCi/g	0.1271	N	238.8	2	1.375	IDENTIFIED	3.727	☐	
Thorium-230	nr	1.243	0.108	pCi/g	0.1403	N	609.4	3	1.637	IDENTIFIED	7.585	☐	
Thorium-232	nr	1.904	0.2344	pCi/g	0.3102	N	911.2	3	1.685	IDENTIFIED	10.72	☐	
Tin-126	HE	0.224	0.06803	pCi/g	0.1877	N	87.42	3	1.229	IDENTIFIED	29.73	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860002	04-MAR-10 12:00	24-MAR-10 16:15	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.74	0.1822	pCi/g	0.1998	N	910.8	3	1.832	IDENTIFIED	7.983	☐	
Annihilation Rad.		0.1382	0.03062	pCi/g	0.03685	N	510.4	1	2.172	IDENTIFIED	21.9	☐	
Bismuth-211	int	3.582	0.2284	pCi/g	0.278	Y	351.8	2	1.441	IDENTIFIED	5.509	☐ ui	
Bismuth-212	la nr	1.929	0.4139	pCi/g	1.053	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.181	0.08634	pCi/g	0.1063	0.200	609	3	1.456	IDENTIFIED	5.765	☐	
Cadmium-109	int	2.394	0.5305	pCi/g	1.314	Y	87.35	3	1.24	IDENTIFIED	21.68	☐ ui	
Cadmium-115	HE	28.61	22.72	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cerium-143		9978	1438	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.08997	0.027	pCi/g	0.0759	0.100	0	8	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.

Gross Gamma		9.864	1.2	pCi/g	2.367	N		0				☐	
Iodine-133	HE	1.16E+05	1.38E+05	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.801	0.08331	pCi/g	0.08423	0.100	238.7	2	1.157	IDENTIFIED	2.899	☐	
Lead-214 ✔		1.3	0.09032	pCi/g	0.1011	0.100	351.8	2	1.441	IDENTIFIED	5.509	☐	
Mercury-203	la	0.06698	0.02051	pCi/g	0.06549	0.100	0	8	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Neptunium-237	HE	0.693	0.1699	pCi/g	0.4016	N	87.35	3	1.24	IDENTIFIED	21.68	☐	
Potassium-40 ✔		34.42	1.533	pCi/g	0.4415	1.00	1460	1	2.198	IDENTIFIED	2.329	☐	
Promethium-149	HE	48.72	188.4	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Radium-224	int	3.793	0.5787	pCi/g	0.9015	Y	241.6	1	1.767	IDENTIFIED	15	☐	ui
Radium-226 ✔		1.181	0.08634	pCi/g	0.1063	Y	609	3	1.456	IDENTIFIED	5.765	☐	
Radium-228 ✔		1.74	0.1822	pCi/g	0.1998	0.500	910.8	3	1.832	IDENTIFIED	7.983	☐	
Strontium-85	la	0.09479	0.01855	pCi/g	0.06299	Y	0	8	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208 ✔		0.5245	0.04041	pCi/g	0.04889	0.080	583	1	1.629	IDENTIFIED	6.637	☐	
Thorium-228	nr	1.801	0.08331	pCi/g	0.08423	N	238.7	2	1.157	IDENTIFIED	2.899	☐	
Thorium-230	nr	1.181	0.08052	pCi/g	0.1063	N	609	3	1.456	IDENTIFIED	5.765	☐	
Thorium-232	nr	1.74	0.1822	pCi/g	0.1998	N	910.8	3	1.832	IDENTIFIED	7.983	☐	
Tin-126	HE	0.2322	0.05146	pCi/g	0.1381	N	87.35	3	1.24	IDENTIFIED	21.68	☐	
Total Uranium		5.7742	2.32E-06	ug/g	4.0899	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860003	04-MAR-10 12:00	24-MAR-10 16:15	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.839	0.1776	pCi/g	0.2121	N	911.3	3	2.042	IDENTIFIED	6.886	☐	
Annihilation Rad.	HE	0.1044	0.03447	pCi/g	0.04102	N	511	1	2.195	IDENTIFIED	32.63	☐	
Bismuth-211	int	3.859	0.3032	pCi/g	0.3037	Y	352.1	2	1.506	IDENTIFIED	5.289	☐	ui
Bismuth-212	HE	1.705	0.4014	pCi/g	0.9792	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		0.9632	0.09305	pCi/g	0.1009	0.200	609.3	3	1.751	IDENTIFIED	7.699	☐	
Cadmium-109	int	3.638	0.5037	pCi/g	1.089	Y	87.18	3	1.26	IDENTIFIED	13.02	☐	ui
Cerium-143		9254	1550	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1052	0.027	pCi/g	0.07901	0.100	0	8	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Cesium-135	HE	0.2809	0.08439	pCi/g	0.26	N	0	8	0	NOT_IDENTI	0	☐	
Gross Gamma		9.716	1.217	pCi/g	2.534	N		0				☐	
Iodine-135		1.38E+21	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.649	0.12	pCi/g	0.08777	0.100	238.8	2	1.174	IDENTIFIED	3.016	☐	
Lead-214 ✔		1.401	0.1166	pCi/g	0.1104	0.100	352.1	2	1.506	IDENTIFIED	5.289	☐	
Mercury-203	int	0.1122	0.03255	pCi/g	0.05885	0.100	278.3	1	1.976	IDENTIFIED	28.15	☐	ui
Neptunium-237	int nr	1.053	0.1829	pCi/g	0.3199	N	87.18	3	1.26	IDENTIFIED	13.02	☐	
Niobium-95	HE	0.08004	0.02241	pCi/g	0.07112	N	0	8	0	NOT_IDENTI	0	☐	
Potassium-40 ✔		34.36	1.767	pCi/g	0.4769	1.00	1461	1	2.677	IDENTIFIED	2.342	☐	
Promethium-149	HE	84.07	214.9	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Radium-224	int	4.464	0.6253	pCi/g	0.9396	Y	241.8	1	1.789	IDENTIFIED	12.53	☐	ui
Radium-226 ✔		0.9632	0.09305	pCi/g	0.1009	Y	609.3	3	1.751	IDENTIFIED	7.699	☐	
Radium-228 ✔		1.839	0.1776	pCi/g	0.2121	0.500	911.3	3	2.042	IDENTIFIED	6.886	☐	
Strontium-85	la	0.1674	0.02235	pCi/g	0.07408	Y	0	8	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208 ✔		0.4779	0.04318	pCi/g	0.05092	0.080	583.3	1	1.71	IDENTIFIED	7.231	☐	
Thorium-228	nr	1.649	0.12	pCi/g	0.08777	N	238.8	2	1.174	IDENTIFIED	3.016	☐	

Thorium-230	nr	0.9632	0.08951	pCi/g	0.1009	N	609.3	3	1.751	IDENTIFIED	7.699	☐
Thorium-232	nr	1.839	0.1776	pCi/g	0.2121	N	911.3	3	2.042	IDENTIFIED	6.886	☐
Tin-126	int nr	0.3529	0.04886	pCi/g	0.1061	N	87.18	3	1.26	IDENTIFIED	13.02	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860004	04-MAR-10 12:00	24-MAR-10 16:16	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.307	0.1527	pCi/g	0.2158	N	910.1	3	1.418	IDENTIFIED	11.68	☐	
Annihilation Rad.		0.132	0.03179	pCi/g	0.04806	N	510.4	1	2.075	IDENTIFIED	24.07	☐	
Bismuth-211	int	3.065	0.2289	pCi/g	0.3357	Y	351.4	2	1.328	IDENTIFIED	7.467	☐ ui	
Bismuth-212	HE	1.668	0.4443	pCi/g	1.148	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.9447	0.07533	pCi/g	0.1276	0.200	608.6	3	1.596	IDENTIFIED	7.974	☐	
Cadmium-109	int	1.94	0.6161	pCi/g	1.444	Y	87.22	3	1.215	IDENTIFIED	31.76	☐ ui	
Cadmium-115	HE	6.572	27.39	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cerium-143		12840	1419	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma		7.395	1.154	pCi/g	2.608	N		0				☐	
Lead-212	✓	1.503	0.05399	pCi/g	0.09129	0.100	238.3	2	1.214	IDENTIFIED	3.592	☐	
Lead-214	✓	1.112	0.08306	pCi/g	0.1234	0.100	351.4	2	1.328	IDENTIFIED	7.467	☐	
Neptunium-237	HE	0.5616	0.1783	pCi/g	0.4624	N	87.22	3	1.215	IDENTIFIED	31.76	☐	
Niobium-95m	la nr	0.8159	0.08629	pCi/g	0.3138	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	✓	26.89	0.8756	pCi/g	0.6185	1.00	1459	1	2.233	IDENTIFIED	3.257	☐	
Promethium-149	HE	269.5	213.1	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Radium-224	int	3.749	0.4822	pCi/g	0.9783	Y	241.2	1	1.878	IDENTIFIED	12.86	☐ ui	
Radium-226	✓	0.9447	0.07533	pCi/g	0.1276	Y	608.6	3	1.596	IDENTIFIED	7.974	☐	
Radium-228	✓	1.307	0.1527	pCi/g	0.2158	0.500	910.1	3	1.418	IDENTIFIED	11.68	☐	
Technetium-99m		4.99E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4531	0.03396	pCi/g	0.05076	0.080	582.5	1	1.607	IDENTIFIED	7.495	☐	
Thorium-228	nr	1.503	0.05399	pCi/g	0.09129	N	238.3	2	1.214	IDENTIFIED	3.592	☐	
Thorium-230	nr	0.9447	0.07533	pCi/g	0.1276	N	608.6	3	1.596	IDENTIFIED	7.974	☐	
Thorium-232	nr	1.307	0.1527	pCi/g	0.2158	N	910.1	3	1.418	IDENTIFIED	11.68	☐	
Tin-126	HE	0.1882	0.05977	pCi/g	0.1409	N	87.22	3	1.215	IDENTIFIED	31.76	☐	

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860005	04-MAR-10 12:00	24-MAR-10 16:16	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	2.189	0.2087	pCi/g	0.2453	N	911.2	3	1.726	IDENTIFIED	7.317	☐	
Americium-241	la	0.08707	0.0264	pCi/g	0.08642	0.200	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Annihilation Rad.		0.1253	0.03652	pCi/g	0.04992	N	510.7	1	1.386	IDENTIFIED	28.69	☐	
Bismuth-211	int	4.83	0.3333	pCi/g	0.332	Y	352	2	1.168	IDENTIFIED	4.468	☐ ui	
Bismuth-212	nr	2.414	0.4645	pCi/g	0.8466	N	727.2	1	1.246	IDENTIFIED	17.9	☐	
Bismuth-214	✓	1.424	0.1184	pCi/g	0.1131	0.200	609.4	3	1.291	IDENTIFIED	5.706	☐	
Cadmium-109	int	4.738	0.4677	pCi/g	0.7387	Y	87.32	3	1.325	IDENTIFIED	8.292	☐ ui	
Cerium-143		6943	1254	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1669	0.03531	pCi/g	0.1057	0.100	0	6	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.3926	0.1399	pCi/g	0.2203	N	269.6	1	1.081	IDENTIFIED	35.12	☐	

Gadolinium-153	HE	0.1342	0.05165	pCi/g	0.09547	N	0	6	0	FAIL_ABUND	0	☐	
Gross Gamma		12.02	1.601	pCi/g	3.667	N		0				☐	
Lead-210	HE	0.884	0.3691	pCi/g	0.6106	N	46.63	1	0.7942	IDENTIFIED	41.43	☐	
Lead-212 ✔		2.029	0.13	pCi/g	0.08538	0.100	238.7	2	1.016	IDENTIFIED	2.899	☐	
Lead-214 ✔		1.753	0.1303	pCi/g	0.1159	0.100	352	2	1.168	IDENTIFIED	4.468	☐	
Neptunium-237	int nr	1.371	0.1975	pCi/g	0.2124	N	87.32	3	1.325	IDENTIFIED	8.292	☐	
Potassium-40 ✔		39.4	1.97	pCi/g	0.573	1.00	1461	1	2.056	IDENTIFIED	2.618	☐	
Promethium-149	HE	2.832	217.6	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Radium-224	int	5.003	0.6121	pCi/g	0.9162	Y	241.6	1	1.463	IDENTIFIED	11.04	☐	ui
Radium-226 ✔		1.424	0.1184	pCi/g	0.1131	Y	609.4	3	1.291	IDENTIFIED	5.706	☐	
Radium-228 ✔		2.189	0.2087	pCi/g	0.2453	0.500	911.2	3	1.726	IDENTIFIED	7.317	☐	
Technetium-99m		2.93E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208 ✔		0.6192	0.05549	pCi/g	0.05957	0.080	583.3	1	1.447	IDENTIFIED	6.971	☐	
Thorium-228	nr	2.029	0.13	pCi/g	0.08538	N	238.7	2	1.016	IDENTIFIED	2.899	☐	
Thorium-230	nr	1.424	0.1123	pCi/g	0.1131	N	609.4	3	1.291	IDENTIFIED	5.706	☐	
Thorium-232	nr	2.189	0.2087	pCi/g	0.2453	N	911.2	3	1.726	IDENTIFIED	7.317	☐	
Thorium-234 ✔		1.433	0.4637	pCi/g	0.8081	2.00	63.31	2	0.8813	IDENTIFIED	30.94	☐	
Tin-126	int nr	0.4596	0.04537	pCi/g	0.07151	N	87.32	3	1.325	IDENTIFIED	8.292	☐	
Total Uranium		4.314	1.38E-06	ug/g	1.2049	N		0				☐	
Uranium-238	HE	1.433	0.4637	pCi/g	0.8081	N	63.31	2	0.8813	IDENTIFIED	30.94	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860006	04-MAR-10 12:00	24-MAR-10 16:27	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.96	0.2006	pCi/g	0.2775	N	910.5	3	1.802	IDENTIFIED	7.993	☐		
Annihilation Rad.		0.1713	0.03991	pCi/g	0.05218	N	510	1	1.672	IDENTIFIED	22.76	☐		
Bismuth-211	int	4.181	0.3398	pCi/g	0.3571	Y	351.6	2	1.288	IDENTIFIED	5.729	☐	ui	
Bismuth-212	HE	2.312	0.5498	pCi/g	1.334	N	0	8	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔	1.149	0.116	pCi/g	0.1318	0.200	608.8	3	1.333	IDENTIFIED	8.582	☐			
Cadmium-109	int LA	3.86	0.4886	pCi/g	1.775	Y	0	8	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Cerium-143		18790	2819	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Cesium-135	HE	0.3571	0.1005	pCi/g	0.3325	N	0	8	0	NOT_IDENTI	0	☐		
Gross Gamma		10.24	1.458	pCi/g	3.354	N		0				☐		
Iodine-135		4.33E+20	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Lead-212 ✔		1.772	0.1361	pCi/g	0.1357	0.100	238.3	2	1.13	IDENTIFIED	4.377	☐		
Lead-214 ✔		1.517	0.1302	pCi/g	0.1299	0.100	351.6	2	1.288	IDENTIFIED	5.729	☐		
Neptunium-237		1.188	0.1916	pCi/g	0.5291	N	0	8	0	NOT_IDENTI	0	☐		
Potassium-40 ✔		36.4	2.012	pCi/g	0.5121	1.00	1460	1	1.98	IDENTIFIED	2.82	☐		
Radium-224	int	3.311	0.5362	pCi/g	1.455	Y	241.4	1	1.377	IDENTIFIED	15.08	☐	ui	
Radium-226 ✔		1.149	0.116	pCi/g	0.1318	Y	608.8	3	1.333	IDENTIFIED	8.582	☐		
Radium-228 ✔		1.96	0.2006	pCi/g	0.2775	0.500	910.5	3	1.802	IDENTIFIED	7.993	☐		
Sodium-24	HE	2.04E+07	1.04E+08	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Thallium-208 ✔		0.6008	0.05471	pCi/g	0.06371	0.080	582.7	1	1.59	IDENTIFIED	7.608	☐		
Thorium-228	nr	1.772	0.1361	pCi/g	0.1357	N	238.3	2	1.13	IDENTIFIED	4.377	☐		
Thorium-230	nr	1.149	0.112	pCi/g	0.1318	N	608.8	3	1.333	IDENTIFIED	8.582	☐		
Thorium-232	nr	1.96	0.2006	pCi/g	0.2775	N	910.5	3	1.802	IDENTIFIED	7.993	☐		

Tin-126	int nr	0.3885	0.04805	pCi/g	0.1744	N	0	8	0	NOT_IDENTI	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860007	04-MAR-10 12:00	24-MAR-10 16:27	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.851	0.2352	pCi/g	0.3028	N	910.8	3	1.702	IDENTIFIED	11.01	☐	
Annihilation Rad.	HE	0.1229	0.04146	pCi/g	0.0584	N	510.3	1	1.356	IDENTIFIED	33.57	☐	
Bismuth-211	int	4.042	0.2985	pCi/g	0.3679	Y	351.4	2	1.228	IDENTIFIED	6.235	☐ ui	
Bismuth-212	HE	2.491	0.6333	pCi/g	1.563	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.406	0.106	pCi/g	0.1447	0.200	608.8	3	1.56	IDENTIFIED	6.246	☐	
Cadmium-109	int	4.826	0.462	pCi/g	1.027	Y	86.88	3	1.323	IDENTIFIED	8.78	☐ ui	
Cadmium-115	HE	21.34	33.84	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cerium-143		13840	2131	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.5718	0.1563	pCi/g	0.2743	N	269.6	1	1.231	IDENTIFIED	26.81	☐	
Gross Gamma		10.74	1.451	pCi/g	4.519	N		0				☐	
Iodine-135		2.73E+21	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212 ✓		1.883	0.1194	pCi/g	0.104	0.100	238.3	2	1.262	IDENTIFIED	3.302	☐	
Lead-214 ✓		1.467	0.1156	pCi/g	0.1351	0.100	351.4	2	1.228	IDENTIFIED	6.235	☐	
Neptunium-237	int nr	1.397	0.1983	pCi/g	0.2959	N	86.88	3	1.323	IDENTIFIED	8.78	☐	
Niobium-95m		1.082	0.1142	pCi/g	0.3633	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40 ✓		34.04	1.456	pCi/g	0.6049	1.00	1460	1	1.982	IDENTIFIED	2.936	☐	
Radium-224	int	5.411	0.7124	pCi/g	1.115	Y	241.2	1	1.859	IDENTIFIED	12.22	☐ ui	
Radium-226 ✓		1.406	0.106	pCi/g	0.1447	Y	608.8	3	1.56	IDENTIFIED	6.246	☐	
Radium-228 ✓		1.851	0.2352	pCi/g	0.3028	0.500	910.8	3	1.702	IDENTIFIED	11.01	☐	
Sodium-24		2.35E+08	1.05E+08	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Strontium-85	la	0.1105	0.02791	pCi/g	0.09269	Y	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓		0.5723	0.04943	pCi/g	0.0694	0.080	582.9	1	1.626	IDENTIFIED	7.818	☐	
Thorium-228	nr	1.883	0.1194	pCi/g	0.104	N	238.3	2	1.262	IDENTIFIED	3.302	☐	
Thorium-230	nr	1.406	0.0993	pCi/g	0.1447	N	608.8	3	1.56	IDENTIFIED	6.246	☐	
Thorium-232	nr	1.851	0.2352	pCi/g	0.3028	N	910.8	3	1.702	IDENTIFIED	11.01	☐	
Thorium-234 ✓		1.606	0.5638	pCi/g	1.225	2.00	63.1	2	1.33	IDENTIFIED	33.92	☐	
Tin-126	int nr	0.4682	0.04481	pCi/g	0.09946	N	86.88	3	1.323	IDENTIFIED	8.78	☐	
Total Uranium		4.8301	1.68E-06	ug/g	1.8262	N		0				☐	
Uranium-238	HE	1.606	0.5638	pCi/g	1.225	N	63.1	2	1.33	IDENTIFIED	33.92	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860008	04-MAR-10 12:00	24-MAR-10 16:28	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.839	0.2138	pCi/g	0.2279	N	911.8	3	2.139	IDENTIFIED	9.826	☐	
Annihilation Rad.		0.1607	0.0345	pCi/g	0.04849	N	511.1	1	1.823	IDENTIFIED	21.04	☐	
Bismuth-211	int	3.837	0.2991	pCi/g	0.3394	Y	352	2	1.295	IDENTIFIED	6.223	☐ ui	
Bismuth-212	la nr	2.497	0.573	pCi/g	1.274	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.253	0.1004	pCi/g	0.1119	0.200	609.7	3	1.494	IDENTIFIED	6.328	☐	
Cadmium-109	int	2.881	0.5392	pCi/g	1.243	Y	87.04	3	1.09	IDENTIFIED	17.85	☐ ui	
Cadmium-115	HE	23.34	26.35	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	

Cerium-143	7307	1349	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		
Cesium-134 la	0.1338	0.03914	pCi/g	0.1022	0.100	0	5	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	10.4	1.353	pCi/g	3.147	N		0				☐		
Lead-212 ✔	1.839	0.1159	pCi/g	0.1016	0.100	238.7	2	1.148	IDENTIFIED	3.269	☐		
Lead-214 ✔	1.393	0.1151	pCi/g	0.1234	0.100	352	2	1.295	IDENTIFIED	6.223	☐		
Neptunium-237 HE	0.8341	0.1789	pCi/g	0.4888	N	87.04	3	1.09	IDENTIFIED	17.85	☐		
Potassium-40 ✔	37.51	2.057	pCi/g	0.5285	1.00	1462	1	2.353	IDENTIFIED	2.722	☐		
Radium-224 int	3.197	0.6352	pCi/g	1.089	Y	241.5	1	1.647	IDENTIFIED	19.26	☐	ui	
Radium-226 ✔	1.253	0.1004	pCi/g	0.1119	Y	609.7	3	1.494	IDENTIFIED	6.328	☐		
Radium-228 ✔	1.839	0.2138	pCi/g	0.2279	0.500	911.8	3	2.139	IDENTIFIED	9.826	☐		
Strontium-85 la	0.0929	0.02327	pCi/g	0.07764	Y	0	5	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔	0.552	0.05048	pCi/g	0.05923	0.080	583.7	1	1.375	IDENTIFIED	7.959	☐		
Thorium-228 nr	1.839	0.1159	pCi/g	0.1016	N	238.7	2	1.148	IDENTIFIED	3.269	☐		
Thorium-230 nr	1.253	0.09484	pCi/g	0.1119	N	609.7	3	1.494	IDENTIFIED	6.328	☐		
Thorium-232 nr	1.839	0.2138	pCi/g	0.2279	N	911.8	3	2.139	IDENTIFIED	9.826	☐		
Tin-126 int nr	0.2795	0.05231	pCi/g	0.1561	N	87.04	3	1.09	IDENTIFIED	17.85	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860009	04-MAR-10 12:00	24-MAR-10 16:28	20.2	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228 nr	1.824	0.205	pCi/g	0.2429	N	911.2	3	1.378	IDENTIFIED	9.227	☐		
Annihilation Rad.	0.1539	0.03762	pCi/g	0.04647	N	511.1	1	1.847	IDENTIFIED	24.05	☐		
Bismuth-211 int	4.1	0.293	pCi/g	0.3092	Y	351.9	2	1.073	IDENTIFIED	5.589	☐	ui	
Bismuth-212 la nr	2.37	0.4223	pCi/g	1.289	N	0	6	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔	1.188	0.1032	pCi/g	0.1096	0.200	609.3	3	1.578	IDENTIFIED	6.964	☐		
Cadmium-109 int	3.444	0.5209	pCi/g	1.185	Y	87.24	3	1.139	IDENTIFIED	14.39	☐	ui	
Cerium-143	7884	1423	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Gross Gamma	10.01	1.343	pCi/g	2.889	N		0				☐		
Iodine-135	5.18E+20	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Lead-212 ✔	1.615	0.1079	pCi/g	0.112	0.100	238.5	2	1.116	IDENTIFIED	4.604	☐		
Lead-214 ✔	1.488	0.114	pCi/g	0.1125	0.100	351.9	2	1.073	IDENTIFIED	5.589	☐		
Neptunium-237 int nr	0.9969	0.1835	pCi/g	0.3484	N	87.24	3	1.139	IDENTIFIED	14.39	☐		
Potassium-40 ✔	37.08	1.96	pCi/g	0.5342	1.00	1461	1	2.152	IDENTIFIED	2.716	☐		
Radium-224 int	2.52	0.5512	pCi/g	1.49	Y	241.5	1	2.313	IDENTIFIED	21.45	☐	ui	
Radium-226 ✔	1.188	0.1032	pCi/g	0.1096	Y	609.3	3	1.578	IDENTIFIED	6.964	☐		
Radium-228 ✔	1.824	0.205	pCi/g	0.2429	0.500	911.2	3	1.378	IDENTIFIED	9.227	☐		
Sodium-24 HE	9.62E+07	1.07E+08	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Strontium-85 la	0.1023	0.02298	pCi/g	0.08026	Y	0	6	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Technetium-99m	5.12E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Thallium-208 ✔	0.5606	0.04946	pCi/g	0.05463	0.080	583.3	1	1.432	IDENTIFIED	7.431	☐		
Thorium-228 nr	1.615	0.1079	pCi/g	0.112	N	238.5	2	1.116	IDENTIFIED	4.604	☐		
Thorium-230 nr	1.188	0.0983	pCi/g	0.1096	N	609.3	3	1.578	IDENTIFIED	6.964	☐		
Thorium-232 nr	1.824	0.205	pCi/g	0.2429	N	911.2	3	1.378	IDENTIFIED	9.227	☐		
Tin-126 int nr	0.3341	0.05053	pCi/g	0.1154	N	87.24	3	1.139	IDENTIFIED	14.39	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863001	04-MAR-10 12:00	24-MAR-10 18:28	20.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.295	0.2334	pCi/g	0.2823	N	911.2	3	1.541	IDENTIFIED	8.168	☐	
Annihilation Rad. HE	0.09426	0.0428	pCi/g	0.06554	N	510.9	1	2.12	IDENTIFIED	45.2	☐	
Bismuth-211 int	4.466	0.34	pCi/g	0.4462	Y	352	2	1.664	IDENTIFIED	5.768	☐ ui	
Bismuth-212 HE	2.245	0.4752	pCi/g	1.542	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	1.511	0.1301	pCi/g	0.151	0.200	609.3	3	1.345	IDENTIFIED	7.027	☐	
Cadmium-109 int	2.884	0.7692	pCi/g	1.933	Y	87.6	3	1.29	IDENTIFIED	25.94	☐ ui	
Cerium-143	13780	2286	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma	11.54	1.75	pCi/g	4.932	N		0				☐	
Iodine-135	2.74E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	2.086	0.1469	pCi/g	0.1232	0.100	238.8	2	1.488	IDENTIFIED	3.73	☐	
Lead-214	1.621	0.1313	pCi/g	0.1639	0.100	352	2	1.664	IDENTIFIED	5.768	☐	
Neptunium-237 HE	0.8348	0.2392	pCi/g	0.6099	N	87.6	3	1.29	IDENTIFIED	25.94	☐	
Niobium-95m la nr	0.6273	0.1117	pCi/g	0.3616	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	38.47	2.205	pCi/g	0.6976	1.00	1461	1	2.099	IDENTIFIED	2.951	☐	
Promethium-149 HE	217.2	311.1	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Radium-224 int	6.639	0.9857	pCi/g	1.32	Y	241.7	1	2.04	IDENTIFIED	13.78	☐ ui	
Radium-226	1.511	0.1301	pCi/g	0.151	Y	609.3	3	1.345	IDENTIFIED	7.027	☐	
Radium-228	2.295	0.2334	pCi/g	0.2823	0.500	911.2	3	1.541	IDENTIFIED	8.168	☐	
Strontium-85 la	0.153	0.03144	pCi/g	0.1055	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	0.6224	0.05917	pCi/g	0.08054	0.080	583.2	1	1.616	IDENTIFIED	8.335	☐	
Thorium-228 nr	2.086	0.1469	pCi/g	0.1232	N	238.8	2	1.488	IDENTIFIED	3.73	☐	
Thorium-230 nr	1.511	0.1239	pCi/g	0.151	N	609.3	3	1.345	IDENTIFIED	7.027	☐	
Thorium-232 nr	2.295	0.2334	pCi/g	0.2823	N	911.2	3	1.541	IDENTIFIED	8.168	☐	
Tin-126 nr HE	0.2798	0.07461	pCi/g	0.1889	N	87.6	3	1.29	IDENTIFIED	25.94	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863002	04-MAR-10 12:00	24-MAR-10 18:28	20.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.113	0.2065	pCi/g	0.2426	N	911.2	3	2.069	IDENTIFIED	7.046	☐	
Annihilation Rad.	0.169	0.03745	pCi/g	0.04468	N	511.1	1	2.131	IDENTIFIED	21.58	☐	
Bismuth-211 int	3.909	0.3008	pCi/g	0.3038	Y	352	2	1.434	IDENTIFIED	5.043	☐ ui	
Bismuth-212 la nr	1.9	0.383	pCi/g	1.083	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214	1.306	0.1045	pCi/g	0.1051	0.200	609.4	3	1.681	IDENTIFIED	5.469	☐	
Cadmium-109 int	2.152	0.5302	pCi/g	1.269	Y	87.14	3	0.9491	IDENTIFIED	24.18	☐ ui	
Cadmium-115 HE	24.47	25.62	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cerium-143	10480	1752	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1472	0.03475	pCi/g	0.09059	0.100	0	9	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135 HE	0.3588	0.09591	pCi/g	0.2922	N	0	9	0	NOT_IDENTI	0	☐	
Gross Gamma	11.2	1.329	pCi/g	2.337	N		0				☐	
Iodine-133 HE	23700	1.68E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212	2.103	0.1502	pCi/g	0.0976	0.100	238.7	2	1.25	IDENTIFIED	2.668	☐	
Lead-214	1.419	0.116	pCi/g	0.1125	0.100	352	2	1.434	IDENTIFIED	5.043	☐	

Neptunium-237	HE	0.623	0.1668	pCi/g	0.3903	N	87.14	3	0.9491	IDENTIFIED	24.18	☐	
Potassium-40		39.51	1.987	pCi/g	0.4874	1.00	1461	1	2.669	IDENTIFIED	2.076	☐	
Promethium-149	HE	201.7	237.1	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Radium-224	int	5.025	0.7407	pCi/g	1.045	Y	241.6	1	1.886	IDENTIFIED	13.34	☐	ui
Radium-226		1.306	0.1045	pCi/g	0.1051	Y	609.4	3	1.681	IDENTIFIED	5.469	☐	
Radium-228		2.113	0.2065	pCi/g	0.2426	0.500	911.2	3	2.069	IDENTIFIED	7.046	☐	
Sodium-24	HE	1.10E+07	1.07E+08	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Strontium-85	la	0.1556	0.02288	pCi/g	0.08092	Y	0	9	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208		0.687	0.05449	pCi/g	0.05431	0.080	583.4	1	1.605	IDENTIFIED	5.793	☐	
Thorium-228	nr	2.103	0.1502	pCi/g	0.0976	N	238.7	2	1.25	IDENTIFIED	2.668	☐	
Thorium-230	nr	1.306	0.09861	pCi/g	0.1051	N	609.4	3	1.681	IDENTIFIED	5.469	☐	
Thorium-232	nr	2.113	0.2065	pCi/g	0.2426	N	911.2	3	2.069	IDENTIFIED	7.046	☐	
Thorium-234		3.361	0.9648	pCi/g	2.018	2.00	63.36	2	1.167	IDENTIFIED	27.29	☐	
Tin-126	HE	0.2088	0.05143	pCi/g	0.138	N	87.14	3	0.9491	IDENTIFIED	24.18	☐	
Total Uranium		10.045	2.87E-06	ug/g	3.0045	N		0				☐	
Uranium-238	HE	3.361	0.9648	pCi/g	2.018	N	63.36	2	1.167	IDENTIFIED	27.29	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863003	04-MAR-10 12:00	24-MAR-10 18:29	20.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	2.279	0.249	pCi/g	0.2666	N	910.4	3	2.049	IDENTIFIED	9.166	☐	
Annihilation Rad.		0.1521	0.04186	pCi/g	0.05416	N	510.2	1	1.559	IDENTIFIED	27.38	☐	
Bismuth-211	int	4.45	0.2897	pCi/g	0.4075	Y	351.4	2	1.394	IDENTIFIED	5.636	☐	ui
Bismuth-212	HE	2.434	0.5602	pCi/g	1.454	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214		1.226	0.1147	pCi/g	0.1442	0.200	608.5	3	1.533	IDENTIFIED	8.547	☐	
Cadmium-109	int	3.195	0.6337	pCi/g	1.648	Y	87.07	3	1.23	IDENTIFIED	19.23	☐	ui
Cerium-143		18850	2639	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.3625	0.1148	pCi/g	0.3585	N	0	5	0	NOT_IDENTI	0	☐	
Gross Gamma		10.62	1.587	pCi/g	3.815	N		0				☐	
Lead-212		2.101	0.1019	pCi/g	0.1141	0.100	238.3	2	1.185	IDENTIFIED	3.219	☐	
Lead-214		1.615	0.1142	pCi/g	0.1482	0.100	351.4	2	1.394	IDENTIFIED	5.636	☐	
Neptunium-237	int nr	0.9248	0.2075	pCi/g	0.5089	N	87.07	3	1.23	IDENTIFIED	19.23	☐	
Niobium-95m	la nr	0.9859	0.1132	pCi/g	0.3754	N	0	5	0	NOT_IDENTI	0	☐	
Potassium-40		34.11	1.641	pCi/g	0.4822	1.00	1459	1	2.423	IDENTIFIED	3.026	☐	
Radium-224	int	4.879	0.7766	pCi/g	1.223	Y	241.2	1	1.774	IDENTIFIED	15.66	☐	ui
Radium-226		1.226	0.1147	pCi/g	0.1442	Y	608.5	3	1.533	IDENTIFIED	8.547	☐	
Radium-228		2.279	0.249	pCi/g	0.2666	0.500	910.4	3	2.049	IDENTIFIED	9.166	☐	
Sodium-24	HE	1.03E+07	1.39E+08	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Thallium-208		0.6091	0.04992	pCi/g	0.07139	0.080	582.5	1	1.854	IDENTIFIED	7.528	☐	
Thorium-228	nr	2.101	0.1019	pCi/g	0.1141	N	238.3	2	1.185	IDENTIFIED	3.219	☐	
Thorium-230	nr	1.226	0.11	pCi/g	0.1442	N	608.5	3	1.533	IDENTIFIED	8.547	☐	
Thorium-232	nr	2.279	0.249	pCi/g	0.2666	N	910.4	3	2.049	IDENTIFIED	9.166	☐	
Thorium-234		4.332	1.024	pCi/g	3.141	2.00	63.12	2	1.288	IDENTIFIED	21.77	☐	
Tin-126	int nr	0.3099	0.06147	pCi/g	0.1609	N	87.07	3	1.23	IDENTIFIED	19.23	☐	
Total Uranium		13.001	3.05E-06	ug/g	4.6757	N		0				☐	
Uranium-238	HE	4.332	1.024	pCi/g	3.141	N	63.12	2	1.288	IDENTIFIED	21.77	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863004	04-MAR-10 12:00	24-MAR-10 20:31	20.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.23	0.2094	pCi/g	0.2551	N	911.8	3	1.771	IDENTIFIED	7.513	☐	
Annihilation Rad.	0.1789	0.03649	pCi/g	0.05063	N	511.2	1	1.886	IDENTIFIED	20.2	☐	
Bismuth-211 int	4.243	0.2798	pCi/g	0.3539	Y	352	2	1.26	IDENTIFIED	5.667	☐ ui	
Bismuth-212 HE	2.31	0.5131	pCi/g	1.349	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔	1.375	0.1023	pCi/g	0.1131	0.200	609.8	3	1.531	IDENTIFIED	6.452	☐	
Cadmium-109 int	4.326	0.6342	pCi/g	1.438	Y	87.22	3	1.161	IDENTIFIED	13.38	☐ ui	
Cadmium-115 HE	17.78	29.88	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cerium-143	6255	1239	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma	11.01	1.531	pCi/g	3.912	N		0				☐	
Iodine-135	2.60E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212 ✔	1.979	0.1013	pCi/g	0.09264	0.100	238.7	2	1.087	IDENTIFIED	3.135	☐	
Lead-214 ✔	1.54	0.1101	pCi/g	0.1287	0.100	352	2	1.26	IDENTIFIED	5.667	☐	
Mercury-203 int	0.08901	0.0408	pCi/g	0.06855	0.100	279.1	1	0.7118	IDENTIFIED	45.71	☐ ui	
Neptunium-237 int nr	1.252	0.2256	pCi/g	0.4558	N	87.22	3	1.161	IDENTIFIED	13.38	☐	
Potassium-40 ✔	34.49	1.583	pCi/g	0.5163	1.00	1462	1	2.074	IDENTIFIED	2.907	☐	
Radium-224 int	5.46	0.8092	pCi/g	0.9931	Y	241.7	1	2.05	IDENTIFIED	14.44	☐ ui	
Radium-226 ✔	1.375	0.1023	pCi/g	0.1131	Y	609.8	3	1.531	IDENTIFIED	6.452	☐	
Radium-228 ✔	2.23	0.2094	pCi/g	0.2551	0.500	911.8	3	1.771	IDENTIFIED	7.513	☐	
Strontium-85 la	0.1127	0.02507	pCi/g	0.08577	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	3.34E+22	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208 ✔	0.6579	0.04856	pCi/g	0.05717	0.080	583.6	1	1.335	IDENTIFIED	6.682	☐	
Thorium-228 nr	1.979	0.1013	pCi/g	0.09264	N	238.7	2	1.087	IDENTIFIED	3.135	☐	
Thorium-230 nr	1.375	0.09565	pCi/g	0.1131	N	609.8	3	1.531	IDENTIFIED	6.452	☐	
Thorium-232 nr	2.23	0.2094	pCi/g	0.2551	N	911.8	3	1.771	IDENTIFIED	7.513	☐	
Tin-126 int nr	0.4195	0.0615	pCi/g	0.1405	N	87.22	3	1.161	IDENTIFIED	13.38	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248865001	03-MAR-10 12:00	24-MAR-10 20:31	21.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.33	0.2122	pCi/g	0.2403	N	911.5	3	1.892	IDENTIFIED	6.858	☐	
Annihilation Rad.	0.2517	0.04297	pCi/g	0.04807	N	511	1	2.055	IDENTIFIED	16.48	☐	
Bismuth-211 int	4.974	0.3277	pCi/g	0.3796	Y	352.1	2	1.28	IDENTIFIED	4.828	☐ ui	
Bismuth-212 HE	2.531	0.6066	pCi/g	1.427	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔	1.445	0.1124	pCi/g	0.14	0.200	609.6	3	1.273	IDENTIFIED	5.794	☐	
Cadmium-109 int	4.636	0.498	pCi/g	1.163	Y	87.28	3	1.063	IDENTIFIED	9.675	☐ ui	
Cadmium-115 HE	43.87	40.62	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cerium-143	13920	2558	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1857	0.03922	pCi/g	0.1211	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	12.04	1.565	pCi/g	4.152	N		0				☐	
Iodine-135	6.99E+22	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212 ✔	2.145	0.1214	pCi/g	0.1	0.100	238.8	2	1.049	IDENTIFIED	2.984	☐	

Lead-214 ✔		1.805	0.1289	pCi/g	0.1366	0.100	352.1	2	1.28	IDENTIFIED	4.828	☐		
Neptunium-237	int nr	1.34	0.2011	pCi/g	0.3388	N	87.28	3	1.063	IDENTIFIED	9.675	☐		
Potassium-40 ✔		37.59	1.901	pCi/g	0.5494	1.00	1461	1	2.019	IDENTIFIED	2.673	☐		
Radium-224	int	4.759	0.5883	pCi/g	1.072	Y	241.8	1	1.512	IDENTIFIED	11.62	☐	ui	
Radium-226 ✔		1.445	0.1124	pCi/g	0.14	Y	609.6	3	1.273	IDENTIFIED	5.794	☐		
Radium-228 ✔		2.33	0.2122	pCi/g	0.2403	0.500	911.5	3	1.892	IDENTIFIED	6.858	☐		
Sodium-24	HE	2.98E+08	4.15E+08	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Strontium-85	la	0.0982	0.02275	pCi/g	0.08554	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔		0.7326	0.06078	pCi/g	0.06242	0.080	583.3	1	1.502	IDENTIFIED	6.783	☐		
Thorium-228	nr	2.145	0.1214	pCi/g	0.1	N	238.8	2	1.049	IDENTIFIED	2.984	☐		
Thorium-230	nr	1.445	0.1058	pCi/g	0.14	N	609.6	3	1.273	IDENTIFIED	5.794	☐		
Thorium-232	nr	2.33	0.2122	pCi/g	0.2403	N	911.5	3	1.892	IDENTIFIED	6.858	☐		
Thorium-234 ✔		3.259	0.9134	pCi/g	1.741	2.00	62.62	2	1.194	IDENTIFIED	26.58	☐		
Tin-126	int nr	0.4489	0.04822	pCi/g	0.1129	N	87.28	3	1.063	IDENTIFIED	9.675	☐		
Total Uranium		9.682	2.72E-06	ug/g	2.5922	N		0				☐		
Uranium-238	HE	3.259	0.9134	pCi/g	1.741	N	62.62	2	1.194	IDENTIFIED	26.58	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248866001	04-MAR-10 12:00	24-MAR-10 20:32	20.4	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.963	0.2172	pCi/g	0.2879	N	911.3	3	1.686	IDENTIFIED	9.257	☐		
Annihilation Rad.	HE	0.1031	0.04332	pCi/g	0.06023	N	510.6	1	1.637	IDENTIFIED	41.78	☐		
Bismuth-211	int	4.116	0.3332	pCi/g	0.4596	Y	352	2	1.459	IDENTIFIED	6.393	☐	ui	
Bismuth-212	HE	2.104	0.5701	pCi/g	1.439	N	0	6	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔		1.397	0.1121	pCi/g	0.1472	0.200	609.3	3	1.5	IDENTIFIED	6.291	☐		
Cadmium-109	int	2.358	0.7274	pCi/g	2.198	Y	87.63	3	1.088	IDENTIFIED	30.22	☐	ui	
Cerium-143		12370	2167	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1276	0.03245	pCi/g	0.1081	0.100	0	6	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cobalt-58	HE	0.08646	0.03537	pCi/g	0.07687	N	809.9	1	2.813	IDENTIFIED	40.66	☐		
Gross Gamma		10.63	1.7	pCi/g	3.871	N		0				☐		
Lead-212 ✔		2.046	0.142	pCi/g	0.1263	0.100	238.8	2	1.34	IDENTIFIED	3.533	☐		
Lead-214 ✔		1.494	0.1278	pCi/g	0.1599	0.100	352	2	1.459	IDENTIFIED	6.393	☐		
Neptunium-237	HE	0.6824	0.2223	pCi/g	0.6171	N	87.63	3	1.088	IDENTIFIED	30.22	☐		
Niobium-95	HE	0.1123	0.03211	pCi/g	0.1078	N	0	6	0	NOT_IDENTI	0	☐		
Niobium-95m	HE	0.3981	0.1048	pCi/g	0.3382	N	0	6	0	NOT_IDENTI	0	☐		
Potassium-40 ✔		35.88	2.056	pCi/g	0.4818	1.00	1461	1	2.163	IDENTIFIED	2.948	☐		
Radium-224	int	5.583	0.942	pCi/g	1.353	Y	241.7	1	2.04	IDENTIFIED	15.95	☐	ui	
Radium-226 ✔		1.397	0.1121	pCi/g	0.1472	Y	609.3	3	1.5	IDENTIFIED	6.291	☐		
Radium-228 ✔		1.963	0.2172	pCi/g	0.2879	0.500	911.3	3	1.686	IDENTIFIED	9.257	☐		
Strontium-85	la	0.1346	0.0313	pCi/g	0.1033	Y	0	6	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔		0.5766	0.05722	pCi/g	0.06778	0.080	583.5	1	1.522	IDENTIFIED	8.807	☐		
Thorium-228	nr	2.046	0.142	pCi/g	0.1263	N	238.8	2	1.34	IDENTIFIED	3.533	☐		
Thorium-230	nr	1.396	0.1058	pCi/g	0.1472	N	609.3	3	1.5	IDENTIFIED	6.291	☐		
Thorium-232	nr	1.963	0.2172	pCi/g	0.2879	N	911.3	3	1.686	IDENTIFIED	9.257	☐		
Tin-126	HE	0.2287	0.07054	pCi/g	0.2142	N	87.63	3	1.088	IDENTIFIED	30.22	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248866002	04-MAR-10 12:00	24-MAR-10 20:32	20.4	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.304	0.2798	pCi/g	0.3232	N	911.2	3	1.767	IDENTIFIED	10.65	☐	
Annihilation Rad. HE	0.1405	0.04642	pCi/g	0.06209	N	511	1	1.263	IDENTIFIED	32.74	☐	
Bismuth-211 int	4.864	0.3573	pCi/g	0.397	Y	352	2	1.222	IDENTIFIED	5.676	☐ ui	
Bismuth-212 HE	1.957	0.6148	pCi/g	1.699	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓	1.652	0.1359	pCi/g	0.158	0.200	609.3	3	1.451	IDENTIFIED	6.446	☐	
Cadmium-109 int	3.853	0.5148	pCi/g	1.55	Y	87.31	3	1.019	IDENTIFIED	12.44	☐ ui	
Cerium-143	7260	1441	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1403	0.05076	pCi/g	0.1296	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	11.4	1.597	pCi/g	3.988	N		0				☐	
Lead-210 HE	1.308	0.4664	pCi/g	0.9292	N	46.62	1	0.882	IDENTIFIED	35.25	☐	
Lead-212 ✓	2.053	0.1268	pCi/g	0.1101	0.100	238.7	2	1.063	IDENTIFIED	3.534	☐	
Lead-214 ✓	1.765	0.1385	pCi/g	0.1462	0.100	352	2	1.222	IDENTIFIED	5.676	☐	
Neptunium-237 int nr	1.115	0.1894	pCi/g	0.4356	N	87.31	3	1.019	IDENTIFIED	12.44	☐	
Potassium-40 ✓	37.4	2.091	pCi/g	0.8153	1.00	1461	1	2.013	IDENTIFIED	3.398	☐	
Promethium-149 HE	410.7	267.3	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Radium-224 int	5.782	0.8164	pCi/g	1.181	Y	241.7	1	1.685	IDENTIFIED	13.37	☐ ui	
Radium-226 ✓	1.652	0.1359	pCi/g	0.158	Y	609.3	3	1.451	IDENTIFIED	6.446	☐	
Radium-228 ✓	2.304	0.2798	pCi/g	0.3232	0.500	911.2	3	1.767	IDENTIFIED	10.65	☐	
Thallium-208 ✓	0.6501	0.06073	pCi/g	0.08923	0.080	583.3	1	1.376	IDENTIFIED	8.06	☐	
Thorium-228 nr	2.053	0.1268	pCi/g	0.1101	N	238.7	2	1.063	IDENTIFIED	3.534	☐	
Thorium-230 nr	1.652	0.1287	pCi/g	0.158	N	609.3	3	1.451	IDENTIFIED	6.446	☐	
Thorium-232 nr	2.304	0.2798	pCi/g	0.3232	N	911.2	3	1.767	IDENTIFIED	10.65	☐	
Thorium-234	2.082	0.6011	pCi/g	1.25	2.00	63.29	2	1.032	IDENTIFIED	27.26	☐	
Tin-126 int nr	0.3737	0.04993	pCi/g	0.1501	N	87.31	3	1.019	IDENTIFIED	12.44	☐	
Total Uranium	6.2503	1.79E-06	ug/g	1.8624	N		0				☐	
Uranium-238 HE	2.082	0.6011	pCi/g	1.25	N	63.29	2	1.032	IDENTIFIED	27.26	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867001	05-MAR-10 12:00	24-MAR-10 20:33	19.4	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	1.693	0.2131	pCi/g	0.2795	N	911.3	3	1.621	IDENTIFIED	10.02	☐	
Annihilation Rad. HE	0.12	0.02722	pCi/g	0.1023	N	0	10	0	NOT_IDENTI	0	☐	
Barium-137m HE	0.1196	0.02324	pCi/g	0.08773	N	0	10	0	NOT_IDENTI	0	☐	
Bismuth-211 int	3.834	0.3032	pCi/g	0.3984	Y	351.8	2	1.235	IDENTIFIED	6.295	☐ ui	
Bismuth-212 nr	1.882	0.4297	pCi/g	0.8862	N	727.4	1	1.236	IDENTIFIED	21.88	☐	
Bismuth-214 ✓	1.167	0.1025	pCi/g	0.1397	0.200	609.3	3	1.276	IDENTIFIED	7.183	☐	
Cadmium-109 int	2.483	0.5959	pCi/g	1.883	Y	86.89	3	1.116	IDENTIFIED	23.54	☐ ui	
Cadmium-115 HE	5.067	24.22	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cerium-143	9059	1384	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1411	0.04788	pCi/g	0.1011	0.100	0	10	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135 HE	0.3862	0.1115	pCi/g	0.3567	N	0	10	0	NOT_IDENTI	0	☐	
Cesium-137 la	0.1263	0.02456	pCi/g	0.09268	0.100	0	10	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	10.33	1.575	pCi/g	4.849	N		0				☐	

Iodine-133	HE	79750	1.04E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.839	0.1106	pCi/g	0.1166	0.100	238.5	2	1.068	IDENTIFIED	3.363	☐	
Lead-214 ✔		1.391	0.1165	pCi/g	0.1459	0.100	351.8	2	1.235	IDENTIFIED	6.295	☐	
Neptunium-237	HE	0.7197	0.1885	pCi/g	0.5047	N	86.89	3	1.116	IDENTIFIED	23.54	☐	
Niobium-95m	la nr	0.6736	0.09957	pCi/g	0.3253	N	0	10	0	NOT_IDENTI	0	☐	
Potassium-40 ✔		35.23	2.162	pCi/g	0.5852	1.00	1461	1	1.745	IDENTIFIED	2.847	☐	
Promethium-149	HE	209.8	200.8	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Radium-224	int	4.777	0.778	pCi/g	1.248	Y	241.4	1	1.769	IDENTIFIED	15.67	☐	ui
Radium-226 ✔		1.167	0.1025	pCi/g	0.1397	Y	609.3	3	1.276	IDENTIFIED	7.183	☐	
Radium-228 ✔		1.693	0.2131	pCi/g	0.2795	0.500	911.3	3	1.621	IDENTIFIED	10.02	☐	
Thallium-208 ✔		0.5863	0.05179	pCi/g	0.06836	0.080	583	1	1.469	IDENTIFIED	7.489	☐	
Thorium-228	nr	1.839	0.1106	pCi/g	0.1166	N	238.5	2	1.068	IDENTIFIED	3.363	☐	
Thorium-230	nr	1.167	0.09777	pCi/g	0.1397	N	609.3	3	1.276	IDENTIFIED	7.183	☐	
Thorium-232	nr	1.693	0.2131	pCi/g	0.2795	N	911.3	3	1.621	IDENTIFIED	10.02	☐	
Tin-126	HE	0.2412	0.05788	pCi/g	0.1881	N	86.89	3	1.116	IDENTIFIED	23.54	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867002	05-MAR-10 12:00	24-MAR-10 20:37	19.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.652	0.1636	pCi/g	0.1826	N	911.5	3	1.896	IDENTIFIED	7.223	☐	
Annihilation Rad.		0.1421	0.03004	pCi/g	0.03846	N	511.6	1	2.19	IDENTIFIED	20.54	☐	
Bismuth-211	int	3.234	0.2646	pCi/g	0.2742	Y	352	2	1.328	IDENTIFIED	5.756	☐	ui
Bismuth-212	HE	1.511	0.3782	pCi/g	0.943	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.118	0.08867	pCi/g	0.09313	0.200	609.4	3	1.568	IDENTIFIED	5.371	☐	
Cadmium-109	int	2.836	0.3944	pCi/g	1.036	Y	87.18	3	1.122	IDENTIFIED	13.09	☐	ui
Cadmium-115	HE	6.266	16.61	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cerium-143		5744	947.6	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.08554	0.01966	pCi/g	0.07097	0.100	0	10	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Cesium-135	HE	0.2682	0.07661	pCi/g	0.2394	N	0	10	0	NOT_IDENTI	0	☐	
Gross Gamma		8.782	1.158	pCi/g	2.306	N		0				☐	
Iodine-135		5.73E+19	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.625	0.1181	pCi/g	0.07933	0.100	238.7	2	1.262	IDENTIFIED	2.989	☐	
Lead-214 ✔		1.174	0.1013	pCi/g	0.1005	0.100	352	2	1.328	IDENTIFIED	5.756	☐	
Neptunium-237	int nr	0.8219	0.1431	pCi/g	0.3497	N	87.18	3	1.122	IDENTIFIED	13.09	☐	
Niobium-95m	HE	0.2345	0.06596	pCi/g	0.2072	N	0	10	0	NOT_IDENTI	0	☐	
Potassium-40 ✔		29.16	1.485	pCi/g	0.456	1.00	1461	1	2.847	IDENTIFIED	2.228	☐	
Promethium-149	HE	69.31	146.6	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Radium-224	int	4.236	0.6252	pCi/g	0.8492	Y	241.6	1	1.886	IDENTIFIED	13.36	☐	ui
Radium-226 ✔		1.118	0.08867	pCi/g	0.09313	Y	609.4	3	1.568	IDENTIFIED	5.371	☐	
Radium-228 ✔		1.652	0.1636	pCi/g	0.1826	0.500	911.5	3	1.896	IDENTIFIED	7.223	☐	
Sodium-24	HE	2.66E+07	3.27E+07	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Strontium-85	la	0.144	0.01975	pCi/g	0.07095	Y	0	10	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208 ✔		0.487	0.03971	pCi/g	0.04867	0.080	583.4	1	1.765	IDENTIFIED	6.094	☐	
Thorium-228	nr	1.625	0.1181	pCi/g	0.07933	N	238.7	2	1.262	IDENTIFIED	2.989	☐	
Thorium-230	nr	1.118	0.08362	pCi/g	0.09313	N	609.4	3	1.568	IDENTIFIED	5.371	☐	
Thorium-232	nr	1.652	0.1636	pCi/g	0.1826	N	911.5	3	1.896	IDENTIFIED	7.223	☐	

Thorium-234 ✔		1.881	0.9198	pCi/g	1.667	2.00	63.04	2	1.13	IDENTIFIED	48.08	☐	
Tin-126	int nr	0.2755	0.03831	pCi/g	0.1125	N	87.18	3	1.122	IDENTIFIED	13.09	☐	
Total Uranium		5.674	2.74E-06	ug/g	2.4817	N		0				☐	
Uranium-238	HE	1.881	0.9198	pCi/g	1.667	N	63.04	2	1.13	IDENTIFIED	48.08	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867003	05-MAR-10 12:00	24-MAR-10 20:51	19.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.575	0.2171	pCi/g	0.3616	N	911	3	1.703	IDENTIFIED	12.24	☐	
Annihilation Rad.		0.1776	0.03803	pCi/g	0.06258	N	510.2	1	1.938	IDENTIFIED	21.17	☐	
Bismuth-211	int	4.376	0.3127	pCi/g	0.4462	Y	351.6	2	1.404	IDENTIFIED	5.953	☐ ui	
Bismuth-212	HE	1.72	0.7059	pCi/g	1.543	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.334	0.1238	pCi/g	0.1637	0.200	609	3	1.417	IDENTIFIED	8.263	☐	
Cadmium-109	int	2.228	0.6204	pCi/g	1.323	Y	87.14	3	1.33	IDENTIFIED	27.58	☐ ui	
Cerium-143		11830	1907	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma		10.54	1.528	pCi/g	4.223	N		0				☐	
Iodine-133	HE	80310	1.20E+05	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-210	nr	2.127	0.5158	pCi/g	0.9645	N	45.94	1	1.211	IDENTIFIED	23.94	☐	
Lead-212 ✔		1.93	0.1255	pCi/g	0.1149	0.100	238.3	2	1.266	IDENTIFIED	3.599	☐	
Lead-214 ✔		1.588	0.1217	pCi/g	0.1574	0.100	351.6	2	1.404	IDENTIFIED	5.953	☐	
Neptunium-237	HE	0.6457	0.1921	pCi/g	0.4396	N	87.14	3	1.33	IDENTIFIED	27.58	☐	
Niobium-95	HE	0.1457	0.03373	pCi/g	0.126	N	0	6	0	NOT_IDENTI	0	☐	
Niobium-95m	la nr	1.086	0.1247	pCi/g	0.3938	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40 ✔		34.38	1.518	pCi/g	0.6877	1.00	1460	1	1.972	IDENTIFIED	3.134	☐	
Promethium-149	HE	335.9	216.6	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Radium-224	int	4.226	0.7754	pCi/g	1.231	Y	241.3	1	1.784	IDENTIFIED	17.69	☐ ui	
Radium-226 ✔		1.334	0.1238	pCi/g	0.1637	Y	609	3	1.417	IDENTIFIED	8.263	☐	
Radium-228 ✔		1.575	0.2171	pCi/g	0.3616	0.500	911	3	1.703	IDENTIFIED	12.24	☐	
Thallium-208 ✔		0.5497	0.05356	pCi/g	0.08389	0.080	582.8	1	1.312	IDENTIFIED	9.026	☐	
Thorium-228	nr	1.93	0.1255	pCi/g	0.1149	N	238.3	2	1.266	IDENTIFIED	3.599	☐	
Thorium-230	nr	1.334	0.1187	pCi/g	0.1637	N	609	3	1.417	IDENTIFIED	8.263	☐	
Thorium-232	nr	1.575	0.2171	pCi/g	0.3616	N	911	3	1.703	IDENTIFIED	12.24	☐	
Tin-126	HE	0.2164	0.06025	pCi/g	0.1283	N	87.14	3	1.33	IDENTIFIED	27.58	☐	
Total Uranium		3.9374	1.85E-06	ug/g	1.8648	N		0				☐	
Uranium-235	nvp	0.505	0.1393	pCi/g	0.4593	0.500	92.57	1	1.299	IDENTIFIED	14.7	☐ ui	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867004	05-MAR-10 12:00	24-MAR-10 22:58	19.5	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	2.029	0.1939	pCi/g	0.2151	N	911.2	3	1.785	IDENTIFIED	7.388	☐	
Annihilation Rad.		0.1353	0.03352	pCi/g	0.04351	N	511	1	2.293	IDENTIFIED	24.39	☐	
Bismuth-211	int	4.541	0.3077	pCi/g	0.3307	Y	352.1	2	1.416	IDENTIFIED	4.61	☐ ui	
Bismuth-212	HE	1.488	0.402	pCi/g	1.033	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.385	0.1061	pCi/g	0.1032	0.200	609.3	3	1.555	IDENTIFIED	5.818	☐	
Cadmium-109	int	4.474	0.6052	pCi/g	1.276	Y	87.39	3	1.575	IDENTIFIED	12.04	☐ ui	

Cerium-143		8611	1279	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.118	0.02485	pCi/g	0.08056	0.100	0	7	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-135	HE	0.3367	0.08958	pCi/g	0.2804	N	0	7	0	NOT_IDENTI	0	☐		
Gross Gamma		11.16	1.43	pCi/g	3.744	N		0				☐		
Iodine-133	HE	23680	86680	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-212		1.98	0.1308	pCi/g	0.08567	0.100	238.8	2	1.431	IDENTIFIED	2.821	☐		
Lead-214		1.648	0.1206	pCi/g	0.1174	0.100	352.1	2	1.416	IDENTIFIED	4.61	☐		
Neptunium-237	int nr	1.296	0.2219	pCi/g	0.3797	N	87.39	3	1.575	IDENTIFIED	12.04	☐		
Niobium-95m	la nr	0.5469	0.07934	pCi/g	0.2455	N	0	7	0	NOT_IDENTI	0	☐		
Potassium-40		35.67	1.924	pCi/g	0.5141	1.00	1461	1	2.08	IDENTIFIED	2.226	☐		
Radium-224	int	4.578	0.6137	pCi/g	0.9179	Y	241.7	1	1.678	IDENTIFIED	12.22	☐	ui	
Radium-226		1.385	0.1061	pCi/g	0.1032	Y	609.3	3	1.555	IDENTIFIED	5.818	☐		
Radium-228		2.029	0.1939	pCi/g	0.2151	0.500	911.2	3	1.785	IDENTIFIED	7.388	☐		
Strontium-85	la	0.1884	0.02288	pCi/g	0.07659	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208		0.5801	0.04755	pCi/g	0.05345	0.080	583.3	1	1.669	IDENTIFIED	6.803	☐		
Thorium-228	nr	1.98	0.1308	pCi/g	0.08567	N	238.8	2	1.431	IDENTIFIED	2.821	☐		
Thorium-230	nr	1.385	0.09958	pCi/g	0.1032	N	609.3	3	1.555	IDENTIFIED	5.818	☐		
Thorium-232	nr	2.029	0.1939	pCi/g	0.2151	N	911.2	3	1.785	IDENTIFIED	7.388	☐		
Tin-126	int nr	0.4344	0.05877	pCi/g	0.1249	N	87.39	3	1.575	IDENTIFIED	12.04	☐		
Total Uranium		4.7481	2.80E-06	ug/g	4.7247	N		0				☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065188		24-MAR-10 22:59	0	MB	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Cerium-143	93.1	39.91	pCi/g	0	N	0	2	0	SHORT_HLIF	0	☐	
Iodine-135	1.18E+15	0	pCi/g	0	N	0	2	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065189	05-MAR-10 12:00	24-MAR-10 23:00	19.5	DUP	LOAD	1		LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.977	0.1855	pCi/g	0.2107	N	911.1	3	1.489	IDENTIFIED	7.342	☐		
Annihilation Rad.		0.1489	0.03314	pCi/g	0.03984	N	510.8	1	1.525	IDENTIFIED	21.74	☐		
Barium-137m	HE	0.1069	0.0307	pCi/g	0.0573	N	661.7	2	1.357	IDENTIFIED	28.18	☐		
Bismuth-211	int	3.938	0.2465	pCi/g	0.2469	Y	351.9	2	1.131	IDENTIFIED	4.341	☐	ui	
Bismuth-212	la nr	2.347	0.4101	pCi/g	1.124	N	0	7	0	FAIL_ABUND	0	☐		
Bismuth-214		1.48	0.1164	pCi/g	0.1012	0.200	609.1	3	1.302	IDENTIFIED	5.174	☐		
Cadmium-109	int	4.658	0.3566	pCi/g	0.5224	Y	87.3	3	1.213	IDENTIFIED	6.062	☐	ui	
Cadmium-115	HE	7.571	17.53	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cerium-143		1929	529.2	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1096	0.02929	pCi/g	0.08081	0.100	0	7	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137		0.1129	0.03243	pCi/g	0.06053	0.100	661.7	2	1.357	IDENTIFIED	28.18	☐		
Europium-155	HE	0.1071	0.02887	pCi/g	0.09983	N	0	7	0	FAIL_ABUND	0	☐		
Gross Gamma		10.99	1.251	pCi/g	3.798	N		0				☐		
Iodine-135		4.59E+20	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-210	nr	2.719	0.2845	pCi/g	0.4671	N	46.64	1	0.6556	IDENTIFIED	9.337	☐		

Lead-212		1.91	0.1048	pCi/g	0.06247	0.100	238.5	2	0.8926	IDENTIFIED	2.271	☐
Lead-214		1.429	0.09776	pCi/g	0.08987	0.100	351.9	2	1.131	IDENTIFIED	4.341	☐
Neptunium-237	int nr	1.35	0.1752	pCi/g	0.1505	N	87.3	3	1.213	IDENTIFIED	6.062	☐
Potassium-40		33.08	1.65	pCi/g	0.4812	1.00	1461	1	1.975	IDENTIFIED	2.582	☐
Radium-224	int	4.63	0.4727	pCi/g	0.6714	Y	241.5	1	1.734	IDENTIFIED	9.192	☐ ui
Radium-226		1.48	0.1164	pCi/g	0.1012	Y	609.1	3	1.302	IDENTIFIED	5.174	☐
Radium-228		1.977	0.1855	pCi/g	0.2107	0.500	911.1	3	1.489	IDENTIFIED	7.342	☐
Technetium-99m		1.51E+21	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐
Thallium-208		0.5839	0.04711	pCi/g	0.04622	0.080	583.1	1	1.224	IDENTIFIED	5.957	☐
Thorium-228	nr	1.91	0.1048	pCi/g	0.06247	N	238.5	2	0.8926	IDENTIFIED	2.271	☐
Thorium-230	nr	1.479	0.1097	pCi/g	0.1011	N	609.1	3	1.302	IDENTIFIED	5.174	☐
Thorium-232	nr	1.977	0.1855	pCi/g	0.2107	N	911.1	3	1.489	IDENTIFIED	7.342	☐
Thorium-234		1.778	0.3504	pCi/g	0.58	2.00	63.32	2	0.7981	IDENTIFIED	17.52	☐
Tin-126	int nr	0.4523	0.03463	pCi/g	0.05064	N	87.3	3	1.213	IDENTIFIED	6.062	☐
Total Uranium		5.3397	1.04E-06	ug/g	0.86471	N		0				☐
Uranium-238	nr	1.778	0.3504	pCi/g	0.58	N	63.32	2	0.7981	IDENTIFIED	17.52	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065190		25-MAR-10 09:16	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	1.589	0.3005	pCi/g	0.4709	N	911.5	3	2.202	IDENTIFIED	17.65	☐	
Americium-241	13.88	0.6378	pCi/g	0.4687	0.200	59.48	1	1.075	IDENTIFIED	2.418	☐	85.2%
Barium-137m	5.58	0.3133	pCi/g	0.08739	N	661.7	2	1.696	IDENTIFIED	1.93	☐	
Bismuth-211	3.464	0.3672	pCi/g	0.5321	Y	351.9	2	1.399	IDENTIFIED	8.86	☐	
Bismuth-214	0.8897	0.1076	pCi/g	0.1724	0.200	609.4	3	1.786	IDENTIFIED	10.6	☐	
Cadmium-109	35.43	2.107	pCi/g	1.99	Y	88.09	2	1.148	IDENTIFIED	3.59	☐	
Cerium-143	688.5	238.6	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-137	5.894	0.3313	pCi/g	0.09232	0.100	661.7	2	1.696	IDENTIFIED	1.93	☐	107.7%
Cobalt-57	0.2454	0.03596	pCi/g	0.06108	N	122	1	1.08	IDENTIFIED	14.06	☐	
Cobalt-60	6.898	0.337	pCi/g	0.07391	0.100	1333	1	2.484	IDENTIFIED	1.998	☐	106.4%
Gross Gamma	28.98	2.749	pCi/g	3.013	N		0				☐	
Iodine-135	1.47E+17	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	1.427	0.119	pCi/g	0.1487	0.100	238.7	2	1.322	IDENTIFIED	5.07	☐	
Lead-214	1.257	0.1377	pCi/g	0.1935	0.100	351.9	2	1.399	IDENTIFIED	8.86	☐	
Neptunium-237	4.949	0.6238	pCi/g	1.033	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	1.02	0.254	pCi/g	1.017	1.00	0	6	0	NOT_IDENTI	0	☐	
Radium-224	2.93	0.8629	pCi/g	1.592	Y	241.6	1	1.823	IDENTIFIED	28.78	☐	
Radium-226	0.8897	0.1076	pCi/g	0.1724	Y	609.4	3	1.786	IDENTIFIED	10.6	☐	
Radium-228	1.589	0.3005	pCi/g	0.4709	0.500	911.5	3	2.202	IDENTIFIED	17.65	☐	
Silver-110m	0.713	0.0596	pCi/g	0.1823	N	0	6	0	NOT_IDENTI	0	☐	
Technetium-99m	6.93E+12	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208	0.4272	0.05399	pCi/g	0.09842	0.080	583.4	1	1.159	IDENTIFIED	11.42	☐	
Thorium-228	1.427	0.119	pCi/g	0.1487	N	238.7	2	1.322	IDENTIFIED	5.07	☐	
Thorium-230	0.8897	0.105	pCi/g	0.1724	N	609.4	3	1.786	IDENTIFIED	10.6	☐	
Thorium-232	1.589	0.3005	pCi/g	0.4709	N	911.5	3	2.202	IDENTIFIED	17.65	☐	
Tin-126	3.456	0.2056	pCi/g	0.195	N	88.09	2	1.148	IDENTIFIED	3.59	☐	

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

MS 3/29/10

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
962633	248867003	SAMPLE	24-MAR-10	Cerium-143	11830	1907	pCi/g	0	N
				Cesium-134	0.103	0.03425	pCi/g	0.06249	0.100
				Gross Gamma	10.54	1.528	pCi/g	2.063	N
				Iodine-133	80310	1.20E+05	pCi/g	0	N
				Lead-212	1.93	0.1255	pCi/g	0.05748	0.100
				Lead-214	1.588	0.1217	pCi/g	0.07875	0.100
				Potassium-40	34.38	1.518	pCi/g	0.3441	1.00
				Promethium-149	335.9	216.6	pCi/g	0	N
				Radium-224	4.226	0.7754	pCi/g	0.6161	Y
				Radium-226	1.334	0.1238	pCi/g	0.08192	Y
				Radium-228	1.575	0.2171	pCi/g	0.1809	0.500
				Strontium-85	0.08679	0.02844	pCi/g	0.04588	Y
				Thallium-208	0.5497	0.05356	pCi/g	0.04197	0.080
				Thorium-234	1.245	0.6213	pCi/g	0.6258	2.00
				Uranium-235	0.505	0.1393	pCi/g	0.2298	0.500
962633	248867004	SAMPLE	24-MAR-10	Bismuth-211	4.541	0.3077	pCi/g	0.1655	Y
				Bismuth-214	1.385	0.1061	pCi/g	0.05161	0.200
				Cadmium-109	4.474	0.6052	pCi/g	0.6383	Y
				Cerium-143	8611	1279	pCi/g	0	N
				Cesium-134	0.118	0.02485	pCi/g	0.0403	0.100
				Gross Gamma	11.16	1.43	pCi/g	1.834	N
				Iodine-133	23680	86680	pCi/g	0	N
				Lead-212	1.98	0.1308	pCi/g	0.04286	0.100
				Lead-214	1.648	0.1206	pCi/g	0.05875	0.100
				Potassium-40	35.67	1.924	pCi/g	0.2572	1.00
				Protactinium-234m	5.523	2.229	pCi/g	3.777	N
				Radium-224	4.578	0.6137	pCi/g	0.4592	Y
				Radium-226	1.385	0.1061	pCi/g	0.05161	Y
				Radium-228	2.029	0.1939	pCi/g	0.1076	0.500
				Strontium-85	0.1884	0.02288	pCi/g	0.03832	Y
				Thallium-208	0.5801	0.04755	pCi/g	0.02674	0.080
				Thorium-227	0.2363	0.1211	pCi/g	0.211	Y
962633	1202065188	MB	24-MAR-10	Cerium-143	93.1	39.91	pCi/g	0	N
				Cobalt-60	0.01748	0.00761	pCi/g	0.01444	0.100
				Iodine-135	1.18E+15	0	pCi/g	0	N
				Radium-224	0.3042	0.1365	pCi/g	0.2493	
962633	1202065189	DUP	24-MAR-10	Bismuth-211	3.938	0.2465	pCi/g	0.1235	Y

MS 3/29/10

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:15:34.70

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860001.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 16:15:02
Sample ID         : G248860001           Sample quantity  : 1.25520E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.37  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	74.82*	313	469	1.60	148.56	142	21	4.34E-02	15.4	3.22E+00
2	2	77.26*	629	462	1.61	153.44	142	21	8.74E-02	7.9	
3	1	87.42	123	515	1.23	173.75	168	25	1.71E-02	29.7	3.11E+00
4	1	90.17	109	505	1.35	179.27	168	25	1.51E-02	36.6	
5	0	129.22	66	344	1.14	257.36	254	8	9.17E-03	50.3	
6	0	186.45*	196	383	1.59	371.81	365	11	2.73E-02	21.3	
7	0	209.65	120	320	0.95	418.21	413	11	1.67E-02	30.3	
8	3	238.79*	1216	234	1.38	476.48	469	20	1.69E-01	3.7	9.83E-01
9	3	241.81*	210	324	1.80	482.51	469	20	2.92E-02	21.7	
10	0	295.26*	336	220	1.39	589.41	584	11	4.66E-02	10.1	
11	0	299.88*	86	156	1.12	598.67	595	9	1.20E-02	29.5	
12	0	327.58	80	158	1.01	654.05	649	10	1.11E-02	31.4	
13	0	338.55	280	160	1.55	675.99	671	12	3.89E-02	10.9	
14	0	352.08*	641	155	1.37	703.07	698	12	8.91E-02	5.6	
15	0	462.67	79	162	1.45	924.24	918	14	1.10E-02	35.8	
16	0	510.64*	190	149	1.90	1020.19	1012	17	2.64E-02	18.2	
17	0	583.10*	373	102	1.57	1165.11	1157	15	5.18E-02	8.1	
18	0	609.38*	400	116	1.64	1217.68	1210	13	5.56E-02	7.6	
19	0	727.27*	96	70	1.98	1453.48	1448	12	1.33E-02	20.8	
20	0	794.89	83	54	1.40	1588.72	1582	15	1.16E-02	21.9	
21	0	860.46*	91	45	2.50	1719.89	1711	17	1.26E-02	20.5	
22	0	911.20*	245	83	1.68	1821.39	1814	16	3.41E-02	10.7	
23	0	964.47	72	57	1.94	1927.95	1921	12	1.00E-02	24.1	
24	0	969.04	174	59	2.06	1937.08	1932	16	2.42E-02	12.9	
25	0	1120.11	104	81	1.57	2239.29	2234	12	1.44E-02	20.0	
26	0	1378.02	54	12	3.78	2755.24	2749	18	7.48E-03	20.9	
27	0	1460.37*	1368	36	2.21	2919.99	2909	20	1.90E-01	2.9	
28	0	1587.99*	16	9	0.68	3175.33	3171	9	2.25E-03	45.7	
29	0	1763.89	67	12	1.75	3527.26	3521	12	9.32E-03	16.0	
30	0	1846.56	20	14	3.25	3692.67	3684	18	2.76E-03	49.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 18:15:38

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 4-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 16:15:02
Sample ID : G248860001 Sample quantity : 125.52 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.37 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.973E+01	4.542E+00	7.560E-01	7.429E-02	52.550
CD-109	+	88.03	*	2.310E+00	1.402E+00	1.847E+00	2.292E-01	1.251
SN-126		64.28		-2.090E-01	9.650E-01	1.583E+00	2.680E-01	-0.132
	+	86.94		9.314E-01	6.796E-01	7.586E-01	3.207E-01	1.228
	+	87.57	*	2.240E-01	1.361E-01	1.805E-01	2.234E-02	1.241
TL-208		277.37		1.523E-01	4.976E-01	8.417E-01	1.190E-01	0.181
	+	583.19	*	5.989E-01	1.115E-01	6.882E-02	6.295E-03	8.702
	+	860.56		1.382E+00	5.834E-01	5.352E-01	5.233E-02	2.582
BI-211		72.87		1.141E+01	5.831E+00	8.934E+00	1.023E+00	1.278
	+	351.06	*	4.727E+00	7.109E-01	4.387E-01	4.369E-02	10.777
PB-212	+	74.82		2.818E+00	9.683E-01	8.637E-01	1.301E-01	3.263
	+	77.11		3.142E+00	6.166E-01	4.817E-01	5.584E-02	6.523
	+	238.63	*	2.027E+00	2.855E-01	1.240E-01	1.481E-02	16.354
	+	300.09		2.226E+00	1.340E+00	1.685E+00	2.051E-01	1.321
BI-214	+	609.32	*	1.243E+00	2.257E-01	1.386E-01	1.381E-02	8.968
	+	1120.29		1.692E+00	7.006E-01	6.333E-01	6.859E-02	2.672
	+	1764.49		1.534E+00	5.082E-01	3.359E-01	2.945E-02	4.568
PB-214	+	74.82		4.996E+00	1.693E+00	1.531E+00	2.139E-01	3.263
	+	77.11		5.540E+00	1.179E+00	8.493E-01	1.208E-01	6.523
	+	242.00		2.129E+00	9.616E-01	7.537E-01	9.389E-02	2.825
	+	295.22		1.536E+00	3.658E-01	2.980E-01	3.714E-02	5.155
	+	351.93	*	1.716E+00	2.748E-01	1.570E-01	1.784E-02	10.930
RA-224	+	240.99	*	3.765E+00	1.686E+00	1.328E+00	1.465E-01	2.834
RA-226	+	609.32	*	1.243E+00	2.257E-01	1.386E-01	1.381E-02	8.968
	+	1120.29		1.692E+00	7.006E-01	6.333E-01	6.859E-02	2.672
	+	1764.49		1.534E+00	5.082E-01	3.359E-01	2.945E-02	4.568
AC-228	+	338.32		2.301E+00	1.088E+00	5.081E-01	2.134E-01	4.529
	+	911.20	*	1.904E+00	4.687E-01	3.083E-01	3.734E-02	6.175
	+	968.97		2.340E+00	8.335E-01	2.164E-01	5.317E-02	10.814
RA-228	+	338.32		2.301E+00	1.088E+00	5.081E-01	2.134E-01	4.529
	+	911.20	*	1.904E+00	4.687E-01	3.083E-01	3.734E-02	6.175
	+	968.97		2.340E+00	8.335E-01	2.164E-01	5.317E-02	10.814
TH-228	+	74.82		2.818E+00	9.293E-01	8.637E-01	9.987E-02	3.263
	+	77.11		3.142E+00	6.166E-01	4.817E-01	5.584E-02	6.523

Sample ID : G248860001 Acquisition date : 24-MAR-2010 16:15:02

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	2.027E+00	2.855E-01	1.240E-01	1.481E-02	16.354
	+	300.09		2.226E+00	1.897E+00	1.685E+00	1.036E+00	1.321
TH-230	+	609.32	*	1.243E+00	2.159E-01	1.386E-01	1.172E-02	8.968
	+	1120.29		1.692E+00	6.913E-01	6.333E-01	5.387E-02	2.672
	+	1764.49		1.534E+00	5.082E-01	3.358E-01	2.945E-02	4.568
TH-232	+	338.32		2.301E+00	5.496E-01	5.081E-01	5.010E-02	4.529
	+	911.20	*	1.904E+00	4.687E-01	3.083E-01	3.734E-02	6.175
	+	968.97		2.340E+00	8.335E-01	2.164E-01	5.317E-02	10.814
NP-237	+	86.48	*	6.685E-01	4.295E-01	5.489E-01	1.333E-01	1.218
		95.86		2.771E-01	1.455E+00	2.104E+00	5.268E-01	0.132
ANH-511	+	511.00	*	2.352E-01	8.815E-02	6.254E-02	5.404E-03	3.761

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-2.071E-01	4.432E-01	6.985E-01	6.492E-02	-0.297
NA-22		1274.54	*	2.774E-02	5.976E-02	1.009E-01	9.164E-03	0.275
NA-24		1368.63	*	-1.173E+01	5.976E-02	Half-Life too short		
SC-46		889.28	*	-3.408E-02	5.107E-02	7.901E-02	7.343E-03	-0.431
	+	1120.55		2.985E-01	1.219E-01	1.850E-01	1.573E-02	1.614
V-48		944.13		-6.140E-02	1.443E+00	2.366E+00	2.187E-01	-0.026
		983.53	*	-7.561E-02	1.147E-01	1.764E-01	1.613E-02	-0.429
		1312.11		-5.162E-02	1.322E-01	2.035E-01	1.918E-02	-0.254
CR-51		320.08	*	1.487E-01	5.914E-01	9.686E-01	1.028E-01	0.154
MN-54		834.85	*	-1.490E-02	5.193E-02	8.425E-02	7.646E-03	-0.177
CO-56		846.77	*	1.153E-02	4.874E-02	8.240E-02	7.519E-03	0.140
		1037.84		2.686E-02	3.988E-01	6.570E-01	6.161E-02	0.041
		1238.28		3.632E-02	1.268E-01	2.099E-01	1.887E-02	0.173
		1771.35		1.230E-01	2.684E-01	4.429E-01	3.869E-02	0.278
CO-57		122.06	*	-2.527E-02	3.541E-02	5.505E-02	5.546E-03	-0.459
		136.47		-1.182E-01	2.870E-01	4.567E-01	4.853E-02	-0.259
CO-58		810.76	*	2.314E-02	5.631E-02	9.627E-02	8.655E-03	0.240
FE-59		1099.45	*	-3.900E-02	1.323E-01	2.098E-01	1.958E-02	-0.186
		1291.59		-2.482E-02	1.897E-01	3.023E-01	3.122E-02	-0.082
CO-60		1173.23		1.750E-02	6.176E-02	1.028E-01	8.364E-03	0.170
		1332.49	*	-1.570E-02	4.796E-02	7.386E-02	7.100E-03	-0.213
ZN-65		1115.54	*	1.051E-01	1.433E-01	2.174E-01	1.857E-02	0.483
SE-75		121.12		-1.146E-01	1.900E-01	2.969E-01	3.636E-02	-0.386
		136.00		-2.732E-02	5.642E-02	8.953E-02	9.064E-03	-0.305
		264.66	*	-3.937E-02	6.295E-02	1.021E-01	1.119E-02	-0.386
		279.54		1.115E-01	1.454E-01	2.505E-01	2.773E-02	0.445
		400.66		-2.813E-01	3.527E-01	5.502E-01	6.028E-02	-0.511
SR-85		514.00	*	1.240E-01	6.387E-02	1.027E-01	8.869E-03	1.208
Y-88		898.04		4.216E-02	5.789E-02	1.009E-01	9.446E-03	0.418
		1836.06	*	1.362E-02	4.459E-02	7.333E-02	6.176E-03	0.186
Y-91		1204.77	*	-1.980E+00	3.432E+01	5.541E+01	4.671E+00	-0.036
NB-94		702.65	*	3.528E-02	4.608E-02	8.064E-02	6.808E-03	0.437
		871.09		2.584E-03	4.510E-02	7.297E-02	6.730E-03	0.035

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	6.059E-02	5.944E-02	1.053E-01	9.223E-03	0.576
NB-95M		235.69	*	4.874E-01	2.177E-01	3.421E-01	4.122E-02	1.425
ZR-95		724.19		1.401E-01	1.485E-01	2.321E-01	2.156E-02	0.604
		756.73	*	-4.782E-02	9.247E-02	1.475E-01	1.417E-02	-0.324
MO-99		140.51		-7.790E+00	1.106E+02	1.752E+02	4.263E+01	-0.044
		181.07		-4.718E+01	1.043E+02	1.416E+02	2.815E+01	-0.333
		366.42		8.341E+01	4.580E+02	7.637E+02	6.998E+01	0.109
		739.50	*	3.725E+00	5.215E+01	8.750E+01	1.379E+01	0.043
		777.92		-1.299E+02	1.617E+02	2.508E+02	2.212E+01	-0.518
TC-99M		140.51	*	-4.423E+15	1.617E+02	Half-Life too short		
RU-103		497.08	*	6.061E-04	5.526E-02	8.999E-02	1.258E-02	0.007
	+	610.33		1.403E+01	3.120E+00	3.684E+00	5.989E-01	3.809
RH-106		621.93	*	-5.236E-02	4.285E-01	6.827E-01	8.954E-02	-0.077
		1050.41		-6.008E-01	3.453E+00	5.558E+00	4.939E-01	-0.108
RU-106		621.93	*	-5.236E-02	4.285E-01	6.827E-01	5.737E-02	-0.077
		1050.41		-6.008E-01	3.453E+00	5.558E+00	4.939E-01	-0.108
AG-108M		433.94	*	-7.723E-03	3.729E-02	6.022E-02	5.322E-03	-0.128
		614.28		1.346E-02	4.829E-02	6.913E-02	6.030E-03	0.195
		722.91		1.511E-02	5.182E-02	7.699E-02	6.796E-03	0.196
AG-110M		657.76	*	-1.307E-02	4.139E-02	6.779E-02	5.769E-03	-0.193
		677.62		-6.283E-02	3.829E-01	6.338E-01	5.429E-02	-0.099
		706.68		-7.918E-02	2.892E-01	4.746E-01	4.136E-02	-0.167
		763.94		-1.337E-01	2.159E-01	3.431E-01	3.083E-02	-0.390
		884.68		-2.408E-02	5.838E-02	9.252E-02	8.820E-03	-0.260
		937.49		-8.248E-02	1.643E-01	2.488E-01	2.377E-02	-0.331
		1384.29		6.423E-02	1.751E-01	2.712E-01	2.670E-02	0.237
		1505.03		1.286E-01	3.621E-01	6.287E-01	6.008E-02	0.205
SN-113		391.69	*	-5.805E-02	6.272E-02	9.730E-02	8.450E-03	-0.597
CD-115		260.90		7.732E-04	6.272E-02	Half-Life too short		
		492.35		8.986E-05	6.272E-02	Half-Life too short		
		527.90	*	-1.232E-05	6.272E-02	Half-Life too short		
SN-117M		156.02		1.237E+00	4.129E+00	6.730E+00	7.015E-01	0.184
		158.56	*	-1.089E-02	1.012E-01	1.624E-01	1.703E-02	-0.067
TE-123M		159.00	*	5.742E-03	4.173E-02	6.760E-02	7.123E-03	0.085
SB-124		602.73		-8.689E-03	6.607E-02	9.054E-02	7.673E-03	-0.096
		645.85		3.165E-01	7.391E-01	1.223E+00	1.078E-01	0.259
		722.78		1.857E-01	5.536E-01	8.259E-01	7.224E-02	0.225
		1690.97	*	-7.174E-02	9.532E-02	1.326E-01	1.249E-02	-0.541
SB-125		427.87	*	3.094E-02	1.184E-01	1.972E-01	1.717E-02	0.157
	+	463.37		8.750E-01	6.324E-01	7.192E-01	6.663E-02	1.217
		600.60		-1.423E-01	2.660E-01	3.849E-01	3.513E-02	-0.370
		635.95		8.962E-02	3.599E-01	5.895E-01	5.344E-02	0.152
TE-125M		109.28	*	-1.271E+01	1.457E+01	2.286E+01	2.718E+00	-0.556
I-126		388.63		8.051E-02	2.880E-01	4.817E-01	4.099E-02	0.167
		666.33	*	6.917E-02	3.534E-01	6.009E-01	4.956E-02	0.115
		753.82		9.726E-01	2.848E+00	4.872E+00	4.240E-01	0.200
SB-126		414.70		-4.576E-02	1.383E-01	2.226E-01	1.892E-02	-0.206
		666.50		2.244E-02	1.227E-01	2.085E-01	1.720E-02	0.108
		695.00		1.340E-01	1.403E-01	2.483E-01	2.086E-02	0.540

Sample ID : G248860001 Acquisition date : 24-MAR-2010 16:15:02

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		697.00		1.761E-02	4.951E-01	8.305E-01	6.987E-02	0.021
		720.70	*	2.104E-01	2.726E-01	4.241E-01	3.620E-02	0.496
		856.80		5.110E-01	8.976E-01	1.363E+00	1.250E-01	0.375
SB-127		252.40		-4.705E+00	1.401E+01	2.287E+01	9.732E+00	-0.206
		473.00		1.686E+00	5.096E+00	8.494E+00	1.208E+00	0.199
		685.70	*	-3.683E-01	4.294E+00	7.149E+00	9.152E-01	-0.052
		783.70		1.220E+01	1.087E+01	1.938E+01	2.711E+00	0.630
I-131		80.19		-6.703E+00	1.198E+01	1.679E+01	1.986E+00	-0.399
		284.31		-8.838E-01	3.064E+00	5.038E+00	5.617E-01	-0.175
		364.49	*	4.998E-02	2.343E-01	3.915E-01	3.794E-02	0.128
		636.99		-1.163E+00	3.302E+00	5.155E+00	4.584E-01	-0.226
TE-132		49.72		6.417E+01	1.810E+02	3.044E+02	4.985E+01	0.211
		111.76		-3.399E+01	1.350E+02	2.177E+02	2.979E+01	-0.156
		116.30		-6.772E+00	1.175E+02	1.908E+02	2.598E+01	-0.035
		228.16	*	-5.149E-01	2.981E+00	4.977E+00	9.097E-01	-0.103
BA-133		81.00		-3.021E-01	2.020E-01	2.127E-01	3.721E-02	-1.420
		276.40		5.652E-02	4.636E-01	7.784E-01	1.212E-01	0.073
		302.85		2.126E-02	2.206E-01	3.209E-01	4.618E-02	0.066
		356.01	*	3.457E-02	6.262E-02	9.343E-02	1.262E-02	0.370
		383.85		-3.841E-01	3.871E-01	5.945E-01	7.402E-02	-0.646
I-133		529.87	*	-3.414E-01	3.871E-01	Half-Life too short		
		875.33		2.822E+00	3.871E-01	Half-Life too short		
		1298.22		-7.352E+00	3.871E-01	Half-Life too short		
CS-134		563.25		4.214E-01	4.661E-01	8.006E-01	6.935E-02	0.526
		569.33		5.353E-02	2.600E-01	4.264E-01	3.704E-02	0.126
		604.72		5.223E-03	5.345E-02	7.492E-02	6.360E-03	0.070
	+	795.86	*	1.950E-01	8.724E-02	1.200E-01	1.075E-02	1.625
		801.95		-1.515E-01	6.086E-01	8.615E-01	7.735E-02	-0.176
		1365.19		8.227E-01	1.607E+00	2.837E+00	2.834E-01	0.290
CS-135		268.22	*	7.119E-02	2.154E-01	3.649E-01	4.378E-02	0.195
I-135		546.56		1.260E+14	2.154E-01	Half-Life too short		
		836.80		1.248E+16	2.154E-01	Half-Life too short		
		1038.76		-2.835E+15	2.154E-01	Half-Life too short		
		1131.51		9.320E+14	2.154E-01	Half-Life too short		
		1260.41	*	1.739E+15	2.154E-01	Half-Life too short		
		1457.56		5.395E+17	2.154E-01	Half-Life too short		
		1678.03		-2.739E+15	2.154E-01	Half-Life too short		
		1791.20		-3.069E+14	2.154E-01	Half-Life too short		
CS-136		153.25		1.034E-01	1.593E+00	2.577E+00	3.033E-01	0.040
		176.60		7.942E-01	8.872E-01	1.471E+00	1.689E-01	0.540
		273.65		-1.447E+00	9.480E-01	1.454E+00	1.666E-01	-0.995
		340.55		1.024E+00	3.352E-01	5.385E-01	5.440E-02	1.901
		818.51		-5.863E-02	1.241E-01	1.977E-01	1.783E-02	-0.297
		1048.07	*	-1.612E-01	1.889E-01	2.834E-01	2.622E-02	-0.569
		1235.36		-6.762E-01	1.011E+00	1.539E+00	1.822E-01	-0.439
BA-137M		661.66	*	-2.702E-02	4.287E-02	6.849E-02	5.631E-03	-0.394
CS-137		661.66	*	-2.854E-02	4.529E-02	7.235E-02	5.961E-03	-0.394
CE-139		165.86	*	-7.100E-03	4.444E-02	6.918E-02	7.384E-03	-0.103
BA-140		162.66		1.290E+00	1.497E+00	2.481E+00	2.746E-01	0.520

Sample ID : G248860001 Acquisition date : 24-MAR-2010 16:15:02

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		304.85		1.063E+00	2.681E+00	3.955E+00	1.182E+00	0.269
		423.72		-2.692E+00	3.469E+00	5.219E+00	1.715E+00	-0.516
		537.26	*	-3.640E-01	4.714E-01	6.928E-01	2.350E-01	-0.525
LA-140	+	328.76		1.073E+00	6.829E-01	9.612E-01	1.008E-01	1.117
		487.02		-1.687E-01	2.384E-01	3.681E-01	3.376E-02	-0.458
		815.77		3.403E-01	5.548E-01	9.637E-01	9.604E-02	0.353
		1596.21	*	-7.818E-02	1.407E-01	2.085E-01	1.954E-02	-0.375
CE-141		145.44	*	5.605E-02	9.643E-02	1.590E-01	1.644E-02	0.352
CE-143		57.36		-3.143E-02	9.643E-02	Half-Life too short		
		293.27	*	1.316E-02	9.643E-02	Half-Life too short		
		664.57		7.174E-03	9.643E-02	Half-Life too short		
		721.93		2.130E-02	9.643E-02	Half-Life too short		
CE-144		80.12		-1.693E+00	4.256E+00	6.018E+00	7.073E-01	-0.281
		133.52	*	2.341E-01	3.184E-01	4.582E-01	7.394E-02	0.511
PM-144		476.78		-1.428E-03	8.358E-02	1.361E-01	1.276E-02	-0.010
		618.01		8.886E-03	4.150E-02	6.790E-02	5.885E-03	0.131
		696.49	*	2.860E-02	4.746E-02	8.236E-02	6.931E-03	0.347
PR-144		696.51	*	1.892E+00	3.573E+00	6.175E+00	5.193E-01	0.306
		1489.16		5.260E+00	1.559E+01	2.714E+01	2.599E+00	0.194
PM-146		453.88	*	6.782E-02	5.445E-02	9.534E-02	1.008E-02	0.711
		633.25		-1.204E+00	2.004E+00	2.982E+00	1.137E+00	-0.404
		735.93		-1.935E-01	1.831E-01	2.568E-01	7.196E-02	-0.753
		747.24		2.774E-02	1.238E-01	2.098E-01	3.066E-02	0.132
ND-147	+	91.11		8.993E-01	6.680E-01	9.895E-01	1.225E-01	0.909
		319.41		2.835E+00	6.349E+00	1.076E+01	1.102E+00	0.263
		531.02	*	-2.047E-01	1.016E+00	1.623E+00	2.428E-01	-0.126
PM-149		285.90	*	6.562E-04	1.016E+00	Half-Life too short		
EU-152		121.78		-5.970E-02	1.004E-01	1.569E-01	1.755E-02	-0.381
		244.70		4.202E-01	5.064E-01	7.719E-01	8.508E-02	0.544
		344.28	*	6.987E-02	1.436E-01	2.138E-01	2.176E-02	0.327
		778.90		-6.885E-02	3.259E-01	5.330E-01	4.703E-02	-0.129
	+	964.08		1.041E+00	5.099E-01	7.711E-01	7.092E-02	1.350
		1085.87		2.611E-01	4.944E-01	8.463E-01	7.370E-02	0.309
		1112.07		-3.211E-01	4.535E-01	6.526E-01	5.584E-02	-0.492
		1408.01		2.697E-01	2.498E-01	4.608E-01	4.440E-02	0.585
GD-153		69.67		6.550E-01	3.287E+00	4.805E+00	5.484E-01	0.136
		97.43	*	1.897E-02	1.358E-01	1.960E-01	2.164E-02	0.097
		103.18		-1.369E-01	1.607E-01	2.531E-01	2.676E-02	-0.541
EU-154		123.07		-4.780E-03	7.011E-02	1.136E-01	1.417E-02	-0.042
		723.31		-6.127E-02	2.470E-01	3.462E-01	3.265E-02	-0.177
		873.19		1.589E-01	3.588E-01	6.146E-01	7.587E-02	0.259
		996.26		-4.968E-01	4.670E-01	6.740E-01	1.194E-01	-0.737
		1004.73		-2.872E-01	3.029E-01	4.529E-01	5.423E-02	-0.634
		1274.44	*	8.758E-02	1.683E-01	2.853E-01	3.346E-02	0.307
EU-155	+	86.55		2.722E-01	1.653E-01	2.686E-01	3.313E-02	1.013
		105.31	*	2.105E-01	1.505E-01	2.552E-01	2.688E-02	0.825
TB-160	+	86.79		7.566E-01	4.594E-01	7.367E-01	9.058E-02	1.027
		197.04		-3.263E-01	8.239E-01	1.293E+00	1.410E-01	-0.252
		215.65		3.775E-01	1.116E+00	1.742E+00	1.917E-01	0.217

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	298.57		3.290E-01	1.971E-01	2.963E-01	3.135E-02	1.110
		879.36	*	-5.495E-02	1.787E-01	2.869E-01	2.656E-02	-0.191
		962.29		1.721E+00	8.642E-01	1.451E+00	1.335E-01	1.186
		966.15		2.421E+00	4.361E-01	7.648E-01	7.029E-02	3.166
		1177.93		-3.821E-01	5.404E-01	8.224E-01	6.730E-02	-0.465
		1271.85		-2.852E-01	1.016E+00	1.594E+00	1.443E-01	-0.179
HO-166M		80.57		-5.146E-01	4.935E-01	6.197E-01	7.302E-02	-0.830
		184.41		1.708E-01	5.974E-02	9.117E-02	9.858E-03	1.873
		280.46		2.703E-03	1.089E-01	1.820E-01	1.965E-02	0.015
		410.95		2.901E-01	3.246E-01	5.587E-01	4.742E-02	0.519
		711.68	*	4.847E-03	7.638E-02	1.283E-01	1.089E-02	0.038
		752.31		-8.071E-03	3.366E-01	5.600E-01	4.869E-02	-0.014
		810.29		-1.219E-02	8.176E-02	1.342E-01	1.204E-02	-0.091
TA-182		67.75		-9.196E-02	2.157E-01	3.345E-01	3.818E-02	-0.275
		100.11		1.112E-01	2.764E-01	4.252E-01	4.589E-02	0.261
		152.43		4.318E-01	4.908E-01	8.159E-01	8.437E-02	0.529
		222.11		-3.273E-02	4.750E-01	7.974E-01	8.787E-02	-0.041
	+	1121.30		8.178E-01	3.340E-01	5.069E-01	4.308E-02	1.613
		1189.05		3.267E-01	4.662E-01	7.975E-01	6.607E-02	0.410
		1221.41	*	-1.467E-01	3.139E-01	4.902E-01	4.207E-02	-0.299
		1231.02		-2.081E-01	6.987E-01	1.104E+00	9.573E-02	-0.188
IR-192	+	295.96		1.191E+00	2.731E-01	3.826E-01	4.081E-02	3.113
		308.46		1.010E-02	1.398E-01	2.332E-01	2.441E-02	0.043
		316.51	*	-3.442E-02	5.090E-02	8.149E-02	8.402E-03	-0.422
		468.07		1.732E-02	1.008E-01	1.446E-01	1.338E-02	0.120
HG-203		70.83		-4.194E-01	2.678E+00	3.847E+00	6.818E-01	-0.109
		72.87		3.064E+00	1.615E+00	2.398E+00	4.142E-01	1.278
		279.20	*	3.858E-02	5.370E-02	9.235E-02	1.015E-02	0.418
BI-207		72.81		6.011E-01	3.333E-01	5.097E-01	5.837E-02	1.179
	+	74.97		8.125E-01	2.677E-01	3.568E-01	4.106E-02	2.278
		569.70		2.024E-02	3.938E-02	6.597E-02	5.651E-03	0.307
		1063.66	*	-4.406E-02	7.300E-02	1.127E-01	9.941E-03	-0.391
		1770.23		4.668E-01	4.440E-01	8.438E-01	7.376E-02	0.553
PB-210		46.54	*	-6.602E+00	1.374E+01	2.212E+01	2.724E+00	-0.298
PB-211		404.85	*	-3.717E-01	9.802E-01	1.548E+00	7.485E-01	-0.240
		427.09		-1.130E-01	1.998E+00	3.262E+00	1.509E+00	-0.035
		832.01		-4.164E-01	1.274E+00	2.024E+00	1.051E+00	-0.206
BI-212	+	727.33	*	2.345E+00	1.017E+00	1.491E+00	1.852E-01	1.573
		785.37		1.383E+00	4.040E+00	6.886E+00	6.097E-01	0.201
		1620.50		1.657E+00	3.205E+00	5.661E+00	5.269E-01	0.293
RN-219		271.23		7.373E-01	3.367E-01	5.921E-01	7.236E-02	1.245
		401.81	*	-1.420E-01	5.325E-01	8.607E-01	1.272E-01	-0.165
RA-223		81.07		-6.967E-01	4.481E-01	4.794E-01	5.664E-02	-1.453
		83.79		-1.987E-01	3.113E-01	3.033E-01	3.646E-02	-0.655
		94.87		1.819E+00	7.733E-01	1.184E+00	1.340E-01	1.537
		144.24		3.088E-01	9.461E-01	1.527E+00	1.686E-01	0.202
		154.21		2.193E-02	5.539E-01	8.947E-01	9.909E-02	0.025
		269.46		5.454E-01	2.572E-01	4.552E-01	5.023E-02	1.198
		323.87	*	-2.649E-01	1.012E+00	1.428E+00	2.591E-01	-0.186

Sample ID : G248860001 Acquisition date : 24-MAR-2010 16:15:02

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		9.132E+00	2.313E+00	3.055E+00	3.967E-01	2.989
AC-227		79.69		3.459E+00	1.989E+00	3.265E+00	6.197E-01	1.059
		235.96		9.920E-01	2.819E-01	4.369E-01	5.429E-02	2.271
		256.23	*	-1.396E-01	3.453E-01	5.672E-01	7.849E-02	-0.246
	+	299.98		2.448E+00	1.485E+00	2.158E+00	3.041E-01	1.135
		304.50		-3.710E-01	2.489E+00	3.557E+00	6.253E-01	-0.104
		334.37		-1.033E+00	2.823E+00	3.706E+00	6.063E-01	-0.279
TH-227		79.80		9.220E-01	2.840E+00	4.144E+00	9.609E-01	0.222
		235.96		9.920E-01	2.798E-01	4.369E-01	5.218E-02	2.271
		256.23	*	-1.396E-01	3.454E-01	5.672E-01	8.628E-02	-0.246
	+	299.98		2.448E+00	1.485E+00	2.158E+00	3.041E-01	1.135
		304.50		-3.710E-01	2.489E+00	3.557E+00	6.253E-01	-0.104
		334.37		-1.033E+00	2.823E+00	3.706E+00	6.063E-01	-0.279
TH-229		85.43		7.435E-01	3.898E-01	5.557E-01	6.761E-02	1.338
	+	88.47		3.454E-01	2.097E-01	3.421E-01	4.216E-02	1.010
		193.51	*	-4.874E-01	7.416E-01	1.149E+00	1.251E-01	-0.424
	+	210.85		2.848E+00	1.752E+00	2.132E+00	2.341E-01	1.336
PA-231		283.69	*	-1.037E+00	1.931E+00	3.127E+00	4.986E-01	-0.332
	+	301.36		1.573E+00	9.519E-01	1.383E+00	1.879E-01	1.137
TH-231		81.07		-6.967E-01	4.481E-01	4.794E-01	5.664E-02	-1.453
		83.79		-1.987E-01	3.113E-01	3.033E-01	3.646E-02	-0.655
		94.87		1.819E+00	7.733E-01	1.184E+00	1.340E-01	1.537
		144.24		3.088E-01	9.461E-01	1.527E+00	1.686E-01	0.202
		154.21		2.193E-02	5.539E-01	8.947E-01	9.909E-02	0.025
		269.46		5.454E-01	2.572E-01	4.552E-01	5.023E-02	1.198
		323.87	*	-2.649E-01	1.012E+00	1.428E+00	2.591E-01	-0.186
	+	338.28		9.132E+00	2.313E+00	3.055E+00	3.967E-01	2.989
PA-233	+	300.13		1.108E+00	6.771E-01	9.838E-01	1.577E-01	1.126
		311.90	*	3.189E-03	8.935E-02	1.487E-01	1.574E-02	0.021
		340.48		3.566E+00	1.367E+00	1.788E+00	4.385E-01	1.994
PA-234		94.67		5.411E-01	2.648E-01	4.408E-01	6.361E-02	1.228
		98.44		1.680E-01	1.693E-01	2.139E-01	1.202E-01	0.785
		111.00		-2.423E-02	2.491E-01	4.044E-01	5.368E-02	-0.060
		131.20		8.882E-02	1.676E-01	2.438E-01	2.448E-02	0.364
		569.50		1.671E-01	3.523E-01	5.885E-01	5.041E-02	0.284
		733.00		-6.129E-02	4.924E-01	6.974E-01	1.547E-01	-0.088
		880.51		1.262E-02	3.341E-01	5.541E-01	5.131E-02	0.023
		883.24		-6.452E-02	3.373E-01	5.426E-01	3.652E-01	-0.119
		926.50		-4.286E-02	2.348E-01	3.805E-01	9.706E-02	-0.113
		946.00	*	3.161E-01	4.009E-01	6.961E-01	1.327E-01	0.454
		949.00		-2.479E-02	5.951E-01	9.758E-01	9.011E-02	-0.025
PA-234M		766.42		1.851E+01	1.759E+01	2.679E+01	1.360E+01	0.691
		1001.03	*	3.959E+00	6.290E+00	1.078E+01	1.118E+00	0.367
TH-234		63.29	*	3.111E-01	2.623E+00	4.355E+00	8.635E-01	0.071
		92.59		2.169E+00	1.155E+00	1.824E+00	4.272E-01	1.189
U-235	+	89.96		2.018E+00	1.568E+00	2.103E+00	5.471E-01	0.959
		93.35		1.152E+00	8.127E-01	1.324E+00	3.220E-01	0.871
		143.76	*	1.073E-01	2.844E-01	4.592E-01	8.171E-02	0.234
		163.33		1.547E-01	6.360E-01	1.007E+00	1.911E-01	0.154

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	185.72		2.117E-01	9.324E-02	1.195E-01	1.293E-02	1.772
		205.31		-2.691E-01	7.428E-01	9.978E-01	1.932E-01	-0.270
U-238		63.29	*	3.111E-01	2.623E+00	4.355E+00	8.635E-01	0.071
		92.59		2.169E+00	1.067E+00	1.824E+00	2.120E-01	1.189
NP-239		99.53		2.126E-01	2.614E-01	3.883E-01	4.210E-02	0.547
		103.37		-9.743E-02	1.437E-01	2.282E-01	2.410E-02	-0.427
		106.12		1.081E-01	1.191E-01	1.998E-01	2.080E-02	0.541
		117.23	*	1.894E-01	5.424E-01	8.939E-01	9.022E-02	0.212
		228.18		-5.300E-02	2.949E-01	4.924E-01	5.432E-02	-0.108
		277.60		1.064E-01	2.270E-01	3.866E-01	4.186E-02	0.275
AM-241		59.54	*	-3.988E-01	3.357E-01	5.265E-01	6.181E-02	-0.757
CM-247		278.00		3.928E-01	9.725E-01	1.652E+00	1.788E-01	0.238
		287.50		1.444E+00	1.694E+00	2.858E+00	3.065E-01	0.505
		402.40	*	-1.749E-03	4.847E-02	7.949E-02	6.722E-03	-0.022
CF-249		252.80		-2.132E-01	1.244E+00	2.068E+00	2.274E-01	-0.103
		333.37		2.251E-01	3.374E-01	4.103E-01	4.089E-02	0.549
		388.16	*	3.946E-02	5.153E-02	8.845E-02	7.540E-03	0.446
CF-251		177.52	*	5.285E-02	1.793E-01	2.912E-01	3.133E-02	0.182
		227.38		-1.374E-01	4.813E-01	8.001E-01	8.825E-02	-0.172
		285.41		2.401E+00	2.912E+00	5.023E+00	5.398E-01	0.478

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860001       *
* Acquisition date : 24-MAR-2010 16:15:02 Detector SN#    :                 *
* Detector ID       : GAM15                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.37      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  4-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248860001           Analyst initials: MXR1           *
* Batch Number      : 962633               Sample Quantity : 1.2552E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.973E+01	4.451E+00	7.555E-01	0.000E+00
CD-109	2.310E+00	1.374E+00	1.920E+00	0.000E+00
SN-126	2.240E-01	1.333E-01	1.877E-01	0.000E+00
TL-208	5.989E-01	1.092E-01	6.969E-02	0.000E+00
BI-211	4.727E+00	6.967E-01	4.474E-01	0.000E+00
PB-212	2.027E+00	2.798E-01	1.271E-01	0.000E+00
BI-214	1.243E+00	2.212E-01	1.403E-01	0.000E+00
PB-214	1.716E+00	2.693E-01	1.601E-01	0.000E+00
RA-224	3.765E+00	1.653E+00	1.362E+00	0.000E+00
RA-226	1.243E+00	2.212E-01	1.403E-01	0.000E+00
AC-228	1.904E+00	4.594E-01	3.102E-01	0.000E+00
RA-228	1.904E+00	4.594E-01	3.102E-01	0.000E+00
TH-228	2.027E+00	2.798E-01	1.271E-01	0.000E+00
TH-230	1.243E+00	2.116E-01	1.403E-01	0.000E+00
TH-232	1.904E+00	4.594E-01	3.102E-01	0.000E+00
NP-237	6.685E-01	4.209E-01	5.708E-01	0.000E+00
ANH-511	2.352E-01	8.638E-02	6.345E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.071E-01	4.344E-01	7.093E-01	0.000E+00	NOT IDENT.
NA-22	2.774E-02	5.857E-02	1.010E-01	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.714E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-3.408E-02	5.005E-02	7.953E-02	0.000E+00	FAIL ABUN
V-48	-7.561E-02	1.124E-01	1.773E-01	0.000E+00	NOT IDENT.
CR-51	1.487E-01	5.796E-01	9.892E-01	0.000E+00	NOT IDENT.
MN-54	-1.490E-02	5.089E-02	8.488E-02	0.000E+00	NOT IDENT.
CO-56	1.153E-02	4.777E-02	8.299E-02	0.000E+00	NOT IDENT.
CO-57	-2.527E-02	3.471E-02	5.698E-02	0.000E+00	NOT IDENT.
CO-58	2.314E-02	5.518E-02	9.703E-02	0.000E+00	NOT IDENT.

FE-59	-3.900E-02	1.296E-01	2.105E-01	0.000E+00	NOT IDENT.
CO-60	-1.570E-02	4.700E-02	7.390E-02	0.000E+00	NOT IDENT.
ZN-65	1.051E-01	1.405E-01	2.181E-01	0.000E+00	NOT IDENT.
SE-75	-3.937E-02	6.169E-02	1.045E-01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	6.259E-02	1.041E-01	0.000E+00	NOT IDENT.
Y-88	1.362E-02	4.370E-02	7.303E-02	0.000E+00	NOT IDENT.
Y-91	-1.980E+00	3.364E+01	5.553E+01	0.000E+00	NOT IDENT.
NB-94	3.528E-02	4.516E-02	8.144E-02	0.000E+00	NOT IDENT.
NB-95	6.059E-02	5.825E-02	1.062E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.133E-01	3.509E-01	0.000E+00	NOT IDENT.
ZR-95	-4.782E-02	9.062E-02	1.488E-01	0.000E+00	NOT IDENT.
MO-99	3.725E+00	5.110E+01	8.831E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.158E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	6.061E-04	5.415E-02	9.134E-02	0.000E+00	FAIL ABUN
RH-106	-5.236E-02	4.199E-01	6.907E-01	0.000E+00	NOT IDENT.
RU-106	-5.236E-02	4.199E-01	6.907E-01	0.000E+00	NOT IDENT.
AG-108M	-7.723E-03	3.654E-02	6.124E-02	0.000E+00	NOT IDENT.
AG-110M	-1.307E-02	4.056E-02	6.853E-02	0.000E+00	NOT IDENT.
SN-113	-5.805E-02	6.146E-02	9.909E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	6.867E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-1.089E-02	9.921E-02	1.675E-01	0.000E+00	NOT IDENT.
TE-123M	5.742E-03	4.090E-02	6.971E-02	0.000E+00	NOT IDENT.
SB-124	-7.174E-02	9.342E-02	1.323E-01	0.000E+00	NOT IDENT.
SB-125	3.094E-02	1.160E-01	2.006E-01	0.000E+00	FAIL ABUN
TE-125M	-1.271E+01	1.428E+01	2.369E+01	0.000E+00	NOT IDENT.
I-126	6.917E-02	3.463E-01	6.074E-01	0.000E+00	NOT IDENT.
SB-126	2.104E-01	2.672E-01	4.281E-01	0.000E+00	NOT IDENT.
SB-127	-3.683E-01	4.208E+00	7.222E+00	0.000E+00	NOT IDENT.
I-131	4.998E-02	2.296E-01	3.991E-01	0.000E+00	NOT IDENT.
TE-132	-5.149E-01	2.921E+00	5.107E+00	0.000E+00	NOT IDENT.
BA-133	3.457E-02	6.137E-02	9.527E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.516E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.549E-02	1.210E-01	0.000E+00	FAIL ABUN
CS-135	7.119E-02	2.111E-01	3.736E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.490E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.612E-01	1.851E-01	2.845E-01	0.000E+00	NOT IDENT.
BA-137M	-2.702E-02	4.201E-02	6.923E-02	0.000E+00	NOT IDENT.
CS-137	-2.854E-02	4.438E-02	7.314E-02	0.000E+00	NOT IDENT.
CE-139	-7.100E-03	4.355E-02	7.130E-02	0.000E+00	NOT IDENT.
BA-140	-3.640E-01	4.620E-01	7.024E-01	0.000E+00	NOT IDENT.
LA-140	-7.818E-02	1.379E-01	2.080E-01	0.000E+00	FAIL ABUN
CE-141	5.605E-02	9.450E-02	1.642E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.211E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	2.341E-01	3.120E-01	4.737E-01	0.000E+00	NOT IDENT.
PM-144	2.860E-02	4.651E-02	8.319E-02	0.000E+00	NOT IDENT.
PR-144	1.892E+00	3.502E+00	6.237E+00	0.000E+00	NOT IDENT.
PM-146	6.782E-02	5.336E-02	9.689E-02	0.000E+00	NOT IDENT.
ND-147	-2.047E-01	9.959E-01	1.646E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	5.931E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	6.987E-02	1.407E-01	2.181E-01	0.000E+00	FAIL ABUN
GD-153	1.897E-02	1.331E-01	2.035E-01	0.000E+00	NOT IDENT.
EU-154	8.758E-02	1.649E-01	2.856E-01	0.000E+00	NOT IDENT.
EU-155	2.105E-01	1.475E-01	2.647E-01	0.000E+00	FAIL ABUN
TB-160	-5.495E-02	1.751E-01	2.888E-01	0.000E+00	FAIL ABUN
HO-166M	4.847E-03	7.486E-02	1.295E-01	0.000E+00	NOT IDENT.
TA-182	-1.467E-01	3.077E-01	4.911E-01	0.000E+00	FAIL ABUN
IR-192	-3.442E-02	4.988E-02	8.324E-02	0.000E+00	FAIL ABUN
HG-203	3.858E-02	5.263E-02	9.449E-02	0.000E+00	NOT IDENT.
BI-207	-4.406E-02	7.154E-02	1.131E-01	0.000E+00	FAIL ABUN
PB-210	-6.602E+00	1.347E+01	2.320E+01	0.000E+00	NOT IDENT.
PB-211	-3.717E-01	9.605E-01	1.575E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	9.967E-01	1.505E+00	0.000E+00	FAIL ABUN
RN-219	-1.420E-01	5.219E-01	8.761E-01	0.000E+00	NOT IDENT.
RA-223	-2.649E-01	9.915E-01	1.458E+00	0.000E+00	FAIL ABUN
AC-227	-1.396E-01	3.384E-01	5.810E-01	0.000E+00	FAIL ABUN
TH-227	-1.396E-01	3.385E-01	5.810E-01	0.000E+00	FAIL ABUN
TH-229	-4.874E-01	7.268E-01	1.182E+00	0.000E+00	FAIL ABUN
PA-231	-1.037E+00	1.892E+00	3.199E+00	0.000E+00	FAIL ABUN
TH-231	-2.649E-01	9.915E-01	1.458E+00	0.000E+00	FAIL ABUN
PA-233	3.189E-03	8.756E-02	1.520E-01	0.000E+00	FAIL ABUN
PA-234	3.161E-01	3.929E-01	7.000E-01	0.000E+00	NOT IDENT.
PA-234M	3.959E+00	6.164E+00	1.083E+01	0.000E+00	NOT IDENT.
TH-234	3.111E-01	2.571E+00	4.547E+00	0.000E+00	NOT IDENT.
U-235	1.073E-01	2.788E-01	4.742E-01	0.000E+00	FAIL ABUN
U-238	3.111E-01	2.571E+00	4.547E+00	0.000E+00	NOT IDENT.
NP-239	1.894E-01	5.316E-01	9.257E-01	0.000E+00	NOT IDENT.
AM-241	-3.988E-01	3.290E-01	5.503E-01	0.000E+00	NOT IDENT.
CM-247	-1.749E-03	4.750E-02	8.092E-02	0.000E+00	NOT IDENT.

CF-249	3.946E-02	5.050E-02	9.008E-02	0.000E+00 NOT IDENT.
CF-251	5.285E-02	1.757E-01	2.998E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:15:36.56

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860001.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 16:15:02
Sample ID         : G248860001           Sample quantity  : 1.25520E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.37  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1368	10.66*	9.663E-01	3.973E+01	3.973E+01	11.43
CD-109	88.03	123	3.70*	4.453E+00	2.240E+00	2.310E+00	60.72
SN-126	64.28	------	9.60	1.941E+00	------ Line Not Found		------
	86.94	123	8.90	4.453E+00	9.314E-01	9.314E-01	72.96
	87.57	123	37.00*	4.453E+00	2.240E-01	2.240E-01	60.72
TL-208	277.37	------	6.60	3.705E+00	------ Line Not Found		------
	583.19	373	85.00*	2.191E+00	5.989E-01	5.989E-01	18.61
	860.56	91	12.50	1.576E+00	1.382E+00	1.382E+00	42.22
BI-211	72.87	------	1.23	3.001E+00	------ Line Not Found		------
	351.06	641	12.92*	3.140E+00	4.727E+00	4.727E+00	15.04
PB-212	74.82	313	10.28	3.228E+00	2.818E+00	2.818E+00	34.36
	77.11	629	17.10	3.501E+00	3.142E+00	3.142E+00	19.62
	238.63	1216	43.60*	4.114E+00	2.027E+00	2.027E+00	14.08
	300.09	86	3.30	3.509E+00	2.226E+00	2.226E+00	60.22
BI-214	609.32	400	45.49*	2.117E+00	1.243E+00	1.243E+00	18.15
	1120.29	104	14.92	1.227E+00	1.692E+00	1.692E+00	41.39
	1764.49	67	15.30	8.555E-01	1.534E+00	1.534E+00	33.13
PB-214	74.82	313	5.80	3.228E+00	4.995E+00	4.996E+00	33.89
	77.11	629	9.70	3.501E+00	5.540E+00	5.540E+00	21.29
	242.00	210	7.25	4.078E+00	2.129E+00	2.129E+00	45.16
	295.22	336	18.42	3.547E+00	1.536E+00	1.536E+00	23.81
	351.93	641	35.60*	3.140E+00	1.716E+00	1.716E+00	16.02
RA-224	240.99	210	4.10*	4.078E+00	3.765E+00	3.765E+00	44.79
RA-226	609.32	400	45.49*	2.117E+00	1.243E+00	1.243E+00	18.15
	1120.29	104	14.92	1.227E+00	1.692E+00	1.692E+00	41.39
	1764.49	67	15.30	8.555E-01	1.534E+00	1.534E+00	33.13
AC-228	338.32	280	11.27	3.226E+00	2.301E+00	2.301E+00	47.29
	911.20	245	25.80*	1.494E+00	1.904E+00	1.904E+00	24.62
	968.97	174	15.80	1.410E+00	2.340E+00	2.340E+00	35.62
RA-228	338.32	280	11.27	3.226E+00	2.301E+00	2.301E+00	47.29
	911.20	245	25.80*	1.494E+00	1.904E+00	1.904E+00	24.62
	968.97	174	15.80	1.410E+00	2.340E+00	2.340E+00	35.62

Sample ID : G248860001 Acquisition date : 24-MAR-2010 16:15:02

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	313	10.28	3.228E+00	2.818E+00	2.818E+00	32.97
	77.11	629	17.10	3.501E+00	3.142E+00	3.142E+00	19.62
	238.63	1216	43.60*	4.114E+00	2.027E+00	2.027E+00	14.08
	300.09	86	3.30	3.509E+00	2.226E+00	2.226E+00	85.22
TH-230	609.32	400	45.49*	2.117E+00	1.243E+00	1.243E+00	17.37
	1120.29	104	14.92	1.227E+00	1.692E+00	1.692E+00	40.85
	1764.49	67	15.30	8.555E-01	1.534E+00	1.534E+00	33.13
TH-232	338.32	280	11.27	3.226E+00	2.301E+00	2.301E+00	23.88
	911.20	245	25.80*	1.494E+00	1.904E+00	1.904E+00	24.62
	968.97	174	15.80	1.410E+00	2.340E+00	2.340E+00	35.62
NP-237	86.48	123	12.40*	4.453E+00	6.685E-01	6.685E-01	64.24
	95.86	------	2.68	5.004E+00	------ Line Not Found		------
ANH-511	511.00	190	100.00*	2.420E+00	2.352E-01	2.352E-01	37.47

Flag: "*" = Keyline

Sample ID : G248860001 Acquisition date : 24-MAR-2010 16:15:02

Total number of lines in spectrum 30
Number of unidentified lines 4
Number of lines tentatively identified by NID 26 86.67%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.973E+01	3.973E+01	0.454E+01	11.43	
CD-109	461.40D	1.03	2.240E+00	2.310E+00	1.402E+00	60.72	
SN-126	2.30E+05Y	1.00	2.240E-01	2.240E-01	1.361E-01	60.72	
TL-208	1.41E+10Y	1.00	5.989E-01	5.989E-01	1.115E-01	18.61	
BI-211	7.04E+08Y	1.00	4.727E+00	4.727E+00	0.711E+00	15.04	
PB-212	1.41E+10Y	1.00	2.027E+00	2.027E+00	0.286E+00	14.08	
BI-214	1600.00Y	1.00	1.243E+00	1.243E+00	0.226E+00	18.15	
PB-214	1600.00Y	1.00	1.716E+00	1.716E+00	0.275E+00	16.02	
RA-224	1.41E+10Y	1.00	3.765E+00	3.765E+00	1.686E+00	44.79	
RA-226	1600.00Y	1.00	1.243E+00	1.243E+00	0.226E+00	18.15	
AC-228	1.41E+10Y	1.00	1.904E+00	1.904E+00	0.469E+00	24.62	
RA-228	1.41E+10Y	1.00	1.904E+00	1.904E+00	0.469E+00	24.62	
TH-228	1.41E+10Y	1.00	2.027E+00	2.027E+00	0.286E+00	14.08	
TH-230	7.54E+04Y	1.00	1.243E+00	1.243E+00	0.216E+00	17.37	
TH-232	1.41E+10Y	1.00	1.904E+00	1.904E+00	0.469E+00	24.62	
NP-237	2.14E+06Y	1.00	6.685E-01	6.685E-01	4.295E-01	64.24	
ANH-511	1.00E+09Y	1.00	2.352E-01	2.352E-01	0.881E-01	37.47	
		Total Activity :	6.740E+01	6.747E+01			

Grand Total Activity : 6.740E+01 6.747E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248860001 Acquisition date : 24-MAR-2010 16:15:02

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	90.17	109	505	1.35	179.27	168	25	1.51E-02	73.2	4.66E+00	T
0	129.22	66	344	1.14	257.36	254	8	9.17E-03	****	5.63E+00	
0	186.45	196	383	1.59	371.81	365	11	2.73E-02	42.7	4.85E+00	T
0	209.65	120	320	0.95	418.21	413	11	1.67E-02	60.5	4.50E+00	T
0	327.58	80	158	1.01	654.05	649	10	1.11E-02	62.7	3.30E+00	T
0	462.67	79	162	1.45	924.24	918	14	1.10E-02	71.7	2.60E+00	T
0	727.27	96	70	1.98	1453.48	1448	12	1.33E-02	41.6	1.83E+00	T
0	794.89	83	54	1.40	1588.72	1582	15	1.16E-02	43.8	1.69E+00	T
0	964.47	72	57	1.94	1927.95	1921	12	1.00E-02	48.1	1.42E+00	T
0	1378.02	54	12	3.78	2755.24	2749	18	7.48E-03	41.8	1.01E+00	
0	1587.99	16	9	0.68	3175.33	3171	9	2.25E-03	91.3	9.09E-01	
0	1846.56	20	14	3.25	3692.67	3684	18	2.76E-03	97.9	8.40E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:15:40.77

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860001.CNF;1  *
* Acquisition date : 24-MAR-2010 16:15:02  Detector SN#    :                *
* Detector ID      : GAM15                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.37         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 4-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248860001            Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.25520E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.973E+01	4.542E+00	7.560E-01	7.429E-02	52.550
CD-109	2.310E+00	1.402E+00	1.847E+00	2.292E-01	1.251
SN-126	2.240E-01	1.361E-01	1.805E-01	2.234E-02	1.241
TL-208	5.989E-01	1.115E-01	6.882E-02	6.295E-03	8.702
BI-211	4.727E+00	7.109E-01	4.387E-01	4.369E-02	10.777
PB-212	2.027E+00	2.855E-01	1.240E-01	1.481E-02	16.354
BI-214	1.243E+00	2.257E-01	1.386E-01	1.381E-02	8.968
PB-214	1.716E+00	2.748E-01	1.570E-01	1.784E-02	10.930
RA-224	3.765E+00	1.686E+00	1.328E+00	1.465E-01	2.834
RA-226	1.243E+00	2.257E-01	1.386E-01	1.381E-02	8.968
AC-228	1.904E+00	4.687E-01	3.083E-01	3.734E-02	6.175
RA-228	1.904E+00	4.687E-01	3.083E-01	3.734E-02	6.175
TH-228	2.027E+00	2.855E-01	1.240E-01	1.481E-02	16.354
TH-230	1.243E+00	2.159E-01	1.386E-01	1.172E-02	8.968
TH-232	1.904E+00	4.687E-01	3.083E-01	3.734E-02	6.175
NP-237	6.685E-01	4.295E-01	5.489E-01	1.333E-01	1.218
ANH-511	2.352E-01	8.815E-02	6.254E-02	5.404E-03	3.761

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.071E-01		4.432E-01	6.985E-01	6.492E-02	-0.297

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	2.774E-02		5.976E-02	1.009E-01	9.164E-03	0.275
NA-24	-1.173E+01		1.385E+02	Half-Life too short		
SC-46	-3.408E-02		5.107E-02	7.901E-02	7.343E-03	-0.431
V-48	-7.561E-02		1.147E-01	1.764E-01	1.613E-02	-0.429
CR-51	1.487E-01		5.914E-01	9.686E-01	1.028E-01	0.154
MN-54	-1.490E-02		5.193E-02	8.425E-02	7.646E-03	-0.177
CO-56	1.153E-02		4.874E-02	8.240E-02	7.519E-03	0.140
CO-57	-2.527E-02		3.541E-02	5.505E-02	5.546E-03	-0.459
CO-58	2.314E-02		5.631E-02	9.627E-02	8.655E-03	0.240
FE-59	-3.900E-02		1.323E-01	2.098E-01	1.958E-02	-0.186
CO-60	-1.570E-02		4.796E-02	7.386E-02	7.100E-03	-0.213
ZN-65	1.051E-01		1.433E-01	2.174E-01	1.857E-02	0.483
SE-75	-3.937E-02		6.295E-02	1.021E-01	1.119E-02	-0.386
SR-85	1.240E-01		6.387E-02	1.027E-01	8.869E-03	1.208
Y-88	1.362E-02		4.459E-02	7.333E-02	6.176E-03	0.186
Y-91	-1.980E+00		3.432E+01	5.541E+01	4.671E+00	-0.036
NB-94	3.528E-02		4.608E-02	8.064E-02	6.808E-03	0.437
NB-95	6.059E-02		5.944E-02	1.053E-01	9.223E-03	0.576
NB-95M	4.874E-01		2.177E-01	3.421E-01	4.122E-02	1.425
ZR-95	-4.782E-02		9.247E-02	1.475E-01	1.417E-02	-0.324
MO-99	3.725E+00		5.215E+01	8.750E+01	1.379E+01	0.043
TC-99M	-4.423E+15		3.142E+16	Half-Life too short		
RU-103	6.061E-04		5.526E-02	8.999E-02	1.258E-02	0.007
RH-106	-5.236E-02		4.285E-01	6.827E-01	8.954E-02	-0.077
RU-106	-5.236E-02		4.285E-01	6.827E-01	5.737E-02	-0.077
AG-108M	-7.723E-03		3.729E-02	6.022E-02	5.322E-03	-0.128
AG-110M	-1.307E-02		4.139E-02	6.779E-02	5.769E-03	-0.193
SN-113	-5.805E-02		6.272E-02	9.730E-02	8.450E-03	-0.597
CD-115	-1.232E-05		3.504E-05	Half-Life too short		
SN-117M	-1.089E-02		1.012E-01	1.624E-01	1.703E-02	-0.067
TE-123M	5.742E-03		4.173E-02	6.760E-02	7.123E-03	0.085
SB-124	-7.174E-02		9.532E-02	1.326E-01	1.249E-02	-0.541
SB-125	3.094E-02		1.184E-01	1.972E-01	1.717E-02	0.157
TE-125M	-1.271E+01		1.457E+01	2.286E+01	2.718E+00	-0.556
I-126	6.917E-02		3.534E-01	6.009E-01	4.956E-02	0.115
SB-126	2.104E-01		2.726E-01	4.241E-01	3.620E-02	0.496
SB-127	-3.683E-01		4.294E+00	7.149E+00	9.152E-01	-0.052
I-131	4.998E-02		2.343E-01	3.915E-01	3.794E-02	0.128
TE-132	-5.149E-01		2.981E+00	4.977E+00	9.097E-01	-0.103
BA-133	3.457E-02		6.262E-02	9.343E-02	1.262E-02	0.370
I-133	-3.414E-01		2.304E-01	Half-Life too short		
CS-134	1.950E-01	+	8.724E-02	1.200E-01	1.075E-02	1.625
CS-135	7.119E-02		2.154E-01	3.649E-01	4.378E-02	0.195
I-135	1.739E+15		1.781E+15	Half-Life too short		
CS-136	-1.612E-01		1.889E-01	2.834E-01	2.622E-02	-0.569
BA-137M	-2.702E-02		4.287E-02	6.849E-02	5.631E-03	-0.394
CS-137	-2.854E-02		4.529E-02	7.235E-02	5.961E-03	-0.394
CE-139	-7.100E-03		4.444E-02	6.918E-02	7.384E-03	-0.103

Sample ID : G248860001 Acquisition date : 24-MAR-2010 16:15:02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-140	-3.640E-01		4.714E-01	6.928E-01	2.350E-01	-0.525
LA-140	-7.818E-02		1.407E-01	2.085E-01	1.954E-02	-0.375
CE-141	5.605E-02		9.643E-02	1.590E-01	1.644E-02	0.352
CE-143	1.316E-02		2.149E-03	Half-Life too short		
CE-144	2.341E-01		3.184E-01	4.582E-01	7.394E-02	0.511
PM-144	2.860E-02		4.746E-02	8.236E-02	6.931E-03	0.347
PR-144	1.892E+00		3.573E+00	6.175E+00	5.193E-01	0.306
PM-146	6.782E-02		5.445E-02	9.534E-02	1.008E-02	0.711
ND-147	-2.047E-01		1.016E+00	1.623E+00	2.428E-01	-0.126
PM-149	6.562E-04		3.026E-04	Half-Life too short		
EU-152	6.987E-02		1.436E-01	2.138E-01	2.176E-02	0.327
GD-153	1.897E-02		1.358E-01	1.960E-01	2.164E-02	0.097
EU-154	8.758E-02		1.683E-01	2.853E-01	3.346E-02	0.307
EU-155	2.105E-01		1.505E-01	2.552E-01	2.688E-02	0.825
TB-160	-5.495E-02		1.787E-01	2.869E-01	2.656E-02	-0.191
HO-166M	4.847E-03		7.638E-02	1.283E-01	1.089E-02	0.038
TA-182	-1.467E-01		3.139E-01	4.902E-01	4.207E-02	-0.299
IR-192	-3.442E-02		5.090E-02	8.149E-02	8.402E-03	-0.422
HG-203	3.858E-02		5.370E-02	9.235E-02	1.015E-02	0.418
BI-207	-4.406E-02		7.300E-02	1.127E-01	9.941E-03	-0.391
PB-210	-6.602E+00		1.374E+01	2.212E+01	2.724E+00	-0.298
PB-211	-3.717E-01		9.802E-01	1.548E+00	7.485E-01	-0.240
BI-212	2.345E+00	+	1.017E+00	1.491E+00	1.852E-01	1.573
RN-219	-1.420E-01		5.325E-01	8.607E-01	1.272E-01	-0.165
RA-223	-2.649E-01		1.012E+00	1.428E+00	2.591E-01	-0.186
AC-227	-1.396E-01		3.453E-01	5.672E-01	7.849E-02	-0.246
TH-227	-1.396E-01		3.454E-01	5.672E-01	8.628E-02	-0.246
TH-229	-4.874E-01		7.416E-01	1.149E+00	1.251E-01	-0.424
PA-231	-1.037E+00		1.931E+00	3.127E+00	4.986E-01	-0.332
TH-231	-2.649E-01		1.012E+00	1.428E+00	2.591E-01	-0.186
PA-233	3.189E-03		8.935E-02	1.487E-01	1.574E-02	0.021
PA-234	3.161E-01		4.009E-01	6.961E-01	1.327E-01	0.454
PA-234M	3.959E+00		6.290E+00	1.078E+01	1.118E+00	0.367
TH-234	3.111E-01		2.623E+00	4.355E+00	8.635E-01	0.071
U-235	1.073E-01		2.844E-01	4.592E-01	8.171E-02	0.234
U-238	3.111E-01		2.623E+00	4.355E+00	8.635E-01	0.071
NP-239	1.894E-01		5.424E-01	8.939E-01	9.022E-02	0.212
AM-241	-3.988E-01		3.357E-01	5.265E-01	6.181E-02	-0.757
CM-247	-1.749E-03		4.847E-02	7.949E-02	6.722E-03	-0.022
CF-249	3.946E-02		5.153E-02	8.845E-02	7.540E-03	0.446
CF-251	5.285E-02		1.793E-01	2.912E-01	3.133E-02	0.182

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248860001           *
* Acquisition date : 24-MAR-2010 16:15:02 Detector SN#    :                *
* Detector ID      : GAM15                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.37     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  4-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G248860001           Analyst initials: MXR1           *
* Batch Number     : 962633               Sample Quantity : 1.2552E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.973E+01	4.451E+00	3.780E-01	2.271E+00
CD-109	2.310E+00	1.374E+00	9.605E-01	7.012E-01
SN-126	2.240E-01	1.333E-01	9.389E-02	6.803E-02
TL-208	5.989E-01	1.092E-01	3.487E-02	5.573E-02
BI-211	4.727E+00	6.967E-01	2.238E-01	3.554E-01
PB-212	2.027E+00	2.798E-01	6.360E-02	1.428E-01
BI-214	1.243E+00	2.212E-01	7.020E-02	1.128E-01
PB-214	1.716E+00	2.693E-01	8.009E-02	1.374E-01
RA-224	3.765E+00	1.653E+00	6.814E-01	8.432E-01
RA-226	1.243E+00	2.212E-01	7.020E-02	1.128E-01
AC-228	1.904E+00	4.594E-01	1.552E-01	2.344E-01
RA-228	1.904E+00	4.594E-01	1.552E-01	2.344E-01
TH-228	2.027E+00	2.798E-01	6.360E-02	1.428E-01
TH-230	1.243E+00	2.116E-01	7.019E-02	1.080E-01
TH-232	1.904E+00	4.594E-01	1.552E-01	2.344E-01
NP-237	6.685E-01	4.209E-01	2.856E-01	2.147E-01
ANH-511	2.352E-01	8.638E-02	3.174E-02	4.407E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.071E-01	4.344E-01	3.549E-01	2.216E-01	NOT IDENT.
NA-22	2.774E-02	5.857E-02	5.053E-02	2.988E-02	NOT IDENT.
NA-24	-1.173E+07	2.714E+08	0.000E+00	1.385E+08	SHORT HLIF
SC-46	-3.408E-02	5.005E-02	3.979E-02	2.553E-02	FAIL ABUN
V-48	-7.561E-02	1.124E-01	8.871E-02	5.736E-02	NOT IDENT.
CR-51	1.487E-01	5.796E-01	4.949E-01	2.957E-01	NOT IDENT.
MN-54	-1.490E-02	5.089E-02	4.247E-02	2.597E-02	NOT IDENT.
CO-56	1.153E-02	4.777E-02	4.152E-02	2.437E-02	NOT IDENT.
CO-57	-2.527E-02	3.471E-02	2.851E-02	1.771E-02	NOT IDENT.
CO-58	2.314E-02	5.518E-02	4.854E-02	2.815E-02	NOT IDENT.

FE-59	-3.900E-02	1.296E-01	1.053E-01	6.613E-02	NOT IDENT.
CO-60	-1.570E-02	4.700E-02	3.697E-02	2.398E-02	NOT IDENT.
ZN-65	1.051E-01	1.405E-01	1.091E-01	7.167E-02	NOT IDENT.
SE-75	-3.937E-02	6.169E-02	5.230E-02	3.147E-02	NOT IDENT.
SR-85	1.240E-01	6.259E-02	5.210E-02	3.193E-02	NOT IDENT.
Y-88	1.362E-02	4.370E-02	3.654E-02	2.230E-02	NOT IDENT.
Y-91	-1.980E+00	3.364E+01	2.778E+01	1.716E+01	NOT IDENT.
NB-94	3.528E-02	4.516E-02	4.075E-02	2.304E-02	NOT IDENT.
NB-95	6.059E-02	5.825E-02	5.312E-02	2.972E-02	NOT IDENT.
NB-95M	4.874E-01	2.133E-01	1.755E-01	1.088E-01	NOT IDENT.
ZR-95	-4.782E-02	9.062E-02	7.442E-02	4.624E-02	NOT IDENT.
MO-99	3.725E+00	5.110E+01	4.418E+01	2.607E+01	NOT IDENT.
TC-99M	-4.423E+21	6.158E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	6.061E-04	5.415E-02	4.570E-02	2.763E-02	FAIL ABUN
RH-106	-5.236E-02	4.199E-01	3.455E-01	2.142E-01	NOT IDENT.
RU-106	-5.236E-02	4.199E-01	3.455E-01	2.142E-01	NOT IDENT.
AG-108M	-7.723E-03	3.654E-02	3.064E-02	1.864E-02	NOT IDENT.
AG-110M	-1.307E-02	4.056E-02	3.428E-02	2.069E-02	NOT IDENT.
SN-113	-5.805E-02	6.146E-02	4.957E-02	3.136E-02	NOT IDENT.
CD-115	-1.232E+01	6.867E+01	0.000E+00	3.504E+01	SHORT HLIF
SN-117M	-1.089E-02	9.921E-02	8.380E-02	5.062E-02	NOT IDENT.
TE-123M	5.742E-03	4.090E-02	3.488E-02	2.087E-02	NOT IDENT.
SB-124	-7.174E-02	9.342E-02	6.617E-02	4.766E-02	NOT IDENT.
SB-125	3.094E-02	1.160E-01	1.004E-01	5.921E-02	FAIL ABUN
TE-125M	-1.271E+01	1.428E+01	1.185E+01	7.286E+00	NOT IDENT.
I-126	6.917E-02	3.463E-01	3.039E-01	1.767E-01	NOT IDENT.
SB-126	2.104E-01	2.672E-01	2.142E-01	1.363E-01	NOT IDENT.
SB-127	-3.683E-01	4.208E+00	3.613E+00	2.147E+00	NOT IDENT.
I-131	4.998E-02	2.296E-01	1.997E-01	1.172E-01	NOT IDENT.
TE-132	-5.149E-01	2.921E+00	2.555E+00	1.490E+00	NOT IDENT.
BA-133	3.457E-02	6.137E-02	4.767E-02	3.131E-02	NOT IDENT.
I-133	-3.414E+05	4.516E+05	0.000E+00	2.304E+05	SHORT HLIF
CS-134	1.950E-01	8.549E-02	6.052E-02	4.362E-02	FAIL ABUN
CS-135	7.119E-02	2.111E-01	1.869E-01	1.077E-01	NOT IDENT.
I-135	1.739E+21	3.490E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.612E-01	1.851E-01	1.424E-01	9.445E-02	NOT IDENT.
BA-137M	-2.702E-02	4.201E-02	3.464E-02	2.143E-02	NOT IDENT.
CS-137	-2.854E-02	4.438E-02	3.659E-02	2.264E-02	NOT IDENT.
CE-139	-7.100E-03	4.355E-02	3.567E-02	2.222E-02	NOT IDENT.
BA-140	-3.640E-01	4.620E-01	3.514E-01	2.357E-01	NOT IDENT.
LA-140	-7.818E-02	1.379E-01	1.041E-01	7.034E-02	FAIL ABUN
CE-141	5.605E-02	9.450E-02	8.214E-02	4.822E-02	NOT IDENT.
CE-143	1.316E+04	4.211E+03	0.000E+00	2.149E+03	SHORT HLIF
CE-144	2.341E-01	3.120E-01	2.370E-01	1.592E-01	NOT IDENT.
PM-144	2.860E-02	4.651E-02	4.162E-02	2.373E-02	NOT IDENT.
PR-144	1.892E+00	3.502E+00	3.120E+00	1.787E+00	NOT IDENT.
PM-146	6.782E-02	5.336E-02	4.847E-02	2.723E-02	NOT IDENT.
ND-147	-2.047E-01	9.959E-01	8.235E-01	5.081E-01	FAIL ABUN
PM-149	6.562E+02	5.931E+02	0.000E+00	3.026E+02	SHORT HLIF
EU-152	6.987E-02	1.407E-01	1.091E-01	7.179E-02	FAIL ABUN
GD-153	1.897E-02	1.331E-01	1.018E-01	6.792E-02	NOT IDENT.
EU-154	8.758E-02	1.649E-01	1.429E-01	8.413E-02	NOT IDENT.
EU-155	2.105E-01	1.475E-01	1.324E-01	7.524E-02	FAIL ABUN
TB-160	-5.495E-02	1.751E-01	1.445E-01	8.936E-02	FAIL ABUN
HO-166M	4.847E-03	7.486E-02	6.481E-02	3.819E-02	NOT IDENT.
TA-182	-1.467E-01	3.077E-01	2.457E-01	1.570E-01	FAIL ABUN
IR-192	-3.442E-02	4.988E-02	4.164E-02	2.545E-02	FAIL ABUN
HG-203	3.858E-02	5.263E-02	4.727E-02	2.685E-02	NOT IDENT.
BI-207	-4.406E-02	7.154E-02	5.659E-02	3.650E-02	FAIL ABUN
PB-210	-6.602E+00	1.347E+01	1.161E+01	6.870E+00	NOT IDENT.
PB-211	-3.717E-01	9.605E-01	7.881E-01	4.901E-01	NOT IDENT.
BI-212	2.345E+00	9.967E-01	7.529E-01	5.085E-01	FAIL ABUN
RN-219	-1.420E-01	5.219E-01	4.383E-01	2.663E-01	NOT IDENT.
RA-223	-2.649E-01	9.915E-01	7.295E-01	5.059E-01	FAIL ABUN
AC-227	-1.396E-01	3.384E-01	2.907E-01	1.727E-01	FAIL ABUN
TH-227	-1.396E-01	3.385E-01	2.907E-01	1.727E-01	FAIL ABUN
TH-229	-4.874E-01	7.268E-01	5.914E-01	3.708E-01	FAIL ABUN
PA-231	-1.037E+00	1.892E+00	1.600E+00	9.655E-01	FAIL ABUN
TH-231	-2.649E-01	9.915E-01	7.295E-01	5.059E-01	FAIL ABUN
PA-233	3.189E-03	8.756E-02	7.602E-02	4.467E-02	FAIL ABUN
PA-234	3.161E-01	3.929E-01	3.502E-01	2.005E-01	NOT IDENT.
PA-234M	3.959E+00	6.164E+00	5.421E+00	3.145E+00	NOT IDENT.
TH-234	3.111E-01	2.571E+00	2.275E+00	1.312E+00	NOT IDENT.
U-235	1.073E-01	2.788E-01	2.372E-01	1.422E-01	FAIL ABUN
U-238	3.111E-01	2.571E+00	2.275E+00	1.312E+00	NOT IDENT.
NP-239	1.894E-01	5.316E-01	4.631E-01	2.712E-01	NOT IDENT.
AM-241	-3.988E-01	3.290E-01	2.753E-01	1.679E-01	NOT IDENT.
CM-247	-1.749E-03	4.750E-02	4.049E-02	2.423E-02	NOT IDENT.

CF-249	3.946E-02	5.050E-02	4.507E-02	2.576E-02	NOT IDENT.
CF-251	5.285E-02	1.757E-01	1.500E-01	8.964E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	334.8360
49.72	322.3170
57.36	0.0000
59.54	412.8836
63.29	399.5564
63.29	399.5564
64.28	425.5668
67.75	448.3166
69.67	411.6612
70.83	443.9093
72.81	421.3398
72.87	421.3731
72.87	421.3731
74.82	424.8489
74.82	424.8489
74.82	424.8489
74.97	424.9338
77.11	426.1224
77.11	426.1224
77.11	426.1224
79.69	427.5347
79.80	481.1444
80.12	481.3391
80.19	481.3814
80.57	500.0134
81.00	541.6410
81.07	541.6885
81.07	541.6885
83.79	562.2687
83.79	562.2687
85.43	478.8889
86.48	459.3520
86.55	459.3920
86.79	459.5225
86.94	459.6077
87.57	459.9556
88.03	460.2096
88.47	460.4514
89.96	461.2655
91.11	461.8900
92.59	462.6866
92.59	462.6866
93.35	463.0937
94.67	463.7982
94.87	403.6781
94.87	403.6781
95.86	399.2450
97.43	375.4669
98.44	328.4971
99.53	358.3492
100.11	369.7676
103.18	419.9574
103.37	414.9097
105.31	348.8838
106.12	366.6965
109.28	413.3987
111.00	364.4435
111.76	370.9478
116.30	359.1385
117.23	340.7202
121.12	362.9585
121.78	353.7741
122.06	359.1069
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131.20	370.0785
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136.00	374.4835

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140.51	0.0000
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144.24	347.3408
145.44	355.1968
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153.25	386.6826
154.21	384.8416
154.21	384.8416
156.02	361.6779
158.56	370.0208
159.00	361.4953
162.66	327.8495
163.33	353.0115
165.86	353.7355
176.60	287.6019
177.52	311.9727
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184.41	330.4070
185.72	332.7231
193.51	332.4263
197.04	329.9377
205.31	279.8669
210.85	271.6473
215.65	268.4587
222.11	273.1340
227.38	290.4839
228.16	288.8117
228.18	288.8156
235.69	279.2451
235.96	279.2935
235.96	279.2935
238.63	255.9226
238.63	255.9226
240.99	256.3074
242.00	256.4726
244.70	247.0881
252.40	224.8358
252.80	223.0397
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256.23	247.6228
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268.22	239.1375
269.46	200.0503
269.46	200.0503
271.23	199.3235
273.65	293.3191
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277.60	201.9457
278.00	206.6877
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279.54	187.1261
280.46	198.5157
283.69	215.8476
284.31	210.2684
285.41	186.8117
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287.50	185.7746
293.27	0.0000
295.22	196.0659
295.96	161.3464
298.57	161.5809
299.98	196.5831
299.98	196.5831
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300.09	196.5957
300.13	196.6007
301.36	196.7319
302.85	211.1840
304.50	198.6593
304.50	198.6593
304.85	181.2120
308.46	197.8124
311.90	196.2640

316.51	210.1833
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320.08	184.8309
323.87	197.5102
323.87	197.5102
328.76	191.5737
333.37	161.3688
334.37	195.6801
334.37	195.6801
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338.28	176.6569
338.32	176.6613
338.32	176.6613
338.32	176.6613
340.48	165.1938
340.55	165.1990
344.28	149.2829
351.06	164.4415
351.93	159.2991
356.01	145.2569
364.49	143.5637
366.42	141.7289
383.85	160.7660
388.16	126.2853
388.63	140.2358
391.69	170.3132
400.66	162.0119
401.81	146.0856
402.40	140.1196
404.85	157.3085
410.95	130.6110
414.70	155.9877
423.72	144.4820
427.09	130.5275
427.87	122.4741
433.94	119.7501
453.88	97.2242
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468.07	106.3708
473.00	102.1143
476.78	110.5344
477.60	118.8366
487.02	122.3962
492.35	0.0000
497.08	103.0944
511.00	118.3086
514.00	111.8053
527.90	0.0000
529.87	0.0000
531.02	106.5481
537.26	112.0816
546.56	0.0000
563.25	86.4600
569.33	100.5543
569.50	94.1424
569.70	92.0091
583.19	84.9211
600.60	125.7180
602.73	120.8486
604.72	117.3206
609.32	92.1947
609.32	92.1947
609.32	92.1947
610.33	77.7608
614.28	79.6748
618.01	87.0273
621.93	99.1225
621.93	99.1225
633.25	106.0559
635.95	86.4506
636.99	99.6179
645.85	96.6131
657.76	82.6575
661.66	92.8751
661.66	92.8751
664.57	0.0000
666.33	84.7245
666.50	84.7301

677.62	82.2551
685.70	93.5820
695.00	91.0635
696.49	98.5426
696.51	100.4019
697.00	110.6449
702.65	96.8652
706.68	105.3788
711.68	84.9904
720.70	72.2461
721.93	0.0000
722.78	77.1094
722.91	77.1127
723.31	91.5833
724.19	88.3929
727.33	80.7002
733.00	67.6772
735.93	82.1040
739.50	68.7494
747.24	77.4005
752.31	75.6250
753.82	68.0918
756.73	79.5088
763.94	102.4387
765.81	84.4624
766.42	81.6293
777.92	84.7539
778.90	78.1095
783.70	62.0007
785.37	78.2530
795.86	76.5706
801.95	77.2487
810.29	87.4490
810.76	77.8491
815.77	64.4823
818.51	76.0893
832.01	77.3356
834.85	95.7753
836.80	0.0000
846.77	57.2619
856.80	61.7252
860.56	57.4719
871.09	63.4924
873.19	59.6175
875.33	0.0000
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883.24	55.8542
884.68	57.8357
889.28	68.7012
898.04	63.9368
911.20	73.0350
911.20	73.0350
911.20	73.0350
926.50	70.3442
937.49	80.4727
944.13	65.6777
946.00	56.7472
949.00	68.7459
962.29	59.9731
964.08	106.2857
966.15	12.0059
968.97	12.0142
968.97	12.0142
968.97	12.0142
983.53	68.3196
996.26	72.5581
1001.03	56.4979
1004.73	85.8301
1037.84	52.9141
1038.76	0.0000
1048.07	73.4385
1050.41	65.3151
1050.41	65.3151
1063.66	74.7228
1085.87	50.4076
1099.45	67.0683
1112.07	80.7073

1115.54	63.9040
1120.29	69.4482
1120.29	69.4482
1120.29	69.4482
1120.55	73.6001
1121.30	62.2070
1131.51	0.0000
1173.23	67.0938
1177.93	85.0012
1189.05	72.5769
1204.77	88.6416
1221.41	103.7701
1231.02	89.1201
1235.36	90.2606
1238.28	80.7500
1260.41	0.0000
1271.85	57.7617
1274.44	49.2288
1274.54	50.3009
1291.59	56.9120
1298.22	0.0000
1312.11	47.4375
1332.49	35.7178
1365.19	29.8717
1368.63	0.0000
1384.29	16.3940
1408.01	29.1685
1457.56	0.0000
1460.82	31.3484
1489.16	20.0493
1505.03	24.8919
1596.21	22.6888
1620.50	21.4782
1678.03	0.0000
1690.97	17.7746
1764.49	9.9895
1764.49	9.9895
1764.49	9.9895
1770.23	3.4994
1771.35	7.7778
1791.20	0.0000
1836.06	11.5676

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248860001

Total Uranium Activity	9.7516E-01	ug/g
Total Uranium Counting Unc.	7.6488E+00	ug/g
Total Uranium Tpu	3.9025E-06	ug/g
Total Uranium Mda	6.7689E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248860001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM15            *
*   SAMPLE DATE   :  4-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 16:15:02.14    SAMPLE ALQT:  125.520 GRAM    *
*                                                                           *
*****************************************************************************
```

GROSS GAMMA ACTIVITY (pCi/GRAM)	: 1.145E+01
GROSS GAMMA ERROR (pCi/GRAM)	: 1.686E+00
GROSS GAMMA MDA (pCi/GRAM)	: 4.760E+00
GROSS GAMMA DLC (pCi/GRAM)	: 2.319E+00

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:16:24.50

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860002.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 16:15:25
Sample ID         : G248860002           Sample quantity  : 1.24160E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.75  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	75.05	467	463	1.17	149.21	144	16	6.49E-02	9.1	8.12E-01
2	2	77.27*	674	386	1.07	153.66	144	16	9.36E-02	6.4	
3	0	87.35	183	512	1.24	173.80	171	7	2.55E-02	21.7	
4	2	89.98	130	272	1.08	179.07	177	12	1.81E-02	19.6	2.15E+00
5	2	93.00*	246	453	1.25	185.11	177	12	3.42E-02	16.5	
6	0	129.05	116	483	1.36	257.17	252	10	1.61E-02	36.6	
7	0	185.96*	226	465	1.06	370.96	365	11	3.15E-02	20.2	
8	0	209.41	168	387	1.25	417.83	413	11	2.34E-02	24.0	
9	3	238.67*	1764	280	1.16	476.35	472	18	2.45E-01	2.9	1.85E+00
10	3	241.63*	347	386	1.77	482.25	472	18	4.82E-02	15.0	
11	0	270.03	115	305	1.14	539.04	534	11	1.60E-02	30.4	
12	0	277.64	123	268	1.26	554.25	549	11	1.71E-02	27.4	
13	0	295.26*	530	228	1.26	589.49	584	11	7.36E-02	7.2	
14	0	299.95	119	193	1.12	598.85	595	9	1.65E-02	22.9	
15	0	328.21	120	224	1.14	655.37	651	11	1.67E-02	25.6	
16	0	338.30*	374	198	1.19	675.53	670	10	5.19E-02	9.0	
17	0	351.83*	835	269	1.44	702.59	695	14	1.16E-01	5.5	
18	0	462.72	162	73	2.34	924.30	920	9	2.25E-02	12.3	
19	0	510.36*	197	222	2.17	1019.56	1012	20	2.74E-02	21.9	
20	0	583.03*	580	172	1.63	1164.86	1159	15	8.06E-02	6.6	
21	0	608.98*	678	176	1.46	1216.75	1209	14	9.41E-02	5.8	
22	0	727.03*	142	151	1.32	1452.78	1445	14	1.97E-02	20.5	
23	0	794.93	70	88	1.63	1588.55	1583	12	9.70E-03	29.6	
24	0	860.54*	81	115	1.76	1719.75	1711	14	1.13E-02	30.5	
25	0	910.80*	413	121	1.83	1820.23	1810	17	5.73E-02	8.0	
26	3	964.19	88	63	1.79	1927.01	1923	23	1.23E-02	19.1	1.57E+00
27	3	968.49*	279	73	2.25	1935.61	1923	23	3.87E-02	9.1	
28	0	1119.91*	164	89	2.19	2238.38	2230	18	2.27E-02	16.1	
29	0	1459.68*	2298	77	2.20	2917.85	2906	24	3.19E-01	2.3	
30	0	1587.36	40	46	1.95	3173.18	3167	17	5.60E-03	41.8	
31	0	1728.28	32	21	1.98	3455.01	3444	16	4.47E-03	35.9	
32	0	1763.32*	136	25	1.91	3525.09	3516	16	1.89E-02	12.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 18:16:27

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 4-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 16:15:25
Sample ID : G248860002 Sample quantity : 124.16 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.75 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.442E+01	3.066E+00	4.421E-01	3.355E-02	77.860
CD-109	+	88.03	*	2.394E+00	1.061E+00	1.267E+00	1.171E-01	1.890
SN-126		64.28		3.142E-01	5.630E-01	9.506E-01	1.405E-01	0.330
	+	86.94		9.655E-01	5.793E-01	5.457E-01	2.263E-01	1.769
	+	87.57	*	2.322E-01	1.029E-01	1.331E-01	1.226E-02	1.745
TL-208	+	277.37		9.009E-01	5.022E-01	5.358E-01	5.748E-02	1.681
	+	583.19	*	5.245E-01	8.082E-02	4.833E-02	3.782E-03	10.853
	+	860.56		6.752E-01	4.194E-01	3.769E-01	4.215E-02	1.792
BI-211		72.87		9.385E-01	3.449E+00	5.175E+00	4.273E-01	0.181
	+	351.06	*	3.582E+00	4.568E-01	2.729E-01	1.752E-02	13.126
PB-212	+	74.82		2.781E+00	6.183E-01	5.489E-01	7.038E-02	5.067
	+	77.11		2.267E+00	3.476E-01	3.106E-01	2.633E-02	7.298
	+	238.63	*	1.801E+00	1.666E-01	8.226E-02	5.930E-03	21.895
	+	300.09		1.823E+00	8.477E-01	1.017E+00	8.491E-02	1.793
BI-214	+	609.32	*	1.181E+00	1.727E-01	1.051E-01	9.447E-03	11.237
	+	1120.29		1.421E+00	4.763E-01	4.046E-01	3.896E-02	3.512
	+	1764.49		1.589E+00	3.978E-01	2.285E-01	1.389E-02	6.954
PB-214	+	74.82		4.930E+00	1.060E+00	9.729E-01	1.121E-01	5.067
	+	77.11		3.997E+00	6.958E-01	5.476E-01	6.477E-02	7.298
	+	242.00		2.145E+00	6.662E-01	4.994E-01	4.015E-02	4.296
	+	295.22		1.440E+00	2.413E-01	1.777E-01	1.543E-02	8.105
	+	351.93	*	1.300E+00	1.806E-01	9.923E-02	8.400E-03	13.102
RA-224	+	240.99	*	3.793E+00	1.157E+00	8.806E-01	4.906E-02	4.308
RA-226	+	609.32	*	1.181E+00	1.727E-01	1.051E-01	9.447E-03	11.237
	+	1120.29		1.421E+00	4.763E-01	4.046E-01	3.896E-02	3.512
	+	1764.49		1.589E+00	3.978E-01	2.285E-01	1.389E-02	6.954
AC-228	+	338.32		1.797E+00	8.081E-01	3.266E-01	1.347E-01	5.502
	+	911.20	*	1.740E+00	3.643E-01	1.987E-01	2.692E-02	8.755
	+	968.97		2.021E+00	6.248E-01	3.177E-01	7.925E-02	6.363
RA-228	+	338.32		1.797E+00	8.081E-01	3.266E-01	1.347E-01	5.502
	+	911.20	*	1.740E+00	3.643E-01	1.987E-01	2.692E-02	8.755
	+	968.97		2.021E+00	6.248E-01	3.177E-01	7.925E-02	6.363
TH-228	+	74.82		2.781E+00	5.570E-01	5.489E-01	4.629E-02	5.067
	+	77.11		2.267E+00	3.476E-01	3.106E-01	2.633E-02	7.298

Sample ID : G248860002 Acquisition date : 24-MAR-2010 16:15:25

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	1.801E+00	1.666E-01	8.226E-02	5.930E-03	21.895
	+	300.09		1.823E+00	1.388E+00	1.017E+00	6.189E-01	1.793
TH-230	+	609.32	*	1.181E+00	1.610E-01	1.051E-01	7.647E-03	11.237
	+	1120.29		1.421E+00	4.667E-01	4.046E-01	2.797E-02	3.512
	+	1764.49		1.589E+00	3.978E-01	2.285E-01	1.389E-02	6.954
TH-232	+	338.32		1.797E+00	3.390E-01	3.266E-01	1.890E-02	5.502
	+	911.20	*	1.740E+00	3.643E-01	1.987E-01	2.692E-02	8.755
	+	968.97		2.021E+00	6.248E-01	3.177E-01	7.925E-02	6.363
U-235	+	89.96		1.694E+00	7.833E-01	1.278E+00	3.158E-01	1.325
	+	93.35		1.910E+00	7.691E-01	7.251E-01	1.668E-01	2.633
		143.76	*	1.191E-01	1.899E-01	3.041E-01	4.742E-02	0.392
		163.33		4.243E-02	3.617E-01	6.141E-01	1.020E-01	0.069
	+	185.72		1.565E-01	6.384E-02	5.755E-02	3.061E-03	2.720
		205.31		-1.285E-01	4.663E-01	6.722E-01	1.133E-01	-0.191
NP-237	+	86.48	*	6.930E-01	3.398E-01	3.870E-01	8.849E-02	1.791
		95.86		6.163E-01	9.626E-01	1.429E+00	3.399E-01	0.431
ANH-511	+	511.00	*	1.382E-01	6.124E-02	3.636E-02	2.401E-03	3.802

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.317E-01	2.871E-01	4.856E-01	3.517E-02	0.271
NA-22		1274.54	*	-5.488E-02	3.877E-02	5.609E-02	3.817E-03	-0.978
NA-24		1368.63	*	-2.043E+02	3.877E-02	Half-Life too short		
SC-46		889.28	*	-2.272E-02	3.532E-02	5.479E-02	6.112E-03	-0.415
	+	1120.55		2.507E-01	8.232E-02	1.092E-01	7.545E-03	2.295
V-48		944.13		5.308E-01	9.541E-01	1.611E+00	1.706E-01	0.329
		983.53	*	2.540E-02	7.585E-02	1.259E-01	1.245E-02	0.202
		1312.11		3.271E-03	8.736E-02	1.435E-01	1.045E-02	0.023
CR-51		320.08	*	-3.594E-01	3.555E-01	5.395E-01	3.468E-02	-0.666
MN-54		834.85	*	2.130E-02	3.435E-02	5.848E-02	5.991E-03	0.364
CO-56		846.77	*	3.393E-03	3.260E-02	5.395E-02	5.632E-03	0.063
		1037.84		-2.022E-01	2.853E-01	4.532E-01	4.195E-02	-0.446
		1238.28		1.172E-01	8.576E-02	1.509E-01	1.006E-02	0.776
		1771.35		-1.270E+00	3.208E-01	2.683E-01	1.622E-02	-4.732
CO-57		122.06	*	3.620E-03	2.365E-02	3.820E-02	2.263E-03	0.095
		136.47		-1.448E-01	1.981E-01	3.055E-01	1.996E-02	-0.474
CO-58		810.76	*	-1.860E-02	3.490E-02	5.530E-02	5.459E-03	-0.336
FE-59		1099.45	*	-9.724E-03	8.216E-02	1.356E-01	1.116E-02	-0.072
		1291.59		-6.151E-02	1.196E-01	1.879E-01	1.579E-02	-0.327
CO-60		1173.23		-3.166E-02	3.968E-02	6.202E-02	3.428E-03	-0.511
		1332.49	*	-6.046E-03	3.592E-02	5.787E-02	4.373E-03	-0.104
ZN-65		1115.54	*	-2.346E-02	1.022E-01	1.423E-01	1.003E-02	-0.165
SE-75		121.12		1.682E-03	1.231E-01	1.977E-01	1.814E-02	0.009
		136.00		-1.668E-02	3.792E-02	5.925E-02	3.376E-03	-0.282
		264.66	*	2.444E-03	4.455E-02	6.403E-02	3.663E-03	0.038
		279.54		1.370E-01	1.095E-01	1.680E-01	1.039E-02	0.815
		400.66		7.585E-02	2.268E-01	3.752E-01	3.406E-02	0.202

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SR-85		514.00	*	9.479E-02	3.711E-02	6.216E-02	4.118E-03	1.525
Y-88		898.04		-2.294E-02	3.863E-02	5.857E-02	6.639E-03	-0.392
		1836.06	*	5.867E-03	2.485E-02	4.230E-02	2.409E-03	0.139
Y-91		1204.77	*	-1.388E+01	2.037E+01	3.208E+01	1.896E+00	-0.432
NB-94		702.65	*	2.161E-02	2.773E-02	4.832E-02	3.964E-03	0.447
		871.09		-4.262E-04	2.861E-02	4.680E-02	5.076E-03	-0.009
NB-95		765.81	*	2.074E-02	3.924E-02	6.690E-02	6.120E-03	0.310
NB-95M		235.69	*	1.389E-01	1.316E-01	2.004E-01	1.475E-02	0.693
ZR-95		724.19		1.905E-01	1.031E-01	1.665E-01	1.541E-02	1.144
		756.73	*	4.387E-02	6.412E-02	1.107E-01	1.093E-02	0.396
MO-99		140.51		-3.505E+01	7.761E+01	1.185E+02	2.702E+01	-0.296
		181.07		-1.141E+01	6.049E+01	8.864E+01	1.553E+01	-0.129
		366.42		-1.112E+02	2.799E+02	4.618E+02	2.668E+01	-0.241
		739.50	*	2.270E+01	3.549E+01	6.117E+01	9.681E+00	0.371
		777.92		-5.274E+01	1.056E+02	1.685E+02	1.573E+01	-0.313
TC-99M		140.51	*	-1.991E+16	1.056E+02	Half-Life too short		
RU-103		497.08	*	-1.517E-02	3.639E-02	5.823E-02	7.437E-03	-0.261
	+	610.33		1.333E+01	2.594E+00	2.621E+00	4.111E-01	5.086
RH-106		621.93	*	-1.173E-01	2.488E-01	3.863E-01	4.818E-02	-0.304
		1050.41		-1.288E+00	2.254E+00	3.615E+00	3.090E-01	-0.356
RU-106		621.93	*	-1.173E-01	2.486E-01	3.863E-01	2.843E-02	-0.304
		1050.41		-1.288E+00	2.254E+00	3.615E+00	3.090E-01	-0.356
AG-108M		433.94	*	-7.536E-03	2.481E-02	4.055E-02	2.614E-03	-0.186
		614.28		1.407E-02	3.380E-02	4.881E-02	3.729E-03	0.288
		722.91		7.942E-03	3.627E-02	5.301E-02	4.655E-03	0.150
AG-110M		657.76	*	6.633E-03	2.838E-02	4.831E-02	3.810E-03	0.137
		677.62		-1.073E-01	2.510E-01	4.085E-01	3.316E-02	-0.263
		706.68		-1.871E-01	1.839E-01	2.866E-01	2.442E-02	-0.653
		763.94		-2.319E-01	1.442E-01	2.120E-01	1.981E-02	-1.094
		884.68		-6.514E-03	4.258E-02	6.881E-02	7.771E-03	-0.095
		937.49		-2.228E-01	1.049E-01	1.380E-01	1.511E-02	-1.614
		1384.29		-6.414E-02	1.412E-01	2.197E-01	1.700E-02	-0.292
		1505.03		1.223E-01	2.328E-01	4.089E-01	2.935E-02	0.299
SN-113		391.69	*	-1.708E-02	3.693E-02	6.037E-02	3.703E-03	-0.283
CD-115		260.90		4.005E-06	3.693E-02	Half-Life too short		
		492.35		1.148E-04	3.693E-02	Half-Life too short		
		527.90	*	2.861E-05	3.693E-02	Half-Life too short		
SN-117M		156.02		1.377E+00	2.488E+00	4.299E+00	2.296E-01	0.320
		158.56	*	-1.544E-02	5.918E-02	9.930E-02	5.278E-03	-0.155
TE-123M		159.00	*	-1.259E-02	2.428E-02	4.033E-02	2.176E-03	-0.312
SB-124		602.73		-3.300E-02	4.283E-02	5.558E-02	4.020E-03	-0.594
		645.85		-9.316E-04	4.411E-01	7.085E-01	5.726E-02	-0.001
		722.78		7.356E-02	3.855E-01	5.622E-01	4.891E-02	0.131
		1690.97	*	-5.203E-03	6.128E-02	9.991E-02	6.920E-03	-0.052
SB-125		427.87	*	-2.783E-02	7.450E-02	1.214E-01	7.577E-03	-0.229
	+	463.37		1.024E+00	2.619E-01	4.701E-01	3.355E-02	2.178
		600.60		-9.524E-03	1.713E-01	2.596E-01	2.068E-02	-0.037
		635.95		1.872E-01	2.225E-01	3.781E-01	3.120E-02	0.495
TE-125M		109.28	*	1.194E+01	9.945E+00	1.672E+01	1.502E+00	0.714

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-126		388.63		1.016E-01	1.742E-01	3.007E-01	1.728E-02	0.338
		666.33	*	-4.940E-02	2.428E-01	4.023E-01	3.093E-02	-0.123
		753.82		1.704E+00	1.970E+00	3.437E+00	3.081E-01	0.496
SB-126		414.70		-3.849E-02	8.467E-02	1.379E-01	8.156E-03	-0.279
		666.50		-1.449E-02	8.458E-02	1.404E-01	1.080E-02	-0.103
		695.00		-3.035E-03	8.402E-02	1.401E-01	1.134E-02	-0.022
		697.00		-2.659E-02	2.961E-01	4.919E-01	3.995E-02	-0.054
		720.70	*	-5.114E-02	1.920E-01	2.688E-01	2.276E-02	-0.190
		856.80		6.119E-01	6.442E-01	9.830E-01	1.043E-01	0.622
SB-127		252.40		2.321E+00	8.990E+00	1.484E+01	6.157E+00	0.156
		473.00		1.926E+00	3.423E+00	5.813E+00	7.535E-01	0.331
		685.70	*	1.406E-01	2.590E+00	4.347E+00	5.455E-01	0.032
		783.70		8.444E+00	7.209E+00	1.265E+01	1.816E+00	0.668
I-131		80.19		1.270E+00	7.296E+00	1.084E+01	9.493E-01	0.117
		284.31		-8.969E-01	2.044E+00	3.131E+00	2.009E-01	-0.286
		364.49	*	-1.523E-01	1.434E-01	2.278E-01	1.483E-02	-0.668
		636.99		-2.957E-01	2.008E+00	3.195E+00	2.579E-01	-0.093
TE-132		49.72		3.810E+01	7.241E+01	1.244E+02	1.492E+01	0.306
		111.76		-9.173E+00	9.560E+01	1.537E+02	1.724E+01	-0.060
		116.30		3.221E+01	7.834E+01	1.281E+02	1.416E+01	0.251
		228.16	*	6.642E-03	1.938E+00	3.204E+00	4.993E-01	0.002
BA-133		81.00		-4.875E-02	9.763E-02	1.398E-01	2.177E-02	-0.349
	+	276.40		8.335E-01	4.678E-01	5.456E-01	6.842E-02	1.528
		302.85		3.360E-02	1.328E-01	1.911E-01	2.174E-02	0.176
		356.01	*	-6.344E-03	3.871E-02	5.309E-02	5.982E-03	-0.119
		383.85		-1.114E-01	2.369E-01	3.874E-01	4.122E-02	-0.287
I-133		529.87	*	1.155E-01	2.369E-01	Half-Life too short		
		875.33		-1.710E+00	2.369E-01	Half-Life too short		
		1298.22		-4.059E+00	2.369E-01	Half-Life too short		
CS-134		563.25		3.398E-01	3.181E-01	5.481E-01	3.873E-02	0.620
		569.33		-1.313E-01	1.824E-01	2.672E-01	1.911E-02	-0.491
		604.72		-5.207E-04	3.359E-02	4.675E-02	3.399E-03	-0.011
	+	795.86	*	8.997E-02	5.399E-02	7.535E-02	7.288E-03	1.194
		801.95		-2.216E-02	3.955E-01	5.765E-01	5.625E-02	-0.038
		1365.19		9.018E-02	1.038E+00	1.707E+00	1.359E-01	0.053
CS-135		268.22	*	9.977E-02	1.567E-01	2.326E-01	1.758E-02	0.429
I-135		546.56		-1.726E+15	1.567E-01	Half-Life too short		
		836.80		9.123E+15	1.567E-01	Half-Life too short		
		1038.76		-6.372E+15	1.567E-01	Half-Life too short		
		1131.51		-6.322E+13	1.567E-01	Half-Life too short		
		1260.41	*	-2.130E+14	1.567E-01	Half-Life too short		
		1457.56		6.319E+17	1.567E-01	Half-Life too short		
		1678.03		1.370E+15	1.567E-01	Half-Life too short		
		1791.20		-1.352E+15	1.567E-01	Half-Life too short		
CS-136		153.25		1.223E-01	9.352E-01	1.595E+00	1.236E-01	0.077
		176.60		-1.926E-01	5.593E-01	9.288E-01	6.170E-02	-0.207
		273.65		-5.484E-02	8.921E-01	9.091E-01	6.135E-02	-0.060
		340.55		5.675E-01	2.097E-01	3.357E-01	2.105E-02	1.691
		818.51		-1.452E-02	7.797E-02	1.266E-01	1.265E-02	-0.115

Sample ID : G248860002 Acquisition date : 24-MAR-2010 16:15:25

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1048.07	*	-6.240E-02	1.224E-01	1.973E-01	1.769E-02	-0.316
		1235.36		7.357E-01	7.089E-01	1.229E+00	1.252E-01	0.599
BA-137M		661.66	*	1.632E-02	2.943E-02	5.092E-02	3.882E-03	0.321
CS-137		661.66	*	1.724E-02	3.109E-02	5.380E-02	4.111E-03	0.321
CE-139		165.86	*	-2.451E-03	2.605E-02	4.385E-02	2.302E-03	-0.056
BA-140		162.66		7.479E-02	8.898E-01	1.510E+00	9.328E-02	0.050
		304.85		7.349E-01	1.690E+00	2.444E+00	6.978E-01	0.301
		423.72		-3.373E-01	2.064E+00	3.403E+00	1.099E+00	-0.099
		537.26	*	-2.594E-02	2.774E-01	4.499E-01	1.507E-01	-0.058
LA-140	+	328.76		9.465E-01	4.887E-01	6.317E-01	4.101E-02	1.498
		487.02		-7.427E-02	1.519E-01	2.426E-01	1.731E-02	-0.306
		815.77		1.451E-01	3.525E-01	5.971E-01	6.463E-02	0.243
		1596.21	*	5.914E-02	8.071E-02	1.314E-01	9.019E-03	0.450
CE-141		145.44	*	-3.729E-02	6.646E-02	1.017E-01	5.804E-03	-0.367
CE-143		57.36		-2.001E-03	6.646E-02	Half-Life too short		
		293.27	*	9.978E-03	6.646E-02	Half-Life too short		
		664.57		6.794E-03	6.646E-02	Half-Life too short		
		721.93		-1.617E-03	6.646E-02	Half-Life too short		
CE-144		80.12		4.840E-01	2.582E+00	3.838E+00	3.323E-01	0.126
		133.52	*	-1.262E-01	2.137E-01	2.921E-01	4.040E-02	-0.432
PM-144		476.78		2.365E-03	5.503E-02	9.100E-02	6.683E-03	0.026
		618.01		-1.262E-02	2.711E-02	4.230E-02	3.222E-03	-0.298
		696.49	*	1.340E-03	2.875E-02	4.815E-02	3.910E-03	0.028
PR-144		696.51	*	1.088E-01	2.158E+00	3.615E+00	2.934E-01	0.030
		1489.16		-1.156E+01	1.106E+01	1.548E+01	1.118E+00	-0.747
PM-146		453.88	*	-5.875E-03	3.395E-02	5.566E-02	4.862E-03	-0.106
		633.25		-1.258E-01	1.150E+00	1.834E+00	6.958E-01	-0.069
		735.93		-9.422E-02	1.196E-01	1.832E-01	5.137E-02	-0.514
		747.24		-4.566E-02	7.855E-02	1.247E-01	1.837E-02	-0.366
ND-147	+	91.11		7.548E-01	3.039E-01	6.378E-01	6.003E-02	1.183
		319.41		-3.139E+00	3.901E+00	6.000E+00	3.467E-01	-0.523
		531.02	*	-6.498E-02	6.273E-01	1.018E+00	1.421E-01	-0.064
PM-149		285.90	*	4.872E-05	6.273E-01	Half-Life too short		
EU-152		121.78		1.766E-02	6.652E-02	1.079E-01	8.286E-03	0.164
		244.70		2.702E-01	2.960E-01	4.507E-01	2.518E-02	0.600
		344.28	*	-3.403E-02	1.010E-01	1.375E-01	8.966E-03	-0.247
		778.90		-5.939E-02	2.085E-01	3.378E-01	3.159E-02	-0.176
	+	964.08		6.891E-01	2.728E-01	5.382E-01	5.513E-02	1.280
		1085.87		-3.273E-01	3.553E-01	5.462E-01	4.231E-02	-0.599
		1112.07		5.530E-01	2.902E-01	4.878E-01	3.472E-02	1.134
		1408.01		1.613E-01	1.697E-01	2.982E-01	2.215E-02	0.541
GD-153		69.67		2.461E-01	1.863E+00	2.966E+00	2.407E-01	0.083
		97.43	*	-1.293E-01	8.924E-02	1.287E-01	1.006E-02	-1.005
		103.18		-6.516E-02	1.037E-01	1.637E-01	1.181E-02	-0.398
EU-154		123.07		-9.093E-03	5.055E-02	7.644E-02	7.218E-03	-0.119
		723.31		5.314E-02	1.676E-01	2.469E-01	2.318E-02	0.215
		873.19		-2.315E-03	2.295E-01	3.753E-01	5.113E-02	-0.006
		996.26		-1.553E-01	3.265E-01	5.072E-01	9.130E-02	-0.306
		1004.73		-1.517E-01	1.910E-01	2.847E-01	3.500E-02	-0.533

Sample ID : G248860002 Acquisition date : 24-MAR-2010 16:15:25

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1274.44	*	-1.207E-01	1.073E-01	1.588E-01	1.599E-02	-0.760
EU-155	+	86.55		2.822E-01	1.251E-01	1.810E-01	1.668E-02	1.559
		105.31	*	1.651E-02	1.002E-01	1.616E-01	1.155E-02	0.102
TB-160	+	86.79		7.843E-01	3.476E-01	5.054E-01	4.624E-02	1.552
		197.04		-3.616E-02	5.117E-01	8.329E-01	4.473E-02	-0.043
		215.65		1.636E-01	7.243E-01	1.127E+00	6.150E-02	0.145
	+	298.57		2.694E-01	1.242E-01	1.828E-01	1.050E-02	1.474
		879.36	*	-2.277E-02	1.269E-01	2.048E-01	2.250E-02	-0.111
		962.29		7.365E-01	6.366E-01	9.628E-01	9.891E-02	0.765
		966.15		1.832E+00	3.177E-01	5.387E-01	5.497E-02	3.402
		1177.93		2.043E-01	3.214E-01	5.543E-01	3.095E-02	0.369
		1271.85		8.695E-01	6.128E-01	1.113E+00	7.521E-02	0.781
HO-166M		80.57		4.959E-03	2.764E-01	4.073E-01	3.539E-02	0.012
		184.41		6.158E-02	3.541E-02	5.702E-02	3.029E-03	1.080
		280.46		5.342E-02	8.028E-02	1.194E-01	6.808E-03	0.448
		410.95		4.188E-01	2.230E-01	3.930E-01	2.313E-02	1.066
		711.68	*	8.606E-03	5.047E-02	8.502E-02	7.087E-03	0.101
		752.31		1.431E-01	2.270E-01	3.913E-01	3.499E-02	0.366
		810.29		-4.114E-02	4.982E-02	7.702E-02	7.583E-03	-0.534
TA-182		67.75		-8.090E-02	1.242E-01	1.986E-01	1.596E-02	-0.407
		100.11		6.229E-02	1.700E-01	2.803E-01	2.107E-02	0.222
		152.43		-9.992E-02	3.187E-01	4.965E-01	2.671E-02	-0.201
		222.11		1.352E-01	3.158E-01	5.317E-01	2.918E-02	0.254
	+	1121.30		6.867E-01	2.255E-01	2.938E-01	2.024E-02	2.337
		1189.05		3.062E-01	2.860E-01	5.038E-01	2.881E-02	0.608
		1221.41	*	3.101E-02	1.882E-01	3.134E-01	1.917E-02	0.099
		1231.02		-3.930E-01	4.780E-01	7.483E-01	4.668E-02	-0.525
IR-192	+	295.96		1.117E+00	1.728E-01	2.612E-01	1.524E-02	4.277
		308.46		-3.229E-02	8.613E-02	1.364E-01	7.945E-03	-0.237
		316.51	*	-6.053E-04	3.148E-02	4.986E-02	2.892E-03	-0.012
		468.07		-2.337E-04	6.554E-02	9.386E-02	6.697E-03	-0.002
HG-203		70.83		2.933E-01	1.590E+00	2.381E+00	3.766E-01	0.123
		72.87		2.519E-01	9.265E-01	1.389E+00	2.130E-01	0.181
		279.20	*	6.698E-02	4.101E-02	6.409E-02	3.864E-03	1.045
BI-207		72.81		1.833E-02	1.977E-01	2.943E-01	2.429E-02	0.062
	+	74.97		8.018E-01	1.603E-01	2.386E-01	1.995E-02	3.360
		569.70		-1.935E-02	2.843E-02	4.183E-02	2.932E-03	-0.463
		1063.66	*	-4.474E-03	4.198E-02	6.955E-02	5.740E-03	-0.064
		1770.23		-1.483E-01	3.984E-01	5.052E-01	3.056E-02	-0.294
PB-210		46.54	*	3.120E-01	4.823E+00	8.184E+00	6.274E-01	0.038
PB-211		404.85	*	-9.518E-01	7.876E-01	9.960E-01	4.778E-01	-0.956
		427.09		-8.063E-01	1.309E+00	2.017E+00	9.247E-01	-0.400
		832.01		2.700E-01	8.976E-01	1.486E+00	7.749E-01	0.182
BI-212	+	727.33	*	1.929E+00	8.278E-01	1.044E+00	1.297E-01	1.847
		785.37		2.273E+00	2.625E+00	4.565E+00	4.314E-01	0.498
		1620.50		2.399E-01	1.949E+00	3.278E+00	2.217E-01	0.073
RN-219	+	271.23		5.068E-01	3.106E-01	3.849E-01	3.057E-02	1.317
		401.81	*	3.120E-01	3.511E-01	5.926E-01	7.967E-02	0.527
RA-223		81.07		-1.191E-01	2.201E-01	3.152E-01	2.749E-02	-0.378

Sample ID : G248860002 Acquisition date : 24-MAR-2010 16:15:25

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		83.79		1.196E-01	1.308E-01	1.973E-01	1.759E-02	0.606
		94.87		1.124E+00	4.908E-01	7.766E-01	6.324E-02	1.447
		144.24		5.609E-01	6.360E-01	1.031E+00	7.172E-02	0.544
		154.21		2.749E-01	3.238E-01	5.650E-01	3.732E-02	0.487
	+	269.46		3.938E-01	2.405E-01	2.958E-01	1.754E-02	1.331
		323.87	*	3.325E-01	5.927E-01	8.647E-01	1.393E-01	0.385
	+	338.28		7.132E+00	1.474E+00	2.109E+00	2.160E-01	3.381
AC-227		79.69		3.795E-01	1.281E+00	1.912E+00	3.297E-01	0.198
		235.96		4.096E-01	1.646E-01	2.613E-01	2.081E-02	1.568
		256.23	*	-9.849E-02	2.160E-01	3.461E-01	3.506E-02	-0.285
	+	299.98		2.005E+00	9.433E-01	1.357E+00	1.488E-01	1.477
		304.50		8.330E-02	1.567E+00	2.223E+00	3.386E-01	0.037
		334.37		-1.087E+00	2.379E+00	2.231E+00	3.172E-01	-0.487
TH-227		79.80		4.186E-01	1.688E+00	2.514E+00	5.476E-01	0.167
		235.96		4.096E-01	1.640E-01	2.613E-01	1.879E-02	1.568
		256.23	*	-9.849E-02	2.160E-01	3.461E-01	4.131E-02	-0.285
	+	299.98		2.005E+00	9.433E-01	1.357E+00	1.488E-01	1.477
		304.50		8.330E-02	1.567E+00	2.223E+00	3.386E-01	0.037
		334.37		-1.087E+00	2.379E+00	2.231E+00	3.172E-01	-0.487
TH-229		85.43		2.627E-01	2.231E-01	3.389E-01	3.064E-02	0.775
	+	88.47		3.580E-01	1.587E-01	2.291E-01	2.099E-02	1.563
		193.51	*	-2.163E-01	4.311E-01	7.063E-01	3.781E-02	-0.306
	+	210.85		2.502E+00	1.206E+00	1.398E+00	7.598E-02	1.790
PA-231		283.69	*	-2.581E-01	1.339E+00	1.988E+00	2.600E-01	-0.130
	+	301.36		1.288E+00	6.041E-01	8.675E-01	8.949E-02	1.485
TH-231		81.07		-1.191E-01	2.201E-01	3.152E-01	2.749E-02	-0.378
		83.79		1.196E-01	1.308E-01	1.973E-01	1.759E-02	0.606
		94.87		1.124E+00	4.908E-01	7.766E-01	6.324E-02	1.447
		144.24		5.609E-01	6.360E-01	1.031E+00	7.172E-02	0.544
		154.21		2.749E-01	3.238E-01	5.650E-01	3.732E-02	0.487
	+	269.46		3.938E-01	2.405E-01	2.958E-01	1.754E-02	1.331
		323.87	*	3.325E-01	5.927E-01	8.647E-01	1.393E-01	0.385
	+	338.28		7.132E+00	1.474E+00	2.109E+00	2.160E-01	3.381
PA-233	+	300.13		9.073E-01	4.324E-01	6.157E-01	8.228E-02	1.474
		311.90	*	-2.211E-02	5.575E-02	8.769E-02	5.373E-03	-0.252
		340.48		2.083E+00	8.373E-01	1.124E+00	2.609E-01	1.853
PA-234		94.67		5.174E-01	1.891E-01	2.932E-01	3.546E-02	1.765
		98.44		-1.623E-02	8.737E-02	1.403E-01	7.810E-02	-0.116
		111.00		3.932E-02	1.782E-01	2.902E-01	3.113E-02	0.136
		131.20		6.972E-02	1.112E-01	1.631E-01	9.283E-03	0.428
		569.50		-1.882E-01	2.514E-01	3.679E-01	2.578E-02	-0.512
		733.00		1.758E-01	3.326E-01	4.982E-01	1.106E-01	0.353
		880.51		7.689E-02	2.358E-01	3.948E-01	4.345E-02	0.195
		883.24		1.614E-01	2.654E-01	4.148E-01	2.803E-01	0.389
		926.50		-1.568E-01	1.575E-01	2.278E-01	5.951E-02	-0.688
		946.00	*	6.822E-02	2.623E-01	4.339E-01	8.559E-02	0.157
		949.00		4.556E-02	3.932E-01	6.441E-01	6.765E-02	0.071
PA-234M		766.42		5.292E+00	1.039E+01	1.712E+01	8.702E+00	0.309
		1001.03	*	2.542E+00	4.129E+00	6.910E+00	7.454E-01	0.368

Sample ID : G248860002 Acquisition date : 24-MAR-2010 16:15:25

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	1.922E+00	1.560E+00	2.637E+00	4.750E-01	0.729
	+	92.59		2.528E+00	1.004E+00	1.279E+00	2.816E-01	1.977
U-238		63.29	*	1.922E+00	1.560E+00	2.637E+00	4.750E-01	0.729
	+	92.59		2.528E+00	8.622E-01	1.279E+00	1.083E-01	1.977
NP-239		99.53		3.320E-02	1.533E-01	2.513E-01	1.905E-02	0.132
		103.37		-3.631E-02	9.191E-02	1.466E-01	1.054E-02	-0.248
		106.12		-2.297E-02	8.053E-02	1.276E-01	8.869E-03	-0.180
		117.23	*	-1.939E-01	3.593E-01	5.642E-01	3.485E-02	-0.344
		228.18		3.464E-04	1.918E-01	3.171E-01	1.749E-02	0.001
	+	277.60		4.118E-01	2.265E-01	2.771E-01	1.579E-02	1.486
AM-241		59.54	*	1.165E-01	1.725E-01	2.953E-01	2.449E-02	0.395
CM-247	+	278.00		1.749E+00	9.618E-01	1.173E+00	6.684E-02	1.490
		287.50		3.062E-02	1.043E+00	1.697E+00	9.710E-02	0.018
		402.40	*	2.751E-02	3.236E-02	5.484E-02	3.193E-03	0.502
CF-249		252.80		2.537E-01	7.975E-01	1.327E+00	7.455E-02	0.191
		333.37		-1.138E-01	2.499E-01	2.350E-01	1.359E-02	-0.484
		388.16	*	2.855E-02	3.190E-02	5.584E-02	3.210E-03	0.511
CF-251		177.52	*	2.061E-02	1.123E-01	1.900E-01	1.004E-02	0.108
		227.38		9.788E-02	3.125E-01	5.230E-01	2.883E-02	0.187
		285.41		8.678E-01	1.827E+00	3.038E+00	1.736E-01	0.286

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860002       *
* Acquisition date : 24-MAR-2010 16:15:25 Detector SN#    :                 *
* Detector ID       : GAM18                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.75      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  4-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248860002           Analyst initials: MXR1           *
* Batch Number      : 962633               Sample Quantity : 1.2416E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.442E+01	3.004E+00	4.415E-01	0.000E+00
CD-109	2.394E+00	1.040E+00	1.314E+00	0.000E+00
SN-126	2.322E-01	1.009E-01	1.381E-01	0.000E+00
TL-208	5.245E-01	7.921E-02	4.889E-02	0.000E+00
BI-211	3.582E+00	4.477E-01	2.780E-01	0.000E+00
PB-212	1.801E+00	1.633E-01	8.423E-02	0.000E+00
BI-214	1.181E+00	1.692E-01	1.063E-01	0.000E+00
PB-214	1.300E+00	1.770E-01	1.011E-01	0.000E+00
RA-224	3.793E+00	1.134E+00	9.015E-01	0.000E+00
RA-226	1.181E+00	1.692E-01	1.063E-01	0.000E+00
AC-228	1.740E+00	3.570E-01	1.998E-01	0.000E+00
RA-228	1.740E+00	3.570E-01	1.998E-01	0.000E+00
TH-228	1.801E+00	1.633E-01	8.423E-02	0.000E+00
TH-230	1.181E+00	1.578E-01	1.063E-01	0.000E+00
TH-232	1.740E+00	3.570E-01	1.998E-01	0.000E+00
U-235	1.191E-01	1.861E-01	3.134E-01	0.000E+00
NP-237	6.930E-01	3.330E-01	4.016E-01	0.000E+00
ANH-511	1.382E-01	6.001E-02	3.685E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.317E-01	2.813E-01	4.925E-01	0.000E+00	NOT IDENT.
NA-22	-5.488E-02	3.800E-02	5.614E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.799E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.272E-02	3.462E-02	5.511E-02	0.000E+00	FAIL ABUN
V-48	2.540E-02	7.434E-02	1.265E-01	0.000E+00	NOT IDENT.
CR-51	-3.594E-01	3.484E-01	5.502E-01	0.000E+00	NOT IDENT.
MN-54	2.130E-02	3.367E-02	5.887E-02	0.000E+00	NOT IDENT.
CO-56	3.393E-03	3.195E-02	5.429E-02	0.000E+00	NOT IDENT.
CO-57	3.620E-03	2.318E-02	3.946E-02	0.000E+00	NOT IDENT.

CO-58	-1.860E-02	3.420E-02	5.569E-02	0.000E+00	NOT IDENT.
FE-59	-9.724E-03	8.051E-02	1.360E-01	0.000E+00	NOT IDENT.
CO-60	-6.046E-03	3.520E-02	5.788E-02	0.000E+00	NOT IDENT.
ZN-65	-2.346E-02	1.001E-01	1.427E-01	0.000E+00	NOT IDENT.
SE-75	2.444E-03	4.366E-02	6.547E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.637E-02	6.299E-02	0.000E+00	NOT IDENT.
Y-88	5.867E-03	2.435E-02	4.212E-02	0.000E+00	NOT IDENT.
Y-91	-1.388E+01	1.997E+01	3.213E+01	0.000E+00	NOT IDENT.
NB-94	2.161E-02	2.718E-02	4.875E-02	0.000E+00	NOT IDENT.
NB-95	2.074E-02	3.846E-02	6.743E-02	0.000E+00	NOT IDENT.
NB-95M	1.389E-01	1.290E-01	2.052E-01	0.000E+00	NOT IDENT.
ZR-95	4.387E-02	6.284E-02	1.116E-01	0.000E+00	NOT IDENT.
MO-99	2.270E+01	3.478E+01	6.168E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.361E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.517E-02	3.567E-02	5.904E-02	0.000E+00	FAIL ABUN
RH-106	-1.173E-01	2.439E-01	3.904E-01	0.000E+00	NOT IDENT.
RU-106	-1.173E-01	2.436E-01	3.904E-01	0.000E+00	NOT IDENT.
AG-108M	-7.536E-03	2.431E-02	4.119E-02	0.000E+00	NOT IDENT.
AG-110M	6.633E-03	2.781E-02	4.879E-02	0.000E+00	NOT IDENT.
SN-113	-1.708E-02	3.619E-02	6.140E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	4.453E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-1.544E-02	5.799E-02	1.022E-01	0.000E+00	NOT IDENT.
TE-123M	-1.259E-02	2.379E-02	4.151E-02	0.000E+00	NOT IDENT.
SB-124	-5.203E-03	6.005E-02	9.960E-02	0.000E+00	NOT IDENT.
SB-125	-2.783E-02	7.301E-02	1.233E-01	0.000E+00	FAIL ABUN
TE-125M	1.194E+01	9.746E+00	1.730E+01	0.000E+00	NOT IDENT.
I-126	-4.940E-02	2.380E-01	4.062E-01	0.000E+00	NOT IDENT.
SB-126	-5.114E-02	1.881E-01	2.712E-01	0.000E+00	NOT IDENT.
SB-127	1.406E-01	2.538E+00	4.388E+00	0.000E+00	NOT IDENT.
I-131	-1.523E-01	1.405E-01	2.319E-01	0.000E+00	NOT IDENT.
TE-132	6.642E-03	1.899E+00	3.283E+00	0.000E+00	NOT IDENT.
BA-133	-6.344E-03	3.793E-02	5.407E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	2.712E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.291E-02	7.590E-02	0.000E+00	FAIL ABUN
CS-135	9.977E-02	1.536E-01	2.378E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.997E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.240E-02	1.200E-01	1.980E-01	0.000E+00	NOT IDENT.
BA-137M	1.632E-02	2.885E-02	5.143E-02	0.000E+00	NOT IDENT.
CS-137	1.724E-02	3.047E-02	5.433E-02	0.000E+00	NOT IDENT.
CE-139	-2.451E-03	2.553E-02	4.512E-02	0.000E+00	NOT IDENT.
BA-140	-2.594E-02	2.718E-01	4.557E-01	0.000E+00	NOT IDENT.
LA-140	5.914E-02	7.910E-02	1.311E-01	0.000E+00	FAIL ABUN
CE-141	-3.729E-02	6.513E-02	1.048E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.819E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.262E-01	2.095E-01	3.014E-01	0.000E+00	NOT IDENT.
PM-144	1.340E-03	2.817E-02	4.860E-02	0.000E+00	NOT IDENT.
PR-144	1.088E-01	2.115E+00	3.648E+00	0.000E+00	NOT IDENT.
PM-146	-5.875E-03	3.327E-02	5.650E-02	0.000E+00	NOT IDENT.
ND-147	-6.498E-02	6.147E-01	1.032E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	3.693E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-3.403E-02	9.901E-02	1.401E-01	0.000E+00	FAIL ABUN
GD-153	-1.293E-01	8.746E-02	1.333E-01	0.000E+00	NOT IDENT.
EU-154	-1.207E-01	1.051E-01	1.590E-01	0.000E+00	NOT IDENT.
EU-155	1.651E-02	9.817E-02	1.673E-01	0.000E+00	FAIL ABUN
TB-160	-2.277E-02	1.243E-01	2.060E-01	0.000E+00	FAIL ABUN
HO-166M	8.606E-03	4.946E-02	8.578E-02	0.000E+00	NOT IDENT.
TA-182	3.101E-02	1.845E-01	3.139E-01	0.000E+00	FAIL ABUN
IR-192	-6.053E-04	3.085E-02	5.086E-02	0.000E+00	FAIL ABUN
HG-203	0.000E+00	4.019E-02	6.549E-02	0.000E+00	NOT IDENT.
BI-207	-4.474E-03	4.114E-02	6.978E-02	0.000E+00	FAIL ABUN
PB-210	3.120E-01	4.726E+00	8.561E+00	0.000E+00	NOT IDENT.
PB-211	-9.518E-01	7.719E-01	1.013E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	8.113E-01	1.053E+00	0.000E+00	FAIL ABUN
RN-219	3.120E-01	3.441E-01	6.025E-01	0.000E+00	FAIL ABUN
RA-223	3.325E-01	5.809E-01	8.818E-01	0.000E+00	FAIL ABUN
AC-227	-9.849E-02	2.116E-01	3.540E-01	0.000E+00	FAIL ABUN
TH-227	-9.849E-02	2.117E-01	3.540E-01	0.000E+00	FAIL ABUN
TH-229	-2.163E-01	4.225E-01	7.252E-01	0.000E+00	FAIL ABUN
PA-231	-2.581E-01	1.312E+00	2.031E+00	0.000E+00	FAIL ABUN
TH-231	3.325E-01	5.809E-01	8.818E-01	0.000E+00	FAIL ABUN
PA-233	-2.211E-02	5.464E-02	8.947E-02	0.000E+00	FAIL ABUN
PA-234	6.822E-02	2.571E-01	4.360E-01	0.000E+00	NOT IDENT.
PA-234M	2.542E+00	4.047E+00	6.939E+00	0.000E+00	NOT IDENT.
TH-234	1.922E+00	1.529E+00	2.747E+00	0.000E+00	FAIL ABUN
U-238	1.922E+00	1.529E+00	2.747E+00	0.000E+00	FAIL ABUN
NP-239	-1.939E-01	3.522E-01	5.832E-01	0.000E+00	FAIL ABUN
AM-241	1.165E-01	1.691E-01	3.079E-01	0.000E+00	NOT IDENT.
CM-247	2.751E-02	3.172E-02	5.576E-02	0.000E+00	FAIL ABUN

CF-249	2.855E-02	3.126E-02	5.681E-02	0.000E+00 NOT IDENT.
CF-251	2.061E-02	1.100E-01	1.954E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:16:25.38

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860002.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 16:15:25
Sample ID         : G248860002           Sample quantity  : 1.24160E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.75  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	2298	10.66*	1.894E+00	3.442E+01	3.442E+01	8.91
CD-109	88.03	183	3.70*	6.452E+00	2.322E+00	2.394E+00	44.32
SN-126	64.28	------	9.60	3.245E+00	------ Line Not Found		------
	86.94	183	8.90	6.452E+00	9.655E-01	9.655E-01	60.00
	87.57	183	37.00*	6.452E+00	2.322E-01	2.322E-01	44.32
TL-208	277.37	123	6.60	6.255E+00	9.009E-01	9.009E-01	55.75
	583.19	580	85.00*	3.934E+00	5.245E-01	5.245E-01	15.41
	860.56	81	12.50	2.914E+00	6.752E-01	6.752E-01	62.11
BI-211	72.87	------	1.23	4.622E+00	------ Line Not Found		------
	351.06	835	12.92*	5.452E+00	3.582E+00	3.582E+00	12.75
PB-212	74.82	467	10.28	4.943E+00	2.781E+00	2.781E+00	22.23
	77.11	674	17.10	5.256E+00	2.267E+00	2.267E+00	15.33
	238.63	1764	43.60*	6.793E+00	1.801E+00	1.801E+00	9.25
	300.09	119	3.30	5.986E+00	1.823E+00	1.823E+00	46.51
BI-214	609.32	678	45.49*	3.813E+00	1.181E+00	1.181E+00	14.62
	1120.29	164	14.92	2.335E+00	1.421E+00	1.421E+00	33.52
	1764.49	136	15.30	1.695E+00	1.589E+00	1.589E+00	25.04
PB-214	74.82	467	5.80	4.943E+00	4.930E+00	4.930E+00	21.51
	77.11	674	9.70	5.256E+00	3.997E+00	3.997E+00	17.41
	242.00	347	7.25	6.749E+00	2.145E+00	2.145E+00	31.06
	295.22	530	18.42	6.040E+00	1.440E+00	1.440E+00	16.75
	351.93	835	35.60*	5.452E+00	1.300E+00	1.300E+00	13.89
RA-224	240.99	347	4.10*	6.749E+00	3.793E+00	3.793E+00	30.51
RA-226	609.32	678	45.49*	3.813E+00	1.181E+00	1.181E+00	14.62
	1120.29	164	14.92	2.335E+00	1.421E+00	1.421E+00	33.52
	1764.49	136	15.30	1.695E+00	1.589E+00	1.589E+00	25.04
AC-228	338.32	374	11.27	5.580E+00	1.797E+00	1.797E+00	44.96
	911.20	413	25.80*	2.780E+00	1.740E+00	1.740E+00	20.94
	968.97	279	15.80	2.640E+00	2.021E+00	2.021E+00	30.91
RA-228	338.32	374	11.27	5.580E+00	1.797E+00	1.797E+00	44.96
	911.20	413	25.80*	2.780E+00	1.740E+00	1.740E+00	20.94
	968.97	279	15.80	2.640E+00	2.021E+00	2.021E+00	30.91

Sample ID : G248860002 Acquisition date : 24-MAR-2010 16:15:25

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	467	10.28	4.943E+00	2.781E+00	2.781E+00	20.03
	77.11	674	17.10	5.256E+00	2.267E+00	2.267E+00	15.33
	238.63	1764	43.60*	6.793E+00	1.801E+00	1.801E+00	9.25
	300.09	119	3.30	5.986E+00	1.823E+00	1.823E+00	76.15
TH-230	609.32	678	45.49*	3.813E+00	1.181E+00	1.181E+00	13.63
	1120.29	164	14.92	2.335E+00	1.421E+00	1.421E+00	32.84
	1764.49	136	15.30	1.695E+00	1.589E+00	1.589E+00	25.04
TH-232	338.32	374	11.27	5.580E+00	1.797E+00	1.797E+00	18.86
	911.20	413	25.80*	2.780E+00	1.740E+00	1.740E+00	20.94
	968.97	279	15.80	2.640E+00	2.021E+00	2.021E+00	30.91
U-235	89.96	130	3.47	6.704E+00	1.694E+00	1.694E+00	46.25
	93.35	246	5.60	6.963E+00	1.910E+00	1.910E+00	40.28
	143.76	------	10.96*	8.222E+00	------	Line Not Found	------
	163.33	------	5.08	8.005E+00	------	Line Not Found	------
	185.72	226	57.20	7.648E+00	1.565E-01	1.565E-01	40.79
	205.31	------	5.01	7.323E+00	------	Line Not Found	------
NP-237	86.48	183	12.40*	6.452E+00	6.930E-01	6.930E-01	49.03
	95.86	------	2.68	7.180E+00	------	Line Not Found	------
ANH-511	511.00	197	100.00*	4.312E+00	1.382E-01	1.382E-01	44.30

Flag: "*" = Keyline

Sample ID : G248860002 Acquisition date : 24-MAR-2010 16:15:25

Total number of lines in spectrum 32
Number of unidentified lines 3
Number of lines tentatively identified by NID 29 90.63%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.442E+01	3.442E+01	0.307E+01	8.91	
CD-109	461.40D	1.03	2.322E+00	2.394E+00	1.061E+00	44.32	
SN-126	2.30E+05Y	1.00	2.322E-01	2.322E-01	1.029E-01	44.32	
TL-208	1.41E+10Y	1.00	5.245E-01	5.245E-01	0.808E-01	15.41	
BI-211	7.04E+08Y	1.00	3.582E+00	3.582E+00	0.457E+00	12.75	
PB-212	1.41E+10Y	1.00	1.801E+00	1.801E+00	0.167E+00	9.25	
BI-214	1600.00Y	1.00	1.181E+00	1.181E+00	0.173E+00	14.62	
PB-214	1600.00Y	1.00	1.300E+00	1.300E+00	0.181E+00	13.89	
RA-224	1.41E+10Y	1.00	3.793E+00	3.793E+00	1.157E+00	30.51	
RA-226	1600.00Y	1.00	1.181E+00	1.181E+00	0.173E+00	14.62	
AC-228	1.41E+10Y	1.00	1.740E+00	1.740E+00	0.364E+00	20.94	
RA-228	1.41E+10Y	1.00	1.740E+00	1.740E+00	0.364E+00	20.94	
TH-228	1.41E+10Y	1.00	1.801E+00	1.801E+00	0.167E+00	9.25	
TH-230	7.54E+04Y	1.00	1.181E+00	1.181E+00	0.161E+00	13.63	
TH-232	1.41E+10Y	1.00	1.740E+00	1.740E+00	0.364E+00	20.94	
U-235	7.04E+08Y	1.00	1.565E-01	1.565E-01	0.638E-01	40.79	K
NP-237	2.14E+06Y	1.00	6.930E-01	6.930E-01	3.398E-01	49.03	
ANH-511	1.00E+09Y	1.00	1.382E-01	1.382E-01	0.612E-01	44.30	
		Total Activity :	5.953E+01	5.960E+01			

Grand Total Activity : 5.953E+01 5.960E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248860002 Acquisition date : 24-MAR-2010 16:15:25

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.05	116	483	1.36	257.17	252	10	1.61E-02	73.3	8.25E+00	
0	209.41	168	387	1.25	417.83	413	11	2.34E-02	47.9	7.26E+00	T
0	270.03	115	305	1.14	539.04	534	11	1.60E-02	60.8	6.35E+00	T
0	328.21	120	224	1.14	655.37	651	11	1.67E-02	51.2	5.68E+00	T
0	462.72	162	73	2.34	924.30	920	9	2.25E-02	24.6	4.60E+00	T
0	727.03	142	151	1.32	1452.78	1445	14	1.97E-02	41.1	3.34E+00	T
0	794.93	70	88	1.63	1588.55	1583	12	9.70E-03	59.2	3.11E+00	T
3	964.19	88	63	1.79	1927.01	1923	23	1.23E-02	38.2	2.65E+00	T
0	1587.36	40	46	1.95	3173.18	3167	17	5.60E-03	83.7	1.79E+00	
0	1728.28	32	21	1.98	3455.01	3444	16	4.47E-03	71.7	1.71E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:16:29.61

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*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                 DETECTOR DATA                               *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860002.CNF;1    *
* Acquisition date : 24-MAR-2010 16:15:25  Detector SN#    :                  *
* Detector ID      : GAM18                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:01.75         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 4-MAR-2010 12:00:00.  Nuclide Library : SOLID             *
* Sample ID        : G248860002            Analyst initials: MXR1              *
* Batch Number     : 962633                Sample Quantity : 1.24160E+02 GRAM  *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23.2MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.442E+01	3.066E+00	4.421E-01	3.355E-02	77.860
CD-109	2.394E+00	1.061E+00	1.267E+00	1.171E-01	1.890
SN-126	2.322E-01	1.029E-01	1.331E-01	1.226E-02	1.745
TL-208	5.245E-01	8.082E-02	4.833E-02	3.782E-03	10.853
BI-211	3.582E+00	4.568E-01	2.729E-01	1.752E-02	13.126
PB-212	1.801E+00	1.666E-01	8.226E-02	5.930E-03	21.895
BI-214	1.181E+00	1.727E-01	1.051E-01	9.447E-03	11.237
PB-214	1.300E+00	1.806E-01	9.923E-02	8.400E-03	13.102
RA-224	3.793E+00	1.157E+00	8.806E-01	4.906E-02	4.308
RA-226	1.181E+00	1.727E-01	1.051E-01	9.447E-03	11.237
AC-228	1.740E+00	3.643E-01	1.987E-01	2.692E-02	8.755
RA-228	1.740E+00	3.643E-01	1.987E-01	2.692E-02	8.755
TH-228	1.801E+00	1.666E-01	8.226E-02	5.930E-03	21.895
TH-230	1.181E+00	1.610E-01	1.051E-01	7.647E-03	11.237
TH-232	1.740E+00	3.643E-01	1.987E-01	2.692E-02	8.755
U-235	1.565E-01	6.384E-02	3.041E-01	4.742E-02	0.515
NP-237	6.930E-01	3.398E-01	3.870E-01	8.849E-02	1.791
ANH-511	1.382E-01	6.124E-02	3.636E-02	2.401E-03	3.802

Sample ID : G248860002 Acquisition date : 24-MAR-2010 16:15:25

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.317E-01		2.871E-01	4.856E-01	3.517E-02	0.271
NA-22	-5.488E-02		3.877E-02	5.609E-02	3.817E-03	-0.978
NA-24	-2.043E+02		9.180E+01	Half-Life too short		
SC-46	-2.272E-02		3.532E-02	5.479E-02	6.112E-03	-0.415
V-48	2.540E-02		7.585E-02	1.259E-01	1.245E-02	0.202
CR-51	-3.594E-01		3.555E-01	5.395E-01	3.468E-02	-0.666
MN-54	2.130E-02		3.435E-02	5.848E-02	5.991E-03	0.364
CO-56	3.393E-03		3.260E-02	5.395E-02	5.632E-03	0.063
CO-57	3.620E-03		2.365E-02	3.820E-02	2.263E-03	0.095
CO-58	-1.860E-02		3.490E-02	5.530E-02	5.459E-03	-0.336
FE-59	-9.724E-03		8.216E-02	1.356E-01	1.116E-02	-0.072
CO-60	-6.046E-03		3.592E-02	5.787E-02	4.373E-03	-0.104
ZN-65	-2.346E-02		1.022E-01	1.423E-01	1.003E-02	-0.165
SE-75	2.444E-03		4.455E-02	6.403E-02	3.663E-03	0.038
SR-85	9.479E-02		3.711E-02	6.216E-02	4.118E-03	1.525
Y-88	5.867E-03		2.485E-02	4.230E-02	2.409E-03	0.139
Y-91	-1.388E+01		2.037E+01	3.208E+01	1.896E+00	-0.432
NB-94	2.161E-02		2.773E-02	4.832E-02	3.964E-03	0.447
NB-95	2.074E-02		3.924E-02	6.690E-02	6.120E-03	0.310
NB-95M	1.389E-01		1.316E-01	2.004E-01	1.475E-02	0.693
ZR-95	4.387E-02		6.412E-02	1.107E-01	1.093E-02	0.396
MO-99	2.270E+01		3.549E+01	6.117E+01	9.681E+00	0.371
TC-99M	-1.991E+16		2.225E+16	Half-Life too short		
RU-103	-1.517E-02		3.639E-02	5.823E-02	7.437E-03	-0.261
RH-106	-1.173E-01		2.488E-01	3.863E-01	4.818E-02	-0.304
RU-106	-1.173E-01		2.486E-01	3.863E-01	2.843E-02	-0.304
AG-108M	-7.536E-03		2.481E-02	4.055E-02	2.614E-03	-0.186
AG-110M	6.633E-03		2.838E-02	4.831E-02	3.810E-03	0.137
SN-113	-1.708E-02		3.693E-02	6.037E-02	3.703E-03	-0.283
CD-115	2.861E-05		2.272E-05	Half-Life too short		
SN-117M	-1.544E-02		5.918E-02	9.930E-02	5.278E-03	-0.155
TE-123M	-1.259E-02		2.428E-02	4.033E-02	2.176E-03	-0.312
SB-124	-5.203E-03		6.128E-02	9.991E-02	6.920E-03	-0.052
SB-125	-2.783E-02		7.450E-02	1.214E-01	7.577E-03	-0.229
TE-125M	1.194E+01		9.945E+00	1.672E+01	1.502E+00	0.714
I-126	-4.940E-02		2.428E-01	4.023E-01	3.093E-02	-0.123
SB-126	-5.114E-02		1.920E-01	2.688E-01	2.276E-02	-0.190
SB-127	1.406E-01		2.590E+00	4.347E+00	5.455E-01	0.032
I-131	-1.523E-01		1.434E-01	2.278E-01	1.483E-02	-0.668
TE-132	6.642E-03		1.938E+00	3.204E+00	4.993E-01	0.002
BA-133	-6.344E-03		3.871E-02	5.309E-02	5.982E-03	-0.119
I-133	1.155E-01		1.384E-01	Half-Life too short		
CS-134	8.997E-02	+	5.399E-02	7.535E-02	7.288E-03	1.194
CS-135	9.977E-02		1.567E-01	2.326E-01	1.758E-02	0.429
I-135	-2.130E+14		1.019E+15	Half-Life too short		
CS-136	-6.240E-02		1.224E-01	1.973E-01	1.769E-02	-0.316
BA-137M	1.632E-02		2.943E-02	5.092E-02	3.882E-03	0.321
CS-137	1.724E-02		3.109E-02	5.380E-02	4.111E-03	0.321

Sample ID : G248860002 Acquisition date : 24-MAR-2010 16:15:25

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-139	-2.451E-03		2.605E-02	4.385E-02	2.302E-03	-0.056
BA-140	-2.594E-02		2.774E-01	4.499E-01	1.507E-01	-0.058
LA-140	5.914E-02		8.071E-02	1.314E-01	9.019E-03	0.450
CE-141	-3.729E-02		6.646E-02	1.017E-01	5.804E-03	-0.367
CE-143	9.978E-03		1.438E-03	Half-Life too short		
CE-144	-1.262E-01		2.137E-01	2.921E-01	4.040E-02	-0.432
PM-144	1.340E-03		2.875E-02	4.815E-02	3.910E-03	0.028
PR-144	1.088E-01		2.158E+00	3.615E+00	2.934E-01	0.030
PM-146	-5.875E-03		3.395E-02	5.566E-02	4.862E-03	-0.106
ND-147	-6.498E-02		6.273E-01	1.018E+00	1.421E-01	-0.064
PM-149	4.872E-05		1.884E-04	Half-Life too short		
EU-152	-3.403E-02		1.010E-01	1.375E-01	8.966E-03	-0.247
GD-153	-1.293E-01		8.924E-02	1.287E-01	1.006E-02	-1.005
EU-154	-1.207E-01		1.073E-01	1.588E-01	1.599E-02	-0.760
EU-155	1.651E-02		1.002E-01	1.616E-01	1.155E-02	0.102
TB-160	-2.277E-02		1.269E-01	2.048E-01	2.250E-02	-0.111
HO-166M	8.606E-03		5.047E-02	8.502E-02	7.087E-03	0.101
TA-182	3.101E-02		1.882E-01	3.134E-01	1.917E-02	0.099
IR-192	-6.053E-04		3.148E-02	4.986E-02	2.892E-03	-0.012
HG-203	6.698E-02		4.101E-02	6.409E-02	3.864E-03	1.045
BI-207	-4.474E-03		4.198E-02	6.955E-02	5.740E-03	-0.064
PB-210	3.120E-01		4.823E+00	8.184E+00	6.274E-01	0.038
PB-211	-9.518E-01		7.876E-01	9.960E-01	4.778E-01	-0.956
BI-212	1.929E+00	+	8.278E-01	1.044E+00	1.297E-01	1.847
RN-219	3.120E-01		3.511E-01	5.926E-01	7.967E-02	0.527
RA-223	3.325E-01		5.927E-01	8.647E-01	1.393E-01	0.385
AC-227	-9.849E-02		2.160E-01	3.461E-01	3.506E-02	-0.285
TH-227	-9.849E-02		2.160E-01	3.461E-01	4.131E-02	-0.285
TH-229	-2.163E-01		4.311E-01	7.063E-01	3.781E-02	-0.306
PA-231	-2.581E-01		1.339E+00	1.988E+00	2.600E-01	-0.130
TH-231	3.325E-01		5.927E-01	8.647E-01	1.393E-01	0.385
PA-233	-2.211E-02		5.575E-02	8.769E-02	5.373E-03	-0.252
PA-234	6.822E-02		2.623E-01	4.339E-01	8.559E-02	0.157
PA-234M	2.542E+00		4.129E+00	6.910E+00	7.454E-01	0.368
TH-234	1.922E+00		1.560E+00	2.637E+00	4.750E-01	0.729
U-238	1.922E+00		1.560E+00	2.637E+00	4.750E-01	0.729
NP-239	-1.939E-01		3.593E-01	5.642E-01	3.485E-02	-0.344
AM-241	1.165E-01		1.725E-01	2.953E-01	2.449E-02	0.395
CM-247	2.751E-02		3.236E-02	5.484E-02	3.193E-03	0.502
CF-249	2.855E-02		3.190E-02	5.584E-02	3.210E-03	0.511
CF-251	2.061E-02		1.123E-01	1.900E-01	1.004E-02	0.108

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248860002           *
* Acquisition date : 24-MAR-2010 16:15:25 Detector SN#    :                *
* Detector ID      : GAM18                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.75     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  4-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G248860002           Analyst initials: MXR1           *
* Batch Number     : 962633               Sample Quantity : 1.2416E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.442E+01	3.004E+00	2.209E-01	1.533E+00
CD-109	2.394E+00	1.040E+00	6.576E-01	5.305E-01
SN-126	2.322E-01	1.009E-01	6.908E-02	5.146E-02
TL-208	5.245E-01	7.921E-02	2.446E-02	4.041E-02
BI-211	3.582E+00	4.477E-01	1.391E-01	2.284E-01
PB-212	1.801E+00	1.633E-01	4.214E-02	8.331E-02
BI-214	1.181E+00	1.692E-01	5.317E-02	8.634E-02
PB-214	1.300E+00	1.770E-01	5.057E-02	9.032E-02
RA-224	3.793E+00	1.134E+00	4.510E-01	5.787E-01
RA-226	1.181E+00	1.692E-01	5.317E-02	8.634E-02
AC-228	1.740E+00	3.570E-01	9.996E-02	1.822E-01
RA-228	1.740E+00	3.570E-01	9.996E-02	1.822E-01
TH-228	1.801E+00	1.633E-01	4.214E-02	8.331E-02
TH-230	1.181E+00	1.578E-01	5.317E-02	8.052E-02
TH-232	1.740E+00	3.570E-01	9.996E-02	1.822E-01
U-235	1.191E-01	1.861E-01	1.568E-01	9.494E-02
NP-237	6.930E-01	3.330E-01	2.009E-01	1.699E-01
ANH-511	1.382E-01	6.001E-02	1.844E-02	3.062E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.317E-01	2.813E-01	2.464E-01	1.435E-01	NOT IDENT.
NA-22	-5.488E-02	3.800E-02	2.808E-02	1.939E-02	NOT IDENT.
NA-24	-2.043E+08	1.799E+08	0.000E+00	9.180E+07	SHORT HLIF
SC-46	-2.272E-02	3.462E-02	2.757E-02	1.766E-02	FAIL ABUN
V-48	2.540E-02	7.434E-02	6.327E-02	3.793E-02	NOT IDENT.
CR-51	-3.594E-01	3.484E-01	2.753E-01	1.778E-01	NOT IDENT.
MN-54	2.130E-02	3.367E-02	2.945E-02	1.718E-02	NOT IDENT.
CO-56	3.393E-03	3.195E-02	2.716E-02	1.630E-02	NOT IDENT.
CO-57	3.620E-03	2.318E-02	1.974E-02	1.183E-02	NOT IDENT.

CO-58	-1.860E-02	3.420E-02	2.786E-02	1.745E-02	NOT IDENT.
FE-59	-9.724E-03	8.051E-02	6.805E-02	4.108E-02	NOT IDENT.
CO-60	-6.046E-03	3.520E-02	2.896E-02	1.796E-02	NOT IDENT.
ZN-65	-2.346E-02	1.001E-01	7.139E-02	5.108E-02	NOT IDENT.
SE-75	2.444E-03	4.366E-02	3.275E-02	2.227E-02	NOT IDENT.
SR-85	9.479E-02	3.637E-02	3.151E-02	1.855E-02	NOT IDENT.
Y-88	5.867E-03	2.435E-02	2.107E-02	1.242E-02	NOT IDENT.
Y-91	-1.388E+01	1.997E+01	1.608E+01	1.019E+01	NOT IDENT.
NB-94	2.161E-02	2.718E-02	2.439E-02	1.387E-02	NOT IDENT.
NB-95	2.074E-02	3.846E-02	3.373E-02	1.962E-02	NOT IDENT.
NB-95M	1.389E-01	1.290E-01	1.027E-01	6.580E-02	NOT IDENT.
ZR-95	4.387E-02	6.284E-02	5.583E-02	3.206E-02	NOT IDENT.
MO-99	2.270E+01	3.478E+01	3.086E+01	1.775E+01	NOT IDENT.
TC-99M	-1.991E+22	4.361E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.517E-02	3.567E-02	2.954E-02	1.820E-02	FAIL ABUN
RH-106	-1.173E-01	2.439E-01	1.953E-01	1.244E-01	NOT IDENT.
RU-106	-1.173E-01	2.436E-01	1.953E-01	1.243E-01	NOT IDENT.
AG-108M	-7.536E-03	2.431E-02	2.061E-02	1.240E-02	NOT IDENT.
AG-110M	6.633E-03	2.781E-02	2.441E-02	1.419E-02	NOT IDENT.
SN-113	-1.708E-02	3.619E-02	3.072E-02	1.846E-02	NOT IDENT.
CD-115	2.861E+01	4.453E+01	0.000E+00	2.272E+01	SHORT HLIF
SN-117M	-1.544E-02	5.799E-02	5.114E-02	2.959E-02	NOT IDENT.
TE-123M	-1.259E-02	2.379E-02	2.077E-02	1.214E-02	NOT IDENT.
SB-124	-5.203E-03	6.005E-02	4.983E-02	3.064E-02	NOT IDENT.
SB-125	-2.783E-02	7.301E-02	6.170E-02	3.725E-02	FAIL ABUN
TE-125M	1.194E+01	9.746E+00	8.653E+00	4.972E+00	NOT IDENT.
I-126	-4.940E-02	2.380E-01	2.032E-01	1.214E-01	NOT IDENT.
SB-126	-5.114E-02	1.881E-01	1.357E-01	9.599E-02	NOT IDENT.
SB-127	1.406E-01	2.538E+00	2.195E+00	1.295E+00	NOT IDENT.
I-131	-1.523E-01	1.405E-01	1.160E-01	7.170E-02	NOT IDENT.
TE-132	6.642E-03	1.899E+00	1.642E+00	9.691E-01	NOT IDENT.
BA-133	-6.344E-03	3.793E-02	2.705E-02	1.935E-02	FAIL ABUN
I-133	1.155E+05	2.712E+05	0.000E+00	1.384E+05	SHORT HLIF
CS-134	8.997E-02	5.291E-02	3.797E-02	2.700E-02	FAIL ABUN
CS-135	9.977E-02	1.536E-01	1.190E-01	7.836E-02	NOT IDENT.
I-135	-2.130E+20	1.997E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.240E-02	1.200E-01	9.906E-02	6.121E-02	NOT IDENT.
BA-137M	1.632E-02	2.885E-02	2.573E-02	1.472E-02	NOT IDENT.
CS-137	1.724E-02	3.047E-02	2.718E-02	1.555E-02	NOT IDENT.
CE-139	-2.451E-03	2.553E-02	2.257E-02	1.302E-02	NOT IDENT.
BA-140	-2.594E-02	2.718E-01	2.280E-01	1.387E-01	NOT IDENT.
LA-140	5.914E-02	7.910E-02	6.560E-02	4.036E-02	FAIL ABUN
CE-141	-3.729E-02	6.513E-02	5.242E-02	3.323E-02	NOT IDENT.
CE-143	9.978E+03	2.819E+03	0.000E+00	1.438E+03	SHORT HLIF
CE-144	-1.262E-01	2.095E-01	1.508E-01	1.069E-01	NOT IDENT.
PM-144	1.340E-03	2.817E-02	2.431E-02	1.437E-02	NOT IDENT.
PR-144	1.088E-01	2.115E+00	1.825E+00	1.079E+00	NOT IDENT.
PM-146	-5.875E-03	3.327E-02	2.827E-02	1.697E-02	NOT IDENT.
ND-147	-6.498E-02	6.147E-01	5.161E-01	3.136E-01	FAIL ABUN
PM-149	4.872E+01	3.693E+02	0.000E+00	1.884E+02	SHORT HLIF
EU-152	-3.403E-02	9.901E-02	7.010E-02	5.052E-02	FAIL ABUN
GD-153	-1.293E-01	8.746E-02	6.669E-02	4.462E-02	NOT IDENT.
EU-154	-1.207E-01	1.051E-01	7.953E-02	5.364E-02	NOT IDENT.
EU-155	1.651E-02	9.817E-02	8.370E-02	5.008E-02	FAIL ABUN
TB-160	-2.277E-02	1.243E-01	1.031E-01	6.343E-02	FAIL ABUN
HO-166M	8.606E-03	4.946E-02	4.291E-02	2.524E-02	NOT IDENT.
TA-182	3.101E-02	1.845E-01	1.570E-01	9.411E-02	FAIL ABUN
IR-192	-6.053E-04	3.085E-02	2.544E-02	1.574E-02	FAIL ABUN
HG-203	6.698E-02	4.019E-02	3.276E-02	2.051E-02	NOT IDENT.
BI-207	-4.474E-03	4.114E-02	3.491E-02	2.099E-02	FAIL ABUN
PB-210	3.120E-01	4.726E+00	4.283E+00	2.411E+00	NOT IDENT.
PB-211	-9.518E-01	7.719E-01	5.066E-01	3.938E-01	NOT IDENT.
BI-212	1.929E+00	8.113E-01	5.270E-01	4.139E-01	FAIL ABUN
RN-219	3.120E-01	3.441E-01	3.014E-01	1.755E-01	FAIL ABUN
RA-223	3.325E-01	5.809E-01	4.412E-01	2.964E-01	FAIL ABUN
AC-227	-9.849E-02	2.116E-01	1.771E-01	1.080E-01	FAIL ABUN
TH-227	-9.849E-02	2.117E-01	1.771E-01	1.080E-01	FAIL ABUN
TH-229	-2.163E-01	4.225E-01	3.628E-01	2.156E-01	FAIL ABUN
PA-231	-2.581E-01	1.312E+00	1.016E+00	6.693E-01	FAIL ABUN
TH-231	3.325E-01	5.809E-01	4.412E-01	2.964E-01	FAIL ABUN
PA-233	-2.211E-02	5.464E-02	4.476E-02	2.788E-02	FAIL ABUN
PA-234	6.822E-02	2.571E-01	2.181E-01	1.312E-01	NOT IDENT.
PA-234M	2.542E+00	4.047E+00	3.471E+00	2.065E+00	NOT IDENT.
TH-234	1.922E+00	1.529E+00	1.375E+00	7.802E-01	FAIL ABUN
U-238	1.922E+00	1.529E+00	1.375E+00	7.802E-01	FAIL ABUN
NP-239	-1.939E-01	3.522E-01	2.918E-01	1.797E-01	FAIL ABUN
AM-241	1.165E-01	1.691E-01	1.540E-01	8.625E-02	NOT IDENT.
CM-247	2.751E-02	3.172E-02	2.790E-02	1.618E-02	FAIL ABUN

CF-249	2.855E-02	3.126E-02	2.842E-02	1.595E-02	NOT IDENT.
CF-251	2.061E-02	1.100E-01	9.774E-02	5.613E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	280.9230
49.72	268.4321
57.36	0.0000
59.54	310.1372
63.29	354.7280
63.29	354.7280
64.28	381.4621
67.75	386.7639
69.67	387.2047
70.83	385.7053
72.81	420.1545
72.87	420.2314
72.87	420.2314
74.82	388.4586
74.82	388.4586
74.82	388.4586
74.97	388.6322
77.11	391.0917
77.11	391.0917
77.11	391.0917
79.69	382.6000
79.80	384.2088
80.12	384.5592
80.19	384.6340
80.57	388.0342
81.00	407.9296
81.07	408.0108
81.07	408.0108
83.79	373.4607
83.79	373.4607
85.43	400.8501
86.48	471.7651
86.55	471.8553
86.79	490.3724
86.94	490.5720
87.57	514.2179
88.03	444.7791
88.47	445.2960
89.96	447.0403
91.11	417.6663
92.59	419.2579
92.59	419.2579
93.35	407.7144
94.67	348.6443
94.87	348.8194
94.87	348.8194
95.86	343.4662
97.43	418.1325
98.44	357.6476
99.53	333.5053
100.11	324.5502
103.18	344.8629
103.37	332.3564
105.31	321.1484
106.12	342.9887
109.28	327.2884
111.00	361.8403
111.76	365.6788
116.30	306.3255
117.23	319.9998
121.12	308.3785
121.78	308.8030
122.06	318.8793
123.07	334.5332
131.20	342.7496
133.52	364.5593
136.00	349.3475

136.47	371.1621
140.51	378.5659
140.51	0.0000
143.76	320.0536
144.24	314.5938
144.24	314.5938
145.44	354.4080
152.43	327.4017
153.25	328.1651
154.21	304.1704
154.21	304.1704
156.02	320.0746
158.56	321.4715
159.00	323.4780
162.66	313.9166
163.33	309.8180
165.86	327.2086
176.60	332.8966
177.52	322.4465
181.07	326.7881
184.41	322.5652
185.72	320.9904
193.51	301.3906
197.04	298.2463
205.31	323.3923
210.85	313.6335
215.65	295.1414
222.11	291.2064
227.38	295.1592
228.16	305.2374
228.18	305.2445
235.69	314.4793
235.96	331.9753
235.96	331.9753
238.63	300.3647
238.63	300.3647
240.99	301.2385
242.00	301.6107
244.70	220.5119
252.40	229.8108
252.80	227.9036
256.23	254.1348
256.23	254.1348
260.90	0.0000
264.66	232.2858
268.22	251.2920
269.46	241.5656
269.46	241.5656
271.23	252.6893
273.65	247.8625
276.40	263.1196
277.37	247.8436
277.60	247.9056
278.00	248.0150
279.20	211.1406
279.54	211.2181
280.46	208.1024
283.69	229.7116
284.31	235.2395
285.41	206.0781
285.90	0.0000
287.50	218.0706
293.27	0.0000
295.22	197.8660
295.96	165.0168
298.57	165.4644
299.98	203.9443
299.98	203.9443
300.09	203.9678
300.09	203.9678
300.13	203.9736
301.36	195.7218
302.85	206.2495
304.50	211.7173
304.50	211.7173
304.85	196.4209
308.46	212.1394
311.90	202.1195

316.51	195.4859
319.41	212.2905
320.08	215.6795
323.87	172.3122
323.87	172.3122
328.76	185.8026
333.37	219.5496
334.37	219.7571
334.37	219.7571
338.28	213.5047
338.28	213.5047
338.32	213.5136
338.32	213.5136
338.32	213.5136
340.48	221.0175
340.55	221.0297
344.28	221.7926
351.06	187.4645
351.93	187.6106
356.01	166.7802
364.49	189.7229
366.42	174.6589
383.85	178.2091
388.16	149.3517
388.63	154.0224
391.69	175.6804
400.66	166.7309
401.81	152.9022
402.40	157.6391
404.85	239.2625
410.95	155.9067
414.70	184.6305
423.72	158.4278
427.09	172.1577
427.87	163.6940
433.94	167.3245
453.88	147.5135
463.37	138.4363
468.07	145.4398
473.00	141.6867
476.78	149.9571
477.60	140.1730
487.02	152.0251
492.35	0.0000
497.08	148.0741
511.00	124.2169
514.00	111.3085
527.90	0.0000
529.87	0.0000
531.02	126.8729
537.26	120.1907
546.56	0.0000
563.25	128.4173
569.33	155.0929
569.50	157.2034
569.70	157.2253
583.19	132.0831
600.60	157.4570
602.73	171.0117
604.72	149.8062
609.32	168.0839
609.32	168.0839
609.32	168.0839
610.33	130.6105
614.28	123.7317
618.01	129.3838
621.93	111.3009
621.93	111.3009
633.25	109.8301
635.95	96.9244
636.99	114.4156
645.85	117.1619
657.76	114.7970
661.66	118.7172
661.66	118.7172
664.57	0.0000
666.33	135.6173
666.50	135.6293

677.62	116.9355
685.70	107.1761
695.00	122.6739
696.49	126.5158
696.51	126.5186
697.00	129.3610
702.65	113.7526
706.68	147.8966
711.68	118.0471
720.70	133.3501
721.93	0.0000
722.78	123.7226
722.91	123.7306
723.31	127.0112
724.19	123.8075
727.33	107.6828
733.00	89.9869
735.93	115.6481
739.50	93.8270
747.24	112.4368
752.31	101.1505
753.82	98.3311
756.73	103.2949
763.94	159.8303
765.81	131.8551
766.42	137.7127
777.92	111.1542
778.90	104.3768
783.70	90.9206
785.37	99.7961
795.86	99.4349
801.95	106.4685
810.29	114.7846
810.76	111.8413
815.77	89.2767
818.51	93.3574
832.01	114.8970
834.85	121.0418
836.80	0.0000
846.77	86.4759
856.80	100.4097
860.56	95.3695
871.09	92.4571
873.19	87.4540
875.33	0.0000
879.36	100.9336
880.51	87.7217
883.24	83.7367
884.68	96.0482
889.28	105.4455
898.04	106.8543
911.20	102.7077
911.20	102.7077
911.20	102.7077
926.50	109.1315
937.49	138.8366
944.13	86.8687
946.00	92.1698
949.00	97.5221
962.29	133.7121
964.08	119.3396
966.15	88.6724
968.97	88.7681
968.97	88.7681
968.97	88.7681
983.53	85.0114
996.26	108.9104
1001.03	87.7122
1004.73	106.0415
1037.84	109.6579
1038.76	0.0000
1048.07	105.4015
1050.41	106.4217
1050.41	106.4217
1063.66	83.4779
1085.87	108.7069
1099.45	92.1216
1112.07	65.0984

1115.54	137.0337
1120.29	100.4297
1120.29	100.4297
1120.29	100.4297
1120.55	100.4407
1121.30	92.0941
1131.51	0.0000
1173.23	119.7268
1177.93	91.6395
1189.05	97.8376
1204.77	125.8616
1221.41	128.4992
1231.02	163.5843
1235.36	132.0398
1238.28	112.2867
1260.41	0.0000
1271.85	57.2246
1274.44	97.4567
1274.54	105.4980
1291.59	89.8816
1298.22	0.0000
1312.11	72.1391
1332.49	72.5700
1365.19	49.5234
1368.63	0.0000
1384.29	62.2391
1408.01	53.2537
1457.56	0.0000
1460.82	40.2517
1489.16	49.0932
1505.03	38.4475
1596.21	17.0605
1620.50	34.7542
1678.03	0.0000
1690.97	22.5810
1764.49	17.7517
1764.49	17.7517
1764.49	17.7517
1770.23	23.1069
1771.35	109.0100
1791.20	0.0000
1836.06	16.2319

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248860002

Total Uranium Activity	5.7742E+00	ug/g
Total Uranium Counting Unc.	4.5501E+00	ug/g
Total Uranium Tpu	2.3215E-06	ug/g
Total Uranium Mda	4.0899E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248860002       *
*   ANALYST       : MXR1                      DETECTOR   : GAM18            *
*   SAMPLE DATE   :  4-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 16:15:25.62    SAMPLE ALQT:  124.160 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.864E+00
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.200E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 2.367E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.150E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:17:13.21

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860003.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 16:15:50
Sample ID         : G248860003           Sample quantity  : 1.33020E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.29  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	74.87	577	613	1.13	149.98	144	18	8.01E-02	8.4	4.33E-01
2	3	77.17*	706	507	1.02	154.57	144	18	9.81E-02	6.5	
3	4	87.18	346	599	1.26	174.56	165	27	4.81E-02	13.0	2.61E+00
4	4	89.96	234	629	1.47	180.13	165	27	3.25E-02	21.0	
5	4	92.85*	381	584	1.51	185.90	165	27	5.29E-02	13.8	
6	0	185.96*	212	599	1.48	371.93	367	11	2.94E-02	24.4	
7	0	209.49	134	390	0.90	418.95	415	9	1.86E-02	28.0	
8	3	238.78*	1709	311	1.17	477.48	472	17	2.37E-01	3.0	2.98E-01
9	3	241.79	432	368	1.79	483.50	472	17	6.00E-02	12.5	
10	0	270.23	268	418	1.64	540.33	533	16	3.72E-02	18.1	
11	0	278.25	148	352	1.98	556.36	550	14	2.06E-02	28.1	
12	0	295.33*	595	349	1.30	590.47	584	13	8.27E-02	7.8	
13	0	300.46	129	304	1.29	600.73	596	11	1.79E-02	27.6	
14	0	328.26	150	274	1.56	656.30	651	11	2.08E-02	22.9	
15	0	338.52*	362	305	1.40	676.79	671	12	5.03E-02	11.2	
16	0	352.10*	954	359	1.51	703.92	696	14	1.33E-01	5.3	
17	0	463.31	142	165	1.47	926.19	920	12	1.98E-02	20.0	
18	0	510.98*	159	336	2.19	1021.46	1012	21	2.21E-02	32.6	
19	0	583.31*	566	207	1.71	1166.03	1159	16	7.86E-02	7.2	
20	0	609.32*	592	283	1.75	1218.03	1212	16	8.22E-02	7.7	
21	0	727.75*	135	142	1.76	1454.75	1447	16	1.87E-02	22.5	
22	0	767.74	73	118	1.47	1534.70	1529	13	1.01E-02	32.5	
23	0	795.36	88	98	1.56	1589.92	1584	12	1.22E-02	25.1	
24	0	860.70	99	87	3.04	1720.56	1714	14	1.37E-02	22.5	
25	0	911.29*	469	109	2.04	1821.70	1814	15	6.51E-02	6.9	
26	0	969.57*	193	235	2.09	1938.22	1930	15	2.68E-02	19.2	
27	0	1120.51*	189	164	2.05	2240.03	2229	20	2.63E-02	17.9	
28	0	1238.74*	65	150	2.62	2476.48	2469	14	9.00E-03	42.8	
29	0	1460.94*	2477	115	2.68	2920.91	2910	24	3.44E-01	2.3	
30	0	1730.46	48	16	3.84	3460.10	3449	22	6.64E-03	26.0	
31	0	1764.86*	167	10	1.99	3528.92	3518	20	2.31E-02	10.0	
32	0	1847.31	43	19	2.70	3693.89	3682	20	5.92E-03	26.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 18:17:16

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860003.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 4-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 16:15:50
Sample ID : G248860003 Sample quantity : 133.02 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.29 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.436E+01	3.535E+00	4.761E-01	4.362E-02	72.158
CD-109	+	88.03	*	3.638E+00	1.007E+00	1.036E+00	9.834E-02	3.511
SN-126		64.28		2.352E-01	4.274E-01	7.269E-01	1.056E-01	0.324
	+	86.94		1.467E+00	7.192E-01	4.220E-01	1.752E-01	3.477
	+	87.57	*	3.529E-01	9.772E-02	1.009E-01	9.530E-03	3.497
HG-203		70.83		1.520E-01	1.327E+00	1.962E+00	3.073E-01	0.077
		72.87		1.480E+00	8.248E-01	1.249E+00	1.898E-01	1.185
	+	279.20	*	1.122E-01	6.510E-02	5.707E-02	8.069E-03	1.965
TL-208	+	277.37		1.026E+00	6.024E-01	5.196E-01	8.643E-02	1.975
	+	583.19	*	4.779E-01	8.636E-02	5.001E-02	5.418E-03	9.557
	+	860.56		7.632E-01	3.541E-01	3.887E-01	4.529E-02	1.963
BI-211		72.87		5.513E+00	2.989E+00	4.652E+00	3.723E-01	1.185
	+	351.06	*	3.859E+00	6.065E-01	2.956E-01	3.450E-02	13.053
PB-212	+	74.82		2.565E+00	5.388E-01	4.740E-01	6.019E-02	5.411
	+	77.11		1.802E+00	2.775E-01	2.730E-01	2.283E-02	6.600
	+	238.63	*	1.649E+00	2.401E-01	8.489E-02	1.125E-02	19.423
	+	300.09		1.866E+00	1.065E+00	9.517E-01	1.396E-01	1.961
BI-214	+	609.32	*	9.632E-01	1.861E-01	9.916E-02	1.157E-02	9.714
	+	1120.29		1.526E+00	5.729E-01	3.968E-01	4.403E-02	3.846
	+	1764.49		1.791E+00	3.866E-01	2.277E-01	1.897E-02	7.866
PB-214	+	74.82		4.546E+00	9.201E-01	8.401E-01	9.562E-02	5.411
	+	77.11		3.177E+00	5.550E-01	4.813E-01	5.653E-02	6.600
	+	242.00		2.524E+00	7.222E-01	5.155E-01	7.129E-02	4.897
	+	295.22		1.527E+00	3.299E-01	1.984E-01	2.976E-02	7.700
	+	351.93	*	1.401E+00	2.333E-01	1.075E-01	1.384E-02	13.028
RA-224	+	240.99	*	4.464E+00	1.251E+00	9.089E-01	1.138E-01	4.911
RA-226	+	609.32	*	9.632E-01	1.861E-01	9.916E-02	1.157E-02	9.714
	+	1120.29		1.526E+00	5.729E-01	3.968E-01	4.403E-02	3.846
	+	1764.49		1.791E+00	3.866E-01	2.277E-01	1.897E-02	7.866
AC-228	+	338.32		1.643E+00	7.897E-01	3.284E-01	1.396E-01	5.003
	+	911.20	*	1.839E+00	3.552E-01	2.099E-01	2.844E-02	8.759
	+	968.97		1.303E+00	5.977E-01	3.998E-01	1.005E-01	3.259
RA-228	+	338.32		1.643E+00	7.897E-01	3.284E-01	1.396E-01	5.003
	+	911.20	*	1.839E+00	3.552E-01	2.099E-01	2.844E-02	8.759

Sample ID : G248860003 Acquisition date : 24-MAR-2010 16:15:50

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		1.303E+00	5.977E-01	3.998E-01	1.005E-01	3.259
TH-228	+	74.82		2.565E+00	4.785E-01	4.740E-01	3.909E-02	5.411
	+	77.11		1.802E+00	2.775E-01	2.730E-01	2.283E-02	6.600
	+	238.63	*	1.649E+00	2.401E-01	8.489E-02	1.125E-02	19.423
	+	300.09		1.866E+00	1.549E+00	9.517E-01	5.906E-01	1.961
TH-230	+	609.32	*	9.632E-01	1.790E-01	9.915E-02	1.032E-02	9.714
	+	1120.29		1.526E+00	5.637E-01	3.968E-01	3.509E-02	3.846
	+	1764.49		1.791E+00	3.866E-01	2.277E-01	1.897E-02	7.866
TH-232	+	338.32		1.643E+00	4.169E-01	3.284E-01	3.906E-02	5.003
	+	911.20	*	1.839E+00	3.552E-01	2.099E-01	2.844E-02	8.759
	+	968.97		1.303E+00	5.977E-01	3.998E-01	1.005E-01	3.259
U-235	+	89.96		2.476E+00	1.210E+00	1.055E+00	2.624E-01	2.346
	+	93.35		2.441E+00	8.813E-01	6.393E-01	1.487E-01	3.818
		143.76	*	-1.129E-02	1.845E-01	3.040E-01	5.196E-02	-0.037
		163.33		1.303E-01	4.057E-01	6.830E-01	1.263E-01	0.191
	+	185.72		1.374E-01	6.854E-02	6.171E-02	6.462E-03	2.227
		205.31		2.371E-01	5.092E-01	7.462E-01	1.454E-01	0.318
NP-237	+	86.48	*	1.053E+00	3.658E-01	3.042E-01	6.980E-02	3.462
		95.86		-4.927E-01	8.808E-01	1.220E+00	2.938E-01	-0.404
ANH-511	+	511.00	*	1.044E-01	6.893E-02	4.020E-02	4.027E-03	2.597

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	4.557E-02	2.957E-01	4.819E-01	5.028E-02	0.095
NA-22		1274.54	*	-3.807E-02	3.911E-02	6.008E-02	5.178E-03	-0.634
NA-24		1368.63	*	-1.244E+02	3.911E-02	Half-Life too short		
SC-46		889.28	*	-7.077E-03	3.565E-02	5.836E-02	6.533E-03	-0.121
	+	1120.55		2.692E-01	9.942E-02	1.202E-01	1.063E-02	2.239
V-48		944.13		-5.197E-01	9.781E-01	1.554E+00	1.686E-01	-0.334
		983.53	*	4.062E-03	7.640E-02	1.259E-01	1.321E-02	0.032
		1312.11		-1.711E-02	8.548E-02	1.389E-01	1.223E-02	-0.123
CR-51		320.08	*	-5.446E-02	3.699E-01	6.149E-01	7.960E-02	-0.089
MN-54		834.85	*	-3.782E-03	3.401E-02	5.639E-02	6.265E-03	-0.067
CO-56		846.77	*	-3.301E-02	3.694E-02	5.793E-02	6.449E-03	-0.570
		1037.84		-6.020E-02	2.779E-01	4.469E-01	4.605E-02	-0.135
	+	1238.28		1.517E-01	1.304E-01	1.679E-01	1.455E-02	0.904
		1771.35		1.202E-01	2.196E-01	3.388E-01	2.815E-02	0.355
CO-57		122.06	*	1.507E-03	2.444E-02	3.883E-02	3.202E-03	0.039
		136.47		-1.136E-01	1.922E-01	3.186E-01	2.953E-02	-0.357
CO-58		810.76	*	-4.670E-02	3.471E-02	5.243E-02	5.806E-03	-0.891
FE-59		1099.45	*	-9.555E-02	8.980E-02	1.342E-01	1.315E-02	-0.712
		1291.59		4.099E-02	1.174E-01	1.987E-01	1.959E-02	0.206
CO-60		1173.23		-9.166E-03	4.177E-02	6.881E-02	5.534E-03	-0.133
		1332.49	*	3.154E-03	3.548E-02	5.886E-02	5.249E-03	0.054
ZN-65		1115.54	*	6.511E-02	9.840E-02	1.436E-01	1.281E-02	0.453
SE-75		121.12		-3.843E-03	1.292E-01	2.047E-01	2.210E-02	-0.019
		136.00		-3.557E-02	3.760E-02	6.151E-02	5.339E-03	-0.578

Sample ID : G248860003 Acquisition date : 24-MAR-2010 16:15:50

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		264.66	*	-1.126E-02	4.758E-02	6.570E-02	8.843E-03	-0.171
	+	279.54		3.046E-01	1.768E-01	1.725E-01	2.449E-02	1.766
		400.66		-1.131E-01	2.305E-01	3.687E-01	4.306E-02	-0.307
SR-85		514.00	*	1.674E-01	4.470E-02	7.260E-02	7.285E-03	2.305
Y-88		898.04		2.680E-03	3.950E-02	6.573E-02	7.384E-03	0.041
		1836.06	*	-2.651E-02	3.704E-02	4.386E-02	3.546E-03	-0.605
Y-91		1204.77	*	1.054E+01	2.051E+01	3.511E+01	2.887E+00	0.300
NB-94		702.65	*	1.033E-02	3.213E-02	5.330E-02	5.712E-03	0.194
		871.09		7.676E-03	3.062E-02	5.164E-02	5.768E-03	0.149
NB-95		765.81	*	8.004E-02	4.482E-02	7.019E-02	7.675E-03	1.140
NB-95M		235.69	*	1.397E-01	1.432E-01	2.112E-01	2.794E-02	0.662
ZR-95		724.19		1.746E-01	1.041E-01	1.612E-01	1.835E-02	1.083
		756.73	*	-3.802E-02	6.649E-02	1.035E-01	1.204E-02	-0.367
MO-99		140.51		-6.597E+01	7.485E+01	1.201E+02	2.859E+01	-0.549
		181.07		4.783E+01	6.646E+01	9.903E+01	1.943E+01	0.483
		366.42		1.332E+02	3.126E+02	5.266E+02	5.586E+01	0.253
		739.50	*	5.228E+00	3.812E+01	6.244E+01	1.066E+01	0.084
		777.92		-1.942E+02	1.215E+02	1.730E+02	1.898E+01	-1.123
TC-99M		140.51	*	-3.751E+16	1.215E+02	Half-Life too short		
RU-103		497.08	*	2.357E-02	3.935E-02	6.518E-02	9.664E-03	0.362
	+	610.33		1.087E+01	2.522E+00	2.510E+00	4.357E-01	4.331
RH-106		621.93	*	2.206E-02	2.761E-01	4.579E-01	6.644E-02	0.048
		1050.41		1.125E+00	2.263E+00	3.813E+00	3.722E-01	0.295
RU-106		621.93	*	2.206E-02	2.761E-01	4.579E-01	4.783E-02	0.048
		1050.41		1.125E+00	2.263E+00	3.813E+00	3.722E-01	0.295
AG-108M		433.94	*	-2.164E-03	2.674E-02	4.340E-02	4.272E-03	-0.050
		614.28		3.062E-03	3.615E-02	5.171E-02	5.511E-03	0.059
		722.91		7.879E-03	3.750E-02	5.322E-02	5.862E-03	0.148
AG-110M		657.76	*	-3.439E-02	3.419E-02	5.283E-02	5.678E-03	-0.651
		677.62		1.461E-01	2.829E-01	4.762E-01	5.151E-02	0.307
		706.68		-1.047E-02	2.030E-01	3.303E-01	3.611E-02	-0.032
		763.94		1.385E-01	1.547E-01	2.310E-01	2.568E-02	0.600
		884.68		2.699E-04	4.257E-02	7.067E-02	8.059E-03	0.004
		937.49		-3.997E-02	1.017E-01	1.636E-01	1.824E-02	-0.244
		1384.29		-2.773E-01	1.687E-01	2.383E-01	2.183E-02	-1.164
		1505.03		-2.245E-01	2.634E-01	3.920E-01	3.486E-02	-0.573
SN-113		391.69	*	-3.420E-02	3.986E-02	6.254E-02	5.973E-03	-0.547
CD-115		260.90		3.524E-04	3.986E-02	Half-Life too short		
		492.35		-8.412E-05	3.986E-02	Half-Life too short		
		527.90	*	-2.205E-05	3.986E-02	Half-Life too short		
SN-117M		156.02		6.632E-01	2.618E+00	4.420E+00	4.144E-01	0.150
		158.56	*	9.098E-03	6.482E-02	1.089E-01	1.033E-02	0.084
TE-123M		159.00	*	9.937E-03	2.668E-02	4.514E-02	4.311E-03	0.220
SB-124		602.73		-1.702E-02	4.154E-02	5.724E-02	5.946E-03	-0.297
		645.85		-3.232E-02	4.504E-01	7.381E-01	8.059E-02	-0.044
		722.78		7.109E-02	3.986E-01	5.642E-01	6.179E-02	0.126
		1690.97	*	-4.619E-02	7.249E-02	1.107E-01	9.872E-03	-0.417
SB-125		427.87	*	-3.316E-02	8.089E-02	1.291E-01	1.252E-02	-0.257
	+	463.37		8.436E-01	3.483E-01	4.640E-01	4.801E-02	1.818

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		600.60		1.525E-02	1.598E-01	2.604E-01	2.842E-02	0.059
		635.95		-1.139E-01	2.482E-01	3.980E-01	4.405E-02	-0.286
TE-125M		109.28	*	2.459E+00	9.773E+00	1.549E+01	1.595E+00	0.159
I-126		388.63		2.009E-01	1.856E-01	3.199E-01	3.029E-02	0.628
		666.33	*	-8.791E-02	2.719E-01	4.382E-01	4.630E-02	-0.201
		753.82		4.495E-01	2.017E+00	3.316E+00	3.614E-01	0.136
SB-126		414.70		-5.269E-02	9.524E-02	1.516E-01	1.435E-02	-0.348
		666.50		-3.391E-02	9.437E-02	1.518E-01	1.603E-02	-0.223
		695.00		-7.187E-03	9.121E-02	1.484E-01	1.586E-02	-0.048
		697.00		-1.999E-01	3.321E-01	5.234E-01	5.597E-02	-0.382
		720.70	*	2.251E-01	1.843E-01	2.824E-01	3.045E-02	0.797
		856.80		-1.092E-01	6.387E-01	8.958E-01	9.987E-02	-0.122
SB-127		252.40		8.312E+00	1.059E+01	1.663E+01	7.165E+00	0.500
		473.00		-2.819E+00	3.609E+00	5.540E+00	8.298E-01	-0.509
		685.70	*	3.748E-01	2.939E+00	4.844E+00	6.977E-01	0.077
		783.70		1.076E+01	7.954E+00	1.360E+01	2.099E+00	0.791
I-131		80.19		-1.232E+00	8.299E+00	9.450E+00	8.268E-01	-0.130
		284.31		-3.097E-01	2.469E+00	3.409E+00	4.826E-01	-0.091
		364.49	*	4.165E-02	1.609E-01	2.693E-01	2.993E-02	0.155
		636.99		8.905E-01	2.185E+00	3.677E+00	4.020E-01	0.242
TE-132		49.72		-1.190E+01	4.082E+01	6.776E+01	8.227E+00	-0.176
		111.76		-4.720E+01	9.656E+01	1.511E+02	1.867E+01	-0.312
		116.30		-1.145E+01	8.311E+01	1.315E+02	1.620E+01	-0.087
		228.16	*	8.681E-02	2.024E+00	3.298E+00	6.233E-01	0.026
BA-133		81.00		-4.095E-02	1.122E-01	1.256E-01	1.956E-02	-0.326
		276.40		5.544E-01	4.940E-01	5.436E-01	9.692E-02	1.020
		302.85		1.867E-01	1.398E-01	2.150E-01	3.548E-02	0.868
		356.01	*	3.138E-03	4.019E-02	5.816E-02	8.563E-03	0.054
		383.85		-1.779E-01	2.441E-01	3.853E-01	5.091E-02	-0.462
I-133		529.87	*	-1.002E-01	2.441E-01	Half-Life too short		
		875.33		-2.050E+00	2.441E-01	Half-Life too short		
		1298.22		-1.825E+00	2.441E-01	Half-Life too short		
CS-134		563.25		3.812E-01	3.102E-01	5.452E-01	5.625E-02	0.699
		569.33		-1.344E-01	1.784E-01	2.780E-01	2.883E-02	-0.484
		604.72		-4.270E-03	3.269E-02	4.606E-02	4.796E-03	-0.093
	+	795.86	*	1.052E-01	5.400E-02	7.803E-02	8.637E-03	1.348
		801.95		-1.494E-01	4.324E-01	5.709E-01	6.321E-02	-0.262
		1365.19		6.811E-01	9.824E-01	1.716E+00	1.600E-01	0.397
CS-135		268.22	*	2.809E-01	1.688E-01	2.519E-01	3.644E-02	1.115
I-135		546.56		5.674E+15	1.688E-01	Half-Life too short		
		836.80		9.235E+14	1.688E-01	Half-Life too short		
		1038.76		-9.429E+14	1.688E-01	Half-Life too short		
		1131.51		-6.379E+14	1.688E-01	Half-Life too short		
		1260.41	*	1.377E+15	1.688E-01	Half-Life too short		
		1457.56		4.945E+17	1.688E-01	Half-Life too short		
		1678.03		2.705E+15	1.688E-01	Half-Life too short		
		1791.20		-8.634E+14	1.688E-01	Half-Life too short		
CS-136		153.25		9.026E-01	9.831E-01	1.689E+00	1.827E-01	0.534
		176.60		-1.730E-02	6.117E-01	1.015E+00	1.109E-01	-0.017

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		273.65		4.760E-01	8.827E-01	9.338E-01	1.331E-01	0.510
		340.55		1.025E+00	2.408E-01	3.705E-01	4.462E-02	2.768
		818.51		2.655E-02	7.963E-02	1.358E-01	1.505E-02	0.195
		1048.07	*	1.682E-02	1.233E-01	2.031E-01	2.055E-02	0.083
		1235.36		1.118E+00	8.427E-01	1.293E+00	1.501E-01	0.865
BA-137M		661.66	*	3.579E-02	3.451E-02	5.925E-02	6.248E-03	0.604
CS-137		661.66	*	3.781E-02	3.645E-02	6.259E-02	6.609E-03	0.604
CE-139		165.86	*	1.670E-03	2.829E-02	4.727E-02	4.636E-03	0.035
BA-140		162.66		-9.823E-02	9.898E-01	1.648E+00	1.678E-01	-0.060
		304.85		1.042E+00	1.719E+00	2.562E+00	7.922E-01	0.407
		423.72		-7.121E-01	2.323E+00	3.717E+00	1.232E+00	-0.192
		537.26	*	-1.697E-01	3.059E-01	4.875E-01	1.674E-01	-0.348
LA-140	+	328.76		1.113E+00	5.291E-01	6.732E-01	8.509E-02	1.653
		487.02		6.757E-02	1.607E-01	2.650E-01	2.747E-02	0.255
		815.77		-1.310E-01	3.553E-01	5.797E-01	6.882E-02	-0.226
		1596.21	*	-1.918E-01	1.152E-01	1.519E-01	1.331E-02	-1.263
CE-141		145.44	*	6.366E-02	6.207E-02	1.074E-01	9.775E-03	0.593
CE-143		57.36		6.774E-03	6.207E-02	Half-Life too short		
		293.27	*	9.254E-03	6.207E-02	Half-Life too short		
		664.57		1.279E-02	6.207E-02	Half-Life too short		
		721.93		1.141E-02	6.207E-02	Half-Life too short		
CE-144		80.12		-4.332E-01	2.935E+00	3.342E+00	2.889E-01	-0.130
		133.52	*	7.214E-03	1.807E-01	3.063E-01	4.668E-02	0.024
PM-144		476.78		2.659E-02	5.511E-02	9.140E-02	9.600E-03	0.291
		618.01		-2.202E-03	3.146E-02	4.629E-02	4.924E-03	-0.048
		696.49	*	-2.082E-02	3.216E-02	5.053E-02	5.405E-03	-0.412
PR-144		696.51	*	-1.567E+00	2.413E+00	3.791E+00	4.053E-01	-0.413
		1489.16		-1.192E+01	1.136E+01	1.630E+01	1.452E+00	-0.731
PM-146		453.88	*	2.249E-02	3.546E-02	5.941E-02	6.832E-03	0.378
		633.25		1.554E-01	1.291E+00	2.140E+00	8.271E-01	0.073
		735.93		-9.948E-02	1.462E-01	1.954E-01	5.626E-02	-0.509
		747.24		-1.995E-02	8.446E-02	1.349E-01	2.161E-02	-0.148
ND-147	+	91.11		1.104E+00	4.771E-01	6.200E-01	6.129E-02	1.780
		319.41		6.191E-01	4.036E+00	6.796E+00	8.604E-01	0.091
		531.02	*	2.025E-01	6.637E-01	1.128E+00	1.788E-01	0.180
PM-149		285.90	*	8.407E-05	6.637E-01	Half-Life too short		
EU-152		121.78		3.374E-02	6.870E-02	1.109E-01	1.061E-02	0.304
		244.70		4.075E-01	3.274E-01	4.901E-01	6.205E-02	0.832
		344.28	*	-7.567E-02	1.289E-01	1.376E-01	1.654E-02	-0.550
		778.90		-2.242E-01	2.363E-01	3.564E-01	3.911E-02	-0.629
		964.08		2.534E-01	3.238E-01	4.801E-01	5.123E-02	0.528
		1085.87		-1.163E-01	3.569E-01	5.674E-01	5.286E-02	-0.205
		1112.07		6.065E-02	3.089E-01	4.346E-01	3.894E-02	0.140
		1408.01		7.466E-02	1.609E-01	2.737E-01	2.448E-02	0.273
GD-153		69.67		1.944E+00	1.562E+00	2.413E+00	1.873E-01	0.806
		97.43	*	7.618E-03	8.458E-02	1.219E-01	1.072E-02	0.062
		103.18		-6.719E-02	9.822E-02	1.532E-01	1.309E-02	-0.439
EU-154		123.07		-9.709E-03	4.917E-02	7.728E-02	8.563E-03	-0.126
		723.31		6.437E-02	1.757E-01	2.522E-01	2.902E-02	0.255

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		873.19		-9.267E-02	2.505E-01	4.060E-01	5.626E-02	-0.228
		996.26		-5.148E-02	3.170E-01	5.143E-01	9.458E-02	-0.100
		1004.73		-4.132E-02	1.908E-01	3.081E-01	3.977E-02	-0.134
		1274.44	*	-1.045E-01	1.110E-01	1.705E-01	1.939E-02	-0.613
EU-155	+	86.55		4.288E-01	1.188E-01	1.581E-01	1.487E-02	2.712
		105.31	*	3.221E-02	9.338E-02	1.515E-01	1.300E-02	0.213
TB-160	+	86.79		1.192E+00	3.300E-01	4.379E-01	4.095E-02	2.722
		197.04		-2.379E-01	5.603E-01	8.880E-01	9.656E-02	-0.268
		215.65		1.521E-01	7.684E-01	1.222E+00	1.413E-01	0.124
		298.57		3.762E-01	1.610E-01	1.923E-01	2.577E-02	1.956
		879.36	*	3.886E-02	1.324E-01	2.114E-01	2.364E-02	0.184
		962.29		3.154E-01	6.228E-01	9.065E-01	9.688E-02	0.348
		966.15		1.184E+00	3.056E-01	4.892E-01	5.211E-02	2.420
		1177.93		1.261E-01	3.466E-01	5.898E-01	4.759E-02	0.214
		1271.85		-5.040E-01	6.600E-01	1.032E+00	8.867E-02	-0.489
HO-166M		80.57		-3.896E-02	3.157E-01	3.600E-01	3.128E-02	-0.108
		184.41		5.993E-02	3.944E-02	6.105E-02	6.365E-03	0.982
		280.46		-2.797E-02	8.693E-02	1.185E-01	1.655E-02	-0.236
		410.95		3.547E-01	2.313E-01	4.003E-01	3.779E-02	0.886
		711.68	*	2.061E-02	5.259E-02	8.767E-02	9.425E-03	0.235
		752.31		1.243E-01	2.354E-01	3.938E-01	4.290E-02	0.316
		810.29		-7.595E-02	5.007E-02	7.446E-02	8.231E-03	-1.020
TA-182		67.75		-7.838E-02	9.669E-02	1.531E-01	1.167E-02	-0.512
		100.11		1.091E-01	1.615E-01	2.658E-01	2.303E-02	0.410
		152.43		-6.214E-02	3.124E-01	5.206E-01	4.803E-02	-0.119
		222.11		-6.393E-02	3.448E-01	5.583E-01	6.589E-02	-0.115
	+	1121.30		7.375E-01	2.724E-01	3.229E-01	2.851E-02	2.284
		1189.05		6.686E-02	2.904E-01	4.902E-01	3.986E-02	0.136
		1221.41	*	1.017E-01	1.874E-01	3.203E-01	2.664E-02	0.318
		1231.02		-2.816E-01	5.476E-01	7.406E-01	6.198E-02	-0.380
IR-192	+	295.96		1.184E+00	2.442E-01	2.657E-01	3.595E-02	4.457
		308.46		-5.023E-02	8.556E-02	1.395E-01	1.827E-02	-0.360
		316.51	*	-2.659E-03	3.175E-02	5.298E-02	6.772E-03	-0.050
		468.07		3.816E-02	6.716E-02	9.795E-02	1.014E-02	0.390
BI-207		72.81		2.820E-01	1.709E-01	2.648E-01	2.118E-02	1.065
	+	74.97		7.394E-01	1.377E-01	2.032E-01	1.661E-02	3.639
		569.70		-4.290E-03	2.688E-02	4.336E-02	4.453E-03	-0.099
		1063.66	*	3.417E-02	4.792E-02	8.156E-02	7.830E-03	0.419
		1770.23		1.019E+00	4.801E-01	8.789E-01	7.306E-02	1.159
PB-210		46.54	*	4.750E-01	2.687E+00	4.443E+00	4.092E-01	0.107
PB-211		404.85	*	-2.109E-01	6.567E-01	1.048E+00	5.085E-01	-0.201
		427.09		-4.121E-01	1.358E+00	2.159E+00	1.003E+00	-0.191
		832.01		2.247E-01	9.039E-01	1.517E+00	7.937E-01	0.148
BI-212	+	727.33	*	1.705E+00	8.028E-01	9.655E-01	1.358E-01	1.766
		785.37		3.841E+00	2.848E+00	4.919E+00	5.406E-01	0.781
		1620.50		7.956E-01	1.877E+00	3.261E+00	2.843E-01	0.244
RN-219	+	271.23		1.117E+00	4.362E-01	4.139E-01	6.116E-02	2.698
		401.81	*	-6.871E-02	3.528E-01	5.733E-01	8.785E-02	-0.120
RA-223		81.07		-9.495E-02	2.536E-01	2.839E-01	2.481E-02	-0.334

Sample ID : G248860003 Acquisition date : 24-MAR-2010 16:15:50

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		83.79		2.776E-01	1.106E-01	1.869E-01	1.686E-02	1.485
		94.87		7.219E-01	4.386E-01	6.704E-01	5.994E-02	1.077
		144.24		1.827E-01	6.190E-01	1.031E+00	1.019E-01	0.177
		154.21		2.068E-01	3.431E-01	5.853E-01	5.893E-02	0.353
	+	269.46		8.677E-01	3.358E-01	3.190E-01	4.380E-02	2.720
		323.87	*	1.162E-01	6.394E-01	9.391E-01	1.835E-01	0.124
	+	338.28		6.521E+00	1.744E+00	2.086E+00	3.044E-01	3.125
AC-227		79.69		-4.020E-01	1.471E+00	1.660E+00	2.860E-01	-0.242
		235.96		4.814E-01	1.817E-01	2.711E-01	3.683E-02	1.776
		256.23	*	-2.042E-01	2.389E-01	3.675E-01	5.725E-02	-0.556
	+	299.98		2.053E+00	1.180E+00	1.425E+00	2.323E-01	1.440
		304.50		1.657E+00	1.560E+00	2.378E+00	4.593E-01	0.697
		334.37		-4.726E-01	2.091E+00	2.330E+00	4.129E-01	-0.203
TH-227		79.80		-5.665E-01	1.940E+00	2.184E+00	4.756E-01	-0.259
		235.96		4.814E-01	1.810E-01	2.711E-01	3.564E-02	1.776
		256.23	*	-2.042E-01	2.392E-01	3.675E-01	6.177E-02	-0.556
	+	299.98		2.053E+00	1.180E+00	1.425E+00	2.323E-01	1.440
		304.50		1.657E+00	1.560E+00	2.378E+00	4.593E-01	0.697
		334.37		-4.726E-01	2.091E+00	2.330E+00	4.129E-01	-0.203
TH-229		85.43		5.214E-01	1.861E-01	3.141E-01	2.890E-02	1.660
	+	88.47		5.441E-01	1.507E-01	2.068E-01	1.953E-02	2.632
		193.51	*	-2.884E-01	4.836E-01	7.788E-01	8.370E-02	-0.370
	+	210.85		1.883E+00	1.075E+00	1.399E+00	1.592E-01	1.346
PA-231		283.69	*	5.687E-01	1.472E+00	2.096E+00	3.813E-01	0.271
	+	301.36		1.319E+00	7.565E-01	9.323E-01	1.476E-01	1.414
TH-231		81.07		-9.495E-02	2.536E-01	2.839E-01	2.481E-02	-0.334
		83.79		2.776E-01	1.106E-01	1.869E-01	1.686E-02	1.485
		94.87		7.219E-01	4.386E-01	6.704E-01	5.994E-02	1.077
		144.24		1.827E-01	6.190E-01	1.031E+00	1.019E-01	0.177
		154.21		2.068E-01	3.431E-01	5.853E-01	5.893E-02	0.353
	+	269.46		8.677E-01	3.358E-01	3.190E-01	4.380E-02	2.720
		323.87	*	1.162E-01	6.394E-01	9.391E-01	1.835E-01	0.124
	+	338.28		6.521E+00	1.744E+00	2.086E+00	3.044E-01	3.125
PA-233	+	300.13		9.287E-01	5.387E-01	6.471E-01	1.165E-01	1.435
		311.90	*	2.368E-02	5.382E-02	9.179E-02	1.203E-02	0.258
		340.48		3.569E+00	1.133E+00	1.229E+00	3.121E-01	2.903
PA-234		94.67		3.962E-01	1.688E-01	2.564E-01	3.239E-02	1.546
		98.44		9.792E-02	1.005E-01	1.354E-01	7.553E-02	0.723
		111.00		-3.881E-02	1.781E-01	2.773E-01	3.298E-02	-0.140
		131.20		6.924E-03	9.618E-02	1.634E-01	1.384E-02	0.042
		569.50		-9.485E-02	2.407E-01	3.833E-01	3.937E-02	-0.247
		733.00		-1.080E-02	3.658E-01	5.076E-01	1.175E-01	-0.021
		880.51		-4.651E-02	2.580E-01	3.998E-01	4.472E-02	-0.116
		883.24		2.007E-02	2.450E-01	4.082E-01	2.759E-01	0.049
		926.50		-2.707E-02	1.648E-01	2.693E-01	7.050E-02	-0.101
		946.00	*	-8.539E-02	2.689E-01	4.333E-01	8.613E-02	-0.197
		949.00		2.713E-01	3.999E-01	6.854E-01	7.405E-02	0.396
PA-234M	+	766.42		2.006E+01	1.659E+01	1.765E+01	9.033E+00	1.137
		1001.03	*	-4.044E-01	4.291E+00	6.876E+00	7.880E-01	-0.059

Sample ID : G248860003 Acquisition date : 24-MAR-2010 16:15:50

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	6.605E-01	1.159E+00	1.969E+00	3.505E-01	0.335
	+	92.59		3.231E+00	1.146E+00	1.215E+00	2.707E-01	2.659
U-238		63.29	*	6.605E-01	1.159E+00	1.969E+00	3.505E-01	0.335
	+	92.59		3.231E+00	9.390E-01	1.215E+00	1.105E-01	2.659
NP-239		99.53		1.376E-01	1.450E-01	2.406E-01	2.091E-02	0.572
		103.37		-5.409E-02	8.822E-02	1.380E-01	1.179E-02	-0.392
		106.12		-1.719E-02	7.522E-02	1.194E-01	1.010E-02	-0.144
		117.23	*	-1.493E-01	3.875E-01	6.070E-01	5.016E-02	-0.246
		228.18		7.125E-03	2.003E-01	3.263E-01	3.926E-02	0.022
	+	277.60		4.689E-01	2.720E-01	2.733E-01	3.810E-02	1.716
AM-241		59.54	*	-2.836E-02	1.236E-01	2.039E-01	1.594E-02	-0.139
CM-247	+	278.00		1.992E+00	1.155E+00	1.167E+00	1.629E-01	1.706
		287.50		1.141E-01	1.169E+00	1.873E+00	2.576E-01	0.061
		402.40	*	7.870E-03	3.291E-02	5.460E-02	5.122E-03	0.144
CF-249		252.80		7.121E-01	9.041E-01	1.498E+00	1.944E-01	0.475
		333.37		4.720E-02	2.511E-01	2.500E-01	3.025E-02	0.189
		388.16	*	4.445E-02	3.365E-02	5.850E-02	5.554E-03	0.760
CF-251		177.52	*	-2.894E-02	1.209E-01	1.990E-01	2.028E-02	-0.145
		227.38		-1.772E-01	3.331E-01	5.301E-01	6.362E-02	-0.334
		285.41		7.765E-01	2.181E+00	3.271E+00	4.521E-01	0.237

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860003       *
* Acquisition date : 24-MAR-2010 16:15:50 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.29     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  4-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248860003           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.3302E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.436E+01	3.464E+00	4.769E-01	0.000E+00
CD-109	3.638E+00	9.872E-01	1.089E+00	0.000E+00
SN-126	3.529E-01	9.577E-02	1.061E-01	0.000E+00
HG-203	1.122E-01	6.379E-02	5.885E-02	0.000E+00
TL-208	4.779E-01	8.464E-02	5.092E-02	0.000E+00
BI-211	3.859E+00	5.944E-01	3.037E-01	0.000E+00
PB-212	1.649E+00	2.353E-01	8.777E-02	0.000E+00
BI-214	9.632E-01	1.824E-01	1.009E-01	0.000E+00
PB-214	1.401E+00	2.286E-01	1.104E-01	0.000E+00
RA-224	4.464E+00	1.226E+00	9.396E-01	0.000E+00
RA-226	9.632E-01	1.824E-01	1.009E-01	0.000E+00
AC-228	1.839E+00	3.481E-01	2.121E-01	0.000E+00
RA-228	1.839E+00	3.481E-01	2.121E-01	0.000E+00
TH-228	1.649E+00	2.353E-01	8.777E-02	0.000E+00
TH-230	9.632E-01	1.754E-01	1.009E-01	0.000E+00
TH-232	1.839E+00	3.481E-01	2.121E-01	0.000E+00
U-235	-1.129E-02	1.808E-01	3.171E-01	0.000E+00
NP-237	1.053E+00	3.584E-01	3.199E-01	0.000E+00
ANH-511	1.044E-01	6.756E-02	4.102E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	4.557E-02		2.898E-01	4.923E-01	0.000E+00	NOT IDENT.
NA-22	-3.807E-02		3.833E-02	6.033E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		1.657E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-7.077E-03		3.493E-02	5.898E-02	0.000E+00	FAIL ABUN
V-48	4.062E-03		7.487E-02	1.270E-01	0.000E+00	NOT IDENT.
CR-51	-5.446E-02		3.625E-01	6.327E-01	0.000E+00	NOT IDENT.
MN-54	-3.782E-03		3.333E-02	5.705E-02	0.000E+00	NOT IDENT.
CO-56	-3.301E-02		3.621E-02	5.859E-02	0.000E+00	FAIL ABUN

CO-57	1.507E-03	2.395E-02	4.060E-02	0.000E+00	NOT IDENT.
CO-58	-4.670E-02	3.402E-02	5.307E-02	0.000E+00	NOT IDENT.
FE-59	-9.555E-02	8.800E-02	1.351E-01	0.000E+00	NOT IDENT.
CO-60	3.154E-03	3.477E-02	5.905E-02	0.000E+00	NOT IDENT.
ZN-65	6.511E-02	9.643E-02	1.445E-01	0.000E+00	NOT IDENT.
SE-75	-1.126E-02	4.663E-02	6.781E-02	0.000E+00	FAIL ABUN
SR-85	0.000E+00	4.381E-02	7.408E-02	0.000E+00	NOT IDENT.
Y-88	-2.651E-02	3.630E-02	4.374E-02	0.000E+00	NOT IDENT.
Y-91	1.054E+01	2.010E+01	3.529E+01	0.000E+00	NOT IDENT.
NB-94	1.033E-02	3.149E-02	5.409E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	4.392E-02	7.112E-02	0.000E+00	NOT IDENT.
NB-95M	1.397E-01	1.403E-01	2.184E-01	0.000E+00	NOT IDENT.
ZR-95	-3.802E-02	6.516E-02	1.049E-01	0.000E+00	NOT IDENT.
MO-99	5.228E+00	3.735E+01	6.331E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.312E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.357E-02	3.856E-02	6.655E-02	0.000E+00	FAIL ABUN
RH-106	2.206E-02	2.706E-01	4.657E-01	0.000E+00	NOT IDENT.
RU-106	2.206E-02	2.706E-01	4.657E-01	0.000E+00	NOT IDENT.
AG-108M	-2.164E-03	2.620E-02	4.442E-02	0.000E+00	NOT IDENT.
AG-110M	-3.439E-02	3.351E-02	5.368E-02	0.000E+00	NOT IDENT.
SN-113	-3.420E-02	3.906E-02	6.412E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	4.611E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	9.098E-03	6.353E-02	1.134E-01	0.000E+00	NOT IDENT.
TE-123M	9.937E-03	2.615E-02	4.700E-02	0.000E+00	NOT IDENT.
SB-124	-4.619E-02	7.104E-02	1.106E-01	0.000E+00	NOT IDENT.
SB-125	-3.316E-02	7.927E-02	1.322E-01	0.000E+00	FAIL ABUN
TE-125M	2.459E+00	9.577E+00	1.623E+01	0.000E+00	NOT IDENT.
I-126	-8.791E-02	2.665E-01	4.451E-01	0.000E+00	NOT IDENT.
SB-126	2.251E-01	1.806E-01	2.864E-01	0.000E+00	NOT IDENT.
SB-127	3.748E-01	2.880E+00	4.917E+00	0.000E+00	NOT IDENT.
I-131	4.165E-02	1.577E-01	2.765E-01	0.000E+00	NOT IDENT.
TE-132	8.681E-02	1.983E+00	3.413E+00	0.000E+00	NOT IDENT.
BA-133	3.138E-03	3.939E-02	5.972E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.893E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.292E-02	7.901E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.654E-01	2.600E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.144E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.682E-02	1.208E-01	2.047E-01	0.000E+00	NOT IDENT.
BA-137M	3.579E-02	3.382E-02	6.019E-02	0.000E+00	NOT IDENT.
CS-137	3.781E-02	3.572E-02	6.359E-02	0.000E+00	NOT IDENT.
CE-139	1.670E-03	2.772E-02	4.918E-02	0.000E+00	NOT IDENT.
BA-140	-1.697E-01	2.998E-01	4.971E-01	0.000E+00	NOT IDENT.
LA-140	-1.918E-01	1.129E-01	1.519E-01	0.000E+00	FAIL ABUN
CE-141	6.366E-02	6.083E-02	1.119E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.037E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	7.214E-03	1.771E-01	3.198E-01	0.000E+00	NOT IDENT.
PM-144	-2.082E-02	3.152E-02	5.129E-02	0.000E+00	NOT IDENT.
PR-144	-1.567E+00	2.365E+00	3.848E+00	0.000E+00	NOT IDENT.
PM-146	2.249E-02	3.475E-02	6.076E-02	0.000E+00	NOT IDENT.
ND-147	2.025E-01	6.504E-01	1.150E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	4.211E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-7.567E-02	1.263E-01	1.414E-01	0.000E+00	NOT IDENT.
GD-153	7.618E-03	8.289E-02	1.280E-01	0.000E+00	NOT IDENT.
EU-154	-1.045E-01	1.088E-01	1.712E-01	0.000E+00	NOT IDENT.
EU-155	3.221E-02	9.151E-02	1.588E-01	0.000E+00	FAIL ABUN
TB-160	3.886E-02	1.297E-01	2.137E-01	0.000E+00	FAIL ABUN
HO-166M	2.061E-02	5.154E-02	8.895E-02	0.000E+00	NOT IDENT.
TA-182	1.017E-01	1.836E-01	3.219E-01	0.000E+00	FAIL ABUN
IR-192	-2.659E-03	3.112E-02	5.452E-02	0.000E+00	FAIL ABUN
BI-207	3.417E-02	4.696E-02	8.216E-02	0.000E+00	FAIL ABUN
PB-210	4.750E-01	2.633E+00	4.720E+00	0.000E+00	NOT IDENT.
PB-211	-2.109E-01	6.436E-01	1.073E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.868E-01	9.792E-01	0.000E+00	FAIL ABUN
RN-219	-6.871E-02	3.458E-01	5.875E-01	0.000E+00	FAIL ABUN
RA-223	1.162E-01	6.266E-01	9.659E-01	0.000E+00	FAIL ABUN
AC-227	-2.042E-01	2.341E-01	3.795E-01	0.000E+00	FAIL ABUN
TH-227	-2.042E-01	2.344E-01	3.795E-01	0.000E+00	FAIL ABUN
TH-229	-2.884E-01	4.740E-01	8.081E-01	0.000E+00	FAIL ABUN
PA-231	5.687E-01	1.443E+00	2.161E+00	0.000E+00	FAIL ABUN
TH-231	1.162E-01	6.266E-01	9.659E-01	0.000E+00	FAIL ABUN
PA-233	2.368E-02	5.274E-02	9.448E-02	0.000E+00	FAIL ABUN
PA-234	-8.539E-02	2.635E-01	4.374E-01	0.000E+00	NOT IDENT.
PA-234M	-4.044E-01	4.205E+00	6.934E+00	0.000E+00	FAIL ABUN
TH-234	6.605E-01	1.136E+00	2.082E+00	0.000E+00	FAIL ABUN
U-238	6.605E-01	1.136E+00	2.082E+00	0.000E+00	FAIL ABUN
NP-239	-1.493E-01	3.797E-01	6.351E-01	0.000E+00	FAIL ABUN
AM-241	-2.836E-02	1.211E-01	2.157E-01	0.000E+00	NOT IDENT.
CM-247	7.870E-03	3.225E-02	5.595E-02	0.000E+00	FAIL ABUN

CF-249	4.445E-02	3.298E-02	5.999E-02	0.000E+00 NOT IDENT.
CF-251	-2.894E-02	1.185E-01	2.068E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:17:14.51

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860003.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 16:15:50
Sample ID         : G248860003           Sample quantity  : 1.33020E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.29  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	2477	10.66*	1.909E+00	3.436E+01	3.436E+01	10.29
CD-109	88.03	346	3.70*	7.477E+00	3.529E+00	3.638E+00	27.69
SN-126	64.28	------	9.60	4.512E+00	------ Line Not Found		------
	86.94	346	8.90	7.477E+00	1.467E+00	1.467E+00	49.02
	87.57	346	37.00*	7.477E+00	3.529E-01	3.529E-01	27.69
HG-203	70.83	------	3.69	5.596E+00	------ Line Not Found		------
	72.87	------	6.19	5.897E+00	------ Line Not Found		------
	279.20	148	81.56*	6.171E+00	8.302E-02	1.122E-01	58.04
TL-208	277.37	148	6.60	6.171E+00	1.026E+00	1.026E+00	58.71
	583.19	566	85.00*	3.930E+00	4.779E-01	4.779E-01	18.07
	860.56	99	12.50	2.923E+00	7.632E-01	7.632E-01	46.40
BI-211	72.87	------	1.23	5.897E+00	------ Line Not Found		------
	351.06	954	12.92*	5.400E+00	3.859E+00	3.859E+00	15.72
PB-212	74.82	577	10.28	6.174E+00	2.565E+00	2.565E+00	21.01
	77.11	706	17.10	6.469E+00	1.802E+00	1.802E+00	15.40
	238.63	1709	43.60*	6.708E+00	1.649E+00	1.649E+00	14.56
	300.09	129	3.30	5.912E+00	1.866E+00	1.866E+00	57.06
BI-214	609.32	592	45.49*	3.811E+00	9.632E-01	9.632E-01	19.32
	1120.29	189	14.92	2.345E+00	1.526E+00	1.526E+00	37.54
	1764.49	167	15.30	1.716E+00	1.791E+00	1.791E+00	21.59
PB-214	74.82	577	5.80	6.174E+00	4.546E+00	4.546E+00	20.24
	77.11	706	9.70	6.469E+00	3.176E+00	3.177E+00	17.47
	242.00	432	7.25	6.663E+00	2.524E+00	2.524E+00	28.61
	295.22	595	18.42	5.969E+00	1.527E+00	1.527E+00	21.60
	351.93	954	35.60*	5.400E+00	1.400E+00	1.401E+00	16.66
RA-224	240.99	432	4.10*	6.663E+00	4.464E+00	4.464E+00	28.02
RA-226	609.32	592	45.49*	3.811E+00	9.632E-01	9.632E-01	19.32
	1120.29	189	14.92	2.345E+00	1.526E+00	1.526E+00	37.54
	1764.49	167	15.30	1.716E+00	1.791E+00	1.791E+00	21.59
AC-228	338.32	362	11.27	5.524E+00	1.643E+00	1.643E+00	48.06
	911.20	469	25.80*	2.788E+00	1.839E+00	1.839E+00	19.32
	968.97	193	15.80	2.648E+00	1.303E+00	1.303E+00	45.88

Sample ID : G248860003 Acquisition date : 24-MAR-2010 16:15:50

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	362	11.27	5.524E+00	1.643E+00	1.643E+00	48.06
	911.20	469	25.80*	2.788E+00	1.839E+00	1.839E+00	19.32
	968.97	193	15.80	2.648E+00	1.303E+00	1.303E+00	45.88
TH-228	74.82	577	10.28	6.174E+00	2.565E+00	2.565E+00	18.66
	77.11	706	17.10	6.469E+00	1.802E+00	1.802E+00	15.40
	238.63	1709	43.60*	6.708E+00	1.649E+00	1.649E+00	14.56
	300.09	129	3.30	5.912E+00	1.866E+00	1.866E+00	83.02
TH-230	609.32	592	45.49*	3.811E+00	9.632E-01	9.632E-01	18.59
	1120.29	189	14.92	2.345E+00	1.526E+00	1.526E+00	36.93
	1764.49	167	15.30	1.716E+00	1.791E+00	1.791E+00	21.59
TH-232	338.32	362	11.27	5.524E+00	1.643E+00	1.643E+00	25.37
	911.20	469	25.80*	2.788E+00	1.839E+00	1.839E+00	19.32
	968.97	193	15.80	2.648E+00	1.303E+00	1.303E+00	45.88
U-235	89.96	234	3.47	7.684E+00	2.476E+00	2.476E+00	48.86
	93.35	381	5.60	7.869E+00	2.441E+00	2.441E+00	36.11
	143.76	------	10.96*	8.364E+00	------ Line Not Found		------
	163.33	------	5.08	8.031E+00	------ Line Not Found		------
	185.72	212	57.20	7.605E+00	1.374E-01	1.374E-01	49.88
	205.31	------	5.01	7.253E+00	------ Line Not Found		------
NP-237	86.48	346	12.40*	7.477E+00	1.053E+00	1.053E+00	34.73
	95.86	------	2.68	8.032E+00	------ Line Not Found		------
ANH-511	511.00	159	100.00*	4.298E+00	1.044E-01	1.044E-01	66.03

Flag: "*" = Keyline

Sample ID : G248860003 Acquisition date : 24-MAR-2010 16:15:50

Total number of lines in spectrum 32
Number of unidentified lines 2
Number of lines tentatively identified by NID 30 93.75%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.436E+01	3.436E+01	0.353E+01	10.29	
CD-109	461.40D	1.03	3.529E+00	3.638E+00	1.007E+00	27.69	
SN-126	2.30E+05Y	1.00	3.529E-01	3.529E-01	0.977E-01	27.69	
HG-203	46.59D	1.35	8.302E-02	1.122E-01	0.651E-01	58.04	
TL-208	1.41E+10Y	1.00	4.779E-01	4.779E-01	0.864E-01	18.07	
BI-211	7.04E+08Y	1.00	3.859E+00	3.859E+00	0.606E+00	15.72	
PB-212	1.41E+10Y	1.00	1.649E+00	1.649E+00	0.240E+00	14.56	
BI-214	1600.00Y	1.00	9.632E-01	9.632E-01	1.861E-01	19.32	
PB-214	1600.00Y	1.00	1.400E+00	1.401E+00	0.233E+00	16.66	
RA-224	1.41E+10Y	1.00	4.464E+00	4.464E+00	1.251E+00	28.02	
RA-226	1600.00Y	1.00	9.632E-01	9.632E-01	1.861E-01	19.32	
AC-228	1.41E+10Y	1.00	1.839E+00	1.839E+00	0.355E+00	19.32	
RA-228	1.41E+10Y	1.00	1.839E+00	1.839E+00	0.355E+00	19.32	
TH-228	1.41E+10Y	1.00	1.649E+00	1.649E+00	0.240E+00	14.56	
TH-230	7.54E+04Y	1.00	9.632E-01	9.632E-01	1.790E-01	18.59	
TH-232	1.41E+10Y	1.00	1.839E+00	1.839E+00	0.355E+00	19.32	
U-235	7.04E+08Y	1.00	1.374E-01	1.374E-01	0.685E-01	49.88	K
NP-237	2.14E+06Y	1.00	1.053E+00	1.053E+00	0.366E+00	34.73	
ANH-511	1.00E+09Y	1.00	1.044E-01	1.044E-01	0.689E-01	66.03	
			---	---			
	Total Activity :		6.152E+01	6.166E+01			

Grand Total Activity : 6.152E+01 6.166E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248860003 Acquisition date : 24-MAR-2010 16:15:50

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.49	134	390	0.90	418.95	415	9	1.86E-02	56.0	7.18E+00	T
0	270.23	268	418	1.64	540.33	533	16	3.72E-02	36.2	6.27E+00	T
0	328.26	150	274	1.56	656.30	651	11	2.08E-02	45.8	5.62E+00	T
0	463.31	142	165	1.47	926.19	920	12	1.98E-02	40.0	4.58E+00	T
0	727.75	135	142	1.76	1454.75	1447	16	1.87E-02	44.9	3.34E+00	T
0	767.74	73	118	1.47	1534.70	1529	13	1.01E-02	65.0	3.20E+00	T
0	795.36	88	98	1.56	1589.92	1584	12	1.22E-02	50.1	3.12E+00	T
0	1238.74	65	150	2.62	2476.48	2469	14	9.00E-03	85.5	2.16E+00	T
0	1730.46	48	16	3.84	3460.10	3449	22	6.64E-03	52.0	1.73E+00	
0	1847.31	43	19	2.70	3693.89	3682	20	5.92E-03	53.2	1.69E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:17:18.59

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860003.CNF;1  *
* Acquisition date : 24-MAR-2010 16:15:50  Detector SN#    :                *
* Detector ID      : GAM22                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:02.29         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 4-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248860003            Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.33020E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.436E+01	3.535E+00	4.761E-01	4.362E-02	72.158
CD-109	3.638E+00	1.007E+00	1.036E+00	9.834E-02	3.511
SN-126	3.529E-01	9.772E-02	1.009E-01	9.530E-03	3.497
HG-203	1.122E-01	6.510E-02	5.707E-02	8.069E-03	1.965
TL-208	4.779E-01	8.636E-02	5.001E-02	5.418E-03	9.557
BI-211	3.859E+00	6.065E-01	2.956E-01	3.450E-02	13.053
PB-212	1.649E+00	2.401E-01	8.489E-02	1.125E-02	19.423
BI-214	9.632E-01	1.861E-01	9.916E-02	1.157E-02	9.714
PB-214	1.401E+00	2.333E-01	1.075E-01	1.384E-02	13.028
RA-224	4.464E+00	1.251E+00	9.089E-01	1.138E-01	4.911
RA-226	9.632E-01	1.861E-01	9.916E-02	1.157E-02	9.714
AC-228	1.839E+00	3.552E-01	2.099E-01	2.844E-02	8.759
RA-228	1.839E+00	3.552E-01	2.099E-01	2.844E-02	8.759
TH-228	1.649E+00	2.401E-01	8.489E-02	1.125E-02	19.423
TH-230	9.632E-01	1.790E-01	9.915E-02	1.032E-02	9.714
TH-232	1.839E+00	3.552E-01	2.099E-01	2.844E-02	8.759
U-235	1.374E-01	6.854E-02	3.040E-01	5.196E-02	0.452
NP-237	1.053E+00	3.658E-01	3.042E-01	6.980E-02	3.462

Sample ID : G248860003 Acquisition date : 24-MAR-2010 16:15:50

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	1.044E-01	6.893E-02	4.020E-02	4.027E-03	2.597

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.557E-02		2.957E-01	4.819E-01	5.028E-02	0.095
NA-22	-3.807E-02		3.911E-02	6.008E-02	5.178E-03	-0.634
NA-24	-1.244E+02		8.454E+01	Half-Life too short		
SC-46	-7.077E-03		3.565E-02	5.836E-02	6.533E-03	-0.121
V-48	4.062E-03		7.640E-02	1.259E-01	1.321E-02	0.032
CR-51	-5.446E-02		3.699E-01	6.149E-01	7.960E-02	-0.089
MN-54	-3.782E-03		3.401E-02	5.639E-02	6.265E-03	-0.067
CO-56	-3.301E-02		3.694E-02	5.793E-02	6.449E-03	-0.570
CO-57	1.507E-03		2.444E-02	3.883E-02	3.202E-03	0.039
CO-58	-4.670E-02		3.471E-02	5.243E-02	5.806E-03	-0.891
FE-59	-9.555E-02		8.980E-02	1.342E-01	1.315E-02	-0.712
CO-60	3.154E-03		3.548E-02	5.886E-02	5.249E-03	0.054
ZN-65	6.511E-02		9.840E-02	1.436E-01	1.281E-02	0.453
SE-75	-1.126E-02		4.758E-02	6.570E-02	8.843E-03	-0.171
SR-85	1.674E-01		4.470E-02	7.260E-02	7.285E-03	2.305
Y-88	-2.651E-02		3.704E-02	4.386E-02	3.546E-03	-0.605
Y-91	1.054E+01		2.051E+01	3.511E+01	2.887E+00	0.300
NB-94	1.033E-02		3.213E-02	5.330E-02	5.712E-03	0.194
NB-95	8.004E-02		4.482E-02	7.019E-02	7.675E-03	1.140
NB-95M	1.397E-01		1.432E-01	2.112E-01	2.794E-02	0.662
ZR-95	-3.802E-02		6.649E-02	1.035E-01	1.204E-02	-0.367
MO-99	5.228E+00		3.812E+01	6.244E+01	1.066E+01	0.084
TC-99M	-3.751E+16		2.200E+16	Half-Life too short		
RU-103	2.357E-02		3.935E-02	6.518E-02	9.664E-03	0.362
RH-106	2.206E-02		2.761E-01	4.579E-01	6.644E-02	0.048
RU-106	2.206E-02		2.761E-01	4.579E-01	4.783E-02	0.048
AG-108M	-2.164E-03		2.674E-02	4.340E-02	4.272E-03	-0.050
AG-110M	-3.439E-02		3.419E-02	5.283E-02	5.678E-03	-0.651
SN-113	-3.420E-02		3.986E-02	6.254E-02	5.973E-03	-0.547
CD-115	-2.205E-05		2.352E-05	Half-Life too short		
SN-117M	9.098E-03		6.482E-02	1.089E-01	1.033E-02	0.084
TE-123M	9.937E-03		2.668E-02	4.514E-02	4.311E-03	0.220
SB-124	-4.619E-02		7.249E-02	1.107E-01	9.872E-03	-0.417
SB-125	-3.316E-02		8.089E-02	1.291E-01	1.252E-02	-0.257
TE-125M	2.459E+00		9.773E+00	1.549E+01	1.595E+00	0.159
I-126	-8.791E-02		2.719E-01	4.382E-01	4.630E-02	-0.201
SB-126	2.251E-01		1.843E-01	2.824E-01	3.045E-02	0.797
SB-127	3.748E-01		2.939E+00	4.844E+00	6.977E-01	0.077
I-131	4.165E-02		1.609E-01	2.693E-01	2.993E-02	0.155
TE-132	8.681E-02		2.024E+00	3.298E+00	6.233E-01	0.026
BA-133	3.138E-03		4.019E-02	5.816E-02	8.563E-03	0.054
I-133	-1.002E-01		1.476E-01	Half-Life too short		

Sample ID : G248860003 Acquisition date : 24-MAR-2010 16:15:50

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-134	1.052E-01	+	5.400E-02	7.803E-02	8.637E-03	1.348
CS-135	2.809E-01		1.688E-01	2.519E-01	3.644E-02	1.115
I-135	1.377E+15		1.094E+15	Half-Life too short		
CS-136	1.682E-02		1.233E-01	2.031E-01	2.055E-02	0.083
BA-137M	3.579E-02		3.451E-02	5.925E-02	6.248E-03	0.604
CS-137	3.781E-02		3.645E-02	6.259E-02	6.609E-03	0.604
CE-139	1.670E-03		2.829E-02	4.727E-02	4.636E-03	0.035
BA-140	-1.697E-01		3.059E-01	4.875E-01	1.674E-01	-0.348
LA-140	-1.918E-01		1.152E-01	1.519E-01	1.331E-02	-1.263
CE-141	6.366E-02		6.207E-02	1.074E-01	9.775E-03	0.593
CE-143	9.254E-03		1.550E-03	Half-Life too short		
CE-144	7.214E-03		1.807E-01	3.063E-01	4.668E-02	0.024
PM-144	-2.082E-02		3.216E-02	5.053E-02	5.405E-03	-0.412
PR-144	-1.567E+00		2.413E+00	3.791E+00	4.053E-01	-0.413
PM-146	2.249E-02		3.546E-02	5.941E-02	6.832E-03	0.378
ND-147	2.025E-01		6.637E-01	1.128E+00	1.788E-01	0.180
PM-149	8.407E-05		2.149E-04	Half-Life too short		
EU-152	-7.567E-02		1.289E-01	1.376E-01	1.654E-02	-0.550
GD-153	7.618E-03		8.458E-02	1.219E-01	1.072E-02	0.062
EU-154	-1.045E-01		1.110E-01	1.705E-01	1.939E-02	-0.613
EU-155	3.221E-02		9.338E-02	1.515E-01	1.300E-02	0.213
TB-160	3.886E-02		1.324E-01	2.114E-01	2.364E-02	0.184
HO-166M	2.061E-02		5.259E-02	8.767E-02	9.425E-03	0.235
TA-182	1.017E-01		1.874E-01	3.203E-01	2.664E-02	0.318
IR-192	-2.659E-03		3.175E-02	5.298E-02	6.772E-03	-0.050
BI-207	3.417E-02		4.792E-02	8.156E-02	7.830E-03	0.419
PB-210	4.750E-01		2.687E+00	4.443E+00	4.092E-01	0.107
PB-211	-2.109E-01		6.567E-01	1.048E+00	5.085E-01	-0.201
BI-212	1.705E+00	+	8.028E-01	9.655E-01	1.358E-01	1.766
RN-219	-6.871E-02		3.528E-01	5.733E-01	8.785E-02	-0.120
RA-223	1.162E-01		6.394E-01	9.391E-01	1.835E-01	0.124
AC-227	-2.042E-01		2.389E-01	3.675E-01	5.725E-02	-0.556
TH-227	-2.042E-01		2.392E-01	3.675E-01	6.177E-02	-0.556
TH-229	-2.884E-01		4.836E-01	7.788E-01	8.370E-02	-0.370
PA-231	5.687E-01		1.472E+00	2.096E+00	3.813E-01	0.271
TH-231	1.162E-01		6.394E-01	9.391E-01	1.835E-01	0.124
PA-233	2.368E-02		5.382E-02	9.179E-02	1.203E-02	0.258
PA-234	-8.539E-02		2.689E-01	4.333E-01	8.613E-02	-0.197
PA-234M	-4.044E-01		4.291E+00	6.876E+00	7.880E-01	-0.059
TH-234	6.605E-01		1.159E+00	1.969E+00	3.505E-01	0.335
U-238	6.605E-01		1.159E+00	1.969E+00	3.505E-01	0.335
NP-239	-1.493E-01		3.875E-01	6.070E-01	5.016E-02	-0.246
AM-241	-2.836E-02		1.236E-01	2.039E-01	1.594E-02	-0.139
CM-247	7.870E-03		3.291E-02	5.460E-02	5.122E-03	0.144
CF-249	4.445E-02		3.365E-02	5.850E-02	5.554E-03	0.760
CF-251	-2.894E-02		1.209E-01	1.990E-01	2.028E-02	-0.145

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248860003            *
* Acquisition date : 24-MAR-2010 16:15:50 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.29     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  4-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248860003           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.3302E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.436E+01	3.464E+00	2.386E-01	1.767E+00
CD-109	3.638E+00	9.872E-01	5.451E-01	5.037E-01
SN-126	3.529E-01	9.577E-02	5.309E-02	4.886E-02
HG-203	1.122E-01	6.379E-02	2.944E-02	3.255E-02
TL-208	4.779E-01	8.464E-02	2.547E-02	4.318E-02
BI-211	3.859E+00	5.944E-01	1.519E-01	3.032E-01
PB-212	1.649E+00	2.353E-01	4.391E-02	1.200E-01
BI-214	9.632E-01	1.824E-01	5.047E-02	9.305E-02
PB-214	1.401E+00	2.286E-01	5.524E-02	1.166E-01
RA-224	4.464E+00	1.226E+00	4.701E-01	6.253E-01
RA-226	9.632E-01	1.824E-01	5.047E-02	9.305E-02
AC-228	1.839E+00	3.481E-01	1.061E-01	1.776E-01
RA-228	1.839E+00	3.481E-01	1.061E-01	1.776E-01
TH-228	1.649E+00	2.353E-01	4.391E-02	1.200E-01
TH-230	9.632E-01	1.754E-01	5.047E-02	8.951E-02
TH-232	1.839E+00	3.481E-01	1.061E-01	1.776E-01
U-235	-1.129E-02	1.808E-01	1.586E-01	9.223E-02
NP-237	1.053E+00	3.584E-01	1.601E-01	1.829E-01
ANH-511	1.044E-01	6.756E-02	2.052E-02	3.447E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	4.557E-02	2.898E-01	2.463E-01	1.478E-01	NOT IDENT.
NA-22	-3.807E-02	3.833E-02	3.018E-02	1.956E-02	NOT IDENT.
NA-24	-1.244E+08	1.657E+08	0.000E+00	8.454E+07	SHORT HLIF
SC-46	-7.077E-03	3.493E-02	2.951E-02	1.782E-02	FAIL ABUN
V-48	4.062E-03	7.487E-02	6.356E-02	3.820E-02	NOT IDENT.
CR-51	-5.446E-02	3.625E-01	3.165E-01	1.850E-01	NOT IDENT.
MN-54	-3.782E-03	3.333E-02	2.854E-02	1.700E-02	NOT IDENT.
CO-56	-3.301E-02	3.621E-02	2.931E-02	1.847E-02	FAIL ABUN

CO-57	1.507E-03	2.395E-02	2.031E-02	1.222E-02	NOT IDENT.
CO-58	-4.670E-02	3.402E-02	2.655E-02	1.735E-02	NOT IDENT.
FE-59	-9.555E-02	8.800E-02	6.759E-02	4.490E-02	NOT IDENT.
CO-60	3.154E-03	3.477E-02	2.954E-02	1.774E-02	NOT IDENT.
ZN-65	6.511E-02	9.643E-02	7.231E-02	4.920E-02	NOT IDENT.
SE-75	-1.126E-02	4.663E-02	3.392E-02	2.379E-02	FAIL ABUN
SR-85	1.674E-01	4.381E-02	3.706E-02	2.235E-02	NOT IDENT.
Y-88	-2.651E-02	3.630E-02	2.188E-02	1.852E-02	NOT IDENT.
Y-91	1.054E+01	2.010E+01	1.765E+01	1.026E+01	NOT IDENT.
NB-94	1.033E-02	3.149E-02	2.706E-02	1.606E-02	NOT IDENT.
NB-95	8.004E-02	4.392E-02	3.558E-02	2.241E-02	NOT IDENT.
NB-95M	1.397E-01	1.403E-01	1.093E-01	7.160E-02	NOT IDENT.
ZR-95	-3.802E-02	6.516E-02	5.249E-02	3.324E-02	NOT IDENT.
MO-99	5.228E+00	3.735E+01	3.167E+01	1.906E+01	NOT IDENT.
TC-99M	-3.751E+22	4.312E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.357E-02	3.856E-02	3.330E-02	1.967E-02	FAIL ABUN
RH-106	2.206E-02	2.706E-01	2.330E-01	1.380E-01	NOT IDENT.
RU-106	2.206E-02	2.706E-01	2.330E-01	1.380E-01	NOT IDENT.
AG-108M	-2.164E-03	2.620E-02	2.222E-02	1.337E-02	NOT IDENT.
AG-110M	-3.439E-02	3.351E-02	2.685E-02	1.710E-02	NOT IDENT.
SN-113	-3.420E-02	3.906E-02	3.208E-02	1.993E-02	NOT IDENT.
CD-115	-2.205E+01	4.611E+01	0.000E+00	2.352E+01	SHORT HLIF
SN-117M	9.098E-03	6.353E-02	5.674E-02	3.241E-02	NOT IDENT.
TE-123M	9.937E-03	2.615E-02	2.351E-02	1.334E-02	NOT IDENT.
SB-124	-4.619E-02	7.104E-02	5.533E-02	3.624E-02	NOT IDENT.
SB-125	-3.316E-02	7.927E-02	6.613E-02	4.044E-02	FAIL ABUN
TE-125M	2.459E+00	9.577E+00	8.121E+00	4.886E+00	NOT IDENT.
I-126	-8.791E-02	2.665E-01	2.227E-01	1.360E-01	NOT IDENT.
SB-126	2.251E-01	1.806E-01	1.433E-01	9.215E-02	NOT IDENT.
SB-127	3.748E-01	2.880E+00	2.460E+00	1.469E+00	NOT IDENT.
I-131	4.165E-02	1.577E-01	1.383E-01	8.046E-02	NOT IDENT.
TE-132	8.681E-02	1.983E+00	1.708E+00	1.012E+00	NOT IDENT.
BA-133	3.138E-03	3.939E-02	2.988E-02	2.010E-02	NOT IDENT.
I-133	-1.002E+05	2.893E+05	0.000E+00	1.476E+05	SHORT HLIF
CS-134	1.052E-01	5.292E-02	3.953E-02	2.700E-02	FAIL ABUN
CS-135	2.809E-01	1.654E-01	1.301E-01	8.439E-02	NOT IDENT.
I-135	1.377E+21	2.144E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.682E-02	1.208E-01	1.024E-01	6.165E-02	NOT IDENT.
BA-137M	3.579E-02	3.382E-02	3.011E-02	1.725E-02	NOT IDENT.
CS-137	3.781E-02	3.572E-02	3.181E-02	1.823E-02	NOT IDENT.
CE-139	1.670E-03	2.772E-02	2.460E-02	1.415E-02	NOT IDENT.
BA-140	-1.697E-01	2.998E-01	2.487E-01	1.530E-01	NOT IDENT.
LA-140	-1.918E-01	1.129E-01	7.599E-02	5.760E-02	FAIL ABUN
CE-141	6.366E-02	6.083E-02	5.601E-02	3.104E-02	NOT IDENT.
CE-143	9.254E+03	3.037E+03	0.000E+00	1.550E+03	SHORT HLIF
CE-144	7.214E-03	1.771E-01	1.600E-01	9.034E-02	NOT IDENT.
PM-144	-2.082E-02	3.152E-02	2.566E-02	1.608E-02	NOT IDENT.
PR-144	-1.567E+00	2.365E+00	1.925E+00	1.207E+00	NOT IDENT.
PM-146	2.249E-02	3.475E-02	3.040E-02	1.773E-02	NOT IDENT.
ND-147	2.025E-01	6.504E-01	5.753E-01	3.318E-01	FAIL ABUN
PM-149	8.407E+01	4.211E+02	0.000E+00	2.149E+02	SHORT HLIF
EU-152	-7.567E-02	1.263E-01	7.074E-02	6.443E-02	NOT IDENT.
GD-153	7.618E-03	8.289E-02	6.404E-02	4.229E-02	NOT IDENT.
EU-154	-1.045E-01	1.088E-01	8.567E-02	5.550E-02	NOT IDENT.
EU-155	3.221E-02	9.151E-02	7.947E-02	4.669E-02	FAIL ABUN
TB-160	3.886E-02	1.297E-01	1.069E-01	6.619E-02	FAIL ABUN
HO-166M	2.061E-02	5.154E-02	4.450E-02	2.629E-02	NOT IDENT.
TA-182	1.017E-01	1.836E-01	1.610E-01	9.369E-02	FAIL ABUN
IR-192	-2.659E-03	3.112E-02	2.728E-02	1.588E-02	FAIL ABUN
BI-207	3.417E-02	4.696E-02	4.110E-02	2.396E-02	FAIL ABUN
PB-210	4.750E-01	2.633E+00	2.361E+00	1.344E+00	NOT IDENT.
PB-211	-2.109E-01	6.436E-01	5.370E-01	3.284E-01	NOT IDENT.
BI-212	1.705E+00	7.868E-01	4.899E-01	4.014E-01	FAIL ABUN
RN-219	-6.871E-02	3.458E-01	2.939E-01	1.764E-01	FAIL ABUN
RA-223	1.162E-01	6.266E-01	4.833E-01	3.197E-01	FAIL ABUN
AC-227	-2.042E-01	2.341E-01	1.899E-01	1.194E-01	FAIL ABUN
TH-227	-2.042E-01	2.344E-01	1.899E-01	1.196E-01	FAIL ABUN
TH-229	-2.884E-01	4.740E-01	4.043E-01	2.418E-01	FAIL ABUN
PA-231	5.687E-01	1.443E+00	1.081E+00	7.361E-01	FAIL ABUN
TH-231	1.162E-01	6.266E-01	4.833E-01	3.197E-01	FAIL ABUN
PA-233	2.368E-02	5.274E-02	4.727E-02	2.691E-02	FAIL ABUN
PA-234	-8.539E-02	2.635E-01	2.189E-01	1.344E-01	NOT IDENT.
PA-234M	-4.044E-01	4.205E+00	3.469E+00	2.146E+00	FAIL ABUN
TH-234	6.605E-01	1.136E+00	1.041E+00	5.794E-01	FAIL ABUN
U-238	6.605E-01	1.136E+00	1.041E+00	5.794E-01	FAIL ABUN
NP-239	-1.493E-01	3.797E-01	3.177E-01	1.937E-01	FAIL ABUN
AM-241	-2.836E-02	1.211E-01	1.079E-01	6.181E-02	NOT IDENT.
CM-247	7.870E-03	3.225E-02	2.799E-02	1.645E-02	FAIL ABUN

CF-249	4.445E-02	3.298E-02	3.001E-02	1.683E-02	NOT IDENT.
CF-251	-2.894E-02	1.185E-01	1.035E-01	6.047E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	310.7509
49.72	326.3732
57.36	0.0000
59.54	425.3062
63.29	449.0028
63.29	449.0028
64.28	446.7901
67.75	484.0823
69.67	431.8272
70.83	514.3256
72.81	519.3636
72.87	519.4715
72.87	519.4715
74.82	524.4274
74.82	524.4274
74.82	524.4274
74.97	524.6913
77.11	528.4213
77.11	528.4213
77.11	528.4213
79.69	535.9336
79.80	536.1221
80.12	518.1632
80.19	518.2786
80.57	518.9041
81.00	538.1691
81.07	538.2886
81.07	538.2886
83.79	451.3527
83.79	451.3527
85.43	453.6197
86.48	455.0590
86.55	455.1539
86.79	455.4806
86.94	455.6881
87.57	456.5446
88.03	457.1693
88.47	457.7653
89.96	459.7708
91.11	461.3082
92.59	463.2707
92.59	463.2707
93.35	464.2728
94.67	421.9821
94.87	422.2180
94.87	422.2180
95.86	437.9291
97.43	418.7323
98.44	384.0852
99.53	386.3095
100.11	391.2722
103.18	413.1548
103.37	413.3613
105.31	390.0401
106.12	417.4290
109.28	423.0247
111.00	453.9894
111.76	486.2903
116.30	450.8069
117.23	456.3586
121.12	419.2001
121.78	397.9859
122.06	420.1116
123.07	426.8565
131.20	463.4565
133.52	435.6801
136.00	478.9387

136.47	468.7216
140.51	503.2446
140.51	0.0000
143.76	438.7505
144.24	427.4043
144.24	427.4043
145.44	399.3945
152.43	411.3722
153.25	387.1362
154.21	399.8557
154.21	399.8557
156.02	414.2130
158.56	423.6535
159.00	412.8182
162.66	443.7731
163.33	432.1063
165.86	428.4376
176.60	431.8206
177.52	428.6493
181.07	401.5859
184.41	435.0213
185.72	418.9748
193.51	415.4050
197.04	390.8832
205.31	396.5219
210.85	373.8370
215.65	394.0345
222.11	396.5508
227.38	387.0308
228.16	360.3736
228.18	360.3841
235.69	402.4402
235.96	394.1666
235.96	394.1666
238.63	358.1882
238.63	358.1882
240.99	359.3237
242.00	359.8073
244.70	279.5047
252.40	295.8780
252.80	303.5644
256.23	339.4955
256.23	339.4955
260.90	0.0000
264.66	290.2163
268.22	273.9293
269.46	276.1031
269.46	276.1031
271.23	276.6972
273.65	247.4575
276.40	248.2744
277.37	260.9896
277.60	261.0578
278.00	261.1834
279.20	261.5566
279.54	261.6607
280.46	283.3274
283.69	253.9949
284.31	293.5584
285.41	274.8170
285.90	0.0000
287.50	294.1983
293.27	0.0000
295.22	276.4100
295.96	276.6408
298.57	200.1296
299.98	200.4438
299.98	200.4438
300.09	200.4707
300.09	200.4707
300.13	261.2299
301.36	264.6285
302.85	239.1669
304.50	221.2908
304.50	221.2908
304.85	236.6437
308.46	256.5867
311.90	224.3123

316.51	255.1068
319.41	252.1736
320.08	261.6607
323.87	252.4230
323.87	252.4230
328.76	239.6135
333.37	226.5879
334.37	245.7178
334.37	245.7178
338.28	242.8969
338.28	242.8969
338.32	242.9094
338.32	242.9094
338.32	242.9094
340.48	217.1257
340.55	220.3124
344.28	270.4498
351.06	247.9187
351.93	248.1297
356.01	212.4214
364.49	227.7758
366.42	217.4658
383.85	209.1017
388.16	172.1109
388.63	180.1449
391.69	228.5415
400.66	226.3321
401.81	215.4838
402.40	213.5786
404.85	239.2740
410.95	214.1449
414.70	254.5380
423.72	219.5407
427.09	206.7832
427.87	210.0040
433.94	206.9141
453.88	159.7837
463.37	169.4395
468.07	155.8817
473.00	197.3619
476.78	156.2015
477.60	169.1441
487.02	168.1799
492.35	0.0000
497.08	168.3373
511.00	173.3178
514.00	139.2413
527.90	0.0000
529.87	0.0000
531.02	162.2218
537.26	177.8074
546.56	0.0000
563.25	143.0217
569.33	178.7706
569.50	166.4266
569.70	158.8389
583.19	162.1337
600.60	175.6308
602.73	186.4531
604.72	171.6822
609.32	171.6064
609.32	171.6064
609.32	171.6064
610.33	171.7139
614.28	176.0376
618.01	160.2601
621.93	154.2498
621.93	154.2498
633.25	162.2116
635.95	172.3787
636.99	152.6559
645.85	148.4634
657.76	206.6664
661.66	170.9304
661.66	170.9304
664.57	0.0000
666.33	188.5180
666.50	188.5370

677.62	145.0744
685.70	150.8153
695.00	159.7769
696.49	186.5582
696.51	186.5619
697.00	187.6353
702.65	181.0094
706.68	178.3077
711.68	137.4458
720.70	103.2437
721.93	0.0000
722.78	144.3434
722.91	144.3519
723.31	151.5130
724.19	140.8813
727.33	155.2538
733.00	128.9883
735.93	147.5750
739.50	130.0219
747.24	136.8528
752.31	122.4311
753.82	125.6918
756.73	143.8608
763.94	112.8356
765.81	116.5848
766.42	129.3734
777.92	174.2454
778.90	156.1498
783.70	120.0664
785.37	121.2373
795.86	113.2288
801.95	126.0746
810.29	145.1918
810.76	141.5007
815.77	120.3729
818.51	107.4475
832.01	141.0331
834.85	155.3407
836.80	0.0000
846.77	147.6728
856.80	134.7965
860.56	117.1636
871.09	121.5452
873.19	129.3216
875.33	0.0000
879.36	102.7793
880.51	114.3640
883.24	111.6144
884.68	111.6852
889.28	120.5924
898.04	132.6734
911.20	132.4520
911.20	132.4520
911.20	132.4520
926.50	135.2758
937.49	132.9448
944.13	126.3996
946.00	124.5212
949.00	110.8223
962.29	158.4363
964.08	167.2617
966.15	167.4023
968.97	162.6049
968.97	162.6049
968.97	162.6049
983.53	107.3676
996.26	117.9957
1001.03	113.1660
1004.73	122.4370
1037.84	107.6147
1038.76	0.0000
1048.07	108.0322
1050.41	101.9487
1050.41	101.9487
1063.66	106.5924
1085.87	123.1197
1099.45	134.2143
1112.07	106.9127

1115.54	125.4995
1120.29	111.9780
1120.29	111.9780
1120.29	111.9780
1120.55	111.9891
1121.30	127.6062
1131.51	0.0000
1173.23	144.9954
1177.93	132.0276
1189.05	135.3630
1204.77	129.4175
1221.41	143.5272
1231.02	175.7572
1235.36	157.2116
1238.28	141.4328
1260.41	0.0000
1271.85	113.7865
1274.44	118.7460
1274.54	118.7497
1291.59	90.0319
1298.22	0.0000
1312.11	84.6956
1332.49	80.2708
1365.19	46.0365
1368.63	0.0000
1384.29	117.7534
1408.01	62.8325
1457.56	0.0000
1460.82	54.5236
1489.16	60.1364
1505.03	70.8119
1596.21	76.8098
1620.50	35.3048
1678.03	0.0000
1690.97	41.7566
1764.49	20.7556
1764.49	20.7556
1764.49	20.7556
1770.23	19.5959
1771.35	23.1651
1791.20	0.0000
1836.06	37.9835

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248860003

Total Uranium Activity	1.9596E+00	ug/g
Total Uranium Counting Unc.	3.3795E+00	ug/g
Total Uranium Tpu	1.7242E-06	ug/g
Total Uranium Mda	3.0992E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 962633                    SAMPLE ID  : G248860003         *
*   ANALYST       : MXR1                      DETECTOR   : GAM22              *
*   SAMPLE DATE   :  4-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 24-MAR-2010 16:15:50.09    SAMPLE ALQT:  133.020 GRAM      *
*                                                                             *
*******************************************************************************


          GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.716E+00
          GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.217E+00
          GROSS GAMMA MDA    (pCi/GRAM  )   : 2.534E+00
          GROSS GAMMA DLC    (pCi/GRAM  )   : 1.235E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:18:02.63

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860004.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 16:16:15
Sample ID         : G248860004           Sample quantity  : 1.43700E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.73  0.0%
Energy tolerance : 2.00000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	74.71*	373	422	1.25	149.41	145	21	5.17E-02	10.5	2.30E+00
2	2	77.03	562	342	1.02	154.06	145	21	7.80E-02	6.8	
3	0	87.22	139	558	1.21	174.44	169	9	1.93E-02	31.8	
4	0	89.84	133	273	1.38	179.67	178	5	1.85E-02	20.6	
5	0	93.10*	161	427	1.30	186.20	183	9	2.23E-02	25.6	
6	0	128.78	123	367	1.19	257.56	253	9	1.71E-02	29.5	
7	0	185.73*	142	311	1.26	371.47	367	9	1.97E-02	25.2	
8	0	209.24	173	266	1.10	418.48	414	11	2.40E-02	19.8	
9	4	238.31*	1164	195	1.21	476.62	469	18	1.62E-01	3.6	1.23E+00
10	4	241.25	271	187	1.88	482.49	469	18	3.76E-02	12.9	
11	0	270.12	56	274	1.12	540.23	535	12	7.76E-03	60.7	
12	0	277.15	41	256	0.78	554.31	547	12	5.73E-03	79.3	
13	0	294.72*	315	217	0.90	589.45	583	12	4.38E-02	11.1	
14	0	338.11	242	277	1.57	676.22	669	16	3.36E-02	16.6	
15	0	351.41*	522	217	1.33	702.82	695	14	7.25E-02	7.5	
16	0	462.61	66	89	1.66	925.22	921	9	9.12E-03	28.8	
17	0	510.39*	129	134	2.07	1020.78	1014	16	1.79E-02	24.1	
18	0	582.48*	336	69	1.61	1164.97	1159	12	4.67E-02	7.5	
19	0	608.56*	361	101	1.60	1217.13	1210	14	5.01E-02	8.0	
20	0	726.92	80	78	1.90	1453.85	1448	15	1.11E-02	26.6	
21	0	910.13*	197	64	1.42	1820.26	1812	16	2.74E-02	11.7	
22	0	967.93	133	68	1.77	1935.85	1929	13	1.85E-02	15.8	
23	0	1436.63	15	18	1.23	2873.26	2865	12	2.10E-03	61.6	
24	0	1459.21*	1094	26	2.23	2918.43	2908	21	1.52E-01	3.3	
25	0	1763.35	47	17	2.22	3526.70	3520	12	6.54E-03	23.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 18:18:05

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860004.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 4-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 16:16:15
Sample ID : G248860004 Sample quantity : 143.70 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA23 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.73 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 2.00 keV Half life ratio : 8.00
Errors propagated: No Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	2.689E+01	8.756E-01	6.155E-01	0.000E+00	43.684
CD-109	+	88.03	*	1.940E+00	6.161E-01	1.352E+00	0.000E+00	1.435
SN-126		64.28		5.481E-01	2.870E-01	9.793E-01	0.000E+00	0.560
	+	86.94		7.824E-01	2.485E-01	6.835E-01	0.000E+00	1.145
	+	87.57	*	1.882E-01	5.977E-02	1.320E-01	0.000E+00	1.426
CS-135	+	268.22	*	2.160E-01	1.310E-01	2.565E-01	0.000E+00	0.842
TL-208	+	277.37		3.946E-01	3.127E-01	5.935E-01	0.000E+00	0.665
	+	583.19	*	4.531E-01	3.396E-02	4.948E-02	0.000E+00	9.159
		860.56		4.684E-01	1.517E-01	5.659E-01	0.000E+00	0.828
BI-211	+	72.87		1.956E+01	2.056E+00	5.308E+00	0.000E+00	3.686
	+	351.06	*	3.065E+00	2.289E-01	3.236E-01	0.000E+00	9.472
PB-212	+	74.82		2.341E+00	2.460E-01	6.377E-01	0.000E+00	3.671
	+	77.11		1.996E+00	1.351E-01	3.614E-01	0.000E+00	5.522
	+	238.63	*	1.503E+00	5.399E-02	8.728E-02	0.000E+00	17.222
		300.09		4.771E-01	4.690E-01	1.419E+00	0.000E+00	0.336
BI-214	+	609.32	*	9.447E-01	7.533E-02	1.245E-01	0.000E+00	7.589
		1120.29		8.573E-01	1.793E-01	6.902E-01	0.000E+00	1.242
	+	1764.49		9.194E-01	2.121E-01	2.645E-01	0.000E+00	3.476
PB-214	+	74.82		4.149E+00	4.360E-01	1.130E+00	0.000E+00	3.671
	+	77.11		3.518E+00	2.382E-01	6.372E-01	0.000E+00	5.522
	+	242.00		2.120E+00	2.727E-01	4.895E-01	0.000E+00	4.332
	+	295.22		1.131E+00	1.250E-01	2.714E-01	0.000E+00	4.167
	+	351.93	*	1.112E+00	8.306E-02	1.190E-01	0.000E+00	9.348
RA-224	+	240.99	*	3.749E+00	4.822E-01	9.356E-01	0.000E+00	4.008
RA-226	+	609.32	*	9.447E-01	7.533E-02	1.245E-01	0.000E+00	7.589
		1120.29		8.573E-01	1.793E-01	6.902E-01	0.000E+00	1.242
	+	1764.49		9.194E-01	2.121E-01	2.645E-01	0.000E+00	3.476
AC-228	+	338.32		1.582E+00	2.631E-01	3.639E-01	0.000E+00	4.347
	+	911.20	*	1.307E+00	1.527E-01	2.124E-01	0.000E+00	6.155
	+	968.97		1.528E+00	2.416E-01	2.996E-01	0.000E+00	5.102
RA-228	+	338.32		1.582E+00	2.631E-01	3.639E-01	0.000E+00	4.347
	+	911.20	*	1.307E+00	1.527E-01	2.124E-01	0.000E+00	6.155
	+	968.97		1.528E+00	2.416E-01	2.996E-01	0.000E+00	5.102
TH-228	+	74.82		2.341E+00	2.460E-01	6.377E-01	0.000E+00	3.671

Sample ID : G248860004 Acquisition date : 24-MAR-2010 16:16:15

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		1.996E+00	1.351E-01	3.614E-01	0.000E+00	5.522
	+	238.63	*	1.503E+00	5.399E-02	8.728E-02	0.000E+00	17.222
		300.09		4.771E-01	4.690E-01	1.419E+00	0.000E+00	0.336
TH-229	+	85.43		4.737E-01	1.504E-01	3.680E-01	0.000E+00	1.287
	+	88.47		2.902E-01	9.215E-02	2.011E-01	0.000E+00	1.443
		193.51	*	1.075E-01	2.645E-01	8.639E-01	0.000E+00	0.124
	+	210.85		3.167E+00	6.282E-01	1.288E+00	0.000E+00	2.458
TH-230	+	609.32	*	9.447E-01	7.533E-02	1.245E-01	0.000E+00	7.589
		1120.29		8.573E-01	1.793E-01	6.902E-01	0.000E+00	1.242
	+	1764.49		9.193E-01	2.121E-01	2.645E-01	0.000E+00	3.476
TH-232	+	338.32		1.582E+00	2.631E-01	3.639E-01	0.000E+00	4.347
	+	911.20	*	1.307E+00	1.527E-01	2.124E-01	0.000E+00	6.155
	+	968.97		1.528E+00	2.416E-01	2.996E-01	0.000E+00	5.102
U-235	+	89.96		1.854E+00	3.814E-01	1.599E+00	0.000E+00	1.159
	+	93.35		1.336E+00	3.416E-01	6.969E-01	0.000E+00	1.917
		143.76	*	-1.607E-01	1.028E-01	3.188E-01	0.000E+00	-0.504
		163.33		-8.378E-02	2.108E-01	6.808E-01	0.000E+00	-0.123
	+	185.72		1.178E-01	2.965E-02	6.546E-02	0.000E+00	1.800
		205.31		2.005E-01	2.732E-01	7.886E-01	0.000E+00	0.254
NP-237	+	86.48	*	5.616E-01	1.783E-01	4.328E-01	0.000E+00	1.298
		95.86		-7.630E-02	5.198E-01	1.507E+00	0.000E+00	-0.051
ANH-511	+	511.00	*	1.320E-01	3.179E-02	4.671E-02	0.000E+00	2.827

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-3.325E-02	1.674E-01	5.475E-01	0.000E+00	-0.061
NA-22		1274.54	*	2.371E-02	2.198E-02	7.582E-02	0.000E+00	0.313
NA-24		1368.63	*	-1.891E+02	2.198E-02	Half-Life too short		
SC-46		889.28	*	1.637E-02	2.208E-02	7.586E-02	0.000E+00	0.216
		1120.55		1.436E-01	3.133E-02	1.201E-01	0.000E+00	1.196
V-48		944.13		4.032E-01	5.938E-01	2.030E+00	0.000E+00	0.199
		983.53	*	-7.260E-02	4.513E-02	1.376E-01	0.000E+00	-0.528
		1312.11		5.130E-02	4.929E-02	1.704E-01	0.000E+00	0.301
CR-51		320.08	*	1.667E-01	2.096E-01	7.173E-01	0.000E+00	0.232
MN-54		834.85	*	-4.076E-03	1.968E-02	6.526E-02	0.000E+00	-0.062
CO-56		846.77	*	1.573E-02	2.140E-02	7.282E-02	0.000E+00	0.216
		1037.84		1.686E-01	1.652E-01	5.721E-01	0.000E+00	0.295
		1238.28		1.374E-01	5.466E-02	1.949E-01	0.000E+00	0.705
		1771.35		-3.320E-02	1.123E-01	3.609E-01	0.000E+00	-0.092
CO-57		122.06	*	-2.237E-02	1.304E-02	4.143E-02	0.000E+00	-0.540
		136.47		-2.295E-01	1.089E-01	3.421E-01	0.000E+00	-0.671
CO-58		810.76	*	9.600E-04	1.938E-02	6.507E-02	0.000E+00	0.015
FE-59		1099.45	*	-2.061E-02	5.407E-02	1.748E-01	0.000E+00	-0.118
		1291.59		1.132E-01	7.164E-02	2.525E-01	0.000E+00	0.448
CO-60		1173.23		-2.459E-02	2.489E-02	7.789E-02	0.000E+00	-0.316
		1332.49	*	-1.491E-02	2.032E-02	6.289E-02	0.000E+00	-0.237
ZN-65		1115.54	*	-6.561E-02	5.358E-02	1.672E-01	0.000E+00	-0.392

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SE-75		121.12		-2.881E-02	6.858E-02	2.238E-01	0.000E+00	-0.129
		136.00		-3.020E-02	2.126E-02	6.779E-02	0.000E+00	-0.446
		264.66	*	1.203E-02	2.593E-02	7.357E-02	0.000E+00	0.163
		279.54		4.203E-02	6.284E-02	1.889E-01	0.000E+00	0.222
		400.66		1.518E-01	1.260E-01	4.341E-01	0.000E+00	0.350
SR-85		514.00	*	4.466E-02	2.273E-02	7.054E-02	0.000E+00	0.633
Y-88		898.04		-2.686E-02	2.111E-02	6.604E-02	0.000E+00	-0.407
		1836.06	*	2.337E-02	1.723E-02	6.421E-02	0.000E+00	0.364
Y-91		1204.77	*	-1.350E+00	1.317E+01	4.288E+01	0.000E+00	-0.031
NB-94		702.65	*	3.043E-02	1.788E-02	6.155E-02	0.000E+00	0.494
		871.09		-2.150E-02	1.833E-02	5.803E-02	0.000E+00	-0.370
NB-95		765.81	*	2.419E-02	2.404E-02	8.033E-02	0.000E+00	0.301
NB-95M		235.69	*	8.159E-01	8.629E-02	3.000E-01	0.000E+00	2.720
ZR-95		724.19		1.820E-01	5.774E-02	1.886E-01	0.000E+00	0.965
		756.73	*	4.116E-02	3.922E-02	1.320E-01	0.000E+00	0.312
MO-99		140.51		8.761E+00	3.982E+01	1.301E+02	0.000E+00	0.067
		181.07		-4.757E+01	3.684E+01	1.005E+02	0.000E+00	-0.473
		366.42		-6.094E+01	1.780E+02	5.773E+02	0.000E+00	-0.106
		739.50	*	9.768E+00	2.278E+01	7.469E+01	0.000E+00	0.131
		777.92		-1.019E+02	6.551E+01	2.058E+02	0.000E+00	-0.495
TC-99M		140.51	*	4.985E+15	6.551E+01	Half-Life too short		
RU-103		497.08	*	2.468E-02	2.067E-02	7.097E-02	0.000E+00	0.348
	+	610.33		1.066E+01	8.502E-01	2.765E+00	0.000E+00	3.856
RH-106		621.93	*	2.617E-01	1.670E-01	5.752E-01	0.000E+00	0.455
		1050.41		-1.025E+00	1.376E+00	4.378E+00	0.000E+00	-0.234
RU-106		621.93	*	2.617E-01	1.670E-01	5.752E-01	0.000E+00	0.455
		1050.41		-1.025E+00	1.376E+00	4.378E+00	0.000E+00	-0.234
AG-108M		433.94	*	-1.893E-02	1.491E-02	4.724E-02	0.000E+00	-0.401
		614.28		8.032E-03	2.093E-02	6.000E-02	0.000E+00	0.134
		722.91		-6.188E-02	2.429E-02	5.684E-02	0.000E+00	-1.089
AG-110M		657.76	*	1.192E-02	1.864E-02	6.193E-02	0.000E+00	0.193
		677.62		-1.430E-01	1.618E-01	5.028E-01	0.000E+00	-0.284
		706.68		-1.003E-01	1.198E-01	3.735E-01	0.000E+00	-0.269
		763.94		-1.460E-02	8.707E-02	2.775E-01	0.000E+00	-0.053
		884.68		-9.490E-03	2.649E-02	8.692E-02	0.000E+00	-0.109
		937.49		-1.215E-01	5.970E-02	1.798E-01	0.000E+00	-0.676
		1384.29		-4.140E-02	8.351E-02	2.615E-01	0.000E+00	-0.158
		1505.03		7.894E-02	1.389E-01	4.679E-01	0.000E+00	0.169
SN-113		391.69	*	-1.645E-02	2.243E-02	7.287E-02	0.000E+00	-0.226
CD-115		260.90		-1.083E-04	2.243E-02	Half-Life too short		
		492.35		-1.470E-05	2.243E-02	Half-Life too short		
		527.90	*	6.572E-06	2.243E-02	Half-Life too short		
SN-117M		156.02		-1.652E+00	1.479E+00	4.716E+00	0.000E+00	-0.350
		158.56	*	-1.860E-02	3.461E-02	1.116E-01	0.000E+00	-0.167
TE-123M		159.00	*	-1.355E-03	1.411E-02	4.591E-02	0.000E+00	-0.030
SB-124		602.73		-2.688E-03	2.410E-02	6.732E-02	0.000E+00	-0.040
		645.85		-3.894E-01	2.567E-01	7.747E-01	0.000E+00	-0.503
		722.78		-6.885E-01	2.577E-01	5.966E-01	0.000E+00	-1.154
		1690.97	*	-1.377E-02	3.673E-02	1.174E-01	0.000E+00	-0.117

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-125		427.87	*	-4.744E-04	4.347E-02	1.439E-01	0.000E+00	-0.003
	+	463.37		5.964E-01	1.718E-01	5.502E-01	0.000E+00	1.084
		600.60		1.864E-03	9.592E-02	2.943E-01	0.000E+00	0.006
		635.95		-1.696E-01	1.461E-01	4.515E-01	0.000E+00	-0.376
TE-125M		109.28	*	-1.007E+00	5.270E+00	1.733E+01	0.000E+00	-0.058
I-126		388.63		1.850E-01	1.041E-01	3.649E-01	0.000E+00	0.507
		666.33	*	4.084E-03	1.488E-01	4.821E-01	0.000E+00	0.008
		753.82		-2.008E+00	1.283E+00	3.831E+00	0.000E+00	-0.524
SB-126		414.70		1.196E-02	4.863E-02	1.625E-01	0.000E+00	0.074
		666.50		2.273E-03	5.142E-02	1.667E-01	0.000E+00	0.014
		695.00		-8.024E-02	5.555E-02	1.686E-01	0.000E+00	-0.476
		697.00		-1.870E-01	1.911E-01	5.920E-01	0.000E+00	-0.316
		720.70	*	9.425E-02	1.053E-01	3.097E-01	0.000E+00	0.304
		856.80		8.155E-02	3.397E-01	1.145E+00	0.000E+00	0.071
SB-127		252.40		-1.175E+01	5.603E+00	1.694E+01	0.000E+00	-0.694
		473.00		-2.592E-01	2.000E+00	6.562E+00	0.000E+00	-0.039
		685.70	*	-2.084E+00	1.645E+00	5.005E+00	0.000E+00	-0.416
		783.70		1.060E+01	4.578E+00	1.665E+01	0.000E+00	0.637
I-131		80.19		-9.656E+00	3.766E+00	1.155E+01	0.000E+00	-0.836
		284.31		6.285E-01	1.114E+00	3.805E+00	0.000E+00	0.165
		364.49	*	-5.494E-02	8.948E-02	2.878E-01	0.000E+00	-0.191
		636.99		1.084E+00	1.280E+00	4.294E+00	0.000E+00	0.253
TE-132		49.72		-3.878E+01	3.880E+01	1.282E+02	0.000E+00	-0.303
		111.76		-7.748E+01	5.016E+01	1.605E+02	0.000E+00	-0.483
		116.30		-3.579E+01	4.397E+01	1.426E+02	0.000E+00	-0.251
		228.16	*	3.021E-02	1.134E+00	3.648E+00	0.000E+00	0.008
BA-133		81.00		-1.949E-01	6.790E-02	1.524E-01	0.000E+00	-1.279
	+	276.40		3.650E-01	2.893E-01	6.227E-01	0.000E+00	0.586
		302.85		-1.138E-01	7.190E-02	2.326E-01	0.000E+00	-0.490
		356.01	*	-1.916E-02	2.406E-02	6.637E-02	0.000E+00	-0.289
		383.85		-3.256E-01	1.393E-01	4.282E-01	0.000E+00	-0.760
I-133		529.87	*	-4.105E-01	1.393E-01	Half-Life too short		
		875.33		-1.931E+00	1.393E-01	Half-Life too short		
		1298.22		-1.573E+01	1.393E-01	Half-Life too short		
CS-134		563.25		2.634E-01	1.825E-01	6.280E-01	0.000E+00	0.419
		569.33		-2.592E-02	1.035E-01	3.348E-01	0.000E+00	-0.077
		604.72		1.877E-02	1.984E-02	5.854E-02	0.000E+00	0.321
		795.86	*	7.061E-02	2.528E-02	9.302E-02	0.000E+00	0.759
		801.95		-1.996E-03	2.117E-01	7.052E-01	0.000E+00	-0.003
		1365.19		-2.006E-01	6.839E-01	2.176E+00	0.000E+00	-0.092
I-135		546.56		-1.031E+15	6.839E-01	Half-Life too short		
		836.80		4.863E+15	6.839E-01	Half-Life too short		
		1038.76		6.498E+15	6.839E-01	Half-Life too short		
		1131.51		1.116E+15	6.839E-01	Half-Life too short		
		1260.41	*	-5.093E+14	6.839E-01	Half-Life too short		
	+	1457.56		5.221E+17	6.839E-01	Half-Life too short		
		1678.03		1.789E+15	6.839E-01	Half-Life too short		
		1791.20		9.730E+14	6.839E-01	Half-Life too short		
CS-136		153.25		1.414E+00	5.627E-01	1.927E+00	0.000E+00	0.734

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		176.60		4.677E-02	3.292E-01	1.073E+00	0.000E+00	0.044
		273.65		-1.803E-01	5.587E-01	1.085E+00	0.000E+00	-0.166
		340.55		5.649E-01	1.087E-01	3.713E-01	0.000E+00	1.522
		818.51		1.510E-02	4.864E-02	1.650E-01	0.000E+00	0.092
		1048.07	*	-3.961E-02	7.285E-02	2.341E-01	0.000E+00	-0.169
		1235.36		6.872E-01	4.331E-01	1.500E+00	0.000E+00	0.458
BA-137M		661.66	*	-2.235E-03	1.868E-02	6.020E-02	0.000E+00	-0.037
CS-137		661.66	*	-2.361E-03	1.974E-02	6.359E-02	0.000E+00	-0.037
CE-139		165.86	*	-1.747E-02	1.546E-02	4.832E-02	0.000E+00	-0.362
BA-140		162.66		-3.151E-01	5.161E-01	1.659E+00	0.000E+00	-0.190
		304.85		2.850E-02	8.783E-01	2.954E+00	0.000E+00	0.010
		423.72		4.105E-01	1.187E+00	3.980E+00	0.000E+00	0.103
		537.26	*	7.058E-02	1.620E-01	5.398E-01	0.000E+00	0.131
LA-140		328.76		6.784E-01	2.104E-01	7.562E-01	0.000E+00	0.897
		487.02		-1.175E-01	8.369E-02	2.599E-01	0.000E+00	-0.452
		815.77		-3.138E-02	2.085E-01	6.934E-01	0.000E+00	-0.045
		1596.21	*	-1.333E-01	5.542E-02	1.452E-01	0.000E+00	-0.918
CE-141		145.44	*	1.449E-02	3.477E-02	1.121E-01	0.000E+00	0.129
CE-143		57.36		-1.755E-03	3.477E-02	Half-Life too short		
	+	293.27	*	1.284E-02	3.477E-02	Half-Life too short		
		664.57		4.653E-03	3.477E-02	Half-Life too short		
		721.93		-2.004E-02	3.477E-02	Half-Life too short		
CE-144		80.12		-3.416E+00	1.332E+00	4.087E+00	0.000E+00	-0.836
		133.52	*	2.501E-01	1.163E-01	3.533E-01	0.000E+00	0.708
PM-144		476.78		-2.315E-04	3.237E-02	1.066E-01	0.000E+00	-0.002
		618.01		-1.593E-02	1.740E-02	5.450E-02	0.000E+00	-0.292
		696.49	*	-1.957E-02	1.855E-02	5.726E-02	0.000E+00	-0.342
PR-144		696.51	*	-1.473E+00	1.392E+00	4.295E+00	0.000E+00	-0.343
		1489.16		1.009E-01	6.524E+00	2.107E+01	0.000E+00	0.005
PM-146		453.88	*	6.091E-02	2.158E-02	7.759E-02	0.000E+00	0.785
		633.25		-1.187E-02	7.343E-01	2.382E+00	0.000E+00	-0.005
		735.93		-1.570E-01	7.839E-02	2.097E-01	0.000E+00	-0.748
		747.24		2.108E-02	5.077E-02	1.663E-01	0.000E+00	0.127
ND-147	+	91.11		8.264E-01	1.700E-01	7.281E-01	0.000E+00	1.135
		319.41		1.240E+00	2.293E+00	7.801E+00	0.000E+00	0.159
		531.02	*	-7.801E-01	3.730E-01	1.117E+00	0.000E+00	-0.699
PM-149		285.90	*	2.695E-04	3.730E-01	Half-Life too short		
EU-152		121.78		-4.905E-02	3.735E-02	1.197E-01	0.000E+00	-0.410
		244.70		-1.978E-01	1.834E-01	4.926E-01	0.000E+00	-0.402
		344.28	*	-1.788E-02	8.034E-02	1.540E-01	0.000E+00	-0.116
		778.90		-7.940E-02	1.327E-01	4.349E-01	0.000E+00	-0.183
		964.08		7.206E-01	1.891E-01	6.412E-01	0.000E+00	1.124
		1085.87		-1.311E-01	2.038E-01	6.499E-01	0.000E+00	-0.202
		1112.07		-3.736E-01	1.637E-01	4.780E-01	0.000E+00	-0.782
		1408.01		5.548E-02	9.996E-02	3.350E-01	0.000E+00	0.166
GD-153		69.67		5.358E-01	1.075E+00	3.196E+00	0.000E+00	0.168
		97.43	*	6.556E-02	4.675E-02	1.411E-01	0.000E+00	0.465
		103.18		5.223E-03	5.792E-02	1.918E-01	0.000E+00	0.027
EU-154		123.07		-1.346E-02	2.848E-02	8.574E-02	0.000E+00	-0.157

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		723.31		-1.300E-01	1.083E-01	2.790E-01	0.000E+00	-0.466
		873.19		-1.497E-01	1.524E-01	4.868E-01	0.000E+00	-0.308
		996.26		-9.385E-02	1.942E-01	6.288E-01	0.000E+00	-0.149
		1004.73		-5.919E-02	1.142E-01	3.688E-01	0.000E+00	-0.161
		1274.44	*	6.701E-02	6.210E-02	2.143E-01	0.000E+00	0.313
EU-155	+	86.55		2.287E-01	7.262E-02	1.922E-01	0.000E+00	1.190
		105.31	*	1.006E-01	5.529E-02	1.886E-01	0.000E+00	0.533
TB-160	+	86.79		6.356E-01	2.019E-01	5.294E-01	0.000E+00	1.201
		197.04		-2.164E-01	3.012E-01	9.493E-01	0.000E+00	-0.228
		215.65		1.042E-01	4.192E-01	1.257E+00	0.000E+00	0.083
		298.57		1.820E-01	6.895E-02	2.189E-01	0.000E+00	0.831
		879.36	*	1.521E-01	7.636E-02	2.759E-01	0.000E+00	0.551
		962.29		8.044E-01	3.438E-01	1.107E+00	0.000E+00	0.727
	+	966.15		1.211E+00	1.915E-01	6.118E-01	0.000E+00	1.980
		1177.93		3.915E-01	2.088E-01	7.391E-01	0.000E+00	0.530
		1271.85		1.968E-01	3.816E-01	1.278E+00	0.000E+00	0.154
HO-166M		80.57		-3.609E-01	1.429E-01	4.387E-01	0.000E+00	-0.823
	+	184.41		9.359E-02	2.355E-02	6.724E-02	0.000E+00	1.392
		280.46		-6.184E-02	4.612E-02	1.290E-01	0.000E+00	-0.479
		410.95		1.464E-01	1.282E-01	4.390E-01	0.000E+00	0.333
		711.68	*	6.009E-02	3.111E-02	1.085E-01	0.000E+00	0.554
		752.31		9.591E-02	1.442E-01	4.772E-01	0.000E+00	0.201
		810.29		-1.855E-02	2.798E-02	9.092E-02	0.000E+00	-0.204
TA-182		67.75		-1.533E-02	6.399E-02	2.131E-01	0.000E+00	-0.072
		100.11		8.788E-02	9.096E-02	3.064E-01	0.000E+00	0.287
		152.43		3.532E-01	1.789E-01	6.069E-01	0.000E+00	0.582
		222.11		1.433E-01	1.806E-01	5.927E-01	0.000E+00	0.242
		1121.30		2.732E-01	8.700E-02	3.188E-01	0.000E+00	0.857
		1189.05		-9.285E-02	1.782E-01	5.699E-01	0.000E+00	-0.163
		1221.41	*	-5.663E-02	1.182E-01	3.787E-01	0.000E+00	-0.150
		1231.02		-4.121E-01	2.976E-01	9.188E-01	0.000E+00	-0.448
IR-192	+	295.96		8.769E-01	9.694E-02	2.895E-01	0.000E+00	3.030
		308.46		-4.920E-02	4.877E-02	1.594E-01	0.000E+00	-0.309
		316.51	*	3.728E-03	1.771E-02	5.977E-02	0.000E+00	0.062
		468.07		-4.653E-02	4.121E-02	1.111E-01	0.000E+00	-0.419
HG-203		70.83		4.426E-01	8.783E-01	2.611E+00	0.000E+00	0.170
	+	72.87		5.252E+00	5.519E-01	1.744E+00	0.000E+00	3.012
		279.20	*	3.891E-02	2.320E-02	7.200E-02	0.000E+00	0.540
BI-207	+	72.81		1.126E+00	1.183E-01	3.695E-01	0.000E+00	3.047
	+	74.97		6.749E-01	7.091E-02	2.617E-01	0.000E+00	2.579
		569.70		-6.696E-03	1.634E-02	5.253E-02	0.000E+00	-0.127
		1063.66	*	1.148E-02	2.793E-02	9.385E-02	0.000E+00	0.122
		1770.23		-8.725E-01	2.862E-01	7.029E-01	0.000E+00	-1.241
PB-210		46.54	*	-4.641E-01	2.585E+00	8.580E+00	0.000E+00	-0.054
PB-211		404.85	*	-7.511E-01	3.683E-01	1.147E+00	0.000E+00	-0.655
		427.09		-3.628E-01	7.190E-01	2.340E+00	0.000E+00	-0.155
		832.01		-2.569E-02	5.222E-01	1.743E+00	0.000E+00	-0.015
BI-212	+	727.33	*	1.668E+00	4.443E-01	1.124E+00	0.000E+00	1.484
		785.37		1.599E+00	1.680E+00	5.832E+00	0.000E+00	0.274

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		2.030E-01	1.032E+00	3.498E+00	0.000E+00	0.058
RN-219	+	271.23		3.200E-01	1.941E-01	4.408E-01	0.000E+00	0.726
		401.81	*	1.516E-02	1.991E-01	6.629E-01	0.000E+00	0.023
RA-223		81.07		-4.383E-01	1.536E-01	3.450E-01	0.000E+00	-1.271
		83.79		-1.071E-01	1.051E-01	2.135E-01	0.000E+00	-0.501
	+	94.87		1.315E+00	3.362E-01	8.059E-01	0.000E+00	1.631
		144.24		-3.238E-01	3.430E-01	1.077E+00	0.000E+00	-0.301
		154.21		4.185E-01	1.958E-01	6.657E-01	0.000E+00	0.629
	+	269.46		2.486E-01	1.508E-01	3.322E-01	0.000E+00	0.749
		323.87	*	-1.071E+00	3.559E-01	1.088E+00	0.000E+00	-0.984
	+	338.28		6.277E+00	1.044E+00	2.437E+00	0.000E+00	2.576
AC-227		79.69		-1.509E+00	6.621E-01	2.043E+00	0.000E+00	-0.739
		235.96		1.559E+00	1.092E-01	4.028E-01	0.000E+00	3.871
		256.23	*	3.371E-02	1.317E-01	4.245E-01	0.000E+00	0.079
		299.98		8.395E-01	5.058E-01	1.562E+00	0.000E+00	0.537
		304.50		-8.889E-01	8.360E-01	2.738E+00	0.000E+00	-0.325
		334.37		-1.651E+00	9.836E-01	2.680E+00	0.000E+00	-0.616
TH-227		79.80		-2.057E+00	8.709E-01	2.683E+00	0.000E+00	-0.767
		235.96		1.559E+00	1.092E-01	4.028E-01	0.000E+00	3.871
		256.23	*	3.371E-02	1.317E-01	4.245E-01	0.000E+00	0.079
		299.98		8.395E-01	5.058E-01	1.562E+00	0.000E+00	0.537
		304.50		-8.889E-01	8.360E-01	2.738E+00	0.000E+00	-0.325
		334.37		-1.651E+00	9.836E-01	2.680E+00	0.000E+00	-0.616
PA-231		283.69	*	3.784E-02	7.115E-01	2.341E+00	0.000E+00	0.016
		301.36		6.402E-01	3.038E-01	1.019E+00	0.000E+00	0.628
TH-231		81.07		-4.383E-01	1.536E-01	3.450E-01	0.000E+00	-1.271
		83.79		-1.071E-01	1.051E-01	2.135E-01	0.000E+00	-0.501
	+	94.87		1.315E+00	3.362E-01	8.059E-01	0.000E+00	1.631
		144.24		-3.238E-01	3.430E-01	1.077E+00	0.000E+00	-0.301
		154.21		4.185E-01	1.958E-01	6.657E-01	0.000E+00	0.629
	+	269.46		2.486E-01	1.508E-01	3.322E-01	0.000E+00	0.749
		323.87	*	-1.071E+00	3.559E-01	1.088E+00	0.000E+00	-0.984
	+	338.28		6.277E+00	1.044E+00	2.437E+00	0.000E+00	2.576
PA-233		300.13		2.367E-01	2.335E-01	7.064E-01	0.000E+00	0.335
		311.90	*	5.046E-03	3.046E-02	1.027E-01	0.000E+00	0.049
		340.48		2.014E+00	3.592E-01	1.238E+00	0.000E+00	1.627
PA-234	+	94.67		4.765E-01	1.219E-01	3.022E-01	0.000E+00	1.577
		98.44		8.011E-02	5.008E-02	1.518E-01	0.000E+00	0.528
		111.00		-6.350E-02	9.286E-02	3.023E-01	0.000E+00	-0.210
		131.20		5.406E-02	6.291E-02	1.850E-01	0.000E+00	0.292
		569.50		-2.166E-02	1.425E-01	4.626E-01	0.000E+00	-0.047
		733.00		1.812E-01	1.945E-01	5.754E-01	0.000E+00	0.315
		880.51		1.951E-02	1.501E-01	5.034E-01	0.000E+00	0.039
		883.24		-3.714E-01	1.556E-01	4.635E-01	0.000E+00	-0.801
		926.50		8.666E-02	9.153E-02	3.170E-01	0.000E+00	0.273
		946.00	*	1.073E-01	1.596E-01	5.456E-01	0.000E+00	0.197
		949.00		1.308E-01	2.380E-01	8.091E-01	0.000E+00	0.162
PA-234M		766.42		7.547E-01	6.184E+00	1.995E+01	0.000E+00	0.038
		1001.03	*	2.697E+00	2.573E+00	8.986E+00	0.000E+00	0.300

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	1.760E+00	7.769E-01	2.667E+00	0.000E+00	0.660
	+	92.59		1.769E+00	4.523E-01	1.262E+00	0.000E+00	1.402
U-238		63.29	*	1.760E+00	7.769E-01	2.667E+00	0.000E+00	0.660
	+	92.59		1.769E+00	4.523E-01	1.262E+00	0.000E+00	1.402
NP-239		99.53		9.259E-02	8.327E-02	2.725E-01	0.000E+00	0.340
		103.37		6.152E-02	5.147E-02	1.739E-01	0.000E+00	0.354
		106.12		6.693E-02	4.410E-02	1.496E-01	0.000E+00	0.447
		117.23	*	-9.432E-02	2.015E-01	6.575E-01	0.000E+00	-0.143
		228.18		1.614E-03	1.122E-01	3.609E-01	0.000E+00	0.004
	+	277.60		1.803E-01	1.429E-01	3.060E-01	0.000E+00	0.589
AM-241		59.54	*	-1.500E-01	9.123E-02	2.968E-01	0.000E+00	-0.505
CM-247	+	278.00		7.659E-01	6.071E-01	1.317E+00	0.000E+00	0.582
		287.50		2.676E-01	6.412E-01	1.996E+00	0.000E+00	0.134
		402.40	*	-5.473E-03	1.842E-02	6.059E-02	0.000E+00	-0.090
CF-249		252.80		-8.671E-01	4.894E-01	1.492E+00	0.000E+00	-0.581
		333.37		-2.336E-01	1.080E-01	2.861E-01	0.000E+00	-0.817
		388.16	*	3.594E-02	1.881E-02	6.624E-02	0.000E+00	0.543
CF-251		177.52	*	5.306E-02	6.508E-02	2.151E-01	0.000E+00	0.247
		227.38		-2.049E-02	1.815E-01	5.823E-01	0.000E+00	-0.035
		285.41		1.882E+00	1.044E+00	3.670E+00	0.000E+00	0.513

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860004       *
* Acquisition date : 24-MAR-2010 16:16:15 Detector SN#    :                 *
* Detector ID       : GAM23                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 2.000          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.73      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  4-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248860004           Analyst initials: MXR1           *
* Batch Number      : 962633               Sample Quantity : 1.4370E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.689E+01	1.716E+00	6.185E-01	0.000E+00
CD-109	1.940E+00	1.208E+00	1.444E+00	0.000E+00
SN-126	1.882E-01	1.172E-01	1.409E-01	0.000E+00
CS-135	2.160E-01	2.568E-01	2.676E-01	0.000E+00
TL-208	4.531E-01	6.657E-02	5.076E-02	0.000E+00
BI-211	3.065E+00	4.486E-01	3.357E-01	0.000E+00
PB-212	1.503E+00	1.058E-01	9.129E-02	0.000E+00
BI-214	9.447E-01	1.477E-01	1.276E-01	0.000E+00
PB-214	1.112E+00	1.628E-01	1.234E-01	0.000E+00
RA-224	3.749E+00	9.452E-01	9.783E-01	0.000E+00
RA-226	9.447E-01	1.477E-01	1.276E-01	0.000E+00
AC-228	1.307E+00	2.993E-01	2.158E-01	0.000E+00
RA-228	1.307E+00	2.993E-01	2.158E-01	0.000E+00
TH-228	1.503E+00	1.058E-01	9.129E-02	0.000E+00
TH-229	1.075E-01	5.184E-01	9.076E-01	0.000E+00
TH-230	9.447E-01	1.476E-01	1.276E-01	0.000E+00
TH-232	1.307E+00	2.993E-01	2.158E-01	0.000E+00
U-235	-1.607E-01	2.015E-01	3.370E-01	0.000E+00
NP-237	5.616E-01	3.496E-01	4.624E-01	0.000E+00
ANH-511	1.320E-01	6.231E-02	4.806E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-3.325E-02	3.282E-01	5.642E-01	0.000E+00	NOT IDENT.
NA-22	2.371E-02	4.307E-02	7.643E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.342E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	1.637E-02	4.328E-02	7.710E-02	0.000E+00	NOT IDENT.
V-48	-7.260E-02	8.846E-02	1.395E-01	0.000E+00	NOT IDENT.
CR-51	1.667E-01	4.108E-01	7.456E-01	0.000E+00	NOT IDENT.
MN-54	-4.076E-03	3.856E-02	6.642E-02	0.000E+00	NOT IDENT.

CO-56	1.573E-02	4.195E-02	7.409E-02	0.000E+00	NOT IDENT.
CO-57	-2.237E-02	2.555E-02	4.394E-02	0.000E+00	NOT IDENT.
CO-58	9.600E-04	3.799E-02	6.627E-02	0.000E+00	NOT IDENT.
FE-59	-2.061E-02	1.060E-01	1.768E-01	0.000E+00	NOT IDENT.
CO-60	-1.491E-02	3.982E-02	6.333E-02	0.000E+00	NOT IDENT.
ZN-65	-6.561E-02	1.050E-01	1.690E-01	0.000E+00	NOT IDENT.
SE-75	1.203E-02	5.082E-02	7.678E-02	0.000E+00	NOT IDENT.
SR-85	4.466E-02	4.455E-02	7.257E-02	0.000E+00	NOT IDENT.
Y-88	2.337E-02	3.378E-02	6.418E-02	0.000E+00	NOT IDENT.
Y-91	-1.350E+00	2.581E+01	4.328E+01	0.000E+00	NOT IDENT.
NB-94	3.043E-02	3.504E-02	6.289E-02	0.000E+00	NOT IDENT.
NB-95	2.419E-02	4.712E-02	8.192E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.691E-01	3.138E-01	0.000E+00	NOT IDENT.
ZR-95	4.116E-02	7.687E-02	1.346E-01	0.000E+00	NOT IDENT.
MO-99	9.768E+00	4.464E+01	7.622E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.441E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.468E-02	4.051E-02	7.307E-02	0.000E+00	FAIL ABUN
RH-106	2.617E-01	3.272E-01	5.893E-01	0.000E+00	NOT IDENT.
RU-106	2.617E-01	3.272E-01	5.893E-01	0.000E+00	NOT IDENT.
AG-108M	-1.893E-02	2.922E-02	4.878E-02	0.000E+00	NOT IDENT.
AG-110M	1.192E-02	3.654E-02	6.337E-02	0.000E+00	NOT IDENT.
SN-113	-1.645E-02	4.396E-02	7.541E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	5.368E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-1.860E-02	6.784E-02	1.177E-01	0.000E+00	NOT IDENT.
TE-123M	-1.355E-03	2.765E-02	4.843E-02	0.000E+00	NOT IDENT.
SB-124	-1.377E-02	7.198E-02	1.175E-01	0.000E+00	NOT IDENT.
SB-125	-4.744E-04	8.521E-02	1.486E-01	0.000E+00	FAIL ABUN
TE-125M	-1.007E+00	1.033E+01	1.842E+01	0.000E+00	NOT IDENT.
I-126	4.084E-03	2.916E-01	4.931E-01	0.000E+00	NOT IDENT.
SB-126	9.425E-02	2.064E-01	3.163E-01	0.000E+00	NOT IDENT.
SB-127	-2.084E+00	3.224E+00	5.117E+00	0.000E+00	NOT IDENT.
I-131	-5.494E-02	1.754E-01	2.983E-01	0.000E+00	NOT IDENT.
TE-132	3.021E-02	2.222E+00	3.820E+00	0.000E+00	NOT IDENT.
BA-133	-1.916E-02	4.715E-02	6.882E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	3.242E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.061E-02	4.955E-02	9.477E-02	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.238E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.961E-02	1.428E-01	2.370E-01	0.000E+00	NOT IDENT.
BA-137M	-2.235E-03	3.662E-02	6.158E-02	0.000E+00	NOT IDENT.
CS-137	-2.361E-03	3.869E-02	6.506E-02	0.000E+00	NOT IDENT.
CE-139	-1.747E-02	3.031E-02	5.093E-02	0.000E+00	NOT IDENT.
BA-140	7.058E-02	3.175E-01	5.548E-01	0.000E+00	NOT IDENT.
LA-140	-1.333E-01	1.086E-01	1.456E-01	0.000E+00	NOT IDENT.
CE-141	1.449E-02	6.814E-02	1.185E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.782E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	2.501E-01	2.279E-01	3.741E-01	0.000E+00	NOT IDENT.
PM-144	-1.957E-02	3.636E-02	5.851E-02	0.000E+00	NOT IDENT.
PR-144	-1.473E+00	2.728E+00	4.389E+00	0.000E+00	NOT IDENT.
PM-146	6.091E-02	4.230E-02	8.004E-02	0.000E+00	NOT IDENT.
ND-147	-7.801E-01	7.311E-01	1.148E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	4.177E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-1.788E-02	1.575E-01	1.598E-01	0.000E+00	NOT IDENT.
GD-153	6.556E-02	9.163E-02	1.504E-01	0.000E+00	NOT IDENT.
EU-154	6.701E-02	1.217E-01	2.160E-01	0.000E+00	NOT IDENT.
EU-155	1.006E-01	1.084E-01	2.007E-01	0.000E+00	FAIL ABUN
TB-160	1.521E-01	1.497E-01	2.804E-01	0.000E+00	FAIL ABUN
HO-166M	6.009E-02	6.098E-02	1.108E-01	0.000E+00	FAIL ABUN
TA-182	-5.663E-02	2.317E-01	3.821E-01	0.000E+00	NOT IDENT.
IR-192	3.728E-03	3.472E-02	6.214E-02	0.000E+00	FAIL ABUN
HG-203	3.891E-02	4.547E-02	7.505E-02	0.000E+00	FAIL ABUN
BI-207	1.148E-02	5.474E-02	9.499E-02	0.000E+00	FAIL ABUN
PB-210	-4.641E-01	5.067E+00	9.281E+00	0.000E+00	NOT IDENT.
PB-211	-7.511E-01	7.219E-01	1.186E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	8.708E-01	1.148E+00	0.000E+00	FAIL ABUN
RN-219	1.516E-02	3.903E-01	6.856E-01	0.000E+00	FAIL ABUN
RA-223	-1.071E+00	6.977E-01	1.131E+00	0.000E+00	FAIL ABUN
AC-227	3.371E-02	2.582E-01	4.433E-01	0.000E+00	NOT IDENT.
TH-227	3.371E-02	2.582E-01	4.433E-01	0.000E+00	NOT IDENT.
PA-231	3.784E-02	1.395E+00	2.439E+00	0.000E+00	NOT IDENT.
TH-231	-1.071E+00	6.977E-01	1.131E+00	0.000E+00	FAIL ABUN
PA-233	5.046E-03	5.970E-02	1.068E-01	0.000E+00	NOT IDENT.
PA-234	1.073E-01	3.128E-01	5.537E-01	0.000E+00	FAIL ABUN
PA-234M	2.697E+00	5.042E+00	9.109E+00	0.000E+00	NOT IDENT.
TH-234	1.760E+00	1.523E+00	2.867E+00	0.000E+00	FAIL ABUN
U-238	1.760E+00	1.523E+00	2.867E+00	0.000E+00	FAIL ABUN
NP-239	-9.432E-02	3.949E-01	6.980E-01	0.000E+00	FAIL ABUN
AM-241	-1.500E-01	1.788E-01	3.195E-01	0.000E+00	NOT IDENT.
CM-247	-5.473E-03	3.609E-02	6.267E-02	0.000E+00	FAIL ABUN

CF-249	3.594E-02	3.688E-02	6.857E-02	0.000E+00 NOT IDENT.
CF-251	5.306E-02	1.276E-01	2.263E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:18:03.63

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860004.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 16:16:15
Sample ID         : G248860004           Sample quantity  : 1.43700E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.73  0.0%
Energy tolerance : 2.00000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	1-Sigma %Error
K-40	1460.82	1094	10.66*	9.975E-01	2.689E+01	2.689E+01	3.26
CD-109	88.03	139	3.70*	5.226E+00	1.882E+00	1.940E+00	31.76
SN-126	64.28	------	9.60	2.723E+00	------ Line Not Found		------
	86.94	139	8.90	5.226E+00	7.824E-01	7.824E-01	31.76
	87.57	139	37.00*	5.226E+00	1.882E-01	1.882E-01	31.76
CS-135	268.22	56	16.00*	4.224E+00	2.160E-01	2.160E-01	60.65
TL-208	277.37	41	6.60	4.142E+00	3.946E-01	3.946E-01	79.26
	583.19	336	85.00*	2.278E+00	4.531E-01	4.531E-01	7.50
	860.56	------	12.50	1.609E+00	------ Line Not Found		------
BI-211	72.87	373	1.23	4.044E+00	1.956E+01	1.956E+01	10.51
	351.06	522	12.92*	3.442E+00	3.065E+00	3.065E+00	7.47
PB-212	74.82	373	10.28	4.044E+00	2.341E+00	2.341E+00	10.51
	77.11	562	17.10	4.301E+00	1.996E+00	1.996E+00	6.77
	238.63	1164	43.60*	4.638E+00	1.503E+00	1.503E+00	3.59
	300.09	------	3.30	3.896E+00	------ Line Not Found		------
BI-214	609.32	361	45.49*	2.194E+00	9.447E-01	9.447E-01	7.97
	1120.29	------	14.92	1.258E+00	------ Line Not Found		------
	1764.49	47	15.30	8.743E-01	9.193E-01	9.194E-01	23.07
PB-214	74.82	373	5.80	4.044E+00	4.149E+00	4.149E+00	10.51
	77.11	562	9.70	4.301E+00	3.518E+00	3.518E+00	6.77
	242.00	271	7.25	4.597E+00	2.120E+00	2.120E+00	12.86
	295.22	315	18.42	3.950E+00	1.131E+00	1.131E+00	11.05
	351.93	522	35.60*	3.442E+00	1.112E+00	1.112E+00	7.47
RA-224	240.99	271	4.10*	4.597E+00	3.749E+00	3.749E+00	12.86
RA-226	609.32	361	45.49*	2.194E+00	9.447E-01	9.447E-01	7.97
	1120.29	------	14.92	1.258E+00	------ Line Not Found		------
	1764.49	47	15.30	8.743E-01	9.193E-01	9.194E-01	23.07
AC-228	338.32	242	11.27	3.549E+00	1.582E+00	1.582E+00	16.64
	911.20	197	25.80*	1.527E+00	1.307E+00	1.307E+00	11.68
	968.97	133	15.80	1.442E+00	1.528E+00	1.528E+00	15.81
RA-228	338.32	242	11.27	3.549E+00	1.582E+00	1.582E+00	16.64
	911.20	197	25.80*	1.527E+00	1.307E+00	1.307E+00	11.68

Sample ID : G248860004 Acquisition date : 24-MAR-2010 16:16:15

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	1-Sigma %Error
	968.97	133	15.80	1.442E+00	1.528E+00	1.528E+00	15.81
TH-228	74.82	373	10.28	4.044E+00	2.341E+00	2.341E+00	10.51
	77.11	562	17.10	4.301E+00	1.996E+00	1.996E+00	6.77
	238.63	1164	43.60*	4.638E+00	1.503E+00	1.503E+00	3.59
	300.09	------	3.30	3.896E+00	------	Line Not Found	------
TH-229	85.43	139	14.70	5.226E+00	4.737E-01	4.737E-01	31.76
	88.47	139	24.00	5.226E+00	2.902E-01	2.902E-01	31.76
	193.51	------	4.41*	5.353E+00	------	Line Not Found	------
	210.85	173	2.80	5.085E+00	3.167E+00	3.167E+00	19.84
TH-230	609.32	361	45.49*	2.194E+00	9.447E-01	9.447E-01	7.97
	1120.29	------	14.92	1.258E+00	------	Line Not Found	------
	1764.49	47	15.30	8.743E-01	9.193E-01	9.193E-01	23.07
TH-232	338.32	242	11.27	3.549E+00	1.582E+00	1.582E+00	16.64
	911.20	197	25.80*	1.527E+00	1.307E+00	1.307E+00	11.68
	968.97	133	15.80	1.442E+00	1.528E+00	1.528E+00	15.81
U-235	89.96	133	3.47	5.410E+00	1.854E+00	1.854E+00	20.57
	93.35	161	5.60	5.611E+00	1.336E+00	1.336E+00	25.57
	143.76	------	10.96*	6.189E+00	------	Line Not Found	------
	163.33	------	5.08	5.887E+00	------	Line Not Found	------
	185.72	142	57.20	5.490E+00	1.178E-01	1.178E-01	25.17
	205.31	------	5.01	5.150E+00	------	Line Not Found	------
NP-237	86.48	139	12.40*	5.226E+00	5.616E-01	5.616E-01	31.76
	95.86	------	2.68	5.757E+00	------	Line Not Found	------
ANH-511	511.00	129	100.00*	2.546E+00	1.320E-01	1.320E-01	24.07

Flag: "*" = Keyline

Sample ID : G248860004 Acquisition date : 24-MAR-2010 16:16:15

Total number of lines in spectrum 25
Number of unidentified lines 2
Number of lines tentatively identified by NID 23 92.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 1-Sigma Error	1-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	2.689E+01	2.689E+01	0.088E+01	3.26	
CD-109	461.40D	1.03	1.882E+00	1.940E+00	0.616E+00	31.76	
SN-126	2.30E+05Y	1.00	1.882E-01	1.882E-01	0.598E-01	31.76	
CS-135	2.30E+06Y	1.00	2.160E-01	2.160E-01	1.310E-01	60.65	
TL-208	1.41E+10Y	1.00	4.531E-01	4.531E-01	0.340E-01	7.50	
BI-211	7.04E+08Y	1.00	3.065E+00	3.065E+00	0.229E+00	7.47	
PB-212	1.41E+10Y	1.00	1.503E+00	1.503E+00	0.054E+00	3.59	
BI-214	1600.00Y	1.00	9.447E-01	9.447E-01	0.753E-01	7.97	
PB-214	1600.00Y	1.00	1.112E+00	1.112E+00	0.083E+00	7.47	
RA-224	1.41E+10Y	1.00	3.749E+00	3.749E+00	0.482E+00	12.86	
RA-226	1600.00Y	1.00	9.447E-01	9.447E-01	0.753E-01	7.97	
AC-228	1.41E+10Y	1.00	1.307E+00	1.307E+00	0.153E+00	11.68	
RA-228	1.41E+10Y	1.00	1.307E+00	1.307E+00	0.153E+00	11.68	
TH-228	1.41E+10Y	1.00	1.503E+00	1.503E+00	0.054E+00	3.59	
TH-229	7340.00Y	1.00	2.902E-01	2.902E-01	0.921E-01	31.76	K
TH-230	7.54E+04Y	1.00	9.447E-01	9.447E-01	0.753E-01	7.97	
TH-232	1.41E+10Y	1.00	1.307E+00	1.307E+00	0.153E+00	11.68	
U-235	7.04E+08Y	1.00	1.178E-01	1.178E-01	0.296E-01	25.17	K
NP-237	2.14E+06Y	1.00	5.616E-01	5.616E-01	1.783E-01	31.76	
ANH-511	1.00E+09Y	1.00	1.320E-01	1.320E-01	0.318E-01	24.07	
	Total Activity :		4.842E+01	4.847E+01			

Grand Total Activity : 4.842E+01 4.847E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248860004 Acquisition date : 24-MAR-2010 16:16:15

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.78	123	367	1.19	257.56	253	9	1.71E-02	29.5	6.32E+00	
0	462.61	66	89	1.66	925.22	921	9	9.12E-03	28.8	2.76E+00	T
0	726.92	80	78	1.90	1453.85	1448	15	1.11E-02	26.6	1.88E+00	T
0	1436.63	15	18	1.23	2873.26	2865	12	2.10E-03	61.6	1.01E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:18:08.08

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860004.CNF;1  *
* Acquisition date : 24-MAR-2010 16:16:15  Detector SN#    :                *
* Detector ID      : GAM23                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 2.00000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.73         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 4-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248860004            Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.43700E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-JUN-2009 11:17:00.62MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.689E+01	8.756E-01	6.155E-01	0.000E+00	43.684
CD-109	1.940E+00	6.161E-01	1.352E+00	0.000E+00	1.435
SN-126	1.882E-01	5.977E-02	1.320E-01	0.000E+00	1.426
CS-135	2.160E-01	1.310E-01	2.565E-01	0.000E+00	0.842
TL-208	4.531E-01	3.396E-02	4.948E-02	0.000E+00	9.159
BI-211	3.065E+00	2.289E-01	3.236E-01	0.000E+00	9.472
PB-212	1.503E+00	5.399E-02	8.728E-02	0.000E+00	17.222
BI-214	9.447E-01	7.533E-02	1.245E-01	0.000E+00	7.589
PB-214	1.112E+00	8.306E-02	1.190E-01	0.000E+00	9.348
RA-224	3.749E+00	4.822E-01	9.356E-01	0.000E+00	4.008
RA-226	9.447E-01	7.533E-02	1.245E-01	0.000E+00	7.589
AC-228	1.307E+00	1.527E-01	2.124E-01	0.000E+00	6.155
RA-228	1.307E+00	1.527E-01	2.124E-01	0.000E+00	6.155
TH-228	1.503E+00	5.399E-02	8.728E-02	0.000E+00	17.222
TH-229	2.902E-01	9.215E-02	8.639E-01	0.000E+00	0.336
TH-230	9.447E-01	7.533E-02	1.245E-01	0.000E+00	7.589
TH-232	1.307E+00	1.527E-01	2.124E-01	0.000E+00	6.155
U-235	1.178E-01	2.965E-02	3.188E-01	0.000E+00	0.369

Sample ID : G248860004 Acquisition date : 24-MAR-2010 16:16:15

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	5.616E-01	1.783E-01	4.328E-01	0.000E+00	1.298
ANH-511	1.320E-01	3.179E-02	4.671E-02	0.000E+00	2.827

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.325E-02		1.674E-01	5.475E-01	0.000E+00	-0.061
NA-22	2.371E-02		2.198E-02	7.582E-02	0.000E+00	0.313
NA-24	-1.891E+02		1.195E+02	Half-Life too short		
SC-46	1.637E-02		2.208E-02	7.586E-02	0.000E+00	0.216
V-48	-7.260E-02		4.513E-02	1.376E-01	0.000E+00	-0.528
CR-51	1.667E-01		2.096E-01	7.173E-01	0.000E+00	0.232
MN-54	-4.076E-03		1.968E-02	6.526E-02	0.000E+00	-0.062
CO-56	1.573E-02		2.140E-02	7.282E-02	0.000E+00	0.216
CO-57	-2.237E-02		1.304E-02	4.143E-02	0.000E+00	-0.540
CO-58	9.600E-04		1.938E-02	6.507E-02	0.000E+00	0.015
FE-59	-2.061E-02		5.407E-02	1.748E-01	0.000E+00	-0.118
CO-60	-1.491E-02		2.032E-02	6.289E-02	0.000E+00	-0.237
ZN-65	-6.561E-02		5.358E-02	1.672E-01	0.000E+00	-0.392
SE-75	1.203E-02		2.593E-02	7.357E-02	0.000E+00	0.163
SR-85	4.466E-02		2.273E-02	7.054E-02	0.000E+00	0.633
Y-88	2.337E-02		1.723E-02	6.421E-02	0.000E+00	0.364
Y-91	-1.350E+00		1.317E+01	4.288E+01	0.000E+00	-0.031
NB-94	3.043E-02		1.788E-02	6.155E-02	0.000E+00	0.494
NB-95	2.419E-02		2.404E-02	8.033E-02	0.000E+00	0.301
NB-95M	8.159E-01		8.629E-02	3.000E-01	0.000E+00	2.720
ZR-95	4.116E-02		3.922E-02	1.320E-01	0.000E+00	0.312
MO-99	9.768E+00		2.278E+01	7.469E+01	0.000E+00	0.131
TC-99M	4.985E+15		2.266E+16	Half-Life too short		
RU-103	2.468E-02		2.067E-02	7.097E-02	0.000E+00	0.348
RH-106	2.617E-01		1.670E-01	5.752E-01	0.000E+00	0.455
RU-106	2.617E-01		1.670E-01	5.752E-01	0.000E+00	0.455
AG-108M	-1.893E-02		1.491E-02	4.724E-02	0.000E+00	-0.401
AG-110M	1.192E-02		1.864E-02	6.193E-02	0.000E+00	0.193
SN-113	-1.645E-02		2.243E-02	7.287E-02	0.000E+00	-0.226
CD-115	6.572E-06		2.739E-05	Half-Life too short		
SN-117M	-1.860E-02		3.461E-02	1.116E-01	0.000E+00	-0.167
TE-123M	-1.355E-03		1.411E-02	4.591E-02	0.000E+00	-0.030
SB-124	-1.377E-02		3.673E-02	1.174E-01	0.000E+00	-0.117
SB-125	-4.744E-04		4.347E-02	1.439E-01	0.000E+00	-0.003
TE-125M	-1.007E+00		5.270E+00	1.733E+01	0.000E+00	-0.058
I-126	4.084E-03		1.488E-01	4.821E-01	0.000E+00	0.008
SB-126	9.425E-02		1.053E-01	3.097E-01	0.000E+00	0.304
SB-127	-2.084E+00		1.645E+00	5.005E+00	0.000E+00	-0.416
I-131	-5.494E-02		8.948E-02	2.878E-01	0.000E+00	-0.191
TE-132	3.021E-02		1.134E+00	3.648E+00	0.000E+00	0.008
BA-133	-1.916E-02		2.406E-02	6.637E-02	0.000E+00	-0.289

Sample ID : G248860004 Acquisition date : 24-MAR-2010 16:16:15

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	-4.105E-01		1.654E-01	Half-Life too short		
CS-134	7.061E-02		2.528E-02	9.302E-02	0.000E+00	0.759
I-135	-5.093E+14		1.142E+15	Half-Life too short		
CS-136	-3.961E-02		7.285E-02	2.341E-01	0.000E+00	-0.169
BA-137M	-2.235E-03		1.868E-02	6.020E-02	0.000E+00	-0.037
CS-137	-2.361E-03		1.974E-02	6.359E-02	0.000E+00	-0.037
CE-139	-1.747E-02		1.546E-02	4.832E-02	0.000E+00	-0.362
BA-140	7.058E-02		1.620E-01	5.398E-01	0.000E+00	0.131
LA-140	-1.333E-01		5.542E-02	1.452E-01	0.000E+00	-0.918
CE-141	1.449E-02		3.477E-02	1.121E-01	0.000E+00	0.129
CE-143	1.284E-02	+	1.419E-03	Half-Life too short		
CE-144	2.501E-01		1.163E-01	3.533E-01	0.000E+00	0.708
PM-144	-1.957E-02		1.855E-02	5.726E-02	0.000E+00	-0.342
PR-144	-1.473E+00		1.392E+00	4.295E+00	0.000E+00	-0.343
PM-146	6.091E-02		2.158E-02	7.759E-02	0.000E+00	0.785
ND-147	-7.801E-01		3.730E-01	1.117E+00	0.000E+00	-0.699
PM-149	2.695E-04		2.131E-04	Half-Life too short		
EU-152	-1.788E-02		8.034E-02	1.540E-01	0.000E+00	-0.116
GD-153	6.556E-02		4.675E-02	1.411E-01	0.000E+00	0.465
EU-154	6.701E-02		6.210E-02	2.143E-01	0.000E+00	0.313
EU-155	1.006E-01		5.529E-02	1.886E-01	0.000E+00	0.533
TB-160	1.521E-01		7.636E-02	2.759E-01	0.000E+00	0.551
HO-166M	6.009E-02		3.111E-02	1.085E-01	0.000E+00	0.554
TA-182	-5.663E-02		1.182E-01	3.787E-01	0.000E+00	-0.150
IR-192	3.728E-03		1.771E-02	5.977E-02	0.000E+00	0.062
HG-203	3.891E-02		2.320E-02	7.200E-02	0.000E+00	0.540
BI-207	1.148E-02		2.793E-02	9.385E-02	0.000E+00	0.122
PB-210	-4.641E-01		2.585E+00	8.580E+00	0.000E+00	-0.054
PB-211	-7.511E-01		3.683E-01	1.147E+00	0.000E+00	-0.655
BI-212	1.668E+00	+	4.443E-01	1.124E+00	0.000E+00	1.484
RN-219	1.516E-02		1.991E-01	6.629E-01	0.000E+00	0.023
RA-223	-1.071E+00		3.559E-01	1.088E+00	0.000E+00	-0.984
AC-227	3.371E-02		1.317E-01	4.245E-01	0.000E+00	0.079
TH-227	3.371E-02		1.317E-01	4.245E-01	0.000E+00	0.079
PA-231	3.784E-02		7.115E-01	2.341E+00	0.000E+00	0.016
TH-231	-1.071E+00		3.559E-01	1.088E+00	0.000E+00	-0.984
PA-233	5.046E-03		3.046E-02	1.027E-01	0.000E+00	0.049
PA-234	1.073E-01		1.596E-01	5.456E-01	0.000E+00	0.197
PA-234M	2.697E+00		2.573E+00	8.986E+00	0.000E+00	0.300
TH-234	1.760E+00		7.769E-01	2.667E+00	0.000E+00	0.660
U-238	1.760E+00		7.769E-01	2.667E+00	0.000E+00	0.660
NP-239	-9.432E-02		2.015E-01	6.575E-01	0.000E+00	-0.143
AM-241	-1.500E-01		9.123E-02	2.968E-01	0.000E+00	-0.505
CM-247	-5.473E-03		1.842E-02	6.059E-02	0.000E+00	-0.090
CF-249	3.594E-02		1.881E-02	6.624E-02	0.000E+00	0.543
CF-251	5.306E-02		6.508E-02	2.151E-01	0.000E+00	0.247

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248860004            *
* Acquisition date : 24-MAR-2010 16:16:15 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.73     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  4-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248860004           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.4370E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.689E+01	1.716E+00	6.185E-01	8.756E-01
CD-109	1.940E+00	1.208E+00	1.444E+00	6.161E-01
SN-126	1.882E-01	1.172E-01	1.409E-01	5.977E-02
CS-135	2.160E-01	2.568E-01	2.676E-01	1.310E-01
TL-208	4.531E-01	6.657E-02	5.076E-02	3.396E-02
BI-211	3.065E+00	4.486E-01	3.357E-01	2.289E-01
PB-212	1.503E+00	1.058E-01	9.129E-02	5.399E-02
BI-214	9.447E-01	1.477E-01	1.276E-01	7.533E-02
PB-214	1.112E+00	1.628E-01	1.234E-01	8.306E-02
RA-224	3.749E+00	9.452E-01	9.783E-01	4.822E-01
RA-226	9.447E-01	1.477E-01	1.276E-01	7.533E-02
AC-228	1.307E+00	2.993E-01	2.158E-01	1.527E-01
RA-228	1.307E+00	2.993E-01	2.158E-01	1.527E-01
TH-228	1.503E+00	1.058E-01	9.129E-02	5.399E-02
TH-229	1.075E-01	5.184E-01	9.076E-01	2.645E-01
TH-230	9.447E-01	1.476E-01	1.276E-01	7.533E-02
TH-232	1.307E+00	2.993E-01	2.158E-01	1.527E-01
U-235	-1.607E-01	2.015E-01	3.370E-01	1.028E-01
NP-237	5.616E-01	3.496E-01	4.624E-01	1.783E-01
ANH-511	1.320E-01	6.231E-02	4.806E-02	3.179E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-3.325E-02	3.282E-01	5.642E-01	1.674E-01	NOT IDENT.
NA-22	2.371E-02	4.307E-02	7.643E-02	2.198E-02	NOT IDENT.
NA-24	-1.891E+08	2.342E+08	0.000E+00	1.195E+08	SHORT HLIF
SC-46	1.637E-02	4.328E-02	7.710E-02	2.208E-02	NOT IDENT.
V-48	-7.260E-02	8.846E-02	1.395E-01	4.513E-02	NOT IDENT.
CR-51	1.667E-01	4.108E-01	7.456E-01	2.096E-01	NOT IDENT.
MN-54	-4.076E-03	3.856E-02	6.642E-02	1.968E-02	NOT IDENT.

CO-56	1.573E-02	4.195E-02	7.409E-02	2.140E-02	NOT IDENT.
CO-57	-2.237E-02	2.555E-02	4.394E-02	1.304E-02	NOT IDENT.
CO-58	9.600E-04	3.799E-02	6.627E-02	1.938E-02	NOT IDENT.
FE-59	-2.061E-02	1.060E-01	1.768E-01	5.407E-02	NOT IDENT.
CO-60	-1.491E-02	3.982E-02	6.333E-02	2.032E-02	NOT IDENT.
ZN-65	-6.561E-02	1.050E-01	1.690E-01	5.358E-02	NOT IDENT.
SE-75	1.203E-02	5.082E-02	7.678E-02	2.593E-02	NOT IDENT.
SR-85	4.466E-02	4.455E-02	7.257E-02	2.273E-02	NOT IDENT.
Y-88	2.337E-02	3.378E-02	6.418E-02	1.723E-02	NOT IDENT.
Y-91	-1.350E+00	2.581E+01	4.328E+01	1.317E+01	NOT IDENT.
NB-94	3.043E-02	3.504E-02	6.289E-02	1.788E-02	NOT IDENT.
NB-95	2.419E-02	4.712E-02	8.192E-02	2.404E-02	NOT IDENT.
NB-95M	8.159E-01	1.691E-01	3.138E-01	8.629E-02	NOT IDENT.
ZR-95	4.116E-02	7.687E-02	1.346E-01	3.922E-02	NOT IDENT.
MO-99	9.768E+00	4.464E+01	7.622E+01	2.278E+01	NOT IDENT.
TC-99M	4.985E+21	4.441E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.468E-02	4.051E-02	7.307E-02	2.067E-02	FAIL ABUN
RH-106	2.617E-01	3.272E-01	5.893E-01	1.670E-01	NOT IDENT.
RU-106	2.617E-01	3.272E-01	5.893E-01	1.670E-01	NOT IDENT.
AG-108M	-1.893E-02	2.922E-02	4.878E-02	1.491E-02	NOT IDENT.
AG-110M	1.192E-02	3.654E-02	6.337E-02	1.864E-02	NOT IDENT.
SN-113	-1.645E-02	4.396E-02	7.541E-02	2.243E-02	NOT IDENT.
CD-115	6.572E+00	5.368E+01	0.000E+00	2.739E+01	SHORT HLIF
SN-117M	-1.860E-02	6.784E-02	1.177E-01	3.461E-02	NOT IDENT.
TE-123M	-1.355E-03	2.765E-02	4.843E-02	1.411E-02	NOT IDENT.
SB-124	-1.377E-02	7.198E-02	1.175E-01	3.673E-02	NOT IDENT.
SB-125	-4.744E-04	8.521E-02	1.486E-01	4.347E-02	FAIL ABUN
TE-125M	-1.007E+00	1.033E+01	1.842E+01	5.270E+00	NOT IDENT.
I-126	4.084E-03	2.916E-01	4.931E-01	1.488E-01	NOT IDENT.
SB-126	9.425E-02	2.064E-01	3.163E-01	1.053E-01	NOT IDENT.
SB-127	-2.084E+00	3.224E+00	5.117E+00	1.645E+00	NOT IDENT.
I-131	-5.494E-02	1.754E-01	2.983E-01	8.948E-02	NOT IDENT.
TE-132	3.021E-02	2.222E+00	3.820E+00	1.134E+00	NOT IDENT.
BA-133	-1.916E-02	4.715E-02	6.882E-02	2.406E-02	FAIL ABUN
I-133	-4.105E+05	3.242E+05	0.000E+00	1.654E+05	SHORT HLIF
CS-134	7.061E-02	4.955E-02	9.477E-02	2.528E-02	NOT IDENT.
I-135	-5.093E+20	2.238E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.961E-02	1.428E-01	2.370E-01	7.285E-02	NOT IDENT.
BA-137M	-2.235E-03	3.662E-02	6.158E-02	1.868E-02	NOT IDENT.
CS-137	-2.361E-03	3.869E-02	6.506E-02	1.974E-02	NOT IDENT.
CE-139	-1.747E-02	3.031E-02	5.093E-02	1.546E-02	NOT IDENT.
BA-140	7.058E-02	3.175E-01	5.548E-01	1.620E-01	NOT IDENT.
LA-140	-1.333E-01	1.086E-01	1.456E-01	5.542E-02	NOT IDENT.
CE-141	1.449E-02	6.814E-02	1.185E-01	3.477E-02	NOT IDENT.
CE-143	1.284E+04	2.782E+03	0.000E+00	1.419E+03	SHORT HLIF
CE-144	2.501E-01	2.279E-01	3.741E-01	1.163E-01	NOT IDENT.
PM-144	-1.957E-02	3.636E-02	5.851E-02	1.855E-02	NOT IDENT.
PR-144	-1.473E+00	2.728E+00	4.389E+00	1.392E+00	NOT IDENT.
PM-146	6.091E-02	4.230E-02	8.004E-02	2.158E-02	NOT IDENT.
ND-147	-7.801E-01	7.311E-01	1.148E+00	3.730E-01	FAIL ABUN
PM-149	2.695E+02	4.177E+02	0.000E+00	2.131E+02	SHORT HLIF
EU-152	-1.788E-02	1.575E-01	1.598E-01	8.034E-02	NOT IDENT.
GD-153	6.556E-02	9.163E-02	1.504E-01	4.675E-02	NOT IDENT.
EU-154	6.701E-02	1.217E-01	2.160E-01	6.210E-02	NOT IDENT.
EU-155	1.006E-01	1.084E-01	2.007E-01	5.529E-02	FAIL ABUN
TB-160	1.521E-01	1.497E-01	2.804E-01	7.636E-02	FAIL ABUN
HO-166M	6.009E-02	6.098E-02	1.108E-01	3.111E-02	FAIL ABUN
TA-182	-5.663E-02	2.317E-01	3.821E-01	1.182E-01	NOT IDENT.
IR-192	3.728E-03	3.472E-02	6.214E-02	1.771E-02	FAIL ABUN
HG-203	3.891E-02	4.547E-02	7.505E-02	2.320E-02	FAIL ABUN
BI-207	1.148E-02	5.474E-02	9.499E-02	2.793E-02	FAIL ABUN
PB-210	-4.641E-01	5.067E+00	9.281E+00	2.585E+00	NOT IDENT.
PB-211	-7.511E-01	7.219E-01	1.186E+00	3.683E-01	NOT IDENT.
BI-212	1.668E+00	8.708E-01	1.148E+00	4.443E-01	FAIL ABUN
RN-219	1.516E-02	3.903E-01	6.856E-01	1.991E-01	FAIL ABUN
RA-223	-1.071E+00	6.977E-01	1.131E+00	3.559E-01	FAIL ABUN
AC-227	3.371E-02	2.582E-01	4.433E-01	1.317E-01	NOT IDENT.
TH-227	3.371E-02	2.582E-01	4.433E-01	1.317E-01	NOT IDENT.
PA-231	3.784E-02	1.395E+00	2.439E+00	7.115E-01	NOT IDENT.
TH-231	-1.071E+00	6.977E-01	1.131E+00	3.559E-01	FAIL ABUN
PA-233	5.046E-03	5.970E-02	1.068E-01	3.046E-02	NOT IDENT.
PA-234	1.073E-01	3.128E-01	5.537E-01	1.596E-01	FAIL ABUN
PA-234M	2.697E+00	5.042E+00	9.109E+00	2.573E+00	NOT IDENT.
TH-234	1.760E+00	1.523E+00	2.867E+00	7.769E-01	FAIL ABUN
U-238	1.760E+00	1.523E+00	2.867E+00	7.769E-01	FAIL ABUN
NP-239	-9.432E-02	3.949E-01	6.980E-01	2.015E-01	FAIL ABUN
AM-241	-1.500E-01	1.788E-01	3.195E-01	9.123E-02	NOT IDENT.
CM-247	-5.473E-03	3.609E-02	6.267E-02	1.842E-02	FAIL ABUN

CF-249	3.594E-02	3.688E-02	6.857E-02	1.881E-02 NOT IDENT.
CF-251	5.306E-02	1.276E-01	2.263E-01	6.508E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	306.2851
49.72	332.5671
57.36	0.0000
59.54	375.9111
63.29	360.4512
63.29	360.4512
64.28	372.1573
67.75	421.7734
69.67	409.6349
70.83	425.3429
72.81	423.5187
72.87	423.5547
72.87	423.5547
74.82	479.3282
74.82	479.3282
74.82	479.3282
74.97	479.4269
77.11	480.8284
77.11	480.8284
77.11	480.8284
79.69	482.4911
79.80	482.5608
80.12	482.7660
80.19	482.8105
80.57	483.0525
81.00	520.6997
81.07	520.7476
81.07	520.7476
83.79	512.3942
83.79	512.3942
85.43	513.4677
86.48	521.8245
86.55	521.8722
86.79	522.0278
86.94	679.5335
87.57	445.6962
88.03	445.9529
88.47	446.1971
89.96	612.7260
91.11	385.9070
92.59	405.9313
92.59	405.9313
93.35	326.5915
94.67	324.0074
94.87	342.6930
94.87	342.6930
95.86	371.0408
97.43	303.2926
98.44	302.0937
99.53	316.2858
100.11	324.7164
103.18	359.1278
103.37	338.6509
105.31	345.2754
106.12	353.4412
109.28	355.6596
111.00	353.3650
111.76	364.5209
116.30	351.3964
117.23	334.8480
121.12	329.2157
121.78	352.3981
122.06	352.4991
123.07	339.8664
131.20	357.9425
133.52	310.2680
136.00	367.4976

136.47	376.7794
140.51	317.2130
140.51	0.0000
143.76	332.4468
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144.24	320.3508
145.44	281.8918
152.43	294.9768
153.25	297.2463
154.21	300.5859
154.21	300.5859
156.02	337.1514
158.56	298.6310
159.00	285.3051
162.66	293.4609
163.33	290.5145
165.86	303.6134
176.60	292.6720
177.52	278.1922
181.07	320.0405
184.41	283.7297
185.72	286.3455
193.51	272.1270
197.04	287.7752
205.31	260.8065
210.85	225.6792
215.65	242.0127
222.11	231.1747
227.38	247.2664
228.16	250.6676
228.18	250.6711
235.69	238.3636
235.96	247.1717
235.96	247.1717
238.63	210.7339
238.63	210.7339
240.99	211.0635
242.00	179.5235
244.70	222.1565
252.40	235.8890
252.80	222.6562
256.23	207.6008
256.23	207.6008
260.90	0.0000
264.66	174.9956
268.22	205.8026
269.46	213.1221
269.46	213.1221
271.23	215.1475
273.65	215.4639
276.40	196.0377
277.37	178.1565
277.60	161.9824
278.00	171.0232
279.20	180.1538
279.54	187.6984
280.46	192.3073
283.69	176.6207
284.31	174.3762
285.41	158.2156
285.90	0.0000
287.50	166.8155
293.27	0.0000
295.22	263.6904
295.96	266.8359
298.57	186.7597
299.98	188.4294
299.98	188.4294
300.09	202.1193
300.09	202.1193
300.13	202.1247
301.36	187.0575
302.85	213.6992
304.50	203.8441
304.50	203.8441
304.85	178.2850
308.46	168.5693
311.90	148.6991

316.51	154.5981
319.41	158.5310
320.08	156.7457
323.87	228.2127
323.87	228.2127
328.76	169.5252
333.37	193.4687
334.37	182.7305
334.37	182.7305
338.28	143.3843
338.28	143.3843
338.32	143.3862
338.32	143.3862
338.32	143.3862
340.48	135.1605
340.55	135.1658
344.28	144.7676
351.06	140.5884
351.93	143.7762
356.01	144.0757
364.49	133.9986
366.42	134.1269
383.85	137.1832
388.16	102.1450
388.63	105.0331
391.69	130.0483
400.66	109.4745
401.81	122.9844
402.40	127.8242
404.85	153.9473
410.95	132.1903
414.70	113.0867
423.72	98.9930
427.09	106.9183
427.87	105.0113
433.94	123.8204
453.88	91.4640
463.37	103.6837
468.07	117.0824
473.00	100.1394
476.78	99.3030
477.60	97.3504
487.02	91.7451
492.35	0.0000
497.08	78.1028
511.00	95.6546
514.00	95.7683
527.90	0.0000
529.87	0.0000
531.02	95.3907
537.26	72.2220
546.56	0.0000
563.25	79.0942
569.33	96.7723
569.50	96.7791
569.70	101.9342
583.19	62.0815
600.60	88.4967
602.73	92.0362
604.72	88.6233
609.32	104.4312
609.32	104.4312
609.32	104.4312
610.33	104.4678
614.28	87.1765
618.01	96.3687
621.93	74.4720
621.93	74.4720
633.25	78.9716
635.95	91.6920
636.99	75.9094
645.85	79.3085
657.76	78.5618
661.66	83.9780
661.66	83.9780
664.57	0.0000
666.33	79.8486
666.50	78.7876

677.62	79.0731
685.70	77.1363
695.00	94.5592
696.49	91.3792
696.51	91.3792
697.00	91.3937
702.65	73.2444
706.68	94.9072
711.68	61.5714
720.70	57.7721
721.93	0.0000
722.78	104.7781
722.91	104.7828
723.31	93.9559
724.19	61.4493
727.33	62.9561
733.00	48.9298
735.93	76.1814
739.50	65.3687
747.24	66.6145
752.31	66.7158
753.82	84.2545
756.73	61.3293
763.94	79.0207
765.81	76.8684
766.42	86.7669
777.92	78.0619
778.90	73.4912
783.70	62.5547
785.37	73.6296
795.86	64.6210
801.95	68.4340
810.29	59.3268
810.76	54.6991
815.77	57.5624
818.51	58.5357
832.01	70.8835
834.85	74.6729
836.80	0.0000
846.77	51.5066
856.80	71.3691
860.56	51.7013
871.09	70.7031
873.19	70.7428
875.33	0.0000
879.36	49.1298
880.51	62.3772
883.24	78.4998
884.68	63.3918
889.28	59.6803
898.04	60.7682
911.20	47.3677
911.20	47.3677
911.20	47.3677
926.50	52.6121
937.49	72.9045
944.13	57.6538
946.00	55.7592
949.00	57.7258
962.29	62.8832
964.08	66.2221
966.15	69.5698
968.97	31.4939
968.97	31.4939
968.97	31.4939
983.53	61.1364
996.26	63.2742
1001.03	56.5262
1004.73	62.4297
1037.84	46.2121
1038.76	0.0000
1048.07	56.1790
1050.41	60.1561
1050.41	60.1561
1063.66	53.4177
1085.87	56.6753
1099.45	61.8360
1112.07	71.0144

1115.54	84.0820
1120.29	52.1079
1120.29	52.1079
1120.29	52.1079
1120.55	52.1100
1121.30	63.1436
1131.51	0.0000
1173.23	69.9518
1177.93	53.7850
1189.05	70.1904
1204.77	73.4854
1221.41	80.9126
1231.02	96.4709
1235.36	74.9872
1238.28	71.9482
1260.41	0.0000
1271.85	41.3981
1274.44	37.2773
1274.54	37.2788
1291.59	37.4063
1298.22	0.0000
1312.11	30.2567
1332.49	36.6648
1365.19	33.7357
1368.63	0.0000
1384.29	31.7432
1408.01	30.8231
1457.56	0.0000
1460.82	28.9797
1489.16	20.4983
1505.03	19.4744
1596.21	26.3828
1620.50	14.1922
1678.03	0.0000
1690.97	12.4446
1764.49	8.4756
1764.49	8.4756
1764.49	8.4756
1770.23	31.9941
1771.35	12.6060
1791.20	0.0000
1836.06	8.8154

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248860004

Total Uranium Activity	5.1617E+00	ug/g
Total Uranium Counting Unc.	4.5310E+00	ug/g
Total Uranium Tpu	2.3117E-06	ug/g
Total Uranium Mda	8.5295E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248860004       *
*   ANALYST       : MXR1                      DETECTOR   : GAM23            *
*   SAMPLE DATE   :  4-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 16:16:15.51    SAMPLE ALQT:  143.700 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 7.395E+00
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.154E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 2.608E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.269E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:18:55.68

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860005.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 16:16:43
Sample ID         : G248860005           Sample quantity  : 1.27040E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.07  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.63*	117	639	0.79	92.82	89	9	1.62E-02	41.4	
2	0	63.31*	175	807	0.88	126.18	122	9	2.44E-02	30.9	
3	2	74.87*	883	536	0.96	149.29	144	17	1.23E-01	5.4	1.74E+00
4	2	77.14*	1423	433	0.84	153.83	144	17	1.98E-01	3.5	
5	5	84.19*	222	466	1.23	167.94	164	29	3.09E-02	17.0	4.41E+00
6	5	87.32	541	489	1.33	174.19	164	29	7.52E-02	8.3	
7	5	90.00	361	333	1.01	179.54	164	29	5.01E-02	9.7	
8	5	92.78*	512	407	1.35	185.11	164	29	7.11E-02	9.0	
9	0	98.63*	113	490	1.47	196.82	194	10	1.56E-02	38.1	
10	0	129.10	120	397	1.09	257.75	253	8	1.66E-02	30.3	
11	0	186.02*	193	390	1.01	371.57	367	9	2.69E-02	20.4	
12	0	209.37	160	334	1.04	418.27	413	10	2.22E-02	22.8	
13	3	238.67*	1598	191	1.02	476.88	472	17	2.22E-01	2.9	2.48E+00
14	3	241.60	367	261	1.46	482.73	472	17	5.10E-02	11.0	
15	0	269.59	103	307	1.08	538.70	535	12	1.43E-02	35.1	
16	0	277.02	96	210	0.94	553.57	549	10	1.33E-02	30.2	
17	0	295.20*	491	229	1.08	589.92	585	11	6.82E-02	7.6	
18	0	299.91	107	172	1.61	599.35	595	9	1.49E-02	24.0	
19	0	328.01	72	188	1.21	655.54	652	9	1.01E-02	36.0	
20	0	338.37*	304	210	1.09	676.26	670	12	4.22E-02	11.3	
21	0	352.02	820	149	1.17	703.55	699	10	1.14E-01	4.5	
22	0	463.17	91	134	1.28	925.85	919	12	1.26E-02	27.7	
23	0	510.74*	119	177	1.39	1020.98	1014	15	1.65E-02	28.7	
24	0	583.30*	445	108	1.45	1166.10	1160	14	6.17E-02	7.0	
25	0	609.40*	526	88	1.29	1218.30	1213	12	7.31E-02	5.7	
26	0	727.24	112	72	1.25	1453.96	1448	12	1.55E-02	17.9	
27	0	786.15	27	44	1.07	1571.79	1568	7	3.72E-03	46.3	
28	0	794.83	81	49	1.18	1589.15	1584	12	1.12E-02	20.5	
29	0	861.14*	80	61	1.63	1721.75	1715	14	1.11E-02	24.5	
30	0	911.23*	321	60	1.73	1821.93	1817	11	4.45E-02	7.3	
31	4	964.79	71	69	2.63	1929.07	1921	24	9.81E-03	31.7	8.49E-01
32	4	969.06*	202	49	1.71	1937.61	1921	24	2.81E-02	9.7	
33	0	1120.36	104	70	2.04	2240.21	2235	11	1.45E-02	18.5	
34	0	1155.21	34	29	1.14	2309.92	2306	7	4.69E-03	31.8	
35	0	1239.01	81	64	1.44	2477.51	2471	14	1.12E-02	24.1	
36	0	1379.25	31	49	2.05	2758.01	2748	18	4.28E-03	56.5	
37	0	1460.76*	1576	20	2.06	2921.05	2912	17	2.19E-01	2.6	
38	0	1764.43*	86	4	1.68	3528.44	3521	15	1.20E-02	12.5	

Sample ID : G248860005 Acquisition date : 24-MAR-2010 16:16:43

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 18:18:58

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860005.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 4-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 16:16:43
Sample ID : G248860005 Sample quantity : 127.04 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA25 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.07 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.940E+01	3.939E+00	5.731E-01	4.881E-02	68.748
CD-109	+	88.03	*	4.738E+00	9.353E-01	7.089E-01	7.618E-02	6.683
SN-126	+	64.28		5.522E-01	3.528E-01	2.980E-01	4.748E-02	1.853
	+	86.94		1.911E+00	8.600E-01	2.845E-01	1.190E-01	6.716
	+	87.57	*	4.596E-01	9.073E-02	6.863E-02	7.359E-03	6.697
CS-135	+	268.22	*	3.926E-01	2.798E-01	2.149E-01	2.594E-02	1.827
TL-208	+	277.37		9.020E-01	5.594E-01	5.792E-01	8.325E-02	1.557
	+	583.19	*	6.192E-01	1.110E-01	5.877E-02	6.620E-03	10.536
	+	860.56		1.070E+00	5.358E-01	4.770E-01	4.984E-02	2.243
PB-210	+	46.54	*	8.840E-01	7.381E-01	5.808E-01	5.948E-02	1.522
BI-211		72.87		-2.622E-01	1.771E+00	2.554E+00	2.578E-01	-0.103
	+	351.06	*	4.830E+00	6.666E-01	3.250E-01	3.425E-02	14.861
BI-212	+	727.33	*	2.414E+00	9.290E-01	8.379E-01	1.183E-01	2.880
	+	785.37		3.758E+00	3.504E+00	5.997E+00	6.328E-01	0.627
		1620.50		2.977E+00	2.762E+00	5.219E+00	4.338E-01	0.570
PB-212	+	74.82		2.618E+00	4.642E-01	2.945E-01	4.142E-02	8.889
	+	77.11		2.547E+00	3.169E-01	1.785E-01	1.829E-02	14.271
	+	238.63	*	2.029E+00	2.599E-01	8.312E-02	9.497E-03	24.406
	+	300.09		2.163E+00	1.073E+00	1.164E+00	1.461E-01	1.858
BI-214	+	609.32	*	1.424E+00	2.369E-01	1.116E-01	1.352E-02	12.755
	+	1120.29		1.478E+00	5.688E-01	5.635E-01	6.143E-02	2.622
	+	1764.49		1.771E+00	4.658E-01	3.129E-01	2.578E-02	5.658
PB-214	+	74.82		4.640E+00	7.802E-01	5.220E-01	6.728E-02	8.889
	+	77.11		4.490E+00	6.703E-01	3.146E-01	4.138E-02	14.271
	+	242.00		2.830E+00	7.114E-01	5.065E-01	6.086E-02	5.587
	+	295.22		1.748E+00	3.471E-01	2.004E-01	2.569E-02	8.723
	+	351.93	*	1.753E+00	2.606E-01	1.135E-01	1.348E-02	15.446
RA-224	+	240.99	*	5.003E+00	1.224E+00	8.921E-01	9.374E-02	5.609
RA-226	+	609.32	*	1.424E+00	2.369E-01	1.116E-01	1.352E-02	12.755
	+	1120.29		1.478E+00	5.688E-01	5.635E-01	6.143E-02	2.622
	+	1764.49		1.771E+00	4.658E-01	3.129E-01	2.578E-02	5.658
AC-228	+	338.32		1.982E+00	9.476E-01	3.612E-01	1.522E-01	5.488
	+	911.20	*	2.189E+00	4.174E-01	2.436E-01	2.978E-02	8.985
	+	968.97		2.381E+00	7.460E-01	4.327E-01	1.065E-01	5.503

Sample ID : G248860005 Acquisition date : 24-MAR-2010 16:16:43

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	+	338.32		1.982E+00	9.476E-01	3.612E-01	1.522E-01	5.488
	+	911.20	*	2.189E+00	4.174E-01	2.436E-01	2.978E-02	8.985
	+	968.97		2.381E+00	7.460E-01	4.327E-01	1.065E-01	5.503
TH-228	+	74.82		2.618E+00	3.893E-01	2.945E-01	3.012E-02	8.889
	+	77.11		2.547E+00	3.169E-01	1.785E-01	1.829E-02	14.271
	+	238.63	*	2.029E+00	2.599E-01	8.312E-02	9.497E-03	24.406
	+	300.09		2.163E+00	1.689E+00	1.164E+00	7.170E-01	1.858
TH-229	+	85.43		4.706E-01	1.675E-01	1.711E-01	1.816E-02	2.750
	+	88.47		7.086E-01	1.399E-01	1.062E-01	1.144E-02	6.670
		193.51	*	-3.430E-01	4.838E-01	7.622E-01	7.269E-02	-0.450
	+	210.85		2.863E+00	1.337E+00	1.191E+00	1.180E-01	2.405
TH-230	+	609.32	*	1.424E+00	2.247E-01	1.116E-01	1.216E-02	12.755
	+	1120.29		1.478E+00	5.601E-01	5.635E-01	4.845E-02	2.622
	+	1764.49		1.770E+00	4.658E-01	3.129E-01	2.578E-02	5.658
TH-232	+	338.32		1.982E+00	4.932E-01	3.612E-01	3.765E-02	5.488
	+	911.20	*	2.189E+00	4.174E-01	2.436E-01	2.978E-02	8.985
	+	968.97		2.381E+00	7.460E-01	4.327E-01	1.065E-01	5.503
TH-234	+	63.29	*	1.433E+00	9.274E-01	7.720E-01	1.465E-01	1.856
	+	92.59		3.868E+00	1.132E+00	6.604E-01	1.526E-01	5.858
U-235	+	89.96		3.297E+00	1.055E+00	7.397E-01	1.885E-01	4.457
	+	93.35		2.922E+00	8.777E-01	5.006E-01	1.207E-01	5.837
		143.76	*	1.123E-01	1.775E-01	2.994E-01	5.500E-02	0.375
		163.33		2.865E-01	3.866E-01	6.437E-01	1.174E-01	0.445
	+	185.72		1.558E-01	6.529E-02	6.015E-02	5.633E-03	2.589
		205.31		-4.748E-01	5.140E-01	6.754E-01	1.265E-01	-0.703
NP-237	+	86.48	*	1.371E+00	3.950E-01	2.038E-01	4.794E-02	6.730
		95.86		1.237E+00	7.346E-01	9.545E-01	2.388E-01	1.296
U-238	+	63.29	*	1.433E+00	9.274E-01	7.720E-01	1.465E-01	1.856
	+	92.59		3.868E+00	8.142E-01	6.604E-01	7.256E-02	5.858
ANH-511	+	511.00	*	1.253E-01	7.304E-02	4.915E-02	5.059E-03	2.549

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-3.754E-02	3.183E-01	5.136E-01	5.436E-02	-0.073
NA-22		1274.54	*	1.003E-02	5.527E-02	9.228E-02	7.566E-03	0.109
NA-24		1368.63	*	-1.793E+02	5.527E-02	Half-Life too short		
SC-46		889.28	*	-3.222E-02	4.600E-02	6.964E-02	6.669E-03	-0.463
	+	1120.55		2.606E-01	9.880E-02	1.542E-01	1.326E-02	1.690
V-48		944.13		6.540E-01	1.239E+00	2.101E+00	1.971E-01	0.311
		983.53	*	-7.830E-04	1.046E-01	1.683E-01	1.560E-02	-0.005
		1312.11		-4.366E-03	1.183E-01	1.932E-01	1.575E-02	-0.023
CR-51		320.08	*	-1.416E-01	3.764E-01	6.201E-01	6.882E-02	-0.228
MN-54		834.85	*	-6.190E-03	4.457E-02	7.215E-02	7.322E-03	-0.086
CO-56		846.77	*	5.646E-02	4.792E-02	8.527E-02	8.556E-03	0.662
		1037.84		-5.332E-02	3.595E-01	5.951E-01	5.642E-02	-0.090
	+	1238.28		3.332E-01	1.633E-01	2.194E-01	1.861E-02	1.518
		1771.35		-4.612E-02	2.526E-01	3.590E-01	2.955E-02	-0.128

Sample ID : G248860005 Acquisition date : 24-MAR-2010 16:16:43

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57		122.06	*	-1.307E-02	2.002E-02	3.278E-02	4.227E-03	-0.399
		136.47		2.490E-02	1.647E-01	2.776E-01	3.401E-02	0.090
CO-58		810.76	*	2.653E-03	4.841E-02	7.981E-02	8.281E-03	0.033
FE-59		1099.45	*	6.904E-02	1.156E-01	2.018E-01	1.900E-02	0.342
		1291.59		1.550E-01	1.665E-01	2.948E-01	2.769E-02	0.526
CO-60		1173.23		-2.108E-02	5.381E-02	8.630E-02	7.103E-03	-0.244
		1332.49	*	-1.389E-02	4.333E-02	6.820E-02	5.539E-03	-0.204
ZN-65		1115.54	*	4.421E-02	1.254E-01	1.870E-01	1.615E-02	0.236
SE-75		121.12		1.717E-02	1.061E-01	1.802E-01	2.631E-02	0.095
		136.00		-1.152E-02	3.236E-02	5.334E-02	6.329E-03	-0.216
		264.66	*	1.691E-02	4.565E-02	7.079E-02	7.758E-03	0.239
		279.54		1.035E-01	1.181E-01	1.770E-01	2.020E-02	0.585
		400.66		-3.754E-02	2.653E-01	4.351E-01	5.022E-02	-0.086
SR-85		514.00	*	5.294E-02	4.883E-02	7.549E-02	7.788E-03	0.701
Y-88		898.04		1.276E-02	4.948E-02	8.224E-02	7.822E-03	0.155
		1836.06	*	2.949E-02	4.078E-02	7.536E-02	6.158E-03	0.391
Y-91		1204.77	*	4.908E+00	2.821E+01	4.703E+01	3.870E+00	0.104
NB-94		702.65	*	2.594E-02	3.889E-02	6.742E-02	7.403E-03	0.385
		871.09		9.190E-03	3.794E-02	6.320E-02	6.182E-03	0.145
NB-95		765.81	*	4.566E-02	5.450E-02	9.458E-02	1.010E-02	0.483
NB-95M		235.69	*	5.781E-03	1.316E-01	1.890E-01	2.169E-02	0.031
ZR-95		724.19		8.926E-02	1.141E-01	1.777E-01	2.040E-02	0.502
		756.73	*	3.747E-02	8.669E-02	1.478E-01	1.695E-02	0.254
MO-99		140.51		5.140E+00	6.504E+01	1.073E+02	2.673E+01	0.048
		181.07		-9.751E+00	6.349E+01	9.228E+01	1.762E+01	-0.106
		366.42		-2.013E+02	3.389E+02	5.433E+02	5.325E+01	-0.370
		739.50	*	-4.856E+01	4.857E+01	7.249E+01	1.237E+01	-0.670
		777.92		-4.142E+01	1.477E+02	2.378E+02	2.522E+01	-0.174
TC-99M		140.51	*	2.927E+15	1.477E+02	Half-Life too short		
RU-103		497.08	*	-2.004E-03	4.274E-02	6.913E-02	1.035E-02	-0.029
	+	610.33		1.607E+01	3.378E+00	3.455E+00	6.100E-01	4.651
RH-106		621.93	*	1.834E-01	3.313E-01	5.771E-01	8.586E-02	0.318
		1050.41		3.476E+00	3.125E+00	5.652E+00	5.081E-01	0.615
RU-106		621.93	*	1.834E-01	3.308E-01	5.771E-01	6.320E-02	0.318
		1050.41		3.476E+00	3.125E+00	5.652E+00	5.081E-01	0.615
AG-108M		433.94	*	4.331E-03	2.869E-02	4.765E-02	4.681E-03	0.091
		614.28		1.195E-02	3.461E-02	5.280E-02	5.884E-03	0.226
		722.91		-7.046E-03	4.520E-02	6.394E-02	7.113E-03	-0.110
AG-110M		657.76	*	-4.832E-02	4.168E-02	6.354E-02	7.160E-03	-0.760
		677.62		3.193E-01	3.433E-01	6.083E-01	6.840E-02	0.525
		706.68		-5.595E-03	2.545E-01	4.225E-01	4.716E-02	-0.013
		763.94		5.932E-02	2.020E-01	3.399E-01	3.700E-02	0.175
		884.68		-3.240E-02	5.637E-02	8.660E-02	8.555E-03	-0.374
		937.49		-7.890E-02	1.363E-01	2.087E-01	2.022E-02	-0.378
		1384.29		-5.250E-02	2.033E-01	2.697E-01	2.274E-02	-0.195
		1505.03		-8.584E-02	3.176E-01	4.930E-01	4.087E-02	-0.174
SN-113		391.69	*	8.385E-03	4.509E-02	7.560E-02	7.061E-03	0.111
CD-115		260.90		-8.907E-05	4.509E-02	Half-Life too short		
		492.35		2.250E-05	4.509E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		527.90	*	-2.120E-05	4.509E-02	Half-Life too short		
SN-117M		156.02		-8.683E-01	2.552E+00	4.172E+00	4.160E-01	-0.208
		158.56	*	-1.198E-02	5.952E-02	9.776E-02	9.492E-03	-0.123
TE-123M		159.00	*	2.043E-03	2.427E-02	4.036E-02	3.919E-03	0.051
SB-124		602.73		7.961E-03	4.597E-02	7.426E-02	8.072E-03	0.107
		645.85		2.982E-01	5.226E-01	9.122E-01	1.042E-01	0.327
		722.78		-6.627E-02	4.819E-01	6.831E-01	7.557E-02	-0.097
		1690.97	*	3.857E-02	7.498E-02	1.369E-01	1.186E-02	0.282
SB-125		427.87	*	1.394E-02	9.162E-02	1.522E-01	1.470E-02	0.092
	+	463.37		8.389E-01	4.734E-01	5.688E-01	5.942E-02	1.475
		600.60		-1.941E-02	1.905E-01	3.192E-01	3.629E-02	-0.061
		635.95		-9.253E-02	2.950E-01	4.836E-01	5.589E-02	-0.191
TE-125M		109.28	*	6.325E+00	7.552E+00	1.315E+01	1.763E+00	0.481
I-126		388.63		-1.274E-01	2.237E-01	3.578E-01	3.285E-02	-0.356
		666.33	*	-4.640E-01	3.575E-01	5.401E-01	5.979E-02	-0.859
		753.82		2.199E+00	2.678E+00	4.682E+00	5.035E-01	0.470
SB-126		414.70		9.321E-02	1.071E-01	1.837E-01	1.719E-02	0.507
		666.50		-1.061E-01	1.201E-01	1.879E-01	2.080E-02	-0.565
		695.00		-5.804E-02	1.072E-01	1.706E-01	1.877E-02	-0.340
		697.00		-1.804E-01	3.753E-01	6.007E-01	6.607E-02	-0.300
		720.70	*	1.150E-01	2.303E-01	3.499E-01	3.819E-02	0.329
		856.80		2.319E-01	8.207E-01	1.198E+00	1.190E-01	0.194
SB-127		252.40		2.512E+00	9.846E+00	1.588E+01	6.747E+00	0.158
		473.00		3.679E+00	4.307E+00	7.375E+00	1.112E+00	0.499
		685.70	*	-1.903E-01	3.545E+00	5.886E+00	8.647E-01	-0.032
		783.70		1.018E+01	1.196E+01	1.843E+01	2.790E+00	0.552
I-131		80.19		2.918E+00	5.018E+00	6.534E+00	6.832E-01	0.446
		284.31		-1.958E+00	2.278E+00	3.394E+00	3.904E-01	-0.577
		364.49	*	3.842E-03	1.742E-01	2.909E-01	2.995E-02	0.013
		636.99		3.954E-01	2.600E+00	4.410E+00	5.040E-01	0.090
TE-132		49.72		3.414E+00	8.946E+00	1.357E+01	1.790E+00	0.252
		111.76		-8.349E+01	7.247E+01	1.154E+02	1.756E+01	-0.723
		116.30		2.774E+01	6.450E+01	1.107E+02	1.712E+01	0.251
		228.16	*	2.858E-01	2.008E+00	3.260E+00	5.811E-01	0.088
BA-133		81.00		-7.023E-03	6.646E-02	8.292E-02	1.375E-02	-0.085
	+	276.40		8.345E-01	5.204E-01	6.155E-01	9.701E-02	1.356
		302.85		1.227E-02	1.387E-01	2.087E-01	3.070E-02	0.059
		356.01	*	1.162E-02	4.446E-02	6.678E-02	9.315E-03	0.174
		383.85		1.706E-02	2.986E-01	4.976E-01	6.430E-02	0.034
I-133		529.87	*	-1.455E-01	2.986E-01	Half-Life too short		
		875.33		-7.797E+00	2.986E-01	Half-Life too short		
		1298.22		-1.059E+01	2.986E-01	Half-Life too short		
CS-134		563.25		3.092E-01	3.953E-01	6.698E-01	7.184E-02	0.462
		569.33		3.972E-03	2.134E-01	3.427E-01	3.697E-02	0.012
		604.72		9.176E-03	3.990E-02	5.989E-02	6.525E-03	0.153
	+	795.86	*	1.669E-01	7.062E-02	1.047E-01	1.102E-02	1.594
		801.95		-2.130E-01	5.384E-01	7.626E-01	7.983E-02	-0.279
		1365.19		2.127E+00	1.397E+00	2.663E+00	2.287E-01	0.799
I-135		546.56		8.844E+14	1.397E+00	Half-Life too short		

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		836.80		9.574E+15	1.397E+00	Half-Life too short		
		1038.76		-2.359E+15	1.397E+00	Half-Life too short		
		1131.51		2.323E+14	1.397E+00	Half-Life too short		
		1260.41	*	-1.260E+14	1.397E+00	Half-Life too short		
		1457.56		3.548E+17	1.397E+00	Half-Life too short		
		1678.03		8.743E+14	1.397E+00	Half-Life too short		
		1791.20		2.991E+15	1.397E+00	Half-Life too short		
CS-136		153.25		4.444E-01	9.639E-01	1.629E+00	1.902E-01	0.273
		176.60		2.928E-01	5.763E-01	9.678E-01	9.682E-02	0.303
		273.65		1.382E-01	8.767E-01	9.870E-01	1.150E-01	0.140
		340.55		4.850E-01	2.113E-01	3.513E-01	3.744E-02	1.381
		818.51		5.171E-02	1.059E-01	1.808E-01	1.863E-02	0.286
		1048.07	*	9.011E-02	1.717E-01	2.989E-01	2.797E-02	0.301
		1235.36		1.130E+00	1.021E+00	1.604E+00	1.841E-01	0.705
BA-137M		661.66	*	-2.746E-02	4.639E-02	7.741E-02	8.575E-03	-0.355
CS-137		661.66	*	-2.901E-02	4.901E-02	8.178E-02	9.069E-03	-0.355
CE-139		165.86	*	-1.133E-02	2.625E-02	4.249E-02	3.789E-03	-0.267
BA-140		162.66		4.236E-01	9.453E-01	1.568E+00	1.538E-01	0.270
		304.85		-6.289E-01	1.720E+00	2.623E+00	7.879E-01	-0.240
		423.72		-1.856E+00	2.640E+00	4.022E+00	1.332E+00	-0.461
		537.26	*	3.451E-01	4.140E-01	6.790E-01	2.338E-01	0.508
LA-140	+	328.76		7.667E-01	5.590E-01	7.354E-01	8.089E-02	1.043
		487.02		-1.360E-02	1.824E-01	2.949E-01	3.112E-02	-0.046
		815.77		-2.841E-01	4.813E-01	7.466E-01	8.343E-02	-0.381
		1596.21	*	-7.967E-02	1.344E-01	2.066E-01	1.718E-02	-0.386
CE-141		145.44	*	-8.649E-03	6.076E-02	1.007E-01	1.120E-02	-0.086
CE-143		57.36		-1.419E-03	6.076E-02	Half-Life too short		
		293.27	*	6.943E-03	6.076E-02	Half-Life too short		
		664.57		-3.530E-03	6.076E-02	Half-Life too short		
		721.93		-2.734E-03	6.076E-02	Half-Life too short		
CE-144		80.12		1.025E+00	1.772E+00	2.307E+00	2.393E-01	0.444
		133.52	*	1.011E-02	1.610E-01	2.706E-01	4.718E-02	0.037
PM-144		476.78		-2.402E-02	6.263E-02	9.889E-02	1.053E-02	-0.243
		618.01		1.532E-02	3.210E-02	5.584E-02	6.214E-03	0.274
		696.49	*	-1.957E-02	3.679E-02	5.866E-02	6.455E-03	-0.334
PR-144		696.51	*	-1.473E+00	2.761E+00	4.400E+00	4.841E-01	-0.335
		1489.16		-1.339E+01	1.628E+01	2.321E+01	1.922E+00	-0.577
PM-146		453.88	*	1.851E-03	4.051E-02	6.653E-02	7.687E-03	0.028
		633.25		1.120E+00	1.544E+00	2.623E+00	1.018E+00	0.427
		735.93		1.239E-01	1.549E-01	2.663E-01	7.667E-02	0.465
		747.24		-9.163E-02	1.063E-01	1.613E-01	2.575E-02	-0.568
ND-147	+	91.11		1.470E+00	3.306E-01	4.725E-01	5.426E-02	3.110
		319.41		-1.087E-01	4.086E+00	6.876E+00	7.389E-01	-0.016
		531.02	*	-2.037E-01	8.405E-01	1.330E+00	2.138E-01	-0.153
PM-149		285.90	*	2.832E-06	8.405E-01	Half-Life too short		
EU-152		121.78		-2.410E-02	5.638E-02	9.333E-02	1.285E-02	-0.258
		244.70		8.942E-04	3.317E-01	4.733E-01	5.006E-02	0.002
		344.28	*	7.417E-03	9.844E-02	1.539E-01	1.653E-02	0.048
		778.90		-1.140E-01	2.946E-01	4.698E-01	4.978E-02	-0.243

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	964.08		8.960E-01	5.744E-01	6.491E-01	6.055E-02	1.380
		1085.87		1.744E-01	4.442E-01	7.657E-01	6.742E-02	0.228
		1112.07		1.117E-02	3.687E-01	6.028E-01	5.214E-02	0.019
		1408.01		-9.399E-02	1.943E-01	2.952E-01	2.425E-02	-0.318
GD-153		69.67		-4.905E-01	8.583E-01	1.316E+00	1.316E-01	-0.373
	+	97.43	*	1.342E-01	1.033E-01	9.175E-02	1.033E-02	1.463
		103.18		-7.970E-02	9.099E-02	1.332E-01	1.546E-02	-0.599
EU-154		123.07		2.446E-02	3.989E-02	6.862E-02	1.016E-02	0.356
		723.31		-7.750E-03	2.026E-01	2.904E-01	3.371E-02	-0.027
		873.19		5.915E-03	3.092E-01	5.048E-01	6.433E-02	0.012
		996.26		-8.991E-02	4.101E-01	6.451E-01	1.147E-01	-0.139
		1004.73		2.368E-02	2.522E-01	4.089E-01	4.933E-02	0.058
		1274.44	*	7.991E-02	1.514E-01	2.600E-01	2.875E-02	0.307
EU-155	+	86.55		5.584E-01	1.105E-01	1.335E-01	1.434E-02	4.182
		105.31	*	3.744E-02	7.683E-02	1.329E-01	1.571E-02	0.282
TB-160	+	86.79		1.552E+00	3.064E-01	3.828E-01	4.090E-02	4.054
		197.04		-6.708E-02	5.493E-01	8.748E-01	8.411E-02	-0.077
		215.65		6.075E-01	7.207E-01	1.211E+00	1.212E-01	0.502
	+	298.57		3.198E-01	1.574E-01	1.974E-01	2.173E-02	1.620
		879.36	*	1.431E-01	1.550E-01	2.732E-01	2.648E-02	0.524
		962.29		6.510E-01	7.096E-01	1.092E+00	1.020E-01	0.596
	+	966.15		6.565E-01	4.209E-01	6.114E-01	5.700E-02	1.074
		1177.93		6.030E-01	4.712E-01	8.499E-01	6.996E-02	0.709
		1271.85		4.620E-02	9.589E-01	1.583E+00	1.297E-01	0.029
HO-166M		80.57		-3.396E-02	1.947E-01	2.421E-01	2.515E-02	-0.140
		184.41		4.866E-02	3.685E-02	5.933E-02	5.538E-03	0.820
		280.46		4.323E-02	8.865E-02	1.296E-01	1.445E-02	0.334
		410.95		-1.058E-01	2.575E-01	4.144E-01	3.861E-02	-0.255
		711.68	*	4.293E-02	7.020E-02	1.214E-01	1.329E-02	0.354
		752.31		1.508E-01	3.066E-01	5.252E-01	5.652E-02	0.287
		810.29		6.230E-03	7.003E-02	1.158E-01	1.200E-02	0.054
TA-182		67.75		4.246E-02	5.124E-02	8.328E-02	8.286E-03	0.510
	+	100.11		2.943E-01	2.265E-01	2.242E-01	2.561E-02	1.313
		152.43		-1.388E-01	3.139E-01	5.117E-01	5.288E-02	-0.271
		222.11		3.584E-01	3.296E-01	5.583E-01	5.662E-02	0.642
	+	1121.30		7.140E-01	2.706E-01	4.207E-01	3.614E-02	1.697
		1189.05		1.443E-01	3.897E-01	6.630E-01	5.457E-02	0.218
		1221.41	*	-7.310E-02	2.545E-01	4.110E-01	3.380E-02	-0.178
		1231.02		-2.151E-01	6.620E-01	9.811E-01	8.065E-02	-0.219
IR-192	+	295.96		1.356E+00	2.547E-01	3.221E-01	3.568E-02	4.210
		308.46		9.998E-03	9.119E-02	1.550E-01	1.694E-02	0.064
		316.51	*	7.021E-03	3.246E-02	5.540E-02	5.984E-03	0.127
		468.07		-3.346E-02	8.031E-02	1.097E-01	1.149E-02	-0.305
HG-203		70.83		1.675E-01	7.690E-01	1.123E+00	1.893E-01	0.149
		72.87		-7.038E-02	4.756E-01	6.855E-01	1.124E-01	-0.103
		279.20	*	3.549E-02	4.510E-02	6.711E-02	7.605E-03	0.529
BI-207		72.81		-3.493E-02	1.014E-01	1.448E-01	1.462E-02	-0.241
	+	74.97		7.546E-01	1.119E-01	1.460E-01	1.485E-02	5.168
		569.70		2.363E-03	3.313E-02	5.341E-02	5.713E-03	0.044

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1063.66	*	4.280E-02	5.951E-02	1.053E-01	9.396E-03	0.407
		1770.23		1.264E-01	4.747E-01	7.671E-01	6.316E-02	0.165
PB-211		404.85	*	4.185E-01	7.704E-01	1.269E+00	6.157E-01	0.330
		427.09		6.297E-02	1.481E+00	2.443E+00	1.135E+00	0.026
		832.01		-1.231E+00	1.338E+00	1.754E+00	9.146E-01	-0.702
RN-219		271.23		7.220E-01	2.595E-01	4.320E-01	5.337E-02	1.671
		401.81	*	3.688E-02	4.159E-01	6.915E-01	1.053E-01	0.053
RA-223		81.07		-2.167E-02	1.504E-01	1.872E-01	1.949E-02	-0.116
	+	83.79		2.801E-01	9.967E-02	1.363E-01	1.436E-02	2.056
		94.87		2.565E-01	3.311E-01	5.270E-01	5.857E-02	0.487
		144.24		6.428E-01	5.932E-01	1.015E+00	1.209E-01	0.633
		154.21		1.945E-01	3.387E-01	5.744E-01	6.241E-02	0.339
	+	269.46		4.519E-01	3.214E-01	3.385E-01	3.771E-02	1.335
		323.87	*	5.517E-01	6.669E-01	1.041E+00	1.919E-01	0.530
	+	338.28		7.867E+00	2.067E+00	2.513E+00	3.372E-01	3.131
AC-227		79.69		3.863E-01	7.631E-01	1.121E+00	2.036E-01	0.345
		235.96		6.467E-02	1.526E-01	2.243E-01	2.665E-02	0.288
		256.23	*	-1.357E-01	2.261E-01	3.462E-01	4.736E-02	-0.392
	+	299.98		2.380E+00	1.192E+00	1.620E+00	2.336E-01	1.469
		304.50		-7.090E-01	1.671E+00	2.410E+00	4.302E-01	-0.294
		334.37		-1.014E+00	1.851E+00	2.614E+00	4.365E-01	-0.388
TH-227		79.80		6.138E-01	1.150E+00	1.486E+00	3.348E-01	0.413
		235.96		6.467E-02	1.526E-01	2.243E-01	2.551E-02	0.288
		256.23	*	-1.357E-01	2.262E-01	3.462E-01	5.217E-02	-0.392
	+	299.98		2.380E+00	1.192E+00	1.620E+00	2.336E-01	1.469
		304.50		-7.090E-01	1.671E+00	2.410E+00	4.302E-01	-0.294
		334.37		-1.014E+00	1.851E+00	2.614E+00	4.365E-01	-0.388
PA-231		283.69	*	-7.649E-01	1.407E+00	2.142E+00	3.470E-01	-0.357
	+	301.36		1.529E+00	7.639E-01	9.931E-01	1.383E-01	1.539
TH-231		81.07		-2.167E-02	1.504E-01	1.872E-01	1.949E-02	-0.116
	+	83.79		2.801E-01	9.967E-02	1.363E-01	1.436E-02	2.056
		94.87		2.565E-01	3.311E-01	5.270E-01	5.857E-02	0.487
		144.24		6.428E-01	5.932E-01	1.015E+00	1.209E-01	0.633
		154.21		1.945E-01	3.387E-01	5.744E-01	6.241E-02	0.339
	+	269.46		4.519E-01	3.214E-01	3.385E-01	3.771E-02	1.335
		323.87	*	5.517E-01	6.669E-01	1.041E+00	1.919E-01	0.530
	+	338.28		7.867E+00	2.067E+00	2.513E+00	3.372E-01	3.131
PA-233	+	300.13		1.077E+00	5.458E-01	7.285E-01	1.189E-01	1.478
		311.90	*	3.893E-03	5.905E-02	1.001E-01	1.105E-02	0.039
		340.48		1.787E+00	8.108E-01	1.179E+00	2.919E-01	1.515
PA-234		94.67		1.895E-01	1.256E-01	2.017E-01	2.873E-02	0.939
	+	98.44		1.446E-01	1.369E-01	1.109E-01	6.242E-02	1.303
		111.00		-6.306E-02	1.311E-01	2.178E-01	3.221E-02	-0.290
		131.20		4.420E-03	9.408E-02	1.423E-01	1.737E-02	0.031
		569.50		1.258E-02	2.934E-01	4.719E-01	5.047E-02	0.027
		733.00		-1.439E-01	4.555E-01	6.284E-01	1.455E-01	-0.229
		880.51		-1.278E-01	3.166E-01	4.957E-01	4.797E-02	-0.258
		883.24		7.708E-02	3.196E-01	5.251E-01	3.537E-01	0.147
		926.50		-2.181E-01	1.977E-01	2.702E-01	6.907E-02	-0.807

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	-3.848E-02	3.686E-01	5.905E-01	1.129E-01	-0.065
		949.00		9.370E-02	5.402E-01	8.864E-01	8.305E-02	0.106
PA-234M		766.42		1.366E+01	1.538E+01	2.409E+01	1.232E+01	0.567
		1001.03	*	6.419E-02	5.486E+00	8.799E+00	9.216E-01	0.007
NP-239	+	99.53		2.623E-01	2.019E-01	2.052E-01	2.337E-02	1.278
		103.37		2.832E-03	7.808E-02	1.202E-01	1.397E-02	0.024
		106.12		2.030E-03	6.171E-02	1.052E-01	1.240E-02	0.019
		117.23	*	-3.278E-01	3.168E-01	5.101E-01	6.398E-02	-0.643
		228.18		2.465E-02	1.985E-01	3.221E-01	3.305E-02	0.077
	+	277.60		4.123E-01	2.529E-01	3.033E-01	3.377E-02	1.359
AM-241		59.54	*	8.707E-02	5.280E-02	8.249E-02	8.570E-03	1.056
CM-247	+	278.00		1.751E+00	1.074E+00	1.272E+00	1.417E-01	1.376
		287.50		8.967E-01	1.214E+00	1.998E+00	2.218E-01	0.449
		402.40	*	1.261E-02	3.848E-02	6.486E-02	5.978E-03	0.194
CF-249		252.80		-3.253E-02	8.787E-01	1.401E+00	1.503E-01	-0.023
		333.37		6.754E-02	2.266E-01	2.927E-01	3.078E-02	0.231
		388.16	*	-1.485E-02	4.138E-02	6.716E-02	6.176E-03	-0.221
CF-251		177.52	*	1.275E-02	1.180E-01	1.949E-01	1.788E-02	0.065
		227.38		1.343E-01	3.238E-01	5.329E-01	5.461E-02	0.252
		285.41		-7.774E-01	2.144E+00	3.313E+00	3.684E-01	-0.235

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860005       *
* Acquisition date : 24-MAR-2010 16:16:43 Detector SN#    :                 *
* Detector ID       : GAM25               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.07     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  4-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248860005          Analyst initials: MXR1            *
* Batch Number      : 962633              Sample Quantity : 1.2704E+02 GRAM *
* Recovery          :    1.00000          Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.940E+01	3.860E+00	5.730E-01	0.000E+00
CD-109	4.738E+00	9.166E-01	7.387E-01	0.000E+00
SN-126	4.596E-01	8.892E-02	7.151E-02	0.000E+00
CS-135	3.926E-01	2.742E-01	2.203E-01	0.000E+00
TL-208	6.192E-01	1.088E-01	5.957E-02	0.000E+00
PB-210	8.840E-01	7.234E-01	6.106E-01	0.000E+00
BI-211	4.830E+00	6.533E-01	3.320E-01	0.000E+00
BI-212	2.414E+00	9.104E-01	8.466E-01	0.000E+00
PB-212	2.029E+00	2.547E-01	8.538E-02	0.000E+00
BI-214	1.424E+00	2.322E-01	1.131E-01	0.000E+00
PB-214	1.753E+00	2.553E-01	1.159E-01	0.000E+00
RA-224	5.003E+00	1.200E+00	9.162E-01	0.000E+00
RA-226	1.424E+00	2.322E-01	1.131E-01	0.000E+00
AC-228	2.189E+00	4.091E-01	2.453E-01	0.000E+00
RA-228	2.189E+00	4.091E-01	2.453E-01	0.000E+00
TH-228	2.029E+00	2.547E-01	8.538E-02	0.000E+00
TH-229	-3.430E-01	4.741E-01	7.854E-01	0.000E+00
TH-230	1.424E+00	2.202E-01	1.131E-01	0.000E+00
TH-232	2.189E+00	4.091E-01	2.453E-01	0.000E+00
TH-234	1.433E+00	9.088E-01	8.081E-01	0.000E+00
U-235	1.123E-01	1.740E-01	3.098E-01	0.000E+00
NP-237	1.371E+00	3.871E-01	2.124E-01	0.000E+00
U-238	1.433E+00	9.088E-01	8.081E-01	0.000E+00
ANH-511	1.253E-01	7.158E-02	4.992E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-3.754E-02		3.119E-01	5.222E-01	0.000E+00	NOT IDENT.
NA-22	1.003E-02		5.416E-02	9.245E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		2.318E+08	0.000E+00	0.000E+00	SHORT HLIF

SC-46	-3.222E-02	4.508E-02	7.016E-02	0.000E+00	FAIL ABUN
V-48	-7.830E-04	1.025E-01	1.693E-01	0.000E+00	NOT IDENT.
CR-51	-1.416E-01	3.688E-01	6.342E-01	0.000E+00	NOT IDENT.
MN-54	-6.190E-03	4.368E-02	7.275E-02	0.000E+00	NOT IDENT.
CO-56	5.646E-02	4.696E-02	8.596E-02	0.000E+00	FAIL ABUN
CO-57	-1.307E-02	1.962E-02	3.400E-02	0.000E+00	NOT IDENT.
CO-58	2.653E-03	4.744E-02	8.051E-02	0.000E+00	NOT IDENT.
FE-59	6.904E-02	1.133E-01	2.026E-01	0.000E+00	NOT IDENT.
CO-60	-1.389E-02	4.246E-02	6.828E-02	0.000E+00	NOT IDENT.
ZN-65	4.421E-02	1.229E-01	1.877E-01	0.000E+00	NOT IDENT.
SE-75	1.691E-02	4.474E-02	7.260E-02	0.000E+00	NOT IDENT.
SR-85	5.294E-02	4.786E-02	7.667E-02	0.000E+00	NOT IDENT.
Y-88	2.949E-02	3.996E-02	7.507E-02	0.000E+00	NOT IDENT.
Y-91	4.908E+00	2.764E+01	4.716E+01	0.000E+00	NOT IDENT.
NB-94	2.594E-02	3.811E-02	6.815E-02	0.000E+00	NOT IDENT.
NB-95	4.566E-02	5.341E-02	9.549E-02	0.000E+00	NOT IDENT.
NB-95M	5.781E-03	1.290E-01	1.941E-01	0.000E+00	NOT IDENT.
ZR-95	3.747E-02	8.495E-02	1.492E-01	0.000E+00	NOT IDENT.
MO-99	-4.856E+01	4.760E+01	7.322E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.631E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.004E-03	4.188E-02	7.024E-02	0.000E+00	FAIL ABUN
RH-106	1.834E-01	3.247E-01	5.845E-01	0.000E+00	NOT IDENT.
RU-106	1.834E-01	3.242E-01	5.845E-01	0.000E+00	NOT IDENT.
AG-108M	4.331E-03	2.812E-02	4.851E-02	0.000E+00	NOT IDENT.
AG-110M	-4.832E-02	4.085E-02	6.430E-02	0.000E+00	NOT IDENT.
SN-113	8.385E-03	4.419E-02	7.709E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	6.119E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-1.198E-02	5.833E-02	1.010E-01	0.000E+00	NOT IDENT.
TE-123M	2.043E-03	2.378E-02	4.170E-02	0.000E+00	NOT IDENT.
SB-124	3.857E-02	7.348E-02	1.366E-01	0.000E+00	NOT IDENT.
SB-125	1.394E-02	8.979E-02	1.550E-01	0.000E+00	FAIL ABUN
TE-125M	6.325E+00	7.401E+00	1.366E+01	0.000E+00	NOT IDENT.
I-126	-4.640E-01	3.504E-01	5.464E-01	0.000E+00	NOT IDENT.
SB-126	1.150E-01	2.257E-01	3.536E-01	0.000E+00	NOT IDENT.
SB-127	-1.903E-01	3.474E+00	5.953E+00	0.000E+00	NOT IDENT.
I-131	3.842E-03	1.707E-01	2.970E-01	0.000E+00	NOT IDENT.
TE-132	2.858E-01	1.968E+00	3.351E+00	0.000E+00	NOT IDENT.
BA-133	1.162E-02	4.357E-02	6.820E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	3.589E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.921E-02	1.057E-01	0.000E+00	FAIL ABUN
I-135	0.000E+00	2.897E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	9.011E-02	1.683E-01	3.004E-01	0.000E+00	NOT IDENT.
BA-137M	-2.746E-02	4.546E-02	7.833E-02	0.000E+00	NOT IDENT.
CS-137	-2.901E-02	4.803E-02	8.275E-02	0.000E+00	NOT IDENT.
CE-139	-1.133E-02	2.572E-02	4.388E-02	0.000E+00	NOT IDENT.
BA-140	3.451E-01	4.057E-01	6.892E-01	0.000E+00	NOT IDENT.
LA-140	-7.967E-02	1.317E-01	2.062E-01	0.000E+00	FAIL ABUN
CE-141	-8.649E-03	5.954E-02	1.042E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.457E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.011E-02	1.577E-01	2.803E-01	0.000E+00	NOT IDENT.
PM-144	-1.957E-02	3.606E-02	5.931E-02	0.000E+00	NOT IDENT.
PR-144	-1.473E+00	2.706E+00	4.449E+00	0.000E+00	NOT IDENT.
PM-146	1.851E-03	3.970E-02	6.770E-02	0.000E+00	NOT IDENT.
ND-147	-2.037E-01	8.237E-01	1.350E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	4.266E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	7.417E-03	9.647E-02	1.573E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	1.012E-01	9.547E-02	0.000E+00	FAIL ABUN
EU-154	7.991E-02	1.483E-01	2.605E-01	0.000E+00	NOT IDENT.
EU-155	3.744E-02	7.530E-02	1.381E-01	0.000E+00	FAIL ABUN
TB-160	1.431E-01	1.519E-01	2.753E-01	0.000E+00	FAIL ABUN
HO-166M	4.293E-02	6.880E-02	1.227E-01	0.000E+00	NOT IDENT.
TA-182	-7.310E-02	2.494E-01	4.120E-01	0.000E+00	FAIL ABUN
IR-192	7.021E-03	3.181E-02	5.667E-02	0.000E+00	FAIL ABUN
HG-203	3.549E-02	4.420E-02	6.878E-02	0.000E+00	NOT IDENT.
BI-207	4.280E-02	5.832E-02	1.058E-01	0.000E+00	FAIL ABUN
PB-211	4.185E-01	7.550E-01	1.294E+00	0.000E+00	NOT IDENT.
RN-219	3.688E-02	4.075E-01	7.049E-01	0.000E+00	NOT IDENT.
RA-223	5.517E-01	6.535E-01	1.064E+00	0.000E+00	FAIL ABUN
AC-227	-1.357E-01	2.215E-01	3.552E-01	0.000E+00	FAIL ABUN
TH-227	-1.357E-01	2.217E-01	3.552E-01	0.000E+00	FAIL ABUN
PA-231	-7.649E-01	1.379E+00	2.195E+00	0.000E+00	FAIL ABUN
TH-231	5.517E-01	6.535E-01	1.064E+00	0.000E+00	FAIL ABUN
PA-233	3.893E-03	5.787E-02	1.024E-01	0.000E+00	FAIL ABUN
PA-234	-3.848E-02	3.613E-01	5.942E-01	0.000E+00	FAIL ABUN
PA-234M	6.419E-02	5.376E+00	8.848E+00	0.000E+00	NOT IDENT.
NP-239	-3.278E-01	3.105E-01	5.293E-01	0.000E+00	FAIL ABUN
AM-241	0.000E+00	5.174E-02	8.642E-02	0.000E+00	NOT IDENT.
CM-247	1.261E-02	3.772E-02	6.612E-02	0.000E+00	FAIL ABUN

CF-249	-1.485E-02	4.055E-02	6.850E-02	0.000E+00 NOT IDENT.
CF-251	1.275E-02	1.156E-01	2.010E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:18:56.64

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860005.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 16:16:43
Sample ID         : G248860005           Sample quantity  : 1.27040E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.07  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1576	10.66*	1.108E+00	3.940E+01	3.940E+01	10.00
CD-109	88.03	541	3.70*	9.402E+00	4.596E+00	4.738E+00	19.74
SN-126	64.28	175	9.60	9.778E+00	5.522E-01	5.522E-01	63.90
	86.94	541	8.90	9.402E+00	1.911E+00	1.911E+00	45.01
	87.57	541	37.00*	9.402E+00	4.596E-01	4.596E-01	19.74
CS-135	268.22	103	16.00*	4.848E+00	3.926E-01	3.926E-01	71.27
TL-208	277.37	96	6.60	4.743E+00	9.020E-01	9.020E-01	62.02
	583.19	445	85.00*	2.496E+00	6.192E-01	6.192E-01	17.92
	860.56	80	12.50	1.764E+00	1.070E+00	1.070E+00	50.09
PB-210	46.54	117	4.25*	9.198E+00	8.825E-01	8.840E-01	83.49
BI-211	72.87	------	1.23	9.724E+00	------ Line Not Found		------
	351.06	820	12.92*	3.885E+00	4.830E+00	4.830E+00	13.80
BI-212	727.33	112	6.67*	2.050E+00	2.414E+00	2.414E+00	38.49
	785.37	27	1.10	1.913E+00	3.758E+00	3.758E+00	93.25
	1620.50	------	1.47	1.013E+00	------ Line Not Found		------
PB-212	74.82	883	10.28	9.693E+00	2.618E+00	2.618E+00	17.73
	77.11	1423	17.10	9.651E+00	2.547E+00	2.547E+00	12.44
	238.63	1598	43.60*	5.338E+00	2.029E+00	2.029E+00	12.81
	300.09	107	3.30	4.444E+00	2.163E+00	2.163E+00	49.60
BI-214	609.32	526	45.49*	2.400E+00	1.424E+00	1.424E+00	16.64
	1120.29	104	14.92	1.398E+00	1.478E+00	1.478E+00	38.49
	1764.49	86	15.30	9.413E-01	1.770E+00	1.771E+00	26.31
PB-214	74.82	883	5.80	9.693E+00	4.639E+00	4.640E+00	16.82
	77.11	1423	9.70	9.651E+00	4.490E+00	4.490E+00	14.93
	242.00	367	7.25	5.288E+00	2.830E+00	2.830E+00	25.14
	295.22	491	18.42	4.503E+00	1.748E+00	1.748E+00	19.85
	351.93	820	35.60*	3.885E+00	1.753E+00	1.753E+00	14.86
RA-224	240.99	367	4.10*	5.288E+00	5.003E+00	5.003E+00	24.47
RA-226	609.32	526	45.49*	2.400E+00	1.424E+00	1.424E+00	16.64
	1120.29	104	14.92	1.398E+00	1.478E+00	1.478E+00	38.49
	1764.49	86	15.30	9.413E-01	1.770E+00	1.771E+00	26.31
AC-228	338.32	304	11.27	4.017E+00	1.982E+00	1.982E+00	47.80

Sample ID : G248860005 Acquisition date : 24-MAR-2010 16:16:43

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	321	25.80*	1.678E+00	2.189E+00	2.189E+00	19.07
	968.97	202	15.80	1.589E+00	2.381E+00	2.381E+00	31.33
RA-228	338.32	304	11.27	4.017E+00	1.982E+00	1.982E+00	47.80
	911.20	321	25.80*	1.678E+00	2.189E+00	2.189E+00	19.07
	968.97	202	15.80	1.589E+00	2.381E+00	2.381E+00	31.33
TH-228	74.82	883	10.28	9.693E+00	2.618E+00	2.618E+00	14.87
	77.11	1423	17.10	9.651E+00	2.547E+00	2.547E+00	12.44
	238.63	1598	43.60*	5.338E+00	2.029E+00	2.029E+00	12.81
	300.09	107	3.30	4.444E+00	2.163E+00	2.163E+00	78.08
TH-229	85.43	222	14.70	9.487E+00	4.706E-01	4.706E-01	35.58
	88.47	541	24.00	9.402E+00	7.086E-01	7.086E-01	19.74
	193.51	------	4.41*	6.239E+00	------ Line Not Found		------
	210.85	160	2.80	5.894E+00	2.863E+00	2.863E+00	46.69
TH-230	609.32	526	45.49*	2.400E+00	1.424E+00	1.424E+00	15.78
	1120.29	104	14.92	1.398E+00	1.478E+00	1.478E+00	37.91
	1764.49	86	15.30	9.413E-01	1.770E+00	1.770E+00	26.31
TH-232	338.32	304	11.27	4.017E+00	1.982E+00	1.982E+00	24.88
	911.20	321	25.80*	1.678E+00	2.189E+00	2.189E+00	19.07
	968.97	202	15.80	1.589E+00	2.381E+00	2.381E+00	31.33
TH-234	63.29	175	3.70*	9.778E+00	1.433E+00	1.433E+00	64.73
	92.59	512	4.23	9.240E+00	3.868E+00	3.868E+00	29.26
U-235	89.96	361	3.47	9.324E+00	3.297E+00	3.297E+00	32.01
	93.35	512	5.60	9.240E+00	2.922E+00	2.922E+00	30.04
	143.76	------	10.96*	7.568E+00	------ Line Not Found		------
	163.33	------	5.08	6.998E+00	------ Line Not Found		------
	185.72	193	57.20	6.415E+00	1.558E-01	1.558E-01	41.92
	205.31	------	5.01	5.979E+00	------ Line Not Found		------
NP-237	86.48	541	12.40*	9.402E+00	1.371E+00	1.371E+00	28.80
	95.86	------	2.68	9.143E+00	------ Line Not Found		------
U-238	63.29	175	3.70*	9.778E+00	1.433E+00	1.433E+00	64.73
	92.59	512	4.23	9.240E+00	3.868E+00	3.868E+00	21.05
ANH-511	511.00	119	100.00*	2.808E+00	1.253E-01	1.253E-01	58.30

Flag: "*" = Keyline

Sample ID : G248860005 Acquisition date : 24-MAR-2010 16:16:43

Total number of lines in spectrum 38
Number of unidentified lines 3
Number of lines tentatively identified by NID 35 92.11%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.940E+01	3.940E+01	0.394E+01	10.00	
CD-109	461.40D	1.03	4.596E+00	4.738E+00	0.935E+00	19.74	
SN-126	2.30E+05Y	1.00	4.596E-01	4.596E-01	0.907E-01	19.74	
CS-135	2.30E+06Y	1.00	3.926E-01	3.926E-01	2.798E-01	71.27	
TL-208	1.41E+10Y	1.00	6.192E-01	6.192E-01	1.110E-01	17.92	
PB-210	22.20Y	1.00	8.825E-01	8.840E-01	7.381E-01	83.49	
BI-211	7.04E+08Y	1.00	4.830E+00	4.830E+00	0.667E+00	13.80	
BI-212	1.41E+10Y	1.00	2.414E+00	2.414E+00	0.929E+00	38.49	
PB-212	1.41E+10Y	1.00	2.029E+00	2.029E+00	0.260E+00	12.81	
BI-214	1600.00Y	1.00	1.424E+00	1.424E+00	0.237E+00	16.64	
PB-214	1600.00Y	1.00	1.753E+00	1.753E+00	0.261E+00	14.86	
RA-224	1.41E+10Y	1.00	5.003E+00	5.003E+00	1.224E+00	24.47	
RA-226	1600.00Y	1.00	1.424E+00	1.424E+00	0.237E+00	16.64	
AC-228	1.41E+10Y	1.00	2.189E+00	2.189E+00	0.417E+00	19.07	
RA-228	1.41E+10Y	1.00	2.189E+00	2.189E+00	0.417E+00	19.07	
TH-228	1.41E+10Y	1.00	2.029E+00	2.029E+00	0.260E+00	12.81	
TH-229	7340.00Y	1.00	7.086E-01	7.086E-01	1.399E-01	19.74	K
TH-230	7.54E+04Y	1.00	1.424E+00	1.424E+00	0.225E+00	15.78	
TH-232	1.41E+10Y	1.00	2.189E+00	2.189E+00	0.417E+00	19.07	
TH-234	4.47E+09Y	1.00	1.433E+00	1.433E+00	0.927E+00	64.73	
U-235	7.04E+08Y	1.00	1.558E-01	1.558E-01	0.653E-01	41.92	K
NP-237	2.14E+06Y	1.00	1.371E+00	1.371E+00	0.395E+00	28.80	
U-238	4.47E+09Y	1.00	1.433E+00	1.433E+00	0.927E+00	64.73	
ANH-511	1.00E+09Y	1.00	1.253E-01	1.253E-01	0.730E-01	58.30	
	Total Activity :		8.047E+01	8.062E+01			

Grand Total Activity : 8.047E+01 8.062E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G248860005 Acquisition date : 24-MAR-2010 16:16:43

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	98.63	113	490	1.47	196.82	194	10	1.56E-02	76.1	9.05E+00	T
0	129.10	120	397	1.09	257.75	253	8	1.66E-02	60.6	8.03E+00	
0	328.01	72	188	1.21	655.54	652	9	1.01E-02	72.1	4.12E+00	T
0	463.17	91	134	1.28	925.85	919	12	1.26E-02	55.5	3.06E+00	T
0	794.83	81	49	1.18	1589.15	1584	12	1.12E-02	41.0	1.89E+00	T
4	964.79	71	69	2.63	1929.07	1921	24	9.81E-03	63.4	1.59E+00	T
0	1155.21	34	29	1.14	2309.92	2306	7	4.69E-03	63.6	1.36E+00	
0	1239.01	81	64	1.44	2477.51	2471	14	1.12E-02	48.3	1.28E+00	T
0	1379.25	31	49	2.05	2758.01	2748	18	4.28E-03	****	1.17E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:19:00.82

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860005.CNF;1  *
* Acquisition date : 24-MAR-2010 16:16:43  Detector SN#    :                *
* Detector ID      : GAM25                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:02.07         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 4-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248860005            Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.27040E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 7-OCT-2009 09:38:43.34MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.940E+01	3.939E+00	5.731E-01	4.881E-02	68.748
CD-109	4.738E+00	9.353E-01	7.089E-01	7.618E-02	6.683
SN-126	4.596E-01	9.073E-02	6.863E-02	7.359E-03	6.697
CS-135	3.926E-01	2.798E-01	2.149E-01	2.594E-02	1.827
TL-208	6.192E-01	1.110E-01	5.877E-02	6.620E-03	10.536
PB-210	8.840E-01	7.381E-01	5.808E-01	5.948E-02	1.522
BI-211	4.830E+00	6.666E-01	3.250E-01	3.425E-02	14.861
BI-212	2.414E+00	9.290E-01	8.379E-01	1.183E-01	2.880
PB-212	2.029E+00	2.599E-01	8.312E-02	9.497E-03	24.406
BI-214	1.424E+00	2.369E-01	1.116E-01	1.352E-02	12.755
PB-214	1.753E+00	2.606E-01	1.135E-01	1.348E-02	15.446
RA-224	5.003E+00	1.224E+00	8.921E-01	9.374E-02	5.609
RA-226	1.424E+00	2.369E-01	1.116E-01	1.352E-02	12.755
AC-228	2.189E+00	4.174E-01	2.436E-01	2.978E-02	8.985
RA-228	2.189E+00	4.174E-01	2.436E-01	2.978E-02	8.985
TH-228	2.029E+00	2.599E-01	8.312E-02	9.497E-03	24.406
TH-229	7.086E-01	1.399E-01	7.622E-01	7.269E-02	0.930
TH-230	1.424E+00	2.247E-01	1.116E-01	1.216E-02	12.755

Sample ID : G248860005 Acquisition date : 24-MAR-2010 16:16:43

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	2.189E+00	4.174E-01	2.436E-01	2.978E-02	8.985
TH-234	1.433E+00	9.274E-01	7.720E-01	1.465E-01	1.856
U-235	1.558E-01	6.529E-02	2.994E-01	5.500E-02	0.520
NP-237	1.371E+00	3.950E-01	2.038E-01	4.794E-02	6.730
U-238	1.433E+00	9.274E-01	7.720E-01	1.465E-01	1.856
ANH-511	1.253E-01	7.304E-02	4.915E-02	5.059E-03	2.549

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.754E-02		3.183E-01	5.136E-01	5.436E-02	-0.073
NA-22	1.003E-02		5.527E-02	9.228E-02	7.566E-03	0.109
NA-24	-1.793E+02		1.183E+02	Half-Life too short		
SC-46	-3.222E-02		4.600E-02	6.964E-02	6.669E-03	-0.463
V-48	-7.830E-04		1.046E-01	1.683E-01	1.560E-02	-0.005
CR-51	-1.416E-01		3.764E-01	6.201E-01	6.882E-02	-0.228
MN-54	-6.190E-03		4.457E-02	7.215E-02	7.322E-03	-0.086
CO-56	5.646E-02		4.792E-02	8.527E-02	8.556E-03	0.662
CO-57	-1.307E-02		2.002E-02	3.278E-02	4.227E-03	-0.399
CO-58	2.653E-03		4.841E-02	7.981E-02	8.281E-03	0.033
FE-59	6.904E-02		1.156E-01	2.018E-01	1.900E-02	0.342
CO-60	-1.389E-02		4.333E-02	6.820E-02	5.539E-03	-0.204
ZN-65	4.421E-02		1.254E-01	1.870E-01	1.615E-02	0.236
SE-75	1.691E-02		4.565E-02	7.079E-02	7.758E-03	0.239
SR-85	5.294E-02		4.883E-02	7.549E-02	7.788E-03	0.701
Y-88	2.949E-02		4.078E-02	7.536E-02	6.158E-03	0.391
Y-91	4.908E+00		2.821E+01	4.703E+01	3.870E+00	0.104
NB-94	2.594E-02		3.889E-02	6.742E-02	7.403E-03	0.385
NB-95	4.566E-02		5.450E-02	9.458E-02	1.010E-02	0.483
NB-95M	5.781E-03		1.316E-01	1.890E-01	2.169E-02	0.031
ZR-95	3.747E-02		8.669E-02	1.478E-01	1.695E-02	0.254
MO-99	-4.856E+01		4.857E+01	7.249E+01	1.237E+01	-0.670
TC-99M	2.927E+15		1.852E+16	Half-Life too short		
RU-103	-2.004E-03		4.274E-02	6.913E-02	1.035E-02	-0.029
RH-106	1.834E-01		3.313E-01	5.771E-01	8.586E-02	0.318
RU-106	1.834E-01		3.308E-01	5.771E-01	6.320E-02	0.318
AG-108M	4.331E-03		2.869E-02	4.765E-02	4.681E-03	0.091
AG-110M	-4.832E-02		4.168E-02	6.354E-02	7.160E-03	-0.760
SN-113	8.385E-03		4.509E-02	7.560E-02	7.061E-03	0.111
CD-115	-2.120E-05		3.122E-05	Half-Life too short		
SN-117M	-1.198E-02		5.952E-02	9.776E-02	9.492E-03	-0.123
TE-123M	2.043E-03		2.427E-02	4.036E-02	3.919E-03	0.051
SB-124	3.857E-02		7.498E-02	1.369E-01	1.186E-02	0.282
SB-125	1.394E-02		9.162E-02	1.522E-01	1.470E-02	0.092
TE-125M	6.325E+00		7.552E+00	1.315E+01	1.763E+00	0.481
I-126	-4.640E-01		3.575E-01	5.401E-01	5.979E-02	-0.859
SB-126	1.150E-01		2.303E-01	3.499E-01	3.819E-02	0.329

Sample ID : G248860005 Acquisition date : 24-MAR-2010 16:16:43

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-127	-1.903E-01		3.545E+00	5.886E+00	8.647E-01	-0.032
I-131	3.842E-03		1.742E-01	2.909E-01	2.995E-02	0.013
TE-132	2.858E-01		2.008E+00	3.260E+00	5.811E-01	0.088
BA-133	1.162E-02		4.446E-02	6.678E-02	9.315E-03	0.174
I-133	-1.455E-01		1.831E-01	Half-Life too short		
CS-134	1.669E-01	+	7.062E-02	1.047E-01	1.102E-02	1.594
I-135	-1.260E+14		1.478E+15	Half-Life too short		
CS-136	9.011E-02		1.717E-01	2.989E-01	2.797E-02	0.301
BA-137M	-2.746E-02		4.639E-02	7.741E-02	8.575E-03	-0.355
CS-137	-2.901E-02		4.901E-02	8.178E-02	9.069E-03	-0.355
CE-139	-1.133E-02		2.625E-02	4.249E-02	3.789E-03	-0.267
BA-140	3.451E-01		4.140E-01	6.790E-01	2.338E-01	0.508
LA-140	-7.967E-02		1.344E-01	2.066E-01	1.718E-02	-0.386
CE-141	-8.649E-03		6.076E-02	1.007E-01	1.120E-02	-0.086
CE-143	6.943E-03		1.254E-03	Half-Life too short		
CE-144	1.011E-02		1.610E-01	2.706E-01	4.718E-02	0.037
PM-144	-1.957E-02		3.679E-02	5.866E-02	6.455E-03	-0.334
PR-144	-1.473E+00		2.761E+00	4.400E+00	4.841E-01	-0.335
PM-146	1.851E-03		4.051E-02	6.653E-02	7.687E-03	0.028
ND-147	-2.037E-01		8.405E-01	1.330E+00	2.138E-01	-0.153
PM-149	2.832E-06		2.176E-04	Half-Life too short		
EU-152	7.417E-03		9.844E-02	1.539E-01	1.653E-02	0.048
GD-153	1.342E-01	+	1.033E-01	9.175E-02	1.033E-02	1.463
EU-154	7.991E-02		1.514E-01	2.600E-01	2.875E-02	0.307
EU-155	3.744E-02		7.683E-02	1.329E-01	1.571E-02	0.282
TB-160	1.431E-01		1.550E-01	2.732E-01	2.648E-02	0.524
HO-166M	4.293E-02		7.020E-02	1.214E-01	1.329E-02	0.354
TA-182	-7.310E-02		2.545E-01	4.110E-01	3.380E-02	-0.178
IR-192	7.021E-03		3.246E-02	5.540E-02	5.984E-03	0.127
HG-203	3.549E-02		4.510E-02	6.711E-02	7.605E-03	0.529
BI-207	4.280E-02		5.951E-02	1.053E-01	9.396E-03	0.407
PB-211	4.185E-01		7.704E-01	1.269E+00	6.157E-01	0.330
RN-219	3.688E-02		4.159E-01	6.915E-01	1.053E-01	0.053
RA-223	5.517E-01		6.669E-01	1.041E+00	1.919E-01	0.530
AC-227	-1.357E-01		2.261E-01	3.462E-01	4.736E-02	-0.392
TH-227	-1.357E-01		2.262E-01	3.462E-01	5.217E-02	-0.392
PA-231	-7.649E-01		1.407E+00	2.142E+00	3.470E-01	-0.357
TH-231	5.517E-01		6.669E-01	1.041E+00	1.919E-01	0.530
PA-233	3.893E-03		5.905E-02	1.001E-01	1.105E-02	0.039
PA-234	-3.848E-02		3.686E-01	5.905E-01	1.129E-01	-0.065
PA-234M	6.419E-02		5.486E+00	8.799E+00	9.216E-01	0.007
NP-239	-3.278E-01		3.168E-01	5.101E-01	6.398E-02	-0.643
AM-241	8.707E-02		5.280E-02	8.249E-02	8.570E-03	1.056
CM-247	1.261E-02		3.848E-02	6.486E-02	5.978E-03	0.194
CF-249	-1.485E-02		4.138E-02	6.716E-02	6.176E-03	-0.221
CF-251	1.275E-02		1.180E-01	1.949E-01	1.788E-02	0.065

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248860005            *
* Acquisition date : 24-MAR-2010 16:16:43 Detector SN#    :                 *
* Detector ID      : GAM25                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.07     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  4-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248860005           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.2704E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.940E+01	3.860E+00	2.867E-01	1.970E+00
CD-109	4.738E+00	9.166E-01	3.696E-01	4.677E-01
SN-126	4.596E-01	8.892E-02	3.578E-02	4.537E-02
CS-135	3.926E-01	2.742E-01	1.102E-01	1.399E-01
TL-208	6.192E-01	1.088E-01	2.980E-02	5.549E-02
PB-210	8.840E-01	7.234E-01	3.055E-01	3.691E-01
BI-211	4.830E+00	6.533E-01	1.661E-01	3.333E-01
BI-212	2.414E+00	9.104E-01	4.236E-01	4.645E-01
PB-212	2.029E+00	2.547E-01	4.272E-02	1.300E-01
BI-214	1.424E+00	2.322E-01	5.658E-02	1.184E-01
PB-214	1.753E+00	2.553E-01	5.800E-02	1.303E-01
RA-224	5.003E+00	1.200E+00	4.584E-01	6.121E-01
RA-226	1.424E+00	2.322E-01	5.658E-02	1.184E-01
AC-228	2.189E+00	4.091E-01	1.227E-01	2.087E-01
RA-228	2.189E+00	4.091E-01	1.227E-01	2.087E-01
TH-228	2.029E+00	2.547E-01	4.272E-02	1.300E-01
TH-229	-3.430E-01	4.741E-01	3.929E-01	2.419E-01
TH-230	1.424E+00	2.202E-01	5.657E-02	1.123E-01
TH-232	2.189E+00	4.091E-01	1.227E-01	2.087E-01
TH-234	1.433E+00	9.088E-01	4.043E-01	4.637E-01
U-235	1.123E-01	1.740E-01	1.550E-01	8.877E-02
NP-237	1.371E+00	3.871E-01	1.063E-01	1.975E-01
U-238	1.433E+00	9.088E-01	4.043E-01	4.637E-01
ANH-511	1.253E-01	7.158E-02	2.498E-02	3.652E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-3.754E-02	3.119E-01	2.612E-01	1.591E-01	NOT IDENT.
NA-22	1.003E-02	5.416E-02	4.625E-02	2.763E-02	NOT IDENT.
NA-24	-1.793E+08	2.318E+08	0.000E+00	1.183E+08	SHORT HLIF

SC-46	-3.222E-02	4.508E-02	3.510E-02	2.300E-02	FAIL ABUN
V-48	-7.830E-04	1.025E-01	8.470E-02	5.229E-02	NOT IDENT.
CR-51	-1.416E-01	3.688E-01	3.173E-01	1.882E-01	NOT IDENT.
MN-54	-6.190E-03	4.368E-02	3.640E-02	2.228E-02	NOT IDENT.
CO-56	5.646E-02	4.696E-02	4.301E-02	2.396E-02	FAIL ABUN
CO-57	-1.307E-02	1.962E-02	1.701E-02	1.001E-02	NOT IDENT.
CO-58	2.653E-03	4.744E-02	4.028E-02	2.421E-02	NOT IDENT.
FE-59	6.904E-02	1.133E-01	1.014E-01	5.780E-02	NOT IDENT.
CO-60	-1.389E-02	4.246E-02	3.416E-02	2.166E-02	NOT IDENT.
ZN-65	4.421E-02	1.229E-01	9.390E-02	6.270E-02	NOT IDENT.
SE-75	1.691E-02	4.474E-02	3.632E-02	2.283E-02	NOT IDENT.
SR-85	5.294E-02	4.786E-02	3.836E-02	2.442E-02	NOT IDENT.
Y-88	2.949E-02	3.996E-02	3.756E-02	2.039E-02	NOT IDENT.
Y-91	4.908E+00	2.764E+01	2.359E+01	1.410E+01	NOT IDENT.
NB-94	2.594E-02	3.811E-02	3.410E-02	1.944E-02	NOT IDENT.
NB-95	4.566E-02	5.341E-02	4.777E-02	2.725E-02	NOT IDENT.
NB-95M	5.781E-03	1.290E-01	9.713E-02	6.579E-02	NOT IDENT.
ZR-95	3.747E-02	8.495E-02	7.464E-02	4.334E-02	NOT IDENT.
MO-99	-4.856E+01	4.760E+01	3.663E+01	2.429E+01	NOT IDENT.
TC-99M	2.927E+21	3.631E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.004E-03	4.188E-02	3.514E-02	2.137E-02	FAIL ABUN
RH-106	1.834E-01	3.247E-01	2.924E-01	1.656E-01	NOT IDENT.
RU-106	1.834E-01	3.242E-01	2.924E-01	1.654E-01	NOT IDENT.
AG-108M	4.331E-03	2.812E-02	2.427E-02	1.435E-02	NOT IDENT.
AG-110M	-4.832E-02	4.085E-02	3.217E-02	2.084E-02	NOT IDENT.
SN-113	8.385E-03	4.419E-02	3.857E-02	2.255E-02	NOT IDENT.
CD-115	-2.120E+01	6.119E+01	0.000E+00	3.122E+01	SHORT HLIF
SN-117M	-1.198E-02	5.833E-02	5.054E-02	2.976E-02	NOT IDENT.
TE-123M	2.043E-03	2.378E-02	2.086E-02	1.213E-02	NOT IDENT.
SB-124	3.857E-02	7.348E-02	6.833E-02	3.749E-02	NOT IDENT.
SB-125	1.394E-02	8.979E-02	7.757E-02	4.581E-02	FAIL ABUN
TE-125M	6.325E+00	7.401E+00	6.832E+00	3.776E+00	NOT IDENT.
I-126	-4.640E-01	3.504E-01	2.734E-01	1.788E-01	NOT IDENT.
SB-126	1.150E-01	2.257E-01	1.769E-01	1.152E-01	NOT IDENT.
SB-127	-1.903E-01	3.474E+00	2.978E+00	1.773E+00	NOT IDENT.
I-131	3.842E-03	1.707E-01	1.486E-01	8.710E-02	NOT IDENT.
TE-132	2.858E-01	1.968E+00	1.677E+00	1.004E+00	NOT IDENT.
BA-133	1.162E-02	4.357E-02	3.412E-02	2.223E-02	FAIL ABUN
I-133	-1.455E+05	3.589E+05	0.000E+00	1.831E+05	SHORT HLIF
CS-134	1.669E-01	6.921E-02	5.286E-02	3.531E-02	FAIL ABUN
I-135	-1.260E+20	2.897E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	9.011E-02	1.683E-01	1.503E-01	8.586E-02	NOT IDENT.
BA-137M	-2.746E-02	4.546E-02	3.919E-02	2.320E-02	NOT IDENT.
CS-137	-2.901E-02	4.803E-02	4.140E-02	2.450E-02	NOT IDENT.
CE-139	-1.133E-02	2.572E-02	2.195E-02	1.312E-02	NOT IDENT.
BA-140	3.451E-01	4.057E-01	3.448E-01	2.070E-01	NOT IDENT.
LA-140	-7.967E-02	1.317E-01	1.032E-01	6.718E-02	FAIL ABUN
CE-141	-8.649E-03	5.954E-02	5.214E-02	3.038E-02	NOT IDENT.
CE-143	6.943E+03	2.457E+03	0.000E+00	1.254E+03	SHORT HLIF
CE-144	1.011E-02	1.577E-01	1.402E-01	8.048E-02	NOT IDENT.
PM-144	-1.957E-02	3.606E-02	2.967E-02	1.840E-02	NOT IDENT.
PR-144	-1.473E+00	2.706E+00	2.226E+00	1.380E+00	NOT IDENT.
PM-146	1.851E-03	3.970E-02	3.387E-02	2.026E-02	NOT IDENT.
ND-147	-2.037E-01	8.237E-01	6.755E-01	4.203E-01	FAIL ABUN
PM-149	2.832E+00	4.266E+02	0.000E+00	2.176E+02	SHORT HLIF
EU-152	7.417E-03	9.647E-02	7.868E-02	4.922E-02	FAIL ABUN
GD-153	1.342E-01	1.012E-01	4.776E-02	5.165E-02	FAIL ABUN
EU-154	7.991E-02	1.483E-01	1.303E-01	7.569E-02	NOT IDENT.
EU-155	3.744E-02	7.530E-02	6.911E-02	3.842E-02	FAIL ABUN
TB-160	1.431E-01	1.519E-01	1.377E-01	7.749E-02	FAIL ABUN
HO-166M	4.293E-02	6.880E-02	6.137E-02	3.510E-02	NOT IDENT.
TA-182	-7.310E-02	2.494E-01	2.061E-01	1.272E-01	FAIL ABUN
IR-192	7.021E-03	3.181E-02	2.835E-02	1.623E-02	FAIL ABUN
HG-203	3.549E-02	4.420E-02	3.441E-02	2.255E-02	NOT IDENT.
BI-207	4.280E-02	5.832E-02	5.291E-02	2.976E-02	FAIL ABUN
PB-211	4.185E-01	7.550E-01	6.472E-01	3.852E-01	NOT IDENT.
RN-219	3.688E-02	4.075E-01	3.527E-01	2.079E-01	NOT IDENT.
RA-223	5.517E-01	6.535E-01	5.325E-01	3.334E-01	FAIL ABUN
AC-227	-1.357E-01	2.215E-01	1.777E-01	1.130E-01	FAIL ABUN
TH-227	-1.357E-01	2.217E-01	1.777E-01	1.131E-01	FAIL ABUN
PA-231	-7.649E-01	1.379E+00	1.098E+00	7.035E-01	FAIL ABUN
TH-231	5.517E-01	6.535E-01	5.325E-01	3.334E-01	FAIL ABUN
PA-233	3.893E-03	5.787E-02	5.122E-02	2.952E-02	FAIL ABUN
PA-234	-3.848E-02	3.613E-01	2.973E-01	1.843E-01	FAIL ABUN
PA-234M	6.419E-02	5.376E+00	4.426E+00	2.743E+00	NOT IDENT.
NP-239	-3.278E-01	3.105E-01	2.648E-01	1.584E-01	FAIL ABUN
AM-241	8.707E-02	5.174E-02	4.324E-02	2.640E-02	NOT IDENT.
CM-247	1.261E-02	3.772E-02	3.308E-02	1.924E-02	FAIL ABUN

CF-249	-1.485E-02	4.055E-02	3.427E-02	2.069E-02 NOT IDENT.
CF-251	1.275E-02	1.156E-01	1.006E-01	5.900E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	271.7196
49.72	283.9210
57.36	0.0000
59.54	337.6362
63.29	413.2163
63.29	413.2163
64.28	414.7180
67.75	415.2540
69.67	481.0931
70.83	447.0467
72.81	497.2346
72.87	497.3342
72.87	497.3342
74.82	456.1846
74.82	456.1846
74.82	456.1846
74.97	456.4072
77.11	459.5654
77.11	459.5654
77.11	459.5654
79.69	394.1374
79.80	391.0534
80.12	391.4415
80.19	391.5255
80.57	421.0213
81.00	392.5044
81.07	392.5885
81.07	392.5885
83.79	298.1010
83.79	298.1010
85.43	299.5586
86.48	300.4838
86.55	300.5453
86.79	300.7538
86.94	300.8878
87.57	301.4388
88.03	301.8391
88.47	302.2225
89.96	303.5107
91.11	304.4992
92.59	353.3778
92.59	353.3778
93.35	354.1222
94.67	355.4088
94.87	355.6024
94.87	355.6024
95.86	187.1307
97.43	187.9222
98.44	278.8227
99.53	279.6263
100.11	280.0524
103.18	342.8663
103.37	296.6072
105.31	296.3427
106.12	312.5296
109.28	270.4837
111.00	283.0094
111.76	301.9623
116.30	260.8628
117.23	320.1160
121.12	270.0470
121.78	277.6376
122.06	286.8028
123.07	248.7043
131.20	280.6650
133.52	266.3719
136.00	263.1183

136.47	248.5374
140.51	260.8757
140.51	0.0000
143.76	277.6308
144.24	261.8806
144.24	261.8806
145.44	305.9352
152.43	299.5508
153.25	271.2573
154.21	271.7467
154.21	271.7467
156.02	287.1172
158.56	253.6180
159.00	240.2576
162.66	241.8570
163.33	230.4303
165.86	258.9324
176.60	237.7918
177.52	259.1739
181.07	264.2303
184.41	259.6050
185.72	258.6342
193.51	264.9366
197.04	241.6100
205.31	260.3401
210.85	202.3906
215.65	204.8603
222.11	185.3189
227.38	196.3872
228.16	203.0776
228.18	203.0834
235.69	216.0670
235.96	216.1436
235.96	216.1436
238.63	198.2873
238.63	198.2873
240.99	198.9023
242.00	199.1655
244.70	187.1649
252.40	163.9230
252.80	170.7009
256.23	168.0733
256.23	168.0733
260.90	0.0000
264.66	161.6697
268.22	148.3816
269.46	140.7449
269.46	140.7449
271.23	141.0416
273.65	164.7920
276.40	173.5915
277.37	173.7883
277.60	173.8345
278.00	177.7102
279.20	158.9532
279.54	145.1876
280.46	148.8046
283.69	172.5147
284.31	183.0636
285.41	172.8542
285.90	0.0000
287.50	151.1694
293.27	0.0000
295.22	146.3820
295.96	146.5039
298.57	105.9558
299.98	154.2260
299.98	154.2260
300.09	154.2446
300.09	154.2446
300.13	154.2526
301.36	160.1284
302.85	146.1941
304.50	160.6719
304.50	160.6719
304.85	156.4653
308.46	141.0105
311.90	143.3179

316.51	130.5124
319.41	132.7141
320.08	140.9370
323.87	127.7031
323.87	127.7031
328.76	175.0107
333.37	146.5210
334.37	162.8009
334.37	162.8009
338.28	141.7173
338.28	141.7173
338.32	141.7220
338.32	141.7220
338.32	141.7220
340.48	125.4248
340.55	125.4331
344.28	135.7656
351.06	141.6279
351.93	130.5557
356.01	124.3237
364.49	128.3363
366.42	134.2387
383.85	133.4982
388.16	144.6121
388.63	143.7094
391.69	119.9188
400.66	130.5997
401.81	129.7529
402.40	127.8657
404.85	126.1773
410.95	145.5114
414.70	112.4344
423.72	125.2002
427.09	104.6203
427.87	109.6710
433.94	99.1888
453.88	93.6340
463.37	86.1149
468.07	105.3516
473.00	93.9687
476.78	92.1629
477.60	82.8931
487.02	92.8568
492.35	0.0000
497.08	86.1766
511.00	100.8252
514.00	102.0996
527.90	0.0000
529.87	0.0000
531.02	98.9910
537.26	90.7650
546.56	0.0000
563.25	83.5309
569.33	91.5791
569.50	91.5893
569.70	91.5994
583.19	82.3625
600.60	100.8000
602.73	98.0024
604.72	94.7358
609.32	78.7142
609.32	78.7142
609.32	78.7142
610.33	55.8267
614.28	58.9840
618.01	70.9370
621.93	75.6585
621.93	75.6585
633.25	70.6554
635.95	90.0662
636.99	81.8448
645.85	65.6247
657.76	118.1788
661.66	101.6499
661.66	101.6499
664.57	0.0000
666.33	132.7679
666.50	119.6906

677.62	69.6207
685.70	81.2675
695.00	85.4736
696.49	89.3436
696.51	89.3459
697.00	87.4674
702.65	88.6838
706.68	100.3396
711.68	83.3573
720.70	68.9897
721.93	0.0000
722.78	80.3080
722.91	80.3141
723.31	77.1172
724.19	67.5083
727.33	69.5496
733.00	75.8873
735.93	58.2129
739.50	86.5056
747.24	83.9172
752.31	72.3903
753.82	69.5093
756.73	75.4923
763.94	99.3750
765.81	92.5726
766.42	91.6150
777.92	82.2239
778.90	82.2644
783.70	77.8189
785.37	84.5103
795.86	66.6146
801.95	84.4647
810.29	77.4662
810.76	76.4769
815.77	74.6377
818.51	58.5749
832.01	93.4914
834.85	86.4900
836.80	0.0000
846.77	57.2893
856.80	68.5091
860.56	58.6727
871.09	58.9455
873.19	60.0348
875.33	0.0000
879.36	45.6672
880.51	67.4962
883.24	57.1793
884.68	68.6587
889.28	69.8380
898.04	63.8236
911.20	58.9203
911.20	58.9203
911.20	58.9203
926.50	67.7703
937.49	78.7153
944.13	54.3979
946.00	72.5854
949.00	68.4000
962.29	62.6799
964.08	62.3656
966.15	62.4180
968.97	62.4881
968.97	62.4881
968.97	62.4881
983.53	63.9335
996.26	63.1642
1001.03	64.3728
1004.73	64.4650
1037.84	61.7793
1038.76	0.0000
1048.07	66.6445
1050.41	57.4388
1050.41	57.4388
1063.66	53.9974
1085.87	58.1906
1099.45	60.3594
1112.07	70.2759

1115.54	73.1721
1120.29	73.1588
1120.29	73.1588
1120.29	73.1588
1120.55	77.9160
1121.30	58.6557
1131.51	0.0000
1173.23	79.3407
1177.93	63.9590
1189.05	74.8977
1204.77	76.2671
1221.41	93.3958
1231.02	95.9868
1235.36	72.7965
1238.28	93.2000
1260.41	0.0000
1271.85	67.9364
1274.44	55.9932
1274.54	63.9922
1291.59	49.2552
1298.22	0.0000
1312.11	49.5662
1332.49	37.6594
1365.19	20.5550
1368.63	0.0000
1384.29	33.6622
1408.01	34.3387
1457.56	0.0000
1460.82	24.2915
1489.16	37.2530
1505.03	28.8622
1596.21	32.8442
1620.50	16.9955
1678.03	0.0000
1690.97	8.6469
1764.49	10.7548
1764.49	10.7548
1764.49	10.7548
1770.23	6.8530
1771.35	8.5684
1791.20	0.0000
1836.06	10.9321

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248860005

Total Uranium Activity	4.3140E+00	ug/g
Total Uranium Counting Unc.	2.7049E+00	ug/g
Total Uranium Tpu	1.3800E-06	ug/g
Total Uranium Mda	1.2049E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248860005       *
*   ANALYST       : MXR1                      DETECTOR   : GAM25            *
*   SAMPLE DATE   :  4-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 16:16:43.83    SAMPLE ALQT:  127.040 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.202E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.601E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.667E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.779E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:28:02.19

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860006.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 16:27:32
Sample ID         : G248860006           Sample quantity  : 1.32120E+02 GRAM
Detector name     : GAM02                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:03.91  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	74.53	404	381	1.01	148.27	143	14	5.61E-02	9.1	1.70E+00
2	2	76.84	601	371	0.97	152.88	143	14	8.35E-02	6.6	
3	4	89.53	175	323	1.04	178.29	164	28	2.43E-02	18.1	1.13E+01
4	4	92.36*	204	372	1.17	183.94	164	28	2.83E-02	19.7	
5	0	185.64*	193	355	1.37	370.61	366	9	2.67E-02	20.4	
6	0	209.07	94	298	0.95	417.48	414	8	1.30E-02	33.6	
7	0	238.25*	1213	431	1.13	475.88	470	10	1.68E-01	4.4	
8	0	241.39	211	278	1.38	482.15	480	7	2.93E-02	15.1	
9	0	270.07	117	270	1.37	539.54	534	11	1.63E-02	28.7	
10	0	276.85	58	230	1.41	553.11	549	9	8.00E-03	49.4	
11	0	294.73*	408	173	1.31	588.89	583	10	5.66E-02	7.9	
12	0	299.72	103	174	1.36	598.89	595	9	1.43E-02	25.2	
13	0	327.87	55	130	1.14	655.20	651	7	7.68E-03	36.7	
14	0	337.90*	249	190	1.13	675.28	670	10	3.46E-02	12.4	
15	0	351.56*	637	172	1.29	702.61	697	11	8.85E-02	5.7	
16	0	409.16	68	84	0.99	817.88	814	8	9.46E-03	26.4	
17	0	462.02	88	148	1.37	923.66	918	14	1.22E-02	31.2	
18	0	509.98*	153	173	1.67	1019.63	1012	16	2.13E-02	22.8	
19	0	582.69*	412	111	1.59	1165.15	1157	15	5.72E-02	7.6	
20	0	608.76*	408	183	1.33	1217.32	1212	13	5.66E-02	8.6	
21	0	661.78	39	87	0.97	1323.42	1318	9	5.39E-03	46.3	
22	0	726.99	104	96	1.38	1453.92	1446	15	1.44E-02	22.9	
23	0	767.70	62	46	1.24	1535.40	1531	10	8.64E-03	24.2	
24	0	860.39	37	66	1.30	1720.90	1717	9	5.08E-03	44.1	
25	0	910.52*	279	53	1.80	1821.22	1815	11	3.88E-02	8.0	
26	1	964.52	56	75	1.99	1929.31	1924	20	7.71E-03	28.1	7.16E+00
27	1	968.55*	134	49	1.75	1937.36	1924	20	1.86E-02	13.7	
28	0	1119.77	98	106	2.05	2240.02	2233	18	1.36E-02	26.9	
29	0	1459.95*	1404	28	1.98	2920.91	2913	16	1.95E-01	2.8	
30	0	1587.63*	28	10	3.37	3176.47	3168	14	3.88E-03	31.7	
31	0	1763.62*	73	24	0.96	3528.75	3519	19	1.02E-02	20.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 18:28:05

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860006.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 4-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 16:27:32
Sample ID : G248860006 Sample quantity : 132.12 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA2 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:03.91 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.640E+01	4.024E+00	5.115E-01	4.862E-02	71.160
BA-137M	+	661.66	*	5.939E-02	5.524E-02	6.981E-02	6.014E-03	0.851
CS-137	+	661.66	*	6.274E-02	5.836E-02	7.375E-02	6.366E-03	0.851
TL-208	+	277.37		6.205E-01	6.203E-01	6.792E-01	1.043E-01	0.914
	+	583.19	*	6.008E-01	1.094E-01	6.262E-02	6.266E-03	9.594
	+	860.56		5.036E-01	4.469E-01	5.734E-01	6.043E-02	0.878
BI-211		72.87		5.804E+00	3.657E+00	5.886E+00	5.066E-01	0.986
	+	351.06	*	4.181E+00	6.796E-01	3.479E-01	4.014E-02	12.017
PB-212	+	74.82		2.760E+00	6.184E-01	5.915E-01	7.742E-02	4.665
	+	77.11		2.321E+00	3.693E-01	3.356E-01	3.002E-02	6.916
	+	238.63	*	1.772E+00	2.721E-01	1.314E-01	1.659E-02	13.486
	+	300.09		2.354E+00	1.231E+00	1.406E+00	1.912E-01	1.674
BI-214	+	609.32	*	1.149E+00	2.320E-01	1.297E-01	1.376E-02	8.866
	+	1120.29		1.432E+00	7.863E-01	5.691E-01	6.224E-02	2.516
	+	1764.49		1.509E+00	6.348E-01	3.769E-01	3.195E-02	4.004
PB-214	+	74.82		4.892E+00	1.061E+00	1.048E+00	1.239E-01	4.665
	+	77.11		4.092E+00	7.333E-01	5.917E-01	7.198E-02	6.916
	+	242.00		1.872E+00	6.160E-01	6.058E-01	7.973E-02	3.091
	+	295.22		1.648E+00	3.463E-01	2.411E-01	3.342E-02	6.836
	+	351.93	*	1.517E+00	2.604E-01	1.266E-01	1.616E-02	11.991
RA-224	+	240.99	*	3.311E+00	1.072E+00	1.409E+00	1.663E-01	2.349
RA-226	+	609.32	*	1.149E+00	2.320E-01	1.297E-01	1.376E-02	8.866
	+	1120.29		1.432E+00	7.863E-01	5.691E-01	6.224E-02	2.516
	+	1764.49		1.509E+00	6.348E-01	3.769E-01	3.195E-02	4.004
AC-228	+	338.32		1.819E+00	8.930E-01	4.381E-01	1.858E-01	4.153
	+	911.20	*	1.960E+00	4.012E-01	2.749E-01	3.514E-02	7.130
	+	968.97		1.625E+00	6.020E-01	3.716E-01	9.228E-02	4.372
RA-228	+	338.32		1.819E+00	8.930E-01	4.381E-01	1.858E-01	4.153
	+	911.20	*	1.960E+00	4.012E-01	2.749E-01	3.514E-02	7.130
	+	968.97		1.625E+00	6.020E-01	3.716E-01	9.228E-02	4.372
TH-228	+	74.82		2.760E+00	5.580E-01	5.915E-01	5.225E-02	4.665
	+	77.11		2.321E+00	3.693E-01	3.356E-01	3.002E-02	6.916
	+	238.63	*	1.772E+00	2.721E-01	1.314E-01	1.659E-02	13.486
	+	300.09		2.354E+00	1.879E+00	1.406E+00	8.691E-01	1.674

Sample ID : G248860006 Acquisition date : 24-MAR-2010 16:27:32

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	+	609.32	*	1.149E+00	2.239E-01	1.296E-01	1.194E-02	8.866
	+	1120.29		1.432E+00	7.804E-01	5.691E-01	4.918E-02	2.516
	+	1764.49		1.509E+00	6.348E-01	3.769E-01	3.194E-02	4.004
TH-232	+	338.32		1.819E+00	4.961E-01	4.381E-01	5.036E-02	4.153
	+	911.20	*	1.960E+00	4.012E-01	2.749E-01	3.514E-02	7.130
	+	968.97		1.625E+00	6.020E-01	3.716E-01	9.228E-02	4.372
U-235	+	89.96		2.648E+00	1.167E+00	1.285E+00	3.218E-01	2.061
	+	93.35		1.856E+00	8.501E-01	7.710E-01	1.805E-01	2.407
		143.76	*	-2.680E-02	2.291E-01	3.681E-01	6.335E-02	-0.073
		163.33		-1.405E-01	5.082E-01	7.904E-01	1.479E-01	-0.178
	+	185.72		1.808E-01	7.626E-02	7.152E-02	7.633E-03	2.528
		205.31		1.129E-02	6.163E-01	8.658E-01	1.684E-01	0.013
ANH-511	+	511.00	*	1.713E-01	7.981E-02	5.116E-02	5.072E-03	3.349

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.854E-01	3.641E-01	6.098E-01	6.465E-02	0.304
NA-22		1274.54	*	-4.563E-02	5.050E-02	7.498E-02	6.648E-03	-0.609
NA-24		1368.63	*	2.043E+01	5.050E-02	Half-Life too short		
SC-46		889.28	*	-2.572E-02	4.777E-02	7.044E-02	7.162E-03	-0.365
	+	1120.55		2.526E-01	1.377E-01	1.536E-01	1.327E-02	1.645
V-48		944.13		-8.231E-01	1.231E+00	1.843E+00	1.845E-01	-0.447
		983.53	*	-5.963E-02	1.044E-01	1.578E-01	1.544E-02	-0.378
		1312.11		-3.875E-02	1.099E-01	1.729E-01	1.583E-02	-0.224
CR-51		320.08	*	1.540E-02	4.669E-01	7.779E-01	9.486E-02	0.020
MN-54		834.85	*	-1.189E-03	4.696E-02	7.645E-02	7.510E-03	-0.016
CO-56		846.77	*	6.947E-03	4.567E-02	7.542E-02	7.468E-03	0.092
		1037.84		6.999E-03	3.729E-01	6.254E-01	6.135E-02	0.011
		1238.28		1.775E-01	1.209E-01	2.174E-01	1.918E-02	0.816
		1771.35		-1.451E-01	3.089E-01	3.781E-01	3.193E-02	-0.384
CO-57		122.06	*	1.759E-02	2.769E-02	4.574E-02	3.824E-03	0.384
		136.47		-9.620E-02	2.216E-01	3.555E-01	3.354E-02	-0.271
CO-58		810.76	*	-2.880E-02	4.644E-02	7.153E-02	6.927E-03	-0.403
FE-59		1099.45	*	-3.828E-02	1.116E-01	1.802E-01	1.718E-02	-0.212
		1291.59		3.568E-02	1.540E-01	2.588E-01	2.618E-02	0.138
CO-60		1173.23		-5.112E-03	5.394E-02	8.867E-02	7.141E-03	-0.058
		1332.49	*	3.052E-02	4.358E-02	7.701E-02	7.175E-03	0.396
ZN-65		1115.54	*	4.025E-02	1.256E-01	1.866E-01	1.624E-02	0.216
SE-75		121.12		7.307E-02	1.461E-01	2.401E-01	2.613E-02	0.304
		136.00		-2.839E-02	4.307E-02	6.835E-02	6.050E-03	-0.415
		264.66	*	-6.832E-03	5.337E-02	7.857E-02	9.604E-03	-0.087
		279.54		1.618E-02	1.380E-01	2.058E-01	2.599E-02	0.079
		400.66		2.676E-03	3.062E-01	5.012E-01	6.122E-02	0.005
SR-85		514.00	*	4.749E-02	4.544E-02	7.037E-02	6.966E-03	0.675
Y-88		898.04		-2.982E-02	4.716E-02	7.138E-02	7.321E-03	-0.418
		1836.06	*	-5.924E-03	3.748E-02	6.000E-02	4.894E-03	-0.099
Y-91		1204.77	*	-1.321E+01	2.901E+01	4.620E+01	3.836E+00	-0.286

Sample ID : G248860006 Acquisition date : 24-MAR-2010 16:27:32

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94		702.65	*	1.030E-02	3.861E-02	6.511E-02	5.805E-03	0.158
		871.09		3.137E-02	4.007E-02	6.942E-02	6.979E-03	0.452
NB-95		765.81	*	4.742E-02	6.163E-02	9.430E-02	8.829E-03	0.503
NB-95M		235.69	*	1.241E-01	1.621E-01	2.520E-01	3.192E-02	0.493
ZR-95		724.19		1.837E-01	1.366E-01	2.187E-01	2.136E-02	0.840
		756.73	*	3.329E-02	8.245E-02	1.401E-01	1.421E-02	0.238
MO-99		140.51		-6.077E+01	9.219E+01	1.411E+02	3.369E+01	-0.431
		181.07		-5.681E+00	7.738E+01	1.102E+02	2.179E+01	-0.052
		366.42		7.250E+01	3.875E+02	6.455E+02	6.964E+01	0.112
		739.50	*	3.535E+01	4.724E+01	8.216E+01	1.320E+01	0.430
		777.92		-2.970E+01	1.453E+02	2.342E+02	2.212E+01	-0.127
TC-99M		140.51	*	-3.527E+16	1.453E+02	Half-Life too short		
RU-103		497.08	*	2.485E-02	4.551E-02	7.621E-02	1.131E-02	0.326
		610.33		1.356E+01	2.810E+00	3.407E+00	5.675E-01	3.981
RH-106		621.93	*	-1.698E-01	3.397E-01	5.446E-01	7.385E-02	-0.312
		1050.41		1.098E-01	2.888E+00	4.847E+00	4.504E-01	0.023
RU-106		621.93	*	-1.698E-01	3.393E-01	5.446E-01	4.945E-02	-0.312
		1050.41		1.098E-01	2.888E+00	4.847E+00	4.504E-01	0.023
AG-108M		433.94	*	7.981E-03	3.236E-02	5.351E-02	5.518E-03	0.149
		614.28		1.839E-02	4.524E-02	6.838E-02	6.446E-03	0.269
		722.91		1.467E-03	4.984E-02	7.156E-02	6.673E-03	0.021
CD-109		88.03	*	3.860E+00	9.772E-01	1.690E+00	1.697E-01	2.284
AG-110M		657.76	*	1.098E-02	4.470E-02	6.629E-02	5.914E-03	0.166
		677.62		2.592E-02	3.594E-01	5.997E-01	5.385E-02	0.043
		706.68		-2.166E-01	2.399E-01	3.669E-01	3.370E-02	-0.590
		763.94		2.620E-01	1.855E-01	3.067E-01	2.935E-02	0.854
		884.68		2.393E-02	5.513E-02	9.312E-02	9.661E-03	0.257
		937.49		-1.062E-01	1.250E-01	1.833E-01	1.890E-02	-0.580
		1384.29		-1.437E-01	1.749E-01	2.516E-01	2.400E-02	-0.571
		1505.03		2.806E-03	3.058E-01	4.959E-01	4.575E-02	0.006
SN-113		391.69	*	3.086E-03	5.094E-02	8.380E-02	8.575E-03	0.037
CD-115		260.90		9.308E-05	5.094E-02	Half-Life too short		
		492.35		-6.514E-05	5.094E-02	Half-Life too short		
		527.90	*	-1.594E-05	5.094E-02	Half-Life too short		
SN-117M		156.02		4.493E-01	3.189E+00	5.205E+00	5.057E-01	0.086
		158.56	*	-2.372E-02	7.572E-02	1.210E-01	1.192E-02	-0.196
TE-123M		159.00	*	-1.127E-02	3.149E-02	5.019E-02	4.980E-03	-0.225
SB-124		602.73		-2.747E-02	5.455E-02	7.322E-02	6.791E-03	-0.375
		645.85		5.712E-01	5.673E-01	1.012E+00	9.405E-02	0.565
		722.78		-1.734E-02	5.285E-01	7.539E-01	6.973E-02	-0.023
		1690.97	*	-4.856E-02	7.640E-02	1.093E-01	9.966E-03	-0.444
SB-125		427.87	*	-2.016E-02	1.019E-01	1.636E-01	1.670E-02	-0.123
	+	463.37		8.734E-01	5.536E-01	5.855E-01	6.216E-02	1.492
		600.60		6.180E-02	1.980E-01	3.385E-01	3.347E-02	0.183
		635.95		2.421E-01	2.733E-01	4.865E-01	4.672E-02	0.498
TE-125M		109.28	*	4.582E+00	1.086E+01	1.826E+01	1.903E+00	0.251
I-126		388.63		1.090E-03	2.501E-01	4.103E-01	4.146E-02	0.003
		666.33	*	-3.446E-02	3.889E-01	5.563E-01	4.812E-02	-0.062
		753.82		1.444E+00	2.703E+00	4.528E+00	4.202E-01	0.319

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-126		414.70		6.900E-02	1.073E-01	1.771E-01	1.781E-02	0.390
		666.50		4.366E-02	1.308E-01	1.952E-01	1.689E-02	0.224
		695.00		-5.408E-02	1.124E-01	1.790E-01	1.586E-02	-0.302
		697.00		1.314E-02	3.980E-01	6.607E-01	5.864E-02	0.020
		720.70	*	-1.578E-01	2.648E-01	3.540E-01	3.202E-02	-0.446
		856.80		6.018E-01	9.089E-01	1.370E+00	1.365E-01	0.439
SN-126		64.28		6.992E-02	5.984E-01	1.023E+00	1.518E-01	0.068
		86.94		1.688E+00	7.944E-01	7.016E-01	2.922E-01	2.406
		87.57	*	3.885E-01	9.609E-02	1.660E-01	1.660E-02	2.340
SB-127		252.40		-2.253E+00	1.135E+01	1.893E+01	8.105E+00	-0.119
		473.00		2.807E+00	4.462E+00	7.509E+00	1.135E+00	0.374
		685.70	*	-1.536E+00	3.697E+00	5.923E+00	7.756E-01	-0.259
		783.70		7.615E+00	1.090E+01	1.869E+01	2.692E+00	0.407
I-131		80.19		9.276E+00	9.255E+00	1.195E+01	1.112E+00	0.776
		284.31		-3.090E-01	2.451E+00	4.082E+00	5.182E-01	-0.076
		364.49	*	-3.160E-02	2.031E-01	3.314E-01	3.728E-02	-0.095
		636.99		1.126E+00	2.462E+00	4.254E+00	4.013E-01	0.265
TE-132		49.72		7.159E+01	9.032E+01	1.448E+02	1.834E+01	0.494
		111.76		-3.130E+01	1.120E+02	1.794E+02	2.233E+01	-0.175
		116.30		5.599E+01	9.217E+01	1.554E+02	1.927E+01	0.360
		228.16	*	7.730E-01	2.629E+00	4.213E+00	7.839E-01	0.183
BA-133		81.00		1.171E-02	1.292E-01	1.565E-01	2.489E-02	0.075
	+	276.40		5.741E-01	5.751E-01	7.302E-01	1.217E-01	0.786
		302.85		6.357E-02	1.625E-01	2.454E-01	3.832E-02	0.259
		356.01	*	6.327E-03	4.798E-02	7.034E-02	1.034E-02	0.090
		383.85		4.372E-02	3.316E-01	5.487E-01	7.470E-02	0.080
I-133		529.87	*	-1.550E-01	3.316E-01	Half-Life too short		
		875.33		1.457E+00	3.316E-01	Half-Life too short		
		1298.22		-2.046E+01	3.316E-01	Half-Life too short		
CS-134		563.25		-2.737E-01	3.964E-01	6.342E-01	6.139E-02	-0.432
		569.33		1.754E-01	2.160E-01	3.764E-01	3.639E-02	0.466
		604.72		-3.799E-02	4.393E-02	5.839E-02	5.416E-03	-0.651
		795.86	*	4.674E-02	5.451E-02	9.487E-02	9.129E-03	0.493
		801.95		-2.274E-01	4.704E-01	7.415E-01	7.157E-02	-0.307
		1365.19		-1.476E+00	1.348E+00	1.838E+00	1.781E-01	-0.803
CS-135		268.22	*	3.571E-01	2.010E-01	3.225E-01	4.266E-02	1.107
I-135		546.56		1.058E+15	2.010E-01	Half-Life too short		
		836.80		6.875E+15	2.010E-01	Half-Life too short		
		1038.76		1.787E+15	2.010E-01	Half-Life too short		
		1131.51		1.133E+15	2.010E-01	Half-Life too short		
		1260.41	*	4.332E+14	2.010E-01	Half-Life too short		
		1457.56		5.784E+17	2.010E-01	Half-Life too short		
		1678.03		-4.095E+15	2.010E-01	Half-Life too short		
		1791.20		-9.163E+14	2.010E-01	Half-Life too short		
CS-136		153.25		6.763E-01	1.224E+00	2.030E+00	2.251E-01	0.333
		176.60		-1.811E-01	7.291E-01	1.160E+00	1.302E-01	-0.156
		273.65		-1.039E-01	1.082E+00	1.152E+00	1.480E-01	-0.090
		340.55		1.963E-01	2.300E-01	3.543E-01	4.145E-02	0.554
		818.51		2.715E-02	1.093E-01	1.825E-01	1.776E-02	0.149

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1048.07	*	2.279E-02	1.508E-01	2.558E-01	2.469E-02	0.089
		1235.36		2.432E-01	1.004E+00	1.683E+00	1.972E-01	0.144
CE-139		165.86	*	-1.638E-02	3.463E-02	5.476E-02	5.617E-03	-0.299
BA-140		162.66		-6.853E-01	1.245E+00	1.912E+00	2.022E-01	-0.358
		304.85		4.204E-01	2.172E+00	3.230E+00	9.844E-01	0.130
		423.72		9.207E-01	2.734E+00	4.532E+00	1.509E+00	0.203
		537.26	*	-1.877E-02	4.044E-01	6.440E-01	2.204E-01	-0.029
LA-140	+	328.76		6.589E-01	4.899E-01	8.231E-01	9.931E-02	0.800
		487.02		2.373E-02	1.965E-01	3.196E-01	3.344E-02	0.074
		815.77		-7.829E-02	4.807E-01	7.738E-01	8.209E-02	-0.101
		1596.21	*	-9.369E-02	9.955E-02	1.253E-01	1.133E-02	-0.748
CE-141		145.44	*	2.512E-02	7.587E-02	1.253E-01	1.170E-02	0.201
CE-143		57.36		6.584E-03	7.587E-02	Half-Life too short		
	+	293.27	*	1.879E-02	7.587E-02	Half-Life too short		
		664.57		4.160E-03	7.587E-02	Half-Life too short		
		721.93		-5.716E-03	7.587E-02	Half-Life too short		
CE-144		80.12		3.246E+00	3.270E+00	4.220E+00	3.887E-01	0.769
		133.52	*	-5.039E-02	2.100E-01	3.403E-01	5.216E-02	-0.148
PM-144		476.78		-3.246E-02	7.197E-02	1.120E-01	1.196E-02	-0.290
		618.01		-5.220E-03	3.529E-02	5.836E-02	5.458E-03	-0.089
		696.49	*	-3.930E-03	3.763E-02	6.182E-02	5.487E-03	-0.064
PR-144		696.51	*	-2.635E-01	2.826E+00	4.647E+00	4.123E-01	-0.057
		1489.16		-3.568E+00	1.260E+01	1.936E+01	1.791E+00	-0.184
PM-146		453.88	*	-2.834E-03	4.847E-02	7.822E-02	9.229E-03	-0.036
		633.25		-1.510E+00	1.613E+00	2.310E+00	8.839E-01	-0.654
		735.93		-2.143E-02	1.513E-01	2.460E-01	6.937E-02	-0.087
		747.24		-5.562E-05	1.045E-01	1.721E-01	2.574E-02	0.000
ND-147	+	91.11		1.336E+00	5.429E-01	7.683E-01	7.916E-02	1.738
		319.41		8.097E-01	5.016E+00	8.417E+00	9.997E-01	0.096
		531.02	*	1.046E-01	8.285E-01	1.339E+00	2.099E-01	0.078
PM-149		285.90	*	-1.176E-04	8.285E-01	Half-Life too short		
EU-152		121.78		5.535E-02	7.899E-02	1.307E-01	1.265E-02	0.423
		244.70		1.696E-01	3.752E-01	5.765E-01	6.841E-02	0.294
		344.28	*	-8.403E-02	1.099E-01	1.731E-01	2.034E-02	-0.485
		778.90		-8.792E-02	2.974E-01	4.757E-01	4.496E-02	-0.185
	+	964.08		7.253E-01	4.132E-01	6.212E-01	6.149E-02	1.168
		1085.87		7.414E-02	4.401E-01	7.451E-01	6.691E-02	0.099
		1112.07		5.627E-03	3.889E-01	5.816E-01	5.075E-02	0.010
		1408.01		8.416E-02	2.036E-01	3.489E-01	3.251E-02	0.241
GD-153		69.67		-4.049E-01	2.041E+00	3.081E+00	2.581E-01	-0.131
		97.43	*	-3.262E-03	9.744E-02	1.451E-01	1.319E-02	-0.022
		103.18		-1.112E-02	1.164E-01	1.927E-01	1.687E-02	-0.058
EU-154		123.07		-8.540E-03	5.638E-02	9.030E-02	1.008E-02	-0.095
		723.31		1.223E-01	2.257E-01	3.409E-01	3.374E-02	0.359
		873.19		7.550E-02	3.403E-01	5.634E-01	7.314E-02	0.134
		996.26		2.419E-01	4.591E-01	7.680E-01	1.384E-01	0.315
		1004.73		5.426E-02	2.407E-01	4.118E-01	5.110E-02	0.132
		1274.44	*	-1.275E-01	1.431E-01	2.124E-01	2.455E-02	-0.600
EU-155		86.55		4.906E-01	1.191E-01	2.056E-01	2.047E-02	2.386

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		105.31	*	9.365E-02	1.108E-01	1.894E-01	1.660E-02	0.494
TB-160		86.79		1.392E+00	3.320E-01	5.728E-01	5.673E-02	2.430
		197.04		-5.589E-01	6.726E-01	1.006E+00	1.099E-01	-0.555
		215.65		1.055E-01	8.853E-01	1.415E+00	1.600E-01	0.075
	+	298.57		3.480E-01	1.807E-01	2.512E-01	3.064E-02	1.385
		879.36	*	6.409E-02	1.700E-01	2.852E-01	2.883E-02	0.225
		962.29		1.074E+00	7.411E-01	1.192E+00	1.181E-01	0.901
		966.15		1.443E+00	3.437E-01	6.396E-01	6.323E-02	2.257
		1177.93		7.442E-02	4.439E-01	7.456E-01	6.033E-02	0.100
		1271.85		2.443E-01	7.969E-01	1.353E+00	1.195E-01	0.181
HO-166M		80.57		1.625E-01	3.620E-01	4.501E-01	4.165E-02	0.361
	+	184.41		1.437E-01	6.058E-02	7.899E-02	8.408E-03	1.819
		280.46		-6.173E-02	1.062E-01	1.503E-01	1.862E-02	-0.411
		410.95		5.674E-02	3.035E-01	4.414E-01	4.435E-02	0.129
		711.68	*	-1.527E-02	6.836E-02	1.110E-01	9.972E-03	-0.138
		752.31		1.283E-01	3.091E-01	5.253E-01	4.869E-02	0.244
		810.29		-5.647E-02	6.687E-02	1.006E-01	9.717E-03	-0.562
TA-182		67.75		-7.806E-02	1.239E-01	2.051E-01	1.691E-02	-0.381
		100.11		-1.778E-01	1.861E-01	2.966E-01	2.644E-02	-0.600
		152.43		-1.557E-01	3.883E-01	6.198E-01	5.908E-02	-0.251
		222.11		1.149E-01	4.301E-01	6.903E-01	7.899E-02	0.166
		1121.30		6.090E-01	2.178E-01	4.114E-01	3.551E-02	1.480
		1189.05		1.655E-01	3.909E-01	6.683E-01	5.466E-02	0.248
		1221.41	*	6.033E-02	2.687E-01	4.507E-01	3.802E-02	0.134
		1231.02		-3.886E-01	6.623E-01	1.045E+00	8.898E-02	-0.372
IR-192	+	295.96		1.278E+00	2.557E-01	3.312E-01	4.065E-02	3.858
		308.46		4.362E-02	1.102E-01	1.873E-01	2.265E-02	0.233
		316.51	*	-2.165E-02	3.947E-02	6.353E-02	7.586E-03	-0.341
		468.07		-5.279E-02	8.828E-02	1.165E-01	1.234E-02	-0.453
HG-203		70.83		-2.783E-01	1.638E+00	2.474E+00	3.951E-01	-0.113
		72.87		1.558E+00	1.002E+00	1.580E+00	2.454E-01	0.986
		279.20	*	3.331E-02	5.060E-02	7.794E-02	9.786E-03	0.427
BI-207		72.81		2.616E-01	2.076E-01	3.312E-01	2.849E-02	0.790
	+	74.97		7.956E-01	1.606E-01	2.589E-01	2.270E-02	3.073
		569.70		1.841E-02	3.366E-02	5.775E-02	5.520E-03	0.319
		1063.66	*	3.375E-02	6.388E-02	1.112E-01	1.021E-02	0.304
		1770.23		2.026E-02	5.238E-01	7.508E-01	6.344E-02	0.027
PB-210		46.54	*	-2.285E+00	6.144E+00	9.188E+00	8.741E-01	-0.249
PB-211		404.85	*	5.703E-02	9.333E-01	1.343E+00	6.536E-01	0.042
		427.09		-3.984E-01	1.689E+00	2.688E+00	1.252E+00	-0.148
		832.01		-2.612E-01	1.191E+00	1.895E+00	9.869E-01	-0.138
BI-212	+	727.33	*	2.312E+00	1.100E+00	1.316E+00	1.683E-01	1.757
		785.37		4.970E+00	3.821E+00	6.815E+00	6.471E-01	0.729
		1620.50		2.646E+00	2.810E+00	5.246E+00	4.711E-01	0.504
RN-219	+	271.23		7.594E-01	4.475E-01	4.909E-01	6.621E-02	1.547
		401.81	*	-2.398E-01	4.859E-01	7.686E-01	1.209E-01	-0.312
RA-223		81.07		6.476E-02	2.517E-01	3.533E-01	3.286E-02	0.183
		83.79		1.556E-01	1.294E-01	2.213E-01	2.119E-02	0.703
		94.87		6.174E-01	4.958E-01	7.823E-01	7.266E-02	0.789

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		144.24		1.629E-01	7.581E-01	1.234E+00	1.245E-01	0.132
		154.21		7.127E-01	4.233E-01	7.248E-01	7.515E-02	0.983
	+	269.46		5.900E-01	3.463E-01	3.969E-01	4.916E-02	1.487
		323.87	*	-5.920E-01	8.537E-01	1.172E+00	2.240E-01	-0.505
	+	338.28		7.220E+00	2.061E+00	2.715E+00	3.873E-01	2.660
AC-227		79.69		-5.341E-01	1.505E+00	2.039E+00	3.571E-01	-0.262
		235.96		6.018E-01	2.122E-01	3.390E-01	4.416E-02	1.775
		256.23	*	1.970E-01	2.760E-01	4.784E-01	7.038E-02	0.412
	+	299.98		2.590E+00	1.366E+00	1.842E+00	2.827E-01	1.406
		304.50		8.348E-01	1.957E+00	2.956E+00	5.496E-01	0.282
		334.37		5.286E-01	2.255E+00	3.338E+00	5.809E-01	0.158
TH-227		79.80		8.149E-02	2.240E+00	2.706E+00	5.955E-01	0.030
		235.96		6.018E-01	2.112E-01	3.390E-01	4.261E-02	1.775
		256.23	*	1.970E-01	2.763E-01	4.784E-01	7.660E-02	0.412
	+	299.98		2.590E+00	1.366E+00	1.842E+00	2.827E-01	1.406
		304.50		8.348E-01	1.957E+00	2.956E+00	5.496E-01	0.282
		334.37		5.286E-01	2.255E+00	3.338E+00	5.809E-01	0.158
TH-229		85.43		5.169E-01	2.166E-01	3.809E-01	3.715E-02	1.357
	+	88.47		3.828E-01	1.439E-01	2.444E-01	2.439E-02	1.566
		193.51	*	4.528E-01	5.669E-01	9.388E-01	1.018E-01	0.482
		210.85		1.858E+00	1.063E+00	1.643E+00	1.842E-01	1.131
PA-231		283.69	*	2.321E-01	1.539E+00	2.600E+00	4.436E-01	0.089
		301.36		3.618E-01	7.233E-01	1.096E+00	1.630E-01	0.330
TH-231		81.07		6.476E-02	2.517E-01	3.533E-01	3.286E-02	0.183
		83.79		1.556E-01	1.294E-01	2.213E-01	2.119E-02	0.703
		94.87		6.174E-01	4.958E-01	7.823E-01	7.266E-02	0.789
		144.24		1.629E-01	7.581E-01	1.234E+00	1.245E-01	0.132
		154.21		7.127E-01	4.233E-01	7.248E-01	7.515E-02	0.983
	+	269.46		5.900E-01	3.463E-01	3.969E-01	4.916E-02	1.487
		323.87	*	-5.920E-01	8.537E-01	1.172E+00	2.240E-01	-0.505
	+	338.28		7.220E+00	2.061E+00	2.715E+00	3.873E-01	2.660
PA-233	+	300.13		1.172E+00	6.248E-01	8.304E-01	1.424E-01	1.411
		311.90	*	-4.205E-03	6.946E-02	1.153E-01	1.405E-02	-0.036
		340.48		7.142E-01	7.725E-01	1.170E+00	2.951E-01	0.610
PA-234		94.67		1.696E-01	1.710E-01	2.928E-01	3.773E-02	0.579
		98.44		3.242E-02	1.046E-01	1.562E-01	8.722E-02	0.208
		111.00		-9.203E-02	2.035E-01	3.232E-01	3.877E-02	-0.285
		131.20		-9.783E-02	1.188E-01	1.880E-01	1.620E-02	-0.520
		569.50		2.369E-01	2.960E-01	5.155E-01	4.928E-02	0.459
		733.00		-4.993E-02	4.392E-01	6.185E-01	1.385E-01	-0.081
		880.51		9.472E-02	3.293E-01	5.483E-01	5.545E-02	0.173
		883.24		5.680E-02	3.244E-01	5.316E-01	3.584E-01	0.107
		926.50		-5.511E-02	1.945E-01	3.044E-01	7.858E-02	-0.181
		946.00	*	2.692E-02	3.427E-01	5.570E-01	1.082E-01	0.048
		949.00		6.683E-02	5.356E-01	8.736E-01	8.721E-02	0.076
PA-234M	+	766.42		3.025E+01	2.124E+01	2.403E+01	1.222E+01	1.259
		1001.03	*	-4.727E+00	6.098E+00	9.114E+00	9.918E-01	-0.519
TH-234		63.29	*	1.156E+00	1.685E+00	2.912E+00	5.252E-01	0.397
	+	92.59		2.457E+00	1.113E+00	1.561E+00	3.503E-01	1.574

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237		86.48	*	1.188E+00	3.831E-01	5.038E-01	1.168E-01	2.359
		95.86		-2.740E-01	1.023E+00	1.506E+00	3.646E-01	-0.182
U-238		63.29	*	1.156E+00	1.685E+00	2.912E+00	5.252E-01	0.397
	+	92.59		2.457E+00	9.947E-01	1.561E+00	1.483E-01	1.574
NP-239		99.53		-7.555E-02	1.682E-01	2.715E-01	2.430E-02	-0.278
		103.37		2.418E-02	1.033E-01	1.731E-01	1.514E-02	0.140
		106.12		5.875E-03	8.830E-02	1.469E-01	1.268E-02	0.040
		117.23	*	-1.989E-01	4.275E-01	6.916E-01	5.798E-02	-0.288
		228.18		7.703E-02	2.596E-01	4.164E-01	4.815E-02	0.185
	+	277.60		2.836E-01	2.823E-01	3.608E-01	4.467E-02	0.786
AM-241		59.54	*	-1.191E-01	1.761E-01	2.921E-01	2.393E-02	-0.408
CM-247	+	278.00		1.205E+00	1.199E+00	1.525E+00	1.888E-01	0.790
		287.50		1.499E-02	1.285E+00	2.154E+00	2.654E-01	0.007
		402.40	*	-2.392E-02	4.426E-02	6.990E-02	7.012E-03	-0.342
CF-249		252.80		1.223E-01	1.003E+00	1.704E+00	2.046E-01	0.072
		333.37		4.075E-02	2.374E-01	3.501E-01	4.063E-02	0.116
		388.16	*	9.373E-03	4.562E-02	7.575E-02	7.666E-03	0.124
CF-251		177.52	*	-4.410E-02	1.450E-01	2.299E-01	2.414E-02	-0.192
		227.38		7.805E-02	4.226E-01	6.748E-01	7.791E-02	0.116
		285.41		-4.255E-01	2.285E+00	3.792E+00	4.681E-01	-0.112

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860006      *
* Acquisition date : 24-MAR-2010 16:27:32 Detector SN#     :               *
* Detector ID        : GAM02               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:03.91     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        :  4-MAR-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G248860006          Analyst initials: MXR1           *
* Batch Number       : 962633              Sample Quantity : 1.3212E+02 GRAM *
* Recovery           :    1.00000          Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 29-OCT-2009 10:28:07 MS Isotope      :                 *
* MSD DPM            :    0.000            MSD Isotope     :                *
* LCS DPM            :    0.000            LCS Isotope     :                *
* LCSD DPM           :    0.000            LCSD Isotope    :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.640E+01	3.943E+00	5.121E-01	0.000E+00
BA-137M	5.939E-02	5.414E-02	7.087E-02	0.000E+00
CS-137	6.274E-02	5.719E-02	7.487E-02	0.000E+00
TL-208	6.008E-01	1.072E-01	6.371E-02	0.000E+00
BI-211	4.181E+00	6.660E-01	3.571E-01	0.000E+00
PB-212	1.772E+00	2.667E-01	1.357E-01	0.000E+00
BI-214	1.149E+00	2.274E-01	1.318E-01	0.000E+00
PB-214	1.517E+00	2.552E-01	1.299E-01	0.000E+00
RA-224	3.311E+00	1.051E+00	1.455E+00	0.000E+00
RA-226	1.149E+00	2.274E-01	1.318E-01	0.000E+00
AC-228	1.960E+00	3.931E-01	2.775E-01	0.000E+00
RA-228	1.960E+00	3.931E-01	2.775E-01	0.000E+00
TH-228	1.772E+00	2.667E-01	1.357E-01	0.000E+00
TH-230	1.149E+00	2.195E-01	1.318E-01	0.000E+00
TH-232	1.960E+00	3.931E-01	2.775E-01	0.000E+00
U-235	-2.680E-02	2.245E-01	3.834E-01	0.000E+00
ANH-511	1.713E-01	7.821E-02	5.218E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	1.854E-01		3.568E-01	6.226E-01	0.000E+00	NOT IDENT.
NA-22	-4.563E-02		4.949E-02	7.526E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		2.029E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.572E-02		4.681E-02	7.115E-02	0.000E+00	FAIL ABUN
V-48	-5.963E-02		1.023E-01	1.592E-01	0.000E+00	NOT IDENT.
CR-51	1.540E-02		4.576E-01	7.996E-01	0.000E+00	NOT IDENT.
MN-54	-1.189E-03		4.602E-02	7.730E-02	0.000E+00	NOT IDENT.
CO-56	6.947E-03		4.475E-02	7.625E-02	0.000E+00	NOT IDENT.
CO-57	1.759E-02		2.713E-02	4.778E-02	0.000E+00	NOT IDENT.
CO-58	-2.880E-02		4.551E-02	7.236E-02	0.000E+00	NOT IDENT.

FE-59	-3.828E-02	1.094E-01	1.813E-01	0.000E+00	NOT IDENT.
CO-60	3.052E-02	4.271E-02	7.724E-02	0.000E+00	NOT IDENT.
ZN-65	4.025E-02	1.231E-01	1.878E-01	0.000E+00	NOT IDENT.
SE-75	-6.832E-03	5.230E-02	8.102E-02	0.000E+00	NOT IDENT.
SR-85	4.749E-02	4.453E-02	7.176E-02	0.000E+00	NOT IDENT.
Y-88	-5.924E-03	3.673E-02	5.984E-02	0.000E+00	NOT IDENT.
Y-91	-1.321E+01	2.843E+01	4.642E+01	0.000E+00	NOT IDENT.
NB-94	1.030E-02	3.783E-02	6.603E-02	0.000E+00	NOT IDENT.
NB-95	4.742E-02	6.040E-02	9.550E-02	0.000E+00	NOT IDENT.
NB-95M	1.241E-01	1.588E-01	2.604E-01	0.000E+00	NOT IDENT.
ZR-95	3.329E-02	8.080E-02	1.419E-01	0.000E+00	NOT IDENT.
MO-99	3.535E+01	4.629E+01	8.325E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.344E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.485E-02	4.460E-02	7.775E-02	0.000E+00	NOT IDENT.
RH-106	-1.698E-01	3.329E-01	5.535E-01	0.000E+00	NOT IDENT.
RU-106	-1.698E-01	3.325E-01	5.535E-01	0.000E+00	NOT IDENT.
AG-108M	7.981E-03	3.171E-02	5.472E-02	0.000E+00	NOT IDENT.
CD-109	0.000E+00	9.577E-01	1.775E+00	0.000E+00	NOT IDENT.
AG-110M	1.098E-02	4.380E-02	6.731E-02	0.000E+00	NOT IDENT.
SN-113	3.086E-03	4.992E-02	8.585E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	5.670E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-2.372E-02	7.421E-02	1.258E-01	0.000E+00	NOT IDENT.
TE-123M	-1.127E-02	3.086E-02	5.219E-02	0.000E+00	NOT IDENT.
SB-124	-4.856E-02	7.487E-02	1.092E-01	0.000E+00	NOT IDENT.
SB-125	-2.016E-02	9.987E-02	1.674E-01	0.000E+00	FAIL ABUN
TE-125M	4.582E+00	1.064E+01	1.911E+01	0.000E+00	NOT IDENT.
I-126	-3.446E-02	3.812E-01	5.647E-01	0.000E+00	NOT IDENT.
SB-126	-1.578E-01	2.595E-01	3.588E-01	0.000E+00	NOT IDENT.
SN-126	0.000E+00	9.417E-02	1.744E-01	0.000E+00	NOT IDENT.
SB-127	-1.536E+00	3.623E+00	6.009E+00	0.000E+00	NOT IDENT.
I-131	-3.160E-02	1.990E-01	3.399E-01	0.000E+00	NOT IDENT.
TE-132	7.730E-01	2.576E+00	4.356E+00	0.000E+00	NOT IDENT.
BA-133	6.327E-03	4.702E-02	7.218E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	3.642E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	4.674E-02	5.342E-02	9.601E-02	0.000E+00	NOT IDENT.
CS-135	0.000E+00	1.970E-01	3.325E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.228E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.279E-02	1.478E-01	2.576E-01	0.000E+00	NOT IDENT.
CE-139	-1.638E-02	3.393E-02	5.690E-02	0.000E+00	NOT IDENT.
BA-140	-1.877E-02	3.963E-01	6.562E-01	0.000E+00	NOT IDENT.
LA-140	-9.369E-02	9.756E-02	1.253E-01	0.000E+00	FAIL ABUN
CE-141	2.512E-02	7.436E-02	1.305E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.524E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-5.039E-02	2.058E-01	3.549E-01	0.000E+00	NOT IDENT.
PM-144	-3.930E-03	3.688E-02	6.271E-02	0.000E+00	NOT IDENT.
PR-144	-2.635E-01	2.770E+00	4.714E+00	0.000E+00	NOT IDENT.
PM-146	-2.834E-03	4.750E-02	7.993E-02	0.000E+00	NOT IDENT.
ND-147	1.046E-01	8.119E-01	1.365E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	4.644E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-8.403E-02	1.077E-01	1.777E-01	0.000E+00	FAIL ABUN
GD-153	-3.262E-03	9.549E-02	1.521E-01	0.000E+00	NOT IDENT.
EU-154	-1.275E-01	1.403E-01	2.132E-01	0.000E+00	NOT IDENT.
EU-155	9.365E-02	1.086E-01	1.983E-01	0.000E+00	NOT IDENT.
TB-160	6.409E-02	1.666E-01	2.882E-01	0.000E+00	FAIL ABUN
HO-166M	-1.527E-02	6.700E-02	1.126E-01	0.000E+00	FAIL ABUN
TA-182	6.033E-02	2.633E-01	4.528E-01	0.000E+00	NOT IDENT.
IR-192	-2.165E-02	3.868E-02	6.532E-02	0.000E+00	FAIL ABUN
HG-203	3.331E-02	4.959E-02	8.030E-02	0.000E+00	NOT IDENT.
BI-207	3.375E-02	6.261E-02	1.119E-01	0.000E+00	FAIL ABUN
PB-210	-2.285E+00	6.022E+00	9.745E+00	0.000E+00	NOT IDENT.
PB-211	5.703E-02	9.146E-01	1.375E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.078E+00	1.334E+00	0.000E+00	FAIL ABUN
RN-219	-2.398E-01	4.761E-01	7.870E-01	0.000E+00	FAIL ABUN
RA-223	-5.920E-01	8.367E-01	1.205E+00	0.000E+00	FAIL ABUN
AC-227	1.970E-01	2.705E-01	4.936E-01	0.000E+00	FAIL ABUN
TH-227	1.970E-01	2.707E-01	4.936E-01	0.000E+00	FAIL ABUN
TH-229	4.528E-01	5.556E-01	9.731E-01	0.000E+00	FAIL ABUN
PA-231	2.321E-01	1.508E+00	2.678E+00	0.000E+00	NOT IDENT.
TH-231	-5.920E-01	8.367E-01	1.205E+00	0.000E+00	FAIL ABUN
PA-233	-4.205E-03	6.807E-02	1.186E-01	0.000E+00	FAIL ABUN
PA-234	2.692E-02	3.358E-01	5.620E-01	0.000E+00	NOT IDENT.
PA-234M	-4.727E+00	5.976E+00	9.187E+00	0.000E+00	FAIL ABUN
TH-234	1.156E+00	1.652E+00	3.073E+00	0.000E+00	FAIL ABUN
NP-237	0.000E+00	3.755E-01	5.291E-01	0.000E+00	NOT IDENT.
U-238	1.156E+00	1.652E+00	3.073E+00	0.000E+00	FAIL ABUN
NP-239	-1.989E-01	4.189E-01	7.228E-01	0.000E+00	FAIL ABUN
AM-241	-1.191E-01	1.726E-01	3.087E-01	0.000E+00	NOT IDENT.
CM-247	-2.392E-02	4.338E-02	7.157E-02	0.000E+00	FAIL ABUN

CF-249	9.373E-03	4.471E-02	7.761E-02	0.000E+00 NOT IDENT.
CF-251	-4.410E-02	1.421E-01	2.387E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:28:03.12

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860006.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 16:27:32
Sample ID         : G248860006           Sample quantity  : 1.32120E+02 GRAM
Detector name     : GAM02                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:03.91  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1404	10.66*	1.028E+00	3.640E+01	3.640E+01	11.05
BA-137M	661.66	39	89.90*	2.069E+00	5.931E-02	5.939E-02	93.02
CS-137	661.66	39	85.10*	2.069E+00	6.265E-02	6.274E-02	93.02
TL-208	277.37	58	6.60	3.996E+00	6.205E-01	6.205E-01	99.97
	583.19	412	85.00*	2.293E+00	6.008E-01	6.008E-01	18.21
	860.56	37	12.50	1.652E+00	5.036E-01	5.036E-01	88.74
BI-211	72.87	------	1.23	3.848E+00	------	Line Not Found	------
	351.06	637	12.92*	3.352E+00	4.181E+00	4.181E+00	16.25
PB-212	74.82	404	10.28	4.045E+00	2.760E+00	2.760E+00	22.41
	77.11	601	17.10	4.305E+00	2.321E+00	2.321E+00	15.91
	238.63	1213	43.60*	4.459E+00	1.772E+00	1.772E+00	15.36
	300.09	103	3.30	3.769E+00	2.354E+00	2.354E+00	52.29
BI-214	609.32	408	45.49*	2.214E+00	1.149E+00	1.149E+00	20.18
	1120.29	98	14.92	1.298E+00	1.432E+00	1.432E+00	54.92
	1764.49	73	15.30	9.006E-01	1.509E+00	1.509E+00	42.06
PB-214	74.82	404	5.80	4.045E+00	4.891E+00	4.892E+00	21.69
	77.11	601	9.70	4.305E+00	4.092E+00	4.092E+00	17.92
	242.00	211	7.25	4.417E+00	1.872E+00	1.872E+00	32.90
	295.22	408	18.42	3.816E+00	1.648E+00	1.648E+00	21.01
	351.93	637	35.60*	3.352E+00	1.517E+00	1.517E+00	17.16
RA-224	240.99	211	4.10*	4.417E+00	3.311E+00	3.311E+00	32.39
RA-226	609.32	408	45.49*	2.214E+00	1.149E+00	1.149E+00	20.18
	1120.29	98	14.92	1.298E+00	1.432E+00	1.432E+00	54.92
	1764.49	73	15.30	9.006E-01	1.509E+00	1.509E+00	42.06
AC-228	338.32	249	11.27	3.451E+00	1.819E+00	1.819E+00	49.09
	911.20	279	25.80*	1.570E+00	1.960E+00	1.960E+00	20.47
	968.97	134	15.80	1.484E+00	1.625E+00	1.625E+00	37.05
RA-228	338.32	249	11.27	3.451E+00	1.819E+00	1.819E+00	49.09
	911.20	279	25.80*	1.570E+00	1.960E+00	1.960E+00	20.47
	968.97	134	15.80	1.484E+00	1.625E+00	1.625E+00	37.05
TH-228	74.82	404	10.28	4.045E+00	2.760E+00	2.760E+00	20.22
	77.11	601	17.10	4.305E+00	2.321E+00	2.321E+00	15.91

Sample ID : G248860006 Acquisition date : 24-MAR-2010 16:27:32

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	238.63	1213	43.60*	4.459E+00	1.772E+00	1.772E+00	15.36
	300.09	103	3.30	3.769E+00	2.354E+00	2.354E+00	79.81
TH-230	609.32	408	45.49*	2.214E+00	1.149E+00	1.149E+00	19.48
	1120.29	98	14.92	1.298E+00	1.432E+00	1.432E+00	54.51
	1764.49	73	15.30	9.006E-01	1.509E+00	1.509E+00	42.06
TH-232	338.32	249	11.27	3.451E+00	1.819E+00	1.819E+00	27.27
	911.20	279	25.80*	1.570E+00	1.960E+00	1.960E+00	20.47
	968.97	134	15.80	1.484E+00	1.625E+00	1.625E+00	37.05
U-235	89.96	175	3.47	5.405E+00	2.648E+00	2.648E+00	44.09
	93.35	204	5.60	5.576E+00	1.856E+00	1.856E+00	45.81
	143.76	------	10.96*	6.030E+00	------ Line Not Found		------
	163.33	------	5.08	5.697E+00	------ Line Not Found		------
	185.72	193	57.20	5.290E+00	1.808E-01	1.808E-01	42.17
	205.31	------	5.01	4.952E+00	------ Line Not Found		------
ANH-511	511.00	153	100.00*	2.542E+00	1.713E-01	1.713E-01	46.58

Flag: "*" = Keyline

Sample ID : G248860006 Acquisition date : 24-MAR-2010 16:27:32

Total number of lines in spectrum 31
Number of unidentified lines 3
Number of lines tentatively identified by NID 28 90.32%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.640E+01	3.640E+01	0.402E+01	11.05	
BA-137M	30.08Y	1.00	5.931E-02	5.939E-02	5.524E-02	93.02	
CS-137	30.08Y	1.00	6.265E-02	6.274E-02	5.836E-02	93.02	
TL-208	1.41E+10Y	1.00	6.008E-01	6.008E-01	1.094E-01	18.21	
BI-211	7.04E+08Y	1.00	4.181E+00	4.181E+00	0.680E+00	16.25	
PB-212	1.41E+10Y	1.00	1.772E+00	1.772E+00	0.272E+00	15.36	
BI-214	1600.00Y	1.00	1.149E+00	1.149E+00	0.232E+00	20.18	
PB-214	1600.00Y	1.00	1.517E+00	1.517E+00	0.260E+00	17.16	
RA-224	1.41E+10Y	1.00	3.311E+00	3.311E+00	1.072E+00	32.39	
RA-226	1600.00Y	1.00	1.149E+00	1.149E+00	0.232E+00	20.18	
AC-228	1.41E+10Y	1.00	1.960E+00	1.960E+00	0.401E+00	20.47	
RA-228	1.41E+10Y	1.00	1.960E+00	1.960E+00	0.401E+00	20.47	
TH-228	1.41E+10Y	1.00	1.772E+00	1.772E+00	0.272E+00	15.36	
TH-230	7.54E+04Y	1.00	1.149E+00	1.149E+00	0.224E+00	19.48	
TH-232	1.41E+10Y	1.00	1.960E+00	1.960E+00	0.401E+00	20.47	
U-235	7.04E+08Y	1.00	1.808E-01	1.808E-01	0.763E-01	42.17	K
ANH-511	1.00E+09Y	1.00	1.713E-01	1.713E-01	0.798E-01	46.58	
			---	---			
	Total Activity :		5.935E+01	5.935E+01			

Grand Total Activity : 5.935E+01 5.935E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248860006 Acquisition date : 24-MAR-2010 16:27:32

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.07	94	298	0.95	417.48	414	8	1.30E-02	67.2	4.89E+00	
0	270.07	117	270	1.37	539.54	534	11	1.63E-02	57.4	4.07E+00	T
0	327.87	55	130	1.14	655.20	651	7	7.68E-03	73.4	3.53E+00	T
0	409.16	68	84	0.99	817.88	814	8	9.46E-03	52.8	3.00E+00	
0	462.02	88	148	1.37	923.66	918	14	1.22E-02	62.5	2.74E+00	T
0	726.99	104	96	1.38	1453.92	1446	15	1.44E-02	45.8	1.91E+00	T
0	767.70	62	46	1.24	1535.40	1531	10	8.64E-03	48.4	1.83E+00	T
1	964.52	56	75	1.99	1929.31	1924	20	7.71E-03	56.1	1.49E+00	T
0	1587.63	28	10	3.37	3176.47	3168	14	3.88E-03	63.4	9.64E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:28:08.86

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860006.CNF;1  *
* Acquisition date : 24-MAR-2010 16:27:32  Detector SN#     :               *
* Detector ID      : GAM02                 Sensitivity      : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:03.91         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 4-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248860006            Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.32120E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 29-OCT-2009 10:28:07.3MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.640E+01	4.024E+00	5.115E-01	4.862E-02	71.160
BA-137M	5.939E-02	5.524E-02	6.981E-02	6.014E-03	0.851
CS-137	6.274E-02	5.836E-02	7.375E-02	6.366E-03	0.851
TL-208	6.008E-01	1.094E-01	6.262E-02	6.266E-03	9.594
BI-211	4.181E+00	6.796E-01	3.479E-01	4.014E-02	12.017
PB-212	1.772E+00	2.721E-01	1.314E-01	1.659E-02	13.486
BI-214	1.149E+00	2.320E-01	1.297E-01	1.376E-02	8.866
PB-214	1.517E+00	2.604E-01	1.266E-01	1.616E-02	11.991
RA-224	3.311E+00	1.072E+00	1.409E+00	1.663E-01	2.349
RA-226	1.149E+00	2.320E-01	1.297E-01	1.376E-02	8.866
AC-228	1.960E+00	4.012E-01	2.749E-01	3.514E-02	7.130
RA-228	1.960E+00	4.012E-01	2.749E-01	3.514E-02	7.130
TH-228	1.772E+00	2.721E-01	1.314E-01	1.659E-02	13.486
TH-230	1.149E+00	2.239E-01	1.296E-01	1.194E-02	8.866
TH-232	1.960E+00	4.012E-01	2.749E-01	3.514E-02	7.130
U-235	1.808E-01	7.626E-02	3.681E-01	6.335E-02	0.491
ANH-511	1.713E-01	7.981E-02	5.116E-02	5.072E-03	3.349

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.854E-01		3.641E-01	6.098E-01	6.465E-02	0.304

Sample ID : G248860006 Acquisition date : 24-MAR-2010 16:27:32

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	-4.563E-02		5.050E-02	7.498E-02	6.648E-03	-0.609
NA-24	2.043E+01		1.035E+02	Half-Life too short		
SC-46	-2.572E-02		4.777E-02	7.044E-02	7.162E-03	-0.365
V-48	-5.963E-02		1.044E-01	1.578E-01	1.544E-02	-0.378
CR-51	1.540E-02		4.669E-01	7.779E-01	9.486E-02	0.020
MN-54	-1.189E-03		4.696E-02	7.645E-02	7.510E-03	-0.016
CO-56	6.947E-03		4.567E-02	7.542E-02	7.468E-03	0.092
CO-57	1.759E-02		2.769E-02	4.574E-02	3.824E-03	0.384
CO-58	-2.880E-02		4.644E-02	7.153E-02	6.927E-03	-0.403
FE-59	-3.828E-02		1.116E-01	1.802E-01	1.718E-02	-0.212
CO-60	3.052E-02		4.358E-02	7.701E-02	7.175E-03	0.396
ZN-65	4.025E-02		1.256E-01	1.866E-01	1.624E-02	0.216
SE-75	-6.832E-03		5.337E-02	7.857E-02	9.604E-03	-0.087
SR-85	4.749E-02		4.544E-02	7.037E-02	6.966E-03	0.675
Y-88	-5.924E-03		3.748E-02	6.000E-02	4.894E-03	-0.099
Y-91	-1.321E+01		2.901E+01	4.620E+01	3.836E+00	-0.286
NB-94	1.030E-02		3.861E-02	6.511E-02	5.805E-03	0.158
NB-95	4.742E-02		6.163E-02	9.430E-02	8.829E-03	0.503
NB-95M	1.241E-01		1.621E-01	2.520E-01	3.192E-02	0.493
ZR-95	3.329E-02		8.245E-02	1.401E-01	1.421E-02	0.238
MO-99	3.535E+01		4.724E+01	8.216E+01	1.320E+01	0.430
TC-99M	-3.527E+16		2.726E+16	Half-Life too short		
RU-103	2.485E-02		4.551E-02	7.621E-02	1.131E-02	0.326
RH-106	-1.698E-01		3.397E-01	5.446E-01	7.385E-02	-0.312
RU-106	-1.698E-01		3.393E-01	5.446E-01	4.945E-02	-0.312
AG-108M	7.981E-03		3.236E-02	5.351E-02	5.518E-03	0.149
CD-109	3.860E+00		9.772E-01	1.690E+00	1.697E-01	2.284
AG-110M	1.098E-02		4.470E-02	6.629E-02	5.914E-03	0.166
SN-113	3.086E-03		5.094E-02	8.380E-02	8.575E-03	0.037
CD-115	-1.594E-05		2.893E-05	Half-Life too short		
SN-117M	-2.372E-02		7.572E-02	1.210E-01	1.192E-02	-0.196
TE-123M	-1.127E-02		3.149E-02	5.019E-02	4.980E-03	-0.225
SB-124	-4.856E-02		7.640E-02	1.093E-01	9.966E-03	-0.444
SB-125	-2.016E-02		1.019E-01	1.636E-01	1.670E-02	-0.123
TE-125M	4.582E+00		1.086E+01	1.826E+01	1.903E+00	0.251
I-126	-3.446E-02		3.889E-01	5.563E-01	4.812E-02	-0.062
SB-126	-1.578E-01		2.648E-01	3.540E-01	3.202E-02	-0.446
SN-126	3.885E-01		9.609E-02	1.660E-01	1.660E-02	2.340
SB-127	-1.536E+00		3.697E+00	5.923E+00	7.756E-01	-0.259
I-131	-3.160E-02		2.031E-01	3.314E-01	3.728E-02	-0.095
TE-132	7.730E-01		2.629E+00	4.213E+00	7.839E-01	0.183
BA-133	6.327E-03		4.798E-02	7.034E-02	1.034E-02	0.090
I-133	-1.550E-01		1.858E-01	Half-Life too short		
CS-134	4.674E-02		5.451E-02	9.487E-02	9.129E-03	0.493
CS-135	3.571E-01		2.010E-01	3.225E-01	4.266E-02	1.107
I-135	4.332E+14		1.647E+15	Half-Life too short		
CS-136	2.279E-02		1.508E-01	2.558E-01	2.469E-02	0.089
CE-139	-1.638E-02		3.463E-02	5.476E-02	5.617E-03	-0.299

Sample ID : G248860006 Acquisition date : 24-MAR-2010 16:27:32

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-140	-1.877E-02		4.044E-01	6.440E-01	2.204E-01	-0.029
LA-140	-9.369E-02		9.955E-02	1.253E-01	1.133E-02	-0.748
CE-141	2.512E-02		7.587E-02	1.253E-01	1.170E-02	0.201
CE-143	1.879E-02	+	2.819E-03	Half-Life too short		
CE-144	-5.039E-02		2.100E-01	3.403E-01	5.216E-02	-0.148
PM-144	-3.930E-03		3.763E-02	6.182E-02	5.487E-03	-0.064
PR-144	-2.635E-01		2.826E+00	4.647E+00	4.123E-01	-0.057
PM-146	-2.834E-03		4.847E-02	7.822E-02	9.229E-03	-0.036
ND-147	1.046E-01		8.285E-01	1.339E+00	2.099E-01	0.078
PM-149	-1.176E-04		2.370E-04	Half-Life too short		
EU-152	-8.403E-02		1.099E-01	1.731E-01	2.034E-02	-0.485
GD-153	-3.262E-03		9.744E-02	1.451E-01	1.319E-02	-0.022
EU-154	-1.275E-01		1.431E-01	2.124E-01	2.455E-02	-0.600
EU-155	9.365E-02		1.108E-01	1.894E-01	1.660E-02	0.494
TB-160	6.409E-02		1.700E-01	2.852E-01	2.883E-02	0.225
HO-166M	-1.527E-02		6.836E-02	1.110E-01	9.972E-03	-0.138
TA-182	6.033E-02		2.687E-01	4.507E-01	3.802E-02	0.134
IR-192	-2.165E-02		3.947E-02	6.353E-02	7.586E-03	-0.341
HG-203	3.331E-02		5.060E-02	7.794E-02	9.786E-03	0.427
BI-207	3.375E-02		6.388E-02	1.112E-01	1.021E-02	0.304
PB-210	-2.285E+00		6.144E+00	9.188E+00	8.741E-01	-0.249
PB-211	5.703E-02		9.333E-01	1.343E+00	6.536E-01	0.042
BI-212	2.312E+00	+	1.100E+00	1.316E+00	1.683E-01	1.757
RN-219	-2.398E-01		4.859E-01	7.686E-01	1.209E-01	-0.312
RA-223	-5.920E-01		8.537E-01	1.172E+00	2.240E-01	-0.505
AC-227	1.970E-01		2.760E-01	4.784E-01	7.038E-02	0.412
TH-227	1.970E-01		2.763E-01	4.784E-01	7.660E-02	0.412
TH-229	4.528E-01		5.669E-01	9.388E-01	1.018E-01	0.482
PA-231	2.321E-01		1.539E+00	2.600E+00	4.436E-01	0.089
TH-231	-5.920E-01		8.537E-01	1.172E+00	2.240E-01	-0.505
PA-233	-4.205E-03		6.946E-02	1.153E-01	1.405E-02	-0.036
PA-234	2.692E-02		3.427E-01	5.570E-01	1.082E-01	0.048
PA-234M	-4.727E+00		6.098E+00	9.114E+00	9.918E-01	-0.519
TH-234	1.156E+00		1.685E+00	2.912E+00	5.252E-01	0.397
NP-237	1.188E+00		3.831E-01	5.038E-01	1.168E-01	2.359
U-238	1.156E+00		1.685E+00	2.912E+00	5.252E-01	0.397
NP-239	-1.989E-01		4.275E-01	6.916E-01	5.798E-02	-0.288
AM-241	-1.191E-01		1.761E-01	2.921E-01	2.393E-02	-0.408
CM-247	-2.392E-02		4.426E-02	6.990E-02	7.012E-03	-0.342
CF-249	9.373E-03		4.562E-02	7.575E-02	7.666E-03	0.124
CF-251	-4.410E-02		1.450E-01	2.299E-01	2.414E-02	-0.192

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248860006            *
* Acquisition date : 24-MAR-2010 16:27:32 Detector SN#    :                 *
* Detector ID      : GAM02                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:03.91     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  4-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248860006           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.3212E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 29-OCT-2009 10:28:07 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.640E+01	3.943E+00	2.562E-01	2.012E+00
BA-137M	5.939E-02	5.414E-02	3.546E-02	2.762E-02
CS-137	6.274E-02	5.719E-02	3.746E-02	2.918E-02
TL-208	6.008E-01	1.072E-01	3.188E-02	5.471E-02
BI-211	4.181E+00	6.660E-01	1.786E-01	3.398E-01
PB-212	1.772E+00	2.667E-01	6.791E-02	1.361E-01
BI-214	1.149E+00	2.274E-01	6.595E-02	1.160E-01
PB-214	1.517E+00	2.552E-01	6.498E-02	1.302E-01
RA-224	3.311E+00	1.051E+00	7.281E-01	5.362E-01
RA-226	1.149E+00	2.274E-01	6.595E-02	1.160E-01
AC-228	1.960E+00	3.931E-01	1.388E-01	2.006E-01
RA-228	1.960E+00	3.931E-01	1.388E-01	2.006E-01
TH-228	1.772E+00	2.667E-01	6.791E-02	1.361E-01
TH-230	1.149E+00	2.195E-01	6.595E-02	1.120E-01
TH-232	1.960E+00	3.931E-01	1.388E-01	2.006E-01
U-235	-2.680E-02	2.245E-01	1.918E-01	1.145E-01
ANH-511	1.713E-01	7.821E-02	2.610E-02	3.991E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.854E-01	3.568E-01	3.115E-01	1.820E-01	NOT IDENT.
NA-22	-4.563E-02	4.949E-02	3.765E-02	2.525E-02	NOT IDENT.
NA-24	2.043E+07	2.029E+08	0.000E+00	1.035E+08	SHORT HLIF
SC-46	-2.572E-02	4.681E-02	3.560E-02	2.388E-02	FAIL ABUN
V-48	-5.963E-02	1.023E-01	7.963E-02	5.219E-02	NOT IDENT.
CR-51	1.540E-02	4.576E-01	4.000E-01	2.335E-01	NOT IDENT.
MN-54	-1.189E-03	4.602E-02	3.867E-02	2.348E-02	NOT IDENT.
CO-56	6.947E-03	4.475E-02	3.815E-02	2.283E-02	NOT IDENT.
CO-57	1.759E-02	2.713E-02	2.390E-02	1.384E-02	NOT IDENT.
CO-58	-2.880E-02	4.551E-02	3.620E-02	2.322E-02	NOT IDENT.

FE-59	-3.828E-02	1.094E-01	9.073E-02	5.582E-02	NOT IDENT.
CO-60	3.052E-02	4.271E-02	3.864E-02	2.179E-02	NOT IDENT.
ZN-65	4.025E-02	1.231E-01	9.395E-02	6.279E-02	NOT IDENT.
SE-75	-6.832E-03	5.230E-02	4.053E-02	2.668E-02	NOT IDENT.
SR-85	4.749E-02	4.453E-02	3.590E-02	2.272E-02	NOT IDENT.
Y-88	-5.924E-03	3.673E-02	2.994E-02	1.874E-02	NOT IDENT.
Y-91	-1.321E+01	2.843E+01	2.322E+01	1.450E+01	NOT IDENT.
NB-94	1.030E-02	3.783E-02	3.304E-02	1.930E-02	NOT IDENT.
NB-95	4.742E-02	6.040E-02	4.778E-02	3.082E-02	NOT IDENT.
NB-95M	1.241E-01	1.588E-01	1.303E-01	8.104E-02	NOT IDENT.
ZR-95	3.329E-02	8.080E-02	7.099E-02	4.123E-02	NOT IDENT.
MO-99	3.535E+01	4.629E+01	4.165E+01	2.362E+01	NOT IDENT.
TC-99M	-3.527E+22	5.344E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.485E-02	4.460E-02	3.890E-02	2.276E-02	NOT IDENT.
RH-106	-1.698E-01	3.329E-01	2.769E-01	1.699E-01	NOT IDENT.
RU-106	-1.698E-01	3.325E-01	2.769E-01	1.696E-01	NOT IDENT.
AG-108M	7.981E-03	3.171E-02	2.738E-02	1.618E-02	NOT IDENT.
CD-109	3.860E+00	9.577E-01	8.878E-01	4.886E-01	NOT IDENT.
AG-110M	1.098E-02	4.380E-02	3.368E-02	2.235E-02	NOT IDENT.
SN-113	3.086E-03	4.992E-02	4.295E-02	2.547E-02	NOT IDENT.
CD-115	-1.594E+01	5.670E+01	0.000E+00	2.893E+01	SHORT HLIF
SN-117M	-2.372E-02	7.421E-02	6.294E-02	3.786E-02	NOT IDENT.
TE-123M	-1.127E-02	3.086E-02	2.611E-02	1.575E-02	NOT IDENT.
SB-124	-4.856E-02	7.487E-02	5.463E-02	3.820E-02	NOT IDENT.
SB-125	-2.016E-02	9.987E-02	8.373E-02	5.095E-02	FAIL ABUN
TE-125M	4.582E+00	1.064E+01	9.559E+00	5.429E+00	NOT IDENT.
I-126	-3.446E-02	3.812E-01	2.825E-01	1.945E-01	NOT IDENT.
SB-126	-1.578E-01	2.595E-01	1.795E-01	1.324E-01	NOT IDENT.
SN-126	3.885E-01	9.417E-02	8.723E-02	4.805E-02	NOT IDENT.
SB-127	-1.536E+00	3.623E+00	3.007E+00	1.848E+00	NOT IDENT.
I-131	-3.160E-02	1.990E-01	1.701E-01	1.015E-01	NOT IDENT.
TE-132	7.730E-01	2.576E+00	2.179E+00	1.314E+00	NOT IDENT.
BA-133	6.327E-03	4.702E-02	3.611E-02	2.399E-02	FAIL ABUN
I-133	-1.550E+05	3.642E+05	0.000E+00	1.858E+05	SHORT HLIF
CS-134	4.674E-02	5.342E-02	4.803E-02	2.726E-02	NOT IDENT.
CS-135	3.571E-01	1.970E-01	1.663E-01	1.005E-01	NOT IDENT.
I-135	4.332E+20	3.228E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.279E-02	1.478E-01	1.289E-01	7.539E-02	NOT IDENT.
CE-139	-1.638E-02	3.393E-02	2.847E-02	1.731E-02	NOT IDENT.
BA-140	-1.877E-02	3.963E-01	3.283E-01	2.022E-01	NOT IDENT.
LA-140	-9.369E-02	9.756E-02	6.267E-02	4.978E-02	FAIL ABUN
CE-141	2.512E-02	7.436E-02	6.526E-02	3.794E-02	NOT IDENT.
CE-143	1.879E+04	5.524E+03	0.000E+00	2.819E+03	SHORT HLIF
CE-144	-5.039E-02	2.058E-01	1.775E-01	1.050E-01	NOT IDENT.
PM-144	-3.930E-03	3.688E-02	3.137E-02	1.882E-02	NOT IDENT.
PR-144	-2.635E-01	2.770E+00	2.358E+00	1.413E+00	NOT IDENT.
PM-146	-2.834E-03	4.750E-02	3.999E-02	2.423E-02	NOT IDENT.
ND-147	1.046E-01	8.119E-01	6.829E-01	4.142E-01	FAIL ABUN
PM-149	-1.176E+02	4.644E+02	0.000E+00	2.370E+02	SHORT HLIF
EU-152	-8.403E-02	1.077E-01	8.891E-02	5.494E-02	FAIL ABUN
GD-153	-3.262E-03	9.549E-02	7.610E-02	4.872E-02	NOT IDENT.
EU-154	-1.275E-01	1.403E-01	1.067E-01	7.157E-02	NOT IDENT.
EU-155	9.365E-02	1.086E-01	9.921E-02	5.542E-02	NOT IDENT.
TB-160	6.409E-02	1.666E-01	1.442E-01	8.498E-02	FAIL ABUN
HO-166M	-1.527E-02	6.700E-02	5.633E-02	3.418E-02	FAIL ABUN
TA-182	6.033E-02	2.633E-01	2.265E-01	1.344E-01	NOT IDENT.
IR-192	-2.165E-02	3.868E-02	3.268E-02	1.974E-02	FAIL ABUN
HG-203	3.331E-02	4.959E-02	4.017E-02	2.530E-02	NOT IDENT.
BI-207	3.375E-02	6.261E-02	5.601E-02	3.194E-02	FAIL ABUN
PB-210	-2.285E+00	6.022E+00	4.875E+00	3.072E+00	NOT IDENT.
PB-211	5.703E-02	9.146E-01	6.879E-01	4.666E-01	NOT IDENT.
BI-212	2.312E+00	1.078E+00	6.673E-01	5.498E-01	FAIL ABUN
RN-219	-2.398E-01	4.761E-01	3.937E-01	2.429E-01	FAIL ABUN
RA-223	-5.920E-01	8.367E-01	6.026E-01	4.269E-01	FAIL ABUN
AC-227	1.970E-01	2.705E-01	2.470E-01	1.380E-01	FAIL ABUN
TH-227	1.970E-01	2.707E-01	2.470E-01	1.381E-01	FAIL ABUN
TH-229	4.528E-01	5.556E-01	4.868E-01	2.835E-01	FAIL ABUN
PA-231	2.321E-01	1.508E+00	1.340E+00	7.695E-01	NOT IDENT.
TH-231	-5.920E-01	8.367E-01	6.026E-01	4.269E-01	FAIL ABUN
PA-233	-4.205E-03	6.807E-02	5.934E-02	3.473E-02	FAIL ABUN
PA-234	2.692E-02	3.358E-01	2.811E-01	1.713E-01	NOT IDENT.
PA-234M	-4.727E+00	5.976E+00	4.596E+00	3.049E+00	FAIL ABUN
TH-234	1.156E+00	1.652E+00	1.538E+00	8.427E-01	FAIL ABUN
NP-237	1.188E+00	3.755E-01	2.647E-01	1.916E-01	NOT IDENT.
U-238	1.156E+00	1.652E+00	1.538E+00	8.427E-01	FAIL ABUN
NP-239	-1.989E-01	4.189E-01	3.616E-01	2.137E-01	FAIL ABUN
AM-241	-1.191E-01	1.726E-01	1.544E-01	8.806E-02	NOT IDENT.
CM-247	-2.392E-02	4.338E-02	3.581E-02	2.213E-02	FAIL ABUN

CF-249	9.373E-03	4.471E-02	3.883E-02	2.281E-02 NOT IDENT.
CF-251	-4.410E-02	1.421E-01	1.194E-01	7.248E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	267.7534
49.72	258.3070
57.36	0.0000
59.54	297.1915
63.29	324.0097
63.29	324.0097
64.28	322.3362
67.75	358.1020
69.67	347.6369
70.83	347.4093
72.81	347.9289
72.87	347.9845
72.87	347.9845
74.82	352.4743
74.82	352.4743
74.82	352.4743
74.97	352.6122
77.11	354.5731
77.11	354.5731
77.11	354.5731
79.69	374.1545
79.80	354.2726
80.12	300.0092
80.19	300.0629
80.57	333.1116
81.00	355.3339
81.07	344.4601
81.07	344.4601
83.79	331.1664
83.79	331.1664
85.43	332.4756
86.48	333.3055
86.55	333.3606
86.79	333.5479
86.94	333.6672
87.57	334.1630
88.03	334.5229
88.47	334.8662
89.96	336.0239
91.11	336.9099
92.59	338.0427
92.59	338.0427
93.35	338.6211
94.67	339.6200
94.87	299.2993
94.87	299.2993
95.86	324.0073
97.43	285.3698
98.44	270.3433
99.53	288.0926
100.11	321.7694
103.18	310.4456
103.37	296.1910
105.31	290.6470
106.12	314.2671
109.28	302.7023
111.00	332.9459
111.76	340.2718
116.30	292.1388
117.23	317.2930
121.12	272.9718
121.78	273.3062
122.06	273.4474
123.07	300.8556
131.20	365.9329
133.52	292.3096
136.00	302.7343

136.47	300.9358
140.51	342.0242
140.51	0.0000
143.76	320.1195
144.24	301.7666
144.24	301.7666
145.44	302.3607
152.43	306.8059
153.25	292.5237
154.21	252.0093
154.21	252.0093
156.02	291.6807
158.56	281.1909
159.00	285.6116
162.66	303.1488
163.33	296.0000
165.86	309.9393
176.60	284.3850
177.52	282.5791
181.07	270.3280
184.41	268.2800
185.72	268.2079
193.51	224.3629
197.04	277.8453
205.31	253.7315
210.85	197.5767
215.65	239.8581
222.11	250.9293
227.38	247.8533
228.16	246.9183
228.18	246.9248
235.69	252.5669
235.96	240.0116
235.96	240.0116
238.63	373.0703
238.63	373.0703
240.99	374.0537
242.00	214.7928
244.70	189.9227
252.40	193.8401
252.80	184.9879
256.23	183.8716
256.23	183.8716
260.90	0.0000
264.66	170.8436
268.22	172.9248
269.46	185.5131
269.46	185.5131
271.23	182.2021
273.65	186.3038
276.40	189.5647
277.37	183.3344
277.60	183.3740
278.00	176.1094
279.20	171.9123
279.54	183.7311
280.46	200.0787
283.69	166.9588
284.31	171.6731
285.41	167.2377
285.90	0.0000
287.50	160.1734
293.27	0.0000
295.22	164.1648
295.96	182.9485
298.57	149.7144
299.98	174.8975
299.98	174.8975
300.09	174.9174
300.09	174.9174
300.13	174.9231
301.36	189.1354
302.85	145.8055
304.50	152.0524
304.50	152.0524
304.85	161.1374
308.46	151.0986
311.90	153.4694

316.51	160.7713
319.41	149.7436
320.08	158.4214
323.87	188.4519
323.87	188.4519
328.76	169.2593
333.37	174.5734
334.37	173.1789
334.37	173.1789
338.28	166.0041
338.28	166.0041
338.32	166.0094
338.32	166.0094
338.32	166.0094
340.48	144.5542
340.55	144.5632
344.28	166.6556
351.06	130.3577
351.93	130.4531
356.01	114.9483
364.49	140.7173
366.42	126.0466
383.85	130.8073
388.16	132.2533
388.63	135.3301
391.69	125.5231
400.66	138.6044
401.81	153.0052
402.40	152.0511
404.85	132.4951
410.95	118.3034
414.70	94.1490
423.72	100.5374
427.09	115.3241
427.87	117.4675
433.94	103.3551
453.88	114.3083
463.37	92.6698
468.07	109.4125
473.00	88.9721
476.78	104.2362
477.60	83.8629
487.02	89.7820
492.35	0.0000
497.08	76.2036
511.00	96.6300
514.00	75.6862
527.90	0.0000
529.87	0.0000
531.02	80.0244
537.26	94.8209
546.56	0.0000
563.25	104.1851
569.33	76.3608
569.50	76.3690
569.70	81.8328
583.19	85.1985
600.60	92.4829
602.73	103.3925
604.72	117.4048
609.32	97.5608
609.32	97.5608
609.32	97.5608
610.33	102.2629
614.28	91.6065
618.01	86.8095
621.93	86.0523
621.93	86.0523
633.25	88.4417
635.95	56.5298
636.99	63.1593
645.85	65.3394
657.76	79.3864
661.66	96.4012
661.66	96.4012
664.57	0.0000
666.33	95.6689
666.50	84.5140

677.62	82.7330
685.70	85.9537
695.00	86.3383
696.49	81.5452
696.51	81.5452
697.00	84.4788
702.65	86.6511
706.68	93.6445
711.68	84.0873
720.70	98.1860
721.93	0.0000
722.78	88.4531
722.91	88.4575
723.31	81.9214
724.19	83.5930
727.33	77.8042
733.00	64.1827
735.93	65.2572
739.50	57.4407
747.24	67.5800
752.31	69.7249
753.82	62.7954
756.73	63.8734
763.94	46.7236
765.81	85.1743
766.42	86.8677
777.92	73.5382
778.90	77.5997
783.70	81.8009
785.37	68.7222
795.86	70.0461
801.95	70.2281
810.29	76.6022
810.76	73.5521
815.77	65.5172
818.51	61.4927
832.01	79.3574
834.85	88.7358
836.80	0.0000
846.77	60.1354
856.80	74.6061
860.56	80.2785
871.09	55.4883
873.19	66.0116
875.33	0.0000
879.36	58.8191
880.51	60.9481
883.24	56.8055
884.68	51.5744
889.28	64.3196
898.04	63.4790
911.20	70.8887
911.20	70.8887
911.20	70.8887
926.50	57.7521
937.49	65.5065
944.13	62.4378
946.00	57.0940
949.00	63.6281
962.29	57.7969
964.08	68.6771
966.15	55.3455
968.97	43.4521
968.97	43.4521
968.97	43.4521
983.53	65.5195
996.26	64.7185
1001.03	76.9128
1004.73	58.6758
1037.84	60.2763
1038.76	0.0000
1048.07	51.1820
1050.41	56.8102
1050.41	56.8102
1063.66	60.8026
1085.87	55.5982
1099.45	62.4685
1112.07	61.2981

1115.54	68.5020
1120.29	69.5573
1120.29	69.5573
1120.29	69.5573
1120.55	69.5633
1121.30	69.5811
1131.51	0.0000
1173.23	70.7188
1177.93	64.9989
1189.05	69.1135
1204.77	87.0444
1221.41	89.4448
1231.02	107.4388
1235.36	101.6547
1238.28	77.0479
1260.41	0.0000
1271.85	40.8932
1274.44	59.8877
1274.54	59.8901
1291.59	45.1355
1298.22	0.0000
1312.11	42.3691
1332.49	29.4201
1365.19	36.8467
1368.63	0.0000
1384.29	36.0069
1408.01	27.9503
1457.56	0.0000
1460.82	17.9897
1489.16	19.0239
1505.03	23.3428
1596.21	18.4381
1620.50	17.7635
1678.03	0.0000
1690.97	14.2498
1764.49	15.4464
1764.49	15.4464
1764.49	15.4464
1770.23	11.8407
1771.35	16.9196
1791.20	0.0000
1836.06	13.7212

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248860006

Total Uranium Activity	3.4263E+00	ug/g
Total Uranium Counting Unc.	4.9151E+00	ug/g
Total Uranium Tpu	2.5077E-06	ug/g
Total Uranium Mda	4.5750E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248860006       *
*   ANALYST       : MXR1                      DETECTOR   : GAM02            *
*   SAMPLE DATE   :  4-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 16:27:32.75    SAMPLE ALQT:  132.120 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.024E+01
GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.458E+00
GROSS GAMMA MDA    (pCi/GRAM  )   : 3.354E+00
GROSS GAMMA DLC    (pCi/GRAM  )   : 1.626E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:28:58.15

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860007.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 16:27:57
Sample ID         : G248860007           Sample quantity  : 1.29800E+02 GRAM
Detector name     : GAM05                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.90  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.10*	166	824	1.33	127.18	123	10	2.30E-02	33.9	
2	3	74.49*	750	644	1.18	149.95	145	21	1.04E-01	6.7	1.22E+00
3	3	76.73*	1163	552	1.17	154.44	145	21	1.62E-01	4.7	
4	4	84.00	260	425	1.96	168.97	165	29	3.61E-02	14.7	1.66E+00
5	4	86.88	471	398	1.32	174.75	165	29	6.54E-02	8.8	
6	4	89.57	354	423	1.54	180.11	165	29	4.91E-02	12.7	
7	4	92.45*	445	391	1.48	185.87	165	29	6.18E-02	10.3	
8	0	128.83	82	404	0.85	258.63	255	9	1.14E-02	45.5	
9	0	185.88*	195	518	1.46	372.71	366	13	2.70E-02	25.7	
10	3	238.29*	1356	176	1.26	477.52	470	19	1.88E-01	3.3	1.80E+00
11	3	241.20	363	242	1.86	483.32	470	19	5.04E-02	12.2	
12	0	269.57	138	272	1.23	540.04	533	14	1.91E-02	26.8	
13	0	294.92*	378	249	1.35	590.74	583	13	5.25E-02	10.1	
14	0	299.49*	82	161	1.39	599.88	596	9	1.14E-02	31.2	
15	0	327.72	77	191	1.20	656.31	652	9	1.07E-02	34.3	
16	0	338.07	257	190	1.23	677.01	672	11	3.57E-02	12.2	
17	0	351.43*	636	214	1.23	703.73	697	13	8.83E-02	6.2	
18	0	462.97	80	153	1.46	926.72	920	13	1.12E-02	34.1	
19	0	510.29*	108	198	1.36	1021.32	1013	16	1.50E-02	33.6	
20	0	582.90*	380	109	1.63	1166.47	1160	13	5.28E-02	7.8	
21	0	608.83*	481	99	1.56	1218.30	1212	12	6.68E-02	6.2	
22	0	661.57	41	86	1.37	1323.74	1318	11	5.66E-03	46.6	
23	0	727.42	106	121	1.83	1455.36	1447	15	1.48E-02	24.7	
24	0	793.68	80	56	0.98	1587.79	1580	15	1.12E-02	23.2	
25	0	860.31	77	53	1.38	1720.94	1714	14	1.07E-02	23.3	
26	0	910.76*	249	109	1.70	1821.78	1815	14	3.46E-02	11.0	
27	1	964.31	51	31	1.87	1928.78	1925	21	7.07E-03	22.3	2.00E+00
28	1	968.55*	180	50	2.17	1937.26	1925	21	2.50E-02	11.4	
29	0	1120.01*	102	72	1.45	2239.91	2234	14	1.42E-02	20.6	
30	0	1460.14*	1259	18	1.98	2919.44	2910	17	1.75E-01	2.9	
31	0	1588.45	17	22	2.31	3175.73	3169	12	2.32E-03	60.4	
32	0	1728.72	27	8	2.69	3455.88	3450	11	3.78E-03	27.9	
33	0	1763.90*	78	7	1.49	3526.12	3519	13	1.08E-02	13.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 18:29:02

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860007.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 4-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 16:27:57
Sample ID : G248860007 Sample quantity : 129.80 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA5 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.90 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.404E+01	2.912E+00	6.046E-01	3.760E-02	56.307
CD-109	+	88.03	*	4.826E+00	9.239E-01	9.812E-01	7.471E-02	4.919
SN-126	+	64.28		6.189E-01	4.299E-01	4.477E-01	6.673E-02	1.382
	+	86.94		1.946E+00	8.710E-01	3.944E-01	1.624E-01	4.934
	+	87.57	*	4.682E-01	8.963E-02	9.505E-02	7.239E-03	4.925
CS-135	+	268.22	*	5.718E-01	3.127E-01	2.667E-01	2.854E-02	2.144
BA-137M	+	661.66	*	6.516E-02	6.091E-02	7.178E-02	4.720E-03	0.908
CS-137	+	661.66	*	6.884E-02	6.435E-02	7.583E-02	5.003E-03	0.908
TL-208		277.37		5.298E-01	4.507E-01	7.654E-01	9.961E-02	0.692
	+	583.19	*	5.723E-01	9.886E-02	6.833E-02	5.018E-03	8.376
	+	860.56		1.126E+00	5.378E-01	5.287E-01	5.365E-02	2.129
BI-211		72.87		1.849E+01	3.239E+00	4.953E+00	3.899E-01	3.733
	+	351.06	*	4.042E+00	5.969E-01	3.593E-01	2.847E-02	11.250
PB-212	+	74.82		2.625E+00	4.803E-01	4.244E-01	5.300E-02	6.186
	+	77.11		2.454E+00	3.008E-01	2.563E-01	1.995E-02	9.574
	+	238.63	*	1.883E+00	2.388E-01	1.009E-01	1.093E-02	18.654
	+	300.09		1.799E+00	1.141E+00	1.463E+00	1.571E-01	1.229
BI-214	+	609.32	*	1.406E+00	2.120E-01	1.426E-01	1.203E-02	9.861
	+	1120.29		1.578E+00	6.672E-01	6.464E-01	6.210E-02	2.441
	+	1764.49		1.712E+00	4.804E-01	4.034E-01	2.332E-02	4.243
PB-214	+	74.82		4.653E+00	8.100E-01	7.523E-01	8.384E-02	6.186
	+	77.11		4.326E+00	6.392E-01	4.518E-01	5.124E-02	9.574
	+	242.00		3.060E+00	8.250E-01	6.000E-01	6.818E-02	5.099
	+	295.22		1.462E+00	3.376E-01	2.280E-01	2.528E-02	6.413
	+	351.93	*	1.467E+00	2.313E-01	1.320E-01	1.271E-02	11.116
RA-224	+	240.99	*	5.411E+00	1.425E+00	1.082E+00	1.059E-01	5.000
RA-226	+	609.32	*	1.406E+00	2.120E-01	1.426E-01	1.203E-02	9.861
	+	1120.29		1.578E+00	6.672E-01	6.464E-01	6.210E-02	2.441
	+	1764.49		1.712E+00	4.804E-01	4.034E-01	2.332E-02	4.243
AC-228	+	338.32		1.814E+00	8.735E-01	4.509E-01	1.874E-01	4.022
	+	911.20	*	1.851E+00	4.704E-01	3.003E-01	3.812E-02	6.163
	+	968.97		2.307E+00	7.746E-01	4.862E-01	1.198E-01	4.745
RA-228	+	338.32		1.814E+00	8.735E-01	4.509E-01	1.874E-01	4.022
	+	911.20	*	1.851E+00	4.704E-01	3.003E-01	3.812E-02	6.163

Sample ID : G248860007 Acquisition date : 24-MAR-2010 16:27:57

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		2.307E+00	7.746E-01	4.862E-01	1.198E-01	4.745
TH-228	+	74.82		2.625E+00	4.080E-01	4.244E-01	3.360E-02	6.186
	+	77.11		2.454E+00	3.008E-01	2.563E-01	1.995E-02	9.574
	+	238.63	*	1.883E+00	2.388E-01	1.009E-01	1.093E-02	18.654
	+	300.09		1.799E+00	1.574E+00	1.463E+00	8.963E-01	1.229
TH-229	+	85.43		6.462E-01	1.960E-01	2.378E-01	1.818E-02	2.717
	+	88.47		5.453E-01	1.453E-01	1.469E-01	1.130E-02	3.711
		193.51	*	-6.101E-02	6.240E-01	9.950E-01	9.937E-02	-0.061
		210.85		1.548E+00	1.089E+00	1.820E+00	1.814E-01	0.850
TH-230	+	609.32	*	1.406E+00	1.986E-01	1.426E-01	9.393E-03	9.861
	+	1120.29		1.578E+00	6.588E-01	6.464E-01	4.449E-02	2.441
	+	1764.49		1.712E+00	4.804E-01	4.034E-01	2.332E-02	4.243
TH-232	+	338.32		1.814E+00	4.636E-01	4.509E-01	3.535E-02	4.022
	+	911.20	*	1.851E+00	4.704E-01	3.003E-01	3.812E-02	6.163
	+	968.97		2.307E+00	7.746E-01	4.862E-01	1.198E-01	4.745
TH-234	+	63.29	*	1.606E+00	1.128E+00	1.165E+00	2.115E-01	1.378
	+	92.59		3.922E+00	1.183E+00	8.443E-01	1.857E-01	4.645
U-235	+	89.96		3.771E+00	1.329E+00	1.021E+00	2.489E-01	3.695
	+	93.35		2.962E+00	9.161E-01	6.393E-01	1.475E-01	4.634
		143.76	*	1.145E-01	2.340E-01	3.837E-01	7.318E-02	0.298
		163.33		1.283E-01	4.895E-01	7.961E-01	1.494E-01	0.161
	+	185.72		1.738E-01	9.108E-02	7.560E-02	7.545E-03	2.299
		205.31		-1.220E+00	6.532E-01	8.961E-01	1.687E-01	-1.362
NP-237	+	86.48	*	1.397E+00	3.966E-01	2.827E-01	6.308E-02	4.941
		95.86		-2.979E-01	9.574E-01	1.349E+00	3.255E-01	-0.221
U-238	+	63.29	*	1.606E+00	1.128E+00	1.165E+00	2.115E-01	1.378
	+	92.59		3.922E+00	8.744E-01	8.443E-01	7.095E-02	4.645
ANH-511	+	511.00	*	1.229E-01	8.291E-02	5.737E-02	3.672E-03	2.143

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	5.094E-02	4.444E-01	7.305E-01	5.231E-02	0.070
NA-22		1274.54	*	7.672E-03	5.905E-02	9.674E-02	5.635E-03	0.079
NA-24		1368.63	*	2.347E+02	5.905E-02	Half-Life too short		
SC-46		889.28	*	7.408E-03	5.211E-02	8.720E-02	8.759E-03	0.085
	+	1120.55		2.783E-01	1.162E-01	1.659E-01	1.141E-02	1.678
V-48		944.13		-1.020E+00	1.436E+00	2.217E+00	2.145E-01	-0.460
		983.53	*	6.884E-02	1.054E-01	1.834E-01	1.680E-02	0.375
		1312.11		-8.854E-02	1.152E-01	1.678E-01	9.729E-03	-0.528
CR-51		320.08	*	-6.633E-02	4.995E-01	8.246E-01	7.286E-02	-0.080
MN-54		834.85	*	5.452E-04	4.724E-02	7.848E-02	7.190E-03	0.007
CO-56		846.77	*	-7.340E-04	5.056E-02	8.377E-02	7.834E-03	-0.009
		1037.84		4.023E-02	4.376E-01	7.228E-01	6.370E-02	0.056
		1238.28		2.362E-01	1.307E-01	2.369E-01	1.464E-02	0.997
		1771.35		-9.449E-01	4.300E-01	4.771E-01	2.755E-02	-1.981
CO-57		122.06	*	-2.665E-03	2.793E-02	4.526E-02	6.422E-03	-0.059
		136.47		3.370E-02	2.428E-01	3.954E-01	5.294E-02	0.085

Sample ID : G248860007 Acquisition date : 24-MAR-2010 16:27:57

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-58		810.76	*	-4.415E-02	5.367E-02	8.328E-02	7.329E-03	-0.530
FE-59		1099.45	*	-1.476E-02	1.232E-01	1.990E-01	1.611E-02	-0.074
		1291.59		-5.512E-04	1.714E-01	2.770E-01	2.057E-02	-0.002
CO-60		1173.23		-2.913E-03	6.157E-02	9.979E-02	5.788E-03	-0.029
		1332.49	*	5.817E-03	5.266E-02	8.601E-02	4.977E-03	0.068
ZN-65		1115.54	*	5.143E-02	1.424E-01	2.074E-01	1.449E-02	0.248
SE-75		121.12		-1.299E-01	1.513E-01	2.360E-01	3.687E-02	-0.550
		136.00		2.313E-02	4.711E-02	7.759E-02	1.012E-02	0.298
		264.66	*	-1.946E-02	5.726E-02	8.142E-02	7.774E-03	-0.239
		279.54		1.540E-01	1.260E-01	2.205E-01	2.113E-02	0.698
		400.66		-1.922E-01	3.115E-01	4.933E-01	4.498E-02	-0.389
SR-85		514.00	*	1.105E-01	5.582E-02	9.107E-02	5.838E-03	1.213
Y-88		898.04		-2.772E-02	5.119E-02	8.036E-02	8.216E-03	-0.345
		1836.06	*	3.994E-03	4.148E-02	6.939E-02	3.970E-03	0.058
Y-91		1204.77	*	3.796E+01	3.180E+01	5.620E+01	3.266E+00	0.676
NB-94		702.65	*	3.003E-03	4.626E-02	7.780E-02	5.567E-03	0.039
		871.09		5.333E-02	4.447E-02	7.998E-02	7.794E-03	0.667
NB-95		765.81	*	6.870E-05	5.830E-02	9.723E-02	7.865E-03	0.001
NB-95M		235.69	*	1.082E+00	2.284E-01	3.525E-01	3.862E-02	3.069
ZR-95		724.19		1.804E-01	1.592E-01	2.506E-01	2.079E-02	0.720
		756.73	*	2.963E-02	9.898E-02	1.686E-01	1.504E-02	0.176
MO-99		140.51		-5.728E+01	9.373E+01	1.465E+02	3.729E+01	-0.391
		181.07		1.058E+01	8.564E+01	1.207E+02	2.348E+01	0.088
		366.42		2.144E+02	4.393E+02	7.438E+02	5.105E+01	0.288
		739.50	*	1.989E+01	5.662E+01	9.680E+01	1.478E+01	0.206
		777.92		-1.291E+02	1.648E+02	2.576E+02	2.132E+01	-0.501
TC-99M		140.51	*	-3.327E+16	1.648E+02	Half-Life too short		
RU-103		497.08	*	3.099E-02	5.138E-02	8.696E-02	1.104E-02	0.356
		610.33		1.502E+01	2.928E+00	3.628E+00	5.577E-01	4.141
RH-106		621.93	*	5.817E-02	4.152E-01	6.756E-01	8.132E-02	0.086
		1050.41		2.711E-01	3.408E+00	5.620E+00	4.576E-01	0.048
RU-106		621.93	*	5.817E-02	4.152E-01	6.756E-01	4.454E-02	0.086
		1050.41		2.711E-01	3.408E+00	5.620E+00	4.576E-01	0.048
AG-108M		433.94	*	-1.617E-03	3.565E-02	5.829E-02	3.763E-03	-0.028
		614.28		-5.699E-03	5.123E-02	7.033E-02	4.892E-03	-0.081
		722.91		-1.059E-02	5.517E-02	7.804E-02	6.063E-03	-0.136
AG-110M		657.76	*	-3.227E-02	5.598E-02	7.254E-02	5.014E-03	-0.445
		677.62		-3.649E-01	3.749E-01	5.819E-01	4.137E-02	-0.627
		706.68		2.221E-01	2.841E-01	4.984E-01	3.742E-02	0.446
		763.94		-1.580E-01	2.142E-01	3.383E-01	2.812E-02	-0.467
		884.68		-2.686E-02	6.476E-02	1.034E-01	1.055E-02	-0.260
		937.49		-6.988E-02	1.535E-01	2.437E-01	2.444E-02	-0.287
		1384.29		-5.840E-02	1.991E-01	3.222E-01	1.986E-02	-0.181
		1505.03		-2.919E-01	3.081E-01	4.376E-01	2.572E-02	-0.667
SN-113		391.69	*	-4.335E-02	5.417E-02	8.493E-02	5.269E-03	-0.510
CD-115		260.90		-8.968E-05	5.417E-02	Half-Life too short		
		492.35		3.852E-05	5.417E-02	Half-Life too short		
		527.90	*	2.134E-05	5.417E-02	Half-Life too short		
SN-117M		156.02		-4.871E-01	3.431E+00	5.505E+00	6.070E-01	-0.088

Sample ID : G248860007 Acquisition date : 24-MAR-2010 16:27:57

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		158.56	*	4.287E-02	8.138E-02	1.338E-01	1.438E-02	0.321
TE-123M		159.00	*	-2.967E-03	3.365E-02	5.407E-02	5.810E-03	-0.055
SB-124		602.73		-1.229E-02	5.982E-02	8.142E-02	5.362E-03	-0.151
		645.85		-1.692E-01	6.653E-01	1.048E+00	7.569E-02	-0.161
		722.78		-1.858E-01	5.877E-01	8.206E-01	6.299E-02	-0.226
		1690.97	*	1.604E-02	8.972E-02	1.531E-01	9.736E-03	0.105
SB-125		427.87	*	7.220E-02	1.081E-01	1.844E-01	1.155E-02	0.391
	+	463.37		8.042E-01	5.511E-01	6.397E-01	4.533E-02	1.257
		600.60		-1.498E-01	2.326E-01	3.460E-01	2.559E-02	-0.433
		635.95		2.473E-01	3.457E-01	5.857E-01	4.383E-02	0.422
TE-125M		109.28	*	-7.409E+00	1.126E+01	1.788E+01	2.322E+00	-0.414
I-126		388.63		8.134E-02	2.544E-01	4.269E-01	2.540E-02	0.191
		666.33	*	1.556E-01	4.319E-01	6.198E-01	4.116E-02	0.251
		753.82		1.116E+00	2.907E+00	4.986E+00	3.943E-01	0.224
SB-126		414.70		1.392E-02	1.180E-01	1.953E-01	1.164E-02	0.071
		666.50		6.325E-02	1.507E-01	2.175E-01	1.445E-02	0.291
		695.00		-1.033E-01	1.311E-01	2.076E-01	1.463E-02	-0.498
		697.00		1.428E-01	4.619E-01	7.892E-01	5.583E-02	0.181
		720.70	*	1.680E-01	2.699E-01	4.140E-01	3.071E-02	0.406
		856.80		5.050E-01	9.294E-01	1.405E+00	1.337E-01	0.359
SB-127		252.40		-5.784E+00	1.240E+01	1.997E+01	8.431E+00	-0.290
		473.00		-5.184E+00	5.050E+00	7.610E+00	9.837E-01	-0.681
		685.70	*	-3.164E-01	3.898E+00	6.499E+00	7.745E-01	-0.049
		783.70		1.185E+01	1.131E+01	1.970E+01	2.697E+00	0.601
I-131		80.19		-1.095E+01	6.481E+00	8.626E+00	6.760E-01	-1.270
		284.31		-2.347E+00	2.557E+00	4.061E+00	3.915E-01	-0.578
		364.49	*	2.095E-01	2.220E-01	3.837E-01	2.899E-02	0.546
		636.99		2.187E+00	3.085E+00	5.224E+00	3.801E-01	0.419
TE-132		49.72		-5.649E+01	1.523E+01	2.014E+01	2.327E+00	-2.805
		111.76		-1.195E+02	1.119E+02	1.733E+02	2.616E+01	-0.689
		116.30		1.078E+02	9.842E+01	1.639E+02	2.597E+01	0.658
		228.16	*	-6.250E-01	2.469E+00	4.111E+00	7.240E-01	-0.152
BA-133		81.00		1.310E-01	1.039E-01	1.170E-01	1.759E-02	1.120
		276.40		1.724E-01	4.413E-01	6.852E-01	9.973E-02	0.252
		302.85		7.854E-03	1.852E-01	2.688E-01	3.545E-02	0.029
		356.01	*	-2.581E-02	5.488E-02	7.563E-02	9.138E-03	-0.341
		383.85		-1.125E-01	3.572E-01	5.784E-01	6.283E-02	-0.194
I-133		529.87	*	-3.618E-02	3.572E-01	Half-Life too short		
		875.33		-8.556E+00	3.572E-01	Half-Life too short		
		1298.22		-3.383E+01	3.572E-01	Half-Life too short		
CS-134		563.25		1.082E-01	4.646E-01	7.642E-01	5.076E-02	0.142
		569.33		1.224E-01	2.553E-01	4.209E-01	2.820E-02	0.291
		604.72		4.727E-02	4.673E-02	7.148E-02	4.728E-03	0.661
		795.86	*	8.795E-02	6.568E-02	1.067E-01	9.191E-03	0.824
		801.95		-5.812E-01	5.937E-01	8.659E-01	7.527E-02	-0.671
		1365.19		-1.387E+00	1.362E+00	1.835E+00	1.172E-01	-0.756
I-135		546.56		-2.781E+15	1.362E+00	Half-Life too short		
		836.80		6.366E+15	1.362E+00	Half-Life too short		
		1038.76		7.146E+14	1.362E+00	Half-Life too short		

Sample ID : G248860007 Acquisition date : 24-MAR-2010 16:27:57

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1131.51		-1.827E+15	1.362E+00	Half-Life too short		
		1260.41	*	2.728E+15	1.362E+00	Half-Life too short		
		1457.56		5.237E+17	1.362E+00	Half-Life too short		
		1678.03		8.631E+15	1.362E+00	Half-Life too short		
		1791.20		2.342E+15	1.362E+00	Half-Life too short		
CS-136		153.25		-4.567E-01	1.298E+00	2.065E+00	2.607E-01	-0.221
		176.60		1.849E-01	7.300E-01	1.185E+00	1.273E-01	0.156
		273.65		-1.562E+00	8.958E-01	1.133E+00	1.139E-01	-1.378
		340.55		5.201E-01	2.673E-01	4.270E-01	3.475E-02	1.218
		818.51		-4.102E-02	1.182E-01	1.907E-01	1.700E-02	-0.215
		1048.07	*	-2.819E-02	1.884E-01	3.048E-01	2.611E-02	-0.093
		1235.36		1.173E+00	1.080E+00	1.873E+00	1.854E-01	0.626
CE-139		165.86	*	-8.918E-03	3.491E-02	5.560E-02	5.519E-03	-0.160
BA-140		162.66		-6.550E-03	1.213E+00	1.954E+00	2.107E-01	-0.003
		304.85		1.736E+00	2.372E+00	3.524E+00	1.033E+00	0.493
		423.72		-5.685E-01	2.935E+00	4.750E+00	1.535E+00	-0.120
		537.26	*	-1.103E-01	4.477E-01	7.117E-01	2.379E-01	-0.155
LA-140	+	328.76		8.861E-01	6.134E-01	8.980E-01	7.767E-02	0.987
		487.02		-1.826E-01	2.157E-01	3.301E-01	2.318E-02	-0.553
		815.77		-6.237E-02	5.250E-01	8.639E-01	8.506E-02	-0.072
		1596.21	*	-1.506E-01	1.485E-01	1.796E-01	1.055E-02	-0.839
CE-141		145.44	*	3.483E-03	8.068E-02	1.307E-01	1.598E-02	0.027
CE-143		57.36		3.793E-03	8.068E-02	Half-Life too short		
		293.27	*	1.384E-02	8.068E-02	Half-Life too short		
		664.57		-4.859E-03	8.068E-02	Half-Life too short		
		721.93		-5.910E-03	8.068E-02	Half-Life too short		
CE-144		80.12		-3.697E+00	2.290E+00	3.062E+00	2.366E-01	-1.208
		133.52	*	-2.131E-01	2.685E-01	3.608E-01	6.597E-02	-0.591
PM-144		476.78		3.986E-02	8.279E-02	1.391E-01	1.011E-02	0.286
		618.01		-1.734E-03	4.284E-02	6.882E-02	4.753E-03	-0.025
		696.49	*	6.012E-03	4.457E-02	7.534E-02	5.329E-03	0.080
PR-144		696.51	*	4.747E-01	3.346E+00	5.659E+00	3.999E-01	0.084
		1489.16		-2.046E+00	1.369E+01	2.227E+01	1.308E+00	-0.092
PM-146		453.88	*	-2.344E-02	5.206E-02	8.271E-02	7.206E-03	-0.283
		633.25		-6.758E-01	1.806E+00	2.791E+00	1.055E+00	-0.242
		735.93		3.551E-02	1.869E-01	3.097E-01	8.591E-02	0.115
		747.24		-1.237E-02	1.184E-01	1.962E-01	2.770E-02	-0.063
ND-147	+	91.11		2.132E+00	4.815E-01	7.269E-01	6.470E-02	2.933
		319.41		1.115E+00	5.383E+00	9.036E+00	7.584E-01	0.123
		531.02	*	9.170E-01	9.638E-01	1.654E+00	2.285E-01	0.555
PM-149		285.90	*	-3.904E-04	9.638E-01	Half-Life too short		
EU-152		121.78		-4.944E-02	8.046E-02	1.273E-01	1.902E-02	-0.388
		244.70		3.988E-02	3.908E-01	5.750E-01	5.606E-02	0.069
		344.28	*	1.143E-01	1.455E-01	1.965E-01	1.615E-02	0.582
		778.90		-3.673E-02	3.306E-01	5.463E-01	4.528E-02	-0.067
	+	964.08		7.023E-01	3.202E-01	6.941E-01	6.539E-02	1.012
		1085.87		-2.137E-01	4.730E-01	7.390E-01	5.563E-02	-0.289
		1112.07		1.710E-01	4.232E-01	6.661E-01	4.691E-02	0.257
		1408.01		1.196E-01	1.894E-01	3.416E-01	1.996E-02	0.350

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153		69.67		-2.849E-01	1.415E+00	1.893E+00	1.505E-01	-0.151
		97.43	*	3.655E-02	8.899E-02	1.302E-01	1.206E-02	0.281
		103.18		7.304E-03	1.173E-01	1.920E-01	1.985E-02	0.038
EU-154		123.07		2.278E-02	5.894E-02	9.380E-02	1.494E-02	0.243
		723.31		-2.810E-02	2.613E-01	3.731E-01	3.153E-02	-0.075
		873.19		-1.417E-01	3.765E-01	6.041E-01	7.708E-02	-0.235
		996.26		-4.401E-01	4.748E-01	7.058E-01	1.246E-01	-0.624
		1004.73		-5.399E-02	2.892E-01	4.677E-01	5.525E-02	-0.115
		1274.44	*	1.135E-02	1.660E-01	2.703E-01	2.550E-02	0.042
EU-155	+	86.55		5.688E-01	1.091E-01	1.743E-01	1.347E-02	3.264
		105.31	*	6.058E-02	1.112E-01	1.847E-01	2.000E-02	0.328
TB-160	+	86.79		1.581E+00	3.027E-01	4.827E-01	3.681E-02	3.276
		197.04		1.876E-01	7.061E-01	1.132E+00	1.131E-01	0.166
		215.65		-1.815E-01	8.612E-01	1.440E+00	1.433E-01	-0.126
	+	298.57		2.660E-01	1.679E-01	2.425E-01	2.157E-02	1.097
		879.36	*	4.943E-02	1.862E-01	3.148E-01	3.111E-02	0.157
		962.29		1.257E+00	8.239E-01	1.339E+00	1.265E-01	0.938
		966.15		1.893E+00	4.034E-01	7.496E-01	7.042E-02	2.525
		1177.93		1.228E-01	5.215E-01	8.643E-01	5.015E-02	0.142
		1271.85		1.375E-01	9.628E-01	1.580E+00	9.184E-02	0.087
HO-166M		80.57		3.549E-01	2.901E-01	3.301E-01	2.549E-02	1.075
	+	184.41		1.381E-01	7.236E-02	7.921E-02	7.903E-03	1.743
		280.46		1.820E-02	9.515E-02	1.603E-01	1.484E-02	0.114
		410.95		2.067E-01	2.958E-01	4.986E-01	2.959E-02	0.414
		711.68	*	-3.428E-02	7.368E-02	1.191E-01	8.677E-03	-0.288
		752.31		7.354E-02	3.357E-01	5.693E-01	4.489E-02	0.129
		810.29		-5.959E-02	7.719E-02	1.204E-01	1.056E-02	-0.495
TA-182		67.75		2.537E-03	8.171E-02	1.186E-01	9.498E-03	0.021
		100.11		2.744E-02	1.868E-01	2.968E-01	2.897E-02	0.092
		152.43		1.702E-01	4.134E-01	6.774E-01	7.727E-02	0.251
		222.11		-6.811E-02	4.043E-01	6.766E-01	6.710E-02	-0.101
	+	1121.30		7.625E-01	3.183E-01	4.488E-01	3.080E-02	1.699
		1189.05		1.868E-01	4.050E-01	6.842E-01	3.973E-02	0.273
		1221.41	*	-1.476E-01	2.754E-01	4.222E-01	2.455E-02	-0.350
		1231.02		-4.420E-01	7.102E-01	1.098E+00	6.382E-02	-0.403
IR-192	+	295.96		1.134E+00	2.514E-01	3.343E-01	3.014E-02	3.392
		308.46		-1.354E-01	1.213E-01	1.899E-01	1.655E-02	-0.713
		316.51	*	-2.343E-02	4.293E-02	6.936E-02	5.887E-03	-0.338
		468.07		4.074E-02	9.178E-02	1.352E-01	9.567E-03	0.301
HG-203		70.83		3.288E-01	1.120E+00	1.638E+00	2.572E-01	0.201
		72.87		4.964E+00	1.081E+00	1.330E+00	2.012E-01	3.733
		279.20	*	6.537E-02	4.735E-02	8.321E-02	7.892E-03	0.786
BI-207		72.81		1.026E+00	1.844E-01	2.826E-01	2.225E-02	3.633
	+	74.97		7.569E-01	1.173E-01	2.218E-01	1.736E-02	3.413
		569.70		1.651E-02	3.912E-02	6.427E-02	4.206E-03	0.257
		1063.66	*	9.126E-03	6.733E-02	1.115E-01	8.831E-03	0.082
		1770.23		-2.901E+00	9.482E-01	9.317E-01	5.381E-02	-3.113
PB-210		46.54	*	8.787E-01	6.514E-01	1.174E+00	9.058E-02	0.748
PB-211		404.85	*	-1.023E+00	9.868E-01	1.309E+00	6.280E-01	-0.782

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.09		9.247E-01	1.833E+00	3.019E+00	1.384E+00	0.306
		832.01		6.404E-01	1.332E+00	2.220E+00	1.153E+00	0.288
BI-212	+	727.33	*	2.491E+00	1.267E+00	1.545E+00	1.810E-01	1.613
		785.37		6.850E-01	4.467E+00	6.769E+00	5.677E-01	0.101
		1620.50		2.037E+00	2.769E+00	5.064E+00	2.972E-01	0.402
RN-219		271.23		6.833E-01	3.034E-01	4.885E-01	5.338E-02	1.399
		401.81	*	-6.591E-02	4.632E-01	7.557E-01	1.018E-01	-0.087
RA-223		81.07		2.974E-01	2.322E-01	2.651E-01	2.044E-02	1.122
	+	83.79		3.846E-01	1.166E-01	1.818E-01	1.394E-02	2.115
		94.87		9.251E-01	4.713E-01	7.250E-01	6.385E-02	1.276
		144.24		5.444E-01	7.767E-01	1.284E+00	1.663E-01	0.424
		154.21		2.506E-01	4.483E-01	7.375E-01	8.750E-02	0.340
	+	269.46		6.582E-01	3.586E-01	3.911E-01	3.753E-02	1.683
		323.87	*	-1.763E-01	8.946E-01	1.272E+00	2.182E-01	-0.139
	+	338.28		7.198E+00	1.938E+00	2.681E+00	3.090E-01	2.685
AC-227		79.69		-1.122E+00	1.145E+00	1.567E+00	2.633E-01	-0.716
		235.96		2.076E+00	3.417E-01	4.732E-01	5.379E-02	4.386
		256.23	*	1.231E-01	2.957E-01	5.036E-01	6.439E-02	0.244
	+	299.98		1.979E+00	1.263E+00	1.827E+00	2.352E-01	1.083
		304.50		1.712E+00	2.136E+00	3.231E+00	5.365E-01	0.530
		334.37		-9.286E-01	2.554E+00	3.365E+00	5.127E-01	-0.276
TH-227		79.80		-1.893E+00	1.536E+00	2.029E+00	4.351E-01	-0.933
		235.96		2.076E+00	3.342E-01	4.732E-01	5.129E-02	4.386
		256.23	*	1.231E-01	2.958E-01	5.036E-01	7.181E-02	0.244
	+	299.98		1.979E+00	1.263E+00	1.827E+00	2.352E-01	1.083
		304.50		1.712E+00	2.136E+00	3.231E+00	5.365E-01	0.530
		334.37		-9.286E-01	2.554E+00	3.365E+00	5.127E-01	-0.276
PA-231		283.69	*	-1.709E+00	1.620E+00	2.531E+00	3.780E-01	-0.675
		301.36		2.594E-01	7.758E-01	1.146E+00	1.410E-01	0.226
TH-231		81.07		2.974E-01	2.322E-01	2.651E-01	2.044E-02	1.122
	+	83.79		3.846E-01	1.166E-01	1.818E-01	1.394E-02	2.115
		94.87		9.251E-01	4.713E-01	7.250E-01	6.385E-02	1.276
		144.24		5.444E-01	7.767E-01	1.284E+00	1.663E-01	0.424
		154.21		2.506E-01	4.483E-01	7.375E-01	8.750E-02	0.340
	+	269.46		6.582E-01	3.586E-01	3.911E-01	3.753E-02	1.683
		323.87	*	-1.763E-01	8.946E-01	1.272E+00	2.182E-01	-0.139
	+	338.28		7.198E+00	1.938E+00	2.681E+00	3.090E-01	2.685
PA-233	+	300.13		8.955E-01	5.755E-01	8.257E-01	1.236E-01	1.085
		311.90	*	2.934E-02	7.493E-02	1.270E-01	1.121E-02	0.231
		340.48		1.923E+00	9.842E-01	1.426E+00	3.391E-01	1.348
PA-234		94.67		4.640E-01	1.815E-01	2.753E-01	3.444E-02	1.685
		98.44		8.170E-02	1.085E-01	1.468E-01	8.208E-02	0.557
		111.00		-9.092E-02	2.003E-01	3.208E-01	4.678E-02	-0.283
		131.20		5.262E-03	1.318E-01	1.875E-01	2.517E-02	0.028
		569.50		1.679E-01	3.502E-01	5.775E-01	3.780E-02	0.291
		733.00		-1.639E-01	5.220E-01	7.241E-01	1.580E-01	-0.226
		880.51		2.733E-01	3.489E-01	6.129E-01	6.068E-02	0.446
		883.24		-2.100E-01	4.010E-01	5.922E-01	3.992E-01	-0.355
		926.50		-8.824E-02	2.119E-01	3.344E-01	8.605E-02	-0.264

Sample ID : G248860007 Acquisition date : 24-MAR-2010 16:27:57

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	7.188E-03	3.826E-01	6.316E-01	1.216E-01	0.011
		949.00		2.658E-01	5.705E-01	9.756E-01	9.378E-02	0.273
PA-234M		766.42		-2.763E+00	1.527E+01	2.506E+01	1.269E+01	-0.110
		1001.03	*	6.201E+00	5.973E+00	1.058E+01	1.081E+00	0.586
NP-239		99.53		1.312E-02	1.739E-01	2.640E-01	2.549E-02	0.050
		103.37		6.644E-02	1.047E-01	1.743E-01	1.809E-02	0.381
		106.12		4.313E-02	8.991E-02	1.490E-01	1.624E-02	0.290
		117.23	*	1.051E-01	4.461E-01	7.322E-01	9.628E-02	0.144
		228.18		-6.301E-02	2.438E-01	4.060E-01	4.013E-02	-0.155
		277.60		2.657E-01	2.054E-01	3.521E-01	3.277E-02	0.755
AM-241		59.54	*	9.735E-02	7.794E-02	1.183E-01	1.058E-02	0.823
CM-247		278.00		1.212E+00	8.609E-01	1.513E+00	1.407E-01	0.801
		287.50		9.574E-01	1.561E+00	2.357E+00	2.151E-01	0.406
		402.40	*	-1.194E-03	4.296E-02	7.058E-02	4.152E-03	-0.017
CF-249		252.80		2.229E-01	1.065E+00	1.802E+00	1.741E-01	0.124
		333.37		4.004E-02	3.136E-01	3.601E-01	2.878E-02	0.111
		388.16	*	3.274E-02	4.602E-02	7.886E-02	4.709E-03	0.415
CF-251		177.52	*	-1.670E-02	1.479E-01	2.365E-01	2.356E-02	-0.071
		227.38		-1.630E-01	4.029E-01	6.669E-01	6.595E-02	-0.244
		285.41		-1.567E+00	2.396E+00	3.864E+00	3.542E-01	-0.405

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860007       *
* Acquisition date : 24-MAR-2010 16:27:57 Detector SN#    :                 *
* Detector ID       : GAM05               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.90     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  4-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248860007          Analyst initials: MXR1            *
* Batch Number      : 962633              Sample Quantity : 1.2980E+02 GRAM *
* Recovery          :    1.00000          Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.404E+01	2.854E+00	6.049E-01	0.000E+00
CD-109	4.826E+00	9.054E-01	1.027E+00	0.000E+00
SN-126	4.682E-01	8.783E-02	9.946E-02	0.000E+00
CS-135	5.718E-01	3.064E-01	2.743E-01	0.000E+00
BA-137M	6.516E-02	5.969E-02	7.276E-02	0.000E+00
CS-137	6.884E-02	6.306E-02	7.687E-02	0.000E+00
TL-208	5.723E-01	9.689E-02	6.940E-02	0.000E+00
BI-211	4.042E+00	5.850E-01	3.679E-01	0.000E+00
PB-212	1.883E+00	2.340E-01	1.040E-01	0.000E+00
BI-214	1.406E+00	2.078E-01	1.447E-01	0.000E+00
PB-214	1.467E+00	2.266E-01	1.351E-01	0.000E+00
RA-224	5.411E+00	1.396E+00	1.115E+00	0.000E+00
RA-226	1.406E+00	2.078E-01	1.447E-01	0.000E+00
AC-228	1.851E+00	4.610E-01	3.028E-01	0.000E+00
RA-228	1.851E+00	4.610E-01	3.028E-01	0.000E+00
TH-228	1.883E+00	2.340E-01	1.040E-01	0.000E+00
TH-229	-6.101E-02	6.115E-01	1.029E+00	0.000E+00
TH-230	1.406E+00	1.946E-01	1.447E-01	0.000E+00
TH-232	1.851E+00	4.610E-01	3.028E-01	0.000E+00
TH-234	1.606E+00	1.105E+00	1.225E+00	0.000E+00
U-235	1.145E-01	2.293E-01	3.984E-01	0.000E+00
NP-237	1.397E+00	3.887E-01	2.959E-01	0.000E+00
U-238	1.606E+00	1.105E+00	1.225E+00	0.000E+00
ANH-511	1.229E-01	8.125E-02	5.840E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	5.094E-02	4.355E-01	7.445E-01	0.000E+00	NOT IDENT.
NA-22	7.672E-03	5.787E-02	9.701E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.053E+08	0.000E+00	0.000E+00	SHORT HLIF

SC-46	7.408E-03	5.107E-02	8.797E-02	0.000E+00	FAIL ABUN
V-48	6.884E-02	1.033E-01	1.847E-01	0.000E+00	NOT IDENT.
CR-51	-6.633E-02	4.895E-01	8.457E-01	0.000E+00	NOT IDENT.
MN-54	5.452E-04	4.629E-02	7.925E-02	0.000E+00	NOT IDENT.
CO-56	-7.340E-04	4.955E-02	8.457E-02	0.000E+00	NOT IDENT.
CO-57	-2.665E-03	2.738E-02	4.712E-02	0.000E+00	NOT IDENT.
CO-58	-4.415E-02	5.260E-02	8.414E-02	0.000E+00	NOT IDENT.
FE-59	-1.476E-02	1.207E-01	2.001E-01	0.000E+00	NOT IDENT.
CO-60	5.817E-03	5.161E-02	8.620E-02	0.000E+00	NOT IDENT.
ZN-65	5.143E-02	1.396E-01	2.085E-01	0.000E+00	NOT IDENT.
SE-75	-1.946E-02	5.611E-02	8.376E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.470E-02	9.269E-02	0.000E+00	NOT IDENT.
Y-88	3.994E-03	4.065E-02	6.917E-02	0.000E+00	NOT IDENT.
Y-91	3.796E+01	3.116E+01	5.641E+01	0.000E+00	NOT IDENT.
NB-94	3.003E-03	4.534E-02	7.879E-02	0.000E+00	NOT IDENT.
NB-95	6.870E-05	5.713E-02	9.833E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.238E-01	3.633E-01	0.000E+00	NOT IDENT.
ZR-95	2.963E-02	9.700E-02	1.705E-01	0.000E+00	NOT IDENT.
MO-99	1.989E+01	5.549E+01	9.795E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.422E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	3.099E-02	5.036E-02	8.856E-02	0.000E+00	NOT IDENT.
RH-106	5.817E-02	4.069E-01	6.856E-01	0.000E+00	NOT IDENT.
RU-106	5.817E-02	4.069E-01	6.856E-01	0.000E+00	NOT IDENT.
AG-108M	-1.617E-03	3.493E-02	5.949E-02	0.000E+00	NOT IDENT.
AG-110M	-3.227E-02	5.486E-02	7.354E-02	0.000E+00	NOT IDENT.
SN-113	-4.335E-02	5.308E-02	8.683E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	6.633E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	4.287E-02	7.975E-02	1.387E-01	0.000E+00	NOT IDENT.
TE-123M	-2.967E-03	3.298E-02	5.607E-02	0.000E+00	NOT IDENT.
SB-124	1.604E-02	8.793E-02	1.528E-01	0.000E+00	NOT IDENT.
SB-125	7.220E-02	1.059E-01	1.883E-01	0.000E+00	FAIL ABUN
TE-125M	-7.409E+00	1.103E+01	1.865E+01	0.000E+00	NOT IDENT.
I-126	1.556E-01	4.233E-01	6.282E-01	0.000E+00	NOT IDENT.
SB-126	1.680E-01	2.645E-01	4.191E-01	0.000E+00	NOT IDENT.
SB-127	-3.164E-01	3.820E+00	6.585E+00	0.000E+00	NOT IDENT.
I-131	2.095E-01	2.175E-01	3.927E-01	0.000E+00	NOT IDENT.
TE-132	-6.250E-01	2.420E+00	4.239E+00	0.000E+00	NOT IDENT.
BA-133	-2.581E-02	5.379E-02	7.743E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.257E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.795E-02	6.436E-02	1.079E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.023E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.819E-02	1.847E-01	3.066E-01	0.000E+00	NOT IDENT.
CE-139	-8.918E-03	3.421E-02	5.761E-02	0.000E+00	NOT IDENT.
BA-140	-1.103E-01	4.387E-01	7.239E-01	0.000E+00	NOT IDENT.
LA-140	-1.506E-01	1.455E-01	1.794E-01	0.000E+00	FAIL ABUN
CE-141	3.483E-03	7.907E-02	1.357E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.177E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.131E-01	2.631E-01	3.752E-01	0.000E+00	NOT IDENT.
PM-144	6.012E-03	4.368E-02	7.631E-02	0.000E+00	NOT IDENT.
PR-144	4.747E-01	3.279E+00	5.732E+00	0.000E+00	NOT IDENT.
PM-146	-2.344E-02	5.102E-02	8.435E-02	0.000E+00	NOT IDENT.
ND-147	9.170E-01	9.445E-01	1.682E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	4.933E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	1.143E-01	1.426E-01	2.013E-01	0.000E+00	FAIL ABUN
GD-153	3.655E-02	8.721E-02	1.360E-01	0.000E+00	NOT IDENT.
EU-154	1.135E-02	1.626E-01	2.711E-01	0.000E+00	NOT IDENT.
EU-155	6.058E-02	1.090E-01	1.927E-01	0.000E+00	FAIL ABUN
TB-160	4.943E-02	1.825E-01	3.177E-01	0.000E+00	FAIL ABUN
HO-166M	-3.428E-02	7.220E-02	1.206E-01	0.000E+00	FAIL ABUN
TA-182	-1.476E-01	2.698E-01	4.237E-01	0.000E+00	FAIL ABUN
IR-192	-2.343E-02	4.207E-02	7.115E-02	0.000E+00	FAIL ABUN
HG-203	6.537E-02	4.640E-02	8.552E-02	0.000E+00	NOT IDENT.
BI-207	9.126E-03	6.598E-02	1.122E-01	0.000E+00	FAIL ABUN
PB-210	8.787E-01	6.384E-01	1.241E+00	0.000E+00	NOT IDENT.
PB-211	-1.023E+00	9.671E-01	1.337E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.241E+00	1.563E+00	0.000E+00	FAIL ABUN
RN-219	-6.591E-02	4.540E-01	7.722E-01	0.000E+00	NOT IDENT.
RA-223	-1.763E-01	8.767E-01	1.304E+00	0.000E+00	FAIL ABUN
AC-227	1.231E-01	2.898E-01	5.183E-01	0.000E+00	FAIL ABUN
TH-227	1.231E-01	2.899E-01	5.183E-01	0.000E+00	FAIL ABUN
PA-231	-1.709E+00	1.587E+00	2.601E+00	0.000E+00	NOT IDENT.
TH-231	-1.763E-01	8.767E-01	1.304E+00	0.000E+00	FAIL ABUN
PA-233	2.934E-02	7.343E-02	1.303E-01	0.000E+00	FAIL ABUN
PA-234	7.188E-03	3.749E-01	6.365E-01	0.000E+00	NOT IDENT.
PA-234M	6.201E+00	5.854E+00	1.065E+01	0.000E+00	NOT IDENT.
NP-239	1.051E-01	4.372E-01	7.627E-01	0.000E+00	NOT IDENT.
AM-241	9.735E-02	7.638E-02	1.245E-01	0.000E+00	NOT IDENT.
CM-247	-1.194E-03	4.210E-02	7.212E-02	0.000E+00	NOT IDENT.

CF-249	3.274E-02	4.510E-02	8.063E-02	0.000E+00 NOT IDENT.
CF-251	-1.670E-02	1.450E-01	2.448E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:28:59.31

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860007.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 16:27:57
Sample ID         : G248860007           Sample quantity  : 1.29800E+02 GRAM
Detector name     : GAM05                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.90  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1259	10.66*	1.004E+00	3.404E+01	3.404E+01	8.55
CD-109	88.03	471	3.70*	7.865E+00	4.682E+00	4.826E+00	19.14
SN-126	64.28	166	9.60	8.064E+00	6.189E-01	6.189E-01	69.46
	86.94	471	8.90	7.865E+00	1.946E+00	1.946E+00	44.75
	87.57	471	37.00*	7.865E+00	4.682E-01	4.682E-01	19.14
CS-135	268.22	138	16.00*	4.356E+00	5.718E-01	5.718E-01	54.68
BA-137M	661.66	41	89.90*	2.016E+00	6.508E-02	6.516E-02	93.48
CS-137	661.66	41	85.10*	2.016E+00	6.875E-02	6.884E-02	93.48
TL-208	277.37	------	6.60	4.261E+00	------ Line Not Found		------
	583.19	380	85.00*	2.260E+00	5.723E-01	5.723E-01	17.28
	860.56	77	12.50	1.590E+00	1.126E+00	1.126E+00	47.77
BI-211	72.87	------	1.23	8.052E+00	------ Line Not Found		------
	351.06	636	12.92*	3.520E+00	4.042E+00	4.042E+00	14.77
PB-212	74.82	750	10.28	8.039E+00	2.625E+00	2.625E+00	18.30
	77.11	1163	17.10	8.016E+00	2.454E+00	2.454E+00	12.26
	238.63	1356	43.60*	4.777E+00	1.883E+00	1.883E+00	12.68
	300.09	82	3.30	4.011E+00	1.799E+00	1.799E+00	63.41
BI-214	609.32	481	45.49*	2.173E+00	1.406E+00	1.406E+00	15.08
	1120.29	102	14.92	1.258E+00	1.578E+00	1.578E+00	42.28
	1764.49	78	15.30	8.614E-01	1.712E+00	1.712E+00	28.07
PB-214	74.82	750	5.80	8.039E+00	4.653E+00	4.653E+00	17.41
	77.11	1163	9.70	8.016E+00	4.326E+00	4.326E+00	14.78
	242.00	363	7.25	4.735E+00	3.060E+00	3.060E+00	26.96
	295.22	378	18.42	4.061E+00	1.462E+00	1.462E+00	23.08
	351.93	636	35.60*	3.520E+00	1.467E+00	1.467E+00	15.77
RA-224	240.99	363	4.10*	4.735E+00	5.411E+00	5.411E+00	26.33
RA-226	609.32	481	45.49*	2.173E+00	1.406E+00	1.406E+00	15.08
	1120.29	102	14.92	1.258E+00	1.578E+00	1.578E+00	42.28
	1764.49	78	15.30	8.614E-01	1.712E+00	1.712E+00	28.07
AC-228	338.32	257	11.27	3.635E+00	1.814E+00	1.814E+00	48.16
	911.20	249	25.80*	1.511E+00	1.851E+00	1.851E+00	25.41
	968.97	180	15.80	1.430E+00	2.307E+00	2.307E+00	33.58

Sample ID : G248860007 Acquisition date : 24-MAR-2010 16:27:57

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	257	11.27	3.635E+00	1.814E+00	1.814E+00	48.16
	911.20	249	25.80*	1.511E+00	1.851E+00	1.851E+00	25.41
	968.97	180	15.80	1.430E+00	2.307E+00	2.307E+00	33.58
TH-228	74.82	750	10.28	8.039E+00	2.625E+00	2.625E+00	15.54
	77.11	1163	17.10	8.016E+00	2.454E+00	2.454E+00	12.26
	238.63	1356	43.60*	4.777E+00	1.883E+00	1.883E+00	12.68
	300.09	82	3.30	4.011E+00	1.799E+00	1.799E+00	87.50
TH-229	85.43	260	14.70	7.915E+00	6.462E-01	6.462E-01	30.33
	88.47	354	24.00	7.815E+00	5.453E-01	5.453E-01	26.64
	193.51	------	4.41*	5.516E+00	------ Line Not Found		------
	210.85	------	2.80	5.209E+00	------ Line Not Found		------
TH-230	609.32	481	45.49*	2.173E+00	1.406E+00	1.406E+00	14.12
	1120.29	102	14.92	1.258E+00	1.578E+00	1.578E+00	41.75
	1764.49	78	15.30	8.614E-01	1.712E+00	1.712E+00	28.07
TH-232	338.32	257	11.27	3.635E+00	1.814E+00	1.814E+00	25.56
	911.20	249	25.80*	1.511E+00	1.851E+00	1.851E+00	25.41
	968.97	180	15.80	1.430E+00	2.307E+00	2.307E+00	33.58
TH-234	63.29	166	3.70*	8.064E+00	1.606E+00	1.606E+00	70.22
	92.59	445	4.23	7.759E+00	3.922E+00	3.922E+00	30.17
U-235	89.96	354	3.47	7.815E+00	3.771E+00	3.771E+00	35.23
	93.35	445	5.60	7.759E+00	2.962E+00	2.962E+00	30.92
	143.76	------	10.96*	6.557E+00	------ Line Not Found		------
	163.33	------	5.08	6.119E+00	------ Line Not Found		------
	185.72	195	57.20	5.659E+00	1.738E-01	1.738E-01	52.41
	205.31	------	5.01	5.304E+00	------ Line Not Found		------
NP-237	86.48	471	12.40*	7.865E+00	1.397E+00	1.397E+00	28.39
	95.86	------	2.68	7.688E+00	------ Line Not Found		------
U-238	63.29	166	3.70*	8.064E+00	1.606E+00	1.606E+00	70.22
	92.59	445	4.23	7.759E+00	3.922E+00	3.922E+00	22.29
ANH-511	511.00	108	100.00*	2.546E+00	1.229E-01	1.229E-01	67.44

Flag: "*" = Keyline

Sample ID : G248860007 Acquisition date : 24-MAR-2010 16:27:57

Total number of lines in spectrum 33
Number of unidentified lines 4
Number of lines tentatively identified by NID 29 87.88%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.404E+01	3.404E+01	0.291E+01	8.55	
CD-109	461.40D	1.03	4.682E+00	4.826E+00	0.924E+00	19.14	
SN-126	2.30E+05Y	1.00	4.682E-01	4.682E-01	0.896E-01	19.14	
CS-135	2.30E+06Y	1.00	5.718E-01	5.718E-01	3.127E-01	54.68	
BA-137M	30.08Y	1.00	6.508E-02	6.516E-02	6.091E-02	93.48	
CS-137	30.08Y	1.00	6.875E-02	6.884E-02	6.435E-02	93.48	
TL-208	1.41E+10Y	1.00	5.723E-01	5.723E-01	0.989E-01	17.28	
BI-211	7.04E+08Y	1.00	4.042E+00	4.042E+00	0.597E+00	14.77	
PB-212	1.41E+10Y	1.00	1.883E+00	1.883E+00	0.239E+00	12.68	
BI-214	1600.00Y	1.00	1.406E+00	1.406E+00	0.212E+00	15.08	
PB-214	1600.00Y	1.00	1.467E+00	1.467E+00	0.231E+00	15.77	
RA-224	1.41E+10Y	1.00	5.411E+00	5.411E+00	1.425E+00	26.33	
RA-226	1600.00Y	1.00	1.406E+00	1.406E+00	0.212E+00	15.08	
AC-228	1.41E+10Y	1.00	1.851E+00	1.851E+00	0.470E+00	25.41	
RA-228	1.41E+10Y	1.00	1.851E+00	1.851E+00	0.470E+00	25.41	
TH-228	1.41E+10Y	1.00	1.883E+00	1.883E+00	0.239E+00	12.68	
TH-229	7340.00Y	1.00	5.453E-01	5.453E-01	1.453E-01	26.64	K
TH-230	7.54E+04Y	1.00	1.406E+00	1.406E+00	0.199E+00	14.12	
TH-232	1.41E+10Y	1.00	1.851E+00	1.851E+00	0.470E+00	25.41	
TH-234	4.47E+09Y	1.00	1.606E+00	1.606E+00	1.128E+00	70.22	
U-235	7.04E+08Y	1.00	1.738E-01	1.738E-01	0.911E-01	52.41	K
NP-237	2.14E+06Y	1.00	1.397E+00	1.397E+00	0.397E+00	28.39	
U-238	4.47E+09Y	1.00	1.606E+00	1.606E+00	1.128E+00	70.22	
ANH-511	1.00E+09Y	1.00	1.229E-01	1.229E-01	0.829E-01	67.44	
	Total Activity :		7.037E+01	7.052E+01			

Grand Total Activity : 7.037E+01 7.052E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248860007 Acquisition date : 24-MAR-2010 16:27:57

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.83	82	404	0.85	258.63	255	9	1.14E-02	91.0	6.91E+00	
0	327.72	77	191	1.20	656.31	652	9	1.07E-02	68.7	3.73E+00	T
0	462.97	80	153	1.46	926.72	920	13	1.12E-02	68.2	2.78E+00	T
0	727.42	106	121	1.83	1455.36	1447	15	1.48E-02	49.5	1.85E+00	T
0	793.68	80	56	0.98	1587.79	1580	15	1.12E-02	46.4	1.71E+00	
1	964.31	51	31	1.87	1928.78	1925	21	7.07E-03	44.6	1.44E+00	T
0	1588.45	17	22	2.31	3175.73	3169	12	2.32E-03	****	9.37E-01	
0	1728.72	27	8	2.69	3455.88	3450	11	3.78E-03	55.8	8.75E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:29:04.71

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860007.CNF;1  *
* Acquisition date : 24-MAR-2010 16:27:57  Detector SN#    :                *
* Detector ID      : GAM05                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.90         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 4-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248860007            Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.29800E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00.5MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.404E+01	2.912E+00	6.046E-01	3.760E-02	56.307
CD-109	4.826E+00	9.239E-01	9.812E-01	7.471E-02	4.919
SN-126	4.682E-01	8.963E-02	9.505E-02	7.239E-03	4.925
CS-135	5.718E-01	3.127E-01	2.667E-01	2.854E-02	2.144
BA-137M	6.516E-02	6.091E-02	7.178E-02	4.720E-03	0.908
CS-137	6.884E-02	6.435E-02	7.583E-02	5.003E-03	0.908
TL-208	5.723E-01	9.886E-02	6.833E-02	5.018E-03	8.376
BI-211	4.042E+00	5.969E-01	3.593E-01	2.847E-02	11.250
PB-212	1.883E+00	2.388E-01	1.009E-01	1.093E-02	18.654
BI-214	1.406E+00	2.120E-01	1.426E-01	1.203E-02	9.861
PB-214	1.467E+00	2.313E-01	1.320E-01	1.271E-02	11.116
RA-224	5.411E+00	1.425E+00	1.082E+00	1.059E-01	5.000
RA-226	1.406E+00	2.120E-01	1.426E-01	1.203E-02	9.861
AC-228	1.851E+00	4.704E-01	3.003E-01	3.812E-02	6.163
RA-228	1.851E+00	4.704E-01	3.003E-01	3.812E-02	6.163
TH-228	1.883E+00	2.388E-01	1.009E-01	1.093E-02	18.654
TH-229	5.453E-01	1.453E-01	9.950E-01	9.937E-02	0.548
TH-230	1.406E+00	1.986E-01	1.426E-01	9.393E-03	9.861

Sample ID : G248860007 Acquisition date : 24-MAR-2010 16:27:57

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.851E+00	4.704E-01	3.003E-01	3.812E-02	6.163
TH-234	1.606E+00	1.128E+00	1.165E+00	2.115E-01	1.378
U-235	1.738E-01	9.108E-02	3.837E-01	7.318E-02	0.453
NP-237	1.397E+00	3.966E-01	2.827E-01	6.308E-02	4.941
U-238	1.606E+00	1.128E+00	1.165E+00	2.115E-01	1.378
ANH-511	1.229E-01	8.291E-02	5.737E-02	3.672E-03	2.143

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	5.094E-02		4.444E-01	7.305E-01	5.231E-02	0.070
NA-22	7.672E-03		5.905E-02	9.674E-02	5.635E-03	0.079
NA-24	2.347E+02		1.047E+02	Half-Life too short		
SC-46	7.408E-03		5.211E-02	8.720E-02	8.759E-03	0.085
V-48	6.884E-02		1.054E-01	1.834E-01	1.680E-02	0.375
CR-51	-6.633E-02		4.995E-01	8.246E-01	7.286E-02	-0.080
MN-54	5.452E-04		4.724E-02	7.848E-02	7.190E-03	0.007
CO-56	-7.340E-04		5.056E-02	8.377E-02	7.834E-03	-0.009
CO-57	-2.665E-03		2.793E-02	4.526E-02	6.422E-03	-0.059
CO-58	-4.415E-02		5.367E-02	8.328E-02	7.329E-03	-0.530
FE-59	-1.476E-02		1.232E-01	1.990E-01	1.611E-02	-0.074
CO-60	5.817E-03		5.266E-02	8.601E-02	4.977E-03	0.068
ZN-65	5.143E-02		1.424E-01	2.074E-01	1.449E-02	0.248
SE-75	-1.946E-02		5.726E-02	8.142E-02	7.774E-03	-0.239
SR-85	1.105E-01		5.582E-02	9.107E-02	5.838E-03	1.213
Y-88	3.994E-03		4.148E-02	6.939E-02	3.970E-03	0.058
Y-91	3.796E+01		3.180E+01	5.620E+01	3.266E+00	0.676
NB-94	3.003E-03		4.626E-02	7.780E-02	5.567E-03	0.039
NB-95	6.870E-05		5.830E-02	9.723E-02	7.865E-03	0.001
NB-95M	1.082E+00		2.284E-01	3.525E-01	3.862E-02	3.069
ZR-95	2.963E-02		9.898E-02	1.686E-01	1.504E-02	0.176
MO-99	1.989E+01		5.662E+01	9.680E+01	1.478E+01	0.206
TC-99M	-3.327E+16		2.766E+16	Half-Life too short		
RU-103	3.099E-02		5.138E-02	8.696E-02	1.104E-02	0.356
RH-106	5.817E-02		4.152E-01	6.756E-01	8.132E-02	0.086
RU-106	5.817E-02		4.152E-01	6.756E-01	4.454E-02	0.086
AG-108M	-1.617E-03		3.565E-02	5.829E-02	3.763E-03	-0.028
AG-110M	-3.227E-02		5.598E-02	7.254E-02	5.014E-03	-0.445
SN-113	-4.335E-02		5.417E-02	8.493E-02	5.269E-03	-0.510
CD-115	2.134E-05		3.384E-05	Half-Life too short		
SN-117M	4.287E-02		8.138E-02	1.338E-01	1.438E-02	0.321
TE-123M	-2.967E-03		3.365E-02	5.407E-02	5.810E-03	-0.055
SB-124	1.604E-02		8.972E-02	1.531E-01	9.736E-03	0.105
SB-125	7.220E-02		1.081E-01	1.844E-01	1.155E-02	0.391
TE-125M	-7.409E+00		1.126E+01	1.788E+01	2.322E+00	-0.414
I-126	1.556E-01		4.319E-01	6.198E-01	4.116E-02	0.251
SB-126	1.680E-01		2.699E-01	4.140E-01	3.071E-02	0.406

Sample ID : G248860007 Acquisition date : 24-MAR-2010 16:27:57

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-127	-3.164E-01		3.898E+00	6.499E+00	7.745E-01	-0.049
I-131	2.095E-01		2.220E-01	3.837E-01	2.899E-02	0.546
TE-132	-6.250E-01		2.469E+00	4.111E+00	7.240E-01	-0.152
BA-133	-2.581E-02		5.488E-02	7.563E-02	9.138E-03	-0.341
I-133	-3.618E-02		2.172E-01	Half-Life too short		
CS-134	8.795E-02		6.568E-02	1.067E-01	9.191E-03	0.824
I-135	2.728E+15		1.542E+15	Half-Life too short		
CS-136	-2.819E-02		1.884E-01	3.048E-01	2.611E-02	-0.093
CE-139	-8.918E-03		3.491E-02	5.560E-02	5.519E-03	-0.160
BA-140	-1.103E-01		4.477E-01	7.117E-01	2.379E-01	-0.155
LA-140	-1.506E-01		1.485E-01	1.796E-01	1.055E-02	-0.839
CE-141	3.483E-03		8.068E-02	1.307E-01	1.598E-02	0.027
CE-143	1.384E-02		2.131E-03	Half-Life too short		
CE-144	-2.131E-01		2.685E-01	3.608E-01	6.597E-02	-0.591
PM-144	6.012E-03		4.457E-02	7.534E-02	5.329E-03	0.080
PR-144	4.747E-01		3.346E+00	5.659E+00	3.999E-01	0.084
PM-146	-2.344E-02		5.206E-02	8.271E-02	7.206E-03	-0.283
ND-147	9.170E-01		9.638E-01	1.654E+00	2.285E-01	0.555
PM-149	-3.904E-04		2.517E-04	Half-Life too short		
EU-152	1.143E-01		1.455E-01	1.965E-01	1.615E-02	0.582
GD-153	3.655E-02		8.899E-02	1.302E-01	1.206E-02	0.281
EU-154	1.135E-02		1.660E-01	2.703E-01	2.550E-02	0.042
EU-155	6.058E-02		1.112E-01	1.847E-01	2.000E-02	0.328
TB-160	4.943E-02		1.862E-01	3.148E-01	3.111E-02	0.157
HO-166M	-3.428E-02		7.368E-02	1.191E-01	8.677E-03	-0.288
TA-182	-1.476E-01		2.754E-01	4.222E-01	2.455E-02	-0.350
IR-192	-2.343E-02		4.293E-02	6.936E-02	5.887E-03	-0.338
HG-203	6.537E-02		4.735E-02	8.321E-02	7.892E-03	0.786
BI-207	9.126E-03		6.733E-02	1.115E-01	8.831E-03	0.082
PB-210	8.787E-01		6.514E-01	1.174E+00	9.058E-02	0.748
PB-211	-1.023E+00		9.868E-01	1.309E+00	6.280E-01	-0.782
BI-212	2.491E+00	+	1.267E+00	1.545E+00	1.810E-01	1.613
RN-219	-6.591E-02		4.632E-01	7.557E-01	1.018E-01	-0.087
RA-223	-1.763E-01		8.946E-01	1.272E+00	2.182E-01	-0.139
AC-227	1.231E-01		2.957E-01	5.036E-01	6.439E-02	0.244
TH-227	1.231E-01		2.958E-01	5.036E-01	7.181E-02	0.244
PA-231	-1.709E+00		1.620E+00	2.531E+00	3.780E-01	-0.675
TH-231	-1.763E-01		8.946E-01	1.272E+00	2.182E-01	-0.139
PA-233	2.934E-02		7.493E-02	1.270E-01	1.121E-02	0.231
PA-234	7.188E-03		3.826E-01	6.316E-01	1.216E-01	0.011
PA-234M	6.201E+00		5.973E+00	1.058E+01	1.081E+00	0.586
NP-239	1.051E-01		4.461E-01	7.322E-01	9.628E-02	0.144
AM-241	9.735E-02		7.794E-02	1.183E-01	1.058E-02	0.823
CM-247	-1.194E-03		4.296E-02	7.058E-02	4.152E-03	-0.017
CF-249	3.274E-02		4.602E-02	7.886E-02	4.709E-03	0.415
CF-251	-1.670E-02		1.479E-01	2.365E-01	2.356E-02	-0.071

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248860007            *
* Acquisition date : 24-MAR-2010 16:27:57 Detector SN#    :                 *
* Detector ID      : GAM05                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.90     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  4-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248860007           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.2980E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.404E+01	2.854E+00	3.026E-01	1.456E+00
CD-109	4.826E+00	9.054E-01	5.136E-01	4.620E-01
SN-126	4.682E-01	8.783E-02	4.976E-02	4.481E-02
CS-135	5.718E-01	3.064E-01	1.372E-01	1.563E-01
BA-137M	6.516E-02	5.969E-02	3.640E-02	3.046E-02
CS-137	6.884E-02	6.306E-02	3.846E-02	3.217E-02
TL-208	5.723E-01	9.689E-02	3.472E-02	4.943E-02
BI-211	4.042E+00	5.850E-01	1.841E-01	2.985E-01
PB-212	1.883E+00	2.340E-01	5.203E-02	1.194E-01
BI-214	1.406E+00	2.078E-01	7.241E-02	1.060E-01
PB-214	1.467E+00	2.266E-01	6.761E-02	1.156E-01
RA-224	5.411E+00	1.396E+00	5.577E-01	7.124E-01
RA-226	1.406E+00	2.078E-01	7.241E-02	1.060E-01
AC-228	1.851E+00	4.610E-01	1.515E-01	2.352E-01
RA-228	1.851E+00	4.610E-01	1.515E-01	2.352E-01
TH-228	1.883E+00	2.340E-01	5.203E-02	1.194E-01
TH-229	-6.101E-02	6.115E-01	5.146E-01	3.120E-01
TH-230	1.406E+00	1.946E-01	7.241E-02	9.930E-02
TH-232	1.851E+00	4.610E-01	1.515E-01	2.352E-01
TH-234	1.606E+00	1.105E+00	6.131E-01	5.638E-01
U-235	1.145E-01	2.293E-01	1.993E-01	1.170E-01
NP-237	1.397E+00	3.887E-01	1.480E-01	1.983E-01
U-238	1.606E+00	1.105E+00	6.131E-01	5.638E-01
ANH-511	1.229E-01	8.125E-02	2.922E-02	4.146E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	5.094E-02	4.355E-01	3.724E-01	2.222E-01 NOT IDENT.
NA-22	7.672E-03	5.787E-02	4.854E-02	2.952E-02 NOT IDENT.
NA-24	2.347E+08	2.053E+08	0.000E+00	1.047E+08 SHORT HLIF

SC-46	7.408E-03	5.107E-02	4.401E-02	2.606E-02	FAIL ABUN
V-48	6.884E-02	1.033E-01	9.239E-02	5.271E-02	NOT IDENT.
CR-51	-6.633E-02	4.895E-01	4.231E-01	2.497E-01	NOT IDENT.
MN-54	5.452E-04	4.629E-02	3.965E-02	2.362E-02	NOT IDENT.
CO-56	-7.340E-04	4.955E-02	4.231E-02	2.528E-02	NOT IDENT.
CO-57	-2.665E-03	2.738E-02	2.357E-02	1.397E-02	NOT IDENT.
CO-58	-4.415E-02	5.260E-02	4.209E-02	2.684E-02	NOT IDENT.
FE-59	-1.476E-02	1.207E-01	1.001E-01	6.160E-02	NOT IDENT.
CO-60	5.817E-03	5.161E-02	4.312E-02	2.633E-02	NOT IDENT.
ZN-65	5.143E-02	1.396E-01	1.043E-01	7.120E-02	NOT IDENT.
SE-75	-1.946E-02	5.611E-02	4.190E-02	2.863E-02	NOT IDENT.
SR-85	1.105E-01	5.470E-02	4.637E-02	2.791E-02	NOT IDENT.
Y-88	3.994E-03	4.065E-02	3.461E-02	2.074E-02	NOT IDENT.
Y-91	3.796E+01	3.116E+01	2.822E+01	1.590E+01	NOT IDENT.
NB-94	3.003E-03	4.534E-02	3.942E-02	2.313E-02	NOT IDENT.
NB-95	6.870E-05	5.713E-02	4.920E-02	2.915E-02	NOT IDENT.
NB-95M	1.082E+00	2.238E-01	1.817E-01	1.142E-01	NOT IDENT.
ZR-95	2.963E-02	9.700E-02	8.530E-02	4.949E-02	NOT IDENT.
MO-99	1.989E+01	5.549E+01	4.900E+01	2.831E+01	NOT IDENT.
TC-99M	-3.327E+22	5.422E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	3.099E-02	5.036E-02	4.431E-02	2.569E-02	NOT IDENT.
RH-106	5.817E-02	4.069E-01	3.430E-01	2.076E-01	NOT IDENT.
RU-106	5.817E-02	4.069E-01	3.430E-01	2.076E-01	NOT IDENT.
AG-108M	-1.617E-03	3.493E-02	2.976E-02	1.782E-02	NOT IDENT.
AG-110M	-3.227E-02	5.486E-02	3.679E-02	2.799E-02	NOT IDENT.
SN-113	-4.335E-02	5.308E-02	4.344E-02	2.708E-02	NOT IDENT.
CD-115	2.134E+01	6.633E+01	0.000E+00	3.384E+01	SHORT HLIF
SN-117M	4.287E-02	7.975E-02	6.940E-02	4.069E-02	NOT IDENT.
TE-123M	-2.967E-03	3.298E-02	2.805E-02	1.683E-02	NOT IDENT.
SB-124	1.604E-02	8.793E-02	7.647E-02	4.486E-02	NOT IDENT.
SB-125	7.220E-02	1.059E-01	9.418E-02	5.405E-02	FAIL ABUN
TE-125M	-7.409E+00	1.103E+01	9.330E+00	5.628E+00	NOT IDENT.
I-126	1.556E-01	4.233E-01	3.143E-01	2.160E-01	NOT IDENT.
SB-126	1.680E-01	2.645E-01	2.097E-01	1.350E-01	NOT IDENT.
SB-127	-3.164E-01	3.820E+00	3.294E+00	1.949E+00	NOT IDENT.
I-131	2.095E-01	2.175E-01	1.965E-01	1.110E-01	NOT IDENT.
TE-132	-6.250E-01	2.420E+00	2.121E+00	1.235E+00	NOT IDENT.
BA-133	-2.581E-02	5.379E-02	3.874E-02	2.744E-02	NOT IDENT.
I-133	-3.618E+04	4.257E+05	0.000E+00	2.172E+05	SHORT HLIF
CS-134	8.795E-02	6.436E-02	5.397E-02	3.284E-02	NOT IDENT.
I-135	2.728E+21	3.023E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.819E-02	1.847E-01	1.534E-01	9.421E-02	NOT IDENT.
CE-139	-8.918E-03	3.421E-02	2.882E-02	1.745E-02	NOT IDENT.
BA-140	-1.103E-01	4.387E-01	3.621E-01	2.238E-01	NOT IDENT.
LA-140	-1.506E-01	1.455E-01	8.976E-02	7.425E-02	FAIL ABUN
CE-141	3.483E-03	7.907E-02	6.789E-02	4.034E-02	NOT IDENT.
CE-143	1.384E+04	4.177E+03	0.000E+00	2.131E+03	SHORT HLIF
CE-144	-2.131E-01	2.631E-01	1.877E-01	1.342E-01	NOT IDENT.
PM-144	6.012E-03	4.368E-02	3.818E-02	2.228E-02	NOT IDENT.
PR-144	4.747E-01	3.279E+00	2.868E+00	1.673E+00	NOT IDENT.
PM-146	-2.344E-02	5.102E-02	4.220E-02	2.603E-02	NOT IDENT.
ND-147	9.170E-01	9.445E-01	8.416E-01	4.819E-01	FAIL ABUN
PM-149	-3.904E+02	4.933E+02	0.000E+00	2.517E+02	SHORT HLIF
EU-152	1.143E-01	1.426E-01	1.007E-01	7.276E-02	FAIL ABUN
GD-153	3.655E-02	8.721E-02	6.803E-02	4.449E-02	NOT IDENT.
EU-154	1.135E-02	1.626E-01	1.356E-01	8.298E-02	NOT IDENT.
EU-155	6.058E-02	1.090E-01	9.642E-02	5.561E-02	FAIL ABUN
TB-160	4.943E-02	1.825E-01	1.589E-01	9.312E-02	FAIL ABUN
HO-166M	-3.428E-02	7.220E-02	6.033E-02	3.684E-02	FAIL ABUN
TA-182	-1.476E-01	2.698E-01	2.120E-01	1.377E-01	FAIL ABUN
IR-192	-2.343E-02	4.207E-02	3.560E-02	2.147E-02	FAIL ABUN
HG-203	6.537E-02	4.640E-02	4.279E-02	2.367E-02	NOT IDENT.
BI-207	9.126E-03	6.598E-02	5.612E-02	3.366E-02	FAIL ABUN
PB-210	8.787E-01	6.384E-01	6.207E-01	3.257E-01	NOT IDENT.
PB-211	-1.023E+00	9.671E-01	6.690E-01	4.934E-01	NOT IDENT.
BI-212	2.491E+00	1.241E+00	7.821E-01	6.333E-01	FAIL ABUN
RN-219	-6.591E-02	4.540E-01	3.863E-01	2.316E-01	NOT IDENT.
RA-223	-1.763E-01	8.767E-01	6.524E-01	4.473E-01	FAIL ABUN
AC-227	1.231E-01	2.898E-01	2.593E-01	1.478E-01	FAIL ABUN
TH-227	1.231E-01	2.899E-01	2.593E-01	1.479E-01	FAIL ABUN
PA-231	-1.709E+00	1.587E+00	1.301E+00	8.099E-01	NOT IDENT.
TH-231	-1.763E-01	8.767E-01	6.524E-01	4.473E-01	FAIL ABUN
PA-233	2.934E-02	7.343E-02	6.517E-02	3.747E-02	FAIL ABUN
PA-234	7.188E-03	3.749E-01	3.184E-01	1.913E-01	NOT IDENT.
PA-234M	6.201E+00	5.854E+00	5.328E+00	2.987E+00	NOT IDENT.
NP-239	1.051E-01	4.372E-01	3.816E-01	2.231E-01	NOT IDENT.
AM-241	9.735E-02	7.638E-02	6.229E-02	3.897E-02	NOT IDENT.
CM-247	-1.194E-03	4.210E-02	3.608E-02	2.148E-02	NOT IDENT.

CF-249	3.274E-02	4.510E-02	4.034E-02	2.301E-02	NOT IDENT.
CF-251	-1.670E-02	1.450E-01	1.225E-01	7.396E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	457.6310
49.72	762.6990
57.36	0.0000
59.54	545.9824
63.29	668.6972
63.29	668.6972
64.28	665.3526
67.75	671.7437
69.67	690.4368
70.83	695.0676
72.81	674.7846
72.87	674.8393
72.87	674.8393
74.82	679.7414
74.82	679.7414
74.82	679.7414
74.97	679.8723
77.11	681.7549
77.11	681.7549
77.11	681.7549
79.69	683.9911
79.80	684.0853
80.12	684.3603
80.19	684.4205
80.57	430.9585
81.00	431.1892
81.07	431.2271
81.07	431.2271
83.79	456.7115
83.79	456.7115
85.43	420.6888
86.48	421.2197
86.55	421.2549
86.79	421.3748
86.94	421.4516
87.57	421.7666
88.03	421.9969
88.47	422.2159
89.96	422.9547
91.11	423.5224
92.59	424.2452
92.59	424.2452
93.35	424.6146
94.67	420.3834
94.87	418.8547
94.87	418.8547
95.86	448.5775
97.43	384.2404
98.44	392.8209
99.53	432.4592
100.11	428.0685
103.18	453.6329
103.37	430.1690
105.31	429.0071
106.12	442.7292
109.28	470.9919
111.00	454.2770
111.76	487.6953
116.30	398.5942
117.23	410.3920
121.12	411.9651
121.78	401.7926
122.06	379.9808
123.07	372.5893
131.20	377.3875
133.52	423.7831
136.00	378.6297

136.47	394.6620
140.51	430.0746
140.51	0.0000
143.76	391.9041
144.24	377.1513
144.24	377.1513
145.44	392.4796
152.43	362.6476
153.25	391.8866
154.21	358.8910
154.21	358.8910
156.02	382.0329
158.56	335.3871
159.00	352.7689
162.66	340.8398
163.33	324.7856
165.86	341.7170
176.60	301.9424
177.52	319.6713
181.07	346.0029
184.41	360.9597
185.72	331.5703
193.51	329.0425
197.04	306.5560
205.31	425.6630
210.85	311.7828
215.65	291.6494
222.11	288.3948
227.38	296.6551
228.16	286.8225
228.18	286.8263
235.69	273.6255
235.96	273.6731
235.96	273.6731
238.63	243.9830
238.63	243.9830
240.99	244.3464
242.00	233.5124
244.70	226.2637
252.40	249.7669
252.80	225.8594
256.23	241.1104
256.23	241.1104
260.90	0.0000
264.66	211.9999
268.22	192.5969
269.46	192.7359
269.46	192.7359
271.23	178.6440
273.65	281.5641
276.40	223.0288
277.37	204.7434
277.60	202.6912
278.00	203.9838
279.20	192.8886
279.54	188.2437
280.46	210.8304
283.69	221.5439
284.31	217.8653
285.41	208.6047
285.90	0.0000
287.50	183.4481
293.27	0.0000
295.22	160.6160
295.96	160.6824
298.57	160.9127
299.98	206.8197
299.98	206.8197
300.09	206.8330
300.09	206.8330
300.13	206.8383
301.36	235.4165
302.85	208.7261
304.50	183.5888
304.50	183.5888
304.85	185.2072
308.46	229.3413
311.90	184.0002

316.51	204.5173
319.41	185.6854
320.08	199.1539
323.87	211.0598
323.87	211.0598
328.76	206.7853
333.37	199.2371
334.37	217.9857
334.37	217.9857
338.28	188.4564
338.28	188.4564
338.32	188.4611
338.32	188.4611
338.32	188.4611
340.48	183.8282
340.55	183.8352
344.28	155.0957
351.06	147.8363
351.93	150.8185
356.01	165.7417
364.49	156.6328
366.42	166.5759
383.85	167.9435
388.16	132.6407
388.63	141.5808
391.69	163.5901
400.66	160.2728
401.81	140.4372
402.40	141.4696
404.85	173.5391
410.95	134.0082
414.70	137.2341
423.72	129.7275
427.09	121.8596
427.87	121.9010
433.94	134.3378
453.88	140.5555
463.37	114.1775
468.07	104.1500
473.00	141.6521
476.78	123.3618
477.60	134.7132
487.02	122.8291
492.35	0.0000
497.08	97.4068
511.00	117.7217
514.00	100.8203
527.90	0.0000
529.87	0.0000
531.02	93.4174
537.26	116.7749
546.56	0.0000
563.25	110.4416
569.33	98.9737
569.50	98.9782
569.70	97.9207
583.19	95.1752
600.60	118.3359
602.73	113.0391
604.72	89.7746
609.32	109.6938
609.32	109.6938
609.32	109.6938
610.33	93.5412
614.28	106.2749
618.01	108.2104
621.93	100.7651
621.93	100.7651
633.25	96.7918
635.95	82.7261
636.99	82.7539
645.85	96.0953
657.76	115.0975
661.66	93.2904
661.66	93.2904
664.57	0.0000
666.33	93.4274
666.50	93.4315

677.62	97.4352
685.70	84.7788
695.00	112.7443
696.49	102.6262
696.51	102.6262
697.00	101.7173
702.65	119.4914
706.68	95.5252
711.68	93.8121
720.70	79.8288
721.93	0.0000
722.78	103.8431
722.91	102.2478
723.31	110.2503
724.19	110.2792
727.33	80.2523
733.00	84.9272
735.93	83.6889
739.50	84.2871
747.24	81.6616
752.31	78.9619
753.82	77.1152
756.73	87.5338
763.94	111.2924
765.81	104.7468
766.42	116.0908
777.92	94.6920
778.90	86.1938
783.70	72.4283
785.37	86.8237
795.86	65.2581
801.95	99.5232
810.29	92.6820
810.76	92.6939
815.77	71.7682
818.51	73.7368
832.01	77.8508
834.85	82.7194
836.80	0.0000
846.77	70.4395
856.80	66.3421
860.56	61.0120
871.09	58.2666
873.19	82.5893
875.33	0.0000
879.36	67.1498
880.51	57.4347
883.24	80.8554
884.68	76.9877
889.28	68.2967
898.04	68.4491
911.20	75.6864
911.20	75.6864
911.20	75.6864
926.50	65.0023
937.49	85.9167
944.13	79.1341
946.00	67.2944
949.00	63.3828
962.29	66.4260
964.08	61.3426
966.15	66.6306
968.97	66.6756
968.97	66.6756
968.97	66.6756
983.53	49.9308
996.26	81.1335
1001.03	59.1632
1004.73	78.2841
1037.84	70.7947
1038.76	0.0000
1048.07	72.9873
1050.41	67.9542
1050.41	67.9542
1063.66	63.0722
1085.87	62.3627
1099.45	63.5742
1112.07	63.0653

1115.54	75.8529
1120.29	81.3755
1120.29	81.3755
1120.29	81.3755
1120.55	81.3787
1121.30	84.7768
1131.51	0.0000
1173.23	80.2115
1177.93	78.2043
1189.05	64.7978
1204.77	70.2497
1221.41	86.2708
1231.02	109.6283
1235.36	90.7346
1238.28	76.0078
1260.41	0.0000
1271.85	55.2627
1274.44	60.6066
1274.54	60.6066
1291.59	52.2758
1298.22	0.0000
1312.11	44.9856
1332.49	45.1599
1365.19	33.5379
1368.63	0.0000
1384.29	40.0171
1408.01	21.4975
1457.56	0.0000
1460.82	23.1174
1489.16	20.8621
1505.03	29.4777
1596.21	31.0949
1620.50	16.4824
1678.03	0.0000
1690.97	12.7479
1764.49	15.6226
1764.49	15.6226
1764.49	15.6226
1770.23	73.4658
1771.35	51.6336
1791.20	0.0000
1836.06	13.0349

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248860007

Total Uranium Activity	4.8301E+00	ug/g
Total Uranium Counting Unc.	3.2893E+00	ug/g
Total Uranium Tpu	1.6782E-06	ug/g
Total Uranium Mda	1.8262E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248860007       *
*   ANALYST       : MXR1                      DETECTOR   : GAM05            *
*   SAMPLE DATE   :  4-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 16:27:57.01    SAMPLE ALQT:  129.800 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.074E+01
GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.451E+00
GROSS GAMMA MDA    (pCi/GRAM  )   : 4.519E+00
GROSS GAMMA DLC    (pCi/GRAM  )   : 2.205E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:29:52.32

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860008.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 16:28:22
Sample ID         : G248860008           Sample quantity  : 1.29230E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.17  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	74.62*	331	532	1.30	149.38	144	15	4.60E-02	13.5	5.96E-01
2	3	76.96	564	381	0.99	154.05	144	15	7.83E-02	7.1	
3	0	87.04	188	372	1.09	174.19	172	6	2.61E-02	17.9	
4	7	89.68	135	236	1.01	179.48	177	14	1.88E-02	17.4	1.33E+00
5	7	93.01*	284	448	1.77	186.12	177	14	3.94E-02	15.5	
6	0	128.93	127	385	1.16	257.91	254	9	1.76E-02	29.2	
7	0	185.85*	236	450	1.28	371.66	367	12	3.27E-02	19.5	
8	0	209.31	131	237	1.19	418.53	415	7	1.82E-02	21.5	
9	5	238.66*	1382	222	1.15	477.20	473	15	1.92E-01	3.3	1.97E+00
10	5	241.50	224	323	1.65	482.87	473	15	3.11E-02	19.3	
11	0	269.97	121	217	1.28	539.75	535	9	1.69E-02	23.6	
12	0	295.28	388	207	1.26	590.35	585	10	5.38E-02	8.6	
13	0	300.86	122	217	1.19	601.50	596	12	1.70E-02	25.8	
14	0	328.53	104	256	1.55	656.79	651	14	1.44E-02	34.2	
15	0	338.50	305	191	1.23	676.73	673	11	4.23E-02	10.5	
16	0	352.01*	646	232	1.30	703.72	698	12	8.98E-02	6.2	
17	0	463.18	74	101	0.97	925.94	921	9	1.02E-02	27.2	
18	0	511.13*	158	151	1.82	1021.77	1014	16	2.19E-02	21.0	
19	0	583.74*	414	135	1.37	1166.93	1161	14	5.75E-02	8.0	
20	0	609.66*	485	96	1.49	1218.73	1213	14	6.74E-02	6.3	
21	0	728.11	121	109	1.75	1455.55	1449	17	1.68E-02	22.1	
22	0	796.22	68	72	1.43	1591.72	1586	13	9.40E-03	28.9	
23	0	861.57	77	73	1.39	1722.39	1715	15	1.07E-02	26.8	
24	0	911.78*	279	82	2.14	1822.79	1815	18	3.88E-02	9.8	
25	1	965.33	67	31	1.92	1929.87	1923	34	9.36E-03	22.2	1.40E+00
26	1	969.53*	160	34	1.93	1938.28	1923	34	2.23E-02	11.3	
27	0	1120.87*	97	57	1.29	2240.94	2235	12	1.35E-02	19.0	
28	0	1379.35	31	23	1.96	2757.97	2752	15	4.24E-03	38.4	
29	0	1461.69*	1509	30	2.35	2922.68	2914	17	2.10E-01	2.7	
30	0	1766.00*	74	17	2.05	3531.57	3524	14	1.03E-02	17.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 18:29:55

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860008.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 4-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 16:28:22
Sample ID : G248860008 Sample quantity : 129.23 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA10 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.17 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.751E+01	4.114E+00	5.283E-01	5.031E-02	70.998
CD-109	+	88.03	*	2.881E+00	1.078E+00	1.189E+00	1.344E-01	2.423
SN-126		64.28		6.397E-01	6.637E-01	1.128E+00	1.795E-01	0.567
	+	86.94		1.162E+00	6.404E-01	6.531E-01	2.741E-01	1.779
	+	87.57	*	2.795E-01	1.046E-01	1.493E-01	1.682E-02	1.872
TL-208		277.37		4.113E-01	4.022E-01	6.962E-01	9.263E-02	0.591
	+	583.19	*	5.520E-01	1.010E-01	5.834E-02	5.258E-03	9.462
	+	860.56		9.955E-01	5.436E-01	4.657E-01	4.683E-02	2.137
BI-211		72.87		5.874E+00	4.368E+00	6.745E+00	6.871E-01	0.871
	+	351.06	*	3.837E+00	5.981E-01	3.316E-01	3.117E-02	11.571
PB-212	+	74.82		2.398E+00	7.308E-01	6.506E-01	9.209E-02	3.685
	+	77.11		2.281E+00	4.009E-01	3.649E-01	3.798E-02	6.252
	+	238.63	*	1.839E+00	2.318E-01	9.866E-02	1.063E-02	18.640
	+	300.09		2.534E+00	1.340E+00	1.172E+00	1.329E-01	2.162
BI-214	+	609.32	*	1.253E+00	2.009E-01	1.102E-01	1.085E-02	11.366
	+	1120.29		1.359E+00	5.376E-01	4.881E-01	5.316E-02	2.784
		1764.49		1.559E+00	4.577E-01	9.185E-01	7.932E-02	1.697
PB-214	+	74.82		4.250E+00	1.273E+00	1.153E+00	1.497E-01	3.685
	+	77.11		4.022E+00	7.807E-01	6.432E-01	8.543E-02	6.252
	+	242.00		1.808E+00	7.261E-01	5.966E-01	6.769E-02	3.030
	+	295.22		1.420E+00	2.950E-01	2.304E-01	2.676E-02	6.165
	+	351.93	*	1.393E+00	2.303E-01	1.206E-01	1.313E-02	11.547
RA-224	+	240.99	*	3.197E+00	1.270E+00	1.057E+00	1.031E-01	3.023
RA-226	+	609.32	*	1.253E+00	2.009E-01	1.102E-01	1.085E-02	11.366
	+	1120.29		1.359E+00	5.376E-01	4.881E-01	5.316E-02	2.784
		1764.49		1.559E+00	4.577E-01	9.185E-01	7.932E-02	1.697
AC-228	+	338.32		2.016E+00	9.436E-01	3.837E-01	1.605E-01	5.254
	+	911.20	*	1.839E+00	4.275E-01	2.261E-01	2.805E-02	8.137
	+	968.97		1.831E+00	6.119E-01	4.175E-01	1.031E-01	4.385
RA-228	+	338.32		2.016E+00	9.436E-01	3.837E-01	1.605E-01	5.254
	+	911.20	*	1.839E+00	4.275E-01	2.261E-01	2.805E-02	8.137
	+	968.97		1.831E+00	6.119E-01	4.175E-01	1.031E-01	4.385
TH-228	+	74.82		2.398E+00	6.932E-01	6.506E-01	6.732E-02	3.685
	+	77.11		2.281E+00	4.009E-01	3.649E-01	3.798E-02	6.252

Sample ID : G248860008 Acquisition date : 24-MAR-2010 16:28:22

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	1.839E+00	2.318E-01	9.866E-02	1.063E-02	18.640
	+	300.09		2.534E+00	2.032E+00	1.172E+00	7.192E-01	2.162
TH-230	+	609.32	*	1.253E+00	1.897E-01	1.102E-01	9.156E-03	11.366
	+	1120.29		1.359E+00	5.298E-01	4.881E-01	4.190E-02	2.784
		1764.49		1.559E+00	4.577E-01	9.184E-01	7.932E-02	1.697
TH-232	+	338.32		2.016E+00	4.621E-01	3.837E-01	3.517E-02	5.254
	+	911.20	*	1.839E+00	4.275E-01	2.261E-01	2.805E-02	8.137
	+	968.97		1.831E+00	6.119E-01	4.175E-01	1.031E-01	4.385
U-235	+	89.96		2.052E+00	8.849E-01	1.209E+00	3.086E-01	1.698
	+	93.35		2.556E+00	9.987E-01	7.184E-01	1.713E-01	3.557
		143.76	*	6.362E-02	2.090E-01	3.342E-01	5.723E-02	0.190
		163.33		-7.398E-02	4.427E-01	7.015E-01	1.282E-01	-0.105
	+	185.72		2.034E-01	8.147E-02	6.753E-02	6.394E-03	3.011
		205.31		2.599E-01	5.419E-01	8.301E-01	1.547E-01	0.313
NP-237	+	86.48	*	8.341E-01	3.578E-01	4.675E-01	1.110E-01	1.784
		95.86		-4.207E-01	9.845E-01	1.398E+00	3.437E-01	-0.301
ANH-511	+	511.00	*	1.607E-01	6.900E-02	4.765E-02	4.045E-03	3.372

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	7.023E-02	3.720E-01	5.872E-01	5.369E-02	0.120
NA-22		1274.54	*	-2.702E-02	5.133E-02	8.122E-02	7.189E-03	-0.333
NA-24		1368.63	*	-1.601E+02	5.133E-02	Half-Life too short		
SC-46		889.28	*	3.136E-02	4.650E-02	8.017E-02	7.748E-03	0.391
	+	1120.55		2.397E-01	9.346E-02	1.438E-01	1.234E-02	1.667
V-48		944.13		-2.643E-01	1.260E+00	2.012E+00	1.930E-01	-0.131
		983.53	*	-3.317E-02	1.061E-01	1.622E-01	1.532E-02	-0.205
		1312.11		1.938E-02	9.989E-02	1.694E-01	1.543E-02	0.114
CR-51		320.08	*	-3.413E-01	4.270E-01	6.735E-01	6.606E-02	-0.507
MN-54		834.85	*	-1.765E-02	4.433E-02	7.060E-02	6.569E-03	-0.250
CO-56		846.77	*	3.061E-02	4.492E-02	7.773E-02	7.295E-03	0.394
		1037.84		7.029E-02	3.574E-01	5.882E-01	5.641E-02	0.119
		1238.28		2.471E-01	1.159E-01	2.160E-01	1.908E-02	1.144
		1771.35		-7.894E-02	2.860E-01	3.618E-01	3.115E-02	-0.218
CO-57		122.06	*	1.305E-02	2.610E-02	4.316E-02	3.855E-03	0.302
		136.47		3.538E-02	2.100E-01	3.410E-01	3.243E-02	0.104
CO-58		810.76	*	-7.637E-03	4.413E-02	7.158E-02	6.557E-03	-0.107
FE-59		1099.45	*	3.829E-03	1.133E-01	1.827E-01	1.725E-02	0.021
		1291.59		1.716E-02	1.550E-01	2.602E-01	2.625E-02	0.066
CO-60		1173.23		-3.173E-02	5.087E-02	8.070E-02	6.544E-03	-0.393
		1332.49	*	7.428E-03	4.281E-02	7.233E-02	6.690E-03	0.103
ZN-65		1115.54	*	-4.805E-02	1.197E-01	1.563E-01	1.350E-02	-0.307
SE-75		121.12		4.224E-02	1.398E-01	2.293E-01	2.599E-02	0.184
		136.00		3.304E-02	4.058E-02	6.759E-02	6.049E-03	0.489
		264.66	*	2.851E-02	5.095E-02	7.789E-02	7.625E-03	0.366
		279.54		1.646E-02	1.149E-01	1.930E-01	1.930E-02	0.085
		400.66		6.299E-02	2.509E-01	4.166E-01	4.501E-02	0.151

Sample ID : G248860008 Acquisition date : 24-MAR-2010 16:28:22

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SR-85		514.00	*	9.290E-02	4.654E-02	7.631E-02	6.477E-03	1.217
Y-88		898.04		-1.797E-02	4.801E-02	7.579E-02	7.395E-03	-0.237
		1836.06	*	-2.396E-03	3.089E-02	4.889E-02	4.078E-03	-0.049
Y-91		1204.77	*	-3.442E-01	2.606E+01	4.350E+01	3.628E+00	-0.008
NB-94		702.65	*	2.199E-02	3.396E-02	5.908E-02	4.942E-03	0.372
		871.09		-1.495E-02	3.773E-02	5.954E-02	5.684E-03	-0.251
NB-95		765.81	*	5.595E-03	4.804E-02	8.008E-02	7.067E-03	0.070
NB-95M		235.69	*	7.501E-03	1.425E-01	2.124E-01	2.311E-02	0.035
ZR-95		724.19		1.674E-02	1.165E-01	1.704E-01	1.578E-02	0.098
		756.73	*	1.100E-01	8.426E-02	1.515E-01	1.462E-02	0.726
MO-99		140.51		-6.429E-02	8.091E+01	1.285E+02	3.065E+01	-0.001
		181.07		-4.992E-01	7.074E+01	9.982E+01	1.914E+01	-0.005
		366.42		-4.243E+02	3.544E+02	5.340E+02	4.656E+01	-0.795
		739.50	*	-3.060E+01	4.618E+01	7.196E+01	1.135E+01	-0.425
		777.92		-1.753E+02	1.381E+02	2.019E+02	1.799E+01	-0.868
TC-99M		140.51	*	-3.736E+13	1.381E+02	Half-Life too short		
RU-103		497.08	*	-2.168E-02	4.438E-02	6.859E-02	9.523E-03	-0.316
	+	610.33		1.414E+01	2.906E+00	3.212E+00	5.198E-01	4.403
RH-106		621.93	*	-1.251E-01	3.131E-01	5.088E-01	6.625E-02	-0.246
		1050.41		-1.804E+00	3.090E+00	4.602E+00	4.183E-01	-0.392
RU-106		621.93	*	-1.251E-01	3.129E-01	5.088E-01	4.200E-02	-0.246
		1050.41		-1.804E+00	3.090E+00	4.602E+00	4.183E-01	-0.392
AG-108M		433.94	*	-1.865E-03	2.856E-02	4.619E-02	4.001E-03	-0.040
		614.28		1.362E-02	3.871E-02	5.858E-02	5.026E-03	0.233
		722.91		8.863E-04	4.434E-02	6.403E-02	5.632E-03	0.014
AG-110M		657.76	*	6.448E-03	3.294E-02	5.588E-02	4.669E-03	0.115
		677.62		-1.466E-01	2.923E-01	4.661E-01	3.934E-02	-0.314
		706.68		-1.545E-01	2.305E-01	3.636E-01	3.145E-02	-0.425
		763.94		-2.182E-01	1.724E-01	2.540E-01	2.297E-02	-0.859
		884.68		-5.949E-02	5.589E-02	8.188E-02	8.092E-03	-0.727
		937.49		-5.180E-02	1.301E-01	2.043E-01	2.022E-02	-0.254
		1384.29		6.086E-02	1.661E-01	2.540E-01	2.415E-02	0.240
		1505.03		-1.735E-01	2.994E-01	4.486E-01	4.157E-02	-0.387
SN-113		391.69	*	-2.517E-02	4.683E-02	7.389E-02	6.273E-03	-0.341
CD-115		260.90		-2.615E-04	4.683E-02	Half-Life too short		
		492.35		2.882E-04	4.683E-02	Half-Life too short		
		527.90	*	2.334E-05	4.683E-02	Half-Life too short		
SN-117M		156.02		-2.663E+00	3.019E+00	4.625E+00	4.227E-01	-0.576
		158.56	*	4.172E-02	7.143E-02	1.171E-01	1.076E-02	0.356
TE-123M		159.00	*	1.515E-02	2.948E-02	4.822E-02	4.457E-03	0.314
SB-124		602.73		-9.123E-04	4.063E-02	6.441E-02	5.366E-03	-0.014
		645.85		3.062E-01	5.018E-01	8.774E-01	7.606E-02	0.349
		722.78		2.607E-02	4.733E-01	6.861E-01	5.979E-02	0.038
		1690.97	*	7.416E-03	8.345E-02	1.380E-01	1.275E-02	0.054
SB-125		427.87	*	-9.708E-03	9.213E-02	1.488E-01	1.268E-02	-0.065
	+	463.37		6.666E-01	3.680E-01	5.544E-01	5.049E-02	1.202
		600.60		7.486E-03	1.684E-01	2.840E-01	2.555E-02	0.026
		635.95		-1.231E-01	2.695E-01	4.352E-01	3.884E-02	-0.283
TE-125M		109.28	*	-7.288E+00	1.057E+01	1.666E+01	1.833E+00	-0.438

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-126		388.63		1.472E-01	2.194E-01	3.737E-01	3.093E-02	0.394
		666.33	*	2.935E-01	2.981E-01	5.303E-01	4.292E-02	0.554
		753.82		-1.674E+00	2.682E+00	4.223E+00	3.691E-01	-0.396
SB-126		414.70		-1.175E-01	1.059E-01	1.568E-01	1.303E-02	-0.749
		666.50		8.645E-02	1.046E-01	1.842E-01	1.491E-02	0.469
		695.00		2.701E-02	1.049E-01	1.779E-01	1.478E-02	0.152
		697.00		2.362E-01	3.545E-01	6.183E-01	5.147E-02	0.382
		720.70	*	-2.145E-02	2.204E-01	3.295E-01	2.800E-02	-0.065
		856.80		4.327E-02	6.948E-01	9.942E-01	9.397E-02	0.044
SB-127		252.40		1.814E+00	1.047E+01	1.768E+01	7.469E+00	0.103
		473.00		-1.572E+00	4.425E+00	6.965E+00	9.838E-01	-0.226
		685.70	*	9.002E-01	3.232E+00	5.498E+00	7.000E-01	0.164
		783.70		1.718E+00	9.543E+00	1.596E+01	2.244E+00	0.108
I-131		80.19		2.696E+00	8.324E+00	1.248E+01	1.334E+00	0.216
		284.31		-1.530E+00	2.232E+00	3.577E+00	3.618E-01	-0.428
		364.49	*	1.326E-02	1.725E-01	2.849E-01	2.635E-02	0.047
		636.99		-1.654E+00	2.378E+00	3.757E+00	3.287E-01	-0.440
TE-132		49.72		7.263E+01	1.172E+02	2.005E+02	2.821E+01	0.362
		111.76		-1.930E+01	1.019E+02	1.645E+02	2.125E+01	-0.117
		116.30		-1.294E+01	8.992E+01	1.451E+02	1.862E+01	-0.089
		228.16	*	-2.175E+00	2.378E+00	3.791E+00	6.641E-01	-0.574
BA-133		81.00		-7.625E-02	1.165E-01	1.656E-01	2.773E-02	-0.461
		276.40		3.734E-01	3.737E-01	6.452E-01	9.554E-02	0.579
		302.85		5.813E-02	1.536E-01	2.304E-01	3.158E-02	0.252
		356.01	*	-1.564E-02	4.664E-02	6.532E-02	8.582E-03	-0.239
		383.85		-1.749E-01	2.878E-01	4.512E-01	5.531E-02	-0.388
I-133		529.87	*	-1.752E-01	2.878E-01	Half-Life too short		
		875.33		-3.803E+00	2.878E-01	Half-Life too short		
		1298.22		-8.198E+00	2.878E-01	Half-Life too short		
CS-134		563.25		2.203E-02	3.813E-01	6.115E-01	5.211E-02	0.036
		569.33		2.910E-02	2.129E-01	3.431E-01	2.932E-02	0.085
		604.72		1.023E-02	3.452E-02	5.209E-02	4.347E-03	0.196
	+	795.86	*	1.338E-01	7.829E-02	1.012E-01	9.201E-03	1.322
		801.95		1.607E-01	4.841E-01	7.179E-01	6.551E-02	0.224
		1365.19		7.466E-01	1.359E+00	2.390E+00	2.307E-01	0.312
CS-135		268.22	*	1.561E-01	1.782E-01	2.761E-01	3.024E-02	0.565
I-135		546.56		-1.105E+16	1.782E-01	Half-Life too short		
		836.80		3.660E+15	1.782E-01	Half-Life too short		
		1038.76		-2.191E+15	1.782E-01	Half-Life too short		
		1131.51		-1.274E+14	1.782E-01	Half-Life too short		
		1260.41	*	-7.357E+13	1.782E-01	Half-Life too short		
		1457.56		9.007E+16	1.782E-01	Half-Life too short		
		1678.03		-2.183E+15	1.782E-01	Half-Life too short		
		1791.20		2.057E+15	1.782E-01	Half-Life too short		
CS-136		153.25		1.019E+00	1.129E+00	1.873E+00	1.998E-01	0.544
		176.60		2.554E-01	6.787E-01	1.098E+00	1.123E-01	0.233
		273.65		-6.308E-01	8.154E-01	1.133E+00	1.177E-01	-0.557
		340.55		6.483E-01	2.289E-01	3.824E-01	3.614E-02	1.695
		818.51		-5.410E-02	9.337E-02	1.447E-01	1.332E-02	-0.374

Sample ID : G248860008 Acquisition date : 24-MAR-2010 16:28:22

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1048.07	*	-6.386E-02	1.566E-01	2.423E-01	2.291E-02	-0.264
		1235.36		-2.175E-01	9.133E-01	1.497E+00	1.756E-01	-0.145
BA-137M		661.66	*	-5.767E-02	3.489E-02	4.989E-02	4.021E-03	-1.156
CS-137		661.66	*	-6.092E-02	3.686E-02	5.270E-02	4.257E-03	-1.156
CE-139		165.86	*	6.465E-03	3.164E-02	5.097E-02	4.757E-03	0.127
BA-140		162.66		-7.150E-02	1.089E+00	1.735E+00	1.702E-01	-0.041
		304.85		5.331E-01	1.845E+00	2.746E+00	8.116E-01	0.194
		423.72		-9.179E-01	2.602E+00	4.106E+00	1.348E+00	-0.224
		537.26	*	-3.251E-02	3.447E-01	5.475E-01	1.855E-01	-0.059
LA-140	+	328.76		1.117E+00	7.719E-01	7.524E-01	7.336E-02	1.485
		487.02		-1.777E-02	1.750E-01	2.799E-01	2.524E-02	-0.063
		815.77		-1.382E-01	4.102E-01	6.525E-01	6.610E-02	-0.212
		1596.21	*	-3.364E-02	1.153E-01	1.794E-01	1.639E-02	-0.187
CE-141		145.44	*	-4.218E-03	7.397E-02	1.166E-01	1.064E-02	-0.036
CE-143		57.36		-2.275E-03	7.397E-02	Half-Life too short		
		293.27	*	7.307E-03	7.397E-02	Half-Life too short		
		664.57		1.386E-02	7.397E-02	Half-Life too short		
		721.93		-1.158E-03	7.397E-02	Half-Life too short		
CE-144		80.12		8.639E-01	2.940E+00	4.401E+00	4.669E-01	0.196
		133.52	*	-1.223E-01	2.259E-01	3.131E-01	4.832E-02	-0.391
PM-144		476.78		1.030E-02	6.815E-02	1.112E-01	1.026E-02	0.093
		618.01		-3.060E-03	3.260E-02	5.289E-02	4.509E-03	-0.058
		696.49	*	2.152E-02	3.457E-02	6.011E-02	5.004E-03	0.358
PR-144		696.51	*	1.628E+00	2.595E+00	4.514E+00	3.756E-01	0.361
		1489.16		-3.875E+00	1.034E+01	1.569E+01	1.456E+00	-0.247
PM-146		453.88	*	3.110E-02	4.335E-02	7.352E-02	7.671E-03	0.423
		633.25		1.130E+00	1.474E+00	2.499E+00	9.521E-01	0.452
		735.93		5.688E-02	1.681E-01	2.503E-01	7.015E-02	0.227
		747.24		-4.702E-02	9.811E-02	1.555E-01	2.275E-02	-0.302
ND-147	+	91.11		9.153E-01	3.351E-01	7.019E-01	7.979E-02	1.304
		319.41		-2.237E+00	4.601E+00	7.405E+00	6.962E-01	-0.302
		531.02	*	-5.976E-01	7.319E-01	1.078E+00	1.603E-01	-0.554
PM-149		285.90	*	-3.229E-04	7.319E-01	Half-Life too short		
EU-152		121.78		3.023E-02	7.393E-02	1.218E-01	1.239E-02	0.248
		244.70		2.343E-01	3.648E-01	5.610E-01	5.475E-02	0.418
		344.28	*	-7.134E-02	1.115E-01	1.525E-01	1.459E-02	-0.468
		778.90		-1.231E-01	2.671E-01	4.233E-01	3.775E-02	-0.291
	+	964.08		8.291E-01	3.764E-01	5.926E-01	5.643E-02	1.399
		1085.87		-1.979E-01	4.359E-01	6.689E-01	5.920E-02	-0.296
		1112.07		1.808E-01	3.559E-01	5.975E-01	5.169E-02	0.303
		1408.01		1.698E-01	2.170E-01	3.871E-01	3.601E-02	0.439
GD-153		69.67		8.483E-02	2.448E+00	3.643E+00	3.665E-01	0.023
		97.43	*	-1.220E-01	9.960E-02	1.345E-01	1.347E-02	-0.907
		103.18		3.986E-03	1.204E-01	1.968E-01	1.879E-02	0.020
EU-154		123.07		-2.097E-02	5.289E-02	8.410E-02	9.736E-03	-0.249
		723.31		1.454E-02	2.000E-01	2.905E-01	2.731E-02	0.050
		873.19		-2.209E-01	3.132E-01	4.740E-01	5.969E-02	-0.466
		996.26		-1.745E-01	4.070E-01	6.309E-01	1.127E-01	-0.277
		1004.73		2.837E-02	2.465E-01	4.033E-01	4.914E-02	0.070

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1274.44	*	-1.259E-01	1.492E-01	2.281E-01	2.634E-02	-0.552
EU-155	+	86.55		3.396E-01	1.272E-01	2.040E-01	2.291E-02	1.665
		105.31	*	2.302E-02	1.111E-01	1.827E-01	1.739E-02	0.126
TB-160	+	86.79		9.440E-01	3.533E-01	5.629E-01	6.296E-02	1.677
		197.04		1.194E-01	6.072E-01	9.692E-01	9.255E-02	0.123
		215.65		3.815E-01	7.605E-01	1.312E+00	1.268E-01	0.291
		298.57		8.217E-02	1.841E-01	2.055E-01	1.971E-02	0.400
		879.36	*	-8.548E-02	1.606E-01	2.497E-01	2.398E-02	-0.342
		962.29		1.138E-01	6.519E-01	9.350E-01	8.911E-02	0.122
	+	966.15		6.076E-01	2.759E-01	4.961E-01	4.721E-02	1.225
		1177.93		-2.776E-02	4.358E-01	7.257E-01	5.910E-02	-0.038
		1271.85		8.558E-02	8.821E-01	1.480E+00	1.306E-01	0.058
HO-166M		80.57		1.156E-01	3.156E-01	4.737E-01	5.042E-02	0.244
	+	184.41		1.616E-01	6.472E-02	6.586E-02	6.229E-03	2.453
		280.46		-6.893E-02	8.826E-02	1.413E-01	1.371E-02	-0.488
		410.95		4.588E-01	2.617E-01	4.658E-01	3.864E-02	0.985
		711.68	*	-1.614E-02	6.587E-02	1.075E-01	9.063E-03	-0.150
		752.31		-1.837E-01	2.954E-01	4.642E-01	4.051E-02	-0.396
		810.29		7.819E-03	6.259E-02	1.041E-01	9.513E-03	0.075
TA-182		67.75		9.914E-02	1.476E-01	2.502E-01	2.499E-02	0.396
		100.11		1.662E-01	1.934E-01	3.256E-01	3.183E-02	0.510
		152.43		2.327E-02	3.684E-01	5.922E-01	5.376E-02	0.039
		222.11		-1.914E-01	3.637E-01	6.004E-01	5.820E-02	-0.319
	+	1121.30		6.566E-01	2.560E-01	3.931E-01	3.372E-02	1.670
		1189.05		-1.004E-01	3.722E-01	6.094E-01	5.012E-02	-0.165
		1221.41	*	-1.174E-01	2.347E-01	3.763E-01	3.183E-02	-0.312
		1231.02		-4.733E-02	5.834E-01	9.675E-01	8.252E-02	-0.049
IR-192	+	295.96		1.101E+00	2.175E-01	3.082E-01	2.979E-02	3.574
		308.46		-2.033E-02	9.811E-02	1.609E-01	1.537E-02	-0.126
		316.51	*	2.023E-02	3.653E-02	6.228E-02	5.885E-03	0.325
		468.07		-1.726E-02	8.417E-02	1.165E-01	1.059E-02	-0.148
HG-203		70.83		-1.081E+00	2.005E+00	2.891E+00	4.886E-01	-0.374
		72.87		1.577E+00	1.190E+00	1.811E+00	2.980E-01	0.871
		279.20	*	3.545E-02	4.249E-02	7.346E-02	7.274E-03	0.483
BI-207		72.81		2.842E-01	2.496E-01	3.833E-01	3.904E-02	0.742
	+	74.97		6.912E-01	1.997E-01	2.753E-01	2.832E-02	2.511
		569.70		9.546E-03	3.327E-02	5.421E-02	4.565E-03	0.176
		1063.66	*	2.704E-02	6.682E-02	1.113E-01	1.002E-02	0.243
		1770.23		6.976E-01	5.319E-01	9.804E-01	8.445E-02	0.712
PB-210		46.54	*	2.612E+00	8.158E+00	1.388E+01	1.381E+00	0.188
PB-211		404.85	*	-1.307E-01	7.152E-01	1.149E+00	5.554E-01	-0.114
		427.09		-6.418E-01	1.554E+00	2.409E+00	1.113E+00	-0.266
		832.01		1.320E-01	1.132E+00	1.874E+00	9.738E-01	0.070
BI-212	+	727.33	*	2.497E+00	1.146E+00	1.259E+00	1.563E-01	1.982
		785.37		4.111E+00	3.487E+00	6.216E+00	5.572E-01	0.661
		1620.50		-9.774E-01	2.675E+00	4.115E+00	3.737E-01	-0.238
RN-219	+	271.23		7.117E-01	3.458E-01	4.733E-01	5.305E-02	1.504
		401.81	*	-2.200E-01	3.971E-01	6.222E-01	9.125E-02	-0.354
RA-223		81.07		-1.719E-01	2.626E-01	3.745E-01	4.000E-02	-0.459

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		83.79		7.038E-02	1.575E-01	2.345E-01	2.557E-02	0.300
		94.87		1.006E+00	4.925E-01	7.816E-01	8.039E-02	1.287
		144.24		1.394E-01	7.106E-01	1.133E+00	1.125E-01	0.123
		154.21		4.471E-01	3.938E-01	6.581E-01	6.509E-02	0.679
	+	269.46		5.530E-01	2.671E-01	3.699E-01	3.660E-02	1.495
		323.87	*	4.162E-01	7.176E-01	1.085E+00	1.920E-01	0.384
	+	338.28		7.999E+00	1.954E+00	2.538E+00	3.164E-01	3.152
AC-227		79.69		-6.661E-01	1.492E+00	2.149E+00	3.930E-01	-0.310
		235.96		7.971E-02	1.655E-01	2.523E-01	2.850E-02	0.316
		256.23	*	-1.412E-02	2.458E-01	4.110E-01	5.300E-02	-0.034
	+	299.98		2.788E+00	1.487E+00	1.650E+00	2.206E-01	1.690
		304.50		6.630E-01	1.694E+00	2.545E+00	4.334E-01	0.260
		334.37		1.393E+00	2.450E+00	2.773E+00	4.416E-01	0.502
TH-227		79.80		2.969E-01	1.909E+00	2.839E+00	6.424E-01	0.105
		235.96		7.971E-02	1.655E-01	2.523E-01	2.715E-02	0.316
		256.23	*	-1.412E-02	2.458E-01	4.110E-01	5.901E-02	-0.034
	+	299.98		2.788E+00	1.487E+00	1.650E+00	2.206E-01	1.690
		304.50		6.630E-01	1.694E+00	2.545E+00	4.334E-01	0.260
		334.37		1.393E+00	2.450E+00	2.773E+00	4.416E-01	0.502
TH-229		85.43		5.612E-01	2.652E-01	4.121E-01	4.555E-02	1.362
	+	88.47		2.968E-01	1.081E-01	2.454E-01	2.754E-02	1.209
		193.51	*	9.053E-03	5.628E-01	8.916E-01	8.492E-02	0.010
		210.85		1.332E+00	9.627E-01	1.536E+00	1.481E-01	0.867
PA-231		283.69	*	-5.904E-01	1.384E+00	2.250E+00	3.429E-01	-0.262
	+	301.36		1.791E+00	9.529E-01	1.103E+00	1.417E-01	1.623
TH-231		81.07		-1.719E-01	2.626E-01	3.745E-01	4.000E-02	-0.459
		83.79		7.038E-02	1.575E-01	2.345E-01	2.557E-02	0.300
		94.87		1.006E+00	4.925E-01	7.816E-01	8.039E-02	1.287
		144.24		1.394E-01	7.106E-01	1.133E+00	1.125E-01	0.123
		154.21		4.471E-01	3.938E-01	6.581E-01	6.509E-02	0.679
	+	269.46		5.530E-01	2.671E-01	3.699E-01	3.660E-02	1.495
		323.87	*	4.162E-01	7.176E-01	1.085E+00	1.920E-01	0.384
	+	338.28		7.999E+00	1.954E+00	2.538E+00	3.164E-01	3.152
PA-233	+	300.13		1.261E+00	6.797E-01	7.518E-01	1.158E-01	1.678
		311.90	*	-4.893E-02	6.562E-02	1.041E-01	1.010E-02	-0.470
		340.48		2.360E+00	9.291E-01	1.284E+00	3.115E-01	1.838
PA-234		94.67		4.734E-01	1.896E-01	2.960E-01	4.034E-02	1.599
		98.44		5.296E-02	9.735E-02	1.552E-01	8.692E-02	0.341
		111.00		-1.123E-01	1.870E-01	2.957E-01	3.691E-02	-0.380
		131.20		-1.213E-02	1.172E-01	1.676E-01	1.487E-02	-0.072
		569.50		6.050E-02	2.935E-01	4.755E-01	4.005E-02	0.127
		733.00		-4.987E-02	4.283E-01	6.076E-01	1.348E-01	-0.082
		880.51		3.846E-02	3.017E-01	4.992E-01	4.796E-02	0.077
		883.24		-8.182E-02	3.029E-01	4.745E-01	3.196E-01	-0.172
		926.50		6.089E-02	1.933E-01	3.230E-01	8.285E-02	0.188
		946.00	*	-3.865E-02	3.419E-01	5.505E-01	1.059E-01	-0.070
		949.00		2.920E-01	4.835E-01	8.284E-01	7.934E-02	0.352
PA-234M		766.42		1.724E+01	1.480E+01	2.172E+01	1.103E+01	0.794
		1001.03	*	-3.948E-01	5.409E+00	8.706E+00	9.241E-01	-0.045

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	1.437E+00	1.849E+00	3.114E+00	5.899E-01	0.462
	+	92.59		3.383E+00	1.302E+00	1.391E+00	3.188E-01	2.432
U-238		63.29	*	1.437E+00	1.849E+00	3.114E+00	5.899E-01	0.462
	+	92.59		3.383E+00	1.106E+00	1.391E+00	1.471E-01	2.432
NP-239		99.53		1.826E-01	1.711E-01	2.900E-01	2.849E-02	0.630
		103.37		6.434E-03	1.079E-01	1.766E-01	1.685E-02	0.036
		106.12		-2.246E-02	8.908E-02	1.437E-01	1.348E-02	-0.156
		117.23	*	-5.735E-02	4.160E-01	6.713E-01	6.039E-02	-0.085
		228.18		-2.125E-01	2.330E-01	3.749E-01	3.644E-02	-0.567
		277.60		1.609E-01	1.828E-01	3.162E-01	3.071E-02	0.509
AM-241		59.54	*	2.648E-02	2.226E-01	3.728E-01	3.734E-02	0.071
CM-247		278.00		5.707E-01	7.792E-01	1.341E+00	1.302E-01	0.426
		287.50		5.338E-01	1.203E+00	2.048E+00	1.979E-01	0.261
		402.40	*	-1.380E-02	3.676E-02	5.851E-02	4.833E-03	-0.236
CF-249		252.80		7.211E-02	9.319E-01	1.570E+00	1.533E-01	0.046
		333.37		-9.369E-02	2.465E-01	2.888E-01	2.666E-02	-0.324
		388.16	*	3.480E-02	3.988E-02	6.866E-02	5.690E-03	0.507
CF-251		177.52	*	8.539E-02	1.328E-01	2.171E-01	2.043E-02	0.393
		227.38		-5.414E-01	3.846E-01	6.025E-01	5.854E-02	-0.899
		285.41		-1.730E+00	2.120E+00	3.370E+00	3.261E-01	-0.513

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860008       *
* Acquisition date : 24-MAR-2010 16:28:22 Detector SN#    :                 *
* Detector ID       : GAM10                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.17      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  4-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248860008           Analyst initials: MXR1           *
* Batch Number      : 962633               Sample Quantity : 1.2923E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 13-MAR-2010 14:58:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.751E+01	4.032E+00	5.285E-01	0.000E+00
CD-109	2.881E+00	1.057E+00	1.243E+00	0.000E+00
SN-126	2.795E-01	1.025E-01	1.561E-01	0.000E+00
TL-208	5.520E-01	9.895E-02	5.923E-02	0.000E+00
BI-211	3.837E+00	5.862E-01	3.394E-01	0.000E+00
PB-212	1.839E+00	2.271E-01	1.016E-01	0.000E+00
BI-214	1.253E+00	1.969E-01	1.119E-01	0.000E+00
PB-214	1.393E+00	2.257E-01	1.234E-01	0.000E+00
RA-224	3.197E+00	1.245E+00	1.089E+00	0.000E+00
RA-226	1.253E+00	1.969E-01	1.119E-01	0.000E+00
AC-228	1.839E+00	4.190E-01	2.279E-01	0.000E+00
RA-228	1.839E+00	4.190E-01	2.279E-01	0.000E+00
TH-228	1.839E+00	2.271E-01	1.016E-01	0.000E+00
TH-230	1.253E+00	1.859E-01	1.119E-01	0.000E+00
TH-232	1.839E+00	4.190E-01	2.279E-01	0.000E+00
U-235	6.362E-02	2.048E-01	3.468E-01	0.000E+00
NP-237	8.341E-01	3.506E-01	4.888E-01	0.000E+00
ANH-511	1.607E-01	6.762E-02	4.849E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	7.023E-02	3.646E-01	5.981E-01	0.000E+00	NOT IDENT.
NA-22	-2.702E-02	5.031E-02	8.143E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.113E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	3.136E-02	4.557E-02	8.085E-02	0.000E+00	FAIL ABUN
V-48	-3.317E-02	1.040E-01	1.633E-01	0.000E+00	NOT IDENT.
CR-51	-3.413E-01	4.185E-01	6.903E-01	0.000E+00	NOT IDENT.
MN-54	-1.765E-02	4.345E-02	7.127E-02	0.000E+00	NOT IDENT.
CO-56	3.061E-02	4.402E-02	7.845E-02	0.000E+00	NOT IDENT.
CO-57	1.305E-02	2.558E-02	4.490E-02	0.000E+00	NOT IDENT.

CO-58	-7.637E-03	4.325E-02	7.230E-02	0.000E+00	NOT IDENT.
FE-59	3.829E-03	1.110E-01	1.837E-01	0.000E+00	NOT IDENT.
CO-60	7.428E-03	4.196E-02	7.247E-02	0.000E+00	NOT IDENT.
ZN-65	-4.805E-02	1.173E-01	1.571E-01	0.000E+00	NOT IDENT.
SE-75	2.851E-02	4.993E-02	8.008E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.561E-02	7.764E-02	0.000E+00	NOT IDENT.
Y-88	-2.396E-03	3.027E-02	4.872E-02	0.000E+00	NOT IDENT.
Y-91	-3.442E-01	2.554E+01	4.366E+01	0.000E+00	NOT IDENT.
NB-94	2.199E-02	3.328E-02	5.981E-02	0.000E+00	NOT IDENT.
NB-95	5.595E-03	4.708E-02	8.096E-02	0.000E+00	NOT IDENT.
NB-95M	7.501E-03	1.397E-01	2.188E-01	0.000E+00	NOT IDENT.
ZR-95	1.100E-01	8.257E-02	1.532E-01	0.000E+00	NOT IDENT.
MO-99	-3.060E+01	4.526E+01	7.279E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.608E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.168E-02	4.350E-02	6.982E-02	0.000E+00	FAIL ABUN
RH-106	-1.251E-01	3.069E-01	5.161E-01	0.000E+00	NOT IDENT.
RU-106	-1.251E-01	3.066E-01	5.161E-01	0.000E+00	NOT IDENT.
AG-108M	-1.865E-03	2.799E-02	4.712E-02	0.000E+00	NOT IDENT.
AG-110M	6.448E-03	3.228E-02	5.663E-02	0.000E+00	NOT IDENT.
SN-113	-2.517E-02	4.589E-02	7.550E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	5.165E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	4.172E-02	7.000E-02	1.214E-01	0.000E+00	NOT IDENT.
TE-123M	1.515E-02	2.889E-02	4.996E-02	0.000E+00	NOT IDENT.
SB-124	7.416E-03	8.178E-02	1.377E-01	0.000E+00	NOT IDENT.
SB-125	-9.708E-03	9.028E-02	1.518E-01	0.000E+00	FAIL ABUN
TE-125M	-7.288E+00	1.035E+01	1.736E+01	0.000E+00	NOT IDENT.
I-126	2.935E-01	2.922E-01	5.373E-01	0.000E+00	NOT IDENT.
SB-126	-2.145E-02	2.160E-01	3.334E-01	0.000E+00	NOT IDENT.
SB-127	9.002E-01	3.167E+00	5.568E+00	0.000E+00	NOT IDENT.
I-131	1.326E-02	1.691E-01	2.914E-01	0.000E+00	NOT IDENT.
TE-132	-2.175E+00	2.331E+00	3.906E+00	0.000E+00	NOT IDENT.
BA-133	-1.564E-02	4.571E-02	6.684E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.251E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.672E-02	1.022E-01	0.000E+00	FAIL ABUN
CS-135	1.561E-01	1.746E-01	2.838E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.816E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.386E-02	1.535E-01	2.437E-01	0.000E+00	NOT IDENT.
BA-137M	-5.767E-02	3.420E-02	5.055E-02	0.000E+00	NOT IDENT.
CS-137	-6.092E-02	3.613E-02	5.340E-02	0.000E+00	NOT IDENT.
CE-139	6.465E-03	3.101E-02	5.278E-02	0.000E+00	NOT IDENT.
BA-140	-3.251E-02	3.378E-01	5.567E-01	0.000E+00	NOT IDENT.
LA-140	-3.364E-02	1.130E-01	1.792E-01	0.000E+00	FAIL ABUN
CE-141	-4.218E-03	7.249E-02	1.210E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.644E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.223E-01	2.213E-01	3.253E-01	0.000E+00	NOT IDENT.
PM-144	2.152E-02	3.388E-02	6.086E-02	0.000E+00	NOT IDENT.
PR-144	1.628E+00	2.543E+00	4.570E+00	0.000E+00	NOT IDENT.
PM-146	3.110E-02	4.249E-02	7.494E-02	0.000E+00	NOT IDENT.
ND-147	-5.976E-01	7.173E-01	1.096E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	4.261E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-7.134E-02	1.093E-01	1.562E-01	0.000E+00	FAIL ABUN
GD-153	-1.220E-01	9.761E-02	1.404E-01	0.000E+00	NOT IDENT.
EU-154	-1.259E-01	1.462E-01	2.287E-01	0.000E+00	NOT IDENT.
EU-155	2.302E-02	1.089E-01	1.905E-01	0.000E+00	FAIL ABUN
TB-160	-8.548E-02	1.574E-01	2.519E-01	0.000E+00	FAIL ABUN
HO-166M	-1.614E-02	6.456E-02	1.088E-01	0.000E+00	FAIL ABUN
TA-182	-1.174E-01	2.300E-01	3.775E-01	0.000E+00	FAIL ABUN
IR-192	2.023E-02	3.580E-02	6.385E-02	0.000E+00	FAIL ABUN
HG-203	3.545E-02	4.164E-02	7.545E-02	0.000E+00	NOT IDENT.
BI-207	2.704E-02	6.549E-02	1.120E-01	0.000E+00	FAIL ABUN
PB-210	2.612E+00	7.995E+00	1.464E+01	0.000E+00	NOT IDENT.
PB-211	-1.307E-01	7.009E-01	1.174E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.123E+00	1.274E+00	0.000E+00	FAIL ABUN
RN-219	-2.200E-01	3.892E-01	6.355E-01	0.000E+00	FAIL ABUN
RA-223	4.162E-01	7.033E-01	1.111E+00	0.000E+00	FAIL ABUN
AC-227	-1.412E-02	2.409E-01	4.228E-01	0.000E+00	FAIL ABUN
TH-227	-1.412E-02	2.409E-01	4.228E-01	0.000E+00	FAIL ABUN
TH-229	9.053E-03	5.516E-01	9.210E-01	0.000E+00	FAIL ABUN
PA-231	-5.904E-01	1.356E+00	2.311E+00	0.000E+00	FAIL ABUN
TH-231	4.162E-01	7.033E-01	1.111E+00	0.000E+00	FAIL ABUN
PA-233	-4.893E-02	6.431E-02	1.068E-01	0.000E+00	FAIL ABUN
PA-234	-3.865E-02	3.351E-01	5.547E-01	0.000E+00	NOT IDENT.
PA-234M	-3.948E-01	5.301E+00	8.763E+00	0.000E+00	NOT IDENT.
TH-234	1.437E+00	1.812E+00	3.271E+00	0.000E+00	FAIL ABUN
U-238	1.437E+00	1.812E+00	3.271E+00	0.000E+00	FAIL ABUN
NP-239	-5.735E-02	4.076E-01	6.988E-01	0.000E+00	NOT IDENT.
AM-241	2.648E-02	2.181E-01	3.920E-01	0.000E+00	NOT IDENT.
CM-247	-1.380E-02	3.603E-02	5.976E-02	0.000E+00	NOT IDENT.

CF-249	3.480E-02	3.908E-02	7.016E-02	0.000E+00 NOT IDENT.
CF-251	8.539E-02	1.301E-01	2.246E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:29:53.46

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860008.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 16:28:22
Sample ID         : G248860008           Sample quantity  : 1.29230E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.17  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1509	10.66*	1.097E+00	3.751E+01	3.751E+01	10.97
CD-109	88.03	188	3.70*	5.286E+00	2.795E+00	2.881E+00	37.43
SN-126	64.28	------	9.60	2.443E+00	------ Line Not Found		------
	86.94	188	8.90	5.286E+00	1.162E+00	1.162E+00	55.11
	87.57	188	37.00*	5.286E+00	2.795E-01	2.795E-01	37.43
TL-208	277.37	------	6.60	4.501E+00	------ Line Not Found		------
	583.19	414	85.00*	2.564E+00	5.520E-01	5.520E-01	18.29
	860.56	77	12.50	1.806E+00	9.955E-01	9.955E-01	54.61
BI-211	72.87	------	1.23	3.666E+00	------ Line Not Found		------
	351.06	646	12.92*	3.787E+00	3.837E+00	3.837E+00	15.59
PB-212	74.82	331	10.28	3.900E+00	2.398E+00	2.398E+00	30.48
	77.11	564	17.10	4.199E+00	2.281E+00	2.281E+00	17.57
	238.63	1382	43.60*	5.005E+00	1.839E+00	1.839E+00	12.60
	300.09	122	3.30	4.246E+00	2.534E+00	2.534E+00	52.86
BI-214	609.32	485	45.49*	2.472E+00	1.253E+00	1.253E+00	16.03
	1120.29	97	14.92	1.396E+00	1.359E+00	1.359E+00	39.57
	1764.49	------	15.30	9.694E-01	------ Line Not Found		------
PB-214	74.82	331	5.80	3.900E+00	4.249E+00	4.250E+00	29.96
	77.11	564	9.70	4.199E+00	4.022E+00	4.022E+00	19.41
	242.00	224	7.25	4.964E+00	1.808E+00	1.808E+00	40.16
	295.22	388	18.42	4.303E+00	1.420E+00	1.420E+00	20.77
	351.93	646	35.60*	3.787E+00	1.392E+00	1.393E+00	16.54
RA-224	240.99	224	4.10*	4.964E+00	3.197E+00	3.197E+00	39.74
RA-226	609.32	485	45.49*	2.472E+00	1.253E+00	1.253E+00	16.03
	1120.29	97	14.92	1.396E+00	1.359E+00	1.359E+00	39.57
	1764.49	------	15.30	9.694E-01	------ Line Not Found		------
AC-228	338.32	305	11.27	3.897E+00	2.016E+00	2.016E+00	46.81
	911.20	279	25.80*	1.710E+00	1.839E+00	1.839E+00	23.24
	968.97	160	15.80	1.610E+00	1.831E+00	1.831E+00	33.42
RA-228	338.32	305	11.27	3.897E+00	2.016E+00	2.016E+00	46.81
	911.20	279	25.80*	1.710E+00	1.839E+00	1.839E+00	23.24
	968.97	160	15.80	1.610E+00	1.831E+00	1.831E+00	33.42

Sample ID : G248860008 Acquisition date : 24-MAR-2010 16:28:22

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	331	10.28	3.900E+00	2.398E+00	2.398E+00	28.91
	77.11	564	17.10	4.199E+00	2.281E+00	2.281E+00	17.57
	238.63	1382	43.60*	5.005E+00	1.839E+00	1.839E+00	12.60
	300.09	122	3.30	4.246E+00	2.534E+00	2.534E+00	80.19
TH-230	609.32	485	45.49*	2.472E+00	1.253E+00	1.253E+00	15.14
	1120.29	97	14.92	1.396E+00	1.359E+00	1.359E+00	38.99
	1764.49	------	15.30	9.694E-01	------ Line Not Found		------
TH-232	338.32	305	11.27	3.897E+00	2.016E+00	2.016E+00	22.92
	911.20	279	25.80*	1.710E+00	1.839E+00	1.839E+00	23.24
	968.97	160	15.80	1.610E+00	1.831E+00	1.831E+00	33.42
U-235	89.96	135	3.47	5.514E+00	2.052E+00	2.052E+00	43.11
	93.35	284	5.60	5.765E+00	2.556E+00	2.556E+00	39.08
	143.76	------	10.96*	6.601E+00	------ Line Not Found		------
	163.33	------	5.08	6.296E+00	------ Line Not Found		------
	185.72	236	57.20	5.884E+00	2.034E-01	2.034E-01	40.06
	205.31	------	5.01	5.536E+00	------ Line Not Found		------
NP-237	86.48	188	12.40*	5.286E+00	8.341E-01	8.341E-01	42.90
	95.86	------	2.68	5.952E+00	------ Line Not Found		------
ANH-511	511.00	158	100.00*	2.856E+00	1.607E-01	1.607E-01	42.94

Flag: "*" = Keyline

Sample ID : G248860008 Acquisition date : 24-MAR-2010 16:28:22

Total number of lines in spectrum 30
Number of unidentified lines 4
Number of lines tentatively identified by NID 26 86.67%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.751E+01	3.751E+01	0.411E+01	10.97	
CD-109	461.40D	1.03	2.795E+00	2.881E+00	1.078E+00	37.43	
SN-126	2.30E+05Y	1.00	2.795E-01	2.795E-01	1.046E-01	37.43	
TL-208	1.41E+10Y	1.00	5.520E-01	5.520E-01	1.010E-01	18.29	
BI-211	7.04E+08Y	1.00	3.837E+00	3.837E+00	0.598E+00	15.59	
PB-212	1.41E+10Y	1.00	1.839E+00	1.839E+00	0.232E+00	12.60	
BI-214	1600.00Y	1.00	1.253E+00	1.253E+00	0.201E+00	16.03	
PB-214	1600.00Y	1.00	1.392E+00	1.393E+00	0.230E+00	16.54	
RA-224	1.41E+10Y	1.00	3.197E+00	3.197E+00	1.270E+00	39.74	
RA-226	1600.00Y	1.00	1.253E+00	1.253E+00	0.201E+00	16.03	
AC-228	1.41E+10Y	1.00	1.839E+00	1.839E+00	0.428E+00	23.24	
RA-228	1.41E+10Y	1.00	1.839E+00	1.839E+00	0.428E+00	23.24	
TH-228	1.41E+10Y	1.00	1.839E+00	1.839E+00	0.232E+00	12.60	
TH-230	7.54E+04Y	1.00	1.253E+00	1.253E+00	0.190E+00	15.14	
TH-232	1.41E+10Y	1.00	1.839E+00	1.839E+00	0.428E+00	23.24	
U-235	7.04E+08Y	1.00	2.034E-01	2.034E-01	0.815E-01	40.06	K
NP-237	2.14E+06Y	1.00	8.341E-01	8.341E-01	3.578E-01	42.90	
ANH-511	1.00E+09Y	1.00	1.607E-01	1.607E-01	0.690E-01	42.94	
			---	---			
	Total Activity :		6.371E+01	6.380E+01			

Grand Total Activity : 6.371E+01 6.380E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248860008 Acquisition date : 24-MAR-2010 16:28:22

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.93	127	385	1.16	257.91	254	9	1.76E-02	58.5	6.72E+00	
0	209.31	131	237	1.19	418.53	415	7	1.82E-02	42.9	5.47E+00	
0	269.97	121	217	1.28	539.75	535	9	1.69E-02	47.3	4.59E+00	T
0	328.53	104	256	1.55	656.79	651	14	1.44E-02	68.4	3.98E+00	T
0	463.18	74	101	0.97	925.94	921	9	1.02E-02	54.5	3.08E+00	T
0	728.11	121	109	1.75	1455.55	1449	17	1.68E-02	44.2	2.11E+00	T
0	796.22	68	72	1.43	1591.72	1586	13	9.40E-03	57.8	1.95E+00	T
1	965.33	67	31	1.92	1929.87	1923	34	9.36E-03	44.4	1.62E+00	T
0	1379.35	31	23	1.96	2757.97	2752	15	4.24E-03	76.9	1.15E+00	
0	1766.00	74	17	2.05	3531.57	3524	14	1.03E-02	34.8	9.69E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:29:58.13

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860008.CNF;1  *
* Acquisition date : 24-MAR-2010 16:28:22  Detector SN#    :                *
* Detector ID      : GAM10                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.17         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 4-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248860008            Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.29230E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 13-MAR-2010 14:58:23.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.751E+01	4.114E+00	5.283E-01	5.031E-02	70.998
CD-109	2.881E+00	1.078E+00	1.189E+00	1.344E-01	2.423
SN-126	2.795E-01	1.046E-01	1.493E-01	1.682E-02	1.872
TL-208	5.520E-01	1.010E-01	5.834E-02	5.258E-03	9.462
BI-211	3.837E+00	5.981E-01	3.316E-01	3.117E-02	11.571
PB-212	1.839E+00	2.318E-01	9.866E-02	1.063E-02	18.640
BI-214	1.253E+00	2.009E-01	1.102E-01	1.085E-02	11.366
PB-214	1.393E+00	2.303E-01	1.206E-01	1.313E-02	11.547
RA-224	3.197E+00	1.270E+00	1.057E+00	1.031E-01	3.023
RA-226	1.253E+00	2.009E-01	1.102E-01	1.085E-02	11.366
AC-228	1.839E+00	4.275E-01	2.261E-01	2.805E-02	8.137
RA-228	1.839E+00	4.275E-01	2.261E-01	2.805E-02	8.137
TH-228	1.839E+00	2.318E-01	9.866E-02	1.063E-02	18.640
TH-230	1.253E+00	1.897E-01	1.102E-01	9.156E-03	11.366
TH-232	1.839E+00	4.275E-01	2.261E-01	2.805E-02	8.137
U-235	2.034E-01	8.147E-02	3.342E-01	5.723E-02	0.609
NP-237	8.341E-01	3.578E-01	4.675E-01	1.110E-01	1.784
ANH-511	1.607E-01	6.900E-02	4.765E-02	4.045E-03	3.372

Sample ID : G248860008 Acquisition date : 24-MAR-2010 16:28:22

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	7.023E-02		3.720E-01	5.872E-01	5.369E-02	0.120
NA-22	-2.702E-02		5.133E-02	8.122E-02	7.189E-03	-0.333
NA-24	-1.601E+02		1.078E+02	Half-Life too short		
SC-46	3.136E-02		4.650E-02	8.017E-02	7.748E-03	0.391
V-48	-3.317E-02		1.061E-01	1.622E-01	1.532E-02	-0.205
CR-51	-3.413E-01		4.270E-01	6.735E-01	6.606E-02	-0.507
MN-54	-1.765E-02		4.433E-02	7.060E-02	6.569E-03	-0.250
CO-56	3.061E-02		4.492E-02	7.773E-02	7.295E-03	0.394
CO-57	1.305E-02		2.610E-02	4.316E-02	3.855E-03	0.302
CO-58	-7.637E-03		4.413E-02	7.158E-02	6.557E-03	-0.107
FE-59	3.829E-03		1.133E-01	1.827E-01	1.725E-02	0.021
CO-60	7.428E-03		4.281E-02	7.233E-02	6.690E-03	0.103
ZN-65	-4.805E-02		1.197E-01	1.563E-01	1.350E-02	-0.307
SE-75	2.851E-02		5.095E-02	7.789E-02	7.625E-03	0.366
SR-85	9.290E-02		4.654E-02	7.631E-02	6.477E-03	1.217
Y-88	-2.396E-03		3.089E-02	4.889E-02	4.078E-03	-0.049
Y-91	-3.442E-01		2.606E+01	4.350E+01	3.628E+00	-0.008
NB-94	2.199E-02		3.396E-02	5.908E-02	4.942E-03	0.372
NB-95	5.595E-03		4.804E-02	8.008E-02	7.067E-03	0.070
NB-95M	7.501E-03		1.425E-01	2.124E-01	2.311E-02	0.035
ZR-95	1.100E-01		8.426E-02	1.515E-01	1.462E-02	0.726
MO-99	-3.060E+01		4.618E+01	7.196E+01	1.135E+01	-0.425
TC-99M	-3.736E+13		2.351E+16	Half-Life too short		
RU-103	-2.168E-02		4.438E-02	6.859E-02	9.523E-03	-0.316
RH-106	-1.251E-01		3.131E-01	5.088E-01	6.625E-02	-0.246
RU-106	-1.251E-01		3.129E-01	5.088E-01	4.200E-02	-0.246
AG-108M	-1.865E-03		2.856E-02	4.619E-02	4.001E-03	-0.040
AG-110M	6.448E-03		3.294E-02	5.588E-02	4.669E-03	0.115
SN-113	-2.517E-02		4.683E-02	7.389E-02	6.273E-03	-0.341
CD-115	2.334E-05		2.635E-05	Half-Life too short		
SN-117M	4.172E-02		7.143E-02	1.171E-01	1.076E-02	0.356
TE-123M	1.515E-02		2.948E-02	4.822E-02	4.457E-03	0.314
SB-124	7.416E-03		8.345E-02	1.380E-01	1.275E-02	0.054
SB-125	-9.708E-03		9.213E-02	1.488E-01	1.268E-02	-0.065
TE-125M	-7.288E+00		1.057E+01	1.666E+01	1.833E+00	-0.438
I-126	2.935E-01		2.981E-01	5.303E-01	4.292E-02	0.554
SB-126	-2.145E-02		2.204E-01	3.295E-01	2.800E-02	-0.065
SB-127	9.002E-01		3.232E+00	5.498E+00	7.000E-01	0.164
I-131	1.326E-02		1.725E-01	2.849E-01	2.635E-02	0.047
TE-132	-2.175E+00		2.378E+00	3.791E+00	6.641E-01	-0.574
BA-133	-1.564E-02		4.664E-02	6.532E-02	8.582E-03	-0.239
I-133	-1.752E-01		1.659E-01	Half-Life too short		
CS-134	1.338E-01	+	7.829E-02	1.012E-01	9.201E-03	1.322
CS-135	1.561E-01		1.782E-01	2.761E-01	3.024E-02	0.565
I-135	-7.357E+13		1.437E+15	Half-Life too short		
CS-136	-6.386E-02		1.566E-01	2.423E-01	2.291E-02	-0.264
BA-137M	-5.767E-02		3.489E-02	4.989E-02	4.021E-03	-1.156
CS-137	-6.092E-02		3.686E-02	5.270E-02	4.257E-03	-1.156

Sample ID : G248860008 Acquisition date : 24-MAR-2010 16:28:22

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-139	6.465E-03		3.164E-02	5.097E-02	4.757E-03	0.127
BA-140	-3.251E-02		3.447E-01	5.475E-01	1.855E-01	-0.059
LA-140	-3.364E-02		1.153E-01	1.794E-01	1.639E-02	-0.187
CE-141	-4.218E-03		7.397E-02	1.166E-01	1.064E-02	-0.036
CE-143	7.307E-03		1.349E-03	Half-Life too short		
CE-144	-1.223E-01		2.259E-01	3.131E-01	4.832E-02	-0.391
PM-144	2.152E-02		3.457E-02	6.011E-02	5.004E-03	0.358
PR-144	1.628E+00		2.595E+00	4.514E+00	3.756E-01	0.361
PM-146	3.110E-02		4.335E-02	7.352E-02	7.671E-03	0.423
ND-147	-5.976E-01		7.319E-01	1.078E+00	1.603E-01	-0.554
PM-149	-3.229E-04		2.174E-04	Half-Life too short		
EU-152	-7.134E-02		1.115E-01	1.525E-01	1.459E-02	-0.468
GD-153	-1.220E-01		9.960E-02	1.345E-01	1.347E-02	-0.907
EU-154	-1.259E-01		1.492E-01	2.281E-01	2.634E-02	-0.552
EU-155	2.302E-02		1.111E-01	1.827E-01	1.739E-02	0.126
TB-160	-8.548E-02		1.606E-01	2.497E-01	2.398E-02	-0.342
HO-166M	-1.614E-02		6.587E-02	1.075E-01	9.063E-03	-0.150
TA-182	-1.174E-01		2.347E-01	3.763E-01	3.183E-02	-0.312
IR-192	2.023E-02		3.653E-02	6.228E-02	5.885E-03	0.325
HG-203	3.545E-02		4.249E-02	7.346E-02	7.274E-03	0.483
BI-207	2.704E-02		6.682E-02	1.113E-01	1.002E-02	0.243
PB-210	2.612E+00		8.158E+00	1.388E+01	1.381E+00	0.188
PB-211	-1.307E-01		7.152E-01	1.149E+00	5.554E-01	-0.114
BI-212	2.497E+00	+	1.146E+00	1.259E+00	1.563E-01	1.982
RN-219	-2.200E-01		3.971E-01	6.222E-01	9.125E-02	-0.354
RA-223	4.162E-01		7.176E-01	1.085E+00	1.920E-01	0.384
AC-227	-1.412E-02		2.458E-01	4.110E-01	5.300E-02	-0.034
TH-227	-1.412E-02		2.458E-01	4.110E-01	5.901E-02	-0.034
TH-229	9.053E-03		5.628E-01	8.916E-01	8.492E-02	0.010
PA-231	-5.904E-01		1.384E+00	2.250E+00	3.429E-01	-0.262
TH-231	4.162E-01		7.176E-01	1.085E+00	1.920E-01	0.384
PA-233	-4.893E-02		6.562E-02	1.041E-01	1.010E-02	-0.470
PA-234	-3.865E-02		3.419E-01	5.505E-01	1.059E-01	-0.070
PA-234M	-3.948E-01		5.409E+00	8.706E+00	9.241E-01	-0.045
TH-234	1.437E+00		1.849E+00	3.114E+00	5.899E-01	0.462
U-238	1.437E+00		1.849E+00	3.114E+00	5.899E-01	0.462
NP-239	-5.735E-02		4.160E-01	6.713E-01	6.039E-02	-0.085
AM-241	2.648E-02		2.226E-01	3.728E-01	3.734E-02	0.071
CM-247	-1.380E-02		3.676E-02	5.851E-02	4.833E-03	-0.236
CF-249	3.480E-02		3.988E-02	6.866E-02	5.690E-03	0.507
CF-251	8.539E-02		1.328E-01	2.171E-01	2.043E-02	0.393

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248860008           *
* Acquisition date : 24-MAR-2010 16:28:22 Detector SN#    :                *
* Detector ID      : GAM10                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.17     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  4-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G248860008           Analyst initials: MXR1           *
* Batch Number     : 962633               Sample Quantity : 1.2923E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 13-MAR-2010 14:58:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.751E+01	4.032E+00	2.644E-01	2.057E+00
CD-109	2.881E+00	1.057E+00	6.220E-01	5.392E-01
SN-126	2.795E-01	1.025E-01	7.809E-02	5.231E-02
TL-208	5.520E-01	9.895E-02	2.963E-02	5.048E-02
BI-211	3.837E+00	5.862E-01	1.698E-01	2.991E-01
PB-212	1.839E+00	2.271E-01	5.082E-02	1.159E-01
BI-214	1.253E+00	1.969E-01	5.596E-02	1.004E-01
PB-214	1.393E+00	2.257E-01	6.175E-02	1.151E-01
RA-224	3.197E+00	1.245E+00	5.447E-01	6.352E-01
RA-226	1.253E+00	1.969E-01	5.596E-02	1.004E-01
AC-228	1.839E+00	4.190E-01	1.140E-01	2.138E-01
RA-228	1.839E+00	4.190E-01	1.140E-01	2.138E-01
TH-228	1.839E+00	2.271E-01	5.082E-02	1.159E-01
TH-230	1.253E+00	1.859E-01	5.596E-02	9.484E-02
TH-232	1.839E+00	4.190E-01	1.140E-01	2.138E-01
U-235	6.362E-02	2.048E-01	1.735E-01	1.045E-01
NP-237	8.341E-01	3.506E-01	2.446E-01	1.789E-01
ANH-511	1.607E-01	6.762E-02	2.426E-02	3.450E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	7.023E-02	3.646E-01	2.992E-01	1.860E-01	NOT IDENT.
NA-22	-2.702E-02	5.031E-02	4.074E-02	2.567E-02	NOT IDENT.
NA-24	-1.601E+08	2.113E+08	0.000E+00	1.078E+08	SHORT HLIF
SC-46	3.136E-02	4.557E-02	4.045E-02	2.325E-02	FAIL ABUN
V-48	-3.317E-02	1.040E-01	8.170E-02	5.306E-02	NOT IDENT.
CR-51	-3.413E-01	4.185E-01	3.454E-01	2.135E-01	NOT IDENT.
MN-54	-1.765E-02	4.345E-02	3.566E-02	2.217E-02	NOT IDENT.
CO-56	3.061E-02	4.402E-02	3.925E-02	2.246E-02	NOT IDENT.
CO-57	1.305E-02	2.558E-02	2.246E-02	1.305E-02	NOT IDENT.

CO-58	-7.637E-03	4.325E-02	3.617E-02	2.207E-02	NOT IDENT.
FE-59	3.829E-03	1.110E-01	9.188E-02	5.665E-02	NOT IDENT.
CO-60	7.428E-03	4.196E-02	3.625E-02	2.141E-02	NOT IDENT.
ZN-65	-4.805E-02	1.173E-01	7.860E-02	5.984E-02	NOT IDENT.
SE-75	2.851E-02	4.993E-02	4.006E-02	2.548E-02	NOT IDENT.
SR-85	9.290E-02	4.561E-02	3.884E-02	2.327E-02	NOT IDENT.
Y-88	-2.396E-03	3.027E-02	2.438E-02	1.544E-02	NOT IDENT.
Y-91	-3.442E-01	2.554E+01	2.184E+01	1.303E+01	NOT IDENT.
NB-94	2.199E-02	3.328E-02	2.992E-02	1.698E-02	NOT IDENT.
NB-95	5.595E-03	4.708E-02	4.050E-02	2.402E-02	NOT IDENT.
NB-95M	7.501E-03	1.397E-01	1.094E-01	7.126E-02	NOT IDENT.
ZR-95	1.100E-01	8.257E-02	7.663E-02	4.213E-02	NOT IDENT.
MO-99	-3.060E+01	4.526E+01	3.642E+01	2.309E+01	NOT IDENT.
TC-99M	-3.736E+19	4.608E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.168E-02	4.350E-02	3.493E-02	2.219E-02	FAIL ABUN
RH-106	-1.251E-01	3.069E-01	2.582E-01	1.566E-01	NOT IDENT.
RU-106	-1.251E-01	3.066E-01	2.582E-01	1.564E-01	NOT IDENT.
AG-108M	-1.865E-03	2.799E-02	2.358E-02	1.428E-02	NOT IDENT.
AG-110M	6.448E-03	3.228E-02	2.833E-02	1.647E-02	NOT IDENT.
SN-113	-2.517E-02	4.589E-02	3.777E-02	2.341E-02	NOT IDENT.
CD-115	2.334E+01	5.165E+01	0.000E+00	2.635E+01	SHORT HLIF
SN-117M	4.172E-02	7.000E-02	6.073E-02	3.571E-02	NOT IDENT.
TE-123M	1.515E-02	2.889E-02	2.499E-02	1.474E-02	NOT IDENT.
SB-124	7.416E-03	8.178E-02	6.888E-02	4.172E-02	NOT IDENT.
SB-125	-9.708E-03	9.028E-02	7.595E-02	4.606E-02	FAIL ABUN
TE-125M	-7.288E+00	1.035E+01	8.683E+00	5.283E+00	NOT IDENT.
I-126	2.935E-01	2.922E-01	2.688E-01	1.491E-01	NOT IDENT.
SB-126	-2.145E-02	2.160E-01	1.668E-01	1.102E-01	NOT IDENT.
SB-127	9.002E-01	3.167E+00	2.786E+00	1.616E+00	NOT IDENT.
I-131	1.326E-02	1.691E-01	1.458E-01	8.625E-02	NOT IDENT.
TE-132	-2.175E+00	2.331E+00	1.954E+00	1.189E+00	NOT IDENT.
BA-133	-1.564E-02	4.571E-02	3.344E-02	2.332E-02	NOT IDENT.
I-133	-1.752E+05	3.251E+05	0.000E+00	1.659E+05	SHORT HLIF
CS-134	1.338E-01	7.672E-02	5.113E-02	3.914E-02	FAIL ABUN
CS-135	1.561E-01	1.746E-01	1.420E-01	8.910E-02	NOT IDENT.
I-135	-7.357E+19	2.816E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.386E-02	1.535E-01	1.219E-01	7.829E-02	NOT IDENT.
BA-137M	-5.767E-02	3.420E-02	2.529E-02	1.745E-02	NOT IDENT.
CS-137	-6.092E-02	3.613E-02	2.672E-02	1.843E-02	NOT IDENT.
CE-139	6.465E-03	3.101E-02	2.640E-02	1.582E-02	NOT IDENT.
BA-140	-3.251E-02	3.378E-01	2.785E-01	1.724E-01	NOT IDENT.
LA-140	-3.364E-02	1.130E-01	8.967E-02	5.767E-02	FAIL ABUN
CE-141	-4.218E-03	7.249E-02	6.052E-02	3.698E-02	NOT IDENT.
CE-143	7.307E+03	2.644E+03	0.000E+00	1.349E+03	SHORT HLIF
CE-144	-1.223E-01	2.213E-01	1.627E-01	1.129E-01	NOT IDENT.
PM-144	2.152E-02	3.388E-02	3.045E-02	1.728E-02	NOT IDENT.
PR-144	1.628E+00	2.543E+00	2.286E+00	1.297E+00	NOT IDENT.
PM-146	3.110E-02	4.249E-02	3.749E-02	2.168E-02	NOT IDENT.
ND-147	-5.976E-01	7.173E-01	5.484E-01	3.660E-01	FAIL ABUN
PM-149	-3.229E+02	4.261E+02	0.000E+00	2.174E+02	SHORT HLIF
EU-152	-7.134E-02	1.093E-01	7.813E-02	5.575E-02	FAIL ABUN
GD-153	-1.220E-01	9.761E-02	7.025E-02	4.980E-02	NOT IDENT.
EU-154	-1.259E-01	1.462E-01	1.144E-01	7.458E-02	NOT IDENT.
EU-155	2.302E-02	1.089E-01	9.530E-02	5.555E-02	FAIL ABUN
TB-160	-8.548E-02	1.574E-01	1.260E-01	8.031E-02	FAIL ABUN
HO-166M	-1.614E-02	6.456E-02	5.443E-02	3.294E-02	FAIL ABUN
TA-182	-1.174E-01	2.300E-01	1.889E-01	1.174E-01	FAIL ABUN
IR-192	2.023E-02	3.580E-02	3.194E-02	1.827E-02	FAIL ABUN
HG-203	3.545E-02	4.164E-02	3.775E-02	2.125E-02	NOT IDENT.
BI-207	2.704E-02	6.549E-02	5.601E-02	3.341E-02	FAIL ABUN
PB-210	2.612E+00	7.995E+00	7.327E+00	4.079E+00	NOT IDENT.
PB-211	-1.307E-01	7.009E-01	5.871E-01	3.576E-01	NOT IDENT.
BI-212	2.497E+00	1.123E+00	6.375E-01	5.730E-01	FAIL ABUN
RN-219	-2.200E-01	3.892E-01	3.179E-01	1.986E-01	FAIL ABUN
RA-223	4.162E-01	7.033E-01	5.561E-01	3.588E-01	FAIL ABUN
AC-227	-1.412E-02	2.409E-01	2.115E-01	1.229E-01	FAIL ABUN
TH-227	-1.412E-02	2.409E-01	2.115E-01	1.229E-01	FAIL ABUN
TH-229	9.053E-03	5.516E-01	4.608E-01	2.814E-01	FAIL ABUN
PA-231	-5.904E-01	1.356E+00	1.156E+00	6.918E-01	FAIL ABUN
TH-231	4.162E-01	7.033E-01	5.561E-01	3.588E-01	FAIL ABUN
PA-233	-4.893E-02	6.431E-02	5.341E-02	3.281E-02	FAIL ABUN
PA-234	-3.865E-02	3.351E-01	2.775E-01	1.710E-01	NOT IDENT.
PA-234M	-3.948E-01	5.301E+00	4.384E+00	2.704E+00	NOT IDENT.
TH-234	1.437E+00	1.812E+00	1.637E+00	9.246E-01	FAIL ABUN
U-238	1.437E+00	1.812E+00	1.637E+00	9.246E-01	FAIL ABUN
NP-239	-5.735E-02	4.076E-01	3.496E-01	2.080E-01	NOT IDENT.
AM-241	2.648E-02	2.181E-01	1.961E-01	1.113E-01	NOT IDENT.
CM-247	-1.380E-02	3.603E-02	2.990E-02	1.838E-02	NOT IDENT.

CF-249	3.480E-02	3.908E-02	3.510E-02	1.994E-02	NOT IDENT.
CF-251	8.539E-02	1.301E-01	1.124E-01	6.638E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	273.1579
49.72	281.9638
57.36	0.0000
59.54	302.1777
63.29	322.9077
63.29	322.9077
64.28	332.2220
67.75	358.8262
69.67	391.2252
70.83	425.5935
72.81	404.0224
72.87	404.0732
72.87	404.0732
74.82	377.8647
74.82	377.8647
74.82	377.8647
74.97	377.9809
77.11	379.6127
77.11	379.6127
77.11	379.6127
79.69	388.9459
79.80	355.0067
80.12	355.2283
80.19	355.2777
80.57	355.5396
81.00	421.0728
81.07	421.1292
81.07	421.1292
83.79	412.8879
83.79	412.8879
85.43	372.2975
86.48	504.8546
86.55	504.9215
86.79	515.6352
86.94	515.7795
87.57	475.8483
88.03	288.4541
88.47	288.6855
89.96	295.4969
91.11	296.1085
92.59	296.8890
92.59	296.8890
93.35	297.2868
94.67	258.4474
94.87	260.0577
94.87	260.0577
95.86	295.5439
97.43	340.6402
98.44	288.6914
99.53	288.2035
100.11	301.7835
103.18	334.1727
103.37	334.2785
105.31	317.7989
106.12	336.8126
109.28	323.9812
111.00	317.5703
111.76	313.7790
116.30	314.9277
117.23	311.1667
121.12	288.6601
121.78	279.4164
122.06	279.5305
123.07	305.3950
131.20	294.4821
133.52	298.6603
136.00	261.3420

136.47	284.2023
140.51	294.4462
140.51	0.0000
143.76	298.9907
144.24	311.1882
144.24	311.1882
145.44	314.9590
152.43	300.1396
153.25	270.6255
154.21	264.3140
154.21	264.3140
156.02	318.1162
158.56	262.4079
159.00	263.6620
162.66	284.9529
163.33	284.0627
165.86	280.4388
176.60	269.1974
177.52	251.2868
181.07	258.5728
184.41	264.6922
185.72	283.4329
193.51	278.8916
197.04	261.3533
205.31	265.7166
210.85	230.4544
215.65	231.7363
222.11	262.6916
227.38	299.9456
228.16	284.8893
228.18	284.8942
235.69	247.6285
235.96	247.6912
235.96	247.6912
238.63	254.1110
238.63	254.1110
240.99	254.6600
242.00	251.9819
244.70	210.2572
252.40	190.2059
252.80	192.1106
256.23	191.7690
256.23	191.7690
260.90	0.0000
264.66	173.8518
268.22	187.7911
269.46	198.6182
269.46	198.6182
271.23	212.1749
273.65	245.5435
276.40	195.0825
277.37	192.4221
277.60	195.2761
278.00	200.0353
279.20	183.3124
279.54	196.5275
280.46	219.2623
283.69	172.6627
284.31	181.2451
285.41	184.2407
285.90	0.0000
287.50	160.8899
293.27	0.0000
295.22	182.8330
295.96	182.9385
298.57	183.3135
299.98	148.3418
299.98	148.3418
300.09	148.3536
300.09	148.3536
300.13	148.3584
301.36	148.5005
302.85	157.8671
304.50	138.1179
304.50	138.1179
304.85	138.1553
308.46	155.8548
311.90	177.4835

316.51	147.1271
319.41	163.9354
320.08	174.6936
323.87	143.2603
323.87	143.2603
328.76	160.1838
333.37	169.8659
334.37	125.5293
334.37	125.5293
338.28	155.7776
338.28	155.7776
338.32	155.7824
338.32	155.7824
338.32	155.7824
340.48	129.2301
340.55	129.2381
344.28	158.0225
351.06	144.8794
351.93	144.9663
356.01	138.6031
364.49	120.1776
366.42	149.4138
383.85	130.8542
388.16	111.8933
388.63	115.9969
391.69	138.6542
400.66	109.7086
401.81	126.2056
402.40	126.2525
404.85	126.4459
410.95	110.4140
414.70	138.5944
423.72	121.6756
427.09	118.7958
427.87	115.7238
433.94	102.5399
453.88	99.5006
463.37	114.0865
468.07	116.0947
473.00	123.0473
476.78	105.0760
477.60	101.9058
487.02	89.4920
492.35	0.0000
497.08	102.9858
511.00	101.5619
514.00	84.0018
527.90	0.0000
529.87	0.0000
531.02	86.0623
537.26	84.1200
546.56	0.0000
563.25	94.1744
569.33	96.7001
569.50	96.7080
569.70	96.7159
583.19	88.7383
600.60	83.9837
602.73	85.6659
604.72	76.2166
609.32	84.3206
609.32	84.3206
609.32	84.3206
610.33	84.3588
614.28	81.1433
618.01	83.8351
621.93	86.6448
621.93	86.6448
633.25	69.4812
635.95	84.4061
636.99	85.3718
645.85	66.1413
657.76	68.3555
661.66	99.4216
661.66	99.4216
664.57	0.0000
666.33	74.2438
666.50	78.0091

677.62	71.7658
685.70	70.1139
695.00	79.8964
696.49	72.3299
696.51	72.3317
697.00	71.3947
702.65	74.4218
706.68	99.3916
711.68	92.8889
720.70	83.7537
721.93	0.0000
722.78	83.3638
722.91	83.3680
723.31	81.7793
724.19	86.6184
727.33	71.3099
733.00	72.4347
735.93	66.0728
739.50	83.2726
747.24	75.7529
752.31	88.5539
753.82	97.3682
756.73	66.2851
763.94	98.7241
765.81	89.0138
766.42	69.4659
777.92	90.4053
778.90	75.6935
783.70	80.7528
785.37	68.9780
795.86	71.2266
801.95	67.7511
810.29	67.6265
810.76	72.6115
815.77	57.7961
818.51	60.8466
832.01	80.1855
834.85	97.3244
836.80	0.0000
846.77	61.4617
856.80	55.6110
860.56	60.7471
871.09	71.1296
873.19	67.1134
875.33	0.0000
879.36	71.3313
880.51	61.1646
883.24	61.2217
884.68	78.6054
889.28	61.3477
898.04	72.8079
911.20	54.5890
911.20	54.5890
911.20	54.5890
926.50	59.0053
937.49	75.8391
944.13	69.7562
946.00	67.7152
949.00	54.2242
962.29	64.5769
964.08	57.6292
966.15	61.8607
968.97	61.9154
968.97	61.9154
968.97	61.9154
983.53	70.2816
996.26	68.7959
1001.03	73.1373
1004.73	65.7917
1037.84	55.7350
1038.76	0.0000
1048.07	63.4308
1050.41	69.9290
1050.41	69.9290
1063.66	71.2852
1085.87	63.0495
1099.45	62.2018
1112.07	60.2341

1115.54	71.2556
1120.29	56.7148
1120.29	56.7148
1120.29	56.7148
1120.55	59.2813
1121.30	58.5625
1131.51	0.0000
1173.23	77.0425
1177.93	73.4228
1189.05	79.2344
1204.77	73.9500
1221.41	85.5569
1231.02	87.6567
1235.36	100.9656
1238.28	67.9893
1260.41	0.0000
1271.85	59.0509
1274.44	71.4813
1274.54	64.8097
1291.59	52.6457
1298.22	0.0000
1312.11	34.6348
1332.49	36.7414
1365.19	28.2613
1368.63	0.0000
1384.29	20.1387
1408.01	32.4857
1457.56	0.0000
1460.82	20.9248
1489.16	15.0409
1505.03	29.1817
1596.21	22.5756
1620.50	25.7843
1678.03	0.0000
1690.97	13.6014
1764.49	10.9177
1764.49	10.9177
1764.49	10.9177
1770.23	7.2866
1771.35	14.5765
1791.20	0.0000
1836.06	9.6837

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248860008

Total Uranium Activity	4.3055E+00	ug/g
Total Uranium Counting Unc.	5.3921E+00	ug/g
Total Uranium Tpu	2.7510E-06	ug/g
Total Uranium Mda	4.8697E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248860008       *
*   ANALYST       : MXR1                      DETECTOR   : GAM10            *
*   SAMPLE DATE   :  4-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 16:28:22.71    SAMPLE ALQT:  129.230 GRAM    *
*                                                                           *
*****************************************************************************
```

GROSS GAMMA ACTIVITY (pCi/GRAM) : 1.040E+01
GROSS GAMMA ERROR (pCi/GRAM) : 1.353E+00
GROSS GAMMA MDA (pCi/GRAM) : 3.147E+00
GROSS GAMMA DLC (pCi/GRAM) : 1.528E+00

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:30:40.31

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860009.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 16:28:49
Sample ID         : G248860009           Sample quantity  : 1.43350E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.71  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	74.80*	520	447	1.16	148.81	142	18	7.22E-02	8.0	7.20E+00
2	3	77.19	850	379	1.20	153.60	142	18	1.18E-01	5.3	
3	3	87.24	262	423	1.14	173.70	163	28	3.64E-02	14.4	1.27E+00
4	3	89.97*	198	347	1.05	179.16	163	28	2.75E-02	16.7	
5	3	92.84*	226	439	1.38	184.90	163	28	3.13E-02	18.9	
6	0	129.07	76	372	1.44	257.38	254	8	1.06E-02	45.4	
7	0	186.12*	185	492	1.10	371.51	366	13	2.58E-02	26.3	
8	0	209.55	105	325	1.20	418.37	414	9	1.45E-02	32.7	
9	0	238.49*	1258	530	1.12	476.26	470	11	1.75E-01	4.6	
10	0	241.53	183	375	2.31	482.34	481	9	2.54E-02	21.4	
11	0	270.45	108	290	1.82	540.19	534	12	1.50E-02	33.0	
12	0	295.23	455	186	1.17	589.76	584	10	6.32E-02	7.3	
13	0	300.19	116	143	1.22	599.68	595	8	1.61E-02	20.2	
14	0	338.29*	312	215	1.16	675.88	670	13	4.33E-02	11.4	
15	0	351.85*	712	210	1.07	703.02	697	12	9.89E-02	5.6	
16	0	462.62	76	119	1.10	924.56	919	11	1.06E-02	29.8	
17	0	511.10*	155	179	1.85	1021.51	1014	18	2.15E-02	24.0	
18	0	583.26*	430	117	1.43	1165.84	1159	15	5.97E-02	7.4	
19	0	609.32*	470	127	1.58	1217.95	1210	14	6.53E-02	7.0	
20	0	727.17	119	72	1.85	1453.64	1449	11	1.65E-02	16.6	
21	0	768.37	43	84	1.62	1536.02	1529	12	5.97E-03	45.3	
22	0	860.29	61	60	2.18	1719.83	1711	15	8.48E-03	30.5	
23	0	911.19*	289	87	1.38	1821.60	1815	15	4.02E-02	9.2	
24	0	969.52*	118	127	1.57	1938.24	1930	12	1.64E-02	21.4	
25	0	1086.38	24	28	1.04	2171.89	2169	8	3.31E-03	42.8	
26	0	1120.51*	82	105	1.84	2240.12	2234	16	1.13E-02	30.0	
27	0	1377.87	57	30	2.28	2754.62	2743	20	7.92E-03	27.0	
28	0	1460.65*	1622	50	2.15	2920.09	2910	20	2.25E-01	2.7	
29	0	1764.59	85	14	1.77	3527.59	3520	14	1.18E-02	14.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 18:30:43

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860009.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 4-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 16:28:49
Sample ID : G248860009 Sample quantity : 143.35 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA12 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.71 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.708E+01	3.920E+00	5.316E-01	4.821E-02	69.746
CD-109	+	88.03	*	3.444E+00	1.042E+00	1.110E+00	1.045E-01	3.103
SN-126		64.28		8.339E-02	5.029E-01	8.340E-01	1.213E-01	0.100
	+	86.94		1.389E+00	7.015E-01	4.524E-01	1.878E-01	3.070
	+	87.57	*	3.341E-01	1.011E-01	1.082E-01	1.013E-02	3.089
TL-208		277.37		4.220E-01	3.846E-01	6.635E-01	8.332E-02	0.636
	+	583.19	*	5.606E-01	9.892E-02	5.326E-02	5.065E-03	10.526
	+	860.56		7.548E-01	4.668E-01	4.177E-01	4.450E-02	1.807
BI-211		72.87		6.313E+00	3.054E+00	5.279E+00	4.227E-01	1.196
	+	351.06	*	4.100E+00	5.859E-01	2.982E-01	2.657E-02	13.751
PB-212	+	74.82		2.907E+00	5.932E-01	5.277E-01	6.699E-02	5.509
	+	77.11		2.721E+00	3.660E-01	3.034E-01	2.531E-02	8.970
	+	238.63	*	1.615E+00	2.158E-01	1.071E-01	1.037E-02	15.081
	+	300.09		2.315E+00	9.674E-01	1.182E+00	1.251E-01	1.958
BI-214	+	609.32	*	1.188E+00	2.064E-01	1.070E-01	1.111E-02	11.106
	+	1120.29		1.070E+00	6.522E-01	5.420E-01	5.938E-02	1.973
	+	1764.49		1.537E+00	4.594E-01	2.175E-01	1.841E-02	7.066
PB-214	+	74.82		5.153E+00	1.011E+00	9.354E-01	1.064E-01	5.509
	+	77.11		4.798E+00	7.569E-01	5.348E-01	6.275E-02	8.970
	+	242.00		1.425E+00	6.288E-01	6.528E-01	6.739E-02	2.183
	+	295.22		1.610E+00	2.930E-01	2.119E-01	2.299E-02	7.596
	+	351.93	*	1.488E+00	2.279E-01	1.084E-01	1.136E-02	13.721
RA-224	+	240.99	*	2.520E+00	1.102E+00	1.425E+00	1.217E-01	1.768
RA-226	+	609.32	*	1.188E+00	2.064E-01	1.070E-01	1.111E-02	11.106
	+	1120.29		1.070E+00	6.522E-01	5.420E-01	5.938E-02	1.973
	+	1764.49		1.537E+00	4.594E-01	2.175E-01	1.841E-02	7.066
AC-228	+	338.32		1.995E+00	9.486E-01	3.757E-01	1.567E-01	5.311
	+	911.20	*	1.824E+00	4.100E-01	2.392E-01	3.070E-02	7.627
	+	968.97		1.283E+00	6.345E-01	3.203E-01	7.959E-02	4.007
RA-228	+	338.32		1.995E+00	9.486E-01	3.757E-01	1.567E-01	5.311
	+	911.20	*	1.824E+00	4.100E-01	2.392E-01	3.070E-02	7.627
	+	968.97		1.283E+00	6.345E-01	3.203E-01	7.959E-02	4.007
TH-228	+	74.82		2.907E+00	5.225E-01	5.277E-01	4.348E-02	5.509
	+	77.11		2.721E+00	3.660E-01	3.034E-01	2.531E-02	8.970

Sample ID : G248860009 Acquisition date : 24-MAR-2010 16:28:49

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	1.615E+00	2.158E-01	1.071E-01	1.037E-02	15.081
	+	300.09		2.315E+00	1.698E+00	1.182E+00	7.240E-01	1.958
TH-230	+	609.32	*	1.188E+00	1.966E-01	1.070E-01	9.566E-03	11.106
	+	1120.29		1.069E+00	6.483E-01	5.420E-01	4.697E-02	1.973
	+	1764.49		1.537E+00	4.594E-01	2.175E-01	1.841E-02	7.066
TH-232	+	338.32		1.995E+00	4.864E-01	3.757E-01	3.210E-02	5.311
	+	911.20	*	1.824E+00	4.100E-01	2.392E-01	3.070E-02	7.627
	+	968.97		1.283E+00	6.345E-01	3.203E-01	7.959E-02	4.007
U-235	+	89.96		2.618E+00	1.089E+00	1.129E+00	2.804E-01	2.319
	+	93.35		1.808E+00	8.016E-01	6.822E-01	1.585E-01	2.650
		143.76	*	-6.674E-02	2.068E-01	3.237E-01	5.394E-02	-0.206
		163.33		7.086E-02	4.726E-01	7.385E-01	1.303E-01	0.096
	+	185.72		1.550E-01	8.262E-02	6.044E-02	4.910E-03	2.564
		205.31		-6.901E-02	5.296E-01	7.803E-01	1.404E-01	-0.088
NP-237	+	86.48	*	9.969E-01	3.669E-01	3.263E-01	7.477E-02	3.056
		95.86		-4.735E-01	9.901E-01	1.391E+00	3.347E-01	-0.340
ANH-511	+	511.00	*	1.539E-01	7.523E-02	4.517E-02	3.952E-03	3.407

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	2.571E-01	3.474E-01	5.844E-01	5.422E-02	0.440
NA-22		1274.54	*	-4.034E-02	4.684E-02	7.032E-02	5.996E-03	-0.574
NA-24		1368.63	*	9.624E+01	4.684E-02	Half-Life too short		
SC-46		889.28	*	5.167E-03	4.076E-02	6.674E-02	6.837E-03	0.077
	+	1120.55		1.887E-01	1.144E-01	1.385E-01	1.200E-02	1.362
V-48		944.13		-2.587E-01	1.263E+00	1.995E+00	2.008E-01	-0.130
		983.53	*	2.648E-02	9.722E-02	1.667E-01	1.639E-02	0.159
		1312.11		-1.177E-02	1.032E-01	1.673E-01	1.451E-02	-0.070
CR-51		320.08	*	-3.478E-01	4.034E-01	6.262E-01	5.684E-02	-0.555
MN-54		834.85	*	1.761E-02	3.999E-02	6.726E-02	6.712E-03	0.262
CO-56		846.77	*	-3.184E-02	4.235E-02	6.369E-02	6.395E-03	-0.500
		1037.84		-1.252E-01	3.201E-01	5.158E-01	5.079E-02	-0.243
		1238.28		1.556E-01	1.097E-01	1.966E-01	1.695E-02	0.791
		1771.35		-1.260E+00	3.713E-01	2.524E-01	2.132E-02	-4.991
CO-57		122.06	*	5.632E-04	2.525E-02	4.063E-02	3.370E-03	0.014
		136.47		-7.452E-02	2.108E-01	3.316E-01	2.904E-02	-0.225
CO-58		810.76	*	3.934E-03	3.841E-02	6.318E-02	6.236E-03	0.062
FE-59		1099.45	*	-8.442E-02	1.117E-01	1.740E-01	1.663E-02	-0.485
		1291.59		8.996E-03	1.338E-01	2.215E-01	2.162E-02	0.041
CO-60		1173.23		-1.358E-02	5.524E-02	9.001E-02	7.264E-03	-0.151
		1332.49	*	-1.560E-03	4.241E-02	6.903E-02	6.042E-03	-0.023
ZN-65		1115.54	*	-8.386E-03	1.175E-01	1.679E-01	1.465E-02	-0.050
SE-75		121.12		6.001E-02	1.335E-01	2.186E-01	2.367E-02	0.274
		136.00		-1.033E-02	4.095E-02	6.475E-02	5.278E-03	-0.159
		264.66	*	-1.257E-02	5.284E-02	7.586E-02	6.583E-03	-0.166
		279.54		2.095E-02	1.097E-01	1.832E-01	1.648E-02	0.114
		400.66		-1.269E-01	2.638E-01	4.127E-01	4.429E-02	-0.307

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SR-85		514.00	*	1.023E-01	4.597E-02	7.803E-02	6.836E-03	1.311
Y-88		898.04		-7.225E-03	4.807E-02	7.664E-02	7.909E-03	-0.094
		1836.06	*	4.749E-03	3.207E-02	5.469E-02	4.528E-03	0.087
Y-91		1204.77	*	-1.447E+01	2.511E+01	3.953E+01	3.247E+00	-0.366
NB-94		702.65	*	-1.035E-02	3.691E-02	5.955E-02	5.479E-03	-0.174
		871.09		-4.256E-04	3.665E-02	5.930E-02	6.025E-03	-0.007
NB-95		765.81	*	5.758E-02	5.258E-02	8.270E-02	7.936E-03	0.696
NB-95M		235.69	*	1.014E-01	1.421E-01	2.171E-01	2.125E-02	0.467
ZR-95		724.19		1.249E-01	1.140E-01	1.797E-01	1.800E-02	0.695
		756.73	*	6.085E-02	7.670E-02	1.333E-01	1.381E-02	0.457
MO-99		140.51		8.801E+00	8.239E+01	1.304E+02	3.070E+01	0.067
		181.07		-4.379E+01	6.603E+01	9.432E+01	1.750E+01	-0.464
		366.42		-9.808E+01	3.409E+02	5.443E+02	4.543E+01	-0.180
		739.50	*	1.078E+01	4.647E+01	7.758E+01	1.258E+01	0.139
		777.92		1.090E+01	1.239E+02	2.040E+02	1.972E+01	0.053
TC-99M		140.51	*	5.119E+15	1.239E+02	Half-Life too short		
RU-103		497.08	*	-9.837E-03	3.948E-02	6.536E-02	9.160E-03	-0.150
	+	610.33		1.341E+01	2.897E+00	3.120E+00	5.153E-01	4.298
RH-106		621.93	*	-3.328E-02	3.081E-01	5.075E-01	6.836E-02	-0.066
		1050.41		-7.660E-01	2.658E+00	4.327E+00	4.037E-01	-0.177
RU-106		621.93	*	-3.328E-02	3.081E-01	5.075E-01	4.540E-02	-0.066
		1050.41		-7.660E-01	2.658E+00	4.327E+00	4.037E-01	-0.177
AG-108M		433.94	*	1.998E-03	3.091E-02	4.996E-02	4.329E-03	0.040
		614.28		1.432E-02	3.656E-02	5.502E-02	5.072E-03	0.260
		722.91		5.345E-03	4.180E-02	6.036E-02	5.787E-03	0.089
AG-110M		657.76	*	-2.908E-02	3.586E-02	5.545E-02	5.087E-03	-0.524
		677.62		3.938E-02	3.232E-01	5.385E-01	4.992E-02	0.073
		706.68		-1.347E-02	2.415E-01	3.959E-01	3.745E-02	-0.034
		763.94		4.680E-03	1.934E-01	2.745E-01	2.690E-02	0.017
		884.68		4.724E-03	4.829E-02	7.891E-02	8.252E-03	0.060
		937.49		-9.106E-02	1.330E-01	2.009E-01	2.083E-02	-0.453
		1384.29		4.889E-02	1.853E-01	2.721E-01	2.456E-02	0.180
		1505.03		-1.506E-01	3.041E-01	4.589E-01	4.050E-02	-0.328
SN-113		391.69	*	1.820E-02	4.798E-02	7.953E-02	6.658E-03	0.229
CD-115		260.90		-1.656E-04	4.798E-02	Half-Life too short		
		492.35		7.956E-06	4.798E-02	Half-Life too short		
		527.90	*	-7.948E-06	4.798E-02	Half-Life too short		
SN-117M		156.02		-1.209E+00	2.918E+00	4.543E+00	3.625E-01	-0.266
		158.56	*	2.725E-02	7.068E-02	1.141E-01	9.095E-03	0.239
TE-123M		159.00	*	2.144E-02	2.895E-02	4.742E-02	3.807E-03	0.452
SB-124		602.73		-1.472E-02	4.474E-02	6.242E-02	5.581E-03	-0.236
		645.85		7.000E-03	4.982E-01	8.263E-01	7.780E-02	0.008
		722.78		5.286E-02	4.449E-01	6.417E-01	6.105E-02	0.082
		1690.97	*	2.419E-02	7.703E-02	1.354E-01	1.217E-02	0.179
SB-125		427.87	*	-2.235E-02	9.165E-02	1.451E-01	1.235E-02	-0.154
	+	463.37		6.750E-01	4.073E-01	5.382E-01	4.950E-02	1.254
		600.60		-7.011E-02	1.760E-01	2.763E-01	2.640E-02	-0.254
		635.95		-9.999E-02	2.874E-01	4.643E-01	4.466E-02	-0.215
TE-125M		109.28	*	9.640E+00	1.015E+01	1.696E+01	1.745E+00	0.568

Sample ID : G248860009 Acquisition date : 24-MAR-2010 16:28:49

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-126		388.63		8.523E-02	2.265E-01	3.757E-01	3.052E-02	0.227
		666.33	*	9.625E-02	3.182E-01	5.366E-01	4.805E-02	0.179
		753.82		-1.135E+00	2.404E+00	3.777E+00	3.598E-01	-0.300
SB-126		414.70		2.525E-02	1.025E-01	1.681E-01	1.387E-02	0.150
		666.50		2.561E-02	1.101E-01	1.848E-01	1.655E-02	0.139
		695.00		1.928E-03	1.099E-01	1.814E-01	1.659E-02	0.011
		697.00		-7.673E-03	3.716E-01	6.113E-01	5.601E-02	-0.013
		720.70	*	2.430E-02	2.097E-01	3.165E-01	2.949E-02	0.077
		856.80		-5.050E-01	7.708E-01	9.849E-01	9.939E-02	-0.513
SB-127		252.40		-3.412E-01	1.023E+01	1.700E+01	7.139E+00	-0.020
		473.00		4.259E-01	4.074E+00	6.568E+00	9.330E-01	0.065
		685.70	*	-4.845E-01	3.236E+00	5.272E+00	7.010E-01	-0.092
		783.70		6.720E+00	9.040E+00	1.555E+01	2.263E+00	0.432
I-131		80.19		9.345E-01	8.677E+00	1.012E+01	8.819E-01	0.092
		284.31		-2.483E+00	2.255E+00	3.491E+00	3.195E-01	-0.711
		364.49	*	3.823E-02	1.723E-01	2.845E-01	2.527E-02	0.134
		636.99		-1.593E+00	2.584E+00	4.085E+00	3.864E-01	-0.390
TE-132		49.72		-4.231E+01	5.005E+01	8.023E+01	9.768E+00	-0.527
		111.76		-3.927E+01	9.824E+01	1.558E+02	1.925E+01	-0.252
		116.30		4.220E+01	8.783E+01	1.441E+02	1.777E+01	0.293
		228.16	*	1.133E+00	2.196E+00	3.740E+00	6.303E-01	0.303
BA-133		81.00		-4.468E-03	1.150E-01	1.324E-01	2.061E-02	-0.034
		276.40		2.064E-01	3.810E-01	6.016E-01	8.505E-02	0.343
		302.85		7.295E-02	1.425E-01	2.139E-01	2.801E-02	0.341
		356.01	*	-1.442E-02	4.442E-02	6.147E-02	7.885E-03	-0.235
		383.85		-1.436E-01	2.897E-01	4.539E-01	5.502E-02	-0.316
I-133		529.87	*	-3.024E-01	2.897E-01	Half-Life too short		
		875.33		7.026E+00	2.897E-01	Half-Life too short		
		1298.22		4.369E+00	2.897E-01	Half-Life too short		
CS-134		563.25		2.837E-01	3.540E-01	6.226E-01	5.585E-02	0.456
		569.33		1.178E-01	1.950E-01	3.388E-01	3.055E-02	0.348
		604.72		-1.251E-03	3.570E-02	5.142E-02	4.609E-03	-0.024
		795.86	*	8.907E-02	5.153E-02	9.343E-02	9.180E-03	0.953
		801.95		2.869E-01	4.186E-01	7.171E-01	7.061E-02	0.400
		1365.19		-2.885E-02	1.158E+00	1.888E+00	1.732E-01	-0.015
CS-135		268.22	*	1.368E-01	1.801E-01	2.745E-01	2.742E-02	0.498
I-135		546.56		-6.088E+14	1.801E-01	Half-Life too short		
		836.80		-8.247E+15	1.801E-01	Half-Life too short		
		1038.76		1.317E+15	1.801E-01	Half-Life too short		
		1131.51		-4.539E+14	1.801E-01	Half-Life too short		
		1260.41	*	5.181E+14	1.801E-01	Half-Life too short		
		1457.56		3.777E+17	1.801E-01	Half-Life too short		
		1678.03		1.785E+15	1.801E-01	Half-Life too short		
		1791.20		3.469E+15	1.801E-01	Half-Life too short		
CS-136		153.25		-4.103E-02	1.126E+00	1.786E+00	1.741E-01	-0.023
		176.60		7.500E-01	6.259E-01	1.103E+00	9.922E-02	0.680
		273.65		-6.996E-01	7.674E-01	1.044E+00	9.808E-02	-0.670
		340.55		3.680E-01	2.326E-01	3.611E-01	3.202E-02	1.019
		818.51		-9.740E-03	9.379E-02	1.511E-01	1.497E-02	-0.064

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1048.07	*	1.080E-01	1.418E-01	2.518E-01	2.440E-02	0.429
		1235.36		-4.343E-02	8.816E-01	1.449E+00	1.678E-01	-0.030
BA-137M		661.66	*	-5.095E-03	3.896E-02	6.249E-02	5.575E-03	-0.082
CS-137		661.66	*	-5.382E-03	4.115E-02	6.602E-02	5.900E-03	-0.082
CE-139		165.86	*	-1.125E-02	3.280E-02	5.111E-02	4.069E-03	-0.220
BA-140		162.66		-2.580E-01	1.160E+00	1.784E+00	1.532E-01	-0.145
		304.85		-1.507E-01	1.761E+00	2.667E+00	7.811E-01	-0.057
		423.72		8.666E-01	2.618E+00	4.290E+00	1.408E+00	0.202
		537.26	*	-1.804E-01	3.546E-01	5.653E-01	1.920E-01	-0.319
LA-140		328.76		6.187E-01	4.109E-01	7.179E-01	6.522E-02	0.862
		487.02		1.166E-01	1.828E-01	3.055E-01	2.806E-02	0.382
		815.77		1.360E-01	3.893E-01	6.556E-01	7.063E-02	0.208
		1596.21	*	-2.110E-03	9.103E-02	1.463E-01	1.282E-02	-0.014
CE-141		145.44	*	2.463E-02	6.954E-02	1.125E-01	9.214E-03	0.219
CE-143		57.36		-1.412E-02	6.954E-02	Half-Life too short		
		293.27	*	7.884E-03	6.954E-02	Half-Life too short		
		664.57		4.576E-03	6.954E-02	Half-Life too short		
		721.93		1.094E-03	6.954E-02	Half-Life too short		
CE-144		80.12		3.824E-01	3.068E+00	3.583E+00	3.085E-01	0.107
		133.52	*	8.559E-02	2.215E-01	3.221E-01	4.834E-02	0.266
PM-144		476.78		-4.885E-02	7.130E-02	1.082E-01	1.012E-02	-0.452
		618.01		-2.689E-02	3.147E-02	4.865E-02	4.466E-03	-0.553
		696.49	*	-1.103E-02	3.677E-02	5.923E-02	5.428E-03	-0.186
PR-144		696.51	*	-8.436E-01	2.758E+00	4.440E+00	4.067E-01	-0.190
		1489.16		-1.058E+01	1.241E+01	1.718E+01	1.517E+00	-0.616
PM-146		453.88	*	1.603E-02	4.112E-02	6.784E-02	7.115E-03	0.236
		633.25		-1.169E-01	1.537E+00	2.535E+00	9.700E-01	-0.046
		735.93		-9.340E-02	1.625E-01	2.513E-01	7.106E-02	-0.372
		747.24		3.479E-02	9.893E-02	1.666E-01	2.517E-02	0.209
ND-147	+	91.11		1.167E+00	4.062E-01	6.991E-01	6.868E-02	1.670
		319.41		-1.895E+00	4.360E+00	6.968E+00	6.014E-01	-0.272
		531.02	*	-8.368E-02	7.239E-01	1.205E+00	1.815E-01	-0.069
PM-149		285.90	*	-1.211E-04	7.239E-01	Half-Life too short		
EU-152		121.78		1.654E-02	7.172E-02	1.165E-01	1.120E-02	0.142
		244.70		2.358E-01	3.421E-01	5.235E-01	4.480E-02	0.450
		344.28	*	6.101E-02	1.090E-01	1.629E-01	1.470E-02	0.374
		778.90		-5.046E-02	2.481E-01	3.978E-01	3.848E-02	-0.127
		964.08		2.986E-01	3.946E-01	5.877E-01	5.849E-02	0.508
	+	1085.87		4.437E-01	3.817E-01	7.378E-01	6.648E-02	0.601
		1112.07		2.710E-02	3.583E-01	5.728E-01	5.013E-02	0.047
		1408.01		1.773E-01	1.976E-01	3.538E-01	3.119E-02	0.501
GD-153		69.67		-1.644E+00	1.991E+00	2.825E+00	2.198E-01	-0.582
		97.43	*	2.961E-05	9.310E-02	1.350E-01	1.180E-02	0.000
		103.18		-6.684E-02	1.109E-01	1.750E-01	1.490E-02	-0.382
EU-154		123.07		-5.570E-02	5.193E-02	7.892E-02	8.748E-03	-0.706
		723.31		-1.755E-02	1.970E-01	2.774E-01	2.815E-02	-0.063
		873.19		-4.938E-02	3.182E-01	4.948E-01	6.463E-02	-0.100
		996.26		-2.768E-01	3.626E-01	5.611E-01	1.013E-01	-0.493
		1004.73		-4.568E-02	2.061E-01	3.385E-01	4.213E-02	-0.135

Sample ID : G248860009 Acquisition date : 24-MAR-2010 16:28:49

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1274.44	*	-1.178E-01	1.323E-01	1.974E-01	2.231E-02	-0.596
EU-155	+	86.55		4.059E-01	1.229E-01	1.858E-01	1.736E-02	2.184
		105.31	*	3.638E-02	1.071E-01	1.741E-01	1.490E-02	0.209
TB-160	+	86.79		1.128E+00	3.413E-01	5.131E-01	4.763E-02	2.199
		197.04		2.719E-01	5.863E-01	9.911E-01	8.149E-02	0.274
		215.65		1.586E-01	7.428E-01	1.258E+00	1.053E-01	0.126
		298.57		1.527E-01	1.817E-01	2.078E-01	1.802E-02	0.735
		879.36	*	2.742E-02	1.601E-01	2.630E-01	2.683E-02	0.104
		962.29		9.754E-02	7.442E-01	1.045E+00	1.041E-01	0.093
		966.15		1.054E+00	3.401E-01	5.717E-01	5.683E-02	1.844
		1177.93		2.000E-01	4.545E-01	7.761E-01	6.280E-02	0.258
		1271.85		-3.826E-01	7.899E-01	1.237E+00	1.053E-01	-0.309
HO-166M		80.57		3.877E-02	3.296E-01	3.846E-01	3.328E-02	0.101
		184.41		6.644E-02	3.830E-02	6.286E-02	5.100E-03	1.057
		280.46		-5.010E-02	8.444E-02	1.354E-01	1.173E-02	-0.370
		410.95		3.271E-01	2.544E-01	4.379E-01	3.603E-02	0.747
		711.68	*	3.137E-02	6.790E-02	1.152E-01	1.067E-02	0.272
		752.31		-1.890E-01	2.795E-01	4.306E-01	4.097E-02	-0.439
		810.29		2.007E-02	5.540E-02	9.330E-02	9.190E-03	0.215
TA-182		67.75		4.773E-02	1.152E-01	1.916E-01	1.467E-02	0.249
		100.11		1.247E-01	1.786E-01	2.974E-01	2.565E-02	0.419
		152.43		3.903E-02	3.648E-01	5.827E-01	4.656E-02	0.067
		222.11		-1.256E-01	3.504E-01	5.781E-01	4.868E-02	-0.217
	+	1121.30		5.168E-01	3.133E-01	3.787E-01	3.278E-02	1.365
		1189.05		1.949E-01	3.631E-01	6.246E-01	5.086E-02	0.312
		1221.41	*	6.379E-02	2.251E-01	3.797E-01	3.147E-02	0.168
		1231.02		2.539E-01	5.688E-01	9.678E-01	8.063E-02	0.262
IR-192	+	295.96		1.249E+00	2.126E-01	3.135E-01	2.739E-02	3.982
		308.46		2.827E-02	9.557E-02	1.598E-01	1.391E-02	0.177
		316.51	*	3.229E-02	3.497E-02	6.025E-02	5.216E-03	0.536
		468.07		-8.044E-03	7.878E-02	1.088E-01	1.001E-02	-0.074
HG-203		70.83		-9.491E-01	1.592E+00	2.274E+00	3.562E-01	-0.417
		72.87		1.695E+00	8.488E-01	1.417E+00	2.155E-01	1.196
		279.20	*	1.615E-02	4.080E-02	6.879E-02	6.114E-03	0.235
BI-207		72.81		3.160E-01	1.739E-01	2.994E-01	2.396E-02	1.055
	+	74.97		8.382E-01	1.503E-01	2.275E-01	1.858E-02	3.685
		569.70		1.695E-02	3.006E-02	5.209E-02	4.637E-03	0.325
		1063.66	*	2.854E-02	5.383E-02	9.383E-02	8.647E-03	0.304
		1770.23		-1.351E-01	3.915E-01	4.860E-01	4.107E-02	-0.278
PB-210		46.54	*	3.038E+00	3.131E+00	5.313E+00	4.909E-01	0.572
PB-211		404.85	*	4.948E-01	7.497E-01	1.201E+00	5.801E-01	0.412
		427.09		-6.390E-01	1.580E+00	2.430E+00	1.123E+00	-0.263
		832.01		-7.592E-01	1.181E+00	1.707E+00	8.891E-01	-0.445
BI-212	+	727.33	*	2.370E+00	8.446E-01	1.263E+00	1.639E-01	1.877
		785.37		6.122E+00	3.245E+00	5.986E+00	5.813E-01	1.023
		1620.50		1.827E+00	2.491E+00	4.442E+00	3.879E-01	0.411
RN-219	+	271.23		6.118E-01	4.088E-01	4.453E-01	4.579E-02	1.374
		401.81	*	-2.115E-01	4.103E-01	6.393E-01	9.343E-02	-0.331
RA-223		81.07		-1.868E-02	2.599E-01	2.986E-01	2.598E-02	-0.063

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		83.79		3.345E-01	1.223E-01	2.108E-01	1.890E-02	1.587
		94.87		8.165E-01	4.827E-01	7.509E-01	6.672E-02	1.087
		144.24		-3.500E-01	6.905E-01	1.072E+00	9.752E-02	-0.326
		154.21		7.966E-02	3.876E-01	6.214E-01	5.511E-02	0.128
	+	269.46		4.753E-01	3.166E-01	3.435E-01	3.030E-02	1.384
		323.87	*	-4.003E-01	6.474E-01	1.019E+00	1.766E-01	-0.393
	+	338.28		7.918E+00	2.043E+00	2.485E+00	2.986E-01	3.186
AC-227		79.69		8.234E-01	1.486E+00	1.787E+00	3.076E-01	0.461
		235.96		3.601E-01	1.748E-01	2.792E-01	2.862E-02	1.290
		256.23	*	1.161E-01	2.525E-01	4.283E-01	5.158E-02	0.271
	+	299.98		2.546E+00	1.079E+00	1.627E+00	2.073E-01	1.565
		304.50		-3.054E-01	1.730E+00	2.464E+00	4.078E-01	-0.124
		334.37		1.068E+00	1.874E+00	2.799E+00	4.354E-01	0.381
TH-227		79.80		1.034E+00	1.961E+00	2.349E+00	5.112E-01	0.440
		235.96		3.601E-01	1.743E-01	2.792E-01	2.698E-02	1.290
		256.23	*	1.161E-01	2.527E-01	4.283E-01	5.825E-02	0.271
	+	299.98		2.546E+00	1.079E+00	1.627E+00	2.073E-01	1.565
		304.50		-3.054E-01	1.730E+00	2.464E+00	4.078E-01	-0.124
		334.37		1.068E+00	1.874E+00	2.799E+00	4.354E-01	0.381
TH-229		85.43		7.196E-01	2.115E-01	3.641E-01	3.327E-02	1.976
	+	88.47		5.151E-01	1.558E-01	2.314E-01	2.169E-02	2.226
		193.51	*	2.357E-02	5.076E-01	8.585E-01	7.032E-02	0.027
	+	210.85		1.920E+00	1.267E+00	1.545E+00	1.288E-01	1.243
PA-231		283.69	*	-7.184E-01	1.394E+00	2.235E+00	3.266E-01	-0.321
	+	301.36		1.636E+00	6.907E-01	1.033E+00	1.259E-01	1.583
TH-231		81.07		-1.868E-02	2.599E-01	2.986E-01	2.598E-02	-0.063
		83.79		3.345E-01	1.223E-01	2.108E-01	1.890E-02	1.587
		94.87		8.165E-01	4.827E-01	7.509E-01	6.672E-02	1.087
		144.24		-3.500E-01	6.905E-01	1.072E+00	9.752E-02	-0.326
		154.21		7.966E-02	3.876E-01	6.214E-01	5.511E-02	0.128
	+	269.46		4.753E-01	3.166E-01	3.435E-01	3.030E-02	1.384
		323.87	*	-4.003E-01	6.474E-01	1.019E+00	1.766E-01	-0.393
	+	338.28		7.918E+00	2.043E+00	2.485E+00	2.986E-01	3.186
PA-233	+	300.13		1.152E+00	4.963E-01	7.345E-01	1.091E-01	1.569
		311.90	*	-1.414E-02	6.172E-02	1.001E-01	8.906E-03	-0.141
		340.48		1.473E+00	8.420E-01	1.220E+00	2.932E-01	1.208
PA-234		94.67		4.093E-01	1.842E-01	2.848E-01	3.588E-02	1.437
		98.44		7.007E-02	1.013E-01	1.495E-01	8.340E-02	0.469
		111.00		-1.260E-01	1.834E-01	2.868E-01	3.410E-02	-0.439
		131.20		-3.195E-02	1.181E-01	1.657E-01	1.348E-02	-0.193
		569.50		1.544E-01	2.670E-01	4.631E-01	4.123E-02	0.333
		733.00		3.484E-01	4.600E-01	6.977E-01	1.571E-01	0.499
		880.51		7.649E-02	3.048E-01	5.042E-01	5.145E-02	0.152
		883.24		-7.216E-03	2.865E-01	4.624E-01	3.119E-01	-0.016
		926.50		1.363E-01	1.889E-01	3.194E-01	8.253E-02	0.427
		946.00	*	-2.494E-01	3.592E-01	5.374E-01	1.046E-01	-0.464
		949.00		4.375E-01	5.166E-01	8.876E-01	8.911E-02	0.493
PA-234M		766.42		2.017E+01	1.685E+01	2.184E+01	1.112E+01	0.924
		1001.03	*	2.727E+00	4.709E+00	8.320E+00	9.090E-01	0.328

Sample ID : G248860009 Acquisition date : 24-MAR-2010 16:28:49

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	6.321E-01	1.366E+00	2.281E+00	4.064E-01	0.277
	+	92.59		2.393E+00	1.049E+00	1.325E+00	2.948E-01	1.806
U-238		63.29	*	6.321E-01	1.366E+00	2.281E+00	4.064E-01	0.277
	+	92.59		2.393E+00	9.291E-01	1.325E+00	1.197E-01	1.806
NP-239		99.53		1.329E-01	1.607E-01	2.687E-01	2.324E-02	0.495
		103.37		-7.632E-02	1.014E-01	1.575E-01	1.340E-02	-0.485
		106.12		1.461E-02	8.624E-02	1.393E-01	1.175E-02	0.105
		117.23	*	2.096E-01	4.014E-01	6.603E-01	5.472E-02	0.317
		228.18		1.120E-01	2.163E-01	3.695E-01	3.126E-02	0.303
		277.60		2.240E-01	1.744E-01	3.043E-01	2.637E-02	0.736
AM-241		59.54	*	8.355E-02	1.470E-01	2.483E-01	1.956E-02	0.337
CM-247		278.00		8.258E-01	7.359E-01	1.277E+00	1.107E-01	0.647
		287.50		5.148E-01	1.224E+00	2.063E+00	1.790E-01	0.249
		402.40	*	-9.166E-03	3.788E-02	6.031E-02	4.926E-03	-0.152
CF-249		252.80		-1.256E-01	9.234E-01	1.527E+00	1.312E-01	-0.082
		333.37		1.036E-02	2.046E-01	2.947E-01	2.526E-02	0.035
		388.16	*	2.394E-02	4.148E-02	6.956E-02	5.654E-03	0.344
CF-251		177.52	*	1.441E-01	1.256E-01	2.212E-01	1.781E-02	0.652
		227.38		3.620E-01	3.469E-01	6.038E-01	5.106E-02	0.600
		285.41		-2.557E+00	2.163E+00	3.333E+00	2.891E-01	-0.767

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860009       *
* Acquisition date : 24-MAR-2010 16:28:49 Detector SN#    :                 *
* Detector ID      : GAM12                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.71     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  4-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248860009           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.4335E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 25-FEB-2010 20:55:17 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.708E+01	3.841E+00	5.342E-01	0.000E+00
CD-109	3.444E+00	1.021E+00	1.185E+00	0.000E+00
SN-126	3.341E-01	9.904E-02	1.154E-01	0.000E+00
TL-208	5.606E-01	9.694E-02	5.463E-02	0.000E+00
BI-211	4.100E+00	5.742E-01	3.092E-01	0.000E+00
PB-212	1.615E+00	2.114E-01	1.120E-01	0.000E+00
BI-214	1.188E+00	2.022E-01	1.096E-01	0.000E+00
PB-214	1.488E+00	2.234E-01	1.125E-01	0.000E+00
RA-224	2.520E+00	1.080E+00	1.490E+00	0.000E+00
RA-226	1.188E+00	2.022E-01	1.096E-01	0.000E+00
AC-228	1.824E+00	4.018E-01	2.429E-01	0.000E+00
RA-228	1.824E+00	4.018E-01	2.429E-01	0.000E+00
TH-228	1.615E+00	2.114E-01	1.120E-01	0.000E+00
TH-230	1.188E+00	1.927E-01	1.096E-01	0.000E+00
TH-232	1.824E+00	4.018E-01	2.429E-01	0.000E+00
U-235	-6.674E-02	2.027E-01	3.421E-01	0.000E+00
NP-237	9.969E-01	3.596E-01	3.484E-01	0.000E+00
ANH-511	1.539E-01	7.373E-02	4.647E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	2.571E-01	3.404E-01	6.020E-01	0.000E+00	NOT IDENT.
NA-22	-4.034E-02	4.591E-02	7.088E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.104E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	5.167E-03	3.995E-02	6.782E-02	0.000E+00	FAIL ABUN
V-48	2.648E-02	9.527E-02	1.690E-01	0.000E+00	NOT IDENT.
CR-51	-3.478E-01	3.953E-01	6.507E-01	0.000E+00	NOT IDENT.
MN-54	1.761E-02	3.919E-02	6.844E-02	0.000E+00	NOT IDENT.
CO-56	-3.184E-02	4.150E-02	6.479E-02	0.000E+00	NOT IDENT.
CO-57	5.632E-04	2.474E-02	4.308E-02	0.000E+00	NOT IDENT.

CO-58	3.934E-03	3.764E-02	6.433E-02	0.000E+00	NOT IDENT.
FE-59	-8.442E-02	1.095E-01	1.760E-01	0.000E+00	NOT IDENT.
CO-60	-1.560E-03	4.156E-02	6.950E-02	0.000E+00	NOT IDENT.
ZN-65	-8.386E-03	1.152E-01	1.698E-01	0.000E+00	NOT IDENT.
SE-75	-1.257E-02	5.178E-02	7.914E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.505E-02	8.026E-02	0.000E+00	NOT IDENT.
Y-88	4.749E-03	3.143E-02	5.467E-02	0.000E+00	NOT IDENT.
Y-91	-1.447E+01	2.461E+01	3.989E+01	0.000E+00	NOT IDENT.
NB-94	-1.035E-02	3.617E-02	6.083E-02	0.000E+00	NOT IDENT.
NB-95	5.758E-02	5.152E-02	8.431E-02	0.000E+00	NOT IDENT.
NB-95M	1.014E-01	1.392E-01	2.270E-01	0.000E+00	NOT IDENT.
ZR-95	6.085E-02	7.517E-02	1.359E-01	0.000E+00	NOT IDENT.
MO-99	1.078E+01	4.555E+01	7.915E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.699E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-9.837E-03	3.869E-02	6.727E-02	0.000E+00	FAIL ABUN
RH-106	-3.328E-02	3.020E-01	5.198E-01	0.000E+00	NOT IDENT.
RU-106	-3.328E-02	3.019E-01	5.198E-01	0.000E+00	NOT IDENT.
AG-108M	1.998E-03	3.029E-02	5.157E-02	0.000E+00	NOT IDENT.
AG-110M	-2.908E-02	3.515E-02	5.672E-02	0.000E+00	NOT IDENT.
SN-113	1.820E-02	4.702E-02	8.228E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	4.977E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	2.725E-02	6.926E-02	1.203E-01	0.000E+00	NOT IDENT.
TE-123M	2.144E-02	2.837E-02	5.000E-02	0.000E+00	NOT IDENT.
SB-124	2.419E-02	7.549E-02	1.356E-01	0.000E+00	NOT IDENT.
SB-125	-2.235E-02	8.982E-02	1.498E-01	0.000E+00	FAIL ABUN
TE-125M	9.640E+00	9.943E+00	1.802E+01	0.000E+00	NOT IDENT.
I-126	9.625E-02	3.119E-01	5.488E-01	0.000E+00	NOT IDENT.
SB-126	2.430E-02	2.055E-01	3.231E-01	0.000E+00	NOT IDENT.
SB-127	-4.845E-01	3.171E+00	5.389E+00	0.000E+00	NOT IDENT.
I-131	3.823E-02	1.689E-01	2.948E-01	0.000E+00	NOT IDENT.
TE-132	1.133E+00	2.152E+00	3.914E+00	0.000E+00	NOT IDENT.
BA-133	-1.442E-02	4.353E-02	6.373E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.199E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.907E-02	5.049E-02	9.518E-02	0.000E+00	NOT IDENT.
CS-135	1.368E-01	1.765E-01	2.863E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.779E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.080E-01	1.390E-01	2.550E-01	0.000E+00	NOT IDENT.
BA-137M	-5.095E-03	3.818E-02	6.392E-02	0.000E+00	NOT IDENT.
CS-137	-5.382E-03	4.033E-02	6.752E-02	0.000E+00	NOT IDENT.
CE-139	-1.125E-02	3.215E-02	5.385E-02	0.000E+00	NOT IDENT.
BA-140	-1.804E-01	3.475E-01	5.808E-01	0.000E+00	NOT IDENT.
LA-140	-2.110E-03	8.921E-02	1.467E-01	0.000E+00	NOT IDENT.
CE-141	2.463E-02	6.815E-02	1.189E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.789E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	8.559E-02	2.171E-01	3.409E-01	0.000E+00	NOT IDENT.
PM-144	-1.103E-02	3.603E-02	6.051E-02	0.000E+00	NOT IDENT.
PR-144	-8.436E-01	2.703E+00	4.537E+00	0.000E+00	NOT IDENT.
PM-146	1.603E-02	4.030E-02	6.996E-02	0.000E+00	NOT IDENT.
ND-147	-8.368E-02	7.094E-01	1.239E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	4.284E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	6.101E-02	1.068E-01	1.690E-01	0.000E+00	FAIL ABUN
GD-153	2.961E-05	9.124E-02	1.438E-01	0.000E+00	NOT IDENT.
EU-154	-1.178E-01	1.297E-01	1.990E-01	0.000E+00	NOT IDENT.
EU-155	3.638E-02	1.049E-01	1.852E-01	0.000E+00	FAIL ABUN
TB-160	2.742E-02	1.569E-01	2.673E-01	0.000E+00	FAIL ABUN
HO-166M	3.137E-02	6.654E-02	1.176E-01	0.000E+00	NOT IDENT.
TA-182	6.379E-02	2.206E-01	3.830E-01	0.000E+00	FAIL ABUN
IR-192	3.229E-02	3.427E-02	6.262E-02	0.000E+00	FAIL ABUN
HG-203	1.615E-02	3.998E-02	7.169E-02	0.000E+00	NOT IDENT.
BI-207	2.854E-02	5.276E-02	9.496E-02	0.000E+00	FAIL ABUN
PB-210	3.038E+00	3.068E+00	5.744E+00	0.000E+00	NOT IDENT.
PB-211	4.948E-01	7.347E-01	1.241E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	8.277E-01	1.289E+00	0.000E+00	FAIL ABUN
RN-219	-2.115E-01	4.021E-01	6.611E-01	0.000E+00	FAIL ABUN
RA-223	-4.003E-01	6.345E-01	1.059E+00	0.000E+00	FAIL ABUN
AC-227	1.161E-01	2.475E-01	4.472E-01	0.000E+00	FAIL ABUN
TH-227	1.161E-01	2.476E-01	4.472E-01	0.000E+00	FAIL ABUN
TH-229	2.357E-02	4.974E-01	9.016E-01	0.000E+00	FAIL ABUN
PA-231	-7.184E-01	1.366E+00	2.328E+00	0.000E+00	FAIL ABUN
TH-231	-4.003E-01	6.345E-01	1.059E+00	0.000E+00	FAIL ABUN
PA-233	-1.414E-02	6.048E-02	1.041E-01	0.000E+00	FAIL ABUN
PA-234	-2.494E-01	3.521E-01	5.453E-01	0.000E+00	NOT IDENT.
PA-234M	2.727E+00	4.614E+00	8.432E+00	0.000E+00	NOT IDENT.
TH-234	6.321E-01	1.339E+00	2.451E+00	0.000E+00	FAIL ABUN
U-238	6.321E-01	1.339E+00	2.451E+00	0.000E+00	FAIL ABUN
NP-239	2.096E-01	3.934E-01	7.006E-01	0.000E+00	NOT IDENT.
AM-241	8.355E-02	1.441E-01	2.671E-01	0.000E+00	NOT IDENT.
CM-247	-9.166E-03	3.712E-02	6.236E-02	0.000E+00	NOT IDENT.

CF-249	2.394E-02	4.065E-02	7.198E-02	0.000E+00 NOT IDENT.
CF-251	1.441E-01	1.231E-01	2.327E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:30:41.23

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860009.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 16:28:49
Sample ID         : G248860009           Sample quantity  : 1.43350E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.71  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1622	10.66*	1.075E+00	3.708E+01	3.708E+01	10.57
CD-109	88.03	262	3.70*	5.544E+00	3.341E+00	3.444E+00	30.25
SN-126	64.28	------	9.60	3.334E+00	------ Line Not Found		------
	86.94	262	8.90	5.544E+00	1.389E+00	1.389E+00	50.51
	87.57	262	37.00*	5.544E+00	3.341E-01	3.341E-01	30.25
TL-208	277.37	------	6.60	4.202E+00	------ Line Not Found		------
	583.19	430	85.00*	2.364E+00	5.606E-01	5.606E-01	17.65
	860.56	61	12.50	1.695E+00	7.548E-01	7.548E-01	61.85
BI-211	72.87	------	1.23	4.356E+00	------ Line Not Found		------
	351.06	712	12.92*	3.521E+00	4.100E+00	4.100E+00	14.29
PB-212	74.82	520	10.28	4.555E+00	2.907E+00	2.907E+00	20.40
	77.11	850	17.10	4.784E+00	2.721E+00	2.721E+00	13.45
	238.63	1258	43.60*	4.678E+00	1.615E+00	1.615E+00	13.36
	300.09	116	3.30	3.966E+00	2.315E+00	2.315E+00	41.79
BI-214	609.32	470	45.49*	2.280E+00	1.188E+00	1.188E+00	17.37
	1120.29	82	14.92	1.341E+00	1.069E+00	1.070E+00	60.98
	1764.49	85	15.30	9.451E-01	1.537E+00	1.537E+00	29.90
PB-214	74.82	520	5.80	4.555E+00	5.153E+00	5.153E+00	19.61
	77.11	850	9.70	4.784E+00	4.797E+00	4.798E+00	15.78
	242.00	183	7.25	4.637E+00	1.425E+00	1.425E+00	44.12
	295.22	455	18.42	4.015E+00	1.610E+00	1.610E+00	18.20
	351.93	712	35.60*	3.521E+00	1.488E+00	1.488E+00	15.32
RA-224	240.99	183	4.10*	4.637E+00	2.520E+00	2.520E+00	43.74
RA-226	609.32	470	45.49*	2.280E+00	1.188E+00	1.188E+00	17.37
	1120.29	82	14.92	1.341E+00	1.069E+00	1.070E+00	60.98
	1764.49	85	15.30	9.451E-01	1.537E+00	1.537E+00	29.90
AC-228	338.32	312	11.27	3.627E+00	1.995E+00	1.995E+00	47.54
	911.20	289	25.80*	1.611E+00	1.824E+00	1.824E+00	22.48
	968.97	118	15.80	1.524E+00	1.283E+00	1.283E+00	49.44
RA-228	338.32	312	11.27	3.627E+00	1.995E+00	1.995E+00	47.54
	911.20	289	25.80*	1.611E+00	1.824E+00	1.824E+00	22.48
	968.97	118	15.80	1.524E+00	1.283E+00	1.283E+00	49.44

Sample ID : G248860009 Acquisition date : 24-MAR-2010 16:28:49

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	520	10.28	4.555E+00	2.907E+00	2.907E+00	17.97
	77.11	850	17.10	4.784E+00	2.721E+00	2.721E+00	13.45
	238.63	1258	43.60*	4.678E+00	1.615E+00	1.615E+00	13.36
	300.09	116	3.30	3.966E+00	2.315E+00	2.315E+00	73.37
TH-230	609.32	470	45.49*	2.280E+00	1.188E+00	1.188E+00	16.55
	1120.29	82	14.92	1.341E+00	1.069E+00	1.069E+00	60.61
	1764.49	85	15.30	9.451E-01	1.537E+00	1.537E+00	29.90
TH-232	338.32	312	11.27	3.627E+00	1.995E+00	1.995E+00	24.37
	911.20	289	25.80*	1.611E+00	1.824E+00	1.824E+00	22.48
	968.97	118	15.80	1.524E+00	1.283E+00	1.283E+00	49.44
U-235	89.96	198	3.47	5.698E+00	2.618E+00	2.618E+00	41.58
	93.35	226	5.60	5.837E+00	1.808E+00	1.808E+00	44.35
	143.76	------	10.96*	6.165E+00	------	Line Not Found	------
	163.33	------	5.08	5.865E+00	------	Line Not Found	------
	185.72	185	57.20	5.480E+00	1.550E-01	1.550E-01	53.32
	205.31	------	5.01	5.165E+00	------	Line Not Found	------
NP-237	86.48	262	12.40*	5.544E+00	9.969E-01	9.969E-01	36.80
	95.86	------	2.68	5.962E+00	------	Line Not Found	------
ANH-511	511.00	155	100.00*	2.632E+00	1.539E-01	1.539E-01	48.89

Flag: "*" = Keyline

Sample ID : G248860009 Acquisition date : 24-MAR-2010 16:28:49

Total number of lines in spectrum 29
Number of unidentified lines 3
Number of lines tentatively identified by NID 26 89.66%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.708E+01	3.708E+01	0.392E+01	10.57	
CD-109	461.40D	1.03	3.341E+00	3.444E+00	1.042E+00	30.25	
SN-126	2.30E+05Y	1.00	3.341E-01	3.341E-01	1.011E-01	30.25	
TL-208	1.41E+10Y	1.00	5.606E-01	5.606E-01	0.989E-01	17.65	
BI-211	7.04E+08Y	1.00	4.100E+00	4.100E+00	0.586E+00	14.29	
PB-212	1.41E+10Y	1.00	1.615E+00	1.615E+00	0.216E+00	13.36	
BI-214	1600.00Y	1.00	1.188E+00	1.188E+00	0.206E+00	17.37	
PB-214	1600.00Y	1.00	1.488E+00	1.488E+00	0.228E+00	15.32	
RA-224	1.41E+10Y	1.00	2.520E+00	2.520E+00	1.102E+00	43.74	
RA-226	1600.00Y	1.00	1.188E+00	1.188E+00	0.206E+00	17.37	
AC-228	1.41E+10Y	1.00	1.824E+00	1.824E+00	0.410E+00	22.48	
RA-228	1.41E+10Y	1.00	1.824E+00	1.824E+00	0.410E+00	22.48	
TH-228	1.41E+10Y	1.00	1.615E+00	1.615E+00	0.216E+00	13.36	
TH-230	7.54E+04Y	1.00	1.188E+00	1.188E+00	0.197E+00	16.55	
TH-232	1.41E+10Y	1.00	1.824E+00	1.824E+00	0.410E+00	22.48	
U-235	7.04E+08Y	1.00	1.550E-01	1.550E-01	0.826E-01	53.32	K
NP-237	2.14E+06Y	1.00	9.969E-01	9.969E-01	3.669E-01	36.80	
ANH-511	1.00E+09Y	1.00	1.539E-01	1.539E-01	0.752E-01	48.89	
		Total Activity :	6.300E+01	6.310E+01			

Grand Total Activity : 6.300E+01 6.310E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248860009 Acquisition date : 24-MAR-2010 16:28:49

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.07	76	372	1.44	257.38	254	8	1.06E-02	90.8	6.32E+00	
0	209.55	105	325	1.20	418.37	414	9	1.45E-02	65.5	5.10E+00	T
0	270.45	108	290	1.82	540.19	534	12	1.50E-02	66.0	4.28E+00	T
0	462.62	76	119	1.10	924.56	919	11	1.06E-02	59.6	2.85E+00	T
0	727.17	119	72	1.85	1453.64	1449	11	1.65E-02	33.2	1.96E+00	T
0	768.37	43	84	1.62	1536.02	1529	12	5.97E-03	90.5	1.87E+00	
0	1086.38	24	28	1.04	2171.89	2169	8	3.31E-03	85.6	1.38E+00	T
0	1377.87	57	30	2.28	2754.62	2743	20	7.92E-03	54.0	1.13E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 18:30:45.71

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248860009.CNF;1  *
* Acquisition date : 24-MAR-2010 16:28:49  Detector SN#    :                *
* Detector ID      : GAM12                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.71         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 4-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248860009            Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.43350E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 25-FEB-2010 20:55:17.3MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.708E+01	3.920E+00	5.316E-01	4.821E-02	69.746
CD-109	3.444E+00	1.042E+00	1.110E+00	1.045E-01	3.103
SN-126	3.341E-01	1.011E-01	1.082E-01	1.013E-02	3.089
TL-208	5.606E-01	9.892E-02	5.326E-02	5.065E-03	10.526
BI-211	4.100E+00	5.859E-01	2.982E-01	2.657E-02	13.751
PB-212	1.615E+00	2.158E-01	1.071E-01	1.037E-02	15.081
BI-214	1.188E+00	2.064E-01	1.070E-01	1.111E-02	11.106
PB-214	1.488E+00	2.279E-01	1.084E-01	1.136E-02	13.721
RA-224	2.520E+00	1.102E+00	1.425E+00	1.217E-01	1.768
RA-226	1.188E+00	2.064E-01	1.070E-01	1.111E-02	11.106
AC-228	1.824E+00	4.100E-01	2.392E-01	3.070E-02	7.627
RA-228	1.824E+00	4.100E-01	2.392E-01	3.070E-02	7.627
TH-228	1.615E+00	2.158E-01	1.071E-01	1.037E-02	15.081
TH-230	1.188E+00	1.966E-01	1.070E-01	9.566E-03	11.106
TH-232	1.824E+00	4.100E-01	2.392E-01	3.070E-02	7.627
U-235	1.550E-01	8.262E-02	3.237E-01	5.394E-02	0.479
NP-237	9.969E-01	3.669E-01	3.263E-01	7.477E-02	3.056
ANH-511	1.539E-01	7.523E-02	4.517E-02	3.952E-03	3.407

Sample ID : G248860009 Acquisition date : 24-MAR-2010 16:28:49

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.571E-01		3.474E-01	5.844E-01	5.422E-02	0.440
NA-22	-4.034E-02		4.684E-02	7.032E-02	5.996E-03	-0.574
NA-24	9.624E+01		1.073E+02	Half-Life too short		
SC-46	5.167E-03		4.076E-02	6.674E-02	6.837E-03	0.077
V-48	2.648E-02		9.722E-02	1.667E-01	1.639E-02	0.159
CR-51	-3.478E-01		4.034E-01	6.262E-01	5.684E-02	-0.555
MN-54	1.761E-02		3.999E-02	6.726E-02	6.712E-03	0.262
CO-56	-3.184E-02		4.235E-02	6.369E-02	6.395E-03	-0.500
CO-57	5.632E-04		2.525E-02	4.063E-02	3.370E-03	0.014
CO-58	3.934E-03		3.841E-02	6.318E-02	6.236E-03	0.062
FE-59	-8.442E-02		1.117E-01	1.740E-01	1.663E-02	-0.485
CO-60	-1.560E-03		4.241E-02	6.903E-02	6.042E-03	-0.023
ZN-65	-8.386E-03		1.175E-01	1.679E-01	1.465E-02	-0.050
SE-75	-1.257E-02		5.284E-02	7.586E-02	6.583E-03	-0.166
SR-85	1.023E-01		4.597E-02	7.803E-02	6.836E-03	1.311
Y-88	4.749E-03		3.207E-02	5.469E-02	4.528E-03	0.087
Y-91	-1.447E+01		2.511E+01	3.953E+01	3.247E+00	-0.366
NB-94	-1.035E-02		3.691E-02	5.955E-02	5.479E-03	-0.174
NB-95	5.758E-02		5.258E-02	8.270E-02	7.936E-03	0.696
NB-95M	1.014E-01		1.421E-01	2.171E-01	2.125E-02	0.467
ZR-95	6.085E-02		7.670E-02	1.333E-01	1.381E-02	0.457
MO-99	1.078E+01		4.647E+01	7.758E+01	1.258E+01	0.139
TC-99M	5.119E+15		2.397E+16	Half-Life too short		
RU-103	-9.837E-03		3.948E-02	6.536E-02	9.160E-03	-0.150
RH-106	-3.328E-02		3.081E-01	5.075E-01	6.836E-02	-0.066
RU-106	-3.328E-02		3.081E-01	5.075E-01	4.540E-02	-0.066
AG-108M	1.998E-03		3.091E-02	4.996E-02	4.329E-03	0.040
AG-110M	-2.908E-02		3.586E-02	5.545E-02	5.087E-03	-0.524
SN-113	1.820E-02		4.798E-02	7.953E-02	6.658E-03	0.229
CD-115	-7.948E-06		2.539E-05	Half-Life too short		
SN-117M	2.725E-02		7.068E-02	1.141E-01	9.095E-03	0.239
TE-123M	2.144E-02		2.895E-02	4.742E-02	3.807E-03	0.452
SB-124	2.419E-02		7.703E-02	1.354E-01	1.217E-02	0.179
SB-125	-2.235E-02		9.165E-02	1.451E-01	1.235E-02	-0.154
TE-125M	9.640E+00		1.015E+01	1.696E+01	1.745E+00	0.568
I-126	9.625E-02		3.182E-01	5.366E-01	4.805E-02	0.179
SB-126	2.430E-02		2.097E-01	3.165E-01	2.949E-02	0.077
SB-127	-4.845E-01		3.236E+00	5.272E+00	7.010E-01	-0.092
I-131	3.823E-02		1.723E-01	2.845E-01	2.527E-02	0.134
TE-132	1.133E+00		2.196E+00	3.740E+00	6.303E-01	0.303
BA-133	-1.442E-02		4.442E-02	6.147E-02	7.885E-03	-0.235
I-133	-3.024E-01		1.632E-01	Half-Life too short		
CS-134	8.907E-02		5.153E-02	9.343E-02	9.180E-03	0.953
CS-135	1.368E-01		1.801E-01	2.745E-01	2.742E-02	0.498
I-135	5.181E+14		1.418E+15	Half-Life too short		
CS-136	1.080E-01		1.418E-01	2.518E-01	2.440E-02	0.429
BA-137M	-5.095E-03		3.896E-02	6.249E-02	5.575E-03	-0.082
CS-137	-5.382E-03		4.115E-02	6.602E-02	5.900E-03	-0.082

Sample ID : G248860009 Acquisition date : 24-MAR-2010 16:28:49

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-139	-1.125E-02		3.280E-02	5.111E-02	4.069E-03	-0.220
BA-140	-1.804E-01		3.546E-01	5.653E-01	1.920E-01	-0.319
LA-140	-2.110E-03		9.103E-02	1.463E-01	1.282E-02	-0.014
CE-141	2.463E-02		6.954E-02	1.125E-01	9.214E-03	0.219
CE-143	7.884E-03		1.423E-03	Half-Life too short		
CE-144	8.559E-02		2.215E-01	3.221E-01	4.834E-02	0.266
PM-144	-1.103E-02		3.677E-02	5.923E-02	5.428E-03	-0.186
PR-144	-8.436E-01		2.758E+00	4.440E+00	4.067E-01	-0.190
PM-146	1.603E-02		4.112E-02	6.784E-02	7.115E-03	0.236
ND-147	-8.368E-02		7.239E-01	1.205E+00	1.815E-01	-0.069
PM-149	-1.211E-04		2.186E-04	Half-Life too short		
EU-152	6.101E-02		1.090E-01	1.629E-01	1.470E-02	0.374
GD-153	2.961E-05		9.310E-02	1.350E-01	1.180E-02	0.000
EU-154	-1.178E-01		1.323E-01	1.974E-01	2.231E-02	-0.596
EU-155	3.638E-02		1.071E-01	1.741E-01	1.490E-02	0.209
TB-160	2.742E-02		1.601E-01	2.630E-01	2.683E-02	0.104
HO-166M	3.137E-02		6.790E-02	1.152E-01	1.067E-02	0.272
TA-182	6.379E-02		2.251E-01	3.797E-01	3.147E-02	0.168
IR-192	3.229E-02		3.497E-02	6.025E-02	5.216E-03	0.536
HG-203	1.615E-02		4.080E-02	6.879E-02	6.114E-03	0.235
BI-207	2.854E-02		5.383E-02	9.383E-02	8.647E-03	0.304
PB-210	3.038E+00		3.131E+00	5.313E+00	4.909E-01	0.572
PB-211	4.948E-01		7.497E-01	1.201E+00	5.801E-01	0.412
BI-212	2.370E+00	+	8.446E-01	1.263E+00	1.639E-01	1.877
RN-219	-2.115E-01		4.103E-01	6.393E-01	9.343E-02	-0.331
RA-223	-4.003E-01		6.474E-01	1.019E+00	1.766E-01	-0.393
AC-227	1.161E-01		2.525E-01	4.283E-01	5.158E-02	0.271
TH-227	1.161E-01		2.527E-01	4.283E-01	5.825E-02	0.271
TH-229	2.357E-02		5.076E-01	8.585E-01	7.032E-02	0.027
PA-231	-7.184E-01		1.394E+00	2.235E+00	3.266E-01	-0.321
TH-231	-4.003E-01		6.474E-01	1.019E+00	1.766E-01	-0.393
PA-233	-1.414E-02		6.172E-02	1.001E-01	8.906E-03	-0.141
PA-234	-2.494E-01		3.592E-01	5.374E-01	1.046E-01	-0.464
PA-234M	2.727E+00		4.709E+00	8.320E+00	9.090E-01	0.328
TH-234	6.321E-01		1.366E+00	2.281E+00	4.064E-01	0.277
U-238	6.321E-01		1.366E+00	2.281E+00	4.064E-01	0.277
NP-239	2.096E-01		4.014E-01	6.603E-01	5.472E-02	0.317
AM-241	8.355E-02		1.470E-01	2.483E-01	1.956E-02	0.337
CM-247	-9.166E-03		3.788E-02	6.031E-02	4.926E-03	-0.152
CF-249	2.394E-02		4.148E-02	6.956E-02	5.654E-03	0.344
CF-251	1.441E-01		1.256E-01	2.212E-01	1.781E-02	0.652

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248860009           *
* Acquisition date  : 24-MAR-2010 16:28:49 Detector SN#     :               *
* Detector ID       : GAM12                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.71      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  4-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248860009           Analyst initials: MXR1           *
* Batch Number      : 962633               Sample Quantity : 1.4335E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 25-FEB-2010 20:55:17 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.708E+01	3.841E+00	2.673E-01	1.960E+00
CD-109	3.444E+00	1.021E+00	5.927E-01	5.209E-01
SN-126	3.341E-01	9.904E-02	5.776E-02	5.053E-02
TL-208	5.606E-01	9.694E-02	2.733E-02	4.946E-02
BI-211	4.100E+00	5.742E-01	1.547E-01	2.930E-01
PB-212	1.615E+00	2.114E-01	5.602E-02	1.079E-01
BI-214	1.188E+00	2.022E-01	5.483E-02	1.032E-01
PB-214	1.488E+00	2.234E-01	5.626E-02	1.140E-01
RA-224	2.520E+00	1.080E+00	7.454E-01	5.512E-01
RA-226	1.188E+00	2.022E-01	5.483E-02	1.032E-01
AC-228	1.824E+00	4.018E-01	1.215E-01	2.050E-01
RA-228	1.824E+00	4.018E-01	1.215E-01	2.050E-01
TH-228	1.615E+00	2.114E-01	5.602E-02	1.079E-01
TH-230	1.188E+00	1.927E-01	5.483E-02	9.830E-02
TH-232	1.824E+00	4.018E-01	1.215E-01	2.050E-01
U-235	-6.674E-02	2.027E-01	1.711E-01	1.034E-01
NP-237	9.969E-01	3.596E-01	1.743E-01	1.835E-01
ANH-511	1.539E-01	7.373E-02	2.325E-02	3.762E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	2.571E-01	3.404E-01	3.012E-01	1.737E-01	NOT IDENT.
NA-22	-4.034E-02	4.591E-02	3.546E-02	2.342E-02	NOT IDENT.
NA-24	9.624E+07	2.104E+08	0.000E+00	1.073E+08	SHORT HLIF
SC-46	5.167E-03	3.995E-02	3.393E-02	2.038E-02	FAIL ABUN
V-48	2.648E-02	9.527E-02	8.454E-02	4.861E-02	NOT IDENT.
CR-51	-3.478E-01	3.953E-01	3.255E-01	2.017E-01	NOT IDENT.
MN-54	1.761E-02	3.919E-02	3.424E-02	2.000E-02	NOT IDENT.
CO-56	-3.184E-02	4.150E-02	3.241E-02	2.118E-02	NOT IDENT.
CO-57	5.632E-04	2.474E-02	2.155E-02	1.262E-02	NOT IDENT.

CO-58	3.934E-03	3.764E-02	3.218E-02	1.920E-02	NOT IDENT.
FE-59	-8.442E-02	1.095E-01	8.803E-02	5.586E-02	NOT IDENT.
CO-60	-1.560E-03	4.156E-02	3.477E-02	2.120E-02	NOT IDENT.
ZN-65	-8.386E-03	1.152E-01	8.494E-02	5.876E-02	NOT IDENT.
SE-75	-1.257E-02	5.178E-02	3.959E-02	2.642E-02	NOT IDENT.
SR-85	1.023E-01	4.505E-02	4.015E-02	2.298E-02	NOT IDENT.
Y-88	4.749E-03	3.143E-02	2.735E-02	1.603E-02	NOT IDENT.
Y-91	-1.447E+01	2.461E+01	1.996E+01	1.256E+01	NOT IDENT.
NB-94	-1.035E-02	3.617E-02	3.043E-02	1.846E-02	NOT IDENT.
NB-95	5.758E-02	5.152E-02	4.218E-02	2.629E-02	NOT IDENT.
NB-95M	1.014E-01	1.392E-01	1.136E-01	7.103E-02	NOT IDENT.
ZR-95	6.085E-02	7.517E-02	6.800E-02	3.835E-02	NOT IDENT.
MO-99	1.078E+01	4.555E+01	3.960E+01	2.324E+01	NOT IDENT.
TC-99M	5.119E+21	4.699E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-9.837E-03	3.869E-02	3.366E-02	1.974E-02	FAIL ABUN
RH-106	-3.328E-02	3.020E-01	2.600E-01	1.541E-01	NOT IDENT.
RU-106	-3.328E-02	3.019E-01	2.600E-01	1.541E-01	NOT IDENT.
AG-108M	1.998E-03	3.029E-02	2.580E-02	1.545E-02	NOT IDENT.
AG-110M	-2.908E-02	3.515E-02	2.838E-02	1.793E-02	NOT IDENT.
SN-113	1.820E-02	4.702E-02	4.116E-02	2.399E-02	NOT IDENT.
CD-115	-7.948E+00	4.977E+01	0.000E+00	2.539E+01	SHORT HLIF
SN-117M	2.725E-02	6.926E-02	6.019E-02	3.534E-02	NOT IDENT.
TE-123M	2.144E-02	2.837E-02	2.502E-02	1.448E-02	NOT IDENT.
SB-124	2.419E-02	7.549E-02	6.786E-02	3.851E-02	NOT IDENT.
SB-125	-2.235E-02	8.982E-02	7.497E-02	4.583E-02	FAIL ABUN
TE-125M	9.640E+00	9.943E+00	9.016E+00	5.073E+00	NOT IDENT.
I-126	9.625E-02	3.119E-01	2.745E-01	1.591E-01	NOT IDENT.
SB-126	2.430E-02	2.055E-01	1.616E-01	1.049E-01	NOT IDENT.
SB-127	-4.845E-01	3.171E+00	2.696E+00	1.618E+00	NOT IDENT.
I-131	3.823E-02	1.689E-01	1.475E-01	8.616E-02	NOT IDENT.
TE-132	1.133E+00	2.152E+00	1.958E+00	1.098E+00	NOT IDENT.
BA-133	-1.442E-02	4.353E-02	3.188E-02	2.221E-02	NOT IDENT.
I-133	-3.024E+05	3.199E+05	0.000E+00	1.632E+05	SHORT HLIF
CS-134	8.907E-02	5.049E-02	4.762E-02	2.576E-02	NOT IDENT.
CS-135	1.368E-01	1.765E-01	1.432E-01	9.004E-02	NOT IDENT.
I-135	5.181E+20	2.779E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.080E-01	1.390E-01	1.276E-01	7.092E-02	NOT IDENT.
BA-137M	-5.095E-03	3.818E-02	3.198E-02	1.948E-02	NOT IDENT.
CS-137	-5.382E-03	4.033E-02	3.378E-02	2.058E-02	NOT IDENT.
CE-139	-1.125E-02	3.215E-02	2.694E-02	1.640E-02	NOT IDENT.
BA-140	-1.804E-01	3.475E-01	2.906E-01	1.773E-01	NOT IDENT.
LA-140	-2.110E-03	8.921E-02	7.340E-02	4.552E-02	NOT IDENT.
CE-141	2.463E-02	6.815E-02	5.946E-02	3.477E-02	NOT IDENT.
CE-143	7.884E+03	2.789E+03	0.000E+00	1.423E+03	SHORT HLIF
CE-144	8.559E-02	2.171E-01	1.706E-01	1.107E-01	NOT IDENT.
PM-144	-1.103E-02	3.603E-02	3.027E-02	1.838E-02	NOT IDENT.
PR-144	-8.436E-01	2.703E+00	2.270E+00	1.379E+00	NOT IDENT.
PM-146	1.603E-02	4.030E-02	3.500E-02	2.056E-02	NOT IDENT.
ND-147	-8.368E-02	7.094E-01	6.196E-01	3.619E-01	FAIL ABUN
PM-149	-1.211E+02	4.284E+02	0.000E+00	2.186E+02	SHORT HLIF
EU-152	6.101E-02	1.068E-01	8.456E-02	5.451E-02	FAIL ABUN
GD-153	2.961E-05	9.124E-02	7.194E-02	4.655E-02	NOT IDENT.
EU-154	-1.178E-01	1.297E-01	9.956E-02	6.617E-02	NOT IDENT.
EU-155	3.638E-02	1.049E-01	9.264E-02	5.354E-02	FAIL ABUN
TB-160	2.742E-02	1.569E-01	1.337E-01	8.004E-02	FAIL ABUN
HO-166M	3.137E-02	6.654E-02	5.886E-02	3.395E-02	NOT IDENT.
TA-182	6.379E-02	2.206E-01	1.916E-01	1.126E-01	FAIL ABUN
IR-192	3.229E-02	3.427E-02	3.133E-02	1.749E-02	FAIL ABUN
HG-203	1.615E-02	3.998E-02	3.587E-02	2.040E-02	NOT IDENT.
BI-207	2.854E-02	5.276E-02	4.751E-02	2.692E-02	FAIL ABUN
PB-210	3.038E+00	3.068E+00	2.874E+00	1.565E+00	NOT IDENT.
PB-211	4.948E-01	7.347E-01	6.209E-01	3.748E-01	NOT IDENT.
BI-212	2.370E+00	8.277E-01	6.448E-01	4.223E-01	FAIL ABUN
RN-219	-2.115E-01	4.021E-01	3.307E-01	2.051E-01	FAIL ABUN
RA-223	-4.003E-01	6.345E-01	5.297E-01	3.237E-01	FAIL ABUN
AC-227	1.161E-01	2.475E-01	2.237E-01	1.263E-01	FAIL ABUN
TH-227	1.161E-01	2.476E-01	2.237E-01	1.263E-01	FAIL ABUN
TH-229	2.357E-02	4.974E-01	4.511E-01	2.538E-01	FAIL ABUN
PA-231	-7.184E-01	1.366E+00	1.165E+00	6.968E-01	FAIL ABUN
TH-231	-4.003E-01	6.345E-01	5.297E-01	3.237E-01	FAIL ABUN
PA-233	-1.414E-02	6.048E-02	5.207E-02	3.086E-02	FAIL ABUN
PA-234	-2.494E-01	3.521E-01	2.728E-01	1.796E-01	NOT IDENT.
PA-234M	2.727E+00	4.614E+00	4.219E+00	2.354E+00	NOT IDENT.
TH-234	6.321E-01	1.339E+00	1.226E+00	6.831E-01	FAIL ABUN
U-238	6.321E-01	1.339E+00	1.226E+00	6.831E-01	FAIL ABUN
NP-239	2.096E-01	3.934E-01	3.505E-01	2.007E-01	NOT IDENT.
AM-241	8.355E-02	1.441E-01	1.336E-01	7.351E-02	NOT IDENT.
CM-247	-9.166E-03	3.712E-02	3.120E-02	1.894E-02	NOT IDENT.

CF-249	2.394E-02	4.065E-02	3.601E-02	2.074E-02 NOT IDENT.
CF-251	1.441E-01	1.231E-01	1.164E-01	6.282E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	278.0145
49.72	328.6732
57.36	0.0000
59.54	358.4554
63.29	423.2805
63.29	423.2805
64.28	429.1618
67.75	430.6090
69.67	489.4939
70.83	468.3648
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72.87	410.5108
72.87	410.5108
74.82	412.2166
74.82	412.2166
74.82	412.2166
74.97	412.3484
77.11	414.1942
77.11	414.1942
77.11	414.1942
79.69	334.3237
79.80	334.3976
80.12	358.9497
80.19	359.0001
80.57	359.2738
81.00	359.5853
81.07	359.6357
81.07	359.6357
83.79	331.9543
83.79	331.9543
85.43	333.0156
86.48	333.6884
86.55	333.7330
86.79	333.8851
86.94	333.9826
87.57	334.3826
88.03	334.6752
88.47	334.9529
89.96	335.8918
91.11	336.6109
92.59	337.5284
92.59	337.5284
93.35	337.9978
94.67	326.8192
94.87	326.9356
94.87	326.9356
95.86	361.9932
97.43	333.1489
98.44	314.8514
99.53	310.1950
100.11	309.4561
103.18	343.8958
103.37	350.3575
105.31	323.8980
106.12	338.1613
109.28	293.9667
111.00	343.0306
111.76	329.4994
116.30	313.5088
117.23	300.9744
121.12	282.0930
121.78	290.0080
122.06	295.5854
123.07	330.9948
131.20	321.7240
133.52	286.1925
136.00	310.5771

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140.51	0.0000
143.76	317.3045
144.24	318.6370
144.24	318.6370
145.44	298.8528
152.43	308.4588
153.25	308.7868
154.21	295.4825
154.21	295.4825
156.02	303.0312
158.56	275.3345
159.00	261.7115
162.66	322.8784
163.33	311.6080
165.86	329.9458
176.60	254.1891
177.52	258.8650
181.07	280.0931
184.41	251.3456
185.72	242.6553
193.51	275.2582
197.04	264.6229
205.31	281.8660
210.85	233.8164
215.65	240.4778
222.11	254.0590
227.38	220.0955
228.16	242.5688
228.18	242.5728
235.69	244.1518
235.96	244.2155
235.96	244.2155
238.63	321.4415
238.63	321.4415
240.99	496.7845
242.00	323.9697
244.70	193.3609
252.40	196.8247
252.80	203.5557
256.23	202.2776
256.23	202.2776
260.90	0.0000
264.66	212.2592
268.22	205.2051
269.46	195.0002
269.46	195.0002
271.23	184.0810
273.65	237.1687
276.40	196.8096
277.37	183.6907
277.60	177.8928
278.00	178.9266
279.20	187.8699
279.54	187.9229
280.46	208.5305
283.69	185.6454
284.31	201.3825
285.41	207.4388
285.90	0.0000
287.50	176.4322
293.27	0.0000
295.22	165.7134
295.96	165.8108
298.57	166.1620
299.98	171.1020
299.98	171.1020
300.09	161.6112
300.09	161.6112
300.13	155.2783
301.36	141.1550
302.85	139.7365
304.50	160.5890
304.50	160.5890
304.85	153.7415
308.46	146.5357
311.90	156.9257

316.51	134.4151
319.41	153.8148
320.08	164.9559
323.87	179.5563
323.87	179.5563
328.76	158.9548
333.37	165.7998
334.37	144.7749
334.37	144.7749
338.28	159.0588
338.28	159.0588
338.32	159.0635
338.32	159.0635
338.32	159.0635
340.48	158.4965
340.55	158.5060
344.28	139.2726
351.06	124.5154
351.93	124.5929
356.01	130.5294
364.49	122.5770
366.42	131.0622
383.85	135.7771
388.16	131.9427
388.63	134.0965
391.69	135.4238
400.66	137.2790
401.81	138.4464
402.40	136.3672
404.85	116.3081
410.95	110.3318
414.70	123.4772
423.72	116.6155
427.09	126.5941
427.87	120.1597
433.94	121.6917
453.88	96.7589
463.37	102.6003
468.07	102.8778
473.00	101.1656
476.78	130.3485
477.60	92.5125
487.02	89.6399
492.35	0.0000
497.08	91.0393
511.00	95.3594
514.00	89.4477
527.90	0.0000
529.87	0.0000
531.02	88.1109
537.26	104.9685
546.56	0.0000
563.25	82.0982
569.33	86.0883
569.50	86.0950
569.70	86.1040
583.19	77.2514
600.60	94.9951
602.73	93.5055
604.72	87.2467
609.32	82.9835
609.32	82.9835
609.32	82.9835
610.33	98.6082
614.28	73.2957
618.01	93.8537
621.93	82.5084
621.93	82.5084
633.25	98.3667
635.95	96.5552
636.99	101.4291
645.85	74.6783
657.76	96.5202
661.66	96.6869
661.66	96.6869
664.57	0.0000
666.33	98.8399
666.50	98.8473

677.62	81.6221
685.70	77.9566
695.00	94.1140
696.49	98.1395
696.51	98.1395
697.00	91.2184
702.65	105.3479
706.68	103.5353
711.68	91.7776
720.70	75.8123
721.93	0.0000
722.78	75.1611
722.91	75.1648
723.31	83.5286
724.19	73.5321
727.33	90.3604
733.00	73.7952
735.93	95.7120
739.50	76.6791
747.24	69.8305
752.31	83.1551
753.82	80.1592
756.73	62.9824
763.94	81.4961
765.81	71.3621
766.42	69.6796
777.92	62.4788
778.90	65.5766
783.70	67.7499
785.37	51.3586
795.86	63.9375
801.95	56.8490
810.29	52.8789
810.76	54.9629
815.77	47.7924
818.51	59.2808
832.01	91.9746
834.85	73.2368
836.80	0.0000
846.77	73.5530
856.80	79.0906
860.56	52.7979
871.09	66.7714
873.19	71.0632
875.33	0.0000
879.36	66.9652
880.51	64.8661
883.24	57.4765
884.68	52.1809
889.28	55.4633
898.04	74.8877
911.20	66.6273
911.20	66.6273
911.20	66.6273
926.50	54.0088
937.49	87.8146
944.13	74.9684
946.00	85.8855
949.00	64.2057
962.29	91.0787
964.08	91.1316
966.15	82.0734
968.97	40.1615
968.97	40.1615
968.97	40.1615
983.53	66.9434
996.26	68.1329
1001.03	47.9491
1004.73	58.1602
1037.84	59.6901
1038.76	0.0000
1048.07	49.5840
1050.41	63.6615
1050.41	63.6615
1063.66	53.5767
1085.87	68.1211
1099.45	82.6422
1112.07	73.2188

1115.54	76.8897
1120.29	79.3154
1120.29	79.3154
1120.29	79.3154
1120.55	79.3221
1121.30	79.3390
1131.51	0.0000
1173.23	91.1734
1177.93	82.5513
1189.05	74.0332
1204.77	84.1313
1221.41	78.6133
1231.02	86.6966
1235.36	103.5602
1238.28	81.9260
1260.41	0.0000
1271.85	59.7437
1274.44	64.7646
1274.54	64.7673
1291.59	45.0348
1298.22	0.0000
1312.11	45.2692
1332.49	39.4332
1365.19	27.5197
1368.63	0.0000
1384.29	29.8413
1408.01	29.8638
1457.56	0.0000
1460.82	25.0205
1489.16	27.2812
1505.03	33.6966
1596.21	15.0391
1620.50	18.3558
1678.03	0.0000
1690.97	13.1470
1764.49	6.6707
1764.49	6.6707
1764.49	6.6707
1770.23	10.0173
1771.35	64.8884
1791.20	0.0000
1836.06	11.5940

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248860009

Total Uranium Activity	1.8496E+00	ug/g
Total Uranium Counting Unc.	3.9844E+00	ug/g
Total Uranium Tpu	2.0329E-06	ug/g
Total Uranium Mda	3.6485E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248860009       *
*   ANALYST       : MXR1                      DETECTOR   : GAM12            *
*   SAMPLE DATE   :  4-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 16:28:49.09    SAMPLE ALQT:  143.350 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.001E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.343E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 2.889E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.403E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:35:03.53

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:33:15
Sample ID         : G248867001           Sample quantity  : 1.22070E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:57.45  0.8%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	74.70*	595	709	1.78	149.61	143	15	8.26E-02	10.2	6.48E+00
2	3	77.13*	699	378	0.98	154.46	143	15	9.71E-02	5.9	
3	0	86.89*	170	508	1.12	173.95	172	7	2.36E-02	23.5	
4	0	93.22*	169	756	1.39	186.60	181	10	2.35E-02	33.0	
5	0	129.40	102	529	1.21	258.87	253	12	1.41E-02	46.4	
6	0	185.85*	158	426	1.20	371.63	365	11	2.19E-02	27.7	
7	0	209.14	75	344	1.00	418.17	414	9	1.04E-02	46.1	
8	4	238.54*	1301	172	1.07	476.91	471	18	1.81E-01	3.4	1.51E+00
9	4	241.43	315	310	1.77	482.67	471	18	4.38E-02	15.7	
10	0	270.01	120	335	1.39	539.77	534	14	1.66E-02	33.7	
11	4	295.15	406	145	1.16	590.01	585	19	5.64E-02	7.0	1.26E+00
12	4	299.92	131	150	1.42	599.54	585	19	1.82E-02	18.5	
13	0	328.37	95	195	1.05	656.39	651	11	1.32E-02	30.1	
14	0	338.29	271	184	1.41	676.21	669	12	3.76E-02	11.7	
15	0	351.81	620	227	1.23	703.23	698	12	8.61E-02	6.3	
16	0	463.34	92	115	0.98	926.09	921	13	1.28E-02	26.2	
17	0	583.03*	429	125	1.47	1165.32	1158	14	5.96E-02	7.5	
18	0	609.34*	441	129	1.28	1217.91	1213	12	6.13E-02	7.2	
19	0	663.39	83	184	1.04	1325.96	1316	20	1.15E-02	41.8	
20	0	727.40	90	78	1.24	1453.93	1448	11	1.25E-02	21.9	
21	0	795.70	71	83	0.99	1590.48	1580	19	9.82E-03	33.5	
22	0	860.37	65	49	1.51	1719.81	1715	12	8.96E-03	24.9	
23	0	911.26*	257	85	1.62	1821.57	1813	14	3.57E-02	10.0	
24	4	964.31*	85	37	2.53	1927.66	1922	25	1.18E-02	18.9	1.63E+00
25	4	969.05*	171	51	2.05	1937.14	1922	25	2.38E-02	11.6	
26	0	1120.33*	113	55	2.02	2239.74	2233	13	1.56E-02	17.2	
27	0	1378.58*	26	35	1.04	2756.43	2747	14	3.66E-03	52.7	
28	0	1402.03	18	24	0.99	2803.36	2794	12	2.47E-03	60.1	
29	0	1460.89*	1478	45	1.75	2921.16	2911	20	2.05E-01	2.8	
30	0	1620.67	30	4	1.43	3240.97	3233	15	4.20E-03	22.9	
31	0	1764.57*	92	3	1.88	3529.07	3522	13	1.28E-02	12.4	
32	0	1847.98	18	7	1.33	3696.08	3689	14	2.50E-03	39.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 22:35:06

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 20:33:15
Sample ID : G248867001 Sample quantity : 122.07 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAM29 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:57.45 0.8%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.523E+01	4.325E+00	5.862E-01	6.376E-02	60.093
CD-109	+	88.03	*	2.483E+00	1.192E+00	1.820E+00	1.719E-01	1.364
SN-126		64.28		2.422E-03	6.348E-01	1.037E+00	1.537E-01	0.002
	+	86.94		1.003E+00	6.294E-01	7.645E-01	3.174E-01	1.312
	+	87.57	*	2.412E-01	1.158E-01	1.819E-01	1.710E-02	1.326
TL-208		277.37		4.630E-01	4.993E-01	7.893E-01	1.015E-01	0.587
	+	583.19	*	5.863E-01	1.036E-01	6.767E-02	6.341E-03	8.663
	+	860.56		8.343E-01	4.289E-01	5.000E-01	6.413E-02	1.668
BI-211		72.87		1.569E+01	4.825E+00	7.495E+00	6.194E-01	2.093
	+	351.06	*	3.834E+00	6.063E-01	3.919E-01	3.753E-02	9.782
BI-212	+	727.33	*	1.882E+00	8.594E-01	8.798E-01	1.150E-01	2.139
		785.37		6.275E+00	3.919E+00	6.750E+00	7.215E-01	0.930
	+	1620.50		5.596E+00	2.626E+00	3.759E+00	3.755E-01	1.489
PB-212	+	74.82		3.681E+00	8.883E-01	7.004E-01	8.989E-02	5.255
	+	77.11		2.474E+00	3.618E-01	4.007E-01	3.412E-02	6.175
	+	238.63	*	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
	+	300.09		2.841E+00	1.095E+00	1.418E+00	1.558E-01	2.003
BI-214	+	609.32	*	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
	+	1120.29		1.544E+00	5.596E-01	5.108E-01	5.962E-02	3.022
	+	1764.49		1.707E+00	4.519E-01	2.887E-01	2.622E-02	5.912
PB-214	+	74.82		6.524E+00	1.531E+00	1.241E+00	1.432E-01	5.255
	+	77.11		4.362E+00	7.323E-01	7.064E-01	8.374E-02	6.175
	+	242.00		2.702E+00	8.938E-01	6.932E-01	7.350E-02	3.897
	+	295.22		1.563E+00	2.793E-01	2.497E-01	2.806E-02	6.256
	+	351.93	*	1.391E+00	2.331E-01	1.435E-01	1.586E-02	9.695
RA-224	+	240.99	*	4.777E+00	1.556E+00	1.222E+00	1.084E-01	3.909
RA-226	+	609.32	*	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
	+	1120.29		1.544E+00	5.596E-01	5.108E-01	5.962E-02	3.022
	+	1764.49		1.707E+00	4.519E-01	2.887E-01	2.622E-02	5.912
AC-228	+	338.32		1.867E+00	8.953E-01	4.700E-01	1.966E-01	3.973
	+	911.20	*	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
	+	968.97		1.951E+00	6.782E-01	4.648E-01	1.204E-01	4.197
RA-228	+	338.32		1.867E+00	8.953E-01	4.700E-01	1.966E-01	3.973
	+	911.20	*	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		1.951E+00	6.782E-01	4.648E-01	1.204E-01	4.197
TH-228	+	74.82		3.681E+00	8.141E-01	7.004E-01	5.920E-02	5.255
	+	77.11		2.474E+00	3.618E-01	4.007E-01	3.412E-02	6.175
	+	238.63	*	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
	+	300.09		2.841E+00	2.033E+00	1.418E+00	8.694E-01	2.003
TH-230	+	609.32	*	1.167E+00	1.955E-01	1.384E-01	1.192E-02	8.437
	+	1120.29		1.544E+00	5.499E-01	5.108E-01	4.882E-02	3.022
	+	1764.49		1.707E+00	4.519E-01	2.887E-01	2.622E-02	5.912
TH-232	+	338.32		1.867E+00	4.698E-01	4.700E-01	4.316E-02	3.973
	+	911.20	*	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
	+	968.97		1.951E+00	6.782E-01	4.648E-01	1.204E-01	4.197
NP-237	+	86.48	*	7.197E-01	3.769E-01	4.879E-01	1.119E-01	1.475
		95.86		5.234E-01	1.246E+00	1.808E+00	4.364E-01	0.290

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-2.460E-02	3.972E-01	6.430E-01	6.260E-02	-0.038
NA-22		1274.54	*	-4.993E-02	4.804E-02	7.200E-02	7.188E-03	-0.693
NA-24		1368.63	*	-5.110E+01	4.804E-02	Half-Life too short		
SC-46		889.28	*	-2.542E-02	4.469E-02	6.961E-02	9.088E-03	-0.365
	+	1120.55		2.704E-01	9.634E-02	1.501E-01	1.434E-02	1.802
V-48		944.13		-8.359E-01	1.282E+00	1.980E+00	2.515E-01	-0.422
		983.53	*	-3.953E-02	9.753E-02	1.536E-01	1.863E-02	-0.257
		1312.11		-2.539E-02	1.141E-01	1.866E-01	1.981E-02	-0.136
CR-51		320.08	*	-1.087E-01	4.670E-01	7.636E-01	7.342E-02	-0.142
MN-54		834.85	*	-3.045E-02	4.396E-02	6.857E-02	8.082E-03	-0.444
CO-56		846.77	*	1.498E-02	4.718E-02	7.976E-02	9.618E-03	0.188
		1037.84		1.155E-01	3.678E-01	6.162E-01	7.129E-02	0.187
		1238.28		1.860E-01	1.184E-01	2.104E-01	2.020E-02	0.884
		1771.35		2.082E-02	2.953E-01	4.195E-01	3.789E-02	0.050
CO-57		122.06	*	2.208E-02	3.147E-02	5.225E-02	4.721E-03	0.423
		136.47		1.856E-01	2.559E-01	4.238E-01	3.937E-02	0.438
CO-58		810.76	*	-2.382E-03	4.833E-02	7.967E-02	8.971E-03	-0.030
FE-59		1099.45	*	-5.190E-02	1.038E-01	1.600E-01	1.699E-02	-0.324
		1291.59		-2.755E-02	1.360E-01	2.227E-01	2.508E-02	-0.124
CO-60		1173.23		-2.246E-02	5.635E-02	8.814E-02	7.327E-03	-0.255
		1332.49	*	-1.929E-02	4.266E-02	6.761E-02	7.415E-03	-0.285
ZN-65		1115.54	*	-6.619E-02	1.148E-01	1.464E-01	1.416E-02	-0.452
SE-75		121.12		2.459E-01	1.655E-01	2.795E-01	3.184E-02	0.880
		136.00		2.277E-02	5.162E-02	8.191E-02	7.149E-03	0.278
		264.66	*	1.681E-02	6.110E-02	9.012E-02	8.171E-03	0.187
		279.54		3.291E-02	1.346E-01	2.264E-01	2.131E-02	0.145
		400.66		1.953E-02	3.028E-01	4.982E-01	5.681E-02	0.039
SR-85		514.00	*	-1.800E-01	6.424E-02	8.613E-02	7.791E-03	-2.090
Y-88		898.04		-1.017E-02	5.214E-02	8.444E-02	1.122E-02	-0.120
		1836.06	*	-6.498E-03	3.818E-02	6.045E-02	5.169E-03	-0.108
Y-91		1204.77	*	-9.039E+00	2.724E+01	4.277E+01	3.772E+00	-0.211

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94		702.65	*	-9.570E-03	3.608E-02	5.900E-02	5.300E-03	-0.162
		871.09		3.748E-02	3.723E-02	6.606E-02	8.339E-03	0.567
NB-95		765.81	*	7.055E-02	5.146E-02	9.219E-02	9.469E-03	0.765
NB-95M		235.69	*	6.736E-01	1.991E-01	3.184E-01	3.207E-02	2.115
ZR-95		724.19		8.915E-02	1.270E-01	1.939E-01	1.955E-02	0.460
		756.73	*	2.077E-02	8.542E-02	1.443E-01	1.568E-02	0.144
MO-99		140.51		-1.268E+02	8.891E+01	1.275E+02	3.025E+01	-0.995
		181.07		-5.081E+01	7.467E+01	9.920E+01	1.850E+01	-0.512
		366.42		-2.952E+02	3.331E+02	5.187E+02	4.729E+01	-0.569
		739.50	*	5.954E+01	4.271E+01	7.590E+01	1.244E+01	0.785
		777.92		-1.019E+02	1.178E+02	1.811E+02	1.907E+01	-0.563
TC-99M		140.51	*	-9.175E+15	1.178E+02	Half-Life too short		
RU-103		497.08	*	-1.237E-02	5.221E-02	8.333E-02	1.188E-02	-0.148
	+	610.33		1.299E+01	2.825E+00	3.251E+00	5.312E-01	3.994
RH-106		621.93	*	-1.023E-01	3.442E-01	5.652E-01	7.457E-02	-0.181
		1050.41		-2.472E-01	2.962E+00	4.790E+00	5.264E-01	-0.052
RU-106		621.93	*	-1.023E-01	3.440E-01	5.652E-01	4.817E-02	-0.181
		1050.41		-2.472E-01	2.962E+00	4.790E+00	5.264E-01	-0.052
AG-108M		433.94	*	-1.315E-03	3.302E-02	5.377E-02	5.031E-03	-0.024
		614.28		-1.303E-02	4.400E-02	6.191E-02	5.487E-03	-0.210
		722.91		-1.182E-02	4.617E-02	6.396E-02	6.166E-03	-0.185
AG-110M		657.76	*	9.767E-03	4.395E-02	6.487E-02	5.515E-03	0.151
		677.62		-4.171E-01	3.367E-01	5.053E-01	4.421E-02	-0.825
		706.68		7.301E-02	2.321E-01	3.953E-01	3.676E-02	0.185
		763.94		-4.864E-02	1.859E-01	3.027E-01	3.158E-02	-0.161
		884.68		1.415E-02	5.420E-02	9.121E-02	1.198E-02	0.155
		937.49		1.227E-01	1.312E-01	2.298E-01	2.988E-02	0.534
		1384.29		4.885E-02	1.903E-01	2.833E-01	3.135E-02	0.172
		1505.03		-3.317E-01	3.144E-01	4.432E-01	4.664E-02	-0.748
SN-113		391.69	*	3.037E-02	5.294E-02	8.953E-02	8.280E-03	0.339
CD-115		260.90		-1.476E-04	5.294E-02	Half-Life too short		
		492.35		-3.479E-05	5.294E-02	Half-Life too short		
		527.90	*	5.067E-06	5.294E-02	Half-Life too short		
SN-117M		156.02		-2.836E+00	3.424E+00	5.307E+00	4.408E-01	-0.534
		158.56	*	1.580E-02	8.013E-02	1.298E-01	1.073E-02	0.122
TE-123M		159.00	*	-8.985E-03	3.464E-02	5.504E-02	4.575E-03	-0.163
SB-124		602.73		2.073E-02	5.026E-02	7.570E-02	6.553E-03	0.274
		645.85		-3.962E-01	5.572E-01	8.830E-01	7.813E-02	-0.449
		722.78		-1.171E-01	4.874E-01	6.766E-01	6.472E-02	-0.173
		1690.97	*	-4.839E-02	8.496E-02	1.248E-01	1.236E-02	-0.388
SB-125		427.87	*	-5.397E-02	1.117E-01	1.772E-01	1.636E-02	-0.305
	+	463.37		8.628E-01	4.607E-01	5.931E-01	5.769E-02	1.455
		600.60		-1.330E-01	2.086E-01	3.188E-01	2.966E-02	-0.417
		635.95		-9.029E-02	3.066E-01	5.034E-01	4.597E-02	-0.179
TE-125M		109.28	*	1.845E+00	1.305E+01	2.132E+01	2.278E+00	0.087
I-126		388.63		-1.694E-01	2.520E-01	3.973E-01	3.581E-02	-0.426
		666.33	*	2.483E-01	3.624E-01	5.558E-01	4.605E-02	0.447
		753.82		2.187E+00	2.572E+00	4.516E+00	4.525E-01	0.484
SB-126		414.70		1.935E-02	1.094E-01	1.809E-01	1.639E-02	0.107

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		666.50		9.092E-02	1.250E-01	1.925E-01	1.596E-02	0.472
		695.00		6.494E-02	1.131E-01	1.956E-01	1.728E-02	0.332
		697.00		1.064E-01	3.845E-01	6.532E-01	5.795E-02	0.163
		720.70	*	-6.002E-02	2.262E-01	3.147E-01	2.940E-02	-0.191
		856.80		2.453E-01	7.521E-01	1.107E+00	1.360E-01	0.222
SB-127		252.40		1.186E+00	1.028E+01	1.725E+01	7.244E+00	0.069
		473.00		-1.305E+00	4.007E+00	6.367E+00	9.086E-01	-0.205
		685.70	*	-2.427E-01	3.197E+00	5.310E+00	6.756E-01	-0.046
		783.70		1.078E+01	8.970E+00	1.585E+01	2.371E+00	0.680
I-131		80.19		-1.328E+01	9.677E+00	1.304E+01	1.151E+00	-1.018
		284.31		-1.311E-01	2.494E+00	4.138E+00	3.959E-01	-0.032
		364.49	*	4.339E-03	1.903E-01	3.136E-01	3.008E-02	0.014
		636.99		-2.847E+00	2.601E+00	4.009E+00	3.588E-01	-0.710
TE-132		49.72		-1.142E+02	6.056E+01	8.921E+01	1.098E+01	-1.280
		111.76		-2.708E+01	1.071E+02	1.725E+02	2.149E+01	-0.157
		116.30		1.419E+01	9.153E+01	1.494E+02	1.867E+01	0.095
		228.16	*	1.995E+00	2.269E+00	3.887E+00	6.534E-01	0.513
BA-133		81.00		-1.325E-01	1.381E-01	1.885E-01	2.945E-02	-0.703
		276.40		4.598E-01	4.828E-01	7.325E-01	1.055E-01	0.628
		302.85		-4.779E-02	1.851E-01	2.616E-01	3.515E-02	-0.183
		356.01	*	5.465E-02	5.492E-02	8.367E-02	1.114E-02	0.653
		383.85		2.454E-01	3.446E-01	5.857E-01	7.449E-02	0.419
I-133		529.87	*	7.975E-02	3.446E-01	Half-Life too short		
		875.33		4.246E-01	3.446E-01	Half-Life too short		
		1298.22		2.458E+00	3.446E-01	Half-Life too short		
CS-134		563.25		-7.646E-03	4.073E-01	6.555E-01	5.869E-02	-0.012
		569.33		-4.779E-02	2.261E-01	3.585E-01	3.212E-02	-0.133
		604.72		4.817E-03	4.603E-02	6.428E-02	5.570E-03	0.075
	+	795.86	*	1.411E-01	9.575E-02	1.005E-01	1.102E-02	1.405
		801.95		-7.164E-01	5.492E-01	6.565E-01	7.280E-02	-1.091
		1365.19		-9.385E-01	1.231E+00	1.836E+00	2.063E-01	-0.511
CS-135		268.22	*	3.862E-01	2.230E-01	3.497E-01	3.615E-02	1.104
I-135		546.56		7.085E+14	2.230E-01	Half-Life too short		
		836.80		1.538E+14	2.230E-01	Half-Life too short		
		1038.76		6.268E+13	2.230E-01	Half-Life too short		
		1131.51		-1.536E+14	2.230E-01	Half-Life too short		
		1260.41	*	-2.956E+13	2.230E-01	Half-Life too short		
		1457.56		4.530E+16	2.230E-01	Half-Life too short		
		1678.03		-4.196E+14	2.230E-01	Half-Life too short		
		1791.20		-1.634E+14	2.230E-01	Half-Life too short		
CS-136		153.25		8.770E-01	1.284E+00	2.116E+00	2.126E-01	0.414
		176.60		-3.017E-01	7.744E-01	1.219E+00	1.119E-01	-0.248
		273.65		-8.157E-01	8.916E-01	1.212E+00	1.185E-01	-0.673
		340.55		8.495E-01	2.750E-01	4.403E-01	4.179E-02	1.929
		818.51		2.060E-02	1.033E-01	1.736E-01	1.984E-02	0.119
		1048.07	*	-6.837E-02	1.522E-01	2.373E-01	2.687E-02	-0.288
		1235.36		-1.335E-01	8.882E-01	1.416E+00	1.741E-01	-0.094
BA-137M		661.66	*	1.196E-01	4.649E-02	8.699E-02	7.132E-03	1.375
CS-137		661.66	*	1.263E-01	4.912E-02	9.190E-02	7.550E-03	1.375

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-139		165.86	*	9.968E-03	3.697E-02	5.995E-02	4.886E-03	0.166
BA-140		162.66		-5.853E-01	1.271E+00	1.978E+00	1.742E-01	-0.296
		304.85		5.957E-02	2.222E+00	3.205E+00	9.436E-01	0.019
		423.72		1.372E+00	3.049E+00	5.054E+00	1.669E+00	0.271
		537.26	*	5.443E-02	4.064E-01	6.618E-01	2.251E-01	0.082
LA-140	+	328.76		1.028E+00	6.276E-01	8.132E-01	7.851E-02	1.264
		487.02		1.024E-01	2.040E-01	3.416E-01	3.279E-02	0.300
		815.77		5.523E-02	4.708E-01	7.859E-01	9.541E-02	0.070
		1596.21	*	-5.603E-02	1.297E-01	2.019E-01	2.042E-02	-0.278
CE-141		145.44	*	2.067E-02	8.851E-02	1.438E-01	1.243E-02	0.144
CE-143		57.36		-4.083E-03	8.851E-02	Half-Life too short		
		293.27	*	9.059E-03	8.851E-02	Half-Life too short		
	+	664.57		3.267E-02	8.851E-02	Half-Life too short		
		721.93		3.150E-03	8.851E-02	Half-Life too short		
CE-144		80.12		-1.372E+00	3.510E+00	4.963E+00	4.335E-01	-0.276
		133.52	*	-1.194E-01	2.813E-01	3.872E-01	5.940E-02	-0.308
PM-144		476.78		-1.607E-02	7.645E-02	1.225E-01	1.203E-02	-0.131
		618.01		3.137E-02	3.593E-02	6.247E-02	5.495E-03	0.502
		696.49	*	2.249E-02	3.890E-02	6.731E-02	5.968E-03	0.334
PR-144		696.51	*	1.183E+00	2.949E+00	5.047E+00	4.473E-01	0.234
		1489.16		-1.855E+01	1.447E+01	1.933E+01	2.045E+00	-0.960
PM-146		453.88	*	4.661E-02	4.888E-02	8.387E-02	9.219E-03	0.556
		633.25		1.239E+00	1.657E+00	2.800E+00	1.068E+00	0.442
		735.93		6.594E-02	1.720E-01	2.920E-01	8.281E-02	0.226
		747.24		1.615E-03	1.099E-01	1.829E-01	2.810E-02	0.009
ND-147		91.11		3.945E-01	8.282E-01	8.768E-01	8.695E-02	0.450
		319.41		5.101E-01	4.970E+00	8.269E+00	7.602E-01	0.062
		531.02	*	6.399E-01	8.369E-01	1.416E+00	2.149E-01	0.452
PM-149		285.90	*	2.098E-04	8.369E-01	Half-Life too short		
EU-152		121.78		9.315E-02	8.904E-02	1.492E-01	1.530E-02	0.624
		244.70		2.638E-01	4.226E-01	6.370E-01	5.670E-02	0.414
		344.28	*	1.243E-03	1.332E-01	1.907E-01	1.841E-02	0.007
		778.90		-1.723E-01	2.934E-01	4.635E-01	4.890E-02	-0.372
	+	964.08		1.041E+00	4.136E-01	6.716E-01	8.341E-02	1.551
		1085.87		-3.718E-01	4.914E-01	7.449E-01	7.667E-02	-0.499
		1112.07		3.569E-02	3.773E-01	5.531E-01	5.386E-02	0.065
		1408.01		1.721E-01	2.304E-01	3.742E-01	4.051E-02	0.460
GD-153		69.67		4.578E-01	2.424E+00	3.527E+00	2.864E-01	0.130
		97.43	*	1.264E-01	1.174E-01	1.737E-01	1.560E-02	0.728
		103.18		-3.733E-02	1.318E-01	2.124E-01	1.885E-02	-0.176
EU-154		123.07		-2.435E-02	6.909E-02	1.016E-01	1.183E-02	-0.240
		723.31		-5.521E-02	2.133E-01	2.956E-01	3.015E-02	-0.187
		873.19		-1.445E-01	3.166E-01	5.000E-01	7.546E-02	-0.289
		996.26		2.408E-01	4.333E-01	7.364E-01	1.423E-01	0.327
		1004.73		-2.723E-01	2.563E-01	3.747E-01	5.302E-02	-0.727
		1274.44	*	-1.385E-01	1.364E-01	2.045E-01	2.543E-02	-0.677
EU-155	+	86.55		2.930E-01	1.406E-01	2.263E-01	2.123E-02	1.295
		105.31	*	-1.860E-02	1.299E-01	2.104E-01	1.884E-02	-0.088
TB-160	+	86.79		8.081E-01	3.879E-01	6.164E-01	5.746E-02	1.311

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		197.04		-8.149E-02	6.858E-01	1.128E+00	9.551E-02	-0.072
		215.65		1.483E-01	9.179E-01	1.513E+00	1.310E-01	0.098
	+	298.57		4.167E-01	1.585E-01	2.563E-01	2.348E-02	1.626
		879.36	*	-1.272E-02	1.675E-01	2.741E-01	3.514E-02	-0.046
		962.29		1.587E+00	7.975E-01	1.309E+00	1.629E-01	1.213
		966.15		1.473E+00	3.728E-01	6.551E-01	8.117E-02	2.249
		1177.93		1.951E-01	4.861E-01	8.105E-01	6.798E-02	0.241
		1271.85		-4.315E-01	7.518E-01	1.184E+00	1.175E-01	-0.365
HO-166M		80.57		-5.202E-01	3.950E-01	5.339E-01	4.682E-02	-0.974
	+	184.41		1.165E-01	6.530E-02	8.328E-02	6.943E-03	1.398
		280.46		-5.871E-02	1.022E-01	1.655E-01	1.506E-02	-0.355
		410.95		2.596E-01	2.868E-01	4.914E-01	4.447E-02	0.528
		711.68	*	-2.686E-02	7.282E-02	1.106E-01	1.013E-02	-0.243
		752.31		-1.723E-01	3.262E-01	5.208E-01	5.201E-02	-0.331
		810.29		2.619E-02	6.938E-02	1.179E-01	1.325E-02	0.222
TA-182		67.75		-4.754E-02	1.540E-01	2.322E-01	1.870E-02	-0.205
		100.11		5.709E-03	2.155E-01	3.517E-01	3.137E-02	0.016
		152.43		2.453E-01	4.389E-01	7.207E-01	6.029E-02	0.340
		222.11		-1.690E-01	4.247E-01	7.018E-01	6.116E-02	-0.241
	+	1121.30		7.422E-01	2.644E-01	4.184E-01	3.989E-02	1.774
		1189.05		-1.402E-01	3.688E-01	5.760E-01	4.934E-02	-0.243
		1221.41	*	-2.094E-01	2.591E-01	3.905E-01	3.550E-02	-0.536
		1231.02		-7.762E-01	6.271E-01	9.056E-01	8.375E-02	-0.857
IR-192	+	295.96		1.202E+00	2.005E-01	3.338E-01	3.076E-02	3.602
		308.46		2.599E-02	1.170E-01	1.961E-01	1.808E-02	0.133
		316.51	*	2.985E-02	4.093E-02	7.011E-02	6.455E-03	0.426
		468.07		-4.780E-03	8.830E-02	1.234E-01	1.198E-02	-0.039
HG-203		70.83		1.177E+00	2.003E+00	2.946E+00	4.662E-01	0.399
		72.87		4.161E+00	1.388E+00	1.988E+00	3.049E-01	2.093
		279.20	*	2.803E-02	4.929E-02	8.391E-02	7.810E-03	0.334
BI-207		72.81		8.380E-01	2.751E-01	4.267E-01	3.525E-02	1.964
	+	74.97		1.061E+00	2.344E-01	3.014E-01	2.526E-02	3.520
		569.70		8.771E-03	3.466E-02	5.682E-02	5.025E-03	0.154
		1063.66	*	1.272E-02	5.727E-02	9.518E-02	1.022E-02	0.134
		1770.23		3.546E-01	4.794E-01	8.056E-01	7.282E-02	0.440
PB-210		46.54	*	7.241E-01	4.304E+00	7.269E+00	6.936E-01	0.100
PB-211		404.85	*	-3.471E-01	8.807E-01	1.385E+00	6.711E-01	-0.251
		427.09		-2.108E-01	1.896E+00	3.074E+00	1.425E+00	-0.069
		832.01		1.985E-01	1.158E+00	1.931E+00	1.013E+00	0.103
RN-219	+	271.23		7.402E-01	5.055E-01	5.237E-01	5.566E-02	1.414
		401.81	*	9.623E-02	4.678E-01	7.753E-01	1.172E-01	0.124
RA-223		81.07		-2.935E-01	3.101E-01	4.273E-01	3.764E-02	-0.687
		83.79		1.111E-01	1.782E-01	2.606E-01	2.356E-02	0.426
		94.87		1.663E+00	6.599E-01	1.018E+00	9.232E-02	1.633
		144.24		7.337E-01	8.846E-01	1.447E+00	1.378E-01	0.507
		154.21		6.837E-01	4.592E-01	7.753E-01	7.122E-02	0.882
	+	269.46		5.751E-01	3.916E-01	4.113E-01	3.791E-02	1.398
		323.87	*	6.526E-02	8.300E-01	1.198E+00	2.111E-01	0.054
	+	338.28		7.410E+00	1.967E+00	2.612E+00	3.260E-01	2.837

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227		79.69		5.276E-02	1.753E+00	2.525E+00	4.362E-01	0.021
		235.96		1.428E+00	2.794E-01	4.283E-01	4.506E-02	3.334
		256.23	*	1.762E-03	2.844E-01	4.751E-01	5.848E-02	0.004
	+	299.98		3.126E+00	1.224E+00	1.890E+00	2.472E-01	1.654
		304.50		1.194E+00	2.084E+00	3.107E+00	5.227E-01	0.384
		334.37		7.957E-02	3.145E+00	3.022E+00	4.807E-01	0.026
TH-227		79.80		-1.771E-01	2.305E+00	3.304E+00	7.207E-01	-0.054
		235.96		1.428E+00	2.750E-01	4.283E-01	4.260E-02	3.334
		256.23	*	1.762E-03	2.844E-01	4.751E-01	6.573E-02	0.004
	+	299.98		3.126E+00	1.224E+00	1.890E+00	2.472E-01	1.654
		304.50		1.194E+00	2.084E+00	3.107E+00	5.227E-01	0.384
		334.37		7.957E-02	3.145E+00	3.022E+00	4.807E-01	0.026
TH-229	+	85.43		6.071E-01	2.914E-01	4.747E-01	4.363E-02	1.279
		88.47		-4.030E-02	2.879E-01	2.949E-01	2.775E-02	-0.137
		193.51	*	-3.620E-01	6.550E-01	1.019E+00	8.593E-02	-0.355
		210.85		2.298E+00	1.223E+00	1.934E+00	1.665E-01	1.188
PA-231		283.69	*	-1.594E-01	1.695E+00	2.807E+00	4.177E-01	-0.057
	+	301.36		2.008E+00	7.830E-01	1.227E+00	1.539E-01	1.637
TH-231		81.07		-2.935E-01	3.101E-01	4.273E-01	3.764E-02	-0.687
		83.79		1.111E-01	1.782E-01	2.606E-01	2.356E-02	0.426
		94.87		1.663E+00	6.599E-01	1.018E+00	9.232E-02	1.633
		144.24		7.337E-01	8.846E-01	1.447E+00	1.378E-01	0.507
		154.21		6.837E-01	4.592E-01	7.753E-01	7.122E-02	0.882
	+	269.46		5.751E-01	3.916E-01	4.113E-01	3.791E-02	1.398
		323.87	*	6.526E-02	8.300E-01	1.198E+00	2.111E-01	0.054
	+	338.28		7.410E+00	1.967E+00	2.612E+00	3.260E-01	2.837
PA-233	+	300.13		1.414E+00	5.644E-01	8.567E-01	1.298E-01	1.651
		311.90	*	1.334E-02	7.383E-02	1.234E-01	1.162E-02	0.108
		340.48		2.945E+00	1.163E+00	1.530E+00	3.714E-01	1.925
PA-234	+	94.67		5.338E-01	3.585E-01	3.838E-01	4.883E-02	1.391
		98.44		7.603E-02	1.266E-01	1.823E-01	1.018E-01	0.417
		111.00		-3.363E-02	2.351E-01	3.801E-01	4.660E-02	-0.088
		131.20		1.253E-01	1.455E-01	2.142E-01	1.880E-02	0.585
		569.50		3.634E-02	3.047E-01	4.950E-01	4.377E-02	0.073
		733.00		-5.555E-01	5.400E-01	6.687E-01	1.511E-01	-0.831
		880.51		1.957E-01	3.122E-01	5.395E-01	6.931E-02	0.363
		883.24		2.430E-01	3.577E-01	5.561E-01	3.776E-01	0.437
		926.50		3.674E-03	1.975E-01	3.247E-01	8.785E-02	0.011
		946.00	*	4.000E-01	3.700E-01	6.427E-01	1.346E-01	0.622
		949.00		5.016E-02	5.518E-01	9.112E-01	1.151E-01	0.055
PA-234M		766.42		1.013E+01	1.469E+01	2.340E+01	1.195E+01	0.433
		1001.03	*	-2.274E+00	5.690E+00	9.072E+00	1.167E+00	-0.251
TH-234		63.29	*	7.463E-01	1.709E+00	2.818E+00	5.091E-01	0.265
	+	92.59		1.981E+00	1.379E+00	1.650E+00	3.679E-01	1.201
U-235		89.96		-2.479E+00	2.017E+00	1.813E+00	4.508E-01	-1.367
	+	93.35		1.496E+00	1.046E+00	1.221E+00	2.843E-01	1.226
		143.76	*	3.406E-01	2.688E-01	4.377E-01	7.397E-02	0.778
		163.33		-5.112E-01	5.572E-01	8.396E-01	1.490E-01	-0.609
	+	185.72		1.466E-01	8.220E-02	1.052E-01	8.784E-03	1.393

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		205.31		2.507E-01	6.241E-01	9.330E-01	1.690E-01	0.269
U-238		63.29	*	7.463E-01	1.709E+00	2.818E+00	5.091E-01	0.265
	+	92.59		1.981E+00	1.319E+00	1.650E+00	1.512E-01	1.201
NP-239		99.53		3.516E-02	1.990E-01	3.206E-01	2.863E-02	0.110
		103.37		2.603E-02	1.173E-01	1.927E-01	1.709E-02	0.135
		106.12		3.422E-02	1.028E-01	1.692E-01	1.498E-02	0.202
		117.23	*	-2.888E-01	5.135E-01	8.153E-01	7.282E-02	-0.354
		228.18		2.344E-01	2.661E-01	4.594E-01	4.028E-02	0.510
		277.60		1.705E-01	2.281E-01	3.587E-01	3.261E-02	0.475
AM-241		59.54	*	-2.518E-02	1.931E-01	3.177E-01	2.742E-02	-0.079
CM-247		278.00		4.777E-01	9.370E-01	1.509E+00	1.372E-01	0.317
		287.50		4.054E-02	1.455E+00	2.359E+00	2.154E-01	0.017
		402.40	*	7.683E-03	4.300E-02	7.117E-02	6.425E-03	0.108
CF-249		252.80		6.513E-01	1.053E+00	1.806E+00	1.617E-01	0.361
		333.37		6.435E-02	3.328E-01	3.279E-01	3.013E-02	0.196
		388.16	*	-1.102E-02	4.693E-02	7.600E-02	6.851E-03	-0.145
CF-251		177.52	*	1.016E-01	1.582E-01	2.596E-01	2.145E-02	0.392
		227.38		3.744E-01	4.306E-01	7.435E-01	6.514E-02	0.504
		285.41		-6.903E-01	2.563E+00	4.208E+00	3.838E-01	-0.164
ANH-511		511.00	*	1.200E-01	5.445E-02	1.011E-01	9.151E-03	1.187

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001       *
* Acquisition date : 24-MAR-2010 20:33:15 Detector SN#    :                 *
* Detector ID       : GAM29                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:57.45      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  5-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248867001           Analyst initials: MXR1           *
* Batch Number      : 962633               Sample Quantity : 1.2207E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight   :   0.00000                                             *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM           :    0.000             MSD Isotope     :                *
* LCS DPM           :    0.000             LCS Isotope     :                *
* LCSD DPM          :    0.000             LCSD Isotope    :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.523E+01	4.238E+00	5.852E-01	0.000E+00
CD-109	2.483E+00	1.168E+00	1.883E+00	0.000E+00
SN-126	2.412E-01	1.134E-01	1.881E-01	0.000E+00
TL-208	5.863E-01	1.015E-01	6.836E-02	0.000E+00
BI-211	3.834E+00	5.942E-01	3.984E-01	0.000E+00
BI-212	1.882E+00	8.422E-01	8.862E-01	0.000E+00
PB-212	1.839E+00	2.167E-01	1.166E-01	0.000E+00
BI-214	1.167E+00	2.009E-01	1.397E-01	0.000E+00
PB-214	1.391E+00	2.284E-01	1.459E-01	0.000E+00
RA-224	4.777E+00	1.525E+00	1.248E+00	0.000E+00
RA-226	1.167E+00	2.009E-01	1.397E-01	0.000E+00
AC-228	1.693E+00	4.177E-01	2.795E-01	0.000E+00
RA-228	1.693E+00	4.177E-01	2.795E-01	0.000E+00
TH-228	1.839E+00	2.167E-01	1.166E-01	0.000E+00
TH-230	1.167E+00	1.916E-01	1.397E-01	0.000E+00
TH-232	1.693E+00	4.177E-01	2.795E-01	0.000E+00
NP-237	7.197E-01	3.694E-01	5.047E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.460E-02	3.893E-01	6.512E-01	0.000E+00	NOT IDENT.
NA-22	-4.993E-02	4.708E-02	7.200E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.825E+07	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.542E-02	4.380E-02	6.993E-02	0.000E+00	FAIL ABUN
V-48	-3.953E-02	9.558E-02	1.541E-01	0.000E+00	NOT IDENT.
CR-51	-1.087E-01	4.577E-01	7.772E-01	0.000E+00	NOT IDENT.
MN-54	-3.045E-02	4.308E-02	6.895E-02	0.000E+00	NOT IDENT.
CO-56	1.498E-02	4.624E-02	8.018E-02	0.000E+00	NOT IDENT.
CO-57	2.208E-02	3.084E-02	5.382E-02	0.000E+00	NOT IDENT.
CO-58	-2.382E-03	4.736E-02	8.013E-02	0.000E+00	NOT IDENT.

FE-59	-5.190E-02	1.017E-01	1.603E-01	0.000E+00	NOT IDENT.
CO-60	-1.929E-02	4.181E-02	6.757E-02	0.000E+00	NOT IDENT.
ZN-65	-6.619E-02	1.125E-01	1.466E-01	0.000E+00	NOT IDENT.
SE-75	1.681E-02	5.988E-02	9.194E-02	0.000E+00	NOT IDENT.
SR-85	-1.800E-01	6.295E-02	8.714E-02	0.000E+00	NOT IDENT.
Y-88	-6.498E-03	3.742E-02	6.016E-02	0.000E+00	NOT IDENT.
Y-91	-9.039E+00	2.670E+01	4.280E+01	0.000E+00	NOT IDENT.
NB-94	-9.570E-03	3.536E-02	5.945E-02	0.000E+00	NOT IDENT.
NB-95	7.055E-02	5.043E-02	9.280E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.952E-01	3.253E-01	0.000E+00	NOT IDENT.
ZR-95	2.077E-02	8.372E-02	1.453E-01	0.000E+00	NOT IDENT.
MO-99	5.954E+01	4.185E+01	7.643E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.787E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.237E-02	5.116E-02	8.435E-02	0.000E+00	FAIL ABUN
RH-106	-1.023E-01	3.373E-01	5.704E-01	0.000E+00	NOT IDENT.
RU-106	-1.023E-01	3.371E-01	5.704E-01	0.000E+00	NOT IDENT.
AG-108M	-1.315E-03	3.236E-02	5.452E-02	0.000E+00	NOT IDENT.
AG-110M	9.767E-03	4.308E-02	6.543E-02	0.000E+00	NOT IDENT.
SN-113	3.037E-02	5.188E-02	9.089E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	4.747E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	1.580E-02	7.853E-02	1.333E-01	0.000E+00	NOT IDENT.
TE-123M	-8.985E-03	3.395E-02	5.651E-02	0.000E+00	NOT IDENT.
SB-124	-4.839E-02	8.326E-02	1.244E-01	0.000E+00	NOT IDENT.
SB-125	-5.397E-02	1.094E-01	1.796E-01	0.000E+00	FAIL ABUN
TE-125M	1.845E+00	1.279E+01	2.199E+01	0.000E+00	NOT IDENT.
I-126	2.483E-01	3.551E-01	5.605E-01	0.000E+00	NOT IDENT.
SB-126	-6.002E-02	2.217E-01	3.171E-01	0.000E+00	NOT IDENT.
SB-127	-2.427E-01	3.134E+00	5.353E+00	0.000E+00	NOT IDENT.
I-131	4.339E-03	1.865E-01	3.186E-01	0.000E+00	NOT IDENT.
TE-132	1.995E+00	2.223E+00	3.973E+00	0.000E+00	NOT IDENT.
BA-133	5.465E-02	5.382E-02	8.504E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.030E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.384E-02	1.011E-01	0.000E+00	FAIL ABUN
CS-135	0.000E+00	2.186E-01	3.567E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.521E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.837E-02	1.491E-01	2.379E-01	0.000E+00	NOT IDENT.
BA-137M	0.000E+00	4.556E-02	8.773E-02	0.000E+00	NOT IDENT.
CS-137	0.000E+00	4.813E-02	9.268E-02	0.000E+00	NOT IDENT.
CE-139	9.968E-03	3.623E-02	6.152E-02	0.000E+00	NOT IDENT.
BA-140	5.443E-02	3.983E-01	6.692E-01	0.000E+00	NOT IDENT.
LA-140	-5.603E-02	1.271E-01	2.013E-01	0.000E+00	FAIL ABUN
CE-141	2.067E-02	8.674E-02	1.478E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.713E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.194E-01	2.756E-01	3.983E-01	0.000E+00	NOT IDENT.
PM-144	2.249E-02	3.812E-02	6.784E-02	0.000E+00	NOT IDENT.
PR-144	1.183E+00	2.890E+00	5.086E+00	0.000E+00	NOT IDENT.
PM-146	4.661E-02	4.790E-02	8.499E-02	0.000E+00	NOT IDENT.
ND-147	6.399E-01	8.201E-01	1.432E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	3.935E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	1.243E-03	1.306E-01	1.939E-01	0.000E+00	FAIL ABUN
GD-153	1.264E-01	1.150E-01	1.794E-01	0.000E+00	NOT IDENT.
EU-154	-1.385E-01	1.337E-01	2.045E-01	0.000E+00	NOT IDENT.
EU-155	-1.860E-02	1.273E-01	2.171E-01	0.000E+00	FAIL ABUN
TB-160	-1.272E-02	1.641E-01	2.754E-01	0.000E+00	FAIL ABUN
HO-166M	-2.686E-02	7.137E-02	1.115E-01	0.000E+00	FAIL ABUN
TA-182	-2.094E-01	2.540E-01	3.907E-01	0.000E+00	FAIL ABUN
IR-192	2.985E-02	4.011E-02	7.137E-02	0.000E+00	FAIL ABUN
HG-203	2.803E-02	4.830E-02	8.555E-02	0.000E+00	NOT IDENT.
BI-207	1.272E-02	5.612E-02	9.541E-02	0.000E+00	FAIL ABUN
PB-210	7.241E-01	4.218E+00	7.575E+00	0.000E+00	NOT IDENT.
PB-211	-3.471E-01	8.631E-01	1.405E+00	0.000E+00	NOT IDENT.
RN-219	9.623E-02	4.585E-01	7.869E-01	0.000E+00	FAIL ABUN
RA-223	6.526E-02	8.134E-01	1.219E+00	0.000E+00	FAIL ABUN
AC-227	1.762E-03	2.787E-01	4.849E-01	0.000E+00	FAIL ABUN
TH-227	1.762E-03	2.787E-01	4.849E-01	0.000E+00	FAIL ABUN
TH-229	-3.620E-01	6.419E-01	1.044E+00	0.000E+00	FAIL ABUN
PA-231	-1.594E-01	1.661E+00	2.861E+00	0.000E+00	FAIL ABUN
TH-231	6.526E-02	8.134E-01	1.219E+00	0.000E+00	FAIL ABUN
PA-233	1.334E-02	7.235E-02	1.257E-01	0.000E+00	FAIL ABUN
PA-234	4.000E-01	3.626E-01	6.452E-01	0.000E+00	FAIL ABUN
PA-234M	-2.274E+00	5.577E+00	9.101E+00	0.000E+00	NOT IDENT.
TH-234	7.463E-01	1.675E+00	2.926E+00	0.000E+00	FAIL ABUN
U-235	3.406E-01	2.635E-01	4.499E-01	0.000E+00	FAIL ABUN
U-238	7.463E-01	1.675E+00	2.926E+00	0.000E+00	FAIL ABUN
NP-239	-2.888E-01	5.032E-01	8.402E-01	0.000E+00	NOT IDENT.
AM-241	-2.518E-02	1.892E-01	3.301E-01	0.000E+00	NOT IDENT.
CM-247	7.683E-03	4.214E-02	7.223E-02	0.000E+00	NOT IDENT.
CF-249	-1.102E-02	4.599E-02	7.716E-02	0.000E+00	NOT IDENT.

CF-251	1.016E-01	1.550E-01	2.662E-01	0.000E+00 NOT IDENT.
ANH-511	0.000E+00	5.336E-02	1.023E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:35:04.49

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1
Sample date      : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:33:15
Sample ID        : G248867001           Sample quantity  : 1.22070E+02 GRAM
Detector name    : GAM29                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:57.45  0.8%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 962633               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1478	10.66*	1.210E+00	3.523E+01	3.523E+01	12.28
CD-109	88.03	170	3.70*	5.857E+00	2.412E+00	2.483E+00	47.99
SN-126	64.28	------	9.60	3.540E+00	------ Line Not Found		------
	86.94	170	8.90	5.857E+00	1.003E+00	1.003E+00	62.77
	87.57	170	37.00*	5.857E+00	2.412E-01	2.412E-01	47.99
TL-208	277.37	------	6.60	4.524E+00	------ Line Not Found		------
	583.19	429	85.00*	2.646E+00	5.863E-01	5.863E-01	17.67
	860.56	65	12.50	1.903E+00	8.343E-01	8.343E-01	51.41
BI-211	72.87	------	1.23	4.632E+00	------ Line Not Found		------
	351.06	620	12.92*	3.848E+00	3.834E+00	3.834E+00	15.82
BI-212	727.33	90	6.67*	2.204E+00	1.882E+00	1.882E+00	45.67
	785.37	------	1.10	2.062E+00	------ Line Not Found		------
	1620.50	30	1.47	1.130E+00	5.596E+00	5.596E+00	46.93
PB-212	74.82	595	10.28	4.832E+00	3.681E+00	3.681E+00	24.13
	77.11	699	17.10	5.079E+00	2.474E+00	2.474E+00	14.62
	238.63	1301	43.60*	4.991E+00	1.839E+00	1.839E+00	12.03
	300.09	131	3.30	4.293E+00	2.841E+00	2.841E+00	38.52
BI-214	609.32	441	45.49*	2.554E+00	1.167E+00	1.167E+00	17.56
	1120.29	113	14.92	1.503E+00	1.544E+00	1.544E+00	36.25
	1764.49	92	15.30	1.081E+00	1.707E+00	1.707E+00	26.48
PB-214	74.82	595	5.80	4.832E+00	6.524E+00	6.524E+00	23.47
	77.11	699	9.70	5.079E+00	4.362E+00	4.362E+00	16.79
	242.00	315	7.25	4.953E+00	2.701E+00	2.702E+00	33.09
	295.22	406	18.42	4.340E+00	1.562E+00	1.563E+00	17.87
	351.93	620	35.60*	3.848E+00	1.391E+00	1.391E+00	16.75
RA-224	240.99	315	4.10*	4.953E+00	4.777E+00	4.777E+00	32.57
RA-226	609.32	441	45.49*	2.554E+00	1.167E+00	1.167E+00	17.56
	1120.29	113	14.92	1.503E+00	1.544E+00	1.544E+00	36.25
	1764.49	92	15.30	1.081E+00	1.707E+00	1.707E+00	26.48
AC-228	338.32	271	11.27	3.954E+00	1.867E+00	1.867E+00	47.95
	911.20	257	25.80*	1.808E+00	1.693E+00	1.693E+00	25.18
	968.97	171	15.80	1.711E+00	1.951E+00	1.951E+00	34.77

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	271	11.27	3.954E+00	1.867E+00	1.867E+00	47.95
	911.20	257	25.80*	1.808E+00	1.693E+00	1.693E+00	25.18
	968.97	171	15.80	1.711E+00	1.951E+00	1.951E+00	34.77
TH-228	74.82	595	10.28	4.832E+00	3.681E+00	3.681E+00	22.12
	77.11	699	17.10	5.079E+00	2.474E+00	2.474E+00	14.62
	238.63	1301	43.60*	4.991E+00	1.839E+00	1.839E+00	12.03
	300.09	131	3.30	4.293E+00	2.841E+00	2.841E+00	71.56
TH-230	609.32	441	45.49*	2.554E+00	1.167E+00	1.167E+00	16.75
	1120.29	113	14.92	1.503E+00	1.544E+00	1.544E+00	35.62
	1764.49	92	15.30	1.081E+00	1.707E+00	1.707E+00	26.48
TH-232	338.32	271	11.27	3.954E+00	1.867E+00	1.867E+00	25.16
	911.20	257	25.80*	1.808E+00	1.693E+00	1.693E+00	25.18
	968.97	171	15.80	1.711E+00	1.951E+00	1.951E+00	34.77
NP-237	86.48	170	12.40*	5.857E+00	7.197E-01	7.197E-01	52.37
	95.86	------	2.68	6.306E+00	------	Line Not Found	------

Flag: "*" = Keyline

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

Total number of lines in spectrum 32
Number of unidentified lines 5
Number of lines tentatively identified by NID 27 84.38%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.523E+01	3.523E+01	0.432E+01	12.28	
CD-109	461.40D	1.03	2.412E+00	2.483E+00	1.192E+00	47.99	
SN-126	2.30E+05Y	1.00	2.412E-01	2.412E-01	1.158E-01	47.99	
TL-208	1.41E+10Y	1.00	5.863E-01	5.863E-01	1.036E-01	17.67	
BI-211	7.04E+08Y	1.00	3.834E+00	3.834E+00	0.606E+00	15.82	
BI-212	1.41E+10Y	1.00	1.882E+00	1.882E+00	0.859E+00	45.67	
PB-212	1.41E+10Y	1.00	1.839E+00	1.839E+00	0.221E+00	12.03	
BI-214	1600.00Y	1.00	1.167E+00	1.167E+00	0.205E+00	17.56	
PB-214	1600.00Y	1.00	1.391E+00	1.391E+00	0.233E+00	16.75	
RA-224	1.41E+10Y	1.00	4.777E+00	4.777E+00	1.556E+00	32.57	
RA-226	1600.00Y	1.00	1.167E+00	1.167E+00	0.205E+00	17.56	
AC-228	1.41E+10Y	1.00	1.693E+00	1.693E+00	0.426E+00	25.18	
RA-228	1.41E+10Y	1.00	1.693E+00	1.693E+00	0.426E+00	25.18	
TH-228	1.41E+10Y	1.00	1.839E+00	1.839E+00	0.221E+00	12.03	
TH-230	7.54E+04Y	1.00	1.167E+00	1.167E+00	0.196E+00	16.75	
TH-232	1.41E+10Y	1.00	1.693E+00	1.693E+00	0.426E+00	25.18	
NP-237	2.14E+06Y	1.00	7.197E-01	7.197E-01	3.769E-01	52.37	
			---	---			
	Total Activity :		6.333E+01	6.340E+01			

Grand Total Activity : 6.333E+01 6.340E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	93.22	169	756	1.39	186.60	181	10	2.35E-02	65.9	6.20E+00	T
0	129.40	102	529	1.21	258.87	253	12	1.41E-02	92.8	6.64E+00	
0	185.85	158	426	1.20	371.63	365	11	2.19E-02	55.5	5.79E+00	T
0	209.14	75	344	1.00	418.17	414	9	1.04E-02	92.2	5.41E+00	
0	270.01	120	335	1.39	539.77	534	14	1.66E-02	67.5	4.61E+00	T
0	328.37	95	195	1.05	656.39	651	11	1.32E-02	60.3	4.04E+00	T
0	463.34	92	115	0.98	926.09	921	13	1.28E-02	52.5	3.16E+00	T
0	663.39	83	184	1.04	1325.96	1316	20	1.15E-02	83.7	2.38E+00	T
0	795.70	71	83	0.99	1590.48	1580	19	9.82E-03	66.9	2.04E+00	T
4	964.31	85	37	2.53	1927.66	1922	25	1.18E-02	37.7	1.72E+00	T
0	1378.58	26	35	1.04	2756.43	2747	14	3.66E-03	****	1.26E+00	
0	1402.03	18	24	0.99	2803.36	2794	12	2.47E-03	****	1.25E+00	
0	1847.98	18	7	1.33	3696.08	3689	14	2.50E-03	78.2	1.06E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:35:08.79

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1  *
* Acquisition date : 24-MAR-2010 20:33:15  Detector SN#    :                *
* Detector ID      : GAM29                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:57.45         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 5-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248867001            Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.22070E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.523E+01	4.325E+00	5.862E-01	6.376E-02	60.093
CD-109	2.483E+00	1.192E+00	1.820E+00	1.719E-01	1.364
SN-126	2.412E-01	1.158E-01	1.819E-01	1.710E-02	1.326
TL-208	5.863E-01	1.036E-01	6.767E-02	6.341E-03	8.663
BI-211	3.834E+00	6.063E-01	3.919E-01	3.753E-02	9.782
BI-212	1.882E+00	8.594E-01	8.798E-01	1.150E-01	2.139
PB-212	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
BI-214	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
PB-214	1.391E+00	2.331E-01	1.435E-01	1.586E-02	9.695
RA-224	4.777E+00	1.556E+00	1.222E+00	1.084E-01	3.909
RA-226	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
AC-228	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
RA-228	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
TH-228	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
TH-230	1.167E+00	1.955E-01	1.384E-01	1.192E-02	8.437
TH-232	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
NP-237	7.197E-01	3.769E-01	4.879E-01	1.119E-01	1.475

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.460E-02		3.972E-01	6.430E-01	6.260E-02	-0.038

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	-4.993E-02		4.804E-02	7.200E-02	7.188E-03	-0.693
NA-24	-5.110E+01		4.503E+01	Half-Life too short		
SC-46	-2.542E-02		4.469E-02	6.961E-02	9.088E-03	-0.365
V-48	-3.953E-02		9.753E-02	1.536E-01	1.863E-02	-0.257
CR-51	-1.087E-01		4.670E-01	7.636E-01	7.342E-02	-0.142
MN-54	-3.045E-02		4.396E-02	6.857E-02	8.082E-03	-0.444
CO-56	1.498E-02		4.718E-02	7.976E-02	9.618E-03	0.188
CO-57	2.208E-02		3.147E-02	5.225E-02	4.721E-03	0.423
CO-58	-2.382E-03		4.833E-02	7.967E-02	8.971E-03	-0.030
FE-59	-5.190E-02		1.038E-01	1.600E-01	1.699E-02	-0.324
CO-60	-1.929E-02		4.266E-02	6.761E-02	7.415E-03	-0.285
ZN-65	-6.619E-02		1.148E-01	1.464E-01	1.416E-02	-0.452
SE-75	1.681E-02		6.110E-02	9.012E-02	8.171E-03	0.187
SR-85	-1.800E-01		6.424E-02	8.613E-02	7.791E-03	-2.090
Y-88	-6.498E-03		3.818E-02	6.045E-02	5.169E-03	-0.108
Y-91	-9.039E+00		2.724E+01	4.277E+01	3.772E+00	-0.211
NB-94	-9.570E-03		3.608E-02	5.900E-02	5.300E-03	-0.162
NB-95	7.055E-02		5.146E-02	9.219E-02	9.469E-03	0.765
NB-95M	6.736E-01		1.991E-01	3.184E-01	3.207E-02	2.115
ZR-95	2.077E-02		8.542E-02	1.443E-01	1.568E-02	0.144
MO-99	5.954E+01		4.271E+01	7.590E+01	1.244E+01	0.785
TC-99M	-9.175E+15		3.463E+15	Half-Life too short		
RU-103	-1.237E-02		5.221E-02	8.333E-02	1.188E-02	-0.148
RH-106	-1.023E-01		3.442E-01	5.652E-01	7.457E-02	-0.181
RU-106	-1.023E-01		3.440E-01	5.652E-01	4.817E-02	-0.181
AG-108M	-1.315E-03		3.302E-02	5.377E-02	5.031E-03	-0.024
AG-110M	9.767E-03		4.395E-02	6.487E-02	5.515E-03	0.151
SN-113	3.037E-02		5.294E-02	8.953E-02	8.280E-03	0.339
CD-115	5.067E-06		2.422E-05	Half-Life too short		
SN-117M	1.580E-02		8.013E-02	1.298E-01	1.073E-02	0.122
TE-123M	-8.985E-03		3.464E-02	5.504E-02	4.575E-03	-0.163
SB-124	-4.839E-02		8.496E-02	1.248E-01	1.236E-02	-0.388
SB-125	-5.397E-02		1.117E-01	1.772E-01	1.636E-02	-0.305
TE-125M	1.845E+00		1.305E+01	2.132E+01	2.278E+00	0.087
I-126	2.483E-01		3.624E-01	5.558E-01	4.605E-02	0.447
SB-126	-6.002E-02		2.262E-01	3.147E-01	2.940E-02	-0.191
SB-127	-2.427E-01		3.197E+00	5.310E+00	6.756E-01	-0.046
I-131	4.339E-03		1.903E-01	3.136E-01	3.008E-02	0.014
TE-132	1.995E+00		2.269E+00	3.887E+00	6.534E-01	0.513
BA-133	5.465E-02		5.492E-02	8.367E-02	1.114E-02	0.653
I-133	7.975E-02		1.036E-01	Half-Life too short		
CS-134	1.411E-01	+	9.575E-02	1.005E-01	1.102E-02	1.405
CS-135	3.862E-01		2.230E-01	3.497E-01	3.615E-02	1.104
I-135	-2.956E+13		1.797E+14	Half-Life too short		
CS-136	-6.837E-02		1.522E-01	2.373E-01	2.687E-02	-0.288
BA-137M	1.196E-01		4.649E-02	8.699E-02	7.132E-03	1.375
CS-137	1.263E-01		4.912E-02	9.190E-02	7.550E-03	1.375
CE-139	9.968E-03		3.697E-02	5.995E-02	4.886E-03	0.166

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-140	5.443E-02		4.064E-01	6.618E-01	2.251E-01	0.082
LA-140	-5.603E-02		1.297E-01	2.019E-01	2.042E-02	-0.278
CE-141	2.067E-02		8.851E-02	1.438E-01	1.243E-02	0.144
CE-143	9.059E-03		1.384E-03	Half-Life too short		
CE-144	-1.194E-01		2.813E-01	3.872E-01	5.940E-02	-0.308
PM-144	2.249E-02		3.890E-02	6.731E-02	5.968E-03	0.334
PR-144	1.183E+00		2.949E+00	5.047E+00	4.473E-01	0.234
PM-146	4.661E-02		4.888E-02	8.387E-02	9.219E-03	0.556
ND-147	6.399E-01		8.369E-01	1.416E+00	2.149E-01	0.452
PM-149	2.098E-04		2.008E-04	Half-Life too short		
EU-152	1.243E-03		1.332E-01	1.907E-01	1.841E-02	0.007
GD-153	1.264E-01		1.174E-01	1.737E-01	1.560E-02	0.728
EU-154	-1.385E-01		1.364E-01	2.045E-01	2.543E-02	-0.677
EU-155	-1.860E-02		1.299E-01	2.104E-01	1.884E-02	-0.088
TB-160	-1.272E-02		1.675E-01	2.741E-01	3.514E-02	-0.046
HO-166M	-2.686E-02		7.282E-02	1.106E-01	1.013E-02	-0.243
TA-182	-2.094E-01		2.591E-01	3.905E-01	3.550E-02	-0.536
IR-192	2.985E-02		4.093E-02	7.011E-02	6.455E-03	0.426
HG-203	2.803E-02		4.929E-02	8.391E-02	7.810E-03	0.334
BI-207	1.272E-02		5.727E-02	9.518E-02	1.022E-02	0.134
PB-210	7.241E-01		4.304E+00	7.269E+00	6.936E-01	0.100
PB-211	-3.471E-01		8.807E-01	1.385E+00	6.711E-01	-0.251
RN-219	9.623E-02		4.678E-01	7.753E-01	1.172E-01	0.124
RA-223	6.526E-02		8.300E-01	1.198E+00	2.111E-01	0.054
AC-227	1.762E-03		2.844E-01	4.751E-01	5.848E-02	0.004
TH-227	1.762E-03		2.844E-01	4.751E-01	6.573E-02	0.004
TH-229	-3.620E-01		6.550E-01	1.019E+00	8.593E-02	-0.355
PA-231	-1.594E-01		1.695E+00	2.807E+00	4.177E-01	-0.057
TH-231	6.526E-02		8.300E-01	1.198E+00	2.111E-01	0.054
PA-233	1.334E-02		7.383E-02	1.234E-01	1.162E-02	0.108
PA-234	4.000E-01		3.700E-01	6.427E-01	1.346E-01	0.622
PA-234M	-2.274E+00		5.690E+00	9.072E+00	1.167E+00	-0.251
TH-234	7.463E-01		1.709E+00	2.818E+00	5.091E-01	0.265
U-235	3.406E-01		2.688E-01	4.377E-01	7.397E-02	0.778
U-238	7.463E-01		1.709E+00	2.818E+00	5.091E-01	0.265
NP-239	-2.888E-01		5.135E-01	8.153E-01	7.282E-02	-0.354
AM-241	-2.518E-02		1.931E-01	3.177E-01	2.742E-02	-0.079
CM-247	7.683E-03		4.300E-02	7.117E-02	6.425E-03	0.108
CF-249	-1.102E-02		4.693E-02	7.600E-02	6.851E-03	-0.145
CF-251	1.016E-01		1.582E-01	2.596E-01	2.145E-02	0.392
ANH-511	1.200E-01		5.445E-02	1.011E-01	9.151E-03	1.187

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248867001            *
* Acquisition date : 24-MAR-2010 20:33:15 Detector SN#    :                 *
* Detector ID      : GAM29                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:57.45     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  5-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248867001           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.2207E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.523E+01	4.238E+00	2.928E-01	2.162E+00
CD-109	2.483E+00	1.168E+00	9.418E-01	5.959E-01
SN-126	2.412E-01	1.134E-01	9.410E-02	5.788E-02
TL-208	5.863E-01	1.015E-01	3.420E-02	5.179E-02
BI-211	3.834E+00	5.942E-01	1.993E-01	3.032E-01
BI-212	1.882E+00	8.422E-01	4.434E-01	4.297E-01
PB-212	1.839E+00	2.167E-01	5.832E-02	1.106E-01
BI-214	1.167E+00	2.009E-01	6.989E-02	1.025E-01
PB-214	1.391E+00	2.284E-01	7.299E-02	1.165E-01
RA-224	4.777E+00	1.525E+00	6.245E-01	7.780E-01
RA-226	1.167E+00	2.009E-01	6.989E-02	1.025E-01
AC-228	1.693E+00	4.177E-01	1.398E-01	2.131E-01
RA-228	1.693E+00	4.177E-01	1.398E-01	2.131E-01
TH-228	1.839E+00	2.167E-01	5.832E-02	1.106E-01
TH-230	1.167E+00	1.916E-01	6.988E-02	9.777E-02
TH-232	1.693E+00	4.177E-01	1.398E-01	2.131E-01
NP-237	7.197E-01	3.694E-01	2.525E-01	1.885E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.460E-02	3.893E-01	3.258E-01	1.986E-01	NOT IDENT.
NA-22	-4.993E-02	4.708E-02	3.602E-02	2.402E-02	NOT IDENT.
NA-24	-5.110E+07	8.825E+07	0.000E+00	4.503E+07	SHORT HLIF
SC-46	-2.542E-02	4.380E-02	3.499E-02	2.234E-02	FAIL ABUN
V-48	-3.953E-02	9.558E-02	7.708E-02	4.876E-02	NOT IDENT.
CR-51	-1.087E-01	4.577E-01	3.888E-01	2.335E-01	NOT IDENT.
MN-54	-3.045E-02	4.308E-02	3.449E-02	2.198E-02	NOT IDENT.
CO-56	1.498E-02	4.624E-02	4.011E-02	2.359E-02	NOT IDENT.
CO-57	2.208E-02	3.084E-02	2.692E-02	1.573E-02	NOT IDENT.
CO-58	-2.382E-03	4.736E-02	4.009E-02	2.416E-02	NOT IDENT.

FE-59	-5.190E-02	1.017E-01	8.020E-02	5.189E-02	NOT IDENT.
CO-60	-1.929E-02	4.181E-02	3.381E-02	2.133E-02	NOT IDENT.
ZN-65	-6.619E-02	1.125E-01	7.336E-02	5.739E-02	NOT IDENT.
SE-75	1.681E-02	5.988E-02	4.600E-02	3.055E-02	NOT IDENT.
SR-85	-1.800E-01	6.295E-02	4.360E-02	3.212E-02	NOT IDENT.
Y-88	-6.498E-03	3.742E-02	3.010E-02	1.909E-02	NOT IDENT.
Y-91	-9.039E+00	2.670E+01	2.141E+01	1.362E+01	NOT IDENT.
NB-94	-9.570E-03	3.536E-02	2.974E-02	1.804E-02	NOT IDENT.
NB-95	7.055E-02	5.043E-02	4.643E-02	2.573E-02	NOT IDENT.
NB-95M	6.736E-01	1.952E-01	1.628E-01	9.957E-02	NOT IDENT.
ZR-95	2.077E-02	8.372E-02	7.270E-02	4.271E-02	NOT IDENT.
MO-99	5.954E+01	4.185E+01	3.824E+01	2.135E+01	NOT IDENT.
TC-99M	-9.175E+21	6.787E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.237E-02	5.116E-02	4.220E-02	2.610E-02	FAIL ABUN
RH-106	-1.023E-01	3.373E-01	2.854E-01	1.721E-01	NOT IDENT.
RU-106	-1.023E-01	3.371E-01	2.854E-01	1.720E-01	NOT IDENT.
AG-108M	-1.315E-03	3.236E-02	2.728E-02	1.651E-02	NOT IDENT.
AG-110M	9.767E-03	4.308E-02	3.273E-02	2.198E-02	NOT IDENT.
SN-113	3.037E-02	5.188E-02	4.547E-02	2.647E-02	NOT IDENT.
CD-115	5.067E+00	4.747E+01	0.000E+00	2.422E+01	SHORT HLIF
SN-117M	1.580E-02	7.853E-02	6.668E-02	4.007E-02	NOT IDENT.
TE-123M	-8.985E-03	3.395E-02	2.827E-02	1.732E-02	NOT IDENT.
SB-124	-4.839E-02	8.326E-02	6.223E-02	4.248E-02	NOT IDENT.
SB-125	-5.397E-02	1.094E-01	8.988E-02	5.584E-02	FAIL ABUN
TE-125M	1.845E+00	1.279E+01	1.100E+01	6.525E+00	NOT IDENT.
I-126	2.483E-01	3.551E-01	2.804E-01	1.812E-01	NOT IDENT.
SB-126	-6.002E-02	2.217E-01	1.586E-01	1.131E-01	NOT IDENT.
SB-127	-2.427E-01	3.134E+00	2.678E+00	1.599E+00	NOT IDENT.
I-131	4.339E-03	1.865E-01	1.594E-01	9.513E-02	NOT IDENT.
TE-132	1.995E+00	2.223E+00	1.987E+00	1.134E+00	NOT IDENT.
BA-133	5.465E-02	5.382E-02	4.255E-02	2.746E-02	NOT IDENT.
I-133	7.975E+04	2.030E+05	0.000E+00	1.036E+05	SHORT HLIF
CS-134	1.411E-01	9.384E-02	5.058E-02	4.788E-02	FAIL ABUN
CS-135	3.862E-01	2.186E-01	1.785E-01	1.115E-01	NOT IDENT.
I-135	-2.956E+19	3.521E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.837E-02	1.491E-01	1.190E-01	7.609E-02	NOT IDENT.
BA-137M	1.196E-01	4.556E-02	4.389E-02	2.324E-02	NOT IDENT.
CS-137	1.263E-01	4.813E-02	4.637E-02	2.456E-02	NOT IDENT.
CE-139	9.968E-03	3.623E-02	3.078E-02	1.848E-02	NOT IDENT.
BA-140	5.443E-02	3.983E-01	3.348E-01	2.032E-01	NOT IDENT.
LA-140	-5.603E-02	1.271E-01	1.007E-01	6.483E-02	FAIL ABUN
CE-141	2.067E-02	8.674E-02	7.396E-02	4.426E-02	NOT IDENT.
CE-143	9.059E+03	2.713E+03	0.000E+00	1.384E+03	SHORT HLIF
CE-144	-1.194E-01	2.756E-01	1.993E-01	1.406E-01	NOT IDENT.
PM-144	2.249E-02	3.812E-02	3.394E-02	1.945E-02	NOT IDENT.
PR-144	1.183E+00	2.890E+00	2.545E+00	1.474E+00	NOT IDENT.
PM-146	4.661E-02	4.790E-02	4.252E-02	2.444E-02	NOT IDENT.
ND-147	6.399E-01	8.201E-01	7.166E-01	4.184E-01	NOT IDENT.
PM-149	2.098E+02	3.935E+02	0.000E+00	2.008E+02	SHORT HLIF
EU-152	1.243E-03	1.306E-01	9.700E-02	6.661E-02	FAIL ABUN
GD-153	1.264E-01	1.150E-01	8.977E-02	5.868E-02	NOT IDENT.
EU-154	-1.385E-01	1.337E-01	1.023E-01	6.822E-02	NOT IDENT.
EU-155	-1.860E-02	1.273E-01	1.086E-01	6.496E-02	FAIL ABUN
TB-160	-1.272E-02	1.641E-01	1.378E-01	8.373E-02	FAIL ABUN
HO-166M	-2.686E-02	7.137E-02	5.576E-02	3.641E-02	FAIL ABUN
TA-182	-2.094E-01	2.540E-01	1.955E-01	1.296E-01	FAIL ABUN
IR-192	2.985E-02	4.011E-02	3.570E-02	2.046E-02	FAIL ABUN
HG-203	2.803E-02	4.830E-02	4.280E-02	2.464E-02	NOT IDENT.
BI-207	1.272E-02	5.612E-02	4.773E-02	2.863E-02	FAIL ABUN
PB-210	7.241E-01	4.218E+00	3.790E+00	2.152E+00	NOT IDENT.
PB-211	-3.471E-01	8.631E-01	7.030E-01	4.404E-01	NOT IDENT.
RN-219	9.623E-02	4.585E-01	3.937E-01	2.339E-01	FAIL ABUN
RA-223	6.526E-02	8.134E-01	6.099E-01	4.150E-01	FAIL ABUN
AC-227	1.762E-03	2.787E-01	2.426E-01	1.422E-01	FAIL ABUN
TH-227	1.762E-03	2.787E-01	2.426E-01	1.422E-01	FAIL ABUN
TH-229	-3.620E-01	6.419E-01	5.222E-01	3.275E-01	FAIL ABUN
PA-231	-1.594E-01	1.661E+00	1.431E+00	8.473E-01	FAIL ABUN
TH-231	6.526E-02	8.134E-01	6.099E-01	4.150E-01	FAIL ABUN
PA-233	1.334E-02	7.235E-02	6.287E-02	3.691E-02	FAIL ABUN
PA-234	4.000E-01	3.626E-01	3.228E-01	1.850E-01	FAIL ABUN
PA-234M	-2.274E+00	5.577E+00	4.553E+00	2.845E+00	NOT IDENT.
TH-234	7.463E-01	1.675E+00	1.464E+00	8.547E-01	FAIL ABUN
U-235	3.406E-01	2.635E-01	2.251E-01	1.344E-01	FAIL ABUN
U-238	7.463E-01	1.675E+00	1.464E+00	8.547E-01	FAIL ABUN
NP-239	-2.888E-01	5.032E-01	4.204E-01	2.568E-01	NOT IDENT.
AM-241	-2.518E-02	1.892E-01	1.652E-01	9.654E-02	NOT IDENT.
CM-247	7.683E-03	4.214E-02	3.614E-02	2.150E-02	NOT IDENT.
CF-249	-1.102E-02	4.599E-02	3.860E-02	2.347E-02	NOT IDENT.

CF-251	1.016E-01	1.550E-01	1.332E-01	7.910E-02 NOT IDENT.
ANH-511	1.200E-01	5.336E-02	5.117E-02	2.722E-02 NOT IDENT.

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*                              GEL Laboratories LLC                         *
*                                 2040 SAVAGE ROAD                          *
*                              CHARLESTON ,SC 29417                         *
*                        GAMMA SPECTROSCOPY BACKGROUND REPORT               *
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ENERGY	MDA COUNTS
46.54	399.1819
49.72	507.5309
57.36	0.0000
59.54	526.4267
63.29	541.2366
63.29	541.2366
64.28	563.7461
67.75	591.3801
69.67	561.9409
70.83	580.3849
72.81	601.1479
72.87	601.1960
72.87	601.1960
74.82	595.1647
74.82	595.1647
74.82	595.1647
74.97	595.2848
77.11	591.7491
77.11	591.7491
77.11	591.7491
79.69	611.4868
79.80	611.5724
80.12	611.8246
80.19	689.3741
80.57	689.7077
81.00	670.6946
81.07	670.7529
81.07	670.7529
83.79	577.3723
83.79	577.3723
85.43	572.0494
86.48	608.5878
86.55	608.6403
86.79	777.3015
86.94	777.4472
87.57	770.7123
88.03	735.2753
88.47	872.6861
89.96	874.2535
91.11	875.4519
92.59	595.5837
92.59	595.5837
93.35	449.5480
94.67	451.8835
94.87	451.9876
94.87	451.9876
95.86	427.8225
97.43	370.8984
98.44	382.3264
99.53	390.3705
100.11	393.7260
103.18	389.8857
103.37	369.2245
105.31	417.8181
106.12	400.5017
109.28	437.3492
111.00	443.3752
111.76	452.1009
116.30	410.0695
117.23	434.6659
121.12	321.2037
121.78	339.3886
122.06	356.4041
123.07	389.5779
131.20	355.0980
133.52	384.9609
136.00	360.1300

136.47	351.7081
140.51	478.9372
140.51	0.0000
143.76	378.8771
144.24	393.0790
144.24	393.0790
145.44	416.2002
152.43	357.8482
153.25	339.5980
154.21	301.7494
154.21	301.7494
156.02	381.8619
158.56	322.5482
159.00	339.0743
162.66	359.8611
163.33	382.0162
165.86	333.3088
176.60	353.9466
177.52	313.1191
181.07	377.6742
184.41	323.2768
185.72	379.0251
193.51	346.1828
197.04	313.7289
205.31	297.7745
210.85	303.4953
215.65	292.3320
222.11	310.1455
227.38	288.2259
228.16	293.9048
228.18	293.9087
235.69	285.4906
235.96	285.5414
235.96	285.5414
238.63	301.4978
238.63	301.4978
240.99	301.9580
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244.70	243.6931
252.40	220.8582
252.80	204.9997
256.23	226.0736
256.23	226.0736
260.90	0.0000
264.66	226.2979
268.22	234.6586
269.46	251.5408
269.46	251.5408
271.23	251.8038
273.65	287.5594
276.40	226.3061
277.37	226.6603
277.60	232.1221
278.00	238.7948
279.20	235.8725
279.54	242.5768
280.46	257.9363
283.69	225.0441
284.31	220.3552
285.41	229.0840
285.90	0.0000
287.50	211.3079
293.27	0.0000
295.22	194.8522
295.96	194.9340
298.57	195.2190
299.98	194.0894
299.98	194.0894
300.09	197.3075
300.09	197.3075
300.13	197.3125
301.36	210.2898
302.85	215.2828
304.50	181.7099
304.50	181.7099
304.85	201.0447
308.46	195.3201
311.90	186.0000

316.51	168.0098
319.41	181.8890
320.08	187.7910
323.87	181.9954
323.87	181.9954
328.76	192.2373
333.37	166.5718
334.37	166.6589
334.37	166.6589
338.28	214.4741
338.28	214.4741
338.32	214.4768
338.32	214.4768
338.32	214.4768
340.48	175.3771
340.55	165.5490
344.28	190.4966
351.06	186.2068
351.93	188.9249
356.01	148.6725
364.49	157.2555
366.42	178.3248
383.85	148.6775
388.16	167.0983
388.63	182.2373
391.69	146.2001
400.66	154.9050
401.81	149.9223
402.40	150.9753
404.85	177.5186
410.95	143.4234
414.70	141.6266
423.72	154.4709
427.09	164.9444
427.87	166.0263
433.94	128.4454
453.88	116.0701
463.37	131.0972
468.07	118.1478
473.00	128.4834
476.78	131.8201
477.60	128.7251
487.02	116.6083
492.35	0.0000
497.08	135.0047
511.00	108.1696
514.00	321.6989
527.90	0.0000
529.87	0.0000
531.02	95.1079
537.26	118.8941
546.56	0.0000
563.25	104.8955
569.33	110.5440
569.50	101.8808
569.70	101.8876
583.19	113.2701
600.60	121.6312
602.73	100.2589
604.72	118.8757
609.32	126.3905
609.32	126.3905
609.32	126.3905
610.33	95.2847
614.28	106.9449
618.01	84.1771
621.93	98.4186
621.93	98.4186
633.25	85.8668
635.95	101.6547
636.99	116.4792
645.85	98.2773
657.76	87.7579
661.66	86.6691
661.66	86.6691
664.57	0.0000
666.33	92.7996
666.50	91.2056

677.62	100.2276
685.70	94.8478
695.00	94.1833
696.49	90.4570
696.51	95.1683
697.00	96.1272
702.65	94.4071
706.68	85.0708
711.68	90.8828
720.70	86.2507
721.93	0.0000
722.78	84.6759
722.91	84.6795
723.31	87.9478
724.19	92.8576
727.33	81.8025
733.00	115.9718
735.93	88.6898
739.50	71.6003
747.24	86.1182
752.31	103.4956
753.82	75.7389
756.73	83.4794
763.94	99.0415
765.81	81.7783
766.42	85.6411
777.92	92.6836
778.90	90.7775
783.70	77.3649
785.37	68.3706
795.86	79.5726
801.95	98.3176
810.29	78.9219
810.76	85.7531
815.77	76.1147
818.51	70.3125
832.01	82.3372
834.85	99.0767
836.80	0.0000
846.77	73.8098
856.80	67.6660
860.56	69.1455
871.09	52.4997
873.19	74.3332
875.33	0.0000
879.36	73.4610
880.51	59.5801
883.24	57.6354
884.68	60.6401
889.28	71.6602
898.04	84.7925
911.20	82.3627
911.20	82.3627
911.20	82.3627
926.50	66.3196
937.49	61.4654
944.13	83.7717
946.00	61.5957
949.00	79.8310
962.29	66.0441
964.08	86.9385
966.15	77.1257
968.97	77.1782
968.97	77.1782
968.97	77.1782
983.53	70.3182
996.26	67.4677
1001.03	78.8016
1004.73	86.0422
1037.84	60.9062
1038.76	0.0000
1048.07	68.2935
1050.41	66.2604
1050.41	66.2604
1063.66	56.0764
1085.87	86.6272
1099.45	61.7656
1112.07	61.4136

1115.54	70.2414
1120.29	64.1547
1120.29	64.1547
1120.29	64.1547
1120.55	81.1387
1121.30	77.5446
1131.51	0.0000
1173.23	88.2956
1177.93	84.1239
1189.05	77.9189
1204.77	84.5997
1221.41	106.3839
1231.02	115.2070
1235.36	101.2979
1238.28	75.4801
1260.41	0.0000
1271.85	53.0399
1274.44	66.1019
1274.54	66.1019
1291.59	47.6435
1298.22	0.0000
1312.11	57.2152
1332.49	45.1992
1365.19	35.0592
1368.63	0.0000
1384.29	29.9553
1408.01	28.0824
1457.56	0.0000
1460.82	27.9683
1489.16	37.8030
1505.03	38.8811
1596.21	35.5455
1620.50	19.0842
1678.03	0.0000
1690.97	20.0572
1764.49	11.1604
1764.49	11.1604
1764.49	11.1604
1770.23	8.8855
1771.35	15.9966
1791.20	0.0000
1836.06	17.4382

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248867001

Total Uranium Activity	2.3778E+00	ug/g
Total Uranium Counting Unc.	4.9855E+00	ug/g
Total Uranium Tpu	2.5436E-06	ug/g
Total Uranium Mda	4.3560E+00	ug/g

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*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248867001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM29            *
*   SAMPLE DATE   :  5-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 20:33:15.40    SAMPLE ALQT:  122.070 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.033E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.575E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 4.849E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 2.369E+00
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VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:01:37.14

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 24-MAR-2010 22:59:45
Sample ID         : G1202065188          Sample quantity  : 1.43700E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:01:22.05  0.6%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
No peaks were found
```

VMS Nuclide Identification Report V3.1 Generated 25-MAR-2010 03:01:40

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 9-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 22:59:45
Sample ID : G1202065188 Sample quantity : 143.70 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAM29 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:01:22.05 0.6%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	4.447E-02	1.381E-01	2.297E-01	2.236E-02	0.194
NA-22		1274.54	*	-2.092E-06	1.491E-02	2.494E-02	2.490E-03	0.000
NA-24		1368.63	*	-2.708E-01	1.491E-02	Half-Life too short		
K-40		1460.82	*	-4.044E-02	2.100E-01	3.411E-01	3.710E-02	-0.119
SC-46		889.28	*	-9.628E-03	1.646E-02	2.541E-02	3.318E-03	-0.379
		1120.55		-2.244E-02	2.531E-02	3.084E-02	2.945E-03	-0.728
V-48		944.13		-3.854E-02	3.468E-01	5.617E-01	7.133E-02	-0.069
		983.53	*	-4.179E-03	2.624E-02	4.210E-02	5.107E-03	-0.099
		1312.11		1.339E-02	2.882E-02	5.094E-02	5.408E-03	0.263
CR-51		320.08	*	-6.487E-02	1.533E-01	2.469E-01	2.374E-02	-0.263
MN-54		834.85	*	1.374E-02	1.323E-02	2.392E-02	2.819E-03	0.575
CO-56		846.77	*	-9.102E-03	1.753E-02	2.752E-02	3.318E-03	-0.331
		1037.84		5.229E-02	1.030E-01	1.787E-01	2.067E-02	0.293
		1238.28		-3.877E-02	3.075E-02	3.890E-02	3.733E-03	-0.997
		1771.35		-2.633E-02	1.281E-01	2.036E-01	1.838E-02	-0.129
CO-57		122.06	*	-6.051E-03	1.005E-02	1.576E-02	1.424E-03	-0.384
		136.47		-1.839E-02	8.128E-02	1.297E-01	1.205E-02	-0.142
CO-58		810.76	*	-1.067E-02	1.443E-02	2.188E-02	2.464E-03	-0.487
FE-59		1099.45	*	1.909E-02	3.252E-02	5.651E-02	6.000E-03	0.338
		1291.59		-1.749E-02	4.688E-02	7.482E-02	8.424E-03	-0.234
CO-60		1173.23		-1.427E-04	1.349E-02	2.179E-02	1.812E-03	-0.007
		1332.49	*	1.748E-02	1.523E-02	2.865E-02	3.143E-03	0.610
ZN-65		1115.54	*	-1.286E-03	3.514E-02	5.682E-02	5.495E-03	-0.023
SE-75		121.12		-2.678E-02	5.350E-02	8.443E-02	9.617E-03	-0.317
		136.00		-1.021E-03	1.558E-02	2.509E-02	2.190E-03	-0.041
		264.66	*	1.106E-02	1.802E-02	3.101E-02	2.812E-03	0.357
		279.54		-1.256E-02	4.264E-02	6.974E-02	6.563E-03	-0.180
		400.66		-5.993E-02	1.032E-01	1.618E-01	1.845E-02	-0.370
SR-85		514.00	*	-4.163E-02	2.674E-02	3.976E-02	3.597E-03	-1.047
Y-88		898.04		-7.746E-03	1.593E-02	2.475E-02	3.291E-03	-0.313
		1836.06	*	-1.055E-02	1.601E-02	2.288E-02	1.956E-03	-0.461
Y-91		1204.77	*	-8.383E-01	7.269E+00	1.157E+01	1.020E+00	-0.072
NB-94		702.65	*	4.069E-03	1.379E-02	2.351E-02	2.112E-03	0.173
		871.09		7.689E-03	1.364E-02	2.367E-02	2.988E-03	0.325

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	1.099E-02	1.639E-02	2.868E-02	2.945E-03	0.383
NB-95M		235.69	*	-7.634E-02	5.271E-02	8.150E-02	8.207E-03	-0.937
ZR-95		724.19		1.091E-02	3.168E-02	5.442E-02	5.486E-03	0.200
		756.73	*	-1.520E-03	2.738E-02	4.524E-02	4.914E-03	-0.034
MO-99		140.51		-2.238E+00	1.084E+01	1.729E+01	4.101E+00	-0.130
		181.07		-1.850E+01	1.049E+01	1.437E+01	2.679E+00	-1.287
		366.42		-1.187E+01	5.328E+01	8.642E+01	7.877E+00	-0.137
		739.50	*	2.823E+00	5.625E+00	9.765E+00	1.600E+00	0.289
		777.92		-1.979E+00	1.812E+01	2.976E+01	3.133E+00	-0.067
TC-99M		140.51	*	-3.517E+10	1.812E+01	Half-Life too short		
RU-103		497.08	*	-6.258E-03	1.733E-02	2.728E-02	3.889E-03	-0.229
		610.33		-2.000E-01	3.860E-01	5.527E-01	9.030E-02	-0.362
RH-106		621.93	*	-6.571E-02	1.318E-01	2.122E-01	2.799E-02	-0.310
		1050.41		7.229E-01	9.649E-01	1.699E+00	1.867E-01	0.425
RU-106		621.93	*	-6.571E-02	1.316E-01	2.122E-01	1.809E-02	-0.310
		1050.41		7.229E-01	9.649E-01	1.699E+00	1.867E-01	0.425
AG-108M		433.94	*	2.998E-03	1.134E-02	1.889E-02	1.768E-03	0.159
		614.28		-1.604E-02	1.466E-02	2.248E-02	1.992E-03	-0.713
		722.91		-2.911E-03	1.513E-02	2.196E-02	2.117E-03	-0.133
CD-109		88.03	*	-6.119E-01	3.382E-01	4.429E-01	4.182E-02	-1.382
AG-110M		657.76	*	7.019E-03	1.350E-02	2.353E-02	2.001E-03	0.298
		677.62		2.770E-02	1.198E-01	2.041E-01	1.786E-02	0.136
		706.68		1.980E-02	8.634E-02	1.466E-01	1.363E-02	0.135
		763.94		1.426E-02	6.264E-02	1.060E-01	1.106E-02	0.135
		884.68		-1.074E-03	1.922E-02	3.145E-02	4.130E-03	-0.034
		937.49		2.161E-02	4.072E-02	7.052E-02	9.167E-03	0.306
		1384.29		5.108E-04	5.818E-02	9.697E-02	1.073E-02	0.005
		1505.03		-1.309E-01	1.203E-01	1.653E-01	1.739E-02	-0.792
SN-113		391.69	*	-3.263E-03	1.857E-02	3.010E-02	2.784E-03	-0.108
CD-115		260.90		-6.292E+01	7.404E+01	1.174E+02	1.058E+01	-0.536
		492.35		-3.511E+00	2.582E+01	3.634E+01	3.303E+00	-0.097
		527.90	*	2.372E+00	5.830E+00	9.759E+00	8.791E-01	0.243
SN-117M		156.02		-7.593E-01	8.825E-01	1.346E+00	1.118E-01	-0.564
		158.56	*	5.880E-03	2.178E-02	3.551E-02	2.935E-03	0.166
TE-123M		159.00	*	-1.452E-03	1.121E-02	1.789E-02	1.487E-03	-0.081
SB-124		602.73		7.734E-03	1.828E-02	3.025E-02	2.619E-03	0.256
		645.85		2.878E-02	1.943E-01	3.293E-01	2.914E-02	0.087
		722.78		-5.106E-02	1.549E-01	2.220E-01	2.124E-02	-0.230
		1690.97	*	9.078E-03	3.550E-02	6.077E-02	6.017E-03	0.149
SB-125		427.87	*	-8.882E-03	3.634E-02	5.827E-02	5.382E-03	-0.152
		463.37		-2.803E-02	1.050E-01	1.672E-01	1.626E-02	-0.168
		600.60		-3.584E-03	8.472E-02	1.356E-01	1.262E-02	-0.026
		635.95		-1.340E-01	1.081E-01	1.607E-01	1.467E-02	-0.834
TE-125M		109.28	*	-3.711E+00	3.800E+00	5.844E+00	6.237E-01	-0.635
I-126		388.63		7.257E-03	6.887E-02	1.139E-01	1.026E-02	0.064
		666.33	*	9.224E-03	8.450E-02	1.426E-01	1.182E-02	0.065
		753.82		-5.061E-02	7.403E-01	1.222E+00	1.224E-01	-0.041
SB-126		414.70		7.638E-04	3.172E-02	5.199E-02	4.709E-03	0.015
		666.50		6.982E-03	2.874E-02	4.907E-02	4.066E-03	0.142

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		695.00		-9.048E-03	3.398E-02	5.548E-02	4.901E-03	-0.163
		697.00		1.287E-02	1.170E-01	1.968E-01	1.746E-02	0.065
		720.70	*	-3.690E-02	5.563E-02	8.663E-02	8.092E-03	-0.426
		856.80		-2.855E-01	2.012E-01	2.784E-01	3.422E-02	-1.025
SN-126		64.28		4.436E-02	2.181E-01	3.189E-01	4.730E-02	0.139
		86.94		-3.316E-02	1.340E-01	1.911E-01	7.933E-02	-0.174
		87.57	*	-2.509E-02	3.209E-02	4.471E-02	4.202E-03	-0.561
SB-127		252.40		6.393E-01	2.094E+00	3.526E+00	1.469E+00	0.181
		473.00		-9.163E-02	8.177E-01	1.318E+00	1.757E-01	-0.070
		685.70	*	-7.514E-02	6.235E-01	1.031E+00	1.201E-01	-0.073
		783.70		2.006E-01	1.572E+00	2.636E+00	3.707E-01	0.076
I-131		80.19		-8.559E-01	1.680E+00	2.690E+00	2.367E-01	-0.318
		284.31		4.831E-01	6.454E-01	1.115E+00	1.064E-01	0.433
		364.49	*	-4.238E-03	5.537E-02	9.071E-02	8.679E-03	-0.047
		636.99		-4.711E-01	6.570E-01	1.031E+00	9.196E-02	-0.457
TE-132		49.72		-1.949E+01	1.031E+01	1.260E+01	1.422E+00	-1.546
		111.76		1.849E+01	1.533E+01	2.614E+01	2.991E+00	0.708
		116.30		-1.374E+01	1.381E+01	2.114E+01	2.428E+00	-0.650
		228.16	*	9.357E-02	3.469E-01	5.891E-01	9.471E-02	0.159
BA-133		81.00		-2.372E-02	3.208E-02	5.047E-02	7.884E-03	-0.470
		276.40		5.120E-02	1.368E-01	2.322E-01	3.344E-02	0.220
		302.85		8.849E-03	5.884E-02	9.841E-02	1.322E-02	0.090
		356.01	*	-7.671E-03	1.894E-02	3.041E-02	4.048E-03	-0.252
		383.85		-5.162E-02	1.221E-01	1.945E-01	2.474E-02	-0.265
I-133		529.87	*	-3.748E-03	1.221E-01	Half-Life too short		
		875.33		4.458E-02	1.221E-01	Half-Life too short		
		1298.22		1.730E-01	1.221E-01	Half-Life too short		
CS-134		563.25		5.073E-02	1.616E-01	2.666E-01	2.387E-02	0.190
		569.33		-4.702E-02	8.633E-02	1.327E-01	1.189E-02	-0.354
		604.72		-9.258E-03	1.648E-02	2.535E-02	2.197E-03	-0.365
		795.86	*	-2.862E-03	1.573E-02	2.555E-02	2.802E-03	-0.112
		801.95		-2.592E-02	1.731E-01	2.644E-01	2.931E-02	-0.098
		1365.19		-2.353E-01	4.990E-01	7.770E-01	8.729E-02	-0.303
CS-135		268.22	*	3.162E-03	6.127E-02	1.024E-01	1.059E-02	0.031
I-135		546.56		-3.426E+10	6.127E-02	Half-Life too short		
		836.80		3.256E+10	6.127E-02	Half-Life too short		
		1038.76		2.043E+10	6.127E-02	Half-Life too short		
		1131.51		-4.012E+09	6.127E-02	Half-Life too short		
		1260.41	*	1.180E+09	6.127E-02	Half-Life too short		
		1457.56		3.098E+10	6.127E-02	Half-Life too short		
		1678.03		-3.355E+10	6.127E-02	Half-Life too short		
		1791.20		1.722E+10	6.127E-02	Half-Life too short		
CS-136		153.25		1.398E-01	3.258E-01	5.360E-01	5.383E-02	0.261
		176.60		-1.705E-01	2.144E-01	3.274E-01	3.006E-02	-0.521
		273.65		3.292E-02	2.108E-01	3.540E-01	3.459E-02	0.093
		340.55		-1.313E-02	7.603E-02	9.891E-02	9.386E-03	-0.133
		818.51		-1.633E-03	3.026E-02	4.978E-02	5.687E-03	-0.033
		1048.07	*	3.396E-02	4.212E-02	7.459E-02	8.443E-03	0.455
		1235.36		-5.172E-02	1.832E-01	2.843E-01	3.494E-02	-0.182

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-137M		661.66	*	-5.400E-03	1.360E-02	2.196E-02	1.800E-03	-0.246
CS-137		661.66	*	-5.705E-03	1.436E-02	2.320E-02	1.906E-03	-0.246
CE-139		165.86	*	-1.062E-02	1.281E-02	1.964E-02	1.601E-03	-0.541
BA-140		162.66		1.332E-01	3.854E-01	5.782E-01	5.092E-02	0.230
		304.85		-2.023E-01	6.075E-01	9.841E-01	2.897E-01	-0.206
		423.72		9.198E-01	8.754E-01	1.448E+00	4.781E-01	0.635
		537.26	*	-1.804E-02	1.085E-01	1.724E-01	5.863E-02	-0.105
LA-140		328.76		-3.500E-03	1.249E-01	2.062E-01	1.990E-02	-0.017
		487.02		2.896E-02	5.856E-02	9.872E-02	9.478E-03	0.293
		815.77		-2.301E-02	1.284E-01	2.085E-01	2.531E-02	-0.110
		1596.21	*	2.319E-02	3.615E-02	6.523E-02	6.600E-03	0.356
CE-141		145.44	*	1.356E-02	2.568E-02	4.242E-02	3.667E-03	0.320
CE-143		57.36		1.276E-04	2.568E-02	Half-Life too short		
		293.27	*	9.310E-05	2.568E-02	Half-Life too short		
		664.57		1.965E-04	2.568E-02	Half-Life too short		
		721.93		-4.701E-04	2.568E-02	Half-Life too short		
CE-144		80.12		-1.558E-01	8.297E-01	1.349E+00	1.178E-01	-0.115
		133.52	*	4.401E-03	7.606E-02	1.233E-01	1.892E-02	0.036
PM-144		476.78		-1.947E-02	2.841E-02	4.369E-02	4.287E-03	-0.446
		618.01		-7.797E-03	1.301E-02	2.078E-02	1.828E-03	-0.375
		696.49	*	3.863E-03	1.438E-02	2.448E-02	2.170E-03	0.158
PR-144		696.51	*	4.565E-01	1.064E+00	1.833E+00	1.624E-01	0.249
		1489.16		5.606E+00	5.670E+00	1.056E+01	1.118E+00	0.531
PM-146		453.88	*	-4.587E-03	1.846E-02	2.953E-02	3.246E-03	-0.155
		633.25		-1.391E-01	5.600E-01	9.153E-01	3.492E-01	-0.152
		735.93		-5.098E-02	5.548E-02	8.061E-02	2.286E-02	-0.632
		747.24		9.279E-03	4.014E-02	6.798E-02	1.044E-02	0.136
ND-147		91.11		3.569E-01	1.185E-01	2.059E-01	2.042E-02	1.733
		319.41		2.942E-01	1.429E+00	2.395E+00	2.202E-01	0.123
		531.02	*	-1.707E-01	2.360E-01	3.542E-01	5.373E-02	-0.482
PM-149		285.90	*	3.938E+00	4.987E+01	8.328E+01	1.318E+01	0.047
EU-152		121.78		-9.455E-03	2.857E-02	4.550E-02	4.667E-03	-0.208
		244.70		-8.345E-02	1.300E-01	2.100E-01	1.869E-02	-0.397
		344.28	*	-1.697E-02	4.054E-02	6.511E-02	6.286E-03	-0.261
		778.90		-1.716E-03	1.045E-01	1.730E-01	1.825E-02	-0.010
		964.08		-1.348E-01	1.119E-01	1.566E-01	1.945E-02	-0.860
		1085.87		6.445E-02	1.361E-01	2.341E-01	2.409E-02	0.275
		1112.07		-4.296E-03	1.138E-01	1.841E-01	1.792E-02	-0.023
		1408.01		1.994E-03	9.038E-02	1.133E-01	1.226E-02	0.018
GD-153		69.67		-1.960E-01	5.774E-01	9.352E-01	7.595E-02	-0.210
		97.43	*	-2.554E-02	3.668E-02	5.067E-02	4.551E-03	-0.504
		103.18		1.640E-02	4.095E-02	6.800E-02	6.033E-03	0.241
EU-154		123.07		2.092E-03	2.029E-02	3.305E-02	3.847E-03	0.063
		723.31		2.702E-03	6.807E-02	1.011E-01	1.031E-02	0.027
		873.19		-2.273E-02	1.160E-01	1.873E-01	2.827E-02	-0.121
		996.26		-4.496E-02	1.411E-01	2.221E-01	4.291E-02	-0.202
		1004.73		-5.096E-02	8.704E-02	1.328E-01	1.878E-02	-0.384
		1274.44	*	-1.679E-03	4.200E-02	6.992E-02	8.694E-03	-0.024
EU-155		86.55		3.256E-02	3.855E-02	5.782E-02	5.424E-03	0.563

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		105.31	*	-2.498E-04	3.972E-02	6.465E-02	5.789E-03	-0.004
TB-160		86.79		-1.580E-02	1.046E-01	1.508E-01	1.406E-02	-0.105
		197.04		-6.047E-02	2.654E-01	3.879E-01	3.285E-02	-0.156
		215.65		-1.493E-01	2.913E-01	4.768E-01	4.127E-02	-0.313
		298.57		-8.077E-03	4.617E-02	7.589E-02	6.953E-03	-0.106
		879.36	*	-1.909E-02	5.448E-02	8.629E-02	1.106E-02	-0.221
		962.29		-2.284E-01	2.280E-01	3.063E-01	3.812E-02	-0.746
		966.15		-1.985E-02	7.529E-02	1.186E-01	1.469E-02	-0.167
		1177.93		-3.600E-02	1.086E-01	1.670E-01	1.401E-02	-0.216
		1271.85		2.192E-02	2.439E-01	4.126E-01	4.096E-02	0.053
HO-166M		80.57		-5.438E-02	9.125E-02	1.454E-01	1.275E-02	-0.374
		184.41		-1.579E-02	1.882E-02	2.746E-02	2.289E-03	-0.575
		280.46		-1.431E-02	3.323E-02	5.390E-02	4.906E-03	-0.266
		410.95		-3.081E-02	9.429E-02	1.506E-01	1.363E-02	-0.205
		711.68	*	-5.989E-03	3.500E-02	4.325E-02	3.962E-03	-0.138
		752.31		3.713E-02	1.070E-01	1.832E-01	1.830E-02	0.203
		810.29		-2.291E-02	2.227E-02	3.256E-02	3.658E-03	-0.704
TA-182		67.75		-4.363E-02	3.826E-02	5.940E-02	4.785E-03	-0.734
		100.11		5.399E-03	6.519E-02	1.067E-01	9.518E-03	0.051
		152.43		1.234E-01	1.295E-01	2.184E-01	1.827E-02	0.565
		222.11		-3.527E-02	1.390E-01	2.305E-01	2.009E-02	-0.153
		1121.30		-2.153E-03	5.392E-02	8.714E-02	8.308E-03	-0.025
		1189.05		1.129E-02	9.401E-02	1.546E-01	1.324E-02	0.073
		1221.41	*	-7.653E-03	5.488E-02	8.670E-02	7.881E-03	-0.088
		1231.02		1.167E-01	1.534E-01	2.699E-01	2.496E-02	0.432
IR-192		295.96		-4.517E-02	4.378E-02	6.822E-02	6.286E-03	-0.662
		308.46		-2.052E-03	4.252E-02	7.030E-02	6.483E-03	-0.029
		316.51	*	2.258E-03	1.451E-02	2.424E-02	2.232E-03	0.093
		468.07		1.503E-02	2.778E-02	4.695E-02	4.556E-03	0.320
HG-203		70.83		-1.554E-01	4.750E-01	7.694E-01	1.217E-01	-0.202
		72.87		1.270E-01	2.728E-01	4.562E-01	6.998E-02	0.278
		279.20	*	-7.503E-03	1.523E-02	2.461E-02	2.290E-03	-0.305
BI-207		72.81		2.755E-02	6.212E-02	1.040E-01	8.590E-03	0.265
		74.97		5.036E-02	4.183E-02	6.160E-02	5.162E-03	0.818
		569.70		7.279E-06	1.309E-02	2.108E-02	1.864E-03	0.000
		1063.66	*	1.456E-02	2.060E-02	3.602E-02	3.867E-03	0.404
		1770.23		-2.701E-01	2.656E-01	3.684E-01	3.330E-02	-0.733
TL-208		277.37		4.317E-02	1.476E-01	2.495E-01	3.208E-02	0.173
		583.19	*	9.359E-03	1.873E-02	2.912E-02	2.729E-03	0.321
		860.56		9.249E-02	1.133E-01	1.999E-01	2.564E-02	0.463
PB-210		46.54	*	-2.527E+00	1.589E+00	2.317E+00	2.210E-01	-1.091
BI-211		72.87		5.032E-01	1.079E+00	1.808E+00	1.494E-01	0.278
		351.06	*	2.971E-02	9.187E-02	1.541E-01	1.476E-02	0.193
PB-211		404.85	*	1.858E-01	3.004E-01	4.904E-01	2.377E-01	0.379
		427.09		-2.297E-01	6.240E-01	9.767E-01	4.527E-01	-0.235
		832.01		-1.769E-01	3.777E-01	5.746E-01	3.014E-01	-0.308
BI-212		727.33	*	-4.767E-02	1.847E-01	2.998E-01	3.917E-02	-0.159
		785.37		7.090E-02	1.206E+00	2.010E+00	2.149E-01	0.035
		1620.50		5.468E-01	1.139E+00	1.994E+00	1.992E-01	0.274

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PB-212		74.82		1.698E-01	1.463E-01	2.137E-01	2.742E-02	0.794
		77.11		-9.961E-02	7.422E-02	1.091E-01	9.290E-03	-0.913
		238.63	*	-1.736E-02	3.442E-02	5.065E-02	5.051E-03	-0.343
		300.09		-1.580E-03	3.275E-01	5.434E-01	5.971E-02	-0.003
BI-214		609.32	*	-1.192E-02	3.661E-02	5.343E-02	5.396E-03	-0.223
		1120.29		-1.340E-01	1.496E-01	1.822E-01	2.127E-02	-0.736
		1764.49		-1.890E-01	1.357E-01	2.067E-01	1.877E-02	-0.915
PB-214		74.82		3.009E-01	2.587E-01	3.787E-01	4.367E-02	0.794
		77.11		-1.756E-01	1.316E-01	1.923E-01	2.280E-02	-0.913
		242.00		-4.019E-01	1.649E-01	2.363E-01	2.505E-02	-1.701
		295.22		8.099E-03	5.735E-02	9.597E-02	1.078E-02	0.084
		351.93	*	1.149E-02	3.324E-02	5.582E-02	6.168E-03	0.206
RN-219		271.23		-8.085E-03	9.223E-02	1.529E-01	1.626E-02	-0.053
		401.81	*	-4.395E-02	1.648E-01	2.648E-01	4.002E-02	-0.166
RA-223		81.07		-5.461E-02	7.227E-02	1.142E-01	1.006E-02	-0.478
		83.79		-4.076E-02	5.086E-02	7.183E-02	6.494E-03	-0.567
		94.87		-2.109E-01	1.910E-01	2.964E-01	2.688E-02	-0.711
		144.24		-5.739E-02	3.107E-01	4.464E-01	4.251E-02	-0.129
		154.21		-5.222E-02	1.438E-01	2.265E-01	2.080E-02	-0.231
		269.46		-1.817E-02	7.276E-02	1.196E-01	1.102E-02	-0.152
		323.87	*	-2.208E-02	2.558E-01	4.209E-01	7.418E-02	-0.052
		338.28		2.843E-01	3.726E-01	6.408E-01	7.997E-02	0.444
RA-224		240.99	*	3.042E-01	2.730E-01	4.766E-01	4.229E-02	0.638
RA-226		609.32	*	-1.192E-02	3.661E-02	5.343E-02	5.396E-03	-0.223
		1120.29		-1.340E-01	1.496E-01	1.822E-01	2.127E-02	-0.736
		1764.49		-1.890E-01	1.357E-01	2.067E-01	1.877E-02	-0.915
AC-227		79.69		-1.814E-01	4.102E-01	6.573E-01	1.135E-01	-0.276
		235.96		-6.537E-02	6.375E-02	1.013E-01	1.066E-02	-0.645
		256.23	*	4.453E-02	1.035E-01	1.764E-01	2.172E-02	0.252
		299.98		-2.497E-02	3.610E-01	5.969E-01	7.808E-02	-0.042
		304.50		-1.665E-01	7.029E-01	1.150E+00	1.934E-01	-0.145
		334.37		3.316E-02	6.961E-01	1.153E+00	1.835E-01	0.029
TH-227		79.80		-2.040E-01	5.424E-01	8.714E-01	1.901E-01	-0.234
		235.96		-6.537E-02	6.371E-02	1.013E-01	1.008E-02	-0.645
		256.23	*	4.453E-02	1.035E-01	1.764E-01	2.441E-02	0.252
		299.98		-2.497E-02	3.610E-01	5.969E-01	7.808E-02	-0.042
		304.50		-1.665E-01	7.029E-01	1.150E+00	1.934E-01	-0.145
		334.37		3.316E-02	6.961E-01	1.153E+00	1.835E-01	0.029
AC-228		338.32		7.048E-02	9.795E-02	1.613E-01	6.747E-02	0.437
		911.20	*	-3.534E-02	6.857E-02	9.124E-02	1.390E-02	-0.387
		968.97		4.036E-03	1.015E-01	1.544E-01	4.001E-02	0.026
RA-228		338.32		7.048E-02	9.795E-02	1.613E-01	6.747E-02	0.437
		911.20	*	-3.534E-02	6.857E-02	9.124E-02	1.390E-02	-0.387
		968.97		4.036E-03	1.015E-01	1.544E-01	4.001E-02	0.026
TH-228		74.82		1.698E-01	1.453E-01	2.137E-01	1.806E-02	0.794
		77.11		-9.961E-02	7.422E-02	1.091E-01	9.290E-03	-0.913
		238.63	*	-1.736E-02	3.442E-02	5.065E-02	5.051E-03	-0.343
		300.09		-1.580E-03	3.275E-01	5.434E-01	3.331E-01	-0.003
TH-229		85.43		1.143E-01	8.210E-02	1.269E-01	1.166E-02	0.901

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		88.47		-1.843E-01	5.553E-02	6.523E-02	6.138E-03	-2.825
		193.51	*	2.037E-01	2.135E-01	3.569E-01	3.010E-02	0.571
		210.85		7.686E-03	3.282E-01	5.527E-01	4.758E-02	0.014
TH-230		609.32	*	-1.192E-02	3.660E-02	5.342E-02	4.601E-03	-0.223
		1120.29		-1.340E-01	1.493E-01	1.822E-01	1.742E-02	-0.736
		1764.49		-1.890E-01	1.357E-01	2.067E-01	1.877E-02	-0.915
PA-231		283.69	*	3.917E-01	5.797E-01	9.958E-01	1.482E-01	0.393
		301.36		1.951E-01	2.299E-01	3.968E-01	4.978E-02	0.492
TH-231		81.07		-5.461E-02	7.227E-02	1.142E-01	1.006E-02	-0.478
		83.79		-4.076E-02	5.086E-02	7.183E-02	6.494E-03	-0.567
		94.87		-2.109E-01	1.910E-01	2.964E-01	2.688E-02	-0.711
		144.24		-5.739E-02	3.107E-01	4.464E-01	4.251E-02	-0.129
		154.21		-5.222E-02	1.438E-01	2.265E-01	2.080E-02	-0.231
		269.46		-1.817E-02	7.276E-02	1.196E-01	1.102E-02	-0.152
		323.87	*	-2.208E-02	2.558E-01	4.209E-01	7.418E-02	-0.052
		338.28		2.843E-01	3.726E-01	6.408E-01	7.997E-02	0.444
TH-232		338.32		7.048E-02	9.363E-02	1.613E-01	1.481E-02	0.437
		911.20	*	-3.534E-02	6.857E-02	9.124E-02	1.390E-02	-0.387
		968.97		4.036E-03	1.015E-01	1.544E-01	4.001E-02	0.026
PA-233		300.13		-4.207E-04	1.631E-01	2.706E-01	4.100E-02	-0.002
		311.90	*	9.803E-03	2.795E-02	4.720E-02	4.444E-03	0.208
		340.48		-6.080E-02	3.103E-01	4.029E-01	9.780E-02	-0.151
PA-234		94.67		9.342E-02	6.669E-02	1.133E-01	1.442E-02	0.824
		98.44		-1.743E-02	4.038E-02	5.477E-02	3.058E-02	-0.318
		111.00		8.053E-02	7.003E-02	1.191E-01	1.460E-02	0.676
		131.20		-4.243E-02	4.097E-02	6.241E-02	5.477E-03	-0.680
		569.50		-1.051E-02	1.154E-01	1.844E-01	1.631E-02	-0.057
		733.00		4.892E-02	1.350E-01	2.315E-01	5.229E-02	0.211
		880.51		-1.023E-01	1.100E-01	1.614E-01	2.073E-02	-0.634
		883.24		-1.051E-02	1.097E-01	1.784E-01	1.211E-01	-0.059
		926.50		3.754E-03	6.229E-02	1.030E-01	2.786E-02	0.036
		946.00	*	5.780E-02	1.150E-01	1.978E-01	4.140E-02	0.292
		949.00		-6.368E-02	1.789E-01	2.819E-01	3.561E-02	-0.226
PA-234M		766.42		-1.278E+00	5.648E+00	7.548E+00	3.853E+00	-0.169
		1001.03	*	-3.860E-01	2.080E+00	3.216E+00	4.137E-01	-0.120
TH-234		63.29	*	1.989E-01	5.925E-01	8.713E-01	1.574E-01	0.228
		92.59		4.009E-01	3.275E-01	5.065E-01	1.130E-01	0.791
U-235		89.96		-1.525E+00	5.056E-01	4.421E-01	1.099E-01	-3.449
		93.35		1.512E-01	2.424E-01	3.777E-01	8.798E-02	0.400
		143.76	*	-1.272E-02	9.163E-02	1.316E-01	2.224E-02	-0.097
		163.33		5.033E-02	1.995E-01	2.980E-01	5.289E-02	0.169
		185.72		-7.239E-03	2.345E-02	3.502E-02	2.924E-03	-0.207
		205.31		8.914E-02	1.918E-01	3.286E-01	5.952E-02	0.271
NP-237		86.48	*	8.849E-02	9.707E-02	1.435E-01	3.291E-02	0.617
		95.86		-1.760E+00	5.872E-01	5.375E-01	1.298E-01	-3.274
U-238		63.29	*	1.989E-01	5.925E-01	8.713E-01	1.574E-01	0.228
		92.59		4.009E-01	3.172E-01	5.065E-01	4.643E-02	0.791
NP-239		99.53		-3.625E-02	7.015E-02	9.719E-02	8.679E-03	-0.373
		103.37		2.007E-02	3.705E-02	6.191E-02	5.491E-03	0.324

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		106.12		-7.113E-03	3.175E-02	5.110E-02	4.523E-03	-0.139
		117.23	*	-3.081E-02	1.565E-01	2.514E-01	2.245E-02	-0.123
		228.18		2.225E-02	8.479E-02	1.440E-01	1.263E-02	0.155
		277.60		2.123E-03	6.727E-02	1.122E-01	1.020E-02	0.019
AM-241		59.54	*	-9.476E-02	5.773E-02	8.730E-02	7.534E-03	-1.085
CM-247		278.00		-1.139E-01	2.873E-01	4.673E-01	4.249E-02	-0.244
		287.50		-1.386E-01	5.099E-01	8.346E-01	7.619E-02	-0.166
		402.40	*	-2.755E-03	1.513E-02	2.448E-02	2.209E-03	-0.113
CF-249		252.80		1.480E-01	3.933E-01	6.695E-01	5.996E-02	0.221
		333.37		1.039E-02	7.234E-02	1.206E-01	1.108E-02	0.086
		388.16	*	-4.165E-03	1.600E-02	2.578E-02	2.324E-03	-0.162
CF-251		177.52	*	-5.726E-02	5.347E-02	8.024E-02	6.631E-03	-0.714
		227.38		9.225E-02	1.396E-01	2.413E-01	2.115E-02	0.382
		285.41		4.945E-01	8.902E-01	1.524E+00	1.390E-01	0.325
ANH-511		511.00	*	-1.433E-02	2.821E-02	4.552E-02	4.121E-03	-0.315

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188    *
* Acquisition date : 24-MAR-2010 22:59:45 Detector SN#    :                *
* Detector ID        : GAM29               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 04:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 04:01:22.05      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        :  9-MAR-2010 00:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202065188         Analyst initials: MXR1          *
* Batch Number       : 962633              Sample Quantity : 1.4370E+02 GRAM *
* Recovery           :    1.00000          Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM            :    0.000            MSD Isotope     :               *
* LCS DPM            :    0.000            LCS Isotope     :               *
* LCSD DPM           :    0.000            LCSD Isotope    :               *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)	
BE-7	4.447E-02	1.353E-01	2.367E-01	0.000E+00 NOT IDENT.
NA-22	-2.092E-06	1.461E-02	2.514E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	7.762E+05	0.000E+00	0.000E+00 SHORT HLIF
K-40	-4.044E-02	2.058E-01	3.427E-01	0.000E+00 NOT IDENT.
SC-46	-9.628E-03	1.613E-02	2.582E-02	0.000E+00 NOT IDENT.
V-48	-4.179E-03	2.572E-02	4.269E-02	0.000E+00 NOT IDENT.
CR-51	-6.487E-02	1.502E-01	2.567E-01	0.000E+00 NOT IDENT.
MN-54	1.374E-02	1.296E-02	2.435E-02	0.000E+00 NOT IDENT.
CO-56	-9.102E-03	1.717E-02	2.800E-02	0.000E+00 NOT IDENT.
CO-57	-6.051E-03	9.848E-03	1.672E-02	0.000E+00 NOT IDENT.
CO-58	-1.067E-02	1.414E-02	2.228E-02	0.000E+00 NOT IDENT.
FE-59	1.909E-02	3.187E-02	5.715E-02	0.000E+00 NOT IDENT.
CO-60	1.748E-02	1.492E-02	2.885E-02	0.000E+00 NOT IDENT.
ZN-65	-1.286E-03	3.443E-02	5.745E-02	0.000E+00 NOT IDENT.
SE-75	1.106E-02	1.766E-02	3.236E-02	0.000E+00 NOT IDENT.
SR-85	-4.163E-02	2.620E-02	4.090E-02	0.000E+00 NOT IDENT.
Y-88	-1.055E-02	1.569E-02	2.287E-02	0.000E+00 NOT IDENT.
Y-91	-8.383E-01	7.123E+00	1.168E+01	0.000E+00 NOT IDENT.
NB-94	4.069E-03	1.351E-02	2.402E-02	0.000E+00 NOT IDENT.
NB-95	1.099E-02	1.606E-02	2.924E-02	0.000E+00 NOT IDENT.
NB-95M	-7.634E-02	5.165E-02	8.527E-02	0.000E+00 NOT IDENT.
ZR-95	-1.520E-03	2.684E-02	4.615E-02	0.000E+00 NOT IDENT.
MO-99	2.823E+00	5.512E+00	9.966E+00	0.000E+00 NOT IDENT.
TC-99M	0.000E+00	1.670E+17	0.000E+00	0.000E+00 SHORT HLIF
RU-103	-6.258E-03	1.699E-02	2.809E-02	0.000E+00 NOT IDENT.
RH-106	-6.571E-02	1.292E-01	2.174E-01	0.000E+00 NOT IDENT.

RU-106	-6.571E-02	1.290E-01	2.174E-01	0.000E+00	NOT IDENT.
AG-108M	2.998E-03	1.111E-02	1.951E-02	0.000E+00	NOT IDENT.
CD-109	-6.119E-01	3.315E-01	4.730E-01	0.000E+00	NOT IDENT.
AG-110M	7.019E-03	1.323E-02	2.408E-02	0.000E+00	NOT IDENT.
SN-113	-3.263E-03	1.820E-02	3.115E-02	0.000E+00	NOT IDENT.
CD-115	2.372E+00	5.714E+00	1.003E+01	0.000E+00	NOT IDENT.
SN-117M	5.880E-03	2.135E-02	3.746E-02	0.000E+00	NOT IDENT.
TE-123M	-1.452E-03	1.099E-02	1.887E-02	0.000E+00	NOT IDENT.
SB-124	9.078E-03	3.479E-02	6.086E-02	0.000E+00	NOT IDENT.
SB-125	-8.882E-03	3.562E-02	6.019E-02	0.000E+00	NOT IDENT.
TE-125M	-3.711E+00	3.724E+00	6.213E+00	0.000E+00	NOT IDENT.
I-126	9.224E-03	8.281E-02	1.459E-01	0.000E+00	NOT IDENT.
SB-126	-3.690E-02	5.452E-02	8.846E-02	0.000E+00	NOT IDENT.
SN-126	-2.509E-02	3.145E-02	4.774E-02	0.000E+00	NOT IDENT.
SB-127	-7.514E-02	6.111E-01	1.053E+00	0.000E+00	NOT IDENT.
I-131	-4.238E-03	5.426E-02	9.402E-02	0.000E+00	NOT IDENT.
TE-132	9.357E-02	3.400E-01	6.168E-01	0.000E+00	NOT IDENT.
BA-133	-7.671E-03	1.856E-02	3.154E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.796E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-2.862E-03	1.541E-02	2.603E-02	0.000E+00	NOT IDENT.
CS-135	3.162E-03	6.005E-02	1.069E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.027E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.396E-02	4.128E-02	7.553E-02	0.000E+00	NOT IDENT.
BA-137M	-5.400E-03	1.332E-02	2.247E-02	0.000E+00	NOT IDENT.
CS-137	-5.705E-03	1.408E-02	2.374E-02	0.000E+00	NOT IDENT.
CE-139	-1.062E-02	1.256E-02	2.070E-02	0.000E+00	NOT IDENT.
BA-140	-1.804E-02	1.063E-01	1.772E-01	0.000E+00	NOT IDENT.
LA-140	2.319E-02	3.543E-02	6.542E-02	0.000E+00	NOT IDENT.
CE-141	1.356E-02	2.517E-02	4.483E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.823E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	4.401E-03	7.454E-02	1.305E-01	0.000E+00	NOT IDENT.
PM-144	3.863E-03	1.409E-02	2.502E-02	0.000E+00	NOT IDENT.
PR-144	4.565E-01	1.043E+00	1.873E+00	0.000E+00	NOT IDENT.
PM-146	-4.587E-03	1.809E-02	3.046E-02	0.000E+00	NOT IDENT.
ND-147	-1.707E-01	2.313E-01	3.641E-01	0.000E+00	NOT IDENT.
PM-149	3.938E+00	4.887E+01	8.677E+01	0.000E+00	NOT IDENT.
EU-152	-1.697E-02	3.973E-02	6.757E-02	0.000E+00	NOT IDENT.
GD-153	-2.554E-02	3.595E-02	5.400E-02	0.000E+00	NOT IDENT.
EU-154	-1.679E-03	4.116E-02	7.048E-02	0.000E+00	NOT IDENT.
EU-155	-2.498E-04	3.893E-02	6.879E-02	0.000E+00	NOT IDENT.
TB-160	-1.909E-02	5.339E-02	8.772E-02	0.000E+00	NOT IDENT.
HO-166M	-5.989E-03	3.430E-02	4.418E-02	0.000E+00	NOT IDENT.
TA-182	-7.653E-03	5.378E-02	8.749E-02	0.000E+00	NOT IDENT.
IR-192	2.258E-03	1.422E-02	2.520E-02	0.000E+00	NOT IDENT.
HG-203	-7.503E-03	1.492E-02	2.565E-02	0.000E+00	NOT IDENT.
BI-207	1.456E-02	2.019E-02	3.646E-02	0.000E+00	NOT IDENT.
TL-208	9.359E-03	1.835E-02	2.988E-02	0.000E+00	NOT IDENT.
PB-210	-2.527E+00	1.557E+00	2.506E+00	0.000E+00	NOT IDENT.
BI-211	2.971E-02	9.003E-02	1.599E-01	0.000E+00	NOT IDENT.
PB-211	1.858E-01	2.944E-01	5.071E-01	0.000E+00	NOT IDENT.
BI-212	-4.767E-02	1.810E-01	3.061E-01	0.000E+00	NOT IDENT.
PB-212	-1.736E-02	3.374E-02	5.298E-02	0.000E+00	NOT IDENT.
BI-214	-1.192E-02	3.588E-02	5.476E-02	0.000E+00	NOT IDENT.
PB-214	1.149E-02	3.258E-02	5.791E-02	0.000E+00	NOT IDENT.
RN-219	-4.395E-02	1.615E-01	2.739E-01	0.000E+00	NOT IDENT.
RA-223	-2.208E-02	2.507E-01	4.374E-01	0.000E+00	NOT IDENT.
RA-224	3.042E-01	2.675E-01	4.984E-01	0.000E+00	NOT IDENT.
RA-226	-1.192E-02	3.588E-02	5.476E-02	0.000E+00	NOT IDENT.
AC-227	4.453E-02	1.014E-01	1.843E-01	0.000E+00	NOT IDENT.
TH-227	4.453E-02	1.014E-01	1.843E-01	0.000E+00	NOT IDENT.
AC-228	-3.534E-02	6.720E-02	9.268E-02	0.000E+00	NOT IDENT.
RA-228	-3.534E-02	6.720E-02	9.268E-02	0.000E+00	NOT IDENT.
TH-228	-1.736E-02	3.374E-02	5.298E-02	0.000E+00	NOT IDENT.
TH-229	2.037E-01	2.092E-01	3.750E-01	0.000E+00	NOT IDENT.
TH-230	-1.192E-02	3.587E-02	5.476E-02	0.000E+00	NOT IDENT.
PA-231	3.917E-01	5.681E-01	1.038E+00	0.000E+00	NOT IDENT.
TH-231	-2.208E-02	2.507E-01	4.374E-01	0.000E+00	NOT IDENT.
TH-232	-3.534E-02	6.720E-02	9.268E-02	0.000E+00	NOT IDENT.
PA-233	9.803E-03	2.739E-02	4.908E-02	0.000E+00	NOT IDENT.
PA-234	5.780E-02	1.127E-01	2.007E-01	0.000E+00	NOT IDENT.
PA-234M	-3.860E-01	2.038E+00	3.260E+00	0.000E+00	NOT IDENT.
TH-234	1.989E-01	5.806E-01	9.367E-01	0.000E+00	NOT IDENT.
U-235	-1.272E-02	8.979E-02	1.391E-01	0.000E+00	NOT IDENT.
NP-237	8.849E-02	9.512E-02	1.533E-01	0.000E+00	NOT IDENT.
U-238	1.989E-01	5.806E-01	9.367E-01	0.000E+00	NOT IDENT.
NP-239	-3.081E-02	1.534E-01	2.669E-01	0.000E+00	NOT IDENT.
AM-241	-9.476E-02	5.657E-02	9.396E-02	0.000E+00	NOT IDENT.
CM-247	-2.755E-03	1.483E-02	2.531E-02	0.000E+00	NOT IDENT.

CF-249	-4.165E-03	1.568E-02	2.668E-02	0.000E+00 NOT IDENT.
CF-251	-5.726E-02	5.240E-02	8.445E-02	0.000E+00 NOT IDENT.
ANH-511	-1.433E-02	2.764E-02	4.683E-02	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:01:38.10

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1
Sample date      : 9-MAR-2010 00:00:00. Acquisition date : 24-MAR-2010 22:59:45
Sample ID        : G1202065188          Sample quantity  : 1.43700E+02 GRAM
Detector name    : GAM29                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:01:22.05  0.6%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 962633               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

None

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:01:42.35

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                 DETECTOR DATA                               *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1   *
* Acquisition date : 24-MAR-2010 22:59:45  Detector SN#    :                  *
* Detector ID      : GAM29                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 04:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 04:01:22.05         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                  SAMPLE DATA                                *
*                                                                             *
* Sample date      : 9-MAR-2010 00:00:00.  Nuclide Library : SOLID             *
* Sample ID        : G1202065188           Analyst initials: MXR1              *
* Batch Number     : 962633                Sample Quantity : 1.43700E+02 GRAM  *
*******************************************************************************
*                                                                             *
*                                    QC DATA                                  *
*                                                                             *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45.9MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.447E-02		1.381E-01	2.297E-01	2.236E-02	0.194
NA-22	-2.092E-06		1.491E-02	2.494E-02	2.490E-03	0.000
NA-24	-2.708E-01		3.960E-01	Half-Life too short		
K-40	-4.044E-02		2.100E-01	3.411E-01	3.710E-02	-0.119
SC-46	-9.628E-03		1.646E-02	2.541E-02	3.318E-03	-0.379
V-48	-4.179E-03		2.624E-02	4.210E-02	5.107E-03	-0.099
CR-51	-6.487E-02		1.533E-01	2.469E-01	2.374E-02	-0.263
MN-54	1.374E-02		1.323E-02	2.392E-02	2.819E-03	0.575
CO-56	-9.102E-03		1.753E-02	2.752E-02	3.318E-03	-0.331
CO-57	-6.051E-03		1.005E-02	1.576E-02	1.424E-03	-0.384
CO-58	-1.067E-02		1.443E-02	2.188E-02	2.464E-03	-0.487
FE-59	1.909E-02		3.252E-02	5.651E-02	6.000E-03	0.338
CO-60	1.748E-02		1.523E-02	2.865E-02	3.143E-03	0.610
ZN-65	-1.286E-03		3.514E-02	5.682E-02	5.495E-03	-0.023
SE-75	1.106E-02		1.802E-02	3.101E-02	2.812E-03	0.357
SR-85	-4.163E-02		2.674E-02	3.976E-02	3.597E-03	-1.047
Y-88	-1.055E-02		1.601E-02	2.288E-02	1.956E-03	-0.461

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	-8.383E-01		7.269E+00	1.157E+01	1.020E+00	-0.072
NB-94	4.069E-03		1.379E-02	2.351E-02	2.112E-03	0.173
NB-95	1.099E-02		1.639E-02	2.868E-02	2.945E-03	0.383
NB-95M	-7.634E-02		5.271E-02	8.150E-02	8.207E-03	-0.937
ZR-95	-1.520E-03		2.738E-02	4.524E-02	4.914E-03	-0.034
MO-99	2.823E+00		5.625E+00	9.765E+00	1.600E+00	0.289
TC-99M	-3.517E+10		8.522E+10	Half-Life too short		
RU-103	-6.258E-03		1.733E-02	2.728E-02	3.889E-03	-0.229
RH-106	-6.571E-02		1.318E-01	2.122E-01	2.799E-02	-0.310
RU-106	-6.571E-02		1.316E-01	2.122E-01	1.809E-02	-0.310
AG-108M	2.998E-03		1.134E-02	1.889E-02	1.768E-03	0.159
CD-109	-6.119E-01		3.382E-01	4.429E-01	4.182E-02	-1.382
AG-110M	7.019E-03		1.350E-02	2.353E-02	2.001E-03	0.298
SN-113	-3.263E-03		1.857E-02	3.010E-02	2.784E-03	-0.108
CD-115	2.372E+00		5.830E+00	9.759E+00	8.791E-01	0.243
SN-117M	5.880E-03		2.178E-02	3.551E-02	2.935E-03	0.166
TE-123M	-1.452E-03		1.121E-02	1.789E-02	1.487E-03	-0.081
SB-124	9.078E-03		3.550E-02	6.077E-02	6.017E-03	0.149
SB-125	-8.882E-03		3.634E-02	5.827E-02	5.382E-03	-0.152
TE-125M	-3.711E+00		3.800E+00	5.844E+00	6.237E-01	-0.635
I-126	9.224E-03		8.450E-02	1.426E-01	1.182E-02	0.065
SB-126	-3.690E-02		5.563E-02	8.663E-02	8.092E-03	-0.426
SN-126	-2.509E-02		3.209E-02	4.471E-02	4.202E-03	-0.561
SB-127	-7.514E-02		6.235E-01	1.031E+00	1.201E-01	-0.073
I-131	-4.238E-03		5.537E-02	9.071E-02	8.679E-03	-0.047
TE-132	9.357E-02		3.469E-01	5.891E-01	9.471E-02	0.159
BA-133	-7.671E-03		1.894E-02	3.041E-02	4.048E-03	-0.252
I-133	-3.748E-03		2.447E-03	Half-Life too short		
CS-134	-2.862E-03		1.573E-02	2.555E-02	2.802E-03	-0.112
CS-135	3.162E-03		6.127E-02	1.024E-01	1.059E-02	0.031
I-135	1.180E+09		1.034E+10	Half-Life too short		
CS-136	3.396E-02		4.212E-02	7.459E-02	8.443E-03	0.455
BA-137M	-5.400E-03		1.360E-02	2.196E-02	1.800E-03	-0.246
CS-137	-5.705E-03		1.436E-02	2.320E-02	1.906E-03	-0.246
CE-139	-1.062E-02		1.281E-02	1.964E-02	1.601E-03	-0.541
BA-140	-1.804E-02		1.085E-01	1.724E-01	5.863E-02	-0.105
LA-140	2.319E-02		3.615E-02	6.523E-02	6.600E-03	0.356
CE-141	1.356E-02		2.568E-02	4.242E-02	3.667E-03	0.320
CE-143	9.310E-05		3.991E-05	Half-Life too short		
CE-144	4.401E-03		7.606E-02	1.233E-01	1.892E-02	0.036
PM-144	3.863E-03		1.438E-02	2.448E-02	2.170E-03	0.158
PR-144	4.565E-01		1.064E+00	1.833E+00	1.624E-01	0.249
PM-146	-4.587E-03		1.846E-02	2.953E-02	3.246E-03	-0.155
ND-147	-1.707E-01		2.360E-01	3.542E-01	5.373E-02	-0.482
PM-149	3.938E+00		4.987E+01	8.328E+01	1.318E+01	0.047
EU-152	-1.697E-02		4.054E-02	6.511E-02	6.286E-03	-0.261
GD-153	-2.554E-02		3.668E-02	5.067E-02	4.551E-03	-0.504
EU-154	-1.679E-03		4.200E-02	6.992E-02	8.694E-03	-0.024

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	-2.498E-04		3.972E-02	6.465E-02	5.789E-03	-0.004
TB-160	-1.909E-02		5.448E-02	8.629E-02	1.106E-02	-0.221
HO-166M	-5.989E-03		3.500E-02	4.325E-02	3.962E-03	-0.138
TA-182	-7.653E-03		5.488E-02	8.670E-02	7.881E-03	-0.088
IR-192	2.258E-03		1.451E-02	2.424E-02	2.232E-03	0.093
HG-203	-7.503E-03		1.523E-02	2.461E-02	2.290E-03	-0.305
BI-207	1.456E-02		2.060E-02	3.602E-02	3.867E-03	0.404
TL-208	9.359E-03		1.873E-02	2.912E-02	2.729E-03	0.321
PB-210	-2.527E+00		1.589E+00	2.317E+00	2.210E-01	-1.091
BI-211	2.971E-02		9.187E-02	1.541E-01	1.476E-02	0.193
PB-211	1.858E-01		3.004E-01	4.904E-01	2.377E-01	0.379
BI-212	-4.767E-02		1.847E-01	2.998E-01	3.917E-02	-0.159
PB-212	-1.736E-02		3.442E-02	5.065E-02	5.051E-03	-0.343
BI-214	-1.192E-02		3.661E-02	5.343E-02	5.396E-03	-0.223
PB-214	1.149E-02		3.324E-02	5.582E-02	6.168E-03	0.206
RN-219	-4.395E-02		1.648E-01	2.648E-01	4.002E-02	-0.166
RA-223	-2.208E-02		2.558E-01	4.209E-01	7.418E-02	-0.052
RA-224	3.042E-01		2.730E-01	4.766E-01	4.229E-02	0.638
RA-226	-1.192E-02		3.661E-02	5.343E-02	5.396E-03	-0.223
AC-227	4.453E-02		1.035E-01	1.764E-01	2.172E-02	0.252
TH-227	4.453E-02		1.035E-01	1.764E-01	2.441E-02	0.252
AC-228	-3.534E-02		6.857E-02	9.124E-02	1.390E-02	-0.387
RA-228	-3.534E-02		6.857E-02	9.124E-02	1.390E-02	-0.387
TH-228	-1.736E-02		3.442E-02	5.065E-02	5.051E-03	-0.343
TH-229	2.037E-01		2.135E-01	3.569E-01	3.010E-02	0.571
TH-230	-1.192E-02		3.660E-02	5.342E-02	4.601E-03	-0.223
PA-231	3.917E-01		5.797E-01	9.958E-01	1.482E-01	0.393
TH-231	-2.208E-02		2.558E-01	4.209E-01	7.418E-02	-0.052
TH-232	-3.534E-02		6.857E-02	9.124E-02	1.390E-02	-0.387
PA-233	9.803E-03		2.795E-02	4.720E-02	4.444E-03	0.208
PA-234	5.780E-02		1.150E-01	1.978E-01	4.140E-02	0.292
PA-234M	-3.860E-01		2.080E+00	3.216E+00	4.137E-01	-0.120
TH-234	1.989E-01		5.925E-01	8.713E-01	1.574E-01	0.228
U-235	-1.272E-02		9.163E-02	1.316E-01	2.224E-02	-0.097
NP-237	8.849E-02		9.707E-02	1.435E-01	3.291E-02	0.617
U-238	1.989E-01		5.925E-01	8.713E-01	1.574E-01	0.228
NP-239	-3.081E-02		1.565E-01	2.514E-01	2.245E-02	-0.123
AM-241	-9.476E-02		5.773E-02	8.730E-02	7.534E-03	-1.085
CM-247	-2.755E-03		1.513E-02	2.448E-02	2.209E-03	-0.113
CF-249	-4.165E-03		1.600E-02	2.578E-02	2.324E-03	-0.162
CF-251	-5.726E-02		5.347E-02	8.024E-02	6.631E-03	-0.714
ANH-511	-1.433E-02		2.821E-02	4.552E-02	4.121E-03	-0.315

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065188          *
* Acquisition date : 24-MAR-2010 22:59:45 Detector SN#    :                *
* Detector ID      : GAM29                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 04:01:22.05     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202065188          Analyst initials: MXR1           *
* Batch Number     : 962633               Sample Quantity : 1.4370E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act Error	DLC (pCi/GRAM)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	4.447E-02	1.353E-01	1.184E-01	6.905E-02 NOT IDENT.
NA-22	-2.092E-06	1.461E-02	1.258E-02	7.453E-03 NOT IDENT.
NA-24	-2.708E+05	7.762E+05	0.000E+00	3.960E+05 SHORT HLIF
K-40	-4.044E-02	2.058E-01	1.715E-01	1.050E-01 NOT IDENT.
SC-46	-9.628E-03	1.613E-02	1.292E-02	8.229E-03 NOT IDENT.
V-48	-4.179E-03	2.572E-02	2.136E-02	1.312E-02 NOT IDENT.
CR-51	-6.487E-02	1.502E-01	1.284E-01	7.665E-02 NOT IDENT.
MN-54	1.374E-02	1.296E-02	1.218E-02	6.614E-03 NOT IDENT.
CO-56	-9.102E-03	1.717E-02	1.401E-02	8.763E-03 NOT IDENT.
CO-57	-6.051E-03	9.848E-03	8.366E-03	5.024E-03 NOT IDENT.
CO-58	-1.067E-02	1.414E-02	1.115E-02	7.214E-03 NOT IDENT.
FE-59	1.909E-02	3.187E-02	2.859E-02	1.626E-02 NOT IDENT.
CO-60	1.748E-02	1.492E-02	1.444E-02	7.614E-03 NOT IDENT.
ZN-65	-1.286E-03	3.443E-02	2.874E-02	1.757E-02 NOT IDENT.
SE-75	1.106E-02	1.766E-02	1.619E-02	9.012E-03 NOT IDENT.
SR-85	-4.163E-02	2.620E-02	2.046E-02	1.337E-02 NOT IDENT.
Y-88	-1.055E-02	1.569E-02	1.144E-02	8.007E-03 NOT IDENT.
Y-91	-8.383E-01	7.123E+00	5.842E+00	3.634E+00 NOT IDENT.
NB-94	4.069E-03	1.351E-02	1.202E-02	6.894E-03 NOT IDENT.
NB-95	1.099E-02	1.606E-02	1.463E-02	8.193E-03 NOT IDENT.
NB-95M	-7.634E-02	5.165E-02	4.266E-02	2.635E-02 NOT IDENT.
ZR-95	-1.520E-03	2.684E-02	2.309E-02	1.369E-02 NOT IDENT.
MO-99	2.823E+00	5.512E+00	4.986E+00	2.812E+00 NOT IDENT.
TC-99M	-3.517E+16	1.670E+17	0.000E+00	0.000E+00 SHORT HLIF
RU-103	-6.258E-03	1.699E-02	1.405E-02	8.667E-03 NOT IDENT.
RH-106	-6.571E-02	1.292E-01	1.087E-01	6.589E-02 NOT IDENT.

RU-106	-6.571E-02	1.290E-01	1.087E-01	6.581E-02	NOT IDENT.
AG-108M	2.998E-03	1.111E-02	9.761E-03	5.671E-03	NOT IDENT.
CD-109	-6.119E-01	3.315E-01	2.366E-01	1.691E-01	NOT IDENT.
AG-110M	7.019E-03	1.323E-02	1.205E-02	6.752E-03	NOT IDENT.
SN-113	-3.263E-03	1.820E-02	1.559E-02	9.286E-03	NOT IDENT.
CD-115	2.372E+00	5.714E+00	5.020E+00	2.915E+00	NOT IDENT.
SN-117M	5.880E-03	2.135E-02	1.874E-02	1.089E-02	NOT IDENT.
TE-123M	-1.452E-03	1.099E-02	9.442E-03	5.606E-03	NOT IDENT.
SB-124	9.078E-03	3.479E-02	3.045E-02	1.775E-02	NOT IDENT.
SB-125	-8.882E-03	3.562E-02	3.011E-02	1.817E-02	NOT IDENT.
TE-125M	-3.711E+00	3.724E+00	3.108E+00	1.900E+00	NOT IDENT.
I-126	9.224E-03	8.281E-02	7.299E-02	4.225E-02	NOT IDENT.
SB-126	-3.690E-02	5.452E-02	4.425E-02	2.782E-02	NOT IDENT.
SN-126	-2.509E-02	3.145E-02	2.389E-02	1.605E-02	NOT IDENT.
SB-127	-7.514E-02	6.111E-01	5.270E-01	3.118E-01	NOT IDENT.
I-131	-4.238E-03	5.426E-02	4.704E-02	2.769E-02	NOT IDENT.
TE-132	9.357E-02	3.400E-01	3.086E-01	1.735E-01	NOT IDENT.
BA-133	-7.671E-03	1.856E-02	1.578E-02	9.468E-03	NOT IDENT.
I-133	-3.748E+03	4.796E+03	0.000E+00	2.447E+03	SHORT HLIF
CS-134	-2.862E-03	1.541E-02	1.302E-02	7.864E-03	NOT IDENT.
CS-135	3.162E-03	6.005E-02	5.347E-02	3.064E-02	NOT IDENT.
I-135	1.180E+15	2.027E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.396E-02	4.128E-02	3.779E-02	2.106E-02	NOT IDENT.
BA-137M	-5.400E-03	1.332E-02	1.124E-02	6.798E-03	NOT IDENT.
CS-137	-5.705E-03	1.408E-02	1.188E-02	7.182E-03	NOT IDENT.
CE-139	-1.062E-02	1.256E-02	1.036E-02	6.406E-03	NOT IDENT.
BA-140	-1.804E-02	1.063E-01	8.865E-02	5.426E-02	NOT IDENT.
LA-140	2.319E-02	3.543E-02	3.273E-02	1.808E-02	NOT IDENT.
CE-141	1.356E-02	2.517E-02	2.243E-02	1.284E-02	NOT IDENT.
CE-143	9.310E+01	7.823E+01	0.000E+00	3.991E+01	SHORT HLIF
CE-144	4.401E-03	7.454E-02	6.531E-02	3.803E-02	NOT IDENT.
PM-144	3.863E-03	1.409E-02	1.252E-02	7.191E-03	NOT IDENT.
PR-144	4.565E-01	1.043E+00	9.371E-01	5.321E-01	NOT IDENT.
PM-146	-4.587E-03	1.809E-02	1.524E-02	9.229E-03	NOT IDENT.
ND-147	-1.707E-01	2.313E-01	1.821E-01	1.180E-01	NOT IDENT.
PM-149	3.938E+00	4.887E+01	4.341E+01	2.493E+01	NOT IDENT.
EU-152	-1.697E-02	3.973E-02	3.380E-02	2.027E-02	NOT IDENT.
GD-153	-2.554E-02	3.595E-02	2.701E-02	1.834E-02	NOT IDENT.
EU-154	-1.679E-03	4.116E-02	3.526E-02	2.100E-02	NOT IDENT.
EU-155	-2.498E-04	3.893E-02	3.441E-02	1.986E-02	NOT IDENT.
TB-160	-1.909E-02	5.339E-02	4.389E-02	2.724E-02	NOT IDENT.
HO-166M	-5.989E-03	3.430E-02	2.210E-02	1.750E-02	NOT IDENT.
TA-182	-7.653E-03	5.378E-02	4.377E-02	2.744E-02	NOT IDENT.
IR-192	2.258E-03	1.422E-02	1.261E-02	7.253E-03	NOT IDENT.
HG-203	-7.503E-03	1.492E-02	1.283E-02	7.615E-03	NOT IDENT.
BI-207	1.456E-02	2.019E-02	1.824E-02	1.030E-02	NOT IDENT.
TL-208	9.359E-03	1.835E-02	1.495E-02	9.365E-03	NOT IDENT.
PB-210	-2.527E+00	1.557E+00	1.254E+00	7.943E-01	NOT IDENT.
BI-211	2.971E-02	9.003E-02	7.999E-02	4.593E-02	NOT IDENT.
PB-211	1.858E-01	2.944E-01	2.537E-01	1.502E-01	NOT IDENT.
BI-212	-4.767E-02	1.810E-01	1.531E-01	9.233E-02	NOT IDENT.
PB-212	-1.736E-02	3.374E-02	2.651E-02	1.721E-02	NOT IDENT.
BI-214	-1.192E-02	3.588E-02	2.739E-02	1.830E-02	NOT IDENT.
PB-214	1.149E-02	3.258E-02	2.897E-02	1.662E-02	NOT IDENT.
RN-219	-4.395E-02	1.615E-01	1.370E-01	8.241E-02	NOT IDENT.
RA-223	-2.208E-02	2.507E-01	2.188E-01	1.279E-01	NOT IDENT.
RA-224	3.042E-01	2.675E-01	2.493E-01	1.365E-01	NOT IDENT.
RA-226	-1.192E-02	3.588E-02	2.739E-02	1.830E-02	NOT IDENT.
AC-227	4.453E-02	1.014E-01	9.218E-02	5.174E-02	NOT IDENT.
TH-227	4.453E-02	1.014E-01	9.218E-02	5.176E-02	NOT IDENT.
AC-228	-3.534E-02	6.720E-02	4.637E-02	3.428E-02	NOT IDENT.
RA-228	-3.534E-02	6.720E-02	4.637E-02	3.428E-02	NOT IDENT.
TH-228	-1.736E-02	3.374E-02	2.651E-02	1.721E-02	NOT IDENT.
TH-229	2.037E-01	2.092E-01	1.876E-01	1.067E-01	NOT IDENT.
TH-230	-1.192E-02	3.587E-02	2.739E-02	1.830E-02	NOT IDENT.
PA-231	3.917E-01	5.681E-01	5.192E-01	2.898E-01	NOT IDENT.
TH-231	-2.208E-02	2.507E-01	2.188E-01	1.279E-01	NOT IDENT.
TH-232	-3.534E-02	6.720E-02	4.637E-02	3.428E-02	NOT IDENT.
PA-233	9.803E-03	2.739E-02	2.456E-02	1.398E-02	NOT IDENT.
PA-234	5.780E-02	1.127E-01	1.004E-01	5.751E-02	NOT IDENT.
PA-234M	-3.860E-01	2.038E+00	1.631E+00	1.040E+00	NOT IDENT.
TH-234	1.989E-01	5.806E-01	4.686E-01	2.962E-01	NOT IDENT.
U-235	-1.272E-02	8.979E-02	6.959E-02	4.581E-02	NOT IDENT.
NP-237	8.849E-02	9.512E-02	7.668E-02	4.853E-02	NOT IDENT.
U-238	1.989E-01	5.806E-01	4.686E-01	2.962E-01	NOT IDENT.
NP-239	-3.081E-02	1.534E-01	1.335E-01	7.824E-02	NOT IDENT.
AM-241	-9.476E-02	5.657E-02	4.701E-02	2.886E-02	NOT IDENT.
CM-247	-2.755E-03	1.483E-02	1.266E-02	7.566E-03	NOT IDENT.

CF-249	-4.165E-03	1.568E-02	1.335E-02	8.001E-03	NOT IDENT.
CF-251	-5.726E-02	5.240E-02	4.225E-02	2.674E-02	NOT IDENT.
ANH-511	-1.433E-02	2.764E-02	2.343E-02	1.410E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	202.4697
49.72	267.2739
57.36	0.0000
59.54	291.1522
63.29	220.8324
63.29	220.8324
64.28	221.1543
67.75	264.9304
69.67	243.7598
70.83	277.0381
72.81	265.8001
72.87	265.8214
72.87	265.8214
74.82	235.4608
74.82	235.4608
74.82	235.4608
74.97	235.5083
77.11	275.3724
77.11	275.3724
77.11	275.3724
79.69	250.0804
79.80	250.1154
80.12	250.2185
80.19	265.3767
80.57	265.5052
81.00	268.6819
81.07	268.7052
81.07	268.7052
83.79	279.7661
83.79	279.7661
85.43	203.1425
86.48	214.5923
86.55	214.6108
86.79	254.3526
86.94	254.4003
87.57	271.9083
88.03	315.8749
88.47	408.8167
89.96	476.9584
91.11	269.9992
92.59	183.3879
92.59	183.3879
93.35	216.3655
94.67	265.9951
94.87	360.5628
94.87	360.5628
95.86	451.4762
97.43	236.9629
98.44	222.7945
99.53	218.9380
100.11	206.6803
103.18	200.1275
103.37	196.0209
105.31	215.1452
106.12	221.5763
109.28	243.2037
111.00	188.2253
111.76	187.3288
116.30	241.8359
117.23	219.9641
121.12	233.5066
121.78	218.8581
122.06	228.4371
123.07	211.7271
131.20	236.8743
133.52	202.1045
136.00	211.1477

136.47	216.6007
140.51	223.8628
140.51	0.0000
143.76	213.7256
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144.24	221.3769
145.44	216.2079
152.43	168.5911
153.25	174.1528
154.21	194.9933
154.21	194.9933
156.02	202.9323
158.56	183.6885
159.00	203.4446
162.66	199.6790
163.33	206.3766
165.86	250.8066
176.60	223.0197
177.52	228.7324
181.07	298.3982
184.41	233.3040
185.72	207.8380
193.51	176.4633
197.04	205.5465
205.31	201.3379
210.85	187.5601
215.65	195.4970
222.11	190.8588
227.38	168.5155
228.16	174.1317
228.18	174.1340
235.69	259.2563
235.96	259.3025
235.96	259.3025
238.63	179.9710
238.63	179.9710
240.99	207.1896
242.00	304.9435
244.70	189.9874
252.40	163.7720
252.80	161.9404
256.23	157.5948
256.23	157.5948
260.90	174.0405
264.66	142.3791
268.22	154.0242
269.46	168.3243
269.46	168.3243
271.23	159.0340
273.65	155.4717
276.40	140.5314
277.37	140.6108
277.60	144.4315
278.00	153.0188
279.20	154.0780
279.54	148.3999
280.46	151.3353
283.69	131.5936
284.31	131.6407
285.41	139.3594
285.90	149.9013
287.50	156.7289
293.27	0.0000
295.22	154.5380
295.96	181.4903
298.57	162.5222
299.98	162.6501
299.98	162.6501
300.09	160.7334
300.09	160.7334
300.13	160.7375
301.36	140.6212
302.85	154.2324
304.50	165.9510
304.50	165.9510
304.85	164.0525
308.46	156.6429
311.90	144.3438

316.51	133.0482
319.41	125.4742
320.08	136.2214
323.87	129.6718
323.87	129.6718
328.76	135.8694
333.37	129.3381
334.37	134.3075
334.37	134.3075
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338.28	115.9143
338.32	115.9157
338.32	115.9157
338.32	115.9157
340.48	126.8615
340.55	125.8828
344.28	136.9605
351.06	148.3063
351.93	146.3921
356.01	153.6282
364.49	133.3686
366.42	129.5096
383.85	119.5447
388.16	108.7146
388.63	99.6768
391.69	113.9352
400.66	112.3821
401.81	109.4027
402.40	108.4185
404.85	94.3385
410.95	100.7016
414.70	97.8141
423.72	80.8159
427.09	100.4010
427.87	96.3362
433.94	80.1500
453.88	108.8157
463.37	89.4791
468.07	84.4409
473.00	97.1460
476.78	108.8039
477.60	88.9564
487.02	75.6378
492.35	91.5900
497.08	94.9252
511.00	100.7462
514.00	314.2669
527.90	64.0415
529.87	0.0000
531.02	80.1471
537.26	70.6938
546.56	0.0000
563.25	87.5931
569.33	94.2875
569.50	83.4555
569.70	83.4612
583.19	64.2590
600.60	104.0988
602.73	96.4992
604.72	123.9965
609.32	89.0229
609.32	89.0229
609.32	89.0229
610.33	92.3528
614.28	99.0813
618.01	81.7553
621.93	83.7018
621.93	83.7018
633.25	69.2474
635.95	81.3237
636.99	72.1062
645.85	63.0458
657.76	58.6382
661.66	68.9625
661.66	68.9625
664.57	0.0000
666.33	57.8664
666.50	55.0700

677.62	58.0758
685.70	67.6143
695.00	78.1722
696.49	72.5541
696.51	68.7850
697.00	73.5090
702.65	69.8613
706.68	67.1114
711.68	64.3753
720.70	61.7045
721.93	0.0000
722.78	52.2440
722.91	49.3964
723.31	45.6025
724.19	47.5149
727.33	58.0227
733.00	46.6882
735.93	61.0339
739.50	44.8695
747.24	61.2396
752.31	53.6644
753.82	58.4819
756.73	53.7339
763.94	58.6557
765.81	54.8395
766.42	49.0753
777.92	59.8582
778.90	58.9088
783.70	54.1554
785.37	55.1480
795.86	45.6087
801.95	50.5474
810.29	57.4863
810.76	51.6467
815.77	47.8157
818.51	49.8047
832.01	51.9508
834.85	35.3145
836.80	0.0000
846.77	68.8892
856.80	69.0757
860.56	44.4507
871.09	42.5941
873.19	53.5199
875.33	0.0000
879.36	48.6431
880.51	54.6151
883.24	44.7171
884.68	45.7286
889.28	57.7262
898.04	48.8804
911.20	39.0365
911.20	39.0365
911.20	39.0365
926.50	36.1743
937.49	35.2670
944.13	42.3905
946.00	37.3613
949.00	50.5259
962.29	55.7609
964.08	53.7570
966.15	39.5776
968.97	35.5426
968.97	35.5426
968.97	35.5426
983.53	36.6877
996.26	47.0229
1001.03	38.8891
1004.73	53.2642
1037.84	25.8077
1038.76	0.0000
1048.07	31.0425
1050.41	32.0949
1050.41	32.0949
1063.66	35.3074
1085.87	29.2236
1099.45	29.3125
1112.07	39.8926

1115.54	47.2778
1120.29	49.4307
1120.29	49.4307
1120.29	49.4307
1120.55	48.3827
1121.30	47.3383
1131.51	0.0000
1173.23	26.5951
1177.93	28.7512
1189.05	26.6846
1204.77	35.3391
1221.41	25.7900
1231.02	27.9942
1235.36	35.5620
1238.28	34.5052
1260.41	0.0000
1271.85	28.8463
1274.44	29.7924
1274.54	29.7924
1291.59	36.4333
1298.22	0.0000
1312.11	22.5109
1332.49	19.7747
1365.19	30.3214
1368.63	0.0000
1384.29	22.8231
1408.01	15.2829
1457.56	0.0000
1460.82	26.0395
1489.16	17.4475
1505.03	33.0490
1596.21	15.7980
1620.50	22.8019
1678.03	0.0000
1690.97	16.0458
1764.49	17.2478
1764.49	17.2478
1764.49	17.2478
1770.23	35.5420
1771.35	26.4072
1791.20	0.0000
1836.06	20.5155

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065188

Total Uranium Activity	5.8577E-01	ug/g
Total Uranium Counting Unc.	1.7279E+00	ug/g
Total Uranium Tpu	8.8156E-07	ug/g
Total Uranium Mda	1.3945E+00	ug/g

THERE ARE NO PEAKS !

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:02:26.60

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 23:00:25
Sample ID         : G1202065189          Sample quantity  : 1.22070E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:50.22  0.3%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.64*	552	737	0.66	93.27	90	7	3.83E-02	9.3	
2	0	63.32	350	1140	0.80	126.61	123	8	2.43E-02	17.5	
3	3	74.87*	1388	627	0.69	149.69	148	17	9.64E-02	3.7	1.49E+00
4	3	77.13*	2112	560	0.69	154.20	148	17	1.47E-01	2.7	
5	8	84.29	346	922	1.31	168.52	165	27	2.40E-02	15.5	6.37E+00
6	8	87.30*	885	753	1.21	174.54	165	27	6.15E-02	6.1	
7	8	89.90	456	500	0.83	179.74	165	27	3.17E-02	8.9	
8	8	93.09*	857	827	1.54	186.11	165	27	5.95E-02	7.3	
9	0	99.35	86	678	0.85	198.64	195	8	5.99E-03	53.6	
10	0	128.90	140	664	0.94	257.71	255	8	9.71E-03	33.0	
11	0	154.10	121	551	1.09	308.09	305	8	8.43E-03	34.7	
12	0	185.86*	455	654	1.06	371.58	367	10	3.16E-02	11.8	
13	1	209.03	241	275	0.97	417.90	413	14	1.67E-02	12.6	2.59E+00
14	1	211.67	70	286	1.02	423.18	413	14	4.86E-03	39.5	
15	7	238.55*	2375	210	0.89	476.91	474	15	1.65E-01	2.3	3.85E+00
16	7	241.50	535	388	1.73	482.82	474	15	3.72E-02	9.2	
17	0	270.08*	146	277	1.53	539.96	536	8	1.02E-02	21.9	
18	0	277.26	113	266	1.01	554.31	551	8	7.88E-03	26.7	
19	0	295.07*	706	238	0.89	589.92	585	10	4.90E-02	5.7	
20	0	299.88	132	239	0.99	599.55	596	8	9.20E-03	21.9	
21	0	327.96	114	221	0.99	655.68	652	8	7.89E-03	24.6	
22	0	338.11	405	287	1.02	675.98	671	11	2.82E-02	9.5	
23	0	351.87*	991	240	1.13	703.48	699	9	6.89E-02	4.3	
24	0	410.14	71	228	1.66	820.01	815	10	4.93E-03	41.6	
25	0	462.58	119	182	1.17	924.87	920	11	8.23E-03	23.9	
26	0	510.82*	197	248	1.52	1021.35	1014	16	1.37E-02	21.7	
27	0	583.13*	574	131	1.22	1165.96	1159	13	3.98E-02	6.0	
28	0	609.11*	744	153	1.30	1217.92	1211	13	5.17E-02	5.2	
29	0	661.74*	98	159	1.36	1323.18	1317	12	6.77E-03	28.2	
30	0	727.18	145	103	1.39	1454.07	1448	11	1.00E-02	16.0	
31	0	768.11	59	71	1.28	1535.94	1532	8	4.08E-03	28.1	
32	0	795.09	70	70	0.93	1589.90	1585	11	4.86E-03	26.2	
33	0	860.35	60	58	1.81	1720.46	1716	8	4.18E-03	25.4	
34	0	911.10	377	92	1.49	1821.98	1817	13	2.62E-02	7.3	
35	4	964.65	86	50	2.37	1929.11	1924	20	6.00E-03	19.9	1.05E+00
36	4	968.79	214	68	1.90	1937.39	1924	20	1.48E-02	10.0	
37	0	1120.31*	127	103	1.40	2240.56	2235	14	8.79E-03	19.6	
38	0	1460.56*	1652	29	1.97	2921.49	2914	17	1.15E-01	2.6	

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1508.85	27	4	2.21	3018.15	3014	8	1.88E-03	23.1	
40	2	1587.81	37	16	2.40	3176.22	3168	23	2.56E-03	24.9	1.26E+00
41	2	1592.31	40	5	2.40	3185.22	3168	23	2.81E-03	23.1	
42	0	1729.10*	25	14	1.12	3459.06	3452	14	1.72E-03	38.7	
43	0	1764.43*	85	7	1.71	3529.81	3522	16	5.89E-03	14.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 25-MAR-2010 03:02:30

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 23:00:25
Sample ID : G1202065189 Sample quantity : 122.07 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA21 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:00:50.22 0.3%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.308E+01	3.301E+00	4.821E-01	4.116E-02	68.620
CD-109	+	88.03	*	4.658E+00	7.132E-01	5.051E-01	4.753E-02	9.222
SN-126	+	64.28		6.852E-01	2.606E-01	2.152E-01	3.189E-02	3.184
	+	86.94		1.880E+00	8.133E-01	2.031E-01	8.429E-02	9.260
	+	87.57	*	4.523E-01	6.926E-02	4.896E-02	4.590E-03	9.238
BA-137M	+	661.66	*	1.069E-01	6.140E-02	5.681E-02	6.275E-03	1.882
CS-137	+	661.66	*	1.129E-01	6.487E-02	6.002E-02	6.636E-03	1.882
TL-208	+	277.37		6.952E-01	3.811E-01	4.263E-01	5.430E-02	1.631
	+	583.19	*	5.839E-01	9.423E-02	4.576E-02	4.981E-03	12.760
	+	860.56		6.159E-01	3.192E-01	4.200E-01	4.167E-02	1.467
PB-210	+	46.54	*	2.719E+00	5.690E-01	4.482E-01	4.239E-02	6.066
BI-211		72.87		1.059E+00	1.193E+00	1.860E+00	1.557E-01	0.569
	+	351.06	*	3.938E+00	4.930E-01	2.429E-01	2.192E-02	16.215
PB-212	+	74.82		2.509E+00	3.732E-01	2.141E-01	2.764E-02	11.718
	+	77.11		2.298E+00	2.342E-01	1.294E-01	1.116E-02	17.752
	+	238.63	*	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
	+	300.09		1.753E+00	7.914E-01	9.200E-01	9.922E-02	1.905
BI-214	+	609.32	*	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
	+	1120.29		1.404E+00	5.705E-01	4.649E-01	5.015E-02	3.020
	+	1764.49		1.426E+00	4.285E-01	2.975E-01	2.474E-02	4.791
PB-214	+	74.82		4.448E+00	6.122E-01	3.796E-01	4.408E-02	11.718
	+	77.11		4.050E+00	5.311E-01	2.282E-01	2.723E-02	17.752
	+	242.00		2.618E+00	5.558E-01	3.735E-01	3.963E-02	7.011
	+	295.22		1.648E+00	2.605E-01	1.463E-01	1.616E-02	11.266
	+	351.93	*	1.429E+00	1.955E-01	8.840E-02	9.345E-03	16.167
RA-224	+	240.99	*	4.630E+00	9.454E-01	6.574E-01	5.842E-02	7.043
RA-226	+	609.32	*	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
	+	1120.29		1.404E+00	5.705E-01	4.649E-01	5.015E-02	3.020
	+	1764.49		1.426E+00	4.285E-01	2.975E-01	2.474E-02	4.791
AC-228	+	338.32		1.772E+00	8.122E-01	2.552E-01	1.065E-01	6.946
	+	911.20	*	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
	+	968.97		1.944E+00	6.143E-01	3.729E-01	9.102E-02	5.212
RA-228	+	338.32		1.772E+00	8.122E-01	2.552E-01	1.065E-01	6.946
	+	911.20	*	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		1.944E+00	6.143E-01	3.729E-01	9.102E-02	5.212
TH-228	+	74.82		2.509E+00	2.838E-01	2.141E-01	1.834E-02	11.718
	+	77.11		2.298E+00	2.342E-01	1.294E-01	1.116E-02	17.752
	+	238.63	*	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
	+	300.09		1.753E+00	1.320E+00	9.200E-01	5.636E-01	1.905
TH-229	+	85.43		4.425E-01	1.431E-01	1.223E-01	1.126E-02	3.619
	+	88.47		6.973E-01	1.068E-01	7.575E-02	7.142E-03	9.206
		193.51	*	-2.275E-01	3.339E-01	5.488E-01	4.659E-02	-0.415
	+	210.85		7.865E-01	6.258E-01	8.998E-01	7.805E-02	0.874
TH-230	+	609.32	*	1.479E+00	2.193E-01	1.002E-01	1.064E-02	14.766
	+	1120.29		1.404E+00	5.627E-01	4.649E-01	3.929E-02	3.020
	+	1764.49		1.426E+00	4.284E-01	2.975E-01	2.474E-02	4.791
TH-232	+	338.32		1.772E+00	3.693E-01	2.552E-01	2.225E-02	6.946
	+	911.20	*	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
	+	968.97		1.944E+00	6.143E-01	3.729E-01	9.102E-02	5.212
TH-234	+	63.29	*	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
	+	92.59		3.887E+00	1.042E+00	4.371E-01	9.832E-02	8.894
U-235	+	89.96		2.498E+00	7.645E-01	5.270E-01	1.314E-01	4.741
	+	93.35		2.936E+00	8.120E-01	3.312E-01	7.786E-02	8.865
		143.76	*	1.100E-01	1.338E-01	2.091E-01	3.701E-02	0.526
		163.33		1.339E-01	2.588E-01	4.480E-01	7.989E-02	0.299
	+	185.72		2.243E-01	5.607E-02	4.151E-02	3.484E-03	5.402
		205.31		-3.362E-02	3.294E-01	4.946E-01	8.974E-02	-0.068
NP-237	+	86.48	*	1.350E+00	3.504E-01	1.455E-01	3.337E-02	9.276
		95.86		1.856E-01	5.062E-01	6.727E-01	1.644E-01	0.276
U-238	+	63.29	*	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
	+	92.59		3.887E+00	6.795E-01	4.371E-01	4.207E-02	8.894
ANH-511	+	511.00	*	1.489E-01	6.629E-02	3.937E-02	3.775E-03	3.781

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	5.292E-02	2.715E-01	4.604E-01	4.510E-02	0.115
NA-22		1274.54	*	-1.556E-03	4.226E-02	6.780E-02	5.562E-03	-0.023
NA-24		1368.63	*	-8.318E+01	4.226E-02	Half-Life too short		
SC-46		889.28	*	1.971E-02	3.822E-02	6.623E-02	5.889E-03	0.298
	+	1120.55		2.463E-01	9.870E-02	1.302E-01	1.101E-02	1.891
V-48		944.13		-7.994E-01	1.035E+00	1.609E+00	1.410E-01	-0.497
		983.53	*	3.861E-02	8.415E-02	1.440E-01	1.260E-02	0.268
		1312.11		-1.883E-02	1.097E-01	1.732E-01	1.411E-02	-0.109
CR-51		320.08	*	-2.034E-01	3.022E-01	4.699E-01	4.365E-02	-0.433
MN-54		834.85	*	-1.687E-03	3.282E-02	5.493E-02	5.324E-03	-0.031
CO-56		846.77	*	6.398E-03	3.581E-02	6.091E-02	5.806E-03	0.105
		1037.84		-1.535E-01	3.144E-01	4.954E-01	4.519E-02	-0.310
		1238.28		5.210E-02	1.035E-01	1.725E-01	1.464E-02	0.302
		1771.35		4.264E-02	2.568E-01	3.741E-01	3.108E-02	0.114
CO-57		122.06	*	-9.237E-03	1.481E-02	2.271E-02	2.609E-03	-0.407
		136.47		-2.357E-02	1.249E-01	1.938E-01	2.146E-02	-0.122

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-58		810.76	*	-1.424E-02	3.502E-02	5.711E-02	5.715E-03	-0.249
FE-59		1099.45	*	-3.716E-02	9.604E-02	1.518E-01	1.401E-02	-0.245
		1291.59		-6.168E-02	1.388E-01	2.134E-01	2.005E-02	-0.289
CO-60		1173.23		-5.779E-03	4.700E-02	7.560E-02	6.230E-03	-0.076
		1332.49	*	-8.831E-04	3.383E-02	5.659E-02	4.593E-03	-0.016
ZN-65		1115.54	*	-4.955E-04	1.110E-01	1.566E-01	1.328E-02	-0.003
SE-75		121.12		-6.611E-02	7.786E-02	1.178E-01	1.576E-02	-0.561
		136.00		-2.771E-02	2.460E-02	3.632E-02	3.861E-03	-0.763
		264.66	*	-1.302E-02	2.985E-02	4.802E-02	4.312E-03	-0.271
		279.54		4.763E-03	8.577E-02	1.192E-01	1.101E-02	0.040
		400.66		3.553E-02	2.124E-01	3.399E-01	3.630E-02	0.105
SR-85		514.00	*	2.077E-02	3.530E-02	5.415E-02	5.210E-03	0.384
Y-88		898.04		-8.581E-03	4.371E-02	7.008E-02	6.160E-03	-0.122
		1836.06	*	2.893E-02	3.540E-02	6.532E-02	5.393E-03	0.443
Y-91		1204.77	*	-8.734E-02	2.542E+01	4.116E+01	3.391E+00	-0.002
NB-94		702.65	*	-1.641E-02	3.242E-02	5.046E-02	5.496E-03	-0.325
		871.09		2.977E-02	3.136E-02	5.600E-02	5.140E-03	0.532
NB-95		765.81	*	2.001E-02	4.798E-02	6.984E-02	7.299E-03	0.287
NB-95M		235.69	*	4.864E-02	9.064E-02	1.387E-01	1.400E-02	0.351
ZR-95		724.19		5.194E-02	1.045E-01	1.540E-01	1.749E-02	0.337
		756.73	*	-8.187E-03	7.409E-02	1.179E-01	1.329E-02	-0.069
MO-99		140.51		1.460E+01	4.160E+01	6.566E+01	1.601E+01	0.222
		181.07		-1.487E+01	3.522E+01	5.252E+01	9.799E+00	-0.283
		366.42		-5.710E+01	2.199E+02	3.455E+02	2.898E+01	-0.165
		739.50	*	-2.756E+01	3.474E+01	5.171E+01	8.771E+00	-0.533
		777.92		-1.031E+02	1.020E+02	1.480E+02	1.530E+01	-0.697
TC-99M		140.51	*	1.507E+15	1.020E+02	Half-Life too short		
RU-103		497.08	*	-4.041E-03	3.496E-02	5.799E-02	8.392E-03	-0.070
	+	610.33		1.650E+01	3.352E+00	2.922E+00	5.110E-01	5.647
RH-106		621.93	*	2.005E-01	2.717E-01	4.652E-01	6.845E-02	0.431
		1050.41		9.697E-01	2.583E+00	4.368E+00	3.777E-01	0.222
RU-106		621.93	*	2.005E-01	2.709E-01	4.652E-01	4.991E-02	0.431
		1050.41		9.697E-01	2.583E+00	4.368E+00	3.777E-01	0.222
AG-108M		433.94	*	1.199E-02	2.328E-02	4.041E-02	3.578E-03	0.297
		614.28		3.466E-02	3.297E-02	5.179E-02	5.642E-03	0.669
		722.91		-1.148E-02	4.120E-02	5.633E-02	6.196E-03	-0.204
AG-110M		657.76	*	1.921E-03	3.529E-02	5.053E-02	5.668E-03	0.038
		677.62		-2.419E-02	3.023E-01	4.877E-01	5.458E-02	-0.050
		706.68		1.916E-01	2.054E-01	3.514E-01	3.890E-02	0.545
		763.94		7.500E-02	1.725E-01	2.520E-01	2.687E-02	0.298
		884.68		-2.682E-02	4.348E-02	6.875E-02	6.348E-03	-0.390
		937.49		-7.407E-02	1.136E-01	1.793E-01	1.627E-02	-0.413
		1384.29		5.574E-02	1.456E-01	2.533E-01	2.137E-02	0.220
		1505.03		1.609E-01	2.603E-01	4.175E-01	3.474E-02	0.385
SN-113		391.69	*	-2.679E-02	3.762E-02	5.700E-02	4.694E-03	-0.470
CD-115		260.90		-2.042E-04	3.762E-02	Half-Life too short		
		492.35		7.916E-05	3.762E-02	Half-Life too short		
		527.90	*	7.571E-06	3.762E-02	Half-Life too short		
SN-117M		156.02		3.988E-01	1.791E+00	2.799E+00	2.526E-01	0.142

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		158.56	*	-1.996E-02	4.490E-02	6.659E-02	5.862E-03	-0.300
TE-123M		159.00	*	-5.911E-03	1.816E-02	2.867E-02	2.527E-03	-0.206
SB-124		602.73		1.050E-02	3.968E-02	5.846E-02	6.174E-03	0.180
		645.85		-3.995E-02	4.432E-01	7.175E-01	8.122E-02	-0.056
		722.78		-1.278E-01	4.349E-01	5.937E-01	6.492E-02	-0.215
		1690.97	*	1.140E-02	8.283E-02	1.385E-01	1.209E-02	0.082
SB-125		427.87	*	-7.887E-02	7.205E-02	1.142E-01	9.877E-03	-0.691
	+	463.37		7.747E-01	3.771E-01	4.562E-01	4.382E-02	1.698
		600.60		-1.804E-02	1.597E-01	2.603E-01	2.881E-02	-0.069
		635.95		7.166E-02	2.327E-01	3.884E-01	4.432E-02	0.185
TE-125M		109.28	*	5.010E-01	5.511E+00	8.811E+00	1.072E+00	0.057
I-126		388.63		-1.880E-02	1.673E-01	2.639E-01	2.113E-02	-0.071
		666.33	*	3.679E-02	2.976E-01	4.280E-01	4.722E-02	0.086
		753.82		2.858E-01	2.253E+00	3.651E+00	3.852E-01	0.078
SB-126		414.70		4.458E-02	8.027E-02	1.253E-01	1.039E-02	0.356
		666.50		1.673E-02	1.027E-01	1.483E-01	1.636E-02	0.113
		695.00		-5.110E-02	9.027E-02	1.396E-01	1.525E-02	-0.366
		697.00		-1.547E-01	3.125E-01	4.863E-01	5.309E-02	-0.318
		720.70	*	1.016E-01	1.833E-01	2.863E-01	3.089E-02	0.355
		856.80		4.486E-01	5.789E-01	9.149E-01	8.591E-02	0.490
SB-127		252.40		5.598E+00	7.050E+00	1.137E+01	4.776E+00	0.492
		473.00		2.363E+00	2.797E+00	4.893E+00	7.005E-01	0.483
		685.70	*	3.703E+00	2.908E+00	5.031E+00	7.264E-01	0.736
		783.70		9.306E-01	7.185E+00	1.160E+01	1.711E+00	0.080
I-131		80.19		-3.411E+00	2.983E+00	4.283E+00	3.820E-01	-0.796
		284.31		-9.521E-02	1.482E+00	2.415E+00	2.266E-01	-0.039
		364.49	*	2.967E-02	1.261E-01	2.045E-01	1.825E-02	0.145
		636.99		1.427E+00	1.949E+00	3.343E+00	3.771E-01	0.427
TE-132		49.72		1.705E+00	5.475E+00	8.645E+00	1.051E+00	0.197
		111.76		3.685E+01	4.590E+01	7.488E+01	1.041E+01	0.492
		116.30		5.491E+01	4.255E+01	6.974E+01	9.867E+00	0.787
		228.16	*	-9.806E-01	1.239E+00	1.978E+00	3.336E-01	-0.496
BA-133		81.00		-6.013E-02	4.324E-02	6.018E-02	9.427E-03	-0.999
	+	276.40		6.431E-01	3.550E-01	4.738E-01	6.775E-02	1.357
		302.85		4.562E-02	1.091E-01	1.627E-01	2.157E-02	0.280
		356.01	*	2.983E-02	3.349E-02	5.089E-02	6.561E-03	0.586
		383.85		-1.405E-01	2.300E-01	3.508E-01	4.234E-02	-0.400
I-133		529.87	*	-6.207E-02	2.300E-01	Half-Life too short		
		875.33		-1.068E+00	2.300E-01	Half-Life too short		
		1298.22		3.051E-01	2.300E-01	Half-Life too short		
CS-134		563.25		2.169E-01	3.042E-01	5.242E-01	5.369E-02	0.414
		569.33		-1.239E-01	1.635E-01	2.471E-01	2.553E-02	-0.502
		604.72		-8.163E-03	3.263E-02	4.581E-02	4.854E-03	-0.178
	+	795.86	*	1.096E-01	5.859E-02	8.032E-02	8.199E-03	1.364
		801.95		6.988E-03	3.850E-01	6.150E-01	6.231E-02	0.011
		1365.19		8.671E-01	1.162E+00	2.091E+00	1.796E-01	0.415
CS-135		268.22	*	1.258E-01	1.188E-01	1.831E-01	1.875E-02	0.687
I-135		546.56		-4.109E+13	1.188E-01	Half-Life too short		
		836.80		1.763E+14	1.188E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1038.76		-5.573E+14	1.188E-01	Half-Life too short		
		1131.51		2.101E+13	1.188E-01	Half-Life too short		
		1260.41	*	4.587E+14	1.188E-01	Half-Life too short		
		1457.56		5.113E+16	1.188E-01	Half-Life too short		
		1678.03		4.439E+14	1.188E-01	Half-Life too short		
		1791.20		3.148E+14	1.188E-01	Half-Life too short		
CS-136	+	153.25		1.448E+00	1.016E+00	1.157E+00	1.251E-01	1.252
		176.60		1.364E-01	3.725E-01	6.409E-01	5.897E-02	0.213
		273.65		3.875E-01	5.724E-01	7.083E-01	6.829E-02	0.547
		340.55		1.400E-02	1.513E-01	2.183E-01	1.970E-02	0.064
		818.51		-9.439E-03	8.022E-02	1.338E-01	1.326E-02	-0.071
		1048.07	*	-5.081E-02	1.362E-01	2.168E-01	1.956E-02	-0.234
		1235.36		4.398E-01	8.063E-01	1.347E+00	1.547E-01	0.326
CE-139		165.86	*	-1.466E-03	1.825E-02	3.107E-02	2.526E-03	-0.047
BA-140		162.66		4.953E-02	6.027E-01	1.033E+00	9.323E-02	0.048
		304.85		-6.560E-01	1.266E+00	1.875E+00	5.506E-01	-0.350
		423.72		1.917E+00	2.037E+00	3.447E+00	1.132E+00	0.556
		537.26	*	-1.037E-01	2.844E-01	4.569E-01	1.565E-01	-0.227
LA-140	+	328.76		7.738E-01	3.878E-01	5.341E-01	4.955E-02	1.449
		487.02		1.514E-01	1.431E-01	2.529E-01	2.475E-02	0.599
		815.77		2.346E-01	3.536E-01	6.238E-01	6.749E-02	0.376
		1596.21	*	7.334E-02	1.018E-01	1.664E-01	1.392E-02	0.441
CE-141		145.44	*	-1.156E-02	4.375E-02	6.733E-02	6.751E-03	-0.172
CE-143		57.36		2.211E-03	4.375E-02	Half-Life too short		
		293.27	*	1.929E-03	4.375E-02	Half-Life too short		
		664.57		1.012E-02	4.375E-02	Half-Life too short		
		721.93		5.237E-03	4.375E-02	Half-Life too short		
CE-144		80.12		-1.295E+00	1.115E+00	1.599E+00	1.411E-01	-0.810
		133.52	*	6.507E-02	1.204E-01	1.923E-01	3.189E-02	0.338
PM-144		476.78		-3.715E-03	5.202E-02	8.687E-02	8.568E-03	-0.043
		618.01		-2.019E-02	2.861E-02	4.435E-02	4.831E-03	-0.455
		696.49	*	-2.446E-02	3.198E-02	4.863E-02	5.312E-03	-0.503
PR-144		696.51	*	-1.821E+00	2.400E+00	3.651E+00	3.987E-01	-0.499
		1489.16		-3.152E+00	1.121E+01	1.784E+01	1.482E+00	-0.177
PM-146		453.88	*	1.388E-02	3.327E-02	5.728E-02	6.175E-03	0.242
		633.25		-2.766E-01	1.244E+00	1.990E+00	7.713E-01	-0.139
		735.93		1.209E-02	1.323E-01	2.144E-01	6.159E-02	0.056
		747.24		7.701E-02	9.605E-02	1.622E-01	2.569E-02	0.475
ND-147	+	91.11		1.067E+00	2.181E-01	2.829E-01	2.888E-02	3.771
		319.41		-2.975E+00	3.279E+00	5.028E+00	4.452E-01	-0.592
		531.02	*	-1.449E-01	6.120E-01	1.000E+00	1.567E-01	-0.145
PM-149		285.90	*	-1.055E-04	6.120E-01	Half-Life too short		
EU-152		121.78		-3.397E-02	4.240E-02	6.440E-02	8.022E-03	-0.527
		244.70		1.102E-01	2.239E-01	3.418E-01	3.043E-02	0.322
		344.28	*	6.194E-02	7.127E-02	1.199E-01	1.099E-02	0.517
		778.90		-2.147E-01	2.406E-01	3.535E-01	3.651E-02	-0.607
	+	964.08		8.471E-01	3.451E-01	5.494E-01	4.814E-02	1.542
		1085.87		-3.109E-01	3.838E-01	5.828E-01	4.989E-02	-0.534
		1112.07		1.040E-01	3.146E-01	5.269E-01	4.468E-02	0.197

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1408.01		2.461E-01	1.705E-01	3.242E-01	2.667E-02	0.759
GD-153		69.67		-2.143E-01	5.666E-01	9.215E-01	7.555E-02	-0.233
		97.43	*	-2.240E-03	5.054E-02	6.565E-02	6.485E-03	-0.034
		103.18		-8.740E-02	6.599E-02	9.052E-02	9.241E-03	-0.965
EU-154		123.07		3.778E-02	2.962E-02	4.850E-02	6.599E-03	0.779
		723.31		-6.404E-02	1.907E-01	2.592E-01	2.977E-02	-0.247
		873.19		1.408E-01	2.591E-01	4.504E-01	5.532E-02	0.313
		996.26		-2.241E-01	3.399E-01	5.265E-01	9.227E-02	-0.426
		1004.73		-5.835E-02	2.222E-01	3.593E-01	4.209E-02	-0.162
		1274.44	*	-3.064E-02	1.204E-01	1.890E-01	2.090E-02	-0.162
EU-155	+	86.55		5.494E-01	8.440E-02	9.530E-02	8.936E-03	5.765
		105.31	*	1.071E-01	5.775E-02	9.674E-02	1.008E-02	1.107
TB-160	+	86.79		1.518E+00	2.324E-01	2.754E-01	2.565E-02	5.510
		197.04		7.559E-02	3.570E-01	6.063E-01	5.172E-02	0.125
		215.65		-1.525E-01	5.752E-01	8.523E-01	7.430E-02	-0.179
	+	298.57		2.574E-01	1.152E-01	1.452E-01	1.296E-02	1.773
		879.36	*	-5.747E-03	1.194E-01	1.988E-01	1.799E-02	-0.029
		962.29		8.535E-01	5.639E-01	9.297E-01	8.146E-02	0.918
		966.15		9.983E-01	2.596E-01	4.898E-01	4.290E-02	2.038
		1177.93		1.139E-01	4.019E-01	6.663E-01	5.491E-02	0.171
		1271.85		-1.482E-01	7.620E-01	1.205E+00	9.876E-02	-0.123
HO-166M		80.57		-1.497E-01	1.208E-01	1.726E-01	1.529E-02	-0.867
	+	184.41		1.782E-01	4.454E-02	4.307E-02	3.608E-03	4.136
		280.46		1.429E-02	6.615E-02	9.308E-02	8.301E-03	0.154
	+	410.95		3.810E-01	3.188E-01	3.682E-01	3.033E-02	1.035
		711.68	*	-3.356E-02	5.628E-02	8.652E-02	9.381E-03	-0.388
		752.31		-1.090E-01	2.796E-01	4.356E-01	4.602E-02	-0.250
		810.29		-3.490E-02	5.183E-02	8.267E-02	8.262E-03	-0.422
TA-182		67.75		6.395E-03	3.503E-02	5.803E-02	4.703E-03	0.110
	+	100.11		1.345E-01	1.447E-01	1.521E-01	1.526E-02	0.884
		152.43		1.185E-01	2.471E-01	3.605E-01	3.363E-02	0.329
		222.11		8.180E-02	2.370E-01	4.009E-01	3.516E-02	0.204
	+	1121.30		6.756E-01	2.708E-01	3.530E-01	2.982E-02	1.914
		1189.05		-5.085E-02	3.457E-01	5.546E-01	4.570E-02	-0.092
		1221.41	*	-2.550E-01	2.285E-01	3.377E-01	2.780E-02	-0.755
		1231.02		7.543E-04	5.409E-01	8.742E-01	7.192E-02	0.001
IR-192	+	295.96		1.270E+00	1.834E-01	2.385E-01	2.143E-02	5.324
		308.46		-1.074E-02	6.820E-02	1.097E-01	9.814E-03	-0.098
		316.51	*	-4.150E-03	2.693E-02	4.326E-02	3.844E-03	-0.096
		468.07		6.869E-03	5.927E-02	8.864E-02	8.547E-03	0.077
HG-203		70.83		-4.926E-01	4.910E-01	7.737E-01	1.228E-01	-0.637
		72.87		2.814E-01	3.190E-01	4.942E-01	7.610E-02	0.569
		279.20	*	2.902E-03	3.225E-02	4.509E-02	4.117E-03	0.064
BI-207		72.81		5.791E-02	6.852E-02	1.067E-01	8.930E-03	0.543
	+	74.97		7.234E-01	8.138E-02	1.091E-01	9.269E-03	6.628
		569.70		-2.825E-02	2.580E-02	3.788E-02	3.879E-03	-0.746
		1063.66	*	8.562E-03	5.134E-02	8.539E-02	7.359E-03	0.100
		1770.23		-2.096E-02	4.981E-01	6.869E-01	5.707E-02	-0.031
PB-211		404.85	*	-2.759E-01	6.908E-01	9.211E-01	4.450E-01	-0.300

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.09		3.373E-02	1.177E+00	1.995E+00	9.226E-01	0.017
		832.01		2.002E-01	8.751E-01	1.485E+00	7.731E-01	0.135
BI-212	+	727.33	*	2.347E+00	8.201E-01	1.116E+00	1.564E-01	2.102
		785.37		3.314E+00	2.909E+00	5.035E+00	5.168E-01	0.658
		1620.50		1.630E+00	2.279E+00	4.102E+00	3.430E-01	0.397
RN-219	+	271.23		5.336E-01	2.400E-01	3.068E-01	3.228E-02	1.739
		401.81	*	-7.249E-02	3.289E-01	5.134E-01	7.485E-02	-0.141
RA-223		81.07		-1.375E-01	9.636E-02	1.362E-01	1.211E-02	-1.009
	+	83.79		2.633E-01	8.516E-02	9.830E-02	8.931E-03	2.679
		94.87		1.937E-01	2.187E-01	3.365E-01	3.278E-02	0.576
		144.24		4.270E-01	4.466E-01	7.050E-01	7.656E-02	0.606
	+	154.21		5.220E-01	3.655E-01	4.328E-01	4.310E-02	1.206
	+	269.46		4.146E-01	1.852E-01	2.499E-01	2.275E-02	1.659
		323.87	*	7.878E-02	5.194E-01	7.566E-01	1.319E-01	0.104
	+	338.28		7.033E+00	1.581E+00	1.956E+00	2.375E-01	3.595
AC-227		79.69		-6.972E-01	5.554E-01	7.786E-01	1.349E-01	-0.895
		235.96		5.651E-02	1.057E-01	1.617E-01	1.705E-02	0.350
		256.23	*	-1.023E-01	1.810E-01	2.906E-01	3.568E-02	-0.352
	+	299.98		1.928E+00	8.813E-01	1.219E+00	1.574E-01	1.582
		304.50		-6.445E-01	1.211E+00	1.807E+00	3.014E-01	-0.357
		334.37		-9.197E-01	1.351E+00	1.826E+00	2.860E-01	-0.504
TH-227		79.80		-9.010E-01	7.430E-01	1.030E+00	2.251E-01	-0.875
		235.96		5.651E-02	1.057E-01	1.617E-01	1.612E-02	0.350
		256.23	*	-1.023E-01	1.811E-01	2.906E-01	4.012E-02	-0.352
	+	299.98		1.928E+00	8.813E-01	1.219E+00	1.574E-01	1.582
		304.50		-6.445E-01	1.211E+00	1.807E+00	3.014E-01	-0.357
		334.37		-9.197E-01	1.351E+00	1.826E+00	2.860E-01	-0.504
PA-231		283.69	*	-7.276E-01	9.947E-01	1.557E+00	2.299E-01	-0.467
	+	301.36		1.239E+00	5.643E-01	7.559E-01	9.347E-02	1.639
TH-231		81.07		-1.375E-01	9.636E-02	1.362E-01	1.211E-02	-1.009
	+	83.79		2.633E-01	8.516E-02	9.830E-02	8.931E-03	2.679
		94.87		1.937E-01	2.187E-01	3.365E-01	3.278E-02	0.576
		144.24		4.270E-01	4.466E-01	7.050E-01	7.656E-02	0.606
	+	154.21		5.220E-01	3.655E-01	4.328E-01	4.310E-02	1.206
	+	269.46		4.146E-01	1.852E-01	2.499E-01	2.275E-02	1.659
		323.87	*	7.878E-02	5.194E-01	7.566E-01	1.319E-01	0.104
	+	338.28		7.033E+00	1.581E+00	1.956E+00	2.375E-01	3.595
PA-233	+	300.13		8.724E-01	4.043E-01	5.509E-01	8.266E-02	1.584
		311.90	*	-5.600E-03	4.670E-02	7.526E-02	6.870E-03	-0.074
		340.48		1.524E-01	5.183E-01	7.563E-01	1.822E-01	0.202
PA-234		94.67		1.406E-01	8.615E-02	1.336E-01	1.763E-02	1.052
	+	98.44		6.633E-02	8.019E-02	7.511E-02	4.207E-02	0.883
		111.00		-5.948E-02	1.013E-01	1.569E-01	2.143E-02	-0.379
		131.20		3.076E-03	6.880E-02	9.962E-02	1.086E-02	0.031
		569.50		-2.383E-01	2.296E-01	3.392E-01	3.472E-02	-0.703
		733.00		9.710E-02	3.571E-01	5.439E-01	1.256E-01	0.179
		880.51		3.447E-02	2.261E-01	3.830E-01	3.459E-02	0.090
		883.24		-2.550E-02	2.412E-01	3.984E-01	2.680E-01	-0.064
		926.50		1.824E-02	1.637E-01	2.746E-01	6.956E-02	0.066

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	-1.728E-01	2.950E-01	4.641E-01	8.741E-02	-0.372
		949.00		2.064E-01	4.414E-01	7.573E-01	6.638E-02	0.273
PA-234M		766.42		9.208E+00	1.359E+01	1.905E+01	9.731E+00	0.483
		1001.03	*	2.070E+00	4.634E+00	7.895E+00	7.943E-01	0.262
NP-239	+	99.53		1.203E-01	1.295E-01	1.392E-01	1.392E-02	0.864
		103.37		-7.215E-02	5.946E-02	8.216E-02	8.397E-03	-0.878
		106.12		5.567E-02	4.653E-02	7.694E-02	7.993E-03	0.724
		117.23	*	-3.099E-01	2.407E-01	3.582E-01	3.986E-02	-0.865
		228.18		-1.111E-01	1.411E-01	2.269E-01	2.000E-02	-0.490
	+	277.60		3.178E-01	1.718E-01	2.319E-01	2.069E-02	1.370
AM-241		59.54	*	-3.614E-02	3.662E-02	5.412E-02	4.591E-03	-0.668
CM-247	+	278.00		1.350E+00	7.295E-01	9.772E-01	8.716E-02	1.381
		287.50		8.215E-02	8.786E-01	1.442E+00	1.287E-01	0.057
		402.40	*	-1.819E-02	3.102E-02	4.729E-02	3.835E-03	-0.385
CF-249		252.80		4.709E-01	6.685E-01	1.136E+00	1.014E-01	0.415
		333.37		3.215E-02	1.406E-01	2.055E-01	1.800E-02	0.156
		388.16	*	9.434E-03	3.128E-02	5.064E-02	4.060E-03	0.186
CF-251		177.52	*	2.961E-02	7.738E-02	1.332E-01	1.103E-02	0.222
		227.38		-2.032E-01	2.279E-01	3.644E-01	3.210E-02	-0.558
		285.41		-1.928E-01	1.492E+00	2.422E+00	2.162E-01	-0.080

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189      *
* Acquisition date : 24-MAR-2010 23:00:25 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:50.22     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  5-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065189          Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.2207E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.308E+01	3.235E+00	4.812E-01	0.000E+00
CD-109	4.658E+00	6.989E-01	5.224E-01	0.000E+00
SN-126	4.523E-01	6.787E-02	5.064E-02	0.000E+00
BA-137M	1.069E-01	6.017E-02	5.730E-02	0.000E+00
CS-137	1.129E-01	6.357E-02	6.053E-02	0.000E+00
TL-208	5.839E-01	9.234E-02	4.622E-02	0.000E+00
PB-210	2.719E+00	5.576E-01	4.671E-01	0.000E+00
BI-211	3.938E+00	4.831E-01	2.469E-01	0.000E+00
PB-212	1.910E+00	2.054E-01	6.247E-02	0.000E+00
BI-214	1.480E+00	2.282E-01	1.012E-01	0.000E+00
PB-214	1.429E+00	1.916E-01	8.987E-02	0.000E+00
RA-224	4.630E+00	9.265E-01	6.714E-01	0.000E+00
RA-226	1.480E+00	2.282E-01	1.012E-01	0.000E+00
AC-228	1.977E+00	3.637E-01	2.107E-01	0.000E+00
RA-228	1.977E+00	3.637E-01	2.107E-01	0.000E+00
TH-228	1.910E+00	2.054E-01	6.247E-02	0.000E+00
TH-229	-2.275E-01	3.272E-01	5.621E-01	0.000E+00
TH-230	1.479E+00	2.150E-01	1.011E-01	0.000E+00
TH-232	1.977E+00	3.637E-01	2.107E-01	0.000E+00
TH-234	1.778E+00	6.867E-01	5.800E-01	0.000E+00
U-235	1.100E-01	1.311E-01	2.149E-01	0.000E+00
NP-237	1.350E+00	3.434E-01	1.505E-01	0.000E+00
U-238	1.778E+00	6.867E-01	5.800E-01	0.000E+00
ANH-511	1.489E-01	6.496E-02	3.984E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	5.292E-02	2.661E-01	4.663E-01	0.000E+00	NOT IDENT.
NA-22	-1.556E-03	4.142E-02	6.780E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.363E+07	0.000E+00	0.000E+00	SHORT HLIF

SC-46	1.971E-02	3.746E-02	6.654E-02	0.000E+00	FAIL ABUN
V-48	3.861E-02	8.247E-02	1.445E-01	0.000E+00	NOT IDENT.
CR-51	-2.034E-01	2.961E-01	4.782E-01	0.000E+00	NOT IDENT.
MN-54	-1.687E-03	3.216E-02	5.523E-02	0.000E+00	NOT IDENT.
CO-56	6.398E-03	3.510E-02	6.123E-02	0.000E+00	NOT IDENT.
CO-57	-9.237E-03	1.451E-02	2.340E-02	0.000E+00	NOT IDENT.
CO-58	-1.424E-02	3.432E-02	5.745E-02	0.000E+00	NOT IDENT.
FE-59	-3.716E-02	9.412E-02	1.521E-01	0.000E+00	NOT IDENT.
CO-60	-8.831E-04	3.316E-02	5.656E-02	0.000E+00	NOT IDENT.
ZN-65	-4.955E-04	1.088E-01	1.569E-01	0.000E+00	NOT IDENT.
SE-75	-1.302E-02	2.925E-02	4.899E-02	0.000E+00	NOT IDENT.
SR-85	2.077E-02	3.460E-02	5.478E-02	0.000E+00	NOT IDENT.
Y-88	2.893E-02	3.469E-02	6.501E-02	0.000E+00	NOT IDENT.
Y-91	-8.734E-02	2.491E+01	4.119E+01	0.000E+00	NOT IDENT.
NB-94	-1.641E-02	3.177E-02	5.085E-02	0.000E+00	NOT IDENT.
NB-95	2.001E-02	4.702E-02	7.030E-02	0.000E+00	NOT IDENT.
NB-95M	4.864E-02	8.883E-02	1.417E-01	0.000E+00	NOT IDENT.
ZR-95	-8.187E-03	7.261E-02	1.187E-01	0.000E+00	NOT IDENT.
MO-99	-2.756E+01	3.404E+01	5.208E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.227E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.041E-03	3.426E-02	5.870E-02	0.000E+00	FAIL ABUN
RH-106	2.005E-01	2.662E-01	4.695E-01	0.000E+00	NOT IDENT.
RU-106	2.005E-01	2.655E-01	4.695E-01	0.000E+00	NOT IDENT.
AG-108M	1.199E-02	2.282E-02	4.097E-02	0.000E+00	NOT IDENT.
AG-110M	1.921E-03	3.458E-02	5.096E-02	0.000E+00	NOT IDENT.
SN-113	-2.679E-02	3.686E-02	5.787E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	3.436E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-1.996E-02	4.400E-02	6.837E-02	0.000E+00	NOT IDENT.
TE-123M	-5.911E-03	1.780E-02	2.943E-02	0.000E+00	NOT IDENT.
SB-124	1.140E-02	8.117E-02	1.380E-01	0.000E+00	NOT IDENT.
SB-125	-7.887E-02	7.061E-02	1.158E-01	0.000E+00	FAIL ABUN
TE-125M	5.010E-01	5.401E+00	9.088E+00	0.000E+00	NOT IDENT.
I-126	3.679E-02	2.916E-01	4.316E-01	0.000E+00	NOT IDENT.
SB-126	1.016E-01	1.796E-01	2.884E-01	0.000E+00	NOT IDENT.
SB-127	3.703E+00	2.850E+00	5.071E+00	0.000E+00	NOT IDENT.
I-131	2.967E-02	1.236E-01	2.078E-01	0.000E+00	NOT IDENT.
TE-132	-9.806E-01	1.214E+00	2.021E+00	0.000E+00	NOT IDENT.
BA-133	2.983E-02	3.282E-02	5.173E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.574E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.742E-02	8.081E-02	0.000E+00	FAIL ABUN
CS-135	1.258E-01	1.164E-01	1.868E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.676E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.081E-02	1.334E-01	2.174E-01	0.000E+00	FAIL ABUN
CE-139	-1.466E-03	1.788E-02	3.188E-02	0.000E+00	NOT IDENT.
BA-140	-1.037E-01	2.787E-01	4.620E-01	0.000E+00	NOT IDENT.
LA-140	7.334E-02	9.976E-02	1.659E-01	0.000E+00	FAIL ABUN
CE-141	-1.156E-02	4.288E-02	6.920E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.037E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	6.507E-02	1.180E-01	1.979E-01	0.000E+00	NOT IDENT.
PM-144	-2.446E-02	3.134E-02	4.901E-02	0.000E+00	NOT IDENT.
PR-144	-1.821E+00	2.352E+00	3.679E+00	0.000E+00	NOT IDENT.
PM-146	1.388E-02	3.260E-02	5.804E-02	0.000E+00	NOT IDENT.
ND-147	-1.449E-01	5.997E-01	1.011E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	2.501E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	6.194E-02	6.985E-02	1.219E-01	0.000E+00	FAIL ABUN
GD-153	-2.240E-03	4.953E-02	6.781E-02	0.000E+00	NOT IDENT.
EU-154	-3.064E-02	1.180E-01	1.890E-01	0.000E+00	NOT IDENT.
EU-155	0.000E+00	5.659E-02	9.983E-02	0.000E+00	FAIL ABUN
TB-160	-5.747E-03	1.170E-01	1.997E-01	0.000E+00	FAIL ABUN
HO-166M	-3.356E-02	5.515E-02	8.717E-02	0.000E+00	FAIL ABUN
TA-182	-2.550E-01	2.239E-01	3.379E-01	0.000E+00	FAIL ABUN
IR-192	-4.150E-03	2.639E-02	4.403E-02	0.000E+00	FAIL ABUN
HG-203	2.902E-03	3.161E-02	4.597E-02	0.000E+00	NOT IDENT.
BI-207	8.562E-03	5.032E-02	8.559E-02	0.000E+00	FAIL ABUN
PB-211	-2.759E-01	6.770E-01	9.347E-01	0.000E+00	NOT IDENT.
BI-212	0.000E+00	8.037E-01	1.124E+00	0.000E+00	FAIL ABUN
RN-219	-7.249E-02	3.223E-01	5.211E-01	0.000E+00	FAIL ABUN
RA-223	7.878E-02	5.091E-01	7.699E-01	0.000E+00	FAIL ABUN
AC-227	-1.023E-01	1.774E-01	2.966E-01	0.000E+00	FAIL ABUN
TH-227	-1.023E-01	1.775E-01	2.966E-01	0.000E+00	FAIL ABUN
PA-231	-7.276E-01	9.748E-01	1.587E+00	0.000E+00	FAIL ABUN
TH-231	7.878E-02	5.091E-01	7.699E-01	0.000E+00	FAIL ABUN
PA-233	-5.600E-03	4.577E-02	7.663E-02	0.000E+00	FAIL ABUN
PA-234	-1.728E-01	2.891E-01	4.659E-01	0.000E+00	FAIL ABUN
PA-234M	2.070E+00	4.541E+00	7.920E+00	0.000E+00	NOT IDENT.
NP-239	-3.099E-01	2.359E-01	3.691E-01	0.000E+00	FAIL ABUN
AM-241	-3.614E-02	3.589E-02	5.623E-02	0.000E+00	NOT IDENT.
CM-247	-1.819E-02	3.040E-02	4.799E-02	0.000E+00	FAIL ABUN

CF-249	9.434E-03	3.066E-02	5.141E-02	0.000E+00 NOT IDENT.
CF-251	2.961E-02	7.583E-02	1.365E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:02:27.68

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 23:00:25
Sample ID         : G1202065189          Sample quantity  : 1.22070E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:50.22  0.3%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1652	10.66*	7.204E-01	3.308E+01	3.308E+01	9.98
CD-109	88.03	885	3.70*	8.135E+00	4.523E+00	4.658E+00	15.31
SN-126	64.28	350	9.60	8.182E+00	6.852E-01	6.852E-01	38.04
	86.94	885	8.90	8.135E+00	1.880E+00	1.880E+00	43.25
	87.57	885	37.00*	8.135E+00	4.523E-01	4.523E-01	15.31
BA-137M	661.66	98	89.90*	1.562E+00	1.068E-01	1.069E-01	57.44
CS-137	661.66	98	85.10*	1.562E+00	1.128E-01	1.129E-01	57.44
TL-208	277.37	113	6.60	3.803E+00	6.952E-01	6.952E-01	54.81
	583.19	574	85.00*	1.777E+00	5.839E-01	5.839E-01	16.14
	860.56	60	12.50	1.201E+00	6.159E-01	6.159E-01	51.82
PB-210	46.54	552	4.25*	7.360E+00	2.714E+00	2.719E+00	20.93
BI-211	72.87	------	1.23	8.278E+00	------ Line Not Found		------
	351.06	991	12.92*	2.996E+00	3.938E+00	3.938E+00	12.52
PB-212	74.82	1388	10.28	8.275E+00	2.509E+00	2.509E+00	14.87
	77.11	2112	17.10	8.264E+00	2.298E+00	2.298E+00	10.19
	238.63	2375	43.60*	4.386E+00	1.910E+00	1.910E+00	10.97
	300.09	132	3.30	3.520E+00	1.753E+00	1.753E+00	45.15
BI-214	609.32	744	45.49*	1.699E+00	1.479E+00	1.480E+00	15.74
	1120.29	127	14.92	9.295E-01	1.404E+00	1.404E+00	40.64
	1764.49	85	15.30	5.982E-01	1.426E+00	1.426E+00	30.05
PB-214	74.82	1388	5.80	8.275E+00	4.448E+00	4.448E+00	13.76
	77.11	2112	9.70	8.264E+00	4.050E+00	4.050E+00	13.11
	242.00	535	7.25	4.337E+00	2.618E+00	2.618E+00	21.23
	295.22	706	18.42	3.577E+00	1.648E+00	1.648E+00	15.81
	351.93	991	35.60*	2.996E+00	1.429E+00	1.429E+00	13.68
RA-224	240.99	535	4.10*	4.337E+00	4.630E+00	4.630E+00	20.42
RA-226	609.32	744	45.49*	1.699E+00	1.479E+00	1.480E+00	15.74
	1120.29	127	14.92	9.295E-01	1.404E+00	1.404E+00	40.64
	1764.49	85	15.30	5.982E-01	1.426E+00	1.426E+00	30.05
AC-228	338.32	405	11.27	3.120E+00	1.772E+00	1.772E+00	45.83
	911.20	377	25.80*	1.135E+00	1.977E+00	1.977E+00	18.77
	968.97	214	15.80	1.070E+00	1.944E+00	1.944E+00	31.61

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	405	11.27	3.120E+00	1.772E+00	1.772E+00	45.83
	911.20	377	25.80*	1.135E+00	1.977E+00	1.977E+00	18.77
	968.97	214	15.80	1.070E+00	1.944E+00	1.944E+00	31.61
TH-228	74.82	1388	10.28	8.275E+00	2.509E+00	2.509E+00	11.31
	77.11	2112	17.10	8.264E+00	2.298E+00	2.298E+00	10.19
	238.63	2375	43.60*	4.386E+00	1.910E+00	1.910E+00	10.97
	300.09	132	3.30	3.520E+00	1.753E+00	1.753E+00	75.33
TH-229	85.43	346	14.70	8.185E+00	4.424E-01	4.425E-01	32.34
	88.47	885	24.00	8.135E+00	6.973E-01	6.973E-01	15.31
	193.51	------	4.41*	5.271E+00	------ Line Not Found		------
	210.85	70	2.80	4.884E+00	7.865E-01	7.865E-01	79.57
TH-230	609.32	744	45.49*	1.699E+00	1.479E+00	1.479E+00	14.83
	1120.29	127	14.92	9.295E-01	1.404E+00	1.404E+00	40.08
	1764.49	85	15.30	5.982E-01	1.426E+00	1.426E+00	30.05
TH-232	338.32	405	11.27	3.120E+00	1.772E+00	1.772E+00	20.83
	911.20	377	25.80*	1.135E+00	1.977E+00	1.977E+00	18.77
	968.97	214	15.80	1.070E+00	1.944E+00	1.944E+00	31.61
TH-234	63.29	350	3.70*	8.182E+00	1.778E+00	1.778E+00	39.42
	92.59	857	4.23	8.017E+00	3.887E+00	3.887E+00	26.81
U-235	89.96	456	3.47	8.085E+00	2.498E+00	2.498E+00	30.60
	93.35	857	5.60	8.017E+00	2.936E+00	2.936E+00	27.65
	143.76	------	10.96*	6.567E+00	------ Line Not Found		------
	163.33	------	5.08	6.017E+00	------ Line Not Found		------
	185.72	455	57.20	5.448E+00	2.243E-01	2.243E-01	25.00
	205.31	------	5.01	5.015E+00	------ Line Not Found		------
NP-237	86.48	885	12.40*	8.135E+00	1.350E+00	1.350E+00	25.96
	95.86	------	2.68	7.953E+00	------ Line Not Found		------
U-238	63.29	350	3.70*	8.182E+00	1.778E+00	1.778E+00	39.42
	92.59	857	4.23	8.017E+00	3.887E+00	3.887E+00	17.48
ANH-511	511.00	197	100.00*	2.037E+00	1.489E-01	1.489E-01	44.52

Flag: "*" = Keyline

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

Total number of lines in spectrum 43
Number of unidentified lines 7
Number of lines tentatively identified by NID 36 83.72%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.308E+01	3.308E+01	0.330E+01	9.98	
CD-109	461.40D	1.03	4.523E+00	4.658E+00	0.713E+00	15.31	
SN-126	2.30E+05Y	1.00	4.523E-01	4.523E-01	0.693E-01	15.31	
BA-137M	30.08Y	1.00	1.068E-01	1.069E-01	0.614E-01	57.44	
CS-137	30.08Y	1.00	1.128E-01	1.129E-01	0.649E-01	57.44	
TL-208	1.41E+10Y	1.00	5.839E-01	5.839E-01	0.942E-01	16.14	
PB-210	22.20Y	1.00	2.714E+00	2.719E+00	0.569E+00	20.93	
BI-211	7.04E+08Y	1.00	3.938E+00	3.938E+00	0.493E+00	12.52	
PB-212	1.41E+10Y	1.00	1.910E+00	1.910E+00	0.210E+00	10.97	
BI-214	1600.00Y	1.00	1.479E+00	1.480E+00	0.233E+00	15.74	
PB-214	1600.00Y	1.00	1.429E+00	1.429E+00	0.196E+00	13.68	
RA-224	1.41E+10Y	1.00	4.630E+00	4.630E+00	0.945E+00	20.42	
RA-226	1600.00Y	1.00	1.479E+00	1.480E+00	0.233E+00	15.74	
AC-228	1.41E+10Y	1.00	1.977E+00	1.977E+00	0.371E+00	18.77	
RA-228	1.41E+10Y	1.00	1.977E+00	1.977E+00	0.371E+00	18.77	
TH-228	1.41E+10Y	1.00	1.910E+00	1.910E+00	0.210E+00	10.97	
TH-229	7340.00Y	1.00	6.973E-01	6.973E-01	1.068E-01	15.31	K
TH-230	7.54E+04Y	1.00	1.479E+00	1.479E+00	0.219E+00	14.83	
TH-232	1.41E+10Y	1.00	1.977E+00	1.977E+00	0.371E+00	18.77	
TH-234	4.47E+09Y	1.00	1.778E+00	1.778E+00	0.701E+00	39.42	
U-235	7.04E+08Y	1.00	2.243E-01	2.243E-01	0.561E-01	25.00	K
NP-237	2.14E+06Y	1.00	1.350E+00	1.350E+00	0.350E+00	25.96	
U-238	4.47E+09Y	1.00	1.778E+00	1.778E+00	0.701E+00	39.42	
ANH-511	1.00E+09Y	1.00	1.489E-01	1.489E-01	0.663E-01	44.52	
	Total Activity :		7.173E+01	7.187E+01			

Grand Total Activity : 7.173E+01 7.187E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	99.35	86	678	0.85	198.64	195	8	5.99E-03	****	7.87E+00	T
0	128.90	140	664	0.94	257.71	255	8	9.71E-03	66.0	7.01E+00	
0	154.10	121	551	1.09	308.09	305	8	8.43E-03	69.3	6.27E+00	T
1	209.03	241	275	0.97	417.90	413	14	1.67E-02	25.3	4.94E+00	
0	270.08	146	277	1.53	539.96	536	8	1.02E-02	43.7	3.90E+00	T
0	327.96	114	221	0.99	655.68	652	8	7.89E-03	49.2	3.22E+00	T
0	410.14	71	228	1.66	820.01	815	10	4.93E-03	83.3	2.56E+00	T
0	462.58	119	182	1.17	924.87	920	11	8.23E-03	47.7	2.26E+00	T
0	727.18	145	103	1.39	1454.07	1448	11	1.00E-02	32.0	1.42E+00	T
0	768.11	59	71	1.28	1535.94	1532	8	4.08E-03	56.3	1.34E+00	
0	795.09	70	70	0.93	1589.90	1585	11	4.86E-03	52.5	1.30E+00	T
4	964.65	86	50	2.37	1929.11	1924	20	6.00E-03	39.8	1.07E+00	T
0	1508.85	27	4	2.21	3018.15	3014	8	1.88E-03	46.1	6.98E-01	
2	1587.81	37	16	2.40	3176.22	3168	23	2.56E-03	49.7	6.64E-01	
2	1592.31	40	5	2.40	3185.22	3168	23	2.81E-03	46.1	6.62E-01	
0	1729.10	25	14	1.12	3459.06	3452	14	1.72E-03	77.3	6.10E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:02:34.27

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1 *
* Acquisition date : 24-MAR-2010 23:00:25  Detector SN#    :               *
* Detector ID      : GAM21                 Sensitivity     : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 04:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 04:00:50.22         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 5-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G1202065189           Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.22070E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :               *
* LCS ID           : 1032-A                LCS Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.308E+01	3.301E+00	4.821E-01	4.116E-02	68.620
CD-109	4.658E+00	7.132E-01	5.051E-01	4.753E-02	9.222
SN-126	4.523E-01	6.926E-02	4.896E-02	4.590E-03	9.238
BA-137M	1.069E-01	6.140E-02	5.681E-02	6.275E-03	1.882
CS-137	1.129E-01	6.487E-02	6.002E-02	6.636E-03	1.882
TL-208	5.839E-01	9.423E-02	4.576E-02	4.981E-03	12.760
PB-210	2.719E+00	5.690E-01	4.482E-01	4.239E-02	6.066
BI-211	3.938E+00	4.930E-01	2.429E-01	2.192E-02	16.215
PB-212	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
BI-214	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
PB-214	1.429E+00	1.955E-01	8.840E-02	9.345E-03	16.167
RA-224	4.630E+00	9.454E-01	6.574E-01	5.842E-02	7.043
RA-226	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
AC-228	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
RA-228	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
TH-228	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
TH-229	6.973E-01	1.068E-01	5.488E-01	4.659E-02	1.271
TH-230	1.479E+00	2.193E-01	1.002E-01	1.064E-02	14.766

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
TH-234	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
U-235	2.243E-01	5.607E-02	2.091E-01	3.701E-02	1.073
NP-237	1.350E+00	3.504E-01	1.455E-01	3.337E-02	9.276
U-238	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
ANH-511	1.489E-01	6.629E-02	3.937E-02	3.775E-03	3.781

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	5.292E-02		2.715E-01	4.604E-01	4.510E-02	0.115
NA-22	-1.556E-03		4.226E-02	6.780E-02	5.562E-03	-0.023
NA-24	-8.318E+01		4.267E+01	Half-Life too short		
SC-46	1.971E-02		3.822E-02	6.623E-02	5.889E-03	0.298
V-48	3.861E-02		8.415E-02	1.440E-01	1.260E-02	0.268
CR-51	-2.034E-01		3.022E-01	4.699E-01	4.365E-02	-0.433
MN-54	-1.687E-03		3.282E-02	5.493E-02	5.324E-03	-0.031
CO-56	6.398E-03		3.581E-02	6.091E-02	5.806E-03	0.105
CO-57	-9.237E-03		1.481E-02	2.271E-02	2.609E-03	-0.407
CO-58	-1.424E-02		3.502E-02	5.711E-02	5.715E-03	-0.249
FE-59	-3.716E-02		9.604E-02	1.518E-01	1.401E-02	-0.245
CO-60	-8.831E-04		3.383E-02	5.659E-02	4.593E-03	-0.016
ZN-65	-4.955E-04		1.110E-01	1.566E-01	1.328E-02	-0.003
SE-75	-1.302E-02		2.985E-02	4.802E-02	4.312E-03	-0.271
SR-85	2.077E-02		3.530E-02	5.415E-02	5.210E-03	0.384
Y-88	2.893E-02		3.540E-02	6.532E-02	5.393E-03	0.443
Y-91	-8.734E-02		2.542E+01	4.116E+01	3.391E+00	-0.002
NB-94	-1.641E-02		3.242E-02	5.046E-02	5.496E-03	-0.325
NB-95	2.001E-02		4.798E-02	6.984E-02	7.299E-03	0.287
NB-95M	4.864E-02		9.064E-02	1.387E-01	1.400E-02	0.351
ZR-95	-8.187E-03		7.409E-02	1.179E-01	1.329E-02	-0.069
MO-99	-2.756E+01		3.474E+01	5.171E+01	8.771E+00	-0.533
TC-99M	1.507E+15		2.157E+15	Half-Life too short		
RU-103	-4.041E-03		3.496E-02	5.799E-02	8.392E-03	-0.070
RH-106	2.005E-01		2.717E-01	4.652E-01	6.845E-02	0.431
RU-106	2.005E-01		2.709E-01	4.652E-01	4.991E-02	0.431
AG-108M	1.199E-02		2.328E-02	4.041E-02	3.578E-03	0.297
AG-110M	1.921E-03		3.529E-02	5.053E-02	5.668E-03	0.038
SN-113	-2.679E-02		3.762E-02	5.700E-02	4.694E-03	-0.470
CD-115	7.571E-06		1.753E-05	Half-Life too short		
SN-117M	-1.996E-02		4.490E-02	6.659E-02	5.862E-03	-0.300
TE-123M	-5.911E-03		1.816E-02	2.867E-02	2.527E-03	-0.206
SB-124	1.140E-02		8.283E-02	1.385E-01	1.209E-02	0.082
SB-125	-7.887E-02		7.205E-02	1.142E-01	9.877E-03	-0.691
TE-125M	5.010E-01		5.511E+00	8.811E+00	1.072E+00	0.057
I-126	3.679E-02		2.976E-01	4.280E-01	4.722E-02	0.086
SB-126	1.016E-01		1.833E-01	2.863E-01	3.089E-02	0.355

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-127	3.703E+00		2.908E+00	5.031E+00	7.264E-01	0.736
I-131	2.967E-02		1.261E-01	2.045E-01	1.825E-02	0.145
TE-132	-9.806E-01		1.239E+00	1.978E+00	3.336E-01	-0.496
BA-133	2.983E-02		3.349E-02	5.089E-02	6.561E-03	0.586
I-133	-6.207E-02		8.031E-02	Half-Life too short		
CS-134	1.096E-01	+	5.859E-02	8.032E-02	8.199E-03	1.364
CS-135	1.258E-01		1.188E-01	1.831E-01	1.875E-02	0.687
I-135	4.587E+14		2.386E+14	Half-Life too short		
CS-136	-5.081E-02		1.362E-01	2.168E-01	1.956E-02	-0.234
CE-139	-1.466E-03		1.825E-02	3.107E-02	2.526E-03	-0.047
BA-140	-1.037E-01		2.844E-01	4.569E-01	1.565E-01	-0.227
LA-140	7.334E-02		1.018E-01	1.664E-01	1.392E-02	0.441
CE-141	-1.156E-02		4.375E-02	6.733E-02	6.751E-03	-0.172
CE-143	1.929E-03		5.292E-04	Half-Life too short		
CE-144	6.507E-02		1.204E-01	1.923E-01	3.189E-02	0.338
PM-144	-2.446E-02		3.198E-02	4.863E-02	5.312E-03	-0.503
PR-144	-1.821E+00		2.400E+00	3.651E+00	3.987E-01	-0.499
PM-146	1.388E-02		3.327E-02	5.728E-02	6.175E-03	0.242
ND-147	-1.449E-01		6.120E-01	1.000E+00	1.567E-01	-0.145
PM-149	-1.055E-04		1.276E-04	Half-Life too short		
EU-152	6.194E-02		7.127E-02	1.199E-01	1.099E-02	0.517
GD-153	-2.240E-03		5.054E-02	6.565E-02	6.485E-03	-0.034
EU-154	-3.064E-02		1.204E-01	1.890E-01	2.090E-02	-0.162
EU-155	1.071E-01		5.775E-02	9.674E-02	1.008E-02	1.107
TB-160	-5.747E-03		1.194E-01	1.988E-01	1.799E-02	-0.029
HO-166M	-3.356E-02		5.628E-02	8.652E-02	9.381E-03	-0.388
TA-182	-2.550E-01		2.285E-01	3.377E-01	2.780E-02	-0.755
IR-192	-4.150E-03		2.693E-02	4.326E-02	3.844E-03	-0.096
HG-203	2.902E-03		3.225E-02	4.509E-02	4.117E-03	0.064
BI-207	8.562E-03		5.134E-02	8.539E-02	7.359E-03	0.100
PB-211	-2.759E-01		6.908E-01	9.211E-01	4.450E-01	-0.300
BI-212	2.347E+00	+	8.201E-01	1.116E+00	1.564E-01	2.102
RN-219	-7.249E-02		3.289E-01	5.134E-01	7.485E-02	-0.141
RA-223	7.878E-02		5.194E-01	7.566E-01	1.319E-01	0.104
AC-227	-1.023E-01		1.810E-01	2.906E-01	3.568E-02	-0.352
TH-227	-1.023E-01		1.811E-01	2.906E-01	4.012E-02	-0.352
PA-231	-7.276E-01		9.947E-01	1.557E+00	2.299E-01	-0.467
TH-231	7.878E-02		5.194E-01	7.566E-01	1.319E-01	0.104
PA-233	-5.600E-03		4.670E-02	7.526E-02	6.870E-03	-0.074
PA-234	-1.728E-01		2.950E-01	4.641E-01	8.741E-02	-0.372
PA-234M	2.070E+00		4.634E+00	7.895E+00	7.943E-01	0.262
NP-239	-3.099E-01		2.407E-01	3.582E-01	3.986E-02	-0.865
AM-241	-3.614E-02		3.662E-02	5.412E-02	4.591E-03	-0.668
CM-247	-1.819E-02		3.102E-02	4.729E-02	3.835E-03	-0.385
CF-249	9.434E-03		3.128E-02	5.064E-02	4.060E-03	0.186
CF-251	2.961E-02		7.738E-02	1.332E-01	1.103E-02	0.222

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065189          *
* Acquisition date : 24-MAR-2010 23:00:25 Detector SN#    :                *
* Detector ID      : GAM21                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 04:00:50.22     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  5-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202065189          Analyst initials: MXR1           *
* Batch Number     : 962633               Sample Quantity : 1.2207E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.308E+01	3.235E+00	2.407E-01	1.650E+00
CD-109	4.658E+00	6.989E-01	2.613E-01	3.566E-01
SN-126	4.523E-01	6.787E-02	2.533E-02	3.463E-02
BA-137M	1.069E-01	6.017E-02	2.866E-02	3.070E-02
CS-137	1.129E-01	6.357E-02	3.028E-02	3.243E-02
TL-208	5.839E-01	9.234E-02	2.313E-02	4.711E-02
PB-210	2.719E+00	5.576E-01	2.337E-01	2.845E-01
BI-211	3.938E+00	4.831E-01	1.235E-01	2.465E-01
PB-212	1.910E+00	2.054E-01	3.125E-02	1.048E-01
BI-214	1.480E+00	2.282E-01	5.061E-02	1.164E-01
PB-214	1.429E+00	1.916E-01	4.496E-02	9.776E-02
RA-224	4.630E+00	9.265E-01	3.359E-01	4.727E-01
RA-226	1.480E+00	2.282E-01	5.061E-02	1.164E-01
AC-228	1.977E+00	3.637E-01	1.054E-01	1.855E-01
RA-228	1.977E+00	3.637E-01	1.054E-01	1.855E-01
TH-228	1.910E+00	2.054E-01	3.125E-02	1.048E-01
TH-229	-2.275E-01	3.272E-01	2.812E-01	1.670E-01
TH-230	1.479E+00	2.150E-01	5.060E-02	1.097E-01
TH-232	1.977E+00	3.637E-01	1.054E-01	1.855E-01
TH-234	1.778E+00	6.867E-01	2.902E-01	3.504E-01
U-235	1.100E-01	1.311E-01	1.075E-01	6.689E-02
NP-237	1.350E+00	3.434E-01	7.530E-02	1.752E-01
U-238	1.778E+00	6.867E-01	2.902E-01	3.504E-01
ANH-511	1.489E-01	6.496E-02	1.993E-02	3.314E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	5.292E-02	2.661E-01	2.333E-01	1.358E-01	NOT IDENT.
NA-22	-1.556E-03	4.142E-02	3.392E-02	2.113E-02	NOT IDENT.
NA-24	-8.318E+07	8.363E+07	0.000E+00	4.267E+07	SHORT HLIF

SC-46	1.971E-02	3.746E-02	3.329E-02	1.911E-02	FAIL ABUN
V-48	3.861E-02	8.247E-02	7.229E-02	4.208E-02	NOT IDENT.
CR-51	-2.034E-01	2.961E-01	2.393E-01	1.511E-01	NOT IDENT.
MN-54	-1.687E-03	3.216E-02	2.763E-02	1.641E-02	NOT IDENT.
CO-56	6.398E-03	3.510E-02	3.063E-02	1.791E-02	NOT IDENT.
CO-57	-9.237E-03	1.451E-02	1.171E-02	7.403E-03	NOT IDENT.
CO-58	-1.424E-02	3.432E-02	2.874E-02	1.751E-02	NOT IDENT.
FE-59	-3.716E-02	9.412E-02	7.610E-02	4.802E-02	NOT IDENT.
CO-60	-8.831E-04	3.316E-02	2.830E-02	1.692E-02	NOT IDENT.
ZN-65	-4.955E-04	1.088E-01	7.849E-02	5.550E-02	NOT IDENT.
SE-75	-1.302E-02	2.925E-02	2.451E-02	1.493E-02	NOT IDENT.
SR-85	2.077E-02	3.460E-02	2.741E-02	1.765E-02	NOT IDENT.
Y-88	2.893E-02	3.469E-02	3.252E-02	1.770E-02	NOT IDENT.
Y-91	-8.734E-02	2.491E+01	2.061E+01	1.271E+01	NOT IDENT.
NB-94	-1.641E-02	3.177E-02	2.544E-02	1.621E-02	NOT IDENT.
NB-95	2.001E-02	4.702E-02	3.517E-02	2.399E-02	NOT IDENT.
NB-95M	4.864E-02	8.883E-02	7.090E-02	4.532E-02	NOT IDENT.
ZR-95	-8.187E-03	7.261E-02	5.936E-02	3.704E-02	NOT IDENT.
MO-99	-2.756E+01	3.404E+01	2.605E+01	1.737E+01	NOT IDENT.
TC-99M	1.507E+21	4.227E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.041E-03	3.426E-02	2.936E-02	1.748E-02	FAIL ABUN
RH-106	2.005E-01	2.662E-01	2.349E-01	1.358E-01	NOT IDENT.
RU-106	2.005E-01	2.655E-01	2.349E-01	1.355E-01	NOT IDENT.
AG-108M	1.199E-02	2.282E-02	2.050E-02	1.164E-02	NOT IDENT.
AG-110M	1.921E-03	3.458E-02	2.549E-02	1.764E-02	NOT IDENT.
SN-113	-2.679E-02	3.686E-02	2.895E-02	1.881E-02	NOT IDENT.
CD-115	7.571E+00	3.436E+01	0.000E+00	1.753E+01	SHORT HLIF
SN-117M	-1.996E-02	4.400E-02	3.421E-02	2.245E-02	NOT IDENT.
TE-123M	-5.911E-03	1.780E-02	1.472E-02	9.082E-03	NOT IDENT.
SB-124	1.140E-02	8.117E-02	6.904E-02	4.141E-02	NOT IDENT.
SB-125	-7.887E-02	7.061E-02	5.793E-02	3.603E-02	FAIL ABUN
TE-125M	5.010E-01	5.401E+00	4.547E+00	2.756E+00	NOT IDENT.
I-126	3.679E-02	2.916E-01	2.159E-01	1.488E-01	NOT IDENT.
SB-126	1.016E-01	1.796E-01	1.443E-01	9.164E-02	NOT IDENT.
SB-127	3.703E+00	2.850E+00	2.537E+00	1.454E+00	NOT IDENT.
I-131	2.967E-02	1.236E-01	1.040E-01	6.305E-02	NOT IDENT.
TE-132	-9.806E-01	1.214E+00	1.011E+00	6.194E-01	NOT IDENT.
BA-133	2.983E-02	3.282E-02	2.588E-02	1.675E-02	FAIL ABUN
I-133	-6.207E+04	1.574E+05	0.000E+00	8.031E+04	SHORT HLIF
CS-134	1.096E-01	5.742E-02	4.043E-02	2.929E-02	FAIL ABUN
CS-135	1.258E-01	1.164E-01	9.344E-02	5.938E-02	NOT IDENT.
I-135	4.587E+20	4.676E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.081E-02	1.334E-01	1.088E-01	6.808E-02	FAIL ABUN
CE-139	-1.466E-03	1.788E-02	1.595E-02	9.124E-03	NOT IDENT.
BA-140	-1.037E-01	2.787E-01	2.311E-01	1.422E-01	NOT IDENT.
LA-140	7.334E-02	9.976E-02	8.302E-02	5.090E-02	FAIL ABUN
CE-141	-1.156E-02	4.288E-02	3.462E-02	2.188E-02	NOT IDENT.
CE-143	1.929E+03	1.037E+03	0.000E+00	5.292E+02	SHORT HLIF
CE-144	6.507E-02	1.180E-01	9.900E-02	6.021E-02	NOT IDENT.
PM-144	-2.446E-02	3.134E-02	2.452E-02	1.599E-02	NOT IDENT.
PR-144	-1.821E+00	2.352E+00	1.841E+00	1.200E+00	NOT IDENT.
PM-146	1.388E-02	3.260E-02	2.904E-02	1.663E-02	NOT IDENT.
ND-147	-1.449E-01	5.997E-01	5.060E-01	3.060E-01	FAIL ABUN
PM-149	-1.055E+02	2.501E+02	0.000E+00	1.276E+02	SHORT HLIF
EU-152	6.194E-02	6.985E-02	6.097E-02	3.564E-02	FAIL ABUN
GD-153	-2.240E-03	4.953E-02	3.392E-02	2.527E-02	NOT IDENT.
EU-154	-3.064E-02	1.180E-01	9.455E-02	6.022E-02	NOT IDENT.
EU-155	1.071E-01	5.659E-02	4.994E-02	2.887E-02	FAIL ABUN
TB-160	-5.747E-03	1.170E-01	9.991E-02	5.969E-02	FAIL ABUN
HO-166M	-3.356E-02	5.515E-02	4.361E-02	2.814E-02	FAIL ABUN
TA-182	-2.550E-01	2.239E-01	1.691E-01	1.142E-01	FAIL ABUN
IR-192	-4.150E-03	2.639E-02	2.203E-02	1.346E-02	FAIL ABUN
HG-203	2.902E-03	3.161E-02	2.300E-02	1.613E-02	NOT IDENT.
BI-207	8.562E-03	5.032E-02	4.282E-02	2.567E-02	FAIL ABUN
PB-211	-2.759E-01	6.770E-01	4.676E-01	3.454E-01	NOT IDENT.
BI-212	2.347E+00	8.037E-01	5.625E-01	4.101E-01	FAIL ABUN
RN-219	-7.249E-02	3.223E-01	2.607E-01	1.644E-01	FAIL ABUN
RA-223	7.878E-02	5.091E-01	3.852E-01	2.597E-01	FAIL ABUN
AC-227	-1.023E-01	1.774E-01	1.484E-01	9.051E-02	FAIL ABUN
TH-227	-1.023E-01	1.775E-01	1.484E-01	9.057E-02	FAIL ABUN
PA-231	-7.276E-01	9.748E-01	7.939E-01	4.974E-01	FAIL ABUN
TH-231	7.878E-02	5.091E-01	3.852E-01	2.597E-01	FAIL ABUN
PA-233	-5.600E-03	4.577E-02	3.834E-02	2.335E-02	FAIL ABUN
PA-234	-1.728E-01	2.891E-01	2.331E-01	1.475E-01	FAIL ABUN
PA-234M	2.070E+00	4.541E+00	3.962E+00	2.317E+00	NOT IDENT.
NP-239	-3.099E-01	2.359E-01	1.847E-01	1.204E-01	FAIL ABUN
AM-241	-3.614E-02	3.589E-02	2.813E-02	1.831E-02	NOT IDENT.
CM-247	-1.819E-02	3.040E-02	2.401E-02	1.551E-02	FAIL ABUN

CF-249	9.434E-03	3.066E-02	2.572E-02	1.564E-02	NOT IDENT.
CF-251	2.961E-02	7.583E-02	6.831E-02	3.869E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	382.3819
49.72	381.1498
57.36	0.0000
59.54	550.4957
63.29	559.4451
63.29	559.4451
64.28	561.6814
67.75	588.1947
69.67	620.4482
70.83	683.2540
72.81	631.0656
72.87	631.2015
72.87	631.2015
74.82	649.2062
74.82	649.2062
74.82	649.2062
74.97	649.5571
77.11	654.4687
77.11	654.4687
77.11	654.4687
79.69	660.3061
79.80	660.5546
80.12	661.2709
80.19	661.4268
80.57	662.2795
81.00	663.2346
81.07	663.3904
81.07	663.3904
83.79	419.2444
83.79	419.2444
85.43	421.4813
86.48	422.9004
86.55	422.9950
86.79	423.3154
86.94	423.5229
87.57	424.3683
88.03	424.9847
88.47	425.5707
89.96	427.5513
91.11	429.0680
92.59	431.0028
92.59	431.0028
93.35	431.9916
94.67	433.7006
94.87	399.2432
94.87	399.2432
95.86	376.4735
97.43	400.0696
98.44	379.3152
99.53	380.5045
100.11	381.1353
103.18	472.5843
103.37	472.8342
105.31	364.3499
106.12	399.8791
109.28	393.1222
111.00	416.4730
111.76	350.2151
116.30	345.1195
117.23	454.3180
121.12	384.2086
121.78	391.8261
122.06	383.9254
123.07	317.0178
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133.52	351.2325
136.00	386.9476

136.47	359.5998
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140.51	0.0000
143.76	376.3907
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144.24	371.8658
145.44	397.4217
152.43	354.5406
153.25	377.6382
154.21	365.0069
154.21	365.0069
156.02	347.0552
158.56	342.4923
159.00	341.0150
162.66	347.3612
163.33	340.1570
165.86	355.4814
176.60	312.0628
177.52	312.5799
181.07	336.0922
184.41	339.3945
185.72	327.7660
193.51	352.7901
197.04	309.7168
205.31	307.4907
210.85	298.1895
215.65	325.0573
222.11	288.3309
227.38	293.4285
228.16	297.5532
228.18	297.5628
235.69	270.1439
235.96	278.8735
235.96	278.8735
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238.63	267.4234
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244.70	218.2755
252.40	240.1799
252.80	240.3095
256.23	276.8838
256.23	276.8838
260.90	0.0000
264.66	215.1958
268.22	195.1627
269.46	230.5568
269.46	230.5568
271.23	227.5553
273.65	190.4612
276.40	230.5559
277.37	223.7427
277.60	223.8102
278.00	200.6144
279.20	196.3463
279.54	184.2473
280.46	185.9822
283.69	219.3654
284.31	204.2155
285.41	205.5106
285.90	0.0000
287.50	215.2551
293.27	0.0000
295.22	181.5521
295.96	161.5193
298.57	162.0144
299.98	223.1320
299.98	223.1320
300.09	223.1626
300.09	223.1626
300.13	223.1713
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304.50	209.5573
304.50	209.5573
304.85	203.3622
308.46	174.3689
311.90	192.9743

316.51	199.2681
319.41	210.5402
320.08	200.0560
323.87	182.7208
323.87	182.7208
328.76	190.1331
333.37	166.7841
334.37	183.1698
334.37	183.1698
338.28	157.3400
338.28	157.3400
338.32	157.3459
338.32	157.3459
338.32	157.3459
340.48	199.0319
340.55	199.0468
344.28	152.8658
351.06	173.7190
351.93	173.8733
356.01	134.2576
364.49	147.0928
366.42	151.8379
383.85	165.7500
388.16	149.3206
388.63	159.6505
391.69	179.5445
400.66	156.8101
401.81	161.5902
402.40	176.6915
404.85	177.0806
410.95	153.6079
414.70	131.7010
423.72	135.0353
427.09	144.2790
427.87	169.1738
433.94	135.3286
453.88	128.5337
463.37	135.9043
468.07	117.1875
473.00	107.5345
476.78	128.1321
477.60	123.6008
487.02	108.7074
492.35	0.0000
497.08	123.5828
511.00	125.8138
514.00	121.3486
527.90	0.0000
529.87	0.0000
531.02	116.1257
537.26	119.5309
546.56	0.0000
563.25	101.0763
569.33	96.5645
569.50	105.4424
569.70	105.4555
583.19	93.4722
600.60	124.6963
602.73	111.1715
604.72	119.3756
609.32	117.2957
609.32	117.2957
609.32	117.2957
610.33	127.8928
614.28	86.0137
618.01	116.9162
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621.93	86.6264
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636.99	81.2566
645.85	93.0652
657.76	96.6374
661.66	124.2041
661.66	124.2041
664.57	0.0000
666.33	110.5178
666.50	108.8560

677.62	110.6076
685.70	94.1850
695.00	109.5727
696.49	116.0520
696.51	116.0553
697.00	109.6953
702.65	122.8613
706.68	95.2958
711.68	107.3669
720.70	89.1956
721.93	0.0000
722.78	114.0659
722.91	114.0756
723.31	119.2878
724.19	103.7754
727.33	91.8235
733.00	81.0970
735.93	85.9385
739.50	100.2684
747.24	88.6407
752.31	114.1118
753.82	99.9256
756.73	101.1781
763.94	90.0743
765.81	99.0008
766.42	106.1045
777.92	98.9462
778.90	95.6582
783.70	88.0842
785.37	72.5359
795.86	68.2052
801.95	88.8871
810.29	86.7656
810.76	79.5545
815.77	63.4358
818.51	73.5012
832.01	76.7197
834.85	84.1387
836.80	0.0000
846.77	71.7387
856.80	61.6016
860.56	77.7533
871.09	63.2486
873.19	68.8962
875.33	0.0000
879.36	60.6868
880.51	56.0479
883.24	63.5989
884.68	73.9352
889.28	71.2741
898.04	82.8523
911.20	73.8658
911.20	73.8658
911.20	73.8658
926.50	72.4523
937.49	97.6994
944.13	88.3703
946.00	87.4786
949.00	77.0039
962.29	64.5296
964.08	64.5768
966.15	77.5586
968.97	77.6504
968.97	77.6504
968.97	77.6504
983.53	71.2819
996.26	80.4865
1001.03	80.6427
1004.73	92.5817
1037.84	79.8320
1038.76	0.0000
1048.07	83.1581
1050.41	73.2032
1050.41	73.2032
1063.66	71.5616
1085.87	83.3453
1099.45	79.6796
1112.07	80.0528

1115.54	95.9128
1120.29	81.3222
1120.29	81.3222
1120.29	81.3222
1120.55	81.3299
1121.30	81.3530
1131.51	0.0000
1173.23	90.2160
1177.93	89.3123
1189.05	100.2046
1204.77	106.0498
1221.41	127.9805
1231.02	111.2719
1235.36	112.5059
1238.28	114.7585
1260.41	0.0000
1271.85	69.4031
1274.44	62.9476
1274.54	59.6943
1291.59	69.8438
1298.22	0.0000
1312.11	70.3031
1332.49	38.6931
1365.19	31.6384
1368.63	0.0000
1384.29	33.6943
1408.01	25.4498
1457.56	0.0000
1460.82	26.8003
1489.16	26.0519
1505.03	18.2755
1596.21	15.3262
1620.50	19.9943
1678.03	0.0000
1690.97	19.3386
1764.49	14.5081
1764.49	14.5081
1764.49	14.5081
1770.23	16.0105
1771.35	14.2355
1791.20	0.0000
1836.06	11.5935

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065189

Total Uranium Activity	5.3397E+00	ug/g
Total Uranium Counting Unc.	2.0440E+00	ug/g
Total Uranium Tpu	1.0428E-06	ug/g
Total Uranium Mda	8.6471E-01	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G1202065189      *
*   ANALYST       : MXR1                      DETECTOR   : GAM21            *
*   SAMPLE DATE   :  5-MAR-2010 12:00:00.00   COUNT TIME :    0 04:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 23:00:25.28    SAMPLE ALQT:  122.070 GRAM    *
*                                                                           *
*****************************************************************************
```

GROSS GAMMA ACTIVITY (pCi/GRAM) : 1.099E+01
GROSS GAMMA ERROR (pCi/GRAM) : 1.251E+00
GROSS GAMMA MDA (pCi/GRAM) : 3.798E+00
GROSS GAMMA DLC (pCi/GRAM) : 1.851E+00

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 10:17:29.46

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 25-MAR-2010 09:16:55
Sample ID         : G1202065190          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:02.21  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.48	3653	1120	1.07	119.22	113	11	1.01E+00	2.4	
2	2	74.80	274	459	1.22	149.83	145	15	7.62E-02	14.2	3.12E+00
3	2	77.10*	407	386	1.08	154.42	145	15	1.13E-01	9.4	
4	0	88.09	1951	721	1.15	176.38	171	12	5.42E-01	3.6	
5	0	92.85*	119	426	1.77	185.90	183	9	3.31E-02	33.6	
6	0	122.01	348	514	1.08	244.16	238	12	9.68E-02	14.1	
7	0	186.19*	142	575	1.24	372.40	365	13	3.94E-02	36.4	
8	0	209.26	60	349	1.10	418.50	415	8	1.67E-02	55.4	
9	3	238.69*	843	316	1.32	477.30	470	20	2.34E-01	5.1	2.05E+00
10	3	241.58	162	435	1.82	483.08	470	20	4.50E-02	28.8	
11	0	270.41	89	437	1.23	540.69	534	14	2.47E-02	51.1	
12	0	295.39*	209	346	1.61	590.59	585	12	5.80E-02	19.2	
13	0	338.36*	158	363	1.27	676.47	669	12	4.40E-02	25.5	
14	0	351.92*	489	321	1.40	703.58	697	13	1.36E-01	8.9	
15	0	583.37*	288	179	1.16	1166.15	1160	13	8.01E-02	11.4	
16	0	609.38*	312	179	1.79	1218.14	1214	13	8.66E-02	10.6	
17	0	661.69	3635	233	1.70	1322.71	1314	18	1.01E+00	1.9	
18	0	911.46*	231	257	2.20	1822.04	1815	18	6.42E-02	17.7	
19	0	969.01*	95	171	1.57	1937.11	1933	10	2.64E-02	28.2	
20	0	1120.06*	81	135	3.88	2239.14	2232	16	2.24E-02	34.5	
21	0	1173.30	2983	187	2.28	2345.61	2334	24	8.29E-01	2.2	
22	0	1238.38*	58	32	3.31	2475.76	2466	16	1.62E-02	25.9	
23	0	1332.59	2827	60	2.48	2664.18	2653	21	7.85E-01	2.0	
24	0	1764.73*	48	21	3.69	3528.67	3519	17	1.33E-02	27.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 25-MAR-2010 10:17:32

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 9-MAR-2010 00:00:00 Acquisition date : 25-MAR-2010 09:16:55
Sample ID : G1202065190 Sample quantity : 151.73 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:02.21 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	+	122.06	*	2.454E-01	7.192E-02	5.698E-02	4.699E-03	4.306
		136.47		2.217E-01	2.863E-01	4.960E-01	4.597E-02	0.447
CO-60	+	1173.23		6.587E+00	6.035E-01	1.006E-01	8.091E-03	65.472
	+	1332.49	*	6.898E+00	6.740E-01	7.319E-02	6.526E-03	94.247
CD-109	+	88.03	*	3.543E+01	4.214E+00	1.843E+00	1.749E-01	19.226
SN-126		64.28		-6.603E-01	6.794E-01	1.045E+00	1.517E-01	-0.632
	+	86.94		1.437E+01	6.058E+00	7.547E-01	3.134E-01	19.038
	+	87.57	*	3.456E+00	4.111E-01	1.805E-01	1.704E-02	19.148
BA-137M	+	661.66	*	5.580E+00	6.266E-01	8.497E-02	8.961E-03	65.662
CS-137	+	661.66	*	5.894E+00	6.626E-01	8.977E-02	9.478E-03	65.662
TL-208		277.37		2.304E-01	6.904E-01	1.035E+00	1.722E-01	0.223
	+	583.19	*	4.272E-01	1.080E-01	9.539E-02	1.034E-02	4.478
		860.56		2.452E-01	5.082E-01	8.648E-01	1.008E-01	0.284
BI-211		72.87		1.759E+00	4.575E+00	6.832E+00	5.468E-01	0.257
	+	351.06	*	3.464E+00	7.343E-01	5.093E-01	5.942E-02	6.803
PB-212	+	74.82		2.143E+00	6.663E-01	7.556E-01	9.596E-02	2.836
	+	77.11		1.821E+00	3.750E-01	4.352E-01	3.639E-02	4.185
	+	238.63	*	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
		300.09		2.117E+00	1.358E+00	2.110E+00	3.094E-01	1.003
BI-214	+	609.32	*	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
	+	1120.29		1.141E+00	7.986E-01	7.309E-01	8.111E-02	1.562
	+	1764.49		9.010E-01	5.089E-01	4.442E-01	3.700E-02	2.029
PB-214	+	74.82		3.798E+00	1.162E+00	1.339E+00	1.524E-01	2.836
	+	77.11		3.211E+00	7.122E-01	7.672E-01	9.011E-02	4.185
	+	242.00		1.657E+00	9.807E-01	8.560E-01	1.184E-01	1.936
	+	295.22		9.401E-01	3.882E-01	3.710E-01	5.566E-02	2.534
	+	351.93	*	1.257E+00	2.754E-01	1.852E-01	2.384E-02	6.790
RA-224	+	240.99	*	2.930E+00	1.726E+00	1.509E+00	1.889E-01	1.941
RA-226	+	609.32	*	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
	+	1120.29		1.141E+00	7.986E-01	7.309E-01	8.111E-02	1.562
	+	1764.49		9.010E-01	5.089E-01	4.442E-01	3.700E-02	2.029
AC-228	+	338.32		1.258E+00	8.356E-01	5.950E-01	2.530E-01	2.114
	+	911.20	*	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
	+	968.97		1.124E+00	6.948E-01	7.823E-01	1.967E-01	1.436

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	+	338.32		1.258E+00	8.356E-01	5.950E-01	2.530E-01	2.114
	+	911.20	*	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
	+	968.97		1.124E+00	6.948E-01	7.823E-01	1.967E-01	1.436
TH-228	+	74.82		2.143E+00	6.334E-01	7.556E-01	6.231E-02	2.836
	+	77.11		1.821E+00	3.750E-01	4.352E-01	3.639E-02	4.185
	+	238.63	*	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
		300.09		2.117E+00	1.864E+00	2.110E+00	1.309E+00	1.003
TH-230	+	609.32	*	8.897E-01	2.101E-01	1.672E-01	1.741E-02	5.320
	+	1120.29		1.141E+00	7.949E-01	7.309E-01	6.464E-02	1.562
	+	1764.49		9.009E-01	5.089E-01	4.441E-01	3.700E-02	2.029
TH-232	+	338.32		1.258E+00	6.593E-01	5.950E-01	7.076E-02	2.114
	+	911.20	*	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
	+	968.97		1.124E+00	6.948E-01	7.823E-01	1.967E-01	1.436
AM-241	+	59.54	*	1.388E+01	1.276E+00	4.300E-01	3.361E-02	32.276

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-6.283E-01	6.229E-01	9.539E-01	9.954E-02	-0.659
NA-22		1274.54	*	3.530E-02	4.785E-02	8.450E-02	7.283E-03	0.418
NA-24		1368.63	*	-4.793E+00	4.785E-02	Half-Life too short		
K-40		1460.82	*	1.020E+00	5.080E-01	1.009E+00	9.248E-02	1.010
SC-46		889.28	*	1.936E-02	7.345E-02	1.235E-01	1.382E-02	0.157
	+	1120.55		1.951E-01	1.359E-01	1.669E-01	1.476E-02	1.169
V-48		944.13		-1.120E+00	1.997E+00	3.200E+00	3.471E-01	-0.350
		983.53	*	8.991E-02	1.497E-01	2.529E-01	2.652E-02	0.356
		1312.11		-1.098E-01	9.952E-02	1.444E-01	1.272E-02	-0.760
CR-51		320.08	*	2.543E-01	6.268E-01	1.064E+00	1.377E-01	0.239
MN-54		834.85	*	5.691E-03	6.465E-02	1.084E-01	1.204E-02	0.053
CO-56		846.77	*	9.840E-03	7.148E-02	1.199E-01	1.335E-02	0.082
		1037.84		-1.871E-02	5.661E-01	9.231E-01	9.511E-02	-0.020
	+	1238.28		2.310E-01	1.211E-01	1.784E-01	1.546E-02	1.295
		1771.35		1.750E-01	3.558E-01	5.459E-01	4.536E-02	0.320
CO-58		810.76	*	-4.948E-02	6.825E-02	1.094E-01	1.212E-02	-0.452
FE-59		1099.45	*	6.726E-02	1.725E-01	2.863E-01	2.805E-02	0.235
		1291.59		1.053E-03	1.448E-01	2.395E-01	2.361E-02	0.004
ZN-65		1115.54	*	4.760E-02	1.851E-01	2.607E-01	2.326E-02	0.183
SE-75	+	121.12		1.288E+00	3.880E-01	4.214E-01	4.549E-02	3.056
		136.00		4.249E-02	5.623E-02	9.736E-02	8.451E-03	0.436
		264.66	*	-3.781E-02	8.181E-02	1.112E-01	1.496E-02	-0.340
		279.54		-3.865E-02	1.868E-01	2.960E-01	4.203E-02	-0.131
		400.66		-1.363E-01	4.402E-01	7.125E-01	8.320E-02	-0.191
SR-85		514.00	*	-6.774E-02	7.280E-02	1.115E-01	1.119E-02	-0.608
Y-88		898.04		-1.224E-02	7.860E-02	1.292E-01	1.452E-02	-0.095
		1836.06	*	4.593E-02	4.760E-02	8.778E-02	7.097E-03	0.523
Y-91		1204.77	*	-5.302E+00	2.374E+01	3.875E+01	3.186E+00	-0.137
NB-94		702.65	*	-1.147E-02	5.099E-02	8.211E-02	8.799E-03	-0.140
		871.09		-2.237E-02	6.412E-02	1.046E-01	1.168E-02	-0.214

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	1.970E-02	6.972E-02	1.146E-01	1.253E-02	0.172
NB-95M		235.69	*	6.343E-02	2.291E-01	3.296E-01	4.361E-02	0.192
ZR-95		724.19		3.637E-02	1.474E-01	2.431E-01	2.768E-02	0.150
		756.73	*	-6.121E-02	1.216E-01	1.909E-01	2.221E-02	-0.321
MO-99		140.51		1.745E-04	4.089E+01	6.899E+01	1.642E+01	0.000
		181.07		9.353E+00	4.009E+01	5.901E+01	1.158E+01	0.158
		366.42		2.582E+00	2.206E+02	3.652E+02	3.874E+01	0.007
		739.50	*	-5.276E-01	2.630E+01	4.266E+01	7.287E+00	-0.012
		777.92		-1.249E+01	8.222E+01	1.317E+02	1.445E+01	-0.095
TC-99M		140.51	*	6.925E+06	8.222E+01	Half-Life too short		
RU-103		497.08	*	2.732E-02	6.869E-02	1.127E-01	1.670E-02	0.243
	+	610.33		9.387E+00	2.572E+00	3.130E+00	5.433E-01	2.999
RH-106		621.93	*	-1.807E-01	4.959E-01	8.014E-01	1.163E-01	-0.225
		1050.41		-1.497E+00	4.721E+00	7.558E+00	7.378E-01	-0.198
RU-106		621.93	*	-1.807E-01	4.956E-01	8.014E-01	8.371E-02	-0.225
		1050.41		-1.497E+00	4.721E+00	7.558E+00	7.378E-01	-0.198
AG-108M		433.94	*	-5.355E-02	5.411E-02	8.384E-02	8.251E-03	-0.639
		614.28		2.403E-02	6.516E-02	9.506E-02	1.013E-02	0.253
		722.91		-7.880E-02	6.189E-02	9.243E-02	1.018E-02	-0.852
AG-110M		657.76	*	7.130E-01	1.192E-01	1.773E-01	1.905E-02	4.023
		677.62		1.271E-01	4.526E-01	7.539E-01	8.155E-02	0.169
		706.68		-2.418E-01	3.183E-01	4.932E-01	5.392E-02	-0.490
		763.94		-2.733E-01	2.676E-01	4.047E-01	4.499E-02	-0.675
		884.68		-1.028E-03	9.467E-02	1.570E-01	1.791E-02	-0.007
		937.49		-2.892E-02	2.334E-01	3.829E-01	4.270E-02	-0.076
		1384.29		-1.079E-01	1.977E-01	3.046E-01	2.791E-02	-0.354
		1505.03		-1.076E-01	3.587E-01	5.624E-01	5.001E-02	-0.191
SN-113		391.69	*	-2.312E-02	7.727E-02	1.254E-01	1.198E-02	-0.184
CD-115		260.90		1.167E+02	3.285E+02	5.361E+02	7.124E+01	0.218
		492.35		3.925E+01	9.848E+01	1.617E+02	1.605E+01	0.243
		527.90	*	1.856E+00	2.666E+01	4.483E+01	4.527E+00	0.041
SN-117M		156.02		-1.087E+00	3.445E+00	5.702E+00	5.346E-01	-0.191
		158.56	*	-2.678E-02	8.457E-02	1.398E-01	1.326E-02	-0.192
TE-123M		159.00	*	4.039E-03	4.073E-02	6.837E-02	6.530E-03	0.059
SB-124		602.73		1.380E-02	6.525E-02	9.822E-02	1.020E-02	0.140
		645.85		-1.820E-01	7.986E-01	1.297E+00	1.416E-01	-0.140
		722.78		-7.815E-01	6.315E-01	9.460E-01	1.036E-01	-0.826
		1690.97	*	1.561E-02	9.962E-02	1.685E-01	1.503E-02	0.093
SB-125		427.87	*	5.091E-03	1.563E-01	2.555E-01	2.477E-02	0.020
		463.37		3.834E-01	5.168E-01	8.610E-01	8.908E-02	0.445
		600.60		2.445E-02	2.696E-01	4.487E-01	4.898E-02	0.054
		635.95		5.052E-01	4.458E-01	7.722E-01	8.545E-02	0.654
TE-125M		109.28	*	-4.316E+00	1.409E+01	2.212E+01	2.275E+00	-0.195
I-126		388.63		3.775E-02	3.027E-01	5.008E-01	4.742E-02	0.075
		666.33	*	6.479E-01	4.249E-01	6.622E-01	6.997E-02	0.978
		753.82		3.102E+00	3.189E+00	5.430E+00	5.918E-01	0.571
SB-126		414.70		-7.470E-04	1.388E-01	2.271E-01	2.149E-02	-0.003
		666.50		1.642E-01	1.426E-01	2.180E-01	2.304E-02	0.753
		695.00		1.876E-02	1.282E-01	2.113E-01	2.258E-02	0.089

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		697.00		-7.329E-02	4.456E-01	7.210E-01	7.711E-02	-0.102
		720.70	*	-2.106E-02	2.478E-01	4.016E-01	4.331E-02	-0.052
		856.80		-6.932E-03	9.058E-01	1.507E+00	1.680E-01	-0.005
SB-127		252.40		-9.839E-01	8.641E+00	1.386E+01	5.924E+00	-0.071
		473.00		1.102E+00	3.889E+00	6.363E+00	8.859E-01	0.173
		685.70	*	1.226E+00	2.581E+00	4.330E+00	5.761E-01	0.283
		783.70		1.995E+00	7.273E+00	1.193E+01	1.719E+00	0.167
I-131		80.19		-2.751E+00	7.741E+00	1.110E+01	9.673E-01	-0.248
		284.31		-1.483E+00	2.847E+00	4.431E+00	6.264E-01	-0.335
		364.49	*	-1.378E-01	2.102E-01	3.368E-01	3.734E-02	-0.409
		636.99		1.242E-01	2.859E+00	4.721E+00	5.148E-01	0.026
TE-132		49.72		5.517E+00	4.220E+01	7.111E+01	7.756E+00	0.078
		111.76		-2.937E+01	6.331E+01	9.891E+01	1.102E+01	-0.297
		116.30		9.154E+00	6.094E+01	8.690E+01	9.647E+00	0.105
		228.16	*	-6.566E-01	1.545E+00	2.465E+00	4.470E-01	-0.266
BA-133		81.00		-4.321E-02	1.469E-01	2.110E-01	3.287E-02	-0.205
		276.40		8.390E-01	6.628E-01	9.708E-01	1.731E-01	0.864
		302.85		6.460E-02	2.181E-01	3.612E-01	5.960E-02	0.179
		356.01	*	1.313E-02	7.462E-02	1.086E-01	1.599E-02	0.121
		383.85		3.371E-01	4.963E-01	8.383E-01	1.108E-01	0.402
I-133		529.87	*	-2.273E-02	4.963E-01	Half-Life too short		
		875.33		-3.329E-01	4.963E-01	Half-Life too short		
		1298.22		1.715E-01	4.963E-01	Half-Life too short		
CS-134		563.25		2.318E-01	5.912E-01	1.003E+00	1.034E-01	0.231
		569.33		-2.969E-01	3.309E-01	5.240E-01	5.434E-02	-0.567
		604.72		1.602E-02	5.513E-02	8.028E-02	8.358E-03	0.200
		795.86	*	7.098E-02	7.708E-02	1.302E-01	1.442E-02	0.545
		801.95		-3.819E-01	7.103E-01	1.107E+00	1.226E-01	-0.345
		1365.19		1.616E+00	1.488E+00	2.715E+00	2.530E-01	0.595
CS-135		268.22	*	2.535E-01	2.738E-01	4.019E-01	5.813E-02	0.631
I-135		546.56		-2.443E+11	2.738E-01	Half-Life too short		
		836.80		6.952E+11	2.738E-01	Half-Life too short		
		1038.76		1.407E+11	2.738E-01	Half-Life too short		
		1131.51		8.949E+09	2.738E-01	Half-Life too short		
		1260.41	*	1.469E+11	2.738E-01	Half-Life too short		
		1457.56		1.196E+12	2.738E-01	Half-Life too short		
		1678.03		4.265E+09	2.738E-01	Half-Life too short		
		1791.20		-1.507E+11	2.738E-01	Half-Life too short		
CS-136		153.25		7.859E-01	1.296E+00	2.216E+00	2.395E-01	0.355
		176.60		9.649E-02	7.804E-01	1.301E+00	1.422E-01	0.074
		273.65		-6.261E-01	1.046E+00	1.405E+00	2.003E-01	-0.446
		340.55		4.365E-01	2.906E-01	4.473E-01	5.385E-02	0.976
		818.51		4.071E-02	1.422E-01	2.411E-01	2.672E-02	0.169
		1048.07	*	-2.620E-02	2.080E-01	3.369E-01	3.407E-02	-0.078
		1235.36		1.072E+00	7.350E-01	1.202E+00	1.394E-01	0.892
CE-139		165.86	*	1.006E-02	4.292E-02	7.218E-02	7.079E-03	0.139
BA-140		162.66		-7.156E-01	1.282E+00	2.095E+00	2.133E-01	-0.342
		304.85		-4.603E+00	2.633E+00	3.400E+00	1.051E+00	-1.354
		423.72		1.004E+00	3.518E+00	5.797E+00	1.921E+00	0.173

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		537.26	*	2.555E-01	4.698E-01	7.925E-01	2.721E-01	0.322
LA-140		328.76		2.339E-01	5.107E-01	8.663E-01	1.095E-01	0.270
		487.02		5.407E-02	2.615E-01	4.260E-01	4.416E-02	0.127
		815.77		2.431E-01	6.094E-01	1.039E+00	1.233E-01	0.234
		1596.21	*	-7.469E-02	1.255E-01	1.933E-01	1.694E-02	-0.386
CE-141		145.44	*	-9.325E-02	8.903E-02	1.435E-01	1.306E-02	-0.650
CE-143		57.36		1.360E-02	8.903E-02	Half-Life too short		
		293.27	*	6.885E-04	8.903E-02	Half-Life too short		
		664.57		2.009E-01	8.903E-02	Half-Life too short		
		721.93		-3.067E-03	8.903E-02	Half-Life too short		
CE-144		80.12		-1.489E+00	3.765E+00	5.387E+00	4.657E-01	-0.276
		133.52	*	-2.078E-01	2.823E-01	4.627E-01	7.052E-02	-0.449
PM-144		476.78		-8.818E-02	1.223E-01	1.905E-01	2.001E-02	-0.463
		618.01		3.062E-02	5.630E-02	8.899E-02	9.464E-03	0.344
		696.49	*	-2.925E-03	5.313E-02	8.652E-02	9.253E-03	-0.034
PR-144		696.51	*	-1.968E-01	3.980E+00	6.484E+00	6.932E-01	-0.030
		1489.16		-7.258E+00	1.691E+01	2.607E+01	2.322E+00	-0.278
PM-146		453.88	*	-1.790E-02	7.911E-02	1.271E-01	1.461E-02	-0.141
		633.25		1.191E+00	2.386E+00	3.962E+00	1.531E+00	0.301
		735.93		-3.607E-02	2.360E-01	3.797E-01	1.093E-01	-0.095
		747.24		-5.684E-02	1.548E-01	2.450E-01	3.926E-02	-0.232
ND-147		91.11		1.133E+00	4.999E-01	6.529E-01	6.454E-02	1.735
		319.41		6.263E+00	5.893E+00	1.018E+01	1.289E+00	0.615
		531.02	*	-5.022E-01	9.584E-01	1.558E+00	2.470E-01	-0.322
PM-149		285.90	*	-9.432E+01	2.346E+02	3.669E+02	6.943E+01	-0.257
EU-152	+	121.78		7.042E-01	2.092E-01	2.340E-01	2.241E-02	3.009
		244.70		-1.162E-01	5.865E-01	8.195E-01	1.038E-01	-0.142
		344.28	*	1.084E-02	1.766E-01	2.560E-01	3.076E-02	0.042
		778.90		-3.505E-02	4.294E-01	6.905E-01	7.577E-02	-0.051
		964.08		6.815E-01	6.438E-01	9.622E-01	1.027E-01	0.708
		1085.87		5.522E-01	7.090E-01	1.202E+00	1.120E-01	0.459
		1112.07		1.361E-01	6.035E-01	8.493E-01	7.610E-02	0.160
		1408.01		1.995E-01	2.127E-01	3.831E-01	3.425E-02	0.521
GD-153		69.67		1.741E+00	2.575E+00	3.906E+00	3.031E-01	0.446
		97.43	*	1.063E-02	1.262E-01	1.821E-01	1.601E-02	0.058
		103.18		-6.306E-02	1.586E-01	2.501E-01	2.138E-02	-0.252
EU-154	+	123.07		4.979E-01	1.505E-01	1.633E-01	1.810E-02	3.049
		723.31		-3.501E-01	2.795E-01	4.175E-01	4.803E-02	-0.838
		873.19		-1.989E-01	5.418E-01	8.824E-01	1.223E-01	-0.225
		996.26		-2.573E-01	6.599E-01	1.056E+00	1.942E-01	-0.244
		1004.73		6.650E-02	3.860E-01	6.386E-01	8.244E-02	0.104
		1274.44	*	9.591E-02	1.353E-01	2.380E-01	2.707E-02	0.403
EU-155		86.55		2.227E+00	2.999E-01	4.013E-01	3.775E-02	5.550
		105.31	*	1.250E-01	1.480E-01	2.449E-01	2.101E-02	0.511
TB-160	+	86.79		1.125E+01	1.339E+00	1.163E+00	1.087E-01	9.679
		197.04		-3.828E-01	8.637E-01	1.398E+00	1.520E-01	-0.274
		215.65		-7.725E-02	1.238E+00	2.019E+00	2.333E-01	-0.038
		298.57		1.395E-01	1.969E-01	2.985E-01	4.001E-02	0.467
		879.36	*	1.579E-01	2.792E-01	4.721E-01	5.279E-02	0.334

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		962.29		2.237E-01	1.213E+00	1.728E+00	1.846E-01	0.129
		966.15		1.234E+00	5.060E-01	7.894E-01	8.409E-02	1.563
		1177.93		1.119E+01	1.389E+00	2.227E+00	1.797E-01	5.023
		1271.85		-1.349E-01	7.676E-01	1.248E+00	1.073E-01	-0.108
HO-166M		80.57		-9.026E-02	4.105E-01	5.922E-01	5.146E-02	-0.152
		184.41		5.621E-02	5.358E-02	9.226E-02	9.619E-03	0.609
		280.46		-2.474E-02	1.417E-01	2.248E-01	3.140E-02	-0.110
		410.95		1.279E-01	4.175E-01	6.927E-01	6.538E-02	0.185
		711.68	*	-1.588E-02	9.174E-02	1.480E-01	1.591E-02	-0.107
		752.31		5.142E-01	4.519E-01	7.749E-01	8.442E-02	0.664
		810.29		-4.304E-02	1.016E-01	1.660E-01	1.836E-02	-0.259
TA-182		67.75		1.150E-02	1.506E-01	2.497E-01	1.904E-02	0.046
		100.11		-2.538E-03	2.407E-01	3.869E-01	3.353E-02	-0.007
		152.43		1.371E-02	4.968E-01	8.343E-01	7.697E-02	0.016
		222.11		6.560E-03	5.948E-01	9.703E-01	1.145E-01	0.007
	+	1121.30		5.389E-01	3.753E-01	4.468E-01	3.945E-02	1.206
		1189.05		-2.458E-01	3.723E-01	5.872E-01	4.775E-02	-0.419
		1221.41	*	-4.006E-02	2.117E-01	3.461E-01	2.878E-02	-0.116
		1231.02		-1.390E-01	5.403E-01	7.356E-01	6.156E-02	-0.189
IR-192	+	295.96		7.034E-01	2.869E-01	3.395E-01	4.593E-02	2.072
		308.46		9.459E-02	1.498E-01	2.569E-01	3.364E-02	0.368
		316.51	*	-2.151E-02	5.621E-02	9.255E-02	1.183E-02	-0.232
		468.07		-1.002E-01	1.321E-01	2.062E-01	2.134E-02	-0.486
HG-203		70.83		5.832E-01	2.008E+00	2.991E+00	4.683E-01	0.195
		72.87		4.461E-01	1.162E+00	1.733E+00	2.634E-01	0.257
		279.20	*	-1.630E-02	6.628E-02	1.049E-01	1.483E-02	-0.155
BI-207		72.81		9.041E-02	2.632E-01	3.924E-01	3.139E-02	0.230
	+	74.97		6.177E-01	1.824E-01	2.712E-01	2.217E-02	2.278
		569.70		-2.357E-02	5.004E-02	8.121E-02	8.342E-03	-0.290
		1063.66	*	4.345E-02	9.695E-02	1.619E-01	1.554E-02	0.268
		1770.23		7.526E-01	7.657E-01	1.253E+00	1.042E-01	0.601
PB-210		46.54	*	-9.424E-01	5.493E+00	9.202E+00	8.474E-01	-0.102
PB-211		404.85	*	-5.866E-01	1.262E+00	1.975E+00	9.587E-01	-0.297
		427.09		-2.420E+00	2.866E+00	4.120E+00	1.913E+00	-0.587
		832.01		-9.521E-01	1.833E+00	2.864E+00	1.499E+00	-0.332
BI-212		727.33	*	4.134E-03	8.732E-01	1.422E+00	2.000E-01	0.003
		785.37		4.290E+00	5.199E+00	8.762E+00	9.631E-01	0.490
		1620.50		-2.024E+00	2.877E+00	4.334E+00	3.778E-01	-0.467
RN-219	+	271.23		6.485E-01	6.698E-01	6.503E-01	9.607E-02	0.997
		401.81	*	-2.733E-01	7.024E-01	1.131E+00	1.733E-01	-0.242
RA-223		81.07		-8.385E-02	3.328E-01	4.792E-01	4.188E-02	-0.175
		83.79		3.097E-02	2.012E-01	2.943E-01	2.655E-02	0.105
		94.87		6.172E-01	6.478E-01	9.757E-01	8.724E-02	0.633
		144.24		-7.471E-01	9.104E-01	1.476E+00	1.458E-01	-0.506
		154.21		4.311E-01	5.470E-01	9.396E-01	9.461E-02	0.459
	+	269.46		5.039E-01	5.197E-01	4.959E-01	6.809E-02	1.016
		323.87	*	-8.937E-01	1.081E+00	1.725E+00	3.372E-01	-0.518
	+	338.28		4.991E+00	2.650E+00	3.163E+00	4.615E-01	1.578
AC-227		79.69		-1.439E+00	1.876E+00	2.614E+00	4.503E-01	-0.551

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		235.96		4.373E-01	2.840E-01	4.245E-01	5.767E-02	1.030
		256.23	*	-2.257E-02	4.155E-01	6.680E-01	1.041E-01	-0.034
		299.98		1.643E+00	1.520E+00	2.325E+00	3.788E-01	0.707
		304.50		-4.167E+00	2.616E+00	3.892E+00	7.519E-01	-1.071
		334.37		1.731E-01	3.153E+00	4.583E+00	8.122E-01	0.038
TH-227		79.80		-1.688E+00	2.484E+00	3.469E+00	7.554E-01	-0.487
		235.96		4.373E-01	2.836E-01	4.245E-01	5.580E-02	1.030
		256.23	*	-2.257E-02	4.155E-01	6.680E-01	1.123E-01	-0.034
		299.98		1.643E+00	1.520E+00	2.325E+00	3.788E-01	0.707
		304.50		-4.167E+00	2.616E+00	3.892E+00	7.519E-01	-1.071
		334.37		1.731E-01	3.153E+00	4.583E+00	8.122E-01	0.038
TH-229		85.43		3.726E-01	3.410E-01	5.148E-01	4.736E-02	0.724
	+	88.47		5.329E+00	6.338E-01	5.928E-01	5.600E-02	8.988
		193.51	*	-5.836E-01	7.982E-01	1.275E+00	1.371E-01	-0.458
		210.85		7.206E-01	1.624E+00	2.378E+00	2.706E-01	0.303
PA-231		283.69	*	-3.662E-01	2.451E+00	3.888E+00	7.072E-01	-0.094
		301.36		1.757E+00	9.721E-01	1.507E+00	2.386E-01	1.166
TH-231		81.07		-8.385E-02	3.328E-01	4.792E-01	4.188E-02	-0.175
		83.79		3.097E-02	2.012E-01	2.943E-01	2.655E-02	0.105
		94.87		6.172E-01	6.478E-01	9.757E-01	8.724E-02	0.633
		144.24		-7.471E-01	9.104E-01	1.476E+00	1.458E-01	-0.506
		154.21		4.311E-01	5.470E-01	9.396E-01	9.461E-02	0.459
	+	269.46		5.039E-01	5.197E-01	4.959E-01	6.809E-02	1.016
		323.87	*	-8.937E-01	1.081E+00	1.725E+00	3.372E-01	-0.518
	+	338.28		4.991E+00	2.650E+00	3.163E+00	4.615E-01	1.578
PA-233		300.13		1.057E+00	6.852E-01	1.051E+00	1.891E-01	1.006
		311.90	*	6.103E-02	1.006E-01	1.723E-01	2.258E-02	0.354
		340.48		1.757E+00	1.240E+00	1.808E+00	4.589E-01	0.972
PA-234		94.67		2.927E-01	2.393E-01	3.622E-01	4.577E-02	0.808
		98.44		-1.647E-02	1.293E-01	1.964E-01	1.096E-01	-0.084
		111.00		-1.023E-01	2.634E-01	4.113E-01	4.892E-02	-0.249
		131.20		-1.650E-02	1.461E-01	2.466E-01	2.089E-02	-0.067
		569.50		-2.014E-01	4.445E-01	7.222E-01	7.417E-02	-0.279
		733.00		-4.800E-01	6.579E-01	1.011E+00	2.340E-01	-0.475
		880.51		1.041E-01	5.499E-01	9.147E-01	1.023E-01	0.114
		883.24		-5.849E-02	5.542E-01	9.127E-01	6.170E-01	-0.064
		926.50		-5.388E-02	3.599E-01	5.898E-01	1.544E-01	-0.091
		946.00	*	-2.163E-01	6.427E-01	1.040E+00	2.068E-01	-0.208
		949.00		-2.714E-01	9.596E-01	1.560E+00	1.686E-01	-0.174
PA-234M		766.42		5.938E+00	1.873E+01	3.044E+01	1.558E+01	0.195
		1001.03	*	1.848E+00	8.268E+00	1.377E+01	1.578E+00	0.134
TH-234		63.29	*	-8.535E-01	1.934E+00	2.879E+00	5.124E-01	-0.296
	+	92.59		1.770E+00	1.254E+00	1.547E+00	3.445E-01	1.145
U-235		89.96		1.035E+01	3.019E+00	2.526E+00	6.279E-01	4.099
	+	93.35		1.337E+00	9.517E-01	1.174E+00	2.730E-01	1.139
		143.76	*	-1.472E-01	2.700E-01	4.419E-01	7.553E-02	-0.333
		163.33		-5.418E-01	6.497E-01	1.039E+00	1.922E-01	-0.521
	+	185.72		1.613E-01	1.187E-01	1.212E-01	1.269E-02	1.331
		205.31		-2.797E-01	8.060E-01	1.135E+00	2.212E-01	-0.246

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237		86.48	*	4.949E+00	1.248E+00	9.559E-01	2.193E-01	5.177
		95.86		9.849E-02	1.320E+00	1.905E+00	4.589E-01	0.052
U-238		63.29	*	-8.535E-01	1.934E+00	2.879E+00	5.124E-01	-0.296
	+	92.59		1.770E+00	1.201E+00	1.547E+00	1.407E-01	1.145
NP-239		99.53		-1.067E-01	2.240E-01	3.527E-01	3.066E-02	-0.303
		103.37		-2.145E-03	1.417E-01	2.273E-01	1.941E-02	-0.009
		106.12		-8.509E-02	1.193E-01	1.849E-01	1.564E-02	-0.460
		117.23	*	-2.970E-01	6.546E-01	8.999E-01	7.436E-02	-0.330
		228.18		-1.474E-01	3.487E-01	5.574E-01	6.705E-02	-0.264
		277.60		1.086E-02	3.032E-01	4.688E-01	6.535E-02	0.023
CM-247		278.00		-2.292E-02	1.289E+00	1.988E+00	2.774E-01	-0.012
		287.50		1.600E+00	2.096E+00	3.437E+00	4.728E-01	0.466
		402.40	*	3.664E-02	6.265E-02	1.053E-01	9.875E-03	0.348
CF-249		252.80		-1.459E-01	1.514E+00	2.433E+00	3.156E-01	-0.060
		333.37		-2.101E-02	3.286E-01	4.744E-01	5.740E-02	-0.044
		388.16	*	6.796E-03	6.811E-02	1.126E-01	1.069E-02	0.060
CF-251		177.52	*	1.287E-03	1.909E-01	3.169E-01	3.229E-02	0.004
		227.38		-2.177E-01	5.655E-01	9.055E-01	1.087E-01	-0.240
		285.41		-1.641E+00	3.761E+00	5.881E+00	8.127E-01	-0.279
ANH-511		511.00	*	5.184E-02	6.036E-02	1.083E-01	1.085E-02	0.479

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190      *
* Acquisition date : 25-MAR-2010 09:16:55 Detector SN#    :                 *
* Detector ID       : GAM22                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:02.21      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       :  9-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202065190          Analyst initials: MXR1           *
* Batch Number      : 962633               Sample Quantity : 1.5173E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-57	2.454E-01	7.048E-02	6.108E-02	0.000E+00
CO-60	6.898E+00	6.605E-01	7.391E-02	0.000E+00
CD-109	3.543E+01	4.130E+00	1.990E+00	0.000E+00
SN-126	3.456E+00	4.029E-01	1.950E-01	0.000E+00
BA-137M	5.580E+00	6.140E-01	8.739E-02	0.000E+00
CS-137	5.894E+00	6.494E-01	9.232E-02	0.000E+00
TL-208	4.272E-01	1.058E-01	9.842E-02	0.000E+00
BI-211	3.464E+00	7.196E-01	5.321E-01	0.000E+00
PB-212	1.427E+00	2.333E-01	1.487E-01	0.000E+00
BI-214	8.897E-01	2.110E-01	1.724E-01	0.000E+00
PB-214	1.257E+00	2.699E-01	1.935E-01	0.000E+00
RA-224	2.930E+00	1.691E+00	1.592E+00	0.000E+00
RA-226	8.897E-01	2.110E-01	1.724E-01	0.000E+00
AC-228	1.589E+00	5.890E-01	4.709E-01	0.000E+00
RA-228	1.589E+00	5.890E-01	4.709E-01	0.000E+00
TH-228	1.427E+00	2.333E-01	1.487E-01	0.000E+00
TH-230	8.897E-01	2.059E-01	1.724E-01	0.000E+00
TH-232	1.589E+00	5.890E-01	4.709E-01	0.000E+00
AM-241	1.388E+01	1.250E+00	4.687E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-6.283E-01		6.105E-01	9.892E-01	0.000E+00	NOT IDENT.
NA-22	3.530E-02		4.690E-02	8.544E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		3.888E+06	0.000E+00	0.000E+00	SHORT HLIF
K-40	0.000E+00		4.979E-01	1.017E+00	0.000E+00	NOT IDENT.
SC-46	1.936E-02		7.198E-02	1.260E-01	0.000E+00	FAIL ABUN
V-48	8.991E-02		1.467E-01	2.574E-01	0.000E+00	NOT IDENT.
CR-51	2.543E-01		6.143E-01	1.114E+00	0.000E+00	NOT IDENT.
MN-54	5.691E-03		6.336E-02	1.108E-01	0.000E+00	NOT IDENT.

CO-56	9.840E-03	7.005E-02	1.226E-01	0.000E+00	FAIL ABUN
CO-58	-4.948E-02	6.689E-02	1.120E-01	0.000E+00	NOT IDENT.
FE-59	6.726E-02	1.691E-01	2.906E-01	0.000E+00	NOT IDENT.
ZN-65	4.760E-02	1.814E-01	2.645E-01	0.000E+00	NOT IDENT.
SE-75	-3.781E-02	8.017E-02	1.170E-01	0.000E+00	FAIL ABUN
SR-85	-6.774E-02	7.135E-02	1.154E-01	0.000E+00	NOT IDENT.
Y-88	4.593E-02	4.665E-02	8.788E-02	0.000E+00	NOT IDENT.
Y-91	-5.302E+00	2.326E+01	3.923E+01	0.000E+00	NOT IDENT.
NB-94	-1.147E-02	4.997E-02	8.432E-02	0.000E+00	NOT IDENT.
NB-95	1.970E-02	6.833E-02	1.174E-01	0.000E+00	NOT IDENT.
NB-95M	6.343E-02	2.245E-01	3.477E-01	0.000E+00	NOT IDENT.
ZR-95	-6.121E-02	1.192E-01	1.957E-01	0.000E+00	NOT IDENT.
MO-99	-5.276E-01	2.577E+01	4.375E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.590E+18	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.732E-02	6.732E-02	1.167E-01	0.000E+00	FAIL ABUN
RH-106	-1.807E-01	4.860E-01	8.255E-01	0.000E+00	NOT IDENT.
RU-106	-1.807E-01	4.857E-01	8.255E-01	0.000E+00	NOT IDENT.
AG-108M	-5.355E-02	5.302E-02	8.714E-02	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	1.168E-01	1.823E-01	0.000E+00	NOT IDENT.
SN-113	-2.312E-02	7.572E-02	1.307E-01	0.000E+00	NOT IDENT.
CD-115	1.856E+00	2.613E+01	4.637E+01	0.000E+00	NOT IDENT.
SN-117M	-2.678E-02	8.287E-02	1.489E-01	0.000E+00	NOT IDENT.
TE-123M	4.039E-03	3.991E-02	7.283E-02	0.000E+00	NOT IDENT.
SB-124	1.561E-02	9.763E-02	1.691E-01	0.000E+00	NOT IDENT.
SB-125	5.091E-03	1.532E-01	2.656E-01	0.000E+00	NOT IDENT.
TE-125M	-4.316E+00	1.381E+01	2.378E+01	0.000E+00	NOT IDENT.
I-126	6.479E-01	4.164E-01	6.809E-01	0.000E+00	NOT IDENT.
SB-126	-2.106E-02	2.428E-01	4.121E-01	0.000E+00	NOT IDENT.
SB-127	1.226E+00	2.529E+00	4.449E+00	0.000E+00	NOT IDENT.
I-131	-1.378E-01	2.060E-01	3.516E-01	0.000E+00	NOT IDENT.
TE-132	-6.566E-01	1.514E+00	2.604E+00	0.000E+00	NOT IDENT.
BA-133	1.313E-02	7.313E-02	1.134E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.499E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.098E-02	7.554E-02	1.333E-01	0.000E+00	NOT IDENT.
CS-135	2.535E-01	2.683E-01	4.227E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.638E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.620E-02	2.038E-01	3.424E-01	0.000E+00	NOT IDENT.
CE-139	1.006E-02	4.207E-02	7.681E-02	0.000E+00	NOT IDENT.
BA-140	2.555E-01	4.604E-01	8.193E-01	0.000E+00	NOT IDENT.
LA-140	-7.469E-02	1.230E-01	1.943E-01	0.000E+00	NOT IDENT.
CE-141	-9.325E-02	8.725E-02	1.532E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.676E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.078E-01	2.767E-01	4.950E-01	0.000E+00	NOT IDENT.
PM-144	-2.925E-03	5.206E-02	8.887E-02	0.000E+00	NOT IDENT.
PR-144	-1.968E-01	3.900E+00	6.659E+00	0.000E+00	NOT IDENT.
PM-146	-1.790E-02	7.753E-02	1.320E-01	0.000E+00	NOT IDENT.
ND-147	-5.022E-01	9.393E-01	1.611E+00	0.000E+00	NOT IDENT.
PM-149	-9.432E+01	2.299E+02	3.854E+02	0.000E+00	NOT IDENT.
EU-152	1.084E-02	1.730E-01	2.676E-01	0.000E+00	FAIL ABUN
GD-153	1.063E-02	1.237E-01	1.962E-01	0.000E+00	NOT IDENT.
EU-154	9.591E-02	1.326E-01	2.407E-01	0.000E+00	FAIL ABUN
EU-155	1.250E-01	1.450E-01	2.634E-01	0.000E+00	NOT IDENT.
TB-160	1.579E-01	2.736E-01	4.819E-01	0.000E+00	FAIL ABUN
HO-166M	-1.588E-02	8.991E-02	1.519E-01	0.000E+00	NOT IDENT.
TA-182	-4.006E-02	2.074E-01	3.503E-01	0.000E+00	FAIL ABUN
IR-192	-2.151E-02	5.508E-02	9.696E-02	0.000E+00	FAIL ABUN
HG-203	-1.630E-02	6.496E-02	1.102E-01	0.000E+00	NOT IDENT.
BI-207	4.345E-02	9.501E-02	1.645E-01	0.000E+00	FAIL ABUN
PB-210	-9.424E-01	5.383E+00	1.008E+01	0.000E+00	NOT IDENT.
PB-211	-5.866E-01	1.237E+00	2.057E+00	0.000E+00	NOT IDENT.
BI-212	4.134E-03	8.557E-01	1.459E+00	0.000E+00	NOT IDENT.
RN-219	-2.733E-01	6.883E-01	1.178E+00	0.000E+00	FAIL ABUN
RA-223	-8.937E-01	1.060E+00	1.806E+00	0.000E+00	FAIL ABUN
AC-227	-2.257E-02	4.072E-01	7.035E-01	0.000E+00	NOT IDENT.
TH-227	-2.257E-02	4.072E-01	7.035E-01	0.000E+00	NOT IDENT.
TH-229	-5.836E-01	7.823E-01	1.352E+00	0.000E+00	FAIL ABUN
PA-231	-3.662E-01	2.402E+00	4.084E+00	0.000E+00	NOT IDENT.
TH-231	-8.937E-01	1.060E+00	1.806E+00	0.000E+00	FAIL ABUN
PA-233	6.103E-02	9.862E-02	1.806E-01	0.000E+00	NOT IDENT.
PA-234	-2.163E-01	6.299E-01	1.060E+00	0.000E+00	NOT IDENT.
PA-234M	1.848E+00	8.103E+00	1.401E+01	0.000E+00	NOT IDENT.
TH-234	-8.535E-01	1.895E+00	3.134E+00	0.000E+00	FAIL ABUN
U-235	-1.472E-01	2.646E-01	4.719E-01	0.000E+00	FAIL ABUN
NP-237	0.000E+00	1.223E+00	1.033E+00	0.000E+00	NOT IDENT.
U-238	-8.535E-01	1.895E+00	3.134E+00	0.000E+00	FAIL ABUN
NP-239	-2.970E-01	6.415E-01	9.655E-01	0.000E+00	NOT IDENT.
CM-247	3.664E-02	6.140E-02	1.096E-01	0.000E+00	NOT IDENT.
CF-249	6.796E-03	6.675E-02	1.174E-01	0.000E+00	NOT IDENT.

CF-251	1.287E-03	1.871E-01	3.367E-01	0.000E+00 NOT IDENT.
ANH-511	5.184E-02	5.915E-02	1.121E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 10:17:30.53

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 25-MAR-2010 09:16:55
Sample ID         : G1202065190          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:02.21  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	348	85.60*	8.558E+00	2.353E-01	2.454E-01	29.31
	136.47	------	10.68	8.461E+00	------ Line Not Found		------
CO-60	1173.23	2983	99.85	2.258E+00	6.548E+00	6.587E+00	9.16
	1332.49	2827	99.98*	2.040E+00	6.857E+00	6.898E+00	9.77
CD-109	88.03	1951	3.70*	7.548E+00	3.456E+01	3.543E+01	11.89
SN-126	64.28	------	9.60	4.512E+00	------ Line Not Found		------
	86.94	1951	8.90	7.548E+00	1.437E+01	1.437E+01	42.16
	87.57	1951	37.00*	7.548E+00	3.456E+00	3.456E+00	11.89
BA-137M	661.66	3635	89.90*	3.590E+00	5.574E+00	5.580E+00	11.23
CS-137	661.66	3635	85.10*	3.590E+00	5.888E+00	5.894E+00	11.24
TL-208	277.37	------	6.60	6.182E+00	------ Line Not Found		------
	583.19	288	85.00*	3.930E+00	4.272E-01	4.272E-01	25.28
	860.56	------	12.50	2.923E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	5.897E+00	------ Line Not Found		------
	351.06	489	12.92*	5.401E+00	3.464E+00	3.464E+00	21.20
PB-212	74.82	274	10.28	6.165E+00	2.143E+00	2.143E+00	31.09
	77.11	407	17.10	6.460E+00	1.821E+00	1.821E+00	20.59
	238.63	843	43.60*	6.709E+00	1.427E+00	1.427E+00	16.69
	300.09	------	3.30	5.916E+00	------ Line Not Found		------
BI-214	609.32	312	45.49*	3.811E+00	8.897E-01	8.897E-01	24.20
	1120.29	81	14.92	2.346E+00	1.141E+00	1.141E+00	69.97
	1764.49	48	15.30	1.716E+00	9.009E-01	9.010E-01	56.49
PB-214	74.82	274	5.80	6.165E+00	3.798E+00	3.798E+00	30.58
	77.11	407	9.70	6.460E+00	3.211E+00	3.211E+00	22.18
	242.00	162	7.25	6.666E+00	1.657E+00	1.657E+00	59.19
	295.22	209	18.42	5.968E+00	9.401E-01	9.401E-01	41.29
	351.93	489	35.60*	5.401E+00	1.257E+00	1.257E+00	21.90
RA-224	240.99	162	4.10*	6.666E+00	2.930E+00	2.930E+00	58.90
RA-226	609.32	312	45.49*	3.811E+00	8.897E-01	8.897E-01	24.20
	1120.29	81	14.92	2.346E+00	1.141E+00	1.141E+00	69.97
	1764.49	48	15.30	1.716E+00	9.009E-01	9.010E-01	56.49
AC-228	338.32	158	11.27	5.525E+00	1.258E+00	1.258E+00	66.44

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	231	25.80*	2.788E+00	1.589E+00	1.589E+00	37.81
	968.97	95	15.80	2.649E+00	1.124E+00	1.124E+00	61.84
RA-228	338.32	158	11.27	5.525E+00	1.258E+00	1.258E+00	66.44
	911.20	231	25.80*	2.788E+00	1.589E+00	1.589E+00	37.81
	968.97	95	15.80	2.649E+00	1.124E+00	1.124E+00	61.84
TH-228	74.82	274	10.28	6.165E+00	2.143E+00	2.143E+00	29.56
	77.11	407	17.10	6.460E+00	1.821E+00	1.821E+00	20.59
	238.63	843	43.60*	6.709E+00	1.427E+00	1.427E+00	16.69
	300.09	------	3.30	5.916E+00	------	Line Not Found	------
TH-230	609.32	312	45.49*	3.811E+00	8.897E-01	8.897E-01	23.61
	1120.29	81	14.92	2.346E+00	1.141E+00	1.141E+00	69.65
	1764.49	48	15.30	1.716E+00	9.009E-01	9.009E-01	56.49
TH-232	338.32	158	11.27	5.525E+00	1.258E+00	1.258E+00	52.42
	911.20	231	25.80*	2.788E+00	1.589E+00	1.589E+00	37.81
	968.97	95	15.80	2.649E+00	1.124E+00	1.124E+00	61.84
AM-241	59.54	3653	35.90*	3.628E+00	1.388E+01	1.388E+01	9.19

Flag: "*" = Keyline

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

Total number of lines in spectrum 24
Number of unidentified lines 1
Number of lines tentatively identified by NID 23 95.83%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	271.74D	1.04	2.353E-01	2.454E-01	0.719E-01	29.31	
CO-60	5.27Y	1.01	6.857E+00	6.898E+00	0.674E+00	9.77	
CD-109	461.40D	1.02	3.456E+01	3.543E+01	0.421E+01	11.89	
SN-126	2.30E+05Y	1.00	3.456E+00	3.456E+00	0.411E+00	11.89	
BA-137M	30.08Y	1.00	5.574E+00	5.580E+00	0.627E+00	11.23	
CS-137	30.08Y	1.00	5.888E+00	5.894E+00	0.663E+00	11.24	
TL-208	1.41E+10Y	1.00	4.272E-01	4.272E-01	1.080E-01	25.28	
BI-211	7.04E+08Y	1.00	3.464E+00	3.464E+00	0.734E+00	21.20	
PB-212	1.41E+10Y	1.00	1.427E+00	1.427E+00	0.238E+00	16.69	
BI-214	1600.00Y	1.00	8.897E-01	8.897E-01	2.153E-01	24.20	
PB-214	1600.00Y	1.00	1.257E+00	1.257E+00	0.275E+00	21.90	
RA-224	1.41E+10Y	1.00	2.930E+00	2.930E+00	1.726E+00	58.90	
RA-226	1600.00Y	1.00	8.897E-01	8.897E-01	2.153E-01	24.20	
AC-228	1.41E+10Y	1.00	1.589E+00	1.589E+00	0.601E+00	37.81	
RA-228	1.41E+10Y	1.00	1.589E+00	1.589E+00	0.601E+00	37.81	
TH-228	1.41E+10Y	1.00	1.427E+00	1.427E+00	0.238E+00	16.69	
TH-230	7.54E+04Y	1.00	8.897E-01	8.897E-01	2.101E-01	23.61	
TH-232	1.41E+10Y	1.00	1.589E+00	1.589E+00	0.601E+00	37.81	
AM-241	432.60Y	1.00	1.388E+01	1.388E+01	0.128E+01	9.19	
	Total Activity :		8.882E+01	8.975E+01			

Grand Total Activity : 8.882E+01 8.975E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.85	119	426	1.77	185.90	183	9	3.31E-02	67.3	7.87E+00	T
0	186.19	142	575	1.24	372.40	365	13	3.94E-02	72.8	7.60E+00	T
0	209.26	60	349	1.10	418.50	415	8	1.67E-02	****	7.18E+00	
0	270.41	89	437	1.23	540.69	534	14	2.47E-02	****	6.27E+00	T
0	1238.38	58	32	3.31	2475.76	2466	16	1.62E-02	51.7	2.16E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 10:17:34.80

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1 *
* Acquisition date : 25-MAR-2010 09:16:55  Detector SN#    :               *
* Detector ID      : GAM22                 Sensitivity     : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 01:00:02.21         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 9-MAR-2010 00:00:00.  Nuclide Library : SOLID         *
* Sample ID        : G1202065190           Analyst initials: MXR1          *
* Batch Number     : 962633                Sample Quantity : 1.51730E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :               *
* MSD ID           :                       MSD Isotope     :               *
* LCS ID           : 1032-A                LCS Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	2.454E-01	7.192E-02	5.698E-02	4.699E-03	4.306
CO-60	6.898E+00	6.740E-01	7.319E-02	6.526E-03	94.247
CD-109	3.543E+01	4.214E+00	1.843E+00	1.749E-01	19.226
SN-126	3.456E+00	4.111E-01	1.805E-01	1.704E-02	19.148
BA-137M	5.580E+00	6.266E-01	8.497E-02	8.961E-03	65.662
CS-137	5.894E+00	6.626E-01	8.977E-02	9.478E-03	65.662
TL-208	4.272E-01	1.080E-01	9.539E-02	1.034E-02	4.478
BI-211	3.464E+00	7.343E-01	5.093E-01	5.942E-02	6.803
PB-212	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
BI-214	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
PB-214	1.257E+00	2.754E-01	1.852E-01	2.384E-02	6.790
RA-224	2.930E+00	1.726E+00	1.509E+00	1.889E-01	1.941
RA-226	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
AC-228	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
RA-228	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
TH-228	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
TH-230	8.897E-01	2.101E-01	1.672E-01	1.741E-02	5.320
TH-232	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-241	1.388E+01	1.276E+00	4.300E-01	3.361E-02	32.276

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.283E-01		6.229E-01	9.539E-01	9.954E-02	-0.659
NA-22	3.530E-02		4.785E-02	8.450E-02	7.283E-03	0.418
NA-24	-4.793E+00		1.984E+00	Half-Life too short		
K-40	1.020E+00		5.080E-01	1.009E+00	9.248E-02	1.010
SC-46	1.936E-02		7.345E-02	1.235E-01	1.382E-02	0.157
V-48	8.991E-02		1.497E-01	2.529E-01	2.652E-02	0.356
CR-51	2.543E-01		6.268E-01	1.064E+00	1.377E-01	0.239
MN-54	5.691E-03		6.465E-02	1.084E-01	1.204E-02	0.053
CO-56	9.840E-03		7.148E-02	1.199E-01	1.335E-02	0.082
CO-58	-4.948E-02		6.825E-02	1.094E-01	1.212E-02	-0.452
FE-59	6.726E-02		1.725E-01	2.863E-01	2.805E-02	0.235
ZN-65	4.760E-02		1.851E-01	2.607E-01	2.326E-02	0.183
SE-75	-3.781E-02		8.181E-02	1.112E-01	1.496E-02	-0.340
SR-85	-6.774E-02		7.280E-02	1.115E-01	1.119E-02	-0.608
Y-88	4.593E-02		4.760E-02	8.778E-02	7.097E-03	0.523
Y-91	-5.302E+00		2.374E+01	3.875E+01	3.186E+00	-0.137
NB-94	-1.147E-02		5.099E-02	8.211E-02	8.799E-03	-0.140
NB-95	1.970E-02		6.972E-02	1.146E-01	1.253E-02	0.172
NB-95M	6.343E-02		2.291E-01	3.296E-01	4.361E-02	0.192
ZR-95	-6.121E-02		1.216E-01	1.909E-01	2.221E-02	-0.321
MO-99	-5.276E-01		2.630E+01	4.266E+01	7.287E+00	-0.012
TC-99M	6.925E+06		8.112E+11	Half-Life too short		
RU-103	2.732E-02		6.869E-02	1.127E-01	1.670E-02	0.243
RH-106	-1.807E-01		4.959E-01	8.014E-01	1.163E-01	-0.225
RU-106	-1.807E-01		4.956E-01	8.014E-01	8.371E-02	-0.225
AG-108M	-5.355E-02		5.411E-02	8.384E-02	8.251E-03	-0.639
AG-110M	7.130E-01		1.192E-01	1.773E-01	1.905E-02	4.023
SN-113	-2.312E-02		7.727E-02	1.254E-01	1.198E-02	-0.184
CD-115	1.856E+00		2.666E+01	4.483E+01	4.527E+00	0.041
SN-117M	-2.678E-02		8.457E-02	1.398E-01	1.326E-02	-0.192
TE-123M	4.039E-03		4.073E-02	6.837E-02	6.530E-03	0.059
SB-124	1.561E-02		9.962E-02	1.685E-01	1.503E-02	0.093
SB-125	5.091E-03		1.563E-01	2.555E-01	2.477E-02	0.020
TE-125M	-4.316E+00		1.409E+01	2.212E+01	2.275E+00	-0.195
I-126	6.479E-01		4.249E-01	6.622E-01	6.997E-02	0.978
SB-126	-2.106E-02		2.478E-01	4.016E-01	4.331E-02	-0.052
SB-127	1.226E+00		2.581E+00	4.330E+00	5.761E-01	0.283
I-131	-1.378E-01		2.102E-01	3.368E-01	3.734E-02	-0.409
TE-132	-6.566E-01		1.545E+00	2.465E+00	4.470E-01	-0.266
BA-133	1.313E-02		7.462E-02	1.086E-01	1.599E-02	0.121
I-133	-2.273E-02		1.275E-02	Half-Life too short		
CS-134	7.098E-02		7.708E-02	1.302E-01	1.442E-02	0.545

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-135	2.535E-01		2.738E-01	4.019E-01	5.813E-02	0.631
I-135	1.469E+11		8.356E+10	Half-Life too short		
CS-136	-2.620E-02		2.080E-01	3.369E-01	3.407E-02	-0.078
CE-139	1.006E-02		4.292E-02	7.218E-02	7.079E-03	0.139
BA-140	2.555E-01		4.698E-01	7.925E-01	2.721E-01	0.322
LA-140	-7.469E-02		1.255E-01	1.933E-01	1.694E-02	-0.386
CE-141	-9.325E-02		8.903E-02	1.435E-01	1.306E-02	-0.650
CE-143	6.885E-04		2.386E-04	Half-Life too short		
CE-144	-2.078E-01		2.823E-01	4.627E-01	7.052E-02	-0.449
PM-144	-2.925E-03		5.313E-02	8.652E-02	9.253E-03	-0.034
PR-144	-1.968E-01		3.980E+00	6.484E+00	6.932E-01	-0.030
PM-146	-1.790E-02		7.911E-02	1.271E-01	1.461E-02	-0.141
ND-147	-5.022E-01		9.584E-01	1.558E+00	2.470E-01	-0.322
PM-149	-9.432E+01		2.346E+02	3.669E+02	6.943E+01	-0.257
EU-152	1.084E-02		1.766E-01	2.560E-01	3.076E-02	0.042
GD-153	1.063E-02		1.262E-01	1.821E-01	1.601E-02	0.058
EU-154	9.591E-02		1.353E-01	2.380E-01	2.707E-02	0.403
EU-155	1.250E-01		1.480E-01	2.449E-01	2.101E-02	0.511
TB-160	1.579E-01		2.792E-01	4.721E-01	5.279E-02	0.334
HO-166M	-1.588E-02		9.174E-02	1.480E-01	1.591E-02	-0.107
TA-182	-4.006E-02		2.117E-01	3.461E-01	2.878E-02	-0.116
IR-192	-2.151E-02		5.621E-02	9.255E-02	1.183E-02	-0.232
HG-203	-1.630E-02		6.628E-02	1.049E-01	1.483E-02	-0.155
BI-207	4.345E-02		9.695E-02	1.619E-01	1.554E-02	0.268
PB-210	-9.424E-01		5.493E+00	9.202E+00	8.474E-01	-0.102
PB-211	-5.866E-01		1.262E+00	1.975E+00	9.587E-01	-0.297
BI-212	4.134E-03		8.732E-01	1.422E+00	2.000E-01	0.003
RN-219	-2.733E-01		7.024E-01	1.131E+00	1.733E-01	-0.242
RA-223	-8.937E-01		1.081E+00	1.725E+00	3.372E-01	-0.518
AC-227	-2.257E-02		4.155E-01	6.680E-01	1.041E-01	-0.034
TH-227	-2.257E-02		4.155E-01	6.680E-01	1.123E-01	-0.034
TH-229	-5.836E-01		7.982E-01	1.275E+00	1.371E-01	-0.458
PA-231	-3.662E-01		2.451E+00	3.888E+00	7.072E-01	-0.094
TH-231	-8.937E-01		1.081E+00	1.725E+00	3.372E-01	-0.518
PA-233	6.103E-02		1.006E-01	1.723E-01	2.258E-02	0.354
PA-234	-2.163E-01		6.427E-01	1.040E+00	2.068E-01	-0.208
PA-234M	1.848E+00		8.268E+00	1.377E+01	1.578E+00	0.134
TH-234	-8.535E-01		1.934E+00	2.879E+00	5.124E-01	-0.296
U-235	-1.472E-01		2.700E-01	4.419E-01	7.553E-02	-0.333
NP-237	4.949E+00		1.248E+00	9.559E-01	2.193E-01	5.177
U-238	-8.535E-01		1.934E+00	2.879E+00	5.124E-01	-0.296
NP-239	-2.970E-01		6.546E-01	8.999E-01	7.436E-02	-0.330
CM-247	3.664E-02		6.265E-02	1.053E-01	9.875E-03	0.348
CF-249	6.796E-03		6.811E-02	1.126E-01	1.069E-02	0.060
CF-251	1.287E-03		1.909E-01	3.169E-01	3.229E-02	0.004
ANH-511	5.184E-02		6.036E-02	1.083E-01	1.085E-02	0.479

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065190          *
* Acquisition date : 25-MAR-2010 09:16:55 Detector SN#    :                *
* Detector ID      : GAM22                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:02.21     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202065190          Analyst initials: MXR1           *
* Batch Number     : 962633               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
CO-57	2.454E-01	7.048E-02	3.056E-02	3.596E-02
CO-60	6.898E+00	6.605E-01	3.698E-02	3.370E-01
CD-109	3.543E+01	4.130E+00	9.957E-01	2.107E+00
SN-126	3.456E+00	4.029E-01	9.755E-02	2.056E-01
BA-137M	5.580E+00	6.140E-01	4.372E-02	3.133E-01
CS-137	5.894E+00	6.494E-01	4.619E-02	3.313E-01
TL-208	4.272E-01	1.058E-01	4.924E-02	5.399E-02
BI-211	3.464E+00	7.196E-01	2.662E-01	3.672E-01
PB-212	1.427E+00	2.333E-01	7.438E-02	1.190E-01
BI-214	8.897E-01	2.110E-01	8.623E-02	1.076E-01
PB-214	1.257E+00	2.699E-01	9.680E-02	1.377E-01
RA-224	2.930E+00	1.691E+00	7.963E-01	8.629E-01
RA-226	8.897E-01	2.110E-01	8.623E-02	1.076E-01
AC-228	1.589E+00	5.890E-01	2.356E-01	3.005E-01
RA-228	1.589E+00	5.890E-01	2.356E-01	3.005E-01
TH-228	1.427E+00	2.333E-01	7.438E-02	1.190E-01
TH-230	8.897E-01	2.059E-01	8.623E-02	1.050E-01
TH-232	1.589E+00	5.890E-01	2.356E-01	3.005E-01
AM-241	1.388E+01	1.250E+00	2.345E-01	6.378E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-6.283E-01	6.105E-01	4.949E-01	3.115E-01	NOT IDENT.
NA-22	3.530E-02	4.690E-02	4.274E-02	2.393E-02	NOT IDENT.
NA-24	-4.793E+06	3.888E+06	0.000E+00	1.984E+06	SHORT HLIF
K-40	1.020E+00	4.979E-01	5.088E-01	2.540E-01	NOT IDENT.
SC-46	1.936E-02	7.198E-02	6.304E-02	3.673E-02	FAIL ABUN
V-48	8.991E-02	1.467E-01	1.288E-01	7.483E-02	NOT IDENT.
CR-51	2.543E-01	6.143E-01	5.574E-01	3.134E-01	NOT IDENT.
MN-54	5.691E-03	6.336E-02	5.542E-02	3.233E-02	NOT IDENT.

CO-56	9.840E-03	7.005E-02	6.132E-02	3.574E-02	FAIL ABUN
CO-58	-4.948E-02	6.689E-02	5.601E-02	3.413E-02	NOT IDENT.
FE-59	6.726E-02	1.691E-01	1.454E-01	8.627E-02	NOT IDENT.
ZN-65	4.760E-02	1.814E-01	1.323E-01	9.257E-02	NOT IDENT.
SE-75	-3.781E-02	8.017E-02	5.851E-02	4.090E-02	FAIL ABUN
SR-85	-6.774E-02	7.135E-02	5.773E-02	3.640E-02	NOT IDENT.
Y-88	4.593E-02	4.665E-02	4.397E-02	2.380E-02	NOT IDENT.
Y-91	-5.302E+00	2.326E+01	1.963E+01	1.187E+01	NOT IDENT.
NB-94	-1.147E-02	4.997E-02	4.218E-02	2.549E-02	NOT IDENT.
NB-95	1.970E-02	6.833E-02	5.874E-02	3.486E-02	NOT IDENT.
NB-95M	6.343E-02	2.245E-01	1.740E-01	1.146E-01	NOT IDENT.
ZR-95	-6.121E-02	1.192E-01	9.790E-02	6.082E-02	NOT IDENT.
MO-99	-5.276E-01	2.577E+01	2.189E+01	1.315E+01	NOT IDENT.
TC-99M	6.925E+12	1.590E+18	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.732E-02	6.732E-02	5.839E-02	3.434E-02	FAIL ABUN
RH-106	-1.807E-01	4.860E-01	4.130E-01	2.480E-01	NOT IDENT.
RU-106	-1.807E-01	4.857E-01	4.130E-01	2.478E-01	NOT IDENT.
AG-108M	-5.355E-02	5.302E-02	4.360E-02	2.705E-02	NOT IDENT.
AG-110M	7.130E-01	1.168E-01	9.121E-02	5.960E-02	NOT IDENT.
SN-113	-2.312E-02	7.572E-02	6.538E-02	3.863E-02	NOT IDENT.
CD-115	1.856E+00	2.613E+01	2.320E+01	1.333E+01	NOT IDENT.
SN-117M	-2.678E-02	8.287E-02	7.451E-02	4.228E-02	NOT IDENT.
TE-123M	4.039E-03	3.991E-02	3.644E-02	2.036E-02	NOT IDENT.
SB-124	1.561E-02	9.763E-02	8.461E-02	4.981E-02	NOT IDENT.
SB-125	5.091E-03	1.532E-01	1.329E-01	7.814E-02	NOT IDENT.
TE-125M	-4.316E+00	1.381E+01	1.190E+01	7.044E+00	NOT IDENT.
I-126	6.479E-01	4.164E-01	3.407E-01	2.125E-01	NOT IDENT.
SB-126	-2.106E-02	2.428E-01	2.062E-01	1.239E-01	NOT IDENT.
SB-127	1.226E+00	2.529E+00	2.226E+00	1.290E+00	NOT IDENT.
I-131	-1.378E-01	2.060E-01	1.759E-01	1.051E-01	NOT IDENT.
TE-132	-6.566E-01	1.514E+00	1.303E+00	7.727E-01	NOT IDENT.
BA-133	1.313E-02	7.313E-02	5.674E-02	3.731E-02	NOT IDENT.
I-133	-2.273E+04	2.499E+04	0.000E+00	1.275E+04	SHORT HLIF
CS-134	7.098E-02	7.554E-02	6.670E-02	3.854E-02	NOT IDENT.
CS-135	2.535E-01	2.683E-01	2.115E-01	1.369E-01	NOT IDENT.
I-135	1.469E+17	1.638E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.620E-02	2.038E-01	1.713E-01	1.040E-01	NOT IDENT.
CE-139	1.006E-02	4.207E-02	3.843E-02	2.146E-02	NOT IDENT.
BA-140	2.555E-01	4.604E-01	4.099E-01	2.349E-01	NOT IDENT.
LA-140	-7.469E-02	1.230E-01	9.719E-02	6.277E-02	NOT IDENT.
CE-141	-9.325E-02	8.725E-02	7.662E-02	4.452E-02	NOT IDENT.
CE-143	6.885E+02	4.676E+02	0.000E+00	2.386E+02	SHORT HLIF
CE-144	-2.078E-01	2.767E-01	2.476E-01	1.412E-01	NOT IDENT.
PM-144	-2.925E-03	5.206E-02	4.446E-02	2.656E-02	NOT IDENT.
PR-144	-1.968E-01	3.900E+00	3.332E+00	1.990E+00	NOT IDENT.
PM-146	-1.790E-02	7.753E-02	6.602E-02	3.955E-02	NOT IDENT.
ND-147	-5.022E-01	9.393E-01	8.059E-01	4.792E-01	NOT IDENT.
PM-149	-9.432E+01	2.299E+02	1.928E+02	1.173E+02	NOT IDENT.
EU-152	1.084E-02	1.730E-01	1.339E-01	8.828E-02	FAIL ABUN
GD-153	1.063E-02	1.237E-01	9.816E-02	6.312E-02	NOT IDENT.
EU-154	9.591E-02	1.326E-01	1.204E-01	6.763E-02	FAIL ABUN
EU-155	1.250E-01	1.450E-01	1.318E-01	7.400E-02	NOT IDENT.
TB-160	1.579E-01	2.736E-01	2.411E-01	1.396E-01	FAIL ABUN
HO-166M	-1.588E-02	8.991E-02	7.599E-02	4.587E-02	NOT IDENT.
TA-182	-4.006E-02	2.074E-01	1.753E-01	1.058E-01	FAIL ABUN
IR-192	-2.151E-02	5.508E-02	4.851E-02	2.810E-02	FAIL ABUN
HG-203	-1.630E-02	6.496E-02	5.513E-02	3.314E-02	NOT IDENT.
BI-207	4.345E-02	9.501E-02	8.229E-02	4.847E-02	FAIL ABUN
PB-210	-9.424E-01	5.383E+00	5.045E+00	2.746E+00	NOT IDENT.
PB-211	-5.866E-01	1.237E+00	1.029E+00	6.312E-01	NOT IDENT.
BI-212	4.134E-03	8.557E-01	7.300E-01	4.366E-01	NOT IDENT.
RN-219	-2.733E-01	6.883E-01	5.894E-01	3.512E-01	FAIL ABUN
RA-223	-8.937E-01	1.060E+00	9.037E-01	5.406E-01	FAIL ABUN
AC-227	-2.257E-02	4.072E-01	3.519E-01	2.077E-01	NOT IDENT.
TH-227	-2.257E-02	4.072E-01	3.519E-01	2.077E-01	NOT IDENT.
TH-229	-5.836E-01	7.823E-01	6.765E-01	3.991E-01	FAIL ABUN
PA-231	-3.662E-01	2.402E+00	2.043E+00	1.225E+00	NOT IDENT.
TH-231	-8.937E-01	1.060E+00	9.037E-01	5.406E-01	FAIL ABUN
PA-233	6.103E-02	9.862E-02	9.035E-02	5.032E-02	NOT IDENT.
PA-234	-2.163E-01	6.299E-01	5.304E-01	3.214E-01	NOT IDENT.
PA-234M	1.848E+00	8.103E+00	7.011E+00	4.134E+00	NOT IDENT.
TH-234	-8.535E-01	1.895E+00	1.568E+00	9.669E-01	FAIL ABUN
U-235	-1.472E-01	2.646E-01	2.361E-01	1.350E-01	FAIL ABUN
NP-237	4.949E+00	1.223E+00	5.167E-01	6.238E-01	NOT IDENT.
U-238	-8.535E-01	1.895E+00	1.568E+00	9.669E-01	FAIL ABUN
NP-239	-2.970E-01	6.415E-01	4.831E-01	3.273E-01	NOT IDENT.
CM-247	3.664E-02	6.140E-02	5.486E-02	3.133E-02	NOT IDENT.
CF-249	6.796E-03	6.675E-02	5.872E-02	3.406E-02	NOT IDENT.

CF-251	1.287E-03	1.871E-01	1.685E-01	9.547E-02 NOT IDENT.
ANH-511	5.184E-02	5.915E-02	5.606E-02	3.018E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	486.0000
49.72	573.9034
57.36	0.0000
59.54	596.3845
63.29	384.0284
63.29	384.0284
64.28	398.3148
67.75	403.2376
69.67	406.5132
70.83	423.1225
72.81	438.0719
72.87	438.1629
72.87	438.1629
74.82	433.4862
74.82	433.4862
74.82	433.4862
74.97	433.7044
77.11	436.7876
77.11	436.7876
77.11	436.7876
79.69	463.5518
79.80	463.7148
80.12	461.1036
80.19	461.2062
80.57	461.7628
81.00	484.0429
81.07	484.1504
81.07	484.1504
83.79	497.6319
83.79	497.6319
85.43	493.8602
86.48	541.0378
86.55	541.1507
86.79	473.8467
86.94	474.0626
87.57	474.9536
88.03	475.6035
88.47	476.2236
89.96	298.7451
91.11	299.7440
92.59	301.0192
92.59	301.0192
93.35	325.7398
94.67	314.0706
94.87	314.2462
94.87	314.2462
95.86	313.4991
97.43	309.9918
98.44	318.9860
99.53	334.0761
100.11	311.7099
103.18	352.7199
103.37	334.2070
105.31	304.9606
106.12	353.2092
109.28	337.0803
111.00	337.4094
111.76	356.0139
116.30	318.5172
117.23	336.2942
121.12	302.0538
121.78	302.5153
122.06	302.7106
123.07	297.6459
131.20	352.4384
133.52	369.2654
136.00	322.2599

136.47	310.1048
140.51	329.8050
140.51	0.0000
143.76	329.2890
144.24	340.4746
144.24	340.4746
145.44	366.7168
152.43	348.7921
153.25	335.5181
154.21	323.2090
154.21	323.2090
156.02	358.6140
158.56	357.5449
159.00	333.6093
162.66	378.0984
163.33	384.1989
165.86	328.4059
176.60	337.5703
177.52	341.9562
181.07	341.1155
184.41	372.2629
185.72	373.0731
193.51	371.8864
197.04	357.0663
205.31	341.7180
210.85	399.8431
215.65	390.8191
222.11	396.5508
227.38	359.9802
228.16	366.6228
228.18	366.6335
235.69	385.6017
235.96	370.5840
235.96	370.5840
238.63	321.2072
238.63	321.2072
240.99	322.2253
242.00	322.6591
244.70	332.3379
252.40	307.7132
252.80	300.3350
256.23	320.0340
256.23	320.0340
260.90	289.2977
264.66	295.4612
268.22	258.1257
269.46	314.3530
269.46	314.3530
271.23	315.0294
273.65	353.5107
276.40	273.1018
277.37	318.0995
277.60	328.5421
278.00	329.9693
279.20	334.7302
279.54	334.8634
280.46	319.6343
283.69	315.2577
284.31	331.1482
285.41	331.5728
285.90	329.5208
287.50	288.5838
293.27	0.0000
295.22	314.4730
295.96	314.7356
298.57	278.9686
299.98	262.7029
299.98	262.7029
300.09	236.9199
300.09	236.9199
300.13	236.9294
301.36	228.1281
302.85	271.1574
304.50	316.8274
304.50	316.8274
304.85	327.9423
308.46	245.5507
311.90	251.0820

316.51	285.7196
319.41	255.8957
320.08	281.2154
323.87	328.1498
323.87	328.1498
328.76	287.5362
333.37	284.8084
334.37	288.2458
334.37	288.2458
338.28	259.3430
338.28	259.3430
338.32	259.3564
338.32	259.3564
338.32	259.3564
340.48	283.6898
340.55	275.7867
344.28	257.7228
351.06	239.2704
351.93	239.4740
356.01	236.5602
364.49	263.7917
366.42	251.5972
383.85	246.7598
388.16	266.6227
388.63	262.7528
391.69	278.4414
400.66	275.6222
401.81	280.9345
402.40	243.8020
404.85	282.6865
410.95	261.8454
414.70	257.5924
423.72	234.9291
427.09	271.5958
427.87	246.0340
433.94	293.8180
453.88	284.8775
463.37	282.7521
468.07	316.7232
473.00	268.8390
476.78	283.5164
477.60	294.3964
487.02	225.3179
492.35	209.9685
497.08	196.5746
511.00	221.5836
514.00	326.4843
527.90	184.0726
529.87	0.0000
531.02	193.7392
537.26	183.3929
546.56	0.0000
563.25	192.2743
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569.50	201.6139
569.70	201.6398
583.19	191.8742
600.60	170.6934
602.73	167.5165
604.72	153.3472
609.32	158.7917
609.32	158.7917
609.32	158.7917
610.33	167.8113
614.28	181.0672
618.01	169.8985
621.93	171.9345
621.93	171.9345
633.25	167.1571
635.95	149.5930
636.99	171.4901
645.85	168.3914
657.76	158.2245
661.66	141.7717
661.66	141.7717
664.57	0.0000
666.33	133.0715
666.50	133.0850

677.62	126.8133
685.70	142.6632
695.00	153.6316
696.49	158.8819
696.51	158.8851
697.00	162.0021
702.65	157.3548
706.68	156.6634
711.68	145.7132
720.70	157.8324
721.93	0.0000
722.78	198.5464
722.91	198.5581
723.31	196.5212
724.19	163.3213
727.33	179.2191
733.00	193.3331
735.93	154.9014
739.50	140.5075
747.24	151.5908
752.31	135.0964
753.82	139.4229
756.73	168.1902
763.94	187.9077
765.81	167.8943
766.42	172.1942
777.92	157.1415
778.90	154.0107
783.70	155.4431
785.37	143.7681
795.86	144.5015
801.95	173.0436
810.29	174.0440
810.76	178.7377
815.77	158.6309
818.51	169.1130
832.01	193.6854
834.85	181.7015
836.80	0.0000
846.77	172.2849
856.80	181.6305
860.56	170.5064
871.09	185.6674
873.19	195.4194
875.33	0.0000
879.36	180.5841
880.51	184.5201
883.24	189.5520
884.68	183.8955
889.28	167.8646
898.04	183.9995
911.20	208.4171
911.20	208.4171
911.20	208.4171
926.50	208.7953
937.49	224.5290
944.13	235.0242
946.00	229.2772
949.00	234.5078
962.29	224.5965
964.08	210.8195
966.15	217.9718
968.97	202.5079
968.97	202.5079
968.97	202.5079
983.53	175.6012
996.26	169.4297
1001.03	150.5512
1004.73	155.8289
1037.84	151.6855
1038.76	0.0000
1048.07	154.3318
1050.41	162.7061
1050.41	162.7061
1063.66	149.0223
1085.87	137.7271
1099.45	154.1367
1112.07	132.7192

1115.54	155.0288
1120.29	123.5984
1120.29	123.5984
1120.29	123.5984
1120.55	112.7815
1121.30	118.3594
1131.51	0.0000
1173.23	96.0359
1177.93	92.2097
1189.05	86.1401
1204.77	68.5151
1221.41	68.8931
1231.02	58.0169
1235.36	51.2646
1238.28	53.0239
1260.41	0.0000
1271.85	50.5718
1274.44	43.7997
1274.54	43.8011
1291.59	52.8448
1298.22	0.0000
1312.11	61.0596
1332.49	41.6219
1365.19	30.0238
1368.63	0.0000
1384.29	49.3155
1408.01	30.4028
1457.56	0.0000
1460.82	20.5750
1489.16	40.4366
1505.03	40.6127
1596.21	42.6721
1620.50	35.3048
1678.03	0.0000
1690.97	23.3060
1764.49	25.6974
1764.49	25.6974
1764.49	25.6974
1770.23	23.1588
1771.35	21.3832
1791.20	0.0000
1836.06	19.0923

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065190

Total Uranium Activity	-2.6073E+00	ug/g
Total Uranium Counting Unc.	5.6392E+00	ug/g
Total Uranium Tpu	2.8771E-06	ug/g
Total Uranium Mda	4.6652E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G1202065190      *
*   ANALYST       : MXR1                      DETECTOR   : GAM22            *
*   SAMPLE DATE   :  9-MAR-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 25-MAR-2010 09:16:55.57    SAMPLE ALQT:  151.730 GRAM    *
*                                                                           *
*****************************************************************************
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GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.898E+01
GROSS GAMMA ERROR  (pCi/GRAM  )   : 2.749E+00
GROSS GAMMA MDA    (pCi/GRAM  )   : 3.013E+00
GROSS GAMMA DLC    (pCi/GRAM  )   : 1.466E+00
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BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.294900 through 0.361886

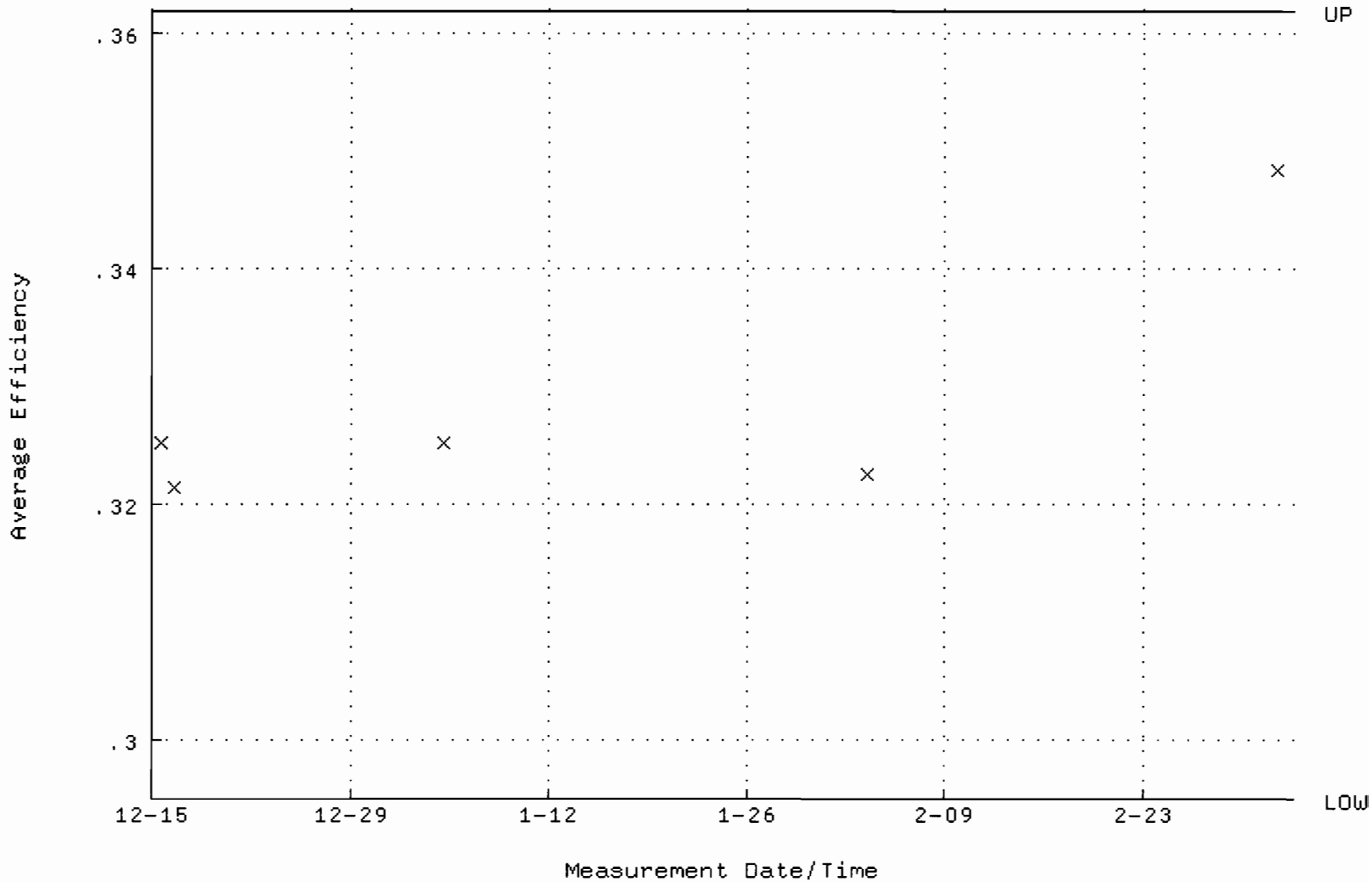

QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 82.3264 through 98.7414

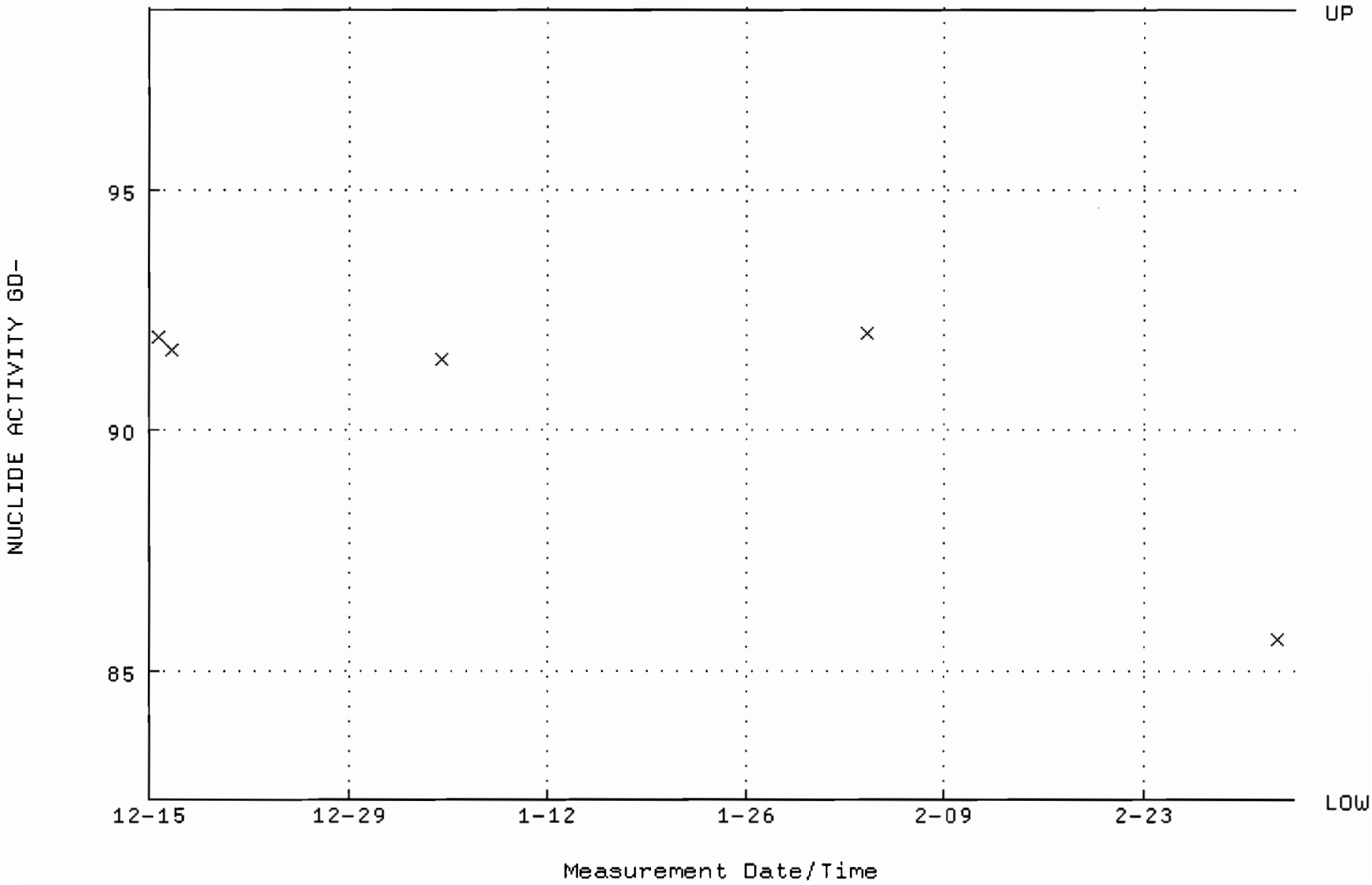

QA filename : DKA100:[ENV_ALPHA.QA.B]B001.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

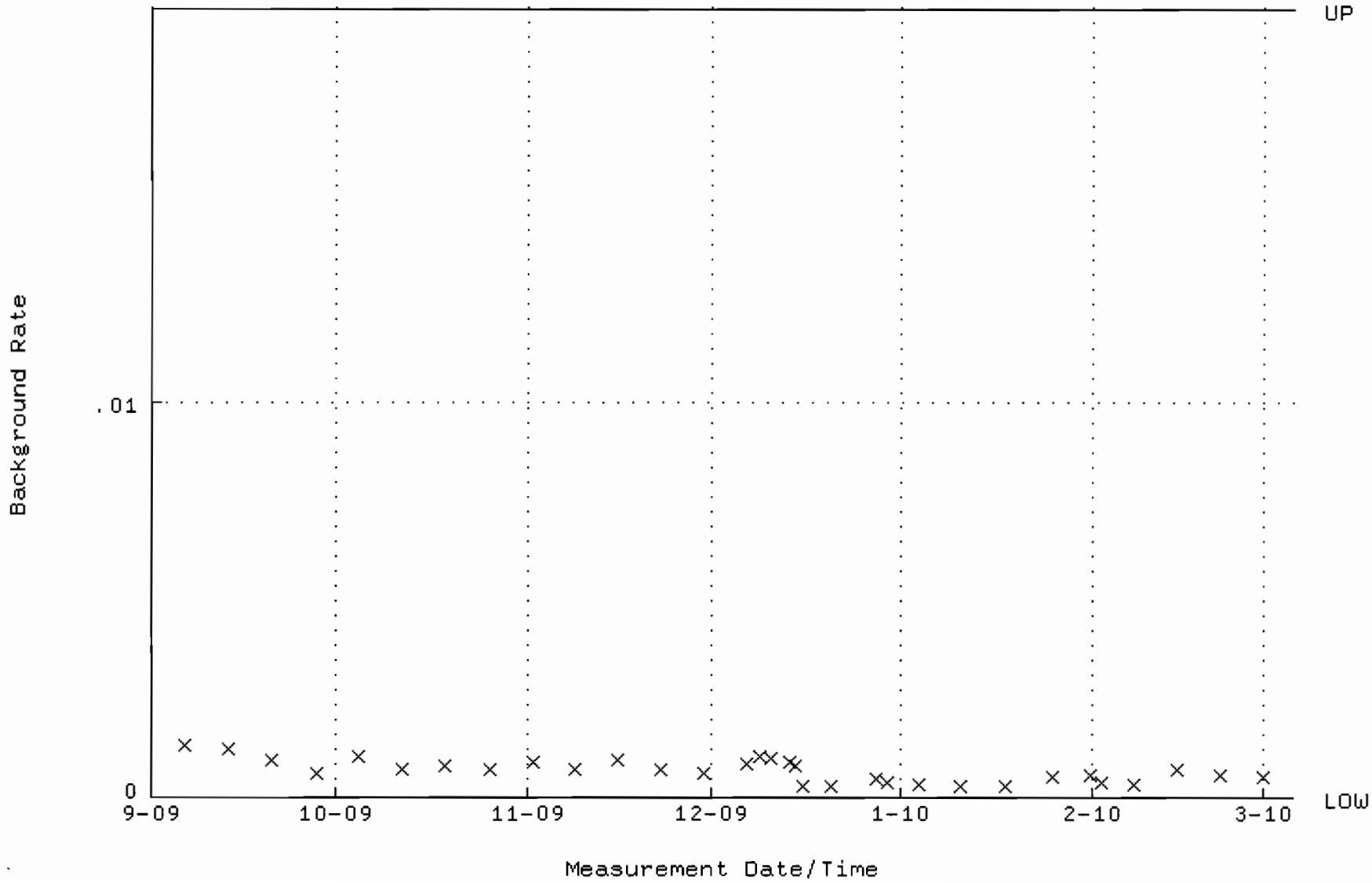

QA filename : DKA100:[ENV_ALPHA.QA.W]W002.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.282705 through 0.311367

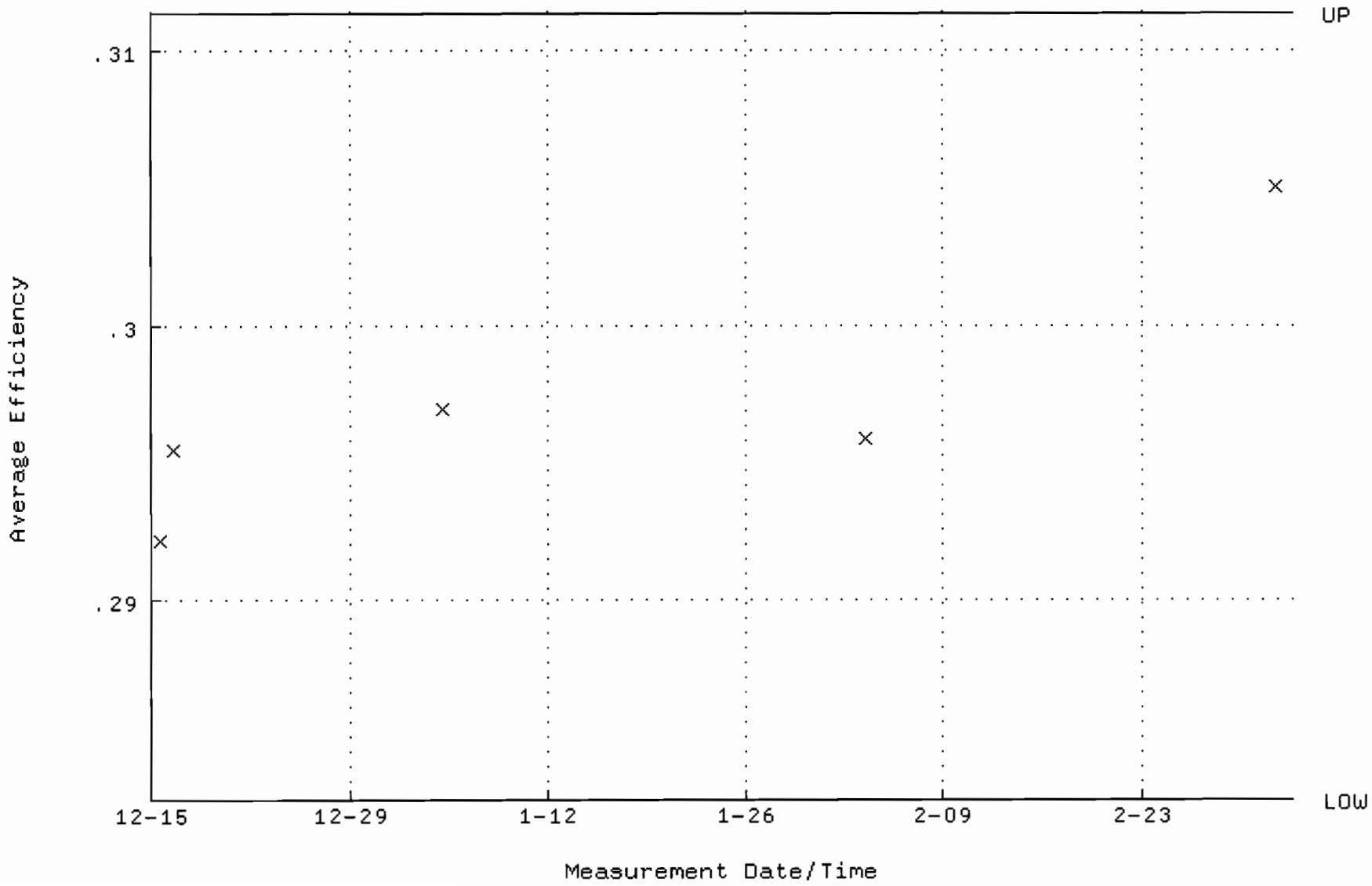

QA filename : DKA100:[ENV_ALPHA.QA.W]W002.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 84.7927 through 93.2014

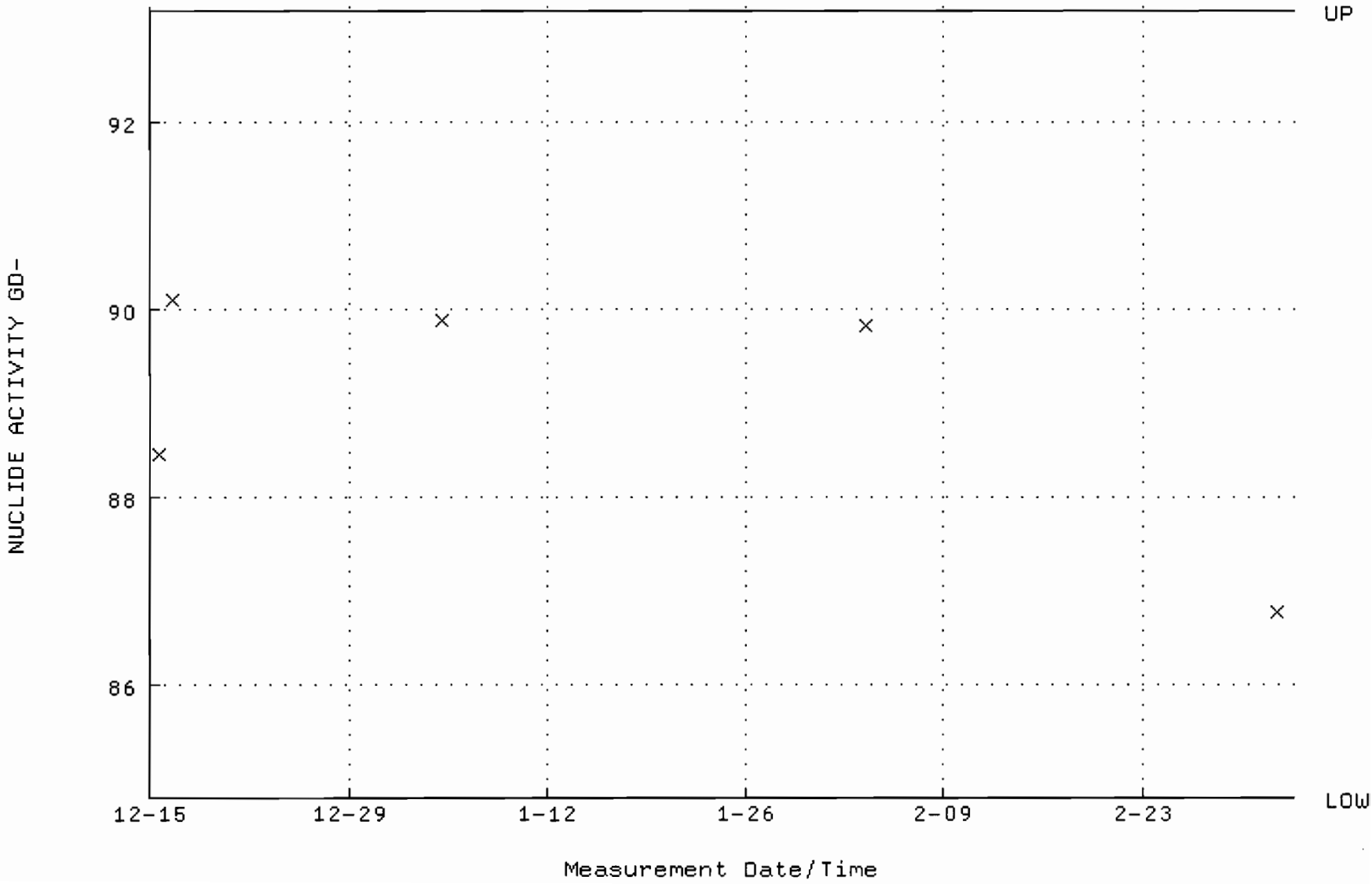

QA filename : DKA100:[ENV_ALPHA.QA.B]B002.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

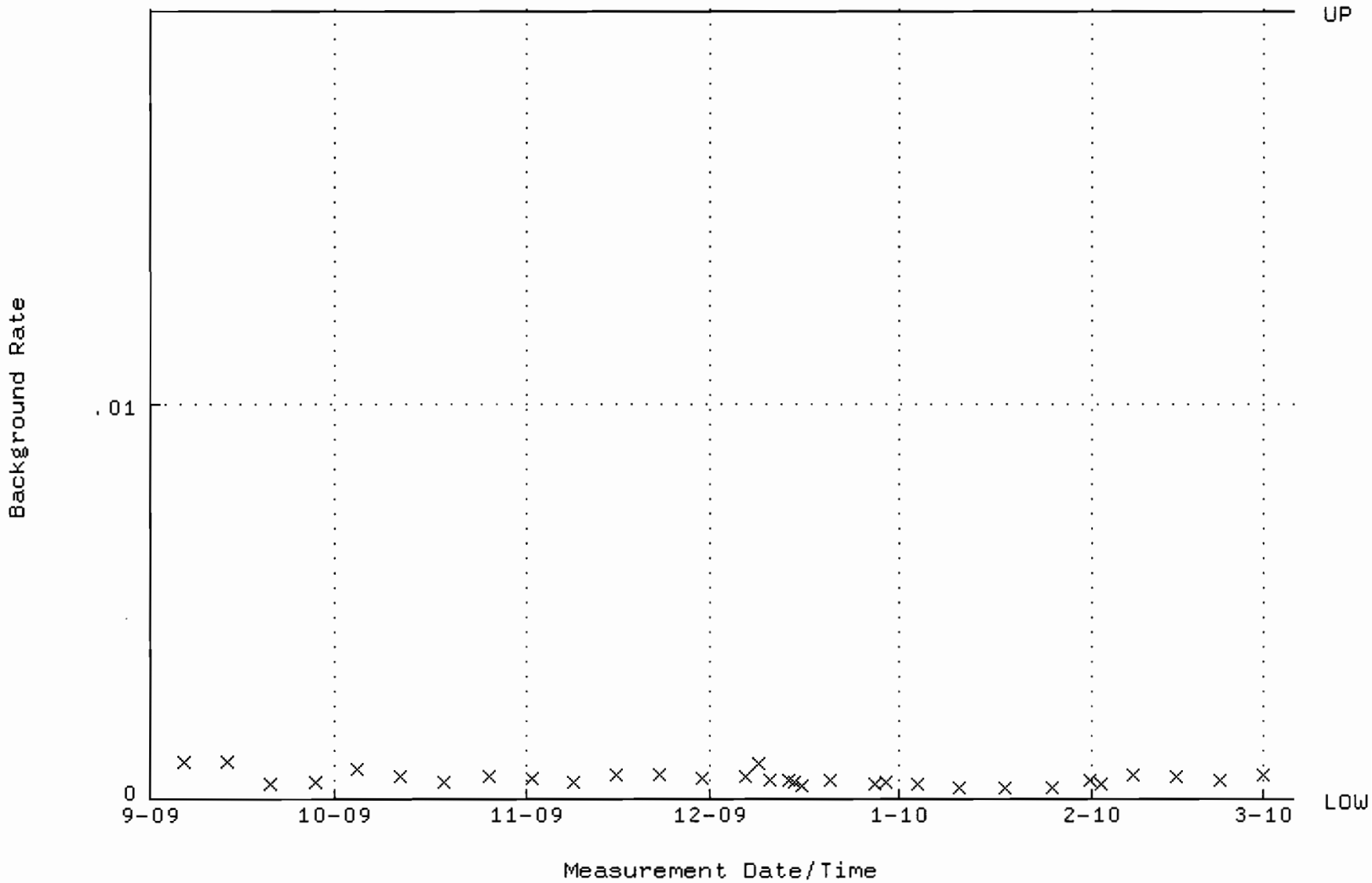

QA filename : DKA100:[ENV_ALPHA.QA.W]W013.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.311179 through 0.370113

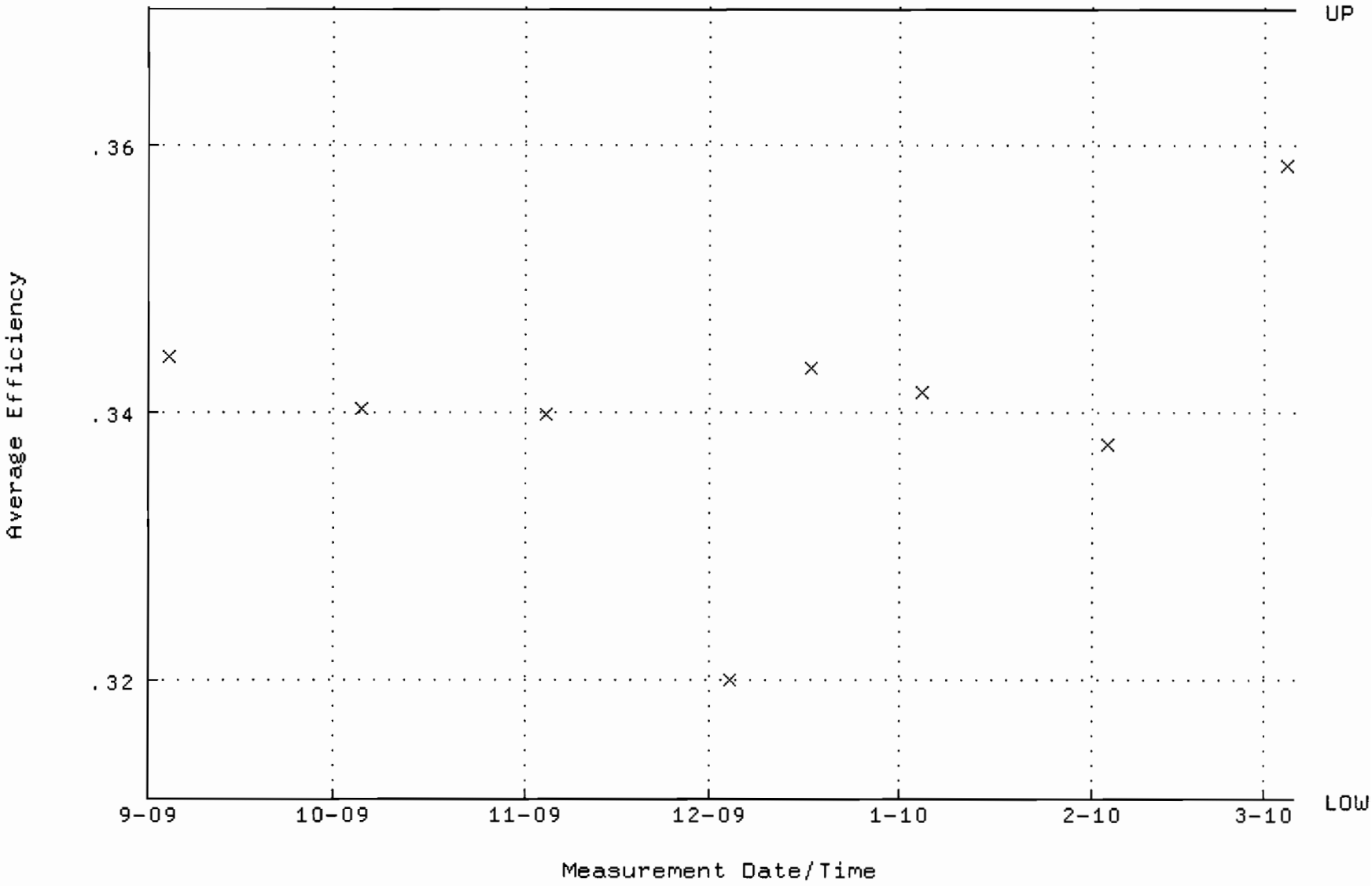

QA filename : DKA100:[ENV_ALPHA.QA.W]W013.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 85.5651 through 97.2315

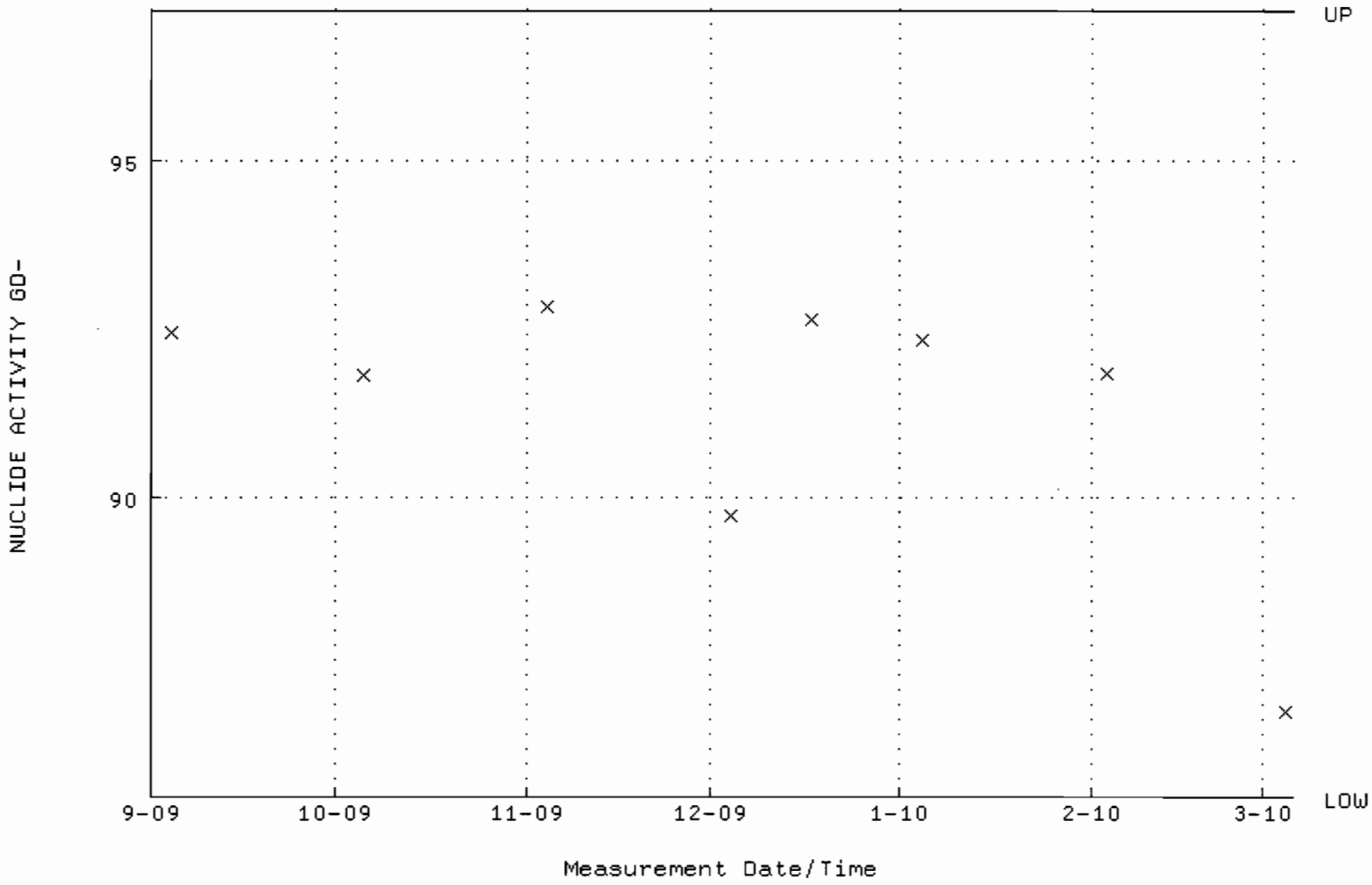

QA filename : DKA100:[ENV_ALPHA.QA.B]B013.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:02 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

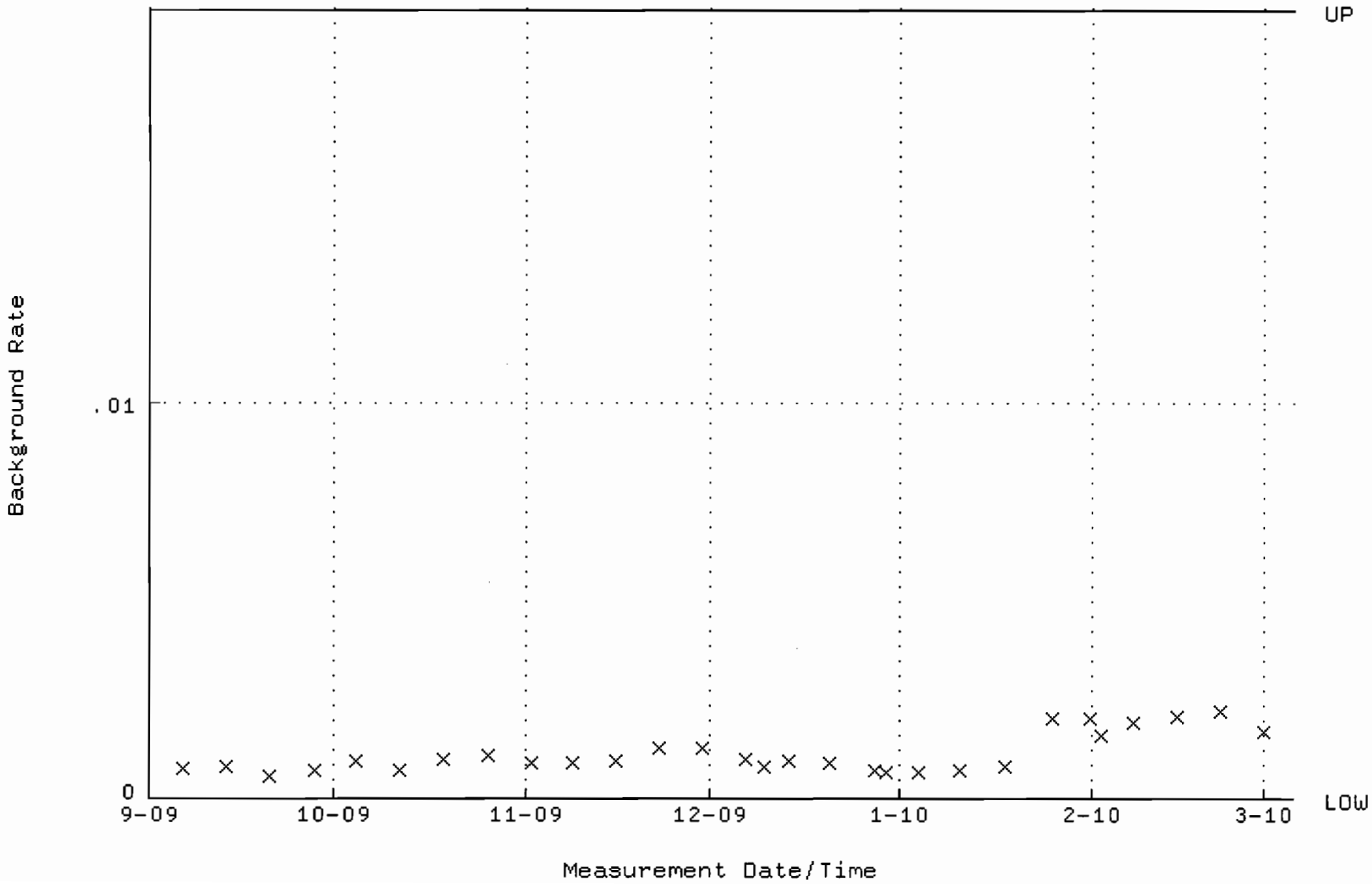

QA filename : DKA100:[ENV_ALPHA.QA.W]W014.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.288973 through 0.340739

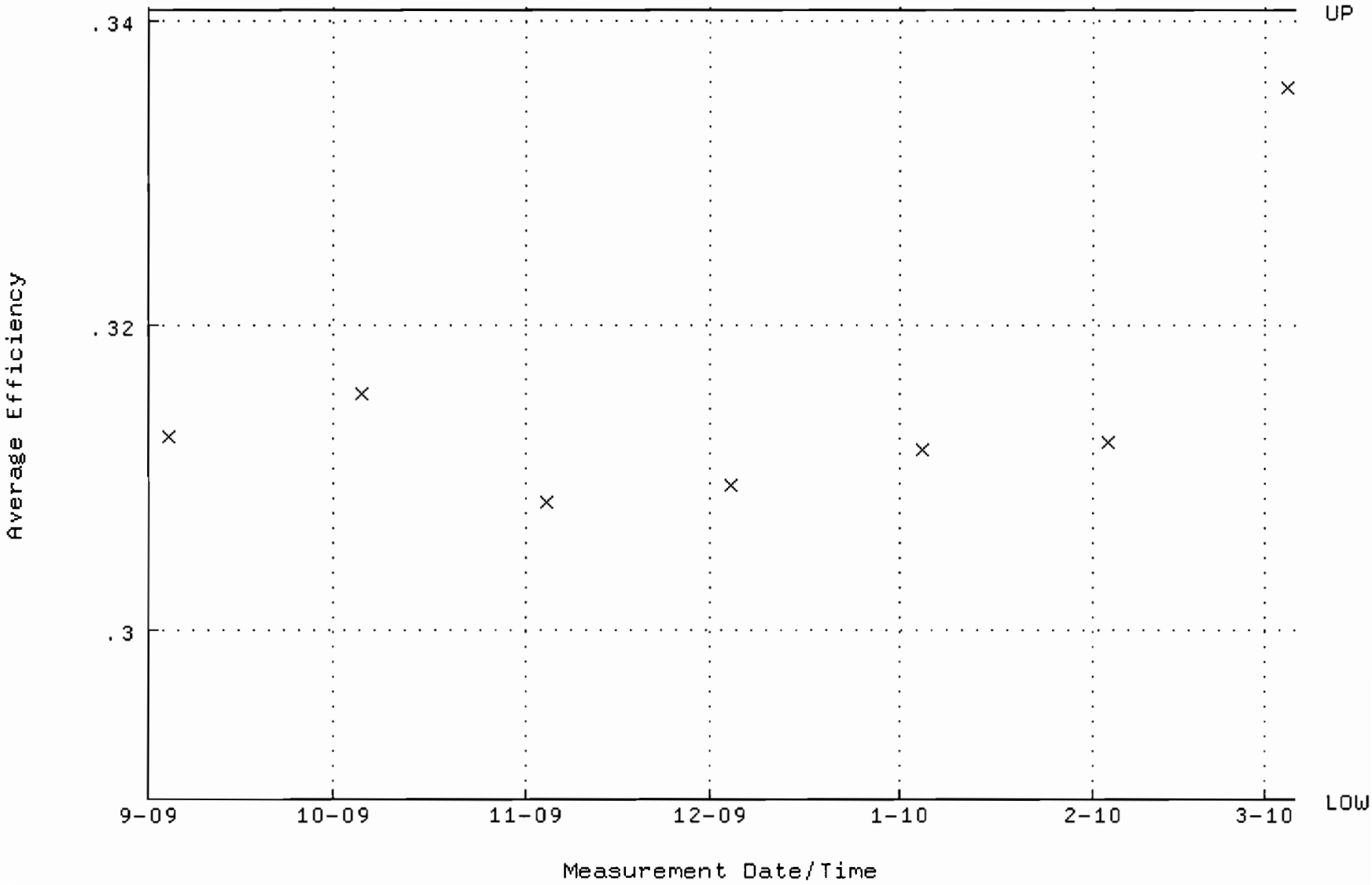

QA filename : DKA100:[ENV_ALPHA.QA.W]W014.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 87.9529 through 99.8771

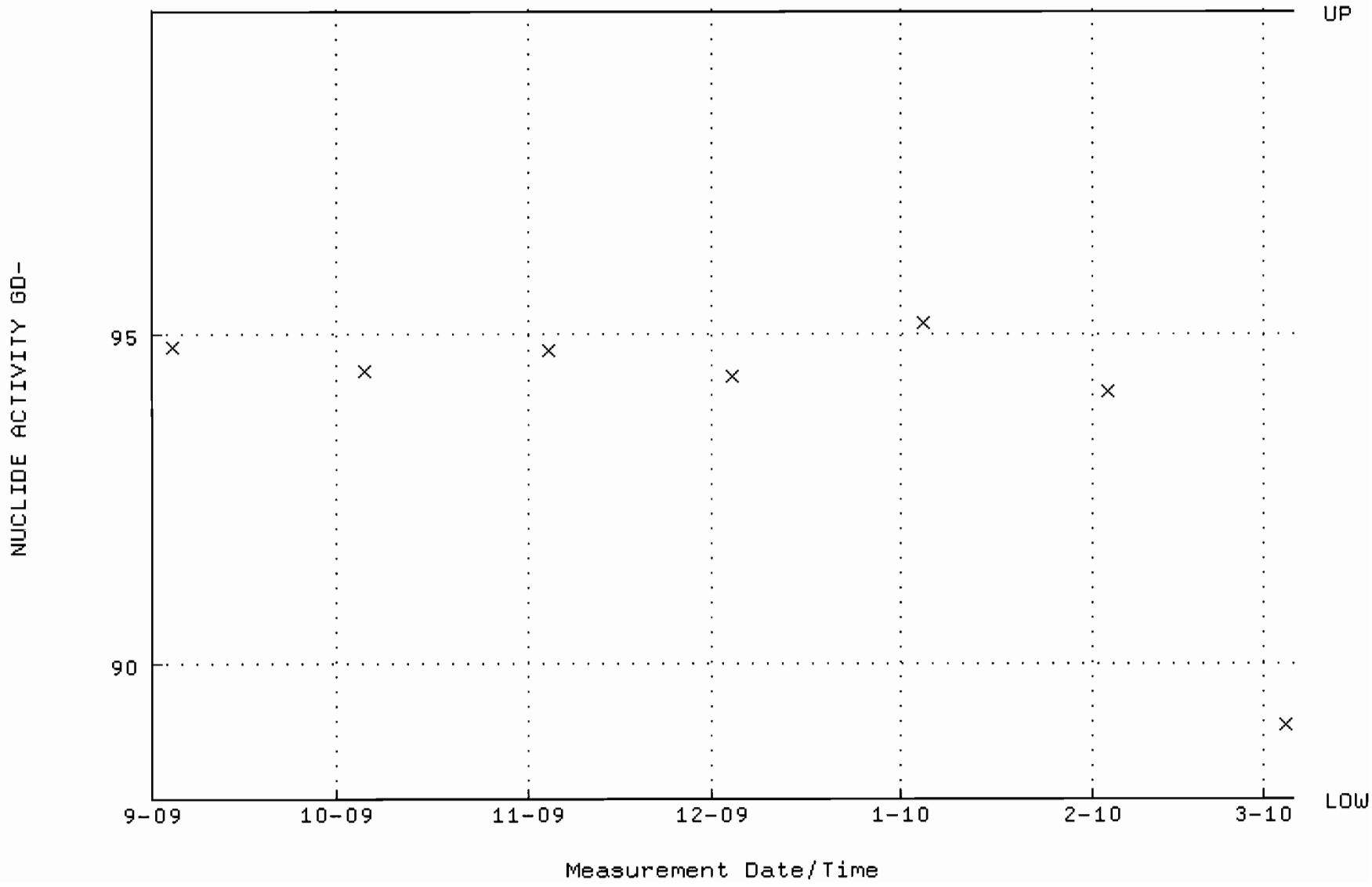

QA filename : DKA100:[ENV_ALPHA.QA.B]B014.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:02 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

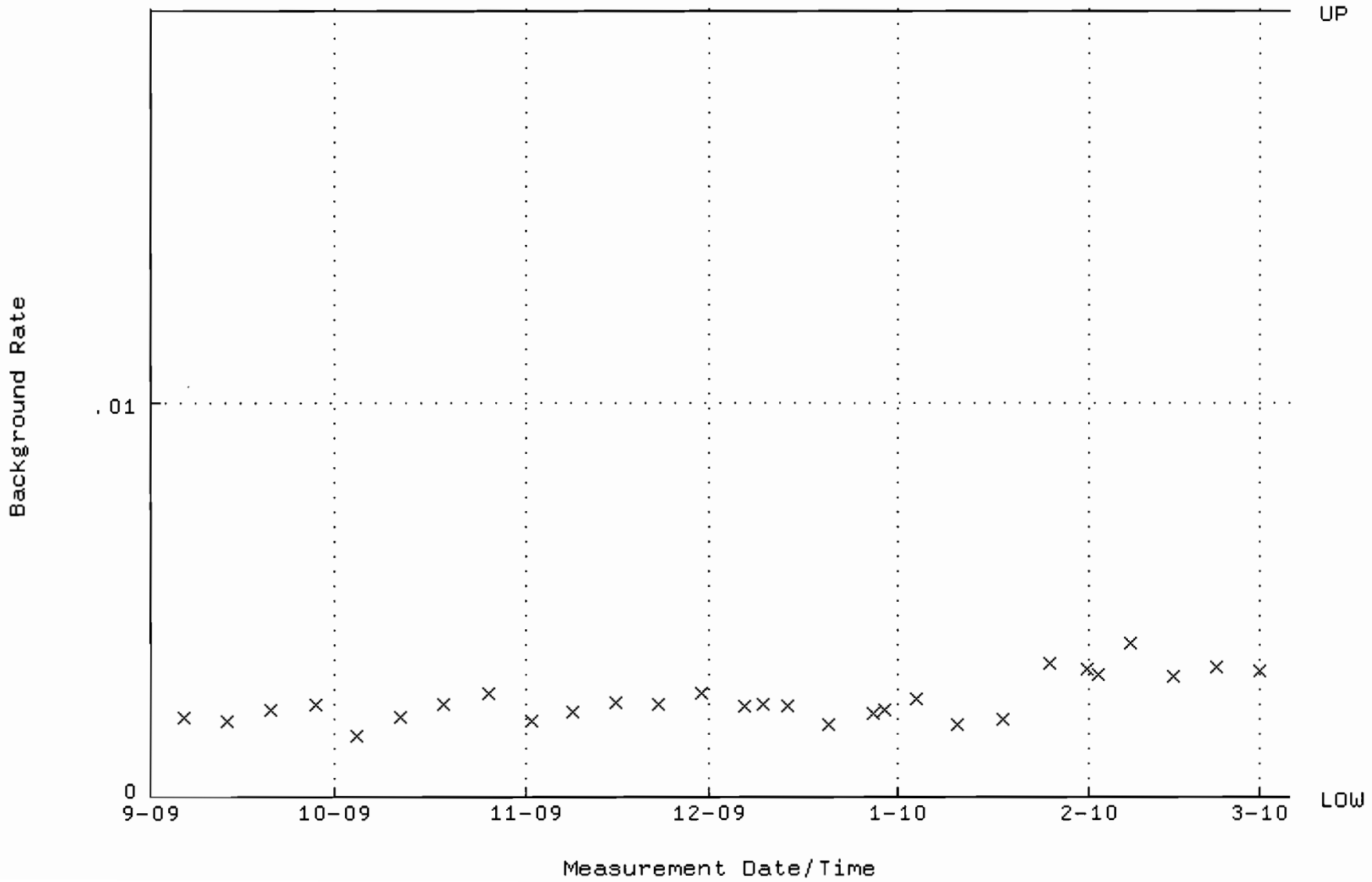

QA filename : DKA100:[ENV_ALPHA.QA.W]W016.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:41 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.326058 through 0.346058

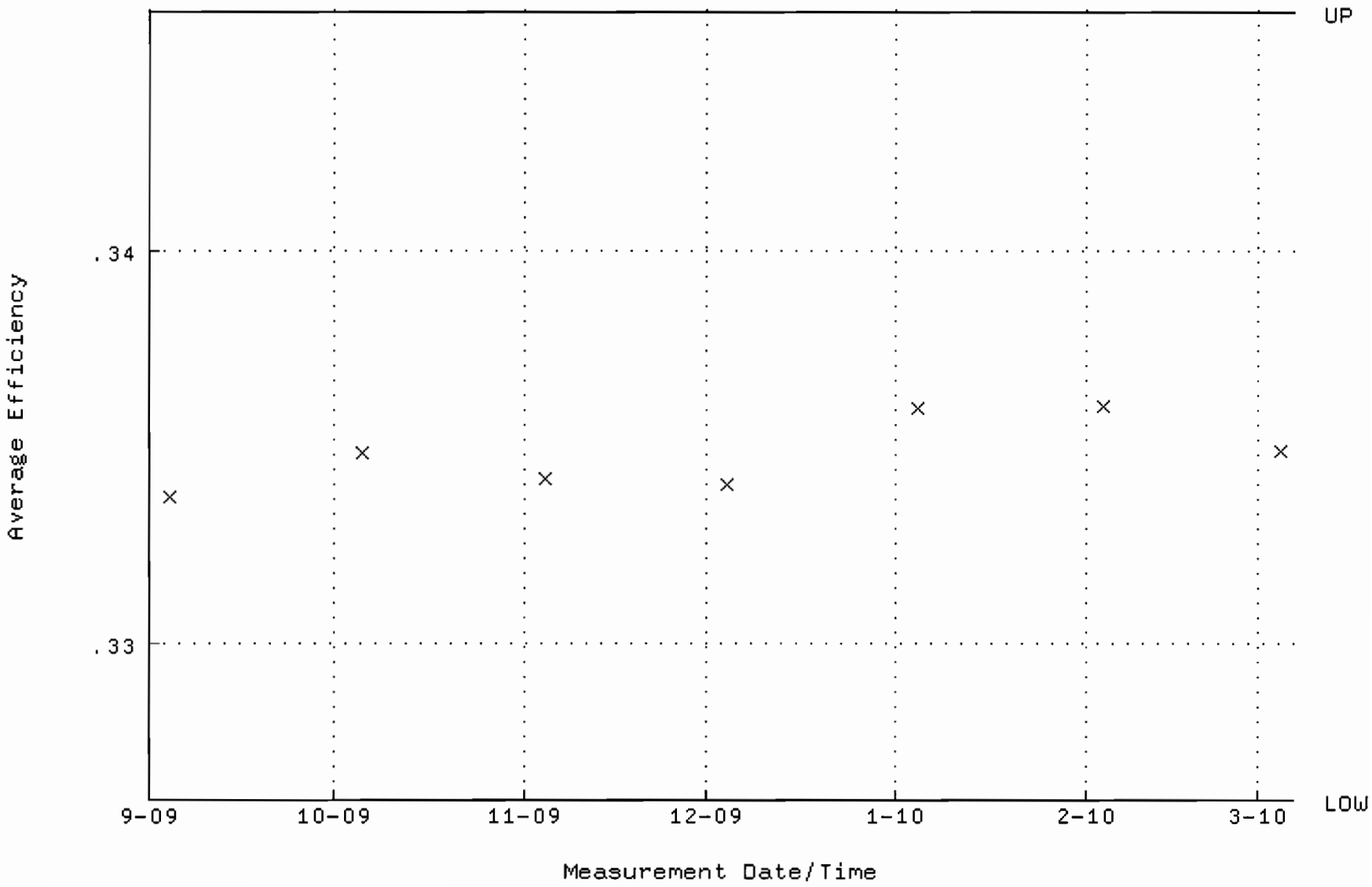

QA filename : DKA100:[ENV_ALPHA.QA.W]W016.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:41 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 85.9280 through 94.9730

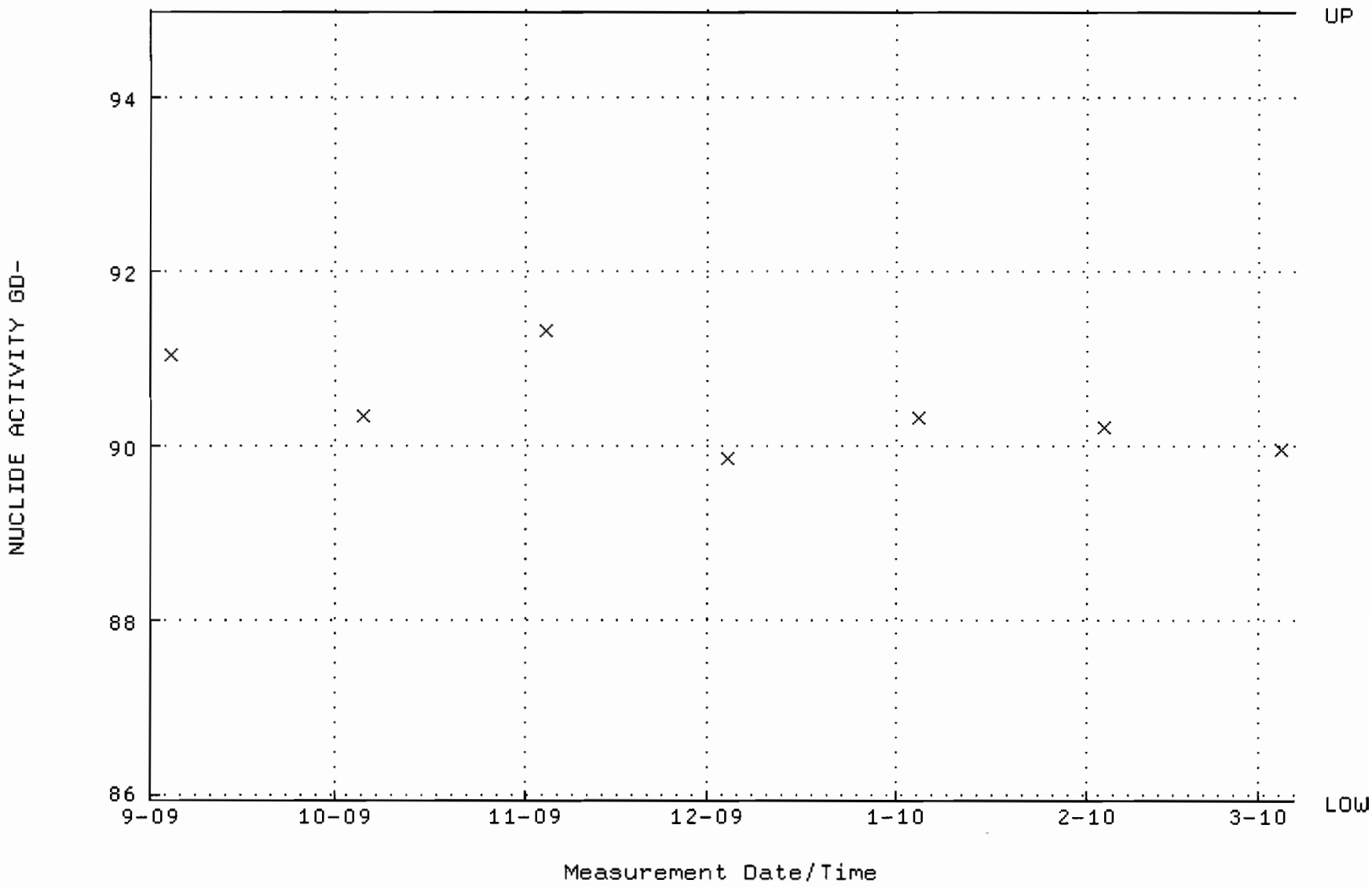

QA filename : DKA100:[ENV_ALPHA.QA.B]B016.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:02 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

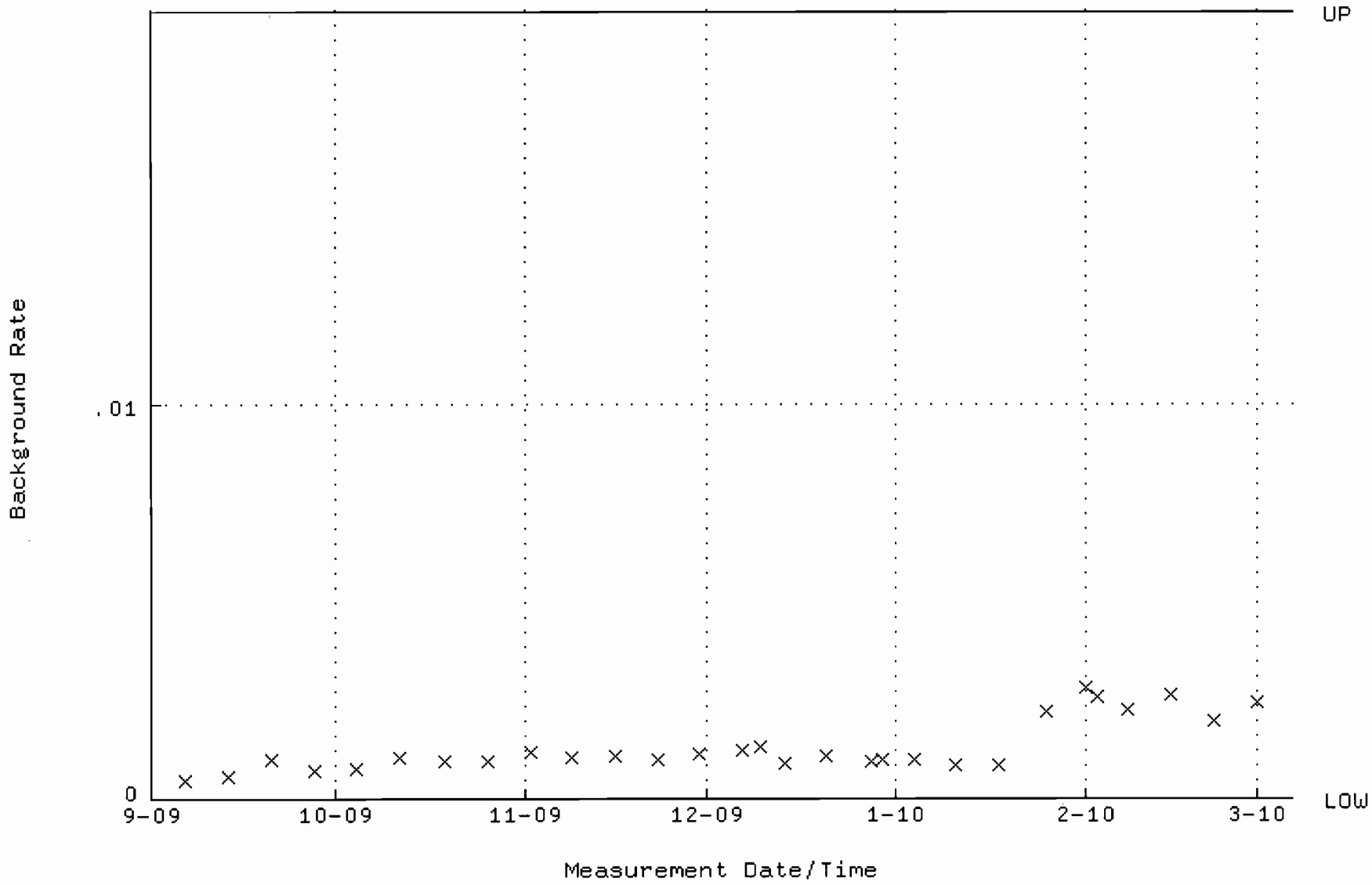

QA filename : DKA100:[ENV_ALPHA.QA.W]W017.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.276155 through 0.308631

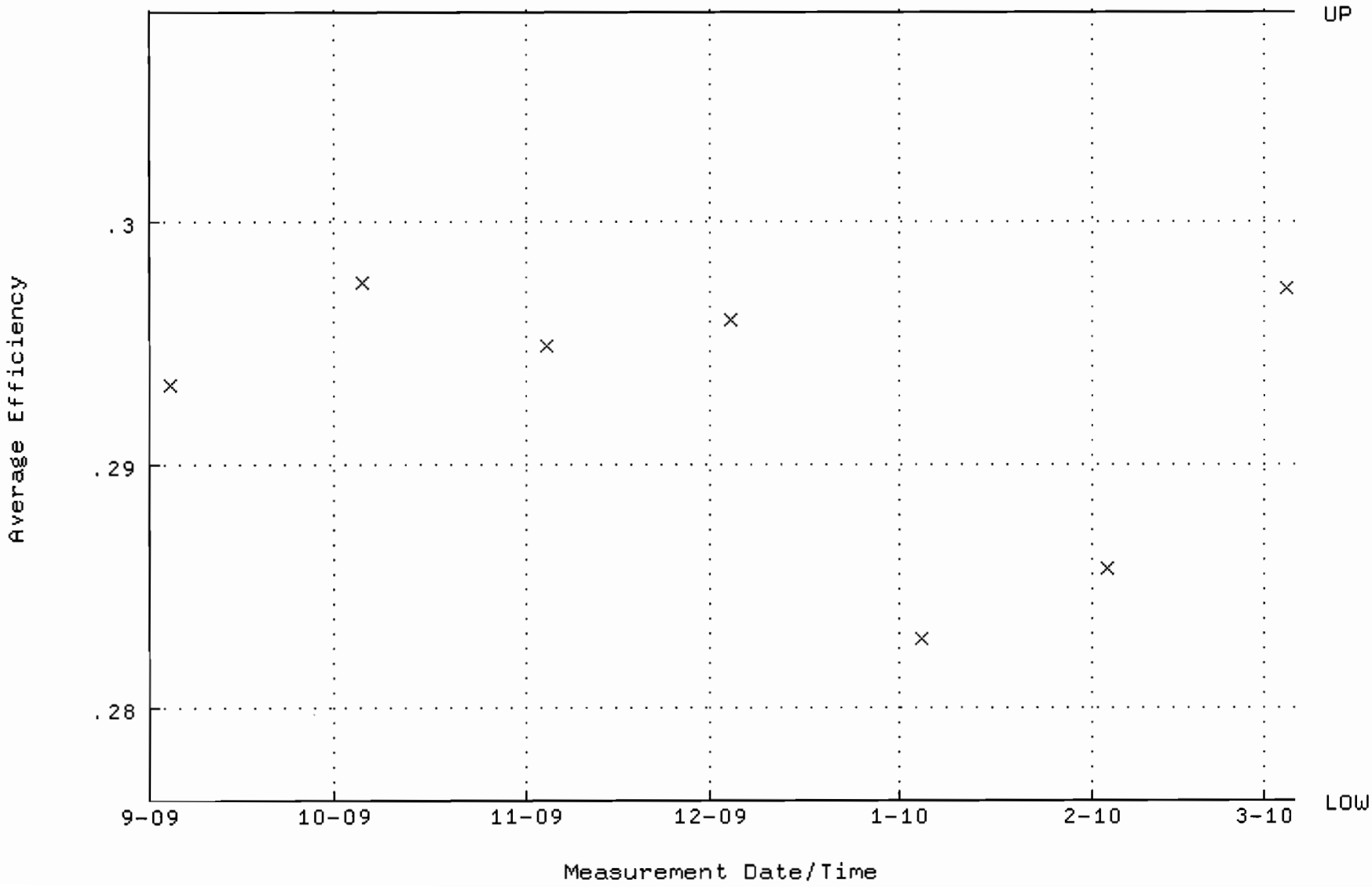

QA filename : DKA100:[ENV_ALPHA.QA.W]W017.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 90.4251 through 97.0169

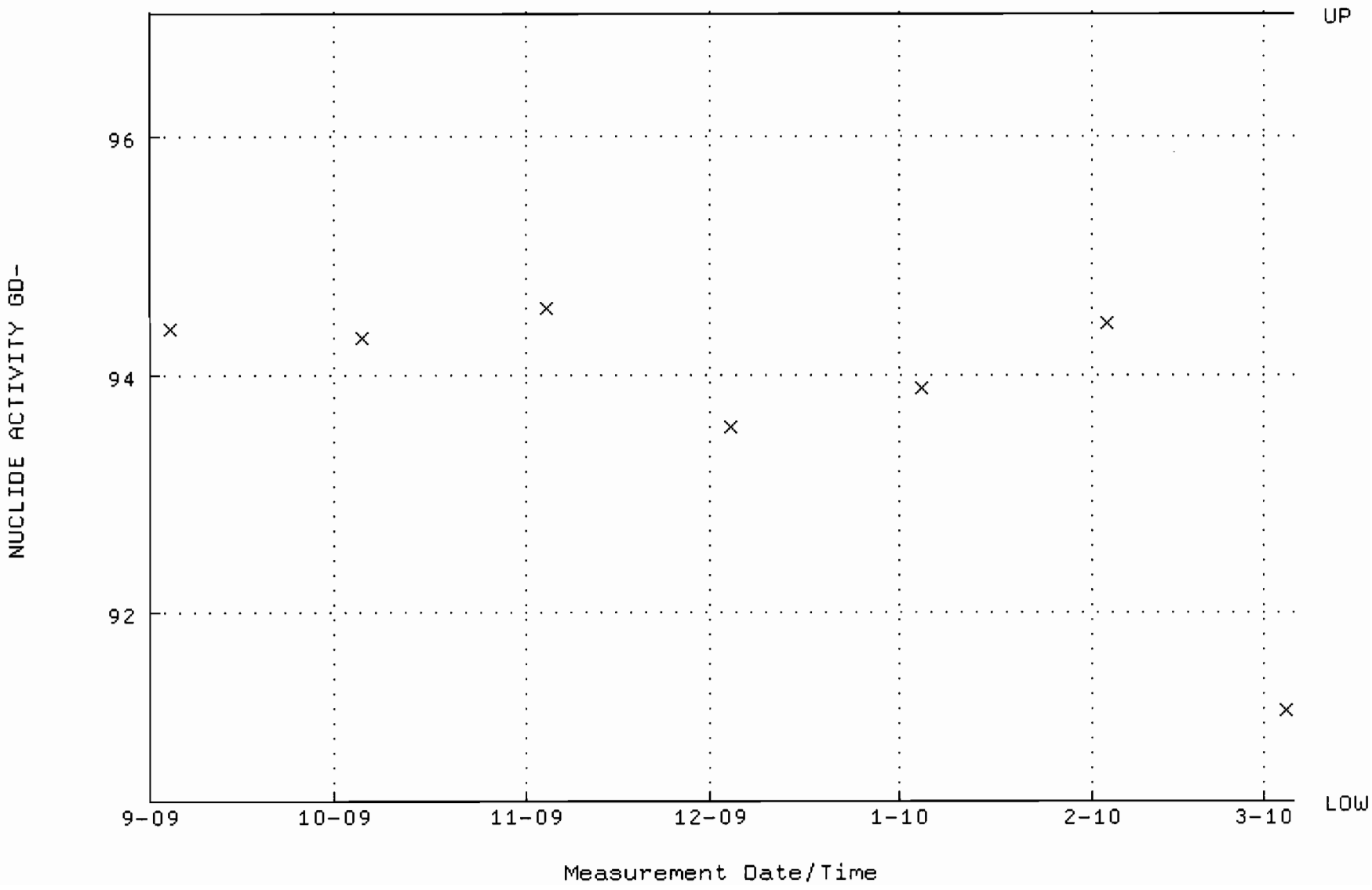

QA filename : DKA100:[ENV_ALPHA.QA.B]B017.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:02 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

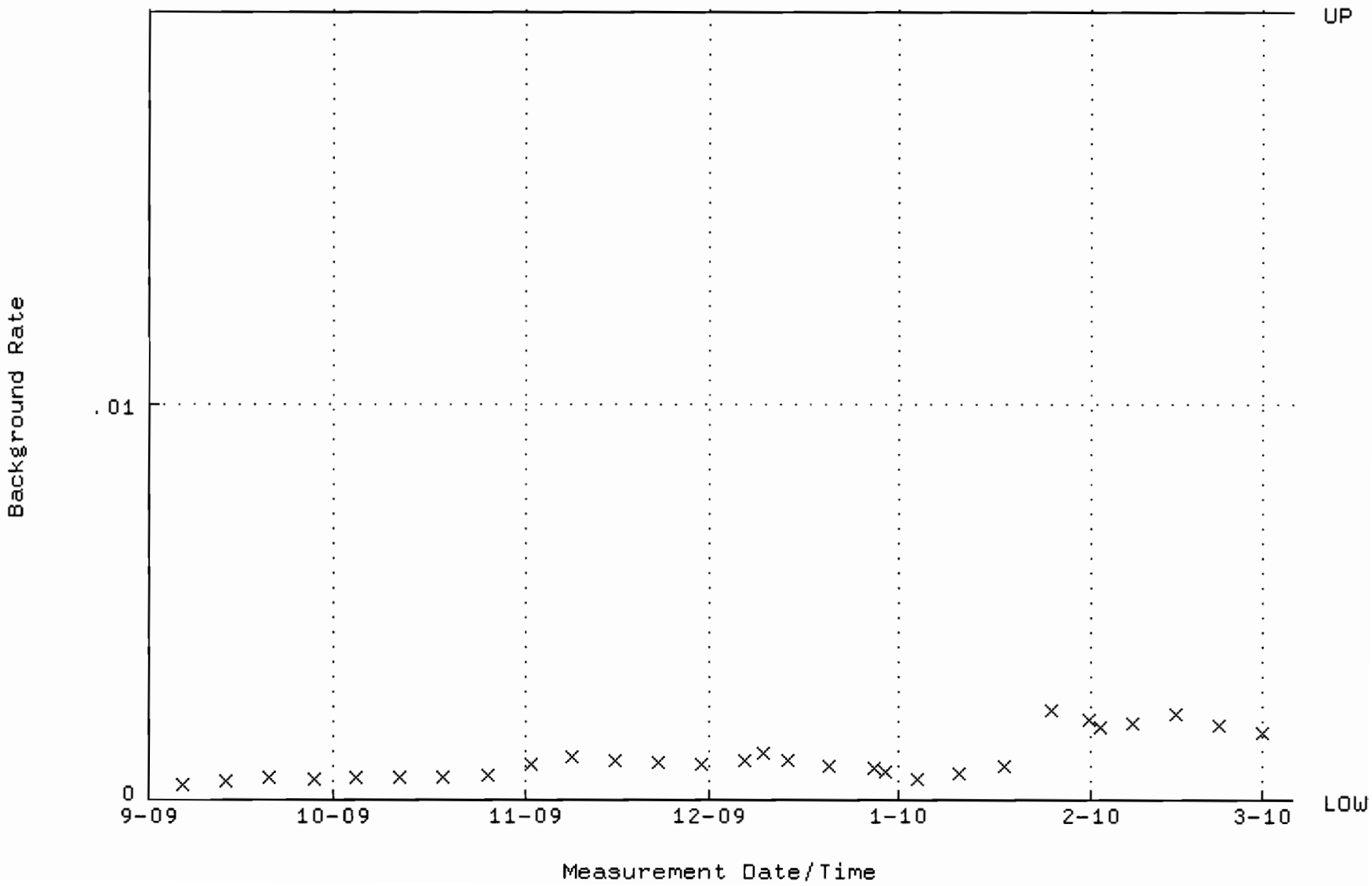

QA filename : DKA100:[ENV_ALPHA.QA.W]W022.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.305380 through 0.327376

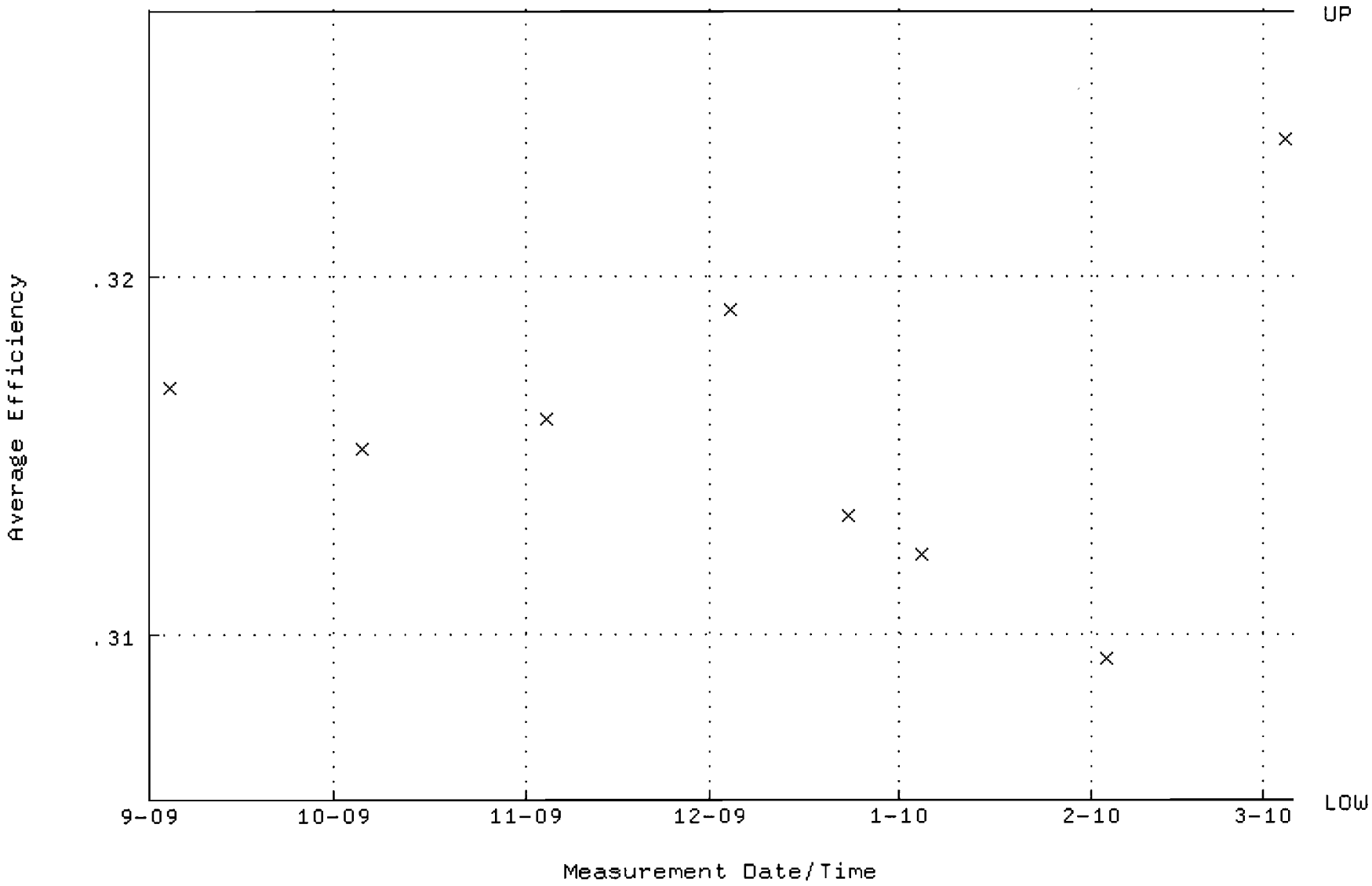

QA filename : DKA100:[ENV_ALPHA.QA.W]W022.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 89.9706 through 94.2088

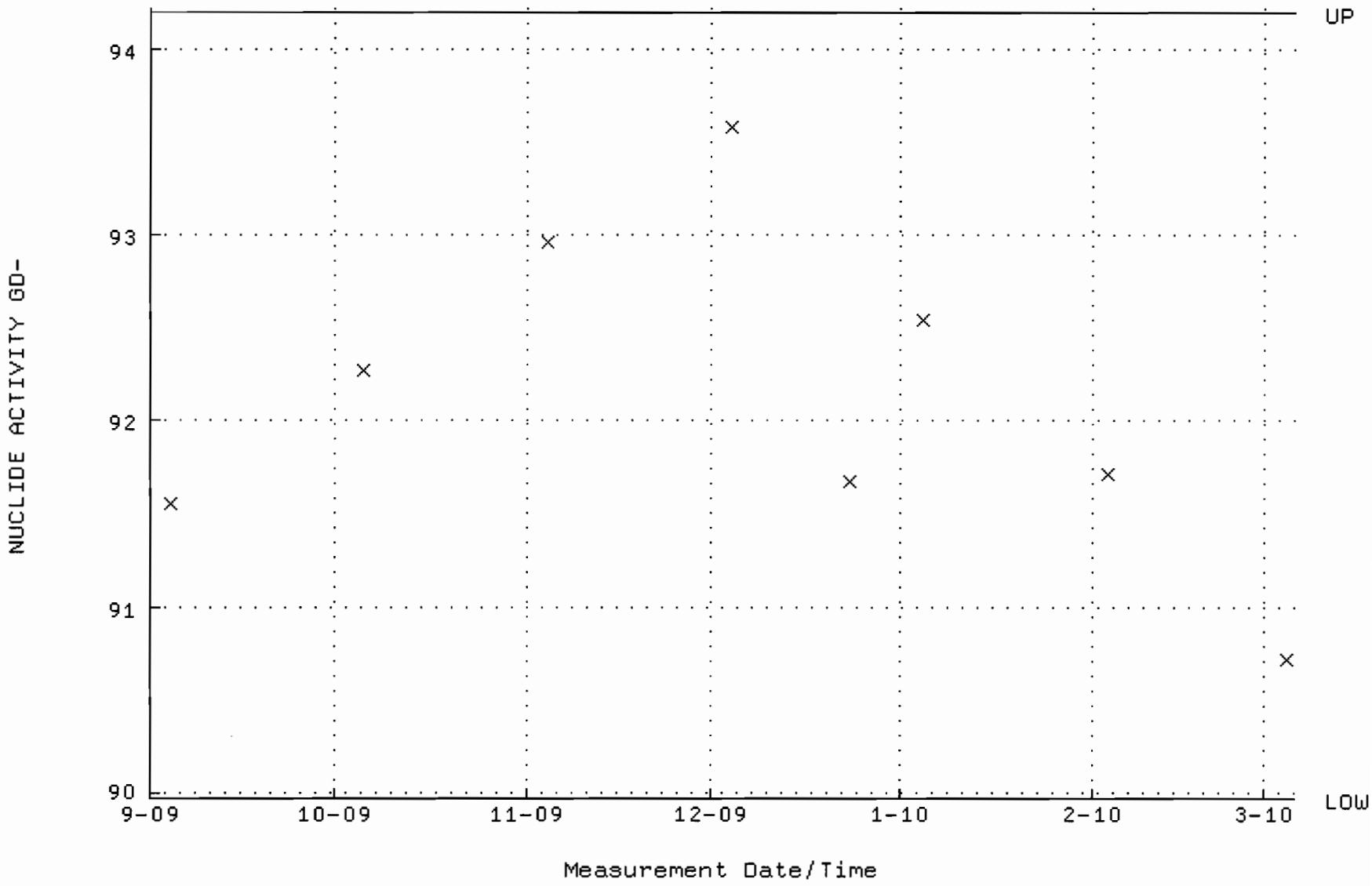

QA filename : DKA100:[ENV_ALPHA.QA.B]B022.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

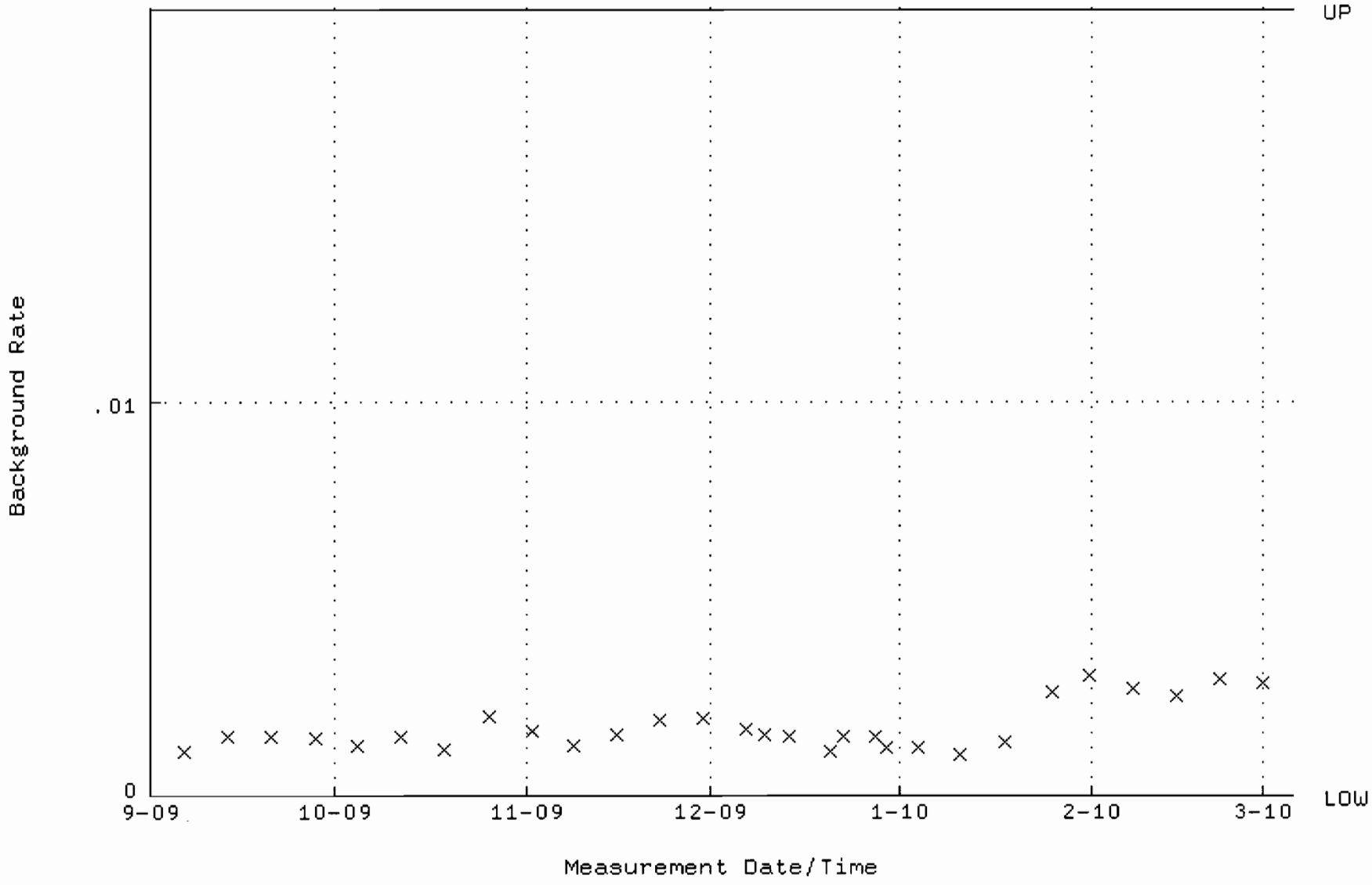

QA filename : DKA100:[ENV_ALPHA.QA.W]W023.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

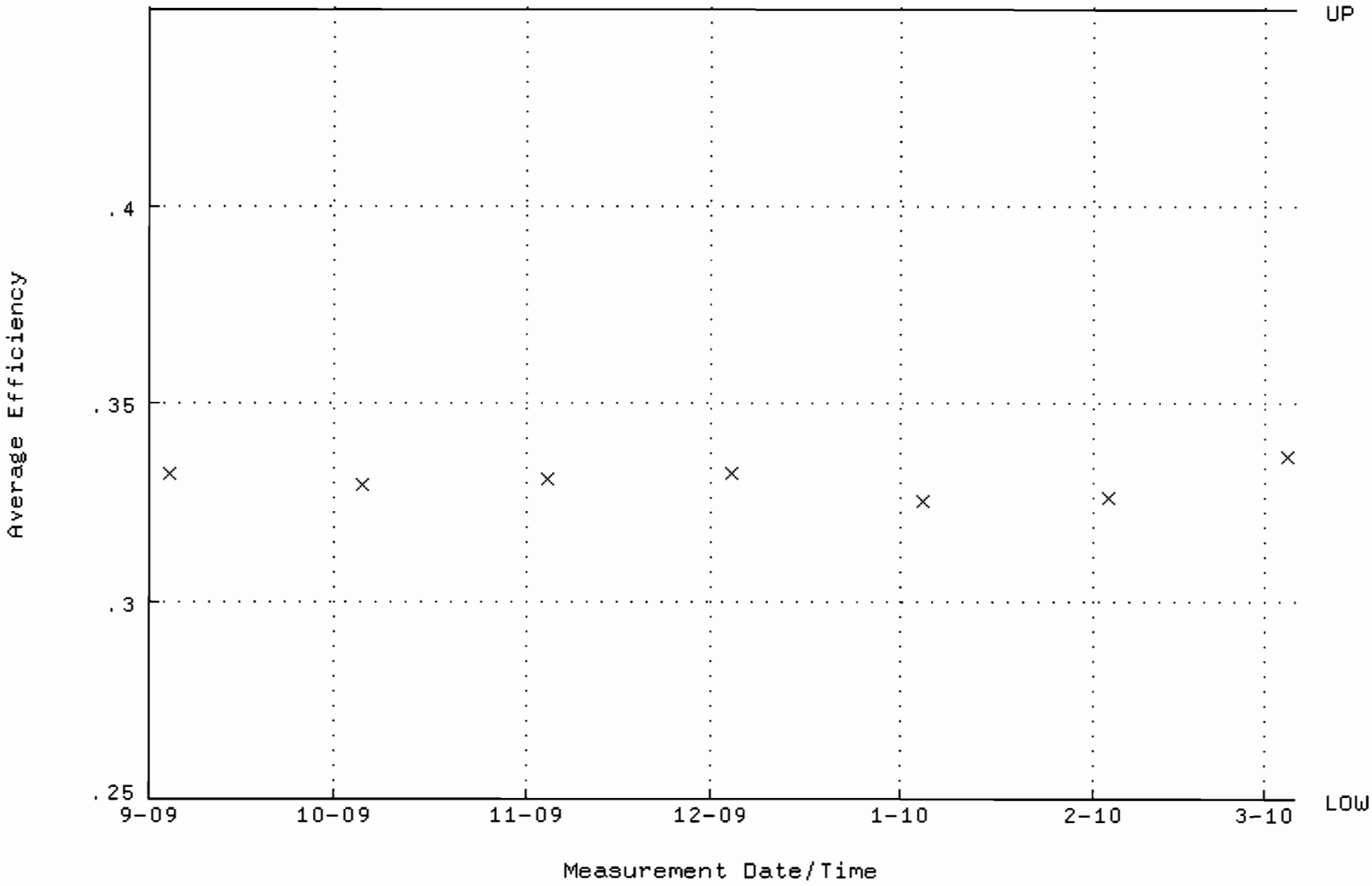

QA filename : DKA100:[ENV_ALPHA.QA.W]W023.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

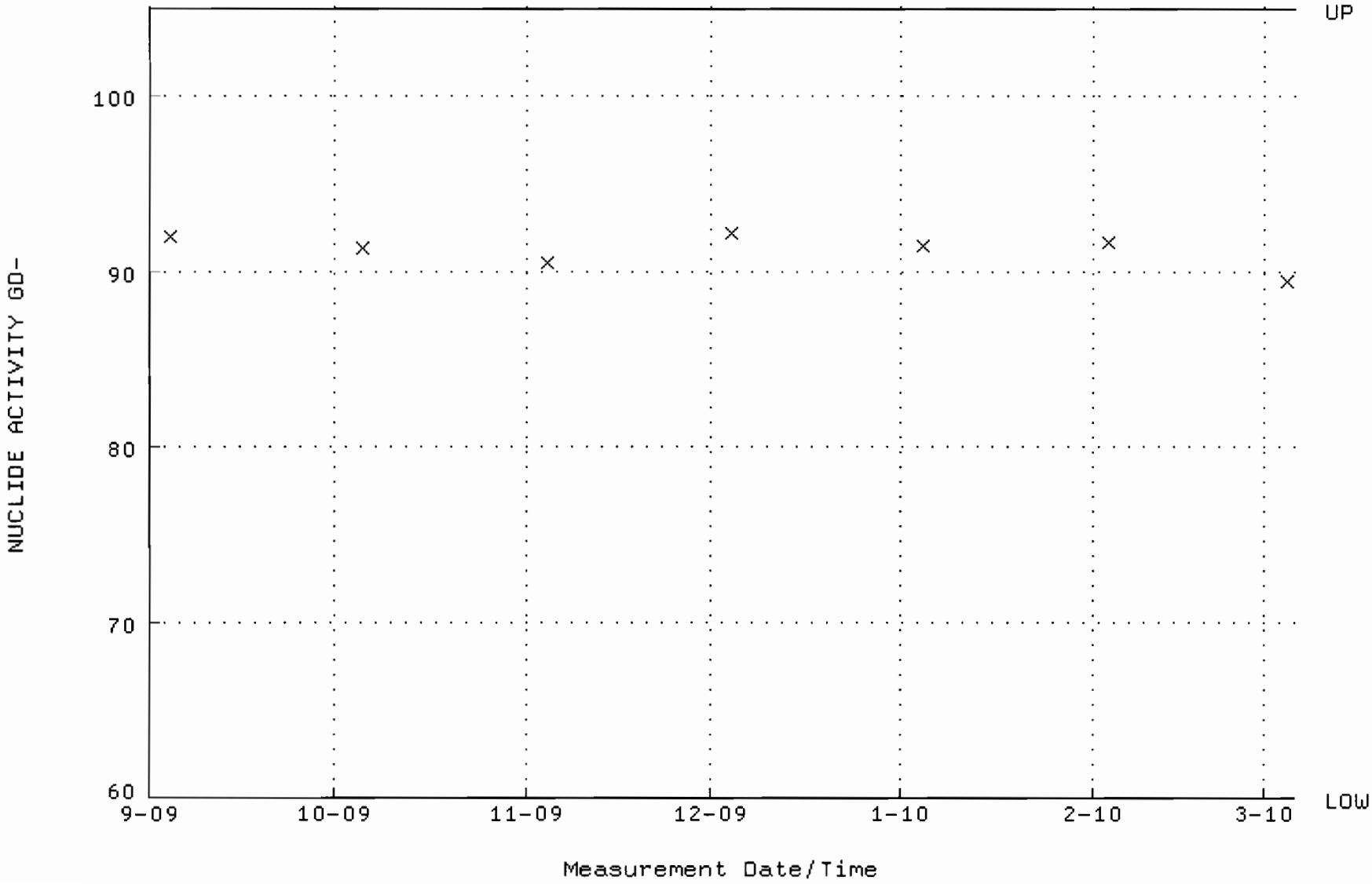

QA filename : DKA100:[ENV_ALPHA.QA.B]B023.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

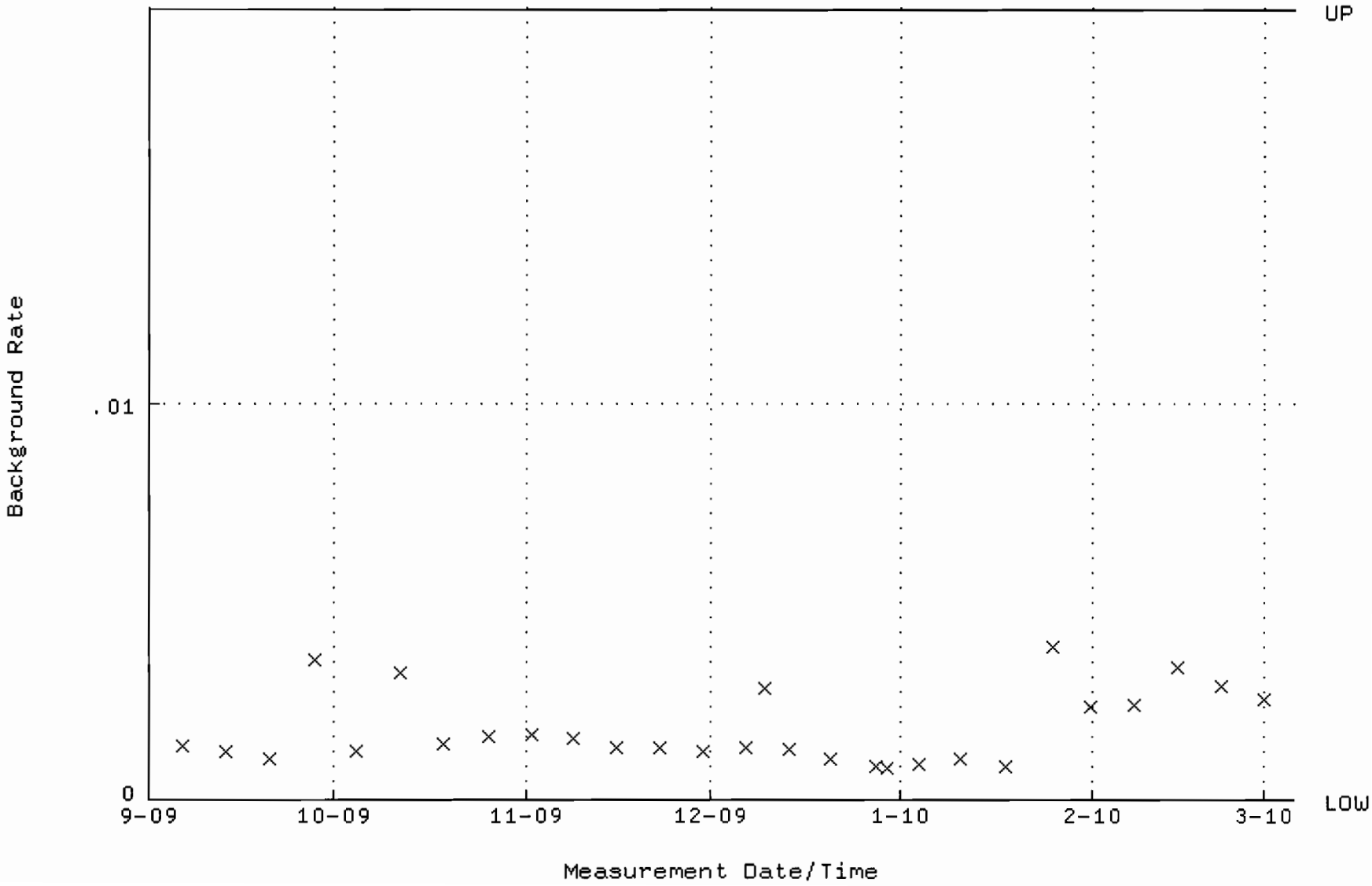

QA filename : DKA100:[ENV_ALPHA.QA.W]W024.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.314917 through 0.353325

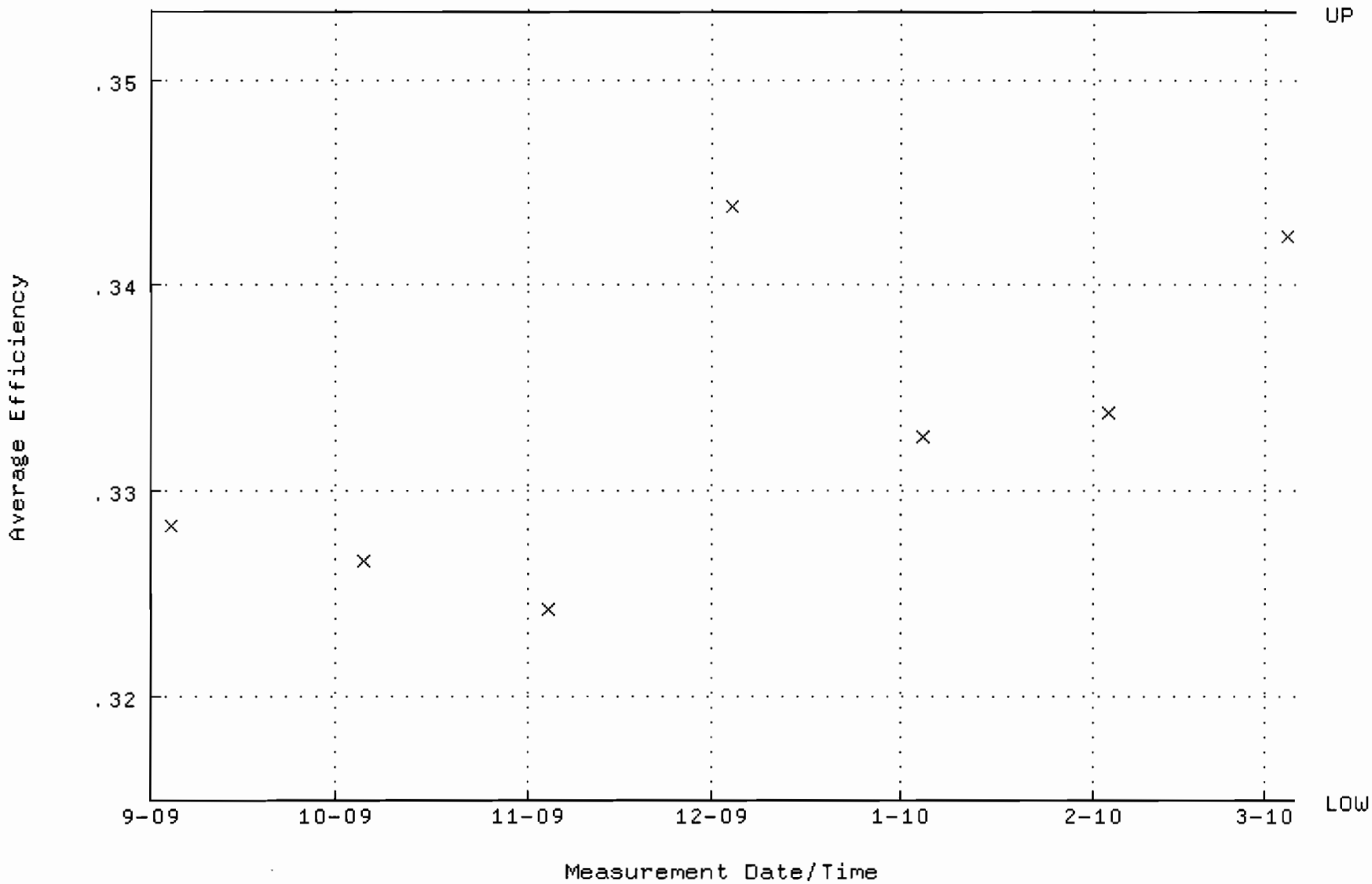

QA filename : DKA100:[ENV_ALPHA.QA.W]W024.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 85.3858 through 93.1784

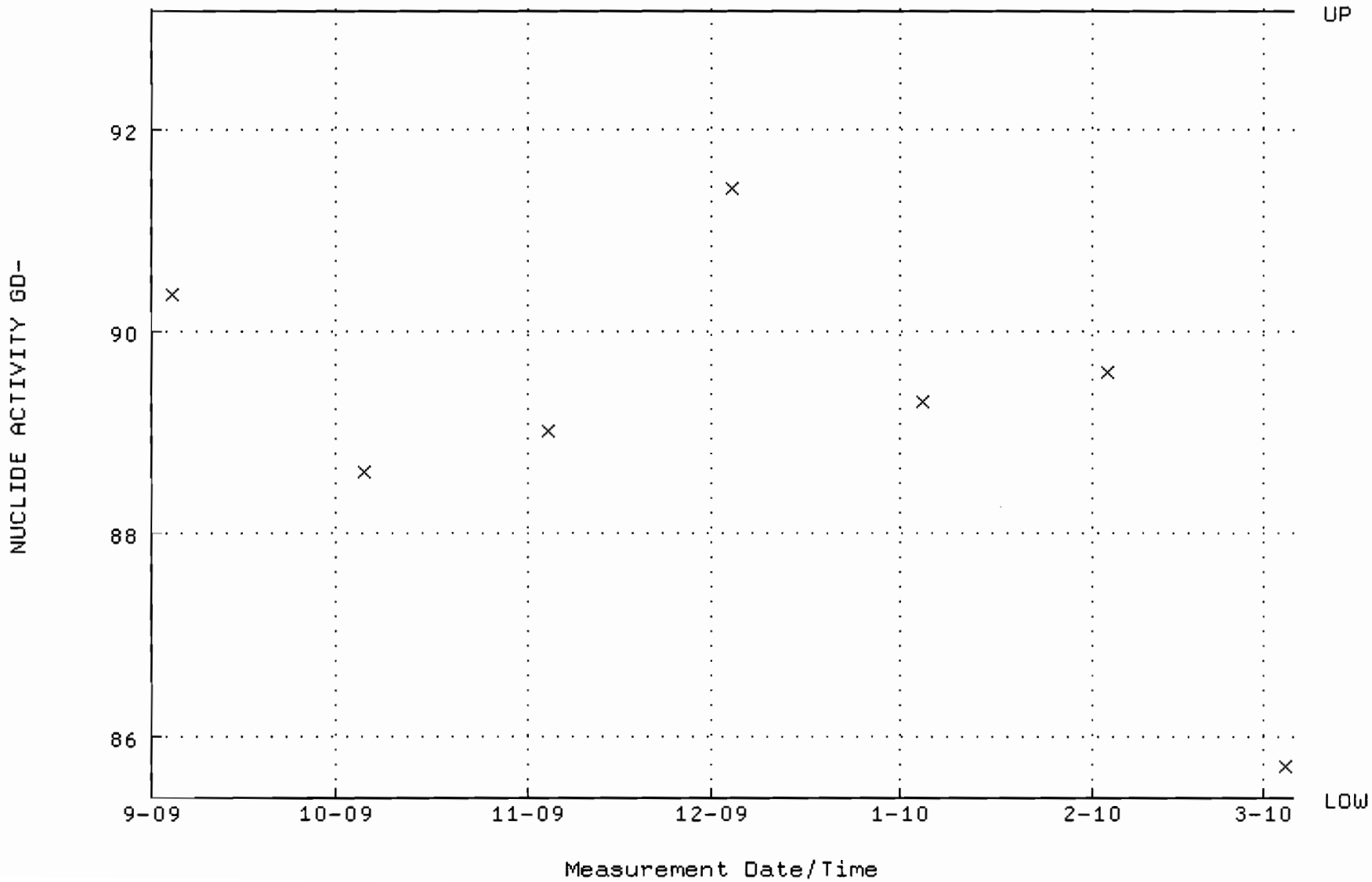

QA filename : DKA100:[ENV_ALPHA.QA.B]B024.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

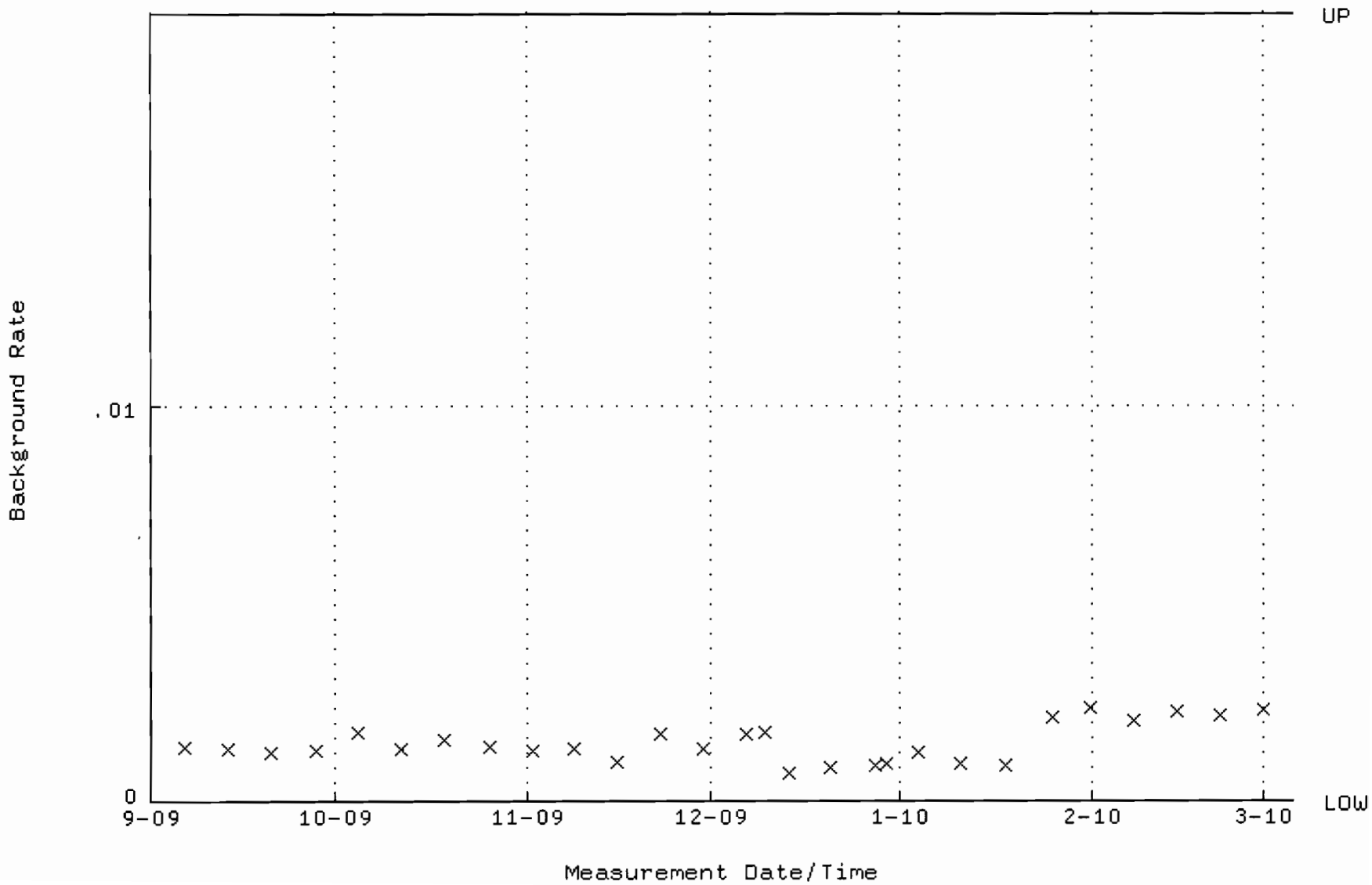

QA filename : DKA100:[ENV_ALPHA.QA.W]W025.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

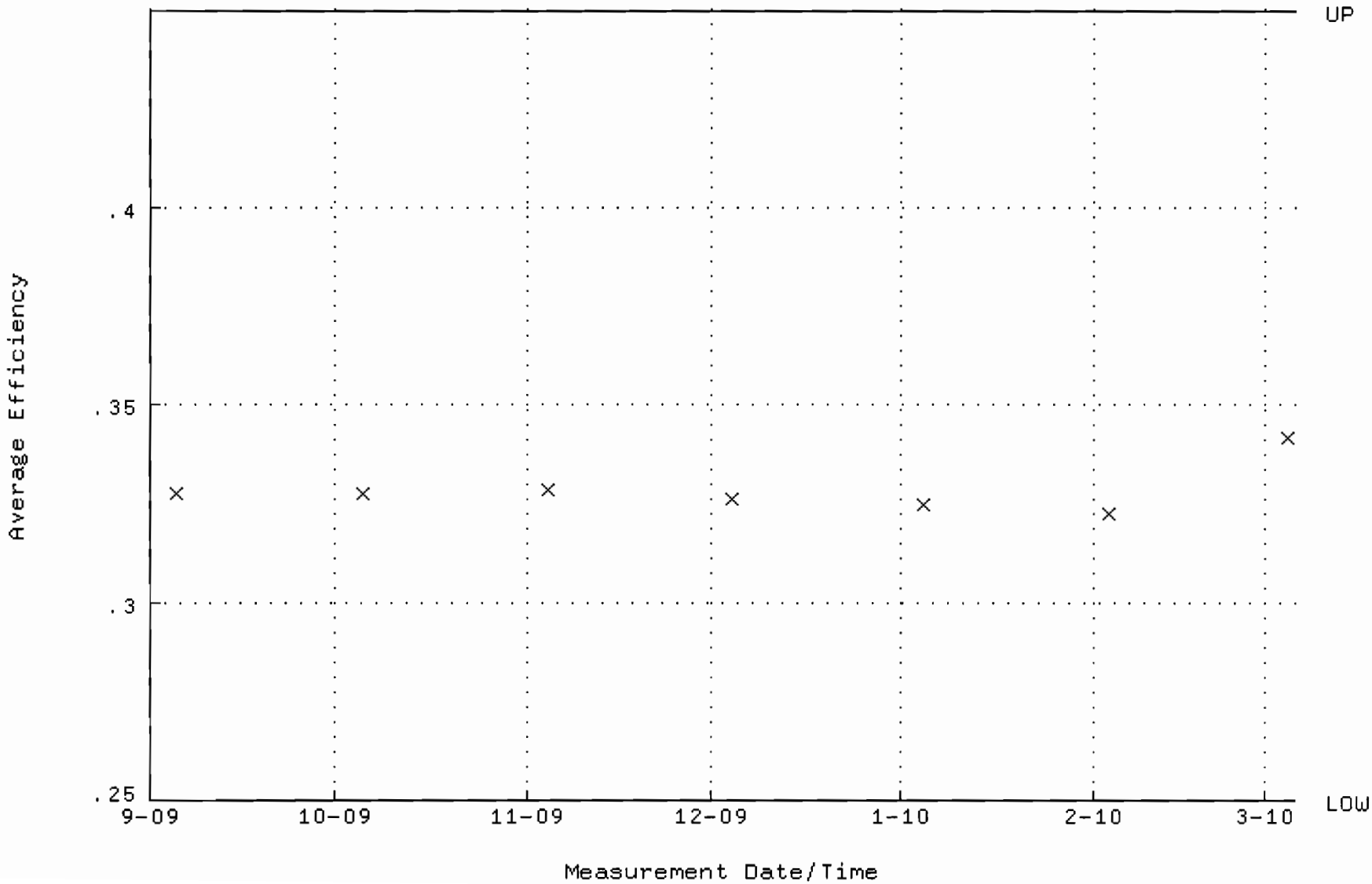

QA filename : DKA100:[ENV_ALPHA.QA.W]W025.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

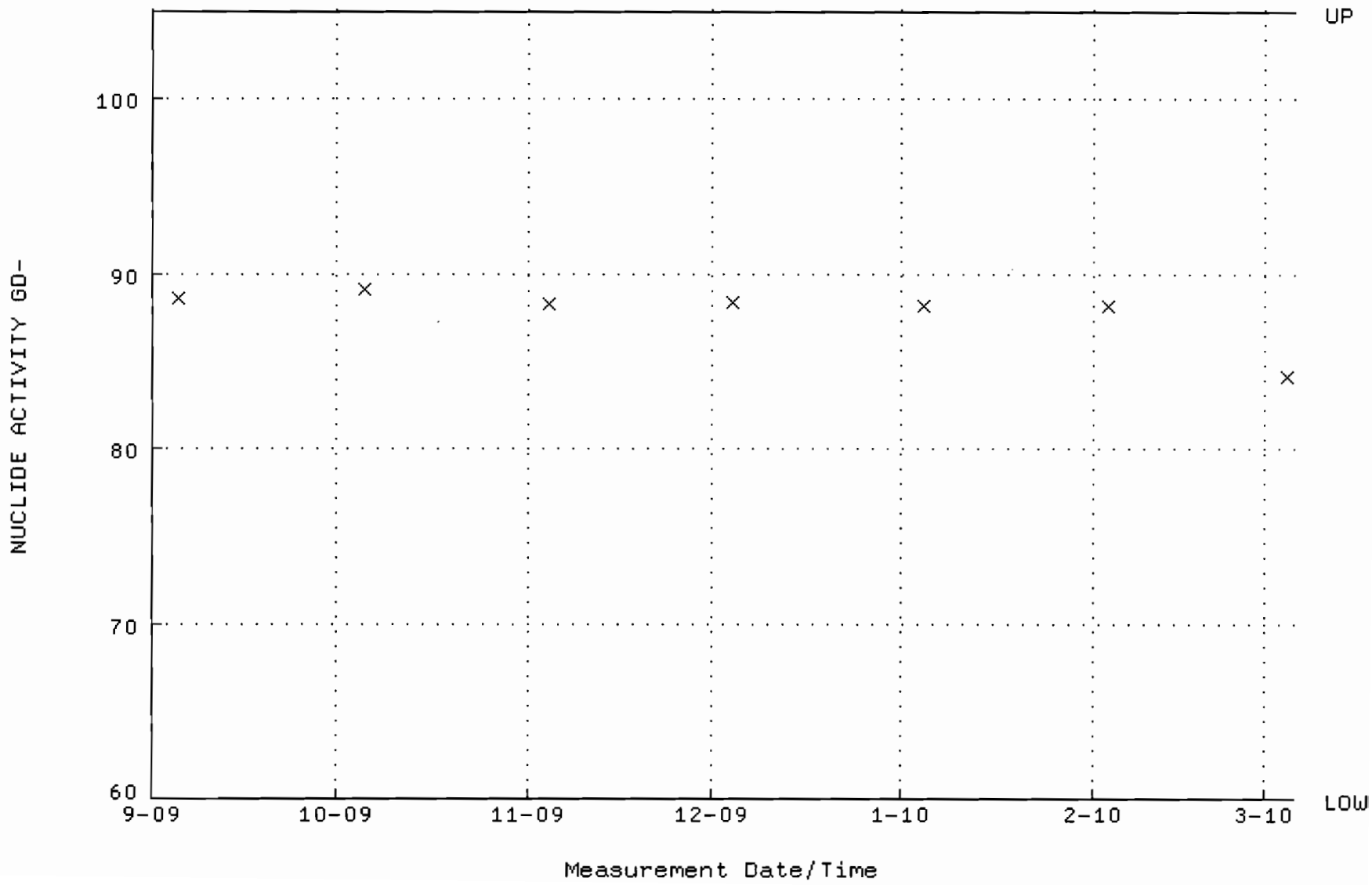

QA filename : DKA100:[ENV_ALPHA.QA.B]B025.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

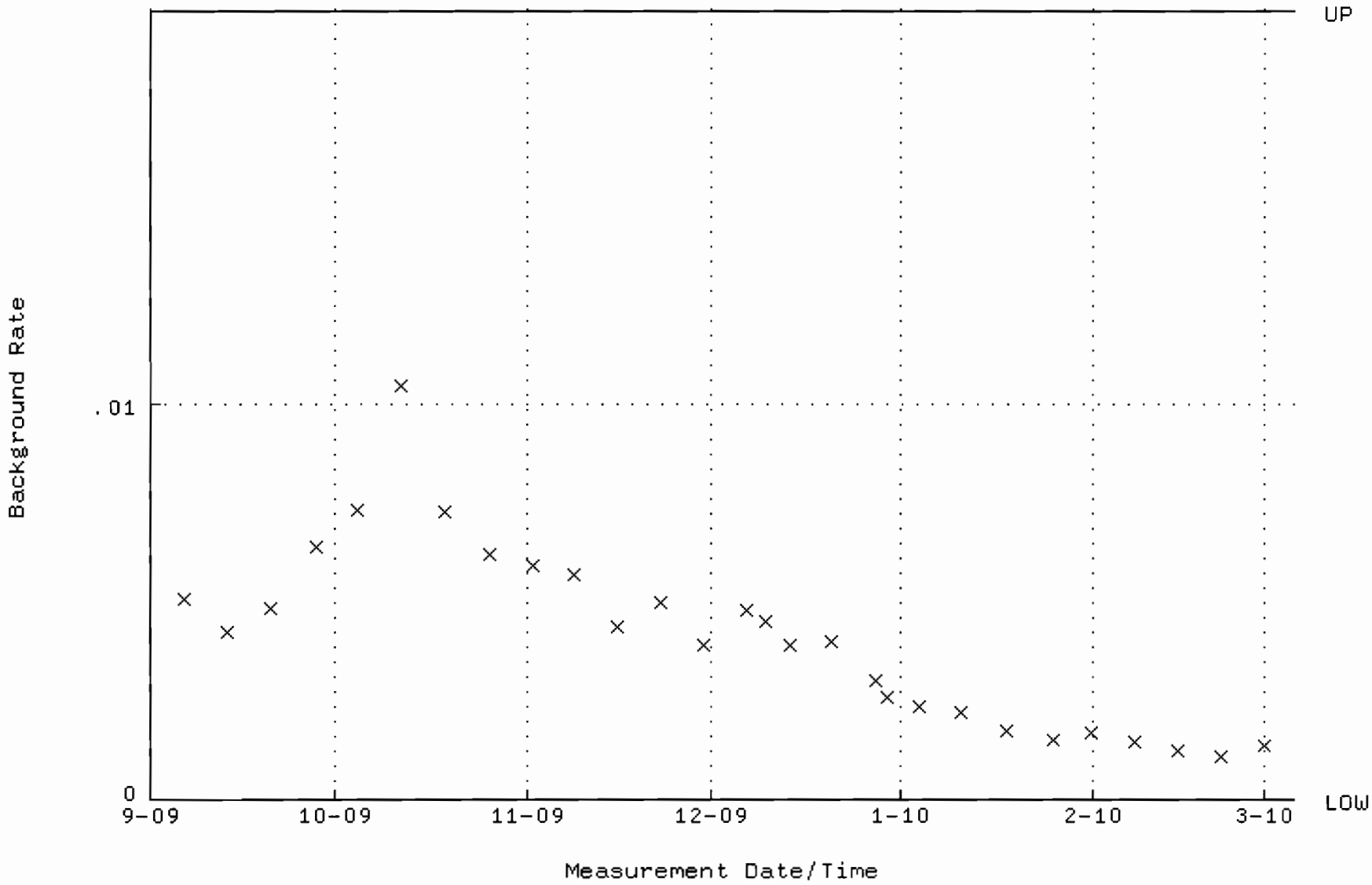

QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.295501 through 0.342091

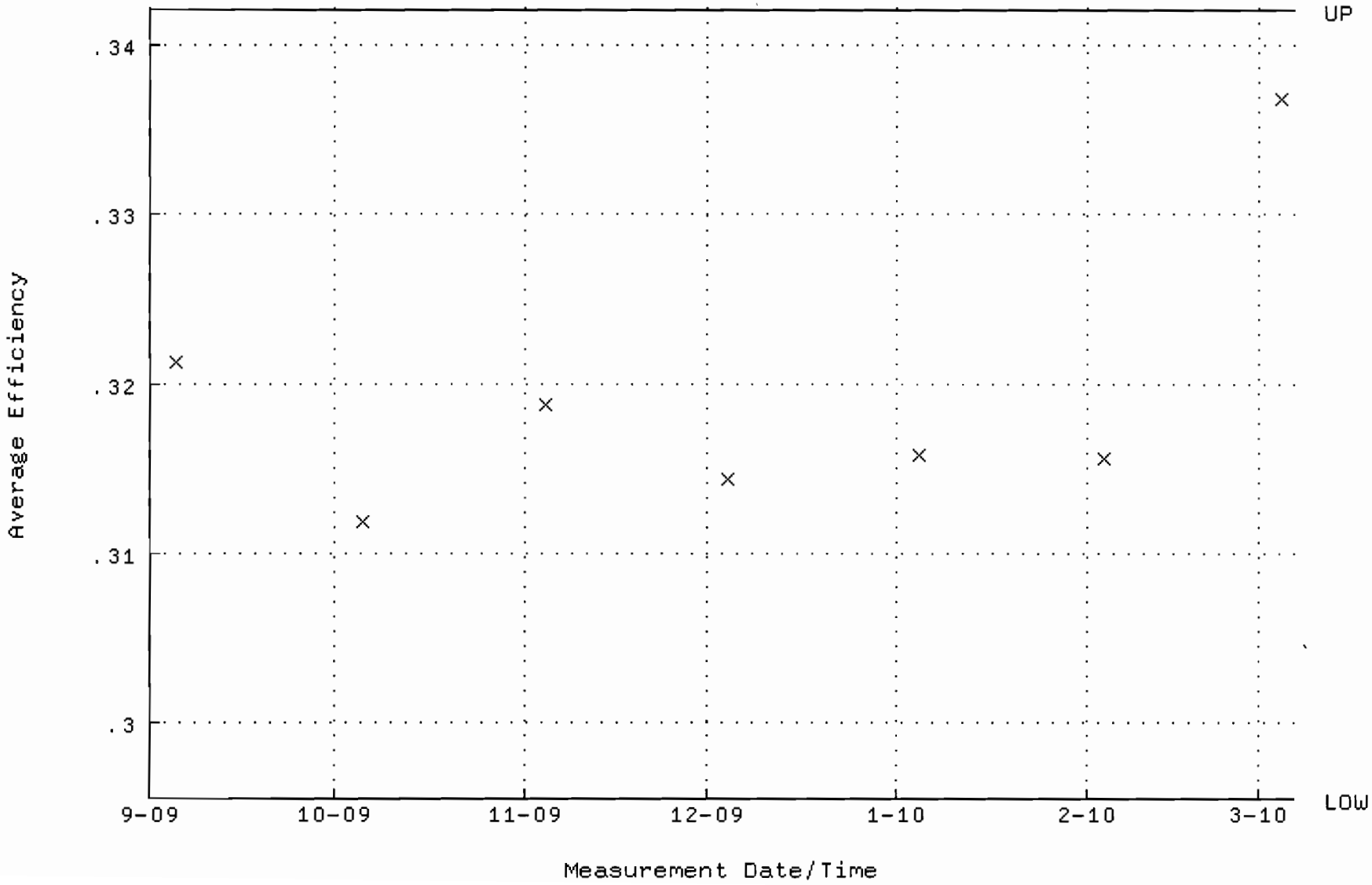

QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 87.7241 through 91.4271

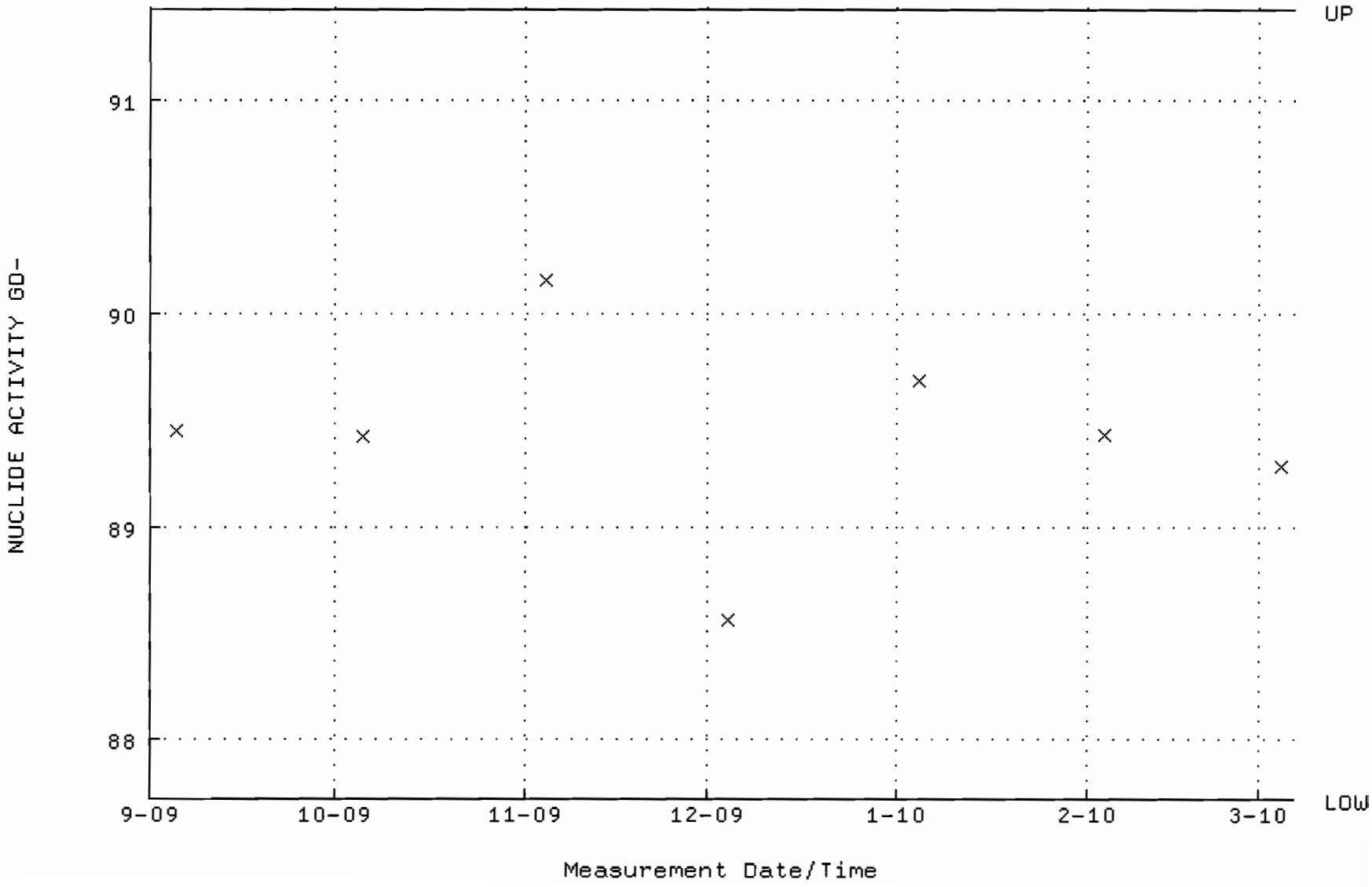

QA filename : DKA100:[ENV_ALPHA.QA.B]B026.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

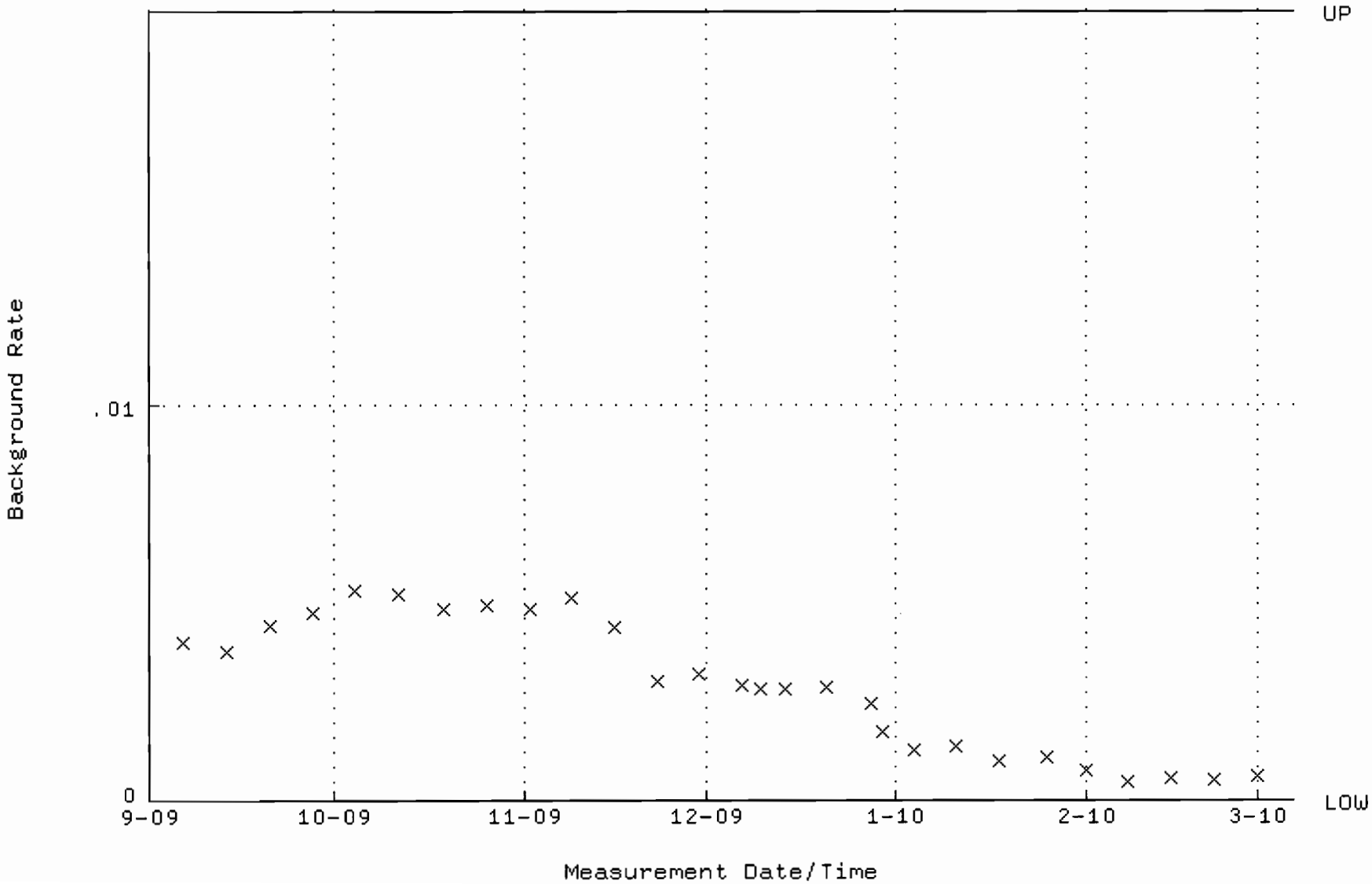

QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.324980 through 0.344980

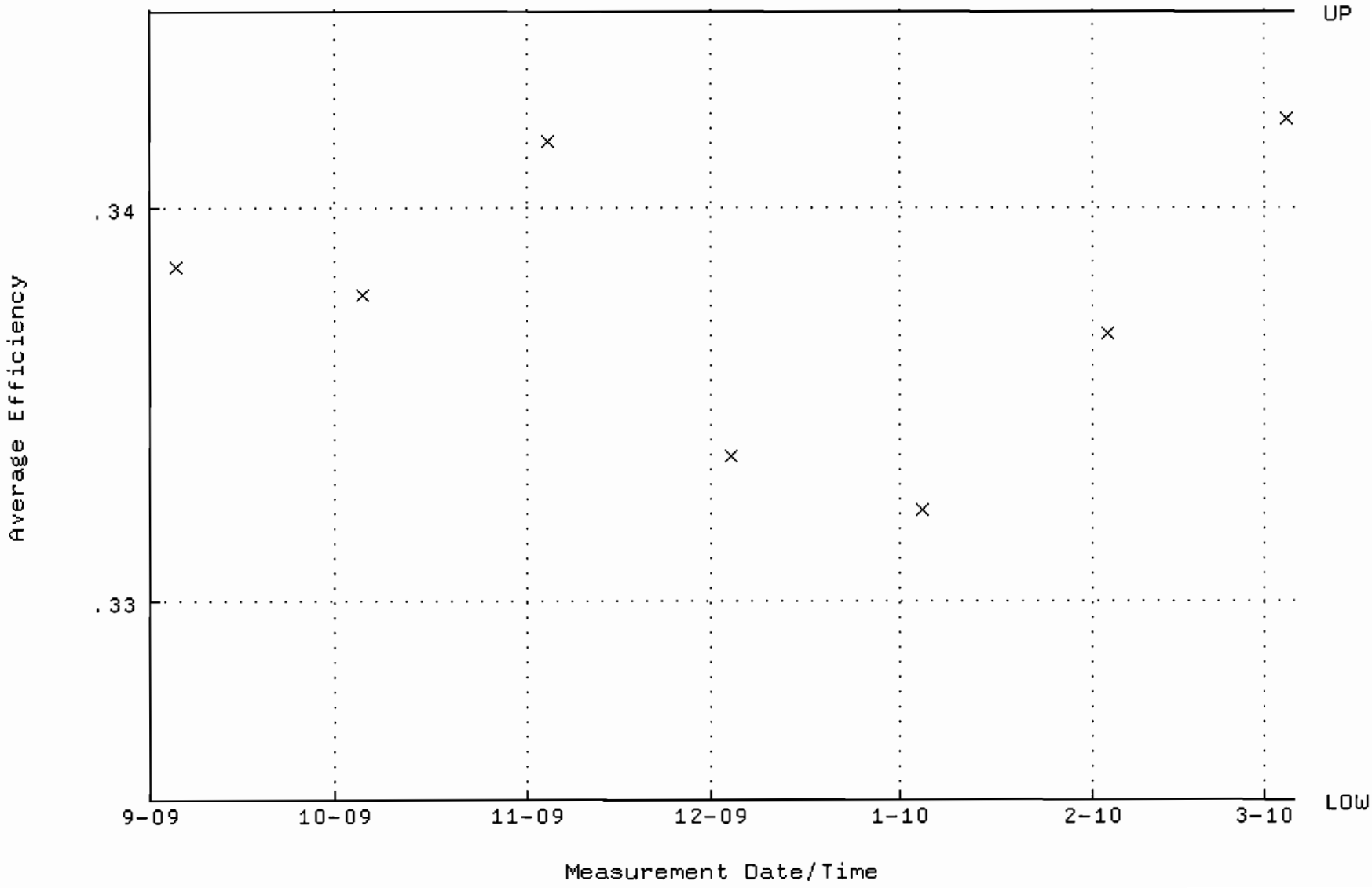

QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 81.2030 through 89.7506

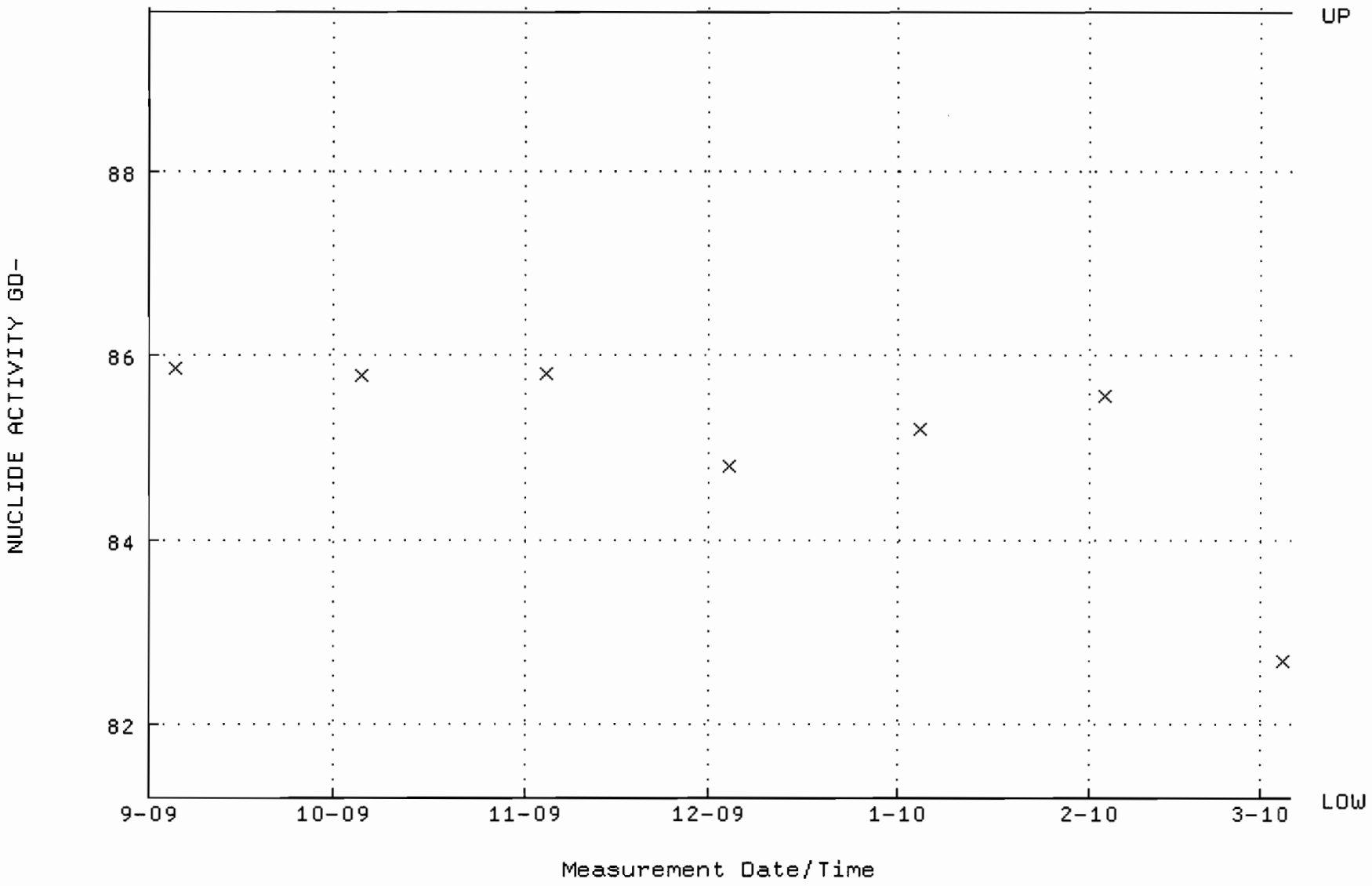

QA filename : DKA100:[ENV_ALPHA.QA.B]B027.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

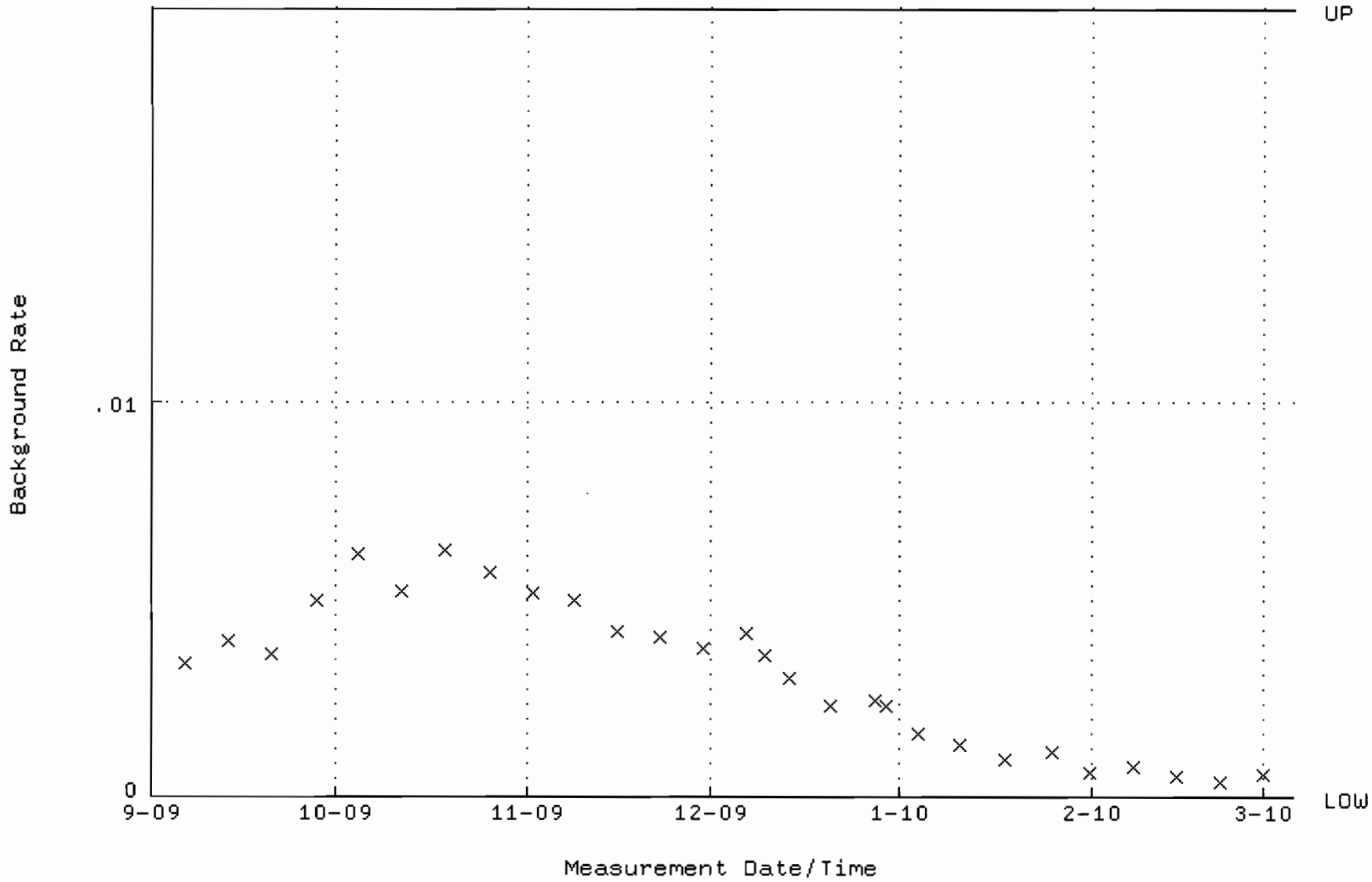

QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.294270 through 0.317026

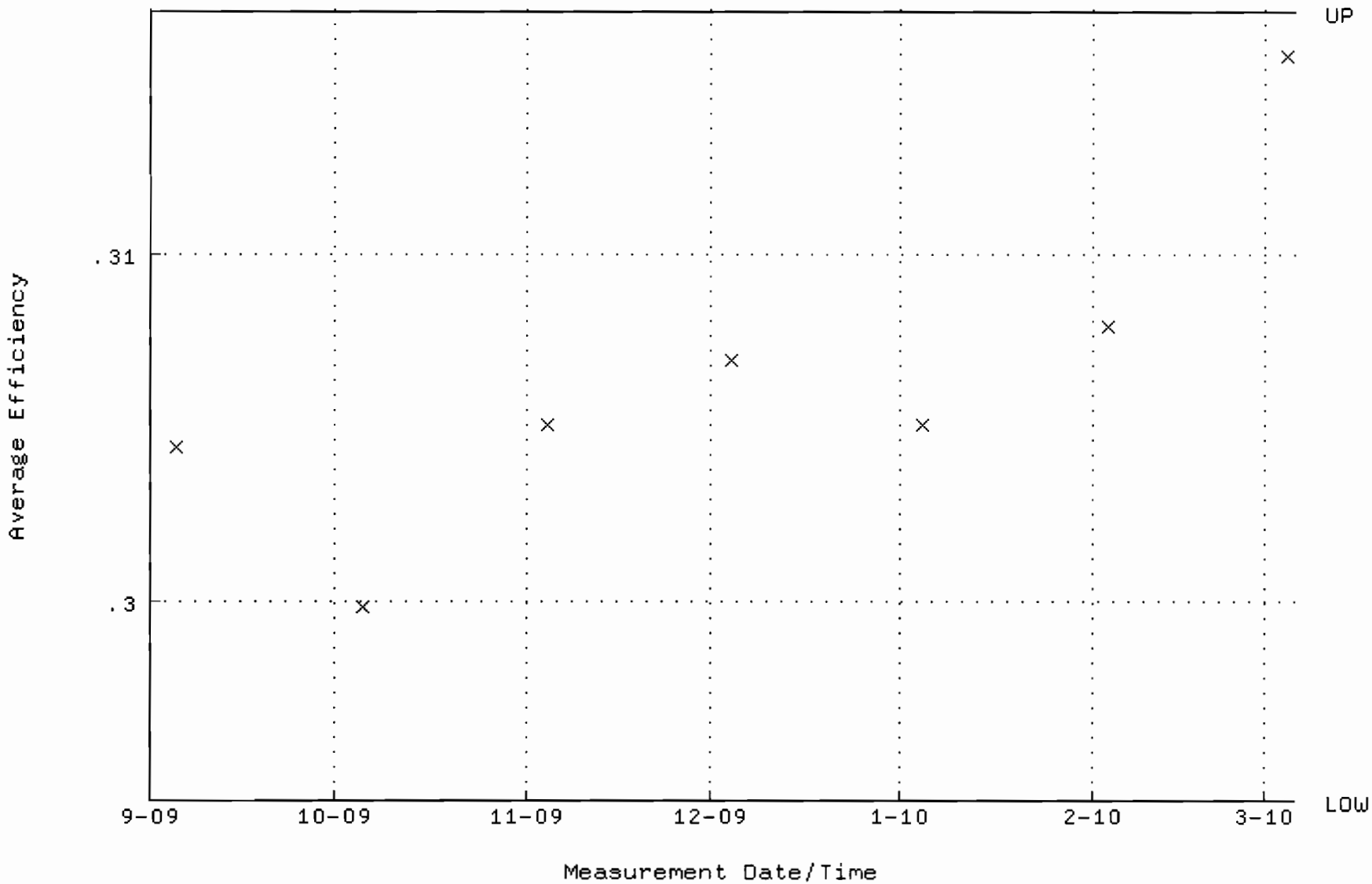

QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 86.3036 through 92.4168

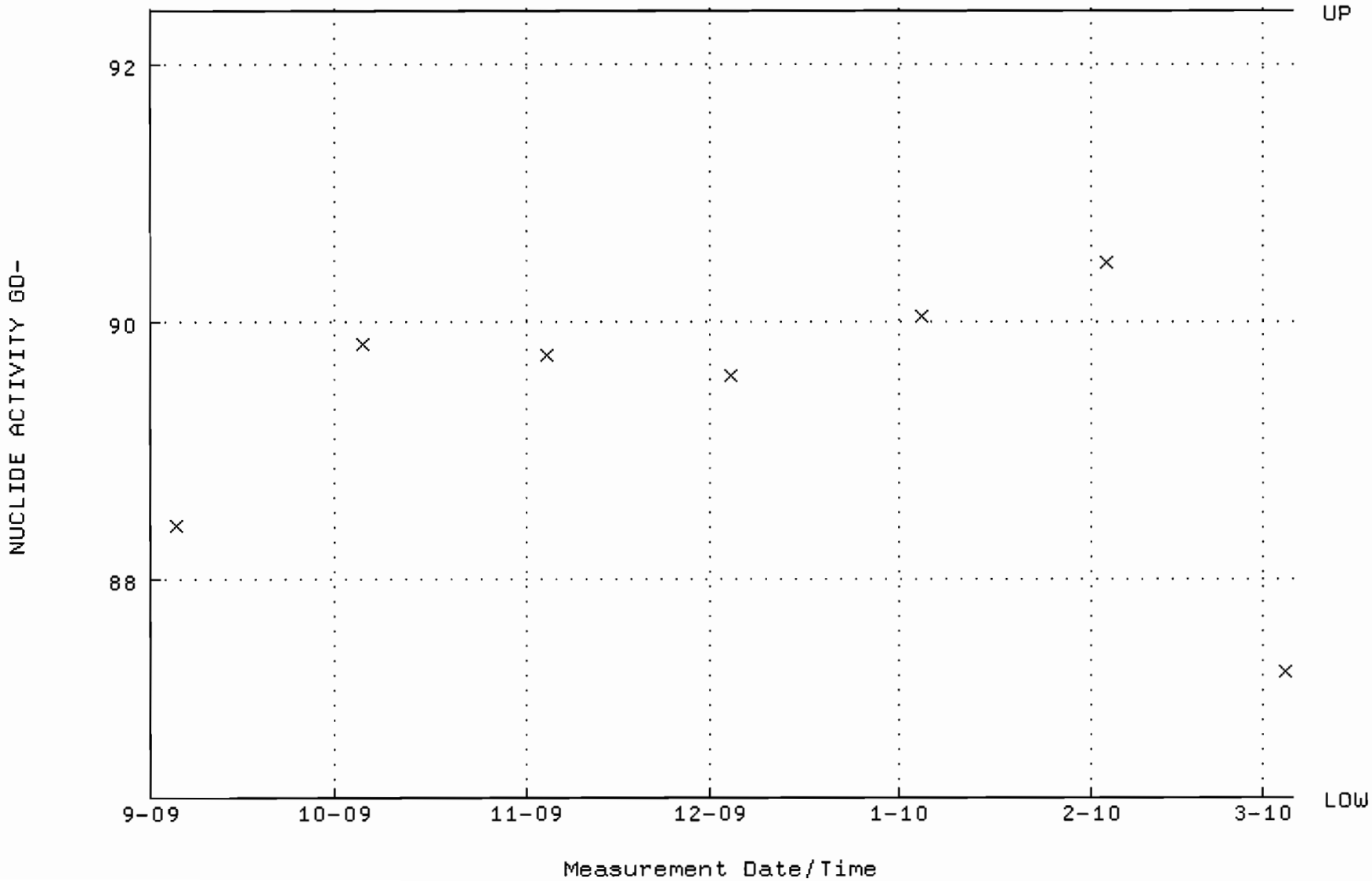

QA filename : DKA100:[ENV_ALPHA.QA.B]B028.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

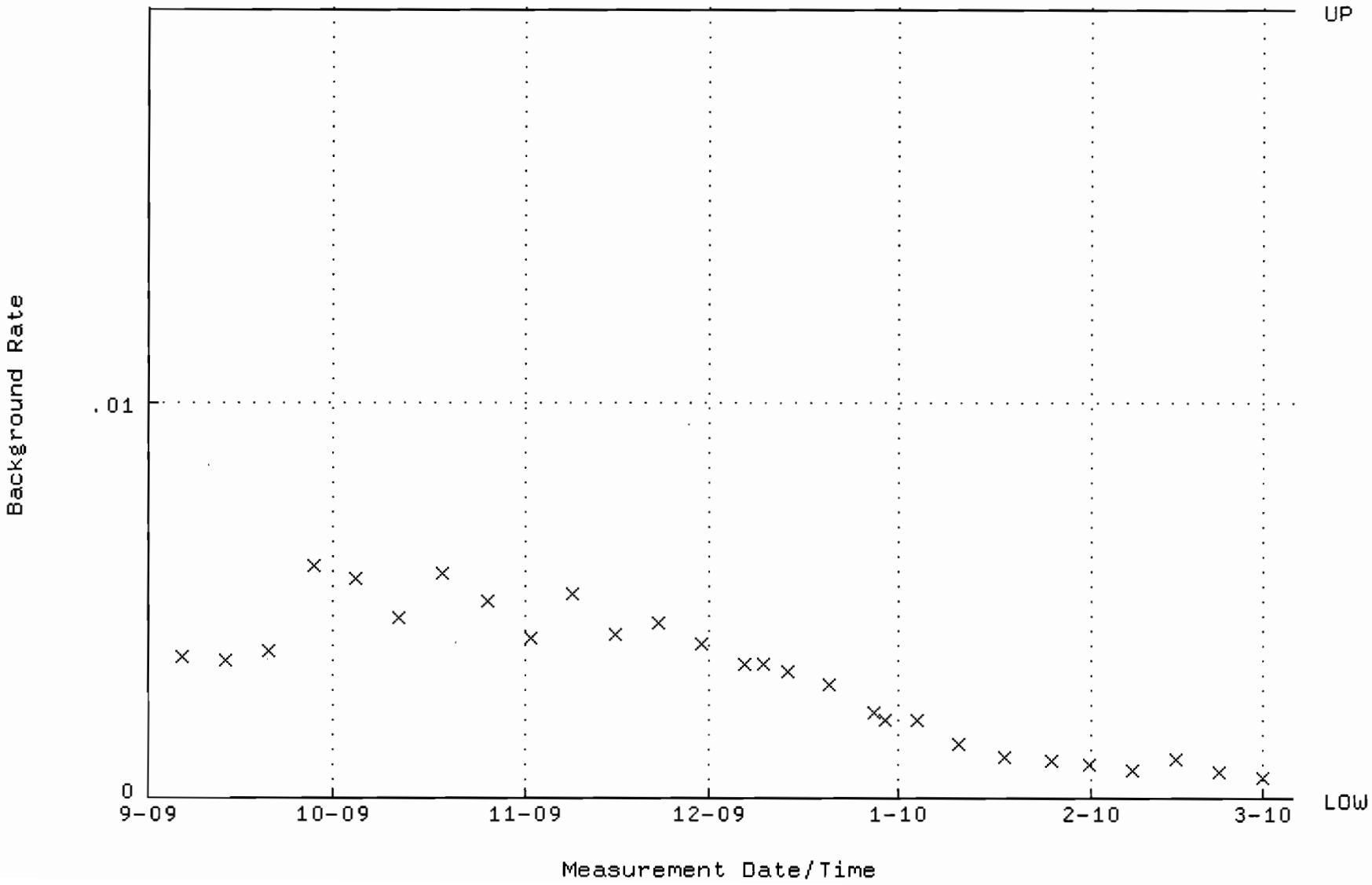

QA filename : DKA100:[ENV_ALPHA.QA.W]W030.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

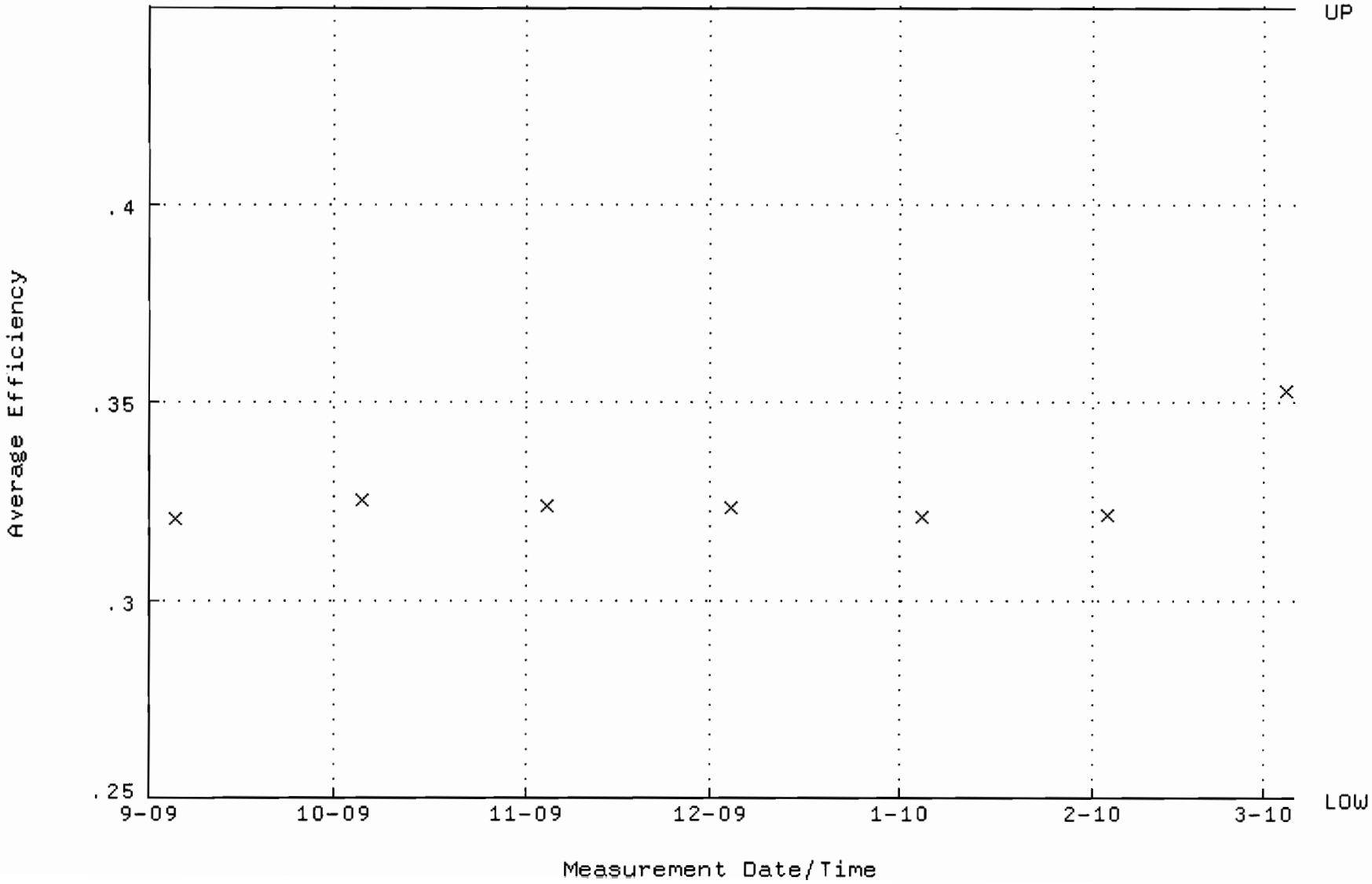

QA filename : DKA100:[ENV_ALPHA.QA.W]W030.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

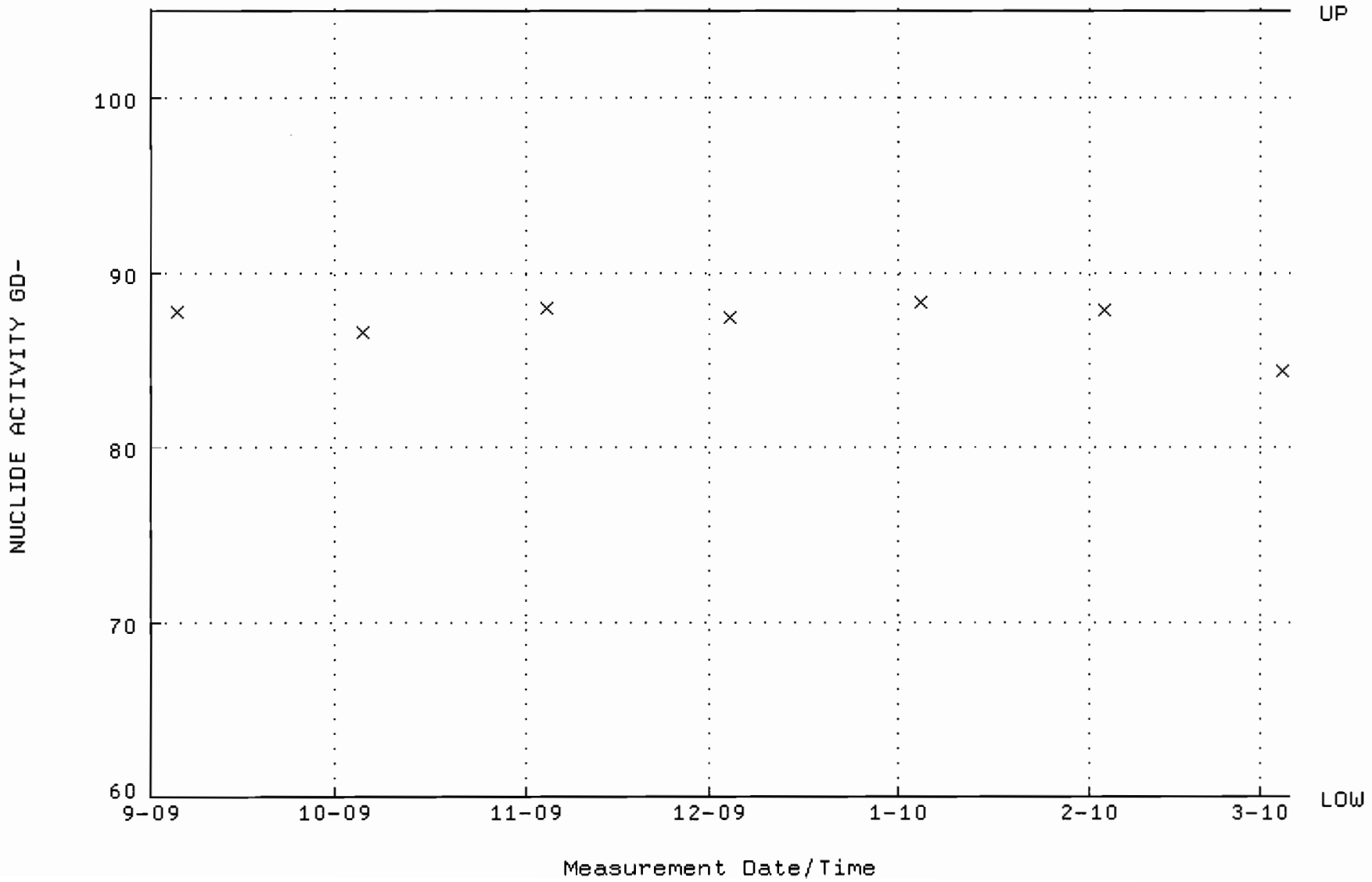

QA filename : DKA100:[ENV_ALPHA.QA.B]B030.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

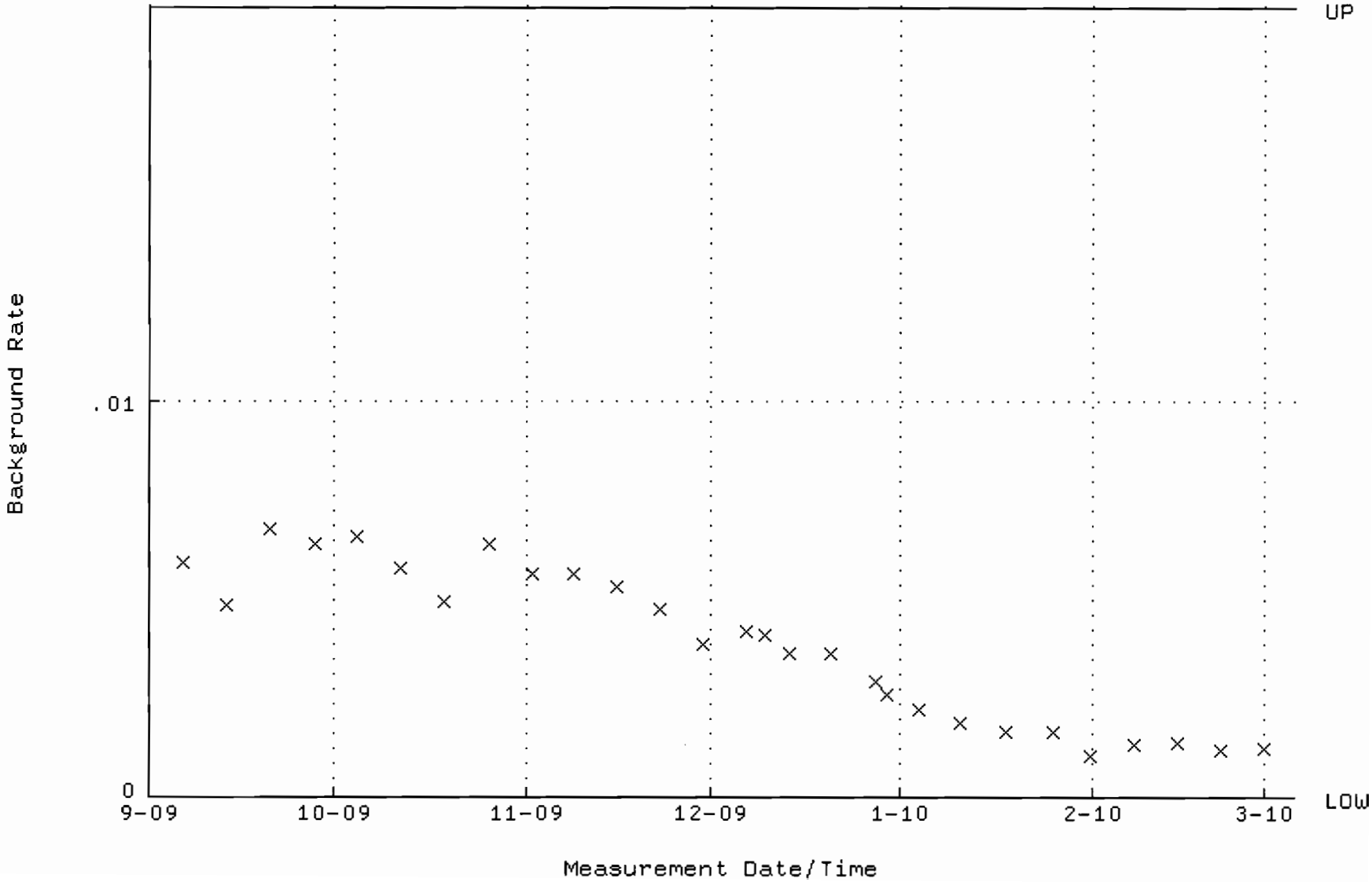

QA filename : DKA100:[ENV_ALPHA.QA.W]W088.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.284264 through 0.317864

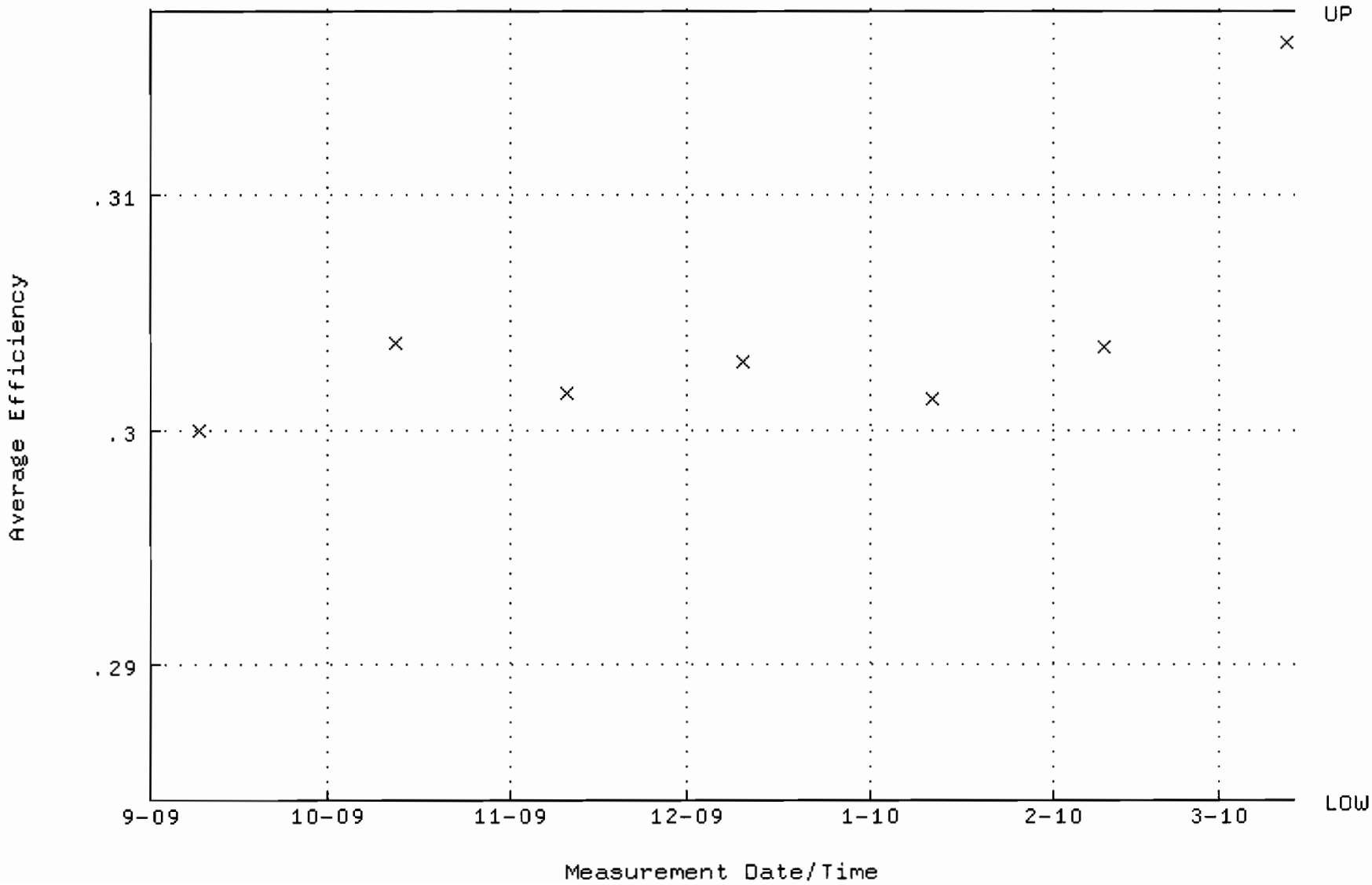

QA filename : DKA100:[ENV_ALPHA.QA.W]W088.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 80.4493 through 103.037

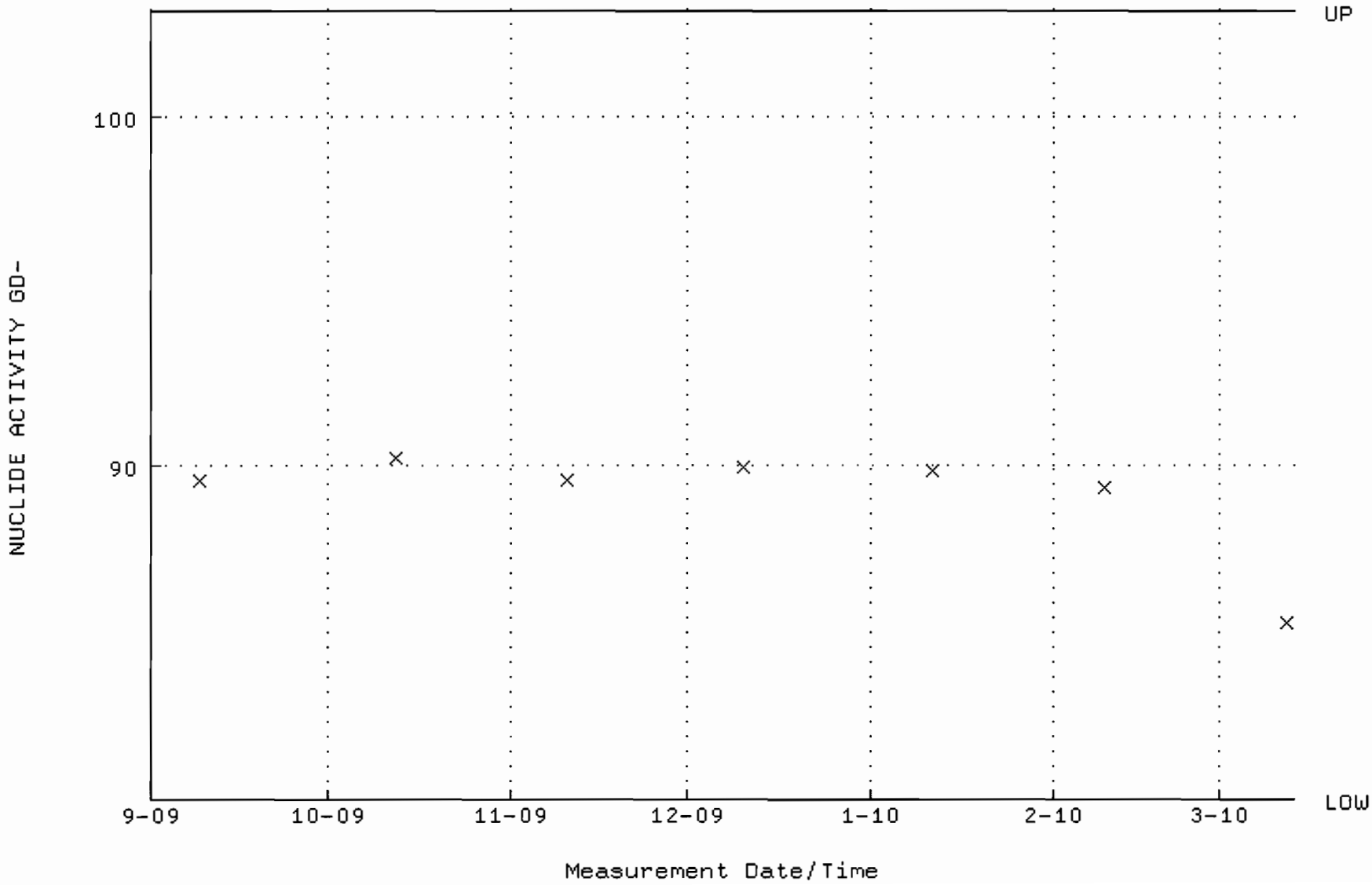

QA filename : DKA100:[ENV_ALPHA.QA.B]B088.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:09 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

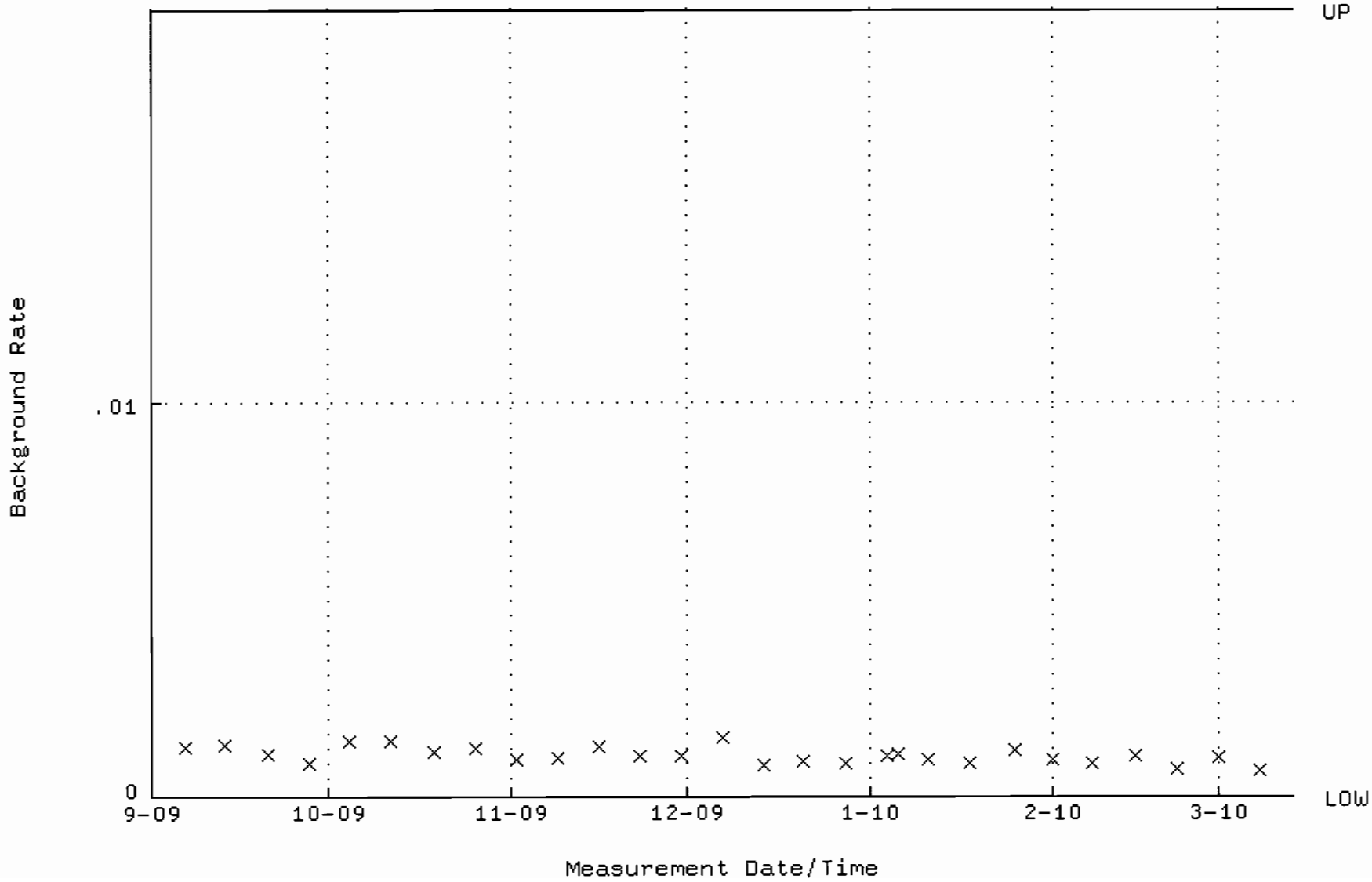

QA filename : DKA100:[ENV_ALPHA.QA.W]W115.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:22:48 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250292 through 0.266228

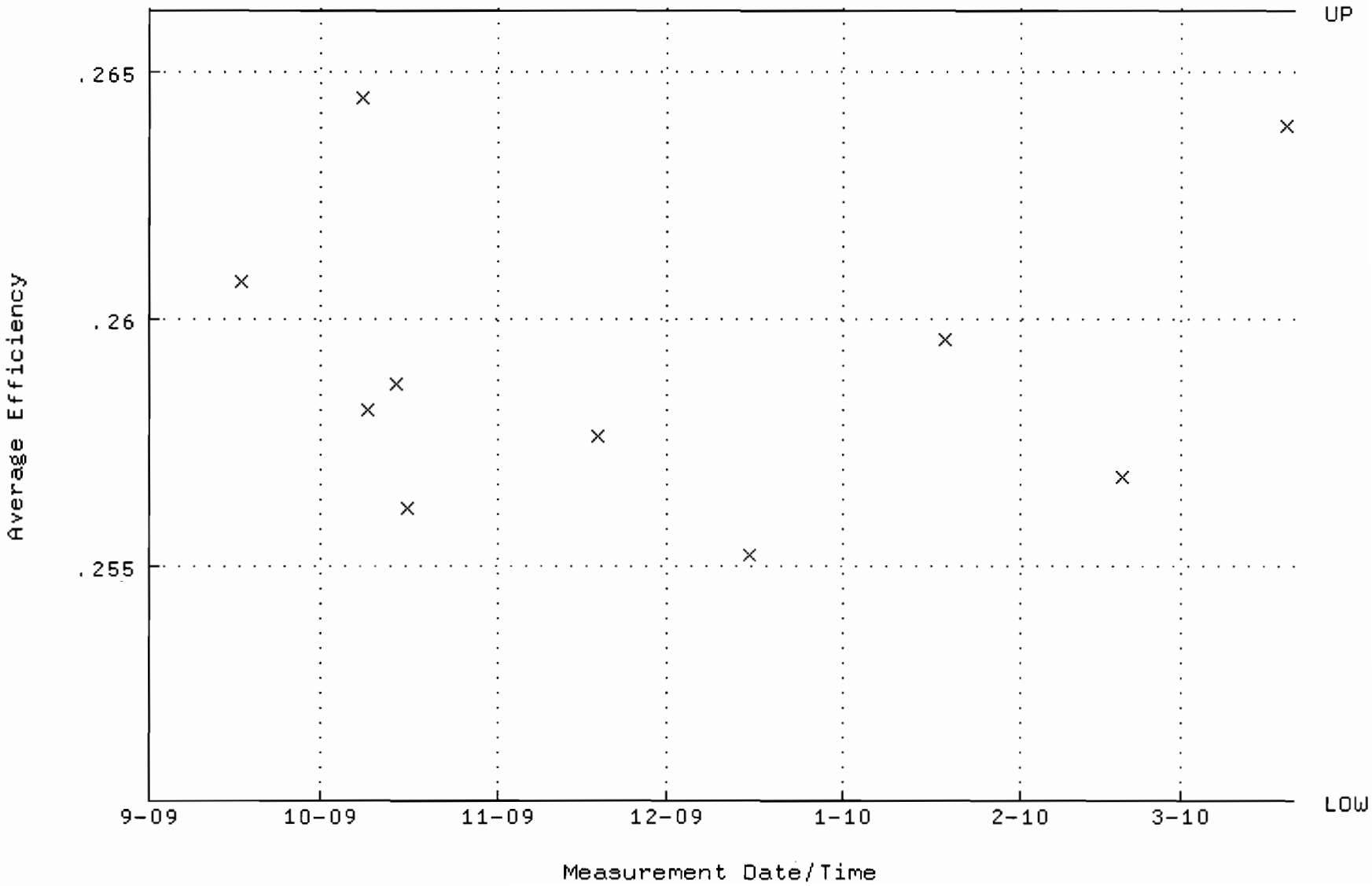

QA filename : DKA100:[ENV_ALPHA.QA.W]W115.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:22:48 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 86.5408 through 93.1306

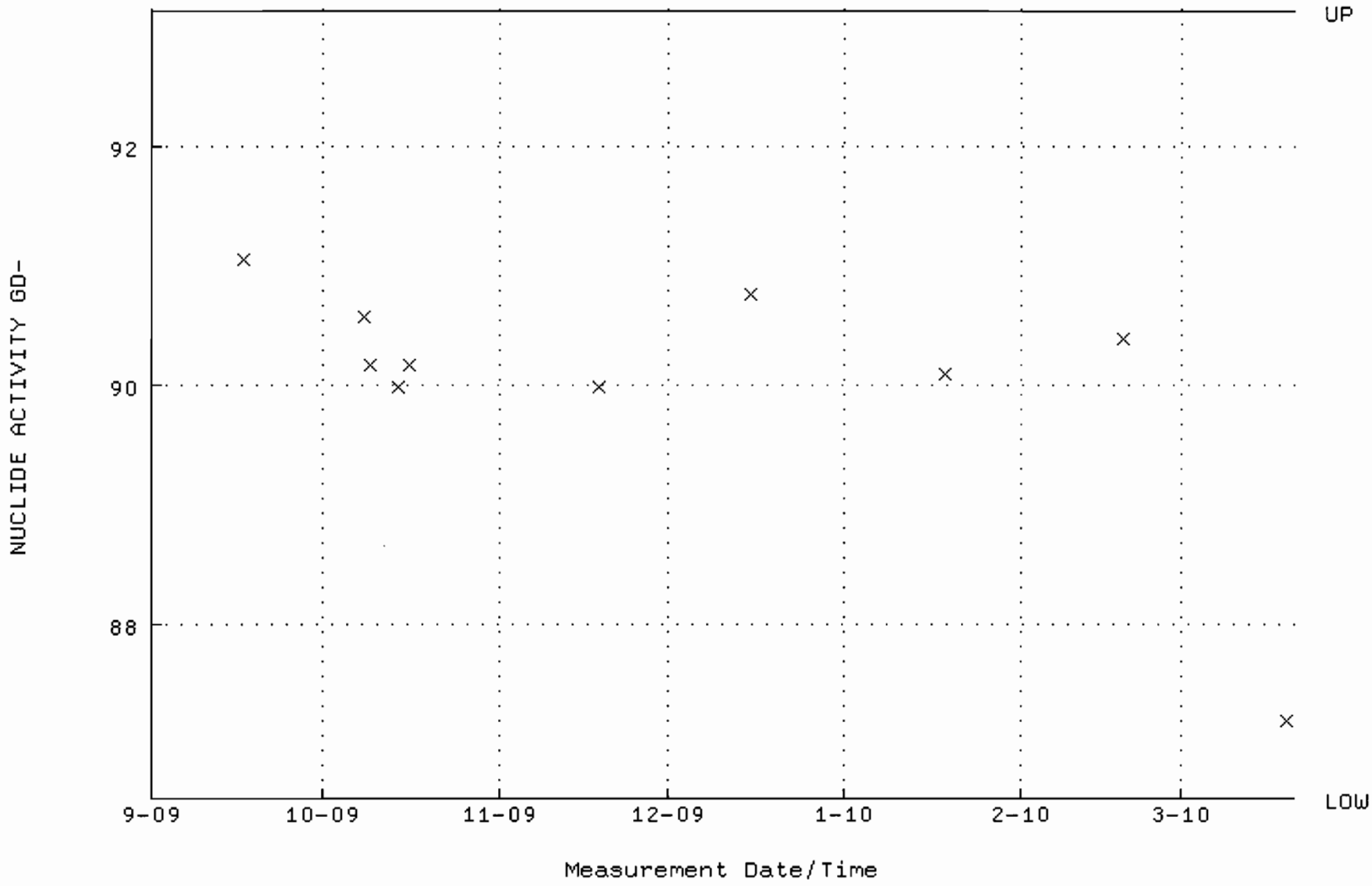

QA filename : DKA100:[ENV_ALPHA.QA.B]B115.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:17 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

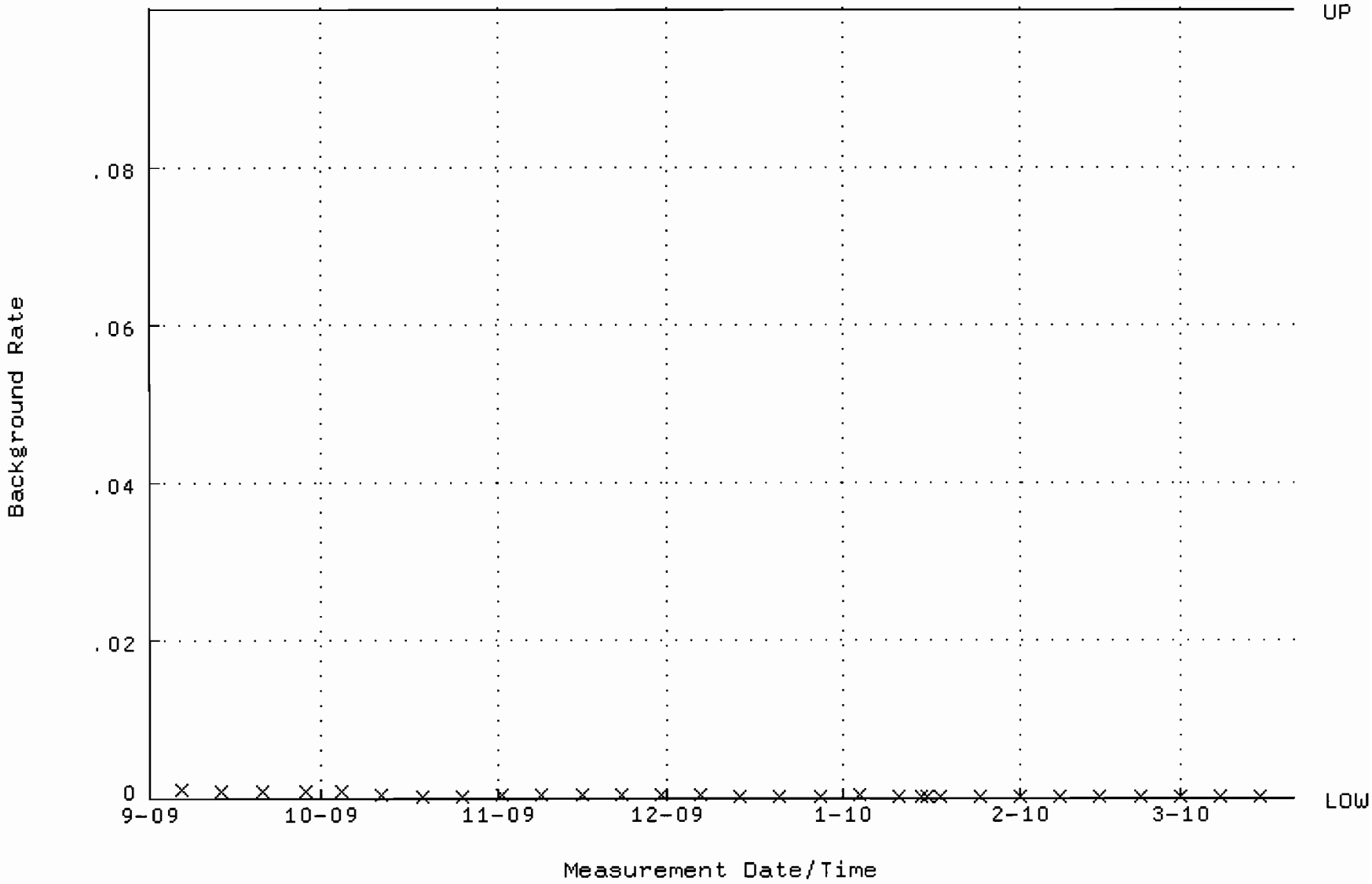

QA filename : DKA100:[ENV_ALPHA.QA.W]W116.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:22:54 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.249691 through 0.269691

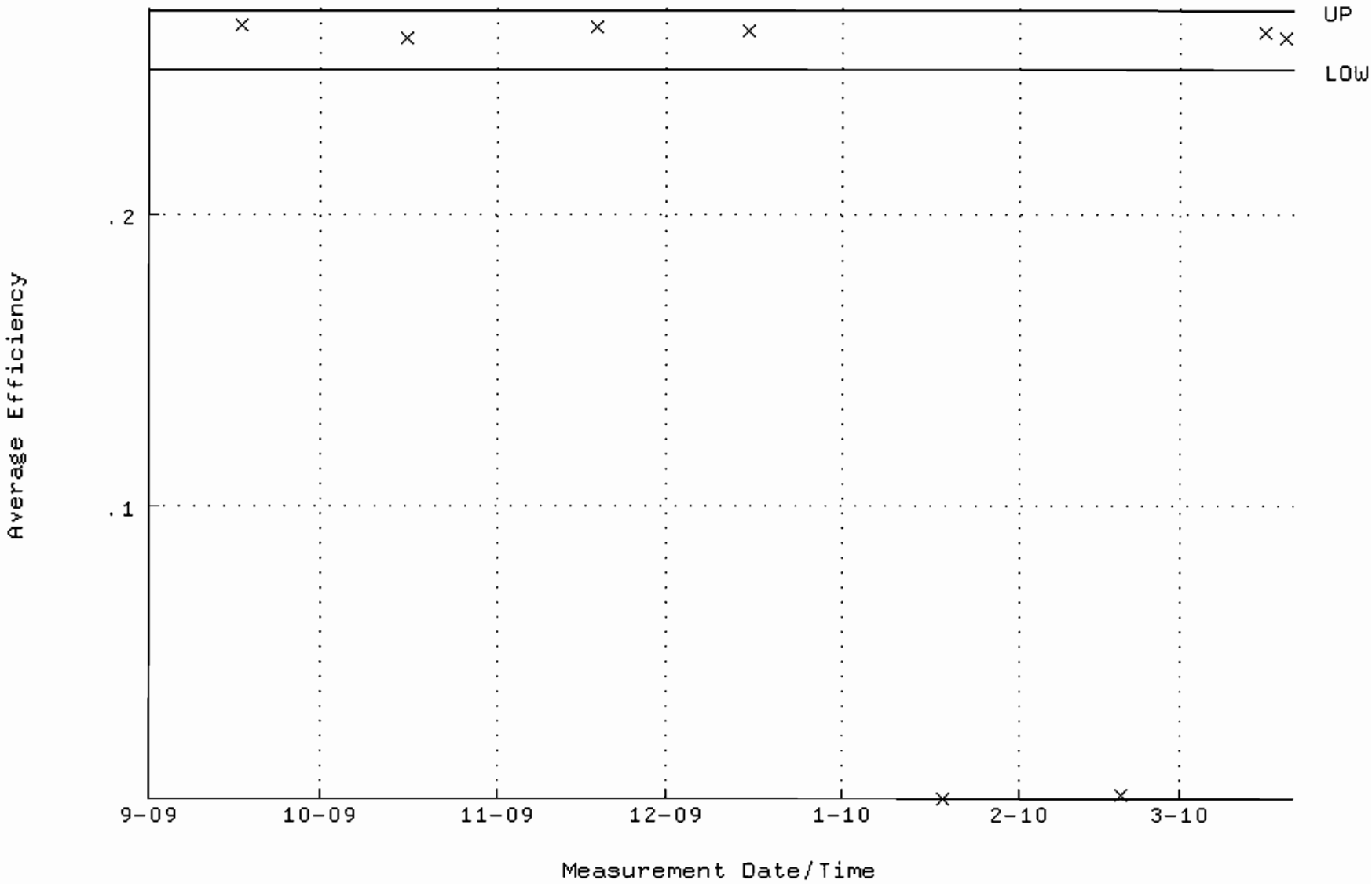

QA filename : DKA100:[ENV_ALPHA.QA.W]W116.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:22:54 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 84.7644 through 93.6870

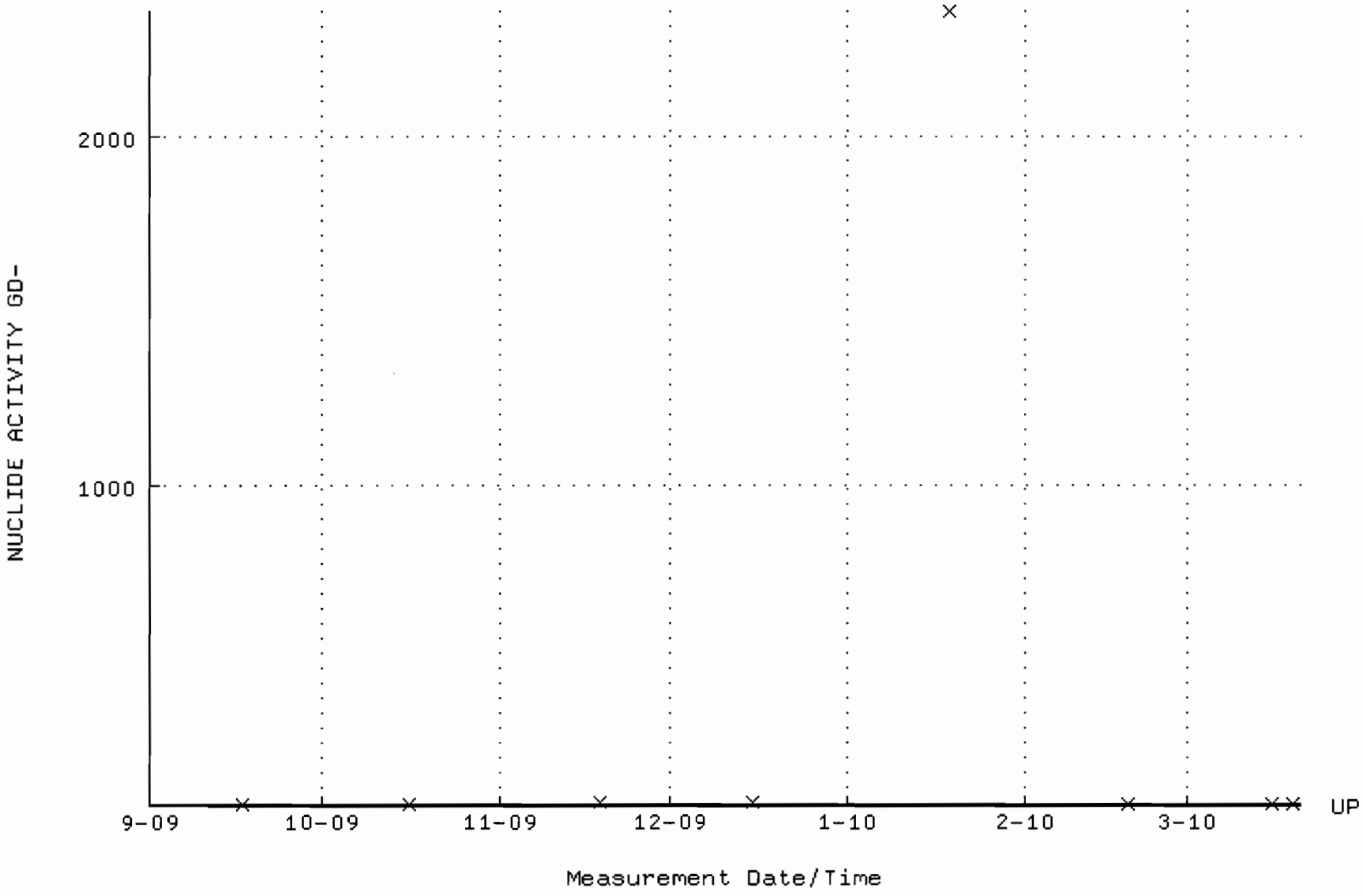

QA filename : DKA100:[ENV_ALPHA.QA.B]B116.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:21 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

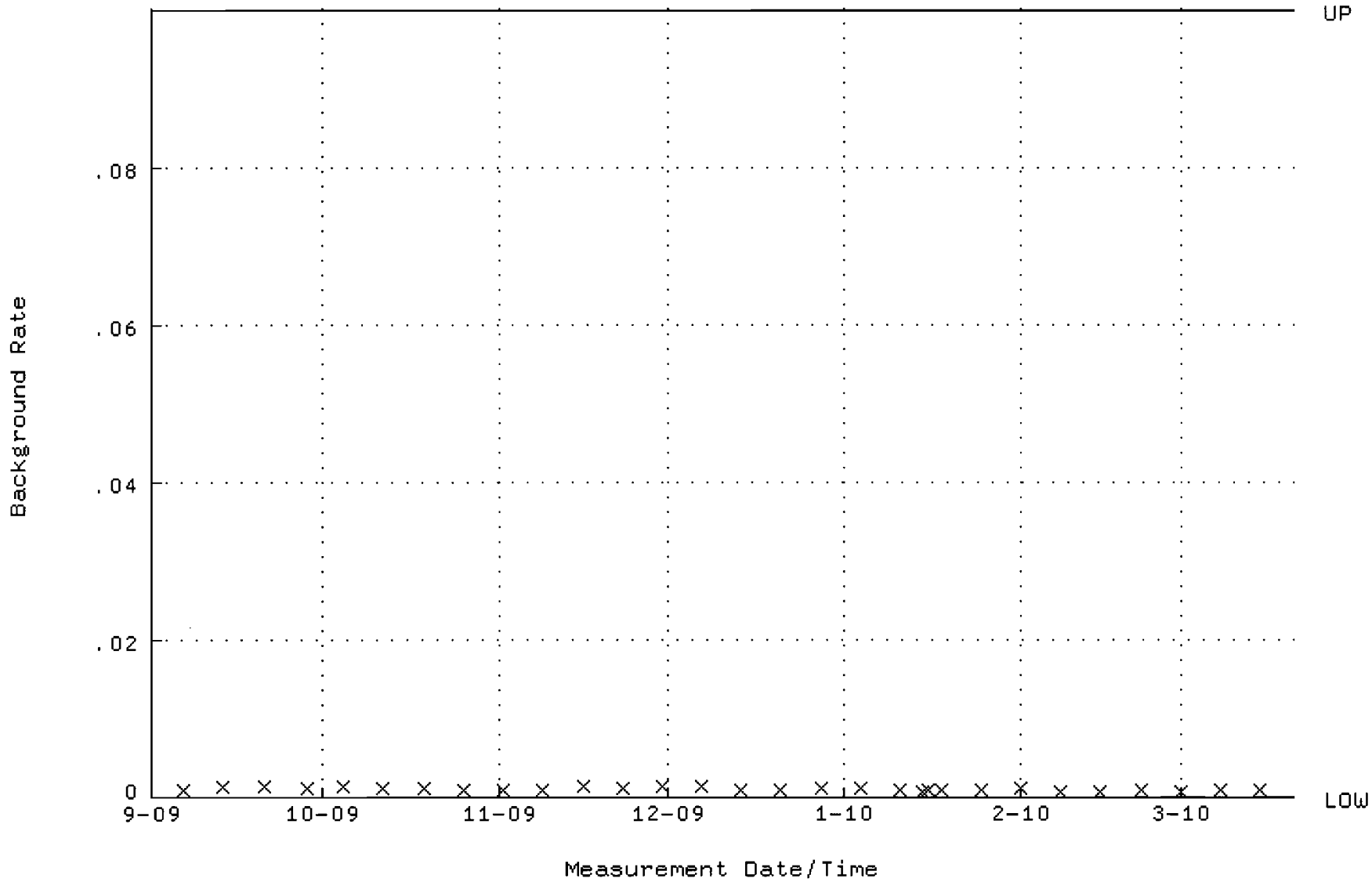

QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:21 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.259560 through 0.269146

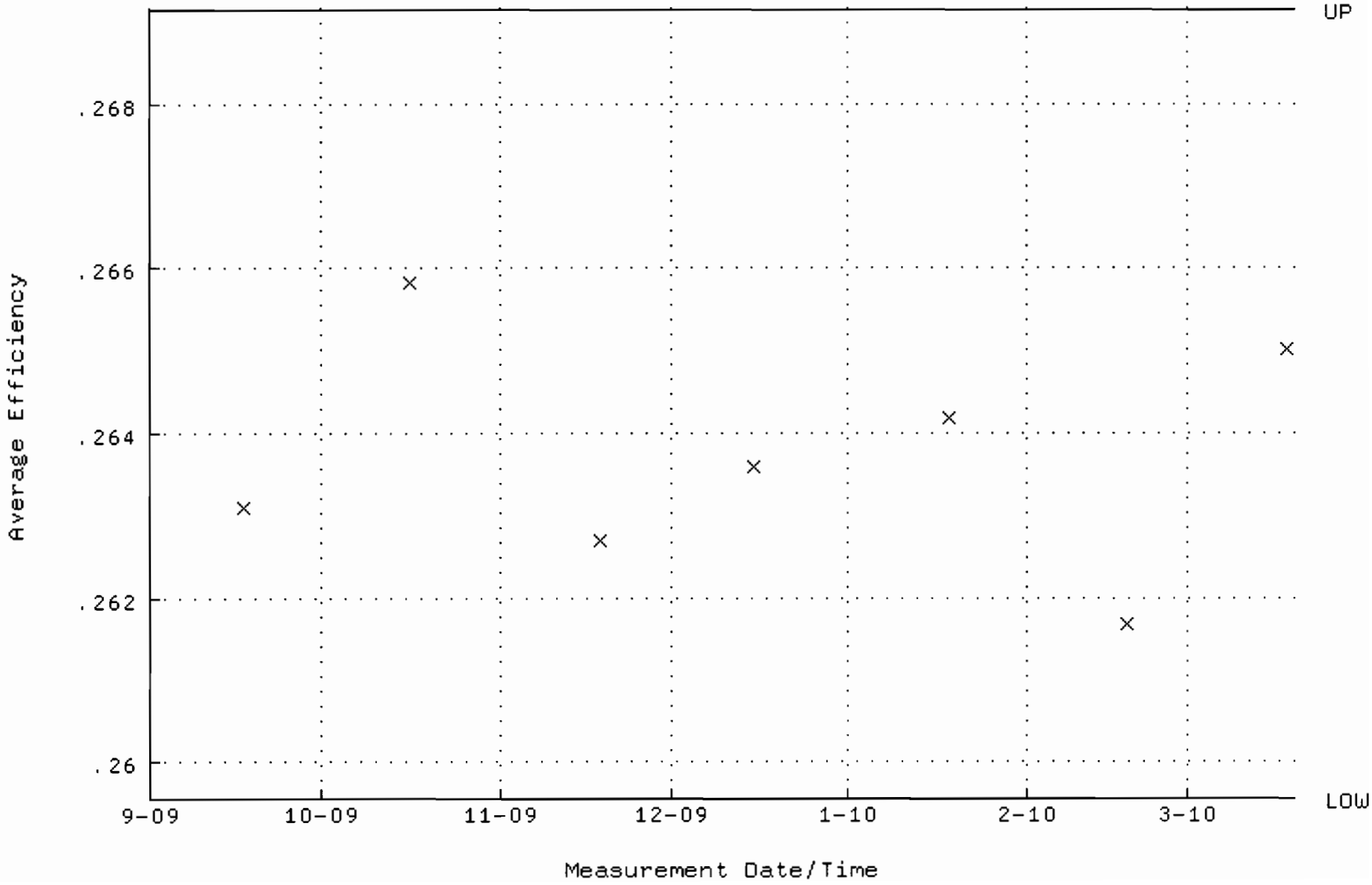

QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:21 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 89.1401 through 92.8201

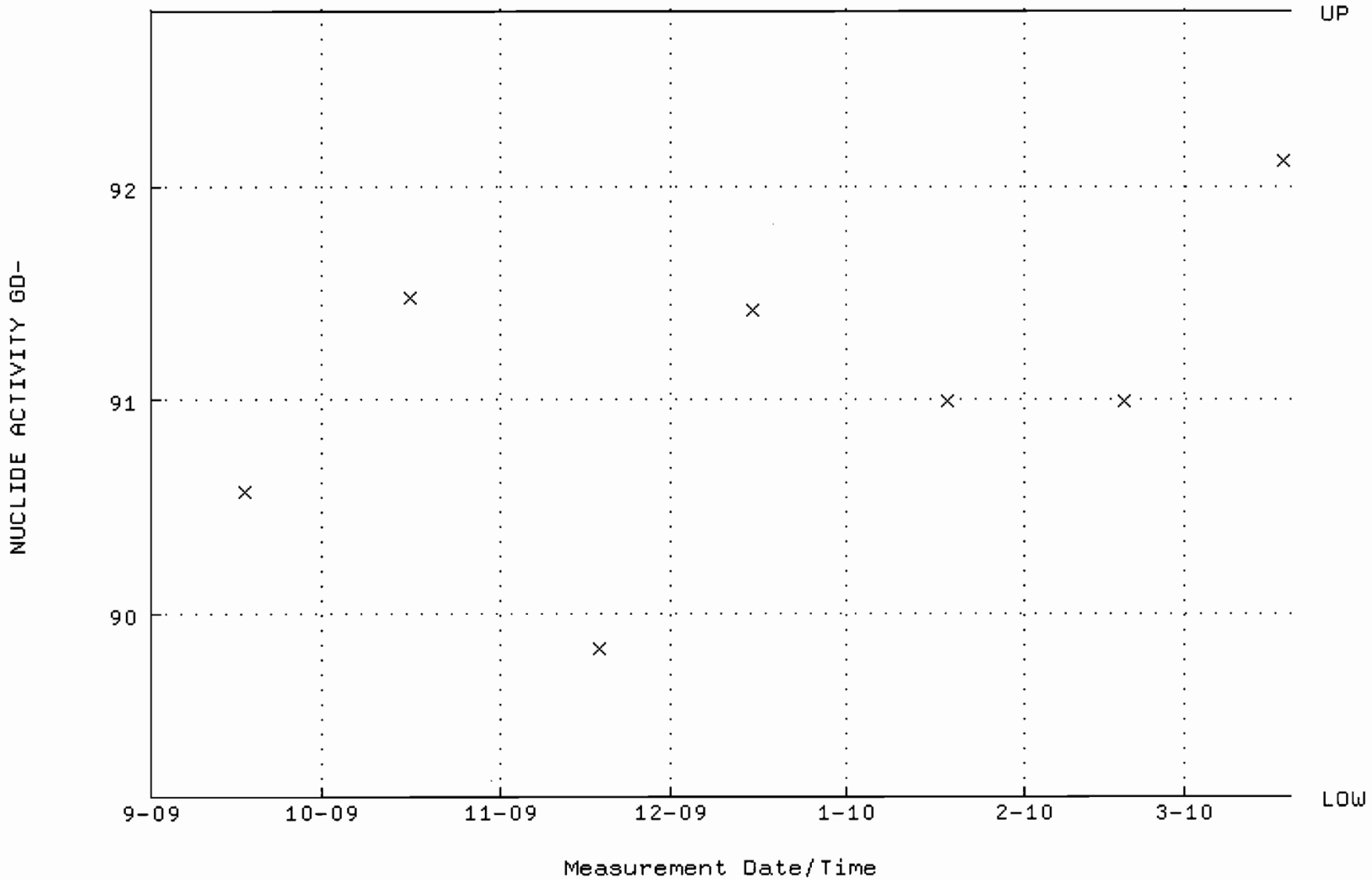

QA filename : DKA100:[ENV_ALPHA.QA.B]B129.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:19 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

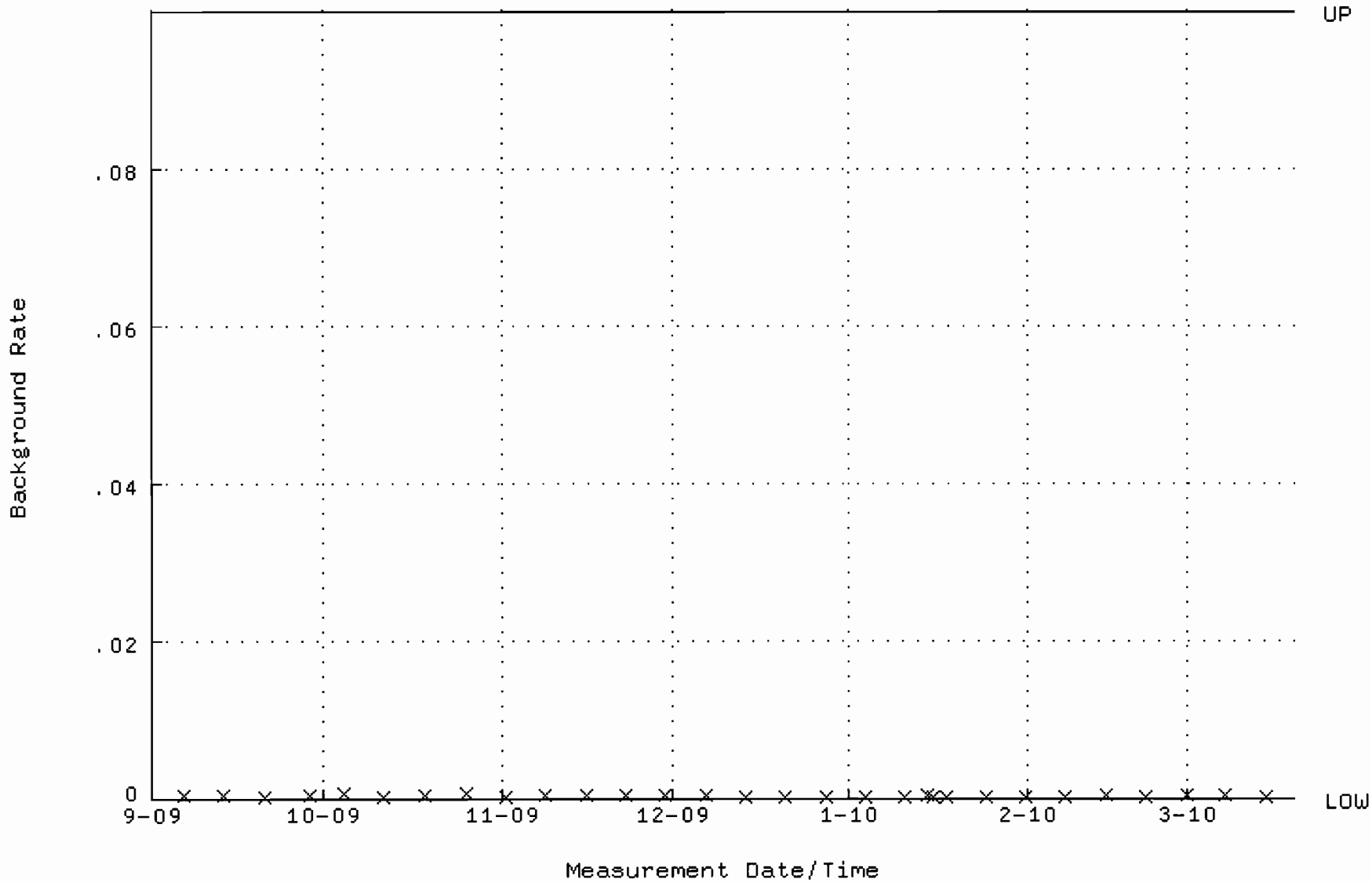

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:25 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.235120 through 0.263192

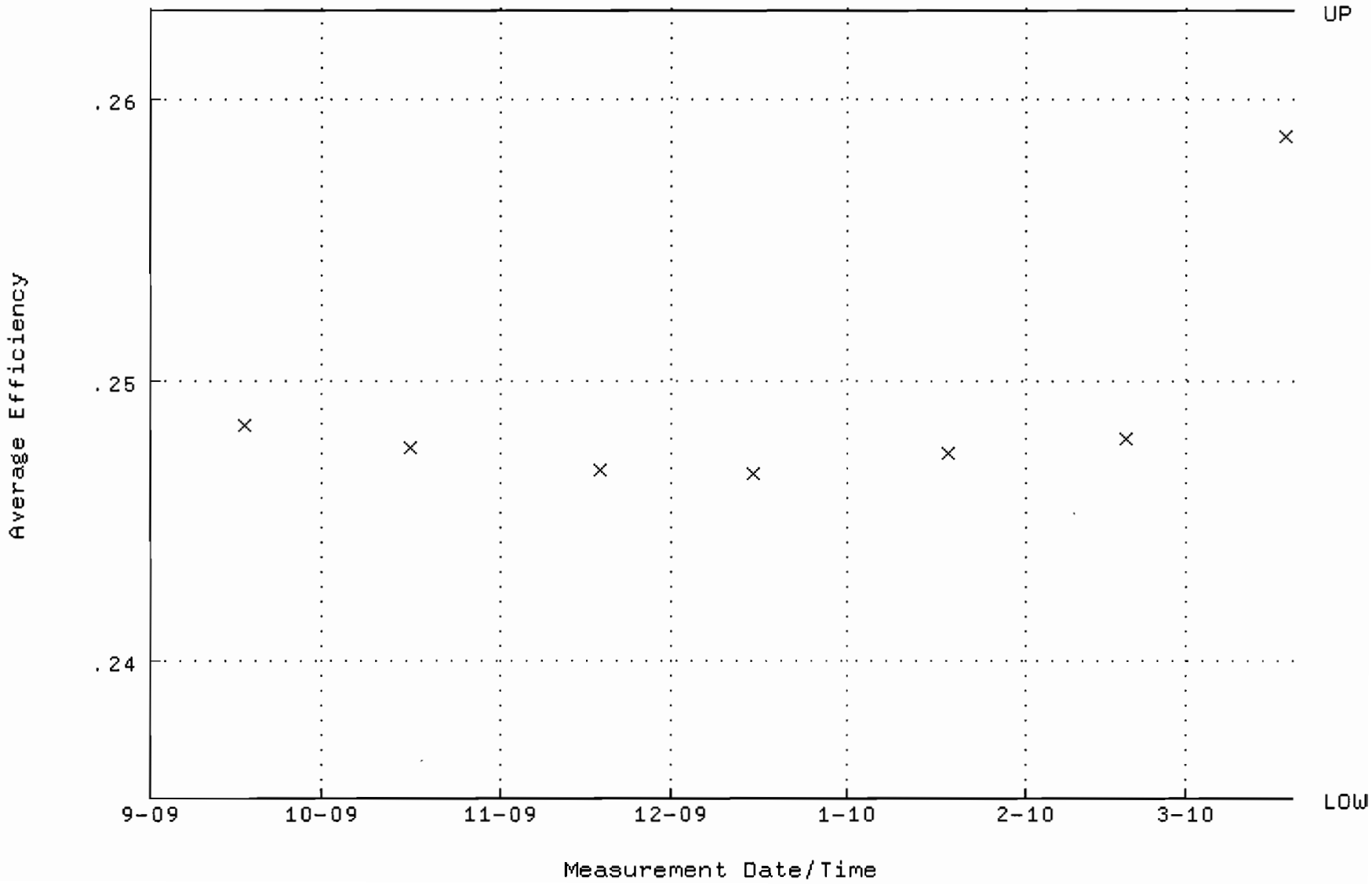

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:25 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 86.8592 through 96.7952

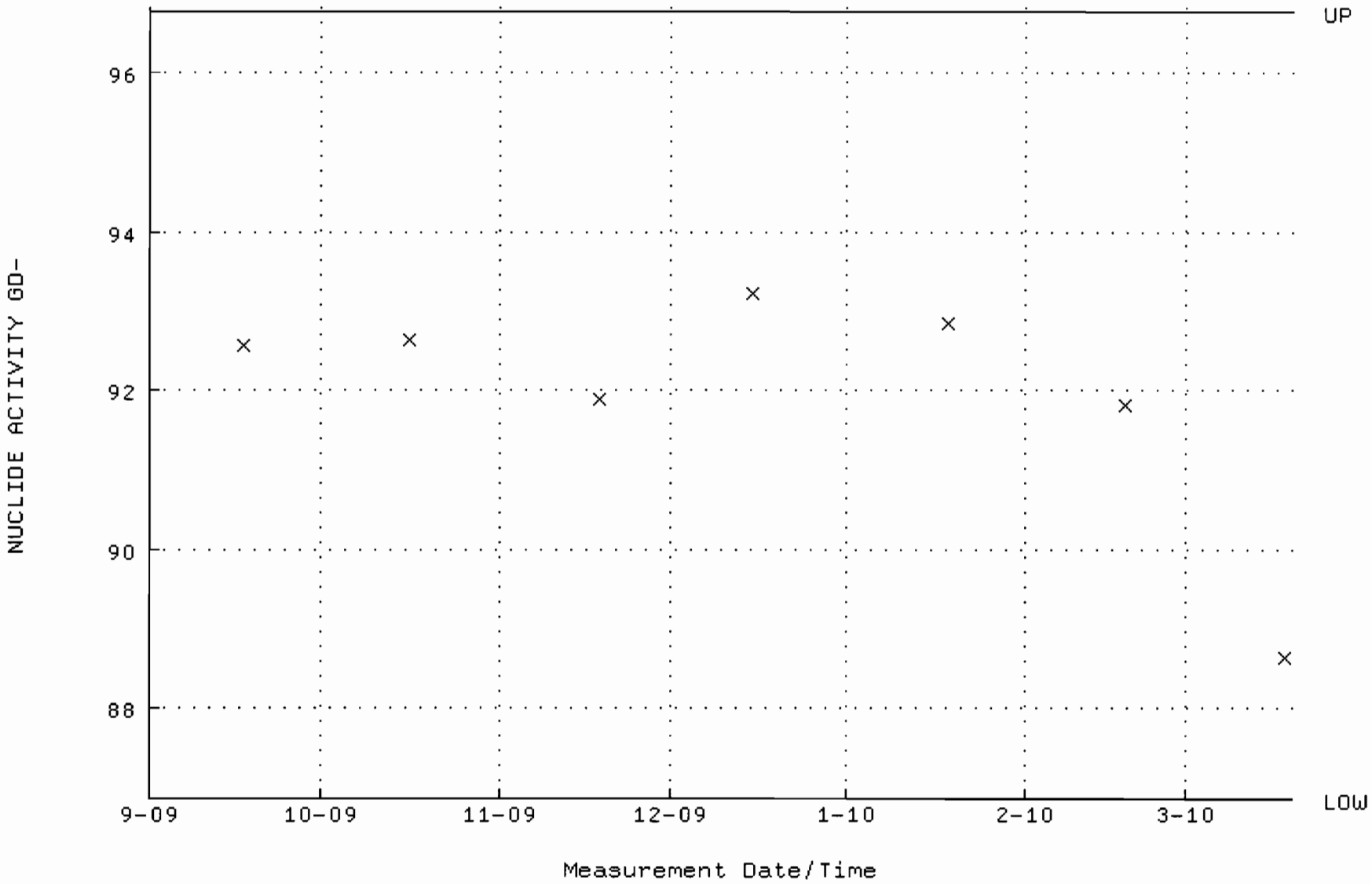

QA filename : DKA100:[ENV_ALPHA.QA.B]B130.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:24 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

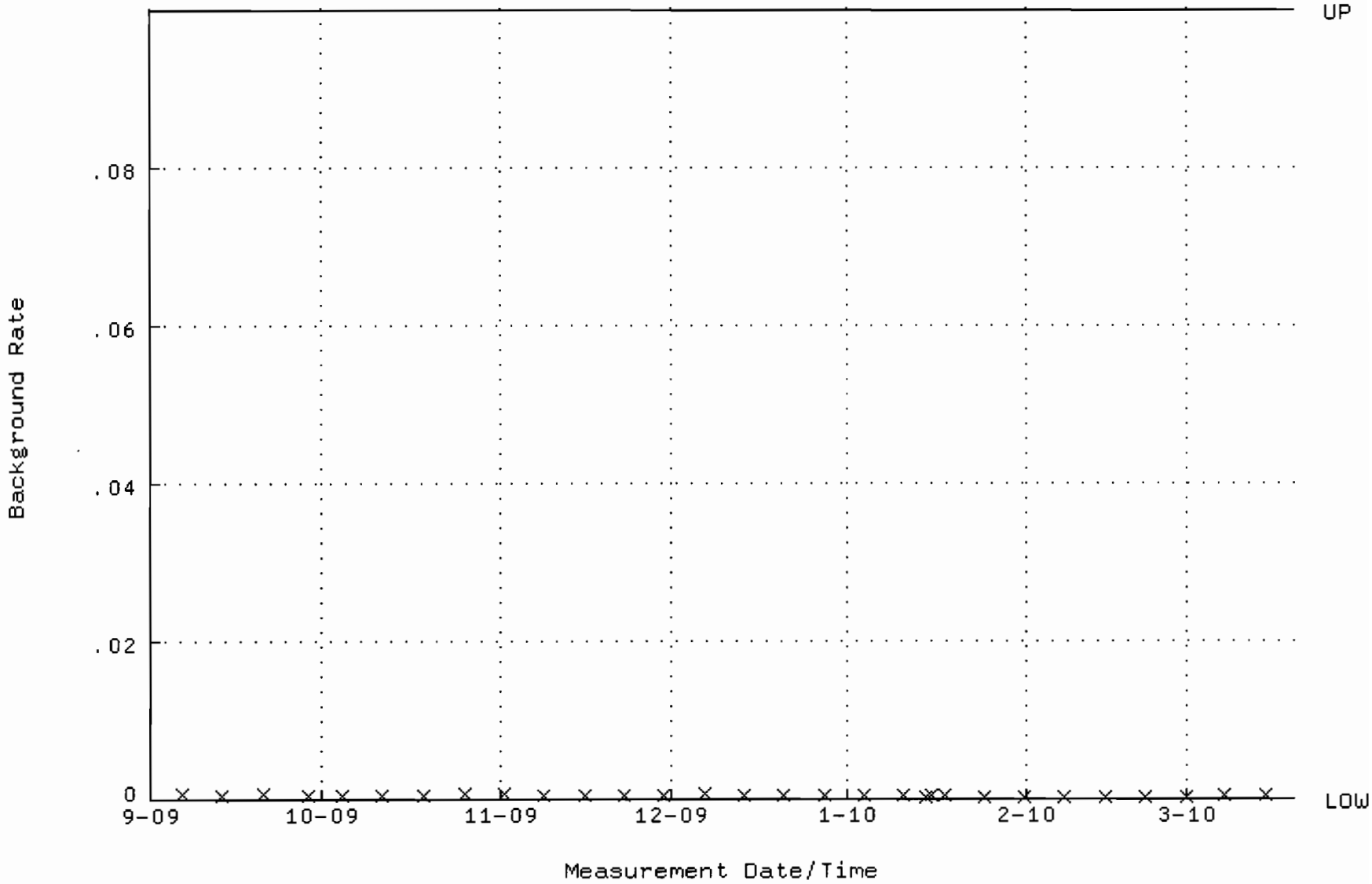

QA filename : DKA100:[ENV_ALPHA.QA.W]W131.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:30 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.251694 through 0.260714

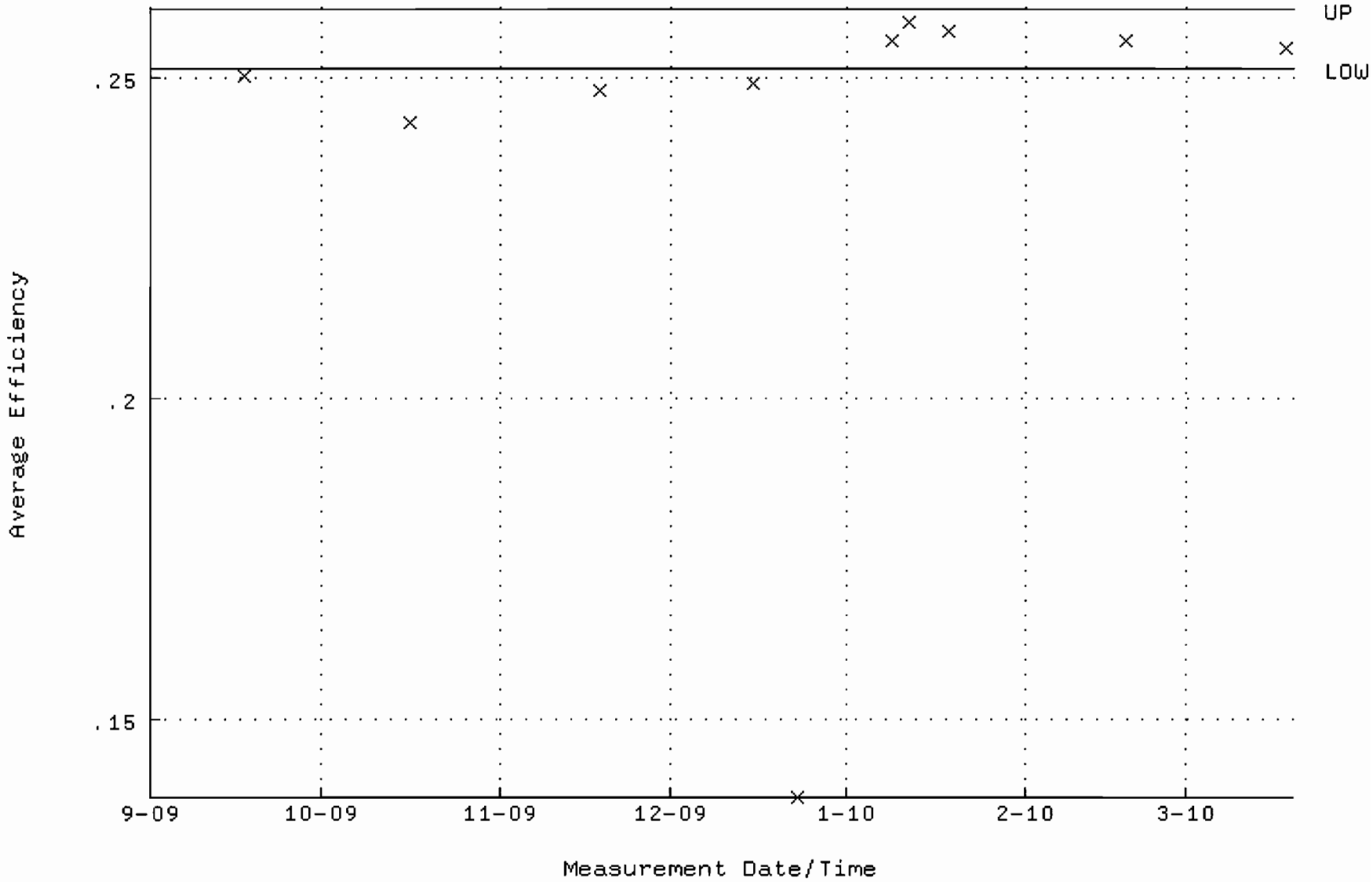

QA filename : DKA100:[ENV_ALPHA.QA.W]W131.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:30 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 88.4061 through 94.3891

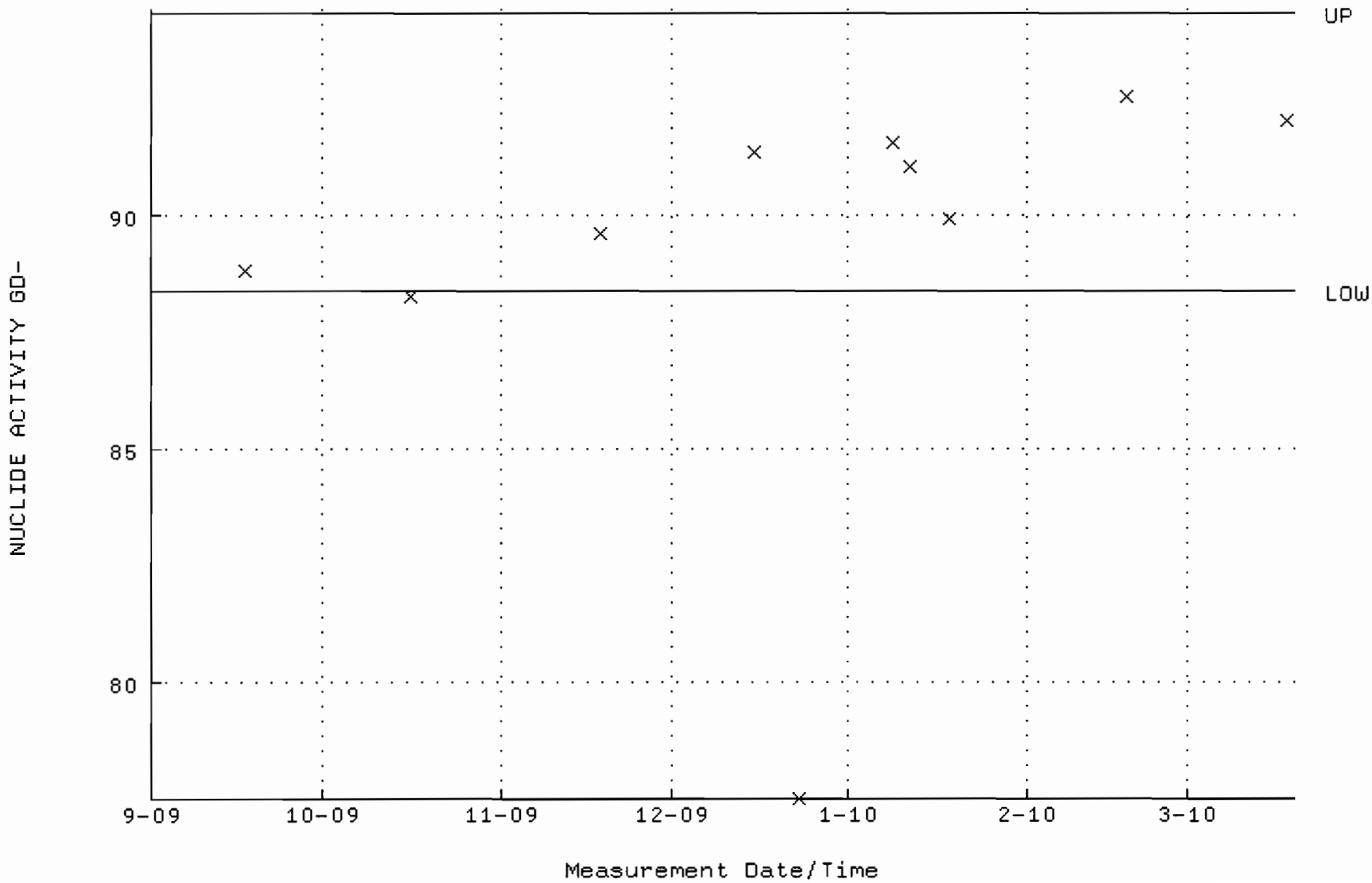

QA filename : DKA100:[ENV_ALPHA.QA.B]B131.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:28 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

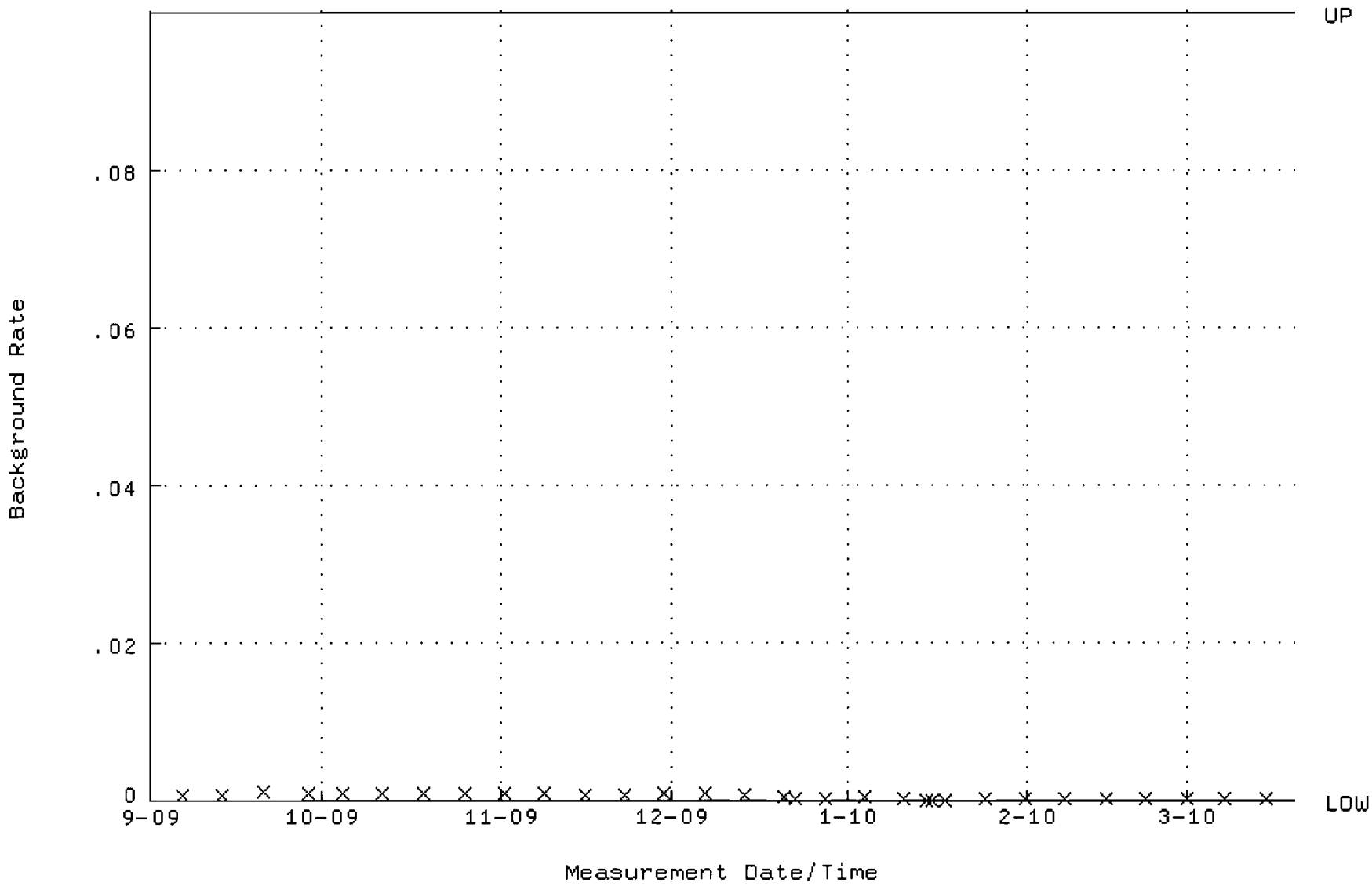

QA filename : DKA100:[ENV_ALPHA.QA.W]W136.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:58 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.220355 through 0.278559

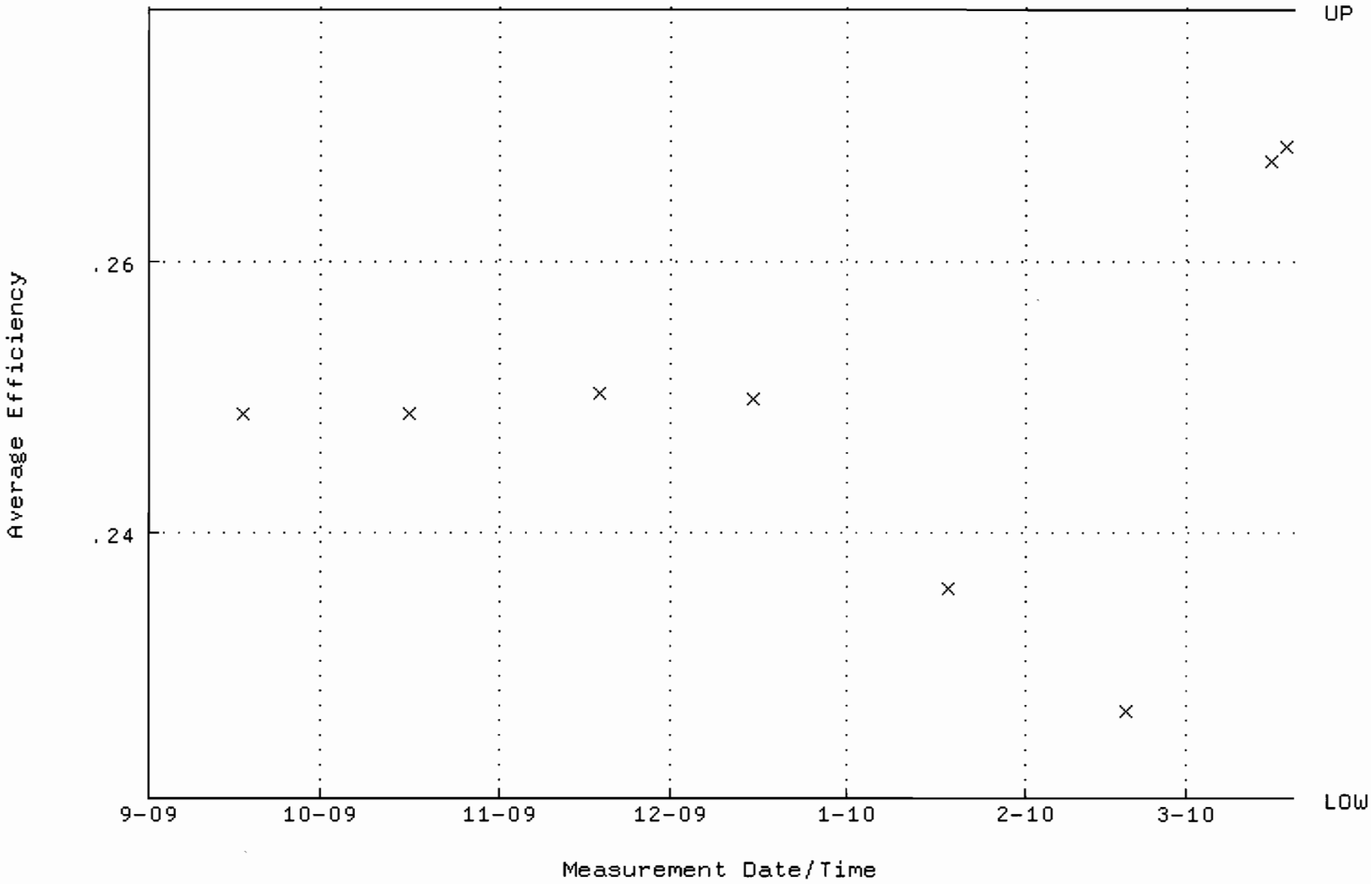

QA filename : DKA100:[ENV_ALPHA.QA.W]W136.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:58 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 81.0690 through 100.381

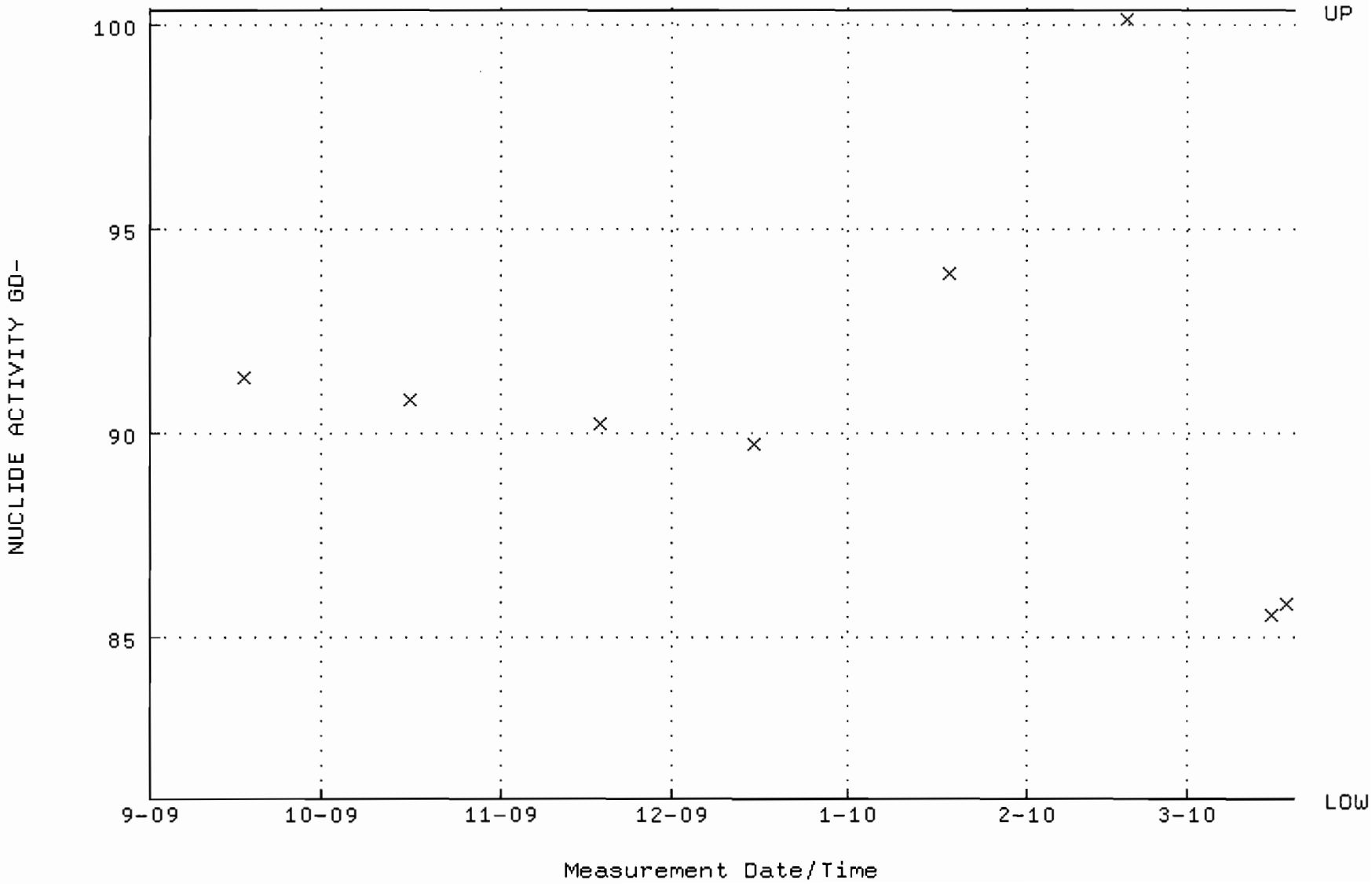

QA filename : DKA100:[ENV_ALPHA.QA.B]B136.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:49 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

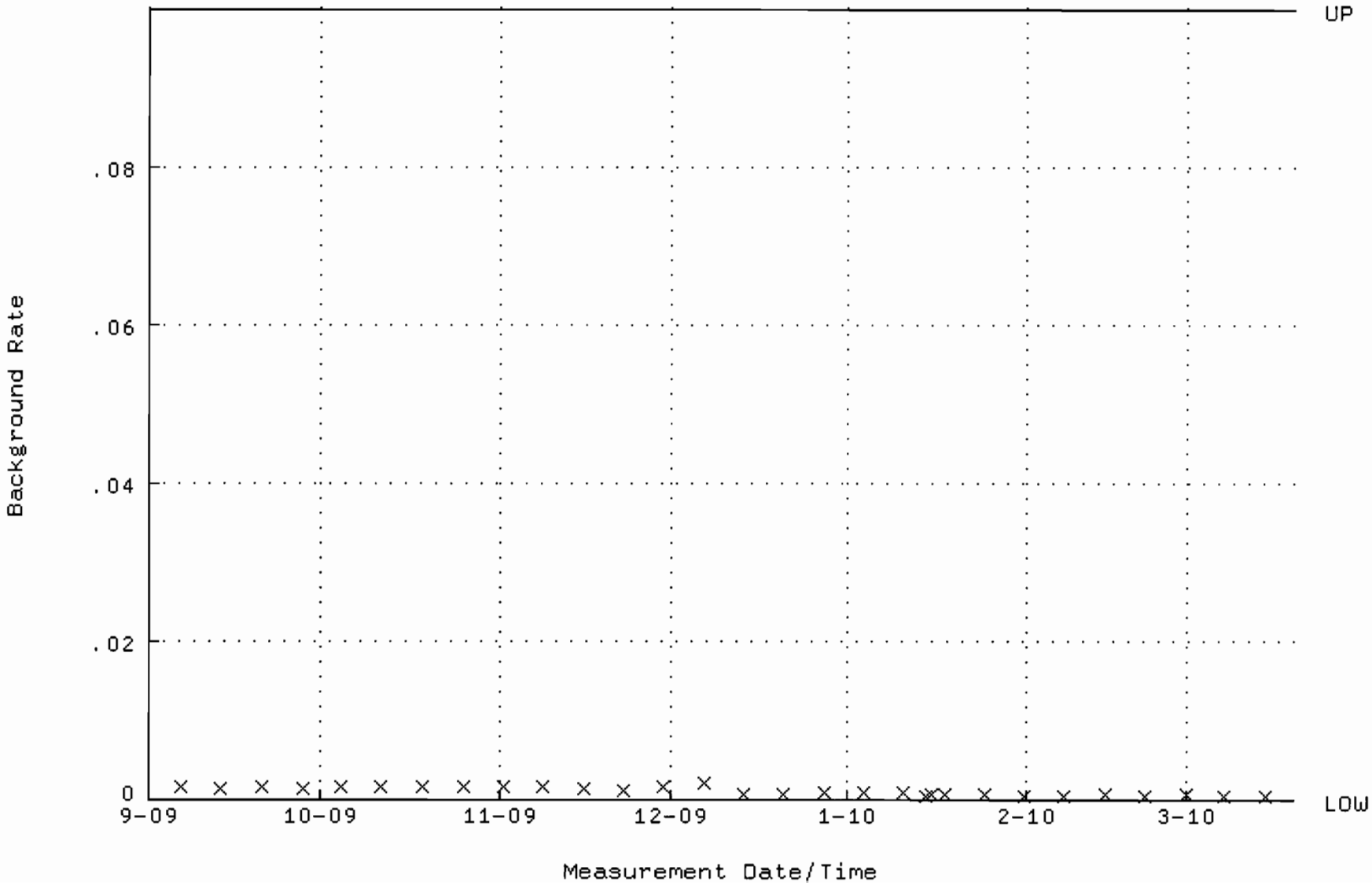

QA filename : DKA100:[ENV_ALPHA.QA.W]W139.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:03:37 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.234186 through 0.267874

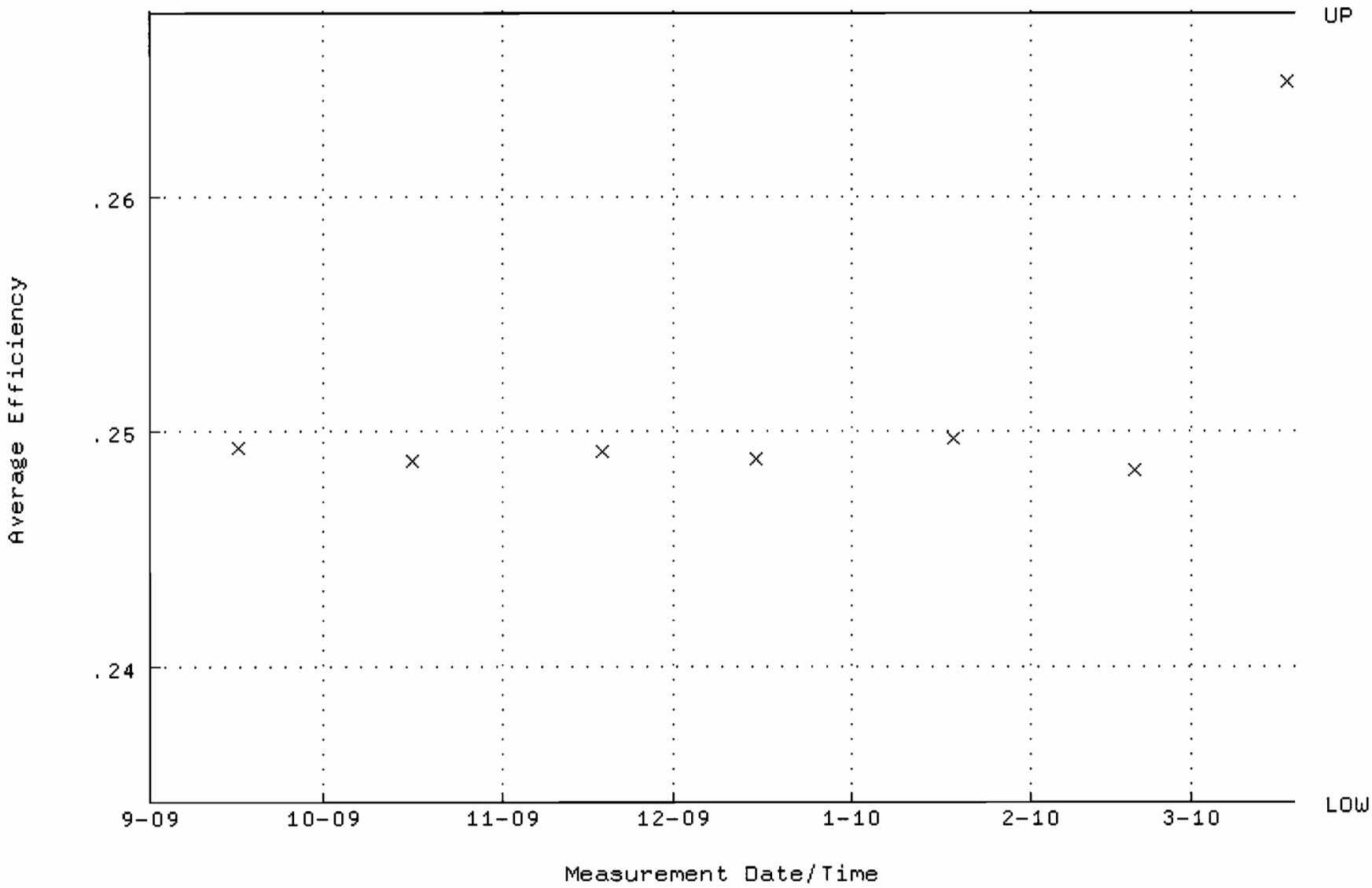

QA filename : DKA100:[ENV_ALPHA.QA.W]W139.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:03:37 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 88.4279 through 92.2045

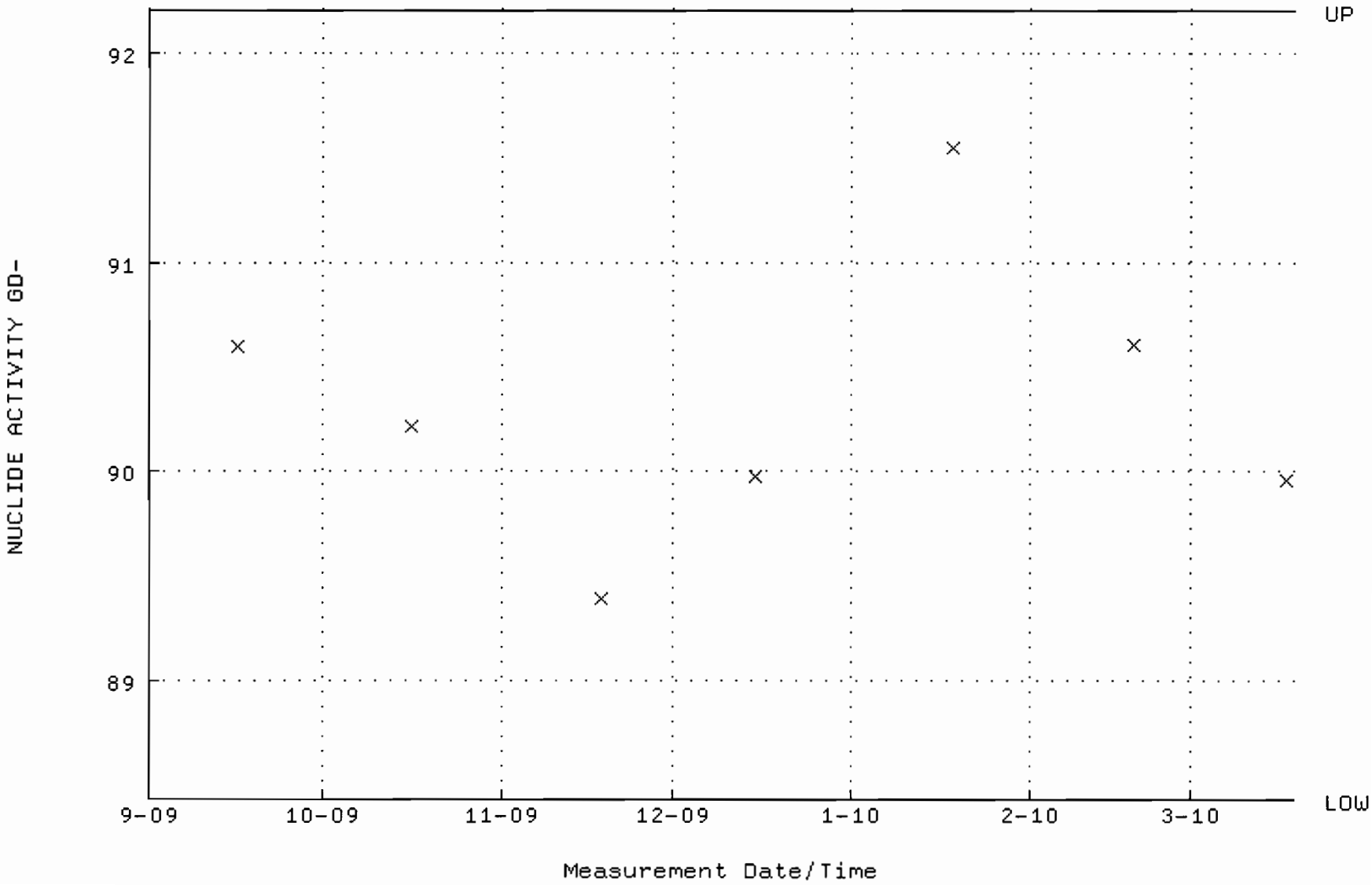

QA filename : DKA100:[ENV_ALPHA.QA.B]B139.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:01 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

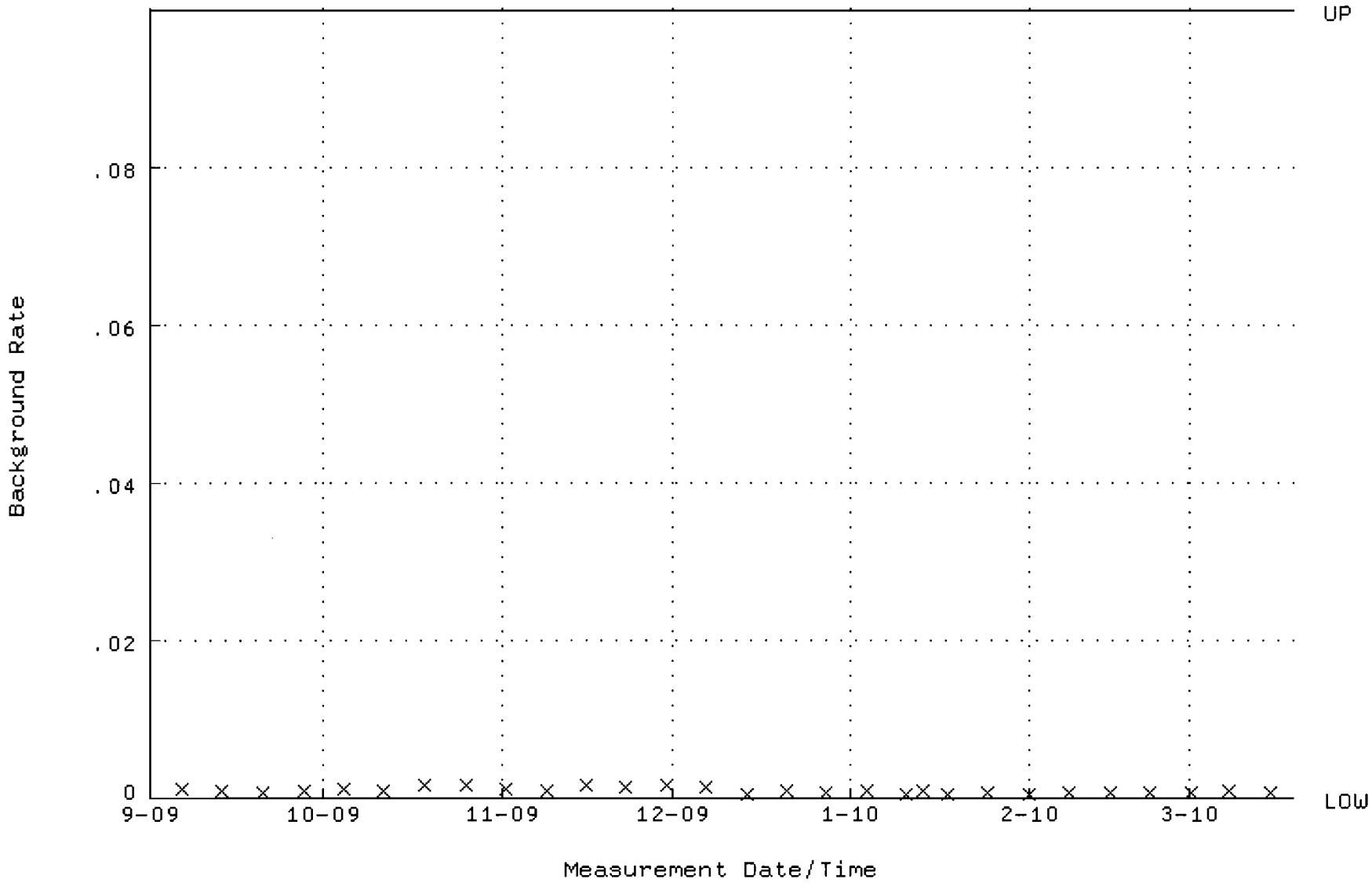

QA filename : DKA100:[ENV_ALPHA.QA.W]W140.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:03:42 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.239830 through 0.274858

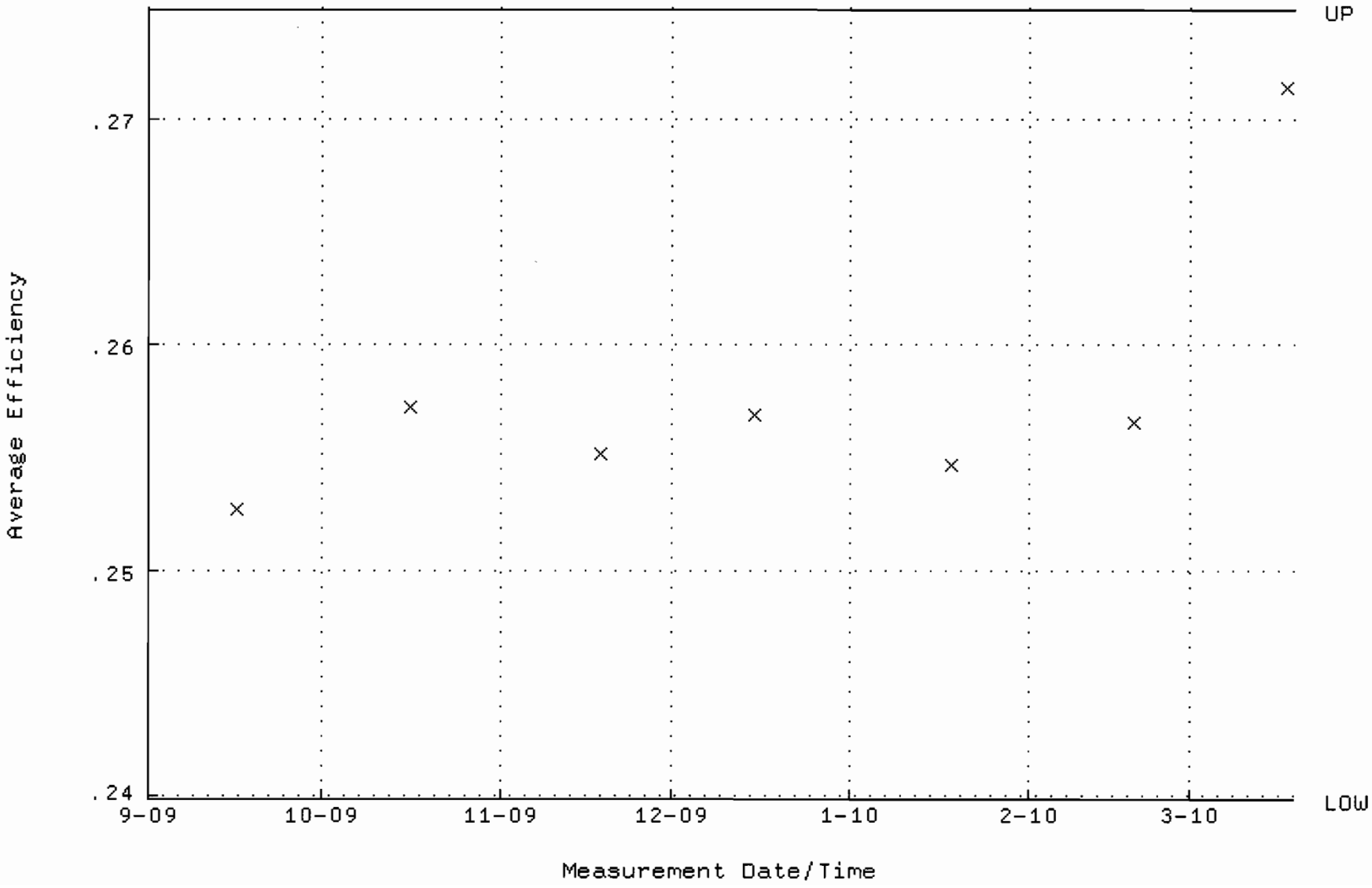

QA filename : DKA100:[ENV_ALPHA.QA.W]W140.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:03:42 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 81.1946 through 93.0200

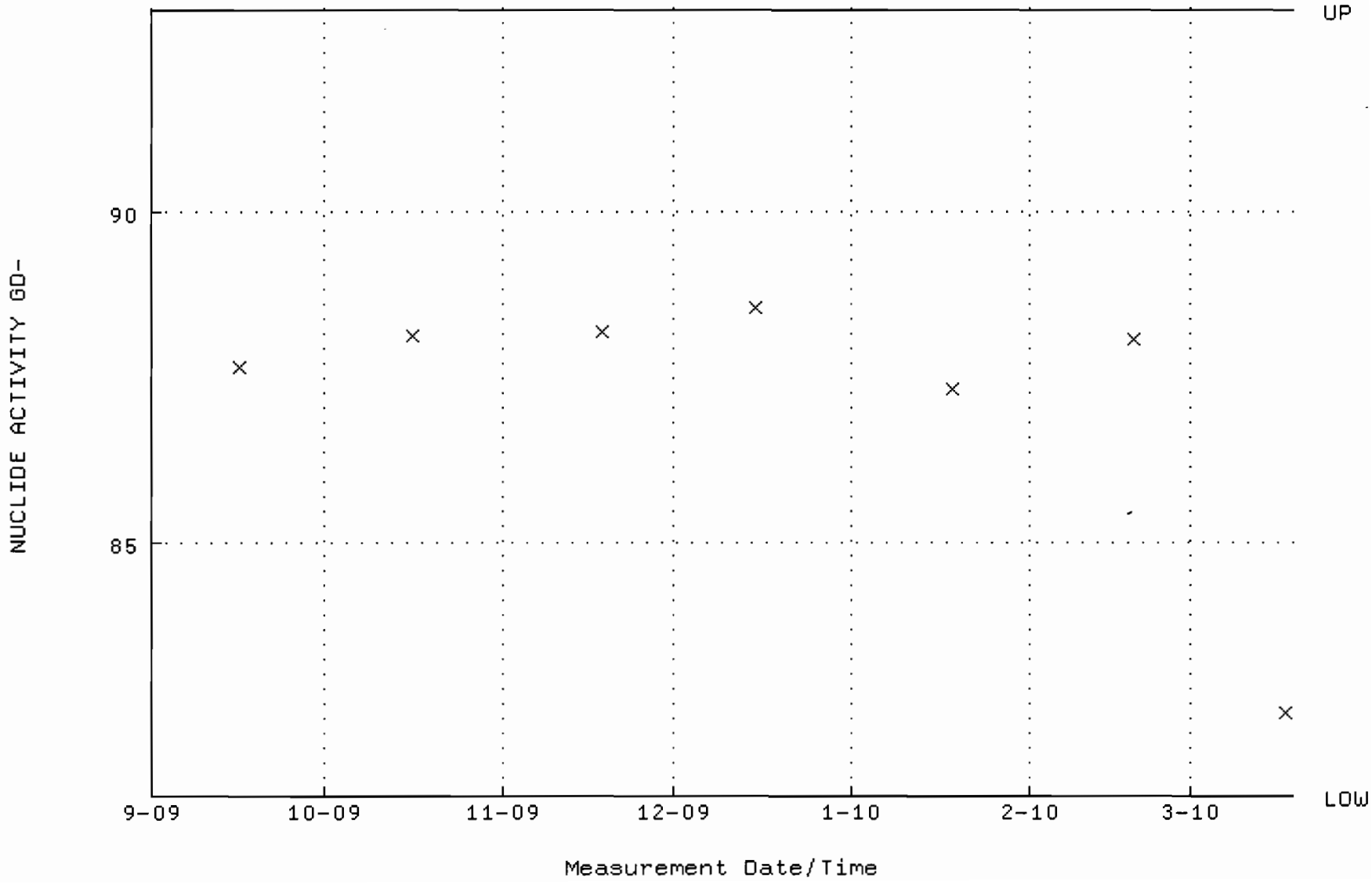

QA filename : DKA100:[ENV_ALPHA.QA.B]B140.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:05 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

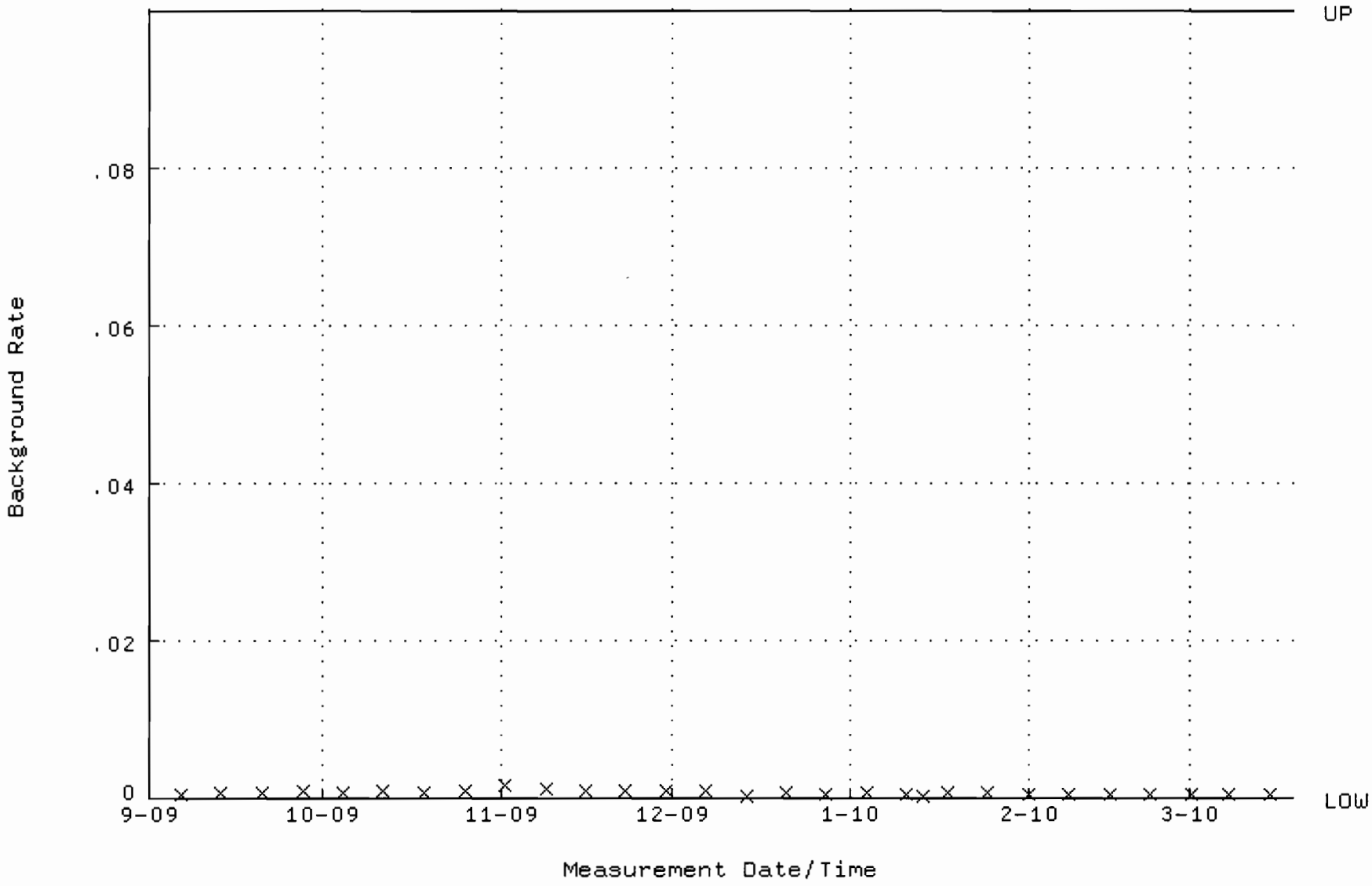

QA filename : DKA100:[ENV_ALPHA.QA.W]W141.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:03:47 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250019 through 0.264135

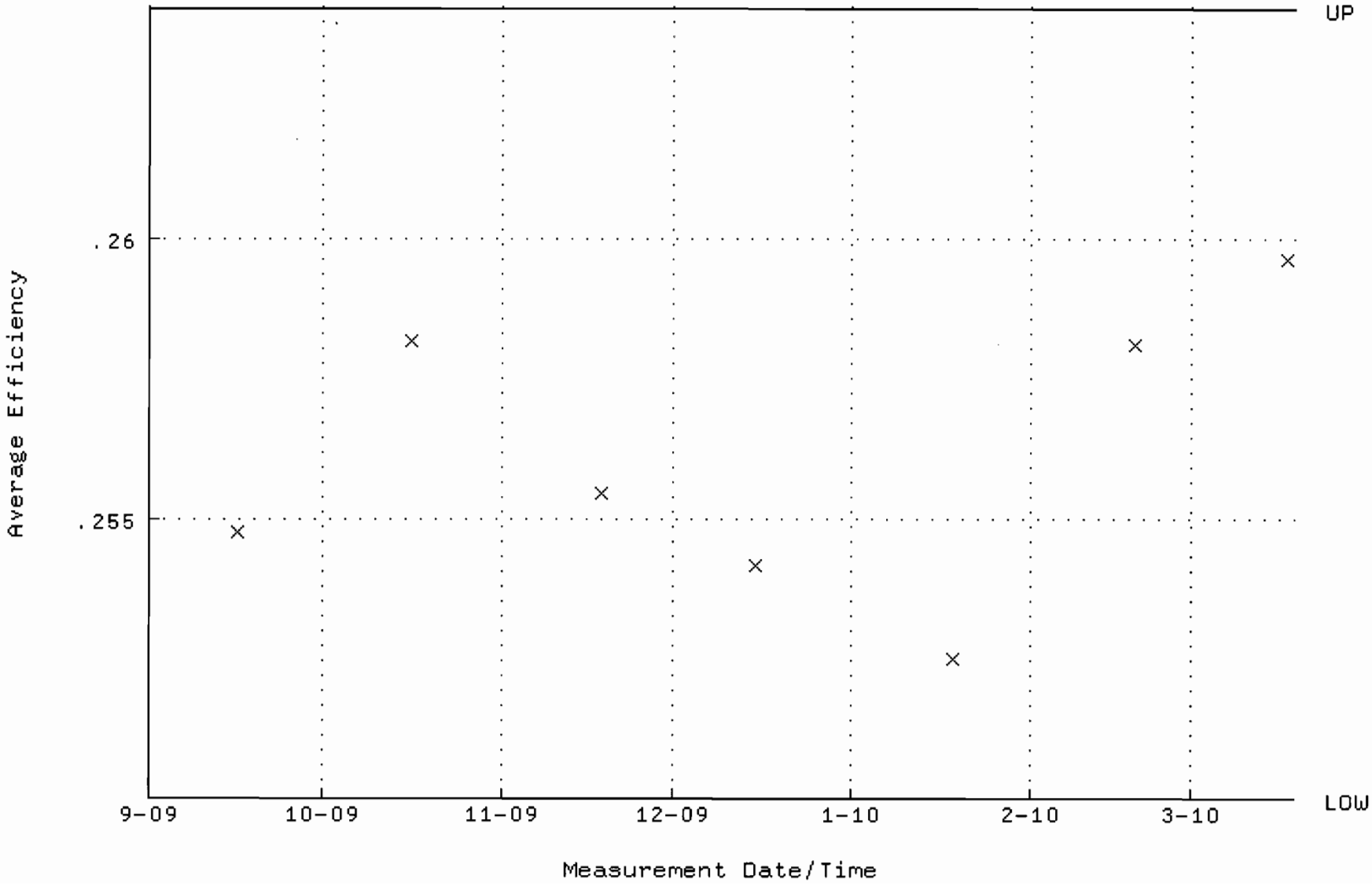

QA filename : DKA100:[ENV_ALPHA.QA.W]W141.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:03:47 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 83.2120 through 87.6868

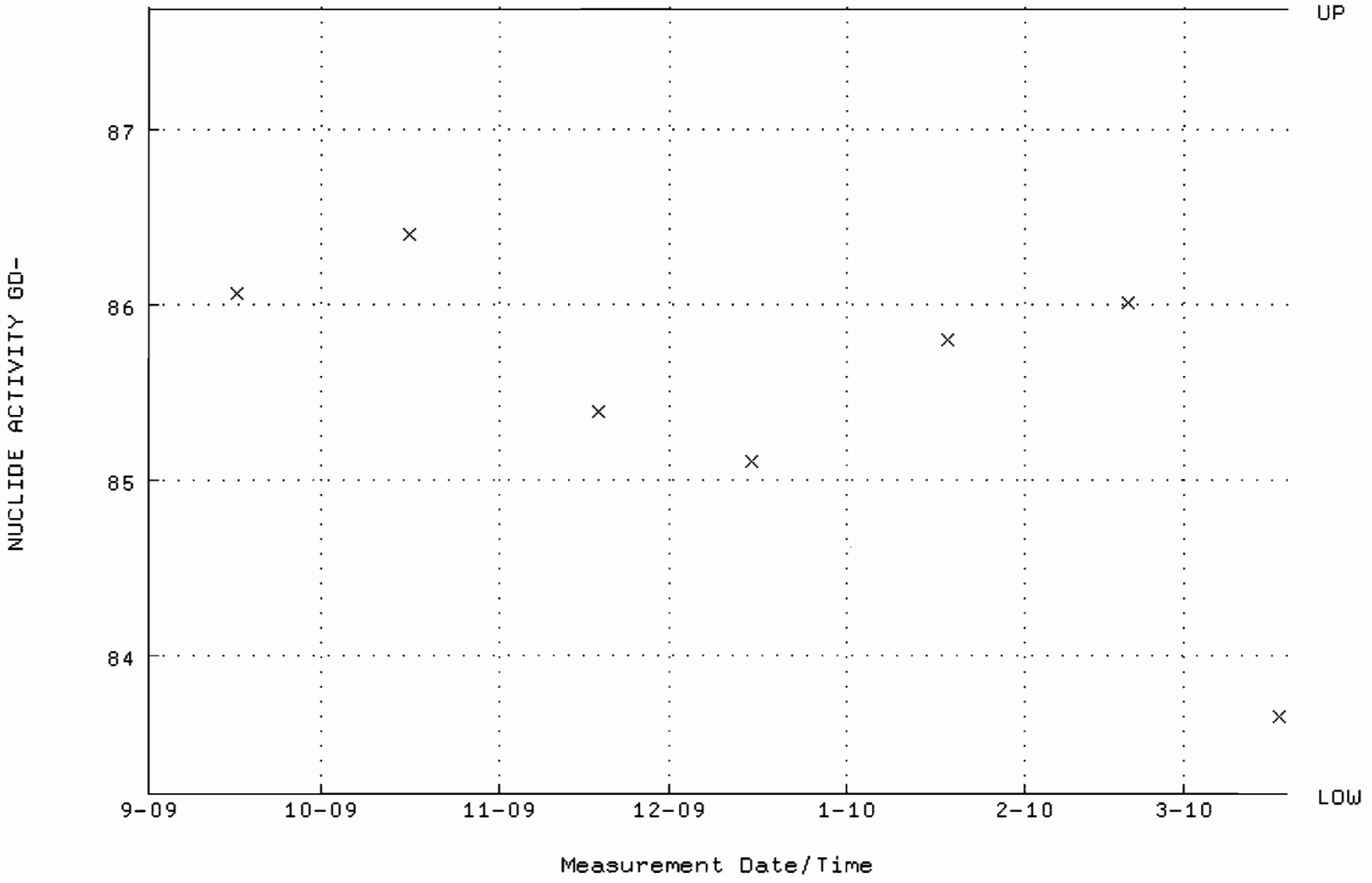

QA filename : DKA100:[ENV_ALPHA.QA.B]B141.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:10 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

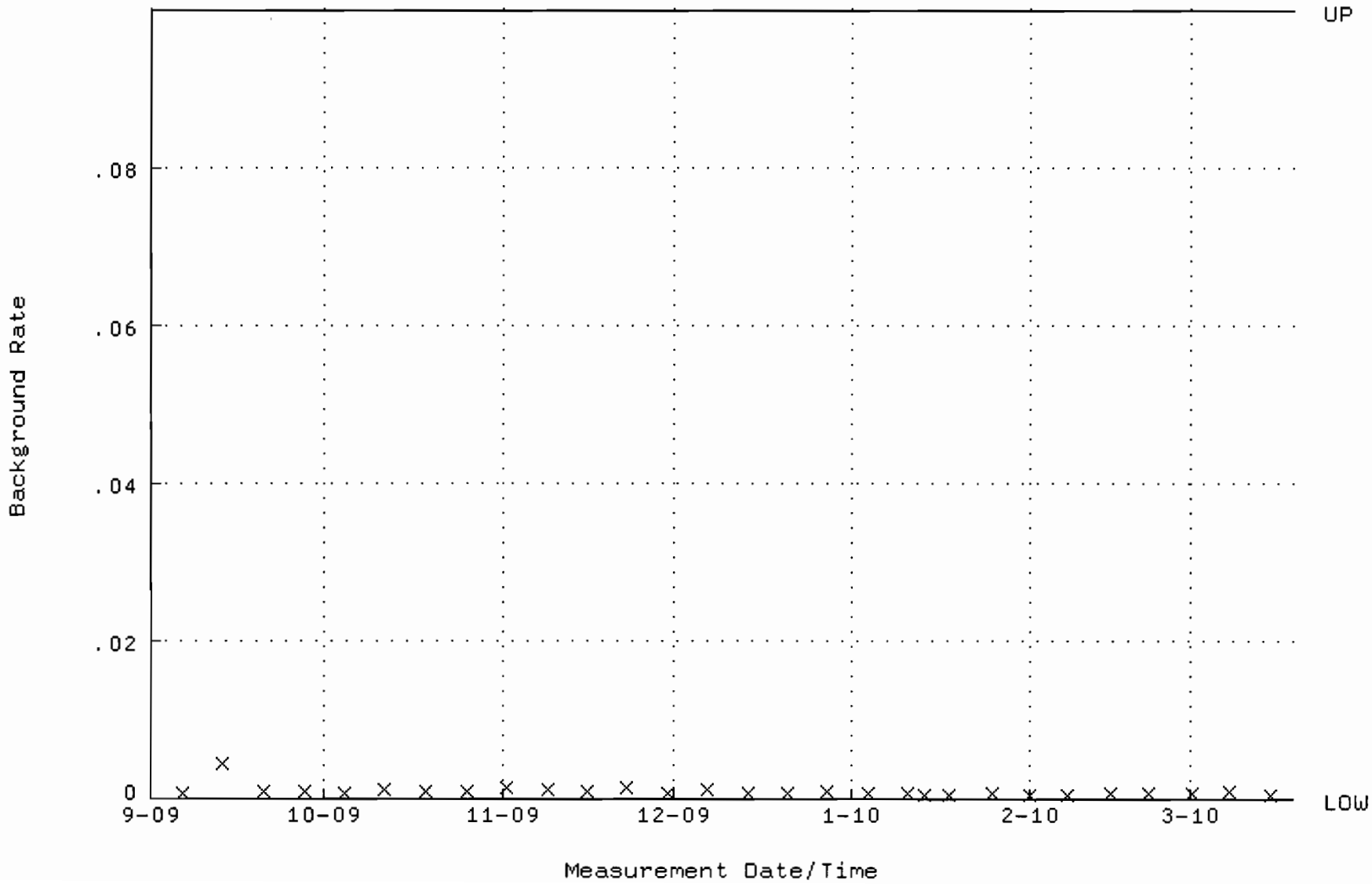

QA filename : DKA100:[ENV_ALPHA.QA.W]W142.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:03:52 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.254957 through 0.264793

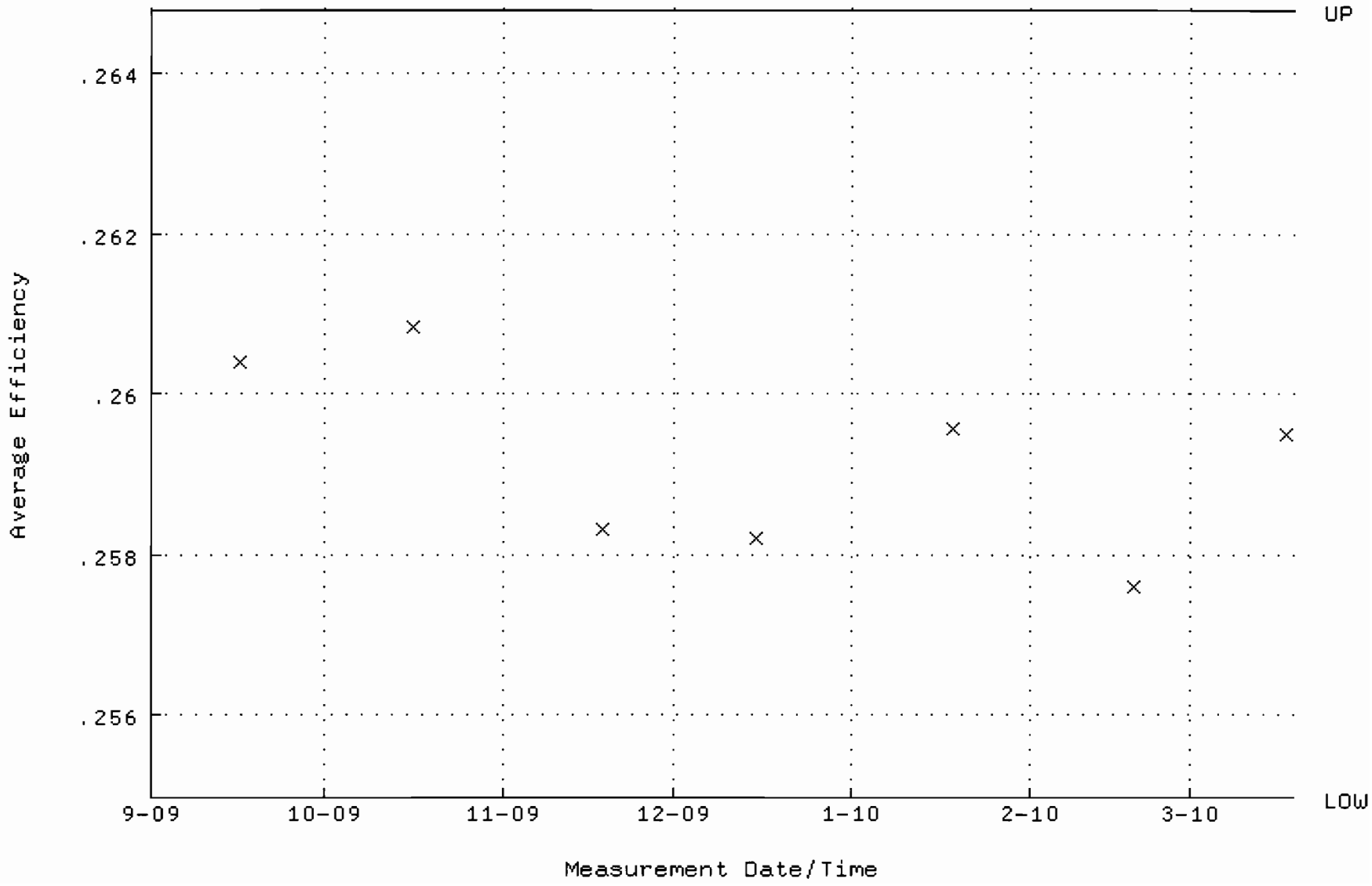

QA filename : DKA100:[ENV_ALPHA.QA.W]W142.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:03:52 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 83.8511 through 87.7879

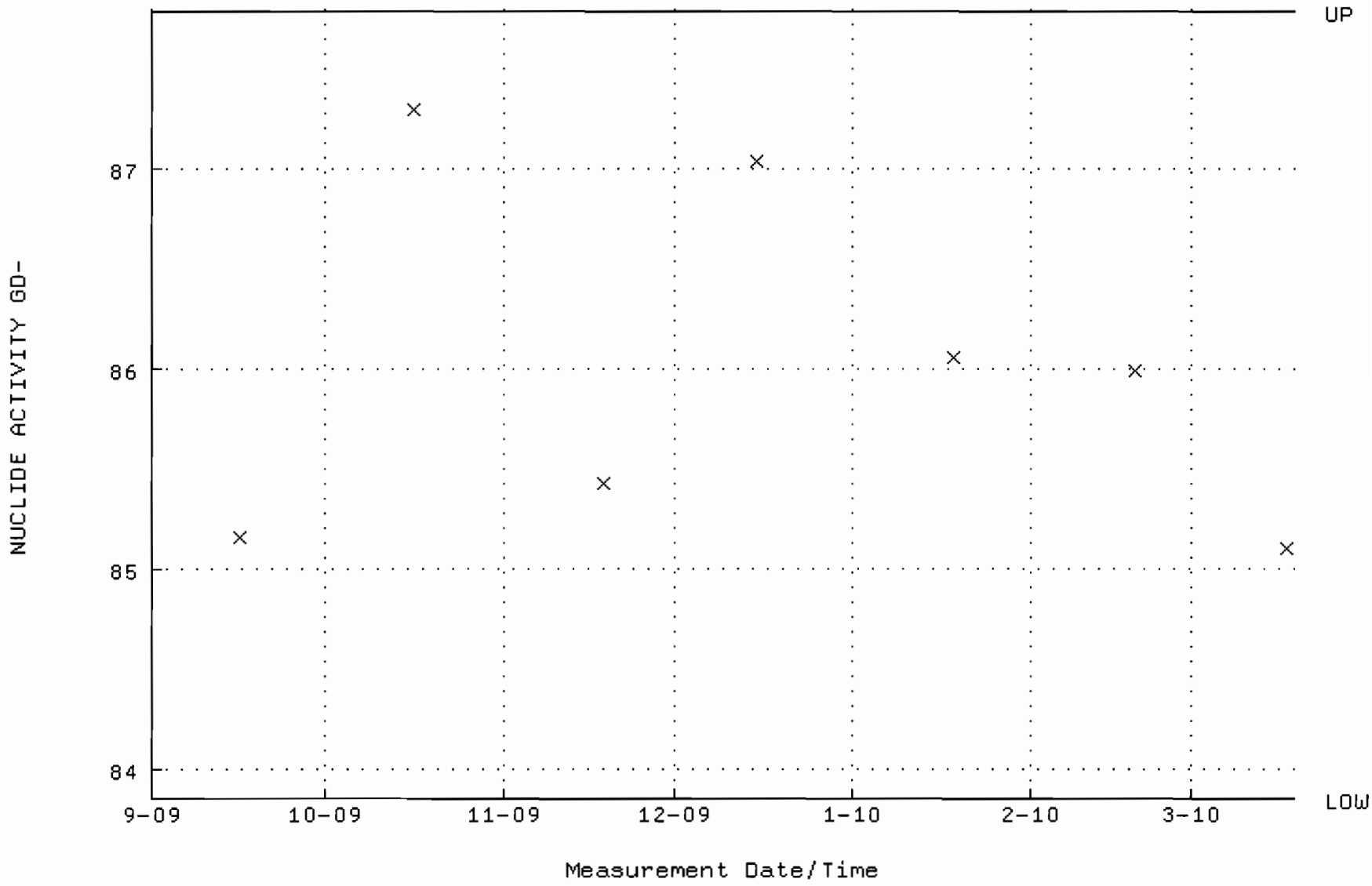

QA filename : DKA100:[ENV_ALPHA.QA.B]B142.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:14 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

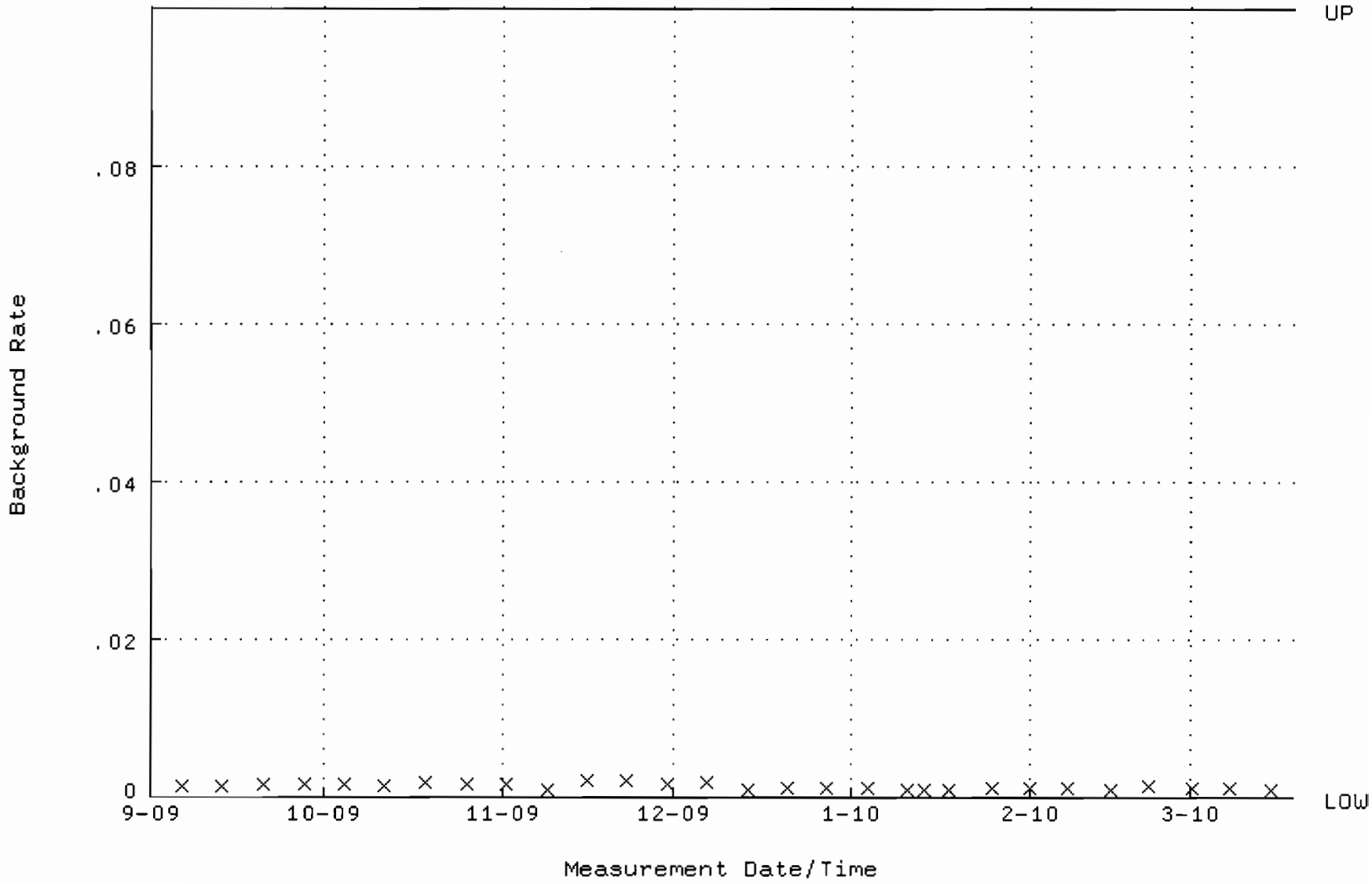

QA filename : DKA100:[ENV_ALPHA.QA.W]W143.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:03:57 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.235497 through 0.253401

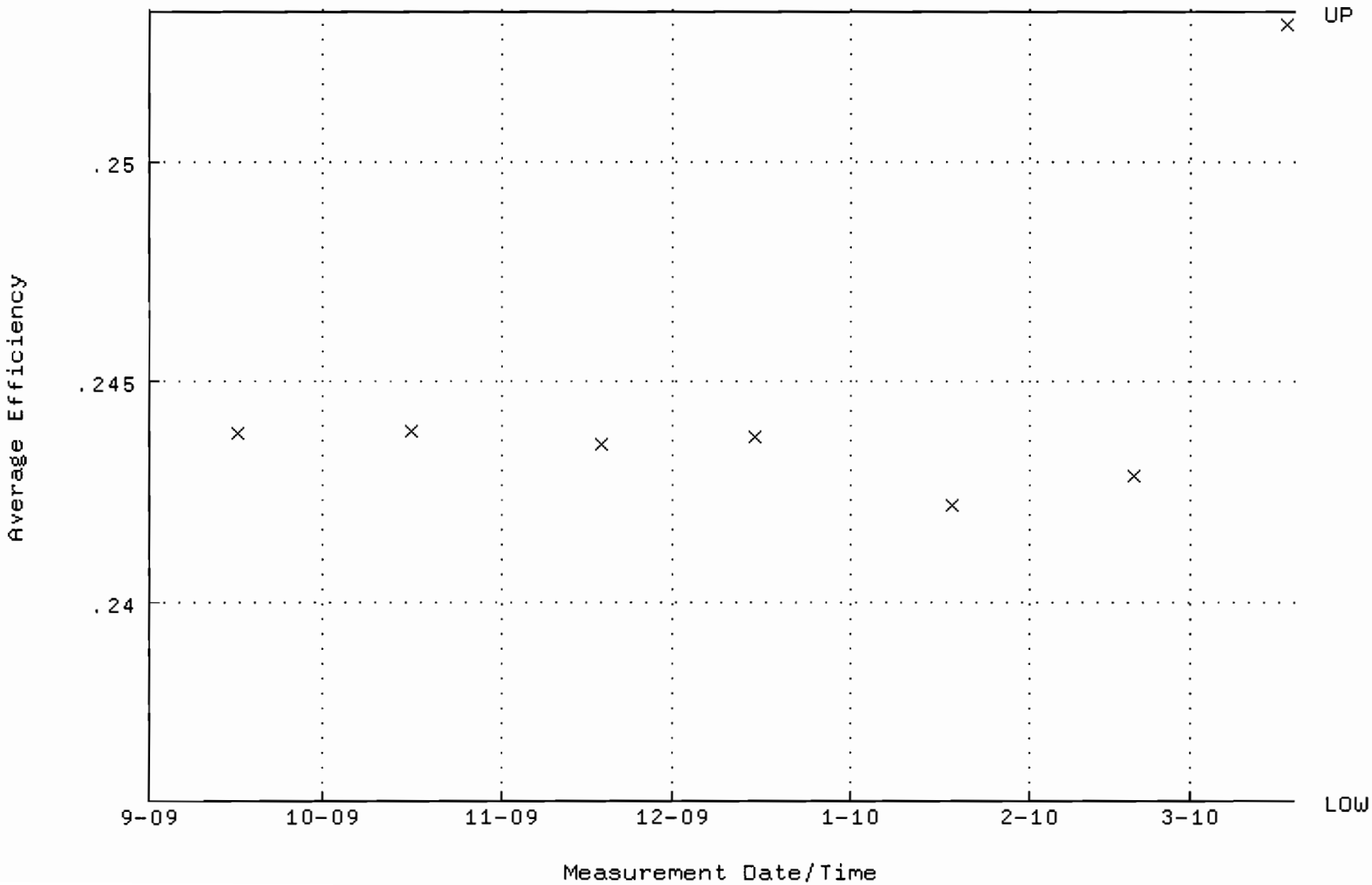

QA filename : DKA100:[ENV_ALPHA.QA.W]W143.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:03:57 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 86.4493 through 92.5939

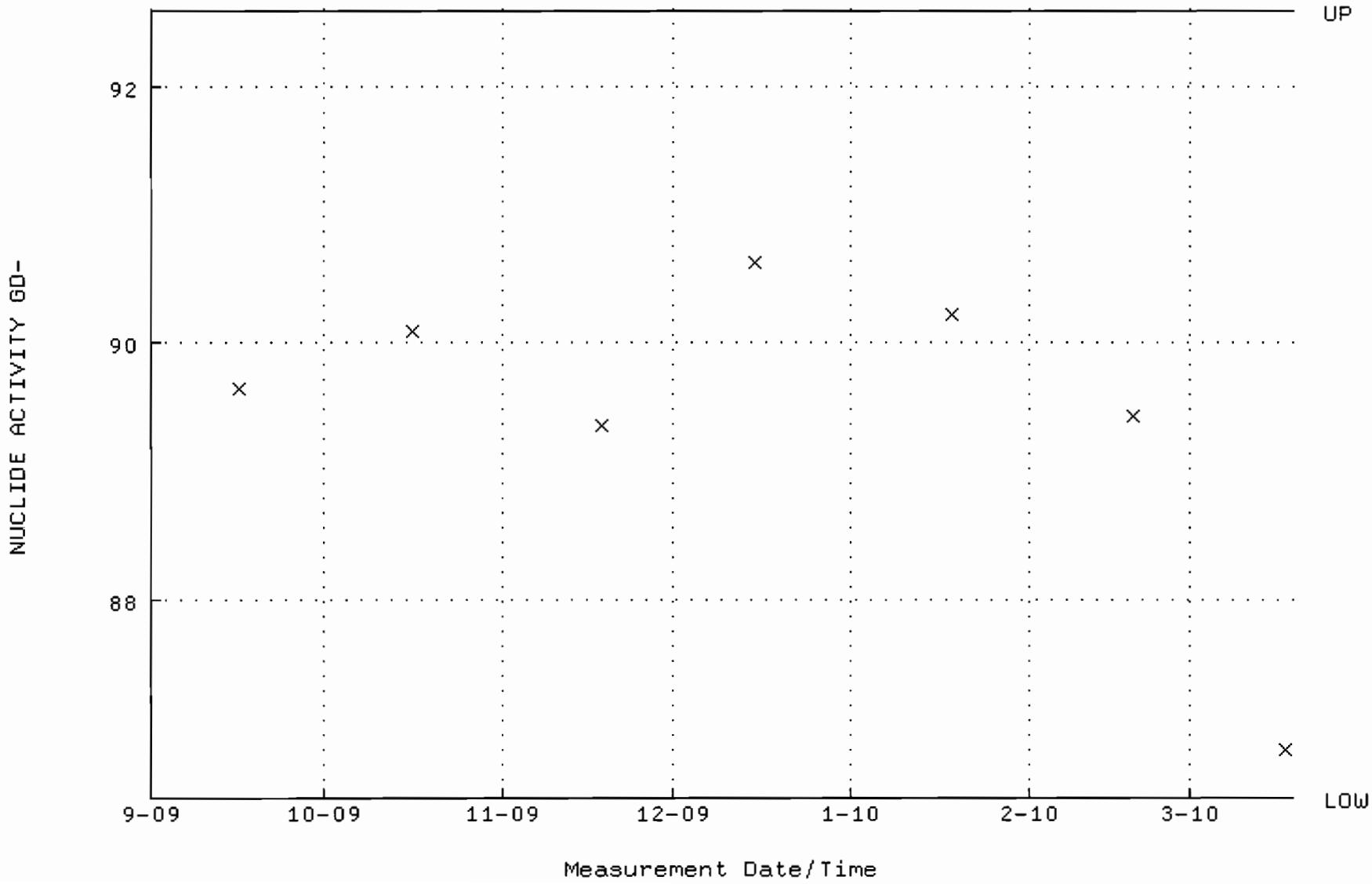

QA filename : DKA100:[ENV_ALPHA.QA.B]B143.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:18 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

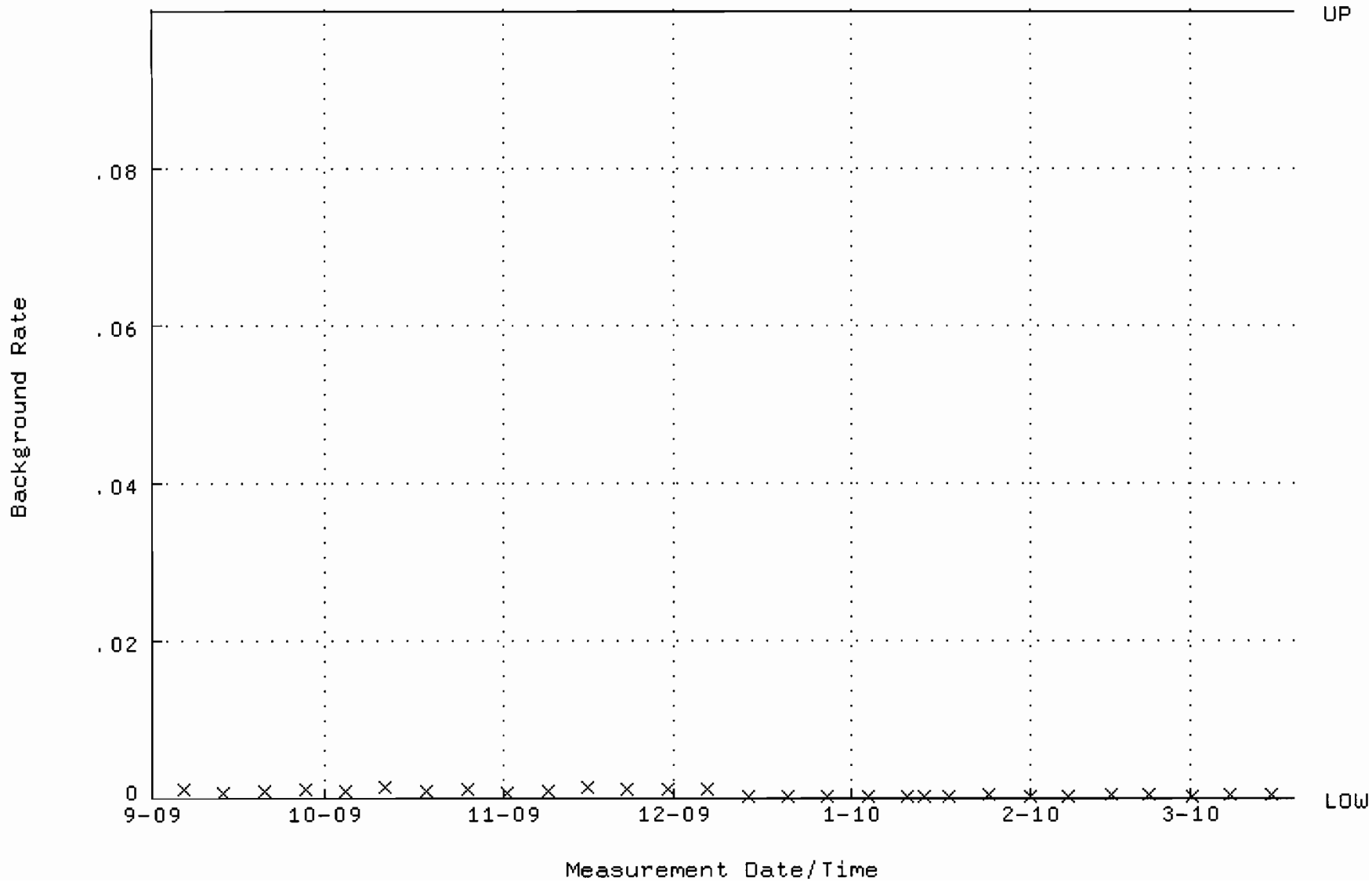

QA filename : DKA100:[ENV_ALPHA.QA.W]W233.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:37 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.366381 through 0.399563

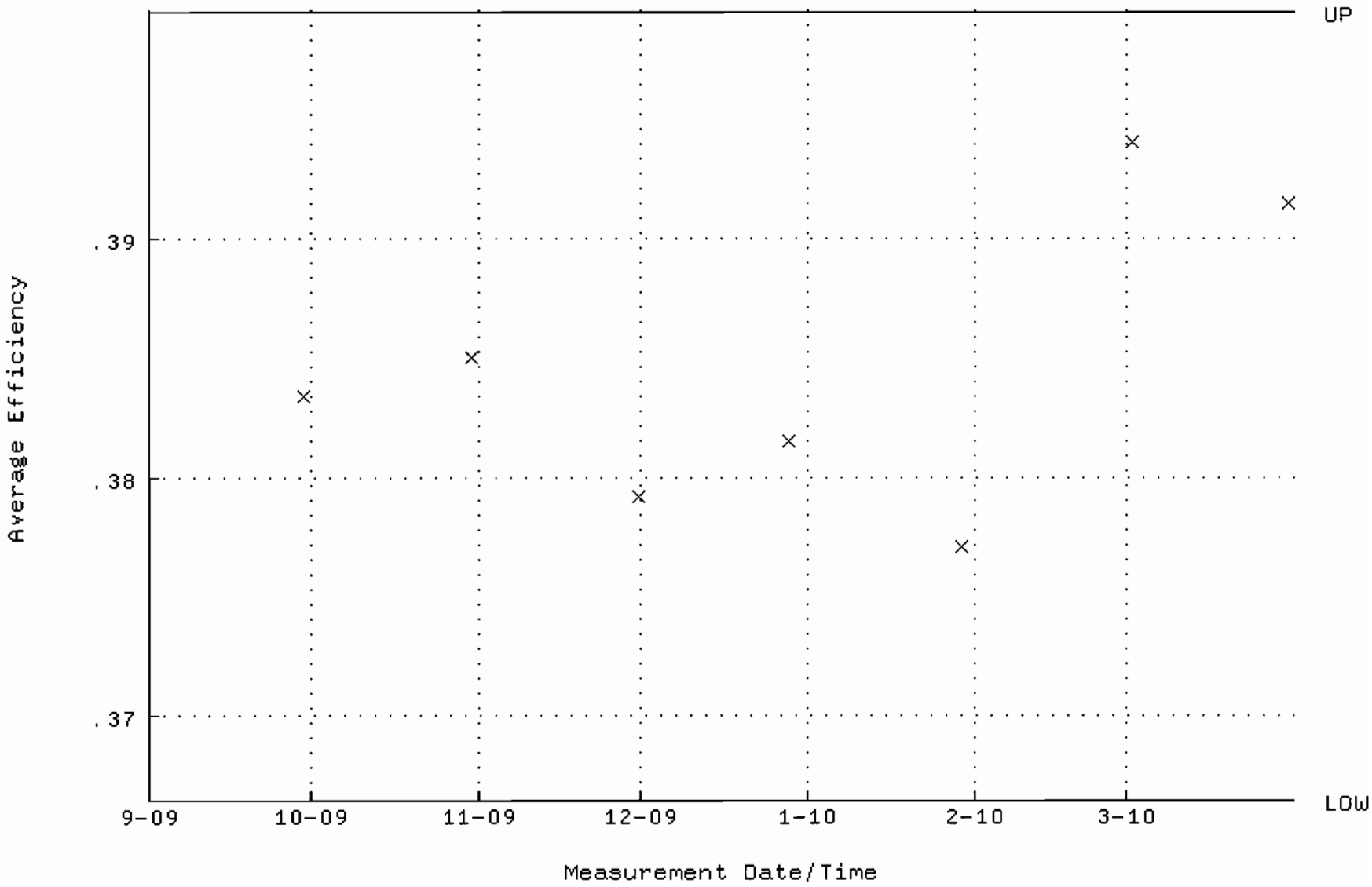

QA filename : DKA100:[ENV_ALPHA.QA.W]W233.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:37 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 82.6177 through 91.1049

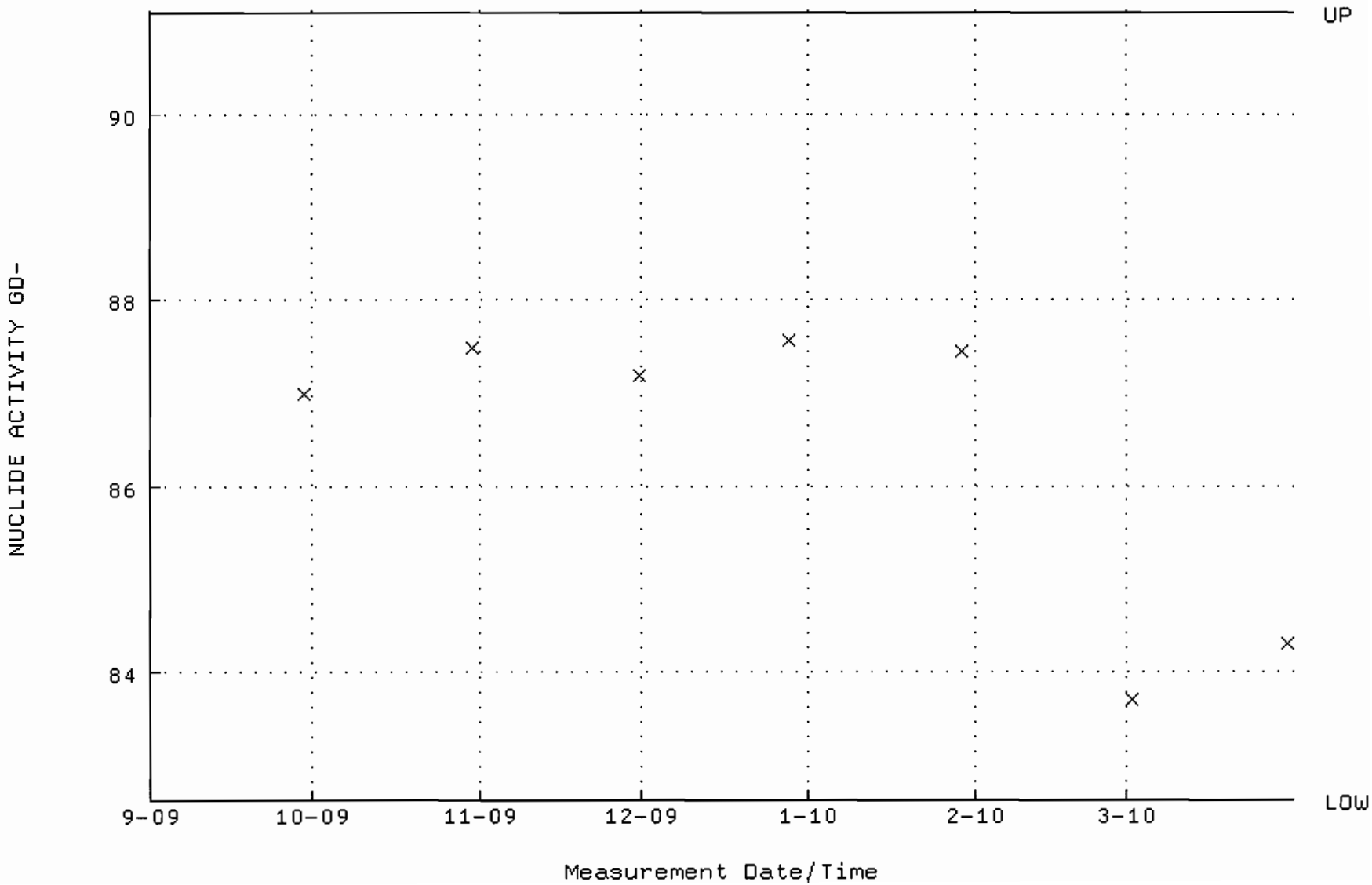

QA filename : DKA100:[ENV_ALPHA.QA.B]B233.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:12 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

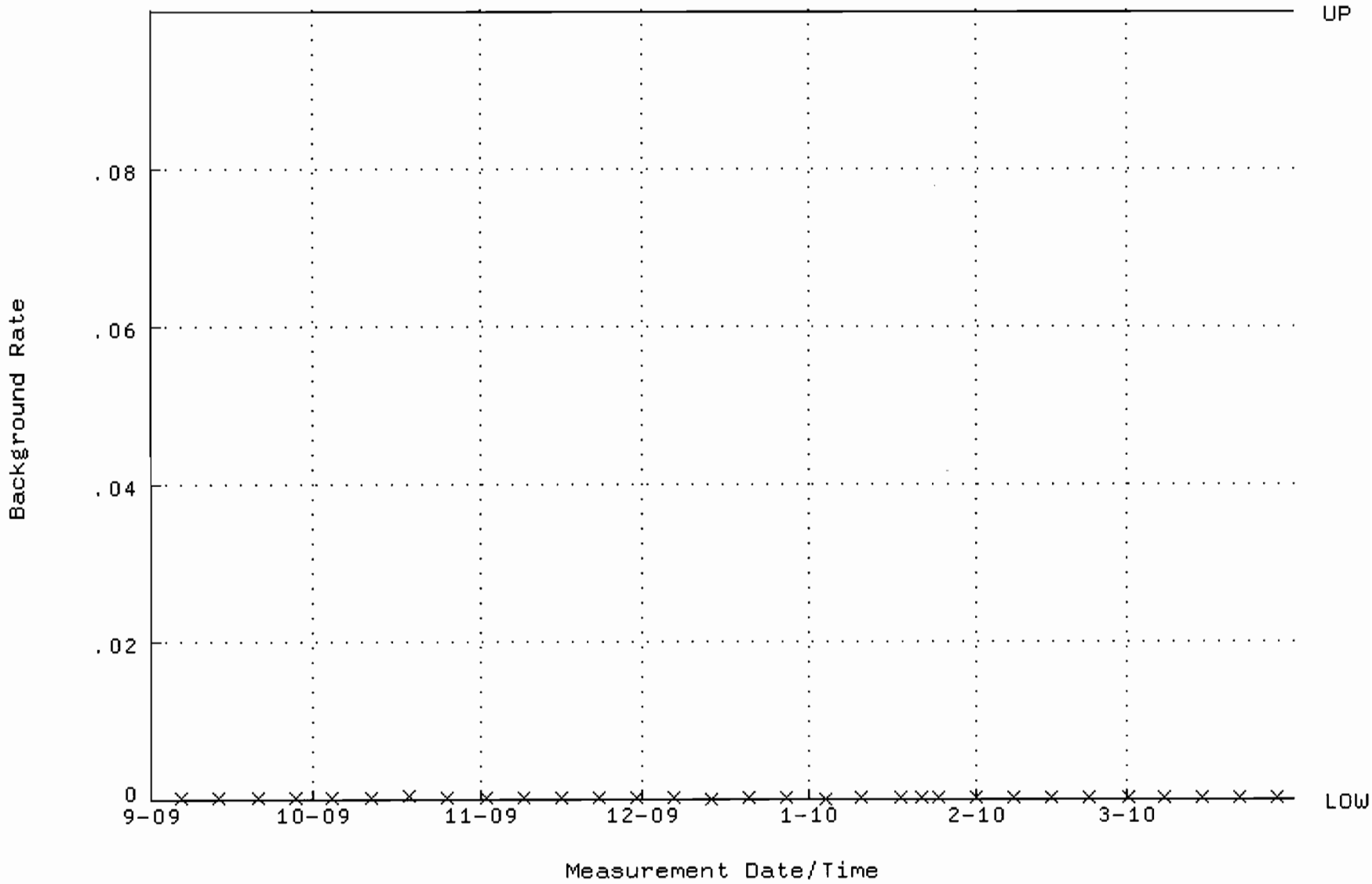

QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:42 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.368938 through 0.401788

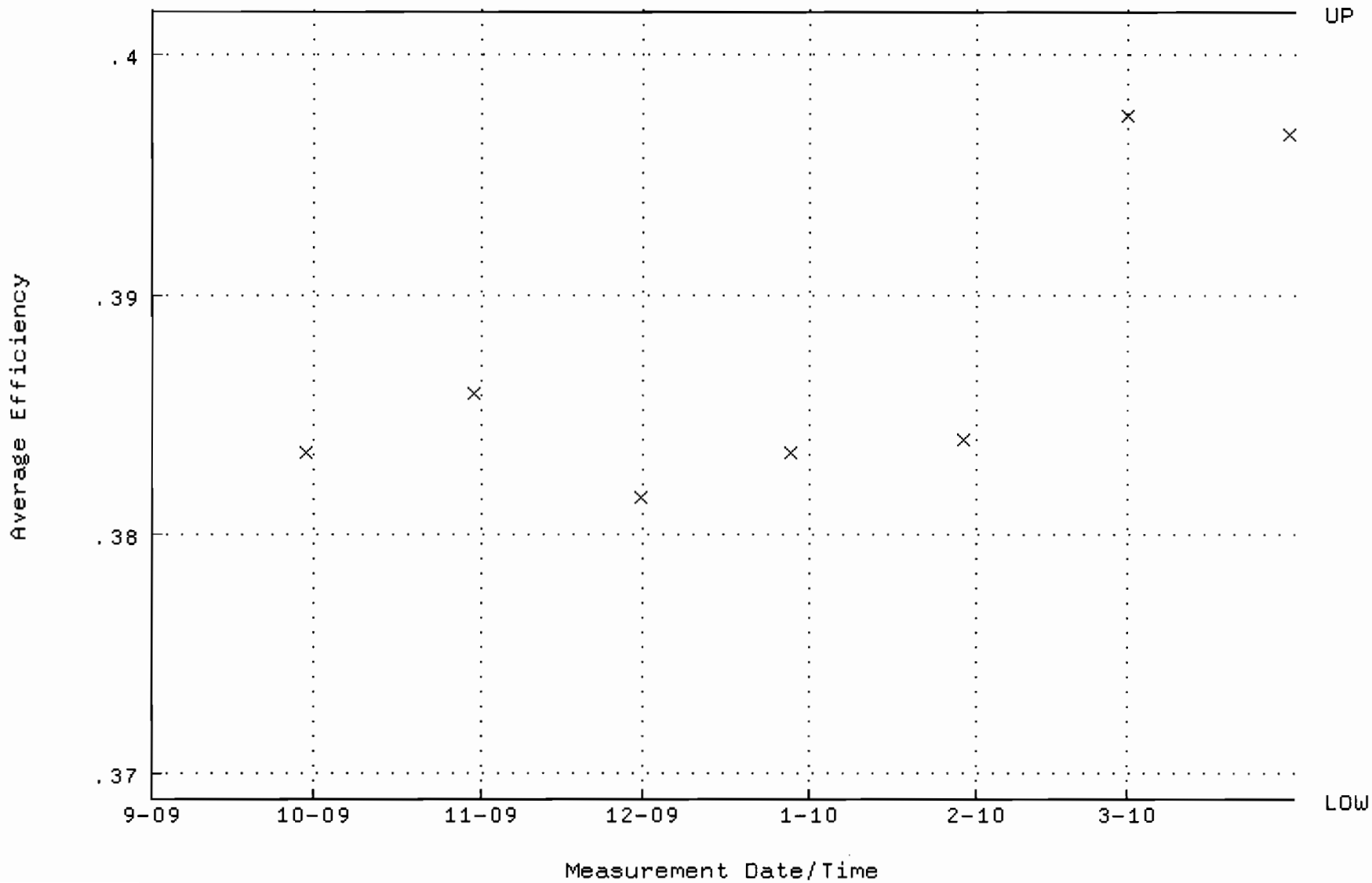

QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:42 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5490 through 88.3592

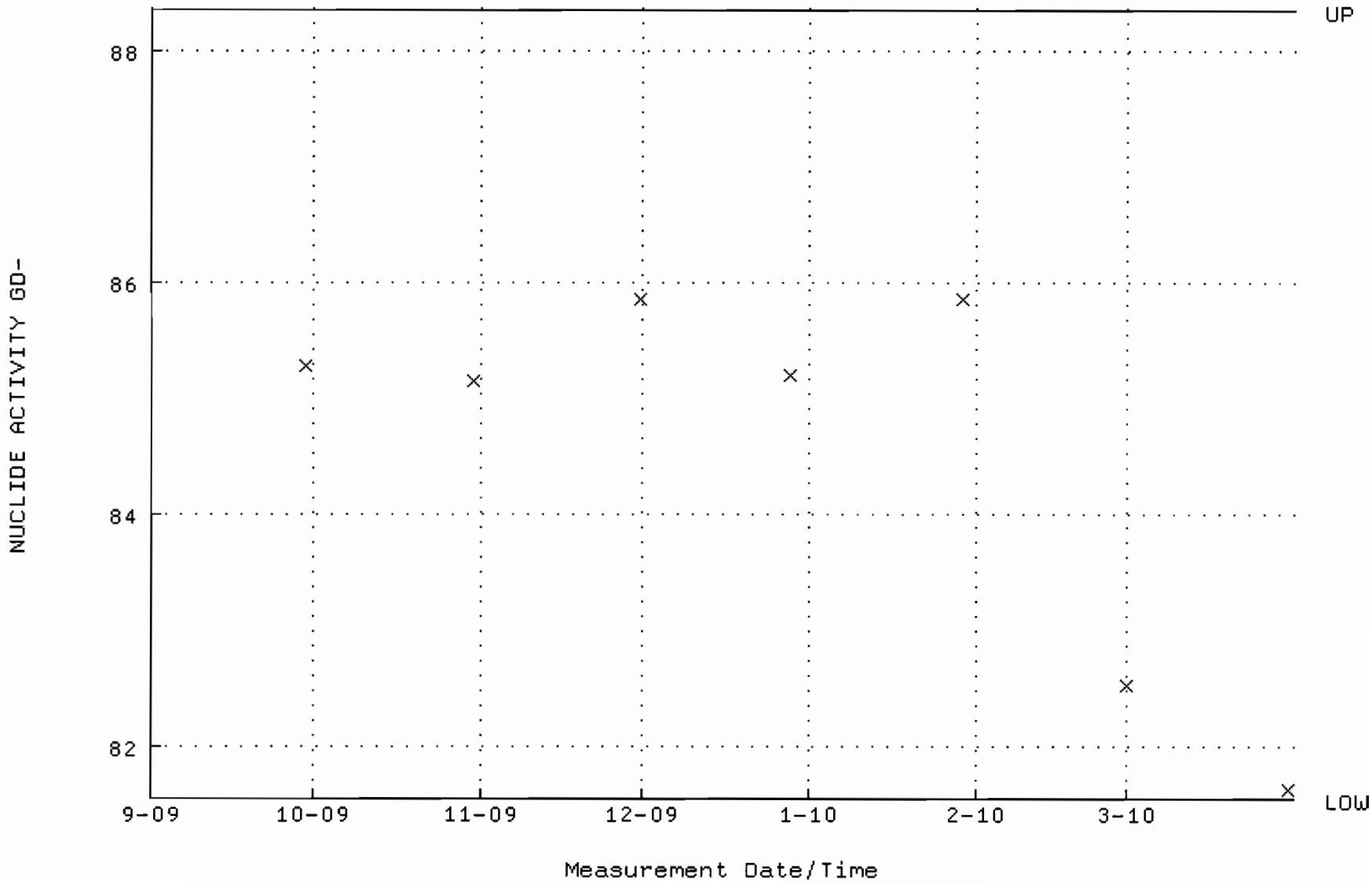

QA filename : DKA100:[ENV_ALPHA.QA.B]B234.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:16 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

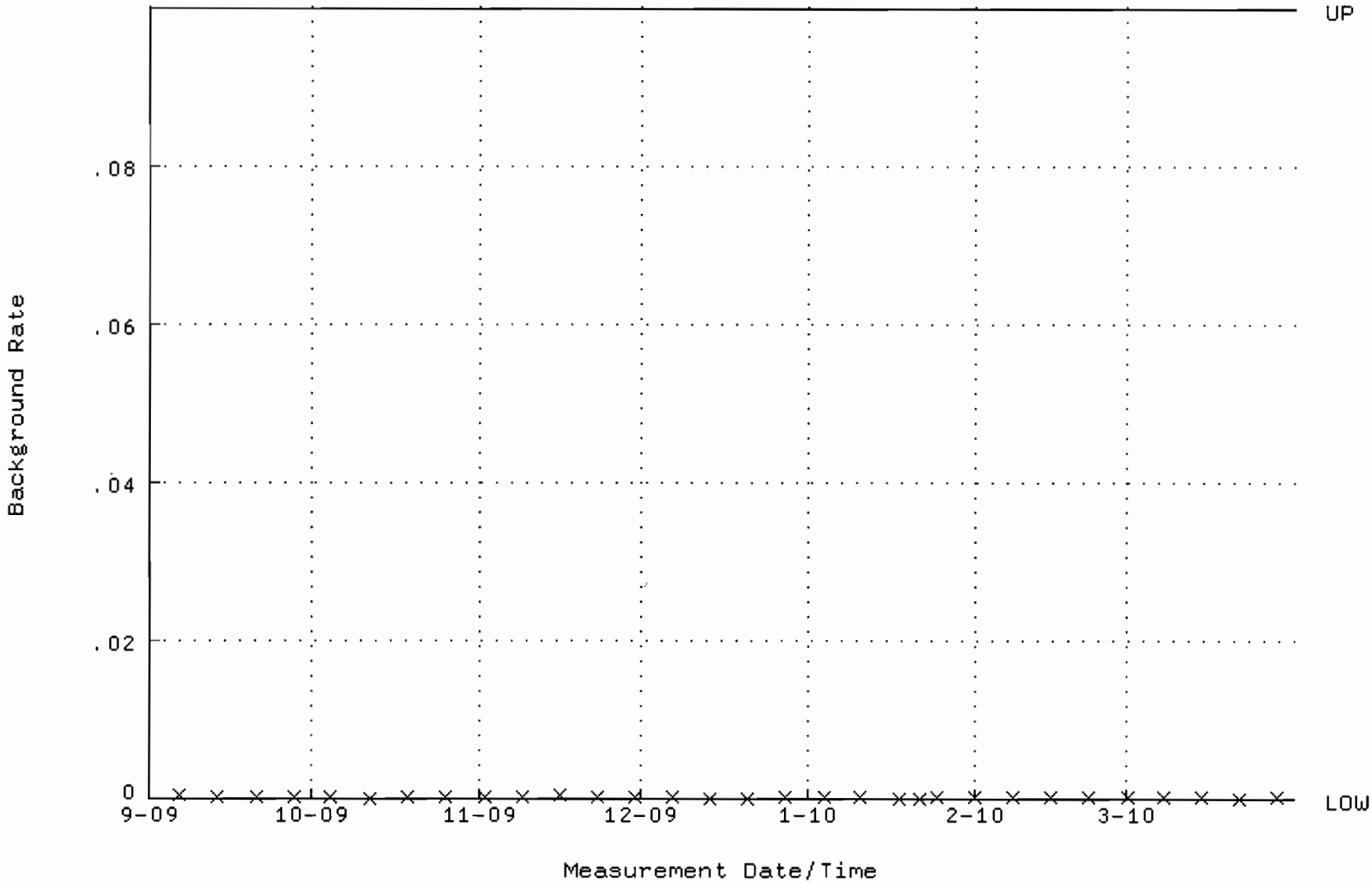

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:58 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.385327 through 0.415351

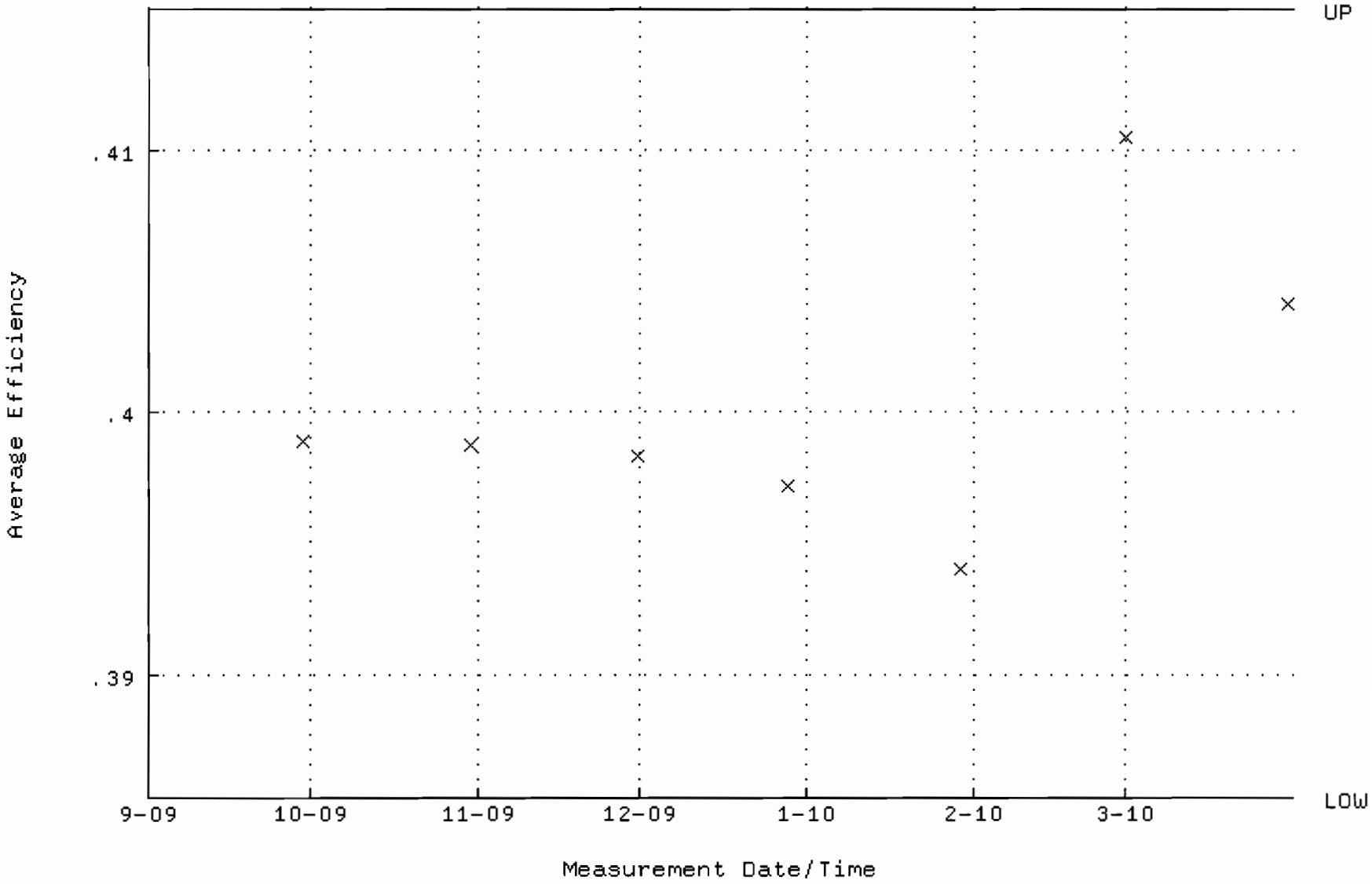

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:58 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5268 through 85.6787

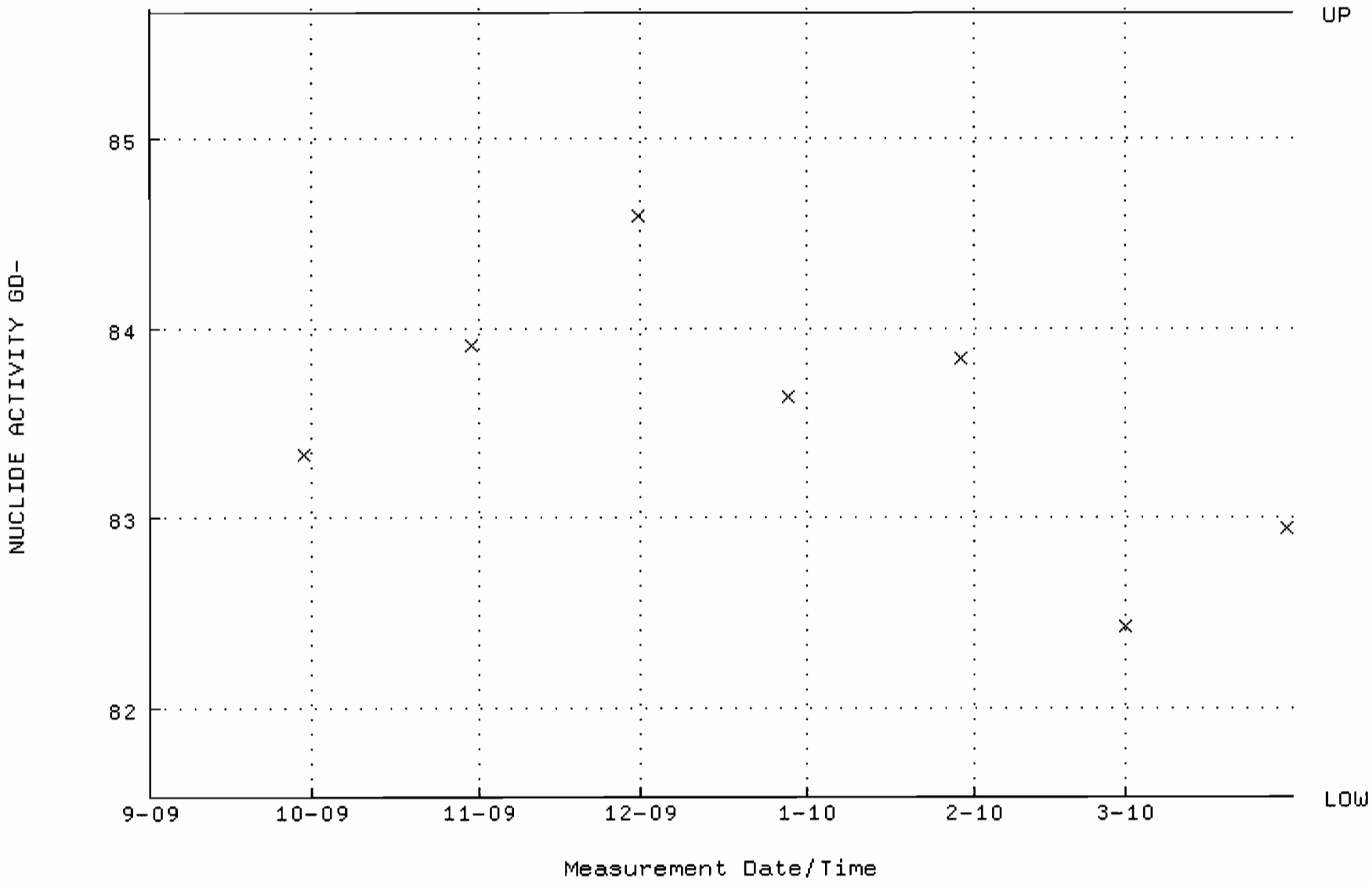

QA filename : DKA100:[ENV_ALPHA.QA.B]B237.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:30 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

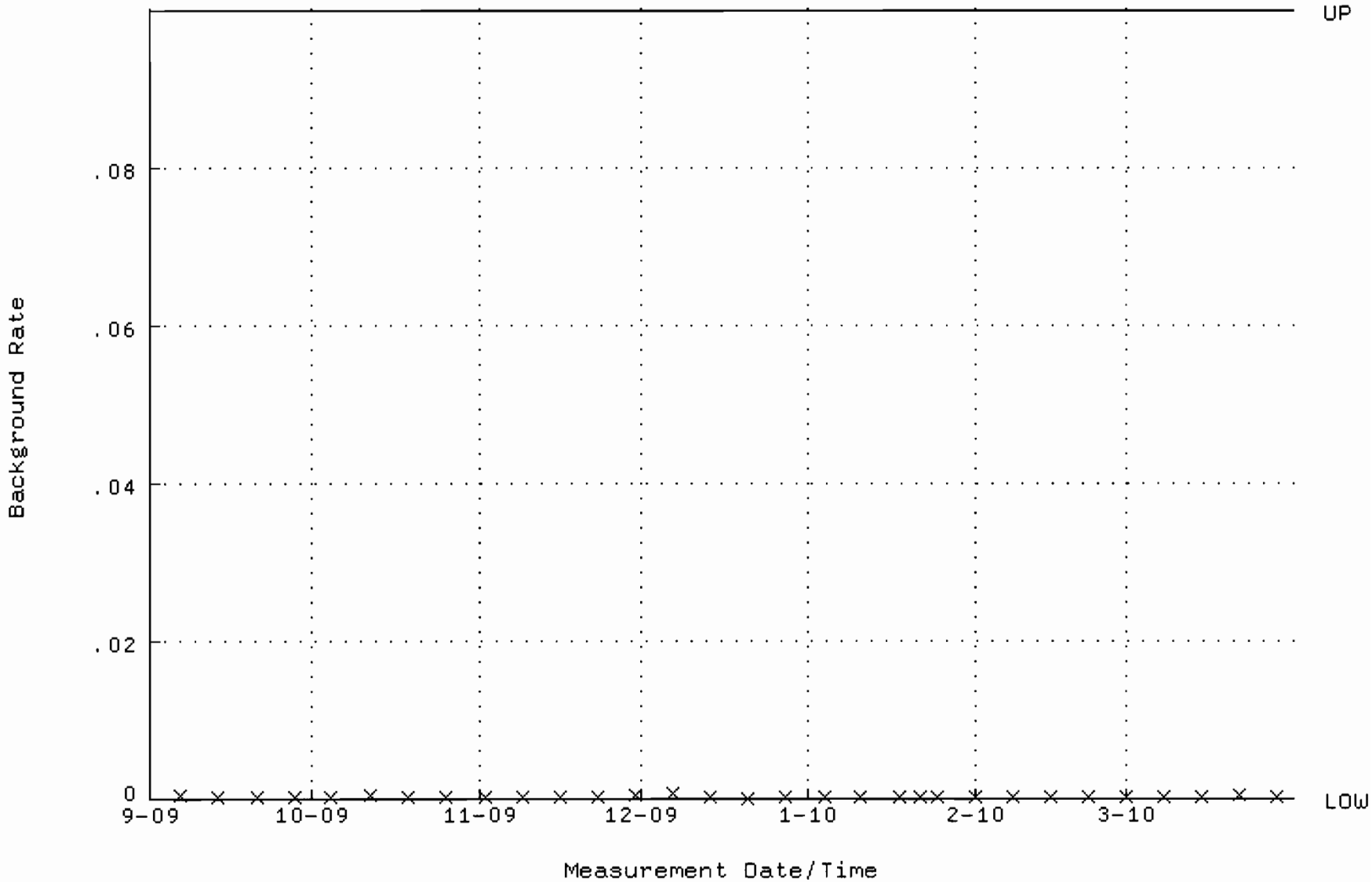

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:04 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.389351 through 0.404525

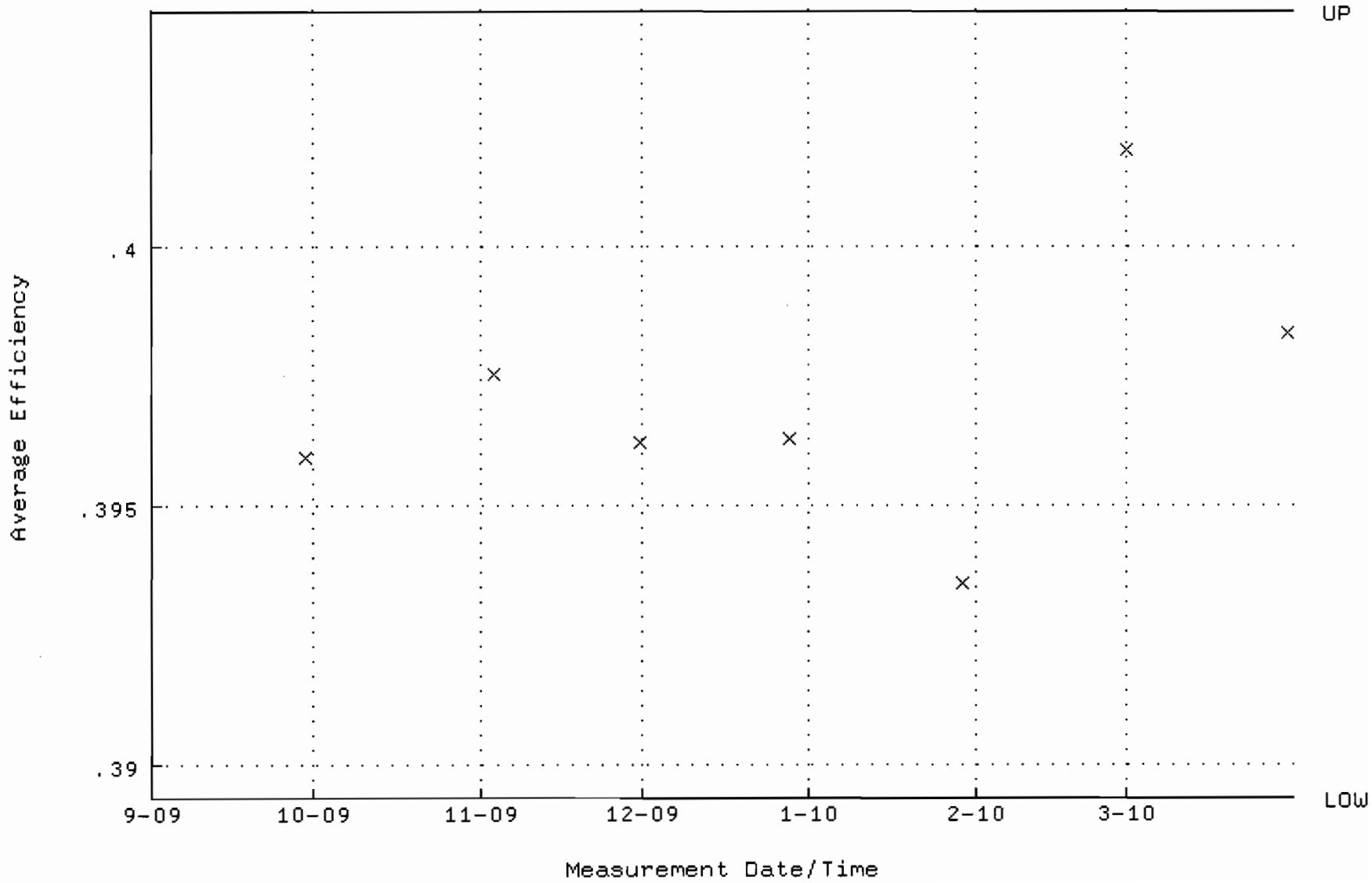

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:04 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 82.7118 through 85.8726

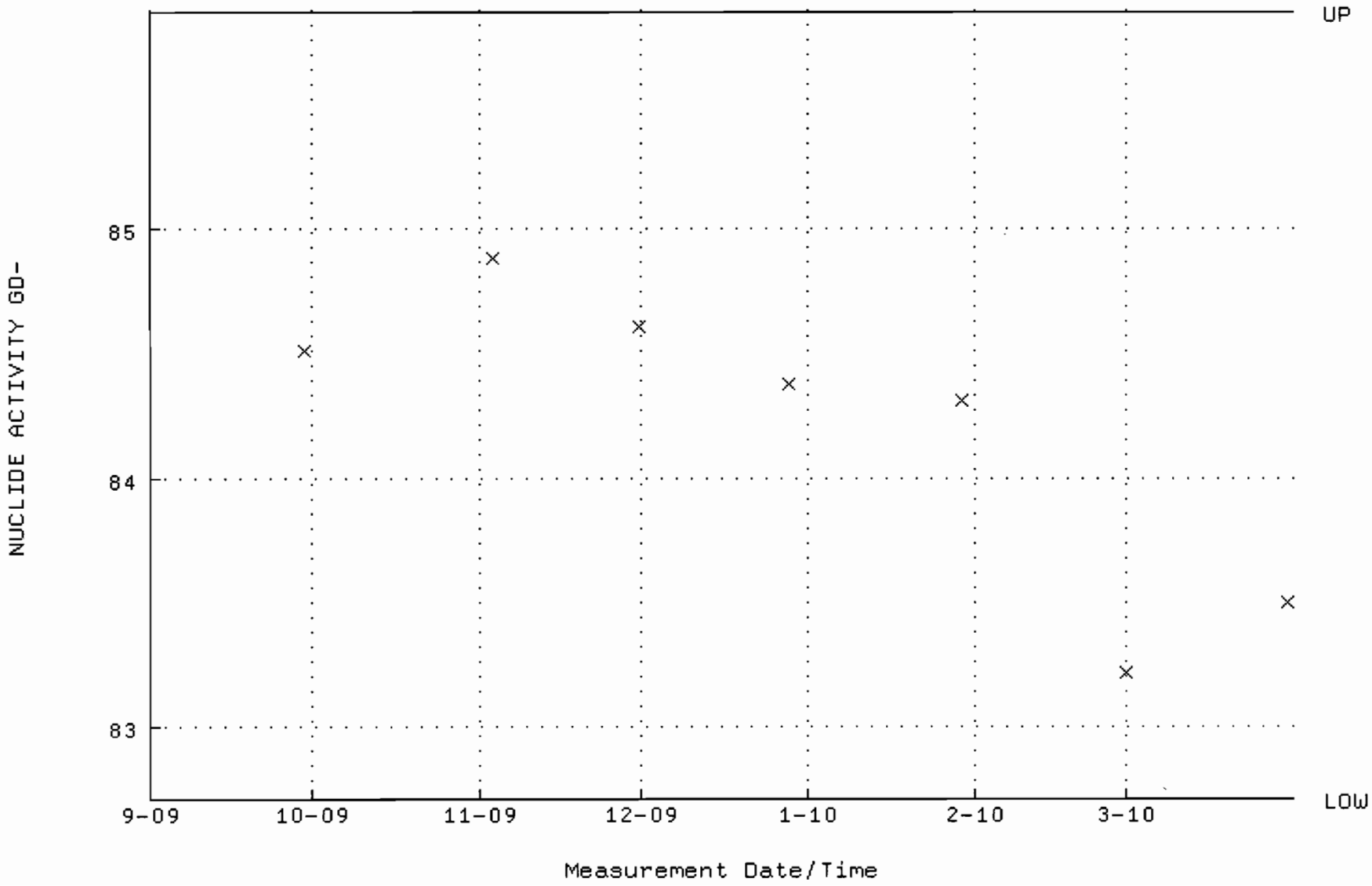

QA filename : DKA100:[ENV_ALPHA.QA.B]B238.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:34 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

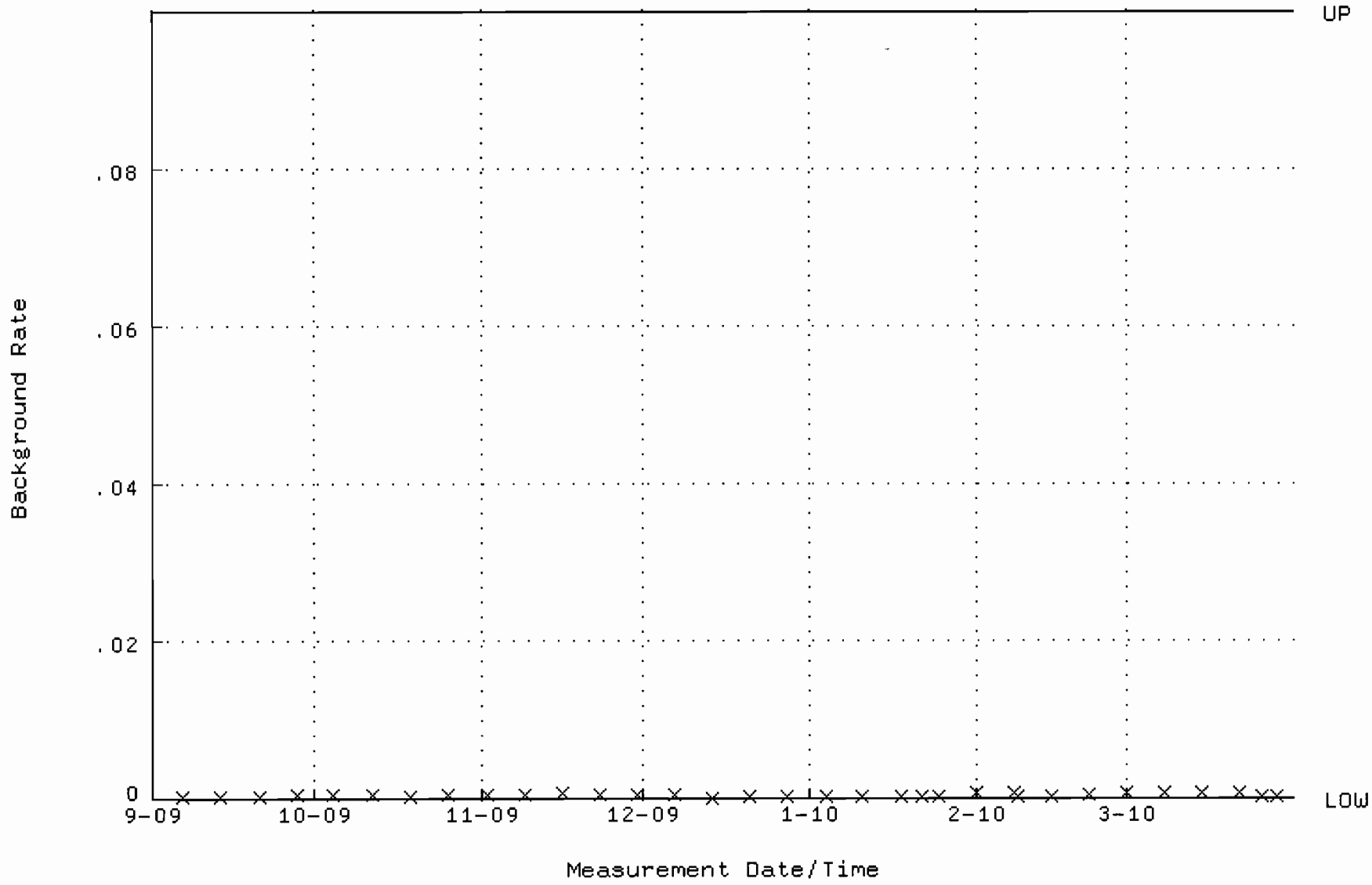

QA filename : DKA100:[ENV_ALPHA.QA.W]W239.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:10 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.366465 through 0.400837

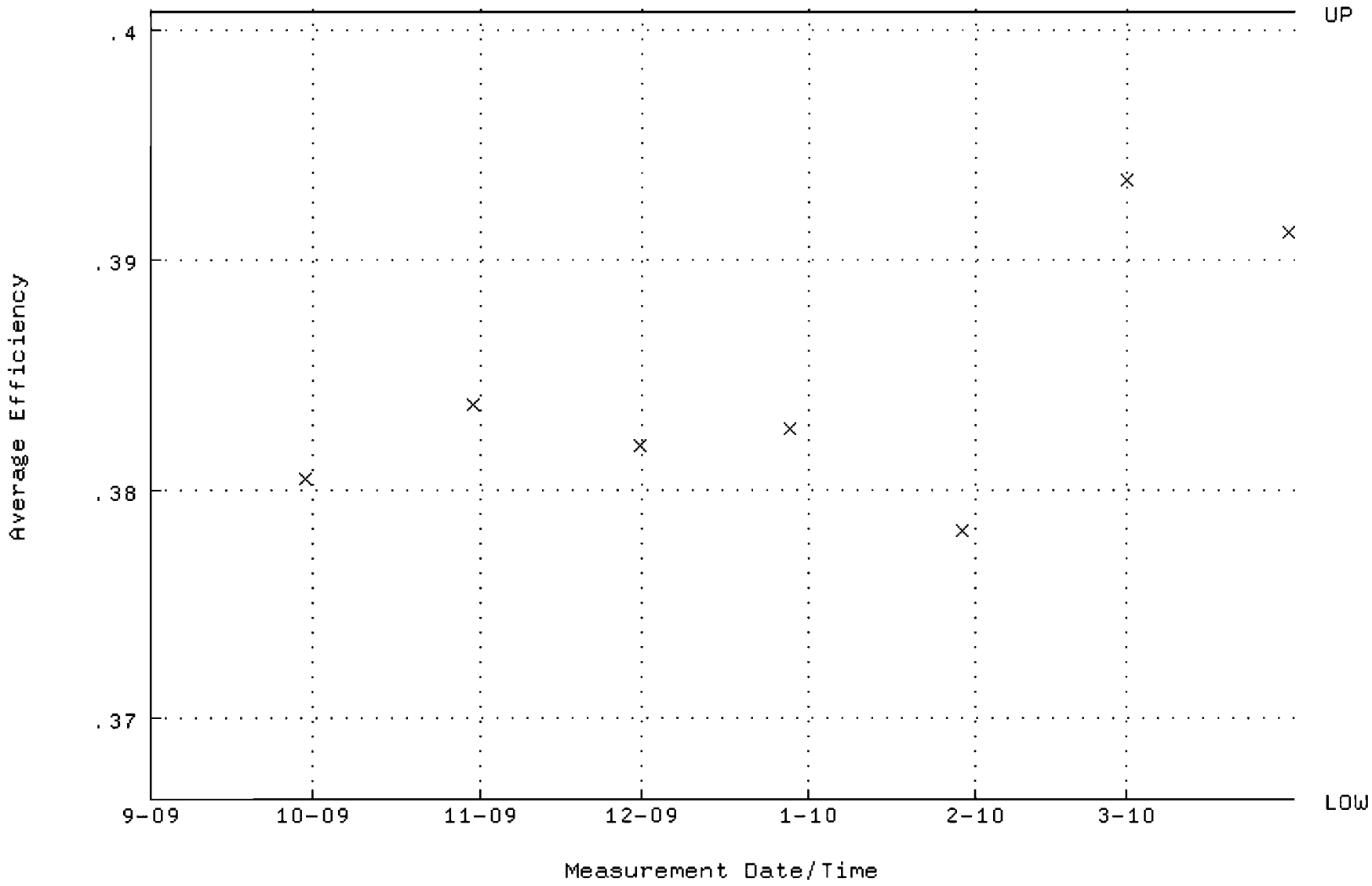

QA filename : DKA100:[ENV_ALPHA.QA.W]W239.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:10 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 82.5482 through 91.4126

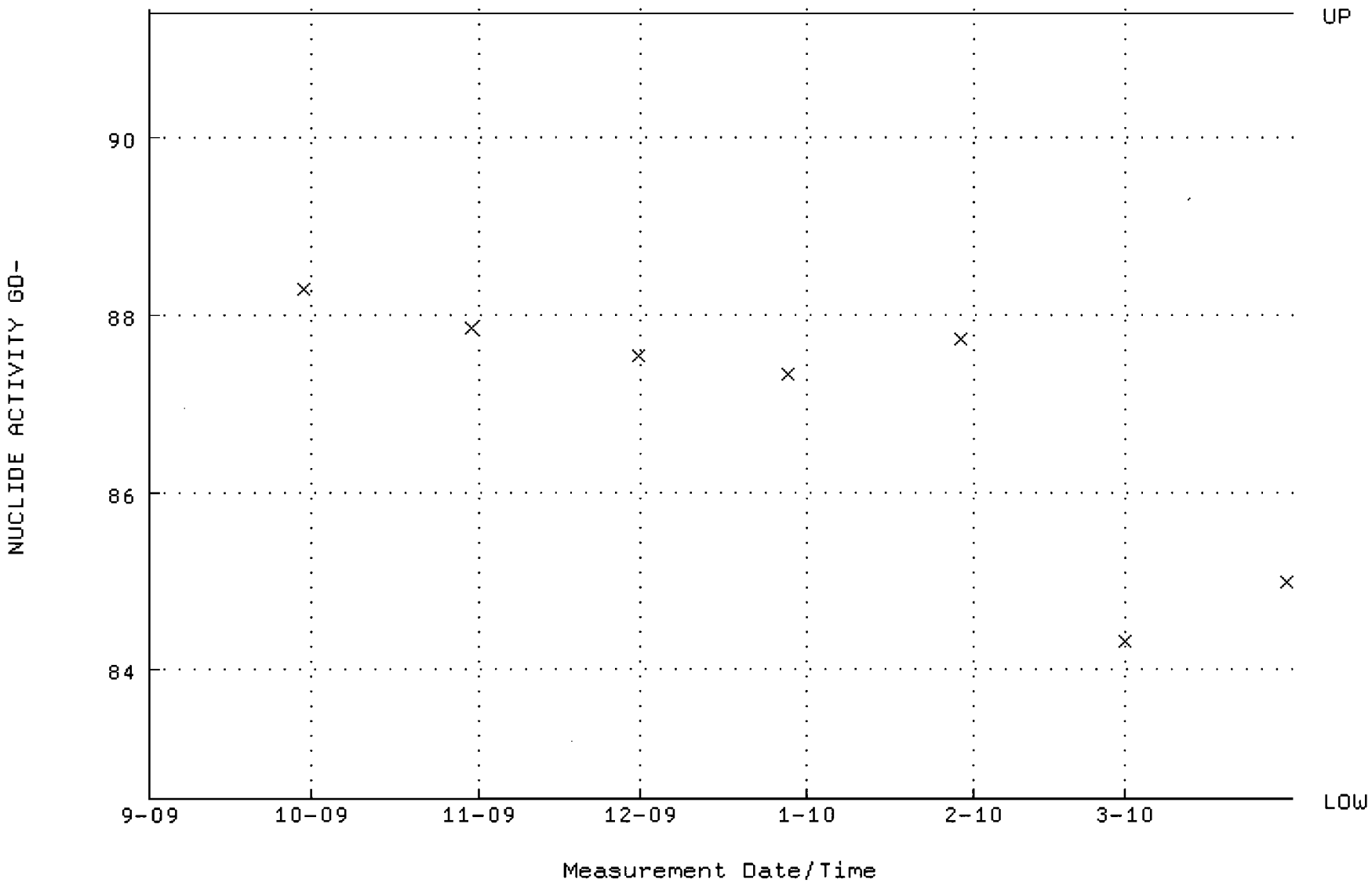

QA filename : DKA100:[ENV_ALPHA.QA.B]B239.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:39 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

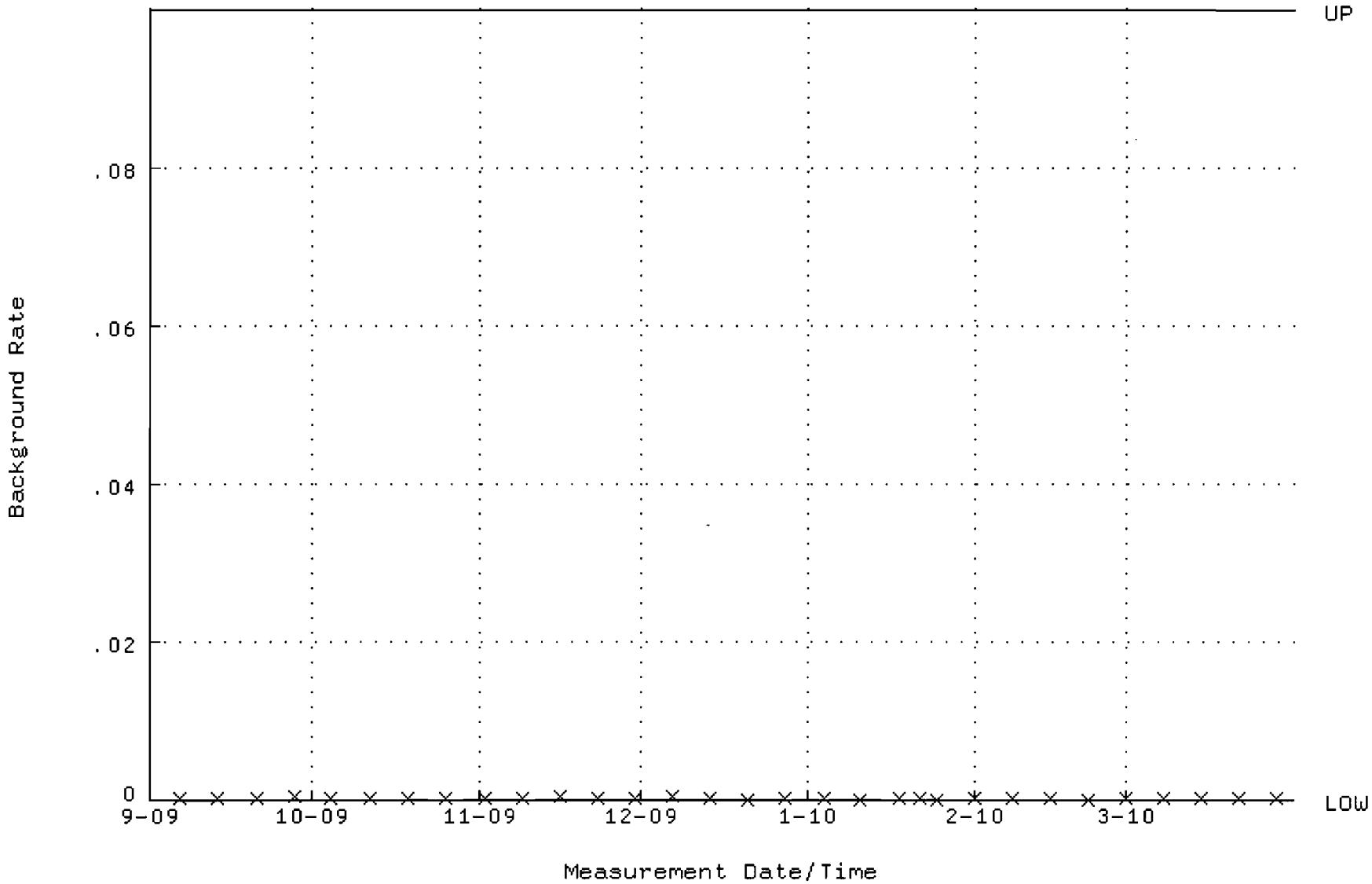

QA filename : DKA100:[ENV_ALPHA.QA.W]W240.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:16 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.353617 through 0.392947

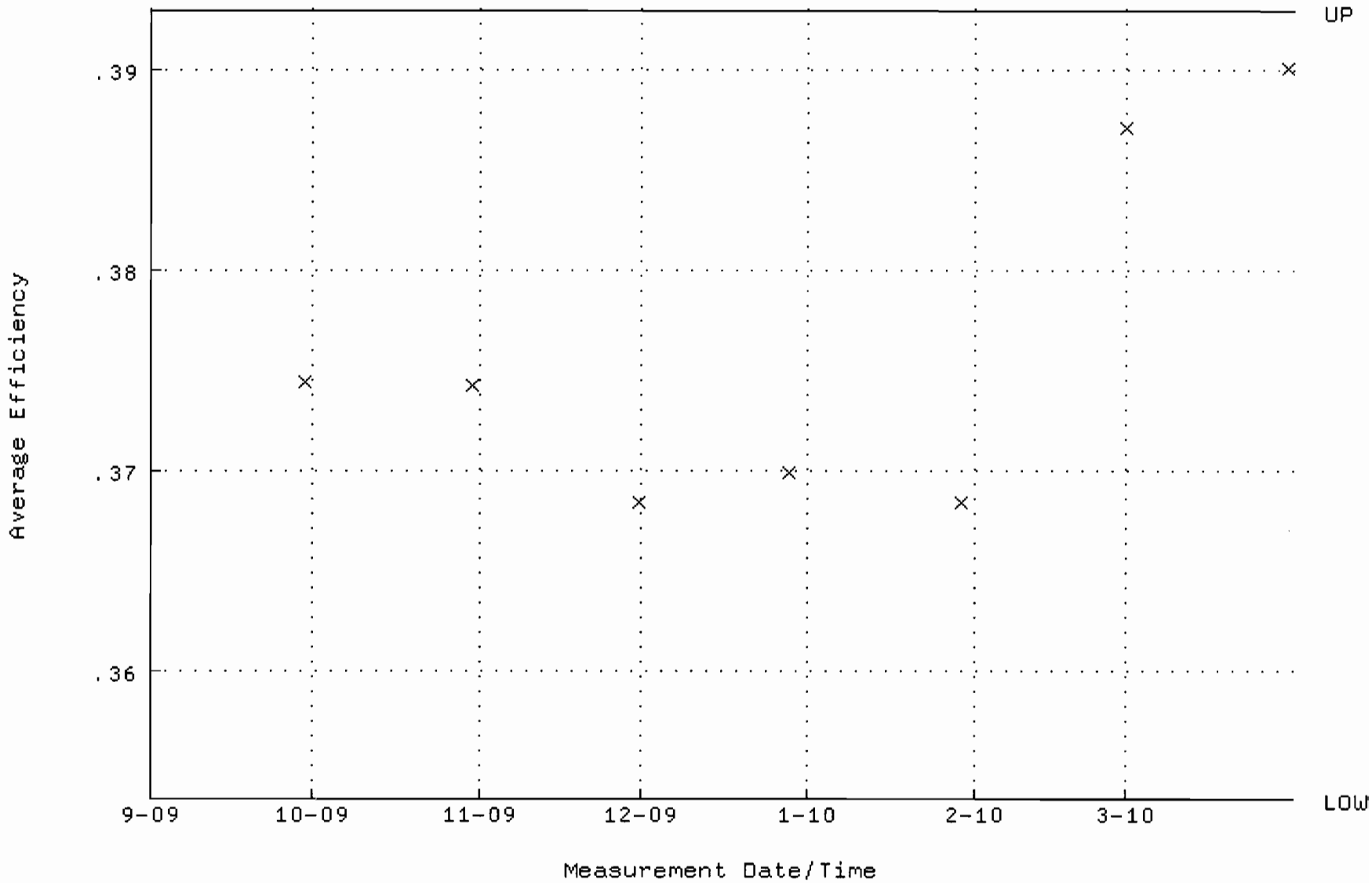

QA filename : DKA100:[ENV_ALPHA.QA.W]W240.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:16 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 82.4439 through 92.1786

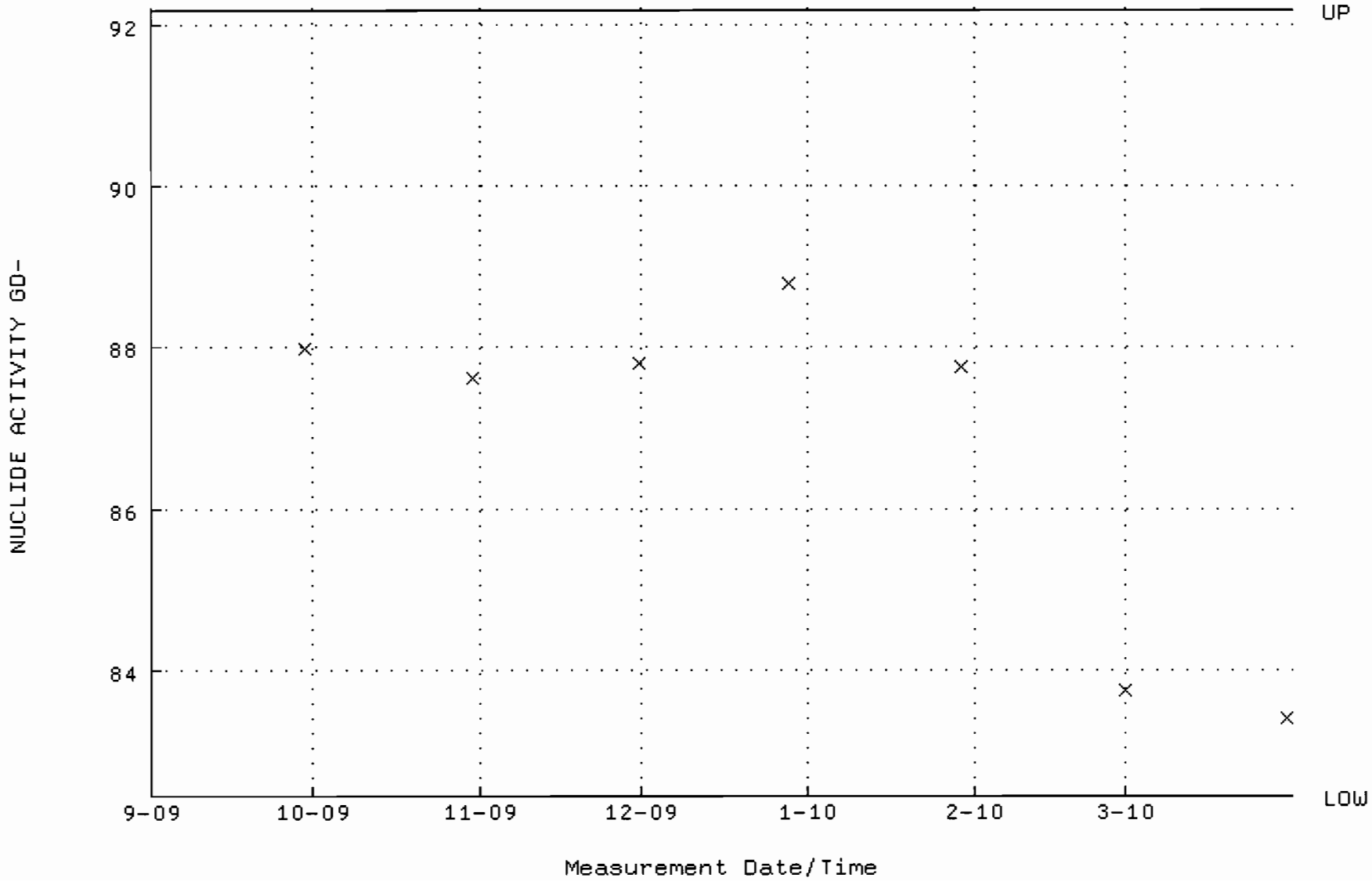

QA filename : DKA100:[ENV_ALPHA.QA.B]B240.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:44 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

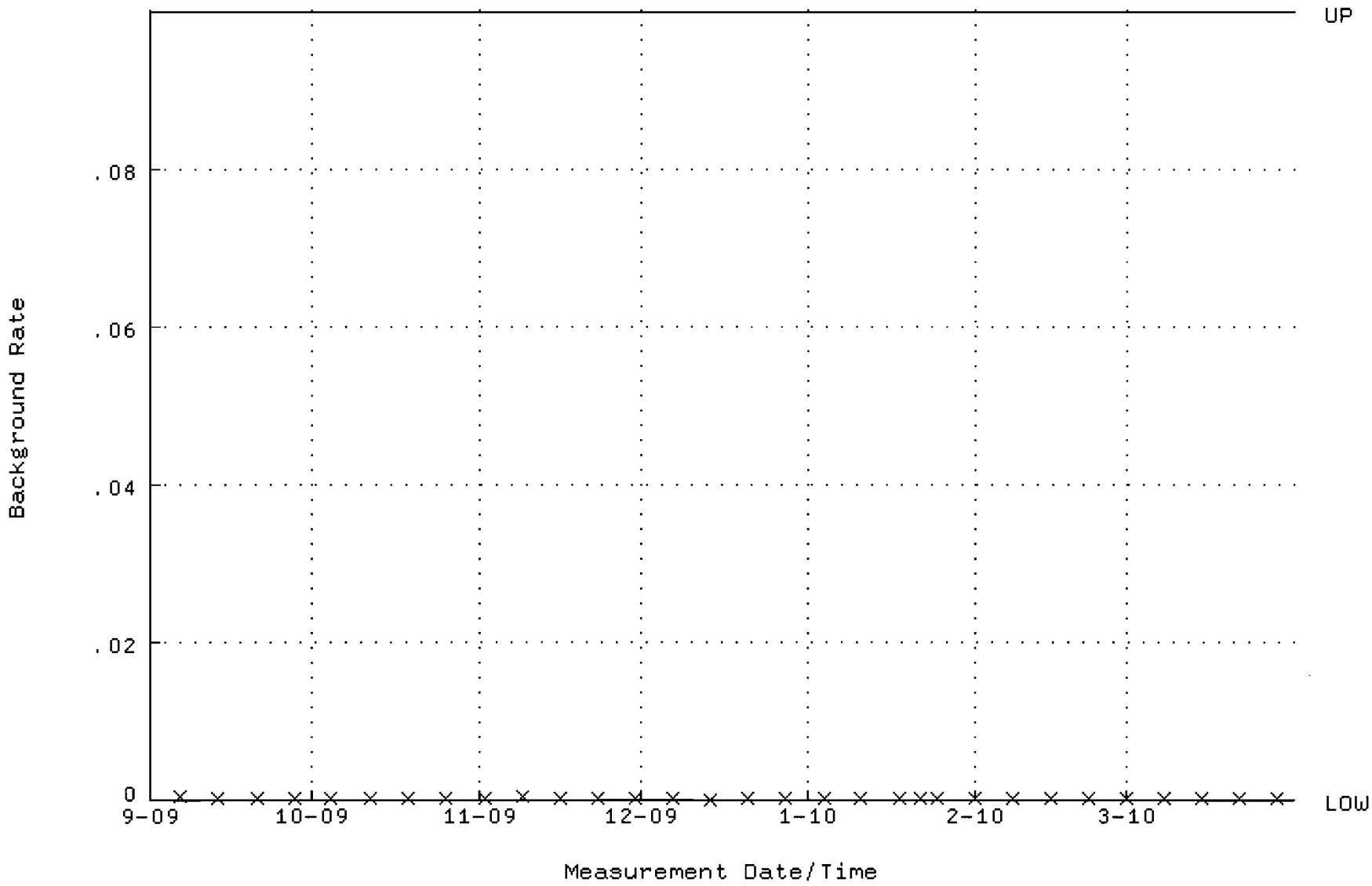

QA filename : DKA100:[ENV_ALPHA.QA.W]W241.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:20 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.358643 through 0.400349

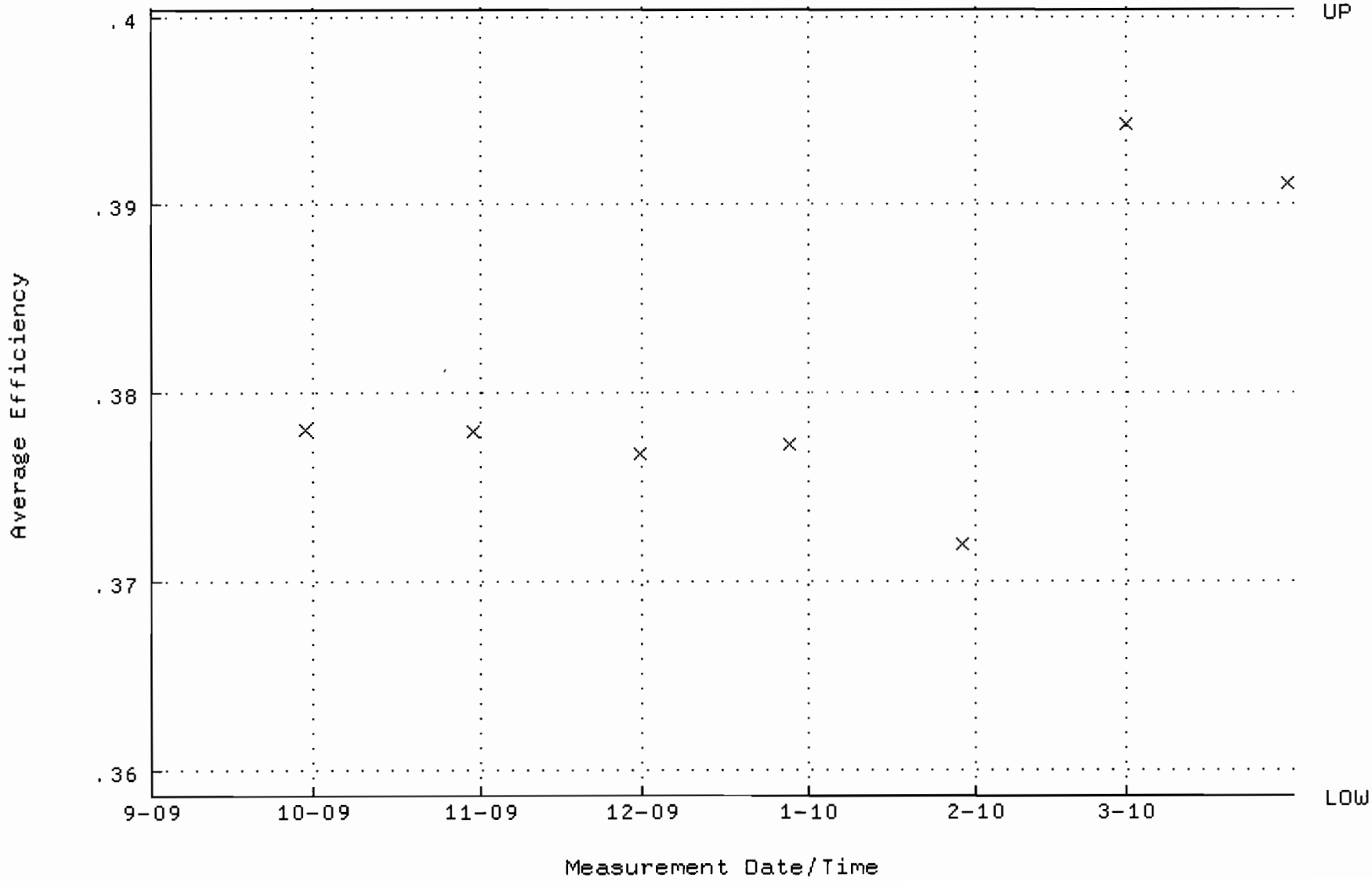

QA filename : DKA100:[ENV_ALPHA.QA.W]W241.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:20 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 83.4341 through 92.1277

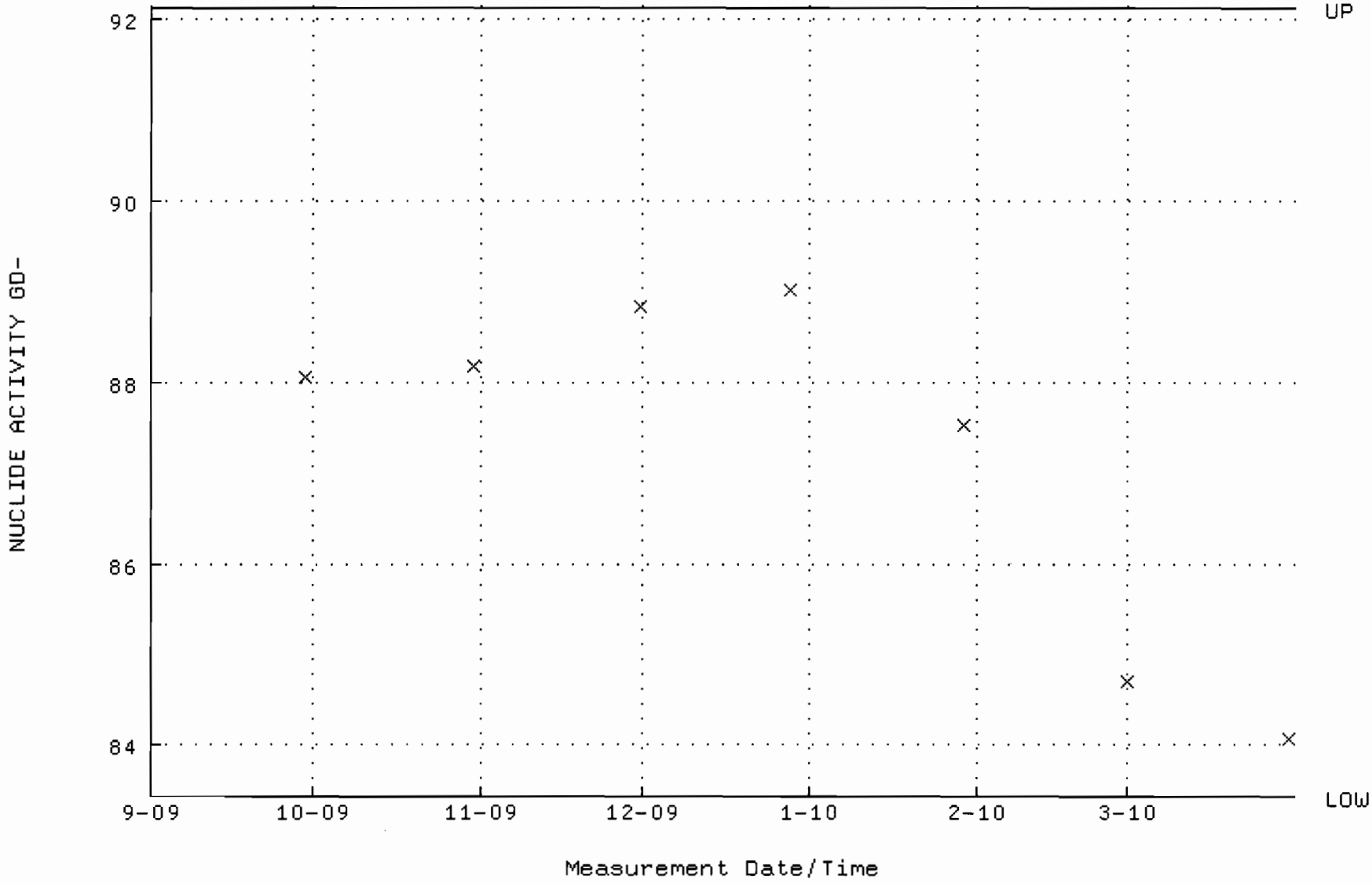

QA filename : DKA100:[ENV_ALPHA.QA.B]B241.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:48 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

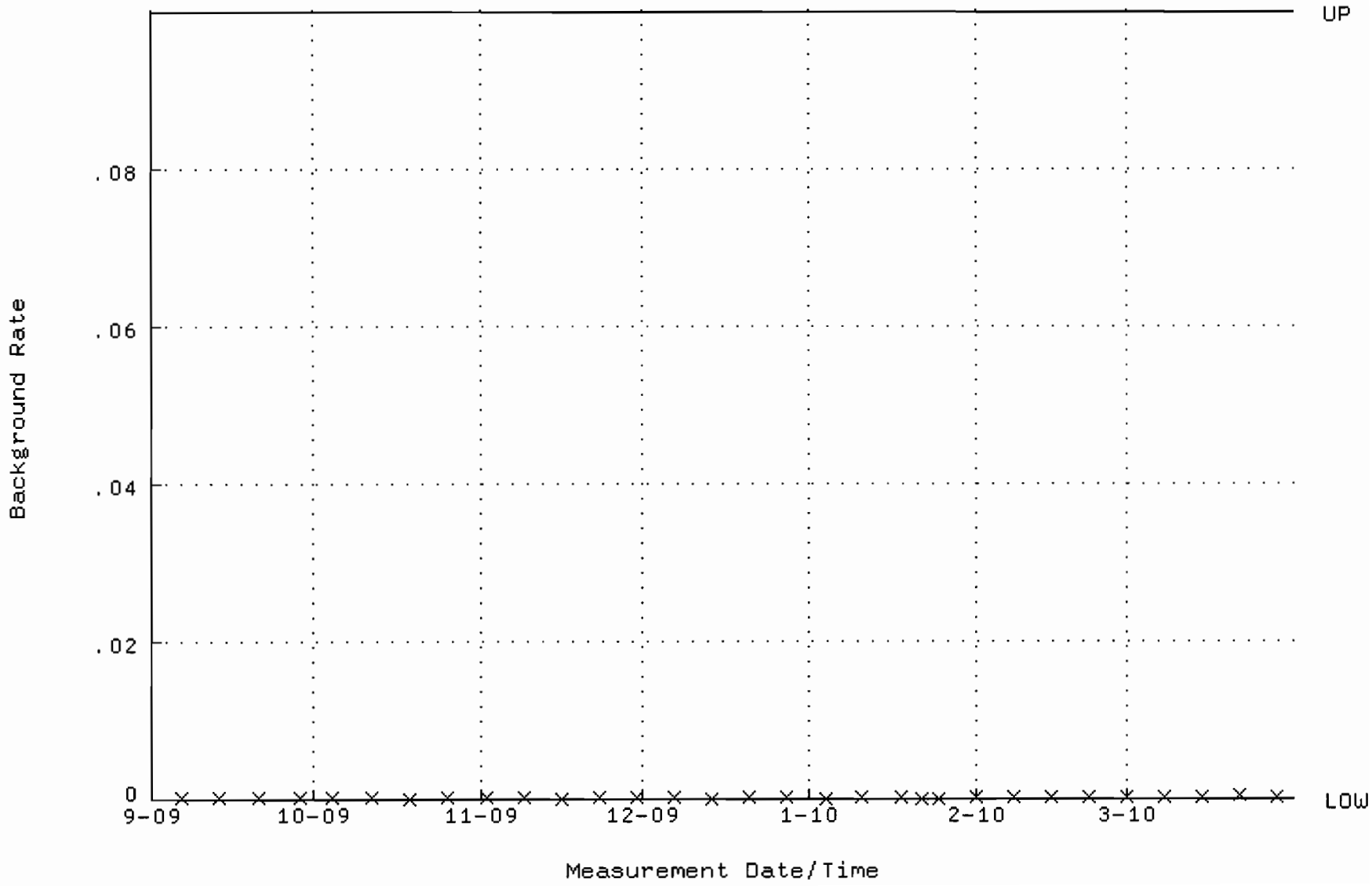

QA filename : DKA100:[ENV_ALPHA.QA.W]W242.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:26 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.370669 through 0.400529

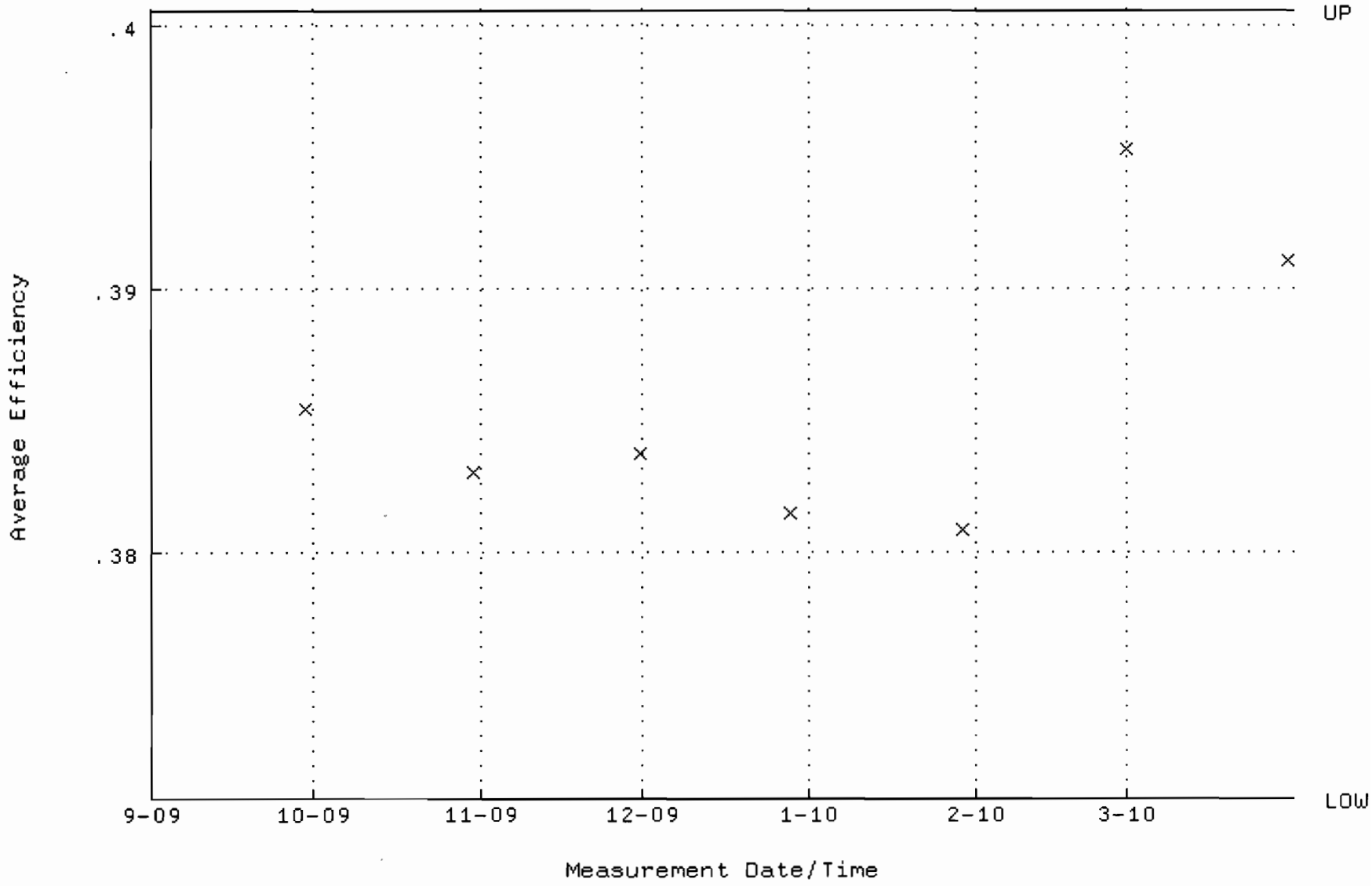

QA filename : DKA100:[ENV_ALPHA.QA.W]W242.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:26 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 82.9250 through 92.3782

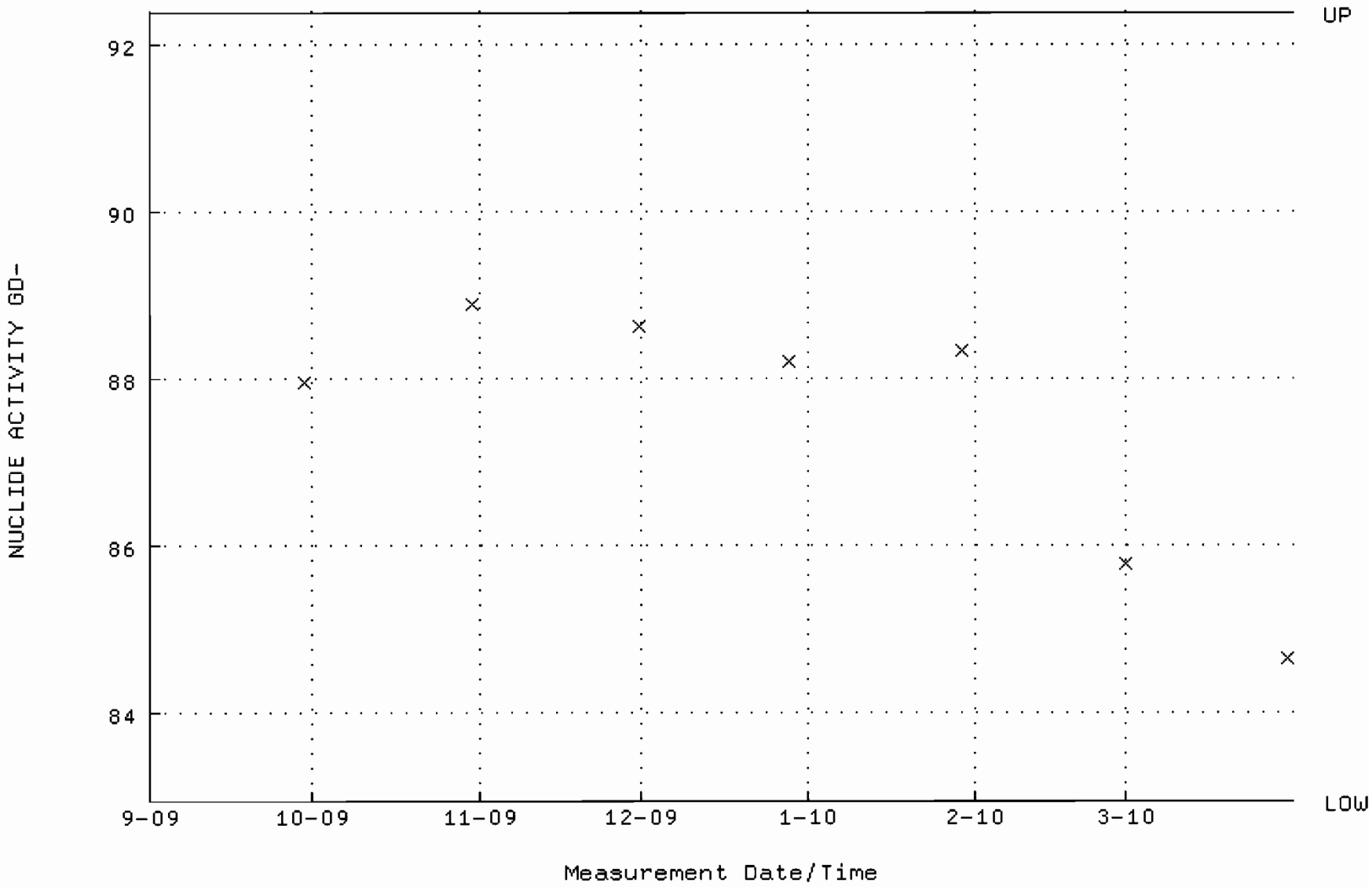

QA filename : DKA100:[ENV_ALPHA.QA.B]B242.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:53 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

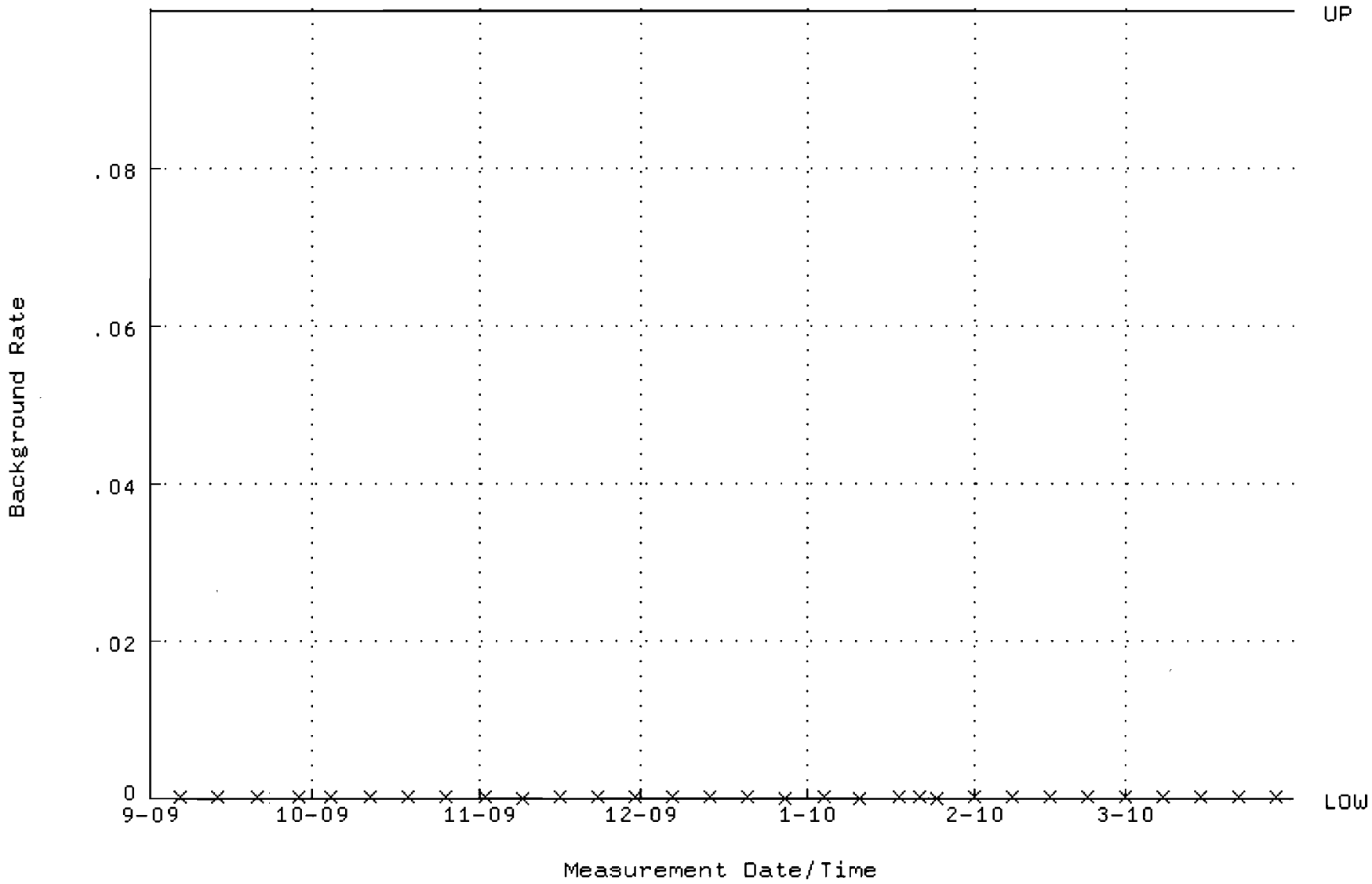

QA filename : DKA100:[ENV_ALPHA.QA.W]W243.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:32 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.330696 through 0.428326

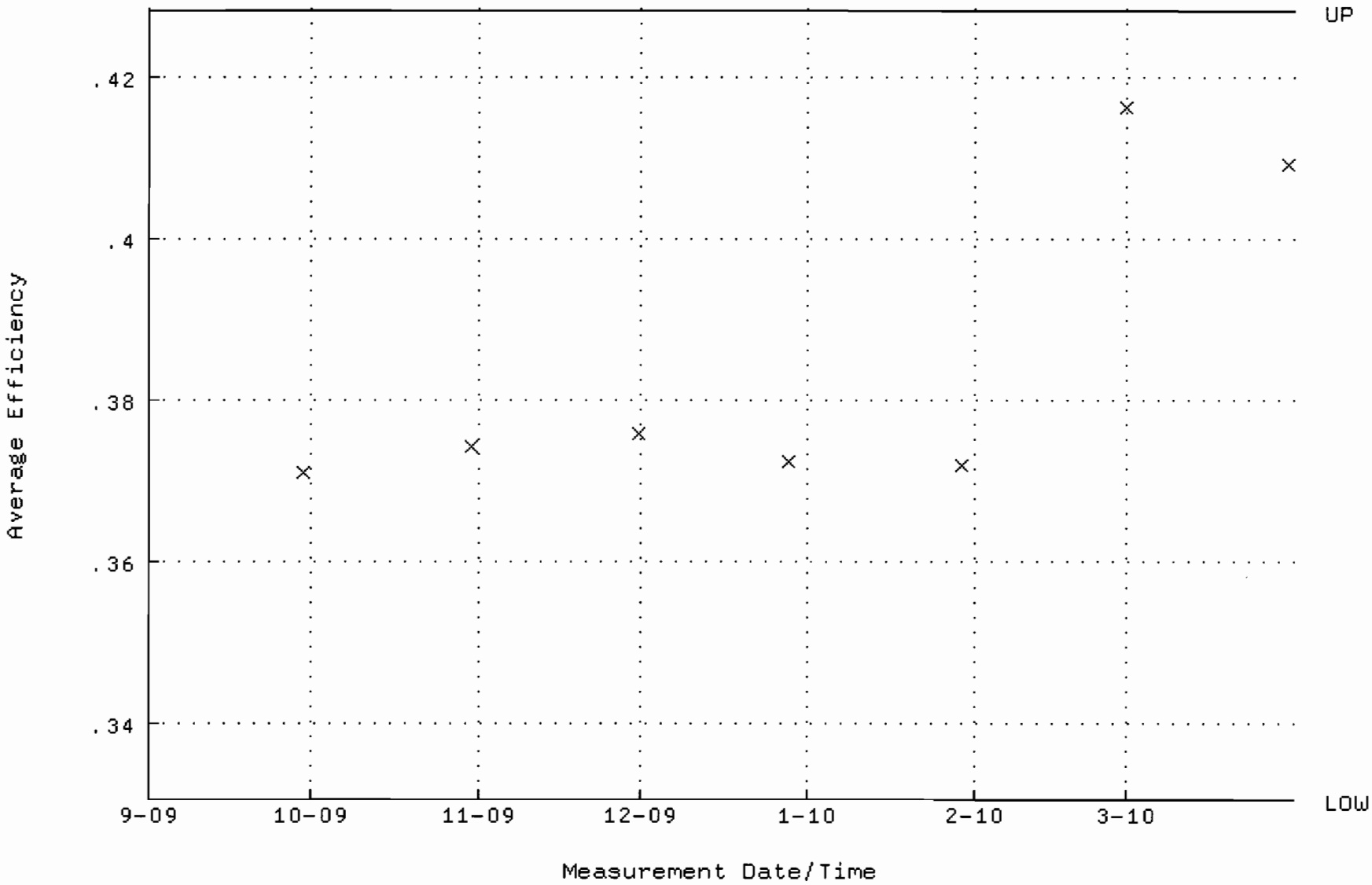

QA filename : DKA100:[ENV_ALPHA.QA.W]W243.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:32 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 84.4488 through 89.1128

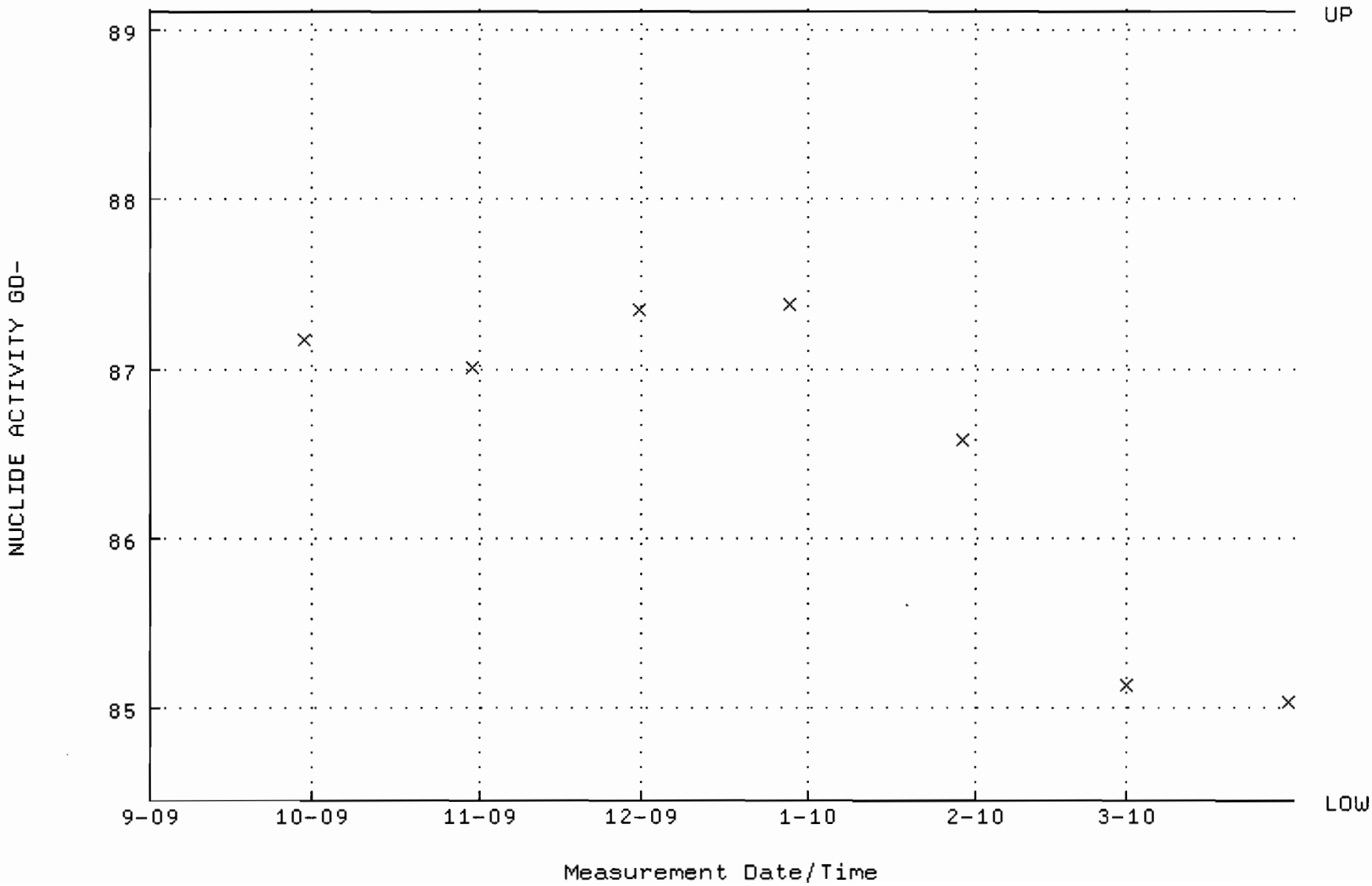

QA filename : DKA100:[ENV_ALPHA.QA.B]B243.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:58 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

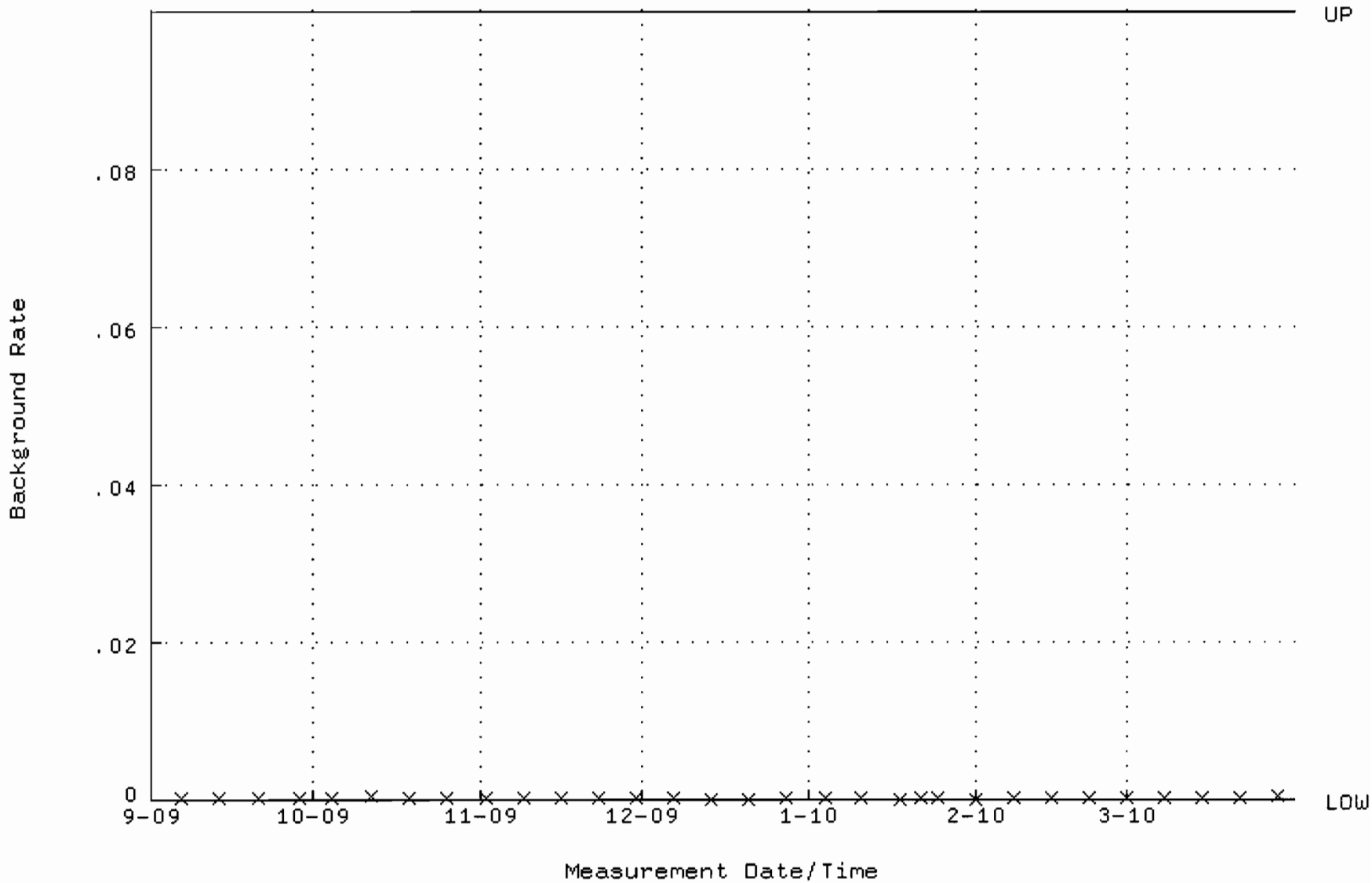

QA filename : DKA100:[ENV_ALPHA.QA.W]W244.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:37 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.346871 through 0.403035

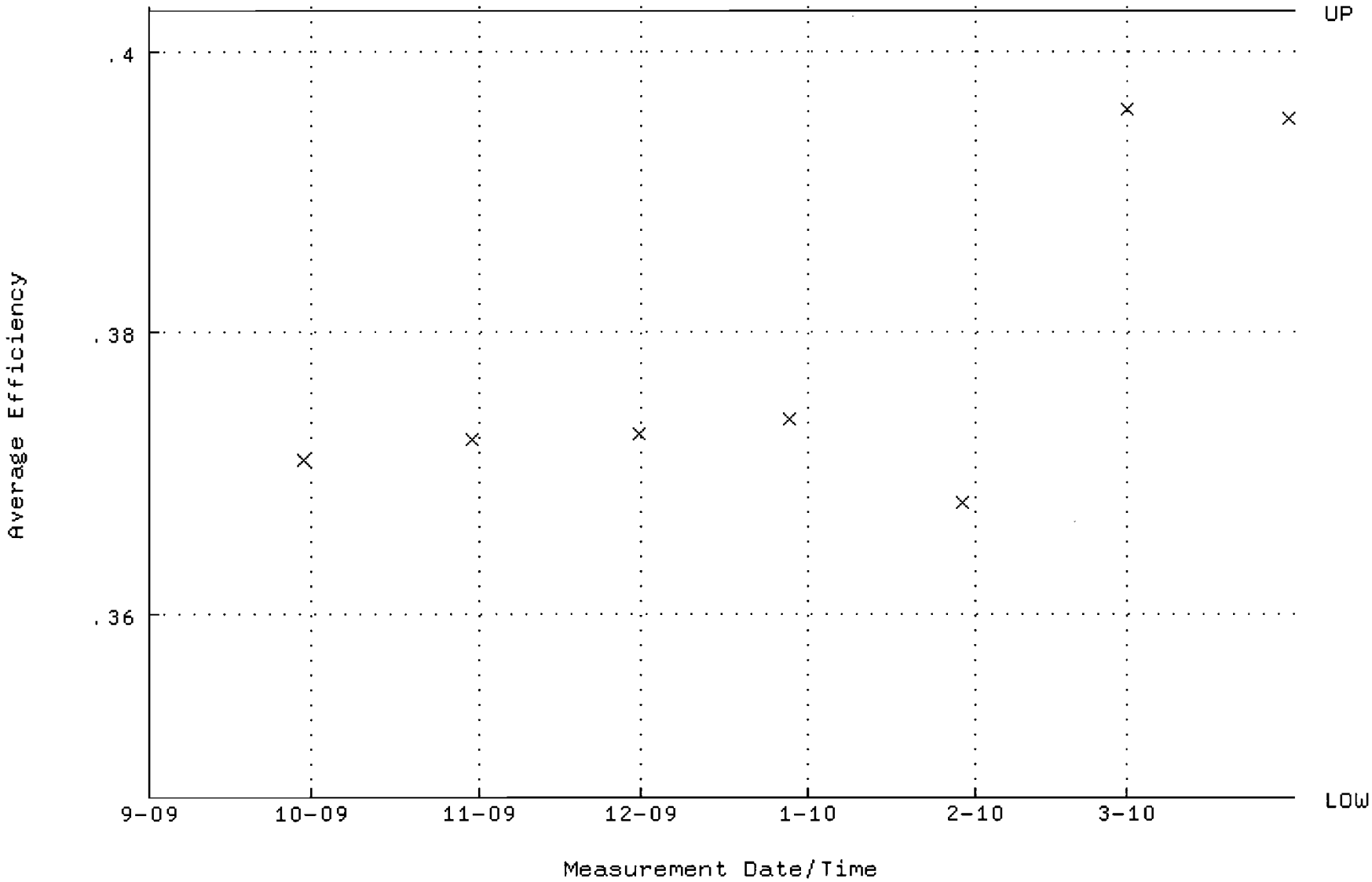

QA filename : DKA100:[ENV_ALPHA.QA.W]W244.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:37 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 80.2814 through 94.4734

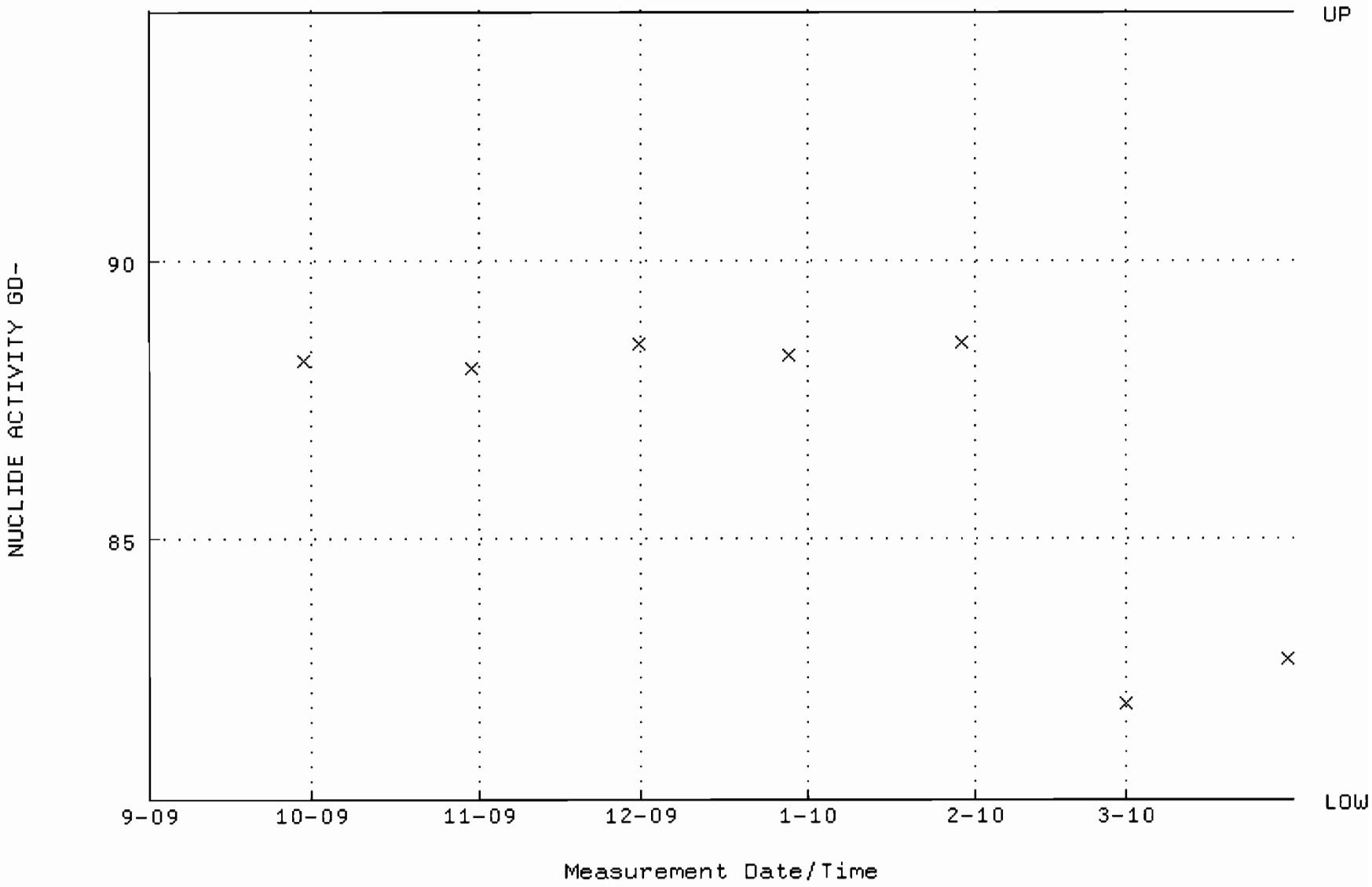

QA filename : DKA100:[ENV_ALPHA.QA.B]B244.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:02 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

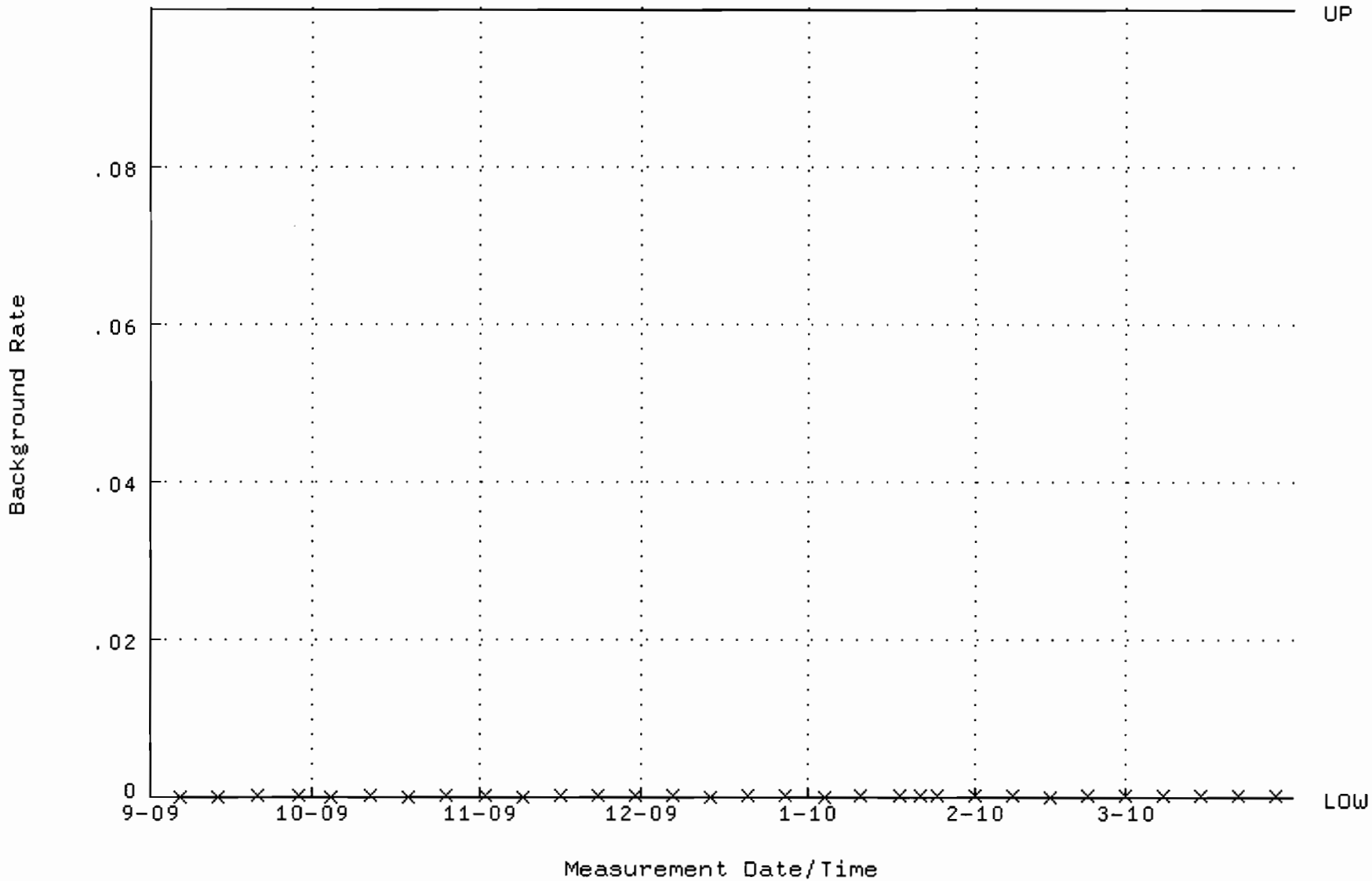

QA filename : DKA100:[ENV_ALPHA.QA.W]W245.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:42 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.359838 through 0.412714

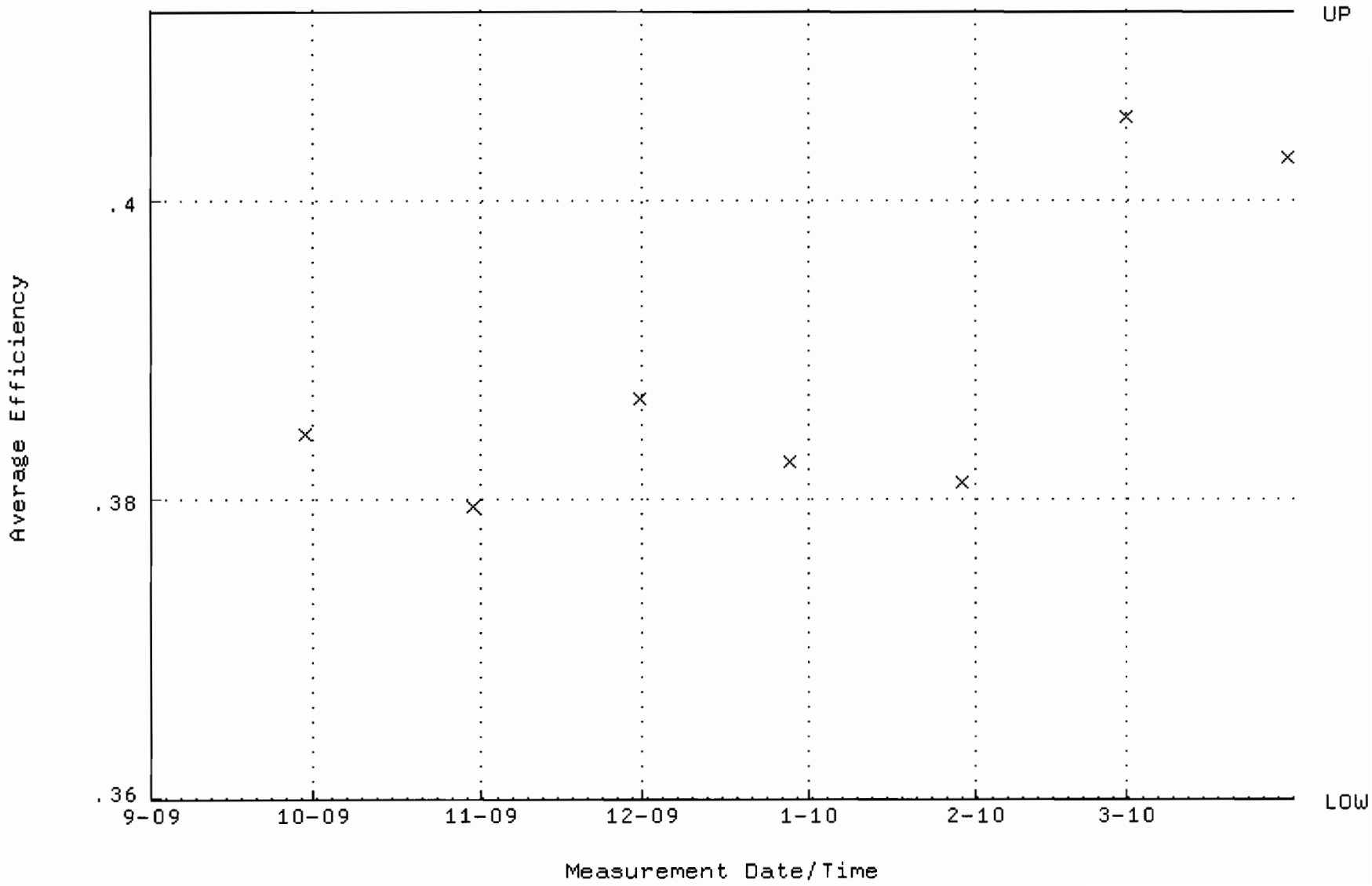

QA filename : DKA100:[ENV_ALPHA.QA.W]W245.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:42 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.1644 through 91.7216

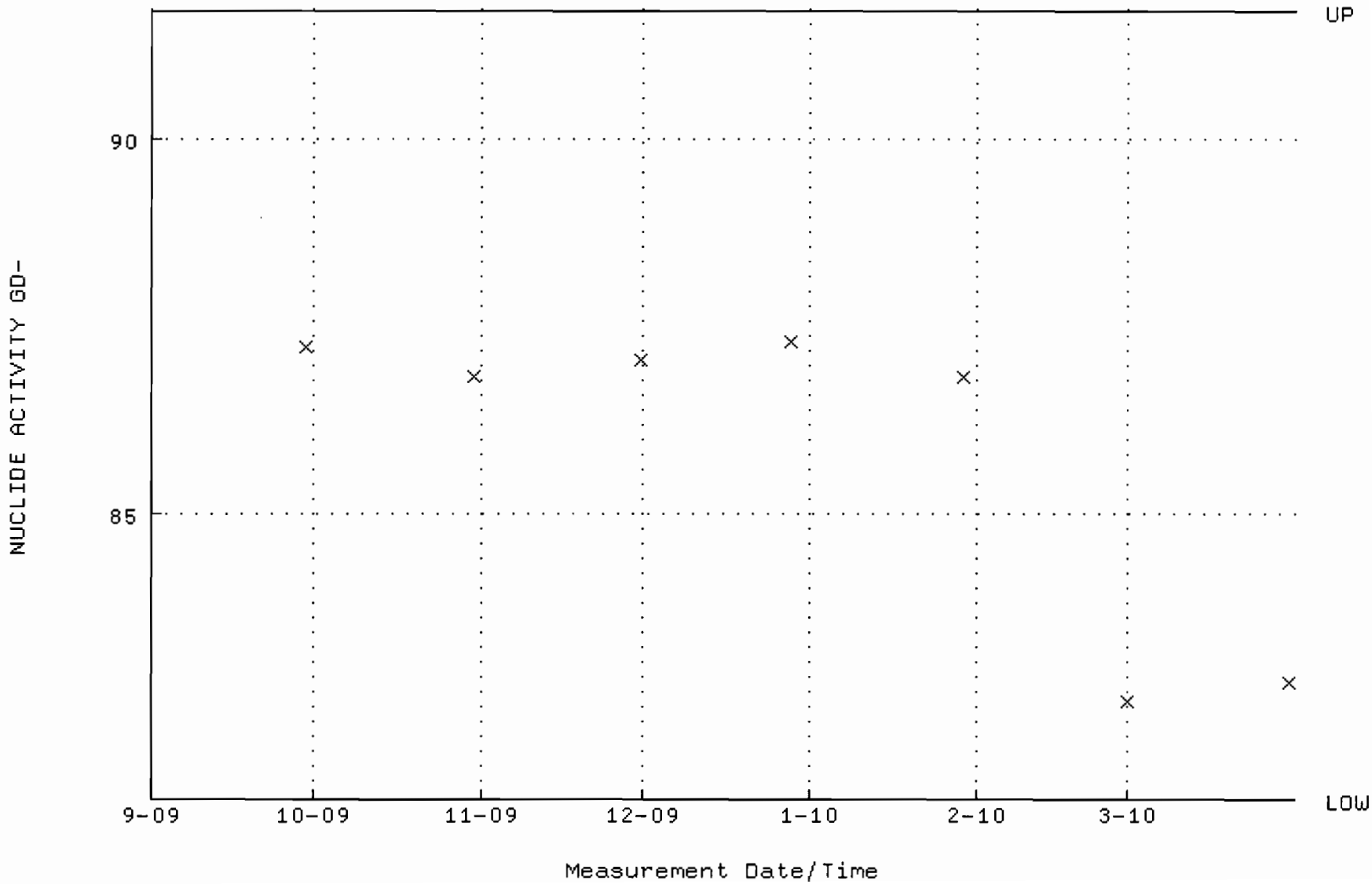

QA filename : DKA100:[ENV_ALPHA.QA.B]B245.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:07 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

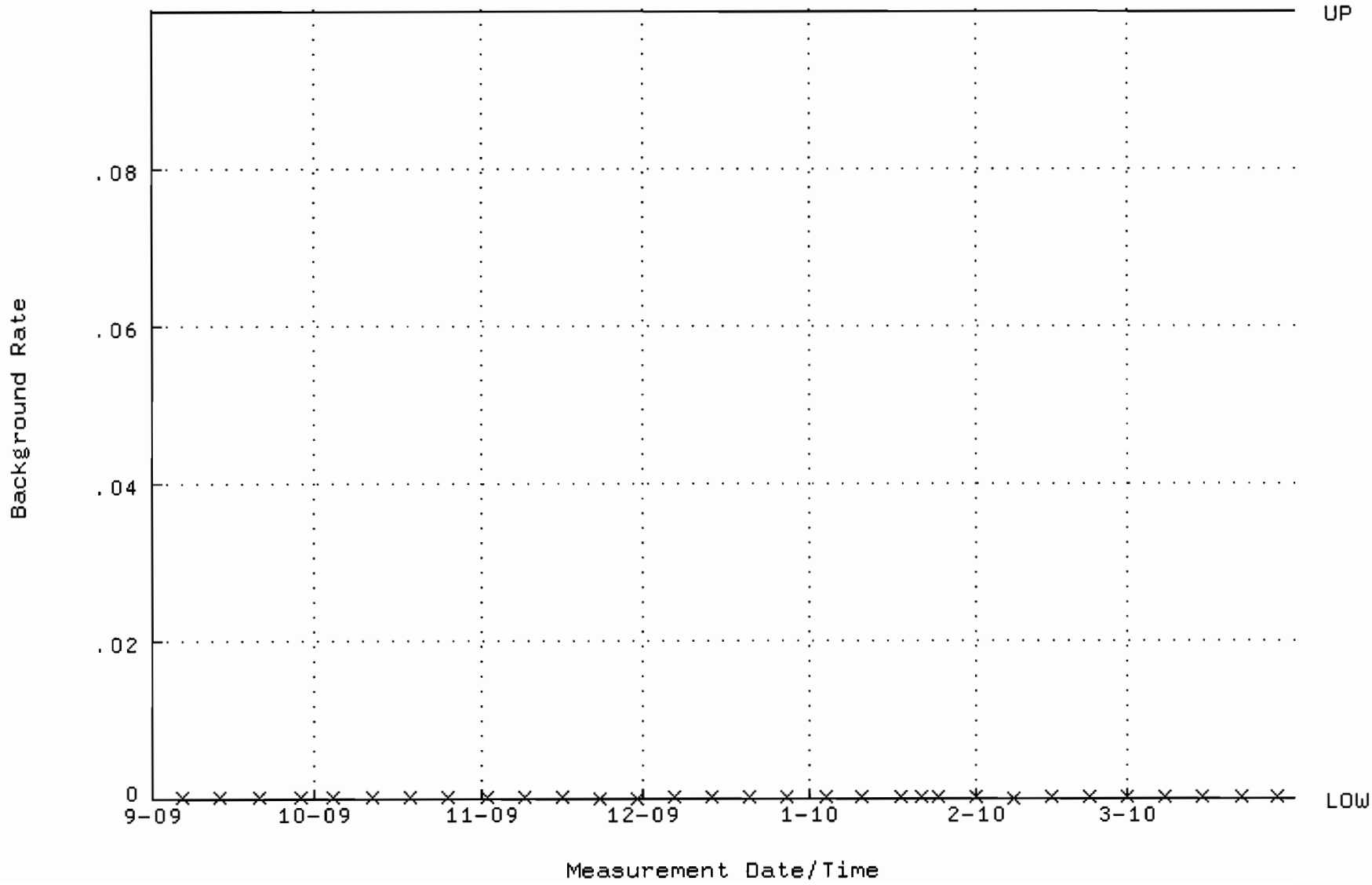

QA filename : DKA100:[ENV_ALPHA.QA.W]W246.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:48 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.346753 through 0.412735

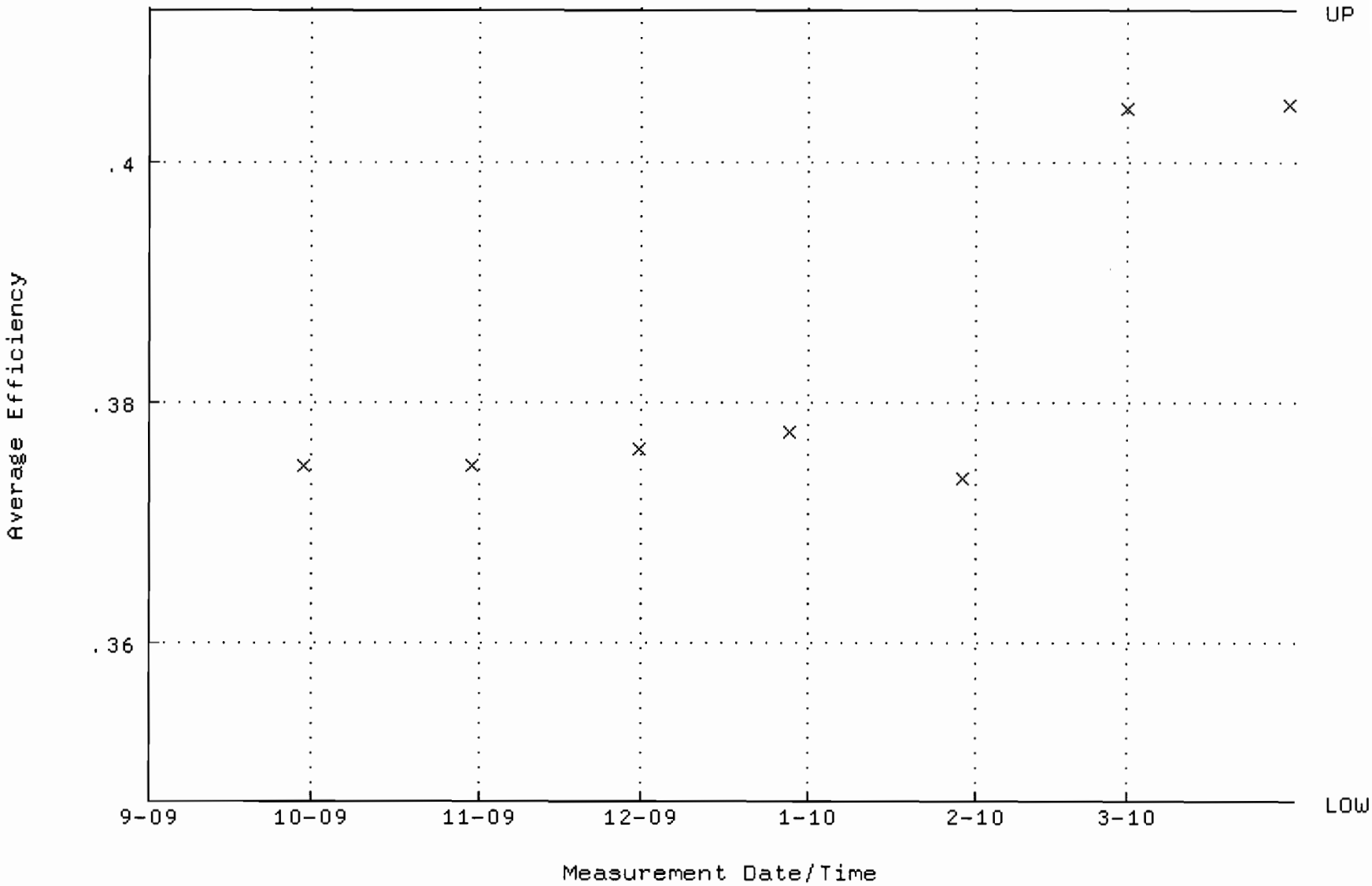

QA filename : DKA100:[ENV_ALPHA.QA.W]W246.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:48 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 80.1657 through 92.9177

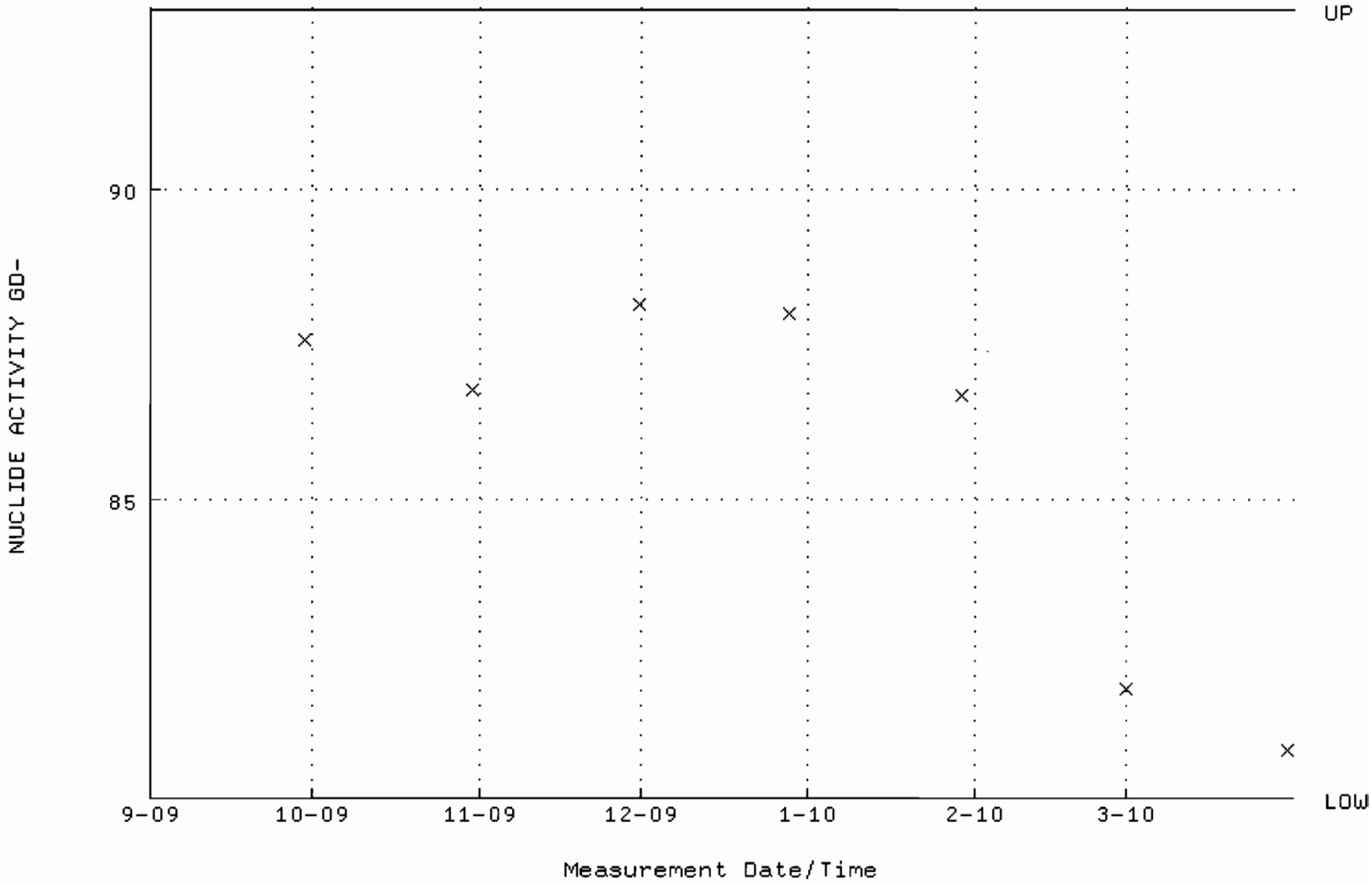

QA filename : DKA100:[ENV_ALPHA.QA.B]B246.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:12 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

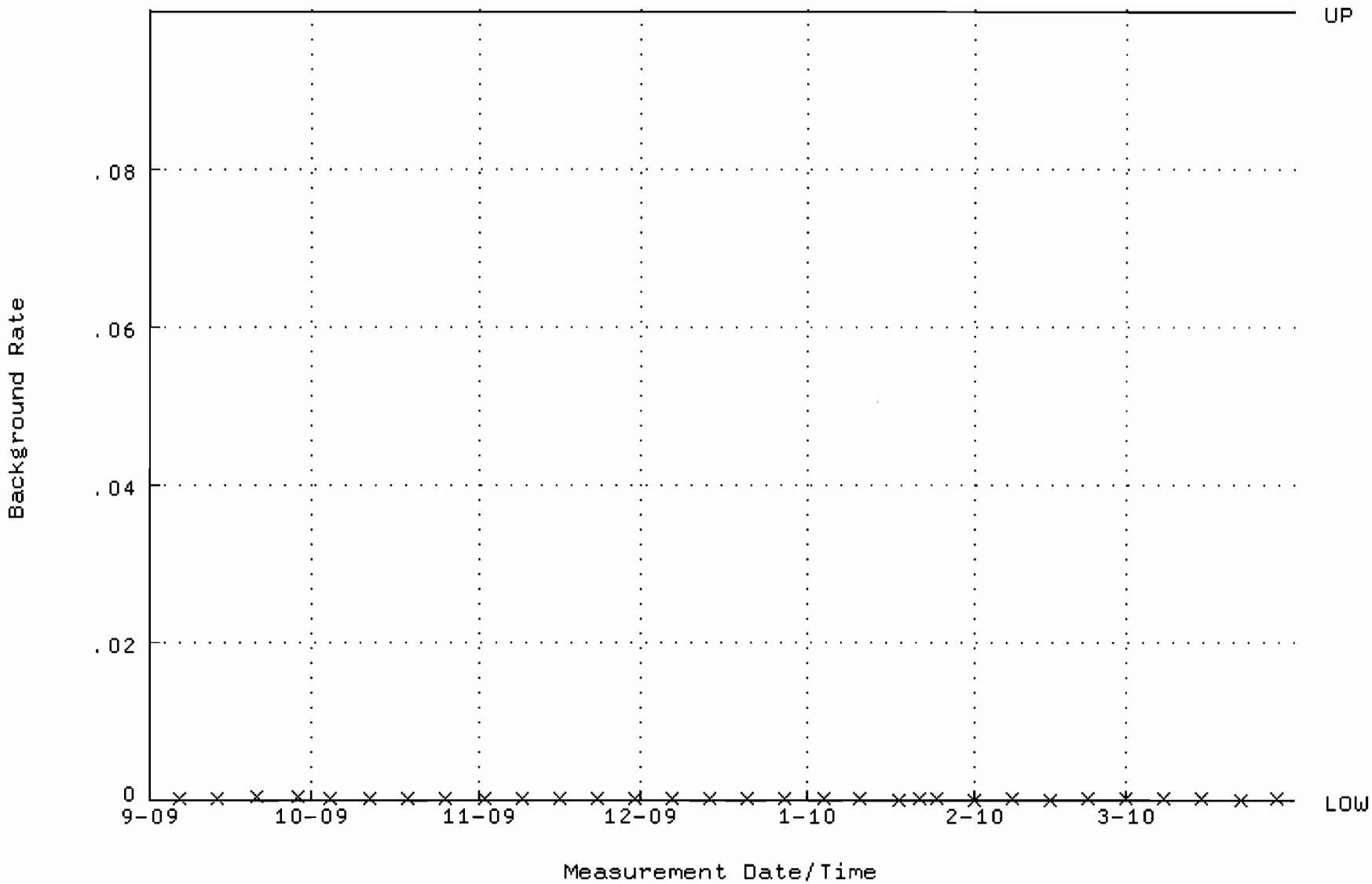

QA filename : DKA100:[ENV_ALPHA.QA.W]W247.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:55 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.352698 through 0.404942

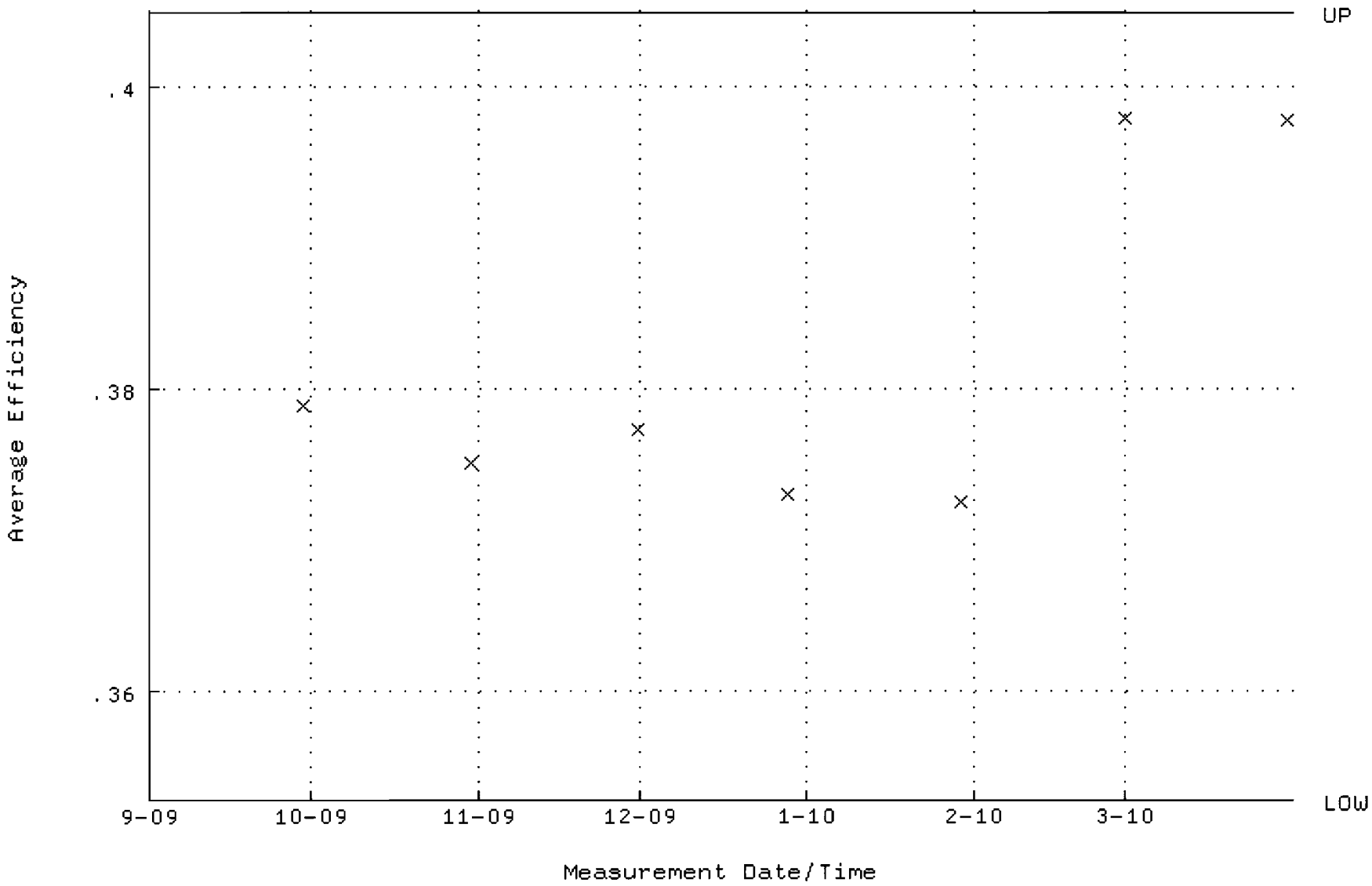

QA filename : DKA100:[ENV_ALPHA.QA.W]W247.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:55 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.8318 through 94.4164

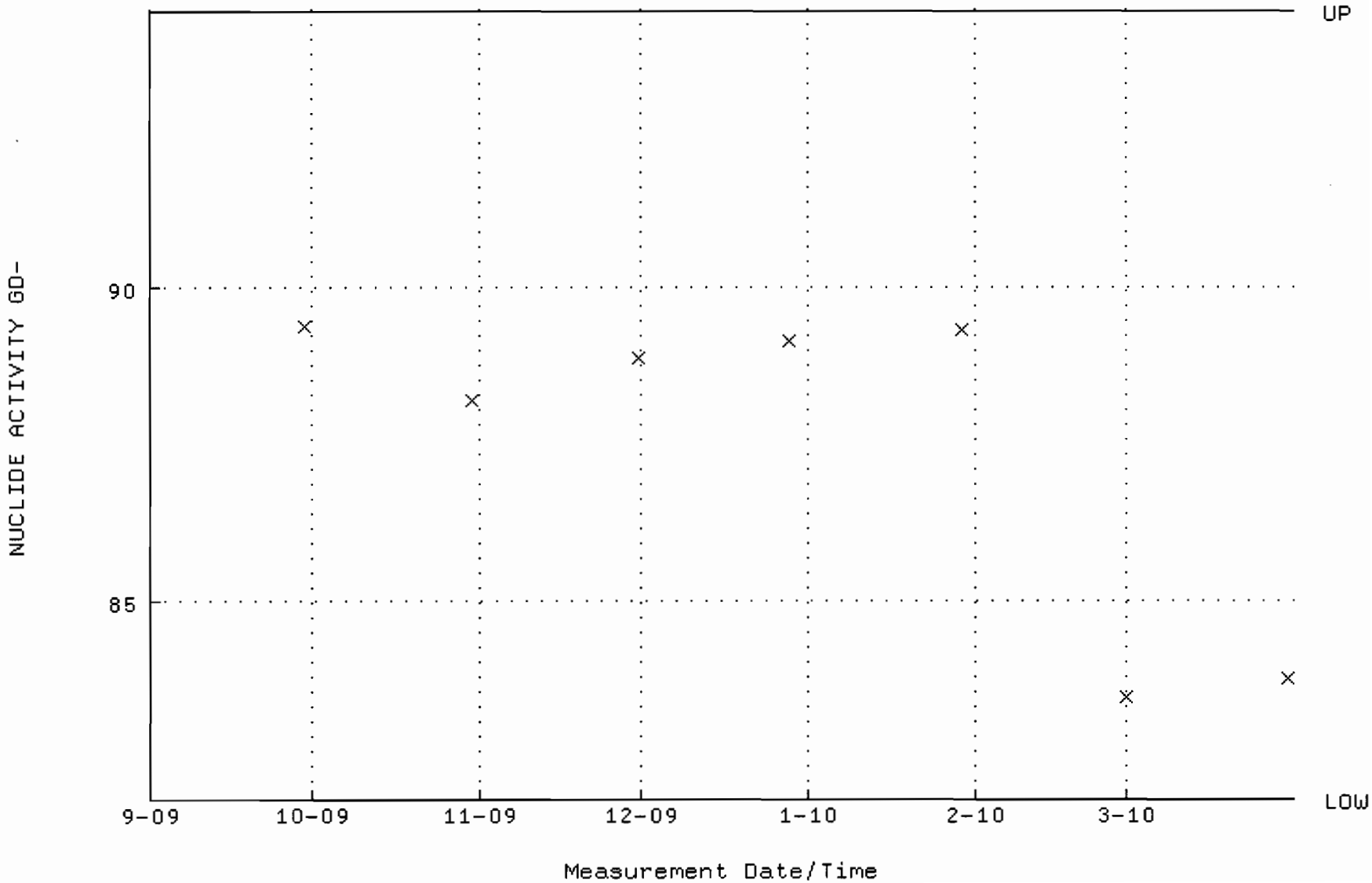

QA filename : DKA100:[ENV_ALPHA.QA.B]B247.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:16 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

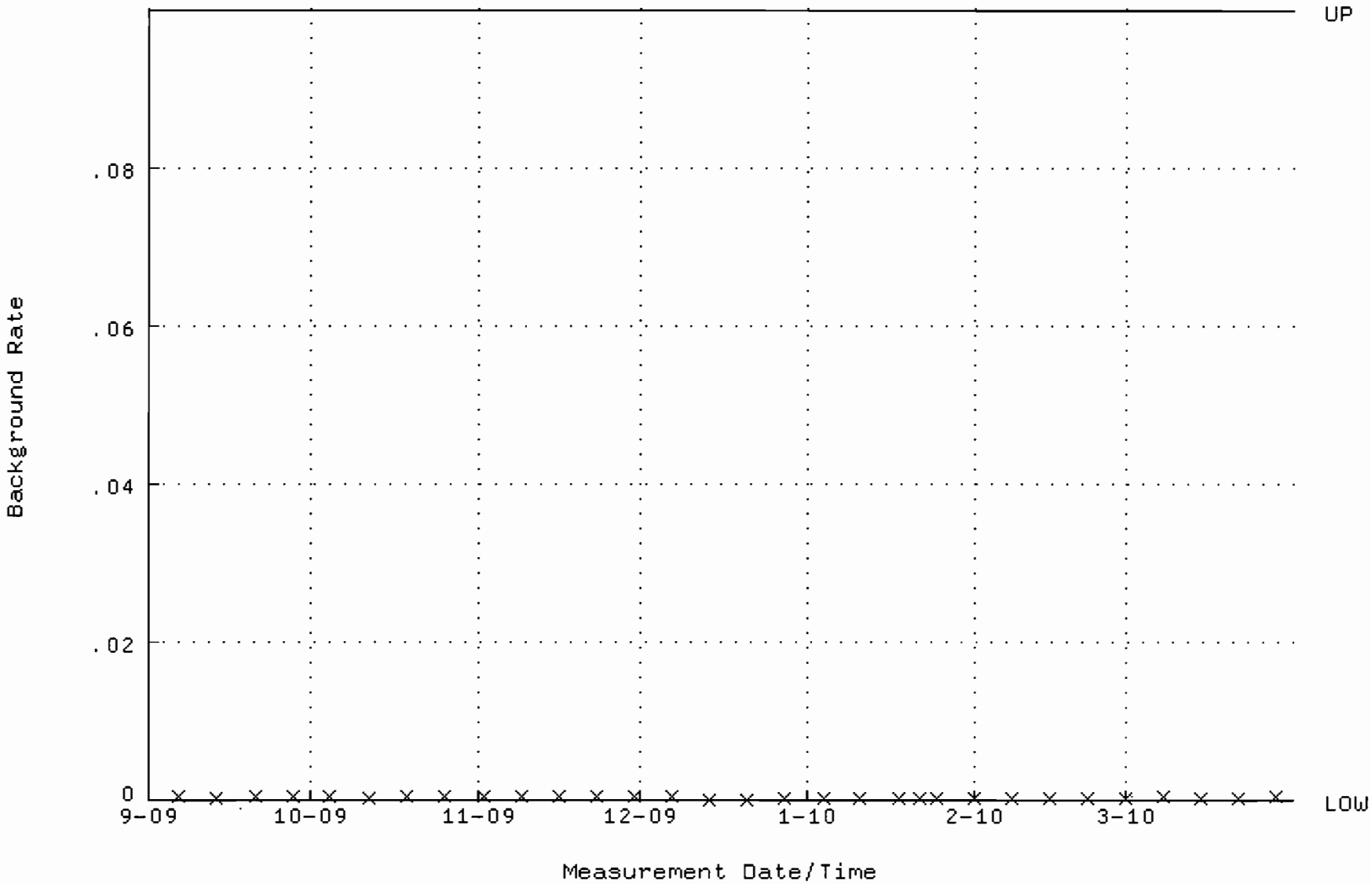

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM02_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:40:02 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

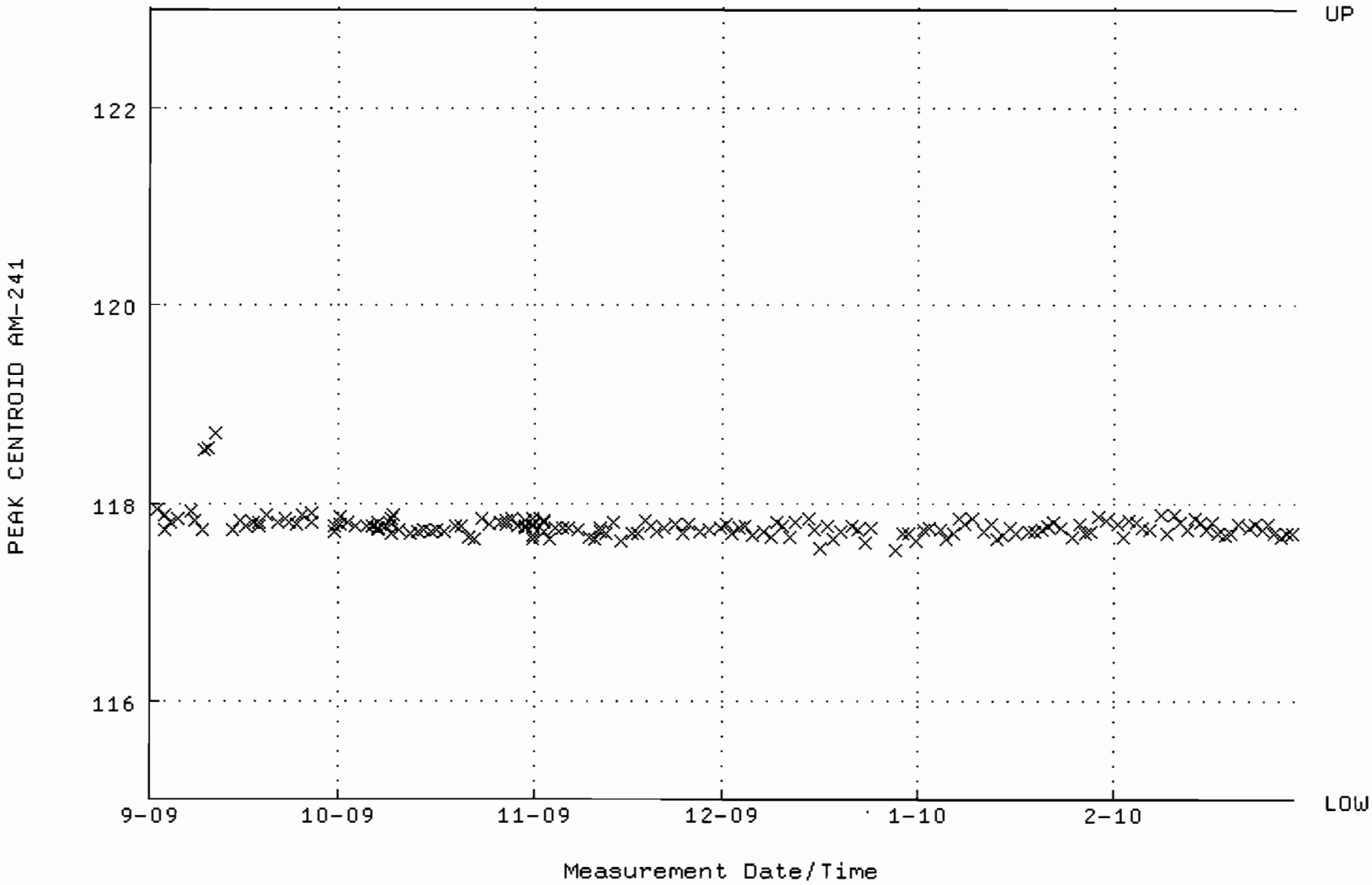

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM02.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:37:17 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 2.00226 +- 2.139827E-02 (1.07 %)

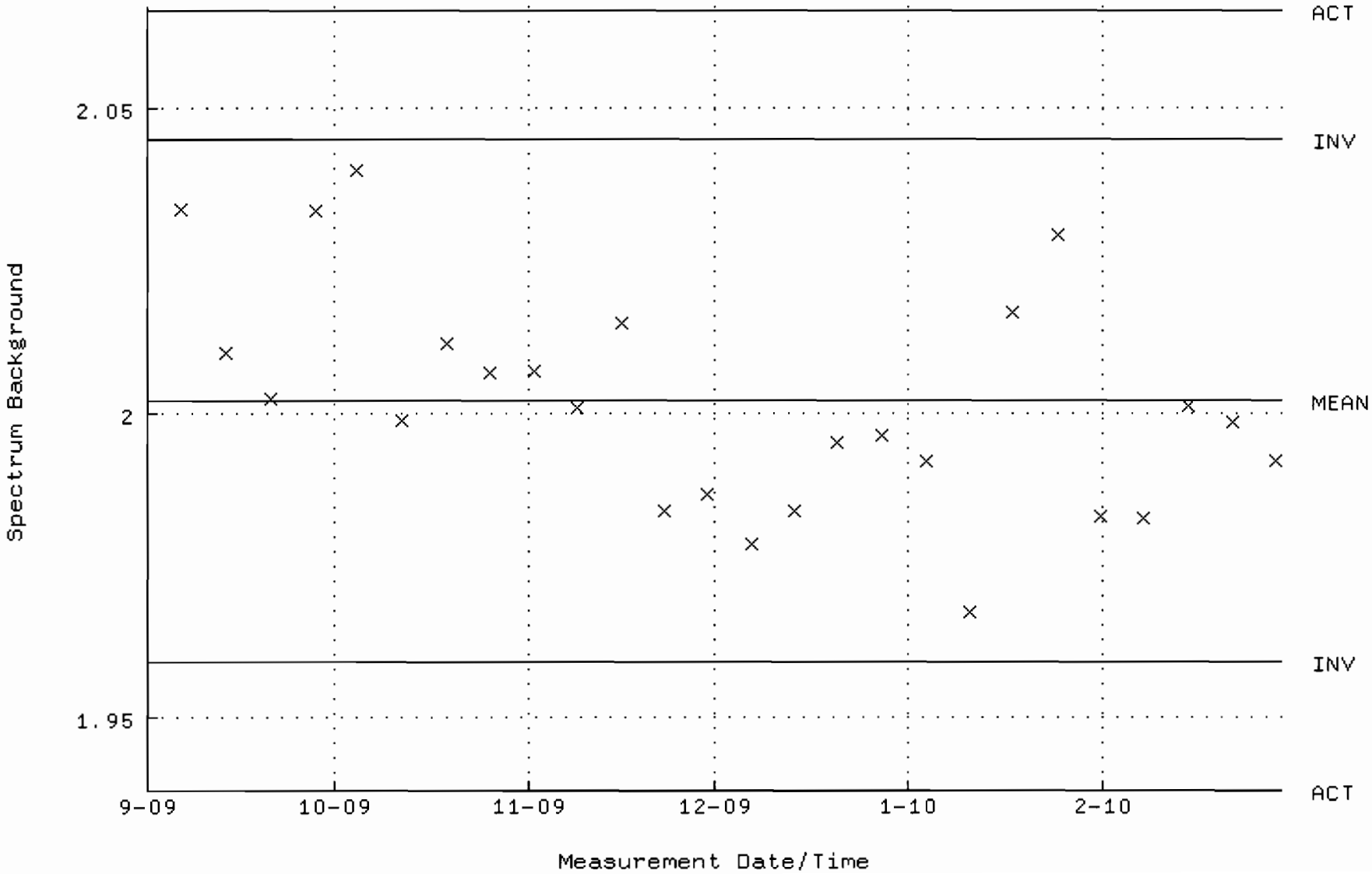

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM05_CAN.QAF;1
Parameter Name : PSCENTRO-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-SEP-2009 14:54:46 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

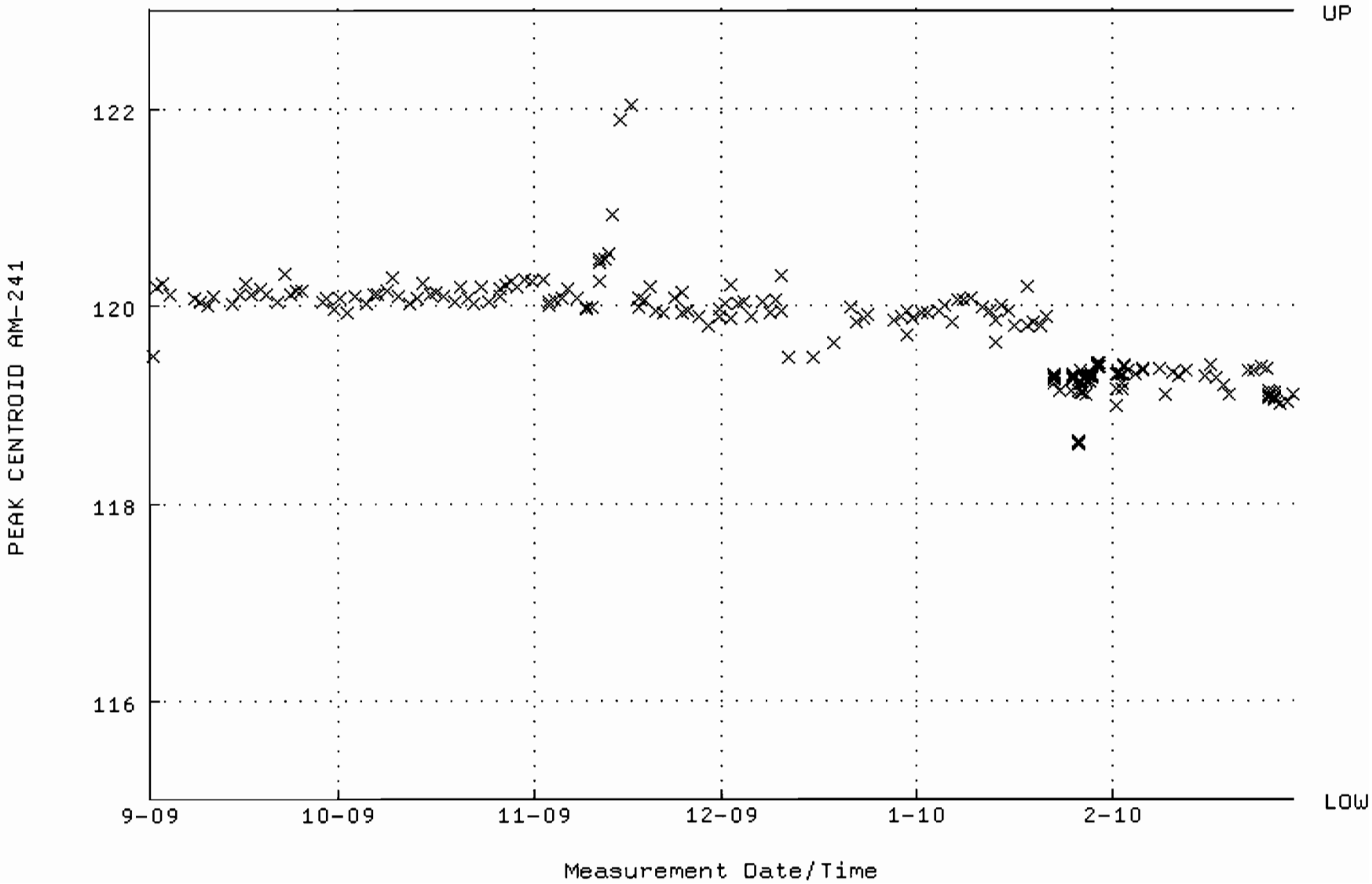

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM05.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:39:04 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.64719 +- 2.547087E-02 (1.55 %)

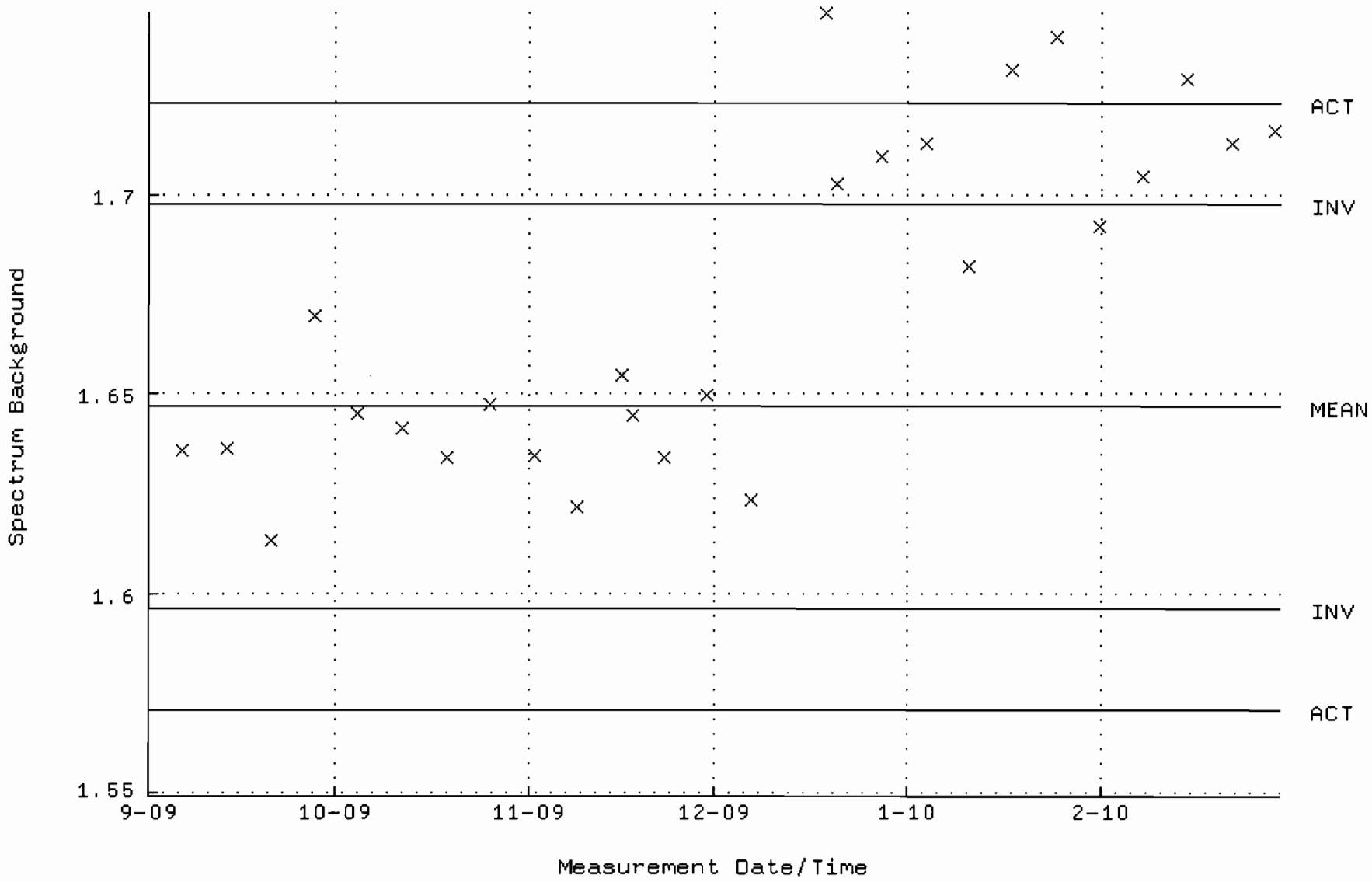

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM10_500MLMB.QAF;1
Parameter Name : PSCENTRO-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 10:11:44 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

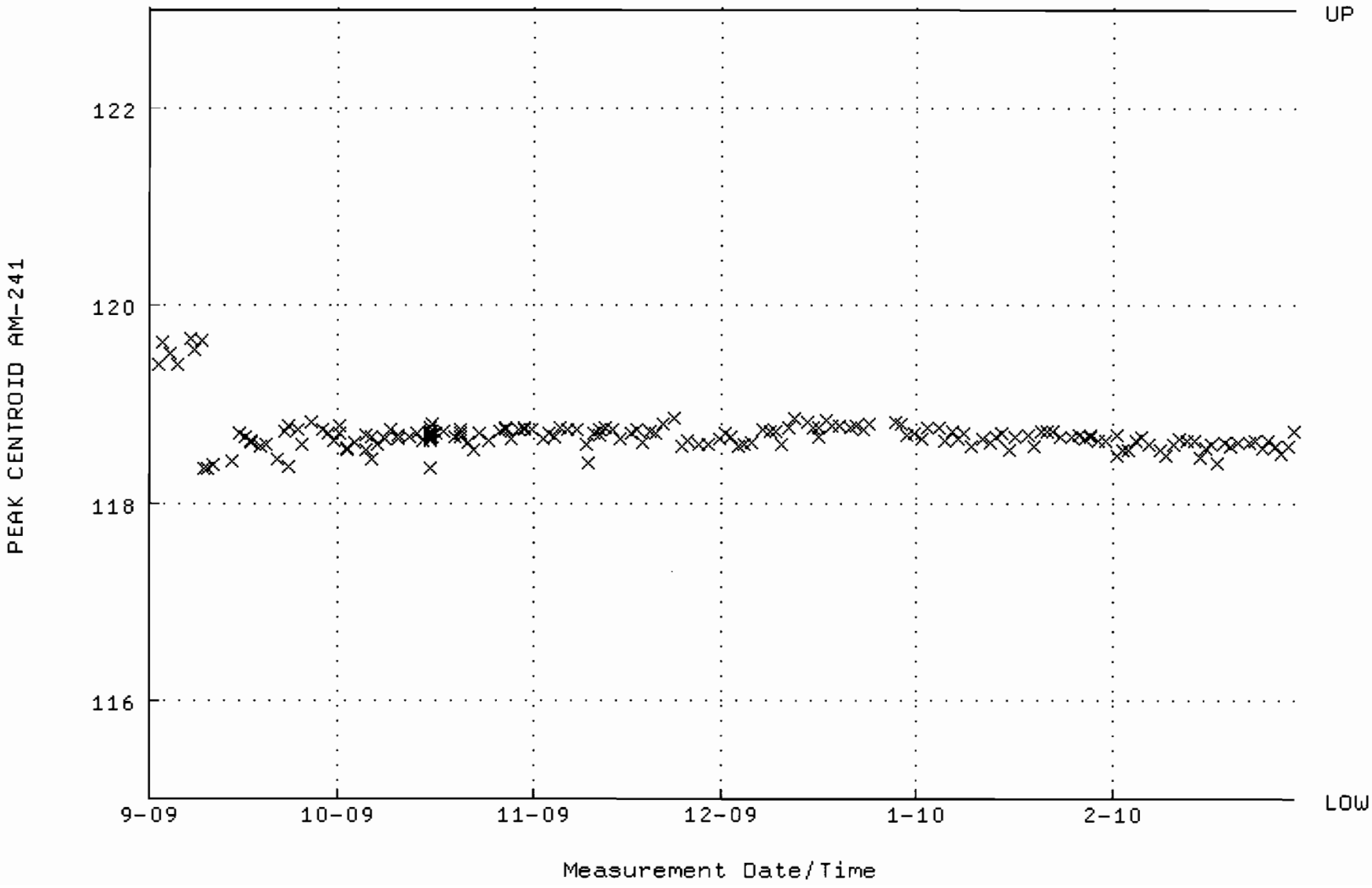

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM10.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:41:20 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.48000 +- 1.723892E-02 (1.16 %)

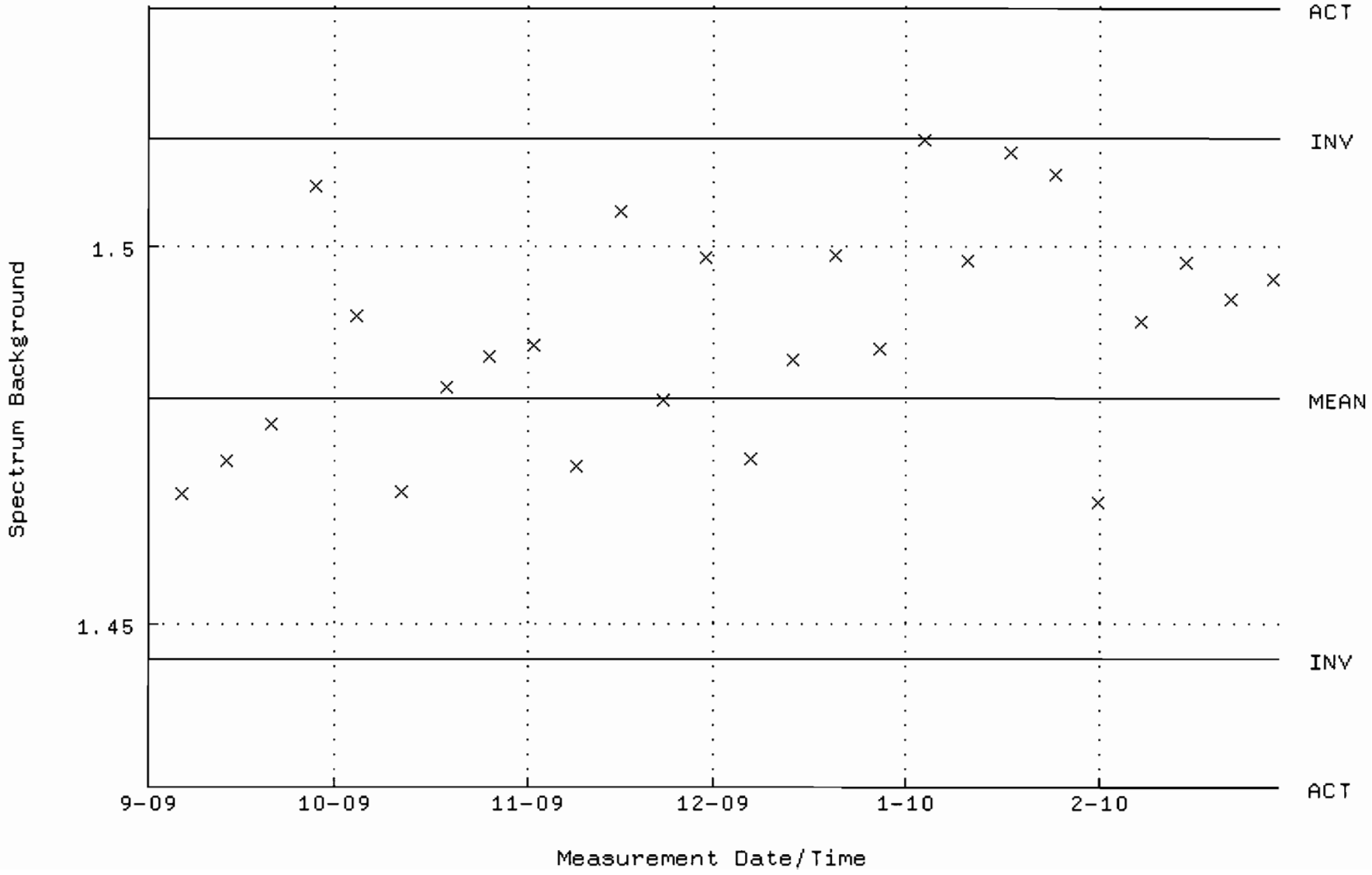

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM12_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 07:07:38 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

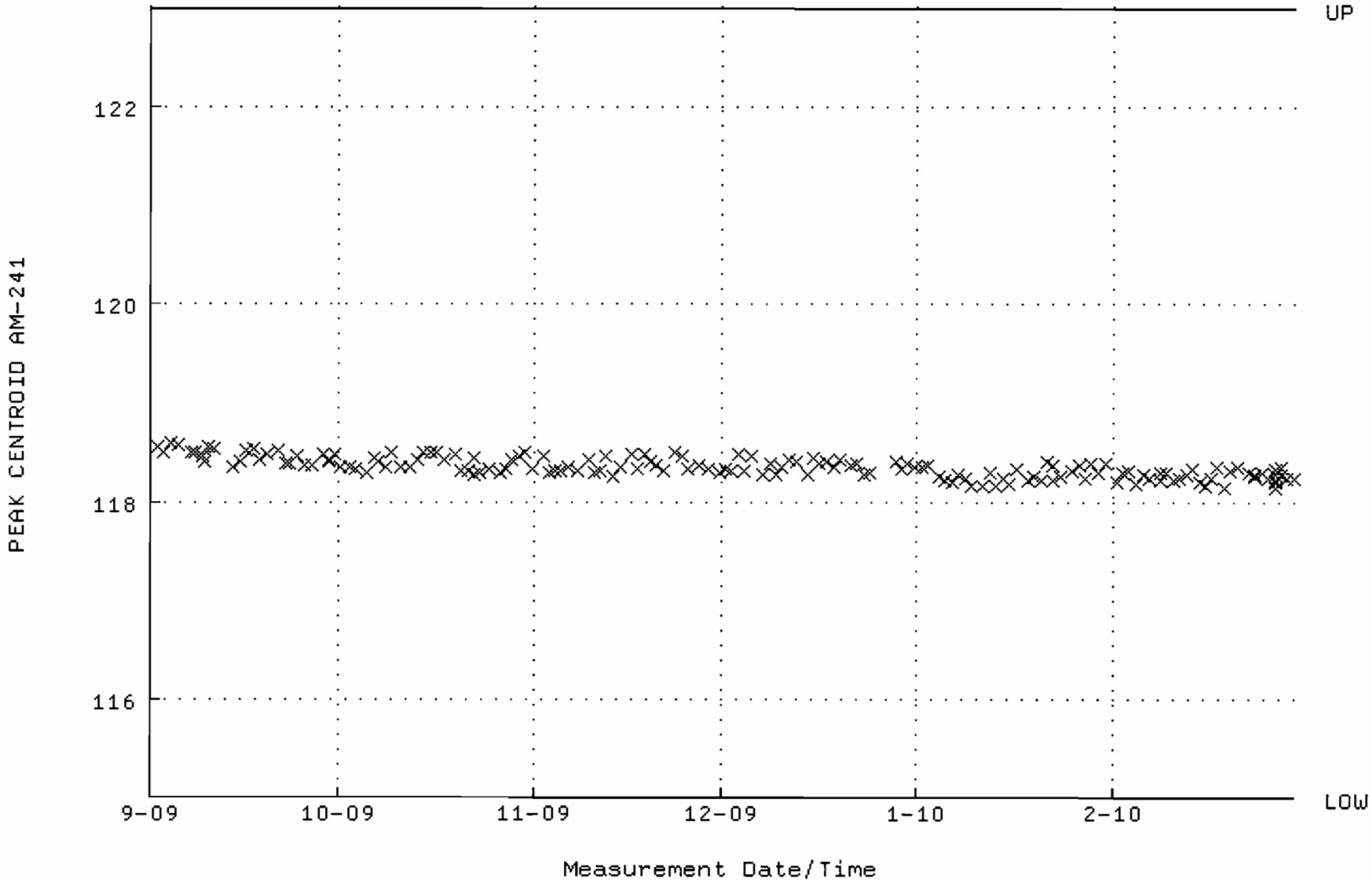

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM12.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:42:20 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.55746 +- 1.601675E-02 (1.03 %)

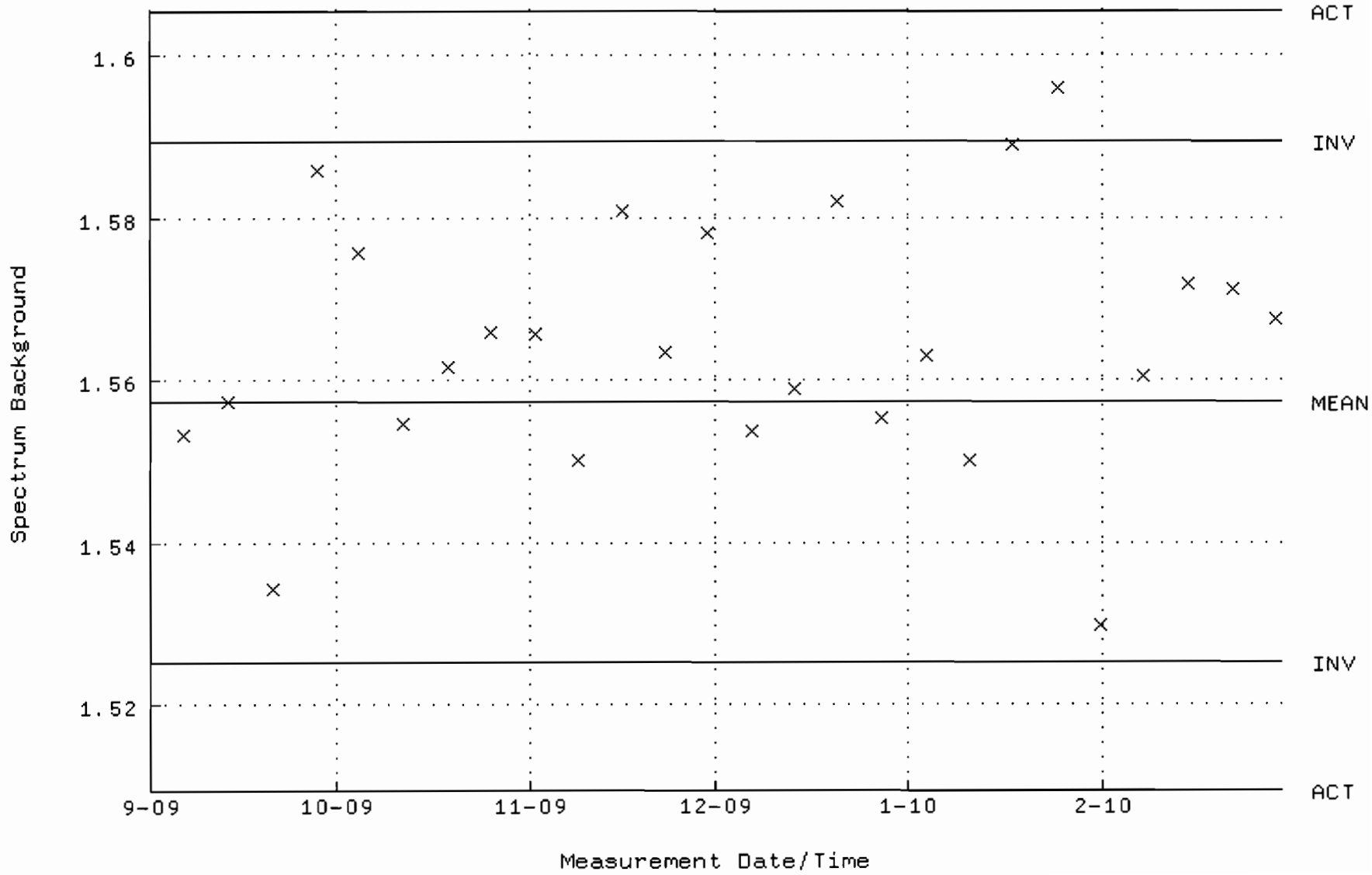

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:32:23 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

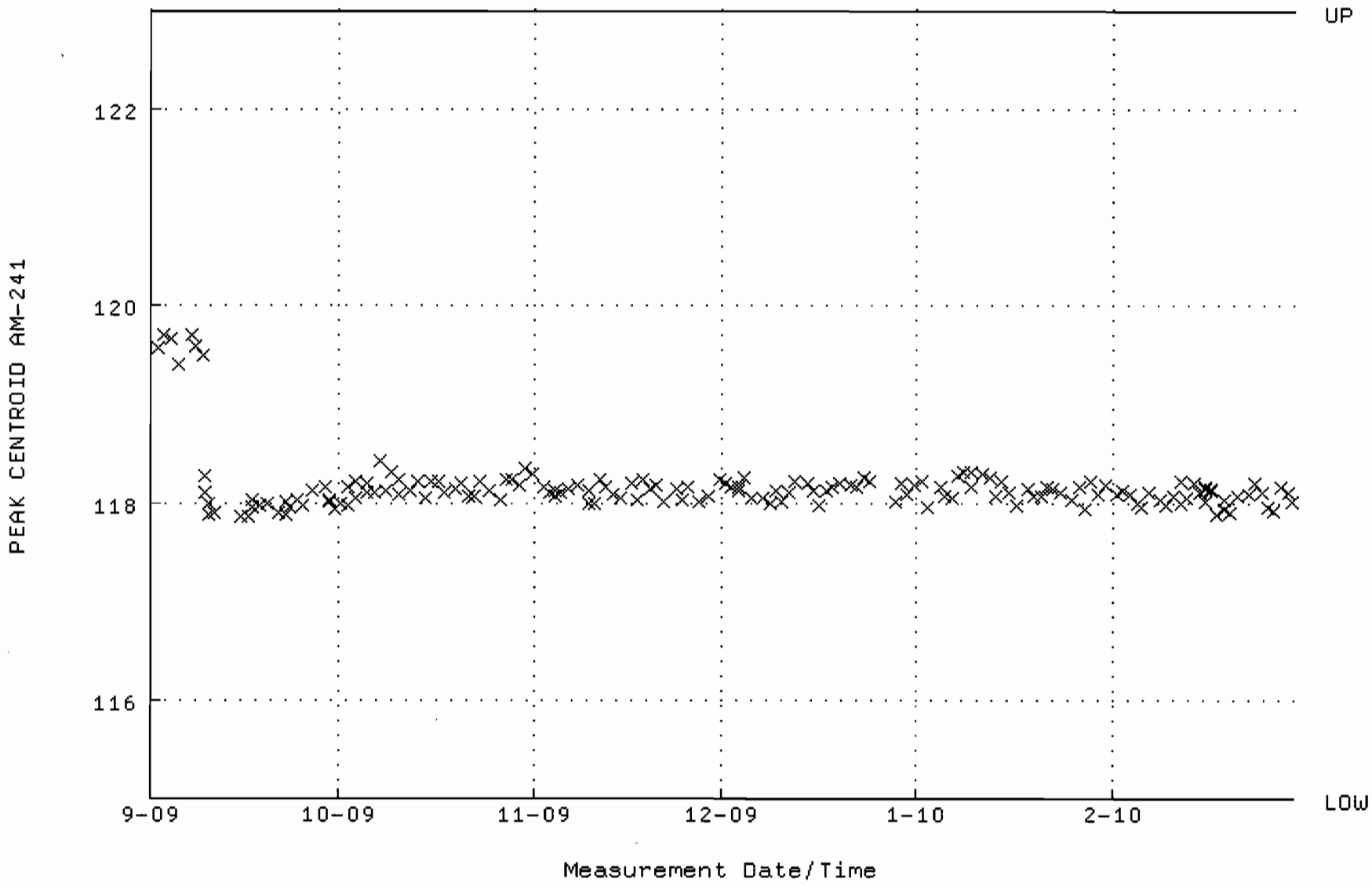

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:43:44 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)

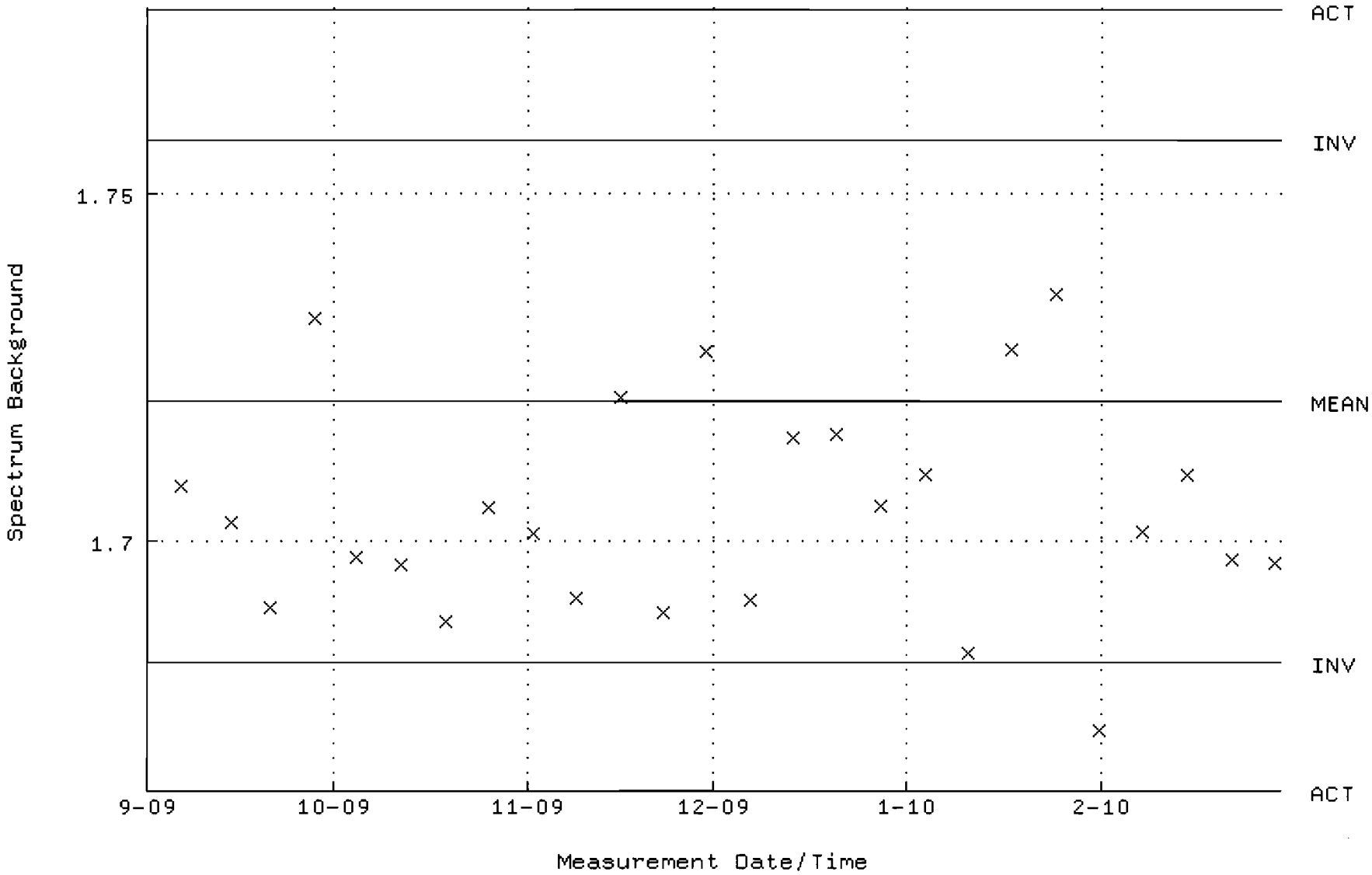

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:13:07 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

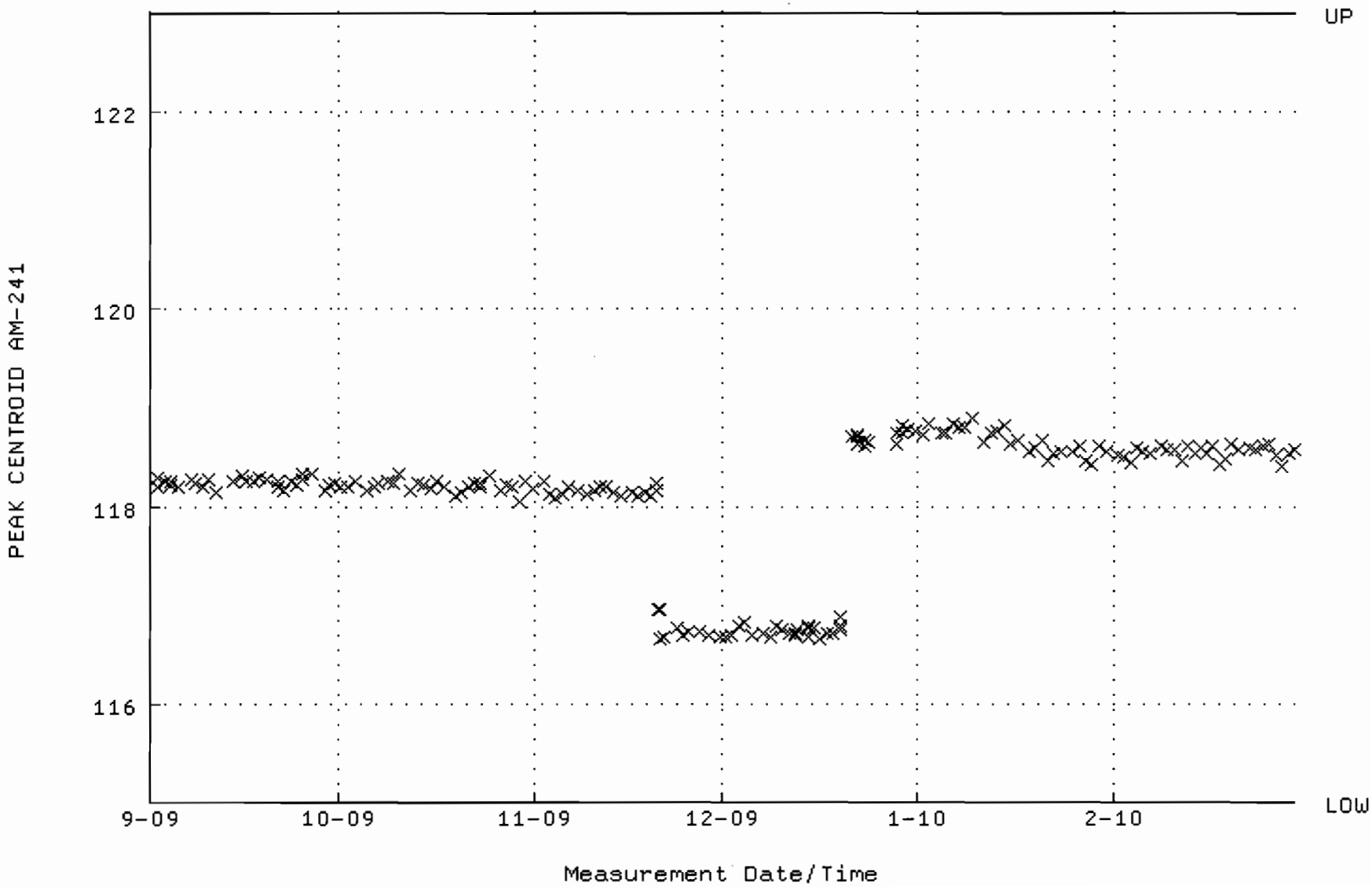

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM18.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:45:03 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)

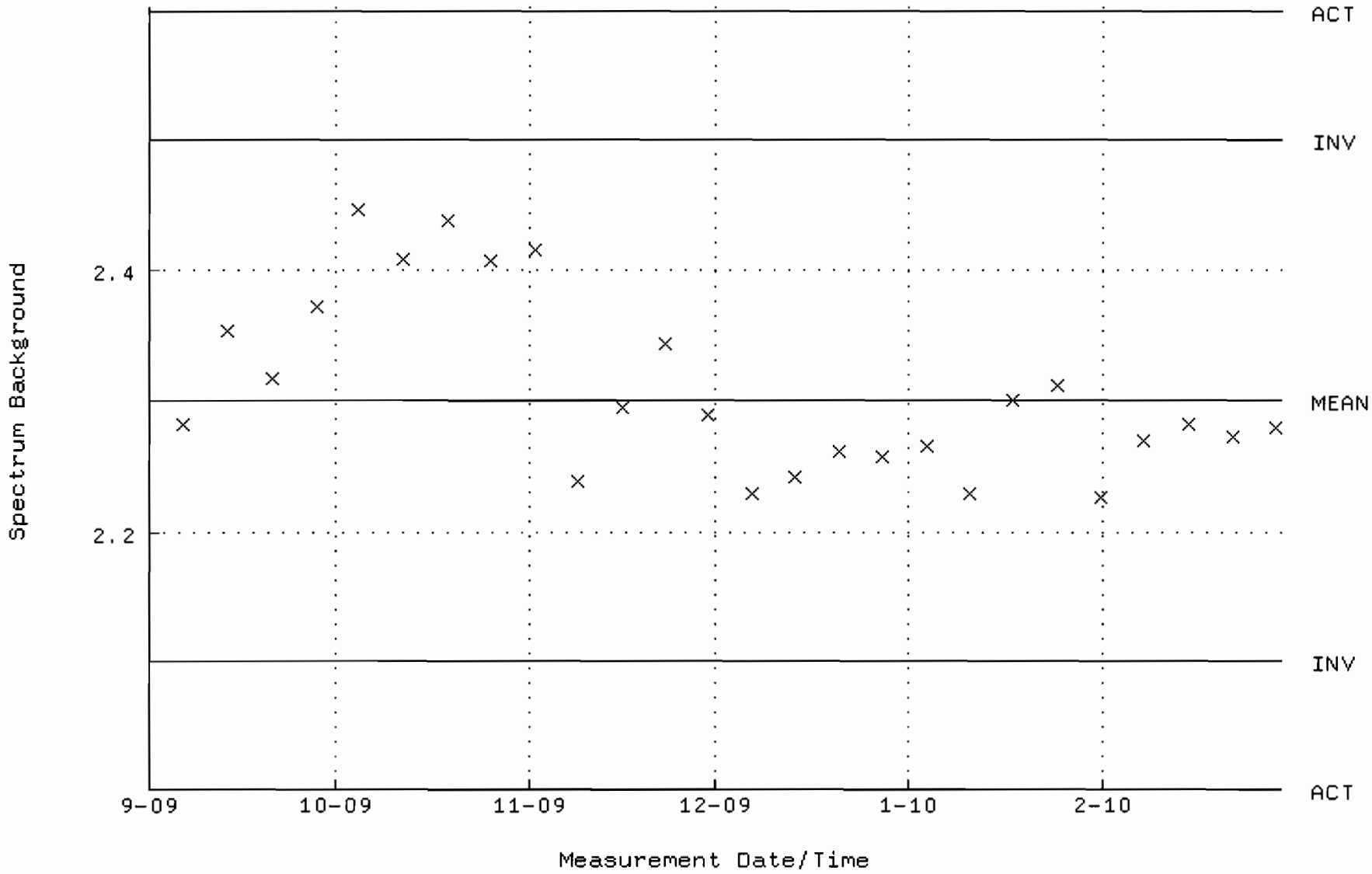

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM21_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-DEC-2009 13:07:42 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

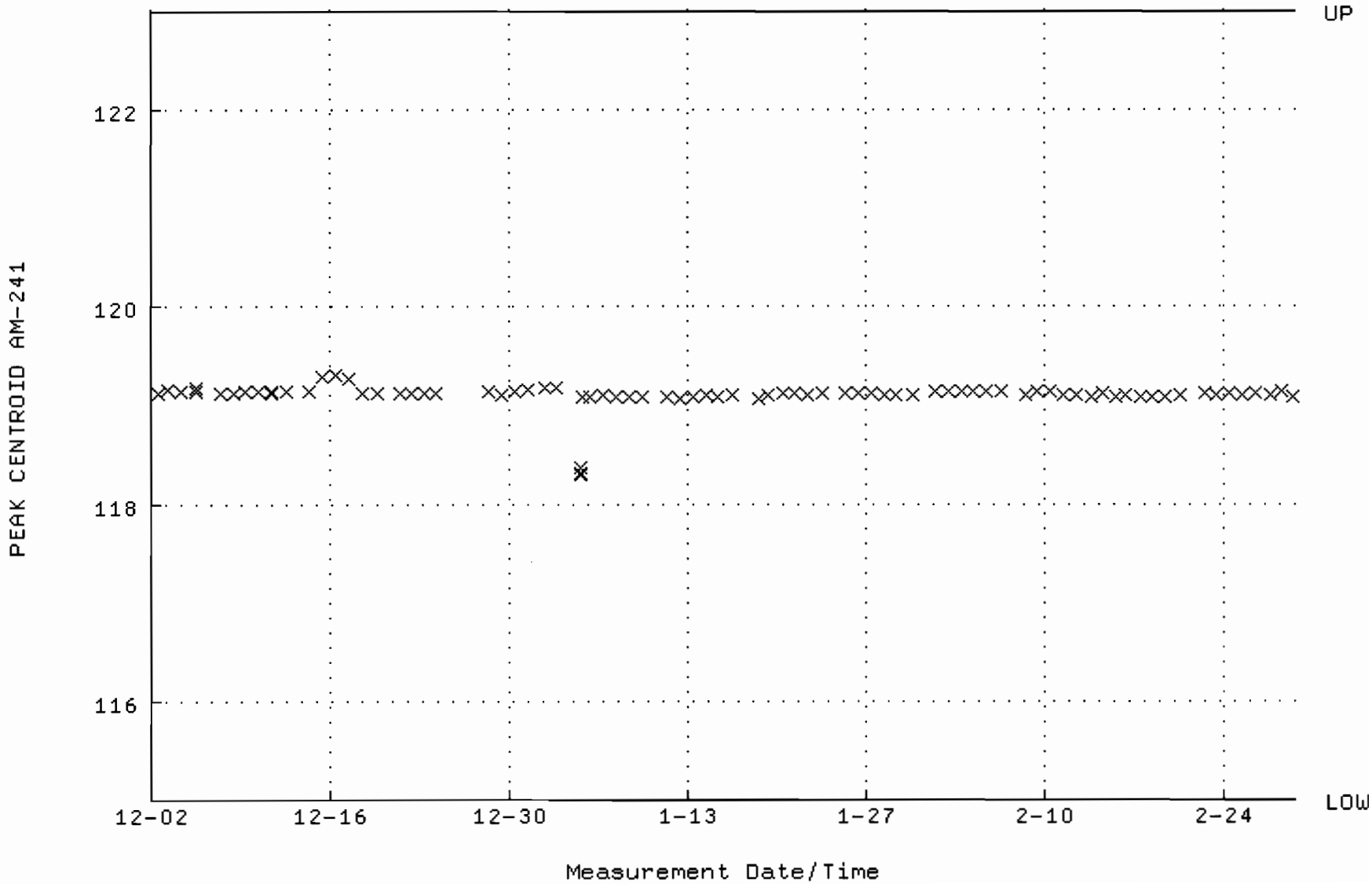

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM21.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-DEC-2009 15:25:38 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.04443 +- 1.452671E-02 (1.39 %)

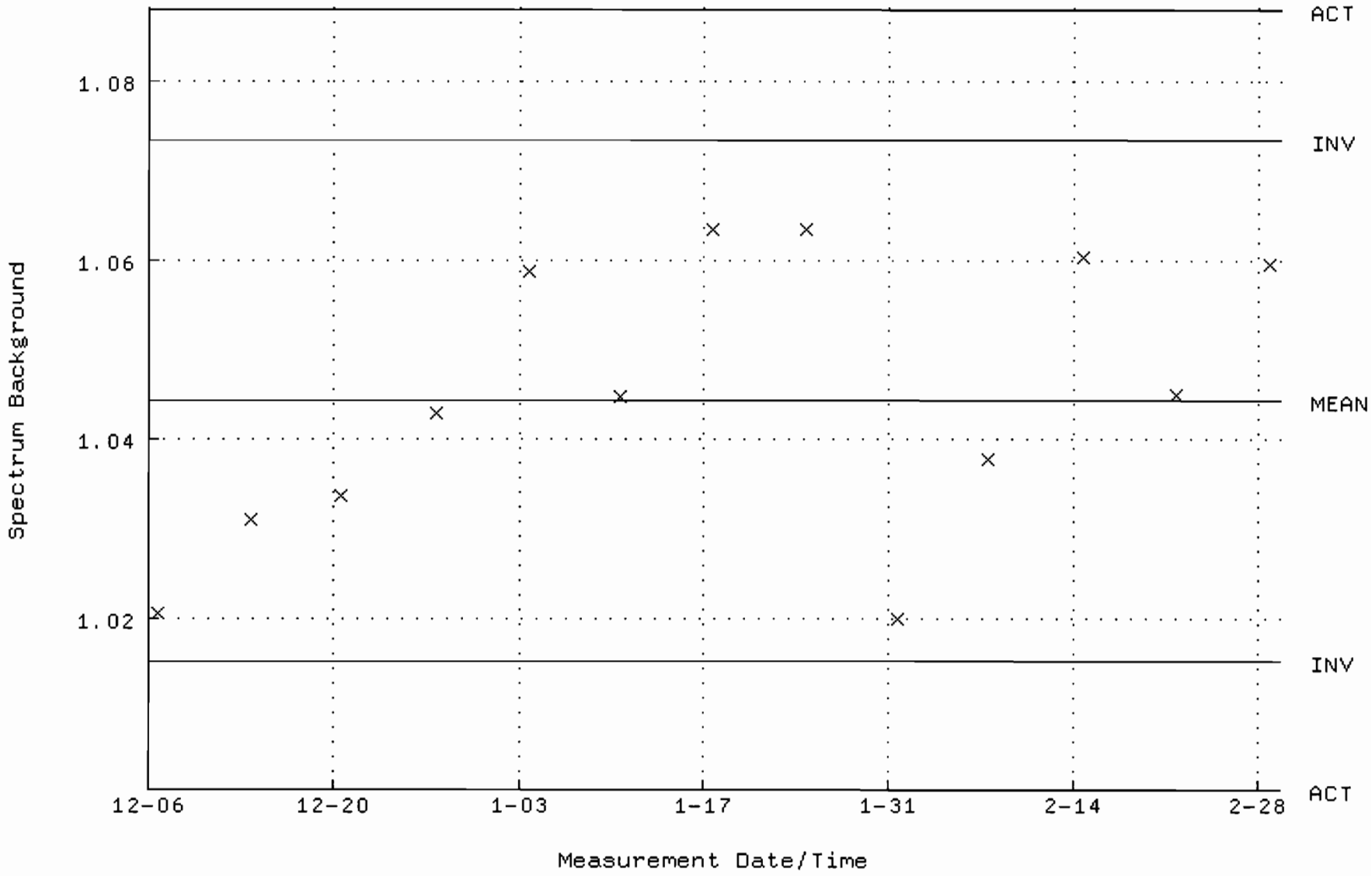

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

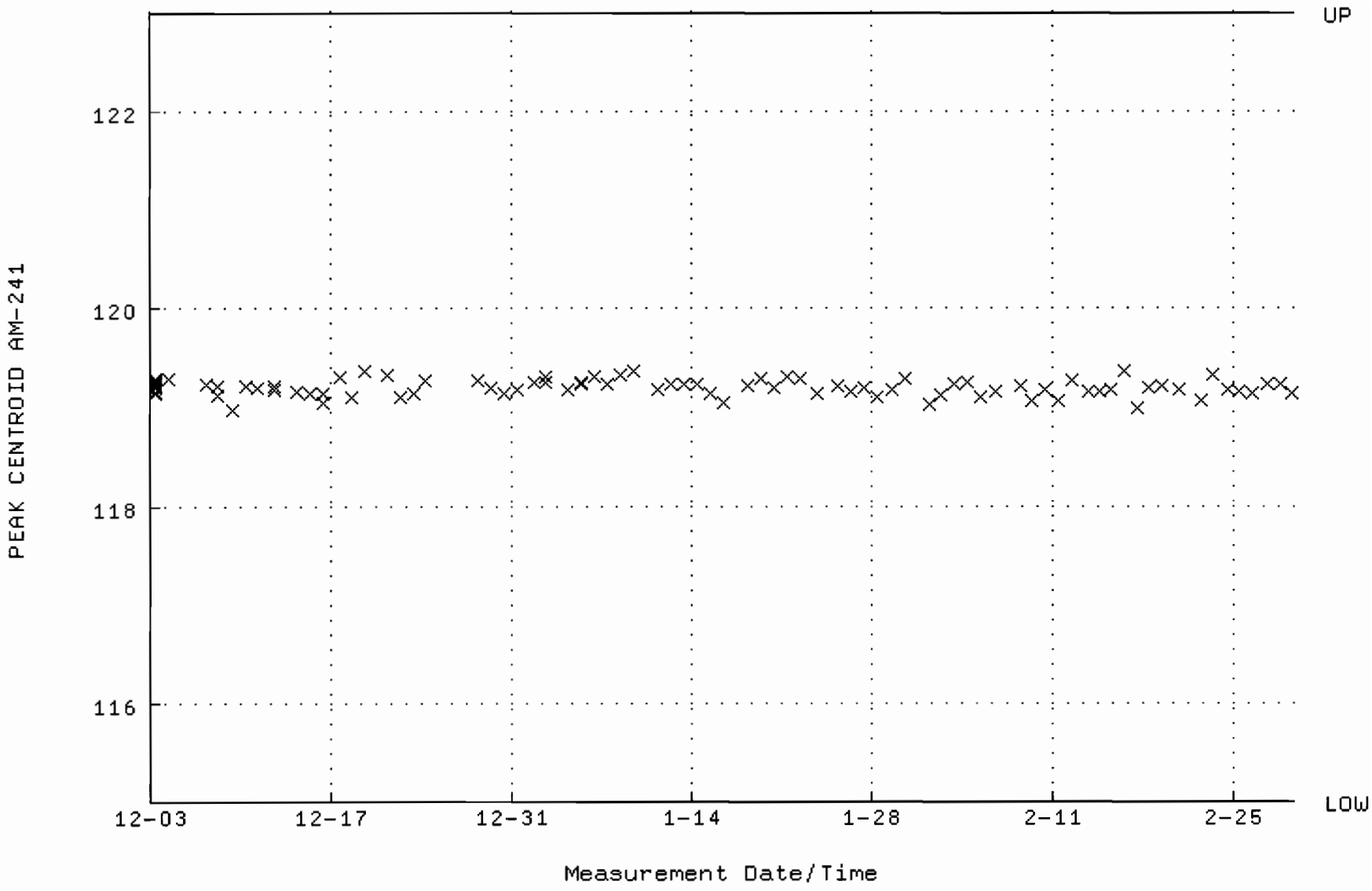

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

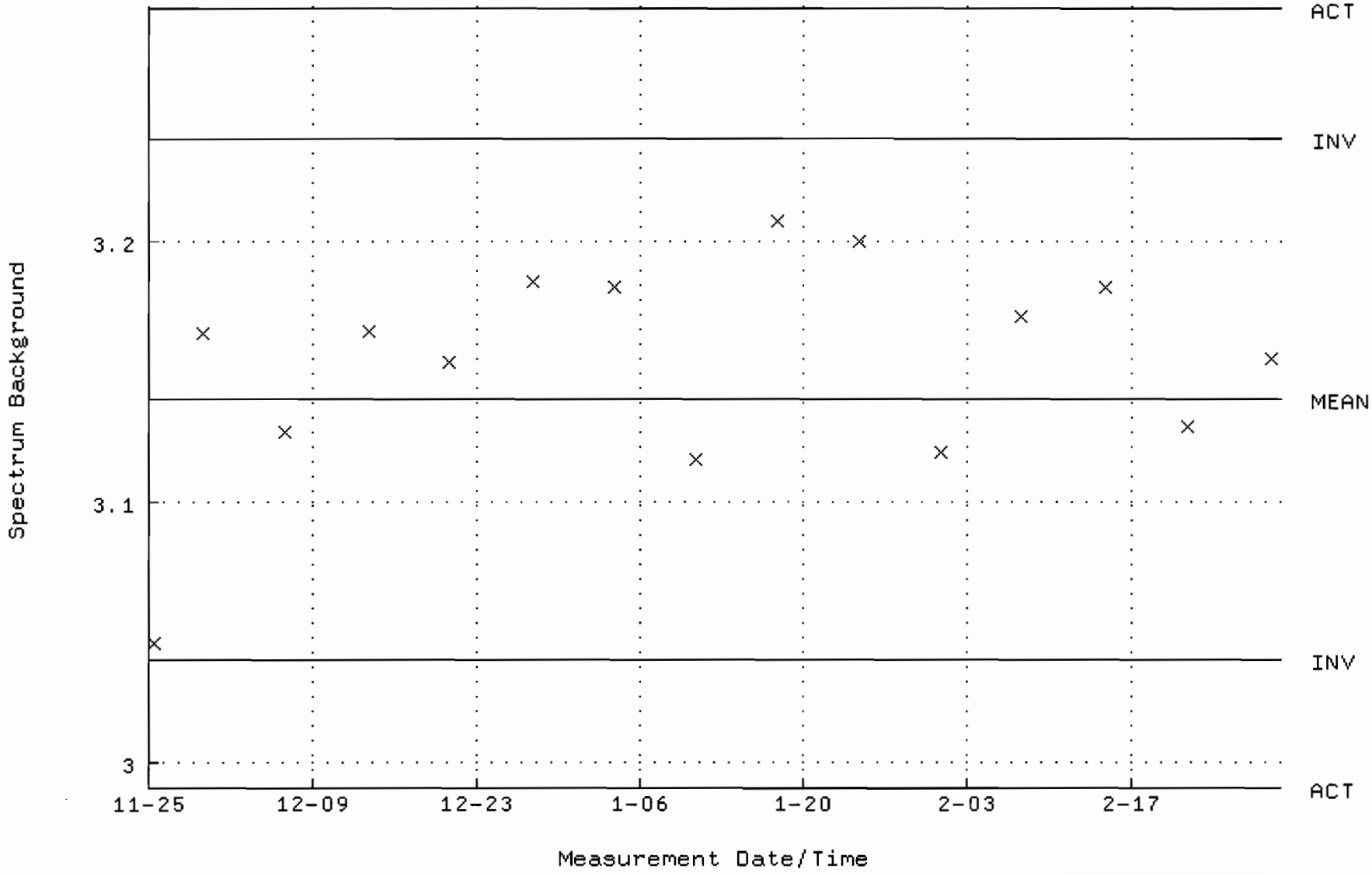

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 9-SEP-2009 16:19:12 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

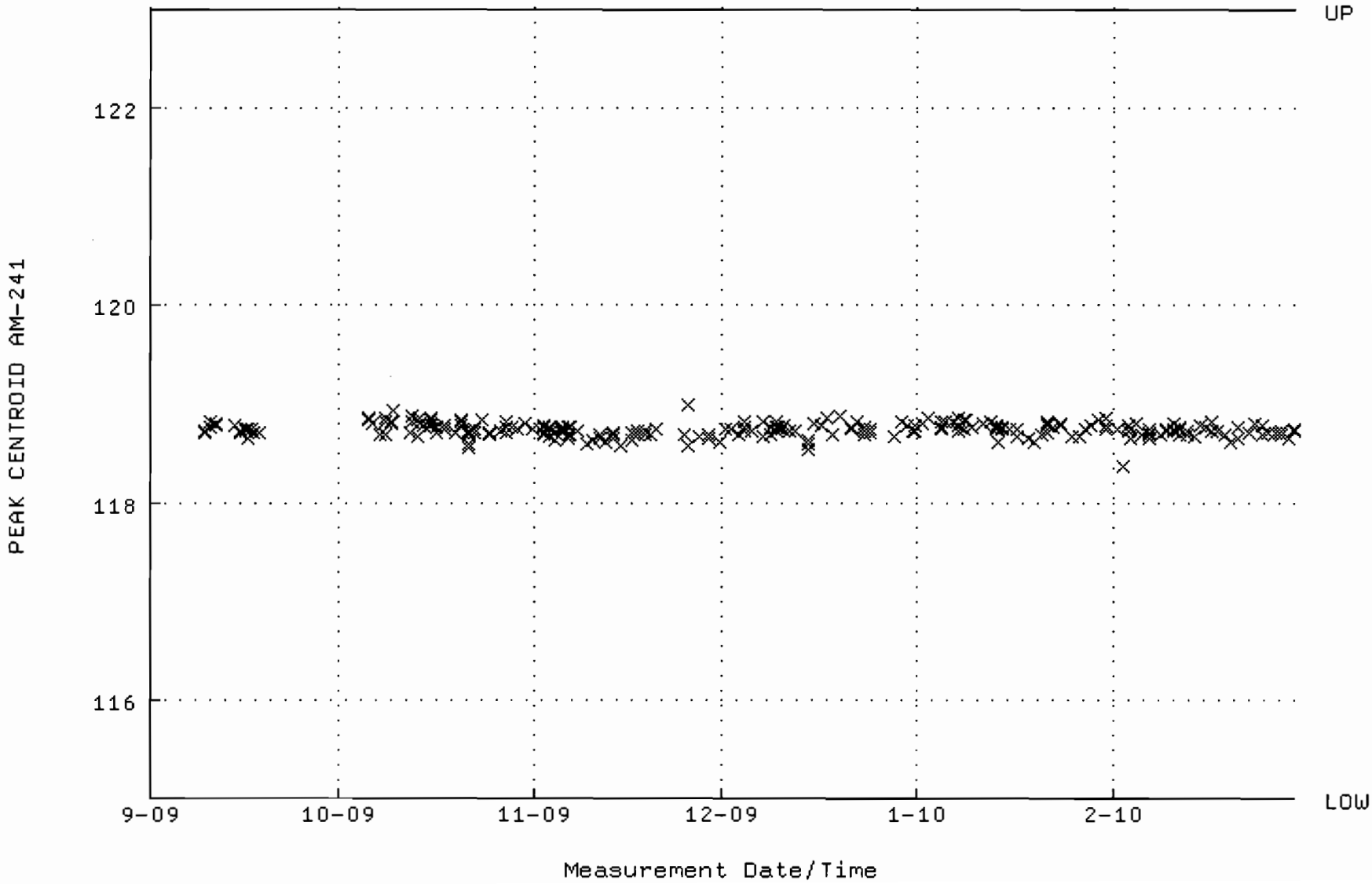

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM23.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-OCT-2009 15:13:53 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.61827 +- 0.119991 (7.41 %)

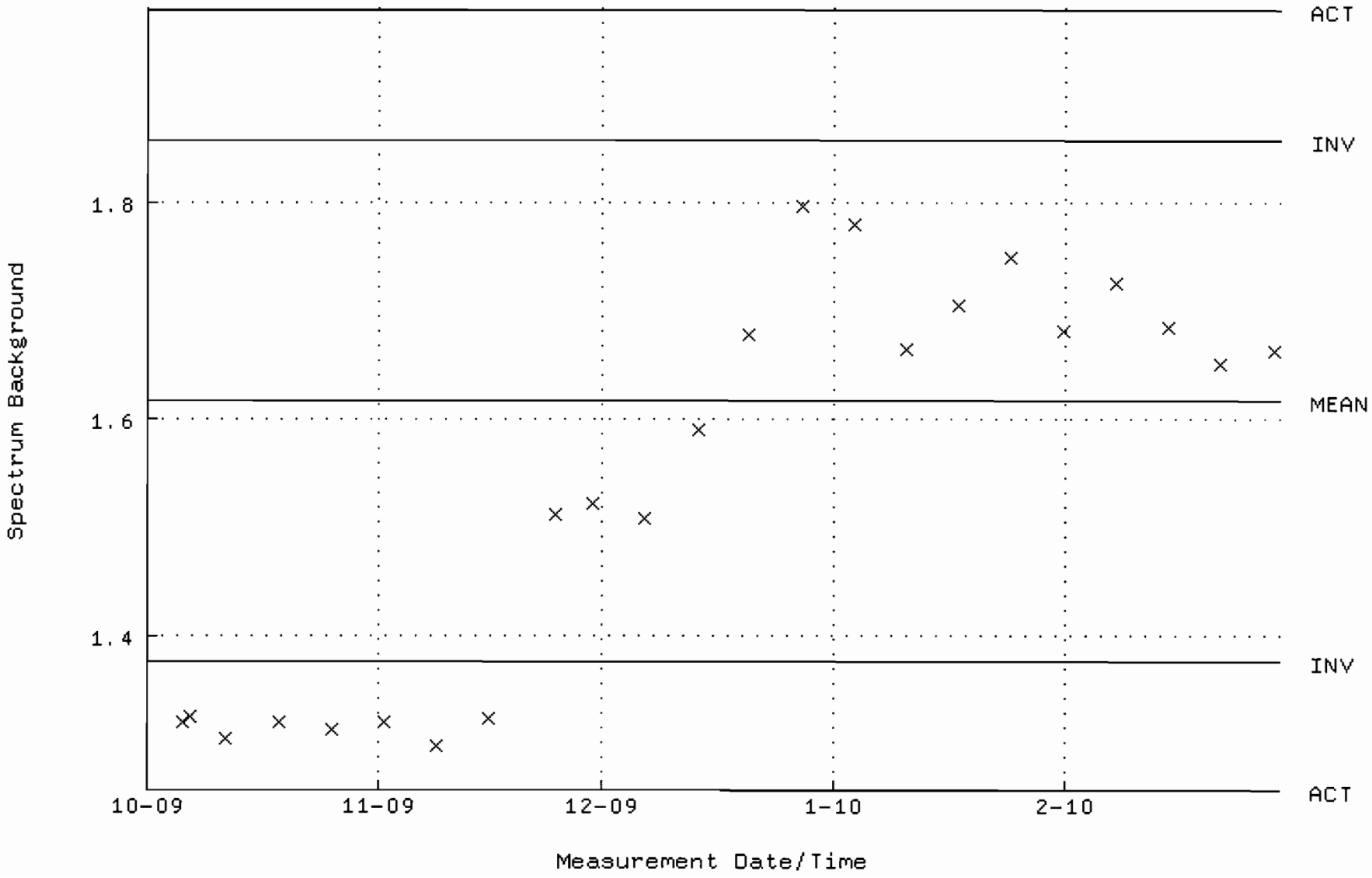

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM25_2LMB.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 9-SEP-2009 16:18:34 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

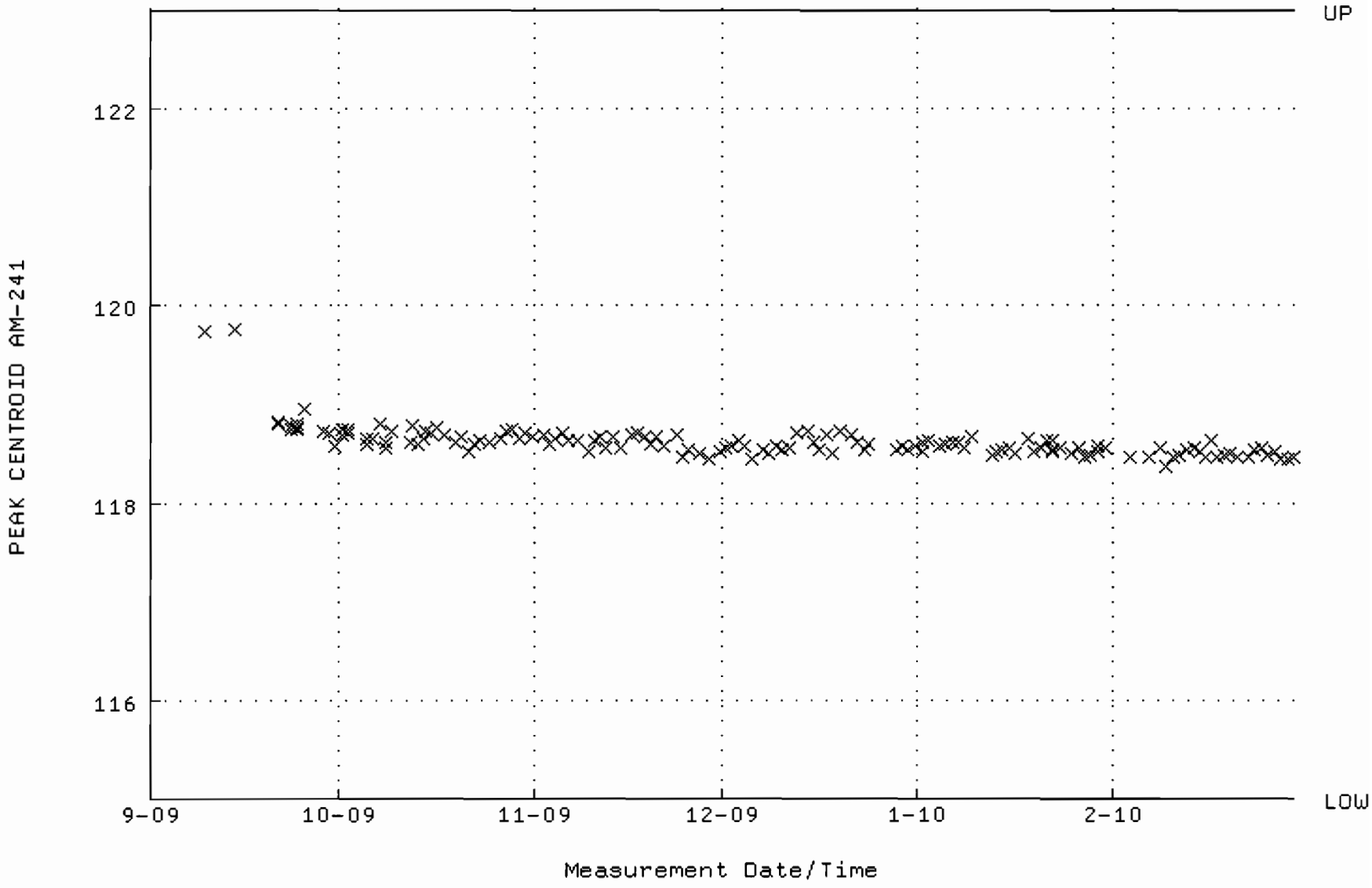

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM25.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:47:27 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.62502 +- 9.370414E-03 (0.58 %)

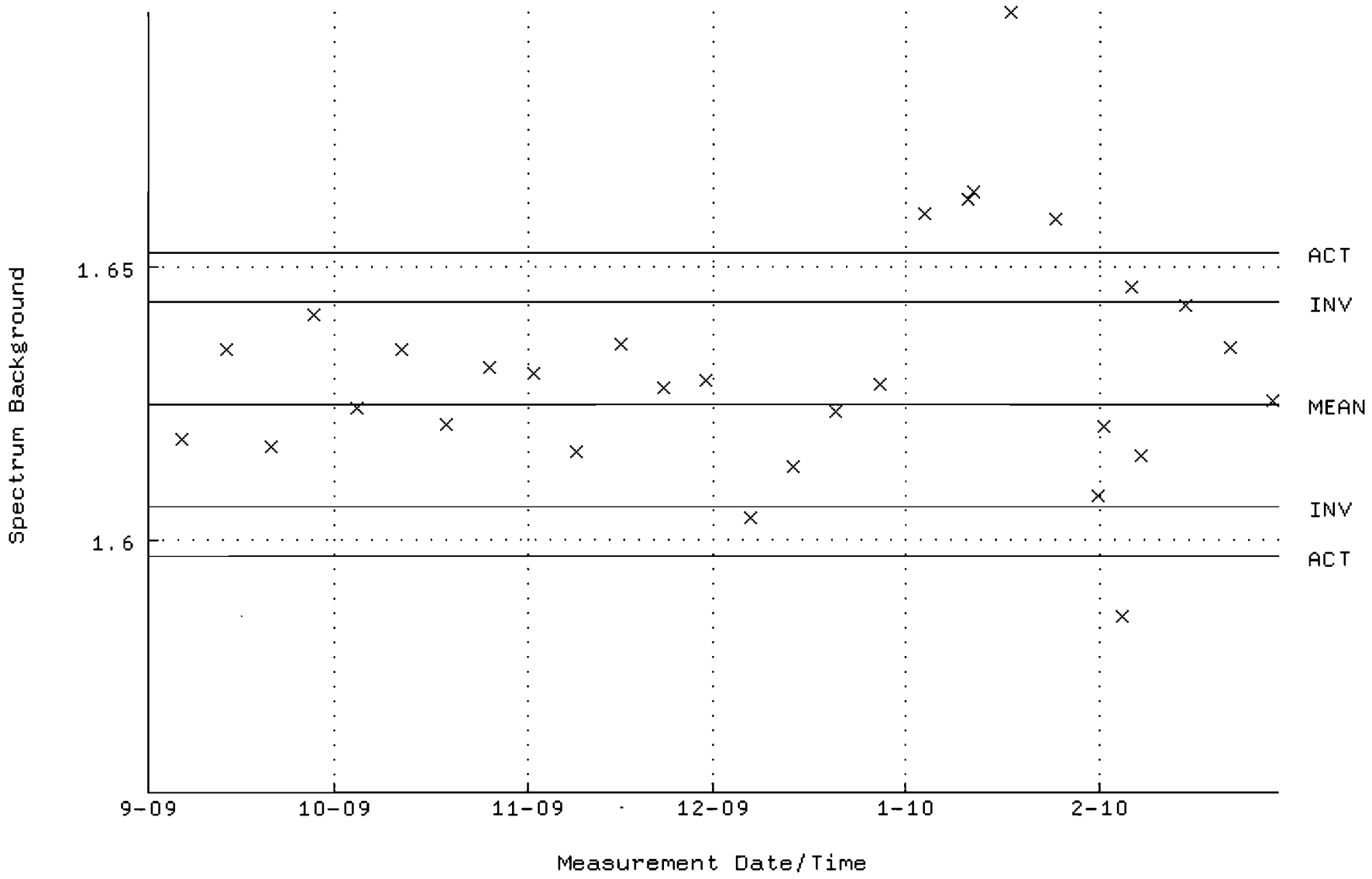

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM29_CAN.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 2-MAR-2010 08:30:43 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

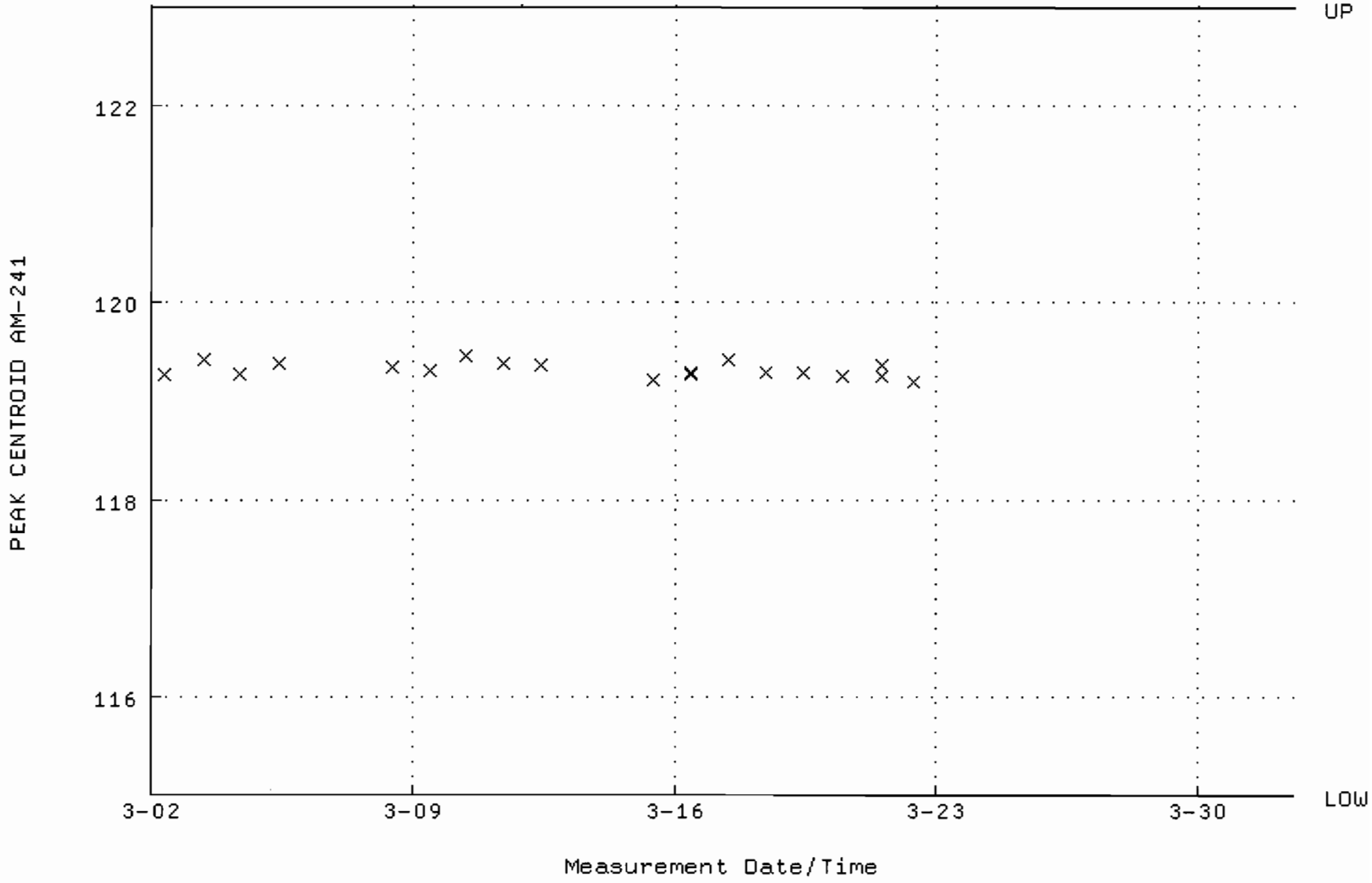

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM29.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 7-MAR-2010 16:47:12 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 1.94193 through 2.37347

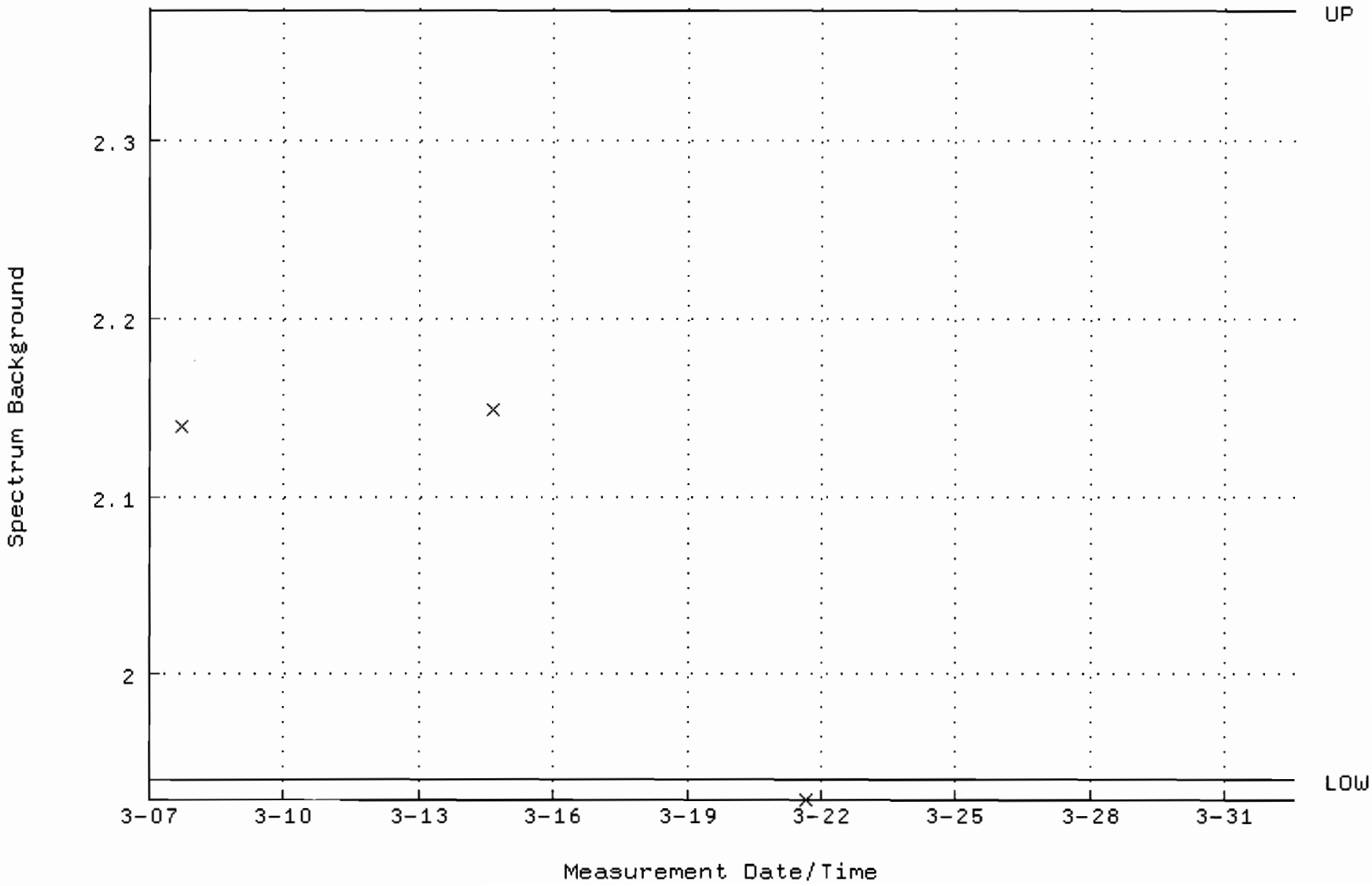

STANDARDS DATA

ANALYTICS
Isotope Products Laboratories Company

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Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

Rec'd 11/30/06
RC-S-045-073-0

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

Tel 404•352•8677
Fax 404•352•2837

www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- Var. JAR-1
	Mixed Gamma N2	2510	pCi/L	- Var. JAR-3
	Mixed Gamma N3	2413	pCi/L	- Var. JAR-5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 verification 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result		
	Mixed Gamma N1	1572	pCi/L	- VER-JAR-5
	Mixed Gamma N2	1495	pCi/L	- VER-JAR-2
	Mixed Gamma N3	1501	pCi/L	- VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**	
Stdev =	42.829	**Rule 3 (Pass/Fail)**		
Certificate Value =	1545.8378	pCi/L		
Lower Limit =	1437.008431	pCi/L		
Upper Limit =	1608.324902	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	85.65823564			
10 % of Mean =	152.26666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATE 4/14/2000 Jeff C Neff 12/1/04

Angela D. Johnson 12/3/04

TRM

Invoice:

5 bottles of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM–1	TRM–2	TRM–3	TRM–4
U–238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U–234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th–230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra–225	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb–210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking (SMO USE)
Date Entered (mm/dd/yy)
Entered by

QC Limits

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL on behalf of Hank Mintzer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. WESTON	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATE 4/14/2000

Amanda L. Fehr 4/30/04
[illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726494
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1-3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL per behalf of Hank Mistaer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date

QC Initials

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry		DEP	Weston / 7577 / 845-0867

1. Relinquished by	DEP GMW	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Kuen
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ 1. STANDARD WIPE TEST

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 2. SOAK TEST

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 3. SOAK TEST -- BERYLLIUM WINDOW

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 4. GAS SOURCE TEST (Radioactive Gas)

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ 5. OTHER LEAK TEST

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 6. LEAK TEST NOT APPLICABLE

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	03/09/2010
Expiration Date:	03/09/2011
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Tara Sides	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/14/2009	09/14/2010
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/09/2010	Ashley Drochter	.011	1000	445-96-2-VV	22.7878 dpm/mL	03/09/2010	03/09/2011
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
03/23/2010	Ashley Drochter	.0163	1000	445-96-2-WW	33.7674 dpm/mL	03/23/2010	03/23/2011
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-VV*

A.Drochter	Isotope	Value	Uncertainty
3/15/2010	445-96-2-VV #1	1.040	0.1630
	445-96-2-VV #2	0.964	0.1480
	445-96-2-VV #3	0.970	0.1550

Mean Value (Counting) =	0.991	96.72	**Pass**
Stdev =	0.042253205		**Rule 3 (Pass/Fail)**

Target =	1.025
Lower Limit =	0.906826923
Upper Limit =	1.075839743
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.08450641
10 % of Mean =	0.099133333
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-VV*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

3/15/10

3/16/10

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-OE

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter 12/14/09

1430

NATIONAL PHYSICAL LABORATORY

Teddington Middlesex UK TW11 0LW Telephone +44 20 8977 3222

Certificate of Calibration

UKAS CALIBRATION 0478

PLUTONIUM-236 SOLUTION
R37-02

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

FOR:	GEL Laboratories LLC 2040 Savage Road Charleston, SC 29407 USA
FOR THE ATTENTION OF:	Mr Tim Winters
NPL PRODUCT CODE:	R37-02
IDENTIFICATION:	A09881
DESCRIPTION:	An aqueous solution of ^{236}Pu also containing 2 mol dm^{-3} of nitric acid. The solution is contained in a flame sealed ampoule of type Q and nominal volume 5 ml (squat) as defined in BS 795:1983.
DATE(S) OF CALIBRATION:	26 June 2009 to 1 July 2009
INTENDED USE:	Calibration of instruments for response to ^{236}Pu
STORAGE:	The material may be stored at room temperature in a suitably sealed container. Flame-sealed glass ampoules are recommended for long-term storage. Regulatory conditions may apply to the manner in which this material is stored.

RECEIVED 11/24/09 AMS.

MEASUREMENTS

The samples were prepared by gravimetric dilution of a ^{236}Pu solution, which had been previously standardised using liquid scintillation counting. The accuracy of the dilution factor was checked using liquid scintillation counting.

Reference: 2009100356

Date of Issue: 4 November 2009

Checked by:

Signed:

Name: Dr Arvic Harms

(Authorised Signatory)

for Managing Director

RESULTS

Principal radionuclide:	^{236}Pu
Reference time:	2009-07-01 12:00 UTC
Activity concentration of principal radionuclide:	170.8 Bq g^{-1}
Expanded uncertainty:	±0.6 Bq g^{-1} (±0.36 %)
Contaminants present:	^{226}Ra, ^{232}U, ^{228}Th, ^{237}Np
Activity concentration of ^{226}Ra:	11.0 mBq g^{-1}
Expanded uncertainty:	±4.0 mBq g^{-1} (±36 %)
Activity concentration of ^{232}U:	0.67 Bq g^{-1}
Expanded uncertainty:	±0.12 Bq g^{-1} (±18 %)
Activity concentration of ^{228}Th:	11.38 mBq g^{-1}
Expanded uncertainty:	±0.46 mBq g^{-1} (±4 %)
Activity concentration of ^{237}Np:	5.00 mBq g^{-1}
Expanded uncertainty:	±0.34 mBq g^{-1} (±8 %)
Sample Mass:	4.97 g ± 0.02 g

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

NOTES

[1]. The reported reference time is stated consistent with the format given in ISO 8601:2004. UTC is the abbreviation for Universal Time, Coordinated. The date is stated in the format YYYY-MM-DD such that 2008-09-01 represents 1 September 2008.

[2]. The recommended half life of ^{236}Pu is 1044 (6) days and is taken from the evaluations published in *Nuclear Data Sheets*.

[3]. The recommended half life of ^{226}Ra is 5.844 (50) × 10^5 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[4]. The recommended half life of ^{232}U is 25800 (800) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[5]. The recommended half life of ^{237}Np is 7.83 (6) × 10^8 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[6]. The recommended half life of ^{228}Th is 698.60 (46) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1430
Prepared By:	Ashley Drochter
Carrier Conc:	2 M HNO3
Reference Date:	07/01/2009
Ampoule Mass (g):	4.97 g
Uncertainty:	+/- .36 %
LogBook No:	RC-S-051-149

A Solution Material Info	
Isotope:	Plutonium-236
Prepared By:	Ashley Drochter
Prep Date:	01/27/2010
Verification Date:	01/27/2010
Expiration Date:	01/27/2011
Primary Code:	1430-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8051 g
Density(g/mL):	1.0610
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (100 mL) = 492.4266 dpm/mL
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (1.0610 g/mL) / (100 mL) = 464.1156 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/27/2010	Bethany Fiem	33.0429	200	1430-B	76.6786262 dpm/mL	01/27/2010	01/27/2011
03/04/2010	Ashley Drochter	15.2331	200	1430-C	35.3496 dpm/mL	03/04/2010	03/04/2011
03/17/2010	Ashley Drochter	15.0683	200	1430-D	34.9672 dpm/mL	03/17/2010	03/17/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-236 Standard 1430-C

	Isotope	Value	Uncertainty
A. Drochter	1430-C	2.760	0.4480
3/4/2010	1430-C	2.770	0.4520
	1430-C	2.950	0.4850

Mean Value (Counting) =	2.827	104.54659	% of Known Value
Stdev =	0.106926766		
Target =	2.70		
Lower Limit =	2.612813134		
Upper Limit =	3.040520199		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.213853532		
10 % of Mean =	0.282666667		
Rule 2 (Pass/Fail)	**Pass**		

The analyst prepared three standard verification sources for standard 1430-B using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. After approximately ten minutes, two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-236 were calculated by comparison to Pu-239 certified values.

3/5/10

3/5/10

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 962633**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248860001	SAMPLE	MXR1	GAM15	24-MAR-10 16:15	DONE CAN		03-FEB-10 00:00
248860002	SAMPLE	MXR1	GAM18	24-MAR-10 16:15	DONE CAN		23-APR-09 00:00
248860003	SAMPLE	MXR1	GAM22	24-MAR-10 16:15	DONE CAN		02-DEC-09 00:00
248860004	SAMPLE	MXR1	GAM23	24-MAR-10 16:16	DONE CAN		02-JUN-09 00:00
248860005	SAMPLE	MXR1	GAM25	24-MAR-10 16:16	DONE CAN		07-OCT-09 00:00
248860006	SAMPLE	MXR1	GAM02	24-MAR-10 16:27	DONE CAN		29-OCT-09 00:00
248860007	SAMPLE	MXR1	GAM05	24-MAR-10 16:27	DONE CAN		11-JUN-09 00:00
248860008	SAMPLE	MXR1	GAM10	24-MAR-10 16:28	DONE CAN		13-MAR-10 00:00
248860009	SAMPLE	MXR1	GAM12	24-MAR-10 16:28	DONE CAN		25-FEB-10 00:00
248863001	SAMPLE	MXR1	GAM15	24-MAR-10 18:28	DONE CAN		03-FEB-10 00:00
248863002	SAMPLE	MXR1	GAM22	24-MAR-10 18:28	DONE CAN		02-DEC-09 00:00
248863003	SAMPLE	MXR1	GAM23	24-MAR-10 18:29	DONE CAN		02-JUN-09 00:00
248863004	SAMPLE	MXR1	GAM04	24-MAR-10 20:31	DONE CAN		05-MAY-09 00:00
248865001	SAMPLE	MXR1	GAM07	24-MAR-10 20:31	DONE CAN		20-JUL-09 00:00
248866001	SAMPLE	MXR1	GAM15	24-MAR-10 20:32	DONE CAN		03-FEB-10 00:00
248866002	SAMPLE	MXR1	GAM17	24-MAR-10 20:32	DONE CAN		06-JAN-10 00:00
248867001	SAMPLE	MXR1	GAM29	24-MAR-10 20:33	DONE CAN		23-FEB-10 00:00
248867002	SAMPLE	MXR1	GAM22	24-MAR-10 20:37	DONE CAN		02-DEC-09 00:00
248867003	SAMPLE	MXR1	GAM05	24-MAR-10 20:51	DONE CAN		11-JUN-09 00:00
248867004	SAMPLE	MXR1	GAM15	24-MAR-10 22:58	DONE CAN		03-FEB-10 00:00
1202065188	MB	MXR1	GAM29	24-MAR-10 22:59	DONE CAN		23-FEB-10 00:00
1202065189	DUP	MXR1	GAM21	24-MAR-10 23:00	DONE CAN		28-JUL-09 00:00
1202065190	LCS	MXR1	GAM22	25-MAR-10 09:16	DONE CAN		02-DEC-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965811**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248824001	SAMPLE	AYB1	1231	29-MAR-10 12:01	DONE		
248824002	SAMPLE	AYB1	1232	29-MAR-10 12:01	DONE		
248860001	SAMPLE	AYB1	1233	29-MAR-10 12:01	DONE		
248860002	SAMPLE	AYB1	1234	29-MAR-10 12:01	DONE		
248867003	SAMPLE	AYB1	1235	29-MAR-10 21:46	DONE		
248867004	SAMPLE	AYB1	1236	29-MAR-10 21:46	DONE		
1202072522	MB	AYB1	1237	29-MAR-10 21:46	DONE		
1202072523	DUP	AYB1	1238	29-MAR-10 21:46	DONE		
1202072524	LCS	AYB1	1239	29-MAR-10 21:46	DONE		
248860003	SAMPLE	AYB1	1240	29-MAR-10 21:47	DONE		
248860004	SAMPLE	AYB1	1241	29-MAR-10 21:47	DONE		
248860005	SAMPLE	AYB1	1242	29-MAR-10 21:47	DONE		
248860006	SAMPLE	AYB1	1243	29-MAR-10 21:47	DONE		
248860007	SAMPLE	AYB1	1244	29-MAR-10 21:47	DONE		
248860008	SAMPLE	AYB1	1245	29-MAR-10 21:47	DONE		
248860009	SAMPLE	AYB1	1246	29-MAR-10 21:47	DONE		
248867001	SAMPLE	AYB1	1247	29-MAR-10 21:47	DONE		
248867002	SAMPLE	AYB1	1248	29-MAR-10 21:47	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965813**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248824001	SAMPLE	AYB1	1086	27-MAR-10 13:40	DONE		
248824002	SAMPLE	AYB1	1087	27-MAR-10 13:40	DONE		
248860001	SAMPLE	AYB1	1088	27-MAR-10 13:40	DONE		
248860007	SAMPLE	AYB1	1013	29-MAR-10 09:33	DONE		
248860008	SAMPLE	AYB1	1014	29-MAR-10 09:33	DONE		
248860009	SAMPLE	AYB1	1016	29-MAR-10 09:33	DONE		
248867001	SAMPLE	AYB1	1017	29-MAR-10 09:33	DONE		
248867002	SAMPLE	AYB1	1018	29-MAR-10 09:33	DONE		
248867003	SAMPLE	AYB1	1019	29-MAR-10 09:33	DONE		
248867004	SAMPLE	AYB1	1020	29-MAR-10 09:33	DONE		
1202072525	MB	AYB1	1022	29-MAR-10 09:33	DONE		
1202072526	DUP	AYB1	1023	29-MAR-10 09:33	DONE		
1202072527	LCS	AYB1	1024	29-MAR-10 09:33	DONE		
248860002	SAMPLE	AYB1	1025	29-MAR-10 09:33	DONE		
248860003	SAMPLE	AYB1	1026	29-MAR-10 09:33	DONE		
248860004	SAMPLE	AYB1	1027	29-MAR-10 09:33	DONE		
248860005	SAMPLE	AYB1	1028	29-MAR-10 09:33	DONE		
248860006	SAMPLE	AYB1	1030	29-MAR-10 09:33	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 971197**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248860009	SAMPLE	AYB1	1115	02-APR-10 11:37	DONE		
248867001	SAMPLE	AYB1	1116	02-APR-10 11:37	DONE		
248867002	SAMPLE	AYB1	1126	02-APR-10 11:37	DONE		
248867003	SAMPLE	AYB1	1127	02-APR-10 11:37	DONE		
248867004	SAMPLE	AYB1	1128	02-APR-10 11:37	DONE		
1202085875	MB	AYB1	1129	02-APR-10 11:37	DONE		
1202085876	DUP	AYB1	1130	02-APR-10 11:37	DONE		
1202085877	LCS	AYB1	1131	02-APR-10 11:37	DONE		
248824001	SAMPLE	AYB1	1132	02-APR-10 11:37	DONE		
248824002	SAMPLE	AYB1	1135	02-APR-10 11:37	DONE		
248860001	SAMPLE	AYB1	1136	02-APR-10 11:37	DONE		
248860004	SAMPLE	AYB1	1139	02-APR-10 11:37	DONE		
248860005	SAMPLE	AYB1	1140	02-APR-10 11:37	DONE		
248860006	SAMPLE	AYB1	1141	02-APR-10 11:38	DONE		
248860007	SAMPLE	AYB1	1142	02-APR-10 11:38	DONE		
248860008	SAMPLE	AYB1	1143	02-APR-10 11:38	DONE		
248860002	SAMPLE	AYB1	1001	03-APR-10 16:18	DONE		
248860003	SAMPLE	AYB1	1002	03-APR-10 16:18	DONE		

Thursday, March 04, 2010

REQUEST NUMBER: 10-2305

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2305

Per Agreement Number:126310011

Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE46-10-11925	S	3/3/2010	
		1	RE46-10-11926	S	3/3/2010	
	EPA:901.1	1	RE46-10-11925	S	3/3/2010	
		1	RE46-10-11926	S	3/3/2010	
	HASL-300:AM-241	1	RE46-10-11925	S	3/3/2010	
		1	RE46-10-11926	S	3/3/2010	

HASL-300:ISOPU	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
HASL-300:ISOTH	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
HASL-300:ISOU	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:6020	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:6850	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:7471A	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:8082	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:8260B	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:8270C	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:9012A	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010

Final Page of REQUEST NUMBER 10-2305

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2305C

REQUEST NUMBER: 10-2305

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-11926	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-11926	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-11926	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-11926	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-11925	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-11925	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-11925	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-11925	1	POLY	Met+NO3+CL04+CN	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	3/4/10	1400	Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2611 **EVENT NAME:** SWMU 46-002

SAMPLE ID: RE46-10-11926 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		~~3-2-10~~ 3-3-10	MEDIA:	ALLH	QBT 3
TIME COLLECTED (HH:MM)		0905	SUB-MEDIA:	SOIL	o/c
PRS ID:	46-002	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611376		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	19 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	20 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~ R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: WATER FLOWING: YES ~~/NO~~ / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+NO3+CL04+CN	1 LITER POLY	Ice	Y	

SAMPLE DESC: tuff, Pinkish-gray (7.5YR 6/3), no odor, sl. moist

SAMPLE COMMENTS: 5' below base of unit

LOCATION DESC: 2-4

FIELD SCREENING/MEASUREMENT RESULTS: PID: NA Samples < MDA
α = 12 dpm
β = 827

COLLECTED BY (PRINT) J. Jordan REVIEWED BY (PRINT) J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) James Jordan	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature) James Jordan	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2611 **EVENT NAME:** SWMU 46-002

SAMPLE ID: RE46-10-11925 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		0855	SUB-MEDIA:	SOIL	OK
PRS ID:	46-002	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611376		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	14 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	15 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~S~~R JLJ 3-3-10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA ~~COMPOSITE TIME INTERVAL:~~ ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: BOREHOLE ~~DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+NO3+CL04+CN	1 LITER POLY	Ice	Y	

SAMPLE DESC: tuff, Pinkish-gray (7.5YR 6/3), no odor, sl. moist

SAMPLE COMMENTS: base of unit

LOCATION DESC: 2-4

FIELD SCREENING/MEASUREMENT RESULTS: PID = NA Samples < MDA

α = 12
β = 827 dpm

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature) J. Jordan	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2305 VALIDATION DATE: 6/2/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV and/or CCV %Ds were >20% for acetone and carbon disulfide. The acetone results were detects and, thus, were qualified J,V7c. The carbon disulfide sample results were NDs and, thus, were qualified UJ,V7c.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/03/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/2/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☐	☐	☒	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2305	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248824001	**Date Received:**	03/05/2010 10:20	**%Moisture:**	1.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-11926	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965481	**Inst:**	VOA3.I	**Dilution:**	1
Run Date:	03/15/2010 18:18	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/15/2010 17:10	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031510V3\3D113.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.02	ug/kg	0.346	1.02	
74-87-3	Chloromethane	U	1.02	ug/kg	0.305	1.02	
75-01-4	Vinyl chloride	U	1.02	ug/kg	0.305	1.02	
74-83-9	Bromomethane	U	1.02	ug/kg	0.305	1.02	
75-00-3	Chloroethane	U	1.02	ug/kg	0.305	1.02	
75-69-4	Trichlorofluoromethane	U	1.02	ug/kg	0.305	1.02	
67-64-1	Acetone	J	4.31	ug/kg	1.69	5.09	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.02	ug/kg	0.305	1.02	
74-88-4	Iodomethane	U	5.09	ug/kg	1.63	5.09	
75-09-2	Methylene chloride	U	5.09	ug/kg	2.04	5.09	
75-15-0	Carbon disulfide	U	5.09	ug/kg	1.27	5.09	UJ,V7c
156-60-5	trans-1,2-Dichloroethylene	U	1.02	ug/kg	0.305	1.02	
75-34-3	1,1-Dichloroethane	U	1.02	ug/kg	0.305	1.02	
78-93-3	2-Butanone	U	5.09	ug/kg	1.53	5.09	
156-59-2	cis-1,2-Dichloroethylene	U	1.02	ug/kg	0.305	1.02	
594-20-7	2,2-Dichloropropane	U	1.02	ug/kg	0.305	1.02	
67-66-3	Chloroform	U	1.02	ug/kg	0.305	1.02	
74-97-5	Bromochloromethane	U	1.02	ug/kg	0.336	1.02	
71-55-6	1,1,1-Trichloroethane	U	1.02	ug/kg	0.305	1.02	
563-58-6	1,1-Dichloropropene	U	1.02	ug/kg	0.305	1.02	
56-23-5	Carbon tetrachloride	U	1.02	ug/kg	0.305	1.02	
107-06-2	1,2-Dichloroethane	U	1.02	ug/kg	0.305	1.02	
71-43-2	Benzene	U	1.02	ug/kg	0.305	1.02	
79-01-6	Trichloroethylene	U	1.02	ug/kg	0.336	1.02	
78-87-5	1,2-Dichloropropane	U	1.02	ug/kg	0.305	1.02	
75-27-4	Bromodichloromethane	U	1.02	ug/kg	0.305	1.02	
74-95-3	Dibromomethane	U	1.02	ug/kg	0.305	1.02	
108-10-1	4-Methyl-2-pentanone	U	5.09	ug/kg	1.27	5.09	
10061-01-5	cis-1,3-Dichloropropylene	U	1.02	ug/kg	0.305	1.02	
108-88-3	Toluene	U	1.02	ug/kg	0.305	1.02	
10061-02-6	trans-1,3-Dichloropropylene	U	1.02	ug/kg	0.305	1.02	
79-00-5	1,1,2-Trichloroethane	U	1.02	ug/kg	0.305	1.02	
591-78-6	2-Hexanone	U	5.09	ug/kg	1.53	5.09	
142-28-9	1,3-Dichloropropane	U	1.02	ug/kg	0.305	1.02	
127-18-4	Tetrachloroethylene	U	1.02	ug/kg	0.305	1.02	
124-48-1	Dibromochloromethane	U	1.02	ug/kg	0.305	1.02	
106-93-4	1,2-Dibromoethane	U	1.02	ug/kg	0.305	1.02	
108-90-7	Chlorobenzene	U	1.02	ug/kg	0.305	1.02	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2305	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248824001	**Date Received:**	03/05/2010 10:20	**%Moisture:**	1.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-11926	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965481	**Inst:**	VOA3.I	**Dilution:**	1
Run Date:	03/15/2010 18:18	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/15/2010 17:10	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031510V3\3D113.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.02	ug/kg	0.305	1.02
179601-23-1	m,p-Xylenes	U	2.04	ug/kg	0.305	2.04
95-47-6	o-Xylene	U	1.02	ug/kg	0.305	1.02
100-42-5	Styrene	U	1.02	ug/kg	0.305	1.02
75-25-2	Bromoform	U	1.02	ug/kg	0.305	1.02
79-34-5	1,1,2,2-Tetrachloroethane	U	1.02	ug/kg	0.305	1.02
96-18-4	1,2,3-Trichloropropane	U	1.02	ug/kg	0.305	1.02
108-86-1	Bromobenzene	U	1.02	ug/kg	0.305	1.02
103-65-1	n-Propylbenzene	U	1.02	ug/kg	0.305	1.02
95-49-8	2-Chlorotoluene	U	1.02	ug/kg	0.305	1.02
98-82-8	Isopropylbenzene	U	1.02	ug/kg	0.305	1.02
108-67-8	1,3,5-Trimethylbenzene	U	1.02	ug/kg	0.305	1.02
106-43-4	4-Chlorotoluene	U	1.02	ug/kg	0.305	1.02
98-06-6	tert-Butylbenzene	U	1.02	ug/kg	0.305	1.02
95-63-6	1,2,4-Trimethylbenzene	U	1.02	ug/kg	0.305	1.02
135-98-8	sec-Butylbenzene	U	1.02	ug/kg	0.305	1.02
99-87-6	4-Isopropyltoluene	U	1.02	ug/kg	0.305	1.02
541-73-1	1,3-Dichlorobenzene	U	1.02	ug/kg	0.305	1.02
106-46-7	1,4-Dichlorobenzene	U	1.02	ug/kg	0.305	1.02
104-51-8	n-Butylbenzene	U	1.02	ug/kg	0.305	1.02
96-12-8	1,2-Dibromo-3-chloropropane	U	1.02	ug/kg	0.305	1.02
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.09	ug/kg	1.63	5.09
630-20-6	1,1,1,2-Tetrachloroethane	U	1.02	ug/kg	0.305	1.02
95-50-1	1,2-Dichlorobenzene	U	1.02	ug/kg	0.305	1.02

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2305	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248824002	**Date Received:**	03/05/2010 10:20	**%Moisture:**	1.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-11925	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965481	**Inst:**	VOA3.I	**Dilution:**	1
Run Date:	03/15/2010 18:47	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/15/2010 17:12	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031510V3\3D114.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.02	ug/kg	0.345	1.02	
74-87-3	Chloromethane	U	1.02	ug/kg	0.305	1.02	
75-01-4	Vinyl chloride	U	1.02	ug/kg	0.305	1.02	
74-83-9	Bromomethane	U	1.02	ug/kg	0.305	1.02	
75-00-3	Chloroethane	U	1.02	ug/kg	0.305	1.02	
75-69-4	Trichlorofluoromethane	U	1.02	ug/kg	0.305	1.02	
67-64-1	Acetone	J	4.59	ug/kg	1.69	5.08	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.02	ug/kg	0.305	1.02	
74-88-4	Iodomethane	U	5.08	ug/kg	1.62	5.08	
75-09-2	Methylene chloride	U	5.08	ug/kg	2.03	5.08	
75-15-0	Carbon disulfide	U	5.08	ug/kg	1.27	5.08	UJ,V7c
156-60-5	trans-1,2-Dichloroethylene	U	1.02	ug/kg	0.305	1.02	
75-34-3	1,1-Dichloroethane	U	1.02	ug/kg	0.305	1.02	
78-93-3	2-Butanone	U	5.08	ug/kg	1.52	5.08	
156-59-2	cis-1,2-Dichloroethylene	U	1.02	ug/kg	0.305	1.02	
594-20-7	2,2-Dichloropropane	U	1.02	ug/kg	0.305	1.02	
67-66-3	Chloroform	U	1.02	ug/kg	0.305	1.02	
74-97-5	Bromochloromethane	U	1.02	ug/kg	0.335	1.02	
71-55-6	1,1,1-Trichloroethane	U	1.02	ug/kg	0.305	1.02	
563-58-6	1,1-Dichloropropene	U	1.02	ug/kg	0.305	1.02	
56-23-5	Carbon tetrachloride	U	1.02	ug/kg	0.305	1.02	
107-06-2	1,2-Dichloroethane	U	1.02	ug/kg	0.305	1.02	
71-43-2	Benzene	U	1.02	ug/kg	0.305	1.02	
79-01-6	Trichloroethylene	U	1.02	ug/kg	0.335	1.02	
78-87-5	1,2-Dichloropropane	U	1.02	ug/kg	0.305	1.02	
75-27-4	Bromodichloromethane	U	1.02	ug/kg	0.305	1.02	
74-95-3	Dibromomethane	U	1.02	ug/kg	0.305	1.02	
108-10-1	4-Methyl-2-pentanone	U	5.08	ug/kg	1.27	5.08	
10061-01-5	cis-1,3-Dichloropropylene	U	1.02	ug/kg	0.305	1.02	
108-88-3	Toluene	U	1.02	ug/kg	0.305	1.02	
10061-02-6	trans-1,3-Dichloropropylene	U	1.02	ug/kg	0.305	1.02	
79-00-5	1,1,2-Trichloroethane	U	1.02	ug/kg	0.305	1.02	
591-78-6	2-Hexanone	U	5.08	ug/kg	1.52	5.08	
142-28-9	1,3-Dichloropropane	U	1.02	ug/kg	0.305	1.02	
127-18-4	Tetrachloroethylene	U	1.02	ug/kg	0.305	1.02	
124-48-1	Dibromochloromethane	U	1.02	ug/kg	0.305	1.02	
106-93-4	1,2-Dibromoethane	U	1.02	ug/kg	0.305	1.02	
108-90-7	Chlorobenzene	U	1.02	ug/kg	0.305	1.02	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2305	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248824002	**Date Received:**	03/05/2010 10:20	**%Moisture:**	1.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-11925	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965481	**Inst:**	VOA3.I	**Dilution:**	1
Run Date:	03/15/2010 18:47	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/15/2010 17:12	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031510V3\3D114.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.02	ug/kg	0.305	1.02
179601-23-1	m,p-Xylenes	U	2.03	ug/kg	0.305	2.03
95-47-6	o-Xylene	U	1.02	ug/kg	0.305	1.02
100-42-5	Styrene	U	1.02	ug/kg	0.305	1.02
75-25-2	Bromoform	U	1.02	ug/kg	0.305	1.02
79-34-5	1,1,2,2-Tetrachloroethane	U	1.02	ug/kg	0.305	1.02
96-18-4	1,2,3-Trichloropropane	U	1.02	ug/kg	0.305	1.02
108-86-1	Bromobenzene	U	1.02	ug/kg	0.305	1.02
103-65-1	n-Propylbenzene	U	1.02	ug/kg	0.305	1.02
95-49-8	2-Chlorotoluene	U	1.02	ug/kg	0.305	1.02
98-82-8	Isopropylbenzene	U	1.02	ug/kg	0.305	1.02
108-67-8	1,3,5-Trimethylbenzene	U	1.02	ug/kg	0.305	1.02
106-43-4	4-Chlorotoluene	U	1.02	ug/kg	0.305	1.02
98-06-6	tert-Butylbenzene	U	1.02	ug/kg	0.305	1.02
95-63-6	1,2,4-Trimethylbenzene	U	1.02	ug/kg	0.305	1.02
135-98-8	sec-Butylbenzene	U	1.02	ug/kg	0.305	1.02
99-87-6	4-Isopropyltoluene	U	1.02	ug/kg	0.305	1.02
541-73-1	1,3-Dichlorobenzene	U	1.02	ug/kg	0.305	1.02
106-46-7	1,4-Dichlorobenzene	U	1.02	ug/kg	0.305	1.02
104-51-8	n-Butylbenzene	U	1.02	ug/kg	0.305	1.02
96-12-8	1,2-Dibromo-3-chloropropane	U	1.02	ug/kg	0.305	1.02
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.08	ug/kg	1.62	5.08
630-20-6	1,1,1,2-Tetrachloroethane	U	1.02	ug/kg	0.305	1.02
95-50-1	1,2-Dichlorobenzene	U	1.02	ug/kg	0.305	1.02

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	19.05	10.1	ug/kg	0	J

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DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2305 VALIDATION DATE: 6/2/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV and/or CCV %Ds were >20% for pyridine; 2-methyl-4,6-dinitrophenol; benzyl alcohol; benzoic acid; 4-chloroaniline; hexachlorocyclopentadiene; p-nitroaniline; indeno(1,2,3-cd)pyrene; dibenzo(a,h)anthracene and benzo(g,h,i)perylene. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. It should be noted that a few MS/MSD %Rs and RPDs were not within the laboratory's QC limits. It should also be noted that the MS/MSD analyses were performed on a LANL sample from a different RN and the parent sample raw data were not included in the data package. However, MS/MSD analyses are not required for this analysis and, thus, no sample data were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/03/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/2/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☐	☒	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☐	☒	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2305	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248824002	**Date Received:**	03/05/2010 10:20	**%Moisture:**	1.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-11925	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 14:15	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	s7c2312.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	337	ug/kg	67.3	337	
108-95-2	Phenol	U	337	ug/kg	67.3	337	
95-57-8	2-Chlorophenol	U	337	ug/kg	67.3	337	
106-46-7	1,4-Dichlorobenzene	U	337	ug/kg	67.3	337	
621-64-7	N-Nitrosodipropylamine	U	337	ug/kg	67.3	337	
59-50-7	4-Chloro-3-methylphenol	U	337	ug/kg	67.3	337	
83-32-9	Acenaphthene	U	33.7	ug/kg	11.1	33.7	
121-14-2	2,4-Dinitrotoluene	U	337	ug/kg	33.7	337	
100-02-7	4-Nitrophenol	U	337	ug/kg	111	337	
87-86-5	Pentachlorophenol	U	337	ug/kg	84.1	337	
129-00-0	Pyrene	U	33.7	ug/kg	10.1	33.7	
110-86-1	Pyridine	U	337	ug/kg	67.3	337	UJ,SV7c
62-53-3	Aniline	U	337	ug/kg	101	337	
111-44-4	bis(2-Chloroethyl) ether	U	337	ug/kg	67.3	337	
541-73-1	1,3-Dichlorobenzene	U	337	ug/kg	67.3	337	
100-51-6	Benzyl alcohol	U	337	ug/kg	101	337	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	337	ug/kg	67.3	337	
108-60-1	bis(2-Chloroisopropyl)ether	U	337	ug/kg	67.3	337	
95-48-7	o-Cresol	U	337	ug/kg	67.3	337	
65794-96-9	m,p-Cresols	U	337	ug/kg	101	337	
67-72-1	Hexachloroethane	U	337	ug/kg	67.3	337	
98-95-3	Nitrobenzene	U	337	ug/kg	67.3	337	
78-59-1	Isophorone	U	337	ug/kg	67.3	337	
88-75-5	2-Nitrophenol	U	337	ug/kg	67.3	337	
105-67-9	2,4-Dimethylphenol	U	337	ug/kg	118	337	
111-91-1	bis(2-Chloroethoxy)methane	U	337	ug/kg	67.3	337	
120-83-2	2,4-Dichlorophenol	U	337	ug/kg	67.3	337	
65-85-0	Benzoic acid	U	673	ug/kg	168	673	UJ,SV7c
91-20-3	Naphthalene	U	33.7	ug/kg	10.1	33.7	
106-47-8	4-Chloroaniline	U	337	ug/kg	67.3	337	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	337	ug/kg	67.3	337	
91-57-6	2-Methylnaphthalene	U	33.7	ug/kg	6.73	33.7	
77-47-4	Hexachlorocyclopentadiene	U	337	ug/kg	67.3	337	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	337	ug/kg	67.3	337	
95-95-4	2,4,5-Trichlorophenol	U	337	ug/kg	67.3	337	
91-58-7	2-Chloronaphthalene	U	33.7	ug/kg	11.1	33.7	
88-74-4	2-Nitroaniline	U	337	ug/kg	67.3	337	
	o-Nitroaniline						
99-09-2	3-Nitroaniline	U	337	ug/kg	67.3	337	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2305	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248824002	**Date Received:**	03/05/2010 10:20	**%Moisture:**	1.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-11925	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 14:15	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	s7c2312.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	337	ug/kg	67.3	337	
606-20-2	2,6-Dinitrotoluene	U	337	ug/kg	33.7	337	
208-96-8	Acenaphthylene	U	33.7	ug/kg	10.1	33.7	
51-28-5	2,4-Dinitrophenol	U	673	ug/kg	128	673	
132-64-9	Dibenzofuran	U	337	ug/kg	67.3	337	
84-66-2	Diethylphthalate	U	337	ug/kg	67.3	337	
86-73-7	Fluorene	U	33.7	ug/kg	10.1	33.7	
7005-72-3	4-Chlorophenylphenylether	U	337	ug/kg	67.3	337	
534-52-1	2-Methyl-4,6-dinitrophenol	U	337	ug/kg	67.3	337	UJ,SV7c
100-01-6	4-Nitroaniline	U	337	ug/kg	101	337	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	337	ug/kg	67.3	337	
122-66-7	Azobenzene	U	337	ug/kg	67.3	337	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	337	ug/kg	67.3	337	
118-74-1	Hexachlorobenzene	U	337	ug/kg	67.3	337	
85-01-8	Phenanthrene	U	33.7	ug/kg	10.1	33.7	
120-12-7	Anthracene	U	33.7	ug/kg	6.73	33.7	
84-74-2	Di-n-butylphthalate	U	337	ug/kg	67.3	337	
206-44-0	Fluoranthene	U	33.7	ug/kg	10.1	33.7	
85-68-7	Butylbenzylphthalate	U	337	ug/kg	67.3	337	
56-55-3	Benzo(a)anthracene	U	33.7	ug/kg	10.1	33.7	
91-94-1	3,3'-Dichlorobenzidine	U	337	ug/kg	101	337	
218-01-9	Chrysene	U	33.7	ug/kg	10.1	33.7	
117-81-7	bis(2-Ethylhexyl)phthalate	U	337	ug/kg	67.3	337	
117-84-0	Di-n-octylphthalate	U	337	ug/kg	67.3	337	
205-99-2	Benzo(b)fluoranthene	U	33.7	ug/kg	10.1	33.7	
207-08-9	Benzo(k)fluoranthene	U	33.7	ug/kg	10.1	33.7	
50-32-8	Benzo(a)pyrene	U	33.7	ug/kg	10.1	33.7	
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.7	ug/kg	10.1	33.7	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	33.7	ug/kg	10.1	33.7	
191-24-2	Benzo(ghi)perylene	U	33.7	ug/kg	10.1	33.7	
120-82-1	1,2,4-Trichlorobenzene	U	337	ug/kg	67.3	337	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	389	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2305	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248824001	**Date Received:**	03/05/2010 10:20	**%Moisture:**	1.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-11926	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 13:54	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.16 g	**Final Volume:**	1 mL
Data File:	s7c2311.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	338	ug/kg	67.5	338	
108-95-2	Phenol	U	338	ug/kg	67.5	338	
95-57-8	2-Chlorophenol	U	338	ug/kg	67.5	338	
106-46-7	1,4-Dichlorobenzene	U	338	ug/kg	67.5	338	
621-64-7	N-Nitrosodipropylamine	U	338	ug/kg	67.5	338	
59-50-7	4-Chloro-3-methylphenol	U	338	ug/kg	67.5	338	
83-32-9	Acenaphthene	U	33.8	ug/kg	11.1	33.8	
121-14-2	2,4-Dinitrotoluene	U	338	ug/kg	33.8	338	
100-02-7	4-Nitrophenol	U	338	ug/kg	111	338	
87-86-5	Pentachlorophenol	U	338	ug/kg	84.4	338	
129-00-0	Pyrene	U	33.8	ug/kg	10.1	33.8	
110-86-1	Pyridine	U	338	ug/kg	67.5	338	UJ,SV7c
62-53-3	Aniline	U	338	ug/kg	101	338	
111-44-4	bis(2-Chloroethyl) ether	U	338	ug/kg	67.5	338	
541-73-1	1,3-Dichlorobenzene	U	338	ug/kg	67.5	338	
100-51-6	Benzyl alcohol	U	338	ug/kg	101	338	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	338	ug/kg	67.5	338	
108-60-1	bis(2-Chloroisopropyl)ether	U	338	ug/kg	67.5	338	
95-48-7	o-Cresol	U	338	ug/kg	67.5	338	
65794-96-9	m,p-Cresols	U	338	ug/kg	101	338	
67-72-1	Hexachloroethane	U	338	ug/kg	67.5	338	
98-95-3	Nitrobenzene	U	338	ug/kg	67.5	338	
78-59-1	Isophorone	U	338	ug/kg	67.5	338	
88-75-5	2-Nitrophenol	U	338	ug/kg	67.5	338	
105-67-9	2,4-Dimethylphenol	U	338	ug/kg	118	338	
111-91-1	bis(2-Chloroethoxy)methane	U	338	ug/kg	67.5	338	
120-83-2	2,4-Dichlorophenol	U	338	ug/kg	67.5	338	
65-85-0	Benzoic acid	U	675	ug/kg	169	675	UJ,SV7c
91-20-3	Naphthalene	U	33.8	ug/kg	10.1	33.8	
106-47-8	4-Chloroaniline	U	338	ug/kg	67.5	338	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	338	ug/kg	67.5	338	
91-57-6	2-Methylnaphthalene	U	33.8	ug/kg	6.75	33.8	
77-47-4	Hexachlorocyclopentadiene	U	338	ug/kg	67.5	338	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	338	ug/kg	67.5	338	
95-95-4	2,4,5-Trichlorophenol	U	338	ug/kg	67.5	338	
91-58-7	2-Chloronaphthalene	U	33.8	ug/kg	11.1	33.8	
88-74-4	2-Nitroaniline	U	338	ug/kg	67.5	338	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	338	ug/kg	67.5	338	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2305	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248824001	**Date Received:**	03/05/2010 10:20	**%Moisture:**	1.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-11926	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 13:54	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.16 g	**Final Volume:**	1 mL
Data File:	s7c2311.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	338	ug/kg	67.5	338	
606-20-2	2,6-Dinitrotoluene	U	338	ug/kg	33.8	338	
208-96-8	Acenaphthylene	U	33.8	ug/kg	10.1	33.8	
51-28-5	2,4-Dinitrophenol	U	675	ug/kg	128	675	
132-64-9	Dibenzofuran	U	338	ug/kg	67.5	338	
84-66-2	Diethylphthalate	U	338	ug/kg	67.5	338	
86-73-7	Fluorene	U	33.8	ug/kg	10.1	33.8	
7005-72-3	4-Chlorophenylphenylether	U	338	ug/kg	67.5	338	
534-52-1	2-Methyl-4,6-dinitrophenol	U	338	ug/kg	67.5	338	UJ,SV7c
100-01-6	4-Nitroaniline	U	338	ug/kg	101	338	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	338	ug/kg	67.5	338	
122-66-7	Azobenzene	U	338	ug/kg	67.5	338	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	338	ug/kg	67.5	338	
118-74-1	Hexachlorobenzene	U	338	ug/kg	67.5	338	
85-01-8	Phenanthrene	U	33.8	ug/kg	10.1	33.8	
120-12-7	Anthracene	U	33.8	ug/kg	6.75	33.8	
84-74-2	Di-n-butylphthalate	U	338	ug/kg	67.5	338	
206-44-0	Fluoranthene	U	33.8	ug/kg	10.1	33.8	
85-68-7	Butylbenzylphthalate	U	338	ug/kg	67.5	338	
56-55-3	Benzo(a)anthracene	U	33.8	ug/kg	10.1	33.8	
91-94-1	3,3'-Dichlorobenzidine	U	338	ug/kg	101	338	
218-01-9	Chrysene	U	33.8	ug/kg	10.1	33.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	338	ug/kg	67.5	338	
117-84-0	Di-n-octylphthalate	U	338	ug/kg	67.5	338	
205-99-2	Benzo(b)fluoranthene	U	33.8	ug/kg	10.1	33.8	
207-08-9	Benzo(k)fluoranthene	U	33.8	ug/kg	10.1	33.8	
50-32-8	Benzo(a)pyrene	U	33.8	ug/kg	10.1	33.8	
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.8	ug/kg	10.1	33.8	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	33.8	ug/kg	10.1	33.8	
191-24-2	Benzo(ghi)perylene	U	33.8	ug/kg	10.1	33.8	
120-82-1	1,2,4-Trichlorobenzene	U	338	ug/kg	67.5	338	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	270	ug/kg		J

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DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2305 VALIDATION DATE: 6/2/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from a different RN. Also, the raw data for the parent sample was not provided in the data package. No sample data were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/03/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/2/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☐	☒	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☐	☒	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-11926

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2305

GEL Sample ID: 248824001

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 98.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.509	2.04	0.509	ug/kg	U	1	27-MAR-10 05:41	per0326069a
	Perchlorate Isotope Ratio						1	27-MAR-10 05:41	per0326069a
14797-73-0	Perchlorate-101	.509	2.04	0.509	ug/kg	U	1	27-MAR-10 05:41	per0326069a
	Perchlorate-O(18)			4.56	ug/kg		1	27-MAR-10 05:41	per0326069a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-11925

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2305

GEL Sample ID: 248824002

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 98.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.508	2.03	0.508	ug/kg	U	1	27-MAR-10 15:41	per0327014a
	Perchlorate Isotope Ratio						1	27-MAR-10 15:41	per0327014a
14797-73-0	Perchlorate-101	.508	2.03	0.508	ug/kg	U	1	27-MAR-10 15:41	per0327014a
	Perchlorate-O(18)			4.95	ug/kg		1	27-MAR-10 15:41	per0327014a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2305 VALIDATION DATE: 6/2/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Aroclor-1242, aroclor-1254 and aroclor-1260 were detected in the MB. The associated sample results were NDs and, thus, were not qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/03/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/2/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☒	☐	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2305	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248824002	**Date Received:**	03/05/2010 10:20	**%Moisture:**	1.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–11925	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	966771	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/22/2010 14:03	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/19/2010 11:50	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	038f3801.d	**Column:**	1 CLP1	**Level:**	LOW
	038b3801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.38	ug/kg	1.13	3.38	1
11104–28–2	Aroclor–1221	U	3.38	ug/kg	1.13	3.38	1
11141–16–5	Aroclor–1232	U	3.38	ug/kg	1.13	3.38	1
53469–21–9	Aroclor–1242	U	3.38	ug/kg	1.13	3.38	1
12672–29–6	Aroclor–1248	U	3.38	ug/kg	1.13	3.38	1
11097–69–1	Aroclor–1254	U	3.38	ug/kg	1.13	3.38	1
11096–82–5	Aroclor–1260	U	3.38	ug/kg	1.13	3.38	1

ETM
6/2/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2305	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248824001	**Date Received:**	03/05/2010 10:20	**%Moisture:**	1.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–11926	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	966771	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/22/2010 13:25	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/19/2010 11:50	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	035f3501.d	**Column:**	1 CLP1	**Level:**	LOW
	035b3501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.39	ug/kg	1.13	3.39	1
11104–28–2	Aroclor–1221	U	3.39	ug/kg	1.13	3.39	1
11141–16–5	Aroclor–1232	U	3.39	ug/kg	1.13	3.39	1
53469–21–9	Aroclor–1242	U	3.39	ug/kg	1.13	3.39	1
12672–29–6	Aroclor–1248	U	3.39	ug/kg	1.13	3.39	1
11097–69–1	Aroclor–1254	U	3.39	ug/kg	1.13	3.39	1
11096–82–5	Aroclor–1260	U	3.39	ug/kg	1.13	3.39	1

ETM
6/2/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2305 VALIDATION DATE: 6/2/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the ICB, Tl was detected. The Tl result for sample RE46-10-11926 was a detect ≤5X the blank concentration and, thus, was qualified U,I4b. The other associated sample result was an ND and, thus, was not qualified.
2. The MS %Rs were > the laboratory's UAL for Al, Ca, Mn, K and Na. The associated sample results were detects and, thus, were qualified J+,I6b. The MS %R was also < the laboratory's LAL but ≥10% for Fe. However, the associated parent sample concentration was >4X the spike concentration. Thus, the associated sample results were not qualified, based on professional judgment.
3. The duplicate RPDs for Ba, Mn, K and Zn were >35% and both the parent sample and duplicate sample results were ≥5X the PQLs. The associated sample results were detects and, thus, were qualified J,I10a.
4. It should be noted that the ICP-AES and ICP-MS matrix QC analyses were performed on a LANL sample from different a RN and that the raw data for the parent sample were not included in the data package. No sample data were qualified.

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Reviewed by: Monica Dymerski **Level I** **Date:** 06/03/10

VALIDATOR'S SIGNATURE: Eric T. Mik DATE: 6/2/10

Form 5118-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2305 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248824001 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-11926 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 98.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum J+,I6b	829000	ug/kg		6510	19100	19100	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-36-0	Antimony	957	ug/kg	U	316	957	957	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-38-2	Arsenic	638	ug/kg	J	202	1010	1010	2	MS	RMJ	05/11/10 10:14	100510-2	963995
7440-39-3	Barium J,I10a	6610	ug/kg		95.7	478	478	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-41-7	Beryllium	235	ug/kg		20.2	101	101	2	MS	RMJ	05/12/10 07:32	100511-3	963995
7440-43-9	Cadmium	478	ug/kg	U	95.7	478	478	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-70-2	Calcium J+,I6b	211000	ug/kg		7650	23900	23900	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-47-3	Chromium	430	ug/kg	J	144	478	478	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-48-4	Cobalt	272	ug/kg	J	144	478	478	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-50-8	Copper	1070	ug/kg		287	957	957	1	P	HSC	03/31/10 23:14	033110B-1	963993
7439-89-6	Iron	4820000	ug/kg		7650	23900	23900	1	P	HSC	03/31/10 23:14	033110B-1	963993
7439-92-1	Lead	2120	ug/kg		239	957	957	1	P	HSC	03/31/10 23:14	033110B-1	963993
7439-95-4	Magnesium	101000	ug/kg		8130	28700	28700	1	P	HSC	03/31/10 23:14	033110B-1	963993
7439-96-5	Manganese J+,I6b	216000	ug/kg		191	957	957	1	P	HSC	03/31/10 23:14	033110B-1	963993
7439-97-6	Mercury	11.9	ug/kg		3.65	10.7	10.7	1	AV	JXL1	03/23/10 11:49	032310S1-5	967595
7440-02-0	Nickel	262	ug/kg	J	101	405	405	2	MS	RMJ	05/11/10 10:14	100510-2	963995
7440-09-7	Potassium J+,I6b	298000	ug/kg		6120	23900	23900	1	P	HSC	03/31/10 23:14	033110B-1	963993
7782-49-2	Selenium	1010	ug/kg	U	506	1010	1010	2	MS	RMJ	05/13/10 02:37	100512-4	963995
7440-22-4	Silver	478	ug/kg	U	95.7	478	478	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-23-5	Sodium J+,I6b	289000	ug/kg		6700	23900	23900	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-28-0	Thallium U,I4b	61.5	ug/kg	J	60.7	202	202	2	MS	RMJ	05/11/10 10:14	100510-2	963995
7440-62-2	Vanadium	1160	ug/kg		95.7	478	478	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-66-6	Zinc J,I10a	16000	ug/kg		316	957	957	1	P	HSC	03/31/10 23:14	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.532	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.503	g	50	mL	03/13/10	AXG2
967595	967593	SW846 7471A Prep	0.569	g	30	mL	03/22/10	TXB3

ETM
6/2/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2305 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248824002 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-11925 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 98.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum J+,I6b	737000	ug/kg		6700	19700	19700	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-36-0	Antimony	986	ug/kg	U	325	986	986	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-38-2	Arsenic	709	ug/kg	J	201	1000	1000	2	MS	RMJ	05/11/10 10:19	100510-2	963995
7440-39-3	Barium J,I10a	4900	ug/kg		98.6	493	493	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-41-7	Beryllium	262	ug/kg		20.1	100	100	2	MS	RMJ	05/12/10 07:36	100511-3	963995
7440-43-9	Cadmium	493	ug/kg	U	98.6	493	493	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-70-2	Calcium J+,I6b	186000	ug/kg		7890	24600	24600	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-47-3	Chromium	425	ug/kg	J	148	493	493	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-48-4	Cobalt	240	ug/kg	J	148	493	493	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-50-8	Copper	934	ug/kg	J	296	986	986	1	P	HSC	03/31/10 23:16	033110B-1	963993
7439-89-6	Iron	4680000	ug/kg		7890	24600	24600	1	P	HSC	03/31/10 23:16	033110B-1	963993
7439-92-1	Lead	2320	ug/kg		246	986	986	1	P	HSC	03/31/10 23:16	033110B-1	963993
7439-95-4	Magnesium	76200	ug/kg		8380	29600	29600	1	P	HSC	03/31/10 23:16	033110B-1	963993
7439-96-5	Manganese J+,I6b	220000	ug/kg		197	986	986	1	P	HSC	03/31/10 23:16	033110B-1	963993
7439-97-6	Mercury	6.93	ug/kg	J	4.06	11.9	11.9	1	AV	JXL1	03/23/10 11:57	032310S1-5	967595
7440-02-0	Nickel	265	ug/kg	J	100	401	401	2	MS	RMJ	05/11/10 10:19	100510-2	963995
7440-09-7	Potassium J+,I6b	328000	ug/kg		6310	24600	24600	1	P	HSC	03/31/10 23:16	033110B-1	963993
7782-49-2	Selenium	1000	ug/kg	U	502	1000	1000	2	MS	RMJ	05/13/10 02:42	100512-4	963995
7440-22-4	Silver	493	ug/kg	U	98.6	493	493	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-23-5	Sodium J+,I6b	315000	ug/kg		6900	24600	24600	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-28-0	Thallium	201	ug/kg	U	60.2	201	201	2	MS	RMJ	05/11/10 10:19	100510-2	963995
7440-62-2	Vanadium	1020	ug/kg		98.6	493	493	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-66-6	Zinc J,I10a	17000	ug/kg		325	986	986	1	P	HSC	03/31/10 23:16	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.515	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.506	g	50	mL	03/13/10	AXG2
967595	967593	SW846 7471A Prep	0.51	g	30	mL	03/22/10	TXB3

ETM
6/2/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2305 VALIDATION DATE: 6/2/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS %R was < the laboratory's LAL but ≥10% for nitrate-N. The associated sample results were detects and, thus, were qualified J-,I6a.
2. It should be noted that all the matrix QC analyses were performed on LANL samples from different RNs. No sample data were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/03/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/2/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2305

Client Sample ID:	RE46-10-11926	Project:	LANL01004
Sample ID:	248824001	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	1.76%		

ameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis											
)012A Cyanide, Total "Dry Weight Corrected"											
nide, Total	U	ND		58.7	216	ug/kg	1	AXC2 03/15/10	1319	962258	1
Chromatography											
: 300.0 Nitrate in Soil "Dry Weight Corrected"											
ate-N		1.48	J-,I6a	0.305	1.02	mg/kg	1	VH1 03/30/10	0157	968640	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1557	962257

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

ETM
6/2/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2305

Client Sample ID:	RE46-10-11925	Project:	LANL01004
Sample ID:	248824002	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	1.52%		

ameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis											
)012A Cyanide, Total "Dry Weight Corrected"											
nide, Total	U	ND		63.9	235	ug/kg	1	AXC2 03/15/10	1325	962258	1
Chromatography											
: 300.0 Nitrate in Soil "Dry Weight Corrected"											
ate-N		1.20	J-,I6a	0.305	1.02	mg/kg	1	VH1 03/30/10	0224	968640	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1557	962257

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

ETM
6/2/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2305 VALIDATION DATE: 6/2/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The gamma spec sample results that were rejected by the laboratory due to spectral interference or low abundance and, thus, were qualified R,R5a. In the QC samples, several results were also rejected by the laboratory. No sample data were qualified as a result.
2. It should be noted that all <u>except</u> the gamma spec duplicate analyses were performed on LANL samples from different RNs. No sample data were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/03/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/2/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☐	☒	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-11926
Sample ID: 248824001
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 1.76%

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
ericium-241	U	0.00195		0.0217	+/-0.00237	0.050	pCi/g		AYB1	03/29/10	1201	965811	2
OPU "Dry Weight Corrected"													
tonium-238	U	1.58E-10		0.0187	+/-0.00266	0.050	pCi/g		AYB1	03/27/10	1340	965813	3
tonium-239/240	U	0.00398		0.0158	+/-0.00398	0.050	pCi/g						
OTH "Dry Weight Corrected"													
rium-228		1.55		0.178	+/-0.162	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
rium-230		1.18		0.223	+/-0.129	0.100	pCi/g						
rium-232		1.72		0.0951	+/-0.171	0.100	pCi/g						
OU "Dry Weight Corrected"													
nium-233/234		0.855		0.112	+/-0.0851	0.100	pCi/g		AYB1	04/02/10	1137	971197	6
nium-235/236		0.0881		0.0682	+/-0.0217	0.100	pCi/g						
nium-238		1.14		0.0785	+/-0.107	0.100	pCi/g						
Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
ericium-241	U	0.0757		0.360	+/-0.122	0.200	pCi/g		MXR1	03/23/10	1425	962631	2
muth-211	UI	5.22	R,R5a	0.440	+/-0.390		pCi/g						
muth-214		1.70		0.154	+/-0.136	0.200	pCi/g						
lmium-109	UI	6.27	R,R5a	2.36	+/-0.969		pCi/g						
ium-139	U	0.028		0.0711	+/-0.0216	0.050	pCi/g						
ium-134	UI	0.160	R,R5a	0.126	+/-0.0469	0.100	pCi/g						
ium-137	U	-0.0349		0.0804	+/-0.0254	0.100	pCi/g						
alt-60	U	-0.0165		0.0887	+/-0.0276	0.100	pCi/g						
opium-152	U	0.120		0.215	+/-0.0747	0.200	pCi/g						
thanum-140	U	0.110		0.246	+/-0.0679		pCi/g						
d-212		2.33		0.123	+/-0.140	0.100	pCi/g						
d-214		1.90		0.160	+/-0.151	0.100	pCi/g						
rcury-203	U	0.102		0.102	+/-0.0326	0.100	pCi/g						
assium-40		39.5		0.770	+/-2.41	1.00	pCi/g						
lium-223	U	0.396		1.51	+/-0.513		pCi/g						

ETM
6/2/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-11926
Sample ID: 248824001

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
lium-224	UI	5.86	R,R5a	1.32	+/-0.772		pCi/g						
lium-226		1.70		0.154	+/-0.136		pCi/g						
lium-228		2.32		0.301	+/-0.273	0.500	pCi/g						
henium-106	U	-0.0495		0.693	+/-0.209	0.800	pCi/g						
lium-22	U	-0.036		0.094	+/-0.0299	0.080	pCi/g						
ontium-85	UI	0.135	R,R5a	0.107	+/-0.0338		pCi/g						
llium-208		0.644		0.0682	+/-0.0664	0.080	pCi/g						
rium-227	U	0.380		0.627	+/-0.182		pCi/g						
rium-231	U	0.396		1.51	+/-0.513		pCi/g						
rium-234		3.10		3.06	+/-1.24	2.00	pCi/g						
-113	U	-0.0337		0.0985	+/-0.0311	0.100	pCi/g						
nium-235	U	0.148		0.477	+/-0.147	0.500	pCi/g						
rium-88	U	0.0165		0.0685	+/-0.0195	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	83.5	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	89.2	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	81.6	(50%-105%)
nium-232 Tracer	ISOU "Dry Weight Corrected"	83.4	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound

ETM
6/2/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-11925
Sample ID: 248824002
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 1.52%

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
241 "Dry Weight Corrected"													
ericium-241	U	-0.00838		0.0236	+/-0.00327	0.050	pCi/g		AYB1	03/29/10	1201	965811	2
PU "Dry Weight Corrected"													
tonium-238	U	-0.00269		0.0189	+/-0.00465	0.050	pCi/g		AYB1	03/27/10	1340	965813	3
tonium-239/240	U	0.00403		0.016	+/-0.00586	0.050	pCi/g						
TH "Dry Weight Corrected"													
rium-228		2.22		0.165	+/-0.205	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
rium-230		1.08		0.207	+/-0.119	0.100	pCi/g						
rium-232		1.95		0.0884	+/-0.184	0.100	pCi/g						
U "Dry Weight Corrected"													
nium-233/234		0.902		0.106	+/-0.0875	0.100	pCi/g		AYB1	04/02/10	1137	971197	6
nium-235/236	U	0.0513		0.065	+/-0.0159	0.100	pCi/g						
nium-238		1.01		0.0748	+/-0.0955	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	0.0253		0.403	+/-0.125	0.200	pCi/g		MXR1	03/23/10	1438	962631	8
muth-211	UI	4.34	R,R5a	0.319	+/-0.289		pCi/g						
muth-214		1.31		0.112	+/-0.0969	0.200	pCi/g						
lmium-109	UI	4.04	R,R5a	1.55	+/-0.636		pCi/g						
ium-139	U	0.0411		0.0523	+/-0.0147	0.050	pCi/g						
ium-134	UI	0.128	R,R5a	0.0909	+/-0.0486	0.100	pCi/g						
ium-137	U	-0.0462		0.0632	+/-0.0199	0.100	pCi/g						
alt-60	U	0.0272		0.0728	+/-0.0203	0.100	pCi/g						
opium-152	U	-0.017		0.161	+/-0.0544	0.200	pCi/g						
thanum-140	U	-0.0565		0.183	+/-0.0602		pCi/g						
d-212		2.04		0.0971	+/-0.104	0.100	pCi/g						
d-214		1.58		0.116	+/-0.113	0.100	pCi/g						
rcury-203	U	0.0418		0.0719	+/-0.0221	0.100	pCi/g						
assium-40		34.6		0.595	+/-1.57	1.00	pCi/g						
lium-223	U	0.126		1.05	+/-0.344		pCi/g						
lium-224	UI	4.90	R,R5a	1.04	+/-0.729		pCi/g						

ETM
6/2/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-11925 Project: LANL01004
Sample ID: 248824002 Client ID: LANL010

ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis												
MMA SPEC "Dry Weight Corrected"												
lium-226		1.31	0.112	+/-0.0969		pCi/g						
lium-228		1.81	0.229	+/-0.219	0.500	pCi/g						
henium-106	U	-0.0768	0.540	+/-0.170	0.800	pCi/g						
lium-22	U	-0.0121	0.0686	+/-0.0211	0.080	pCi/g						
ontium-85	U	0.042	0.0732	+/-0.0234		pCi/g						
llium-208		0.635	0.0589	+/-0.0486	0.080	pCi/g						
orium-227	U	-0.0579	0.417	+/-0.121		pCi/g						
orium-231	U	0.126	1.05	+/-0.344		pCi/g						
orium-234		4.85	2.98	+/-1.47	2.00	pCi/g						
-113	U	0.00825	0.0781	+/-0.0229	0.100	pCi/g						
nium-235	U	0.182	0.339	+/-0.0989	0.500	pCi/g						
rium-88	U	0.00403	0.0539	+/-0.0162	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	79.7	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	82.5	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	88.3	(50%-105%)
nium-232 Tracer	ISOU "Dry Weight Corrected"	87.2	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
e Qualifiers in this report are defined as follows :

* Analyte is a surrogate compound
< Result is less than value reported

ETM
6/2/10

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2305

REQUEST NUMBER: 10-2305

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248824°/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-11926	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-11926	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-11926	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-11926	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-11925	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-11925	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-11925	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-11925	1	POLY	Met+NO3+CL04+CN	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	3/4/10	1400	Patricia Dover-Dent	P. Dover-Dent	3/5/10	10:20
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Thursday, March 04, 2010

REQUEST NUMBER: 10-2305

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2305

Per Agreement Number:126310011

Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE46-10-11925	S	3/3/2010	
		1	RE46-10-11926	S	3/3/2010	
	EPA:901.1	1	RE46-10-11925	S	3/3/2010	
		1	RE46-10-11926	S	3/3/2010	
	HASL-300:AM-241	1	RE46-10-11925	S	3/3/2010	
		1	RE46-10-11926	S	3/3/2010	

HASL-300:ISOPU	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
HASL-300:ISOTH	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
HASL-300:ISOU	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:6020	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:6850	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:7471A	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:8082	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:8260B	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:8270C	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:9012A	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010

Final Page of REQUEST NUMBER 10-2305

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

March 12, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 248824
SDG: 10-2305

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 05, 2010, and analyzed for GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2305
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 248824
SDG: 10-2305

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 248824
SDG # : 10-2305

March 12, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 05, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 13/15C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
248824001	RE46-10-11926
248824002	RE46-10-11925

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 12 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2305C

REQUEST NUMBER: 10-2305

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248824°/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-11926	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-11926	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-11926	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-11926	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-11925	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-11925	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-11925	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-11925	1	POLY	Met+NO3+CL04+CN	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
Jeffrey W. Gray	3/4/10	1400	Patricia Dover-Dent	3/5/10	10:20
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Thursday, March 04, 2010

REQUEST NUMBER: 10-2305

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2305

Per Agreement Number:126310011

Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE46-10-11925	S	3/3/2010	
		1	RE46-10-11926	S	3/3/2010	
	EPA:901.1	1	RE46-10-11925	S	3/3/2010	
		1	RE46-10-11926	S	3/3/2010	
	HASL-300:AM-241	1	RE46-10-11925	S	3/3/2010	
		1	RE46-10-11926	S	3/3/2010	

HASL-300:ISOPU	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
HASL-300:ISOTH	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
HASL-300:ISOU	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:6020	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:6850	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:7471A	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:8082	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:8260B	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:8270C	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010
SW-846:9012A	1	RE46-10-11925	S	3/3/2010
	1	RE46-10-11926	S	3/3/2010

Final Page of REQUEST NUMBER 10-2305

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order:10-2305**
Received By:Patricia Dover-Dent	**Date Received: 3/5/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **1-5** **13,15**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers:

7209 7850 3587 1C **7209 7850 3668 4C**
7209 7850 3613 2C **7209 7850 3657 5C**
7209 7850 3598 2C **7209 7850 3565 13C**
7209 7850 3602 3C **7209 7850 3543 13C**
7209 7850 3635 3C **7209 7850 3554 15C**
7209 7850 3576 3C
7209 7850 3646 3C
7209 7850 3624 3C

PM (or PMA) review: Initials _____ Date 3/8/10

N ID: SAFA (505) 665-9966
NE VALDEZ
LAMOS NATL LAB.
BLDG 1237 DPU 03

LAMOS, NM 87545
ED STATES US

ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
) 556-8171
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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

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LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

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ACTWGT: 44.0 LB MAN
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JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE24

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LOS ALAMOS, NM 87545
UNITED STATES US

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2450

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ACTWGT: 66.0 LB MAN
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YLENE VALDEZ
S ALAMOS NATL LAB.
00 BLDG 1237 DPU 03

S ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

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ENERAL ENGINEERING LAB
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JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TR00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2450

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GENERAL ENGINEERING LAB
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TR00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2450

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ORIGIN ID: SAFA (505)
LENE VALDEZ
ALAMOS NATL LAB.
0 BLDG 1237 DPU 03

ALAMOS, NM 87545
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CAD: 0014176/CAFE2450

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2450

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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2305

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	965481
Prep Batch Number:	965477

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
248824001	RE46-10-11926
248824002	RE46-10-11925
1202071635	Method Blank (MB)
1202071638	Laboratory Control Sample (LCS)
1202071639	Laboratory Control Sample (LCS)
1202074003	Method Blank (MB)
1202074004	Laboratory Control Sample (LCS)
1202074005	Laboratory Control Sample (LCS)
1202071636	248824001(RE46-10-11926) Post Spike (PS)
1202071637	248824001(RE46-10-11926) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple

solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248824001 (RE46-10-11926) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
The samples in this SDG were re-analyzed due to unacceptable recoveries in the initial analysis: 1202071636 (RE46-10-11926) and 1202071637 (RE46-10-11926).

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
A Data Exception Document was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this sample delivery group/work order. The tentatively identified compounds included some silanols. These compounds were due to column or septum bleed and were not native to the affected samples. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA3.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2305 GEL Work Order: 248824

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 31 MAR 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11926**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 18:18**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D113.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.02	ug/kg	0.346	1.02
74-87-3	Chloromethane	U	1.02	ug/kg	0.305	1.02
75-01-4	Vinyl chloride	U	1.02	ug/kg	0.305	1.02
74-83-9	Bromomethane	U	1.02	ug/kg	0.305	1.02
75-00-3	Chloroethane	U	1.02	ug/kg	0.305	1.02
75-69-4	Trichlorofluoromethane	U	1.02	ug/kg	0.305	1.02
67-64-1	Acetone	J	4.31	ug/kg	1.69	5.09
75-35-4	1,1-Dichloroethylene	U	1.02	ug/kg	0.305	1.02
74-88-4	Iodomethane	U	5.09	ug/kg	1.63	5.09
75-09-2	Methylene chloride	U	5.09	ug/kg	2.04	5.09
75-15-0	Carbon disulfide	U	5.09	ug/kg	1.27	5.09
156-60-5	trans-1,2-Dichloroethylene	U	1.02	ug/kg	0.305	1.02
75-34-3	1,1-Dichloroethane	U	1.02	ug/kg	0.305	1.02
78-93-3	2-Butanone	U	5.09	ug/kg	1.53	5.09
156-59-2	cis-1,2-Dichloroethylene	U	1.02	ug/kg	0.305	1.02
594-20-7	2,2-Dichloropropane	U	1.02	ug/kg	0.305	1.02
67-66-3	Chloroform	U	1.02	ug/kg	0.305	1.02
74-97-5	Bromochloromethane	U	1.02	ug/kg	0.336	1.02
71-55-6	1,1,1-Trichloroethane	U	1.02	ug/kg	0.305	1.02
563-58-6	1,1-Dichloropropene	U	1.02	ug/kg	0.305	1.02
56-23-5	Carbon tetrachloride	U	1.02	ug/kg	0.305	1.02
107-06-2	1,2-Dichloroethane	U	1.02	ug/kg	0.305	1.02
71-43-2	Benzene	U	1.02	ug/kg	0.305	1.02
79-01-6	Trichloroethylene	U	1.02	ug/kg	0.336	1.02
78-87-5	1,2-Dichloropropane	U	1.02	ug/kg	0.305	1.02
75-27-4	Bromodichloromethane	U	1.02	ug/kg	0.305	1.02
74-95-3	Dibromomethane	U	1.02	ug/kg	0.305	1.02
108-10-1	4-Methyl-2-pentanone	U	5.09	ug/kg	1.27	5.09
10061-01-5	cis-1,3-Dichloropropylene	U	1.02	ug/kg	0.305	1.02
108-88-3	Toluene	U	1.02	ug/kg	0.305	1.02
10061-02-6	trans-1,3-Dichloropropylene	U	1.02	ug/kg	0.305	1.02
79-00-5	1,1,2-Trichloroethane	U	1.02	ug/kg	0.305	1.02
591-78-6	2-Hexanone	U	5.09	ug/kg	1.53	5.09
142-28-9	1,3-Dichloropropane	U	1.02	ug/kg	0.305	1.02
127-18-4	Tetrachloroethylene	U	1.02	ug/kg	0.305	1.02
124-48-1	Dibromochloromethane	U	1.02	ug/kg	0.305	1.02
106-93-4	1,2-Dibromoethane	U	1.02	ug/kg	0.305	1.02
108-90-7	Chlorobenzene	U	1.02	ug/kg	0.305	1.02

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11926**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 18:18**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D113.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.02	ug/kg	0.305	1.02
179601-23-1	m,p-Xylenes	U	2.04	ug/kg	0.305	2.04
95-47-6	o-Xylene	U	1.02	ug/kg	0.305	1.02
100-42-5	Styrene	U	1.02	ug/kg	0.305	1.02
75-25-2	Bromoform	U	1.02	ug/kg	0.305	1.02
79-34-5	1,1,2,2-Tetrachloroethane	U	1.02	ug/kg	0.305	1.02
96-18-4	1,2,3-Trichloropropane	U	1.02	ug/kg	0.305	1.02
108-86-1	Bromobenzene	U	1.02	ug/kg	0.305	1.02
103-65-1	n-Propylbenzene	U	1.02	ug/kg	0.305	1.02
95-49-8	2-Chlorotoluene	U	1.02	ug/kg	0.305	1.02
98-82-8	Isopropylbenzene	U	1.02	ug/kg	0.305	1.02
108-67-8	1,3,5-Trimethylbenzene	U	1.02	ug/kg	0.305	1.02
106-43-4	4-Chlorotoluene	U	1.02	ug/kg	0.305	1.02
98-06-6	tert-Butylbenzene	U	1.02	ug/kg	0.305	1.02
95-63-6	1,2,4-Trimethylbenzene	U	1.02	ug/kg	0.305	1.02
135-98-8	sec-Butylbenzene	U	1.02	ug/kg	0.305	1.02
99-87-6	4-Isopropyltoluene	U	1.02	ug/kg	0.305	1.02
541-73-1	1,3-Dichlorobenzene	U	1.02	ug/kg	0.305	1.02
106-46-7	1,4-Dichlorobenzene	U	1.02	ug/kg	0.305	1.02
104-51-8	n-Butylbenzene	U	1.02	ug/kg	0.305	1.02
96-12-8	1,2-Dibromo-3-chloropropane	U	1.02	ug/kg	0.305	1.02
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.09	ug/kg	1.63	5.09
630-20-6	1,1,1,2-Tetrachloroethane	U	1.02	ug/kg	0.305	1.02
95-50-1	1,2-Dichlorobenzene	U	1.02	ug/kg	0.305	1.02

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11925**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 18:47**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D114.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.02	ug/kg	0.345	1.02
74-87-3	Chloromethane	U	1.02	ug/kg	0.305	1.02
75-01-4	Vinyl chloride	U	1.02	ug/kg	0.305	1.02
74-83-9	Bromomethane	U	1.02	ug/kg	0.305	1.02
75-00-3	Chloroethane	U	1.02	ug/kg	0.305	1.02
75-69-4	Trichlorofluoromethane	U	1.02	ug/kg	0.305	1.02
67-64-1	Acetone	J	4.59	ug/kg	1.69	5.08
75-35-4	1,1-Dichloroethylene	U	1.02	ug/kg	0.305	1.02
74-88-4	Iodomethane	U	5.08	ug/kg	1.62	5.08
75-09-2	Methylene chloride	U	5.08	ug/kg	2.03	5.08
75-15-0	Carbon disulfide	U	5.08	ug/kg	1.27	5.08
156-60-5	trans-1,2-Dichloroethylene	U	1.02	ug/kg	0.305	1.02
75-34-3	1,1-Dichloroethane	U	1.02	ug/kg	0.305	1.02
78-93-3	2-Butanone	U	5.08	ug/kg	1.52	5.08
156-59-2	cis-1,2-Dichloroethylene	U	1.02	ug/kg	0.305	1.02
594-20-7	2,2-Dichloropropane	U	1.02	ug/kg	0.305	1.02
67-66-3	Chloroform	U	1.02	ug/kg	0.305	1.02
74-97-5	Bromochloromethane	U	1.02	ug/kg	0.335	1.02
71-55-6	1,1,1-Trichloroethane	U	1.02	ug/kg	0.305	1.02
563-58-6	1,1-Dichloropropene	U	1.02	ug/kg	0.305	1.02
56-23-5	Carbon tetrachloride	U	1.02	ug/kg	0.305	1.02
107-06-2	1,2-Dichloroethane	U	1.02	ug/kg	0.305	1.02
71-43-2	Benzene	U	1.02	ug/kg	0.305	1.02
79-01-6	Trichloroethylene	U	1.02	ug/kg	0.335	1.02
78-87-5	1,2-Dichloropropane	U	1.02	ug/kg	0.305	1.02
75-27-4	Bromodichloromethane	U	1.02	ug/kg	0.305	1.02
74-95-3	Dibromomethane	U	1.02	ug/kg	0.305	1.02
108-10-1	4-Methyl-2-pentanone	U	5.08	ug/kg	1.27	5.08
10061-01-5	cis-1,3-Dichloropropylene	U	1.02	ug/kg	0.305	1.02
108-88-3	Toluene	U	1.02	ug/kg	0.305	1.02
10061-02-6	trans-1,3-Dichloropropylene	U	1.02	ug/kg	0.305	1.02
79-00-5	1,1,2-Trichloroethane	U	1.02	ug/kg	0.305	1.02
591-78-6	2-Hexanone	U	5.08	ug/kg	1.52	5.08
142-28-9	1,3-Dichloropropane	U	1.02	ug/kg	0.305	1.02
127-18-4	Tetrachloroethylene	U	1.02	ug/kg	0.305	1.02
124-48-1	Dibromochloromethane	U	1.02	ug/kg	0.305	1.02
106-93-4	1,2-Dibromoethane	U	1.02	ug/kg	0.305	1.02
108-90-7	Chlorobenzene	U	1.02	ug/kg	0.305	1.02

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11925**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 18:47**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D114.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.02	ug/kg	0.305	1.02
179601-23-1	m,p-Xylenes	U	2.03	ug/kg	0.305	2.03
95-47-6	o-Xylene	U	1.02	ug/kg	0.305	1.02
100-42-5	Styrene	U	1.02	ug/kg	0.305	1.02
75-25-2	Bromoform	U	1.02	ug/kg	0.305	1.02
79-34-5	1,1,2,2-Tetrachloroethane	U	1.02	ug/kg	0.305	1.02
96-18-4	1,2,3-Trichloropropane	U	1.02	ug/kg	0.305	1.02
108-86-1	Bromobenzene	U	1.02	ug/kg	0.305	1.02
103-65-1	n-Propylbenzene	U	1.02	ug/kg	0.305	1.02
95-49-8	2-Chlorotoluene	U	1.02	ug/kg	0.305	1.02
98-82-8	Isopropylbenzene	U	1.02	ug/kg	0.305	1.02
108-67-8	1,3,5-Trimethylbenzene	U	1.02	ug/kg	0.305	1.02
106-43-4	4-Chlorotoluene	U	1.02	ug/kg	0.305	1.02
98-06-6	tert-Butylbenzene	U	1.02	ug/kg	0.305	1.02
95-63-6	1,2,4-Trimethylbenzene	U	1.02	ug/kg	0.305	1.02
135-98-8	sec-Butylbenzene	U	1.02	ug/kg	0.305	1.02
99-87-6	4-Isopropyltoluene	U	1.02	ug/kg	0.305	1.02
541-73-1	1,3-Dichlorobenzene	U	1.02	ug/kg	0.305	1.02
106-46-7	1,4-Dichlorobenzene	U	1.02	ug/kg	0.305	1.02
104-51-8	n-Butylbenzene	U	1.02	ug/kg	0.305	1.02
96-12-8	1,2-Dibromo-3-chloropropane	U	1.02	ug/kg	0.305	1.02
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.08	ug/kg	1.62	5.08
630-20-6	1,1,1,2-Tetrachloroethane	U	1.02	ug/kg	0.305	1.02
95-50-1	1,2-Dichlorobenzene	U	1.02	ug/kg	0.305	1.02

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	19.05	10.1	ug/kg	0	J

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-2305

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202071638	LCS for batch 965477	104	103	105
1202071639	LCS for batch 965477	104	102	107
1202071635	MB for batch 965477	98	110	100
248824001	RE46-10-11926	104	104	94
248824002	RE46-10-11925	100	101	93
1202074004	LCS for batch 965477	105	105	101
1202074005	LCS for batch 965477	101	101	100
1202074003	MB for batch 965477	104	107	96
1202071636	RE46-10-11926PS	95	101	93
1202071637	RE46-10-11926PSD	104	107	96

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(66%-134%)
TOL	= Toluene-d8	(71%-128%)
BFB	= Bromofluorobenzene	(65%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2305
Client ID: RE46-10-11926PS
Lab Sample ID: 1202071636
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 1.8
Analysis Date: 03/17/2010 03:30
Prep Batch ID: 965477
Batch ID: 965481
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	43.4	87	39-148
74-87-3	PS	Chloromethane	50.0	0.00	U	53.1	106	42-131
75-01-4	PS	Vinyl chloride	50.0	0.00	U	56.0	112	50-127
74-83-9	PS	Bromomethane	50.0	0.00	U	57.4	115	26-135
75-00-3	PS	Chloroethane	50.0	0.00	U	55.3	111	54-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	49.2	98	55-138
67-64-1	PS	Acetone	250	4.23	J	224	88	20-144
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	46.8	94	55-128
74-88-4	PS	Iodomethane	250	0.00	U	228	91	47-132
75-09-2	PS	Methylene chloride	50.0	0.00	U	44.7	89	56-123
75-15-0	PS	Carbon disulfide	250	0.00	U	245	98	53-133
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	47.9	96	57-119
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	52.1	104	62-125
78-93-3	PS	2-Butanone	250	0.00	U	245	98	30-150
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	51.4	103	60-124
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	51.1	102	56-129
67-66-3	PS	Chloroform	50.0	0.00	U	49.8	100	62-120
74-97-5	PS	Bromochloromethane	50.0	0.00	U	52.6	105	51-135
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	47.3	95	58-129
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	49.9	100	59-126
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	50.7	101	55-132
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	46.8	94	54-121

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2305
Client ID: RE46-10-11926PS
Lab Sample ID: 1202071636
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 1.8
Analysis Date: 03/17/2010 03:30
Prep Batch ID: 965477
Batch ID: 965481
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	48.7	97	58-120
79-01-6	PS	Trichloroethylene	50.0	0.00	U	50.7	101	54-130
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	54.7	109	59-121
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	55.2	110	57-130
74-95-3	PS	Dibromomethane	50.0	0.00	U	53.1	106	57-124
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	258	103	40-137
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	55.4	111	50-131
108-88-3	PS	Toluene	50.0	0.00	U	47.9	96	54-119
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	53.1	106	47-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	51.2	102	60-130
591-78-6	PS	2-Hexanone	250	0.00	U	245	98	30-139
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	51.2	102	59-125
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	48.4	97	50-126
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	55.7	111	54-131
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	49.3	99	55-127
108-90-7	PS	Chlorobenzene	50.0	0.00	U	48.7	97	50-130
100-41-4	PS	Ethylbenzene	50.0	0.00	U	47.9	96	50-121
179601-23-1	PS	m,p-Xylenes	100	0.00	U	98.0	98	47-125
95-47-6	PS	o-Xylene	50.0	0.00	U	50.3	101	51-127
100-42-5	PS	Styrene	50.0	0.00	U	52.2	104	41-136
75-25-2	PS	Bromoform	50.0	0.00	U	47.2	94	48-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	49.2	98	52-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2305
Client ID: RE46-10-11926PS
Lab Sample ID: 1202071636
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 1.8
Analysis Date: 03/17/2010 03:30
Prep Batch ID: 965477
Batch ID: 965481
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	49.1	98	56-139
108-86-1	PS	Bromobenzene	50.0	0.00	U	49.0	98	54-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	47.7	95	46-127
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	48.7	97	47-130
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	47.4	95	42-126
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	48.5	97	44-132
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	46.7	93	46-127
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	50.8	102	48-136
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	48.4	97	42-132
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	48.5	97	47-130
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	48.7	97	36-142
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	47.0	94	41-130
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	47.3	95	41-126
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	50.5	101	37-136
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	43.6	87	42-143
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	54.2	108	58-127
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	49.3	99	42-128

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2305
Client ID: RE46-10-11926PSD
Lab Sample ID: 1202071637
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 1.8
Analysis Date: 03/17/2010 03:59
Prep Batch ID: 965477
Batch ID: 965481
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	41.6	83	39-148	4	0-19
74-87-3	PSD	Chloromethane	50.0	0.00	U	46.0	92	42-131	14	0-23
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	50.7	101	50-127	10	0-23
74-83-9	PSD	Bromomethane	50.0	0.00	U	51.2	102	26-135	11	0-22
75-00-3	PSD	Chloroethane	50.0	0.00	U	50.1	100	54-128	10	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	46.4	93	55-138	6	0-21
67-64-1	PSD	Acetone	250	4.23	J	202	79	20-144	11	0-22
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	43.5	87	55-128	7	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	218	87	47-132	4	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	41.8	84	56-123	7	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	233	93	53-133	5	0-22
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	43.8	88	57-119	9	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	45.8	92	62-125	13	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	225	90	30-150	9	0-21
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	47.7	95	60-124	8	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	48.0	96	56-129	6	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	46.6	93	62-120	7	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	47.6	95	51-135	10	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	44.8	90	58-129	5	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	46.3	93	59-126	7	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	48.0	96	55-132	6	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	45.0	90	54-121	4	0-20

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2305
Client ID: RE46-10-11926PSD
Lab Sample ID: 1202071637
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 1.8
Analysis Date: 03/17/2010 03:59
Prep Batch ID: 965477
Batch ID: 965481
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	46.4	93	58-120	5	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	46.2	92	54-130	9	0-23
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	49.9	100	59-121	9	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	50.7	101	57-130	8	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	48.6	97	57-124	9	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	261	104	40-137	1	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	51.1	102	50-131	8	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	46.3	93	54-119	4	0-23
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	49.9	100	47-133	6	0-24
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	48.7	97	60-130	5	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	241	97	30-139	2	0-21
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	48.1	96	59-125	6	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	44.7	89	50-126	8	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	52.7	105	54-131	6	0-23
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	46.2	92	55-127	6	0-23
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	46.3	93	50-130	5	0-24
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	45.3	91	50-121	5	0-24
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	92.2	92	47-125	6	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	50.5	101	51-127	0	0-24
100-42-5	PSD	Styrene	50.0	0.00	U	52.4	105	41-136	0	0-24
75-25-2	PSD	Bromoform	50.0	0.00	U	44.1	88	48-143	7	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	45.8	92	52-129	7	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2305
Client ID: RE46-10-11926PSD
Lab Sample ID: 1202071637
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 1.8
Analysis Date: 03/17/2010 03:59
Dilution: 1
Prep Batch ID: 965477
Batch ID: 965481

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	44.6	89	56-139	9	0-34
108-86-1	PSD	Bromobenzene	50.0	0.00	U	45.0	90	54-125	9	0-22
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	44.3	89	46-127	7	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	44.8	90	47-130	8	0-24
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	44.5	89	42-126	6	0-22
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	45.0	90	44-132	8	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	43.6	87	46-127	7	0-26
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	46.3	93	48-136	9	0-24
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	44.8	90	42-132	8	0-26
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	45.3	91	47-130	7	0-27
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	44.9	90	36-142	8	0-27
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	42.6	85	41-130	10	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	43.4	87	41-126	9	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	44.9	90	37-136	12	0-29
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	39.9	80	42-143	9	0-21
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	51.7	103	58-127	5	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	43.2	86	42-128	13	0-24

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2305
Client ID: LCS for batch 965477
Lab Sample ID: 1202071638
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/15/2010 12:59
Dilution: 1
Prep Batch ID: 965477
Batch ID: 965481

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	39.0	78	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	40.1	80	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	44.5	89	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	45.4	91	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	46.1	92	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	44.7	89	73-143
67-64-1	LCS	Acetone	250	0.0	186	74	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	41.3	83	71-129
74-88-4	LCS	Iodomethane	250	0.0	204	82	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	39.4	79	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	212	85	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	42.0	84	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	43.8	88	73-120
78-93-3	LCS	2-Butanone	250	0.0	203	81	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	44.4	89	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	48.0	96	73-134
67-66-3	LCS	Chloroform	50.0	0.0	43.8	88	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	44.3	89	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	43.4	87	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	43.9	88	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	45.9	92	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	43.1	86	65-120

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2305 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 965477 **Matrix:** SOIL

Lab Sample ID: 1202071638

Instrument: VOA3.I **Analysis Date:** 03/15/2010 12:59 **Dilution:** 1

Analyst: CDS1 **Prep Batch ID:** 965477

Purge Vol: 5 mL **Batch ID:** 965481

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	43.0	86	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	42.2	84	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	45.8	92	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	48.1	96	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	45.6	91	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	239	96	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	49.0	98	78-127
108-88-3	LCS	Toluene	50.0	0.0	41.9	84	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	49.6	99	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	46.0	92	75-120
591-78-6	LCS	2-Hexanone	250	0.0	217	87	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	45.8	92	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	42.6	85	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	49.8	100	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	44.9	90	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	42.8	86	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	41.6	83	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	86.0	86	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	45.2	90	76-122
100-42-5	LCS	Styrene	50.0	0.0	46.9	94	75-125
75-25-2	LCS	Bromoform	50.0	0.0	45.1	90	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	47.3	95	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2305 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 965477 **Matrix:** SOIL

Lab Sample ID: 1202071638

Instrument: VOA3.I **Analysis Date:** 03/15/2010 12:59 **Dilution:** 1

Analyst: CDS1 **Prep Batch ID** 965477

Purge Vol: 5 mL **Batch ID:** 965481

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	45.8	92	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	44.8	90	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	44.7	89	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	44.8	90	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	44.3	89	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	45.1	90	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	44.5	89	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	46.0	92	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	45.2	90	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	45.2	90	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	46.0	92	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	42.7	85	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	43.1	86	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	44.0	88	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	38.4	77	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	46.9	94	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	42.8	86	75-120

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: **10-2305**

Client ID: **LCS for batch 965477**

Lab Sample ID: **1202071639**

Instrument: **VOA3.I**

Analyst: **CDS1**

Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**

Matrix: **SOIL**

Analysis Date: **03/15/2010 13:57**

Dilution: 1

Prep Batch ID: **965477**

Batch ID: **965481**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	257	103	67-140

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2305 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 965477 **Matrix:** SOIL

Lab Sample ID: 1202074004

Instrument: VOA3.I **Analysis Date:** 03/16/2010 18:25 **Dilution:** 1

Analyst: CDS1 **Prep Batch ID:** 965477

Purge Vol: 5 mL **Batch ID:** 965481

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	49.9	100	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	45.9	92	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	52.7	105	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	50.6	101	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	52.1	104	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	51.6	103	73-143
67-64-1	LCS	Acetone	250	0.0	220	88	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	46.9	94	71-129
74-88-4	LCS	Iodomethane	250	0.0	226	90	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	43.6	87	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	241	96	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	47.7	95	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	48.1	96	73-120
78-93-3	LCS	2-Butanone	250	0.0	245	98	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	49.8	100	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	54.5	109	73-134
67-66-3	LCS	Chloroform	50.0	0.0	49.5	99	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	50.6	101	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	50.5	101	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	50.4	101	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	52.6	105	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	49.0	98	65-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2305
Client ID: LCS for batch 965477
Lab Sample ID: 1202074004
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/16/2010 18:25
Dilution: 1
Prep Batch ID: 965477
Batch ID: 965481

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	48.2	96	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	48.9	98	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	50.5	101	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	54.7	109	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	52.1	104	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	283	113	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	55.5	111	78-127
108-88-3	LCS	Toluene	50.0	0.0	49.3	99	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	57.2	114	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	51.7	103	75-120
591-78-6	LCS	2-Hexanone	250	0.0	260	104	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	51.0	102	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	48.1	96	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	55.4	111	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	51.0	102	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	48.3	97	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	48.1	96	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	99.0	99	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	51.6	103	76-122
100-42-5	LCS	Styrene	50.0	0.0	53.7	107	75-125
75-25-2	LCS	Bromoform	50.0	0.0	48.6	97	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	50.8	102	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2305
Client ID: LCS for batch 965477
Lab Sample ID: 1202074004
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/16/2010 18:25
Dilution: 1
Prep Batch ID: 965477
Batch ID: 965481

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	49.9	100	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	49.2	98	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	49.6	99	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	49.5	99	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	49.9	100	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	50.2	100	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	48.8	98	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	50.9	102	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	50.4	101	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	50.9	102	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	51.2	102	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	47.9	96	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	48.4	97	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	51.8	104	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	46.4	93	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	53.2	106	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	48.8	98	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2305
Client ID: LCS for batch 965477
Lab Sample ID: 1202074005
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/16/2010 19:23
Dilution: 1
Prep Batch ID: 965477
Batch ID: 965481

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	256	102	67-140

Method Blank Summary

SDG Number:	10-2305	**Client:**	LANL010	**Matrix:**	SOIL
Client ID:	MB for batch 965477	**Instrument ID:**	VOA3.I	**Data File:**	031510V3\3D108SBLA.D
Lab Sample ID:	1202071635	**Prep Date:**	03/15/2010 11:00	**Analyzed:**	03/15/10 14:55
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 965477	1202071638	031510V3\3D104SLLA.D	03/15/10	1259
02 LCS for batch 965477	1202071639	031510V3\3D106SSLA.D	03/15/10	1357
03 RE46-10-11926	248824001	031510V3\3D113.D	03/15/10	1818
04 RE46-10-11925	248824002	031510V3\3D114.D	03/15/10	1847

Method Blank Summary

SDG Number:	10-2305	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965477	Instrument ID:	VOA3.I	Data File:	031610V3\3D223SBLA.D
Lab Sample ID:	1202074003	Prep Date:	03/16/2010 16:45	Analyzed:	03/16/10 20:20
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 965477	1202074004	031610V3\3D219SLLA.D	03/16/10	1825
02	LCS for batch 965477	1202074005	031610V3\3D221SSLA.D	03/16/10	1923
03	RE46-10-11926PS	1202071636	031610V3\3D238.D	03/17/10	0330
04	RE46-10-11926PSD	1202071637	031610V3\3D239.D	03/17/10	0359

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2305

Instrument ID: VOA3.I **Injection Date/Time:** 26-FEB-10 09:25

Column Description: DB-624 **Lab File ID** 022610V3\3A501.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	17.8
75	30.0 - 60.0% of mass 95	47
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	82.6
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	97.7
177	5.0 - 9.0% of mass 176	6.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W3VM100226-01	022610V3\3A503.D	26-FEB-10 10:23
ICALMIX[A]	W3VM100226-02	022610V3\3A504.D	26-FEB-10 10:53
ICALMIX[A]	W3VM100226-03	022610V3\3A505.D	26-FEB-10 11:23
ICALMIX[A]	W3VM100226-04	022610V3\3A506.D	26-FEB-10 11:52
ICALMIX[A]	W3VM100226-05	022610V3\3A507.D	26-FEB-10 12:22
ICALMIX[A]	W3VM100226-07	022610V3\3A509.D	26-FEB-10 13:21
ICALMIX[A]	W3VM100226-08	022610V3\3A511.D	26-FEB-10 14:20
ICVMIX[A]01	W3VM100226-10	022610V3\3A513.D	26-FEB-10 15:19
ICALMIX[B]	W3VM100226-11	022610V3\3A515.D	26-FEB-10 16:17
ICALMIX[B]	W3VM100226-12	022610V3\3A516.D	26-FEB-10 16:46
ICALMIX[B]	W3VM100226-13	022610V3\3A517.D	26-FEB-10 17:15
ICALMIX[B]	W3VM100226-14	022610V3\3A518.D	26-FEB-10 17:45
ICALMIX[B]	W3VM100226-15	022610V3\3A519.D	26-FEB-10 18:14
ICALMIX[B]	W3VM100226-16	022610V3\3A520.D	26-FEB-10 18:43
ICALMIX[B]	W3VM100226-17	022610V3\3A521.D	26-FEB-10 19:14
ICVMIX[B]02	W3VM100226-18	022610V3\3A523.D	26-FEB-10 20:12

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2305

Instrument ID: VOA3.I **Injection Date/Time:** 15-MAR-10 11:35

Column Description: DB-624 **Lab File ID** 031510V3\3D101.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	18.7
75	30.0 - 60.0% of mass 95	47.4
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	82.7
175	5.0 -9.0% of mass 174	7
176	95.0 - 101.0% of mass 174	97.6
177	5.0 - 9.0% of mass 176	6.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]02	W3VM100315-01	031510V3\3D102.D	15-MAR-10 12:01
BLK01LCS	1202071638	031510V3\3D104SLLA.D	15-MAR-10 12:59
CCVMIX[B]03	W3VM100315-04	031510V3\3D105.D	15-MAR-10 13:28
BLK01SLCS	1202071639	031510V3\3D106SSLA.D	15-MAR-10 13:57
BLK01	1202071635	031510V3\3D108SBLA.D	15-MAR-10 14:55
RE46-10-11926	248824001	031510V3\3D113.D	15-MAR-10 18:18
RE46-10-11925	248824002	031510V3\3D114.D	15-MAR-10 18:47

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2305

Instrument ID: VOA3.I **Injection Date/Time:** 16-MAR-10 17:01

Column Description: DB-624 **Lab File ID** 031610V3\3D216.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	18.3
75	30.0 - 60.0% of mass 95	47.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	79.5
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	96.6
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]04	W3VM100316-05	031610V3\3D217.D	16-MAR-10 17:27
BLK02LCS	1202074004	031610V3\3D219SLLA.D	16-MAR-10 18:25
CCVMIX[B]05	W3VM100316-08	031610V3\3D220.D	16-MAR-10 18:54
BLK02SLCS	1202074005	031610V3\3D221SSLA.D	16-MAR-10 19:23
BLK02	1202074003	031610V3\3D223SBLA.D	16-MAR-10 20:20
RE46-10-11926MS	1202071636	031610V3\3D238.D	17-MAR-10 03:30
RE46-10-11926MSD	1202071637	031610V3\3D239.D	17-MAR-10 03:59

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2305

Instrument: VOA3.I

STD Analysis Time: 15-MAR-10 12:01

GC Column: DB-624

Data File: C:\msdchem\1\DATA\031510V3\3D102.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	784353		12.2	594883		15.9	329307		18.4
Upper Limit	1568706		12.7	1189766		16.4	658614		18.9
Lower Limit	392177		11.7	297442		15.4	164654		17.9
Sample ID									
BLK01LCS	802994		12.2	643533		15.9	327390		18.4
BLK01SLCS	829608		12.2	652329		15.9	325545		18.4
BLK01	742288		12.2	535571		15.9	275889		18.4
RE46-10-11926	698738		12.2	544271		15.9	275274		18.4
RE46-10-11925	637324		12.2	473685		15.9	234900		18.4

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA3.I

GC Column: DB-624

Client SDG: 10-2305

STD Analysis Time: 16-MAR-10 17:27

Data File: C:\msdchem\1\DATA\031610V3\3D217.D

	Fluorobenzene				Chlorobenzene-d5				1,4-Dichlorobenzene-d4			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	862334		12.2		678082		15.9		343576		18.4	
Upper Limit	1724668		12.7		1356164		16.4		687152		18.9	
Lower Limit	431167		11.7		339041		15.4		171788		17.9	
Sample ID												
BLK02LCS	847106		12.2		653333		15.9		347050		18.4	
BLK02SLCS	850076		12.2		654978		15.9		345921		18.4	
BLK02	782831		12.2		587024		15.9		303581		18.4	
RE46-10-11926MS	614640		12.2		513452		15.9		265865		18.4	
RE46-10-11926MSD	691767		12.2		539921		15.9		306367		18.4	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11926**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 18:18**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D113.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.02	ug/kg	0.346	1.02
74-87-3	Chloromethane	U	1.02	ug/kg	0.305	1.02
75-01-4	Vinyl chloride	U	1.02	ug/kg	0.305	1.02
74-83-9	Bromomethane	U	1.02	ug/kg	0.305	1.02
75-00-3	Chloroethane	U	1.02	ug/kg	0.305	1.02
75-69-4	Trichlorofluoromethane	U	1.02	ug/kg	0.305	1.02
67-64-1	Acetone	J	4.31	ug/kg	1.69	5.09
75-35-4	1,1-Dichloroethylene	U	1.02	ug/kg	0.305	1.02
74-88-4	Iodomethane	U	5.09	ug/kg	1.63	5.09
75-09-2	Methylene chloride	U	5.09	ug/kg	2.04	5.09
75-15-0	Carbon disulfide	U	5.09	ug/kg	1.27	5.09
156-60-5	trans-1,2-Dichloroethylene	U	1.02	ug/kg	0.305	1.02
75-34-3	1,1-Dichloroethane	U	1.02	ug/kg	0.305	1.02
78-93-3	2-Butanone	U	5.09	ug/kg	1.53	5.09
156-59-2	cis-1,2-Dichloroethylene	U	1.02	ug/kg	0.305	1.02
594-20-7	2,2-Dichloropropane	U	1.02	ug/kg	0.305	1.02
67-66-3	Chloroform	U	1.02	ug/kg	0.305	1.02
74-97-5	Bromochloromethane	U	1.02	ug/kg	0.336	1.02
71-55-6	1,1,1-Trichloroethane	U	1.02	ug/kg	0.305	1.02
563-58-6	1,1-Dichloropropene	U	1.02	ug/kg	0.305	1.02
56-23-5	Carbon tetrachloride	U	1.02	ug/kg	0.305	1.02
107-06-2	1,2-Dichloroethane	U	1.02	ug/kg	0.305	1.02
71-43-2	Benzene	U	1.02	ug/kg	0.305	1.02
79-01-6	Trichloroethylene	U	1.02	ug/kg	0.336	1.02
78-87-5	1,2-Dichloropropane	U	1.02	ug/kg	0.305	1.02
75-27-4	Bromodichloromethane	U	1.02	ug/kg	0.305	1.02
74-95-3	Dibromomethane	U	1.02	ug/kg	0.305	1.02
108-10-1	4-Methyl-2-pentanone	U	5.09	ug/kg	1.27	5.09
10061-01-5	cis-1,3-Dichloropropylene	U	1.02	ug/kg	0.305	1.02
108-88-3	Toluene	U	1.02	ug/kg	0.305	1.02
10061-02-6	trans-1,3-Dichloropropylene	U	1.02	ug/kg	0.305	1.02
79-00-5	1,1,2-Trichloroethane	U	1.02	ug/kg	0.305	1.02
591-78-6	2-Hexanone	U	5.09	ug/kg	1.53	5.09
142-28-9	1,3-Dichloropropane	U	1.02	ug/kg	0.305	1.02
127-18-4	Tetrachloroethylene	U	1.02	ug/kg	0.305	1.02
124-48-1	Dibromochloromethane	U	1.02	ug/kg	0.305	1.02
106-93-4	1,2-Dibromoethane	U	1.02	ug/kg	0.305	1.02
108-90-7	Chlorobenzene	U	1.02	ug/kg	0.305	1.02

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11926**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 18:18**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D113.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.02	ug/kg	0.305	1.02
179601-23-1	m,p-Xylenes	U	2.04	ug/kg	0.305	2.04
95-47-6	o-Xylene	U	1.02	ug/kg	0.305	1.02
100-42-5	Styrene	U	1.02	ug/kg	0.305	1.02
75-25-2	Bromoform	U	1.02	ug/kg	0.305	1.02
79-34-5	1,1,2,2-Tetrachloroethane	U	1.02	ug/kg	0.305	1.02
96-18-4	1,2,3-Trichloropropane	U	1.02	ug/kg	0.305	1.02
108-86-1	Bromobenzene	U	1.02	ug/kg	0.305	1.02
103-65-1	n-Propylbenzene	U	1.02	ug/kg	0.305	1.02
95-49-8	2-Chlorotoluene	U	1.02	ug/kg	0.305	1.02
98-82-8	Isopropylbenzene	U	1.02	ug/kg	0.305	1.02
108-67-8	1,3,5-Trimethylbenzene	U	1.02	ug/kg	0.305	1.02
106-43-4	4-Chlorotoluene	U	1.02	ug/kg	0.305	1.02
98-06-6	tert-Butylbenzene	U	1.02	ug/kg	0.305	1.02
95-63-6	1,2,4-Trimethylbenzene	U	1.02	ug/kg	0.305	1.02
135-98-8	sec-Butylbenzene	U	1.02	ug/kg	0.305	1.02
99-87-6	4-Isopropyltoluene	U	1.02	ug/kg	0.305	1.02
541-73-1	1,3-Dichlorobenzene	U	1.02	ug/kg	0.305	1.02
106-46-7	1,4-Dichlorobenzene	U	1.02	ug/kg	0.305	1.02
104-51-8	n-Butylbenzene	U	1.02	ug/kg	0.305	1.02
96-12-8	1,2-Dibromo-3-chloropropane	U	1.02	ug/kg	0.305	1.02
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.09	ug/kg	1.63	5.09
630-20-6	1,1,1,2-Tetrachloroethane	U	1.02	ug/kg	0.305	1.02
95-50-1	1,2-Dichlorobenzene	U	1.02	ug/kg	0.305	1.02

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D113.D
Acq On : 15 Mar 2010 6:18 pm
Operator : CDS1
InstName : VOA3
Sample : |248824001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 13:29:56 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	699066	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	544216	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	272110	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	698738	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	544271	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	275274	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	223463	52.12	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 104.24%					
43) Toluene-d8	14.165	14.165	0.894	98	758958	51.82	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 103.64%					
61) Bromofluorobenzene	17.130	17.130	0.930	95	258931	47.19	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 94.38%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.999	7.987	0.654	43	12462	4.23	ug/L	93
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	0.000	8.449	0.000		0	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	2962	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D113.D
Acq On : 15 Mar 2010 6:18 pm
Operator : CDS1
InstName : VOA3
Sample : |248824001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 13:29:56 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44)	Toluene	0.000	14.248	0.000		0	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47)	2-Hexanone	0.000	14.888	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52)	Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54)	Ethylbenzene	0.000	15.968	0.000		0	N.D.	
55)	m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56)	o-Xylene	0.000	16.549	0.000		0	N.D.	
57)	Styrene	0.000	16.549	0.000		0	N.D.	
59)	Bromoform	0.000	16.821	0.000		0	N.D.	
60)	Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64)	Bromobenzene	0.000	17.343	0.000		0	N.D.	
65)	n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66)	1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000	17.628	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	0.000	17.960	0.000		0	N.D.	
71)	sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72)	4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	0.000	18.351	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	0.000	18.434	0.000		0	N.D.	
75)	n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80)	Naphthalene	21.351	21.351	1.160	128	383	N.D.	
81)	1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85)	Acrolein	0.000	7.750	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88)	Allyl chloride	0.000	8.556	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90)	Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91)	Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94)	Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D113.D
Acq On : 15 Mar 2010 6:18 pm
Operator : CDS1
InstName : VOA3
Sample : |248824001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 13:29:56 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	10.726	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108)	Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110)	Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111)	Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	0.000	18.980	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D113.D
Acq On : 15 Mar 2010 6:18 pm
Operator : CDS1
InstName : VOA3
Sample : |248824001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 13:29:56 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

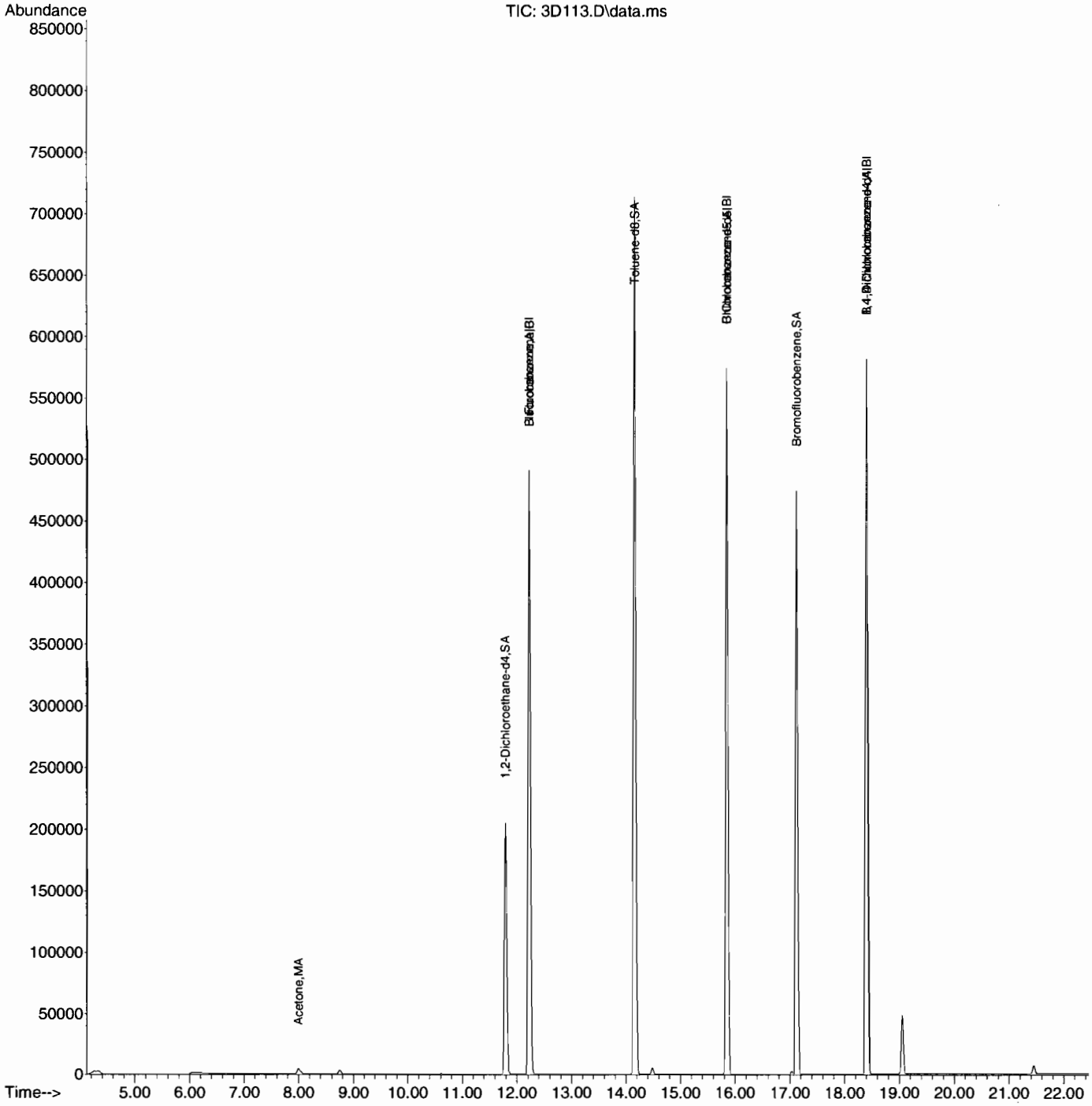

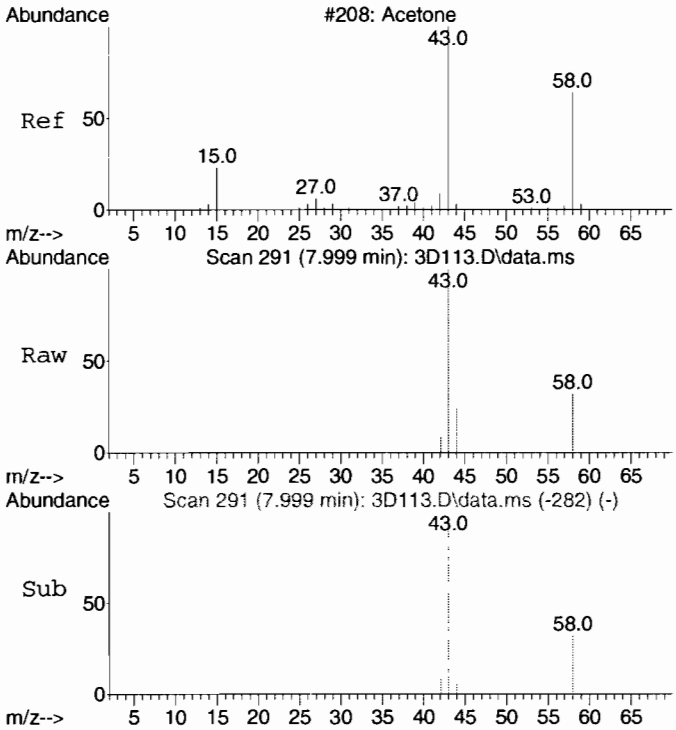

#9
Acetone
Concen: 4.23 ug/L
RT: 7.999 min Scan# 291
Delta R.T. 0.012 min
Lab File: 3D113.D
Acq: 15 Mar 2010 6:18 pm

Tgt Ion: 43 Resp: 12462

Ion	Ratio	Lower	Upper
43	100		
58	28.3	2.5	62.5

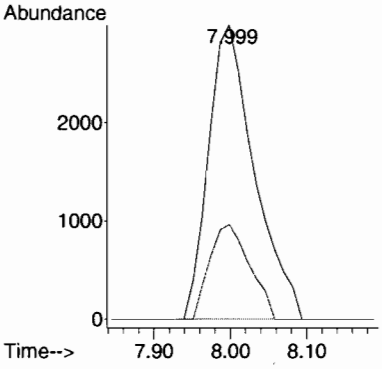

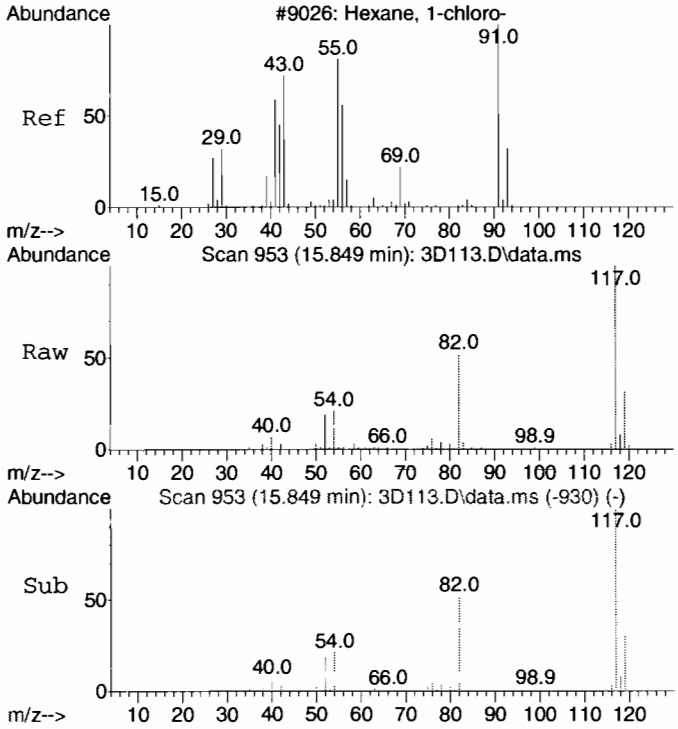

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.85 ug/L
RT: 15.849 min Scan# 953
Delta R.T. 0.095 min
Lab File: 3D113.D
Acq: 15 Mar 2010 6:18 pm

Tgt Ion: 55 Resp: 4606

Ion	Ratio	Lower	Upper
55	100		
91	15.6	119.7	179.7#
56	65.7	29.6	89.6

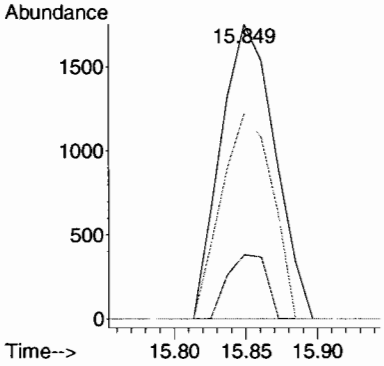

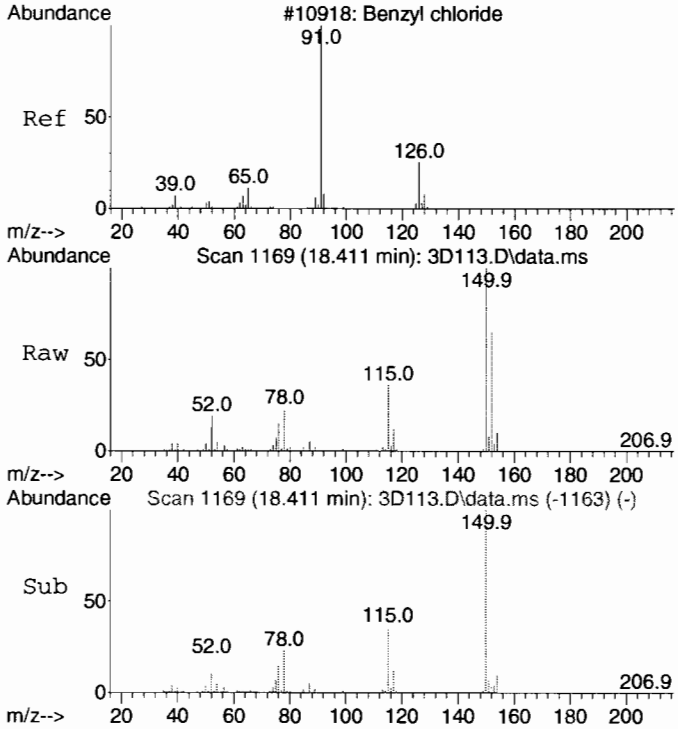

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 1.68 ug/L
RT: 18.411 min Scan# 1169
Delta R.T. -0.142 min
Lab File: 3D113.D
Acq: 15 Mar 2010 6:18 pm

Tgt Ion: 91 Resp: 376

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.8
65	564.9	0.0	41.3#

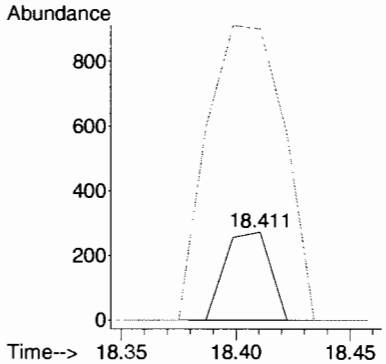

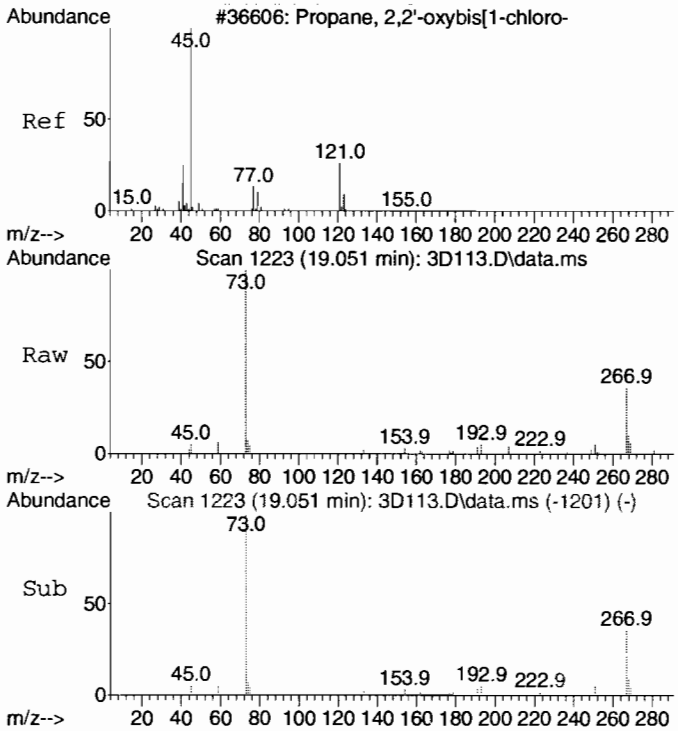

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 1.75 ug/L
RT: 19.051 min Scan# 1223
Delta R.T. 0.071 min
Lab File: 3D113.D
Acq: 15 Mar 2010 6:18 pm

Tgt Ion: 45 Resp: 3113

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	59.6

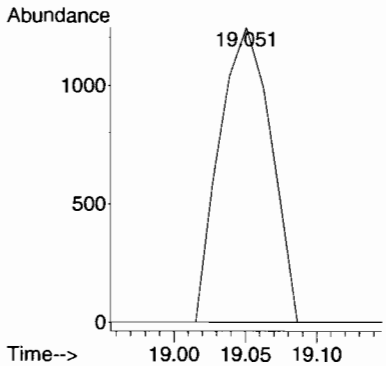

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D113.D
Acq On : 15 Mar 2010 6:18 pm
Operator : CDS1
Sample : |248824001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D113.D
Acq On : 15 Mar 2010 6:18 pm
Operator : CDS1
Sample : |248824001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11925**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 18:47**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D114.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.02	ug/kg	0.345	1.02
74-87-3	Chloromethane	U	1.02	ug/kg	0.305	1.02
75-01-4	Vinyl chloride	U	1.02	ug/kg	0.305	1.02
74-83-9	Bromomethane	U	1.02	ug/kg	0.305	1.02
75-00-3	Chloroethane	U	1.02	ug/kg	0.305	1.02
75-69-4	Trichlorofluoromethane	U	1.02	ug/kg	0.305	1.02
67-64-1	Acetone	J	4.59	ug/kg	1.69	5.08
75-35-4	1,1-Dichloroethylene	U	1.02	ug/kg	0.305	1.02
74-88-4	Iodomethane	U	5.08	ug/kg	1.62	5.08
75-09-2	Methylene chloride	U	5.08	ug/kg	2.03	5.08
75-15-0	Carbon disulfide	U	5.08	ug/kg	1.27	5.08
156-60-5	trans-1,2-Dichloroethylene	U	1.02	ug/kg	0.305	1.02
75-34-3	1,1-Dichloroethane	U	1.02	ug/kg	0.305	1.02
78-93-3	2-Butanone	U	5.08	ug/kg	1.52	5.08
156-59-2	cis-1,2-Dichloroethylene	U	1.02	ug/kg	0.305	1.02
594-20-7	2,2-Dichloropropane	U	1.02	ug/kg	0.305	1.02
67-66-3	Chloroform	U	1.02	ug/kg	0.305	1.02
74-97-5	Bromochloromethane	U	1.02	ug/kg	0.335	1.02
71-55-6	1,1,1-Trichloroethane	U	1.02	ug/kg	0.305	1.02
563-58-6	1,1-Dichloropropene	U	1.02	ug/kg	0.305	1.02
56-23-5	Carbon tetrachloride	U	1.02	ug/kg	0.305	1.02
107-06-2	1,2-Dichloroethane	U	1.02	ug/kg	0.305	1.02
71-43-2	Benzene	U	1.02	ug/kg	0.305	1.02
79-01-6	Trichloroethylene	U	1.02	ug/kg	0.335	1.02
78-87-5	1,2-Dichloropropane	U	1.02	ug/kg	0.305	1.02
75-27-4	Bromodichloromethane	U	1.02	ug/kg	0.305	1.02
74-95-3	Dibromomethane	U	1.02	ug/kg	0.305	1.02
108-10-1	4-Methyl-2-pentanone	U	5.08	ug/kg	1.27	5.08
10061-01-5	cis-1,3-Dichloropropylene	U	1.02	ug/kg	0.305	1.02
108-88-3	Toluene	U	1.02	ug/kg	0.305	1.02
10061-02-6	trans-1,3-Dichloropropylene	U	1.02	ug/kg	0.305	1.02
79-00-5	1,1,2-Trichloroethane	U	1.02	ug/kg	0.305	1.02
591-78-6	2-Hexanone	U	5.08	ug/kg	1.52	5.08
142-28-9	1,3-Dichloropropane	U	1.02	ug/kg	0.305	1.02
127-18-4	Tetrachloroethylene	U	1.02	ug/kg	0.305	1.02
124-48-1	Dibromochloromethane	U	1.02	ug/kg	0.305	1.02
106-93-4	1,2-Dibromoethane	U	1.02	ug/kg	0.305	1.02
108-90-7	Chlorobenzene	U	1.02	ug/kg	0.305	1.02

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11925**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 18:47**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D114.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.02	ug/kg	0.305	1.02
179601-23-1	m,p-Xylenes	U	2.03	ug/kg	0.305	2.03
95-47-6	o-Xylene	U	1.02	ug/kg	0.305	1.02
100-42-5	Styrene	U	1.02	ug/kg	0.305	1.02
75-25-2	Bromoform	U	1.02	ug/kg	0.305	1.02
79-34-5	1,1,2,2-Tetrachloroethane	U	1.02	ug/kg	0.305	1.02
96-18-4	1,2,3-Trichloropropane	U	1.02	ug/kg	0.305	1.02
108-86-1	Bromobenzene	U	1.02	ug/kg	0.305	1.02
103-65-1	n-Propylbenzene	U	1.02	ug/kg	0.305	1.02
95-49-8	2-Chlorotoluene	U	1.02	ug/kg	0.305	1.02
98-82-8	Isopropylbenzene	U	1.02	ug/kg	0.305	1.02
108-67-8	1,3,5-Trimethylbenzene	U	1.02	ug/kg	0.305	1.02
106-43-4	4-Chlorotoluene	U	1.02	ug/kg	0.305	1.02
98-06-6	tert-Butylbenzene	U	1.02	ug/kg	0.305	1.02
95-63-6	1,2,4-Trimethylbenzene	U	1.02	ug/kg	0.305	1.02
135-98-8	sec-Butylbenzene	U	1.02	ug/kg	0.305	1.02
99-87-6	4-Isopropyltoluene	U	1.02	ug/kg	0.305	1.02
541-73-1	1,3-Dichlorobenzene	U	1.02	ug/kg	0.305	1.02
106-46-7	1,4-Dichlorobenzene	U	1.02	ug/kg	0.305	1.02
104-51-8	n-Butylbenzene	U	1.02	ug/kg	0.305	1.02
96-12-8	1,2-Dibromo-3-chloropropane	U	1.02	ug/kg	0.305	1.02
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.08	ug/kg	1.62	5.08
630-20-6	1,1,1,2-Tetrachloroethane	U	1.02	ug/kg	0.305	1.02
95-50-1	1,2-Dichlorobenzene	U	1.02	ug/kg	0.305	1.02

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	19.05	10.1	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D114.D
Acq On : 15 Mar 2010 6:47 pm
Operator : CDS1
InstName : VOA3
Sample : |248824002|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 16 13:31:33 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	637520	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	473685	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	231907	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	637324	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	473685	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	234900	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	195177	49.92	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 99.84%					
43) Toluene-d8	14.165	14.165	0.894	98	642919	50.43	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 100.86%					
61) Bromofluorobenzene	17.130	17.130	0.930	95	218558	46.74	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 93.48%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.999	7.987	0.654	43	12147	4.52	ug/L	89
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	0.000	8.449	0.000		0	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	2625	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D114.D
Acq On : 15 Mar 2010 6:47 pm
Operator : CDS1
InstName : VOA3
Sample : |248824002|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 16 13:31:33 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	0.000	14.248	0.000		0	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	0.000	14.888	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	0.000	15.968	0.000		0	N.D.	
55) m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	0.000	16.549	0.000		0	N.D.	
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	17.628	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	17.960	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	18.351	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	18.434	0.000		0	N.D.	
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	0.000	21.351	0.000		0	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	0.000	7.750	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87) Isopropyl Alcohol	8.153	8.141	0.667	45	642	N.D.	
88) Allyl chloride	0.000	8.556	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D114.D
Acq On : 15 Mar 2010 6:47 pm
Operator : CDS1
InstName : VOA3
Sample : |248824002|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 16 13:31:33 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	10.726	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108)	Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110)	Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111)	Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	0.000	18.980	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D114.D
Acq On : 15 Mar 2010 6:47 pm
Operator : CDS1
InstName : VOA3
Sample : |248824002|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 16 13:31:33 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

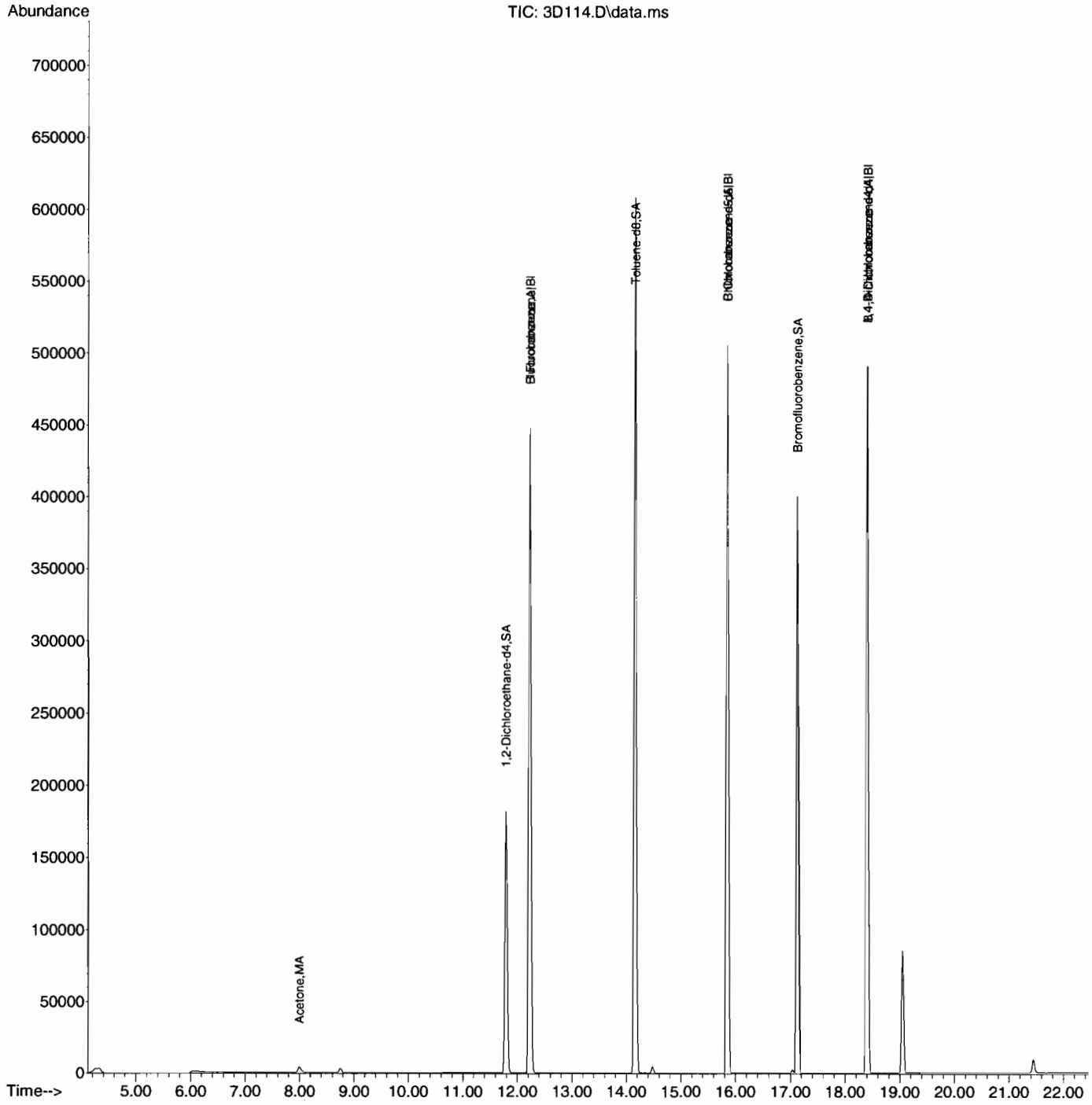

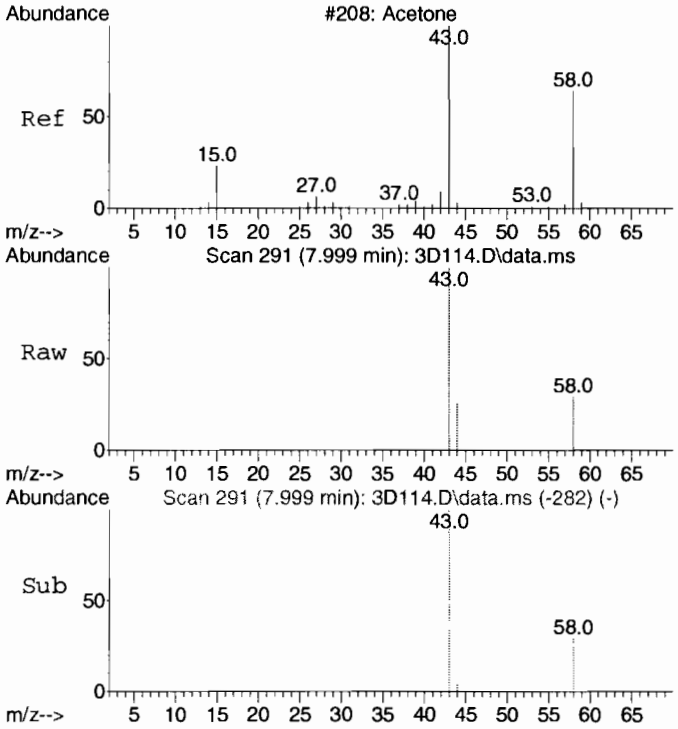

#9
Acetone
Concen: 4.52 ug/L
RT: 7.999 min Scan# 291
Delta R.T. 0.012 min
Lab File: 3D114.D
Acq: 15 Mar 2010 6:47 pm

Tgt Ion: 43 Resp: 12147

Ion	Ratio	Lower	Upper
43	100		
58	26.5	2.5	62.5

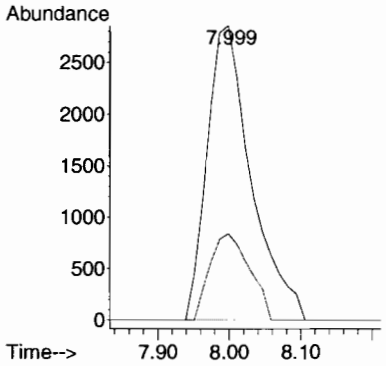

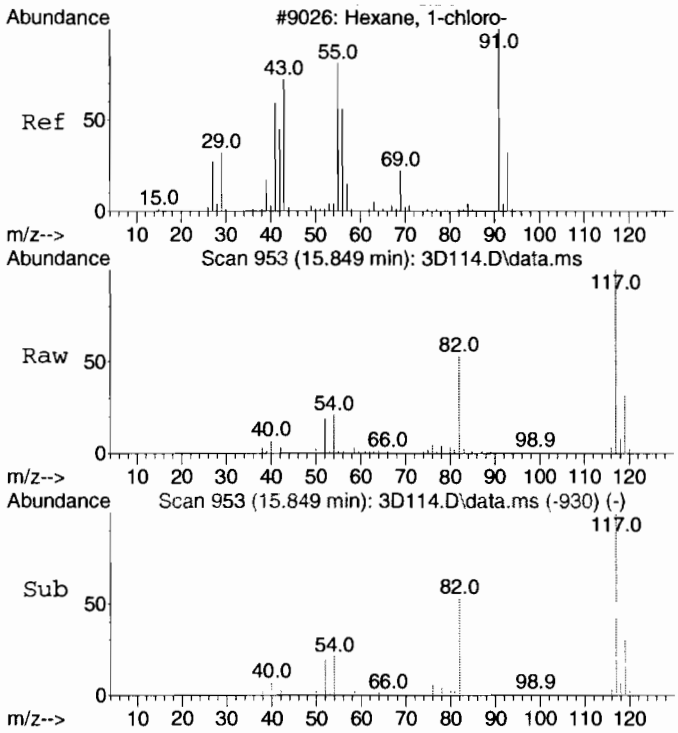

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.93 ug/L
RT: 15.849 min Scan# 953
Delta R.T. 0.095 min
Lab File: 3D114.D
Acq: 15 Mar 2010 6:47 pm

Tgt Ion: 55 Resp: 4110

Ion	Ratio	Lower	Upper
55	100		
91	17.5	119.7	179.7#
56	63.0	29.6	89.6

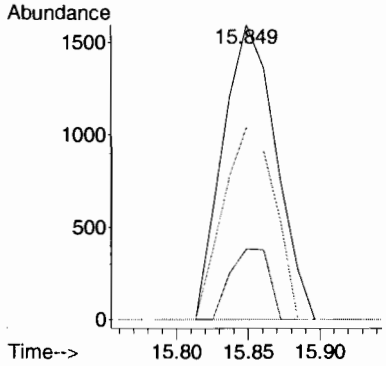

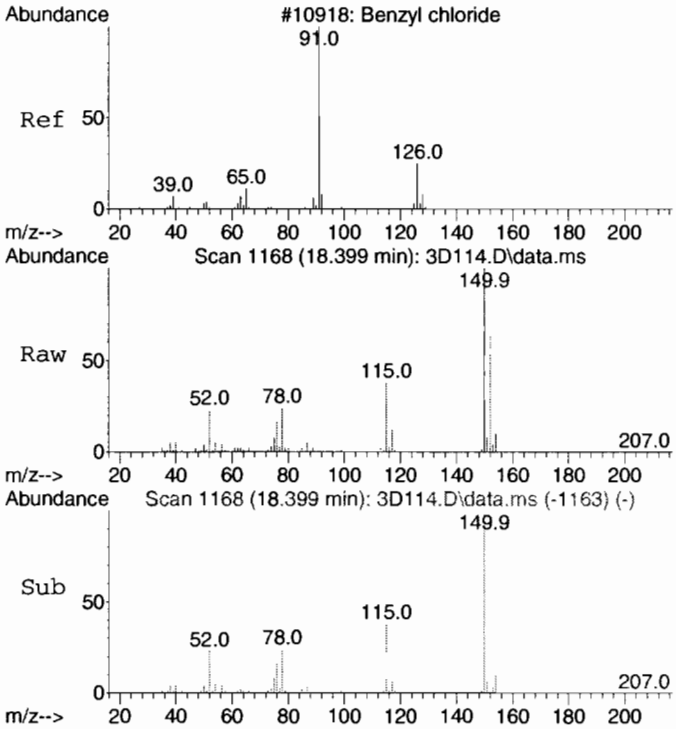

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 1.64 ug/L
RT: 18.399 min Scan# 1168
Delta R.T. -0.154 min
Lab File: 3D114.D
Acq: 15 Mar 2010 6:47 pm

Tgt Ion: 91 Resp: 185

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.8
65	772.4	0.0	41.3#

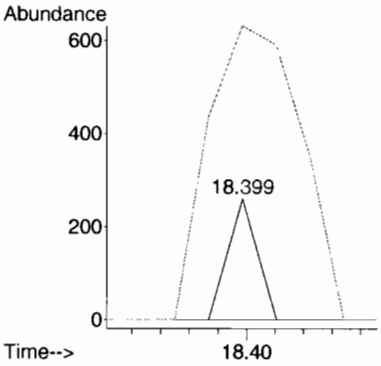

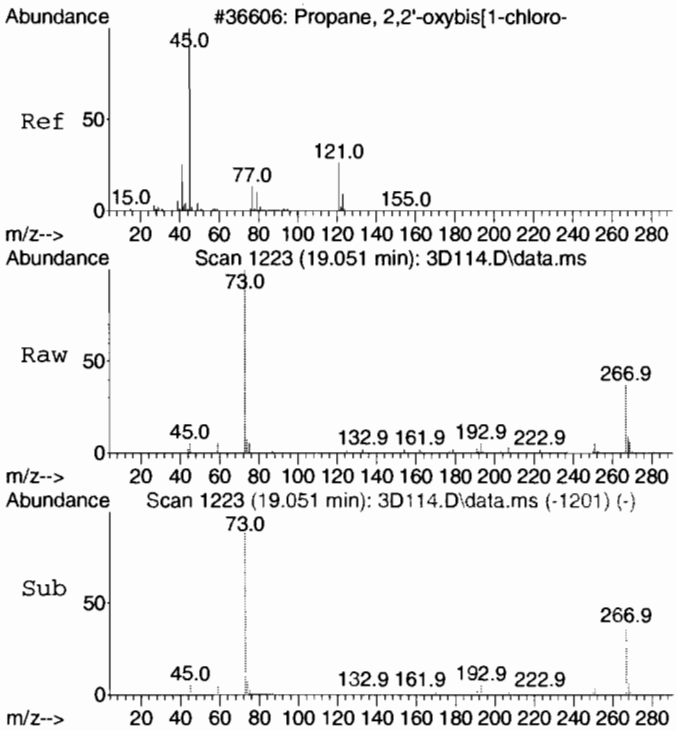

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 3.62 ug/L
RT: 19.051 min Scan# 1223
Delta R.T. 0.071 min
Lab File: 3D114.D
Acq: 15 Mar 2010 6:47 pm

Tgt Ion: 45 Resp: 5489

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	59.6

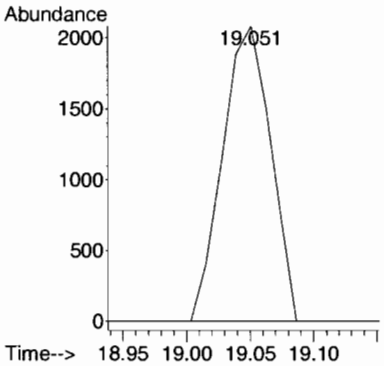

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D114.D
Acq On : 15 Mar 2010 6:47 pm
Operator : CDS1
Sample : |248824002|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.051	9.95 ug/L	273348	B 1,4-Dichlorobenzene-d4	18.410

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	42
2	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	39
3	11H-Dibenzo[b,e][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	27
4	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	9
5	7,9-Diethyl-2,4-bis(dimethylamin...	336	C15H24N6OS	1000090-57-7	9

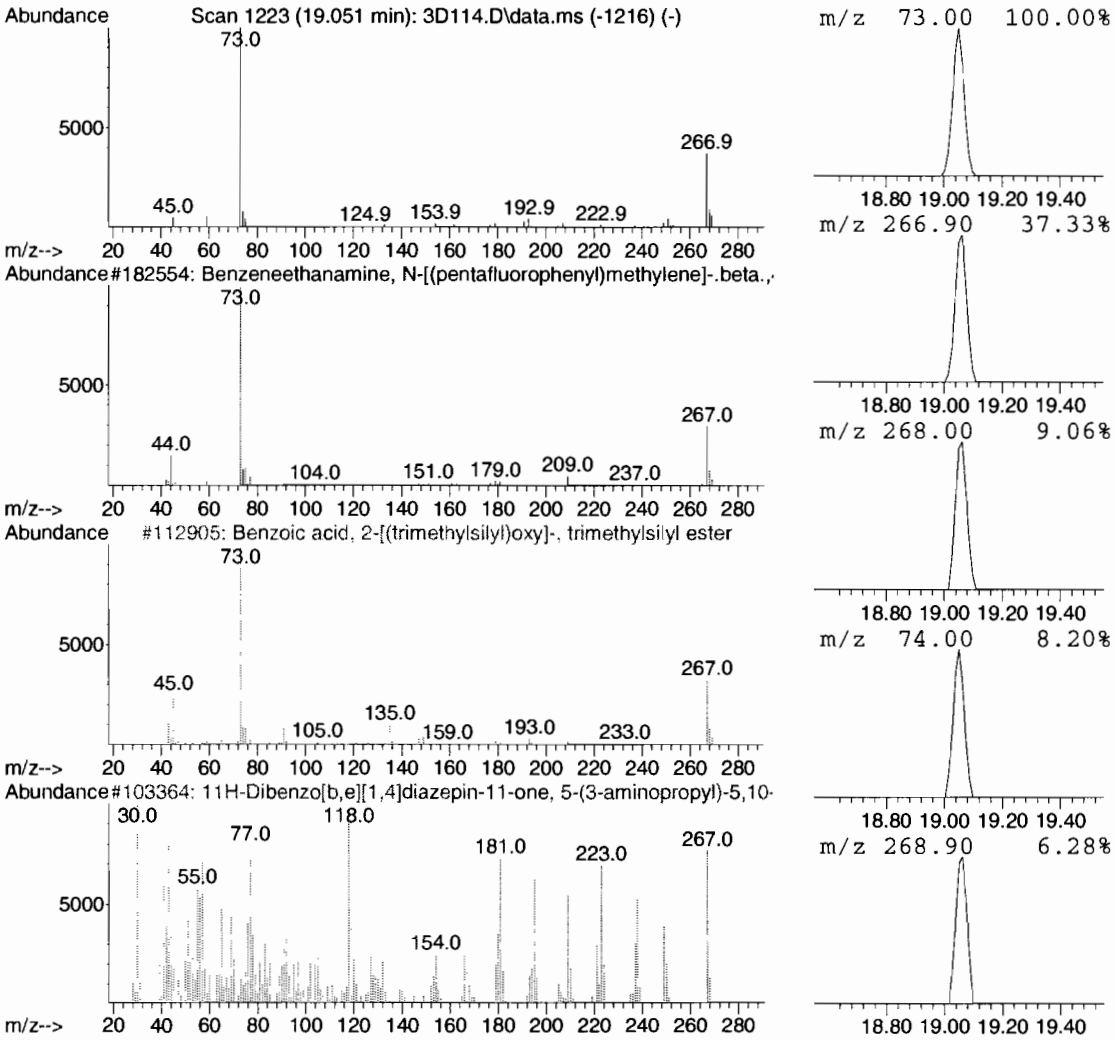

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D114.D
Acq On : 15 Mar 2010 6:47 pm
Operator : CDS1
Sample : |248824002|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown siloxane	19.051	9.9	ug/L	273348	6	18.410	1372940	50.0

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\022610V3\3A511.D

Injection Date	Mix	Calibration File
26 Feb 2010 2:20 pm	A	C:\msdchem\1\DATA\022610V3\3A511.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\022610V3\3A515.D

Injection Date	Mix	Calibration File
26 Feb 2010 10:23 am	A	C:\msdchem\1\DATA\022610V3\3A503.D
26 Feb 2010 4:17 pm	B	C:\msdchem\1\DATA\022610V3\3A515.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\022610V3\3A516.D

Injection Date	Mix	Calibration File
26 Feb 2010 10:53 am	A	C:\msdchem\1\DATA\022610V3\3A504.D
26 Feb 2010 4:46 pm	B	C:\msdchem\1\DATA\022610V3\3A516.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\022610V3\3A517.D

Injection Date	Mix	Calibration File
26 Feb 2010 11:23 am	A	C:\msdchem\1\DATA\022610V3\3A505.D
26 Feb 2010 5:15 pm	B	C:\msdchem\1\DATA\022610V3\3A517.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\022610V3\3A518.D

Injection Date	Mix	Calibration File
26 Feb 2010 11:52 am	A	C:\msdchem\1\DATA\022610V3\3A506.D
26 Feb 2010 5:45 pm	B	C:\msdchem\1\DATA\022610V3\3A518.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\022610V3\3A519.D

Injection Date	Mix	Calibration File
26 Feb 2010 12:22 pm	A	C:\msdchem\1\DATA\022610V3\3A507.D
26 Feb 2010 6:14 pm	B	C:\msdchem\1\DATA\022610V3\3A519.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\022610V3\3A520.D

Injection Date	Mix	Calibration File
26 Feb 2010 12:52 pm	A	C:\msdchem\1\DATA\022610V3\3A508.D
26 Feb 2010 6:43 pm	B	C:\msdchem\1\DATA\022610V3\3A520.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\022610V3\3A521.D

Injection Date	Mix	Calibration File
26 Feb 2010 1:21 pm	A	C:\msdchem\1\DATA\022610V3\3A509.D
26 Feb 2010 7:14 pm	B	C:\msdchem\1\DATA\022610V3\3A521.D

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane 0.0023 | 0.1374 | 0.00		2277 265306	5491	18101	26429	54755		LINR		0.9995
3)MPA Chloromethane		0.2616031 0.2242101	0.2323936	0.2502915	0.2201181	0.2227574	0.2352	AVRG		7.2040
4)MCA Vinyl chloride		0.2541011 0.2406996	0.2352067	0.2551214	0.2262592	0.2268934	0.2397	AVRG		5.3131
5)MA Bromomethane		0.2072141 0.1976563	0.1833422	0.1967047	0.1853018	0.1905574	0.1935	AVRG		4.5923
6)MA Chloroethane		0.1439835 0.1609703	0.1515516	0.1635666	0.1519987	0.1571248	0.1549	AVRG		4.6177
7)MA Trichlorofluoromethane		0.3275129 0.3295311	0.3205552	0.3526688	0.3230757	0.3256797	0.3298	AVRG		3.5251
8)MA Ethyl ether		0.1632206 0.1815809	0.1588711	0.1698610	0.1702956	0.1792069	0.1705	AVRG		5.1616
9)MA Acetone		0.2512718 0.1922869	0.2223648	0.2033793	0.2013304	0.1941089	0.2108	AVRG		10.6879
10)MCA 1,1-Dichloroethylene		0.3242442 0.3458620	0.3114878	0.3387494	0.3630812	0.3504022	0.3390	AVRG		5.4902
11)MA Iodomethane		0.4294534 0.4190581	0.4178005	0.4292890	0.4418386	0.4343625	0.4286	AVRG		2.1314
12)MA Acetonitrile		0.0402682 0.0326505	0.0382372	0.0366367	0.0366463	0.0346505	0.0365	AVRG		7.2968
13)MA Methyl acetate		0.2076535 0.1795084	0.1923167	0.1885164	0.1826725	0.1780487	0.1881	AVRG		5.8454
14)MA Carbon disulfide		0.7600850 0.7072909	0.7160095	0.7724256	0.7803354	0.7507584	0.7478	AVRG		4.0011
15)MA Methylene chloride		 0.2643832	0.3707264	0.3129119	0.2978783	0.2772388	0.3046	AVRG		13.5875
16)MA tert-Butyl methyl ether		0.6294121 0.6487595	0.7724787	0.6242810	0.6481214	0.6521856	0.6625	AVRG		8.3090

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle		0.2879134 0.3121953	0.3205825	0.3159418	0.3271093	0.3199899	0.3140	AVRG		4.3640
18)MA Vinyl acetate		0.3708955 0.3676321	0.3562677	0.3763507	0.3961861	0.3992501	0.3778	AVRG		4.4531
19)MPA 1,1-Dichloroethane		0.3891895 0.3840108	0.3951156	0.3902567	0.4064048	0.4023760	0.3946	AVRG		2.1516
20)MA 2-Butanone		0.2176096 0.2243453	0.2073927	0.2035761	0.2041258	0.2025725	0.2099	AVRG		4.2679
21)MA cis-1,2-Dichloroethylene		0.3148132 0.3490691	0.3479486	0.3487669	0.3618816	0.3617607	0.3474	AVRG		4.9575
22)MA 2,2-Dichloropropane		0.2273085 0.2579670	0.2285154	0.2406765	0.2548518	0.2523942	0.2436	AVRG		5.5433
23)MA Bromochloromethane		0.1225494 0.1324406	0.1224921	0.1286731	0.1292831	0.1318949	0.1279	AVRG		3.4433
24)MCA Chloroform		0.3924582 0.4048216	0.3828801	0.4055065	0.4179002	0.4123718	0.4027	AVRG		3.2088
25)MA 1,1,1-Trichloroethane		0.3013633 0.3457650	0.3029120	0.3266748	0.3385056	0.3468985	0.3270	AVRG		6.2937
26)MA Cyclohexane		0.3569848 0.3650756	0.3431964	0.3658950	0.3821484	0.3830406	0.3661	AVRG		4.1489
27)MA 1,1-Dichloropropene		0.2585487 0.2772380	0.2705751	0.2830943	0.2924361	0.2851494	0.2778	AVRG		4.3171
28)MA Carbon tetrachloride		0.2621925 0.3083052	0.2521945	0.2910993	0.2979444	0.3040173	0.2860	AVRG		8.1269
29)SA 1,2-Dichloroethane-d4		0.3048163 0.3054923	0.3038023	0.3043099	0.3120712	0.3093640	0.3066	AVRG		1.0820
30)MA 1,2-Dichloroethane		0.3206540 0.3078525	0.3189165	0.3150473	0.3121416	0.3149056	0.3149	AVRG		1.4658
31)MA Benzene		0.8925155 0.8492594	0.8667581	0.8810794	0.9114586	0.8881848	0.8815	AVRG		2.4438

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene		0.3909578 0.4052279	0.4007418	0.4027450	0.4153084	0.4060418	0.4035	AVRG		1.9651
33)MA n-Butyl alcohol -0.0153 | 0.0095 | 0.00	6147	13646 1801412	26068	68644	152277	327782		LINR	#	0.9998
34)MA Trichloroethylene		0.2185741 0.2296824	0.2169080	0.2293622	0.2366375	0.2345330	0.2276	AVRG		3.5852
35)MCA 1,2-Dichloropropane		0.2132156 0.2142021	0.2089330	0.2127484	0.2202776	0.2222368	0.2153	AVRG		2.3272
36)MA Methylcyclohexane		0.3768113 0.3724753	0.3477301	0.3812230	0.3983542	0.3842014	0.3768	AVRG		4.4451
37)MA Dibromomethane		0.1343382 0.1494473	0.1372676	0.1528224	0.1446250	0.1484067	0.1445	AVRG		5.0347
38)MA Bromodichloromethane		0.2494928 0.3062115	0.2501461	0.2659550	0.2845010	0.2930440	0.2749	AVRG		8.5160
39)MA 2-Chloroethylvinyl ether -0.0077 | 0.0716 | 0.00		4198 681672	8783	24673	52943	116501		LINR		0.9993
40)MA cis-1,3-Dichloropropylen		0.2842160 0.3552871	0.2817182	0.2936149	0.3215129	0.3379201	0.3124	AVRG		9.7753
42)MA 4-Methyl-2-pentanone		0.1126917 0.1280754	0.1194132	0.1148631	0.1259371	0.1238311	0.1208	AVRG		5.1220
43)SA Toluene-d8		1.3518916 1.3270201	1.3510408	1.3495094	1.3589702	1.3350480	1.3456	AVRG		0.8917
44)MCA Toluene		1.2887421 1.1259558	1.1909009	1.1756455	1.2234448	1.1780655	1.1971	AVRG		4.5776
45)MA trans-1,3-Dichloropropyl		0.3431112 0.4100913	0.3410400	0.3336466	0.3709023	0.3844142	0.3639	AVRG		8.2205
46)MA 1,1,2-Trichloroethane		0.2078616 0.2076847	0.2077071	0.1987867	0.2114831	0.2074057	0.2068	AVRG		2.0427
47)MA 2-Hexanone		0.3084722 0.3216425	0.3020269	0.2974837	0.3127201	0.3081516	0.3084	AVRG		2.7277

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane		0.4572956 0.4094379	0.4237014	0.4156022	0.4398228	0.4312282	0.4295	AVRG		4.0479
49)MA Tetrachloroethylene		0.2354138 0.2179223	0.2323932	0.2334344	0.2470356	0.2330730	0.2332	AVRG		3.9786
50)MA Dibromochloromethane		0.2494340 0.3164834	0.2429278	0.2628701	0.2793324	0.2903839	0.2736	AVRG		10.0684
51)MA 1,2-Dibromoethane		0.2700109 0.2763561	0.2529708	0.2593241	0.2696286	0.2675353	0.2660	AVRG		3.1600
52)MPA Chlorobenzene		0.8011741 0.7610658	0.8025255	0.7738711	0.7949044	0.7811634	0.7858	AVRG		2.1101
53)MA 1,1,1,2-Tetrachloroethan		0.2596875 0.2989609	0.2347810	0.2665300	0.2764643	0.2846701	0.2702	AVRG		8.2002
54)MCA Ethylbenzene		1.2936945 1.1837419	1.2319507	1.2102932	1.2614568	1.2410204	1.2370	AVRG		3.1107
55)MA m,p-Xylenes		0.4932529 0.4920194	0.4670689	0.4844705	0.5068089	0.5057304	0.4916	AVRG		2.9988
56)MA o-Xylene		0.4360212 0.5137219	0.4710369	0.4978140	0.5103853	0.5178328	0.4911	AVRG		6.4898
57)MA Styrene		0.7238189 0.8665230	0.7084516	0.7473548	0.8145164	0.8437693	0.7841	AVRG		8.4573
59)MPA Bromoform -0.0118 | 0.3968 | 0.00		1705 319914	3889	10263	22941	51759		LINR		0.9991
60)MA Isopropylbenzene		2.4693419 2.4666939	2.3478839	2.4305203	2.6280982	2.5248171	2.4779	AVRG		3.7905
61)SA Bromofluorobenzene		1.0117596 1.0073171	1.0079856	1.0046478	1.0271820	0.9900732	1.0082	AVRG		1.1861
62)MPA 1,1,2,2-Tetrachloroethan		0.7433905 0.6532974	0.6459507	0.6400614	0.6862034	0.6503548	0.6699	AVRG		5.8917
63)MA 1,2,3-Trichloropropane		0.1757257 0.1837154	0.1959634	0.1795787	0.1879136	0.1821393	0.1842	AVRG		3.8379

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene		0.6990069 0.6475703	0.6629458	0.6426559	0.6822975	0.6563265	0.6651	AVRG		3.2511
65)MA n-Propylbenzene		2.9422568 2.7493829	2.7629100	2.8065839	3.0179028	2.9094149	2.8647	AVRG		3.7765
66)MA 1,3,5-Trimethylbenzene		2.0469325 2.0860717	1.9298056	2.0787279	2.1864852	2.1459569	2.0790	AVRG		4.2684
67)MA 2-Chlorotoluene		0.6347272 0.6139231	0.5819245	0.6222625	0.6463357	0.6062180	0.6176	AVRG		3.6616
68)MA 4-Chlorotoluene		1.8471368 1.7388256	1.7078987	1.7755335	1.8322518	1.7621182	1.7773	AVRG		3.0224
69)MA tert-Butylbenzene		0.4350706 0.4655259	0.4117658	0.4362952	0.4645460	0.4550383	0.4447	AVRG		4.6980
70)MA 1,2,4-Trimethylbenzene		2.0659938 2.1467458	1.9676109	2.0841121	2.2405674	2.1433822	2.1081	AVRG		4.3668
71)MA sec-Butylbenzene		2.7144952 2.7936401	2.6279901	2.7422793	2.9803647	2.8483307	2.7845	AVRG		4.3601
72)MA 4-Isopropyltoluene		2.0910379 2.2836300	2.0254634	2.1899010	2.3425800	2.3301522	2.2105	AVRG		5.9346
73)MA 1,3-Dichlorobenzene		1.1816611 1.1098192	1.0951751	1.1217743	1.1796527	1.1299381	1.1363	AVRG		3.1927
74)MA 1,4-Dichlorobenzene		1.3881352 1.2545517	1.2944681	1.2955782	1.3126890	1.2684404	1.3023	AVRG		3.6030
75)MA n-Butylbenzene		2.0697504 2.1295339	1.9510321	2.1190961	2.2016901	2.1409973	2.1020	AVRG		4.0558
76)MA 1,2-Dichlorobenzene		1.4165185 1.2532868	1.2799703	1.2581950	1.2909697	1.2572560	1.2927	AVRG		4.8305
77)MA 1,2-Dibromo-3-chloroprop -0.0053 | 0.1663 | 0.00		781 133971	1316	4274	9282	21730		LINR		0.9992
78)MA 1,2,4-Trichlorobenzene		0.9378991 0.8776912	0.8250578	0.8776677	0.8575450	0.8402688	0.8694	AVRG		4.5388

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene		0.4091917 0.4355717	0.4158585	0.4369926	0.4600403	0.4549497	0.4354	AVRG		4.6622
80)MA Naphthalene		2.2751115 2.3480964	2.1617013	2.1746687	2.2434688	2.2115010	2.2358	AVRG		3.1009
81)MA 1,2,3-Trichlorobenzene		0.9335860 0.7911532	0.8654297	0.8480960	0.8344446	0.8213539	0.8490	AVRG		5.7093
83)B Chlorotrifluoroethylene	0.1190819	0.1377014	0.1479953	0.1454693	0.1461092	0.1375422	0.1390	AVRG		7.7082
84)B 2-Chloro-1,1,1-trifluoro	0.2942342	0.2744057 0.2773425	0.2713970	0.2898784	0.2919948	0.2691515	0.2812	AVRG		3.7411
85)B Acrolein -0.0015 | 0.0265 | 0.00		1403	3279	9512	24236	47814		LINR		0.9980
86)B Trichlorotrifluoroethane	0.0734506	0.0898388 0.0724274	0.0811825	0.0933924	0.0875572	0.0810551	0.0827	AVRG		9.6856
87)B Isopropyl Alcohol	0.0206065	0.0174188 0.0200712	0.0174588	0.0177164	0.0190216	0.0189562	0.0187	AVRG		6.8216
88)B Allyl chloride	0.2938643	0.3045021 0.2697421	0.2795530	0.3208515	0.3079574	0.2971171	0.2962	AVRG		5.8443
89)B tert-Butyl Alcohol	0.0349488	0.0300975 0.0331829	0.0289918	0.0293445	0.0310667	0.0319348	0.0314	AVRG		6.8727
90)B Acrylonitrile	0.0926929	0.0889918 0.0836840	0.0785965	0.0934529	0.0907204	0.0916199	0.0885	AVRG		6.1568
91)B Isopropyl ether	0.7305681	0.6865236 0.7509827	0.6893026	0.6900478	0.7296397	0.6892134	0.7095	AVRG		3.7716
92)B 2-Chloro-1,3-butadiene	0.2761391	0.2345953 0.2553679	0.2329521	0.2695636	0.2673914	0.2659065	0.2574	AVRG		6.7158
93)B Ethyl tert-butyl ether	0.7134150	0.6338255 0.7361818	0.6463766	0.6459686	0.7027133	0.6637324	0.6775	AVRG		5.8516
94)B Ethyl acetate	0.2226895	0.2406210 0.1965077	0.2049246	0.2259259	0.2193049	0.2193727	0.2185	AVRG		6.5572

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile	0.0366098	0.0354359 0.0331975	0.0304722	0.0353374	0.0357550	0.0362016	0.0347	AVRG		6.2330
96)B Methacrylonitrile	0.1390662	0.1322547 0.1243633	0.1231819	0.1389465	0.1368367	0.1375294	0.1332	AVRG		5.1183
97)B Tetrahydrofuran	0.0756568	0.0752463 0.0677925	0.0706133	0.0751958	0.0749912	0.0750971	0.0735	AVRG		4.1654
98)B Isobutyl alcohol	0.0108529	0.0091276 0.0089532	0.0080827	0.0096923	0.0095609	0.0099136	0.0095	AVRG	#	9.1336
99)B Methyl tert-amyl ether	0.6618921	0.6223530 0.6872022	0.5817259	0.6074483	0.6202135	0.5992109	0.6257	AVRG		5.8728
100)B Methyl methacrylate	0.1563346	0.1333805 0.1427461	0.1253282	0.1490333	0.1503818	0.1513841	0.1441	AVRG		7.6851
101)B 1,4-Dioxane	0.0032585	0.0028392 0.0028687	0.0029697	0.0031861	0.0031487	0.0031801	0.0031	AVRG	#	5.5087
102)B 2-Nitropropane -0.0069 | 0.0652 | 0.00	309988	3847 607260	6920	21607	47943	108855		LINR		0.9989
104)B Ethyl methacrylate	0.3689686	0.2946797 0.3358201	0.2932699	0.3534190	0.3617355	0.3690872	0.3396	AVRG		9.7609
106)B 1-Chlorohexane	0.4681816	0.4130883 0.4784814	0.4136660	0.4742347	0.4785112	0.4453676	0.4531	AVRG		6.4850
107)B cis-1,4-Dichloro-2-buten	0.1861930	0.1509128 0.1732163	0.1467436	0.1638729	0.1731162	0.1801043	0.1677	AVRG		8.7458
108)B Cyclohexanone		0.0187731	0.0165114	0.0196026	0.0193252	0.0220481	0.0193	AVRG		10.2864
109)B trans-1,4-Dichloro-2-but	0.1812394	0.1519917 0.1661826	0.1386168	0.1673497	0.1662643	0.1735759	0.1636	AVRG		8.6349
110)B Pentachloroethane -0.0301 | 0.2226 | 0.00	415588	5968	11742	24680	71270	130274		LINR		0.9942
111)B Benzyl chloride -0.0257 | 0.8064 | 0.00	1588109	20461 3095519	40373	116221	266770	576558		LINR		0.9988

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
12)B bis(2-Chloroisopropy1)et		0.3201400	0.3187359	0.3223401	0.3177936	0.3358707				
	0.3429568	0.3045391					0.3232	AVRG		3.9104

#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-2305

Instrument ID: VOA3.I **Injection Dat** 26-FEB-10 15:19

Data File: 022610V3\3A513.D **Init. Cal. Date(s)** 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100226-10 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.3066	0.3003		.01		-2.05479	30		Averaged	
S	Toluene-d8	1.3456	1.32808		.01		-1.30202	30		Averaged	
S	Bromofluorobenzene	1.0082	0.98895		.01		-1.90934	30		Averaged	
	Dichlorodifluoromethane	50	54.65	50			9.3	30		Linear	
	Chloromethane	0.2352	0.22356		.1		-4.94898	30		Averaged	spcc
	Vinyl chloride	0.2397	0.25527		.01		6.49562	20		Averaged	ccc
	Bromomethane	0.1935	0.20362		.01		5.22997	30		Averaged	
	Chloroethane	0.1549	0.1638		.01		5.74564	30		Averaged	
	Trichlorofluoromethane	0.3298	0.35359		.01		7.21346	30		Averaged	
	Ethyl ether	0.1705	0.17805		.01		4.42815	30		Averaged	
	Acetone	0.2108	0.15587		.01		-26.05787	40		Averaged	
	1,1-Dichloroethylene	0.339	0.33566		.01		-0.98525	20		Averaged	ccc
	Iodomethane	0.4286	0.405		.01		-5.5063	30		Averaged	
	Carbon disulfide	0.7478	0.73439		.01		-1.79326	30		Averaged	
	Acetonitrile	0.0365	0.03221		.01		-11.75342	30		Averaged	
	Methyl acetate	0.1881	0.16656		.01		-11.45136	40		Averaged	
	Methylene chloride	0.3046	0.26555		.01		-12.82009	30		Averaged	
	tert-Butyl methyl ether	0.6625	0.62916		.01		-5.03245	30		Averaged	
	trans-1,2-Dichloroethylene	0.314	0.30972		.01		-1.36306	30		Averaged	
	Vinyl acetate	0.3778	0.41502		.01		9.85177	40		Averaged	
	1,1-Dichloroethane	0.3946	0.38617		.1		-2.13634	30		Averaged	spcc
	2-Butanone	0.2099	0.1738		.01		-17.19867	40		Averaged	
	cis-1,2-Dichloroethylene	0.3474	0.34931		.01		0.5498	30		Averaged	
	2,2-Dichloropropane	0.2436	0.25483		.01		4.61002	30		Averaged	
	Bromochloromethane	0.1279	0.12754		.01		-0.28147	30		Averaged	
	Chloroform	0.4027	0.40211		.01		-0.14651	20		Averaged	ccc
	1,1,1-Trichloroethane	0.327	0.34021		.01		4.03976	30		Averaged	
	Cyclohexane	0.3661	0.3763		.01		2.78612	30		Averaged	
	1,1-Dichloropropene	0.2778	0.28616		.01		3.00936	30		Averaged	
	Carbon tetrachloride	0.286	0.31003		.01		8.4021	30		Averaged	
	1,2-Dichloroethane	0.3149	0.30336		.01		-3.66466	30		Averaged	
	Benzene	0.8815	0.86018		.01		-2.4186	30		Averaged	
	Cyclohexene	0.4035	0.39817		.01		-1.32094	30		Averaged	
	n-Butyl alcohol	5000	4762.41	5000			-4.7518	40		Linear	
	Trichloroethylene	0.2276	0.22899		.01		0.61072	30		Averaged	
	1,2-Dichloropropane	0.2153	0.2176		.01		1.06828	20		Averaged	ccc
	Methylcyclohexane	0.3768	0.38727		.01		2.77866	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Date** 26-FEB-10 15:19

Data File: 022610V3\3A513.D **Init. Cal. Date(s)** 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100226-10 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1445	0.14557		.01		0.74048	30		Averaged	
Bromodichloromethane	0.2749	0.30159		.01		9.70899	30		Averaged	
2-Chloroethylvinyl ether	250	250.97	250			0.388	30		Linear	
cis-1,3-Dichloropropylene	0.3124	0.33552		.01		7.40077	30		Averaged	
4-Methyl-2-pentanone	0.1208	0.11733		.01		-2.87252	40		Averaged	
Toluene	1.1971	1.13336		.01		-5.32453	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3639	0.39665		.01		8.99973	30		Averaged	
1,1,2-Trichloroethane	0.2068	0.20353		.01		-1.58124	30		Averaged	
1,3-Dichloropropane	0.4295	0.41333		.01		-3.76484	30		Averaged	
2-Hexanone	0.3084	0.26421		.01		-14.32879	40		Averaged	
Tetrachloroethylene	0.2332	0.22732		.01		-2.52144	30		Averaged	
Dibromochloromethane	0.2736	0.30228		.01		10.48246	30		Averaged	
1,2-Dibromoethane	0.266	0.26681		.01		0.30451	30		Averaged	
Chlorobenzene	0.7858	0.77084		.3		-1.90379	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.2702	0.28898		.01		6.95041	30		Averaged	
Ethylbenzene	1.237	1.21385		.01		-1.87146	20		Averaged	ccc
m,p-Xylenes	0.4916	0.49098		.01		-0.12612	30		Averaged	
o-Xylene	0.4911	0.51577		.01		5.02342	30		Averaged	
Styrene	0.7841	0.86736		.01		10.61854	30		Averaged	
Bromoform	50	46.48	50			-7.04	30		Linear	spcc
Isopropylbenzene	2.4779	2.50374		.01		1.04282	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6699	0.64527		.3		-3.67667	30		Averaged	spcc
1,2,3-Trichloropropane	0.1842	0.18044		.01		-2.04126	30		Averaged	
Bromobenzene	0.6651	0.65372		.01		-1.71102	30		Averaged	
n-Propylbenzene	2.8647	2.836		.01		-1.00185	30		Averaged	
2-Chlorotoluene	0.6176	0.6121		.01		-0.89054	30		Averaged	
1,3,5-Trimethylbenzene	2.079	2.11644		.01		1.80087	30		Averaged	
4-Chlorotoluene	1.7773	1.77993		.01		0.14798	30		Averaged	
tert-Butylbenzene	0.4447	0.4734		.01		6.45379	30		Averaged	
1,2,4-Trimethylbenzene	2.1081	2.12508		.01		0.80546	30		Averaged	
sec-Butylbenzene	2.7845	2.84065		.01		2.01652	30		Averaged	
4-Isopropyltoluene	2.2105	2.33061		.01		5.43361	30		Averaged	
1,3-Dichlorobenzene	1.1363	1.12222		.01		-1.23911	30		Averaged	
1,4-Dichlorobenzene	1.3023	1.27042		.01		-2.44798	30		Averaged	
n-Butylbenzene	2.102	2.16723		.01		3.10324	30		Averaged	
1,2-Dichlorobenzene	1.2927	1.25397		.01		-2.99605	30		Averaged	
1,2-Dibromo-3-chloropropane	50	46.4	50			-7.2	30		Linear	

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Dat** 26-FEB-10 15:19

Data File: 022610V3\3A513.D **Init. Cal. Date(s)** 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100226-10 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8694	0.86027		.01		-1.05015	30		Averaged
Hexachlorobutadiene	0.4354	0.44974		.01		3.29352	30		Averaged
Naphthalene	2.2358	2.24989		.01		0.6302	30		Averaged
1,2,3-Trichlorobenzene	0.849	0.81257		.01		-4.29093	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A513.D
Acq On : 26 Feb 2010 3:19 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-10|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[A]ULT 0220-01B+0224-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 01 10:53:10 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	936508	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	752375	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	394353	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	936346	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	752423	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	402226	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	281232	48.97	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	999214	49.35	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	389997	49.05	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	142729	54.65	ug/L	99
3) Chloromethane	5.216	5.216	0.426	50	209362	47.52	ug/L	100
4) Vinyl chloride	5.528	5.528	0.452	62	239062	53.24	ug/L	99
5) Bromomethane	6.291	6.291	0.514	94	190692	52.63	ug/L	99
6) Chloroethane	6.493	6.493	0.531	64	153397	52.88	ug/L	100
7) Trichlorofluoromethane	7.062	7.062	0.577	101	331143	53.60	ug/L	99
8) Ethyl ether	7.501	7.512	0.613	59	166741	52.21	ug/L	98
9) Acetone	7.987	7.987	0.653	43	729886	184.87	ug/L	100
10) 1,1-Dichloroethylene	7.987	7.987	0.653	61	314346	49.51	ug/L	100
11) Iodomethane	8.272	8.271	0.676	142	1896419	236.21	ug/L	100
12) Acetonitrile	8.450	8.449	0.691	41	754198	1102.74	ug/L	99
13) Methyl acetate	8.521	8.520	0.697	43	779924	221.35	ug/L	99
14) Carbon disulfide	8.438	8.449	0.690	76	3438823	245.51	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	248687	43.59	ug/L	100
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	589212	47.48	ug/L	100
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753	61	290052	49.32	ug/L	100
18) Vinyl acetate	9.837	9.837	0.804	43	1943338	274.65	ug/L	100
19) 1,1-Dichloroethane	9.861	9.860	0.806	63	361653	48.94	ug/L	100
20) 2-Butanone	10.643	10.643	0.870	43	813812	206.96	ug/L	100
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	327129	50.28	ug/L	100
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	238652	52.30	ug/L	99
23) Bromochloromethane	11.035	11.034	0.902	128	119446	49.87	ug/L	98
24) Chloroform	11.094	11.094	0.907	83	376583	49.93	ug/L	100
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	318612	52.02	ug/L	99
26) Cyclohexane	11.533	11.532	0.943	56	352411	51.40	ug/L	100
27) 1,1-Dichloropropene	11.628	11.627	0.951	75	267994	51.50	ug/L	100
28) Carbon tetrachloride	11.663	11.663	0.953	117	290345	54.21	ug/L	100
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	284097	48.16	ug/L	99
31) Benzene	11.912	11.912	0.974	78	805562	48.79	ug/L	100
32) Cyclohexene	12.054	12.054	0.985	67	372888	49.34	ug/L	100
33) n-Butyl alcohol	12.398	12.398	1.014	56	828859	4762.41	ug/L	100
34) Trichloroethylene	12.695	12.695	1.038	95	214451	50.30	ug/L	100
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	203783	50.54	ug/L	99
36) Methylcyclohexane	12.991	12.991	1.062	83	362681	51.39	ug/L	100
37) Dibromomethane	13.134	13.133	1.074	93	136326	50.38	ug/L	99
38) Bromodichloromethane	13.288	13.288	1.086	83	282443	54.86	ug/L	100
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	329400	250.97	ug/L	99
40) cis-1,3-Dichloropropylene	13.810	13.809	1.129	75	314220	53.70	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A513.D
Acq On : 26 Feb 2010 3:19 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-10|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[A]ULT 0220-01B+0224-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 01 10:53:10 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	441398	242.82	ug/L	100
44) Toluene	14.248	14.248	0.899	91	852708	47.34	ug/L	100
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	298433	54.51	ug/L	99
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	153130	49.20	ug/L	100
47) 2-Hexanone	14.889	14.888	0.939	43	993918	214.17	ug/L	99
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	310982	48.12	ug/L	95
49) Tetrachloroethylene	14.912	14.912	0.941	164	171028	48.74	ug/L	99
50) Dibromochloromethane	15.173	15.173	0.957	129	227430	55.25	ug/L	100
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	200741	50.16	ug/L	99
52) Chlorobenzene	15.885	15.885	1.002	112	579962	49.05	ug/L	99
53) 1,1,1,2-Tetrachloroethane	15.956	15.956	1.007	131	217421	53.48	ug/L	99
54) Ethylbenzene	15.968	15.968	1.007	91	913268	49.06	ug/L	100
55) m,p-Xylenes	16.086	16.086	1.015	106	738806	99.88	ug/L	99
56) o-Xylene	16.549	16.549	1.044	106	388050	52.51	ug/L	99
57) Styrene	16.549	16.549	1.044	104	652578	55.31	ug/L	99
59) Bromoform	16.810	16.821	0.913	173	140794	46.48	ug/L	99
60) Isopropylbenzene	16.928	16.928	0.919	105	987356	50.52	ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	254466	48.16	ug/L	100
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	71156	48.99	ug/L	95
64) Bromobenzene	17.343	17.343	0.942	156	257796	49.14	ug/L	99
65) n-Propylbenzene	17.367	17.367	0.943	91	1118385	49.50	ug/L	99
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	834626	50.90	ug/L	100
67) 2-Chlorotoluene	17.521	17.521	0.952	126	241382	49.56	ug/L	98
68) 4-Chlorotoluene	17.628	17.628	0.957	91	701921	50.07	ug/L	100
69) tert-Butylbenzene	17.913	17.912	0.973	134	186686	53.23	ug/L	99
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	838030	50.40	ug/L	99
71) sec-Butylbenzene	18.150	18.150	0.986	105	1120217	51.01	ug/L	100
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	919082	52.72	ug/L	100
73) 1,3-Dichlorobenzene	18.351	18.351	0.997	146	442549	49.38	ug/L	100
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	500995	48.78	ug/L	100
75) n-Butylbenzene	18.743	18.742	1.018	91	854654	51.55	ug/L	99
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	494507	48.50	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	58785	46.40	ug/L	97
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	339251	49.48	ug/L	99
79) Hexachlorobutadiene	21.126	21.126	1.148	225	177358	51.64	ug/L	100
80) Naphthalene	21.352	21.351	1.160	128	887252	50.32	ug/L	100
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	320439	47.85	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88) Allyl chloride	8.450	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.173	9.090	0.750		0m	N.D.	d	
91) Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.643	10.679	0.870		0m	N.D.	d	
95) Propionitrile	10.643	10.726	0.870		0m	N.D.	d	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.		
97) Tetrahydrofuran	11.106	11.094	0.908		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A513.D
Acq On : 26 Feb 2010 3:19 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-10|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[A]ULT 0220-01B+0224-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 01 10:53:10 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	11.533	11.556	0.943		0m	N.D.	d
99)	Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100)	Methyl methacrylate	12.991	12.991	1.062		0m	N.D.	d
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106)	1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108)	Cyclohexanone	16.928	17.082	0.919		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110)	Pentachloroethane	17.984	17.983	0.977		0m	N.D.	d
111)	Benzyl chloride	18.399	18.553	0.999		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A513.D
Acq On : 26 Feb 2010 3:19 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-10|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[A]ULT 0220-01B+0224-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 01 10:53:10 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

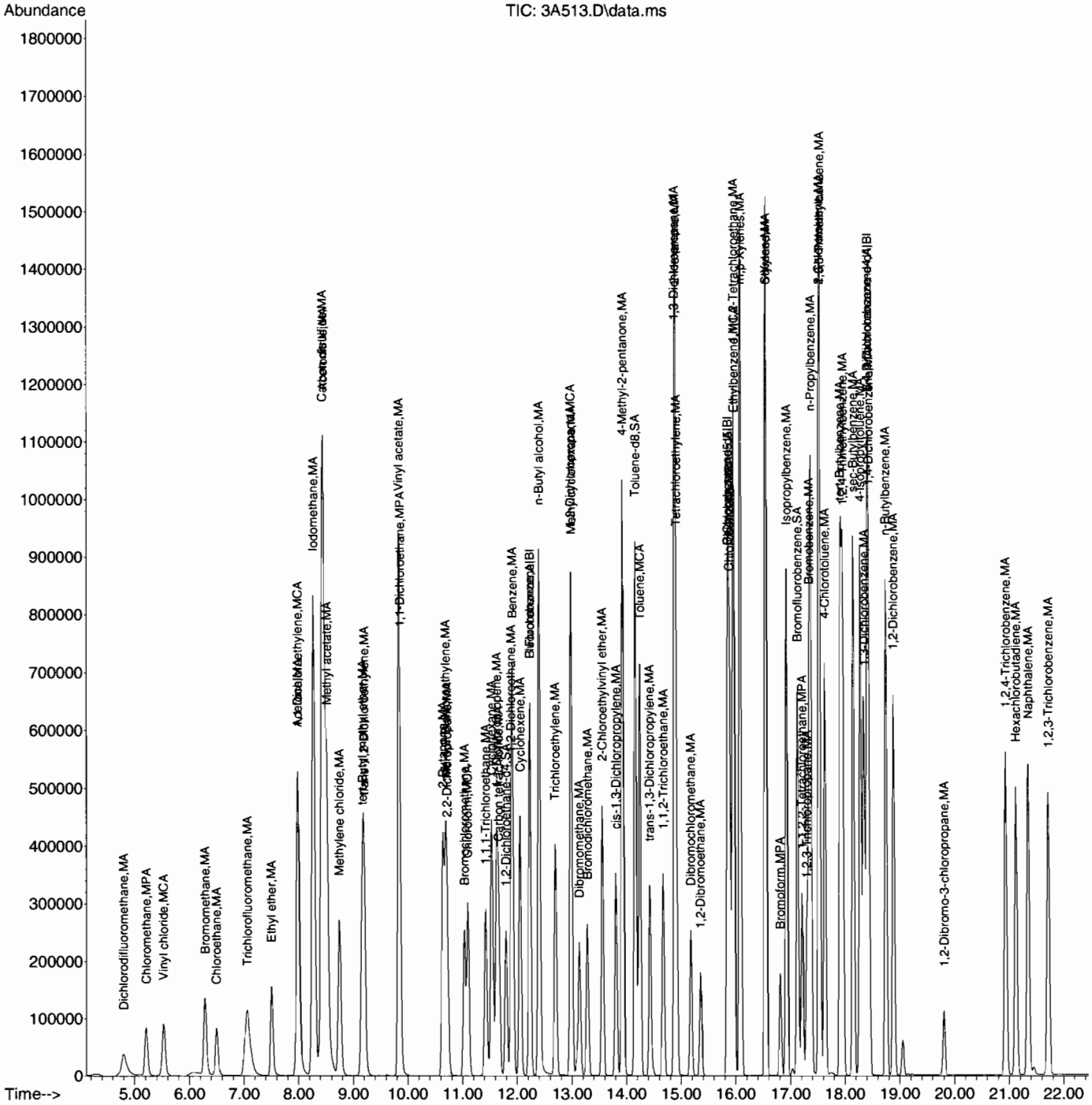

Continuing Calibration Summary

Client SDG: 10-2305

Instrument ID: VOA3.I **Injection Date** 26-FEB-10 20:12

Data File: 022610V3\3A523.D **Init. Cal. Date(s)** 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100226-18 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.3066	0.29676		.01		-3.20939	30		Averaged
S	Toluene-d8	1.3456	1.38683		.01		3.06406	30		Averaged
S	Bromofluorobenzene	1.0082	1.01858		.01		1.02956	30		Averaged
	Chlorotrifluoroethylene	0.139	0.1017		.01		-26.83453	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.2812	0.26227		.01		-6.73186	30		Averaged
	Acrolein	250	371.65	250			48.66	30	*	Linear
	Trichlorotrifluoroethane	0.0827	0.08123		.01		-1.77751	30		Averaged
	Isopropyl Alcohol	0.0187	0.01839		.01		-1.65775	40		Averaged
	Allyl chloride	0.2962	0.29625		.01		0.01688	30		Averaged
	tert-Butyl Alcohol	0.0314	0.02994		.01		-4.64968	40		Averaged
	Acrylonitrile	0.0885	0.08974		.01		1.40113	30		Averaged
	Isopropyl ether	0.7095	0.67398		.01		-5.00634	30		Averaged
	2-Chloro-1,3-butadiene	0.2574	0.29403		.01		14.23077	30		Averaged
	Ethyl tert-butyl ether	0.6775	0.64733		.01		-4.45314	30		Averaged
	Ethyl acetate	0.2185	0.20232		.01		-7.40503	40		Averaged
	Propionitrile	0.0347	0.03535		.01		1.8732	30		Averaged
	Methacrylonitrile	0.1332	0.13306		.01		-0.10511	30		Averaged
	Tetrahydrofuran	0.0735	0.07446		.01		1.30612	30		Averaged
	Isobutyl alcohol	0.0095	0.00964		.01		1.47368	40		Averaged
	Methyl tert-amyl ether	0.6257	0.59791		.01		-4.44143	30		Averaged
	Methyl methacrylate	0.1441	0.15252		.01		5.84316	30		Averaged
	1,4-Dioxane	0.0031	0.00297		.01		-4.19355	40		Averaged
	2-Nitropropane	250	261.34	250			4.536	30		Linear
	Ethyl methacrylate	0.3396	0.37143		.01		9.37279	30		Averaged
	1-Chlorohexane	0.4531	0.43436		.01		-4.13595	30		Averaged
	cis-1,4-Dichloro-2-butene	0.1677	0.19341		.01		15.33095	30		Averaged
	Cyclohexanone	0.0193	0.04804		.01		148.91192	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.1636	0.18335		.01		12.07213	30		Averaged
	Pentachloroethane	250	256.05	250			2.42	30		Linear
	Benzyl chloride	250	251.22	250			0.488	30		Linear
	bis(2-Chloroisopropyl)ether	0.3232	0.31962		.01		-1.10767	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A523.D
Acq On : 26 Feb 2010 8:12 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-18|ICV|1|VOA|1|
Misc : GEL 5mL - MIX[B] 215-08A+125-08D
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 01 09:53:34 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	950148	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	727148	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	372193	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	949803	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	727332	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	379636	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	281968	48.39	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	1008431	51.53	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	379109	50.52	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	5.736	5.528	0.469		0m	N.D.	d	
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.987	7.987	0.653		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.975	7.987	0.652		0m	N.D.	d	
11) Iodomethane	8.260	8.271	0.675		0m	N.D.	d	
12) Acetonitrile	8.556	8.449	0.699		0m	N.D.	d	
13) Methyl acetate	8.532	8.520	0.698		0m	N.D.	d	
14) Carbon disulfide	8.556	8.449	0.699		0m	N.D.	d	
15) Methylene chloride	8.746	8.746	0.715		0m	N.D.	d	
16) tert-Butyl methyl ether	9.173	9.173	0.750		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	9.884	9.837	0.808		0m	N.D.	d	
19) 1,1-Dichloroethane	10.003	9.860	0.818		0m	N.D.	d	
20) 2-Butanone	10.679	10.643	0.873		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.679	10.691	0.873		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	11.556	11.532	0.945		0m	N.D.	d	
27) 1,1-Dichloropropene	11.556	11.627	0.945		0m	N.D.	d	
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	11.912	11.912	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	12.706	12.695	1.039		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	12.991	12.991	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A523.D
Acq On : 26 Feb 2010 8:12 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-18|ICV|1|VOA|1|
Misc : GEL 5mL - MIX[B] 215-08A+125-08D
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 01 09:53:34 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.			
44) Toluene	14.248	14.248	0.899		0m	N.D.	d		
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.			
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.			
47) 2-Hexanone	14.888	14.888	0.939		0m	N.D.	d		
48) 1,3-Dichloropropane	14.924	14.888	0.942		0m	N.D.	d		
49) Tetrachloroethylene	14.912	14.912	0.941		0m	N.D.	d		
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.			
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.			
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.			
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.			
54) Ethylbenzene	15.968	15.968	1.007		0m	N.D.	d		
55) m,p-Xylenes	0.000	16.086	0.000		0	N.D.			
56) o-Xylene	0.000	16.549	0.000		0	N.D.			
57) Styrene	16.549	16.549	1.044		0m	N.D.	d		
59) Bromoform	0.000	16.821	0.000		0	N.D.			
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.			
62) 1,1,2,2-Tetrachloroethane	17.260	17.213	0.938		0m	N.D.	d		
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.			
64) Bromobenzene	0.000	17.343	0.000		0	N.D.			
65) n-Propylbenzene	17.367	17.367	0.943		0m	N.D.	d		
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952		0m	N.D.	d		
67) 2-Chlorotoluene	17.521	17.521	0.952		0m	N.D.	d		
68) 4-Chlorotoluene	17.628	17.628	0.957		0m	N.D.	d		
69) tert-Butylbenzene	17.983	17.912	0.977		0m	N.D.	d		
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976		0m	N.D.	d		
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.			
72) 4-Isopropyltoluene	18.280	18.280	0.993		0m	N.D.	d		
73) 1,3-Dichlorobenzene	18.339	18.351	0.996		0m	N.D.	d		
74) 1,4-Dichlorobenzene	18.434	18.434	1.001		0m	N.D.	d		
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.			
76) 1,2-Dichlorobenzene	18.885	18.885	1.026		0m	N.D.	d		
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.			
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137		0m	N.D.	d		
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.			
80) Naphthalene	21.351	21.351	1.160		0m	N.D.	d		
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.			
83) Chlorotrifluoroethylene	4.711	4.711	0.385	116	289790	109.76	ug/L	100	
84) 2-Chloro-1,1,1-trifluo...	5.751	5.751	0.470	118	747303	139.90	ug/L	100	
85) Acrolein	7.750	7.750	0.634	56	185578	371.65	ug/L	99	E
86) Trichlorotrifluoroethane	7.975	7.975	0.652	85	385754	245.55	ug/L	99	
87) Isopropyl Alcohol	8.141	8.141	0.666	45	873506	2452.46	ug/L	99	
88) Allyl chloride	8.556	8.556	0.699	41	1406915	250.02	ug/L	100	
89) tert-Butyl Alcohol	8.793	8.793	0.719	59	1422034	2386.59	ug/L	99	
90) Acrylonitrile	9.090	9.090	0.743	53	426191	253.41	ug/L	100	
91) Isopropyl ether	9.884	9.884	0.808	45	640147	47.50	ug/L	99	
92) 2-Chloro-1,3-butadiene	10.003	10.003	0.818	53	279268	57.11	ug/L	100	
93) Ethyl tert-butyl ether	10.406	10.406	0.851	59	614840	47.78	ug/L	100	
94) Ethyl acetate	10.679	10.679	0.873	43	960817	231.51	ug/L	100	
95) Propionitrile	10.726	10.726	0.877	54	167873	254.56	ug/L	99	
96) Methacrylonitrile	10.951	10.951	0.895	41	631884	249.79	ug/L	99	
97) Tetrahydrofuran	11.094	11.094	0.907	42	353594	253.21	ug/L	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A523.D
Acq On : 26 Feb 2010 8:12 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-18|ICV|1|VOA|1|
Misc : GEL 5mL - MIX[B] 215-08A+125-08D
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 01 09:53:34 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
98)	Isobutyl alcohol	11.556	11.556	0.945	41	457824	2549.09	ug/L	99	
99)	Methyl tert-amyl ether	11.971	11.971	0.979	73	567900	47.78	ug/L	99	
100)	Methyl methacrylate	12.991	12.991	1.062	69	724331	264.64	ug/L	100	
101)	1,4-Dioxane	13.098	13.098	1.071	88	141128	2424.39	ug/L	100	
102)	2-Nitropropane	13.525	13.525	1.106	43	317134	261.34	ug/L	100	
104)	Ethyl methacrylate	14.450	14.450	0.912	69	1350775	273.46	ug/L	100	
106)	1-Chlorohexane	15.754	15.754	0.856	55	164899	47.93	ug/L	100	
107)	cis-1,4-Dichloro-2-butene	16.964	16.964	0.921	53	367128	288.26	ug/L	99	
108)	Cyclohexanone	17.082	17.082	0.928	42	455921	3119.00	ug/L	99	E
109)	trans-1,4-Dichloro-2-b...	17.260	17.260	0.938	53	348032	280.18	ug/L	100	
110)	Pentachloroethane	17.983	17.983	0.977	167	421398	256.05	ug/L	100	E
111)	Benzyl chloride	18.553	18.553	1.008	91	1528395	251.22	ug/L	100	
112)	bis(2-Chloroisopropyl)...	18.980	18.980	1.031	45	606689	247.23	ug/L	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A523.D
Acq On : 26 Feb 2010 8:12 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-18|ICV|1|VOA|1|
Misc : GEL 5mL - MIX[B] 215-08A+125-08D
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 01 09:53:34 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

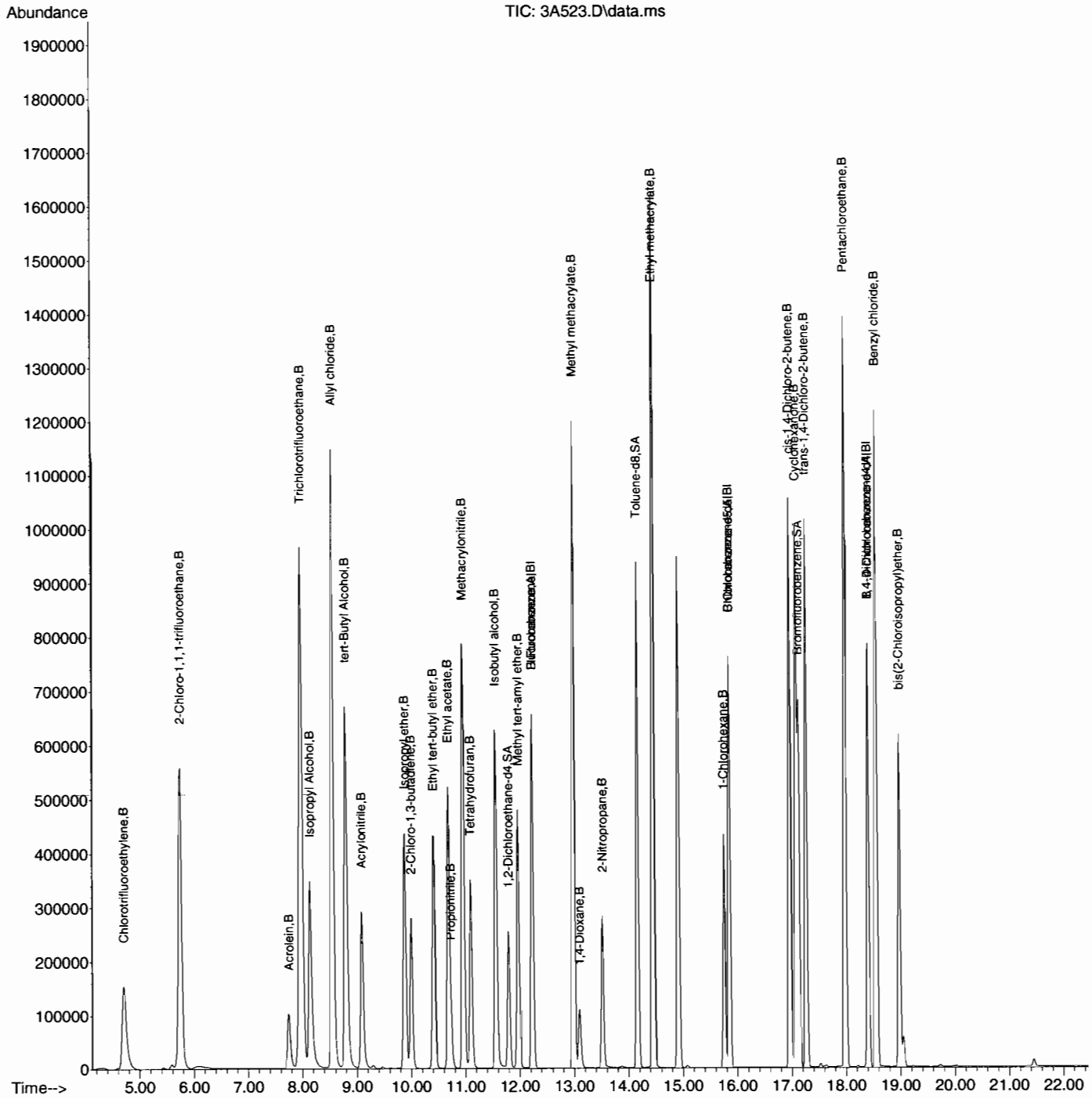

Continuing Calibration Summary

Client SDG: 10-2305

Instrument ID: VOA3.I **Injection Date** 15-MAR-10 12:01

Data File: 031510V3\3D102.D **Init. Cal. Date(s)** 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100315-01 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.3066	0.31311		.01		2.12329	30		Averaged	
S	Toluene-d8	1.3456	1.3673		.01		1.61266	30		Averaged	
S	Bromofluorobenzene	1.0082	0.98008		.01		-2.78913	30		Averaged	
	Dichlorodifluoromethane	50	53.66	50			7.32	30		Linear	
	Chloromethane	0.2352	0.25864		.1		9.96599	30		Averaged	spcc
	Vinyl chloride	0.2397	0.26345		.01		9.90822	20		Averaged	ccc
	Bromomethane	0.1935	0.22248		.01		14.97674	30		Averaged	
	Chloroethane	0.1549	0.17801		.01		14.9193	30		Averaged	
	Trichlorofluoromethane	0.3298	0.35552		.01		7.79867	30		Averaged	
	Ethyl ether	0.1705	0.19854		.01		16.44575	30		Averaged	
	Acetone	0.2108	0.18873		.01		-10.46964	40		Averaged	
	1,1-Dichloroethylene	0.339	0.27472		.01		-18.96165	20		Averaged	ccc
	Iodomethane	0.4286	0.34916		.01		-18.53476	30		Averaged	
	Carbon disulfide	0.7478	0.5741		.01		-23.22814	30		Averaged	
	Acetonitrile	0.0365	0.03171		.01		-13.12329	30		Averaged	
	Methyl acetate	0.1881	0.17678		.01		-6.01808	40		Averaged	
	Methylene chloride	0.3046	0.2386		.01		-21.66776	30		Averaged	
	tert-Butyl methyl ether	0.6625	0.574		.01		-13.35849	30		Averaged	
	trans-1,2-Dichloroethylene	0.314	0.26297		.01		-16.25159	30		Averaged	
	Vinyl acetate	0.3778	0.45367		.01		20.08205	40		Averaged	
	1,1-Dichloroethane	0.3946	0.34485		.1		-12.6077	30		Averaged	spcc
	2-Butanone	0.2099	0.21717		.01		3.46355	40		Averaged	
	cis-1,2-Dichloroethylene	0.3474	0.31135		.01		-10.37709	30		Averaged	
	2,2-Dichloropropane	0.2436	0.22463		.01		-7.78736	30		Averaged	
	Bromochloromethane	0.1279	0.12214		.01		-4.50352	30		Averaged	
	Chloroform	0.4027	0.3595		.01		-10.72759	20		Averaged	ccc
	1,1,1-Trichloroethane	0.327	0.27557		.01		-15.72783	30		Averaged	
	Cyclohexane	0.3661	0.28504		.01		-22.14149	30		Averaged	
	1,1-Dichloropropene	0.2778	0.23489		.01		-15.44636	30		Averaged	
	Carbon tetrachloride	0.286	0.2525		.01		-11.71329	30		Averaged	
	1,2-Dichloroethane	0.3149	0.28124		.01		-10.68911	30		Averaged	
	Benzene	0.8815	0.76649		.01		-13.04708	30		Averaged	
	Cyclohexene	0.4035	0.33596		.01		-16.73854	30		Averaged	
	n-Butyl alcohol	5000	4604.17	5000			-7.9166	40		Linear	
	Trichloroethylene	0.2276	0.19647		.01		-13.6775	30		Averaged	
	1,2-Dichloropropane	0.2153	0.20789		.01		-3.44171	20		Averaged	ccc
	Methylcyclohexane	0.3768	0.30822		.01		-18.20064	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Date** 15-MAR-10 12:01

Data File: 031510V3\3D102.D **Init. Cal. Date(s)** 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100315-01 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1445	0.14231		.01		-1.51557	30		Averaged	
Bromodichloromethane	0.2749	0.27974		.01		1.76064	30		Averaged	
2-Chloroethylvinyl ether	250	242.3	250			-3.08	30		Linear	
cis-1,3-Dichloropropylene	0.3124	0.3109		.01		-0.48015	30		Averaged	
4-Methyl-2-pentanone	0.1208	0.12975		.01		7.40894	40		Averaged	
Toluene	1.1971	1.0633		.01		-11.17701	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3639	0.38929		.01		6.97719	30		Averaged	
1,1,2-Trichloroethane	0.2068	0.20965		.01		1.37814	30		Averaged	
1,3-Dichloropropane	0.4295	0.41905		.01		-2.43306	30		Averaged	
2-Hexanone	0.3084	0.35012		.01		13.52789	40		Averaged	
Tetrachloroethylene	0.2332	0.20454		.01		-12.28988	30		Averaged	
Dibromochloromethane	0.2736	0.30198		.01		10.37281	30		Averaged	
1,2-Dibromoethane	0.266	0.26112		.01		-1.83459	30		Averaged	
Chlorobenzene	0.7858	0.70056		.3		-10.84754	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.2702	0.28011		.01		3.66765	30		Averaged	
Ethylbenzene	1.237	1.1044		.01		-10.71948	20		Averaged	ccc
m,p-Xylenes	0.4916	0.45166		.01		-8.12449	30		Averaged	
o-Xylene	0.4911	0.48085		.01		-2.08715	30		Averaged	
Styrene	0.7841	0.80025		.01		2.05969	30		Averaged	
Bromoform	50	46.28	50			-7.44	30		Linear	spcc
Isopropylbenzene	2.4779	2.1856		.01		-11.79628	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6699	0.67036		.3		0.06867	30		Averaged	spcc
1,2,3-Trichloropropane	0.1842	0.17505		.01		-4.96743	30		Averaged	
Bromobenzene	0.6651	0.63439		.01		-4.61735	30		Averaged	
n-Propylbenzene	2.8647	2.60512		.01		-9.06133	30		Averaged	
2-Chlorotoluene	0.6176	0.56583		.01		-8.38245	30		Averaged	
1,3,5-Trimethylbenzene	2.079	1.93176		.01		-7.08225	30		Averaged	
4-Chlorotoluene	1.7773	1.63582		.01		-7.96039	30		Averaged	
tert-Butylbenzene	0.4447	0.41794		.01		-6.01754	30		Averaged	
1,2,4-Trimethylbenzene	2.1081	1.95856		.01		-7.09359	30		Averaged	
sec-Butylbenzene	2.7845	2.52607		.01		-9.28102	30		Averaged	
4-Isopropyltoluene	2.2105	2.0605		.01		-6.7858	30		Averaged	
1,3-Dichlorobenzene	1.1363	1.04214		.01		-8.28654	30		Averaged	
1,4-Dichlorobenzene	1.3023	1.21872		.01		-6.41788	30		Averaged	
n-Butylbenzene	2.102	1.97355		.01		-6.11085	30		Averaged	
1,2-Dichlorobenzene	1.2927	1.19639		.01		-7.4503	30		Averaged	
1,2-Dibromo-3-chloropropane	50	41.62	50			-16.76	30		Linear	

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Date** 15-MAR-10 12:01

Data File: 031510V3\3D102.D **Init. Cal. Date(s)** 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100315-01 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8694	0.8239		.01		-5.23349	30		Averaged
Hexachlorobutadiene	0.4354	0.38389		.01		-11.8305	30		Averaged
Naphthalene	2.2358	2.0216		.01		-9.58046	30		Averaged
1,2,3-Trichlorobenzene	0.849	0.74274		.01		-12.5159	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D102.D
Acq On : 15 Mar 2010 12:01 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-01|CCV|1|VOA|1|
Misc : CCV 5ML - MIX[A] 222-07B+106-07D
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 12:47:03 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	784581	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	594921	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	322629	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	784353	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	594883	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	329307	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	245660	51.05	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	813436	50.81	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	316202	48.61	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	117420	53.66	ug/L	96
3) Chloromethane	5.216	5.216	0.426	50	202927	54.98	ug/L	99
4) Vinyl chloride	5.528	5.528	0.452	62	206701	54.95	ug/L	99
5) Bromomethane	6.279	6.291	0.513	94	174555	57.50	ug/L	99
6) Chloroethane	6.493	6.493	0.531	64	139662	57.47	ug/L	99
7) Trichlorofluoromethane	7.050	7.062	0.576	101	278933	53.89	ug/L	100
8) Ethyl ether	7.501	7.512	0.613	59	155770	58.22	ug/L	98
9) Acetone	7.975	7.987	0.652	43	740386	223.84	ug/L	99
10) 1,1-Dichloroethylene	7.975	7.987	0.652	61	215543	40.52	ug/L	100
11) Iodomethane	8.272	8.271	0.676	142	1369704	203.64	ug/L	99
12) Acetonitrile	8.449	8.449	0.691	41	621916	1085.41	ug/L	99
13) Methyl acetate	8.521	8.520	0.697	43	693497	234.93	ug/L	100
14) Carbon disulfide	8.438	8.449	0.690	76	2252151	191.93	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	187202	39.16	ug/L	98
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	450353	43.32	ug/L	100
17) trans-1,2-Dichloroethy...	9.197	9.208	0.752	61	206322	41.88	ug/L	99
18) Vinyl acetate	9.837	9.837	0.804	43	1779688	300.23	ug/L	99
19) 1,1-Dichloroethane	9.849	9.860	0.805	63	270565	43.70	ug/L	100
20) 2-Butanone	10.631	10.643	0.869	43	851946	258.62	ug/L	99
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	244282	44.82	ug/L	100
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	176240	46.10	ug/L	96
23) Bromochloromethane	11.035	11.034	0.902	128	95830	47.75	ug/L	98
24) Chloroform	11.094	11.094	0.907	83	282054	44.64	ug/L	100
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	216204	42.13	ug/L	99
26) Cyclohexane	11.533	11.532	0.943	56	223637	38.93	ug/L	99
27) 1,1-Dichloropropene	11.616	11.627	0.950	75	184293	42.27	ug/L	98
28) Carbon tetrachloride	11.663	11.663	0.953	117	198109	44.15	ug/L	100
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	220657	44.65	ug/L	99
31) Benzene	11.912	11.912	0.974	78	601370	43.47	ug/L	99
32) Cyclohexene	12.054	12.054	0.985	67	263588	41.63	ug/L	100
33) n-Butyl alcohol	12.398	12.398	1.014	56	670924	4604.17	ug/L	98
34) Trichloroethylene	12.695	12.695	1.038	95	154146	43.16	ug/L	98
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	163110	48.29	ug/L	99
36) Methylcyclohexane	12.979	12.991	1.061	83	241824	40.90	ug/L	99
37) Dibromomethane	13.134	13.133	1.074	93	111655	49.25	ug/L	99
38) Bromodichloromethane	13.276	13.288	1.085	83	219476	50.88	ug/L	99
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	266211	242.30	ug/L	98
40) cis-1,3-Dichloropropylene	13.809	13.809	1.129	75	243927	49.76	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D102.D
Acq On : 15 Mar 2010 12:01 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-01|CCV|1|VOA|1|
Misc : CCV 5ML - MIX[A] 222-07B+106-07D
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 12:47:03 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	385943	268.51	ug/L	96
44) Toluene	14.248	14.248	0.899	91	632578	44.41	ug/L	99
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	231596	53.49	ug/L	98
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	124727	50.68	ug/L	98
47) 2-Hexanone	14.889	14.888	0.939	43	1041467	283.80	ug/L	98
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	249304	48.78	ug/L	94
49) Tetrachloroethylene	14.912	14.912	0.941	164	121686	43.85	ug/L	98
50) Dibromochloromethane	15.173	15.173	0.957	129	179652	55.19	ug/L	99
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	155345	49.09	ug/L	100
52) Chlorobenzene	15.885	15.885	1.002	112	416779	44.58	ug/L	99
53) 1,1,1,2-Tetrachloroethane	15.944	15.956	1.006	131	166643	51.84	ug/L	99
54) Ethylbenzene	15.968	15.968	1.007	91	657033	44.64	ug/L	100
55) m,p-Xylenes	16.086	16.086	1.015	106	537405	91.88	ug/L	100
56) o-Xylene	16.537	16.549	1.043	106	286067	48.95	ug/L	98
57) Styrene	16.549	16.549	1.044	104	476086	51.03	ug/L	99
59) Bromoform	16.810	16.821	0.913	173	114683	46.28	ug/L	99
60) Isopropylbenzene	16.928	16.928	0.919	105	705139	44.10	ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	216276	50.04	ug/L	100
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	56477	47.52	ug/L	97
64) Bromobenzene	17.343	17.343	0.942	156	204673	47.69	ug/L	98
65) n-Propylbenzene	17.367	17.367	0.943	91	840487	45.47	ug/L	99
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	623241	46.46	ug/L	99
67) 2-Chlorotoluene	17.521	17.521	0.952	126	182552	45.81	ug/L	99
68) 4-Chlorotoluene	17.628	17.628	0.957	91	527763	46.02	ug/L	100
69) tert-Butylbenzene	17.913	17.912	0.973	134	134841	46.99	ug/L	98
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	631889	46.45	ug/L	99
71) sec-Butylbenzene	18.150	18.150	0.986	105	814985	45.36	ug/L	100
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	664776	46.61	ug/L	99
73) 1,3-Dichlorobenzene	18.339	18.351	0.996	146	336225	45.86	ug/L	99
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	393194	46.79	ug/L	99
75) n-Butylbenzene	18.743	18.742	1.018	91	636726	46.94	ug/L	100
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	385989	46.27	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	42965	41.62	ug/L	97
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	265814	47.39	ug/L	99
79) Hexachlorobutadiene	21.126	21.126	1.148	225	123855	44.08	ug/L	98
80) Naphthalene	21.351	21.351	1.160	128	652226	45.21	ug/L	100
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	239629	43.74	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88) Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.161	9.090	0.749		0m	N.D.	d	
91) Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.631	10.679	0.869		0m	N.D.	d	
95) Propionitrile	10.631	10.726	0.869		0m	N.D.	d	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.		
97) Tetrahydrofuran	11.094	11.094	0.907		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D102.D
Acq On : 15 Mar 2010 12:01 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-01|CCV|1|VOA|1|
Misc : CCV 5ML - MIX[A] 222-07B+106-07D
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 12:47:03 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	11.533	11.556	0.943		0m	N.D.	d
99)	Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100)	Methyl methacrylate	12.979	12.991	1.061		0m	N.D.	d
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104)	Ethyl methacrylate	14.450	14.450	0.912		0m	N.D.	d
106)	1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108)	Cyclohexanone	16.916	17.082	0.919		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110)	Pentachloroethane	17.984	17.983	0.977		0m	N.D.	d
111)	Benzyl chloride	18.553	18.553	1.008		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D102.D
Acq On : 15 Mar 2010 12:01 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-01|CCV|1|VOA|1|
Misc : CCV 5ML - MIX[A] 222-07B+106-07D
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 12:47:03 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

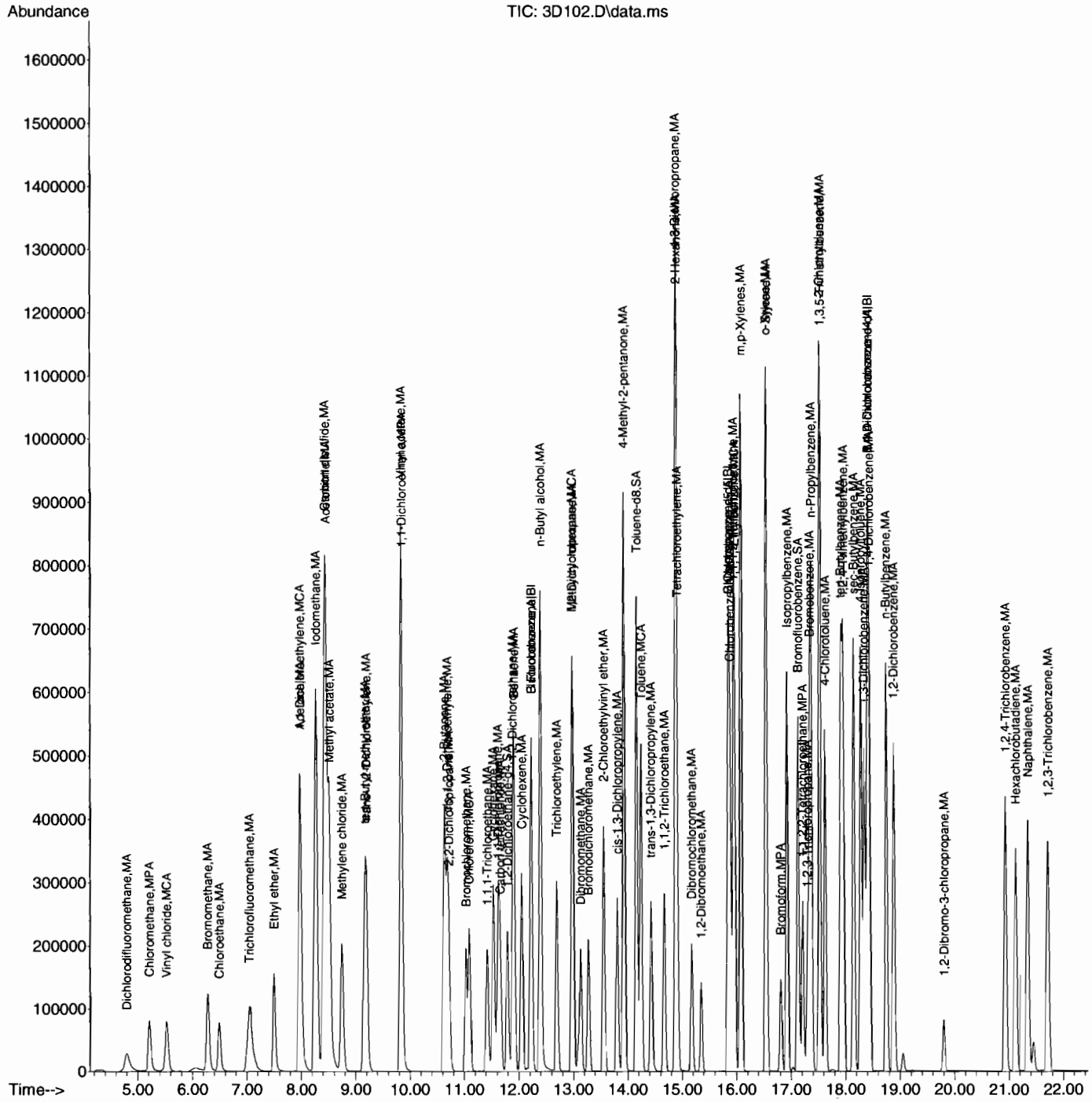

Continuing Calibration Summary

Client SDG: 10-2305

Instrument ID: VOA3.I **Injection Dat** 15-MAR-10 13:28

Data File: 031510V3\3D105.D **Init. Cal. Date(s)** 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100315-04 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.3066	0.32084		.01		4.64449	30		Averaged
S	Toluene-d8	1.3456	1.36977		.01		1.79622	30		Averaged
S	Bromofluorobenzene	1.0082	1.03822		.01		2.97758	30		Averaged
	Chlorotrifluoroethylene	0.139	0.09108		.01		-34.47482	30	*	Averaged
	2-Chloro-1,1,1-trifluoroethane	0.2812	0.2751		.01		-2.16927	30		Averaged
	Acrolein	250	359.44	250			43.776	30	*	Linear
	Trichlorotrifluoroethane	0.0827	0.07844		.01		-5.15115	30		Averaged
	Isopropyl Alcohol	0.0187	0.01943		.01		3.90374	40		Averaged
	Allyl chloride	0.2962	0.32442		.01		9.52735	30		Averaged
	tert-Butyl Alcohol	0.0314	0.032		.01		1.91083	40		Averaged
	Acrylonitrile	0.0885	0.09132		.01		3.18644	30		Averaged
	Isopropyl ether	0.7095	0.73692		.01		3.86469	30		Averaged
	2-Chloro-1,3-butadiene	0.2574	0.2843		.01		10.45066	30		Averaged
	Ethyl tert-butyl ether	0.6775	0.71812		.01		5.99557	30		Averaged
	Ethyl acetate	0.2185	0.22871		.01		4.67277	40		Averaged
	Propionitrile	0.0347	0.03594		.01		3.57349	30		Averaged
	Methacrylonitrile	0.1332	0.14154		.01		6.26126	30		Averaged
	Tetrahydrofuran	0.0735	0.07457		.01		1.45578	30		Averaged
	Isobutyl alcohol	0.0095	0.01055		.01		11.05263	40		Averaged
	Methyl tert-amyl ether	0.6257	0.66191		.01		5.78712	30		Averaged
	Methyl methacrylate	0.1441	0.16635		.01		15.44067	30		Averaged
	1,4-Dioxane	0.0031	0.0028		.01		-9.67742	40		Averaged
	2-Nitropropane	250	264.22	250			5.688	30		Linear
	Ethyl methacrylate	0.3396	0.39503		.01		16.32214	30		Averaged
	1-Chlorohexane	0.4531	0.46672		.01		3.00596	30		Averaged
	cis-1,4-Dichloro-2-butene	0.1677	0.2192		.01		30.7096	30	*	Averaged
	Cyclohexanone	0.0193	0.04101		.01		112.48705	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.1636	0.20769		.01		26.94988	30		Averaged
	Pentachloroethane	250	477.87	250			91.148	30	*	Linear
	Benzyl chloride	250	412.07	250			64.828	30	*	Linear
	bis(2-Chloroisopropyl)ether	0.3232	0.32921		.01		1.85953	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D105.D
Acq On : 15 Mar 2010 1:28 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-04|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5mL - MIX[B] UVM100215-06/UVM100226-02A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 13:51:30 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	778153	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	622042	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	292110	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	777926	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	622222	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	297882	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	249664	52.32	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	852057	50.90	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	303273	51.49	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	5.201	5.216	0.425		0m	N.D.	d	
4) Vinyl chloride	5.736	5.528	0.469		0m	N.D.	d	
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.987	7.987	0.653		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.963	7.987	0.651		0m	N.D.	d	
11) Iodomethane	8.271	8.271	0.676		0m	N.D.	d	
12) Acetonitrile	8.556	8.449	0.699		0m	N.D.	d	
13) Methyl acetate	8.532	8.520	0.698		0m	N.D.	d	
14) Carbon disulfide	8.556	8.449	0.699		0m	N.D.	d	
15) Methylene chloride	8.746	8.746	0.715		0m	N.D.	d	
16) tert-Butyl methyl ether	9.173	9.173	0.750		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	9.884	9.837	0.808		0m	N.D.	d	
19) 1,1-Dichloroethane	10.003	9.860	0.818		0m	N.D.	d	
20) 2-Butanone	10.679	10.643	0.873		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.679	10.691	0.873		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	11.556	11.532	0.945		0m	N.D.	d	
27) 1,1-Dichloropropene	11.568	11.627	0.946		0m	N.D.	d	
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	11.912	11.912	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	12.410	12.398	1.015		0m	N.D.	d	
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	12.991	12.991	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D105.D
Acq On : 15 Mar 2010 1:28 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-04|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5mL - MIX[B] UVM100215-06/UVM100226-02A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 13:51:30 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42)	4-Methyl-2-pentanone	13.928	13.928	0.879		0m	N.D.	d		
44)	Toluene	14.248	14.248	0.899		0m	N.D.	d		
45)	trans-1,3-Dichloroprop...	14.438	14.426	0.911		0m	N.D.	d		
46)	1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.			
47)	2-Hexanone	14.888	14.888	0.939		0m	N.D.	d		
48)	1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.			
49)	Tetrachloroethylene	14.912	14.912	0.941		0m	N.D.	d		
50)	Dibromochloromethane	0.000	15.173	0.000		0	N.D.			
51)	1,2-Dibromoethane	15.351	15.351	0.969		0m	N.D.	d		
52)	Chlorobenzene	15.885	15.885	1.002		0m	N.D.	d		
53)	1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.			
54)	Ethylbenzene	15.968	15.968	1.007		0m	N.D.	d		
55)	m,p-Xylenes	16.086	16.086	1.015		0m	N.D.	d		
56)	o-Xylene	16.549	16.549	1.044		0m	N.D.	d		
57)	Styrene	16.549	16.549	1.044		0m	N.D.	d		
59)	Bromoform	0.000	16.821	0.000		0	N.D.			
60)	Isopropylbenzene	16.928	16.928	0.919		0m	N.D.	d		
62)	1,1,2,2-Tetrachloroethane	17.260	17.213	0.938		0m	N.D.	d		
63)	1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.			
64)	Bromobenzene	17.343	17.343	0.942		0m	N.D.	d		
65)	n-Propylbenzene	17.367	17.367	0.943		0m	N.D.	d		
66)	1,3,5-Trimethylbenzene	17.533	17.533	0.952		0m	N.D.	d		
67)	2-Chlorotoluene	17.521	17.521	0.952		0m	N.D.	d		
68)	4-Chlorotoluene	17.628	17.628	0.957		0m	N.D.	d		
69)	tert-Butylbenzene	17.983	17.912	0.977		0m	N.D.	d		
70)	1,2,4-Trimethylbenzene	17.960	17.960	0.976		0m	N.D.	d		
71)	sec-Butylbenzene	18.150	18.150	0.986		0m	N.D.	d		
72)	4-Isopropyltoluene	18.280	18.280	0.993		0m	N.D.	d		
73)	1,3-Dichlorobenzene	18.351	18.351	0.997		0m	N.D.	d		
74)	1,4-Dichlorobenzene	18.434	18.434	1.001		0m	N.D.	d		
75)	n-Butylbenzene	18.742	18.742	1.018		0m	N.D.	d		
76)	1,2-Dichlorobenzene	18.885	18.885	1.026		0m	N.D.	d		
77)	1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.			
78)	1,2,4-Trichlorobenzene	20.936	20.936	1.137		0m	N.D.	d		
79)	Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.			
80)	Naphthalene	21.351	21.351	1.160		0m	N.D.	d		
81)	1,2,3-Trichlorobenzene	21.719	21.719	1.180		0m	N.D.	d		
83)	Chlorotrifluoroethylene	4.696	4.711	0.384	116	212557	98.30	ug/L	97	
84)	2-Chloro-1,1,1-trifluo...	5.751	5.751	0.470	118	642017	146.74	ug/L	100	
85)	Acrolein	7.750	7.750	0.634	56	146962	359.44	ug/L	97	E
86)	Trichlorotrifluoroethane	7.975	7.975	0.652	85	305095	237.11	ug/L	99	
87)	Isopropyl Alcohol	8.141	8.141	0.666	45	755841	2590.97	ug/L	99	
88)	Allyl chloride	8.556	8.556	0.699	41	1261863	273.79	ug/L	99	
89)	tert-Butyl Alcohol	8.793	8.793	0.719	59	1244742	2550.60	ug/L	99	
90)	Acrylonitrile	9.090	9.090	0.743	53	355198	257.86	ug/L	99	
91)	Isopropyl ether	9.884	9.884	0.808	45	573273	51.94	ug/L	100	
92)	2-Chloro-1,3-butadiene	10.003	10.003	0.818	53	221165	55.22	ug/L	99	
93)	Ethyl tert-butyl ether	10.406	10.406	0.851	59	558648	53.00	ug/L	98	
94)	Ethyl acetate	10.679	10.679	0.873	43	889594	261.71	ug/L	100	
95)	Propionitrile	10.726	10.726	0.877	54	139790	258.81	ug/L	99	
96)	Methacrylonitrile	10.951	10.951	0.895	41	550546	265.72	ug/L	100	
97)	Tetrahydrofuran	11.094	11.094	0.907	42	290032	253.58	ug/L	100	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D105.D
Acq On : 15 Mar 2010 1:28 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-04|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5mL - MIX[B] UVM100215-06/UVM100226-02A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 13:51:30 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
98)	Isobutyl alcohol	11.556	11.556	0.945	41	410305	2789.26	ug/L	99	
99)	Methyl tert-amyl ether	11.971	11.971	0.979	73	514914	52.89	ug/L	99	
100)	Methyl methacrylate	12.991	12.991	1.062	69	647046	288.64	ug/L	98	
101)	1,4-Dioxane	13.098	13.098	1.071	88	108818	2282.36	ug/L	99	
102)	2-Nitropropane	13.525	13.525	1.106	43	262665	264.22	ug/L	97	
104)	Ethyl methacrylate	14.450	14.450	0.912	69	1228990	290.83	ug/L	100	
106)	1-Chlorohexane	15.754	15.754	0.856	55	139026	51.51	ug/L	99	
107)	cis-1,4-Dichloro-2-butene	16.964	16.964	0.921	53	326476	326.70	ug/L	97	
108)	Cyclohexanone	17.082	17.082	0.928	42	305436	2662.98	ug/L	99	E
109)	trans-1,4-Dichloro-2-b...	17.260	17.260	0.938	53	309336	317.37	ug/L	98	
110)	Pentachloroethane	17.983	17.983	0.977	167	624873	477.87	ug/L	96	E
111)	Benzyl chloride	18.553	18.553	1.008	91	1972013	412.07	ug/L	99	
112)	bis(2-Chloroisopropyl)...	18.980	18.980	1.031	45	490327	254.65	ug/L	96	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D105.D
Acq On : 15 Mar 2010 1:28 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-04|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5mL - MIX[B] UVM100215-06/UVM100226-02A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 13:51:30 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

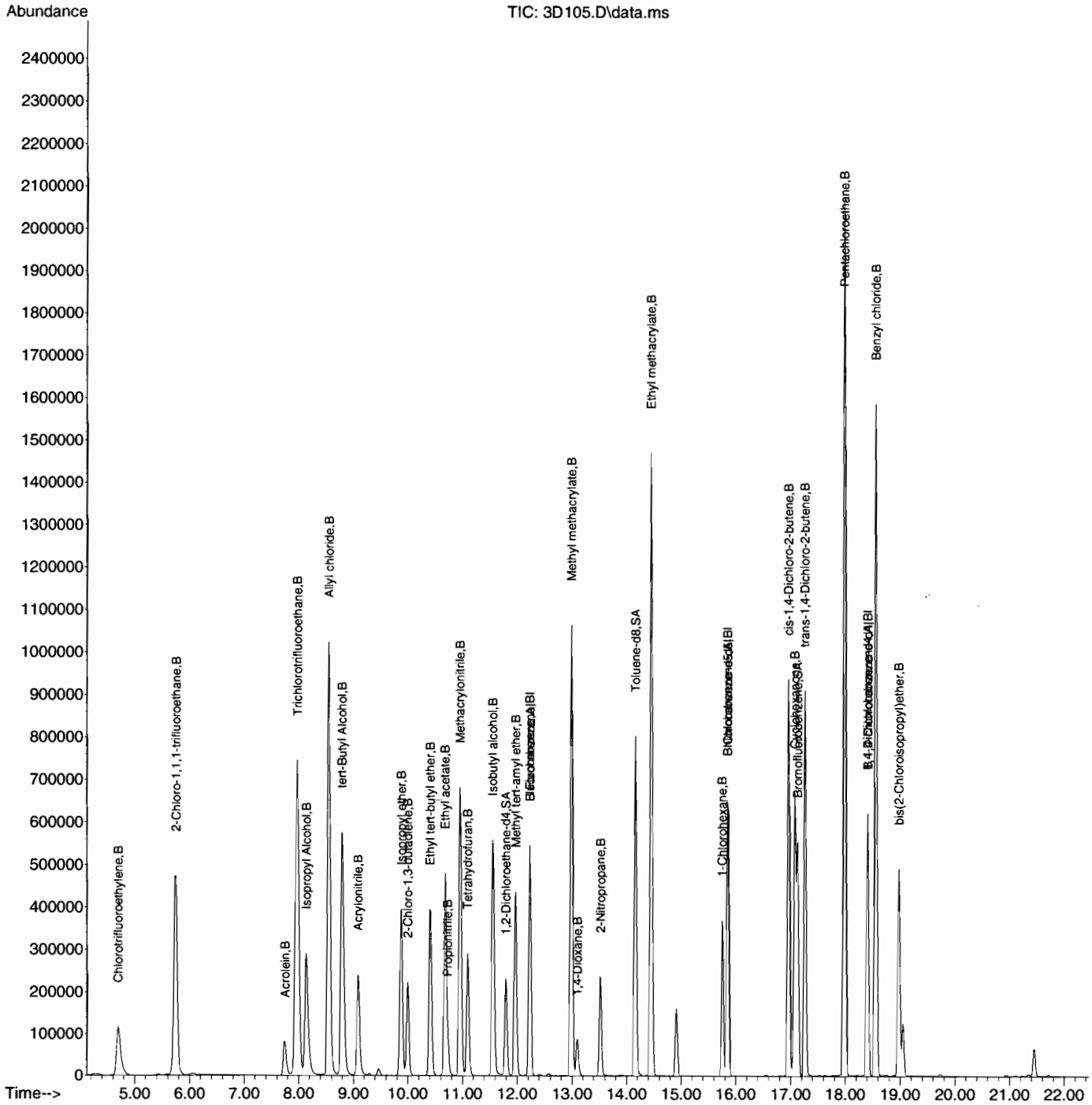

Continuing Calibration Summary

Client SDG: 10-2305

Instrument ID: VOA3.I **Injection Date** 16-MAR-10 17:27

Data File: 031610V3\3D217.D **Init. Cal. Date(s)** 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100316-05 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.3066	0.29505		.01		-3.76712	30		Averaged	
S	Toluene-d8	1.3456	1.34913		.01		0.26234	30		Averaged	
S	Bromofluorobenzene	1.0082	1.02881		.01		2.04424	30		Averaged	
	Dichlorodifluoromethane	50	65.06	50			30.12	30	*	Linear	
	Chloromethane	0.2352	0.26624		.1		13.19728	30		Averaged	spcc
	Vinyl chloride	0.2397	0.28579		.01		19.2282	20		Averaged	ccc
	Bromomethane	0.1935	0.22154		.01		14.49096	30		Averaged	
	Chloroethane	0.1549	0.18526		.01		19.59974	30		Averaged	
	Trichlorofluoromethane	0.3298	0.39353		.01		19.32383	30		Averaged	
	Ethyl ether	0.1705	0.19246		.01		12.87977	30		Averaged	
	Acetone	0.2108	0.20915		.01		-0.78273	40		Averaged	
	1,1-Dichloroethylene	0.339	0.35458		.01		4.59587	20		Averaged	ccc
	Iodomethane	0.4286	0.43048		.01		0.43864	30		Averaged	
	Carbon disulfide	0.7478	0.77076		.01		3.07034	30		Averaged	
	Acetonitrile	0.0365	0.03386		.01		-7.23288	30		Averaged	
	Methyl acetate	0.1881	0.1796		.01		-4.51887	40		Averaged	
	Methylene chloride	0.3046	0.27653		.01		-9.21536	30		Averaged	
	tert-Butyl methyl ether	0.6625	0.65229		.01		-1.54113	30		Averaged	
	trans-1,2-Dichloroethylene	0.314	0.31995		.01		1.8949	30		Averaged	
	Vinyl acetate	0.3778	0.46802		.01		23.88036	40		Averaged	
	1,1-Dichloroethane	0.3946	0.4062		.1		2.93969	30		Averaged	spcc
	2-Butanone	0.2099	0.2312		.01		10.14769	40		Averaged	
	cis-1,2-Dichloroethylene	0.3474	0.35205		.01		1.33851	30		Averaged	
	2,2-Dichloropropane	0.2436	0.27523		.01		12.9844	30		Averaged	
	Bromochloromethane	0.1279	0.13199		.01		3.19781	30		Averaged	
	Chloroform	0.4027	0.39912		.01		-0.889	20		Averaged	ccc
	1,1,1-Trichloroethane	0.327	0.3365		.01		2.9052	30		Averaged	
	Cyclohexane	0.3661	0.36004		.01		-1.65529	30		Averaged	
	1,1-Dichloropropene	0.2778	0.27977		.01		0.70914	30		Averaged	
	Carbon tetrachloride	0.286	0.30697		.01		7.33217	30		Averaged	
	1,2-Dichloroethane	0.3149	0.30661		.01		-2.63258	30		Averaged	
	Benzene	0.8815	0.85254		.01		-3.28531	30		Averaged	
	Cyclohexene	0.4035	0.41436		.01		2.69145	30		Averaged	
	n-Butyl alcohol	5000	4753.22	5000			-4.9356	40		Linear	
	Trichloroethylene	0.2276	0.23487		.01		3.1942	30		Averaged	
	1,2-Dichloropropane	0.2153	0.22594		.01		4.94194	20		Averaged	ccc
	Methylcyclohexane	0.3768	0.39182		.01		3.9862	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Dat** 16-MAR-10 17:27

Data File: 031610V3\3D217.D **Init. Cal. Date(s)** 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100316-05 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1445	0.15421		.01		6.71972	30		Averaged	
Bromodichloromethane	0.2749	0.30311		.01		10.26191	30		Averaged	
2-Chloroethylvinyl ether	250	300.47	250			20.188	30		Linear	
cis-1,3-Dichloropropylene	0.3124	0.35129		.01		12.44878	30		Averaged	
4-Methyl-2-pentanone	0.1208	0.13887		.01		14.95861	40		Averaged	
Toluene	1.1971	1.18586		.01		-0.93894	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3639	0.41731		.01		14.67711	30		Averaged	
1,1,2-Trichloroethane	0.2068	0.21885		.01		5.82689	30		Averaged	
1,3-Dichloropropane	0.4295	0.43939		.01		2.30268	30		Averaged	
2-Hexanone	0.3084	0.3741		.01		21.3035	40		Averaged	
Tetrachloroethylene	0.2332	0.23656		.01		1.44082	30		Averaged	
Dibromochloromethane	0.2736	0.31194		.01		14.01316	30		Averaged	
1,2-Dibromoethane	0.266	0.27904		.01		4.90226	30		Averaged	
Chlorobenzene	0.7858	0.7755		.3		-1.31077	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.2702	0.29717		.01		9.9815	30		Averaged	
Ethylbenzene	1.237	1.24192		.01		0.39774	20		Averaged	ccc
m,p-Xylenes	0.4916	0.51068		.01		3.8812	30		Averaged	
o-Xylene	0.4911	0.52788		.01		7.48931	30		Averaged	
Styrene	0.7841	0.86833		.01		10.74225	30		Averaged	
Bromoform	50	50.57	50			1.14	30		Linear	spcc
Isopropylbenzene	2.4779	2.65829		.01		7.27995	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6699	0.70752		.3		5.61576	30		Averaged	spcc
1,2,3-Trichloropropane	0.1842	0.1963		.01		6.56895	30		Averaged	
Bromobenzene	0.6651	0.68952		.01		3.67163	30		Averaged	
n-Propylbenzene	2.8647	3.04929		.01		6.44361	30		Averaged	
2-Chlorotoluene	0.6176	0.62016		.01		0.41451	30		Averaged	
1,3,5-Trimethylbenzene	2.079	2.18844		.01		5.26407	30		Averaged	
4-Chlorotoluene	1.7773	1.79887		.01		1.21364	30		Averaged	
tert-Butylbenzene	0.4447	0.47711		.01		7.28806	30		Averaged	
1,2,4-Trimethylbenzene	2.1081	2.17335		.01		3.0952	30		Averaged	
sec-Butylbenzene	2.7845	2.91344		.01		4.63063	30		Averaged	
4-Isopropyltoluene	2.2105	2.33948		.01		5.83488	30		Averaged	
1,3-Dichlorobenzene	1.1363	1.1252		.01		-0.97685	30		Averaged	
1,4-Dichlorobenzene	1.3023	1.29781		.01		-0.34477	30		Averaged	
n-Butylbenzene	2.102	2.23731		.01		6.4372	30		Averaged	
1,2-Dichlorobenzene	1.2927	1.25943		.01		-2.57368	30		Averaged	
1,2-Dibromo-3-chloropropane	50	43.1	50			-13.8	30		Linear	

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Dat** 16-MAR-10 17:27

Data File: 031610V3\3D217.D **Init. Cal. Date(s)** 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100316-05 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8694	0.8693		.01		-0.0115	30		Averaged
Hexachlorobutadiene	0.4354	0.43805		.01		0.60864	30		Averaged
Naphthalene	2.2358	2.19145		.01		-1.98363	30		Averaged
1,2,3-Trichlorobenzene	0.849	0.78024		.01		-8.09894	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D217.D
Acq On : 16 Mar 2010 5:27 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100316-05|CCV|1|VOA|1|
Misc : CCV 5ML - MIX[A] 314-07A+315-07A
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 16 19:02:35 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	862647	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	678125	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	336983	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	862334	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	678082	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	343576	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	254528	48.11	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	914877	50.13	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	346693	51.02	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	156136	65.06	ug/L	97
3) Chloromethane	5.201	5.216	0.425	50	229670	56.59	ug/L	99
4) Vinyl chloride	5.528	5.528	0.452	62	246536	59.61	ug/L	99
5) Bromomethane	6.279	6.291	0.513	94	191113	57.26	ug/L	100
6) Chloroethane	6.493	6.493	0.531	64	159818	59.81	ug/L	100
7) Trichlorofluoromethane	7.050	7.062	0.576	101	339474	59.65	ug/L	98
8) Ethyl ether	7.501	7.512	0.613	59	166022	56.44	ug/L	100
9) Acetone	7.975	7.987	0.652	43	902100	248.05	ug/L	99
10) 1,1-Dichloroethylene	7.975	7.987	0.652	61	305880	52.30	ug/L	100
11) Iodomethane	8.271	8.271	0.676	142	1856749	251.08	ug/L	100
12) Acetonitrile	8.449	8.449	0.691	41	730177	1159.03	ug/L	100
13) Methyl acetate	8.509	8.520	0.696	43	774673	238.68	ug/L	100
14) Carbon disulfide	8.437	8.449	0.690	76	3324485	257.67	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	238546	45.39	ug/L	97
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	562692	49.23	ug/L	100
17) trans-1,2-Dichloroethy...	9.196	9.208	0.752	61	276007	50.96	ug/L	100
18) Vinyl acetate	9.837	9.837	0.804	43	2018661	309.73	ug/L	100
19) 1,1-Dichloroethane	9.849	9.860	0.805	63	350411	51.48	ug/L	99
20) 2-Butanone	10.631	10.643	0.869	43	997213	275.32	ug/L	100
21) cis-1,2-Dichloroethylene	10.679	10.691	0.873	61	303697	50.67	ug/L	99
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	237428	56.49	ug/L	98
23) Bromochloromethane	11.023	11.034	0.901	128	113858	51.60	ug/L	98
24) Chloroform	11.094	11.094	0.907	83	344299	49.56	ug/L	100
25) 1,1,1-Trichloroethane	11.414	11.426	0.933	97	290280	51.45	ug/L	99
26) Cyclohexane	11.533	11.532	0.943	56	310588	49.18	ug/L	98
27) 1,1-Dichloropropene	11.616	11.627	0.950	75	241346	50.35	ug/L	98
28) Carbon tetrachloride	11.651	11.663	0.952	117	264805	53.67	ug/L	100
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	264494	48.68	ug/L	100
31) Benzene	11.912	11.912	0.974	78	735437	48.35	ug/L	100
32) Cyclohexene	12.054	12.054	0.985	67	357447	51.35	ug/L	100
33) n-Butyl alcohol	12.398	12.398	1.014	56	761989	4753.22	ug/L	99
34) Trichloroethylene	12.695	12.695	1.038	95	202611	51.59	ug/L	99
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	194903	52.48	ug/L	100
36) Methylcyclohexane	12.979	12.991	1.061	83	338002	51.99	ug/L	100
37) Dibromomethane	13.133	13.133	1.074	93	133032	53.37	ug/L	98
38) Bromodichloromethane	13.276	13.288	1.085	83	261479	55.13	ug/L	99
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	364580	300.47	ug/L	99
40) cis-1,3-Dichloropropylene	13.809	13.809	1.129	75	303041	56.23	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D217.D
Acq On : 16 Mar 2010 5:27 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100316-05|CCV|1|VOA|1|
Misc : CCV 5ML - MIX[A] 314-07A+315-07A
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 16 19:02:35 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	470872	287.40	ug/L	99
44) Toluene	14.248	14.248	0.899	91	804162	49.53	ug/L	99
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	282988	57.34	ug/L	100
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	148410	52.91	ug/L	100
47) 2-Hexanone	14.888	14.888	0.939	43	1268425	303.24	ug/L	100
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	297959	51.15	ug/L	93
49) Tetrachloroethylene	14.912	14.912	0.941	164	160416	50.72	ug/L	100
50) Dibromochloromethane	15.173	15.173	0.957	129	211535	57.01	ug/L	100
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	189221	52.46	ug/L	99
52) Chlorobenzene	15.885	15.885	1.002	112	525889	49.35	ug/L	98
53) 1,1,1,2-Tetrachloroethane	15.944	15.956	1.006	131	201517	54.99	ug/L	99
54) Ethylbenzene	15.968	15.968	1.007	91	842176	50.20	ug/L	100
55) m,p-Xylenes	16.086	16.086	1.015	106	692605	103.89	ug/L	99
56) o-Xylene	16.549	16.549	1.044	106	357969	53.74	ug/L	100
57) Styrene	16.549	16.549	1.044	104	588835	55.37	ug/L	99
59) Bromoform	16.810	16.821	0.913	173	131245	50.57	ug/L	98
60) Isopropylbenzene	16.928	16.928	0.919	105	895799	53.64	ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	238423	52.81	ug/L	98
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	66151	53.29	ug/L	99
64) Bromobenzene	17.343	17.343	0.942	156	232355	51.83	ug/L	99
65) n-Propylbenzene	17.367	17.367	0.943	91	1027558	53.22	ug/L	99
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	737467	52.63	ug/L	100
67) 2-Chlorotoluene	17.521	17.521	0.952	126	208982	50.21	ug/L	97
68) 4-Chlorotoluene	17.628	17.628	0.957	91	606187	50.61	ug/L	100
69) tert-Butylbenzene	17.912	17.912	0.973	134	160777	53.64	ug/L	99
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	732383	51.55	ug/L	100
71) sec-Butylbenzene	18.150	18.150	0.986	105	981780	52.32	ug/L	100
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	788366	52.92	ug/L	100
73) 1,3-Dichlorobenzene	18.339	18.351	0.996	146	379174	49.51	ug/L	100
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	437341	49.83	ug/L	99
75) n-Butylbenzene	18.743	18.742	1.018	91	753934	53.22	ug/L	99
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	424407	48.71	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	46535	43.10	ug/L	97
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	292940	50.00	ug/L	99
79) Hexachlorobutadiene	21.126	21.126	1.148	225	147615	50.30	ug/L	99
80) Naphthalene	21.351	21.351	1.160	128	738482	49.01	ug/L	100
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	262929	45.95	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88) Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.161	9.090	0.749		0m	N.D.	d	
91) Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.631	10.679	0.869		0m	N.D.	d	
95) Propionitrile	10.631	10.726	0.869		0m	N.D.	d	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.		
97) Tetrahydrofuran	11.094	11.094	0.907		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D217.D
Acq On : 16 Mar 2010 5:27 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100316-05|CCV|1|VOA|1|
Misc : CCV 5ML - MIX[A] 314-07A+315-07A
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 16 19:02:35 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	11.533	11.556	0.943		0m	N.D.	d
99)	Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100)	Methyl methacrylate	12.979	12.991	1.061		0m	N.D.	d
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106)	1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108)	Cyclohexanone	16.916	17.082	0.919		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110)	Pentachloroethane	17.984	17.983	0.977		0m	N.D.	d
111)	Benzyl chloride	18.399	18.553	0.999		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D217.D
Acq On : 16 Mar 2010 5:27 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100316-05|CCV|1|VOA|1|
Misc : CCV 5ML - MIX[A] 314-07A+315-07A
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 16 19:02:35 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

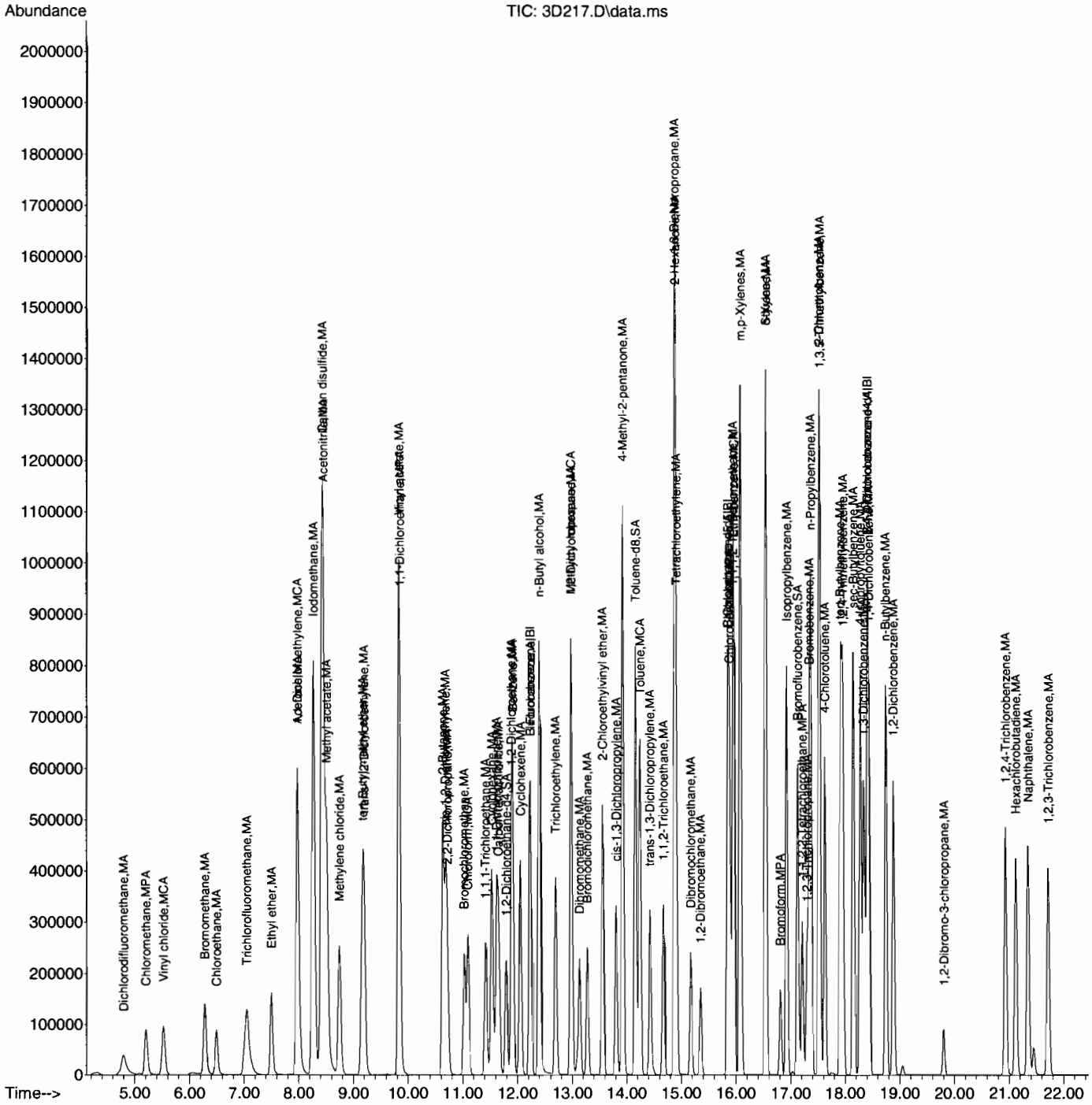

Continuing Calibration Summary

Client SDG: 10-2305

Instrument ID: VOA3.I **Injection Date** 16-MAR-10 18:54

Data File: 031610V3\3D220.D **Init. Cal. Date(s)** 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100316-08 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.3066	0.3039		.01		-0.88063	30		Averaged
S	Toluene-d8	1.3456	1.37831		.01		2.43089	30		Averaged
S	Bromofluorobenzene	1.0082	1.09917		.01		9.02301	30		Averaged
	Chlorotrifluoroethylene	0.139	0.07129		.01		-48.71223	30	*	Averaged
	2-Chloro-1,1,1-trifluoroethane	0.2812	0.22987		.01		-18.25391	30		Averaged
	Acrolein	250	489.64	250			95.856	30	*	Linear
	Trichlorotrifluoroethane	0.0827	0.09684		.01		17.09794	30		Averaged
	Isopropyl Alcohol	0.0187	0.0188		.01		0.53476	40		Averaged
	Allyl chloride	0.2962	0.29667		.01		0.15868	30		Averaged
	tert-Butyl Alcohol	0.0314	0.03093		.01		-1.49682	40		Averaged
	Acrylonitrile	0.0885	0.08422		.01		-4.83616	30		Averaged
	Isopropyl ether	0.7095	0.61896		.01		-12.7611	30		Averaged
	2-Chloro-1,3-butadiene	0.2574	0.28205		.01		9.57653	30		Averaged
	Ethyl tert-butyl ether	0.6775	0.62187		.01		-8.21107	30		Averaged
	Ethyl acetate	0.2185	0.21203		.01		-2.9611	40		Averaged
	Propionitrile	0.0347	0.03501		.01		0.89337	30		Averaged
	Methacrylonitrile	0.1332	0.13161		.01		-1.19369	30		Averaged
	Tetrahydrofuran	0.0735	0.06983		.01		-4.9932	30		Averaged
	Isobutyl alcohol	0.0095	0.01042		.01		9.68421	40		Averaged
	Methyl tert-amyl ether	0.6257	0.58496		.01		-6.51111	30		Averaged
	Methyl methacrylate	0.1441	0.15729		.01		9.15337	30		Averaged
	1,4-Dioxane	0.0031	0.00305		.01		-1.6129	40		Averaged
	2-Nitropropane	250	270.04	250			8.016	30		Linear
	Ethyl methacrylate	0.3396	0.3814		.01		12.3086	30		Averaged
	1-Chlorohexane	0.4531	0.41904		.01		-7.5171	30		Averaged
	cis-1,4-Dichloro-2-butene	0.1677	0.23907		.01		42.55814	30	*	Averaged
	Cyclohexanone	0.0193	0.02831		.01		46.68394	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.1636	0.22499		.01		37.52445	30	*	Averaged
	Pentachloroethane	250	468.1	250			87.24	30	*	Linear
	Benzyl chloride	250	446.51	250			78.604	30	*	Linear
	bis(2-Chloroisopropyl)ether	0.3232	0.34329		.01		6.21597	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D220.D
Acq On : 16 Mar 2010 6:54 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100316-08|CCV|1|VOA|1|VOA8260BS|
Misc : CCV 5mL - MIX[B] 0304-06+0226-02A
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 16 19:22:05 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	881758	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	677272	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	316134	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	881599	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	677445	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	322672	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	267969	49.55	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	933493	51.22	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	347484	54.51	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	5.736	5.528	0.469		0m	N.D.	d	
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.987	7.987	0.653		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.975	7.987	0.652		0m	N.D.	d	
11) Iodomethane	8.260	8.271	0.675		0m	N.D.	d	
12) Acetonitrile	8.556	8.449	0.699		0m	N.D.	d	
13) Methyl acetate	8.520	8.520	0.697		0m	N.D.	d	
14) Carbon disulfide	8.556	8.449	0.699		0m	N.D.	d	
15) Methylene chloride	8.746	8.746	0.715		0m	N.D.	d	
16) tert-Butyl methyl ether	9.173	9.173	0.750		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	9.872	9.837	0.807		0m	N.D.	d	
19) 1,1-Dichloroethane	10.003	9.860	0.818		0m	N.D.	d	
20) 2-Butanone	10.679	10.643	0.873		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.679	10.691	0.873		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	11.556	11.532	0.945		0m	N.D.	d	
27) 1,1-Dichloropropene	11.556	11.627	0.945		0m	N.D.	d	
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	11.912	11.912	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	12.410	12.398	1.015		0m	N.D.	d	
34) Trichloroethylene	12.695	12.695	1.038		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	12.991	12.991	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D220.D
Acq On : 16 Mar 2010 6:54 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100316-08|CCV|1|VOA|1|VOA8260BS|
Misc : CCV 5mL - MIX[B] 0304-06+0226-02A
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 16 19:22:05 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42)	4-Methyl-2-pentanone	13.928	13.928	0.879		0m	N.D.	d		
44)	Toluene	14.248	14.248	0.899		0m	N.D.	d		
45)	trans-1,3-Dichloroprop...	14.438	14.426	0.911		0m	N.D.	d		
46)	1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.			
47)	2-Hexanone	14.888	14.888	0.939		0m	N.D.	d		
48)	1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.			
49)	Tetrachloroethylene	14.912	14.912	0.941		0m	N.D.	d		
50)	Dibromochloromethane	0.000	15.173	0.000		0	N.D.			
51)	1,2-Dibromoethane	15.351	15.351	0.969		0m	N.D.	d		
52)	Chlorobenzene	15.885	15.885	1.002		0m	N.D.	d		
53)	1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.			
54)	Ethylbenzene	15.956	15.968	1.007		0m	N.D.	d		
55)	m,p-Xylenes	16.086	16.086	1.015		0m	N.D.	d		
56)	o-Xylene	16.537	16.549	1.043		0m	N.D.	d		
57)	Styrene	16.549	16.549	1.044		0m	N.D.	d		
59)	Bromoform	0.000	16.821	0.000		0	N.D.			
60)	Isopropylbenzene	16.928	16.928	0.919		0m	N.D.	d		
62)	1,1,2,2-Tetrachloroethane	17.260	17.213	0.938		0m	N.D.	d		
63)	1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.			
64)	Bromobenzene	17.343	17.343	0.942		0m	N.D.	d		
65)	n-Propylbenzene	17.367	17.367	0.943		0m	N.D.	d		
66)	1,3,5-Trimethylbenzene	17.533	17.533	0.952		0m	N.D.	d		
67)	2-Chlorotoluene	17.628	17.521	0.957		0m	N.D.	d		
68)	4-Chlorotoluene	17.628	17.628	0.957		0m	N.D.	d		
69)	tert-Butylbenzene	17.984	17.912	0.977		0m	N.D.	d		
70)	1,2,4-Trimethylbenzene	17.960	17.960	0.976		0m	N.D.	d		
71)	sec-Butylbenzene	18.150	18.150	0.986		0m	N.D.	d		
72)	4-Isopropyltoluene	18.280	18.280	0.993		0m	N.D.	d		
73)	1,3-Dichlorobenzene	18.339	18.351	0.996		0m	N.D.	d		
74)	1,4-Dichlorobenzene	18.434	18.434	1.001		0m	N.D.	d		
75)	n-Butylbenzene	18.742	18.742	1.018		0m	N.D.	d		
76)	1,2-Dichlorobenzene	18.885	18.885	1.026		0m	N.D.	d		
77)	1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.			
78)	1,2,4-Trichlorobenzene	20.936	20.936	1.137		0m	N.D.	d		
79)	Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.			
80)	Naphthalene	21.351	21.351	1.160		0m	N.D.	d		
81)	1,2,3-Trichlorobenzene	21.719	21.719	1.180		0m	N.D.	d		
83)	Chlorotrifluoroethylene	4.711	4.711	0.385	116	188540	76.94	ug/L	97	
84)	2-Chloro-1,1,1-trifluo...	5.751	5.751	0.470	118	607953	122.62	ug/L	100	
85)	Acrolein	7.738	7.750	0.633	56	227371	489.64	ug/L	96	E
86)	Trichlorotrifluoroethane	7.975	7.975	0.652	85	426892	292.76	ug/L	99	
87)	Isopropyl Alcohol	8.141	8.141	0.666	45	828722	2506.73	ug/L	100	
88)	Allyl chloride	8.556	8.556	0.699	41	1307709	250.37	ug/L	99	
89)	tert-Butyl Alcohol	8.793	8.793	0.719	59	1363276	2464.98	ug/L	100	
90)	Acrylonitrile	9.090	9.090	0.743	53	371230	237.80	ug/L	99	
91)	Isopropyl ether	9.884	9.884	0.808	45	545676	43.62	ug/L	99	
92)	2-Chloro-1,3-butadiene	10.003	10.003	0.818	53	248652	54.78	ug/L	100	
93)	Ethyl tert-butyl ether	10.406	10.406	0.851	59	548241	45.90	ug/L	99	
94)	Ethyl acetate	10.679	10.679	0.873	43	934641	242.63	ug/L	100	
95)	Propionitrile	10.726	10.726	0.877	54	154344	252.15	ug/L	99	
96)	Methacrylonitrile	10.951	10.951	0.895	41	580120	247.07	ug/L	100	
97)	Tetrahydrofuran	11.094	11.094	0.907	42	307830	237.49	ug/L	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D220.D
Acq On : 16 Mar 2010 6:54 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100316-08|CCV|1|VOA|1|VOA8260BS|
Misc : CCV 5mL - MIX[B] 0304-06+0226-02A
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 16 19:22:05 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
98)	Isobutyl alcohol	11.556	11.556	0.945	41	459118	2754.06	ug/L	100	
99)	Methyl tert-amyl ether	11.971	11.971	0.979	73	515704	46.74	ug/L	100	
100)	Methyl methacrylate	12.991	12.991	1.062	69	693320	272.91	ug/L	98	
101)	1,4-Dioxane	13.098	13.098	1.071	88	134353	2486.56	ug/L	100	
102)	2-Nitropropane	13.525	13.525	1.106	43	304366	270.04	ug/L	99	
104)	Ethyl methacrylate	14.450	14.450	0.912	69	1291896	280.80	ug/L	100	
106)	1-Chlorohexane	15.754	15.754	0.856	55	135213	46.24	ug/L	99	
107)	cis-1,4-Dichloro-2-butene	16.964	16.964	0.921	53	385713	356.32	ug/L	99	
108)	Cyclohexanone	17.082	17.082	0.928	42	228410	1838.43	ug/L	99	E
109)	trans-1,4-Dichloro-2-b...	17.260	17.260	0.938	53	362996	343.81	ug/L	97	
110)	Pentachloroethane	17.984	17.983	0.977	167	662833	468.10	ug/L	97	E
111)	Benzyl chloride	18.553	18.553	1.008	91	2315354	446.51	ug/L	99	
112)	bis(2-Chloroisopropyl)...	18.980	18.980	1.031	45	553851	265.54	ug/L	99	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D220.D
Acq On : 16 Mar 2010 6:54 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100316-08|CCV|1|VOA|1|VOA8260BS|
Misc : CCV 5mL - MIX[B] 0304-06+0226-02A
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 16 19:22:05 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

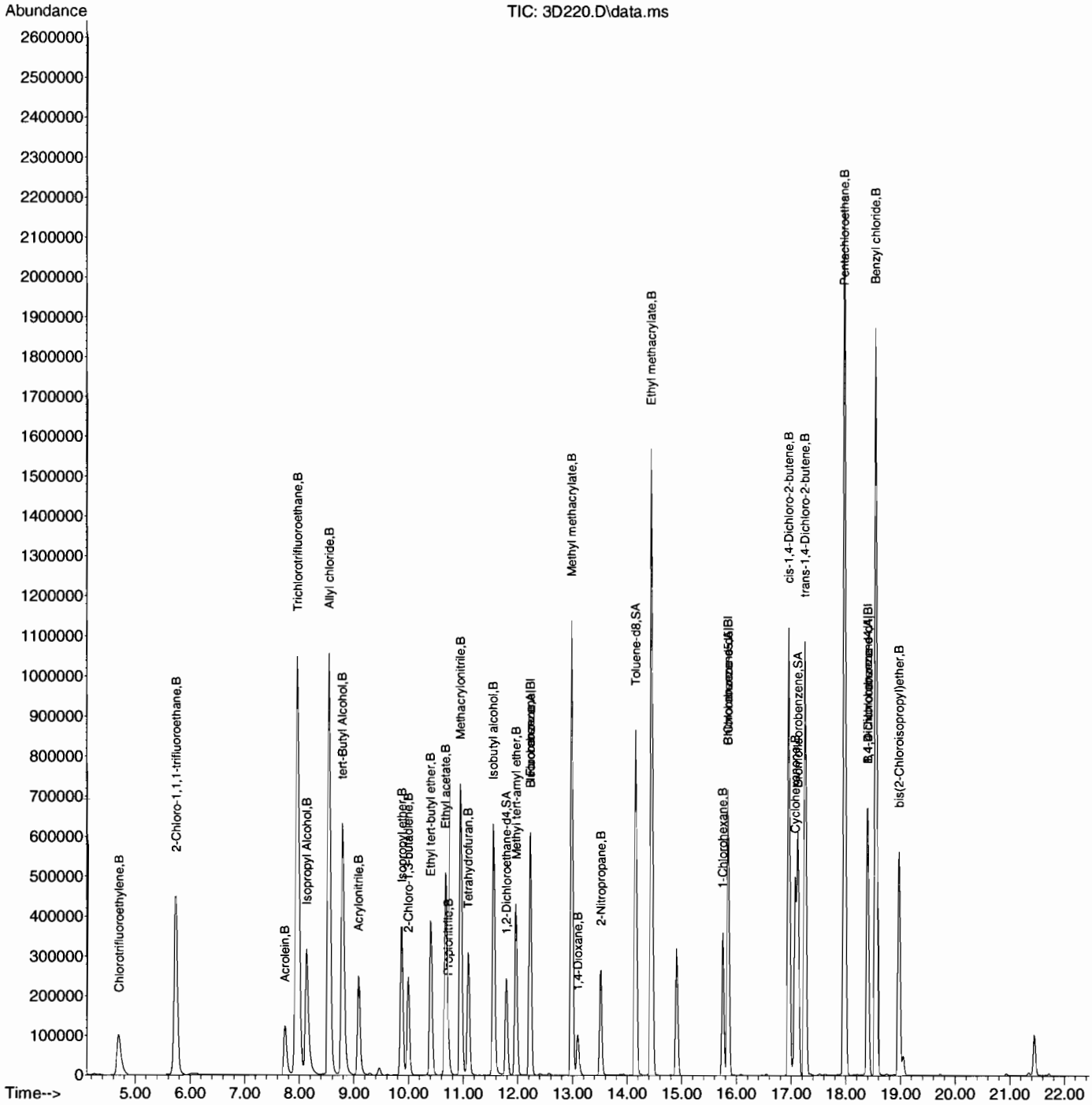

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A501.D
Acq On : 26 Feb 2010 9:25 am
Operator : CDS1
Sample : |UVM100203-02|BFB|1|VOA|1|
Misc : BFB 5mL N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Title : Volatile Organics 8260B SubList :
Last Update : Sat Feb 27 06:30:11 2010

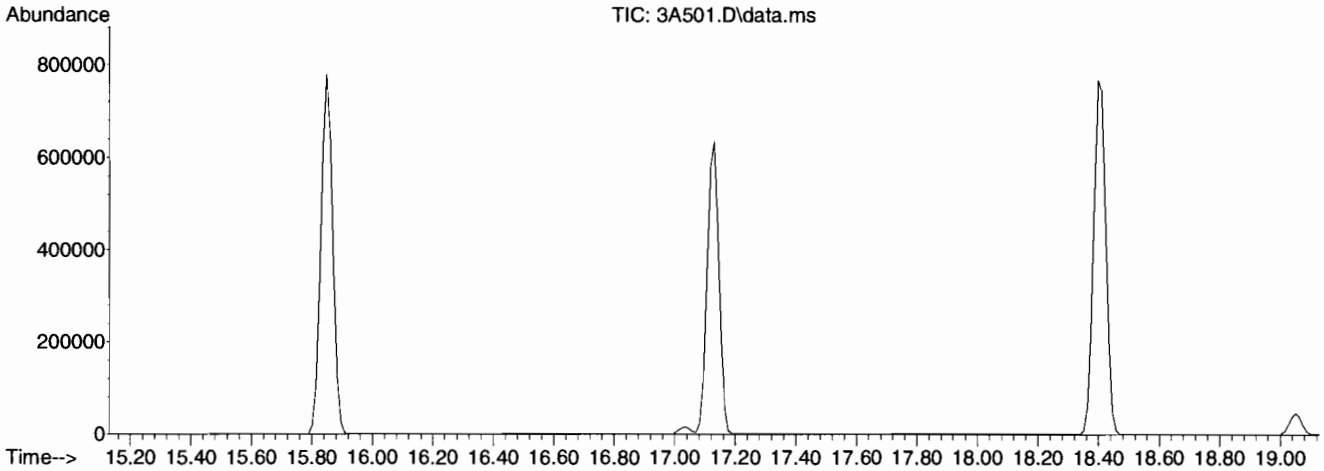

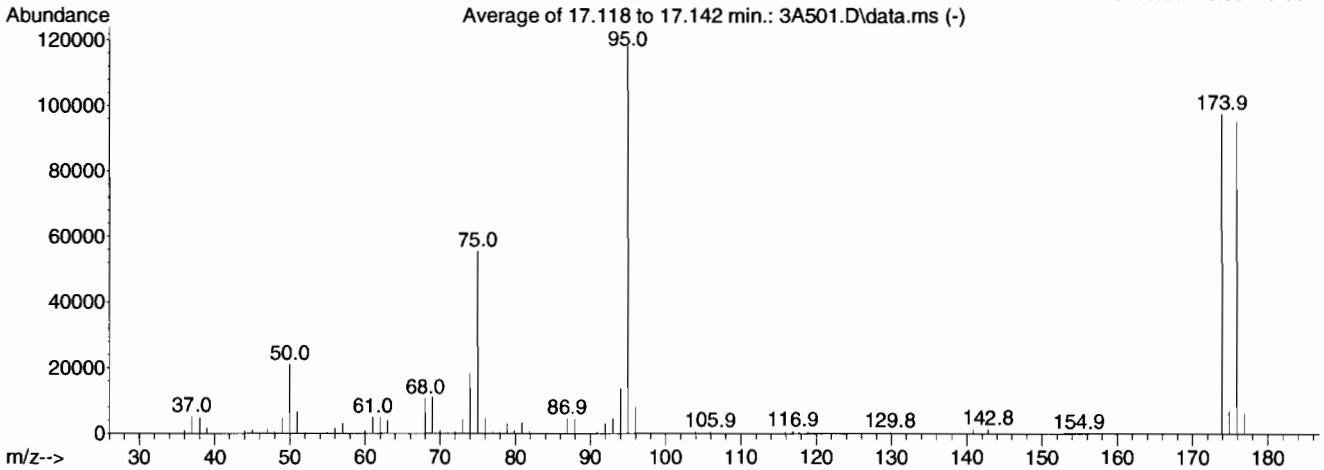

Spectrum Information: Average of 17.118 to 17.142 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	20991	PASS
75	95	30	60	47.0	55499	PASS
95	95	100	100	100.0	118061	PASS
96	95	5	9	6.7	7933	PASS
173	174	0.00	2	0.5	458	PASS
174	95	50	100	82.6	97544	PASS
175	174	5	9	7.1	6941	PASS
176	174	95	101	97.7	95341	PASS
177	176	5	9	6.4	6099	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D101.D
Acq On : 15 Mar 2010 11:35 am
Operator : CDS1
Sample : |UVM100217-02|BFB|1|VOA|1|
Misc : BFB 5mL N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Mar 01 09:52:36 2010

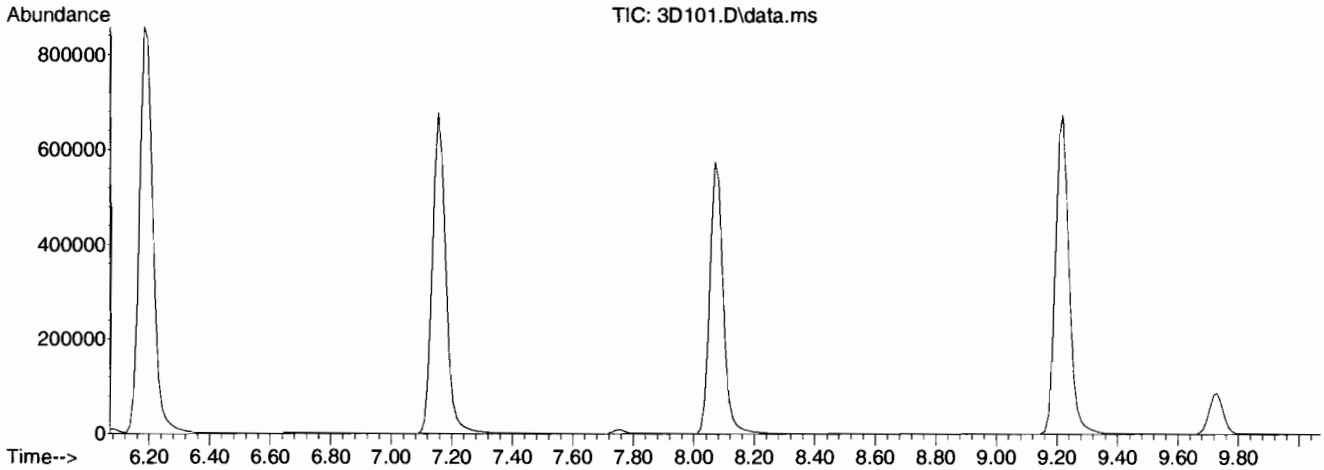

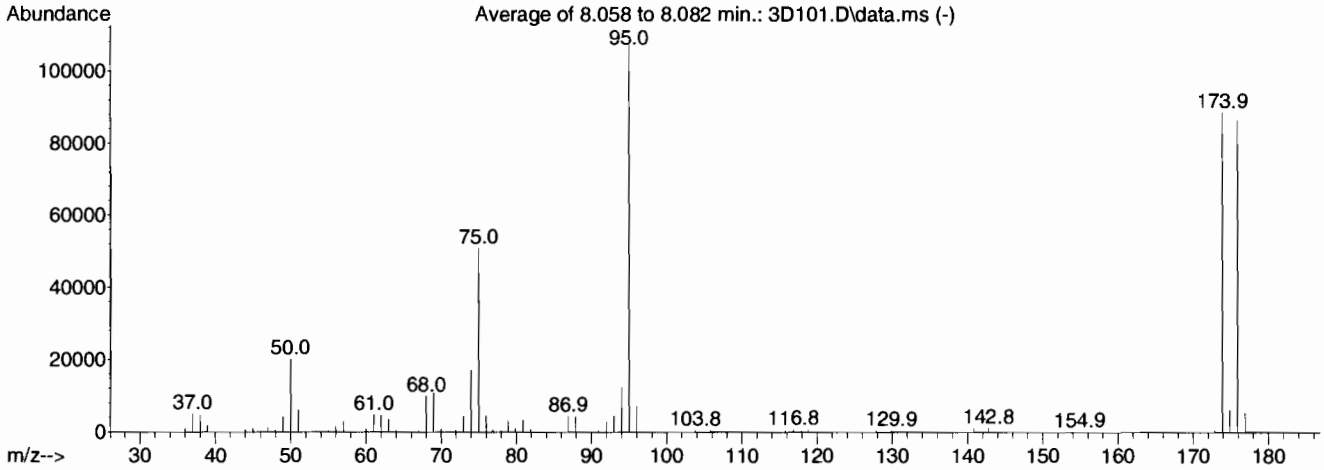

AutoFind: Scans 296, 297, 298; Background Corrected with Scan 289

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.7	20029	PASS
75	95	30	60	47.4	50859	PASS
95	95	100	100	100.0	107189	PASS
96	95	5	9	6.8	7248	PASS
173	174	0.00	2	0.5	467	PASS
174	95	50	100	82.7	88688	PASS
175	174	5	9	7.0	6200	PASS
176	174	95	101	97.6	86552	PASS
177	176	5	9	6.3	5415	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D216.D
Acq On : 16 Mar 2010 5:01 pm
Operator : CDS1
Sample : |UVM100217-02|BFB2|1|VOA|1|
Misc : BFB 5mL N/A
ALS Vial : 27 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Mar 01 09:52:36 2010

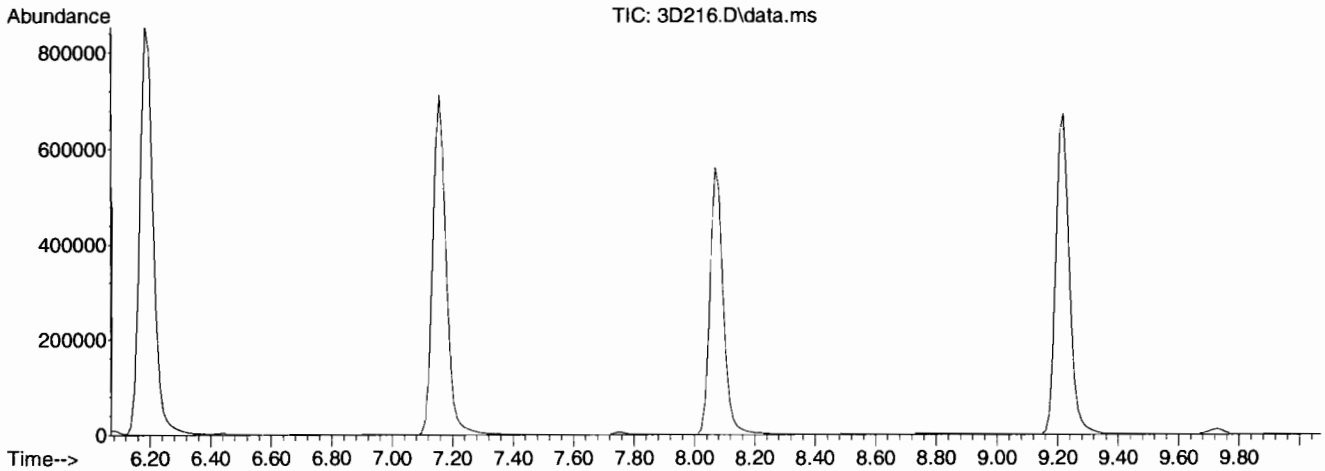

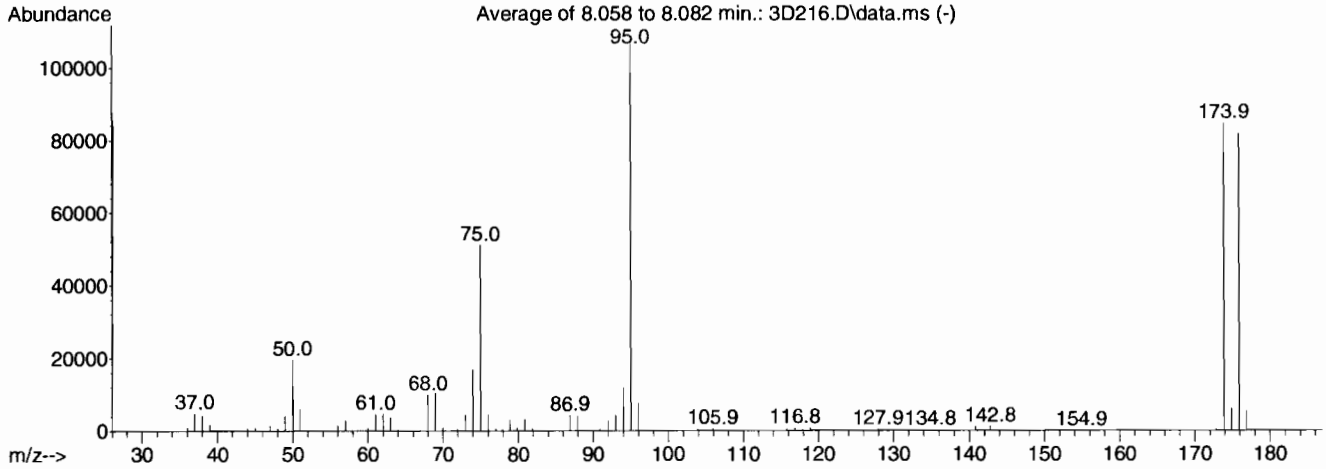

AutoFind: Scans 296, 297, 298; Background Corrected with Scan 289

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.3	19488	PASS
75	95	30	60	47.8	50968	PASS
95	95	100	100	100.0	106536	PASS
96	95	5	9	7.0	7510	PASS
173	174	0.00	2	0.5	418	PASS
174	95	50	100	79.5	84651	PASS
175	174	5	9	7.1	6016	PASS
176	174	95	101	96.6	81808	PASS
177	176	5	9	6.7	5470	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071635**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 14:55**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 11:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D108SBLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071635**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 14:55**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 11:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D108SBLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D108SBLA.D
Acq On : 15 Mar 2010 2:55 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071635|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 22 07:21:15 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	742457	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	535571	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	272142	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	742288	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	535571	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	275889	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	224132	49.22	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 98.44%					
43) Toluene-d8	14.165	14.165	0.894	98	794662	55.13	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 110.26%					
61) Bromofluorobenzene	17.130	17.130	0.930	95	274822	50.08	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 100.16%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	8.011	7.987	0.655	43	581	N.D.		
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	8.426	8.449	0.689	76	1178	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	1051	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D108SBLA.D
Acq On : 15 Mar 2010 2:55 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071635|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 22 07:21:15 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	14.248	14.248	0.899	91	3502	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	0.000	14.888	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	16.086	15.968	1.015	91	366	N.D.	
55) m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	0.000	16.549	0.000		0	N.D.	
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68) 4-Chlorotoluene	17.628	17.628	0.957	91	179	N.D.	
69) tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	17.960	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	18.351	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	18.434	0.000		0	N.D.	
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.352	21.351	1.160	128	1697	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	0.000	7.750	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88) Allyl chloride	0.000	8.556	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D108SBLA.D
Acq On : 15 Mar 2010 2:55 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071635|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 22 07:21:15 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	10.726	0.000		0	N.D.	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100) Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108) Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110) Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111) Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.051	18.980	1.035	45	1826	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D108SBLA.D
Acq On : 15 Mar 2010 2:55 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071635|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 22 07:21:15 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

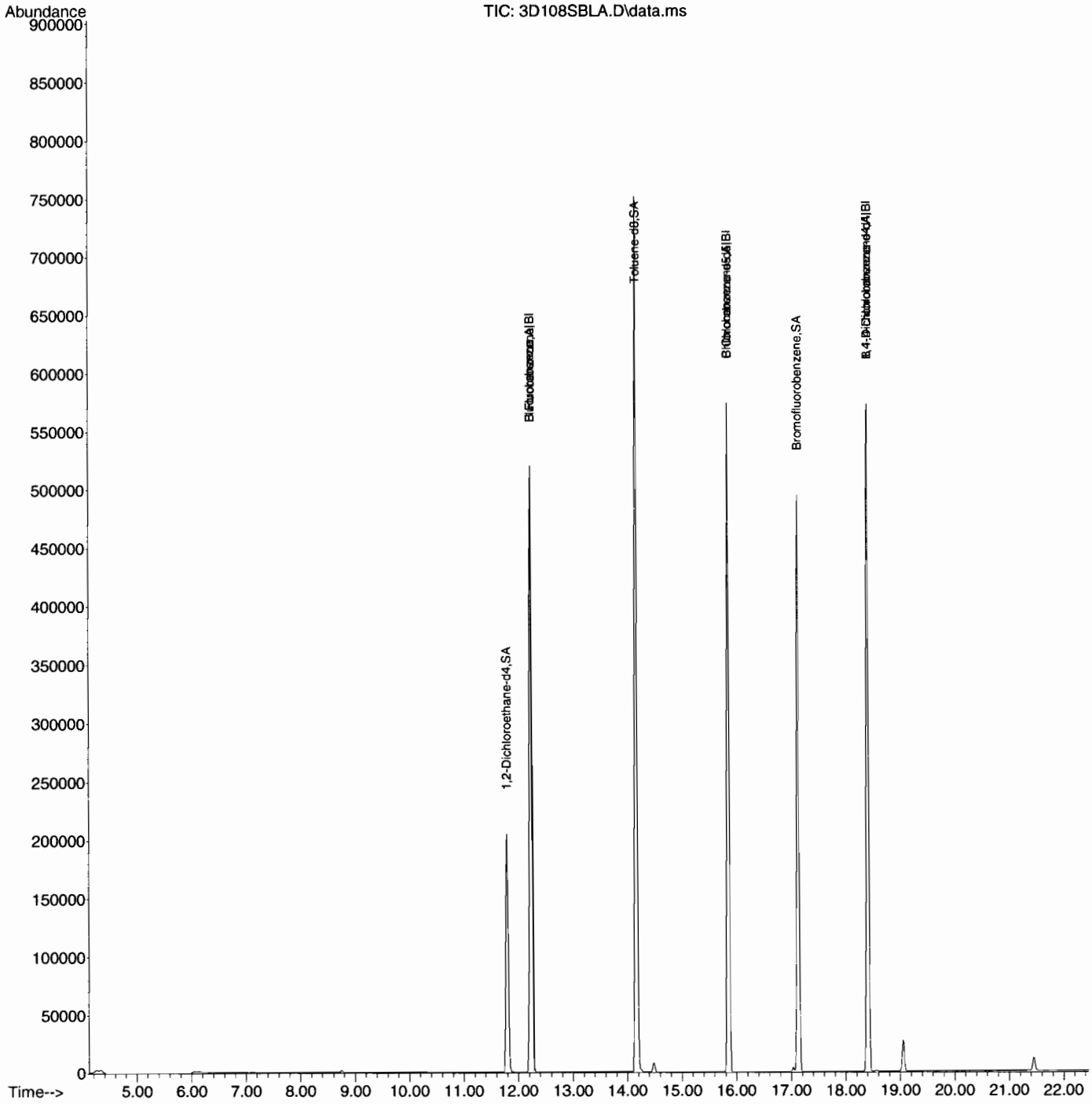

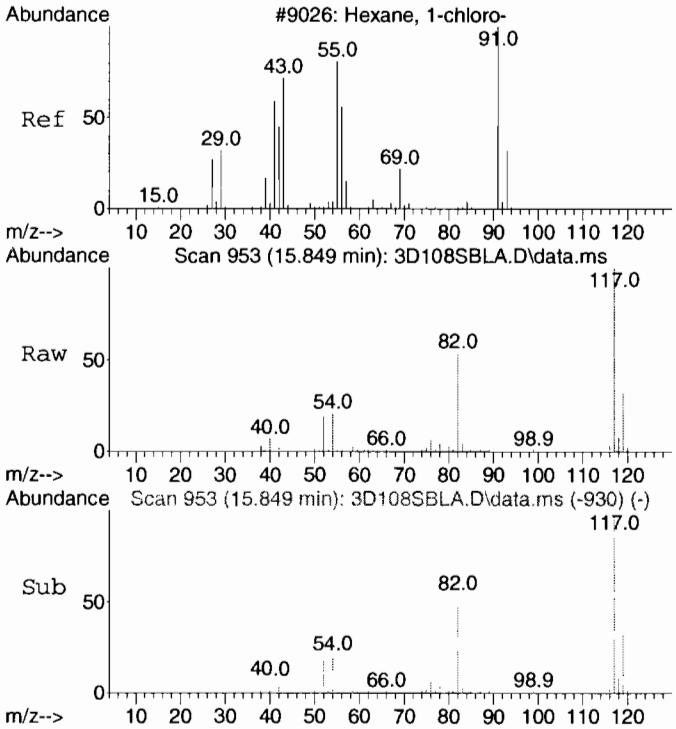

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.98 ug/L
RT: 15.849 min Scan# 953
Delta R.T. 0.095 min
Lab File: 3D108SBLA.D
Acq: 15 Mar 2010 2:55 pm

Tgt Ion: 55 Resp: 4950

Ion	Ratio	Lower	Upper
55	100		
91	9.4	119.7	179.7#
56	62.0	29.6	89.6

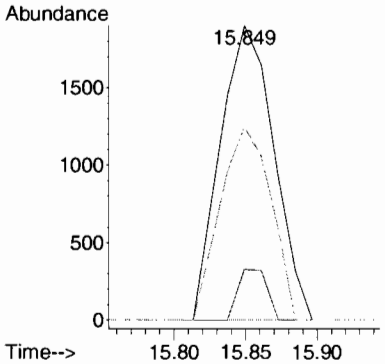

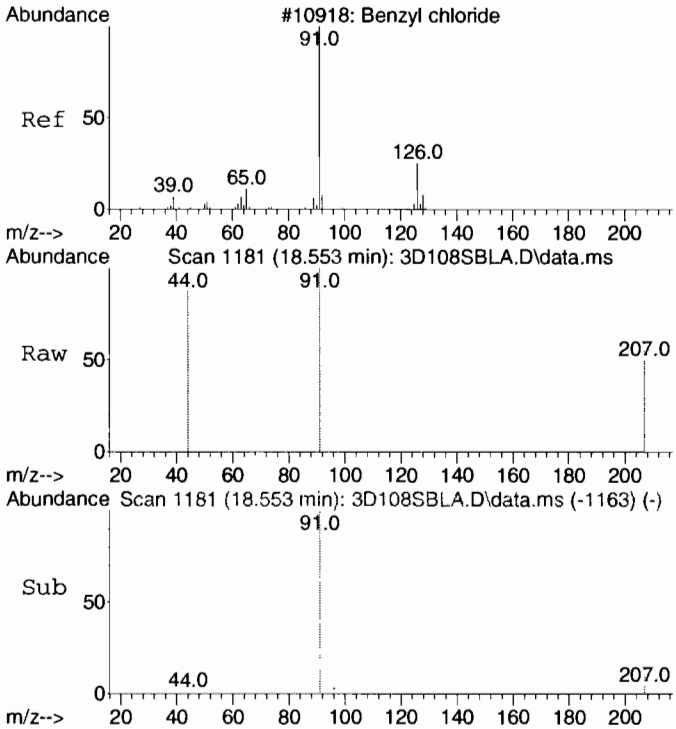

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 1.93 ug/L
RT: 18.553 min Scan# 1181
Delta R.T. 0.000 min
Lab File: 3D108SBLA.D
Acq: 15 Mar 2010 2:55 pm

Tgt Ion: 91 Resp: 1488

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.8
65	0.0	0.0	41.3

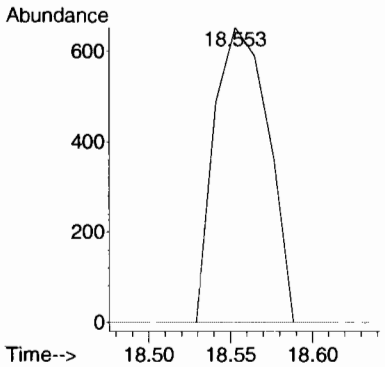

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D108SBLA.D
Acq On : 15 Mar 2010 2:55 pm
Operator : CDS1
Sample : |1202071635|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D108SBLA.D
Acq On : 15 Mar 2010 2:55 pm
Operator : CDS1
Sample : |1202071635|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074003**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 20:20**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 16:45**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V3\3D223SBLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074003**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 20:20**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 16:45**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V3\3D223SBLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D223SBLA.D
Acq On : 16 Mar 2010 8:20 pm
Operator : CDS1
InstName : VOA3
Sample : |1202074003|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 22 07:20:29 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	783087	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	586964	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	297091	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	782831	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	587024	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	303581	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	249703	51.99	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 103.98%					
43) Toluene-d8	14.165	14.165	0.894	98	844266	53.45	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 106.90%					
61) Bromofluorobenzene	17.130	17.130	0.930	95	287679	48.02	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 96.04%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	8.010	7.987	0.655	43	394	N.D.		
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	8.425	8.449	0.689	76	983	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	3444	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D223SBLA.D
Acq On : 16 Mar 2010 8:20 pm
Operator : CDS1
InstName : VOA3
Sample : |1202074003|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 22 07:20:29 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	0.000	14.248	0.000		0	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	14.888	14.888	0.939	43	649	N.D.	
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	16.086	15.968	1.015	91	456	N.D.	
55) m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	0.000	16.549	0.000		0	N.D.	
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	17.367	17.367	0.943	91	205	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68) 4-Chlorotoluene	17.628	17.628	0.957	91	418	N.D.	
69) tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	17.960	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	18.339	18.351	0.996	146	423	N.D.	
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	988	N.D.	
75) n-Butylbenzene	18.742	18.742	1.018	91	390	N.D.	
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	179	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	368	N.D.	
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.339	21.351	1.159	128	2395	N.D.	
81) 1,2,3-Trichlorobenzene	21.707	21.719	1.179	180	179	N.D.	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	0.000	7.750	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88) Allyl chloride	0.000	8.556	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D223SBLA.D
Acq On : 16 Mar 2010 8:20 pm
Operator : CDS1
InstName : VOA3
Sample : |1202074003|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 22 07:20:29 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	10.726	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104)	Ethyl methacrylate	14.450	14.450	0.912	69	448	N.D.	
106)	1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108)	Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110)	Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111)	Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	19.051	18.980	1.035	45	376	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D223SBLA.D
Acq On : 16 Mar 2010 8:20 pm
Operator : CDS1
InstName : VOA3
Sample : |1202074003|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 22 07:20:29 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

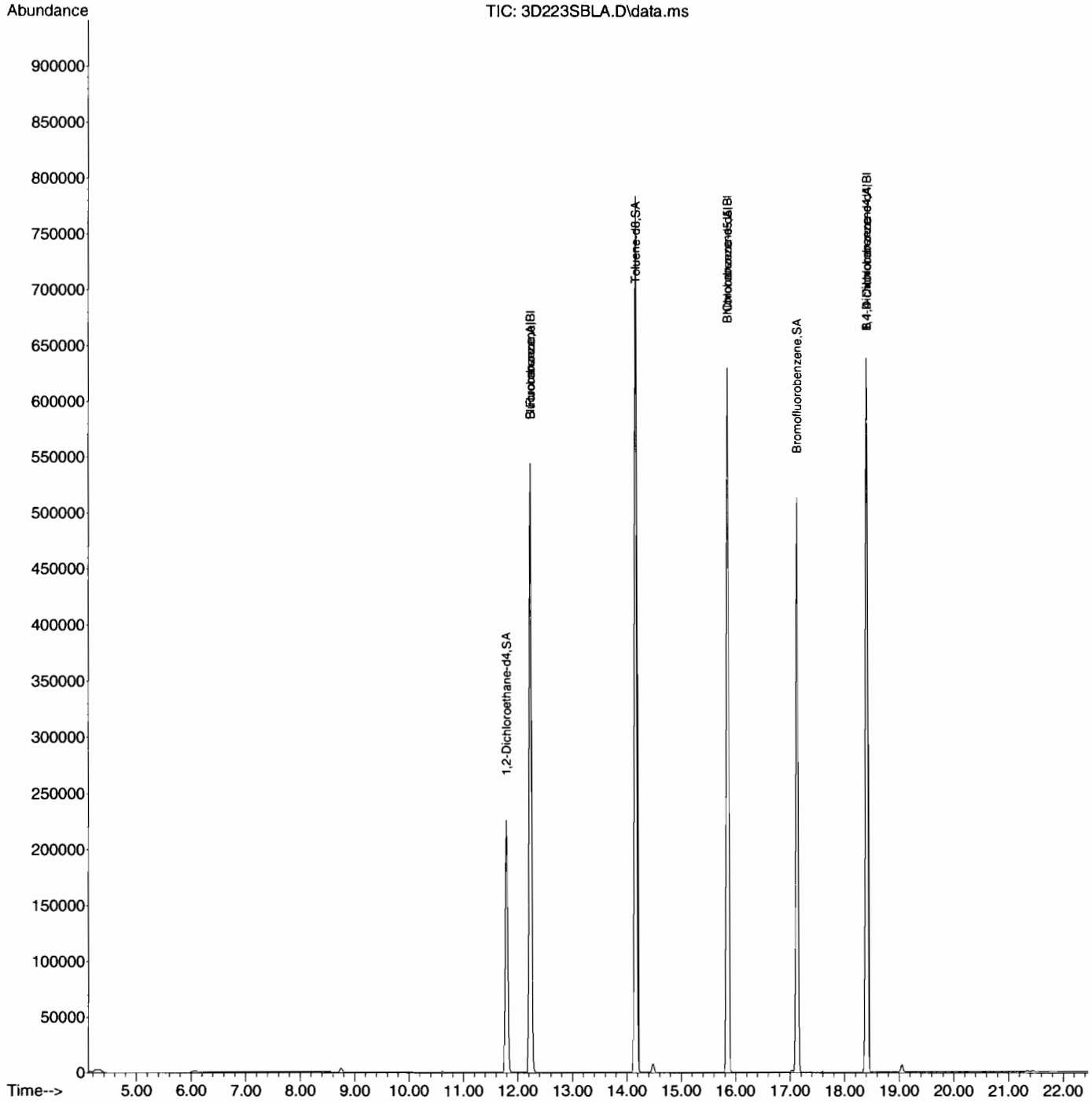

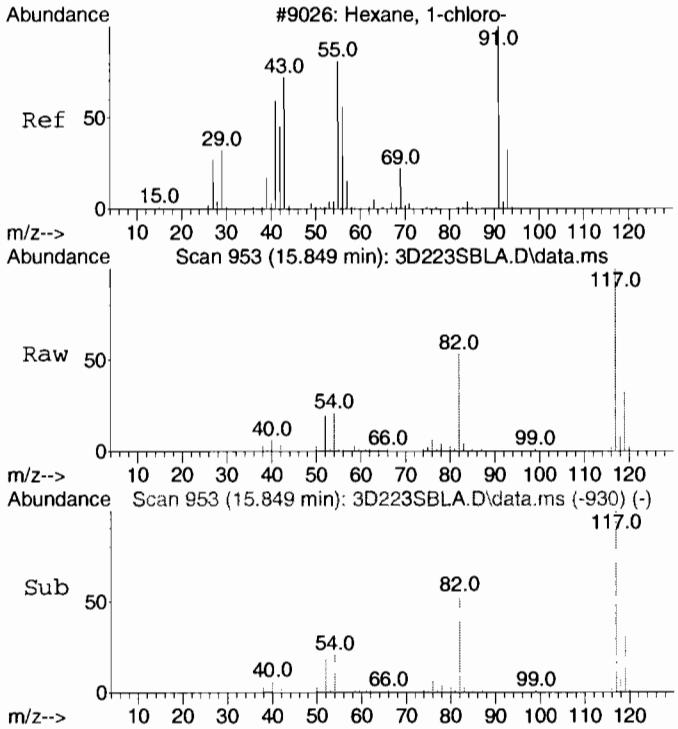

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.93 ug/L
RT: 15.849 min Scan# 953
Delta R.T. 0.095 min
Lab File: 3D223SBLA.D
Acq: 16 Mar 2010 8:20 pm

Tgt Ion: 55 Resp: 5312

Ion	Ratio	Lower	Upper
55	100		
91	15.1	119.7	179.7#
56	58.3	29.6	89.6

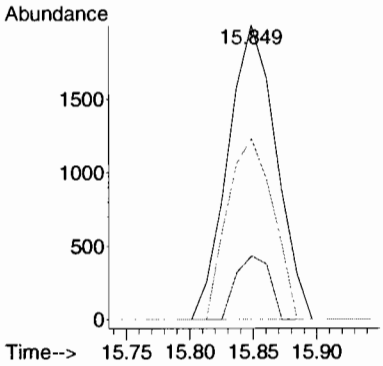

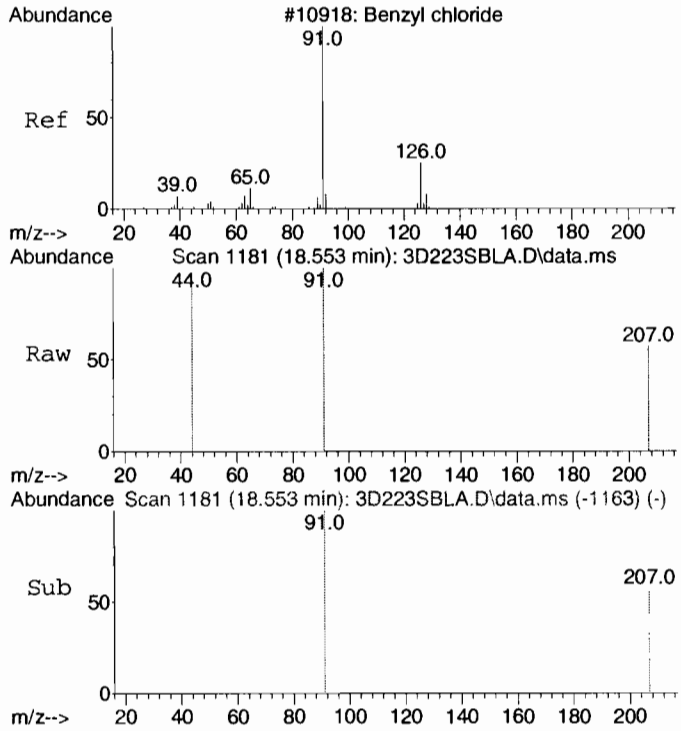

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 1.92 ug/L
RT: 18.553 min Scan# 1181
Delta R.T. -0.000 min
Lab File: 3D223SBLA.D
Acq: 16 Mar 2010 8:20 pm

Tgt Ion: 91 Resp: 1606

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.8
65	0.0	0.0	41.3

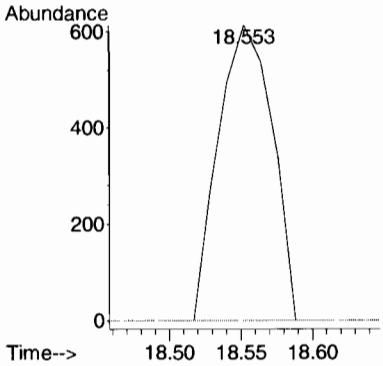

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D223SBLA.D
Acq On : 16 Mar 2010 8:20 pm
Operator : CDS1
Sample : |1202074003|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D223SBLA.D
Acq On    : 16 Mar 2010   8:20 pm
Operator  : CDS1
Sample    : |1202074003|965481|1|VOA|1|VOA8260BS|
Misc      : BLANK 5G - SOIL
ALS Vial  : 34   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P

                                                  |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-----------------------------------------------------------------------------
```

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071638**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 12:59**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 11:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D104SLLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		39.0	ug/kg	0.340	1.00
74-87-3	Chloromethane		40.1	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		44.5	ug/kg	0.300	1.00
74-83-9	Bromomethane		45.4	ug/kg	0.300	1.00
75-00-3	Chloroethane		46.1	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		44.7	ug/kg	0.300	1.00
67-64-1	Acetone		186	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		41.3	ug/kg	0.300	1.00
74-88-4	Iodomethane		204	ug/kg	1.60	5.00
75-09-2	Methylene chloride		39.4	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		212	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		42.0	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		43.8	ug/kg	0.300	1.00
78-93-3	2-Butanone		203	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		44.4	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		48.0	ug/kg	0.300	1.00
67-66-3	Chloroform		43.8	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		44.3	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		43.4	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		43.9	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		45.9	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		43.1	ug/kg	0.300	1.00
71-43-2	Benzene		43.0	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		42.2	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		45.8	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		48.1	ug/kg	0.300	1.00
74-95-3	Dibromomethane		45.6	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		239	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		49.0	ug/kg	0.300	1.00
108-88-3	Toluene		41.9	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		49.6	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		46.0	ug/kg	0.300	1.00
591-78-6	2-Hexanone		217	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		45.8	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		42.6	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		49.8	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		44.9	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		42.8	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071638**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 12:59**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 11:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D104SLLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		41.6	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		86.0	ug/kg	0.300	2.00
95-47-6	o-Xylene		45.2	ug/kg	0.300	1.00
100-42-5	Styrene		46.9	ug/kg	0.300	1.00
75-25-2	Bromoform		45.1	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		47.3	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		45.8	ug/kg	0.300	1.00
108-86-1	Bromobenzene		44.8	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		44.7	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		44.8	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		44.3	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		45.1	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		44.5	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		46.0	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		45.2	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		45.2	ug/kg	0.300	1.00
99-87-6	4-IsopropyItoluene		46.0	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		42.7	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		43.1	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		44.0	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		38.4	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		46.9	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		42.8	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D104SLLA.D
Acq On : 15 Mar 2010 12:59 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071638|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[A] SOIL 0305-01A+0313-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 13:25:54 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	803297	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	643492	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	320562	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	802994	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	643533	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	327390	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	256935	52.15	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 104.30%					
43) Toluene-d8	14.165	14.165	0.894	98	894528	51.65	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 103.30%					
61) Bromofluorobenzene	17.130	17.130	0.930	95	338580	52.38	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 104.76%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	87868	39.00	ug/L	99
3) Chloromethane	5.216	5.216	0.426	50	151653	40.13	ug/L	99
4) Vinyl chloride	5.528	5.528	0.452	62	171210	44.46	ug/L	99
5) Bromomethane	6.291	6.291	0.514	94	140955	45.35	ug/L	100
6) Chloroethane	6.493	6.493	0.531	64	114734	46.11	ug/L	98
7) Trichlorofluoromethane	7.062	7.062	0.577	101	236658	44.66	ug/L	100
8) Ethyl ether	7.513	7.512	0.614	59	128019	46.73	ug/L	98
9) Acetone	7.987	7.987	0.653	43	628253	185.51	ug/L	99
10) 1,1-Dichloroethylene	7.987	7.987	0.653	61	224715	41.26	ug/L	99
11) Iodomethane	8.272	8.271	0.676	142	1404157	203.90	ug/L	100
12) Acetonitrile	8.449	8.449	0.691	41	616586	1051.04	ug/L	98
13) Methyl acetate	8.521	8.520	0.697	43	662193	219.10	ug/L	99
14) Carbon disulfide	8.449	8.449	0.691	76	2542365	211.61	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	192999	39.43	ug/L	97
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	449805	42.26	ug/L	99
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753	61	212074	42.04	ug/L	100
18) Vinyl acetate	9.837	9.837	0.804	43	1683563	277.40	ug/L	100
19) 1,1-Dichloroethane	9.861	9.860	0.806	63	277781	43.82	ug/L	100
20) 2-Butanone	10.643	10.643	0.870	43	686353	203.49	ug/L	99
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	247556	44.36	ug/L	99
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	187714	47.96	ug/L	99
23) Bromochloromethane	11.035	11.034	0.902	128	90936	44.26	ug/L	97
24) Chloroform	11.094	11.094	0.907	83	283267	43.79	ug/L	100
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	227809	43.36	ug/L	99
26) Cyclohexane	11.533	11.532	0.943	56	252623	42.96	ug/L	99
27) 1,1-Dichloropropene	11.628	11.627	0.951	75	196022	43.91	ug/L	99
28) Carbon tetrachloride	11.663	11.663	0.953	117	210783	45.88	ug/L	100
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	218078	43.10	ug/L	99
31) Benzene	11.912	11.912	0.974	78	609092	43.01	ug/L	100
32) Cyclohexene	12.054	12.054	0.985	67	267339	41.24	ug/L	99
33) n-Butyl alcohol	12.398	12.398	1.014	56	657853	4412.70	ug/L	98
34) Trichloroethylene	12.695	12.695	1.038	95	154308	42.20	ug/L	100
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	158544	45.84	ug/L	100
36) Methylcyclohexane	12.991	12.991	1.062	83	257327	42.51	ug/L	99
37) Dibromomethane	13.134	13.133	1.074	93	105856	45.60	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D104SLLA.D
Acq On : 15 Mar 2010 12:59 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071638|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[A] SOIL 0305-01A+0313-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 13:25:54 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	13.288	13.288	1.086	83	212359	48.08	ug/L	99
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	286321	254.25	ug/L	98
40) cis-1,3-Dichloropropylene	13.809	13.809	1.129	75	245917	49.00	ug/L	100
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	372217	239.41	ug/L	98
44) Toluene	14.248	14.248	0.899	91	645887	41.92	ug/L	99
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	232081	49.56	ug/L	99
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	122458	46.01	ug/L	100
47) 2-Hexanone	14.889	14.888	0.939	43	862884	217.39	ug/L	99
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	253371	45.84	ug/L	95
49) Tetrachloroethylene	14.912	14.912	0.941	164	127749	42.56	ug/L	98
50) Dibromochloromethane	15.173	15.173	0.957	129	175230	49.77	ug/L	99
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	153687	44.90	ug/L	99
52) Chlorobenzene	15.885	15.885	1.002	112	432357	42.75	ug/L	99
53) 1,1,1,2-Tetrachloroethane	15.956	15.956	1.007	131	163219	46.94	ug/L	99
54) Ethylbenzene	15.968	15.968	1.007	91	661651	41.56	ug/L	100
55) m,p-Xylenes	16.086	16.086	1.015	106	543766	85.95	ug/L	99
56) o-Xylene	16.549	16.549	1.044	106	285938	45.24	ug/L	99
57) Styrene	16.549	16.549	1.044	104	473631	46.94	ug/L	99
59) Bromoform	16.810	16.821	0.913	173	110960	45.11	ug/L	100
60) Isopropylbenzene	16.928	16.928	0.919	105	704037	44.32	ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	203146	47.30	ug/L	99
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	54127	45.84	ug/L	99
64) Bromobenzene	17.343	17.343	0.942	156	191184	44.83	ug/L	99
65) n-Propylbenzene	17.367	17.367	0.943	91	820480	44.67	ug/L	99
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	601275	45.11	ug/L	100
67) 2-Chlorotoluene	17.521	17.521	0.952	126	177446	44.82	ug/L	99
68) 4-Chlorotoluene	17.628	17.628	0.957	91	507473	44.54	ug/L	100
69) tert-Butylbenzene	17.913	17.912	0.973	134	131051	45.96	ug/L	100
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	610938	45.20	ug/L	99
71) sec-Butylbenzene	18.150	18.150	0.986	105	806506	45.18	ug/L	100
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	651174	45.95	ug/L	99
73) 1,3-Dichlorobenzene	18.339	18.351	0.996	146	310777	42.66	ug/L	99
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	359730	43.08	ug/L	99
75) n-Butylbenzene	18.743	18.742	1.018	91	593293	44.02	ug/L	99
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	354600	42.79	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	39209	38.36	ug/L	98
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	238667	42.82	ug/L	100
79) Hexachlorobutadiene	21.126	21.126	1.148	225	114635	41.06	ug/L	98
80) Naphthalene	21.351	21.351	1.160	128	602887	42.06	ug/L	100
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	226558	41.62	ug/L	98
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88) Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.173	9.090	0.750		0m	N.D.	d	
91) Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.643	10.679	0.870		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D104SLLA.D
Acq On : 15 Mar 2010 12:59 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071638|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[A] SOIL 0305-01A+0313-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 13:25:54 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	10.643	10.726	0.870		0m	N.D.	d
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97) Tetrahydrofuran	11.106	11.094	0.908		0m	N.D.	d
98) Isobutyl alcohol	11.533	11.556	0.943		0m	N.D.	d
99) Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100) Methyl methacrylate	12.991	12.991	1.062		0m	N.D.	d
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108) Cyclohexanone	16.928	17.082	0.919		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110) Pentachloroethane	17.984	17.983	0.977		0m	N.D.	d
111) Benzyl chloride	18.399	18.553	0.999		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D104SLLA.D
Acq On : 15 Mar 2010 12:59 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071638|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[A] SOIL 0305-01A+0313-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 13:25:54 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

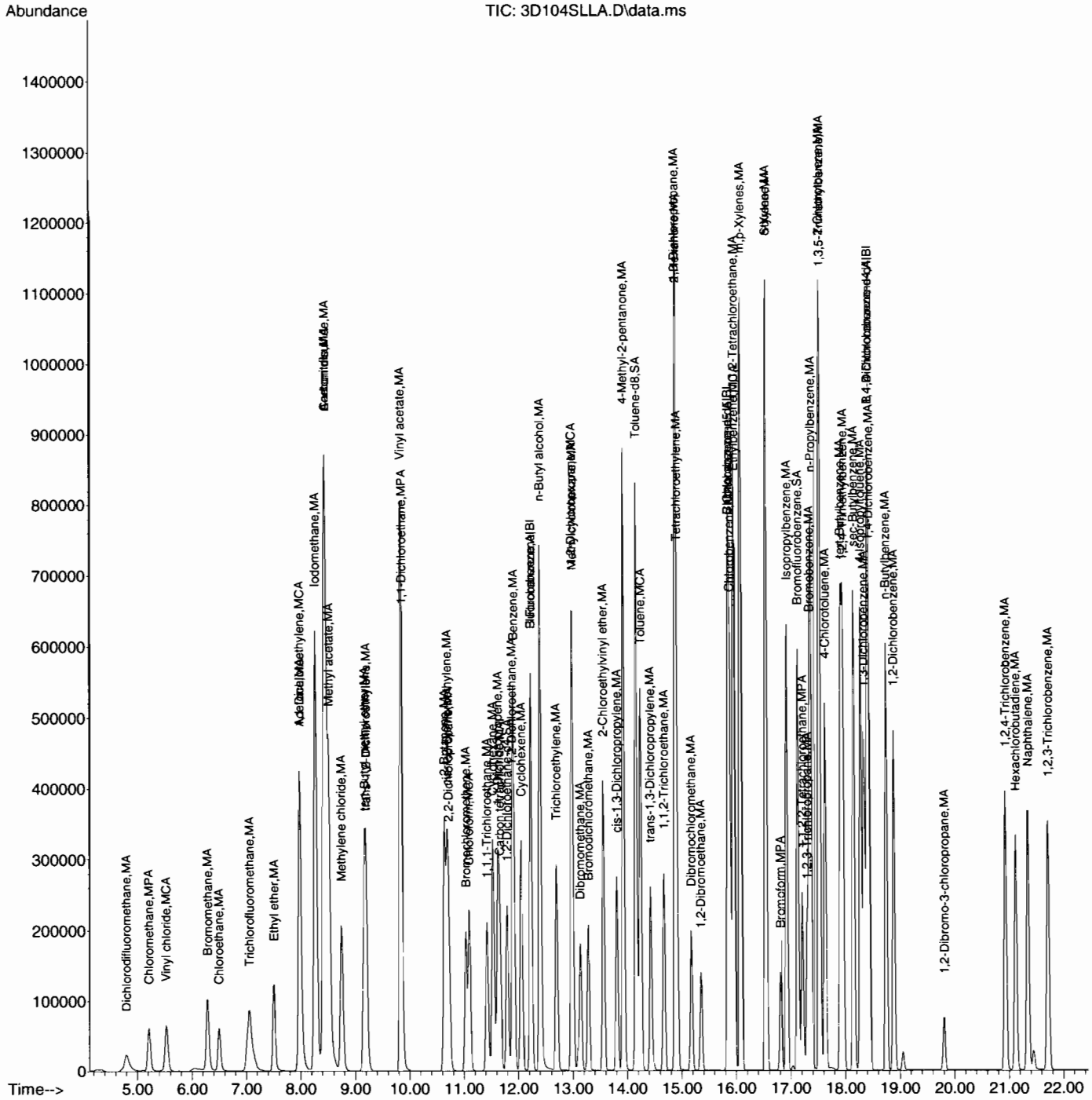

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071639**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 13:57**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 11:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D106SSLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071639**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 13:57**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 11:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D106SSLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		257	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D106SSLA.D
Acq On : 15 Mar 2010 1:57 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071639|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[B] SOIL 0215-08B/0226-02A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 20:36:13 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	829898	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	652133	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	319369	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	829608	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	652329	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	325545	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	264047	51.88	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery =		103.76%			
43) Toluene-d8	14.165	14.165	0.894	98	897163	51.12	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery =		102.24%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	343302	53.31	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery =		106.62%			

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	5.201	5.216	0.425		0m	N.D.	d	
4) Vinyl chloride	5.528	5.528	0.452		0m	N.D.	d	
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.987	7.987	0.653		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.975	7.987	0.652		0m	N.D.	d	
11) Iodomethane	8.271	8.271	0.676		0m	N.D.	d	
12) Acetonitrile	8.556	8.449	0.699		0m	N.D.	d	
13) Methyl acetate	8.532	8.520	0.698		0m	N.D.	d	
14) Carbon disulfide	8.556	8.449	0.699		0m	N.D.	d	
15) Methylene chloride	8.746	8.746	0.715		0m	N.D.	d	
16) tert-Butyl methyl ether	9.173	9.173	0.750		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	9.884	9.837	0.808		0m	N.D.	d	
19) 1,1-Dichloroethane	10.003	9.860	0.818		0m	N.D.	d	
20) 2-Butanone	10.679	10.643	0.873		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.679	10.691	0.873		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	11.556	11.532	0.945		0m	N.D.	d	
27) 1,1-Dichloropropene	11.556	11.627	0.945		0m	N.D.	d	
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	11.912	11.912	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	12.410	12.398	1.015		0m	N.D.	d	
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	12.991	12.991	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D106SSLA.D
Acq On : 15 Mar 2010 1:57 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071639|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[B] SOIL 0215-08B/0226-02A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 20:36:13 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38)	Bromodichloromethane	0.000	13.288	0.000		0	N.D.			
39)	2-Chloroethylvinyl ether	13.560	13.560	1.109		0m	N.D.	d		
40)	cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.			
42)	4-Methyl-2-pentanone	13.928	13.928	0.879		0m	N.D.	d		
44)	Toluene	14.248	14.248	0.899		0m	N.D.	d		
45)	trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.			
46)	1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.			
47)	2-Hexanone	14.888	14.888	0.939		0m	N.D.	d		
48)	1,3-Dichloropropane	14.936	14.888	0.942		0m	N.D.	d		
49)	Tetrachloroethylene	14.912	14.912	0.941		0m	N.D.	d		
50)	Dibromochloromethane	0.000	15.173	0.000		0	N.D.			
51)	1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.			
52)	Chlorobenzene	15.885	15.885	1.002		0m	N.D.	d		
53)	1,1,1,2-Tetrachloroethane	15.944	15.956	1.006		0m	N.D.	d		
54)	Ethylbenzene	16.086	15.968	1.015		0m	N.D.	d		
55)	m,p-Xylenes	16.086	16.086	1.015		0m	N.D.	d		
56)	o-Xylene	0.000	16.549	0.000		0	N.D.			
57)	Styrene	16.549	16.549	1.044		0m	N.D.	d		
59)	Bromoform	0.000	16.821	0.000		0	N.D.			
60)	Isopropylbenzene	16.928	16.928	0.919		0m	N.D.	d		
62)	1,1,2,2-Tetrachloroethane	17.260	17.213	0.938		0m	N.D.	d		
63)	1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.			
64)	Bromobenzene	17.343	17.343	0.942		0m	N.D.	d		
65)	n-Propylbenzene	17.367	17.367	0.943		0m	N.D.	d		
66)	1,3,5-Trimethylbenzene	17.533	17.533	0.952		0m	N.D.	d		
67)	2-Chlorotoluene	17.521	17.521	0.952		0m	N.D.	d		
68)	4-Chlorotoluene	17.628	17.628	0.957		0m	N.D.	d		
69)	tert-Butylbenzene	17.983	17.912	0.977		0m	N.D.	d		
70)	1,2,4-Trimethylbenzene	17.960	17.960	0.976		0m	N.D.	d		
71)	sec-Butylbenzene	18.150	18.150	0.986		0m	N.D.	d		
72)	4-Isopropyltoluene	18.280	18.280	0.993		0m	N.D.	d		
73)	1,3-Dichlorobenzene	18.339	18.351	0.996		0m	N.D.	d		
74)	1,4-Dichlorobenzene	18.434	18.434	1.001		0m	N.D.	d		
75)	n-Butylbenzene	18.742	18.742	1.018		0m	N.D.	d		
76)	1,2-Dichlorobenzene	18.885	18.885	1.026		0m	N.D.	d		
77)	1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.			
78)	1,2,4-Trichlorobenzene	20.936	20.936	1.137		0m	N.D.	d		
79)	Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.			
80)	Naphthalene	21.339	21.351	1.159		0m	N.D.	d		
81)	1,2,3-Trichlorobenzene	21.719	21.719	1.180		0m	N.D.	d		
83)	Chlorotrifluoroethylene	4.711	4.711	0.385	116	208902	90.59	ug/L	96	
84)	2-Chloro-1,1,1-trifluo...	5.751	5.751	0.470	118	638717	136.90	ug/L	99	
85)	Acrolein	7.750	7.750	0.634	56	175964	403.20	ug/L	96	E
86)	Trichlorotrifluoroethane	7.975	7.975	0.652	85	353295	257.47	ug/L	99	
87)	Isopropyl Alcohol	8.141	8.141	0.666	45	850130	2732.64	ug/L	99	
88)	Allyl chloride	8.556	8.556	0.699	41	1280687	260.56	ug/L	99	
89)	tert-Butyl Alcohol	8.805	8.793	0.720	59	1401889	2693.65	ug/L	99	
90)	Acrylonitrile	9.101	9.090	0.744	53	371173	252.67	ug/L	99	
91)	Isopropyl ether	9.884	9.884	0.808	45	573075	48.68	ug/L	99	
92)	2-Chloro-1,3-butadiene	10.003	10.003	0.818	53	243443	57.00	ug/L	100	
93)	Ethyl tert-butyl ether	10.418	10.406	0.852	59	558375	49.68	ug/L	100	
94)	Ethyl acetate	10.679	10.679	0.873	43	856888	236.38	ug/L	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D106SSLA.D
Acq On : 15 Mar 2010 1:57 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071639|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[B] SOIL 0215-08B/0226-02A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 20:36:13 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
95) Propionitrile	10.726	10.726	0.877	54	146508	254.35	ug/L	99	
96) Methacrylonitrile	10.951	10.951	0.895	41	557771	252.44	ug/L	99	
97) Tetrahydrofuran	11.094	11.094	0.907	42	306325	251.14	ug/L	100	
98) Isobutyl alcohol	11.556	11.556	0.945	41	406506	2591.28	ug/L	99	
99) Methyl tert-amyl ether	11.971	11.971	0.979	73	520853	50.17	ug/L	99	
100) Methyl methacrylate	12.991	12.991	1.062	69	654894	273.94	ug/L	98	
101) 1,4-Dioxane	13.098	13.098	1.071	88	119799	2356.15	ug/L	96	
102) 2-Nitropropane	13.525	13.525	1.106	43	280870	264.91	ug/L	99	
104) Ethyl methacrylate	14.450	14.450	0.912	69	1231311	277.94	ug/L	99	
106) 1-Chlorohexane	15.754	15.754	0.856	55	143250	48.56	ug/L	98	
107) cis-1,4-Dichloro-2-butene	16.964	16.964	0.921	53	362919	332.31	ug/L	97	
108) Cyclohexanone	17.082	17.082	0.928	42	658680	5254.80	ug/L	99	E
109) trans-1,4-Dichloro-2-b...	17.260	17.260	0.938	53	344615	323.52	ug/L	97	
110) Pentachloroethane	17.983	17.983	0.977	167	629813	441.25	ug/L	95	E
111) Benzyl chloride	18.553	18.553	1.008	91	2055943	393.18	ug/L	100	
112) bis(2-Chloroisopropyl)...	18.980	18.980	1.031	45	531589	252.62	ug/L	97	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D106SSLA.D
Acq On : 15 Mar 2010 1:57 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071639|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[B] SOIL 0215-08B/0226-02A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 20:36:13 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

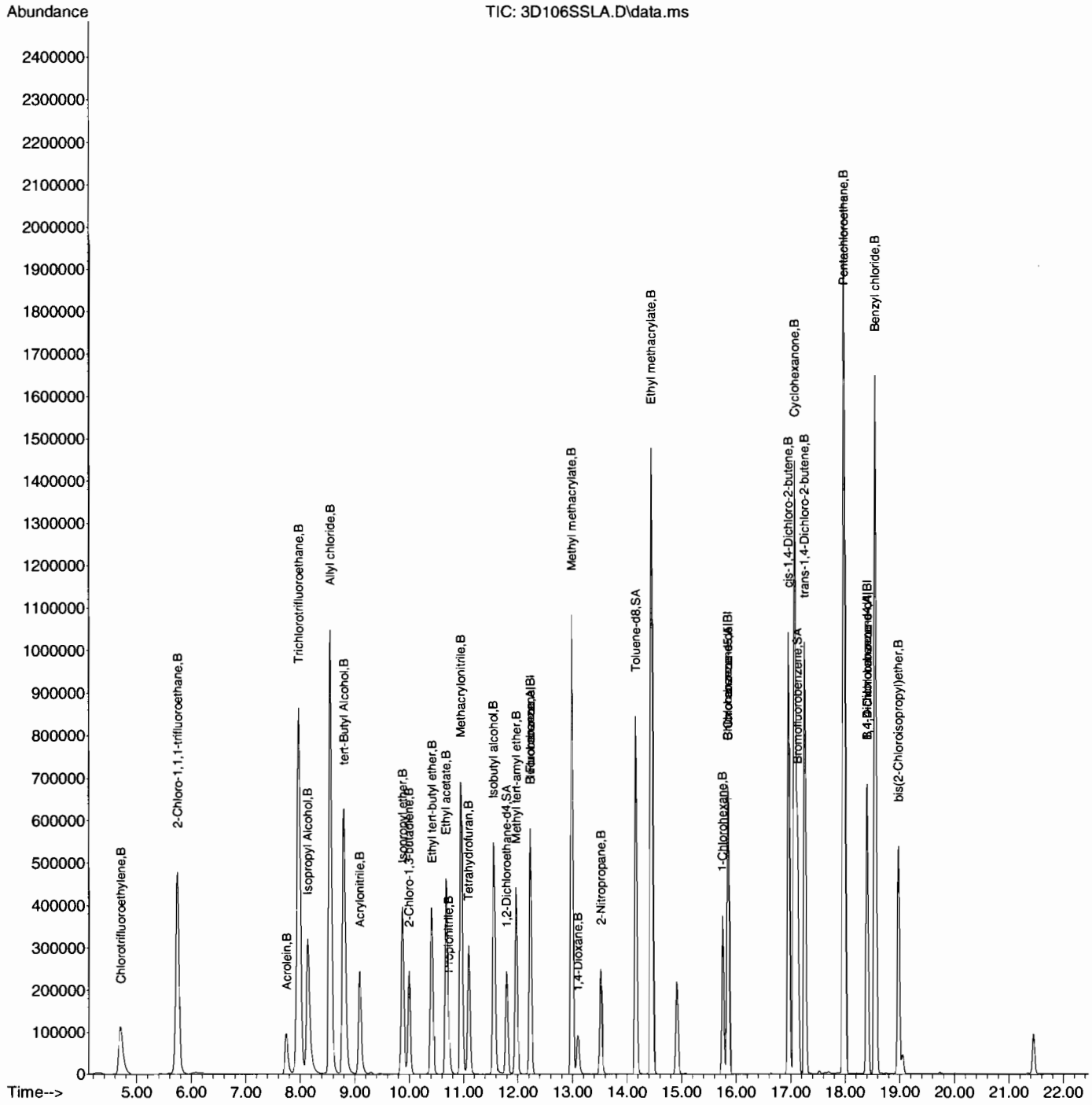

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074004**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 18:25**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 16:47**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V3\3D219SLLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		49.9	ug/kg	0.340	1.00
74-87-3	Chloromethane		45.9	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		52.7	ug/kg	0.300	1.00
74-83-9	Bromomethane		50.6	ug/kg	0.300	1.00
75-00-3	Chloroethane		52.1	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		51.6	ug/kg	0.300	1.00
67-64-1	Acetone		220	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		46.9	ug/kg	0.300	1.00
74-88-4	Iodomethane		226	ug/kg	1.60	5.00
75-09-2	Methylene chloride		43.6	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		241	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		47.7	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		48.1	ug/kg	0.300	1.00
78-93-3	2-Butanone		245	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		49.8	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		54.5	ug/kg	0.300	1.00
67-66-3	Chloroform		49.5	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		50.6	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		50.5	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		50.4	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		52.6	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		49.0	ug/kg	0.300	1.00
71-43-2	Benzene		48.2	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		48.9	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		50.5	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		54.7	ug/kg	0.300	1.00
74-95-3	Dibromomethane		52.1	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		283	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		55.5	ug/kg	0.300	1.00
108-88-3	Toluene		49.3	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		57.2	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		51.7	ug/kg	0.300	1.00
591-78-6	2-Hexanone		260	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		51.0	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		48.1	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		55.4	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		51.0	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		48.3	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074004**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 18:25**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 16:47**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V3\3D219SLLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		48.1	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		99.0	ug/kg	0.300	2.00
95-47-6	o-Xylene		51.6	ug/kg	0.300	1.00
100-42-5	Styrene		53.7	ug/kg	0.300	1.00
75-25-2	Bromoform		48.6	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		50.8	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		49.9	ug/kg	0.300	1.00
108-86-1	Bromobenzene		49.2	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		49.6	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		49.5	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		49.9	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		50.2	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		48.8	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		50.9	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		50.4	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		50.9	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		51.2	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		47.9	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		48.4	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		51.8	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		46.4	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		53.2	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		48.8	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D219SLLA.D
Acq On : 16 Mar 2010 6:25 pm
Operator : CDS1
InstName : VOA3
Sample : |1202074004|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[A] SOIL 0305-01B+0316-01
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 16 19:17:06 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	847292	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	653374	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	339162	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	847106	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	653333	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	347050	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	272317	52.41	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery	=	104.82%			
43) Toluene-d8	14.165	14.165	0.894	98	925042	52.61	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery	=	105.22%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	344511	50.38	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery	=	100.76%			

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	118153	49.94	ug/L	99
3) Chloromethane	5.216	5.216	0.426	50	183119	45.94	ug/L	99
4) Vinyl chloride	5.528	5.528	0.452	62	213957	52.67	ug/L	100
5) Bromomethane	6.291	6.291	0.514	94	165941	50.62	ug/L	100
6) Chloroethane	6.493	6.493	0.531	64	136709	52.09	ug/L	99
7) Trichlorofluoromethane	7.062	7.062	0.577	101	288603	51.63	ug/L	100
8) Ethyl ether	7.501	7.512	0.613	59	149431	51.72	ug/L	99
9) Acetone	7.987	7.987	0.653	43	786029	220.05	ug/L	100
10) 1,1-Dichloroethylene	7.987	7.987	0.653	61	269220	46.87	ug/L	100
11) Iodomethane	8.271	8.271	0.676	142	1640045	225.79	ug/L	100
12) Acetonitrile	8.449	8.449	0.691	41	715016	1155.53	ug/L	99
13) Methyl acetate	8.520	8.520	0.697	43	738344	231.61	ug/L	100
14) Carbon disulfide	8.449	8.449	0.691	76	3052793	240.90	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	224829	43.55	ug/L	98
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	538980	48.01	ug/L	100
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753	61	253542	47.66	ug/L	100
18) Vinyl acetate	9.837	9.837	0.804	43	2011797	314.27	ug/L	100
19) 1,1-Dichloroethane	9.849	9.860	0.805	63	321281	48.05	ug/L	100
20) 2-Butanone	10.643	10.643	0.870	43	870120	244.58	ug/L	100
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	293127	49.80	ug/L	99
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	225141	54.54	ug/L	99
23) Bromochloromethane	11.034	11.034	0.902	128	109636	50.59	ug/L	99
24) Chloroform	11.094	11.094	0.907	83	337506	49.46	ug/L	99
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	279787	50.49	ug/L	99
26) Cyclohexane	11.532	11.532	0.943	56	305835	49.30	ug/L	100
27) 1,1-Dichloropropene	11.627	11.627	0.951	75	237204	50.38	ug/L	99
28) Carbon tetrachloride	11.663	11.663	0.953	117	255014	52.63	ug/L	100
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	261284	48.96	ug/L	100
31) Benzene	11.912	11.912	0.974	78	719988	48.20	ug/L	100
32) Cyclohexene	12.054	12.054	0.985	67	331845	48.53	ug/L	99
33) n-Butyl alcohol	12.398	12.398	1.014	56	816670	5179.28	ug/L	100
34) Trichloroethylene	12.695	12.695	1.038	95	188782	48.94	ug/L	100
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	184291	50.52	ug/L	100
36) Methylcyclohexane	12.991	12.991	1.062	83	318725	49.92	ug/L	100
37) Dibromomethane	13.133	13.133	1.074	93	127458	52.06	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D219SLLA.D
Acq On : 16 Mar 2010 6:25 pm
Operator : CDS1
InstName : VOA3
Sample : |1202074004|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[A] SOIL 0305-01B+0316-01
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 16 19:17:06 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	13.288	13.288	1.086	83	254580	54.65	ug/L	100
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	353571	296.75	ug/L	99
40) cis-1,3-Dichloropropylene	13.809	13.809	1.129	75	293694	55.48	ug/L	99
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	447161	283.27	ug/L	99
44) Toluene	14.248	14.248	0.899	91	771821	49.34	ug/L	100
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	271790	57.16	ug/L	100
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	139675	51.68	ug/L	99
47) 2-Hexanone	14.888	14.888	0.939	43	1047048	259.80	ug/L	100
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	286376	51.02	ug/L	99
49) Tetrachloroethylene	14.912	14.912	0.941	164	146529	48.08	ug/L	100
50) Dibromochloromethane	15.173	15.173	0.957	129	198162	55.43	ug/L	99
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	177335	51.02	ug/L	100
52) Chlorobenzene	15.885	15.885	1.002	112	496414	48.34	ug/L	99
53) 1,1,1,2-Tetrachloroethane	15.944	15.956	1.006	131	187649	53.15	ug/L	99
54) Ethylbenzene	15.968	15.968	1.007	91	777026	48.07	ug/L	100
55) m,p-Xylenes	16.086	16.086	1.015	106	636011	99.01	ug/L	100
56) o-Xylene	16.537	16.549	1.043	106	330945	51.57	ug/L	98
57) Styrene	16.549	16.549	1.044	104	549652	53.65	ug/L	100
59) Bromoform	16.810	16.821	0.913	173	126763	48.59	ug/L	98
60) Isopropylbenzene	16.928	16.928	0.919	105	839353	49.94	ug/L	99
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	230732	50.78	ug/L	99
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	62351	49.91	ug/L	95
64) Bromobenzene	17.343	17.343	0.942	156	222173	49.24	ug/L	98
65) n-Propylbenzene	17.367	17.367	0.943	91	964508	49.63	ug/L	99
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	708459	50.24	ug/L	99
67) 2-Chlorotoluene	17.521	17.521	0.952	126	207449	49.52	ug/L	99
68) 4-Chlorotoluene	17.628	17.628	0.957	91	588540	48.82	ug/L	100
69) tert-Butylbenzene	17.912	17.912	0.973	134	153461	50.87	ug/L	96
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	720647	50.40	ug/L	98
71) sec-Butylbenzene	18.150	18.150	0.986	105	960543	50.85	ug/L	99
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	767568	51.19	ug/L	100
73) 1,3-Dichlorobenzene	18.339	18.351	0.996	146	368928	47.86	ug/L	100
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	427757	48.42	ug/L	100
75) n-Butylbenzene	18.742	18.742	1.018	91	739194	51.84	ug/L	99
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	428186	48.83	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	50572	46.41	ug/L	97
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	302778	51.34	ug/L	99
79) Hexachlorobutadiene	21.126	21.126	1.148	225	150883	51.08	ug/L	99
80) Naphthalene	21.339	21.351	1.159	128	786134	51.84	ug/L	100
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	287770	49.97	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88) Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.173	9.090	0.750		0m	N.D.	d	
91) Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.643	10.679	0.870		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D219SLLA.D
Acq On : 16 Mar 2010 6:25 pm
Operator : CDS1
InstName : VOA3
Sample : |1202074004|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[A] SOIL 0305-01B+0316-01
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 16 19:17:06 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	10.631	10.726	0.869		0m	N.D.	d
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97)	Tetrahydrofuran	11.106	11.094	0.908		0m	N.D.	d
98)	Isobutyl alcohol	11.532	11.556	0.943		0m	N.D.	d
99)	Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100)	Methyl methacrylate	12.991	12.991	1.062		0m	N.D.	d
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106)	1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108)	Cyclohexanone	16.916	17.082	0.919		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110)	Pentachloroethane	17.984	17.983	0.977		0m	N.D.	d
111)	Benzyl chloride	18.399	18.553	0.999		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D219SLLA.D
Acq On : 16 Mar 2010 6:25 pm
Operator : CDS1
InstName : VOA3
Sample : |1202074004|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[A] SOIL 0305-01B+0316-01
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 16 19:17:06 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

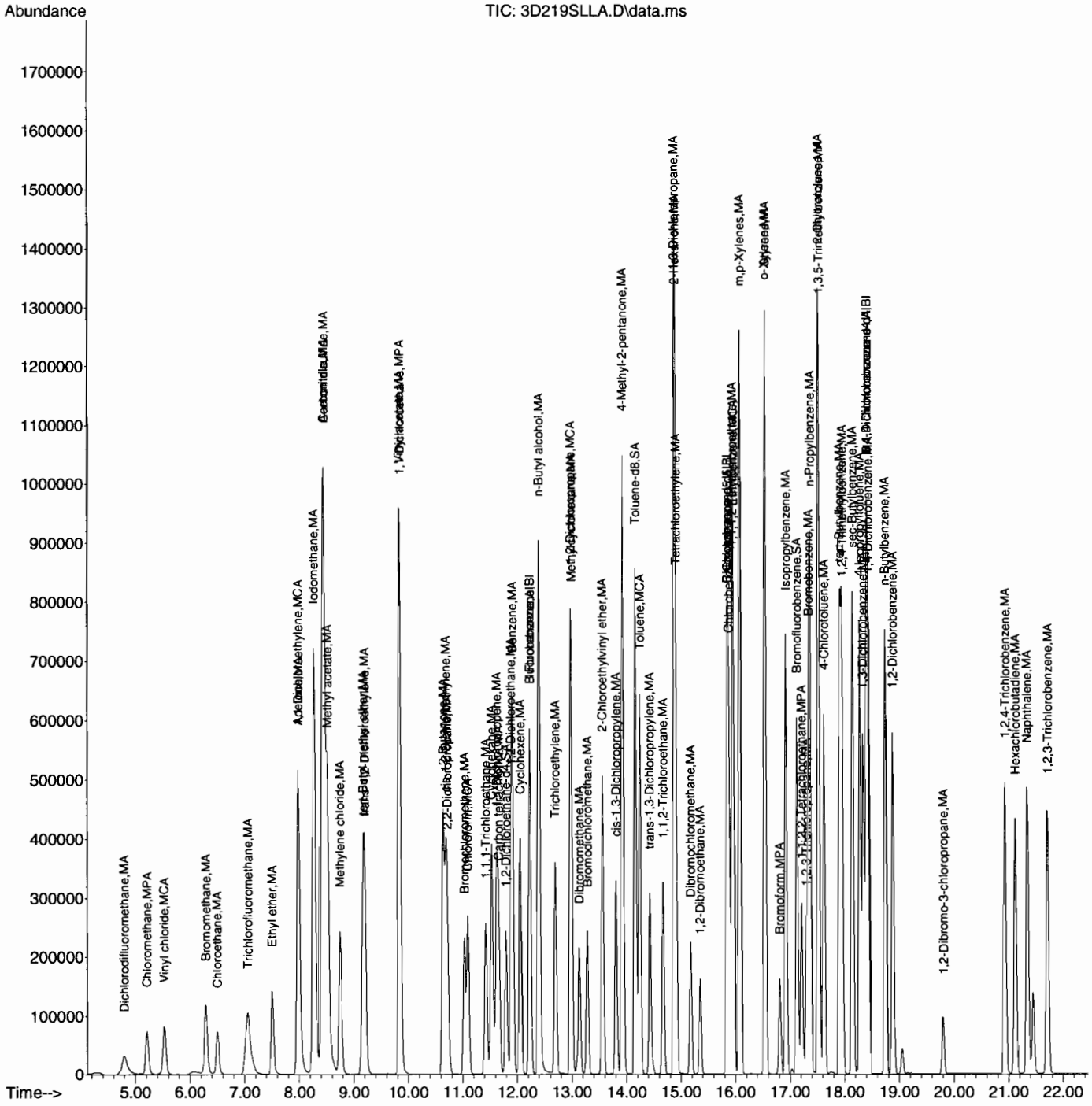

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074005**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 19:23**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 16:49**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V3\3D221SSLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074005**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 19:23**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 16:49**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V3\3D221SSLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		256	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D221SSLA.D
Acq On : 16 Mar 2010 7:23 pm
Operator : CDS1
InstName : VOA3
Sample : |1202074005|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[B] SOIL 0215-08B+0226-02A
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 16 19:54:33 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	850402	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	654978	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	339134	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	850076	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	654978	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	345921	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	263785	50.58	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 101.16%					
43) Toluene-d8	14.165	14.165	0.894	98	887545	50.35	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 100.70%					
61) Bromofluorobenzene	17.130	17.130	0.930	95	343413	50.22	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 100.44%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	5.201	5.216	0.425		0m	N.D.	d	
4) Vinyl chloride	5.513	5.528	0.451		0m	N.D.	d	
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.987	7.987	0.653		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.975	7.987	0.652		0m	N.D.	d	
11) Iodomethane	8.271	8.271	0.676		0m	N.D.	d	
12) Acetonitrile	8.556	8.449	0.699		0m	N.D.	d	
13) Methyl acetate	8.532	8.520	0.698		0m	N.D.	d	
14) Carbon disulfide	8.556	8.449	0.699		0m	N.D.	d	
15) Methylene chloride	8.746	8.746	0.715		0m	N.D.	d	
16) tert-Butyl methyl ether	9.173	9.173	0.750		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	9.884	9.837	0.808		0m	N.D.	d	
19) 1,1-Dichloroethane	10.003	9.860	0.818		0m	N.D.	d	
20) 2-Butanone	10.679	10.643	0.873		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.679	10.691	0.873		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	11.094	11.094	0.907		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	11.556	11.532	0.945		0m	N.D.	d	
27) 1,1-Dichloropropene	11.556	11.627	0.945		0m	N.D.	d	
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	11.912	11.912	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	12.410	12.398	1.015		0m	N.D.	d	
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	12.991	12.991	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D221SSLA.D
Acq On : 16 Mar 2010 7:23 pm
Operator : CDS1
InstName : VOA3
Sample : |1202074005|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[B] SOIL 0215-08B+0226-02A
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 16 19:54:33 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38)	Bromodichloromethane	0.000	13.288	0.000		0	N.D.			
39)	2-Chloroethylvinyl ether	13.560	13.560	1.109		0m	N.D.	d		
40)	cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.			
42)	4-Methyl-2-pentanone	13.928	13.928	0.879		0m	N.D.	d		
44)	Toluene	14.248	14.248	0.899		0m	N.D.	d		
45)	trans-1,3-Dichloroprop...	14.438	14.426	0.911		0m	N.D.	d		
46)	1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.			
47)	2-Hexanone	14.889	14.888	0.939		0m	N.D.	d		
48)	1,3-Dichloropropane	14.924	14.888	0.942		0m	N.D.	d		
49)	Tetrachloroethylene	14.912	14.912	0.941		0m	N.D.	d		
50)	Dibromochloromethane	0.000	15.173	0.000		0	N.D.			
51)	1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.			
52)	Chlorobenzene	15.885	15.885	1.002		0m	N.D.	d		
53)	1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.			
54)	Ethylbenzene	16.086	15.968	1.015		0m	N.D.	d		
55)	m,p-Xylenes	16.086	16.086	1.015		0m	N.D.	d		
56)	o-Xylene	16.549	16.549	1.044		0m	N.D.	d		
57)	Styrene	16.549	16.549	1.044		0m	N.D.	d		
59)	Bromoform	0.000	16.821	0.000		0	N.D.			
60)	Isopropylbenzene	16.928	16.928	0.919		0m	N.D.	d		
62)	1,1,2,2-Tetrachloroethane	17.260	17.213	0.938		0m	N.D.	d		
63)	1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.			
64)	Bromobenzene	17.343	17.343	0.942		0m	N.D.	d		
65)	n-Propylbenzene	17.367	17.367	0.943		0m	N.D.	d		
66)	1,3,5-Trimethylbenzene	17.533	17.533	0.952		0m	N.D.	d		
67)	2-Chlorotoluene	17.521	17.521	0.952		0m	N.D.	d		
68)	4-Chlorotoluene	17.628	17.628	0.957		0m	N.D.	d		
69)	tert-Butylbenzene	17.984	17.912	0.977		0m	N.D.	d		
70)	1,2,4-Trimethylbenzene	17.960	17.960	0.976		0m	N.D.	d		
71)	sec-Butylbenzene	18.150	18.150	0.986		0m	N.D.	d		
72)	4-Isopropyltoluene	18.280	18.280	0.993		0m	N.D.	d		
73)	1,3-Dichlorobenzene	18.339	18.351	0.996		0m	N.D.	d		
74)	1,4-Dichlorobenzene	18.434	18.434	1.001		0m	N.D.	d		
75)	n-Butylbenzene	18.743	18.742	1.018		0m	N.D.	d		
76)	1,2-Dichlorobenzene	18.885	18.885	1.026		0m	N.D.	d		
77)	1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.			
78)	1,2,4-Trichlorobenzene	20.936	20.936	1.137		0m	N.D.	d		
79)	Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.			
80)	Naphthalene	21.351	21.351	1.160		0m	N.D.	d		
81)	1,2,3-Trichlorobenzene	21.719	21.719	1.180		0m	N.D.	d		
83)	Chlorotrifluoroethylene	4.711	4.711	0.385	116	208101	88.07	ug/L	98	
84)	2-Chloro-1,1,1-trifluo...	5.751	5.751	0.470	118	662994	138.68	ug/L	100	
85)	Acrolein	7.750	7.750	0.634	56	179168	400.68	ug/L	95	E
86)	Trichlorotrifluoroethane	7.975	7.975	0.652	85	359855	255.94	ug/L	100	
87)	Isopropyl Alcohol	8.141	8.141	0.666	45	876381	2749.19	ug/L	99	
88)	Allyl chloride	8.556	8.556	0.699	41	1239691	246.15	ug/L	99	
89)	tert-Butyl Alcohol	8.793	8.793	0.719	59	1450178	2719.35	ug/L	99	
90)	Acrylonitrile	9.090	9.090	0.743	53	376641	250.22	ug/L	100	
91)	Isopropyl ether	9.884	9.884	0.808	45	568037	47.09	ug/L	99	
92)	2-Chloro-1,3-butadiene	10.003	10.003	0.818	53	253738	57.98	ug/L	100	
93)	Ethyl tert-butyl ether	10.406	10.406	0.851	59	564496	49.01	ug/L	99	
94)	Ethyl acetate	10.679	10.679	0.873	43	870087	234.24	ug/L	100	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D221SSLA.D
Acq On : 16 Mar 2010 7:23 pm
Operator : CDS1
InstName : VOA3
Sample : |1202074005|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[B] SOIL 0215-08B+0226-02A
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 16 19:54:33 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
95)	Propionitrile	10.726	10.726	0.877	54	152247	257.95	ug/L	99	
96)	Methacrylonitrile	10.951	10.951	0.895	41	569209	251.41	ug/L	100	
97)	Tetrahydrofuran	11.094	11.094	0.907	42	312059	249.68	ug/L	99	
98)	Isobutyl alcohol	11.556	11.556	0.945	41	418152	2601.34	ug/L	99	
99)	Methyl tert-amyl ether	11.971	11.971	0.979	73	516614	48.56	ug/L	100	
100)	Methyl methacrylate	12.991	12.991	1.062	69	639025	260.86	ug/L	97	
101)	1,4-Dioxane	13.098	13.098	1.071	88	121937	2340.45	ug/L	100	
102)	2-Nitropropane	13.525	13.525	1.106	43	283437	260.98	ug/L	100	
104)	Ethyl methacrylate	14.450	14.450	0.912	69	1196140	268.90	ug/L	99	
106)	1-Chlorohexane	15.754	15.754	0.856	55	143943	45.92	ug/L	98	
107)	cis-1,4-Dichloro-2-butene	16.964	16.964	0.921	53	361445	311.46	ug/L	98	
108)	Cyclohexanone	17.082	17.082	0.928	42	663132	4978.70	ug/L	100	E
109)	trans-1,4-Dichloro-2-b...	17.260	17.260	0.938	53	344237	304.13	ug/L	99	
110)	Pentachloroethane	17.984	17.983	0.977	167	547321	362.10	ug/L	96	E
111)	Benzyl chloride	18.553	18.553	1.008	91	2070482	372.72	ug/L	100	
112)	bis(2-Chloroisopropyl)...	18.980	18.980	1.031	45	549605	245.80	ug/L	99	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D221SSLA.D
Acq On    : 16 Mar 2010   7:23 pm
Operator  : CDS1
InstName  : VOA3
Sample    : |1202074005|965481|1|VOA|1|VOA8260BS|
Misc      : LCS 5G - MIX[B] SOIL 0215-08B+0226-02A
ALS Vial  : 32   Sample Multiplier: 1

Quant Time: Mar 16 19:54:33 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE
```

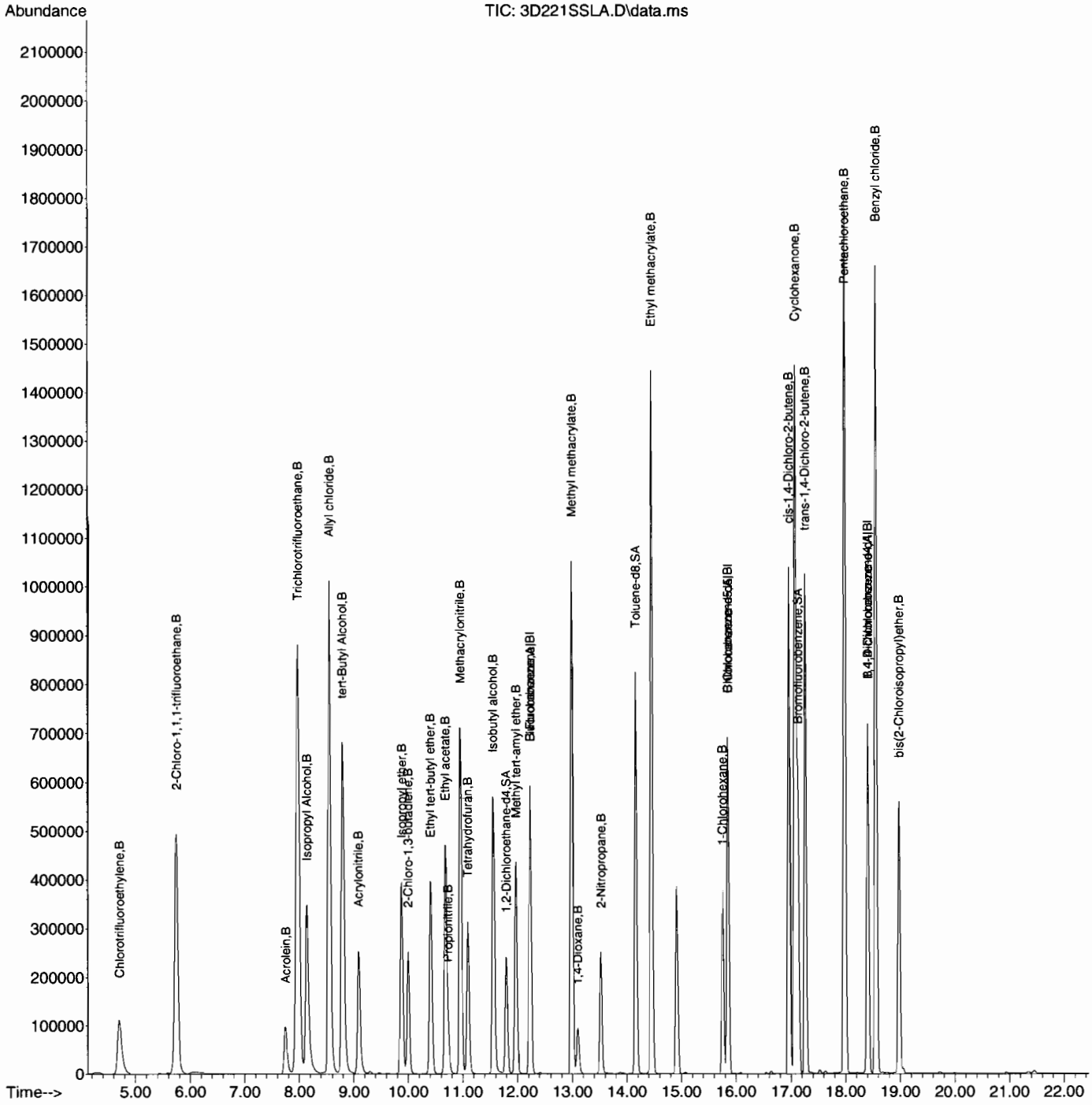

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202071636**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.8**
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-11926PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 03:30**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 20:52**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V3\3D238.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		44.2	ug/kg	0.346	1.02
74-87-3	Chloromethane		54.1	ug/kg	0.305	1.02
75-01-4	Vinyl chloride		57.0	ug/kg	0.305	1.02
74-83-9	Bromomethane		58.4	ug/kg	0.305	1.02
75-00-3	Chloroethane		56.2	ug/kg	0.305	1.02
75-69-4	Trichlorofluoromethane		50.1	ug/kg	0.305	1.02
67-64-1	Acetone		229	ug/kg	1.69	5.09
75-35-4	1,1-Dichloroethylene		47.6	ug/kg	0.305	1.02
74-88-4	Iodomethane		232	ug/kg	1.63	5.09
75-09-2	Methylene chloride		45.5	ug/kg	2.04	5.09
75-15-0	Carbon disulfide		249	ug/kg	1.27	5.09
156-60-5	trans-1,2-Dichloroethylene		48.8	ug/kg	0.305	1.02
75-34-3	1,1-Dichloroethane		53.0	ug/kg	0.305	1.02
78-93-3	2-Butanone		250	ug/kg	1.53	5.09
156-59-2	cis-1,2-Dichloroethylene		52.4	ug/kg	0.305	1.02
594-20-7	2,2-Dichloropropane		52.0	ug/kg	0.305	1.02
67-66-3	Chloroform		50.7	ug/kg	0.305	1.02
74-97-5	Bromochloromethane		53.5	ug/kg	0.336	1.02
71-55-6	1,1,1-Trichloroethane		48.2	ug/kg	0.305	1.02
563-58-6	1,1-Dichloropropene		50.8	ug/kg	0.305	1.02
56-23-5	Carbon tetrachloride		51.6	ug/kg	0.305	1.02
107-06-2	1,2-Dichloroethane		47.6	ug/kg	0.305	1.02
71-43-2	Benzene		49.6	ug/kg	0.305	1.02
79-01-6	Trichloroethylene		51.6	ug/kg	0.336	1.02
78-87-5	1,2-Dichloropropane		55.7	ug/kg	0.305	1.02
75-27-4	Bromodichloromethane		56.2	ug/kg	0.305	1.02
74-95-3	Dibromomethane		54.1	ug/kg	0.305	1.02
108-10-1	4-Methyl-2-pentanone		263	ug/kg	1.27	5.09
10061-01-5	cis-1,3-Dichloropropylene		56.4	ug/kg	0.305	1.02
108-88-3	Toluene		48.8	ug/kg	0.305	1.02
10061-02-6	trans-1,3-Dichloropropylene		54.0	ug/kg	0.305	1.02
79-00-5	1,1,2-Trichloroethane		52.1	ug/kg	0.305	1.02
591-78-6	2-Hexanone		249	ug/kg	1.53	5.09
142-28-9	1,3-Dichloropropane		52.1	ug/kg	0.305	1.02
127-18-4	Tetrachloroethylene		49.3	ug/kg	0.305	1.02
124-48-1	Dibromochloromethane		56.7	ug/kg	0.305	1.02
106-93-4	1,2-Dibromoethane		50.1	ug/kg	0.305	1.02
108-90-7	Chlorobenzene		49.5	ug/kg	0.305	1.02

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202071636**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.8**
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-11926PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 03:30**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 20:52**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V3\3D238.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		48.7	ug/kg	0.305	1.02
179601-23-1	m,p-Xylenes		99.7	ug/kg	0.305	2.04
95-47-6	o-Xylene		51.2	ug/kg	0.305	1.02
100-42-5	Styrene		53.1	ug/kg	0.305	1.02
75-25-2	Bromoform		48.0	ug/kg	0.305	1.02
79-34-5	1,1,2,2-Tetrachloroethane		50.1	ug/kg	0.305	1.02
96-18-4	1,2,3-Trichloropropane		49.9	ug/kg	0.305	1.02
108-86-1	Bromobenzene		49.8	ug/kg	0.305	1.02
103-65-1	n-Propylbenzene		48.5	ug/kg	0.305	1.02
95-49-8	2-Chlorotoluene		49.6	ug/kg	0.305	1.02
98-82-8	Isopropylbenzene		48.2	ug/kg	0.305	1.02
108-67-8	1,3,5-Trimethylbenzene		49.4	ug/kg	0.305	1.02
106-43-4	4-Chlorotoluene		47.6	ug/kg	0.305	1.02
98-06-6	tert-Butylbenzene		51.7	ug/kg	0.305	1.02
95-63-6	1,2,4-Trimethylbenzene		49.2	ug/kg	0.305	1.02
135-98-8	sec-Butylbenzene		49.3	ug/kg	0.305	1.02
99-87-6	4-Isopropyltoluene		49.6	ug/kg	0.305	1.02
541-73-1	1,3-Dichlorobenzene		47.9	ug/kg	0.305	1.02
106-46-7	1,4-Dichlorobenzene		48.1	ug/kg	0.305	1.02
104-51-8	n-Butylbenzene		51.4	ug/kg	0.305	1.02
96-12-8	1,2-Dibromo-3-chloropropane		44.4	ug/kg	0.305	1.02
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.09	ug/kg	1.63	5.09
630-20-6	1,1,1,2-Tetrachloroethane		55.1	ug/kg	0.305	1.02
95-50-1	1,2-Dichlorobenzene		50.2	ug/kg	0.305	1.02

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D238.D
Acq On : 17 Mar 2010 3:30 am
Operator : CDS1
InstName : VOA3
Sample : |1202071636|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MS 248824001 MIX[A]
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Mar 17 10:36:41 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	614578	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	513485	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	261566	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	614640	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	513452	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	265865	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	179938	47.74	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 95.48%					
43) Toluene-d8	14.165	14.165	0.894	98	699814	50.64	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 101.28%					
61) Bromofluorobenzene	17.130	17.130	0.930	95	244017	46.27	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 92.54%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	74734	43.44	ug/L	100
3) Chloromethane	5.216	5.216	0.426	50	153527	53.10	ug/L	99
4) Vinyl chloride	5.528	5.528	0.452	62	165116	56.04	ug/L	99
5) Bromomethane	6.279	6.291	0.513	94	136449	57.38	ug/L	98
6) Chloroethane	6.493	6.493	0.531	64	105182	55.26	ug/L	98
7) Trichlorofluoromethane	7.062	7.062	0.577	101	199600	49.23	ug/L	99
8) Ethyl ether	7.501	7.512	0.613	59	106856	50.99	ug/L	98
9) Acetone	7.975	7.987	0.652	43	581647	224.49	ug/L	99
10) 1,1-Dichloroethylene	7.987	7.987	0.653	61	194831	46.76	ug/L	99
11) Iodomethane	8.271	8.271	0.676	142	1200039	227.77	ug/L	99
12) Acetonitrile	8.449	8.449	0.691	41	519095	1156.56	ug/L	99
13) Methyl acetate	8.520	8.520	0.697	43	535205	231.46	ug/L	99
14) Carbon disulfide	8.437	8.449	0.690	76	2251933	244.99	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	167272	44.67	ug/L	99
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	351891	43.21	ug/L	99
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753	61	185014	47.94	ug/L	100
18) Vinyl acetate	9.837	9.837	0.804	43	1281969	276.09	ug/L	100
19) 1,1-Dichloroethane	9.849	9.860	0.805	63	252459	52.06	ug/L	100
20) 2-Butanone	10.643	10.643	0.870	43	632599	245.15	ug/L	99
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	219611	51.43	ug/L	100
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	153056	51.11	ug/L	94
23) Bromochloromethane	11.034	11.034	0.902	128	82607	52.55	ug/L	96
24) Chloroform	11.094	11.094	0.907	83	246370	49.78	ug/L	99
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	190272	47.34	ug/L	97
26) Cyclohexane	11.532	11.532	0.943	56	218326	48.52	ug/L	98
27) 1,1-Dichloropropene	11.627	11.627	0.951	75	170497	49.92	ug/L	99
28) Carbon tetrachloride	11.663	11.663	0.953	117	178336	50.74	ug/L	99
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	181004	46.76	ug/L	100
31) Benzene	11.912	11.912	0.974	78	528154	48.74	ug/L	100
32) Cyclohexene	12.054	12.054	0.985	67	231445	46.67	ug/L	99
33) n-Butyl alcohol	12.398	12.398	1.014	56	534252	4679.08	ug/L	97
34) Trichloroethylene	12.695	12.695	1.038	95	141904	50.72	ug/L	100
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	144693	54.68	ug/L	100
36) Methylcyclohexane	12.991	12.991	1.062	83	235494	50.85	ug/L	99
37) Dibromomethane	13.133	13.133	1.074	93	94346	53.12	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D238.D
Acq On : 17 Mar 2010 3:30 am
Operator : CDS1
InstName : VOA3
Sample : |1202071636|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MS 248824001 MIX[A]
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Mar 17 10:36:41 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38)	Bromodichloromethane	13.276	13.288	1.085	83	186405	55.17	ug/L	99
39)	2-Chloroethylvinyl ether	13.560	13.560	1.109	63	273541	316.15	ug/L	98
40)	cis-1,3-Dichloropropylene	13.809	13.809	1.129	75	212644	55.38	ug/L	98
42)	4-Methyl-2-pentanone	13.928	13.928	0.879	58	320377	258.24	ug/L	97
44)	Toluene	14.248	14.248	0.899	91	588916	47.90	ug/L	99
45)	trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	198223	53.05	ug/L	99
46)	1,1,2-Trichloroethane	14.675	14.675	0.926	83	108699	51.18	ug/L	100
47)	2-Hexanone	14.888	14.888	0.939	43	775704	244.91	ug/L	98
48)	1,3-Dichloropropane	14.877	14.888	0.939	76	225980	51.23	ug/L	96
49)	Tetrachloroethylene	14.912	14.912	0.941	164	116008	48.44	ug/L	97
50)	Dibromochloromethane	15.173	15.173	0.957	129	156404	55.67	ug/L	98
51)	1,2-Dibromoethane	15.351	15.351	0.969	107	134516	49.25	ug/L	99
52)	Chlorobenzene	15.885	15.885	1.002	112	392728	48.67	ug/L	99
53)	1,1,1,2-Tetrachloroethane	15.944	15.956	1.006	131	150241	54.15	ug/L	98
54)	Ethylbenzene	15.956	15.968	1.007	91	607878	47.85	ug/L	100
55)	m,p-Xylenes	16.086	16.086	1.015	106	494450	97.95	ug/L	98
56)	o-Xylene	16.537	16.549	1.043	106	253682	50.30	ug/L	99
57)	Styrene	16.549	16.549	1.044	104	420362	52.20	ug/L	97
59)	Bromoform	16.810	16.821	0.913	173	94795	47.16	ug/L	99
60)	Isopropylbenzene	16.928	16.928	0.919	105	614110	47.38	ug/L	100
62)	1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	172555	49.24	ug/L	99
63)	1,2,3-Trichloropropane	17.296	17.308	0.939	110	47254	49.05	ug/L	99
64)	Bromobenzene	17.343	17.343	0.942	156	170343	48.96	ug/L	98
65)	n-Propylbenzene	17.367	17.367	0.943	91	714762	47.69	ug/L	99
66)	1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	527615	48.51	ug/L	99
67)	2-Chlorotoluene	17.521	17.521	0.952	126	157441	48.73	ug/L	100
68)	4-Chlorotoluene	17.628	17.628	0.957	91	434611	46.74	ug/L	99
69)	tert-Butylbenzene	17.912	17.912	0.973	134	118152	50.79	ug/L	97
70)	1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	533306	48.36	ug/L	99
71)	sec-Butylbenzene	18.150	18.150	0.986	105	706128	48.48	ug/L	100
72)	4-Isopropyltoluene	18.280	18.280	0.993	119	563455	48.73	ug/L	100
73)	1,3-Dichlorobenzene	18.339	18.351	0.996	146	279586	47.03	ug/L	99
74)	1,4-Dichlorobenzene	18.434	18.434	1.001	146	321929	47.25	ug/L	99
75)	n-Butylbenzene	18.742	18.742	1.018	91	555193	50.49	ug/L	99
76)	1,2-Dichlorobenzene	18.885	18.885	1.026	146	333426	49.30	ug/L	99
77)	1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	36570	43.62	ug/L	99
78)	1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	205910	45.28	ug/L	100
79)	Hexachlorobutadiene	21.126	21.126	1.148	225	107328	47.12	ug/L	99
80)	Naphthalene	21.351	21.351	1.160	128	528303	45.17	ug/L	100
81)	1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	193409	43.55	ug/L	99
83)	Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85)	Acrolein	0.000	7.750	0.000		0	N.D.		
86)	Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87)	Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88)	Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89)	tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90)	Acrylonitrile	9.161	9.090	0.749		0m	N.D.	d	
91)	Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93)	Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94)	Ethyl acetate	10.643	10.679	0.870		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D238.D
Acq On : 17 Mar 2010 3:30 am
Operator : CDS1
InstName : VOA3
Sample : |1202071636|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MS 248824001 MIX[A]
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Mar 17 10:36:41 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	10.643	10.726	0.870		0m	N.D.	d
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97)	Tetrahydrofuran	11.094	11.094	0.907		0m	N.D.	d
98)	Isobutyl alcohol	11.532	11.556	0.943		0m	N.D.	d
99)	Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100)	Methyl methacrylate	12.979	12.991	1.061		0m	N.D.	d
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106)	1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108)	Cyclohexanone	16.916	17.082	0.919		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110)	Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111)	Benzyl chloride	18.410	18.553	1.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D238.D
Acq On : 17 Mar 2010 3:30 am
Operator : CDS1
InstName : VOA3
Sample : |1202071636|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MS 248824001 MIX[A]
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Mar 17 10:36:41 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

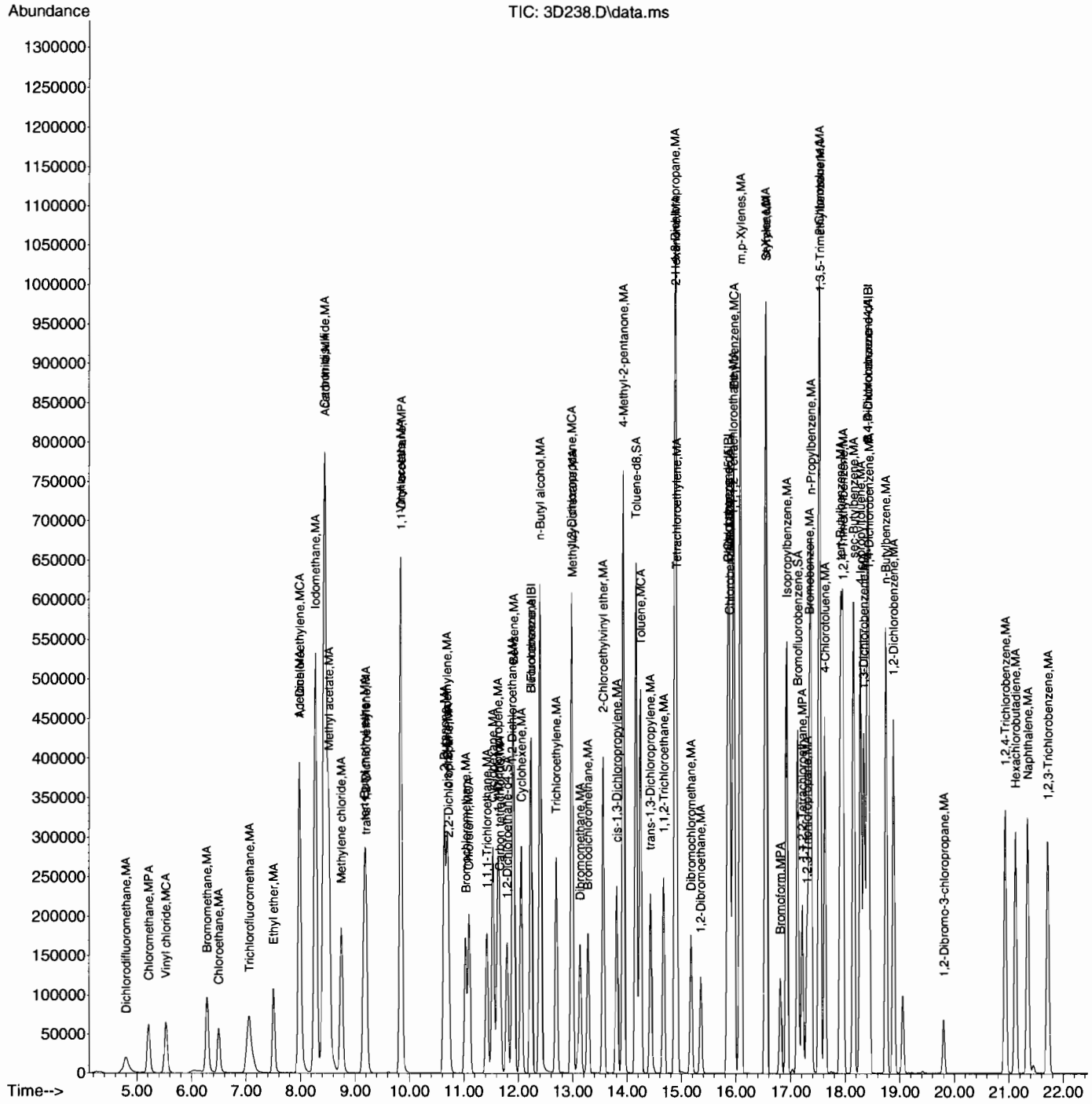

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202071637**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.8**
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-11926PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 03:59**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 20:54**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V3\3D239.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		42.3	ug/kg	0.346	1.02
74-87-3	Chloromethane		46.9	ug/kg	0.305	1.02
75-01-4	Vinyl chloride		51.6	ug/kg	0.305	1.02
74-83-9	Bromomethane		52.1	ug/kg	0.305	1.02
75-00-3	Chloroethane		51.0	ug/kg	0.305	1.02
75-69-4	Trichlorofluoromethane		47.2	ug/kg	0.305	1.02
67-64-1	Acetone		206	ug/kg	1.69	5.09
75-35-4	1,1-Dichloroethylene		44.3	ug/kg	0.305	1.02
74-88-4	Iodomethane		222	ug/kg	1.63	5.09
75-09-2	Methylene chloride		42.5	ug/kg	2.04	5.09
75-15-0	Carbon disulfide		237	ug/kg	1.27	5.09
156-60-5	trans-1,2-Dichloroethylene		44.6	ug/kg	0.305	1.02
75-34-3	1,1-Dichloroethane		46.6	ug/kg	0.305	1.02
78-93-3	2-Butanone		229	ug/kg	1.53	5.09
156-59-2	cis-1,2-Dichloroethylene		48.6	ug/kg	0.305	1.02
594-20-7	2,2-Dichloropropane		48.8	ug/kg	0.305	1.02
67-66-3	Chloroform		47.4	ug/kg	0.305	1.02
74-97-5	Bromochloromethane		48.5	ug/kg	0.336	1.02
71-55-6	1,1,1-Trichloroethane		45.6	ug/kg	0.305	1.02
563-58-6	1,1-Dichloropropene		47.1	ug/kg	0.305	1.02
56-23-5	Carbon tetrachloride		48.9	ug/kg	0.305	1.02
107-06-2	1,2-Dichloroethane		45.8	ug/kg	0.305	1.02
71-43-2	Benzene		47.2	ug/kg	0.305	1.02
79-01-6	Trichloroethylene		47.0	ug/kg	0.336	1.02
78-87-5	1,2-Dichloropropane		50.8	ug/kg	0.305	1.02
75-27-4	Bromodichloromethane		51.6	ug/kg	0.305	1.02
74-95-3	Dibromomethane		49.4	ug/kg	0.305	1.02
108-10-1	4-Methyl-2-pentanone		266	ug/kg	1.27	5.09
10061-01-5	cis-1,3-Dichloropropylene		52.0	ug/kg	0.305	1.02
108-88-3	Toluene		47.1	ug/kg	0.305	1.02
10061-02-6	trans-1,3-Dichloropropylene		50.7	ug/kg	0.305	1.02
79-00-5	1,1,2-Trichloroethane		49.5	ug/kg	0.305	1.02
591-78-6	2-Hexanone		246	ug/kg	1.53	5.09
142-28-9	1,3-Dichloropropane		49.0	ug/kg	0.305	1.02
127-18-4	Tetrachloroethylene		45.5	ug/kg	0.305	1.02
124-48-1	Dibromochloromethane		53.6	ug/kg	0.305	1.02
106-93-4	1,2-Dibromoethane		47.0	ug/kg	0.305	1.02
108-90-7	Chlorobenzene		47.2	ug/kg	0.305	1.02

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202071637**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.8**
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-11926PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 03:59**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 20:54**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V3\3D239.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		46.1	ug/kg	0.305	1.02
179601-23-1	m,p-Xylenes		93.9	ug/kg	0.305	2.04
95-47-6	o-Xylene		51.4	ug/kg	0.305	1.02
100-42-5	Styrene		53.3	ug/kg	0.305	1.02
75-25-2	Bromoform		44.8	ug/kg	0.305	1.02
79-34-5	1,1,2,2-Tetrachloroethane		46.6	ug/kg	0.305	1.02
96-18-4	1,2,3-Trichloropropane		45.4	ug/kg	0.305	1.02
108-86-1	Bromobenzene		45.8	ug/kg	0.305	1.02
103-65-1	n-Propylbenzene		45.1	ug/kg	0.305	1.02
95-49-8	2-Chlorotoluene		45.6	ug/kg	0.305	1.02
98-82-8	Isopropylbenzene		45.2	ug/kg	0.305	1.02
108-67-8	1,3,5-Trimethylbenzene		45.8	ug/kg	0.305	1.02
106-43-4	4-Chlorotoluene		44.4	ug/kg	0.305	1.02
98-06-6	tert-Butylbenzene		47.2	ug/kg	0.305	1.02
95-63-6	1,2,4-Trimethylbenzene		45.6	ug/kg	0.305	1.02
135-98-8	sec-Butylbenzene		46.1	ug/kg	0.305	1.02
99-87-6	4-Isopropyltoluene		45.7	ug/kg	0.305	1.02
541-73-1	1,3-Dichlorobenzene		43.4	ug/kg	0.305	1.02
106-46-7	1,4-Dichlorobenzene		44.1	ug/kg	0.305	1.02
104-51-8	n-Butylbenzene		45.7	ug/kg	0.305	1.02
96-12-8	1,2-Dibromo-3-chloropropane		40.6	ug/kg	0.305	1.02
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.09	ug/kg	1.63	5.09
630-20-6	1,1,1,2-Tetrachloroethane		52.7	ug/kg	0.305	1.02
95-50-1	1,2-Dichlorobenzene		44.0	ug/kg	0.305	1.02

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D239.D
Acq On : 17 Mar 2010 3:59 am
Operator : CDS1
InstName : VOA3
Sample : |1202071637|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248824001 MIX[A]
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Mar 17 10:36:44 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	691762	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	539887	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	300543	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	691767	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	539921	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	306367	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	220757	52.03	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 104.06%					
43) Toluene-d8	14.165	14.165	0.894	98	780096	53.69	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 107.38%					
61) Bromofluorobenzene	17.130	17.130	0.930	95	290776	47.98	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 95.96%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	80617	41.60	ug/L	100
3) Chloromethane	5.216	5.216	0.426	50	149788	46.03	ug/L	99
4) Vinyl chloride	5.528	5.528	0.452	62	168221	50.72	ug/L	100
5) Bromomethane	6.291	6.291	0.514	94	137021	51.19	ug/L	99
6) Chloroethane	6.493	6.493	0.531	64	107429	50.14	ug/L	99
7) Trichlorofluoromethane	7.062	7.062	0.577	101	211592	46.37	ug/L	100
8) Ethyl ether	7.501	7.512	0.613	59	113970	48.31	ug/L	99
9) Acetone	7.975	7.987	0.652	43	589208	202.04	ug/L	99
10) 1,1-Dichloroethylene	7.987	7.987	0.653	61	204171	43.54	ug/L	99
11) Iodomethane	8.271	8.271	0.676	142	1294581	218.30	ug/L	99
12) Acetonitrile	8.449	8.449	0.691	41	541220	1071.31	ug/L	99
13) Methyl acetate	8.520	8.520	0.697	43	569620	218.86	ug/L	99
14) Carbon disulfide	8.449	8.449	0.691	76	2407802	232.72	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	175972	41.75	ug/L	100
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	377212	41.15	ug/L	98
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753	61	190176	43.78	ug/L	99
18) Vinyl acetate	9.837	9.837	0.804	43	1360441	260.30	ug/L	100
19) 1,1-Dichloroethane	9.849	9.860	0.805	63	250053	45.81	ug/L	100
20) 2-Butanone	10.643	10.643	0.870	43	652824	224.76	ug/L	99
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	229246	47.70	ug/L	99
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	161725	47.98	ug/L	95
23) Bromochloromethane	11.034	11.034	0.902	128	84256	47.62	ug/L	96
24) Chloroform	11.094	11.094	0.907	83	259471	46.58	ug/L	99
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	202879	44.84	ug/L	98
26) Cyclohexane	11.533	11.532	0.943	56	230856	45.58	ug/L	99
27) 1,1-Dichloropropene	11.616	11.627	0.950	75	178057	46.32	ug/L	99
28) Carbon tetrachloride	11.663	11.663	0.953	117	189905	48.00	ug/L	100
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	196064	45.00	ug/L	100
31) Benzene	11.912	11.912	0.974	78	565450	46.36	ug/L	99
32) Cyclohexene	12.054	12.054	0.985	67	249201	44.64	ug/L	99
33) n-Butyl alcohol	12.398	12.398	1.014	56	595375	4633.41	ug/L	98
34) Trichloroethylene	12.695	12.695	1.038	95	145398	46.17	ug/L	99
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	148689	49.92	ug/L	100
36) Methylcyclohexane	12.991	12.991	1.062	83	242514	46.52	ug/L	99
37) Dibromomethane	13.133	13.133	1.074	93	97087	48.57	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D239.D
Acq On : 17 Mar 2010 3:59 am
Operator : CDS1
InstName : VOA3
Sample : |1202071637|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248824001 MIX[A]
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Mar 17 10:36:44 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	13.276	13.288	1.085	83	192854	50.71	ug/L	100
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	265380	273.24	ug/L	99
40) cis-1,3-Dichloropropylene	13.809	13.809	1.129	75	220866	51.10	ug/L	99
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	340650	261.16	ug/L	97
44) Toluene	14.248	14.248	0.899	91	597806	46.25	ug/L	99
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	195843	49.85	ug/L	98
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	108663	48.66	ug/L	98
47) 2-Hexanone	14.888	14.888	0.939	43	803434	241.26	ug/L	98
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	223183	48.12	ug/L	99
49) Tetrachloroethylene	14.912	14.912	0.941	164	112519	44.68	ug/L	99
50) Dibromochloromethane	15.173	15.173	0.957	129	155647	52.69	ug/L	99
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	132631	46.18	ug/L	99
52) Chlorobenzene	15.885	15.885	1.002	112	393078	46.33	ug/L	99
53) 1,1,1,2-Tetrachloroethane	15.944	15.956	1.006	131	150928	51.73	ug/L	98
54) Ethylbenzene	15.956	15.968	1.007	91	605245	45.31	ug/L	100
55) m,p-Xylenes	16.086	16.086	1.015	106	489400	92.21	ug/L	100
56) o-Xylene	16.537	16.549	1.043	106	268016	50.54	ug/L	100
57) Styrene	16.549	16.549	1.044	104	443327	52.36	ug/L	97
59) Bromoform	16.810	16.821	0.913	173	101504	44.05	ug/L	98
60) Isopropylbenzene	16.928	16.928	0.919	105	661985	44.45	ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	184372	45.79	ug/L	97
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	49395	44.62	ug/L	98
64) Bromobenzene	17.343	17.343	0.942	156	179714	44.95	ug/L	98
65) n-Propylbenzene	17.367	17.367	0.943	91	763039	44.31	ug/L	100
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	562043	44.98	ug/L	98
67) 2-Chlorotoluene	17.521	17.521	0.952	126	166270	44.79	ug/L	98
68) 4-Chlorotoluene	17.628	17.628	0.957	91	465639	43.59	ug/L	100
69) tert-Butylbenzene	17.912	17.912	0.973	134	123837	46.33	ug/L	99
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	567509	44.79	ug/L	99
71) sec-Butylbenzene	18.150	18.150	0.986	105	758438	45.31	ug/L	100
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	596806	44.92	ug/L	99
73) 1,3-Dichlorobenzene	18.339	18.351	0.996	146	290905	42.59	ug/L	100
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	339510	43.37	ug/L	99
75) n-Butylbenzene	18.743	18.742	1.018	91	567169	44.89	ug/L	100
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	336005	43.24	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	38333	39.93	ug/L	100
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	209178	40.03	ug/L	98
79) Hexachlorobutadiene	21.126	21.126	1.148	225	109597	41.87	ug/L	99
80) Naphthalene	21.340	21.351	1.159	128	553179	41.16	ug/L	100
81) 1,2,3-Trichlorobenzene	21.707	21.719	1.179	180	201043	39.39	ug/L	98
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88) Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.173	9.090	0.750		0m	N.D.	d	
91) Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.643	10.679	0.870		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D239.D
Acq On : 17 Mar 2010 3:59 am
Operator : CDS1
InstName : VOA3
Sample : |1202071637|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248824001 MIX[A]
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Mar 17 10:36:44 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	10.643	10.726	0.870		0m	N.D.	d
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97)	Tetrahydrofuran	11.094	11.094	0.907		0m	N.D.	d
98)	Isobutyl alcohol	11.533	11.556	0.943		0m	N.D.	d
99)	Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100)	Methyl methacrylate	12.979	12.991	1.061		0m	N.D.	d
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106)	1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108)	Cyclohexanone	16.916	17.082	0.919		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110)	Pentachloroethane	17.984	17.983	0.977		0m	N.D.	d
111)	Benzyl chloride	18.399	18.553	0.999		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D239.D
Acq On    : 17 Mar 2010   3:59 am
Operator  : CDS1
InstName  : VOA3
Sample    : |1202071637|965481|1|VOA|1|VOA8260BS|
Misc      : LANL 5G - SOIL MSD 248824001 MIX[A]
ALS Vial  : 50   Sample Multiplier: 1

Quant Time: Mar 17 10:36:44 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE
```

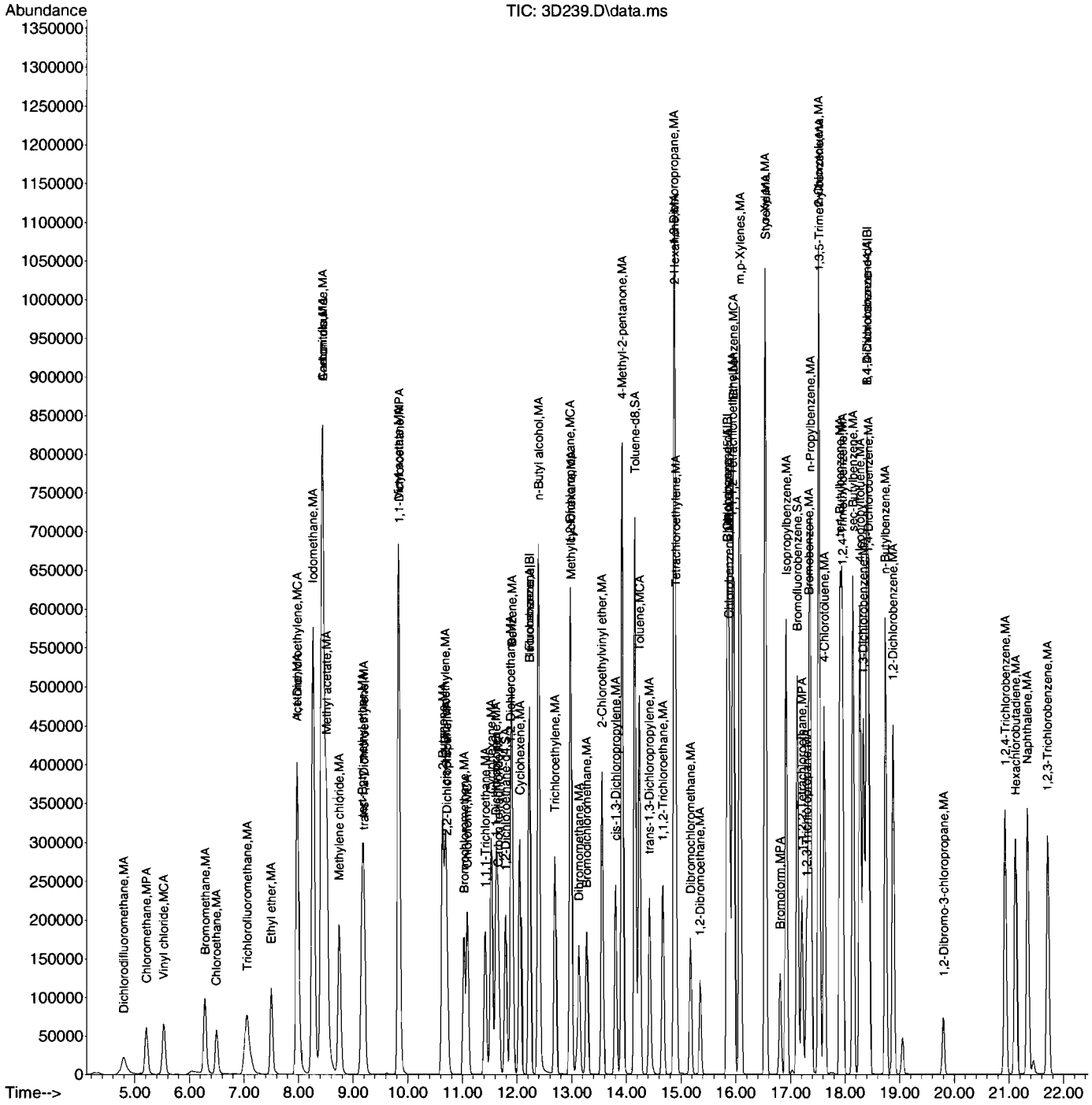

Miscellaneous

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **965477** Verified by: _____

Analyst: Gelester Baskett
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 14
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202071635 MB	15-MAR-2010 11:00:00	Soil	5	5	1	
1202071638 LCS	15-MAR-2010 11:02:00	Soil	5	5	1	
1202071639 LCS	15-MAR-2010 11:04:00	Soil	5	5	1	
248824001	15-MAR-2010 17:10:00	Soil	5	5	1	
248824002	15-MAR-2010 17:12:00	Soil	5	5	1	
248865001	15-MAR-2010 17:14:00	Soil	5	5	1	
248866001	15-MAR-2010 17:16:00	Soil	5	5	1	
248866002	15-MAR-2010 17:18:00	Soil	5	5	1	
248866003	15-MAR-2010 17:20:00	Misc Solid	5	5	1	
249055001	15-MAR-2010 17:22:00	Soil	5	5	1	
249055002	15-MAR-2010 17:24:00	Soil	5	5	1	
1202074003 MB	16-MAR-2010 16:45:00	Soil	5	5	1	
1202074004 LCS	16-MAR-2010 16:47:00	Soil	5	5	1	
1202074005 LCS	16-MAR-2010 16:49:00	Soil	5	5	1	
1202071636 PS (248824001)	16-MAR-2010 20:52:00	Soil	5	5	1	
1202071637 PSD (248824001)	16-MAR-2010 20:54:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA3

Date: 2/26/2010 Method 8260/624 Operator: CDS1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1435

CALIBRATION & CC INFORMATION:

Initial Calibration Da _____

(See pg. _____ for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

CI test lot # N/A

Sequence Number: 022610V3

	Daily Standard Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
IS	UVM100203-01	1	1	1	
SS	UVM100203-02	1	1	1	
LONG ICV	W3VM100226-10			5+5	
BFB	UVM100203-02				1
SHORT ICV	W3VM100226-18			5+5	

Purge Amount	
5	Water Purge Vol:
5	Soil Purge Wt.
n/a	Mid level ext. MeOH Vol:
n/a	ul
n/a	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	CI test (Y/N)	Acceptable(O/X)	Comments
2/26/2010	9:25	3A501.D	UVM100203-02	-----	BFB	5ml	1	N/A	1	w	CDS1	N/A	O	
2/26/2010	9:54	3A502.D	1202---	-----	BLANK	5ml	1	N/A	2	w	CDS1	N/A	x	clean-up blank
2/26/2010	10:23	3A503.D	W3VM100226-01	VSTD001	ICAL	5uL ea.	1	N/A	3	w	CDS1	N/A	O	UVM100106-02D+UVM100202-02D
2/26/2010	10:53	3A504.D	W3VM100226-02	VSTD002	ICAL	5uL ea.	1	N/A	4	w	CDS1	N/A	O	UVM100106-03D+UVM100202-03D
2/26/2010	11:23	3A505.D	W3VM100226-03	VSTD005	ICAL	5uL ea.	1	N/A	5	w	CDS1	N/A	O	UVM100106-04D+UVM100202-04D
2/26/2010	11:52	3A506.D	W3VM100226-04	VSTD010	ICAL	5uL ea.	1	N/A	6	w	CDS1	N/A	O	UVM100106-05D+UVM100202-05D
2/26/2010	12:22	3A507.D	W3VM100226-05	VSTD020	ICAL	5uL ea.	1	N/A	7	w	CDS1	N/A	O	UVM100106-06D+UVM100202-06D
2/26/2010	12:52	3A508.D	W3VM100226-06	VSTD050	ICAL	5uL ea.	1	N/A	8	w	CDS1	N/A	X	UVM100106-07D+UVM100202-07D gases low
2/26/2010	13:21	3A509.D	W3VM100226-07	VSTD100	ICAL	5uL ea.	1	N/A	9	w	CDS1	N/A	O	UVM100106-08D+UVM100202-08D
2/26/2010	13:50	3A510.D	1202---	GEL	BLANK	5ml	1	N/A	10	w	CDS1	N/A	x	clean-up blank
2/26/2010	14:20	3A511.D	W3VM100226-08	VSTD0005	ICAL	5uL ea.	1	N/A	11	w	CDS1	N/A	O	UVM100106-01D+UVM100202-01D
2/26/2010	14:49	3A512.D	W3VM100226-09	-----	ICV	5uL ea.	1	N/A	12	w	CDS1	N/A	X	UVM100126-02E+IVM100224-01 freon high
2/26/2010	15:19	3A513.D	W3VM100226-10	-----	ICV	5uL ea.	1	N/A	13	w	CDS1	N/A	O	UVM100220-01B+IVM100224-01
2/26/2010	15:48	3A514.D	1202---	-----	BLANK	5ml	1	N/A	14	w	CDS1	N/A	x	
2/26/2010	16:17	3A515.D	W3VM100226-11	VSTD005S	ICAL	5uL ea.	1	N/A	15	w	CDS1	N/A	O	UVM100125-01E+UVM100215-01
2/26/2010	16:46	3A516.D	W3VM100226-12	VSTD010S	ICAL	5uL ea.	1	N/A	16	w	CDS1	N/A	O	UVM100125-02E+UVM100215-02
2/26/2010	17:15	3A517.D	W3VM100226-13	VSTD025S	ICAL	5uL ea.	1	N/A	17	w	CDS1	N/A	O	UVM100125-03E+UVM100215-03
2/26/2010	17:45	3A518.D	W3VM100226-14	VSTD050S	ICAL	5uL ea.	1	N/A	18	w	CDS1	N/A	O	UVM100125-04E+UVM100215-04
2/26/2010	18:14	3A519.D	W3VM100226-15	VSTD100S	ICAL	5uL ea.	1	N/A	19	w	CDS1	N/A	O	UVM100125-05E+UVM100215-05
2/26/2010	18:43	3A520.D	W3VM100226-16	VSTD250S	ICAL	5uL ea.	1	N/A	20	w	CDS1	N/A	O	UVM100125-06E+UVM100215-06
2/26/2010	19:14	3A521.D	W3VM100226-17	VSTD500S	ICAL	5uL ea.	1	N/A	21	w	CDS1	N/A	O	UVM100125-07E+UVM100215-07
2/26/2010	19:43	3A522.D	1202---	-----	BLANK	5ml	1	N/A	22	w	CDS1	N/A	x	clean-up blank
2/26/2010	20:12	3A523.D	W3VM100226-18	-----	ICV	5uL ea.	1	N/A	23	w	CDS1	N/A	O	UVM100215-08A+UVM100125-08D

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA3

Date: 3/15/2010 Method 8260/624 Operator: GRB

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1435

CALIBRATION & CC INFORMATION:

Initial Calibration Da 2/26/2010

(See pg. 26 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 031510V3

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W3VM100315-01		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100217-02	1	1	1	
LCS/MS	W3VM100315-02/03			5+5	
BFB	UVM100217-02				1
Short CCV	W3VM100315-04		5+5		
Short LCS	W3VM100315-05			5+5	

Purge Amount

5	Water Purge Vol:
5	Soil Purge Wt.
n/a	Mid level ext. MeOH Vol:
n/a	ul
n/a	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3/15/2010	11:35	3D101.D	UVM100217-02	-----	BFB	5ml	1	N/A	1	w	GRB	N/A	O	
3/15/2010	12:01	3D102.D	W3VM100315-01	-----	CCV	5ml	1	N/A	2	w	GRB	N/A	O	UVM100222-07B+UVM10106-07D
3/15/2010	12:30	3D103.D	W3VM100315-02	-----	LCS	5ml	1	N/A	3	w	GRB	N/A	O	UVM100305-01A+IVM100313-01
3/15/2010	12:59	3D104.D	W3VM100315-03	-----	LCS	5G	1	N/A	4	s	GRB	N/A	O	UVM100305-01A+IVM100313-01
3/15/2010	13:28	3D105.D	W3VM100315-04	-----	CCV	5ml	1	N/A	5	w	GRB	N/A	O	UVM100215-06+UVM100226-02A
3/15/2010	13:57	3D106.D	W3VM100315-05	-----	LCS	5G	1	N/A	6	s	GRB	N/A	O	UVM10215-08B+UVM100226-02A
3/15/2010	14:26	3D107.D	120206-----	-----	BLANK	5ML	1	N/A	7	w	GRB	N/A	O	
3/15/2010	14:55	3D108.D	120206-----	-----	BLANK	5G	1	N/A	8	s	GRB	N/A	O	
3/15/2010	16:22	3D109.D	1202068711	SUBR	965440	0.5ML	10	N/A	9	w	GRB	N/A	O	TUMBLE BLANK
3/15/2010	16:51	3D110.D	1202068735	SUBR	965434	0.5ML	10	N/A	10	w	GRB	N/A	O	TUMBLE BLANK conf. by 3D213
3/15/2010	17:20	3D111.D	248571002	SUBR	965440	0.5ML	10	N/A	11	w	GRB	N/A	O	
3/15/2010	17:49	3D112.D	248571001	SUBR	965434	0.5ML	10	N/A	12	w	GRB	N/A	O	
3/15/2010	18:18	3D113.D	248824001	LANL	965481	5G	1	N/A	13	s	GRB	N/A	O	
3/15/2010	18:47	3D114.D	248824002	LANL	965481	5G	1	N/A	14	s	GRB	N/A	O	
3/15/2010	19:16	3D115.D	248865001	LANL	965481	5G	1	N/A	15	s	GRB	N/A	O	
3/15/2010	19:45	3D116.D	248866001	LANL	965481	5G	1	N/A	16	s	GRB	N/A	O	
3/15/2010	20:14	3D117.D	248866002	LANL	965481	5G	1	N/A	17	s	GRB	N/A	O	
3/15/2010	20:42	3D118.D	248866003	LANL	965481	5G	1	N/A	18	s	GRB	N/A	O	
3/15/2010	21:11	3D119.D	249055001	LANL	965481	5G	1	N/A	19	s	GRB	N/A	O	
3/15/2010	21:40	3D120.D	249055002	LANL	965481	5G	1	N/A	20	s	GRB	N/A	O	
3/15/2010	22:09	3D121.D	1202070491	LANL	965062	5G	1	N/A	21	s	GRB	N/A	O	MS 248794013
3/15/2010	22:37	3D122.D	1202070492	LANL	965062	5G	1	N/A	22	s	GRB	N/A	O	MSD 248794013
3/15/2010	23:06	3D123.D	1202071636	LANL	965481	5G	1	N/A	23	s	GRB	N/A	X	MS 248824001; SEE 3D238
3/15/2010	23:35	3D124.D	1202071637	LANL	965481	5G	1	N/A	24	s	GRB	N/A	X	MSD 248824001; SEE 3D239

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA3

Date: 3/16/2010 Method 8260/624 Operator: GRB

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1435

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 2/26/2010

(See pg. 26 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 031610V3pm

Daily Standard	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W3VM100316-05		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100217-02	1	1	1	
LCS/MS	W3VM100316-07			5+5	
BFB	UVM100217-02				1
SHORT CCV	W3VM100316-08		5+5		
SHORT LCS	W3VM100316-09			5+5	

Purge Amount	
5	Water Purge Vol:
5	Soil Purge Wt.
n/a	Mid level ext. MeOH Vol:
n/a	ul
n/a	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3/16/2010	17:01	3D216.D	UVM100217-02	GEL	BFB2	5ml	1	N/A	27	w	GRB	N/A	O	
3/16/2010	17:27	3D217.D	W3VM100316-05	GEL	CCV	5ml	1	N/A	28	w	GRB	N/A	O	UVM100314-07A+UVM100315-07A
3/16/2010	17:56	3D218.D	W3VM100316-06	GEL	LCS	5ml	1	N/A	29	w	GRB	N/A	X	UVM100305-01B+IVM100316-01
3/16/2010	18:25	3D219.D	W3VM100316-07	GEL	LCS	5G	1	N/A	30	s	GRB	N/A	O	UVM100305-01B+IVM100316-01
3/16/2010	18:54	3D220.D	W3VM100316-08	GEL	CCV	5ml	1	N/A	31	w	GRB	N/A	O	UVM100304-06+UVM100226-02A
3/16/2010	19:23	3D221.D	W3VM100316-09	GEL	LCS	5G	1	N/A	32	s	GRB	N/A	O	UVM100215-08B+UVM100226-02A
3/16/2010	19:52	3D222.D	120206-----	BLANK	BLANK	5ML	1	N/A	33	w	GRB	N/A	X	NOT USED
3/16/2010	20:20	3D223.D	120206-----	BLANK	BLANK	5G	1	N/A	34	s	GRB	N/A	O	
3/16/2010	20:49	3D224.D	249061002	LANL	965972	5G	1	N/A	35	s	GRB	N/A	O	
3/16/2010	21:18	3D225.D	249061003	LANL	965972	5G	1	N/A	36	s	GRB	N/A	O	
3/16/2010	21:48	3D226.D	249061004	LANL	965972	5G	1	N/A	37	s	GRB	N/A	O	
3/16/2010	22:17	3D227.D	249061005	LANL	965972	5G	1	N/A	38	s	GRB	N/A	O	
3/16/2010	22:45	3D228.D	249081001	LANL	965972	5G	1	N/A	39	s	GRB	N/A	O	
3/16/2010	23:14	3D229.D	249081002	LANL	965972	5G	1	N/A	40	s	GRB	N/A	O	
3/16/2010	23:42	3D230.D	249081003	LANL	965972	5G	1	N/A	41	s	GRB	N/A	O	
3/17/2010	0:11	3D231.D	249081004	LANL	965972	5G	1	N/A	42	s	GRB	N/A	O	
3/17/2010	0:39	3D232.D	249101002	LANL	965972	5G	1	N/A	43	s	GRB	N/A	O	
3/17/2010	1:08	3D233.D	249101003	LANL	965972	5G	1	N/A	44	s	GRB	N/A	O	
3/17/2010	1:36	3D234.D	249101004	LANL	965972	5G	1	N/A	45	s	GRB	N/A	O	
3/17/2010	2:05	3D235.D	249101005	LANL	965972	5G	1	N/A	46	s	GRB	N/A	O	
3/17/2010	2:33	3D236.D	249101006	LANL	965972	5G	1	N/A	47	s	GRB	N/A	O	
3/17/2010	3:02	3D237.D	249101007	LANL	965972	5G	1	N/A	48	s	GRB	N/A	O	
3/17/2010	3:30	3D238.D	1202071636	LANL	965481	5G	1	N/A	49	s	GRB	N/A	O	MS 248824001 MIX[A]; RERUN OF 3D123
3/17/2010	3:59	3D239.D	1202071637	LANL	965481	5G	1	N/A	50	s	GRB	N/A	O	MSD 248824001 MIX[A]; RERUN OF 3D124
3/17/2010	4:27	3D240.D	1202072971	LANL	965972	5G	1	N/A	51	s	GRB	N/A	O	MS 249081001 MIX[A]
3/17/2010	4:56	3D241.D	1202072972	LANL	965972	5G	1	N/A	1	s	GRB	N/A	O	MSD 249081001 MIX[A]

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2305

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	965816
Prep Batch Number:	965812

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
248824001	RE46-10-11926
248824002	RE46-10-11925
1202072534	Method Blank (MB)
1202072535	Laboratory Control Sample (LCS)
1202072536	249057002(RE16-10-2787) Matrix Spike (MS)
1202072537	249057002(RE16-10-2787) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 249057002 (RE16-10-2787) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the acceptance limits except for low recoveries of Benzyl alcohol and Hexachlorocyclopentadiene. Several polycyclic aromatic hydrocarbon (PAH) recoveries were high above the acceptance limits possibly due to the presence of these compounds in the parent sample.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the acceptance limits except for low recoveries of Benzyl alcohol and Hexachlorocyclopentadiene. The low recoveries confirmed in the MS and were attributed to matrix interference.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent differences (RPD) were within the acceptance limits except for 4-Chloroaniline.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report (DER ID 809844) was generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

The Semi-Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD7.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2305 GEL Work Order: 248824

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

E Organics--Concentration of the target analyte exceeds the instrument calibration range

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Pat Steele **Name:** **Patricia Steele**

Date: **31 MAR 2010** **Title:** **Group Leader**
Laboratory Manager

Roadmap for LANL 10-2305 SVOA

This roadmap was analyzed by jos00786 on 03-26-2010, 11:36.
This roadmap was packaged by CHA01131 on 03-30-2010, 14:53.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD7.i/s032310.b/s7c2311.d	248824001	23-MAR-2010	13:54	10-2305.sub	RE46-10-11926	1	965816	
☐	N	/chem/MSD7.i/s032310.b/s7c2312.d	248824002	23-MAR-2010	14:15	10-2305.sub	RE46-10-11925	1	965816	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD7.i/s032310.b/s7c2306-2.d	1202072534	mb	23-MAR-2010	12:05	10-2305.sub	SBLK01	1	965816	
☐	N	/chem/MSD7.i/s032310.b/s7c2307-2.d	1202072535	lcs	23-MAR-2010	12:27	10-2305.sub	SBLK01LCS	1	965816	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11925**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 14:15**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2312.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	337	ug/kg	67.3	337
108-95-2	Phenol	U	337	ug/kg	67.3	337
95-57-8	2-Chlorophenol	U	337	ug/kg	67.3	337
106-46-7	1,4-Dichlorobenzene	U	337	ug/kg	67.3	337
621-64-7	N-Nitrosodipropylamine	U	337	ug/kg	67.3	337
59-50-7	4-Chloro-3-methylphenol	U	337	ug/kg	67.3	337
83-32-9	Acenaphthene	U	33.7	ug/kg	11.1	33.7
121-14-2	2,4-Dinitrotoluene	U	337	ug/kg	33.7	337
100-02-7	4-Nitrophenol	U	337	ug/kg	111	337
87-86-5	Pentachlorophenol	U	337	ug/kg	84.1	337
129-00-0	Pyrene	U	33.7	ug/kg	10.1	33.7
110-86-1	Pyridine	U	337	ug/kg	67.3	337
62-53-3	Aniline	U	337	ug/kg	101	337
111-44-4	bis(2-Chloroethyl) ether	U	337	ug/kg	67.3	337
541-73-1	1,3-Dichlorobenzene	U	337	ug/kg	67.3	337
100-51-6	Benzyl alcohol	U	337	ug/kg	101	337
95-50-1	1,2-Dichlorobenzene	U	337	ug/kg	67.3	337
108-60-1	bis(2-Chloroisopropyl)ether	U	337	ug/kg	67.3	337
95-48-7	o-Cresol	U	337	ug/kg	67.3	337
65794-96-9	m,p-Cresols	U	337	ug/kg	101	337
67-72-1	Hexachloroethane	U	337	ug/kg	67.3	337
98-95-3	Nitrobenzene	U	337	ug/kg	67.3	337
78-59-1	Isophorone	U	337	ug/kg	67.3	337
88-75-5	2-Nitrophenol	U	337	ug/kg	67.3	337
105-67-9	2,4-Dimethylphenol	U	337	ug/kg	118	337
111-91-1	bis(2-Chloroethoxy)methane	U	337	ug/kg	67.3	337
120-83-2	2,4-Dichlorophenol	U	337	ug/kg	67.3	337
65-85-0	Benzoic acid	U	673	ug/kg	168	673
91-20-3	Naphthalene	U	33.7	ug/kg	10.1	33.7
106-47-8	4-Chloroaniline	U	337	ug/kg	67.3	337
87-68-3	Hexachlorobutadiene	U	337	ug/kg	67.3	337
91-57-6	2-Methylnaphthalene	U	33.7	ug/kg	6.73	33.7
77-47-4	Hexachlorocyclopentadiene	U	337	ug/kg	67.3	337
88-06-2	2,4,6-Trichlorophenol	U	337	ug/kg	67.3	337
95-95-4	2,4,5-Trichlorophenol	U	337	ug/kg	67.3	337
91-58-7	2-Chloronaphthalene	U	33.7	ug/kg	11.1	33.7
88-74-4	2-Nitroaniline	U	337	ug/kg	67.3	337
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	337	ug/kg	67.3	337

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11925**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 14:15**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2312.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	337	ug/kg	67.3	337
606-20-2	2,6-Dinitrotoluene	U	337	ug/kg	33.7	337
208-96-8	Acenaphthylene	U	33.7	ug/kg	10.1	33.7
51-28-5	2,4-Dinitrophenol	U	673	ug/kg	128	673
132-64-9	Dibenzofuran	U	337	ug/kg	67.3	337
84-66-2	Diethylphthalate	U	337	ug/kg	67.3	337
86-73-7	Fluorene	U	33.7	ug/kg	10.1	33.7
7005-72-3	4-Chlorophenylphenylether	U	337	ug/kg	67.3	337
534-52-1	2-Methyl-4,6-dinitrophenol	U	337	ug/kg	67.3	337
100-01-6	4-Nitroaniline	U	337	ug/kg	101	337
	p-Nitroaniline					
122-39-4	Diphenylamine	U	337	ug/kg	67.3	337
122-66-7	Azobenzene	U	337	ug/kg	67.3	337
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	337	ug/kg	67.3	337
118-74-1	Hexachlorobenzene	U	337	ug/kg	67.3	337
85-01-8	Phenanthrene	U	33.7	ug/kg	10.1	33.7
120-12-7	Anthracene	U	33.7	ug/kg	6.73	33.7
84-74-2	Di-n-butylphthalate	U	337	ug/kg	67.3	337
206-44-0	Fluoranthene	U	33.7	ug/kg	10.1	33.7
85-68-7	Butylbenzylphthalate	U	337	ug/kg	67.3	337
56-55-3	Benzo(a)anthracene	U	33.7	ug/kg	10.1	33.7
91-94-1	3,3'-Dichlorobenzidine	U	337	ug/kg	101	337
218-01-9	Chrysene	U	33.7	ug/kg	10.1	33.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	337	ug/kg	67.3	337
117-84-0	Di-n-octylphthalate	U	337	ug/kg	67.3	337
205-99-2	Benzo(b)fluoranthene	U	33.7	ug/kg	10.1	33.7
207-08-9	Benzo(k)fluoranthene	U	33.7	ug/kg	10.1	33.7
50-32-8	Benzo(a)pyrene	U	33.7	ug/kg	10.1	33.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.7	ug/kg	10.1	33.7
53-70-3	Dibenzo(a,h)anthracene	U	33.7	ug/kg	10.1	33.7
191-24-2	Benzo(ghi)perylene	U	33.7	ug/kg	10.1	33.7
120-82-1	1,2,4-Trichlorobenzene	U	337	ug/kg	67.3	337

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	389	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11926**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:54**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.16 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2311.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	338	ug/kg	67.5	338
108-95-2	Phenol	U	338	ug/kg	67.5	338
95-57-8	2-Chlorophenol	U	338	ug/kg	67.5	338
106-46-7	1,4-Dichlorobenzene	U	338	ug/kg	67.5	338
621-64-7	N-Nitrosodipropylamine	U	338	ug/kg	67.5	338
59-50-7	4-Chloro-3-methylphenol	U	338	ug/kg	67.5	338
83-32-9	Acenaphthene	U	33.8	ug/kg	11.1	33.8
121-14-2	2,4-Dinitrotoluene	U	338	ug/kg	33.8	338
100-02-7	4-Nitrophenol	U	338	ug/kg	111	338
87-86-5	Pentachlorophenol	U	338	ug/kg	84.4	338
129-00-0	Pyrene	U	33.8	ug/kg	10.1	33.8
110-86-1	Pyridine	U	338	ug/kg	67.5	338
62-53-3	Aniline	U	338	ug/kg	101	338
111-44-4	bis(2-Chloroethyl) ether	U	338	ug/kg	67.5	338
541-73-1	1,3-Dichlorobenzene	U	338	ug/kg	67.5	338
100-51-6	Benzyl alcohol	U	338	ug/kg	101	338
95-50-1	1,2-Dichlorobenzene	U	338	ug/kg	67.5	338
108-60-1	bis(2-Chloroisopropyl)ether	U	338	ug/kg	67.5	338
95-48-7	o-Cresol	U	338	ug/kg	67.5	338
65794-96-9	m,p-Cresols	U	338	ug/kg	101	338
67-72-1	Hexachloroethane	U	338	ug/kg	67.5	338
98-95-3	Nitrobenzene	U	338	ug/kg	67.5	338
78-59-1	Isophorone	U	338	ug/kg	67.5	338
88-75-5	2-Nitrophenol	U	338	ug/kg	67.5	338
105-67-9	2,4-Dimethylphenol	U	338	ug/kg	118	338
111-91-1	bis(2-Chloroethoxy)methane	U	338	ug/kg	67.5	338
120-83-2	2,4-Dichlorophenol	U	338	ug/kg	67.5	338
65-85-0	Benzoic acid	U	675	ug/kg	169	675
91-20-3	Naphthalene	U	33.8	ug/kg	10.1	33.8
106-47-8	4-Chloroaniline	U	338	ug/kg	67.5	338
87-68-3	Hexachlorobutadiene	U	338	ug/kg	67.5	338
91-57-6	2-Methylnaphthalene	U	33.8	ug/kg	6.75	33.8
77-47-4	Hexachlorocyclopentadiene	U	338	ug/kg	67.5	338
88-06-2	2,4,6-Trichlorophenol	U	338	ug/kg	67.5	338
95-95-4	2,4,5-Trichlorophenol	U	338	ug/kg	67.5	338
91-58-7	2-Chloronaphthalene	U	33.8	ug/kg	11.1	33.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	338	ug/kg	67.5	338
99-09-2	3-Nitroaniline	U	338	ug/kg	67.5	338

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11926**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:54**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.16 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2311.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	338	ug/kg	67.5	338
606-20-2	2,6-Dinitrotoluene	U	338	ug/kg	33.8	338
208-96-8	Acenaphthylene	U	33.8	ug/kg	10.1	33.8
51-28-5	2,4-Dinitrophenol	U	675	ug/kg	128	675
132-64-9	Dibenzofuran	U	338	ug/kg	67.5	338
84-66-2	Diethylphthalate	U	338	ug/kg	67.5	338
86-73-7	Fluorene	U	33.8	ug/kg	10.1	33.8
7005-72-3	4-Chlorophenylphenylether	U	338	ug/kg	67.5	338
534-52-1	2-Methyl-4,6-dinitrophenol	U	338	ug/kg	67.5	338
100-01-6	4-Nitroaniline	U	338	ug/kg	101	338
	p-Nitroaniline					
122-39-4	Diphenylamine	U	338	ug/kg	67.5	338
122-66-7	Azobenzene	U	338	ug/kg	67.5	338
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	338	ug/kg	67.5	338
118-74-1	Hexachlorobenzene	U	338	ug/kg	67.5	338
85-01-8	Phenanthrene	U	33.8	ug/kg	10.1	33.8
120-12-7	Anthracene	U	33.8	ug/kg	6.75	33.8
84-74-2	Di-n-butylphthalate	U	338	ug/kg	67.5	338
206-44-0	Fluoranthene	U	33.8	ug/kg	10.1	33.8
85-68-7	Butylbenzylphthalate	U	338	ug/kg	67.5	338
56-55-3	Benzo(a)anthracene	U	33.8	ug/kg	10.1	33.8
91-94-1	3,3'-Dichlorobenzidine	U	338	ug/kg	101	338
218-01-9	Chrysene	U	33.8	ug/kg	10.1	33.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	338	ug/kg	67.5	338
117-84-0	Di-n-octylphthalate	U	338	ug/kg	67.5	338
205-99-2	Benzo(b)fluoranthene	U	33.8	ug/kg	10.1	33.8
207-08-9	Benzo(k)fluoranthene	U	33.8	ug/kg	10.1	33.8
50-32-8	Benzo(a)pyrene	U	33.8	ug/kg	10.1	33.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.8	ug/kg	10.1	33.8
53-70-3	Dibenzo(a,h)anthracene	U	33.8	ug/kg	10.1	33.8
191-24-2	Benzo(ghi)perylene	U	33.8	ug/kg	10.1	33.8
120-82-1	1,2,4-Trichlorobenzene	U	338	ug/kg	67.5	338

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	270	ug/kg		J

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-2305

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202072534	MB for batch 965812	72	69	78	85	88	93
1202072535	LCS for batch 965812	73	70	75	79	94	88
248824001	RE46-10-11926	56	54	62	68	64	76
248824002	RE46-10-11925	62	59	68	73	74	89

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(29%-99%)
PHL	=	Phenol-d5	(33%-98%)
NBZ	=	Nitrobenzene-d5	(31%-105%)
FBP	=	2-Fluorobiphenyl	(25%-109%)
TBP	=	2,4,6-Tribromophenol	(37%-106%)
TPH	=	p-Terphenyl-d14	(13%-150%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2305
Client ID: LCS for batch 965812
Lab Sample ID: 1202072535
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 12:27
Dilution: 1
Prep Batch ID: 965812
Batch ID: 965816

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	877	53	22-114
108-95-2	LCS	Phenol	1670	0.0	1170	70	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1340	81	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1250	75	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1270	76	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1280	77	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	1430	86	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1460	87	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	1440	86	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	1590	96	27-116
129-00-0	LCS	Pyrene	1670	0.0	1270	76	42-113
110-86-1	LCS	Pyridine	1670	0.0	952	57	8-125
62-53-3	LCS	Aniline	1670	0.0	979	59	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1050	63	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1190	71	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	695	42	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1320	79	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1160	70	28-117
95-48-7	LCS	o-Cresol	1670	0.0	1250	75	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1470	88	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	1260	75	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	1220	73	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2305
Client ID: LCS for batch 965812
Lab Sample ID: 1202072535
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 12:27
Dilution: 1
Prep Batch ID: 965812
Batch ID: 965816

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1180	71	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	1320	79	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1310	78	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1150	69	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1300	78	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	3600	108	22-138
91-20-3	LCS	Naphthalene	1670	0.0	1240	74	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	832	50	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1370	82	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1300	78	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1190	71	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1560	93	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1650	99	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1270	76	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1260	76	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1290	77	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	1510	91	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1430	86	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	1390	84	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1780	107	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	1410	85	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	1610	96	51-126

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2305 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 965812 **Matrix:** SOIL

Lab Sample ID: 1202072535

Instrument: MSD7.I **Analysis Date:** 03/23/2010 12:27 **Dilution:** 1

Analyst: JMB3 **Prep Batch ID:** 965812

Inj. Vol: .5 uL **Batch ID:** 965816

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1490	89	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1500	90	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1540	92	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1560	94	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	1360	81	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1380	83	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1410	85	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1390	83	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	1410	85	46-107
120-12-7	LCS	Anthracene	1670	0.0	1400	84	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1580	95	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1490	90	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1450	87	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1360	82	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1330	80	36-103
218-01-9	LCS	Chrysene	1670	0.0	1450	87	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1540	92	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1400	84	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1400	84	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1410	85	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1470	88	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1840	111	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2305 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 965812 **Matrix:** SOIL

Lab Sample ID: 1202072535

Instrument: MSD7.I **Analysis Date:** 03/23/2010 12:27 **Dilution:** 1

Analyst: JMB3 **Prep Batch ID:** 965812

Inj. Vol: .5 uL **Batch ID:** 965816

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1880	113	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1810	109	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1280	77	32-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2305**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE16-10-2787MS**	**Matrix:**	**S**
Lab Sample ID:	**1202072536**	**%Moisture:**	**15.9**
Instrument:	**MSD7.I**	**Analysis Date:**	**03/23/2010 16:47**
Analyst:	**JMB3**	**Prep Batch ID:**	**965812**
Inj. Vol:	**.5 uL**	**Batch ID:**	**965816**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1970	0.00	U	567	29	27-98
108-95-2	MS	Phenol	1970	0.00	U	878	44	33-94
95-57-8	MS	2-Chlorophenol	1970	0.00	U	954	48	29-96
106-46-7	MS	1,4-Dichlorobenzene	1970	0.00	U	840	43	27-96
621-64-7	MS	N-Nitrosodipropylamine	1970	0.00	U	922	47	29-102
59-50-7	MS	4-Chloro-3-methylphenol	1970	0.00	U	1350	68	29-110
83-32-9	MS	Acenaphthene	1970	342		1760	72	17-109
121-14-2	MS	2,4-Dinitrotoluene	1970	0.00	U	1360	69	33-107
100-02-7	MS	4-Nitrophenol	1970	0.00	U	1170	59	15-110
87-86-5	MS	Pentachlorophenol	1970	0.00	U	1470	74	23-110
129-00-0	MS	Pyrene	1970	1940		3840	96	24-118
110-86-1	MS	Pyridine	1970	0.00	U	568	29	25-102
62-53-3	MS	Aniline	1970	0.00	U	832	42	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	1970	0.00	U	721	37	29-96
541-73-1	MS	1,3-Dichlorobenzene	1970	0.00	U	785	40	26-97
100-51-6	MS	Benzyl alcohol	1970	0.00	U	0.00	0 *	19-112
95-50-1	MS	1,2-Dichlorobenzene	1970	0.00	U	897	45	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	1970	0.00	U	830	42	28-103
95-48-7	MS	o-Cresol	1970	0.00	U	1120	57	32-107
65794-96-9	MS	m,p-Cresols	1970	0.00	U	1110	56	33-115
67-72-1	MS	Hexachloroethane	1970	0.00	U	774	39	25-100
98-95-3	MS	Nitrobenzene	1970	0.00	U	1000	51	27-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2305
Client ID: RE16-10-2787MS
Lab Sample ID: 1202072536
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 15.9
Analysis Date: 03/23/2010 16:47
Prep Batch ID 965812
Batch ID: 965816
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1970	0.00	U	939	48	29-104
88-75-5	MS	2-Nitrophenol	1970	0.00	U	924	47	26-102
105-67-9	MS	2,4-Dimethylphenol	1970	0.00	U	836	42	22-104
111-91-1	MS	bis(2-Chloroethoxy)methane	1970	0.00	U	916	46	27-101
120-83-2	MS	2,4-Dichlorophenol	1970	0.00	U	1190	60	26-103
65-85-0	MS	Benzoic acid	3950	0.00	U	2320	59	13-131
91-20-3	MS	Naphthalene	1970	223		1300	54	23-103
106-47-8	MS	4-Chloroaniline	1970	0.00	U	997	50	26-103
87-68-3	MS	Hexachlorobutadiene	1970	0.00	U	1010	51	28-101
91-57-6	MS	2-Methylnaphthalene	1970	96.3		1240	58	27-106
77-47-4	MS	Hexachlorocyclopentadiene	1970	0.00	U	358	18 *	24-117
88-06-2	MS	2,4,6-Trichlorophenol	1970	0.00	U	1360	69	26-105
95-95-4	MS	2,4,5-Trichlorophenol	1970	0.00	U	1700	86	30-110
91-58-7	MS	2-Chloronaphthalene	1970	0.00	U	1110	56	28-102
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1970	0.00	U	1200	61	33-106
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1970	0.00	U	1040	52	33-116
131-11-3	MS	Dimethylphthalate	1970	0.00	U	1440	73	38-113
606-20-2	MS	2,6-Dinitrotoluene	1970	0.00	U	1360	69	29-107
208-96-8	MS	Acenaphthylene	1970	0.00	U	1300	66	25-108
51-28-5	MS	2,4-Dinitrophenol	1970	0.00	U	941	48	14-102
132-64-9	MS	Dibenzofuran	1970	191	J	1590	71	35-112
84-66-2	MS	Diethylphthalate	1970	0.00	U	1570	80	36-122

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2305**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE16-10-2787MS**	**Matrix:**	**S**
Lab Sample ID:	**1202072536**	**%Moisture:**	**15.9**
Instrument:	**MSD7.I**	**Analysis Date:**	**03/23/2010 16:47**
Analyst:	**JMB3**	**Prep Batch ID:**	**965812**
Inj. Vol:	**.5 uL**	**Batch ID:**	**965816**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1970	366		1960	81	33-105
7005-72-3	MS	4-Chlorophenylphenylether	1970	0.00	U	1420	72	30-110
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1970	0.00	U	756	38	26-97
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1970	0.00	U	1480	75	28-135
122-39-4	MS	Diphenylamine	1970	0.00	U	1410	71	33-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1970	0.00	U	1400	71	31-113
101-55-3	MS	4-Bromophenylphenylether	1970	0.00	U	1450	73	31-109
118-74-1	MS	Hexachlorobenzene	1970	0.00	U	1350	68	37-99
85-01-8	MS	Phenanthrene	1970	2390		4770	120 *	29-109
120-12-7	MS	Anthracene	1970	596		2220	82	19-118
84-74-2	MS	Di-n-butylphthalate	1970	0.00	U	1560	79	39-123
206-44-0	MS	Fluoranthene	1970	2340		4580	113	33-114
85-68-7	MS	Butylbenzylphthalate	1970	0.00	U	1420	72	35-131
56-55-3	MS	Benzo(a)anthracene	1970	990		2750	89	30-111
91-94-1	MS	3,3'-Dichlorobenzidine	1970	0.00	U	1260	64	30-124
218-01-9	MS	Chrysene	1970	1020		2680	84	32-108
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1970	89.0	J	1560	74	37-129
117-84-0	MS	Di-n-octylphthalate	1970	0.00	U	1550	79	31-143
205-99-2	MS	Benzo(b)fluoranthene	1970	1480		2710	62	29-118
207-08-9	MS	Benzo(k)fluoranthene	1970	0.00	U	2420	122 *	32-118
50-32-8	MS	Benzo(a)pyrene	1970	923		2750	93	33-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1970	0.00	U	2560	130 *	29-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2305**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE16-10-2787MS**	**Matrix:**	**S**
Lab Sample ID:	**1202072536**	**%Moisture:**	**15.9**
Instrument:	**MSD7.I**	**Analysis Date:**	**03/23/2010 16:47**
Analyst:	**JMB3**	**Prep Batch ID:**	**965812**
Inj. Vol:	**.5 uL**	**Batch ID:**	**965816**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1970	0.00	U	1980	100	27-119
191-24-2	MS	Benzo(ghi)perylene	1970	0.00	U	2520	128 *	28-112
120-82-1	MS	1,2,4-Trichlorobenzene	1970	0.00	U	980	50	28-99

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2305**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE16-10-2787MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202072537**	**%Moisture:**	**15.9**
Instrument:	**MSD7.I**	**Analysis Date:**	**03/23/2010 17:09**
Analyst:	**JMB3**	**Prep Batch ID:**	**965812**
Inj. Vol:	**.5 uL**	**Batch ID:**	**965816**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1980	0.00	U	558	28	27-98	2	0-30
108-95-2	MSD Phenol	1980	0.00	U	812	41	33-94	8	0-30
95-57-8	MSD 2-Chlorophenol	1980	0.00	U	944	48	29-96	1	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1980	0.00	U	815	41	27-96	3	0-30
621-64-7	MSD N-Nitrosodipropylamine	1980	0.00	U	879	44	29-102	5	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1980	0.00	U	1170	59	29-110	14	0-30
83-32-9	MSD Acenaphthene	1980	342		1530	60	17-109	14	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1980	0.00	U	1210	61	33-107	11	0-30
100-02-7	MSD 4-Nitrophenol	1980	0.00	U	1050	53	15-110	11	0-30
87-86-5	MSD Pentachlorophenol	1980	0.00	U	1290	65	23-110	13	0-30
129-00-0	MSD Pyrene	1980	1940		3650	86	24-118	5	0-30
110-86-1	MSD Pyridine	1980	0.00	U	545	28	25-102	4	0-30
62-53-3	MSD Aniline	1980	0.00	U	694	35	18-109	18	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1980	0.00	U	689	35	29-96	5	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1980	0.00	U	776	39	26-97	1	0-30
100-51-6	MSD Benzyl alcohol	1980	0.00	U	0.00	0 *	19-112	0	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1980	0.00	U	858	43	30-97	4	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1980	0.00	U	790	40	28-103	5	0-30
95-48-7	MSD o-Cresol	1980	0.00	U	1120	56	32-107	0	0-30
65794-96-9	MSD m,p-Cresols	1980	0.00	U	1210	61	33-115	9	0-30
67-72-1	MSD Hexachloroethane	1980	0.00	U	751	38	25-100	3	0-30
98-95-3	MSD Nitrobenzene	1980	0.00	U	939	47	27-106	7	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2305
Client ID: RE16-10-2787MSD
Lab Sample ID: 1202072537
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 15.9
Analysis Date: 03/23/2010 17:09
Prep Batch ID: 965812
Batch ID: 965816
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1980	0.00	U	876	44	29-104	7	0-30
88-75-5	MSD 2-Nitrophenol	1980	0.00	U	900	45	26-102	3	0-30
105-67-9	MSD 2,4-Dimethylphenol	1980	0.00	U	725	37	22-104	14	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1980	0.00	U	858	43	27-101	7	0-30
120-83-2	MSD 2,4-Dichlorophenol	1980	0.00	U	1080	54	26-103	10	0-30
65-85-0	MSD Benzoic acid	3960	0.00	U	1960	49	13-131	17	0-30
91-20-3	MSD Naphthalene	1980	223		1210	50	23-103	7	0-30
106-47-8	MSD 4-Chloroaniline	1980	0.00	U	575	29	26-103	54 *	0-30
87-68-3	MSD Hexachlorobutadiene	1980	0.00	U	977	49	28-101	3	0-30
91-57-6	MSD 2-Methylnaphthalene	1980	96.3		1150	53	27-106	8	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1980	0.00	U	299	15 *	24-117	18	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1980	0.00	U	1190	60	26-105	13	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1980	0.00	U	1500	76	30-110	13	0-30
91-58-7	MSD 2-Chloronaphthalene	1980	0.00	U	1000	51	28-102	10	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1980	0.00	U	1030	52	33-106	15	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1980	0.00	U	801	40	33-116	26	0-30
131-11-3	MSD Dimethylphthalate	1980	0.00	U	1270	64	38-113	13	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1980	0.00	U	1190	60	29-107	13	0-30
208-96-8	MSD Acenaphthylene	1980	0.00	U	1160	58	25-108	11	0-30
51-28-5	MSD 2,4-Dinitrophenol	1980	0.00	U	854	43	14-102	10	0-30
132-64-9	MSD Dibenzofuran	1980	191	J	1430	62	35-112	11	0-30
84-66-2	MSD Diethylphthalate	1980	0.00	U	1360	69	36-122	14	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2305
Client ID: RE16-10-2787MSD
Lab Sample ID: 1202072537
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 15.9
Analysis Date: 03/23/2010 17:09
Prep Batch ID 965812
Batch ID: 965816
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1980	366		1740	69	33-105	12	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1980	0.00	U	1260	64	30-110	12	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1980	0.00	U	678	34	26-97	11	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1980	0.00	U	1310	66	28-135	13	0-30
122-39-4	MSD	Diphenylamine	1980	0.00	U	1250	63	33-109	12	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1980	0.00	U	1240	63	31-113	12	0-30
101-55-3	MSD	4-Bromophenylphenylether	1980	0.00	U	1240	63	31-109	16	0-30
118-74-1	MSD	Hexachlorobenzene	1980	0.00	U	1170	59	37-99	14	0-30
85-01-8	MSD	Phenanthrene	1980	2390		4290	96	29-109	11	0-30
120-12-7	MSD	Anthracene	1980	596		2010	71	19-118	10	0-30
84-74-2	MSD	Di-n-butylphthalate	1980	0.00	U	1320	67	39-123	17	0-30
206-44-0	MSD	Fluoranthene	1980	2340		4110	89	33-114	11	0-30
85-68-7	MSD	Butylbenzylphthalate	1980	0.00	U	1300	66	35-131	9	0-30
56-55-3	MSD	Benzo(a)anthracene	1980	990		2410	72	30-111	13	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1980	0.00	U	1010	51	30-124	22	0-30
218-01-9	MSD	Chrysene	1980	1020		2400	70	32-108	11	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1980	89.0	J	1400	66	37-129	11	0-30
117-84-0	MSD	Di-n-octylphthalate	1980	0.00	U	1440	73	31-143	7	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1980	1480		2520	53	29-118	7	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1980	0.00	U	2070	105	32-118	15	0-30
50-32-8	MSD	Benzo(a)pyrene	1980	923		2390	74	33-115	14	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1980	0.00	U	2160	109	29-114	17	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2305**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE16-10-2787MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202072537**	**%Moisture:**	**15.9**
Instrument:	**MSD7.I**	**Analysis Date:**	**03/23/2010 17:09**
Analyst:	**JMB3**	**Prep Batch ID:**	**965812**
Inj. Vol:	**.5 uL**	**Batch ID:**	**965816**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD	Dibenzo(a,h)anthracene	1980	0.00	U	1740	88	27-119	13	0-30
191-24-2	MSD	Benzo(ghi)perylene	1980	0.00	U	2100	106	28-112	18	0-30
120-82-1	MSD	1,2,4-Trichlorobenzene	1980	0.00	U	917	46	28-99	7	0-30

Method Blank Summary

SDG Number:	10-2305	**Client:**	LANL010	**Matrix:**	SOIL
Client ID:	MB for batch 965812	**Instrument ID:**	MSD7.I	**Data File:**	s7c2306-1.d
Lab Sample ID:	1202072534	**Prep Date:**	03/16/2010 21:37	**Analyzed:**	03/23/10 12:05
Column:	J&W DB-5MS	**Level:**	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 965812	1202072535	s7c2307-1.d	03/23/10	1227
02 RE46-10-11926	248824001	s7c2311.d	03/23/10	1354
03 RE46-10-11925	248824002	s7c2312.d	03/23/10	1415

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2305

Instrument ID: MSD7.I **Injection Date/Time:** 26-FEB-10 10:23

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s022610.b/s7b2601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	59.4
68	Less than 2% of mass 69	0.6
69	Mass 69 Relative Abundance	48.9
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	54.1
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.2
365	Greater than 1% of mass 198	2.7
441	Present, but less than mass 443	79.7
442	Greater than 40% of mass 198	71.6
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100225-08	s7b2603.d	26-FEB-10 11:07
MEGA040	WBN100225-05.1	s7b2606.d	26-FEB-10 12:19
MEGA050	WBN100225-04	s7b2607.d	26-FEB-10 12:43
MEGA080	WBN100225-03	s7b2608.d	26-FEB-10 13:07
MEGA100	WBN100225-02	s7b2609.d	26-FEB-10 13:32
MEGA120	WBN100225-01	s7b2610.d	26-FEB-10 13:56
MEGA010	WBN100225-07	s7b2612.d	26-FEB-10 14:44
MEGA020	WBN100225-06	s7b2613.d	26-FEB-10 15:08
MEGAICV	WBN100225-09.1	s7b2614.d	26-FEB-10 15:33

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2305

Instrument ID: MSD7.I **Injection Date/Time:** 26-FEB-10 16:00

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s022610.b/s7b2615.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	59
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	49.2
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	55.5
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.7
441	Present, but less than mass 443	78.7
442	Greater than 40% of mass 198	68.1
443	17 - 23% of mass 442	19.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN100218-01	s7b2617.d	26-FEB-10 16:34
AP020	WBN100218-02	s7b2618.d	26-FEB-10 16:56
AP040	WBN100218-03.1	s7b2619.d	26-FEB-10 17:17
AP050	WBN100218-04	s7b2620.d	26-FEB-10 17:39
AP080	WBN100218-05	s7b2621.d	26-FEB-10 18:00
AP100	WBN100218-06	s7b2622.d	26-FEB-10 18:22
AP120	WBN100218-07	s7b2623.d	26-FEB-10 18:43
APICV	WBN100218-08.1	s7b2638.d	27-FEB-10 00:07

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2305

Instrument ID: MSD7.I **Injection Date/Time:** 23-MAR-10 11:08

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s032310.b/s7c2303.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	56.3
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	49
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	54.2
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	7.1
275	10 - 30% of mass 198	23.9
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	77.2
442	Greater than 40% of mass 198	61.2
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-05.2	s7c2304.d	23-MAR-10 11:20
APCVS	WBN100312-03.3	s7c2305.d	23-MAR-10 11:44
SBLK01	1202072534	s7c2306-1.d	23-MAR-10 12:05
SBLK01LCS	1202072535	s7c2307-1.d	23-MAR-10 12:27
RE46-10-11926	248824001	s7c2311.d	23-MAR-10 13:54
RE46-10-11925	248824002	s7c2312.d	23-MAR-10 14:15

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2305

Instrument: MSD7.I

STD Analysis Time: 23-MAR-10 11:20

GC Column: J&W DB-5MS

Data File: s7c2304.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	273307		3.87	1124363		4.74	583433		5.99	1092463		7.15	838935		9.55	588840		11.2
Upper Limit	546614		4.37	2248726		5.24	1166866		6.49	2184926		7.65	1677870		10.1	1177680		11.7
Lower Limit	136654		3.37	562182		4.24	291717		5.49	546232		6.65	419468		9.05	294420		10.7
Sample ID																		
BLK01	212090		3.87	794132		4.73	461044		5.98	834040		7.14	651822		9.54	489529		11.2
BLK01LCS	226223		3.87	939533		4.73	485896		5.98	944400		7.14	801200		9.55	620288		11.2
RE46-10-11926	211292		3.87	798774		4.73	462523		5.98	864930		7.14	671699		9.54	463208		11.2
RE46-10-11925	256764		3.87	972499		4.73	556913		5.98	1034719		7.14	764217		9.54	515460		11.2

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11925**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 14:15**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2312.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	337	ug/kg	67.3	337
108-95-2	Phenol	U	337	ug/kg	67.3	337
95-57-8	2-Chlorophenol	U	337	ug/kg	67.3	337
106-46-7	1,4-Dichlorobenzene	U	337	ug/kg	67.3	337
621-64-7	N-Nitrosodipropylamine	U	337	ug/kg	67.3	337
59-50-7	4-Chloro-3-methylphenol	U	337	ug/kg	67.3	337
83-32-9	Acenaphthene	U	33.7	ug/kg	11.1	33.7
121-14-2	2,4-Dinitrotoluene	U	337	ug/kg	33.7	337
100-02-7	4-Nitrophenol	U	337	ug/kg	111	337
87-86-5	Pentachlorophenol	U	337	ug/kg	84.1	337
129-00-0	Pyrene	U	33.7	ug/kg	10.1	33.7
110-86-1	Pyridine	U	337	ug/kg	67.3	337
62-53-3	Aniline	U	337	ug/kg	101	337
111-44-4	bis(2-Chloroethyl) ether	U	337	ug/kg	67.3	337
541-73-1	1,3-Dichlorobenzene	U	337	ug/kg	67.3	337
100-51-6	Benzyl alcohol	U	337	ug/kg	101	337
95-50-1	1,2-Dichlorobenzene	U	337	ug/kg	67.3	337
108-60-1	bis(2-Chloroisopropyl)ether	U	337	ug/kg	67.3	337
95-48-7	o-Cresol	U	337	ug/kg	67.3	337
65794-96-9	m,p-Cresols	U	337	ug/kg	101	337
67-72-1	Hexachloroethane	U	337	ug/kg	67.3	337
98-95-3	Nitrobenzene	U	337	ug/kg	67.3	337
78-59-1	Isophorone	U	337	ug/kg	67.3	337
88-75-5	2-Nitrophenol	U	337	ug/kg	67.3	337
105-67-9	2,4-Dimethylphenol	U	337	ug/kg	118	337
111-91-1	bis(2-Chloroethoxy)methane	U	337	ug/kg	67.3	337
120-83-2	2,4-Dichlorophenol	U	337	ug/kg	67.3	337
65-85-0	Benzoic acid	U	673	ug/kg	168	673
91-20-3	Naphthalene	U	33.7	ug/kg	10.1	33.7
106-47-8	4-Chloroaniline	U	337	ug/kg	67.3	337
87-68-3	Hexachlorobutadiene	U	337	ug/kg	67.3	337
91-57-6	2-Methylnaphthalene	U	33.7	ug/kg	6.73	33.7
77-47-4	Hexachlorocyclopentadiene	U	337	ug/kg	67.3	337
88-06-2	2,4,6-Trichlorophenol	U	337	ug/kg	67.3	337
95-95-4	2,4,5-Trichlorophenol	U	337	ug/kg	67.3	337
91-58-7	2-Chloronaphthalene	U	33.7	ug/kg	11.1	33.7
88-74-4	2-Nitroaniline	U	337	ug/kg	67.3	337
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	337	ug/kg	67.3	337

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11925**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 14:15**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2312.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	337	ug/kg	67.3	337
606-20-2	2,6-Dinitrotoluene	U	337	ug/kg	33.7	337
208-96-8	Acenaphthylene	U	33.7	ug/kg	10.1	33.7
51-28-5	2,4-Dinitrophenol	U	673	ug/kg	128	673
132-64-9	Dibenzofuran	U	337	ug/kg	67.3	337
84-66-2	Diethylphthalate	U	337	ug/kg	67.3	337
86-73-7	Fluorene	U	33.7	ug/kg	10.1	33.7
7005-72-3	4-Chlorophenylphenylether	U	337	ug/kg	67.3	337
534-52-1	2-Methyl-4,6-dinitrophenol	U	337	ug/kg	67.3	337
100-01-6	4-Nitroaniline	U	337	ug/kg	101	337
	p-Nitroaniline					
122-39-4	Diphenylamine	U	337	ug/kg	67.3	337
122-66-7	Azobenzene	U	337	ug/kg	67.3	337
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	337	ug/kg	67.3	337
118-74-1	Hexachlorobenzene	U	337	ug/kg	67.3	337
85-01-8	Phenanthrene	U	33.7	ug/kg	10.1	33.7
120-12-7	Anthracene	U	33.7	ug/kg	6.73	33.7
84-74-2	Di-n-butylphthalate	U	337	ug/kg	67.3	337
206-44-0	Fluoranthene	U	33.7	ug/kg	10.1	33.7
85-68-7	Butylbenzylphthalate	U	337	ug/kg	67.3	337
56-55-3	Benzo(a)anthracene	U	33.7	ug/kg	10.1	33.7
91-94-1	3,3'-Dichlorobenzidine	U	337	ug/kg	101	337
218-01-9	Chrysene	U	33.7	ug/kg	10.1	33.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	337	ug/kg	67.3	337
117-84-0	Di-n-octylphthalate	U	337	ug/kg	67.3	337
205-99-2	Benzo(b)fluoranthene	U	33.7	ug/kg	10.1	33.7
207-08-9	Benzo(k)fluoranthene	U	33.7	ug/kg	10.1	33.7
50-32-8	Benzo(a)pyrene	U	33.7	ug/kg	10.1	33.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.7	ug/kg	10.1	33.7
53-70-3	Dibenzo(a,h)anthracene	U	33.7	ug/kg	10.1	33.7
191-24-2	Benzo(ghi)perylene	U	33.7	ug/kg	10.1	33.7
120-82-1	1,2,4-Trichlorobenzene	U	337	ug/kg	67.3	337

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	389	ug/kg		J

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2312.d
Lab Smp Id: 248824002 Client Smp ID: RE46-10-11925
Inj Date : 23-MAR-2010 14:15
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248824002|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2305.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.17000	weight of sample
M	1.51630	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	256764	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	972499	40.0000	
* 46 Acenaphthene-d10	164	5.979	5.988	(1.000)	556913	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	1034719	40.0000	
* 91 Chrysene-d12	240	9.542	9.552	(1.000)	764217	40.0000	
* 98 Perylene-d12	264	11.155	11.165	(1.000)	515460	40.0000	
$ 3 2-Fluorophenol	112	3.066	3.061	(0.792)	414830	62.1571	2090
$ 5 Phenol-d5	99	3.586	3.590	(0.927)	491341	58.7194	1980
$ 20 Nitrobenzene-d5	82	4.226	4.235	(0.893)	249456	34.0095	1140
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	509747	36.7274	1240
$ 60 2,4,6-Tribromophenol	329	6.576	6.576	(1.100)	118958	73.8887	2490
$ 81 p-Terphenyl-d14	244	8.516	8.521	(0.892)	607951	44.4048	1490

ION RATIO REPORT

SV REPORT

Data file: s7c2312.d
Report Date: 03/23/2010 14:28
Lab. ID: 248824002 SampleType: SAMPLE
Injection Date: 23-MAR-2010 14:15
Operator: JMB3 Instrument: MSD7.i
Sample Info: |248824002|965816|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2305
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	40429	4.23	4.12	80-120	100	(T)
42	34849	4.23	4.12	74-134	86	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	103239	5.98	5.75	80-120	100	(T)
164	556913	5.98	5.75	0- 40	539	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	71774	5.98	5.81	80-120	100	(T)
63	947	5.98	5.81	66-126	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	71774	5.98	6.10	80-120	100	(T)
89	1128	5.98	6.10	43-103	2	(QT)
63	947	5.98	6.10	22- 82	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	6127	6.57	6.39	80-120	100	(T)
165	6439	6.57	6.39	61-121	105	(T)
167	2075	6.57	6.39	0- 44	34	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	453	6.57	6.41	80-120	100	(T)
105	1008	6.57	6.41	14- 74	222	(QT)
51	1079	6.57	6.41	41-101	238	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
61	4-Bromophenylphenylether			CAS#: 101-55-3		
248	8860	6.57	6.75	80-120	100	(T)
141	70674	6.57	6.75	61-121	798	(QT)
250	17636	6.57	6.75	69-129	199	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s032310.b/s7c2312.d
Lab Smp Id: 248824002 Client Smp ID: RE46-10-11925
Inj Date : 23-MAR-2010 14:15
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248824002|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2305.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.17000	weight of sample
M	1.51630	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.870	1698924	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.907	491185	11.5646143	389	0		0	10

Data File: /chem/MSD7.i/s032310.b/s7c2312.d

Date : 23-MAR-2010 14:15

Client ID: RE46-10-11925

Sample Info: |2488240021965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD7.i

Operator: JMB3

Column diameter: 0.20

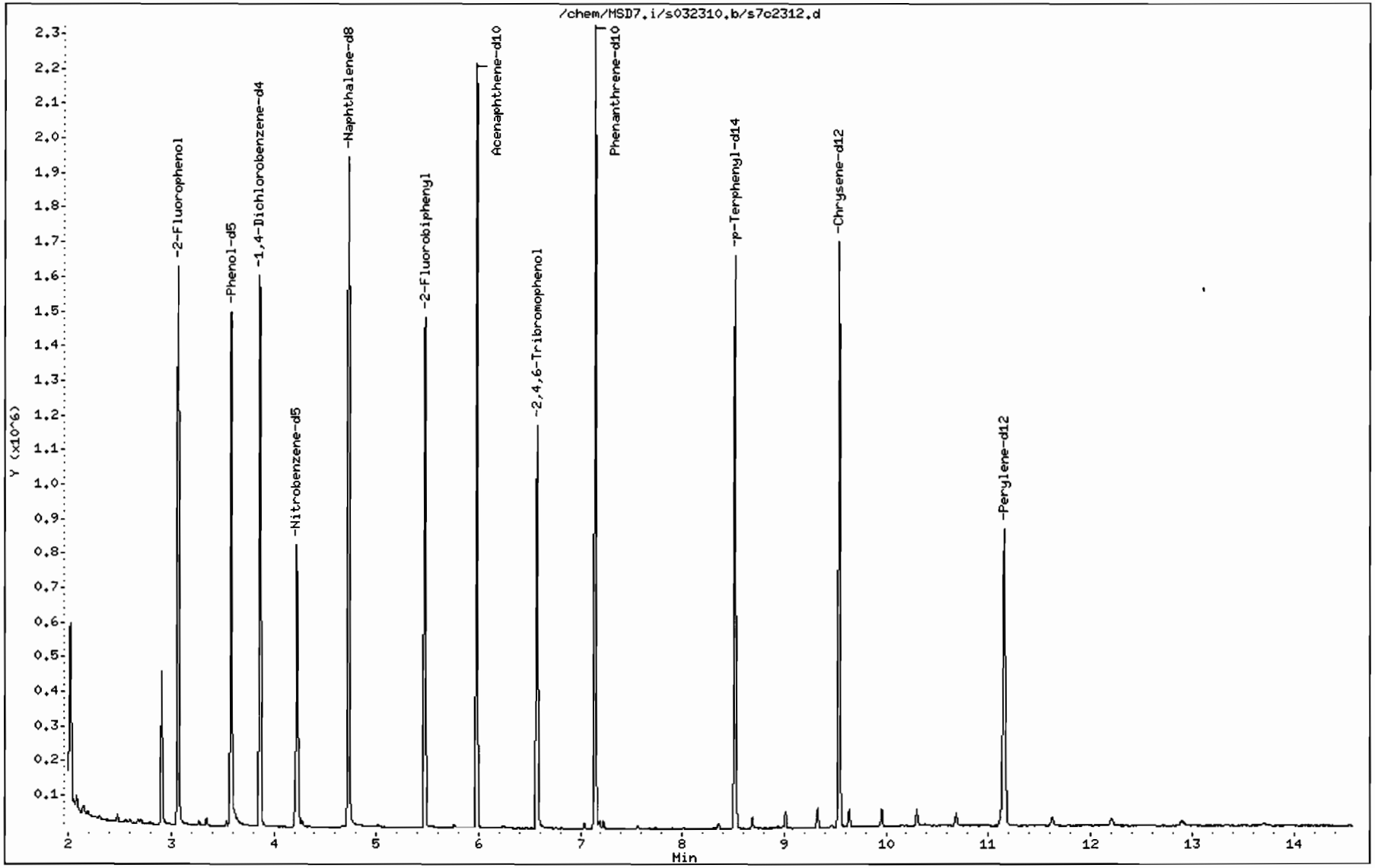

Data File: /chem/MSD7.i/s032310.b/s7c2312.d

Date : 23-MAR-2010 14:15

Client ID: RE46-10-11925

Instrument: MSD7.i

Sample Info: 1248824002|965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7950	23	C6H12O2	116

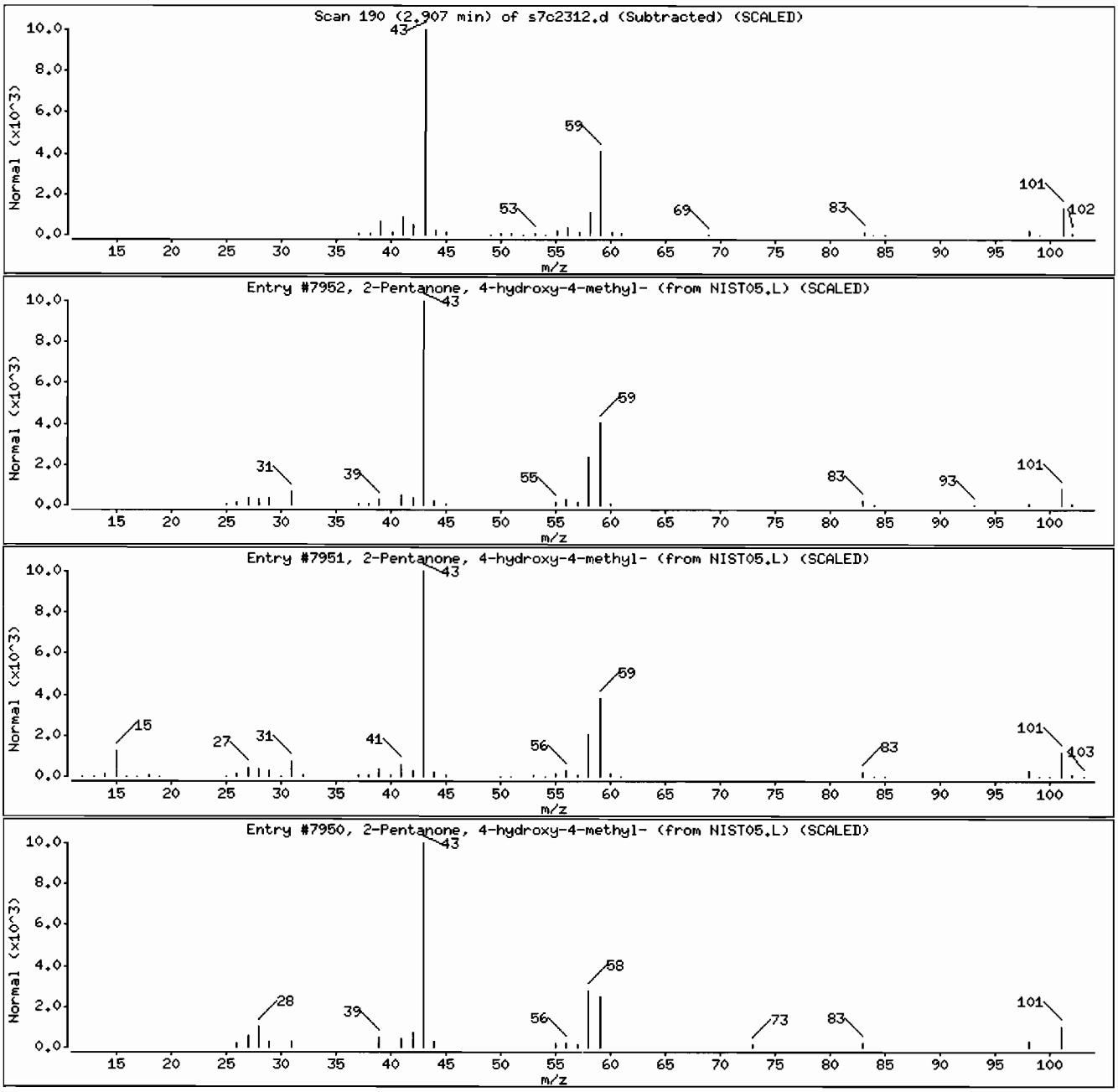

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11926**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:54**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.16 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2311.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	338	ug/kg	67.5	338
108-95-2	Phenol	U	338	ug/kg	67.5	338
95-57-8	2-Chlorophenol	U	338	ug/kg	67.5	338
106-46-7	1,4-Dichlorobenzene	U	338	ug/kg	67.5	338
621-64-7	N-Nitrosodipropylamine	U	338	ug/kg	67.5	338
59-50-7	4-Chloro-3-methylphenol	U	338	ug/kg	67.5	338
83-32-9	Acenaphthene	U	33.8	ug/kg	11.1	33.8
121-14-2	2,4-Dinitrotoluene	U	338	ug/kg	33.8	338
100-02-7	4-Nitrophenol	U	338	ug/kg	111	338
87-86-5	Pentachlorophenol	U	338	ug/kg	84.4	338
129-00-0	Pyrene	U	33.8	ug/kg	10.1	33.8
110-86-1	Pyridine	U	338	ug/kg	67.5	338
62-53-3	Aniline	U	338	ug/kg	101	338
111-44-4	bis(2-Chloroethyl) ether	U	338	ug/kg	67.5	338
541-73-1	1,3-Dichlorobenzene	U	338	ug/kg	67.5	338
100-51-6	Benzyl alcohol	U	338	ug/kg	101	338
95-50-1	1,2-Dichlorobenzene	U	338	ug/kg	67.5	338
108-60-1	bis(2-Chloroisopropyl)ether	U	338	ug/kg	67.5	338
95-48-7	o-Cresol	U	338	ug/kg	67.5	338
65794-96-9	m,p-Cresols	U	338	ug/kg	101	338
67-72-1	Hexachloroethane	U	338	ug/kg	67.5	338
98-95-3	Nitrobenzene	U	338	ug/kg	67.5	338
78-59-1	Isophorone	U	338	ug/kg	67.5	338
88-75-5	2-Nitrophenol	U	338	ug/kg	67.5	338
105-67-9	2,4-Dimethylphenol	U	338	ug/kg	118	338
111-91-1	bis(2-Chloroethoxy)methane	U	338	ug/kg	67.5	338
120-83-2	2,4-Dichlorophenol	U	338	ug/kg	67.5	338
65-85-0	Benzoic acid	U	675	ug/kg	169	675
91-20-3	Naphthalene	U	33.8	ug/kg	10.1	33.8
106-47-8	4-Chloroaniline	U	338	ug/kg	67.5	338
87-68-3	Hexachlorobutadiene	U	338	ug/kg	67.5	338
91-57-6	2-Methylnaphthalene	U	33.8	ug/kg	6.75	33.8
77-47-4	Hexachlorocyclopentadiene	U	338	ug/kg	67.5	338
88-06-2	2,4,6-Trichlorophenol	U	338	ug/kg	67.5	338
95-95-4	2,4,5-Trichlorophenol	U	338	ug/kg	67.5	338
91-58-7	2-Chloronaphthalene	U	33.8	ug/kg	11.1	33.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	338	ug/kg	67.5	338
99-09-2	3-Nitroaniline	U	338	ug/kg	67.5	338

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11926**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:54**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.16 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2311.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	338	ug/kg	67.5	338
606-20-2	2,6-Dinitrotoluene	U	338	ug/kg	33.8	338
208-96-8	Acenaphthylene	U	33.8	ug/kg	10.1	33.8
51-28-5	2,4-Dinitrophenol	U	675	ug/kg	128	675
132-64-9	Dibenzofuran	U	338	ug/kg	67.5	338
84-66-2	Diethylphthalate	U	338	ug/kg	67.5	338
86-73-7	Fluorene	U	33.8	ug/kg	10.1	33.8
7005-72-3	4-Chlorophenylphenylether	U	338	ug/kg	67.5	338
534-52-1	2-Methyl-4,6-dinitrophenol	U	338	ug/kg	67.5	338
100-01-6	4-Nitroaniline	U	338	ug/kg	101	338
	p-Nitroaniline					
122-39-4	Diphenylamine	U	338	ug/kg	67.5	338
122-66-7	Azobenzene	U	338	ug/kg	67.5	338
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	338	ug/kg	67.5	338
118-74-1	Hexachlorobenzene	U	338	ug/kg	67.5	338
85-01-8	Phenanthrene	U	33.8	ug/kg	10.1	33.8
120-12-7	Anthracene	U	33.8	ug/kg	6.75	33.8
84-74-2	Di-n-butylphthalate	U	338	ug/kg	67.5	338
206-44-0	Fluoranthene	U	33.8	ug/kg	10.1	33.8
85-68-7	Butylbenzylphthalate	U	338	ug/kg	67.5	338
56-55-3	Benzo(a)anthracene	U	33.8	ug/kg	10.1	33.8
91-94-1	3,3'-Dichlorobenzidine	U	338	ug/kg	101	338
218-01-9	Chrysene	U	33.8	ug/kg	10.1	33.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	338	ug/kg	67.5	338
117-84-0	Di-n-octylphthalate	U	338	ug/kg	67.5	338
205-99-2	Benzo(b)fluoranthene	U	33.8	ug/kg	10.1	33.8
207-08-9	Benzo(k)fluoranthene	U	33.8	ug/kg	10.1	33.8
50-32-8	Benzo(a)pyrene	U	33.8	ug/kg	10.1	33.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.8	ug/kg	10.1	33.8
53-70-3	Dibenzo(a,h)anthracene	U	33.8	ug/kg	10.1	33.8
191-24-2	Benzo(ghi)perylene	U	33.8	ug/kg	10.1	33.8
120-82-1	1,2,4-Trichlorobenzene	U	338	ug/kg	67.5	338

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	270	ug/kg		J

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2311.d
Lab Smp Id: 248824001 Client Smp ID: RE46-10-11926
Inj Date : 23-MAR-2010 13:54
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248824001|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2305.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.16000	weight of sample
M	1.75870	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	211292	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	798774	40.0000	
* 46 Acenaphthene-d10	164	5.979	5.988	(1.000)	462523	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	864930	40.0000	
* 91 Chrysene-d12	240	9.542	9.552	(1.000)	671699	40.0000	
* 98 Perylene-d12	264	11.155	11.165	(1.000)	463208	40.0000	
$ 3 2-Fluorophenol	112	3.066	3.061	(0.792)	307732	56.0331	1890
$ 5 Phenol-d5	99	3.586	3.590	(0.927)	371876	54.0067	1820
$ 20 Nitrobenzene-d5	82	4.226	4.235	(0.893)	185738	30.8299	1040
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	389217	33.7662	1140
$ 60 2,4,6-Tribromophenol	329	6.576	6.576	(1.100)	86069	64.3702	2170
$ 81 p-Terphenyl-d14	244	8.516	8.521	(0.892)	457856	38.0480	1280

ION RATIO REPORT

SV REPORT

Data file: s7c2311.d
Report Date: 03/23/2010 14:19
Lab. ID: 248824001 SampleType: SAMPLE
Injection Date: 23-MAR-2010 13:54
Operator: JMB3 Instrument: MSD7.i
Sample Info: |248824001|965816|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2305
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	30430	4.23	4.12	80-120	100	(T)
42	26534	4.23	4.12	74-134	87	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	85225	5.98	5.75	80-120	100	(T)
164	462523	5.98	5.75	0- 40	543	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	59452	5.98	5.81	80-120	100	(T)
63	647	5.98	5.81	66-126	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	59452	5.98	6.10	80-120	100	(T)
89	664	5.98	6.10	43-103	1	(QT)
63	647	5.98	6.10	22- 82	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	4770	6.57	6.39	80-120	100	(T)
165	4863	6.57	6.39	61-121	102	(T)
167	1540	6.57	6.39	0- 44	32	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	302	6.57	6.41	80-120	100	(T)
105	814	6.57	6.41	14- 74	270	(QT)
51	791	6.57	6.41	41-101	262	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s032310.b/s7c2311.d
Lab Smp Id: 248824001 Client Smp ID: RE46-10-11926
Inj Date : 23-MAR-2010 13:54
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248824001|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2305.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.16000	weight of sample
M	1.75870	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.870	1398875	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.902	280170	8.01129375	270	0		0	10

Data File: /chem/MSD7.i/s032310.b/s7c2311.d
Date : 23-MAR-2010 13:54
Client ID: RE46-10-11926
Sample Info: 1248824001196581611SVMI11LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i

Operator: JMB3
Column diameter: 0.20

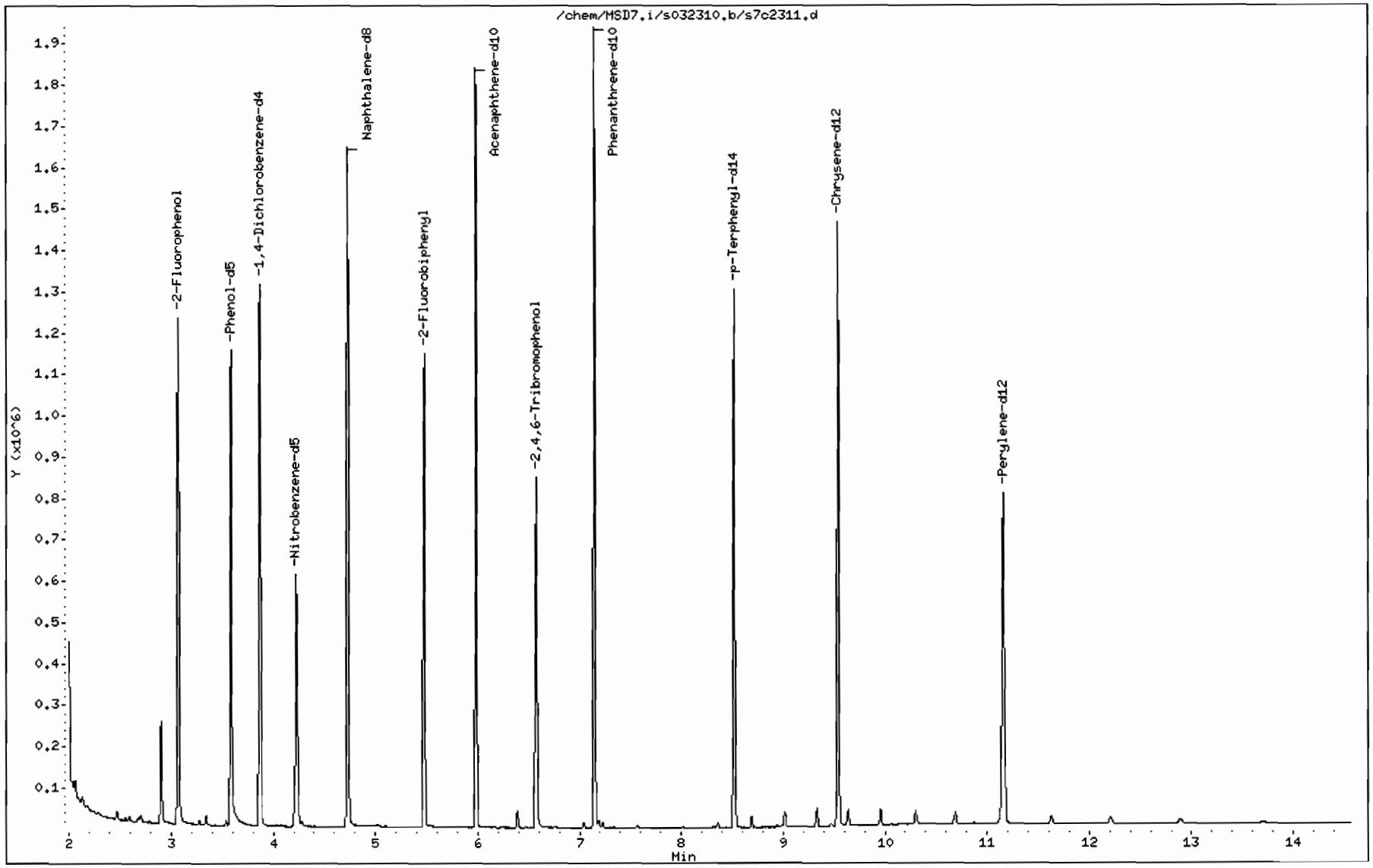

Data File: /chem/MSD7.i/s032310.b/s7c2311.d

Date : 23-MAR-2010 13:54

Client ID: RE46-10-11926

Instrument: MSD7.i

Sample Info: 1248824001|965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116

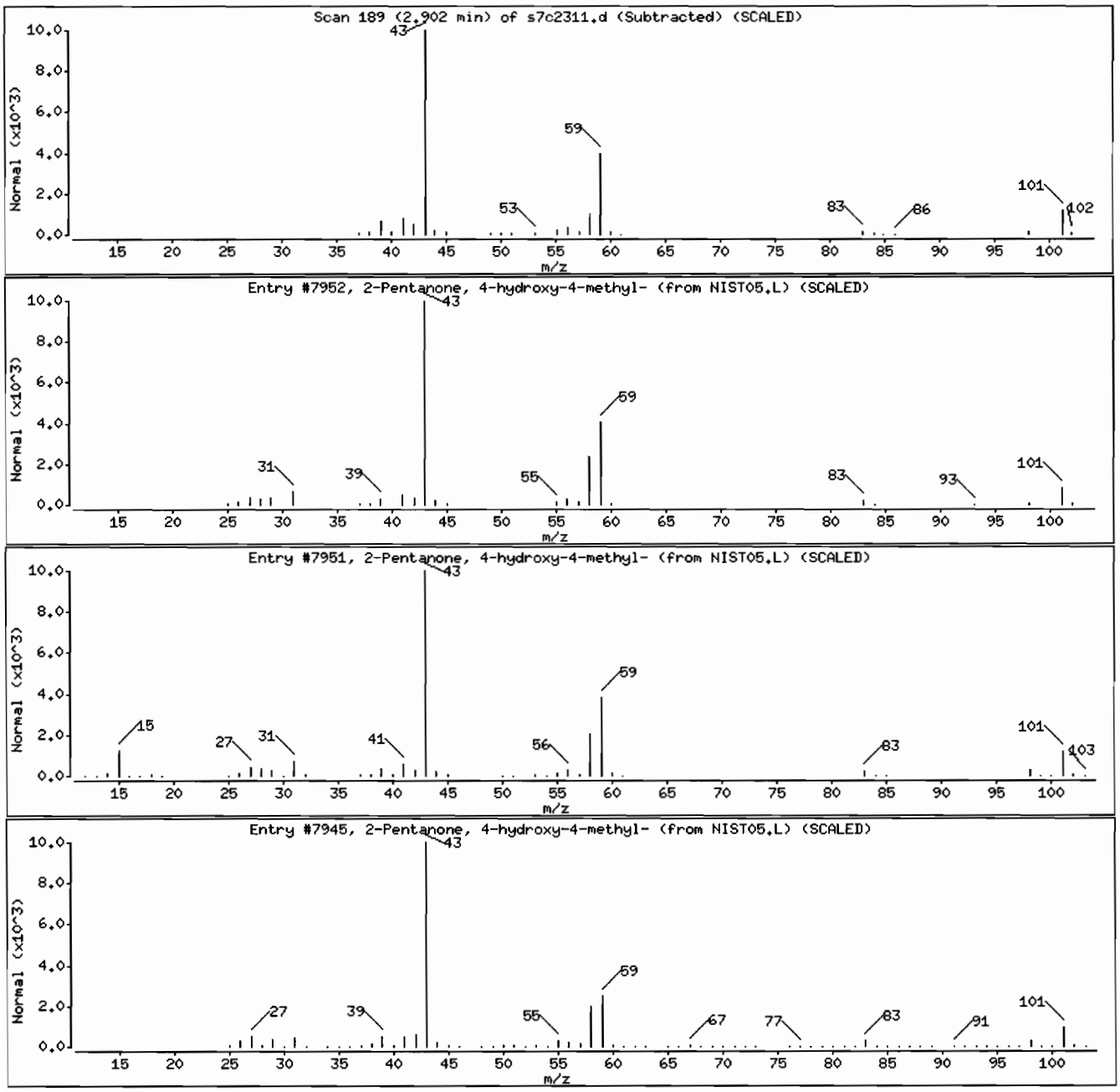

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 23-Mar-2010 12:32

Calibration History

Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Start Cal Date: 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
26-FEB-2010 11:07	MEGA	/chem/MSD7.i/s022610.b/s7b2603.d
Cal Level: 2 , Cal Amount: 10.00000		
26-FEB-2010 21:36	NEV	/chem/MSD7.i/s022610.b/s7b2631.d
26-FEB-2010 19:05	PEST	/chem/MSD7.i/s022610.b/s7b2624.d
26-FEB-2010 16:34	AP12	/chem/MSD7.i/s022610.b/s7b2617.d
26-FEB-2010 14:44	MEGA	/chem/MSD7.i/s022610.b/s7b2612.d
Cal Level: 3 , Cal Amount: 20.00000		
26-FEB-2010 21:58	NEV	/chem/MSD7.i/s022610.b/s7b2632.d
26-FEB-2010 19:26	PEST	/chem/MSD7.i/s022610.b/s7b2625.d
26-FEB-2010 16:56	AP12	/chem/MSD7.i/s022610.b/s7b2618.d
26-FEB-2010 15:08	MEGA	/chem/MSD7.i/s022610.b/s7b2613.d
Cal Level: 4 , Cal Amount: 40.00000		
26-FEB-2010 22:19	NEV	/chem/MSD7.i/s022610.b/s7b2633.d
26-FEB-2010 19:48	PEST	/chem/MSD7.i/s022610.b/s7b2626.d
26-FEB-2010 17:17	AP12	/chem/MSD7.i/s022610.b/s7b2619.d
26-FEB-2010 12:19	MEGA	/chem/MSD7.i/s022610.b/s7b2606.d
Cal Level: 5 , Cal Amount: 50.00000		
26-FEB-2010 22:40	NEV	/chem/MSD7.i/s022610.b/s7b2634.d
26-FEB-2010 20:09	PEST	/chem/MSD7.i/s022610.b/s7b2627.d
26-FEB-2010 17:39	AP12	/chem/MSD7.i/s022610.b/s7b2620.d
26-FEB-2010 12:43	MEGA	/chem/MSD7.i/s022610.b/s7b2607.d
Cal Level: 6 , Cal Amount: 80.00000		
26-FEB-2010 23:02	NEV	/chem/MSD7.i/s022610.b/s7b2635.d
26-FEB-2010 20:31	PEST	/chem/MSD7.i/s022610.b/s7b2628.d
26-FEB-2010 18:00	AP12	/chem/MSD7.i/s022610.b/s7b2621.d
26-FEB-2010 13:07	MEGA	/chem/MSD7.i/s022610.b/s7b2608.d
Cal Level: 7 , Cal Amount: 100.00000		
26-FEB-2010 23:24	NEV	/chem/MSD7.i/s022610.b/s7b2636.d
26-FEB-2010 20:52	PEST	/chem/MSD7.i/s022610.b/s7b2629.d
26-FEB-2010 18:22	AP12	/chem/MSD7.i/s022610.b/s7b2622.d
26-FEB-2010 13:32	MEGA	/chem/MSD7.i/s022610.b/s7b2609.d

Cal Level: 8 , Cal Amount: 120.00000		
26-FEB-2010 23:46	NEV	/chem/MSD7.i/s022610.b/s7b2637.d
26-FEB-2010 21:14	PEST	/chem/MSD7.i/s022610.b/s7b2630.d
26-FEB-2010 18:43	AP12	/chem/MSD7.i/s022610.b/s7b2623.d
26-FEB-2010 13:56	MEGA	/chem/MSD7.i/s022610.b/s7b2610.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
23-MAR-2010 11:20	MEGA	/chem/MSD7.i/s032310.b/s7c2304.d
Ccal Level: 4 , Ccal Amount: 40.0		
23-MAR-2010 11:44	AP12	/chem/MSD7.i/s032310.b/s7c2305.d
Ccal Level: 4 , Ccal Amount: 40.0		
23-MAR-2010 10:41	MEGA	/chem/MSD7.i/s032310.b/s7c2302.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Calibration File Names:
Level 1: /chem/MSD7.i/s022610.b/s7b2603.d
Level 2: /chem/MSD7.i/s022610.b/s7b2631.d
Level 3: /chem/MSD7.i/s022610.b/s7b2632.d
Level 4: /chem/MSD7.i/s022610.b/s7b2633.d
Level 5: /chem/MSD7.i/s022610.b/s7b2634.d
Level 6: /chem/MSD7.i/s022610.b/s7b2635.d
Level 7: /chem/MSD7.i/s022610.b/s7b2636.d
Level 8: /chem/MSD7.i/s022610.b/s7b2637.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.70129	0.69307	0.69919	0.69205	0.70435					
	0.72207	0.68805					AVRG		0.70001		1.61027
2 Pyridine	+++++	0.94944	0.95786	0.97202	0.96726	0.96770					
	0.98956	0.94873					AVRG		0.96465		1.47919
4 Aniline	+++++	0.63884	0.62715	0.61554	0.61939	0.61456					
	0.63008	0.60716					AVRG		0.62182		1.73598
209 Benzaldehyde	+++++	0.95833	0.92226	0.84939	0.85637	0.79340					
	0.79412	0.72945					AVRG		0.84333		9.38003
6 Phenol	+++++	1.32624	1.33308	1.29840	1.28556	1.27125					
	1.30161	1.24826					AVRG		1.29492		2.29936

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Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	+++++	1.10103	1.14462	1.07089	1.07731	1.02082					
	1.03135	0.97582					AVRG		1.06026		5.26596
8 2-Chlorophenol	+++++	1.05514	1.03806	0.97770	0.97692	0.96049					
	0.98254	0.94585					AVRG		0.99096		4.06684
203 n-Decane	+++++	2.18082	2.07044	1.82788	1.73590	1.49542					
	+++++	+++++					AVRG		1.86209		14.62211
9 1,3-Dichlorobenzene	+++++	1.32145	1.29459	1.24409	1.22768	1.22115					
	1.22709	1.17739					AVRG		1.24478		3.88965
11 1,4-Dichlorobenzene	+++++	1.25354	1.24697	1.20326	1.18250	1.16238					
	1.17850	1.13378					AVRG		1.19442		3.65492
12 Benzyl alcohol	+++++	0.67067	0.67376	0.66588	0.67064	0.67714					
	0.69639	0.66876					AVRG		0.67475		1.51022
13 1,2-Dichlorobenzene	+++++	1.18780	1.16188	1.10021	1.10063	1.06192					
	1.06520	1.01341					AVRG		1.09872		5.47171
14 bis(2-Chloroisopropyl)ether	+++++	2.84346	2.77975	2.54436	2.49732	2.25102					
	2.22248	2.05488					AVRG		2.45618		12.00760
15 o-Cresol	+++++	0.82975	0.83763	0.79686	0.80251	0.77550					
	0.77566	0.73522					AVRG		0.79330		4.42431

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Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.19544	1.16930	1.11939	1.09905	1.06063					
	1.05199	1.05015					AVRG		1.10656		5.25990
17 N-Nitrosodipropylamine	+++++	0.78986	0.78126	0.76761	0.76071	0.69101					
	0.68312	0.68292					AVRG		0.73664		6.60276
18 m,p-Cresols	+++++	1.06688	1.08137	1.06240	1.06282	1.06806					
	1.09460	1.06712					AVRG		1.07190		1.10409
19 Hexachloroethane	+++++	0.47830	0.48853	0.45909	0.46017	0.45910					
	0.46127	0.44002					AVRG		0.46378		3.35369
21 Nitrobenzene	+++++	0.32599	0.31564	0.28441	0.27994	0.26223					
	0.25178	0.23906					AVRG		0.27987		11.47927
22 Isophorone	+++++	0.60055	0.58304	0.55409	0.54916	0.51583					
	0.50295	0.47946					AVRG		0.54073		8.06835
23 2-Nitrophenol	+++++	0.15519	0.14330	0.13006	0.13093	0.12549					
	0.12051	0.11450					AVRG		0.13143		10.52994
24 2,4-Dimethylphenol	+++++	114168	218277	376135	452448	745396					
	905563	998411					WLINR	-0.12517	0.21482		0.99550
25 bis(2-Chloroethoxy)methane	+++++	0.33736	0.32731	0.30205	0.29544	0.27901					
	0.27212	0.25761					AVRG		0.29584		9.81641

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Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.23284	0.23115	0.21499	0.21340	0.20610					
	0.19857	0.18877					AVRG		0.21226		7.61142
27 Benzoic acid	+++++	+++++	0.09399	0.10823	0.11656	0.13120					
	0.13489	0.14008					AVRG		0.12083		14.68354
28 1,2,4-Trichlorobenzene	+++++	0.29769	0.28901	0.26508	0.25660	0.24189					
	0.23181	0.21987					AVRG		0.25742		11.19881
30 Naphthalene	0.86793	0.85653	0.82594	0.76646	0.74263	0.69647					
	0.66692	0.62198					AVRG		0.75561		11.96904
204 alpha-Terpineol	+++++	0.36073	0.33018	0.30395	0.29238	0.25678					
	+++++	+++++					AVRG		0.30880		12.69973
31 4-Chloroaniline	+++++	0.39138	0.38394	0.36323	0.35125	0.34226					
	0.33031	0.31443					AVRG		0.35383		7.86879
189 Caprolactam	+++++	0.07270	0.07721	0.07751	0.07660	0.07453					
	0.07119	0.07132					AVRG		0.07444		3.68543
32 Hexachlorobutadiene	+++++	0.15432	0.14969	0.13784	0.13578	0.12669					
	0.12160	0.11448					AVRG		0.13434		10.80519
33 4-Chloro-3-methylphenol	+++++	0.23968	0.24055	0.23641	0.23018	0.22561					
	0.21618	0.20719					AVRG		0.22797		5.51338

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Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.60775	0.60694	0.59172	0.55334	0.53860	0.50400					
	0.48115	0.45486					AVRG		0.54229		10.77312
35 1-Methylnaphthalene	0.59454	0.58640	0.56002	0.52389	0.50625	0.47447					
	0.45314	0.42590					AVRG		0.51558		12.04862
36 Hexachlorocyclopentadiene	+++++	0.17760	0.20342	0.20161	0.19061	0.22063					
	0.18724	0.17253					AVRG		0.19338		8.54937
208 1,1'-Biphenyl	+++++	1.26811	1.22170	1.13538	1.10081	1.02216					
	0.99895	0.96709					AVRG		1.10203		10.36141
205 2,3-Dichloroaniline	+++++	0.55167	0.53296	0.49182	0.48955	0.47670					
	0.46688	0.45276					AVRG		0.49462		7.19612
37 2,4,6-Trichlorophenol	+++++	0.28591	0.29017	0.28397	0.28642	0.27709					
	0.27579	0.26511					AVRG		0.28064		3.05262
38 2,4,5-Trichlorophenol	+++++	0.30067	0.30400	0.27441	0.27725	0.27297					
	0.27188	0.27453					AVRG		0.28225		4.90941
40 2-Chloronaphthalene	0.98968	0.98865	0.96920	0.92181	0.91661	0.88930					
	0.87923	0.85223					AVRG		0.92584		5.61667
42 o-Nitroaniline	+++++	0.32650	0.33651	0.32632	0.33065	0.32955					
	0.32556	0.31936					AVRG		0.32778		1.61097

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Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.22126	0.24562	0.23943	0.24325	0.24756					
	0.23907	0.23834					AVRG		0.23922		3.62078
43 Dimethylphthalate	+++++	1.14209	1.13350	1.05960	1.05899	1.02333					
	1.02706	0.99596					AVRG		1.06293		5.23993
44 2,6-Dinitrotoluene	+++++	0.26499	0.26039	0.24328	0.24493	0.23535					
	0.23967	0.22978					AVRG		0.24549		5.23468
45 Acenaphthylene	1.61531	1.62844	1.56002	1.45485	1.44949	1.39892					
	1.39129	1.34156					AVRG		1.47998		7.30956
47 Acenaphthene	0.94291	0.93284	0.92839	0.86375	0.86944	0.84726					
	0.85153	0.80716					AVRG		0.88041		5.54006
48 2,4-Dinitrophenol	+++++	+++++	22189	53016	65432	148984					
	192071	221189					LINR	0.35875	0.10576		0.99409
49 Dibenzofuran	+++++	1.35809	1.33389	1.22166	1.23984	1.19392					
	1.18290	1.13131					AVRG		1.23737		6.61916
50 2,4-Dinitrotoluene	+++++	0.32035	0.33058	0.31874	0.32457	0.32389					
	0.32862	0.31860					AVRG		0.32362		1.46117
51 Diethylphthalate	+++++	1.16778	1.15242	1.07866	1.08210	1.05762					
	1.05225	1.02521					AVRG		1.08801		4.86063

GEL Laboratories LLC

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Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.12189	0.15319	0.16924	0.16712	0.17578					
	0.17989	0.17224					AVRG		0.16277		12.22482
53 Fluorene	1.15003	1.14913	1.10994	1.00309	1.00564	0.97807					
	0.97276	0.93722					AVRG		1.03823		8.16853
54 4-Chlorophenylphenylether	+++++	0.55230	0.54732	0.51155	0.51708	0.50214					
	0.50180	0.47955					AVRG		0.51596		5.03023
55 2-Methyl-4,6-dinitrophenol	+++++	14243	47063	96235	119327	243903					
	311718	360208					LINR	0.20375	0.08692		0.99607
56 p-Nitroaniline	+++++	0.16936	0.20880	0.22482	0.21785	0.23101					
	0.23233	0.22347					AVRG		0.21538		10.12479
133 Diphenylamine	+++++	0.52306	0.50517	0.46428	0.46066	0.45126					
	0.45503	0.43996					AVRG		0.47134		6.50344
58 1,2-Diphenylhydrazine	+++++	0.65962	0.63737	0.59463	0.58510	0.56518					
	0.56834	0.54070					AVRG		0.59299		7.08469
59 Tributylphosphate	+++++	1.33867	1.16678	1.14080	1.10893	1.04610					
	1.01650	0.99882					AVRG		1.11666		10.42695
61 4-Bromophenylphenylether	+++++	0.17755	0.17375	0.16178	0.16189	0.15944					
	0.16098	0.15611					AVRG		0.16450		4.82846

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INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.17131	0.16786	0.15738	0.15772	0.15513					
	0.15658	0.15273					AVRG		0.15982		4.34833
207 Atrazine	+++++	0.04508	0.04317	0.03751	0.03999	0.03673					
	0.03600	0.03123					AVRG		0.03853		12.10180
65 Pentachlorophenol	+++++	0.05499	0.07351	0.07546	0.07788	0.08148					
	0.08346	0.08259					AVRG		0.07563		12.99894
206 n-Octadecane	+++++	0.66517	0.62877	0.54339	0.51312	0.41990					
	0.38282	0.35591					AVRG		0.50130		23.99535 <-
68 Phenanthrene	0.92440	0.87829	0.87153	0.80635	0.79576	0.77327					
	0.77180	0.74515					AVRG		0.82082		7.68182
69 Anthracene	0.90440	0.90373	0.89117	0.81712	0.81109	0.79018					
	0.78315	0.74963					AVRG		0.83131		7.25516
72 Di-n-butylphthalate	+++++	1.13584	1.12517	1.05910	1.04864	1.00051					
	0.99703	0.95438					AVRG		1.04581		6.45939
76 Fluoranthene	0.90224	0.97031	0.96017	0.89278	0.88802	0.86786					
	0.84840	0.81005					AVRG		0.89248		6.00409
77 Benzidine	+++++	0.40653	0.36246	0.36565	0.35403	0.36544					
	0.41263	0.35213					AVRG		0.37412		6.64046

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.32405	1.35159	1.31284	1.20723	1.21760	1.15073					
	1.26280	1.28250					AVRG		1.26367		5.36819
85 Butylbenzylphthalate	+++++	0.59662	0.60220	0.59072	0.60132	0.58013					
	0.61922	0.61621					AVRG		0.60092		2.27892
89 Benzo(a)anthracene	1.05093	0.96816	0.96328	0.93178	0.93105	0.93332					
	0.96025	0.93255					AVRG		0.95891		4.21524
90 3,3'-Dichlorobenzidine	+++++	0.26681	0.28620	0.29510	0.27316	0.27699					
	0.29106	0.26436					AVRG		0.27910		4.28355
92 Chrysene	0.89020	0.89976	0.89113	0.83925	0.84009	0.82315					
	0.84100	0.80174					AVRG		0.85329		4.21177
93 bis(2-Ethylhexyl)phthalate	+++++	0.80809	0.78600	0.73624	0.76057	0.74158					
	0.75155	0.74362					AVRG		0.76109		3.48672
94 Di-n-octylphthalate	+++++	1.52295	1.51090	1.49260	1.57749	1.70881					
	1.68585	1.74490					AVRG		1.60621		6.52248
95 Benzo(b)fluoranthene	1.02704	1.09919	1.10279	1.13249	1.13619	1.13403					
	1.17324	1.16918					AVRG		1.12177		4.15603
96 Benzo(k)fluoranthene	1.03689	1.14562	1.11676	0.99048	1.02425	1.04585					
	1.04682	1.02719					AVRG		1.05423		4.86067

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Compound	1 Level 1 / 100 Level 7	10 Level 2 / 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
97 Benzo(a)pyrene	0.82018	0.92251	0.95324	0.92574	0.93085	0.93108					
	0.94872	0.92614					AVRG		0.91981		4.54058
99 Indeno(1,2,3-cd)pyrene	0.61793	0.62224	0.69390	0.69944	0.67832	0.64625					
	0.68582	0.64752					AVRG		0.66143		4.85925
100 Dibenzo(a,h)anthracene	0.47565	0.47818	0.54251	0.56597	0.53673	0.52054					
	0.55040	0.52332					AVRG		0.52416		6.20836
101 Benzo(ghi)perylene	0.56533	0.53785	0.58606	0.57992	0.55056	0.51978					
	0.55186	0.52150					AVRG		0.55161		4.48630
102 1,4-Dioxane	+++++	0.36384	0.36610	0.33417	0.33077	0.31979					
	0.31717	0.31403					AVRG		0.33513		6.45342
103 Methyl methacrylate	+++++	0.21020	0.20726	0.19621	0.19212	0.18889					
	0.18592	0.18875					AVRG		0.19562		4.88183
104 Ethyl methacrylate	+++++	0.79610	0.79733	0.75341	0.75358	0.72166					
	0.71755	0.72015					AVRG		0.75140		4.58534
105 2-Picoline	+++++	1.22561	1.21665	1.13966	1.12899	1.08441					
	1.07670	1.07757					AVRG		1.13566		5.59082
106 N-Nitrosomethylethylamine	+++++	0.47452	0.46462	0.43928	0.44021	0.42769					
	0.42281	0.42081					AVRG		0.44142		4.71501

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.54758	0.54286	0.49884	0.51161	0.49538					
	0.49709	0.45892					AVRG		0.50747		6.00086
108 N-Nitrosodiethylamine	+++++	0.49539	0.49681	0.46847	0.46768	0.45500					
	0.45400	0.45358					AVRG		0.47013		3.99967
109 Ethyl Methanesulfonate	+++++	0.65591	0.64231	0.61640	0.62051	0.60576					
	0.60616	0.59583					AVRG		0.62041		3.46816
110 Pentachloroethane	+++++	0.33091	0.32767	0.30927	0.31189	0.29650					
	0.29355	0.28904					AVRG		0.30840		5.34098
111 N-Nitrosopyrrolidine	+++++	0.51068	0.50360	0.49590	0.49956	0.48726					
	0.47931	0.47906					AVRG		0.49363		2.46520
113 N-Nitrosomorpholine	+++++	0.93269	0.89548	0.84559	0.81841	0.76963					
	0.74142	0.69563					AVRG		0.81412		10.39747
114 o-Toluidine	+++++	1.66749	1.62690	1.57357	1.54322	1.47535					
	1.45788	1.43454					AVRG		1.53985		5.74695
115 N-Nitrosopiperidine	+++++	0.13839	0.13649	0.13206	0.12980	0.12760					
	0.12960	0.12740					AVRG		0.13162		3.26869
116 a,a-Dimethylphenethylamine	+++++	0.91907	0.96417	0.99553	0.99366	0.99806					
	1.00353	0.99978					AVRG		0.98197		3.12063

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.13478	0.13459	0.13266	0.13072	0.12464					
	0.12191	0.12398					AVRG		0.12904		4.19259
118 2,6-Dichlorophenol	+++++	0.20253	0.20749	0.20261	0.20410	0.20112					
	0.20199	0.19907					AVRG		0.20270		1.29027
119 Hexachloropropene	+++++	0.10438	0.10831	0.10725	0.10671	0.10478					
	0.10645	0.09827					AVRG		0.10516		3.16694
120 p-Phenylenediamine	+++++	0.25668	0.25068	0.22690	0.21252	0.19855					
	0.19547	+++++					AVRG		0.22347		11.63559
121 N-Nitrosodi-n-butylamine	+++++	0.23441	0.23451	0.20097	0.18967	0.18327					
	0.18394	0.17781					AVRG		0.20065		12.05548
122 Safrole	+++++	0.20181	0.19524	0.18624	0.18455	0.17874					
	0.17654	0.17363					AVRG		0.18525		5.52554
123 1,2,4,5-Tetrachlorobenzene	+++++	0.44061	0.42948	0.40210	0.39235	0.37114					
	0.36184	0.35421					AVRG		0.39310		8.45898
124 Isosafrole	+++++	0.35170	0.34949	0.33088	0.32487	0.31439					
	0.31016	0.30561					AVRG		0.32673		5.63612
125 1,4-Naphthoquinone	+++++	84638	151030	288344	333563	495061					
	+++++	+++++					LINR	-0.21821	0.24057		0.99067

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.16835	0.17531	0.16597	0.17132	0.16929					
	0.16971	0.16651					AVRG		0.16950		1.86258
127 Pentachlorobenzene	+++++	0.37874	0.37429	0.35898	0.35476	0.34124					
	0.33507	0.33064					AVRG		0.35339		5.31101
128 1-Naphthylamine	+++++	0.93808	0.91662	0.87727	0.86662	0.82419					
	0.81523	0.76509					AVRG		0.85758		7.04454
129 2-Naphthylamine	+++++	1.00958	0.98980	0.95445	0.92796	0.89640					
	0.87021	0.81954					AVRG		0.92399		7.28200
130 2,3,4,6-Tetrachlorophenol	+++++	0.21848	0.23607	0.22847	0.23258	0.23782					
	0.24128	0.23864					AVRG		0.23333		3.33623
131 5-Nitro-o-toluidine	+++++	0.26504	0.27296	0.28000	0.27202	0.27408					
	0.27596	0.26950					AVRG		0.27279		1.74037
132 Thionazin	+++++	0.15991	0.16333	0.16125	0.15716	0.15263					
	0.15093	0.15034					AVRG		0.15651		3.35420
134 Sulfotepp	+++++	0.08069	0.08457	0.08225	0.08109	0.08247					
	0.08302	0.08521					AVRG		0.08276		2.01929
135 Phorate	+++++	0.38094	0.39212	0.38013	0.37064	0.35768					
	0.35368	0.35136					AVRG		0.36950		4.24438

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.09043	0.10798	0.11736	0.11408	0.12051					
	0.12517	0.12301					AVRG		0.11408		10.44181
137 Phenacetin	+++++	0.25499	0.26014	0.25425	0.24643	0.24758					
	0.25182	0.24676					AVRG		0.25171		2.03791
138 Diallate	+++++	0.24308	0.23259	0.21969	0.22000	0.21354					
	0.20757	0.20177					AVRG		0.21975		6.48800
139 Dimethoate	+++++	0.19708	0.21294	0.21778	0.21356	0.21259					
	0.21588	0.21951					AVRG		0.21276		3.47043
140 4-Aminobiphenyl	+++++	0.52229	0.52744	0.56450	0.55560	0.53372					
	0.51979	0.49365					AVRG		0.53100		4.44590
141 Pentachloronitrobenzene	+++++	0.06861	0.06544	0.05979	0.05907	0.05327					
	0.04994	0.04776					AVRG		0.05770		13.49738
142 Pronamide	+++++	0.27668	0.26559	0.24232	0.23613	0.21408					
	0.19922	0.18795					AVRG		0.23171		14.29562
143 Dinoseb	+++++	21314	69548	148150	183225	380967					
	493335	540450					LINR	0.20422	0.13388		0.99412
144 Disulfoton	+++++	0.27927	0.28869	0.28141	0.27781	0.27141					
	0.26930	0.27042					AVRG		0.27690		2.53496

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	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.16580	0.18496	0.19619	0.19321	0.19447					
	0.19781	0.20132					AVRG		0.19054		6.30793
146 4-Nitroquinoline-1-oxide	+++++	0.02797	0.02417	0.02069	0.01676	0.01596					
	0.01632	0.01115					AVRG		0.01900		29.85349 <-
147 Methapyrilene	+++++	0.53870	0.51095	0.46211	0.46851	0.42818					
	0.41014	0.36742					AVRG		0.45514		12.92653
148 Isodrin	+++++	0.11198	0.10591	0.10106	0.10099	0.09653					
	0.09427	0.09263					AVRG		0.10048		6.77327
149 Aramite	+++++	0.04288	0.04473	0.04328	0.04492	0.04294					
	0.04216	0.03955					AVRG		0.04292		4.18340
150 Kepone	+++++	0.06821	0.06688	0.06300	0.06292	0.06376					
	0.06429	0.06037					AVRG		0.06421		4.07909
151 p-(Dimethylamino)azobenzene	+++++	0.31886	0.31858	0.30561	0.32564	0.30896					
	0.29295	0.31135					AVRG		0.31171		3.43876
152 Chlorobenzilate	+++++	0.28015	0.27293	0.26692	0.28307	0.27552					
	0.25667	0.28081					AVRG		0.27373		3.40002
153 3,3'-Dimethylbenzidine	+++++	0.54411	0.53267	0.52587	0.52765	0.52481					
	0.53500	0.48082					AVRG		0.52442		3.87777

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	100 Level 7	120 Level 8										
154 Famphur	+++++	0.39508	0.41129	0.40963	0.41295	0.41166						
	0.40965	0.43249					AVRG		0.41182		2.65732	
155 2-Acetylaminofluorene	+++++	0.26940	0.30220	0.33126	0.30846	0.31630						
	0.33855	0.30308					AVRG		0.30989		7.29418	
157 7,12Dimethylbenz(a)anthracene	+++++	0.52071	0.52087	0.48902	0.53422	0.51784						
	0.48120	0.52556					AVRG		0.51277		3.85020	
158 3-Methylcholanthrene	+++++	0.37699	0.38496	0.38662	0.36457	0.36689						
	0.36907	0.35258					AVRG		0.37167		3.24545	
26 Phthalic anhydride	+++++	19947	70183	158750	199408	349686						
	444882	524437					LINR	0.08827	0.11204		0.99920	
173 Carbazole	0.74030	0.66266	0.66768	0.67537	0.66904	0.68801						
	0.68838	0.65933					AVRG		0.68135		3.83434	
174 Hexachlorophene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
179 Dibenzo(a,e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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	100 Level 7	120 Level 8										
184 p-Benzoquinone	+++++	0.19714	0.23527	0.25694	0.31440	0.23557						
	0.31801	0.30125					AVRG		0.26551		17.51997	<-
191 Parathion	+++++	0.05144	0.05751	0.06005	0.05987	0.06048						
	0.06192	0.06233					AVRG		0.05908		6.29535	
192 Methoxychlor	+++++	0.56403	0.62279	0.57547	0.58466	0.59921						
	0.60284	0.57646					AVRG		0.58935		3.40697	
210 m-Toluidine	+++++	1.18361	1.14196	1.27790	1.40428	1.45000						
	1.57819	1.58735					AVRG		1.37475		13.05381	
211 p-Toluidine	+++++	1.19395	1.14859	1.22108	1.12140	1.12246						
	1.05038	0.88521					AVRG		1.10616		10.11699	
212 Cis Diallate	+++++	0.24942	0.23954	0.22264	0.22308	0.21957						
	0.22207	0.21623					AVRG		0.22751		5.34742	
213 Trans Diallate	+++++	0.28598	0.27364	0.25845	0.25883	0.25122						
	0.24420	0.23737					AVRG		0.25853		6.48800	
214 1,4-Dinitrobenzene	+++++	0.18254	0.19379	0.19206	0.19366	0.19651						
	0.20200	0.19895					AVRG		0.19422		3.18627	
215 2-Ethoxyethanol	+++++	0.93089	0.91998	0.93387	0.92416	0.93722						
	0.95789	0.91578					AVRG		0.93140		1.49848	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	0.12024	0.12176	0.13402	0.13327	0.14612					
	0.14401	0.13627					AVRG		0.13367		7.42615
226 2,2'-Dichlorobenzil	+++++	0.74065	0.73565	0.70509	+++++	0.72929					
	0.68011	0.68665					AVRG		0.71291		3.64786
227 4-Chlorothioanisole	+++++	0.24526	0.24532	0.24448	+++++	0.24005					
	0.23939	0.23754					AVRG		0.24201		1.41023
228 4-Chlorothiophenol	+++++	44415	134478	332577	+++++	710506					
	861327	1051275					LINR	0.12298	0.22403		0.99993
229 bis(p-Chlorophenyl)sulfone	+++++	0.43969	0.42531	0.39518	+++++	0.40060					
	0.37609	0.37535					AVRG		0.40204		6.48066
230 bis(p-Chlorophenyl)disulfide	+++++	0.15840	0.15651	0.15172	+++++	0.15893					
	0.15153	0.15686					AVRG		0.15566		2.08939
231 Diphenyl disulfide	+++++	0.21133	0.20952	0.20464	+++++	0.20130					
	0.19738	0.19810					AVRG		0.20371		2.86119
232 Diphenyl sulfide	+++++	0.80314	0.78782	0.74734	+++++	0.71349					
	0.70255	0.67955					AVRG		0.73898		6.65171
233 Phenyl sulfone	+++++	0.41846	0.41107	0.39335	+++++	0.38576					
	0.38088	0.37013					AVRG		0.39328		4.68458

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
234 Hydroxymethyl phthalimide	+++++	34368	69527	111795	+++++	219245						
	238854	310774					LINR	-0.17168	0.10332		0.99434	
235 Phthalic acid	+++++	10272	35793	103964	+++++	317426						
	377273	+++++					LINR	0.28377	0.10603		0.99240	
236 Thiophenol	+++++	0.72677	0.87316	0.98094	+++++	1.05176						
	1.04045	1.04474					AVRG		0.95297		13.61346	
237 bis(Chloromethyl)ether	+++++	0.87445	0.86289	0.81012	+++++	0.81952						
	0.78408	0.78451					AVRG		0.82259		4.68064	
238 Octachlorostyrene	+++++	0.05791	0.05657	0.05363	+++++	0.05348						
	0.05255	0.05173					AVRG		0.05431		4.42948	
239 Dibenzo(a,h)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
240 Benzo(j)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
241 Dibenzo(a,j)acridine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
242 Dibenz(a,h)acridine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
243 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
244 2,4-Toluene Diisocyanate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
245 Dibenzo(a,i)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
246 1-Nitropyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
247 5-Methylchrysene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
248 Dibenzo(a,l)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
249 7H-Dibenzo(c,g)carbazole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
250 1-Hexanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
251 Propylene glycol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
M 222 Trichlorophenols	+++++	0.29329	0.29709	0.27919	0.28184	0.27503						
	0.27383	0.26982					AVRG		0.28144		3.62457	
M 223 Tetrachlorophenols	+++++	0.21848	0.23607	0.22847	0.23258	0.23782						
	0.24128	0.23864					AVRG		0.23333		3.33623	
M 224 Benzo(b,k)fluoranthene	1.03196	1.12240	1.10977	1.06149	1.08022	1.08994						
	1.11003	1.09819					AVRG		1.08800		2.72527	
M 225 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 3 2-Fluorophenol	+++++	1.02520	1.04766	1.03008	1.03008	1.04425						
	1.06812	1.03245					AVRG		1.03969		1.43708	
$ 5 Phenol-d5	+++++	1.28367	1.32223	1.29638	1.30385	1.30539						
	1.33151	1.28181					AVRG		1.30355		1.41909	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.34547	0.33539	0.30609	0.30256	0.28769						
	0.27238	0.26228					AVRG		0.30169		10.19977	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
$ 39 2-Fluorobiphenyl	+++++	1.14787	1.07616	0.99829	0.98540	0.94271					
	0.93181	0.89582					AVRG		0.99687		8.84048
$ 60 2,4,6-Tribromophenol	+++++	0.10553	0.11240	0.11152	0.11625	0.11870					
	0.12293	0.12210					AVRG		0.11563		5.40333
$ 81 p-Terphenyl-d14	+++++	0.74292	0.72004	0.68997	0.69903	0.67156					
	0.74275	0.74998					AVRG		0.71661		4.24404

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 26-FEB-2010 15:33
Lab File ID: s7b2614.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3	2-Fluorophenol	1.03969	1.02471	1.02471	0.000	-1.44120	60.00000	Averaged
$ 5	Phenol-d5	1.30355	1.24864	1.24864	0.000	-4.21259	60.00000	Averaged
$ 20	Nitrobenzene-d5	0.30169	0.31799	0.31799	0.000	5.40220	60.00000	Averaged
$ 39	2-Fluorobiphenyl	0.99687	1.05207	1.05207	0.000	5.53779	60.00000	Averaged
$ 60	2,4,6-Tribromophenol	0.11563	0.11567	0.11567	0.000	0.03425	60.00000	Averaged
$ 81	p-Terphenyl-d14	0.71661	0.79589	0.79589	0.000	11.06334	60.00000	Averaged
1	N-Methyl-N-nitrosomethylami	0.70001	0.65798	0.65798	0.000	-6.00450	60.00000	Averaged
2	Pyridine	0.96465	0.72626	0.72626	0.000	-24.71254	60.00000	Averaged
4	Aniline	0.62182	0.56215	0.56215	0.000	-9.59489	60.00000	Averaged
6	Phenol	1.29492	1.27998	1.27998	0.001	-1.15360	20.00000	Averaged ccc
7	bis(2-Chloroethyl) ether	1.06026	0.99193	0.99193	0.000	-6.44459	60.00000	Averaged
8	2-Chlorophenol	0.99096	0.96977	0.96977	0.000	-2.13776	60.00000	Averaged
203	n-Decane	1.86209	1.65806	1.65806	0.000	-10.95712	60.00000	Averaged
9	1,3-Dichlorobenzene	1.24478	1.24430	1.24430	0.000	-0.03834	60.00000	Averaged
11	1,4-Dichlorobenzene	1.19442	1.15499	1.15499	0.001	-3.30123	20.00000	Averaged ccc
13	1,2-Dichlorobenzene	1.09872	1.05382	1.05382	0.000	-4.08631	60.00000	Averaged
14	bis(2-Chloroisopropyl)ether	2.45618	2.41690	2.41690	0.000	-1.59921	60.00000	Averaged
12	Benzyl alcohol	0.67475	0.65730	0.65730	0.000	-2.58575	60.00000	Averaged
15	o-Cresol	0.79330	0.75691	0.75691	0.000	-4.58754	60.00000	Averaged
18	m,p-Cresols	1.07190	1.06639	1.06639	0.000	-0.51397	60.00000	Averaged
17	N-Nitrosodipropylamine	0.73664	0.73992	0.73992	0.050	0.44576	60.00000	Averaged spcc
19	Hexachloroethane	0.46378	0.45091	0.45091	0.000	-2.77548	60.00000	Averaged
21	Nitrobenzene	0.27987	0.28434	0.28434	0.000	1.60052	60.00000	Averaged
22	Isophorone	0.54073	0.52607	0.52607	0.000	-2.71011	60.00000	Averaged
23	2-Nitrophenol	0.13143	0.13812	0.13812	0.001	5.09665	20.00000	Averaged ccc
24	2,4-Dimethylphenol	43.02153	40.00000	0.25793	0.000	7.55381	60.00000	Wt Linear
25	bis(2-Chloroethoxy)methane	0.29584	0.27846	0.27846	0.000	-5.87687	60.00000	Averaged
26	2,4-Dichlorophenol	0.21226	0.22457	0.22457	0.001	5.80057	20.00000	Averaged ccc
27	Benzoic acid	0.12083	0.13464	0.13464	0.000	11.43046	60.00000	Averaged
28	1,2,4-Trichlorobenzene	0.25742	0.26054	0.26054	0.000	1.21085	60.00000	Averaged
30	Naphthalene	0.75561	0.72974	0.72974	0.000	-3.42291	60.00000	Averaged
204	alpha-Terpineol	0.30880	0.27565	0.27565	0.000	-10.73794	60.00000	Averaged
31	4-Chloroaniline	0.35383	0.33113	0.33113	0.000	-6.41578	60.00000	Averaged
32	Hexachlorobutadiene	0.13434	0.14044	0.14044	0.001	4.53770	20.00000	Averaged ccc
33	4-Chloro-3-methylphenol	0.22797	0.23911	0.23911	0.001	4.88549	20.00000	Averaged ccc
34	2-Methylnaphthalene	0.54229	0.55783	0.55783	0.000	2.86468	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 26-FEB-2010 15:33
Lab File ID: s7b2614.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.51558	0.51162	0.51162	0.000	-0.76796	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.19338	0.18004	0.18004	0.050	-6.89835	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.49462	0.48886	0.48886	0.000	-1.16475	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.28064	0.29372	0.29372	0.001	4.66295	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.28225	0.31248	0.31248	0.000	10.71318	60.00000	Averaged	
40	2-Chloronaphthalene	0.92584	0.93034	0.93034	0.000	0.48600	60.00000	Averaged	
42	o-Nitroaniline	0.32778	0.32450	0.32450	0.000	-1.00006	60.00000	Averaged	
41	m-Nitroaniline	0.23922	0.23795	0.23795	0.000	-0.52859	60.00000	Averaged	
43	Dimethylphthalate	1.06293	1.06181	1.06181	0.000	-0.10595	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.24549	0.24572	0.24572	0.000	0.09588	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.32362	0.32061	0.32061	0.000	-0.93059	60.00000	Averaged	
45	Acenaphthylene	1.47998	1.47925	1.47925	0.000	-0.04942	60.00000	Averaged	
47	Acenaphthene	0.88041	0.84456	0.84456	0.001	-4.07267	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	40.39092	40.00000	0.06885	0.050	0.97730	60.00000	Linear	spcc
49	Dibenzofuran	1.23737	1.25843	1.25843	0.000	1.70156	60.00000	Averaged	
51	Diethylphthalate	1.08801	1.08709	1.08709	0.000	-0.08413	60.00000	Averaged	
52	4-Nitrophenol	0.16277	0.17018	0.17018	0.050	4.55207	60.00000	Averaged	spcc
53	Fluorene	1.03823	0.98765	0.98765	0.000	-4.87233	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.51596	0.50557	0.50557	0.000	-2.01472	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	49.60025	40.00000	0.09008	0.000	24.00062	60.00000	Linear	
56	p-Nitroaniline	0.21538	0.21035	0.21035	0.000	-2.33542	60.00000	Averaged	
133	Diphenylamine	0.47134	0.46815	0.46815	0.001	-0.67705	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.59299	0.59852	0.59852	0.000	0.93248	60.00000	Averaged	
61	4-Bromophenylphenylether	0.16450	0.15861	0.15861	0.000	-3.58149	60.00000	Averaged	
63	Hexachlorobenzene	0.15982	0.15792	0.15792	0.000	-1.18714	60.00000	Averaged	
65	Pentachlorophenol	0.07563	0.08477	0.08477	0.001	12.08882	20.00000	Averaged	ccc
206	n-Octadecane	0.50130	0.54494	0.54494	0.000	8.70577	60.00000	Averaged	
68	Phenanthrene	0.82082	0.79129	0.79129	0.000	-3.59795	60.00000	Averaged	
69	Anthracene	0.83131	0.80745	0.80745	0.000	-2.86980	60.00000	Averaged	
72	Di-n-butylphthalate	1.04581	1.05484	1.05484	0.000	0.86325	60.00000	Averaged	
76	Fluoranthene	0.89248	0.89895	0.89895	0.001	0.72511	20.00000	Averaged	ccc
79	Pyrene	1.26367	1.20352	1.20352	0.000	-4.76014	60.00000	Averaged	
85	Butylbenzylphthalate	0.60092	0.60984	0.60984	0.000	1.48432	60.00000	Averaged	
89	Benzo(a)anthracene	0.95891	0.88471	0.88471	0.000	-7.73823	60.00000	Averaged	
92	Chrysene	0.85329	0.81713	0.81713	0.000	-4.23770	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.76109	0.74913	0.74913	0.000	-1.57123	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7b2614.d
Analysis Type:
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

Injection Date: 26-FEB-2010 15:33
Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Init. Cal. Times: 11:07 23:46

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.60621	1.58412	1.58412	0.001	-1.37539	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.12177	1.06463	1.06463	0.000	-5.09364	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.05423	1.04564	1.04564	0.000	-0.81471	60.00000	Averaged	
	97 Benzo(a)pyrene	0.91981	0.90053	0.90053	0.001	-2.09622	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.66143	0.60388	0.60388	0.000	-8.69961	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.52416	0.47011	0.47011	0.000	-10.31204	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.55161	0.49780	0.49780	0.000	-9.75514	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16950	0.17152	0.17152	0.000	1.19636	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.23333	0.23665	0.23665	0.000	1.42249	60.00000	Averaged	
	143 Dinoseb	41.77834	40.00000	0.11249	0.000	4.44585	60.00000	Linear	
	173 Carbazole	0.68135	0.69533	0.69533	0.000	2.05237	60.00000	Averaged	
	184 p-Benzoquinone	0.26551	0.19230	0.19230	0.000	-27.57330	60.00000	Averaged	
	192 Methoxychlor	0.58935	0.62587	0.62587	0.000	6.19688	60.00000	Averaged	
	211 p-Toluidine	1.10616	0.97036	0.97036	0.000	-12.27617	60.00000	Averaged	
	210 m-Toluidine	1.37475	1.21251	1.21251	0.000	-11.80169	60.00000	Averaged	
	215 2-Ethoxyethanol	0.93140	0.93581	0.93581	0.000	0.47324	60.00000	Averaged	
	26 Phthalic anhydride	51.56333	40.00000	0.13454	0.000	28.90832	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.19422	0.19244	0.19244	0.000	-0.91506	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.13367	0.13777	0.13777	0.000	3.06814	60.00000	Averaged	
M	222 Trichlorophenols	0.28144	0.30310	0.30310	0.000	7.69664	60.00000	Averaged	
M	223 Tetrachlorophenols	0.23333	0.23665	0.23665	0.000	1.42249	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.08800	1.05514	1.05514	0.000	-3.02057	60.00000	Averaged	

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GEL Laboratories, LLC
Data file : /chem/MSD7.i/s022610.b/s7b2614.d
Lab Smp Id: WBN100225-09.1 Client Smp ID: MEGAICV
Inj Date : 26-FEB-2010 15:33
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100225-09.1|ICV|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN100217-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m
Meth Date : 27-Feb-2010 08:41 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 15:08 Cal File: s7b2613.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.951	3.947	(1.000)	398783	40.0000	
* 29 Naphthalene-d8	136	4.818	4.818	(1.000)	1519686	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.070	(1.000)	819814	40.0000	
* 67 Phenanthrene-d10	188	7.250	7.245	(1.000)	1483884	40.0000	
* 91 Chrysene-d12	240	9.658	9.653	(1.000)	1119677	40.0000	
* 98 Perylene-d12	264	11.338	11.333	(1.000)	753913	40.0000	
$ 3 2-Fluorophenol	112	3.133	3.133	(0.793)	408636	40.0000	39.4
$ 5 Phenol-d5	99	3.663	3.658	(0.927)	497935	40.0000	38.3
$ 20 Nitrobenzene-d5	82	4.313	4.312	(0.895)	483245	40.0000	42.2
$ 39 2-Fluorobiphenyl	172	5.560	5.560	(0.915)	862503	40.0000	42.2
$ 60 2,4,6-Tribromophenol	329	6.672	6.672	(1.098)	94831	40.0000	40.0
$ 81 p-Terphenyl-d14	244	8.622	8.622	(0.893)	891139	40.0000	44.4
1 N-Methyl-N-nitrosomethylamine	74	2.444	2.444	(0.619)	262390	40.0000	37.6
2 Pyridine	79	2.473	2.478	(0.626)	289621	40.0000	30.1
4 Aniline	66	3.735	3.735	(0.945)	224177	40.0000	36.2
6 Phenol	94	3.672	3.667	(0.929)	510433	40.0000	39.5
7 bis(2-Chloroethyl) ether	63	3.749	3.749	(0.949)	395566	40.0000	37.4
8 2-Chlorophenol	128	3.817	3.812	(0.966)	386729	40.0000	39.1
203 n-Decane	43	3.802	3.802	(0.962)	661206	40.0000	35.6
9 1,3-Dichlorobenzene	146	3.918	3.918	(0.991)	496206	40.0000	40.0
11 1,4-Dichlorobenzene	146	3.966	3.961	(1.004)	460590	40.0000	38.7
13 1,2-Dichlorobenzene	146	4.067	4.067	(1.029)	420246	40.0000	38.4
14 bis(2-Chloroisopropyl)ether	45	4.096	4.096	(1.037)	963819	40.0000	39.4
12 Benzyl alcohol	108	4.014	4.014	(1.016)	262120	40.0000	39.0
15 o-Cresol	107	4.067	4.067	(1.029)	301843	40.0000	38.2
18 m,p-Cresols	107	4.168	4.168	(1.055)	425256	40.0000	39.8
17 N-Nitrosodipropylamine	70	4.192	4.192	(1.061)	295069	40.0000	40.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
19 Hexachloroethane	117	4.298	4.298	(1.088)	179815	40.0000	38.9
21 Nitrobenzene	77	4.327	4.327	(0.898)	432114	40.0000	40.6
22 Isophorone	82	4.481	4.486	(0.930)	799464	40.0000	38.9
23 2-Nitrophenol	139	4.544	4.544	(0.943)	209904	40.0000	42.0
24 2,4-Dimethylphenol	122	4.534	4.534	(0.941)	391978	40.0000	43.0
25 bis(2-Chloroethoxy)methane	93	4.601	4.601	(0.955)	423168	40.0000	37.6
26 2,4-Dichlorophenol	162	4.703	4.703	(0.976)	341282	40.0000	42.3
27 Benzoic acid	105	4.592	4.592	(0.953)	204606	40.0000	44.6
28 1,2,4-Trichlorobenzene	180	4.770	4.770	(0.990)	395939	40.0000	40.5
30 Naphthalene	128	4.837	4.837	(1.004)	1108980	40.0000	38.6
204 alpha-Terpineol	59	4.809	4.808	(0.998)	418894	40.0000	35.7
31 4-Chloroaniline	127	4.847	4.847	(1.006)	503209	40.0000	37.4
32 Hexachlorobutadiene	225	4.900	4.900	(1.017)	213421	40.0000	41.8
33 4-Chloro-3-methylphenol	107	5.155	5.155	(1.070)	363372	40.0000	42.0
34 2-Methylnaphthalene	142	5.314	5.314	(1.103)	847725	40.0000	41.1
35 1-Methylnaphthalene	142	5.391	5.391	(1.119)	777496	40.0000	39.7
36 Hexachlorocyclopentadiene	237	5.420	5.420	(0.892)	147596	40.0000	37.2
205 2,3-Dichloroaniline	161	5.512	5.512	(0.907)	400773	40.0000	39.5
37 2,4,6-Trichlorophenol	196	5.502	5.502	(0.906)	240799	40.0000	41.9
38 2,4,5-Trichlorophenol	196	5.526	5.526	(0.910)	256177	40.0000	44.3
40 2-Chloronaphthalene	162	5.670	5.670	(0.933)	762704	40.0000	40.2
42 o-Nitroaniline	65	5.723	5.723	(0.942)	266029	40.0000	39.6
41 m-Nitroaniline	138	6.022	6.022	(0.991)	195077	40.0000	39.8
43 Dimethylphthalate	163	5.839	5.839	(0.961)	870483	40.0000	40.0
44 2,6-Dinitrotoluene	165	5.892	5.892	(0.970)	201445	40.0000	40.0
50 2,4-Dinitrotoluene	165	6.186	6.186	(1.018)	262842	40.0000	39.6
45 Acenaphthylene	152	5.974	5.974	(0.983)	1212713	40.0000	40.0
47 Acenaphthene	154	6.099	6.099	(1.004)	692379	40.0000	38.4
48 2,4-Dinitrophenol	184	6.089	6.089	(1.002)	56443	40.0000	40.4
49 Dibenzofuran	168	6.224	6.224	(1.025)	1031677	40.0000	40.7
51 Diethylphthalate	149	6.345	6.345	(1.044)	891212	40.0000	40.0
52 4-Nitrophenol	139	6.104	6.104	(1.005)	139513	40.0000	41.8
53 Fluorene	166	6.489	6.489	(1.068)	809688	40.0000	38.0
54 4-Chlorophenylphenylether	204	6.460	6.460	(1.063)	414472	40.0000	39.2
55 2-Methyl-4,6-dinitrophenol	198	6.499	6.499	(0.896)	133661	40.0000	49.6
56 p-Nitroaniline	138	6.479	6.484	(1.067)	172445	40.0000	39.1
133 Diphenylamine	169	6.552	6.552	(0.904)	694684	40.0000	39.7
58 1,2-Diphenylhydrazine	77	6.590	6.585	(0.909)	888138	40.0000	40.4
61 4-Bromophenylphenylether	248	6.850	6.850	(0.945)	235353	40.0000	38.6
63 Hexachlorobenzene	284	6.922	6.922	(0.955)	234334	40.0000	39.5
65 Pentachlorophenol	266	7.072	7.067	(0.975)	125785	40.0000	44.8
206 n-Octadecane	57	7.062	7.062	(0.974)	808626	40.0000	43.5
68 Phenanthrene	178	7.269	7.269	(1.003)	1174179	40.0000	38.6
69 Anthracene	178	7.313	7.312	(1.009)	1198165	40.0000	38.8
72 Di-n-butylphthalate	149	7.669	7.669	(1.058)	1565255	40.0000	40.3
76 Fluoranthene	202	8.309	8.309	(1.146)	1333938	40.0000	40.3
79 Pyrene	202	8.526	8.526	(0.883)	1347549	40.0000	38.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
85 Butylbenzylphthalate	149	9.056	9.056	(0.938)	682818	40.0000	40.6
89 Benzo(a)anthracene	228	9.643	9.643	(0.998)	990591	40.0000	36.9
92 Chrysene	228	9.682	9.682	(1.002)	914923	40.0000	38.3
93 bis(2-Ethylhexyl)phthalate	149	9.581	9.580	(0.992)	838787	40.0000	39.4
94 Di-n-octylphthalate	149	10.235	10.240	(0.903)	1194290	40.0000	39.4
95 Benzo(b)fluoranthene	252	10.818	10.818	(0.954)	802637	40.0000	38.0
96 Benzo(k)fluoranthene	252	10.852	10.857	(0.957)	788325	40.0000	39.7
97 Benzo(a)pyrene	252	11.256	11.256	(0.993)	678918	40.0000	39.2
99 Indeno(1,2,3-cd)pyrene	276	13.091	13.096	(1.155)	455276	40.0000	36.5
100 Dibenzo(a,h)anthracene	278	13.105	13.110	(1.156)	354422	40.0000	35.9
101 Benzo(ghi)perylene	276	13.625	13.635	(1.202)	375295	40.0000	36.1
126 m-Dinitrobenzene	168	5.873	5.873	(0.967)	140617	40.0000	40.5
130 2,3,4,6-Tetrachlorophenol	232	6.301	6.301	(1.037)	194010	40.0000	40.6
143 Dinoseb	211	7.192	7.192	(0.992)	166919	40.0000	41.8
173 Carbazole	167	7.423	7.428	(1.024)	1031789	40.0000	40.8
184 p-Benzoquinone	54	3.431	3.431	(0.868)	76686	40.0000	29.0
192 Methoxychlor	227	9.528	9.527	(0.987)	700776	40.0000	42.5
211 p-Toluidine	106	4.226	4.226	(1.069)	386963	40.0000	35.1
210 m-Toluidine	106	4.250	4.250	(1.076)	483528	40.0000	35.3
215 2-Ethoxyethanol	59	2.290	2.290	(0.580)	373183	40.0000	40.2
26 Phthalic anhydride	104	5.348	5.348	(1.110)	204452	40.0000	51.6
214 1,4-Dinitrobenzene	75	5.815	5.815	(0.957)	157765	40.0000	39.6
216 Methylenebis(2-chloroaniline)	231	9.585	9.585	(0.993)	154259	40.0000	41.2
M 222 Trichlorophenols	196				496977	80.0000	86.2
M 223 Tetrachlorophenols	232				194010	40.0000	40.6
M 224 Benzo(b,k)fluoranthene	252				1590962	80.0000	77.6

Data File: /chem/MSD7.i/s022610.b/s7b2614.d
Date : 26-FEB-2010 15:33
Client ID: MEGAICV
Sample Info: IWBN100225-09,1|ICV1|SVMF11|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

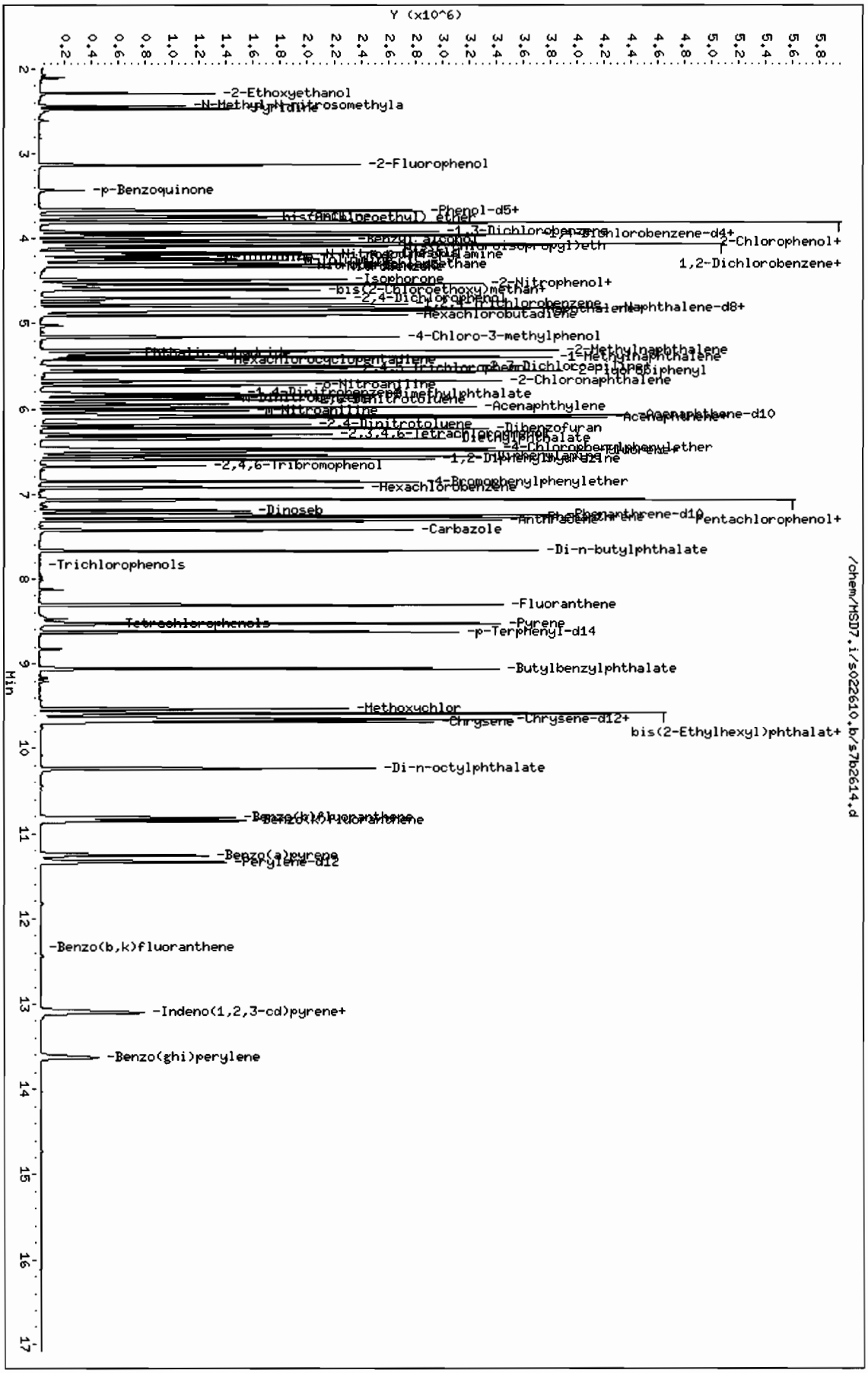

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 27-FEB-2010 00:07
Lab File ID: s7b2638.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84333	0.72762	0.72762	0.000	-13.72062	60.00000	Averaged
16 Acetophenone	1.10656	1.09035	1.09035	0.000	-1.46517	60.00000	Averaged
189 Caprolactam	0.07444	0.08269	0.08269	0.000	11.09028	60.00000	Averaged
208 1,1'-Biphenyl	1.10203	1.18702	1.18702	0.000	7.71210	60.00000	Averaged
207 Atrazine	0.03853	0.04597	0.04597	0.000	19.30469	60.00000	Averaged
77 Benzidine	0.37412	0.37290	0.37290	0.000	-0.32808	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27910	0.28354	0.28354	0.000	1.59226	60.00000	Averaged
102 1,4-Dioxane	0.33513	0.40939	0.40939	0.000	22.16131	60.00000	Averaged
103 Methyl methacrylate	0.19562	0.23961	0.23961	0.000	22.48803	60.00000	Averaged
104 Ethyl methacrylate	0.75140	0.90901	0.90901	0.000	20.97589	60.00000	Averaged
105 2-Picoline	1.13566	1.16769	1.16769	0.000	2.82042	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44142	0.47438	0.47438	0.000	7.46654	60.00000	Averaged
107 Methyl methanesulfonate	0.50747	0.54617	0.54617	0.000	7.62707	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47013	0.49911	0.49911	0.000	6.16504	60.00000	Averaged
109 Ethyl Methanesulfonate	0.62041	0.76141	0.76141	0.000	22.72687	60.00000	Averaged
110 Pentachloroethane	0.30840	0.42036	0.42036	0.000	36.30233	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49363	0.51936	0.51936	0.000	5.21438	60.00000	Averaged
113 N-Nitrosomorpholine	0.81412	0.89271	0.89271	0.000	9.65373	60.00000	Averaged
114 o-Toluidine	1.53985	1.58233	1.58233	0.000	2.75855	60.00000	Averaged
115 N-Nitrosopiperidine	0.13162	0.14324	0.14324	0.000	8.82907	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.98197	1.03595	1.03595	0.000	5.49667	60.00000	Averaged
118 2,6-Dichlorophenol	0.20270	0.18717	0.18717	0.000	-7.66350	60.00000	Averaged
119 Hexachloropropene	0.10516	0.16353	0.16353	0.000	55.49743	60.00000	Averaged
120 p-Phenylenediamine	0.22347	0.22273	0.22273	0.000	-0.33095	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.20065	0.21517	0.21517	0.000	7.23239	60.00000	Averaged
122 Safrole	0.18525	0.22522	0.22522	0.000	21.57952	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.39310	0.44447	0.44447	0.000	13.06636	60.00000	Averaged
124 Isosafrole	0.32673	0.44824	0.44824	0.000	37.18926	60.00000	Averaged
125 1,4-Naphthoquinone	42.42497	40.00000	0.30765	0.000	6.06244	60.00000	Linear
127 Pentachlorobenzene	0.35339	0.38326	0.38326	0.000	8.45157	60.00000	Averaged
128 1-Naphthylamine	0.85758	0.95943	0.95943	0.000	11.87595	60.00000	Averaged
129 2-Naphthylamine	0.92399	1.06906	1.06906	0.000	15.70067	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27279	0.29252	0.29252	0.000	7.23152	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11408	0.15190	0.15190	0.000	33.15347	60.00000	Averaged
137 Phenacetin	0.25171	0.26740	0.26740	0.000	6.23101	60.00000	Averaged
138 Diallate	0.21975	0.22151	0.22151	0.000	0.80197	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 27-FEB-2010 00:07
Lab File ID: s7b2638.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.22751	0.29963	0.29963	0.000	31.70163	60.00000	Averaged
213 Trans Diallate	0.25853	0.26060	0.26060	0.000	0.80197	60.00000	Averaged
140 4-Aminobiphenyl	0.53100	0.61459	0.61459	0.000	15.74304	60.00000	Averaged
141 Pentachloronitrobenzene	0.05770	0.06484	0.06484	0.000	12.37888	60.00000	Averaged
142 Pronamide	0.23171	0.26428	0.26428	0.000	14.05423	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01900	0.02204	0.02204	0.000	15.97890	60.00000	Averaged
147 Methapyrilene	0.45514	0.56955	0.56955	0.000	25.13562	60.00000	Averaged
148 Isodrin	0.10048	0.10103	0.10103	0.000	0.54771	60.00000	Averaged
149 Aramite	0.04292	0.04771	0.04771	0.000	11.14909	60.00000	Averaged
150 Kepone	0.06421	0.06503	0.06503	0.000	1.28262	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31171	0.34212	0.34212	0.000	9.75602	60.00000	Averaged
152 Chlorobenzilate	0.27373	0.25521	0.25521	0.000	-6.76399	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52442	0.55141	0.55141	0.000	5.14612	60.00000	Averaged
155 2-Acetylaminofluorene	0.30989	0.30947	0.30947	0.000	-0.13679	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51277	0.54729	0.54729	0.000	6.73130	60.00000	Averaged
158 3-Methylcholanthrene	0.37167	0.40941	0.40941	0.000	10.15366	60.00000	Averaged

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Data file : /chem/MSD7.i/s022610.b/s7b2638.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV
Inj Date : 27-FEB-2010 00:07
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100218-08.1|ICV|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN100217-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m
Meth Date : 01-Mar-2010 10:44 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 38 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.952	3.952	(1.000)	457703	40.0000	
* 29 Naphthalene-d8	136	4.818	4.818	(1.000)	1628008	40.0000	
* 46 Acenaphthene-d10	164	6.070	6.070	(1.000)	931821	40.0000	
* 67 Phenanthrene-d10	188	7.245	7.245	(1.000)	1617850	40.0000	
* 91 Chrysene-d12	240	9.653	9.653	(1.000)	1288003	40.0000	
* 98 Perylene-d12	264	11.333	11.333	(1.000)	857015	40.0000	
209 Benzaldehyde	77	3.672	3.672	(0.929)	333034	40.0000	34.5
16 Acetophenone	105	4.202	4.202	(1.063)	499057	40.0000	39.4
189 Caprolactam	113	5.093	5.093	(1.057)	134623	40.0000	44.4
208 1,1'-Biphenyl	154	5.642	5.642	(0.929)	1106090	40.0000	43.1
207 Atrazine	173	6.947	6.947	(0.959)	74372	40.0000	47.7
77 Benzidine	184	8.396	8.396	(0.870)	480291	40.0000	39.9
90 3,3'-Dichlorobenzidine	252	9.590	9.590	(0.994)	365203	40.0000	40.6
102 1,4-Dioxane	88	2.290	2.290	(0.580)	187381	40.0000	48.9
103 Methyl methacrylate	100	2.285	2.285	(0.578)	109670	40.0000	49.0
104 Ethyl methacrylate	69	2.656	2.656	(0.672)	416056	40.0000	48.4
105 2-Picoline	93	2.844	2.844	(0.720)	534455	40.0000	41.1
106 N-Nitrosomethylethylamine	88	2.887	2.887	(0.731)	217124	40.0000	43.0
107 Methyl methanesulfonate	80	3.042	3.042	(0.770)	249986	40.0000	43.0
108 N-Nitrosodiethylamine	102	3.277	3.277	(0.829)	228446	40.0000	42.5
109 Ethyl Methanesulfonate	79	3.436	3.436	(0.870)	348500	40.0000	49.1
110 Pentachloroethane	167	3.773	3.773	(0.955)	192400	40.0000	54.5
111 N-Nitrosopyrrolidine	100	4.188	4.188	(1.060)	237715	40.0000	42.1
113 N-Nitrosomorpholine	56	4.212	4.212	(1.066)	408598	40.0000	43.9
114 o-Toluidine	106	4.226	4.226	(1.069)	724237	40.0000	41.1
115 N-Nitrosopiperidine	114	4.428	4.428	(0.919)	233195	40.0000	43.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.684	4.684	(0.972)	1686530	40.0000	42.2
118 2,6-Dichlorophenol	162	4.857	4.857	(1.008)	304708	40.0000	36.9
119 Hexachloropropene	213	4.891	4.891	(1.015)	266225	40.0000	62.2
120 p-Phenylenediamine	108	5.093	5.093	(1.057)	362600	40.0000	39.9
121 N-Nitrosodi-n-butylamine	84	5.064	5.064	(1.051)	350292	40.0000	42.9
122 Safrole	162	5.228	5.228	(1.085)	366667	40.0000	48.6
123 1,2,4,5-Tetrachlorobenzene	216	5.430	5.430	(0.894)	414165	40.0000	45.2
124 Isosafrole	162	5.598	5.598	(0.922)	417676	40.0000	54.9
125 1,4-Naphthoquinone	158	5.786	5.786	(0.953)	286671	40.0000	42.4
127 Pentachlorobenzene	250	6.191	6.191	(1.020)	357126	40.0000	43.4
128 1-Naphthylamine	143	6.277	6.277	(1.034)	894018	40.0000	44.8
129 2-Naphthylamine	143	6.335	6.335	(1.044)	996175	40.0000	46.3
131 5-Nitro-o-toluidine	152	6.475	6.475	(1.067)	272578	40.0000	42.9
136 1,3,5-Trinitrobenzene	75	6.720	6.720	(0.928)	245746	40.0000	53.3
137 Phenacetin	108	6.769	6.769	(0.934)	432605	40.0000	42.5(Q)
138 Diallate	86	6.759	6.759	(0.933)	358370	40.0000	40.3
212 Cis Diallate	86	6.836	6.836	(0.944)	72714	6.00000	7.9
213 Trans Diallate	86	6.759	6.759	(0.933)	358370	34.0000	34.3
140 4-Aminobiphenyl	169	7.062	7.062	(0.975)	994319	40.0000	46.3
141 Pentachloronitrobenzene	237	7.082	7.082	(0.977)	104897	40.0000	45.0(Q)
142 Pronamide	173	7.077	7.077	(0.977)	427557	40.0000	45.6
146 4-Nitroquinoline-1-oxide	101	7.910	7.910	(1.092)	35650	40.0000	46.4
147 Methapyrilene	58	7.948	7.948	(1.097)	921442	40.0000	50.0
148 Isodrin	193	8.175	8.175	(1.128)	163454	40.0000	40.2
149 Aramite	185	8.569	8.569	(1.183)	77182	40.0000	44.4
150 Kepone	272	9.162	9.162	(1.264)	105206	40.0000	40.5
151 p-(Dimethylamino)azobenzene	120	8.752	8.752	(0.907)	440648	40.0000	43.9
152 Chlorobenzilate	251	8.781	8.781	(0.910)	328712	40.0000	37.3
153 3,3'-Dimethylbenzidine	212	9.065	9.065	(0.939)	710215	40.0000	42.0
155 2-Acetylaminofluorene	181	9.311	9.311	(0.965)	398598	40.0000	39.9
157 7,12Dimethylbenz(a)anthracene	256	10.794	10.794	(0.952)	469035	40.0000	42.7
158 3-Methylcholanthrene	268	11.738	11.738	(1.036)	350866	40.0000	44.1

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s022610.b/s7b2638.d
Date : 27-FEB-2010 00:07
Client ID: APICV
Sample Info: IWBN100218-08,1|ICV|1|SVMF|1|APICV
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JHB3
Column diameter: 0.20

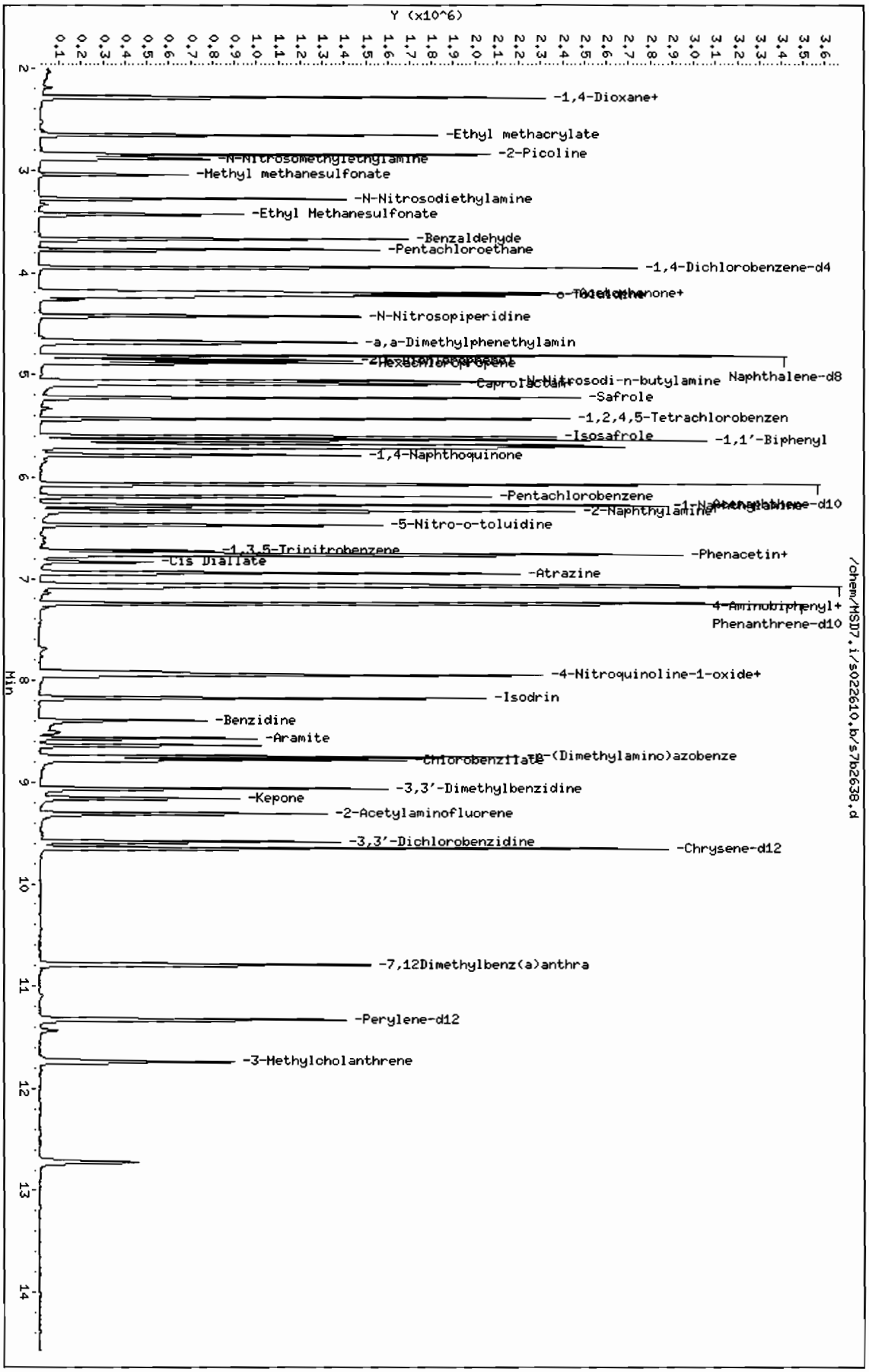

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 23-MAR-2010 11:20
Lab File ID: s7c2304.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100309-05.2 Quant Type: ISTD
Method: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.03969	0.91803	0.91803	0.000	-11.70182	60.00000	Averaged
$ 5 Phenol-d5	1.30355	1.20141	1.20141	0.000	-7.83572	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.30169	0.25865	0.25865	0.000	-14.26680	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.99687	1.05135	1.05135	0.000	5.46546	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11563	0.12038	0.12038	0.000	4.09967	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.71661	0.72891	0.72891	0.000	1.71661	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.70001	0.58020	0.58020	0.000	-17.11539	60.00000	Averaged
2 Pyridine	0.96465	0.82573	0.82573	0.000	-14.40082	60.00000	Averaged
4 Aniline	0.62182	0.53515	0.53515	0.000	-13.93829	60.00000	Averaged
6 Phenol	1.29492	1.18070	1.18070	0.001	-8.82047	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06026	0.86931	0.86931	0.000	-18.01027	60.00000	Averaged
8 2-Chlorophenol	0.99096	0.98665	0.98665	0.000	-0.43533	60.00000	Averaged
203 n-Decane	1.86209	1.77849	1.77849	0.000	-4.48954	60.00000	Averaged
9 1,3-Dichlorobenzene	1.24478	1.22347	1.22347	0.000	-1.71184	60.00000	Averaged
11 1,4-Dichlorobenzene	1.19442	1.20934	1.20934	0.001	1.24909	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.09872	1.15131	1.15131	0.000	4.78612	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.45618	2.13540	2.13540	0.000	-13.06001	60.00000	Averaged
12 Benzyl alcohol	0.67475	0.44750	0.44750	0.000	-33.67952	60.00000	Averaged
15 o-Cresol	0.79330	0.77010	0.77010	0.000	-2.92438	60.00000	Averaged
18 m,p-Cresols	1.07190	0.95599	0.95599	0.000	-10.81267	60.00000	Averaged
17 N-Nitrosodipropylamine	0.73664	0.69003	0.69003	0.050	-6.32741	60.00000	Averaged spcc
19 Hexachloroethane	0.46378	0.48670	0.48670	0.000	4.94194	60.00000	Averaged
21 Nitrobenzene	0.27987	0.25865	0.25865	0.000	-7.58062	60.00000	Averaged
22 Isophorone	0.54073	0.49648	0.49648	0.000	-8.18310	60.00000	Averaged
23 2-Nitrophenol	0.13143	0.12978	0.12978	0.001	-1.25266	20.00000	Averaged ccc
24 2,4-Dimethylphenol	37.62053	40.00000	0.22893	0.000	-5.94868	60.00000	Wt Linear
25 bis(2-Chloroethoxy)methane	0.29584	0.26929	0.26929	0.000	-8.97562	60.00000	Averaged
26 2,4-Dichlorophenol	0.21226	0.20896	0.20896	0.001	-1.55768	20.00000	Averaged ccc
27 Benzoic acid	0.12083	0.09529	0.09529	0.000	-21.13072	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.25742	0.25769	0.25769	0.000	0.10418	60.00000	Averaged
30 Naphthalene	0.75561	0.71585	0.71585	0.000	-5.26195	60.00000	Averaged
204 alpha-Terpineol	0.30880	0.25223	0.25223	0.000	-18.32031	60.00000	Averaged
31 4-Chloroaniline	0.35383	0.26228	0.26228	0.000	-25.87429	60.00000	Averaged
32 Hexachlorobutadiene	0.13434	0.14510	0.14510	0.001	8.00678	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.22797	0.21914	0.21914	0.001	-3.87447	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54229	0.52861	0.52861	0.000	-2.52398	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 23-MAR-2010 11:20
Lab File ID: s7c2304.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100309-05.2 Quant Type: ISTD
Method: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.51558	0.50504	0.50504	0.000	-2.04369	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.19338	0.14973	0.14973	0.050	-22.57119	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.49462	0.52962	0.52962	0.000	7.07627	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.28064	0.31173	0.31173	0.001	11.07865	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.28225	0.31673	0.31673	0.000	12.21880	60.00000	Averaged
40 2-Chloronaphthalene	0.92584	0.93821	0.93821	0.000	1.33582	60.00000	Averaged
42 o-Nitroaniline	0.32778	0.29706	0.29706	0.000	-9.37217	60.00000	Averaged
41 m-Nitroaniline	0.23922	0.21505	0.21505	0.000	-10.10242	60.00000	Averaged
43 Dimethylphthalate	1.06293	1.11559	1.11559	0.000	4.95394	60.00000	Averaged
44 2,6-Dinitrotoluene	0.24549	0.25514	0.25514	0.000	3.93149	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32362	0.32767	0.32767	0.000	1.25184	60.00000	Averaged
45 Acenaphthylene	1.47998	1.48156	1.48156	0.000	0.10635	60.00000	Averaged
47 Acenaphthene	0.88041	0.93458	0.93458	0.001	6.15283	20.00000	Averaged ccc
48 2,4-Dinitrophenol	40.57835	40.00000	0.06934	0.050	1.44587	60.00000	Linear spcc
49 Dibenzofuran	1.23737	1.26882	1.26882	0.000	2.54117	60.00000	Averaged
51 Diethylphthalate	1.08801	1.18574	1.18574	0.000	8.98292	60.00000	Averaged
52 4-Nitrophenol	0.16277	0.14180	0.14180	0.050	-12.87961	60.00000	Averaged spcc
53 Fluorene	1.03823	1.11364	1.11364	0.000	7.26305	60.00000	Averaged
54 4-Chlorophenylphenylether	0.51596	0.55027	0.55027	0.000	6.64814	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	35.86803	40.00000	0.06023	0.000	-10.32992	60.00000	Linear
56 p-Nitroaniline	0.21538	0.16030	0.16030	0.000	-25.57412	60.00000	Averaged
133 Diphenylamine	0.47134	0.46472	0.46472	0.001	-1.40465	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.59299	0.56069	0.56069	0.000	-5.44809	60.00000	Averaged
61 4-Bromophenylphenylether	0.16450	0.17153	0.17153	0.000	4.27443	60.00000	Averaged
63 Hexachlorobenzene	0.15982	0.16975	0.16975	0.000	6.21384	60.00000	Averaged
65 Pentachlorophenol	0.07563	0.08349	0.08349	0.001	10.40100	20.00000	Averaged ccc
206 n-Octadecane	0.50130	0.48028	0.48028	0.000	-4.19222	60.00000	Averaged
68 Phenanthrene	0.82082	0.85199	0.85199	0.000	3.79714	60.00000	Averaged
69 Anthracene	0.83131	0.83370	0.83370	0.000	0.28733	60.00000	Averaged
72 Di-n-butylphthalate	1.04581	1.13575	1.13575	0.000	8.60042	60.00000	Averaged
76 Fluoranthene	0.89248	0.94125	0.94125	0.001	5.46505	20.00000	Averaged ccc
79 Pyrene	1.26367	1.28608	1.28608	0.000	1.77366	60.00000	Averaged
85 Butylbenzylphthalate	0.60092	0.63425	0.63425	0.000	5.54736	60.00000	Averaged
89 Benzo(a)anthracene	0.95891	0.93434	0.93434	0.000	-2.56272	60.00000	Averaged
92 Chrysene	0.85329	0.85189	0.85189	0.000	-0.16412	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.76109	0.84008	0.84008	0.000	10.37866	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 23-MAR-2010 11:20
Lab File ID: s7c2304.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100309-05.2 Quant Type: ISTD
Method: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.60621	1.77806	1.77806	0.001	10.69855	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	1.12177	1.12158	1.12158	0.000	-0.01705	60.00000	Averaged	
96 Benzo(k)fluoranthene	1.05423	1.10589	1.10589	0.000	4.90023	60.00000	Averaged	
97 Benzo(a)pyrene	0.91981	0.96595	0.96595	0.001	5.01684	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	0.66143	0.82101	0.82101	0.000	24.12780	60.00000	Averaged	
100 Dibenzo(a,h)anthracene	0.52416	0.65126	0.65126	0.000	24.24740	60.00000	Averaged	
101 Benzo(ghi)perylene	0.55161	0.68110	0.68110	0.000	23.47493	60.00000	Averaged	
126 m-Dinitrobenzene	0.16950	0.16941	0.16941	0.000	-0.05090	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.23333	0.26346	0.26346	0.000	12.91298	60.00000	Averaged	
143 Dinoseb	34.11006	40.00000	0.08682	0.000	-14.72485	0.000e+00	Linear	<-
173 Carbazole	0.68135	0.51110	0.51110	0.000	-24.98629	60.00000	Averaged	
184 p-Benzoquinone	0.26551	0.27469	0.27469	0.000	3.45855	60.00000	Averaged	
192 Methoxychlor	0.58935	0.66272	0.66272	0.000	12.44930	60.00000	Averaged	
211 p-Toluidine	1.10616	0.94703	0.94703	0.000	-14.38512	60.00000	Averaged	
210 m-Toluidine	1.37475	1.15828	1.15828	0.000	-15.74665	60.00000	Averaged	
215 2-Ethoxyethanol	0.93140	0.56604	0.56604	0.000	-39.22629	60.00000	Averaged	
26 Phthalic anhydride	35.19694	40.00000	0.08869	0.000	-12.00766	0.000e+00	Linear	<-
214 1,4-Dinitrobenzene	0.19422	0.19793	0.19793	0.000	1.91061	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	0.13367	0.10954	0.10954	0.000	-18.05290	60.00000	Averaged	
M 222 Trichlorophenols	0.28144	0.31423	0.31423	0.000	11.65029	60.00000	Averaged	
M 223 Tetrachlorophenols	0.23333	0.26346	0.26346	0.000	12.91298	60.00000	Averaged	
M 224 Benzo(b,k)fluoranthene	1.08800	1.11373	1.11373	0.000	2.36529	60.00000	Averaged	

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Data file : /chem/MSD7.i/s032310.b/s7c2304.d
Lab Smp Id: WBN100309-05.2 Client Smp ID: MEGACVS
Inj Date : 23-MAR-2010 11:20
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100309-05.2|CVS|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 11o00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	273307	40.0000	
* 29 Naphthalene-d8	136	4.736	4.736	(1.000)	1124363	40.0000	
* 46 Acenaphthene-d10	164	5.988	5.988	(1.000)	583433	40.0000	
* 67 Phenanthrene-d10	188	7.149	7.149	(1.000)	1092463	40.0000	
* 91 Chrysene-d12	240	9.552	9.552	(1.000)	838935	40.0000	
* 98 Perylene-d12	264	11.165	11.165	(1.000)	588840	40.0000	
$ 3 2-Fluorophenol	112	3.061	3.061	(0.791)	250904	40.0000	35.3
$ 5 Phenol-d5	99	3.590	3.590	(0.928)	328353	40.0000	36.9
$ 20 Nitrobenzene-d5	82	4.235	4.235	(0.894)	290817	40.0000	34.3
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.914)	613392	40.0000	42.2
$ 60 2,4,6-Tribromophenol	329	6.576	6.576	(1.098)	70231	40.0000	41.6
$ 81 p-Terphenyl-d14	244	8.521	8.521	(0.892)	611508	40.0000	40.7
1 N-Methyl-N-nitrosomethylamine	74	2.382	2.382	(0.615)	158573	40.0000	33.2
2 Pyridine	79	2.415	2.415	(0.624)	225679	40.0000	34.2
4 Aniline	66	3.658	3.658	(0.945)	146259	40.0000	34.4
6 Phenol	94	3.595	3.595	(0.929)	322693	40.0000	36.5
7 bis(2-Chloroethyl) ether	63	3.672	3.672	(0.949)	237588	40.0000	32.8
8 2-Chlorophenol	128	3.735	3.735	(0.965)	269657	40.0000	39.8
203 n-Decane	43	3.720	3.720	(0.961)	486075	40.0000	38.2
9 1,3-Dichlorobenzene	146	3.836	3.836	(0.991)	334383	40.0000	39.3
11 1,4-Dichlorobenzene	146	3.884	3.884	(1.004)	330521	40.0000	40.5
13 1,2-Dichlorobenzene	146	3.985	3.985	(1.030)	314660	40.0000	41.9
14 bis(2-Chloroisopropyl)ether	45	4.014	4.014	(1.037)	583621	40.0000	34.8
12 Benzyl alcohol	108	3.937	3.937	(1.017)	122304	40.0000	26.5
15 o-Cresol	107	3.990	3.990	(1.031)	210475	40.0000	38.8
18 m,p-Cresols	107	4.091	4.091	(1.057)	261280	40.0000	35.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.115	4.115	(1.063)	188590	40.0000	37.5
19 Hexachloroethane	117	4.211	4.211	(1.088)	133019	40.0000	42.0
21 Nitrobenzene	77	4.245	4.245	(0.896)	290816	40.0000	37.0
22 Isophorone	82	4.399	4.399	(0.929)	558222	40.0000	36.7
23 2-Nitrophenol	139	4.457	4.457	(0.941)	145919	40.0000	39.5
24 2,4-Dimethylphenol	122	4.452	4.452	(0.940)	257398	40.0000	37.6
25 bis(2-Chloroethoxy)methane	93	4.520	4.520	(0.954)	302780	40.0000	36.4
26 2,4-Dichlorophenol	162	4.621	4.621	(0.976)	234942	40.0000	39.4
27 Benzoic acid	105	4.515	4.515	(0.953)	107146	40.0000	31.5
28 1,2,4-Trichlorobenzene	180	4.683	4.683	(0.989)	289739	40.0000	40.0
30 Naphthalene	128	4.751	4.751	(1.003)	804872	40.0000	37.9
204 alpha-Terpineol	59	4.727	4.727	(0.998)	283599	40.0000	32.7
31 4-Chloroaniline	127	4.765	4.765	(1.006)	294895	40.0000	29.6
32 Hexachlorobutadiene	225	4.813	4.813	(1.016)	163143	40.0000	43.2
33 4-Chloro-3-methylphenol	107	5.078	5.078	(1.072)	246393	40.0000	38.4
34 2-Methylnaphthalene	142	5.227	5.227	(1.104)	594346	40.0000	39.0
35 1-Methylnaphthalene	142	5.304	5.304	(1.120)	567847	40.0000	39.2
36 Hexachlorocyclopentadiene	237	5.333	5.333	(0.891)	87357	40.0000	31.0
205 2,3-Dichloroaniline	161	5.425	5.425	(0.906)	308998	40.0000	42.8
37 2,4,6-Trichlorophenol	196	5.420	5.420	(0.905)	181873	40.0000	44.4
38 2,4,5-Trichlorophenol	196	5.444	5.444	(0.909)	184792	40.0000	44.9
40 2-Chloronaphthalene	162	5.584	5.584	(0.932)	547380	40.0000	40.5
42 o-Nitroaniline	65	5.642	5.642	(0.942)	173313	40.0000	36.2
41 m-Nitroaniline	138	5.935	5.935	(0.991)	125468	40.0000	36.0
43 Dimethylphthalate	163	5.752	5.752	(0.961)	650871	40.0000	42.0
44 2,6-Dinitrotoluene	165	5.805	5.805	(0.969)	148855	40.0000	41.6
50 2,4-Dinitrotoluene	165	6.104	6.104	(1.019)	191176	40.0000	40.5
45 Acenaphthylene	152	5.887	5.887	(0.983)	864390	40.0000	40.0
47 Acenaphthene	154	6.012	6.012	(1.004)	545266	40.0000	42.5
48 2,4-Dinitrophenol	184	6.008	6.008	(1.003)	40458	40.0000	40.6
49 Dibenzofuran	168	6.133	6.133	(1.024)	740269	40.0000	41.0
51 Diethylphthalate	149	6.258	6.258	(1.045)	691800	40.0000	43.6
52 4-Nitrophenol	139	6.027	6.027	(1.006)	82733	40.0000	34.8
53 Fluorene	166	6.393	6.393	(1.068)	649735	40.0000	42.9
54 4-Chlorophenylphenylether	204	6.369	6.369	(1.064)	321043	40.0000	42.6
55 2-Methyl-4,6-dinitrophenol	198	6.412	6.412	(0.897)	65803	40.0000	35.9
56 p-Nitroaniline	138	6.393	6.393	(1.068)	93522	40.0000	29.8
133 Diphenylamine	169	6.460	6.460	(0.904)	507693	40.0000	39.4
58 1,2-Diphenylhydrazine	77	6.494	6.494	(0.908)	612529	40.0000	37.8
61 4-Bromophenylphenylether	248	6.754	6.754	(0.945)	187389	40.0000	41.7
63 Hexachlorobenzene	284	6.826	6.826	(0.955)	185443	40.0000	42.5
65 Pentachlorophenol	266	6.975	6.975	(0.976)	91211	40.0000	44.2
206 n-Octadecane	57	6.966	6.966	(0.974)	524690	40.0000	38.3
68 Phenanthrene	178	7.168	7.168	(1.003)	930765	40.0000	41.5
69 Anthracene	178	7.211	7.211	(1.009)	910783	40.0000	40.1
72 Di-n-butylphthalate	149	7.568	7.568	(1.059)	1240767	40.0000	43.4
76 Fluoranthene	202	8.203	8.203	(1.148)	1028284	40.0000	42.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	8.420	8.420	(0.882)	1078939	40.0000	40.7
85 Butylbenzylphthalate	149	8.954	8.954	(0.937)	532095	40.0000	42.2
89 Benzo(a)anthracene	228	9.537	9.537	(0.998)	783851	40.0000	39.0
92 Chrysene	228	9.571	9.571	(1.002)	714681	40.0000	39.9
93 bis(2-Ethylhexyl)phthalate	149	9.475	9.475	(0.992)	704775	40.0000	44.2
94 Di-n-octylphthalate	149	10.110	10.110	(0.906)	1046990	40.0000	44.3
95 Benzo(b)fluoranthene	252	10.669	10.669	(0.956)	660429	40.0000	40.0
96 Benzo(k)fluoranthene	252	10.702	10.702	(0.959)	651194	40.0000	42.0
97 Benzo(a)pyrene	252	11.092	11.092	(0.994)	568791	40.0000	42.0
99 Indeno(1,2,3-cd)pyrene	276	12.850	12.850	(1.151)	483446	40.0000	49.6
100 Dibenzo(a,h)anthracene	278	12.864	12.864	(1.152)	383487	40.0000	49.7
101 Benzo(ghi)perylene	276	13.365	13.365	(1.197)	401057	40.0000	49.4
126 m-Dinitrobenzene	168	5.791	5.791	(0.967)	98839	40.0000	40.0
130 2,3,4,6-Tetrachlorophenol	232	6.215	6.215	(1.038)	153713	40.0000	45.2
143 Dinoseb	211	7.096	7.096	(0.993)	94851	40.0000	34.1
173 Carbazole	167	7.327	7.327	(1.025)	558361	40.0000	30.0
184 p-Benzoquinone	54	3.359	3.359	(0.868)	75076	40.0000	41.4
192 Methoxychlor	227	9.422	9.422	(0.986)	555981	40.0000	45.0
211 p-Toluidine	106	4.149	4.149	(1.072)	258831	40.0000	34.2
210 m-Toluidine	106	4.168	4.168	(1.077)	316565	40.0000	33.7
215 2-Ethoxyethanol	59	2.228	2.228	(0.576)	154704	40.0000	24.3
26 Phthalic anhydride	104	5.266	5.266	(1.112)	99725	40.0000	35.2
214 1,4-Dinitrobenzene	75	5.733	5.733	(0.957)	115478	40.0000	40.8
216 Methylenebis(2-chloroaniline)	231	9.479	9.479	(0.992)	91896	40.0000	32.8
M 222 Trichlorophenols	196				366665	80.0000	89.3
M 223 Tetrachlorophenols	232				153713	40.0000	45.2
M 224 Benzo(b,k)fluoranthene	252				1311623	80.0000	81.9

Data File: /chem/MSD7.i/s032310.b/s7c2304.d
Date : 23-MAR-2010 11:20
Client ID: MEGACVS
Sample Info: IWBN100309-05,2ICVS1ISVMF11MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

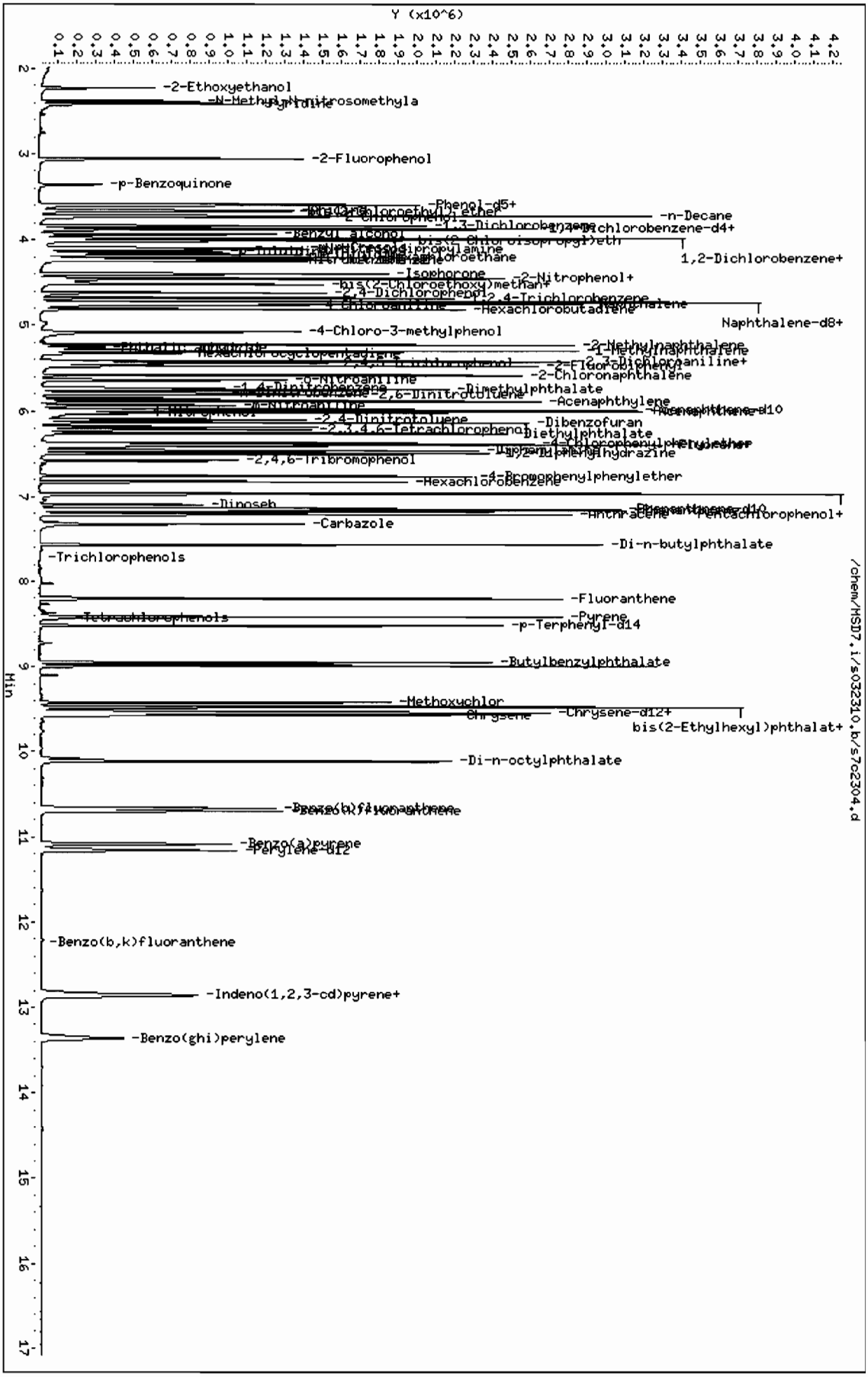

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 23-MAR-2010 11:44
Lab File ID: s7c2305.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100312-03.3 Quant Type: ISTD
Method: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84333	0.75807	0.75807	0.000	-10.11007	60.00000	Averaged
16 Acetophenone	1.10656	1.06363	1.06363	0.000	-3.87987	60.00000	Averaged
189 Caprolactam	0.07444	0.06894	0.06894	0.000	-7.38678	60.00000	Averaged
208 1,1'-Biphenyl	1.10203	1.07705	1.07705	0.000	-2.26678	60.00000	Averaged
207 Atrazine	0.03853	0.03910	0.03910	0.000	1.46831	60.00000	Averaged
77 Benzidine	0.37412	0.25316	0.25316	0.000	-32.33350	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27910	0.29158	0.29158	0.000	4.47259	60.00000	Averaged
102 1,4-Dioxane	0.33513	0.29303	0.29303	0.000	-12.56163	60.00000	Averaged
103 Methyl methacrylate	0.19562	0.16315	0.16315	0.000	-16.59795	60.00000	Averaged
104 Ethyl methacrylate	0.75140	0.65104	0.65104	0.000	-13.35616	60.00000	Averaged
105 2-Picoline	1.13566	0.98400	0.98400	0.000	-13.35448	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44142	0.36742	0.36742	0.000	-16.76400	60.00000	Averaged
107 Methyl methanesulfonate	0.50747	0.48507	0.48507	0.000	-4.41439	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47013	0.41533	0.41533	0.000	-11.65634	60.00000	Averaged
109 Ethyl Methanesulfonate	0.62041	0.54112	0.54112	0.000	-12.78094	60.00000	Averaged
110 Pentachloroethane	0.30840	0.30810	0.30810	0.000	-0.09946	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49363	0.43565	0.43565	0.000	-11.74544	60.00000	Averaged
113 N-Nitrosomorpholine	0.81412	0.68703	0.68703	0.000	-15.61083	60.00000	Averaged
114 o-Toluidine	1.53985	1.36699	1.36699	0.000	-11.22581	60.00000	Averaged
115 N-Nitrosopiperidine	0.13162	0.11093	0.11093	0.000	-15.71858	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.98197	0.68336	0.68336	0.000	-30.40973	60.00000	Averaged
118 2,6-Dichlorophenol	0.20270	0.19978	0.19978	0.000	-1.43886	60.00000	Averaged
119 Hexachloropropene	0.10516	0.09910	0.09910	0.000	-5.76825	60.00000	Averaged
120 p-Phenylenediamine	0.22347	0.21110	0.21110	0.000	-5.53489	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.20065	0.17777	0.17777	0.000	-11.40282	60.00000	Averaged
122 Safrole	0.18525	0.17692	0.17692	0.000	-4.49636	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.39310	0.42000	0.42000	0.000	6.84292	60.00000	Averaged
124 Isosafrole	0.32673	0.30557	0.30557	0.000	-6.47666	60.00000	Averaged
125 1,4-Naphthoquinone	37.53688	40.00000	0.27825	0.000	-6.15781	60.00000	Linear
127 Pentachlorobenzene	0.35339	0.36005	0.36005	0.000	1.88416	60.00000	Averaged
128 1-Naphthylamine	0.85758	0.85977	0.85977	0.000	0.25520	60.00000	Averaged
129 2-Naphthylamine	0.92399	0.89480	0.89480	0.000	-3.15949	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27279	0.25322	0.25322	0.000	-7.17535	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11408	0.12479	0.12479	0.000	9.39245	60.00000	Averaged
137 Phenacetin	0.25171	0.24182	0.24182	0.000	-3.92905	60.00000	Averaged
138 Diallate	0.21975	0.19981	0.19981	0.000	-9.07542	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 23-MAR-2010 11:44
Lab File ID: s7c2305.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100312-03.3 Quant Type: ISTD
Method: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.22751	0.18843	0.18843	0.000	-17.17525	60.00000	Averaged
213 Trans Diallate	0.25853	0.23506	0.23506	0.000	-9.07542	60.00000	Averaged
140 4-Aminobiphenyl	0.53100	0.53765	0.53765	0.000	1.25230	60.00000	Averaged
141 Pentachloronitrobenzene	0.05770	0.07300	0.07300	0.000	26.51884	60.00000	Averaged
142 Pronamide	0.23171	0.26252	0.26252	0.000	13.29864	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01900	0.01373	0.01373	0.000	-27.71392	60.00000	Averaged
147 Methapyrilene	0.45514	0.43349	0.43349	0.000	-4.75761	60.00000	Averaged
148 Isodrin	0.10048	0.10284	0.10284	0.000	2.34849	60.00000	Averaged
149 Aramite	0.04292	0.04196	0.04196	0.000	-2.22911	60.00000	Averaged
150 Kepone	0.06421	0.06777	0.06777	0.000	5.54917	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31171	0.29226	0.29226	0.000	-6.23841	60.00000	Averaged
152 Chlorobenzilate	0.27373	0.28147	0.28147	0.000	2.82846	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52442	0.47689	0.47689	0.000	-9.06329	60.00000	Averaged
155 2-Acetylaminofluorene	0.30989	0.33948	0.33948	0.000	9.54586	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51277	0.49167	0.49167	0.000	-4.11601	60.00000	Averaged
158 3-Methylcholanthrene	0.37167	0.38925	0.38925	0.000	4.73039	60.00000	Averaged

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Data file : /chem/MSD7.i/s032310.b/s7c2305.d
Lab Smp Id: WBN100312-03.3 Client Smp ID: APCVS
Inj Date : 23-MAR-2010 11:44
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100312-03.3|CVS|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	316377	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	1165260	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	674951	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	1208754	40.0000	
* 91 Chrysene-d12	240	9.542	9.552	(1.000)	1041062	40.0000	
* 98 Perylene-d12	264	11.160	11.165	(1.000)	805555	40.0000	
209 Benzaldehyde	77	3.595	3.595	(0.929)	239836	40.0000	36.0
16 Acetophenone	105	4.120	4.120	(1.065)	336509	40.0000	38.4
189 Caprolactam	113	5.011	5.011	(1.059)	80330	40.0000	37.0
208 1,1'-Biphenyl	154	5.550	5.550	(0.928)	726956	40.0000	39.1
207 Atrazine	173	6.855	6.855	(0.960)	47258	40.0000	40.6
77 Benzidine	184	8.295	8.295	(0.869)	263551	40.0000	27.1
90 3,3'-Dichlorobenzidine	252	9.479	9.479	(0.993)	303554	40.0000	41.8
102 1,4-Dioxane	88	2.237	2.237	(0.578)	92707	40.0000	35.0
103 Methyl methacrylate	100	2.228	2.228	(0.576)	51617	40.0000	33.4
104 Ethyl methacrylate	69	2.589	2.589	(0.669)	205974	40.0000	34.6
105 2-Picoline	93	2.781	2.781	(0.719)	311314	40.0000	34.6
106 N-Nitrosomethylethylamine	88	2.820	2.820	(0.729)	116243	40.0000	33.3
107 Methyl methanesulfonate	80	2.974	2.974	(0.769)	153464	40.0000	38.2
108 N-Nitrosodiethylamine	102	3.205	3.205	(0.828)	131401	40.0000	35.3
109 Ethyl Methanesulfonate	79	3.359	3.359	(0.868)	171197	40.0000	34.9
110 Pentachloroethane	167	3.696	3.696	(0.955)	97474	40.0000	40.0
111 N-Nitrosopyrrolidine	100	4.110	4.110	(1.062)	137829	40.0000	35.3
113 N-Nitrosomorpholine	56	4.130	4.130	(1.067)	217361	40.0000	33.8
114 o-Toluidine	106	4.144	4.144	(1.071)	432485	40.0000	35.5
115 N-Nitrosopiperidine	114	4.342	4.342	(0.918)	129263	40.0000	33.7
116 a,a-Dimethylphenethylamine	58	4.587	4.587	(0.969)	796288	40.0000	27.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
118 2,6-Dichlorophenol	162	4.775	4.775	(1.009)	232800	40.0000	39.4
119 Hexachloropropene	213	4.799	4.799	(1.014)	115475	40.0000	37.7
120 p-Phenylenediamine	108	5.011	5.011	(1.059)	245983	40.0000	37.8
121 N-Nitrosodi-n-butylamine	84	4.977	4.977	(1.052)	207152	40.0000	35.4
122 Safrole	162	5.141	5.141	(1.087)	206157	40.0000	38.2
123 1,2,4,5-Tetrachlorobenzene	216	5.343	5.343	(0.893)	283482	40.0000	42.7
124 Isosafrole	162	5.512	5.512	(0.921)	206243	40.0000	37.4
125 1,4-Naphthoquinone	158	5.699	5.699	(0.953)	187804	40.0000	37.5
127 Pentachlorobenzene	250	6.099	6.099	(1.019)	243014	40.0000	40.8
128 1-Naphthylamine	143	6.186	6.186	(1.034)	580305	40.0000	40.1
129 2-Naphthylamine	143	6.244	6.244	(1.043)	603944	40.0000	38.7
131 5-Nitro-o-toluidine	152	6.383	6.383	(1.067)	170911	40.0000	37.1
136 1,3,5-Trinitrobenzene	75	6.643	6.643	(0.930)	150842	40.0000	43.8
137 Phenacetin	108	6.677	6.677	(0.935)	292302	40.0000	38.4(Q)
138 Diallate	86	6.662	6.662	(0.933)	241515	40.0000	36.4
212 Cis Diallate	86	6.740	6.740	(0.943)	34165	6.00000	5.0
213 Trans Diallate	86	6.662	6.662	(0.933)	241515	34.0000	30.9
140 4-Aminobiphenyl	169	6.966	6.966	(0.975)	649883	40.0000	40.5
141 Pentachloronitrobenzene	237	6.985	6.985	(0.978)	88234	40.0000	50.6(Q)
142 Pronamide	173	6.980	6.980	(0.977)	317327	40.0000	45.3
146 4-Nitroquinoline-1-oxide	101	7.813	7.813	(1.094)	16601	40.0000	28.9
147 Methapyrilene	58	7.847	7.847	(1.098)	523983	40.0000	38.1
148 Isodrin	193	8.064	8.064	(1.129)	124309	40.0000	40.9
149 Aramite	185	8.468	8.468	(1.185)	50724	40.0000	39.1
150 Kepone	272	9.046	9.046	(1.266)	81914	40.0000	42.2
151 p-(Dimethylamino)azobenzene	120	8.646	8.646	(0.906)	304262	40.0000	37.5
152 Chlorobenzilate	251	8.675	8.675	(0.909)	293025	40.0000	41.1
153 3,3'-Dimethylbenzidine	212	8.959	8.959	(0.939)	496473	40.0000	36.4
155 2-Acetylaminofluorene	181	9.205	9.205	(0.965)	353415	40.0000	43.8
157 7,12Dimethylbenz(a)anthracene	256	10.640	10.640	(0.953)	396065	40.0000	38.4
158 3-Methylcholanthrene	268	11.550	11.550	(1.035)	313561	40.0000	41.9

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s032310.b/s7c2305.d
Date : 23-MAR-2010 11:44
Client ID: APCVS
Sample Info: IWBN100312-03,3ICVSI1ISVMFI1IAPCVS

Instrument: MSD7.i

Page 1

Column phase: J&W DB-5MS

Operator: JMB3
Column diameter: 0.20

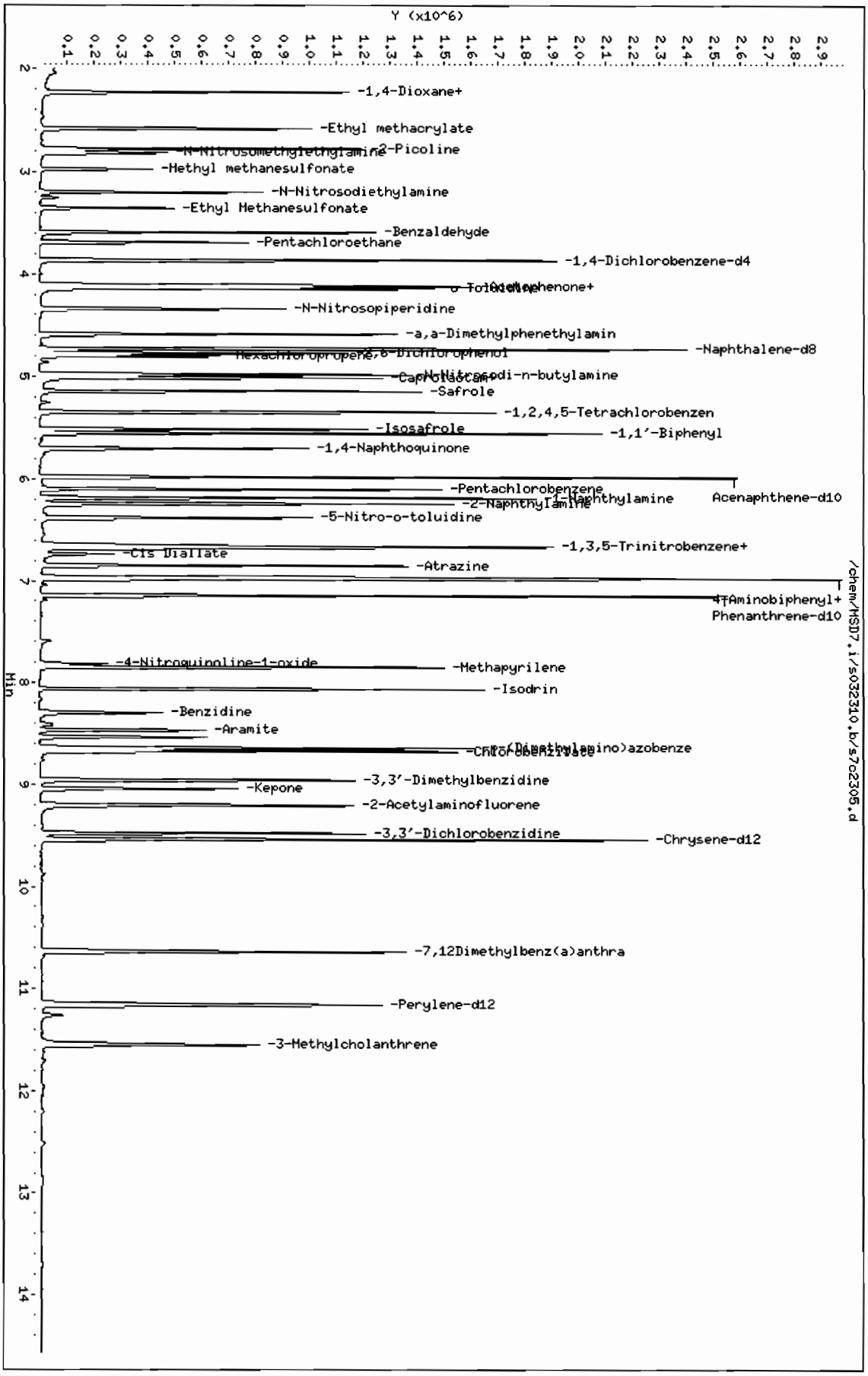

QC Data

Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

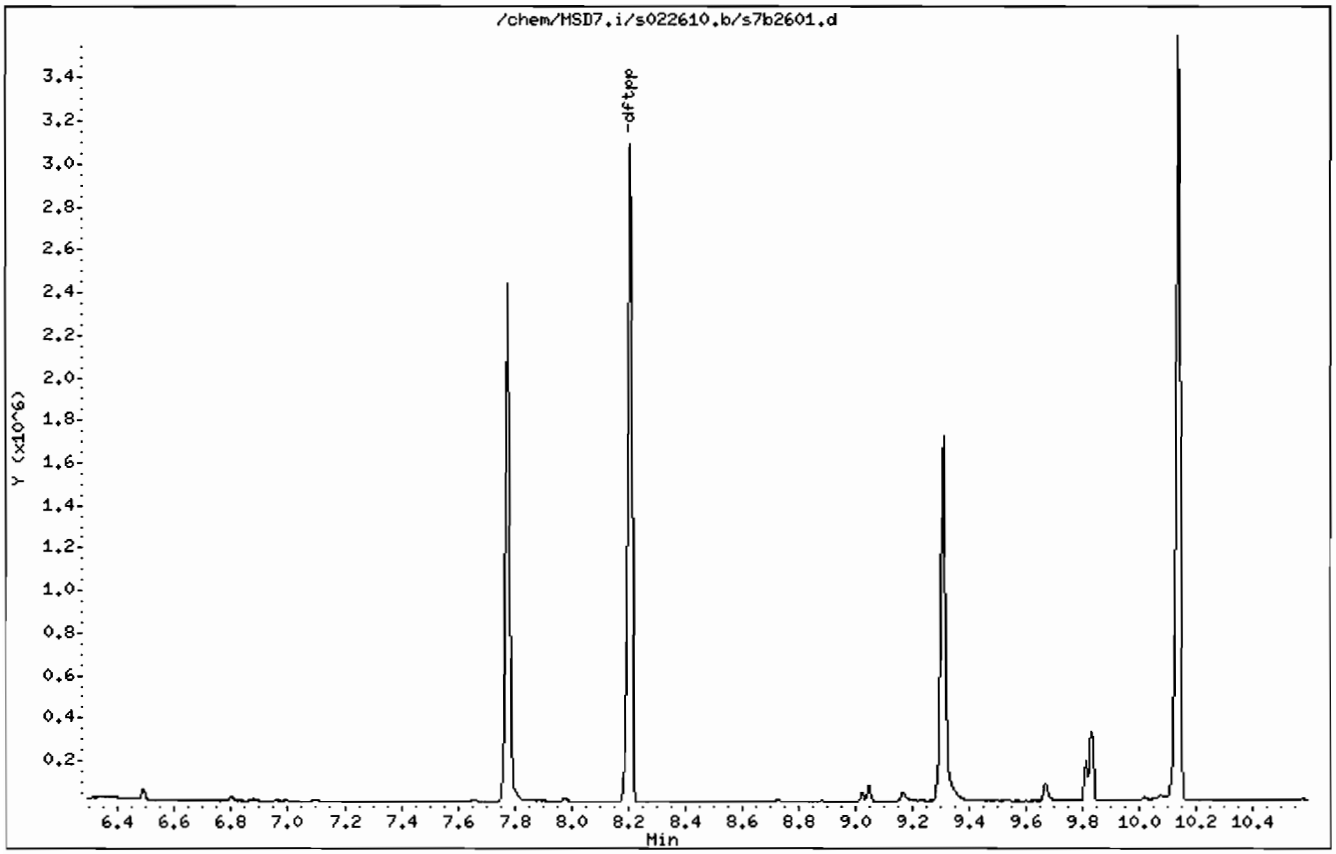

Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

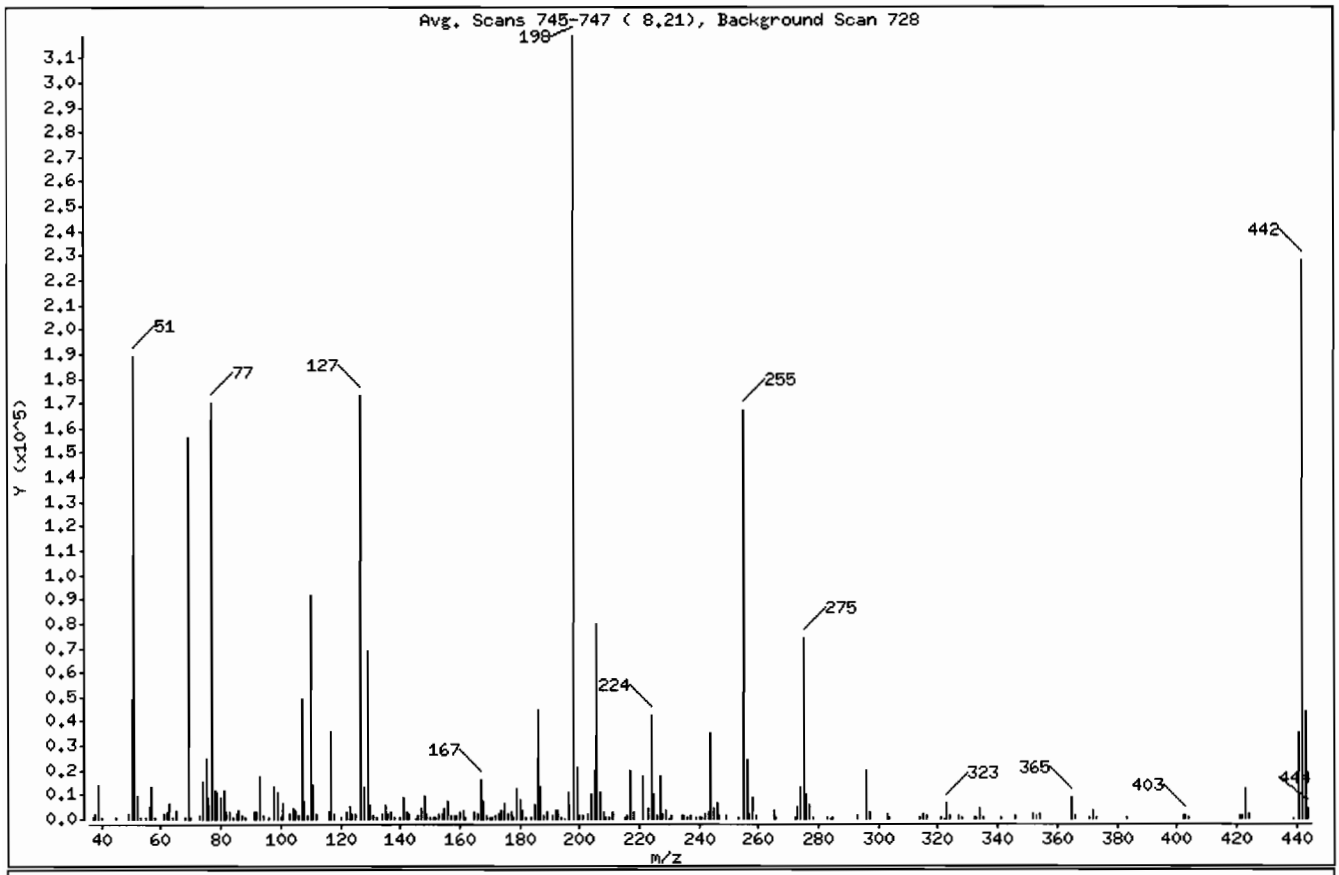

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	59.41
68	Less than 2.00% of mass 69	0.28 (0.57)
69	Mass 69 relative abundance	48.94
70	Less than 2.00% of mass 69	0.28 (0.58)
127	40.00 - 60.00% of mass 198	54.14
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.65
275	10.00 - 30.00% of mass 198	23.16
365	Greater than 1.00% of mass 198	2.69
441	Present, but less than mass 443	10.95
442	Greater than 40.00% of mass 198	71.59
443	17.00 - 23.00% of mass 442	13.73 (19.18)

Date : 26-FEB-2010 10:23

Client ID: DFTPP Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s7b2601.d
Spectrum: Avg. Scans 745-747 (8.21), Background Scan 728
Location of Maximum: 198.00
Number of points: 228

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	852	117.00	35928	184.00	921	259.00	1456
38.00	2311	118.00	2505	185.00	5984	265.00	3673
39.00	13932	120.00	682	186.00	44920	266.00	602
40.00	778	122.00	3034	187.00	13079	272.00	686
45.00	617	123.00	4902	188.00	1326	273.00	5148
49.00	1836	124.00	2350	189.00	2753	274.00	13060
50.00	49024	125.00	2075	191.00	1303	275.00	73880
51.00	189504	127.00	172736	192.00	3677	276.00	10097
52.00	9606	128.00	13398	193.00	3924	277.00	5801
53.00	380	129.00	68952	194.00	852	278.00	937
55.00	641	130.00	5708	195.00	213	283.00	683
56.00	5212	131.00	1162	196.00	10681	284.00	363
57.00	12872	132.00	774	198.00	319040	285.00	980
58.00	597	134.00	2028	199.00	21208	293.00	1331
61.00	2326	135.00	5642	200.00	1647	296.00	19728
62.00	2698	136.00	2275	201.00	1773	297.00	2776
63.00	6781	137.00	2609	203.00	2366	303.00	2464
64.00	1046	138.00	715	204.00	10630	304.00	574
65.00	3631	140.00	969	205.00	19512	314.00	904
68.00	888	141.00	8721	206.00	79824	315.00	2209
69.00	156160	142.00	2698	207.00	10932	316.00	1138
70.00	900	143.00	1961	208.00	3049	321.00	715
73.00	1515	145.00	363	209.00	797	322.00	167
74.00	15266	146.00	1578	210.00	844	323.00	6440
75.00	24672	147.00	4519	211.00	3224	324.00	1313
76.00	8506	148.00	9607	215.00	827	327.00	1174
77.00	169984	149.00	1988	216.00	1701	328.00	565
78.00	11795	150.00	396	217.00	20024	332.00	397
79.00	11177	151.00	1094	218.00	2713	333.00	714
80.00	8792	152.00	647	221.00	17472	334.00	4276
81.00	12077	153.00	2565	223.00	4593	335.00	1100
82.00	3170	154.00	2159	224.00	42376	341.00	531
83.00	3008	155.00	4724	225.00	10621	346.00	1286
84.00	636	156.00	7141	226.00	1169	352.00	1989
85.00	2044	157.00	1513	227.00	17440	353.00	1401

Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2601.d
Spectrum: Avg. Scans 745-747 (8.21), Background Scan 728
Location of Maximum: 198.00
Number of points: 228

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	3508	158.00	1749	228.00	2469	354.00	2183
87.00	1630	159.00	1243	229.00	3883	365.00	8577
88.00	419	160.00	2579	230.00	356	366.00	1114
91.00	2741	161.00	3950	231.00	1525	371.00	644
92.00	3230	162.00	1019	234.00	1203	372.00	3384
93.00	17792	165.00	2876	235.00	1368	373.00	853
94.00	1291	166.00	2290	236.00	770	383.00	796
96.00	998	167.00	15920	237.00	1366	402.00	1481
98.00	13554	168.00	7335	239.00	754	403.00	1754
99.00	10824	169.00	1371	240.00	398	404.00	734
100.00	976	170.00	409	241.00	1037	421.00	1467
101.00	6705	171.00	753	242.00	2373	422.00	1498
103.00	2265	172.00	1523	243.00	2625	423.00	12418
104.00	4074	173.00	1979	244.00	35000	424.00	2370
105.00	3826	174.00	3403	245.00	4542	439.00	178
106.00	1433	175.00	6519	246.00	6439	441.00	34928
107.00	49056	176.00	1866	247.00	1293	442.00	228416
108.00	7671	177.00	3004	249.00	1244	443.00	43808
109.00	1301	178.00	1078	253.00	913	444.00	4114
110.00	91472	179.00	12442	255.00	167552		
111.00	13914	180.00	8233	256.00	24184		
112.00	1881	181.00	3774	257.00	1884		
116.00	2779	182.00	632	258.00	9098		

Data File: /chem/MSD7.i/s022610.b/s7b2615.d

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

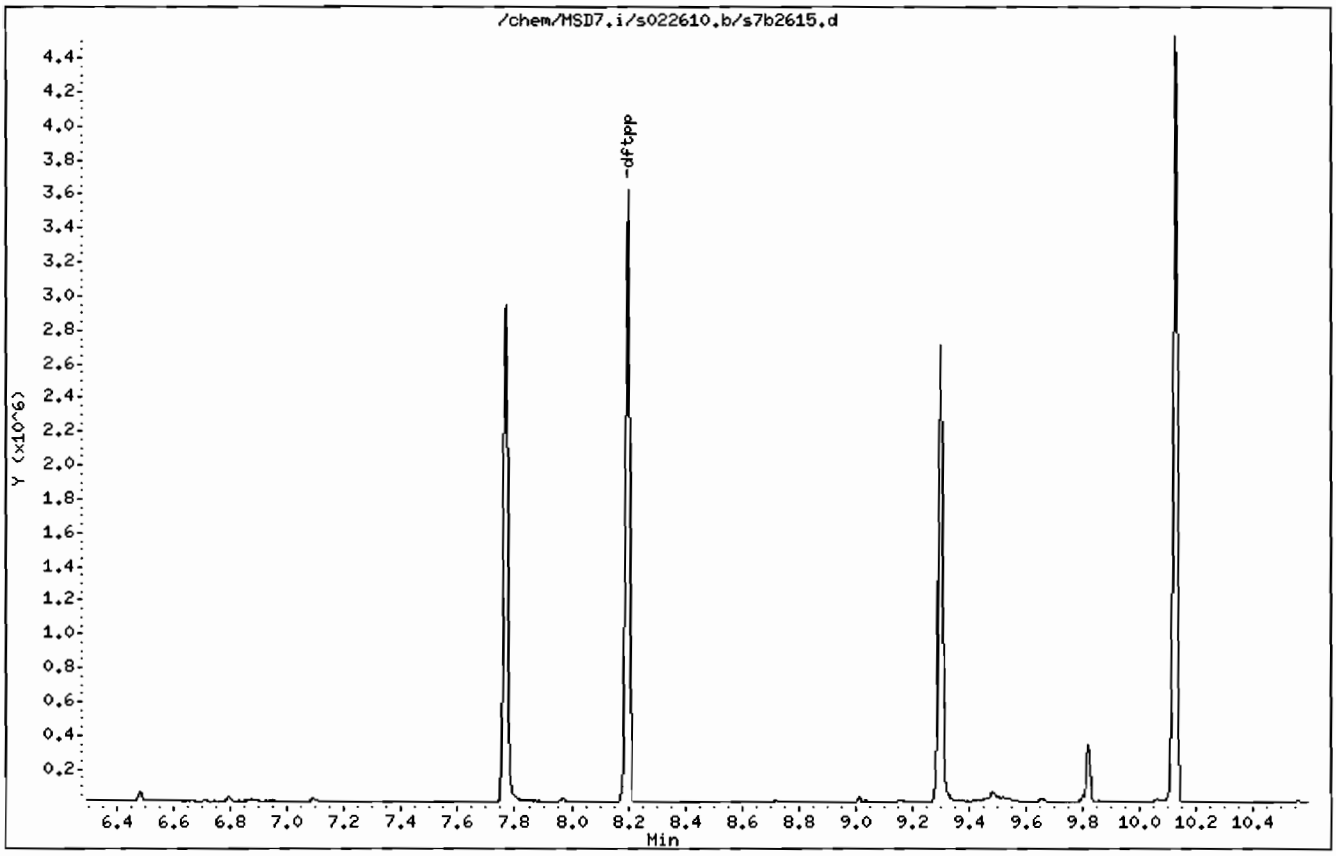

Data File: /chem/MSD7.i/s022610.b/s7b2615.d

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

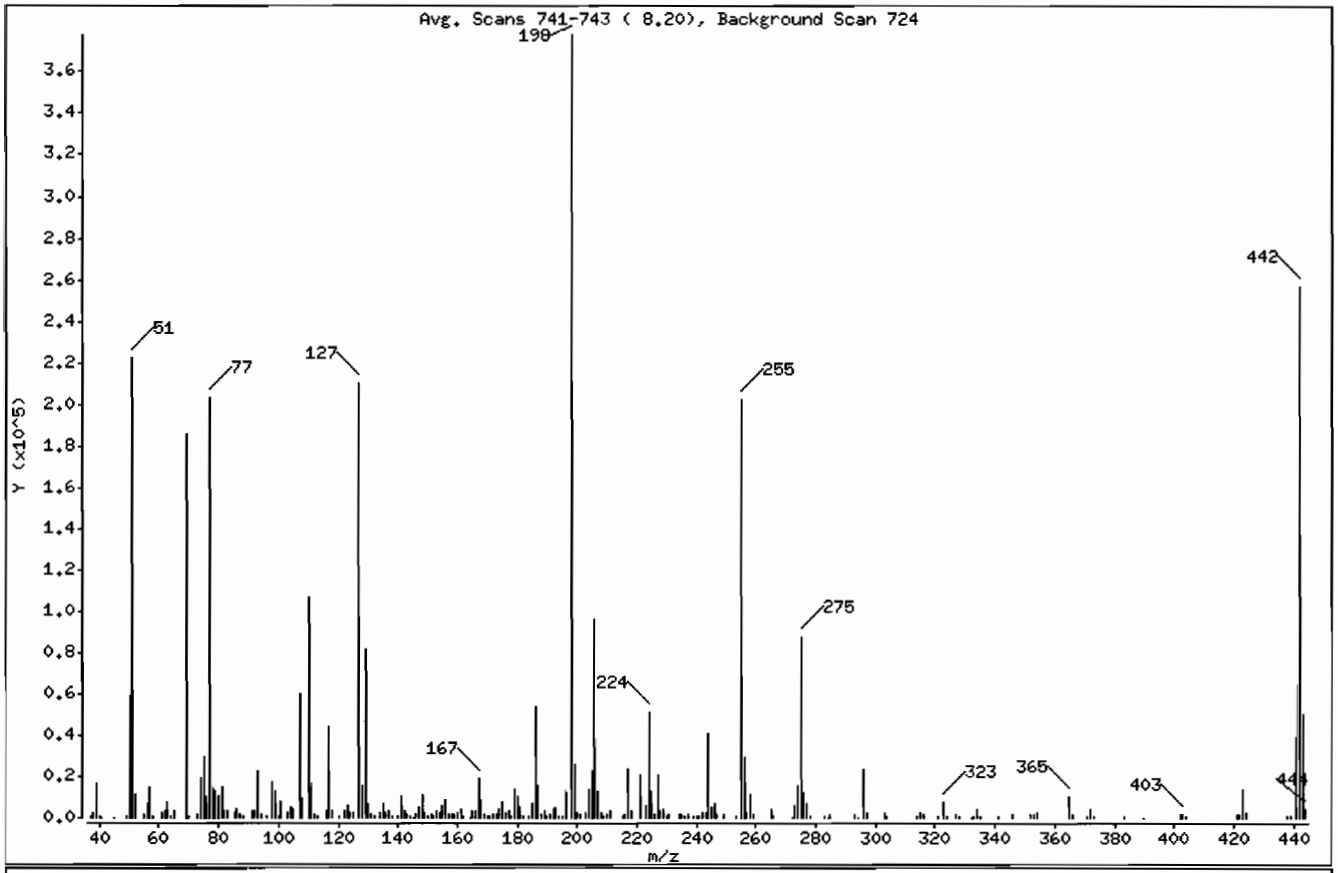

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	58.98
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	49.16
70	Less than 2.00% of mass 69	0.23 (0.48)
127	40.00 - 60.00% of mass 198	55.53
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.90
275	10.00 - 30.00% of mass 198	23.32
365	Greater than 1.00% of mass 198	2.65
441	Present, but less than mass 443	10.42
442	Greater than 40.00% of mass 198	68.13
443	17.00 - 23.00% of mass 442	13.23 (19.42)

Data File: /chem/MSD7.i/s022610.b/s7b2615.d

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2615.d
Spectrum: Avg. Scans 741-743 (8.20), Background Scan 724
Location of Maximum: 198.00
Number of points: 230

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1029	122.00	3738	185.00	6817	259.00	1573
38.00	2784	123.00	5796	186.00	54064	265.00	4325
39.00	16736	124.00	2600	187.00	15706	266.00	746
40.00	804	125.00	2612	188.00	1673	272.00	197
41.00	215	127.00	209728	189.00	3494	273.00	6106
45.00	168	128.00	15827	190.00	586	274.00	15839
49.00	1187	129.00	81240	191.00	1632	275.00	88080
50.00	59008	130.00	6686	192.00	4589	276.00	11832
51.00	222720	131.00	1427	193.00	4997	277.00	7181
52.00	11067	132.00	774	194.00	1040	278.00	1002
55.00	1479	134.00	2449	195.00	704	283.00	768
56.00	6807	135.00	6597	196.00	12441	284.00	411
57.00	14992	136.00	2742	198.00	377728	285.00	1383
58.00	682	137.00	3143	199.00	26056	293.00	1754
61.00	2681	138.00	765	200.00	2198	294.00	170
62.00	3163	140.00	1042	201.00	1902	296.00	23352
63.00	8062	141.00	10317	203.00	2941	297.00	3003
64.00	939	142.00	3584	204.00	13735	303.00	2912
65.00	3873	143.00	2145	205.00	22256	304.00	698
69.00	185664	144.00	648	206.00	96224	314.00	1230
70.00	883	145.00	345	207.00	12868	315.00	2658
73.00	1613	146.00	1896	208.00	3012	316.00	1427
74.00	18712	147.00	5046	209.00	1028	321.00	683
75.00	29592	148.00	11656	210.00	1417	323.00	8017
76.00	10277	149.00	2428	211.00	3685	324.00	1216
77.00	203520	150.00	602	215.00	982	327.00	1441
78.00	14043	151.00	1527	216.00	2051	328.00	748
79.00	13422	152.00	713	217.00	23848	332.00	363
80.00	10653	153.00	3096	218.00	3211	333.00	806
81.00	14622	154.00	2344	221.00	20792	334.00	4623
82.00	3466	155.00	5720	223.00	5862	335.00	1233
83.00	3303	156.00	8256	224.00	50920	341.00	795
85.00	2661	157.00	1579	225.00	13061	346.00	1522
86.00	3911	158.00	1721	226.00	1598	352.00	1965
87.00	1716	159.00	1403	227.00	20944	353.00	1542

Data File: /chem/MSD7.i/s022610.b/s7b2615.d

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2615.d
Spectrum: Avg. Scans 741-743 (8.20), Background Scan 724
Location of Maximum: 198.00
Number of points: 230

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	720	160.00	3002	228.00	3044	354.00	2372
91.00	3449	161.00	4728	229.00	4594	365.00	10014
92.00	3788	162.00	1233	230.00	617	366.00	1587
93.00	22184	164.00	176	231.00	1861	371.00	636
94.00	1680	165.00	3703	234.00	1383	372.00	3986
96.00	1049	166.00	3066	235.00	1556	373.00	896
98.00	17120	167.00	18856	236.00	1121	383.00	902
99.00	13353	168.00	9050	237.00	1622	390.00	167
100.00	1116	169.00	1603	239.00	883	402.00	1434
101.00	7543	170.00	665	240.00	677	403.00	2148
103.00	2685	171.00	809	241.00	1127	404.00	602
104.00	5030	172.00	1695	242.00	2573	421.00	1921
105.00	4545	173.00	2042	243.00	2934	422.00	1955
107.00	59544	174.00	4069	244.00	40392	423.00	14077
108.00	9676	175.00	7514	245.00	5448	424.00	2851
110.00	106720	176.00	2522	246.00	7235	438.00	613
111.00	16672	177.00	3771	247.00	1622	439.00	1021
112.00	2022	178.00	1302	249.00	1526	441.00	39344
113.00	647	179.00	14261	253.00	985	442.00	257344
116.00	3383	180.00	9998	255.00	202432	443.00	49984
117.00	44664	181.00	4790	256.00	29912	444.00	4586
118.00	3115	182.00	817	257.00	2724		
120.00	706	184.00	1225	258.00	11156		

Data File: /chem/MSD7.i/s032310.b/s7c2303.d

Date : 23-MAR-2010 11:08

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

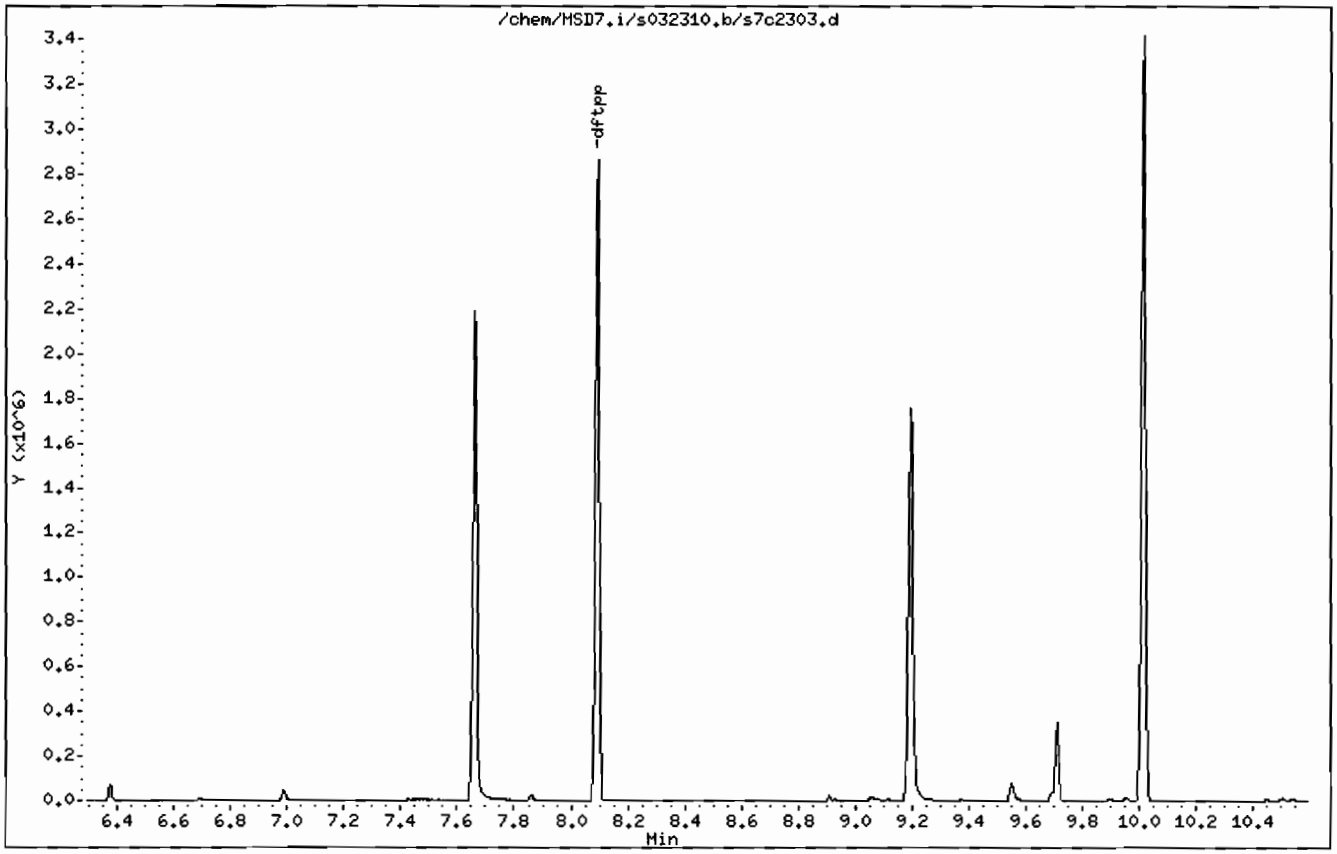

Data File: /chem/MSD7.i/s032310.b/s7c2303.d

Date : 23-MAR-2010 11:08

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

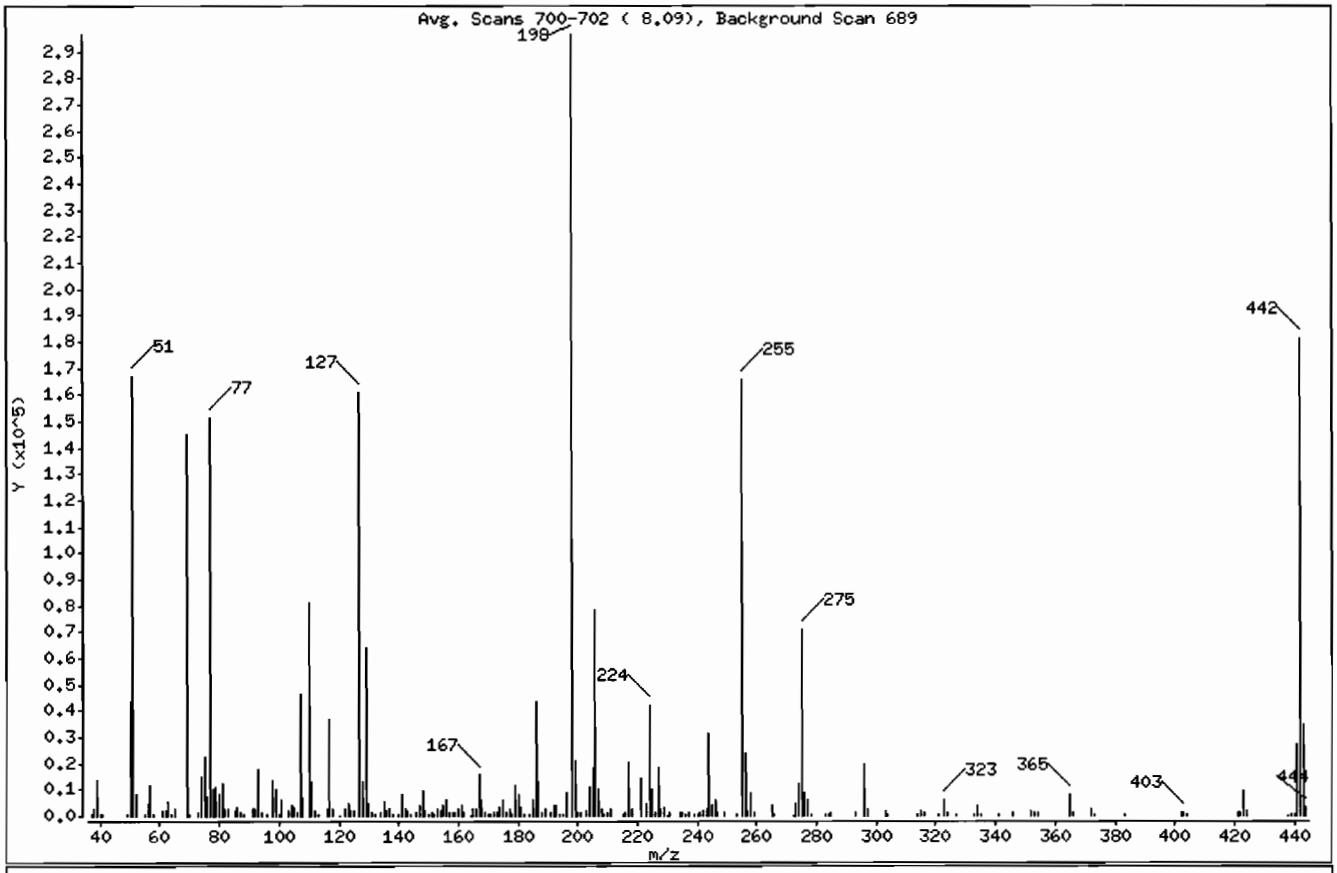

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	56.32
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	49.02
70	Less than 2.00% of mass 69	0.22 (0.46)
127	40.00 - 60.00% of mass 198	54.24
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.14
275	10.00 - 30.00% of mass 198	23.93
365	Greater than 1.00% of mass 198	2.86
441	Present, but less than mass 443	9.13
442	Greater than 40.00% of mass 198	61.18
443	17.00 - 23.00% of mass 442	11.82 (19.32)

Data File: /chem/MSD7.i/s032310.b/s7c2303.d

Date : 23-MAR-2010 11:08

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7c2303.d
Spectrum: Avg. Scans 700-702 (8.09), Background Scan 689
Location of Maximum: 198.00
Number of points: 224

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	911	120.00	167	184.00	1001	258.00	8963
38.00	2452	122.00	3007	185.00	5994	259.00	1524
39.00	13717	123.00	5114	186.00	43816	265.00	4121
40.00	754	124.00	1946	187.00	12737	266.00	718
41.00	604	125.00	1972	188.00	1169	272.00	334
49.00	422	127.00	160896	189.00	2898	273.00	4841
50.00	43728	128.00	12965	191.00	1434	274.00	12592
51.00	167104	129.00	64008	192.00	3791	275.00	70992
52.00	8120	130.00	5029	193.00	3946	276.00	8987
55.00	896	131.00	1160	194.00	897	277.00	6375
56.00	4901	132.00	636	195.00	546	278.00	1022
57.00	11360	134.00	1696	196.00	9097	283.00	547
58.00	441	135.00	5276	198.00	296704	284.00	359
61.00	1851	136.00	2266	199.00	21192	285.00	1172
62.00	2049	137.00	2668	200.00	1685	293.00	1419
63.00	5728	138.00	682	201.00	1333	296.00	19880
64.00	931	140.00	760	203.00	2128	297.00	2574
65.00	2724	141.00	8142	204.00	11112	303.00	2270
69.00	145408	142.00	2618	205.00	18312	304.00	581
70.00	667	143.00	2050	206.00	78728	314.00	1002
73.00	1186	144.00	381	207.00	10327	315.00	2196
74.00	14722	146.00	1405	208.00	2952	316.00	1091
75.00	22800	147.00	4223	209.00	966	321.00	616
76.00	7828	148.00	9518	210.00	1158	323.00	6010
77.00	151744	149.00	1772	211.00	2775	324.00	1132
78.00	10176	150.00	550	215.00	810	327.00	979
79.00	10584	151.00	1090	216.00	1650	333.00	608
80.00	8422	152.00	592	217.00	20576	334.00	4125
81.00	12041	153.00	2606	218.00	3014	335.00	1015
82.00	2898	154.00	1824	221.00	14085	341.00	630
83.00	2563	155.00	4426	223.00	4456	346.00	1355
85.00	1871	156.00	6443	224.00	42008	352.00	1762
86.00	3204	157.00	1261	225.00	10455	353.00	1238
87.00	1466	158.00	1260	226.00	1129	354.00	1480
88.00	368	159.00	1028	227.00	18592	365.00	8500

Data File: /chem/MSD7.i/s032310.b/s7c2303.d

Date : 23-MAR-2010 11:08

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7c2303.d
Spectrum: Avg. Scans 700-702 (8.09), Background Scan 689
Location of Maximum: 198.00
Number of points: 224

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	2636	160.00	2424	228.00	2651	366.00	1186
92.00	2595	161.00	3835	229.00	3615	372.00	2979
93.00	17888	162.00	1032	230.00	175	373.00	781
94.00	1184	164.00	168	231.00	1578	383.00	759
96.00	851	165.00	2930	234.00	1225	402.00	1290
98.00	13771	166.00	2569	235.00	1267	403.00	1676
99.00	10067	167.00	15715	236.00	884	404.00	671
100.00	890	168.00	6264	237.00	1285	421.00	1339
101.00	5972	169.00	1306	239.00	570	422.00	1419
103.00	1983	170.00	791	240.00	661	423.00	9683
104.00	3983	171.00	770	241.00	1282	424.00	1990
105.00	3658	172.00	1290	242.00	2205	438.00	166
106.00	1216	173.00	1697	243.00	2531	439.00	700
107.00	46232	174.00	3084	244.00	31344	440.00	785
108.00	7109	175.00	5997	245.00	4379	441.00	27080
110.00	80840	176.00	1535	246.00	6478	442.00	181504
111.00	12753	177.00	2950	247.00	1388	443.00	35072
112.00	1737	178.00	959	249.00	1075	444.00	3183
113.00	374	179.00	11424	253.00	936		
116.00	2818	180.00	7910	255.00	166080		
117.00	36816	181.00	3648	256.00	23920		
118.00	2706	182.00	697	257.00	1995		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072534**				
Client Sample:	**QC for batch 965812**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965812**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:05**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2306-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	333	ug/kg	66.7	333
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072534**				
Client Sample:	**QC for batch 965812**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965812**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:05**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2306-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	552	ug/kg		J

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Data file : /chem/MSD7.i/s032310.b/s7c2306-2.d
Lab Smp Id: 1202072534 Client Smp ID: SBLK01
Inj Date : 23-MAR-2010 12:05
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202072534|965816|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2305.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	212090	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	794132	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	461044	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	834040	40.0000	
* 91 Chrysene-d12	240	9.542	9.552	(1.000)	651822	40.0000	
* 98 Perylene-d12	264	11.155	11.165	(1.000)	489529	40.0000	
$ 3 2-Fluorophenol	112	3.065	3.061	(0.792)	398773	72.3370	2410
$ 5 Phenol-d5	99	3.585	3.590	(0.927)	475179	68.7495	2290
$ 20 Nitrobenzene-d5	82	4.226	4.235	(0.893)	234985	39.2323	1310
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	487590	42.4361	1410
$ 60 2,4,6-Tribromophenol	329	6.576	6.576	(1.099)	117619	88.2483	2940
$ 81 p-Terphenyl-d14	244	8.516	8.521	(0.892)	542209	46.4318	1550

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Data file : /chem/MSD7.i/s032310.b/s7c2306-2.d
Lab Smp Id: 1202072534 Client Smp ID: SBLK01
Inj Date : 23-MAR-2010 12:05
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202072534|965816|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2305.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.870	1381743	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.902	572547	16.5746279	552	0		0	10

Data File: /chem/MSD7.i/s032310.b/s7c2306-2.d

Date : 23-MAR-2010 12:05

Client ID: SBLK01

Sample Info: 1120207253419658161|1|SVM|1|MB

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD7.i

Operator: JMB3

Column diameter: 0.20

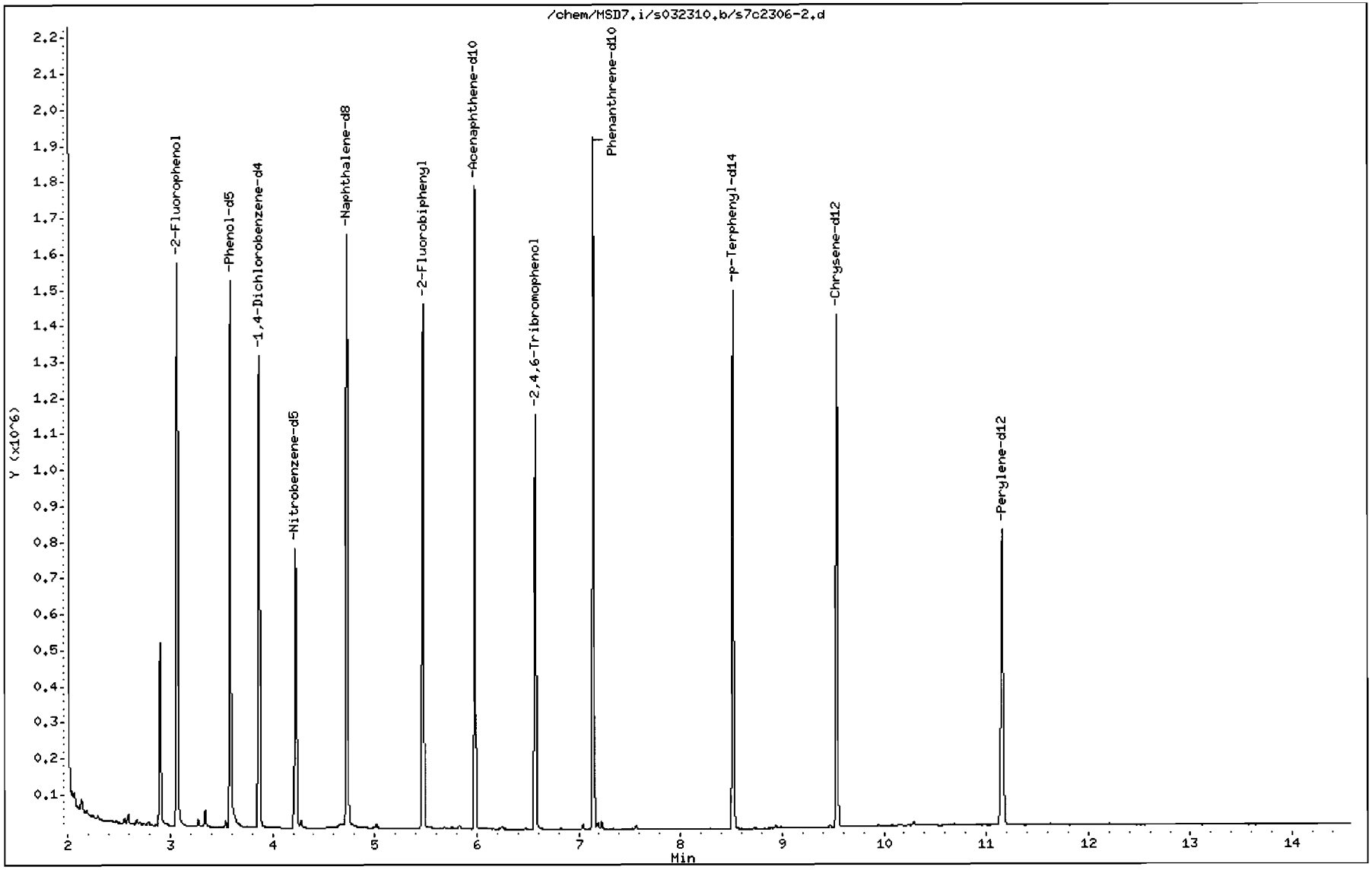

Data File: /chem/MSD7.i/s032310.b/s7c2306-2.d

Date : 23-MAR-2010 12:05

Client ID: SBLK01

Instrument: MSD7.i

Sample Info: |1202072534|965816|1|SVM|1|MB

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116

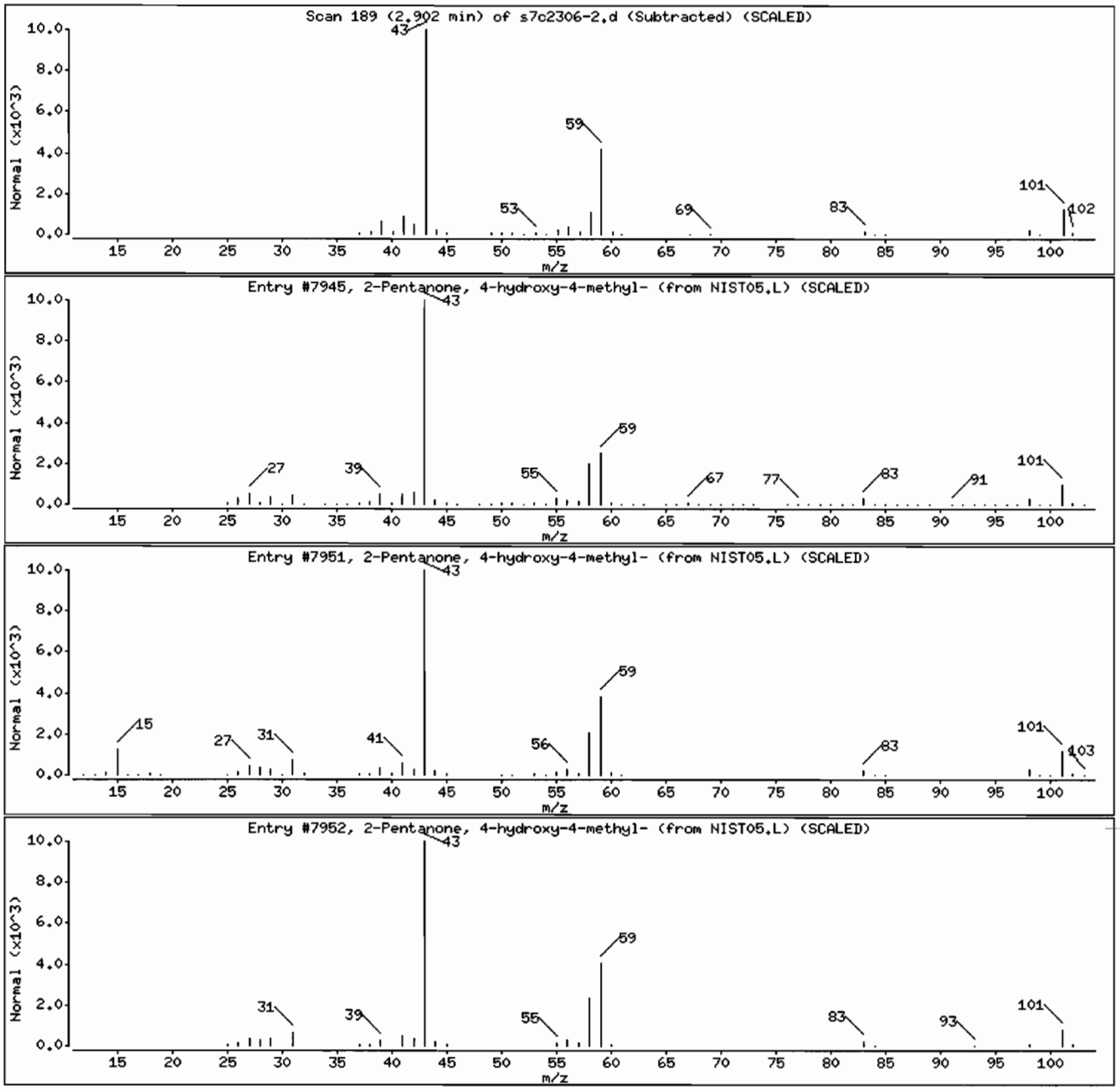

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072535**				
Client Sample:	**QC for batch 965812**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965812**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:27**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2307-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		877	ug/kg	66.7	333
108-95-2	Phenol		1170	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1340	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1250	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1270	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1280	ug/kg	66.7	333
83-32-9	Acenaphthene		1430	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1460	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1440	ug/kg	110	333
87-86-5	Pentachlorophenol		1590	ug/kg	83.3	333
129-00-0	Pyrene		1270	ug/kg	10.0	33.3
110-86-1	Pyridine		952	ug/kg	66.7	333
62-53-3	Aniline		979	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1050	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1190	ug/kg	66.7	333
100-51-6	Benzyl alcohol		695	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1320	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1160	ug/kg	66.7	333
95-48-7	o-Cresol		1250	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1470	ug/kg	100	333
67-72-1	Hexachloroethane		1260	ug/kg	66.7	333
98-95-3	Nitrobenzene		1220	ug/kg	66.7	333
78-59-1	Isophorone		1180	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1320	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1310	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1150	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1300	ug/kg	66.7	333
65-85-0	Benzoic acid		3600	ug/kg	167	667
91-20-3	Naphthalene		1240	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		832	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1370	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1300	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1190	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1560	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1650	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1270	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1260	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1290	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072535**				
Client Sample:	**QC for batch 965812**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965812**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:27**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2307-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1510	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1430	ug/kg	33.3	333
208-96-8	Acenaphthylene		1390	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1780	ug/kg	127	667
132-64-9	Dibenzofuran		1410	ug/kg	66.7	333
84-66-2	Diethylphthalate		1610	ug/kg	66.7	333
86-73-7	Fluorene		1490	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1500	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1540	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1560	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1360	ug/kg	66.7	333
122-66-7	Azobenzene		1380	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1410	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1390	ug/kg	66.7	333
85-01-8	Phenanthrene		1410	ug/kg	10.0	33.3
120-12-7	Anthracene		1400	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1580	ug/kg	66.7	333
206-44-0	Fluoranthene		1490	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1450	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1360	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1330	ug/kg	100	333
218-01-9	Chrysene		1450	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1540	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1400	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1400	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1410	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1470	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1840	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1880	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1810	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1280	ug/kg	66.7	333

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2307-2.d
Lab Smp Id: 1202072535 Client Smp ID: SBLK01LCS
Inj Date : 23-MAR-2010 12:27
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202072535|965816|1|SVM|1|LCS
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2305.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	226223	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	939533	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	485896	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	944400	40.0000	
* 91 Chrysene-d12	240	9.547	9.552	(1.000)	801200	40.0000	
* 98 Perylene-d12	264	11.160	11.165	(1.000)	620288	40.0000	
$ 3 2-Fluorophenol	112	3.066	3.061	(0.792)	428064	72.7992	2430
$ 5 Phenol-d5	99	3.586	3.590	(0.927)	515028	69.8597	2330
$ 20 Nitrobenzene-d5	82	4.231	4.235	(0.894)	264525	37.3294	1240
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	480102	39.6473	1320
$ 60 2,4,6-Tribromophenol	329	6.581	6.576	(1.100)	132636	94.4256	3150
$ 81 p-Terphenyl-d14	244	8.516	8.521	(0.892)	632377	44.0568	1470

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.595	3.595	(0.929)	256347	35.0034	1170
8 2-Chlorophenol	128	3.735	3.735	(0.965)	226027	40.3300	1340
11 1,4-Dichlorobenzene	146	3.879	3.884	(1.002)	254109	37.6172	1250
17 N-Nitrosodipropylamine	70	4.106	4.115	(1.061)	158424	38.0267	1270(Q)
28 1,2,4-Trichlorobenzene	180	4.683	4.683	(0.990)	232002	38.3700	1280
33 4-Chloro-3-methylphenol	107	5.083	5.078	(1.074)	205859	38.4445	1280
47 Acenaphthene	154	6.008	6.012	(1.004)	457471	42.7754	1420
50 2,4-Dinitrotoluene	165	6.099	6.104	(1.019)	171792	43.6999	1460
52 4-Nitrophenol	139	6.032	6.027	(1.008)	85337	43.1605	1440
65 Pentachlorophenol	266	6.976	6.975	(0.976)	85282	47.7633	1590
79 Pyrene	202	8.415	8.420	(0.881)	963188	38.0537	1270
2 Pyridine	79	2.430	2.415	(0.628)	155876	28.5714	952
4 Aniline	66	3.653	3.658	(0.944)	103262	29.3631	979(Q)
7 bis(2-Chloroethyl) ether	63	3.667	3.672	(0.948)	188099	31.3686	1040(Q)
9 1,3-Dichlorobenzene	146	3.836	3.836	(0.991)	251338	35.7017	1190
12 Benzyl alcohol	108	3.937	3.937	(1.017)	79540	20.8433	695
13 1,2-Dichlorobenzene	146	3.980	3.985	(1.029)	245542	39.5150	1320
14 bis(2-Chloroisopropyl)ether	45	4.009	4.014	(1.036)	483228	34.7868	1160
15 o-Cresol	107	3.990	3.990	(1.031)	168116	37.4708	1250
18 m,p-Cresols	107	4.086	4.091	(1.056)	267382	44.1066	1470
19 Hexachloroethane	117	4.212	4.211	(1.088)	98849	37.6861	1260
21 Nitrobenzene	77	4.245	4.245	(0.897)	240534	36.5911	1220
22 Isophorone	82	4.395	4.399	(0.929)	449837	35.4181	1180
23 2-Nitrophenol	139	4.457	4.457	(0.942)	122314	39.6227	1320
24 2,4-Dimethylphenol	122	4.452	4.452	(0.941)	222986	39.1864	1310
25 bis(2-Chloroethoxy)methane	93	4.515	4.520	(0.954)	238922	34.3828	1150
26 2,4-Dichlorophenol	162	4.621	4.621	(0.977)	193770	38.8653	1300
27 Benzoic acid	105	4.529	4.515	(0.957)	306469	107.987	3600
30 Naphthalene	128	4.746	4.751	(1.003)	657644	37.0547	1240
31 4-Chloroaniline	127	4.765	4.765	(1.007)	207359	24.9505	832
32 Hexachlorobutadiene	225	4.814	4.813	(1.017)	130023	41.2057	1370
34 2-Methylnaphthalene	142	5.228	5.227	(1.105)	496140	38.9509	1300
36 Hexachlorocyclopentadiene	237	5.329	5.333	(0.891)	83725	35.6425	1190
37 2,4,6-Trichlorophenol	196	5.415	5.420	(0.905)	159117	46.6752	1560
38 2,4,5-Trichlorophenol	196	5.449	5.444	(0.911)	169552	49.4530	1650
40 2-Chloronaphthalene	162	5.579	5.584	(0.932)	428658	38.1147	1270
42 o-Nitroaniline	65	5.637	5.642	(0.942)	150558	37.8131	1260
41 m-Nitroaniline	138	5.931	5.935	(0.991)	112428	38.6899	1290
43 Dimethylphthalate	163	5.743	5.752	(0.960)	584679	45.2824	1510
44 2,6-Dinitrotoluene	165	5.801	5.805	(0.969)	127837	42.8695	1430
45 Acenaphthylene	152	5.883	5.887	(0.983)	750816	41.7631	1390
48 2,4-Dinitrophenol	184	6.008	6.008	(1.004)	50286	53.4936	1780(Q)
49 Dibenzofuran	168	6.133	6.133	(1.025)	636987	42.3786	1410
51 Diethylphthalate	149	6.253	6.258	(1.045)	636534	48.1623	1600
53 Fluorene	166	6.393	6.393	(1.068)	562312	44.5860	1490
54 4-Chlorophenylphenylether	204	6.369	6.369	(1.064)	281702	44.9457	1500
55 2-Methyl-4,6-dinitrophenol	198	6.412	6.412	(0.898)	77985	46.1495	1540

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.393	6.393	(1.068)	122351	46.7655	1560
133 Diphenylamine	169	6.456	6.460	(0.904)	453406	40.7430	1360
58 1,2-Diphenylhydrazine	77	6.494	6.494	(0.909)	581372	41.5249	1380
61 4-Bromophenylphenylether	248	6.754	6.754	(0.945)	164502	42.3561	1410
63 Hexachlorobenzene	284	6.821	6.826	(0.955)	156846	41.5676	1380
68 Phenanthrene	178	7.168	7.168	(1.003)	820766	42.3521	1410
69 Anthracene	178	7.212	7.211	(1.009)	825418	42.0548	1400
72 Di-n-butylphthalate	149	7.568	7.568	(1.059)	1172383	47.4812	1580
76 Fluoranthene	202	8.203	8.203	(1.148)	943175	44.7609	1490
85 Butylbenzylphthalate	149	8.950	8.954	(0.937)	523002	43.4519	1450
89 Benzo(a)anthracene	228	9.533	9.537	(0.998)	784988	40.8698	1360
90 3,3'-Dichlorobenzidine	252	9.484	9.479	(0.993)	222613	39.8210	1330
92 Chrysene	228	9.571	9.571	(1.003)	741126	43.3625	1440
93 bis(2-Ethylhexyl)phthalate	149	9.475	9.475	(0.992)	704741	46.2287	1540
94 Di-n-octylphthalate	149	10.110	10.110	(0.906)	1046698	42.0228	1400
95 Benzo(b)fluoranthene	252	10.664	10.669	(0.956)	731111	42.0288	1400
96 Benzo(k)fluoranthene	252	10.698	10.702	(0.959)	690839	42.2578	1410
97 Benzo(a)pyrene	252	11.088	11.092	(0.994)	629891	44.1607	1470
99 Indeno(1,2,3-cd)pyrene	276	12.850	12.850	(1.151)	566773	55.2579	1840
100 Dibenzo(a,h)anthracene	278	12.865	12.864	(1.153)	458386	56.3939	1880
101 Benzo(ghi)perylene	276	13.365	13.365	(1.198)	465103	54.3733	1810
1 N-Methyl-N-nitrosomethylamine	74	2.391	2.382	(0.618)	104126	26.3013	877

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s032310.b/s7c2307-2.d
Date : 23-MAR-2010 12:27
Client ID: SBLK01LCS
Sample Info: 1120207253519658161 1|SVM11|LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

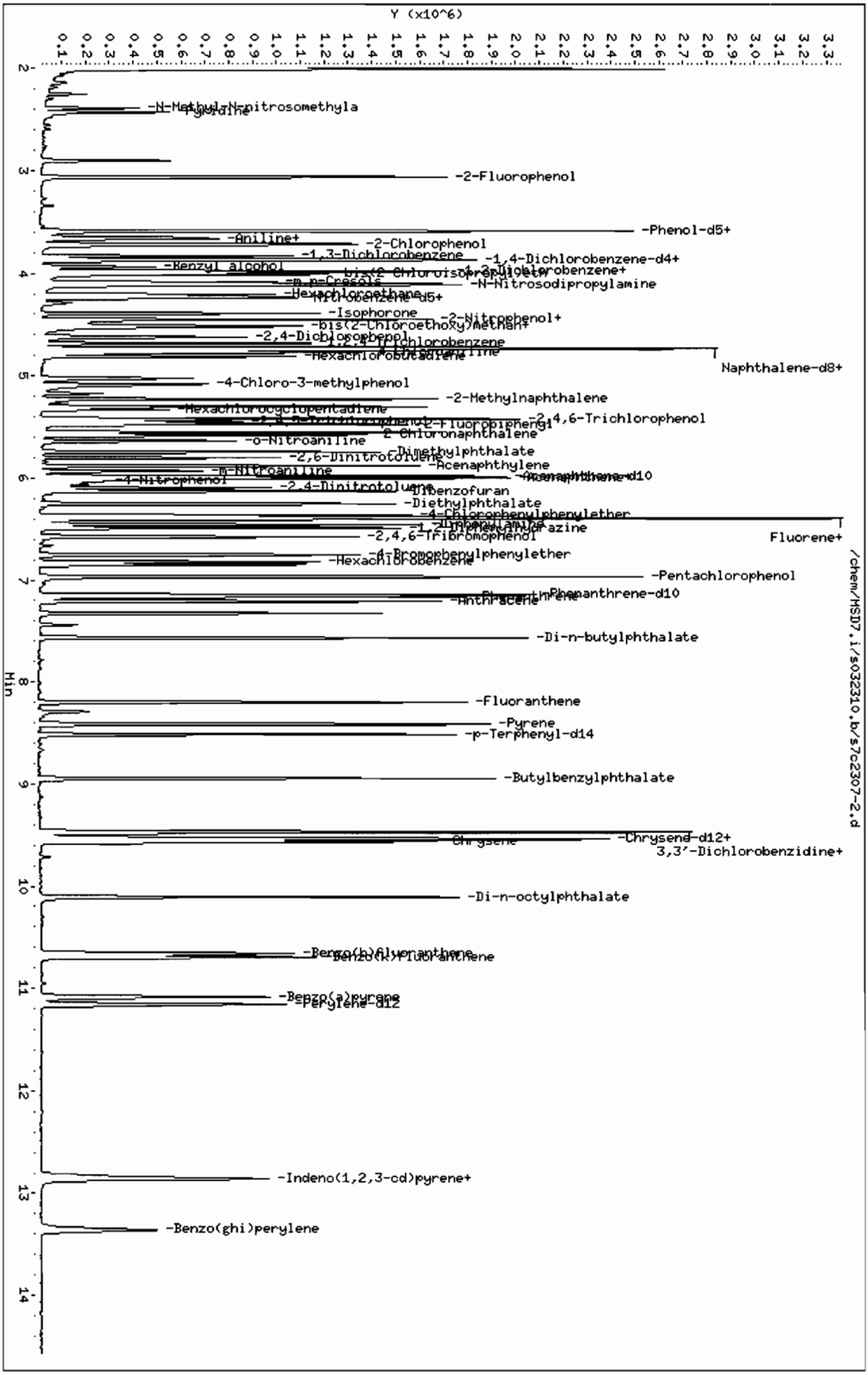

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 965812 **Verified by:** _____

Analyst: Alberto Velasco

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202072534 MB	16-MAR-2010 21:37:00	30	1	0.03333
1202072535 LCS	16-MAR-2010 21:37:00	30	1	0.03333
248815001	16-MAR-2010 21:37:00	30.01	1	0.03332
248815002	16-MAR-2010 21:37:00	30.08	1	0.03324
248815003	16-MAR-2010 21:37:00	30.18	1	0.03313
248815004	16-MAR-2010 21:37:00	30.1	1	0.03322
248815005	16-MAR-2010 21:37:00	30.04	1	0.03329
248815006	16-MAR-2010 21:37:00	30.05	1	0.03328
248815007	16-MAR-2010 21:37:00	30.07	1	0.03326
248815008	16-MAR-2010 21:37:00	30.13	1	0.03319
248815009	16-MAR-2010 21:37:00	30.17	1	0.03315
248815010	16-MAR-2010 21:37:00	30.17	1	0.03315
248815011	16-MAR-2010 21:37:00	30.08	1	0.03324
248824001	16-MAR-2010 21:37:00	30.16	1	0.03316
248824002	16-MAR-2010 21:37:00	30.17	1	0.03315
248865001	16-MAR-2010 21:37:00	30.02	1	0.03331
249057002	16-MAR-2010 21:37:00	30.02	1	0.03331
1202072536 MS (249057002)	16-MAR-2010 21:37:00	30.11	1	0.03321
1202072537 MSD (249057002)	16-MAR-2010 21:37:00	30.02	1	0.03331
249057003	16-MAR-2010 21:37:00	30.17	1	0.03315

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202072535	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
LCS	1202072535	BENZIDINE LCS	UE100310-23	1	mL
MS	1202072536	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MS	1202072536	BENZIDINE LCS	UE100310-23	1	mL
MSD	1202072537	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MSD	1202072537	BENZIDINE LCS	UE100310-23	1	mL
SURR	All	BNA for all Surrogate	UE100310-10	1	mL
REGNT	All	Acetone	1273823-B1	150	mL
REGNT	All	Methylene Chloride	1286042-D	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: AJS

Final Solvent: CH2Cl2

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
25-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
965816	See Below		

Potentially affected work order(s)(SDG): 248815(10-2298),248824(10-2305),248865(10-2318),249057(10-2350)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Yield for Surrogates

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. MS 1202072536 and MSD 1202072537 failed spike recovery limits. Please see the QC summary report for specific failures.	1,2. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.
2. The relative percent difference between MS 1202072536 and MSD 1202072537 failed acceptance limits for one or more target analytes. Please see the QC summary report for specific failures.	
3. Sample 248815003 failed surrogate recovery limits. Please see the QC summary report for specific failures.	3. Surrogate recoveries were not within the acceptance limit. The sample was re-extracted and confirmed the results. Matrix interference has been demonstrated. The initial results are reported.

Originator's Name:

Josh Brooks 26-MAR-10

Data Validator/Group Leader:

Cameron Bearden 29-MAR-10

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD7

DATE: 02/25/2010 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1965 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100217-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s022610.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s7b2601-D.d	WBN100207-01	JMB3	26-FEB-2010 10:23	DFTPP	s022610	1.0	DFTPP	8270d TUNE: MEGA
s7b2601.d	WBN100207-01	JMB3	26-FEB-2010 10:23	DFTPP	s022610	1.0	DFTPP	8270c TUNE: MEGA
s7b2602.d	INSTBLANK	JMB3	26-FEB-2010 10:35	IB	s022610	1.0	INSTBLANK	
s7b2603.d	WBN100225-08	JMB3	26-FEB-2010 11:07	ICAL	s022610	1.0	MEGA001	
s7b2604.d	WBN100225-07	JMB3	26-FEB-2010 11:31	ICAL	s022610	1.0	MEGA010	DUSE: see s7b2612
s7b2605.d	WBN100225-06	JMB3	26-FEB-2010 11:55	ICAL	s022610	1.0	MEGA020	DUSE: see s7b2613
s7b2606.d	WBN100225-05.1	JMB3	26-FEB-2010 12:19	ICAL	s022610	1.0	MEGA040	
s7b2607.d	WBN100225-04	JMB3	26-FEB-2010 12:43	ICAL	s022610	1.0	MEGA050	
s7b2608.d	WBN100225-03	JMB3	26-FEB-2010 13:07	ICAL	s022610	1.0	MEGA080	
s7b2609.d	WBN100225-02	JMB3	26-FEB-2010 13:32	ICAL	s022610	1.0	MEGA100	
s7b2610.d	WBN100225-01	JMB3	26-FEB-2010 13:56	ICAL	s022610	1.0	MEGA120	
s7b2611.d	INSTBLANK	JMB3	26-FEB-2010 14:19	IB	s022610	1.0	INSTBLANK	
s7b2612-D.d	WBN100225-07	JMB3	26-FEB-2010 14:44	ICAL	s022610	1.0	MEGA010	8270d
s7b2612.d	WBN100225-07	JMB3	26-FEB-2010 14:44	ICAL	s022610	1.0	MEGA010	
s7b2613-D.d	WBN100225-06	JMB3	26-FEB-2010 15:08	ICAL	s022610	1.0	MEGA020	8270d
s7b2613.d	WBN100225-06	JMB3	26-FEB-2010 15:08	ICAL	s022610	1.0	MEGA020	
s7b2614-625.d	WBN100225-09.1	JMB3	26-FEB-2010 15:33	ICV	s022610	1.0	MEGAICV	625 MEGA ICV
s7b2614-D.d	WBN100225-09.1	JMB3	26-FEB-2010 15:33	ICV	s022610	1.0	MEGAICV	8270d MEGA ICV
s7b2614.d	WBN100225-09.1	JMB3	26-FEB-2010 15:33	ICV	s022610	1.0	MEGAICV	8270c MEGA ICV

s7b2615-D.d	WBN100207-01	JMB3	26-FEB-2010 16:00	DFTPP	s022610	1.0	DFTPP	8270d TUNE: AP - PEST - NEV
s7b2615.d	WBN100207-01	JMB3	26-FEB-2010 16:00	DFTPP	s022610	1.0	DFTPP	8270c TUNE: AP - PEST - NEV
s7b2616.d	INSTBLANK	JMB3	26-FEB-2010 16:13	IB	s022610	1.0	INSTBLANK	
s7b2617-D.d	WBN100218-01	JMB3	26-FEB-2010 16:34	ICAL	s022610	1.0	AP010	8270d
s7b2617.d	WBN100218-01	JMB3	26-FEB-2010 16:34	ICAL	s022610	1.0	AP010	
s7b2618.d	WBN100218-02	JMB3	26-FEB-2010 16:56	ICAL	s022610	1.0	AP020	
s7b2619.d	WBN100218-03.1	JMB3	26-FEB-2010 17:17	ICAL	s022610	1.0	AP040	
s7b2620.d	WBN100218-04	JMB3	26-FEB-2010 17:39	ICAL	s022610	1.0	AP050	
s7b2621.d	WBN100218-05	JMB3	26-FEB-2010 18:00	ICAL	s022610	1.0	AP080	
s7b2622.d	WBN100218-06	JMB3	26-FEB-2010 18:22	ICAL	s022610	1.0	AP100	
s7b2623.d	WBN100218-07	JMB3	26-FEB-2010 18:43	ICAL	s022610	1.0	AP120	
s7b2624.d	WBN100205-25	JMB3	26-FEB-2010 19:05	ICAL	s022610	1.0	PEST010	
s7b2625.d	WBN100205-24	JMB3	26-FEB-2010 19:26	ICAL	s022610	1.0	PEST020	
s7b2626.d	WBN100205-23.1	JMB3	26-FEB-2010 19:48	ICAL	s022610	1.0	PEST040	
s7b2627.d	WBN100205-22	JMB3	26-FEB-2010 20:09	ICAL	s022610	1.0	PEST050	
s7b2628.d	WBN100205-21	JMB3	26-FEB-2010 20:31	ICAL	s022610	1.0	PEST080	
s7b2629.d	WBN100205-20	JMB3	26-FEB-2010 20:52	ICAL	s022610	1.0	PEST100	
s7b2630.d	WBN100205-19	JMB3	26-FEB-2010 21:14	ICAL	s022610	1.0	PEST120	
s7b2631.d	UBN100127-01	JMB3	26-FEB-2010 21:36	ICAL	s022610	1.0	NEV010	
s7b2632.d	UBN100127-02	JMB3	26-FEB-2010 21:58	ICAL	s022610	1.0	NEV020	
s7b2633.d	UBN100127-03	JMB3	26-FEB-2010 22:19	ICAL	s022610	1.0	NEV040	
s7b2634.d	UBN100127-04	JMB3	26-FEB-2010 22:40	ICAL	s022610	1.0	NEV050	
s7b2635.d	UBN100127-05	JMB3	26-FEB-2010 23:02	ICAL	s022610	1.0	NEV080	
s7b2636.d	UBN100127-06	JMB3	26-FEB-2010 23:24	ICAL	s022610	1.0	NEV100	
s7b2637.d	UBN100127-07	JMB3	26-FEB-2010 23:46	ICAL	s022610	1.0	NEV120	
s7b2638-625.d	WBN100218-08.1	JMB3	27-FEB-2010 00:07	ICV	s022610	1.0	APICV	625 AP ICV
s7b2638-D.d	WBN100218-08.1	JMB3	27-FEB-2010 00:07	ICV	s022610	1.0	APICV	8270d AP ICV

s7b2638.d	WBN100218-08.1	JMB3	27-FEB-2010 00:07	ICV	s022610	1.0	APICV	8270d AP ICV
s7b2639-625.d	WBN100205-26.1	JMB3	27-FEB-2010 00:29	ICV	s022610	1.0	PESTICV	625 PEST ICV
s7b2639-D.d	WBN100205-26.1	JMB3	27-FEB-2010 00:29	ICV	s022610	1.0	PESTICV	8270d PEST ICV
s7b2639.d	WBN100205-26.1	JMB3	27-FEB-2010 00:29	ICV	s022610	1.0	PESTICV	8270c PEST ICV
s7b2640-625.d	WBN100225-05.2	JMB3	27-FEB-2010 00:50	CVS	s022610	1.0	MEGACVS	DUSE: 625 MEGA CVS - fails some analytes >20%
s7b2641-625.d	WBN100218-03.1	JMB3	27-FEB-2010 01:15	CVS	s022610	1.0	APCVS	DUSE: 625 AP CVS
s7b2642-625.d	WBN100225-05.1	JMB3	27-FEB-2010 08:38	CVS	s022610	1.0	MEGACVS	DUSE: 625 MEGA CVS - fails some analytes >20%

Instrument Batch: /chem/MSD7.i/s022610.b

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD7

DATE: 03/26/2010 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 2000 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100319-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s032310.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s7c2301.d	WBN100306-01.2	JMB3	23-MAR-2010 10:27	DFTPP	s032310	1.0	DFTPP	DUSE
s7c2302.d	WBN100309-05.2	JMB3	23-MAR-2010 10:41	CVS	s032310	1.0	MEGACVS	DUSE
s7c2303.d	WBN100306-01.2	JMB3	23-MAR-2010 11:08	DFTPP	s032310	1.0	DFTPP	8270c TUNE: PASSES
s7c2304.d	WBN100309-05.2	JMB3	23-MAR-2010 11:20	CVS	s032310	1.0	MEGACVS	8270c MEGA CVS (IS1: 202889)
s7c2305.d	WBN100312-03.3	JMB3	23-MAR-2010 11:44	CVS	s032310	1.0	APCVS	8270c AP CVS
s7c2306-1.d	1202072534	JMB3	23-MAR-2010 12:05	965816	10-2298	1.0	MB	
s7c2306-2.d	1202072534	JMB3	23-MAR-2010 12:05	965816	10-2305	1.0	MB	
s7c2306-3.d	1202072534	JMB3	23-MAR-2010 12:05	965816	10-2318	1.0	MB	
s7c2306.d	1202072534	JMB3	23-MAR-2010 12:05	965816	10-2350	1.0	MB	
s7c2307-1.d	1202072535	JMB3	23-MAR-2010 12:27	965816	10-2298	1.0	LCS	
s7c2307-2.d	1202072535	JMB3	23-MAR-2010 12:27	965816	10-2305	1.0	LCS	
s7c2307-3.d	1202072535	JMB3	23-MAR-2010 12:27	965816	10-2318	1.0	LCS	
s7c2307.d	1202072535	JMB3	23-MAR-2010 12:27	965816	10-2350	1.0	LCS	
s7c2308.d	248815003	JMB3	23-MAR-2010 12:48	965816	10-2298	1.0	LANL	REPORT: fails surr - rx s5c2525 confirms failure
s7c2309.d	248815004	JMB3	23-MAR-2010 13:10	965816	10-2298	1.0	LANL	
s7c2310.d	248815008	JMB3	23-MAR-2010 13:32	965816	10-2298	1.0	LANL	
s7c2311.d	248824001	JMB3	23-MAR-2010 13:54	965816	10-2305	1.0	LANL	
s7c2312.d	248824002	JMB3	23-MAR-2010 14:15	965816	10-2305	1.0	LANL	
s7c2313.d	248865001	JMB3	23-MAR-2010 14:37	965816	10-2318	1.0	LANL	

s7c2314.d	248815003	JMB3	23-MAR-2010 14:59	965816	10-2298	1.0	LANL	DUSE: rerun of s7c2308 - still fails surr
s7c2315.d	248689009	JMB3	23-MAR-2010 15:20	965401	10-2261	5.0	LANL	REPORT: diluted analysis of s7c2221 for OR hits
s7c2316.d	248689012	JMB3	23-MAR-2010 15:42	965401	10-2261	1.0	LANL	
s7c2317.d	248815001	JMB3	23-MAR-2010 16:03	965816	10-2298	1.0	LANL	
s7c2318.d	249057002	JMB3	23-MAR-2010 16:25	965816	10-2350	1.0	LANL	
s7c2319.d	1202072536	JMB3	23-MAR-2010 16:47	965816	10-2350	1.0	MS_LANL	
s7c2320.d	1202072537	JMB3	23-MAR-2010 17:09	965816	10-2350	1.0	MSD_LANL	
s7c2321.d	248815002	JMB3	23-MAR-2010 17:30	965816	10-2298	1.0	LANL	
s7c2322.d	248815005	JMB3	23-MAR-2010 17:52	965816	10-2298	1.0	LANL	
s7c2323.d	248815006	JMB3	23-MAR-2010 18:13	965816	10-2298	1.0	LANL	
s7c2324.d	248815007	JMB3	23-MAR-2010 18:35	965816	10-2298	10.0	LANL	
s7c2325.d	248815009	JMB3	23-MAR-2010 18:56	965816	10-2298	1.0	LANL	
s7c2326.d	248815010	JMB3	23-MAR-2010 19:18	965816	10-2298	1.0	LANL	
s7c2327.d	248815011	JMB3	23-MAR-2010 19:39	965816	10-2298	1.0	LANL	
s7c2328.d	249057003	JMB3	23-MAR-2010 20:01	965816	10-2350	1.0	LANL	REPORT: all except OR hits - see s7c2416 for 10x analysis
s7c2329.d	248815006	JMB3	23-MAR-2010 20:23	965816	10-2298	1.0	LANL	DUSE: see s7c2323
s7c2330.d	248815007	JMB3	23-MAR-2010 20:45	965816	10-2298	10.0	LANL	DUSE: see s7c2324
s7c2331.d	248815009	JMB3	23-MAR-2010 21:06	965816	10-2298	1.0	LANL	DUSE: see s7c2325
s7c2332.d	248815010	JMB3	23-MAR-2010 21:28	965816	10-2298	1.0	LANL	DUSE: see s7c2326
s7c2333.d	248815011	JMB3	23-MAR-2010 21:50	965816	10-2298	1.0	LANL	DUSE: see s7c2327
s7c2334.d	249057003	JMB3	23-MAR-2010 22:12	965816	10-2350	1.0	LANL	DUSE: see s7c2328

Instrument Batch: /chem/MSD7.i/s032310.b

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Data file : /chem/MSD7.i/s032310.b/s7c2319.d
Lab Smp Id: 1202072536 Client Smp ID: RE16-10-2787MS
Inj Date : 23-MAR-2010 16:47
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202072536|965816|1|SVM|1|MS_LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 llo00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 17 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2350.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.11000	weight of sample
M	15.90390	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	225132	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	905141	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	494000	40.0000	
* 67 Phenanthrene-d10	188	7.149	7.149	(1.000)	943093	40.0000	
* 91 Chrysene-d12	240	9.552	9.552	(1.000)	746222	40.0000	
* 98 Perylene-d12	264	11.170	11.165	(1.000)	451209	40.0000	
$ 3 2-Fluorophenol	112	3.070	3.061	(0.793)	232082	39.6606	1570
$ 5 Phenol-d5	99	3.590	3.590	(0.928)	322788	43.9959	1740
$ 20 Nitrobenzene-d5	82	4.231	4.235	(0.894)	160651	23.5322	929
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	368331	29.9181	1180
$ 60 2,4,6-Tribromophenol	329	6.581	6.576	(1.100)	111202	77.8677	3080
$ 81 p-Terphenyl-d14	244	8.521	8.521	(0.892)	484225	36.2207	1430

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.600	3.595	(0.930)	162046	22.2341	878
8 2-Chlorophenol	128	3.735	3.735	(0.965)	134712	24.1531	954
11 1,4-Dichlorobenzene	146	3.879	3.884	(1.002)	143036	21.2770	840
17 N-Nitrosodipropylamine	70	4.106	4.115	(1.061)	96753	23.3363	922(Q)
28 1,2,4-Trichlorobenzene	180	4.683	4.683	(0.990)	144551	24.8151	980
33 4-Chloro-3-methylphenol	107	5.093	5.078	(1.076)	176352	34.1854	1350
47 Acenaphthene	154	6.008	6.012	(1.004)	485486	44.6502	1760
50 2,4-Dinitrotoluene	165	6.099	6.104	(1.019)	137188	34.3249	1360
52 4-Nitrophenol	139	6.051	6.027	(1.011)	59420	29.5595	1170
65 Pentachlorophenol	266	6.980	6.975	(0.976)	66225	37.1415	1470
79 Pyrene	202	8.425	8.420	(0.882)	2290170	97.1463	3840(R)
2 Pyridine	79	2.425	2.415	(0.627)	78053	14.3761	568
4 Aniline	66	3.653	3.658	(0.944)	73724	21.0654	832(Q)
7 bis(2-Chloroethyl) ether	63	3.672	3.672	(0.949)	108984	18.2630	721(Q)
9 1,3-Dichlorobenzene	146	3.836	3.836	(0.991)	139326	19.8867	785
13 1,2-Dichlorobenzene	146	3.985	3.985	(1.030)	140399	22.7039	897
14 bis(2-Chloroisopropyl)ether	45	4.014	4.014	(1.037)	290709	21.0291	830
15 o-Cresol	107	3.990	3.990	(1.031)	126185	28.2612	1120
18 m,p-Cresols	107	4.086	4.091	(1.056)	169277	28.0588	1110
19 Hexachloroethane	117	4.212	4.211	(1.088)	51165	19.6012	774
21 Nitrobenzene	77	4.245	4.245	(0.897)	160874	25.4028	1000
22 Isophorone	82	4.394	4.399	(0.929)	290895	23.7740	939
23 2-Nitrophenol	139	4.457	4.457	(0.942)	69575	23.3947	924
24 2,4-Dimethylphenol	122	4.452	4.452	(0.941)	127213	21.1632	836
25 bis(2-Chloroethoxy)methane	93	4.520	4.520	(0.955)	155291	23.1967	916
26 2,4-Dichlorophenol	162	4.626	4.621	(0.978)	144810	30.1488	1190
27 Benzoic acid	105	4.515	4.515	(0.954)	160844	58.8284	2320
30 Naphthalene	128	4.746	4.751	(1.003)	561749	32.8541	1300
31 4-Chloroaniline	127	4.765	4.765	(1.007)	202135	25.2460	997
32 Hexachlorobutadiene	225	4.813	4.813	(1.017)	77714	25.5642	1010
34 2-Methylnaphthalene	142	5.228	5.227	(1.105)	385392	31.4059	1240
36 Hexachlorocyclopentadiene	237	5.333	5.333	(0.891)	21670	9.07377	358(aR)
37 2,4,6-Trichlorophenol	196	5.420	5.420	(0.906)	119577	34.5012	1360
38 2,4,5-Trichlorophenol	196	5.454	5.444	(0.911)	150019	43.0381	1700
40 2-Chloronaphthalene	162	5.584	5.584	(0.933)	321771	28.1414	1110
42 o-Nitroaniline	65	5.642	5.642	(0.943)	122576	30.2803	1200
41 m-Nitroaniline	138	5.935	5.935	(0.992)	77535	26.2444	1040
43 Dimethylphthalate	163	5.748	5.752	(0.961)	478878	36.4798	1440
44 2,6-Dinitrotoluene	165	5.805	5.805	(0.970)	104154	34.3545	1360
45 Acenaphthylene	152	5.882	5.887	(0.983)	600283	32.8422	1300
48 2,4-Dinitrophenol	184	6.012	6.008	(1.005)	12362	23.8151	940(Q)
49 Dibenzofuran	168	6.133	6.133	(1.025)	617147	40.3851	1590
51 Diethylphthalate	149	6.253	6.258	(1.045)	534667	39.7910	1570
53 Fluorene	166	6.393	6.393	(1.068)	637786	49.7408	1960
54 4-Chlorophenylphenylether	204	6.369	6.369	(1.064)	229461	36.0100	1420
55 2-Methyl-4,6-dinitrophenol	198	6.412	6.412	(0.897)	22523	19.1400	756(Q)
56 p-Nitroaniline	138	6.393	6.393	(1.068)	99804	37.5217	1480

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.455	6.460	(0.903)	395871	35.6222	1410
58 1,2-Diphenylhydrazine	77	6.494	6.494	(0.908)	495911	35.4699	1400
61 4-Bromophenylphenylether	248	6.754	6.754	(0.945)	142352	36.7037	1450
63 Hexachlorobenzene	284	6.826	6.826	(0.955)	128834	34.1911	1350
68 Phenanthrene	178	7.173	7.168	(1.003)	2338618	120.842	4770(AR)
69 Anthracene	178	7.211	7.211	(1.009)	1101894	56.2190	2220
72 Di-n-butylphthalate	149	7.573	7.568	(1.059)	972086	39.4238	1560
76 Fluoranthene	202	8.208	8.203	(1.148)	2438945	115.907	4580(R)
85 Butylbenzylphthalate	149	8.955	8.954	(0.937)	403963	36.0346	1420
89 Benzo(a)anthracene	228	9.542	9.537	(0.999)	1245751	69.6375	2750(R)
90 3,3'-Dichlorobenzidine	252	9.489	9.479	(0.993)	165841	31.8513	1260
92 Chrysene	228	9.576	9.571	(1.003)	1081264	67.9245	2680(R)
93 bis(2-Ethylhexyl)phthalate	149	9.475	9.475	(0.992)	559679	39.4179	1560
94 Di-n-octylphthalate	149	10.115	10.110	(0.906)	711517	39.2703	1550
95 Benzo(b)fluoranthene	252	10.678	10.669	(0.956)	866808	68.5018	2700(R)
96 Benzo(k)fluoranthene	252	10.707	10.702	(0.959)	727609	61.1848	2420(R)
97 Benzo(a)pyrene	252	11.102	11.092	(0.994)	722438	69.6284	2750(R)
99 Indeno(1,2,3-cd)pyrene	276	12.889	12.850	(1.154)	483535	64.8080	2560(R)
100 Dibenzo(a,h)anthracene	278	12.903	12.864	(1.155)	296459	50.1396	1980
101 Benzo(ghi)perylene	276	13.423	13.365	(1.202)	396740	63.7615	2520(R)
1 N-Methyl-N-nitrosomethylamine	74	2.386	2.382	(0.617)	56576	14.3599	567

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD7.i/s032310.b/s7c2319.d
Date : 23-MAR-2010 16:47
Client ID: RE16-10-2787MS
Sample Info: 1120207253619658161 1|SVMI1|MS_LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

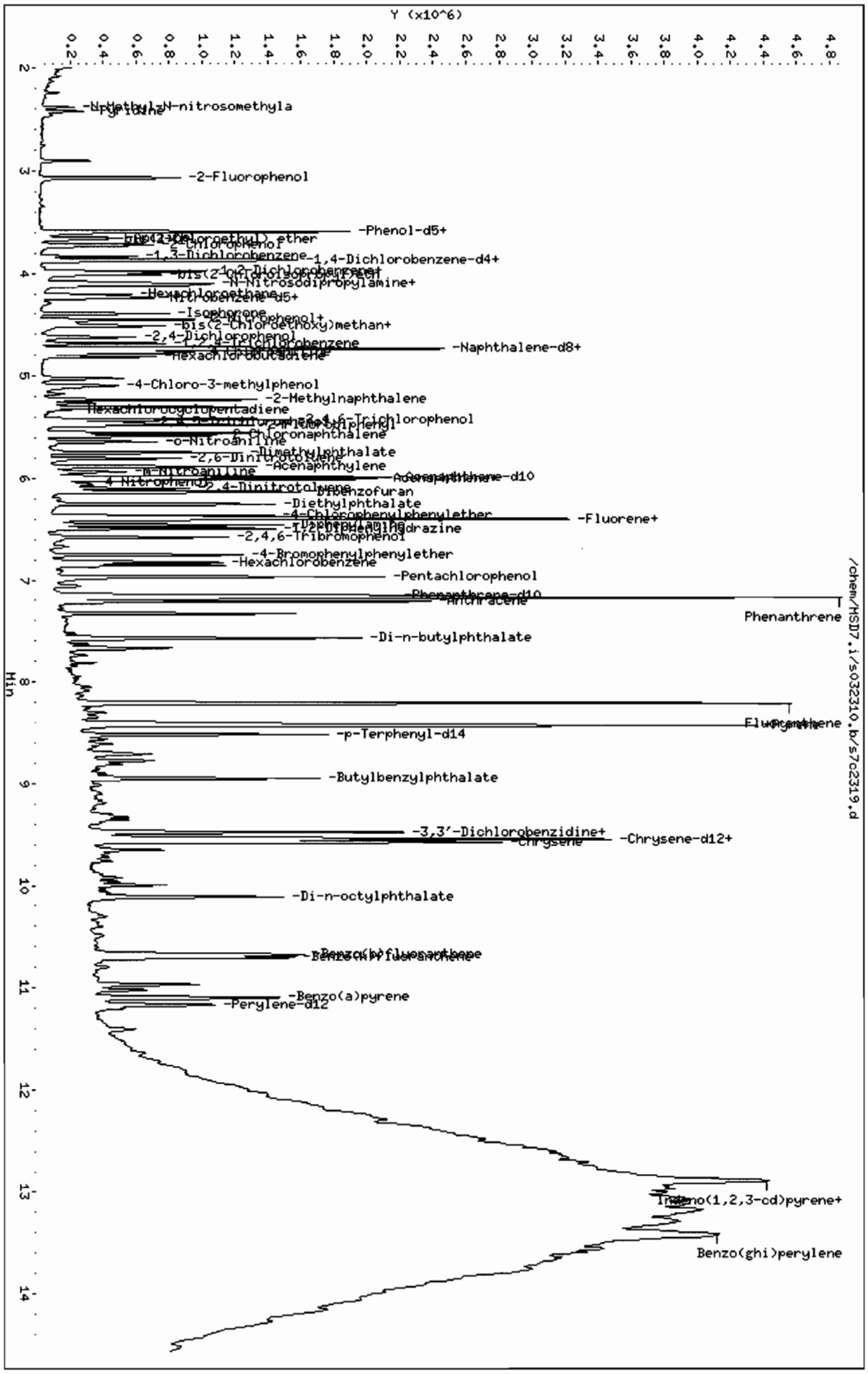

Page 1

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GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2320.d
Lab Smp Id: 1202072537 Client Smp ID: RE16-10-2787MSD
Inj Date : 23-MAR-2010 17:09
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202072537|965816|1|SVM|1|MSD_LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 llo00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 18 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2350.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	15.90390	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	253745	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	1011308	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	550848	40.0000	
* 67 Phenanthrene-d10	188	7.149	7.149	(1.000)	1032560	40.0000	
* 91 Chrysene-d12	240	9.552	9.552	(1.000)	759960	40.0000	
* 98 Perylene-d12	264	11.170	11.165	(1.000)	412409	40.0000	
$ 3 2-Fluorophenol	112	3.070	3.061	(0.793)	259112	39.2866	1560
$ 5 Phenol-d5	99	3.590	3.590	(0.928)	336706	40.7179	1610
$ 20 Nitrobenzene-d5	82	4.231	4.235	(0.894)	171524	22.4873	891
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	358741	26.1320	1040
$ 60 2,4,6-Tribromophenol	329	6.581	6.576	(1.100)	100754	63.2706	2510
$ 81 p-Terphenyl-d14	244	8.521	8.521	(0.892)	449265	32.9982	1310

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.600	3.595	(0.930)	168375	20.4974	812
8 2-Chlorophenol	128	3.735	3.735	(0.965)	149865	23.8400	944
11 1,4-Dichlorobenzene	146	3.879	3.884	(1.002)	155874	20.5721	815
17 N-Nitrosodipropylamine	70	4.106	4.115	(1.061)	103667	22.1844	879(Q)
28 1,2,4-Trichlorobenzene	180	4.683	4.683	(0.990)	150657	23.1482	917
33 4-Chloro-3-methylphenol	107	5.093	5.078	(1.076)	170149	29.5204	1170
47 Acenaphthene	154	6.008	6.012	(1.004)	469464	38.7208	1530
50 2,4-Dinitrotoluene	165	6.099	6.104	(1.019)	136640	30.6596	1210
52 4-Nitrophenol	139	6.051	6.027	(1.011)	59381	26.4916	1050
65 Pentachlorophenol	266	6.980	6.975	(0.976)	63346	32.4486	1280
79 Pyrene	202	8.425	8.420	(0.882)	2211712	92.1223	3650(R)
2 Pyridine	79	2.430	2.415	(0.628)	84149	13.7512	545
4 Aniline	66	3.653	3.658	(0.944)	69084	17.5137	694(Q)
7 bis(2-Chloroethyl) ether	63	3.672	3.672	(0.949)	116944	17.3871	689(Q)
9 1,3-Dichlorobenzene	146	3.836	3.836	(0.991)	154790	19.6026	776
13 1,2-Dichlorobenzene	146	3.985	3.985	(1.030)	150934	21.6552	858
14 bis(2-Chloroisopropyl)ether	45	4.014	4.014	(1.037)	310606	19.9348	790
15 o-Cresol	107	3.990	3.990	(1.031)	142152	28.2472	1120
18 m,p-Cresols	107	4.091	4.091	(1.057)	208365	30.6433	1210
19 Hexachloroethane	117	4.211	4.211	(1.088)	55795	18.9646	751
21 Nitrobenzene	77	4.245	4.245	(0.897)	167734	23.7055	939
22 Isophorone	82	4.394	4.399	(0.929)	302274	22.1106	876
23 2-Nitrophenol	139	4.457	4.457	(0.942)	75475	22.7143	900
24 2,4-Dimethylphenol	122	4.452	4.452	(0.941)	126667	18.3154	725
25 bis(2-Chloroethoxy)methane	93	4.520	4.520	(0.955)	161967	21.6541	858
26 2,4-Dichlorophenol	162	4.621	4.621	(0.977)	146159	27.2352	1080
27 Benzoic acid	105	4.515	4.515	(0.954)	150845	49.3794	1960
30 Naphthalene	128	4.751	4.751	(1.004)	582078	30.4693	1210
31 4-Chloroaniline	127	4.765	4.765	(1.007)	129758	14.5050	574
32 Hexachlorobutadiene	225	4.813	4.813	(1.017)	83748	24.6570	977
34 2-Methylnaphthalene	142	5.228	5.227	(1.105)	396901	28.9483	1150
36 Hexachlorocyclopentadiene	237	5.333	5.333	(0.891)	20102	7.54855	299(aR)
37 2,4,6-Trichlorophenol	196	5.420	5.420	(0.906)	116492	30.1424	1190
38 2,4,5-Trichlorophenol	196	5.454	5.444	(0.911)	146960	37.8095	1500
40 2-Chloronaphthalene	162	5.584	5.584	(0.933)	322686	25.3089	1000
42 o-Nitroaniline	65	5.642	5.642	(0.943)	117793	26.0957	1030
41 m-Nitroaniline	138	5.935	5.935	(0.992)	66607	20.2187	801
43 Dimethylphthalate	163	5.748	5.752	(0.961)	467733	31.9537	1260
44 2,6-Dinitrotoluene	165	5.805	5.805	(0.970)	101443	30.0072	1190
45 Acenaphthylene	152	5.882	5.887	(0.983)	595164	29.2017	1160
48 2,4-Dinitrophenol	184	6.012	6.008	(1.005)	10505	21.5632	854(Q)
49 Dibenzofuran	168	6.133	6.133	(1.025)	614063	36.0364	1430
51 Diethylphthalate	149	6.253	6.258	(1.045)	515638	34.4145	1360
53 Fluorene	166	6.393	6.393	(1.068)	626903	43.8463	1740
54 4-Chlorophenylphenylether	204	6.369	6.369	(1.064)	226116	31.8230	1260
55 2-Methyl-4,6-dinitrophenol	198	6.412	6.412	(0.897)	20099	17.1075	678(Q)
56 p-Nitroaniline	138	6.393	6.393	(1.068)	97850	32.9906	1310

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133	Diphenylamine	169	6.460	6.460	(0.904)	382461	31.4336	1240
58	1,2-Diphenylhydrazine	77	6.494	6.494	(0.908)	478968	31.2897	1240
61	4-Bromophenylphenylether	248	6.754	6.754	(0.945)	132997	31.3204	1240
63	Hexachlorobenzene	284	6.826	6.826	(0.955)	122110	29.5987	1170
68	Phenanthrene	178	7.173	7.168	(1.003)	2296239	108.371	4290(R)
69	Anthracene	178	7.211	7.211	(1.009)	1086771	50.6431	2010
72	Di-n-butylphthalate	149	7.573	7.568	(1.059)	897846	33.2579	1320
76	Fluoranthene	202	8.208	8.203	(1.148)	2390232	103.750	4110(R)
85	Butylbenzylphthalate	149	8.955	8.954	(0.937)	374241	32.7799	1300
89	Benzo(a)anthracene	228	9.542	9.537	(0.999)	1107735	60.8030	2410(R)
90	3,3'-Dichlorobenzidine	252	9.489	9.479	(0.993)	135081	25.4746	1010
92	Chrysene	228	9.581	9.571	(1.003)	982772	60.6212	2400(R)
93	bis(2-Ethylhexyl)phthalate	149	9.475	9.475	(0.992)	511111	35.3466	1400
94	Di-n-octylphthalate	149	10.115	10.110	(0.906)	601814	36.3405	1440
95	Benzo(b)fluoranthene	252	10.678	10.669	(0.956)	734778	63.5309	2520(R)
96	Benzo(k)fluoranthene	252	10.707	10.702	(0.959)	568066	52.2630	2070
97	Benzo(a)pyrene	252	11.097	11.092	(0.994)	572698	60.3894	2390(R)
99	Indeno(1,2,3-cd)pyrene	276	12.884	12.850	(1.153)	372724	54.6560	2160
100	Dibenzo(a,h)anthracene	278	12.903	12.864	(1.155)	236851	43.8269	1740
101	Benzo(ghi)perylene	276	13.428	13.365	(1.202)	302116	53.1221	2100
1	N-Methyl-N-nitrosomethylamine	74	2.391	2.382	(0.618)	62569	14.0902	558

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD7.i/s032310.b/s7c2320.d
Date : 23-MAR-2010 17:09
Client ID: RE16-10-2787MSD
Sample Info: |1202072537|965816|1|SVM|1|MSD_LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

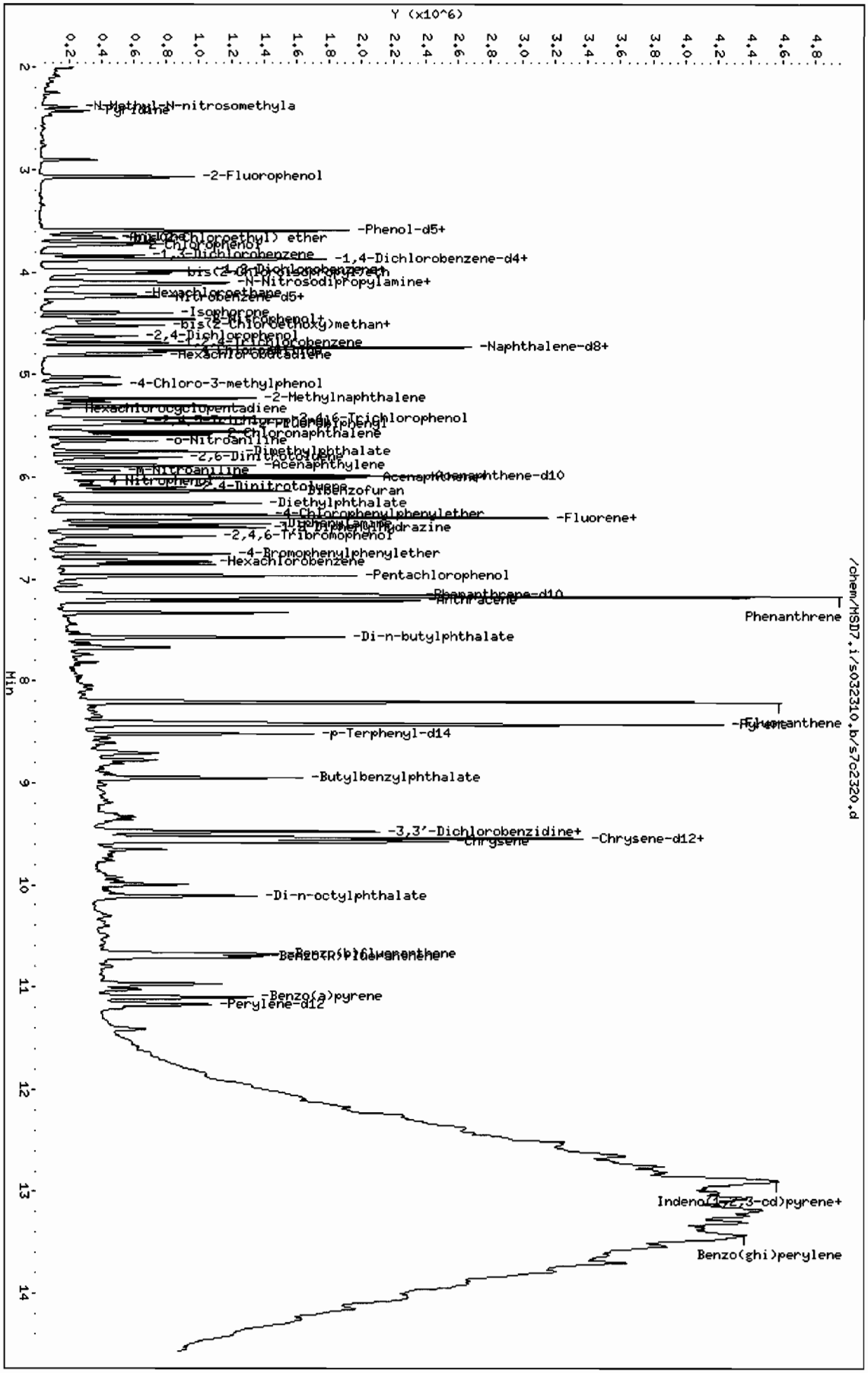

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2305

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	964119
Prep Batch Number:	964118

Sample Analysis

Sample ID	Client ID
248824001	RE46-10-11926
248824002	RE46-10-11925
1202068346	Interference Check Sample (ICS)
1202068342	Method Blank (MB)
1202068343	Laboratory Control Sample (LCS)
1202068344	248793001(RE16-10-3792) Matrix Spike (MS)
1202068345	248793001(RE16-10-3792) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

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CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 248793001 (RE16-10-3792) from SDG 10-2287-1 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

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Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
In the initial analysis of the 1202068346 (ICS), the recoveries of Perchlorate and Perchlorate-101 were just outside the acceptance range of 70-130%. It was re-analyzed and passed acceptance criteria. The re-analysis is reported.

Sample 248824002 (RE46-10-11925) required re-analysis due to bracketing CCV failure. The re-analysis passed acceptance criteria and is reported.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert K Maus **Date:** 03/31/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-11926

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2305

GEL Sample ID: 248824001

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 98.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.509	2.04	0.509	ug/kg	U	1	27-MAR-10 05:41	per0326069a
	Perchlorate Isotope Ratio						1	27-MAR-10 05:41	per0326069a
14797-73-0	Perchlorate-101	.509	2.04	0.509	ug/kg	U	1	27-MAR-10 05:41	per0326069a
	Perchlorate-O(18)			4.56	ug/kg		1	27-MAR-10 05:41	per0326069a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-11925

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2305

GEL Sample ID: 248824002

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 98.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.508	2.03	0.508	ug/kg	U	1	27-MAR-10 15:41	per0327014a
	Perchlorate Isotope Ratio						1	27-MAR-10 15:41	per0327014a
14797-73-0	Perchlorate-101	.508	2.03	0.508	ug/kg	U	1	27-MAR-10 15:41	per0327014a
	Perchlorate-O(18)			4.95	ug/kg		1	27-MAR-10 15:41	per0327014a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2305

Extract Batch Code: 964118

Date Filtered: 18–MAR–10

Matrix: SOIL

Sample ID: 1202068343

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.77	ug/kg	88.3		70 – 130
Perchlorate Isotope Ratio		3.29				–
Perchlorate–101	2.00	1.85	ug/kg	92.3		70 – 130
Perchlorate–O(18)		4.38	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2305

Extract Batch Code: 964118

Date Filtered: 18–MAR–10

Matrix: SOIL

Sample ID: 1202068346

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.35	ug/kg	118		70 – 130
Perchlorate Isotope Ratio		3.55				
Perchlorate–101	2.00	2.11	ug/kg	105		70 – 130
Perchlorate–O(18)		5.14	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327013a
Date: 27-Mar-2010
Time: 15:31:45
ID: 1202068346
Vial: 1:3,B

|LANL|964119|50120|215|1|2A

CW 03-28-10

Perchlorate

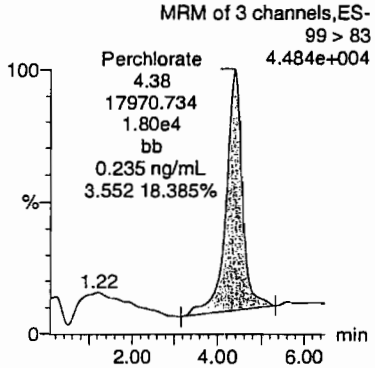

Perchlorate

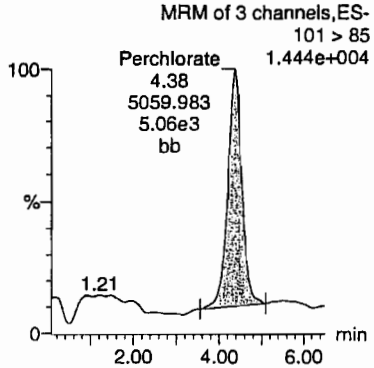

Perchlorate-101

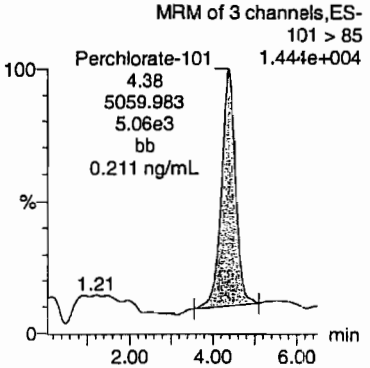

Perchlorate-O(18)

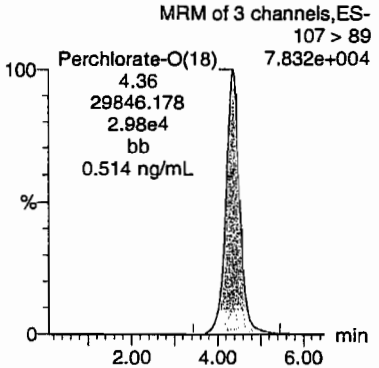

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068346	Perchlorate	99 > 83	4.38	17970.734	17970.734	bb			0.2354	117.69	17.69	249.370	3.55
1202068346	Perchlorate-101	101 > 85	4.38	5059.983	5059.983	bb			0.2109	105.45	5.45	152.487	
1202068346	Perchlorate-O(18)	107 > 89	4.36	29846.178	29846.178	bb			0.5141	102.83	2.83	3414.5...	

MM 3/29/10

$$\frac{17970.734}{76347.5} = 0.2354$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–2305

Extract Batch Code: 964118

Date Extracted: 18–MAR–10

GEL MS/PS ID: 1202068344

Client ID: RE16–10–3792

GEL MSD/PSD ID: 1202068345

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.09	0.00	ug/kg	1.73	82.9	1.87	89.8	8	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.04		3.44		0		–
Perchlorate–101	2.09	0.00	ug/kg	1.96	93.8	1.87	89.8	4.31	30	75 – 125
Perchlorate–O(18)	0	4.62	ug/kg	4.73		4.52		4.5		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2305

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	26–MAR–10	per0326001a	IPB001
Perchlorate–101	0.00	0	NA	26–MAR–10	per0326001a	IPB001
Perchlorate	0.00	0	NA	26–MAR–10	per0326002a	IPB001
Perchlorate–101	0.00	0	NA	26–MAR–10	per0326002a	IPB001
Perchlorate	0.00	0	NA	27–MAR–10	per0327001a	IPB001
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327001a	IPB001
Perchlorate	0.00	0	NA	27–MAR–10	per0327002a	IPB001
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327002a	IPB001

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032610a.mdb 27 Mar 2010 09:40:09
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032610a.cdb 27 Mar 2010 09:40:32

Name: per0326001a
Date: 26-Mar-2010
Time: 18:12:50
ID: IPB001
Vial: 1:1,A

aw
03-27-10

Perchlorate

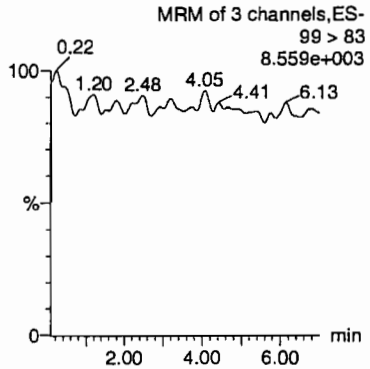

Perchlorate

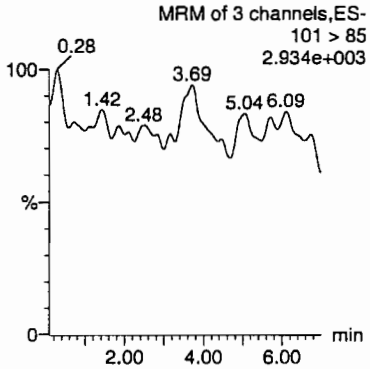

Perchlorate-101

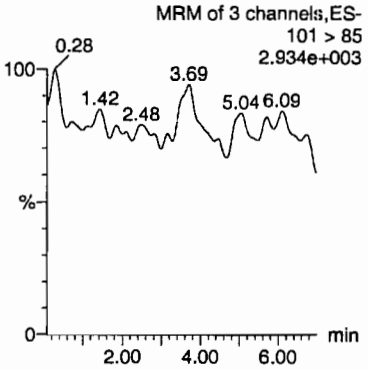

Perchlorate-O(18)

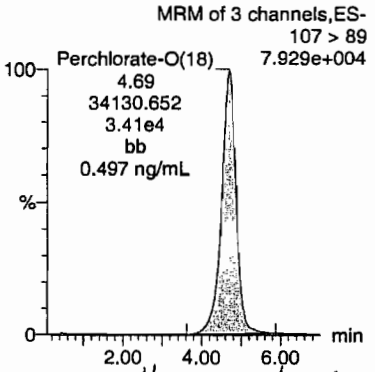

Hnm 03/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
PB001	Perchlorate-101	101 > 85											
PB001	Perchlorate-O(18)	107 > 89	4.69	34130.652	34130.652	bb			0.4965	99.30	-0.70	2414.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantity Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326002a
Date: 26-Mar-2010
Time: 18:23:00
ID: IPB001
Vial: 1:1,A

GWO 03-27-10

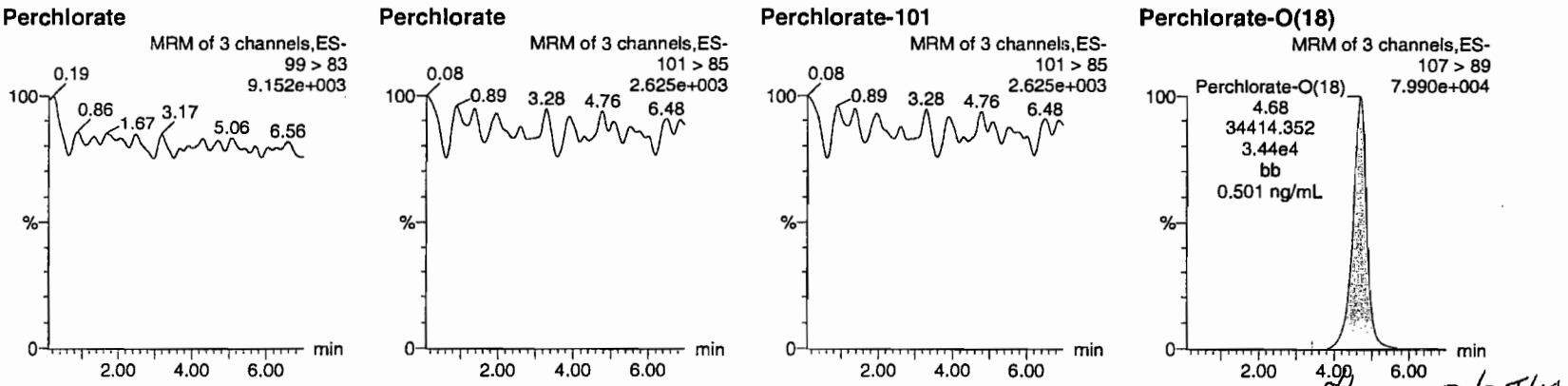

Anne 03/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
PB001	Perchlorate-101	101 > 85											
PB001	Perchlorate-O(18)	107 > 89	4.68	34414.352	34414.352	bb			0.5006	100.13	0.13	1995.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032710a.mdb 28 Mar 2010 10:15:37
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032710a.cdb 28 Mar 2010 10:33:56

Name: per0327001a
Date: 27-Mar-2010
Time: 13:35:19
ID: IPB001
Vial: 1:1,A

CWW 03-28-10

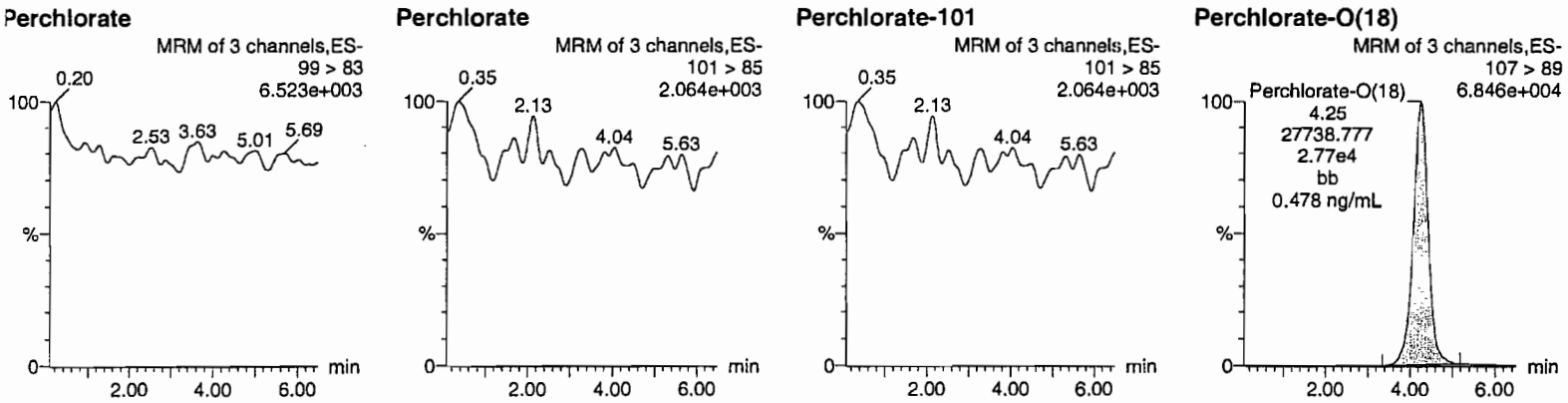

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	4.25	27738.777	27738.777	bb			0.4778	95.57	-4.43	3497.0...	

MATT 3/28/10

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327002a
Date: 27-Mar-2010
Time: 13:44:59
ID: IPB001
Vial: 1:1,A

CWW
03-28-10

Perchlorate

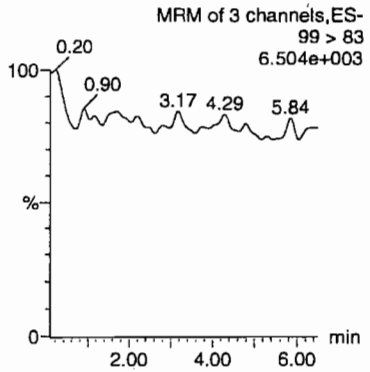

Perchlorate

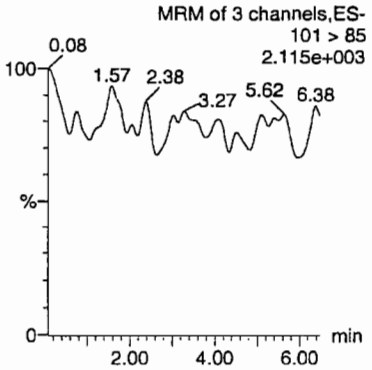

Perchlorate-101

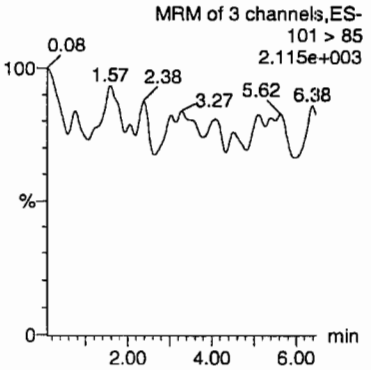

Perchlorate-O(18)

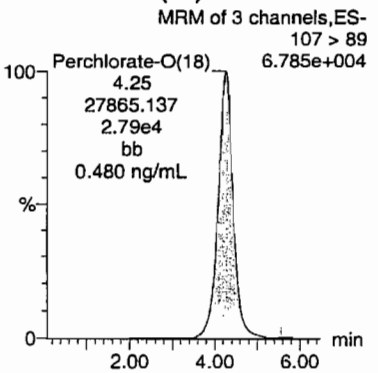

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	4.25	27865.137	27865.137	bb			0.4800	96.00	-4.00	9932.1...	

MAT
3/30/10

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2305

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	26-MAR-10	per0326008a	IPB002
Perchlorate-101	0.00	0	NA	26-MAR-10	per0326008a	IPB002
Perchlorate	0.00	0	NA	26-MAR-10	per0326010a	IPB003
Perchlorate-101	0.00	0	NA	26-MAR-10	per0326010a	IPB003
Perchlorate	0.00	0	NA	26-MAR-10	per0326013a	IPB004
Perchlorate-101	0.00	0	NA	26-MAR-10	per0326013a	IPB004
Perchlorate	0.00	0	NA	26-MAR-10	per0326023a	IPB005
Perchlorate-101	0.00	0	NA	26-MAR-10	per0326023a	IPB005
Perchlorate	0.00	0	NA	26-MAR-10	per0326029a	IPB006
Perchlorate-101	0.00	0	NA	26-MAR-10	per0326029a	IPB006
Perchlorate	0.00	0	NA	27-MAR-10	per0326036a	IPB007
Perchlorate-101	0.00	0	NA	27-MAR-10	per0326036a	IPB007
Perchlorate	0.00	0	NA	27-MAR-10	per0326048a	IPB008

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2305

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate–101	0.00	0	NA	27–MAR–10	per0326048a	IPB008
Perchlorate	0.00	0	NA	27–MAR–10	per0326058a	IPB009
Perchlorate–101	0.00	0	NA	27–MAR–10	per0326058a	IPB009
Perchlorate	0.00	0	NA	27–MAR–10	per0326071a	IPB010
Perchlorate–101	0.00	0	NA	27–MAR–10	per0326071a	IPB010
Perchlorate	0.00	0	NA	27–MAR–10	per0327008a	IPB002
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327008a	IPB002
Perchlorate	0.00	0	NA	27–MAR–10	per0327010a	IPB003
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327010a	IPB003
Perchlorate	0.00	0	NA	27–MAR–10	per0327023a	IPB004
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327023a	IPB004

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326008a
Date: 26-Mar-2010
Time: 19:24:10
ID: IPB002
Vial: 1:1,A

CW 03-27-10

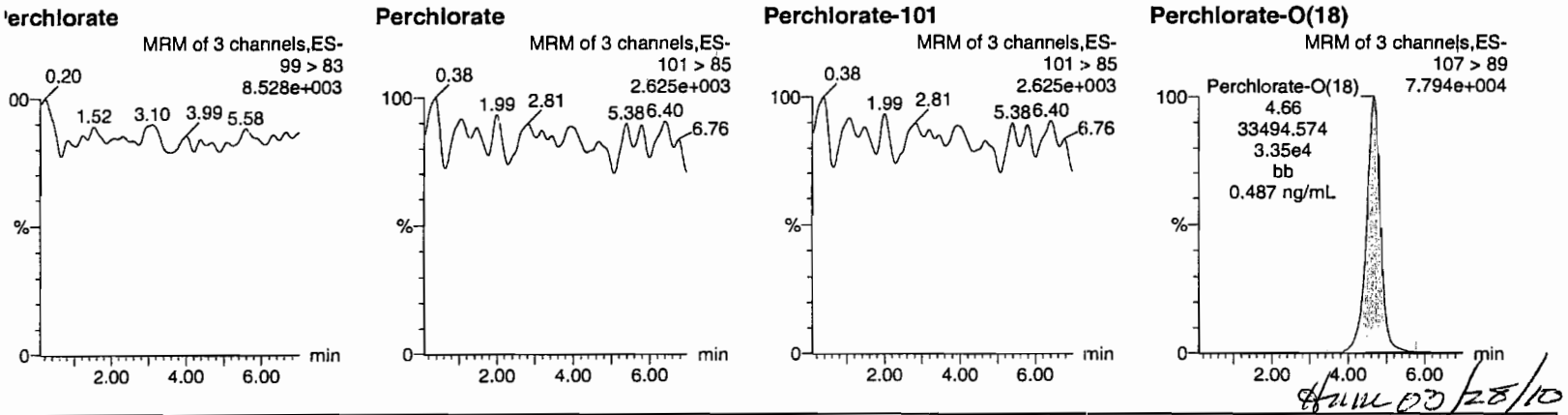

03/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	4.66	33494.574	33494.574	bb			0.4873	97.45	-2.55	2589.0...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Page 346 of 1359

Name: per0326010a
Date: 26-Mar-2010
Time: 19:44:29
ID: IPB003
Vial: 1:1,A

CWO 03-27-10

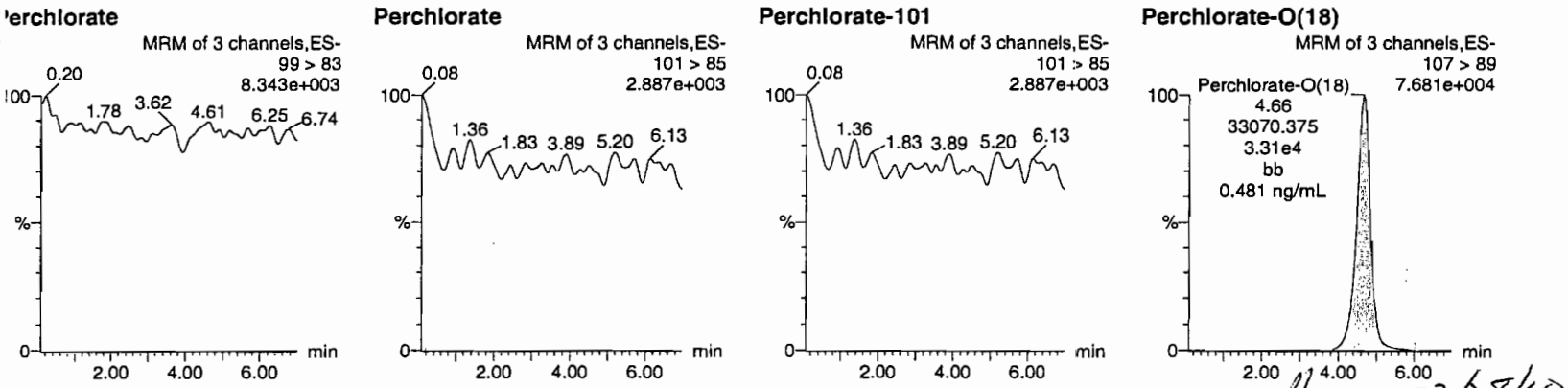

Hm 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB003	Perchlorate	99 > 83											0.00
PB003	Perchlorate-101	101 > 85											
PB003	Perchlorate-O(18)	107 > 89	4.66	33070.375	33070.375	bb			0.4811	96.22	-3.78	2830.8...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326013a
Date: 26-Mar-2010
Time: 20:14:44
ID: IPB004
Vial: 1:1,A

03-27-10

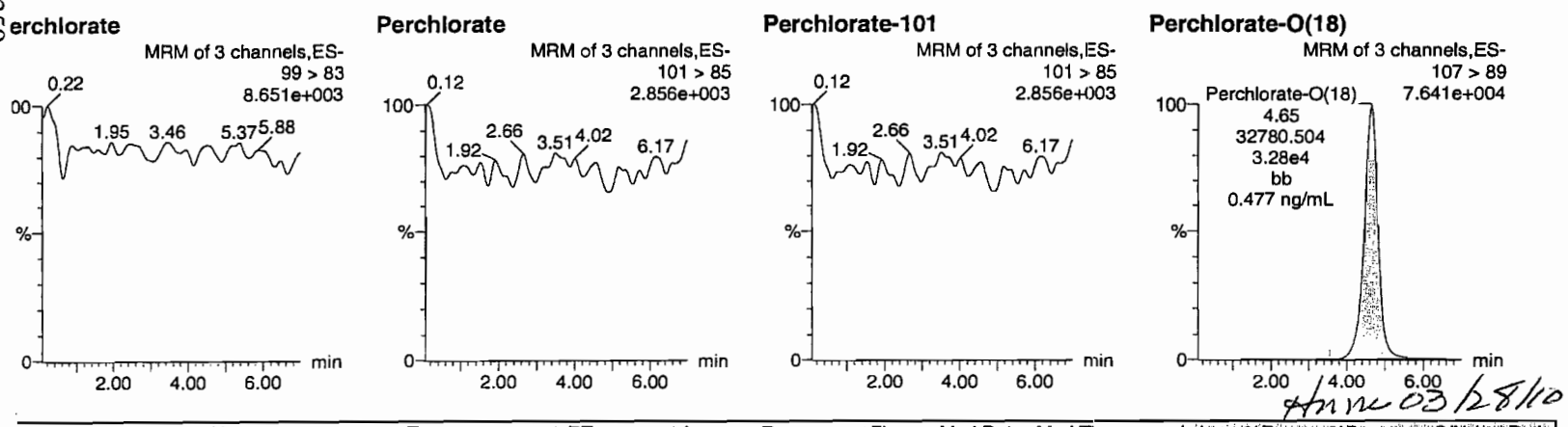

HM 03/28/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B004	Perchlorate	99 > 83											0.00
B004	Perchlorate-101	101 > 85											
B004	Perchlorate-O(18)	107 > 89	4.65	32780.504	32780.504	bb			0.4769	95.37	-4.63	1828.6...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

ast Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
rinted: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

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ate: 26-Mar-2010
ime: 21:55:59
): IPB005
ial: 1:1,A

CWO 03-27-10

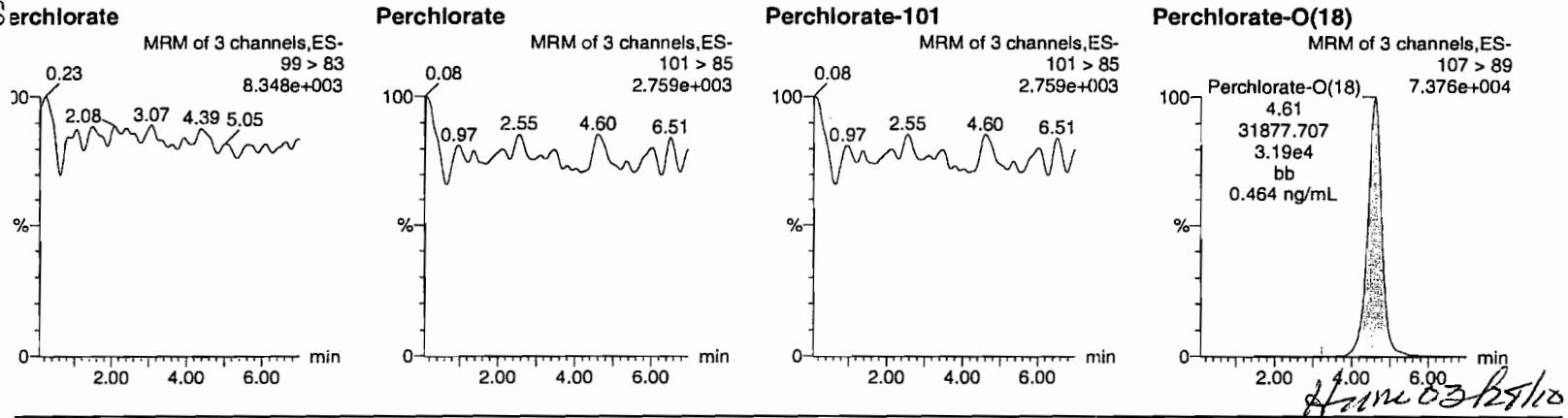

Hime 03-27-10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
3005	Perchlorate	99 > 83											0.00
3005	Perchlorate-101	101 > 85											
3005	Perchlorate-O(18)	107 > 89	4.61	31877.707	31877.707	bb			0.4637	92.75	-7.25	3230.6...	

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ne GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

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rinted: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

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ate: 26-Mar-2010
me: 22:56:12
: IPB006
al: 1:1,A

03-27-10

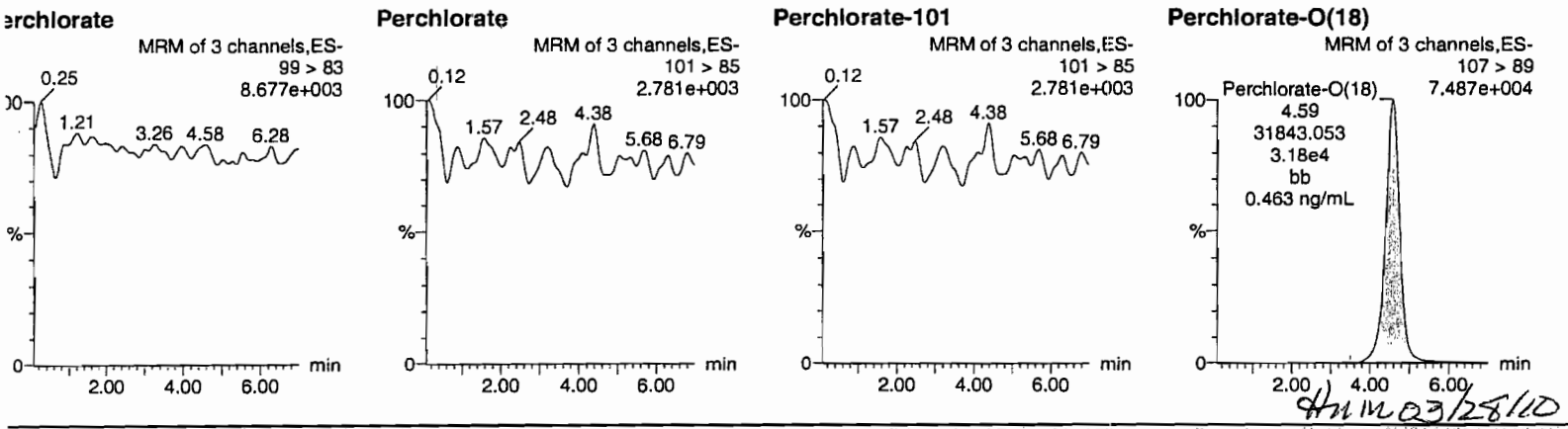

HM 03/28/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B006	Perchlorate	99 > 83											0.00
B006	Perchlorate-101	101 > 85											
B006	Perchlorate-O(18)	107 > 89	4.59	31843.053	31843.053	bb			0.4632	92.65	-7.35	4856.5...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326036a
Date: 27-Mar-2010
Time: 00:07:36
ID: IPB007
Vial: 1:1,A

CWW 03-27-10

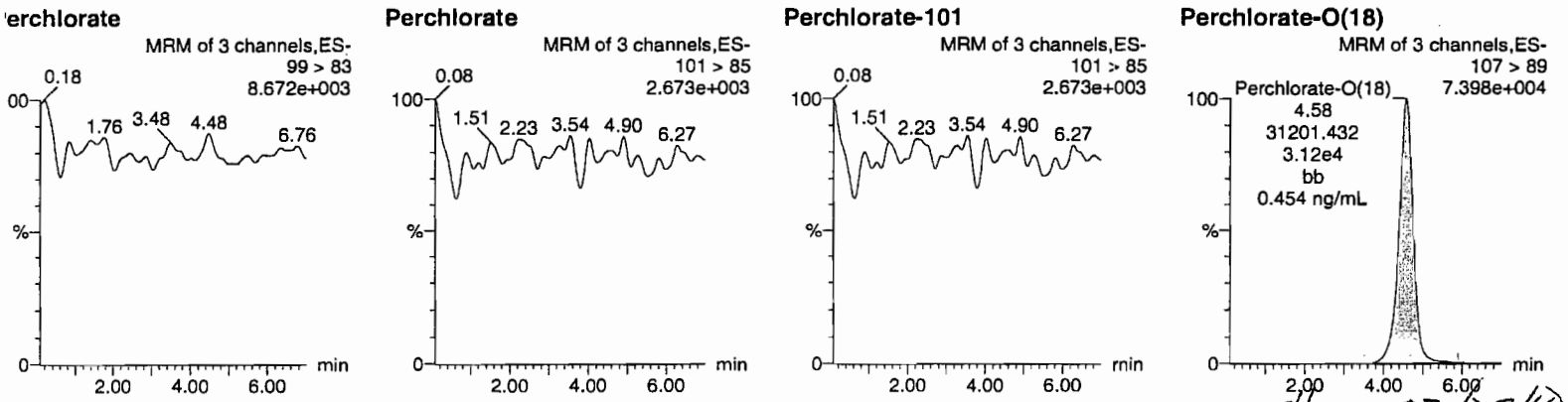

HMM 03/29/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B007	Perchlorate	99 > 83											0.00
B007	Perchlorate-101	101 > 85											
B007	Perchlorate-O(18)	107 > 89	4.58	31201.432	31201.432	bb			0.4539	90.78	-9.22	4965.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326048a
Date: 27-Mar-2010
Time: 02:08:42
ID: IPB008
Vial: 1:1,A

CWW 03-27-10

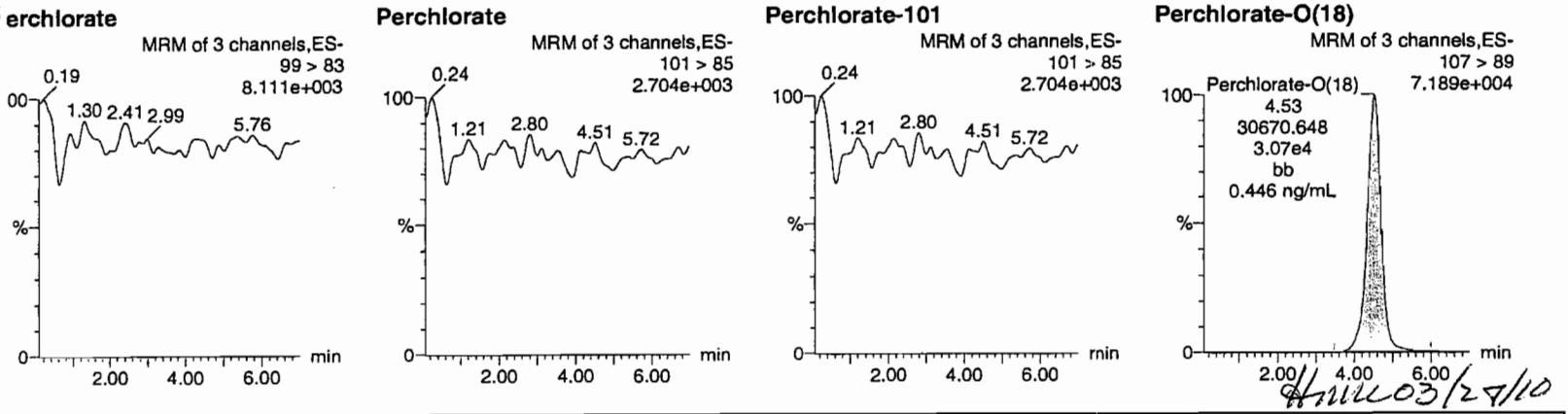

HMLL 03/27/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B008	Perchlorate	99 > 83											0.00
B008	Perchlorate-101	101 > 85											
B008	Perchlorate-O(18)	107 > 89	4.53	30670.648	30670.648	bb			0.4462	89.24	-10.76	372.208	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326058a
Date: 27-Mar-2010
Time: 03:49:46
ID: IPB009
Vial: 1:1,A

CWW 03-27-10

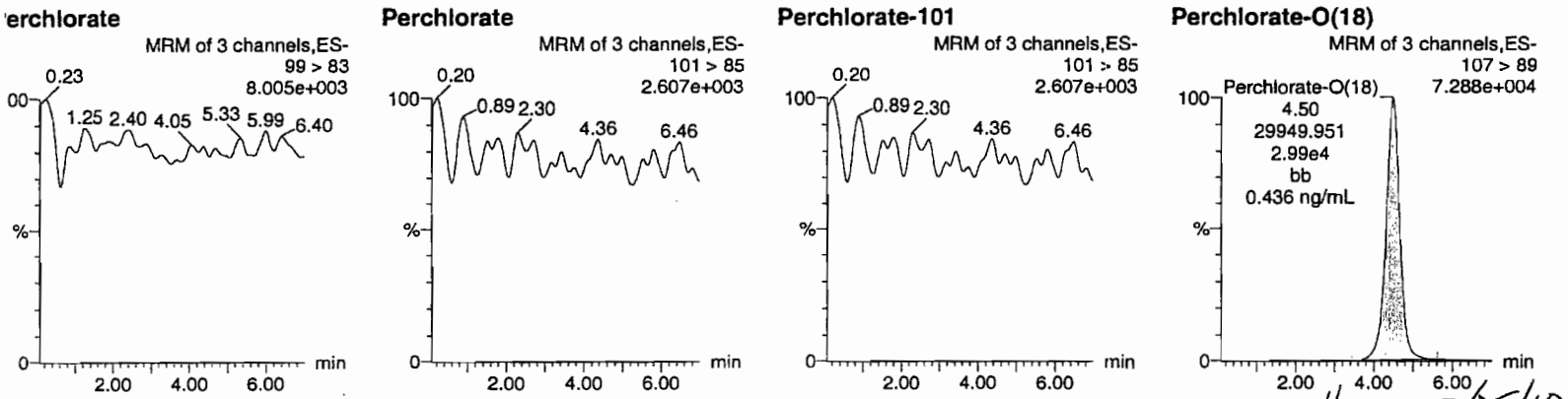

HMM 03/28/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83											0.00
IPB009	Perchlorate-101	101 > 85											
IPB009	Perchlorate-O(18)	107 > 89	4.50	29949.951	29949.951	bb			0.4357	87.14	-12.86	1961.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

ast Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
rinted: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

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ime: 06:01:39
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ial: 1:1,A

CWW 03-27-10

erchlorate

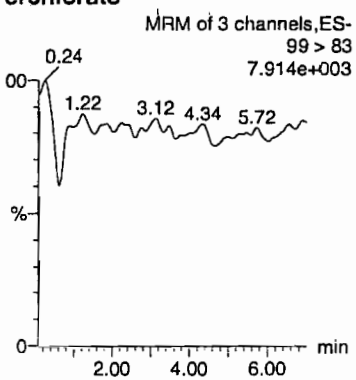

Perchlorate

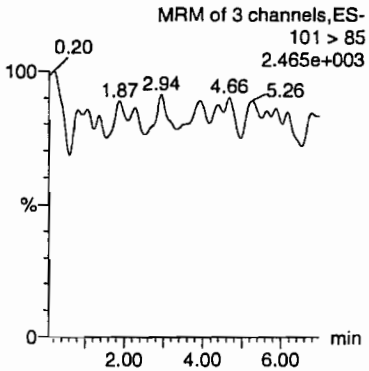

Perchlorate-101

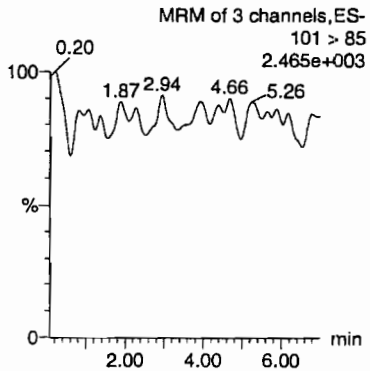

Perchlorate-O(18)

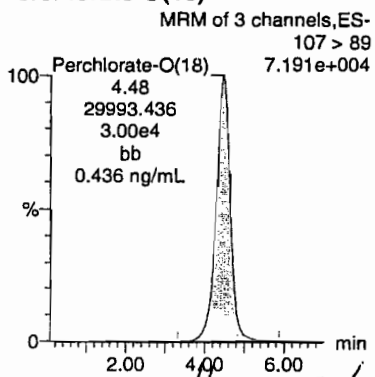

HMK 03/28/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'B010	Perchlorate	99 > 83											0.00
'B010	Perchlorate-101	101 > 85											
'B010	Perchlorate-O(18)	107 > 89	4.48	29993.436	29993.436	bb			0.4363	87.27 ~	-12.73	3487.1...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327008a
Date: 27-Mar-2010
Time: 14:42:58
ID: IPB002
Vial: 1:1,A

03-28-10

Perchlorate

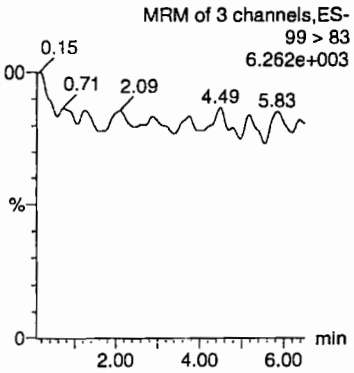

Perchlorate

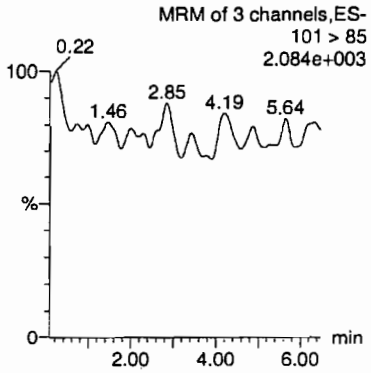

Perchlorate-101

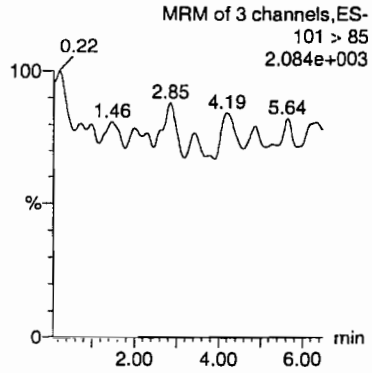

Perchlorate-O(18)

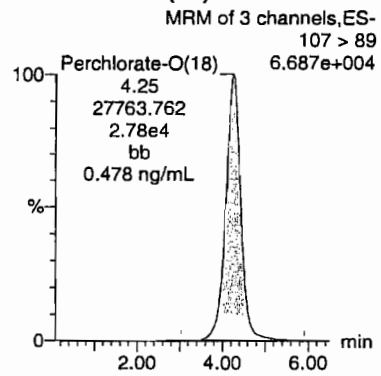

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B002	Perchlorate	99 > 83											0.00
B002	Perchlorate-101	101 > 85											
B002	Perchlorate-O(18)	107 > 89	4.25	27763.762	27763.762	bb			0.4783	95.66	-4.34	688.538	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: per0327010a
Date: 27-Mar-2010
Time: 15:02:11
ID: IPB003
Vial: 1:1,A

CWW 03-28-10

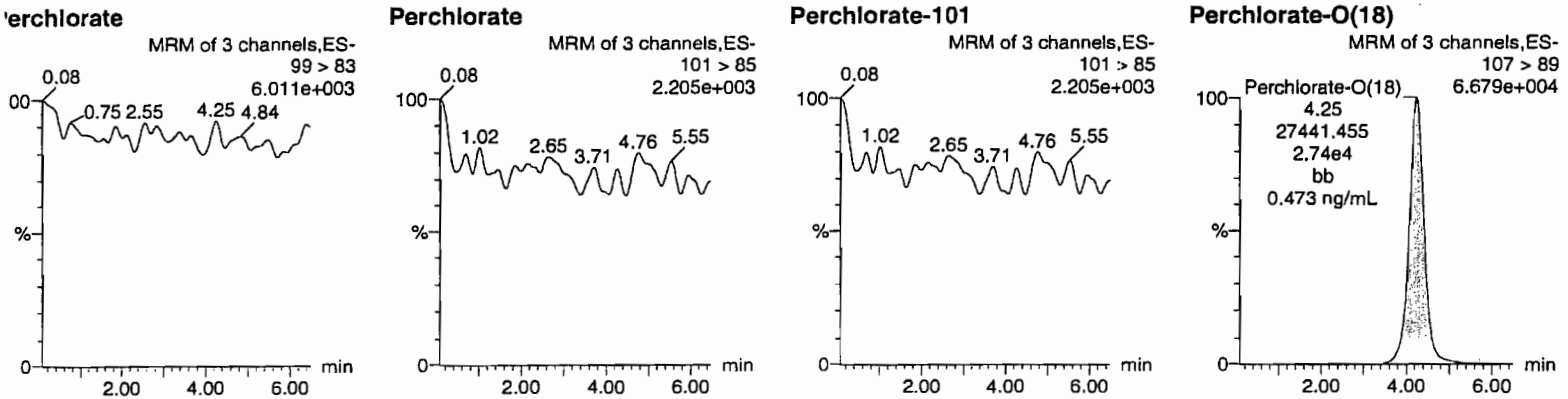

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB003	Perchlorate	99 > 83											0.00
PB003	Perchlorate-101	101 > 85											
PB003	Perchlorate-O(18)	107 > 89	4.25	27441.455	27441.455	bb			0.4727	94.54	-5.46	2478.5...	

MWT 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327023a
Date: 27-Mar-2010
Time: 17:07:55
ID: IPB004
Vial: 1:1,A

cw
03-28-10

Perchlorate

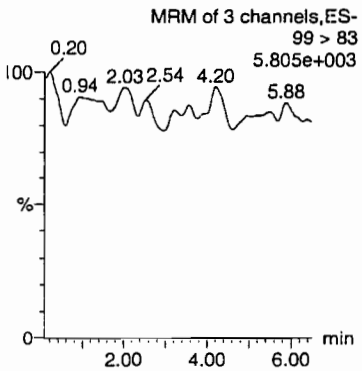

Perchlorate

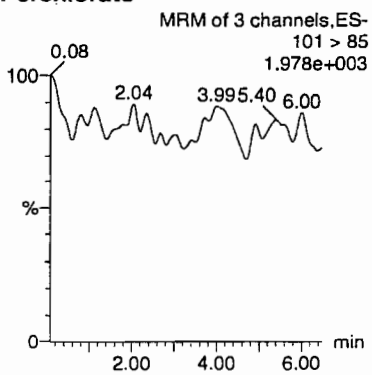

Perchlorate-101

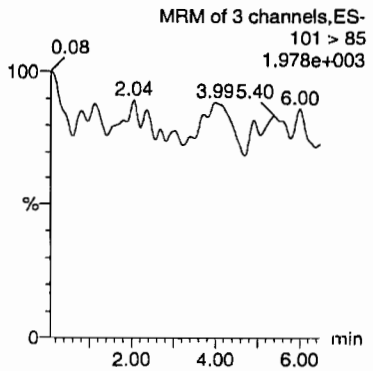

Perchlorate-O(18)

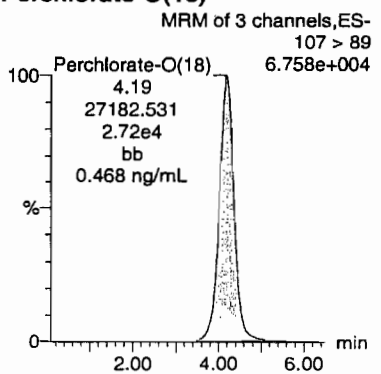

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion.Ratio
PB004	Perchlorate	99 > 83											0.00
PB004	Perchlorate-101	101 > 85											
PB004	Perchlorate-O(18)	107 > 89	4.19	27182.531	27182.531	bb			0.4683	93.65	-6.35	2906.6...	

MRT 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CLICK 01-07-08

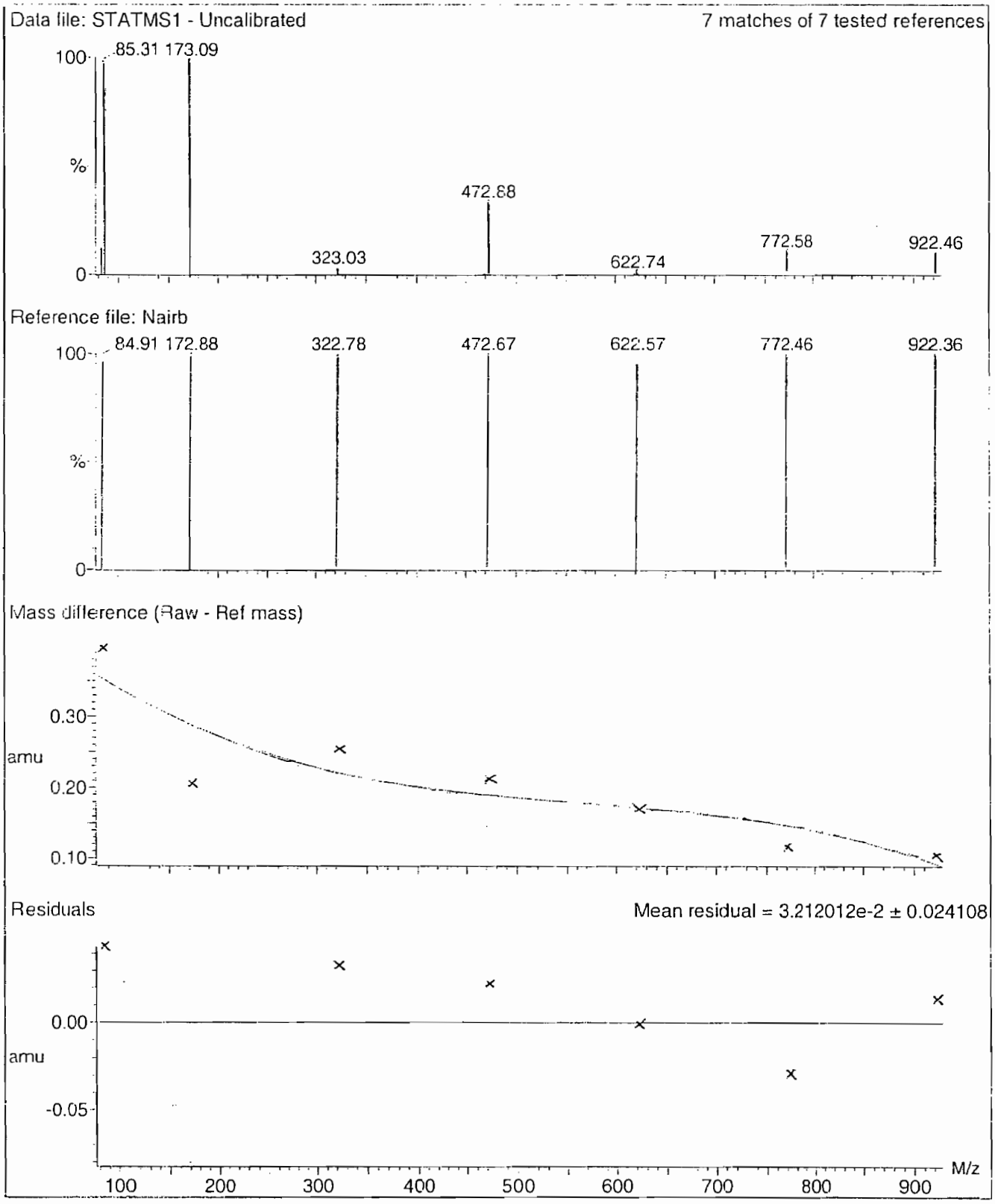

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

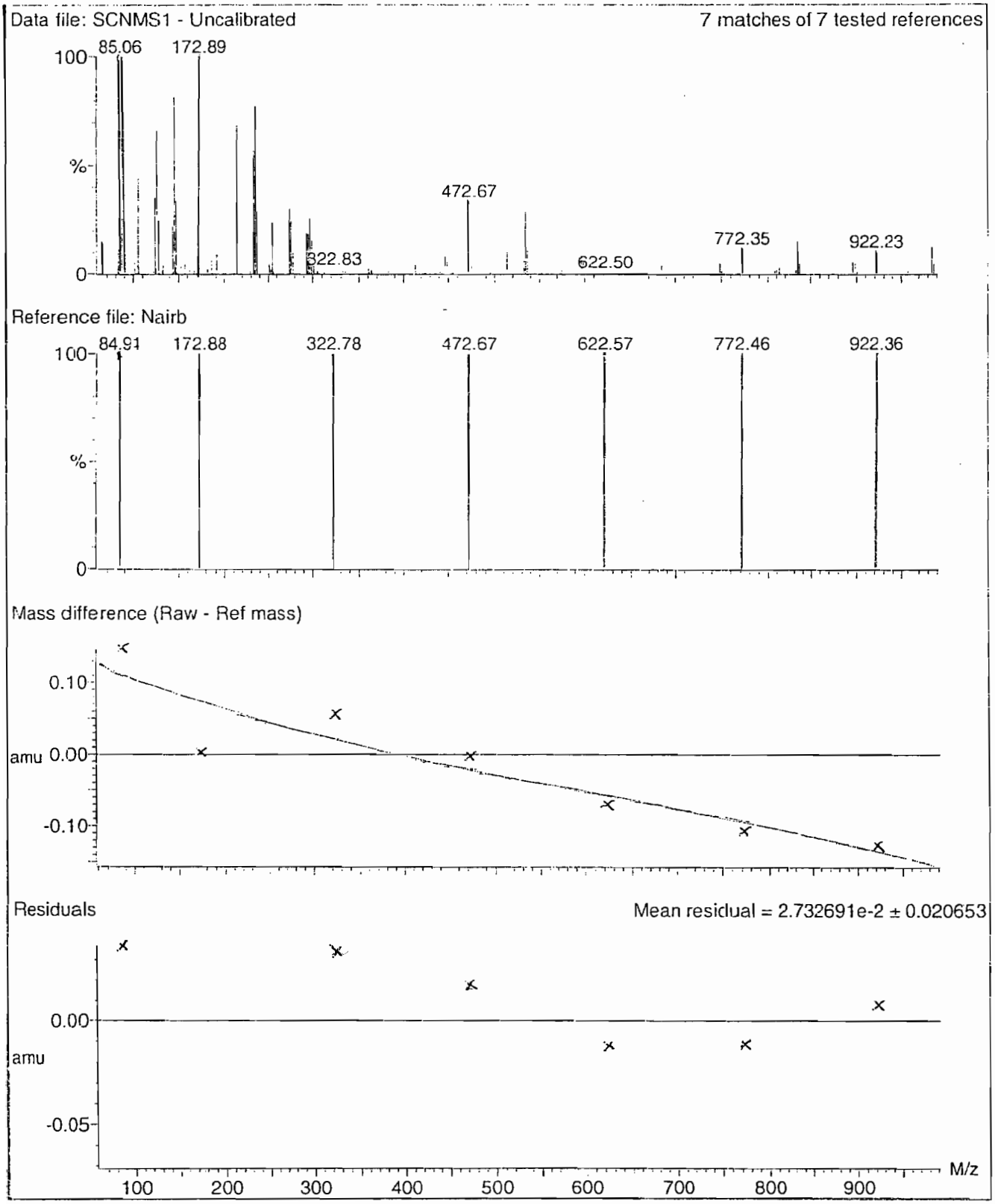

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Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

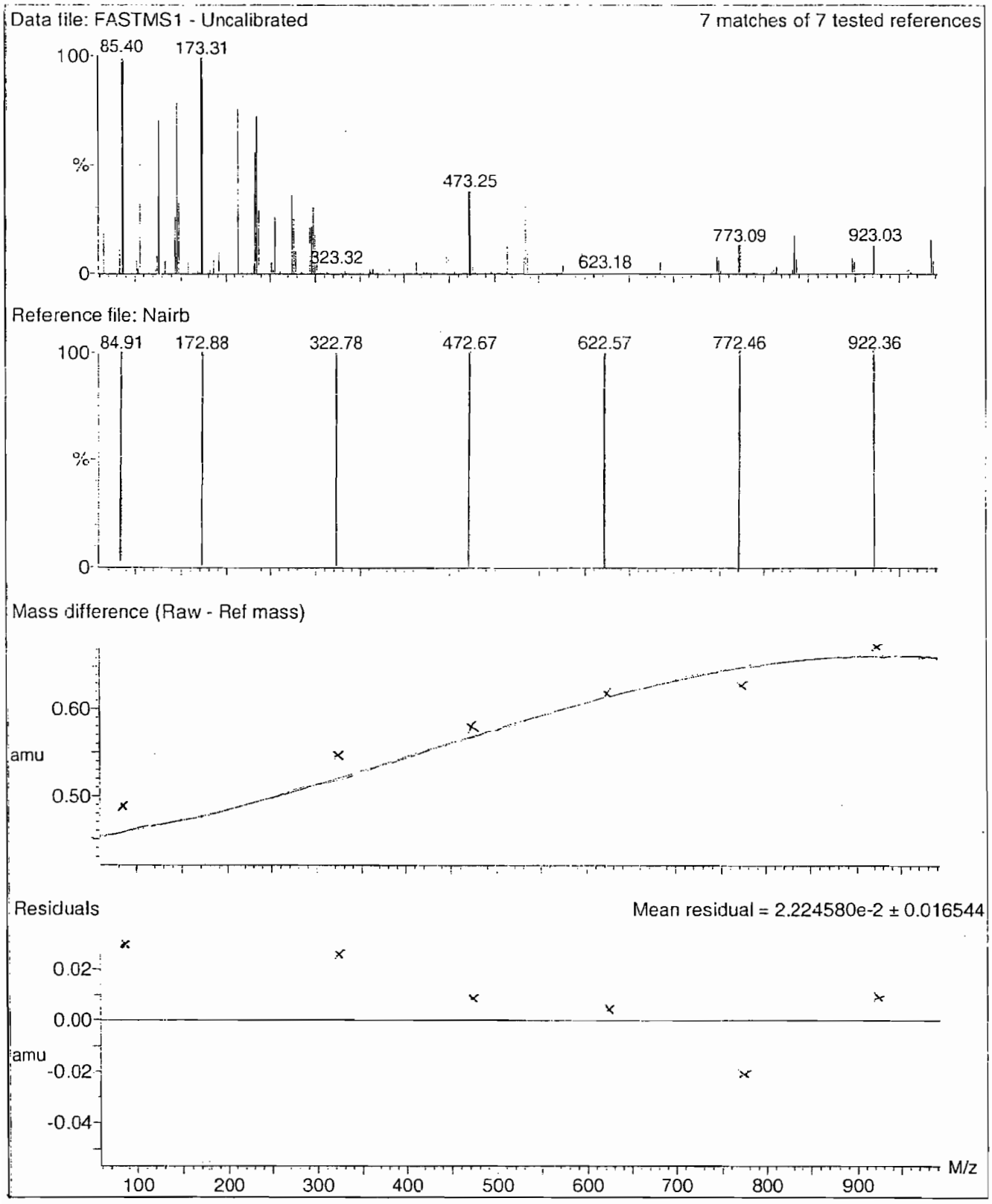

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Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

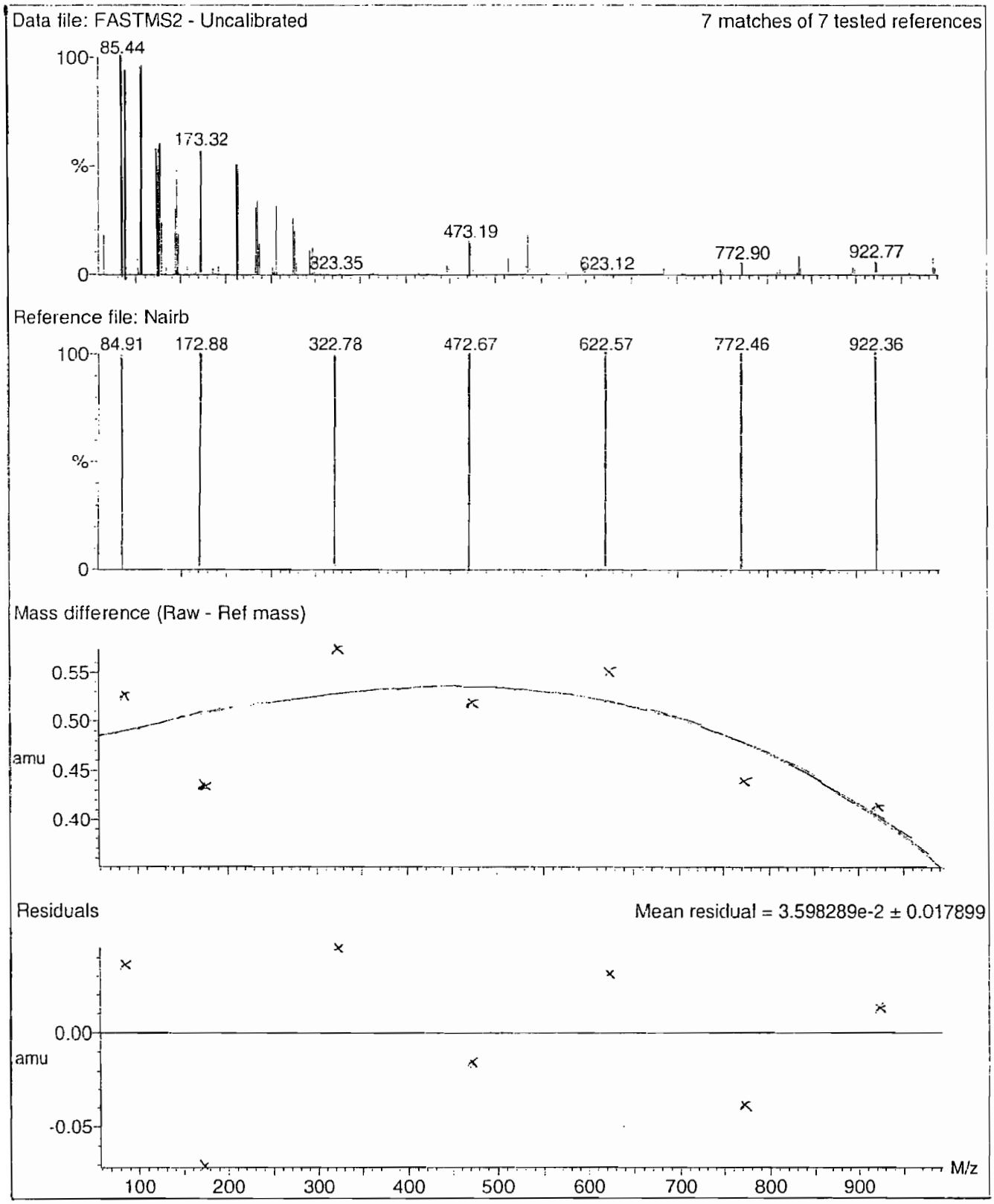

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Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

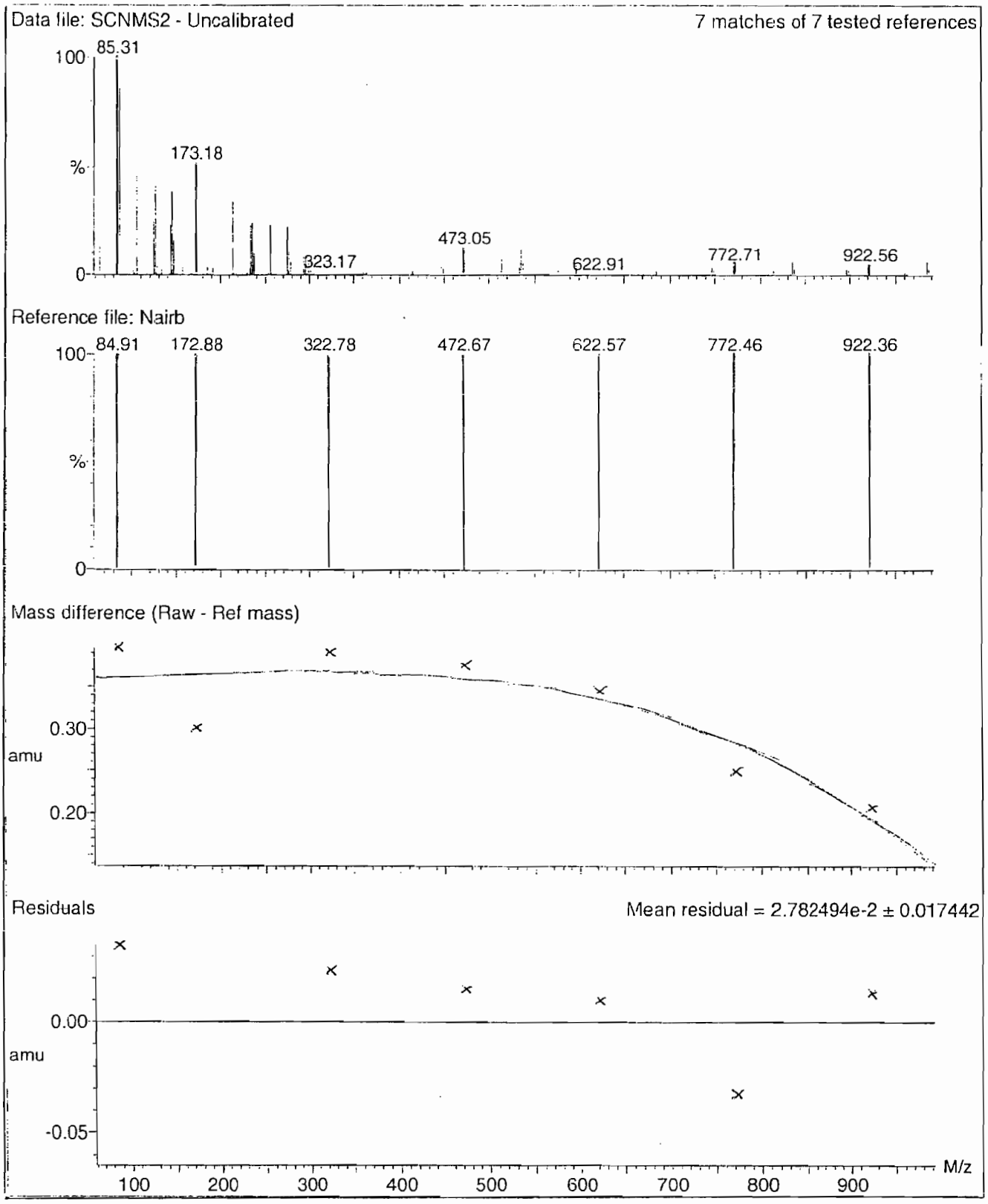

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Printed: Tue Jan 08 12:21:59 2008

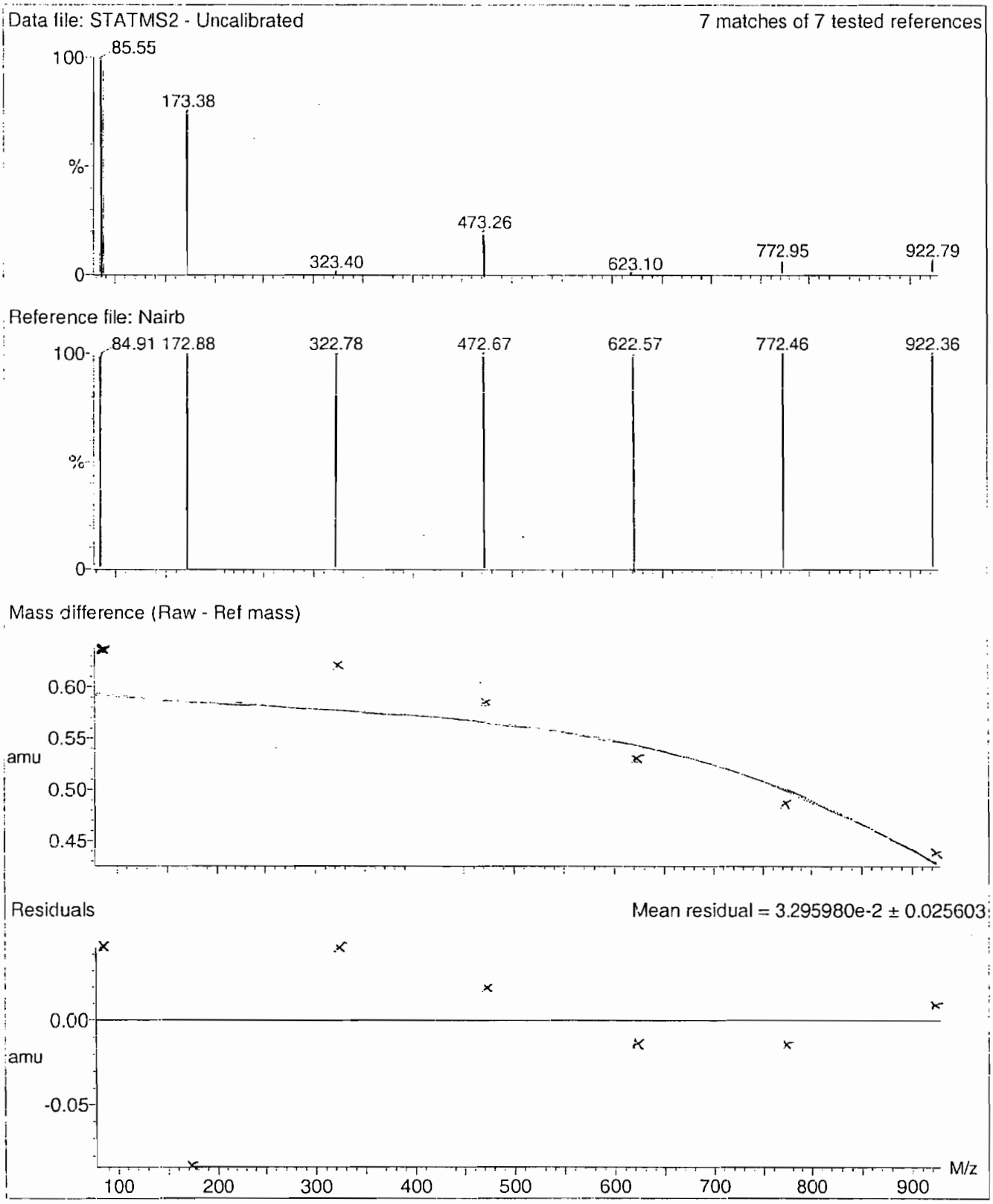

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Friday, March 26, 2010 16:27:14 Eastern Standard Time

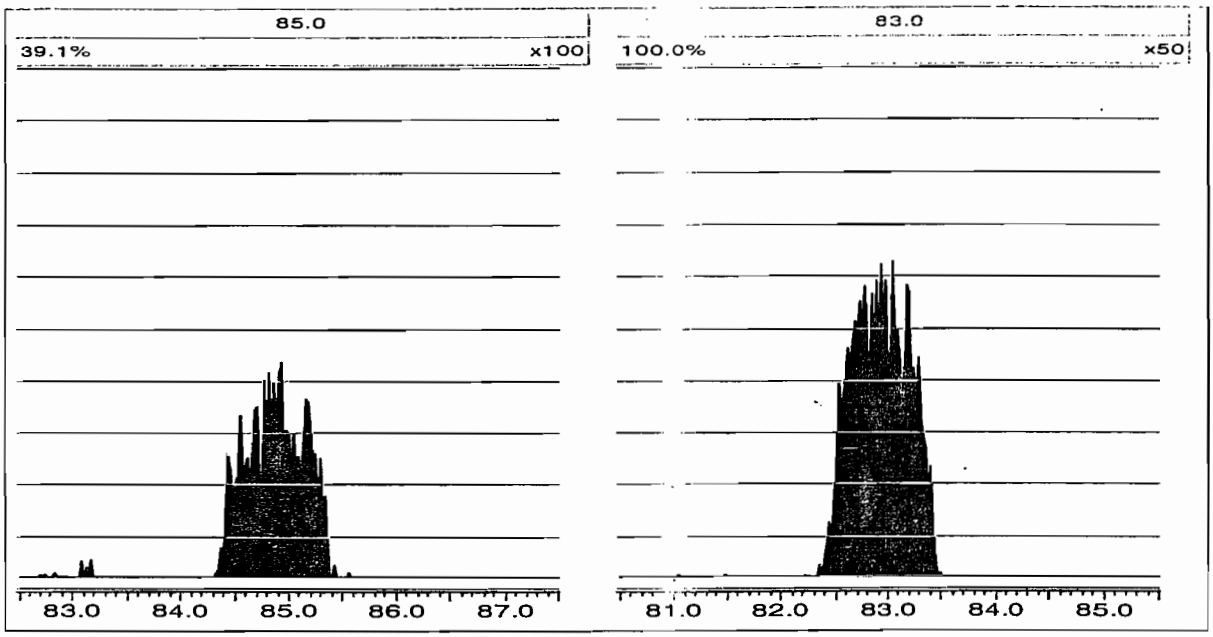

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Saturday, March 27, 2010 08:39:45 Eastern Standard Time

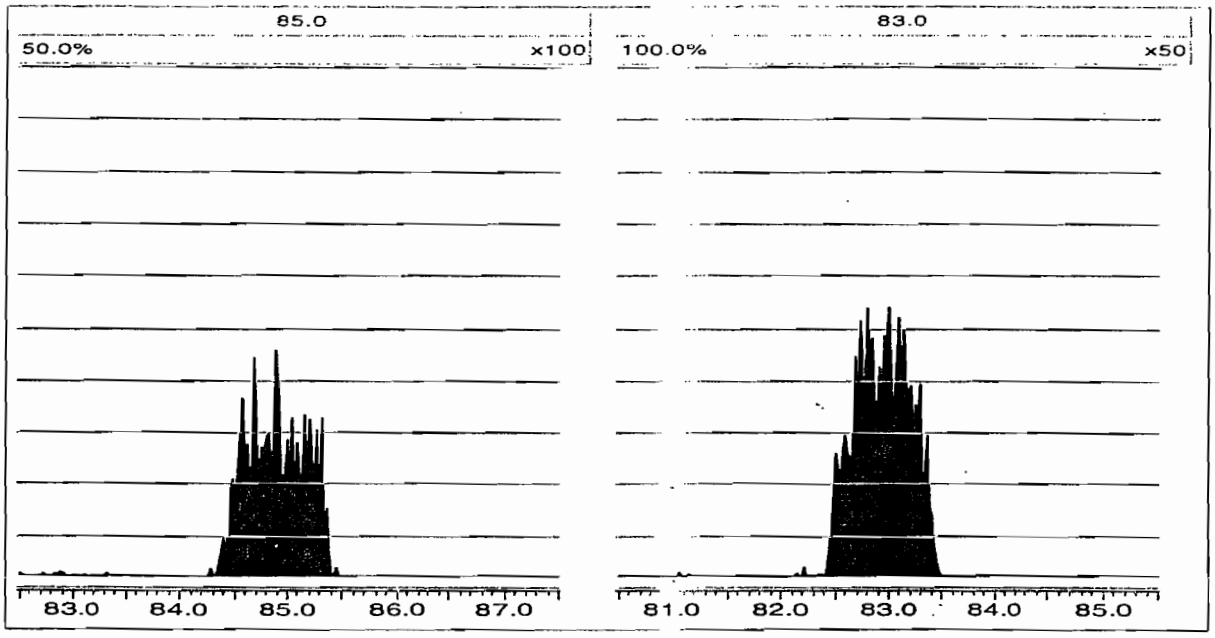

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2305

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0326006a**	**26–MAR–10**	**34622.5**				
Lower Area Limit			**17311.25**				
Upper Area Limit			**69245**				
1202068342	per0326060a	27–MAR–10 04:09	29375.8	4.5			
1202068343	per0326061a	27–MAR–10 04:20	30118.9	4.49	4.514	1.005	
248824001	per0326069a	27–MAR–10 05:41	30774.8	4.48			

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Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2305

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0327006a**	**27–MAR–10**	**29367.8**				
Lower Area Limit			**14683.9**				
Upper Area Limit			**58735.6**				
1202068346	per0327013a	27–MAR–10 15:31	29846.2	4.36	4.37723	1.004	
248824002	per0327014a	27–MAR–10 15:41	28297.3	4.23			

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-11926

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2305

GEL Sample ID: 248824001

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 98.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.509	2.04	0.509	ug/kg	U	1	27-MAR-10 05:41	per0326069a
	Perchlorate Isotope Ratio						1	27-MAR-10 05:41	per0326069a
14797-73-0	Perchlorate-101	.509	2.04	0.509	ug/kg	U	1	27-MAR-10 05:41	per0326069a
	Perchlorate-O(18)			4.56	ug/kg		1	27-MAR-10 05:41	per0326069a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326069a
Date: 27-Mar-2010
Time: 05:41:20
ID: 248824001
Vial: 2:6,D

| LANL | 964119 | 3026 | 1 |

WWD 03-27-10

Perchlorate

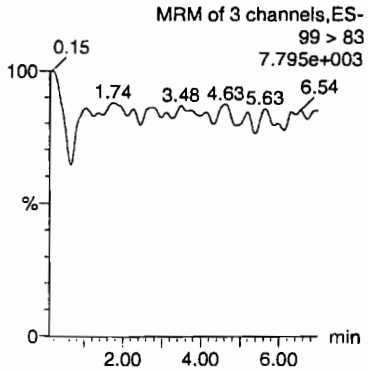

Perchlorate

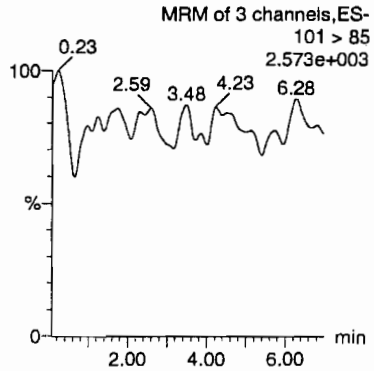

Perchlorate-101

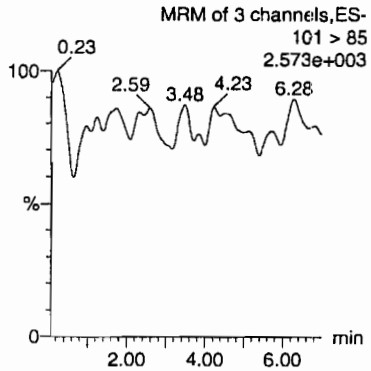

Perchlorate-O(18)

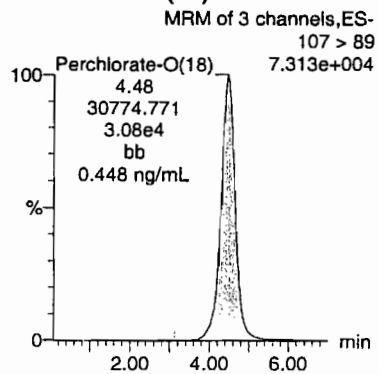

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248824001	Perchlorate	99 > 83											0.00
248824001	Perchlorate-101	101 > 85											
248824001	Perchlorate-O(18)	107 > 89	4.48	30774.771	30774.771	bb			0.4477	✓ 89.54	-10.46	469.524	

MM 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-11925

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2305

GEL Sample ID: 248824002

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 98.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.508	2.03	0.508	ug/kg	U	1	27-MAR-10 15:41	per0327014a
	Perchlorate Isotope Ratio						1	27-MAR-10 15:41	per0327014a
14797-73-0	Perchlorate-101	.508	2.03	0.508	ug/kg	U	1	27-MAR-10 15:41	per0327014a
	Perchlorate-O(18)			4.95	ug/kg		1	27-MAR-10 15:41	per0327014a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327014a
Date: 27-Mar-2010
Time: 15:41:26
ID: 248824002
Vial: 1:3,C

1 LANL 1 964119 1 SOLID 1 1 RA

AWW 03-28-10

Perchlorate

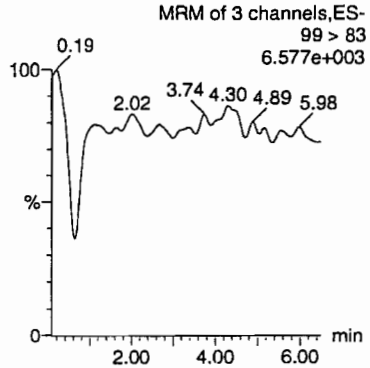

Perchlorate

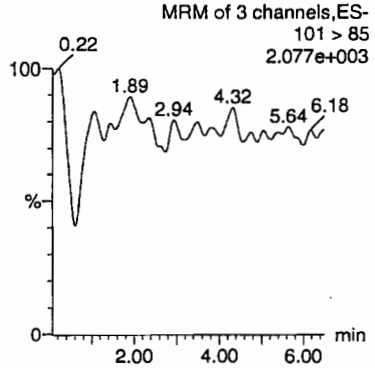

Perchlorate-101

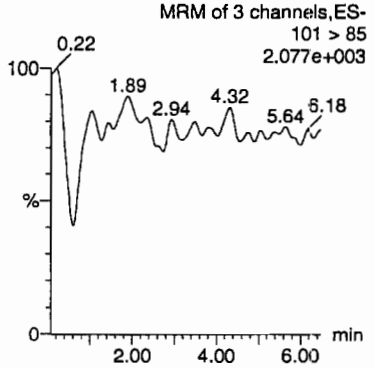

Perchlorate-O(18)

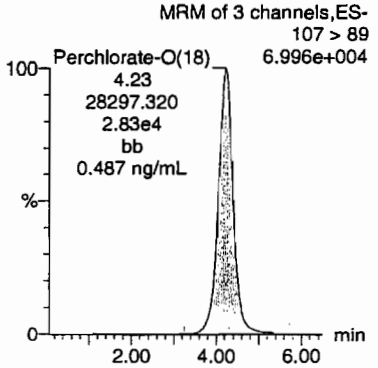

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248824002	Perchlorate	99 > 83											0.00
248824002	Perchlorate-101	101 > 85											
248824002	Perchlorate-O(18)	107 > 89	4.23	28297.320	28297.320	bb			0.4875	97.49	-2.51	1284.7...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2305

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 26–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 90680.54

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2305

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 26–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 26371.22

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032610a.mdb 27 Mar 2010 09:40:09
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032610a.cdb 27 Mar 2010 09:40:32

Compound name: Perchlorate
Response Factor: 90680.5
RRF SD: 9014.57, % Relative SD: 9.94103
Response type: External Std, Area
Curve type: RF

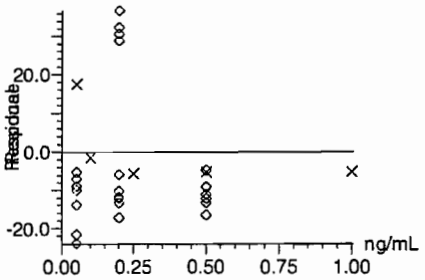

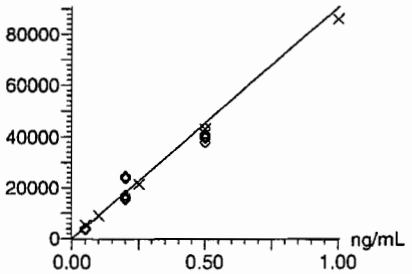

05-27-10

Compound name: Perchlorate-101
Response Factor: 26371.2
RRF SD: 1470.92, % Relative SD: 5.57775
Response type: External Std, Area
Curve type: RF

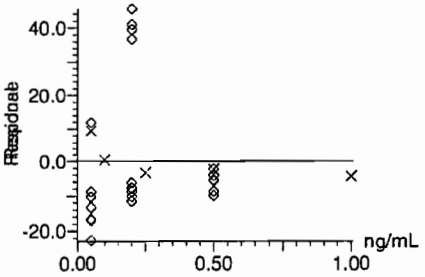

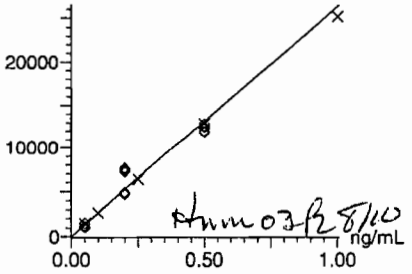

Hmm 03-28-10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 68740.9
RRF SD: 1495.52, % Relative SD: 2.17559
Response type: External Std, Area
Curve type: RF

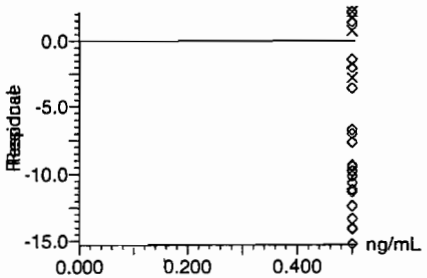

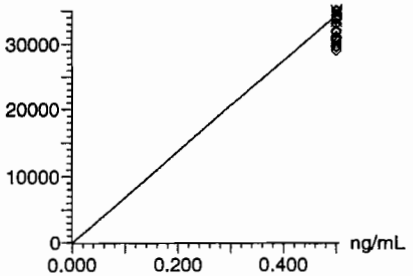

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-2305

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 27-MAR-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 76347.46

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2305

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 27–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 23991.9

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032710a.mdb 28 Mar 2010 10:15:37
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032710a.cdb 28 Mar 2010 10:33:56

Compound name: Perchlorate
Response Factor: 76347.5
RF SD: 11462.3, % Relative SD: 15.0133
Response type: External Std, Area
Curve type: RF

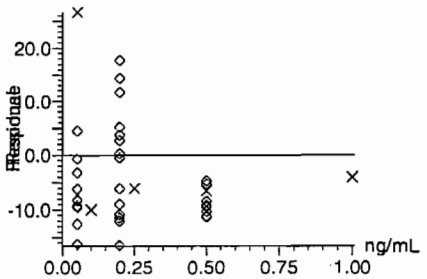

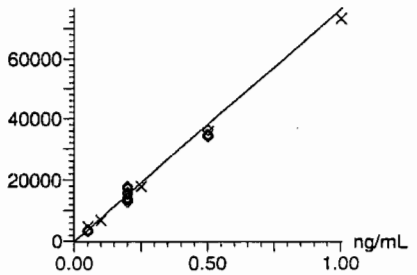

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Compound name: Perchlorate-101
Response Factor: 23991.9
RF SD: 3203.85, % Relative SD: 13.3539
Response type: External Std, Area
Curve type: RF

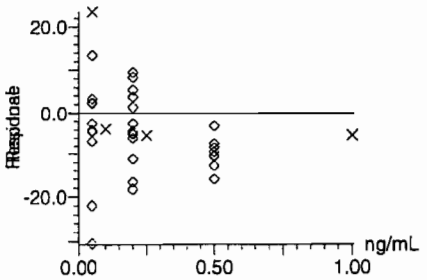

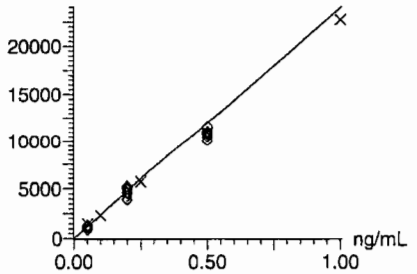

MM
3/30/10

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luantify Calibration Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

'ataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

ast Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
rinted: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

ompound name: Perchlorate-O(18)
esponse Factor: 58049.6
RF SD: 736.924, % Relative SD: 1.26947
esponse type: External Std, Area
urve type: RF

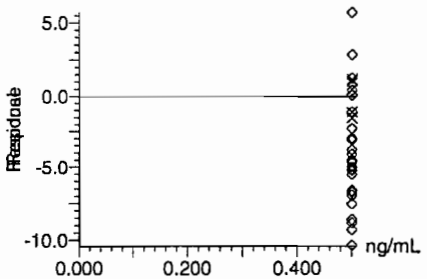

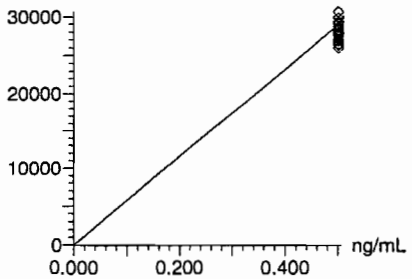

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2305

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.48	95.31	26–MAR–10 19:34	per0326009a
Perchlorate Isotope Ratio		3.35		26–MAR–10 19:34	per0326009a
Perchlorate–101	.5	.49	97.77	26–MAR–10 19:34	per0326009a
Perchlorate	.5	.48	95.3	27–MAR–10 14:52	per0327009a
Perchlorate Isotope Ratio		3.13		27–MAR–10 14:52	per0327009a
Perchlorate–101	.5	.48	96.92	27–MAR–10 14:52	per0327009a

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luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

ast Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
rinted: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

ame: per0326009a
ate: 26-Mar-2010
ime: 19:34:19
): WCL100326-06ICV
ial: 1:2,A

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03-27-10

erchlorate

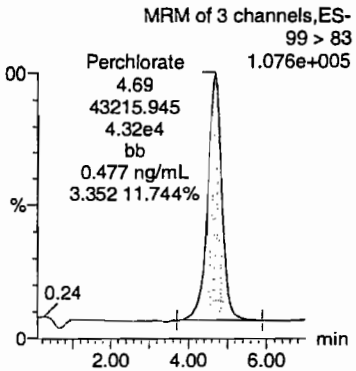

Perchlorate

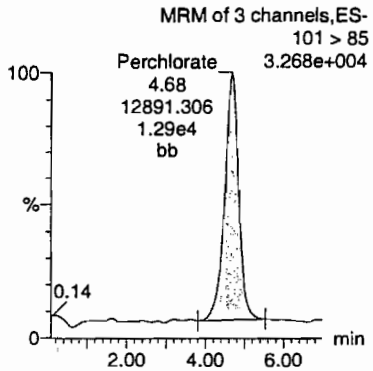

Perchlorate-101

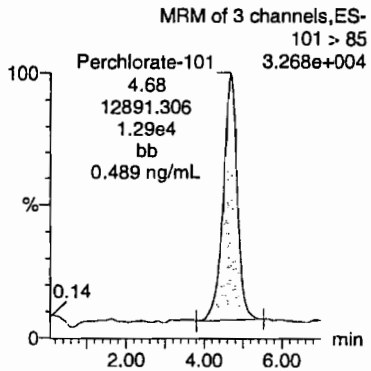

Perchlorate-O(18)

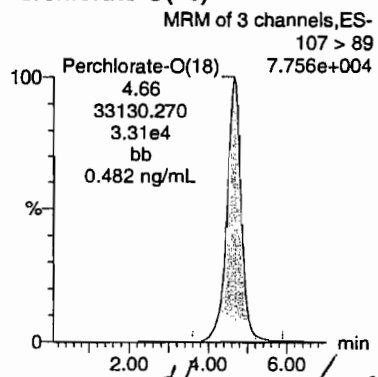

AMW 03/28/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'CL100326-06ICV	Perchlorate	99 > 83	4.69	43215.945	43215.945	bb			0.4766	95.31	-4.69	531.890	3.35
'CL100326-06ICV	Perchlorate-101	101 > 85	4.68	12891.306	12891.306	bb			0.4888	97.77	-2.23	212.978	
'CL100326-06ICV	Perchlorate-O(18)	107 > 89	4.66	33130.270	33130.270	bb			0.4820	96.39	-3.61	2714.5...	

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

ast Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
rinted: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

ame: per0327009a
ate: 27-Mar-2010
ime: 14:52:39
): WCL100326-06ICV
ial: 1:2,A

Pass
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03-28-10

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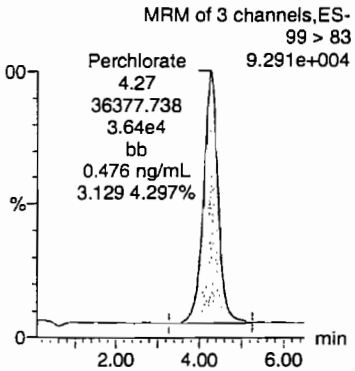

Perchlorate

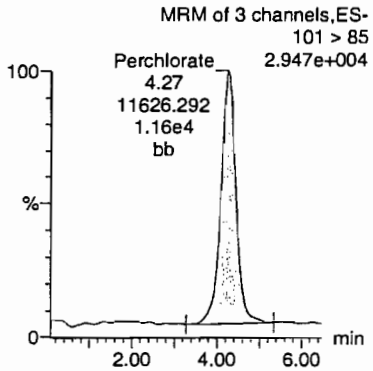

Perchlorate-101

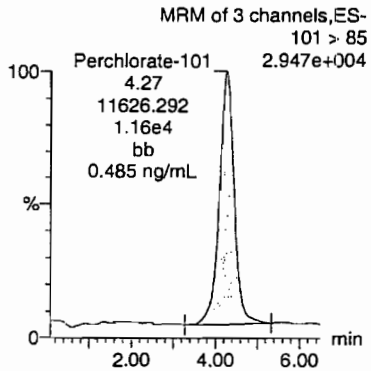

Perchlorate-O(18)

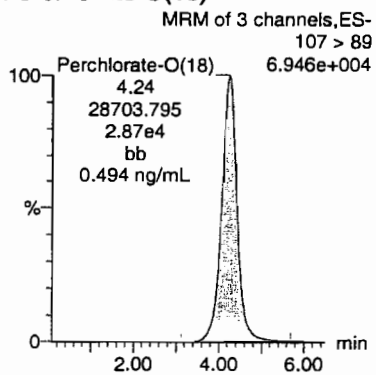

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'CL100326-06ICV	Perchlorate	99 > 83	4.27	36377.738	36377.738	bb			0.4765	95.30	-4.70	650.248	3.13
'CL100326-06ICV	Perchlorate-101	101 > 85	4.27	11626.292	11626.292	bb			0.4846	96.92	-3.08	275.524	
'CL100326-06ICV	Perchlorate-O(18)	107 > 89	4.24	28703.795	28703.795	bb			0.4945	98.89	-1.11	789.224	

MMT 3/30/10

$$\frac{36377.738}{76347.5} = 0.4765$$

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2305

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.46	91.09	26–MAR–10 21:45	per0326022a
Perchlorate Isotope Ratio		3.27		26–MAR–10 21:45	per0326022a
Perchlorate–101	.5	.48	95.83	26–MAR–10 21:45	per0326022a
Perchlorate	.5	.45	90.79	26–MAR–10 23:57	per0326035a
Perchlorate Isotope Ratio		3.31		26–MAR–10 23:57	per0326035a
Perchlorate–101	.5	.47	94.31	26–MAR–10 23:57	per0326035a
Perchlorate	.5	.44	88.87	27–MAR–10 01:58	per0326047a
Perchlorate Isotope Ratio		3.35		27–MAR–10 01:58	per0326047a
Perchlorate–101	.5	.46	91.25	27–MAR–10 01:58	per0326047a
Perchlorate	.5	.43	86.68	27–MAR–10 03:39	per0326057a
Perchlorate Isotope Ratio		3.31		27–MAR–10 03:39	per0326057a
Perchlorate–101	.5	.45	90.12	27–MAR–10 03:39	per0326057a
Perchlorate	.5	.44	87.83	27–MAR–10 05:51	per0326070a

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2305

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.19		27–MAR–10 05:51	per0326070a
Perchlorate–101	.5	.47	94.67	27–MAR–10 05:51	per0326070a
Perchlorate	.5	.47	94.68	27–MAR–10 16:58	per0327022a
Perchlorate Isotope Ratio		3.33		27–MAR–10 16:58	per0327022a
Perchlorate–101	.5	.45	90.53	27–MAR–10 16:58	per0327022a

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

ast Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
rinted: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

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ate: 26-Mar-2010
ime: 21:45:57
): WCL100326-06CCV
ial: 1:2,A

Pass
03-27-10

erchlorate

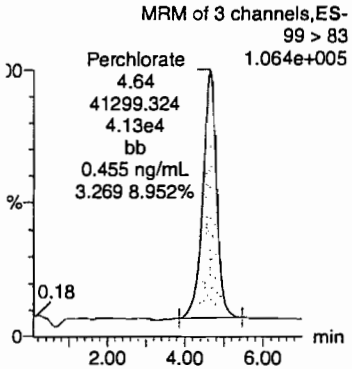

Perchlorate

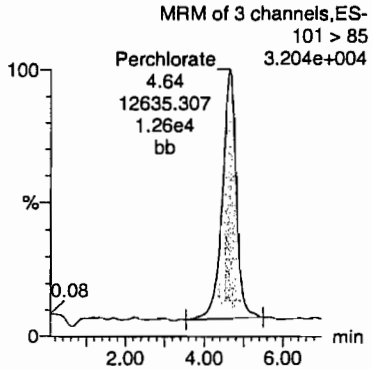

Perchlorate-101

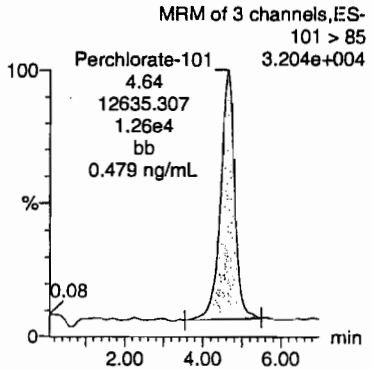

Perchlorate-O(18)

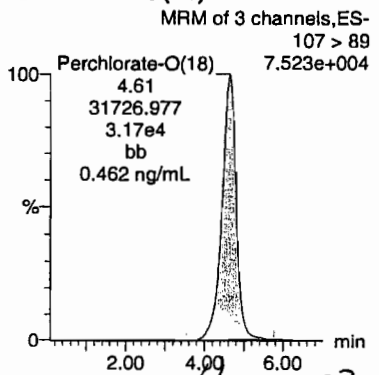

03/29/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-06CCV	Perchlorate	99 > 83	4.64	41299.324	41299.324	bb			0.4554	91.09	-8.91	790.293	3.27
CL100326-06CCV	Perchlorate-101	101 > 85	4.64	12635.307	12635.307	bb			0.4791	95.83	-4.17	272.586	
CL100326-06CCV	Perchlorate-O(18)	107 > 89	4.61	31726.977	31726.977	bb			0.4615	92.31	-7.69	2870.3...	

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ıtaset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

ıst Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
inted: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

ıme: per0326035a
ıte: 26-Mar-2010
me: 23:57:19
: WCL100326-06CCV
al: 1:2,A

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03.27.10

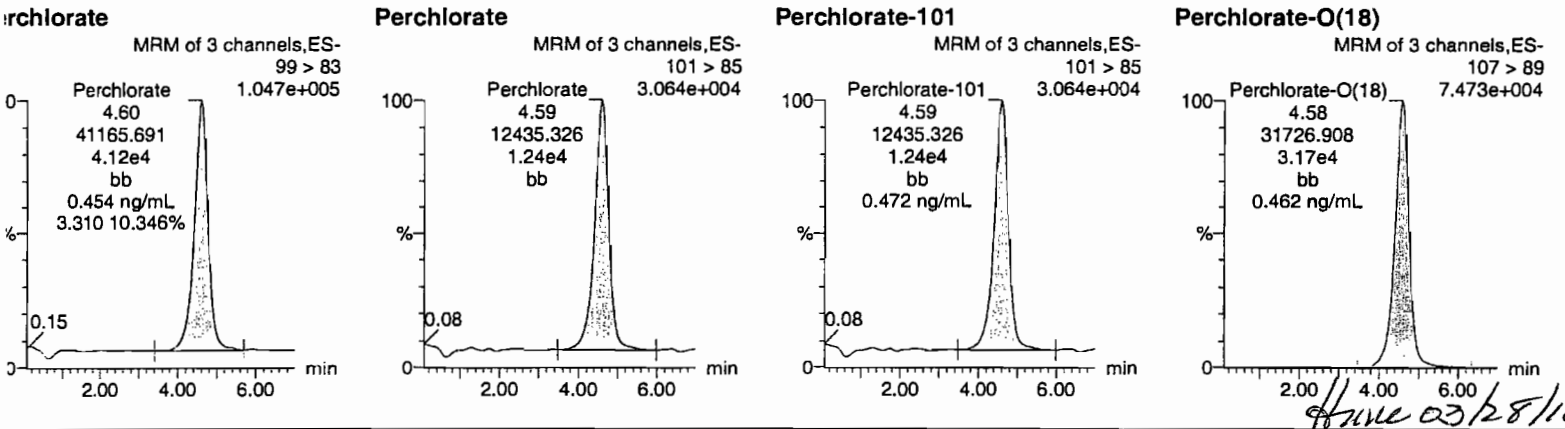

Rmc 03/28/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-06CCV	Perchlorate	99 > 83	4.60	41165.691	41165.691	bb			0.4540	90.79	-9.21	481.358	3.31
CL100326-06CCV	Perchlorate-101	101 > 85	4.59	12435.326	12435.326	bb			0.4715	94.31	-5.69	314.552	
CL100326-06CCV	Perchlorate-O(18)	107 > 89	4.58	31726.908	31726.908	bb			0.4615	92.31	-7.69	5456.3...	

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

ast Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
rinted: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

ame: per0326047a
ate: 27-Mar-2010
me: 01:58:25
: WCL100326-06CCV
al: 1:2,A

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03-27-10

erchlorate

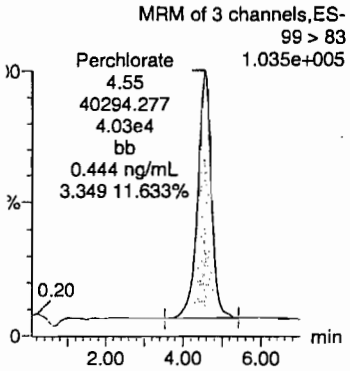

Perchlorate

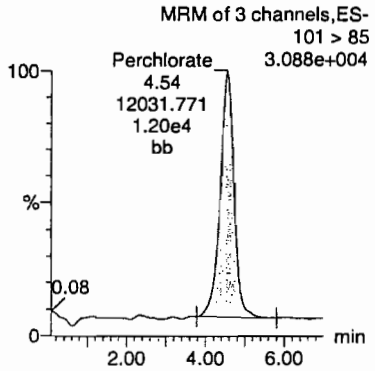

Perchlorate-101

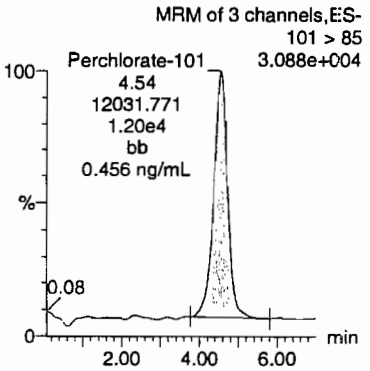

Perchlorate-O(18)

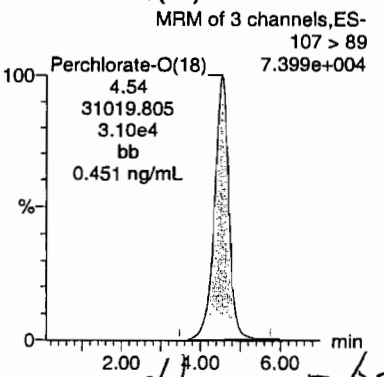

Hmc 03/28/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-06CCV	Perchlorate	99 > 83	4.55	40294.277	40294.277	bb			0.4444	88.87	-11.13	522.774	3.35
CL100326-06CCV	Perchlorate-101	101 > 85	4.54	12031.771	12031.771	bb			0.4562	91.25	-8.75	192.131	
CL100326-06CCV	Perchlorate-O(18)	107 > 89	4.54	31019.805	31019.805	bb			0.4513	90.25	-9.75	3100.7...	

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

ast Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
rinted: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

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ate: 27-Mar-2010
ime: 03:39:21
): WCL100326-06CCV
ial: 1:2,A

Pw 03-27-10

erchlorate

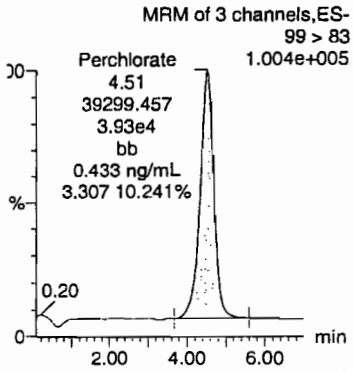

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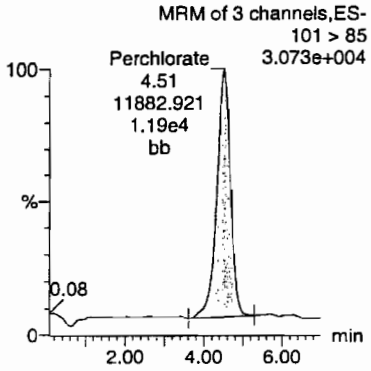

Perchlorate-101

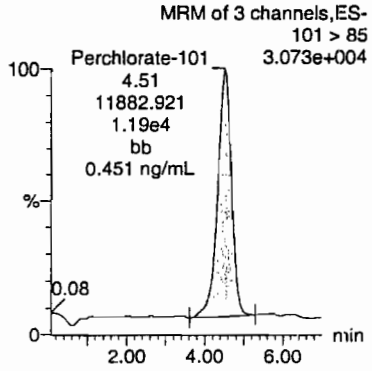

Perchlorate-O(18)

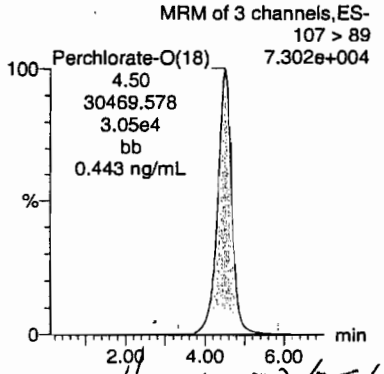

Hmc 03/28/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-06CCV	Perchlorate	99 > 83	4.51	39299.457	39299.457	bb			0.4334	86.68	-13.32	643.039	3.31
CL100326-06CCV	Perchlorate-101	101 > 85	4.51	11882.921	11882.921	bb			0.4506	90.12	-9.88	348.592	
CL100326-06CCV	Perchlorate-O(18)	107 > 89	4.50	30469.578	30469.578	bb			0.4433	88.65	-11.35	3369.8...	

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

ast Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
rinted: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

ame: per0326070a
ate: 27-Mar-2010
ime: 05:51:23
: WCL100326-06CCV
ial: 1:2,A

Pass
AWO
03-27-10

erchlorate

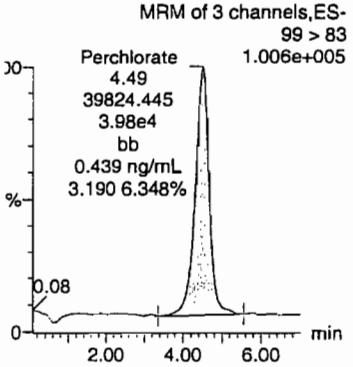

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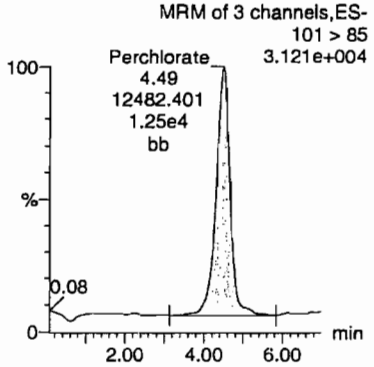

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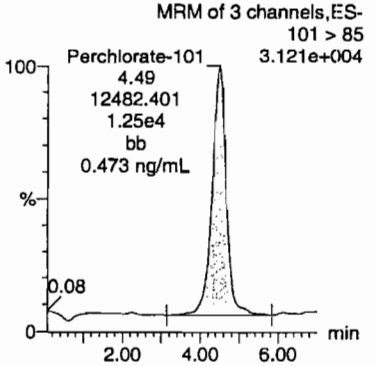

Perchlorate-O(18)

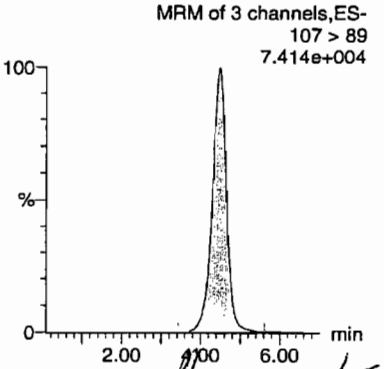

AMM 03/28/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-06CCV	Perchlorate	99 > 83	4.49	39824.445	39824.445	bb			0.4392	87.83	-12.17	306.428	3.19
CL100326-06CCV	Perchlorate-101	101 > 85	4.49	12482.401	12482.401	bb			0.4733	94.67	-5.33	642.957	
CL100326-06CCV	Perchlorate-O(18)	107 > 89	4.46	30537.795	30537.795	bb			0.4442	88.85	-11.15	746.332	

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327022a
Date: 27-Mar-2010
Time: 16:58:15
ID: WCL100326-06CCV
Vial: 1:2,A

Perm
aw
03-28-10

Perchlorate

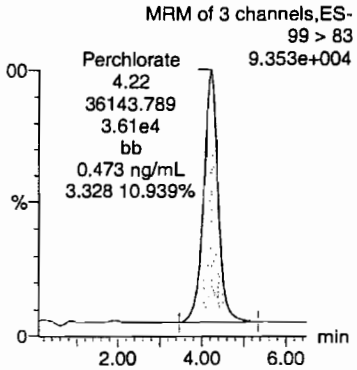

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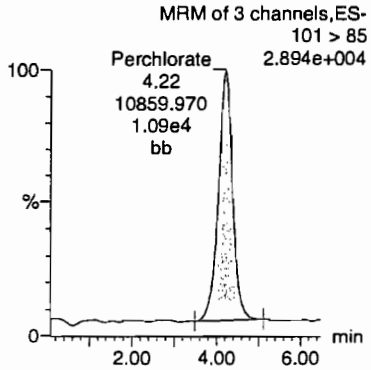

Perchlorate-101

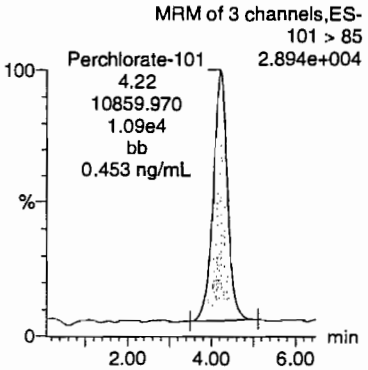

Perchlorate-O(18)

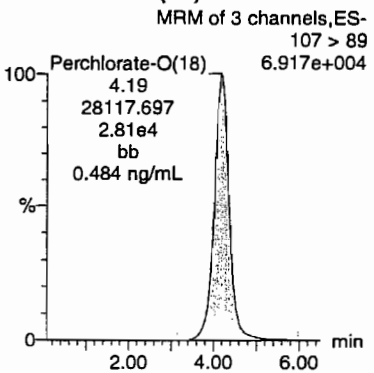

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	4.22	36143.789	36143.789	bb			0.4734	94.68	-5.32	718.874	3.33
WCL100326-06CCV	Perchlorate-101	101 > 85	4.22	10859.970	10859.970	bb			0.4527	90.53	-9.47	307.369	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	4.19	28117.697	28117.697	bb			0.4844	96.87	-3.13	3566.7...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2305

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	91.11	26–MAR–10 19:54	per0326011a
Perchlorate Isotope Ratio		2.8		26–MAR–10 19:54	per0326011a
Perchlorate–101	.05	.06	111.94	26–MAR–10 19:54	per0326011a
Perchlorate	.05	.04	76.13	26–MAR–10 22:06	per0326024a
Perchlorate Isotope Ratio		2.92		26–MAR–10 22:06	per0326024a
Perchlorate–101	.05	.04	89.75	26–MAR–10 22:06	per0326024a
Perchlorate	.05	.05	94.78	27–MAR–10 00:17	per0326037a
Perchlorate Isotope Ratio		3.76		27–MAR–10 00:17	per0326037a
Perchlorate–101	.05	.04	86.76	27–MAR–10 00:17	per0326037a
Perchlorate	.05	.04	86.09	27–MAR–10 02:18	per0326049a
Perchlorate Isotope Ratio		3.57		27–MAR–10 02:18	per0326049a

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2305

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate–101	.05	.04	82.97	27–MAR–10 02:18	per0326049a
Perchlorate	.05	.05	90.03	27–MAR–10 03:59	per0326059a
Perchlorate Isotope Ratio		3.71		27–MAR–10 03:59	per0326059a
Perchlorate–101	.05	.04	83.49	27–MAR–10 03:59	per0326059a
Perchlorate	.05	.05	93.04	27–MAR–10 06:11	per0326072a
Perchlorate Isotope Ratio		3.51		27–MAR–10 06:11	per0326072a
Perchlorate–101	.05	.05	91.16	27–MAR–10 06:11	per0326072a
Perchlorate	.05	.04	87.45	27–MAR–10 15:12	per0327011a
Perchlorate Isotope Ratio		2.72		27–MAR–10 15:12	per0327011a
Perchlorate–101	.05	.05	102.42	27–MAR–10 15:12	per0327011a
Perchlorate	.05	.05	104.5	27–MAR–10 17:17	per0327024a

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2305

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.46		27–MAR–10 17:17	per0327024a
Perchlorate–101	.05	.05	95.98	27–MAR–10 17:17	per0327024a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326011a
Date: 26-Mar-2010
Time: 19:54:39
ID: WCL100326-07CRI
Vial: 1:2,B

Page 396 of 1359

Pass
AWD
03-27-10

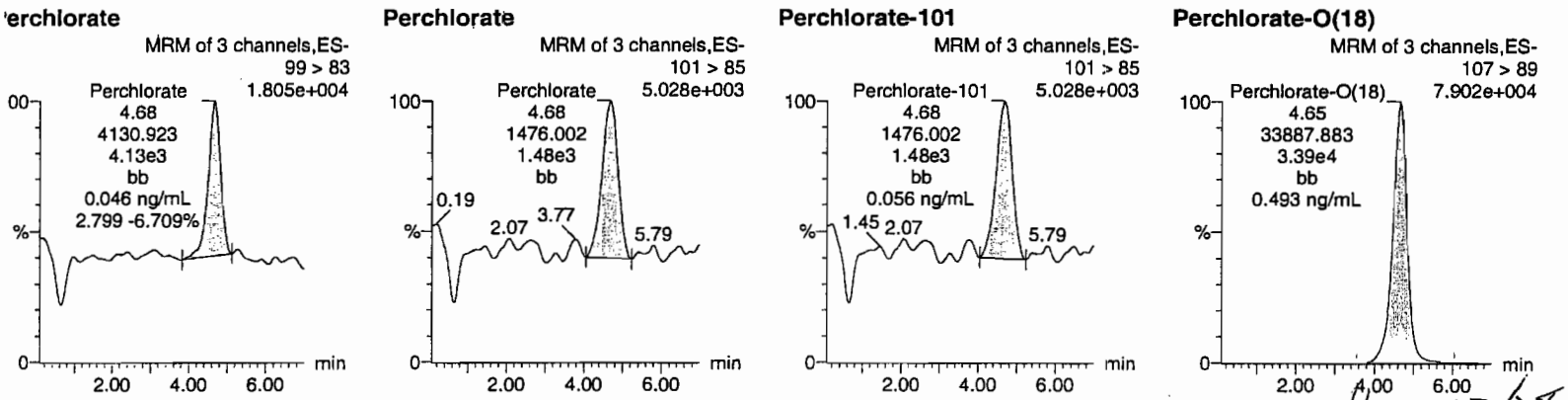

Hyne 03/28/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100326-07CRI	Perchlorate	99 > 83	4.68	4130.923	4130.923	bb			0.0456	91.11	-8.89	80.633	2.80
/CL100326-07CRI	Perchlorate-101	101 > 85	4.68	1476.002 ✓	1476.002	bb			0.0560	111.94	11.94	14.788	
/CL100326-07CRI	Perchlorate-O(18)	107 > 89	4.65	33887.883	33887.883	bb			0.4930	98.60	-1.40	2942.1...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

ast Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
rinted: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

ame: per0326024a
ate: 26-Mar-2010
ime: 22:06:01
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ial: 1:2,B

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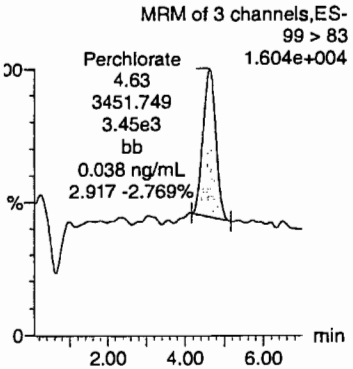

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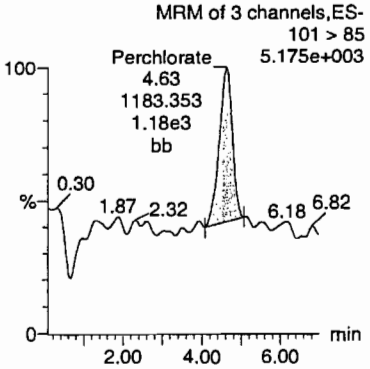

Perchlorate-101

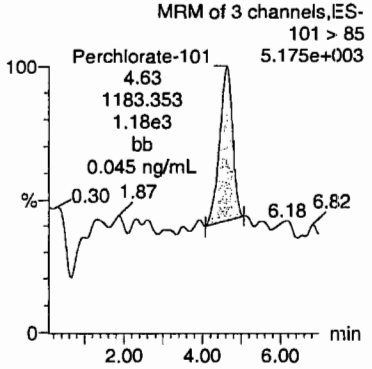

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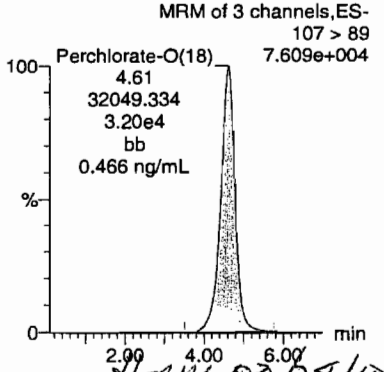

AMC 03/28/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-07CRI	Perchlorate	99 > 83	4.63	3451.749	3451.749	bb			0.0381	76.13	-23.87	81.944	2.92
CL100326-07CRI	Perchlorate-101	101 > 85	4.63	1183.353	1183.353	bb			0.0449	89.75	-10.25	22.996	
CL100326-07CRI	Perchlorate-O(18)	107 > 89	4.61	32049.334	32049.334	bb			0.4662	93.25	-6.75	3395.9...	

:L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

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rinted: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

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ate: 27-Mar-2010
ime: 00:17:37
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ial: 1:2,B

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03·27·10

erchlorate

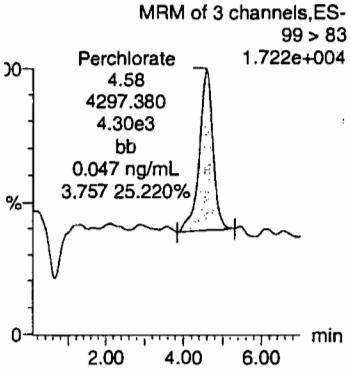

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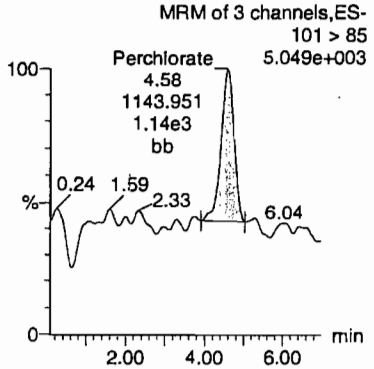

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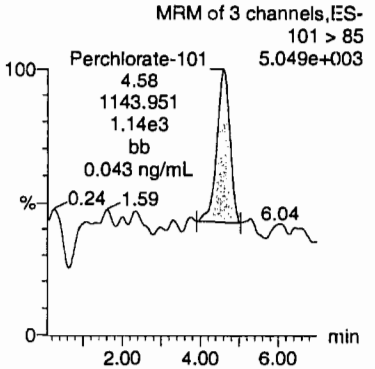

Perchlorate-O(18)

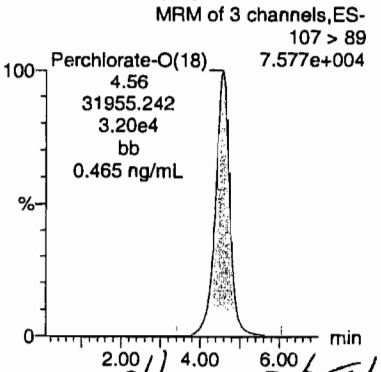

Hmw 03/28/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-07CRI	Perchlorate	99 > 83	4.58	4297.380	4297.380	bb			0.0474	94.78	-5.22	60.556	3.76
CL100326-07CRI	Perchlorate-101	101 > 85	4.58	1143.951	1143.951	bb			0.0434	86.76	-13.24	28.899	
CL100326-07CRI	Perchlorate-O(18)	107 > 89	4.56	31955.242	31955.242	bb			0.4649	92.97	-7.03	3054.1...	

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

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Time: 02:18:44
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
OWJ
03-27-10

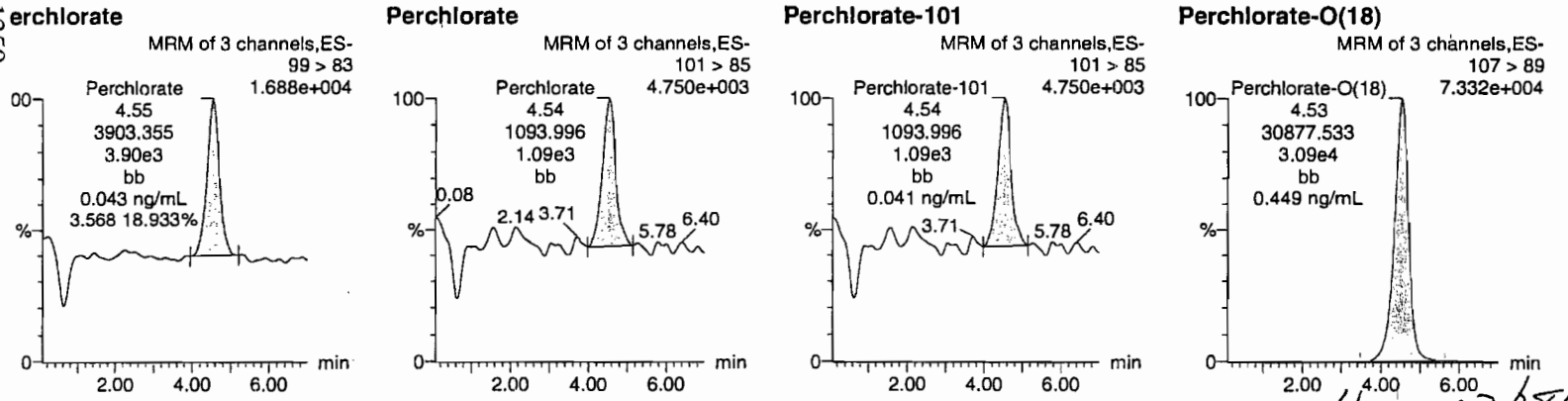

Hrmc 03/28/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-07CRI	Perchlorate	99 > 83	4.55	3903.355	3903.355	bb			0.0430	86.09	-13.91	73.342	3.57
CL100326-07CRI	Perchlorate-101	101 > 85	4.54	1093.996	1093.996	bb			0.0415	82.97	-17.03	27.530	
CL100326-07CRI	Perchlorate-O(18)	107 > 89	4.53	30877.533	30877.533	bb			0.4492	89.84	-10.16	745.296	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

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Date: 27-Mar-2010
Time: 03:59:48
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
03-27-10

Perchlorate

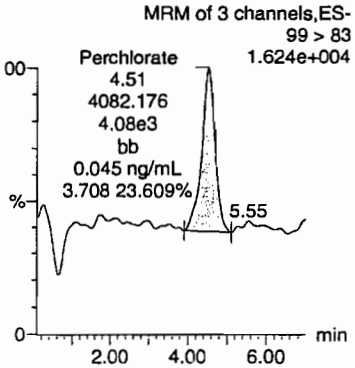

Perchlorate

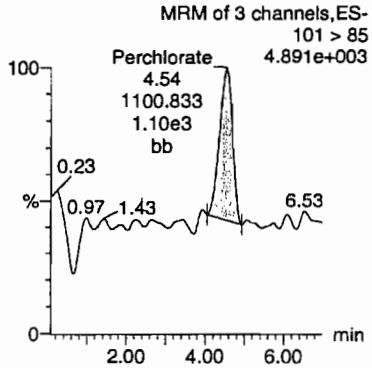

Perchlorate-101

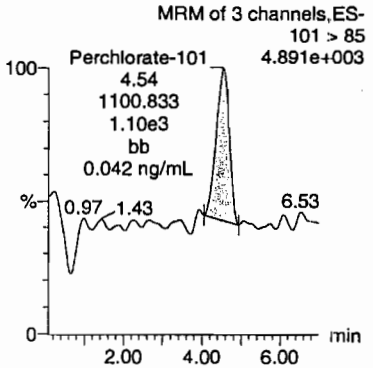

Perchlorate-O(18)

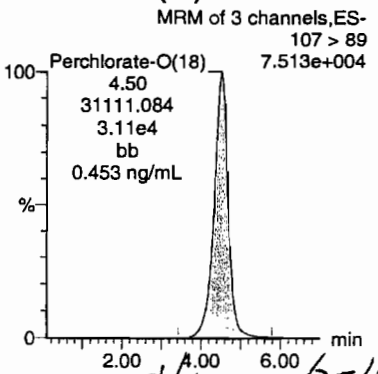

HMNL 03/28/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	4.51	4082.176	4082.176	bb			0.0450	90.03	-9.97	60.533	3.71
WCL100326-07CRI	Perchlorate-101	101 > 85	4.54	1100.833	1100.833	bb			0.0417	83.49	-16.51	29.768	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.50	31111.084	31111.084	bb			0.4526	90.52	-9.48	2434.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

ast Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
rinted: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

ame: per0326072a
ate: 27-Mar-2010
ime: 06:11:41
): WCL100326-07CRI
ial: 1:2,B

Pass
03-27-10

erchlorate

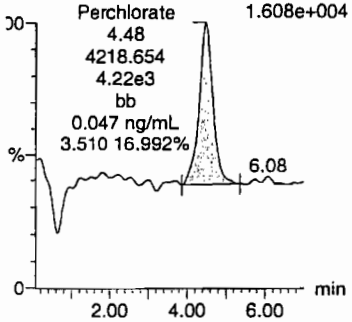

Perchlorate

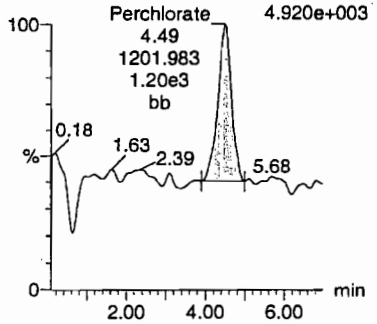

Perchlorate-101

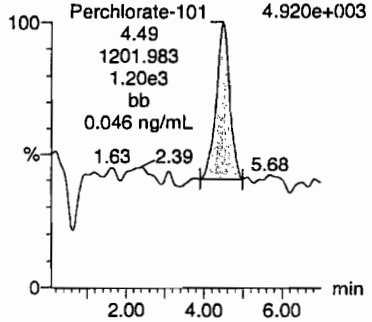

Perchlorate-O(18)

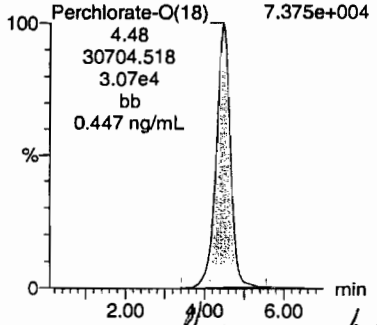

AMW 03/28/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-07CRI	Perchlorate	99 > 83	4.48	4218.654	4218.654	bb			0.0465	93.04	-6.96	47.315	3.51
CL100326-07CRI	Perchlorate-101	101 > 85	4.49	1201.983	1201.983	bb			0.0456	91.16	-8.84	48.276	
CL100326-07CRI	Perchlorate-O(18)	107 > 89	4.48	30704.518	30704.518	bb			0.4467	89.33	-10.67	1806.4...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327011a
Date: 27-Mar-2010
Time: 15:12:07
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
CW
03-28-10

Perchlorate

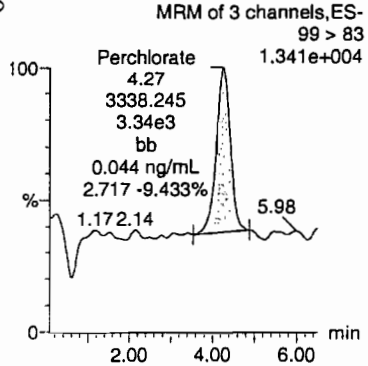

Perchlorate

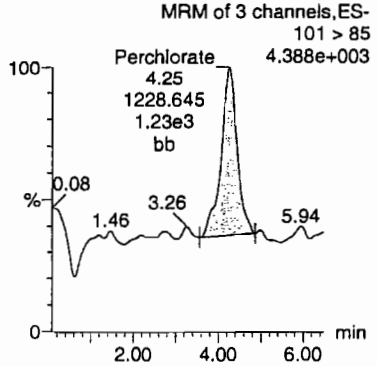

Perchlorate-101

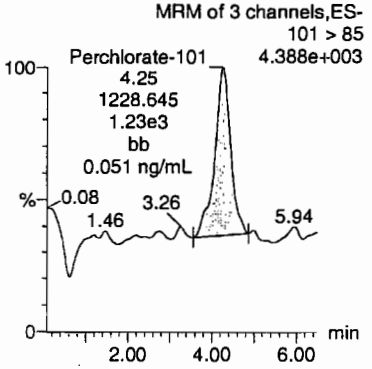

Perchlorate-O(18)

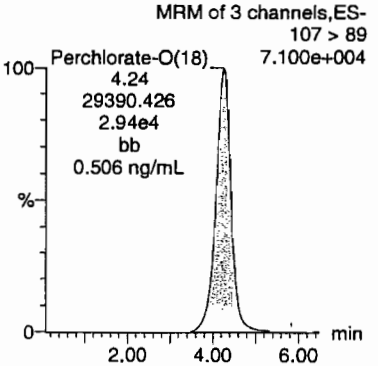

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100326-07CRI	Perchlorate	99 > 83	4.27	3338.245	3338.245	bb			0.0437	87.45	-12.55	57.023	2.72
VCL100326-07CRI	Perchlorate-101	101 > 85	4.25	1228.645	1228.645	bb			0.0512	102.42	2.42	37.113	
VCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.24	29390.426	29390.426	bb			0.5063	101.26	1.26	1326.3...	

MMT
3/30/10

$$\frac{3338.245}{76347.5} = 0.0437$$

$$\frac{3338.245}{1228.645} = 2.7170$$

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327024a
Date: 27-Mar-2010
Time: 17:17:35
ID: WCL100326-07CRI
Vial: 1:2,B

Pam
and
03-28-10

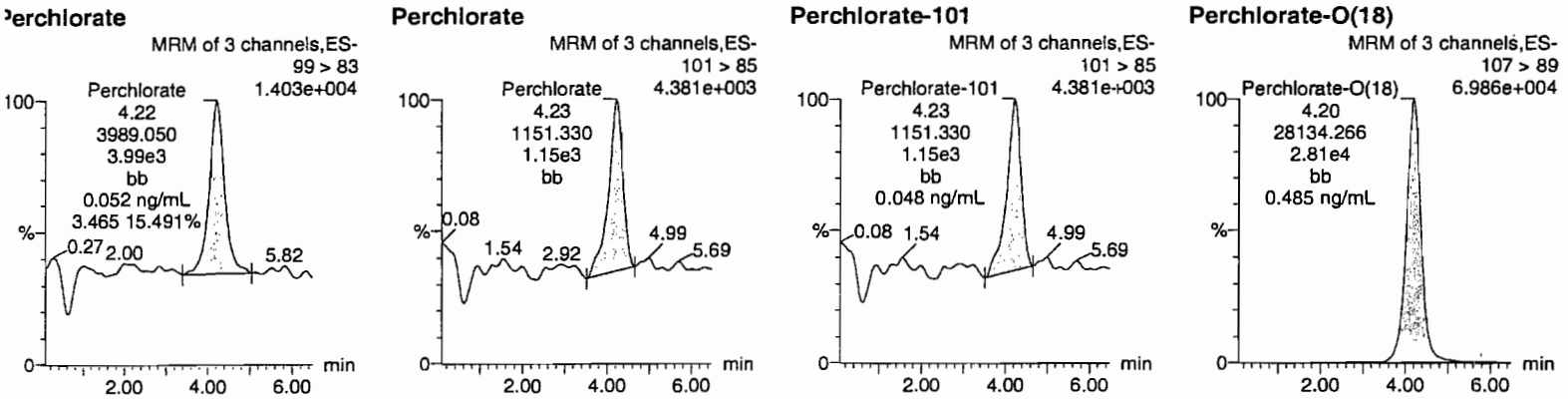

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100326-07CRI	Perchlorate	99 > 83	4.22	3989.050	3989.050	bb			0.0522	104.50	4.50	91.832	3.46
VCL100326-07CRI	Perchlorate-101	101 > 85	4.23	1151.330	1151.330	bb			0.0480	95.98	-4.02	17.575	
VCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.20	28134.266	28134.266	bb			0.4847	96.93	-3.07	731.209	

MAT
3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 18-MAR-10

GEL Job No (SDG): 10-2305

GEL Sample ID: 1202068342

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	27-MAR-10 04:09	per0326060a
	Perchlorate Isotope Ratio						1	27-MAR-10 04:09	per0326060a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	27-MAR-10 04:09	per0326060a
	Perchlorate-O(18)			4.27	ug/kg		1	27-MAR-10 04:09	per0326060a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326060a
Date: 27-Mar-2010
Time: 04:09:50
ID: 1202068342
Vial: 2:5,A

LAJL | 964119 | 30620 | MB | 1 |

CWJ 03-27-10

Perchlorate

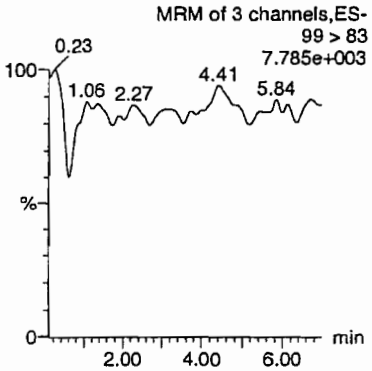

Perchlorate

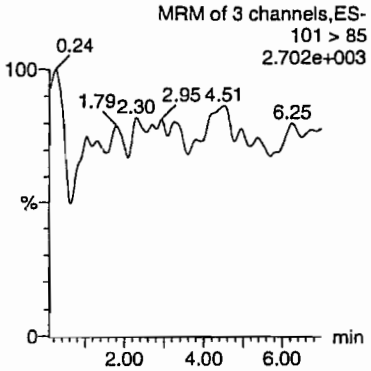

Perchlorate-101

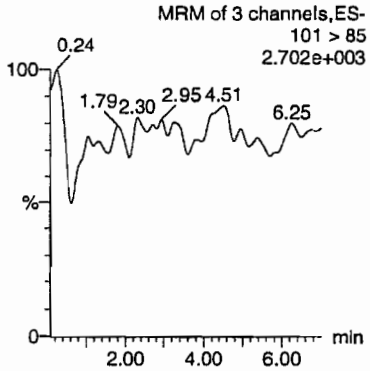

Perchlorate-O(18)

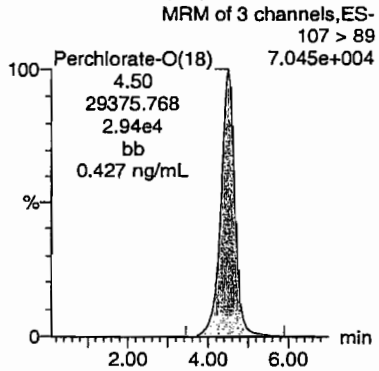

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202068342	Perchlorate	99 > 83											0.00
202068342	Perchlorate-101	101 > 85											
202068342	Perchlorate-O(18)	107 > 89	4.50	29375.768	29375.768	bb			0.4273	85.47	-14.53	1939.2...	

LMT 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 18-MAR-10

GEL Job No (SDG): 10-2305

GEL Sample ID: 1202068343

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	1.77	ug/kg	J	1	27-MAR-10 04:20	per0326061a
	Perchlorate Isotope Ratio			3.29			1	27-MAR-10 04:20	per0326061a
14797-73-0	Perchlorate-101	.5	2	1.85	ug/kg	J	1	27-MAR-10 04:20	per0326061a
	Perchlorate-O(18)			4.38	ug/kg		1	27-MAR-10 04:20	per0326061a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326061a
Date: 27-Mar-2010
Time: 04:20:15
ID: 1202068343
Vial: 2:5,B

|LANL|964119|30120|LCS|1|

CWO 03.27.10

Perchlorate

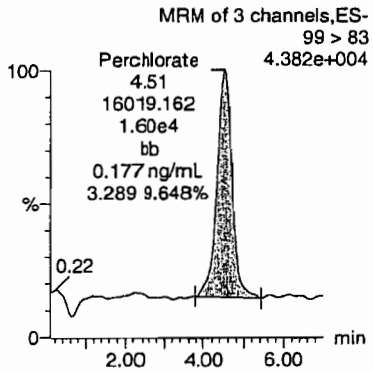

Perchlorate

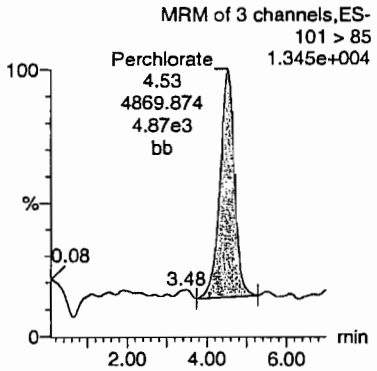

Perchlorate-101

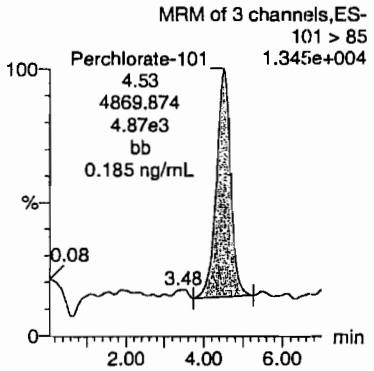

Perchlorate-O(18)

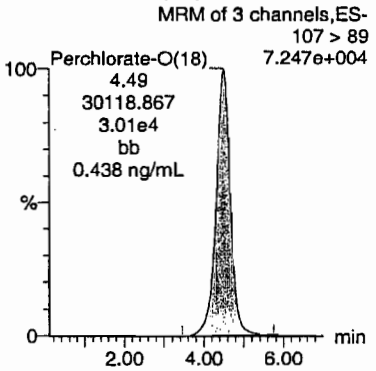

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068343	Perchlorate	99 > 83	4.51	16019.162	16019.162	bb			0.1767	88.33	-11.67	100.594	3.29
1202068343	Perchlorate-101	101 > 85	4.53	4869.874	4869.874	bb			0.1847	92.33	-7.67	131.591	
1202068343	Perchlorate-O(18)	107 > 89	4.49	30118.867	30118.867	bb			0.4382	87.63	-12.37	1518.6...	

MAT 3/30/10

$$\frac{16019.162}{90680.5} = 0.1767$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 964118 **Verified by:** _____

Analyst: Kaylie Westmoreland **Lab SOP:** GL-OA-E-067 REV# 6

Method: SW846 6850 Modified **Instrument:** MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202068342 MB	18-MAR-2010 16:01:00	2	20	10
1202068343 LCS	18-MAR-2010 16:01:00	2	20	10
248793001	18-MAR-2010 16:01:00	2	20	10
1202068344 MS (248793001)	18-MAR-2010 16:01:00	2	20	10
1202068345 MSD (248793001)	18-MAR-2010 16:01:00	2	20	10
248793002	18-MAR-2010 16:01:00	2	20	10
248793003	18-MAR-2010 16:01:00	2	20	10
248793004	18-MAR-2010 16:01:00	2	20	10
248824001	18-MAR-2010 16:01:00	2	20	10
248824002	18-MAR-2010 16:01:00	2	20	10
248834001	18-MAR-2010 16:01:00	2	20	10
248834002	18-MAR-2010 16:01:00	2	20	10
248834003	18-MAR-2010 16:01:00	2	20	10
248834004	18-MAR-2010 16:01:00	2	20	10
248834005	18-MAR-2010 16:01:00	2	20	10
248834006	18-MAR-2010 16:01:00	2	20	10
248834007	18-MAR-2010 16:01:00	2	20	10
248834008	18-MAR-2010 16:01:00	2	20	10
248834009	18-MAR-2010 16:01:00	2	20	10
248834010	18-MAR-2010 16:01:00	2	20	10
248834011	18-MAR-2010 16:01:00	2	20	10
1202068346 ICS	18-MAR-2010 16:01:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202068346	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
LCS	1202068343	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
MS	1202068344	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
MSD	1202068345	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL

Comments:

Desalting Cartridges used: 100224-1-Ba & 100216-1-H

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/26/10
Extr. Injection Volume: 20uL
Sequence Number: per032610a
Initial Calibration Date: 03/26/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1284736
Standard-Samp Reagent Lot#:: 1284736

Reviewed BY: [illegible]
Date: 3/30/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100326-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0326001a	IPB001	CWW	3/26/2010 18:12			1		USE	B
per0326002a	IPB001	CWW	3/26/2010 18:23			1		USE	B
per0326003a	WCLICAL-01	CWW	3/26/2010 18:33			1		USE	I
per0326004a	WCLICAL-02	CWW	3/26/2010 18:43			1		USE	I
per0326005a	WCLICAL-03	CWW	3/26/2010 18:53			1		USE	I
per0326006a	WCLICAL-04	CWW	3/26/2010 19:04			1		USE	I
per0326007a	WCLICAL-05	CWW	3/26/2010 19:14			1		USE	I
per0326008a	IPB002	CWW	3/26/2010 19:24			1		USE	B
per0326009a	WCLICV	CWW	3/26/2010 19:34			1		USE	C
per0326010a	IPB003	CWW	3/26/2010 19:44			1		USE	B
per0326011a	WCLCRI	CWW	3/26/2010 19:54			1		USE	C
per0326012a	248623009	CWW	3/26/2010 20:04	964107	10-2237	1	LANL	USE	S
per0326013a	IPB004	CWW	3/26/2010 20:14			1		USE	B
per0326014a	248635004	CWW	3/26/2010 20:25	964110	10-2234	1	LANL	USE	S
per0326015a	248635005	CWW	3/26/2010 20:35	964110	10-2234	1	LANL	USE	S
per0326016a	248635006	CWW	3/26/2010 20:45	964110	10-2234	1	LANL	USE	S
per0326017a	248635007	CWW	3/26/2010 20:55	964110	10-2234	1	LANL	USE	S
per0326018a	248635008	CWW	3/26/2010 21:05	964110	10-2234	1	LANL	USE	S
per0326019a	248635009	CWW	3/26/2010 21:15	964110	10-2234	1	LANL	USE	S
per0326020a	248635010	CWW	3/26/2010 21:25	964110	10-2234	1	LANL	USE	S
per0326021a	248635011	CWW	3/26/2010 21:35	964110	10-2234	1	LANL	USE	S
per0326022a	WCLCCV	CWW	3/26/2010 21:45			1		USE	C
per0326023a	IPB005	CWW	3/26/2010 21:55			1		USE	B
per0326024a	WCLCRI	CWW	3/26/2010 22:06			1		USE	C
per0326025a	248635012	CWW	3/26/2010 22:16	964110	10-2234	1	LANL	USE	S
per0326026a	248635013	CWW	3/26/2010 22:26	964110	10-2234	1	LANL	USE	S
per0326027a	1202068326	CWW	3/26/2010 22:36	964107	VARIOUS	1	LANL	DUSE	S
per0326028a	1202068331	CWW	3/26/2010 22:46	964110	VARIOUS	1	LANL	DUSE	S
per0326029a	IPB006	CWW	3/26/2010 22:56			1		USE	B

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per0326030a	1202068332	CWW	3/26/2010 23:06	964113	VARIOUS	1	LANL	USE	S
per0326031a	1202068333	CWW	3/26/2010 23:16	964113	VARIOUS	1	LANL	USE	S
per0326032a	1202068336	CWW	3/26/2010 23:27	964113	VARIOUS	1	LANL	DUSE-RA	S
per0326033a	248647001	CWW	3/26/2010 23:37	964113	10-2237	1	LANL	USE	S
per0326034a	248647002	CWW	3/26/2010 23:47	964113	10-2240	1	LANL	USE	S
per0326035a	WCLCCV	CWW	3/26/2010 23:57			1		USE	C
per0326036a	IPB007	CWW	3/27/2010 0:07			1		USE	B
per0326037a	WCLCRI	CWW	3/27/2010 0:17			1		USE	C
per0326038a	248647003	CWW	3/27/2010 0:27	964113	10-2240	1	LANL	USE	S
per0326039a	248647004	CWW	3/27/2010 0:37	964113	10-2240	1	LANL	USE	S
per0326040a	248647005	CWW	3/27/2010 0:47	964113	10-2240	1	LANL	USE	S
per0326041a	248647006	CWW	3/27/2010 0:57	964113	10-2240	1	LANL	USE	S
per0326042a	248647007	CWW	3/27/2010 1:07	964113	10-2240	1	LANL	USE	S
per0326043a	248647008	CWW	3/27/2010 1:18	964113	10-2240	1	LANL	USE	S
per0326044a	248660002	CWW	3/27/2010 1:28	964113	10-2244	1	LANL	USE	S
per0326045a	248702001	CWW	3/27/2010 1:38	964113	10-2264	1	LANL	USE	S
per0326046a	248702002	CWW	3/27/2010 1:48	964113	10-2264	1	LANL	USE	S
per0326047a	WCLCCV	CWW	3/27/2010 1:58			1		USE	C
per0326048a	IPB008	CWW	3/27/2010 2:08			1		USE	B
per0326049a	WCLCRI	CWW	3/27/2010 2:18			1		USE	C
per0326050a	248776001	CWW	3/27/2010 2:28	964113	10-2281	1	LANL	USE	S
per0326051a	1202068334	CWW	3/27/2010 2:39	964113	10-2281	1	LANL	USE	S
per0326052a	1202068335	CWW	3/27/2010 2:49	964113	10-2281	1	LANL	USE	S
per0326053a	248776002	CWW	3/27/2010 2:59	964113	10-2281	1	LANL	USE	S
per0326054a	248776003	CWW	3/27/2010 3:09	964113	10-2281	1	LANL	USE	S
per0326055a	248776004	CWW	3/27/2010 3:19	964113	10-2281	1	LANL	USE	S
per0326056a	248776005	CWW	3/27/2010 3:29	964113	10-2281	1	LANL	USE	S
per0326057a	WCLCCV	CWW	3/27/2010 3:39			1		USE	C
per0326058a	IPB009	CWW	3/27/2010 3:49			1		USE	B
per0326059a	WCLCRI	CWW	3/27/2010 3:59			1		USE	C
per0326060a	1202068342	CWW	3/27/2010 4:09	964119	VARIOUS	1	LANL	USE	S
per0326061a	1202068343	CWW	3/27/2010 4:20	964119	VARIOUS	1	LANL	USE	S
per0326062a	1202068346	CWW	3/27/2010 4:30	964119	VARIOUS	1	LANL	DUSE-RA	S
per0326063a	248793001	CWW	3/27/2010 4:40	964119	10-2287-1	1	LANL	USE	S
per0326064a	1202068344	CWW	3/27/2010 4:50	964119	10-2287-1	1	LANL	USE	S
per0326065a	1202068345	CWW	3/27/2010 5:00	964119	10-2287-1	1	LANL	USE	S
per0326066a	248793002	CWW	3/27/2010 5:10	964119	10-2287-1	1	LANL	USE	S

per0326067a	248793003	CWW	3/27/2010 5:21	964119	10-2287-1	1	LANL	USE	S
per0326068a	248793004	CWW	3/27/2010 5:31	964119	10-2287-1	1	LANL	USE	S
per0326069a	248824001	CWW	3/27/2010 5:41	964119	10-2305	1	LANL	USE	S
per0326070a	WCLCCV	CWW	3/27/2010 5:51			1		USE	C
per0326071a	IPB010	CWW	3/27/2010 6:01			1		USE	B
per0326072a	WCLCRI	CWW	3/27/2010 6:11			1		USE	C
per0326073a	248824002	CWW	3/27/2010 6:21	964119	10-2305	1	LANL	DUSE-RA	S
per0326074a	248834001	CWW	3/27/2010 6:31	964119	10-2299	1	LANL	DUSE-RA	S
per0326075a	248834002	CWW	3/27/2010 6:42	964119	10-2299	1	LANL	DUSE-RA	S
per0326076a	248834003	CWW	3/27/2010 6:52	964119	10-2299	1	LANL	DUSE-RA	S
per0326077a	248834004	CWW	3/27/2010 7:02	964119	10-2299	1	LANL	DUSE-RA	S
per0326078a	248834005	CWW	3/27/2010 7:12	964119	10-2299	1	LANL	DUSE-RA	S
per0326079a	248834006	CWW	3/27/2010 7:22	964119	10-2299	1	LANL	DUSE-RA	S
per0326080a	248834007	CWW	3/27/2010 7:32	964119	10-2299	1	LANL	DUSE-RA	S
per0326081a	248834008	CWW	3/27/2010 7:42	964119	10-2299	1	LANL	DUSE-RA	S
per0326082a	248834009	CWW	3/27/2010 7:52	964119	10-2299	1	LANL	DUSE-RA	S
per0326083a	WCLCCV	CWW	3/27/2010 8:02			1		DUSE	C
per0326084a	IPB011	CWW	3/27/2010 8:13			1		DUSE	B
per0326085a	WCLCRI	CWW	3/27/2010 8:23			1		DUSE	C

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/27/10
Extr. Injection Volume: 20uL
Sequence Number: per032710a
Initial Calibration Date: 03/27/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1284736
Standard-Samp Reagent Lot#:: 1284736

Reviewed BY: MAT
Date: 3/30/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100326-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0327001a	IPB001	CWW	3/27/2010 13:35			1		USE	B
per0327002a	IPB001	CWW	3/27/2010 13:44			1		USE	B
per0327003a	WCLICAL-01	CWW	3/27/2010 13:54			1		USE	I
per0327004a	WCLICAL-02	CWW	3/27/2010 14:04			1		USE	I
per0327005a	WCLICAL-03	CWW	3/27/2010 14:14			1		USE	I
per0327006a	WCLICAL-04	CWW	3/27/2010 14:23			1		USE	I
per0327007a	WCLICAL-05	CWW	3/27/2010 14:33			1		USE	I
per0327008a	IPB002	CWW	3/27/2010 14:42			1		USE	B
per0327009a	WCLICV	CWW	3/27/2010 14:52			1		USE	C
per0327010a	IPB003	CWW	3/27/2010 15:02			1		USE	B
per0327011a	WCLCRI	CWW	3/27/2010 15:12			1		USE	C
per0327012a	1202068336	CWW	3/27/2010 15:21	964113	VARIOUS	1	LANL	USE	S
per0327013a	1202068346	CWW	3/27/2010 15:31	964119	VARIOUS	1	LANL	USE	S
per0327014a	248824002	CWW	3/27/2010 15:41	964119	10-2305	1	LANL	USE	S
per0327015a	248834001	CWW	3/27/2010 15:51	964119	10-2299	1	LANL	USE	S
per0327016a	248834002	CWW	3/27/2010 16:00	964119	10-2299	1	LANL	USE	S
per0327017a	248834003	CWW	3/27/2010 16:10	964119	10-2299	1	LANL	USE	S
per0327018a	248834004	CWW	3/27/2010 16:20	964119	10-2299	1	LANL	USE	S
per0327019a	248834005	CWW	3/27/2010 16:29	964119	10-2299	1	LANL	USE	S
per0327020a	248834006	CWW	3/27/2010 16:39	964119	10-2299	1	LANL	USE	S
per0327021a	248834007	CWW	3/27/2010 16:48	964119	10-2299	1	LANL	USE	S
per0327022a	WCLCCV	CWW	3/27/2010 16:58			1		USE	C
per0327023a	IPB004	CWW	3/27/2010 17:07			1		USE	B
per0327024a	WCLCRI	CWW	3/27/2010 17:17			1		USE	C
per0327025a	248834008	CWW	3/27/2010 17:27	964119	10-2299	1	LANL	USE	S
per0327026a	248834009	CWW	3/27/2010 17:36	964119	10-2299	1	LANL	USE	S
per0327027a	248834010	CWW	3/27/2010 17:46	964119	10-2299	1	LANL	USE	S
per0327028a	248834011	CWW	3/27/2010 17:55	964119	10-2299	1	LANL	USE	S
per0327029a	IPB005	CWW	3/27/2010 18:05			1		USE	B

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per0327030a	1202068337	CWW	3/27/2010 18:15	964116	VARIOUS	1	LANL	USE	S
per0327031a	1202068338	CWW	3/27/2010 18:25	964116	VARIOUS	1	LANL	USE	S
per0327032a	1202068341	CWW	3/27/2010 18:34	964116	VARIOUS	1	LANL	USE	S
per0327033a	248784001	CWW	3/27/2010 18:44	964116	10-2284-1	1	LANL	USE	S
per0327034a	248784002	CWW	3/27/2010 18:54	964116	10-2284-1	1	LANL	USE	S
per0327035a	WCLCCV	CWW	3/27/2010 19:04			1		USE	C
per0327036a	IPB006	CWW	3/27/2010 19:13			1		USE	B
per0327037a	WCLCRI	CWW	3/27/2010 19:23			1		USE	C
per0327038a	248784003	CWW	3/27/2010 19:33	964116	10-2284-1	1	LANL	USE	S
per0327039a	248784004	CWW	3/27/2010 19:42	964116	10-2284-1	1	LANL	USE	S
per0327040a	248784005	CWW	3/27/2010 19:52	964116	10-2284-1	1	LANL	USE	S
per0327041a	248784006	CWW	3/27/2010 20:02	964116	10-2284-1	1	LANL	USE	S
per0327042a	248784007	CWW	3/27/2010 20:11	964116	10-2284-1	1	LANL	USE	S
per0327043a	248784008	CWW	3/27/2010 20:21	964116	10-2284-1	1	LANL	USE	S
per0327044a	248798001	CWW	3/27/2010 20:30	964116	10-2289	1	LANL	USE	S
per0327045a	1202068339	CWW	3/27/2010 20:40	964116	10-2289	1	LANL	USE	S
per0327046a	1202068340	CWW	3/27/2010 20:49	964116	10-2289	1	LANL	USE	S
per0327047a	248798002	CWW	3/27/2010 20:59	964116	10-2289	1	LANL	USE	S
per0327048a	WCLCCV	CWW	3/27/2010 21:08			1		USE	C
per0327049a	IPB007	CWW	3/27/2010 21:18			1		USE	B
per0327050a	WCLCRI	CWW	3/27/2010 21:28			1		USE	C
per0327051a	248798003	CWW	3/27/2010 21:37	964116	10-2289	1	LANL	USE	S
per0327052a	248798004	CWW	3/27/2010 21:47	964116	10-2289	1	LANL	USE	S
per0327053a	248798005	CWW	3/27/2010 21:57	964116	10-2289	1	LANL	USE	S
per0327054a	248798006	CWW	3/27/2010 22:06	964116	10-2289	1	LANL	USE	S
per0327055a	248798007	CWW	3/27/2010 22:16	964116	10-2289	1	LANL	USE	S
per0327056a	248798008	CWW	3/27/2010 22:25	964116	10-2289	1	LANL	USE	S
per0327057a	248798009	CWW	3/27/2010 22:35	964116	10-2289	1	LANL	USE	S
per0327058a	248798010	CWW	3/27/2010 22:45	964116	10-2289	1	LANL	USE	S
per0327059a	248798011	CWW	3/27/2010 22:54	964116	10-2289	1	LANL	USE	S
per0327060a	248798012	CWW	3/27/2010 23:04	964116	10-2289	1	LANL	USE	S
per0327061a	WCLCCV	CWW	3/27/2010 23:13			1		USE	C
per0327062a	IPB008	CWW	3/27/2010 23:23			1		USE	B
per0327063a	WCLCRI	CWW	3/27/2010 23:33			1		USE	C
per0327064a	1202074284	CWW	3/27/2010 23:42	966566	VARIOUS	1	LANL	USE	S
per0327065a	1202074285	CWW	3/27/2010 23:52	966566	VARIOUS	1	LANL	USE	S
per0327066a	1202074288	CWW	3/28/2010 0:02	966566	VARIOUS	1	LANL	USE	S

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per0327067a	249057004	CWW	3/28/2010 0:11	966566	10-2350	1	LANL	USE	S
per0327068a	249064001	CWW	3/28/2010 0:21	966566	10-2353	1	LANL	USE	S
per0327069a	249072001	CWW	3/28/2010 0:30	966566	10-2355	1	LANL	USE	S
per0327070a	249076001	CWW	3/28/2010 0:40	966566	10-2357	1	LANL	USE	S
per0327071a	249076002	CWW	3/28/2010 0:49	966566	10-2357	1	LANL	USE	S
per0327072a	249097001	CWW	3/28/2010 0:59	966566	10-2360	1	LANL	USE	S
per0327073a	249102001	CWW	3/28/2010 1:09	966566	10-2367	1	LANL	USE	S
per0327074a	WCLCCV	CWW	3/28/2010 1:18			1		USE	C
per0327075a	IPB009	CWW	3/28/2010 1:28			1		USE	B
per0327076a	WCLCRI	CWW	3/28/2010 1:38			1		USE	C
per0327077a	249248005	CWW	3/28/2010 1:48	966566	10-2417	1	LANL	USE	S
per0327078a	249250002	CWW	3/28/2010 1:57	966566	10-2418	1	LANL	USE	S
per0327079a	249328001	CWW	3/28/2010 2:07	966566	10-2429	1	LANL	USE	S
per0327080a	249328002	CWW	3/28/2010 2:17	966566	10-2429	1	LANL	USE	S
per0327081a	IPB010	CWW	3/28/2010 2:26			1		USE	B
per0327082a	249333001	CWW	3/28/2010 2:36	966566	10-2434	1	LANL	USE	S
per0327083a	1202074286	CWW	3/28/2010 2:46	966566	10-2434	1	LANL	USE	S
per0327084a	1202074287	CWW	3/28/2010 2:56	966566	10-2434	1	LANL	USE	S
per0327085a	249333002	CWW	3/28/2010 3:05	966566	10-2434	1	LANL	USE	S
per0327086a	249373001	CWW	3/28/2010 3:15	966566	10-2353	1	LANL	USE	S
per0327087a	WCLCCV	CWW	3/28/2010 3:25			1		USE	C
per0327088a	IPB011	CWW	3/28/2010 3:35			1		USE	B
per0327089a	WCLCRI	CWW	3/28/2010 3:44			1		USE	C
per0327090a	249376001	CWW	3/28/2010 3:54	966566	10-2446	1	LANL	DUSE-RA	S
per0327091a	249376004	CWW	3/28/2010 4:04	966566	10-2446	1	LANL	DUSE-RA	S
per0327092a	IPB012	CWW	3/28/2010 4:13			1		DUSE	B
per0327093a	1202069098	CWW	3/28/2010 4:23	964450	VARIOUS	1	LANL	DUSE-RA	S
per0327094a	1202069099	CWW	3/28/2010 4:33	964450	VARIOUS	1	LANL	DUSE-RA	S
per0327095a	1202069102	CWW	3/28/2010 4:43	964450	VARIOUS	1	LANL	DUSE-RA	S
per0327096a	248863001	CWW	3/28/2010 4:52	964450	10-2315	1	LANL	DUSE-RA	S
per0327097a	248863002	CWW	3/28/2010 5:02	964450	10-2315	1	LANL	DUSE-RA	S
per0327098a	1202069100	CWW	3/28/2010 5:11	964450	10-2315	1	LANL	DUSE-RA	S
per0327099a	1202069101	CWW	3/28/2010 5:21	964450	10-2315	1	LANL	DUSE-RA	S
per0327100a	WCLCCV	CWW	3/28/2010 5:30			1		DUSE	C
per0327101a	IPB013	CWW	3/28/2010 5:40			1		DUSE	B
per0327102a	WCLCRI	CWW	3/28/2010 5:50			1		DUSE	C
per0327103a	248863003	CWW	3/28/2010 5:59	964450	10-2315	1	LANL	DUSE-RA	S

per0327104a	248863004	CWW	3/28/2010 6:09	964450	10-2315	1	LANL	DUSE-RA	S
per0327105a	248865001	CWW	3/28/2010 6:18	964450	10-2318	1	LANL	DUSE-RA	S
per0327106a	248866001	CWW	3/28/2010 6:28	964450	10-2319	1	LANL	DUSE-RA	S
per0327107a	248866002	CWW	3/28/2010 6:37	964450	10-2319	1	LANL	DUSE-RA	S
per0327108a	248867001	CWW	3/28/2010 6:47	964450	10-2320	1	LANL	DUSE-RA	S
per0327109a	248867002	CWW	3/28/2010 6:57	964450	10-2320	1	LANL	DUSE-RA	S
per0327110a	248867003	CWW	3/28/2010 7:06	964450	10-2320	1	LANL	DUSE-RA	S
per0327111a	248867004	CWW	3/28/2010 7:16	964450	10-2320	1	LANL	DUSE-RA	S
per0327112a	249055001	CWW	3/28/2010 7:25	964450	10-2349	1	LANL	DUSE-RA	S
per0327113a	WCLCCV	CWW	3/28/2010 7:35			1		USE	C
per0327114a	IPB014	CWW	3/28/2010 7:44			1		USE	B
per0327115a	WCLCRI	CWW	3/28/2010 7:54			1		USE	C
per0327116a	249055002	CWW	3/28/2010 8:03	964450	10-2349	1	LANL	USE	S
per0327117a	249057002	CWW	3/28/2010 8:13	964450	10-2350	1	LANL	USE	S
per0327118a	249057003	CWW	3/28/2010 8:23	964450	10-2350	1	LANL	USE	S
per0327119a	249064002	CWW	3/28/2010 8:32	964450	10-2353	1	LANL	USE	S
per0327120a	249064003	CWW	3/28/2010 8:42	964450	10-2353	1	LANL	USE	S
per0327121a	249064004	CWW	3/28/2010 8:51	964450	10-2353	1	LANL	USE	S
per0327122a	249064005	CWW	3/28/2010 9:01	964450	10-2353	1	LANL	USE	S
per0327123a	WCLCCV	CWW	3/28/2010 9:10			1		USE	C
per0327124a	IPB015	CWW	3/28/2010 9:20			1		USE	B
per0327125a	WCLCRI	CWW	3/28/2010 9:30			1		USE	C

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326064a
Date: 27-Mar-2010
Time: 04:50:48
ID: 1202068344
Vial: 2:5,E

| LZNC | 964119 | 50620 | MS | 1 |

CW 03-22-10

Perchlorate

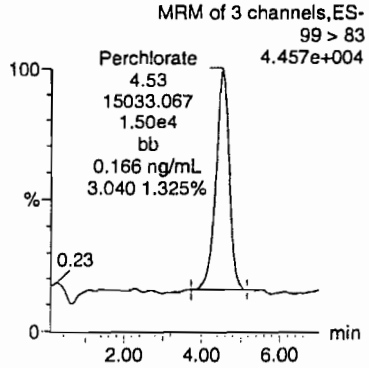

Perchlorate

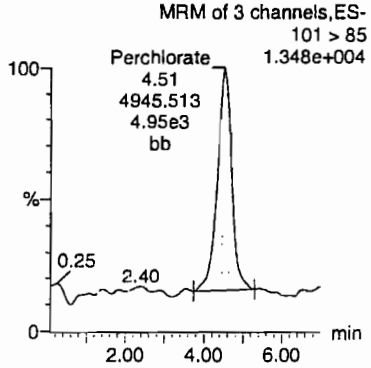

Perchlorate-101

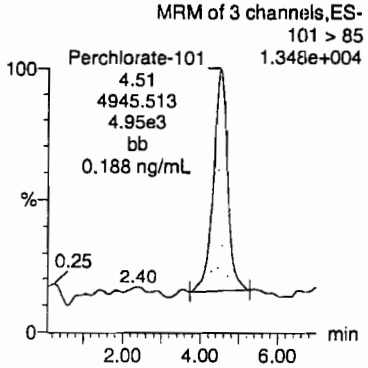

Perchlorate-O(18)

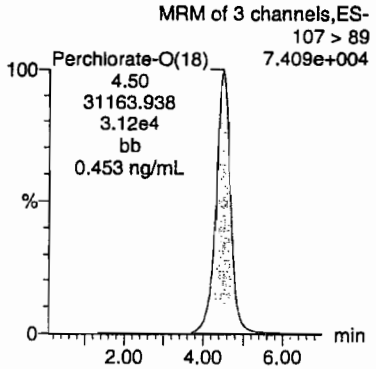

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068344	Perchlorate	99 > 83	4.53	15033.067	15033.067	bb			0.1658	82.89	-17.11	322.402	3.04
1202068344	Perchlorate-101	101 > 85	4.51	4945.513	4945.513	bb			0.1875	93.77	-6.23	144.956	
1202068344	Perchlorate-O(18)	107 > 89	4.50	31163.938	31163.938	bb			0.4534	90.67	-9.33	895.856	

MMT 3/30/10

$$\frac{15033.067}{4945.513} = 3.0397$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326065a
Date: 27-Mar-2010
Time: 05:00:50
ID: 1202068345
Vial: 2:5,F

|LZ2JU|964111|35125|1|

CWJ 03.27.10

Perchlorate

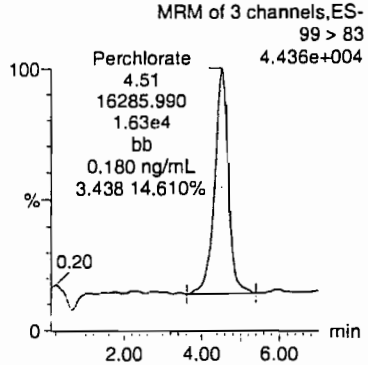

Perchlorate

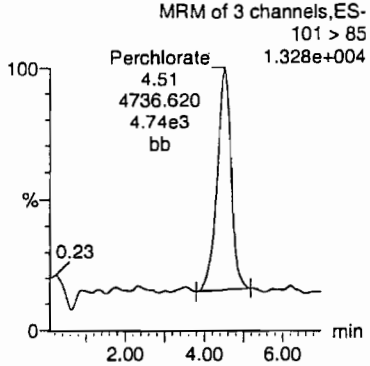

Perchlorate-101

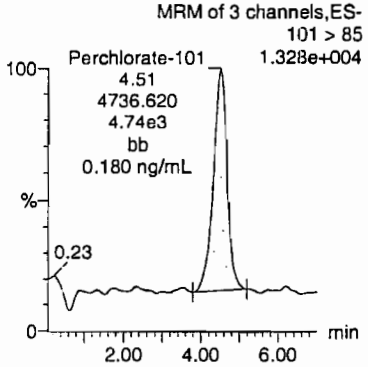

Perchlorate-O(18)

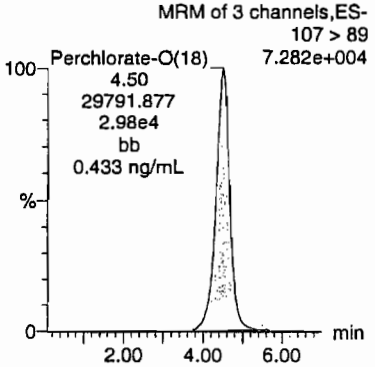

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068345	Perchlorate	99 > 83	4.51	16285.990	16285.990	bb			0.1796	89.80	-10.20	221.344	3.44
1202068345	Perchlorate-101	101 > 85	4.51	4736.620	4736.620	bb			0.1796	89.81	-10.19	41.054	
1202068345	Perchlorate-O(18)	107 > 89	4.50	29791.877	29791.877	bb			0.4334	86.68	-13.32	1634.5...	

MATT 3/30/10

$$\frac{16285.990 \mid 10 \mid 100}{90680.5 \mid \mid 95.83} = 1.87$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2305

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	966771
Prep Batch Number:	966769

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
248824001	RE46-10-11926
248824002	RE46-10-11925
1202074817	Method Blank (MB)
1202074818	Laboratory Control Sample (LCS)
1202074819	248824001(RE46-10-11926) Matrix Spike (MS)
1202074820	248824001(RE46-10-11926) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG did not meet the acceptance criteria. The Method Blank was contaminated Aroclor-1242, Aroclor-1254 and Arclor-1260. See DER#807722 in the Miscellaneous Data section.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248824001 (RE46-10-11926) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data Exception Report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. DER # 807722 was generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 3/31/10

Roadmap for LANL 10-2305 PCB

This roadmap was analyzed by yip00818 on 03-22-2010, 14:46.
This roadmap was packaged by sha01289 on 03-31-2010, 10:38.
This roadmap was validated by jim01140 on 03-31-2010, 13:20.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032210.b/035f3501.d	248824001	sample	22-MAR-2010	13:25	10-2305.sub	RE46-10-11926	1.00000	966771	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/038f3801.d	248824002	sample	22-MAR-2010	14:03	10-2305.sub	RE46-10-11925	1.00000	966771	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032210.b/035b3501.d	248824001	sample	22-MAR-2010	13:25	10-2305.sub	RE46-10-11926	1.00000	966771	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/038b3801.d	248824002	sample	22-MAR-2010	14:03	10-2305.sub	RE46-10-11925	1.00000	966771	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032210.b/012f1201-2.d	1202074817	mb	22-MAR-2010	08:47	10-2305.sub	PBLK01	1.00000	966771	
☐	N	/chem/ecd1a.i/032210.b/013f1301-2.d	1202074818	lcs	22-MAR-2010	08:58	10-2305.sub	PBLK01LCS	1.00000	966771	
☐	N	/chem/ecd1a.i/032210.b/036f3601.d	1202074819	ms	22-MAR-2010	13:37	10-2305.sub	RE46-10-11926MS	1.00000	966771	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/037f3701.d	1202074820	msd	22-MAR-2010	13:50	10-2305.sub	RE46-10-11926MSD	1.00000	966771	UPLOAD BOTH COLUMNS, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032210.b/012b1201-2.d	1202074817	mb	22-MAR-2010	08:47	10-2305.sub	PBLK01	1.00000	966771	
☐	N	/chem/ecd1a.i/032210.b/013b1301-2.d	1202074818	lcs	22-MAR-2010	08:58	10-2305.sub	PBLK01LCS	1.00000	966771	
☐	N	/chem/ecd1a.i/032210.b/036b3601.d	1202074819	ms	22-MAR-2010	13:37	10-2305.sub	RE46-10-11926MS	1.00000	966771	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/037b3701.d	1202074820	msd	22-MAR-2010	13:50	10-2305.sub	RE46-10-11926MSD	1.00000	966771	UPLOAD BOTH COLUMNS, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11925**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**966771**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 14:03**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/19/2010 11:50**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**038f3801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	038b3801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.38	ug/kg	1.13	3.38	1
11104-28-2	Aroclor-1221	U	3.38	ug/kg	1.13	3.38	1
11141-16-5	Aroclor-1232	U	3.38	ug/kg	1.13	3.38	1
53469-21-9	Aroclor-1242	U	3.38	ug/kg	1.13	3.38	1
12672-29-6	Aroclor-1248	U	3.38	ug/kg	1.13	3.38	1
11097-69-1	Aroclor-1254	U	3.38	ug/kg	1.13	3.38	1
11096-82-5	Aroclor-1260	U	3.38	ug/kg	1.13	3.38	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11926**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**966771**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 13:25**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/19/2010 11:50**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	035b3501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.39	ug/kg	1.13	3.39	1
11104-28-2	Aroclor-1221	U	3.39	ug/kg	1.13	3.39	1
11141-16-5	Aroclor-1232	U	3.39	ug/kg	1.13	3.39	1
53469-21-9	Aroclor-1242	U	3.39	ug/kg	1.13	3.39	1
12672-29-6	Aroclor-1248	U	3.39	ug/kg	1.13	3.39	1
11097-69-1	Aroclor-1254	U	3.39	ug/kg	1.13	3.39	1
11096-82-5	Aroclor-1260	U	3.39	ug/kg	1.13	3.39	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–2305

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202074817	MB for batch 966769	69	67	72	71
1202074818	LCS for batch 966769	77	73	77	73
248824001	RE46–10–11926	63	60	77	71
1202074819	RE46–10–11926MS	56	54	41	61
1202074820	RE46–10–11926MSD	56	53	62	58
248824002	RE46–10–11925	59	56	71	67

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%–120%)
DCB = Decachlorobiphenyl	(30%–116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2305
Client ID: LCS for batch 966769
Lab Sample ID: 1202074818
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/22/2010 08:58
Prep Batch ID: 966769
Batch ID: 966771
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674–11–2	LCS Aroclor–1016	33.3	0.0	23.6	71	39–102
11096–82–5	LCS Aroclor–1260	33.3	0.0	26.0	78	45–118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2305**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE46-10-11926MS**	**Matrix:**	**S**
Lab Sample ID:	**1202074819**	**%Moisture:**	**1.8**
Instrument:	**ECD1A.I**	**Analysis Date:**	**03/22/2010 13:37**
Analyst:	**YS1**	**Prep Batch ID:**	**966769**
Inj. Vol:	**1 uL**	**Batch ID:**	**966771**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	33.9	0.00	U	16.4	48	23-119
11096-82-5	MS	Aroclor-1260	33.9	0.00	U	19.6	58	28-124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10–2305**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE46–10–11926MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202074820**	**%Moisture:**	**1.8**
Instrument:	**ECD1A.I**	**Analysis Date:**	**03/22/2010 13:50**
Analyst:	**YS1**	**Prep Batch ID:**	**966769**
Inj. Vol:	**1 uL**	**Batch ID:**	**966771**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	33.9	0.00	U	18.9	56	23–119	14	0–28
11096–82–5	MSD Aroclor–1260	33.9	0.00	U	22.7	67	28–124	15	0–30

Method Blank Summary

SDG Number:	10-2305	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 966769	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	012b1201-1.d 012f1201-1.d
Lab Sample ID:	1202074817				
Column:	CLP2 CLP1	Prep Date:	03/19/2010 11:50	Analyzed:	03/22/10 08:47
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 966769	1202074818	013f1301-1.d 013b1301-1.d	03/22/10	0858
02 RE46-10-11926	248824001	035f3501.d 035b3501.d	03/22/10	1325
03 RE46-10-11926MS	1202074819	036f3601.d 036b3601.d	03/22/10	1337
04 RE46-10-11926MSD	1202074820	037f3701.d 037b3701.d	03/22/10	1350
05 RE46-10-11925	248824002	038f3801.d 038b3801.d	03/22/10	1403

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–11925**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**966771**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 14:03**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/19/2010 11:50**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**038f3801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	038b3801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.38	ug/kg	1.13	3.38	1
11104–28–2	Aroclor–1221	U	3.38	ug/kg	1.13	3.38	1
11141–16–5	Aroclor–1232	U	3.38	ug/kg	1.13	3.38	1
53469–21–9	Aroclor–1242	U	3.38	ug/kg	1.13	3.38	1
12672–29–6	Aroclor–1248	U	3.38	ug/kg	1.13	3.38	1
11097–69–1	Aroclor–1254	U	3.38	ug/kg	1.13	3.38	1
11096–82–5	Aroclor–1260	U	3.38	ug/kg	1.13	3.38	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/038f3801.d
Lab Smp Id: 248824002 Client Smp ID: RE46-10-11925
Inj Date : 22-MAR-2010 14:03
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248824002|1|
Misc Info : |ECD82P_1S|966771|SVA|LANL|SOIL|RE46-10-11925|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 13:21 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 38
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2305.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	1.51630	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.911	0.000	45588196	117.036	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.216	-0.001	42280964	142.394	4.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/038f3801.d

Date : 22-MAR-2010 14:03

Client ID: RE46-10-11925

Sample Info: |248824002|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

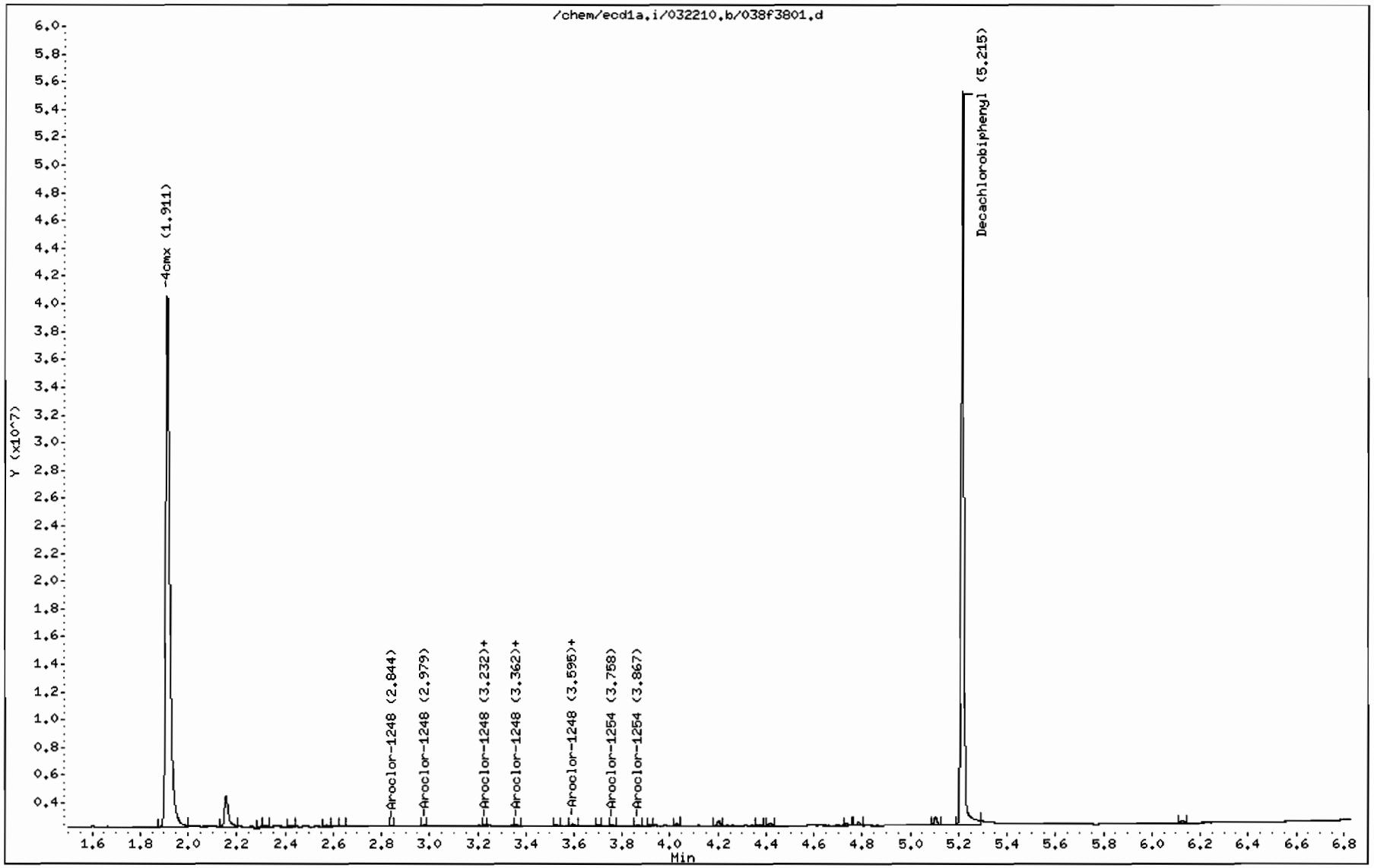

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/038b3801.d
Lab Smp Id: 248824002 Client Smp ID: RE46-10-11925
Inj Date : 22-MAR-2010 14:03
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248824002|1|
Misc Info : |ECD82P_1S|966771|SVA|LANL|SOIL|RE46-10-11925|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 13:21 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 38
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2305.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	1.51630	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	29614785	112.890	3.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.911	-0.001	25147901	134.356	4.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/038b3801.d
Date : 22-MAR-2010 14:03
Client ID: RE46-10-11925
Sample Info: 1248824002111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

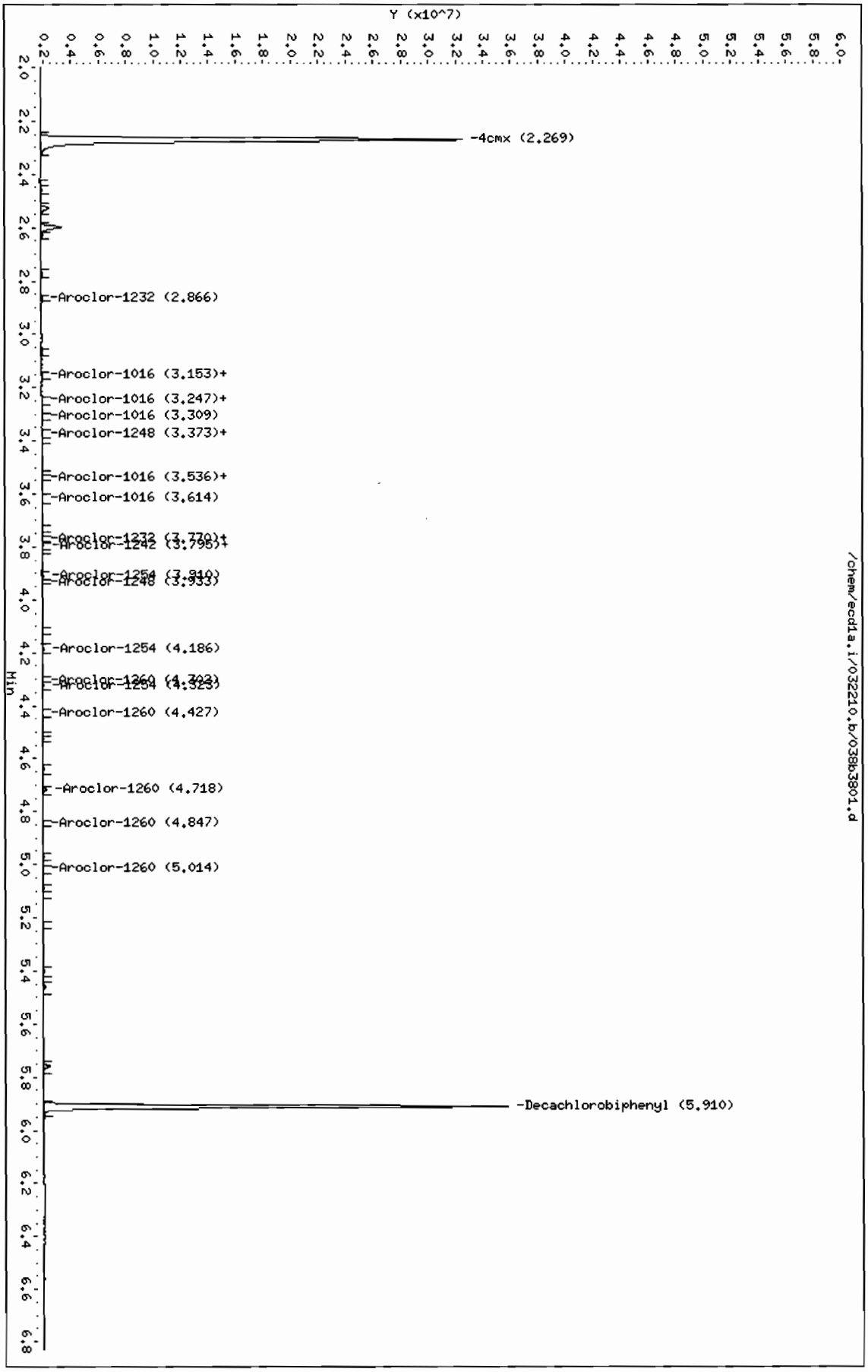

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248824001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–11926**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**966771**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 13:25**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/19/2010 11:50**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	035b3501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.39	ug/kg	1.13	3.39	1
11104–28–2	Aroclor–1221	U	3.39	ug/kg	1.13	3.39	1
11141–16–5	Aroclor–1232	U	3.39	ug/kg	1.13	3.39	1
53469–21–9	Aroclor–1242	U	3.39	ug/kg	1.13	3.39	1
12672–29–6	Aroclor–1248	U	3.39	ug/kg	1.13	3.39	1
11097–69–1	Aroclor–1254	U	3.39	ug/kg	1.13	3.39	1
11096–82–5	Aroclor–1260	U	3.39	ug/kg	1.13	3.39	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/035f3501.d
Lab Smp Id: 248824001 Client Smp ID: RE46-10-11926
Inj Date : 22-MAR-2010 13:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248824001|1|
Misc Info : |ECD82P_1S|966771|SVA|LANL|SOIL|RE46-10-11926|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 13:21 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2305.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	1.75870	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.911	0.002	48939563	125.640	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.216	-0.001	45526076	153.322	5.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/035f3501.d

Date : 22-MAR-2010 13:25

Client ID: RE46-10-11926

Sample Info: |2488240011|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

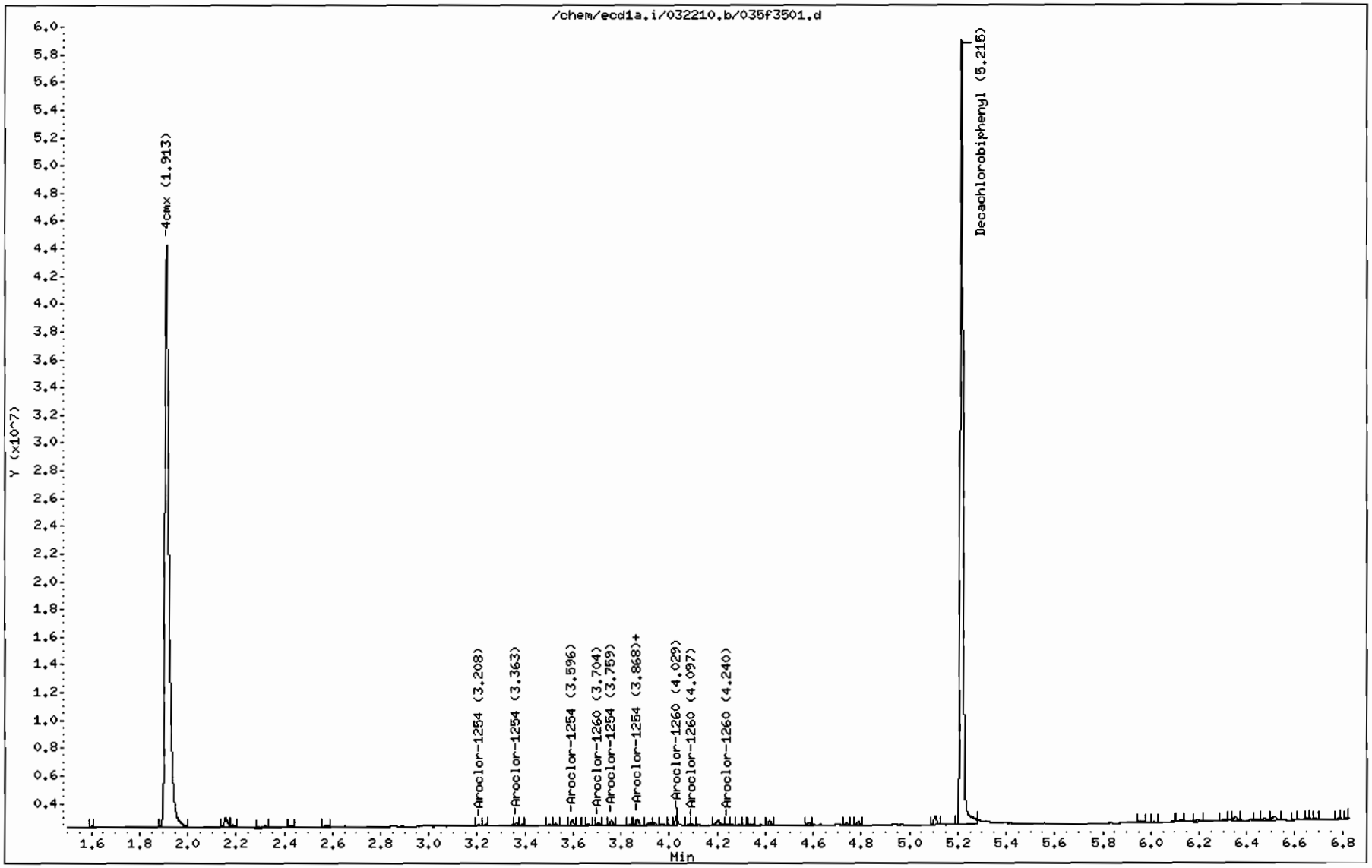

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/035b3501.d
Lab Smp Id: 248824001 Client Smp ID: RE46-10-11926
Inj Date : 22-MAR-2010 13:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248824001|1|
Misc Info : |ECD82P_1S|966771|SVA|LANL|SOIL|RE46-10-11926|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 13:21 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2305.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	1.75870	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.269	0.001	31398846	119.691	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.911	0.000	26402906	141.061	4.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/035b3501.d

Date : 22-MAR-2010 13:25

Client ID: RE46-10-11926

Sample Info: |248824001|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

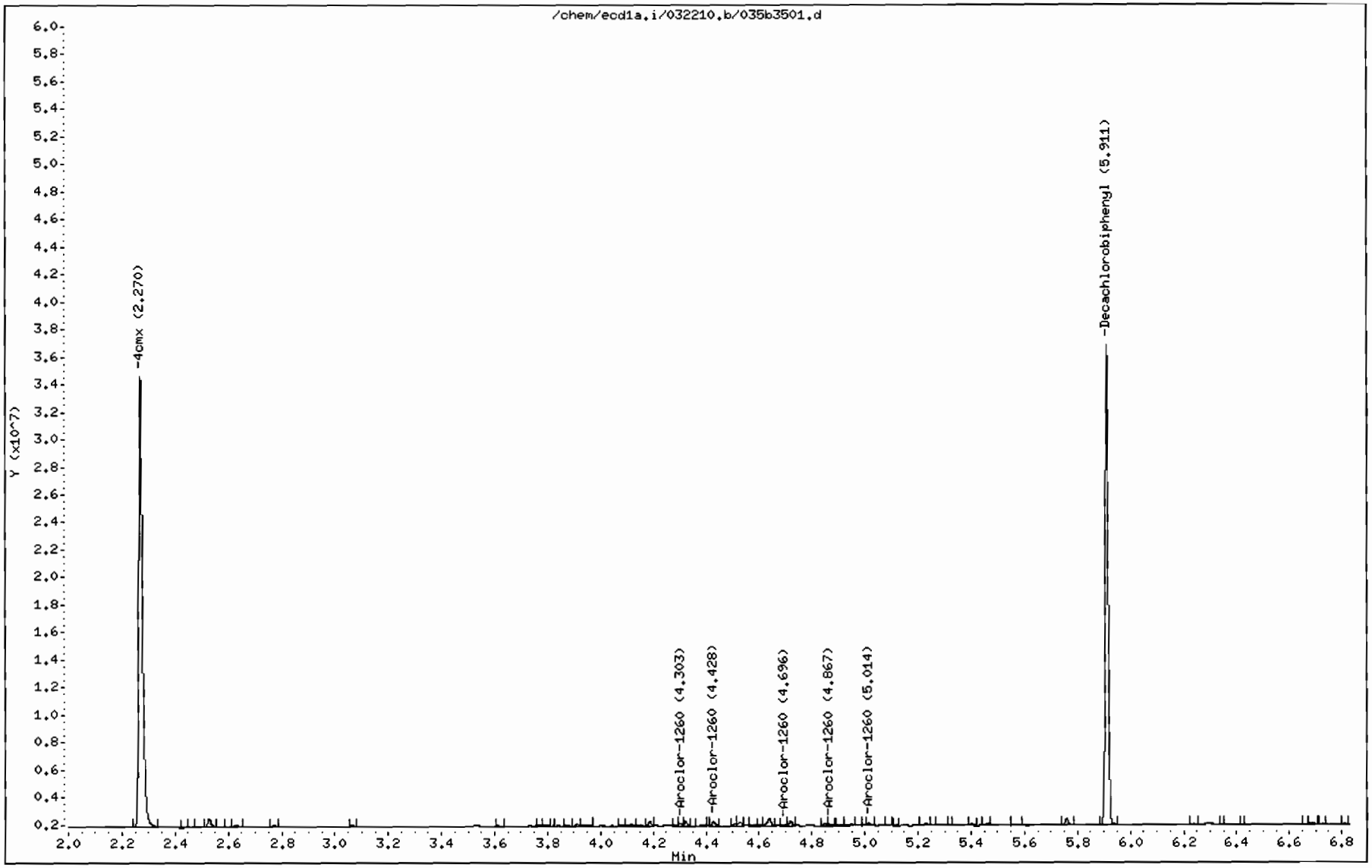

STANDARDS DATA

Report Date: 23-Mar-2010 08:11

Calibration History

Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032f3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029f2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023f2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017f1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033f3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030f3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024f2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018f1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034f3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031f3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025f2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019f1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035f3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032f3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026f2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020f2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014f1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009f0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008f0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007f0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010f1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036f3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033f3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027f2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021f2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 18:23	AR1660	/chem/ecd1a.i/032210.b/059f5901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 16:42	AR1660	/chem/ecd1a.i/032210.b/051f5101.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 14:15	AR1660	/chem/ecd1a.i/032210.b/039f3901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 13:04	AR1660	/chem/ecd1a.i/032210.b/033f3301.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 10:49	AR1660	/chem/ecd1a.i/032210.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 08:16	AR1262	/chem/ecd1a.i/032210.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 08:05	AR1221	/chem/ecd1a.i/032210.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 07:55	AR1232	/chem/ecd1a.i/032210.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 07:44	AR1268	/chem/ecd1a.i/032210.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 07:34	AR1248	/chem/ecd1a.i/032210.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 07:23	AR1242	/chem/ecd1a.i/032210.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 07:13	AR1254	/chem/ecd1a.i/032210.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 07:02	AR1660	/chem/ecd1a.i/032210.b/002f0201.d

Report Date: 23-Mar-2010 08:11

Calibration History

Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029b2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023b2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017b1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030b3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024b2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018b1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031b3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025b2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019b1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032b3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026b2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020b2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014b1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009b0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008b0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007b0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010b1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033b3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027b2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021b2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000
22-MAR-2010 18:23 | AR1660 | /chem/ecd1a.i/032210.b/059b5901.d
Ccal Level: 4 , Ccal Amount: 1000
22-MAR-2010 16:42 | AR1660 | /chem/ecd1a.i/032210.b/051b5101.d
Ccal Level: 4 , Ccal Amount: 1000
22-MAR-2010 14:15 | AR1660 | /chem/ecd1a.i/032210.b/039b3901.d
Ccal Level: 4 , Ccal Amount: 1000
22-MAR-2010 13:04 | AR1660 | /chem/ecd1a.i/032210.b/033b3301.d
Ccal Level: 4 , Ccal Amount: 1000
22-MAR-2010 10:49 | AR1660 | /chem/ecd1a.i/032210.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000
22-MAR-2010 08:16 | AR1262 | /chem/ecd1a.i/032210.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000
22-MAR-2010 08:05 | AR1221 | /chem/ecd1a.i/032210.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000
22-MAR-2010 07:55 | AR1232 | /chem/ecd1a.i/032210.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000
22-MAR-2010 07:44 | AR1268 | /chem/ecd1a.i/032210.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000
22-MAR-2010 07:34 | AR1248 | /chem/ecd1a.i/032210.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000
22-MAR-2010 07:23 | AR1242 | /chem/ecd1a.i/032210.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000
22-MAR-2010 07:13 | AR1254 | /chem/ecd1a.i/032210.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000
22-MAR-2010 07:02 | AR1660 | /chem/ecd1a.i/032210.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Mar-2010 06:36 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.364	2.334-2.394	1.518e+04
	2.650	2.620-2.680	1.894e+04
	2.730	2.700-2.760	1.244e+04
	2.768	2.738-2.798	7.348e+03
	2.978	2.948-3.008	9.518e+03
63 4,4-DDD	3.888	3.868-3.908	3.140e+05
64 4,4-DDE	3.539	3.519-3.559	3.727e+05
62 4,4-DDT	4.052	4.032-4.072	2.363e+05
2 Aroclor-1221	2.025	1.995-2.055	4.466e+03
	2.117	2.087-2.147	2.447e+03
	2.143	2.113-2.173	1.083e+04
3 Aroclor-1232	2.365	2.335-2.395	6.667e+03
	2.650	2.620-2.680	8.344e+03
	2.731	2.701-2.761	5.531e+03
	2.845	2.815-2.875	2.649e+03
	3.233	3.203-3.263	3.555e+03
4 Aroclor-1242	2.365	2.335-2.395	1.233e+04
	2.652	2.622-2.682	1.490e+04
	2.770	2.740-2.800	5.896e+03
	2.980	2.950-3.010	7.735e+03
	3.233	3.203-3.263	7.285e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m

	Compound	RT	RT Window	RF
	5 Aroclor-1248	2.846	2.816-2.876	1.000e+04
		2.980	2.950-3.010	1.314e+04
		3.233	3.203-3.263	1.430e+04
		3.365	3.335-3.395	1.190e+04
		3.596	3.566-3.626	8.005e+03
	6 Aroclor-1254	3.207	3.177-3.237	1.326e+04
		3.362	3.332-3.392	1.783e+04
		3.596	3.566-3.626	2.237e+04
		3.758	3.728-3.788	1.649e+04
		3.867	3.837-3.897	1.596e+04
	7 Aroclor-1260	3.704	3.674-3.734	1.833e+04
		3.866	3.836-3.896	2.689e+04
		4.028	3.998-4.058	2.832e+04
		4.096	4.066-4.126	1.616e+04
		4.240	4.210-4.270	1.681e+04
	8 Aroclor-1262	3.704	3.674-3.734	1.423e+04
		3.867	3.837-3.897	1.874e+04
		4.098	4.068-4.128	2.315e+04
		4.240	4.210-4.270	2.110e+04
		4.419	4.389-4.449	4.350e+04
	9 Aroclor-1268	4.604	4.574-4.634	4.848e+04
		4.627	4.597-4.657	5.448e+04
		4.739	4.709-4.769	3.862e+04
		4.942	4.912-4.972	1.635e+04
		5.107	5.077-5.137	1.121e+05
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	1.911	1.881-1.941	3.895e+05
$	12 Decachlorobiphenyl	5.216	5.186-5.246	2.969e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Mar-2010 06:36 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.164	3.134-3.194	1.258e+04
	3.246	3.216-3.276	8.634e+03
	3.310	3.280-3.340	5.287e+03
	3.537	3.507-3.567	6.893e+03
	3.612	3.582-3.642	6.423e+03
62 4,4-DDT	4.642	4.622-4.662	7.489e+04
63 4,4-DDE	4.111	4.091-4.131	2.469e+05
64 4,4-DDD	4.455	4.435-4.475	1.989e+05
2 Aroclor-1221	2.466	2.436-2.496	3.250e+03
	2.560	2.530-2.590	2.084e+03
	2.601	2.571-2.631	7.320e+03
3 Aroclor-1232	2.867	2.837-2.897	5.054e+03
	3.165	3.135-3.195	5.712e+03
	3.248	3.218-3.278	3.888e+03
	3.538	3.508-3.568	2.840e+03
	3.772	3.742-3.802	2.821e+03
4 Aroclor-1242	3.165	3.135-3.195	1.014e+04
	3.248	3.218-3.278	7.097e+03
	3.538	3.508-3.568	5.514e+03
	3.772	3.742-3.802	5.722e+03
	3.800	3.770-3.830	6.370e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.374	3.344-3.404	7.604e+03
	3.539	3.509-3.569	9.470e+03
	3.772	3.742-3.802	1.093e+04
	3.800	3.770-3.830	1.216e+04
	3.936	3.906-3.966	1.181e+04
6 Aroclor-1254	3.372	3.342-3.402	6.021e+03
	3.794	3.764-3.824	1.082e+04
	3.911	3.881-3.941	1.193e+04
	4.186	4.156-4.216	1.644e+04
	4.323	4.293-4.353	1.212e+04
7 Aroclor-1260	4.303	4.273-4.333	1.308e+04
	4.428	4.398-4.458	1.555e+04
	4.694	4.664-4.724	1.190e+04
	4.867	4.837-4.897	1.229e+04
	5.014	4.984-5.044	2.639e+04
8 Aroclor-1262	4.429	4.399-4.459	1.160e+04
	4.694	4.664-4.724	1.620e+04
	4.868	4.838-4.898	1.484e+04
	5.015	4.985-5.045	2.937e+04
	5.228	5.198-5.258	2.065e+04
9 Aroclor-1268	5.226	5.196-5.256	3.730e+04
	5.254	5.224-5.284	3.492e+04
	5.403	5.373-5.433	2.658e+04
	5.567	5.537-5.597	1.223e+04
	5.760	5.730-5.790	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.269	2.239-2.299	2.623e+05
$ 12 Decachlorobiphenyl	5.911	5.881-5.941	1.872e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Cal Date : 23-Mar-2010 06:36 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032f3201.d
Level 2: /chem/ecd1a.i/022210.b/033f3301.d
Level 3: /chem/ecd1a.i/022210.b/034f3401.d
Level 4: /chem/ecd1a.i/022210.b/035f3501.d
Level 5: /chem/ecd1a.i/022210.b/036f3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	17517	15916	14941	14342	13168	15177	10.833
(2)	20378	19291	18809	18310	17891	18936	5.082
(3)	13830	13020	12255	11836	11271	12442	8.071
(4)	7957	7573	7201	7091	6919	7348	5.665
(5)	10680	9850	9332	8998	8729	9518	8.119
63 4,4-DDD	+++++	+++++	+++++	313980	+++++	313980	0.000
64 4,4-DDE	+++++	+++++	+++++	372684	+++++	372684	0.000
62 4,4-DDT	+++++	+++++	+++++	236265	+++++	236265	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4466	+++++	4466	0.000
(2)	+++++	+++++	+++++	2447	+++++	2447	0.000
(3)	+++++	+++++	+++++	10828	+++++	10828	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6667	+++++	6667	0.000
(2)	+++++	+++++	+++++	8344	+++++	8344	0.000
(3)	+++++	+++++	+++++	5531	+++++	5531	0.000
(4)	+++++	+++++	+++++	2649	+++++	2649	0.000
(5)	+++++	+++++	+++++	3555	+++++	3555	0.000
4 Aroclor-1242(1)	14179	12973	12200	11692	10617	12332	10.871
(2)	16141	15119	14927	14559	13766	14903	5.801
(3)	6352	6182	5816	5703	5424	5896	6.324
(4)	8823	8005	7582	7293	6975	7735	9.260
(5)	7955	7511	7149	7022	6787	7285	6.273
5 Aroclor-1248(1)	11183	10572	9738	9526	8980	10000	8.748
(2)	14876	13683	12753	12517	11873	13140	8.885
(3)	15448	14508	14083	13911	13564	14303	5.068
(4)	13161	12385	11501	11480	10960	11898	7.335
(5)	8649	8385	7955	7608	7427	8005	6.411

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Cal Date : 23-Mar-2010 06:36 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	15079	13757	12872	12576	12027	13262	8.998
(2)	20126	18408	17163	17147	16322	17833	8.313
(3)	24516	23104	21642	21571	21024	22371	6.372
(4)	18056	17097	15691	15840	15766	16490	6.365
(5)	18024	16683	15151	15091	14874	15964	8.504
7 Aroclor-1260(1)	20231	18737	18018	17739	16925	18330	6.792
(2)	29345	27114	26401	26314	25275	26890	5.656
(3)	30716	28501	27786	27176	27398	28315	5.062
(4)	17775	16311	15776	15627	15300	16158	6.034
(5)	18203	16850	16463	16434	16114	16813	4.876
8 Aroclor-1262(1)	+++++	+++++	+++++	14232	+++++	14232	0.000
(2)	+++++	+++++	+++++	18742	+++++	18742	0.000
(3)	+++++	+++++	+++++	23151	+++++	23151	0.000
(4)	+++++	+++++	+++++	21098	+++++	21098	0.000
(5)	+++++	+++++	+++++	43500	+++++	43500	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	407603	391717	384007	385362	378927	389523	2.846
$ 12 Decachlorobiphenyl	324859	292709	291687	292552	282844	296930	5.438

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Cal Date : 23-Mar-2010 06:36 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032b3201.d
Level 2: /chem/ecd1a.i/022210.b/033b3301.d
Level 3: /chem/ecd1a.i/022210.b/034b3401.d
Level 4: /chem/ecd1a.i/022210.b/035b3501.d
Level 5: /chem/ecd1a.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14376	12782	12025	12307	11436	12585	8.846
(2)	10090	9074	8445	8099	7462	8634	11.594
(3)	6137	5472	5151	4973	4701	5287	10.435
(4)	7962	7103	6817	6522	6060	6893	10.318
(5)	7497	6686	6263	5965	5703	6423	10.948
62 4,4-DDT	+++++	+++++	+++++	74891	+++++	74891	0.000
63 4,4-DDE	+++++	+++++	+++++	246875	+++++	246875	0.000
64 4,4-DDD	+++++	+++++	+++++	198885	+++++	198885	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3250	+++++	3250	0.000
(2)	+++++	+++++	+++++	2084	+++++	2084	0.000
(3)	+++++	+++++	+++++	7320	+++++	7320	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	5054	+++++	5054	0.000
(2)	+++++	+++++	+++++	5712	+++++	5712	0.000
(3)	+++++	+++++	+++++	3888	+++++	3888	0.000
(4)	+++++	+++++	+++++	2840	+++++	2840	0.000
(5)	+++++	+++++	+++++	2821	+++++	2821	0.000
4 Aroclor-1242(1)	11230	10514	10117	9526	9309	10139	7.634
(2)	8350	7546	6909	6642	6036	7097	12.487
(3)	6442	5836	5387	5177	4727	5514	11.868
(4)	6626	6011	5573	5400	4999	5722	10.877
(5)	7365	6655	6241	6005	5582	6370	10.658
5 Aroclor-1248(1)	9056	8166	7435	6980	6383	7604	13.684
(2)	11093	10088	9257	8814	8097	9470	12.242
(3)	12505	11602	10677	10284	9581	10930	10.466
(4)	13890	12873	11986	11379	10657	12157	10.405
(5)	13590	12468	11541	11009	10453	11812	10.502

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Cal Date : 23-Mar-2010 06:36 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7300	6493	5824	5480	5009	6021	14.886
(2)	12825	11548	10490	9974	9262	10820	12.909
(3)	14182	12643	11550	11031	10262	11934	12.788
(4)	19027	17317	15983	15442	14439	16442	10.826
(5)	14064	13049	11651	11174	10640	12116	11.634
7 Aroclor-1260(1)	15189	13569	12744	12369	11530	13080	10.610
(2)	17885	16016	15152	14853	13838	15549	9.776
(3)	13812	12250	11562	11271	10585	11896	10.311
(4)	14218	12635	11954	11625	11015	12289	9.981
(5)	29595	26825	25949	25629	23976	26395	7.824
8 Aroclor-1262(1)	+++++	+++++	+++++	11597	+++++	11597	0.000
(2)	+++++	+++++	+++++	16200	+++++	16200	0.000
(3)	+++++	+++++	+++++	14838	+++++	14838	0.000
(4)	+++++	+++++	+++++	29366	+++++	29366	0.000
(5)	+++++	+++++	+++++	20651	+++++	20651	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	286554	267083	258607	255362	244057	262333	6.044
$ 12 Decachlorobiphenyl	217815	191410	181026	177515	168101	187173	10.178

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 0702

Lab File ID: 002F0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	13874.025	0.01	-8.6	15.0
(2)	18935.774	17223.062	0.01	-9.0	15.0
(3)	12442.153	11099.980	0.01	-10.8	15.0
(4)	7348.319	6652.429	0.01	-9.5	15.0
(5)	9517.775	8513.830	0.01	-10.5	15.0
Aroclor-1260	18330.091	18268.454	0.01	-0.3	15.0
(2)	26889.831	26941.124	0.01	0.2	15.0
(3)	28315.304	28742.142	0.01	1.5	15.0
(4)	16157.873	16199.960	0.01	0.3	15.0
(5)	16812.669	16879.122	0.01	0.4	15.0
4cmx	389523.02	392027.86	0.01	0.6	15.0
Decachlorobiphenyl	296930.38	292345.35	0.01	-1.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 0702

Lab File ID: 002B0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11596.241	0.01	-7.8	15.0
(2)	8634.207	7663.844	0.01	-11.2	15.0
(3)	5286.637	4702.010	0.01	-11.0	15.0
(4)	6892.719	6011.420	0.01	-12.8	15.0
(5)	6422.564	5652.140	0.01	-12.0	15.0
Aroclor-1260	13080.231	12515.456	0.01	-4.3	15.0
(2)	15549.023	15176.092	0.01	-2.4	15.0
(3)	11896.069	11445.175	0.01	-3.8	15.0
(4)	12289.216	11857.119	0.01	-3.5	15.0
(5)	26394.638	26318.926	0.01	-0.3	15.0
4cmx	262332.66	257432.43	0.01	-1.9	15.0
Decachlorobiphenyl	187173.38	176097.75	0.01	-5.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 0713

Lab File ID: 003F0301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	13261.954	12782.929	0.01	-3.6	15.0
(2)	17833.306	17108.598	0.01	-4.1	15.0
(3)	22371.301	22334.536	0.01	-0.2	15.0
(4)	16490.050	16541.262	0.01	0.3	15.0
(5)	15964.418	16375.684	0.01	2.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 0713

Lab File ID: 003B0301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6021.217	5592.748	0.01	-7.1	15.0
(2)	10819.790	10182.375	0.01	-5.9	15.0
(3)	11933.626	11212.477	0.01	-6.0	15.0
(4)	16441.788	15755.066	0.01	-4.2	15.0
(5)	12115.517	11433.868	0.01	-5.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 0723

Lab File ID: 004F0401 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1837 1919

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1242	12332.204	12600.151	0.01	2.2	15.0
(2)	14902.512	15775.175	0.01	5.8	15.0
(3)	5895.606	5930.396	0.01	0.6	15.0
(4)	7735.479	7618.735	0.01	-1.5	15.0
(5)	7284.532	7197.700	0.01	-1.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 0723

Lab File ID: 004B0401 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1837 1919

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1242	10139.181	10079.057	0.01	-0.6	15.0
(2)	7096.726	6789.459	0.01	-4.3	15.0
(3)	5513.568	5310.278	0.01	-3.7	15.0
(4)	5721.948	5560.374	0.01	-2.8	15.0
(5)	6369.562	6261.212	0.01	-1.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 1049

Lab File ID: 022F2201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14743.203	0.01	-2.8	15.0
(2)	18935.774	19275.233	0.01	1.8	15.0
(3)	12442.153	11835.293	0.01	-4.9	15.0
(4)	7348.319	7109.889	0.01	-3.2	15.0
(5)	9517.775	9224.677	0.01	-3.1	15.0
Aroclor-1260	18330.091	19513.948	0.01	6.4	15.0
(2)	26889.831	28697.251	0.01	6.7	15.0
(3)	28315.304	30643.714	0.01	8.2	15.0
(4)	16157.873	17319.050	0.01	7.2	15.0
(5)	16812.669	18017.100	0.01	7.2	15.0
4cmx	389523.02	414521.03	0.01	6.4	15.0
Decachlorobiphenyl	296930.38	306497.41	0.01	3.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 1049

Lab File ID: 022B2201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11858.232	0.01	-5.8	15.0
(2)	8634.207	7902.507	0.01	-8.5	15.0
(3)	5286.637	4895.031	0.01	-7.4	15.0
(4)	6892.719	6404.501	0.01	-7.1	15.0
(5)	6422.564	5895.627	0.01	-8.2	15.0
Aroclor-1260	13080.231	12795.586	0.01	-2.2	15.0
(2)	15549.023	15630.118	0.01	0.5	15.0
(3)	11896.069	11706.251	0.01	-1.6	15.0
(4)	12289.216	12136.065	0.01	-1.2	15.0
(5)	26394.638	27002.862	0.01	2.3	15.0
4cmx	262332.66	264277.38	0.01	0.7	15.0
Decachlorobiphenyl	187173.38	181025.38	0.01	-3.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 1304

Lab File ID: 033F3301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14260.265	0.01	-6.0	15.0
(2)	18935.774	18666.286	0.01	-1.4	15.0
(3)	12442.153	11821.581	0.01	-5.0	15.0
(4)	7348.319	7105.148	0.01	-3.3	15.0
(5)	9517.775	9141.071	0.01	-4.0	15.0
Aroclor-1260	18330.091	19342.966	0.01	5.5	15.0
(2)	26889.831	28478.152	0.01	5.9	15.0
(3)	28315.304	30344.197	0.01	7.2	15.0
(4)	16157.873	17150.974	0.01	6.1	15.0
(5)	16812.669	17760.261	0.01	5.6	15.0
4cmx	389523.02	413075.54	0.01	6.0	15.0
Decachlorobiphenyl	296930.38	261490.11	0.01	-11.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 1304

Lab File ID: 033B3301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11896.323	0.01	-5.5	15.0
(2)	8634.207	7890.068	0.01	-8.6	15.0
(3)	5286.637	4875.129	0.01	-7.8	15.0
(4)	6892.719	6350.220	0.01	-7.9	15.0
(5)	6422.564	5891.769	0.01	-8.3	15.0
Aroclor-1260	13080.231	12663.900	0.01	-3.2	15.0
(2)	15549.023	15413.076	0.01	-0.9	15.0
(3)	11896.069	11511.560	0.01	-3.2	15.0
(4)	12289.216	11988.864	0.01	-2.4	15.0
(5)	26394.638	26480.549	0.01	0.3	15.0
4cmx	262332.66	263284.60	0.01	0.4	15.0
Decachlorobiphenyl	187173.38	176833.20	0.01	-5.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 1415

Lab File ID: 039F3901 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14558.167	0.01	-4.1	15.0
(2)	18935.774	18690.552	0.01	-1.3	15.0
(3)	12442.153	11737.319	0.01	-5.7	15.0
(4)	7348.319	7050.596	0.01	-4.0	15.0
(5)	9517.775	8989.556	0.01	-5.5	15.0
Aroclor-1260	18330.091	18876.328	0.01	3.0	15.0
(2)	26889.831	26762.360	0.01	-0.5	15.0
(3)	28315.304	27761.488	0.01	-2.0	15.0
(4)	16157.873	16549.459	0.01	2.4	15.0
(5)	16812.669	17476.717	0.01	3.9	15.0
4cmx	389523.02	409808.95	0.01	5.2	15.0
Decachlorobiphenyl	296930.38	294392.66	0.01	-0.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 1415

Lab File ID: 039B3901 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	12241.773	0.01	-2.7	15.0
(2)	8634.207	7815.854	0.01	-9.5	15.0
(3)	5286.637	4849.138	0.01	-8.3	15.0
(4)	6892.719	6138.081	0.01	-10.9	15.0
(5)	6422.564	5733.339	0.01	-10.7	15.0
Aroclor-1260	13080.231	12788.482	0.01	-2.2	15.0
(2)	15549.023	15581.586	0.01	0.2	15.0
(3)	11896.069	11735.713	0.01	-1.3	15.0
(4)	12289.216	12213.321	0.01	-0.6	15.0
(5)	26394.638	27088.090	0.01	2.6	15.0
4cmx	262332.66	261849.88	0.01	-0.2	15.0
Decachlorobiphenyl	187173.38	183051.79	0.01	-2.2	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/002f0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 22-MAR-2010 07:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 14:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.911	0.000	39202786	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.216	5.216	0.000	29234535	100.000	98.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.364	0.000	13874025	1000.00	914	80.00- 120.00	100.00
2.650	2.650	0.000	17223062	1000.00	910	108.39- 148.39	124.14
2.730	2.730	0.000	11099980	1000.00	892	60.62- 100.62	80.01
2.768	2.768	0.000	6652429	1000.00	905	28.43- 68.43	47.95
2.978	2.978	0.000	8513830	1000.00	894	41.75- 81.75	61.37
Average of Peak Amounts =					903		
7 Aroclor-1260					CAS #: 11096-82-5		
3.704	3.704	0.000	18268454	1000.00	997	80.00- 120.00	100.00
3.866	3.866	0.000	26941124	1000.00	1000	121.78- 161.78	147.47
4.028	4.028	0.000	28742142	1000.00	1020	127.07- 167.07	157.33
4.096	4.096	0.000	16199960	1000.00	1000	67.67- 107.67	88.68
4.240	4.240	0.000	16879122	1000.00	1000	72.59- 112.59	92.39
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd1a.i/032210.b/002f0201.d
Date : 22-MAR-2010 07:02
Client ID: AR166001
Sample Info: IWAR100222-60 01

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

Column phase: CLP1

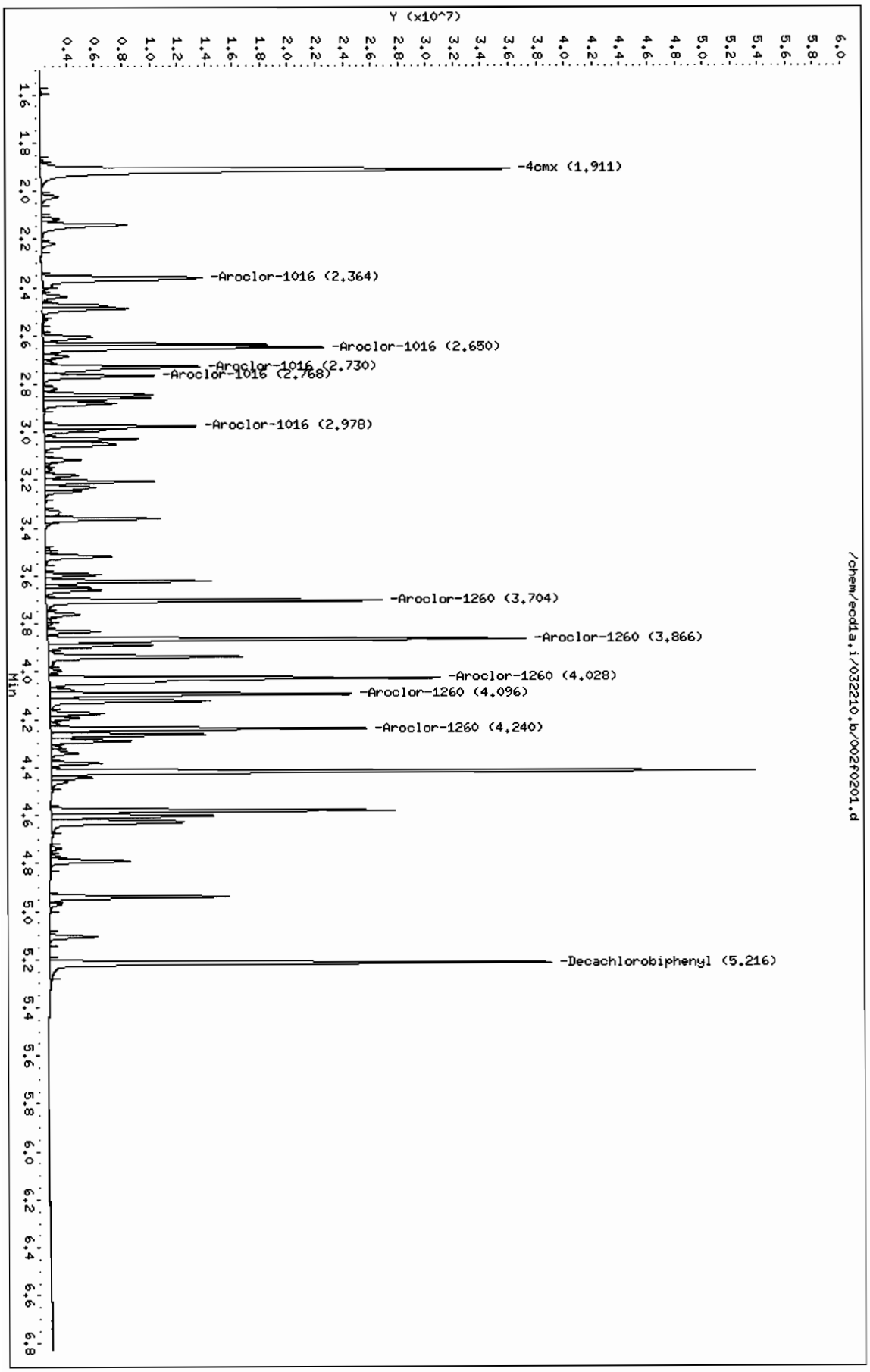

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/002b0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 22-MAR-2010 07:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 14:29 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	25743243	100.000	98.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.911	0.000	17609775	100.000	94.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.164	0.000	11596241	1000.00	921	80.00- 120.00	100.00(M)
3.246	3.246	0.000	7663844	1000.00	888	43.85- 83.85	66.09
3.310	3.310	0.000	4702010	1000.00	889	19.61- 59.61	40.55
3.537	3.537	0.000	6011420	1000.00	872	30.14- 70.14	51.84
3.612	3.612	0.000	5652140	1000.00	880	26.83- 66.83	48.74
Average of Peak Amounts =					890		
7 Aroclor-1260					CAS #: 11096-82-5		
4.303	4.303	0.000	12515456	1000.00	957	80.00- 120.00	100.00
4.428	4.428	0.000	15176092	1000.00	976	101.84- 141.84	121.26
4.694	4.694	0.000	11445175	1000.00	962	71.77- 111.77	91.45
4.867	4.867	0.000	11857119	1000.00	965	75.50- 115.50	94.74
5.014	5.014	0.000	26318926	1000.00	997	191.82- 231.82	210.29
Average of Peak Amounts =					971		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdia.i/032210.b/002b0201.d
Date : 22-MAR-2010 07:02
Client ID: AR166001
Sample Info: IWAR100222-60 01

Instrument: ecdia.i

Operator: YS1
Column diameter: 0.25

Column phase: CLP2

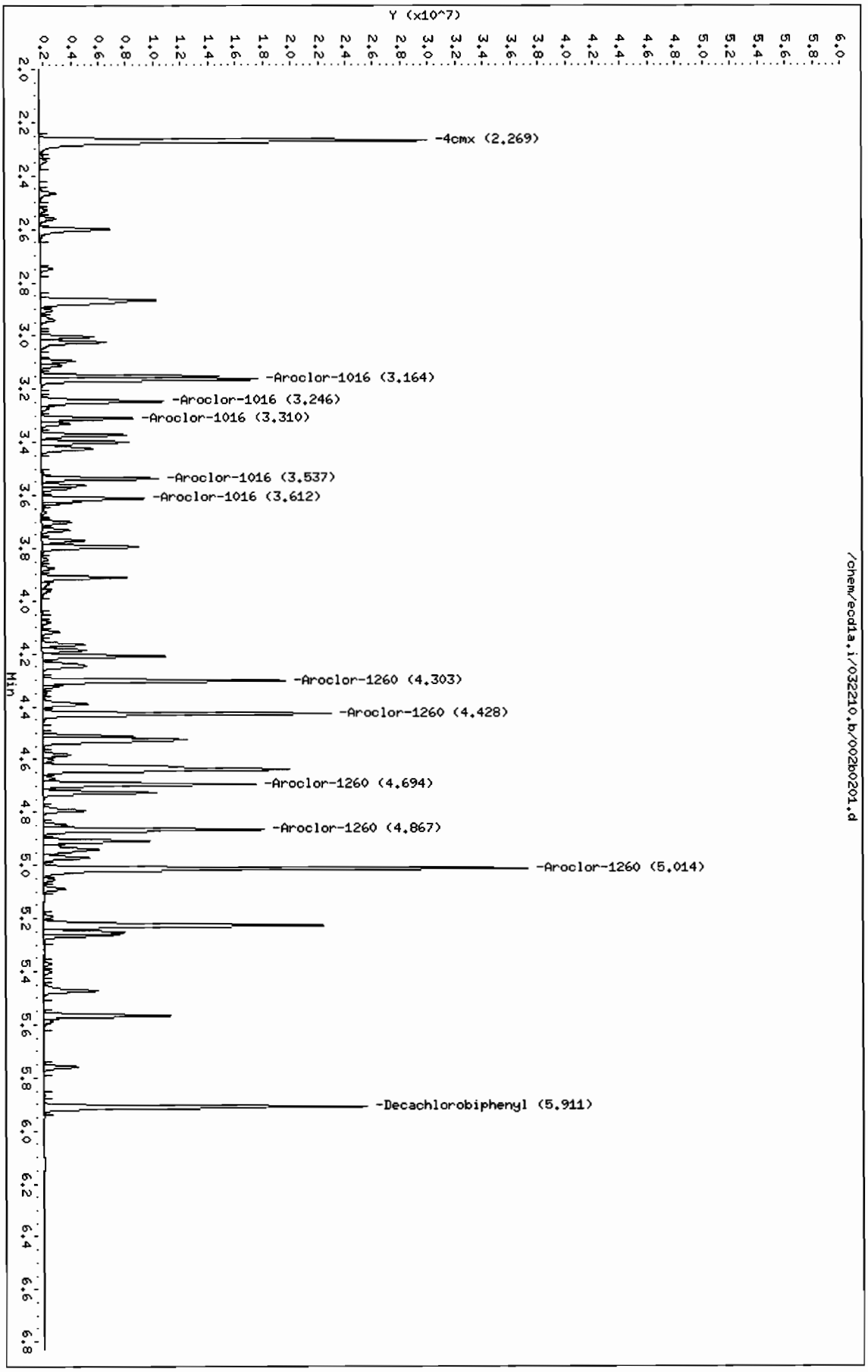

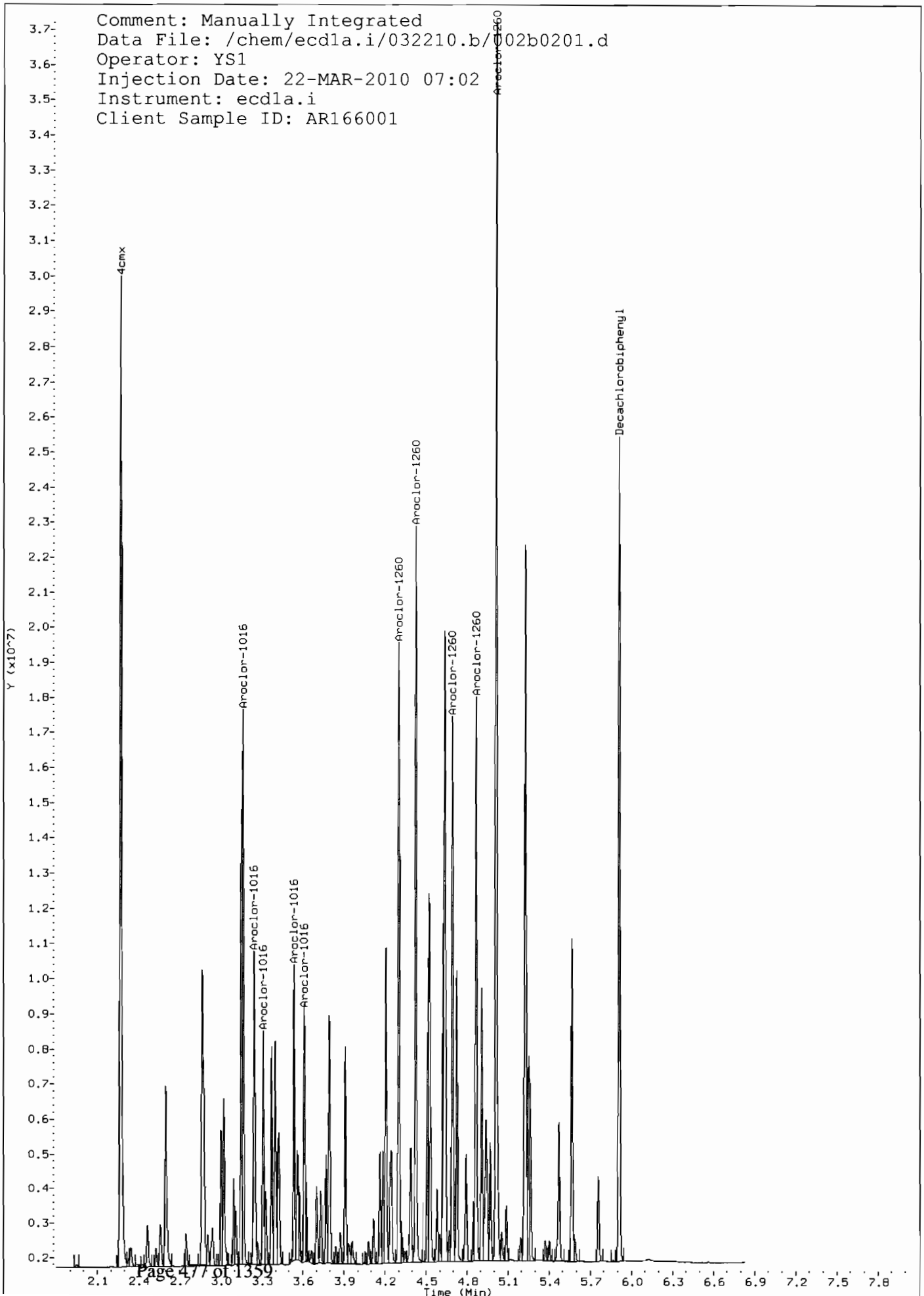
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Data File: /chem/ecd1a.i/032210.b/002b0201.d
Operator: YS1
Injection Date: 22-MAR-2010 07:02
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

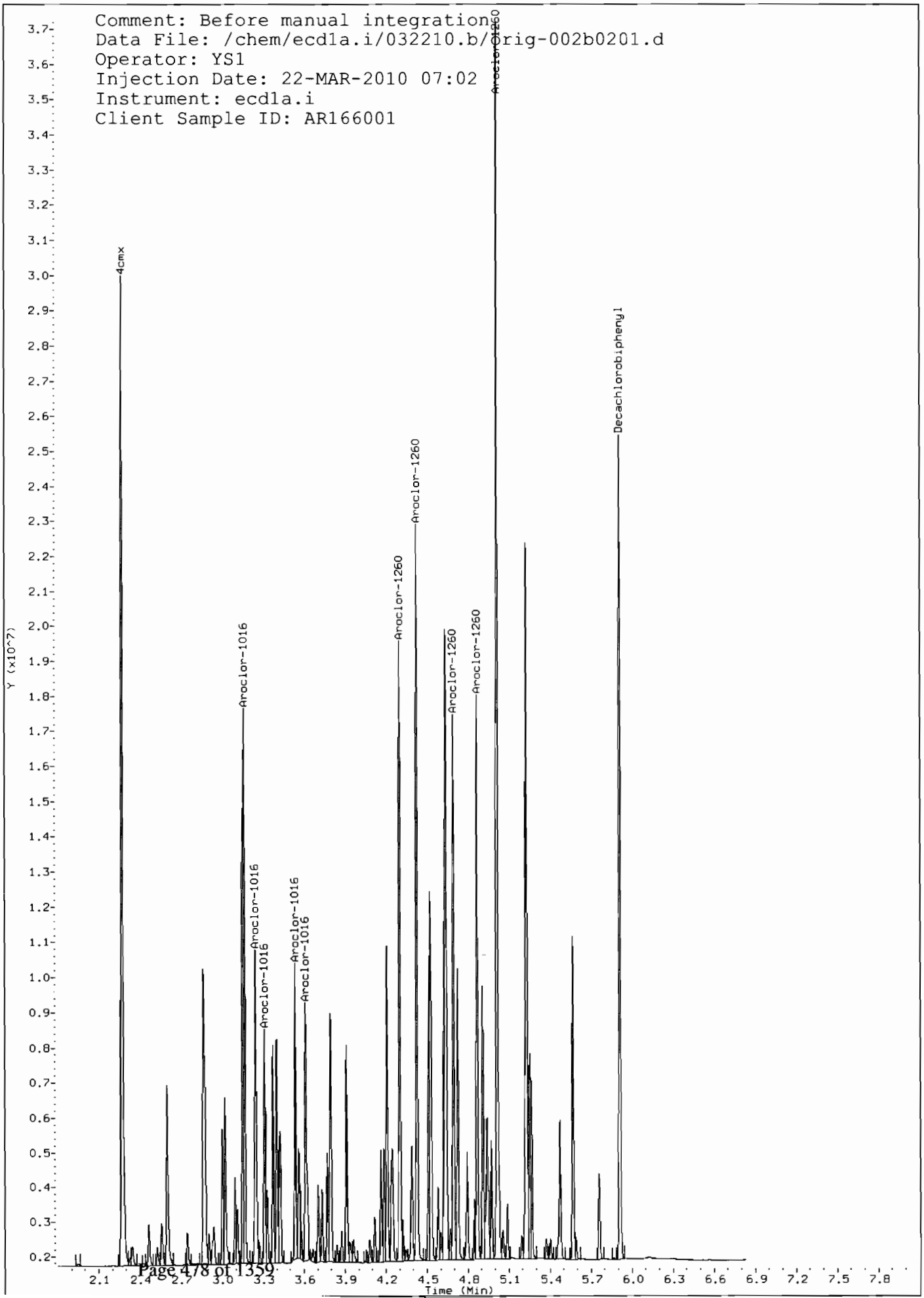
Comment: Before manual integration
Data File: /chem/ecd1a.i/032210.b/rig-002b0201.d
Operator: YS1
Injection Date: 22-MAR-2010 07:02
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 22-MAR-2010 07:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 14:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.207	3.207	0.000	12782929	1000.00	964	80.00- 120.00	100.00
3.362	3.362	0.000	17108598	1000.00	959	113.84- 153.84	133.84
3.596	3.596	0.000	22334536	1000.00	998	154.72- 194.72	174.72
3.758	3.758	0.000	16541262	1000.00	1000	109.40- 149.40	129.40
3.867	3.867	0.000	16375684	1000.00	1020	108.11- 148.11	128.11
Average of Peak Amounts =					990		

Data File: /chem/ecd1a.i/032210.b/003f0301.d
Date : 22-MAR-2010 07:13
Client ID: AR125401
Sample Info: IWAR100219-54

Instrument: ecd1a.i

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

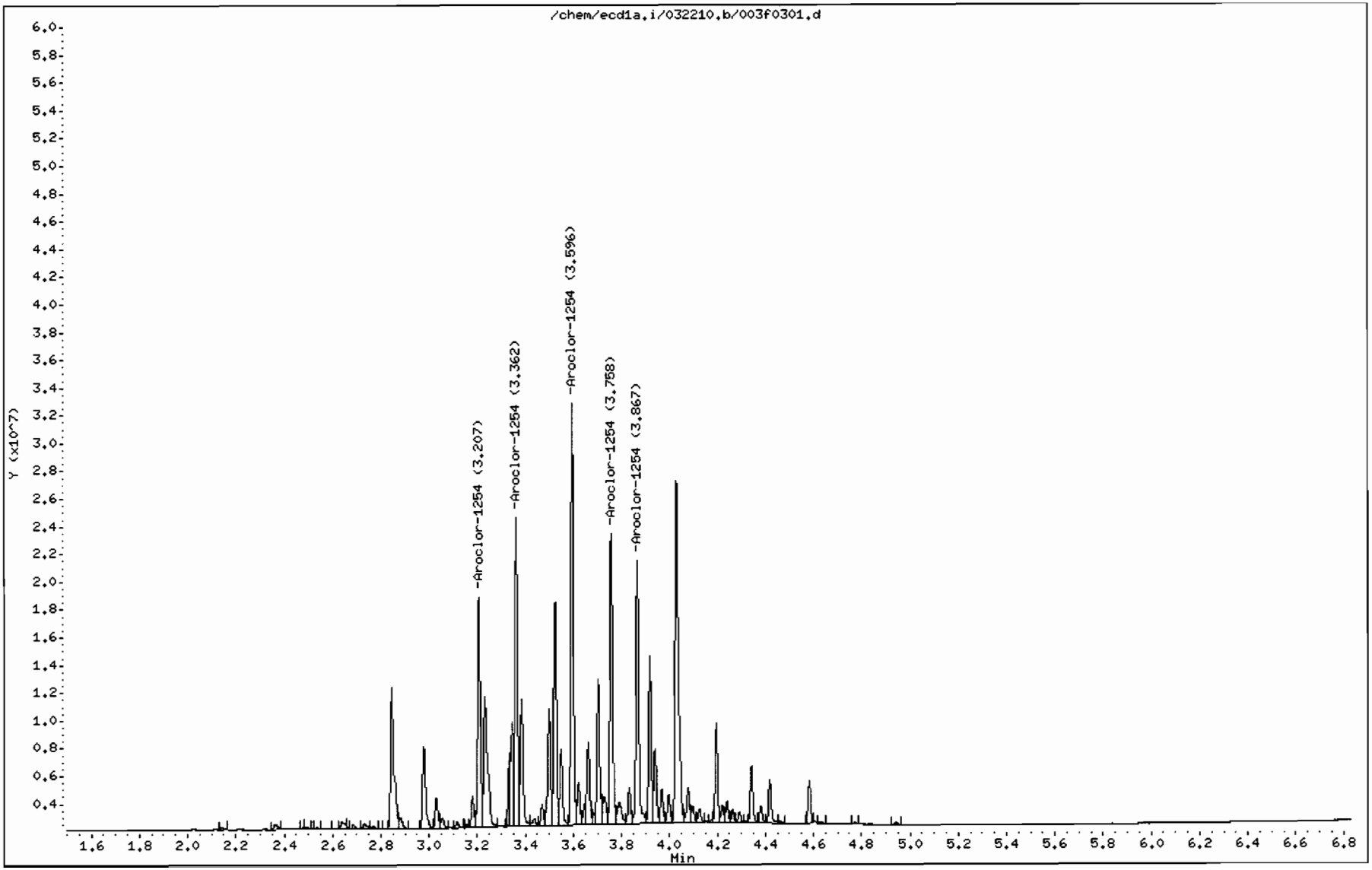

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 22-MAR-2010 07:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 14:29 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.372	3.372	0.000	5592748	1000.00	929	80.00- 120.00	100.00
3.794	3.794	0.000	10182375	1000.00	941	162.06- 202.06	182.06
3.911	3.911	0.000	11212477	1000.00	940	180.48- 220.48	200.48
4.186	4.186	0.000	15755066	1000.00	958	261.71- 301.71	281.71
4.323	4.323	0.000	11433868	1000.00	944	184.44- 224.44	204.44
Average of Peak Amounts =					942		

Data File: /chem/ecd1a.i/032210.b/003b0301.d

Date : 22-MAR-2010 07:13

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

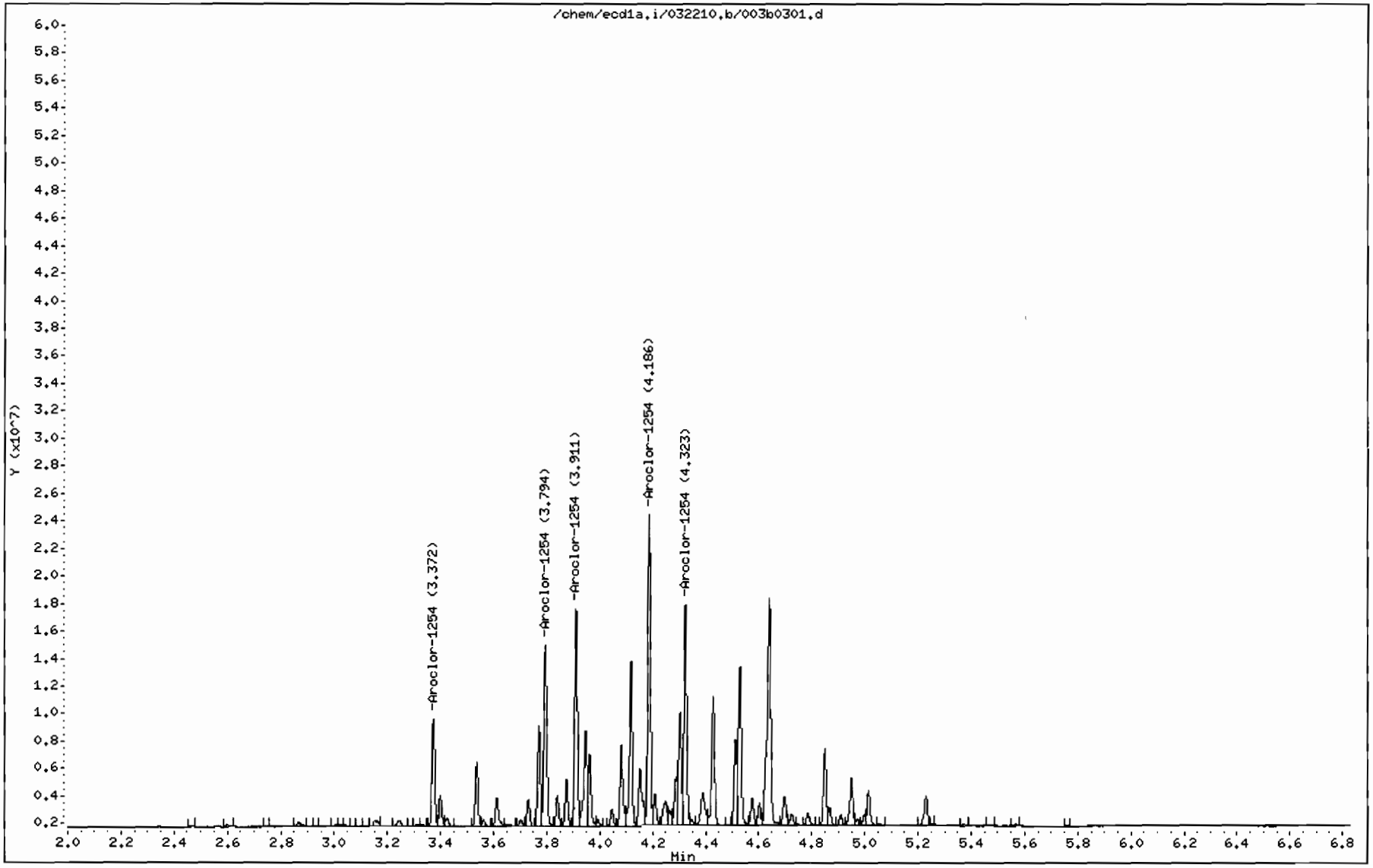

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/004f0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 22-MAR-2010 07:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 14:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.365	2.365	0.000	12600151	1000.00	1020	80.00- 120.00	100.00
2.652	2.652	0.000	15775175	1000.00	1060	105.20- 145.20	125.20
2.770	2.770	0.000	5930396	1000.00	1000	27.07- 67.07	47.07
2.980	2.980	0.000	7618735	1000.00	985	40.47- 80.47	60.47
3.233	3.233	0.000	7197700	1000.00	988	37.12- 77.12	57.12

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032210.b/004f0401.d

Page 1

Date : 22-MAR-2010 07:23

Client ID: AR124201

Instrument: ecd1a.i

Sample Info: IWAR100219-42

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

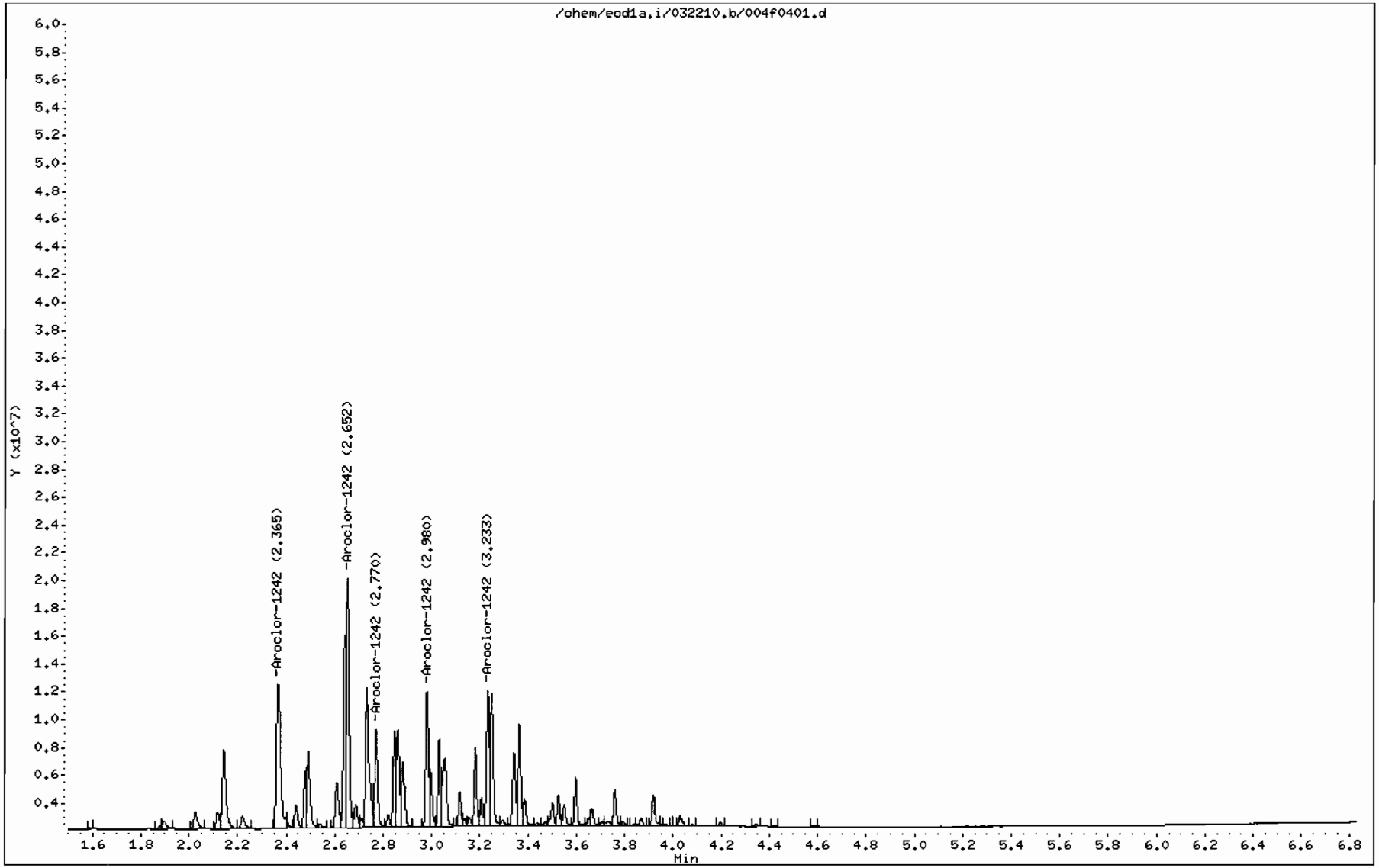

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/004b0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 22-MAR-2010 07:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 14:29 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.165	3.165	0.000	10079057	1000.00	994	80.00- 120.00	100.00
3.248	3.248	0.000	6789459	1000.00	957	47.36- 87.36	67.36
3.538	3.538	0.000	5310278	1000.00	963	32.69- 72.69	52.69
3.772	3.772	0.000	5560374	1000.00	972	35.17- 75.17	55.17
3.800	3.800	0.000	6261212	1000.00	983	42.12- 82.12	62.12
Average of Peak Amounts =					974		

Data File: /chem/ecd1a.i/032210.b/004b0401.d

Date : 22-MAR-2010 07:23

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

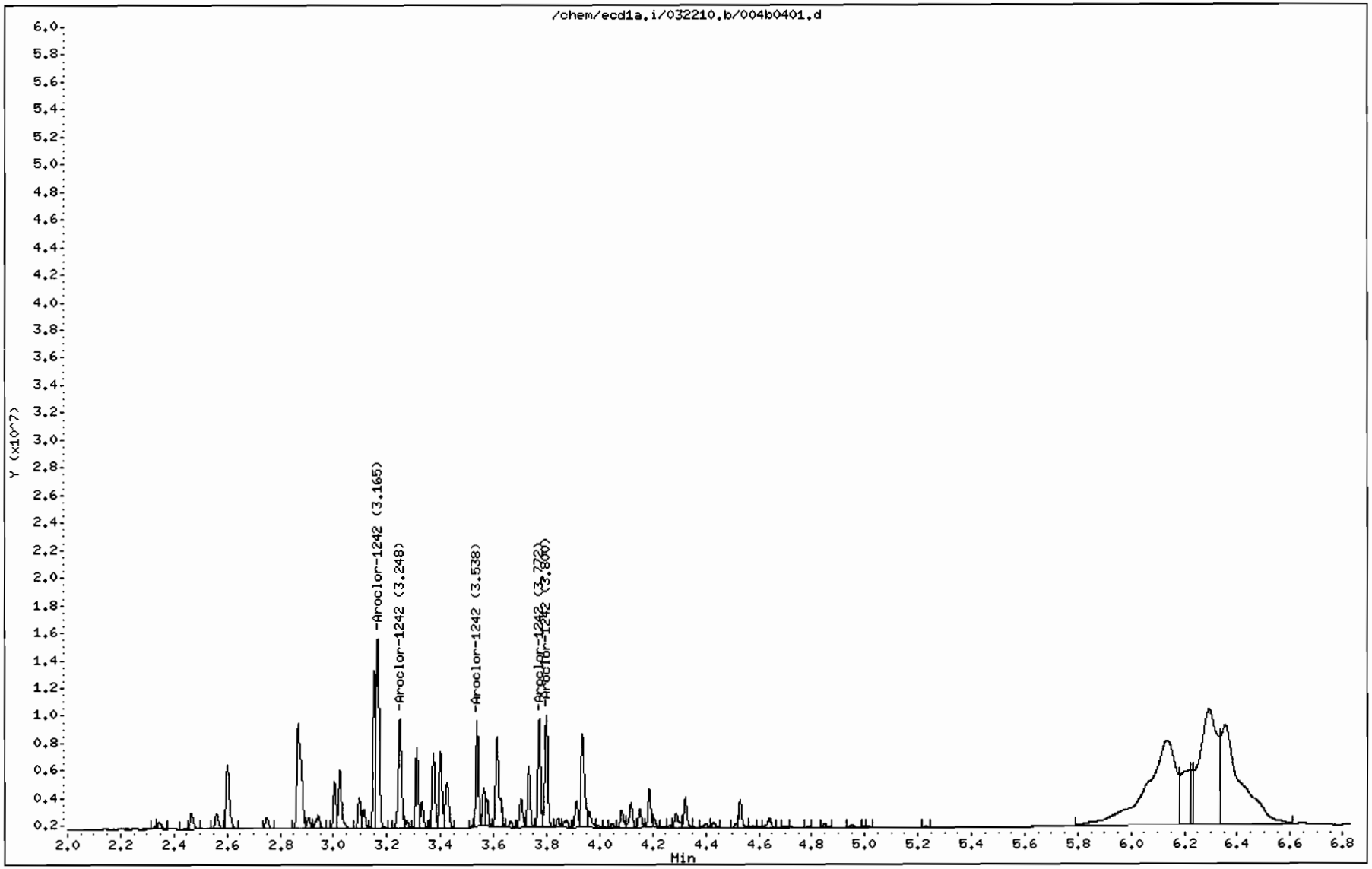

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 22-MAR-2010 07:34
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 14:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
2.846	2.846	0.000	9885297	1000.00	988	80.00- 120.00	100.00
2.980	2.980	0.000	13390340	1000.00	1020	115.46- 155.46	135.46
3.233	3.233	0.000	14654166	1000.00	1020	128.24- 168.24	148.24
3.365	3.365	0.000	11824779	1000.00	994	99.62- 139.62	119.62
3.596	3.596	0.000	7772051	1000.00	971	58.62- 98.62	78.62
Average of Peak Amounts =					999		

Data File: /chem/ecd1a.i/032210.b/005f0501.d

Date : 22-MAR-2010 07:34

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

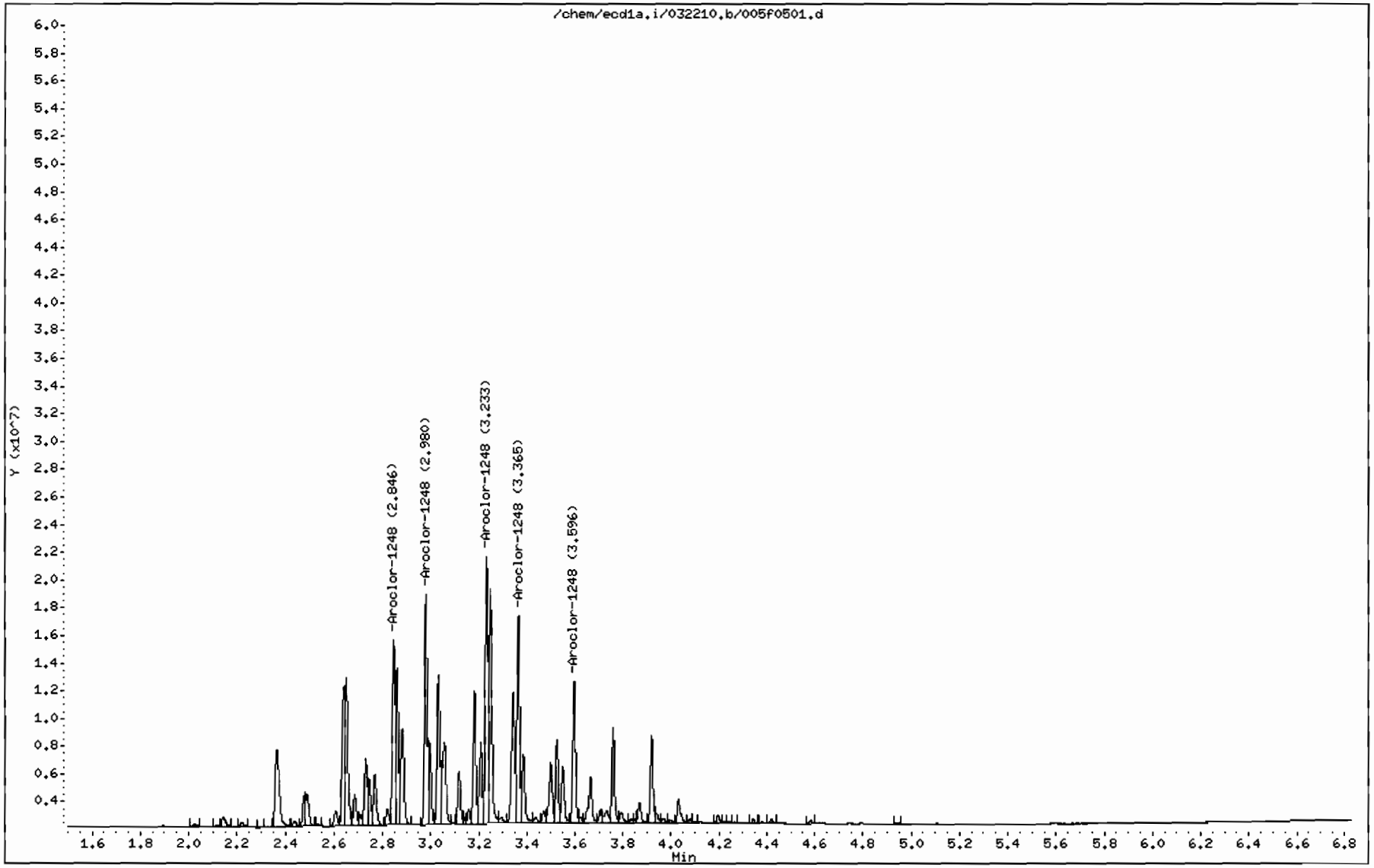

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 22-MAR-2010 07:34
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 14:29 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.374	3.374	0.000	7330805	1000.00	964	80.00- 120.00	100.00
3.539	3.539	0.000	9210376	1000.00	973	105.64- 145.64	125.64
3.772	3.772	0.000	10638996	1000.00	973	125.13- 165.13	145.13
3.800	3.800	0.000	11857575	1000.00	975	141.75- 181.75	161.75
3.936	3.936	0.000	11388434	1000.00	964	135.35- 175.35	155.35
			Average of Peak Amounts =		970		

Data File: /chem/ecd1a.i/032210.b/005b0501.d

Page 1

Date : 22-MAR-2010 07:34

Client ID: AR124801

Instrument: ecd1a.i

Sample Info: IWAR100223-48

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

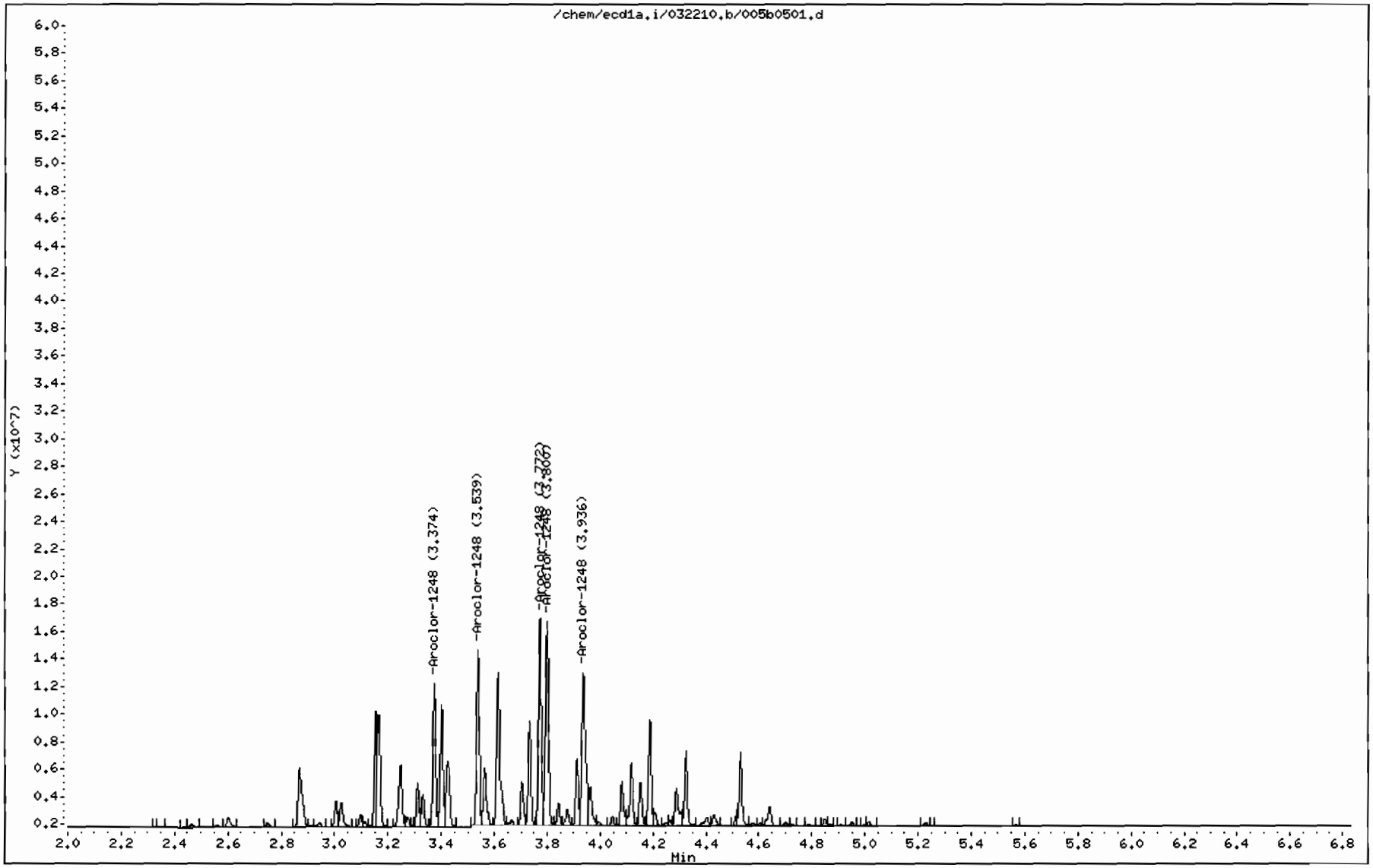

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/032210.b/007f0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 22-MAR-2010 07:55
Operator : YS1 Inst ID: ecdla.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecdla.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 14:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.365	2.365	0.000	7070645	1000.00	1060	80.00- 120.00	100.00
2.650	2.650	0.000	8986908	1000.00	1080	107.10- 147.10	127.10
2.731	2.731	0.000	5817927	1000.00	1050	62.28- 102.28	82.28
2.845	2.845	0.000	2769308	1000.00	1040	19.17- 59.17	39.17
3.233	3.233	0.000	3708246	1000.00	1040	32.45- 72.45	52.45

Average of Peak Amounts = 1.06e+03

Data File: /chem/ecd1a.i/032210.b/007f0701.d

Date : 22-MAR-2010 07:55

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

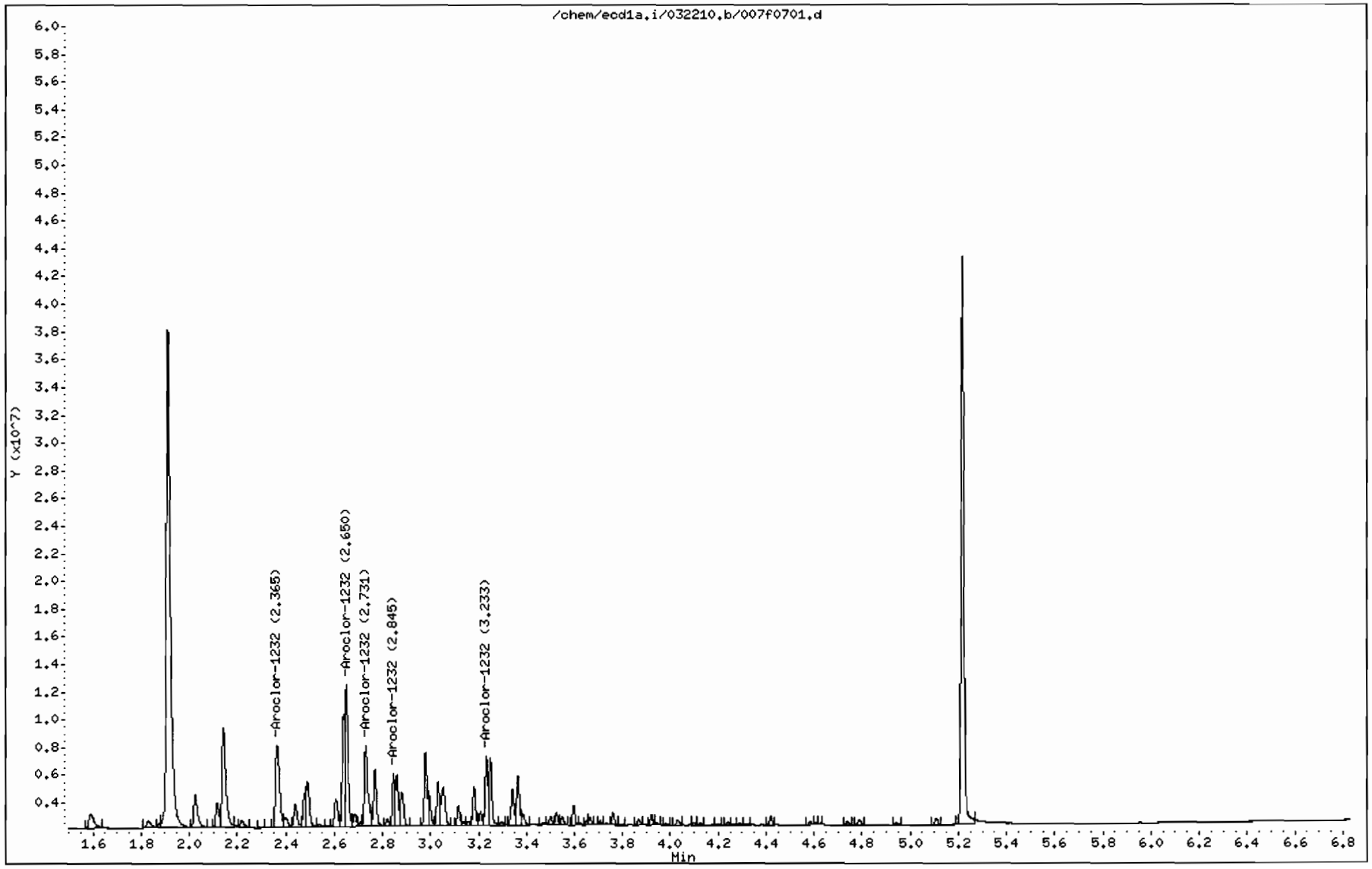

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/007b0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 22-MAR-2010 07:55
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 14:29 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.867	2.867	0.000	5277707	1000.00	1040	80.00- 120.00	100.00
3.165	3.165	0.000	6006794	1000.00	1050	93.81- 133.81	113.81
3.248	3.248	0.000	4076942	1000.00	1050	57.25- 97.25	77.25
3.538	3.538	0.000	3025590	1000.00	1060	37.33- 77.33	57.33
3.772	3.772	0.000	2986513	1000.00	1060	36.59- 76.59	56.59

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/032210.b/007b0701.d
Date : 22-MAR-2010 07:55
Client ID: AR123201
Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

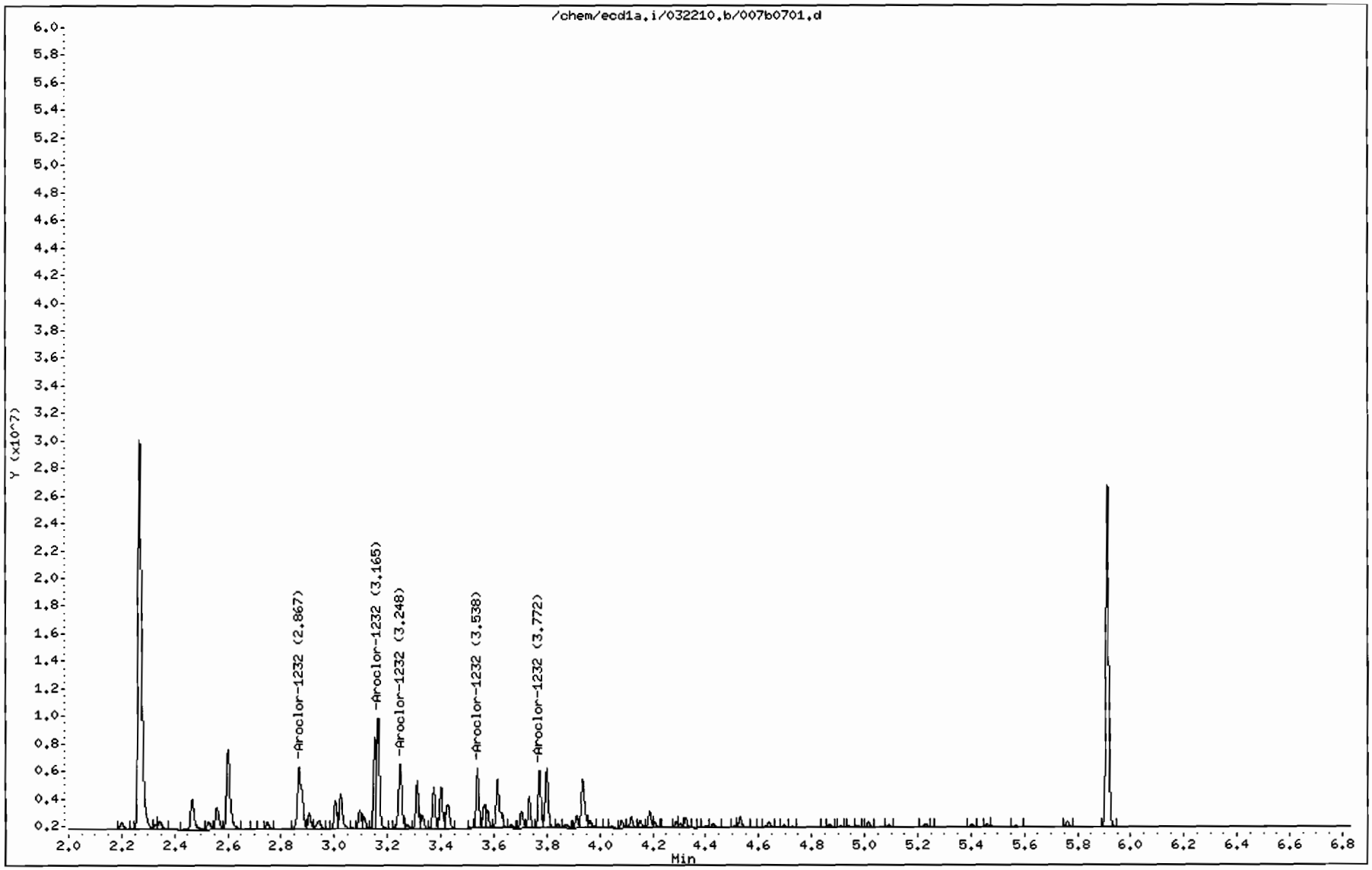

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/008f0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 22-MAR-2010 08:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 14:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.025	2.025	0.000	4694807	1000.00	1050	80.00- 120.00	100.00
2.117	2.117	0.000	2599048	1000.00	1060	35.36- 75.36	55.36
2.143	2.143	0.000	11298360	1000.00	1040	220.66- 260.66	240.66

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/032210.b/008f0801.d
Date : 22-MAR-2010 08:05
Client ID: AR122101
Sample Info: IWAR100104-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

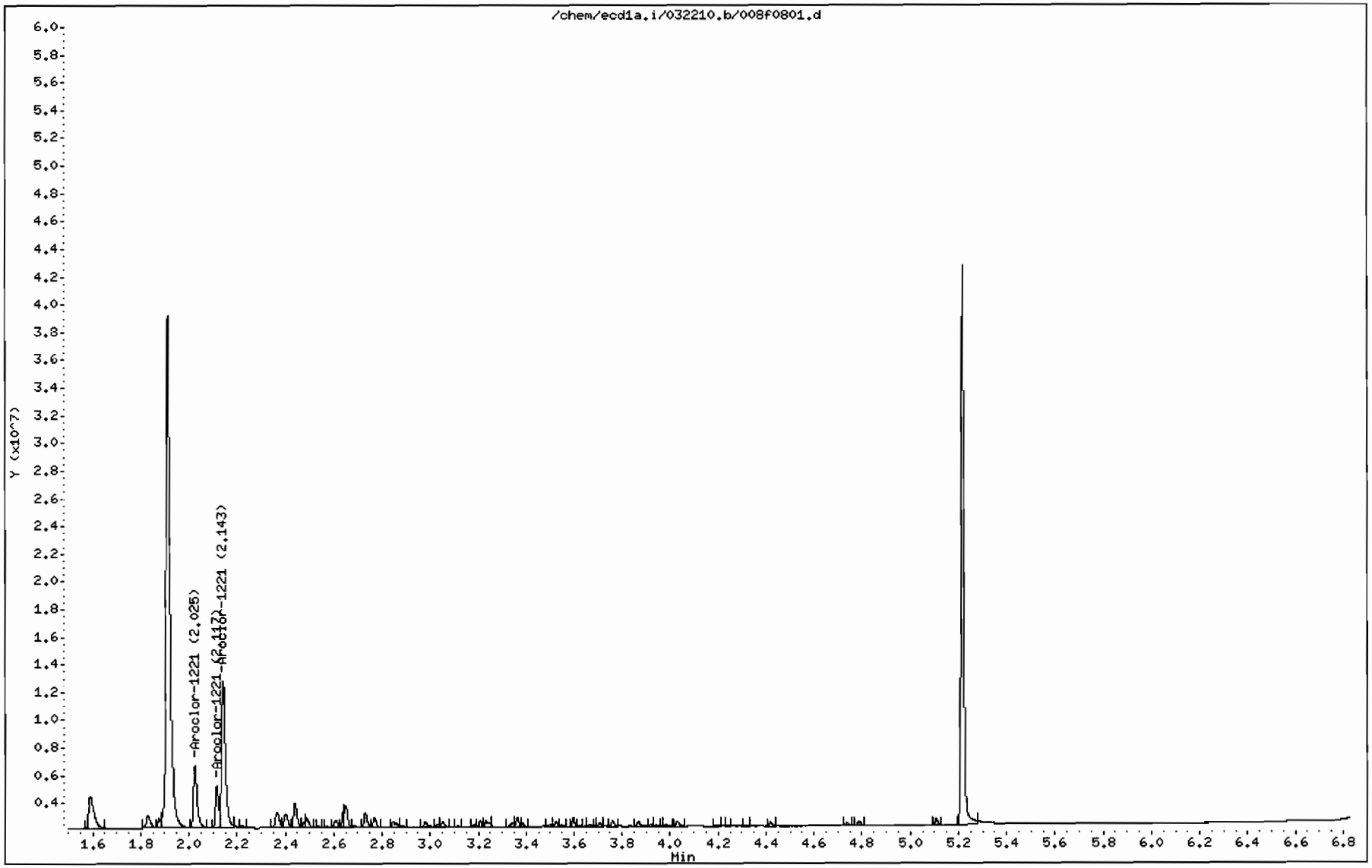

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/008b0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 22-MAR-2010 08:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 14:29 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.466	2.466	0.000	3329496	1000.00	1020	80.00- 120.00	100.00
2.560	2.560	0.000	2159259	1000.00	1040	44.85- 84.85	64.85
2.601	2.601	0.000	7455002	1000.00	1020	203.91- 243.91	223.91

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd1a.i/032210.b/008b0801.d

Date : 22-MAR-2010 08:05

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

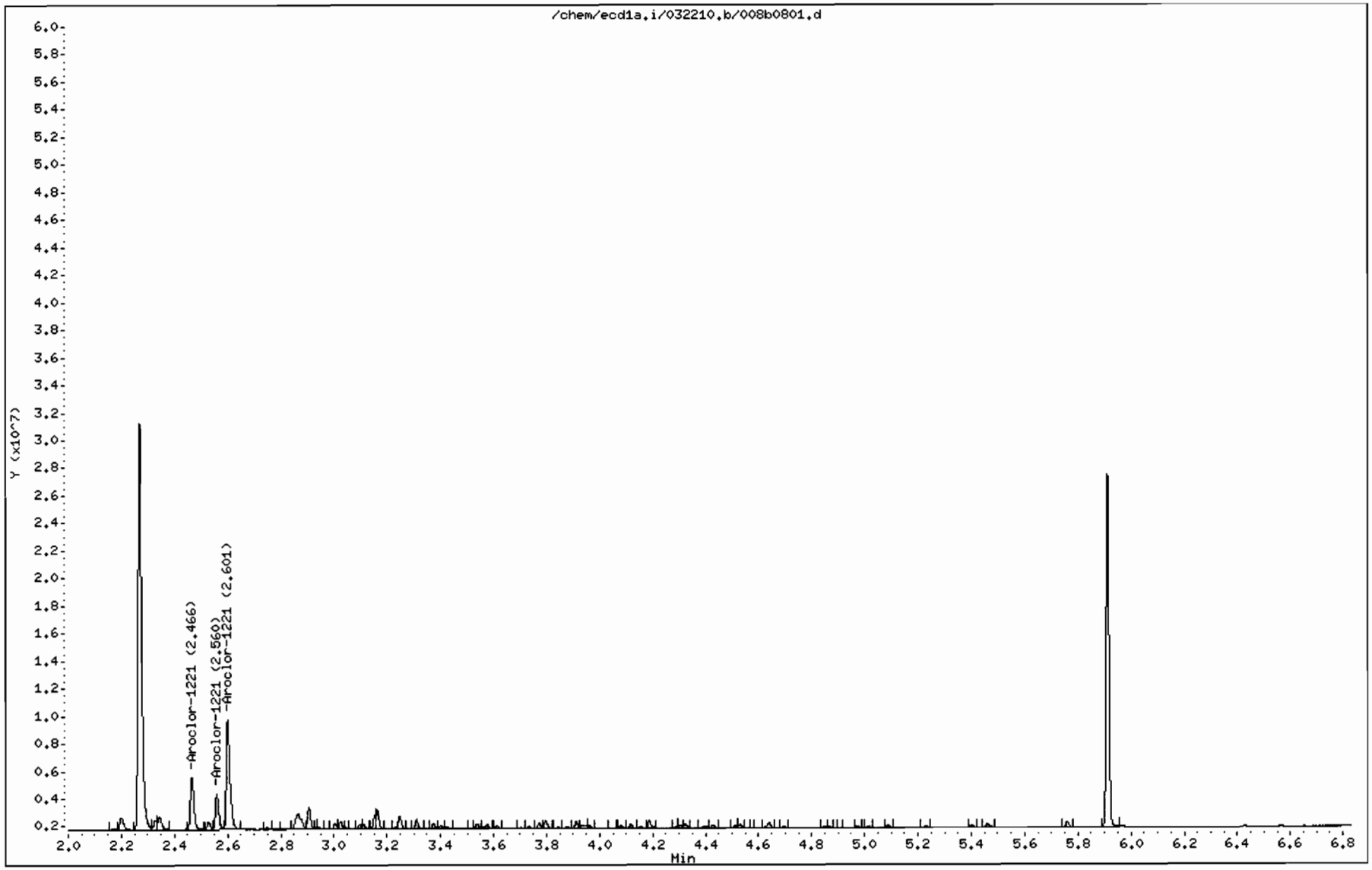

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/022f2201.d
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002
Inj Date : 22-MAR-2010 10:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 11:02 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.911	0.001	41452103	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.216	-0.002	30649741	100.000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.364	0.000	14743203	1000.00	971	80.00- 120.00	100.00
2.650	2.650	0.000	19275233	1000.00	1020	110.74- 150.74	130.74
2.731	2.730	0.001	11835293	1000.00	951	60.28- 100.28	80.28
2.768	2.768	0.000	7109889	1000.00	968	28.22- 68.22	48.22
2.978	2.978	0.000	9224676	1000.00	969	42.57- 82.57	62.57
Average of Peak Amounts =					975		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.704	-0.001	19513948	1000.00	1060	80.00- 120.00	100.00
3.865	3.866	-0.001	28697250	1000.00	1070	127.06- 167.06	147.06
4.027	4.028	-0.001	30643714	1000.00	1080	137.03- 177.03	157.03
4.095	4.096	-0.001	17319050	1000.00	1070	68.75- 108.75	88.75
4.237	4.240	-0.003	18017100	1000.00	1070	72.33- 112.33	92.33
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd1a.i/032210.b/022f2201.d

Date : 22-MAR-2010 10:49

Client ID: AR166002

Sample Info: IWAR100222-60 02

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

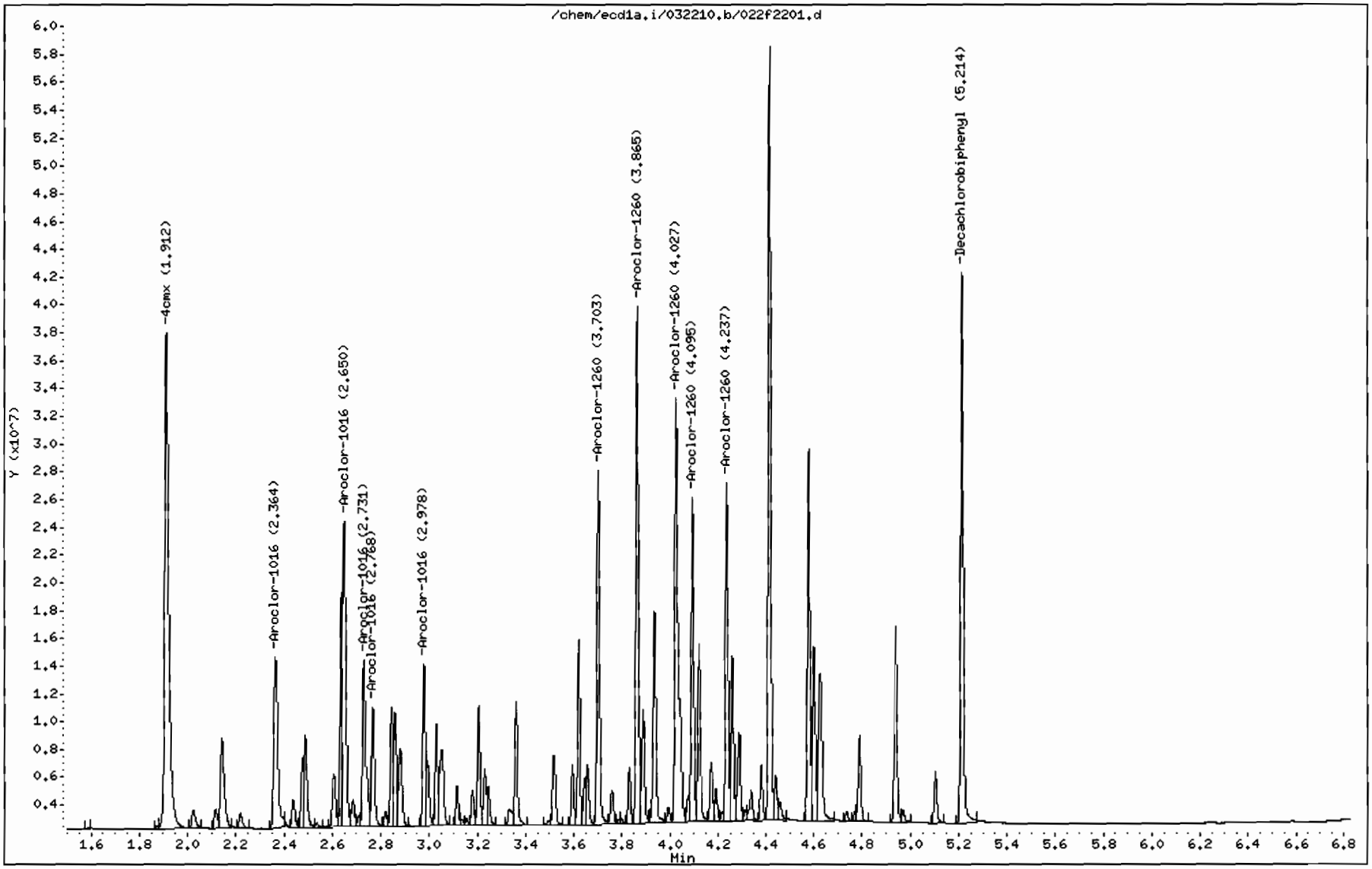

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/022b2201.d
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002
Inj Date : 22-MAR-2010 10:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 11:01 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.269	0.001	26427738	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.909	5.911	-0.002	18102538	100.000	96.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.164	0.000	11858232	1000.00	942	80.00- 120.00	100.00(M)
3.247	3.246	0.001	7902507	1000.00	915	46.64- 86.64	66.64
3.310	3.310	0.000	4895031	1000.00	926	21.28- 61.28	41.28
3.537	3.537	0.000	6404501	1000.00	929	32.29- 72.29	54.01
3.612	3.612	0.000	5895626	1000.00	918	39.20- 79.20	49.72
Average of Peak Amounts =					926		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.303	-0.001	12795586	1000.00	978	80.00- 120.00	100.00
4.426	4.428	-0.002	15630118	1000.00	1000	102.15- 142.15	122.15
4.692	4.694	-0.002	11706251	1000.00	984	71.49- 111.49	91.49
4.865	4.867	-0.002	12136065	1000.00	988	74.85- 114.85	94.85
5.013	5.014	-0.001	27002862	1000.00	1020	191.03- 231.03	211.03
Average of Peak Amounts =					996		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032210.b/022b2201.d

Date : 22-MAR-2010 10:49

Client ID: AR166002

Sample Info: IWAR100222-60 02

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

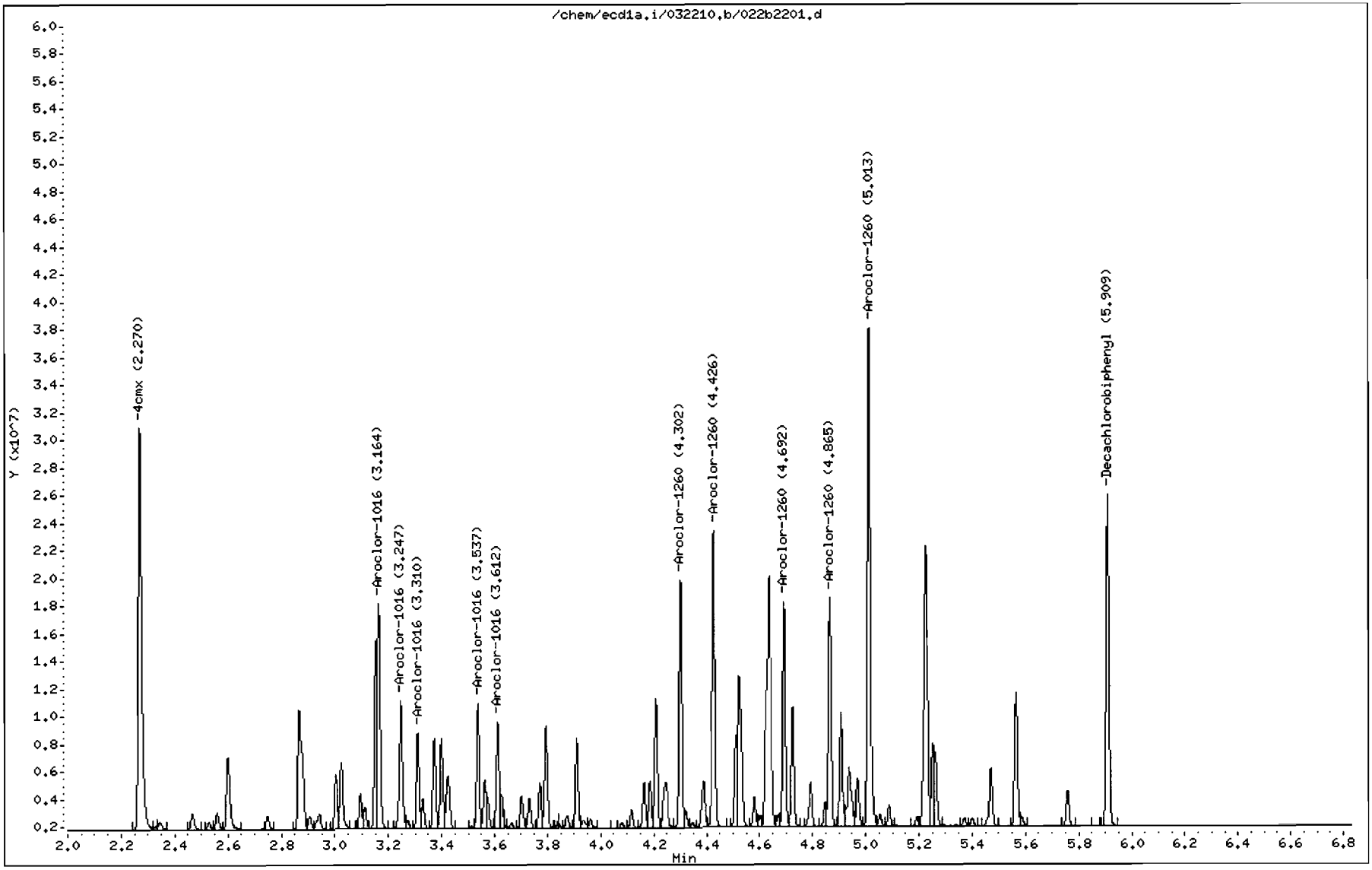

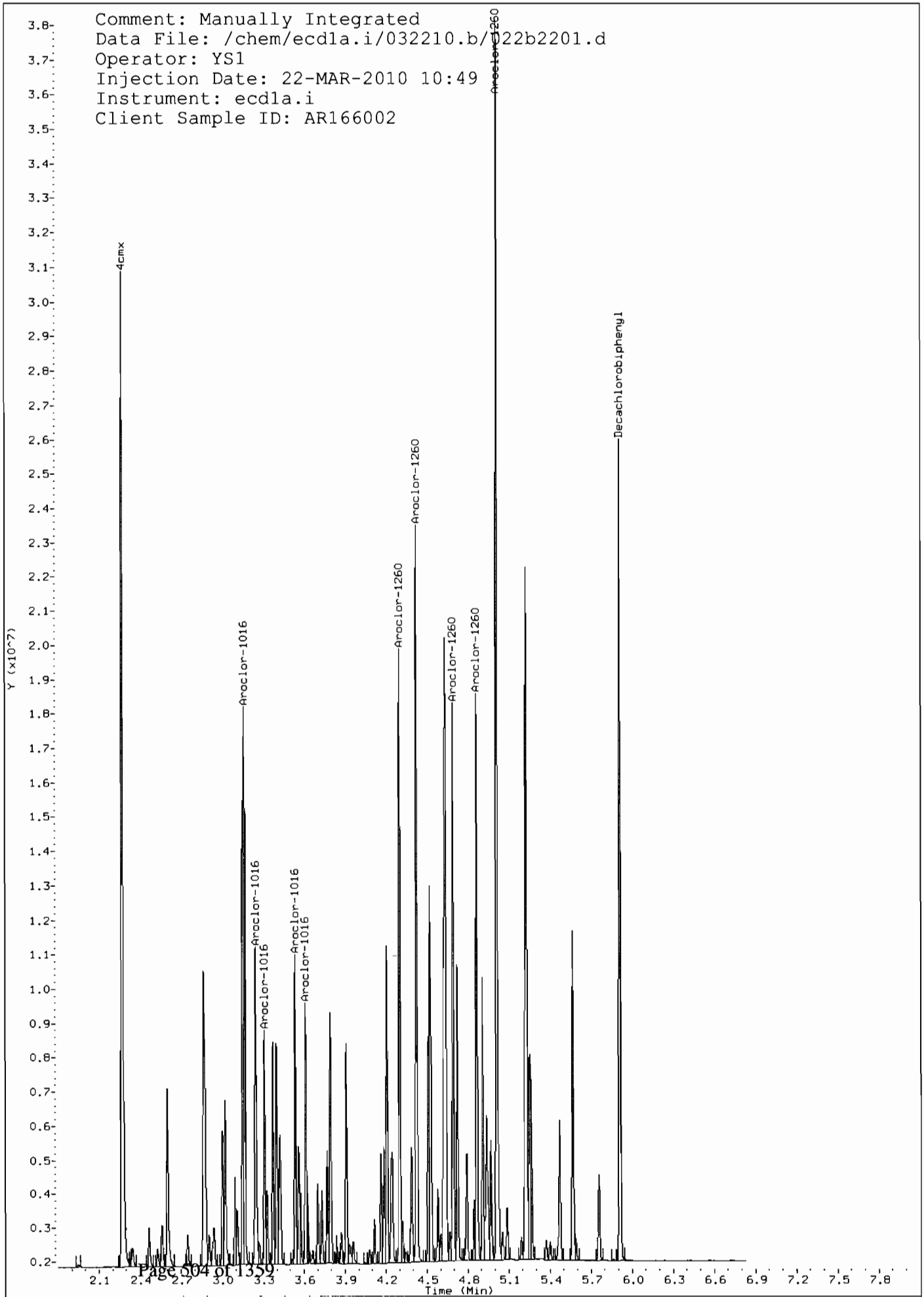
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032210.b/022b2201.d
Operator: YS1
Injection Date: 22-MAR-2010 10:49
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

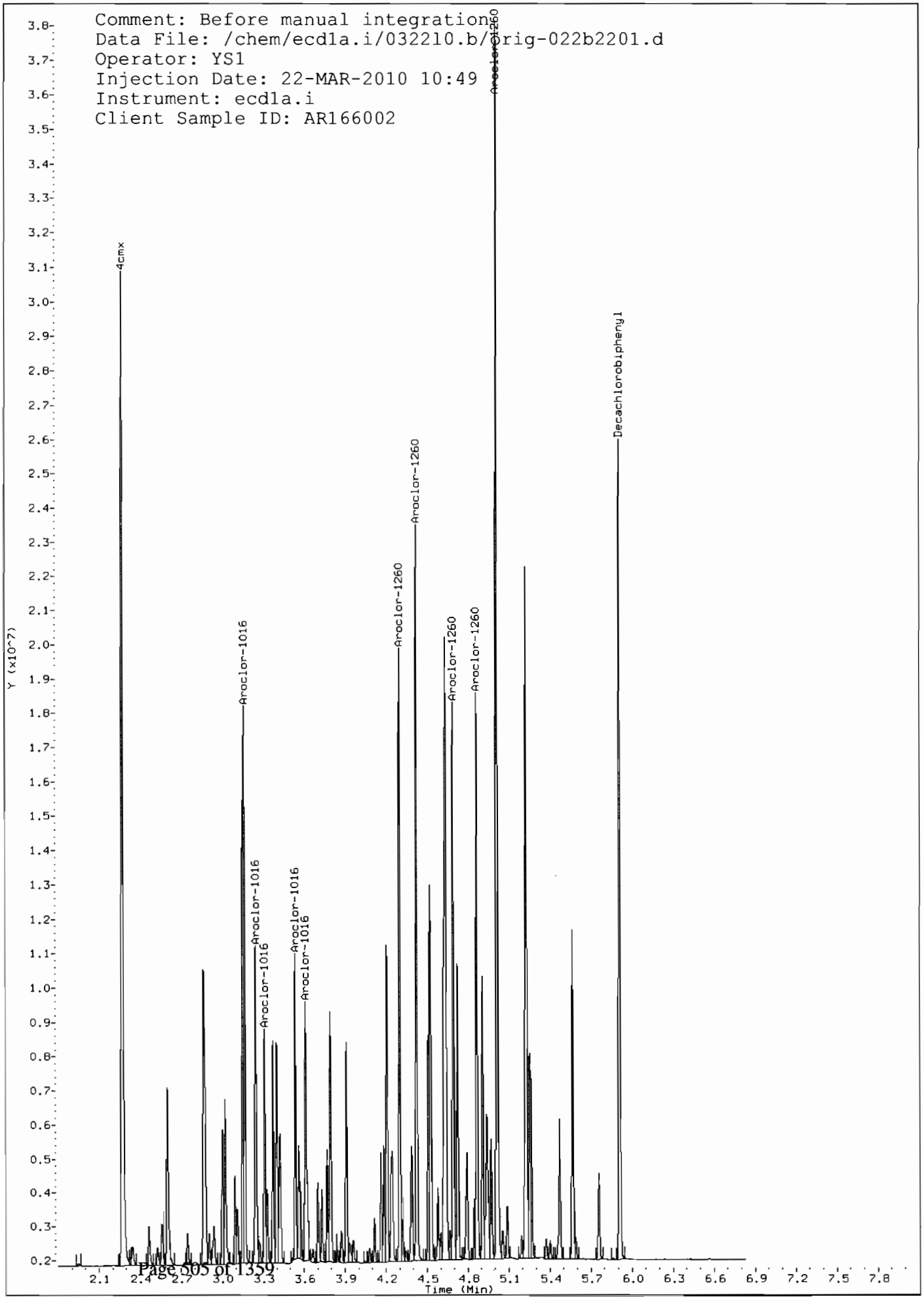
Comment: Before manual integration
Data File: /chem/ecd1a.i/032210.b/rig-022b2201.d
Operator: YS1
Injection Date: 22-MAR-2010 10:49
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/033f3301.d
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003
Inj Date : 22-MAR-2010 13:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 13:21 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.911	0.000	41307554	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.216	5.216	0.000	26149011	100.000	88.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.362	2.364	-0.002	14260264	1000.00	940	80.00- 120.00	100.00
2.650	2.650	0.000	18666285	1000.00	986	110.90- 150.90	130.90
2.730	2.730	0.000	11821580	1000.00	950	62.90- 102.90	82.90
2.767	2.768	-0.001	7105148	1000.00	967	29.82- 69.82	49.82
2.978	2.978	0.000	9141070	1000.00	960	44.10- 84.10	64.10
Average of Peak Amounts =					961		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.704	-0.001	19342966	1000.00	1060	80.00- 120.00	100.00
3.866	3.866	0.000	28478152	1000.00	1060	127.23- 167.23	147.23
4.027	4.028	-0.001	30344196	1000.00	1070	136.87- 176.87	156.87
4.096	4.096	0.000	17150973	1000.00	1060	68.67- 108.67	88.67
4.239	4.240	-0.001	17760261	1000.00	1060	71.82- 111.82	91.82
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecdia.i/032210.b/033f3301.d
Date : 22-MAR-2010 13:04
Client ID: AR166003
Sample Info: IWAR100222-60 03

Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

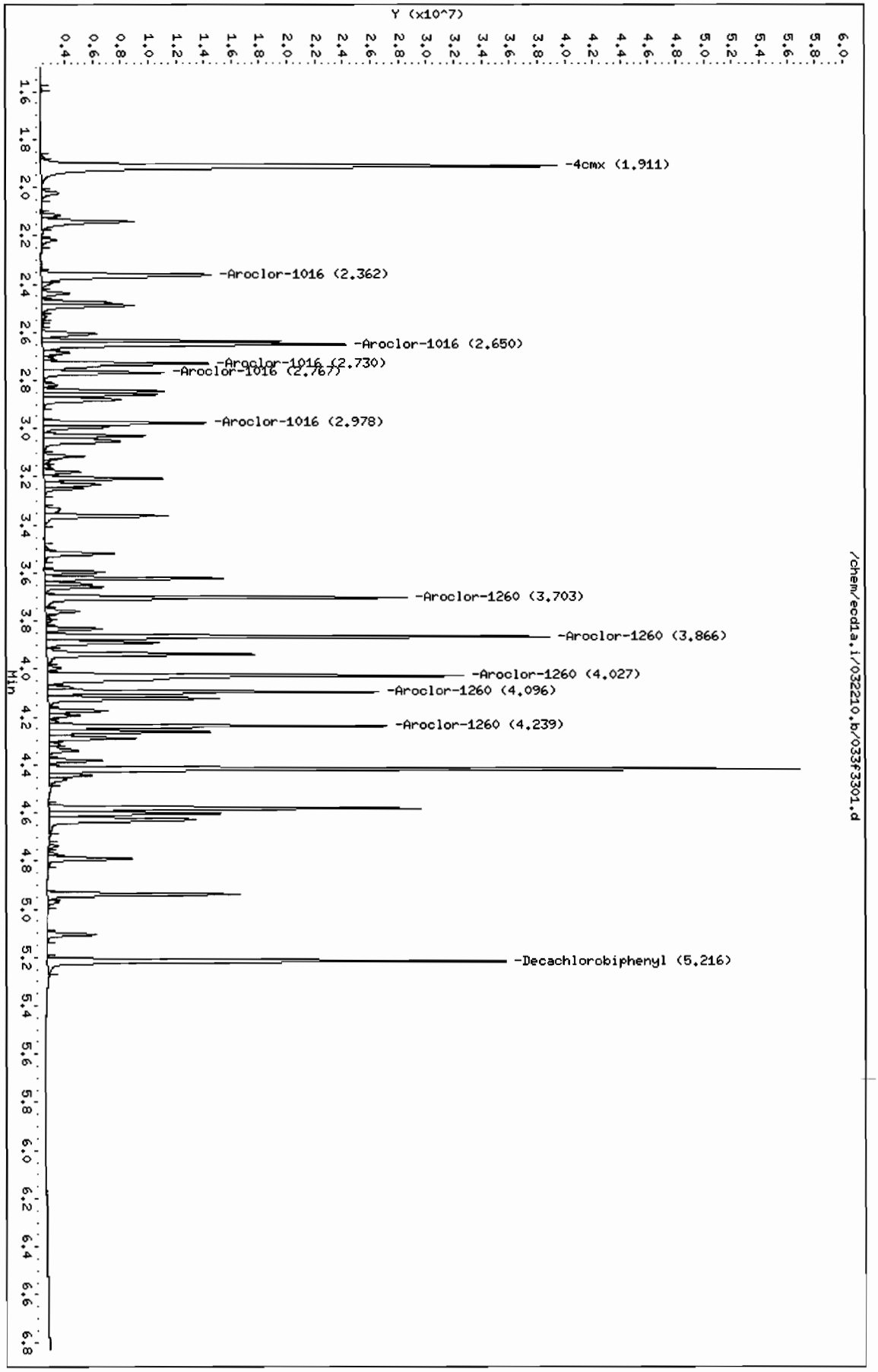

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/033b3301.d
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003
Inj Date : 22-MAR-2010 13:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 13:21 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.268	2.269	-0.001	26328460	100.000	100	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.911	0.000	17683320	100.000	94.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.164	0.000	11896323	1000.00	945	80.00- 120.00	100.00(M)
3.246	3.246	0.000	7890068	1000.00	914	46.32- 86.32	66.32
3.310	3.310	0.000	4875129	1000.00	922	20.98- 60.98	40.98
3.537	3.537	0.000	6350220	1000.00	921	31.51- 71.51	53.38
3.612	3.612	0.000	5891769	1000.00	917	38.11- 78.11	49.53
Average of Peak Amounts =					924		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.303	-0.001	12663900	1000.00	968	80.00- 120.00	100.00
4.427	4.428	-0.001	15413076	1000.00	991	101.71- 141.71	121.71
4.693	4.694	-0.001	11511560	1000.00	968	70.90- 110.90	90.90
4.866	4.867	-0.001	11988864	1000.00	976	74.67- 114.67	94.67
5.013	5.014	-0.001	26480549	1000.00	1000	189.10- 229.10	209.10
Average of Peak Amounts =					981		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032210.b/033b3301.d
Date : 22-MAR-2010 13:04
Client ID: AR166003
Sample Info: IWAR100222-60 03
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

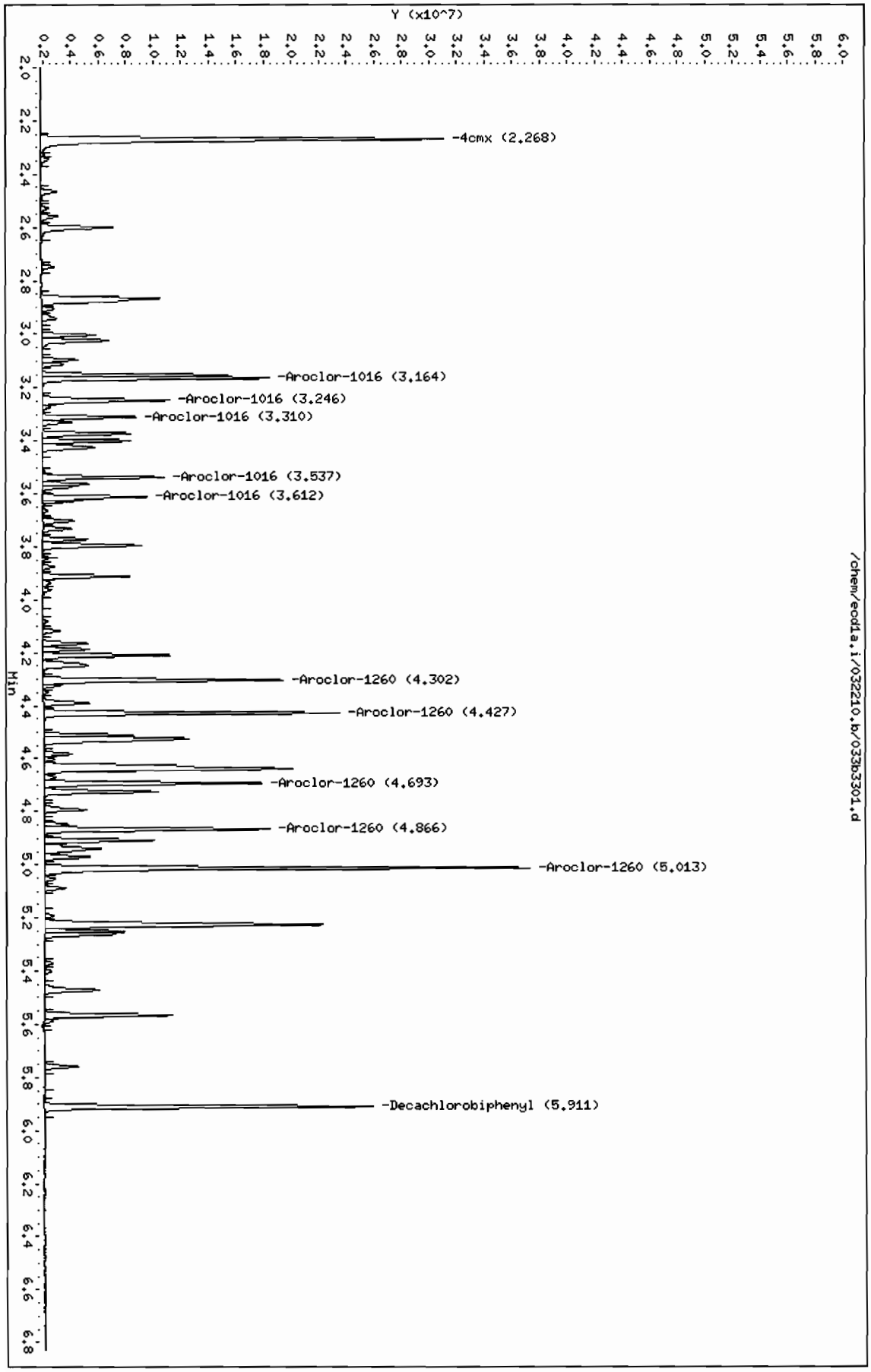

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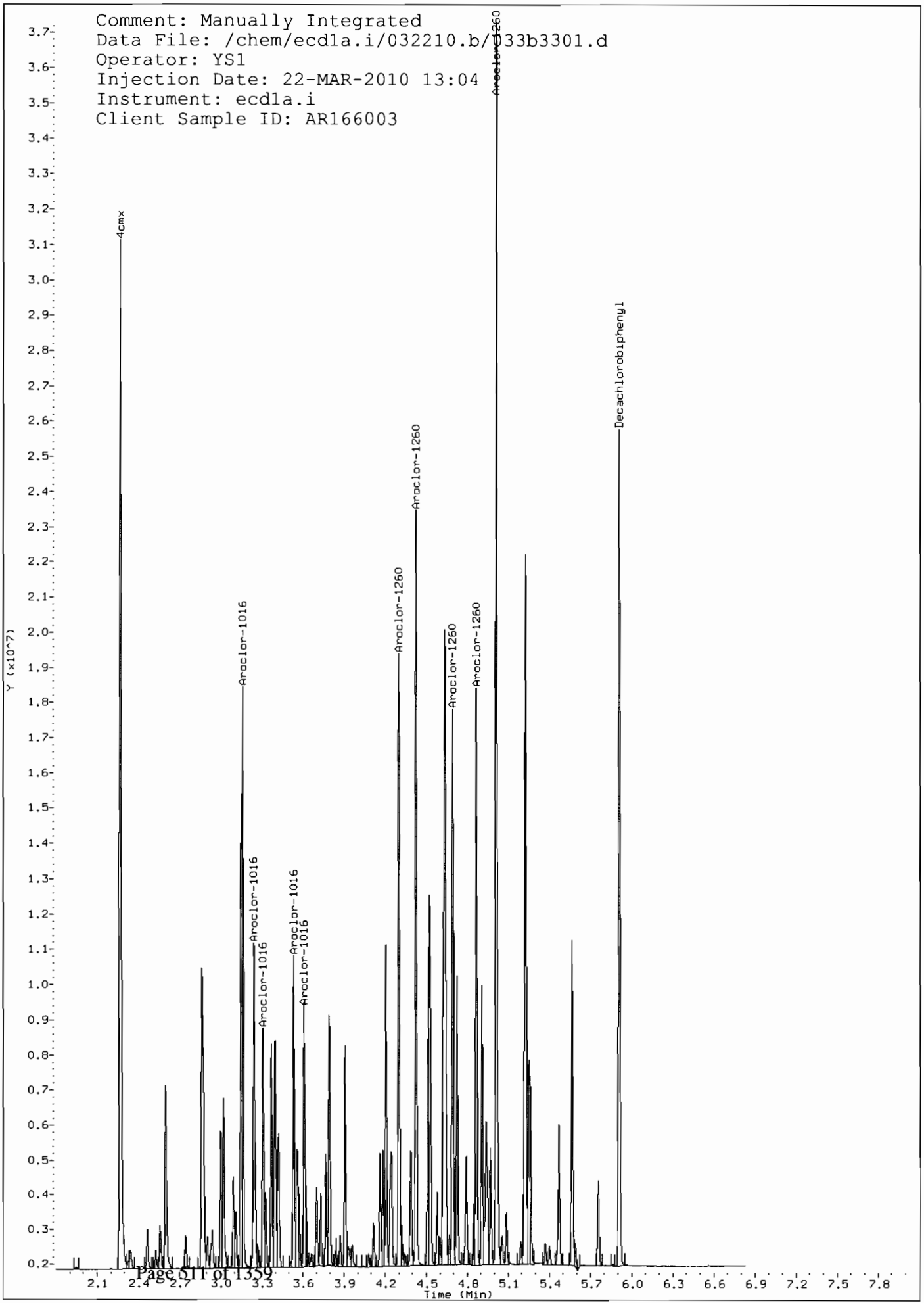
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032210.b/033b3301.d
Operator: YS1
Injection Date: 22-MAR-2010 13:04
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

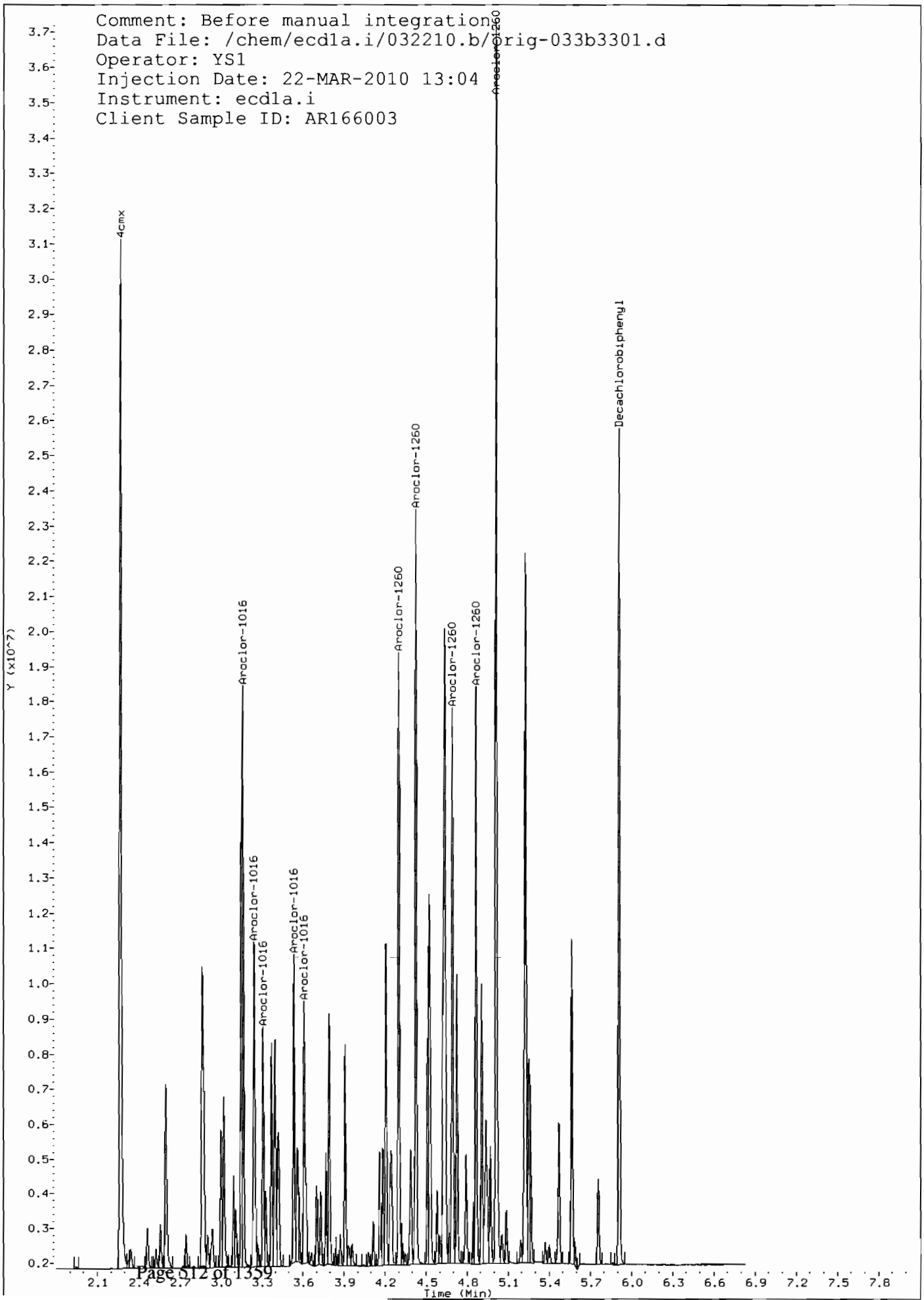
Comment: Before manual integration
Data File: /chem/ecd1a.i/032210.b/orig-033b3301.d
Operator: YS1
Injection Date: 22-MAR-2010 13:04
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/039f3901.d
Lab Smp Id: WAR100222-60 05 Client Smp ID: AR166005
Inj Date : 22-MAR-2010 14:15
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 14:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 39 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.911	0.000	40980895	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.216	-0.002	29439266	100.000	99.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.362	2.364	-0.002	14558166	1000.00	959	80.00- 120.00	100.00
2.650	2.650	0.000	18690552	1000.00	987	108.39- 148.39	128.39
2.730	2.730	0.000	11737319	1000.00	943	60.62- 100.62	80.62
2.767	2.768	-0.001	7050596	1000.00	959	28.43- 68.43	48.43
2.977	2.978	-0.001	8989556	1000.00	944	41.75- 81.75	61.75
Average of Peak Amounts =					959		
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.704	-0.002	18876327	1000.00	1030	80.00- 120.00	100.00
3.865	3.866	-0.001	26762359	1000.00	995	121.78- 161.78	141.78
4.026	4.028	-0.002	27761487	1000.00	980	127.07- 167.07	147.07
4.096	4.096	0.000	16549459	1000.00	1020	67.67- 107.67	87.67
4.237	4.240	-0.003	17476717	1000.00	1040	72.59- 112.59	92.59
Average of Peak Amounts =					1.01e+03		

Data File: /chem/ecd1a.i/032210.b/039f3901.d
Date : 22-MAR-2010 14:15
Client ID: AR166005
Sample Info: IWAR100222-60 05

Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

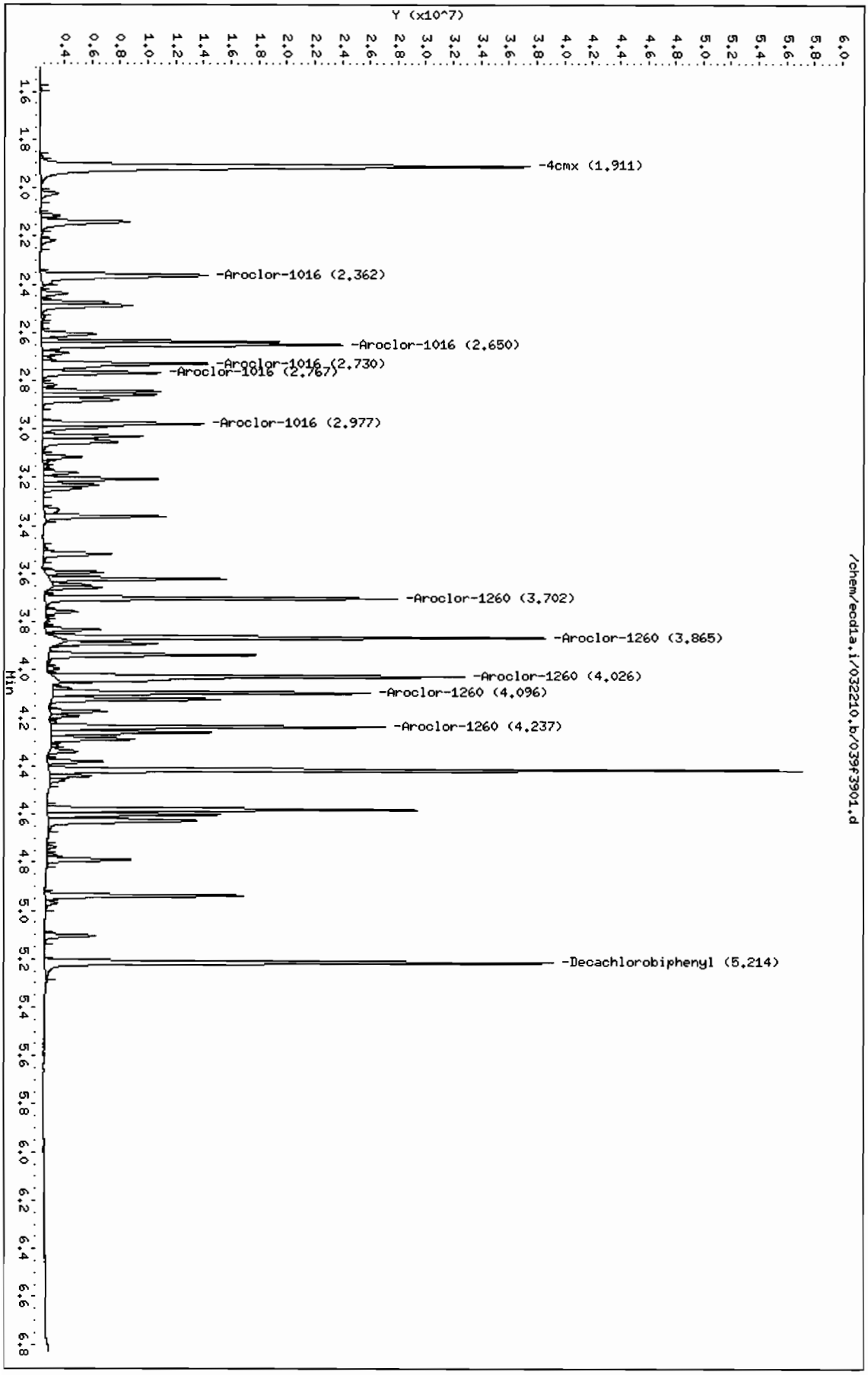

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/039b3901.d
Lab Smp Id: WAR100222-60 05 Client Smp ID: AR166005
Inj Date : 22-MAR-2010 14:15
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 14:29 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 39 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.268	2.269	-0.001	26184988	100.000	99.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.911	0.000	18305179	100.000	97.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.163	3.164	-0.001	12241773	1000.00	973	80.00- 120.00	100.00(M)
3.246	3.246	0.000	7815854	1000.00	905	43.85- 83.85	63.85
3.310	3.310	0.000	4849138	1000.00	917	19.61- 59.61	39.61
3.536	3.537	-0.001	6138081	1000.00	890	30.14- 70.14	50.14
3.612	3.612	0.000	5733339	1000.00	893	26.83- 66.83	46.83
Average of Peak Amounts =					916		
7 Aroclor-1260					CAS #: 11096-82-5		
4.301	4.303	-0.002	12788482	1000.00	978	80.00- 120.00	100.00
4.426	4.428	-0.002	15581586	1000.00	1000	101.84- 141.84	121.84
4.692	4.694	-0.002	11735713	1000.00	986	71.77- 111.77	91.77
4.866	4.867	-0.001	12213321	1000.00	994	75.50- 115.50	95.50
5.013	5.014	-0.001	27088090	1000.00	1030	191.82- 231.82	211.82
Average of Peak Amounts =					997		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032210.b/039b3901.d
Date : 22-MAR-2010 14:15
Client ID: AR166005
Sample Info: IWAR100222-60 05

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

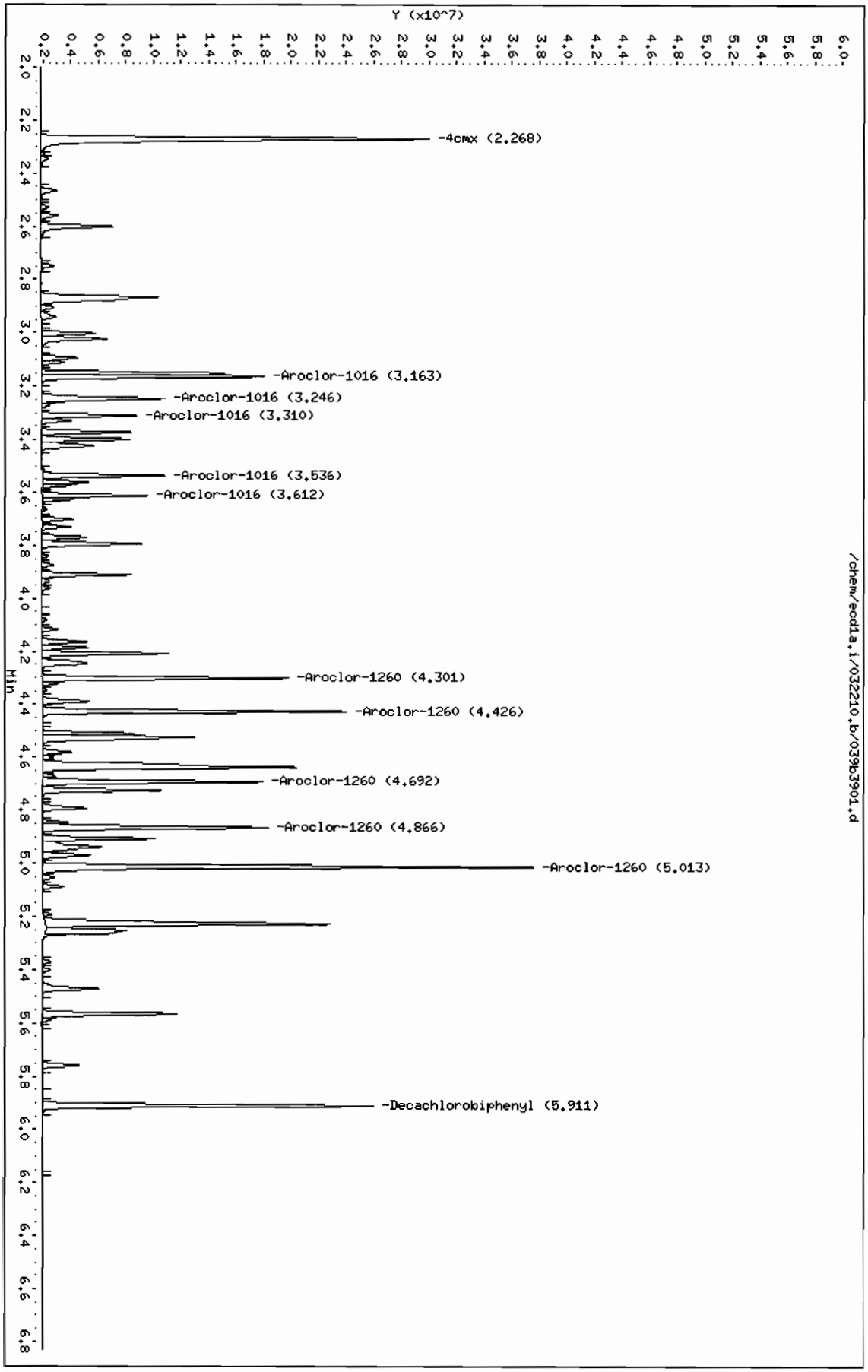

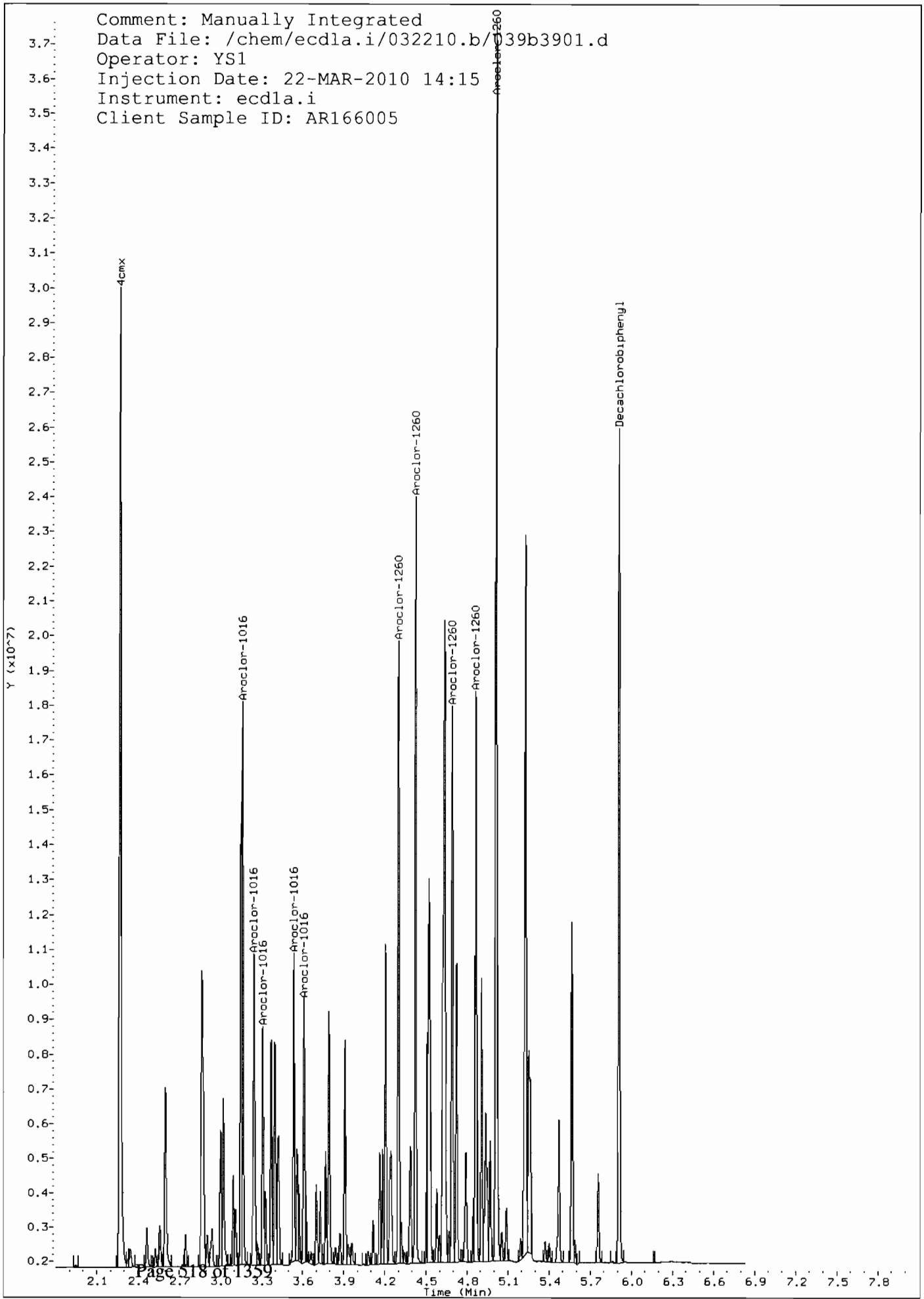
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Operator: YS1
Injection Date: 22-MAR-2010 14:15
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

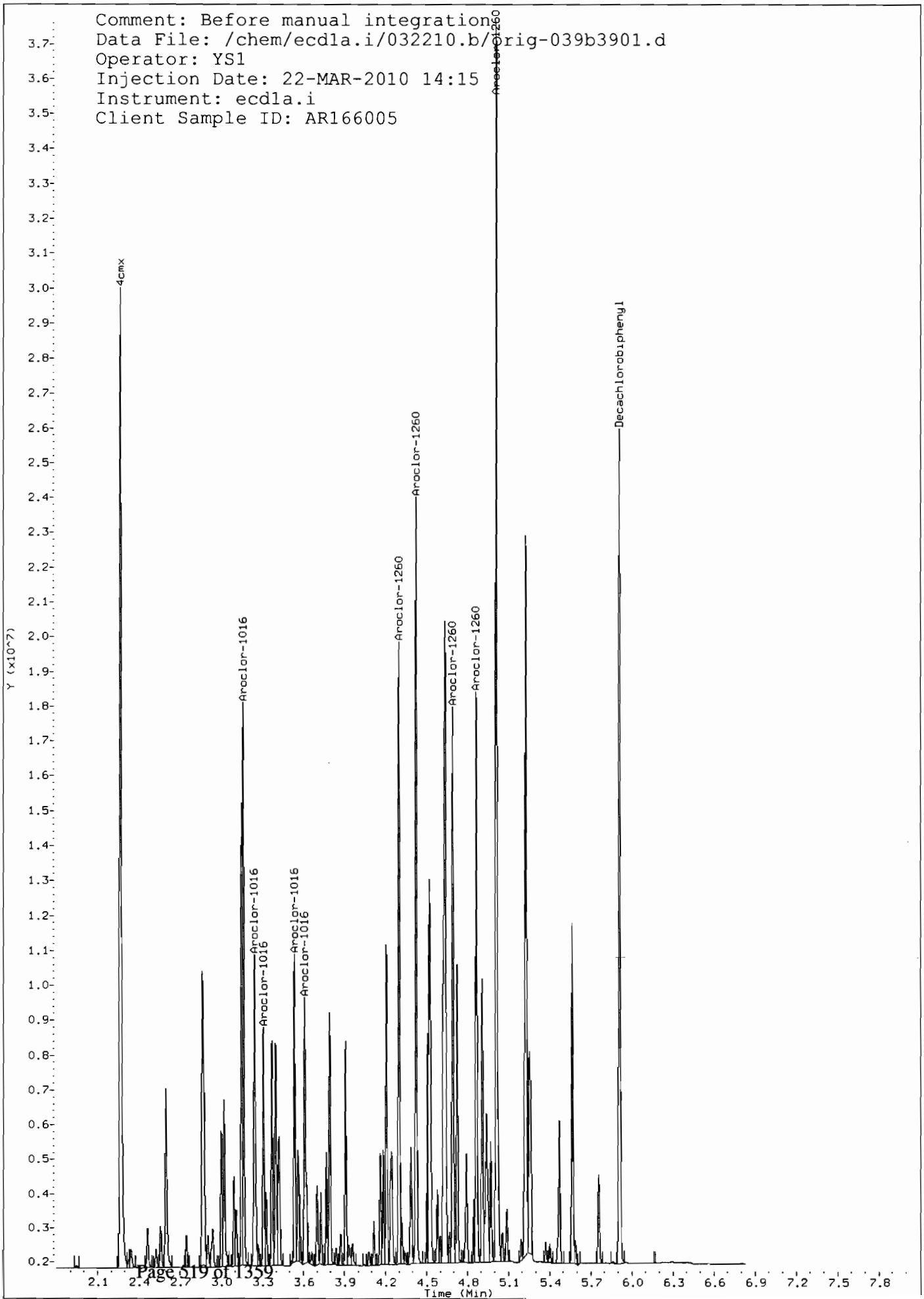
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Operator: YS1
Injection Date: 22-MAR-2010 14:15
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10	1446	1.91	5.23
02	AR166001DUSE	WAR100222-60	03/11/10	1456	1.92	5.22
03	ZZZZZ	ZZZZZ	03/11/10	1507		
04	ZZZZZ	ZZZZZ	03/11/10	1517		
05	ZZZZZ	ZZZZZ	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	1.92	5.22
12	AR166002	WAR100311-02	03/11/10	1641	1.92	5.22
13	AR166003	WAR100311-03	03/11/10	1652	1.92	5.22
14	AR166004	WAR100311-04	03/11/10	1702	1.91	5.22
15	AR166005	IAR100311-01	03/11/10	1713	1.92	5.22
16	AR166001	WAR100222-60	03/11/10	1724	1.91	5.22
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	1.91	5.22
04	ZZZZZ	ZZZZZ	03/11/10	2054	1.92	5.22
05	ZZZZZ	ZZZZZ	03/11/10	2105	1.92	5.22
06	ZZZZZ	ZZZZZ	03/11/10	2115	1.92	5.22
07	ZZZZZ	ZZZZZ	03/11/10	2126	1.92	5.22
08	ZZZZZ	ZZZZZ	03/11/10	2136	1.92	5.22
09	ZZZZZ	ZZZZZ	03/11/10	2147	1.92	5.22
10	ZZZZZ	ZZZZZ	03/11/10	2157	1.92	5.22
11	ZZZZZ	ZZZZZ	03/11/10	2208	1.92	5.22
12	ZZZZZ	ZZZZZ	03/11/10	2218	1.92	5.22
13	ZZZZZ	ZZZZZ	03/11/10	2229	1.92	5.22
14	AR	WAR100222-60	03/11/10	2239	1.91	5.22
15	PIBLK03	WAR100219-99	03/11/10	2250	1.91	5.22
16	ZZZZZ	ZZZZZ	03/11/10	2300	1.90	5.23
17	ZZZZZ	ZZZZZ	03/11/10	2311	1.92	5.22
18	AR	WAR100219-99	03/11/10	2321	1.91	5.22
19						
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28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10	1446	2.27	5.92
02	AR166001DUSE	WAR100222-60	03/11/10	1456	2.27	5.92
03	ZZZZZ	ZZZZZ	03/11/10	1507		
04	ZZZZZ	ZZZZZ	03/11/10	1517		
05	ZZZZZ	ZZZZZ	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	2.27	5.92
12	AR166002	WAR100311-02	03/11/10	1641	2.27	5.92
13	AR166003	WAR100311-03	03/11/10	1652	2.27	5.92
14	AR166004	WAR100311-04	03/11/10	1702	2.27	5.92
15	AR166005	IAR100311-01	03/11/10	1713	2.27	5.92
16	AR166001	WAR100222-60	03/11/10	1724	2.27	5.92
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	2.27	5.92
04	ZZZZZ	ZZZZZ	03/11/10	2054	2.28	5.92
05	ZZZZZ	ZZZZZ	03/11/10	2105	2.28	5.92
06	ZZZZZ	ZZZZZ	03/11/10	2115	2.28	5.92
07	ZZZZZ	ZZZZZ	03/11/10	2126	2.28	5.92
08	ZZZZZ	ZZZZZ	03/11/10	2136	2.28	5.92
09	ZZZZZ	ZZZZZ	03/11/10	2147	2.28	5.92
10	ZZZZZ	ZZZZZ	03/11/10	2157	2.28	5.92
11	ZZZZZ	ZZZZZ	03/11/10	2208	2.28	5.92
12	ZZZZZ	ZZZZZ	03/11/10	2218	2.28	5.92
13	ZZZZZ	ZZZZZ	03/11/10	2229	2.28	5.92
14	AR166002	WAR100222-60	03/11/10	2239	2.27	5.92
15	PIBLK03	WAR100219-99	03/11/10	2250	2.27	5.92
16	ZZZZZ	ZZZZZ	03/11/10	2300		5.92
17	ZZZZZ	ZZZZZ	03/11/10	2311		5.23*
18	ZZZZZ	ZZZZZ	03/11/10	2321		
19						
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QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/22/10	0652	1.91	5.21
02	AR166001	WAR100222-60	03/22/10	0702	1.91	5.22
03	AR125401	WAR100219-54	03/22/10	0713		
04	AR124201	WAR100219-42	03/22/10	0723		
05	AR124801	WAR100223-48	03/22/10	0734		
06	AR126801	WAR100107-68	03/22/10	0744		
07	AR123201	WAR100104-32	03/22/10	0755		
08	AR122101	WAR100104-21	03/22/10	0805		
09	AR126201	WAR100104-62	03/22/10	0816		
10	DDTANALOGSTD	WAR091219-DD	03/22/10	0826		
11	PIBLK02	WAR100219-99	03/22/10	0837	1.91	5.22
12	PBLK01	1202074817	03/22/10	0847	1.91	5.22
13	PBLK01LCS	1202074818	03/22/10	0858	1.91	5.22
14	ZZZZZ	ZZZZZ	03/22/10	0908	1.91	5.22
15	ZZZZZ	ZZZZZ	03/22/10	0921	1.91	5.22
16	ZZZZZ	ZZZZZ	03/22/10	0933	1.91	5.21
17	ZZZZZ	ZZZZZ	03/22/10	0946	1.91	5.21
18	ZZZZZ	ZZZZZ	03/22/10	0959	1.92	5.21
19	ZZZZZ	ZZZZZ	03/22/10	1011	1.91	5.21
20	ZZZZZ	ZZZZZ	03/22/10	1024	1.91	5.21
21	ZZZZZ	ZZZZZ	03/22/10	1036	1.91	5.21
22	AR166002	WAR100222-60	03/22/10	1049	1.91	5.21
23	PIBLK03	WAR100219-99	03/22/10	1100	1.91	5.22
24	ZZZZZ	ZZZZZ	03/22/10	1110	1.91	5.21
25	ZZZZZ	ZZZZZ	03/22/10	1123	1.91	5.21
26	ZZZZZ	ZZZZZ	03/22/10	1135	1.91	5.21
27	ZZZZZ	ZZZZZ	03/22/10	1148	1.91	5.21
28	ZZZZZ	ZZZZZ	03/22/10	1201	1.91	5.21
29	ZZZZZ	ZZZZZ	03/22/10	1213	1.91	5.21
30	ZZZZZ	ZZZZZ	03/22/10	1226	1.91	5.21
31	ZZZZZ	ZZZZZ	03/22/10	1239	1.91	5.21
32	ZZZZZ	ZZZZZ	03/22/10	1251	1.91	5.21

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166003	WAR100222-60	03/22/10	1304	1.91	5.22
02	PIBLK04	WAR100219-99	03/22/10	1314	1.91	5.22
03	RE46-10-11926	248824001	03/22/10	1325	1.91	5.22
04	RE46-10-11926MS	1202074819	03/22/10	1337	1.91	5.22
05	RE46-10-11926MSD	1202074820	03/22/10	1350	1.91	5.21
06	RE46-10-11925	248824002	03/22/10	1403	1.91	5.21
07	AR166005	WAR100222-60	03/22/10	1415	1.91	5.21
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QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/22/10	0652	2.27	5.91
02	AR166001	WAR100222-60	03/22/10	0702	2.27	5.91
03	AR125401	WAR100219-54	03/22/10	0713		
04	AR124201	WAR100219-42	03/22/10	0723		
05	AR124801	WAR100223-48	03/22/10	0734		
06	AR126801	WAR100107-68	03/22/10	0744		
07	AR123201	WAR100104-32	03/22/10	0755		
08	AR122101	WAR100104-21	03/22/10	0805		
09	AR126201	WAR100104-62	03/22/10	0816		
10	DDTANALOGSTD	WAR091219-DD	03/22/10	0826		
11	PIBLK02	WAR100219-99	03/22/10	0837	2.27	5.91
12	PBLK01	1202074817	03/22/10	0847	2.27	5.91
13	PBLK01LCS	1202074818	03/22/10	0858	2.27	5.91
14	ZZZZZ	ZZZZZ	03/22/10	0908	2.27	5.91
15	ZZZZZ	ZZZZZ	03/22/10	0921	2.27	5.91
16	ZZZZZ	ZZZZZ	03/22/10	0933	2.27	5.91
17	ZZZZZ	ZZZZZ	03/22/10	0946	2.27	5.91
18	ZZZZZ	ZZZZZ	03/22/10	0959	2.27	5.91
19	ZZZZZ	ZZZZZ	03/22/10	1011	2.27	5.91
20	ZZZZZ	ZZZZZ	03/22/10	1024	2.27	5.91
21	ZZZZZ	ZZZZZ	03/22/10	1036	2.27	5.91
22	AR166002	WAR100222-60	03/22/10	1049	2.27	5.91
23	PIBLK03	WAR100219-99	03/22/10	1100	2.27	5.91
24	ZZZZZ	ZZZZZ	03/22/10	1110	2.27	5.91
25	ZZZZZ	ZZZZZ	03/22/10	1123	2.27	5.91
26	ZZZZZ	ZZZZZ	03/22/10	1135	2.27	5.91
27	ZZZZZ	ZZZZZ	03/22/10	1148	2.27	5.91
28	ZZZZZ	ZZZZZ	03/22/10	1201	2.27	5.91
29	ZZZZZ	ZZZZZ	03/22/10	1213	2.27	5.91
30	ZZZZZ	ZZZZZ	03/22/10	1226	2.27	5.91
31	ZZZZZ	ZZZZZ	03/22/10	1239	2.27	5.91
32	ZZZZZ	ZZZZZ	03/22/10	1251	2.27	5.91

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2305

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166003	WAR100222-60	03/22/10	1304	2.27	5.91
02	PIBLK04	WAR100219-99	03/22/10	1314	2.27	5.91
03	RE46-10-11926	248824001	03/22/10	1325	2.27	5.91
04	RE46-10-11926MS	1202074819	03/22/10	1337	2.27	5.91
05	RE46-10-11926MSD	1202074820	03/22/10	1350	2.27	5.91
06	RE46-10-11925	248824002	03/22/10	1403	2.27	5.91
07	AR166005	WAR100222-60	03/22/10	1415	2.27	5.91
08						
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	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10–2305 **Client ID:** MB for batch 966769

Lab Sample ID: 1202074817

Data File:	012f1201.d	**Data File:**	012b1201.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–MAR–10 08:47	**Analyzed:**	22–MAR–10 08:47

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1242							18.6
Column 1	1	2.36	2.34 – 2.4	9.37		ug/kg	
	2	2.65	2.62 – 2.68	9.57		ug/kg	
	3	2.77	2.74 – 2.8	10.1		ug/kg	
	4	2.98	2.95 – 3.01	32.2		ug/kg	
	5	3.23	3.2 – 3.26	45.6		ug/kg	
					21.4		
Column 2	1	3.16	3.14 – 3.2	9.62		ug/kg	
	2	3.25	3.22 – 3.28	10.5		ug/kg	
	3	3.54	3.51 – 3.57	26.3		ug/kg	
	4	3.77	3.74 – 3.8	35.4		ug/kg	
	5	3.8	3.77 – 3.83	47		ug/kg	
					25.8		
Aroclor–1254							1.32
Column 1	1	3.21	3.18 – 3.24	22.8		ug/kg	
	2	3.36	3.33 – 3.39	26.3		ug/kg	
	3	3.6	3.57 – 3.63	25.1		ug/kg	
	4	3.76	3.73 – 3.79	27.9		ug/kg	
	5	3.87	3.84 – 3.9	24.4		ug/kg	
					25.3		
Column 2	1	3.37	3.34 – 3.4	28.1		ug/kg	
	2	3.8	3.76 – 3.82	27.7		ug/kg	
	3	3.91	3.88 – 3.94	23		ug/kg	
	4	4.19	4.16 – 4.22	23.6		ug/kg	
	5	4.32	4.29 – 4.35	25.9		ug/kg	
					25.6		

Identification Summary

SDG Number: 10–2305 **Client ID:** MB for batch 966769

Lab Sample ID: 1202074817

Data File:	012f1201.d	**Data File:**	012b1201.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–MAR–10 08:47	**Analyzed:**	22–MAR–10 08:47

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1260							48.2
Column 1	1	3.7	3.67 – 3.73	10.7		ug/kg	
	2	3.87	3.84 – 3.9	14.5		ug/kg	
	3	4.03	4 – 4.06	20		ug/kg	
	4	4.1	4.07 – 4.13	2.16		ug/kg	
	5	4.24	4.21 – 4.27	2.09		ug/kg	
					9.9		
Column 2	1	4.3	4.27 – 4.33	11		ug/kg	
	2	4.43	4.4 – 4.46	11.1		ug/kg	
	3	4.7	4.66 – 4.72	3.74		ug/kg	
	4	4.87	4.84 – 4.9	1.98		ug/kg	
	5	5.01	4.98 – 5.04	2.54		ug/kg	
					6.05		

Identification Summary

SDG Number: 10-2305 **Client ID:** LCS for batch 966769

Lab Sample ID: 1202074818

Data File:	013f1301.d	**Data File:**	013b1301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22-MAR-10 08:58	**Analyzed:**	22-MAR-10 08:58

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							3.57
Column 1	1	2.36	2.33 – 2.39	23.8		ug/kg	
	2	2.65	2.62 – 2.68	24.3		ug/kg	
	3	2.73	2.7 – 2.76	23		ug/kg	
	4	2.77	2.74 – 2.8	23.4		ug/kg	
	5	2.98	2.95 – 3.01	23.5		ug/kg	
					23.6		
Column 2	1	3.16	3.13 – 3.19	23.6		ug/kg	
	2	3.25	3.22 – 3.28	22.6		ug/kg	
	3	3.31	3.28 – 3.34	22.5		ug/kg	
	4	3.54	3.51 – 3.57	22.6		ug/kg	
	5	3.61	3.58 – 3.64	22.7		ug/kg	
					22.8		
Aroclor-1260							4.78
Column 1	1	3.7	3.67 – 3.73	25.4		ug/kg	
	2	3.87	3.84 – 3.9	26		ug/kg	
	3	4.03	4 – 4.06	26.4		ug/kg	
	4	4.1	4.07 – 4.13	26.1		ug/kg	
	5	4.24	4.21 – 4.27	26.3		ug/kg	
					26		
Column 2	1	4.3	4.27 – 4.33	24.3		ug/kg	
	2	4.43	4.4 – 4.46	24.8		ug/kg	
	3	4.69	4.66 – 4.72	24.5		ug/kg	
	4	4.87	4.84 – 4.9	24.7		ug/kg	
	5	5.01	4.98 – 5.04	25.8		ug/kg	
					24.8		

Identification Summary

SDG Number: 10–2305 **Client ID:** RE46–10–11926MS

Lab Sample ID: 1202074819

Data File:	036f3601.d	**Data File:**	036b3601.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–MAR–10 13:37	**Analyzed:**	22–MAR–10 13:37

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							1.66
Column 1	1	2.36	2.33 – 2.39	16.3		ug/kg	
	2	2.65	2.62 – 2.68	17.3		ug/kg	
	3	2.73	2.7 – 2.76	15.1		ug/kg	
	4	2.77	2.74 – 2.8	16.2		ug/kg	
	5	2.98	2.95 – 3.01	17.2		ug/kg	
					16.4		
Column 2	1	3.16	3.13 – 3.19	16.9		ug/kg	
	2	3.25	3.22 – 3.28	15.8		ug/kg	
	3	3.31	3.28 – 3.34	14.1		ug/kg	
	4	3.54	3.51 – 3.57	17.6		ug/kg	
	5	3.61	3.58 – 3.64	16.4		ug/kg	
					16.1		
Aroclor–1260							4.98
Column 1	1	3.7	3.67 – 3.73	19.6		ug/kg	
	2	3.87	3.84 – 3.9	16.5		ug/kg	
	3	4.03	4 – 4.06	20.3		ug/kg	
	4	4.1	4.07 – 4.13	21.4		ug/kg	
	5	4.24	4.21 – 4.27	19.9		ug/kg	
					19.6		
Column 2	1	4.3	4.27 – 4.33	18.5		ug/kg	
	2	4.43	4.4 – 4.46	18.4		ug/kg	
	3	4.69	4.66 – 4.72	19.6		ug/kg	
	4	4.87	4.84 – 4.9	16.1		ug/kg	
	5	5.01	4.98 – 5.04	20.3		ug/kg	
					18.6		

Identification Summary

SDG Number: 10–2305 **Client ID:** RE46–10–11926MSD

Lab Sample ID: 1202074820

Data File:	037f3701.d	**Data File:**	037b3701.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–MAR–10 13:50	**Analyzed:**	22–MAR–10 13:50

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							1.33
Column 1	1	2.36	2.33 – 2.39	18.9		ug/kg	
	2	2.65	2.62 – 2.68	19.2		ug/kg	
	3	2.73	2.7 – 2.76	18.6		ug/kg	
	4	2.77	2.74 – 2.8	18.7		ug/kg	
	5	2.98	2.95 – 3.01	19		ug/kg	
					18.9		
Column 2	1	3.16	3.13 – 3.19	19.4		ug/kg	
	2	3.25	3.22 – 3.28	18.3		ug/kg	
	3	3.31	3.28 – 3.34	18.2		ug/kg	
	4	3.54	3.51 – 3.57	18.8		ug/kg	
	5	3.61	3.58 – 3.64	18.6		ug/kg	
					18.6		
Aroclor–1260							4.01
Column 1	1	3.7	3.67 – 3.73	21.9		ug/kg	
	2	3.87	3.84 – 3.9	22.8		ug/kg	
	3	4.03	4 – 4.06	23.1		ug/kg	
	4	4.1	4.07 – 4.13	23.1		ug/kg	
	5	4.24	4.21 – 4.27	22.5		ug/kg	
					22.7		
Column 2	1	4.3	4.27 – 4.33	20.9		ug/kg	
	2	4.43	4.4 – 4.46	21.9		ug/kg	
	3	4.69	4.66 – 4.72	21.8		ug/kg	
	4	4.87	4.84 – 4.9	21.6		ug/kg	
	5	5.01	4.98 – 5.04	22.8		ug/kg	
					21.8		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074817**				
Client Sample:	**QC for batch 966769**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966769**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**966771**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 08:47**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/19/2010 11:50**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**012f1201-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	012b1201-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242		25.8	ug/kg	1.11	3.33	2
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254		25.7	ug/kg	1.11	3.33	2
11096-82-5	Aroclor-1260	P	9.90	ug/kg	1.11	3.33	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/012f1201-2.d
Lab Smp Id: 1202074817 Client Smp ID: PBLK01
Inj Date : 22-MAR-2010 08:47
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202074817|1|
Misc Info : |ECD82P_1S|966771|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 13:21 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2305.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.911	0.001	54115641	138.928	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.217	5.216	0.001	42966691	144.703	4.8	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.365	2.365	0.000	3465219	280.989	9.4	80.00- 120.00	100.00
2.652	2.652	0.000	4279786	287.186	9.6	105.20- 145.20	123.51
2.769	2.770	-0.001	1785182	302.799	10.1	27.07- 67.07	51.52
2.979	2.980	-0.001	7477020	966.588	32.2	40.47- 80.47	215.77

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
4 Aroclor-1242 (continued)							
3.232	3.233	-0.001	9961044	1367.42	45.6	37.12- 77.12	287.46
Average of Peak Concentrations =					21.4		
6 Aroclor-1254					CAS #: 11097-69-1		
3.208	3.207	0.001	9072761	684.119	22.8	80.00- 120.00	100.00
3.363	3.362	0.001	14087432	789.951	26.3	113.84- 153.84	155.27
3.596	3.596	0.000	16874480	754.291	25.1	154.72- 194.72	185.99
3.758	3.758	0.000	13803007	837.051	27.9	109.40- 149.40	152.14
3.867	3.867	0.000	11685751	731.987	24.4	108.11- 148.11	128.80
Average of Peak Concentrations =					25.3		
7 Aroclor-1260					CAS #: 11096-82-5		
3.704	3.704	0.000	5903930	322.090	10.7	80.00- 120.00	100.00
3.867	3.866	0.001	11685751	434.579	14.5	127.23- 167.23	197.93
4.029	4.028	0.001	17030224	601.449	20.0	136.87- 176.87	288.46
4.097	4.096	0.001	1045420	64.7003	2.2	68.67- 108.67	17.71
4.239	4.240	-0.001	1053691	62.6724	2.1	71.82- 111.82	17.85
Average of Peak Concentrations =					9.9		

Data File: /chem/ecd1a.i/032210.b/012f1201-2.d
Date : 22-MAR-2010 08:47
Client ID: PBLK01
Sample Info: 1120207481711
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

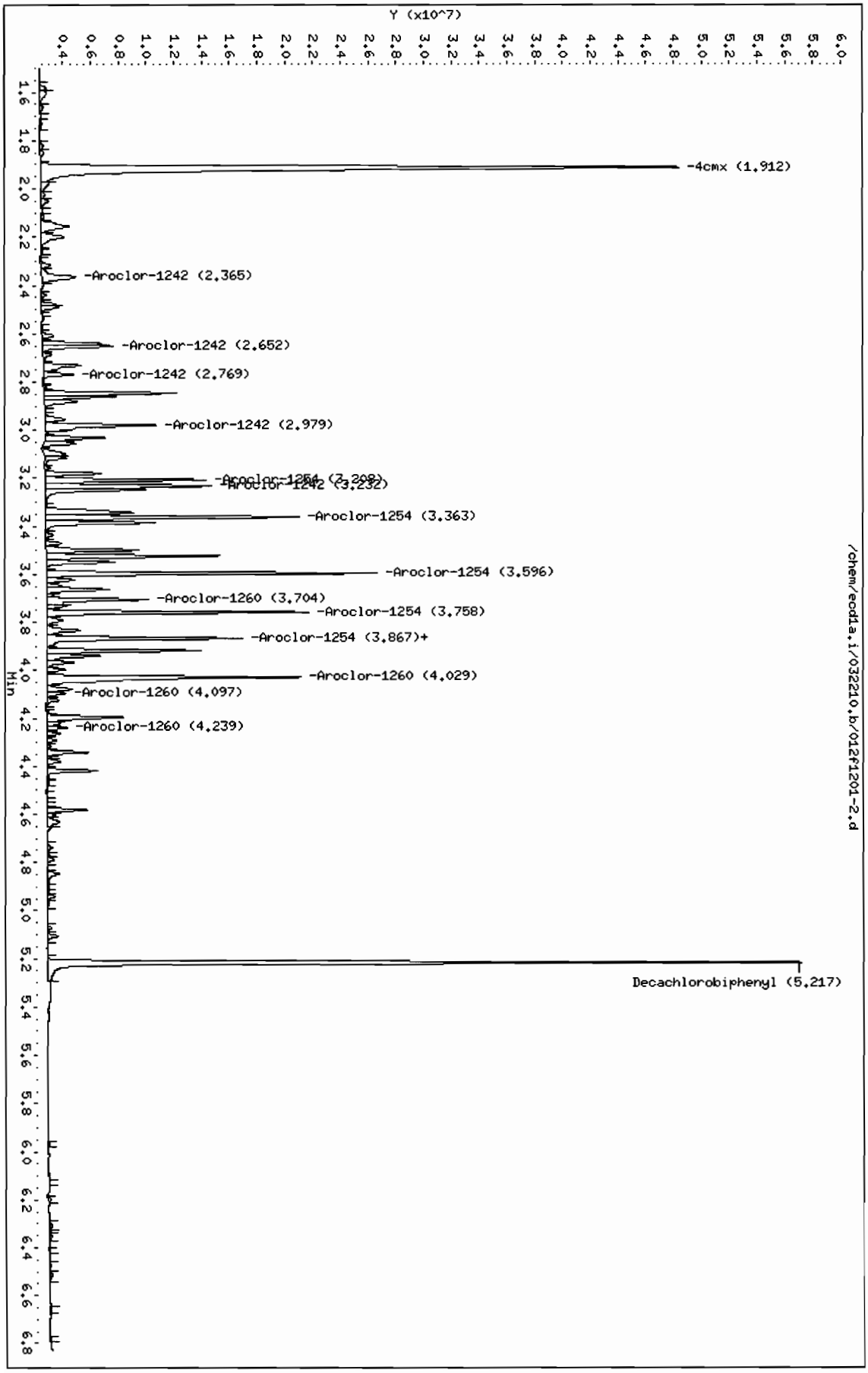

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/012b1201-2.d
Lab Smp Id: 1202074817 Client Smp ID: PBLK01
Inj Date : 22-MAR-2010 08:47
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202074817|1|
Misc Info : |ECD82P_1S|966771|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 13:21 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2305.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.269	0.001	35314626	134.618	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.911	0.000	26733849	142.829	4.8	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
3.165	3.165	0.000	2926847	288.667	9.6	80.00- 120.00	100.00
3.247	3.248	-0.001	2237386	315.270	10.5	47.36- 87.36	76.44
3.538	3.538	0.000	4348207	788.638	26.3	32.69- 72.69	148.56
3.772	3.772	0.000	6072882	1061.33	35.4	35.17- 75.17	207.49

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
4 Aroclor-1242 (continued)							
3.797	3.800	-0.003	8980692	1409.94	47.0	42.12- 82.12	306.84
Average of Peak Concentrations =					25.8		
6 Aroclor-1254					CAS #: 11097-69-1		
3.373	3.372	0.001	5071375	842.251	28.1	80.00- 120.00	100.00
3.797	3.794	0.003	8980692	830.025	27.7	162.06- 202.06	177.09
3.912	3.911	0.001	8238933	690.396	23.0	180.48- 220.48	162.46
4.187	4.186	0.001	11659540	709.141	23.6	261.71- 301.71	229.91
4.323	4.323	0.000	9401430	775.983	25.9	184.44- 224.44	185.38
Average of Peak Concentrations =					25.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.303	4.303	0.000	4298195	328.602	11.0	80.00- 120.00	100.00
4.428	4.428	0.000	5156723	331.643	11.0	101.71- 141.71	119.97
4.698	4.694	0.004	1335094	112.230	3.7	70.90- 110.90	31.06
4.867	4.867	0.000	729679	59.3756	2.0	74.67- 114.67	16.98
5.014	5.014	0.000	2013213	76.2736	2.5	189.10- 229.10	46.84
Average of Peak Concentrations =					6.0		

Data File: /chem/ecd1a.i/032210.b/012b1201-2.d
Date : 22-MAR-2010 08:47
Client ID: PBLK01
Sample Info: 1120207481711
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

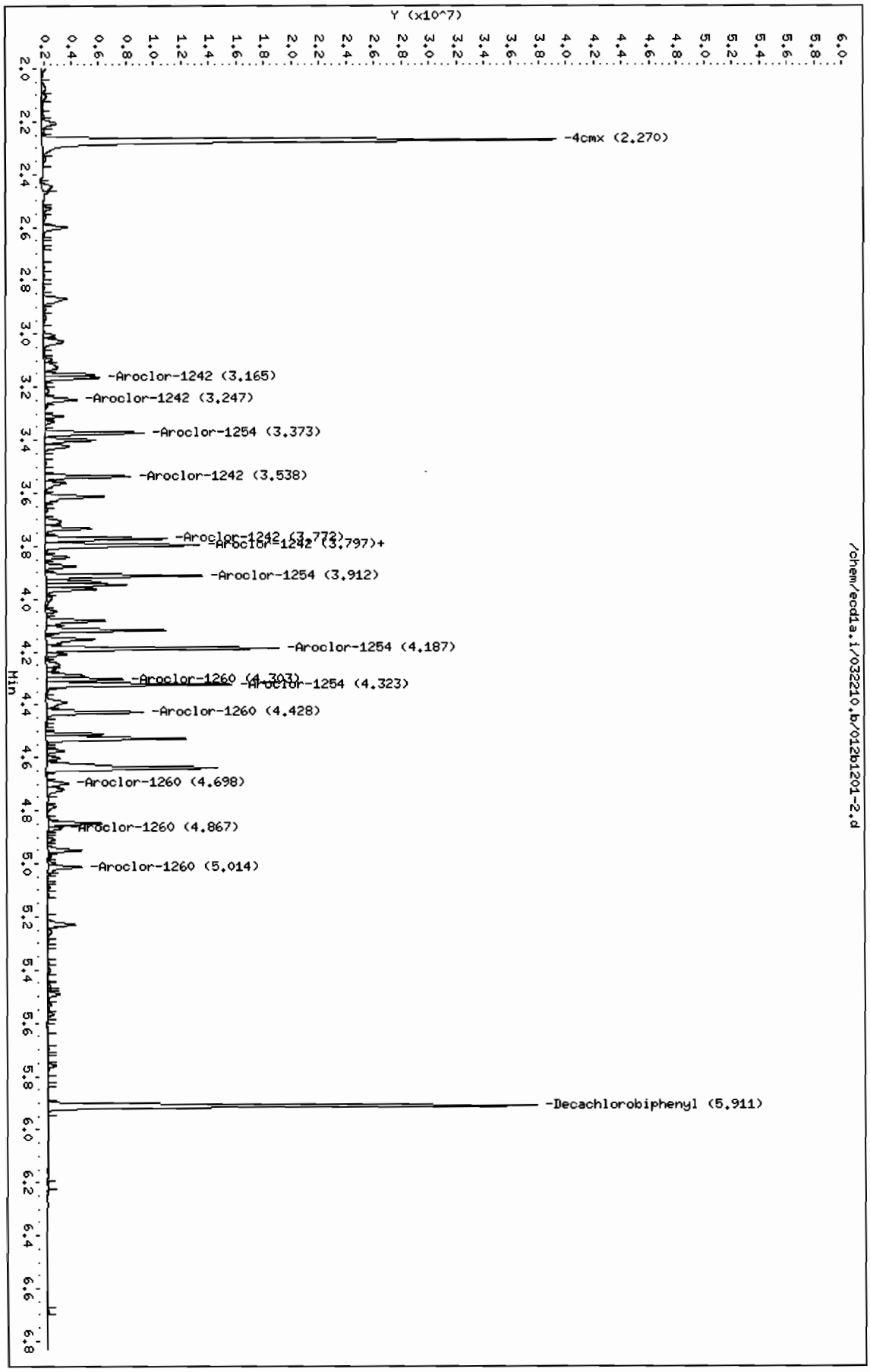

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074818**				
Client Sample:	**QC for batch 966769**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966769**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**966771**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 08:58**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/19/2010 11:50**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**013f1301-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	013b1301-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		23.6	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	B	26.0	ug/kg	1.11	3.33	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/013f1301-2.d
Lab Smp Id: 1202074818 Client Smp ID: PBLK01LCS
Inj Date : 22-MAR-2010 08:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202074818|1|
Misc Info : |ECD82P_1S|966771|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 13:21 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2305.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.911	0.000	60279780	154.753	5.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.217	5.216	0.001	45697050	153.898	5.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.365	2.364	0.001	10830669	713.633	23.8	80.00- 120.00	100.00
2.652	2.650	0.002	13802242	728.898	24.3	110.90- 150.90	127.44
2.732	2.730	0.002	8603414	691.473	23.0	62.90- 102.90	79.44
2.769	2.768	0.001	5168308	703.332	23.4	29.82- 69.82	47.72

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.980	2.978	0.002	6710455	705.044	23.5	44.10- 84.10	61.96
Average of Peak Concentrations =					23.6		
7 Aroclor-1260					CAS #: 11096-82-5		
3.705	3.704	0.001	13976669	762.499	25.4	80.00- 120.00	100.00
3.867	3.866	0.001	20952993	779.216	26.0	127.23- 167.23	149.91
4.030	4.028	0.002	22430592	792.172	26.4	136.87- 176.87	160.49
4.098	4.096	0.002	12648334	782.797	26.1	68.67- 108.67	90.50
4.240	4.240	0.000	13274296	789.541	26.3	71.82- 111.82	94.97
Average of Peak Concentrations =					26.0		

Data File: /chem/ecd1a.i/032210.b/013f1301-2.d

Date : 22-MAR-2010 08:58

Client ID: PBLK01LCS

Sample Info: |1202074818|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

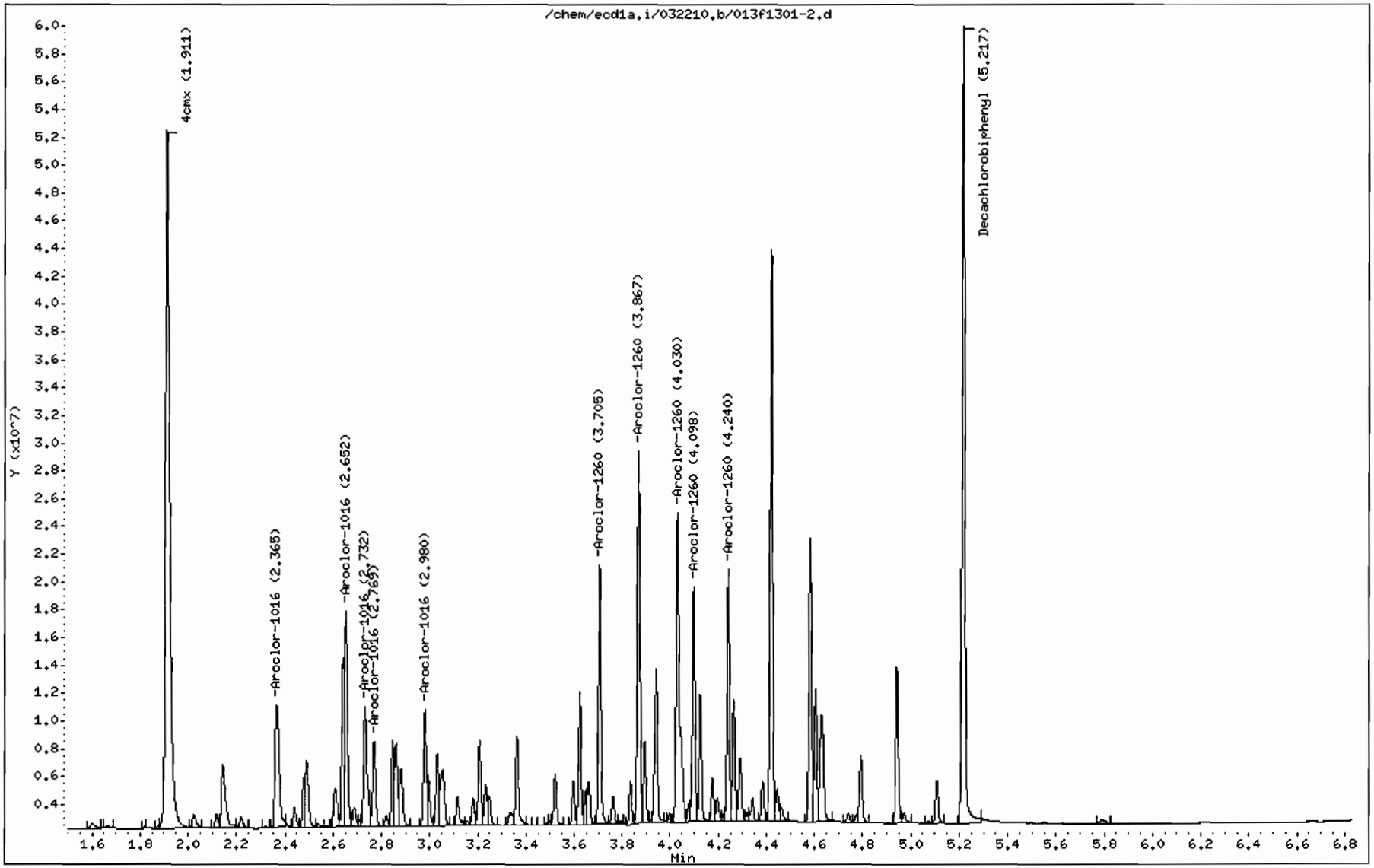

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/013b1301-2.d
Lab Smp Id: 1202074818 Client Smp ID: PBLK01LCS
Inj Date : 22-MAR-2010 08:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202074818|1|
Misc Info : |ECD82P_1S|966771|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 13:21 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2305.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.269	0.001	38198375	145.610	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.911	0.000	27143000	145.015	4.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.165	3.164	0.001	8904547	707.554	23.6	80.00- 120.00	100.00(M)
3.248	3.246	0.002	5845813	677.053	22.6	46.32- 86.32	65.65
3.311	3.310	0.001	3567562	674.826	22.5	20.98- 60.98	40.06
3.539	3.537	0.002	4671438	677.735	22.6	33.38- 73.38	52.46

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.614	3.612	0.002	4373828	681.010	22.7	29.53- 69.53	49.12
Average of Peak Concentrations =					22.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.304	4.303	0.001	9528490	728.465	24.3	80.00- 120.00	100.00
4.429	4.428	0.001	11550710	742.858	24.8	101.71- 141.71	121.22
4.695	4.694	0.001	8759076	736.300	24.5	70.90- 110.90	91.93
4.868	4.867	0.001	9112314	741.489	24.7	74.67- 114.67	95.63
5.015	5.014	0.001	20451033	774.818	25.8	189.10- 229.10	214.63
Average of Peak Concentrations =					24.8		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032210.b/013b1301-2.d
Date : 22-MAR-2010 08:58
Client ID: PBLK01LCS
Sample Info: 1120207481811
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

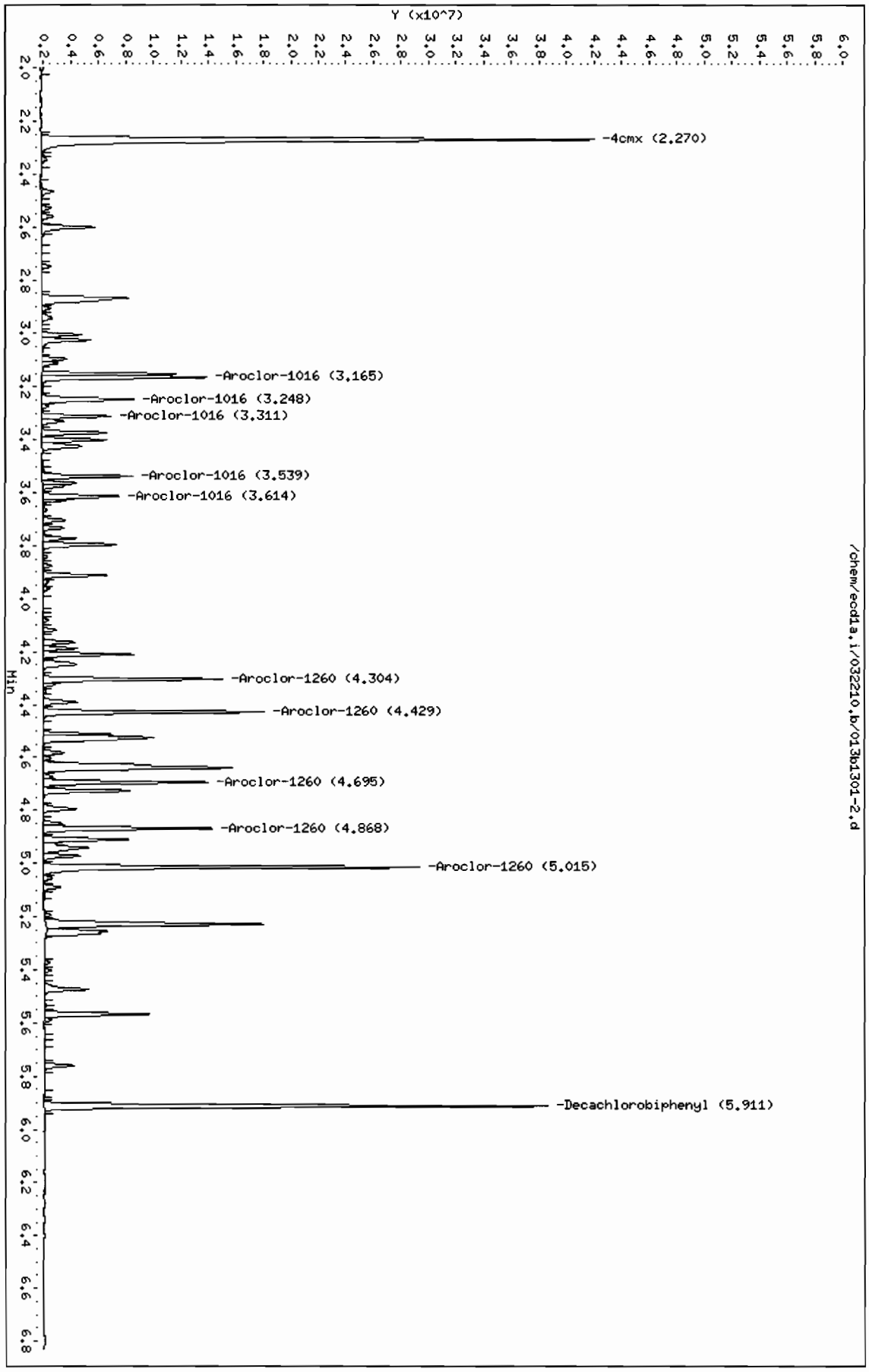

Page 1

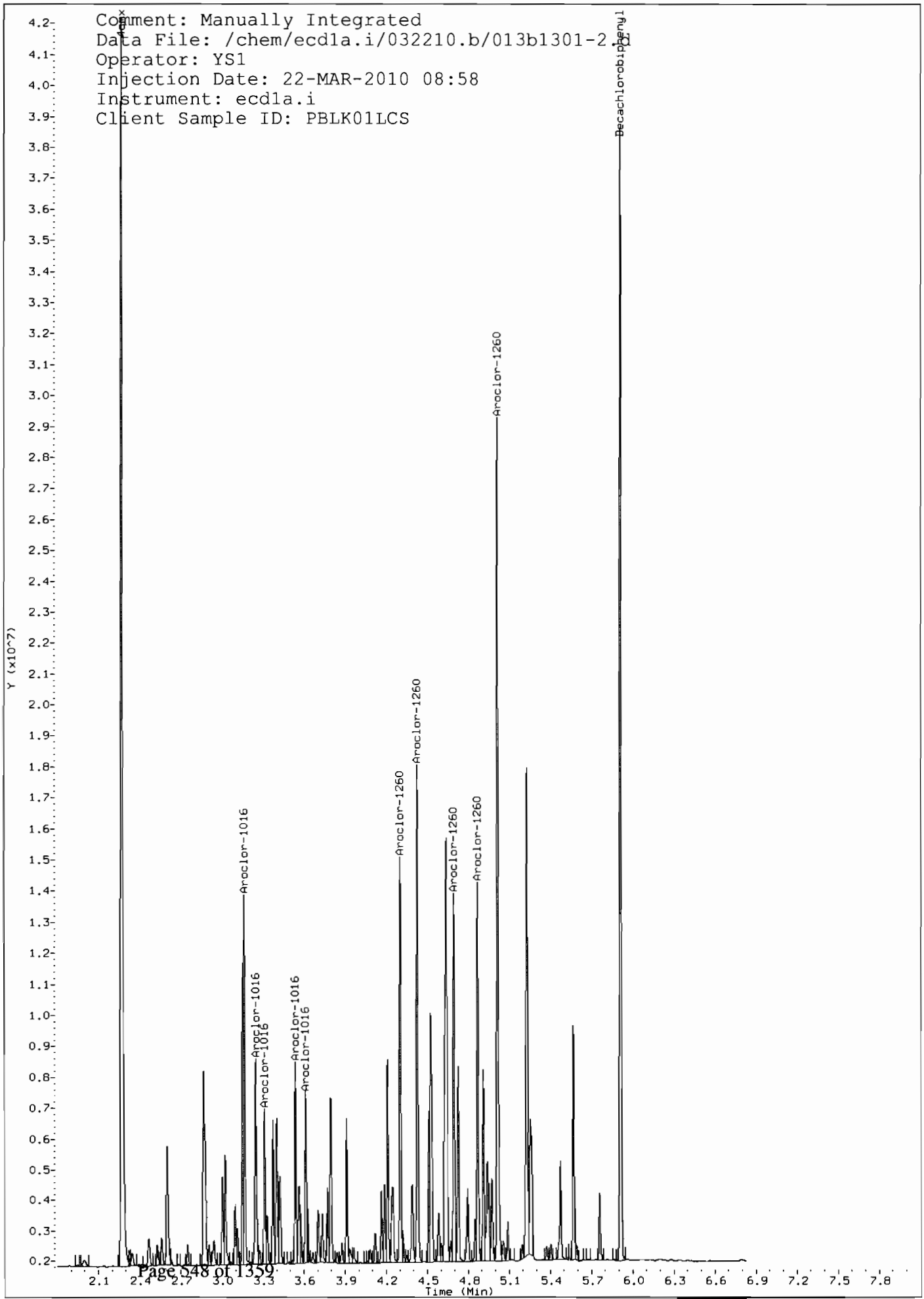
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032210.b/013b1301-2.d
Operator: YS1
Injection Date: 22-MAR-2010 08:58
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

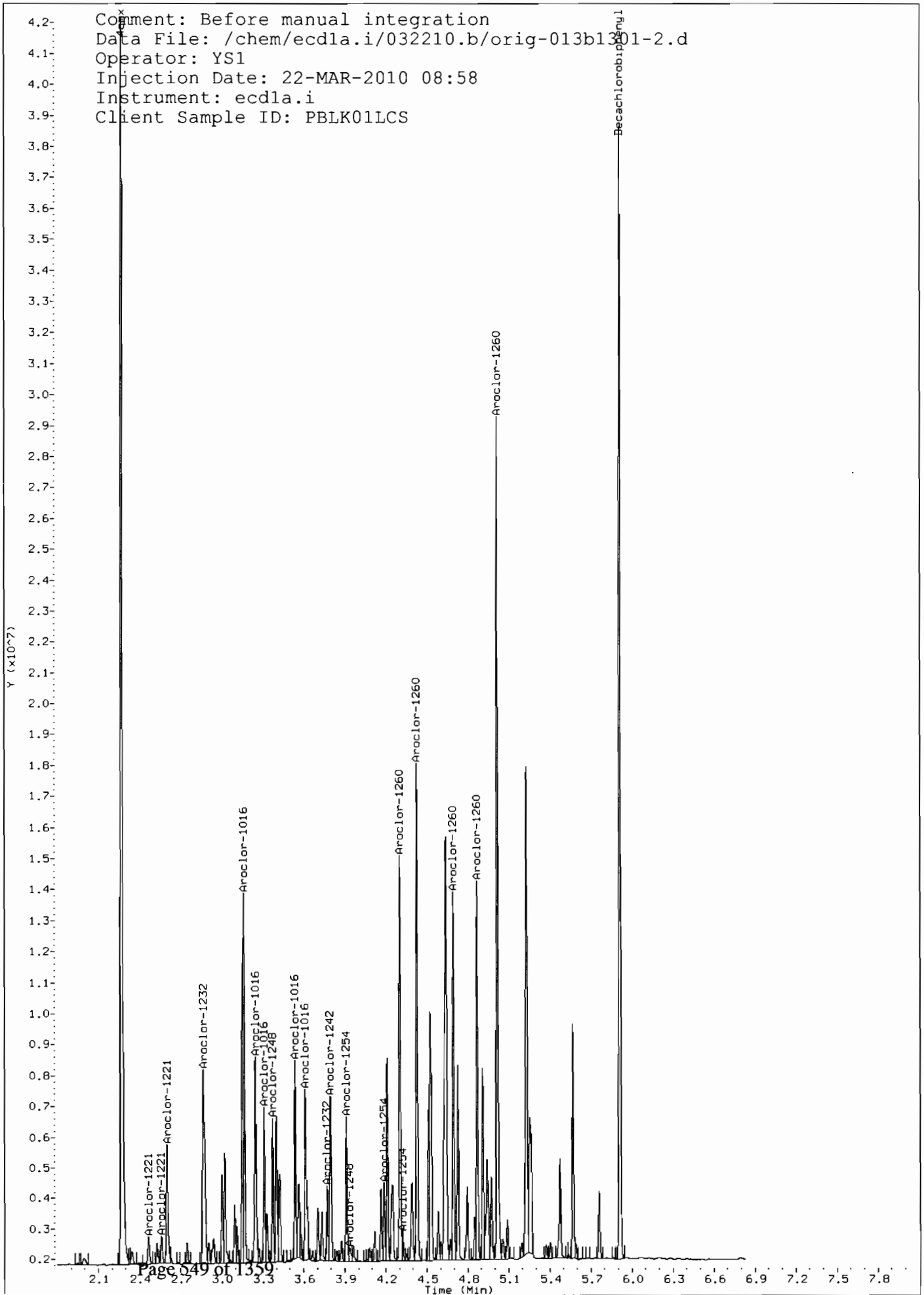
Comment: Before manual integration
Data File: /chem/ecd1a.i/032210.b/orig-013b1301-2.d
Operator: YS1
Injection Date: 22-MAR-2010 08:58
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1242
Aroclor-1254
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202074819**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.8**
Client Sample:	**QC for batch 966769**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46–10–11926MS**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**966771**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 13:37**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/19/2010 11:50**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**036f3601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	036b3601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		16.4	ug/kg	1.13	3.39	1
11104–28–2	Aroclor–1221	U	3.39	ug/kg	1.13	3.39	1
11141–16–5	Aroclor–1232	U	3.39	ug/kg	1.13	3.39	1
53469–21–9	Aroclor–1242	U	3.39	ug/kg	1.13	3.39	1
12672–29–6	Aroclor–1248	U	3.39	ug/kg	1.13	3.39	1
11097–69–1	Aroclor–1254	U	3.39	ug/kg	1.13	3.39	1
11096–82–5	Aroclor–1260	B	19.6	ug/kg	1.13	3.39	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/036f3601.d
Lab Smp Id: 1202074819 Client Smp ID: RE46-10-11926MS
Inj Date : 22-MAR-2010 13:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202074819|1|
Misc Info : |ECD82P_1S|966771|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 13:21 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2305.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	1.75870	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.911	0.000	43551935	111.808	3.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.216	5.216	0.000	24346444	81.9938	2.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.365	2.364	0.001	7306288	481.412	16.3	80.00- 120.00	100.00
2.651	2.650	0.001	9646898	509.454	17.3	110.90- 150.90	132.04
2.731	2.730	0.001	5530244	444.476	15.1	62.90- 102.90	75.69
2.768	2.768	0.000	3502936	476.699	16.2	29.82- 69.82	47.94

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.979	2.978	0.001	4824741	506.919	17.2	44.10- 84.10	66.04
Average of Peak Concentrations =					16.4		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.704	-0.001	10595055	578.014	19.6	80.00- 120.00	100.00
3.866	3.866	0.000	13072477	486.149	16.5	127.23- 167.23	123.38
4.027	4.028	-0.001	16936028	598.123	20.3	136.87- 176.87	159.85
4.096	4.096	0.000	10206690	631.685	21.4	68.67- 108.67	96.33
4.238	4.240	-0.002	9888822	588.177	20.0	71.82- 111.82	93.33
Average of Peak Concentrations =					19.6		

Data File: /chem/ecd1a.i/032210.b/036f3601.d

Page 1

Date : 22-MAR-2010 13:37

Client ID: RE46-10-11926MS

Instrument: ecd1a.i

Sample Info: |1202074819|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

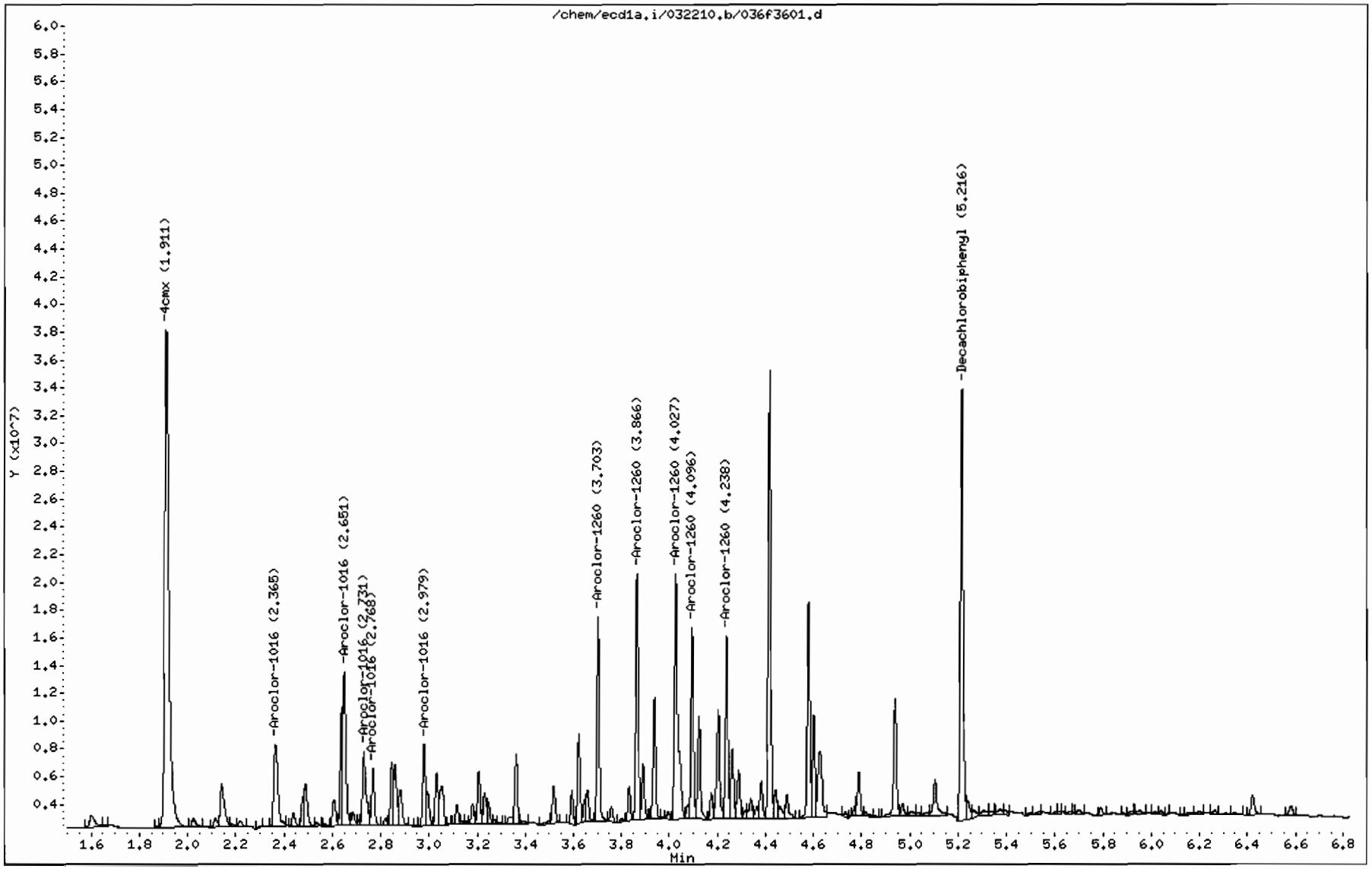

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/032210.b/036b3601.d
Lab Smp Id: 1202074819 Client Smp ID: RE46-10-11926MS
Inj Date : 22-MAR-2010 13:37
Operator : YS1 Inst ID: ecdla.i
Smp Info : |1202074819|1|
Misc Info : |ECD82P_1S|966771|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecdla.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 13:21 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2305.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	1.75870	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.269	0.001	28451915	108.457	3.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.911	0.000	22897936	122.335	4.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.164	0.000	6256136	497.111	16.9	80.00- 120.00	100.00(M)
3.247	3.246	0.001	4017569	465.308	15.8	46.32- 86.32	64.22
3.310	3.310	0.000	2198392	415.839	14.1	20.98- 60.98	35.14
3.537	3.537	0.000	3571969	518.224	17.6	33.38- 73.38	57.10

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.612	3.612	0.000	3100017	482.676	16.4	29.53- 69.53	58.54
Average of Peak Concentrations =					16.2		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.303	-0.001	7142925	546.086	18.5	80.00- 120.00	100.00(M)
4.427	4.428	-0.001	8453944	543.696	18.4	101.71- 141.71	118.35
4.693	4.694	-0.001	6882585	578.560	19.6	70.90- 110.90	96.36
4.866	4.867	-0.001	5832468	474.601	16.1	74.67- 114.67	81.65
5.013	5.014	-0.001	15814974	599.174	20.3	189.10- 229.10	221.41
Average of Peak Concentrations =					18.6		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032210.b/036b3601.d
Date : 22-MAR-2010 13:37
Client ID: RE46-10-11926MS
Sample Info: |1202074819|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

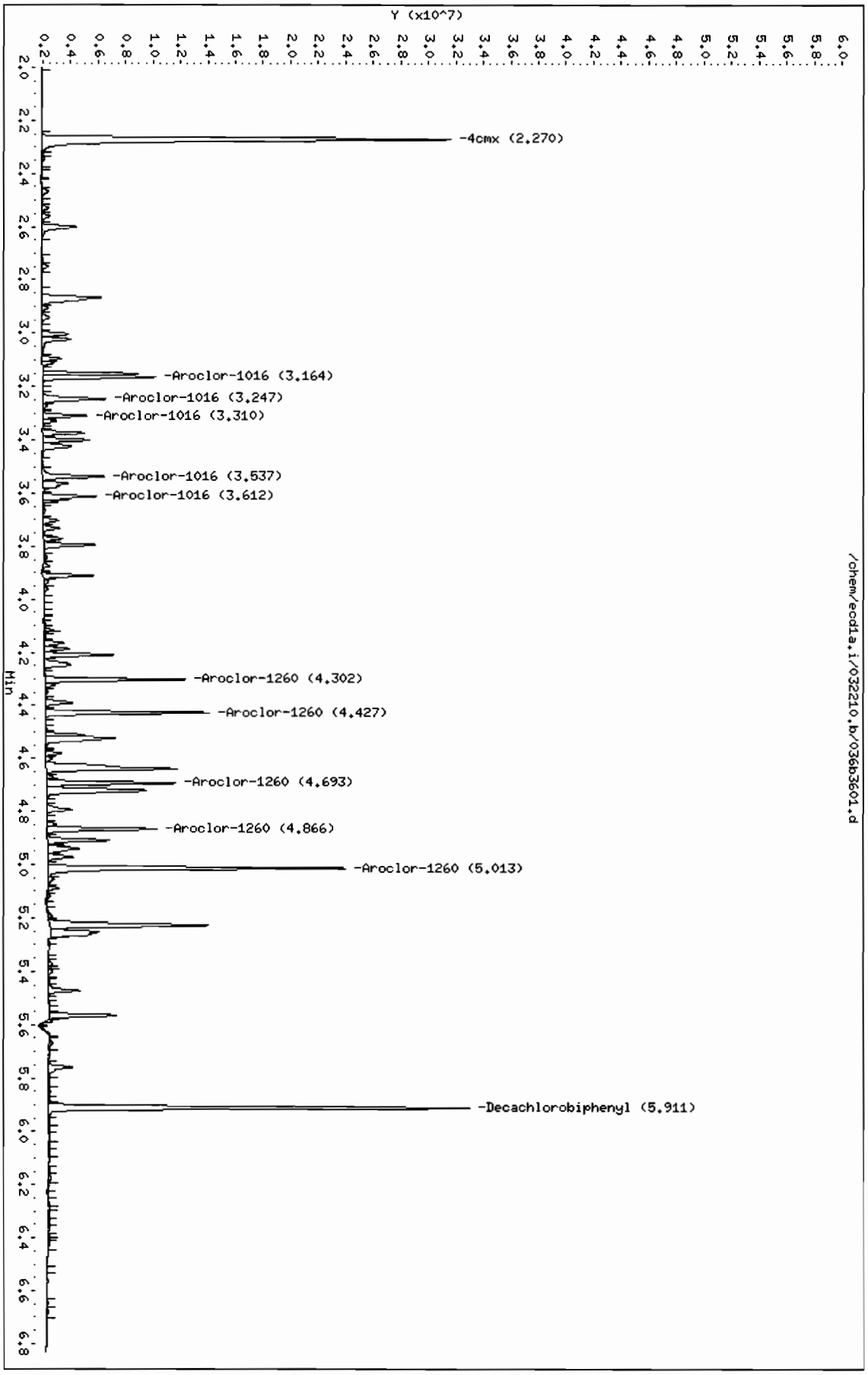

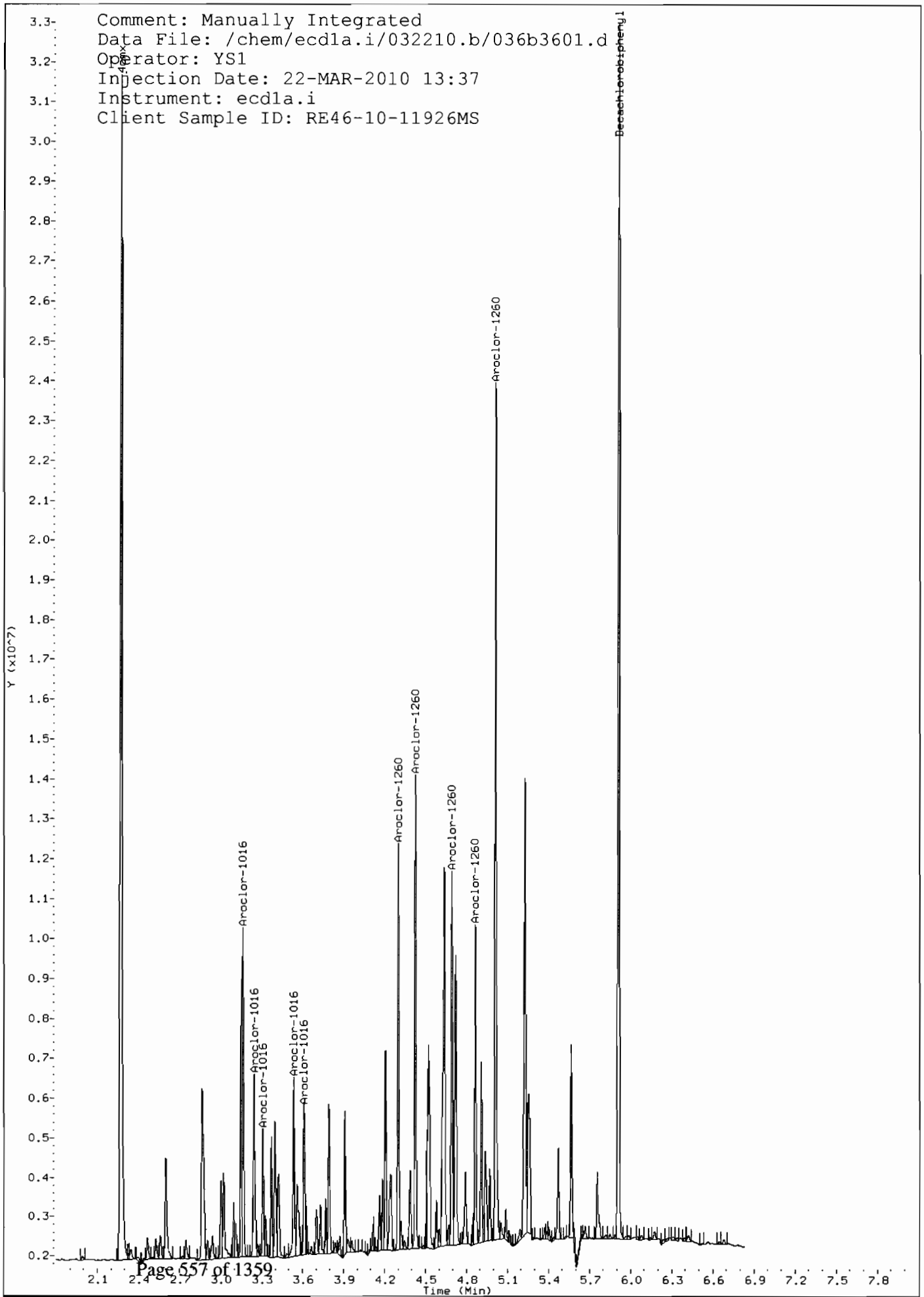
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032210.b/036b3601.d
Operator: YS1
Injection Date: 22-MAR-2010 13:37
Instrument: ecd1a.i
Client Sample ID: RE46-10-11926MS
4,4'-DDX
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
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Y (x10^7)
Time (Min)

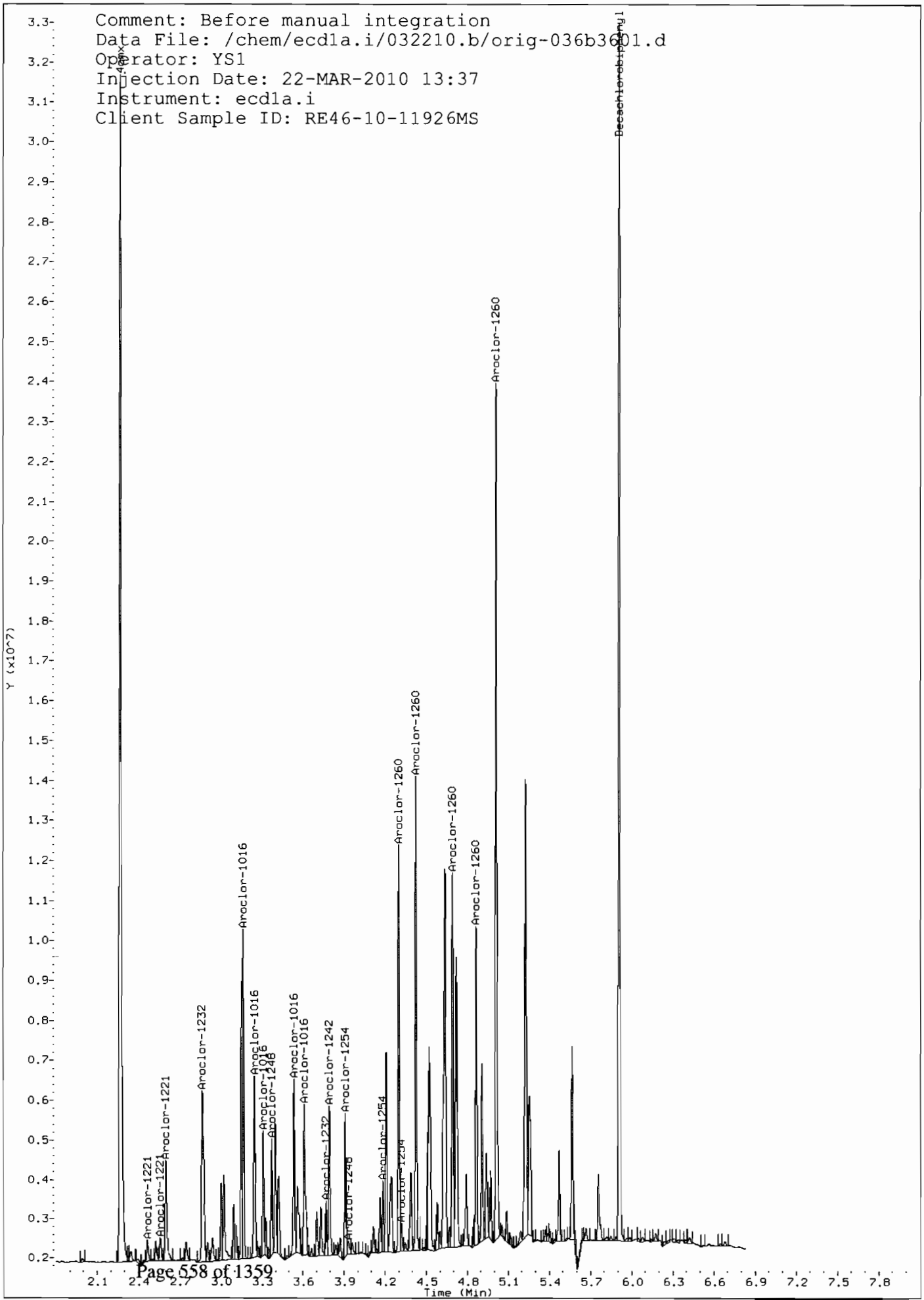
Comment: Before manual integration
Data File: /chem/ecd1a.i/032210.b/orig-036b3601.d
Operator: YS1
Injection Date: 22-MAR-2010 13:37
Instrument: ecd1a.i
Client Sample ID: RE46-10-11926MS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1232
Aroclor-1221
Aroclor-1242
Aroclor-1254
Aroclor-1248
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2305**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202074820**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**1.8**
Client Sample:	**QC for batch 966769**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-11926MSD**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**966771**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 13:50**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/19/2010 11:50**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**037f3701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	037b3701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		18.9	ug/kg	1.13	3.39	1
11104-28-2	Aroclor-1221	U	3.39	ug/kg	1.13	3.39	1
11141-16-5	Aroclor-1232	U	3.39	ug/kg	1.13	3.39	1
53469-21-9	Aroclor-1242	U	3.39	ug/kg	1.13	3.39	1
12672-29-6	Aroclor-1248	U	3.39	ug/kg	1.13	3.39	1
11097-69-1	Aroclor-1254	U	3.39	ug/kg	1.13	3.39	1
11096-82-5	Aroclor-1260	B	22.7	ug/kg	1.13	3.39	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/037f3701.d
Lab Smp Id: 1202074820 Client Smp ID: RE46-10-11926MSD
Inj Date : 22-MAR-2010 13:50
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202074820|1|
Misc Info : |ECD82P_1S|966771|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 13:21 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2305.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	1.75870	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.911	0.000	44008257	112.980	3.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.216	-0.001	36826999	124.026	4.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.364	0.000	8479616	558.722	18.9	80.00- 120.00	100.00
2.650	2.650	0.000	10721328	566.194	19.2	110.90- 150.90	126.44
2.730	2.730	0.000	6813713	547.631	18.6	62.90- 102.90	80.35
2.768	2.768	0.000	4047255	550.773	18.7	29.82- 69.82	47.73

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.978	2.978	0.000	5343253	561.397	19.0	44.10- 84.10	63.01
Average of Peak Concentrations =					18.9		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.704	-0.001	11862993	647.187	21.9	80.00- 120.00	100.00
3.865	3.866	-0.001	18079234	672.345	22.8	127.23- 167.23	152.40
4.027	4.028	-0.001	19306822	681.851	23.1	136.87- 176.87	162.75
4.095	4.096	-0.001	11026483	682.422	23.1	68.67- 108.67	92.95
4.238	4.240	-0.002	11160710	663.827	22.5	71.82- 111.82	94.08
Average of Peak Concentrations =					22.7		

Data File: /chem/ecd1a.i/032210.b/037f3701.d
Date : 22-MAR-2010 13:50
Client ID: RE46-10-11926MSD
Sample Info: 1120207482011|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

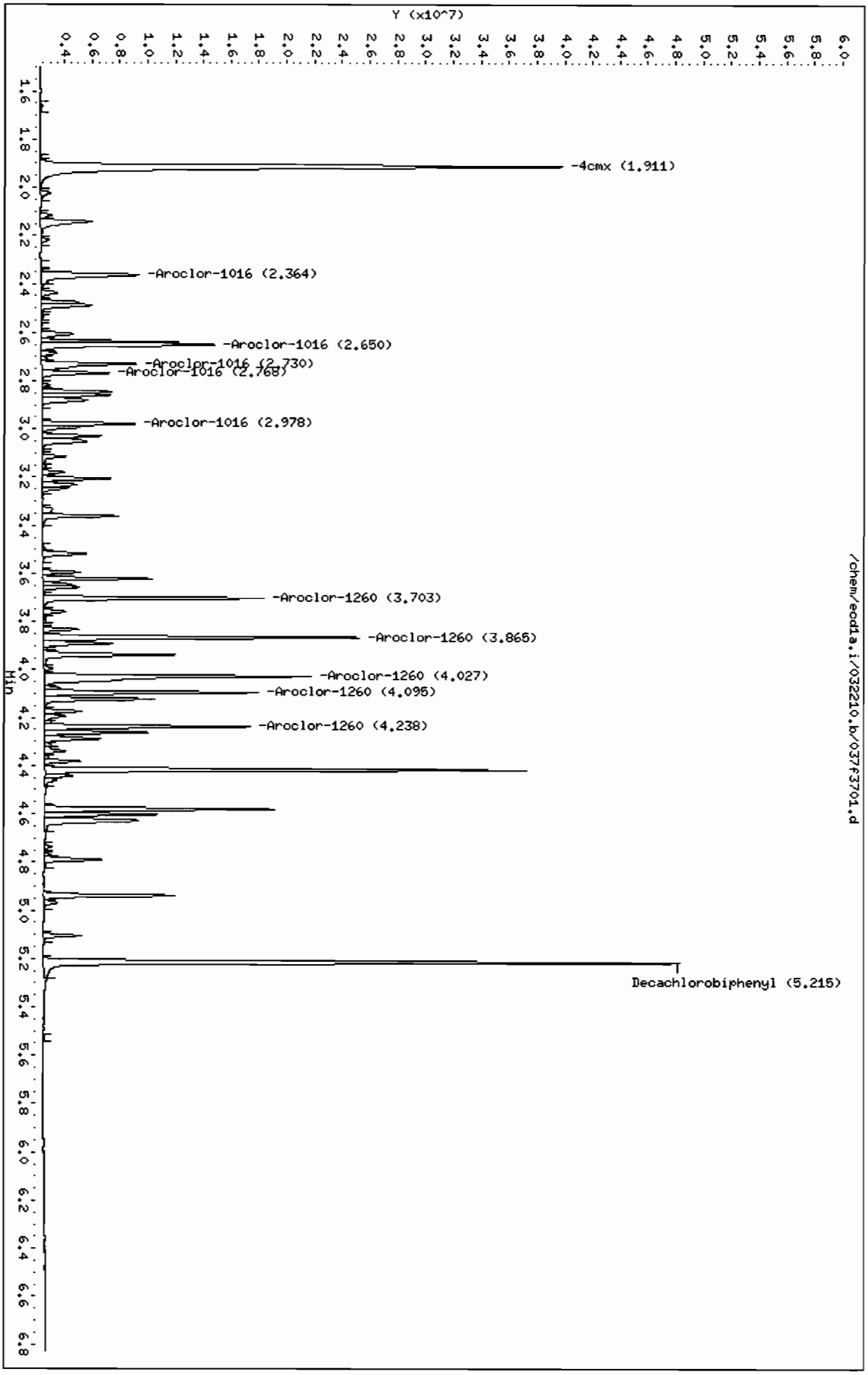

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/037b3701.d
Lab Smp Id: 1202074820 Client Smp ID: RE46-10-11926MSD
Inj Date : 22-MAR-2010 13:50
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202074820|1|
Misc Info : |ECD82P_1S|966771|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 13:21 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2305.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	1.75870	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.269	0.001	27774361	105.875	3.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.911	-0.001	21870981	116.849	4.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.164	0.000	7188066	571.162	19.4	80.00- 120.00	100.00(M)
3.247	3.246	0.001	4652719	538.870	18.3	46.32- 86.32	64.73
3.310	3.310	0.000	2832828	535.847	18.2	20.98- 60.98	39.41
3.537	3.537	0.000	3820457	554.274	18.8	33.38- 73.38	53.15

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.613	3.612	0.001	3518445	547.826	18.6	29.53- 69.53	59.39
Average of Peak Concentrations =					18.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.303	4.303	0.000	8054175	615.752	20.9	80.00- 120.00	100.00
4.427	4.428	-0.001	10051161	646.418	21.9	101.71- 141.71	124.79
4.693	4.694	-0.001	7649388	643.018	21.8	70.90- 110.90	94.97
4.866	4.867	-0.001	7826681	636.874	21.6	74.67- 114.67	97.18
5.013	5.014	-0.001	17787425	673.903	22.8	189.10- 229.10	220.85
Average of Peak Concentrations =					21.8		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032210.b/037b3701.d

Date : 22-MAR-2010 13:50

Client ID: RE46-10-11926MSD

Sample Info: 1120207482011

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

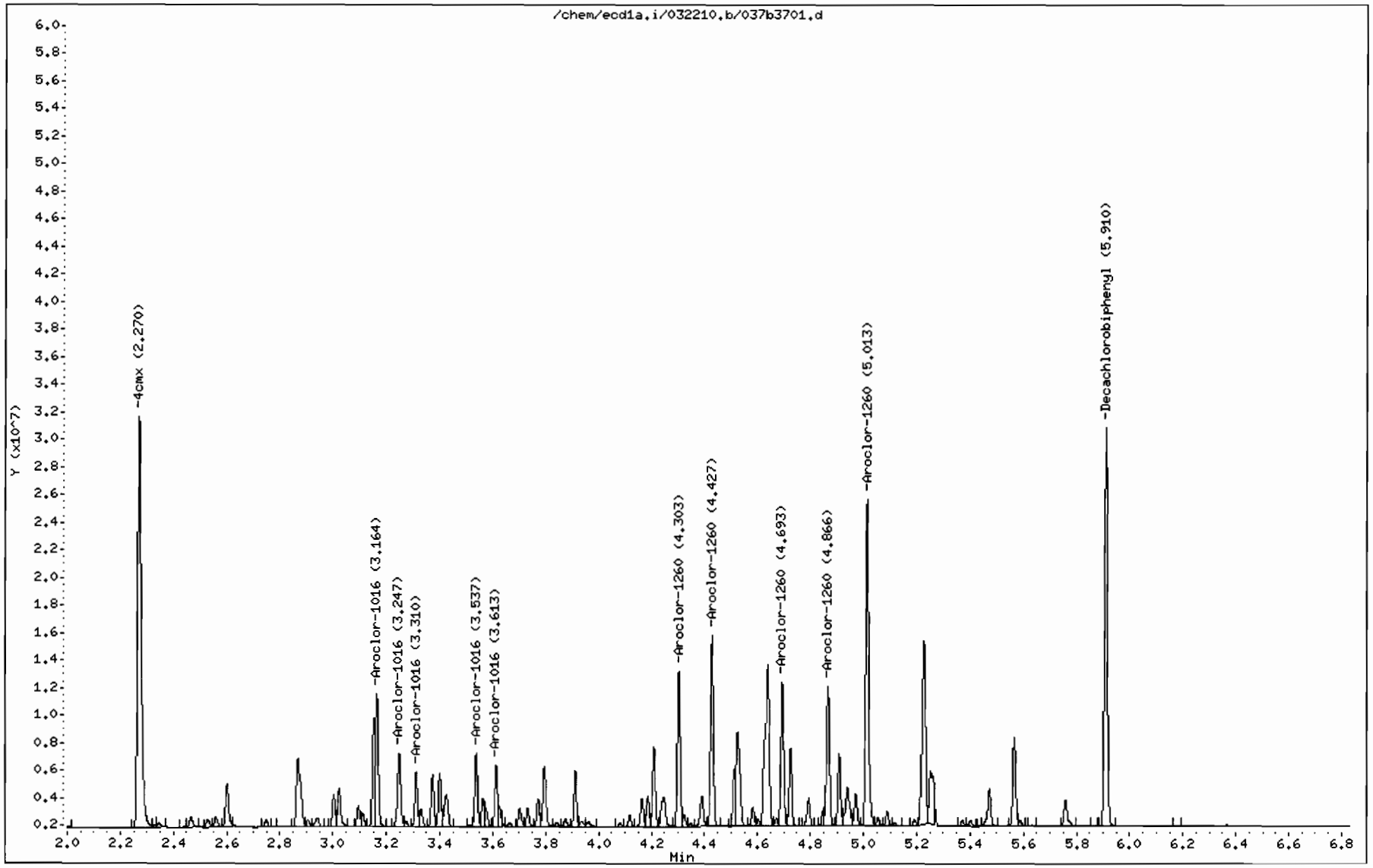

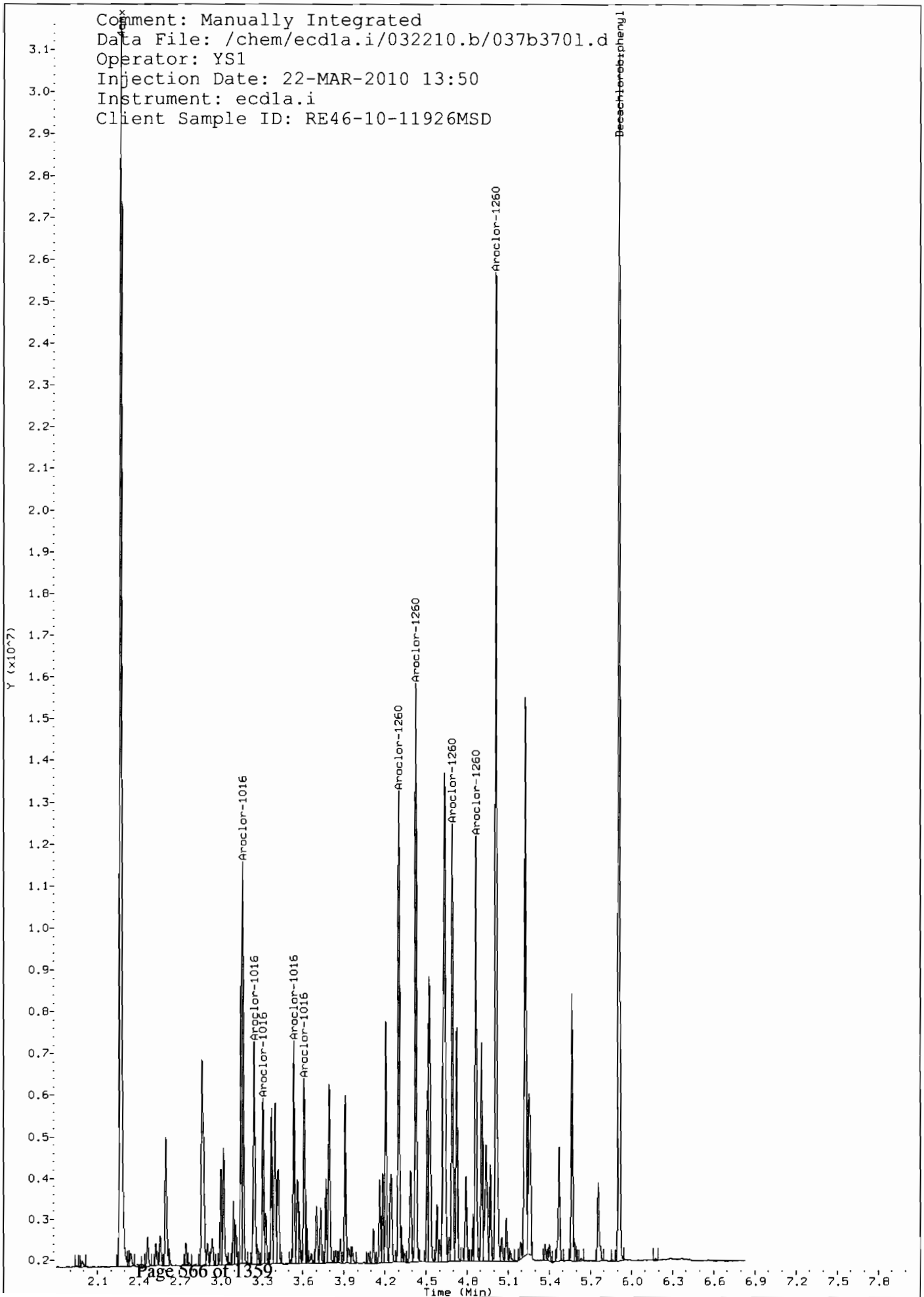
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032210.b/037b3701.d
Operator: YS1
Injection Date: 22-MAR-2010 13:50
Instrument: ecd1a.i
Client Sample ID: RE46-10-11926MSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^7)
Time (Min)

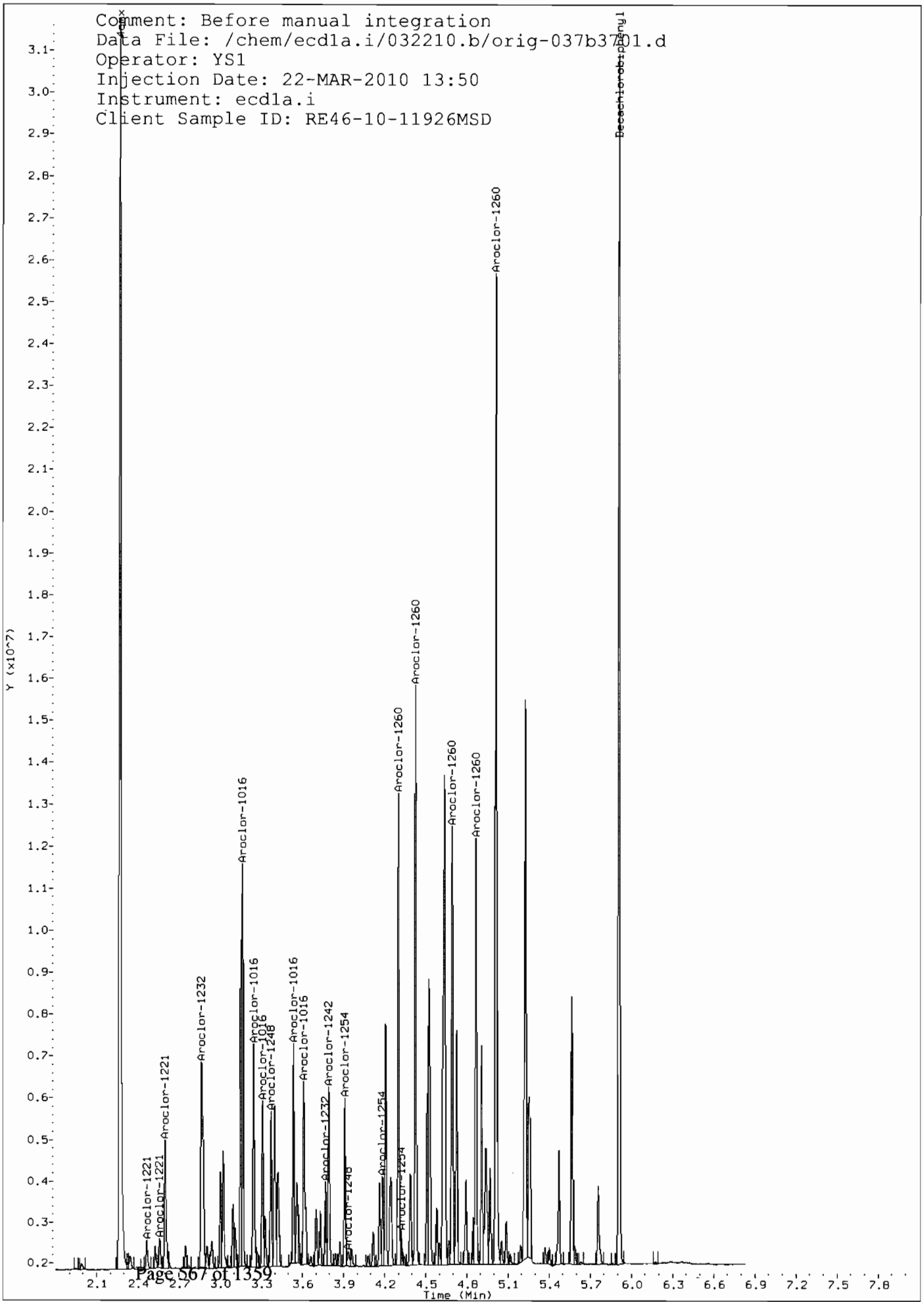
Comment: Before manual integration
Data File: /chem/ecd1a.i/032210.b/orig-037b3701.d
Operator: YS1
Injection Date: 22-MAR-2010 13:50
Instrument: ecd1a.i
Client Sample ID: RE46-10-11926MSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1232
Aroclor-1221
Aroclor-1248
Aroclor-1242
Aroclor-1254
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/12/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/031110b.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	11-MAR-2010 14:46		031110b	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	11-MAR-2010 14:56		031110b	1.0		DUSE RE-ICAL
003f0301.d	WAR100219-54	YS1	11-MAR-2010 15:07		031110b	1.0		DUSE RE-ICAL
004f0401.d	WAR100219-42	YS1	11-MAR-2010 15:17		031110b	1.0		DUSE RE-ICAL
005f0501.d	WAR100223-48	YS1	11-MAR-2010 15:28		031110b	1.0		DUSE RE-ICAL
006f0601.d	WAR100107-68	YS1	11-MAR-2010 15:38		031110b	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	11-MAR-2010 15:49		031110b	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	11-MAR-2010 15:59		031110b	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	11-MAR-2010 16:10		031110b	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	11-MAR-2010 16:21		031110b	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100311-01	YS1	11-MAR-2010 16:31		031110b	1.0		AR1660 I-CAL LEVEL 1
012f1201.d	WAR100311-02	YS1	11-MAR-2010 16:41		031110b	1.0		AR1660 I-CAL LEVEL 2
013f1301.d	WAR100311-03	YS1	11-MAR-2010 16:52		031110b	1.0		AR1660 I-CAL LEVEL 3
014f1401.d	WAR100311-04	YS1	11-MAR-2010 17:02		031110b	1.0		AR1660 I-CAL LEVEL 4
015f1501.d	IAR100311-01	YS1	11-MAR-2010 17:13		031110b	1.0		AR1660 I-CAL LEVEL 5

Instrument Batch: /chem/ecd1a.i/031110b.b Page: 1

| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |

016f1601.d	WAR100222-60 01	YS1	11-MAR-2010 17:24		031110b		1.0	PASSED ON BOTH COLUMNS
017f1701.d	WAR100311-05	YS1	11-MAR-2010 17:34		031110b		1.0	AR1254 I-CAL LEVEL 1
018f1801.d	WAR100311-06	YS1	11-MAR-2010 17:45		031110b		1.0	AR1254 I-CAL LEVEL 2
019f1901.d	WAR100311-07	YS1	11-MAR-2010 17:55		031110b		1.0	AR1254 I-CAL LEVEL 3
020f2001.d	WAR100311-08	YS1	11-MAR-2010 18:06		031110b		1.0	AR1254 I-CAL LEVEL 4
021f2101.d	IAR100219-02	YS1	11-MAR-2010 18:16		031110b		1.0	AR1254 I-CAL LEVEL 5
022f2201.d	WAR100219-54	YS1	11-MAR-2010 18:27		031110b		1.0	PASSED ON BOTH COLUMNS
023f2301.d	WAR100311-09	YS1	11-MAR-2010 18:37		031110b		1.0	AR1242 I-CAL LEVEL 1
024f2401.d	WAR100311-10	YS1	11-MAR-2010 18:48		031110b		1.0	AR1242 I-CAL LEVEL 2
025f2501.d	WAR100311-11	YS1	11-MAR-2010 18:58		031110b		1.0	AR1242 I-CAL LEVEL 3
026f2601.d	WAR100311-12	YS1	11-MAR-2010 19:09		031110b		1.0	AR1242 I-CAL LEVEL 4
027f2701.d	IAR100219-01	YS1	11-MAR-2010 19:19		031110b		1.0	AR1242 I-CAL LEVEL 5
028f2801.d	WAR100219-42	YS1	11-MAR-2010 19:30		031110b		1.0	PASSED ON BOTH COLUMNS
029f2901.d	WAR100311-13	YS1	11-MAR-2010 19:40		031110b		1.0	AR1248 I-CAL LEVEL 1
030f3001.d	WAR100311-14	YS1	11-MAR-2010 19:51		031110b		1.0	AR1248 I-CAL LEVEL 2
031f3101.d	WAR100311-15	YS1	11-MAR-2010 20:01		031110b		1.0	AR1248 I-CAL LEVEL 3
032f3201.d	WAR100311-16	YS1	11-MAR-2010 20:12		031110b		1.0	AR1248 I-CAL LEVEL 4
033f3301.d	IAR100211-01	YS1	11-MAR-2010 20:22		031110b		1.0	AR1248 I-CAL LEVEL 5
034f3401.d	WAR100223-48	YS1	11-MAR-2010 20:33		031110b		1.0	PASSED ON BOTH COLUMNS
035f3501.d	WAR100219-99 02	YS1	11-MAR-2010 20:44		031110b		1.0	CLEAN

Instrument Batch: /chem/ecd1a.i/031110b.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202067743	YS1	11-MAR-2010 20:54	963869	246954	1.0	MB	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
037f3701.d	1202067744	YS1	11-MAR-2010 21:05	963869	246954	1.0	LCS	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
038f3801.d	246954003	YS1	11-MAR-2010 21:15	963869	246954	1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
039f3901.d	1202067745	YS1	11-MAR-2010 21:26	963869	246954	1.0	MS	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
040f4001.d	1202067746	YS1	11-MAR-2010 21:36	963869	246954	1.0	MSD	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT

041f4101.d	246954006	YS1	11-MAR-2010 21:47	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
042f4201.d	246954007	YS1	11-MAR-2010 21:57	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
043f4301.d	246954009	YS1	11-MAR-2010 22:08	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
044f4401.d	246954012	YS1	11-MAR-2010 22:18	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
045f4501.d	246954014	YS1	11-MAR-2010 22:29	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
046f4601.d	WAR100222-60 02	YS1	11-MAR-2010 22:39		031110b		1.0		PASSED ON BOTH COLUMNS
046f4901.d	WAR100222-60 03	YS1	11-MAR-2010 23:11		031110b		1.0		CLEAN
047f4701.d	WAR100219-99 03	YS1	11-MAR-2010 22:50		031210		1.0		
047f5001.d	WAR100219-99 04	YS1	11-MAR-2010 23:21		031110b		1.0		
048f4801.d	WE100311-07SCR	YS1	11-MAR-2010 23:00		031110b		1.0		LCS CSREEN FOR PREP

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/23/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/032210.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	22-MAR-2010 06:52		032210	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	22-MAR-2010 07:02		032210	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YS1	22-MAR-2010 07:13		032210	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YS1	22-MAR-2010 07:23		032210	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR100223-48	YS1	22-MAR-2010 07:34		032210	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100107-68	YS1	22-MAR-2010 07:44		032210	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	22-MAR-2010 07:55		032210	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	22-MAR-2010 08:05		032210	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	22-MAR-2010 08:16		032210	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	22-MAR-2010 08:26		032210	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100219-99 02	YS1	22-MAR-2010 08:37		032210	1.0		CLEAN
012f1201.d	1202074817	YS1	22-MAR-2010 08:47	966771	10-2216	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202074818	YS1	22-MAR-2010 08:58	966771	10-2216	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	248556002	YS1	22-MAR-2010 09:08	966771	10-2216	1.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
015f1501.d	248556003	YS1	22-MAR-2010 09:21	966771	10-2216	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/032210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	248556004	YS1	22-MAR-2010 09:33	966771	10-2216	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
017f1701.d	248556005	YS1	22-MAR-2010 09:46	966771	10-2216	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	248556006	YS1	22-MAR-2010 09:59	966771	10-2216	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	248556007	YS1	22-MAR-2010 10:11	966771	10-2216	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	248556008	YS1	22-MAR-2010 10:24	966771	10-2216	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	248660002	YS1	22-MAR-2010 10:36	966771	10-2244	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	WAR100222-60 02	YS1	22-MAR-2010 10:49		032210	1.0		PASSED ON BOTH COLUMNS
023f2301.d	WAR100219-99 03	YS1	22-MAR-2010 11:00		032210	1.0		CLEAN
024f2401.d	248702001	YS1	22-MAR-2010 11:10	966771	10-2264	5.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
025f2501.d	248702002	YS1	22-MAR-2010 11:23	966771	10-2264	1.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
026f2601.d	248747001	YS1	22-MAR-2010 11:35	966771	10-2279	1.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
027f2701.d	248747002	YS1	22-MAR-2010 11:48	966771	10-2279	1.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
028f2801.d	248747003	YS1	22-MAR-2010 12:01	966771	10-2279	5.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
029f2901.d	248747004	YS1	22-MAR-2010 12:13	966771	10-2279	1.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
030f3001.d	248747005	YS1	22-MAR-2010 12:26	966771	10-2279	5.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
031f3101.d	248747006	YS1	22-MAR-2010 12:39	966771	10-2279	5.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
032f3201.d	248747007	YS1	22-MAR-2010 12:51	966771	10-2279	5.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
033f3301.d	WAR100222-60 03	YS1	22-MAR-2010 13:04		032210	1.0		PASSED ON BOTH COLUMNS
034f3401.d	WAR100219-99 04	YS1	22-MAR-2010 13:14		032210	1.0		CLEAN
035f3501.d	248824001	YS1	22-MAR-2010 13:25	966771	10-2305	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/032210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202074819	YS1	22-MAR-2010 13:37	966771	10-2305	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	1202074820	YS1	22-MAR-2010 13:50	966771	10-2305	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	248824002	YS1	22-MAR-2010 14:03	966771	10-2305	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	WAR100222-60 05	YS1	22-MAR-2010 14:15		032210	1.0		PASSED ON BOTH COLUMNS
040f4001.d	WAR100219-99 06	YS1	22-MAR-2010 14:26		032210	1.0		CLEAN

041f4101.d	1202076239	YS1	22-MAR-2010 14:36	967354	10-2298		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
042f4201.d	1202076240	YS1	22-MAR-2010 14:49	967354	10-2298		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
043f4301.d	248506002	YS1	22-MAR-2010 15:01	967354	10-2193		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	248815001	YS1	22-MAR-2010 15:14	967354	10-2298		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	1202076241	YS1	22-MAR-2010 15:27	967354	10-2298		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	1202076242	YS1	22-MAR-2010 15:39	967354	10-2298		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	248815002	YS1	22-MAR-2010 15:52	967354	10-2298		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
048f4801.d	248815003	YS1	22-MAR-2010 16:05	967354	10-2298		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	248815004	YS1	22-MAR-2010 16:17	967354	10-2298		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	248815005	YS1	22-MAR-2010 16:30	967354	10-2298		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	WAR100222-60 06	YS1	22-MAR-2010 16:42		032210		1.0		PASSED ON BOTH COLUMNS
052f5201.d	WAR100219-99 07	YS1	22-MAR-2010 16:55		032210		1.0		CLEAN
053f5301.d	248815006	YS1	22-MAR-2010 17:08	967354	10-2298		5.0	LANL	DUSE RE
054f5401.d	248815007	YS1	22-MAR-2010 17:20	967354	10-2298		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	248815008	YS1	22-MAR-2010 17:33	967354	10-2298		5.0	LANL	DUSE RE

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	248815009	YS1	22-MAR-2010 17:45	967354	10-2298		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	248815010	YS1	22-MAR-2010 17:58	967354	10-2298		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	248815011	YS1	22-MAR-2010 18:11	967354	10-2298		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	WAR100222-60 07	YS1	22-MAR-2010 18:23		032210		1.0		PASSED ON BOTH COLUMNS
060f6001.d	WAR100219-99 08	YS1	22-MAR-2010 18:36		032210		1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 966769 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202074817 MB	19-MAR-2010 11:50:00	30	H2SO4/KMnl		1	8	1	0.03333
1202074818 LCS	19-MAR-2010 11:50:00	30	H2SO4/KMnl		1	8	1	0.03333
248556002	19-MAR-2010 11:50:00	30	H2SO4/KMnl		1	8	1	0.03333
248556003	19-MAR-2010 11:50:00	30	H2SO4/KMnl		1	8	1	0.03333
248556004	19-MAR-2010 11:50:00	30	H2SO4/KMnl		1	8	1	0.03333
248556005	19-MAR-2010 11:50:00	30.03	H2SO4/KMnl		1	8	1	0.0333
248556006	19-MAR-2010 11:50:00	30	H2SO4/KMnl		1	8	1	0.03333
248556007	19-MAR-2010 11:50:00	30.05	H2SO4/KMnl		1	8	1	0.03328
248556008	19-MAR-2010 11:50:00	30	H2SO4/KMnl		1	8	1	0.03333
248660002	19-MAR-2010 11:50:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248702001	19-MAR-2010 11:50:00	30.09	H2SO4/KMnl		1	8	1	0.03323
248702002	19-MAR-2010 11:50:00	30.03	H2SO4/KMnl		1	8	1	0.0333
248747001	19-MAR-2010 11:50:00	30.02	H2SO4/KMnl		1	8	1	0.03331
248747002	19-MAR-2010 11:50:00	30	H2SO4/KMnl		1	8	1	0.03333
248747003	19-MAR-2010 11:50:00	30	H2SO4/KMnl		1	8	1	0.03333
248747004	19-MAR-2010 11:50:00	30.02	H2SO4/KMnl		1	8	1	0.03331
248747005	19-MAR-2010 11:50:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248747006	19-MAR-2010 11:50:00	30.05	H2SO4/KMnl		1	8	1	0.03328
248747007	19-MAR-2010 11:50:00	30	H2SO4/KMnl		1	8	1	0.03333
248824001	19-MAR-2010 11:50:00	30	H2SO4/KMnl		1	8	1	0.03333
1202074819 MS (248824001)	19-MAR-2010 11:50:00	30.01	H2SO4/KMnl		1	8	1	0.03332
1202074820 MSD (248824001)	19-MAR-2010 11:50:00	30.02	H2SO4/KMnl		1	8	1	0.03331
248824002	19-MAR-2010 11:50:00	30.02	H2SO4/KMnl		1	8	1	0.03331

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202074818	PCB Laboratory Control	WE100311-07	1	mL
MS	1202074819	PCB Laboratory Control	WE100311-07	1	mL
MSD	1202074820	PCB Laboratory Control	WE100311-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100310-16	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1273739-B1	150	mL
REGNT	All	Hexane	1279341-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 03/19/2010
Clean up Initials: RWH
Verified By: JAM
Final Solvent: Hexane
Clean Up SOP: GL-OA-E-037

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
22-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8082	Solid	LANL
Batch ID:	**Sample Numbers:**		
966771	See Below		

Potentially affected work order(s)(SDG): 248556(10-2216),248660(10-2244),248702(10-2264),248747(10-2279),248824(10-2305)

Application Issues:

Method Blank contamination

Failed Yield for Surrogates

Specification and Requirements Exception Description:	DER Disposition:
1. Method Blank contamination: QC 1202074817MB 2. Failed Yield for Surrogates: 248556 006,008	1. The Method Blank was contaminated with target analytes. The sample reported from this batch did not have target analytes detected. 2. These samples were re-extracted. The re-extractions will be reported.

Originator's Name:

Yiping Shi 22-MAR-10

Data Validator/Group Leader:

Robert Whitlock 30-MAR-10

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2305

Sample Analysis

Sample ID	Client ID
248824001	RE46-10-11926
248824002	RE46-10-11925
1202068047	Method Blank (MB) **ICP**
1202068052	Laboratory Control Sample (LCS)
1202068049	248834001(RE46-10-13867L) Serial Dilution (SD)
1202068048	248834001(RE46-10-13867D) Sample Duplicate (DUP)
1202068050	248834001(RE46-10-13867S) Matrix Spike (MS)
1202068051	248834001(RE46-10-13867SD) Matrix Spike Duplicate (MSD)
1202068053	Method Blank (MB) **ICP-MS**
1202068058	Laboratory Control Sample (LCS)
1202068055	248834001(RE46-10-13867L) Serial Dilution (SD)
1202068054	248834001(RE46-10-13867D) Sample Duplicate (DUP)
1202068056	248834001(RE46-10-13867S) Matrix Spike (MS)
1202068057	248834001(RE46-10-13867SD) Matrix Spike Duplicate (MSD)
1202076806	Method Blank (MB) **CVAA**
1202076807	Laboratory Control Sample (LCS)
1202076810	248824001(RE46-10-11926L) Serial Dilution (SD)
1202076808	248824001(RE46-10-11926D) Sample Duplicate (DUP)
1202076809	248824001(RE46-10-11926S) Matrix Spike (MS)
1202076811	248824001(RE46-10-11926SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	963993, 963995 and 967595
Prep Batch :	963992, 963994 and 967593
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The laboratory control sample (LCS) met the recommended acceptance criteria for percent recovery (%R) for all elements of interest, with the exception of antimony. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 248834001 (RE46-10-13867) and 248824001 (RE46-10-11926).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, calcium, manganese, potassium and sodium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, calcium, magnesium, manganese, potassium and sodium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of aluminum, barium, calcium, chromium, iron, lead, magnesium, manganese, potassium, sodium, vanadium and zinc, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: 814415. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 5/13/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2305 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248824001 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-11926 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 98.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	829000	ug/kg		6510	19100	19100	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-36-0	Antimony	957	ug/kg	U	316	957	957	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-38-2	Arsenic	638	ug/kg	J	202	1010	1010	2	MS	RMJ	05/11/10 10:14	100510-2	963995
7440-39-3	Barium	6610	ug/kg		95.7	478	478	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-41-7	Beryllium	235	ug/kg		20.2	101	101	2	MS	RMJ	05/12/10 07:32	100511-3	963995
7440-43-9	Cadmium	478	ug/kg	U	95.7	478	478	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-70-2	Calcium	211000	ug/kg		7650	23900	23900	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-47-3	Chromium	430	ug/kg	J	144	478	478	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-48-4	Cobalt	272	ug/kg	J	144	478	478	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-50-8	Copper	1070	ug/kg		287	957	957	1	P	HSC	03/31/10 23:14	033110B-1	963993
7439-89-6	Iron	4820000	ug/kg		7650	23900	23900	1	P	HSC	03/31/10 23:14	033110B-1	963993
7439-92-1	Lead	2120	ug/kg		239	957	957	1	P	HSC	03/31/10 23:14	033110B-1	963993
7439-95-4	Magnesium	101000	ug/kg		8130	28700	28700	1	P	HSC	03/31/10 23:14	033110B-1	963993
7439-96-5	Manganese	216000	ug/kg		191	957	957	1	P	HSC	03/31/10 23:14	033110B-1	963993
7439-97-6	Mercury	11.9	ug/kg		3.65	10.7	10.7	1	AV	JXL1	03/23/10 11:49	032310S1-5	967595
7440-02-0	Nickel	262	ug/kg	J	101	405	405	2	MS	RMJ	05/11/10 10:14	100510-2	963995
7440-09-7	Potassium	298000	ug/kg		6120	23900	23900	1	P	HSC	03/31/10 23:14	033110B-1	963993
7782-49-2	Selenium	1010	ug/kg	U	506	1010	1010	2	MS	RMJ	05/13/10 02:37	100512-4	963995
7440-22-4	Silver	478	ug/kg	U	95.7	478	478	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-23-5	Sodium	289000	ug/kg		6700	23900	23900	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-28-0	Thallium	61.5	ug/kg	J	60.7	202	202	2	MS	RMJ	05/11/10 10:14	100510-2	963995
7440-62-2	Vanadium	1160	ug/kg		95.7	478	478	1	P	HSC	03/31/10 23:14	033110B-1	963993
7440-66-6	Zinc	16000	ug/kg		316	957	957	1	P	HSC	03/31/10 23:14	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.532	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.503	g	50	mL	03/13/10	AXG2
967595	967593	SW846 7471A Prep	0.569	g	30	mL	03/22/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2305 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248824002 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-11925 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 98.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	737000	ug/kg		6700	19700	19700	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-36-0	Antimony	986	ug/kg	U	325	986	986	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-38-2	Arsenic	709	ug/kg	J	201	1000	1000	2	MS	RMJ	05/11/10 10:19	100510-2	963995
7440-39-3	Barium	4900	ug/kg		98.6	493	493	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-41-7	Beryllium	262	ug/kg		20.1	100	100	2	MS	RMJ	05/12/10 07:36	100511-3	963995
7440-43-9	Cadmium	493	ug/kg	U	98.6	493	493	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-70-2	Calcium	186000	ug/kg		7890	24600	24600	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-47-3	Chromium	425	ug/kg	J	148	493	493	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-48-4	Cobalt	240	ug/kg	J	148	493	493	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-50-8	Copper	934	ug/kg	J	296	986	986	1	P	HSC	03/31/10 23:16	033110B-1	963993
7439-89-6	Iron	4680000	ug/kg		7890	24600	24600	1	P	HSC	03/31/10 23:16	033110B-1	963993
7439-92-1	Lead	2320	ug/kg		246	986	986	1	P	HSC	03/31/10 23:16	033110B-1	963993
7439-95-4	Magnesium	76200	ug/kg		8380	29600	29600	1	P	HSC	03/31/10 23:16	033110B-1	963993
7439-96-5	Manganese	220000	ug/kg		197	986	986	1	P	HSC	03/31/10 23:16	033110B-1	963993
7439-97-6	Mercury	6.93	ug/kg	J	4.06	11.9	11.9	1	AV	JXL1	03/23/10 11:57	032310S1-5	967595
7440-02-0	Nickel	265	ug/kg	J	100	401	401	2	MS	RMJ	05/11/10 10:19	100510-2	963995
7440-09-7	Potassium	328000	ug/kg		6310	24600	24600	1	P	HSC	03/31/10 23:16	033110B-1	963993
7782-49-2	Selenium	1000	ug/kg	U	502	1000	1000	2	MS	RMJ	05/13/10 02:42	100512-4	963995
7440-22-4	Silver	493	ug/kg	U	98.6	493	493	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-23-5	Sodium	315000	ug/kg		6900	24600	24600	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-28-0	Thallium	201	ug/kg	U	60.2	201	201	2	MS	RMJ	05/11/10 10:19	100510-2	963995
7440-62-2	Vanadium	1020	ug/kg		98.6	493	493	1	P	HSC	03/31/10 23:16	033110B-1	963993
7440-66-6	Zinc	17000	ug/kg		325	986	986	1	P	HSC	03/31/10 23:16	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.515	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.506	g	50	mL	03/13/10	AXG2
967595	967593	SW846 7471A Prep	0.51	g	30	mL	03/22/10	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2305

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.1	ug/L	5	ug/L	101.9	90.0 – 110.0	AV	23–MAR–10 09:00	032310S1–5
	Aluminum	5150	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Antimony	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Barium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Cadmium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Calcium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Chromium	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Cobalt	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Copper	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Lead	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Magnesium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Manganese	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Potassium	2520	ug/L	2500	ug/L	100.7	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Silver	258	ug/L	250	ug/L	103.3	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Sodium	2510	ug/L	2500	ug/L	100.5	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Arsenic	53.9	ug/L	50	ug/L	107.8	90.0 – 110.0	MS	11–MAY–10 09:35	100510–2
	Nickel	53.2	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	11–MAY–10 09:35	100510–2
	Thallium	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	11–MAY–10 09:35	100510–2
	Beryllium	54	ug/L	50	ug/L	107.9	90.0 – 110.0	MS	12–MAY–10 06:54	100511–3
	Selenium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	13–MAY–10 01:59	100512–4
CCV01										
	Mercury	5.09	ug/L	5	ug/L	101.8	80.0 – 120.0	AV	23–MAR–10 09:05	032310S1–5
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Antimony	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Barium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Cadmium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2305

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Magnesium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Manganese	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Potassium	5700	ug/L	5000	ug/L	113.9	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Vanadium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Arsenic	54.8	ug/L	50	ug/L	109.5	90.0 – 110.0	MS	11–MAY–10 09:57	100510–2
	Nickel	53.5	ug/L	50	ug/L	106.9	90.0 – 110.0	MS	11–MAY–10 09:57	100510–2
	Thallium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	11–MAY–10 09:57	100510–2
	Beryllium	54.5	ug/L	50	ug/L	109	90.0 – 110.0	MS	12–MAY–10 07:15	100511–3
	Selenium	49.6	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	13–MAY–10 02:20	100512–4
CCV02										
	Mercury	5.14	ug/L	5	ug/L	102.7	80.0 – 120.0	AV	23–MAR–10 09:25	032310S1–5
	Aluminum	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Antimony	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Barium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Cadmium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Calcium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Chromium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Iron	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Lead	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Magnesium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2305

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Potassium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Silver	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Zinc	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Arsenic	52.4	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	11-MAY-10 10:23	100510-2
	Nickel	53.8	ug/L	50	ug/L	107.6	90.0 – 110.0	MS	11-MAY-10 10:23	100510-2
	Thallium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	11-MAY-10 10:23	100510-2
	Beryllium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	12-MAY-10 07:40	100511-3
	Selenium	49.6	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	13-MAY-10 02:46	100512-4
CCV03										
	Mercury	5.17	ug/L	5	ug/L	103.5	80.0 – 120.0	AV	23-MAR-10 09:45	032310S1-5
	Aluminum	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Antimony	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Barium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Cadmium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Chromium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Cobalt	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Iron	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Lead	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Potassium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Vanadium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Zinc	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2305

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	11–MAY–10 11:07	100510–2
	Nickel	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	11–MAY–10 11:07	100510–2
	Thallium	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	11–MAY–10 11:07	100510–2
	Beryllium	52.2	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	12–MAY–10 08:23	100511–3
	Selenium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	13–MAY–10 03:28	100512–4
CCV04										
	Mercury	5.21	ug/L	5	ug/L	104.1	80.0 – 120.0	AV	23–MAR–10 10:05	032310S1–5
	Aluminum	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Antimony	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Barium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Cadmium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Chromium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Copper	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Iron	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Magnesium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Potassium	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Silver	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Sodium	9730	ug/L	10000	ug/L	97.3	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Vanadium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Zinc	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
CCV05										
	Mercury	4.9	ug/L	5	ug/L	98	80.0 – 120.0	AV	23–MAR–10 10:25	032310S1–5
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Antimony	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Barium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Cadmium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2305

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	4960	ug/L	5000	ug/L	99.3	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Chromium	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Copper	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Iron	4910	ug/L	5000	ug/L	98.3	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Lead	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Magnesium	5050	ug/L	5000	ug/L	101.1	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Manganese	491	ug/L	500	ug/L	98.3	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Potassium	4920	ug/L	5000	ug/L	98.3	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Silver	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Sodium	9760	ug/L	10000	ug/L	97.6	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Vanadium	490	ug/L	500	ug/L	98	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
	Zinc	487	ug/L	500	ug/L	97.5	90.0 - 110.0	P	31-MAR-10 20:18	033110B-1
CCV06										
	Mercury	4.94	ug/L	5	ug/L	98.9	80.0 - 120.0	AV	23-MAR-10 10:45	032310S1-5
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Antimony	484	ug/L	500	ug/L	96.7	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Barium	485	ug/L	500	ug/L	96.9	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Cadmium	483	ug/L	500	ug/L	96.5	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Calcium	4920	ug/L	5000	ug/L	98.4	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Chromium	483	ug/L	500	ug/L	96.5	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Copper	483	ug/L	500	ug/L	96.5	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Iron	4860	ug/L	5000	ug/L	97.3	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Lead	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Manganese	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Potassium	4860	ug/L	5000	ug/L	97.1	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Silver	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1
	Sodium	9750	ug/L	10000	ug/L	97.5	90.0 - 110.0	P	31-MAR-10 20:46	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2305

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Zinc	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
CCV07										
	Mercury	5.01	ug/L	5	ug/L	100.1	80.0 – 120.0	AV	23–MAR–10 11:05	032310S1–5
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Antimony	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Barium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Cadmium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Calcium	4910	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Chromium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Copper	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Iron	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Manganese	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Silver	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Sodium	9770	ug/L	10000	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Vanadium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Zinc	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
CCV08										
	Mercury	4.99	ug/L	5	ug/L	99.8	80.0 – 120.0	AV	23–MAR–10 11:25	032310S1–5
	Aluminum	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Antimony	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Barium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Cadmium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Calcium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Chromium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Cobalt	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2305

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Iron	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Manganese	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Potassium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Silver	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Sodium	9710	ug/L	10000	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Vanadium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Zinc	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
CCV09										
	Mercury	5.17	ug/L	5	ug/L	103.3	80.0 – 120.0	AV	23–MAR–10 11:46	032310S1–5
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Antimony	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Barium	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Cadmium	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Calcium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Chromium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Cobalt	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Iron	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Lead	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Magnesium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Manganese	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Potassium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Silver	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Sodium	9660	ug/L	10000	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Vanadium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Zinc	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2305

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV10										
	Mercury	5.02	ug/L	5	ug/L	100.3	80.0 - 120.0	AV	23-MAR-10 11:59	032310S1-5
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Antimony	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Barium	480	ug/L	500	ug/L	96	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Cadmium	477	ug/L	500	ug/L	95.4	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Calcium	4860	ug/L	5000	ug/L	97.3	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Chromium	476	ug/L	500	ug/L	95.3	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Cobalt	481	ug/L	500	ug/L	96.2	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Copper	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Iron	4830	ug/L	5000	ug/L	96.6	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Lead	482	ug/L	500	ug/L	96.4	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Magnesium	4920	ug/L	5000	ug/L	98.5	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Manganese	482	ug/L	500	ug/L	96.5	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Silver	481	ug/L	500	ug/L	96.2	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Sodium	9610	ug/L	10000	ug/L	96.1	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Vanadium	482	ug/L	500	ug/L	96.4	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
	Zinc	476	ug/L	500	ug/L	95.3	90.0 - 110.0	P	31-MAR-10 22:12	033110B-1
CCV11										
	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Antimony	476	ug/L	500	ug/L	95.2	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Barium	478	ug/L	500	ug/L	95.6	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Cadmium	473	ug/L	500	ug/L	94.7	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Calcium	4830	ug/L	5000	ug/L	96.6	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Chromium	474	ug/L	500	ug/L	94.7	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Cobalt	477	ug/L	500	ug/L	95.4	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Copper	477	ug/L	500	ug/L	95.5	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Iron	4800	ug/L	5000	ug/L	96.1	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Lead	478	ug/L	500	ug/L	95.7	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1
	Magnesium	4890	ug/L	5000	ug/L	97.9	90.0 - 110.0	P	31-MAR-10 22:35	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2305

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Potassium	4800	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Silver	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Sodium	9560	ug/L	10000	ug/L	95.6	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Vanadium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Zinc	472	ug/L	500	ug/L	94.5	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
CCV12										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Antimony	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Barium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Cadmium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Calcium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Chromium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Cobalt	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Copper	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Lead	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Magnesium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Manganese	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Silver	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Sodium	9590	ug/L	10000	ug/L	95.9	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Vanadium	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Zinc	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
CCV13										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Antimony	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Cadmium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Calcium	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2305

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Iron	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Lead	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Magnesium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Manganese	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Potassium	4800	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Silver	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Sodium	9620	ug/L	10000	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Vanadium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Zinc	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-2305

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.17	ug/L	.2	ug/L	85	70.0 - 130.0	AV	23-MAR-10 09:03	032310S1-5
	Nickel	2.15	ug/L	2	ug/L	107.7	70.0 - 130.0	MS	11-MAY-10 09:43	100510-2
	Thallium	1.14	ug/L	1	ug/L	113.6	70.0 - 130.0	MS	11-MAY-10 09:43	100510-2
	Arsenic	4.36	ug/L	5	ug/L	87.1	70.0 - 130.0	MS	11-MAY-10 09:43	100510-2
	Beryllium	.595	ug/L	.5	ug/L	119	70.0 - 130.0	MS	12-MAY-10 07:02	100511-3
	Selenium	5.9	ug/L	5	ug/L	117.9	70.0 - 130.0	MS	13-MAY-10 02:08	100512-4
PQL01										
	Sodium	280	ug/L	300	ug/L	93.3	70.0 - 130.0	P	31-MAR-10 18:51	033110B-1
	Antimony	9.66	ug/L	10	ug/L	96.6	70.0 - 130.0	P	31-MAR-10 18:51	033110B-1
	Barium	4.99	ug/L	5	ug/L	99.9	70.0 - 130.0	P	31-MAR-10 18:51	033110B-1
	Silver	4.61	ug/L	5	ug/L	92.3	70.0 - 130.0	P	31-MAR-10 18:51	033110B-1
	Potassium	150	ug/L	150	ug/L	99.9	70.0 - 130.0	P	31-MAR-10 18:51	033110B-1
	Manganese	10.3	ug/L	10	ug/L	103.1	70.0 - 130.0	P	31-MAR-10 18:51	033110B-1
	Magnesium	311	ug/L	300	ug/L	103.7	70.0 - 130.0	P	31-MAR-10 18:51	033110B-1
	Lead	11.2	ug/L	10	ug/L	112	70.0 - 130.0	P	31-MAR-10 18:51	033110B-1
	Iron	102	ug/L	100	ug/L	102.4	70.0 - 130.0	P	31-MAR-10 18:51	033110B-1
	Aluminum	204	ug/L	200	ug/L	101.9	70.0 - 130.0	P	31-MAR-10 18:51	033110B-1
	Cadmium	5.05	ug/L	5	ug/L	101	70.0 - 130.0	P	31-MAR-10 18:51	033110B-1
	Chromium	4.91	ug/L	5	ug/L	98.3	70.0 - 130.0	P	31-MAR-10 18:51	033110B-1
	Cobalt	5.18	ug/L	5	ug/L	103.6	70.0 - 130.0	P	31-MAR-10 18:51	033110B-1
	Copper	10	ug/L	10	ug/L	100	70.0 - 130.0	P	31-MAR-10 18:51	033110B-1
	Vanadium	4.74	ug/L	5	ug/L	94.8	70.0 - 130.0	P	31-MAR-10 18:51	033110B-1
	Zinc	10.1	ug/L	10	ug/L	101	70.0 - 130.0	P	31-MAR-10 18:51	033110B-1
	Calcium	212	ug/L	200	ug/L	106.2	70.0 - 130.0	P	31-MAR-10 18:51	033110B-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2305

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 09:01	032310S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 18:48	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 18:48	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 18:48	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 18:48	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 18:48	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 18:48	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	11–MAY–10 09:39	100510–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	11–MAY–10 09:39	100510–2
	Thallium	0.347	+/–1	J	0.3	1.0	SOL	MS	11–MAY–10 09:39	100510–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	12–MAY–10 06:58	100511–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–MAY–10 02:03	100512–4
CCB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 09:06	032310S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:01	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:01	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:01	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2305

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:01	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:01	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Potassium	298.29	+/–250		64.0	250	SOL	P	31–MAR–10 19:01	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Sodium	140.13	+/–250	J	70.0	250	SOL	P	31–MAR–10 19:01	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	11–MAY–10 10:01	100510–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	11–MAY–10 10:01	100510–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	11–MAY–10 10:01	100510–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	12–MAY–10 07:19	100511–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–MAY–10 02:25	100512–4
CCB02										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 09:26	032310S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:08	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:08	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:08	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:08	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Potassium	98.66	+/–250	J	64.0	250	SOL	P	31–MAR–10 19:08	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2305

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 19:08	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	11–MAY–10 10:27	100510–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	11–MAY–10 10:27	100510–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	11–MAY–10 10:27	100510–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	12–MAY–10 07:45	100511–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–MAY–10 02:50	100512–4
CCB03										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 09:46	032310S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:29	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:29	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:29	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:29	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 19:29	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 19:29	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	11–MAY–10 11:11	100510–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	11–MAY–10 11:11	100510–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	11–MAY–10 11:11	100510–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2305

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	12–MAY–10 08:27	100511–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–MAY–10 03:32	100512–4
CCB04										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 10:06	032310S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:50	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:50	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:50	033110B–1
CCB05										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 10:27	032310S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 20:21	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 20:21	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2305

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 20:21	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Silver	–1.07	+/–5	J	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:21	033110B–1
CCB06										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 10:47	032310S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 20:48	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 20:48	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:48	033110B–1
CCB07										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 11:07	032310S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 21:18	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2305

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:18	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:18	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 21:18	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 21:18	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 21:18	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:18	033110B–1
CCB08										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 11:27	032310S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 21:41	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:41	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:41	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 21:41	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 21:41	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2305

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 21:41	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:41	033110B–1
CCB09										
	Mercury	0.173	+/–.2	J	0.068	0.2	SOL	AV	23–MAR–10 11:47	032310S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 21:57	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 21:57	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:57	033110B–1
CCB10										
	Mercury	0.087	+/–.2	J	0.068	0.2	SOL	AV	23–MAR–10 12:01	032310S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 22:14	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:14	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:14	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2305

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:14	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 22:14	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 22:14	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 22:14	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:14	033110B–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 22:37	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:37	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:37	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 22:37	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 22:37	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 22:37	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:37	033110B–1
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 22:58	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2305

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 22:58	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:58	033110B–1
CCB13										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 23:20	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 23:20	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 23:20	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 23:20	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 23:20	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2305

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 23:20	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 23:20	033110B–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2305

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202068047								
	Antimony	320	ug/kg	+/–969	U	P	320	969
	Barium	96.9	ug/kg	+/–484	U	P	96.9	484
	Cadmium	96.9	ug/kg	+/–484	U	P	96.9	484
	Calcium	7750	ug/kg	+/–24200	U	P	7750	24200
	Chromium	145	ug/kg	+/–484	U	P	145	484
	Cobalt	145	ug/kg	+/–484	U	P	145	484
	Copper	291	ug/kg	+/–969	U	P	291	969
	Iron	7750	ug/kg	+/–24200	U	P	7750	24200
	Lead	242	ug/kg	+/–969	U	P	242	969
	Aluminum	6590	ug/kg	+/–19400	U	P	6590	19400
	Magnesium	8240	ug/kg	+/–29100	U	P	8240	29100
	Manganese	194	ug/kg	+/–969	U	P	194	969
	Potassium	6200	ug/kg	+/–24200	U	P	6200	24200
	Silver	96.9	ug/kg	+/–484	U	P	96.9	484
	Sodium	6780	ug/kg	+/–24200	U	P	6780	24200
	Vanadium	96.9	ug/kg	+/–484	U	P	96.9	484
	Zinc	320	ug/kg	+/–969	U	P	320	969
1202068053								
	Arsenic	200	ug/kg	+/–1000	U	MS	200	1000
	Beryllium	20	ug/kg	+/–100	U	MS	20	100
	Nickel	100	ug/kg	+/–400	U	MS	100	400
	Selenium	500	ug/kg	+/–1000	U	MS	500	1000
	Thallium	60	ug/kg	+/–200	U	MS	60	200
1202076806								
	Mercury	3.4	ug/kg	+/–10	U	AV	3.4	10

METALS
–4–
Interference Check Sample

SDG No: 10–2305

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	502000	ug/L	500000	ug/L	100	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Antimony	0.296	ug/L					31–MAR–10 18:53	033110B–1
	Barium	0.205	ug/L					31–MAR–10 18:53	033110B–1
	Cadmium	–1.97	ug/L					31–MAR–10 18:53	033110B–1
	Calcium	480000	ug/L	500000	ug/L	96	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Chromium	1.07	ug/L					31–MAR–10 18:53	033110B–1
	Cobalt	–6.06	ug/L					31–MAR–10 18:53	033110B–1
	Copper	4.63	ug/L					31–MAR–10 18:53	033110B–1
	Iron	190000	ug/L	200000	ug/L	95	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Lead	–4.1	ug/L					31–MAR–10 18:53	033110B–1
	Magnesium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Manganese	3.58	ug/L					31–MAR–10 18:53	033110B–1
	Potassium	–119.0	ug/L					31–MAR–10 18:53	033110B–1
	Silver	–2.44	ug/L					31–MAR–10 18:53	033110B–1
	Sodium	38.8	ug/L					31–MAR–10 18:53	033110B–1
	Vanadium	–0.082	ug/L					31–MAR–10 18:53	033110B–1
	Zinc	8.58	ug/L					31–MAR–10 18:53	033110B–1
ICSAB01									
	Aluminum	507000	ug/L	500000	ug/L	101	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Antimony	504	ug/L	500	ug/L	101	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Barium	499	ug/L	500	ug/L	99.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Cadmium	476	ug/L	500	ug/L	95.3	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Calcium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Chromium	484	ug/L	500	ug/L	96.7	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Cobalt	442	ug/L	500	ug/L	88.5	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Copper	542	ug/L	500	ug/L	108	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Iron	192000	ug/L	200000	ug/L	96	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Lead	464	ug/L	500	ug/L	92.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Magnesium	485000	ug/L	500000	ug/L	97	80.0 – 120.0	31–MAR–10 18:55	033110B–1

METALS
–4–
Interference Check Sample

SDG No: 10–2305

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Manganese	486	ug/L	500	ug/L	97.2	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Potassium	5550	ug/L	5000	ug/L	111	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Silver	267	ug/L	250	ug/L	107	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Sodium	5330	ug/L	5000	ug/L	107	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Vanadium	513	ug/L	500	ug/L	103	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Zinc	494	ug/L	500	ug/L	98.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1

METALS
–4–
Interference Check Sample

SDG No: 10–2305

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.807	ug/L					11–MAY–10 09:48	100510–2
	Nickel	2.52	ug/L					11–MAY–10 09:48	100510–2
	Thallium	0.019	ug/L					11–MAY–10 09:48	100510–2
ICSAB01									
	Arsenic	19.0	ug/L	20	ug/L	94.9	80.0 – 120.0	11–MAY–10 09:52	100510–2
	Nickel	21.0	ug/L	23.31	ug/L	89.9	80.0 – 120.0	11–MAY–10 09:52	100510–2
	Thallium	16.9	ug/L	20	ug/L	84.5	80.0 – 120.0	11–MAY–10 09:52	100510–2

METALS
–4–
Interference Check Sample

SDG No: 10–2305

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.117	ug/L					12–MAY–10 07:07	100511–3
ICSAB01									
	Beryllium	20.5	ug/L	20	ug/L	102	80.0 – 120.0	12–MAY–10 07:11	100511–3

METALS
–4–
Interference Check Sample

SDG No: 10–2305

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Selenium	–2.06	ug/L					13–MAY–10 02:12	100512–4
ICSAB01									
	Selenium	17.9	ug/L	20	ug/L	89.3	80.0 – 120.0	13–MAY–10 02:16	100512–4

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2305 **Client ID** RE46–10–13867S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.1

Sample ID: 248834001 **Spike ID:** 1202068050

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/kg	75–125	48800		349	U	54300	90		P
Barium	ug/kg	75–125	62100		11600		54300	93.2		P
Cadmium	ug/kg	75–125	51400		106	U	54300	94.7		P
Calcium	ug/kg	75–125	1070000		365000		543000	131	N	P
Aluminum	ug/kg	75–125	2120000		1070000		543000	194	N	P
Chromium	ug/kg	75–125	63000		14400		54300	89.5		P
Cobalt	ug/kg	75–125	50800		568		54300	92.5		P
Copper	ug/kg	75–125	54800		1130		54300	98.9		P
Iron	ug/kg		5560000		5420000		543000	26.1	N/A	P
Lead	ug/kg	75–125	54000		2760		54300	94.4		P
Magnesium	ug/kg	75–125	762000		175000		543000	108		P
Manganese	ug/kg	75–125	283000		204000		54300	146	N	P
Potassium	ug/kg	75–125	1190000		387000		543000	147	N	P
Silver	ug/kg	75–125	50600		106	U	54300	93.2		P
Sodium	ug/kg	75–125	1150000		390000		543000	140	N	P
Vanadium	ug/kg	75–125	52000		1730		54300	92.5		P
Zinc	ug/kg	75–125	74600		23900		54300	93.3		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2305 **Client ID** RE46–10–13867SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.1

Sample ID: 248834001 **Spike ID:** 1202068051

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg	75–125	2410000		1070000		537000	251	N	P
Antimony	ug/kg	75–125	48800		349	U	53700	90.8		P
Barium	ug/kg	75–125	66600		11600		53700	102		P
Cadmium	ug/kg	75–125	52000		106	U	53700	96.7		P
Calcium	ug/kg	75–125	1180000		365000		537000	152	N	P
Chromium	ug/kg	75–125	63900		14400		53700	92.1		P
Cobalt	ug/kg	75–125	51500		568		53700	94.7		P
Copper	ug/kg	75–125	55900		1130		53700	102		P
Iron	ug/kg		6340000		5420000		537000	172	N/A	P
Lead	ug/kg	75–125	55000		2760		53700	97.3		P
Magnesium	ug/kg	75–125	859000		175000		537000	127	N	P
Manganese	ug/kg	75–125	322000		204000		53700	221	N	P
Potassium	ug/kg	75–125	1270000		387000		537000	165	N	P
Silver	ug/kg	75–125	51300		106	U	53700	95.4		P
Sodium	ug/kg	75–125	1200000		390000		537000	151	N	P
Vanadium	ug/kg	75–125	53200		1730		53700	95.8		P
Zinc	ug/kg	75–125	79200		23900		53700	103		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2305 **Client ID** RE46–10–13867S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.1

Sample ID: 248834001 **Spike ID:** 1202068056

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	8550		440	J	8530	95.1		MS
Beryllium	ug/kg	75–125	6470		356		5330	115		MS
Nickel	ug/kg	75–125	6710		1580		5330	96.1		MS
Selenium	ug/kg	75–125	1750		541	U	2130	76.9		MS
Thallium	ug/kg	75–125	9280		83.3	J	10700	86.2		MS

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–2305 **Client ID** RE46–10–13867SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.1

Sample ID: 248834001 **Spike ID:** 1202068057

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	8420		440	J	8650	92.2		MS
Beryllium	ug/kg	75–125	5970		356		5410	104		MS
Nickel	ug/kg	75–125	6370		1580		5410	88.5		MS
Selenium	ug/kg	75–125	1780		541	U	2160	77.1		MS
Thallium	ug/kg	75–125	9150		83.3	J	10800	83.8		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2305 **Client ID** RE46–10–11926S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 98.2

Sample ID: 248824001 **Spike ID:** 1202076809

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	126		11.9		109	105		AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2305 **Client ID** RE46–10–11926SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 98.2

Sample ID: 248824001 **Spike ID:** 1202076811

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	136		11.9		119	104		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-2305

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46-10-13867D

Sample ID: 248834001 **Duplicate ID:** 1202068048 **Percent Solids for Dup:** 92.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/-20%	1070000		1400000		27.2	*	P
Antimony	ug/kg		349	U	344	U			P
Barium	ug/kg	+/-20%	11600		18000		43.3	*	P
Cadmium	ug/kg		106	U	104	U			P
Calcium	ug/kg	+/-20%	365000		453000		21.5	*	P
Chromium	ug/kg	+/-20%	14400		11600		21.6	*	P
Cobalt	ug/kg	+/-521	568		641		12.1		P
Copper	ug/kg	+/-1040	1130		1490		27		P
Iron	ug/kg	+/-20%	5420000		6710000		21.4	*	P
Lead	ug/kg	+/-1040	2760		4270		42.7	*	P
Magnesium	ug/kg	+/-20%	175000		599000		110	*	P
Manganese	ug/kg	+/-20%	204000		297000		37.3	*	P
Potassium	ug/kg	+/-20%	387000		643000		49.6	*	P
Silver	ug/kg		106	U	104	U			P
Sodium	ug/kg	+/-20%	390000		537000		31.6	*	P
Vanadium	ug/kg	+/-521	1730		3670		71.9	*	P
Zinc	ug/kg	+/-20%	23900		43200		57.4	*	P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2305

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13867SD

Sample ID: 1202068050 **Duplicate ID:** 1202068051 **Percent Solids for Dup:** 92.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	2120000		2410000		12.9		P
Antimony	ug/kg	+/–20	48800		48800		.0857		P
Barium	ug/kg	+/–20	62100		66600		6.93		P
Cadmium	ug/kg	+/–20	51400		52000		1.12		P
Calcium	ug/kg	+/–20	1070000		1180000		9.66		P
Chromium	ug/kg	+/–20	63000		63900		1.43		P
Cobalt	ug/kg	+/–20	50800		51500		1.31		P
Copper	ug/kg	+/–20	54800		55900		1.92		P
Iron	ug/kg	+/–20	5560000		6340000		13.2		P
Lead	ug/kg	+/–20	54000		55000		1.91		P
Magnesium	ug/kg	+/–20	762000		859000		11.9		P
Manganese	ug/kg	+/–20	283000		322000		12.9		P
Potassium	ug/kg	+/–20	1190000		1270000		7		P
Silver	ug/kg	+/–20	50600		51300		1.31		P
Sodium	ug/kg	+/–20	1150000		1200000		4.43		P
Vanadium	ug/kg	+/–20	52000		53200		2.42		P
Zinc	ug/kg	+/–20	74600		79200		5.99		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2305

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13867D

Sample ID: 248834001 **Duplicate ID:** 1202068054 **Percent Solids for Dup:** 92.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–1060	440	J	366	J	18.3		MS
Beryllium	ug/kg	+/–106	356		381		6.69		MS
Nickel	ug/kg	+/–424	1580		1830		14.8		MS
Selenium	ug/kg		541	U	530	U			MS
Thallium	ug/kg	+/–212	83.3	J	65.5	J	23.8		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2305

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13867SD

Sample ID: 1202068056 **Duplicate ID:** 1202068057 **Percent Solids for Dup:** 92.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	8550		8420		1.58		MS
Beryllium	ug/kg	+/–20	6470		5970		8.07		MS
Nickel	ug/kg	+/–20	6710		6370		5.18		MS
Selenium	ug/kg	+/–20	1750		1780		1.59		MS
Thallium	ug/kg	+/–20	9280		9150		1.42		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2305

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–11926D

Sample ID: 248824001 **Duplicate ID:** 1202076808 **Percent Solids for Dup:** 98.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–10.9	11.9		10.8	J	9.03		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2305

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–11926SD

Sample ID: 1202076809 **Duplicate ID:** 1202076811 **Percent Solids for Dup:** 98.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	126		136		7.97		AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2305

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202068052								
	Aluminum	ug/kg	10500000	9050000		86.2	56–144	P
	Antimony	ug/kg	173000	121000		69.9	71–130	P
	Barium	ug/kg	198000	191000		96.7	80–120	P
	Cadmium	ug/kg	60700	59600		98.1	81–120	P
	Calcium	ug/kg	9870000	9650000		97.8	83–117	P
	Chromium	ug/kg	236000	248000		105	80–120	P
	Cobalt	ug/kg	91200	94400		103	81–120	P
	Copper	ug/kg	174000	182000		105	81–118	P
	Iron	ug/kg	18000000	17400000		96.5	51–149	P
	Lead	ug/kg	86000	77800		90.4	79–121	P
	Magnesium	ug/kg	4000000	3730000		93.2	79–122	P
	Manganese	ug/kg	558000	542000		97.1	81–119	P
	Potassium	ug/kg	4300000	4020000		93.4	74–127	P
	Silver	ug/kg	30100	29300		97.4	66–134	P
	Sodium	ug/kg	1020000	1000000		98.4	74–127	P
	Vanadium	ug/kg	115000	121000		105	79–121	P
	Zinc	ug/kg	594000	585000		98.4	80–121	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2305

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202068058								
	Beryllium	ug/kg	77600	88500		114	84-116	MS
	Nickel	ug/kg	134000	148000		110	78-123	MS
	Selenium	ug/kg	286000	256000		89.4	77-123	MS
	Thallium	ug/kg	121000	118000		97.2	78-122	MS
	Arsenic	ug/kg	104000	109000		105	78-123	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2305

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202076807								
	Mercury	ug/kg	5150	5440		106	71.6–128.3	AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2305 **Client ID** RE46–10–13867L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248834001 **Serial Dilution ID:** 1202068049

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	10100		10200		.495		10	P
Antimony	3.3	U	16.5	U				P
Barium	109		108		1.38		10	P
Cadmium	1	U	5	U				P
Calcium	3450		3440		.29			P
Chromium	136		133		2.57		10	P
Cobalt	5.36		7.5	U	100			P
Copper	10.7		15	U	100			P
Iron	51200		50500		1.37		10	P
Lead	26.1		22.7	J	13			P
Magnesium	1650		1700		3.03			P
Manganese	1920		1920		0		10	P
Potassium	3660		3590		2.05		10	P
Silver	1	U	5	U				P
Sodium	3690		3680		.271		10	P
Vanadium	16.3		16.7	J	2.15			P
Zinc	226		212		6.42		10	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2305 **Client ID** RE46-10-13867L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248834001 **Serial Dilution ID:** 1202068055

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	2.04	J	5	U	100			MS
Beryllium	1.65		1.73	J	4.85			MS
Nickel	7.31		6.95	J	4.92			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.385	J	1.5	U	100			MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2305 **Client ID** RE46–10–11926L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248824001 **Serial Dilution ID:** 1202076810

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.221		.585	J	165			AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2305 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 963992							
1202068047	MB for batch 963992	MB	S	13–MAR–10	.516g	50mL	
1202068052	LCS for batch 963992	LCS	S	13–MAR–10	.508g	50mL	
1202068050	RE46–10–13867S	MS	S	13–MAR–10	.5g	50mL	
1202068051	RE46–10–13867SD	MSD	S	13–MAR–10	.505g	50mL	
1202068048	RE46–10–13867D	DUP	S	13–MAR–10	.521g	50mL	
248824001	RE46–10–11926	SAMPLE	S	13–MAR–10	.532g	50mL	
248824002	RE46–10–11925	SAMPLE	S	13–MAR–10	.515g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2305 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 963994							
1202068053	MB for batch 963994	MB	S	13–MAR–10	.5g	50mL	
1202068058	LCS for batch 963994	LCS	S	13–MAR–10	.501g	50mL	
1202068056	RE46–10–13867S	MS	S	13–MAR–10	.509g	50mL	
1202068057	RE46–10–13867SD	MSD	S	13–MAR–10	.502g	50mL	
1202068054	RE46–10–13867D	DUP	S	13–MAR–10	.512g	50mL	
248824001	RE46–10–11926	SAMPLE	S	13–MAR–10	.503g	50mL	
248824002	RE46–10–11925	SAMPLE	S	13–MAR–10	.506g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2305 **Method Type**: AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	967593						
1202076806	MB for batch 967593	MB	S	22–MAR–10	.6g	30mL	
1202076807	LCS for batch 967593	LCS	S	22–MAR–10	.203g	30mL	
1202076809	RE46–10–11926S	MS	S	22–MAR–10	.562g	30mL	
1202076811	RE46–10–11926SD	MSD	S	22–MAR–10	.514g	30mL	
1202076808	RE46–10–11926D	DUP	S	22–MAR–10	.558g	30mL	
248824001	RE46–10–11926	SAMPLE	S	22–MAR–10	.569g	30mL	
248824002	RE46–10–11925	SAMPLE	S	22–MAR–10	.51g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 11–MAY–10 **End Date:** 11–MAY–10

Client Sdg: 10–2305
Method MS
Data File: 100510–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	09:22:00			X													X					X		
S10	1	09:26:00			X													X					X		
S100	1	09:30:00			X													X					X		
ICV01	1	09:35:00			X													X					X		
ICB01	1	09:39:00			X													X					X		
CRDL01	1	09:43:00			X													X					X		
ICSA01	1	09:48:00			X													X					X		
ICSAB01	1	09:52:00			X													X					X		
CCV01	1	09:57:00			X													X					X		
CCB01	1	10:01:00			X													X					X		
1202068053	2	10:05:00			X													X					X		
1202068058	40	10:10:00			X													X					X		
248824001	2	10:14:00			X													X					X		
248824002	2	10:19:00			X													X					X		
CCV02	1	10:23:00			X													X					X		
CCB02	1	10:27:00			X													X					X		
ZZZZZZ	2	10:32:00																							
1202068054	2	10:36:00			X													X					X		
1202068056	2	10:41:00			X													X					X		
1202068057	2	10:45:00			X													X					X		
1202068055	10	10:49:00			X													X					X		
ZZZZZZ	2	10:54:00																							
ZZZZZZ	2	10:58:00																							
ZZZZZZ	2	11:03:00																							
CCV03	1	11:07:00			X													X					X		
CCB03	1	11:11:00			X													X					X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 12–MAY–10 **End Date:** 12–MAY–10

Client Sdg: 10–2305
Method MS
Data File: 100511–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	06:41:00					X																		
S10	1	06:45:00					X																		
S100	1	06:50:00					X																		
ICV01	1	06:54:00					X																		
ICB01	1	06:58:00					X																		
CRDL01	1	07:02:00					X																		
ICSA01	1	07:07:00					X																		
ICSAB01	1	07:11:00					X																		
CCV01	1	07:15:00					X																		
CCB01	1	07:19:00					X																		
1202068053	2	07:23:00					X																		
1202068058	40	07:28:00					X																		
248824001	2	07:32:00					X																		
248824002	2	07:36:00					X																		
CCV02	1	07:40:00					X																		
CCB02	1	07:45:00					X																		
ZZZZZZ	2	07:49:00																							
1202068054	2	07:53:00					X																		
1202068056	2	07:57:00					X																		
1202068057	2	08:02:00					X																		
1202068055	10	08:06:00					X																		
ZZZZZZ	2	08:10:00																							
ZZZZZZ	2	08:14:00																							
ZZZZZZ	2	08:19:00																							
CCV03	1	08:23:00					X																		
CCB03	1	08:27:00					X																		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 13–MAY–10 **End Date:** 13–MAY–10

Client Sdg: 10–2305
Method MS
Data File: 100512–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	01:47:00																		X					
S10	1	01:51:00																		X					
S100	1	01:55:00																		X					
ICV01	1	01:59:00																		X					
ICB01	1	02:03:00																		X					
CRDL01	1	02:08:00																		X					
ICSA01	1	02:12:00																		X					
ICSAB01	1	02:16:00																		X					
CCV01	1	02:20:00																		X					
CCB01	1	02:25:00																		X					
1202068053	2	02:29:00																		X					
1202068058	40	02:33:00																		X					
248824001	2	02:37:00																		X					
248824002	2	02:42:00																		X					
CCV02	1	02:46:00																		X					
CCB02	1	02:50:00																		X					
ZZZZZZ	2	02:54:00																							
1202068054	2	02:58:00																		X					
1202068056	2	03:03:00																		X					
1202068057	2	03:07:00																		X					
1202068055	10	03:11:00																		X					
ZZZZZZ	2	03:15:00																							
ZZZZZZ	2	03:20:00																							
ZZZZZZ	2	03:24:00																							
CCV03	1	03:28:00																		X					
CCB03	1	03:32:00																		X					

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 23-MAR-10 **End Date:** 23-MAR-10

Client Sdg: 10-2305
Method AV
Data File: 032310S1-5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	08:50:00															X								
S0.2	1	08:51:00															X								
S0.5	1	08:53:00															X								
S2.0	1	08:55:00															X								
S5.0	1	08:56:00															X								
S10.0	1	08:58:00															X								
ICV01	1	09:00:00															X								
ICB01	1	09:01:00															X								
CRDL01	1	09:03:00															X								
CCV01	1	09:05:00															X								
CCB01	1	09:06:00															X								
ZZZZZZ	1	09:08:00																							
ZZZZZZ	1	09:10:00																							
ZZZZZZ	1	09:11:00																							
ZZZZZZ	1	09:13:00																							
ZZZZZZ	1	09:15:00																							
ZZZZZZ	1	09:16:00																							
ZZZZZZ	1	09:18:00																							
ZZZZZZ	1	09:20:00																							
ZZZZZZ	1	09:21:00																							
ZZZZZZ	5	09:23:00																							
CCV02	1	09:25:00															X								
CCB02	1	09:26:00															X								
ZZZZZZ	1	09:28:00																							
ZZZZZZ	1	09:30:00																							
ZZZZZZ	1	09:31:00																							
ZZZZZZ	1	09:33:00																							
ZZZZZZ	1	09:35:00																							
ZZZZZZ	1	09:36:00																							
ZZZZZZ	1	09:38:00																							
ZZZZZZ	1	09:40:00																							
ZZZZZZ	1	09:41:00																							
ZZZZZZ	1	09:43:00																							
CCV03	1	09:45:00															X								
CCB03	1	09:46:00															X								
ZZZZZZ	1	09:48:00																							
ZZZZZZ	1	09:50:00																							
ZZZZZZ	1	09:51:00																							
ZZZZZZ	1	09:53:00																							
ZZZZZZ	1	09:55:00																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	09:57:00																						
ZZZZZZ	10	09:58:00																						
CRDL02	1	10:03:00													X									
CCV04	1	10:05:00													X									
CCB04	1	10:06:00													X									
ZZZZZZ	1	10:08:00																						
ZZZZZZ	1	10:10:00																						
ZZZZZZ	1	10:11:00																						
ZZZZZZ	1	10:13:00																						
ZZZZZZ	1	10:15:00																						
ZZZZZZ	1	10:16:00																						
ZZZZZZ	1	10:18:00																						
ZZZZZZ	1	10:20:00																						
ZZZZZZ	5	10:22:00																						
ZZZZZZ	1	10:23:00																						
CCV05	1	10:25:00													X									
CCB05	1	10:27:00													X									
ZZZZZZ	1	10:28:00																						
ZZZZZZ	10	10:30:00																						
ZZZZZZ	1	10:32:00																						
ZZZZZZ	1	10:33:00																						
ZZZZZZ	1	10:35:00																						
ZZZZZZ	1	10:37:00																						
ZZZZZZ	5	10:38:00																						
ZZZZZZ	1	10:40:00																						
ZZZZZZ	1	10:42:00																						
ZZZZZZ	1	10:43:00																						
CCV06	1	10:45:00													X									
CCB06	1	10:47:00													X									
ZZZZZZ	1	10:48:00																						
ZZZZZZ	1	10:50:00																						
ZZZZZZ	1	10:52:00																						
ZZZZZZ	1	10:53:00																						
ZZZZZZ	1	10:55:00																						
ZZZZZZ	1	10:57:00																						
ZZZZZZ	1	10:58:00																						
ZZZZZZ	1	11:00:00																						
ZZZZZZ	1	11:02:00																						
ZZZZZZ	1	11:04:00																						
CCV07	1	11:05:00													X									

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
CCB07	1	11:07:00															X								
ZZZZZZ	1	11:09:00																							
ZZZZZZ	1	11:10:00																							
1202076806	1	11:12:00															X								
1202076807	10	11:14:00															X								
ZZZZZZ	1	11:15:00																							
ZZZZZZ	1	11:17:00																							
ZZZZZZ	1	11:19:00																							
ZZZZZZ	1	11:20:00																							
ZZZZZZ	1	11:22:00																							
ZZZZZZ	1	11:24:00																							
CCV08	1	11:25:00															X								
CCB08	1	11:27:00															X								
ZZZZZZ	1	11:29:00																							
ZZZZZZ	1	11:30:00																							
ZZZZZZ	1	11:32:00																							
ZZZZZZ	1	11:34:00																							
ZZZZZZ	1	11:35:00																							
ZZZZZZ	1	11:37:00																							
ZZZZZZ	1	11:39:00																							
ZZZZZZ	1	11:41:00																							
ZZZZZZ	1	11:42:00																							
ZZZZZZ	1	11:44:00																							
CCV09	1	11:46:00															X								
CCB09	1	11:47:00															X								
248824001	1	11:49:00															X								
1202076808	1	11:51:00															X								
1202076809	1	11:52:00															X								
1202076811	1	11:54:00															X								
1202076810	5	11:56:00															X								
248824002	1	11:57:00															X								
CCV10	1	11:59:00															X								
CCB10	1	12:01:00															X								

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 31–MAR–10 **End Date:** 31–MAR–10

Client Sdg: 10–2305
Method P
Data File: 033110B–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	18:36:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
S0.1	1	18:39:45		X		X		X		X	X	X		X		X			X		X			X	X
S0.5	1	18:41:56	X	X		X		X	X	X	X	X		X	X	X			X		X			X	X
SCAL	1	18:43:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
S10	1	18:45:59	X						X				X		X							X			
ICV01	1	18:47:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICB01	1	18:48:09	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
PQL01	1	18:51:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICSA01	1	18:53:20	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICSAB01	1	18:55:20	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR01	1	18:56:26	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR02	1	18:57:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV01	1	18:59:11	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB01	1	19:01:26	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV02	1	19:06:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB02	1	19:08:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:11:15																							
ZZZZZZ	1	19:14:12																							
ZZZZZZ	1	19:16:26																							
ZZZZZZ	1	19:19:36																							
ZZZZZZ	1	19:22:32																							
ZZZZZZ	5	19:24:31																							
CCV03	1	19:27:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB03	1	19:29:42	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:32:54																							
ZZZZZZ	1	19:35:52																							
ZZZZZZ	1	19:38:50																							
ZZZZZZ	1	19:41:46																							
ZZZZZZ	1	19:44:56																							
CCV04	1	19:48:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB04	1	19:50:08	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:53:03																							
ZZZZZZ	1	19:56:16																							
ZZZZZZ	1	19:58:29																							
ZZZZZZ	1	20:01:35																							
ZZZZZZ	1	20:04:41																							
ZZZZZZ	1	20:06:41																							
ZZZZZZ	5	20:09:37																							
ZZZZZZ	1	20:12:33																							
ZZZZZZ	1	20:15:43																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
CCV05	1	20:18:48	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB05	1	20:21:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	20:23:58																							
ZZZZZZ	1	20:27:11																							
ZZZZZZ	1	20:29:10																							
ZZZZZZ	1	20:31:22																							
ZZZZZZ	1	20:33:33																							
ZZZZZZ	5	20:35:32																							
ZZZZZZ	1	20:37:44																							
ZZZZZZ	1	20:40:49																							
ZZZZZZ	1	20:43:41																							
CCV06	1	20:46:32	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB06	1	20:48:32	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	20:51:27																							
ZZZZZZ	1	20:54:35																							
ZZZZZZ	1	20:56:32																							
ZZZZZZ	1	20:59:23																							
ZZZZZZ	1	21:02:28																							
ZZZZZZ	1	21:04:25																							
ZZZZZZ	1	21:06:36																							
ZZZZZZ	1	21:08:29																							
ZZZZZZ	1	21:11:20																							
ZZZZZZ	1	21:13:18																							
CCV07	1	21:16:09	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB07	1	21:18:10	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	21:21:05																							
ZZZZZZ	1	21:24:03																							
ZZZZZZ	1	21:25:25																							
ZZZZZZ	1	21:27:23																							
ZZZZZZ	1	21:29:21																							
ZZZZZZ	1	21:31:35																							
ZZZZZZ	1	21:33:49																							
ZZZZZZ	5	21:36:00																							
ZZZZZZ	1	21:37:59																							
CCV08	1	21:39:57	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB08	1	21:41:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	21:45:10																							
ZZZZZZ	1	21:47:26																							
ZZZZZZ	1	21:49:39																							
ZZZZZZ	1	21:51:37																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	21:53:37																							
CCV09	1	21:55:36	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB09	1	21:57:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	22:00:49																							
ZZZZZZ	1	22:03:08																							
ZZZZZZ	1	22:04:17																							
ZZZZZZ	1	22:06:21																							
ZZZZZZ	1	22:08:25																							
ZZZZZZ	1	22:09:31																							
ZZZZZZ	5	22:10:38																							
CCV10	1	22:12:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB10	1	22:14:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	22:17:55																							
ZZZZZZ	1	22:20:16																							
ZZZZZZ	1	22:22:28																							
ZZZZZZ	1	22:24:31																							
ZZZZZZ	1	22:26:43																							
ZZZZZZ	1	22:28:56																							
ZZZZZZ	1	22:31:00																							
ZZZZZZ	1	22:33:18																							
CCV11	1	22:35:22	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB11	1	22:37:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	22:40:36																							
ZZZZZZ	1	22:42:56																							
ZZZZZZ	1	22:45:10																							
ZZZZZZ	1	22:47:27																							
ZZZZZZ	1	22:49:44																							
ZZZZZZ	1	22:52:02																							
ZZZZZZ	1	22:54:05																							
CCV12	1	22:56:09	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB12	1	22:58:10	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202068047	1	23:01:21	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202068052	1	23:04:20	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	23:05:42																							
1202068048	1	23:07:45	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202068050	1	23:09:49	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202068051	1	23:10:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202068049	5	23:12:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
248824001	1	23:14:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
248824002	1	23:16:21	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
CCV13	1	23:18:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB13	1	23:20:27	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2305

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2305

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2305

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2305
Contract: LANL01004
Instrument: OPTIMA4
Effective Dates: 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** **10-2305**
Contract: **LANL01004**
Instrument: **OPTIMA4** **Effective Dates:** **22-MAR-10**
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2305
Effective Dates: 22-MAR-10

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2305
Effective Dates: 22-MAR-10

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2305
Effective Dates: 22-MAR-10

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2305
Contract: LANL01004
Instrument: OPTIMA4
Effective Dates: 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–2305

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
-12-
Linear Ranges

SDG NO. 10-2305

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01-FEB-10
Antimony	20	10000	ug/L	01-FEB-10
Arsenic	20	10000	ug/L	01-FEB-10
Barium	20	15000	ug/L	01-FEB-10
Beryllium	20	3000	ug/L	01-FEB-10
Cadmium	20	10000	ug/L	01-FEB-10
Calcium	20	500000	ug/L	01-FEB-10
Chromium	20	25000	ug/L	01-FEB-10
Cobalt	20	10000	ug/L	01-FEB-10
Copper	20	20000	ug/L	01-FEB-10
Iron	20	500000	ug/L	01-FEB-10
Lead	20	25000	ug/L	01-FEB-10
Magnesium	20	500000	ug/L	01-FEB-10
Manganese	20	10000	ug/L	01-FEB-10
Nickel	20	10000	ug/L	01-FEB-10
Potassium	20	300000	ug/L	01-FEB-10
Selenium	20	10000	ug/L	01-FEB-10
Silver	20	1000	ug/L	01-FEB-10
Sodium	20	500000	ug/L	01-FEB-10
Thallium	20	10000	ug/L	01-FEB-10
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10

Raw Data

Method: Hg_ReAlign
Result: 042910

Sample ID: Hg_ReAlign

Hg 253.652 **Rep: 1**

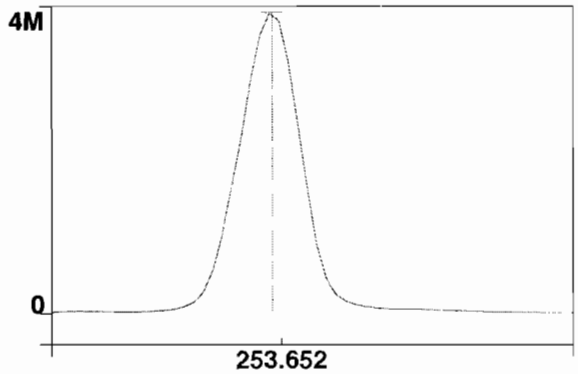

Intensity: 4117260.4 cps
Conc:

1

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Analysis Begun

Start Time: 3/31/2010 18:36:27 **Plasma On Time:** 3/29/2010 18:07:58
Logged In Analyst: optima4 **Technique:** ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 077C0022701 **Autosampler Model:** AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location:** 8
Sample ID: S0 **Date Collected:** 3/31/2010 18:36:30
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	146983.1	146983.1	101	%	18:37:03
1	Al 396.153Radial†	-46.6	-46.3	[0.00]	µg/L	18:37:23
1	Ca 317.933Radial†	562.9	558.9	[0.00]	µg/L	18:37:23
1	Fe 238.204 Radial†	148.8	147.8	[0.00]	µg/L	18:37:23
1	K 766.490 Radial†	1565.6	1554.3	[0.00]	µg/L	18:37:03
1	Mg 279.077 IEC†	207.4	205.9	[0.00]	µg/L	18:37:23
1	Na 589.592 Radial†	1216.0	1207.3	[0.00]	µg/L	18:37:03
1	Sr 421.552†	-110.9	-110.1	[0.00]	µg/L	18:37:03
1	Sc 361.383	1704607.6	1704607.6	99.208	%	18:38:25
1	Y 371.029	1018376.3	1018376.3	99.190	%	18:38:25
1	Ag 328.068†	3963.8	3995.4	[0.00]	µg/L	18:38:27
1	As 188.979†	-17.7	-17.9	[0.00]	µg/L	18:38:48
1	B 249.677†	3489.7	3517.5	[0.00]	µg/L	18:38:27
1	Ba 233.527†	-145.9	-147.0	[0.00]	µg/L	18:38:48
1	Be 313.107†	-965.4	-973.1	[0.00]	µg/L	18:38:27
1	Cd 226.502†	-106.0	-106.8	[0.00]	µg/L	18:38:48
1	Co 228.616†	-174.9	-176.3	[0.00]	µg/L	18:38:48
1	Cr 267.716†	129.8	130.8	[0.00]	µg/L	18:38:48
1	Cu 324.752†	2846.5	2869.3	[0.00]	µg/L	18:38:27
1	Mn 257.610†	253.9	255.9	[0.00]	µg/L	18:38:48
1	Mo 202.031†	-24.9	-25.1	[0.00]	µg/L	18:38:48
1	Ni 231.604†	-72.6	-73.1	[0.00]	µg/L	18:38:48
1	P 214.914†	-29.6	-29.8	[0.00]	µg/L	18:38:48
1	Pb 220.353†	106.5	107.4	[0.00]	µg/L	18:38:48
1	S 181.975 Axial†	102.6	103.4	[0.00]	µg/L	18:38:48
1	Sb 206.836†	81.9	82.6	[0.00]	µg/L	18:38:48
1	Se 196.026†	14.5	14.6	[0.00]	µg/L	18:38:48
1	SiO2†	1812.7	1827.1	[0.00]	µg/L	18:38:27
1	Si 251.611†	747.0	752.9	[0.00]	µg/L	18:38:27
1	Sn 189.927†	-6.9	-6.9	[0.00]	µg/L	18:38:48
1	Ti 334.940†	920.6	928.0	[0.00]	µg/L	18:38:27
1	Tl 190.801†	-108.2	-109.0	[0.00]	µg/L	18:38:48
1	U 409.014†	-161.2	-162.4	[0.00]	µg/L	18:38:27
1	V 292.402†	343.5	346.2	[0.00]	µg/L	18:38:27
1	Zn 213.857†	560.7	565.2	[0.00]	µg/L	18:38:48
2	Sc RADIAL	145077.9	145077.9	99.4	%	18:37:25
2	Al 396.153Radial†	-80.7	-81.2	[0.00]	µg/L	18:37:45
2	Ca 317.933Radial†	555.7	559.0	[0.00]	µg/L	18:37:45
2	Fe 238.204 Radial†	152.0	152.9	[0.00]	µg/L	18:37:45
2	K 766.490 Radial†	1581.8	1591.1	[0.00]	µg/L	18:37:25
2	Mg 279.077 IEC†	207.4	208.6	[0.00]	µg/L	18:37:45
2	Na 589.592 Radial†	1309.5	1317.2	[0.00]	µg/L	18:37:25
2	Sr 421.552†	-50.0	-50.3	[0.00]	µg/L	18:37:25
2	Sc 361.383	1730517.4	1730517.4	100.72	%	18:38:50
2	Y 371.029	1034150.1	1034150.1	100.73	%	18:38:50
2	Ag 328.068†	4314.8	4284.1	[0.00]	µg/L	18:38:52
2	As 188.979†	-23.3	-23.2	[0.00]	µg/L	18:39:12

2	B 249.677†	3487.4	3462.6	[0.00]	µg/L	18:38:52
2	Ba 233.527†	-138.3	-137.3	[0.00]	µg/L	18:39:12
2	Be 313.107†	-1181.9	-1173.5	[0.00]	µg/L	18:38:52
2	Cd 226.502†	-128.3	-127.3	[0.00]	µg/L	18:39:12
2	Co 228.616†	-207.1	-205.6	[0.00]	µg/L	18:39:12
2	Cr 267.716†	187.0	185.7	[0.00]	µg/L	18:39:12
2	Cu 324.752†	3037.7	3016.1	[0.00]	µg/L	18:38:52
2	Mn 257.610†	235.4	233.7	[0.00]	µg/L	18:39:12
2	Mo 202.031†	-14.8	-14.7	[0.00]	µg/L	18:39:12
2	Ni 231.604†	-77.5	-77.0	[0.00]	µg/L	18:39:12
2	P 214.914†	-7.1	-7.0	[0.00]	µg/L	18:39:12
2	Pb 220.353†	82.7	82.1	[0.00]	µg/L	18:39:12
2	S 181.975 Axial†	101.1	100.4	[0.00]	µg/L	18:39:12
2	Sb 206.836†	84.6	84.0	[0.00]	µg/L	18:39:12
2	Se 196.026†	9.6	9.5	[0.00]	µg/L	18:39:12
2	SiO2†	1764.6	1752.0	[0.00]	µg/L	18:38:52
2	Si 251.611†	909.0	902.5	[0.00]	µg/L	18:38:52
2	Sn 189.927†	4.1	4.0	[0.00]	µg/L	18:39:12
2	Ti 334.940†	1042.4	1035.0	[0.00]	µg/L	18:38:52
2	Tl 190.801†	-124.1	-123.3	[0.00]	µg/L	18:39:12
2	U 409.014†	-390.5	-387.7	[0.00]	µg/L	18:38:52
2	V 292.402†	355.1	352.6	[0.00]	µg/L	18:38:52
2	Zn 213.857†	564.8	560.8	[0.00]	µg/L	18:39:12
3	Sc RADIAL	145728.3	145728.3	99.9	%	18:37:47
3	Al 396.153Radial†	-62.0	-62.1	[0.00]	µg/L	18:38:07
3	Ca 317.933Radial†	563.1	563.9	[0.00]	µg/L	18:38:07
3	Fe 238.204 Radial†	143.5	143.7	[0.00]	µg/L	18:38:07
3	K 766.490 Radial†	1486.8	1488.8	[0.00]	µg/L	18:37:47
3	Mg 279.077 IEC†	157.4	157.6	[0.00]	µg/L	18:38:07
3	Na 589.592 Radial†	1346.0	1347.9	[0.00]	µg/L	18:37:47
3	Sr 421.552†	-245.1	-245.5	[0.00]	µg/L	18:37:47
3	Sc 361.383	1719527.8	1719527.8	100.08	%	18:39:14
3	Y 371.029	1027539.8	1027539.8	100.08	%	18:39:14
3	Ag 328.068†	3997.7	3994.6	[0.00]	µg/L	18:39:16
3	As 188.979†	-20.0	-20.0	[0.00]	µg/L	18:39:36
3	B 249.677†	3540.3	3537.6	[0.00]	µg/L	18:39:16
3	Ba 233.527†	-123.3	-123.2	[0.00]	µg/L	18:39:36
3	Be 313.107†	-1048.2	-1047.4	[0.00]	µg/L	18:39:16
3	Cd 226.502†	-120.5	-120.4	[0.00]	µg/L	18:39:36
3	Co 228.616†	-189.2	-189.0	[0.00]	µg/L	18:39:36
3	Cr 267.716†	219.3	219.2	[0.00]	µg/L	18:39:36
3	Cu 324.752†	3033.6	3031.3	[0.00]	µg/L	18:39:16
3	Mn 257.610†	222.3	222.2	[0.00]	µg/L	18:39:36
3	Mo 202.031†	-20.4	-20.4	[0.00]	µg/L	18:39:36
3	Ni 231.604†	-79.5	-79.4	[0.00]	µg/L	18:39:36
3	P 214.914†	-17.1	-17.1	[0.00]	µg/L	18:39:36
3	Pb 220.353†	69.7	69.7	[0.00]	µg/L	18:39:36
3	S 181.975 Axial†	111.4	111.3	[0.00]	µg/L	18:39:36
3	Sb 206.836†	76.0	76.0	[0.00]	µg/L	18:39:36
3	Se 196.026†	21.7	21.7	[0.00]	µg/L	18:39:36
3	SiO2†	1748.3	1747.0	[0.00]	µg/L	18:39:16
3	Si 251.611†	854.9	854.3	[0.00]	µg/L	18:39:16
3	Sn 189.927†	-0.5	-0.5	[0.00]	µg/L	18:39:36
3	Ti 334.940†	895.3	894.7	[0.00]	µg/L	18:39:16
3	Tl 190.801†	-117.8	-117.8	[0.00]	µg/L	18:39:36
3	U 409.014†	-259.7	-259.5	[0.00]	µg/L	18:39:16
3	V 292.402†	512.9	512.6	[0.00]	µg/L	18:39:16
3	Zn 213.857†	567.7	567.3	[0.00]	µg/L	18:39:36

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1718217.6	13004.50	0.76%	100.00	%
Sc RADIAL	145929.8	968.46	0.66%	100	%
Y 371.029	1026688.7	7921.26	0.77%	100.000	%
Ag 328.068†	4091.4	166.92	4.08%	[0.00]	µg/L
Al 396.153Radial†	-63.2	17.46	27.63%	[0.00]	µg/L
As 188.979†	-20.4	2.68	13.16%	[0.00]	µg/L
B 249.677†	3505.9	38.80	1.11%	[0.00]	µg/L
Ba 233.527†	-135.9	11.99	8.83%	[0.00]	µg/L

Be 313.107†	-1064.7	101.30	9.51%	[0.00]	µg/L
Ca 317.933Radial†	560.6	2.89	0.52%	[0.00]	µg/L
Cd 226.502†	-118.2	10.43	8.83%	[0.00]	µg/L
Co 228.616†	-190.3	14.72	7.73%	[0.00]	µg/L
Cr 267.716†	178.6	44.62	24.99%	[0.00]	µg/L
Cu 324.752†	2972.2	89.48	3.01%	[0.00]	µg/L
Fe 238.204 Radial†	148.1	4.61	3.11%	[0.00]	µg/L
K 766.490 Radial†	1544.8	51.81	3.35%	[0.00]	µg/L
Mg 279.077 IEC†	190.7	28.69	15.04%	[0.00]	µg/L
Mn 257.610†	237.3	17.14	7.23%	[0.00]	µg/L
Mo 202.031†	-20.1	5.18	25.80%	[0.00]	µg/L
Na 589.592 Radial†	1290.8	73.89	5.72%	[0.00]	µg/L
Ni 231.604†	-76.5	3.18	4.16%	[0.00]	µg/L
P 214.914†	-18.0	11.42	63.61%	[0.00]	µg/L
Pb 220.353†	86.4	19.23	22.27%	[0.00]	µg/L
S 181.975 Axial†	105.1	5.63	5.36%	[0.00]	µg/L
Sb 206.836†	80.8	4.27	5.29%	[0.00]	µg/L
Se 196.026†	15.3	6.14	40.18%	[0.00]	µg/L
SiO2†	1775.4	44.90	2.53%	[0.00]	µg/L
Si 251.611†	836.6	76.33	9.12%	[0.00]	µg/L
Sn 189.927†	-1.1	5.51	492.60%	[0.00]	µg/L
Sr 421.552†	-135.3	99.98	73.90%	[0.00]	µg/L
Ti 334.940†	952.5	73.33	7.70%	[0.00]	µg/L
Tl 190.801†	-116.7	7.17	6.15%	[0.00]	µg/L
U 409.014†	-269.9	113.01	41.87%	[0.00]	µg/L
V 292.402†	403.8	94.24	23.34%	[0.00]	µg/L
Zn 213.857†	564.4	3.32	0.59%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/31/2010 18:39:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	144945.8	144945.8	99.3	%	18:40:16
1	K 766.490 Radial†	4177.9	2661.5	[1000]	µg/L	18:40:16
1	Sr 421.552†	48790.2	49256.8	[100]	µg/L	18:40:16
1	Sc 361.383	1738207.5	1738207.5	101.16	%	18:40:38
1	Y 371.029	1035658.2	1035658.2	100.87	%	18:40:38
1	Ag 328.068†	31505.9	27052.2	[100]	µg/L	18:40:40
1	As 188.979†	319.4	336.1	[100]	µg/L	18:41:00
1	B 249.677†	10182.7	6559.7	[100]	µg/L	18:40:40
1	Ba 233.527†	25238.0	25083.6	[100]	µg/L	18:40:40
1	Be 313.107†	372065.7	368851.5	[100]	µg/L	18:40:38
1	Cd 226.502†	16206.1	16137.9	[100]	µg/L	18:40:40
1	Co 228.616†	8180.0	8276.3	[100]	µg/L	18:41:00
1	Cr 267.716†	13182.1	12852.0	[100]	µg/L	18:40:40
1	Cu 324.752†	28766.5	25463.5	[100]	µg/L	18:40:40
1	Mn 257.610†	84629.1	83418.6	[100]	µg/L	18:40:40
1	Mo 202.031†	3388.6	3369.7	[100]	µg/L	18:41:00
1	Ni 231.604†	8784.7	8760.2	[100]	µg/L	18:40:40
1	P 214.914†	2330.2	2321.4	[500]	µg/L	18:41:00
1	Pb 220.353†	1931.7	1823.1	[100]	µg/L	18:41:00
1	S 181.975 Axial†	386.6	277.1	[200]	µg/L	18:41:00
1	Sb 206.836†	932.6	841.0	[100]	µg/L	18:41:00
1	Se 196.026†	288.8	270.2	[100]	µg/L	18:41:00
1	SiO2†	12629.3	10708.7	[1069.5]	µg/L	18:40:40
1	Si 251.611†	34601.6	33367.1	[500]	µg/L	18:40:40
1	Sn 189.927†	1637.3	1619.6	[100]	µg/L	18:41:00
1	Ti 334.940†	108213.7	106016.7	[100]	µg/L	18:40:40
1	Tl 190.801†	724.1	832.5	[100]	µg/L	18:41:00
1	U 409.014†	1714.9	1965.0	[100]	µg/L	18:40:40
1	V 292.402†	20866.1	20222.4	[100]	µg/L	18:40:40
1	Zn 213.857†	18689.8	17910.4	[100]	µg/L	18:40:40
2	Sc RADIAL	144384.1	144384.1	98.9	%	18:40:18
2	K 766.490 Radial†	4099.7	2598.8	[1000]	µg/L	18:40:18
2	Sr 421.552†	48913.4	49572.3	[100]	µg/L	18:40:18
2	Sc 361.383	1718136.8	1718136.8	99.995	%	18:41:02
2	Y 371.029	1023615.0	1023615.0	99.701	%	18:41:02
2	Ag 328.068†	31474.0	27384.1	[100]	µg/L	18:41:04
2	As 188.979†	316.2	336.6	[100]	µg/L	18:41:24
2	B 249.677†	10249.3	6743.9	[100]	µg/L	18:41:04
2	Ba 233.527†	25403.3	25540.3	[100]	µg/L	18:41:04
2	Be 313.107†	368011.0	369093.1	[100]	µg/L	18:41:02
2	Cd 226.502†	16403.0	16522.0	[100]	µg/L	18:41:04
2	Co 228.616†	8194.1	8384.8	[100]	µg/L	18:41:24
2	Cr 267.716†	13299.6	13121.6	[100]	µg/L	18:41:04
2	Cu 324.752†	29042.8	26072.0	[100]	µg/L	18:41:04
2	Mn 257.610†	85481.9	85248.7	[100]	µg/L	18:41:04
2	Mo 202.031†	3415.9	3436.2	[100]	µg/L	18:41:24
2	Ni 231.604†	9104.3	9181.2	[100]	µg/L	18:41:04
2	P 214.914†	2327.9	2346.0	[500]	µg/L	18:41:24
2	Pb 220.353†	1943.3	1857.0	[100]	µg/L	18:41:24
2	S 181.975 Axial†	382.9	277.8	[200]	µg/L	18:41:24
2	Sb 206.836†	933.1	852.4	[100]	µg/L	18:41:24
2	Se 196.026†	282.7	267.4	[100]	µg/L	18:41:24
2	SiO2†	12728.6	10953.9	[1069.5]	µg/L	18:41:04
2	Si 251.611†	35105.7	34270.8	[500]	µg/L	18:41:04
2	Sn 189.927†	1643.4	1644.6	[100]	µg/L	18:41:24
2	Ti 334.940†	109258.0	108310.6	[100]	µg/L	18:41:04
2	Tl 190.801†	742.2	858.9	[100]	µg/L	18:41:24
2	U 409.014†	1747.4	2017.4	[100]	µg/L	18:41:04
2	V 292.402†	20863.1	20460.2	[100]	µg/L	18:41:04

2	Zn 213.857†	18913.1	18349.6	[100]	µg/L	18:41:04
3	Sc RADIAL	144888.2	144888.2	99.3	%	18:40:20
3	K 766.490 Radial†	4194.1	2679.5	[1000]	µg/L	18:40:20
3	Sr 421.552†	48878.7	49365.4	[100]	µg/L	18:40:20
3	Sc 361.383	1720712.1	1720712.1	100.15	%	18:41:26
3	Y 371.029	1025149.2	1025149.2	99.850	%	18:41:26
3	Ag 328.068†	30653.6	26517.7	[100]	µg/L	18:41:28
3	As 188.979†	311.4	331.3	[100]	µg/L	18:41:48
3	B 249.677†	10032.3	6511.9	[100]	µg/L	18:41:28
3	Ba 233.527†	24571.6	24671.8	[100]	µg/L	18:41:28
3	Be 313.107†	369363.0	369892.2	[100]	µg/L	18:41:26
3	Cd 226.502†	15800.2	15895.5	[100]	µg/L	18:41:28
3	Co 228.616†	7941.4	8120.2	[100]	µg/L	18:41:48
3	Cr 267.716†	12878.6	12681.3	[100]	µg/L	18:41:28
3	Cu 324.752†	28237.0	25223.9	[100]	µg/L	18:41:28
3	Mn 257.610†	82709.3	82352.2	[100]	µg/L	18:41:28
3	Mo 202.031†	3317.5	3332.8	[100]	µg/L	18:41:48
3	Ni 231.604†	8579.1	8643.1	[100]	µg/L	18:41:28
3	P 214.914†	2246.6	2261.3	[500]	µg/L	18:41:48
3	Pb 220.353†	1888.8	1799.7	[100]	µg/L	18:41:48
3	S 181.975 Axial†	370.3	264.7	[200]	µg/L	18:41:48
3	Sb 206.836†	914.8	832.6	[100]	µg/L	18:41:48
3	Se 196.026†	294.0	278.3	[100]	µg/L	18:41:48
3	SiO2†	12365.6	10572.3	[1069.5]	µg/L	18:41:28
3	Si 251.611†	33612.6	32727.3	[500]	µg/L	18:41:28
3	Sn 189.927†	1589.9	1588.8	[100]	µg/L	18:41:48
3	Ti 334.940†	106005.7	104899.5	[100]	µg/L	18:41:28
3	Tl 190.801†	699.9	815.6	[100]	µg/L	18:41:48
3	U 409.014†	1493.0	1760.7	[100]	µg/L	18:41:28
3	V 292.402†	20303.9	19870.7	[100]	µg/L	18:41:28
3	Zn 213.857†	18249.8	17659.0	[100]	µg/L	18:41:28

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1725685.5	10920.55	0.63%	100.43	%
Sc RADIAL	144739.3	309.02	0.21%	99.2	%
Y 371.029	1028140.8	6555.30	0.64%	100.14	%
Ag 328.068†	26984.7	437.11	1.62%	[100]	µg/L
As 188.979†	334.7	2.93	0.88%	[100]	µg/L
B 249.677†	6605.2	122.52	1.85%	[100]	µg/L
Ba 233.527†	25098.6	434.45	1.73%	[100]	µg/L
Be 313.107†	369278.9	544.69	0.15%	[100]	µg/L
Cd 226.502†	16185.1	315.91	1.95%	[100]	µg/L
Co 228.616†	8260.4	133.02	1.61%	[100]	µg/L
Cr 267.716†	12885.0	222.00	1.72%	[100]	µg/L
Cu 324.752†	25586.4	437.23	1.71%	[100]	µg/L
K 766.490 Radial†	2646.6	42.33	1.60%	[1000]	µg/L
Mn 257.610†	83673.1	1464.94	1.75%	[100]	µg/L
Mo 202.031†	3379.6	52.39	1.55%	[100]	µg/L
Ni 231.604†	8861.5	282.97	3.19%	[100]	µg/L
P 214.914†	2309.6	43.55	1.89%	[500]	µg/L
Pb 220.353†	1826.6	28.83	1.58%	[100]	µg/L
S 181.975 Axial†	273.2	7.39	2.70%	[200]	µg/L
Sb 206.836†	842.0	9.91	1.18%	[100]	µg/L
Se 196.026†	272.0	5.61	2.06%	[100]	µg/L
SiO2†	10744.9	193.37	1.80%	[1069.5]	µg/L
Si 251.611†	33455.1	775.50	2.32%	[500]	µg/L
Sn 189.927†	1617.7	27.99	1.73%	[100]	µg/L
Sr 421.552†	49398.1	160.32	0.32%	[100]	µg/L
Ti 334.940†	106408.9	1739.07	1.63%	[100]	µg/L
Tl 190.801†	835.7	21.85	2.61%	[100]	µg/L
U 409.014†	1914.4	135.63	7.09%	[100]	µg/L
V 292.402†	20184.4	296.62	1.47%	[100]	µg/L
Zn 213.857†	17973.0	349.52	1.94%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/31/2010 18:41:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139976.0	139976.0	95.9	%	18:42:27
1	Al 396.153Radial†	25919.4	27085.0	[5000]	µg/L	18:42:27
1	Ca 317.933Radial†	87385.1	90541.3	[5000]	µg/L	18:42:27
1	K 766.490 Radial†	14430.7	13499.7	[5000]	µg/L	18:42:27
1	Mg 279.077 IEC†	13338.9	13715.6	[5000]	µg/L	18:42:27
1	Sr 421.552†	229015.2	238891.4	[500]	µg/L	18:42:25
1	Sc 361.383	1645400.7	1645400.7	95.762	%	18:42:40
1	Y 371.029	975342.9	975342.9	94.999	%	18:42:40
1	Ag 328.068†	131294.3	133013.3	[500]	µg/L	18:42:40
1	As 188.979†	1571.6	1661.5	[500]	µg/L	18:43:00
1	B 249.677†	35172.1	33222.7	[500]	µg/L	18:42:40
1	Ba 233.527†	117348.5	122677.6	[500]	µg/L	18:42:40
1	Be 313.107†	1744827.1	1823108.9	[500]	µg/L	18:42:40
1	Cd 226.502†	75312.3	78763.4	[500]	µg/L	18:42:40
1	Co 228.616†	38245.0	40127.8	[500]	µg/L	18:42:40
1	Cr 267.716†	60545.4	63046.3	[500]	µg/L	18:42:40
1	Cu 324.752†	123884.9	126395.2	[500]	µg/L	18:42:40
1	Mn 257.610†	385575.1	402401.4	[500]	µg/L	18:42:40
1	Mo 202.031†	16410.2	17156.5	[500]	µg/L	18:43:00
1	Ni 231.604†	41126.2	43022.7	[500]	µg/L	18:42:40
1	P 214.914†	11303.9	11822.1	[2500]	µg/L	18:43:00
1	Pb 220.353†	8787.6	9090.2	[500]	µg/L	18:43:00
1	S 181.975 Axial†	1381.6	1337.7	[1000]	µg/L	18:43:00
1	Sb 206.836†	4130.5	4232.5	[500]	µg/L	18:43:00
1	Se 196.026†	1340.7	1384.8	[500]	µg/L	18:43:00
1	SiO2†	54250.1	54875.6	[5347.5]	µg/L	18:42:40
1	Si 251.611†	163679.1	170086.1	[2500]	µg/L	18:42:40
1	Sn 189.927†	7746.5	8090.4	[500]	µg/L	18:43:00
1	Ti 334.940†	510093.6	531715.2	[500]	µg/L	18:42:40
1	Tl 190.801†	3808.0	4093.2	[500]	µg/L	18:43:00
1	U 409.014†	6985.6	7564.6	[500]	µg/L	18:42:40
1	V 292.402†	96986.0	100874.3	[500]	µg/L	18:42:40
1	Zn 213.857†	84527.8	87704.2	[500]	µg/L	18:42:40
2	Sc RADIAL	141210.3	141210.3	96.8	%	18:42:31
2	Al 396.153Radial†	26176.8	27114.9	[5000]	µg/L	18:42:31
2	Ca 317.933Radial†	88277.8	90667.6	[5000]	µg/L	18:42:31
2	K 766.490 Radial†	14658.6	13603.8	[5000]	µg/L	18:42:31
2	Mg 279.077 IEC†	13508.7	13769.5	[5000]	µg/L	18:42:31
2	Sr 421.552†	232944.0	240864.6	[500]	µg/L	18:42:29
2	Sc 361.383	1687203.1	1687203.1	98.195	%	18:43:03
2	Y 371.029	998510.1	998510.1	97.255	%	18:43:03
2	Ag 328.068†	134607.0	132990.0	[500]	µg/L	18:43:03
2	As 188.979†	1586.5	1636.0	[500]	µg/L	18:43:23
2	B 249.677†	36433.6	33597.5	[500]	µg/L	18:43:03
2	Ba 233.527†	121232.8	123597.1	[500]	µg/L	18:43:03
2	Be 313.107†	1799842.1	1833991.9	[500]	µg/L	18:43:03
2	Cd 226.502†	78158.8	79713.7	[500]	µg/L	18:43:03
2	Co 228.616†	39721.5	40642.0	[500]	µg/L	18:43:03
2	Cr 267.716†	62227.1	63192.4	[500]	µg/L	18:43:03
2	Cu 324.752†	127576.9	126949.9	[500]	µg/L	18:43:03
2	Mn 257.610†	397913.1	404990.4	[500]	µg/L	18:43:03
2	Mo 202.031†	16475.5	16798.5	[500]	µg/L	18:43:23
2	Ni 231.604†	42320.9	43175.4	[500]	µg/L	18:43:03
2	P 214.914†	11321.5	11547.6	[2500]	µg/L	18:43:23
2	Pb 220.353†	8841.9	8918.0	[500]	µg/L	18:43:23
2	S 181.975 Axial†	1404.5	1325.2	[1000]	µg/L	18:43:23
2	Sb 206.836†	4150.6	4146.1	[500]	µg/L	18:43:23
2	Se 196.026†	1352.6	1362.2	[500]	µg/L	18:43:23
2	SiO2†	55913.1	55165.5	[5347.5]	µg/L	18:43:03

2	Si 251.611†	169027.8	171298.3	[2500]	µg/L	18:43:03
2	Sn 189.927†	7793.7	7938.1	[500]	µg/L	18:43:23
2	Ti 334.940†	524282.8	532967.8	[500]	µg/L	18:43:03
2	Tl 190.801†	3829.1	4016.1	[500]	µg/L	18:43:23
2	U 409.014†	7204.4	7606.8	[500]	µg/L	18:43:03
2	V 292.402†	99476.3	100901.1	[500]	µg/L	18:43:03
2	Zn 213.857†	87574.3	88619.7	[500]	µg/L	18:43:03
3	Sc RADIAL	139845.9	139845.9	95.8	%	18:42:35
3	Al 396.153Radial†	25970.7	27163.8	[5000]	µg/L	18:42:35
3	Ca 317.933Radial†	87048.7	90275.0	[5000]	µg/L	18:42:35
3	K 766.490 Radial†	14322.7	13401.0	[5000]	µg/L	18:42:35
3	Mg 279.077 IEC†	13177.9	13560.5	[5000]	µg/L	18:42:35
3	Sr 421.552†	232490.3	242739.9	[500]	µg/L	18:42:33
3	Sc 361.383	1671427.9	1671427.9	97.277	%	18:43:26
3	Y 371.029	990579.4	990579.4	96.483	%	18:43:26
3	Ag 328.068†	132744.3	132368.9	[500]	µg/L	18:43:26
3	As 188.979†	1563.8	1627.9	[500]	µg/L	18:43:46
3	B 249.677†	35824.9	33321.9	[500]	µg/L	18:43:26
3	Ba 233.527†	119283.9	122759.0	[500]	µg/L	18:43:26
3	Be 313.107†	1775117.0	1825874.0	[500]	µg/L	18:43:26
3	Cd 226.502†	77044.3	79319.2	[500]	µg/L	18:43:26
3	Co 228.616†	39106.1	40391.2	[500]	µg/L	18:43:26
3	Cr 267.716†	61510.3	63053.6	[500]	µg/L	18:43:26
3	Cu 324.752†	125724.5	126271.8	[500]	µg/L	18:43:26
3	Mn 257.610†	391730.1	402458.9	[500]	µg/L	18:43:26
3	Mo 202.031†	16447.7	16928.2	[500]	µg/L	18:43:46
3	Ni 231.604†	41833.4	43081.0	[500]	µg/L	18:43:26
3	P 214.914†	11306.9	11641.3	[2500]	µg/L	18:43:46
3	Pb 220.353†	8817.9	8978.4	[500]	µg/L	18:43:46
3	S 181.975 Axial†	1403.6	1337.8	[1000]	µg/L	18:43:46
3	Sb 206.836†	4107.1	4141.3	[500]	µg/L	18:43:46
3	Se 196.026†	1356.4	1379.1	[500]	µg/L	18:43:46
3	SiO2†	55098.9	54865.9	[5347.5]	µg/L	18:43:26
3	Si 251.611†	166541.0	170366.5	[2500]	µg/L	18:43:26
3	Sn 189.927†	7776.3	7995.1	[500]	µg/L	18:43:46
3	Ti 334.940†	517688.6	531228.1	[500]	µg/L	18:43:26
3	Tl 190.801†	3841.1	4065.3	[500]	µg/L	18:43:46
3	U 409.014†	7259.9	7733.0	[500]	µg/L	18:43:26
3	V 292.402†	98243.7	100590.2	[500]	µg/L	18:43:26
3	Zn 213.857†	86383.4	88237.2	[500]	µg/L	18:43:26

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1668010.6	21109.69	1.27%	97.078	%
Sc RADIAL	140344.1	753.01	0.54%	96.2	%
Y 371.029	988144.1	11774.03	1.19%	96.246	%
Ag 328.068†	132790.8	365.49	0.28%	[500]	µg/L
Al 396.153Radial†	27121.2	39.74	0.15%	[5000]	µg/L
As 188.979†	1641.8	17.55	1.07%	[500]	µg/L
B 249.677†	33380.7	194.18	0.58%	[500]	µg/L
Ba 233.527†	123011.2	509.04	0.41%	[500]	µg/L
Be 313.107†	1827658.3	5656.67	0.31%	[500]	µg/L
Ca 317.933Radial†	90494.7	200.40	0.22%	[5000]	µg/L
Cd 226.502†	79265.5	477.42	0.60%	[500]	µg/L
Co 228.616†	40387.0	257.10	0.64%	[500]	µg/L
Cr 267.716†	63097.4	82.35	0.13%	[500]	µg/L
Cu 324.752†	126538.9	361.18	0.29%	[500]	µg/L
K 766.490 Radial†	13501.5	101.39	0.75%	[5000]	µg/L
Mg 279.077 IEC†	13681.9	108.49	0.79%	[5000]	µg/L
Mn 257.610†	403283.6	1478.44	0.37%	[500]	µg/L
Mo 202.031†	16961.0	181.25	1.07%	[500]	µg/L
Ni 231.604†	43093.0	77.04	0.18%	[500]	µg/L
P 214.914†	11670.4	139.54	1.20%	[2500]	µg/L
Pb 220.353†	8995.5	87.32	0.97%	[500]	µg/L
S 181.975 Axial†	1333.6	7.24	0.54%	[1000]	µg/L
Sb 206.836†	4173.3	51.32	1.23%	[500]	µg/L
Se 196.026†	1375.4	11.73	0.85%	[500]	µg/L
SiO2†	54969.0	170.25	0.31%	[5347.5]	µg/L
Si 251.611†	170583.6	634.61	0.37%	[2500]	µg/L

Sn 189.927†	8007.9	76.96	0.96%	[500] µg/L
Sr 421.552†	240832.0	1924.44	0.80%	[500] µg/L
Ti 334.940†	531970.4	897.45	0.17%	[500] µg/L
Tl 190.801†	4058.2	39.03	0.96%	[500] µg/L
U 409.014†	7634.8	87.65	1.15%	[500] µg/L
V 292.402†	100788.5	172.29	0.17%	[500] µg/L
Zn 213.857†	88187.0	459.83	0.52%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/31/2010 18:43:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	140246.3	140246.3	96.1	%	18:44:26
1	Al 396.153Radial†	52689.3	54887.7	[10000]	µg/L	18:44:26
1	Ca 317.933Radial†	176157.7	182735.9	[10000]	µg/L	18:44:26
1	Fe 238.204 Radial†	157034.9	163250.7	[10000]	µg/L	18:44:26
1	K 766.490 Radial†	27864.8	27449.2	[10000]	µg/L	18:44:26
1	Mg 279.077 IEC†	26628.7	27517.1	[10000]	µg/L	18:44:26
1	Na 589.592 Radial†	71367.5	72968.9	[10000]	µg/L	18:44:26
1	Sr 421.552†	465887.4	484902.9	[1000]	µg/L	18:44:24
1	Sc 361.383	1660058.9	1660058.9	96.615	%	18:44:39
1	Y 371.029	978012.9	978012.9	95.259	%	18:44:39
1	Ag 328.068†	268618.1	273937.5	[1000]	µg/L	18:44:41
1	As 188.979†	3193.8	3326.1	[1000]	µg/L	18:45:01
1	B 249.677†	69762.5	68700.7	[1000]	µg/L	18:44:41
1	Ba 233.527†	242316.3	250941.5	[1000]	µg/L	18:44:41
1	Be 313.107†	3555578.2	3681209.5	[1000]	µg/L	18:44:39
1	Cd 226.502†	156604.8	162209.5	[1000]	µg/L	18:44:41
1	Co 228.616†	78951.1	81907.4	[1000]	µg/L	18:44:41
1	Cr 267.716†	125005.7	129206.6	[1000]	µg/L	18:44:41
1	Cu 324.752†	255303.1	261275.2	[1000]	µg/L	18:44:41
1	Mn 257.610†	781879.7	809034.9	[1000]	µg/L	18:44:39
1	Mo 202.031†	33228.9	34413.1	[1000]	µg/L	18:44:41
1	Ni 231.604†	84765.4	87811.6	[1000]	µg/L	18:44:41
1	P 214.914†	22636.2	23447.2	[5000]	µg/L	18:45:01
1	Pb 220.353†	17407.6	17931.0	[1000]	µg/L	18:45:01
1	S 181.975 Axial†	2706.2	2696.0	[2000]	µg/L	18:45:01
1	Sb 206.836†	8264.7	8473.4	[1000]	µg/L	18:45:01
1	Se 196.026†	2709.4	2789.0	[1000]	µg/L	18:45:01
1	SiO2†	108329.2	110349.0	[10695]	µg/L	18:44:41
1	Si 251.611†	331285.5	342055.2	[5000]	µg/L	18:44:41
1	Sn 189.927†	15541.6	16087.2	[1000]	µg/L	18:45:01
1	Ti 334.940†	1037686.9	1073088.8	[1000]	µg/L	18:44:39
1	Tl 190.801†	7778.7	8167.9	[1000]	µg/L	18:45:01
1	U 409.014†	16858.3	17718.8	[1000]	µg/L	18:44:41
1	V 292.402†	201478.5	208133.3	[1000]	µg/L	18:44:41
1	Zn 213.857†	174510.7	180060.2	[1000]	µg/L	18:44:41
2	Sc RADIAL	138844.4	138844.4	95.1	%	18:44:30
2	Al 396.153Radial†	52161.3	54886.4	[10000]	µg/L	18:44:30
2	Ca 317.933Radial†	173493.6	181786.6	[10000]	µg/L	18:44:30
2	Fe 238.204 Radial†	154887.4	162643.3	[10000]	µg/L	18:44:30
2	K 766.490 Radial†	27455.0	27311.3	[10000]	µg/L	18:44:30
2	Mg 279.077 IEC†	26420.5	27578.1	[10000]	µg/L	18:44:30
2	Na 589.592 Radial†	70508.9	72816.3	[10000]	µg/L	18:44:30
2	Sr 421.552†	460810.9	484461.8	[1000]	µg/L	18:44:28
2	Sc 361.383	1689699.6	1689699.6	98.340	%	18:45:04
2	Y 371.029	993860.1	993860.1	96.802	%	18:45:04
2	Ag 328.068†	266910.5	267323.9	[1000]	µg/L	18:45:06
2	As 188.979†	3218.4	3293.1	[1000]	µg/L	18:45:26
2	B 249.677†	69508.7	67175.9	[1000]	µg/L	18:45:06
2	Ba 233.527†	241134.5	245340.1	[1000]	µg/L	18:45:06
2	Be 313.107†	3627090.7	3689371.8	[1000]	µg/L	18:45:04
2	Cd 226.502†	155509.2	158252.0	[1000]	µg/L	18:45:06
2	Co 228.616†	78490.7	80005.8	[1000]	µg/L	18:45:06
2	Cr 267.716†	124369.4	126289.8	[1000]	µg/L	18:45:06
2	Cu 324.752†	253180.3	254481.2	[1000]	µg/L	18:45:06
2	Mn 257.610†	797903.6	811133.0	[1000]	µg/L	18:45:04
2	Mo 202.031†	33052.4	33630.3	[1000]	µg/L	18:45:06
2	Ni 231.604†	84350.1	85850.2	[1000]	µg/L	18:45:06
2	P 214.914†	22849.9	23253.5	[5000]	µg/L	18:45:26
2	Pb 220.353†	17581.2	17791.6	[1000]	µg/L	18:45:26

2	S 181.975 Axial†	2749.5	2690.8	[2000]	µg/L	18:45:26
2	Sb 206.836†	8294.0	8353.2	[1000]	µg/L	18:45:26
2	Se 196.026†	2710.1	2740.6	[1000]	µg/L	18:45:26
2	SiO2†	107785.0	107828.8	[10695]	µg/L	18:45:06
2	Si 251.611†	329317.5	334039.0	[5000]	µg/L	18:45:06
2	Sn 189.927†	15680.3	15946.1	[1000]	µg/L	18:45:26
2	Ti 334.940†	1057357.1	1074250.2	[1000]	µg/L	18:45:04
2	Tl 190.801†	7829.0	8077.8	[1000]	µg/L	18:45:26
2	U 409.014†	16641.8	17192.5	[1000]	µg/L	18:45:06
2	V 292.402†	200063.6	203036.4	[1000]	µg/L	18:45:06
2	Zn 213.857†	173774.1	176142.5	[1000]	µg/L	18:45:06
3	Sc RADIAL	142431.7	142431.7	97.6	%	18:44:34
3	Al 396.153Radial†	53146.2	54514.7	[10000]	µg/L	18:44:34
3	Ca 317.933Radial†	178392.5	182213.1	[10000]	µg/L	18:44:34
3	Fe 238.204 Radial†	159216.9	162979.1	[10000]	µg/L	18:44:34
3	K 766.490 Radial†	28289.6	27439.6	[10000]	µg/L	18:44:34
3	Mg 279.077 IEC†	27285.4	27764.8	[10000]	µg/L	18:44:34
3	Na 589.592 Radial†	72542.7	73033.5	[10000]	µg/L	18:44:34
3	Sr 421.552†	461335.7	472801.1	[1000]	µg/L	18:44:32
3	Sc 361.383	1671450.9	1671450.9	97.278	%	18:45:29
3	Y 371.029	984698.6	984698.6	95.910	%	18:45:29
3	Ag 328.068†	268839.9	272270.6	[1000]	µg/L	18:45:31
3	As 188.979†	3207.1	3317.1	[1000]	µg/L	18:45:51
3	B 249.677†	69920.1	68370.5	[1000]	µg/L	18:45:31
3	Ba 233.527†	242785.5	249714.4	[1000]	µg/L	18:45:31
3	Be 313.107†	3559181.4	3659831.0	[1000]	µg/L	18:45:29
3	Cd 226.502†	156473.3	160969.5	[1000]	µg/L	18:45:31
3	Co 228.616†	79020.9	81422.2	[1000]	µg/L	18:45:31
3	Cr 267.716†	125294.1	128621.2	[1000]	µg/L	18:45:31
3	Cu 324.752†	255275.0	259445.3	[1000]	µg/L	18:45:31
3	Mn 257.610†	783171.7	804847.3	[1000]	µg/L	18:45:29
3	Mo 202.031†	33174.1	34122.4	[1000]	µg/L	18:45:31
3	Ni 231.604†	84877.1	87328.4	[1000]	µg/L	18:45:31
3	P 214.914†	22811.2	23467.5	[5000]	µg/L	18:45:51
3	Pb 220.353†	17557.7	17962.6	[1000]	µg/L	18:45:51
3	S 181.975 Axial†	2739.9	2711.5	[2000]	µg/L	18:45:51
3	Sb 206.836†	8307.3	8458.9	[1000]	µg/L	18:45:51
3	Se 196.026†	2720.6	2781.4	[1000]	µg/L	18:45:51
3	SiO2†	108495.7	109756.0	[10695]	µg/L	18:45:31
3	Si 251.611†	331529.5	339969.0	[5000]	µg/L	18:45:31
3	Sn 189.927†	15666.1	16105.6	[1000]	µg/L	18:45:51
3	Ti 334.940†	1040566.4	1068728.6	[1000]	µg/L	18:45:29
3	Tl 190.801†	7842.2	8178.3	[1000]	µg/L	18:45:51
3	U 409.014†	16964.7	17709.3	[1000]	µg/L	18:45:31
3	V 292.402†	201223.5	206449.9	[1000]	µg/L	18:45:31
3	Zn 213.857†	174624.2	178945.7	[1000]	µg/L	18:45:31

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1673736.5	14951.98	0.89%	97.411	%
Sc RADIAL	140507.5	1807.88	1.29%	96.3	%
Y 371.029	985523.8	7955.77	0.81%	95.991	%
Ag 328.068†	271177.3	3439.65	1.27%	[1000]	µg/L
Al 396.153Radial†	54762.9	214.99	0.39%	[10000]	µg/L
As 188.979†	3312.1	17.04	0.51%	[1000]	µg/L
B 249.677†	68082.4	802.18	1.18%	[1000]	µg/L
Ba 233.527†	248665.4	2944.35	1.18%	[1000]	µg/L
Be 313.107†	3676804.1	15255.21	0.41%	[1000]	µg/L
Ca 317.933Radial†	182245.2	475.46	0.26%	[10000]	µg/L
Cd 226.502†	160477.0	2024.24	1.26%	[1000]	µg/L
Co 228.616†	81111.8	988.08	1.22%	[1000]	µg/L
Cr 267.716†	128039.2	1543.01	1.21%	[1000]	µg/L
Cu 324.752†	258400.5	3515.45	1.36%	[1000]	µg/L
Fe 238.204 Radial†	162957.7	304.26	0.19%	[10000]	µg/L
K 766.490 Radial†	27400.1	77.00	0.28%	[10000]	µg/L
Mg 279.077 IEC†	27620.0	129.06	0.47%	[10000]	µg/L
Mn 257.610†	808338.4	3200.20	0.40%	[1000]	µg/L
Mo 202.031†	34055.3	395.69	1.16%	[1000]	µg/L
Na 589.592 Radial†	72939.6	111.55	0.15%	[10000]	µg/L

Ni 231.604†	86996.7	1021.87	1.17%	[1000]	µg/L
P 214.914†	23389.4	118.12	0.51%	[5000]	µg/L
Pb 220.353†	17895.1	91.02	0.51%	[1000]	µg/L
S 181.975 Axial†	2699.4	10.77	0.40%	[2000]	µg/L
Sb 206.836†	8428.5	65.64	0.78%	[1000]	µg/L
Se 196.026†	2770.3	26.05	0.94%	[1000]	µg/L
SiO2†	109311.3	1317.66	1.21%	[10695]	µg/L
Si 251.611†	338687.7	4158.85	1.23%	[5000]	µg/L
Sn 189.927†	16046.3	87.25	0.54%	[1000]	µg/L
Sr 421.552†	480721.9	6863.20	1.43%	[1000]	µg/L
Ti 334.940†	1072022.5	2911.16	0.27%	[1000]	µg/L
Tl 190.801†	8141.3	55.30	0.68%	[1000]	µg/L
U 409.014†	17540.2	301.14	1.72%	[1000]	µg/L
V 292.402†	205873.2	2596.95	1.26%	[1000]	µg/L
Zn 213.857†	178382.8	2018.56	1.13%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/31/2010 18:45:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139343.3	139343.3	95.5	%	18:46:28
1	Al 396.153Radial†	256543.2	268732.8	[50000]	µg/L	18:46:28
1	Ca 317.933Radial†	856588.9	896517.6	[50000]	µg/L	18:46:28
1	Fe 238.204 Radial†	309603.0	324089.2	[20000]	µg/L	18:46:28
1	Mg 279.077 IEC†	128261.6	134133.6	[50000]	µg/L	18:46:28
1	Na 589.592 Radial†	141053.4	146429.9	[20000]	µg/L	18:46:28
1	Sc 361.383	1636602.8	1636602.8	95.250	%	18:46:50
1	Y 371.029	965973.5	965973.5	94.086	%	18:46:50
2	Sc RADIAL	137624.0	137624.0	94.3	%	18:46:30
2	Al 396.153Radial†	254363.4	269777.6	[50000]	µg/L	18:46:30
2	Ca 317.933Radial†	846244.8	896755.8	[50000]	µg/L	18:46:30
2	Fe 238.204 Radial†	305781.9	324087.9	[20000]	µg/L	18:46:30
2	Mg 279.077 IEC†	126264.9	133694.4	[50000]	µg/L	18:46:30
2	Na 589.592 Radial†	139489.2	146616.7	[20000]	µg/L	18:46:30
2	Sc 361.383	1622381.6	1622381.6	94.422	%	18:46:53
2	Y 371.029	956849.7	956849.7	93.198	%	18:46:53
3	Sc RADIAL	137980.0	137980.0	94.6	%	18:46:32
3	Al 396.153Radial†	255245.7	270015.0	[50000]	µg/L	18:46:32
3	Ca 317.933Radial†	849307.2	897679.9	[50000]	µg/L	18:46:32
3	Fe 238.204 Radial†	306725.7	324249.8	[20000]	µg/L	18:46:32
3	Mg 279.077 IEC†	127087.0	134218.4	[50000]	µg/L	18:46:32
3	Na 589.592 Radial†	139780.8	146543.6	[20000]	µg/L	18:46:32
3	Sc 361.383	1649813.3	1649813.3	96.019	%	18:46:56
3	Y 371.029	972430.3	972430.3	94.715	%	18:46:56

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1636265.9	13718.97	0.84%	95.230	%
Sc RADIAL	138315.8	907.47	0.66%	94.8	%
Y 371.029	965084.5	7828.26	0.81%	94.000	%
Al 396.153Radial†	269508.5	682.17	0.25%	[50000]	µg/L
Ca 317.933Radial†	896984.4	613.95	0.07%	[50000]	µg/L
Fe 238.204 Radial†	324142.3	93.07	0.03%	[20000]	µg/L
Mg 279.077 IEC†	134015.5	281.29	0.21%	[50000]	µg/L
Na 589.592 Radial†	146530.1	94.09	0.06%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	270.1	0.00000	0.999966	
Al 396.153Radial	3	Lin Thru 0	0.0	5.394	0.00000	0.999995	
As 188.979	3	Lin Thru 0	0.0	3.307	0.00000	0.999994	
B 249.677	3	Lin Thru 0	0.0	67.80	0.00000	0.999967	
Ba 233.527	3	Lin Thru 0	0.0	248.2	0.00000	0.999990	
Be 313.107	3	Lin Thru 0	0.0	3673	0.00000	0.999997	
Ca 317.933Radial	3	Lin Thru 0	0.0	17.95	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	160.1	0.00000	0.999988	
Co 228.616	3	Lin Thru 0	0.0	81.06	0.00000	0.999997	
Cr 267.716	3	Lin Thru 0	0.0	127.7	0.00000	0.999983	
Cu 324.752	3	Lin Thru 0	0.0	257.3	0.00000	0.999966	
Fe 238.204 Radia	2	Lin Thru 0	0.0	16.22	0.00000	0.999998	
K 766.490 Radial	3	Lin Thru 0	0.0	2.731	0.00000	0.999979	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.684	0.00000	0.999981	
Mn 257.610	3	Lin Thru 0	0.0	808.2	0.00000	0.999995	
Mo 202.031	3	Lin Thru 0	0.0	34.03	0.00000	0.999999	
Na 589.592 Radia	2	Lin Thru 0	0.0	7.320	0.00000	0.999998	

Ni 231.604	3	Lin Thru 0	0.0	86.85	0.00000	0.999991
P 214.914	3	Lin Thru 0	0.0	4.675	0.00000	0.999999
Pb 220.353	3	Lin Thru 0	0.0	17.92	0.00000	0.999996
S 181.975 Axial	3	Lin Thru 0	0.0	1.347	0.00000	0.999988
Sb 206.836	3	Lin Thru 0	0.0	8.412	0.00000	0.999992
Se 196.026	3	Lin Thru 0	0.0	2.766	0.00000	0.999995
SiO2	3	Lin Thru 0	0.0	10.23	0.00000	0.999996
Si 251.611	3	Lin Thru 0	0.0	67.83	0.00000	0.999995
Sn 189.927	3	Lin Thru 0	0.0	16.04	0.00000	0.999999
Sr 421.552	3	Lin Thru 0	0.0	481.0	0.00000	0.999997
Ti 334.940	3	Lin Thru 0	0.0	1070	0.00000	0.999995
Tl 190.801	3	Lin Thru 0	0.0	8.138	0.00000	0.999996
U 409.014	3	Lin Thru 0	0.0	17.10	0.00000	0.998547
V 292.402	3	Lin Thru 0	0.0	205.0	0.00000	0.999964
Zn 213.857	3	Lin Thru 0	0.0	178.0	0.00000	0.999990

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/31/2010 18:47:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142728.0	142728.0	97.8	%			18:47:35
1	Al 396.153Radial†	27196.1	27869.4	5141.6	µg/L	5141.6	ppb	18:47:35
1	Ca 317.933Radial†	89393.1	90837.9	5060.0	µg/L	5060.0	ppb	18:47:35
1	Fe 238.204 Radial†	80412.9	82068.7	5058.2	µg/L	5058.2	ppb	18:47:35
1	K 766.490 Radial†	8352.4	6995.0	2558.1	µg/L	2558.1	ppb	18:47:35
1	Mg 279.077 IEC†	14148.2	14274.9	5327.6	µg/L	5327.6	ppb	18:47:35
1	Na 589.592 Radial†	19150.9	18289.7	2496.3	µg/L	2496.3	ppb	18:47:35
1	Sr 421.552†	250356.1	256107.6	532.39	µg/L	532.39	ppb	18:47:33
1	Sc 361.383	1677195.1	1677195.1	97.612	%			18:47:48
1	Y 371.029	995806.6	995806.6	96.992	%			18:47:48
1	Ag 328.068†	70215.3	67841.3	257.54	µg/L	257.54	ppb	18:47:48
1	As 188.979†	1526.8	1584.5	486.58	µg/L	486.58	ppb	18:47:50
1	B 249.677†	37075.8	34476.8	506.67	µg/L	506.67	ppb	18:47:48
1	Ba 233.527†	122696.8	125833.7	507.50	µg/L	507.50	ppb	18:47:48
1	Be 313.107†	933729.3	957632.1	260.88	µg/L	260.88	ppb	18:47:48
1	Cd 226.502†	77657.9	79675.5	497.37	µg/L	497.37	ppb	18:47:48
1	Co 228.616†	40998.4	42191.5	520.85	µg/L	520.85	ppb	18:47:50
1	Cr 267.716†	62225.7	63569.1	497.75	µg/L	497.75	ppb	18:47:50
1	Cu 324.752†	130541.7	130762.4	509.73	µg/L	509.73	ppb	18:47:48
1	Mn 257.610†	407677.2	417411.4	516.24	µg/L	516.24	ppb	18:47:48
1	Mo 202.031†	18097.1	18559.8	545.92	µg/L	545.92	ppb	18:47:50
1	Ni 231.604†	43663.1	44807.6	515.93	µg/L	515.93	ppb	18:47:50
1	P 214.914†	11760.6	12066.2	2571.9	µg/L	2571.9	ppb	18:47:50
1	Pb 220.353†	9089.2	9225.1	516.68	µg/L	516.68	ppb	18:47:50
1	S 181.975 Axial†	3477.6	3457.6	2572.2	µg/L	2572.2	ppb	18:47:50
1	Sb 206.836†	4253.6	4276.8	510.30	µg/L	510.30	ppb	18:47:50
1	Se 196.026†	6905.2	7058.8	2550	µg/L	2550	ppb	18:47:50
1	SiO2†	106599.4	107431.3	10477	µg/L	10477	ppb	18:47:48
1	Si 251.611†	325209.4	332327.1	4888.6	µg/L	4888.6	ppb	18:47:48
1	Sn 189.927†	8509.6	8718.8	545.19	µg/L	545.19	ppb	18:47:50
1	Ti 334.940†	517306.5	529006.8	493.58	µg/L	493.58	ppb	18:47:48
1	Tl 190.801†	4208.4	4428.0	551.50	µg/L	551.50	ppb	18:47:50
1	U 409.014†	7246.7	7693.8	480.75	µg/L	480.75	ppb	18:47:48
1	V 292.402†	101371.8	103447.4	511.74	µg/L	511.74	ppb	18:47:48
1	Zn 213.857†	89039.6	90653.0	505.19	µg/L	505.19	ppb	18:47:48
2	Sc RADIAL	141472.3	141472.3	96.9	%			18:47:39
2	Al 396.153Radial†	26888.4	27798.8	5129.2	µg/L	5129.2	ppb	18:47:39
2	Ca 317.933Radial†	88063.7	90277.8	5028.8	µg/L	5028.8	ppb	18:47:39
2	Fe 238.204 Radial†	79583.4	81942.8	5050.5	µg/L	5050.5	ppb	18:47:39
2	K 766.490 Radial†	8113.5	6824.4	2495.6	µg/L	2495.6	ppb	18:47:39
2	Mg 279.077 IEC†	13969.8	14219.3	5306.5	µg/L	5306.5	ppb	18:47:39
2	Na 589.592 Radial†	19176.1	18489.5	2523.7	µg/L	2523.7	ppb	18:47:39
2	Sr 421.552†	244831.9	252681.3	525.27	µg/L	525.27	ppb	18:47:37
2	Sc 361.383	1698788.6	1698788.6	98.869	%			18:47:53
2	Y 371.029	1007373.3	1007373.3	98.119	%			18:47:53
2	Ag 328.068†	71291.0	68014.9	258.16	µg/L	258.16	ppb	18:47:53
2	As 188.979†	1532.9	1570.8	482.29	µg/L	482.29	ppb	18:47:55
2	B 249.677†	37726.0	34651.6	509.29	µg/L	509.29	ppb	18:47:53
2	Ba 233.527†	124221.9	125778.5	507.27	µg/L	507.27	ppb	18:47:53
2	Be 313.107†	946768.4	958661.3	261.16	µg/L	261.16	ppb	18:47:53
2	Cd 226.502†	78878.8	79899.1	498.76	µg/L	498.76	ppb	18:47:53
2	Co 228.616†	40427.2	41079.9	507.13	µg/L	507.13	ppb	18:47:55
2	Cr 267.716†	61613.4	62139.5	486.55	µg/L	486.55	ppb	18:47:55
2	Cu 324.752†	131991.8	130529.2	508.81	µg/L	508.81	ppb	18:47:53
2	Mn 257.610†	413215.3	417704.0	516.60	µg/L	516.60	ppb	18:47:53
2	Mo 202.031†	17824.6	18048.5	530.89	µg/L	530.89	ppb	18:47:55
2	Ni 231.604†	43042.2	43611.0	502.15	µg/L	502.15	ppb	18:47:55
2	P 214.914†	11581.1	11731.5	2500.3	µg/L	2500.3	ppb	18:47:55
2	Pb 220.353†	8959.4	8975.5	502.70	µg/L	502.70	ppb	18:47:55

2	S 181.975 Axial†	3387.2	3320.9	2470.5 µg/L	2470.5 ppb	18:47:55
2	Sb 206.836†	4183.4	4150.4	495.20 µg/L	495.20 ppb	18:47:55
2	Se 196.026†	6756.5	6818.5	2470 µg/L	2470 ppb	18:47:55
2	SiO2†	108026.4	107486.5	10483 µg/L	10483 ppb	18:47:53
2	Si 251.611†	330001.8	332939.4	4897.9 µg/L	4897.9 ppb	18:47:53
2	Sn 189.927†	8332.5	8429.0	527.12 µg/L	527.12 ppb	18:47:55
2	Ti 334.940†	523598.9	528634.8	493.24 µg/L	493.24 ppb	18:47:53
2	Tl 190.801†	4130.1	4294.0	535.11 µg/L	535.11 ppb	18:47:55
2	U 409.014†	7323.1	7676.7	479.70 µg/L	479.70 ppb	18:47:53
2	V 292.402†	102428.7	103196.4	510.32 µg/L	510.32 ppb	18:47:53
2	Zn 213.857†	90500.4	90971.0	507.07 µg/L	507.07 ppb	18:47:53
3	Sc RADIAL	141074.5	141074.5	96.7 %		18:47:43
3	Al 396.153Radial†	27024.0	28017.2	5169.9 µg/L	5169.9 ppb	18:47:43
3	Ca 317.933Radial†	88402.3	90884.2	5062.6 µg/L	5062.6 ppb	18:47:43
3	Fe 238.204 Radial†	79763.1	82360.1	5076.2 µg/L	5076.2 ppb	18:47:43
3	K 766.490 Radial†	8103.8	6838.0	2500.5 µg/L	2500.5 ppb	18:47:43
3	Mg 279.077 IEC†	14069.6	14363.2	5360.0 µg/L	5360.0 ppb	18:47:43
3	Na 589.592 Radial†	19066.5	18431.9	2515.8 µg/L	2515.8 ppb	18:47:43
3	Sr 421.552†	247012.7	255649.2	531.44 µg/L	531.44 ppb	18:47:41
3	Sc 361.383	1692022.5	1692022.5	98.475 %		18:47:58
3	Y 371.029	1004104.0	1004104.0	97.800 %		18:47:58
3	Ag 328.068†	71156.1	68166.3	258.74 µg/L	258.74 ppb	18:47:58
3	As 188.979†	1530.4	1574.5	483.34 µg/L	483.34 ppb	18:48:00
3	B 249.677†	37553.2	34628.7	508.97 µg/L	508.97 ppb	18:47:58
3	Ba 233.527†	123711.5	125762.6	507.21 µg/L	507.21 ppb	18:47:58
3	Be 313.107†	941930.7	957578.0	260.87 µg/L	260.87 ppb	18:47:58
3	Cd 226.502†	78415.4	79747.6	497.81 µg/L	497.81 ppb	18:47:58
3	Co 228.616†	39781.6	40587.8	501.06 µg/L	501.06 ppb	18:48:00
3	Cr 267.716†	60612.6	61372.4	480.54 µg/L	480.54 ppb	18:48:00
3	Cu 324.752†	131599.2	130664.3	509.34 µg/L	509.34 ppb	18:47:58
3	Mn 257.610†	411605.2	417740.2	516.64 µg/L	516.64 ppb	18:47:58
3	Mo 202.031†	17622.4	17915.3	526.98 µg/L	526.98 ppb	18:48:00
3	Ni 231.604†	42378.9	43111.5	496.40 µg/L	496.40 ppb	18:48:00
3	P 214.914†	11404.8	11599.3	2472.0 µg/L	2472.0 ppb	18:48:00
3	Pb 220.353†	8867.2	8918.1	499.49 µg/L	499.49 ppb	18:48:00
3	S 181.975 Axial†	3288.2	3234.1	2406.0 µg/L	2406.0 ppb	18:48:00
3	Sb 206.836†	4104.8	4087.6	487.75 µg/L	487.75 ppb	18:48:00
3	Se 196.026†	6722.3	6811.1	2460 µg/L	2460 ppb	18:48:00
3	SiO2†	107577.1	107467.2	10482 µg/L	10482 ppb	18:47:58
3	Si 251.611†	328691.1	332943.1	4898.1 µg/L	4898.1 ppb	18:47:58
3	Sn 189.927†	8196.6	8324.7	520.62 µg/L	520.62 ppb	18:48:00
3	Ti 334.940†	522557.7	529695.2	494.23 µg/L	494.23 ppb	18:47:58
3	Tl 190.801†	3987.3	4165.7	519.39 µg/L	519.39 ppb	18:48:00
3	U 409.014†	7372.3	7756.3	484.40 µg/L	484.40 ppb	18:47:58
3	V 292.402†	102179.3	103357.4	511.03 µg/L	511.03 ppb	18:47:58
3	Zn 213.857†	89790.3	90616.0	505.12 µg/L	505.12 ppb	18:47:58

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1689335.4	98.319	%	0.6428				0.65%
Sc RADIAL	141758.3	97.1	%	0.59				0.61%
Y 371.029	1002428.0	97.637	%	0.5808				0.59%
Ag 328.068†	68007.5	258.15	µg/L	0.601	258.15	ppb	0.601	0.23%
QC value within limits for Ag 328.068 Recovery = 103.26%								
Al 396.153Radial†	27895.2	5146.9	µg/L	20.85	5146.9	ppb	20.85	0.41%
QC value within limits for Al 396.153Radial Recovery = 102.94%								
As 188.979†	1576.6	484.07	µg/L	2.239	484.07	ppb	2.239	0.46%
QC value within limits for As 188.979 Recovery = 96.81%								
B 249.677†	34585.7	508.31	µg/L	1.434	508.31	ppb	1.434	0.28%
QC value within limits for B 249.677 Recovery = 101.66%								
Ba 233.527†	125791.6	507.32	µg/L	0.154	507.32	ppb	0.154	0.03%
QC value within limits for Ba 233.527 Recovery = 101.46%								
Be 313.107†	957957.1	260.97	µg/L	0.166	260.97	ppb	0.166	0.06%
QC value within limits for Be 313.107 Recovery = 104.39%								
Ca 317.933Radial†	90666.6	5050.5	µg/L	18.80	5050.5	ppb	18.80	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.01%								
Cd 226.502†	79774.1	497.98	µg/L	0.711	497.98	ppb	0.711	0.14%
QC value within limits for Cd 226.502 Recovery = 99.60%								
Co 228.616†	41286.4	509.68	µg/L	10.138	509.68	ppb	10.138	1.99%

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   QC value within limits for Co 228.616  Recovery = 101.94%
Cr 267.716†            62360.3      488.28 µg/L        8.733      488.28 ppb          8.733   1.79%
   QC value within limits for Cr 267.716  Recovery = 97.66%
Cu 324.752†           130652.0      509.29 µg/L        0.460      509.29 ppb          0.460   0.09%
   QC value within limits for Cu 324.752  Recovery = 101.86%
Fe 238.204 Radial†     82123.9      5061.6 µg/L       13.19      5061.6 ppb          13.19   0.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.23%
K 766.490 Radial†       6885.8      2518.1 µg/L       34.72      2518.1 ppb          34.72   1.38%
   QC value within limits for K 766.490 Radial  Recovery = 100.72%
Mg 279.077 IEC†        14285.8      5331.4 µg/L       26.95      5331.4 ppb          26.95   0.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.63%
Mn 257.610†           417618.5      516.49 µg/L        0.223      516.49 ppb          0.223   0.04%
   QC value within limits for Mn 257.610  Recovery = 103.30%
Mo 202.031†            18174.5      534.59 µg/L        9.999      534.59 ppb          9.999   1.87%
   QC value within limits for Mo 202.031  Recovery = 106.92%
Na 589.592 Radial†     18403.7      2511.9 µg/L       14.08      2511.9 ppb          14.08   0.56%
   QC value within limits for Na 589.592 Radial  Recovery = 100.48%
Ni 231.604†            43843.4      504.82 µg/L       10.036      504.82 ppb         10.036   1.99%
   QC value within limits for Ni 231.604  Recovery = 100.96%
P 214.914†             11799.0      2514.8 µg/L       51.47      2514.8 ppb          51.47   2.05%
   QC value within limits for P 214.914  Recovery = 100.59%
Pb 220.353†             9039.6      506.29 µg/L        9.140      506.29 ppb          9.140   1.81%
   QC value within limits for Pb 220.353  Recovery = 101.26%
S 181.975 Axial†        3337.5      2482.9 µg/L       83.76      2482.9 ppb          83.76   3.37%
   QC value within limits for S 181.975 Axial  Recovery = 99.32%
Sb 206.836†             4171.6      497.75 µg/L       11.489      497.75 ppb         11.489   2.31%
   QC value within limits for Sb 206.836  Recovery = 99.55%
Se 196.026†             6896.1        2500 µg/L        50.9        2500 ppb           50.9   2.04%
   QC value within limits for Se 196.026  Recovery = 99.81%
SiO2†                 107461.7       10481 µg/L         3.1       10481 ppb            3.1   0.03%
   QC value within limits for SiO2  Recovery = 98.00%
Si 251.611†           332736.6      4894.9 µg/L        5.44      4894.9 ppb           5.44   0.11%
   QC value within limits for Si 251.611  Recovery = 97.90%
Sn 189.927†             8490.8      530.98 µg/L       12.731      530.98 ppb         12.731   2.40%
   QC value within limits for Sn 189.927  Recovery = 106.20%
Sr 421.552†           254812.7      529.70 µg/L        3.867      529.70 ppb          3.867   0.73%
   QC value within limits for Sr 421.552  Recovery = 105.94%
Ti 334.940†           529112.2      493.68 µg/L        0.501      493.68 ppb          0.501   0.10%
   QC value within limits for Ti 334.940  Recovery = 98.74%
Tl 190.801†             4295.9      535.33 µg/L       16.060      535.33 ppb         16.060   3.00%
   QC value within limits for Tl 190.801  Recovery = 107.07%
U 409.014†              7709.0      481.62 µg/L        2.468      481.62 ppb          2.468   0.51%
   QC value within limits for U 409.014  Recovery = 96.32%
V 292.402†            103333.7      511.03 µg/L        0.714      511.03 ppb          0.714   0.14%
   QC value within limits for V 292.402  Recovery = 102.21%
Zn 213.857†            90746.7      505.79 µg/L        1.109      505.79 ppb          1.109   0.22%
   QC value within limits for Zn 213.857  Recovery = 101.16%
All analyte(s) passed QC.
```

Sequence No.: 7 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/31/2010 18:48:09**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141820.7	141820.7	97.2	%			18:48:38
1	Al 396.153Radial†	-23.3	39.2	7.2759	µg/L	7.2759	ppb	18:48:58
1	Ca 317.933Radial†	601.1	58.0	3.2284	µg/L	3.2284	ppb	18:48:58
1	Fe 238.204 Radial†	172.3	29.2	1.7975	µg/L	1.7975	ppb	18:48:58
1	K 766.490 Radial†	1651.6	154.7	56.635	µg/L	56.635	ppb	18:48:38
1	Mg 279.077 IEC†	178.4	-7.1	-2.6584	µg/L	-2.6584	ppb	18:48:58
1	Na 589.592 Radial†	1421.8	172.2	23.470	µg/L	23.470	ppb	18:48:38
1	Sr 421.552†	-137.1	-5.8	-0.0120	µg/L	-0.0120	ppb	18:48:38
1	Sc 361.383	1683915.8	1683915.8	98.004	%			18:50:00
1	Y 371.029	1008438.2	1008438.2	98.222	%			18:50:00
1	Ag 328.068†	3988.4	-21.8	-0.0966	µg/L	-0.0966	ppb	18:50:02
1	As 188.979†	-16.6	3.4	1.0196	µg/L	1.0196	ppb	18:50:22
1	B 249.677†	3689.5	258.8	3.8157	µg/L	3.8157	ppb	18:50:02
1	Ba 233.527†	-144.6	-11.7	-0.0475	µg/L	-0.0475	ppb	18:50:22
1	Be 313.107†	-835.0	212.7	0.0556	µg/L	0.0556	ppb	18:50:02
1	Cd 226.502†	-86.3	30.1	0.1877	µg/L	0.1877	ppb	18:50:22
1	Co 228.616†	-156.6	30.5	0.3761	µg/L	0.3761	ppb	18:50:22
1	Cr 267.716†	188.6	13.8	0.1142	µg/L	0.1142	ppb	18:50:22
1	Cu 324.752†	2866.9	-46.9	-0.1882	µg/L	-0.1882	ppb	18:50:02
1	Mn 257.610†	237.6	5.2	0.0065	µg/L	0.0065	ppb	18:50:22
1	Mo 202.031†	-20.5	-0.8	-0.0238	µg/L	-0.0238	ppb	18:50:22
1	Ni 231.604†	-85.2	-10.4	-0.1202	µg/L	-0.1202	ppb	18:50:22
1	P 214.914†	-19.5	-2.0	-0.4133	µg/L	-0.4133	ppb	18:50:22
1	Pb 220.353†	104.1	19.8	1.1130	µg/L	1.1130	ppb	18:50:22
1	S 181.975 Axial†	94.9	-8.2	-6.0991	µg/L	-6.0991	ppb	18:50:22
1	Sb 206.836†	83.0	3.9	0.4581	µg/L	0.4581	ppb	18:50:22
1	Se 196.026†	16.9	2.0	0.709	µg/L	0.709	ppb	18:50:22
1	SiO2†	1750.1	10.4	1.0001	µg/L	1.0001	ppb	18:50:22
1	Si 251.611†	692.5	-130.0	-1.9216	µg/L	-1.9216	ppb	18:50:02
1	Sn 189.927†	12.8	14.2	0.8842	µg/L	0.8842	ppb	18:50:22
1	Ti 334.940†	967.2	34.4	0.0355	µg/L	0.0355	ppb	18:50:02
1	Tl 190.801†	-113.3	1.1	0.1286	µg/L	0.1286	ppb	18:50:22
1	U 409.014†	-392.4	-130.5	-7.6641	µg/L	-7.6641	ppb	18:50:02
1	V 292.402†	288.2	-109.7	-0.5404	µg/L	-0.5404	ppb	18:50:02
1	Zn 213.857†	580.6	28.0	0.1584	µg/L	0.1584	ppb	18:50:22
2	Sc RADIAL	141475.5	141475.5	96.9	%			18:49:00
2	Al 396.153Radial†	-59.5	1.9	0.3293	µg/L	0.3293	ppb	18:49:20
2	Ca 317.933Radial†	582.6	40.4	2.2485	µg/L	2.2485	ppb	18:49:20
2	Fe 238.204 Radial†	177.4	34.9	2.1506	µg/L	2.1506	ppb	18:49:20
2	K 766.490 Radial†	1678.4	186.4	68.259	µg/L	68.259	ppb	18:49:00
2	Mg 279.077 IEC†	195.6	11.1	4.1266	µg/L	4.1266	ppb	18:49:20
2	Na 589.592 Radial†	1313.4	64.0	8.6800	µg/L	8.6800	ppb	18:49:00
2	Sr 421.552†	-263.2	-136.2	-0.2832	µg/L	-0.2832	ppb	18:49:00
2	Sc 361.383	1681105.0	1681105.0	97.840	%			18:50:24
2	Y 371.029	1006809.9	1006809.9	98.064	%			18:50:24
2	Ag 328.068†	3899.5	-105.8	-0.4010	µg/L	-0.4010	ppb	18:50:26
2	As 188.979†	-14.2	5.9	1.7810	µg/L	1.7810	ppb	18:50:47
2	B 249.677†	3479.7	50.7	0.7461	µg/L	0.7461	ppb	18:50:26
2	Ba 233.527†	-126.1	7.0	0.0284	µg/L	0.0284	ppb	18:50:47
2	Be 313.107†	-932.6	111.6	0.0281	µg/L	0.0281	ppb	18:50:26
2	Cd 226.502†	-94.6	21.5	0.1342	µg/L	0.1342	ppb	18:50:47
2	Co 228.616†	-159.1	27.7	0.3416	µg/L	0.3416	ppb	18:50:47
2	Cr 267.716†	205.7	31.7	0.2541	µg/L	0.2541	ppb	18:50:47
2	Cu 324.752†	2760.4	-150.9	-0.5921	µg/L	-0.5921	ppb	18:50:26
2	Mn 257.610†	248.9	17.1	0.0210	µg/L	0.0210	ppb	18:50:47
2	Mo 202.031†	-6.8	13.1	0.3848	µg/L	0.3848	ppb	18:50:47
2	Ni 231.604†	-77.1	-2.3	-0.0264	µg/L	-0.0264	ppb	18:50:47
2	P 214.914†	-8.5	9.3	1.9937	µg/L	1.9937	ppb	18:50:47
2	Pb 220.353†	88.9	4.5	0.2582	µg/L	0.2582	ppb	18:50:47

2	S 181.975 Axial†	97.2	-5.7	-4.2111 µg/L	-4.2111 ppb	18:50:47
2	Sb 206.836†	84.7	5.7	0.6836 µg/L	0.6836 ppb	18:50:47
2	Se 196.026†	31.5	16.9	6.11 µg/L	6.11 ppb	18:50:47
2	SiO2†	1754.7	18.0	1.7515 µg/L	1.7515 ppb	18:50:47
2	Si 251.611†	708.6	-112.3	-1.6605 µg/L	-1.6605 ppb	18:50:26
2	Sn 189.927†	-0.8	0.3	0.0171 µg/L	0.0171 ppb	18:50:47
2	Ti 334.940†	917.4	-14.9	-0.0112 µg/L	-0.0112 ppb	18:50:26
2	Tl 190.801†	-109.7	4.5	0.5537 µg/L	0.5537 ppb	18:50:47
2	U 409.014†	-392.0	-130.8	-7.6468 µg/L	-7.6468 ppb	18:50:26
2	V 292.402†	396.5	1.4	0.0068 µg/L	0.0068 ppb	18:50:26
2	Zn 213.857†	557.8	5.7	0.0323 µg/L	0.0323 ppb	18:50:47
3	Sc RADIAL	140788.0	140788.0	96.5 %		18:49:22
3	Al 396.153Radial†	-53.3	8.0	1.4950 µg/L	1.4950 ppb	18:49:42
3	Ca 317.933Radial†	570.5	30.7	1.7106 µg/L	1.7106 ppb	18:49:42
3	Fe 238.204 Radial†	153.8	11.4	0.7002 µg/L	0.7002 ppb	18:49:42
3	K 766.490 Radial†	1509.3	19.7	7.1988 µg/L	7.1988 ppb	18:49:22
3	Mg 279.077 IEC†	187.5	3.6	1.3339 µg/L	1.3339 ppb	18:49:42
3	Na 589.592 Radial†	1241.2	-4.3	-0.5891 µg/L	-0.5891 ppb	18:49:22
3	Sr 421.552†	-62.3	70.7	0.1469 µg/L	0.1469 ppb	18:49:22
3	Sc 361.383	1702475.2	1702475.2	99.084 %		18:50:49
3	Y 371.029	1019278.2	1019278.2	99.278 %		18:50:49
3	Ag 328.068†	3893.2	-162.2	-0.6047 µg/L	-0.6047 ppb	18:50:51
3	As 188.979†	-11.0	9.3	2.8073 µg/L	2.8073 ppb	18:51:11
3	B 249.677†	3493.6	20.0	0.2957 µg/L	0.2957 ppb	18:50:51
3	Ba 233.527†	-155.1	-20.7	-0.0837 µg/L	-0.0837 ppb	18:51:11
3	Be 313.107†	-918.7	137.5	0.0367 µg/L	0.0367 ppb	18:50:51
3	Cd 226.502†	-90.2	27.2	0.1697 µg/L	0.1697 ppb	18:51:11
3	Co 228.616†	-191.5	-3.0	-0.0369 µg/L	-0.0369 ppb	18:51:11
3	Cr 267.716†	192.8	16.1	0.1277 µg/L	0.1277 ppb	18:51:11
3	Cu 324.752†	2902.8	-42.6	-0.1675 µg/L	-0.1675 ppb	18:50:51
3	Mn 257.610†	221.1	-14.1	-0.0175 µg/L	-0.0175 ppb	18:51:11
3	Mo 202.031†	-27.6	-7.7	-0.2274 µg/L	-0.2274 ppb	18:51:11
3	Ni 231.604†	-80.3	-4.5	-0.0519 µg/L	-0.0519 ppb	18:51:11
3	P 214.914†	-10.6	7.3	1.5639 µg/L	1.5639 ppb	18:51:11
3	Pb 220.353†	87.5	1.9	0.1068 µg/L	0.1068 ppb	18:51:11
3	S 181.975 Axial†	108.2	4.2	3.0845 µg/L	3.0845 ppb	18:51:11
3	Sb 206.836†	65.7	-14.5	-1.7326 µg/L	-1.7326 ppb	18:51:11
3	Se 196.026†	1.4	-13.8	-5.00 µg/L	-5.00 ppb	18:51:11
3	SiO2†	1771.9	13.0	1.2622 µg/L	1.2622 ppb	18:51:11
3	Si 251.611†	804.4	-24.7	-0.3658 µg/L	-0.3658 ppb	18:50:51
3	Sn 189.927†	10.9	12.2	0.7583 µg/L	0.7583 ppb	18:51:11
3	Ti 334.940†	1048.8	105.9	0.0999 µg/L	0.0999 ppb	18:50:51
3	Tl 190.801†	-119.3	-3.7	-0.4558 µg/L	-0.4558 ppb	18:51:11
3	U 409.014†	-309.5	-42.5	-2.4891 µg/L	-2.4891 ppb	18:50:51
3	V 292.402†	382.0	-18.2	-0.0926 µg/L	-0.0926 ppb	18:50:51
3	Zn 213.857†	566.8	7.7	0.0435 µg/L	0.0435 ppb	18:51:11

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1689165.4	98.309	%	0.6758				0.69%
Sc RADIAL	141361.4	96.9	%	0.36				0.37%
Y 371.029	1011508.8	98.521	%	0.6601				0.67%
Ag 328.068†	-96.6	-0.3674	µg/L	0.25571	-0.3674	ppb	0.25571	69.60%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	16.4	3.0334	µg/L	3.72004	3.0334	ppb	3.72004	122.63%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	1.8693	µg/L	0.89713	1.8693	ppb	0.89713	47.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	109.8	1.6192	µg/L	1.91554	1.6192	ppb	1.91554	118.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.5	-0.0343	µg/L	0.05718	-0.0343	ppb	0.05718	166.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	153.9	0.0401	µg/L	0.01409	0.0401	ppb	0.01409	35.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	43.0	2.3958	µg/L	0.76955	2.3958	ppb	0.76955	32.12%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	26.3	0.1639	µg/L	0.02723	0.1639	ppb	0.02723	16.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.4	0.2269	µg/L	0.22917	0.2269	ppb	0.22917	100.99%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              20.5      0.1654 µg/L       0.07718      0.1654 ppb        0.07718  46.67%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -80.1     -0.3159 µg/L       0.23936     -0.3159 ppb        0.23936  75.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       25.1      1.5494 µg/L       0.75637      1.5494 ppb        0.75637  48.82%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       120.3      44.031 µg/L       32.4227      44.031 ppb        32.4227  73.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.5      0.9341 µg/L       3.41013      0.9341 ppb        3.41013 365.09%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               2.7      0.0033 µg/L       0.01944      0.0033 ppb        0.01944 582.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.5      0.0446 µg/L       0.31176      0.0446 ppb        0.31176 699.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       77.3      10.520 µg/L       12.1345      10.520 ppb        12.1345 115.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -5.7     -0.0661 µg/L       0.04849     -0.0661 ppb        0.04849  73.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                4.9      1.0481 µg/L       1.28372      1.0481 ppb        1.28372 122.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               8.7      0.4927 µg/L       0.54252      0.4927 ppb        0.54252 110.12%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -3.2     -2.4085 µg/L       4.84991     -2.4085 ppb        4.84991 201.36%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.6     -0.1970 µg/L       1.33468     -0.1970 ppb        1.33468 677.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.7       0.603 µg/L        5.5558       0.603 ppb         5.5558 920.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    13.8      1.3380 µg/L       0.38138      1.3380 ppb        0.38138  28.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -89.0     -1.3160 µg/L       0.83316     -1.3160 ppb        0.83316  63.31%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.9      0.5532 µg/L       0.46851      0.5532 ppb        0.46851  84.69%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -23.8     -0.0494 µg/L       0.21749     -0.0494 ppb        0.21749 439.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              41.8      0.0414 µg/L       0.05575      0.0414 ppb        0.05575 134.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.6      0.0755 µg/L       0.50686      0.0755 ppb        0.50686 671.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -101.3     -5.9334 µg/L       2.98281     -5.9334 ppb        2.98281  50.27%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -42.2     -0.2088 µg/L       0.29151     -0.2088 ppb        0.29151 139.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              13.8      0.0780 µg/L       0.06978      0.0780 ppb        0.06978  89.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 3/31/2010 18:51:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140861.4	140861.4	96.5	%			18:51:48
1	Al 396.153Radial†	987.6	1086.3	200.96	µg/L	200.96	ppb	18:51:50
1	Ca 317.933Radial†	4191.0	3781.2	210.63	µg/L	210.63	ppb	18:51:50
1	Fe 238.204 Radial†	1792.5	1708.9	105.32	µg/L	105.32	ppb	18:51:50
1	K 766.490 Radial†	1849.3	371.1	135.70	µg/L	135.70	ppb	18:51:48
1	Mg 279.077 IEC†	1004.6	850.0	316.85	µg/L	316.85	ppb	18:51:50
1	Na 589.592 Radial†	3218.7	2043.7	279.07	µg/L	279.07	ppb	18:51:50
1	Sr 421.552†	2356.1	2576.2	5.3541	µg/L	5.3541	ppb	18:51:50
1	Sc 361.383	1696993.3	1696993.3	98.765	%			18:52:02
1	Y 371.029	1016566.5	1016566.5	99.014	%			18:52:02
1	Ag 328.068†	5094.4	1066.7	4.0516	µg/L	4.0516	ppb	18:52:04
1	As 188.979†	82.8	104.2	31.603	µg/L	31.603	ppb	18:52:24
1	B 249.677†	6532.0	3107.8	45.816	µg/L	45.816	ppb	18:52:04
1	Ba 233.527†	1080.9	1230.2	4.9619	µg/L	4.9619	ppb	18:52:24
1	Be 313.107†	16638.5	17911.3	4.8913	µg/L	4.8913	ppb	18:52:04
1	Cd 226.502†	682.8	809.6	5.0479	µg/L	5.0479	ppb	18:52:24
1	Co 228.616†	230.9	424.1	5.2325	µg/L	5.2325	ppb	18:52:24
1	Cr 267.716†	759.8	590.7	4.5885	µg/L	4.5885	ppb	18:52:24
1	Cu 324.752†	5375.4	2470.4	9.6665	µg/L	9.6665	ppb	18:52:04
1	Mn 257.610†	8461.3	8329.9	10.294	µg/L	10.294	ppb	18:52:04
1	Mo 202.031†	297.2	321.0	9.4457	µg/L	9.4457	ppb	18:52:24
1	Ni 231.604†	359.2	440.2	5.0686	µg/L	5.0686	ppb	18:52:24
1	P 214.914†	662.2	688.4	147.09	µg/L	147.09	ppb	18:52:24
1	Pb 220.353†	275.6	192.6	10.753	µg/L	10.753	ppb	18:52:24
1	S 181.975 Axial†	231.8	129.7	96.360	µg/L	96.360	ppb	18:52:24
1	Sb 206.836†	150.3	71.3	8.5656	µg/L	8.5656	ppb	18:52:24
1	Se 196.026†	92.5	78.4	28.4	µg/L	28.4	ppb	18:52:24
1	SiO2†	3882.7	2155.9	210.31	µg/L	210.31	ppb	18:52:04
1	Si 251.611†	7564.5	6822.6	100.39	µg/L	100.39	ppb	18:52:04
1	Sn 189.927†	162.8	165.9	10.360	µg/L	10.360	ppb	18:52:24
1	Ti 334.940†	6150.6	5275.0	4.8870	µg/L	4.8870	ppb	18:52:04
1	Tl 190.801†	46.5	163.8	20.204	µg/L	20.204	ppb	18:52:24
1	U 409.014†	536.3	812.9	47.827	µg/L	47.827	ppb	18:52:04
1	V 292.402†	1270.3	882.4	4.4384	µg/L	4.4384	ppb	18:52:04
1	Zn 213.857†	2321.2	1785.9	9.9841	µg/L	9.9841	ppb	18:52:24
2	Sc RADIAL	140936.7	140936.7	96.6	%			18:51:52
2	Al 396.153Radial†	972.6	1070.3	198.01	µg/L	198.01	ppb	18:51:54
2	Ca 317.933Radial†	4253.2	3843.3	214.09	µg/L	214.09	ppb	18:51:54
2	Fe 238.204 Radial†	1742.6	1656.2	102.08	µg/L	102.08	ppb	18:51:54
2	K 766.490 Radial†	1908.6	431.4	157.79	µg/L	157.79	ppb	18:51:52
2	Mg 279.077 IEC†	969.9	813.6	303.26	µg/L	303.26	ppb	18:51:54
2	Na 589.592 Radial†	3291.7	2117.5	289.13	µg/L	289.13	ppb	18:51:54
2	Sr 421.552†	2245.5	2460.3	5.1132	µg/L	5.1132	ppb	18:51:54
2	Sc 361.383	1687966.3	1687966.3	98.239	%			18:52:26
2	Y 371.029	1011019.5	1011019.5	98.474	%			18:52:26
2	Ag 328.068†	5292.9	1296.4	4.8998	µg/L	4.8998	ppb	18:52:28
2	As 188.979†	83.0	104.8	31.803	µg/L	31.803	ppb	18:52:48
2	B 249.677†	6698.9	3313.0	48.843	µg/L	48.843	ppb	18:52:28
2	Ba 233.527†	1087.4	1242.7	5.0120	µg/L	5.0120	ppb	18:52:48
2	Be 313.107†	16507.3	17867.9	4.8796	µg/L	4.8796	ppb	18:52:28
2	Cd 226.502†	680.2	810.6	5.0545	µg/L	5.0545	ppb	18:52:48
2	Co 228.616†	236.4	430.9	5.3167	µg/L	5.3167	ppb	18:52:48
2	Cr 267.716†	835.7	672.2	5.2260	µg/L	5.2260	ppb	18:52:48
2	Cu 324.752†	5528.6	2655.4	10.385	µg/L	10.385	ppb	18:52:28
2	Mn 257.610†	8398.7	8312.0	10.272	µg/L	10.272	ppb	18:52:28
2	Mo 202.031†	283.2	308.3	9.0728	µg/L	9.0728	ppb	18:52:48
2	Ni 231.604†	357.6	440.5	5.0722	µg/L	5.0722	ppb	18:52:48
2	P 214.914†	662.1	691.9	147.84	µg/L	147.84	ppb	18:52:48
2	Pb 220.353†	294.5	213.4	11.913	µg/L	11.913	ppb	18:52:48

2	S 181.975 Axial†	239.0	138.2	102.73 µg/L	102.73 ppb	18:52:48
2	Sb 206.836†	162.6	84.7	10.140 µg/L	10.140 ppb	18:52:48
2	Se 196.026†	98.4	84.9	30.8 µg/L	30.8 ppb	18:52:48
2	SiO2†	3912.9	2207.6	215.37 µg/L	215.37 ppb	18:52:28
2	Si 251.611†	7475.2	6772.6	99.658 µg/L	99.658 ppb	18:52:28
2	Sn 189.927†	165.0	169.0	10.554 µg/L	10.554 ppb	18:52:48
2	Ti 334.940†	5906.4	5059.7	4.6867 µg/L	4.6867 ppb	18:52:28
2	Tl 190.801†	41.0	158.5	19.548 µg/L	19.548 ppb	18:52:48
2	U 409.014†	539.0	818.5	48.142 µg/L	48.142 ppb	18:52:28
2	V 292.402†	1219.4	837.5	4.2189 µg/L	4.2189 ppb	18:52:28
2	Zn 213.857†	2338.9	1816.4	10.155 µg/L	10.155 ppb	18:52:48
3	Sc RADIAL	141853.7	141853.7	97.2 %		18:51:56
3	Al 396.153Radial†	1054.0	1147.5	212.32 µg/L	212.32 ppb	18:51:58
3	Ca 317.933Radial†	4255.4	3817.1	212.63 µg/L	212.63 ppb	18:51:58
3	Fe 238.204 Radial†	1716.2	1617.5	99.690 µg/L	99.690 ppb	18:51:58
3	K 766.490 Radial†	1916.0	426.3	155.92 µg/L	155.92 ppb	18:51:56
3	Mg 279.077 IEC†	1001.3	839.3	312.86 µg/L	312.86 ppb	18:51:58
3	Na 589.592 Radial†	3186.5	1987.3	271.34 µg/L	271.34 ppb	18:51:58
3	Sr 421.552†	2248.0	2447.8	5.0873 µg/L	5.0873 ppb	18:51:58
3	Sc 361.383	1703589.6	1703589.6	99.149 %		18:52:50
3	Y 371.029	1020076.1	1020076.1	99.356 %		18:52:50
3	Ag 328.068†	5329.5	1283.9	4.8863 µg/L	4.8863 ppb	18:52:52
3	As 188.979†	68.9	89.8	27.263 µg/L	27.263 ppb	18:53:13
3	B 249.677†	6826.1	3378.8	49.814 µg/L	49.814 ppb	18:52:52
3	Ba 233.527†	1095.4	1240.7	5.0047 µg/L	5.0047 ppb	18:53:13
3	Be 313.107†	16765.5	17974.2	4.9127 µg/L	4.9127 ppb	18:52:52
3	Cd 226.502†	685.3	809.4	5.0473 µg/L	5.0473 ppb	18:53:13
3	Co 228.616†	212.4	404.5	4.9910 µg/L	4.9910 ppb	18:53:13
3	Cr 267.716†	807.3	635.7	4.9297 µg/L	4.9297 ppb	18:53:13
3	Cu 324.752†	5461.8	2536.5	9.9340 µg/L	9.9340 ppb	18:52:52
3	Mn 257.610†	8558.8	8395.0	10.374 µg/L	10.374 ppb	18:52:52
3	Mo 202.031†	286.1	308.6	9.0804 µg/L	9.0804 ppb	18:53:13
3	Ni 231.604†	341.2	420.7	4.8437 µg/L	4.8437 ppb	18:53:13
3	P 214.914†	668.0	691.7	147.81 µg/L	147.81 ppb	18:53:13
3	Pb 220.353†	280.1	196.2	10.941 µg/L	10.941 ppb	18:53:13
3	S 181.975 Axial†	229.3	126.2	93.811 µg/L	93.811 ppb	18:53:13
3	Sb 206.836†	165.2	85.8	10.280 µg/L	10.280 ppb	18:53:13
3	Se 196.026†	109.6	95.3	34.5 µg/L	34.5 ppb	18:53:13
3	SiO2†	3891.1	2149.2	209.66 µg/L	209.66 ppb	18:52:52
3	Si 251.611†	7576.0	6804.5	100.13 µg/L	100.13 ppb	18:52:52
3	Sn 189.927†	163.2	165.7	10.345 µg/L	10.345 ppb	18:53:13
3	Ti 334.940†	6177.6	5278.1	4.8843 µg/L	4.8843 ppb	18:52:52
3	Tl 190.801†	27.8	144.7	17.868 µg/L	17.868 ppb	18:53:13
3	U 409.014†	779.2	1055.8	62.094 µg/L	62.094 ppb	18:52:52
3	V 292.402†	1501.4	1110.5	5.5591 µg/L	5.5591 ppb	18:52:52
3	Zn 213.857†	2359.0	1814.8	10.149 µg/L	10.149 ppb	18:53:13

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1696183.1	98.718	%	0.4565				0.46%
Sc RADIAL	141217.3	96.8	%	0.38				0.39%
Y 371.029	1015887.4	98.948	%	0.4448				0.45%
Ag 328.068†	1215.7	4.6126	µg/L	0.48588	4.6126	ppb	0.48588	10.53%
QC value within limits for Ag 328.068 Recovery = 92.25%								
Al 396.153Radial†	1101.4	203.76	µg/L	7.553	203.76	ppb	7.553	3.71%
QC value within limits for Al 396.153Radial Recovery = 101.88%								
As 188.979†	99.6	30.223	µg/L	2.5657	30.223	ppb	2.5657	8.49%
QC value within limits for As 188.979 Recovery = 100.74%								
B 249.677†	3266.5	48.158	µg/L	2.0851	48.158	ppb	2.0851	4.33%
QC value within limits for B 249.677 Recovery = 96.32%								
Ba 233.527†	1237.9	4.9928	µg/L	0.02706	4.9928	ppb	0.02706	0.54%
QC value within limits for Ba 233.527 Recovery = 99.86%								
Be 313.107†	17917.8	4.8945	µg/L	0.01680	4.8945	ppb	0.01680	0.34%
QC value within limits for Be 313.107 Recovery = 97.89%								
Ca 317.933Radial†	3813.9	212.45	µg/L	1.736	212.45	ppb	1.736	0.82%
QC value within limits for Ca 317.933Radial Recovery = 106.22%								
Cd 226.502†	809.8	5.0499	µg/L	0.00397	5.0499	ppb	0.00397	0.08%
QC value within limits for Cd 226.502 Recovery = 101.00%								
Co 228.616†	419.8	5.1801	µg/L	0.16905	5.1801	ppb	0.16905	3.26%

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   QC value within limits for Co 228.616  Recovery = 103.60%
Cr 267.716†              632.8      4.9147 µg/L       0.31903      4.9147 ppb        0.31903   6.49%
   QC value within limits for Cr 267.716  Recovery = 98.29%
Cu 324.752†             2554.1      9.9952 µg/L       0.36319      9.9952 ppb        0.36319   3.63%
   QC value within limits for Cu 324.752  Recovery = 99.95%
Fe 238.204 Radial†      1660.8      102.36 µg/L         2.828      102.36 ppb          2.828   2.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.36%
K 766.490 Radial†        409.6      149.80 µg/L        12.246      149.80 ppb         12.246   8.17%
   QC value within limits for K 766.490 Radial  Recovery = 99.87%
Mg 279.077 IEC†          834.3      310.99 µg/L         6.984      310.99 ppb          6.984   2.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.66%
Mn 257.610†             8345.6      10.313 µg/L        0.0539      10.313 ppb         0.0539   0.52%
   QC value within limits for Mn 257.610  Recovery = 103.13%
Mo 202.031†              312.7      9.1996 µg/L       0.21314      9.1996 ppb        0.21314   2.32%
   QC value within limits for Mo 202.031  Recovery = 92.00%
Na 589.592 Radial†      2049.5      279.85 µg/L         8.919      279.85 ppb          8.919   3.19%
   QC value within limits for Na 589.592 Radial  Recovery = 93.28%
Ni 231.604†              433.8      4.9948 µg/L       0.13089      4.9948 ppb        0.13089   2.62%
   QC value within limits for Ni 231.604  Recovery = 99.90%
P 214.914†               690.7      147.58 µg/L         0.423      147.58 ppb          0.423   0.29%
   QC value within limits for P 214.914  Recovery = 98.39%
Pb 220.353†              200.7      11.202 µg/L        0.6223      11.202 ppb         0.6223   5.56%
   QC value within limits for Pb 220.353  Recovery = 112.02%
S 181.975 Axial†         131.4      97.634 µg/L        4.5940      97.634 ppb         4.5940   4.71%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†               80.6      9.6618 µg/L       0.95194      9.6618 ppb        0.95194   9.85%
   QC value within limits for Sb 206.836  Recovery = 96.62%
Se 196.026†               86.2        31.2 µg/L          3.09        31.2 ppb           3.09   9.88%
   QC value within limits for Se 196.026  Recovery = 104.17%
SiO2†                   2170.9      211.78 µg/L         3.127      211.78 ppb          3.127   1.48%
   QC value within limits for SiO2  Recovery = 99.43%
Si 251.611†             6799.9      100.06 µg/L         0.371      100.06 ppb          0.371   0.37%
   QC value within limits for Si 251.611  Recovery = 100.06%
Sn 189.927†              166.9      10.420 µg/L        0.1167      10.420 ppb         0.1167   1.12%
   QC value within limits for Sn 189.927  Recovery = 104.20%
Sr 421.552†             2494.8      5.1849 µg/L       0.14714      5.1849 ppb        0.14714   2.84%
   QC value within limits for Sr 421.552  Recovery = 103.70%
Ti 334.940†             5204.3      4.8193 µg/L       0.11489      4.8193 ppb        0.11489   2.38%
   QC value within limits for Ti 334.940  Recovery = 96.39%
Tl 190.801†              155.6      19.207 µg/L        1.2048      19.207 ppb         1.2048   6.27%
   QC value within limits for Tl 190.801  Recovery = 96.03%
U 409.014†               895.8      52.688 µg/L        8.1477      52.688 ppb         8.1477  15.46%
   QC value within limits for U 409.014  Recovery = 105.38%
V 292.402†               943.5      4.7388 µg/L       0.71883      4.7388 ppb        0.71883  15.17%
   QC value within limits for V 292.402  Recovery = 94.78%
Zn 213.857†             1805.7      10.096 µg/L        0.0971      10.096 ppb         0.0971   0.96%
   QC value within limits for Zn 213.857  Recovery = 100.96%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 3/31/2010 18:53:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	132242.6	132242.6	90.6	%			18:53:53
1	Al 396.153Radial†	2422897.8	2673731.8	495710	µg/L	495710	ppb	18:53:51
1	Ca 317.933Radial†	7691621.4	8487146.3	472770	µg/L	472770	ppb	18:53:51
1	Fe 238.204 Radial†	2755313.8	3040341.6	187390	µg/L	187390	ppb	18:53:51
1	K 766.490 Radial†	1640.2	265.2	-138.93	µg/L	-138.93	ppb	18:53:53
1	Mg 279.077 IEC†	1160629.2	1280564.0	476960	µg/L	476960	ppb	18:53:51
1	Na 589.592 Radial†	1484.0	346.8	47.294	µg/L	47.294	ppb	18:53:53
1	Sr 421.552†	1473.7	1761.6	-0.0382	µg/L	-0.0382	ppb	18:53:53
1	Sc 361.383	1517022.4	1517022.4	88.290	%			18:54:06
1	Y 371.029	894868.4	894868.4	87.161	%			18:54:06
1	Ag 328.068†	6255.0	2993.2	-1.9729	µg/L	-1.9729	ppb	18:54:06
1	As 188.979†	-100.1	-93.0	13.877	µg/L	13.877	ppb	18:54:26
1	B 249.677†	3380.9	323.4	4.7554	µg/L	4.7554	ppb	18:54:06
1	Ba 233.527†	434.1	627.6	0.1345	µg/L	0.1345	ppb	18:54:26
1	Be 313.107†	-1147.6	-235.1	-0.0621	µg/L	-0.0621	ppb	18:54:06
1	Cd 226.502†	2412.4	2850.5	-1.8998	µg/L	-1.8998	ppb	18:54:26
1	Co 228.616†	123.8	330.6	-5.6944	µg/L	-5.6944	ppb	18:54:26
1	Cr 267.716†	198.7	46.5	1.0479	µg/L	1.0479	ppb	18:54:26
1	Cu 324.752†	-5619.3	-9336.8	3.9046	µg/L	3.9046	ppb	18:54:06
1	Mn 257.610†	16860.5	18859.4	3.9217	µg/L	3.9217	ppb	18:54:06
1	Mo 202.031†	-556.1	-609.8	-1.7911	µg/L	-1.7911	ppb	18:54:26
1	Ni 231.604†	185.4	286.5	3.2984	µg/L	3.2984	ppb	18:54:26
1	P 214.914†	178.3	219.9	29.959	µg/L	29.959	ppb	18:54:26
1	Pb 220.353†	-392.3	-530.7	-4.9340	µg/L	-4.9340	ppb	18:54:26
1	S 181.975 Axial†	184.5	103.9	77.024	µg/L	77.024	ppb	18:54:26
1	Sb 206.836†	109.1	42.8	-0.8364	µg/L	-0.8364	ppb	18:54:26
1	Se 196.026†	-143.5	-177.8	0.756	µg/L	0.756	ppb	18:54:26
1	SiO2†	1661.3	106.3	10.857	µg/L	10.857	ppb	18:54:26
1	Si 251.611†	457.4	-318.5	-4.4771	µg/L	-4.4771	ppb	18:54:26
1	Sn 189.927†	41.8	48.5	3.1002	µg/L	3.1002	ppb	18:54:26
1	Ti 334.940†	22402.5	24421.1	-3.7208	µg/L	-3.7208	ppb	18:54:06
1	Tl 190.801†	-159.3	-63.8	-7.4175	µg/L	-7.4175	ppb	18:54:26
1	U 409.014†	-141.4	109.7	-14.558	µg/L	-14.558	ppb	18:54:06
1	V 292.402†	4081.9	4219.5	0.6141	µg/L	0.6141	ppb	18:54:06
1	Zn 213.857†	4369.0	4384.0	8.5615	µg/L	8.5615	ppb	18:54:26
2	Sc RADIAL	132040.0	132040.0	90.5	%			18:53:58
2	Al 396.153Radial†	2444947.4	2702202.7	500990	µg/L	500990	ppb	18:53:56
2	Ca 317.933Radial†	7800125.3	8620085.6	480170	µg/L	480170	ppb	18:53:56
2	Fe 238.204 Radial†	2791790.4	3085319.9	190160	µg/L	190160	ppb	18:53:56
2	K 766.490 Radial†	1740.8	379.1	-100.42	µg/L	-100.42	ppb	18:53:58
2	Mg 279.077 IEC†	1178560.0	1302345.9	485070	µg/L	485070	ppb	18:53:56
2	Na 589.592 Radial†	1410.4	267.9	36.479	µg/L	36.479	ppb	18:53:58
2	Sr 421.552†	1434.5	1720.7	-0.1811	µg/L	-0.1811	ppb	18:53:58
2	Sc 361.383	1500109.7	1500109.7	87.306	%			18:54:29
2	Y 371.029	884042.0	884042.0	86.106	%			18:54:29
2	Ag 328.068†	6203.9	3014.6	-2.1211	µg/L	-2.1211	ppb	18:54:29
2	As 188.979†	-119.9	-117.0	7.2444	µg/L	7.2444	ppb	18:54:49
2	B 249.677†	3505.1	508.8	7.4908	µg/L	7.4908	ppb	18:54:29
2	Ba 233.527†	482.5	688.5	0.3435	µg/L	0.3435	ppb	18:54:49
2	Be 313.107†	-1215.4	-327.4	-0.0902	µg/L	-0.0902	ppb	18:54:29
2	Cd 226.502†	2441.6	2914.8	-1.7901	µg/L	-1.7901	ppb	18:54:49
2	Co 228.616†	105.8	311.5	-6.0736	µg/L	-6.0736	ppb	18:54:49
2	Cr 267.716†	217.8	70.9	1.2432	µg/L	1.2432	ppb	18:54:49
2	Cu 324.752†	-5483.5	-9253.0	4.8451	µg/L	4.8451	ppb	18:54:29
2	Mn 257.610†	16639.0	18821.0	3.5450	µg/L	3.5450	ppb	18:54:29
2	Mo 202.031†	-590.4	-656.1	-2.8945	µg/L	-2.8945	ppb	18:54:49
2	Ni 231.604†	122.0	216.3	2.4904	µg/L	2.4904	ppb	18:54:49
2	P 214.914†	170.4	213.2	27.815	µg/L	27.815	ppb	18:54:49
2	Pb 220.353†	-391.2	-534.5	-4.9028	µg/L	-4.9028	ppb	18:54:49

2	S 181.975 Axial†	176.5	97.2	71.982 µg/L	71.982 ppb	18:54:49
2	Sb 206.836†	116.0	52.0	0.1714 µg/L	0.1714 ppb	18:54:49
2	Se 196.026†	-172.4	-212.7	-10.9 µg/L	-10.9 ppb	18:54:49
2	SiO2†	1633.2	95.3	9.7946 µg/L	9.7946 ppb	18:54:49
2	Si 251.611†	508.3	-254.3	-3.5215 µg/L	-3.5215 ppb	18:54:49
2	Sn 189.927†	60.8	70.8	4.4873 µg/L	4.4873 ppb	18:54:49
2	Ti 334.940†	21754.3	23964.7	-4.6112 µg/L	-4.6112 ppb	18:54:29
2	Tl 190.801†	-183.8	-93.9	-11.124 µg/L	-11.124 ppb	18:54:49
2	U 409.014†	-286.0	-57.7	-24.699 µg/L	-24.699 ppb	18:54:29
2	V 292.402†	3918.7	4084.7	-0.3553 µg/L	-0.3553 ppb	18:54:29
2	Zn 213.857†	4368.9	4439.7	8.6032 µg/L	8.6032 ppb	18:54:49
3	Sc RADIAL	128528.5	128528.5	88.1 %		18:54:02
3	Al 396.153Radial†	2425420.2	2753857.9	510560 µg/L	510560 ppb	18:54:00
3	Ca 317.933Radial†	7690261.2	8730875.1	486340 µg/L	486340 ppb	18:54:00
3	Fe 238.204 Radial†	2749581.2	3121695.4	192400 µg/L	192400 ppb	18:54:00
3	K 766.490 Radial†	1659.5	339.4	-118.61 µg/L	-118.61 ppb	18:54:02
3	Mg 279.077 IEC†	1158065.5	1314663.8	489660 µg/L	489660 ppb	18:54:00
3	Na 589.592 Radial†	1347.0	238.6	32.485 µg/L	32.485 ppb	18:54:02
3	Sr 421.552†	1492.5	1829.9	-0.0025 µg/L	-0.0025 ppb	18:54:02
3	Sc 361.383	1514195.4	1514195.4	88.126 %		18:54:52
3	Y 371.029	891947.3	891947.3	86.876 %		18:54:52
3	Ag 328.068†	6032.7	2754.1	-3.2379 µg/L	-3.2379 ppb	18:54:52
3	As 188.979†	-108.0	-102.2	12.211 µg/L	12.211 ppb	18:55:12
3	B 249.677†	3436.5	393.7	5.7936 µg/L	5.7936 ppb	18:54:52
3	Ba 233.527†	448.2	644.5	0.1380 µg/L	0.1380 ppb	18:55:12
3	Be 313.107†	-1158.8	-250.2	-0.0644 µg/L	-0.0644 ppb	18:54:52
3	Cd 226.502†	2438.6	2885.4	-2.2095 µg/L	-2.2095 ppb	18:55:12
3	Co 228.616†	90.0	292.5	-6.4255 µg/L	-6.4255 ppb	18:55:12
3	Cr 267.716†	181.2	27.0	0.9095 µg/L	0.9095 ppb	18:55:12
3	Cu 324.752†	-5570.7	-9293.5	5.1506 µg/L	5.1506 ppb	18:54:52
3	Mn 257.610†	16733.6	18751.0	3.2706 µg/L	3.2706 ppb	18:54:52
3	Mo 202.031†	-556.7	-611.6	-1.4146 µg/L	-1.4146 ppb	18:55:12
3	Ni 231.604†	136.4	231.3	2.6634 µg/L	2.6634 ppb	18:55:12
3	P 214.914†	188.3	231.6	32.331 µg/L	32.331 ppb	18:55:12
3	Pb 220.353†	-364.7	-500.2	-2.4766 µg/L	-2.4766 ppb	18:55:12
3	S 181.975 Axial†	176.2	94.9	70.345 µg/L	70.345 ppb	18:55:12
3	Sb 206.836†	127.8	64.2	1.5521 µg/L	1.5521 ppb	18:55:12
3	Se 196.026†	-157.0	-193.4	-3.16 µg/L	-3.16 ppb	18:55:12
3	SiO2†	1710.0	165.0	16.582 µg/L	16.582 ppb	18:55:12
3	Si 251.611†	438.9	-338.5	-4.7759 µg/L	-4.7759 ppb	18:55:12
3	Sn 189.927†	52.5	60.6	3.8554 µg/L	3.8554 ppb	18:55:12
3	Ti 334.940†	21892.4	23889.7	-4.9005 µg/L	-4.9005 ppb	18:54:52
3	Tl 190.801†	-161.6	-66.7	-7.7840 µg/L	-7.7840 ppb	18:55:12
3	U 409.014†	-54.1	208.5	-9.3710 µg/L	-9.3710 ppb	18:54:52
3	V 292.402†	3967.3	4098.1	-0.5042 µg/L	-0.5042 ppb	18:54:52
3	Zn 213.857†	4428.1	4460.3	8.5816 µg/L	8.5816 ppb	18:55:12

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1510442.5	87.908	%	0.5273				0.60%
Sc RADIAL	130937.0	89.7	%	1.43				1.59%
Y 371.029	890285.9	86.714	%	0.5456				0.63%
Ag 328.068†	2920.6	-2.4440	µg/L	0.69159	-2.4440	ppb	0.69159	28.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2709930.8	502420	µg/L	7530.6	502420	ppb	7530.6	1.50%
QC value within limits for Al 396.153Radial Recovery = 100.48%								
As 188.979†	-104.0	11.111	µg/L	3.4505	11.111	ppb	3.4505	31.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	408.6	6.0133	µg/L	1.38084	6.0133	ppb	1.38084	22.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	653.5	0.2053	µg/L	0.11966	0.2053	ppb	0.11966	58.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-270.9	-0.0722	µg/L	0.01558	-0.0722	ppb	0.01558	21.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8612702.4	479760	µg/L	6797.7	479760	ppb	6797.7	1.42%
QC value within limits for Ca 317.933Radial Recovery = 95.95%								
Cd 226.502†	2883.6	-1.9665	µg/L	0.21751	-1.9665	ppb	0.21751	11.06%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	311.5	-6.0645	µg/L	0.36562	-6.0645	ppb	0.36562	6.03%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              48.1      1.0668 µg/L       0.16765      1.0668 ppb        0.16765  15.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -9294.4      4.6334 µg/L       0.64943      4.6334 ppb        0.64943  14.02%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   3082452.3      189980 µg/L        2511.7      189980 ppb         2511.7   1.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.99%
K 766.490 Radial†        327.9     -119.32 µg/L        19.263     -119.32 ppb         19.263  16.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1299191.2      483900 µg/L        6431.4      483900 ppb         6431.4   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.78%
Mn 257.610†           18810.4      3.5791 µg/L       0.32691      3.5791 ppb        0.32691   9.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -625.9     -2.0334 µg/L       0.76912     -2.0334 ppb        0.76912  37.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       284.5      38.753 µg/L        7.6619      38.753 ppb         7.6619  19.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              244.7      2.8174 µg/L       0.42544      2.8174 ppb        0.42544  15.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               221.6      30.035 µg/L        2.2592      30.035 ppb         2.2592   7.52%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -521.8     -4.1045 µg/L       1.40989     -4.1045 ppb        1.40989  34.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          98.7      73.117 µg/L        3.4814      73.117 ppb         3.4814   4.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               53.0      0.2957 µg/L       1.19909      0.2957 ppb        1.19909 405.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -194.6       -4.44 µg/L         5.948       -4.44 ppb          5.948 133.85%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    122.2      12.411 µg/L        3.6511      12.411 ppb         3.6511  29.42%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            -303.8     -4.2582 µg/L       0.65524     -4.2582 ppb        0.65524  15.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               60.0      3.8143 µg/L       0.69446      3.8143 ppb        0.69446  18.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            1770.7     -0.0740 µg/L       0.09453     -0.0740 ppb        0.09453 127.80%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           24091.8     -4.4108 µg/L       0.61484     -4.4108 ppb        0.61484  13.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -74.8     -8.7751 µg/L       2.04236     -8.7751 ppb        2.04236  23.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               86.8     -16.209 µg/L        7.7964     -16.209 ppb         7.7964  48.10%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             4134.1     -0.0818 µg/L       0.60724     -0.0818 ppb        0.60724 742.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            4428.0      8.5821 µg/L       0.02081      8.5821 ppb        0.02081   0.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 3/31/2010 18:55:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128923.7	128923.7	88.3	%			18:55:52
1	Al 396.153Radial†	2441585.6	2763714.4	512370	µg/L	512370	ppb	18:55:50
1	Ca 317.933Radial†	7758514.8	8781367.4	489160	µg/L	489160	ppb	18:55:50
1	Fe 238.204 Radial†	2782554.2	3149448.4	194110	µg/L	194110	ppb	18:55:50
1	K 766.490 Radial†	15194.3	15653.8	5486.8	µg/L	5486.8	ppb	18:55:52
1	Mg 279.077 IEC†	1148118.0	1299373.7	483970	µg/L	483970	ppb	18:55:52
1	Na 589.592 Radial†	35618.0	39025.6	5326.3	µg/L	5326.3	ppb	18:55:52
1	Sr 421.552†	218553.1	247517.3	510.75	µg/L	510.75	ppb	18:55:52
1	Sc 361.383	1501848.4	1501848.4	87.407	%			18:56:05
1	Y 371.029	885934.6	885934.6	86.290	%			18:56:05
1	Ag 328.068†	68208.1	73943.4	266.87	µg/L	266.87	ppb	18:56:05
1	As 188.979†	1287.3	1493.1	500.98	µg/L	500.98	ppb	18:56:07
1	B 249.677†	33851.7	35222.8	517.92	µg/L	517.92	ppb	18:56:05
1	Ba 233.527†	108371.1	124119.8	498.16	µg/L	498.16	ppb	18:56:05
1	Be 313.107†	784555.4	898650.0	244.84	µg/L	244.84	ppb	18:56:05
1	Cd 226.502†	69032.6	79096.3	473.84	µg/L	473.84	ppb	18:56:05
1	Co 228.616†	31520.5	36252.0	437.70	µg/L	437.70	ppb	18:56:07
1	Cr 267.716†	53782.3	61352.1	481.07	µg/L	481.07	ppb	18:56:07
1	Cu 324.752†	114717.9	128272.9	540.53	µg/L	540.53	ppb	18:56:05
1	Mn 257.610†	356699.6	407851.6	484.93	µg/L	484.93	ppb	18:56:05
1	Mo 202.031†	13953.9	15984.3	486.45	µg/L	486.45	ppb	18:56:07
1	Ni 231.604†	34191.5	39194.0	451.29	µg/L	451.29	ppb	18:56:07
1	P 214.914†	10448.2	11971.4	2535.7	µg/L	2535.7	ppb	18:56:07
1	Pb 220.353†	6755.9	7642.9	453.53	µg/L	453.53	ppb	18:56:07
1	S 181.975 Axial†	3250.1	3613.3	2687.1	µg/L	2687.1	ppb	18:56:07
1	Sb 206.836†	3785.3	4249.8	500.40	µg/L	500.40	ppb	18:56:07
1	Se 196.026†	5624.0	6419.0	2390	µg/L	2390	ppb	18:56:07
1	SiO2†	99846.0	112455.3	10971	µg/L	10971	ppb	18:56:05
1	Si 251.611†	306352.4	349651.7	5145.5	µg/L	5145.5	ppb	18:56:05
1	Sn 189.927†	6636.1	7593.3	475.14	µg/L	475.14	ppb	18:56:07
1	Ti 334.940†	496139.0	566664.5	502.37	µg/L	502.37	ppb	18:56:05
1	Tl 190.801†	3058.5	3615.8	452.56	µg/L	452.56	ppb	18:56:07
1	U 409.014†	7410.9	8748.5	521.43	µg/L	521.43	ppb	18:56:05
1	V 292.402†	94726.2	107969.5	513.01	µg/L	513.01	ppb	18:56:05
1	Zn 213.857†	80178.7	91165.5	492.35	µg/L	492.35	ppb	18:56:05
2	Sc RADIAL	130306.5	130306.5	89.3	%			18:55:57
2	Al 396.153Radial†	2425762.3	2716664.8	503640	µg/L	503640	ppb	18:55:54
2	Ca 317.933Radial†	7696197.0	8618379.7	480080	µg/L	480080	ppb	18:55:54
2	Fe 238.204 Radial†	2760250.1	3091044.9	190510	µg/L	190510	ppb	18:55:54
2	K 766.490 Radial†	15576.4	15899.2	5580.2	µg/L	5580.2	ppb	18:55:57
2	Mg 279.077 IEC†	1163916.5	1303274.7	485430	µg/L	485430	ppb	18:55:57
2	Na 589.592 Radial†	35962.5	38983.4	5320.4	µg/L	5320.4	ppb	18:55:57
2	Sr 421.552†	221063.2	247703.0	511.20	µg/L	511.20	ppb	18:55:57
2	Sc 361.383	1503774.7	1503774.7	87.519	%			18:56:10
2	Y 371.029	887039.9	887039.9	86.398	%			18:56:10
2	Ag 328.068†	68293.1	73940.5	267.10	µg/L	267.10	ppb	18:56:10
2	As 188.979†	1349.3	1562.1	521.08	µg/L	521.08	ppb	18:56:12
2	B 249.677†	33920.1	35251.3	518.32	µg/L	518.32	ppb	18:56:10
2	Ba 233.527†	108643.6	124272.4	498.82	µg/L	498.82	ppb	18:56:10
2	Be 313.107†	786963.6	900251.8	245.27	µg/L	245.27	ppb	18:56:10
2	Cd 226.502†	69426.5	79445.1	476.40	µg/L	476.40	ppb	18:56:10
2	Co 228.616†	32044.4	36804.3	444.70	µg/L	444.70	ppb	18:56:12
2	Cr 267.716†	54375.8	61951.4	485.63	µg/L	485.63	ppb	18:56:12
2	Cu 324.752†	115372.1	128852.4	542.29	µg/L	542.29	ppb	18:56:10
2	Mn 257.610†	357810.4	408598.0	485.80	µg/L	485.80	ppb	18:56:10
2	Mo 202.031†	14059.7	16084.7	489.29	µg/L	489.29	ppb	18:56:12
2	Ni 231.604†	34695.4	39719.6	457.34	µg/L	457.34	ppb	18:56:12
2	P 214.914†	10657.1	12194.8	2584.0	µg/L	2584.0	ppb	18:56:12
2	Pb 220.353†	7007.7	7920.6	468.62	µg/L	468.62	ppb	18:56:12

2	S 181.975 Axial†	3226.8	3581.8	2663.8 µg/L	2663.8 ppb	18:56:12
2	Sb 206.836†	3801.0	4262.2	501.96 µg/L	501.96 ppb	18:56:12
2	Se 196.026†	5730.0	6531.8	2430 µg/L	2430 ppb	18:56:12
2	SiO2†	100449.1	112998.1	11024 µg/L	11024 ppb	18:56:10
2	Si 251.611†	307929.3	351004.4	5165.3 µg/L	5165.3 ppb	18:56:10
2	Sn 189.927†	6796.2	7766.5	485.94 µg/L	485.94 ppb	18:56:12
2	Ti 334.940†	498020.9	568087.6	503.35 µg/L	503.35 ppb	18:56:10
2	Tl 190.801†	3159.1	3726.2	466.12 µg/L	466.12 ppb	18:56:12
2	U 409.014†	7207.8	8505.6	507.68 µg/L	507.68 ppb	18:56:10
2	V 292.402†	94912.3	108043.3	513.79 µg/L	513.79 ppb	18:56:10
2	Zn 213.857†	80541.8	91462.8	494.31 µg/L	494.31 ppb	18:56:10
3	Sc RADIAL	130048.3	130048.3	89.1 %		18:56:01
3	Al 396.153Radial†	2433855.1	2731140.9	506330 µg/L	506330 ppb	18:55:59
3	Ca 317.933Radial†	7718645.4	8660686.5	482430 µg/L	482430 ppb	18:55:59
3	Fe 238.204 Radial†	2766938.5	3104689.2	191350 µg/L	191350 ppb	18:55:59
3	K 766.490 Radial†	15537.1	15889.7	5575.7 µg/L	5575.7 ppb	18:56:01
3	Mg 279.077 IEC†	1162812.5	1304624.6	485930 µg/L	485930 ppb	18:56:01
3	Na 589.592 Radial†	36095.8	39213.0	5351.8 µg/L	5351.8 ppb	18:56:01
3	Sr 421.552†	220343.8	247387.5	510.53 µg/L	510.53 ppb	18:56:01
3	Sc 361.383	1505253.1	1505253.1	87.605 %		18:56:15
3	Y 371.029	887796.9	887796.9	86.472 %		18:56:15
3	Ag 328.068†	68315.0	73888.9	266.85 µg/L	266.85 ppb	18:56:15
3	As 188.979†	1427.8	1650.2	547.91 µg/L	547.91 ppb	18:56:17
3	B 249.677†	34091.4	35408.8	520.64 µg/L	520.64 ppb	18:56:15
3	Ba 233.527†	108923.3	124469.7	499.60 µg/L	499.60 ppb	18:56:15
3	Be 313.107†	788697.2	901347.5	245.57 µg/L	245.57 ppb	18:56:15
3	Cd 226.502†	69816.9	79812.9	478.61 µg/L	478.61 ppb	18:56:15
3	Co 228.616†	32104.8	36837.3	445.06 µg/L	445.06 ppb	18:56:17
3	Cr 267.716†	54241.6	61737.2	483.97 µg/L	483.97 ppb	18:56:17
3	Cu 324.752†	115315.5	128658.2	541.67 µg/L	541.67 ppb	18:56:15
3	Mn 257.610†	358650.2	409155.1	486.47 µg/L	486.47 ppb	18:56:15
3	Mo 202.031†	13985.2	15983.9	486.37 µg/L	486.37 ppb	18:56:17
3	Ni 231.604†	34565.9	39532.8	455.19 µg/L	455.19 ppb	18:56:17
3	P 214.914†	10680.3	12209.4	2587.2 µg/L	2587.2 ppb	18:56:17
3	Pb 220.353†	7037.5	7946.8	470.21 µg/L	470.21 ppb	18:56:17
3	S 181.975 Axial†	3275.8	3634.2	2702.6 µg/L	2702.6 ppb	18:56:17
3	Sb 206.836†	3858.4	4323.5	509.22 µg/L	509.22 ppb	18:56:17
3	Se 196.026†	5760.2	6559.9	2440 µg/L	2440 ppb	18:56:17
3	SiO2†	100355.9	112779.0	11003 µg/L	11003 ppb	18:56:15
3	Si 251.611†	307749.7	350453.9	5157.2 µg/L	5157.2 ppb	18:56:15
3	Sn 189.927†	6900.6	7878.0	492.90 µg/L	492.90 ppb	18:56:17
3	Ti 334.940†	498757.3	568369.4	503.63 µg/L	503.63 ppb	18:56:15
3	Tl 190.801†	3121.0	3679.2	460.34 µg/L	460.34 ppb	18:56:17
3	U 409.014†	7255.1	8551.4	510.28 µg/L	510.28 ppb	18:56:15
3	V 292.402†	95008.3	108046.4	513.68 µg/L	513.68 ppb	18:56:15
3	Zn 213.857†	80688.3	91539.7	494.68 µg/L	494.68 ppb	18:56:15

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1503625.4	87.511	%	0.0994				0.11%
Sc RADIAL	129759.5	88.9	%	0.50				0.57%
Y 371.029	886923.8	86.387	%	0.0912				0.11%
Ag 328.068†	73924.3	266.94	µg/L	0.141	266.94	ppb	0.141	0.05%
QC value within limits for Ag 328.068 Recovery = 106.78%								
Al 396.153Radial†	2737173.4	507450	µg/L	4467.8	507450	ppb	4467.8	0.88%
QC value within limits for Al 396.153Radial Recovery = 101.49%								
As 188.979†	1568.5	523.32	µg/L	23.543	523.32	ppb	23.543	4.50%
QC value within limits for As 188.979 Recovery = 104.66%								
B 249.677†	35294.3	518.96	µg/L	1.468	518.96	ppb	1.468	0.28%
QC value within limits for B 249.677 Recovery = 103.79%								
Ba 233.527†	124287.3	498.86	µg/L	0.724	498.86	ppb	0.724	0.15%
QC value within limits for Ba 233.527 Recovery = 99.77%								
Be 313.107†	900083.1	245.23	µg/L	0.367	245.23	ppb	0.367	0.15%
QC value within limits for Be 313.107 Recovery = 98.09%								
Ca 317.933Radial†	8686811.2	483890	µg/L	4711.2	483890	ppb	4711.2	0.97%
QC value within limits for Ca 317.933Radial Recovery = 96.78%								
Cd 226.502†	79451.4	476.29	µg/L	2.386	476.29	ppb	2.386	0.50%
QC value within limits for Cd 226.502 Recovery = 95.26%								
Co 228.616†	36631.2	442.49	µg/L	4.152	442.49	ppb	4.152	0.94%

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   QC value within limits for Co 228.616  Recovery = 88.50%
Cr 267.716†            61680.2      483.56 µg/L        2.310      483.56 ppb         2.310   0.48%
   QC value within limits for Cr 267.716  Recovery = 96.71%
Cu 324.752†           128594.5      541.50 µg/L        0.893      541.50 ppb         0.893   0.16%
   QC value within limits for Cu 324.752  Recovery = 108.30%
Fe 238.204 Radial†   3115060.8      191990 µg/L       1883.0      191990 ppb        1883.0   0.98%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.00%
K 766.490 Radial†      15814.2      5547.6 µg/L        52.66      5547.6 ppb         52.66   0.95%
   QC value within limits for K 766.490 Radial  Recovery = 110.95%
Mg 279.077 IEC†      1302424.3      485110 µg/L       1017.4      485110 ppb        1017.4   0.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.02%
Mn 257.610†           408534.9      485.73 µg/L        0.774      485.73 ppb         0.774   0.16%
   QC value within limits for Mn 257.610  Recovery = 97.15%
Mo 202.031†            16017.6      487.37 µg/L        1.662      487.37 ppb         1.662   0.34%
   QC value within limits for Mo 202.031  Recovery = 97.47%
Na 589.592 Radial†     39074.0      5332.8 µg/L        16.68      5332.8 ppb         16.68   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 106.66%
Ni 231.604†            39482.1      454.61 µg/L        3.068      454.61 ppb         3.068   0.67%
   QC value within limits for Ni 231.604  Recovery = 90.92%
P 214.914†             12125.2      2569.0 µg/L        28.88      2569.0 ppb         28.88   1.12%
   QC value within limits for P 214.914  Recovery = 102.76%
Pb 220.353†             7836.8      464.12 µg/L        9.210      464.12 ppb         9.210   1.98%
   QC value within limits for Pb 220.353  Recovery = 92.82%
S 181.975 Axial†        3609.8      2684.5 µg/L        19.56      2684.5 ppb         19.56   0.73%
   QC value within limits for S 181.975 Axial  Recovery = 107.38%
Sb 206.836†             4278.5      503.86 µg/L        4.707      503.86 ppb         4.707   0.93%
   QC value within limits for Sb 206.836  Recovery = 100.77%
Se 196.026†             6503.6        2420 µg/L         26.4        2420 ppb          26.4   1.09%
   QC value within limits for Se 196.026  Recovery = 96.73%
SiO2†                 112744.1       10999 µg/L         26.6       10999 ppb          26.6   0.24%
   QC value within limits for SiO2  Recovery = 102.85%
Si 251.611†           350370.0      5156.0 µg/L         9.97      5156.0 ppb         9.97   0.19%
   QC value within limits for Si 251.611  Recovery = 103.12%
Sn 189.927†             7745.9      484.66 µg/L        8.948      484.66 ppb        8.948   1.85%
   QC value within limits for Sn 189.927  Recovery = 96.93%
Sr 421.552†           247536.0      510.83 µg/L        0.344      510.83 ppb        0.344   0.07%
   QC value within limits for Sr 421.552  Recovery = 102.17%
Ti 334.940†           567707.2      503.12 µg/L        0.662      503.12 ppb        0.662   0.13%
   QC value within limits for Ti 334.940  Recovery = 100.62%
Tl 190.801†             3673.7      459.67 µg/L        6.804      459.67 ppb        6.804   1.48%
   QC value within limits for Tl 190.801  Recovery = 91.93%
U 409.014†              8601.8      513.13 µg/L        7.307      513.13 ppb        7.307   1.42%
   QC value within limits for U 409.014  Recovery = 102.63%
V 292.402†            108019.7      513.49 µg/L        0.422      513.49 ppb        0.422   0.08%
   QC value within limits for V 292.402  Recovery = 102.70%
Zn 213.857†            91389.3      493.78 µg/L        1.251      493.78 ppb        1.251   0.25%
   QC value within limits for Zn 213.857  Recovery = 98.76%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 3/31/2010 18:56:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128043.7	128043.7	87.7	%			18:56:58
1	Al 396.153Radial†	2381304.8	2714005.3	503180	µg/L	503180	ppb	18:56:56
1	Ca 317.933Radial†	7611014.0	8673613.0	483150	µg/L	483150	ppb	18:56:56
1	Fe 238.204 Radial†	6523125.5	7434173.2	458200	µg/L	458200	ppb	18:56:56
1	K 766.490 Radial†	2256.7	1027.2	53.040	µg/L	53.040	ppb	18:56:58
1	Mg 279.077 IEC†	1139739.5	1298755.6	483500	µg/L	483500	ppb	18:56:56
1	Na 589.592 Radial†	3271680.6	3727401.1	509210	µg/L	509210	ppb	18:56:56
1	Sr 421.552†	5079.9	5924.8	8.5355	µg/L	8.5355	ppb	18:56:58
1	Sc 361.383	1451583.4	1451583.4	84.482	%			18:57:26
1	Y 371.029	852879.4	852879.4	83.071	%			18:57:26
1	Ag 328.068†	2264.1	-1411.5	-0.2309	µg/L	-0.2309	ppb	18:57:26
1	As 188.979†	-305.1	-340.8	-0.3436	µg/L	-0.3436	ppb	18:57:28
1	B 249.677†	4415.2	1720.3	25.330	µg/L	25.330	ppb	18:57:26
1	Ba 233.527†	738.1	1009.5	-1.7895	µg/L	-1.7895	ppb	18:57:28
1	Be 313.107†	-15542.1	-17332.3	0.1527	µg/L	0.1527	ppb	18:57:26
1	Cd 226.502†	6136.8	7382.3	-2.0728	µg/L	-2.0728	ppb	18:57:28
1	Co 228.616†	663.9	976.1	-11.855	µg/L	-11.855	ppb	18:57:28
1	Cr 267.716†	326.4	207.8	-1.0531	µg/L	-1.0531	ppb	18:57:28
1	Cu 324.752†	-15976.1	-21882.9	8.0863	µg/L	8.0863	ppb	18:57:26
1	Mn 257.610†	18213.2	21321.4	5.9920	µg/L	5.9920	ppb	18:57:26
1	Mo 202.031†	-937.6	-1089.8	-5.0578	µg/L	-5.0578	ppb	18:57:26
1	Ni 231.604†	147.8	251.5	2.8954	µg/L	2.8954	ppb	18:57:28
1	P 214.914†	945.2	1136.8	44.272	µg/L	44.272	ppb	18:57:28
1	Pb 220.353†	-112.1	-219.1	-7.8626	µg/L	-7.8626	ppb	18:57:28
1	S 181.975 Axial†	176.1	103.3	76.471	µg/L	76.471	ppb	18:57:28
1	Sb 206.836†	186.9	140.4	7.1485	µg/L	7.1485	ppb	18:57:28
1	Se 196.026†	-404.8	-494.4	-4.21	µg/L	-4.21	ppb	18:57:28
1	SiO2†	1963.2	548.4	54.447	µg/L	54.447	ppb	18:57:28
1	Si 251.611†	-2032.7	-3242.6	-47.410	µg/L	-47.410	ppb	18:57:28
1	Sn 189.927†	64.2	77.1	4.9002	µg/L	4.9002	ppb	18:57:28
1	Ti 334.940†	26623.1	30560.8	-4.8606	µg/L	-4.8606	ppb	18:57:26
1	Tl 190.801†	-158.4	-70.8	-8.1165	µg/L	-8.1165	ppb	18:57:28
1	U 409.014†	232638.7	275640.9	16036	µg/L	16036	ppb	18:57:26
1	V 292.402†	7227.0	8150.7	1.9065	µg/L	1.9065	ppb	18:57:28
1	Zn 213.857†	8608.4	9625.2	9.4603	µg/L	9.4603	ppb	18:57:28
2	Sc RADIAL	127587.1	127587.1	87.4	%			18:57:03
2	Al 396.153Radial†	2344707.9	2681859.2	497220	µg/L	497220	ppb	18:57:01
2	Ca 317.933Radial†	7463583.8	8536029.3	475490	µg/L	475490	ppb	18:57:01
2	Fe 238.204 Radial†	6391908.1	7310696.0	450590	µg/L	450590	ppb	18:57:01
2	K 766.490 Radial†	2390.9	1189.8	117.32	µg/L	117.32	ppb	18:57:03
2	Mg 279.077 IEC†	1114206.6	1274200.4	474360	µg/L	474360	ppb	18:57:01
2	Na 589.592 Radial†	3209939.6	3670127.4	501380	µg/L	501380	ppb	18:57:01
2	Sr 421.552†	5135.8	6009.4	8.7715	µg/L	8.7715	ppb	18:57:03
2	Sc 361.383	1456448.3	1456448.3	84.765	%			18:57:30
2	Y 371.029	856251.9	856251.9	83.399	%			18:57:30
2	Ag 328.068†	2013.8	-1715.7	-1.0926	µg/L	-1.0926	ppb	18:57:30
2	As 188.979†	-237.9	-260.3	22.297	µg/L	22.297	ppb	18:57:32
2	B 249.677†	4229.1	1483.4	21.834	µg/L	21.834	ppb	18:57:30
2	Ba 233.527†	835.0	1121.0	-1.2428	µg/L	-1.2428	ppb	18:57:32
2	Be 313.107†	-15397.0	-17099.7	0.2214	µg/L	0.2214	ppb	18:57:30
2	Cd 226.502†	6036.4	7239.5	-2.1644	µg/L	-2.1644	ppb	18:57:32
2	Co 228.616†	696.8	1012.4	-11.010	µg/L	-11.010	ppb	18:57:32
2	Cr 267.716†	355.9	241.2	-0.9572	µg/L	-0.9572	ppb	18:57:32
2	Cu 324.752†	-16236.3	-22126.7	5.7984	µg/L	5.7984	ppb	18:57:30
2	Mn 257.610†	18248.7	21291.3	6.3374	µg/L	6.3374	ppb	18:57:30
2	Mo 202.031†	-933.0	-1080.6	-5.2559	µg/L	-5.2559	ppb	18:57:30
2	Ni 231.604†	134.2	234.9	2.7046	µg/L	2.7046	ppb	18:57:32
2	P 214.914†	1061.2	1269.9	76.619	µg/L	76.619	ppb	18:57:32
2	Pb 220.353†	-99.7	-204.1	-7.1629	µg/L	-7.1629	ppb	18:57:32

2	S 181.975 Axial†	67.9	-24.9	-18.790 µg/L	-18.790 ppb	18:57:32
2	Sb 206.836†	102.8	40.5	-4.5964 µg/L	-4.5964 ppb	18:57:32
2	Se 196.026†	-406.6	-495.0	-7.05 µg/L	-7.05 ppb	18:57:32
2	SiO2†	1830.8	384.5	38.395 µg/L	38.395 ppb	18:57:32
2	Si 251.611†	-1934.6	-3118.9	-45.598 µg/L	-45.598 ppb	18:57:32
2	Sn 189.927†	82.4	98.3	6.2185 µg/L	6.2185 ppb	18:57:32
2	Ti 334.940†	25364.2	28970.4	-5.8085 µg/L	-5.8085 ppb	18:57:30
2	Tl 190.801†	-211.8	-133.2	-15.794 µg/L	-15.794 ppb	18:57:32
2	U 409.014†	233675.5	275944.1	16055 µg/L	16055 ppb	18:57:30
2	V 292.402†	7224.5	8119.2	2.5727 µg/L	2.5727 ppb	18:57:32
2	Zn 213.857†	8699.2	9698.3	10.651 µg/L	10.651 ppb	18:57:32
3	Sc RADIAL	127845.5	127845.5	87.6 %		18:57:07
3	Al 396.153Radial†	2359012.1	2692767.9	499240 µg/L	499240 ppb	18:57:05
3	Ca 317.933Radial†	7510342.6	8572152.9	477500 µg/L	477500 ppb	18:57:05
3	Fe 238.204 Radial†	6434548.4	7344595.4	452680 µg/L	452680 ppb	18:57:05
3	K 766.490 Radial†	2440.5	1241.0	134.70 µg/L	134.70 ppb	18:57:07
3	Mg 279.077 IEC†	1121897.2	1280403.8	476670 µg/L	476670 ppb	18:57:05
3	Na 589.592 Radial†	3229732.0	3685301.0	503460 µg/L	503460 ppb	18:57:05
3	Sr 421.552†	4859.4	5682.0	8.0751 µg/L	8.0751 ppb	18:57:07
3	Sc 361.383	1472435.6	1472435.6	85.696 %		18:57:35
3	Y 371.029	865581.1	865581.1	84.308 %		18:57:35
3	Ag 328.068†	2006.5	-1749.9	-1.2878 µg/L	-1.2878 ppb	18:57:35
3	As 188.979†	-242.4	-262.5	22.088 µg/L	22.088 ppb	18:57:37
3	B 249.677†	4311.3	1525.1	22.443 µg/L	22.443 ppb	18:57:35
3	Ba 233.527†	597.3	832.8	-2.4315 µg/L	-2.4315 ppb	18:57:37
3	Be 313.107†	-15503.1	-17026.2	0.2432 µg/L	0.2432 ppb	18:57:35
3	Cd 226.502†	5998.3	7117.7	-3.1440 µg/L	-3.1440 ppb	18:57:37
3	Co 228.616†	825.0	1153.0	-9.3850 µg/L	-9.3850 ppb	18:57:37
3	Cr 267.716†	265.1	130.8	-1.7837 µg/L	-1.7837 ppb	18:57:37
3	Cu 324.752†	-16427.6	-22141.9	6.1120 µg/L	6.1120 ppb	18:57:35
3	Mn 257.610†	18616.4	21486.6	6.4820 µg/L	6.4820 ppb	18:57:35
3	Mo 202.031†	-951.0	-1089.6	-5.3968 µg/L	-5.3968 ppb	18:57:35
3	Ni 231.604†	238.5	354.9	4.0862 µg/L	4.0862 ppb	18:57:37
3	P 214.914†	1053.2	1246.9	70.775 µg/L	70.775 ppb	18:57:37
3	Pb 220.353†	-34.4	-126.5	-2.7794 µg/L	-2.7794 ppb	18:57:37
3	S 181.975 Axial†	188.2	114.6	84.800 µg/L	84.800 ppb	18:57:37
3	Sb 206.836†	165.1	111.8	3.8601 µg/L	3.8601 ppb	18:57:37
3	Se 196.026†	-442.3	-531.4	-19.5 µg/L	-19.5 ppb	18:57:37
3	SiO2†	1893.1	433.7	43.156 µg/L	43.156 ppb	18:57:37
3	Si 251.611†	-1908.7	-3063.9	-44.810 µg/L	-44.810 ppb	18:57:37
3	Sn 189.927†	139.3	163.7	10.296 µg/L	10.296 ppb	18:57:37
3	Ti 334.940†	26025.3	29416.9	-5.5292 µg/L	-5.5292 ppb	18:57:35
3	Tl 190.801†	-218.6	-138.4	-16.446 µg/L	-16.446 ppb	18:57:37
3	U 409.014†	236329.7	276048.2	16061 µg/L	16061 ppb	18:57:35
3	V 292.402†	7144.2	7933.0	1.4413 µg/L	1.4413 ppb	18:57:37
3	Zn 213.857†	8714.2	9604.4	9.9077 µg/L	9.9077 ppb	18:57:37

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1460155.8	84.981	%	0.6349				0.75%
Sc RADIAL	127825.4	87.6	%	0.16				0.18%
Y 371.029	858237.5	83.593	%	0.6409				0.77%
Ag 328.068†	-1625.7	-0.8704	µg/L	0.56237	-0.8704	ppb	0.56237	64.61%
Al 396.153Radial†	2696210.8	499880	µg/L	3030.8	499880	ppb	3030.8	0.61%
QC value within limits for Al 396.153Radial Recovery = 99.98%								
As 188.979†	-287.9	14.680	µg/L	13.0115	14.680	ppb	13.0115	88.63%
B 249.677†	1576.2	23.202	µg/L	1.8679	23.202	ppb	1.8679	8.05%
Ba 233.527†	987.8	-1.8213	µg/L	0.59497	-1.8213	ppb	0.59497	32.67%
Be 313.107†	-17152.7	0.2058	µg/L	0.04725	0.2058	ppb	0.04725	22.96%
Ca 317.933Radial†	8593931.8	478720	µg/L	3973.4	478720	ppb	3973.4	0.83%
QC value within limits for Ca 317.933Radial Recovery = 95.74%								
Cd 226.502†	7246.5	-2.4604	µg/L	0.59380	-2.4604	ppb	0.59380	24.13%
Co 228.616†	1047.2	-10.750	µg/L	1.2554	-10.750	ppb	1.2554	11.68%
Cr 267.716†	193.3	-1.2647	µg/L	0.45201	-1.2647	ppb	0.45201	35.74%
Cu 324.752†	-22050.5	6.6655	µg/L	1.24035	6.6655	ppb	1.24035	18.61%
Fe 238.204 Radial†	7363154.9	453820	µg/L	3932.0	453820	ppb	3932.0	0.87%
QC value within limits for Fe 238.204 Radial Recovery = 90.76%								
K 766.490 Radial†	1152.7	101.69	µg/L	43.017	101.69	ppb	43.017	42.30%
Mg 279.077 IEC†	1284453.2	478180	µg/L	4754.0	478180	ppb	4754.0	0.99%

QC value within limits for Mg 279.077 IEC Recovery = 95.64%

Mn 257.610†	21366.4	6.2705 µg/L	0.25177	6.2705 ppb	0.25177	4.02%
Mo 202.031†	-1086.7	-5.2368 µg/L	0.17026	-5.2368 ppb	0.17026	3.25%
Na 589.592 Radial†	3694276.5	504680 µg/L	4053.7	504680 ppb	4053.7	0.80%

QC value within limits for Na 589.592 Radial Recovery = 100.94%

Ni 231.604†	280.4	3.2287 µg/L	0.74869	3.2287 ppb	0.74869	23.19%
P 214.914†	1217.9	63.889 µg/L	17.2380	63.889 ppb	17.2380	26.98%
Pb 220.353†	-183.2	-5.9350 µg/L	2.75510	-5.9350 ppb	2.75510	46.42%
S 181.975 Axial†	64.3	47.494 µg/L	57.5543	47.494 ppb	57.5543	121.18%
Sb 206.836†	97.6	2.1374 µg/L	6.05903	2.1374 ppb	6.05903	283.48%
Se 196.026†	-506.9	-10.3 µg/L	8.13	-10.3 ppb	8.13	79.29%
SiO2†	455.6	45.333 µg/L	8.2442	45.333 ppb	8.2442	18.19%
Si 251.611†	-3141.8	-45.939 µg/L	1.3330	-45.939 ppb	1.3330	2.90%
Sn 189.927†	113.0	7.1383 µg/L	2.81321	7.1383 ppb	2.81321	39.41%
Sr 421.552†	5872.1	8.4607 µg/L	0.35414	8.4607 ppb	0.35414	4.19%
Ti 334.940†	29649.4	-5.3994 µg/L	0.48710	-5.3994 ppb	0.48710	9.02%
Tl 190.801†	-114.1	-13.452 µg/L	4.6323	-13.452 ppb	4.6323	34.44%
U 409.014†	275877.8	16051 µg/L	13.0	16051 ppb	13.0	0.08%

QC value within limits for U 409.014 Recovery = 107.00%

V 292.402†	8067.6	1.9735 µg/L	0.56868	1.9735 ppb	0.56868	28.82%
Zn 213.857†	9642.6	10.006 µg/L	0.6012	10.006 ppb	0.6012	6.01%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 3/31/2010 18:57:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138428.5	138428.5	94.9	%			18:58:18
1	Al 396.153Radial†	2589.6	2793.1	65.979	µg/L	65.979	ppb	18:58:20
1	Ca 317.933Radial†	2182.0	1739.6	96.903	µg/L	96.903	ppb	18:58:20
1	Fe 238.204 Radial†	-202.3	-361.4	-22.274	µg/L	-22.274	ppb	18:58:20
1	K 766.490 Radial†	763320.3	803139.1	294040	µg/L	294040	ppb	18:58:18
1	Mg 279.077 IEC†	-318.7	-526.7	41.787	µg/L	41.787	ppb	18:58:20
1	Na 589.592 Radial†	4722.3	3687.4	242.24	µg/L	242.24	ppb	18:58:18
1	Sr 421.552†	4464241.5	4706289.3	9784.1	µg/L	9784.1	ppb	18:58:15
1	Sc 361.383	1644054.1	1644054.1	95.684	%			18:58:42
1	Y 371.029	958940.9	958940.9	93.401	%			18:58:42
1	Ag 328.068†	-28181.7	-33544.4	-7.2060	µg/L	-7.2060	ppb	18:58:44
1	As 188.979†	32117.0	33586.2	10409	µg/L	10409	ppb	18:58:44
1	B 249.677†	322787.1	333842.2	4891.3	µg/L	4891.3	ppb	18:58:42
1	Ba 233.527†	3263599.9	3410957.3	13754	µg/L	13754	ppb	18:58:42
1	Be 313.107†	10059777.2	10514640.1	2862.8	µg/L	2862.8	ppb	18:58:38
1	Cd 226.502†	1463937.1	1530093.7	9561.7	µg/L	9561.7	ppb	18:58:42
1	Co 228.616†	720309.4	752993.0	9307.6	µg/L	9307.6	ppb	18:58:42
1	Cr 267.716†	2891693.7	3021959.9	23671	µg/L	23671	ppb	18:58:42
1	Cu 324.752†	4894436.4	5112253.1	19872	µg/L	19872	ppb	18:58:42
1	Mn 257.610†	7191165.6	7515323.1	9298.7	µg/L	9298.7	ppb	18:58:42
1	Mo 202.031†	316742.4	331050.8	9732.5	µg/L	9732.5	ppb	18:58:44
1	Ni 231.604†	799875.1	836034.2	9626.3	µg/L	9626.3	ppb	18:58:42
1	P 214.914†	68547.5	71657.7	15093	µg/L	15093	ppb	18:58:44
1	Pb 220.353†	401154.4	419164.2	23428	µg/L	23428	ppb	18:58:42
1	S 181.975 Axial†	67316.5	70248.1	52247	µg/L	52247	ppb	18:58:44
1	Sb 206.836†	80773.2	84336.1	9841.1	µg/L	9841.1	ppb	18:58:44
1	Se 196.026†	26033.9	27193.0	9830	µg/L	9830	ppb	18:58:44
1	SiO2†	974638.1	1016828.8	98967	µg/L	98967	ppb	18:58:42
1	Si 251.611†	3010622.9	3145596.0	46180	µg/L	46180	ppb	18:58:42
1	Sn 189.927†	151635.6	158477.0	9912.7	µg/L	9912.7	ppb	18:58:44
1	Ti 334.940†	10132846.9	10588988.8	9885.3	µg/L	9885.3	ppb	18:58:38
1	Tl 190.801†	74051.0	77508.1	9673.9	µg/L	9673.9	ppb	18:58:44
1	U 409.014†	-10469.2	-10671.6	-21.061	µg/L	-21.061	ppb	18:58:44
1	V 292.402†	1944343.2	2031649.1	10104	µg/L	10104	ppb	18:58:42
1	Zn 213.857†	2422227.0	2530929.6	14143	µg/L	14143	ppb	18:58:42
2	Sc RADIAL	138489.8	138489.8	94.9	%			18:58:24
2	Al 396.153Radial†	2632.4	2837.1	80.052	µg/L	80.052	ppb	18:58:26
2	Ca 317.933Radial†	2111.9	1664.8	92.734	µg/L	92.734	ppb	18:58:26
2	Fe 238.204 Radial†	-168.1	-325.2	-20.046	µg/L	-20.046	ppb	18:58:26
2	K 766.490 Radial†	768501.7	808242.3	295910	µg/L	295910	ppb	18:58:24
2	Mg 279.077 IEC†	-343.1	-552.3	29.128	µg/L	29.128	ppb	18:58:26
2	Na 589.592 Radial†	4657.2	3616.6	230.89	µg/L	230.89	ppb	18:58:24
2	Sr 421.552†	4443237.9	4682072.2	9733.8	µg/L	9733.8	ppb	18:58:22
2	Sc 361.383	1654174.4	1654174.4	96.273	%			18:58:52
2	Y 371.029	964160.7	964160.7	93.910	%			18:58:52
2	Ag 328.068†	-27980.3	-33155.0	-5.4230	µg/L	-5.4230	ppb	18:58:54
2	As 188.979†	31657.2	32903.2	10204	µg/L	10204	ppb	18:58:54
2	B 249.677†	326358.6	335488.1	4915.4	µg/L	4915.4	ppb	18:58:52
2	Ba 233.527†	3296633.7	3424402.5	13809	µg/L	13809	ppb	18:58:52
2	Be 313.107†	10113068.4	10505672.2	2860.3	µg/L	2860.3	ppb	18:58:48
2	Cd 226.502†	1483425.3	1540976.0	9629.7	µg/L	9629.7	ppb	18:58:52
2	Co 228.616†	729085.8	757503.5	9363.3	µg/L	9363.3	ppb	18:58:52
2	Cr 267.716†	2922280.8	3035241.6	23775	µg/L	23775	ppb	18:58:52
2	Cu 324.752†	4934401.1	5122469.9	19912	µg/L	19912	ppb	18:58:52
2	Mn 257.610†	7264987.1	7546022.1	9336.7	µg/L	9336.7	ppb	18:58:52
2	Mo 202.031†	314514.5	326711.4	9605.0	µg/L	9605.0	ppb	18:58:54
2	Ni 231.604†	809217.8	840624.1	9679.2	µg/L	9679.2	ppb	18:58:52
2	P 214.914†	67979.1	70628.9	14873	µg/L	14873	ppb	18:58:54
2	Pb 220.353†	406432.6	422081.8	23591	µg/L	23591	ppb	18:58:52

2	S 181.975 Axial†	66600.5	69074.0	51374 µg/L	51374 ppb	18:58:54
2	Sb 206.836†	80074.2	83093.5	9689.8 µg/L	9689.8 ppb	18:58:54
2	Se 196.026†	25686.7	26665.9	9640 µg/L	9640 ppb	18:58:54
2	SiO2†	986400.6	1022814.9	99557 µg/L	99557 ppb	18:58:52
2	Si 251.611†	3046941.6	3164070.8	46455 µg/L	46455 ppb	18:58:52
2	Sn 189.927†	150469.1	156295.8	9776.7 µg/L	9776.7 ppb	18:58:54
2	Ti 334.940†	10189195.0	10582728.8	9879.4 µg/L	9879.4 ppb	18:58:48
2	Tl 190.801†	73611.8	76578.5	9559.6 µg/L	9559.6 ppb	18:58:54
2	U 409.014†	-10364.3	-10495.7	-9.0352 µg/L	-9.0352 ppb	18:58:54
2	V 292.402†	1961854.5	2037406.1	10131 µg/L	10131 ppb	18:58:52
2	Zn 213.857†	2448683.7	2542922.9	14210 µg/L	14210 ppb	18:58:52
3	Sc RADIAL	137437.4	137437.4	94.2 %		18:58:31
3	Al 396.153Radial†	2618.6	2843.6	77.986 µg/L	77.986 ppb	18:58:33
3	Ca 317.933Radial†	2227.5	1804.6	100.52 µg/L	100.52 ppb	18:58:33
3	Fe 238.204 Radial†	-164.9	-323.2	-19.923 µg/L	-19.923 ppb	18:58:33
3	K 766.490 Radial†	765491.4	811247.2	297010 µg/L	297010 ppb	18:58:31
3	Mg 279.077 IEC†	-295.0	-503.9	48.881 µg/L	48.881 ppb	18:58:33
3	Na 589.592 Radial†	4456.0	3440.6	205.87 µg/L	205.87 ppb	18:58:31
3	Sr 421.552†	4441067.4	4715621.3	9803.5 µg/L	9803.5 ppb	18:58:29
3	Sc 361.383	1660837.4	1660837.4	96.660 %		18:59:01
3	Y 371.029	967825.2	967825.2	94.267 %		18:59:01
3	Ag 328.068†	-28451.9	-33526.3	-6.5821 µg/L	-6.5821 ppb	18:59:04
3	As 188.979†	32300.2	33436.5	10365 µg/L	10365 ppb	18:59:04
3	B 249.677†	328722.2	336573.4	4931.3 µg/L	4931.3 ppb	18:59:01
3	Ba 233.527†	3317615.9	3432372.0	13841 µg/L	13841 ppb	18:59:01
3	Be 313.107†	10133998.6	10485182.6	2854.7 µg/L	2854.7 ppb	18:58:58
3	Cd 226.502†	1494854.9	1546618.8	9664.9 µg/L	9664.9 ppb	18:59:01
3	Co 228.616†	734092.5	759645.0	9389.8 µg/L	9389.8 ppb	18:59:01
3	Cr 267.716†	2940364.9	3041773.0	23826 µg/L	23826 ppb	18:59:01
3	Cu 324.752†	4964197.6	5132733.3	19952 µg/L	19952 ppb	18:59:01
3	Mn 257.610†	7309991.3	7562306.7	9356.8 µg/L	9356.8 ppb	18:59:01
3	Mo 202.031†	318101.3	329111.4	9675.5 µg/L	9675.5 ppb	18:59:04
3	Ni 231.604†	815203.0	843443.9	9711.6 µg/L	9711.6 ppb	18:59:01
3	P 214.914†	69129.8	71536.1	15067 µg/L	15067 ppb	18:59:04
3	Pb 220.353†	409679.7	423747.3	23684 µg/L	23684 ppb	18:59:01
3	S 181.975 Axial†	67967.3	70210.4	52219 µg/L	52219 ppb	18:59:04
3	Sb 206.836†	81066.4	83786.4	9772.6 µg/L	9772.6 ppb	18:59:04
3	Se 196.026†	26138.8	27026.6	9770 µg/L	9770 ppb	18:59:04
3	SiO2†	993772.6	1026331.1	99898 µg/L	99898 ppb	18:59:01
3	Si 251.611†	3070650.4	3175901.7	46628 µg/L	46628 ppb	18:59:01
3	Sn 189.927†	152708.7	157985.7	9882.0 µg/L	9882.0 ppb	18:59:04
3	Ti 334.940†	10211863.8	10563720.7	9861.6 µg/L	9861.6 ppb	18:58:58
3	Tl 190.801†	74486.4	77176.5	9633.0 µg/L	9633.0 ppb	18:59:04
3	U 409.014†	-10678.1	-10777.2	-24.287 µg/L	-24.287 ppb	18:59:04
3	V 292.402†	1973672.0	2041456.5	10152 µg/L	10152 ppb	18:59:01
3	Zn 213.857†	2465384.0	2549996.1	14250 µg/L	14250 ppb	18:59:01

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1653021.9	96.206	%	0.4918				0.51%
Sc RADIAL	138118.6	94.6	%	0.40				0.43%
Y 371.029	963642.3	93.859	%	0.4349				0.46%
Ag 328.068†	-33408.6	-6.4037	µg/L	0.90480	-6.4037	ppb	0.90480	14.13%
Al 396.153Radial†	2824.6	74.672	µg/L	7.5994	74.672	ppb	7.5994	10.18%
As 188.979†	33308.6	10326	µg/L	108.5	10326	ppb	108.5	1.05%
QC value within limits for As 188.979 Recovery = 103.26%								
B 249.677†	335301.2	4912.7	µg/L	20.14	4912.7	ppb	20.14	0.41%
QC value within limits for B 249.677 Recovery = 98.25%								
Ba 233.527†	3422577.3	13801	µg/L	43.6	13801	ppb	43.6	0.32%
QC value within limits for Ba 233.527 Recovery = 92.01%								
Be 313.107†	10501831.6	2859.3	µg/L	4.11	2859.3	ppb	4.11	0.14%
QC value within limits for Be 313.107 Recovery = 95.31%								
Ca 317.933Radial†	1736.3	96.720	µg/L	3.8970	96.720	ppb	3.8970	4.03%
Cd 226.502†	1539229.5	9618.8	µg/L	52.49	9618.8	ppb	52.49	0.55%
QC value within limits for Cd 226.502 Recovery = 96.19%								
Co 228.616†	756713.8	9353.6	µg/L	41.95	9353.6	ppb	41.95	0.45%
QC value within limits for Co 228.616 Recovery = 93.54%								
Cr 267.716†	3032991.5	23758	µg/L	79.1	23758	ppb	79.1	0.33%
QC value within limits for Cr 267.716 Recovery = 95.03%								

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Cu 324.752†          5122485.4       19912 µg/L          39.8       19912 ppb          39.8   0.20%
   QC value within limits for Cu 324.752  Recovery = 99.56%
Fe 238.204 Radial†      -336.6     -20.748 µg/L        1.3234     -20.748 ppb        1.3234   6.38%
K 766.490 Radial†     807542.9      295650 µg/L        1500.7      295650 ppb        1500.7   0.51%
   QC value within limits for K 766.490 Radial  Recovery = 98.55%
Mg 279.077 IEC†         -527.6      39.932 µg/L       10.0061      39.932 ppb       10.0061  25.06%
Mn 257.610†          7541217.3      9330.7 µg/L         29.52      9330.7 ppb         29.52   0.32%
   QC value within limits for Mn 257.610  Recovery = 93.31%
Mo 202.031†           328957.9      9671.0 µg/L         63.88      9671.0 ppb         63.88   0.66%
   QC value within limits for Mo 202.031  Recovery = 96.71%
Na 589.592 Radial†      3581.5      226.33 µg/L        18.607      226.33 ppb        18.607   8.22%
Ni 231.604†           840034.1      9672.4 µg/L         43.06      9672.4 ppb         43.06   0.45%
   QC value within limits for Ni 231.604  Recovery = 96.72%
P 214.914†             71274.3       15011 µg/L         120.3       15011 ppb         120.3   0.80%
   QC value within limits for P 214.914  Recovery = 100.07%
Pb 220.353†           421664.4       23568 µg/L         129.3       23568 ppb         129.3   0.55%
   QC value within limits for Pb 220.353  Recovery = 94.27%
S 181.975 Axial†       69844.2       51947 µg/L         496.0       51947 ppb         496.0   0.95%
   QC value within limits for S 181.975 Axial  Recovery = 103.89%
Sb 206.836†            83738.7      9767.8 µg/L         75.75      9767.8 ppb         75.75   0.78%
   QC value within limits for Sb 206.836  Recovery = 97.68%
Se 196.026†            26961.8        9750 µg/L          97.4        9750 ppb          97.4   1.00%
   QC value within limits for Se 196.026  Recovery = 97.47%
SiO2†                1021991.6       99474 µg/L         471.0       99474 ppb         471.0   0.47%
   QC value within limits for SiO2  Recovery = 92.97%
Si 251.611†          3161856.2       46421 µg/L         225.8       46421 ppb         225.8   0.49%
   QC value within limits for Si 251.611  Recovery = 92.84%
Sn 189.927†           157586.2      9857.1 µg/L         71.32      9857.1 ppb         71.32   0.72%
   QC value within limits for Sn 189.927  Recovery = 98.57%
Sr 421.552†          4701327.6      9773.8 µg/L         36.00      9773.8 ppb         36.00   0.37%
   QC value within limits for Sr 421.552  Recovery = 97.74%
Ti 334.940†         10578479.4      9875.4 µg/L         12.32      9875.4 ppb         12.32   0.12%
   QC value within limits for Ti 334.940  Recovery = 98.75%
Tl 190.801†            77087.7      9622.1 µg/L         57.90      9622.1 ppb         57.90   0.60%
   QC value within limits for Tl 190.801  Recovery = 96.22%
U 409.014†            -10648.1     -18.128 µg/L        8.0380     -18.128 ppb        8.0380  44.34%
V 292.402†           2036837.3       10129 µg/L         24.0        10129 ppb         24.0   0.24%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†          2541282.9       14201 µg/L         53.8        14201 ppb         53.8   0.38%
   QC value within limits for Zn 213.857  Recovery = 94.68%
All analyte(s) passed QC.
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Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 18:59:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142139.5	142139.5	97.4	%			18:59:45
1	Al 396.153Radial†	26433.8	27201.9	5020.1	µg/L	5020.1	ppb	18:59:45
1	Ca 317.933Radial†	88689.7	90494.1	5040.9	µg/L	5040.9	ppb	18:59:45
1	Fe 238.204 Radial†	79307.5	81274.2	5009.2	µg/L	5009.2	ppb	18:59:45
1	K 766.490 Radial†	16771.4	15673.9	5734.3	µg/L	5734.3	ppb	18:59:45
1	Mg 279.077 IEC†	13660.1	13833.7	5162.1	µg/L	5162.1	ppb	18:59:45
1	Na 589.592 Radial†	73293.1	73956.7	10098	µg/L	10098	ppb	18:59:45
1	Sr 421.552†	230485.0	236766.3	492.18	µg/L	492.18	ppb	18:59:42
1	Sc 361.383	1685039.5	1685039.5	98.069	%			19:00:11
1	Y 371.029	998501.4	998501.4	97.255	%			19:00:11
1	Ag 328.068†	132676.3	131197.3	491.97	µg/L	491.97	ppb	19:00:11
1	As 188.979†	1601.0	1652.9	507.06	µg/L	507.06	ppb	19:00:31
1	B 249.677†	36255.7	33463.6	491.81	µg/L	491.81	ppb	19:00:11
1	Ba 233.527†	119950.7	122448.3	493.83	µg/L	493.83	ppb	19:00:11
1	Be 313.107†	1777442.6	1813504.8	493.92	µg/L	493.92	ppb	19:00:11
1	Cd 226.502†	77121.2	78757.9	491.64	µg/L	491.64	ppb	19:00:11
1	Co 228.616†	39140.7	40101.7	495.05	µg/L	495.05	ppb	19:00:11
1	Cr 267.716†	61794.1	62832.3	491.97	µg/L	491.97	ppb	19:00:11
1	Cu 324.752†	126997.2	126525.5	493.24	µg/L	493.24	ppb	19:00:11
1	Mn 257.610†	392842.9	400340.6	495.12	µg/L	495.12	ppb	19:00:11
1	Mo 202.031†	16539.5	16885.3	496.69	µg/L	496.69	ppb	19:00:31
1	Ni 231.604†	41890.8	42792.1	492.72	µg/L	492.72	ppb	19:00:11
1	P 214.914†	11336.8	11578.0	2467.8	µg/L	2467.8	ppb	19:00:31
1	Pb 220.353†	8936.3	9025.8	505.42	µg/L	505.42	ppb	19:00:31
1	S 181.975 Axial†	1440.2	1363.5	1016.7	µg/L	1016.7	ppb	19:00:31
1	Sb 206.836†	4150.3	4151.2	494.66	µg/L	494.66	ppb	19:00:31
1	Se 196.026†	1355.8	1367.2	496	µg/L	496	ppb	19:00:31
1	SiO2†	55729.4	55051.3	5359.5	µg/L	5359.5	ppb	19:00:11
1	Si 251.611†	167770.7	170237.6	2499.9	µg/L	2499.9	ppb	19:00:11
1	Sn 189.927†	7832.4	7987.8	499.62	µg/L	499.62	ppb	19:00:31
1	Ti 334.940†	519447.4	528722.7	493.33	µg/L	493.33	ppb	19:00:11
1	Tl 190.801†	3833.0	4025.2	501.97	µg/L	501.97	ppb	19:00:31
1	U 409.014†	7396.5	7812.0	486.67	µg/L	486.67	ppb	19:00:11
1	V 292.402†	98795.4	100336.9	496.05	µg/L	496.05	ppb	19:00:11
1	Zn 213.857†	87637.0	88798.1	494.94	µg/L	494.94	ppb	19:00:11
2	Sc RADIAL	141405.1	141405.1	96.9	%			18:59:49
2	Al 396.153Radial†	26316.7	27222.0	5023.9	µg/L	5023.9	ppb	18:59:49
2	Ca 317.933Radial†	88132.2	90391.6	5035.2	µg/L	5035.2	ppb	18:59:49
2	Fe 238.204 Radial†	78428.2	80789.6	4979.4	µg/L	4979.4	ppb	18:59:49
2	K 766.490 Radial†	16577.4	15563.0	5693.7	µg/L	5693.7	ppb	18:59:49
2	Mg 279.077 IEC†	13417.4	13656.1	5095.9	µg/L	5095.9	ppb	18:59:49
2	Na 589.592 Radial†	72730.8	73767.2	10072	µg/L	10072	ppb	18:59:49
2	Sr 421.552†	231214.8	238748.4	496.30	µg/L	496.30	ppb	18:59:47
2	Sc 361.383	1693366.2	1693366.2	98.554	%			19:00:35
2	Y 371.029	1002117.3	1002117.3	97.607	%			19:00:35
2	Ag 328.068†	134028.3	131903.9	494.57	µg/L	494.57	ppb	19:00:35
2	As 188.979†	1592.6	1636.4	502.08	µg/L	502.08	ppb	19:00:55
2	B 249.677†	36515.2	33545.2	493.02	µg/L	493.02	ppb	19:00:35
2	Ba 233.527†	120680.2	122587.1	494.39	µg/L	494.39	ppb	19:00:35
2	Be 313.107†	1789722.9	1817053.1	494.89	µg/L	494.89	ppb	19:00:35
2	Cd 226.502†	77769.6	79029.1	493.33	µg/L	493.33	ppb	19:00:35
2	Co 228.616†	39338.4	40106.1	495.11	µg/L	495.11	ppb	19:00:35
2	Cr 267.716†	62316.9	63052.8	493.70	µg/L	493.70	ppb	19:00:35
2	Cu 324.752†	127673.8	126575.3	493.42	µg/L	493.42	ppb	19:00:35
2	Mn 257.610†	395604.2	401172.7	496.16	µg/L	496.16	ppb	19:00:35
2	Mo 202.031†	16605.0	16868.7	496.20	µg/L	496.20	ppb	19:00:55
2	Ni 231.604†	42250.6	42947.2	494.51	µg/L	494.51	ppb	19:00:35
2	P 214.914†	11392.0	11577.2	2467.6	µg/L	2467.6	ppb	19:00:55
2	Pb 220.353†	8993.4	9039.0	506.15	µg/L	506.15	ppb	19:00:55

2	S 181.975 Axial†	1441.0	1357.1	1011.9 µg/L	1011.9 ppb	19:00:55
2	Sb 206.836†	4173.3	4153.7	494.93 µg/L	494.93 ppb	19:00:55
2	Se 196.026†	1369.6	1374.4	499 µg/L	499 ppb	19:00:55
2	SiO2†	55740.1	54782.8	5333.3 µg/L	5333.3 ppb	19:00:35
2	Si 251.611†	168764.7	170404.9	2502.4 µg/L	2502.4 ppb	19:00:35
2	Sn 189.927†	7855.7	7972.1	498.64 µg/L	498.64 ppb	19:00:55
2	Ti 334.940†	522510.2	529225.9	493.80 µg/L	493.80 ppb	19:00:35
2	Tl 190.801†	3874.1	4047.6	504.73 µg/L	504.73 ppb	19:00:55
2	U 409.014†	7341.8	7719.4	481.23 µg/L	481.23 ppb	19:00:35
2	V 292.402†	99158.5	100210.0	495.43 µg/L	495.43 ppb	19:00:35
2	Zn 213.857†	88086.4	88814.8	495.03 µg/L	495.03 ppb	19:00:35
3	Sc RADIAL	143105.8	143105.8	98.1 %		18:59:53
3	Al 396.153Radial†	26546.6	27133.7	5007.7 µg/L	5007.7 ppb	18:59:53
3	Ca 317.933Radial†	89145.0	90343.6	5032.5 µg/L	5032.5 ppb	18:59:53
3	Fe 238.204 Radial†	79321.5	80738.7	4976.2 µg/L	4976.2 ppb	18:59:53
3	K 766.490 Radial†	16684.6	15469.1	5659.4 µg/L	5659.4 ppb	18:59:53
3	Mg 279.077 IEC†	13656.7	13735.5	5125.4 µg/L	5125.4 ppb	18:59:53
3	Na 589.592 Radial†	73452.5	73611.2	10051 µg/L	10051 ppb	18:59:53
3	Sr 421.552†	233202.1	237939.3	494.62 µg/L	494.62 ppb	18:59:51
3	Sc 361.383	1698557.6	1698557.6	98.856 %		19:00:58
3	Y 371.029	1005300.2	1005300.2	97.917 %		19:00:58
3	Ag 328.068†	134027.1	131487.0	493.03 µg/L	493.03 ppb	19:00:58
3	As 188.979†	1600.3	1639.2	502.90 µg/L	502.90 ppb	19:01:18
3	B 249.677†	36626.1	33544.1	493.00 µg/L	493.00 ppb	19:00:58
3	Ba 233.527†	120865.6	122400.4	493.64 µg/L	493.64 ppb	19:00:58
3	Be 313.107†	1794818.7	1816657.7	494.78 µg/L	494.78 ppb	19:00:58
3	Cd 226.502†	77952.7	78973.1	492.98 µg/L	492.98 ppb	19:00:58
3	Co 228.616†	39410.3	40056.7	494.50 µg/L	494.50 ppb	19:00:58
3	Cr 267.716†	62267.5	62809.6	491.79 µg/L	491.79 ppb	19:00:58
3	Cu 324.752†	127710.6	126216.6	492.03 µg/L	492.03 ppb	19:00:58
3	Mn 257.610†	396581.9	400934.9	495.86 µg/L	495.86 ppb	19:00:58
3	Mo 202.031†	16557.8	16769.5	493.29 µg/L	493.29 ppb	19:01:18
3	Ni 231.604†	42318.2	42884.5	493.78 µg/L	493.78 ppb	19:00:58
3	P 214.914†	11368.7	11518.2	2455.0 µg/L	2455.0 ppb	19:01:18
3	Pb 220.353†	8920.7	8937.6	500.48 µg/L	500.48 ppb	19:01:18
3	S 181.975 Axial†	1449.3	1361.0	1014.8 µg/L	1014.8 ppb	19:01:18
3	Sb 206.836†	4163.9	4131.2	492.23 µg/L	492.23 ppb	19:01:18
3	Se 196.026†	1367.7	1368.2	497 µg/L	497 ppb	19:01:18
3	SiO2†	55966.4	54838.9	5338.9 µg/L	5338.9 ppb	19:00:58
3	Si 251.611†	169027.1	170146.9	2498.6 µg/L	2498.6 ppb	19:00:58
3	Sn 189.927†	7816.0	7907.6	494.62 µg/L	494.62 ppb	19:01:18
3	Ti 334.940†	523522.3	528629.3	493.24 µg/L	493.24 ppb	19:00:58
3	Tl 190.801†	3828.1	3989.1	497.54 µg/L	497.54 ppb	19:01:18
3	U 409.014†	7431.2	7787.1	485.18 µg/L	485.18 ppb	19:00:58
3	V 292.402†	99434.0	100181.1	495.25 µg/L	495.25 ppb	19:00:58
3	Zn 213.857†	87848.2	88300.5	492.15 µg/L	492.15 ppb	19:00:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1692321.1	98.493	%	0.3969				0.40%
Sc RADIAL	142216.8	97.5	%	0.58				0.60%
Y 371.029	1001973.0	97.593	%	0.3313				0.34%
Ag 328.068†	131529.4	493.19	µg/L	1.309	493.19	ppb	1.309	0.27%
QC value within limits for Ag 328.068 Recovery = 98.64%								
Al 396.153Radial†	27185.9	5017.2	µg/L	8.50	5017.2	ppb	8.50	0.17%
QC value within limits for Al 396.153Radial Recovery = 100.34%								
As 188.979†	1642.8	504.02	µg/L	2.669	504.02	ppb	2.669	0.53%
QC value within limits for As 188.979 Recovery = 100.80%								
B 249.677†	33517.6	492.61	µg/L	0.690	492.61	ppb	0.690	0.14%
QC value within limits for B 249.677 Recovery = 98.52%								
Ba 233.527†	122478.6	493.95	µg/L	0.391	493.95	ppb	0.391	0.08%
QC value within limits for Ba 233.527 Recovery = 98.79%								
Be 313.107†	1815738.5	494.53	µg/L	0.529	494.53	ppb	0.529	0.11%
QC value within limits for Be 313.107 Recovery = 98.91%								
Ca 317.933Radial†	90409.8	5036.2	µg/L	4.28	5036.2	ppb	4.28	0.09%
QC value within limits for Ca 317.933Radial Recovery = 100.72%								
Cd 226.502†	78920.1	492.65	µg/L	0.896	492.65	ppb	0.896	0.18%
QC value within limits for Cd 226.502 Recovery = 98.53%								
Co 228.616†	40088.2	494.89	µg/L	0.337	494.89	ppb	0.337	0.07%

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   QC value within limits for Co 228.616  Recovery = 98.98%
Cr 267.716†            62898.2      492.49 µg/L         1.054      492.49 ppb          1.054   0.21%
   QC value within limits for Cr 267.716  Recovery = 98.50%
Cu 324.752†           126439.1      492.90 µg/L         0.756      492.90 ppb          0.756   0.15%
   QC value within limits for Cu 324.752  Recovery = 98.58%
Fe 238.204 Radial†     80934.2      4988.3 µg/L         18.22      4988.3 ppb          18.22   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.77%
K 766.490 Radial†      15568.7      5695.8 µg/L         37.52      5695.8 ppb          37.52   0.66%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 113.92%
Mg 279.077 IEC†        13741.8      5127.8 µg/L         33.15      5127.8 ppb          33.15   0.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.56%
Mn 257.610†           400816.1      495.71 µg/L         0.532      495.71 ppb          0.532   0.11%
   QC value within limits for Mn 257.610  Recovery = 99.14%
Mo 202.031†            16841.2      495.39 µg/L         1.841      495.39 ppb          1.841   0.37%
   QC value within limits for Mo 202.031  Recovery = 99.08%
Na 589.592 Radial†     73778.4       10074 µg/L          23.6       10074 ppb           23.6   0.23%
   QC value within limits for Na 589.592 Radial  Recovery = 100.74%
Ni 231.604†            42874.6      493.67 µg/L         0.898      493.67 ppb          0.898   0.18%
   QC value within limits for Ni 231.604  Recovery = 98.73%
P 214.914†             11557.8      2463.5 µg/L          7.33      2463.5 ppb           7.33   0.30%
   QC value within limits for P 214.914  Recovery = 98.54%
Pb 220.353†             9000.8      504.02 µg/L         3.083      504.02 ppb          3.083   0.61%
   QC value within limits for Pb 220.353  Recovery = 100.80%
S 181.975 Axial†        1360.5      1014.5 µg/L          2.43      1014.5 ppb           2.43   0.24%
   QC value within limits for S 181.975 Axial  Recovery = 101.45%
Sb 206.836†             4145.4      493.94 µg/L         1.484      493.94 ppb          1.484   0.30%
   QC value within limits for Sb 206.836  Recovery = 98.79%
Se 196.026†             1370.0         497 µg/L           1.4         497 ppb            1.4   0.28%
   QC value within limits for Se 196.026  Recovery = 99.49%
SiO2†                  54891.0      5343.9 µg/L         13.80      5343.9 ppb          13.80   0.26%
   QC value within limits for SiO2  Recovery = 99.93%
Si 251.611†           170263.1      2500.3 µg/L          1.90      2500.3 ppb           1.90   0.08%
   QC value within limits for Si 251.611  Recovery = 100.01%
Sn 189.927†             7955.8      497.63 µg/L         2.649      497.63 ppb          2.649   0.53%
   QC value within limits for Sn 189.927  Recovery = 99.53%
Sr 421.552†           237818.0      494.37 µg/L         2.072      494.37 ppb          2.072   0.42%
   QC value within limits for Sr 421.552  Recovery = 98.87%
Ti 334.940†           528859.3      493.46 µg/L         0.302      493.46 ppb          0.302   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.69%
Tl 190.801†             4020.6      501.41 µg/L         3.629      501.41 ppb          3.629   0.72%
   QC value within limits for Tl 190.801  Recovery = 100.28%
U 409.014†              7772.9      484.36 µg/L         2.811      484.36 ppb          2.811   0.58%
   QC value within limits for U 409.014  Recovery = 96.87%
V 292.402†            100242.7      495.58 µg/L         0.417      495.58 ppb          0.417   0.08%
   QC value within limits for V 292.402  Recovery = 99.12%
Zn 213.857†            88637.8      494.04 µg/L         1.641      494.04 ppb          1.641   0.33%
   QC value within limits for Zn 213.857  Recovery = 98.81%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:01:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142576.4	142576.4	97.7	%			19:01:55
1	Al 396.153Radial†	57.6	122.1	22.616	µg/L	22.616	ppb	19:02:15
1	Ca 317.933Radial†	950.3	412.1	22.954	µg/L	22.954	ppb	19:02:15
1	Fe 238.204 Radial†	408.4	269.9	16.636	µg/L	16.636	ppb	19:02:15
1	K 766.490 Radial†	2351.3	861.8	315.49	µg/L	315.49	ppb	19:01:55
1	Mg 279.077 IEC†	256.3	71.6	26.675	µg/L	26.675	ppb	19:02:15
1	Na 589.592 Radial†	2324.7	1088.6	148.44	µg/L	148.44	ppb	19:01:55
1	Sr 421.552†	-47.4	86.8	0.1802	µg/L	0.1802	ppb	19:01:55
1	Sc 361.383	1712993.6	1712993.6	99.696	%			19:03:03
1	Y 371.029	1024574.5	1024574.5	99.794	%			19:03:03
1	Ag 328.068†	3862.6	-217.0	-0.8055	µg/L	-0.8055	ppb	19:03:05
1	As 188.979†	-11.7	8.6	2.6096	µg/L	2.6096	ppb	19:03:25
1	B 249.677†	3681.1	186.4	2.7486	µg/L	2.7486	ppb	19:03:05
1	Ba 233.527†	-102.8	32.7	0.1316	µg/L	0.1316	ppb	19:03:25
1	Be 313.107†	-845.8	216.4	0.0592	µg/L	0.0592	ppb	19:03:05
1	Cd 226.502†	-69.1	48.9	0.3038	µg/L	0.3038	ppb	19:03:25
1	Co 228.616†	-171.2	18.6	0.2289	µg/L	0.2289	ppb	19:03:25
1	Cr 267.716†	235.5	57.6	0.4508	µg/L	0.4508	ppb	19:03:25
1	Cu 324.752†	3139.9	177.3	0.6930	µg/L	0.6930	ppb	19:03:05
1	Mn 257.610†	387.8	151.7	0.1866	µg/L	0.1866	ppb	19:03:25
1	Mo 202.031†	-0.9	19.2	0.5643	µg/L	0.5643	ppb	19:03:25
1	Ni 231.604†	-84.9	-8.7	-0.0996	µg/L	-0.0996	ppb	19:03:25
1	P 214.914†	-24.3	-6.5	-1.3891	µg/L	-1.3891	ppb	19:03:25
1	Pb 220.353†	141.3	55.4	3.0911	µg/L	3.0911	ppb	19:03:25
1	S 181.975 Axial†	113.5	8.8	6.5060	µg/L	6.5060	ppb	19:03:25
1	Sb 206.836†	76.0	-4.6	-0.5451	µg/L	-0.5451	ppb	19:03:25
1	Se 196.026†	20.7	5.5	2.01	µg/L	2.01	ppb	19:03:25
1	SiO2†	1808.7	38.9	3.7615	µg/L	3.7615	ppb	19:03:25
1	Si 251.611†	1158.0	325.0	4.7734	µg/L	4.7734	ppb	19:03:05
1	Sn 189.927†	23.2	24.4	1.5199	µg/L	1.5199	ppb	19:03:25
1	Ti 334.940†	1109.4	160.3	0.1476	µg/L	0.1476	ppb	19:03:05
1	Tl 190.801†	-105.0	11.4	1.4002	µg/L	1.4002	ppb	19:03:25
1	U 409.014†	-251.8	17.3	0.9993	µg/L	0.9993	ppb	19:03:05
1	V 292.402†	359.4	-43.3	-0.2046	µg/L	-0.2046	ppb	19:03:05
1	Zn 213.857†	837.7	275.9	1.5483	µg/L	1.5483	ppb	19:03:25
2	Sc RADIAL	143802.6	143802.6	98.5	%			19:02:17
2	Al 396.153Radial†	-23.6	39.2	7.2646	µg/L	7.2646	ppb	19:02:37
2	Ca 317.933Radial†	724.5	174.6	9.7279	µg/L	9.7279	ppb	19:02:37
2	Fe 238.204 Radial†	241.4	96.9	5.9704	µg/L	5.9704	ppb	19:02:37
2	K 766.490 Radial†	2344.6	834.5	305.50	µg/L	305.50	ppb	19:02:17
2	Mg 279.077 IEC†	184.0	-4.0	-1.5026	µg/L	-1.5026	ppb	19:02:37
2	Na 589.592 Radial†	2222.6	964.7	131.52	µg/L	131.52	ppb	19:02:17
2	Sr 421.552†	-22.7	112.3	0.2333	µg/L	0.2333	ppb	19:02:17
2	Sc 361.383	1715539.4	1715539.4	99.844	%			19:03:27
2	Y 371.029	1025697.2	1025697.2	99.903	%			19:03:27
2	Ag 328.068†	4157.7	72.8	0.2757	µg/L	0.2757	ppb	19:03:30
2	As 188.979†	-16.7	3.7	1.1138	µg/L	1.1138	ppb	19:03:50
2	B 249.677†	3652.6	152.4	2.2465	µg/L	2.2465	ppb	19:03:30
2	Ba 233.527†	-103.8	31.9	0.1289	µg/L	0.1289	ppb	19:03:50
2	Be 313.107†	-800.4	263.0	0.0711	µg/L	0.0711	ppb	19:03:30
2	Cd 226.502†	-101.0	17.0	0.1059	µg/L	0.1059	ppb	19:03:50
2	Co 228.616†	-175.3	14.7	0.1813	µg/L	0.1813	ppb	19:03:50
2	Cr 267.716†	251.6	73.5	0.5772	µg/L	0.5772	ppb	19:03:50
2	Cu 324.752†	3073.4	105.9	0.4112	µg/L	0.4112	ppb	19:03:30
2	Mn 257.610†	351.3	114.6	0.1418	µg/L	0.1418	ppb	19:03:50
2	Mo 202.031†	-12.8	7.2	0.2126	µg/L	0.2126	ppb	19:03:50
2	Ni 231.604†	-67.1	9.3	0.1072	µg/L	0.1072	ppb	19:03:50
2	P 214.914†	-27.6	-9.7	-2.0622	µg/L	-2.0622	ppb	19:03:50
2	Pb 220.353†	95.6	9.4	0.5244	µg/L	0.5244	ppb	19:03:50

2	S 181.975 Axial†	105.7	0.8	0.6240 µg/L	0.6240 ppb		19:03:50
2	Sb 206.836†	85.0	4.3	0.5093 µg/L	0.5093 ppb		19:03:50
2	Se 196.026†	19.1	3.9	1.40 µg/L	1.40 ppb		19:03:50
2	SiO2†	1782.4	9.8	0.9335 µg/L	0.9335 ppb		19:03:50
2	Si 251.611†	944.9	109.8	1.6073 µg/L	1.6073 ppb		19:03:30
2	Sn 189.927†	21.6	22.8	1.4197 µg/L	1.4197 ppb		19:03:50
2	Ti 334.940†	960.9	9.8	0.0100 µg/L	0.0100 ppb		19:03:30
2	Tl 190.801†	-107.7	8.8	1.0828 µg/L	1.0828 ppb		19:03:50
2	U 409.014†	-298.4	-28.9	-1.6511 µg/L	-1.6511 ppb		19:03:30
2	V 292.402†	549.1	146.2	0.7161 µg/L	0.7161 ppb		19:03:30
2	Zn 213.857†	814.7	251.5	1.4114 µg/L	1.4114 ppb		19:03:50
3	Sc RADIAL	143637.2	143637.2	98.4 %			19:02:39
3	Al 396.153Radial†	-43.2	19.4	3.5840 µg/L	3.5840 ppb		19:03:00
3	Ca 317.933Radial†	715.6	166.4	9.2706 µg/L	9.2706 ppb		19:03:00
3	Fe 238.204 Radial†	242.5	98.3	6.0580 µg/L	6.0580 ppb		19:03:00
3	K 766.490 Radial†	2256.9	748.2	273.88 µg/L	273.88 ppb		19:02:39
3	Mg 279.077 IEC†	205.1	17.7	6.5824 µg/L	6.5824 ppb		19:03:00
3	Na 589.592 Radial†	2284.1	1029.7	140.43 µg/L	140.43 ppb		19:02:39
3	Sr 421.552†	11.7	147.2	0.3060 µg/L	0.3060 ppb		19:02:39
3	Sc 361.383	1722456.3	1722456.3	100.25 %			19:03:52
3	Y 371.029	1029533.6	1029533.6	100.28 %			19:03:52
3	Ag 328.068†	4007.1	-94.2	-0.3350 µg/L	-0.3350 ppb		19:03:54
3	As 188.979†	-18.8	1.6	0.4750 µg/L	0.4750 ppb		19:04:14
3	B 249.677†	3639.8	125.0	1.8421 µg/L	1.8421 ppb		19:03:54
3	Ba 233.527†	-117.1	19.1	0.0776 µg/L	0.0776 ppb		19:04:14
3	Be 313.107†	-721.4	345.0	0.0939 µg/L	0.0939 ppb		19:03:54
3	Cd 226.502†	-93.0	25.4	0.1581 µg/L	0.1581 ppb		19:04:14
3	Co 228.616†	-173.2	17.6	0.2167 µg/L	0.2167 ppb		19:04:14
3	Cr 267.716†	211.6	32.5	0.2552 µg/L	0.2552 ppb		19:04:14
3	Cu 324.752†	3092.5	112.7	0.4392 µg/L	0.4392 ppb		19:03:54
3	Mn 257.610†	342.1	104.0	0.1284 µg/L	0.1284 ppb		19:04:14
3	Mo 202.031†	-15.6	4.5	0.1336 µg/L	0.1336 ppb		19:04:14
3	Ni 231.604†	-90.2	-13.4	-0.1547 µg/L	-0.1547 ppb		19:04:14
3	P 214.914†	-22.3	-4.2	-0.9047 µg/L	-0.9047 ppb		19:04:14
3	Pb 220.353†	117.3	30.6	1.7079 µg/L	1.7079 ppb		19:04:14
3	S 181.975 Axial†	114.1	8.7	6.4890 µg/L	6.4890 ppb		19:04:14
3	Sb 206.836†	80.1	-1.0	-0.1107 µg/L	-0.1107 ppb		19:04:14
3	Se 196.026†	9.2	-6.1	-2.20 µg/L	-2.20 ppb		19:04:14
3	SiO2†	1811.5	31.7	3.0742 µg/L	3.0742 ppb		19:04:14
3	Si 251.611†	907.7	68.9	1.0043 µg/L	1.0043 ppb		19:03:54
3	Sn 189.927†	22.3	23.4	1.4577 µg/L	1.4577 ppb		19:04:14
3	Ti 334.940†	846.3	-108.3	-0.1015 µg/L	-0.1015 ppb		19:03:54
3	Tl 190.801†	-114.4	2.6	0.3215 µg/L	0.3215 ppb		19:04:14
3	U 409.014†	-270.6	-0.0	0.0667 µg/L	0.0667 ppb		19:03:54
3	V 292.402†	646.7	241.3	1.1790 µg/L	1.1790 ppb		19:03:54
3	Zn 213.857†	803.7	237.3	1.3332 µg/L	1.3332 ppb		19:04:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716996.5	99.929	%	0.2850				0.29%
Sc RADIAL	143338.8	98.2	%	0.46				0.46%
Y 371.029	1026601.8	99.992	%	0.2533				0.25%
Ag 328.068†	-79.5	-0.2883	µg/L	0.54213	-0.2883	ppb	0.54213	188.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	60.2	11.155	µg/L	10.0946	11.155	ppb	10.0946	90.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.6	1.3995	µg/L	1.09560	1.3995	ppb	1.09560	78.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	154.6	2.2791	µg/L	0.45415	2.2791	ppb	0.45415	19.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	27.9	0.1127	µg/L	0.03047	0.1127	ppb	0.03047	27.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	274.8	0.0748	µg/L	0.01765	0.0748	ppb	0.01765	23.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	251.0	13.984	µg/L	7.7715	13.984	ppb	7.7715	55.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	30.5	0.1893	µg/L	0.10254	0.1893	ppb	0.10254	54.18%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.0	0.2090	µg/L	0.02473	0.2090	ppb	0.02473	11.83%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              54.5      0.4277 µg/L       0.16226      0.4277 ppb        0.16226  37.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             132.0      0.5144 µg/L       0.15523      0.5144 ppb        0.15523  30.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      155.0      9.5549 µg/L       6.13280      9.5549 ppb        6.13280  64.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       814.8      298.29 µg/L        21.721      298.29 ppb         21.721   7.28%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          28.4      10.585 µg/L       14.5091      10.585 ppb        14.5091 137.07%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             123.4      0.1523 µg/L       0.03051      0.1523 ppb        0.03051  20.04%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.3      0.3035 µg/L       0.22930      0.3035 ppb        0.22930  75.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      1027.7      140.13 µg/L         8.461      140.13 ppb          8.461   6.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.3     -0.0490 µg/L       0.13810     -0.0490 ppb        0.13810 281.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -6.8     -1.4520 µg/L       0.58130     -1.4520 ppb        0.58130  40.03%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              31.8      1.7745 µg/L       1.28462      1.7745 ppb        1.28462  72.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.1      4.5397 µg/L       3.39110      4.5397 ppb        3.39110  74.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.4     -0.0489 µg/L       0.52991     -0.0489 ppb        0.52991 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.1       0.402 µg/L        2.2740       0.402 ppb         2.2740 564.97%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    26.8      2.5897 µg/L       1.47490      2.5897 ppb        1.47490  56.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             167.9      2.4617 µg/L       2.02458      2.4617 ppb        2.02458  82.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              23.5      1.4657 µg/L       0.05055      1.4657 ppb        0.05055   3.45%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             115.4      0.2398 µg/L       0.06313      0.2398 ppb        0.06313  26.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              20.6      0.0187 µg/L       0.12478      0.0187 ppb        0.12478 667.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.6      0.9348 µg/L       0.55437      0.9348 ppb        0.55437  59.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -3.9     -0.1950 µg/L       1.34448     -0.1950 ppb        1.34448 689.39%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              114.7      0.5635 µg/L       0.70433      0.5635 ppb        0.70433 125.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             254.9      1.4310 µg/L       0.10892      1.4310 ppb        0.10892   7.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Analysis Begun

Start Time: 3/31/2010 19:06:02 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 3/31/2010 18:15:19**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/31/2010 19:06:03**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142053.7	142053.7	97.3	%			19:06:36
1	Al 396.153Radial†	26187.8	26965.5	4976.4	µg/L	4976.4	ppb	19:06:36
1	Ca 317.933Radial†	87895.1	89732.8	4998.5	µg/L	4998.5	ppb	19:06:36
1	Fe 238.204 Radial†	78245.6	80232.5	4945.0	µg/L	4945.0	ppb	19:06:36

1	K 766.490 Radial†	15026.3	13891.5	5081.8 µg/L	5081.8 ppb	19:06:36
1	Mg 279.077 IEC†	13439.2	13615.2	5080.7 µg/L	5080.7 ppb	19:06:36
1	Na 589.592 Radial†	71676.4	72341.3	9878.2 µg/L	9878.2 ppb	19:06:36
1	Sr 421.552†	230855.8	237290.2	493.27 µg/L	493.27 ppb	19:06:34
1	Sc 361.383	1692635.7	1692635.7	98.511 %		19:06:49
1	Y 371.029	1002740.0	1002740.0	97.667 %		19:06:49
1	Ag 328.068†	133490.2	131416.3	492.76 µg/L	492.76 ppb	19:06:49
1	As 188.979†	1592.7	1637.1	502.26 µg/L	502.26 ppb	19:07:09
1	B 249.677†	36019.4	33057.9	485.83 µg/L	485.83 ppb	19:06:49
1	Ba 233.527†	119977.2	121926.4	491.73 µg/L	491.73 ppb	19:06:49
1	Be 313.107†	1788795.8	1816895.8	494.84 µg/L	494.84 ppb	19:06:49
1	Cd 226.502†	77305.4	78591.9	490.61 µg/L	490.61 ppb	19:06:49
1	Co 228.616†	39248.1	40031.6	494.19 µg/L	494.19 ppb	19:06:49
1	Cr 267.716†	61675.1	62428.6	488.81 µg/L	488.81 ppb	19:06:49
1	Cu 324.752†	126554.7	125495.2	489.22 µg/L	489.22 ppb	19:06:49
1	Mn 257.610†	394217.2	399938.0	494.63 µg/L	494.63 ppb	19:06:49
1	Mo 202.031†	16588.6	16859.4	495.93 µg/L	495.93 ppb	19:07:09
1	Ni 231.604†	41959.1	42669.8	491.31 µg/L	491.31 ppb	19:06:49
1	P 214.914†	11467.5	11658.8	2485.2 µg/L	2485.2 ppb	19:07:09
1	Pb 220.353†	8908.4	8956.6	501.56 µg/L	501.56 ppb	19:07:09
1	S 181.975 Axial†	1431.0	1347.6	1004.9 µg/L	1004.9 ppb	19:07:09
1	Sb 206.836†	4198.6	4181.2	498.27 µg/L	498.27 ppb	19:07:09
1	Se 196.026†	1378.4	1384.0	502 µg/L	502 ppb	19:07:09
1	SiO2†	55424.9	54487.2	5304.4 µg/L	5304.4 ppb	19:06:49
1	Si 251.611†	167452.8	169147.1	2483.8 µg/L	2483.8 ppb	19:06:49
1	Sn 189.927†	7877.5	7997.7	500.23 µg/L	500.23 ppb	19:07:09
1	Ti 334.940†	520670.2	527586.9	492.28 µg/L	492.28 ppb	19:06:49
1	Tl 190.801†	3872.9	4048.2	504.78 µg/L	504.78 ppb	19:07:09
1	U 409.014†	7291.5	7671.6	478.40 µg/L	478.40 ppb	19:06:49
1	V 292.402†	98968.4	100060.4	494.68 µg/L	494.68 ppb	19:06:49
1	Zn 213.857†	86928.5	87677.9	488.67 µg/L	488.67 ppb	19:06:49
2	Sc RADIAL	141682.9	141682.9	97.1 %		19:06:40
2	Al 396.153Radial†	26223.0	27072.3	4996.3 µg/L	4996.3 ppb	19:06:40
2	Ca 317.933Radial†	87546.1	89609.7	4991.6 µg/L	4991.6 ppb	19:06:40
2	Fe 238.204 Radial†	78166.5	80361.4	4953.0 µg/L	4953.0 ppb	19:06:40
2	K 766.490 Radial†	14890.1	13791.7	5045.3 µg/L	5045.3 ppb	19:06:40
2	Mg 279.077 IEC†	13407.1	13618.3	5081.7 µg/L	5081.7 ppb	19:06:40
2	Na 589.592 Radial†	71442.4	72293.1	9871.6 µg/L	9871.6 ppb	19:06:40
2	Sr 421.552†	234429.9	241592.0	502.22 µg/L	502.22 ppb	19:06:38
2	Sc 361.383	1693933.2	1693933.2	98.587 %		19:07:12
2	Y 371.029	1002754.3	1002754.3	97.669 %		19:07:12
2	Ag 328.068†	133887.2	131715.3	493.86 µg/L	493.86 ppb	19:07:12
2	As 188.979†	1584.7	1627.8	499.44 µg/L	499.44 ppb	19:07:32
2	B 249.677†	36086.4	33097.9	486.42 µg/L	486.42 ppb	19:07:12
2	Ba 233.527†	120244.1	122103.7	492.44 µg/L	492.44 ppb	19:07:12
2	Be 313.107†	1788194.1	1814894.6	494.30 µg/L	494.30 ppb	19:07:12
2	Cd 226.502†	77647.5	78878.9	492.40 µg/L	492.40 ppb	19:07:12
2	Co 228.616†	39316.5	40070.5	494.67 µg/L	494.67 ppb	19:07:12
2	Cr 267.716†	61922.8	62632.0	490.40 µg/L	490.40 ppb	19:07:12
2	Cu 324.752†	126725.3	125569.8	489.51 µg/L	489.51 ppb	19:07:12
2	Mn 257.610†	394218.9	399633.2	494.25 µg/L	494.25 ppb	19:07:12
2	Mo 202.031†	16463.2	16719.3	491.81 µg/L	491.81 ppb	19:07:32
2	Ni 231.604†	42154.2	42835.0	493.21 µg/L	493.21 ppb	19:07:12
2	P 214.914†	11314.3	11494.4	2450.0 µg/L	2450.0 ppb	19:07:32
2	Pb 220.353†	8825.1	8865.3	496.44 µg/L	496.44 ppb	19:07:32
2	S 181.975 Axial†	1411.2	1326.4	989.11 µg/L	989.11 ppb	19:07:32
2	Sb 206.836†	4167.4	4146.3	494.02 µg/L	494.02 ppb	19:07:32
2	Se 196.026†	1363.3	1367.5	497 µg/L	497 ppb	19:07:32
2	SiO2†	55444.1	54463.6	5302.3 µg/L	5302.3 ppb	19:07:12
2	Si 251.611†	167875.0	169445.1	2488.3 µg/L	2488.3 ppb	19:07:12
2	Sn 189.927†	7786.1	7898.8	494.07 µg/L	494.07 ppb	19:07:32
2	Ti 334.940†	520698.2	527210.5	491.92 µg/L	491.92 ppb	19:07:12
2	Tl 190.801†	3845.2	4017.0	500.93 µg/L	500.93 ppb	19:07:32
2	U 409.014†	7348.6	7723.9	481.39 µg/L	481.39 ppb	19:07:12
2	V 292.402†	98856.0	99869.4	493.71 µg/L	493.71 ppb	19:07:12
2	Zn 213.857†	87044.0	87727.5	488.93 µg/L	488.93 ppb	19:07:12
3	Sc RADIAL	140290.8	140290.8	96.1 %		19:06:44
3	Al 396.153Radial†	26121.4	27234.6	5026.5 µg/L	5026.5 ppb	19:06:44
3	Ca 317.933Radial†	86648.1	89570.3	4989.4 µg/L	4989.4 ppb	19:06:44
3	Fe 238.204 Radial†	77524.7	80492.7	4961.1 µg/L	4961.1 ppb	19:06:44
3	K 766.490 Radial†	14881.5	13934.9	5097.7 µg/L	5097.7 ppb	19:06:44

3	Mg 279.077 IEC†	13262.2	13604.5	5076.6 µg/L	5076.6 ppb	19:06:44
3	Na 589.592 Radial†	70817.9	72373.6	9882.6 µg/L	9882.6 ppb	19:06:44
3	Sr 421.552†	230738.3	240148.1	499.21 µg/L	499.21 ppb	19:06:42
3	Sc 361.383	1701566.9	1701566.9	99.031 %		19:07:35
3	Y 371.029	1007094.6	1007094.6	98.092 %		19:07:35
3	Ag 328.068†	134475.4	131699.9	493.82 µg/L	493.82 ppb	19:07:35
3	As 188.979†	1593.4	1629.4	499.91 µg/L	499.91 ppb	19:07:55
3	B 249.677†	36488.9	33340.1	489.99 µg/L	489.99 ppb	19:07:35
3	Ba 233.527†	120822.0	122140.2	492.59 µg/L	492.59 ppb	19:07:35
3	Be 313.107†	1801771.9	1820467.8	495.82 µg/L	495.82 ppb	19:07:35
3	Cd 226.502†	78139.4	79022.2	493.29 µg/L	493.29 ppb	19:07:35
3	Co 228.616†	39662.8	40241.2	496.77 µg/L	496.77 ppb	19:07:35
3	Cr 267.716†	62197.1	62627.2	490.36 µg/L	490.36 ppb	19:07:35
3	Cu 324.752†	127822.8	126101.4	491.58 µg/L	491.58 ppb	19:07:35
3	Mn 257.610†	397277.8	400928.1	495.85 µg/L	495.85 ppb	19:07:35
3	Mo 202.031†	16490.8	16672.2	490.43 µg/L	490.43 ppb	19:07:55
3	Ni 231.604†	42326.5	42817.2	493.01 µg/L	493.01 ppb	19:07:35
3	P 214.914†	11342.9	11471.9	2445.2 µg/L	2445.2 ppb	19:07:55
3	Pb 220.353†	8843.5	8843.7	495.23 µg/L	495.23 ppb	19:07:55
3	S 181.975 Axial†	1419.8	1328.6	990.72 µg/L	990.72 ppb	19:07:55
3	Sb 206.836†	4178.4	4138.4	493.07 µg/L	493.07 ppb	19:07:55
3	Se 196.026†	1363.2	1361.3	494 µg/L	494 ppb	19:07:55
3	SiO2†	56222.5	54997.3	5354.5 µg/L	5354.5 ppb	19:07:35
3	Si 251.611†	169502.3	170324.4	2501.3 µg/L	2501.3 ppb	19:07:35
3	Sn 189.927†	7808.9	7886.4	493.30 µg/L	493.30 ppb	19:07:55
3	Ti 334.940†	523661.8	527833.6	492.50 µg/L	492.50 ppb	19:07:35
3	Tl 190.801†	3856.9	4011.4	500.25 µg/L	500.25 ppb	19:07:55
3	U 409.014†	7413.7	7756.2	483.37 µg/L	483.37 ppb	19:07:35
3	V 292.402†	99576.3	100146.9	495.05 µg/L	495.05 ppb	19:07:35
3	Zn 213.857†	87808.2	88103.1	491.04 µg/L	491.04 ppb	19:07:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1696045.3	98.710	%	0.2809				0.28%
Sc RADIAL	141342.5	96.9	%	0.64				0.66%
Y 371.029	1004196.3	97.809	%	0.2445				0.25%
Ag 328.068†	131610.5	493.48	µg/L	0.624	493.48	ppb	0.624	0.13%
QC value within limits for Ag 328.068 Recovery = 98.70%								
Al 396.153Radial†	27090.8	4999.7	µg/L	25.24	4999.7	ppb	25.24	0.50%
QC value within limits for Al 396.153Radial Recovery = 99.99%								
As 188.979†	1631.4	500.54	µg/L	1.508	500.54	ppb	1.508	0.30%
QC value within limits for As 188.979 Recovery = 100.11%								
B 249.677†	33165.3	487.41	µg/L	2.247	487.41	ppb	2.247	0.46%
QC value within limits for B 249.677 Recovery = 97.48%								
Ba 233.527†	122056.8	492.25	µg/L	0.460	492.25	ppb	0.460	0.09%
QC value within limits for Ba 233.527 Recovery = 98.45%								
Be 313.107†	1817419.4	494.99	µg/L	0.769	494.99	ppb	0.769	0.16%
QC value within limits for Be 313.107 Recovery = 99.00%								
Ca 317.933Radial†	89637.6	4993.2	µg/L	4.72	4993.2	ppb	4.72	0.09%
QC value within limits for Ca 317.933Radial Recovery = 99.86%								
Cd 226.502†	78831.0	492.10	µg/L	1.368	492.10	ppb	1.368	0.28%
QC value within limits for Cd 226.502 Recovery = 98.42%								
Co 228.616†	40114.4	495.21	µg/L	1.376	495.21	ppb	1.376	0.28%
QC value within limits for Co 228.616 Recovery = 99.04%								
Cr 267.716†	62562.6	489.86	µg/L	0.907	489.86	ppb	0.907	0.19%
QC value within limits for Cr 267.716 Recovery = 97.97%								
Cu 324.752†	125722.1	490.10	µg/L	1.288	490.10	ppb	1.288	0.26%
QC value within limits for Cu 324.752 Recovery = 98.02%								
Fe 238.204 Radial†	80362.2	4953.0	µg/L	8.02	4953.0	ppb	8.02	0.16%
QC value within limits for Fe 238.204 Radial Recovery = 99.06%								
K 766.490 Radial†	13872.7	5074.9	µg/L	26.88	5074.9	ppb	26.88	0.53%
QC value within limits for K 766.490 Radial Recovery = 101.50%								
Mg 279.077 IEC†	13612.7	5079.7	µg/L	2.74	5079.7	ppb	2.74	0.05%
QC value within limits for Mg 279.077 IEC Recovery = 101.59%								
Mn 257.610†	400166.4	494.91	µg/L	0.838	494.91	ppb	0.838	0.17%
QC value within limits for Mn 257.610 Recovery = 98.98%								
Mo 202.031†	16750.3	492.72	µg/L	2.861	492.72	ppb	2.861	0.58%
QC value within limits for Mo 202.031 Recovery = 98.54%								
Na 589.592 Radial†	72336.0	9877.5	µg/L	5.51	9877.5	ppb	5.51	0.06%

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   QC value within limits for Na 589.592 Radial  Recovery = 98.77%
Ni 231.604†            42774.0      492.51 µg/L         1.044      492.51 ppb          1.044   0.21%
   QC value within limits for Ni 231.604  Recovery = 98.50%
P 214.914†             11541.7      2460.1 µg/L         21.83      2460.1 ppb          21.83   0.89%
   QC value within limits for P 214.914  Recovery = 98.40%
Pb 220.353†             8888.5      497.74 µg/L         3.356      497.74 ppb          3.356   0.67%
   QC value within limits for Pb 220.353  Recovery = 99.55%
S 181.975 Axial†        1334.2      994.90 µg/L         8.662      994.90 ppb          8.662   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 99.49%
Sb 206.836†             4155.3      495.12 µg/L         2.767      495.12 ppb          2.767   0.56%
   QC value within limits for Sb 206.836  Recovery = 99.02%
Se 196.026†             1370.9         498 µg/L           4.2         498 ppb            4.2   0.85%
   QC value within limits for Se 196.026  Recovery = 99.56%
SiO2†                  54649.4      5320.4 µg/L         29.56      5320.4 ppb          29.56   0.56%
   QC value within limits for SiO2  Recovery = 99.49%
Si 251.611†           169638.9      2491.1 µg/L          9.08      2491.1 ppb           9.08   0.36%
   QC value within limits for Si 251.611  Recovery = 99.65%
Sn 189.927†             7927.7      495.87 µg/L         3.802      495.87 ppb          3.802   0.77%
   QC value within limits for Sn 189.927  Recovery = 99.17%
Sr 421.552†           239676.8      498.23 µg/L         4.551      498.23 ppb          4.551   0.91%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           527543.7      492.23 µg/L         0.293      492.23 ppb          0.293   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.45%
Tl 190.801†             4025.5      501.99 µg/L         2.440      501.99 ppb          2.440   0.49%
   QC value within limits for Tl 190.801  Recovery = 100.40%
U 409.014†              7717.2      481.05 µg/L         2.502      481.05 ppb          2.502   0.52%
   QC value within limits for U 409.014  Recovery = 96.21%
V 292.402†            100025.5      494.48 µg/L         0.691      494.48 ppb          0.691   0.14%
   QC value within limits for V 292.402  Recovery = 98.90%
Zn 213.857†            87836.2      489.55 µg/L         1.301      489.55 ppb          1.301   0.27%
   QC value within limits for Zn 213.857  Recovery = 97.91%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:08:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143606.3	143606.3	98.4	%			19:08:33
1	Al 396.153Radial†	-40.6	21.9	4.0709	µg/L	4.0709	ppb	19:08:53
1	Ca 317.933Radial†	593.8	42.8	2.3863	µg/L	2.3863	ppb	19:08:53
1	Fe 238.204 Radial†	181.2	36.0	2.2211	µg/L	2.2211	ppb	19:08:53
1	K 766.490 Radial†	1807.5	291.9	106.87	µg/L	106.87	ppb	19:08:33
1	Mg 279.077 IEC†	167.1	-20.9	-7.7799	µg/L	-7.7799	ppb	19:08:53
1	Na 589.592 Radial†	1829.3	568.1	77.508	µg/L	77.508	ppb	19:08:33
1	Sr 421.552†	-159.2	-26.5	-0.0550	µg/L	-0.0550	ppb	19:08:33
1	Sc 361.383	1699498.0	1699498.0	98.911	%			19:09:55
1	Y 371.029	1016806.2	1016806.2	99.037	%			19:09:55
1	Ag 328.068†	3769.0	-280.8	-1.0378	µg/L	-1.0378	ppb	19:09:57
1	As 188.979†	-4.4	15.9	4.8042	µg/L	4.8042	ppb	19:10:17
1	B 249.677†	3588.4	122.0	1.7978	µg/L	1.7978	ppb	19:09:57
1	Ba 233.527†	-115.2	19.4	0.0783	µg/L	0.0783	ppb	19:10:17
1	Be 313.107†	-954.3	99.8	0.0273	µg/L	0.0273	ppb	19:09:57
1	Cd 226.502†	-91.5	25.7	0.1602	µg/L	0.1602	ppb	19:10:17
1	Co 228.616†	-158.7	29.9	0.3690	µg/L	0.3690	ppb	19:10:17
1	Cr 267.716†	173.6	-3.0	-0.0236	µg/L	-0.0236	ppb	19:10:17
1	Cu 324.752†	3195.6	258.6	1.0054	µg/L	1.0054	ppb	19:09:57
1	Mn 257.610†	286.5	52.4	0.0651	µg/L	0.0651	ppb	19:10:17
1	Mo 202.031†	-26.1	-6.3	-0.1854	µg/L	-0.1854	ppb	19:10:17
1	Ni 231.604†	-117.6	-42.4	-0.4885	µg/L	-0.4885	ppb	19:10:17
1	P 214.914†	-30.3	-12.6	-2.7014	µg/L	-2.7014	ppb	19:10:17
1	Pb 220.353†	88.8	3.4	0.1879	µg/L	0.1879	ppb	19:10:17
1	S 181.975 Axial†	97.0	-6.9	-5.1546	µg/L	-5.1546	ppb	19:10:17
1	Sb 206.836†	72.1	-8.0	-0.9474	µg/L	-0.9474	ppb	19:10:17
1	Se 196.026†	15.9	0.8	0.281	µg/L	0.281	ppb	19:10:17
1	SiO2†	1782.8	27.1	2.6348	µg/L	2.6348	ppb	19:09:57
1	Si 251.611†	842.6	15.3	0.2204	µg/L	0.2204	ppb	19:09:57
1	Sn 189.927†	17.4	18.7	1.1657	µg/L	1.1657	ppb	19:10:17
1	Ti 334.940†	982.6	40.9	0.0388	µg/L	0.0388	ppb	19:09:57
1	Tl 190.801†	-115.4	-0.0	-0.0031	µg/L	-0.0031	ppb	19:10:17
1	U 409.014†	-263.1	3.9	0.2381	µg/L	0.2381	ppb	19:09:57
1	V 292.402†	432.1	33.1	0.1592	µg/L	0.1592	ppb	19:09:57
1	Zn 213.857†	662.7	105.6	0.5956	µg/L	0.5956	ppb	19:10:17
2	Sc RADIAL	143906.0	143906.0	98.6	%			19:08:55
2	Al 396.153Radial†	-30.9	31.9	5.9210	µg/L	5.9210	ppb	19:09:15
2	Ca 317.933Radial†	576.5	24.0	1.3374	µg/L	1.3374	ppb	19:09:15
2	Fe 238.204 Radial†	194.8	49.4	3.0451	µg/L	3.0451	ppb	19:09:15
2	K 766.490 Radial†	1821.8	302.6	110.79	µg/L	110.79	ppb	19:08:55
2	Mg 279.077 IEC†	181.6	-6.5	-2.4285	µg/L	-2.4285	ppb	19:09:15
2	Na 589.592 Radial†	1674.8	407.6	55.585	µg/L	55.585	ppb	19:08:55
2	Sr 421.552†	-76.3	57.9	0.1204	µg/L	0.1204	ppb	19:08:55
2	Sc 361.383	1701303.0	1701303.0	99.016	%			19:10:20
2	Y 371.029	1018421.2	1018421.2	99.195	%			19:10:20
2	Ag 328.068†	4174.8	124.9	0.4507	µg/L	0.4507	ppb	19:10:22
2	As 188.979†	-9.4	10.9	3.3020	µg/L	3.3020	ppb	19:10:42
2	B 249.677†	3516.0	45.1	0.6647	µg/L	0.6647	ppb	19:10:22
2	Ba 233.527†	-149.1	-14.7	-0.0595	µg/L	-0.0595	ppb	19:10:42
2	Be 313.107†	-839.9	216.4	0.0569	µg/L	0.0569	ppb	19:10:22
2	Cd 226.502†	-102.1	15.1	0.0939	µg/L	0.0939	ppb	19:10:42
2	Co 228.616†	-188.6	-0.1	-0.0019	µg/L	-0.0019	ppb	19:10:42
2	Cr 267.716†	211.4	34.9	0.2788	µg/L	0.2788	ppb	19:10:42
2	Cu 324.752†	2916.8	-26.4	-0.1080	µg/L	-0.1080	ppb	19:10:22
2	Mn 257.610†	284.4	50.0	0.0619	µg/L	0.0619	ppb	19:10:42
2	Mo 202.031†	-25.0	-5.2	-0.1530	µg/L	-0.1530	ppb	19:10:42
2	Ni 231.604†	-103.9	-28.5	-0.3278	µg/L	-0.3278	ppb	19:10:42
2	P 214.914†	-33.0	-15.3	-3.2711	µg/L	-3.2711	ppb	19:10:42
2	Pb 220.353†	114.7	29.5	1.6503	µg/L	1.6503	ppb	19:10:42

2	S 181.975 Axial†	99.7	-4.4	-3.2387 µg/L	-3.2387 ppb	19:10:42
2	Sb 206.836†	76.2	-3.9	-0.4635 µg/L	-0.4635 ppb	19:10:42
2	Se 196.026†	16.5	1.4	0.491 µg/L	0.491 ppb	19:10:42
2	SiO2†	1763.9	6.1	0.5919 µg/L	0.5919 ppb	19:10:22
2	Si 251.611†	911.5	84.0	1.2359 µg/L	1.2359 ppb	19:10:22
2	Sn 189.927†	8.3	9.5	0.5950 µg/L	0.5950 ppb	19:10:42
2	Ti 334.940†	886.7	-57.0	-0.0503 µg/L	-0.0503 ppb	19:10:22
2	Tl 190.801†	-114.1	1.5	0.1759 µg/L	0.1759 ppb	19:10:42
2	U 409.014†	-383.3	-117.2	-6.8703 µg/L	-6.8703 ppb	19:10:22
2	V 292.402†	344.9	-55.5	-0.2761 µg/L	-0.2761 ppb	19:10:22
2	Zn 213.857†	648.7	90.7	0.5114 µg/L	0.5114 ppb	19:10:42
3	Sc RADIAL	142315.2	142315.2	97.5 %		19:09:17
3	Al 396.153Radial†	-52.2	9.6	1.7667 µg/L	1.7667 ppb	19:09:37
3	Ca 317.933Radial†	577.3	31.3	1.7458 µg/L	1.7458 ppb	19:09:37
3	Fe 238.204 Radial†	193.7	50.5	3.1105 µg/L	3.1105 ppb	19:09:37
3	K 766.490 Radial†	1715.2	213.9	78.318 µg/L	78.318 ppb	19:09:17
3	Mg 279.077 IEC†	194.2	8.4	3.1563 µg/L	3.1563 ppb	19:09:37
3	Na 589.592 Radial†	1682.9	434.8	59.332 µg/L	59.332 ppb	19:09:17
3	Sr 421.552†	-204.0	-73.9	-0.1537 µg/L	-0.1537 ppb	19:09:17
3	Sc 361.383	1707432.2	1707432.2	99.372 %		19:10:44
3	Y 371.029	1021900.0	1021900.0	99.534 %		19:10:44
3	Ag 328.068†	4053.2	-12.6	-0.0528 µg/L	-0.0528 ppb	19:10:46
3	As 188.979†	-2.3	18.1	5.4690 µg/L	5.4690 ppb	19:11:06
3	B 249.677†	3514.8	31.1	0.4591 µg/L	0.4591 ppb	19:10:46
3	Ba 233.527†	-138.9	-3.9	-0.0159 µg/L	-0.0159 ppb	19:11:06
3	Be 313.107†	-1076.7	-18.8	-0.0056 µg/L	-0.0056 ppb	19:10:46
3	Cd 226.502†	-100.3	17.3	0.1074 µg/L	0.1074 ppb	19:11:06
3	Co 228.616†	-200.8	-11.7	-0.1450 µg/L	-0.1450 ppb	19:11:06
3	Cr 267.716†	180.7	3.3	0.0269 µg/L	0.0269 ppb	19:11:06
3	Cu 324.752†	3029.2	76.1	0.2948 µg/L	0.2948 ppb	19:10:46
3	Mn 257.610†	296.9	61.5	0.0760 µg/L	0.0760 ppb	19:11:06
3	Mo 202.031†	-3.7	16.3	0.4802 µg/L	0.4802 ppb	19:11:06
3	Ni 231.604†	-90.5	-14.6	-0.1676 µg/L	-0.1676 ppb	19:11:06
3	P 214.914†	-14.2	3.7	0.7799 µg/L	0.7799 ppb	19:11:06
3	Pb 220.353†	92.0	6.2	0.3485 µg/L	0.3485 ppb	19:11:06
3	S 181.975 Axial†	108.0	3.6	2.6796 µg/L	2.6796 ppb	19:11:06
3	Sb 206.836†	87.9	7.6	0.9107 µg/L	0.9107 ppb	19:11:06
3	Se 196.026†	15.0	-0.2	-0.060 µg/L	-0.060 ppb	19:11:06
3	SiO2†	1735.7	-28.7	-2.8190 µg/L	-2.8190 ppb	19:10:46
3	Si 251.611†	790.1	-41.5	-0.6182 µg/L	-0.6182 ppb	19:10:46
3	Sn 189.927†	-1.2	-0.1	-0.0053 µg/L	-0.0053 ppb	19:11:06
3	Ti 334.940†	766.5	-181.2	-0.1688 µg/L	-0.1688 ppb	19:10:46
3	Tl 190.801†	-101.0	15.0	1.8436 µg/L	1.8436 ppb	19:11:06
3	U 409.014†	-295.6	-27.6	-1.6324 µg/L	-1.6324 ppb	19:10:46
3	V 292.402†	332.8	-68.9	-0.3322 µg/L	-0.3322 ppb	19:10:46
3	Zn 213.857†	625.3	64.8	0.3648 µg/L	0.3648 ppb	19:11:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1702744.4	99.099	%	0.2420				0.24%
Sc RADIAL	143275.8	98.2	%	0.58				0.59%
Y 371.029	1019042.5	99.255	%	0.2535				0.26%
Ag 328.068†	-56.2	-0.2133	µg/L	0.75716	-0.2133	ppb	0.75716	354.96%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	21.2	3.9195	µg/L	2.08128	3.9195	ppb	2.08128	53.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	15.0	4.5251	µg/L	1.11017	4.5251	ppb	1.11017	24.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	66.0	0.9738	µg/L	0.72094	0.9738	ppb	0.72094	74.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.3	0.0009	µg/L	0.07043	0.0009	ppb	0.07043	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	99.2	0.0262	µg/L	0.03124	0.0262	ppb	0.03124	119.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	32.7	1.8232	µg/L	0.52869	1.8232	ppb	0.52869	29.00%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.4	0.1205	µg/L	0.03504	0.1205	ppb	0.03504	29.08%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.0	0.0740	µg/L	0.26530	0.0740	ppb	0.26530	358.50%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                11.7      0.0940 µg/L       0.16198      0.0940 ppb        0.16198 172.24%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               102.8      0.3974 µg/L       0.56376      0.3974 ppb        0.56376 141.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         45.3      2.7923 µg/L       0.49571      2.7923 ppb        0.49571  17.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         269.5     98.660 µg/L       17.7254     98.660 ppb        17.7254  17.97%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -6.3     -2.3507 µg/L       5.46855     -2.3507 ppb        5.46855 232.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                54.6      0.0677 µg/L       0.00738      0.0677 ppb        0.00738  10.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.6      0.0473 µg/L       0.37526      0.0473 ppb        0.37526 793.90%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        470.2     64.142 µg/L       11.7262     64.142 ppb        11.7262  18.28%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -28.5     -0.3280 µg/L       0.16046     -0.3280 ppb        0.16046  48.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.1     -1.7309 µg/L       2.19296     -1.7309 ppb        2.19296 126.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                13.0      0.7289 µg/L       0.80200      0.7289 ppb        0.80200 110.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.6     -1.9046 µg/L       4.08395     -1.9046 ppb        4.08395 214.43%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.4     -0.1667 µg/L       0.96394     -0.1667 ppb        0.96394 578.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.7       0.238 µg/L        0.2782       0.238 ppb         0.2782 117.02%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       1.5      0.1359 µg/L       2.75534      0.1359 ppb        2.75534 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                19.3      0.2794 µg/L       0.92845      0.2794 ppb        0.92845 332.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 9.4      0.5851 µg/L       0.58554      0.5851 ppb        0.58554 100.07%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -14.1     -0.0294 µg/L       0.13885     -0.0294 ppb        0.13885 471.87%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -65.8     -0.0601 µg/L       0.10414     -0.0601 ppb        0.10414 173.25%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.5      0.6721 µg/L       1.01847      0.6721 ppb        1.01847 151.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -47.0     -2.7549 µg/L       3.68475     -2.7549 ppb        3.68475 133.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -30.4     -0.1497 µg/L       0.26898     -0.1497 ppb        0.26898 179.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                87.0      0.4906 µg/L       0.11682      0.4906 ppb        0.11682  23.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 19:27:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144745.8	144745.8	99.2	%			19:28:15
1	Al 396.153Radial†	26764.4	27046.5	4991.6	µg/L	4991.6	ppb	19:28:15
1	Ca 317.933Radial†	89467.8	89639.1	4993.2	µg/L	4993.2	ppb	19:28:15
1	Fe 238.204 Radial†	79722.2	80226.2	4944.7	µg/L	4944.7	ppb	19:28:15
1	K 766.490 Radial†	14982.5	13560.3	4960.6	µg/L	4960.6	ppb	19:28:15
1	Mg 279.077 IEC†	13759.9	13681.8	5105.4	µg/L	5105.4	ppb	19:28:15
1	Na 589.592 Radial†	72591.2	71894.2	9817.2	µg/L	9817.2	ppb	19:28:15
1	Sr 421.552†	234529.9	236583.6	491.80	µg/L	491.80	ppb	19:28:12
1	Sc 361.383	1725305.4	1725305.4	100.41	%			19:28:27
1	Y 371.029	1020728.0	1020728.0	99.419	%			19:28:27
1	Ag 328.068†	136300.1	131648.8	493.59	µg/L	493.59	ppb	19:28:27
1	As 188.979†	1633.4	1647.0	505.23	µg/L	505.23	ppb	19:28:47
1	B 249.677†	36849.8	33192.5	487.82	µg/L	487.82	ppb	19:28:27
1	Ba 233.527†	122221.5	121855.2	491.44	µg/L	491.44	ppb	19:28:27
1	Be 313.107†	1820741.4	1814326.2	494.14	µg/L	494.14	ppb	19:28:27
1	Cd 226.502†	78844.9	78639.2	490.90	µg/L	490.90	ppb	19:28:27
1	Co 228.616†	39847.3	39874.0	492.24	µg/L	492.24	ppb	19:28:27
1	Cr 267.716†	62843.9	62407.1	488.65	µg/L	488.65	ppb	19:28:27
1	Cu 324.752†	129009.2	125507.0	489.26	µg/L	489.26	ppb	19:28:27
1	Mn 257.610†	401352.4	399466.3	494.04	µg/L	494.04	ppb	19:28:27
1	Mo 202.031†	16754.7	16705.9	491.42	µg/L	491.42	ppb	19:28:47
1	Ni 231.604†	42787.5	42688.2	491.52	µg/L	491.52	ppb	19:28:27
1	P 214.914†	11575.7	11546.1	2461.1	µg/L	2461.1	ppb	19:28:47
1	Pb 220.353†	8987.5	8864.2	496.39	µg/L	496.39	ppb	19:28:47
1	S 181.975 Axial†	1425.3	1314.4	980.21	µg/L	980.21	ppb	19:28:47
1	Sb 206.836†	4236.7	4138.5	493.11	µg/L	493.11	ppb	19:28:47
1	Se 196.026†	1383.3	1362.3	495	µg/L	495	ppb	19:28:47
1	SiO2†	56481.4	54474.0	5303.3	µg/L	5303.3	ppb	19:28:27
1	Si 251.611†	170572.5	169035.2	2482.3	µg/L	2482.3	ppb	19:28:27
1	Sn 189.927†	7932.0	7900.5	494.17	µg/L	494.17	ppb	19:28:47
1	Ti 334.940†	529379.1	526251.8	491.03	µg/L	491.03	ppb	19:28:27
1	Tl 190.801†	3920.2	4020.8	501.40	µg/L	501.40	ppb	19:28:47
1	U 409.014†	7328.3	7568.1	472.22	µg/L	472.22	ppb	19:28:27
1	V 292.402†	100463.2	99646.7	492.61	µg/L	492.61	ppb	19:28:27
1	Zn 213.857†	88617.6	87689.1	488.73	µg/L	488.73	ppb	19:28:27
2	Sc RADIAL	143128.0	143128.0	98.1	%			19:28:19
2	Al 396.153Radial†	26390.4	26970.3	4977.5	µg/L	4977.5	ppb	19:28:19
2	Ca 317.933Radial†	88547.9	89720.6	4997.8	µg/L	4997.8	ppb	19:28:19
2	Fe 238.204 Radial†	78967.6	80365.3	4953.2	µg/L	4953.2	ppb	19:28:19
2	K 766.490 Radial†	14857.2	13603.3	4976.3	µg/L	4976.3	ppb	19:28:19
2	Mg 279.077 IEC†	13593.0	13668.4	5100.4	µg/L	5100.4	ppb	19:28:19
2	Na 589.592 Radial†	71676.1	71788.4	9802.7	µg/L	9802.7	ppb	19:28:19
2	Sr 421.552†	234348.1	239070.9	496.98	µg/L	496.98	ppb	19:28:17
2	Sc 361.383	1734628.6	1734628.6	100.96	%			19:28:51
2	Y 371.029	1025716.4	1025716.4	99.905	%			19:28:51
2	Ag 328.068†	136816.4	131430.6	492.82	µg/L	492.82	ppb	19:28:51
2	As 188.979†	1631.9	1636.9	502.17	µg/L	502.17	ppb	19:29:11
2	B 249.677†	37069.7	33213.1	488.12	µg/L	488.12	ppb	19:28:51
2	Ba 233.527†	122992.1	121964.3	491.88	µg/L	491.88	ppb	19:28:51
2	Be 313.107†	1838526.2	1822196.9	496.29	µg/L	496.29	ppb	19:28:51
2	Cd 226.502†	79892.7	79255.0	494.75	µg/L	494.75	ppb	19:28:51
2	Co 228.616†	40292.1	40101.3	495.05	µg/L	495.05	ppb	19:28:51
2	Cr 267.716†	63389.6	62611.4	490.23	µg/L	490.23	ppb	19:28:51
2	Cu 324.752†	129959.6	125757.9	490.25	µg/L	490.25	ppb	19:28:51
2	Mn 257.610†	404701.1	400635.0	495.49	µg/L	495.49	ppb	19:28:51
2	Mo 202.031†	16826.1	16687.0	490.86	µg/L	490.86	ppb	19:29:11
2	Ni 231.604†	43211.3	42879.0	493.72	µg/L	493.72	ppb	19:28:51
2	P 214.914†	11647.2	11554.9	2462.9	µg/L	2462.9	ppb	19:29:11
2	Pb 220.353†	9025.0	8853.2	495.76	µg/L	495.76	ppb	19:29:11

2	S 181.975 Axial†	1448.9	1330.1	991.87 µg/L	991.87 ppb	19:29:11
2	Sb 206.836†	4260.0	4138.9	493.13 µg/L	493.13 ppb	19:29:11
2	Se 196.026†	1384.1	1355.7	492 µg/L	492 ppb	19:29:11
2	SiO2†	56922.3	54608.4	5316.4 µg/L	5316.4 ppb	19:28:51
2	Si 251.611†	172250.5	169784.3	2493.3 µg/L	2493.3 ppb	19:28:51
2	Sn 189.927†	7982.8	7908.4	494.67 µg/L	494.67 ppb	19:29:11
2	Ti 334.940†	533116.5	527120.2	491.83 µg/L	491.83 ppb	19:28:51
2	Tl 190.801†	3941.1	4020.5	501.37 µg/L	501.37 ppb	19:29:11
2	U 409.014†	7625.6	7823.4	487.25 µg/L	487.25 ppb	19:28:51
2	V 292.402†	101346.4	99983.8	494.26 µg/L	494.26 ppb	19:28:51
2	Zn 213.857†	89423.9	88013.5	490.54 µg/L	490.54 ppb	19:28:51
3	Sc RADIAL	145496.7	145496.7	99.7 %		19:28:23
3	Al 396.153Radial†	26858.9	27002.0	4983.3 µg/L	4983.3 ppb	19:28:23
3	Ca 317.933Radial†	90156.6	89864.4	5005.8 µg/L	5005.8 ppb	19:28:23
3	Fe 238.204 Radial†	80315.1	80406.1	4955.7 µg/L	4955.7 ppb	19:28:23
3	K 766.490 Radial†	15083.0	13583.2	4968.9 µg/L	4968.9 ppb	19:28:23
3	Mg 279.077 IEC†	13878.0	13728.6	5122.9 µg/L	5122.9 ppb	19:28:23
3	Na 589.592 Radial†	72879.8	71805.9	9805.1 µg/L	9805.1 ppb	19:28:23
3	Sr 421.552†	234221.7	235054.0	488.62 µg/L	488.62 ppb	19:28:21
3	Sc 361.383	1725210.5	1725210.5	100.41 %		19:29:14
3	Y 371.029	1019973.4	1019973.4	99.346 %		19:29:14
3	Ag 328.068†	135997.1	131354.5	492.51 µg/L	492.51 ppb	19:29:14
3	As 188.979†	1616.1	1629.9	500.07 µg/L	500.07 ppb	19:29:34
3	B 249.677†	36719.7	33065.0	485.94 µg/L	485.94 ppb	19:29:14
3	Ba 233.527†	122082.7	121723.7	490.91 µg/L	490.91 ppb	19:29:14
3	Be 313.107†	1823924.9	1817596.6	495.03 µg/L	495.03 ppb	19:29:14
3	Cd 226.502†	79138.6	78936.0	492.75 µg/L	492.75 ppb	19:29:14
3	Co 228.616†	39917.6	39946.1	493.13 µg/L	493.13 ppb	19:29:14
3	Cr 267.716†	63023.3	62589.2	490.08 µg/L	490.08 ppb	19:29:14
3	Cu 324.752†	129255.3	125759.2	490.24 µg/L	490.24 ppb	19:29:14
3	Mn 257.610†	401870.3	400004.1	494.71 µg/L	494.71 ppb	19:29:14
3	Mo 202.031†	16781.3	16733.4	492.23 µg/L	492.23 ppb	19:29:34
3	Ni 231.604†	42953.4	42855.8	493.45 µg/L	493.45 ppb	19:29:14
3	P 214.914†	11608.1	11579.0	2468.1 µg/L	2468.1 ppb	19:29:34
3	Pb 220.353†	9009.0	8886.1	497.61 µg/L	497.61 ppb	19:29:34
3	S 181.975 Axial†	1440.9	1330.0	991.78 µg/L	991.78 ppb	19:29:34
3	Sb 206.836†	4230.2	4132.2	492.36 µg/L	492.36 ppb	19:29:34
3	Se 196.026†	1386.3	1365.4	496 µg/L	496 ppb	19:29:34
3	SiO2†	56734.1	54728.8	5328.1 µg/L	5328.1 ppb	19:29:14
3	Si 251.611†	171053.5	169523.6	2489.4 µg/L	2489.4 ppb	19:29:14
3	Sn 189.927†	7957.3	7926.1	495.77 µg/L	495.77 ppb	19:29:34
3	Ti 334.940†	529976.9	526876.1	491.61 µg/L	491.61 ppb	19:29:14
3	Tl 190.801†	3905.9	4006.8	499.68 µg/L	499.68 ppb	19:29:34
3	U 409.014†	7243.0	7483.6	467.35 µg/L	467.35 ppb	19:29:14
3	V 292.402†	100691.8	99879.9	493.76 µg/L	493.76 ppb	19:29:14
3	Zn 213.857†	88689.8	87765.9	489.15 µg/L	489.15 ppb	19:29:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1728381.5	100.59	%	0.315				0.31%
Sc RADIAL	144456.8	99.0	%	0.83				0.84%
Y 371.029	1022139.3	99.557	%	0.3040				0.31%
Ag 328.068†	131478.0	492.97	µg/L	0.557	492.97	ppb	0.557	0.11%
QC value within limits for Ag 328.068 Recovery = 98.59%								
Al 396.153Radial†	27006.3	4984.1	µg/L	7.09	4984.1	ppb	7.09	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.68%								
As 188.979†	1637.9	502.49	µg/L	2.596	502.49	ppb	2.596	0.52%
QC value within limits for As 188.979 Recovery = 100.50%								
B 249.677†	33156.9	487.29	µg/L	1.181	487.29	ppb	1.181	0.24%
QC value within limits for B 249.677 Recovery = 97.46%								
Ba 233.527†	121847.7	491.41	µg/L	0.486	491.41	ppb	0.486	0.10%
QC value within limits for Ba 233.527 Recovery = 98.28%								
Be 313.107†	1818039.9	495.15	µg/L	1.079	495.15	ppb	1.079	0.22%
QC value within limits for Be 313.107 Recovery = 99.03%								
Ca 317.933Radial†	89741.4	4998.9	µg/L	6.35	4998.9	ppb	6.35	0.13%
QC value within limits for Ca 317.933Radial Recovery = 99.98%								
Cd 226.502†	78943.4	492.80	µg/L	1.924	492.80	ppb	1.924	0.39%
QC value within limits for Cd 226.502 Recovery = 98.56%								
Co 228.616†	39973.8	493.47	µg/L	1.433	493.47	ppb	1.433	0.29%

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   QC value within limits for Co 228.616  Recovery = 98.69%
Cr 267.716†            62535.9      489.65 µg/L         0.875      489.65 ppb          0.875   0.18%
   QC value within limits for Cr 267.716  Recovery = 97.93%
Cu 324.752†           125674.7      489.91 µg/L         0.568      489.91 ppb          0.568   0.12%
   QC value within limits for Cu 324.752  Recovery = 97.98%
Fe 238.204 Radial†     80332.5      4951.2 µg/L          5.81      4951.2 ppb           5.81   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.02%
K 766.490 Radial†      13582.3      4968.6 µg/L          7.88      4968.6 ppb           7.88   0.16%
   QC value within limits for K 766.490 Radial  Recovery = 99.37%
Mg 279.077 IEC†        13692.9      5109.5 µg/L         11.80      5109.5 ppb          11.80   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.19%
Mn 257.610†           400035.1      494.75 µg/L         0.724      494.75 ppb          0.724   0.15%
   QC value within limits for Mn 257.610  Recovery = 98.95%
Mo 202.031†            16708.8      491.50 µg/L         0.686      491.50 ppb          0.686   0.14%
   QC value within limits for Mo 202.031  Recovery = 98.30%
Na 589.592 Radial†     71829.5      9808.4 µg/L          7.75      9808.4 ppb           7.75   0.08%
   QC value within limits for Na 589.592 Radial  Recovery = 98.08%
Ni 231.604†            42807.7      492.90 µg/L         1.199      492.90 ppb          1.199   0.24%
   QC value within limits for Ni 231.604  Recovery = 98.58%
P 214.914†             11560.0      2464.0 µg/L          3.63      2464.0 ppb           3.63   0.15%
   QC value within limits for P 214.914  Recovery = 98.56%
Pb 220.353†             8867.8      496.59 µg/L         0.942      496.59 ppb          0.942   0.19%
   QC value within limits for Pb 220.353  Recovery = 99.32%
S 181.975 Axial†        1324.9      987.95 µg/L         6.702      987.95 ppb          6.702   0.68%
   QC value within limits for S 181.975 Axial  Recovery = 98.80%
Sb 206.836†             4136.5      492.87 µg/L         0.436      492.87 ppb          0.436   0.09%
   QC value within limits for Sb 206.836  Recovery = 98.57%
Se 196.026†             1361.2         494 µg/L           1.8         494 ppb            1.8   0.36%
   QC value within limits for Se 196.026  Recovery = 98.85%
SiO2†                  54603.7      5315.9 µg/L         12.44      5315.9 ppb         12.44   0.23%
   QC value within limits for SiO2  Recovery = 99.41%
Si 251.611†           169447.7      2488.3 µg/L          5.61      2488.3 ppb           5.61   0.23%
   QC value within limits for Si 251.611  Recovery = 99.53%
Sn 189.927†             7911.7      494.87 µg/L         0.819      494.87 ppb          0.819   0.17%
   QC value within limits for Sn 189.927  Recovery = 98.97%
Sr 421.552†           236902.8      492.47 µg/L         4.215      492.47 ppb          4.215   0.86%
   QC value within limits for Sr 421.552  Recovery = 98.49%
Ti 334.940†           526749.4      491.49 µg/L         0.416      491.49 ppb          0.416   0.08%
   QC value within limits for Ti 334.940  Recovery = 98.30%
Tl 190.801†             4016.0      500.82 µg/L         0.981      500.82 ppb          0.981   0.20%
   QC value within limits for Tl 190.801  Recovery = 100.16%
U 409.014†              7625.0      475.61 µg/L        10.374      475.61 ppb         10.374   2.18%
   QC value within limits for U 409.014  Recovery = 95.12%
V 292.402†             99836.8      493.54 µg/L         0.847      493.54 ppb          0.847   0.17%
   QC value within limits for V 292.402  Recovery = 98.71%
Zn 213.857†            87822.9      489.47 µg/L         0.946      489.47 ppb          0.946   0.19%
   QC value within limits for Zn 213.857  Recovery = 97.89%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:29:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145475.6	145475.6	99.7	%			19:30:11
1	Al 396.153Radial†	-75.1	-12.2	-2.2232	µg/L	-2.2232	ppb	19:30:31
1	Ca 317.933Radial†	587.7	29.0	1.6154	µg/L	1.6154	ppb	19:30:31
1	Fe 238.204 Radial†	164.7	17.2	1.0571	µg/L	1.0571	ppb	19:30:31
1	K 766.490 Radial†	1612.2	72.5	26.524	µg/L	26.524	ppb	19:30:11
1	Mg 279.077 IEC†	187.3	-2.8	-1.0689	µg/L	-1.0689	ppb	19:30:31
1	Na 589.592 Radial†	1489.8	203.6	27.794	µg/L	27.794	ppb	19:30:11
1	Sr 421.552†	-307.3	-173.0	-0.3597	µg/L	-0.3597	ppb	19:30:11
1	Sc 361.383	1698492.9	1698492.9	98.852	%			19:31:33
1	Y 371.029	1016683.6	1016683.6	99.025	%			19:31:33
1	Ag 328.068†	3801.1	-246.1	-0.8975	µg/L	-0.8975	ppb	19:31:35
1	As 188.979†	-17.7	2.5	0.7531	µg/L	0.7531	ppb	19:31:55
1	B 249.677†	3427.3	-38.8	-0.5719	µg/L	-0.5719	ppb	19:31:35
1	Ba 233.527†	-135.5	-1.2	-0.0047	µg/L	-0.0047	ppb	19:31:55
1	Be 313.107†	-787.7	267.8	0.0745	µg/L	0.0745	ppb	19:31:35
1	Cd 226.502†	-126.1	-9.3	-0.0586	µg/L	-0.0586	ppb	19:31:55
1	Co 228.616†	-187.3	0.8	0.0098	µg/L	0.0098	ppb	19:31:55
1	Cr 267.716†	185.7	9.3	0.0694	µg/L	0.0694	ppb	19:31:55
1	Cu 324.752†	2920.3	-18.0	-0.0655	µg/L	-0.0655	ppb	19:31:35
1	Mn 257.610†	272.9	38.8	0.0481	µg/L	0.0481	ppb	19:31:55
1	Mo 202.031†	-42.5	-22.9	-0.6735	µg/L	-0.6735	ppb	19:31:55
1	Ni 231.604†	-89.8	-14.3	-0.1646	µg/L	-0.1646	ppb	19:31:55
1	P 214.914†	-7.3	10.6	2.2741	µg/L	2.2741	ppb	19:31:55
1	Pb 220.353†	105.5	20.3	1.1296	µg/L	1.1296	ppb	19:31:55
1	S 181.975 Axial†	107.5	3.7	2.7631	µg/L	2.7631	ppb	19:31:55
1	Sb 206.836†	82.4	2.5	0.2868	µg/L	0.2868	ppb	19:31:55
1	Se 196.026†	15.9	0.8	0.284	µg/L	0.284	ppb	19:31:55
1	SiO2†	1750.8	-4.2	-0.4021	µg/L	-0.4021	ppb	19:31:55
1	Si 251.611†	831.1	4.2	0.0667	µg/L	0.0667	ppb	19:31:35
1	Sn 189.927†	9.7	11.0	0.6833	µg/L	0.6833	ppb	19:31:55
1	Ti 334.940†	1069.9	129.8	0.1193	µg/L	0.1193	ppb	19:31:35
1	Tl 190.801†	-107.7	7.8	0.9584	µg/L	0.9584	ppb	19:31:55
1	U 409.014†	-179.0	88.9	5.2323	µg/L	5.2323	ppb	19:31:35
1	V 292.402†	528.0	130.3	0.6323	µg/L	0.6323	ppb	19:31:35
1	Zn 213.857†	590.7	33.1	0.1869	µg/L	0.1869	ppb	19:31:55
2	Sc RADIAL	144319.0	144319.0	98.9	%			19:30:33
2	Al 396.153Radial†	-78.7	-16.4	-3.0556	µg/L	-3.0556	ppb	19:30:53
2	Ca 317.933Radial†	611.2	57.5	3.2020	µg/L	3.2020	ppb	19:30:53
2	Fe 238.204 Radial†	171.3	25.1	1.5453	µg/L	1.5453	ppb	19:30:53
2	K 766.490 Radial†	1571.9	44.7	16.347	µg/L	16.347	ppb	19:30:33
2	Mg 279.077 IEC†	180.9	-7.8	-2.8873	µg/L	-2.8873	ppb	19:30:53
2	Na 589.592 Radial†	1390.8	115.6	15.771	µg/L	15.771	ppb	19:30:33
2	Sr 421.552†	-219.7	-86.8	-0.1805	µg/L	-0.1805	ppb	19:30:33
2	Sc 361.383	1734133.7	1734133.7	100.93	%			19:31:58
2	Y 371.029	1037702.6	1037702.6	101.07	%			19:31:58
2	Ag 328.068†	3823.7	-302.8	-1.1204	µg/L	-1.1204	ppb	19:32:00
2	As 188.979†	-14.9	5.6	1.6918	µg/L	1.6918	ppb	19:32:20
2	B 249.677†	3536.1	-2.3	-0.0340	µg/L	-0.0340	ppb	19:32:00
2	Ba 233.527†	-136.5	0.6	0.0024	µg/L	0.0024	ppb	19:32:20
2	Be 313.107†	-795.6	276.4	0.0756	µg/L	0.0756	ppb	19:32:00
2	Cd 226.502†	-86.6	32.4	0.2024	µg/L	0.2024	ppb	19:32:20
2	Co 228.616†	-173.2	18.7	0.2305	µg/L	0.2305	ppb	19:32:20
2	Cr 267.716†	178.6	-1.6	-0.0131	µg/L	-0.0131	ppb	19:32:20
2	Cu 324.752†	2720.4	-276.8	-1.0746	µg/L	-1.0746	ppb	19:32:00
2	Mn 257.610†	233.8	-5.6	-0.0068	µg/L	-0.0068	ppb	19:32:20
2	Mo 202.031†	-11.0	9.2	0.2711	µg/L	0.2711	ppb	19:32:20
2	Ni 231.604†	-67.5	9.6	0.1106	µg/L	0.1106	ppb	19:32:20
2	P 214.914†	-23.6	-5.5	-1.1584	µg/L	-1.1584	ppb	19:32:20
2	Pb 220.353†	95.4	8.1	0.4532	µg/L	0.4532	ppb	19:32:20

2	S 181.975 Axial†	102.0	-4.0	-2.9595	µg/L	-2.9595 ppb	19:32:20
2	Sb 206.836†	80.5	-1.1	-0.1231	µg/L	-0.1231 ppb	19:32:20
2	Se 196.026†	11.1	-4.2	-1.53	µg/L	-1.53 ppb	19:32:20
2	SiO2†	1780.0	-11.7	-1.1573	µg/L	-1.1573 ppb	19:32:20
2	Si 251.611†	833.5	-10.8	-0.1648	µg/L	-0.1648 ppb	19:32:00
2	Sn 189.927†	4.9	6.0	0.3748	µg/L	0.3748 ppb	19:32:20
2	Ti 334.940†	959.8	-1.5	-0.0015	µg/L	-0.0015 ppb	19:32:00
2	Tl 190.801†	-121.4	-3.6	-0.4439	µg/L	-0.4439 ppb	19:32:20
2	U 409.014†	-253.2	19.1	1.1109	µg/L	1.1109 ppb	19:32:00
2	V 292.402†	396.6	-10.8	-0.0495	µg/L	-0.0495 ppb	19:32:00
2	Zn 213.857†	608.7	38.7	0.2171	µg/L	0.2171 ppb	19:32:20
3	Sc RADIAL	143412.5	143412.5	98.3	%		19:30:55
3	Al 396.153Radial†	-61.2	0.9	0.1676	µg/L	0.1676 ppb	19:31:15
3	Ca 317.933Radial†	592.5	42.3	2.3561	µg/L	2.3561 ppb	19:31:15
3	Fe 238.204 Radial†	168.4	23.2	1.4324	µg/L	1.4324 ppb	19:31:15
3	K 766.490 Radial†	1616.9	100.5	36.805	µg/L	36.805 ppb	19:30:55
3	Mg 279.077 IEC†	171.0	-16.7	-6.2040	µg/L	-6.2040 ppb	19:31:15
3	Na 589.592 Radial†	1303.8	35.9	4.8761	µg/L	4.8761 ppb	19:30:55
3	Sr 421.552†	-236.1	-105.0	-0.2183	µg/L	-0.2183 ppb	19:30:55
3	Sc 361.383	1715805.0	1715805.0	99.860	%		19:32:22
3	Y 371.029	1026242.1	1026242.1	99.956	%		19:32:22
3	Ag 328.068†	4010.0	-75.8	-0.2851	µg/L	-0.2851 ppb	19:32:24
3	As 188.979†	-13.5	6.8	2.0688	µg/L	2.0688 ppb	19:32:44
3	B 249.677†	3513.5	12.5	0.1850	µg/L	0.1850 ppb	19:32:24
3	Ba 233.527†	-128.9	6.8	0.0274	µg/L	0.0274 ppb	19:32:44
3	Be 313.107†	-697.9	365.9	0.0986	µg/L	0.0986 ppb	19:32:24
3	Cd 226.502†	-106.1	12.0	0.0747	µg/L	0.0747 ppb	19:32:44
3	Co 228.616†	-189.4	0.6	0.0078	µg/L	0.0078 ppb	19:32:44
3	Cr 267.716†	196.4	18.1	0.1446	µg/L	0.1446 ppb	19:32:44
3	Cu 324.752†	2902.2	-65.9	-0.2591	µg/L	-0.2591 ppb	19:32:24
3	Mn 257.610†	273.8	36.9	0.0459	µg/L	0.0459 ppb	19:32:44
3	Mo 202.031†	-16.2	3.9	0.1137	µg/L	0.1137 ppb	19:32:44
3	Ni 231.604†	-88.7	-12.3	-0.1412	µg/L	-0.1412 ppb	19:32:44
3	P 214.914†	-24.0	-6.1	-1.2988	µg/L	-1.2988 ppb	19:32:44
3	Pb 220.353†	103.9	17.7	0.9897	µg/L	0.9897 ppb	19:32:44
3	S 181.975 Axial†	107.4	2.5	1.8491	µg/L	1.8491 ppb	19:32:44
3	Sb 206.836†	83.4	2.7	0.3244	µg/L	0.3244 ppb	19:32:44
3	Se 196.026†	19.7	4.5	1.61	µg/L	1.61 ppb	19:32:44
3	SiO2†	1808.2	35.4	3.4538	µg/L	3.4538 ppb	19:32:44
3	Si 251.611†	977.1	141.9	2.0894	µg/L	2.0894 ppb	19:32:24
3	Sn 189.927†	2.2	3.3	0.2061	µg/L	0.2061 ppb	19:32:44
3	Ti 334.940†	999.8	48.7	0.0474	µg/L	0.0474 ppb	19:32:24
3	Tl 190.801†	-111.5	5.0	0.6198	µg/L	0.6198 ppb	19:32:44
3	U 409.014†	-328.9	-59.4	-3.4761	µg/L	-3.4761 ppb	19:32:24
3	V 292.402†	400.2	-3.0	-0.0153	µg/L	-0.0153 ppb	19:32:24
3	Zn 213.857†	599.5	35.9	0.2028	µg/L	0.2028 ppb	19:32:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716143.9	99.879	%	1.0373				1.04%
Sc RADIAL	144402.4	99.0	%	0.71				0.72%
Y 371.029	1026876.1	100.02	%	1.025				1.02%
Ag 328.068†	-208.2	-0.7677	µg/L	0.43252	-0.7677	ppb	0.43252	56.34%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.2	-1.7037	µg/L	1.67317	-1.7037	ppb	1.67317	98.21%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.0	1.5046	µg/L	0.67750	1.5046	ppb	0.67750	45.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-9.5	-0.1403	µg/L	0.38951	-0.1403	ppb	0.38951	277.57%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0084	µg/L	0.01681	0.0084	ppb	0.01681	200.54%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	303.4	0.0829	µg/L	0.01359	0.0829	ppb	0.01359	16.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	42.9	2.3912	µg/L	0.79388	2.3912	ppb	0.79388	33.20%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.7	0.0728	µg/L	0.13050	0.0728	ppb	0.13050	179.15%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.7	0.0827	µg/L	0.12800	0.0827	ppb	0.12800	154.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.6      0.0669 µg/L       0.07889      0.0669 ppb        0.07889 117.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -120.3     -0.4664 µg/L       0.53553     -0.4664 ppb        0.53553 114.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         21.8      1.3449 µg/L       0.25554      1.3449 ppb        0.25554  19.00%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          72.5      26.559 µg/L       10.2293      26.559 ppb        10.2293  38.52%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -9.1     -3.3867 µg/L       2.60377     -3.3867 ppb        2.60377  76.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                23.4      0.0291 µg/L       0.03107      0.0291 ppb        0.03107 106.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.3     -0.0962 µg/L       0.50606     -0.0962 ppb        0.50606 525.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        118.4      16.147 µg/L       11.4636      16.147 ppb        11.4636  70.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.7     -0.0651 µg/L       0.15260     -0.0651 ppb        0.15260 234.56%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.3     -0.0611 µg/L       2.02349     -0.0611 ppb        2.02349 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.4      0.8575 µg/L       0.35710      0.8575 ppb        0.35710  41.64%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.7      0.5509 µg/L       3.07426      0.5509 ppb        3.07426 558.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.4      0.1627 µg/L       0.24819      0.1627 ppb        0.24819 152.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.3       0.122 µg/L        1.5761       0.122 ppb         1.5761 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       6.5      0.6315 µg/L       2.47323      0.6315 ppb        2.47323 391.67%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                45.1      0.6638 µg/L       1.24006      0.6638 ppb        1.24006 186.82%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.8      0.4214 µg/L       0.24200      0.4214 ppb        0.24200  57.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -121.6     -0.2528 µg/L       0.09445     -0.2528 ppb        0.09445  37.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                59.0      0.0550 µg/L       0.06076      0.0550 ppb        0.06076 110.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.1      0.3781 µg/L       0.73174      0.3781 ppb        0.73174 193.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 16.2      0.9557 µg/L       4.35630      0.9557 ppb        4.35630 455.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 38.8      0.1892 µg/L       0.38415      0.1892 ppb        0.38415 203.07%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                35.9      0.2023 µg/L       0.01507      0.2023 ppb        0.01507   7.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 19:48:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142074.6	142074.6	97.4	%			19:48:41
1	Al 396.153Radial†	26307.3	27084.3	4998.9	µg/L	4998.9	ppb	19:48:41
1	Ca 317.933Radial†	86883.3	88680.2	4939.8	µg/L	4939.8	ppb	19:48:41
1	Fe 238.204 Radial†	77361.0	79312.1	4888.3	µg/L	4888.3	ppb	19:48:41
1	K 766.490 Radial†	14600.0	13451.4	4920.7	µg/L	4920.7	ppb	19:48:41
1	Mg 279.077 IEC†	13319.4	13490.1	5033.8	µg/L	5033.8	ppb	19:48:41
1	Na 589.592 Radial†	70751.2	71380.2	9747.0	µg/L	9747.0	ppb	19:48:41
1	Sr 421.552†	226373.4	232651.3	483.63	µg/L	483.63	ppb	19:48:39
1	Sc 361.383	1707292.7	1707292.7	99.364	%			19:48:54
1	Y 371.029	1010159.7	1010159.7	98.390	%			19:48:54
1	Ag 328.068†	133110.0	129870.3	486.98	µg/L	486.98	ppb	19:48:54
1	As 188.979†	1576.3	1606.7	492.97	µg/L	492.97	ppb	19:49:14
1	B 249.677†	35756.1	32479.0	477.32	µg/L	477.32	ppb	19:48:54
1	Ba 233.527†	119643.5	120545.0	486.15	µg/L	486.15	ppb	19:48:54
1	Be 313.107†	1782114.7	1794583.1	488.77	µg/L	488.77	ppb	19:48:54
1	Cd 226.502†	76871.1	77481.2	483.67	µg/L	483.67	ppb	19:48:54
1	Co 228.616†	39104.8	39545.3	488.18	µg/L	488.18	ppb	19:48:54
1	Cr 267.716†	61488.3	61703.2	483.11	µg/L	483.11	ppb	19:48:54
1	Cu 324.752†	126677.7	124516.1	485.41	µg/L	485.41	ppb	19:48:54
1	Mn 257.610†	392328.2	394601.4	488.03	µg/L	488.03	ppb	19:48:54
1	Mo 202.031†	16345.9	16470.5	484.49	µg/L	484.49	ppb	19:49:14
1	Ni 231.604†	41875.3	42219.8	486.13	µg/L	486.13	ppb	19:48:54
1	P 214.914†	11193.1	11282.7	2404.8	µg/L	2404.8	ppb	19:49:14
1	Pb 220.353†	8730.4	8699.9	487.18	µg/L	487.18	ppb	19:49:14
1	S 181.975 Axial†	1383.4	1287.2	959.96	µg/L	959.96	ppb	19:49:14
1	Sb 206.836†	4107.0	4052.4	482.84	µg/L	482.84	ppb	19:49:14
1	Se 196.026†	1342.1	1335.4	485	µg/L	485	ppb	19:49:14
1	SiO2†	55335.6	53914.4	5248.9	µg/L	5248.9	ppb	19:48:54
1	Si 251.611†	167076.9	167309.4	2457.0	µg/L	2457.0	ppb	19:48:54
1	Sn 189.927†	7693.0	7743.4	484.36	µg/L	484.36	ppb	19:49:14
1	Ti 334.940†	519233.7	521603.7	486.68	µg/L	486.68	ppb	19:48:54
1	Tl 190.801†	3814.7	3955.8	493.34	µg/L	493.34	ppb	19:49:14
1	U 409.014†	7610.9	7929.5	493.08	µg/L	493.08	ppb	19:48:54
1	V 292.402†	98525.0	98751.7	488.17	µg/L	488.17	ppb	19:48:54
1	Zn 213.857†	86407.4	86395.9	481.51	µg/L	481.51	ppb	19:48:54
2	Sc RADIAL	141314.4	141314.4	96.8	%			19:48:45
2	Al 396.153Radial†	26070.1	26984.8	4980.3	µg/L	4980.3	ppb	19:48:45
2	Ca 317.933Radial†	86198.1	88452.8	4927.2	µg/L	4927.2	ppb	19:48:45
2	Fe 238.204 Radial†	76905.6	79269.3	4885.7	µg/L	4885.7	ppb	19:48:45
2	K 766.490 Radial†	14469.9	13397.8	4901.1	µg/L	4901.1	ppb	19:48:45
2	Mg 279.077 IEC†	13056.5	13292.2	4960.2	µg/L	4960.2	ppb	19:48:45
2	Na 589.592 Radial†	70248.5	71252.1	9729.5	µg/L	9729.5	ppb	19:48:45
2	Sr 421.552†	230623.8	238291.3	495.36	µg/L	495.36	ppb	19:48:43
2	Sc 361.383	1705432.9	1705432.9	99.256	%			19:49:17
2	Y 371.029	1009468.8	1009468.8	98.323	%			19:49:17
2	Ag 328.068†	133787.0	130698.5	490.05	µg/L	490.05	ppb	19:49:17
2	As 188.979†	1570.4	1602.5	491.73	µg/L	491.73	ppb	19:49:37
2	B 249.677†	35970.0	32733.8	481.06	µg/L	481.06	ppb	19:49:17
2	Ba 233.527†	120220.9	121258.0	489.03	µg/L	489.03	ppb	19:49:17
2	Be 313.107†	1787251.2	1801714.0	490.71	µg/L	490.71	ppb	19:49:17
2	Cd 226.502†	77339.1	78037.0	487.14	µg/L	487.14	ppb	19:49:17
2	Co 228.616†	39270.6	39755.3	490.78	µg/L	490.78	ppb	19:49:17
2	Cr 267.716†	61757.1	62041.5	485.78	µg/L	485.78	ppb	19:49:17
2	Cu 324.752†	126820.0	124798.5	486.50	µg/L	486.50	ppb	19:49:17
2	Mn 257.610†	394508.1	397228.3	491.28	µg/L	491.28	ppb	19:49:17
2	Mo 202.031†	16426.8	16570.0	487.42	µg/L	487.42	ppb	19:49:37
2	Ni 231.604†	41982.9	42374.1	487.91	µg/L	487.91	ppb	19:49:17
2	P 214.914†	11261.9	11364.3	2422.2	µg/L	2422.2	ppb	19:49:37
2	Pb 220.353†	8823.1	8802.9	492.95	µg/L	492.95	ppb	19:49:37

2	S 181.975 Axial†	1396.0	1301.4	970.49 µg/L	970.49 ppb	19:49:37
2	Sb 206.836†	4148.9	4099.2	488.41 µg/L	488.41 ppb	19:49:37
2	Se 196.026†	1355.8	1350.7	490 µg/L	490 ppb	19:49:37
2	SiO2†	55442.9	54083.1	5265.3 µg/L	5265.3 ppb	19:49:17
2	Si 251.611†	167481.5	167900.5	2465.6 µg/L	2465.6 ppb	19:49:17
2	Sn 189.927†	7735.0	7794.1	487.53 µg/L	487.53 ppb	19:49:37
2	Ti 334.940†	520412.2	523360.9	488.34 µg/L	488.34 ppb	19:49:17
2	Tl 190.801†	3830.1	3975.4	495.78 µg/L	495.78 ppb	19:49:37
2	U 409.014†	7376.5	7701.7	479.90 µg/L	479.90 ppb	19:49:17
2	V 292.402†	98853.0	99190.2	490.34 µg/L	490.34 ppb	19:49:17
2	Zn 213.857†	86774.5	86860.6	484.11 µg/L	484.11 ppb	19:49:17
3	Sc RADIAL	143116.0	143116.0	98.1 %		19:48:49
3	Al 396.153Radial†	26236.6	26815.6	4949.0 µg/L	4949.0 ppb	19:48:49
3	Ca 317.933Radial†	87307.0	88462.9	4927.7 µg/L	4927.7 ppb	19:48:49
3	Fe 238.204 Radial†	77796.7	79178.1	4880.1 µg/L	4880.1 ppb	19:48:49
3	K 766.490 Radial†	14380.3	13118.2	4798.8 µg/L	4798.8 ppb	19:48:49
3	Mg 279.077 IEC†	13346.6	13418.3	5007.1 µg/L	5007.1 ppb	19:48:49
3	Na 589.592 Radial†	71057.8	71164.1	9717.6 µg/L	9717.6 ppb	19:48:49
3	Sr 421.552†	230412.2	235077.6	488.67 µg/L	488.67 ppb	19:48:47
3	Sc 361.383	1721387.2	1721387.2	100.18 %		19:49:40
3	Y 371.029	1018897.4	1018897.4	99.241 %		19:49:40
3	Ag 328.068†	134640.8	130301.5	488.57 µg/L	488.57 ppb	19:49:40
3	As 188.979†	1609.9	1627.2	499.20 µg/L	499.20 ppb	19:50:00
3	B 249.677†	36341.2	32768.4	481.57 µg/L	481.57 ppb	19:49:40
3	Ba 233.527†	121012.1	120925.1	487.69 µg/L	487.69 ppb	19:49:40
3	Be 313.107†	1805276.3	1803016.9	491.06 µg/L	491.06 ppb	19:49:40
3	Cd 226.502†	78051.9	78026.4	487.08 µg/L	487.08 ppb	19:49:40
3	Co 228.616†	39637.9	39755.2	490.78 µg/L	490.78 ppb	19:49:40
3	Cr 267.716†	62404.8	62111.3	486.33 µg/L	486.33 ppb	19:49:40
3	Cu 324.752†	128037.0	124829.0	486.61 µg/L	486.61 ppb	19:49:40
3	Mn 257.610†	397828.4	396858.6	490.82 µg/L	490.82 ppb	19:49:40
3	Mo 202.031†	16520.4	16510.1	485.66 µg/L	485.66 ppb	19:50:00
3	Ni 231.604†	42275.1	42273.8	486.75 µg/L	486.75 ppb	19:49:40
3	P 214.914†	11329.3	11326.4	2414.1 µg/L	2414.1 ppb	19:50:00
3	Pb 220.353†	8851.7	8749.0	489.94 µg/L	489.94 ppb	19:50:00
3	S 181.975 Axial†	1397.8	1290.2	962.16 µg/L	962.16 ppb	19:50:00
3	Sb 206.836†	4164.3	4075.8	485.60 µg/L	485.60 ppb	19:50:00
3	Se 196.026†	1362.5	1344.7	488 µg/L	488 ppb	19:50:00
3	SiO2†	55884.7	54006.4	5257.8 µg/L	5257.8 ppb	19:49:40
3	Si 251.611†	169043.3	167895.4	2465.6 µg/L	2465.6 ppb	19:49:40
3	Sn 189.927†	7803.9	7790.6	487.31 µg/L	487.31 ppb	19:50:00
3	Ti 334.940†	525263.4	523343.7	488.32 µg/L	488.32 ppb	19:49:40
3	Tl 190.801†	3853.4	3963.0	494.25 µg/L	494.25 ppb	19:50:00
3	U 409.014†	7327.8	7584.2	473.02 µg/L	473.02 ppb	19:49:40
3	V 292.402†	99734.3	99146.8	490.11 µg/L	490.11 ppb	19:49:40
3	Zn 213.857†	87677.5	86951.6	484.63 µg/L	484.63 ppb	19:49:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1711370.9	99.602	%	0.5077				0.51%
Sc RADIAL	142168.3	97.4	%	0.62				0.64%
Y 371.029	1012841.9	98.651	%	0.5119				0.52%
Ag 328.068†	130290.1	488.54	µg/L	1.538	488.54	ppb	1.538	0.31%
QC value within limits for Ag 328.068 Recovery = 97.71%								
Al 396.153Radial†	26961.6	4976.1	µg/L	25.20	4976.1	ppb	25.20	0.51%
QC value within limits for Al 396.153Radial Recovery = 99.52%								
As 188.979†	1612.2	494.63	µg/L	4.004	494.63	ppb	4.004	0.81%
QC value within limits for As 188.979 Recovery = 98.93%								
B 249.677†	32660.4	479.98	µg/L	2.326	479.98	ppb	2.326	0.48%
QC value within limits for B 249.677 Recovery = 96.00%								
Ba 233.527†	120909.3	487.62	µg/L	1.439	487.62	ppb	1.439	0.30%
QC value within limits for Ba 233.527 Recovery = 97.52%								
Be 313.107†	1799771.3	490.18	µg/L	1.233	490.18	ppb	1.233	0.25%
QC value within limits for Be 313.107 Recovery = 98.04%								
Ca 317.933Radial†	88532.0	4931.6	µg/L	7.16	4931.6	ppb	7.16	0.15%
QC value within limits for Ca 317.933Radial Recovery = 98.63%								
Cd 226.502†	77848.2	485.96	µg/L	1.986	485.96	ppb	1.986	0.41%
QC value within limits for Cd 226.502 Recovery = 97.19%								
Co 228.616†	39685.3	489.91	µg/L	1.497	489.91	ppb	1.497	0.31%

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   QC value within limits for Co 228.616  Recovery = 97.98%
Cr 267.716†            61952.0      485.07 µg/L         1.718      485.07 ppb          1.718   0.35%
   QC value within limits for Cr 267.716  Recovery = 97.01%
Cu 324.752†           124714.6      486.17 µg/L         0.662      486.17 ppb          0.662   0.14%
   QC value within limits for Cu 324.752  Recovery = 97.23%
Fe 238.204 Radial†     79253.2      4884.7 µg/L          4.22      4884.7 ppb           4.22   0.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.69%
K 766.490 Radial†      13322.5      4873.5 µg/L         65.48      4873.5 ppb          65.48   1.34%
   QC value within limits for K 766.490 Radial  Recovery = 97.47%
Mg 279.077 IEC†        13400.2      5000.4 µg/L         37.28      5000.4 ppb          37.28   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.01%
Mn 257.610†           396229.4      490.04 µg/L         1.761      490.04 ppb          1.761   0.36%
   QC value within limits for Mn 257.610  Recovery = 98.01%
Mo 202.031†            16516.9      485.86 µg/L         1.472      485.86 ppb          1.472   0.30%
   QC value within limits for Mo 202.031  Recovery = 97.17%
Na 589.592 Radial†     71265.4      9731.4 µg/L         14.79      9731.4 ppb          14.79   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 97.31%
Ni 231.604†            42289.2      486.93 µg/L         0.902      486.93 ppb          0.902   0.19%
   QC value within limits for Ni 231.604  Recovery = 97.39%
P 214.914†             11324.5      2413.7 µg/L          8.72      2413.7 ppb           8.72   0.36%
   QC value within limits for P 214.914  Recovery = 96.55%
Pb 220.353†             8750.6      490.02 µg/L         2.885      490.02 ppb          2.885   0.59%
   QC value within limits for Pb 220.353  Recovery = 98.00%
S 181.975 Axial†        1292.9      964.20 µg/L         5.551      964.20 ppb          5.551   0.58%
   QC value within limits for S 181.975 Axial  Recovery = 96.42%
Sb 206.836†             4075.8      485.62 µg/L         2.784      485.62 ppb          2.784   0.57%
   QC value within limits for Sb 206.836  Recovery = 97.12%
Se 196.026†             1343.6         488 µg/L           2.8         488 ppb            2.8   0.57%
   QC value within limits for Se 196.026  Recovery = 97.58%
SiO2†                  54001.3      5257.4 µg/L          8.20      5257.4 ppb           8.20   0.16%
   QC value within limits for SiO2  Recovery = 98.31%
Si 251.611†           167701.8      2462.7 µg/L          4.98      2462.7 ppb           4.98   0.20%
   QC value within limits for Si 251.611  Recovery = 98.51%
Sn 189.927†             7776.0      486.40 µg/L         1.771      486.40 ppb          1.771   0.36%
   QC value within limits for Sn 189.927  Recovery = 97.28%
Sr 421.552†           235340.1      489.22 µg/L         5.882      489.22 ppb          5.882   1.20%
   QC value within limits for Sr 421.552  Recovery = 97.84%
Ti 334.940†           522769.4      487.78 µg/L         0.949      487.78 ppb          0.949   0.19%
   QC value within limits for Ti 334.940  Recovery = 97.56%
Tl 190.801†             3964.8      494.46 µg/L         1.233      494.46 ppb          1.233   0.25%
   QC value within limits for Tl 190.801  Recovery = 98.89%
U 409.014†              7738.5      482.00 µg/L        10.196      482.00 ppb         10.196   2.12%
   QC value within limits for U 409.014  Recovery = 96.40%
V 292.402†             99029.6      489.54 µg/L         1.192      489.54 ppb          1.192   0.24%
   QC value within limits for V 292.402  Recovery = 97.91%
Zn 213.857†            86736.0      483.41 µg/L         1.671      483.41 ppb          1.671   0.35%
   QC value within limits for Zn 213.857  Recovery = 96.68%
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:50:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143600.6	143600.6	98.4	%			19:50:37
1	Al 396.153Radial†	-51.1	11.3	2.1044	µg/L	2.1044	ppb	19:50:57
1	Ca 317.933Radial†	586.6	35.5	1.9797	µg/L	1.9797	ppb	19:50:57
1	Fe 238.204 Radial†	144.0	-1.8	-0.1088	µg/L	-0.1088	ppb	19:50:57
1	K 766.490 Radial†	1486.8	-33.9	-12.412	µg/L	-12.412	ppb	19:50:37
1	Mg 279.077 IEC†	173.5	-14.4	-5.3870	µg/L	-5.3870	ppb	19:50:57
1	Na 589.592 Radial†	1458.3	191.2	26.130	µg/L	26.130	ppb	19:50:37
1	Sr 421.552†	-289.3	-158.8	-0.3301	µg/L	-0.3301	ppb	19:50:37
1	Sc 361.383	1727301.6	1727301.6	100.53	%			19:51:45
1	Y 371.029	1033229.5	1033229.5	100.64	%			19:51:45
1	Ag 328.068†	3918.0	-194.0	-0.7232	µg/L	-0.7232	ppb	19:51:47
1	As 188.979†	-11.4	9.0	2.7325	µg/L	2.7325	ppb	19:52:07
1	B 249.677†	3507.2	-17.2	-0.2546	µg/L	-0.2546	ppb	19:52:07
1	Ba 233.527†	-159.6	-22.9	-0.0923	µg/L	-0.0923	ppb	19:52:07
1	Be 313.107†	-960.5	109.3	0.0290	µg/L	0.0290	ppb	19:51:47
1	Cd 226.502†	-87.8	30.8	0.1926	µg/L	0.1926	ppb	19:52:07
1	Co 228.616†	-159.6	31.5	0.3887	µg/L	0.3887	ppb	19:52:07
1	Cr 267.716†	221.5	41.8	0.3292	µg/L	0.3292	ppb	19:52:07
1	Cu 324.752†	2909.7	-77.8	-0.3046	µg/L	-0.3046	ppb	19:51:47
1	Mn 257.610†	275.7	37.0	0.0460	µg/L	0.0460	ppb	19:52:07
1	Mo 202.031†	-30.5	-10.3	-0.3033	µg/L	-0.3033	ppb	19:52:07
1	Ni 231.604†	-82.7	-5.8	-0.0664	µg/L	-0.0664	ppb	19:52:07
1	P 214.914†	-17.8	0.3	0.0611	µg/L	0.0611	ppb	19:52:07
1	Pb 220.353†	92.7	5.8	0.3254	µg/L	0.3254	ppb	19:52:07
1	S 181.975 Axial†	92.1	-13.5	-10.016	µg/L	-10.016	ppb	19:52:07
1	Sb 206.836†	70.2	-11.0	-1.3187	µg/L	-1.3187	ppb	19:52:07
1	Se 196.026†	23.8	8.4	3.03	µg/L	3.03	ppb	19:52:07
1	SiO2†	1746.0	-38.6	-3.7620	µg/L	-3.7620	ppb	19:52:07
1	Si 251.611†	804.0	-36.7	-0.5381	µg/L	-0.5381	ppb	19:51:47
1	Sn 189.927†	-0.2	0.9	0.0546	µg/L	0.0546	ppb	19:52:07
1	Ti 334.940†	954.9	-2.7	-0.0011	µg/L	-0.0011	ppb	19:51:47
1	Tl 190.801†	-118.5	-1.2	-0.1445	µg/L	-0.1445	ppb	19:52:07
1	U 409.014†	-315.9	-44.3	-2.6009	µg/L	-2.6009	ppb	19:51:47
1	V 292.402†	377.6	-28.1	-0.1408	µg/L	-0.1408	ppb	19:51:47
1	Zn 213.857†	598.1	30.5	0.1719	µg/L	0.1719	ppb	19:52:07
2	Sc RADIAL	143131.7	143131.7	98.1	%			19:50:59
2	Al 396.153Radial†	-32.2	30.3	5.6296	µg/L	5.6296	ppb	19:51:19
2	Ca 317.933Radial†	576.7	27.4	1.5269	µg/L	1.5269	ppb	19:51:19
2	Fe 238.204 Radial†	158.7	13.7	0.8423	µg/L	0.8423	ppb	19:51:19
2	K 766.490 Radial†	1675.4	163.4	59.819	µg/L	59.819	ppb	19:50:59
2	Mg 279.077 IEC†	212.3	25.7	9.5785	µg/L	9.5785	ppb	19:51:19
2	Na 589.592 Radial†	1429.9	167.0	22.764	µg/L	22.764	ppb	19:50:59
2	Sr 421.552†	-273.0	-143.1	-0.2975	µg/L	-0.2975	ppb	19:50:59
2	Sc 361.383	1718494.8	1718494.8	100.02	%			19:52:09
2	Y 371.029	1028699.8	1028699.8	100.20	%			19:52:09
2	Ag 328.068†	4047.8	-44.2	-0.1507	µg/L	-0.1507	ppb	19:52:11
2	As 188.979†	-18.3	2.1	0.6206	µg/L	0.6206	ppb	19:52:32
2	B 249.677†	3519.8	13.3	0.1962	µg/L	0.1962	ppb	19:52:32
2	Ba 233.527†	-147.0	-11.2	-0.0449	µg/L	-0.0449	ppb	19:52:32
2	Be 313.107†	-767.5	297.4	0.0836	µg/L	0.0836	ppb	19:52:11
2	Cd 226.502†	-96.5	21.7	0.1357	µg/L	0.1357	ppb	19:52:32
2	Co 228.616†	-176.2	14.1	0.1739	µg/L	0.1739	ppb	19:52:32
2	Cr 267.716†	180.3	1.7	0.0063	µg/L	0.0063	ppb	19:52:32
2	Cu 324.752†	2889.0	-83.7	-0.3176	µg/L	-0.3176	ppb	19:52:11
2	Mn 257.610†	264.9	27.6	0.0338	µg/L	0.0338	ppb	19:52:32
2	Mo 202.031†	-22.6	-2.5	-0.0728	µg/L	-0.0728	ppb	19:52:32
2	Ni 231.604†	-57.5	19.1	0.2195	µg/L	0.2195	ppb	19:52:32
2	P 214.914†	4.9	22.9	4.9039	µg/L	4.9039	ppb	19:52:32
2	Pb 220.353†	90.9	4.5	0.2430	µg/L	0.2430	ppb	19:52:32

2	S 181.975 Axial†	92.8	-12.3	-9.1413 µg/L	-9.1413 ppb	19:52:32
2	Sb 206.836†	91.0	10.1	1.2060 µg/L	1.2060 ppb	19:52:32
2	Se 196.026†	23.4	8.1	2.95 µg/L	2.95 ppb	19:52:32
2	SiO2†	1770.3	-5.4	-0.5347 µg/L	-0.5347 ppb	19:52:32
2	Si 251.611†	816.5	-20.2	-0.3025 µg/L	-0.3025 ppb	19:52:11
2	Sn 189.927†	13.1	14.3	0.8887 µg/L	0.8887 ppb	19:52:32
2	Ti 334.940†	824.8	-127.9	-0.1238 µg/L	-0.1238 ppb	19:52:11
2	Tl 190.801†	-110.8	5.9	0.7247 µg/L	0.7247 ppb	19:52:32
2	U 409.014†	-118.9	151.0	8.8426 µg/L	8.8426 ppb	19:52:11
2	V 292.402†	441.7	37.8	0.1896 µg/L	0.1896 ppb	19:52:11
2	Zn 213.857†	569.1	4.5	0.0243 µg/L	0.0243 ppb	19:52:32
3	Sc RADIAL	142404.0	142404.0	97.6 %		19:51:21
3	Al 396.153Radial†	-37.8	24.5	4.5543 µg/L	4.5543 ppb	19:51:41
3	Ca 317.933Radial†	603.4	57.8	3.2194 µg/L	3.2194 ppb	19:51:41
3	Fe 238.204 Radial†	154.3	10.0	0.6188 µg/L	0.6188 ppb	19:51:41
3	K 766.490 Radial†	1584.3	78.7	28.824 µg/L	28.824 ppb	19:51:21
3	Mg 279.077 IEC†	168.4	-18.1	-6.7588 µg/L	-6.7588 ppb	19:51:41
3	Na 589.592 Radial†	1217.4	-43.3	-5.9413 µg/L	-5.9413 ppb	19:51:21
3	Sr 421.552†	-213.0	-83.0	-0.1726 µg/L	-0.1726 ppb	19:51:21
3	Sc 361.383	1725113.7	1725113.7	100.40 %		19:52:34
3	Y 371.029	1032434.0	1032434.0	100.56 %		19:52:34
3	Ag 328.068†	4136.4	28.4	0.1103 µg/L	0.1103 ppb	19:52:36
3	As 188.979†	-21.2	-0.8	-0.2286 µg/L	-0.2286 ppb	19:52:56
3	B 249.677†	3487.8	-32.0	-0.4730 µg/L	-0.4730 ppb	19:52:56
3	Ba 233.527†	-148.1	-11.7	-0.0471 µg/L	-0.0471 ppb	19:52:56
3	Be 313.107†	-958.9	109.7	0.0307 µg/L	0.0307 ppb	19:52:36
3	Cd 226.502†	-100.1	18.5	0.1156 µg/L	0.1156 ppb	19:52:56
3	Co 228.616†	-181.7	9.3	0.1151 µg/L	0.1151 ppb	19:52:56
3	Cr 267.716†	179.3	-0.0	-0.0022 µg/L	-0.0022 ppb	19:52:56
3	Cu 324.752†	2944.1	-39.9	-0.1527 µg/L	-0.1527 ppb	19:52:36
3	Mn 257.610†	258.6	20.3	0.0254 µg/L	0.0254 ppb	19:52:56
3	Mo 202.031†	-33.3	-13.1	-0.3839 µg/L	-0.3839 ppb	19:52:56
3	Ni 231.604†	-89.6	-12.8	-0.1471 µg/L	-0.1471 ppb	19:52:56
3	P 214.914†	-5.5	12.5	2.6899 µg/L	2.6899 ppb	19:52:56
3	Pb 220.353†	86.1	-0.6	-0.0367 µg/L	-0.0367 ppb	19:52:56
3	S 181.975 Axial†	105.1	-0.4	-0.3195 µg/L	-0.3195 ppb	19:52:56
3	Sb 206.836†	78.4	-2.7	-0.3234 µg/L	-0.3234 ppb	19:52:56
3	Se 196.026†	32.5	17.1	6.18 µg/L	6.18 ppb	19:52:56
3	SiO2†	1714.4	-67.8	-6.6340 µg/L	-6.6340 ppb	19:52:56
3	Si 251.611†	948.1	107.7	1.5850 µg/L	1.5850 ppb	19:52:36
3	Sn 189.927†	18.5	19.5	1.2178 µg/L	1.2178 ppb	19:52:56
3	Ti 334.940†	1054.7	98.0	0.0910 µg/L	0.0910 ppb	19:52:36
3	Tl 190.801†	-105.2	11.9	1.4675 µg/L	1.4675 ppb	19:52:56
3	U 409.014†	-221.6	49.1	2.8801 µg/L	2.8801 ppb	19:52:36
3	V 292.402†	431.8	26.3	0.1262 µg/L	0.1262 ppb	19:52:36
3	Zn 213.857†	567.6	1.0	0.0065 µg/L	0.0065 ppb	19:52:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1723636.7	100.32	%	0.267				0.27%
Sc RADIAL	143045.4	98.0	%	0.41				0.42%
Y 371.029	1031454.4	100.46	%	0.236				0.23%
Ag 328.068†	-69.9	-0.2546	µg/L	0.42634	-0.2546	ppb	0.42634	167.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	22.0	4.0961	µg/L	1.80672	4.0961	ppb	1.80672	44.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.4	1.0415	µg/L	1.52480	1.0415	ppb	1.52480	146.41%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-12.0	-0.1771	µg/L	0.34126	-0.1771	ppb	0.34126	192.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-15.2	-0.0614	µg/L	0.02676	-0.0614	ppb	0.02676	43.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	172.1	0.0478	µg/L	0.03107	0.0478	ppb	0.03107	65.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	40.2	2.2420	µg/L	0.87622	2.2420	ppb	0.87622	39.08%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.7	0.1480	µg/L	0.03996	0.1480	ppb	0.03996	27.01%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.3	0.2259	µg/L	0.14405	0.2259	ppb	0.14405	63.76%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.5      0.1111 µg/L       0.18892      0.1111 ppb        0.18892 170.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -67.1     -0.2583 µg/L       0.09167     -0.2583 ppb        0.09167  35.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        7.3      0.4508 µg/L       0.49733      0.4508 ppb        0.49733 110.33%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        69.4      25.411 µg/L       36.2364      25.411 ppb        36.2364 142.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.3     -0.8557 µg/L       9.06232     -0.8557 ppb        9.06232 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              28.3      0.0350 µg/L       0.01036      0.0350 ppb        0.01036  29.56%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -8.6     -0.2533 µg/L       0.16143     -0.2533 ppb        0.16143  63.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      105.0      14.318 µg/L       17.6253      14.318 ppb        17.6253 123.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.2      0.0020 µg/L       0.19262      0.0020 ppb        0.19262 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               11.9      2.5516 µg/L       2.42435      2.5516 ppb        2.42435  95.01%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               3.2      0.1772 µg/L       0.18975      0.1772 ppb        0.18975 107.07%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -8.7     -6.4924 µg/L       5.36374     -6.4924 ppb        5.36374  82.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.2     -0.1454 µg/L       1.27176     -0.1454 ppb        1.27176 874.71%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              11.2        4.05 µg/L         1.843        4.05 ppb          1.843  45.47%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -37.2     -3.6436 µg/L       3.05138     -3.6436 ppb        3.05138  83.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              16.9      0.2481 µg/L       1.16372      0.2481 ppb        1.16372 469.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              11.6      0.7204 µg/L       0.59961      0.7204 ppb        0.59961  83.23%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -128.3     -0.2667 µg/L       0.08309     -0.2667 ppb        0.08309  31.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -10.9     -0.0113 µg/L       0.10776     -0.0113 ppb        0.10776 953.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.6      0.6826 µg/L       0.80682      0.6826 ppb        0.80682 118.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               51.9      3.0406 µg/L       5.72342      3.0406 ppb        5.72342 188.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               12.0      0.0584 µg/L       0.17533      0.0584 ppb        0.17533 300.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              12.0      0.0676 µg/L       0.09081      0.0676 ppb        0.09081 134.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 20:18:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143153.1	143153.1	98.1	%			20:19:22
1	Al 396.153Radial†	26168.1	26738.9	4934.8	µg/L	4934.8	ppb	20:19:22
1	Ca 317.933Radial†	87812.2	88954.8	4955.1	µg/L	4955.1	ppb	20:19:22
1	Fe 238.204 Radial†	78188.9	79557.4	4903.4	µg/L	4903.4	ppb	20:19:22
1	K 766.490 Radial†	14678.9	13418.9	4908.8	µg/L	4908.8	ppb	20:19:22
1	Mg 279.077 IEC†	13438.9	13508.9	5040.9	µg/L	5040.9	ppb	20:19:22
1	Na 589.592 Radial†	71303.4	71395.6	9749.1	µg/L	9749.1	ppb	20:19:22
1	Sr 421.552†	231815.5	236447.2	491.52	µg/L	491.52	ppb	20:19:20
1	Sc 361.383	1733210.9	1733210.9	100.87	%			20:19:49
1	Y 371.029	1024566.6	1024566.6	99.793	%			20:19:49
1	Ag 328.068†	135811.2	130544.9	489.48	µg/L	489.48	ppb	20:19:49
1	As 188.979†	1620.4	1626.8	499.06	µg/L	499.06	ppb	20:20:09
1	B 249.677†	36886.7	33061.7	485.90	µg/L	485.90	ppb	20:19:49
1	Ba 233.527†	122122.4	121201.8	488.80	µg/L	488.80	ppb	20:19:49
1	Be 313.107†	1820796.8	1806110.5	491.91	µg/L	491.91	ppb	20:19:49
1	Cd 226.502†	79174.4	78607.7	490.71	µg/L	490.71	ppb	20:19:49
1	Co 228.616†	39967.4	39811.9	491.48	µg/L	491.48	ppb	20:19:49
1	Cr 267.716†	62802.0	62080.2	486.08	µg/L	486.08	ppb	20:19:49
1	Cu 324.752†	129193.6	125103.8	487.69	µg/L	487.69	ppb	20:19:49
1	Mn 257.610†	400949.3	397243.5	491.30	µg/L	491.30	ppb	20:19:49
1	Mo 202.031†	16640.3	16516.4	485.85	µg/L	485.85	ppb	20:20:09
1	Ni 231.604†	42932.4	42637.5	490.94	µg/L	490.94	ppb	20:19:49
1	P 214.914†	11516.5	11434.8	2437.3	µg/L	2437.3	ppb	20:20:09
1	Pb 220.353†	8939.2	8775.5	491.41	µg/L	491.41	ppb	20:20:09
1	S 181.975 Axial†	1432.0	1314.6	980.26	µg/L	980.26	ppb	20:20:09
1	Sb 206.836†	4200.0	4082.8	486.45	µg/L	486.45	ppb	20:20:09
1	Se 196.026†	1380.3	1353.0	491	µg/L	491	ppb	20:20:09
1	SiO2†	56585.0	54320.2	5288.5	µg/L	5288.5	ppb	20:19:49
1	Si 251.611†	171480.3	169160.3	2484.2	µg/L	2484.2	ppb	20:19:49
1	Sn 189.927†	7899.9	7832.7	489.93	µg/L	489.93	ppb	20:20:09
1	Ti 334.940†	528670.3	523144.4	488.13	µg/L	488.13	ppb	20:19:49
1	Tl 190.801†	3879.4	3962.5	494.19	µg/L	494.19	ppb	20:20:09
1	U 409.014†	7456.1	7661.5	477.56	µg/L	477.56	ppb	20:19:49
1	V 292.402†	100505.8	99232.6	490.53	µg/L	490.53	ppb	20:19:49
1	Zn 213.857†	88711.3	87379.4	487.00	µg/L	487.00	ppb	20:19:49
2	Sc RADIAL	145636.2	145636.2	99.8	%			20:19:26
2	Al 396.153Radial†	26516.1	26632.7	4915.0	µg/L	4915.0	ppb	20:19:26
2	Ca 317.933Radial†	89356.1	88975.7	4956.3	µg/L	4956.3	ppb	20:19:26
2	Fe 238.204 Radial†	79820.2	79833.0	4920.4	µg/L	4920.4	ppb	20:19:26
2	K 766.490 Radial†	14884.7	13369.9	4890.9	µg/L	4890.9	ppb	20:19:26
2	Mg 279.077 IEC†	13655.2	13492.0	5034.7	µg/L	5034.7	ppb	20:19:26
2	Na 589.592 Radial†	72574.2	71429.7	9753.8	µg/L	9753.8	ppb	20:19:26
2	Sr 421.552†	229556.2	230154.3	478.44	µg/L	478.44	ppb	20:19:24
2	Sc 361.383	1728845.1	1728845.1	100.62	%			20:20:12
2	Y 371.029	1022537.6	1022537.6	99.596	%			20:20:12
2	Ag 328.068†	135255.7	130332.9	488.71	µg/L	488.71	ppb	20:20:12
2	As 188.979†	1619.6	1630.0	500.04	µg/L	500.04	ppb	20:20:32
2	B 249.677†	36772.6	33040.7	485.59	µg/L	485.59	ppb	20:20:12
2	Ba 233.527†	121898.2	121284.8	489.14	µg/L	489.14	ppb	20:20:12
2	Be 313.107†	1814391.8	1804303.2	491.42	µg/L	491.42	ppb	20:20:12
2	Cd 226.502†	79019.6	78652.0	490.98	µg/L	490.98	ppb	20:20:12
2	Co 228.616†	39865.2	39810.5	491.46	µg/L	491.46	ppb	20:20:12
2	Cr 267.716†	62636.0	62072.4	486.01	µg/L	486.01	ppb	20:20:12
2	Cu 324.752†	128465.8	124703.9	486.15	µg/L	486.15	ppb	20:20:12
2	Mn 257.610†	400168.4	397471.3	491.58	µg/L	491.58	ppb	20:20:12
2	Mo 202.031†	16701.4	16618.8	488.86	µg/L	488.86	ppb	20:20:32
2	Ni 231.604†	42806.4	42619.8	490.74	µg/L	490.74	ppb	20:20:12
2	P 214.914†	11559.5	11506.4	2452.7	µg/L	2452.7	ppb	20:20:32
2	Pb 220.353†	8967.3	8825.8	494.22	µg/L	494.22	ppb	20:20:32

2	S 181.975 Axial†	1438.1	1324.2	987.46 µg/L	987.46 ppb	20:20:32
2	Sb 206.836†	4222.2	4115.5	490.38 µg/L	490.38 ppb	20:20:32
2	Se 196.026†	1378.4	1354.7	492 µg/L	492 ppb	20:20:32
2	SiO2†	56546.5	54423.5	5298.4 µg/L	5298.4 ppb	20:20:12
2	Si 251.611†	170798.4	168911.9	2480.5 µg/L	2480.5 ppb	20:20:12
2	Sn 189.927†	7975.7	7927.8	495.86 µg/L	495.86 ppb	20:20:32
2	Ti 334.940†	527695.2	523498.9	488.46 µg/L	488.46 ppb	20:20:12
2	Tl 190.801†	3917.6	4010.2	500.05 µg/L	500.05 ppb	20:20:32
2	U 409.014†	7647.3	7870.2	489.74 µg/L	489.74 ppb	20:20:12
2	V 292.402†	100177.9	99158.3	490.21 µg/L	490.21 ppb	20:20:12
2	Zn 213.857†	88577.4	87468.5	487.50 µg/L	487.50 ppb	20:20:12
3	Sc RADIAL	145946.5	145946.5	100 %		20:19:30
3	Al 396.153Radial†	26926.1	26986.3	4980.6 µg/L	4980.6 ppb	20:19:30
3	Ca 317.933Radial†	89888.2	89317.4	4975.3 µg/L	4975.3 ppb	20:19:30
3	Fe 238.204 Radial†	79999.4	79842.2	4921.0 µg/L	4921.0 ppb	20:19:30
3	K 766.490 Radial†	15067.7	13521.2	4946.3 µg/L	4946.3 ppb	20:19:30
3	Mg 279.077 IEC†	13820.0	13627.7	5085.2 µg/L	5085.2 ppb	20:19:30
3	Na 589.592 Radial†	72903.4	71604.2	9777.6 µg/L	9777.6 ppb	20:19:30
3	Sr 421.552†	233932.9	234041.4	486.52 µg/L	486.52 ppb	20:19:28
3	Sc 361.383	1729036.7	1729036.7	100.63 %		20:20:35
3	Y 371.029	1022141.3	1022141.3	99.557 %		20:20:35
3	Ag 328.068†	135415.2	130476.4	489.24 µg/L	489.24 ppb	20:20:35
3	As 188.979†	1624.2	1634.3	501.36 µg/L	501.36 ppb	20:20:55
3	B 249.677†	36712.7	32977.1	484.65 µg/L	484.65 ppb	20:20:35
3	Ba 233.527†	121713.3	121087.6	488.34 µg/L	488.34 ppb	20:20:35
3	Be 313.107†	1816122.4	1805823.1	491.83 µg/L	491.83 ppb	20:20:35
3	Cd 226.502†	78922.7	78547.0	490.33 µg/L	490.33 ppb	20:20:35
3	Co 228.616†	39794.6	39735.9	490.54 µg/L	490.54 ppb	20:20:35
3	Cr 267.716†	62716.2	62145.2	486.58 µg/L	486.58 ppb	20:20:35
3	Cu 324.752†	128635.8	124858.6	486.75 µg/L	486.75 ppb	20:20:35
3	Mn 257.610†	399725.7	396987.2	490.98 µg/L	490.98 ppb	20:20:35
3	Mo 202.031†	16642.9	16558.8	487.09 µg/L	487.09 ppb	20:20:55
3	Ni 231.604†	42654.8	42464.4	488.95 µg/L	488.95 ppb	20:20:35
3	P 214.914†	11489.1	11435.1	2437.4 µg/L	2437.4 ppb	20:20:55
3	Pb 220.353†	8938.2	8795.9	492.55 µg/L	492.55 ppb	20:20:55
3	S 181.975 Axial†	1425.7	1311.7	978.16 µg/L	978.16 ppb	20:20:55
3	Sb 206.836†	4196.0	4088.9	487.18 µg/L	487.18 ppb	20:20:55
3	Se 196.026†	1380.4	1356.5	493 µg/L	493 ppb	20:20:55
3	SiO2†	56405.9	54277.6	5284.2 µg/L	5284.2 ppb	20:20:35
3	Si 251.611†	170675.9	168771.4	2478.4 µg/L	2478.4 ppb	20:20:35
3	Sn 189.927†	7906.9	7858.6	491.55 µg/L	491.55 ppb	20:20:55
3	Ti 334.940†	526963.4	522713.5	487.72 µg/L	487.72 ppb	20:20:35
3	Tl 190.801†	3898.2	3990.5	497.62 µg/L	497.62 ppb	20:20:55
3	U 409.014†	7622.6	7844.8	488.24 µg/L	488.24 ppb	20:20:35
3	V 292.402†	100122.2	99092.0	489.87 µg/L	489.87 ppb	20:20:35
3	Zn 213.857†	88619.8	87500.9	487.69 µg/L	487.69 ppb	20:20:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1730364.2	100.71	%	0.144				0.14%
Sc RADIAL	144911.9	99.3	%	1.05				1.06%
Y 371.029	1023081.8	99.649	%	0.1267				0.13%
Ag 328.068†	130451.4	489.14	µg/L	0.396	489.14	ppb	0.396	0.08%
QC value within limits for Ag 328.068 Recovery = 97.83%								
Al 396.153Radial†	26786.0	4943.5	µg/L	33.66	4943.5	ppb	33.66	0.68%
QC value within limits for Al 396.153Radial Recovery = 98.87%								
As 188.979†	1630.4	500.15	µg/L	1.155	500.15	ppb	1.155	0.23%
QC value within limits for As 188.979 Recovery = 100.03%								
B 249.677†	33026.5	485.38	µg/L	0.648	485.38	ppb	0.648	0.13%
QC value within limits for B 249.677 Recovery = 97.08%								
Ba 233.527†	121191.4	488.76	µg/L	0.399	488.76	ppb	0.399	0.08%
QC value within limits for Ba 233.527 Recovery = 97.75%								
Be 313.107†	1805412.3	491.72	µg/L	0.263	491.72	ppb	0.263	0.05%
QC value within limits for Be 313.107 Recovery = 98.34%								
Ca 317.933Radial†	89082.6	4962.3	µg/L	11.34	4962.3	ppb	11.34	0.23%
QC value within limits for Ca 317.933Radial Recovery = 99.25%								
Cd 226.502†	78602.2	490.67	µg/L	0.330	490.67	ppb	0.330	0.07%
QC value within limits for Cd 226.502 Recovery = 98.13%								
Co 228.616†	39786.1	491.16	µg/L	0.537	491.16	ppb	0.537	0.11%

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   QC value within limits for Co 228.616  Recovery = 98.23%
Cr 267.716†            62099.2      486.22 µg/L         0.311      486.22 ppb          0.311   0.06%
   QC value within limits for Cr 267.716  Recovery = 97.24%
Cu 324.752†           124888.8      486.86 µg/L         0.777      486.86 ppb          0.777   0.16%
   QC value within limits for Cu 324.752  Recovery = 97.37%
Fe 238.204 Radial†     79744.2      4914.9 µg/L          9.97      4914.9 ppb           9.97   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.30%
K 766.490 Radial†      13436.7      4915.3 µg/L         28.26      4915.3 ppb          28.26   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 98.31%
Mg 279.077 IEC†        13542.9      5053.6 µg/L         27.54      5053.6 ppb          27.54   0.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.07%
Mn 257.610†           397234.0      491.28 µg/L         0.301      491.28 ppb          0.301   0.06%
   QC value within limits for Mn 257.610  Recovery = 98.26%
Mo 202.031†            16564.7      487.26 µg/L         1.512      487.26 ppb          1.512   0.31%
   QC value within limits for Mo 202.031  Recovery = 97.45%
Na 589.592 Radial†     71476.5      9760.2 µg/L         15.27      9760.2 ppb          15.27   0.16%
   QC value within limits for Na 589.592 Radial  Recovery = 97.60%
Ni 231.604†            42573.9      490.21 µg/L         1.097      490.21 ppb          1.097   0.22%
   QC value within limits for Ni 231.604  Recovery = 98.04%
P 214.914†             11458.8      2442.5 µg/L          8.83      2442.5 ppb           8.83   0.36%
   QC value within limits for P 214.914  Recovery = 97.70%
Pb 220.353†             8799.1      492.73 µg/L         1.412      492.73 ppb          1.412   0.29%
   QC value within limits for Pb 220.353  Recovery = 98.55%
S 181.975 Axial†        1316.8      981.96 µg/L         4.877      981.96 ppb          4.877   0.50%
   QC value within limits for S 181.975 Axial  Recovery = 98.20%
Sb 206.836†             4095.7      488.00 µg/L         2.090      488.00 ppb          2.090   0.43%
   QC value within limits for Sb 206.836  Recovery = 97.60%
Se 196.026†             1354.7         492 µg/L           0.6         492 ppb            0.6   0.13%
   QC value within limits for Se 196.026  Recovery = 98.38%
SiO2†                  54340.4      5290.4 µg/L          7.26      5290.4 ppb           7.26   0.14%
   QC value within limits for SiO2  Recovery = 98.93%
Si 251.611†           168947.8      2481.0 µg/L          2.92      2481.0 ppb           2.92   0.12%
   QC value within limits for Si 251.611  Recovery = 99.24%
Sn 189.927†             7873.0      492.45 µg/L         3.064      492.45 ppb          3.064   0.62%
   QC value within limits for Sn 189.927  Recovery = 98.49%
Sr 421.552†           233547.6      485.49 µg/L         6.601      485.49 ppb          6.601   1.36%
   QC value within limits for Sr 421.552  Recovery = 97.10%
Ti 334.940†           523118.9      488.10 µg/L         0.369      488.10 ppb          0.369   0.08%
   QC value within limits for Ti 334.940  Recovery = 97.62%
Tl 190.801†             3987.7      497.29 µg/L         2.942      497.29 ppb          2.942   0.59%
   QC value within limits for Tl 190.801  Recovery = 99.46%
U 409.014†              7792.1      485.18 µg/L         6.641      485.18 ppb          6.641   1.37%
   QC value within limits for U 409.014  Recovery = 97.04%
V 292.402†             99160.9      490.20 µg/L         0.333      490.20 ppb          0.333   0.07%
   QC value within limits for V 292.402  Recovery = 98.04%
Zn 213.857†            87449.6      487.40 µg/L         0.359      487.40 ppb          0.359   0.07%
   QC value within limits for Zn 213.857  Recovery = 97.48%
All analyte(s) passed QC.
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Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 20:21:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146174.9	146174.9	100	%			20:21:32
1	Al 396.153Radial†	-79.4	-16.1	-2.9762	µg/L	-2.9762	ppb	20:21:52
1	Ca 317.933Radial†	607.9	46.3	2.5767	µg/L	2.5767	ppb	20:21:52
1	Fe 238.204 Radial†	175.5	27.1	1.6726	µg/L	1.6726	ppb	20:21:52
1	K 766.490 Radial†	1577.3	29.9	10.948	µg/L	10.948	ppb	20:21:32
1	Mg 279.077 IEC†	206.8	15.8	5.8733	µg/L	5.8733	ppb	20:21:52
1	Na 589.592 Radial†	1475.9	182.7	24.946	µg/L	24.946	ppb	20:21:32
1	Sr 421.552†	-270.2	-134.5	-0.2796	µg/L	-0.2796	ppb	20:21:32
1	Sc 361.383	1719316.1	1719316.1	100.06	%			20:22:40
1	Y 371.029	1027520.1	1027520.1	100.08	%			20:22:40
1	Ag 328.068†	3648.5	-445.2	-1.6556	µg/L	-1.6556	ppb	20:22:42
1	As 188.979†	-10.6	9.8	2.9605	µg/L	2.9605	ppb	20:23:02
1	B 249.677†	3416.1	-91.9	-1.3568	µg/L	-1.3568	ppb	20:22:42
1	Ba 233.527†	-134.2	1.8	0.0069	µg/L	0.0069	ppb	20:23:02
1	Be 313.107†	-785.4	279.8	0.0750	µg/L	0.0750	ppb	20:22:42
1	Cd 226.502†	-108.1	10.2	0.0635	µg/L	0.0635	ppb	20:23:02
1	Co 228.616†	-170.8	19.6	0.2418	µg/L	0.2418	ppb	20:23:02
1	Cr 267.716†	211.4	32.7	0.2593	µg/L	0.2593	ppb	20:23:02
1	Cu 324.752†	2952.3	-21.8	-0.0873	µg/L	-0.0873	ppb	20:22:42
1	Mn 257.610†	205.0	-32.4	-0.0403	µg/L	-0.0403	ppb	20:23:02
1	Mo 202.031†	-26.7	-6.6	-0.1949	µg/L	-0.1949	ppb	20:23:02
1	Ni 231.604†	-85.9	-9.3	-0.1075	µg/L	-0.1075	ppb	20:23:02
1	P 214.914†	-27.5	-9.5	-2.0307	µg/L	-2.0307	ppb	20:23:02
1	Pb 220.353†	49.6	-36.9	-2.0549	µg/L	-2.0549	ppb	20:23:02
1	S 181.975 Axial†	90.7	-14.4	-10.672	µg/L	-10.672	ppb	20:23:02
1	Sb 206.836†	90.3	9.4	1.1175	µg/L	1.1175	ppb	20:23:02
1	Se 196.026†	14.0	-1.3	-0.483	µg/L	-0.483	ppb	20:23:02
1	SiO2†	1815.4	38.8	3.7882	µg/L	3.7882	ppb	20:22:42
1	Si 251.611†	978.4	141.2	2.0787	µg/L	2.0787	ppb	20:22:42
1	Sn 189.927†	12.7	13.8	0.8612	µg/L	0.8612	ppb	20:23:02
1	Ti 334.940†	944.8	-8.3	-0.0067	µg/L	-0.0067	ppb	20:22:42
1	Tl 190.801†	-123.6	-6.9	-0.8478	µg/L	-0.8478	ppb	20:23:02
1	U 409.014†	-334.8	-64.7	-3.7948	µg/L	-3.7948	ppb	20:22:42
1	V 292.402†	364.6	-39.5	-0.1962	µg/L	-0.1962	ppb	20:22:42
1	Zn 213.857†	609.9	45.1	0.2536	µg/L	0.2536	ppb	20:23:02
2	Sc RADIAL	146261.6	146261.6	100	%			20:21:54
2	Al 396.153Radial†	-54.4	8.9	1.6620	µg/L	1.6620	ppb	20:22:14
2	Ca 317.933Radial†	618.8	56.9	3.1671	µg/L	3.1671	ppb	20:22:14
2	Fe 238.204 Radial†	170.1	21.6	1.3318	µg/L	1.3318	ppb	20:22:14
2	K 766.490 Radial†	1690.5	141.9	51.938	µg/L	51.938	ppb	20:21:54
2	Mg 279.077 IEC†	158.6	-32.4	-12.093	µg/L	-12.093	ppb	20:22:14
2	Na 589.592 Radial†	1436.5	142.5	19.415	µg/L	19.415	ppb	20:21:54
2	Sr 421.552†	-283.2	-147.2	-0.3061	µg/L	-0.3061	ppb	20:21:54
2	Sc 361.383	1736802.1	1736802.1	101.08	%			20:23:04
2	Y 371.029	1037454.3	1037454.3	101.05	%			20:23:04
2	Ag 328.068†	3948.2	-185.4	-0.6882	µg/L	-0.6882	ppb	20:23:06
2	As 188.979†	-24.7	-4.1	-1.2374	µg/L	-1.2374	ppb	20:23:27
2	B 249.677†	3576.8	32.6	0.4812	µg/L	0.4812	ppb	20:23:06
2	Ba 233.527†	-102.2	34.7	0.1396	µg/L	0.1396	ppb	20:23:27
2	Be 313.107†	-962.5	112.5	0.0317	µg/L	0.0317	ppb	20:23:06
2	Cd 226.502†	-108.2	11.1	0.0694	µg/L	0.0694	ppb	20:23:27
2	Co 228.616†	-196.2	-3.8	-0.0464	µg/L	-0.0464	ppb	20:23:27
2	Cr 267.716†	207.6	26.8	0.2073	µg/L	0.2073	ppb	20:23:27
2	Cu 324.752†	2974.7	-29.3	-0.1113	µg/L	-0.1113	ppb	20:23:06
2	Mn 257.610†	216.8	-22.8	-0.0277	µg/L	-0.0277	ppb	20:23:27
2	Mo 202.031†	-26.2	-5.9	-0.1726	µg/L	-0.1726	ppb	20:23:27
2	Ni 231.604†	-83.0	-5.6	-0.0648	µg/L	-0.0648	ppb	20:23:27
2	P 214.914†	-18.2	-0.1	-0.0033	µg/L	-0.0033	ppb	20:23:27
2	Pb 220.353†	96.9	9.5	0.5245	µg/L	0.5245	ppb	20:23:27

2	S 181.975 Axial†	101.1	-5.0	-3.7428 µg/L	-3.7428 ppb		20:23:27
2	Sb 206.836†	77.7	-4.0	-0.4743 µg/L	-0.4743 ppb		20:23:27
2	Se 196.026†	10.0	-5.3	-1.93 µg/L	-1.93 ppb		20:23:27
2	SiO2†	1822.3	27.5	2.6742 µg/L	2.6742 ppb		20:23:06
2	Si 251.611†	856.2	10.5	0.1497 µg/L	0.1497 ppb		20:23:06
2	Sn 189.927†	15.8	16.8	1.0464 µg/L	1.0464 ppb		20:23:27
2	Ti 334.940†	965.6	2.7	0.0021 µg/L	0.0021 ppb		20:23:06
2	Tl 190.801†	-105.1	12.7	1.5599 µg/L	1.5599 ppb		20:23:27
2	U 409.014†	-213.8	58.4	3.3839 µg/L	3.3839 ppb		20:23:06
2	V 292.402†	306.8	-100.3	-0.4881 µg/L	-0.4881 ppb		20:23:06
2	Zn 213.857†	601.0	30.1	0.1695 µg/L	0.1695 ppb		20:23:27
3	Sc RADIAL	145163.3	145163.3	99.5 %			20:22:16
3	Al 396.153Radial†	-66.5	-3.7	-0.6680 µg/L	-0.6680 ppb		20:22:36
3	Ca 317.933Radial†	599.5	42.1	2.3456 µg/L	2.3456 ppb		20:22:36
3	Fe 238.204 Radial†	160.3	13.1	0.8047 µg/L	0.8047 ppb		20:22:36
3	K 766.490 Radial†	1445.8	-91.3	-33.426 µg/L	-33.426 ppb		20:22:16
3	Mg 279.077 IEC†	163.3	-26.5	-9.9007 µg/L	-9.9007 ppb		20:22:36
3	Na 589.592 Radial†	1438.5	155.3	21.242 µg/L	21.242 ppb		20:22:16
3	Sr 421.552†	-217.7	-83.6	-0.1738 µg/L	-0.1738 ppb		20:22:16
3	Sc 361.383	1747018.8	1747018.8	101.68 %			20:23:29
3	Y 371.029	1043372.0	1043372.0	101.62 %			20:23:29
3	Ag 328.068†	3928.6	-227.6	-0.8550 µg/L	-0.8550 ppb		20:23:31
3	As 188.979†	-14.6	6.0	1.8114 µg/L	1.8114 ppb		20:23:51
3	B 249.677†	3628.2	62.5	0.9207 µg/L	0.9207 ppb		20:23:31
3	Ba 233.527†	-150.3	-11.9	-0.0482 µg/L	-0.0482 ppb		20:23:51
3	Be 313.107†	-1063.0	19.3	0.0023 µg/L	0.0023 ppb		20:23:31
3	Cd 226.502†	-104.1	15.8	0.0984 µg/L	0.0984 ppb		20:23:51
3	Co 228.616†	-183.5	9.9	0.1217 µg/L	0.1217 ppb		20:23:51
3	Cr 267.716†	179.0	-2.6	-0.0122 µg/L	-0.0122 ppb		20:23:51
3	Cu 324.752†	3108.9	85.4	0.3239 µg/L	0.3239 ppb		20:23:31
3	Mn 257.610†	215.7	-25.1	-0.0307 µg/L	-0.0307 ppb		20:23:51
3	Mo 202.031†	-32.3	-11.7	-0.3450 µg/L	-0.3450 ppb		20:23:51
3	Ni 231.604†	-84.7	-6.8	-0.0779 µg/L	-0.0779 ppb		20:23:51
3	P 214.914†	-27.0	-8.6	-1.8417 µg/L	-1.8417 ppb		20:23:51
3	Pb 220.353†	93.1	5.2	0.2966 µg/L	0.2966 ppb		20:23:51
3	S 181.975 Axial†	107.7	0.8	0.6238 µg/L	0.6238 ppb		20:23:51
3	Sb 206.836†	73.2	-8.8	-1.0551 µg/L	-1.0551 ppb		20:23:51
3	Se 196.026†	-3.4	-18.6	-6.74 µg/L	-6.74 ppb		20:23:51
3	SiO2†	1790.0	-14.9	-1.4424 µg/L	-1.4424 ppb		20:23:31
3	Si 251.611†	917.7	66.0	0.9787 µg/L	0.9787 ppb		20:23:31
3	Sn 189.927†	-2.4	-1.3	-0.0792 µg/L	-0.0792 ppb		20:23:51
3	Ti 334.940†	1230.7	257.8	0.2458 µg/L	0.2458 ppb		20:23:31
3	Tl 190.801†	-121.9	-3.2	-0.3892 µg/L	-0.3892 ppb		20:23:51
3	U 409.014†	-444.6	-167.4	-9.7866 µg/L	-9.7866 ppb		20:23:31
3	V 292.402†	407.2	-3.3	-0.0267 µg/L	-0.0267 ppb		20:23:31
3	Zn 213.857†	572.9	-1.0	-0.0054 µg/L	-0.0054 ppb		20:23:51

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1734379.0	100.94	%	0.815				0.81%
Sc RADIAL	145866.6	100.0	%	0.42				0.42%
Y 371.029	1036115.5	100.92	%	0.780				0.77%
Ag 328.068†	-286.1	-1.0663	µg/L	0.51712	-1.0663	ppb	0.51712	48.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.6	-0.6608	µg/L	2.31909	-0.6608	ppb	2.31909	350.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.9	1.1781	µg/L	2.16942	1.1781	ppb	2.16942	184.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1.0	0.0150	µg/L	1.20824	0.0150	ppb	1.20824	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.2	0.0328	µg/L	0.09650	0.0328	ppb	0.09650	294.60%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	137.2	0.0363	µg/L	0.03660	0.0363	ppb	0.03660	100.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	48.4	2.6965	µg/L	0.42361	2.6965	ppb	0.42361	15.71%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	12.4	0.0771	µg/L	0.01869	0.0771	ppb	0.01869	24.25%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.6	0.1057	µg/L	0.14474	0.1057	ppb	0.14474	136.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                19.0      0.1515 µg/L       0.14414      0.1515 ppb        0.14414  95.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                11.4      0.0418 µg/L       0.24463      0.0418 ppb        0.24463 585.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         20.6      1.2697 µg/L       0.43727      1.2697 ppb        0.43727  34.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          26.8      9.8201 µg/L      42.69298      9.8201 ppb       42.69298 434.75%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -14.4     -5.3735 µg/L       9.80148     -5.3735 ppb        9.80148 182.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -26.8     -0.0329 µg/L       0.00657     -0.0329 ppb        0.00657  19.97%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -8.1     -0.2375 µg/L       0.09374     -0.2375 ppb        0.09374  39.47%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        160.1      21.868 µg/L        2.8179      21.868 ppb         2.8179  12.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -7.2     -0.0834 µg/L       0.02187     -0.0834 ppb        0.02187  26.22%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.1     -1.2919 µg/L       1.11996     -1.2919 ppb        1.11996  86.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -7.4     -0.4112 µg/L       1.42800     -0.4112 ppb        1.42800 347.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -6.2     -4.5969 µg/L       5.69602     -4.5969 ppb        5.69602 123.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.1     -0.1373 µg/L       1.12485     -0.1373 ppb        1.12485 819.31%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -8.4       -3.05 µg/L         3.277       -3.05 ppb          3.277 107.40%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      17.1      1.6733 µg/L       2.75522      1.6733 ppb        2.75522 164.66%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                72.6      1.0690 µg/L       0.96766      1.0690 ppb        0.96766  90.52%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 9.8      0.6095 µg/L       0.60356      0.6095 ppb        0.60356  99.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -121.8     -0.2532 µg/L       0.06998     -0.2532 ppb        0.06998  27.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                84.1      0.0804 µg/L       0.14329      0.0804 ppb        0.14329 178.21%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.9      0.1076 µg/L       1.27840      0.1076 ppb        1.27840 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -57.9     -3.3992 µg/L       6.59417     -3.3992 ppb        6.59417 193.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -47.7     -0.2370 µg/L       0.23337     -0.2370 ppb        0.23337  98.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                24.7      0.1393 µg/L       0.13213      0.1393 ppb        0.13213  94.89%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 38 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/31/2010 20:46:32**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142658.3	142658.3	97.8	%			20:47:06
1	Al 396.153Radial†	26173.0	26836.4	4953.1	µg/L	4953.1	ppb	20:47:06
1	Ca 317.933Radial†	86811.8	88242.0	4915.4	µg/L	4915.4	ppb	20:47:06
1	Fe 238.204 Radial†	77308.1	78932.9	4864.9	µg/L	4864.9	ppb	20:47:06
1	K 766.490 Radial†	14453.8	13240.4	4843.5	µg/L	4843.5	ppb	20:47:06
1	Mg 279.077 IEC†	13219.2	13331.7	4974.8	µg/L	4974.8	ppb	20:47:06
1	Na 589.592 Radial†	70981.3	71318.3	9738.6	µg/L	9738.6	ppb	20:47:06
1	Sr 421.552†	229479.6	234877.4	488.26	µg/L	488.26	ppb	20:47:04
1	Sc 361.383	1717986.8	1717986.8	99.987	%			20:47:18
1	Y 371.029	1016974.2	1016974.2	99.054	%			20:47:18
1	Ag 328.068†	133861.9	129788.4	486.66	µg/L	486.66	ppb	20:47:18
1	As 188.979†	1570.9	1591.4	488.31	µg/L	488.31	ppb	20:47:39
1	B 249.677†	35888.7	32387.7	475.97	µg/L	475.97	ppb	20:47:18
1	Ba 233.527†	120089.3	120241.3	484.93	µg/L	484.93	ppb	20:47:18
1	Be 313.107†	1788228.5	1789533.4	487.39	µg/L	487.39	ppb	20:47:18
1	Cd 226.502†	77187.6	77316.2	482.64	µg/L	482.64	ppb	20:47:18
1	Co 228.616†	39259.0	39454.6	487.07	µg/L	487.07	ppb	20:47:18
1	Cr 267.716†	61734.0	61563.8	482.03	µg/L	482.03	ppb	20:47:18
1	Cu 324.752†	127051.0	124095.8	483.76	µg/L	483.76	ppb	20:47:18
1	Mn 257.610†	394153.9	393969.6	487.25	µg/L	487.25	ppb	20:47:18
1	Mo 202.031†	16323.5	16345.7	480.82	µg/L	480.82	ppb	20:47:39
1	Ni 231.604†	42025.4	42107.6	484.84	µg/L	484.84	ppb	20:47:18
1	P 214.914†	11165.4	11184.8	2383.9	µg/L	2383.9	ppb	20:47:39
1	Pb 220.353†	8721.1	8635.9	483.61	µg/L	483.61	ppb	20:47:39
1	S 181.975 Axial†	1384.6	1279.7	954.32	µg/L	954.32	ppb	20:47:39
1	Sb 206.836†	4121.5	4041.3	481.48	µg/L	481.48	ppb	20:47:39
1	Se 196.026†	1330.1	1315.0	478	µg/L	478	ppb	20:47:39
1	SiO2†	55658.0	53890.1	5246.7	µg/L	5246.7	ppb	20:47:18
1	Si 251.611†	168475.5	167661.6	2462.2	µg/L	2462.2	ppb	20:47:18
1	Sn 189.927†	7694.7	7696.9	481.46	µg/L	481.46	ppb	20:47:39
1	Ti 334.940†	521521.0	520638.5	485.79	µg/L	485.79	ppb	20:47:18
1	Tl 190.801†	3795.7	3912.8	488.05	µg/L	488.05	ppb	20:47:39
1	U 409.014†	7470.6	7741.5	482.06	µg/L	482.06	ppb	20:47:18
1	V 292.402†	99032.8	98642.4	487.59	µg/L	487.59	ppb	20:47:18
1	Zn 213.857†	86847.2	86294.4	480.95	µg/L	480.95	ppb	20:47:18
2	Sc RADIAL	142003.0	142003.0	97.3	%			20:47:10
2	Al 396.153Radial†	25928.5	26708.7	4929.4	µg/L	4929.4	ppb	20:47:10
2	Ca 317.933Radial†	86471.0	88301.6	4918.7	µg/L	4918.7	ppb	20:47:10
2	Fe 238.204 Radial†	76877.1	78854.9	4860.1	µg/L	4860.1	ppb	20:47:10
2	K 766.490 Radial†	14481.3	13337.0	4878.8	µg/L	4878.8	ppb	20:47:10
2	Mg 279.077 IEC†	13250.2	13425.9	5009.9	µg/L	5009.9	ppb	20:47:10
2	Na 589.592 Radial†	70794.9	71461.8	9758.2	µg/L	9758.2	ppb	20:47:10
2	Sr 421.552†	230824.3	237342.5	493.38	µg/L	493.38	ppb	20:47:08
2	Sc 361.383	1705978.0	1705978.0	99.288	%			20:47:42
2	Y 371.029	1010151.3	1010151.3	98.389	%			20:47:42
2	Ag 328.068†	132428.5	129287.2	484.78	µg/L	484.78	ppb	20:47:42
2	As 188.979†	1571.4	1603.0	491.82	µg/L	491.82	ppb	20:48:02
2	B 249.677†	35678.8	32428.9	476.59	µg/L	476.59	ppb	20:47:42
2	Ba 233.527†	119061.0	120051.1	484.16	µg/L	484.16	ppb	20:47:42
2	Be 313.107†	1771852.0	1785628.8	486.33	µg/L	486.33	ppb	20:47:42
2	Cd 226.502†	76647.7	77315.8	482.64	µg/L	482.64	ppb	20:47:42
2	Co 228.616†	38849.5	39318.5	485.39	µg/L	485.39	ppb	20:47:42
2	Cr 267.716†	61408.7	61670.7	482.88	µg/L	482.88	ppb	20:47:42
2	Cu 324.752†	125575.7	123504.5	481.46	µg/L	481.46	ppb	20:47:42
2	Mn 257.610†	390410.2	392973.9	486.01	µg/L	486.01	ppb	20:47:42
2	Mo 202.031†	16220.6	16357.1	481.16	µg/L	481.16	ppb	20:48:02
2	Ni 231.604†	41645.6	42020.9	483.84	µg/L	483.84	ppb	20:47:42
2	P 214.914†	11149.7	11247.7	2397.4	µg/L	2397.4	ppb	20:48:02
2	Pb 220.353†	8713.0	8689.1	486.58	µg/L	486.58	ppb	20:48:02

2	S 181.975 Axial†	1386.6	1291.5	963.10 µg/L	963.10 ppb	20:48:02
2	Sb 206.836†	4077.2	4025.7	479.62 µg/L	479.62 ppb	20:48:02
2	Se 196.026†	1343.8	1338.2	486 µg/L	486 ppb	20:48:02
2	SiO2†	55264.2	53885.3	5246.2 µg/L	5246.2 ppb	20:47:42
2	Si 251.611†	166831.6	167191.9	2455.3 µg/L	2455.3 ppb	20:47:42
2	Sn 189.927†	7685.8	7742.0	484.27 µg/L	484.27 ppb	20:48:02
2	Ti 334.940†	517135.3	519893.0	485.10 µg/L	485.10 ppb	20:47:42
2	Tl 190.801†	3798.0	3941.9	491.62 µg/L	491.62 ppb	20:48:02
2	U 409.014†	7240.4	7562.3	471.53 µg/L	471.53 ppb	20:47:42
2	V 292.402†	98205.8	98506.6	486.93 µg/L	486.93 ppb	20:47:42
2	Zn 213.857†	85981.0	86033.4	479.49 µg/L	479.49 ppb	20:47:42
3	Sc RADIAL	143540.2	143540.2	98.4 %		20:47:14
3	Al 396.153Radial†	26297.7	26798.6	4945.9 µg/L	4945.9 ppb	20:47:14
3	Ca 317.933Radial†	87479.0	88374.7	4922.8 µg/L	4922.8 ppb	20:47:14
3	Fe 238.204 Radial†	77829.6	78977.1	4867.7 µg/L	4867.7 ppb	20:47:14
3	K 766.490 Radial†	14541.2	13238.5	4842.8 µg/L	4842.8 ppb	20:47:14
3	Mg 279.077 IEC†	13331.1	13362.3	4986.3 µg/L	4986.3 ppb	20:47:14
3	Na 589.592 Radial†	71517.8	71417.6	9752.2 µg/L	9752.2 ppb	20:47:14
3	Sr 421.552†	229529.4	233485.7	485.36 µg/L	485.36 ppb	20:47:12
3	Sc 361.383	1697774.9	1697774.9	98.810 %		20:48:05
3	Y 371.029	1005288.7	1005288.7	97.916 %		20:48:05
3	Ag 328.068†	132337.3	129839.4	486.83 µg/L	486.83 ppb	20:48:05
3	As 188.979†	1566.3	1605.5	492.60 µg/L	492.60 ppb	20:48:25
3	B 249.677†	35561.4	32483.7	477.39 µg/L	477.39 ppb	20:48:05
3	Ba 233.527†	118631.6	120195.8	484.75 µg/L	484.75 ppb	20:48:05
3	Be 313.107†	1768996.7	1791361.7	487.89 µg/L	487.89 ppb	20:48:05
3	Cd 226.502†	76298.6	77335.5	482.76 µg/L	482.76 ppb	20:48:05
3	Co 228.616†	38681.6	39337.6	485.62 µg/L	485.62 ppb	20:48:05
3	Cr 267.716†	61122.4	61679.8	482.95 µg/L	482.95 ppb	20:48:05
3	Cu 324.752†	125325.9	123862.7	482.85 µg/L	482.85 ppb	20:48:05
3	Mn 257.610†	389691.1	394146.1	487.47 µg/L	487.47 ppb	20:48:05
3	Mo 202.031†	16294.8	16511.0	485.68 µg/L	485.68 ppb	20:48:25
3	Ni 231.604†	41366.1	41940.7	482.92 µg/L	482.92 ppb	20:48:05
3	P 214.914†	11228.3	11381.4	2426.0 µg/L	2426.0 ppb	20:48:25
3	Pb 220.353†	8735.3	8754.1	490.22 µg/L	490.22 ppb	20:48:25
3	S 181.975 Axial†	1387.1	1298.7	968.51 µg/L	968.51 ppb	20:48:25
3	Sb 206.836†	4142.3	4111.4	489.88 µg/L	489.88 ppb	20:48:25
3	Se 196.026†	1325.9	1326.6	482 µg/L	482 ppb	20:48:25
3	SiO2†	55019.2	53906.4	5248.0 µg/L	5248.0 ppb	20:48:05
3	Si 251.611†	166054.7	167217.6	2455.6 µg/L	2455.6 ppb	20:48:05
3	Sn 189.927†	7713.9	7807.9	488.38 µg/L	488.38 ppb	20:48:25
3	Ti 334.940†	515323.4	520575.8	485.74 µg/L	485.74 ppb	20:48:05
3	Tl 190.801†	3789.8	3952.1	492.88 µg/L	492.88 ppb	20:48:25
3	U 409.014†	7240.2	7597.3	473.61 µg/L	473.61 ppb	20:48:05
3	V 292.402†	97793.8	98567.5	487.28 µg/L	487.28 ppb	20:48:05
3	Zn 213.857†	85880.1	86349.8	481.27 µg/L	481.27 ppb	20:48:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1707246.6	99.361	%	0.5916				0.60%
Sc RADIAL	142733.8	97.8	%	0.53				0.54%
Y 371.029	1010804.8	98.453	%	0.5717				0.58%
Ag 328.068†	129638.4	486.09	µg/L	1.137	486.09	ppb	1.137	0.23%
QC value within limits for Ag 328.068 Recovery = 97.22%								
Al 396.153Radial†	26781.2	4942.8	µg/L	12.14	4942.8	ppb	12.14	0.25%
QC value within limits for Al 396.153Radial Recovery = 98.86%								
As 188.979†	1600.0	490.91	µg/L	2.283	490.91	ppb	2.283	0.47%
QC value within limits for As 188.979 Recovery = 98.18%								
B 249.677†	32433.4	476.65	µg/L	0.713	476.65	ppb	0.713	0.15%
QC value within limits for B 249.677 Recovery = 95.33%								
Ba 233.527†	120162.7	484.61	µg/L	0.401	484.61	ppb	0.401	0.08%
QC value within limits for Ba 233.527 Recovery = 96.92%								
Be 313.107†	1788841.3	487.20	µg/L	0.798	487.20	ppb	0.798	0.16%
QC value within limits for Be 313.107 Recovery = 97.44%								
Ca 317.933Radial†	88306.1	4919.0	µg/L	3.70	4919.0	ppb	3.70	0.08%
QC value within limits for Ca 317.933Radial Recovery = 98.38%								
Cd 226.502†	77322.5	482.68	µg/L	0.070	482.68	ppb	0.070	0.01%
QC value within limits for Cd 226.502 Recovery = 96.54%								
Co 228.616†	39370.2	486.02	µg/L	0.909	486.02	ppb	0.909	0.19%

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   QC value within limits for Co 228.616  Recovery = 97.20%
Cr 267.716†            61638.1      482.62 µg/L         0.509      482.62 ppb          0.509   0.11%
   QC value within limits for Cr 267.716  Recovery = 96.52%
Cu 324.752†           123821.0      482.69 µg/L         1.162      482.69 ppb          1.162   0.24%
   QC value within limits for Cu 324.752  Recovery = 96.54%
Fe 238.204 Radial†     78921.6      4864.2 µg/L          3.82      4864.2 ppb           3.82   0.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.28%
K 766.490 Radial†      13272.0      4855.1 µg/L         20.61      4855.1 ppb          20.61   0.42%
   QC value within limits for K 766.490 Radial  Recovery = 97.10%
Mg 279.077 IEC†        13373.3      4990.3 µg/L         17.90      4990.3 ppb          17.90   0.36%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.81%
Mn 257.610†           393696.5      486.91 µg/L         0.783      486.91 ppb          0.783   0.16%
   QC value within limits for Mn 257.610  Recovery = 97.38%
Mo 202.031†            16404.6      482.56 µg/L         2.714      482.56 ppb          2.714   0.56%
   QC value within limits for Mo 202.031  Recovery = 96.51%
Na 589.592 Radial†     71399.2      9749.7 µg/L         10.02      9749.7 ppb          10.02   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 97.50%
Ni 231.604†            42023.1      483.87 µg/L         0.961      483.87 ppb          0.961   0.20%
   QC value within limits for Ni 231.604  Recovery = 96.77%
P 214.914†             11271.3      2402.4 µg/L         21.48      2402.4 ppb          21.48   0.89%
   QC value within limits for P 214.914  Recovery = 96.10%
Pb 220.353†             8693.1      486.80 µg/L         3.313      486.80 ppb          3.313   0.68%
   QC value within limits for Pb 220.353  Recovery = 97.36%
S 181.975 Axial†        1290.0      961.98 µg/L         7.160      961.98 ppb          7.160   0.74%
   QC value within limits for S 181.975 Axial  Recovery = 96.20%
Sb 206.836†             4059.4      483.66 µg/L         5.466      483.66 ppb          5.466   1.13%
   QC value within limits for Sb 206.836  Recovery = 96.73%
Se 196.026†             1326.6         482 µg/L           4.2         482 ppb            4.2   0.87%
   QC value within limits for Se 196.026  Recovery = 96.34%
SiO2†                  53893.9      5247.0 µg/L          0.96      5247.0 ppb           0.96   0.02%
   QC value within limits for SiO2  Recovery = 98.12%
Si 251.611†           167357.0      2457.7 µg/L          3.93      2457.7 ppb           3.93   0.16%
   QC value within limits for Si 251.611  Recovery = 98.31%
Sn 189.927†             7748.9      484.70 µg/L         3.480      484.70 ppb          3.480   0.72%
   QC value within limits for Sn 189.927  Recovery = 96.94%
Sr 421.552†           235235.2      489.00 µg/L         4.060      489.00 ppb          4.060   0.83%
   QC value within limits for Sr 421.552  Recovery = 97.80%
Ti 334.940†           520369.1      485.54 µg/L         0.386      485.54 ppb          0.386   0.08%
   QC value within limits for Ti 334.940  Recovery = 97.11%
Tl 190.801†             3935.6      490.85 µg/L         2.502      490.85 ppb          2.502   0.51%
   QC value within limits for Tl 190.801  Recovery = 98.17%
U 409.014†              7633.7      475.73 µg/L         5.576      475.73 ppb          5.576   1.17%
   QC value within limits for U 409.014  Recovery = 95.15%
V 292.402†             98572.2      487.27 µg/L         0.331      487.27 ppb          0.331   0.07%
   QC value within limits for V 292.402  Recovery = 97.45%
Zn 213.857†            86225.9      480.57 µg/L         0.949      480.57 ppb          0.949   0.20%
   QC value within limits for Zn 213.857  Recovery = 96.11%
All analyte(s) passed QC.
```

Sequence No.: 39 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/31/2010 20:48:32**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143100.4	143100.4	98.1	%			20:49:01
1	Al 396.153Radial†	-68.2	-6.4	-1.1706	µg/L	-1.1706	ppb	20:49:21
1	Ca 317.933Radial†	633.3	85.2	4.7476	µg/L	4.7476	ppb	20:49:21
1	Fe 238.204 Radial†	162.0	17.1	1.0551	µg/L	1.0551	ppb	20:49:21
1	K 766.490 Radial†	1505.7	-9.3	-3.4148	µg/L	-3.4148	ppb	20:49:01
1	Mg 279.077 IEC†	188.6	1.6	0.6053	µg/L	0.6053	ppb	20:49:21
1	Na 589.592 Radial†	1635.8	377.3	51.550	µg/L	51.550	ppb	20:49:01
1	Sr 421.552†	-135.1	-2.5	-0.0052	µg/L	-0.0052	ppb	20:49:01
1	Sc 361.383	1714287.6	1714287.6	99.771	%			20:50:09
1	Y 371.029	1025603.7	1025603.7	99.894	%			20:50:09
1	Ag 328.068†	3929.0	-153.4	-0.5739	µg/L	-0.5739	ppb	20:50:11
1	As 188.979†	-14.7	5.7	1.7126	µg/L	1.7126	ppb	20:50:31
1	B 249.677†	3483.3	-14.6	-0.2161	µg/L	-0.2161	ppb	20:50:31
1	Ba 233.527†	-124.6	11.0	0.0445	µg/L	0.0445	ppb	20:50:31
1	Be 313.107†	-819.1	243.7	0.0640	µg/L	0.0640	ppb	20:50:11
1	Cd 226.502†	-96.3	21.7	0.1352	µg/L	0.1352	ppb	20:50:31
1	Co 228.616†	-181.4	8.5	0.1049	µg/L	0.1049	ppb	20:50:31
1	Cr 267.716†	159.9	-18.3	-0.1371	µg/L	-0.1371	ppb	20:50:31
1	Cu 324.752†	2837.6	-128.1	-0.5041	µg/L	-0.5041	ppb	20:50:11
1	Mn 257.610†	255.9	19.2	0.0238	µg/L	0.0238	ppb	20:50:31
1	Mo 202.031†	-30.3	-10.3	-0.3020	µg/L	-0.3020	ppb	20:50:31
1	Ni 231.604†	-89.5	-13.2	-0.1520	µg/L	-0.1520	ppb	20:50:31
1	P 214.914†	-14.0	3.9	0.8495	µg/L	0.8495	ppb	20:50:31
1	Pb 220.353†	127.8	41.7	2.3324	µg/L	2.3324	ppb	20:50:31
1	S 181.975 Axial†	105.4	0.6	0.4193	µg/L	0.4193	ppb	20:50:31
1	Sb 206.836†	61.7	-18.9	-2.2534	µg/L	-2.2534	ppb	20:50:31
1	Se 196.026†	16.8	1.6	0.564	µg/L	0.564	ppb	20:50:31
1	SiO2†	1750.1	-21.3	-2.0737	µg/L	-2.0737	ppb	20:50:31
1	Si 251.611†	904.3	69.8	1.0310	µg/L	1.0310	ppb	20:50:11
1	Sn 189.927†	3.7	4.9	0.3040	µg/L	0.3040	ppb	20:50:31
1	Ti 334.940†	1043.2	93.0	0.0902	µg/L	0.0902	ppb	20:50:11
1	Tl 190.801†	-125.6	-9.3	-1.1347	µg/L	-1.1347	ppb	20:50:31
1	U 409.014†	-400.9	-131.9	-7.6954	µg/L	-7.6954	ppb	20:50:11
1	V 292.402†	469.6	66.9	0.3171	µg/L	0.3171	ppb	20:50:11
1	Zn 213.857†	595.1	32.0	0.1811	µg/L	0.1811	ppb	20:50:31
2	Sc RADIAL	142884.5	142884.5	97.9	%			20:49:23
2	Al 396.153Radial†	-69.1	-7.4	-1.3818	µg/L	-1.3818	ppb	20:49:43
2	Ca 317.933Radial†	615.2	67.8	3.7747	µg/L	3.7747	ppb	20:49:43
2	Fe 238.204 Radial†	156.5	11.7	0.7231	µg/L	0.7231	ppb	20:49:43
2	K 766.490 Radial†	1609.8	99.3	36.354	µg/L	36.354	ppb	20:49:23
2	Mg 279.077 IEC†	180.2	-6.7	-2.4821	µg/L	-2.4821	ppb	20:49:43
2	Na 589.592 Radial†	1524.3	266.0	36.311	µg/L	36.311	ppb	20:49:23
2	Sr 421.552†	-167.8	-36.0	-0.0750	µg/L	-0.0750	ppb	20:49:23
2	Sc 361.383	1705708.0	1705708.0	99.272	%			20:50:33
2	Y 371.029	1021576.7	1021576.7	99.502	%			20:50:33
2	Ag 328.068†	3789.2	-274.4	-1.0230	µg/L	-1.0230	ppb	20:50:35
2	As 188.979†	-3.7	16.6	5.0206	µg/L	5.0206	ppb	20:50:56
2	B 249.677†	3504.5	24.3	0.3589	µg/L	0.3589	ppb	20:50:56
2	Ba 233.527†	-135.1	-0.3	-0.0007	µg/L	-0.0007	ppb	20:50:56
2	Be 313.107†	-1027.1	30.1	0.0056	µg/L	0.0056	ppb	20:50:35
2	Cd 226.502†	-117.9	-0.5	-0.0035	µg/L	-0.0035	ppb	20:50:56
2	Co 228.616†	-184.4	4.6	0.0565	µg/L	0.0565	ppb	20:50:56
2	Cr 267.716†	197.3	20.1	0.1648	µg/L	0.1648	ppb	20:50:56
2	Cu 324.752†	2986.4	36.0	0.1330	µg/L	0.1330	ppb	20:50:35
2	Mn 257.610†	208.3	-27.5	-0.0339	µg/L	-0.0339	ppb	20:50:56
2	Mo 202.031†	-10.1	9.9	0.2925	µg/L	0.2925	ppb	20:50:56
2	Ni 231.604†	-71.6	4.4	0.0504	µg/L	0.0504	ppb	20:50:56
2	P 214.914†	-25.7	-7.9	-1.7048	µg/L	-1.7048	ppb	20:50:56
2	Pb 220.353†	88.5	2.8	0.1610	µg/L	0.1610	ppb	20:50:56

2	S 181.975 Axial†	98.5	-5.8	-4.3120 µg/L	-4.3120 ppb	20:50:56
2	Sb 206.836†	86.1	5.9	0.7055 µg/L	0.7055 ppb	20:50:56
2	Se 196.026†	6.1	-9.2	-3.32 µg/L	-3.32 ppb	20:50:56
2	SiO2†	1800.3	38.1	3.7206 µg/L	3.7206 ppb	20:50:56
2	Si 251.611†	941.5	111.8	1.6453 µg/L	1.6453 ppb	20:50:35
2	Sn 189.927†	-2.9	-1.8	-0.1151 µg/L	-0.1151 ppb	20:50:56
2	Ti 334.940†	825.1	-121.4	-0.1096 µg/L	-0.1096 ppb	20:50:35
2	Tl 190.801†	-103.9	12.0	1.4793 µg/L	1.4793 ppb	20:50:56
2	U 409.014†	-414.7	-147.9	-8.6275 µg/L	-8.6275 ppb	20:50:35
2	V 292.402†	468.7	68.3	0.3311 µg/L	0.3311 ppb	20:50:35
2	Zn 213.857†	586.6	26.4	0.1479 µg/L	0.1479 ppb	20:50:56
3	Sc RADIAL	143556.4	143556.4	98.4 %		20:49:45
3	Al 396.153Radial†	-49.6	12.8	2.3684 µg/L	2.3684 ppb	20:50:05
3	Ca 317.933Radial†	619.9	69.5	3.8728 µg/L	3.8728 ppb	20:50:05
3	Fe 238.204 Radial†	160.9	15.5	0.9527 µg/L	0.9527 ppb	20:50:05
3	K 766.490 Radial†	1716.2	199.8	73.139 µg/L	73.139 ppb	20:49:45
3	Mg 279.077 IEC†	179.3	-8.5	-3.1618 µg/L	-3.1618 ppb	20:50:05
3	Na 589.592 Radial†	1571.2	306.3	41.786 µg/L	41.786 ppb	20:49:45
3	Sr 421.552†	-111.1	22.4	0.0465 µg/L	0.0465 ppb	20:49:45
3	Sc 361.383	1721625.0	1721625.0	100.20 %		20:50:58
3	Y 371.029	1030085.4	1030085.4	100.33 %		20:50:58
3	Ag 328.068†	3859.6	-239.4	-0.8861 µg/L	-0.8861 ppb	20:51:00
3	As 188.979†	-27.5	-7.1	-2.1453 µg/L	-2.1453 ppb	20:51:20
3	B 249.677†	3491.5	-21.3	-0.3158 µg/L	-0.3158 ppb	20:51:20
3	Ba 233.527†	-142.3	-6.2	-0.0248 µg/L	-0.0248 ppb	20:51:20
3	Be 313.107†	-950.3	116.3	0.0315 µg/L	0.0315 ppb	20:51:00
3	Cd 226.502†	-122.0	-3.6	-0.0224 µg/L	-0.0224 ppb	20:51:20
3	Co 228.616†	-167.0	23.7	0.2921 µg/L	0.2921 ppb	20:51:20
3	Cr 267.716†	146.9	-32.0	-0.2498 µg/L	-0.2498 ppb	20:51:20
3	Cu 324.752†	3019.8	41.6	0.1616 µg/L	0.1616 ppb	20:51:00
3	Mn 257.610†	238.8	1.0	0.0014 µg/L	0.0014 ppb	20:51:20
3	Mo 202.031†	-20.4	-0.3	-0.0095 µg/L	-0.0095 ppb	20:51:20
3	Ni 231.604†	-92.9	-16.2	-0.1861 µg/L	-0.1861 ppb	20:51:20
3	P 214.914†	-16.8	1.2	0.2638 µg/L	0.2638 ppb	20:51:20
3	Pb 220.353†	96.5	9.9	0.5545 µg/L	0.5545 ppb	20:51:20
3	S 181.975 Axial†	97.9	-7.4	-5.4692 µg/L	-5.4692 ppb	20:51:20
3	Sb 206.836†	70.1	-10.9	-1.2853 µg/L	-1.2853 ppb	20:51:20
3	Se 196.026†	24.0	8.7	3.13 µg/L	3.13 ppb	20:51:20
3	SiO2†	1761.3	-17.6	-1.7243 µg/L	-1.7243 ppb	20:51:20
3	Si 251.611†	890.7	52.3	0.7682 µg/L	0.7682 ppb	20:51:00
3	Sn 189.927†	7.5	8.6	0.5361 µg/L	0.5361 ppb	20:51:20
3	Ti 334.940†	901.9	-52.4	-0.0483 µg/L	-0.0483 ppb	20:51:00
3	Tl 190.801†	-111.0	5.9	0.7212 µg/L	0.7212 ppb	20:51:20
3	U 409.014†	-279.5	-9.1	-0.5238 µg/L	-0.5238 ppb	20:51:00
3	V 292.402†	424.3	19.7	0.0944 µg/L	0.0944 ppb	20:51:00
3	Zn 213.857†	577.4	11.9	0.0677 µg/L	0.0677 ppb	20:51:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1713873.5	99.747	%	0.4637				0.46%
Sc RADIAL	143180.4	98.1	%	0.24				0.24%
Y 371.029	1025755.3	99.909	%	0.4146				0.41%
Ag 328.068†	-222.4	-0.8276	µg/L	0.23017	-0.8276	ppb	0.23017	27.81%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.3	-0.0614	µg/L	2.10685	-0.0614	ppb	2.10685	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.1	1.5293	µg/L	3.58647	1.5293	ppb	3.58647	234.51%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-3.9	-0.0576	µg/L	0.36418	-0.0576	ppb	0.36418	631.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.5	0.0063	µg/L	0.03518	0.0063	ppb	0.03518	557.71%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	130.0	0.0337	µg/L	0.02929	0.0337	ppb	0.02929	86.91%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	74.2	4.1317	µg/L	0.53563	4.1317	ppb	0.53563	12.96%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.9	0.0364	µg/L	0.08602	0.0364	ppb	0.08602	236.18%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.3	0.1512	µg/L	0.12445	0.1512	ppb	0.12445	82.31%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -10.0     -0.0740 µg/L       0.21436     -0.0740 ppb        0.21436 289.62%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -16.8     -0.0698 µg/L       0.37636     -0.0698 ppb        0.37636 538.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        14.8      0.9103 µg/L       0.16999      0.9103 ppb        0.16999  18.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         96.6      35.359 µg/L       38.2865      35.359 ppb        38.2865 108.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -4.5     -1.6795 µg/L       2.00766     -1.6795 ppb        2.00766 119.54%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -2.4     -0.0029 µg/L       0.02906     -0.0029 ppb        0.02906 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.2     -0.0064 µg/L       0.29725     -0.0064 ppb        0.29725 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       316.6      43.216 µg/L        7.7194      43.216 ppb         7.7194  17.86%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -8.3     -0.0959 µg/L       0.12783     -0.0959 ppb        0.12783 133.28%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.9     -0.1972 µg/L       1.33806     -0.1972 ppb        1.33806 678.62%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               18.1      1.0159 µg/L       1.15693      1.0159 ppb        1.15693 113.88%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.2     -3.1206 µg/L       3.11977     -3.1206 ppb        3.11977  99.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -8.0     -0.9444 µg/L       1.50862     -0.9444 ppb        1.50862 159.74%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.4       0.124 µg/L        3.2508       0.124 ppb         3.2508 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -0.2     -0.0258 µg/L       3.24918     -0.0258 ppb        3.24918 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               78.0      1.1482 µg/L       0.45012      1.1482 ppb        0.45012  39.20%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.9      0.2417 µg/L       0.33003      0.2417 ppb        0.33003 136.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -5.4     -0.0112 µg/L       0.06093     -0.0112 ppb        0.06093 542.16%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -26.9     -0.0226 µg/L       0.10236     -0.0226 ppb        0.10236 453.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.9      0.3552 µg/L       1.34488      0.3552 ppb        1.34488 378.59%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -96.3     -5.6156 µg/L       4.43418     -5.6156 ppb        4.43418  78.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                51.6      0.2475 µg/L       0.13284      0.2475 ppb        0.13284  53.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               23.4      0.1323 µg/L       0.05829      0.1323 ppb        0.05829  44.08%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 50
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 21:16:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140518.4	140518.4	96.3	%			21:16:42
1	Al 396.153Radial†	25783.9	26840.0	4953.4	µg/L	4953.4	ppb	21:16:42
1	Ca 317.933Radial†	85524.3	88257.2	4916.3	µg/L	4916.3	ppb	21:16:42
1	Fe 238.204 Radial†	76323.1	79114.2	4876.1	µg/L	4876.1	ppb	21:16:42
1	K 766.490 Radial†	14404.9	13414.9	4907.4	µg/L	4907.4	ppb	21:16:42
1	Mg 279.077 IEC†	13081.5	13394.6	4998.4	µg/L	4998.4	ppb	21:16:42
1	Na 589.592 Radial†	70242.3	71656.5	9784.8	µg/L	9784.8	ppb	21:16:42
1	Sr 421.552†	226316.6	235167.3	488.86	µg/L	488.86	ppb	21:16:40
1	Sc 361.383	1669103.9	1669103.9	97.142	%			21:16:55
1	Y 371.029	989417.5	989417.5	96.370	%			21:16:55
1	Ag 328.068†	129569.0	129290.2	484.77	µg/L	484.77	ppb	21:16:55
1	As 188.979†	1551.4	1617.4	496.19	µg/L	496.19	ppb	21:17:15
1	B 249.677†	34680.4	32195.0	473.14	µg/L	473.14	ppb	21:16:55
1	Ba 233.527†	116237.8	119794.0	483.13	µg/L	483.13	ppb	21:16:55
1	Be 313.107†	1725182.2	1777010.7	483.98	µg/L	483.98	ppb	21:16:55
1	Cd 226.502†	74430.6	76738.9	479.03	µg/L	479.03	ppb	21:16:55
1	Co 228.616†	37838.5	39142.2	483.21	µg/L	483.21	ppb	21:16:55
1	Cr 267.716†	59798.9	61379.9	480.59	µg/L	480.59	ppb	21:16:55
1	Cu 324.752†	122989.1	123635.9	481.97	µg/L	481.97	ppb	21:16:55
1	Mn 257.610†	381507.5	392496.1	485.42	µg/L	485.42	ppb	21:16:55
1	Mo 202.031†	16149.2	16644.5	489.61	µg/L	489.61	ppb	21:17:15
1	Ni 231.604†	40427.6	41693.7	480.07	µg/L	480.07	ppb	21:16:55
1	P 214.914†	11040.4	11383.2	2426.3	µg/L	2426.3	ppb	21:17:15
1	Pb 220.353†	8616.0	8783.1	491.85	µg/L	491.85	ppb	21:17:15
1	S 181.975 Axial†	1370.2	1305.5	973.53	µg/L	973.53	ppb	21:17:15
1	Sb 206.836†	4075.4	4114.5	490.34	µg/L	490.34	ppb	21:17:15
1	Se 196.026†	1325.8	1349.6	490	µg/L	490	ppb	21:17:15
1	SiO2†	53789.9	53597.3	5217.7	µg/L	5217.7	ppb	21:16:55
1	Si 251.611†	162739.1	166691.2	2447.8	µg/L	2447.8	ppb	21:16:55
1	Sn 189.927†	7604.8	7829.7	489.73	µg/L	489.73	ppb	21:17:15
1	Ti 334.940†	504929.9	518835.1	484.11	µg/L	484.11	ppb	21:16:55
1	Tl 190.801†	3752.3	3979.4	496.21	µg/L	496.21	ppb	21:17:15
1	U 409.014†	7197.9	7679.6	478.26	µg/L	478.26	ppb	21:16:55
1	V 292.402†	95634.0	98044.3	484.76	µg/L	484.76	ppb	21:16:55
1	Zn 213.857†	83598.9	85494.4	476.49	µg/L	476.49	ppb	21:16:55
2	Sc RADIAL	141583.7	141583.7	97.0	%			21:16:47
2	Al 396.153Radial†	25881.7	26739.3	4934.9	µg/L	4934.9	ppb	21:16:47
2	Ca 317.933Radial†	85790.3	87863.1	4894.3	µg/L	4894.3	ppb	21:16:47
2	Fe 238.204 Radial†	76348.3	78543.7	4841.0	µg/L	4841.0	ppb	21:16:47
2	K 766.490 Radial†	14349.6	13245.3	4845.3	µg/L	4845.3	ppb	21:16:47
2	Mg 279.077 IEC†	13161.7	13375.0	4991.0	µg/L	4991.0	ppb	21:16:47
2	Na 589.592 Radial†	70371.9	71241.2	9728.1	µg/L	9728.1	ppb	21:16:47
2	Sr 421.552†	225549.9	232608.6	483.54	µg/L	483.54	ppb	21:16:44
2	Sc 361.383	1700896.9	1700896.9	98.992	%			21:17:18
2	Y 371.029	1006820.6	1006820.6	98.065	%			21:17:18
2	Ag 328.068†	132249.7	129505.0	485.59	µg/L	485.59	ppb	21:17:18
2	As 188.979†	1564.2	1600.5	491.07	µg/L	491.07	ppb	21:17:38
2	B 249.677†	35612.0	32468.8	477.17	µg/L	477.17	ppb	21:17:18
2	Ba 233.527†	119305.1	120655.9	486.60	µg/L	486.60	ppb	21:17:18
2	Be 313.107†	1771257.8	1790359.7	487.62	µg/L	487.62	ppb	21:17:18
2	Cd 226.502†	76605.7	77504.0	483.82	µg/L	483.82	ppb	21:17:18
2	Co 228.616†	38857.8	39443.8	486.94	µg/L	486.94	ppb	21:17:18
2	Cr 267.716†	61346.5	61792.6	483.83	µg/L	483.83	ppb	21:17:18
2	Cu 324.752†	126079.4	124391.1	484.90	µg/L	484.90	ppb	21:17:18
2	Mn 257.610†	390683.2	394424.4	487.81	µg/L	487.81	ppb	21:17:18
2	Mo 202.031†	16315.1	16501.3	485.39	µg/L	485.39	ppb	21:17:38
2	Ni 231.604†	41564.0	42063.8	484.33	µg/L	484.33	ppb	21:17:18
2	P 214.914†	11170.5	11302.2	2409.0	µg/L	2409.0	ppb	21:17:38
2	Pb 220.353†	8716.3	8718.6	488.24	µg/L	488.24	ppb	21:17:38

2	S 181.975 Axial†	1376.8	1285.7	958.84 µg/L	958.84 ppb	21:17:38
2	Sb 206.836†	4095.5	4056.4	483.32 µg/L	483.32 ppb	21:17:38
2	Se 196.026†	1341.9	1340.3	487 µg/L	487 ppb	21:17:38
2	SiO2†	55368.1	54156.5	5272.5 µg/L	5272.5 ppb	21:17:18
2	Si 251.611†	166631.9	167492.1	2459.6 µg/L	2459.6 ppb	21:17:18
2	Sn 189.927†	7705.9	7785.5	486.98 µg/L	486.98 ppb	21:17:38
2	Ti 334.940†	516370.1	520675.9	485.83 µg/L	485.83 ppb	21:17:18
2	Tl 190.801†	3799.4	3954.7	493.19 µg/L	493.19 ppb	21:17:38
2	U 409.014†	7223.0	7566.5	471.79 µg/L	471.79 ppb	21:17:18
2	V 292.402†	97908.7	98501.9	486.96 µg/L	486.96 ppb	21:17:18
2	Zn 213.857†	86115.5	86428.0	481.70 µg/L	481.70 ppb	21:17:18
3	Sc RADIAL	140610.0	140610.0	96.4 %		21:16:51
3	Al 396.153Radial†	25934.1	26978.5	4979.2 µg/L	4979.2 ppb	21:16:51
3	Ca 317.933Radial†	85400.8	88071.2	4905.9 µg/L	4905.9 ppb	21:16:51
3	Fe 238.204 Radial†	76011.3	78739.0	4853.0 µg/L	4853.0 ppb	21:16:51
3	K 766.490 Radial†	14473.0	13475.8	4929.7 µg/L	4929.7 ppb	21:16:51
3	Mg 279.077 IEC†	13077.3	13381.4	4993.4 µg/L	4993.4 ppb	21:16:51
3	Na 589.592 Radial†	70342.7	71713.3	9792.5 µg/L	9792.5 ppb	21:16:51
3	Sr 421.552†	223908.2	232514.8	483.35 µg/L	483.35 ppb	21:16:49
3	Sc 361.383	1690270.1	1690270.1	98.373 %		21:17:42
3	Y 371.029	1001275.7	1001275.7	97.525 %		21:17:42
3	Ag 328.068†	131972.5	130063.1	487.66 µg/L	487.66 ppb	21:17:42
3	As 188.979†	1560.3	1606.5	492.89 µg/L	492.89 ppb	21:18:02
3	B 249.677†	35493.5	32574.4	478.72 µg/L	478.72 ppb	21:17:42
3	Ba 233.527†	118281.0	120372.5	485.46 µg/L	485.46 ppb	21:17:42
3	Be 313.107†	1758207.7	1788343.2	487.07 µg/L	487.07 ppb	21:17:42
3	Cd 226.502†	76039.5	77415.0	483.26 µg/L	483.26 ppb	21:17:42
3	Co 228.616†	38697.3	39527.5	487.97 µg/L	487.97 ppb	21:17:42
3	Cr 267.716†	61022.9	61853.3	484.31 µg/L	484.31 ppb	21:17:42
3	Cu 324.752†	124975.7	124069.9	483.65 µg/L	483.65 ppb	21:17:42
3	Mn 257.610†	388217.6	394399.3	487.78 µg/L	487.78 ppb	21:17:42
3	Mo 202.031†	16264.5	16553.5	486.93 µg/L	486.93 ppb	21:18:02
3	Ni 231.604†	41303.6	42063.1	484.33 µg/L	484.33 ppb	21:17:42
3	P 214.914†	11171.7	11374.3	2424.5 µg/L	2424.5 ppb	21:18:02
3	Pb 220.353†	8697.8	8755.2	490.29 µg/L	490.29 ppb	21:18:02
3	S 181.975 Axial†	1394.3	1312.3	978.61 µg/L	978.61 ppb	21:18:02
3	Sb 206.836†	4104.7	4091.7	487.54 µg/L	487.54 ppb	21:18:02
3	Se 196.026†	1335.6	1342.4	487 µg/L	487 ppb	21:18:02
3	SiO2†	54853.9	53985.5	5255.7 µg/L	5255.7 ppb	21:17:42
3	Si 251.611†	165452.6	167351.7	2457.5 µg/L	2457.5 ppb	21:17:42
3	Sn 189.927†	7688.5	7816.7	488.93 µg/L	488.93 ppb	21:18:02
3	Ti 334.940†	512939.3	520467.8	485.64 µg/L	485.64 ppb	21:17:42
3	Tl 190.801†	3797.1	3976.5	495.87 µg/L	495.87 ppb	21:18:02
3	U 409.014†	7116.8	7504.3	468.21 µg/L	468.21 ppb	21:17:42
3	V 292.402†	97506.3	98714.7	488.01 µg/L	488.01 ppb	21:17:42
3	Zn 213.857†	85518.8	86368.4	481.37 µg/L	481.37 ppb	21:17:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1686757.0	98.169	%	0.9420				0.96%
Sc RADIAL	140904.0	96.6	%	0.40				0.42%
Y 371.029	999171.3	97.320	%	0.8659				0.89%
Ag 328.068†	129619.5	486.01	µg/L	1.489	486.01	ppb	1.489	0.31%
QC value within limits for Ag 328.068 Recovery = 97.20%								
Al 396.153Radial†	26852.6	4955.8	µg/L	22.23	4955.8	ppb	22.23	0.45%
QC value within limits for Al 396.153Radial Recovery = 99.12%								
As 188.979†	1608.1	493.38	µg/L	2.596	493.38	ppb	2.596	0.53%
QC value within limits for As 188.979 Recovery = 98.68%								
B 249.677†	32412.8	476.35	µg/L	2.879	476.35	ppb	2.879	0.60%
QC value within limits for B 249.677 Recovery = 95.27%								
Ba 233.527†	120274.1	485.06	µg/L	1.771	485.06	ppb	1.771	0.37%
QC value within limits for Ba 233.527 Recovery = 97.01%								
Be 313.107†	1785237.9	486.22	µg/L	1.958	486.22	ppb	1.958	0.40%
QC value within limits for Be 313.107 Recovery = 97.24%								
Ca 317.933Radial†	88063.9	4905.5	µg/L	10.98	4905.5	ppb	10.98	0.22%
QC value within limits for Ca 317.933Radial Recovery = 98.11%								
Cd 226.502†	77219.3	482.04	µg/L	2.617	482.04	ppb	2.617	0.54%
QC value within limits for Cd 226.502 Recovery = 96.41%								
Co 228.616†	39371.2	486.04	µg/L	2.502	486.04	ppb	2.502	0.51%

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   QC value within limits for Co 228.616  Recovery = 97.21%
Cr 267.716†            61675.3      482.91 µg/L         2.021      482.91 ppb          2.021   0.42%
   QC value within limits for Cr 267.716  Recovery = 96.58%
Cu 324.752†           124032.3      483.51 µg/L         1.468      483.51 ppb          1.468   0.30%
   QC value within limits for Cu 324.752  Recovery = 96.70%
Fe 238.204 Radial†     78799.0      4856.7 µg/L         17.87      4856.7 ppb          17.87   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.13%
K 766.490 Radial†      13378.7      4894.1 µg/L         43.71      4894.1 ppb          43.71   0.89%
   QC value within limits for K 766.490 Radial  Recovery = 97.88%
Mg 279.077 IEC†        13383.7      4994.3 µg/L          3.76      4994.3 ppb           3.76   0.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.89%
Mn 257.610†           393773.3      487.00 µg/L         1.369      487.00 ppb          1.369   0.28%
   QC value within limits for Mn 257.610  Recovery = 97.40%
Mo 202.031†            16566.4      487.31 µg/L         2.131      487.31 ppb          2.131   0.44%
   QC value within limits for Mo 202.031  Recovery = 97.46%
Na 589.592 Radial†     71537.0      9768.5 µg/L         35.17      9768.5 ppb          35.17   0.36%
   QC value within limits for Na 589.592 Radial  Recovery = 97.68%
Ni 231.604†            41940.2      482.91 µg/L         2.458      482.91 ppb          2.458   0.51%
   QC value within limits for Ni 231.604  Recovery = 96.58%
P 214.914†             11353.2      2419.9 µg/L          9.51      2419.9 ppb           9.51   0.39%
   QC value within limits for P 214.914  Recovery = 96.80%
Pb 220.353†             8752.3      490.13 µg/L         1.809      490.13 ppb          1.809   0.37%
   QC value within limits for Pb 220.353  Recovery = 98.03%
S 181.975 Axial†        1301.2      970.33 µg/L        10.267      970.33 ppb         10.267   1.06%
   QC value within limits for S 181.975 Axial  Recovery = 97.03%
Sb 206.836†             4087.6      487.07 µg/L         3.532      487.07 ppb          3.532   0.73%
   QC value within limits for Sb 206.836  Recovery = 97.41%
Se 196.026†             1344.1         488 µg/L           1.8         488 ppb            1.8   0.36%
   QC value within limits for Se 196.026  Recovery = 97.61%
SiO2†                  53913.1      5248.7 µg/L         28.09      5248.7 ppb          28.09   0.54%
   QC value within limits for SiO2  Recovery = 98.15%
Si 251.611†           167178.3      2455.0 µg/L          6.34      2455.0 ppb           6.34   0.26%
   QC value within limits for Si 251.611  Recovery = 98.20%
Sn 189.927†             7810.6      488.55 µg/L         1.414      488.55 ppb          1.414   0.29%
   QC value within limits for Sn 189.927  Recovery = 97.71%
Sr 421.552†           233430.2      485.25 µg/L         3.129      485.25 ppb          3.129   0.64%
   QC value within limits for Sr 421.552  Recovery = 97.05%
Ti 334.940†           519992.9      485.19 µg/L         0.943      485.19 ppb          0.943   0.19%
   QC value within limits for Ti 334.940  Recovery = 97.04%
Tl 190.801†             3970.2      495.09 µg/L         1.653      495.09 ppb          1.653   0.33%
   QC value within limits for Tl 190.801  Recovery = 99.02%
U 409.014†              7583.5      472.76 µg/L         5.091      472.76 ppb          5.091   1.08%
   QC value within limits for U 409.014  Recovery = 94.55%
V 292.402†             98420.3      486.58 µg/L         1.660      486.58 ppb          1.660   0.34%
   QC value within limits for V 292.402  Recovery = 97.32%
Zn 213.857†            86097.0      479.85 µg/L         2.921      479.85 ppb          2.921   0.61%
   QC value within limits for Zn 213.857  Recovery = 95.97%
All analyte(s) passed QC.
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Sequence No.: 51
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 21:18:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142340.5	142340.5	97.5	%			21:18:39
1	Al 396.153Radial†	-77.4	-16.2	-2.9808	µg/L	-2.9808	ppb	21:18:59
1	Ca 317.933Radial†	613.3	68.2	3.7996	µg/L	3.7996	ppb	21:18:59
1	Fe 238.204 Radial†	174.0	30.3	1.8673	µg/L	1.8673	ppb	21:18:59
1	K 766.490 Radial†	1617.0	113.0	41.366	µg/L	41.366	ppb	21:18:39
1	Mg 279.077 IEC†	173.7	-12.6	-4.7201	µg/L	-4.7201	ppb	21:18:59
1	Na 589.592 Radial†	1689.2	441.0	60.210	µg/L	60.210	ppb	21:18:39
1	Sr 421.552†	-87.4	45.7	0.0949	µg/L	0.0949	ppb	21:18:39
1	Sc 361.383	1691761.1	1691761.1	98.460	%			21:19:47
1	Y 371.029	1013835.9	1013835.9	98.748	%			21:19:47
1	Ag 328.068†	3999.1	-29.8	-0.1074	µg/L	-0.1074	ppb	21:19:49
1	As 188.979†	-10.2	10.0	3.0117	µg/L	3.0117	ppb	21:20:09
1	B 249.677†	3413.6	-39.0	-0.5756	µg/L	-0.5756	ppb	21:19:49
1	Ba 233.527†	-138.5	-4.8	-0.0197	µg/L	-0.0197	ppb	21:20:09
1	Be 313.107†	-974.4	75.0	0.0212	µg/L	0.0212	ppb	21:19:49
1	Cd 226.502†	-119.6	-3.3	-0.0208	µg/L	-0.0208	ppb	21:20:09
1	Co 228.616†	-162.5	25.3	0.3117	µg/L	0.3117	ppb	21:20:09
1	Cr 267.716†	206.6	31.2	0.2430	µg/L	0.2430	ppb	21:20:09
1	Cu 324.752†	2962.7	36.8	0.1452	µg/L	0.1452	ppb	21:19:49
1	Mn 257.610†	261.8	28.6	0.0356	µg/L	0.0356	ppb	21:20:09
1	Mo 202.031†	-32.6	-13.1	-0.3839	µg/L	-0.3839	ppb	21:20:09
1	Ni 231.604†	-104.8	-29.9	-0.3447	µg/L	-0.3447	ppb	21:20:09
1	P 214.914†	-11.4	6.4	1.3624	µg/L	1.3624	ppb	21:20:09
1	Pb 220.353†	75.5	-9.7	-0.5434	µg/L	-0.5434	ppb	21:20:09
1	S 181.975 Axial†	111.4	8.1	5.9955	µg/L	5.9955	ppb	21:20:09
1	Sb 206.836†	80.6	1.0	0.1122	µg/L	0.1122	ppb	21:20:09
1	Se 196.026†	3.3	-12.0	-4.33	µg/L	-4.33	ppb	21:20:09
1	SiO2†	1809.6	62.5	6.1130	µg/L	6.1130	ppb	21:20:09
1	Si 251.611†	946.2	124.4	1.8365	µg/L	1.8365	ppb	21:19:49
1	Sn 189.927†	4.9	6.1	0.3820	µg/L	0.3820	ppb	21:20:09
1	Ti 334.940†	770.9	-169.6	-0.1590	µg/L	-0.1590	ppb	21:19:49
1	Tl 190.801†	-120.5	-5.8	-0.7102	µg/L	-0.7102	ppb	21:20:09
1	U 409.014†	-225.3	41.0	2.4000	µg/L	2.4000	ppb	21:19:49
1	V 292.402†	398.1	0.6	0.0014	µg/L	0.0014	ppb	21:19:49
1	Zn 213.857†	596.3	41.2	0.2333	µg/L	0.2333	ppb	21:20:09
2	Sc RADIAL	140388.8	140388.8	96.2	%			21:19:01
2	Al 396.153Radial†	-40.1	21.6	4.0106	µg/L	4.0106	ppb	21:19:21
2	Ca 317.933Radial†	583.2	45.7	2.5430	µg/L	2.5430	ppb	21:19:21
2	Fe 238.204 Radial†	163.9	22.3	1.3738	µg/L	1.3738	ppb	21:19:21
2	K 766.490 Radial†	1756.0	280.5	102.70	µg/L	102.70	ppb	21:19:01
2	Mg 279.077 IEC†	185.4	2.0	0.7420	µg/L	0.7420	ppb	21:19:21
2	Na 589.592 Radial†	1757.4	535.9	73.122	µg/L	73.122	ppb	21:19:01
2	Sr 421.552†	-150.8	-21.5	-0.0447	µg/L	-0.0447	ppb	21:19:01
2	Sc 361.383	1725840.2	1725840.2	100.44	%			21:20:11
2	Y 371.029	1031661.1	1031661.1	100.48	%			21:20:11
2	Ag 328.068†	4128.5	18.9	0.0653	µg/L	0.0653	ppb	21:20:13
2	As 188.979†	-6.9	13.5	4.0841	µg/L	4.0841	ppb	21:20:34
2	B 249.677†	3476.1	-45.2	-0.6676	µg/L	-0.6676	ppb	21:20:13
2	Ba 233.527†	-122.5	13.9	0.0557	µg/L	0.0557	ppb	21:20:34
2	Be 313.107†	-1003.4	65.7	0.0171	µg/L	0.0171	ppb	21:20:13
2	Cd 226.502†	-100.9	17.7	0.1106	µg/L	0.1106	ppb	21:20:34
2	Co 228.616†	-165.4	25.6	0.3157	µg/L	0.3157	ppb	21:20:34
2	Cr 267.716†	175.4	-3.9	-0.0289	µg/L	-0.0289	ppb	21:20:34
2	Cu 324.752†	2951.3	-34.0	-0.1338	µg/L	-0.1338	ppb	21:20:13
2	Mn 257.610†	228.4	-9.9	-0.0123	µg/L	-0.0123	ppb	21:20:34
2	Mo 202.031†	-29.3	-9.0	-0.2659	µg/L	-0.2659	ppb	21:20:34
2	Ni 231.604†	-82.5	-5.6	-0.0645	µg/L	-0.0645	ppb	21:20:34
2	P 214.914†	-14.3	3.8	0.8123	µg/L	0.8123	ppb	21:20:34
2	Pb 220.353†	82.1	-4.7	-0.2595	µg/L	-0.2595	ppb	21:20:34

2	S 181.975 Axial†	91.3	-14.1	-10.498 µg/L	-10.498 ppb	21:20:34
2	Sb 206.836†	71.7	-9.4	-1.1204 µg/L	-1.1204 ppb	21:20:34
2	Se 196.026†	16.3	0.9	0.337 µg/L	0.337 ppb	21:20:34
2	SiO2†	1744.2	-38.9	-3.7990 µg/L	-3.7990 ppb	21:20:34
2	Si 251.611†	837.7	-2.5	-0.0368 µg/L	-0.0368 ppb	21:20:13
2	Sn 189.927†	6.2	7.3	0.4532 µg/L	0.4532 ppb	21:20:34
2	Ti 334.940†	756.2	-199.7	-0.1855 µg/L	-0.1855 ppb	21:20:13
2	Tl 190.801†	-123.1	-5.9	-0.7309 µg/L	-0.7309 ppb	21:20:34
2	U 409.014†	-314.2	-43.0	-2.5195 µg/L	-2.5195 ppb	21:20:13
2	V 292.402†	382.0	-23.5	-0.1192 µg/L	-0.1192 ppb	21:20:13
2	Zn 213.857†	586.1	19.1	0.1074 µg/L	0.1074 ppb	21:20:34
3	Sc RADIAL	142445.8	142445.8	97.6 %		21:19:23
3	Al 396.153Radial†	-90.2	-29.2	-5.4175 µg/L	-5.4175 ppb	21:19:43
3	Ca 317.933Radial†	593.8	47.8	2.6599 µg/L	2.6599 ppb	21:19:43
3	Fe 238.204 Radial†	167.0	23.0	1.4166 µg/L	1.4166 ppb	21:19:43
3	K 766.490 Radial†	1597.6	91.9	33.647 µg/L	33.647 ppb	21:19:23
3	Mg 279.077 IEC†	184.4	-1.8	-0.6658 µg/L	-0.6658 ppb	21:19:43
3	Na 589.592 Radial†	1758.3	510.5	69.717 µg/L	69.717 ppb	21:19:23
3	Sr 421.552†	-153.0	-21.4	-0.0445 µg/L	-0.0445 ppb	21:19:23
3	Sc 361.383	1713474.3	1713474.3	99.724 %		21:20:36
3	Y 371.029	1024068.4	1024068.4	99.745 %		21:20:36
3	Ag 328.068†	4150.2	70.3	0.2535 µg/L	0.2535 ppb	21:20:38
3	As 188.979†	-9.9	10.5	3.1681 µg/L	3.1681 ppb	21:20:58
3	B 249.677†	3600.1	104.2	1.5371 µg/L	1.5371 ppb	21:20:38
3	Ba 233.527†	-126.3	9.2	0.0373 µg/L	0.0373 ppb	21:20:58
3	Be 313.107†	-965.7	96.3	0.0240 µg/L	0.0240 ppb	21:20:38
3	Cd 226.502†	-105.6	12.3	0.0767 µg/L	0.0767 ppb	21:20:58
3	Co 228.616†	-193.8	-4.0	-0.0492 µg/L	-0.0492 ppb	21:20:58
3	Cr 267.716†	191.2	13.1	0.1087 µg/L	0.1087 ppb	21:20:58
3	Cu 324.752†	2975.4	11.4	0.0383 µg/L	0.0383 ppb	21:20:38
3	Mn 257.610†	236.4	-0.2	-0.0002 µg/L	-0.0002 ppb	21:20:58
3	Mo 202.031†	-19.1	0.9	0.0276 µg/L	0.0276 ppb	21:20:58
3	Ni 231.604†	-66.0	10.3	0.1188 µg/L	0.1188 ppb	21:20:58
3	P 214.914†	-5.2	12.7	2.7193 µg/L	2.7193 ppb	21:20:58
3	Pb 220.353†	57.4	-28.8	-1.6039 µg/L	-1.6039 ppb	21:20:58
3	S 181.975 Axial†	102.3	-2.4	-1.8005 µg/L	-1.8005 ppb	21:20:58
3	Sb 206.836†	78.7	-1.9	-0.2267 µg/L	-0.2267 ppb	21:20:58
3	Se 196.026†	18.0	2.8	0.995 µg/L	0.995 ppb	21:20:58
3	SiO2†	1745.8	-24.7	-2.4280 µg/L	-2.4280 ppb	21:20:58
3	Si 251.611†	1027.5	193.7	2.8516 µg/L	2.8516 ppb	21:20:38
3	Sn 189.927†	9.3	10.4	0.6506 µg/L	0.6506 ppb	21:20:58
3	Ti 334.940†	1090.0	140.5	0.1344 µg/L	0.1344 ppb	21:20:38
3	Tl 190.801†	-127.7	-11.4	-1.3953 µg/L	-1.3953 ppb	21:20:58
3	U 409.014†	-395.2	-126.4	-7.3813 µg/L	-7.3813 ppb	21:20:38
3	V 292.402†	441.4	38.8	0.1850 µg/L	0.1850 ppb	21:20:38
3	Zn 213.857†	582.7	19.9	0.1107 µg/L	0.1107 ppb	21:20:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1710358.5	99.543	%	1.0041				1.01%
Sc RADIAL	141725.0	97.1	%	0.79				0.82%
Y 371.029	1023188.4	99.659	%	0.8713				0.87%
Ag 328.068†	19.8	0.0705	µg/L	0.18052	0.0705	ppb	0.18052	256.19%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.9	-1.4626	µg/L	4.89399	-1.4626	ppb	4.89399	334.61%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.3	3.4213	µg/L	0.57932	3.4213	ppb	0.57932	16.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	6.7	0.0980	µg/L	1.24716	0.0980	ppb	1.24716	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.1	0.0244	µg/L	0.03927	0.0244	ppb	0.03927	160.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	79.0	0.0208	µg/L	0.00345	0.0208	ppb	0.00345	16.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	53.9	3.0008	µg/L	0.69420	3.0008	ppb	0.69420	23.13%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.9	0.0555	µg/L	0.06825	0.0555	ppb	0.06825	123.01%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	15.6	0.1927	µg/L	0.20954	0.1927	ppb	0.20954	108.73%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                13.5      0.1076 µg/L       0.13596      0.1076 ppb        0.13596 126.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 4.7      0.0166 µg/L       0.14075      0.0166 ppb        0.14075 850.04%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         25.2      1.5526 µg/L       0.27342      1.5526 ppb        0.27342  17.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         161.8     59.237 µg/L       37.8362     59.237 ppb        37.8362  63.87%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.1     -1.5480 µg/L       2.83593     -1.5480 ppb        2.83593 183.20%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 6.2      0.0077 µg/L       0.02490      0.0077 ppb        0.02490 322.21%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -7.1     -0.2074 µg/L       0.21190     -0.2074 ppb        0.21190 102.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        495.8     67.683 µg/L        6.6920     67.683 ppb         6.6920   9.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -8.4     -0.0968 µg/L       0.23339     -0.0968 ppb        0.23339 241.07%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  7.6      1.6313 µg/L       0.98157      1.6313 ppb        0.98157  60.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -14.4     -0.8023 µg/L       0.70858     -0.8023 ppb        0.70858  88.32%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.8     -2.1010 µg/L       8.25080     -2.1010 ppb        8.25080 392.71%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.4     -0.4117 µg/L       0.63677     -0.4117 ppb        0.63677 154.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.8      -0.998 µg/L        2.9005      -0.998 ppb         2.9005 290.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      -0.4     -0.0380 µg/L       5.37088     -0.0380 ppb        5.37088 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               105.2      1.5504 µg/L       1.46530      1.5504 ppb        1.46530  94.51%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.9      0.4953 µg/L       0.13914      0.4953 ppb        0.13914  28.09%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 0.9      0.0019 µg/L       0.08056      0.0019 ppb        0.08056 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -76.2     -0.0700 µg/L       0.17755     -0.0700 ppb        0.17755 253.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -7.7     -0.9455 µg/L       0.38970     -0.9455 ppb        0.38970  41.22%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -42.8     -2.5003 µg/L       4.89065     -2.5003 ppb        4.89065 195.61%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  5.3      0.0224 µg/L       0.15317      0.0224 ppb        0.15317 684.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                26.7      0.1505 µg/L       0.07173      0.1505 ppb        0.07173  47.67%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 61
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 21:39:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143665.7	143665.7	98.4	%			21:40:31
1	Al 396.153Radial†	26354.7	26833.2	4952.4	µg/L	4952.4	ppb	21:40:31
1	Ca 317.933Radial†	87317.1	88132.5	4909.3	µg/L	4909.3	ppb	21:40:31
1	Fe 238.204 Radial†	78178.3	79262.3	4885.2	µg/L	4885.2	ppb	21:40:31
1	K 766.490 Radial†	14683.9	13370.5	4891.1	µg/L	4891.1	ppb	21:40:31
1	Mg 279.077 IEC†	13397.8	13418.2	5007.1	µg/L	5007.1	ppb	21:40:31
1	Na 589.592 Radial†	71164.9	70995.6	9694.5	µg/L	9694.5	ppb	21:40:31
1	Sr 421.552†	233220.3	237030.9	492.73	µg/L	492.73	ppb	21:40:29
1	Sc 361.383	1721068.9	1721068.9	100.17	%			21:40:44
1	Y 371.029	1018507.5	1018507.5	99.203	%			21:40:44
1	Ag 328.068†	133737.4	129424.5	485.29	µg/L	485.29	ppb	21:40:44
1	As 188.979†	1607.1	1624.8	498.43	µg/L	498.43	ppb	21:41:04
1	B 249.677†	35997.3	32431.8	476.62	µg/L	476.62	ppb	21:40:44
1	Ba 233.527†	120429.2	120365.5	485.43	µg/L	485.43	ppb	21:40:44
1	Be 313.107†	1795349.9	1793440.3	488.46	µg/L	488.46	ppb	21:40:44
1	Cd 226.502†	77524.8	77514.6	483.88	µg/L	483.88	ppb	21:40:44
1	Co 228.616†	39299.3	39424.5	486.69	µg/L	486.69	ppb	21:40:44
1	Cr 267.716†	61864.3	61583.2	482.19	µg/L	482.19	ppb	21:40:44
1	Cu 324.752†	127127.0	123944.2	483.17	µg/L	483.17	ppb	21:40:44
1	Mn 257.610†	395346.6	394454.4	487.85	µg/L	487.85	ppb	21:40:44
1	Mo 202.031†	16480.7	16473.5	484.58	µg/L	484.58	ppb	21:41:04
1	Ni 231.604†	41947.7	41954.7	483.08	µg/L	483.08	ppb	21:40:44
1	P 214.914†	11320.1	11319.3	2412.7	µg/L	2412.7	ppb	21:41:04
1	Pb 220.353†	8845.0	8744.0	489.65	µg/L	489.65	ppb	21:41:04
1	S 181.975 Axial†	1407.4	1300.0	969.45	µg/L	969.45	ppb	21:41:04
1	Sb 206.836†	4164.4	4076.7	485.74	µg/L	485.74	ppb	21:41:04
1	Se 196.026†	1354.0	1336.4	485	µg/L	485	ppb	21:41:04
1	SiO2†	55679.1	53811.5	5238.8	µg/L	5238.8	ppb	21:40:44
1	Si 251.611†	168734.5	167618.4	2461.5	µg/L	2461.5	ppb	21:40:44
1	Sn 189.927†	7779.1	7767.4	485.85	µg/L	485.85	ppb	21:41:04
1	Ti 334.940†	522596.2	520777.9	485.92	µg/L	485.92	ppb	21:40:44
1	Tl 190.801†	3874.4	3984.7	496.88	µg/L	496.88	ppb	21:41:04
1	U 409.014†	7407.3	7664.9	477.49	µg/L	477.49	ppb	21:40:44
1	V 292.402†	98914.4	98346.8	486.18	µg/L	486.18	ppb	21:40:44
1	Zn 213.857†	87152.2	86443.4	481.80	µg/L	481.80	ppb	21:40:44
2	Sc RADIAL	145456.2	145456.2	99.7	%			21:40:35
2	Al 396.153Radial†	26834.6	26985.2	4980.5	µg/L	4980.5	ppb	21:40:35
2	Ca 317.933Radial†	88881.4	88610.2	4935.9	µg/L	4935.9	ppb	21:40:35
2	Fe 238.204 Radial†	79662.0	79773.3	4916.7	µg/L	4916.7	ppb	21:40:35
2	K 766.490 Radial†	14845.0	13348.6	4883.1	µg/L	4883.1	ppb	21:40:35
2	Mg 279.077 IEC†	13510.7	13364.0	4986.9	µg/L	4986.9	ppb	21:40:35
2	Na 589.592 Radial†	72176.6	71120.8	9711.6	µg/L	9711.6	ppb	21:40:35
2	Sr 421.552†	230930.1	231817.3	481.90	µg/L	481.90	ppb	21:40:33
2	Sc 361.383	1718468.2	1718468.2	100.01	%			21:41:07
2	Y 371.029	1016391.1	1016391.1	98.997	%			21:41:07
2	Ag 328.068†	133896.2	129785.3	486.62	µg/L	486.62	ppb	21:41:07
2	As 188.979†	1611.9	1632.1	500.64	µg/L	500.64	ppb	21:41:27
2	B 249.677†	36060.3	32549.2	478.36	µg/L	478.36	ppb	21:41:07
2	Ba 233.527†	120340.6	120458.9	485.81	µg/L	485.81	ppb	21:41:07
2	Be 313.107†	1792650.3	1793453.6	488.45	µg/L	488.45	ppb	21:41:07
2	Cd 226.502†	77583.4	77690.3	484.97	µg/L	484.97	ppb	21:41:07
2	Co 228.616†	39213.4	39398.0	486.37	µg/L	486.37	ppb	21:41:07
2	Cr 267.716†	61991.1	61803.5	483.93	µg/L	483.93	ppb	21:41:07
2	Cu 324.752†	127061.9	124071.2	483.66	µg/L	483.66	ppb	21:41:07
2	Mn 257.610†	395040.3	394745.5	488.21	µg/L	488.21	ppb	21:41:07
2	Mo 202.031†	16505.0	16522.7	486.03	µg/L	486.03	ppb	21:41:27
2	Ni 231.604†	42190.5	42260.9	486.60	µg/L	486.60	ppb	21:41:07
2	P 214.914†	11360.6	11376.9	2425.0	µg/L	2425.0	ppb	21:41:27
2	Pb 220.353†	8840.9	8753.2	490.18	µg/L	490.18	ppb	21:41:27

2	S 181.975 Axial†	1398.8	1293.6	964.68 µg/L	964.68 ppb	21:41:27
2	Sb 206.836†	4174.1	4092.7	487.64 µg/L	487.64 ppb	21:41:27
2	Se 196.026†	1355.3	1339.8	486 µg/L	486 ppb	21:41:27
2	SiO2†	55809.3	54025.8	5259.7 µg/L	5259.7 ppb	21:41:07
2	Si 251.611†	168475.9	167614.8	2461.4 µg/L	2461.4 ppb	21:41:07
2	Sn 189.927†	7806.2	7806.1	488.27 µg/L	488.27 ppb	21:41:27
2	Ti 334.940†	521521.1	520492.6	485.66 µg/L	485.66 ppb	21:41:07
2	Tl 190.801†	3825.2	3941.3	491.55 µg/L	491.55 ppb	21:41:27
2	U 409.014†	7087.5	7356.3	459.54 µg/L	459.54 ppb	21:41:07
2	V 292.402†	99089.1	98670.9	487.77 µg/L	487.77 ppb	21:41:07
2	Zn 213.857†	87415.4	86838.2	483.99 µg/L	483.99 ppb	21:41:07
3	Sc RADIAL	143191.9	143191.9	98.1 %		21:40:39
3	Al 396.153Radial†	26557.8	27128.8	5007.1 µg/L	5007.1 ppb	21:40:39
3	Ca 317.933Radial†	87348.5	88458.0	4927.5 µg/L	4927.5 ppb	21:40:39
3	Fe 238.204 Radial†	78236.9	79584.7	4905.1 µg/L	4905.1 ppb	21:40:39
3	K 766.490 Radial†	14659.9	13395.4	4900.3 µg/L	4900.3 ppb	21:40:39
3	Mg 279.077 IEC†	13262.5	13325.4	4972.5 µg/L	4972.5 ppb	21:40:39
3	Na 589.592 Radial†	71088.0	71156.4	9716.5 µg/L	9716.5 ppb	21:40:39
3	Sr 421.552†	229311.5	233831.2	486.08 µg/L	486.08 ppb	21:40:37
3	Sc 361.383	1712233.1	1712233.1	99.652 %		21:41:30
3	Y 371.029	1012145.6	1012145.6	98.583 %		21:41:30
3	Ag 328.068†	133864.3	130240.8	488.35 µg/L	488.35 ppb	21:41:30
3	As 188.979†	1597.0	1622.9	497.89 µg/L	497.89 ppb	21:41:50
3	B 249.677†	36087.2	32707.4	480.68 µg/L	480.68 ppb	21:41:30
3	Ba 233.527†	120029.4	120584.8	486.32 µg/L	486.32 ppb	21:41:30
3	Be 313.107†	1789689.6	1797009.6	489.43 µg/L	489.43 ppb	21:41:30
3	Cd 226.502†	77607.6	77997.0	486.89 µg/L	486.89 ppb	21:41:30
3	Co 228.616†	39237.2	39564.7	488.42 µg/L	488.42 ppb	21:41:30
3	Cr 267.716†	61895.9	61933.7	484.93 µg/L	484.93 ppb	21:41:30
3	Cu 324.752†	126699.8	124170.4	484.06 µg/L	484.06 ppb	21:41:30
3	Mn 257.610†	394236.6	395377.2	488.99 µg/L	488.99 ppb	21:41:30
3	Mo 202.031†	16435.8	16513.3	485.75 µg/L	485.75 ppb	21:41:50
3	Ni 231.604†	42100.7	42324.4	487.33 µg/L	487.33 ppb	21:41:30
3	P 214.914†	11331.6	11389.1	2427.6 µg/L	2427.6 ppb	21:41:50
3	Pb 220.353†	8803.4	8747.8	489.86 µg/L	489.86 ppb	21:41:50
3	S 181.975 Axial†	1399.9	1299.7	969.26 µg/L	969.26 ppb	21:41:50
3	Sb 206.836†	4147.7	4081.4	486.29 µg/L	486.29 ppb	21:41:50
3	Se 196.026†	1361.2	1350.7	490 µg/L	490 ppb	21:41:50
3	SiO2†	55566.3	53985.2	5255.7 µg/L	5255.7 ppb	21:41:30
3	Si 251.611†	168537.6	168290.1	2471.4 µg/L	2471.4 ppb	21:41:30
3	Sn 189.927†	7783.2	7811.5	488.60 µg/L	488.60 ppb	21:41:50
3	Ti 334.940†	520012.8	520877.8	486.02 µg/L	486.02 ppb	21:41:30
3	Tl 190.801†	3855.0	3985.2	496.95 µg/L	496.95 ppb	21:41:50
3	U 409.014†	7438.0	7733.9	481.69 µg/L	481.69 ppb	21:41:30
3	V 292.402†	98978.3	98920.4	489.01 µg/L	489.01 ppb	21:41:30
3	Zn 213.857†	86968.8	86708.3	483.25 µg/L	483.25 ppb	21:41:30

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1717256.7	99.944	%	0.2643				0.26%
Sc RADIAL	144104.6	98.7	%	0.82				0.83%
Y 371.029	1015681.4	98.928	%	0.3156				0.32%
Ag 328.068†	129816.8	486.75	µg/L	1.535	486.75	ppb	1.535	0.32%
QC value within limits for Ag 328.068 Recovery = 97.35%								
Al 396.153Radial†	26982.4	4980.0	µg/L	27.38	4980.0	ppb	27.38	0.55%
QC value within limits for Al 396.153Radial Recovery = 99.60%								
As 188.979†	1626.6	498.99	µg/L	1.460	498.99	ppb	1.460	0.29%
QC value within limits for As 188.979 Recovery = 99.80%								
B 249.677†	32562.8	478.55	µg/L	2.037	478.55	ppb	2.037	0.43%
QC value within limits for B 249.677 Recovery = 95.71%								
Ba 233.527†	120469.8	485.85	µg/L	0.444	485.85	ppb	0.444	0.09%
QC value within limits for Ba 233.527 Recovery = 97.17%								
Be 313.107†	1794634.5	488.78	µg/L	0.562	488.78	ppb	0.562	0.12%
QC value within limits for Be 313.107 Recovery = 97.76%								
Ca 317.933Radial†	88400.3	4924.2	µg/L	13.59	4924.2	ppb	13.59	0.28%
QC value within limits for Ca 317.933Radial Recovery = 98.48%								
Cd 226.502†	77734.0	485.25	µg/L	1.525	485.25	ppb	1.525	0.31%
QC value within limits for Cd 226.502 Recovery = 97.05%								
Co 228.616†	39462.4	487.16	µg/L	1.106	487.16	ppb	1.106	0.23%

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   QC value within limits for Co 228.616  Recovery = 97.43%
Cr 267.716†            61773.5      483.68 µg/L        1.389      483.68 ppb          1.389   0.29%
   QC value within limits for Cr 267.716  Recovery = 96.74%
Cu 324.752†           124061.9      483.63 µg/L        0.443      483.63 ppb          0.443   0.09%
   QC value within limits for Cu 324.752  Recovery = 96.73%
Fe 238.204 Radial†     79540.1      4902.4 µg/L        15.93      4902.4 ppb          15.93   0.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.05%
K 766.490 Radial†      13371.5      4891.5 µg/L         8.58      4891.5 ppb           8.58   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 97.83%
Mg 279.077 IEC†        13369.2      4988.8 µg/L        17.36      4988.8 ppb          17.36   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.78%
Mn 257.610†           394859.0      488.35 µg/L        0.584      488.35 ppb          0.584   0.12%
   QC value within limits for Mn 257.610  Recovery = 97.67%
Mo 202.031†            16503.2      485.45 µg/L        0.769      485.45 ppb          0.769   0.16%
   QC value within limits for Mo 202.031  Recovery = 97.09%
Na 589.592 Radial†     71090.9      9707.5 µg/L        11.54      9707.5 ppb          11.54   0.12%
   QC value within limits for Na 589.592 Radial  Recovery = 97.08%
Ni 231.604†            42180.0      485.67 µg/L        2.276      485.67 ppb          2.276   0.47%
   QC value within limits for Ni 231.604  Recovery = 97.13%
P 214.914†             11361.8      2421.7 µg/L         7.97      2421.7 ppb           7.97   0.33%
   QC value within limits for P 214.914  Recovery = 96.87%
Pb 220.353†             8748.3      489.90 µg/L        0.268      489.90 ppb          0.268   0.05%
   QC value within limits for Pb 220.353  Recovery = 97.98%
S 181.975 Axial†        1297.8      967.80 µg/L        2.698      967.80 ppb          2.698   0.28%
   QC value within limits for S 181.975 Axial  Recovery = 96.78%
Sb 206.836†             4083.6      486.56 µg/L        0.979      486.56 ppb          0.979   0.20%
   QC value within limits for Sb 206.836  Recovery = 97.31%
Se 196.026†             1342.3         487 µg/L          2.7         487 ppb            2.7   0.55%
   QC value within limits for Se 196.026  Recovery = 97.48%
SiO2†                  53940.8      5251.4 µg/L        11.08      5251.4 ppb          11.08   0.21%
   QC value within limits for SiO2  Recovery = 98.20%
Si 251.611†           167841.1      2464.8 µg/L         5.72      2464.8 ppb           5.72   0.23%
   QC value within limits for Si 251.611  Recovery = 98.59%
Sn 189.927†             7795.0      487.58 µg/L        1.501      487.58 ppb          1.501   0.31%
   QC value within limits for Sn 189.927  Recovery = 97.52%
Sr 421.552†           234226.5      486.90 µg/L        5.466      486.90 ppb          5.466   1.12%
   QC value within limits for Sr 421.552  Recovery = 97.38%
Ti 334.940†           520716.1      485.87 µg/L        0.182      485.87 ppb          0.182   0.04%
   QC value within limits for Ti 334.940  Recovery = 97.17%
Tl 190.801†             3970.4      495.13 µg/L        3.095      495.13 ppb          3.095   0.63%
   QC value within limits for Tl 190.801  Recovery = 99.03%
U 409.014†              7585.0      472.91 µg/L       11.768      472.91 ppb         11.768   2.49%
   QC value within limits for U 409.014  Recovery = 94.58%
V 292.402†             98646.0      487.65 µg/L        1.415      487.65 ppb          1.415   0.29%
   QC value within limits for V 292.402  Recovery = 97.53%
Zn 213.857†            86663.3      483.01 µg/L        1.115      483.01 ppb          1.115   0.23%
   QC value within limits for Zn 213.857  Recovery = 96.60%
All analyte(s) passed QC.
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Sequence No.: 62
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 21:41:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143435.3	143435.3	98.3	%			21:42:30
1	Al 396.153Radial†	-56.2	6.0	1.1301	µg/L	1.1301	ppb	21:42:50
1	Ca 317.933Radial†	581.9	31.5	1.7535	µg/L	1.7535	ppb	21:42:50
1	Fe 238.204 Radial†	220.1	75.9	4.6750	µg/L	4.6750	ppb	21:42:50
1	K 766.490 Radial†	1630.1	113.7	41.604	µg/L	41.604	ppb	21:42:30
1	Mg 279.077 IEC†	185.9	-1.6	-0.5986	µg/L	-0.5986	ppb	21:42:50
1	Na 589.592 Radial†	1456.5	191.1	26.064	µg/L	26.064	ppb	21:42:30
1	Sr 421.552†	-303.2	-173.2	-0.3600	µg/L	-0.3600	ppb	21:42:30
1	Sc 361.383	1716104.0	1716104.0	99.877	%			21:43:52
1	Y 371.029	1026337.9	1026337.9	99.966	%			21:43:52
1	Ag 328.068†	4103.4	17.0	0.0542	µg/L	0.0542	ppb	21:43:54
1	As 188.979†	-11.9	8.5	2.5574	µg/L	2.5574	ppb	21:44:14
1	B 249.677†	3527.0	25.5	0.3738	µg/L	0.3738	ppb	21:43:54
1	Ba 233.527†	-143.0	-7.3	-0.0298	µg/L	-0.0298	ppb	21:44:14
1	Be 313.107†	-770.0	293.7	0.0782	µg/L	0.0782	ppb	21:43:54
1	Cd 226.502†	-77.7	40.4	0.2520	µg/L	0.2520	ppb	21:44:14
1	Co 228.616†	-153.6	36.5	0.4505	µg/L	0.4505	ppb	21:44:14
1	Cr 267.716†	176.1	-2.3	-0.0133	µg/L	-0.0133	ppb	21:44:14
1	Cu 324.752†	3046.8	78.3	0.3006	µg/L	0.3006	ppb	21:43:54
1	Mn 257.610†	328.7	91.9	0.1137	µg/L	0.1137	ppb	21:44:14
1	Mo 202.031†	-27.4	-7.4	-0.2173	µg/L	-0.2173	ppb	21:44:14
1	Ni 231.604†	-77.8	-1.3	-0.0154	µg/L	-0.0154	ppb	21:44:14
1	P 214.914†	-3.8	14.1	3.0202	µg/L	3.0202	ppb	21:44:14
1	Pb 220.353†	91.6	5.4	0.3025	µg/L	0.3025	ppb	21:44:14
1	S 181.975 Axial†	84.3	-20.7	-15.370	µg/L	-15.370	ppb	21:44:14
1	Sb 206.836†	85.3	4.6	0.5436	µg/L	0.5436	ppb	21:44:14
1	Se 196.026†	18.7	3.4	1.24	µg/L	1.24	ppb	21:44:14
1	SiO2†	1789.6	16.4	1.6035	µg/L	1.6035	ppb	21:44:14
1	Si 251.611†	934.5	99.0	1.4600	µg/L	1.4600	ppb	21:43:54
1	Sn 189.927†	6.5	7.6	0.4757	µg/L	0.4757	ppb	21:44:14
1	Ti 334.940†	967.5	16.2	0.0175	µg/L	0.0175	ppb	21:43:54
1	Tl 190.801†	-127.3	-10.8	-1.3305	µg/L	-1.3305	ppb	21:44:14
1	U 409.014†	-367.5	-98.1	-5.7438	µg/L	-5.7438	ppb	21:43:54
1	V 292.402†	375.1	-28.2	-0.1442	µg/L	-0.1442	ppb	21:43:54
1	Zn 213.857†	580.1	16.4	0.0915	µg/L	0.0915	ppb	21:44:14
2	Sc RADIAL	141870.3	141870.3	97.2	%			21:42:52
2	Al 396.153Radial†	-65.2	-3.9	-0.6977	µg/L	-0.6977	ppb	21:43:12
2	Ca 317.933Radial†	617.6	74.7	4.1593	µg/L	4.1593	ppb	21:43:12
2	Fe 238.204 Radial†	216.5	74.5	4.5946	µg/L	4.5946	ppb	21:43:12
2	K 766.490 Radial†	1775.2	281.2	102.95	µg/L	102.95	ppb	21:42:52
2	Mg 279.077 IEC†	182.1	-3.4	-1.2877	µg/L	-1.2877	ppb	21:43:12
2	Na 589.592 Radial†	1482.8	234.5	31.940	µg/L	31.940	ppb	21:42:52
2	Sr 421.552†	-167.3	-36.8	-0.0764	µg/L	-0.0764	ppb	21:42:52
2	Sc 361.383	1723490.8	1723490.8	100.31	%			21:44:16
2	Y 371.029	1031447.1	1031447.1	100.46	%			21:44:16
2	Ag 328.068†	4201.6	97.3	0.3501	µg/L	0.3501	ppb	21:44:18
2	As 188.979†	-15.3	5.1	1.5573	µg/L	1.5573	ppb	21:44:38
2	B 249.677†	3665.3	148.2	2.1841	µg/L	2.1841	ppb	21:44:18
2	Ba 233.527†	-146.0	-9.7	-0.0400	µg/L	-0.0400	ppb	21:44:38
2	Be 313.107†	-1050.7	17.2	0.0045	µg/L	0.0045	ppb	21:44:18
2	Cd 226.502†	-111.8	6.7	0.0414	µg/L	0.0414	ppb	21:44:38
2	Co 228.616†	-164.6	26.2	0.3234	µg/L	0.3234	ppb	21:44:38
2	Cr 267.716†	226.4	47.1	0.3695	µg/L	0.3695	ppb	21:44:38
2	Cu 324.752†	2823.9	-156.9	-0.6096	µg/L	-0.6096	ppb	21:44:18
2	Mn 257.610†	284.0	45.8	0.0568	µg/L	0.0568	ppb	21:44:38
2	Mo 202.031†	-36.4	-16.2	-0.4763	µg/L	-0.4763	ppb	21:44:38
2	Ni 231.604†	-100.6	-23.8	-0.2736	µg/L	-0.2736	ppb	21:44:38
2	P 214.914†	-35.6	-17.5	-3.7362	µg/L	-3.7362	ppb	21:44:38
2	Pb 220.353†	84.0	-2.6	-0.1459	µg/L	-0.1459	ppb	21:44:38

2	S 181.975 Axial†	89.5	-15.8	-11.745 µg/L	-11.745 ppb		21:44:38
2	Sb 206.836†	89.4	8.3	0.9755 µg/L	0.9755 ppb		21:44:38
2	Se 196.026†	9.9	-5.4	-1.96 µg/L	-1.96 ppb		21:44:38
2	SiO2†	1777.4	-3.4	-0.3192 µg/L	-0.3192 ppb		21:44:38
2	Si 251.611†	834.3	-4.8	-0.0658 µg/L	-0.0658 ppb		21:44:18
2	Sn 189.927†	1.7	2.8	0.1770 µg/L	0.1770 ppb		21:44:38
2	Ti 334.940†	895.6	-59.6	-0.0554 µg/L	-0.0554 ppb		21:44:18
2	Tl 190.801†	-122.5	-5.4	-0.6750 µg/L	-0.6750 ppb		21:44:38
2	U 409.014†	-282.1	-11.3	-0.7096 µg/L	-0.7096 ppb		21:44:18
2	V 292.402†	242.6	-162.0	-0.7943 µg/L	-0.7943 ppb		21:44:18
2	Zn 213.857†	573.6	7.4	0.0434 µg/L	0.0434 ppb		21:44:38
3	Sc RADIAL	144958.5	144958.5	99.3 %			21:43:14
3	Al 396.153Radial†	-37.5	25.5	4.7369 µg/L	4.7369 ppb		21:43:34
3	Ca 317.933Radial†	583.6	27.0	1.5021 µg/L	1.5021 ppb		21:43:34
3	Fe 238.204 Radial†	192.7	45.8	2.8253 µg/L	2.8253 ppb		21:43:34
3	K 766.490 Radial†	1497.6	-37.2	-13.616 µg/L	-13.616 ppb		21:43:14
3	Mg 279.077 IEC†	178.6	-10.9	-4.0718 µg/L	-4.0718 ppb		21:43:34
3	Na 589.592 Radial†	1440.0	158.8	21.708 µg/L	21.708 ppb		21:43:14
3	Sr 421.552†	-197.6	-63.6	-0.1322 µg/L	-0.1322 ppb		21:43:14
3	Sc 361.383	1740188.5	1740188.5	101.28 %			21:44:40
3	Y 371.029	1039891.9	1039891.9	101.29 %			21:44:40
3	Ag 328.068†	3928.5	-212.5	-0.7881 µg/L	-0.7881 ppb		21:44:42
3	As 188.979†	-8.6	11.9	3.6004 µg/L	3.6004 ppb		21:45:02
3	B 249.677†	3552.8	2.1	0.0294 µg/L	0.0294 ppb		21:44:42
3	Ba 233.527†	-133.9	3.6	0.0140 µg/L	0.0140 ppb		21:45:02
3	Be 313.107†	-962.7	114.2	0.0329 µg/L	0.0329 ppb		21:44:42
3	Cd 226.502†	-89.8	29.5	0.1840 µg/L	0.1840 ppb		21:45:02
3	Co 228.616†	-162.5	29.8	0.3679 µg/L	0.3679 ppb		21:45:02
3	Cr 267.716†	179.3	-1.5	-0.0165 µg/L	-0.0165 ppb		21:45:02
3	Cu 324.752†	2942.1	-67.2	-0.2559 µg/L	-0.2559 ppb		21:44:42
3	Mn 257.610†	335.1	93.6	0.1159 µg/L	0.1159 ppb		21:45:02
3	Mo 202.031†	-28.8	-8.4	-0.2468 µg/L	-0.2468 ppb		21:45:02
3	Ni 231.604†	-82.6	-5.1	-0.0583 µg/L	-0.0583 ppb		21:45:02
3	P 214.914†	-27.4	-9.1	-1.9410 µg/L	-1.9410 ppb		21:45:02
3	Pb 220.353†	64.5	-22.7	-1.2712 µg/L	-1.2712 ppb		21:45:02
3	S 181.975 Axial†	101.1	-5.2	-3.8697 µg/L	-3.8697 ppb		21:45:02
3	Sb 206.836†	85.4	3.5	0.4065 µg/L	0.4065 ppb		21:45:02
3	Se 196.026†	13.5	-2.0	-0.710 µg/L	-0.710 ppb		21:45:02
3	SiO2†	1812.3	14.0	1.3744 µg/L	1.3744 ppb		21:45:02
3	Si 251.611†	970.3	121.4	1.7924 µg/L	1.7924 ppb		21:44:42
3	Sn 189.927†	1.9	3.0	0.1856 µg/L	0.1856 ppb		21:45:02
3	Ti 334.940†	941.7	-22.7	-0.0233 µg/L	-0.0233 ppb		21:44:42
3	Tl 190.801†	-117.2	1.0	0.1129 µg/L	0.1129 ppb		21:45:02
3	U 409.014†	-171.3	100.7	5.8492 µg/L	5.8492 ppb		21:44:42
3	V 292.402†	265.0	-142.2	-0.6925 µg/L	-0.6925 ppb		21:44:42
3	Zn 213.857†	580.1	8.4	0.0472 µg/L	0.0472 ppb		21:45:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726594.5	100.49	%	0.718				0.71%
Sc RADIAL	143421.3	98.3	%	1.06				1.08%
Y 371.029	1032559.0	100.57	%	0.667				0.66%
Ag 328.068†	-32.7	-0.1280	µg/L	0.59056	-0.1280	ppb	0.59056	461.54%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.2	1.7231	µg/L	2.76540	1.7231	ppb	2.76540	160.49%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.5	2.5717	µg/L	1.02165	2.5717	ppb	1.02165	39.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	58.6	0.8625	µg/L	1.15748	0.8625	ppb	1.15748	134.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.5	-0.0186	µg/L	0.02870	-0.0186	ppb	0.02870	154.38%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	141.7	0.0385	µg/L	0.03721	0.0385	ppb	0.03721	96.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	44.4	2.4716	µg/L	1.46699	2.4716	ppb	1.46699	59.35%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	25.6	0.1591	µg/L	0.10748	0.1591	ppb	0.10748	67.54%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	30.9	0.3806	µg/L	0.06452	0.3806	ppb	0.06452	16.95%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.5      0.1132 µg/L       0.22191      0.1132 ppb        0.22191 195.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -48.6     -0.1883 µg/L       0.45884     -0.1883 ppb        0.45884 243.64%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       65.4      4.0316 µg/L       1.04544      4.0316 ppb        1.04544  25.93%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       119.2      43.647 µg/L       58.3112      43.647 ppb        58.3112 133.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -5.3     -1.9860 µg/L       1.83888     -1.9860 ppb        1.83888  92.59%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              77.1      0.0955 µg/L       0.03352      0.0955 ppb        0.03352  35.12%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -10.7     -0.3135 µg/L       0.14177     -0.3135 ppb        0.14177  45.22%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      194.8      26.570 µg/L        5.1349      26.570 ppb         5.1349  19.33%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -10.1     -0.1158 µg/L       0.13833     -0.1158 ppb        0.13833 119.49%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.2     -0.8857 µg/L       3.49964     -0.8857 ppb        3.49964 395.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.6     -0.3715 µg/L       0.81072     -0.3715 ppb        0.81072 218.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -13.9     -10.328 µg/L        5.8795     -10.328 ppb         5.8795  56.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.5      0.6419 µg/L       0.29695      0.6419 ppb        0.29695  46.26%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.3      -0.475 µg/L        1.6120      -0.475 ppb         1.6120 339.40%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     9.0      0.8862 µg/L       1.05021      0.8862 ppb        1.05021 118.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              71.9      1.0622 µg/L       0.99095      1.0622 ppb        0.99095  93.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.5      0.2794 µg/L       0.17000      0.2794 ppb        0.17000  60.84%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -91.2     -0.1896 µg/L       0.15021     -0.1896 ppb        0.15021  79.25%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -22.1     -0.0204 µg/L       0.03654     -0.0204 ppb        0.03654 179.40%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -5.1     -0.6309 µg/L       0.72270     -0.6309 ppb        0.72270 114.55%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -2.9     -0.2014 µg/L       5.81317     -0.2014 ppb        5.81317 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -110.8     -0.5437 µg/L       0.34967     -0.5437 ppb        0.34967  64.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              10.7      0.0607 µg/L       0.02675      0.0607 ppb        0.02675  44.07%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 68
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 21:55:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142583.3	142583.3	97.7	%			21:56:11
1	Al 396.153Radial†	26125.5	26801.9	4946.6	µg/L	4946.6	ppb	21:56:11
1	Ca 317.933Radial†	86256.4	87720.3	4886.4	µg/L	4886.4	ppb	21:56:11
1	Fe 238.204 Radial†	77373.7	79041.6	4871.6	µg/L	4871.6	ppb	21:56:11
1	K 766.490 Radial†	14581.9	13379.4	4894.4	µg/L	4894.4	ppb	21:56:11
1	Mg 279.077 IEC†	13220.1	13339.7	4977.8	µg/L	4977.8	ppb	21:56:11
1	Na 589.592 Radial†	70221.6	70578.9	9637.6	µg/L	9637.6	ppb	21:56:11
1	Sr 421.552†	231094.9	236654.1	491.95	µg/L	491.95	ppb	21:56:08
1	Sc 361.383	1721792.2	1721792.2	100.21	%			21:56:38
1	Y 371.029	1018476.9	1018476.9	99.200	%			21:56:38
1	Ag 328.068†	132257.1	127891.1	479.55	µg/L	479.55	ppb	21:56:38
1	As 188.979†	1611.5	1628.5	499.47	µg/L	499.47	ppb	21:56:58
1	B 249.677†	35480.1	31900.5	468.81	µg/L	468.81	ppb	21:56:38
1	Ba 233.527†	119040.9	118929.6	479.64	µg/L	479.64	ppb	21:56:38
1	Be 313.107†	1767471.5	1764866.8	480.67	µg/L	480.67	ppb	21:56:38
1	Cd 226.502†	76426.9	76386.5	476.83	µg/L	476.83	ppb	21:56:38
1	Co 228.616†	38708.1	38818.0	479.20	µg/L	479.20	ppb	21:56:38
1	Cr 267.716†	61091.8	60786.4	475.95	µg/L	475.95	ppb	21:56:38
1	Cu 324.752†	125542.2	122309.4	476.81	µg/L	476.81	ppb	21:56:38
1	Mn 257.610†	389445.6	388399.8	480.36	µg/L	480.36	ppb	21:56:38
1	Mo 202.031†	16429.4	16415.4	482.87	µg/L	482.87	ppb	21:56:58
1	Ni 231.604†	41557.9	41548.1	478.40	µg/L	478.40	ppb	21:56:38
1	P 214.914†	11328.9	11323.4	2413.6	µg/L	2413.6	ppb	21:56:58
1	Pb 220.353†	8812.2	8707.5	487.61	µg/L	487.61	ppb	21:56:58
1	S 181.975 Axial†	1392.1	1284.2	957.66	µg/L	957.66	ppb	21:56:58
1	Sb 206.836†	4144.5	4055.1	483.24	µg/L	483.24	ppb	21:56:58
1	Se 196.026†	1364.7	1346.6	489	µg/L	489	ppb	21:56:58
1	SiO2†	55188.2	53298.2	5188.7	µg/L	5188.7	ppb	21:56:38
1	Si 251.611†	166961.4	165778.2	2434.4	µg/L	2434.4	ppb	21:56:38
1	Sn 189.927†	7776.6	7761.6	485.47	µg/L	485.47	ppb	21:56:58
1	Ti 334.940†	514606.5	512585.6	478.27	µg/L	478.27	ppb	21:56:38
1	Tl 190.801†	3826.9	3935.6	490.75	µg/L	490.75	ppb	21:56:58
1	U 409.014†	7289.4	7544.1	470.15	µg/L	470.15	ppb	21:56:38
1	V 292.402†	98070.8	97463.4	481.83	µg/L	481.83	ppb	21:56:38
1	Zn 213.857†	85920.7	85177.9	474.72	µg/L	474.72	ppb	21:56:38
2	Sc RADIAL	143543.2	143543.2	98.4	%			21:56:15
2	Al 396.153Radial†	26329.4	26830.4	4951.8	µg/L	4951.8	ppb	21:56:15
2	Ca 317.933Radial†	87214.1	88103.5	4907.7	µg/L	4907.7	ppb	21:56:15
2	Fe 238.204 Radial†	78175.0	79326.6	4889.2	µg/L	4889.2	ppb	21:56:15
2	K 766.490 Radial†	14759.5	13460.1	4923.9	µg/L	4923.9	ppb	21:56:15
2	Mg 279.077 IEC†	13306.4	13336.9	4976.8	µg/L	4976.8	ppb	21:56:15
2	Na 589.592 Radial†	70918.2	70806.4	9668.6	µg/L	9668.6	ppb	21:56:15
2	Sr 421.552†	232565.2	236567.1	491.77	µg/L	491.77	ppb	21:56:13
2	Sc 361.383	1725354.7	1725354.7	100.42	%			21:57:01
2	Y 371.029	1021259.3	1021259.3	99.471	%			21:57:01
2	Ag 328.068†	133310.0	128667.2	482.44	µg/L	482.44	ppb	21:57:01
2	As 188.979†	1621.3	1635.0	501.47	µg/L	501.47	ppb	21:57:21
2	B 249.677†	36007.3	32352.4	475.47	µg/L	475.47	ppb	21:57:01
2	Ba 233.527†	119720.2	119360.8	481.38	µg/L	481.38	ppb	21:57:01
2	Be 313.107†	1782951.5	1776640.9	483.88	µg/L	483.88	ppb	21:57:01
2	Cd 226.502†	77092.6	76891.9	479.99	µg/L	479.99	ppb	21:57:01
2	Co 228.616†	39093.6	39122.2	482.96	µg/L	482.96	ppb	21:57:01
2	Cr 267.716†	61575.2	61141.9	478.73	µg/L	478.73	ppb	21:57:01
2	Cu 324.752†	126592.7	123096.8	479.87	µg/L	479.87	ppb	21:57:01
2	Mn 257.610†	393017.2	391154.2	483.76	µg/L	483.76	ppb	21:57:01
2	Mo 202.031†	16523.6	16475.3	484.63	µg/L	484.63	ppb	21:57:21
2	Ni 231.604†	41848.9	41752.3	480.75	µg/L	480.75	ppb	21:57:01
2	P 214.914†	11396.2	11367.0	2422.9	µg/L	2422.9	ppb	21:57:21
2	Pb 220.353†	8867.2	8744.1	489.65	µg/L	489.65	ppb	21:57:21

2	S 181.975 Axial†	1408.6	1297.7	967.74 µg/L	967.74 ppb	21:57:21
2	Sb 206.836†	4160.8	4062.8	484.14 µg/L	484.14 ppb	21:57:21
2	Se 196.026†	1350.1	1329.2	483 µg/L	483 ppb	21:57:21
2	SiO2†	55415.3	53410.7	5199.6 µg/L	5199.6 ppb	21:57:01
2	Si 251.611†	167453.3	165924.1	2436.5 µg/L	2436.5 ppb	21:57:01
2	Sn 189.927†	7843.1	7811.7	488.60 µg/L	488.60 ppb	21:57:21
2	Ti 334.940†	518046.3	514950.8	480.48 µg/L	480.48 ppb	21:57:01
2	Tl 190.801†	3874.0	3974.7	495.58 µg/L	495.58 ppb	21:57:21
2	U 409.014†	7327.0	7566.6	471.56 µg/L	471.56 ppb	21:57:01
2	V 292.402†	98567.7	97756.1	483.29 µg/L	483.29 ppb	21:57:01
2	Zn 213.857†	86827.5	85903.9	478.78 µg/L	478.78 ppb	21:57:01
3	Sc RADIAL	146360.8	146360.8	100 %		21:56:19
3	Al 396.153Radial†	26877.7	26861.7	4957.8 µg/L	4957.8 ppb	21:56:19
3	Ca 317.933Radial†	89496.1	88672.0	4939.4 µg/L	4939.4 ppb	21:56:19
3	Fe 238.204 Radial†	80024.7	79640.9	4908.6 µg/L	4908.6 ppb	21:56:19
3	K 766.490 Radial†	15000.5	13411.5	4906.1 µg/L	4906.1 ppb	21:56:19
3	Mg 279.077 IEC†	13753.4	13522.1	5045.7 µg/L	5045.7 ppb	21:56:19
3	Na 589.592 Radial†	72413.6	70909.6	9682.7 µg/L	9682.7 ppb	21:56:19
3	Sr 421.552†	230747.3	230203.0	478.54 µg/L	478.54 ppb	21:56:17
3	Sc 361.383	1718966.4	1718966.4	100.04 %		21:57:24
3	Y 371.029	1017028.5	1017028.5	99.059 %		21:57:24
3	Ag 328.068†	132653.9	128504.7	481.80 µg/L	481.80 ppb	21:57:24
3	As 188.979†	1590.5	1610.2	493.94 µg/L	493.94 ppb	21:57:44
3	B 249.677†	35824.6	32303.1	474.74 µg/L	474.74 ppb	21:57:24
3	Ba 233.527†	119070.9	119154.9	480.55 µg/L	480.55 ppb	21:57:24
3	Be 313.107†	1772306.3	1772598.9	482.78 µg/L	482.78 ppb	21:57:24
3	Cd 226.502†	76616.2	76701.1	478.79 µg/L	478.79 ppb	21:57:24
3	Co 228.616†	38830.3	39003.7	481.49 µg/L	481.49 ppb	21:57:24
3	Cr 267.716†	61234.2	61029.0	477.86 µg/L	477.86 ppb	21:57:24
3	Cu 324.752†	125521.6	122494.7	477.53 µg/L	477.53 ppb	21:57:24
3	Mn 257.610†	389961.8	389554.7	481.78 µg/L	481.78 ppb	21:57:24
3	Mo 202.031†	16335.5	16348.5	480.91 µg/L	480.91 ppb	21:57:44
3	Ni 231.604†	41630.1	41688.5	480.01 µg/L	480.01 ppb	21:57:24
3	P 214.914†	11241.7	11254.8	2398.9 µg/L	2398.9 ppb	21:57:44
3	Pb 220.353†	8795.7	8705.5	487.50 µg/L	487.50 ppb	21:57:44
3	S 181.975 Axial†	1388.4	1282.7	956.57 µg/L	956.57 ppb	21:57:44
3	Sb 206.836†	4126.6	4043.9	481.85 µg/L	481.85 ppb	21:57:44
3	Se 196.026†	1345.6	1329.7	483 µg/L	483 ppb	21:57:44
3	SiO2†	54983.2	53183.9	5177.6 µg/L	5177.6 ppb	21:57:24
3	Si 251.611†	166469.4	165560.3	2431.2 µg/L	2431.2 ppb	21:57:24
3	Sn 189.927†	7725.1	7722.8	483.05 µg/L	483.05 ppb	21:57:44
3	Ti 334.940†	514909.1	513732.3	479.34 µg/L	479.34 ppb	21:57:24
3	Tl 190.801†	3822.2	3937.2	490.94 µg/L	490.94 ppb	21:57:44
3	U 409.014†	7179.0	7445.8	464.34 µg/L	464.34 ppb	21:57:24
3	V 292.402†	97706.1	97259.8	480.82 µg/L	480.82 ppb	21:57:24
3	Zn 213.857†	86111.6	85509.7	476.57 µg/L	476.57 ppb	21:57:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1722037.8	100.22	%	0.186				0.19%
Sc RADIAL	144162.4	98.8	%	1.35				1.36%
Y 371.029	1018921.6	99.243	%	0.2094				0.21%
Ag 328.068†	128354.3	481.26	µg/L	1.519	481.26	ppb	1.519	0.32%
QC value within limits for Ag 328.068 Recovery = 96.25%								
Al 396.153Radial†	26831.3	4952.1	µg/L	5.59	4952.1	ppb	5.59	0.11%
QC value within limits for Al 396.153Radial Recovery = 99.04%								
As 188.979†	1624.5	498.29	µg/L	3.898	498.29	ppb	3.898	0.78%
QC value within limits for As 188.979 Recovery = 99.66%								
B 249.677†	32185.3	473.01	µg/L	3.650	473.01	ppb	3.650	0.77%
QC value within limits for B 249.677 Recovery = 94.60%								
Ba 233.527†	119148.4	480.52	µg/L	0.870	480.52	ppb	0.870	0.18%
QC value within limits for Ba 233.527 Recovery = 96.10%								
Be 313.107†	1771368.9	482.44	µg/L	1.629	482.44	ppb	1.629	0.34%
QC value within limits for Be 313.107 Recovery = 96.49%								
Ca 317.933Radial†	88165.3	4911.2	µg/L	26.67	4911.2	ppb	26.67	0.54%
QC value within limits for Ca 317.933Radial Recovery = 98.22%								
Cd 226.502†	76659.8	478.54	µg/L	1.594	478.54	ppb	1.594	0.33%
QC value within limits for Cd 226.502 Recovery = 95.71%								
Co 228.616†	38981.3	481.22	µg/L	1.892	481.22	ppb	1.892	0.39%

```
   QC value within limits for Co 228.616  Recovery = 96.24%
Cr 267.716†            60985.7      477.51 µg/L         1.423      477.51 ppb          1.423   0.30%
   QC value within limits for Cr 267.716  Recovery = 95.50%
Cu 324.752†           122633.6      478.07 µg/L         1.603      478.07 ppb          1.603   0.34%
   QC value within limits for Cu 324.752  Recovery = 95.61%
Fe 238.204 Radial†     79336.4      4889.8 µg/L         18.48      4889.8 ppb          18.48   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.80%
K 766.490 Radial†      13417.0      4908.2 µg/L         14.87      4908.2 ppb          14.87   0.30%
   QC value within limits for K 766.490 Radial  Recovery = 98.16%
Mg 279.077 IEC†        13399.6      5000.1 µg/L         39.49      5000.1 ppb          39.49   0.79%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.00%
Mn 257.610†           389702.9      481.97 µg/L         1.712      481.97 ppb          1.712   0.36%
   QC value within limits for Mn 257.610  Recovery = 96.39%
Mo 202.031†            16413.1      482.80 µg/L         1.864      482.80 ppb          1.864   0.39%
   QC value within limits for Mo 202.031  Recovery = 96.56%
Na 589.592 Radial†     70765.0      9663.0 µg/L         23.10      9663.0 ppb          23.10   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 96.63%
Ni 231.604†            41663.0      479.72 µg/L         1.203      479.72 ppb          1.203   0.25%
   QC value within limits for Ni 231.604  Recovery = 95.94%
P 214.914†             11315.0      2411.8 µg/L         12.10      2411.8 ppb          12.10   0.50%
   QC value within limits for P 214.914  Recovery = 96.47%
Pb 220.353†             8719.0      488.25 µg/L         1.215      488.25 ppb          1.215   0.25%
   QC value within limits for Pb 220.353  Recovery = 97.65%
S 181.975 Axial†        1288.2      960.66 µg/L         6.158      960.66 ppb          6.158   0.64%
   QC value within limits for S 181.975 Axial  Recovery = 96.07%
Sb 206.836†             4053.9      483.08 µg/L         1.155      483.08 ppb          1.155   0.24%
   QC value within limits for Sb 206.836  Recovery = 96.62%
Se 196.026†             1335.2         485 µg/L           3.6         485 ppb            3.6   0.74%
   QC value within limits for Se 196.026  Recovery = 96.96%
SiO2†                  53297.6      5188.7 µg/L         10.99      5188.7 ppb          10.99   0.21%
   QC value within limits for SiO2  Recovery = 97.03%
Si 251.611†           165754.2      2434.1 µg/L          2.66      2434.1 ppb           2.66   0.11%
   QC value within limits for Si 251.611  Recovery = 97.36%
Sn 189.927†             7765.4      485.71 µg/L         2.782      485.71 ppb          2.782   0.57%
   QC value within limits for Sn 189.927  Recovery = 97.14%
Sr 421.552†           234474.7      487.42 µg/L         7.692      487.42 ppb          7.692   1.58%
   QC value within limits for Sr 421.552  Recovery = 97.48%
Ti 334.940†           513756.2      479.37 µg/L         1.105      479.37 ppb          1.105   0.23%
   QC value within limits for Ti 334.940  Recovery = 95.87%
Tl 190.801†             3949.2      492.42 µg/L         2.733      492.42 ppb          2.733   0.56%
   QC value within limits for Tl 190.801  Recovery = 98.48%
U 409.014†              7518.8      468.68 µg/L         3.825      468.68 ppb          3.825   0.82%
   QC value within limits for U 409.014  Recovery = 93.74%
V 292.402†             97493.1      481.98 µg/L         1.241      481.98 ppb          1.241   0.26%
   QC value within limits for V 292.402  Recovery = 96.40%
Zn 213.857†            85530.5      476.69 µg/L         2.032      476.69 ppb          2.032   0.43%
   QC value within limits for Zn 213.857  Recovery = 95.34%
All analyte(s) passed QC.
```

Sequence No.: 69 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/31/2010 21:57:52**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143488.6	143488.6	98.3	%			21:58:23
1	Al 396.153Radial†	-31.2	31.5	5.8461	µg/L	5.8461	ppb	21:58:43
1	Ca 317.933Radial†	626.0	76.1	4.2401	µg/L	4.2401	ppb	21:58:43
1	Fe 238.204 Radial†	255.1	111.3	6.8602	µg/L	6.8602	ppb	21:58:43
1	K 766.490 Radial†	1658.0	141.4	51.764	µg/L	51.764	ppb	21:58:23
1	Mg 279.077 IEC†	183.2	-4.4	-1.6504	µg/L	-1.6504	ppb	21:58:43
1	Na 589.592 Radial†	1420.1	153.5	20.919	µg/L	20.919	ppb	21:58:23
1	Sr 421.552†	-123.6	9.6	0.0200	µg/L	0.0200	ppb	21:58:23
1	Sc 361.383	1741228.6	1741228.6	101.34	%			21:59:30
1	Y 371.029	1041005.9	1041005.9	101.39	%			21:59:30
1	Ag 328.068†	3951.0	-192.6	-0.7198	µg/L	-0.7198	ppb	21:59:33
1	As 188.979†	-17.3	3.3	0.9894	µg/L	0.9894	ppb	21:59:53
1	B 249.677†	3598.6	45.2	0.6651	µg/L	0.6651	ppb	21:59:33
1	Ba 233.527†	-97.3	39.9	0.1606	µg/L	0.1606	ppb	21:59:53
1	Be 313.107†	-658.8	414.6	0.1114	µg/L	0.1114	ppb	21:59:33
1	Cd 226.502†	-98.4	21.1	0.1311	µg/L	0.1311	ppb	21:59:53
1	Co 228.616†	-161.8	30.7	0.3780	µg/L	0.3780	ppb	21:59:53
1	Cr 267.716†	182.4	1.5	0.0155	µg/L	0.0155	ppb	21:59:53
1	Cu 324.752†	3144.1	130.4	0.5038	µg/L	0.5038	ppb	21:59:33
1	Mn 257.610†	336.5	94.8	0.1174	µg/L	0.1174	ppb	21:59:53
1	Mo 202.031†	-24.2	-3.8	-0.1104	µg/L	-0.1104	ppb	21:59:53
1	Ni 231.604†	-79.3	-1.7	-0.0200	µg/L	-0.0200	ppb	21:59:53
1	P 214.914†	-16.3	1.8	0.3858	µg/L	0.3858	ppb	21:59:53
1	Pb 220.353†	84.1	-3.4	-0.1849	µg/L	-0.1849	ppb	21:59:53
1	S 181.975 Axial†	105.7	-0.8	-0.5879	µg/L	-0.5879	ppb	21:59:53
1	Sb 206.836†	91.1	9.1	1.0753	µg/L	1.0753	ppb	21:59:53
1	Se 196.026†	16.7	1.2	0.419	µg/L	0.419	ppb	21:59:53
1	SiO2†	1811.1	11.8	1.1639	µg/L	1.1639	ppb	21:59:53
1	Si 251.611†	939.6	90.6	1.3388	µg/L	1.3388	ppb	21:59:33
1	Sn 189.927†	-4.7	-3.6	-0.2217	µg/L	-0.2217	ppb	21:59:53
1	Ti 334.940†	1178.8	210.6	0.1990	µg/L	0.1990	ppb	21:59:33
1	Tl 190.801†	-99.6	18.4	2.2591	µg/L	2.2591	ppb	21:59:53
1	U 409.014†	-357.9	-83.3	-4.8719	µg/L	-4.8719	ppb	21:59:33
1	V 292.402†	400.4	-8.7	-0.0477	µg/L	-0.0477	ppb	21:59:33
1	Zn 213.857†	586.5	14.3	0.0794	µg/L	0.0794	ppb	21:59:53
2	Sc RADIAL	142543.2	142543.2	97.7	%			21:58:45
2	Al 396.153Radial†	-54.4	7.5	1.4064	µg/L	1.4064	ppb	21:59:05
2	Ca 317.933Radial†	611.6	65.6	3.6535	µg/L	3.6535	ppb	21:59:05
2	Fe 238.204 Radial†	253.5	111.4	6.8653	µg/L	6.8653	ppb	21:59:05
2	K 766.490 Radial†	1678.4	173.5	63.518	µg/L	63.518	ppb	21:58:45
2	Mg 279.077 IEC†	176.5	-10.0	-3.7286	µg/L	-3.7286	ppb	21:59:05
2	Na 589.592 Radial†	1442.2	185.7	25.313	µg/L	25.313	ppb	21:58:45
2	Sr 421.552†	-245.0	-115.6	-0.2403	µg/L	-0.2403	ppb	21:58:45
2	Sc 361.383	1719454.2	1719454.2	100.07	%			21:59:55
2	Y 371.029	1027865.1	1027865.1	100.11	%			21:59:55
2	Ag 328.068†	4168.7	74.3	0.2835	µg/L	0.2835	ppb	21:59:57
2	As 188.979†	-13.3	7.1	2.1498	µg/L	2.1498	ppb	22:00:17
2	B 249.677†	3486.4	-22.0	-0.3249	µg/L	-0.3249	ppb	21:59:57
2	Ba 233.527†	-114.3	21.7	0.0871	µg/L	0.0871	ppb	22:00:17
2	Be 313.107†	-912.6	152.8	0.0438	µg/L	0.0438	ppb	21:59:57
2	Cd 226.502†	-107.0	11.3	0.0695	µg/L	0.0695	ppb	22:00:17
2	Co 228.616†	-180.3	10.1	0.1246	µg/L	0.1246	ppb	22:00:17
2	Cr 267.716†	201.1	22.4	0.1701	µg/L	0.1701	ppb	22:00:17
2	Cu 324.752†	3016.0	41.6	0.1688	µg/L	0.1688	ppb	21:59:57
2	Mn 257.610†	311.1	73.6	0.0912	µg/L	0.0912	ppb	22:00:17
2	Mo 202.031†	-34.1	-14.0	-0.4113	µg/L	-0.4113	ppb	22:00:17
2	Ni 231.604†	-98.0	-21.4	-0.2463	µg/L	-0.2463	ppb	22:00:17
2	P 214.914†	-36.4	-18.4	-3.9363	µg/L	-3.9363	ppb	22:00:17
2	Pb 220.353†	83.9	-2.5	-0.1482	µg/L	-0.1482	ppb	22:00:17

2	S 181.975 Axial†	99.2	-5.9	-4.3840 µg/L	-4.3840 ppb	22:00:17
2	Sb 206.836†	64.9	-16.0	-1.9121 µg/L	-1.9121 ppb	22:00:17
2	Se 196.026†	15.3	0.0	0.021 µg/L	0.021 ppb	22:00:17
2	SiO2†	1788.3	11.6	1.1476 µg/L	1.1476 ppb	22:00:17
2	Si 251.611†	930.7	93.5	1.3835 µg/L	1.3835 ppb	21:59:57
2	Sn 189.927†	-0.8	0.3	0.0189 µg/L	0.0189 ppb	22:00:17
2	Ti 334.940†	1073.2	119.9	0.1093 µg/L	0.1093 ppb	21:59:57
2	Tl 190.801†	-128.3	-11.5	-1.4187 µg/L	-1.4187 ppb	22:00:17
2	U 409.014†	-143.3	126.7	7.4052 µg/L	7.4052 ppb	21:59:57
2	V 292.402†	396.1	-8.0	-0.0385 µg/L	-0.0385 ppb	21:59:57
2	Zn 213.857†	572.5	7.7	0.0442 µg/L	0.0442 ppb	22:00:17
3	Sc RADIAL	144454.1	144454.1	99.0 %		21:59:07
3	Al 396.153Radial†	-50.8	11.9	2.2219 µg/L	2.2219 ppb	21:59:27
3	Ca 317.933Radial†	619.6	65.3	3.6394 µg/L	3.6394 ppb	21:59:27
3	Fe 238.204 Radial†	231.3	85.6	5.2750 µg/L	5.2750 ppb	21:59:27
3	K 766.490 Radial†	1512.1	-17.2	-6.3033 µg/L	-6.3033 ppb	21:59:07
3	Mg 279.077 IEC†	192.0	3.2	1.1976 µg/L	1.1976 ppb	21:59:27
3	Na 589.592 Radial†	1347.2	70.1	9.5868 µg/L	9.5868 ppb	21:59:07
3	Sr 421.552†	-129.4	4.5	0.0094 µg/L	0.0094 ppb	21:59:07
3	Sc 361.383	1726759.9	1726759.9	100.50 %		22:00:19
3	Y 371.029	1032580.6	1032580.6	100.57 %		22:00:19
3	Ag 328.068†	4194.8	82.6	0.3040 µg/L	0.3040 ppb	22:00:21
3	As 188.979†	-19.7	0.7	0.2129 µg/L	0.2129 ppb	22:00:41
3	B 249.677†	3651.6	127.6	1.8815 µg/L	1.8815 ppb	22:00:21
3	Ba 233.527†	-116.8	19.7	0.0794 µg/L	0.0794 ppb	22:00:41
3	Be 313.107†	-870.8	198.2	0.0524 µg/L	0.0524 ppb	22:00:21
3	Cd 226.502†	-85.6	33.0	0.2057 µg/L	0.2057 ppb	22:00:41
3	Co 228.616†	-171.1	20.1	0.2475 µg/L	0.2475 ppb	22:00:41
3	Cr 267.716†	156.8	-22.6	-0.1724 µg/L	-0.1724 ppb	22:00:41
3	Cu 324.752†	2930.7	-56.0	-0.2209 µg/L	-0.2209 ppb	22:00:21
3	Mn 257.610†	308.3	69.5	0.0859 µg/L	0.0859 ppb	22:00:41
3	Mo 202.031†	-28.4	-8.1	-0.2389 µg/L	-0.2389 ppb	22:00:41
3	Ni 231.604†	-67.6	9.2	0.1060 µg/L	0.1060 ppb	22:00:41
3	P 214.914†	-14.4	3.6	0.7813 µg/L	0.7813 ppb	22:00:41
3	Pb 220.353†	81.9	-4.8	-0.2670 µg/L	-0.2670 ppb	22:00:41
3	S 181.975 Axial†	100.0	-5.5	-4.1081 µg/L	-4.1081 ppb	22:00:41
3	Sb 206.836†	58.7	-22.4	-2.6589 µg/L	-2.6589 ppb	22:00:41
3	Se 196.026†	9.4	-5.9	-2.14 µg/L	-2.14 ppb	22:00:41
3	SiO2†	1781.8	-2.4	-0.2353 µg/L	-0.2353 ppb	22:00:41
3	Si 251.611†	974.4	133.0	1.9607 µg/L	1.9607 ppb	22:00:21
3	Sn 189.927†	6.8	7.8	0.4886 µg/L	0.4886 ppb	22:00:41
3	Ti 334.940†	1012.5	55.0	0.0535 µg/L	0.0535 ppb	22:00:21
3	Tl 190.801†	-115.8	1.4	0.1780 µg/L	0.1780 ppb	22:00:41
3	U 409.014†	-360.3	-88.6	-5.1619 µg/L	-5.1619 ppb	22:00:21
3	V 292.402†	483.1	77.0	0.3681 µg/L	0.3681 ppb	22:00:21
3	Zn 213.857†	572.8	5.5	0.0300 µg/L	0.0300 ppb	22:00:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729147.6	100.64	%	0.645				0.64%
Sc RADIAL	143495.3	98.3	%	0.65				0.67%
Y 371.029	1033817.2	100.69	%	0.648				0.64%
Ag 328.068†	-11.9	-0.0441	µg/L	0.58526	-0.0441	ppb	0.58526	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	17.0	3.1581	µg/L	2.36331	3.1581	ppb	2.36331	74.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.7	1.1173	µg/L	0.97478	1.1173	ppb	0.97478	87.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.3	0.7405	µg/L	1.10513	0.7405	ppb	1.10513	149.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	27.1	0.1090	µg/L	0.04480	0.1090	ppb	0.04480	41.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	255.2	0.0692	µg/L	0.03680	0.0692	ppb	0.03680	53.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	69.0	3.8443	µg/L	0.34280	3.8443	ppb	0.34280	8.92%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	21.8	0.1354	µg/L	0.06821	0.1354	ppb	0.06821	50.36%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.3	0.2500	µg/L	0.12669	0.2500	ppb	0.12669	50.67%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 0.4      0.0044 µg/L       0.17156      0.0044 ppb        0.17156 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                38.7      0.1505 µg/L       0.36269      0.1505 ppb        0.36269 240.92%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        102.8      6.3335 µg/L       0.91666      6.3335 ppb        0.91666  14.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          99.2      36.326 µg/L       37.3832      36.326 ppb        37.3832 102.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -3.7     -1.3938 µg/L       2.47310     -1.3938 ppb        2.47310 177.43%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                79.3      0.0982 µg/L       0.01685      0.0982 ppb        0.01685  17.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -8.6     -0.2535 µg/L       0.15099     -0.2535 ppb        0.15099  59.56%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        136.4      18.606 µg/L        8.1142      18.606 ppb         8.1142  43.61%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -4.6     -0.0534 µg/L       0.17854     -0.0534 ppb        0.17854 334.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.3     -0.9231 µg/L       2.61701     -0.9231 ppb        2.61701 283.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -3.6     -0.2000 µg/L       0.06080     -0.2000 ppb        0.06080  30.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.1     -3.0267 µg/L       2.11654     -3.0267 ppb        2.11654  69.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -9.8     -1.1652 µg/L       1.97594     -1.1652 ppb        1.97594 169.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.6      -0.566 µg/L        1.3761      -0.566 ppb         1.3761 243.25%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       7.0      0.6921 µg/L       0.80317      0.6921 ppb        0.80317 116.05%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               105.7      1.5610 µg/L       0.34690      1.5610 ppb        0.34690  22.22%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.5      0.0953 µg/L       0.36125      0.0953 ppb        0.36125 379.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -33.8     -0.0703 µg/L       0.14733     -0.0703 ppb        0.14733 209.53%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               128.5      0.1206 µg/L       0.07341      0.1206 ppb        0.07341  60.86%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.8      0.3394 µg/L       1.84422      0.3394 ppb        1.84422 543.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -15.1     -0.8762 µg/L       7.17337     -0.8762 ppb        7.17337 818.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 20.1      0.0940 µg/L       0.23744      0.0940 ppb        0.23744 252.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 9.2      0.0512 µg/L       0.02545      0.0512 ppb        0.02545  49.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 77
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 22:12:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144265.2	144265.2	98.9	%			22:13:29
1	Al 396.153Radial†	26382.4	26750.0	4937.0	µg/L	4937.0	ppb	22:13:29
1	Ca 317.933Radial†	86791.9	87232.7	4859.2	µg/L	4859.2	ppb	22:13:29
1	Fe 238.204 Radial†	77447.1	78192.6	4819.3	µg/L	4819.3	ppb	22:13:29
1	K 766.490 Radial†	14619.5	13243.4	4844.7	µg/L	4844.7	ppb	22:13:29
1	Mg 279.077 IEC†	13211.3	13173.0	4915.8	µg/L	4915.8	ppb	22:13:29
1	Na 589.592 Radial†	70822.8	70349.2	9606.2	µg/L	9606.2	ppb	22:13:29
1	Sr 421.552†	230249.1	233041.1	484.44	µg/L	484.44	ppb	22:13:27
1	Sc 361.383	1718218.3	1718218.3	100.00	%			22:13:42
1	Y 371.029	1017558.5	1017558.5	99.111	%			22:13:42
1	Ag 328.068†	131861.6	127770.2	479.08	µg/L	479.08	ppb	22:13:42
1	As 188.979†	1610.7	1631.1	500.23	µg/L	500.23	ppb	22:14:02
1	B 249.677†	35422.2	31916.3	469.05	µg/L	469.05	ppb	22:13:42
1	Ba 233.527†	118202.1	118337.9	477.26	µg/L	477.26	ppb	22:13:42
1	Be 313.107†	1762457.8	1763521.9	480.31	µg/L	480.31	ppb	22:13:42
1	Cd 226.502†	75826.8	75945.0	474.08	µg/L	474.08	ppb	22:13:42
1	Co 228.616†	38510.6	38700.9	477.76	µg/L	477.76	ppb	22:13:42
1	Cr 267.716†	60814.9	60636.3	474.77	µg/L	474.77	ppb	22:13:42
1	Cu 324.752†	125406.1	122433.9	477.29	µg/L	477.29	ppb	22:13:42
1	Mn 257.610†	388459.2	388221.8	480.14	µg/L	480.14	ppb	22:13:42
1	Mo 202.031†	16438.1	16458.2	484.12	µg/L	484.12	ppb	22:14:02
1	Ni 231.604†	41348.4	41424.9	476.98	µg/L	476.98	ppb	22:13:42
1	P 214.914†	11268.3	11286.3	2405.7	µg/L	2405.7	ppb	22:14:02
1	Pb 220.353†	8791.6	8705.2	487.48	µg/L	487.48	ppb	22:14:02
1	S 181.975 Axial†	1392.6	1287.6	960.21	µg/L	960.21	ppb	22:14:02
1	Sb 206.836†	4153.0	4072.2	485.30	µg/L	485.30	ppb	22:14:02
1	Se 196.026†	1350.2	1334.9	485	µg/L	485	ppb	22:14:02
1	SiO2†	54803.6	53028.2	5162.3	µg/L	5162.3	ppb	22:13:42
1	Si 251.611†	165311.8	164475.2	2415.2	µg/L	2415.2	ppb	22:13:42
1	Sn 189.927†	7742.7	7743.8	484.36	µg/L	484.36	ppb	22:14:02
1	Ti 334.940†	513691.3	512738.5	478.42	µg/L	478.42	ppb	22:13:42
1	Tl 190.801†	3841.3	3958.0	493.49	µg/L	493.49	ppb	22:14:02
1	U 409.014†	7369.5	7639.3	475.58	µg/L	475.58	ppb	22:13:42
1	V 292.402†	97334.2	96930.4	479.25	µg/L	479.25	ppb	22:13:42
1	Zn 213.857†	85434.2	84869.8	473.01	µg/L	473.01	ppb	22:13:42
2	Sc RADIAL	145847.8	145847.8	99.9	%			22:13:33
2	Al 396.153Radial†	26431.3	26509.4	4892.7	µg/L	4892.7	ppb	22:13:33
2	Ca 317.933Radial†	87616.4	87105.0	4852.1	µg/L	4852.1	ppb	22:13:33
2	Fe 238.204 Radial†	78290.7	78186.6	4818.9	µg/L	4818.9	ppb	22:13:33
2	K 766.490 Radial†	14711.5	13175.0	4819.6	µg/L	4819.6	ppb	22:13:33
2	Mg 279.077 IEC†	13383.0	13199.9	4925.6	µg/L	4925.6	ppb	22:13:33
2	Na 589.592 Radial†	71537.8	70287.2	9597.8	µg/L	9597.8	ppb	22:13:33
2	Sr 421.552†	230007.1	230271.7	478.68	µg/L	478.68	ppb	22:13:31
2	Sc 361.383	1739608.4	1739608.4	101.24	%			22:14:05
2	Y 371.029	1028848.9	1028848.9	100.21	%			22:14:05
2	Ag 328.068†	134324.7	128581.6	482.14	µg/L	482.14	ppb	22:14:05
2	As 188.979†	1606.6	1607.2	493.02	µg/L	493.02	ppb	22:14:25
2	B 249.677†	36291.4	32339.3	475.28	µg/L	475.28	ppb	22:14:05
2	Ba 233.527†	120672.3	119324.3	481.23	µg/L	481.23	ppb	22:14:05
2	Be 313.107†	1801555.4	1780467.6	484.92	µg/L	484.92	ppb	22:14:05
2	Cd 226.502†	77540.6	76705.4	478.83	µg/L	478.83	ppb	22:14:05
2	Co 228.616†	39324.4	39031.1	481.84	µg/L	481.84	ppb	22:14:05
2	Cr 267.716†	61962.6	61022.1	477.79	µg/L	477.79	ppb	22:14:05
2	Cu 324.752†	127723.3	123180.5	480.19	µg/L	480.19	ppb	22:14:05
2	Mn 257.610†	396691.5	391576.4	484.29	µg/L	484.29	ppb	22:14:05
2	Mo 202.031†	16408.8	16227.1	477.33	µg/L	477.33	ppb	22:14:25
2	Ni 231.604†	42066.6	41625.8	479.29	µg/L	479.29	ppb	22:14:05
2	P 214.914†	11256.1	11135.6	2373.5	µg/L	2373.5	ppb	22:14:25
2	Pb 220.353†	8760.6	8566.5	479.72	µg/L	479.72	ppb	22:14:25

2	S 181.975 Axial†	1379.1	1257.1	937.49 µg/L	937.49 ppb	22:14:25
2	Sb 206.836†	4126.7	3995.1	476.00 µg/L	476.00 ppb	22:14:25
2	Se 196.026†	1344.9	1313.1	477 µg/L	477 ppb	22:14:25
2	SiO2†	55878.0	53415.5	5200.4 µg/L	5200.4 ppb	22:14:05
2	Si 251.611†	168787.2	165875.2	2436.0 µg/L	2436.0 ppb	22:14:05
2	Sn 189.927†	7780.5	7685.9	480.76 µg/L	480.76 ppb	22:14:25
2	Ti 334.940†	523148.0	515762.7	481.24 µg/L	481.24 ppb	22:14:05
2	Tl 190.801†	3840.1	3909.5	487.59 µg/L	487.59 ppb	22:14:25
2	U 409.014†	7476.8	7654.7	476.77 µg/L	476.77 ppb	22:14:05
2	V 292.402†	99532.4	97904.8	483.95 µg/L	483.95 ppb	22:14:05
2	Zn 213.857†	87491.3	85851.1	478.50 µg/L	478.50 ppb	22:14:05
3	Sc RADIAL	145510.3	145510.3	99.7 %		22:13:37
3	Al 396.153Radial†	26649.3	26789.4	4944.6 µg/L	4944.6 ppb	22:13:37
3	Ca 317.933Radial†	87905.2	87598.0	4879.6 µg/L	4879.6 ppb	22:13:37
3	Fe 238.204 Radial†	78514.4	78592.6	4844.0 µg/L	4844.0 ppb	22:13:37
3	K 766.490 Radial†	14626.3	13123.7	4800.8 µg/L	4800.8 ppb	22:13:37
3	Mg 279.077 IEC†	13367.9	13215.7	4931.5 µg/L	4931.5 ppb	22:13:37
3	Na 589.592 Radial†	71662.6	70578.3	9637.6 µg/L	9637.6 ppb	22:13:37
3	Sr 421.552†	228923.8	229719.0	477.53 µg/L	477.53 ppb	22:13:35
3	Sc 361.383	1738267.6	1738267.6	101.17 %		22:14:28
3	Y 371.029	1027936.3	1027936.3	100.12 %		22:14:28
3	Ag 328.068†	134212.1	128572.7	482.09 µg/L	482.09 ppb	22:14:28
3	As 188.979†	1598.1	1600.0	490.84 µg/L	490.84 ppb	22:14:48
3	B 249.677†	36163.6	32240.6	473.82 µg/L	473.82 ppb	22:14:28
3	Ba 233.527†	120556.5	119301.7	481.14 µg/L	481.14 ppb	22:14:28
3	Be 313.107†	1796851.1	1777190.1	484.03 µg/L	484.03 ppb	22:14:28
3	Cd 226.502†	77464.7	76689.4	478.73 µg/L	478.73 ppb	22:14:28
3	Co 228.616†	39399.0	39134.9	483.12 µg/L	483.12 ppb	22:14:28
3	Cr 267.716†	61725.8	60835.3	476.33 µg/L	476.33 ppb	22:14:28
3	Cu 324.752†	127349.1	122907.9	479.13 µg/L	479.13 ppb	22:14:28
3	Mn 257.610†	395160.9	390365.7	482.79 µg/L	482.79 ppb	22:14:28
3	Mo 202.031†	16361.5	16192.8	476.33 µg/L	476.33 ppb	22:14:48
3	Ni 231.604†	41980.9	41573.2	478.68 µg/L	478.68 ppb	22:14:28
3	P 214.914†	11184.1	11073.0	2360.1 µg/L	2360.1 ppb	22:14:48
3	Pb 220.353†	8741.7	8554.5	479.05 µg/L	479.05 ppb	22:14:48
3	S 181.975 Axial†	1393.5	1272.4	948.88 µg/L	948.88 ppb	22:14:48
3	Sb 206.836†	4119.1	3990.8	475.48 µg/L	475.48 ppb	22:14:48
3	Se 196.026†	1344.8	1314.0	477 µg/L	477 ppb	22:14:48
3	SiO2†	55631.5	53214.4	5180.9 µg/L	5180.9 ppb	22:14:28
3	Si 251.611†	168426.4	165647.1	2432.6 µg/L	2432.6 ppb	22:14:28
3	Sn 189.927†	7707.1	7619.3	476.60 µg/L	476.60 ppb	22:14:48
3	Ti 334.940†	521295.0	514329.6	479.91 µg/L	479.91 ppb	22:14:28
3	Tl 190.801†	3816.8	3889.5	485.09 µg/L	485.09 ppb	22:14:48
3	U 409.014†	7397.3	7581.9	472.42 µg/L	472.42 ppb	22:14:28
3	V 292.402†	99170.7	97623.1	482.55 µg/L	482.55 ppb	22:14:28
3	Zn 213.857†	87280.4	85709.2	477.71 µg/L	477.71 ppb	22:14:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732031.4	100.80	%	0.697				0.69%
Sc RADIAL	145207.8	99.5	%	0.57				0.57%
Y 371.029	1024781.2	99.814	%	0.6109				0.61%
Ag 328.068†	128308.2	481.10	µg/L	1.752	481.10	ppb	1.752	0.36%
QC value within limits for Ag 328.068 Recovery = 96.22%								
Al 396.153Radial†	26682.9	4924.7	µg/L	28.05	4924.7	ppb	28.05	0.57%
QC value within limits for Al 396.153Radial Recovery = 98.49%								
As 188.979†	1612.8	494.70	µg/L	4.918	494.70	ppb	4.918	0.99%
QC value within limits for As 188.979 Recovery = 98.94%								
B 249.677†	32165.4	472.71	µg/L	3.255	472.71	ppb	3.255	0.69%
QC value within limits for B 249.677 Recovery = 94.54%								
Ba 233.527†	118988.0	479.88	µg/L	2.269	479.88	ppb	2.269	0.47%
QC value within limits for Ba 233.527 Recovery = 95.98%								
Be 313.107†	1773726.5	483.09	µg/L	2.447	483.09	ppb	2.447	0.51%
QC value within limits for Be 313.107 Recovery = 96.62%								
Ca 317.933Radial†	87311.9	4863.6	µg/L	14.25	4863.6	ppb	14.25	0.29%
QC value within limits for Ca 317.933Radial Recovery = 97.27%								
Cd 226.502†	76446.6	477.21	µg/L	2.714	477.21	ppb	2.714	0.57%
QC value within limits for Cd 226.502 Recovery = 95.44%								
Co 228.616†	38955.6	480.91	µg/L	2.798	480.91	ppb	2.798	0.58%

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   QC value within limits for Co 228.616  Recovery = 96.18%
Cr 267.716†            60831.2      476.30 µg/L         1.512      476.30 ppb          1.512   0.32%
   QC value within limits for Cr 267.716  Recovery = 95.26%
Cu 324.752†           122840.8      478.87 µg/L         1.470      478.87 ppb          1.470   0.31%
   QC value within limits for Cu 324.752  Recovery = 95.77%
Fe 238.204 Radial†     78324.0      4827.4 µg/L         14.34      4827.4 ppb          14.34   0.30%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.55%
K 766.490 Radial†      13180.7      4821.7 µg/L         21.99      4821.7 ppb          21.99   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 96.43%
Mg 279.077 IEC†        13196.2      4924.3 µg/L          7.93      4924.3 ppb           7.93   0.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.49%
Mn 257.610†           390054.6      482.41 µg/L         2.102      482.41 ppb          2.102   0.44%
   QC value within limits for Mn 257.610  Recovery = 96.48%
Mo 202.031†            16292.7      479.26 µg/L         4.241      479.26 ppb          4.241   0.88%
   QC value within limits for Mo 202.031  Recovery = 95.85%
Na 589.592 Radial†     70404.9      9613.9 µg/L         20.97      9613.9 ppb          20.97   0.22%
   QC value within limits for Na 589.592 Radial  Recovery = 96.14%
Ni 231.604†            41541.3      478.32 µg/L         1.200      478.32 ppb          1.200   0.25%
   QC value within limits for Ni 231.604  Recovery = 95.66%
P 214.914†             11165.0      2379.7 µg/L         23.45      2379.7 ppb          23.45   0.99%
   QC value within limits for P 214.914  Recovery = 95.19%
Pb 220.353†             8608.8      482.08 µg/L         4.685      482.08 ppb          4.685   0.97%
   QC value within limits for Pb 220.353  Recovery = 96.42%
S 181.975 Axial†        1272.4      948.86 µg/L        11.360      948.86 ppb         11.360   1.20%
   QC value within limits for S 181.975 Axial  Recovery = 94.89%
Sb 206.836†             4019.3      478.92 µg/L         5.524      478.92 ppb          5.524   1.15%
   QC value within limits for Sb 206.836  Recovery = 95.78%
Se 196.026†             1320.7         480 µg/L           4.5         480 ppb            4.5   0.93%
   QC value within limits for Se 196.026  Recovery = 95.91%
SiO2†                  53219.4      5181.2 µg/L         19.05      5181.2 ppb          19.05   0.37%
   QC value within limits for SiO2  Recovery = 96.89%
Si 251.611†           165332.5      2427.9 µg/L         11.15      2427.9 ppb          11.15   0.46%
   QC value within limits for Si 251.611  Recovery = 97.12%
Sn 189.927†             7683.0      480.57 µg/L         3.879      480.57 ppb          3.879   0.81%
   QC value within limits for Sn 189.927  Recovery = 96.11%
Sr 421.552†           231010.6      480.22 µg/L         3.701      480.22 ppb          3.701   0.77%
   QC value within limits for Sr 421.552  Recovery = 96.04%
Ti 334.940†           514276.9      479.86 µg/L         1.412      479.86 ppb          1.412   0.29%
   QC value within limits for Ti 334.940  Recovery = 95.97%
Tl 190.801†             3919.0      488.72 µg/L         4.311      488.72 ppb          4.311   0.88%
   QC value within limits for Tl 190.801  Recovery = 97.74%
U 409.014†              7625.3      474.92 µg/L         2.247      474.92 ppb          2.247   0.47%
   QC value within limits for U 409.014  Recovery = 94.98%
V 292.402†             97486.1      481.92 µg/L         2.411      481.92 ppb          2.411   0.50%
   QC value within limits for V 292.402  Recovery = 96.38%
Zn 213.857†            85476.7      476.40 µg/L         2.970      476.40 ppb          2.970   0.62%
   QC value within limits for Zn 213.857  Recovery = 95.28%
All analyte(s) passed QC.
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Sequence No.: 78
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 22:14:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144616.5	144616.5	99.1	%			22:15:27
1	Al 396.153Radial†	-140.4	-78.5	-14.533	µg/L	-14.533	ppb	22:15:27
1	Ca 317.933Radial†	605.1	50.0	2.7853	µg/L	2.7853	ppb	22:15:47
1	Fe 238.204 Radial†	190.6	44.2	2.7255	µg/L	2.7255	ppb	22:15:47
1	K 766.490 Radial†	1690.5	161.1	58.992	µg/L	58.992	ppb	22:15:27
1	Mg 279.077 IEC†	189.8	0.8	0.2999	µg/L	0.2999	ppb	22:15:47
1	Na 589.592 Radial†	1316.3	37.4	5.0628	µg/L	5.0628	ppb	22:15:27
1	Sr 421.552†	-196.7	-63.2	-0.1315	µg/L	-0.1315	ppb	22:15:27
1	Sc 361.383	1731481.4	1731481.4	100.77	%			22:16:34
1	Y 371.029	1035707.2	1035707.2	100.88	%			22:16:34
1	Ag 328.068†	4207.6	84.0	0.3025	µg/L	0.3025	ppb	22:16:37
1	As 188.979†	-21.2	-0.7	-0.1971	µg/L	-0.1971	ppb	22:16:57
1	B 249.677†	3625.9	92.2	1.3590	µg/L	1.3590	ppb	22:16:37
1	Ba 233.527†	-157.7	-20.7	-0.0841	µg/L	-0.0841	ppb	22:16:57
1	Be 313.107†	-910.7	160.9	0.0444	µg/L	0.0444	ppb	22:16:37
1	Cd 226.502†	-114.4	4.7	0.0290	µg/L	0.0290	ppb	22:16:57
1	Co 228.616†	-176.3	15.4	0.1898	µg/L	0.1898	ppb	22:16:57
1	Cr 267.716†	195.1	15.0	0.1155	µg/L	0.1155	ppb	22:16:57
1	Cu 324.752†	2860.5	-133.6	-0.5170	µg/L	-0.5170	ppb	22:16:37
1	Mn 257.610†	321.7	82.0	0.1014	µg/L	0.1014	ppb	22:16:57
1	Mo 202.031†	-34.6	-14.3	-0.4198	µg/L	-0.4198	ppb	22:16:57
1	Ni 231.604†	-65.6	11.4	0.1312	µg/L	0.1312	ppb	22:16:57
1	P 214.914†	-28.4	-10.2	-2.1783	µg/L	-2.1783	ppb	22:16:57
1	Pb 220.353†	66.3	-20.6	-1.1536	µg/L	-1.1536	ppb	22:16:57
1	S 181.975 Axial†	101.3	-4.5	-3.3505	µg/L	-3.3505	ppb	22:16:57
1	Sb 206.836†	79.6	-1.9	-0.2288	µg/L	-0.2288	ppb	22:16:57
1	Se 196.026†	12.5	-2.8	-1.02	µg/L	-1.02	ppb	22:16:57
1	SiO2†	1786.4	-2.7	-0.2591	µg/L	-0.2591	ppb	22:16:57
1	Si 251.611†	1082.1	237.2	3.4988	µg/L	3.4988	ppb	22:16:37
1	Sn 189.927†	9.2	10.2	0.6390	µg/L	0.6390	ppb	22:16:57
1	Ti 334.940†	1075.1	114.3	0.1060	µg/L	0.1060	ppb	22:16:37
1	Tl 190.801†	-105.3	12.2	1.4953	µg/L	1.4953	ppb	22:16:57
1	U 409.014†	-238.6	33.2	1.8871	µg/L	1.8871	ppb	22:16:37
1	V 292.402†	220.7	-184.8	-0.9046	µg/L	-0.9046	ppb	22:16:37
1	Zn 213.857†	605.7	36.6	0.2048	µg/L	0.2048	ppb	22:16:57
2	Sc RADIAL	144344.2	144344.2	98.9	%			22:15:49
2	Al 396.153Radial†	-228.5	-167.8	-31.103	µg/L	-31.103	ppb	22:15:49
2	Ca 317.933Radial†	612.9	59.1	3.2922	µg/L	3.2922	ppb	22:16:09
2	Fe 238.204 Radial†	199.9	54.0	3.3254	µg/L	3.3254	ppb	22:16:09
2	K 766.490 Radial†	1458.2	-70.5	-25.815	µg/L	-25.815	ppb	22:15:49
2	Mg 279.077 IEC†	169.1	-19.8	-7.3659	µg/L	-7.3659	ppb	22:16:09
2	Na 589.592 Radial†	1297.4	20.8	2.8708	µg/L	2.8708	ppb	22:15:49
2	Sr 421.552†	-320.5	-188.8	-0.3925	µg/L	-0.3925	ppb	22:15:49
2	Sc 361.383	1722284.8	1722284.8	100.24	%			22:16:59
2	Y 371.029	1030621.8	1030621.8	100.38	%			22:16:59
2	Ag 328.068†	3896.9	-203.7	-0.7475	µg/L	-0.7475	ppb	22:17:01
2	As 188.979†	-7.9	12.5	3.7833	µg/L	3.7833	ppb	22:17:21
2	B 249.677†	3506.6	-7.6	-0.1120	µg/L	-0.1120	ppb	22:17:01
2	Ba 233.527†	-125.5	10.7	0.0428	µg/L	0.0428	ppb	22:17:21
2	Be 313.107†	-756.3	310.2	0.0866	µg/L	0.0866	ppb	22:17:01
2	Cd 226.502†	-110.8	7.7	0.0475	µg/L	0.0475	ppb	22:17:21
2	Co 228.616†	-191.9	-1.2	-0.0145	µg/L	-0.0145	ppb	22:17:21
2	Cr 267.716†	200.7	21.6	0.1639	µg/L	0.1639	ppb	22:17:21
2	Cu 324.752†	2989.4	10.2	0.0458	µg/L	0.0458	ppb	22:17:01
2	Mn 257.610†	314.3	76.3	0.0947	µg/L	0.0947	ppb	22:17:21
2	Mo 202.031†	-21.3	-1.1	-0.0337	µg/L	-0.0337	ppb	22:17:21
2	Ni 231.604†	-74.0	2.7	0.0313	µg/L	0.0313	ppb	22:17:21
2	P 214.914†	-16.7	1.3	0.2808	µg/L	0.2808	ppb	22:17:21
2	Pb 220.353†	91.3	4.7	0.2555	µg/L	0.2555	ppb	22:17:21

2	S 181.975 Axial†	95.8	-9.5	-7.0189 µg/L	-7.0189 ppb	22:17:21
2	Sb 206.836†	59.0	-22.0	-2.6184 µg/L	-2.6184 ppb	22:17:21
2	Se 196.026†	19.9	4.6	1.68 µg/L	1.68 ppb	22:17:21
2	SiO2†	1789.5	9.9	0.9655 µg/L	0.9655 ppb	22:17:21
2	Si 251.611†	1004.6	165.6	2.4397 µg/L	2.4397 ppb	22:17:01
2	Sn 189.927†	5.2	6.3	0.3919 µg/L	0.3919 ppb	22:17:21
2	Ti 334.940†	826.1	-128.4	-0.1222 µg/L	-0.1222 ppb	22:17:01
2	Tl 190.801†	-126.0	-9.1	-1.1150 µg/L	-1.1150 ppb	22:17:21
2	U 409.014†	-147.1	123.1	7.1898 µg/L	7.1898 ppb	22:17:01
2	V 292.402†	373.1	-31.5	-0.1489 µg/L	-0.1489 ppb	22:17:01
2	Zn 213.857†	593.5	27.6	0.1540 µg/L	0.1540 ppb	22:17:21
3	Sc RADIAL	145056.9	145056.9	99.4 %		22:16:11
3	Al 396.153Radial†	-231.1	-169.3	-31.367 µg/L	-31.367 ppb	22:16:11
3	Ca 317.933Radial†	599.6	42.6	2.3739 µg/L	2.3739 ppb	22:16:31
3	Fe 238.204 Radial†	195.6	48.6	2.9983 µg/L	2.9983 ppb	22:16:31
3	K 766.490 Radial†	1826.4	292.6	107.12 µg/L	107.12 ppb	22:16:11
3	Mg 279.077 IEC†	196.4	6.8	2.5372 µg/L	2.5372 ppb	22:16:31
3	Na 589.592 Radial†	1266.4	-16.8	-2.3909 µg/L	-2.3909 ppb	22:16:11
3	Sr 421.552†	-165.7	-31.4	-0.0654 µg/L	-0.0654 ppb	22:16:11
3	Sc 361.383	1742676.0	1742676.0	101.42 %		22:17:23
3	Y 371.029	1041139.7	1041139.7	101.41 %		22:17:23
3	Ag 328.068†	4264.5	113.3	0.4163 µg/L	0.4163 ppb	22:17:25
3	As 188.979†	-11.3	9.2	2.7834 µg/L	2.7834 ppb	22:17:45
3	B 249.677†	3554.8	-1.0	-0.0144 µg/L	-0.0144 ppb	22:17:25
3	Ba 233.527†	-135.5	2.2	0.0087 µg/L	0.0087 ppb	22:17:45
3	Be 313.107†	-714.6	360.1	0.0972 µg/L	0.0972 ppb	22:17:25
3	Cd 226.502†	-111.8	8.0	0.0493 µg/L	0.0493 ppb	22:17:45
3	Co 228.616†	-185.9	7.0	0.0867 µg/L	0.0867 ppb	22:17:45
3	Cr 267.716†	198.7	17.4	0.1382 µg/L	0.1382 ppb	22:17:45
3	Cu 324.752†	2855.8	-156.5	-0.6100 µg/L	-0.6100 ppb	22:17:25
3	Mn 257.610†	318.4	76.7	0.0948 µg/L	0.0948 ppb	22:17:45
3	Mo 202.031†	-37.1	-16.5	-0.4859 µg/L	-0.4859 ppb	22:17:45
3	Ni 231.604†	-94.7	-16.9	-0.1940 µg/L	-0.1940 ppb	22:17:45
3	P 214.914†	-18.0	0.2	0.0565 µg/L	0.0565 ppb	22:17:45
3	Pb 220.353†	70.5	-16.9	-0.9439 µg/L	-0.9439 ppb	22:17:45
3	S 181.975 Axial†	101.6	-4.9	-3.6429 µg/L	-3.6429 ppb	22:17:45
3	Sb 206.836†	72.7	-9.2	-1.0967 µg/L	-1.0967 ppb	22:17:45
3	Se 196.026†	9.5	-5.9	-2.14 µg/L	-2.14 ppb	22:17:45
3	SiO2†	1777.4	-22.9	-2.2297 µg/L	-2.2297 ppb	22:17:45
3	Si 251.611†	827.6	-20.5	-0.2986 µg/L	-0.2986 ppb	22:17:25
3	Sn 189.927†	4.4	5.4	0.3390 µg/L	0.3390 ppb	22:17:45
3	Ti 334.940†	1103.2	135.2	0.1273 µg/L	0.1273 ppb	22:17:25
3	Tl 190.801†	-112.8	5.5	0.6715 µg/L	0.6715 ppb	22:17:45
3	U 409.014†	-323.3	-48.8	-2.8536 µg/L	-2.8536 ppb	22:17:25
3	V 292.402†	418.1	8.4	0.0344 µg/L	0.0344 ppb	22:17:25
3	Zn 213.857†	602.9	30.0	0.1695 µg/L	0.1695 ppb	22:17:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732147.4	100.81	%	0.594				0.59%
Sc RADIAL	144672.5	99.1	%	0.25				0.25%
Y 371.029	1035822.9	100.89	%	0.512				0.51%
Ag 328.068†	-2.2	-0.0096	µg/L	0.64157	-0.0096	ppb	0.64157	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-138.5	-25.667	µg/L	9.6439	-25.667	ppb	9.6439	37.57%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	2.1232	µg/L	2.07069	2.1232	ppb	2.07069	97.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	27.9	0.4109	µg/L	0.82253	0.4109	ppb	0.82253	200.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.6	-0.0109	µg/L	0.06567	-0.0109	ppb	0.06567	605.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	277.1	0.0761	µg/L	0.02793	0.0761	ppb	0.02793	36.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	50.6	2.8171	µg/L	0.45995	2.8171	ppb	0.45995	16.33%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.8	0.0420	µg/L	0.01123	0.0420	ppb	0.01123	26.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.1	0.0873	µg/L	0.10216	0.0873	ppb	0.10216	116.98%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              18.0      0.1392 µg/L       0.02421      0.1392 ppb        0.02421  17.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -93.3     -0.3604 µg/L       0.35483     -0.3604 ppb        0.35483  98.44%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       48.9      3.0164 µg/L       0.30037      3.0164 ppb        0.30037   9.96%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       127.7      46.766 µg/L       67.3062      46.766 ppb        67.3062 143.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -4.0     -1.5096 µg/L       5.19362     -1.5096 ppb        5.19362 344.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              78.3      0.0969 µg/L       0.00386      0.0969 ppb        0.00386   3.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -10.7     -0.3132 µg/L       0.24424     -0.3132 ppb        0.24424  77.99%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       13.8      1.8476 µg/L       3.83078      1.8476 ppb        3.83078 207.34%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -0.9     -0.0105 µg/L       0.16660     -0.0105 ppb        0.16660 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.9     -0.6137 µg/L       1.35968     -0.6137 ppb        1.35968 221.57%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -10.9     -0.6140 µg/L       0.76029     -0.6140 ppb        0.76029 123.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -6.3     -4.6708 µg/L       2.03882     -4.6708 ppb        2.03882  43.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -11.0     -1.3147 µg/L       1.20959     -1.3147 ppb        1.20959  92.01%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.4      -0.495 µg/L        1.9625      -0.495 ppb         1.9625 396.16%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -5.2     -0.5078 µg/L       1.61206     -0.5078 ppb        1.61206 317.46%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             127.4      1.8800 µg/L       1.95958      1.8800 ppb        1.95958 104.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.3      0.4566 µg/L       0.16011      0.4566 ppb        0.16011  35.06%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -94.5     -0.1965 µg/L       0.17296     -0.1965 ppb        0.17296  88.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              40.4      0.0370 µg/L       0.13834      0.0370 ppb        0.13834 373.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.9      0.3506 µg/L       1.33442      0.3506 ppb        1.33442 380.62%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               35.8      2.0744 µg/L       5.02435      2.0744 ppb        5.02435 242.20%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -69.3     -0.3397 µg/L       0.49772     -0.3397 ppb        0.49772 146.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              31.4      0.1761 µg/L       0.02602      0.1761 ppb        0.02602  14.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 87
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 22:35:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146768.4	146768.4	101	%			22:35:57
1	Al 396.153Radial†	26541.6	26453.2	4882.0	µg/L	4882.0	ppb	22:35:57
1	Ca 317.933Radial†	87649.0	86587.6	4823.3	µg/L	4823.3	ppb	22:35:57
1	Fe 238.204 Radial†	78561.3	77964.3	4805.2	µg/L	4805.2	ppb	22:35:57
1	K 766.490 Radial†	14622.8	12994.5	4753.5	µg/L	4753.5	ppb	22:35:57
1	Mg 279.077 IEC†	13408.4	13141.1	4903.8	µg/L	4903.8	ppb	22:35:57
1	Na 589.592 Radial†	71672.4	69972.1	9554.8	µg/L	9554.8	ppb	22:35:57
1	Sr 421.552†	232413.6	231220.9	480.66	µg/L	480.66	ppb	22:35:55
1	Sc 361.383	1722923.1	1722923.1	100.27	%			22:36:24
1	Y 371.029	1019811.3	1019811.3	99.330	%			22:36:24
1	Ag 328.068†	132254.4	127801.8	479.17	µg/L	479.17	ppb	22:36:24
1	As 188.979†	1604.2	1620.1	496.89	µg/L	496.89	ppb	22:36:44
1	B 249.677†	35283.6	31681.3	465.60	µg/L	465.60	ppb	22:36:24
1	Ba 233.527†	118323.2	118135.9	476.44	µg/L	476.44	ppb	22:36:24
1	Be 313.107†	1761219.9	1757474.5	478.66	µg/L	478.66	ppb	22:36:24
1	Cd 226.502†	75730.6	75642.0	472.19	µg/L	472.19	ppb	22:36:24
1	Co 228.616†	38400.5	38485.9	475.11	µg/L	475.11	ppb	22:36:24
1	Cr 267.716†	60661.3	60317.0	472.27	µg/L	472.27	ppb	22:36:24
1	Cu 324.752†	125755.4	122439.8	477.30	µg/L	477.30	ppb	22:36:24
1	Mn 257.610†	387911.3	386614.6	478.15	µg/L	478.15	ppb	22:36:24
1	Mo 202.031†	16408.6	16383.8	481.94	µg/L	481.94	ppb	22:36:44
1	Ni 231.604†	41320.9	41284.6	475.36	µg/L	475.36	ppb	22:36:24
1	P 214.914†	11214.8	11202.1	2387.7	µg/L	2387.7	ppb	22:36:44
1	Pb 220.353†	8739.6	8629.4	483.24	µg/L	483.24	ppb	22:36:44
1	S 181.975 Axial†	1375.5	1266.7	944.65	µg/L	944.65	ppb	22:36:44
1	Sb 206.836†	4120.0	4027.9	480.04	µg/L	480.04	ppb	22:36:44
1	Se 196.026†	1343.5	1324.5	481	µg/L	481	ppb	22:36:44
1	SiO2†	54771.8	52846.8	5144.7	µg/L	5144.7	ppb	22:36:24
1	Si 251.611†	165253.5	163965.6	2407.7	µg/L	2407.7	ppb	22:36:24
1	Sn 189.927†	7717.2	7697.3	481.45	µg/L	481.45	ppb	22:36:44
1	Ti 334.940†	514309.0	511951.9	477.69	µg/L	477.69	ppb	22:36:24
1	Tl 190.801†	3827.4	3933.6	490.49	µg/L	490.49	ppb	22:36:44
1	U 409.014†	7235.3	7485.4	466.50	µg/L	466.50	ppb	22:36:24
1	V 292.402†	97370.2	96700.5	478.09	µg/L	478.09	ppb	22:36:24
1	Zn 213.857†	85150.2	84353.3	470.11	µg/L	470.11	ppb	22:36:24
2	Sc RADIAL	145116.2	145116.2	99.4	%			22:36:01
2	Al 396.153Radial†	26297.2	26507.8	4892.7	µg/L	4892.7	ppb	22:36:01
2	Ca 317.933Radial†	86940.1	86866.9	4838.8	µg/L	4838.8	ppb	22:36:01
2	Fe 238.204 Radial†	77803.3	78091.3	4813.1	µg/L	4813.1	ppb	22:36:01
2	K 766.490 Radial†	14545.6	13082.4	4785.7	µg/L	4785.7	ppb	22:36:01
2	Mg 279.077 IEC†	13274.5	13158.2	4909.9	µg/L	4909.9	ppb	22:36:01
2	Na 589.592 Radial†	70981.1	70088.2	9570.6	µg/L	9570.6	ppb	22:36:01
2	Sr 421.552†	232627.8	234067.2	486.57	µg/L	486.57	ppb	22:35:59
2	Sc 361.383	1750269.1	1750269.1	101.87	%			22:36:47
2	Y 371.029	1035573.7	1035573.7	100.87	%			22:36:47
2	Ag 328.068†	134676.3	128118.7	480.37	µg/L	480.37	ppb	22:36:47
2	As 188.979†	1582.5	1573.9	482.89	µg/L	482.89	ppb	22:37:07
2	B 249.677†	35971.3	31806.7	467.44	µg/L	467.44	ppb	22:36:47
2	Ba 233.527†	120638.2	118564.9	478.17	µg/L	478.17	ppb	22:36:47
2	Be 313.107†	1795938.6	1764115.6	480.47	µg/L	480.47	ppb	22:36:47
2	Cd 226.502†	77211.3	75915.5	473.90	µg/L	473.90	ppb	22:36:47
2	Co 228.616†	39183.6	38656.4	477.21	µg/L	477.21	ppb	22:36:47
2	Cr 267.716†	61805.5	60495.1	473.67	µg/L	473.67	ppb	22:36:47
2	Cu 324.752†	127636.0	122326.5	476.86	µg/L	476.86	ppb	22:36:47
2	Mn 257.610†	395566.1	388085.1	479.97	µg/L	479.97	ppb	22:36:47
2	Mo 202.031†	16264.4	15986.6	470.26	µg/L	470.26	ppb	22:37:07
2	Ni 231.604†	42110.5	41415.9	476.87	µg/L	476.87	ppb	22:36:47
2	P 214.914†	11123.1	10937.4	2331.1	µg/L	2331.1	ppb	22:37:07
2	Pb 220.353†	8695.2	8449.6	473.18	µg/L	473.18	ppb	22:37:07

2	S 181.975 Axial†	1380.2	1249.8	932.06 µg/L	932.06 ppb	22:37:07
2	Sb 206.836†	4108.8	3952.7	470.89 µg/L	470.89 ppb	22:37:07
2	Se 196.026†	1336.5	1296.8	471 µg/L	471 ppb	22:37:07
2	SiO2†	55876.6	53078.0	5167.8 µg/L	5167.8 ppb	22:36:47
2	Si 251.611†	168292.8	164374.4	2414.0 µg/L	2414.0 ppb	22:36:47
2	Sn 189.927†	7640.8	7502.0	469.28 µg/L	469.28 ppb	22:37:07
2	Ti 334.940†	522795.1	512268.9	477.98 µg/L	477.98 ppb	22:36:47
2	Tl 190.801†	3793.4	3840.6	479.07 µg/L	479.07 ppb	22:37:07
2	U 409.014†	7388.2	7522.7	468.79 µg/L	468.79 ppb	22:36:47
2	V 292.402†	99257.8	97036.4	479.62 µg/L	479.62 ppb	22:36:47
2	Zn 213.857†	87026.0	84867.9	472.99 µg/L	472.99 ppb	22:36:47
3	Sc RADIAL	145049.2	145049.2	99.4 %		22:36:05
3	Al 396.153Radial†	26335.5	26558.6	4901.9 µg/L	4901.9 ppb	22:36:05
3	Ca 317.933Radial†	86672.0	86637.6	4826.1 µg/L	4826.1 ppb	22:36:05
3	Fe 238.204 Radial†	77423.0	77745.0	4791.7 µg/L	4791.7 ppb	22:36:05
3	K 766.490 Radial†	14708.1	13252.7	4848.1 µg/L	4848.1 ppb	22:36:05
3	Mg 279.077 IEC†	13164.0	13053.2	4870.9 µg/L	4870.9 ppb	22:36:05
3	Na 589.592 Radial†	70826.5	69965.7	9553.9 µg/L	9553.9 ppb	22:36:05
3	Sr 421.552†	229385.5	230913.4	480.02 µg/L	480.02 ppb	22:36:03
3	Sc 361.383	1736886.0	1736886.0	101.09 %		22:37:10
3	Y 371.029	1026663.5	1026663.5	99.998 %		22:37:10
3	Ag 328.068†	133353.0	127828.3	479.31 µg/L	479.31 ppb	22:37:10
3	As 188.979†	1594.0	1597.2	489.96 µg/L	489.96 ppb	22:37:30
3	B 249.677†	35849.9	31958.7	469.68 µg/L	469.68 ppb	22:37:10
3	Ba 233.527†	119879.0	118726.4	478.82 µg/L	478.82 ppb	22:37:10
3	Be 313.107†	1785527.0	1767400.4	481.37 µg/L	481.37 ppb	22:37:10
3	Cd 226.502†	76637.4	75931.9	474.00 µg/L	474.00 ppb	22:37:10
3	Co 228.616†	38956.3	38727.9	478.10 µg/L	478.10 ppb	22:37:10
3	Cr 267.716†	61487.6	60648.2	474.86 µg/L	474.86 ppb	22:37:10
3	Cu 324.752†	126940.5	122603.9	477.95 µg/L	477.95 ppb	22:37:10
3	Mn 257.610†	392870.7	388410.8	480.37 µg/L	480.37 ppb	22:37:10
3	Mo 202.031†	16306.3	16151.1	475.10 µg/L	475.10 ppb	22:37:30
3	Ni 231.604†	41574.5	41204.2	474.44 µg/L	474.44 ppb	22:37:10
3	P 214.914†	11178.5	11076.3	2360.8 µg/L	2360.8 ppb	22:37:30
3	Pb 220.353†	8729.7	8549.5	478.76 µg/L	478.76 ppb	22:37:30
3	S 181.975 Axial†	1377.2	1257.3	937.66 µg/L	937.66 ppb	22:37:30
3	Sb 206.836†	4126.4	4001.2	476.72 µg/L	476.72 ppb	22:37:30
3	Se 196.026†	1332.7	1303.1	473 µg/L	473 ppb	22:37:30
3	SiO2†	55324.3	52954.3	5155.5 µg/L	5155.5 ppb	22:37:10
3	Si 251.611†	167461.4	164825.0	2420.5 µg/L	2420.5 ppb	22:37:10
3	Sn 189.927†	7692.4	7610.8	476.07 µg/L	476.07 ppb	22:37:30
3	Ti 334.940†	518784.6	512256.1	477.97 µg/L	477.97 ppb	22:37:10
3	Tl 190.801†	3813.8	3889.5	485.08 µg/L	485.08 ppb	22:37:30
3	U 409.014†	7519.5	7708.6	479.68 µg/L	479.68 ppb	22:37:10
3	V 292.402†	98557.8	97094.7	479.97 µg/L	479.97 ppb	22:37:10
3	Zn 213.857†	86550.8	85056.1	474.07 µg/L	474.07 ppb	22:37:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1736692.7	101.08	%	0.796				0.79%
Sc RADIAL	145644.6	99.8	%	0.67				0.67%
Y 371.029	1027349.5	100.06	%	0.770				0.77%
Ag 328.068†	127916.2	479.62	µg/L	0.654	479.62	ppb	0.654	0.14%
QC value within limits for Ag 328.068 Recovery = 95.92%								
Al 396.153Radial†	26506.5	4892.2	µg/L	9.94	4892.2	ppb	9.94	0.20%
QC value within limits for Al 396.153Radial Recovery = 97.84%								
As 188.979†	1597.1	489.91	µg/L	7.000	489.91	ppb	7.000	1.43%
QC value within limits for As 188.979 Recovery = 97.98%								
B 249.677†	31815.6	467.57	µg/L	2.043	467.57	ppb	2.043	0.44%
QC value within limits for B 249.677 Recovery = 93.51%								
Ba 233.527†	118475.7	477.81	µg/L	1.229	477.81	ppb	1.229	0.26%
QC value within limits for Ba 233.527 Recovery = 95.56%								
Be 313.107†	1762996.8	480.17	µg/L	1.379	480.17	ppb	1.379	0.29%
QC value within limits for Be 313.107 Recovery = 96.03%								
Ca 317.933Radial†	86697.4	4829.4	µg/L	8.30	4829.4	ppb	8.30	0.17%
QC value within limits for Ca 317.933Radial Recovery = 96.59%								
Cd 226.502†	75829.8	473.36	µg/L	1.017	473.36	ppb	1.017	0.21%
QC value within limits for Cd 226.502 Recovery = 94.67%								
Co 228.616†	38623.4	476.81	µg/L	1.535	476.81	ppb	1.535	0.32%

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   QC value within limits for Co 228.616  Recovery = 95.36%
Cr 267.716†            60486.8      473.60 µg/L         1.293      473.60 ppb          1.293   0.27%
   QC value within limits for Cr 267.716  Recovery = 94.72%
Cu 324.752†           122456.7      477.37 µg/L         0.545      477.37 ppb          0.545   0.11%
   QC value within limits for Cu 324.752  Recovery = 95.47%
Fe 238.204 Radial†     77933.5      4803.3 µg/L         10.80      4803.3 ppb          10.80   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.07%
K 766.490 Radial†      13109.8      4795.8 µg/L         48.06      4795.8 ppb          48.06   1.00%
   QC value within limits for K 766.490 Radial  Recovery = 95.92%
Mg 279.077 IEC†        13117.5      4894.9 µg/L         20.99      4894.9 ppb          20.99   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.90%
Mn 257.610†           387703.5      479.50 µg/L         1.185      479.50 ppb          1.185   0.25%
   QC value within limits for Mn 257.610  Recovery = 95.90%
Mo 202.031†            16173.9      475.77 µg/L         5.865      475.77 ppb          5.865   1.23%
   QC value within limits for Mo 202.031  Recovery = 95.15%
Na 589.592 Radial†     70008.7      9559.8 µg/L          9.43      9559.8 ppb           9.43   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 95.60%
Ni 231.604†            41301.6      475.56 µg/L         1.231      475.56 ppb          1.231   0.26%
   QC value within limits for Ni 231.604  Recovery = 95.11%
P 214.914†             11071.9      2359.9 µg/L         28.31      2359.9 ppb          28.31   1.20%
   QC value within limits for P 214.914  Recovery = 94.39%
Pb 220.353†             8542.8      478.39 µg/L         5.044      478.39 ppb          5.044   1.05%
   QC value within limits for Pb 220.353  Recovery = 95.68%
S 181.975 Axial†        1257.9      938.13 µg/L         6.311      938.13 ppb          6.311   0.67%
   QC value within limits for S 181.975 Axial  Recovery = 93.81%
Sb 206.836†             3994.0      475.89 µg/L         4.631      475.89 ppb          4.631   0.97%
   QC value within limits for Sb 206.836  Recovery = 95.18%
Se 196.026†             1308.1         475 µg/L           5.3         475 ppb            5.3   1.11%
   QC value within limits for Se 196.026  Recovery = 95.00%
SiO2†                  52959.7      5156.0 µg/L         11.56      5156.0 ppb          11.56   0.22%
   QC value within limits for SiO2  Recovery = 96.42%
Si 251.611†           164388.3      2414.1 µg/L          6.40      2414.1 ppb           6.40   0.27%
   QC value within limits for Si 251.611  Recovery = 96.56%
Sn 189.927†             7603.3      475.60 µg/L         6.099      475.60 ppb          6.099   1.28%
   QC value within limits for Sn 189.927  Recovery = 95.12%
Sr 421.552†           232067.2      482.42 µg/L         3.615      482.42 ppb          3.615   0.75%
   QC value within limits for Sr 421.552  Recovery = 96.48%
Ti 334.940†           512159.0      477.88 µg/L         0.166      477.88 ppb          0.166   0.03%
   QC value within limits for Ti 334.940  Recovery = 95.58%
Tl 190.801†             3887.9      484.88 µg/L         5.710      484.88 ppb          5.710   1.18%
   QC value within limits for Tl 190.801  Recovery = 96.98%
U 409.014†              7572.3      471.66 µg/L         7.041      471.66 ppb          7.041   1.49%
   QC value within limits for U 409.014  Recovery = 94.33%
V 292.402†             96943.8      479.22 µg/L         0.996      479.22 ppb          0.996   0.21%
   QC value within limits for V 292.402  Recovery = 95.84%
Zn 213.857†            84759.1      472.39 µg/L         2.045      472.39 ppb          2.045   0.43%
   QC value within limits for Zn 213.857  Recovery = 94.48%
All analyte(s) passed QC.
```

Sequence No.: 88 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/31/2010 22:37:38**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146107.1	146107.1	100	%			22:38:09
1	Al 396.153Radial†	-28.6	34.6	6.4326	µg/L	6.4326	ppb	22:38:29
1	Ca 317.933Radial†	565.6	4.4	0.2431	µg/L	0.2431	ppb	22:38:29
1	Fe 238.204 Radial†	221.6	73.2	4.5130	µg/L	4.5130	ppb	22:38:29
1	K 766.490 Radial†	1670.7	123.9	45.355	µg/L	45.355	ppb	22:38:09
1	Mg 279.077 IEC†	188.3	-2.7	-1.0050	µg/L	-1.0050	ppb	22:38:29
1	Na 589.592 Radial†	1308.8	16.4	2.2067	µg/L	2.2067	ppb	22:38:09
1	Sr 421.552†	-138.0	-2.6	-0.0053	µg/L	-0.0053	ppb	22:38:09
1	Sc 361.383	1751605.7	1751605.7	101.94	%			22:39:16
1	Y 371.029	1046872.7	1046872.7	101.97	%			22:39:16
1	Ag 328.068†	3943.9	-222.7	-0.8222	µg/L	-0.8222	ppb	22:39:19
1	As 188.979†	-21.0	-0.2	-0.0602	µg/L	-0.0602	ppb	22:39:39
1	B 249.677†	3436.3	-135.1	-1.9931	µg/L	-1.9931	ppb	22:39:19
1	Ba 233.527†	-130.5	7.8	0.0313	µg/L	0.0313	ppb	22:39:39
1	Be 313.107†	-714.8	363.6	0.1002	µg/L	0.1002	ppb	22:39:19
1	Cd 226.502†	-97.0	23.1	0.1438	µg/L	0.1438	ppb	22:39:39
1	Co 228.616†	-170.5	23.0	0.2839	µg/L	0.2839	ppb	22:39:39
1	Cr 267.716†	208.7	26.1	0.2018	µg/L	0.2018	ppb	22:39:39
1	Cu 324.752†	2943.0	-85.3	-0.3274	µg/L	-0.3274	ppb	22:39:19
1	Mn 257.610†	329.7	86.2	0.1066	µg/L	0.1066	ppb	22:39:39
1	Mo 202.031†	-31.9	-11.2	-0.3304	µg/L	-0.3304	ppb	22:39:39
1	Ni 231.604†	-81.9	-3.9	-0.0443	µg/L	-0.0443	ppb	22:39:39
1	P 214.914†	-23.2	-4.8	-1.0060	µg/L	-1.0060	ppb	22:39:39
1	Pb 220.353†	102.8	14.4	0.8016	µg/L	0.8016	ppb	22:39:39
1	S 181.975 Axial†	97.2	-9.7	-7.2332	µg/L	-7.2332	ppb	22:39:39
1	Sb 206.836†	61.0	-21.0	-2.4992	µg/L	-2.4992	ppb	22:39:39
1	Se 196.026†	8.3	-7.1	-2.58	µg/L	-2.58	ppb	22:39:39
1	SiO2†	1795.0	-14.6	-1.4272	µg/L	-1.4272	ppb	22:39:39
1	Si 251.611†	1014.2	158.3	2.3344	µg/L	2.3344	ppb	22:39:19
1	Sn 189.927†	9.8	10.8	0.6712	µg/L	0.6712	ppb	22:39:39
1	Ti 334.940†	912.7	-57.2	-0.0550	µg/L	-0.0550	ppb	22:39:19
1	Tl 190.801†	-104.8	13.9	1.7060	µg/L	1.7060	ppb	22:39:39
1	U 409.014†	-207.3	66.5	3.8783	µg/L	3.8783	ppb	22:39:19
1	V 292.402†	371.1	-39.7	-0.1942	µg/L	-0.1942	ppb	22:39:19
1	Zn 213.857†	603.0	27.1	0.1525	µg/L	0.1525	ppb	22:39:39
2	Sc RADIAL	143516.2	143516.2	98.3	%			22:38:31
2	Al 396.153Radial†	-59.7	2.6	0.4739	µg/L	0.4739	ppb	22:38:51
2	Ca 317.933Radial†	574.3	23.4	1.3043	µg/L	1.3043	ppb	22:38:51
2	Fe 238.204 Radial†	211.6	67.1	4.1330	µg/L	4.1330	ppb	22:38:51
2	K 766.490 Radial†	1530.2	11.2	4.0876	µg/L	4.0876	ppb	22:38:31
2	Mg 279.077 IEC†	186.7	-0.9	-0.3295	µg/L	-0.3295	ppb	22:38:51
2	Na 589.592 Radial†	1309.3	40.6	5.5370	µg/L	5.5370	ppb	22:38:31
2	Sr 421.552†	-195.1	-63.1	-0.1312	µg/L	-0.1312	ppb	22:38:31
2	Sc 361.383	1725150.1	1725150.1	100.40	%			22:39:41
2	Y 371.029	1031944.0	1031944.0	100.51	%			22:39:41
2	Ag 328.068†	3865.7	-241.3	-0.8900	µg/L	-0.8900	ppb	22:39:43
2	As 188.979†	-15.4	5.0	1.5151	µg/L	1.5151	ppb	22:40:03
2	B 249.677†	3665.2	144.6	2.1317	µg/L	2.1317	ppb	22:39:43
2	Ba 233.527†	-135.5	0.9	0.0032	µg/L	0.0032	ppb	22:40:03
2	Be 313.107†	-881.3	187.0	0.0526	µg/L	0.0526	ppb	22:39:43
2	Cd 226.502†	-123.0	-4.3	-0.0274	µg/L	-0.0274	ppb	22:40:03
2	Co 228.616†	-162.8	28.2	0.3479	µg/L	0.3479	ppb	22:40:03
2	Cr 267.716†	195.8	16.5	0.1246	µg/L	0.1246	ppb	22:40:03
2	Cu 324.752†	2834.1	-149.5	-0.5757	µg/L	-0.5757	ppb	22:39:43
2	Mn 257.610†	312.2	73.7	0.0911	µg/L	0.0911	ppb	22:40:03
2	Mo 202.031†	-20.8	-0.7	-0.0196	µg/L	-0.0196	ppb	22:40:03
2	Ni 231.604†	-63.9	12.8	0.1478	µg/L	0.1478	ppb	22:40:03
2	P 214.914†	-29.3	-11.2	-2.4036	µg/L	-2.4036	ppb	22:40:03
2	Pb 220.353†	74.7	-12.0	-0.6719	µg/L	-0.6719	ppb	22:40:03

2	S 181.975 Axial†	114.1	8.6	6.4080 µg/L	6.4080 ppb		22:40:03
2	Sb 206.836†	83.7	2.5	0.2984 µg/L	0.2984 ppb		22:40:03
2	Se 196.026†	7.4	-7.9	-2.83 µg/L	-2.83 ppb		22:40:03
2	SiO2†	1757.4	-25.0	-2.4389 µg/L	-2.4389 ppb		22:40:03
2	Si 251.611†	1016.3	175.6	2.5912 µg/L	2.5912 ppb		22:39:43
2	Sn 189.927†	-5.9	-4.8	-0.2983 µg/L	-0.2983 ppb		22:40:03
2	Ti 334.940†	1008.8	52.2	0.0465 µg/L	0.0465 ppb		22:39:43
2	Tl 190.801†	-108.8	8.3	1.0191 µg/L	1.0191 ppb		22:40:03
2	U 409.014†	-175.4	95.2	5.5468 µg/L	5.5468 ppb		22:39:43
2	V 292.402†	347.2	-58.0	-0.2792 µg/L	-0.2792 ppb		22:39:43
2	Zn 213.857†	581.3	14.6	0.0808 µg/L	0.0808 ppb		22:40:03
3	Sc RADIAL	142981.4	142981.4	98.0 %			22:38:53
3	Al 396.153Radial†	-63.0	-1.1	-0.2113 µg/L	-0.2113 ppb		22:39:13
3	Ca 317.933Radial†	581.1	32.5	1.8108 µg/L	1.8108 ppb		22:39:13
3	Fe 238.204 Radial†	194.5	50.4	3.1050 µg/L	3.1050 ppb		22:39:13
3	K 766.490 Radial†	1679.9	169.7	62.139 µg/L	62.139 ppb		22:38:53
3	Mg 279.077 IEC†	195.7	9.0	3.3615 µg/L	3.3615 ppb		22:39:13
3	Na 589.592 Radial†	1209.6	-56.3	-7.7449 µg/L	-7.7449 ppb		22:38:53
3	Sr 421.552†	-420.0	-293.4	-0.6100 µg/L	-0.6100 ppb		22:38:53
3	Sc 361.383	1753013.9	1753013.9	102.03 %			22:40:05
3	Y 371.029	1047401.1	1047401.1	102.02 %			22:40:05
3	Ag 328.068†	4060.3	-111.6	-0.4113 µg/L	-0.4113 ppb		22:40:07
3	As 188.979†	-11.1	9.5	2.8753 µg/L	2.8753 ppb		22:40:27
3	B 249.677†	3619.9	42.1	0.6207 µg/L	0.6207 ppb		22:40:07
3	Ba 233.527†	-139.2	-0.6	-0.0023 µg/L	-0.0023 ppb		22:40:27
3	Be 313.107†	-869.8	212.1	0.0585 µg/L	0.0585 ppb		22:40:07
3	Cd 226.502†	-85.5	34.4	0.2145 µg/L	0.2145 ppb		22:40:27
3	Co 228.616†	-181.0	12.9	0.1588 µg/L	0.1588 ppb		22:40:27
3	Cr 267.716†	175.3	-6.8	-0.0550 µg/L	-0.0550 ppb		22:40:27
3	Cu 324.752†	3044.4	11.7	0.0483 µg/L	0.0483 ppb		22:40:07
3	Mn 257.610†	307.5	64.2	0.0793 µg/L	0.0793 ppb		22:40:27
3	Mo 202.031†	-12.0	8.3	0.2441 µg/L	0.2441 ppb		22:40:27
3	Ni 231.604†	-69.0	8.9	0.1028 µg/L	0.1028 ppb		22:40:27
3	P 214.914†	-27.3	-8.8	-1.8805 µg/L	-1.8805 ppb		22:40:27
3	Pb 220.353†	81.8	-6.2	-0.3453 µg/L	-0.3453 ppb		22:40:27
3	S 181.975 Axial†	99.7	-7.4	-5.4573 µg/L	-5.4573 ppb		22:40:27
3	Sb 206.836†	92.0	9.3	1.1113 µg/L	1.1113 ppb		22:40:27
3	Se 196.026†	22.0	6.3	2.27 µg/L	2.27 ppb		22:40:27
3	SiO2†	1796.0	-15.0	-1.4822 µg/L	-1.4822 ppb		22:40:27
3	Si 251.611†	1008.2	151.7	2.2299 µg/L	2.2299 ppb		22:40:07
3	Sn 189.927†	5.8	6.8	0.4238 µg/L	0.4238 ppb		22:40:27
3	Ti 334.940†	774.2	-193.7	-0.1822 µg/L	-0.1822 ppb		22:40:07
3	Tl 190.801†	-131.2	-12.0	-1.4719 µg/L	-1.4719 ppb		22:40:27
3	U 409.014†	-231.1	43.4	2.5310 µg/L	2.5310 ppb		22:40:07
3	V 292.402†	394.8	-16.8	-0.0781 µg/L	-0.0781 ppb		22:40:07
3	Zn 213.857†	584.2	8.2	0.0446 µg/L	0.0446 ppb		22:40:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1743256.5	101.46	%	0.914				0.90%
Sc RADIAL	144201.5	98.8	%	1.15				1.16%
Y 371.029	1042072.6	101.50	%	0.855				0.84%
Ag 328.068†	-191.9	-0.7079	µg/L	0.25904	-0.7079	ppb	0.25904	36.59%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.0	2.2317	µg/L	3.65416	2.2317	ppb	3.65416	163.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.8	1.4434	µg/L	1.46904	1.4434	ppb	1.46904	101.78%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	17.2	0.2531	µg/L	2.08681	0.2531	ppb	2.08681	824.51%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.7	0.0107	µg/L	0.01797	0.0107	ppb	0.01797	167.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	254.2	0.0704	µg/L	0.02593	0.0704	ppb	0.02593	36.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	20.1	1.1194	µg/L	0.80006	1.1194	ppb	0.80006	71.47%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.7	0.1103	µg/L	0.12437	0.1103	ppb	0.12437	112.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	21.4	0.2635	µg/L	0.09616	0.2635	ppb	0.09616	36.49%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              11.9      0.0905 µg/L       0.13175      0.0905 ppb        0.13175 145.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -74.4     -0.2849 µg/L       0.31418     -0.2849 ppb        0.31418 110.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       63.6      3.9170 µg/L       0.72840      3.9170 ppb        0.72840  18.60%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       101.6      37.194 µg/L       29.8738      37.194 ppb        29.8738  80.32%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.8      0.6757 µg/L       2.35038      0.6757 ppb        2.35038 347.86%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              74.7      0.0923 µg/L       0.01373      0.0923 ppb        0.01373  14.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -1.2     -0.0353 µg/L       0.28757     -0.0353 ppb        0.28757 814.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        0.2     -0.0004 µg/L       6.91054     -0.0004 ppb        6.91054 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               6.0      0.0687 µg/L       0.10050      0.0687 ppb        0.10050 146.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.3     -1.7634 µg/L       0.70616     -1.7634 ppb        0.70616  40.05%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -1.2     -0.0719 µg/L       0.77383     -0.0719 ppb        0.77383 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.8     -2.0942 µg/L       7.41644     -2.0942 ppb        7.41644 354.14%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.0     -0.3632 µg/L       1.89399     -0.3632 ppb        1.89399 521.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.9       -1.05 µg/L         2.877       -1.05 ppb          2.877 275.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -18.2     -1.7828 µg/L       0.56893     -1.7828 ppb        0.56893  31.91%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             161.9      2.3852 µg/L       0.18594      2.3852 ppb        0.18594   7.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.3      0.2656 µg/L       0.50378      0.2656 ppb        0.50378 189.70%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -119.7     -0.2488 µg/L       0.31901     -0.2488 ppb        0.31901 128.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -66.2     -0.0636 µg/L       0.11461     -0.0636 ppb        0.11461 180.26%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.4      0.4177 µg/L       1.67214      0.4177 ppb        1.67214 400.28%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               68.3      3.9854 µg/L       1.51076      3.9854 ppb        1.51076  37.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -38.2     -0.1839 µg/L       0.10096     -0.1839 ppb        0.10096  54.91%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              16.6      0.0927 µg/L       0.05489      0.0927 ppb        0.05489  59.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 96 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 3/31/2010 22:56:09**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145631.0	145631.0	99.8	%			22:56:43
1	Al 396.153Radial†	26317.9	26435.1	4879.0	µg/L	4879.0	ppb	22:56:43
1	Ca 317.933Radial†	87097.4	86715.5	4830.4	µg/L	4830.4	ppb	22:56:43
1	Fe 238.204 Radial†	78015.7	78027.6	4809.1	µg/L	4809.1	ppb	22:56:43
1	K 766.490 Radial†	14649.7	13135.0	4805.0	µg/L	4805.0	ppb	22:56:43
1	Mg 279.077 IEC†	13278.4	13115.0	4893.9	µg/L	4893.9	ppb	22:56:43
1	Na 589.592 Radial†	71207.1	70062.4	9567.1	µg/L	9567.1	ppb	22:56:43
1	Sr 421.552†	231874.1	232485.1	483.29	µg/L	483.29	ppb	22:56:41
1	Sc 361.383	1757611.7	1757611.7	102.29	%			22:56:56
1	Y 371.029	1039190.8	1039190.8	101.22	%			22:56:56
1	Ag 328.068†	134897.1	127782.2	479.15	µg/L	479.15	ppb	22:56:56
1	As 188.979†	1621.9	1605.9	492.61	µg/L	492.61	ppb	22:57:16
1	B 249.677†	36392.3	32070.7	471.32	µg/L	471.32	ppb	22:56:56
1	Ba 233.527†	121741.3	119148.6	480.52	µg/L	480.52	ppb	22:56:56
1	Be 313.107†	1813624.8	1774040.0	483.17	µg/L	483.17	ppb	22:56:56
1	Cd 226.502†	78396.2	76757.2	479.15	µg/L	479.15	ppb	22:56:56
1	Co 228.616†	39678.3	38979.3	481.20	µg/L	481.20	ppb	22:56:56
1	Cr 267.716†	62522.7	60942.8	477.17	µg/L	477.17	ppb	22:56:56
1	Cu 324.752†	128539.8	122686.5	478.27	µg/L	478.27	ppb	22:56:56
1	Mn 257.610†	399485.0	390293.9	482.70	µg/L	482.70	ppb	22:56:56
1	Mo 202.031†	16513.7	16163.7	475.47	µg/L	475.47	ppb	22:57:16
1	Ni 231.604†	42651.4	41771.9	480.97	µg/L	480.97	ppb	22:56:56
1	P 214.914†	11360.0	11123.4	2370.9	µg/L	2370.9	ppb	22:57:16
1	Pb 220.353†	8842.6	8558.1	479.24	µg/L	479.24	ppb	22:57:16
1	S 181.975 Axial†	1375.6	1239.7	924.58	µg/L	924.58	ppb	22:57:16
1	Sb 206.836†	4166.7	3992.4	475.65	µg/L	475.65	ppb	22:57:16
1	Se 196.026†	1353.0	1307.4	475	µg/L	475	ppb	22:57:16
1	SiO2†	56776.4	53728.4	5231.1	µg/L	5231.1	ppb	22:56:56
1	Si 251.611†	171826.2	167138.4	2454.6	µg/L	2454.6	ppb	22:56:56
1	Sn 189.927†	7798.3	7624.6	476.93	µg/L	476.93	ppb	22:57:16
1	Ti 334.940†	526436.4	513684.7	479.31	µg/L	479.31	ppb	22:56:56
1	Tl 190.801†	3828.8	3859.7	481.43	µg/L	481.43	ppb	22:57:16
1	U 409.014†	7470.8	7573.2	471.86	µg/L	471.86	ppb	22:56:56
1	V 292.402†	100068.8	97422.2	481.57	µg/L	481.57	ppb	22:56:56
1	Zn 213.857†	87978.3	85442.0	476.19	µg/L	476.19	ppb	22:56:56
2	Sc RADIAL	144482.4	144482.4	99.0	%			22:56:47
2	Al 396.153Radial†	26344.0	26671.1	4922.7	µg/L	4922.7	ppb	22:56:47
2	Ca 317.933Radial†	86633.5	86940.8	4842.9	µg/L	4842.9	ppb	22:56:47
2	Fe 238.204 Radial†	77683.1	78313.2	4826.7	µg/L	4826.7	ppb	22:56:47
2	K 766.490 Radial†	14601.3	13202.8	4829.8	µg/L	4829.8	ppb	22:56:47
2	Mg 279.077 IEC†	13248.2	13190.2	4922.0	µg/L	4922.0	ppb	22:56:47
2	Na 589.592 Radial†	70771.3	70189.4	9584.4	µg/L	9584.4	ppb	22:56:47
2	Sr 421.552†	233206.6	235678.1	489.92	µg/L	489.92	ppb	22:56:45
2	Sc 361.383	1751539.4	1751539.4	101.94	%			22:57:19
2	Y 371.029	1035412.0	1035412.0	100.85	%			22:57:19
2	Ag 328.068†	134751.3	128096.4	480.32	µg/L	480.32	ppb	22:57:19
2	As 188.979†	1631.1	1620.5	497.03	µg/L	497.03	ppb	22:57:39
2	B 249.677†	36471.6	32271.9	474.29	µg/L	474.29	ppb	22:57:19
2	Ba 233.527†	121221.0	119050.7	480.13	µg/L	480.13	ppb	22:57:19
2	Be 313.107†	1805248.5	1771969.6	482.61	µg/L	482.61	ppb	22:57:19
2	Cd 226.502†	78107.8	76740.0	479.04	µg/L	479.04	ppb	22:57:19
2	Co 228.616†	39424.5	38864.8	479.79	µg/L	479.79	ppb	22:57:19
2	Cr 267.716†	62345.8	60981.1	477.48	µg/L	477.48	ppb	22:57:19
2	Cu 324.752†	127964.1	122557.5	477.76	µg/L	477.76	ppb	22:57:19
2	Mn 257.610†	398107.9	390296.9	482.71	µg/L	482.71	ppb	22:57:19
2	Mo 202.031†	16505.0	16211.0	476.86	µg/L	476.86	ppb	22:57:39
2	Ni 231.604†	42337.4	41608.5	479.09	µg/L	479.09	ppb	22:57:19
2	P 214.914†	11365.0	11166.7	2380.1	µg/L	2380.1	ppb	22:57:39
2	Pb 220.353†	8862.8	8607.8	482.03	µg/L	482.03	ppb	22:57:39

2	S 181.975 Axial†	1404.8	1273.1	949.37 µg/L	949.37 ppb	22:57:39
2	Sb 206.836†	4167.5	4007.4	477.45 µg/L	477.45 ppb	22:57:39
2	Se 196.026†	1357.3	1316.2	478 µg/L	478 ppb	22:57:39
2	SiO2†	56527.9	53677.1	5226.0 µg/L	5226.0 ppb	22:57:19
2	Si 251.611†	170943.4	166854.8	2450.4 µg/L	2450.4 ppb	22:57:19
2	Sn 189.927†	7812.4	7664.9	479.44 µg/L	479.44 ppb	22:57:39
2	Ti 334.940†	524724.5	513789.4	479.40 µg/L	479.40 ppb	22:57:19
2	Tl 190.801†	3882.8	3925.7	489.55 µg/L	489.55 ppb	22:57:39
2	U 409.014†	7388.4	7517.7	468.65 µg/L	468.65 ppb	22:57:19
2	V 292.402†	99869.4	97565.6	482.28 µg/L	482.28 ppb	22:57:19
2	Zn 213.857†	87691.1	85458.4	476.30 µg/L	476.30 ppb	22:57:19
3	Sc RADIAL	144138.2	144138.2	98.8 %		22:56:51
3	Al 396.153Radial†	26172.1	26560.6	4902.1 µg/L	4902.1 ppb	22:56:51
3	Ca 317.933Radial†	86609.0	87124.9	4853.2 µg/L	4853.2 ppb	22:56:51
3	Fe 238.204 Radial†	77490.8	78305.8	4826.3 µg/L	4826.3 ppb	22:56:51
3	K 766.490 Radial†	14542.9	13178.9	4821.0 µg/L	4821.0 ppb	22:56:51
3	Mg 279.077 IEC†	13135.4	13108.0	4891.4 µg/L	4891.4 ppb	22:56:51
3	Na 589.592 Radial†	70800.9	70390.1	9611.9 µg/L	9611.9 ppb	22:56:51
3	Sr 421.552†	232137.5	235158.2	488.84 µg/L	488.84 ppb	22:56:49
3	Sc 361.383	1748212.6	1748212.6	101.75 %		22:57:42
3	Y 371.029	1033770.3	1033770.3	100.69 %		22:57:42
3	Ag 328.068†	134805.9	128401.6	481.45 µg/L	481.45 ppb	22:57:42
3	As 188.979†	1610.5	1603.2	491.81 µg/L	491.81 ppb	22:58:02
3	B 249.677†	36492.0	32359.9	475.58 µg/L	475.58 ppb	22:57:42
3	Ba 233.527†	121511.9	119562.9	482.19 µg/L	482.19 ppb	22:57:42
3	Be 313.107†	1811861.4	1781839.1	485.29 µg/L	485.29 ppb	22:57:42
3	Cd 226.502†	78364.1	77137.8	481.53 µg/L	481.53 ppb	22:57:42
3	Co 228.616†	39460.6	38973.8	481.13 µg/L	481.13 ppb	22:57:42
3	Cr 267.716†	62297.9	61050.5	478.02 µg/L	478.02 ppb	22:57:42
3	Cu 324.752†	128147.5	122976.6	479.39 µg/L	479.39 ppb	22:57:42
3	Mn 257.610†	398765.2	391686.1	484.43 µg/L	484.43 ppb	22:57:42
3	Mo 202.031†	16552.7	16288.7	479.14 µg/L	479.14 ppb	22:58:02
3	Ni 231.604†	42492.4	41839.9	481.76 µg/L	481.76 ppb	22:57:42
3	P 214.914†	11389.8	11212.3	2389.9 µg/L	2389.9 ppb	22:58:02
3	Pb 220.353†	8877.9	8639.2	483.79 µg/L	483.79 ppb	22:58:02
3	S 181.975 Axial†	1392.1	1263.1	942.01 µg/L	942.01 ppb	22:58:02
3	Sb 206.836†	4168.0	4015.6	478.46 µg/L	478.46 ppb	22:58:02
3	Se 196.026†	1374.8	1335.9	485 µg/L	485 ppb	22:58:02
3	SiO2†	56586.5	53840.3	5241.9 µg/L	5241.9 ppb	22:57:42
3	Si 251.611†	171481.5	167702.7	2462.9 µg/L	2462.9 ppb	22:57:42
3	Sn 189.927†	7818.8	7685.8	480.75 µg/L	480.75 ppb	22:58:02
3	Ti 334.940†	524855.7	514897.9	480.44 µg/L	480.44 ppb	22:57:42
3	Tl 190.801†	3874.8	3925.0	489.48 µg/L	489.48 ppb	22:58:02
3	U 409.014†	7274.8	7419.8	462.99 µg/L	462.99 ppb	22:57:42
3	V 292.402†	99852.2	97735.2	483.13 µg/L	483.13 ppb	22:57:42
3	Zn 213.857†	87879.4	85807.2	478.24 µg/L	478.24 ppb	22:57:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1752454.6	101.99	%	0.277				0.27%
Sc RADIAL	144750.5	99.2	%	0.54				0.54%
Y 371.029	1036124.4	100.92	%	0.271				0.27%
Ag 328.068†	128093.4	480.30	µg/L	1.150	480.30	ppb	1.150	0.24%
QC value within limits for Ag 328.068 Recovery = 96.06%								
Al 396.153Radial†	26555.6	4901.2	µg/L	21.86	4901.2	ppb	21.86	0.45%
QC value within limits for Al 396.153Radial Recovery = 98.02%								
As 188.979†	1609.8	493.81	µg/L	2.810	493.81	ppb	2.810	0.57%
QC value within limits for As 188.979 Recovery = 98.76%								
B 249.677†	32234.2	473.73	µg/L	2.187	473.73	ppb	2.187	0.46%
QC value within limits for B 249.677 Recovery = 94.75%								
Ba 233.527†	119254.1	480.95	µg/L	1.096	480.95	ppb	1.096	0.23%
QC value within limits for Ba 233.527 Recovery = 96.19%								
Be 313.107†	1775949.6	483.69	µg/L	1.416	483.69	ppb	1.416	0.29%
QC value within limits for Be 313.107 Recovery = 96.74%								
Ca 317.933Radial†	86927.1	4842.2	µg/L	11.42	4842.2	ppb	11.42	0.24%
QC value within limits for Ca 317.933Radial Recovery = 96.84%								
Cd 226.502†	76878.3	479.91	µg/L	1.404	479.91	ppb	1.404	0.29%
QC value within limits for Cd 226.502 Recovery = 95.98%								
Co 228.616†	38939.3	480.71	µg/L	0.798	480.71	ppb	0.798	0.17%

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   QC value within limits for Co 228.616  Recovery = 96.14%
Cr 267.716†            60991.5      477.56 µg/L         0.432      477.56 ppb          0.432   0.09%
   QC value within limits for Cr 267.716  Recovery = 95.51%
Cu 324.752†           122740.2      478.47 µg/L         0.832      478.47 ppb          0.832   0.17%
   QC value within limits for Cu 324.752  Recovery = 95.69%
Fe 238.204 Radial†     78215.5      4820.7 µg/L         10.03      4820.7 ppb          10.03   0.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.41%
K 766.490 Radial†      13172.2      4818.6 µg/L         12.58      4818.6 ppb          12.58   0.26%
   QC value within limits for K 766.490 Radial  Recovery = 96.37%
Mg 279.077 IEC†        13137.7      4902.4 µg/L         16.98      4902.4 ppb          16.98   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.05%
Mn 257.610†           390759.0      483.28 µg/L         0.994      483.28 ppb          0.994   0.21%
   QC value within limits for Mn 257.610  Recovery = 96.66%
Mo 202.031†            16221.2      477.16 µg/L         1.856      477.16 ppb          1.856   0.39%
   QC value within limits for Mo 202.031  Recovery = 95.43%
Na 589.592 Radial†     70214.0      9587.8 µg/L         22.57      9587.8 ppb          22.57   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 95.88%
Ni 231.604†            41740.1      480.61 µg/L         1.369      480.61 ppb          1.369   0.28%
   QC value within limits for Ni 231.604  Recovery = 96.12%
P 214.914†             11167.5      2380.3 µg/L          9.50      2380.3 ppb           9.50   0.40%
   QC value within limits for P 214.914  Recovery = 95.21%
Pb 220.353†             8601.7      481.69 µg/L         2.292      481.69 ppb          2.292   0.48%
   QC value within limits for Pb 220.353  Recovery = 96.34%
S 181.975 Axial†        1258.6      938.65 µg/L        12.730      938.65 ppb         12.730   1.36%
   QC value within limits for S 181.975 Axial  Recovery = 93.87%
Sb 206.836†             4005.1      477.19 µg/L         1.420      477.19 ppb          1.420   0.30%
   QC value within limits for Sb 206.836  Recovery = 95.44%
Se 196.026†             1319.8         479 µg/L           5.3         479 ppb            5.3   1.10%
   QC value within limits for Se 196.026  Recovery = 95.85%
SiO2†                  53748.6      5233.0 µg/L          8.10      5233.0 ppb           8.10   0.15%
   QC value within limits for SiO2  Recovery = 97.86%
Si 251.611†           167232.0      2456.0 µg/L          6.34      2456.0 ppb           6.34   0.26%
   QC value within limits for Si 251.611  Recovery = 98.24%
Sn 189.927†             7658.4      479.04 µg/L         1.940      479.04 ppb          1.940   0.41%
   QC value within limits for Sn 189.927  Recovery = 95.81%
Sr 421.552†           234440.5      487.35 µg/L         3.562      487.35 ppb          3.562   0.73%
   QC value within limits for Sr 421.552  Recovery = 97.47%
Ti 334.940†           514124.0      479.72 µg/L         0.631      479.72 ppb          0.631   0.13%
   QC value within limits for Ti 334.940  Recovery = 95.94%
Tl 190.801†             3903.4      486.82 µg/L         4.666      486.82 ppb          4.666   0.96%
   QC value within limits for Tl 190.801  Recovery = 97.36%
U 409.014†              7503.6      467.83 µg/L         4.493      467.83 ppb          4.493   0.96%
   QC value within limits for U 409.014  Recovery = 93.57%
V 292.402†             97574.3      482.33 µg/L         0.781      482.33 ppb          0.781   0.16%
   QC value within limits for V 292.402  Recovery = 96.47%
Zn 213.857†            85569.2      476.91 µg/L         1.152      476.91 ppb          1.152   0.24%
   QC value within limits for Zn 213.857  Recovery = 95.38%
All analyte(s) passed QC.
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Sequence No.: 97
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 22:58:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141781.4	141781.4	97.2	%			22:58:41
1	Al 396.153Radial†	-65.9	-4.6	-0.8469	µg/L	-0.8469	ppb	22:59:01
1	Ca 317.933Radial†	606.5	63.7	3.5473	µg/L	3.5473	ppb	22:59:01
1	Fe 238.204 Radial†	221.5	79.9	4.9227	µg/L	4.9227	ppb	22:59:01
1	K 766.490 Radial†	1686.2	190.7	69.835	µg/L	69.835	ppb	22:58:41
1	Mg 279.077 IEC†	181.6	-3.8	-1.4362	µg/L	-1.4362	ppb	22:59:01
1	Na 589.592 Radial†	1287.3	34.2	4.6057	µg/L	4.6057	ppb	22:58:41
1	Sr 421.552†	-190.2	-60.5	-0.1257	µg/L	-0.1257	ppb	22:58:41
1	Sc 361.383	1743048.5	1743048.5	101.45	%			23:00:02
1	Y 371.029	1041073.0	1041073.0	101.40	%			23:00:02
1	Ag 328.068†	4154.9	4.3	0.0197	µg/L	0.0197	ppb	23:00:05
1	As 188.979†	-19.4	1.2	0.3644	µg/L	0.3644	ppb	23:00:25
1	B 249.677†	3572.5	15.7	0.2315	µg/L	0.2315	ppb	23:00:05
1	Ba 233.527†	-115.3	22.2	0.0893	µg/L	0.0893	ppb	23:00:25
1	Be 313.107†	-922.1	155.7	0.0428	µg/L	0.0428	ppb	23:00:05
1	Cd 226.502†	-111.2	8.6	0.0533	µg/L	0.0533	ppb	23:00:25
1	Co 228.616†	-179.8	13.1	0.1612	µg/L	0.1612	ppb	23:00:25
1	Cr 267.716†	180.6	-0.5	-0.0052	µg/L	-0.0052	ppb	23:00:25
1	Cu 324.752†	2865.9	-147.1	-0.5698	µg/L	-0.5698	ppb	23:00:05
1	Mn 257.610†	329.0	87.1	0.1078	µg/L	0.1078	ppb	23:00:25
1	Mo 202.031†	-23.8	-3.4	-0.1000	µg/L	-0.1000	ppb	23:00:25
1	Ni 231.604†	-90.2	-12.4	-0.1430	µg/L	-0.1430	ppb	23:00:25
1	P 214.914†	-18.9	-0.7	-0.1360	µg/L	-0.1360	ppb	23:00:25
1	Pb 220.353†	97.7	10.0	0.5542	µg/L	0.5542	ppb	23:00:25
1	S 181.975 Axial†	106.4	-0.2	-0.1288	µg/L	-0.1288	ppb	23:00:25
1	Sb 206.836†	101.1	18.9	2.2415	µg/L	2.2415	ppb	23:00:25
1	Se 196.026†	15.2	-0.3	-0.115	µg/L	-0.115	ppb	23:00:25
1	SiO2†	1920.2	117.5	11.486	µg/L	11.486	ppb	23:00:25
1	Si 251.611†	1352.7	496.8	7.3252	µg/L	7.3252	ppb	23:00:05
1	Sn 189.927†	0.5	1.6	0.0974	µg/L	0.0974	ppb	23:00:25
1	Ti 334.940†	839.4	-125.1	-0.1173	µg/L	-0.1173	ppb	23:00:05
1	Tl 190.801†	-111.8	6.4	0.7917	µg/L	0.7917	ppb	23:00:25
1	U 409.014†	-248.6	24.8	1.4614	µg/L	1.4614	ppb	23:00:05
1	V 292.402†	448.0	37.9	0.1842	µg/L	0.1842	ppb	23:00:05
1	Zn 213.857†	592.5	19.7	0.1113	µg/L	0.1113	ppb	23:00:25
2	Sc RADIAL	145003.3	145003.3	99.4	%			22:59:03
2	Al 396.153Radial†	-37.6	25.3	4.6756	µg/L	4.6756	ppb	22:59:23
2	Ca 317.933Radial†	575.8	18.9	1.0553	µg/L	1.0553	ppb	22:59:23
2	Fe 238.204 Radial†	212.8	66.1	4.0710	µg/L	4.0710	ppb	22:59:23
2	K 766.490 Radial†	1744.9	211.3	77.353	µg/L	77.353	ppb	22:59:03
2	Mg 279.077 IEC†	193.4	3.9	1.4593	µg/L	1.4593	ppb	22:59:23
2	Na 589.592 Radial†	1264.0	-18.7	-2.6277	µg/L	-2.6277	ppb	22:59:03
2	Sr 421.552†	-251.3	-117.6	-0.2446	µg/L	-0.2446	ppb	22:59:03
2	Sc 361.383	1760622.4	1760622.4	102.47	%			23:00:27
2	Y 371.029	1051993.8	1051993.8	102.46	%			23:00:27
2	Ag 328.068†	3995.9	-191.7	-0.7159	µg/L	-0.7159	ppb	23:00:29
2	As 188.979†	-7.1	13.4	4.0498	µg/L	4.0498	ppb	23:00:49
2	B 249.677†	3525.8	-65.0	-0.9588	µg/L	-0.9588	ppb	23:00:29
2	Ba 233.527†	-156.5	-16.9	-0.0684	µg/L	-0.0684	ppb	23:00:49
2	Be 313.107†	-952.5	135.1	0.0377	µg/L	0.0377	ppb	23:00:29
2	Cd 226.502†	-136.2	-14.7	-0.0924	µg/L	-0.0924	ppb	23:00:49
2	Co 228.616†	-206.8	-11.5	-0.1422	µg/L	-0.1422	ppb	23:00:49
2	Cr 267.716†	203.7	20.2	0.1559	µg/L	0.1559	ppb	23:00:49
2	Cu 324.752†	2945.2	-98.0	-0.3777	µg/L	-0.3777	ppb	23:00:29
2	Mn 257.610†	295.4	51.0	0.0631	µg/L	0.0631	ppb	23:00:49
2	Mo 202.031†	-5.0	15.2	0.4464	µg/L	0.4464	ppb	23:00:49
2	Ni 231.604†	-100.3	-21.4	-0.2461	µg/L	-0.2461	ppb	23:00:49
2	P 214.914†	-24.8	-6.2	-1.3412	µg/L	-1.3412	ppb	23:00:49
2	Pb 220.353†	104.7	15.8	0.8832	µg/L	0.8832	ppb	23:00:49

2	S 181.975 Axial†	95.9	-11.5	-8.5333 µg/L	-8.5333 ppb	23:00:49
2	Sb 206.836†	88.7	5.7	0.6835 µg/L	0.6835 ppb	23:00:49
2	Se 196.026†	21.7	5.9	2.15 µg/L	2.15 ppb	23:00:49
2	SiO2†	1898.9	77.8	7.5925 µg/L	7.5925 ppb	23:00:49
2	Si 251.611†	1381.8	512.0	7.5445 µg/L	7.5445 ppb	23:00:29
2	Sn 189.927†	-7.0	-5.7	-0.3531 µg/L	-0.3531 ppb	23:00:49
2	Ti 334.940†	1192.4	211.2	0.1959 µg/L	0.1959 ppb	23:00:29
2	Tl 190.801†	-124.7	-5.0	-0.6143 µg/L	-0.6143 ppb	23:00:49
2	U 409.014†	-223.7	51.6	2.9674 µg/L	2.9674 ppb	23:00:29
2	V 292.402†	244.3	-165.3	-0.7998 µg/L	-0.7998 ppb	23:00:29
2	Zn 213.857†	583.4	4.9	0.0292 µg/L	0.0292 ppb	23:00:49
3	Sc RADIAL	144406.4	144406.4	99.0 %		22:59:25
3	Al 396.153Radial†	-65.2	-2.7	-0.5137 µg/L	-0.5137 ppb	22:59:45
3	Ca 317.933Radial†	603.1	48.9	2.7231 µg/L	2.7231 ppb	22:59:45
3	Fe 238.204 Radial†	209.2	63.3	3.9000 µg/L	3.9000 ppb	22:59:45
3	K 766.490 Radial†	1469.9	-59.4	-21.748 µg/L	-21.748 ppb	22:59:25
3	Mg 279.077 IEC†	181.9	-6.9	-2.5712 µg/L	-2.5712 ppb	22:59:45
3	Na 589.592 Radial†	1182.1	-96.2	-13.128 µg/L	-13.128 ppb	22:59:25
3	Sr 421.552†	-255.8	-123.2	-0.2561 µg/L	-0.2561 ppb	22:59:25
3	Sc 361.383	1746264.7	1746264.7	101.63 %		23:00:51
3	Y 371.029	1044189.6	1044189.6	101.70 %		23:00:51
3	Ag 328.068†	4224.2	64.9	0.2383 µg/L	0.2383 ppb	23:00:53
3	As 188.979†	-13.6	7.0	2.1128 µg/L	2.1128 ppb	23:01:13
3	B 249.677†	3523.5	-39.0	-0.5757 µg/L	-0.5757 ppb	23:00:53
3	Ba 233.527†	-133.8	4.2	0.0170 µg/L	0.0170 ppb	23:01:13
3	Be 313.107†	-788.4	289.0	0.0783 µg/L	0.0783 ppb	23:00:53
3	Cd 226.502†	-90.0	29.6	0.1844 µg/L	0.1844 ppb	23:01:13
3	Co 228.616†	-170.7	22.4	0.2760 µg/L	0.2760 ppb	23:01:13
3	Cr 267.716†	211.8	29.8	0.2347 µg/L	0.2347 ppb	23:01:13
3	Cu 324.752†	2885.9	-132.7	-0.5161 µg/L	-0.5161 ppb	23:00:53
3	Mn 257.610†	381.2	137.9	0.1707 µg/L	0.1707 ppb	23:01:13
3	Mo 202.031†	-12.3	8.0	0.2345 µg/L	0.2345 ppb	23:01:13
3	Ni 231.604†	-88.3	-10.3	-0.1190 µg/L	-0.1190 ppb	23:01:13
3	P 214.914†	-16.7	1.5	0.3230 µg/L	0.3230 ppb	23:01:13
3	Pb 220.353†	101.8	13.8	0.7699 µg/L	0.7699 ppb	23:01:13
3	S 181.975 Axial†	95.5	-11.1	-8.2190 µg/L	-8.2190 ppb	23:01:13
3	Sb 206.836†	89.0	6.7	0.8032 µg/L	0.8032 ppb	23:01:13
3	Se 196.026†	12.4	-3.0	-1.09 µg/L	-1.09 ppb	23:01:13
3	SiO2†	1870.7	65.3	6.3610 µg/L	6.3610 ppb	23:01:13
3	Si 251.611†	1192.8	337.1	4.9610 µg/L	4.9610 ppb	23:00:53
3	Sn 189.927†	11.3	12.3	0.7657 µg/L	0.7657 ppb	23:01:13
3	Ti 334.940†	1019.6	50.7	0.0482 µg/L	0.0482 ppb	23:00:53
3	Tl 190.801†	-120.0	-1.4	-0.1679 µg/L	-0.1679 ppb	23:01:13
3	U 409.014†	-299.5	-24.8	-1.4500 µg/L	-1.4500 ppb	23:00:53
3	V 292.402†	406.4	-3.9	-0.0172 µg/L	-0.0172 ppb	23:00:53
3	Zn 213.857†	589.9	16.1	0.0909 µg/L	0.0909 ppb	23:01:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1749978.5	101.85	%	0.545				0.53%
Sc RADIAL	143730.4	98.5	%	1.17				1.19%
Y 371.029	1045752.1	101.86	%	0.548				0.54%
Ag 328.068†	-40.8	-0.1526	µg/L	0.49988	-0.1526	ppb	0.49988	327.49%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.0	1.1050	µg/L	3.09673	1.1050	ppb	3.09673	280.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.2	2.1757	µg/L	1.84349	2.1757	ppb	1.84349	84.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-29.4	-0.4343	µg/L	0.60762	-0.4343	ppb	0.60762	139.91%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.2	0.0126	µg/L	0.07891	0.0126	ppb	0.07891	623.91%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.3	0.0529	µg/L	0.02208	0.0529	ppb	0.02208	41.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	43.8	2.4419	µg/L	1.26955	2.4419	ppb	1.26955	51.99%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.8	0.0484	µg/L	0.13846	0.0484	ppb	0.13846	286.00%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.0	0.0983	µg/L	0.21607	0.0983	ppb	0.21607	219.74%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              16.5      0.1285 µg/L       0.12227      0.1285 ppb        0.12227  95.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -125.9     -0.4879 µg/L       0.09911     -0.4879 ppb        0.09911  20.31%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       69.7      4.2979 µg/L       0.54779      4.2979 ppb        0.54779  12.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       114.2     41.813 µg/L       55.1735     41.813 ppb        55.1735 131.95%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.3     -0.8494 µg/L       2.07835     -0.8494 ppb        2.07835 244.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              92.0      0.1138 µg/L       0.05404      0.1138 ppb        0.05404  47.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.6      0.1936 µg/L       0.27547      0.1936 ppb        0.27547 142.26%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -26.9     -3.7166 µg/L       8.91683     -3.7166 ppb        8.91683 239.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -14.7     -0.1693 µg/L       0.06752     -0.1693 ppb        0.06752  39.87%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.8     -0.3847 µg/L       0.85955     -0.3847 ppb        0.85955 223.42%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              13.2      0.7358 µg/L       0.16715      0.7358 ppb        0.16715  22.72%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -7.6     -5.6270 µg/L       4.76418     -5.6270 ppb        4.76418  84.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              10.4      1.2427 µg/L       0.86705      1.2427 ppb        0.86705  69.77%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.9       0.315 µg/L        1.6662       0.315 ppb         1.6662 528.34%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    86.8      8.4797 µg/L       2.67504      8.4797 ppb        2.67504  31.55%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             448.6      6.6103 µg/L       1.43246      6.6103 ppb        1.43246  21.67%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.7      0.1700 µg/L       0.56292      0.1700 ppb        0.56292 331.12%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -100.4     -0.2088 µg/L       0.07220     -0.2088 ppb        0.07220  34.57%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              45.6      0.0423 µg/L       0.15668      0.0423 ppb        0.15668 370.64%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.0      0.0032 µg/L       0.71841      0.0032 ppb        0.71841 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               17.2      0.9930 µg/L       2.24566      0.9930 ppb        2.24566 226.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -43.8     -0.2109 µg/L       0.51982     -0.2109 ppb        0.51982 246.42%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              13.5      0.0771 µg/L       0.04274      0.0771 ppb        0.04274  55.43%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 98
Sample ID: 1202068047|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 228
Date Collected: 3/31/2010 23:01:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068047|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144522.0	144522.0	99.0	%			23:01:53
1	Al 396.153Radial†	-100.6	-38.4	-7.0917	µg/L	-7.0917	ppb	23:01:53
1	Ca 317.933Radial†	1167.9	618.7	34.463	µg/L	34.463	ppb	23:02:13
1	Fe 238.204 Radial†	631.9	490.0	30.198	µg/L	30.198	ppb	23:02:13
1	K 766.490 Radial†	1688.7	160.4	58.702	µg/L	58.702	ppb	23:01:53
1	Mg 279.077 IEC†	195.6	6.8	2.4933	µg/L	2.4933	ppb	23:02:13
1	Na 589.592 Radial†	1394.3	117.1	15.939	µg/L	15.939	ppb	23:01:53
1	Sr 421.552†	-324.3	-192.2	-0.3998	µg/L	-0.3998	ppb	23:01:53
1	Sc 361.383	1748691.4	1748691.4	101.77	%			23:03:01
1	Y 371.029	1043637.1	1043637.1	101.65	%			23:03:01
1	Ag 328.068†	4241.4	76.1	0.2753	µg/L	0.2753	ppb	23:03:03
1	As 188.979†	-8.9	11.6	3.5186	µg/L	3.5186	ppb	23:03:23
1	B 249.677†	3598.8	30.2	0.4449	µg/L	0.4449	ppb	23:03:03
1	Ba 233.527†	-67.1	69.9	0.2806	µg/L	0.2806	ppb	23:03:23
1	Be 313.107†	-1113.2	-29.1	-0.0071	µg/L	-0.0071	ppb	23:03:03
1	Cd 226.502†	-112.2	8.0	0.0469	µg/L	0.0469	ppb	23:03:23
1	Co 228.616†	-182.5	11.0	0.1348	µg/L	0.1348	ppb	23:03:23
1	Cr 267.716†	200.3	18.2	0.1407	µg/L	0.1407	ppb	23:03:23
1	Cu 324.752†	3113.6	87.1	0.3456	µg/L	0.3456	ppb	23:03:03
1	Mn 257.610†	901.3	648.3	0.8020	µg/L	0.8020	ppb	23:03:23
1	Mo 202.031†	-38.7	-18.0	-0.5276	µg/L	-0.5276	ppb	23:03:23
1	Ni 231.604†	-40.9	36.3	0.4185	µg/L	0.4185	ppb	23:03:23
1	P 214.914†	0.0	18.0	3.8255	µg/L	3.8255	ppb	23:03:23
1	Pb 220.353†	93.2	5.2	0.2850	µg/L	0.2850	ppb	23:03:23
1	S 181.975 Axial†	110.5	3.5	2.5803	µg/L	2.5803	ppb	23:03:23
1	Sb 206.836†	80.5	-1.7	-0.2163	µg/L	-0.2163	ppb	23:03:23
1	Se 196.026†	12.7	-2.8	-0.996	µg/L	-0.996	ppb	23:03:23
1	SiO2†	2365.4	548.8	53.658	µg/L	53.658	ppb	23:03:03
1	Si 251.611†	2557.1	1676.0	24.717	µg/L	24.717	ppb	23:03:03
1	Sn 189.927†	-2.5	-1.3	-0.0830	µg/L	-0.0830	ppb	23:03:23
1	Ti 334.940†	1124.3	152.2	0.1417	µg/L	0.1417	ppb	23:03:03
1	Tl 190.801†	-109.7	8.9	1.0873	µg/L	1.0873	ppb	23:03:23
1	U 409.014†	-224.1	49.7	2.8619	µg/L	2.8619	ppb	23:03:03
1	V 292.402†	260.4	-147.9	-0.7279	µg/L	-0.7279	ppb	23:03:03
1	Zn 213.857†	1045.9	463.3	2.5961	µg/L	2.5961	ppb	23:03:23
2	Sc RADIAL	142748.1	142748.1	97.8	%			23:02:15
2	Al 396.153Radial†	-85.8	-24.5	-4.5220	µg/L	-4.5220	ppb	23:02:15
2	Ca 317.933Radial†	1164.5	629.9	35.089	µg/L	35.089	ppb	23:02:35
2	Fe 238.204 Radial†	633.6	499.6	30.794	µg/L	30.794	ppb	23:02:35
2	K 766.490 Radial†	1594.3	85.1	31.146	µg/L	31.146	ppb	23:02:15
2	Mg 279.077 IEC†	194.5	8.2	3.0083	µg/L	3.0083	ppb	23:02:35
2	Na 589.592 Radial†	1293.0	31.1	4.2170	µg/L	4.2170	ppb	23:02:15
2	Sr 421.552†	-245.6	-115.8	-0.2410	µg/L	-0.2410	ppb	23:02:15
2	Sc 361.383	1726467.8	1726467.8	100.48	%			23:03:25
2	Y 371.029	1030781.8	1030781.8	100.40	%			23:03:25
2	Ag 328.068†	3960.3	-150.0	-0.5731	µg/L	-0.5731	ppb	23:03:27
2	As 188.979†	-12.6	7.8	2.3560	µg/L	2.3560	ppb	23:03:47
2	B 249.677†	3587.3	64.2	0.9469	µg/L	0.9469	ppb	23:03:27
2	Ba 233.527†	-84.4	51.8	0.2078	µg/L	0.2078	ppb	23:03:47
2	Be 313.107†	-1173.0	-102.7	-0.0299	µg/L	-0.0299	ppb	23:03:27
2	Cd 226.502†	-114.2	4.5	0.0251	µg/L	0.0251	ppb	23:03:47
2	Co 228.616†	-178.0	13.1	0.1606	µg/L	0.1606	ppb	23:03:47
2	Cr 267.716†	200.2	20.7	0.1676	µg/L	0.1676	ppb	23:03:47
2	Cu 324.752†	3239.3	251.6	0.9772	µg/L	0.9772	ppb	23:03:27
2	Mn 257.610†	895.3	653.7	0.8087	µg/L	0.8087	ppb	23:03:47
2	Mo 202.031†	-30.4	-10.1	-0.2969	µg/L	-0.2969	ppb	23:03:47
2	Ni 231.604†	-72.9	4.0	0.0459	µg/L	0.0459	ppb	23:03:47
2	P 214.914†	-12.2	5.8	1.2249	µg/L	1.2249	ppb	23:03:47
2	Pb 220.353†	59.5	-27.2	-1.5146	µg/L	-1.5146	ppb	23:03:47

2	S 181.975 Axial†	107.4	1.8	1.3476 µg/L	1.3476 ppb	23:03:47
2	Sb 206.836†	69.0	-12.1	-1.4479 µg/L	-1.4479 ppb	23:03:47
2	Se 196.026†	8.1	-7.2	-2.60 µg/L	-2.60 ppb	23:03:47
2	SiO2†	2467.1	680.0	66.453 µg/L	66.453 ppb	23:03:27
2	Si 251.611†	2753.9	1904.2	28.070 µg/L	28.070 ppb	23:03:27
2	Sn 189.927†	17.8	18.8	1.1731 µg/L	1.1731 ppb	23:03:47
2	Ti 334.940†	1010.6	53.2	0.0530 µg/L	0.0530 ppb	23:03:27
2	Tl 190.801†	-108.8	8.4	1.0283 µg/L	1.0283 ppb	23:03:47
2	U 409.014†	-381.5	-109.8	-6.4623 µg/L	-6.4623 ppb	23:03:27
2	V 292.402†	258.2	-146.9	-0.7264 µg/L	-0.7264 ppb	23:03:27
2	Zn 213.857†	1051.0	481.6	2.7007 µg/L	2.7007 ppb	23:03:47
3	Sc RADIAL	144431.5	144431.5	99.0 %		23:02:37
3	Al 396.153Radial†	-37.1	25.7	4.7950 µg/L	4.7950 ppb	23:02:37
3	Ca 317.933Radial†	1157.7	609.1	33.931 µg/L	33.931 ppb	23:02:57
3	Fe 238.204 Radial†	614.9	473.2	29.165 µg/L	29.165 ppb	23:02:57
3	K 766.490 Radial†	1671.2	143.8	52.641 µg/L	52.641 ppb	23:02:37
3	Mg 279.077 IEC†	218.1	29.6	10.995 µg/L	10.995 ppb	23:02:57
3	Na 589.592 Radial†	1357.7	81.0	11.016 µg/L	11.016 ppb	23:02:37
3	Sr 421.552†	-217.8	-84.8	-0.1765 µg/L	-0.1765 ppb	23:02:37
3	Sc 361.383	1718046.7	1718046.7	99.990 %		23:03:50
3	Y 371.029	1026149.3	1026149.3	99.947 %		23:03:50
3	Ag 328.068†	4094.4	3.4	-0.0146 µg/L	-0.0146 ppb	23:03:52
3	As 188.979†	-10.8	9.6	2.8978 µg/L	2.8978 ppb	23:04:12
3	B 249.677†	3619.7	114.1	1.6830 µg/L	1.6830 ppb	23:03:52
3	Ba 233.527†	-71.2	64.6	0.2596 µg/L	0.2596 ppb	23:04:12
3	Be 313.107†	-1011.9	52.7	0.0086 µg/L	0.0086 ppb	23:03:52
3	Cd 226.502†	-96.5	21.6	0.1321 µg/L	0.1321 ppb	23:04:12
3	Co 228.616†	-181.5	8.8	0.1076 µg/L	0.1076 ppb	23:04:12
3	Cr 267.716†	218.5	39.9	0.3285 µg/L	0.3285 ppb	23:04:12
3	Cu 324.752†	3274.6	302.7	1.1652 µg/L	1.1652 ppb	23:03:52
3	Mn 257.610†	915.0	677.8	0.8382 µg/L	0.8382 ppb	23:04:12
3	Mo 202.031†	-42.1	-22.0	-0.6457 µg/L	-0.6457 ppb	23:04:12
3	Ni 231.604†	-77.4	-0.9	-0.0099 µg/L	-0.0099 ppb	23:04:12
3	P 214.914†	-1.7	16.2	3.4554 µg/L	3.4554 ppb	23:04:12
3	Pb 220.353†	61.5	-24.9	-1.3776 µg/L	-1.3776 ppb	23:04:12
3	S 181.975 Axial†	110.9	5.8	4.3137 µg/L	4.3137 ppb	23:04:12
3	Sb 206.836†	83.4	2.6	0.2993 µg/L	0.2993 ppb	23:04:12
3	Se 196.026†	14.6	-0.7	-0.262 µg/L	-0.262 ppb	23:04:12
3	SiO2†	2317.2	542.0	52.984 µg/L	52.984 ppb	23:03:52
3	Si 251.611†	2663.8	1827.5	26.945 µg/L	26.945 ppb	23:03:52
3	Sn 189.927†	13.4	14.5	0.9050 µg/L	0.9050 ppb	23:04:12
3	Ti 334.940†	1148.8	196.4	0.1912 µg/L	0.1912 ppb	23:03:52
3	Tl 190.801†	-124.1	-7.5	-0.9150 µg/L	-0.9150 ppb	23:04:12
3	U 409.014†	-596.6	-326.8	-19.118 µg/L	-19.118 ppb	23:03:52
3	V 292.402†	362.0	-41.8	-0.2254 µg/L	-0.2254 ppb	23:03:52
3	Zn 213.857†	1036.8	472.4	2.6501 µg/L	2.6501 ppb	23:04:12

Mean Data: 1202068047|963993|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1731068.6	100.75	%	0.921				0.91%
Sc RADIAL	143900.5	98.6	%	0.68				0.69%
Y 371.029	1033522.7	100.67	%	0.882				0.88%
Ag 328.068†	-23.5	-0.1041	µg/L	0.43123	-0.1041	ppb	0.43123	414.11%
Al 396.153Radial†	-12.4	-2.2729	µg/L	6.25435	-2.2729	ppb	6.25435	275.17%
As 188.979†	9.6	2.9241	µg/L	0.58175	2.9241	ppb	0.58175	19.89%
B 249.677†	69.5	1.0249	µg/L	0.62270	1.0249	ppb	0.62270	60.76%
Ba 233.527†	62.1	0.2493	µg/L	0.03746	0.2493	ppb	0.03746	15.02%
Be 313.107†	-26.3	-0.0095	µg/L	0.01935	-0.0095	ppb	0.01935	204.68%
Ca 317.933Radial†	619.2	34.494	µg/L	0.5794	34.494	ppb	0.5794	1.68%
Cd 226.502†	11.4	0.0680	µg/L	0.05658	0.0680	ppb	0.05658	83.17%
Co 228.616†	11.0	0.1343	µg/L	0.02651	0.1343	ppb	0.02651	19.74%
Cr 267.716†	26.3	0.2122	µg/L	0.10153	0.2122	ppb	0.10153	47.84%
Cu 324.752†	213.8	0.8293	µg/L	0.42937	0.8293	ppb	0.42937	51.77%
Fe 238.204 Radial†	487.6	30.052	µg/L	0.8245	30.052	ppb	0.8245	2.74%
K 766.490 Radial†	129.8	47.496	µg/L	14.4803	47.496	ppb	14.4803	30.49%
Mg 279.077 IEC†	14.9	5.4987	µg/L	4.76654	5.4987	ppb	4.76654	86.68%
Mn 257.610†	660.0	0.8163	µg/L	0.01926	0.8163	ppb	0.01926	2.36%
Mo 202.031†	-16.7	-0.4900	µg/L	0.17743	-0.4900	ppb	0.17743	36.21%
Na 589.592 Radial†	76.4	10.390	µg/L	5.8858	10.390	ppb	5.8858	56.65%

Ni 231.604†	13.2	0.1515	µg/L	0.23291	0.1515	ppb	0.23291 153.71%
P 214.914†	13.3	2.8353	µg/L	1.40681	2.8353	ppb	1.40681 49.62%
Pb 220.353†	-15.6	-0.8691	µg/L	1.00176	-0.8691	ppb	1.00176 115.27%
S 181.975 Axial†	3.7	2.7472	µg/L	1.49007	2.7472	ppb	1.49007 54.24%
Sb 206.836†	-3.7	-0.4550	µg/L	0.89773	-0.4550	ppb	0.89773 197.32%
Se 196.026†	-3.6	-1.29	µg/L	1.198	-1.29	ppb	1.198 93.07%
SiO2†	590.3	57.698	µg/L	7.5893	57.698	ppb	7.5893 13.15%
Si 251.611†	1802.6	26.577	µg/L	1.7065	26.577	ppb	1.7065 6.42%
Sn 189.927†	10.7	0.6650	µg/L	0.66155	0.6650	ppb	0.66155 99.48%
Sr 421.552†	-130.9	-0.2724	µg/L	0.11494	-0.2724	ppb	0.11494 42.19%
Ti 334.940†	133.9	0.1286	µg/L	0.07001	0.1286	ppb	0.07001 54.44%
Tl 190.801†	3.3	0.4002	µg/L	1.13934	0.4002	ppb	1.13934 284.70%
U 409.014†	-129.0	-7.5729	µg/L	11.03204	-7.5729	ppb	11.03204 145.68%
V 292.402†	-112.2	-0.5599	µg/L	0.28971	-0.5599	ppb	0.28971 51.74%
Zn 213.857†	472.4	2.6489	µg/L	0.05231	2.6489	ppb	0.05231 1.97%

Sequence No.: 99
Sample ID: 1202068052|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 229
Date Collected: 3/31/2010 23:04:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068052|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	148414.0	148414.0	102	%			23:04:52
1	Al 396.153Radial†	503634.6	495267.8	91798	µg/L	91798	ppb	23:04:52
1	Ca 317.933Radial†	1800106.2	1769414.8	98563	µg/L	98563	ppb	23:04:50
1	Fe 238.204 Radial†	2927871.3	2878715.4	177430	µg/L	177430	ppb	23:04:50
1	K 766.490 Radial†	114687.8	111223.3	40677	µg/L	40677	ppb	23:04:52
1	Mg 279.077 IEC†	103803.4	101875.2	37818	µg/L	37818	ppb	23:04:52
1	Na 589.592 Radial†	77340.8	74755.4	10176	µg/L	10176	ppb	23:04:52
1	Sr 421.552†	1147388.6	1128318.5	2344.9	µg/L	2344.9	ppb	23:04:50
1	Sc 361.383	1743418.7	1743418.7	101.47	%			23:05:21
1	Y 371.029	1124610.0	1124610.0	109.54	%			23:05:21
1	Ag 328.068†	83181.3	77887.5	297.82	µg/L	297.82	ppb	23:05:21
1	As 188.979†	3454.2	3424.6	1100.8	µg/L	1100.8	ppb	23:05:23
1	B 249.677†	108347.6	103275.6	1519.8	µg/L	1519.8	ppb	23:05:21
1	Ba 233.527†	490604.6	483648.8	1947.6	µg/L	1947.6	ppb	23:05:21
1	Be 313.107†	2964617.6	2922828.9	795.74	µg/L	795.74	ppb	23:05:21
1	Cd 226.502†	101171.2	99827.0	605.55	µg/L	605.55	ppb	23:05:21
1	Co 228.616†	79339.7	78383.2	960.14	µg/L	960.14	ppb	23:05:21
1	Cr 267.716†	325745.4	320858.2	2518.1	µg/L	2518.1	ppb	23:05:21
1	Cu 324.752†	479050.9	469154.0	1850.4	µg/L	1850.4	ppb	23:05:21
1	Mn 257.610†	4521221.8	4455630.5	5511.0	µg/L	5511.0	ppb	23:05:21
1	Mo 202.031†	17816.1	17578.7	524.74	µg/L	524.74	ppb	23:05:23
1	Ni 231.604†	124513.1	122789.8	1413.8	µg/L	1413.8	ppb	23:05:21
1	P 214.914†	37168.2	36648.8	7721.7	µg/L	7721.7	ppb	23:05:23
1	Pb 220.353†	14367.8	14073.7	794.15	µg/L	794.15	ppb	23:05:23
1	S 181.975 Axial†	5776.9	5588.4	4154.2	µg/L	4154.2	ppb	23:05:23
1	Sb 206.836†	10781.3	10544.6	1224.1	µg/L	1224.1	ppb	23:05:23
1	Se 196.026†	8126.7	7993.9	2950	µg/L	2950	ppb	23:05:23
1	SiO2†	898016.6	883260.4	86302	µg/L	86302	ppb	23:05:21
1	Si 251.611†	2767379.4	2726540.4	40183	µg/L	40183	ppb	23:05:21
1	Sn 189.927†	16585.5	16346.9	1038.5	µg/L	1038.5	ppb	23:05:23
1	Ti 334.940†	6273407.8	6181773.5	5774.2	µg/L	5774.2	ppb	23:05:21
1	Tl 190.801†	9394.3	9375.1	1228.5	µg/L	1228.5	ppb	23:05:23
1	U 409.014†	-5740.1	-5387.3	-247.01	µg/L	-247.01	ppb	23:05:21
1	V 292.402†	258138.1	254003.0	1231.0	µg/L	1231.0	ppb	23:05:21
1	Zn 213.857†	1078924.5	1062764.3	5944.6	µg/L	5944.6	ppb	23:05:21
2	Sc RADIAL	149297.3	149297.3	102	%			23:04:56
2	Al 396.153Radial†	507802.5	496411.8	92011	µg/L	92011	ppb	23:04:56
2	Ca 317.933Radial†	1799873.7	1758715.6	97967	µg/L	97967	ppb	23:04:54
2	Fe 238.204 Radial†	2926411.7	2860256.2	176290	µg/L	176290	ppb	23:04:54
2	K 766.490 Radial†	115972.8	111812.2	40892	µg/L	40892	ppb	23:04:56
2	Mg 279.077 IEC†	104671.9	102120.3	37910	µg/L	37910	ppb	23:04:56
2	Na 589.592 Radial†	77915.5	74867.2	10191	µg/L	10191	ppb	23:04:56
2	Sr 421.552†	1146459.1	1120735.1	2329.2	µg/L	2329.2	ppb	23:04:54
2	Sc 361.383	1740268.9	1740268.9	101.28	%			23:05:27
2	Y 371.029	1121415.7	1121415.7	109.23	%			23:05:27
2	Ag 328.068†	83115.5	77970.9	298.16	µg/L	298.16	ppb	23:05:27
2	As 188.979†	3453.7	3430.3	1102.2	µg/L	1102.2	ppb	23:05:29
2	B 249.677†	108259.7	103382.0	1521.4	µg/L	1521.4	ppb	23:05:27
2	Ba 233.527†	489084.7	483023.2	1945.1	µg/L	1945.1	ppb	23:05:27
2	Be 313.107†	2957631.7	2921219.6	795.30	µg/L	795.30	ppb	23:05:27
2	Cd 226.502†	100932.5	99771.7	605.32	µg/L	605.32	ppb	23:05:27
2	Co 228.616†	79132.4	78320.0	959.42	µg/L	959.42	ppb	23:05:27
2	Cr 267.716†	324962.0	320665.8	2516.6	µg/L	2516.6	ppb	23:05:27
2	Cu 324.752†	478581.4	469545.0	1851.8	µg/L	1851.8	ppb	23:05:27
2	Mn 257.610†	4511709.9	4454303.8	5509.3	µg/L	5509.3	ppb	23:05:27
2	Mo 202.031†	17547.6	17345.3	517.84	µg/L	517.84	ppb	23:05:29
2	Ni 231.604†	124336.5	122837.5	1414.4	µg/L	1414.4	ppb	23:05:27
2	P 214.914†	36729.4	36282.0	7644.0	µg/L	7644.0	ppb	23:05:29
2	Pb 220.353†	14045.1	13780.8	777.82	µg/L	777.82	ppb	23:05:29

2	S 181.975 Axial†	5645.5	5468.9	4065.4 µg/L	4065.4 ppb	23:05:29
2	Sb 206.836†	10749.0	10532.0	1222.5 µg/L	1222.5 ppb	23:05:29
2	Se 196.026†	8013.7	7896.9	2920 µg/L	2920 ppb	23:05:29
2	SiO2†	896001.0	882872.3	86265 µg/L	86265 ppb	23:05:27
2	Si 251.611†	2761119.7	2725296.4	40165 µg/L	40165 ppb	23:05:27
2	Sn 189.927†	16288.2	16083.0	1022.1 µg/L	1022.1 ppb	23:05:29
2	Ti 334.940†	6256695.5	6176463.0	5769.2 µg/L	5769.2 ppb	23:05:27
2	Tl 190.801†	9410.5	9408.0	1232.5 µg/L	1232.5 ppb	23:05:29
2	U 409.014†	-5496.8	-5157.2	-233.38 µg/L	-233.38 ppb	23:05:27
2	V 292.402†	257481.8	253815.4	1230.1 µg/L	1230.1 ppb	23:05:27
2	Zn 213.857†	1076322.7	1062120.0	5941.1 µg/L	5941.1 ppb	23:05:27
3	Sc RADIAL	147974.2	147974.2	101 %		23:05:01
3	Al 396.153Radial†	503654.4	496759.2	92075 µg/L	92075 ppb	23:05:01
3	Ca 317.933Radial†	1779316.2	1754172.8	97714 µg/L	97714 ppb	23:04:59
3	Fe 238.204 Radial†	2893673.3	2853546.5	175880 µg/L	175880 ppb	23:04:59
3	K 766.490 Radial†	114847.9	111716.4	40857 µg/L	40857 ppb	23:05:01
3	Mg 279.077 IEC†	103739.8	102115.9	37909 µg/L	37909 ppb	23:05:01
3	Na 589.592 Radial†	77458.9	75097.9	10223 µg/L	10223 ppb	23:05:01
3	Sr 421.552†	1138030.5	1122442.9	2332.7 µg/L	2332.7 ppb	23:04:59
3	Sc 361.383	1744340.6	1744340.6	101.52 %		23:05:33
3	Y 371.029	1124577.6	1124577.6	109.53 %		23:05:33
3	Ag 328.068†	83164.8	77827.9	297.59 µg/L	297.59 ppb	23:05:33
3	As 188.979†	3537.8	3505.2	1124.7 µg/L	1124.7 ppb	23:05:35
3	B 249.677†	108369.4	103240.6	1519.3 µg/L	1519.3 ppb	23:05:33
3	Ba 233.527†	489898.3	482697.5	1943.8 µg/L	1943.8 ppb	23:05:33
3	Be 313.107†	2959338.3	2916084.4	793.90 µg/L	793.90 ppb	23:05:33
3	Cd 226.502†	101072.6	99677.1	604.78 µg/L	604.78 ppb	23:05:33
3	Co 228.616†	79140.0	78145.2	957.28 µg/L	957.28 ppb	23:05:33
3	Cr 267.716†	325115.7	320068.2	2511.9 µg/L	2511.9 ppb	23:05:33
3	Cu 324.752†	478575.8	468436.5	1847.4 µg/L	1847.4 ppb	23:05:33
3	Mn 257.610†	4514543.1	4446696.7	5499.9 µg/L	5499.9 ppb	23:05:33
3	Mo 202.031†	17749.5	17503.8	522.48 µg/L	522.48 ppb	23:05:35
3	Ni 231.604†	124614.1	122824.4	1414.2 µg/L	1414.2 ppb	23:05:33
3	P 214.914†	37414.0	36871.7	7770.6 µg/L	7770.6 ppb	23:05:35
3	Pb 220.353†	14441.8	14139.1	797.85 µg/L	797.85 ppb	23:05:35
3	S 181.975 Axial†	5825.6	5633.3	4187.5 µg/L	4187.5 ppb	23:05:35
3	Sb 206.836†	10901.3	10657.2	1237.6 µg/L	1237.6 ppb	23:05:35
3	Se 196.026†	8250.7	8111.8	2990 µg/L	2990 ppb	23:05:35
3	SiO2†	896411.1	881211.2	86102 µg/L	86102 ppb	23:05:33
3	Si 251.611†	2764278.5	2722044.5	40117 µg/L	40117 ppb	23:05:33
3	Sn 189.927†	16700.3	16451.3	1045.0 µg/L	1045.0 ppb	23:05:35
3	Ti 334.940†	6264730.7	6169958.6	5763.1 µg/L	5763.1 ppb	23:05:33
3	Tl 190.801†	9386.8	9362.9	1226.9 µg/L	1226.9 ppb	23:05:35
3	U 409.014†	-5726.5	-5370.8	-245.99 µg/L	-245.99 ppb	23:05:33
3	V 292.402†	257553.8	253292.9	1227.6 µg/L	1227.6 ppb	23:05:33
3	Zn 213.857†	1077107.1	1060412.1	5931.5 µg/L	5931.5 ppb	23:05:33

Mean Data: 1202068052|963993|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1742676.1	101.42	%	0.124				0.12%
Sc RADIAL	148561.8	102	%	0.5				0.45%
Y 371.029	1123534.5	109.43	%	0.179				0.16%
Ag 328.068†	77895.4	297.86	µg/L	0.284	297.86	ppb	0.284	0.10%
Al 396.153Radial†	496146.3	91961	µg/L	144.8	91961	ppb	144.8	0.16%
As 188.979†	3453.4	1109.3	µg/L	13.43	1109.3	ppb	13.43	1.21%
B 249.677†	103299.4	1520.1	µg/L	1.08	1520.1	ppb	1.08	0.07%
Ba 233.527†	483123.2	1945.5	µg/L	1.94	1945.5	ppb	1.94	0.10%
Be 313.107†	2920044.3	794.98	µg/L	0.960	794.98	ppb	0.960	0.12%
Ca 317.933Radial†	1760767.8	98082	µg/L	435.9	98082	ppb	435.9	0.44%
Cd 226.502†	99758.6	605.22	µg/L	0.397	605.22	ppb	0.397	0.07%
Co 228.616†	78282.8	958.95	µg/L	1.487	958.95	ppb	1.487	0.16%
Cr 267.716†	320530.7	2515.5	µg/L	3.25	2515.5	ppb	3.25	0.13%
Cu 324.752†	469045.2	1849.8	µg/L	2.24	1849.8	ppb	2.24	0.12%
Fe 238.204 Radial†	2864172.7	176530	µg/L	803.3	176530	ppb	803.3	0.46%
K 766.490 Radial†	111584.0	40809	µg/L	115.7	40809	ppb	115.7	0.28%
Mg 279.077 IEC†	102037.1	37879	µg/L	52.8	37879	ppb	52.8	0.14%
Mn 257.610†	4452210.3	5506.7	µg/L	5.96	5506.7	ppb	5.96	0.11%
Mo 202.031†	17475.9	521.69	µg/L	3.518	521.69	ppb	3.518	0.67%
Na 589.592 Radial†	74906.9	10197	µg/L	23.8	10197	ppb	23.8	0.23%

Ni 231.604†	122817.2	1414.2	µg/L	0.28	1414.2	ppb	0.28	0.02%
P 214.914†	36600.8	7712.1	µg/L	63.85	7712.1	ppb	63.85	0.83%
Pb 220.353†	13997.9	789.94	µg/L	10.659	789.94	ppb	10.659	1.35%
S 181.975 Axial†	5563.5	4135.7	µg/L	63.12	4135.7	ppb	63.12	1.53%
Sb 206.836†	10577.9	1228.0	µg/L	8.28	1228.0	ppb	8.28	0.67%
Se 196.026†	8000.9	2950	µg/L	38.8	2950	ppb	38.8	1.31%
SiO2†	882448.0	86223	µg/L	106.5	86223	ppb	106.5	0.12%
Si 251.611†	2724627.1	40155	µg/L	34.3	40155	ppb	34.3	0.09%
Sn 189.927†	16293.7	1035.2	µg/L	11.83	1035.2	ppb	11.83	1.14%
Sr 421.552†	1123832.2	2335.6	µg/L	8.27	2335.6	ppb	8.27	0.35%
Ti 334.940†	6176065.0	5768.8	µg/L	5.54	5768.8	ppb	5.54	0.10%
Tl 190.801†	9382.0	1229.3	µg/L	2.90	1229.3	ppb	2.90	0.24%
U 409.014†	-5305.1	-242.13	µg/L	7.590	-242.13	ppb	7.590	3.13%
Concentration less than lower limit for U 409.014.								
V 292.402†	253703.8	1229.6	µg/L	1.73	1229.6	ppb	1.73	0.14%
Zn 213.857†	1061765.5	5939.0	µg/L	6.75	5939.0	ppb	6.75	0.11%

Sequence No.: 101
Sample ID: 1202068048|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 231
Date Collected: 3/31/2010 23:07:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068048|963993|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144871.7	144871.7	99.3	%			23:08:17
1	Al 396.153Radial†	71715.7	72302.6	13404	µg/L	13404	ppb	23:08:17
1	Ca 317.933Radial†	78066.0	78075.5	4349.1	µg/L	4349.1	ppb	23:08:17
1	Fe 238.204 Radial†	1051049.5	1058577.4	65244	µg/L	65244	ppb	23:08:15
1	K 766.490 Radial†	18280.5	16869.2	6171.0	µg/L	6171.0	ppb	23:08:17
1	Mg 279.077 IEC†	15658.5	15582.2	5749.9	µg/L	5749.9	ppb	23:08:17
1	Na 589.592 Radial†	38718.4	37710.4	5146.2	µg/L	5146.2	ppb	23:08:17
1	Sr 421.552†	27881.1	28220.0	58.634	µg/L	58.634	ppb	23:08:17
1	Sc 361.383	1753933.3	1753933.3	102.08	%			23:08:29
1	Y 371.029	1390319.3	1390319.3	135.42	%			23:08:29
1	Ag 328.068†	3973.2	-199.1	-2.0113	µg/L	-2.0113	ppb	23:08:31
1	As 188.979†	12.5	32.6	25.541	µg/L	25.541	ppb	23:08:51
1	B 249.677†	3914.1	328.5	4.8137	µg/L	4.8137	ppb	23:08:31
1	Ba 233.527†	43095.8	42354.1	169.87	µg/L	169.87	ppb	23:08:31
1	Be 313.107†	17786.3	18488.9	4.9209	µg/L	4.9209	ppb	23:08:31
1	Cd 226.502†	943.8	1042.8	-0.3206	µg/L	-0.3206	ppb	23:08:51
1	Co 228.616†	562.4	741.3	5.9297	µg/L	5.9297	ppb	23:08:51
1	Cr 267.716†	14218.2	13750.1	109.48	µg/L	109.48	ppb	23:08:31
1	Cu 324.752†	4196.8	1139.1	13.781	µg/L	13.781	ppb	23:08:31
1	Mn 257.610†	2355378.8	2307178.4	2854.3	µg/L	2854.3	ppb	23:08:29
1	Mo 202.031†	264.5	279.2	10.905	µg/L	10.905	ppb	23:08:51
1	Ni 231.604†	4861.7	4839.2	55.720	µg/L	55.720	ppb	23:08:31
1	P 214.914†	3122.2	3076.6	616.56	µg/L	616.56	ppb	23:08:51
1	Pb 220.353†	811.1	708.2	40.570	µg/L	40.570	ppb	23:08:51
1	S 181.975 Axial†	178.9	70.2	52.202	µg/L	52.202	ppb	23:08:51
1	Sb 206.836†	88.0	5.4	-1.6871	µg/L	-1.6871	ppb	23:08:51
1	Se 196.026†	-52.8	-67.0	-1.95	µg/L	-1.95	ppb	23:08:51
1	SiO2†	526539.6	514042.2	50243	µg/L	50243	ppb	23:08:29
1	Si 251.611†	1619390.5	1585578.0	23376	µg/L	23376	ppb	23:08:29
1	Sn 189.927†	128.8	127.3	13.064	µg/L	13.064	ppb	23:08:51
1	Ti 334.940†	1663048.1	1628230.5	1521.0	µg/L	1521.0	ppb	23:08:29
1	Tl 190.801†	-349.1	-225.3	-4.7714	µg/L	-4.7714	ppb	23:08:51
1	U 409.014†	-6818.7	-6410.0	-368.63	µg/L	-368.63	ppb	23:08:29
1	V 292.402†	9270.1	8677.6	34.334	µg/L	34.334	ppb	23:08:31
1	Zn 213.857†	75812.1	73703.9	407.66	µg/L	407.66	ppb	23:08:31
2	Sc RADIAL	146110.7	146110.7	100	%			23:08:21
2	Al 396.153Radial†	72797.6	72770.6	13491	µg/L	13491	ppb	23:08:21
2	Ca 317.933Radial†	78657.7	77999.7	4344.9	µg/L	4344.9	ppb	23:08:21
2	Fe 238.204 Radial†	1036222.5	1034791.0	63778	µg/L	63778	ppb	23:08:19
2	K 766.490 Radial†	18376.7	16809.2	6149.0	µg/L	6149.0	ppb	23:08:21
2	Mg 279.077 IEC†	15748.0	15537.7	5734.6	µg/L	5734.6	ppb	23:08:21
2	Na 589.592 Radial†	39145.7	37806.4	5159.3	µg/L	5159.3	ppb	23:08:21
2	Sr 421.552†	28203.4	28303.8	58.808	µg/L	58.808	ppb	23:08:21
2	Sc 361.383	1738836.2	1738836.2	101.20	%			23:08:54
2	Y 371.029	1378996.2	1378996.2	134.31	%			23:08:54
2	Ag 328.068†	4189.4	48.3	-1.0643	µg/L	-1.0643	ppb	23:08:56
2	As 188.979†	13.7	33.9	25.647	µg/L	25.647	ppb	23:09:16
2	B 249.677†	3948.0	395.3	5.7966	µg/L	5.7966	ppb	23:08:56
2	Ba 233.527†	43941.5	43556.3	174.73	µg/L	174.73	ppb	23:08:56
2	Be 313.107†	18346.7	19193.8	5.1138	µg/L	5.1138	ppb	23:08:56
2	Cd 226.502†	926.1	1033.4	-0.2251	µg/L	-0.2251	ppb	23:09:16
2	Co 228.616†	587.8	771.1	6.3792	µg/L	6.3792	ppb	23:09:16
2	Cr 267.716†	14561.2	14210.0	113.03	µg/L	113.03	ppb	23:08:56
2	Cu 324.752†	4438.9	1414.0	14.639	µg/L	14.639	ppb	23:08:56
2	Mn 257.610†	2332722.1	2304824.1	2851.4	µg/L	2851.4	ppb	23:08:54
2	Mo 202.031†	274.2	291.0	11.196	µg/L	11.196	ppb	23:09:16
2	Ni 231.604†	4899.9	4918.3	56.631	µg/L	56.631	ppb	23:08:56
2	P 214.914†	3107.0	3088.2	620.04	µg/L	620.04	ppb	23:09:16
2	Pb 220.353†	811.8	715.8	41.045	µg/L	41.045	ppb	23:09:16

2	S 181.975 Axial†	183.0	75.8	56.353	µg/L	56.353 ppb	23:09:16
2	Sb 206.836†	77.5	-4.3	-2.8630	µg/L	-2.8630 ppb	23:09:16
2	Se 196.026†	-44.7	-59.5	0.272	µg/L	0.272 ppb	23:09:16
2	SiO2†	520627.8	512679.0	50110	µg/L	50110 ppb	23:08:54
2	Si 251.611†	1601651.7	1581823.2	23320	µg/L	23320 ppb	23:08:54
2	Sn 189.927†	129.6	129.2	13.184	µg/L	13.184 ppb	23:09:16
2	Ti 334.940†	1648664.3	1628162.4	1520.9	µg/L	1520.9 ppb	23:08:54
2	Tl 190.801†	-325.2	-204.7	-2.2365	µg/L	-2.2365 ppb	23:09:16
2	U 409.014†	-6702.7	-6353.3	-364.93	µg/L	-364.93 ppb	23:08:54
2	V 292.402†	9476.2	8960.1	35.888	µg/L	35.888 ppb	23:08:56
2	Zn 213.857†	77657.0	76171.8	421.67	µg/L	421.67 ppb	23:08:56
3	Sc RADIAL	144599.1	144599.1	99.1	%		23:08:25
3	Al 396.153Radial†	71895.4	72620.3	13463	µg/L	13463 ppb	23:08:25
3	Ca 317.933Radial†	77972.2	78129.2	4352.1	µg/L	4352.1 ppb	23:08:25
3	Fe 238.204 Radial†	1033075.0	1042434.0	64249	µg/L	64249 ppb	23:08:23
3	K 766.490 Radial†	18323.8	16947.6	6199.7	µg/L	6199.7 ppb	23:08:25
3	Mg 279.077 IEC†	15659.0	15612.4	5762.1	µg/L	5762.1 ppb	23:08:25
3	Na 589.592 Radial†	38703.7	37769.1	5154.2	µg/L	5154.2 ppb	23:08:25
3	Sr 421.552†	27964.6	28357.2	58.919	µg/L	58.919 ppb	23:08:25
3	Sc 361.383	1728163.4	1728163.4	100.58	%		23:09:18
3	Y 371.029	1371957.7	1371957.7	133.63	%		23:09:18
3	Ag 328.068†	3987.1	-127.2	-1.7271	µg/L	-1.7271 ppb	23:09:20
3	As 188.979†	-2.9	17.5	20.768	µg/L	20.768 ppb	23:09:40
3	B 249.677†	3919.6	391.2	5.7365	µg/L	5.7365 ppb	23:09:20
3	Ba 233.527†	43124.6	43012.3	172.53	µg/L	172.53 ppb	23:09:20
3	Be 313.107†	17831.4	18793.4	5.0035	µg/L	5.0035 ppb	23:09:20
3	Cd 226.502†	942.6	1055.3	-0.1375	µg/L	-0.1375 ppb	23:09:40
3	Co 228.616†	567.1	754.1	6.1427	µg/L	6.1427 ppb	23:09:40
3	Cr 267.716†	14254.9	13994.3	111.37	µg/L	111.37 ppb	23:09:20
3	Cu 324.752†	4340.2	1343.0	14.428	µg/L	14.428 ppb	23:09:20
3	Mn 257.610†	2312595.8	2299049.2	2844.2	µg/L	2844.2 ppb	23:09:18
3	Mo 202.031†	263.7	282.2	10.956	µg/L	10.956 ppb	23:09:40
3	Ni 231.604†	4850.5	4899.1	56.410	µg/L	56.410 ppb	23:09:20
3	P 214.914†	3115.9	3116.0	625.67	µg/L	625.67 ppb	23:09:40
3	Pb 220.353†	810.5	719.4	41.227	µg/L	41.227 ppb	23:09:40
3	S 181.975 Axial†	169.0	62.9	46.807	µg/L	46.807 ppb	23:09:40
3	Sb 206.836†	73.0	-8.2	-3.3174	µg/L	-3.3174 ppb	23:09:40
3	Se 196.026†	-43.4	-58.5	0.794	µg/L	0.794 ppb	23:09:40
3	SiO2†	515905.0	511160.6	49961	µg/L	49961 ppb	23:09:18
3	Si 251.611†	1587153.4	1577182.6	23252	µg/L	23252 ppb	23:09:18
3	Sn 189.927†	127.7	128.1	13.104	µg/L	13.104 ppb	23:09:40
3	Ti 334.940†	1634579.6	1624219.8	1517.2	µg/L	1517.2 ppb	23:09:18
3	Tl 190.801†	-348.6	-229.9	-5.3990	µg/L	-5.3990 ppb	23:09:40
3	U 409.014†	-6739.0	-6430.4	-369.62	µg/L	-369.62 ppb	23:09:18
3	V 292.402†	9315.1	8857.7	35.329	µg/L	35.329 ppb	23:09:20
3	Zn 213.857†	76039.2	75037.1	415.25	µg/L	415.25 ppb	23:09:20

Mean Data: 1202068048|963993|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1740311.0	101.29	%	0.754				0.74%
Sc RADIAL	145193.8	99.5	%	0.55				0.55%
Y 371.029	1380424.4	134.45	%	0.902				0.67%
Ag 328.068†	-92.7	-1.6009	µg/L	0.48598	-1.6009	ppb	0.48598	30.36%
Al 396.153Radial†	72564.5	13453	µg/L	44.3	13453	ppb	44.3	0.33%
As 188.979†	28.0	23.985	µg/L	2.7867	23.985	ppb	2.7867	11.62%
B 249.677†	371.7	5.4489	µg/L	0.55094	5.4489	ppb	0.55094	10.11%
Ba 233.527†	42974.2	172.38	µg/L	2.436	172.38	ppb	2.436	1.41%
Be 313.107†	18825.4	5.0127	µg/L	0.09681	5.0127	ppb	0.09681	1.93%
Ca 317.933Radial†	78068.1	4348.7	µg/L	3.62	4348.7	ppb	3.62	0.08%
Cd 226.502†	1043.8	-0.2277	µg/L	0.09157	-0.2277	ppb	0.09157	40.21%
Co 228.616†	755.5	6.1505	µg/L	0.22484	6.1505	ppb	0.22484	3.66%
Cr 267.716†	13984.8	111.29	µg/L	1.776	111.29	ppb	1.776	1.60%
Cu 324.752†	1298.7	14.283	µg/L	0.4468	14.283	ppb	0.4468	3.13%
Fe 238.204 Radial†	1045267.5	64424	µg/L	748.5	64424	ppb	748.5	1.16%
K 766.490 Radial†	16875.4	6173.2	µg/L	25.41	6173.2	ppb	25.41	0.41%
Mg 279.077 IEC†	15577.5	5748.9	µg/L	13.74	5748.9	ppb	13.74	0.24%
Mn 257.610†	2303683.9	2849.9	µg/L	5.17	2849.9	ppb	5.17	0.18%
Mo 202.031†	284.2	11.019	µg/L	0.1550	11.019	ppb	0.1550	1.41%
Na 589.592 Radial†	37761.9	5153.2	µg/L	6.62	5153.2	ppb	6.62	0.13%

Ni 231.604†	4885.6	56.254 µg/L	0.4749	56.254 ppb	0.4749	0.84%
P 214.914†	3093.6	620.76 µg/L	4.595	620.76 ppb	4.595	0.74%
Pb 220.353†	714.5	40.947 µg/L	0.3396	40.947 ppb	0.3396	0.83%
S 181.975 Axial†	69.6	51.787 µg/L	4.7865	51.787 ppb	4.7865	9.24%
Sb 206.836†	-2.4	-2.6225 µg/L	0.84132	-2.6225 ppb	0.84132	32.08%
Se 196.026†	-61.6	-0.294 µg/L	1.4567	-0.294 ppb	1.4567	494.91%
SiO2†	512627.2	50105 µg/L	140.9	50105 ppb	140.9	0.28%
Si 251.611†	1581527.9	23316 µg/L	62.0	23316 ppb	62.0	0.27%
Sn 189.927†	128.2	13.118 µg/L	0.0611	13.118 ppb	0.0611	0.47%
Sr 421.552†	28293.7	58.787 µg/L	0.1438	58.787 ppb	0.1438	0.24%
Ti 334.940†	1626870.9	1519.7 µg/L	2.15	1519.7 ppb	2.15	0.14%
Tl 190.801†	-220.0	-4.1357 µg/L	1.67436	-4.1357 ppb	1.67436	40.49%
U 409.014†	-6397.9	-367.73 µg/L	2.470	-367.73 ppb	2.470	0.67%
Concentration less than lower limit for U 409.014.						
V 292.402†	8831.8	35.184 µg/L	0.7872	35.184 ppb	0.7872	2.24%
Zn 213.857†	74970.9	414.86 µg/L	7.015	414.86 ppb	7.015	1.69%

Sequence No.: 102
Sample ID: 1202068050|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 232
Date Collected: 3/31/2010 23:09:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068050|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143924.9	143924.9	98.6	%			23:10:21
1	Al 396.153Radial†	104274.1	105789.8	19592	µg/L	19592	ppb	23:10:21
1	Ca 317.933Radial†	176398.6	178295.3	9931.7	µg/L	9931.7	ppb	23:10:21
1	Fe 238.204 Radial†	820726.5	832011.2	51280	µg/L	51280	ppb	23:10:19
1	K 766.490 Radial†	31071.8	29959.8	10960	µg/L	10960	ppb	23:10:21
1	Mg 279.077 IEC†	18846.9	18918.7	7016.1	µg/L	7016.1	ppb	23:10:21
1	Na 589.592 Radial†	77998.8	77794.5	10618	µg/L	10618	ppb	23:10:21
1	Sr 421.552†	236345.9	239773.4	498.40	µg/L	498.40	ppb	23:10:19
1	Sc 361.383	1727978.0	1727978.0	100.57	%			23:10:34
1	Y 371.029	1366916.6	1366916.6	133.14	%			23:10:34
1	Ag 328.068†	129381.8	124559.6	465.77	µg/L	465.77	ppb	23:10:34
1	As 188.979†	1572.5	1584.0	497.34	µg/L	497.34	ppb	23:10:36
1	B 249.677†	36007.7	32298.4	474.73	µg/L	474.73	ppb	23:10:34
1	Ba 233.527†	142579.1	141909.6	571.64	µg/L	571.64	ppb	23:10:34
1	Be 313.107†	1809998.3	1800839.4	490.35	µg/L	490.35	ppb	23:10:34
1	Cd 226.502†	76926.6	76610.3	473.37	µg/L	473.37	ppb	23:10:34
1	Co 228.616†	37739.0	37716.1	463.30	µg/L	463.30	ppb	23:10:36
1	Cr 267.716†	74375.1	73776.4	579.04	µg/L	579.04	ppb	23:10:34
1	Cu 324.752†	131456.6	127741.8	504.41	µg/L	504.41	ppb	23:10:34
1	Mn 257.610†	2118940.4	2106734.4	2606.2	µg/L	2606.2	ppb	23:10:34
1	Mo 202.031†	15790.2	15721.1	464.34	µg/L	464.34	ppb	23:10:36
1	Ni 231.604†	46257.8	46073.0	530.50	µg/L	530.50	ppb	23:10:36
1	P 214.914†	4490.0	4482.6	922.01	µg/L	922.01	ppb	23:10:36
1	Pb 220.353†	9002.5	8865.3	497.71	µg/L	497.71	ppb	23:10:36
1	S 181.975 Axial†	6519.0	6377.1	4739.4	µg/L	4739.4	ppb	23:10:36
1	Sb 206.836†	3875.1	3772.4	447.11	µg/L	447.11	ppb	23:10:36
1	Se 196.026†	1292.9	1270.4	477	µg/L	477	ppb	23:10:36
1	SiO2†	787277.2	781055.0	76322	µg/L	76322	ppb	23:10:34
1	Si 251.611†	2413524.1	2399055.0	35360	µg/L	35360	ppb	23:10:34
1	Sn 189.927†	7496.0	7454.8	470.56	µg/L	470.56	ppb	23:10:36
1	Ti 334.940†	1864886.5	1853400.3	1731.0	µg/L	1731.0	ppb	23:10:34
1	Tl 190.801†	3478.5	3575.6	464.67	µg/L	464.67	ppb	23:10:36
1	U 409.014†	797.4	1062.8	94.689	µg/L	94.689	ppb	23:10:34
1	V 292.402†	99097.6	98134.0	479.02	µg/L	479.02	ppb	23:10:34
1	Zn 213.857†	124961.1	123690.8	686.59	µg/L	686.59	ppb	23:10:34
2	Sc RADIAL	145559.1	145559.1	99.7	%			23:10:25
2	Al 396.153Radial†	104784.0	105114.0	19466	µg/L	19466	ppb	23:10:25
2	Ca 317.933Radial†	177700.5	177592.4	9892.6	µg/L	9892.6	ppb	23:10:25
2	Fe 238.204 Radial†	837380.7	839365.0	51733	µg/L	51733	ppb	23:10:23
2	K 766.490 Radial†	31314.6	29849.6	10920	µg/L	10920	ppb	23:10:25
2	Mg 279.077 IEC†	19041.2	18899.0	7008.6	µg/L	7008.6	ppb	23:10:25
2	Na 589.592 Radial†	78507.7	77416.8	10566	µg/L	10566	ppb	23:10:25
2	Sr 421.552†	240723.8	241472.1	501.93	µg/L	501.93	ppb	23:10:23
2	Sc 361.383	1720667.8	1720667.8	100.14	%			23:10:39
2	Y 371.029	1362488.5	1362488.5	132.71	%			23:10:39
2	Ag 328.068†	129030.9	124755.8	466.49	µg/L	466.49	ppb	23:10:39
2	As 188.979†	1650.9	1668.9	523.14	µg/L	523.14	ppb	23:10:41
2	B 249.677†	35609.3	32052.7	471.08	µg/L	471.08	ppb	23:10:39
2	Ba 233.527†	142301.8	142235.1	572.95	µg/L	572.95	ppb	23:10:39
2	Be 313.107†	1800589.7	1799090.3	489.88	µg/L	489.88	ppb	23:10:39
2	Cd 226.502†	76485.0	76494.3	472.61	µg/L	472.61	ppb	23:10:39
2	Co 228.616†	38265.0	38400.9	471.73	µg/L	471.73	ppb	23:10:41
2	Cr 267.716†	74154.8	73870.6	579.79	µg/L	579.79	ppb	23:10:39
2	Cu 324.752†	131102.2	127943.3	505.27	µg/L	505.27	ppb	23:10:39
2	Mn 257.610†	2109515.2	2106274.0	2605.7	µg/L	2605.7	ppb	23:10:39
2	Mo 202.031†	16010.3	16007.5	472.78	µg/L	472.78	ppb	23:10:41
2	Ni 231.604†	46752.3	46762.3	538.43	µg/L	538.43	ppb	23:10:41
2	P 214.914†	4522.2	4533.7	932.58	µg/L	932.58	ppb	23:10:41
2	Pb 220.353†	8945.7	8846.6	496.66	µg/L	496.66	ppb	23:10:41

2	S 181.975 Axial†	6627.3	6512.8	4840.3 µg/L	4840.3 ppb	23:10:41
2	Sb 206.836†	3920.5	3834.1	454.57 µg/L	454.57 ppb	23:10:41
2	Se 196.026†	1333.9	1316.7	494 µg/L	494 ppb	23:10:41
2	SiO2†	783960.1	781068.4	76323 µg/L	76323 ppb	23:10:39
2	Si 251.611†	2403101.4	2398842.8	35356 µg/L	35356 ppb	23:10:39
2	Sn 189.927†	7611.2	7601.4	479.71 µg/L	479.71 ppb	23:10:41
2	Ti 334.940†	1858233.1	1854634.5	1732.2 µg/L	1732.2 ppb	23:10:39
2	Tl 190.801†	3547.7	3659.3	474.93 µg/L	474.93 ppb	23:10:41
2	U 409.014†	806.8	1075.6	95.301 µg/L	95.301 ppb	23:10:39
2	V 292.402†	98589.1	98045.0	478.63 µg/L	478.63 ppb	23:10:39
2	Zn 213.857†	124519.9	123778.2	686.98 µg/L	686.98 ppb	23:10:39
3	Sc RADIAL	145267.3	145267.3	99.5 %		23:10:29
3	Al 396.153Radial†	104935.6	105477.3	19534 µg/L	19534 ppb	23:10:29
3	Ca 317.933Radial†	177070.9	177317.8	9877.3 µg/L	9877.3 ppb	23:10:29
3	Fe 238.204 Radial†	816085.1	819658.4	50519 µg/L	50519 ppb	23:10:27
3	K 766.490 Radial†	31302.4	29900.3	10938 µg/L	10938 ppb	23:10:29
3	Mg 279.077 IEC†	19036.1	18932.2	7022.0 µg/L	7022.0 ppb	23:10:29
3	Na 589.592 Radial†	78373.3	77439.9	10569 µg/L	10569 ppb	23:10:29
3	Sr 421.552†	236465.3	237678.9	494.04 µg/L	494.04 ppb	23:10:27
3	Sc 361.383	1732357.2	1732357.2	100.82 %		23:10:44
3	Y 371.029	1371017.2	1371017.2	133.54 %		23:10:44
3	Ag 328.068†	129741.1	124590.8	465.88 µg/L	465.88 ppb	23:10:44
3	As 188.979†	1632.8	1639.8	514.09 µg/L	514.09 ppb	23:10:46
3	B 249.677†	36009.5	32209.7	473.40 µg/L	473.40 ppb	23:10:44
3	Ba 233.527†	143136.6	142104.1	572.44 µg/L	572.44 ppb	23:10:44
3	Be 313.107†	1815123.7	1801373.3	490.50 µg/L	490.50 ppb	23:10:44
3	Cd 226.502†	77268.5	76756.0	474.37 µg/L	474.37 ppb	23:10:44
3	Co 228.616†	38275.6	38153.5	468.74 µg/L	468.74 ppb	23:10:46
3	Cr 267.716†	74848.0	74058.5	581.22 µg/L	581.22 ppb	23:10:44
3	Cu 324.752†	132184.2	128133.1	505.83 µg/L	505.83 ppb	23:10:44
3	Mn 257.610†	2126945.7	2109348.2	2609.5 µg/L	2609.5 ppb	23:10:44
3	Mo 202.031†	16015.1	15904.5	469.70 µg/L	469.70 ppb	23:10:46
3	Ni 231.604†	46777.0	46471.7	535.09 µg/L	535.09 ppb	23:10:46
3	P 214.914†	4511.2	4492.4	924.57 µg/L	924.57 ppb	23:10:46
3	Pb 220.353†	9024.1	8864.0	497.67 µg/L	497.67 ppb	23:10:46
3	S 181.975 Axial†	6665.3	6505.9	4835.1 µg/L	4835.1 ppb	23:10:46
3	Sb 206.836†	3892.6	3780.0	448.08 µg/L	448.08 ppb	23:10:46
3	Se 196.026†	1284.5	1258.7	473 µg/L	473 ppb	23:10:46
3	SiO2†	790180.6	781955.7	76410 µg/L	76410 ppb	23:10:44
3	Si 251.611†	2421702.0	2401099.4	35390 µg/L	35390 ppb	23:10:44
3	Sn 189.927†	7609.0	7548.0	476.38 µg/L	476.38 ppb	23:10:46
3	Ti 334.940†	1870471.0	1854251.6	1731.8 µg/L	1731.8 ppb	23:10:44
3	Tl 190.801†	3577.5	3665.0	475.64 µg/L	475.64 ppb	23:10:46
3	U 409.014†	820.7	1083.9	96.042 µg/L	96.042 ppb	23:10:44
3	V 292.402†	99095.6	97883.0	477.94 µg/L	477.94 ppb	23:10:44
3	Zn 213.857†	125522.2	123933.2	688.00 µg/L	688.00 ppb	23:10:44

Mean Data: 1202068050|963993|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1727001.0	100.51	%	0.344				0.34%
Sc RADIAL	144917.1	99.3	%	0.60				0.60%
Y 371.029	1366807.4	133.13	%	0.415				0.31%
Ag 328.068†	124635.4	466.05	µg/L	0.389	466.05	ppb	0.389	0.08%
Al 396.153Radial†	105460.4	19531	µg/L	62.9	19531	ppb	62.9	0.32%
As 188.979†	1630.9	511.52	µg/L	13.093	511.52	ppb	13.093	2.56%
B 249.677†	32187.0	473.07	µg/L	1.849	473.07	ppb	1.849	0.39%
Ba 233.527†	142082.9	572.34	µg/L	0.659	572.34	ppb	0.659	0.12%
Be 313.107†	1800434.3	490.24	µg/L	0.325	490.24	ppb	0.325	0.07%
Ca 317.933Radial†	177735.2	9900.5	µg/L	28.08	9900.5	ppb	28.08	0.28%
Cd 226.502†	76620.2	473.45	µg/L	0.883	473.45	ppb	0.883	0.19%
Co 228.616†	38090.2	467.92	µg/L	4.272	467.92	ppb	4.272	0.91%
Cr 267.716†	73901.8	580.02	µg/L	1.107	580.02	ppb	1.107	0.19%
Cu 324.752†	127939.4	505.17	µg/L	0.712	505.17	ppb	0.712	0.14%
Fe 238.204 Radial†	830344.8	51177	µg/L	613.8	51177	ppb	613.8	1.20%
K 766.490 Radial†	29903.2	10940	µg/L	20.2	10940	ppb	20.2	0.18%
Mg 279.077 IEC†	18916.6	7015.6	µg/L	6.70	7015.6	ppb	6.70	0.10%
Mn 257.610†	2107452.2	2607.1	µg/L	2.05	2607.1	ppb	2.05	0.08%
Mo 202.031†	15877.7	468.94	µg/L	4.270	468.94	ppb	4.270	0.91%
Na 589.592 Radial†	77550.4	10585	µg/L	28.9	10585	ppb	28.9	0.27%

Ni 231.604†	46435.6	534.67	µg/L	3.984	534.67	ppb	3.984	0.75%
P 214.914†	4502.9	926.39	µg/L	5.513	926.39	ppb	5.513	0.60%
Pb 220.353†	8858.6	497.35	µg/L	0.592	497.35	ppb	0.592	0.12%
S 181.975 Axial†	6465.3	4804.9	µg/L	56.77	4804.9	ppb	56.77	1.18%
Sb 206.836†	3795.5	449.92	µg/L	4.054	449.92	ppb	4.054	0.90%
Se 196.026†	1281.9	481	µg/L	11.3	481	ppb	11.3	2.34%
SiO2†	781359.7	76351	µg/L	50.4	76351	ppb	50.4	0.07%
Si 251.611†	2399665.7	35369	µg/L	18.4	35369	ppb	18.4	0.05%
Sn 189.927†	7534.7	475.55	µg/L	4.629	475.55	ppb	4.629	0.97%
Sr 421.552†	239641.5	498.12	µg/L	3.950	498.12	ppb	3.950	0.79%
Ti 334.940†	1854095.4	1731.7	µg/L	0.59	1731.7	ppb	0.59	0.03%
Tl 190.801†	3633.3	471.75	µg/L	6.138	471.75	ppb	6.138	1.30%
U 409.014†	1074.1	95.344	µg/L	0.6774	95.344	ppb	0.6774	0.71%
V 292.402†	98020.6	478.53	µg/L	0.546	478.53	ppb	0.546	0.11%
Zn 213.857†	123800.7	687.19	µg/L	0.728	687.19	ppb	0.728	0.11%

Sequence No.: 103
Sample ID: 1202068051|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 233
Date Collected: 3/31/2010 23:10:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068051|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143682.3	143682.3	98.5	%			23:11:28
1	Al 396.153Radial†	119739.0	121675.2	22536	µg/L	22536	ppb	23:11:28
1	Ca 317.933Radial†	195439.9	197936.4	11026	µg/L	11026	ppb	23:11:28
1	Fe 238.204 Radial†	948791.1	963484.1	59383	µg/L	59383	ppb	23:11:25
1	K 766.490 Radial†	33328.7	32305.3	11818	µg/L	11818	ppb	23:11:28
1	Mg 279.077 IEC†	21415.5	21559.7	7993.6	µg/L	7993.6	ppb	23:11:28
1	Na 589.592 Radial†	81861.6	81851.3	11171	µg/L	11171	ppb	23:11:28
1	Sr 421.552†	243454.0	247397.4	514.24	µg/L	514.24	ppb	23:11:25
1	Sc 361.383	1732850.4	1732850.4	100.85	%			23:11:54
1	Y 371.029	1413744.2	1413744.2	137.70	%			23:11:54
1	Ag 328.068†	133152.1	127936.3	478.27	µg/L	478.27	ppb	23:11:54
1	As 188.979†	1656.1	1662.4	523.06	µg/L	523.06	ppb	23:11:56
1	B 249.677†	37092.9	33273.8	489.05	µg/L	489.05	ppb	23:11:54
1	Ba 233.527†	155202.9	154028.1	620.39	µg/L	620.39	ppb	23:11:54
1	Be 313.107†	1863782.2	1849108.5	503.49	µg/L	503.49	ppb	23:11:54
1	Cd 226.502†	79044.8	78495.5	484.31	µg/L	484.31	ppb	23:11:54
1	Co 228.616†	39433.3	39290.7	482.35	µg/L	482.35	ppb	23:11:56
1	Cr 267.716†	76504.6	75680.0	594.14	µg/L	594.14	ppb	23:11:54
1	Cu 324.752†	135721.9	131603.6	520.62	µg/L	520.62	ppb	23:11:54
1	Mn 257.610†	2445789.5	2424899.3	2999.9	µg/L	2999.9	ppb	23:11:54
1	Mo 202.031†	16403.6	16285.2	481.26	µg/L	481.26	ppb	23:11:56
1	Ni 231.604†	48265.0	47934.0	551.92	µg/L	551.92	ppb	23:11:56
1	P 214.914†	4915.1	4891.6	1004.5	µg/L	1004.5	ppb	23:11:56
1	Pb 220.353†	9349.0	9183.6	515.74	µg/L	515.74	ppb	23:11:56
1	S 181.975 Axial†	6822.1	6659.4	4949.2	µg/L	4949.2	ppb	23:11:56
1	Sb 206.836†	3916.7	3802.8	450.68	µg/L	450.68	ppb	23:11:56
1	Se 196.026†	1290.9	1264.8	478	µg/L	478	ppb	23:11:56
1	SiO2†	806621.2	798034.4	77981	µg/L	77981	ppb	23:11:54
1	Si 251.611†	2472022.8	2450311.7	36115	µg/L	36115	ppb	23:11:54
1	Sn 189.927†	7861.4	7796.2	492.60	µg/L	492.60	ppb	23:11:56
1	Ti 334.940†	2109473.5	2090707.9	1952.7	µg/L	1952.7	ppb	23:11:54
1	Tl 190.801†	3615.9	3702.0	483.48	µg/L	483.48	ppb	23:11:56
1	U 409.014†	437.5	703.7	75.411	µg/L	75.411	ppb	23:11:54
1	V 292.402†	102892.0	101619.4	495.18	µg/L	495.18	ppb	23:11:54
1	Zn 213.857†	134531.2	132830.7	737.06	µg/L	737.06	ppb	23:11:54
2	Sc RADIAL	143519.5	143519.5	98.3	%			23:11:32
2	Al 396.153Radial†	118981.0	121042.4	22419	µg/L	22419	ppb	23:11:32
2	Ca 317.933Radial†	194652.4	197360.9	10994	µg/L	10994	ppb	23:11:32
2	Fe 238.204 Radial†	947963.0	963735.3	59399	µg/L	59399	ppb	23:11:30
2	K 766.490 Radial†	33456.4	32473.5	11880	µg/L	11880	ppb	23:11:32
2	Mg 279.077 IEC†	21337.0	21504.6	7973.2	µg/L	7973.2	ppb	23:11:32
2	Na 589.592 Radial†	81726.8	81808.5	11165	µg/L	11165	ppb	23:11:32
2	Sr 421.552†	244053.2	248287.2	516.09	µg/L	516.09	ppb	23:11:30
2	Sc 361.383	1716147.1	1716147.1	99.879	%			23:11:59
2	Y 371.029	1399427.0	1399427.0	136.30	%			23:11:59
2	Ag 328.068†	131040.4	127107.1	475.19	µg/L	475.19	ppb	23:11:59
2	As 188.979†	1652.6	1675.0	526.87	µg/L	526.87	ppb	23:12:02
2	B 249.677†	36369.3	32907.2	483.64	µg/L	483.64	ppb	23:11:59
2	Ba 233.527†	153305.4	153626.2	618.77	µg/L	618.77	ppb	23:11:59
2	Be 313.107†	1840104.6	1843389.4	501.93	µg/L	501.93	ppb	23:11:59
2	Cd 226.502†	77839.5	78051.6	481.53	µg/L	481.53	ppb	23:11:59
2	Co 228.616†	39105.2	39342.7	482.99	µg/L	482.99	ppb	23:12:02
2	Cr 267.716†	75731.2	75644.0	593.87	µg/L	593.87	ppb	23:11:59
2	Cu 324.752†	134112.6	131302.2	519.45	µg/L	519.45	ppb	23:11:59
2	Mn 257.610†	2415268.4	2417945.2	2991.2	µg/L	2991.2	ppb	23:11:59
2	Mo 202.031†	16385.3	16425.1	485.37	µg/L	485.37	ppb	23:12:02
2	Ni 231.604†	48062.0	48196.5	554.95	µg/L	554.95	ppb	23:12:02
2	P 214.914†	4998.8	5022.8	1032.5	µg/L	1032.5	ppb	23:12:02
2	Pb 220.353†	9238.3	9163.1	514.60	µg/L	514.60	ppb	23:12:02

2	S 181.975 Axial†	6806.6	6709.8	4986.6 µg/L	4986.6 ppb	23:12:02
2	Sb 206.836†	3980.7	3904.7	462.85 µg/L	462.85 ppb	23:12:02
2	Se 196.026†	1363.6	1350.0	509 µg/L	509 ppb	23:12:02
2	SiO2†	795594.6	794779.1	77662 µg/L	77662 ppb	23:11:59
2	Si 251.611†	2438077.4	2440182.5	35966 µg/L	35966 ppb	23:11:59
2	Sn 189.927†	7819.3	7829.9	494.68 µg/L	494.68 ppb	23:12:02
2	Ti 334.940†	2085824.2	2087388.3	1949.6 µg/L	1949.6 ppb	23:11:59
2	Tl 190.801†	3601.6	3722.6	485.95 µg/L	485.95 ppb	23:12:02
2	U 409.014†	358.7	629.0	70.959 µg/L	70.959 ppb	23:11:59
2	V 292.402†	101821.7	101540.8	494.84 µg/L	494.84 ppb	23:11:59
2	Zn 213.857†	132857.3	132453.2	734.92 µg/L	734.92 ppb	23:11:59
3	Sc RADIAL	144657.4	144657.4	99.1 %		23:11:36
3	Al 396.153Radial†	119908.9	121026.8	22416 µg/L	22416 ppb	23:11:36
3	Ca 317.933Radial†	196766.5	197936.6	11026 µg/L	11026 ppb	23:11:36
3	Fe 238.204 Radial†	935156.7	943234.3	58135 µg/L	58135 ppb	23:11:34
3	K 766.490 Radial†	33655.8	32407.1	11855 µg/L	11855 ppb	23:11:36
3	Mg 279.077 IEC†	21554.4	21553.3	7992.1 µg/L	7992.1 ppb	23:11:36
3	Na 589.592 Radial†	82535.6	81970.8	11188 µg/L	11188 ppb	23:11:36
3	Sr 421.552†	241567.9	243828.0	506.82 µg/L	506.82 ppb	23:11:34
3	Sc 361.383	1750542.5	1750542.5	101.88 %		23:12:04
3	Y 371.029	1428692.7	1428692.7	139.16 %		23:12:04
3	Ag 328.068†	134254.3	127683.9	477.32 µg/L	477.32 ppb	23:12:04
3	As 188.979†	1608.7	1599.4	503.69 µg/L	503.69 ppb	23:12:07
3	B 249.677†	37322.6	33127.5	486.93 µg/L	486.93 ppb	23:12:04
3	Ba 233.527†	156560.8	153805.7	619.51 µg/L	619.51 ppb	23:12:04
3	Be 313.107†	1882380.6	1848685.9	503.37 µg/L	503.37 ppb	23:12:04
3	Cd 226.502†	79930.7	78572.9	484.92 µg/L	484.92 ppb	23:12:04
3	Co 228.616†	38902.0	38373.9	471.11 µg/L	471.11 ppb	23:12:07
3	Cr 267.716†	77368.4	75761.2	594.75 µg/L	594.75 ppb	23:12:04
3	Cu 324.752†	137074.0	131570.7	520.29 µg/L	520.29 ppb	23:12:04
3	Mn 257.610†	2469146.8	2423315.3	2997.9 µg/L	2997.9 ppb	23:12:04
3	Mo 202.031†	16275.6	15995.2	472.69 µg/L	472.69 ppb	23:12:07
3	Ni 231.604†	47809.7	47003.4	541.21 µg/L	541.21 ppb	23:12:07
3	P 214.914†	4849.2	4777.6	980.87 µg/L	980.87 ppb	23:12:07
3	Pb 220.353†	9259.2	9001.9	505.62 µg/L	505.62 ppb	23:12:07
3	S 181.975 Axial†	6751.6	6521.9	4847.0 µg/L	4847.0 ppb	23:12:07
3	Sb 206.836†	3939.7	3786.1	448.56 µg/L	448.56 ppb	23:12:07
3	Se 196.026†	1269.3	1230.6	465 µg/L	465 ppb	23:12:07
3	SiO2†	814280.1	797468.5	77926 µg/L	77926 ppb	23:12:04
3	Si 251.611†	2495080.6	2448170.8	36084 µg/L	36084 ppb	23:12:04
3	Sn 189.927†	7706.4	7565.2	478.20 µg/L	478.20 ppb	23:12:07
3	Ti 334.940†	2132610.9	2092278.4	1954.2 µg/L	1954.2 ppb	23:12:04
3	Tl 190.801†	3583.2	3633.7	475.15 µg/L	475.15 ppb	23:12:07
3	U 409.014†	170.5	437.2	60.109 µg/L	60.109 ppb	23:12:04
3	V 292.402†	103978.3	101654.5	495.39 µg/L	495.39 ppb	23:12:04
3	Zn 213.857†	136187.0	133107.8	738.82 µg/L	738.82 ppb	23:12:04

Mean Data: 1202068051|963993|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733180.0	100.87	%	1.001				0.99%
Sc RADIAL	143953.0	98.6	%	0.42				0.43%
Y 371.029	1413954.6	137.72	%	1.425				1.03%
Ag 328.068†	127575.8	476.93	µg/L	1.576	476.93	ppb	1.576	0.33%
Al 396.153Radial†	121248.1	22457	µg/L	68.5	22457	ppb	68.5	0.31%
As 188.979†	1645.6	517.87	µg/L	12.431	517.87	ppb	12.431	2.40%
B 249.677†	33102.8	486.54	µg/L	2.725	486.54	ppb	2.725	0.56%
Ba 233.527†	153820.0	619.56	µg/L	0.810	619.56	ppb	0.810	0.13%
Be 313.107†	1847061.3	502.93	µg/L	0.867	502.93	ppb	0.867	0.17%
Ca 317.933Radial†	197744.6	11015	µg/L	18.5	11015	ppb	18.5	0.17%
Cd 226.502†	78373.3	483.59	µg/L	1.803	483.59	ppb	1.803	0.37%
Co 228.616†	39002.4	478.82	µg/L	6.685	478.82	ppb	6.685	1.40%
Cr 267.716†	75695.1	594.26	µg/L	0.451	594.26	ppb	0.451	0.08%
Cu 324.752†	131492.2	520.12	µg/L	0.605	520.12	ppb	0.605	0.12%
Fe 238.204 Radial†	956817.9	58972	µg/L	725.1	58972	ppb	725.1	1.23%
K 766.490 Radial†	32395.3	11851	µg/L	31.0	11851	ppb	31.0	0.26%
Mg 279.077 IEC†	21539.2	7986.3	µg/L	11.39	7986.3	ppb	11.39	0.14%
Mn 257.610†	2422053.2	2996.3	µg/L	4.51	2996.3	ppb	4.51	0.15%
Mo 202.031†	16235.2	479.78	µg/L	6.472	479.78	ppb	6.472	1.35%
Na 589.592 Radial†	81876.9	11175	µg/L	11.5	11175	ppb	11.5	0.10%

Ni 231.604†	47711.3	549.36	µg/L	7.219	549.36	ppb	7.219	1.31%
P 214.914†	4897.3	1005.9	µg/L	25.83	1005.9	ppb	25.83	2.57%
Pb 220.353†	9116.2	511.99	µg/L	5.542	511.99	ppb	5.542	1.08%
S 181.975 Axial†	6630.4	4927.6	µg/L	72.28	4927.6	ppb	72.28	1.47%
Sb 206.836†	3831.2	454.03	µg/L	7.715	454.03	ppb	7.715	1.70%
Se 196.026†	1281.8	484	µg/L	22.4	484	ppb	22.4	4.63%
SiO2†	796760.7	77856	µg/L	170.2	77856	ppb	170.2	0.22%
Si 251.611†	2446221.7	36055	µg/L	78.8	36055	ppb	78.8	0.22%
Sn 189.927†	7730.4	488.49	µg/L	8.973	488.49	ppb	8.973	1.84%
Sr 421.552†	246504.2	512.38	µg/L	4.906	512.38	ppb	4.906	0.96%
Ti 334.940†	2090124.9	1952.2	µg/L	2.33	1952.2	ppb	2.33	0.12%
Tl 190.801†	3686.1	481.53	µg/L	5.655	481.53	ppb	5.655	1.17%
U 409.014†	590.0	68.826	µg/L	7.8711	68.826	ppb	7.8711	11.44%
V 292.402†	101604.9	495.14	µg/L	0.278	495.14	ppb	0.278	0.06%
Zn 213.857†	132797.2	736.93	µg/L	1.955	736.93	ppb	1.955	0.27%

Sequence No.: 104
Sample ID: 1202068049|963993|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 234
Date Collected: 3/31/2010 23:12:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068049|963993|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	148181.1	148181.1	102	%			23:12:45
1	Al 396.153Radial†	11054.6	10949.9	2030.0	µg/L	2030.0	ppb	23:12:47
1	Ca 317.933Radial†	13043.5	12284.8	684.31	µg/L	684.31	ppb	23:12:47
1	Fe 238.204 Radial†	167221.6	164532.9	10141	µg/L	10141	ppb	23:12:45
1	K 766.490 Radial†	3545.0	1946.4	711.87	µg/L	711.87	ppb	23:12:45
1	Mg 279.077 IEC†	1148.0	939.8	341.51	µg/L	341.51	ppb	23:12:47
1	Na 589.592 Radial†	6702.9	5310.3	724.82	µg/L	724.82	ppb	23:12:45
1	Sr 421.552†	2655.2	2750.1	5.7120	µg/L	5.7120	ppb	23:12:47
1	Sc 361.383	1776273.2	1776273.2	103.38	%			23:12:59
1	Y 371.029	1116126.2	1116126.2	108.71	%			23:12:59
1	Ag 328.068†	4384.0	149.4	0.3471	µg/L	0.3471	ppb	23:13:01
1	As 188.979†	-4.6	15.9	7.3232	µg/L	7.3232	ppb	23:13:21
1	B 249.677†	3665.6	39.9	0.5812	µg/L	0.5812	ppb	23:13:01
1	Ba 233.527†	5409.2	5368.3	21.505	µg/L	21.505	ppb	23:13:21
1	Be 313.107†	2013.3	3012.2	0.8037	µg/L	0.8037	ppb	23:13:01
1	Cd 226.502†	55.0	171.4	0.0105	µg/L	0.0105	ppb	23:13:21
1	Co 228.616†	-36.8	154.7	1.4059	µg/L	1.4059	ppb	23:13:21
1	Cr 267.716†	3494.9	3202.2	25.377	µg/L	25.377	ppb	23:13:01
1	Cu 324.752†	3122.5	48.2	1.6297	µg/L	1.6297	ppb	23:13:01
1	Mn 257.610†	315778.0	305219.9	377.61	µg/L	377.61	ppb	23:13:01
1	Mo 202.031†	38.0	56.9	2.0799	µg/L	2.0799	ppb	23:13:21
1	Ni 231.604†	1112.2	1152.3	13.268	µg/L	13.268	ppb	23:13:21
1	P 214.914†	506.5	507.9	102.19	µg/L	102.19	ppb	23:13:21
1	Pb 220.353†	177.3	85.1	4.9043	µg/L	4.9043	ppb	23:13:21
1	S 181.975 Axial†	132.3	23.0	17.065	µg/L	17.065	ppb	23:13:21
1	Sb 206.836†	83.8	0.2	-0.4586	µg/L	-0.4586	ppb	23:13:21
1	Se 196.026†	18.2	2.3	4.30	µg/L	4.30	ppb	23:13:21
1	SiO2†	92658.0	87854.2	8586.9	µg/L	8586.9	ppb	23:13:01
1	Si 251.611†	279955.9	269969.3	3980.1	µg/L	3980.1	ppb	23:13:01
1	Sn 189.927†	49.3	48.8	3.8334	µg/L	3.8334	ppb	23:13:21
1	Ti 334.940†	259940.1	250491.7	234.03	µg/L	234.03	ppb	23:13:01
1	Tl 190.801†	-145.1	-23.7	0.4348	µg/L	0.4348	ppb	23:13:21
1	U 409.014†	-1244.3	-933.7	-54.228	µg/L	-54.228	ppb	23:13:01
1	V 292.402†	1255.1	810.2	2.7542	µg/L	2.7542	ppb	23:13:01
1	Zn 213.857†	8549.2	7705.4	42.264	µg/L	42.264	ppb	23:13:21
2	Sc RADIAL	146233.8	146233.8	100	%			23:12:49
2	Al 396.153Radial†	10925.2	10965.7	2033.0	µg/L	2033.0	ppb	23:12:51
2	Ca 317.933Radial†	12925.0	12337.6	687.25	µg/L	687.25	ppb	23:12:51
2	Fe 238.204 Radial†	165649.2	165156.7	10179	µg/L	10179	ppb	23:12:49
2	K 766.490 Radial†	3475.3	1923.3	703.43	µg/L	703.43	ppb	23:12:49
2	Mg 279.077 IEC†	1124.8	931.8	338.47	µg/L	338.47	ppb	23:12:51
2	Na 589.592 Radial†	6765.3	5460.4	745.34	µg/L	745.34	ppb	23:12:49
2	Sr 421.552†	2616.9	2746.8	5.7050	µg/L	5.7050	ppb	23:12:51
2	Sc 361.383	1769226.5	1769226.5	102.97	%			23:13:23
2	Y 371.029	1112018.5	1112018.5	108.31	%			23:13:23
2	Ag 328.068†	3850.9	-351.5	-1.5041	µg/L	-1.5041	ppb	23:13:25
2	As 188.979†	-6.3	14.3	6.8588	µg/L	6.8588	ppb	23:13:45
2	B 249.677†	3768.2	153.7	2.2608	µg/L	2.2608	ppb	23:13:25
2	Ba 233.527†	5381.2	5361.9	21.480	µg/L	21.480	ppb	23:13:45
2	Be 313.107†	2031.0	3037.1	0.8081	µg/L	0.8081	ppb	23:13:25
2	Cd 226.502†	88.4	204.0	0.2102	µg/L	0.2102	ppb	23:13:45
2	Co 228.616†	-59.1	132.9	1.1352	µg/L	1.1352	ppb	23:13:45
2	Cr 267.716†	3730.6	3444.5	27.281	µg/L	27.281	ppb	23:13:25
2	Cu 324.752†	3137.1	74.4	1.7307	µg/L	1.7307	ppb	23:13:25
2	Mn 257.610†	321555.2	312047.1	386.06	µg/L	386.06	ppb	23:13:25
2	Mo 202.031†	23.3	42.7	1.6643	µg/L	1.6643	ppb	23:13:45
2	Ni 231.604†	1098.7	1143.5	13.167	µg/L	13.167	ppb	23:13:45
2	P 214.914†	485.7	489.6	98.250	µg/L	98.250	ppb	23:13:45
2	Pb 220.353†	173.4	82.0	4.7418	µg/L	4.7418	ppb	23:13:45

2	S 181.975 Axial†	118.6	10.1	7.5112 µg/L	7.5112 ppb	23:13:45
2	Sb 206.836†	74.1	-8.9	-1.5704 µg/L	-1.5704 ppb	23:13:45
2	Se 196.026†	8.7	-6.9	0.994 µg/L	0.994 ppb	23:13:45
2	SiO2†	94594.8	90092.1	8805.7 µg/L	8805.7 ppb	23:13:25
2	Si 251.611†	286019.8	276936.9	4082.8 µg/L	4082.8 ppb	23:13:25
2	Sn 189.927†	26.5	26.9	2.4822 µg/L	2.4822 ppb	23:13:45
2	Ti 334.940†	264990.1	256397.6	239.55 µg/L	239.55 ppb	23:13:25
2	Tl 190.801†	-152.9	-31.8	-0.4765 µg/L	-0.4765 ppb	23:13:45
2	U 409.014†	-1374.6	-1065.0	-61.786 µg/L	-61.786 ppb	23:13:25
2	V 292.402†	1524.9	1077.1	4.0455 µg/L	4.0455 ppb	23:13:25
2	Zn 213.857†	8554.2	7743.2	42.476 µg/L	42.476 ppb	23:13:45
3	Sc RADIAL	146643.3	146643.3	100 %		23:12:53
3	Al 396.153Radial†	10974.1	10983.9	2036.3 µg/L	2036.3 ppb	23:12:55
3	Ca 317.933Radial†	13065.9	12441.8	693.06 µg/L	693.06 ppb	23:12:55
3	Fe 238.204 Radial†	164846.4	163896.2	10102 µg/L	10102 ppb	23:12:53
3	K 766.490 Radial†	3572.7	2010.5	735.35 µg/L	735.35 ppb	23:12:53
3	Mg 279.077 IEC†	1128.2	932.0	338.65 µg/L	338.65 ppb	23:12:55
3	Na 589.592 Radial†	6730.3	5406.8	737.98 µg/L	737.98 ppb	23:12:53
3	Sr 421.552†	2719.5	2841.6	5.9021 µg/L	5.9021 ppb	23:12:55
3	Sc 361.383	1773246.2	1773246.2	103.20 %		23:13:47
3	Y 371.029	1114059.7	1114059.7	108.51 %		23:13:47
3	Ag 328.068†	4132.9	-86.8	-0.5319 µg/L	-0.5319 ppb	23:13:49
3	As 188.979†	-8.7	11.9	6.1240 µg/L	6.1240 ppb	23:14:10
3	B 249.677†	3601.4	-16.3	-0.2473 µg/L	-0.2473 ppb	23:13:49
3	Ba 233.527†	5373.2	5342.3	21.402 µg/L	21.402 ppb	23:14:10
3	Be 313.107†	2076.0	3076.3	0.8194 µg/L	0.8194 ppb	23:13:49
3	Cd 226.502†	55.4	171.9	0.0180 µg/L	0.0180 ppb	23:14:10
3	Co 228.616†	-25.3	165.8	1.5443 µg/L	1.5443 ppb	23:14:10
3	Cr 267.716†	3685.8	3392.8	26.871 µg/L	26.871 ppb	23:13:49
3	Cu 324.752†	3084.9	16.9	1.4977 µg/L	1.4977 ppb	23:13:49
3	Mn 257.610†	323350.1	313078.4	387.33 µg/L	387.33 ppb	23:13:49
3	Mo 202.031†	44.6	63.3	2.2663 µg/L	2.2663 ppb	23:14:10
3	Ni 231.604†	1139.3	1180.4	13.592 µg/L	13.592 ppb	23:14:10
3	P 214.914†	501.8	504.2	101.42 µg/L	101.42 ppb	23:14:10
3	Pb 220.353†	159.5	68.1	3.9720 µg/L	3.9720 ppb	23:14:10
3	S 181.975 Axial†	113.9	5.3	3.9867 µg/L	3.9867 ppb	23:14:10
3	Sb 206.836†	79.4	-3.9	-0.9676 µg/L	-0.9676 ppb	23:14:10
3	Se 196.026†	-7.0	-22.0	-4.52 µg/L	-4.52 ppb	23:14:10
3	SiO2†	94869.1	90149.7	8811.3 µg/L	8811.3 ppb	23:13:49
3	Si 251.611†	287530.3	277770.9	4095.1 µg/L	4095.1 ppb	23:13:49
3	Sn 189.927†	33.4	33.5	2.8959 µg/L	2.8959 ppb	23:14:10
3	Ti 334.940†	266040.1	256831.6	239.96 µg/L	239.96 ppb	23:13:49
3	Tl 190.801†	-141.0	-20.0	0.9756 µg/L	0.9756 ppb	23:14:10
3	U 409.014†	-1344.0	-1032.4	-59.903 µg/L	-59.903 ppb	23:13:49
3	V 292.402†	1341.9	896.5	3.1780 µg/L	3.1780 ppb	23:13:49
3	Zn 213.857†	8514.9	7686.3	42.162 µg/L	42.162 ppb	23:14:10

Mean Data: 1202068049|963993|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1772915.3	103.18	%	0.206				0.20%
Sc RADIAL	147019.4	101	%	0.7				0.70%
Y 371.029	1114068.1	108.51	%	0.200				0.18%
Ag 328.068†	-96.3	-0.5630	µg/L	0.92599	-0.5630	ppb	0.92599	164.48%
Al 396.153Radial†	10966.5	2033.1	µg/L	3.16	2033.1	ppb	3.16	0.16%
As 188.979†	14.0	6.7687	µg/L	0.60466	6.7687	ppb	0.60466	8.93%
B 249.677†	59.1	0.8649	µg/L	1.27790	0.8649	ppb	1.27790	147.75%
Ba 233.527†	5357.5	21.462	µg/L	0.0541	21.462	ppb	0.0541	0.25%
Be 313.107†	3041.9	0.8104	µg/L	0.00809	0.8104	ppb	0.00809	1.00%
Ca 317.933Radial†	12354.7	688.21	µg/L	4.451	688.21	ppb	4.451	0.65%
Cd 226.502†	182.4	0.0796	µg/L	0.11321	0.0796	ppb	0.11321	142.30%
Co 228.616†	151.1	1.3618	µg/L	0.20808	1.3618	ppb	0.20808	15.28%
Cr 267.716†	3346.5	26.510	µg/L	1.0022	26.510	ppb	1.0022	3.78%
Cu 324.752†	46.5	1.6193	µg/L	0.11685	1.6193	ppb	0.11685	7.22%
Fe 238.204 Radial†	164528.6	10141	µg/L	38.8	10141	ppb	38.8	0.38%
K 766.490 Radial†	1960.1	716.88	µg/L	16.543	716.88	ppb	16.543	2.31%
Mg 279.077 IEC†	934.6	339.54	µg/L	1.707	339.54	ppb	1.707	0.50%
Mn 257.610†	310115.1	383.66	µg/L	5.284	383.66	ppb	5.284	1.38%
Mo 202.031†	54.3	2.0035	µg/L	0.30818	2.0035	ppb	0.30818	15.38%
Na 589.592 Radial†	5392.5	736.04	µg/L	10.395	736.04	ppb	10.395	1.41%

Ni 231.604†	1158.8	13.342	µg/L	0.2220	13.342	ppb	0.2220	1.66%
P 214.914†	500.6	100.62	µg/L	2.089	100.62	ppb	2.089	2.08%
Pb 220.353†	78.4	4.5394	µg/L	0.49803	4.5394	ppb	0.49803	10.97%
S 181.975 Axial†	12.8	9.5210	µg/L	6.76687	9.5210	ppb	6.76687	71.07%
Sb 206.836†	-4.2	-0.9988	µg/L	0.55658	-0.9988	ppb	0.55658	55.72%
Se 196.026†	-8.9	0.257	µg/L	4.4537	0.257	ppb	4.4537	>999.9%
SiO2†	89365.4	8734.7	µg/L	127.95	8734.7	ppb	127.95	1.46%
Si 251.611†	274892.4	4052.7	µg/L	63.16	4052.7	ppb	63.16	1.56%
Sn 189.927†	36.4	3.0705	µg/L	0.69230	3.0705	ppb	0.69230	22.55%
Sr 421.552†	2779.5	5.7730	µg/L	0.11181	5.7730	ppb	0.11181	1.94%
Ti 334.940†	254573.6	237.85	µg/L	3.310	237.85	ppb	3.310	1.39%
Tl 190.801†	-25.2	0.3113	µg/L	0.73389	0.3113	ppb	0.73389	235.77%
U 409.014†	-1010.4	-58.639	µg/L	3.9345	-58.639	ppb	3.9345	6.71%
Concentration less than lower limit for U 409.014.								
V 292.402†	927.9	3.3259	µg/L	0.65828	3.3259	ppb	0.65828	19.79%
Zn 213.857†	7711.6	42.301	µg/L	0.1601	42.301	ppb	0.1601	0.38%

Sequence No.: 105
Sample ID: 248824001|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 235
Date Collected: 3/31/2010 23:14:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248824001|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142695.8	142695.8	97.8	%			23:14:48
1	Al 396.153Radial†	46165.8	47275.3	8764.6	µg/L	8764.6	ppb	23:14:50
1	Ca 317.933Radial†	39714.0	40053.4	2231.1	µg/L	2231.1	ppb	23:14:50
1	Fe 238.204 Radial†	799740.7	817717.6	50399	µg/L	50399	ppb	23:14:48
1	K 766.490 Radial†	9880.2	8559.4	3130.8	µg/L	3130.8	ppb	23:14:50
1	Mg 279.077 IEC†	3121.4	3001.4	1075.2	µg/L	1075.2	ppb	23:14:50
1	Na 589.592 Radial†	23162.8	22396.9	3056.9	µg/L	3056.9	ppb	23:14:50
1	Sr 421.552†	5323.7	5579.7	11.582	µg/L	11.582	ppb	23:14:50
1	Sc 361.383	1729229.3	1729229.3	100.64	%			23:15:02
1	Y 371.029	1301326.4	1301326.4	126.75	%			23:15:02
1	Ag 328.068†	4112.5	-5.0	-1.1724	µg/L	-1.1724	ppb	23:15:04
1	As 188.979†	10.5	30.8	20.673	µg/L	20.673	ppb	23:15:24
1	B 249.677†	3613.8	84.9	1.2339	µg/L	1.2339	ppb	23:15:04
1	Ba 233.527†	17231.2	17257.3	68.908	µg/L	68.908	ppb	23:15:04
1	Be 313.107†	11892.2	12881.2	3.4196	µg/L	3.4196	ppb	23:15:04
1	Cd 226.502†	693.0	806.8	-0.2583	µg/L	-0.2583	ppb	23:15:24
1	Co 228.616†	234.0	422.8	2.6562	µg/L	2.6562	ppb	23:15:24
1	Cr 267.716†	577.9	395.7	4.5035	µg/L	4.5035	ppb	23:15:04
1	Cu 324.752†	4081.7	1083.5	11.344	µg/L	11.344	ppb	23:15:04
1	Mn 257.610†	1838198.6	1826255.7	2259.4	µg/L	2259.4	ppb	23:15:02
1	Mo 202.031†	147.2	166.4	6.9089	µg/L	6.9089	ppb	23:15:24
1	Ni 231.604†	362.7	436.9	5.0311	µg/L	5.0311	ppb	23:15:24
1	P 214.914†	1944.7	1950.3	384.82	µg/L	384.82	ppb	23:15:24
1	Pb 220.353†	494.9	405.4	22.680	µg/L	22.680	ppb	23:15:24
1	S 181.975 Axial†	116.6	10.8	8.0327	µg/L	8.0327	ppb	23:15:24
1	Sb 206.836†	79.2	-2.2	-0.8753	µg/L	-0.8753	ppb	23:15:24
1	Se 196.026†	-32.7	-47.8	-0.057	µg/L	-0.057	ppb	23:15:24
1	SiO2†	429589.0	425078.1	41548	µg/L	41548	ppb	23:15:02
1	Si 251.611†	1321809.2	1312555.4	19351	µg/L	19351	ppb	23:15:02
1	Sn 189.927†	195.7	195.6	14.512	µg/L	14.512	ppb	23:15:24
1	Ti 334.940†	742189.4	736510.6	688.18	µg/L	688.18	ppb	23:15:02
1	Tl 190.801†	-276.2	-157.8	-6.5426	µg/L	-6.5426	ppb	23:15:24
1	U 409.014†	-5268.0	-4964.6	-285.97	µg/L	-285.97	ppb	23:15:02
1	V 292.402†	4107.7	3677.7	11.855	µg/L	11.855	ppb	23:15:04
1	Zn 213.857†	31368.4	30604.3	166.94	µg/L	166.94	ppb	23:15:04
2	Sc RADIAL	144460.3	144460.3	99.0	%			23:14:52
2	Al 396.153Radial†	45616.2	46143.5	8554.7	µg/L	8554.7	ppb	23:14:54
2	Ca 317.933Radial†	39117.0	38954.3	2169.9	µg/L	2169.9	ppb	23:14:54
2	Fe 238.204 Radial†	807815.4	815884.2	50286	µg/L	50286	ppb	23:14:52
2	K 766.490 Radial†	9876.9	8432.6	3084.4	µg/L	3084.4	ppb	23:14:54
2	Mg 279.077 IEC†	3091.3	2932.1	1049.4	µg/L	1049.4	ppb	23:14:54
2	Na 589.592 Radial†	22851.1	21792.8	2974.4	µg/L	2974.4	ppb	23:14:54
2	Sr 421.552†	5379.7	5569.7	11.562	µg/L	11.562	ppb	23:14:54
2	Sc 361.383	1743215.1	1743215.1	101.45	%			23:15:27
2	Y 371.029	1309420.1	1309420.1	127.54	%			23:15:27
2	Ag 328.068†	3798.7	-347.1	-2.4454	µg/L	-2.4454	ppb	23:15:29
2	As 188.979†	7.9	28.2	19.840	µg/L	19.840	ppb	23:15:49
2	B 249.677†	3683.5	124.7	1.8208	µg/L	1.8208	ppb	23:15:29
2	Ba 233.527†	17552.3	17436.4	69.632	µg/L	69.632	ppb	23:15:29
2	Be 313.107†	11710.2	12606.9	3.3395	µg/L	3.3395	ppb	23:15:29
2	Cd 226.502†	677.2	785.7	-0.3783	µg/L	-0.3783	ppb	23:15:49
2	Co 228.616†	254.4	441.0	2.8876	µg/L	2.8876	ppb	23:15:49
2	Cr 267.716†	572.3	385.5	4.4367	µg/L	4.4367	ppb	23:15:29
2	Cu 324.752†	4049.3	1019.0	11.062	µg/L	11.062	ppb	23:15:29
2	Mn 257.610†	1847880.0	1821144.4	2253.1	µg/L	2253.1	ppb	23:15:27
2	Mo 202.031†	141.7	159.8	6.7104	µg/L	6.7104	ppb	23:15:49
2	Ni 231.604†	381.3	452.3	5.2080	µg/L	5.2080	ppb	23:15:49
2	P 214.914†	1948.5	1938.5	382.32	µg/L	382.32	ppb	23:15:49
2	Pb 220.353†	502.4	408.8	22.876	µg/L	22.876	ppb	23:15:49

2	S 181.975 Axial†	111.0	4.4	3.2891 µg/L	3.2891 ppb	23:15:49
2	Sb 206.836†	93.6	11.5	0.7489 µg/L	0.7489 ppb	23:15:49
2	Se 196.026†	-32.2	-47.0	0.145 µg/L	0.145 ppb	23:15:49
2	SiO2†	430955.5	423000.3	41345 µg/L	41345 ppb	23:15:27
2	Si 251.611†	1328257.5	1308373.9	19289 µg/L	19289 ppb	23:15:27
2	Sn 189.927†	198.3	196.6	14.570 µg/L	14.570 ppb	23:15:49
2	Ti 334.940†	746714.3	735054.0	686.83 µg/L	686.83 ppb	23:15:27
2	Tl 190.801†	-277.8	-157.1	-6.4802 µg/L	-6.4802 ppb	23:15:49
2	U 409.014†	-5618.6	-5268.2	-303.69 µg/L	-303.69 ppb	23:15:27
2	V 292.402†	4342.9	3876.9	12.825 µg/L	12.825 ppb	23:15:29
2	Zn 213.857†	31955.7	30933.0	168.79 µg/L	168.79 ppb	23:15:29
3	Sc RADIAL	144690.9	144690.9	99.2 %		23:14:56
3	Al 396.153Radial†	46326.1	46785.9	8673.9 µg/L	8673.9 ppb	23:14:58
3	Ca 317.933Radial†	40099.2	39882.0	2221.6 µg/L	2221.6 ppb	23:14:58
3	Fe 238.204 Radial†	811133.7	817930.6	50412 µg/L	50412 ppb	23:14:56
3	K 766.490 Radial†	9999.6	8540.4	3123.8 µg/L	3123.8 ppb	23:14:58
3	Mg 279.077 IEC†	3039.8	2875.1	1028.1 µg/L	1028.1 ppb	23:14:58
3	Na 589.592 Radial†	23265.4	22173.8	3026.4 µg/L	3026.4 ppb	23:14:58
3	Sr 421.552†	5331.0	5511.9	11.442 µg/L	11.442 ppb	23:14:58
3	Sc 361.383	1727988.4	1727988.4	100.57 %		23:15:51
3	Y 371.029	1299258.8	1299258.8	126.55 %		23:15:51
3	Ag 328.068†	4098.6	-16.0	-1.2118 µg/L	-1.2118 ppb	23:15:53
3	As 188.979†	7.7	28.0	19.814 µg/L	19.814 ppb	23:16:14
3	B 249.677†	3607.2	81.0	1.1747 µg/L	1.1747 ppb	23:15:53
3	Ba 233.527†	17173.1	17211.8	68.725 µg/L	68.725 ppb	23:15:53
3	Be 313.107†	11559.2	12558.5	3.3322 µg/L	3.3322 ppb	23:15:53
3	Cd 226.502†	710.2	824.4	-0.1493 µg/L	-0.1493 ppb	23:16:14
3	Co 228.616†	261.1	450.0	2.9902 µg/L	2.9902 ppb	23:16:14
3	Cr 267.716†	584.2	402.3	4.5555 µg/L	4.5555 ppb	23:15:53
3	Cu 324.752†	4054.9	1059.8	11.254 µg/L	11.254 ppb	23:15:53
3	Mn 257.610†	1837318.4	1826692.2	2260.0 µg/L	2260.0 ppb	23:15:51
3	Mo 202.031†	132.6	151.9	6.4827 µg/L	6.4827 ppb	23:16:14
3	Ni 231.604†	392.5	466.8	5.3744 µg/L	5.3744 ppb	23:16:14
3	P 214.914†	1948.7	1955.6	385.93 µg/L	385.93 ppb	23:16:14
3	Pb 220.353†	461.2	372.2	20.821 µg/L	20.821 ppb	23:16:14
3	S 181.975 Axial†	106.0	0.3	0.2607 µg/L	0.2607 ppb	23:16:14
3	Sb 206.836†	83.8	2.5	-0.3312 µg/L	-0.3312 ppb	23:16:14
3	Se 196.026†	-36.7	-51.8	-1.51 µg/L	-1.51 ppb	23:16:14
3	SiO2†	428344.2	424146.8	41457 µg/L	41457 ppb	23:15:51
3	Si 251.611†	1319119.7	1310824.3	19325 µg/L	19325 ppb	23:15:51
3	Sn 189.927†	199.9	199.9	14.780 µg/L	14.780 ppb	23:16:14
3	Ti 334.940†	741669.7	736523.5	688.20 µg/L	688.20 ppb	23:15:51
3	Tl 190.801†	-287.7	-169.4	-7.9682 µg/L	-7.9682 ppb	23:16:14
3	U 409.014†	-5238.3	-4938.8	-284.47 µg/L	-284.47 ppb	23:15:51
3	V 292.402†	4093.5	3666.5	11.795 µg/L	11.795 ppb	23:15:53
3	Zn 213.857†	31090.0	30349.7	165.50 µg/L	165.50 ppb	23:15:53

Mean Data: 248824001|963993|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733477.6	100.89	%	0.492				0.49%
Sc RADIAL	143949.0	98.6	%	0.75				0.76%
Y 371.029	1303335.1	126.95	%	0.523				0.41%
Ag 328.068†	-122.7	-1.6099	µg/L	0.72386	-1.6099	ppb	0.72386	44.96%
Al 396.153Radial†	46734.9	8664.4	µg/L	105.24	8664.4	ppb	105.24	1.21%
As 188.979†	29.0	20.109	µg/L	0.4882	20.109	ppb	0.4882	2.43%
B 249.677†	96.9	1.4098	µg/L	0.35717	1.4098	ppb	0.35717	25.34%
Ba 233.527†	17301.9	69.088	µg/L	0.4797	69.088	ppb	0.4797	0.69%
Be 313.107†	12682.2	3.3638	µg/L	0.04847	3.3638	ppb	0.04847	1.44%
Ca 317.933Radial†	39629.9	2207.5	µg/L	32.94	2207.5	ppb	32.94	1.49%
Cd 226.502†	805.6	-0.2620	µg/L	0.11450	-0.2620	ppb	0.11450	43.71%
Co 228.616†	437.9	2.8447	µg/L	0.17106	2.8447	ppb	0.17106	6.01%
Cr 267.716†	394.5	4.4986	µg/L	0.05957	4.4986	ppb	0.05957	1.32%
Cu 324.752†	1054.1	11.220	µg/L	0.1441	11.220	ppb	0.1441	1.28%
Fe 238.204 Radial†	817177.5	50366	µg/L	69.3	50366	ppb	69.3	0.14%
K 766.490 Radial†	8510.8	3113.0	µg/L	24.99	3113.0	ppb	24.99	0.80%
Mg 279.077 IEC†	2936.2	1050.9	µg/L	23.58	1050.9	ppb	23.58	2.24%
Mn 257.610†	1824697.4	2257.5	µg/L	3.82	2257.5	ppb	3.82	0.17%
Mo 202.031†	159.3	6.7007	µg/L	0.21327	6.7007	ppb	0.21327	3.18%
Na 589.592 Radial†	22121.2	3019.2	µg/L	41.71	3019.2	ppb	41.71	1.38%

Ni 231.604†	452.0	5.2045	µg/L	0.17167	5.2045	ppb	0.17167	3.30%
P 214.914†	1948.1	384.36	µg/L	1.848	384.36	ppb	1.848	0.48%
Pb 220.353†	395.5	22.126	µg/L	1.1345	22.126	ppb	1.1345	5.13%
S 181.975 Axial†	5.1	3.8609	µg/L	3.91741	3.8609	ppb	3.91741	101.46%
Sb 206.836†	3.9	-0.1525	µg/L	0.82672	-0.1525	ppb	0.82672	542.03%
Se 196.026†	-48.9	-0.475	µg/L	0.9037	-0.475	ppb	0.9037	190.44%
SiO2†	424075.1	41450	µg/L	101.7	41450	ppb	101.7	0.25%
Si 251.611†	1310584.6	19322	µg/L	31.0	19322	ppb	31.0	0.16%
Sn 189.927†	197.3	14.621	µg/L	0.1410	14.621	ppb	0.1410	0.96%
Sr 421.552†	5553.8	11.529	µg/L	0.0761	11.529	ppb	0.0761	0.66%
Ti 334.940†	736029.3	687.74	µg/L	0.786	687.74	ppb	0.786	0.11%
Tl 190.801†	-161.4	-6.9970	µg/L	0.84166	-6.9970	ppb	0.84166	12.03%
U 409.014†	-5057.2	-291.38	µg/L	10.688	-291.38	ppb	10.688	3.67%
Concentration less than lower limit for U 409.014.								
V 292.402†	3740.4	12.158	µg/L	0.5780	12.158	ppb	0.5780	4.75%
Zn 213.857†	30629.0	167.08	µg/L	1.649	167.08	ppb	1.649	0.99%

Sequence No.: 106
Sample ID: 248824002|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 236
Date Collected: 3/31/2010 23:16:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248824002|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144939.0	144939.0	99.3	%			23:16:51
1	Al 396.153Radial†	39859.7	40195.4	7452.0	µg/L	7452.0	ppb	23:16:53
1	Ca 317.933Radial†	33892.9	33564.0	1869.6	µg/L	1869.6	ppb	23:16:53
1	Fe 238.204 Radial†	764184.7	769260.5	47413	µg/L	47413	ppb	23:16:51
1	K 766.490 Radial†	10533.5	9060.7	3314.7	µg/L	3314.7	ppb	23:16:53
1	Mg 279.077 IEC†	2384.4	2210.0	782.82	µg/L	782.82	ppb	23:16:53
1	Na 589.592 Radial†	24452.8	23329.2	3184.1	µg/L	3184.1	ppb	23:16:53
1	Sr 421.552†	4586.4	4753.1	9.8667	µg/L	9.8667	ppb	23:16:53
1	Sc 361.383	1746406.4	1746406.4	101.64	%			23:17:05
1	Y 371.029	1311143.3	1311143.3	127.71	%			23:17:05
1	Ag 328.068†	4093.3	-64.1	-1.3743	µg/L	-1.3743	ppb	23:17:07
1	As 188.979†	13.8	33.9	20.930	µg/L	20.930	ppb	23:17:27
1	B 249.677†	3670.9	105.8	1.5426	µg/L	1.5426	ppb	23:17:07
1	Ba 233.527†	12645.6	12577.3	50.086	µg/L	50.086	ppb	23:17:07
1	Be 313.107†	10733.4	11624.8	3.0785	µg/L	3.0785	ppb	23:17:07
1	Cd 226.502†	648.5	756.3	-0.2601	µg/L	-0.2601	ppb	23:17:27
1	Co 228.616†	211.8	398.7	2.4961	µg/L	2.4961	ppb	23:17:27
1	Cr 267.716†	608.8	420.4	4.6013	µg/L	4.6013	ppb	23:17:07
1	Cu 324.752†	3699.6	667.7	9.2880	µg/L	9.2880	ppb	23:17:07
1	Mn 257.610†	1830984.2	1801193.0	2228.5	µg/L	2228.5	ppb	23:17:05
1	Mo 202.031†	96.8	115.3	5.2850	µg/L	5.2850	ppb	23:17:27
1	Ni 231.604†	331.7	402.8	4.6384	µg/L	4.6384	ppb	23:17:27
1	P 214.914†	2029.2	2014.4	400.31	µg/L	400.31	ppb	23:17:27
1	Pb 220.353†	491.2	396.9	22.196	µg/L	22.196	ppb	23:17:27
1	S 181.975 Axial†	102.9	-3.8	-2.8247	µg/L	-2.8247	ppb	23:17:27
1	Sb 206.836†	75.4	-6.6	-1.3841	µg/L	-1.3841	ppb	23:17:27
1	Se 196.026†	-27.5	-42.4	0.854	µg/L	0.854	ppb	23:17:27
1	SiO2†	426129.6	417476.1	40805	µg/L	40805	ppb	23:17:05
1	Si 251.611†	1311858.0	1289846.7	19016	µg/L	19016	ppb	23:17:05
1	Sn 189.927†	227.8	225.2	16.301	µg/L	16.301	ppb	23:17:27
1	Ti 334.940†	730889.9	718140.1	671.03	µg/L	671.03	ppb	23:17:05
1	Tl 190.801†	-257.5	-136.7	-4.2101	µg/L	-4.2101	ppb	23:17:27
1	U 409.014†	-5258.6	-4903.8	-282.07	µg/L	-282.07	ppb	23:17:05
1	V 292.402†	3723.7	3259.8	10.135	µg/L	10.135	ppb	23:17:07
1	Zn 213.857†	32748.4	31655.4	173.14	µg/L	173.14	ppb	23:17:07
2	Sc RADIAL	145059.6	145059.6	99.4	%			23:16:55
2	Al 396.153Radial†	39758.0	40059.8	7426.9	µg/L	7426.9	ppb	23:16:57
2	Ca 317.933Radial†	34047.7	33691.3	1876.7	µg/L	1876.7	ppb	23:16:57
2	Fe 238.204 Radial†	764878.9	769319.2	47416	µg/L	47416	ppb	23:16:55
2	K 766.490 Radial†	10554.6	9073.2	3319.2	µg/L	3319.2	ppb	23:16:57
2	Mg 279.077 IEC†	2310.7	2133.9	754.48	µg/L	754.48	ppb	23:16:57
2	Na 589.592 Radial†	24300.1	23155.0	3160.3	µg/L	3160.3	ppb	23:16:57
2	Sr 421.552†	4570.6	4733.3	9.8257	µg/L	9.8257	ppb	23:16:57
2	Sc 361.383	1749873.3	1749873.3	101.84	%			23:17:30
2	Y 371.029	1313928.3	1313928.3	127.98	%			23:17:30
2	Ag 328.068†	4086.9	-78.4	-1.4431	µg/L	-1.4431	ppb	23:17:32
2	As 188.979†	8.0	28.2	19.193	µg/L	19.193	ppb	23:17:52
2	B 249.677†	3493.7	-75.4	-1.1294	µg/L	-1.1294	ppb	23:17:32
2	Ba 233.527†	12447.3	12358.0	49.202	µg/L	49.202	ppb	23:17:32
2	Be 313.107†	10822.4	11691.3	3.0932	µg/L	3.0932	ppb	23:17:32
2	Cd 226.502†	648.9	755.4	-0.2659	µg/L	-0.2659	ppb	23:17:52
2	Co 228.616†	210.6	397.1	2.4751	µg/L	2.4751	ppb	23:17:52
2	Cr 267.716†	526.1	338.1	3.9652	µg/L	3.9652	ppb	23:17:32
2	Cu 324.752†	3847.0	805.2	9.8125	µg/L	9.8125	ppb	23:17:32
2	Mn 257.610†	1837794.6	1804311.2	2232.3	µg/L	2232.3	ppb	23:17:30
2	Mo 202.031†	103.6	121.8	5.4737	µg/L	5.4737	ppb	23:17:52
2	Ni 231.604†	330.4	400.9	4.6161	µg/L	4.6161	ppb	23:17:52
2	P 214.914†	2013.2	1994.7	396.08	µg/L	396.08	ppb	23:17:52
2	Pb 220.353†	501.8	406.3	22.726	µg/L	22.726	ppb	23:17:52

2	S 181.975 Axial†	99.6	-7.3	-5.3875 µg/L	-5.3875 ppb		23:17:52
2	Sb 206.836†	86.3	4.0	-0.1127 µg/L	-0.1127 ppb		23:17:52
2	Se 196.026†	-27.2	-41.9	0.999 µg/L	0.999 ppb		23:17:52
2	SiO2†	427512.0	418002.9	40856 µg/L	40856 ppb		23:17:30
2	Si 251.611†	1316828.7	1292170.3	19050 µg/L	19050 ppb		23:17:30
2	Sn 189.927†	222.0	219.1	15.918 µg/L	15.918 ppb		23:17:52
2	Ti 334.940†	732216.6	718018.1	670.93 µg/L	670.93 ppb		23:17:30
2	Tl 190.801†	-268.0	-146.5	-5.4105 µg/L	-5.4105 ppb		23:17:52
2	U 409.014†	-5470.3	-5101.4	-293.61 µg/L	-293.61 ppb		23:17:30
2	V 292.402†	3724.5	3253.3	10.094 µg/L	10.094 ppb		23:17:32
2	Zn 213.857†	32747.6	31590.7	172.77 µg/L	172.77 ppb		23:17:32
3	Sc RADIAL	144914.4	144914.4	99.3 %			23:16:59
3	Al 396.153Radial†	40401.9	40748.2	7554.5 µg/L	7554.5 ppb		23:17:01
3	Ca 317.933Radial†	34600.6	34282.5	1909.7 µg/L	1909.7 ppb		23:17:01
3	Fe 238.204 Radial†	764796.3	770007.0	47459 µg/L	47459 ppb		23:16:59
3	K 766.490 Radial†	10620.5	9150.2	3347.4 µg/L	3347.4 ppb		23:17:01
3	Mg 279.077 IEC†	2379.1	2205.1	780.96 µg/L	780.96 ppb		23:17:01
3	Na 589.592 Radial†	24779.4	23662.2	3229.6 µg/L	3229.6 ppb		23:17:01
3	Sr 421.552†	4496.5	4663.3	9.6798 µg/L	9.6798 ppb		23:17:01
3	Sc 361.383	1765526.4	1765526.4	102.75 %			23:17:54
3	Y 371.029	1323499.1	1323499.1	128.91 %			23:17:54
3	Ag 328.068†	4052.0	-148.0	-1.6896 µg/L	-1.6896 ppb		23:17:56
3	As 188.979†	0.0	20.4	16.853 µg/L	16.853 ppb		23:18:16
3	B 249.677†	3649.8	46.1	0.6633 µg/L	0.6633 ppb		23:17:56
3	Ba 233.527†	12731.8	12526.5	49.881 µg/L	49.881 ppb		23:17:56
3	Be 313.107†	10769.3	11545.4	3.0547 µg/L	3.0547 ppb		23:17:56
3	Cd 226.502†	649.1	749.9	-0.3046 µg/L	-0.3046 ppb		23:18:16
3	Co 228.616†	200.0	384.9	2.3235 µg/L	2.3235 ppb		23:18:16
3	Cr 267.716†	582.0	387.9	4.3533 µg/L	4.3533 ppb		23:17:56
3	Cu 324.752†	3750.0	677.3	9.3258 µg/L	9.3258 ppb		23:17:56
3	Mn 257.610†	1855354.3	1805401.2	2233.7 µg/L	2233.7 ppb		23:17:54
3	Mo 202.031†	100.0	117.4	5.3484 µg/L	5.3484 ppb		23:18:16
3	Ni 231.604†	320.8	388.7	4.4757 µg/L	4.4757 ppb		23:18:16
3	P 214.914†	2017.2	1981.1	393.18 µg/L	393.18 ppb		23:18:16
3	Pb 220.353†	559.5	458.1	25.620 µg/L	25.620 ppb		23:18:16
3	S 181.975 Axial†	108.5	0.5	0.4042 µg/L	0.4042 ppb		23:18:16
3	Sb 206.836†	85.7	2.6	-0.2876 µg/L	-0.2876 ppb		23:18:16
3	Se 196.026†	-31.2	-45.6	-0.321 µg/L	-0.321 ppb		23:18:16
3	SiO2†	431532.9	418194.2	40875 µg/L	40875 ppb		23:17:54
3	Si 251.611†	1328785.5	1292343.0	19053 µg/L	19053 ppb		23:17:54
3	Sn 189.927†	216.7	212.0	15.478 µg/L	15.478 ppb		23:18:16
3	Ti 334.940†	738530.0	717787.9	670.71 µg/L	670.71 ppb		23:17:54
3	Tl 190.801†	-260.1	-136.5	-4.1695 µg/L	-4.1695 ppb		23:18:16
3	U 409.014†	-5447.8	-5032.0	-289.51 µg/L	-289.51 ppb		23:17:54
3	V 292.402†	3889.5	3381.5	10.718 µg/L	10.718 ppb		23:17:56
3	Zn 213.857†	32959.3	31511.7	172.33 µg/L	172.33 ppb		23:17:56

Mean Data: 248824002|963993|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1753935.4	102.08	%	0.593				0.58%
Sc RADIAL	144971.0	99.3	%	0.05				0.05%
Y 371.029	1316190.2	128.20	%	0.631				0.49%
Ag 328.068†	-96.8	-1.5023	µg/L	0.16580	-1.5023	ppb	0.16580	11.04%
Al 396.153Radial†	40334.5	7477.8	µg/L	67.61	7477.8	ppb	67.61	0.90%
As 188.979†	27.5	18.992	µg/L	2.0457	18.992	ppb	2.0457	10.77%
B 249.677†	25.5	0.3588	µg/L	1.36177	0.3588	ppb	1.36177	379.52%
Ba 233.527†	12487.3	49.723	µg/L	0.4627	49.723	ppb	0.4627	0.93%
Be 313.107†	11620.5	3.0755	µg/L	0.01943	3.0755	ppb	0.01943	0.63%
Ca 317.933Radial†	33846.0	1885.4	µg/L	21.36	1885.4	ppb	21.36	1.13%
Cd 226.502†	753.9	-0.2768	µg/L	0.02419	-0.2768	ppb	0.02419	8.74%
Co 228.616†	393.6	2.4316	µg/L	0.09416	2.4316	ppb	0.09416	3.87%
Cr 267.716†	382.1	4.3066	µg/L	0.32060	4.3066	ppb	0.32060	7.44%
Cu 324.752†	716.7	9.4754	µg/L	0.29250	9.4754	ppb	0.29250	3.09%
Fe 238.204 Radial†	769528.9	47429	µg/L	25.6	47429	ppb	25.6	0.05%
K 766.490 Radial†	9094.7	3327.1	µg/L	17.71	3327.1	ppb	17.71	0.53%
Mg 279.077 IEC†	2183.0	772.75	µg/L	15.852	772.75	ppb	15.852	2.05%
Mn 257.610†	1803635.1	2231.5	µg/L	2.70	2231.5	ppb	2.70	0.12%
Mo 202.031†	118.2	5.3690	µg/L	0.09601	5.3690	ppb	0.09601	1.79%
Na 589.592 Radial†	23382.2	3191.3	µg/L	35.19	3191.3	ppb	35.19	1.10%

Ni 231.604†	397.5	4.5767	µg/L	0.08819	4.5767	ppb	0.08819	1.93%
P 214.914†	1996.7	396.52	µg/L	3.588	396.52	ppb	3.588	0.90%
Pb 220.353†	420.4	23.514	µg/L	1.8428	23.514	ppb	1.8428	7.84%
S 181.975 Axial†	-3.5	-2.6027	µg/L	2.90226	-2.6027	ppb	2.90226	111.51%
Sb 206.836†	-0.0	-0.5948	µg/L	0.68911	-0.5948	ppb	0.68911	115.86%
Se 196.026†	-43.3	0.511	µg/L	0.7241	0.511	ppb	0.7241	141.83%
SiO2†	417891.1	40845	µg/L	36.4	40845	ppb	36.4	0.09%
Si 251.611†	1291453.3	19040	µg/L	20.6	19040	ppb	20.6	0.11%
Sn 189.927†	218.8	15.899	µg/L	0.4118	15.899	ppb	0.4118	2.59%
Sr 421.552†	4716.6	9.7907	µg/L	0.09822	9.7907	ppb	0.09822	1.00%
Ti 334.940†	717982.0	670.89	µg/L	0.165	670.89	ppb	0.165	0.02%
Tl 190.801†	-139.9	-4.5967	µg/L	0.70505	-4.5967	ppb	0.70505	15.34%
U 409.014†	-5012.4	-288.39	µg/L	5.847	-288.39	ppb	5.847	2.03%
Concentration less than lower limit for U 409.014.								
V 292.402†	3298.2	10.316	µg/L	0.3491	10.316	ppb	0.3491	3.38%
Zn 213.857†	31586.0	172.74	µg/L	0.406	172.74	ppb	0.406	0.23%

Sequence No.: 107
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 23:18:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144621.4	144621.4	99.1	%			23:18:59
1	Al 396.153Radial†	26323.5	26624.9	4914.2	µg/L	4914.2	ppb	23:18:59
1	Ca 317.933Radial†	86890.8	87116.3	4852.7	µg/L	4852.7	ppb	23:18:59
1	Fe 238.204 Radial†	77681.3	78236.0	4822.0	µg/L	4822.0	ppb	23:18:59
1	K 766.490 Radial†	14559.5	13146.4	4809.1	µg/L	4809.1	ppb	23:18:59
1	Mg 279.077 IEC†	13260.2	13189.4	4921.6	µg/L	4921.6	ppb	23:18:59
1	Na 589.592 Radial†	71065.1	70417.2	9615.6	µg/L	9615.6	ppb	23:18:59
1	Sr 421.552†	226802.4	228989.5	476.02	µg/L	476.02	ppb	23:18:57
1	Sc 361.383	1740302.6	1740302.6	101.29	%			23:19:12
1	Y 371.029	1028952.4	1028952.4	100.22	%			23:19:12
1	Ag 328.068†	133614.5	127827.5	479.30	µg/L	479.30	ppb	23:19:12
1	As 188.979†	1600.2	1600.2	490.89	µg/L	490.89	ppb	23:19:32
1	B 249.677†	35788.1	31828.1	467.74	µg/L	467.74	ppb	23:19:12
1	Ba 233.527†	120219.9	118830.1	479.24	µg/L	479.24	ppb	23:19:12
1	Be 313.107†	1792744.0	1771058.2	482.36	µg/L	482.36	ppb	23:19:12
1	Cd 226.502†	77213.0	76351.3	476.62	µg/L	476.62	ppb	23:19:12
1	Co 228.616†	39286.0	38977.8	481.18	µg/L	481.18	ppb	23:19:12
1	Cr 267.716†	61813.7	60850.7	476.45	µg/L	476.45	ppb	23:19:12
1	Cu 324.752†	127063.4	122478.8	477.46	µg/L	477.46	ppb	23:19:12
1	Mn 257.610†	394634.0	389388.7	481.58	µg/L	481.58	ppb	23:19:12
1	Mo 202.031†	16315.2	16128.2	474.43	µg/L	474.43	ppb	23:19:32
1	Ni 231.604†	42026.4	41569.6	478.64	µg/L	478.64	ppb	23:19:12
1	P 214.914†	11190.5	11066.4	2358.7	µg/L	2358.7	ppb	23:19:32
1	Pb 220.353†	8740.7	8543.3	478.42	µg/L	478.42	ppb	23:19:32
1	S 181.975 Axial†	1377.8	1255.2	936.10	µg/L	936.10	ppb	23:19:32
1	Sb 206.836†	4144.7	4011.3	477.89	µg/L	477.89	ppb	23:19:32
1	Se 196.026†	1340.6	1308.3	475	µg/L	475	ppb	23:19:32
1	SiO2†	55627.7	53146.4	5174.3	µg/L	5174.3	ppb	23:19:12
1	Si 251.611†	168264.2	165292.3	2427.4	µg/L	2427.4	ppb	23:19:12
1	Sn 189.927†	7681.2	7584.9	474.45	µg/L	474.45	ppb	23:19:32
1	Ti 334.940†	520666.2	513106.3	478.76	µg/L	478.76	ppb	23:19:12
1	Tl 190.801†	3808.4	3876.8	483.51	µg/L	483.51	ppb	23:19:32
1	U 409.014†	7415.2	7590.9	472.81	µg/L	472.81	ppb	23:19:12
1	V 292.402†	98786.7	97129.3	480.13	µg/L	480.13	ppb	23:19:12
1	Zn 213.857†	87000.0	85331.6	475.59	µg/L	475.59	ppb	23:19:12
2	Sc RADIAL	142472.1	142472.1	97.6	%			23:19:03
2	Al 396.153Radial†	25927.4	26619.8	4913.0	µg/L	4913.0	ppb	23:19:03
2	Ca 317.933Radial†	85608.6	87125.7	4853.2	µg/L	4853.2	ppb	23:19:03
2	Fe 238.204 Radial†	76614.2	78325.4	4827.5	µg/L	4827.5	ppb	23:19:03
2	K 766.490 Radial†	14271.1	13072.6	4782.1	µg/L	4782.1	ppb	23:19:03
2	Mg 279.077 IEC†	13162.7	13291.5	4959.8	µg/L	4959.8	ppb	23:19:03
2	Na 589.592 Radial†	70188.6	70601.3	9640.7	µg/L	9640.7	ppb	23:19:03
2	Sr 421.552†	229468.1	235172.4	488.87	µg/L	488.87	ppb	23:19:01
2	Sc 361.383	1723519.2	1723519.2	100.31	%			23:19:35
2	Y 371.029	1019447.3	1019447.3	99.295	%			23:19:35
2	Ag 328.068†	132544.4	128045.3	480.11	µg/L	480.11	ppb	23:19:35
2	As 188.979†	1616.7	1632.0	500.53	µg/L	500.53	ppb	23:19:55
2	B 249.677†	35773.7	32157.7	472.61	µg/L	472.61	ppb	23:19:35
2	Ba 233.527†	119609.8	119377.7	481.45	µg/L	481.45	ppb	23:19:35
2	Be 313.107†	1778804.5	1774397.6	483.27	µg/L	483.27	ppb	23:19:35
2	Cd 226.502†	76467.8	76350.8	476.61	µg/L	476.61	ppb	23:19:35
2	Co 228.616†	38765.7	38836.8	479.44	µg/L	479.44	ppb	23:19:35
2	Cr 267.716†	61178.2	60811.4	476.15	µg/L	476.15	ppb	23:19:35
2	Cu 324.752†	126162.4	122802.1	478.71	µg/L	478.71	ppb	23:19:35
2	Mn 257.610†	391126.3	389685.9	481.95	µg/L	481.95	ppb	23:19:35
2	Mo 202.031†	16388.5	16358.2	481.19	µg/L	481.19	ppb	23:19:55
2	Ni 231.604†	41688.5	41636.7	479.42	µg/L	479.42	ppb	23:19:35
2	P 214.914†	11227.5	11210.9	2389.5	µg/L	2389.5	ppb	23:19:55
2	Pb 220.353†	8752.6	8639.3	483.80	µg/L	483.80	ppb	23:19:55

2	S 181.975 Axial†	1387.2	1277.9	952.97 µg/L	952.97 ppb	23:19:55
2	Sb 206.836†	4153.3	4059.7	483.76 µg/L	483.76 ppb	23:19:55
2	Se 196.026†	1345.0	1325.6	481 µg/L	481 ppb	23:19:55
2	SiO2†	55194.2	53249.1	5184.0 µg/L	5184.0 ppb	23:19:35
2	Si 251.611†	166652.6	165303.4	2427.5 µg/L	2427.5 ppb	23:19:35
2	Sn 189.927†	7721.4	7698.8	481.56 µg/L	481.56 ppb	23:19:55
2	Ti 334.940†	516481.7	513940.5	479.54 µg/L	479.54 ppb	23:19:35
2	Tl 190.801†	3825.6	3930.5	490.14 µg/L	490.14 ppb	23:19:55
2	U 409.014†	7186.2	7434.0	463.72 µg/L	463.72 ppb	23:19:35
2	V 292.402†	98156.4	97450.7	481.75 µg/L	481.75 ppb	23:19:35
2	Zn 213.857†	86133.5	85304.1	475.43 µg/L	475.43 ppb	23:19:35
3	Sc RADIAL	143809.9	143809.9	98.5 %		23:19:07
3	Al 396.153Radial†	26240.2	26690.2	4926.1 µg/L	4926.1 ppb	23:19:07
3	Ca 317.933Radial†	86148.8	86858.1	4838.3 µg/L	4838.3 ppb	23:19:07
3	Fe 238.204 Radial†	77300.3	78291.6	4825.4 µg/L	4825.4 ppb	23:19:07
3	K 766.490 Radial†	14495.5	13164.4	4815.7 µg/L	4815.7 ppb	23:19:07
3	Mg 279.077 IEC†	13104.6	13107.1	4891.0 µg/L	4891.0 ppb	23:19:07
3	Na 589.592 Radial†	70560.3	70309.6	9600.9 µg/L	9600.9 ppb	23:19:07
3	Sr 421.552†	228660.9	232166.8	482.62 µg/L	482.62 ppb	23:19:05
3	Sc 361.383	1735011.3	1735011.3	100.98 %		23:19:58
3	Y 371.029	1026280.7	1026280.7	99.960 %		23:19:58
3	Ag 328.068†	133432.9	128050.0	480.14 µg/L	480.14 ppb	23:19:58
3	As 188.979†	1602.2	1607.1	492.96 µg/L	492.96 ppb	23:20:18
3	B 249.677†	35929.6	32076.0	471.40 µg/L	471.40 ppb	23:19:58
3	Ba 233.527†	120028.3	119002.3	479.93 µg/L	479.93 ppb	23:19:58
3	Be 313.107†	1790709.1	1774441.1	483.28 µg/L	483.28 ppb	23:19:58
3	Cd 226.502†	76990.5	76363.5	476.69 µg/L	476.69 ppb	23:19:58
3	Co 228.616†	38992.1	38805.0	479.05 µg/L	479.05 ppb	23:19:58
3	Cr 267.716†	61553.2	60778.9	475.89 µg/L	475.89 ppb	23:19:58
3	Cu 324.752†	126757.9	122558.7	477.77 µg/L	477.77 ppb	23:19:58
3	Mn 257.610†	393545.3	389498.8	481.72 µg/L	481.72 ppb	23:19:58
3	Mo 202.031†	16392.4	16253.8	478.12 µg/L	478.12 ppb	23:20:18
3	Ni 231.604†	41888.6	41559.7	478.53 µg/L	478.53 ppb	23:19:58
3	P 214.914†	11251.6	11160.7	2378.8 µg/L	2378.8 ppb	23:20:18
3	Pb 220.353†	8767.6	8596.3	481.39 µg/L	481.39 ppb	23:20:18
3	S 181.975 Axial†	1362.8	1244.5	928.19 µg/L	928.19 ppb	23:20:18
3	Sb 206.836†	4134.8	4013.9	478.27 µg/L	478.27 ppb	23:20:18
3	Se 196.026†	1346.5	1318.2	479 µg/L	479 ppb	23:20:18
3	SiO2†	55432.8	53120.9	5171.6 µg/L	5171.6 ppb	23:19:58
3	Si 251.611†	167686.3	165226.7	2426.4 µg/L	2426.4 ppb	23:19:58
3	Sn 189.927†	7743.2	7669.3	479.72 µg/L	479.72 ppb	23:20:18
3	Ti 334.940†	520000.5	514014.7	479.61 µg/L	479.61 ppb	23:19:58
3	Tl 190.801†	3827.1	3906.8	487.22 µg/L	487.22 ppb	23:20:18
3	U 409.014†	7368.8	7567.3	471.52 µg/L	471.52 ppb	23:19:58
3	V 292.402†	98829.1	97468.7	481.82 µg/L	481.82 ppb	23:19:58
3	Zn 213.857†	86772.4	85368.1	475.79 µg/L	475.79 ppb	23:19:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732944.4	100.86	%	0.499				0.50%
Sc RADIAL	143634.5	98.4	%	0.74				0.76%
Y 371.029	1024893.5	99.825	%	0.4775				0.48%
Ag 328.068†	127974.3	479.85	µg/L	0.478	479.85	ppb	0.478	0.10%
QC value within limits for Ag 328.068 Recovery = 95.97%								
Al 396.153Radial†	26645.0	4917.8	µg/L	7.28	4917.8	ppb	7.28	0.15%
QC value within limits for Al 396.153Radial Recovery = 98.36%								
As 188.979†	1613.1	494.79	µg/L	5.073	494.79	ppb	5.073	1.03%
QC value within limits for As 188.979 Recovery = 98.96%								
B 249.677†	32020.6	470.58	µg/L	2.536	470.58	ppb	2.536	0.54%
QC value within limits for B 249.677 Recovery = 94.12%								
Ba 233.527†	119070.1	480.21	µg/L	1.130	480.21	ppb	1.130	0.24%
QC value within limits for Ba 233.527 Recovery = 96.04%								
Be 313.107†	1773298.9	482.97	µg/L	0.528	482.97	ppb	0.528	0.11%
QC value within limits for Be 313.107 Recovery = 96.59%								
Ca 317.933Radial†	87033.4	4848.1	µg/L	8.46	4848.1	ppb	8.46	0.17%
QC value within limits for Ca 317.933Radial Recovery = 96.96%								
Cd 226.502†	76355.2	476.64	µg/L	0.045	476.64	ppb	0.045	0.01%
QC value within limits for Cd 226.502 Recovery = 95.33%								
Co 228.616†	38873.2	479.89	µg/L	1.134	479.89	ppb	1.134	0.24%

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   QC value within limits for Co 228.616  Recovery = 95.98%
Cr 267.716†            60813.7      476.16 µg/L         0.280      476.16 ppb          0.280   0.06%
   QC value within limits for Cr 267.716  Recovery = 95.23%
Cu 324.752†           122613.2      477.98 µg/L         0.651      477.98 ppb          0.651   0.14%
   QC value within limits for Cu 324.752  Recovery = 95.60%
Fe 238.204 Radial†     78284.3      4825.0 µg/L          2.78      4825.0 ppb           2.78   0.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.50%
K 766.490 Radial†      13127.8      4802.3 µg/L         17.82      4802.3 ppb          17.82   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 96.05%
Mg 279.077 IEC†        13196.0      4924.2 µg/L         34.46      4924.2 ppb          34.46   0.70%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.48%
Mn 257.610†           389524.5      481.75 µg/L         0.185      481.75 ppb          0.185   0.04%
   QC value within limits for Mn 257.610  Recovery = 96.35%
Mo 202.031†            16246.8      477.91 µg/L         3.385      477.91 ppb          3.385   0.71%
   QC value within limits for Mo 202.031  Recovery = 95.58%
Na 589.592 Radial†     70442.7      9619.1 µg/L         20.17      9619.1 ppb          20.17   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 96.19%
Ni 231.604†            41588.7      478.86 µg/L         0.483      478.86 ppb          0.483   0.10%
   QC value within limits for Ni 231.604  Recovery = 95.77%
P 214.914†             11146.0      2375.7 µg/L         15.67      2375.7 ppb          15.67   0.66%
   QC value within limits for P 214.914  Recovery = 95.03%
Pb 220.353†             8593.0      481.20 µg/L         2.697      481.20 ppb          2.697   0.56%
   QC value within limits for Pb 220.353  Recovery = 96.24%
S 181.975 Axial†        1259.2      939.09 µg/L        12.659      939.09 ppb         12.659   1.35%
   QC value within limits for S 181.975 Axial  Recovery = 93.91%
Sb 206.836†             4028.3      479.97 µg/L         3.284      479.97 ppb          3.284   0.68%
   QC value within limits for Sb 206.836  Recovery = 95.99%
Se 196.026†             1317.4         478 µg/L           3.1         478 ppb            3.1   0.65%
   QC value within limits for Se 196.026  Recovery = 95.67%
SiO2†                  53172.1      5176.6 µg/L          6.53      5176.6 ppb           6.53   0.13%
   QC value within limits for SiO2  Recovery = 96.80%
Si 251.611†           165274.1      2427.1 µg/L          0.62      2427.1 ppb           0.62   0.03%
   QC value within limits for Si 251.611  Recovery = 97.08%
Sn 189.927†             7651.0      478.58 µg/L         3.688      478.58 ppb          3.688   0.77%
   QC value within limits for Sn 189.927  Recovery = 95.72%
Sr 421.552†           232109.6      482.50 µg/L         6.428      482.50 ppb          6.428   1.33%
   QC value within limits for Sr 421.552  Recovery = 96.50%
Ti 334.940†           513687.1      479.31 µg/L         0.472      479.31 ppb          0.472   0.10%
   QC value within limits for Ti 334.940  Recovery = 95.86%
Tl 190.801†             3904.7      486.96 µg/L         3.327      486.96 ppb          3.327   0.68%
   QC value within limits for Tl 190.801  Recovery = 97.39%
U 409.014†              7530.7      469.35 µg/L         4.918      469.35 ppb          4.918   1.05%
   QC value within limits for U 409.014  Recovery = 93.87%
V 292.402†             97349.6      481.23 µg/L         0.958      481.23 ppb          0.958   0.20%
   QC value within limits for V 292.402  Recovery = 96.25%
Zn 213.857†            85334.6      475.60 µg/L         0.184      475.60 ppb          0.184   0.04%
   QC value within limits for Zn 213.857  Recovery = 95.12%
All analyte(s) passed QC.
```

Sequence No.: 108 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/31/2010 23:20:27**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144721.0	144721.0	99.2	%			23:20:58
1	Al 396.153Radial†	-83.6	-21.0	-3.8947	µg/L	-3.8947	ppb	23:21:18
1	Ca 317.933Radial†	580.4	24.7	1.3750	µg/L	1.3750	ppb	23:21:18
1	Fe 238.204 Radial†	196.1	49.7	3.0605	µg/L	3.0605	ppb	23:21:18
1	K 766.490 Radial†	1602.1	70.7	25.883	µg/L	25.883	ppb	23:20:58
1	Mg 279.077 IEC†	205.0	16.0	5.9406	µg/L	5.9406	ppb	23:21:18
1	Na 589.592 Radial†	1213.9	-66.8	-9.1423	µg/L	-9.1423	ppb	23:20:58
1	Sr 421.552†	-55.9	78.9	0.1640	µg/L	0.1640	ppb	23:20:58
1	Sc 361.383	1740172.6	1740172.6	101.28	%			23:22:05
1	Y 371.029	1040560.6	1040560.6	101.35	%			23:22:05
1	Ag 328.068†	3851.9	-288.0	-1.0737	µg/L	-1.0737	ppb	23:22:08
1	As 188.979†	-3.9	16.5	4.9867	µg/L	4.9867	ppb	23:22:28
1	B 249.677†	3520.7	-29.6	-0.4370	µg/L	-0.4370	ppb	23:22:08
1	Ba 233.527†	-128.4	9.1	0.0366	µg/L	0.0366	ppb	23:22:28
1	Be 313.107†	-942.4	134.2	0.0343	µg/L	0.0343	ppb	23:22:08
1	Cd 226.502†	-109.3	10.3	0.0637	µg/L	0.0637	ppb	23:22:28
1	Co 228.616†	-168.6	23.8	0.2936	µg/L	0.2936	ppb	23:22:28
1	Cr 267.716†	186.3	5.4	0.0484	µg/L	0.0484	ppb	23:22:28
1	Cu 324.752†	2967.4	-42.3	-0.1696	µg/L	-0.1696	ppb	23:22:08
1	Mn 257.610†	341.2	99.6	0.1230	µg/L	0.1230	ppb	23:22:28
1	Mo 202.031†	-26.0	-5.6	-0.1652	µg/L	-0.1652	ppb	23:22:28
1	Ni 231.604†	-86.6	-8.9	-0.1030	µg/L	-0.1030	ppb	23:22:28
1	P 214.914†	2.1	20.0	4.2896	µg/L	4.2896	ppb	23:22:28
1	Pb 220.353†	89.4	1.9	0.1123	µg/L	0.1123	ppb	23:22:28
1	S 181.975 Axial†	95.7	-10.5	-7.8226	µg/L	-7.8226	ppb	23:22:28
1	Sb 206.836†	91.9	9.9	1.1769	µg/L	1.1769	ppb	23:22:28
1	Se 196.026†	23.5	7.9	2.85	µg/L	2.85	ppb	23:22:28
1	SiO2†	1814.1	15.9	1.5390	µg/L	1.5390	ppb	23:22:28
1	Si 251.611†	917.6	69.4	1.0187	µg/L	1.0187	ppb	23:22:08
1	Sn 189.927†	16.5	17.4	1.0880	µg/L	1.0880	ppb	23:22:28
1	Ti 334.940†	1176.4	209.1	0.1979	µg/L	0.1979	ppb	23:22:08
1	Tl 190.801†	-110.5	7.6	0.9307	µg/L	0.9307	ppb	23:22:28
1	U 409.014†	-401.5	-126.5	-7.3869	µg/L	-7.3869	ppb	23:22:08
1	V 292.402†	444.8	35.4	0.1657	µg/L	0.1657	ppb	23:22:08
1	Zn 213.857†	587.2	15.4	0.0869	µg/L	0.0869	ppb	23:22:28
2	Sc RADIAL	144189.3	144189.3	98.8	%			23:21:20
2	Al 396.153Radial†	-42.6	20.1	3.7335	µg/L	3.7335	ppb	23:21:40
2	Ca 317.933Radial†	605.6	52.4	2.9175	µg/L	2.9175	ppb	23:21:40
2	Fe 238.204 Radial†	235.5	90.2	5.5587	µg/L	5.5587	ppb	23:21:40
2	K 766.490 Radial†	1804.3	281.3	102.99	µg/L	102.99	ppb	23:21:20
2	Mg 279.077 IEC†	185.5	-3.0	-1.1298	µg/L	-1.1298	ppb	23:21:40
2	Na 589.592 Radial†	1392.4	118.4	16.088	µg/L	16.088	ppb	23:21:20
2	Sr 421.552†	-172.0	-38.8	-0.0807	µg/L	-0.0807	ppb	23:21:20
2	Sc 361.383	1750632.4	1750632.4	101.89	%			23:22:30
2	Y 371.029	1045632.3	1045632.3	101.85	%			23:22:30
2	Ag 328.068†	3884.1	-279.2	-1.0517	µg/L	-1.0517	ppb	23:22:32
2	As 188.979†	-9.6	10.9	3.2935	µg/L	3.2935	ppb	23:22:52
2	B 249.677†	3509.8	-61.1	-0.9032	µg/L	-0.9032	ppb	23:22:32
2	Ba 233.527†	-114.7	23.2	0.0931	µg/L	0.0931	ppb	23:22:52
2	Be 313.107†	-767.6	311.3	0.0822	µg/L	0.0822	ppb	23:22:32
2	Cd 226.502†	-108.6	11.6	0.0718	µg/L	0.0718	ppb	23:22:52
2	Co 228.616†	-145.0	48.0	0.5919	µg/L	0.5919	ppb	23:22:52
2	Cr 267.716†	155.6	-25.9	-0.1960	µg/L	-0.1960	ppb	23:22:52
2	Cu 324.752†	2910.6	-115.5	-0.4545	µg/L	-0.4545	ppb	23:22:32
2	Mn 257.610†	337.8	94.3	0.1167	µg/L	0.1167	ppb	23:22:52
2	Mo 202.031†	-28.0	-7.4	-0.2186	µg/L	-0.2186	ppb	23:22:52
2	Ni 231.604†	-82.4	-4.3	-0.0499	µg/L	-0.0499	ppb	23:22:52
2	P 214.914†	-26.2	-7.8	-1.6582	µg/L	-1.6582	ppb	23:22:52
2	Pb 220.353†	84.8	-3.2	-0.1707	µg/L	-0.1707	ppb	23:22:52

2	S 181.975 Axial†	94.4	-12.4	-9.1963 µg/L	-9.1963 ppb	23:22:52
2	Sb 206.836†	90.2	7.7	0.9179 µg/L	0.9179 ppb	23:22:52
2	Se 196.026†	18.0	2.4	0.844 µg/L	0.844 ppb	23:22:52
2	SiO2†	1787.8	-20.7	-2.0247 µg/L	-2.0247 ppb	23:22:52
2	Si 251.611†	881.0	28.1	0.4136 µg/L	0.4136 ppb	23:22:32
2	Sn 189.927†	7.3	8.3	0.5186 µg/L	0.5186 ppb	23:22:52
2	Ti 334.940†	950.4	-19.7	-0.0148 µg/L	-0.0148 ppb	23:22:32
2	Tl 190.801†	-105.4	13.3	1.6208 µg/L	1.6208 ppb	23:22:52
2	U 409.014†	-420.2	-142.5	-8.3714 µg/L	-8.3714 ppb	23:22:32
2	V 292.402†	279.7	-129.3	-0.6400 µg/L	-0.6400 ppb	23:22:32
2	Zn 213.857†	564.2	-10.7	-0.0598 µg/L	-0.0598 ppb	23:22:52
3	Sc RADIAL	144369.9	144369.9	98.9 %		23:21:42
3	Al 396.153Radial†	-72.5	-10.1	-1.8730 µg/L	-1.8730 ppb	23:22:02
3	Ca 317.933Radial†	584.3	30.1	1.6744 µg/L	1.6744 ppb	23:22:02
3	Fe 238.204 Radial†	204.0	58.1	3.5807 µg/L	3.5807 ppb	23:22:02
3	K 766.490 Radial†	1674.9	148.2	54.270 µg/L	54.270 ppb	23:21:42
3	Mg 279.077 IEC†	184.9	-3.8	-1.4254 µg/L	-1.4254 ppb	23:22:02
3	Na 589.592 Radial†	1285.3	8.4	1.0985 µg/L	1.0985 ppb	23:21:42
3	Sr 421.552†	-188.2	-55.0	-0.1143 µg/L	-0.1143 ppb	23:21:42
3	Sc 361.383	1741492.2	1741492.2	101.35 %		23:22:54
3	Y 371.029	1040823.4	1040823.4	101.38 %		23:22:54
3	Ag 328.068†	4356.2	206.6	0.7527 µg/L	0.7527 ppb	23:22:56
3	As 188.979†	-10.3	10.2	3.0901 µg/L	3.0901 ppb	23:23:16
3	B 249.677†	3495.4	-57.2	-0.8448 µg/L	-0.8448 ppb	23:22:56
3	Ba 233.527†	-104.9	32.3	0.1301 µg/L	0.1301 ppb	23:23:16
3	Be 313.107†	-758.4	316.4	0.0840 µg/L	0.0840 ppb	23:22:56
3	Cd 226.502†	-93.1	26.3	0.1638 µg/L	0.1638 ppb	23:23:16
3	Co 228.616†	-177.9	14.8	0.1826 µg/L	0.1826 ppb	23:23:16
3	Cr 267.716†	215.5	34.0	0.2721 µg/L	0.2721 ppb	23:23:16
3	Cu 324.752†	2926.0	-85.3	-0.3369 µg/L	-0.3369 ppb	23:22:56
3	Mn 257.610†	318.8	77.2	0.0956 µg/L	0.0956 ppb	23:23:16
3	Mo 202.031†	-22.0	-1.7	-0.0489 µg/L	-0.0489 ppb	23:23:16
3	Ni 231.604†	-129.1	-50.8	-0.5854 µg/L	-0.5854 ppb	23:23:16
3	P 214.914†	-27.8	-9.5	-2.0268 µg/L	-2.0268 ppb	23:23:16
3	Pb 220.353†	99.2	11.4	0.6440 µg/L	0.6440 ppb	23:23:16
3	S 181.975 Axial†	104.2	-2.2	-1.6435 µg/L	-1.6435 ppb	23:23:16
3	Sb 206.836†	80.2	-1.7	-0.2024 µg/L	-0.2024 ppb	23:23:16
3	Se 196.026†	-2.8	-18.0	-6.52 µg/L	-6.52 ppb	23:23:16
3	SiO2†	1785.7	-13.5	-1.3191 µg/L	-1.3191 ppb	23:23:16
3	Si 251.611†	942.5	93.3	1.3760 µg/L	1.3760 ppb	23:22:56
3	Sn 189.927†	-0.1	1.0	0.0628 µg/L	0.0628 ppb	23:23:16
3	Ti 334.940†	1040.9	74.5	0.0726 µg/L	0.0726 ppb	23:22:56
3	Tl 190.801†	-122.9	-4.6	-0.5664 µg/L	-0.5664 ppb	23:23:16
3	U 409.014†	-398.4	-123.1	-7.2165 µg/L	-7.2165 ppb	23:22:56
3	V 292.402†	352.1	-56.4	-0.2799 µg/L	-0.2799 ppb	23:22:56
3	Zn 213.857†	592.9	20.6	0.1194 µg/L	0.1194 ppb	23:23:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1744099.1	101.51	%	0.332				0.33%
Sc RADIAL	144426.7	99.0	%	0.19				0.19%
Y 371.029	1042338.8	101.52	%	0.278				0.27%
Ag 328.068†	-120.2	-0.4576	µg/L	1.04821	-0.4576	ppb	1.04821	229.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.7	-0.6781	µg/L	3.95199	-0.6781	ppb	3.95199	582.82%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	12.5	3.7901	µg/L	1.04128	3.7901	ppb	1.04128	27.47%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-49.3	-0.7283	µg/L	0.25394	-0.7283	ppb	0.25394	34.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	21.5	0.0866	µg/L	0.04706	0.0866	ppb	0.04706	54.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	254.0	0.0668	µg/L	0.02820	0.0668	ppb	0.02820	42.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	35.7	1.9890	µg/L	0.81790	1.9890	ppb	0.81790	41.12%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.1	0.0998	µg/L	0.05561	0.0998	ppb	0.05561	55.74%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	28.9	0.3560	µg/L	0.21172	0.3560	ppb	0.21172	59.47%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.5      0.0415 µg/L       0.23416      0.0415 ppb        0.23416 564.27%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -81.0     -0.3203 µg/L       0.14318     -0.3203 ppb        0.14318  44.70%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         66.0      4.0666 µg/L       1.31807      4.0666 ppb        1.31807  32.41%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         166.7      61.047 µg/L       38.9970      61.047 ppb        38.9970  63.88%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.0      1.1285 µg/L       4.17006      1.1285 ppb        4.17006 369.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                90.4      0.1118 µg/L       0.01435      0.1118 ppb        0.01435  12.84%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -4.9     -0.1442 µg/L       0.08677     -0.1442 ppb        0.08677  60.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         20.0      2.6814 µg/L      12.68942      2.6814 ppb       12.68942 473.24%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -21.4     -0.2461 µg/L       0.29505     -0.2461 ppb        0.29505 119.90%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  0.9      0.2015 µg/L       3.54518      0.2015 ppb        3.54518 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.4      0.1952 µg/L       0.41363      0.1952 ppb        0.41363 211.92%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -8.4     -6.2208 µg/L       4.02315     -6.2208 ppb        4.02315  64.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.3      0.6308 µg/L       0.73310      0.6308 ppb        0.73310 116.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.6      -0.941 µg/L        4.9356      -0.941 ppb         4.9356 524.57%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      -6.1     -0.6016 µg/L       1.88709     -0.6016 ppb        1.88709 313.69%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                63.6      0.9361 µg/L       0.48651      0.9361 ppb        0.48651  51.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.9      0.5565 µg/L       0.51367      0.5565 ppb        0.51367  92.31%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -5.0     -0.0103 µg/L       0.15190     -0.0103 ppb        0.15190 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                87.9      0.0852 µg/L       0.10689      0.0852 ppb        0.10689 125.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.4      0.6617 µg/L       1.11813      0.6617 ppb        1.11813 168.98%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -130.7     -7.6583 µg/L       0.62345     -7.6583 ppb        0.62345   8.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -50.1     -0.2514 µg/L       0.40359     -0.2514 ppb        0.40359 160.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 8.4      0.0488 µg/L       0.09550      0.0488 ppb        0.09550 195.59%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, May 10, 2010 23:55:35
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100506\Sample.241
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1764.7	1764.709	38.538	2.2
	Mg	24.0	153346.5	153346.512	1657.789	1.1
	Co	58.9	21859.9	21859.913	156.616	0.7
	Rh	102.9	46595.3	46595.268	324.589	0.7
	In	114.9	59279.7	59279.745	492.193	0.8
	Pb	208.0	40999.4	40999.361	661.389	1.6
⌈>	Ba	137.9	61842.9	61842.883	691.306	1.1
⌊	Ba++	69.0	715.3	0.012	0.000	2.7
⌈>	Ce	139.9	66427.3	66427.299	780.909	1.2
⌊	CeO	155.9	1078.4	0.016	0.000	1.6
	Bkgd	220.0	21.4	21.400	3.090	14.4

Current Optimization File Data

Current Value	Description
0.74	Nebulizer Gas Flow
9.00	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	15	7.5	2598.2
Co	59	15	8.5	21396.7
In	115	15	9.8	56650.4

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	577	2080	0.635
Be	9.0	9.0	2048	2080	0.659
Mg	24.0	24.0	5682	2120	0.619
Mg	25.0	25.0	5921	2080	0.663
Mg	26.0	25.9	6160	2120	0.677
Co	58.9	58.9	14160	2170	0.637
Rh	102.9	102.9	24851	2230	0.696
In	114.9	114.9	27778	2260	0.683
Ce	139.9	139.9	33852	2280	0.745
Pb	206.0	205.9	49936	2424	0.759
Pb	207.0	207.0	50137	2385	0.662
Pb	208.0	208.0	50463	2430	0.717
U	238.1	238.0	57727	2470	0.700

Report Date/Time: Monday, May 10, 2010 23:54:27

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, May 11, 2010 09:22:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\Blank.120

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		20	
>	Sc	45		ug/L		651458	
	Ni	60		ug/L		158	
>	Ge	74		ug/L		176983	
	As	75		ug/L		355	
	Se	77		ug/L		4657	
	Se	82		ug/L		-38	
	Kr	83		ug/L		106	
>	Lu	175		ug/L		181938	
	Tl	205		ug/L		1297	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Simple Linear	
Ge	74	Linear Thru Zero	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, May 11, 2010 09:26:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\Standard 1.121

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.000**	**ug/L**	4.098	2304	0.004
>	Sc	45		**ug/L**		634743	634742.771
	Ni	60	**10.000**	**ug/L**	4.174	4990	0.008
>	Ge	74		**ug/L**		171352	171352.357
	As	75	**10.000**	**ug/L**	3.021	4609	0.025
	Se	77		**ug/L**		4832	0.002
	Se	82	**10.000**	**ug/L**	9.017	270	0.002
	Kr	83		**ug/L**		113	0.000
>	Lu	175		**ug/L**		177482	177482.254
	Tl	205	**10.000**	**ug/L**	0.320	54154	0.298

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, May 11, 2010 09:30:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\Standard 2.122

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**100.004**	**ug/L**	2.895	21881	0.036
>	Sc	45		**ug/L**		605153	605152.702
	Ni	60	**100.042**	**ug/L**	1.538	48311	0.080
>	Ge	74		**ug/L**		167288	167288.178
	As	75	**100.098**	**ug/L**	1.722	46537	0.276
	Se	77		**ug/L**		6942	0.015
	Se	82	**100.110**	**ug/L**	0.204	3338	0.020
	Kr	83		**ug/L**		125	0.000
>	Lu	175		**ug/L**		174651	174650.663
	Tl	205	**100.089**	**ug/L**	0.886	572823	3.273

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, May 11, 2010 09:35:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 1.123

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.157**	**ug/L**	1.255	11937	0.019
>	Sc	45		**ug/L**		620502	620502.246
	Ni	60	**53.153**	**ug/L**	1.855	26390	0.042
>	Ge	74		**ug/L**		169925	169925.363
	As	75	**53.885**	**ug/L**	1.979	25601	0.149
	Se	77		**ug/L**		5927	0.009
	Se	82	**52.568**	**ug/L**	6.767	1763	0.011
	Kr	83		**ug/L**		126	0.000
>	Lu	175		**ug/L**		178957	178957.068
	Tl	205	**51.801**	**ug/L**	1.746	304357	1.694

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	106.314				
>	Sc	45		95.2			
	Ni	60	106.306				
>	Ge	74		96.0			
	As	75	107.771				
	Se	77					
	Se	82	105.136				
	Kr	83					
>	Lu	175		98.4			
	Tl	205	103.603				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, May 11, 2010 09:39:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 2.124

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.005**	**ug/L**	575.817	21	0.000
>	Sc	45		**ug/L**		646675	646675.388
	Ni	60	**0.019**	**ug/L**	72.276	166	0.000
>	Ge	74		**ug/L**		172825	172825.303
	As	75	**0.160**	**ug/L**	529.184	426	0.000
	Se	77		**ug/L**		4705	0.001
	Se	82	**-0.163**	**ug/L**	361.796	-43	-0.000
	Kr	83		**ug/L**		112	0.000
>	Lu	175		**ug/L**		177712	177712.384
	Tl	205	**0.347**	**ug/L**	0.360	3284	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.3			
	Ni	60					
>	Ge	74		97.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, May 11, 2010 09:43:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 3.125

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.528**	**ug/L**	4.937	142	0.000
>	Sc	45		**ug/L**		644128	644128.169
	Ni	60	**2.153**	**ug/L**	1.711	1259	0.002
>	Ge	74		**ug/L**		173680	173680.376
	As	75	**4.356**	**ug/L**	4.344	2434	0.012
	Se	77		**ug/L**		4721	0.001
	Se	82	**5.343**	**ug/L**	18.762	149	0.001
	Kr	83		**ug/L**		111	0.000
>	Lu	175		**ug/L**		177588	177587.615
	Tl	205	**1.136**	**ug/L**	3.526	7859	0.037

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	105.606				
>	Sc	45		98.9			
	Ni	60	107.634				
>	Ge	74		98.1			
	As	75	87.112				
	Se	77					
	Se	82	106.867				
	Kr	83					
>	Lu	175		97.6			
	Tl	205	113.580				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, May 11, 2010 09:48:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 4.126

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.098**	**ug/L**	36.553	37	0.000
>	Sc	45		**ug/L**		570500	570500.283
	Ni	60	**2.521**	**ug/L**	0.841	1283	0.002
>	Ge	74		**ug/L**		155089	155088.953
	As	75	**-0.807**	**ug/L**	48.834	-33	-0.002
	Se	77		**ug/L**		5428	0.009
	Se	82	**-0.868**	**ug/L**	74.420	-60	-0.000
	Kr	83		**ug/L**		133	0.000
>	Lu	175		**ug/L**		168106	168106.322
	Tl	205	**0.019**	**ug/L**	28.389	1304	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		87.6			
	Ni	60	93.374				
>	Ge	74		87.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		92.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, May 11, 2010 09:52:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 5.127

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**18.907**	**ug/L**	0.206	3953	0.007
>	Sc	45		**ug/L**		576043	576042.732
	Ni	60	**20.960**	**ug/L**	1.952	9744	0.017
>	Ge	74		**ug/L**		157936	157935.902
	As	75	**18.985**	**ug/L**	1.749	8589	0.052
	Se	77		**ug/L**		5716	0.010
	Se	82	**19.083**	**ug/L**	1.926	573	0.004
	Kr	83		**ug/L**		142	0.000
>	Lu	175		**ug/L**		171762	171761.925
	Tl	205	**16.906**	**ug/L**	0.538	96178	0.553

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	94.533				
>	Sc	45		88.4			
	Ni	60	92.337				
>	Ge	74		89.2			
	As	75	94.927				
	Se	77					
	Se	82	95.415				
	Kr	83					
>	Lu	175		94.4			
	Tl	205	84.528				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 11, 2010 09:57:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 6.128

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.352**	**ug/L**	0.927	11551	0.019
>	Sc	45		**ug/L**		609646	609645.753
	Ni	60	**53.471**	**ug/L**	2.388	26083	0.043
>	Ge	74		**ug/L**		166075	166075.270
	As	75	**54.756**	**ug/L**	3.741	25415	0.151
	Se	77		**ug/L**		5947	0.010
	Se	82	**56.265**	**ug/L**	0.388	1847	0.011
	Kr	83		**ug/L**		100	-0.000
>	Lu	175		**ug/L**		172428	172428.459
	Tl	205	**52.088**	**ug/L**	0.664	294926	1.703

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	104.704				
>	Sc	45		93.6			
	Ni	60	106.942				
>	Ge	74		93.8			
	As	75	109.512				
	Se	77					
	Se	82	112.529				
	Kr	83					
>	Lu	175		94.8			
	Tl	205	104.176				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Se	82	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 11, 2010 10:01:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 7.129

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.007**	**ug/L**	297.029	20	0.000
>	Sc	45		**ug/L**		623076	623076.346
	Ni	60	**-0.006**	**ug/L**	272.342	148	-0.000
>	Ge	74		**ug/L**		170852	170852.344
	As	75	**-0.674**	**ug/L**	47.887	24	-0.002
	Se	77		**ug/L**		4893	0.002
	Se	82	**-0.124**	**ug/L**	496.409	-41	-0.000
	Kr	83		**ug/L**		103	-0.000
>	Lu	175		**ug/L**		175710	175710.330
	Tl	205	**0.248**	**ug/L**	2.981	2677	0.008

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.6			
	Ni	60					
>	Ge	74		96.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068053
Sample Date/Time: Tuesday, May 11, 2010 10:05:50
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\1202068053.130

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.020	ug/L	78.807	15	-0.000
>	Sc	45		ug/L		669692	669692.344
	Ni	60	-0.086	ug/L	21.806	117	-0.000
>	Ge	74		ug/L		182787	182787.208
	As	75	-0.275	ug/L	76.192	228	-0.001
	Se	77		ug/L		4001	-0.004
	Se	82	0.472	ug/L	64.210	-22	0.000
	Kr	83		ug/L		91	-0.000
>	Lu	175		ug/L		189354	189354.326
	Tl	205	0.082	ug/L	12.119	1857	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.8			
	Ni	60					
>	Ge	74		103.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068058
Sample Date/Time: Tuesday, May 11, 2010 10:10:14
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 963995|40|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\1202068058.131

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**20.650**	**ug/L**	2.255	5014	0.007
>	Sc	45		**ug/L**		669253	669252.999
	Ni	60	**37.090**	**ug/L**	2.547	19909	0.030
>	Ge	74		**ug/L**		180845	180845.487
	As	75	**27.318**	**ug/L**	2.716	13992	0.075
	Se	77		**ug/L**		8713	0.022
	Se	82	**73.701**	**ug/L**	1.881	2646	0.015
	Kr	83		**ug/L**		114	0.000
>	Lu	175		**ug/L**		182802	182802.479
	Tl	205	**29.465**	**ug/L**	1.984	177406	0.964

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.7			
	Ni	60					
>	Ge	74		102.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248824001
Sample Date/Time: Tuesday, May 11, 2010 10:14:39
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\248824001.132

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.001**	**ug/L**	0.663	265	0.000
>	Sc	45		**ug/L**		675422	675422.117
	Ni	60	**1.295**	**ug/L**	2.428	860	0.001
>	Ge	74		**ug/L**		179807	179807.402
	As	75	**3.151**	**ug/L**	9.266	1924	0.009
	Se	77		**ug/L**		4278	-0.003
	Se	82	**1.015**	**ug/L**	48.520	-2	0.000
	Kr	83		**ug/L**		114	0.000
>	Lu	175		**ug/L**		201065	201065.083
	Tl	205	**0.304**	**ug/L**	5.668	3431	0.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.7			
	Ni	60					
>	Ge	74		101.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		110.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248824002
Sample Date/Time: Tuesday, May 11, 2010 10:19:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\248824002.133

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.134**	**ug/L**	9.149	308	0.000
>	Sc	45		**ug/L**		700835	700834.803
	Ni	60	**1.320**	**ug/L**	5.487	906	0.001
>	Ge	74		**ug/L**		185868	185868.223
	As	75	**3.531**	**ug/L**	13.972	2187	0.010
	Se	77		**ug/L**		3894	-0.005
	Se	82	**0.742**	**ug/L**	69.805	-12	0.000
	Kr	83		**ug/L**		120	0.000
>	Lu	175		**ug/L**		206352	206351.821
	Tl	205	**0.086**	**ug/L**	11.320	2053	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		107.6			
	Ni	60					
>	Ge	74		105.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		113.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 11, 2010 10:23:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 6.134

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.671**	**ug/L**	1.476	11788	0.019
>	Sc	45		**ug/L**		618412	618412.485
	Ni	60	**53.821**	**ug/L**	1.418	26627	0.043
>	Ge	74		**ug/L**		171775	171775.356
	As	75	**52.424**	**ug/L**	1.602	25190	0.145
	Se	77		**ug/L**		6131	0.009
	Se	82	**51.807**	**ug/L**	2.591	1756	0.010
	Kr	83		**ug/L**		110	0.000
>	Lu	175		**ug/L**		175317	175317.382
	Tl	205	**51.674**	**ug/L**	2.576	297379	1.690

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	105.342				
>	Sc	45		94.9			
	Ni	60	107.641				
>	Ge	74		97.1			
	As	75	104.847				
	Se	77					
	Se	82	103.614				
	Kr	83					
>	Lu	175		96.4			
	Tl	205	103.349				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 11, 2010 10:27:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 7.135

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.007	ug/L	85.909	17	-0.000
>	Sc	45		ug/L		626591	626591.372
	Ni	60	0.040	ug/L	39.780	172	0.000
>	Ge	74		ug/L		171062	171062.143
	As	75	-0.742	ug/L	63.623	-8	-0.002
	Se	77		ug/L		4748	0.001
	Se	82	-0.026	ug/L	214.667	-38	-0.000
	Kr	83		ug/L		100	-0.000
>	Lu	175		ug/L		176000	176000.381
	Tl	205	0.147	ug/L	15.651	2097	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.2			
	Ni	60					
>	Ge	74		96.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068054
Sample Date/Time: Tuesday, May 11, 2010 10:36:36
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\1202068054.137

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.700**	**ug/L**	6.764	469	0.001
>	Sc	45		**ug/L**		727993	727992.985
	Ni	60	**8.653**	**ug/L**	3.490	5187	0.007
>	Ge	74		**ug/L**		188619	188618.926
	As	75	**1.728**	**ug/L**	35.408	1277	0.005
	Se	77		**ug/L**		3867	-0.006
	Se	82	**0.348**	**ug/L**	11.505	-28	0.000
	Kr	83		**ug/L**		141	0.000
>	Lu	175		**ug/L**		206290	206289.875
	Tl	205	**0.309**	**ug/L**	4.868	3552	0.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		111.7			
	Ni	60					
>	Ge	74		106.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		113.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068056
Sample Date/Time: Tuesday, May 11, 2010 10:41:00
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\1202068056.138

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**28.219**	**ug/L**	1.296	7516	0.010
>	Sc	45		**ug/L**		735064	735063.752
	Ni	60	**31.440**	**ug/L**	2.509	18561	0.025
>	Ge	74		**ug/L**		186977	186977.359
	As	75	**40.101**	**ug/L**	3.546	21055	0.111
	Se	77		**ug/L**		4191	-0.004
	Se	82	**9.991**	**ug/L**	7.454	336	0.002
	Kr	83		**ug/L**		144	0.000
>	Lu	175		**ug/L**		207235	207234.646
	Tl	205	**43.494**	**ug/L**	2.729	296136	1.422

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		112.8			
	Ni	60					
>	Ge	74		105.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		113.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068057
Sample Date/Time: Tuesday, May 11, 2010 10:45:25
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\1202068057.139

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**27.825**	**ug/L**	3.112	7554	0.010
>	Sc	45		**ug/L**		749209	749209.470
	Ni	60	**29.442**	**ug/L**	1.345	17733	0.023
>	Ge	74		**ug/L**		189675	189675.479
	As	75	**38.930**	**ug/L**	2.648	20751	0.107
	Se	77		**ug/L**		4198	-0.004
	Se	82	**9.842**	**ug/L**	3.550	335	0.002
	Kr	83		**ug/L**		140	0.000
>	Lu	175		**ug/L**		210463	210463.134
	Tl	205	**42.293**	**ug/L**	2.313	292542	1.383

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		115.0			
	Ni	60					
>	Ge	74		107.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		115.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068055
Sample Date/Time: Tuesday, May 11, 2010 10:49:49
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 963995|10|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\1202068055.140

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.300	ug/L	17.549	102	0.000
>	Sc	45		ug/L		738908	738908.287
	Ni	60	1.393	ug/L	0.709	998	0.001
>	Ge	74		ug/L		190722	190722.078
	As	75	-0.273	ug/L	227.211	239	-0.001
	Se	77		ug/L		6116	0.006
	Se	82	0.006	ug/L	1860.010	-41	0.000
	Kr	83		ug/L		121	0.000
>	Lu	175		ug/L		191437	191437.490
	Tl	205	0.206	ug/L	6.325	2653	0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		113.4			
	Ni	60					
>	Ge	74		107.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		105.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 11, 2010 11:07:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 6.144

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**56.094**	**ug/L**	1.227	13757	0.020
>	Sc	45		**ug/L**		677652	677651.933
	Ni	60	**50.817**	**ug/L**	0.975	27561	0.040
>	Ge	74		**ug/L**		180457	180456.941
	As	75	**52.188**	**ug/L**	2.076	26342	0.144
	Se	77		**ug/L**		5799	0.006
	Se	82	**51.828**	**ug/L**	4.999	1845	0.010
	Kr	83		**ug/L**		108	-0.000
>	Lu	175		**ug/L**		179660	179659.648
	Tl	205	**50.111**	**ug/L**	1.044	295658	1.639

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	112.188				
>	Sc	45		104.0			
	Ni	60	101.634				
>	Ge	74		102.0			
	As	75	104.376				
	Se	77					
	Se	82	103.657				
	Kr	83					
>	Lu	175		98.7			
	Tl	205	100.222				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 11, 2010 11:11:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 7.145

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.003**	**ug/L**	336.410	21	0.000
>	Sc	45		**ug/L**		684483	684483.256
	Ni	60	**-0.010**	**ug/L**	100.974	160	-0.000
>	Ge	74		**ug/L**		178535	178534.910
	As	75	**-0.370**	**ug/L**	131.784	177	-0.001
	Se	77		**ug/L**		4595	-0.001
	Se	82	**0.309**	**ug/L**	152.819	-28	0.000
	Kr	83		**ug/L**		101	-0.000
>	Lu	175		**ug/L**		179311	179310.546
	Tl	205	**0.050**	**ug/L**	18.717	1570	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		105.1			
	Ni	60					
>	Ge	74		100.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, May 11, 2010 23:34:39
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100506\Sample.242
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1776.7	1776.711	42.074	2.4
	Mg	24.0	44428.2	44428.183	415.223	0.9
	Co	58.9	20750.9	20750.860	94.875	0.5
	Rh	102.9	44715.7	44715.680	489.551	1.1
	In	114.9	52761.9	52761.859	408.680	0.8
	Pb	208.0	45381.6	45381.570	276.280	0.6
⌈>	Ba	137.9	54651.5	54651.516	242.066	0.4
⌊	Ba++	69.0	625.9	0.011	0.000	1.5
⌈>	Ce	139.9	65021.6	65021.643	448.821	0.7
⌊	CeO	155.9	904.2	0.014	0.000	3.4
	Bkgd	220.0	19.5	19.500	1.581	8.1

Current Optimization File Data

Current Value	Description
0.73	Nebulizer Gas Flow
9.00	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	15	7.8	2463.9
Co	59	15	8.5	20243.0
In	115	15	10.0	53142.0

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	579	2080	0.639
Be	9.0	9.0	2040	2080	0.662
Mg	24.0	24.0	5680	2120	0.615
Mg	25.0	24.9	5907	2080	0.692
Mg	26.0	26.0	6158	2120	0.670
Co	58.9	59.0	14182	2170	0.648
Rh	102.9	102.9	24844	2230	0.697
In	114.9	114.9	27784	2260	0.688
Ce	139.9	139.9	33845	2280	0.755
Pb	206.0	206.0	49948	2424	0.727
Pb	207.0	206.9	50125	2385	0.672
Pb	208.0	207.9	50451	2430	0.731
U	238.1	238.1	57733	2470	0.724

Report Date/Time: Tuesday, May 11, 2010 23:33:18

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, May 12, 2010 06:41:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\Blank.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		22	
>	Sc	45		ug/L		561392	
>	Ge	74		ug/L		168311	
	As	75		ug/L		582	
	Se	77		ug/L		7455	
	Se	82		ug/L		-36	
	Kr	83		ug/L		113	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, May 12, 2010 06:45:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\Standard 1.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	2.141	2646	0.005
>	Sc	45		ug/L		544533	544532.874
>	Ge	74		ug/L		163152	163152.382
	As	75	10.000	ug/L	11.517	4826	0.026
	Se	77		ug/L		4730	-0.015
	Se	82	10.000	ug/L	8.826	270	0.002
	Kr	83		ug/L		114	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, May 12, 2010 06:50:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\Standard 2.088

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**100.008**	**ug/L**	0.996	25843	0.049
>	Sc	45		**ug/L**		531106	531105.896
>	Ge	74		**ug/L**		158199	158199.305
	As	75	**100.101**	**ug/L**	0.955	46526	0.291
	Se	77		**ug/L**		6774	-0.001
	Se	82	**100.093**	**ug/L**	3.100	3225	0.021
	Kr	83		**ug/L**		132	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, May 12, 2010 06:54:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 1.089

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.945**	**ug/L**	1.332	13921	0.026
>	Sc	45		**ug/L**		529976	529975.768
>	Ge	74		**ug/L**		156478	156478.307
	As	75	**53.530**	**ug/L**	1.142	24862	0.155
	Se	77		**ug/L**		5366	-0.010
	Se	82	**55.429**	**ug/L**	1.674	1752	0.011
	Kr	83		**ug/L**		110	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	107.889				
>	Sc	45		94.4			
>	Ge	74		93.0			
	As	75	107.060				
	Se	77					
	Se	82	110.858				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Se	82	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, May 12, 2010 06:58:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 2.090

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.006	ug/L	288.742	21	-0.000
>	Sc	45		ug/L		572262	572262.475
>	Ge	74		ug/L		165183	165182.822
	As	75	-1.059	ug/L	129.945	64	-0.003
	Se	77		ug/L		7290	-0.000
	Se	82	-0.285	ug/L	177.440	-45	-0.000
	Kr	83		ug/L		115	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.9			
>	Ge	74		98.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, May 12, 2010 07:02:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 3.091

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.595**	**ug/L**	8.571	183	0.000
>	Sc	45		**ug/L**		558419	558419.381
>	Ge	74		**ug/L**		164922	164922.172
	As	75	**5.177**	**ug/L**	9.801	3049	0.015
	Se	77		**ug/L**		4596	-0.016
	Se	82	**5.455**	**ug/L**	10.786	150	0.001
	Kr	83		**ug/L**		129	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	118.907				
>	Sc	45		99.5			
>	Ge	74		98.0			
	As	75	103.530				
	Se	77					
	Se	82	109.106				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, May 12, 2010 07:07:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 4.092

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.117**	**ug/L**	26.908	46	0.000
>	Sc	45		**ug/L**		479367	479366.614
>	Ge	74		**ug/L**		143010	143010.394
	As	75	**-0.734**	**ug/L**	63.394	191	-0.002
	Se	77		**ug/L**		5063	-0.009
	Se	82	**-1.337**	**ug/L**	86.487	-70	-0.000
	Kr	83		**ug/L**		135	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		85.4			
>	Ge	74		85.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, May 12, 2010 07:11:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 5.093

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**20.449**	**ug/L**	1.709	4782	0.010
>	Sc	45		**ug/L**		479075	479074.574
>	Ge	74		**ug/L**		142073	142072.747
	As	75	**20.502**	**ug/L**	2.865	8950	0.060
	Se	77		**ug/L**		5318	-0.007
	Se	82	**21.551**	**ug/L**	4.512	600	0.004
	Kr	83		**ug/L**		116	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	102.244				
>	Sc	45		85.3			
>	Ge	74		84.4			
	As	75	102.509				
	Se	77					
	Se	82	107.753				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 12, 2010 07:15:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 6.094

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.513**	**ug/L**	0.710	13765	0.027
>	Sc	45		**ug/L**		518593	518593.197
>	Ge	74		**ug/L**		153152	153152.473
	As	75	**54.932**	**ug/L**	4.063	24959	0.160
	Se	77		**ug/L**		5325	-0.010
	Se	82	**54.807**	**ug/L**	2.621	1695	0.011
	Kr	83		**ug/L**		107	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	109.026				
>	Sc	45		92.4			
>	Ge	74		91.0			
	As	75	109.863				
	Se	77					
	Se	82	109.615				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 12, 2010 07:19:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 7.095

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.013**	**ug/L**	112.295	19	-0.000
>	Sc	45		**ug/L**		565401	565401.083
>	Ge	74		**ug/L**		164685	164685.137
	As	75	**-0.621**	**ug/L**	110.491	271	-0.002
	Se	77		**ug/L**		7264	-0.000
	Se	82	**0.069**	**ug/L**	386.642	-33	0.000
	Kr	83		**ug/L**		104	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.7			
>	Ge	74		97.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068053
Sample Date/Time: Wednesday, May 12, 2010 07:23:54
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\1202068053.096

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.014	ug/L	96.874	18	-0.000
>	Sc	45		ug/L		543389	543388.738
>	Ge	74		ug/L		159378	159377.936
	As	75	-1.666	ug/L	30.372	-221	-0.005
	Se	77		ug/L		3576	-0.022
	Se	82	0.175	ug/L	553.787	-28	0.000
	Kr	83		ug/L		91	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.8			
>	Ge	74		94.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068058
Sample Date/Time: Wednesday, May 12, 2010 07:28:09
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 963995|40|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\1202068058.097

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**22.166**	**ug/L**	0.991	6063	0.011
>	Sc	45		**ug/L**		560547	560546.857
>	Ge	74		**ug/L**		163387	163386.696
	As	75	**28.039**	**ug/L**	2.335	13870	0.081
	Se	77		**ug/L**		7952	0.004
	Se	82	**80.263**	**ug/L**	0.963	2665	0.017
	Kr	83		**ug/L**		103	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.8			
>	Ge	74		97.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248824001
Sample Date/Time: Wednesday, May 12, 2010 07:32:23
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\248824001.098

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.159**	**ug/L**	2.413	339	0.001
>	Sc	45		**ug/L**		561853	561852.950
>	Ge	74		**ug/L**		159095	159094.980
	As	75	**2.284**	**ug/L**	9.804	1605	0.007
	Se	77		**ug/L**		3767	-0.021
	Se	82	**0.506**	**ug/L**	57.282	-17	0.000
	Kr	83		**ug/L**		123	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.1			
>	Ge	74		94.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248824002
Sample Date/Time: Wednesday, May 12, 2010 07:36:38
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\248824002.099

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.304**	**ug/L**	4.225	389	0.001
>	Sc	45		**ug/L**		578132	578131.713
>	Ge	74		**ug/L**		161473	161473.082
	As	75	**3.791**	**ug/L**	0.723	2336	0.011
	Se	77		**ug/L**		3474	-0.023
	Se	82	**0.986**	**ug/L**	49.962	-1	0.000
	Kr	83		**ug/L**		117	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.0			
>	Ge	74		95.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 12, 2010 07:40:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 6.100

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.752**	**ug/L**	1.521	13876	0.025
>	Sc	45		**ug/L**		550697	550696.793
>	Ge	74		**ug/L**		159746	159746.201
	As	75	**53.688**	**ug/L**	1.292	25458	0.156
	Se	77		**ug/L**		5262	-0.011
	Se	82	**53.324**	**ug/L**	5.823	1720	0.011
	Kr	83		**ug/L**		97	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	103.504				
>	Sc	45		98.1			
>	Ge	74		94.9			
	As	75	107.376				
	Se	77					
	Se	82	106.649				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 12, 2010 07:45:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 7.101

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.003	ug/L	334.969	22	-0.000
>	Sc	45		ug/L		593234	593233.887
>	Ge	74		ug/L		166906	166906.486
	As	75	-0.738	ug/L	87.424	222	-0.002
	Se	77		ug/L		7137	-0.002
	Se	82	0.033	ug/L	1109.476	-34	0.000
	Kr	83		ug/L		99	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		105.7			
>	Ge	74		99.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068054
Sample Date/Time: Wednesday, May 12, 2010 07:53:35
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\1202068054.103

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**1.795**	**ug/L**	4.304	540	0.001
⌊>	Sc	45		**ug/L**		591898	591897.789
⌈>	Ge	74		**ug/L**		164604	164603.570
|	As	75	**1.881**	**ug/L**	29.460	1468	0.005
|	Se	77		**ug/L**		3526	-0.023
|	Se	82	**1.083**	**ug/L**	34.999	2	0.000
⌊	Kr	83		**ug/L**		127	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		105.4			
⌈>	Ge	74		97.8			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068056
Sample Date/Time: Wednesday, May 12, 2010 07:57:50
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\1202068056.104

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**30.341**	**ug/L**	0.810	9007	0.015
>	Sc	45		**ug/L**		609034	609034.139
>	Ge	74		**ug/L**		164598	164598.255
	As	75	**44.086**	**ug/L**	1.612	21637	0.128
	Se	77		**ug/L**		3803	-0.021
	Se	82	**10.733**	**ug/L**	12.472	329	0.002
	Kr	83		**ug/L**		135	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		108.5			
>	Ge	74		97.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068057
Sample Date/Time: Wednesday, May 12, 2010 08:02:05
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\1202068057.105

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**27.603**	**ug/L**	0.678	8794	0.013
>	Sc	45		**ug/L**		653359	653359.408
>	Ge	74		**ug/L**		165942	165942.400
	As	75	**42.864**	**ug/L**	2.385	21223	0.124
	Se	77		**ug/L**		3837	-0.021
	Se	82	**10.844**	**ug/L**	10.751	335	0.002
	Kr	83		**ug/L**		130	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		116.4			
>	Ge	74		98.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068055
Sample Date/Time: Wednesday, May 12, 2010 08:06:20
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 963995|10|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\1202068055.106

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.346**	**ug/L**	11.755	136	0.000
>	Sc	45		**ug/L**		654315	654314.722
>	Ge	74		**ug/L**		175656	175656.289
	As	75	**-0.478**	**ug/L**	198.856	367	-0.001
	Se	77		**ug/L**		5741	-0.012
	Se	82	**0.439**	**ug/L**	65.007	-21	0.000
	Kr	83		**ug/L**		90	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		116.6			
>	Ge	74		104.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 12, 2010 08:23:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 6.110

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**52.225**	**ug/L**	2.139	16407	0.025
⌊>	Sc	45		**ug/L**		645222	645222.179
⌈>	Ge	74		**ug/L**		169050	169050.449
|	As	75	**51.669**	**ug/L**	0.582	25949	0.150
|	Se	77		**ug/L**		5335	-0.013
|	Se	82	**53.582**	**ug/L**	1.470	1829	0.011
⌊	Kr	83		**ug/L**		95	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9	104.450				
⌊>	Sc	45		114.9			
⌈>	Ge	74		100.4			
|	As	75	103.338				
|	Se	77					
|	Se	82	107.163				
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 12, 2010 08:27:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 7.111

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.017**	**ug/L**	13.689	19	-0.000
>	Sc	45		**ug/L**		629652	629652.339
>	Ge	74		**ug/L**		173211	173211.491
	As	75	**-1.291**	**ug/L**	36.485	-49	-0.004
	Se	77		**ug/L**		7101	-0.003
	Se	82	**0.068**	**ug/L**	653.267	-34	0.000
	Kr	83		**ug/L**		108	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		112.2			
>	Ge	74		102.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, May 13, 2010 00:21:48
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100506\Sample.246
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2037.5	2037.545	49.122	2.4
	Mg	24.0	19030.3	19030.268	191.474	1.0
	Co	58.9	30324.8	30324.753	205.150	0.7
	Rh	102.9	73874.1	73874.126	615.123	0.8
	In	114.9	88805.8	88805.795	932.517	1.1
	Pb	208.0	79191.3	79191.297	576.293	0.7
⌈>	Ba	137.9	88686.0	88686.018	779.662	0.9
⌊	Ba++	69.0	861.7	0.010	0.000	2.0
⌈>	Ce	139.9	114050.3	114050.273	880.342	0.8
⌊	CeO	155.9	1786.7	0.016	0.000	1.5
	Bkgd	220.0	17.6	17.600	1.981	11.3

Current Optimization File Data

Current Value	Description
0.92	Nebulizer Gas Flow
9.00	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	15	9.0	2752.3
Co	59	15	9.5	42364.7
In	115	15	10.5	104887.0

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	581	2080	0.641
Be	9.0	9.0	2043	2080	0.656
Mg	24.0	24.0	5678	2120	0.639
Mg	25.0	25.0	5905	2080	0.690
Mg	26.0	26.0	6168	2120	0.695
Co	58.9	58.9	14168	2170	0.655
Rh	102.9	102.9	24849	2230	0.703
In	114.9	114.9	27789	2260	0.693
Ce	139.9	139.9	33850	2280	0.751
Pb	206.0	206.0	49960	2424	0.778
Pb	207.0	207.0	50125	2385	0.709
Pb	208.0	208.0	50451	2430	0.727
U	238.1	238.1	57739	2470	0.723

Report Date/Time: Thursday, May 13, 2010 00:06:59

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, May 13, 2010 01:47:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\Blank.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		16	
>	Sc	45		ug/L		502015	
>	Ge	74		ug/L		194143	
	As	75		ug/L		-324	
	Se	77		ug/L		5549	
	Se	82		ug/L		0	
	Kr	83		ug/L		72	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, May 13, 2010 01:51:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\Standard 1.019

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	2.899	3187	0.006
>	Sc	45		ug/L		510881	510880.883
>	Ge	74		ug/L		198418	198417.781
	As	75	10.000	ug/L	3.964	5924	0.032
	Se	77		ug/L		6004	0.002
	Se	82	10.000	ug/L	4.751	626	0.003
	Kr	83		ug/L		69	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, May 13, 2010 01:55:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\Standard 2.020

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**100.051**	**ug/L**	0.753	31677	0.065
>	Sc	45		**ug/L**		483871	483870.737
>	Ge	74		**ug/L**		190409	190409.475
	As	75	**100.059**	**ug/L**	0.162	63515	0.335
	Se	77		**ug/L**		9554	0.022
	Se	82	**100.060**	**ug/L**	1.444	6394	0.034
	Kr	83		**ug/L**		84	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, May 13, 2010 01:59:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 1.021

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.221**	**ug/L**	1.160	16420	0.032
>	Sc	45		**ug/L**		520143	520142.717
>	Ge	74		**ug/L**		198268	198268.025
	As	75	**49.441**	**ug/L**	0.888	32511	0.166
	Se	77		**ug/L**		7299	0.008
	Se	82	**50.314**	**ug/L**	3.303	3348	0.017
	Kr	83		**ug/L**		70	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	96.442				
>	Sc	45		103.6			
>	Ge	74		102.1			
	As	75	98.882				
	Se	77					
	Se	82	100.628				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, May 13, 2010 02:03:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 2.022

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.009**	**ug/L**	142.625	21	0.000
>	Sc	45		**ug/L**		535961	535960.753
>	Ge	74		**ug/L**		203731	203731.129
	As	75	**-0.072**	**ug/L**	774.767	-390	-0.000
	Se	77		**ug/L**		5179	-0.003
	Se	82	**0.113**	**ug/L**	54.550	8	0.000
	Kr	83		**ug/L**		63	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		106.8			
>	Ge	74		104.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, May 13, 2010 02:08:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 3.023

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.553**	**ug/L**	14.429	204	0.000
>	Sc	45		**ug/L**		516664	516664.226
>	Ge	74		**ug/L**		201036	201035.991
	As	75	**6.375**	**ug/L**	4.131	3958	0.021
	Se	77		**ug/L**		5630	-0.001
	Se	82	**5.895**	**ug/L**	8.478	398	0.002
	Kr	83		**ug/L**		71	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	110.563				
>	Sc	45		102.9			
>	Ge	74		103.6			
	As	75	127.508				
	Se	77					
	Se	82	117.891				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, May 13, 2010 02:12:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 4.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.086**	**ug/L**	26.672	42	0.000
>	Sc	45		**ug/L**		468227	468227.241
>	Ge	74		**ug/L**		181310	181309.798
	As	75	**0.625**	**ug/L**	103.477	77	0.002
	Se	77		**ug/L**		4318	-0.005
	Se	82	**-2.057**	**ug/L**	3.923	-125	-0.001
	Kr	83		**ug/L**		204	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.3			
>	Ge	74		93.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, May 13, 2010 02:16:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 5.025

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**17.443**	**ug/L**	1.773	5398	0.011
>	Sc	45		**ug/L**		471927	471927.407
>	Ge	74		**ug/L**		183362	183362.259
	As	75	**19.136**	**ug/L**	3.418	11446	0.064
	Se	77		**ug/L**		4911	-0.002
	Se	82	**17.861**	**ug/L**	1.764	1099	0.006
	Kr	83		**ug/L**		196	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	87.215				
>	Sc	45		94.0			
>	Ge	74		94.4			
	As	75	95.679				
	Se	77					
	Se	82	89.304				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 13, 2010 02:20:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 6.026

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.603**	**ug/L**	1.731	15683	0.031
>	Sc	45		**ug/L**		503300	503299.800
>	Ge	74		**ug/L**		197259	197258.558
	As	75	**49.290**	**ug/L**	1.420	32248	0.165
	Se	77		**ug/L**		6696	0.005
	Se	82	**49.566**	**ug/L**	0.730	3281	0.017
	Kr	83		**ug/L**		77	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	95.206				
>	Sc	45		100.3			
>	Ge	74		101.6			
	As	75	98.579				
	Se	77					
	Se	82	99.132				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 13, 2010 02:25:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 7.027

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.012**	**ug/L**	128.620	21	0.000
⌊>	Sc	45		**ug/L**		524482	524481.574
⌈>	Ge	74		**ug/L**		202673	202672.942
|	As	75	**0.340**	**ug/L**	133.845	-107	0.001
|	Se	77		**ug/L**		4824	-0.005
|	Se	82	**-0.058**	**ug/L**	242.220	-4	-0.000
⌊	Kr	83		**ug/L**		72	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		104.5			
⌈>	Ge	74		104.4			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068053
Sample Date/Time: Thursday, May 13, 2010 02:29:17
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\1202068053.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.012	ug/L	92.082	14	-0.000
>	Sc	45		ug/L		561049	561049.130
>	Ge	74		ug/L		209112	209111.809
	As	75	0.442	ug/L	91.113	-39	0.001
	Se	77		ug/L		4811	-0.006
	Se	82	-0.166	ug/L	17.863	-12	-0.000
	Kr	83		ug/L		69	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		111.8			
>	Ge	74		107.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068058
Sample Date/Time: Thursday, May 13, 2010 02:33:32
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 963995|40|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\1202068058.029

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**18.469**	**ug/L**	1.989	7382	0.012
>	Sc	45		**ug/L**		609552	609551.958
>	Ge	74		**ug/L**		228741	228741.418
	As	75	**23.457**	**ug/L**	3.351	17595	0.079
	Se	77		**ug/L**		11996	0.024
	Se	82	**64.035**	**ug/L**	2.055	4916	0.021
	Kr	83		**ug/L**		87	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		121.4			
>	Ge	74		117.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 248824001
Sample Date/Time: Thursday, May 13, 2010 02:37:47
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\248824001.030

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.903**	**ug/L**	2.997	360	0.001
⌊>	Sc	45		**ug/L**		578473	578472.853
⌈>	Ge	74		**ug/L**		210370	210370.088
|	As	75	**3.005**	**ug/L**	21.751	1765	0.010
|	Se	77		**ug/L**		5189	-0.004
|	Se	82	**0.388**	**ug/L**	69.941	27	0.000
⌊	Kr	83		**ug/L**		135	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		115.2			
⌈>	Ge	74		108.4			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248824002
Sample Date/Time: Thursday, May 13, 2010 02:42:02
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\248824002.031

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.980**	**ug/L**	2.259	390	0.001
⌊>	Sc	45		**ug/L**		579618	579618.425
⌈>	Ge	74		**ug/L**		208238	208238.473
|	As	75	**3.558**	**ug/L**	3.902	2134	0.012
|	Se	77		**ug/L**		4772	-0.006
|	Se	82	**0.542**	**ug/L**	47.422	38	0.000
⌊	Kr	83		**ug/L**		126	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		115.5			
⌈>	Ge	74		107.3			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 13, 2010 02:46:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 6.032

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**46.732**	**ug/L**	0.949	16869	0.031
>	Sc	45		**ug/L**		551388	551387.778
>	Ge	74		**ug/L**		210824	210824.380
	As	75	**49.521**	**ug/L**	1.427	34627	0.166
	Se	77		**ug/L**		7747	0.008
	Se	82	**49.551**	**ug/L**	2.332	3506	0.017
	Kr	83		**ug/L**		76	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	93.464				
>	Sc	45		109.8			
>	Ge	74		108.6			
	As	75	99.042				
	Se	77					
	Se	82	99.102				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 13, 2010 02:50:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 7.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.017**	**ug/L**	93.881	24	0.000
>	Sc	45		**ug/L**		544133	544132.999
>	Ge	74		**ug/L**		207979	207978.754
	As	75	**0.171**	**ug/L**	142.770	-229	0.001
	Se	77		**ug/L**		5462	-0.002
	Se	82	**0.052**	**ug/L**	474.369	4	0.000
	Kr	83		**ug/L**		69	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		108.4			
>	Ge	74		107.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068054
Sample Date/Time: Thursday, May 13, 2010 02:58:58
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\1202068054.035

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.507**	**ug/L**	2.232	570	0.001
>	Sc	45		**ug/L**		559501	559500.530
>	Ge	74		**ug/L**		204383	204383.037
	As	75	**2.280**	**ug/L**	6.173	1220	0.008
	Se	77		**ug/L**		4784	-0.005
	Se	82	**0.619**	**ug/L**	62.799	43	0.000
	Kr	83		**ug/L**		133	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		111.5			
>	Ge	74		105.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068056
Sample Date/Time: Thursday, May 13, 2010 03:03:13
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\1202068056.036

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**23.255**	**ug/L**	3.591	8705	0.015
>	Sc	45		**ug/L**		571238	571237.535
>	Ge	74		**ug/L**		203608	203607.838
	As	75	**35.124**	**ug/L**	2.336	23616	0.118
	Se	77		**ug/L**		5181	-0.003
	Se	82	**8.212**	**ug/L**	4.580	561	0.003
	Kr	83		**ug/L**		148	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		113.8			
>	Ge	74		104.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068057
Sample Date/Time: Thursday, May 13, 2010 03:07:28
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\1202068057.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**22.281**	**ug/L**	0.836	8317	0.015
⌊>	Sc	45		**ug/L**		569535	569535.134
⌈>	Ge	74		**ug/L**		202635	202635.381
|	As	75	**34.591**	**ug/L**	2.157	23147	0.116
|	Se	77		**ug/L**		5003	-0.004
|	Se	82	**8.229**	**ug/L**	2.396	560	0.003
⌊	Kr	83		**ug/L**		151	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		113.4			
⌈>	Ge	74		104.4			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068055
Sample Date/Time: Thursday, May 13, 2010 03:11:44
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 963995|10|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\1202068055.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.259	ug/L	13.564	121	0.000
>	Sc	45		ug/L		600615	600614.657
>	Ge	74		ug/L		217638	217637.648
	As	75	0.067	ug/L	705.192	-315	0.000
	Se	77		ug/L		7993	0.008
	Se	82	-0.121	ug/L	70.079	-9	-0.000
	Kr	83		ug/L		88	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		119.6			
>	Ge	74		112.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 13, 2010 03:28:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 6.042

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**47.411**	**ug/L**	0.784	16397	0.031
⌊>	Sc	45		**ug/L**		528281	528280.509
⌈>	Ge	74		**ug/L**		201376	201376.081
|	As	75	**49.812**	**ug/L**	1.543	33270	0.167
|	Se	77		**ug/L**		7066	0.007
|	Se	82	**49.764**	**ug/L**	2.055	3363	0.017
⌊	Kr	83		**ug/L**		77	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	94.822				
⌊>	Sc	45		105.2			
⌈>	Ge	74		103.7			
|	As	75	99.623				
|	Se	77					
|	Se	82	99.527				
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 13, 2010 03:32:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 7.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.001**	**ug/L**	930.413	18	0.000
>	Sc	45		**ug/L**		529153	529153.346
>	Ge	74		**ug/L**		200325	200325.440
	As	75	**-0.130**	**ug/L**	245.250	-422	-0.000
	Se	77		**ug/L**		4731	-0.005
	Se	82	**-0.071**	**ug/L**	243.172	-5	-0.000
	Kr	83		**ug/L**		82	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		105.4			
>	Ge	74		103.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\032310S1.SIF
Batch ID:
Results Data Set: 032310S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 3/16/2010 09:36:57**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/23/2010 08:48:48**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0005	0.0030	0.0005	08:49:41	Yes
2		[0.00]	0.0005	0.0022	0.0005	08:50:11	Yes
Mean:		[0.00]	0.0005				
SD:		0.00	0.0000				
%RSD:		0.00	9.84				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/23/2010 08:50:29**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0029	0.0172	0.0034	08:51:20	Yes
2		[0.2]	0.0028	0.0155	0.0033	08:51:49	Yes
Mean:		[0.2]	0.0029				
SD:		0.0	0.0001				
%RSD:		0.0	2.74				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01426 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/23/2010 08:52:09**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0071	0.0362	0.0076	08:52:59	Yes
2		[0.5]	0.0071	0.0368	0.0075	08:53:29	Yes
Mean:		[0.5]	0.0071				
SD:		0.0	0.0000				
%RSD:		0.0	0.05				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999987 Slope: 0.01410 Intercept: 0.00001

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/23/2010 08:53:48**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0284	0.1413	0.0289	08:54:40	Yes
2		[2.0]	0.0280	0.1385	0.0285	08:55:10	Yes
Mean:		[2.0]	0.0282				
SD:		0.0	0.0003				
%RSD:		0.0	1.02				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999999 Slope: 0.01408 Intercept: 0.00002

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/23/2010 08:55:30**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0699	0.3467	0.0704	08:56:22	Yes
2		[5.0]	0.0698	0.3436	0.0703	08:56:52	Yes
Mean:		[5.0]	0.0699				
SD:		0.0	0.0001				
%RSD:		0.0	0.16				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999995 Slope: 0.01397 Intercept: 0.00007

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/23/2010 08:57:12**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1354	0.6726	0.1359	08:58:02	Yes
2		[10.0]	0.1357	0.6712	0.1362	08:58:32	Yes
Mean:		[10.0]	0.1355				
SD:		0.0	0.0002				
%RSD:		0.0	0.18				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999880 Slope: 0.01358 Intercept: 0.00051

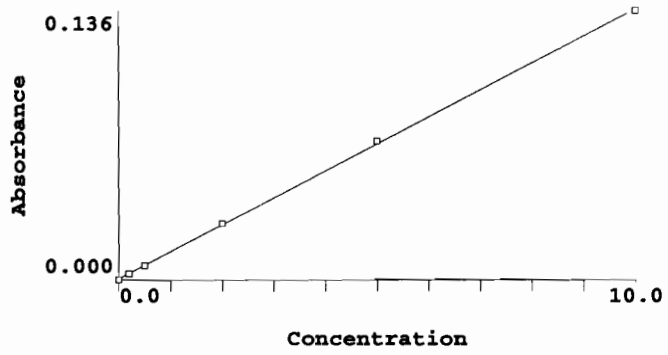

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.038	0.00	9.8
S0.2	0.0029	0.2	0.172	0.00	2.7
S0.5	0.0071	0.5	0.482	0.00	0.1
S2.0	0.0282	2.0	2.036	0.00	1.0

S5.0	0.0699	5.0	5.106	0.00	0.2
S10.0	0.1355	10.0	9.941	0.00	0.2

Correlation Coef.: 0.999880 Slope: 0.01358 Intercept: 0.00051

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/23/2010 08:58:51**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.117	5.117	0.0700	0.3487	0.0705	08:59:41	Yes
2	5.078	5.078	0.0695	0.3422	0.0700	09:00:11	Yes
Mean:	5.097	5.097	0.0697				
SD:	0.027	0.027	0.0004				
%RSD:	0.531	0.531	0.53				

QC value within limits for Hg 253.7 Recovery = 101.95%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/23/2010 09:00:31**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.040	-0.040	-0.0000	0.0010	0.0005	09:01:23	Yes
2	-0.043	-0.043	-0.0001	0.0009	0.0004	09:01:52	Yes
Mean:	-0.042	-0.042	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	4.646	4.646	49.05				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/23/2010 09:02:12**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.172	0.172	0.0028	0.0156	0.0033	09:03:04	Yes
2	0.168	0.168	0.0028	0.0153	0.0033	09:03:34	Yes
Mean:	0.170	0.170	0.0028				
SD:	0.003	0.003	0.0000				
%RSD:	1.682	1.682	1.38				

QC value within limits for Hg 253.7 Recovery = 84.82%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 09:03:54**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.085	5.085	0.0696	0.3468	0.0701	09:04:44	Yes
2	5.100	5.100	0.0698	0.3464	0.0703	09:05:14	Yes
Mean:	5.092	5.092	0.0697				
SD:	0.011	0.011	0.0002				
%RSD:	0.219	0.219	0.22				

QC value within limits for Hg 253.7 Recovery = 101.85%
All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 09:05:33**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.042	-0.042	-0.0001	0.0013	0.0004	09:06:24	Yes
2	-0.044	-0.044	-0.0001	0.0014	0.0004	09:06:54	Yes
Mean:	-0.043	-0.043	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	3.779	3.779	31.29				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202076787|967588|1 **Date Collected: 3/23/2010 09:07:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076787|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.037	-0.037	0.0000	0.0018	0.0005	09:08:05	Yes
2	-0.039	-0.039	-0.0000	0.0015	0.0005	09:08:35	Yes
Mean:	-0.038	-0.038	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.857	3.857	171.19				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202076788|967588|1 **Date Collected: 3/23/2010 09:08:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076788|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.049	2.049	0.0283	0.1421	0.0288	09:09:46	Yes
2	2.045	2.045	0.0283	0.1417	0.0288	09:10:16	Yes
Mean:	2.047	2.047	0.0283				
SD:	0.003	0.003	0.0000				
%RSD:	0.124	0.124	0.12				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 248483001|967588|1 **Date Collected: 3/23/2010 09:10:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483001|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	0.0009	0.0059	0.0014	09:11:27	Yes
2	0.030	0.030	0.0009	0.0069	0.0014	09:11:57	Yes
Mean:	0.029	0.029	0.0009				
SD:	0.002	0.002	0.0000				
%RSD:	7.965	7.965	3.44				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 248483002|967588|1 **Date Collected: 3/23/2010 09:12:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483002|967588|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 1202076791|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.178	2.178	0.0301	0.1528	0.0306	09:21:24	Yes
2	2.161	2.161	0.0299	0.1510	0.0304	09:21:54	Yes
Mean:	2.169	2.169	0.0300				
SD:	0.012	0.012	0.0002				
%RSD:	0.561	0.561	0.55				

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 1202076792|967588|5 **Date Collected: 3/23/2010 09:22:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076792|967588|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	0.0005	0.0050	0.0010	09:23:04	Yes
2	-0.011	-0.011	0.0004	0.0046	0.0009	09:23:34	Yes
Mean:	-0.007	-0.007	0.0004				
SD:	0.006	0.006	0.0001				
%RSD:	83.40	83.40	19.79				

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 09:23:53**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.174	5.174	0.0708	0.3530	0.0713	09:24:43	Yes
2	5.099	5.099	0.0698	0.3475	0.0703	09:25:13	Yes
Mean:	5.136	5.136	0.0703				
SD:	0.053	0.053	0.0007				
%RSD:	1.034	1.034	1.03				

QC value within limits for Hg 253.7 Recovery = 102.73%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 09:25:32**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.029	-0.029	0.0001	0.0036	0.0006	09:26:23	Yes
2	-0.028	-0.028	0.0001	0.0031	0.0006	09:26:53	Yes
Mean:	-0.028	-0.028	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.927	2.927	9.13				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 248483005|967588|1 **Date Collected: 3/23/2010 09:27:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483005|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.049	0.049	0.0012	0.0088	0.0017	09:28:03	Yes
2	0.047	0.047	0.0011	0.0080	0.0016	09:28:33	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.090	0.090	0.0017	0.0111	0.0022	09:36:27	Yes
2	0.097	0.097	0.0018	0.0112	0.0023	09:36:57	Yes
Mean:	0.093	0.093	0.0018				
SD:	0.005	0.005	0.0001				
%RSD:	5.347	5.347	3.81				

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 248483011|967588|1 **Date Collected: 3/23/2010 09:37:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483011|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.158	0.158	0.0027	0.0154	0.0032	09:38:07	Yes
2	0.167	0.167	0.0028	0.0165	0.0033	09:38:37	Yes
Mean:	0.162	0.162	0.0027				
SD:	0.006	0.006	0.0001				
%RSD:	3.724	3.724	3.02				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 248483012|967588|1 **Date Collected: 3/23/2010 09:38:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483012|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.162	0.162	0.0027	0.0179	0.0032	09:39:46	Yes
2	0.148	0.148	0.0025	0.0154	0.0030	09:40:16	Yes
Mean:	0.155	0.155	0.0026				
SD:	0.010	0.010	0.0001				
%RSD:	6.492	6.492	5.22				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 248483013|967588|1 **Date Collected: 3/23/2010 09:40:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483013|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.150	0.150	0.0026	0.0139	0.0031	09:41:26	Yes
2	0.152	0.152	0.0026	0.0147	0.0031	09:41:56	Yes
Mean:	0.151	0.151	0.0026				
SD:	0.001	0.001	0.0000				
%RSD:	0.691	0.691	0.55				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 248483014|967588|1 **Date Collected: 3/23/2010 09:42:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483014|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.087	0.087	0.0017	0.0101	0.0022	09:43:06	Yes
2	0.079	0.079	0.0016	0.0099	0.0021	09:43:36	Yes
Mean:	0.083	0.083	0.0016				
SD:	0.006	0.006	0.0001				
%RSD:	7.146	7.146	4.92				

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 09:43:55**

Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.174	5.174	0.0708	0.3535	0.0713	09:44:45	Yes
2	5.173	5.173	0.0708	0.3542	0.0713	09:45:15	Yes
Mean:	5.174	5.174	0.0708				
SD:	0.001	0.001	0.0000				
%RSD:	0.014	0.014	0.01				

QC value within limits for Hg 253.7 Recovery = 103.48%
All analyte(s) passed QC.

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 09:45:34**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.031	-0.031	0.0001	0.0023	0.0006	09:46:24	Yes
2	-0.031	-0.031	0.0001	0.0024	0.0006	09:46:54	Yes
Mean:	-0.031	-0.031	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.575	0.575	2.65				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 248483015|967588|1 **Date Collected: 3/23/2010 09:47:14**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483015|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.254	0.254	0.0040	0.0221	0.0045	09:48:05	Yes
2	0.252	0.252	0.0039	0.0220	0.0044	09:48:35	Yes
Mean:	0.253	0.253	0.0039				
SD:	0.001	0.001	0.0000				
%RSD:	0.412	0.412	0.36				

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 248483016|967588|1 **Date Collected: 3/23/2010 09:48:54**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483016|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.131	0.131	0.0023	0.0135	0.0028	09:49:45	Yes
2	0.145	0.145	0.0025	0.0147	0.0030	09:50:15	Yes
Mean:	0.138	0.138	0.0024				
SD:	0.010	0.010	0.0001				
%RSD:	7.065	7.065	5.55				

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 248483017|967588|1 **Date Collected: 3/23/2010 09:50:34**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483017|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.072	0.072	0.0015	0.0104	0.0020	09:51:25	Yes

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\032310S1.SIF
Batch ID:
Results Data Set: 032310S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 3/16/2010 09:36:57**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/23/2010 10:02:14**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.176	0.176	0.0029	0.0173	0.0034	10:03:06	Yes
2	0.172	0.172	0.0028	0.0167	0.0033	10:03:36	Yes
Mean:	0.174	0.174	0.0029				
SD:	0.003	0.003	0.0000				
%RSD:	1.725	1.725	1.42				

QC value within limits for Hg 253.7 Recovery = 87.10%
All analyte(s) passed QC.

==========

Sequence No.: 2 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 10:03:56**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.204	5.204	0.0712	0.3552	0.0717	10:04:46	Yes
2	5.206	5.206	0.0712	0.3552	0.0717	10:05:16	Yes
Mean:	5.205	5.205	0.0712				
SD:	0.001	0.001	0.0000				
%RSD:	0.021	0.021	0.02				

QC value within limits for Hg 253.7 Recovery = 104.10%
All analyte(s) passed QC.

==========

Sequence No.: 3 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 10:05:35**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.037	-0.037	0.0000	0.0021	0.0005	10:06:25	Yes
2	-0.036	-0.036	0.0000	0.0021	0.0005	10:06:55	Yes
Mean:	-0.036	-0.036	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	1.756	1.756	46.59				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 4 **Autosampler Location: 39**
Sample ID: 248673001|967582|1 **Date Collected: 3/23/2010 10:07:14**

2	0.392	0.392	0.0058	0.0316	0.0063	10:23:42	Yes
Mean:	0.391	0.391	0.0058				
SD:	0.000	0.000	0.0000				
%RSD:	0.021	0.021	0.02				

Sequence No.: 14 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 10:24:02**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.939	4.939	0.0676	0.3393	0.0681	10:24:52	Yes
2	4.862	4.862	0.0665	0.3334	0.0670	10:25:22	Yes
Mean:	4.900	4.900	0.0671				
SD:	0.055	0.055	0.0007				
%RSD:	1.117	1.117	1.11				

QC value within limits for Hg 253.7 Recovery = 98.00%
All analyte(s) passed QC.

Sequence No.: 15 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 10:25:41**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.041	-0.041	-0.0000	0.0022	0.0005	10:26:31	Yes
2	-0.044	-0.044	-0.0001	0.0017	0.0004	10:27:01	Yes
Mean:	-0.043	-0.043	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	4.782	4.782	40.46				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 16 **Autosampler Location: 49**
Sample ID: 1202076781|967585|1 **Date Collected: 3/23/2010 10:27:21**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076781|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.046	-0.046	-0.0001	0.0020	0.0004	10:28:12	Yes
2	-0.045	-0.045	-0.0001	0.0020	0.0004	10:28:42	Yes
Mean:	-0.045	-0.045	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.559	0.559	3.22				

Sequence No.: 17 **Autosampler Location: 50**
Sample ID: 1202076782|967585|10 **Date Collected: 3/23/2010 10:29:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076782|967585|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.640	3.640	0.0499	0.2499	0.0504	10:29:54	Yes
2	3.612	3.612	0.0496	0.2477	0.0501	10:30:23	Yes
Mean:	3.626	3.626	0.0498				
SD:	0.020	0.020	0.0003				
%RSD:	0.544	0.544	0.54				

Sequence No.: 18 **Autosampler Location: 51**

%RSD: 3.093 3.093 1.41

==========

Sequence No.: 23 **Autosampler Location: 56**
Sample ID: 248700002|967585|1 **Date Collected: 3/23/2010 10:39:07**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700002|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.111	0.111	0.0020	0.0126	0.0025	10:39:58	Yes
2	0.111	0.111	0.0020	0.0126	0.0025	10:40:28	Yes
Mean:	0.111	0.111	0.0020				
SD:	0.000	0.000	0.0000				
%RSD:	0.070	0.070	0.05				

==========

Sequence No.: 24 **Autosampler Location: 57**
Sample ID: 248700003|967585|1 **Date Collected: 3/23/2010 10:40:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700003|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.234	0.234	0.0037	0.0208	0.0042	10:41:39	Yes
2	0.232	0.232	0.0037	0.0205	0.0042	10:42:09	Yes
Mean:	0.233	0.233	0.0037				
SD:	0.002	0.002	0.0000				
%RSD:	0.715	0.715	0.62				

==========

Sequence No.: 25 **Autosampler Location: 58**
Sample ID: 248700004|967585|1 **Date Collected: 3/23/2010 10:42:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700004|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.168	0.168	0.0028	0.0163	0.0033	10:43:20	Yes
2	0.166	0.166	0.0028	0.0160	0.0033	10:43:49	Yes
Mean:	0.167	0.167	0.0028				
SD:	0.002	0.002	0.0000				
%RSD:	1.031	1.031	0.84				

==========

Sequence No.: 26 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 10:44:09**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.962	4.962	0.0679	0.3375	0.0684	10:44:59	Yes
2	4.926	4.926	0.0674	0.3330	0.0679	10:45:29	Yes
Mean:	4.944	4.944	0.0677				
SD:	0.025	0.025	0.0003				
%RSD:	0.513	0.513	0.51				

QC value within limits for Hg 253.7 Recovery = 98.88%
All analyte(s) passed QC.

==========

Sequence No.: 27 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 10:45:48**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.036	-0.036	0.0000	0.0024	0.0005	10:46:38	Yes
2	-0.035	-0.035	0.0000	0.0024	0.0005	10:47:08	Yes
Mean:	-0.036	-0.036	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	1.124	1.124	22.10				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 28 **Autosampler Location: 59**
Sample ID: 248700005|967585|1 **Date Collected: 3/23/2010 10:47:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700005|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.371	0.371	0.0056	0.0302	0.0060	10:48:19	Yes
2	0.369	0.369	0.0055	0.0299	0.0060	10:48:49	Yes
Mean:	0.370	0.370	0.0055				
SD:	0.001	0.001	0.0000				
%RSD:	0.318	0.318	0.29				

==========

Sequence No.: 29 **Autosampler Location: 60**
Sample ID: 248700006|967585|1 **Date Collected: 3/23/2010 10:49:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700006|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.168	0.168	0.0028	0.0162	0.0033	10:50:00	Yes
2	0.168	0.168	0.0028	0.0162	0.0033	10:50:30	Yes
Mean:	0.168	0.168	0.0028				
SD:	0.000	0.000	0.0000				
%RSD:	0.165	0.165	0.13				

==========

Sequence No.: 30 **Autosampler Location: 61**
Sample ID: 248700007|967585|1 **Date Collected: 3/23/2010 10:50:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700007|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.645	1.645	0.0229	0.1165	0.0234	10:51:42	Yes
2	1.645	1.645	0.0229	0.1156	0.0233	10:52:12	Yes
Mean:	1.645	1.645	0.0229				
SD:	0.000	0.000	0.0000				
%RSD:	0.010	0.010	0.01				

==========

Sequence No.: 31 **Autosampler Location: 62**
Sample ID: 248700008|967585|1 **Date Collected: 3/23/2010 10:52:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700008|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.183	0.183	0.0030	0.0169	0.0035	10:53:23	Yes
2	0.187	0.187	0.0031	0.0174	0.0036	10:53:53	Yes
Mean:	0.185	0.185	0.0030				
SD:	0.003	0.003	0.0000				
%RSD:	1.705	1.705	1.42				

==========

SD:	0.004	0.004	0.0000
%RSD:	1.017	1.017	0.92

==========

Sequence No.: 37 **Autosampler Location: 68**
Sample ID: 248700014|967585|1 **Date Collected: 3/23/2010 11:02:39**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700014|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.260	0.260	0.0040	0.0223	0.0045	11:03:30	Yes
2	0.257	0.257	0.0040	0.0220	0.0045	11:04:00	Yes
Mean:	0.259	0.259	0.0040				
SD:	0.002	0.002	0.0000				
%RSD:	0.857	0.857	0.75				

==========

Sequence No.: 38 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 11:04:20**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.024	5.024	0.0687	0.3448	0.0692	11:05:10	Yes
2	4.987	4.987	0.0682	0.3414	0.0687	11:05:40	Yes
Mean:	5.006	5.006	0.0685				
SD:	0.026	0.026	0.0003				
%RSD:	0.512	0.512	0.51				

QC value within limits for Hg 253.7 Recovery = 100.11%
All analyte(s) passed QC.

==========

Sequence No.: 39 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 11:05:59**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.033	-0.033	0.0001	0.0025	0.0006	11:06:50	Yes
2	-0.034	-0.034	0.0000	0.0022	0.0005	11:07:20	Yes
Mean:	-0.034	-0.034	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.019	3.019	25.01				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 40 **Autosampler Location: 69**
Sample ID: 248700015|967585|1 **Date Collected: 3/23/2010 11:07:39**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700015|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.263	0.263	0.0041	0.0221	0.0046	11:08:30	Yes
2	0.252	0.252	0.0039	0.0216	0.0044	11:09:00	Yes
Mean:	0.258	0.258	0.0040				
SD:	0.008	0.008	0.0001				
%RSD:	3.046	3.046	2.66				

==========

Sequence No.: 41 **Autosampler Location: 70**
Sample ID: 248700016|967585|1 **Date Collected: 3/23/2010 11:09:20**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700016|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.230	0.230	0.0036	0.0189	0.0041	11:10:11	Yes
2	0.230	0.230	0.0036	0.0195	0.0041	11:10:41	Yes
Mean:	0.230	0.230	0.0036				
SD:	0.000	0.000	0.0000				
%RSD:	0.079	0.079	0.07				

Sequence No.: 42
Sample ID: 1202076806|967595|1
Analyst: JXL
Autosampler Location: 71
Date Collected: 3/23/2010 11:11:01
Data Type: Original

Replicate Data: 1202076806|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.038	-0.038	-0.0000	0.0012	0.0005	11:11:52	Yes
2	-0.041	-0.041	-0.0000	0.0015	0.0005	11:12:22	Yes
Mean:	-0.039	-0.039	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	4.748	4.748	110.70				

Sequence No.: 43
Sample ID: 1202076807|967595|10
Analyst: JXL
Autosampler Location: 72
Date Collected: 3/23/2010 11:12:42
Data Type: Original

Replicate Data: 1202076807|967595|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.695	3.695	0.0507	0.2532	0.0512	11:13:33	Yes
2	3.672	3.672	0.0504	0.2505	0.0509	11:14:03	Yes
Mean:	3.684	3.684	0.0505				
SD:	0.016	0.016	0.0002				
%RSD:	0.442	0.442	0.44				

Sequence No.: 44
Sample ID: 248808001|967595|1
Analyst: JXL
Autosampler Location: 73
Date Collected: 3/23/2010 11:14:23
Data Type: Original

Replicate Data: 248808001|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.052	0.052	0.0012	0.0076	0.0017	11:15:15	Yes
2	0.043	0.043	0.0011	0.0079	0.0016	11:15:45	Yes
Mean:	0.048	0.048	0.0012				
SD:	0.007	0.007	0.0001				
%RSD:	14.50	14.50	8.10				

Sequence No.: 45
Sample ID: 248808002|967595|1
Analyst: JXL
Autosampler Location: 74
Date Collected: 3/23/2010 11:16:05
Data Type: Original

Replicate Data: 248808002|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.530	0.530	0.0077	0.0409	0.0082	11:16:56	Yes
2	0.528	0.528	0.0077	0.0406	0.0082	11:17:26	Yes
Mean:	0.529	0.529	0.0077				
SD:	0.002	0.002	0.0000				
%RSD:	0.366	0.366	0.34				

Sequence No.: 46 **Autosampler Location: 75**
Sample ID: 248808003|967595|1 **Date Collected: 3/23/2010 11:17:46**
Analyst: JXL **Data Type: Original**

Replicate Data: 248808003|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.038	5.038	0.0689	0.3465	0.0694	11:18:38	Yes
2	5.020	5.020	0.0687	0.3444	0.0692	11:19:08	Yes
Mean:	5.029	5.029	0.0688				
SD:	0.012	0.012	0.0002				
%RSD:	0.246	0.246	0.24				

Sequence No.: 47 **Autosampler Location: 76**
Sample ID: 248808004|967595|1 **Date Collected: 3/23/2010 11:19:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 248808004|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.439	3.439	0.0472	0.2404	0.0477	11:20:19	Yes
2	3.429	3.429	0.0471	0.2388	0.0476	11:20:49	Yes
Mean:	3.434	3.434	0.0472				
SD:	0.007	0.007	0.0001				
%RSD:	0.198	0.198	0.20				

Sequence No.: 48 **Autosampler Location: 77**
Sample ID: 248808005|967595|1 **Date Collected: 3/23/2010 11:21:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 248808005|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	15.97	15.97	0.2174	1.1118	0.2179	11:22:00	Yes
Sample concentration is greater than that of the highest standard.							
2	15.86	15.86	0.2159	1.0992	0.2164	11:22:30	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	15.92	15.92	0.2167				
SD:	0.076	0.076	0.0010				
%RSD:	0.477	0.477	0.48				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 49 **Autosampler Location: 78**
Sample ID: 248808006|967595|1 **Date Collected: 3/23/2010 11:22:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 248808006|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.550	5.550	0.0759	0.3803	0.0764	11:23:41	Yes
2	5.540	5.540	0.0757	0.3768	0.0762	11:24:11	Yes
Mean:	5.545	5.545	0.0758				
SD:	0.007	0.007	0.0001				
%RSD:	0.135	0.135	0.13				

Sequence No.: 50 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 11:24:31**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.000	5.000	0.0684	0.3423	0.0689	11:25:21	Yes
2	4.977	4.977	0.0681	0.3391	0.0686	11:25:51	Yes
Mean:	4.988	4.988	0.0683				
SD:	0.016	0.016	0.0002				
%RSD:	0.328	0.328	0.33				

QC value within limits for Hg 253.7 Recovery = 99.76%
All analyte(s) passed QC.

==========

Sequence No.: 51 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 11:26:10**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.027	-0.027	0.0001	0.0027	0.0006	11:27:01	Yes
2	-0.026	-0.026	0.0002	0.0032	0.0007	11:27:31	Yes
Mean:	-0.026	-0.026	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	2.821	2.821	6.59				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 52 **Autosampler Location: 79**
Sample ID: 248808007|967595|1 **Date Collected: 3/23/2010 11:27:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 248808007|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.512	5.512	0.0754	0.3759	0.0759	11:28:42	Yes
2	5.481	5.481	0.0750	0.3727	0.0754	11:29:11	Yes
Mean:	5.496	5.496	0.0752				
SD:	0.022	0.022	0.0003				
%RSD:	0.401	0.401	0.40				

==========

Sequence No.: 53 **Autosampler Location: 80**
Sample ID: 248814001|967595|1 **Date Collected: 3/23/2010 11:29:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 248814001|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.215	1.215	0.0170	0.0855	0.0175	11:30:22	Yes
2	1.218	1.218	0.0171	0.0861	0.0176	11:30:52	Yes
Mean:	1.216	1.216	0.0170				
SD:	0.002	0.002	0.0000				
%RSD:	0.202	0.202	0.20				

==========

Sequence No.: 54 **Autosampler Location: 81**
Sample ID: 248814002|967595|1 **Date Collected: 3/23/2010 11:31:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 248814002|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	96.77	96.77	1.3149	10.3895	1.3154	11:32:04	Yes
	Sample concentration is greater than that of the highest standard.						
2	92.75	92.75	1.2602	9.8389	1.2607	11:32:34	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	94.76	94.76	1.2875				
SD:	2.845	2.845	0.0386				

SD:	0.597	0.597	0.0081
%RSD:	0.697	0.697	0.70

Sample concentration is greater than that of the highest standard.

==========

Sequence No.: 59 **Autosampler Location: 86**
Sample ID: 248814007|967595|1 **Date Collected: 3/23/2010 11:39:45**
Analyst: JXL **Data Type: Original**

Replicate Data: 248814007|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	43.63	43.63	0.5931	3.0815	0.5936	11:40:37	Yes
	Sample concentration is greater than that of the highest standard.						
2	43.67	43.67	0.5936	3.0624	0.5941	11:41:07	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	43.65	43.65	0.5933				
SD:	0.027	0.027	0.0004				
%RSD:	0.062	0.062	0.06				

Sample concentration is greater than that of the highest standard.

==========

Sequence No.: 60 **Autosampler Location: 87**
Sample ID: 248814008|967595|1 **Date Collected: 3/23/2010 11:41:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 248814008|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	27.88	27.88	0.3792	1.8987	0.3797	11:42:19	Yes
	Sample concentration is greater than that of the highest standard.						
2	27.78	27.78	0.3778	1.8890	0.3782	11:42:48	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	27.83	27.83	0.3785				
SD:	0.074	0.074	0.0010				
%RSD:	0.268	0.268	0.27				

Sample concentration is greater than that of the highest standard.

==========

Sequence No.: 61 **Autosampler Location: 88**
Sample ID: 248814009|967595|1 **Date Collected: 3/23/2010 11:43:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 248814009|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	42.40	42.40	0.5764	2.9754	0.5769	11:44:00	Yes
	Sample concentration is greater than that of the highest standard.						
2	42.09	42.09	0.5722	2.9415	0.5727	11:44:30	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	42.25	42.25	0.5743				
SD:	0.218	0.218	0.0030				
%RSD:	0.517	0.517	0.52				

Sample concentration is greater than that of the highest standard.

==========

Sequence No.: 62 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 11:44:50**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.178	5.178	0.0708	0.3433	0.0713	11:45:40	Yes
2	5.154	5.154	0.0705	0.3412	0.0710	11:46:10	Yes
Mean:	5.166	5.166	0.0707				
SD:	0.017	0.017	0.0002				

%RSD: 0.327 0.327 0.32
QC value within limits for Hg 253.7 Recovery = 103.33%
All analyte(s) passed QC.

==========

Sequence No.: 63 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 11:46:29**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.213	0.213	0.0034	0.0175	0.0039	11:47:20	Yes
2	0.134	0.134	0.0023	0.0036	0.0028	11:47:50	Yes
Mean:	0.173	0.173	0.0029				
SD:	0.056	0.056	0.0008				
%RSD:	32.48	32.48	26.69				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 64 **Autosampler Location: 89**
Sample ID: 248824001|967595|1 **Date Collected: 3/23/2010 11:48:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 248824001|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.226	0.226	0.0036	0.0189	0.0041	11:49:01	Yes
2	0.216	0.216	0.0034	0.0180	0.0039	11:49:31	Yes
Mean:	0.221	0.221	0.0035				
SD:	0.007	0.007	0.0001				
%RSD:	3.159	3.159	2.70				

==========

Sequence No.: 65 **Autosampler Location: 90**
Sample ID: 1202076808|967595|1 **Date Collected: 3/23/2010 11:49:51**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076808|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.205	0.205	0.0033	0.0181	0.0038	11:50:42	Yes
2	0.192	0.192	0.0031	0.0169	0.0036	11:51:12	Yes
Mean:	0.198	0.198	0.0032				
SD:	0.009	0.009	0.0001				
%RSD:	4.644	4.644	3.90				

==========

Sequence No.: 66 **Autosampler Location: 91**
Sample ID: 1202076809|967595|1 **Date Collected: 3/23/2010 11:51:33**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076809|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.317	2.317	0.0320	0.1564	0.0325	11:52:24	Yes
2	2.304	2.304	0.0318	0.1549	0.0323	11:52:54	Yes
Mean:	2.311	2.311	0.0319				
SD:	0.009	0.009	0.0001				
%RSD:	0.406	0.406	0.40				

==========

Sequence No.: 67 **Autosampler Location: 92**
Sample ID: 1202076811|967595|1 **Date Collected: 3/23/2010 11:53:14**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076811|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.300	2.300	0.0317	0.1550	0.0322	11:54:06	Yes
2	2.278	2.278	0.0315	0.1528	0.0319	11:54:36	Yes
Mean:	2.289	2.289	0.0316				
SD:	0.015	0.015	0.0002				
%RSD:	0.671	0.671	0.66				

==========

Sequence No.: 68 **Autosampler Location: 93**
Sample ID: 1202076810|967595|5 **Date Collected: 3/23/2010 11:54:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076810|967595|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.121	0.121	0.0022	0.0128	0.0027	11:55:48	Yes
2	0.112	0.112	0.0020	0.0118	0.0025	11:56:18	Yes
Mean:	0.117	0.117	0.0021				
SD:	0.006	0.006	0.0001				
%RSD:	5.409	5.409	4.09				

==========

Sequence No.: 69 **Autosampler Location: 94**
Sample ID: 248824002|967595|1 **Date Collected: 3/23/2010 11:56:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 248824002|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.115	0.115	0.0021	0.0121	0.0026	11:57:29	Yes
2	0.116	0.116	0.0021	0.0121	0.0026	11:57:59	Yes
Mean:	0.116	0.116	0.0021				
SD:	0.001	0.001	0.0000				
%RSD:	0.709	0.709	0.54				

==========

Sequence No.: 70 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 11:58:19**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.032	5.032	0.0689	0.3342	0.0694	11:59:09	Yes
2	5.001	5.001	0.0684	0.3325	0.0689	11:59:39	Yes
Mean:	5.017	5.017	0.0686				
SD:	0.022	0.022	0.0003				
%RSD:	0.432	0.432	0.43				

QC value within limits for Hg 253.7 Recovery = 100.34%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 11:59:58**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.088	0.088	0.0017	0.0106	0.0022	12:00:49	Yes
2	0.085	0.085	0.0017	0.0103	0.0022	12:01:19	Yes
Mean:	0.087	0.087	0.0017				
SD:	0.002	0.002	0.0000				
%RSD:	2.231	2.231	1.56				

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **963992.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202068052	Metals Soil LCS SRM ICP/Hg	UI062540-I	.508	g
MS	1202068050	Metals Spike Mix I	UI1268741-01	.25	mL
MS	1202068050	Metals Spike Mix II	UI1268744-06	.25	mL
MSD	1202068051	Metals Spike Mix I	UI1268741-01	.25	mL
MSD	1202068051	Metals Spike Mix II	UI1268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202068047 MB	13-MAR-2010 03:00:00	Soil	0.516	50	96.89922	
1202068052 LCS	13-MAR-2010 03:00:00	Soil	0.508	50	98.4252	
248824001	13-MAR-2010 03:00:00	Soil	0.532	50	93.98496	
248824002	13-MAR-2010 03:00:00	Soil	0.515	50	97.08738	
248834001	13-MAR-2010 03:00:00	Soil	0.513	50	97.46589	
1202068048 DUP (248834001)	13-MAR-2010 03:00:00	Soil	0.521	50	95.96929	
1202068049 SDILT (248834001)	13-MAR-2010 03:00:00	Soil	0.513	50	97.46589	
1202068050 MS (248834001)	13-MAR-2010 03:00:00	Soil	0.5	50	100	
1202068051 MSD (248834001)	13-MAR-2010 03:00:00	Soil	0.505	50	99.0099	
248834002	13-MAR-2010 03:00:00	Soil	0.555	50	90.09009	
248834003	13-MAR-2010 03:00:00	Soil	0.513	50	97.46589	
248834004	13-MAR-2010 03:00:00	Soil	0.506	50	98.81423	
248834005	13-MAR-2010 03:00:00	Soil	0.517	50	96.7118	
248834006	13-MAR-2010 03:00:00	Soil	0.501	50	99.8004	
248834007	13-MAR-2010 03:00:00	Soil	0.509	50	98.23183	
248834008	13-MAR-2010 03:00:00	Soil	0.5	50	100	
248834009	13-MAR-2010 03:00:00	Soil	0.511	50	97.84736	
248834010	13-MAR-2010 03:00:00	Soil	0.508	50	98.4252	
248834011	13-MAR-2010 03:00:00	Soil	0.504	50	99.20635	

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL
1282566	Nitric Acid CONC.	1.25 mL

Comments:

Sample 248834001 consist of gray soil

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 963994.0 **Verified by:** _____
Analyst: Anthony Green
Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19
Instrument: BAL-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202068053 MB	13-MAR-2010 03:00:00	0.5	50	100	
1202068058 LCS	13-MAR-2010 03:00:00	0.501	50	99.8004	
248824001	13-MAR-2010 03:00:00	0.503	50	99.40358	
248824002	13-MAR-2010 03:00:00	0.506	50	98.81423	
248834001	13-MAR-2010 03:00:00	0.502	50	99.60159	
1202068054 DUP (248834001)	13-MAR-2010 03:00:00	0.512	50	97.65625	
1202068055 SDILT (248834001)	13-MAR-2010 03:00:00	0.502	50	99.60159	
1202068056 MS (248834001)	13-MAR-2010 03:00:00	0.509	50	98.23183	
1202068057 MSD (248834001)	13-MAR-2010 03:00:00	0.502	50	99.60159	
248834002	13-MAR-2010 03:00:00	0.529	50	94.51796	
248834003	13-MAR-2010 03:00:00	0.504	50	99.20635	
248834004	13-MAR-2010 03:00:00	0.509	50	98.23183	
248834005	13-MAR-2010 03:00:00	0.506	50	98.81423	
248834006	13-MAR-2010 03:00:00	0.506	50	98.81423	
248834007	13-MAR-2010 03:00:00	0.507	50	98.61933	
248834008	13-MAR-2010 03:00:00	0.505	50	99.0099	
248834009	13-MAR-2010 03:00:00	0.571	50	87.56567	
248834010	13-MAR-2010 03:00:00	0.556	50	89.92806	
248834011	13-MAR-2010 03:00:00	0.509	50	98.23183	

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202068058	Metals Soil LCS SRM ICPMS	UI062540-MS	.501	g
MS	1202068056	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MS	1202068056	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
MSD	1202068057	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MSD	1202068057	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1282566	5	mL

Comments:

Sample 248824001 consist of gray, soil.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 983925.0 **Verified by:** _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: BAL-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202116481 MB	13-MAY-2010 06:30:00	0.533	50	93.80863	
1202116482 LCS	13-MAY-2010 06:30:00	0.5	50	100	
248834001 - 2	13-MAY-2010 06:30:00	0.532	50	93.98496	
1202068054 - 2 DUP (248834001)	13-MAY-2010 06:30:00	0.527	50	94.87666	
1202068055 - 2 SDILT (248834001)	13-MAY-2010 06:30:00	0.532	50	93.98496	
1202068056 - 2 MS (248834001)	13-MAY-2010 06:30:00	0.532	50	93.98496	
1202068057 - 2 MSD (248834001)	13-MAY-2010 06:30:00	0.52	50	96.15385	
248834002 - 2	13-MAY-2010 06:30:00	0.555	50	90.09009	
248834003 - 2	13-MAY-2010 06:30:00	0.527	50	94.87666	
248834004 - 2	13-MAY-2010 06:30:00	0.511	50	97.84736	
248834005 - 2	13-MAY-2010 06:30:00	0.533	50	93.80863	
248834006 - 2	13-MAY-2010 06:30:00	0.539	50	92.76438	
248834007 - 2	13-MAY-2010 06:30:00	0.529	50	94.51796	
248834008 - 2	13-MAY-2010 06:30:00	0.509	50	98.23183	
248834009 - 2	13-MAY-2010 06:30:00	0.522	50	95.78544	
248834010 - 2	13-MAY-2010 06:30:00	0.549	50	91.07468	
248834011 - 2	13-MAY-2010 06:30:00	0.556	50	89.92806	

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202116482	ICPMS Rare Earth elements LCS standard	UI1303474-05	.25	mL
MS	1202068056	ICPMS Rare Earth elements LCS standard	UI1303474-05	.25	mL
MSD	1202068057	ICPMS Rare Earth elements LCS standard	UI1303474-05	.25	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1335913	5	mL

Comments:

Sample 248834001 consist of light, brown fine soil with rocks.

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **967593.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202076807	Metals LCS Soil SRM	UI031809A	.203	g
MS	1202076809	Mercury soil working intermediate standard for MS	WHG100322-14	.3	mL
MSD	1202076811	Mercury soil working intermediate standard for MS	WHG100322-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202076806 MB	22-MAR-2010 16:35:00	Soil	0.6	30	50	
1202076807 LCS	22-MAR-2010 16:35:00	Soil	0.203	30	147.78325	
248808001	22-MAR-2010 16:35:00	Soil	0.538	30	55.76208	
248808002	22-MAR-2010 16:35:00	Soil	0.571	30	52.5394	
248808003	22-MAR-2010 16:35:00	Soil	0.555	30	54.05405	
248808004	22-MAR-2010 16:35:00	Soil	0.561	30	53.47594	
248808005	22-MAR-2010 16:35:00	Soil	0.516	30	58.13953	
248808006	22-MAR-2010 16:35:00	Soil	0.506	30	59.28854	
248808007	22-MAR-2010 16:35:00	Soil	0.56	30	53.57143	
248814001	22-MAR-2010 16:35:00	Soil	0.571	30	52.5394	
248814002	22-MAR-2010 16:35:00	Soil	0.556	30	53.95683	
248814003	22-MAR-2010 16:35:00	Soil	0.5	30	60	
248814004	22-MAR-2010 16:35:00	Soil	0.521	30	57.58157	
248814005	22-MAR-2010 16:35:00	Soil	0.539	30	55.65863	
248814006	22-MAR-2010 16:35:00	Soil	0.583	30	51.45798	
248814007	22-MAR-2010 16:35:00	Soil	0.565	30	53.09735	
248814008	22-MAR-2010 16:35:00	Soil	0.508	30	59.05512	
248814009	22-MAR-2010 16:35:00	Soil	0.544	30	55.14706	
248824001	22-MAR-2010 16:35:00	Soil	0.569	30	52.72408	
1202076808 DUP (248824001)	22-MAR-2010 16:35:00	Soil	0.558	30	53.76344	
1202076809 MS (248824001)	22-MAR-2010 16:35:00	Soil	0.562	30	53.38078	
1202076811 MSD (248824001)	22-MAR-2010 16:35:00	Soil	0.514	30	58.36576	
1202076810 SDILT (248824001)	22-MAR-2010 16:35:00	Soil	0.569	30	52.72408	
248824002	22-MAR-2010 16:35:00	Soil	0.51	30	58.82353	

Reagent/Solvent Lot ID	Description	Amount

Comments:

Prep Logbook

Batch ID: **967593.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202076807	Metals LCS Soil SRM	UI031809A	.203	g
MS	1202076809	Mercury soil working intermediate standard for MS	WHG100322-14	.3	mL
MSD	1202076811	Mercury soil working intermediate standard for MS	WHG100322-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1

Reagent/Solvent Lot ID	Description	Amount
1255532-C	Hg reducing agent	2 mL
1274391-1	NITRIC ACID	.375 mL
1277235-A	Hydrochloric Acid Conc.	1.125 mL
1277238-C	5% KMnO4 solution	7.5 mL
WHG100322-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL
WHG100322-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL
WHG100322-09	Mercury Working 1st Source CAL S 2.0	300 uL
WHG100322-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL
WHG100322-11	Mercury Working 1st Source CAL S 10.0	1.5 mL
WHG100322-12	Mercury Working 2nd Source S 5.0/ICV	750 uL

Comments:

Sample 248824001 is a dry light brown soil.

Digestion Start Date: 22-MAR-10 16:35

Digestion End Date: 22-MAR-10 17:05

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
06-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
963993	See Below		

Potentially affected work order(s)(SDG): 248824(10-2305),248834(10-2299)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for LCS/LCSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202068050MS 2. Failed RPD for DUP: QC 1202068048DUP 3. Failed Recovery for LCS/LCSD: QC 1202068052LCS 4. Failed Recovery for MSD/PSD: QC 1202068051MSD	1. The matrix spike recovery failed outside of the control limits for aluminum,calcium,manganese,potassium and sodium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for aluminum,barium,calcium,chromium,iron,lead,magnesium, manganese,potassium,sodium,vanadium and zinc due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. Silver and/or antimony did not meet the recovery acceptance criteria for the LCS. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures. 4. The matrix spike duplicate recovery failed outside of the control limits for aluminum,calcium,magnesium,manganese,potassium and sodium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:
Helen Camello 09-APR-10

Data Validator/Group Leader:
Louise Smith 13-APR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 22-APR-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL Sta **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090827-A **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 27-AUG-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090827-B **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 27-AUG-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100310-49.13 **Opened:** 31-MAR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 01-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L

Analyte	Concentration	Analyte	Concentration
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100325-41 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100509-11 **Opened:** 09-MAY-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 09-MAY-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 09-MAY-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI1268741-01 **Opened:** 11-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI1268744-06 **Opened:** 11-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI1303474-05 **Opened:** 19-APR-10 **Amount :** 100 mL
Name: ICP-MS Rare Earth SPIKE **Received:** 19-APR-10 **Catalog Number :** 160203-01-01
Type: Source Material **Expires:** 19-APR-11 **Lot Number :** 1019528
Employee: Jamie Johnson **Solvent :** 2% HNO3
Supplier: O2SI
Description: ICPMS Rare Earth elements LCS standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Cerium	10 mg/L	Cesium	10 mg/L
Europium	10 mg/L	Lanthanum	10 mg/L
Neodymium	10 mg/L	Praseodymium	10 mg/L
Ruthenium	10 mg/L	Samarium	10 mg/L
Terbium	10 mg/L		

Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100415-03 **Opened:** 15-APR-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100322-01 **Opened:** 22-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 22-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 23-MAR-10 **Solvent :** 1mL HNO3 + TypeI H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: IHG100322-02 **Opened:** 22-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 23-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100322-07 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100322-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100322-08 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100322-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100322-09 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100322-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Standard Logbook

Serial ID: WHG100322-10 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100322-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100322-11 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100322-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100322-12 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100322-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100322-14 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: WI100331-42 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100331-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100331-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100331-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100331-43 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100331-44 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1293083
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100331-45 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100331-46 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1293083
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100331-47 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL &1%HNO3-1293083
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100510-04AB **Opened:** 10-MAY-10 **Balance Id :** 40245216

Name: ICPMS Cal Standard 10 **Received:** 10-MAY-10 **Pipet Id :** 3541598

Type: Working **Expires:** 11-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588

Employee: Rose Jenkins

Supplier: GEL

Description: ICPMS Calibration Standard (10 ppb)

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100510-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100510-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100510-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100510-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100510-04B **Opened:** 10-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 10-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 11-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1336588
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100510-06B **Opened:** 10-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 10-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 11-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100510-07B **Opened:** 10-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 10-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 11-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1336588
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100510-08B **Opened:** 10-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 10-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 11-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100511-04AB **Opened:** 11-MAY-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 11-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 12-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100511-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100511-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100511-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100511-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100511-04B **Opened:** 11-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 11-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 12-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1336588
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100511-06B **Opened:** 11-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 11-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 12-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100511-07B **Opened:** 11-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 11-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 12-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1336588
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100511-08B **Opened:** 11-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 11-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 12-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100512-04AB **Opened:** 12-MAY-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 12-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 13-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100512-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100512-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100512-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100512-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100512-04B **Opened:** 12-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 12-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 13-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1336588
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100512-07B **Opened:** 12-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 12-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 13-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1336588
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100512-08B **Opened:** 12-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 12-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 13-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-08
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Standard Logbook

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1277235-A **Opened:** 01-MAR-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 01-MAR-11
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1282564 **Opened:** 09-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 09-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1282566 **Opened:** 09-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 09-MAR-10
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1293083 **Opened:** 29-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 29-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 04-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1302252 **Opened:** 15-APR-10 **Lot Number :** J 10027 L
Name: I-HNO3 **Received:** 15-APR-10
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1302255 **Opened:** 15-APR-10 **Lot Number :** J07033
Name: I-HCL **Received:** 15-APR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1335913 **Opened:** 07-MAY-10 **Lot Number :** J10038 L
Name: I-HNO3 **Received:** 07-MAY-10
Type: Reagent/Solvent **Expires:** 07-MAY-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1336568 **Opened:** 10-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 10-MAY-10
Type: Reagent/Solvent **Expires:** 17-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1302255	I-HCL	36.5-38.0	80 mL	8 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2305

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	962258	**Method:**	SW9012A Cyanide and Total
Prep Batch :	962257	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
248824001	RE46-10-11926
248824002	RE46-10-11925
1202064133	Method Blank (MB)
1202064134	248798001(RE11-10-1756) Sample Duplicate (DUP)
1202064135	248798002(RE11-10-1762) Sample Duplicate (DUP)
1202064136	248798001(RE11-10-1756) Matrix Spike (MS)
1202064137	248798002(RE11-10-1762) Matrix Spike (MS)
1202064138	248798001(RE11-10-1756) Matrix Spike Duplicate (MSD)
1202064139	248798002(RE11-10-1762) Matrix Spike Duplicate (MSD)
1202064140	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 248798001 (RE11-10-1756) and 248798002 (RE11-10-1762).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202064134 (RE11-10-1756) and 1202064135 (RE11-10-1762).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
Samples were initially analyzed within holding; however, due to instrument failure the holding times had expired prior to reanalysis 1202064134 (RE11-10-1756).

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202064140 (LCS).

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 1202064134 (RE11-10-1756).

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 809564 1202064134 (RE11-10-1756).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Ion Chromatography**		
Analytical Batch:	968640	**Method:**	EPA 300.0 Nitrate in Soil
Prep Batch :	968639	**Method:**	EPA 300.0 PREP

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
248824001	RE46-10-11926
248824002	RE46-10-11925
1202079398	Method Blank (MB)
1202079399	248814001(RE46-10-13553) Sample Duplicate (DUP)
1202079400	248865001(RE46-10-11924) Sample Duplicate (DUP)
1202079401	248814001(RE46-10-13553) Matrix Spike (MS)
1202079402	248865001(RE46-10-11924) Matrix Spike (MS)
1202079403	248814001(RE46-10-13553) Matrix Spike Duplicate (MSD)
1202079404	248865001(RE46-10-11924) Matrix Spike Duplicate (MSD)
1202079405	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 248814001 (RE46-10-13553) and 248865001 (RE46-10-11924).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the established acceptance limits due to matrix interference: 1202079401 (RE46-10-13553).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the established acceptance limits due to matrix interference: 1202079403 (RE46-10-13553).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 811593 1202079401 (RE46-10-13553) and 1202079403 (RE46-10-13553).

Manual Integrations

Manual integrations were not required for the samples in this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer:_____ **Date:** 04/01/10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2305 GEL Work Order: 248824

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2305

Client Sample ID:	RE46-10-11926	Project:	LANL01004
Sample ID:	248824001	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	1.76%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	58.7	216	ug/kg	1	AXC2 03/15/10	1319	962258	1
Ion Chromatography										
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"										
Nitrate-N		1.48	0.305	1.02	mg/kg	1	VH1 03/30/10	0157	968640	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1557	962257

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 300.0	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2305

Client Sample ID:	RE46-10-11925	Project:	LANL01004
Sample ID:	248824002	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	1.52%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	63.9	235	ug/kg	1	AXC2	03/15/10	1325	962258	1
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N		1.20	0.305	1.02	mg/kg	1	VH1	03/30/10	0224	968640	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1557	962257

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 300.0	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: April 1, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 248824

Parmname	NOM		Sample	Qual	QC	Units	RPD%		REC%	Range	Anlst	Date Time
Flow Injection Analysis												
Batch 962258												
QC1202064134 248798001 DUP												
Cyanide, Total		J	145	H	-108	ug/kg	1380	^		(+/-269)	AXC2	03/16/10 20:41
QC1202064135 248798002 DUP												
Cyanide, Total		H	-128	U	ND	ug/kg	200	^				03/15/10 13:04
QC1202064140 LCS												
Cyanide, Total	67900				66800	ug/kg			98.3	(32%-157%)		03/15/10 12:59
QC1202064133 MB												
Cyanide, Total				U	250	ug/kg						03/15/10 12:54
QC1202064136 248798001 MS												
Cyanide, Total	5590	J	145		5650	ug/kg			98.4	(26%-158%)		03/15/10 13:02
QC1202064137 248798002 MS												
Cyanide, Total	5920	H	-128		5610	ug/kg			94.9	(26%-158%)		03/15/10 13:05
QC1202064138 248798001 MSD												
Cyanide, Total	5590	J	145		5710	ug/kg	0.985		99.4	(0%-30%)		03/15/10 13:03
QC1202064139 248798002 MSD												
Cyanide, Total	5480	H	-128		5390	ug/kg	4.03		98.3	(0%-30%)		03/15/10 13:06
Ion Chromatography												
Batch 968640												
QC1202079399 248814001 DUP												
Nitrate-N		U	ND	U	ND	mg/kg	N/A				VH1	03/29/10 20:07
QC1202079400 248865001 DUP												
Nitrate-N			1.55		1.64	mg/kg	5.23	^		(+/-1.21)		03/30/10 03:18
QC1202079405 LCS												
Nitrate-N	50.0				49.0	mg/kg			98	(90%-110%)		03/29/10 19:13
QC1202079398 MB												
Nitrate-N				U	1.00	mg/kg						03/29/10 18:47
QC1202079401 248814001 MS												
Nitrate-N	58.1	U	ND		43.7	mg/kg			75.3 *	(90%-110%)		03/29/10 20:34
QC1202079402 248865001 MS												
Nitrate-N	60.4		1.55		56.8	mg/kg			91.6	(90%-110%)		03/30/10 03:45
QC1202079403 248814001 MSD												
Nitrate-N	58.1	U	ND		43.5	mg/kg	0.562		74.9 *	(0%-20%)		03/29/10 21:01
QC1202079404 248865001 MSD												
Nitrate-N	60.4		1.55		56.9	mg/kg	0.0446		91.6	(0%-20%)		03/30/10 04:11

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

QC Summary

Workorder: 248824

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
JNX	Non Calibrated Compound
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-APR-2010 11:24

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2305

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**15-MAR-2010 12:16:42**	**OM_3-15-2010_12-08-48**	**145**	**150**	**96.7**	**(90%-110%)**	**Yes**
CCV	15-MAR-2010 12:43:26	OM_3-15-2010_12-08-48	104	100	104	(90%-110%)	Yes
CCV	15-MAR-2010 12:55:49	OM_3-15-2010_12-08-48	103	100	103	(90%-110%)	Yes
CCV	15-MAR-2010 13:08:20	OM_3-15-2010_12-08-48	103	100	103	(90%-110%)	Yes
CCV	15-MAR-2010 13:20:48	OM_3-15-2010_12-08-48	105	100	105	(90%-110%)	Yes
CCV	15-MAR-2010 13:31:33	OM_3-15-2010_12-08-48	105	100	105	(90%-110%)	Yes
ICV	**16-MAR-2010 11:44:35**	**OM_3-16-2010_11-35-56**	**150**	**150**	**100**	**(90%-110%)**	**Yes**
CCV	16-MAR-2010 20:37:28	OM_3-16-2010_20-23-30	106	100	106	(90%-110%)	Yes
CCV	16-MAR-2010 20:50:00	OM_3-16-2010_20-23-30	107	100	107	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**15-MAR-2010 12:18:33**	**OM_3-15-2010_12-08-48**	**-2.21**	**10**	**Yes**
CCB	15-MAR-2010 12:45:15	OM_3-15-2010_12-08-48	-1.54	10	Yes
CCB	15-MAR-2010 12:57:40	OM_3-15-2010_12-08-48	-1.66	10	Yes
CCB	15-MAR-2010 13:10:10	OM_3-15-2010_12-08-48	-1.72	10	Yes
CCB	15-MAR-2010 13:22:38	OM_3-15-2010_12-08-48	-1.53	10	Yes
CCB	15-MAR-2010 13:33:23	OM_3-15-2010_12-08-48	-1.57	10	Yes
ICB	**16-MAR-2010 11:46:25**	**OM_3-16-2010_11-35-56**	**-1.57**	**10**	**Yes**
CCB	16-MAR-2010 20:39:18	OM_3-16-2010_20-23-30	-1.61	10	Yes
CCB	16-MAR-2010 20:51:50	OM_3-16-2010_20-23-30	-2.4	10	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-APR-2010 11:24

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2305

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Nitrate-N

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**29-MAR-2010 17:53:00**	**100329**	**4.9061**	**5**	**98.1**	**(90%-110%)**	**Yes**
CCV	29-MAR-2010 23:15:00	100329	7.6315	7.5	102	(90%-110%)	Yes
CCV	30-MAR-2010 04:38:00	100329	4.9119	5	98.2	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**29-MAR-2010 18:20:00**	**100329**	**0**	**0.1**	**Yes**
CCB	29-MAR-2010 23:42:00	100329	0	0.1	Yes
CCB	30-MAR-2010 05:05:00	100329	0	0.1	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **962257.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064140	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202064136	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064137	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064138	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064139	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202064133 MB	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12
1202064140 LCS	12-MAR-2010 15:57:00	Soil	0.25	25	100	>12
248798001	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12
1202064134 DUP (248798001)	12-MAR-2010 15:57:00	Soil	0.52	25	48.07692	>12
1202064136 MS (248798001)	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12
1202064138 MSD (248798001)	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12
248798002	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12
1202064135 DUP (248798002)	12-MAR-2010 15:57:00	Soil	0.56	25	44.64286	>12
1202064137 MS (248798002)	12-MAR-2010 15:57:00	Soil	0.51	25	49.01961	>12
1202064139 MSD (248798002)	12-MAR-2010 15:57:00	Soil	0.55	25	45.45455	>12
248798003	12-MAR-2010 15:57:00	Soil	0.51	25	49.01961	>12
248798004	12-MAR-2010 15:57:00	Soil	0.58	25	43.10345	>12
248798005	12-MAR-2010 15:57:00	Soil	0.53	25	47.16981	>12
248798006	12-MAR-2010 15:57:00	Soil	0.58	25	43.10345	>12
248798007	12-MAR-2010 15:57:00	Soil	0.59	25	42.37288	>12
248798008	12-MAR-2010 15:57:00	Soil	0.51	25	49.01961	>12
248798009	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12
248798010	12-MAR-2010 15:57:00	Soil	0.53	25	47.16981	>12
248798011	12-MAR-2010 15:57:00	Soil	0.51	25	49.01961	>12
248798012	12-MAR-2010 15:57:00	Soil	0.51	25	49.01961	>12
248824001	12-MAR-2010 15:57:00	Soil	0.59	25	42.37288	>12

Prep Logbook

Batch ID: **962257.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064140	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202064136	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064137	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064138	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064139	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
248824002	12-MAR-2010 15:57:00	Soil	0.54	25	46.2963	>12
248866001	12-MAR-2010 15:57:00	Soil	0.52	25	48.07692	>12
248866002	12-MAR-2010 15:57:00	Soil	0.53	25	47.16981	>12
248867001	12-MAR-2010 15:57:00	Soil	0.56	25	44.64286	>12
248867002	12-MAR-2010 15:57:00	Soil	0.55	25	45.45455	>12
248867003	12-MAR-2010 15:57:00	Soil	0.56	25	44.64286	>12
248867004	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100312-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/15/2010 12:09:33	OM_3-15-2010_12-08-48
150 ppb		1	axc2	3/15/2010 12:10:25	OM_3-15-2010_12-08-48
100 ppb		1	axc2	3/15/2010 12:11:17	OM_3-15-2010_12-08-48
50 ppb		1	axc2	3/15/2010 12:12:10	OM_3-15-2010_12-08-48
10 ppb		1	axc2	3/15/2010 12:13:04	OM_3-15-2010_12-08-48
CRDL 5.0 ppb		1	axc2	3/15/2010 12:13:57	OM_3-15-2010_12-08-48
ICAL-00		1	axc2	3/15/2010 12:14:52	OM_3-15-2010_12-08-48
ICV		1	axc2	3/15/2010 12:16:42	OM_3-15-2010_12-08-48
ICB		1	axc2	3/15/2010 12:18:33	OM_3-15-2010_12-08-48
CRDL		1	axc2	3/15/2010 12:20:22	OM_3-15-2010_12-08-48
1202064117	962254	1	axc2	3/15/2010 12:22:12	OM_3-15-2010_12-08-48
1202064124	962254	25	axc2	3/15/2010 12:23:05	OM_3-15-2010_12-08-48
248666001	962254	1	axc2	3/15/2010 12:23:59	OM_3-15-2010_12-08-48
1202064118	962254	1	axc2	3/15/2010 12:24:52	OM_3-15-2010_12-08-48
1202064120	962254	1	axc2	3/15/2010 12:25:45	OM_3-15-2010_12-08-48
1202064122	962254	1	axc2	3/15/2010 12:26:37	OM_3-15-2010_12-08-48
248666002	962254	1	axc2	3/15/2010 12:27:30	OM_3-15-2010_12-08-48
1202064119	962254	1	axc2	3/15/2010 12:28:23	OM_3-15-2010_12-08-48
1202064121	962254	1	axc2	3/15/2010 12:29:15	OM_3-15-2010_12-08-48
1202064123*	962254	1	axc2	3/15/2010 12:30:07	OM_3-15-2010_12-08-48
CCV		1	axc2	3/15/2010 12:31:00	OM_3-15-2010_12-08-48
CCB		1	axc2	3/15/2010 12:32:51	OM_3-15-2010_12-08-48
1202064123	962254	1	axc2	3/15/2010 12:34:40	OM_3-15-2010_12-08-48
248666003	962254	1	axc2	3/15/2010 12:35:31	OM_3-15-2010_12-08-48
248666004	962254	1	axc2	3/15/2010 12:36:23	OM_3-15-2010_12-08-48
248666005	962254	1	axc2	3/15/2010 12:37:15	OM_3-15-2010_12-08-48
248666006	962254	1	axc2	3/15/2010 12:38:07	OM_3-15-2010_12-08-48
248666007	962254	1	axc2	3/15/2010 12:38:59	OM_3-15-2010_12-08-48
248666008	962254	1	axc2	3/15/2010 12:39:52	OM_3-15-2010_12-08-48
248666009	962254	1	axc2	3/15/2010 12:40:46	OM_3-15-2010_12-08-48
248666010	962254	1	axc2	3/15/2010 12:41:40	OM_3-15-2010_12-08-48
248666011	962254	1	axc2	3/15/2010 12:42:33	OM_3-15-2010_12-08-48
CCV		1	axc2	3/15/2010 12:43:26	OM_3-15-2010_12-08-48
CCB		1	axc2	3/15/2010 12:45:15	OM_3-15-2010_12-08-48
248666012	962254	1	axc2	3/15/2010 12:47:04	OM_3-15-2010_12-08-48
248666013	962254	1	axc2	3/15/2010 12:47:57	OM_3-15-2010_12-08-48
248666014	962254	1	axc2	3/15/2010 12:48:50	OM_3-15-2010_12-08-48
248666015	962254	1	axc2	3/15/2010 12:49:43	OM_3-15-2010_12-08-48
248666016	962254	1	axc2	3/15/2010 12:50:36	OM_3-15-2010_12-08-48
248666017	962254	1	axc2	3/15/2010 12:51:29	OM_3-15-2010_12-08-48
248666018	962254	1	axc2	3/15/2010 12:52:20	OM_3-15-2010_12-08-48
248666019	962254	1	axc2	3/15/2010 12:53:13	OM_3-15-2010_12-08-48
248666020	962254	1	axc2	3/15/2010 12:54:05	OM_3-15-2010_12-08-48
1202064133	962258	1	axc2	3/15/2010 12:54:57	OM_3-15-2010_12-08-48
CCV		1	axc2	3/15/2010 12:55:49	OM_3-15-2010_12-08-48
CCB		1	axc2	3/15/2010 12:57:40	OM_3-15-2010_12-08-48
1202064140	962258	25	axc2	3/15/2010 12:59:27	OM_3-15-2010_12-08-48
248798001	962258	1	axc2	3/15/2010 13:00:22	OM_3-15-2010_12-08-48
1202064134	962258	1	axc2	3/15/2010 13:01:15	OM_3-15-2010_12-08-48
1202064136	962258	1	axc2	3/15/2010 13:02:10	OM_3-15-2010_12-08-48
1202064138	962258	1	axc2	3/15/2010 13:03:02	OM_3-15-2010_12-08-48
248798002	962258	1	axc2	3/15/2010 13:03:56	OM_3-15-2010_12-08-48
1202064135	962258	1	axc2	3/15/2010 13:04:49	OM_3-15-2010_12-08-48
1202064137	962258	1	axc2	3/15/2010 13:05:42	OM_3-15-2010_12-08-48
1202064139	962258	1	axc2	3/15/2010 13:06:35	OM_3-15-2010_12-08-48
248798003	962258	1	axc2	3/15/2010 13:07:27	OM_3-15-2010_12-08-48
CCV		1	axc2	3/15/2010 13:08:20	OM_3-15-2010_12-08-48
CCB		1	axc2	3/15/2010 13:10:10	OM_3-15-2010_12-08-48

248798004	962258	1	axc2	3/15/2010 13:11:59	OM_3-15-2010_12-08-48
248798005	962258	1	axc2	3/15/2010 13:12:51	OM_3-15-2010_12-08-48
248798006	962258	1	axc2	3/15/2010 13:13:44	OM_3-15-2010_12-08-48
248798007	962258	1	axc2	3/15/2010 13:14:36	OM_3-15-2010_12-08-48
248798008	962258	1	axc2	3/15/2010 13:15:28	OM_3-15-2010_12-08-48
248798009	962258	1	axc2	3/15/2010 13:16:20	OM_3-15-2010_12-08-48
248798010*	962258	1	axc2	3/15/2010 13:17:14	OM_3-15-2010_12-08-48
248798011	962258	1	axc2	3/15/2010 13:18:08	OM_3-15-2010_12-08-48
248798012	962258	1	axc2	3/15/2010 13:19:02	OM_3-15-2010_12-08-48
248824001	962258	1	axc2	3/15/2010 13:19:56	OM_3-15-2010_12-08-48
CCV		1	axc2	3/15/2010 13:20:48	OM_3-15-2010_12-08-48
CCB		1	axc2	3/15/2010 13:22:38	OM_3-15-2010_12-08-48
248798010	962258	1	axc2	3/15/2010 13:24:29	OM_3-15-2010_12-08-48
248824002	962258	1	axc2	3/15/2010 13:25:23	OM_3-15-2010_12-08-48
248866001	962258	1	axc2	3/15/2010 13:26:15	OM_3-15-2010_12-08-48
248866002	962258	1	axc2	3/15/2010 13:27:09	OM_3-15-2010_12-08-48
248867001	962258	1	axc2	3/15/2010 13:28:01	OM_3-15-2010_12-08-48
248867002	962258	1	axc2	3/15/2010 13:28:55	OM_3-15-2010_12-08-48
248867003	962258	1	axc2	3/15/2010 13:29:47	OM_3-15-2010_12-08-48
248867004	962258	1	axc2	3/15/2010 13:30:40	OM_3-15-2010_12-08-48
CCV		1	axc2	3/15/2010 13:31:33	OM_3-15-2010_12-08-48
CCB		1	axc2	3/15/2010 13:33:23	OM_3-15-2010_12-08-48

Author: axc2 Date : 3/15/2010

Original Run Filename: OM_3-15-2010_12-08-48.OMN created 3/15/2010 12:08:48
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-15-2010_12-08-48.OMN last modified 3/15/2010 13:34:28
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100315-01	1	S1	200	10.2	3/15/2010@12:09:33			200 ppb
WCN100315-02	1	S2	150	7.68	3/15/2010@12:10:25			150 ppb
WCN100315-03	1	S3	100	5.17	3/15/2010@12:11:17			100 ppb
WCN100315-04	1	S4	50.0	2.73	3/15/2010@12:12:10			50 ppb
WCN100315-05	1	S5	10.0	0.640	3/15/2010@12:13:04			10 ppb
WCN100315-06	1	S6	5.00	0.360	3/15/2010@12:13:57			CRDL 5.0 ppb
WCN100315-08	1	S7	0.00	0.0305	3/15/2010@12:14:52			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99991 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100315-07	1	S8	145	7.45	3/15/2010@12:16:42			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-3.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-3.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100315-08	1	S7	-2.21	-1.34e-4	3/15/2010@12:18:33			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.21 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.21 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100315-06	1	S6	4.95	0.362	3/15/2010@12:20:22			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	4.95 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	4.95 > 2.50					
		Message	Pass					
		Action	None					
1202064117|962254|MB	1	1	-0.201	0.102	3/15/2010@12:22:12			
1202064124||LCS	1	2	22.9	1.27	3/15/2010@12:23:05		25.00	
248666001	1	3	-1.47	0.0374	3/15/2010@12:23:59			
1202064118||DUP	1	4	-1.75	0.0232	3/15/2010@12:24:52			
1202064120||MS	1	5	100	5.18	3/15/2010@12:25:45			
1202064122||MSD	1	6	99.1	5.12	3/15/2010@12:26:37			
248666002	1	7	-1.01	0.0608	3/15/2010@12:27:30			
1202064119||DUP	1	8	-1.01	0.0605	3/15/2010@12:28:23			
1202064121||MS	1	9	84.2	4.37	3/15/2010@12:29:15			
1202064123||MSD	1	10	57.0	3.00	3/15/2010@12:30:07			
WCN100315-03	1	S3	103	5.33	3/15/2010@12:31:00			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.3 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100315-08	1	S7	-1.70	0.0259	3/15/2010@12:32:51			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.70 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.70 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064123||MSD	1	10	84.6	4.39	3/15/2010@12:34:40			
248666003	1	11	-1.15	0.0538	3/15/2010@12:35:31			
248666004	1	12	-1.82	0.0198	3/15/2010@12:36:23			
248666005	1	13	-1.32	0.0448	3/15/2010@12:37:15			
248666006	1	14	-1.82	0.0198	3/15/2010@12:38:07			
248666007	1	15	-1.57	0.0324	3/15/2010@12:38:59			
248666008	1	16	-1.24	0.0489	3/15/2010@12:39:52			
248666009	1	17	-0.908	0.0658	3/15/2010@12:40:46			
248666010	1	18	-0.968	0.0628	3/15/2010@12:41:40			
248666011	1	19	0.197	0.122	3/15/2010@12:42:33			
WCN100315-03	1	S3	104	5.36	3/15/2010@12:43:26			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100315-08	1	S7	-1.54	0.0337	3/15/2010@12:45:15			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.54 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.54 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248666012	1	20	-1.30	0.0461	3/15/2010@12:47:04			
248666013	1	21	-2.31	-0.00489	3/15/2010@12:47:57			
248666014	1	22	-1.47	0.0376	3/15/2010@12:48:50			
248666015	1	23	1.37	0.181	3/15/2010@12:49:43			
248666016	1	24	-1.13	0.0546	3/15/2010@12:50:36			
248666017	1	25	-1.48	0.0368	3/15/2010@12:51:29			
248666018	1	26	-1.59	0.0315	3/15/2010@12:52:20			
248666019	1	27	-1.19	0.0517	3/15/2010@12:53:13			
248666020	1	28	-0.118	0.106	3/15/2010@12:54:05			
1202064133|962258|MB	1	29	-1.30	0.0459	3/15/2010@12:54:57			
WCN100315-03	1	S3	103	5.32	3/15/2010@12:55:49			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100315-08	1	S7	-1.66	0.0278	3/15/2010@12:57:40			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.66 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.66 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064140||LCS	1	30	26.7	1.46	3/15/2010@12:59:27		25.00	
248798001	1	31	2.59	0.243	3/15/2010@13:00:22			
1202064134||DUP	1	32	-11.5	-0.472	3/15/2010@13:01:15			
1202064136||MS	1	33	101	5.24	3/15/2010@13:02:10			
1202064138||MSD	1	34	102	5.29	3/15/2010@13:03:02			
248798002	1	35	-8.86	-0.336	3/15/2010@13:03:56			
1202064135||DUP	1	36	-0.0671	0.108	3/15/2010@13:04:49			
1202064137||MS	1	37	94.9	4.91	3/15/2010@13:05:42			
1202064139||MSD	1	38	98.3	5.08	3/15/2010@13:06:35			
248798003	1	39	-0.592	0.0818	3/15/2010@13:07:27			
WCN100315-03	1	S3	103	5.35	3/15/2010@13:08:20			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100315-08	1	S7	-1.72	0.0248	3/15/2010@13:10:10			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.72 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.72 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248798004	1	40	-0.249	0.0991	3/15/2010@13:11:59			
248798005	1	41	-1.51	0.0352	3/15/2010@13:12:51			
248798006	1	42	1.77	0.201	3/15/2010@13:13:44			
248798007	1	43	-0.993	0.0615	3/15/2010@13:14:36			
248798008	1	44	6.67	0.449	3/15/2010@13:15:28			
248798009	1	45	-0.620	0.0804	3/15/2010@13:16:20			
248798010	1	46	8.81	0.557	3/15/2010@13:17:14			
248798011	1	47	4.05	0.316	3/15/2010@13:18:08			
248798012	1	48	-2.21	-1.20e-4	3/15/2010@13:19:02			
248824001	1	49	-1.53	0.0344	3/15/2010@13:19:56			
WCN100315-03	1	S3	105	5.40	3/15/2010@13:20:48			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100315-08	1	S7	-1.53	0.0343	3/15/2010@13:22:38			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.53 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.53 > -5.00					
		Message	CCB Passed					
		Action	Continue					

248798010	1	46	7.45	0.489	3/15/2010@13:24:29			
248824002	1	50	-1.44	0.0387	3/15/2010@13:25:23			
248866001	1	51	-1.14	0.0540	3/15/2010@13:26:15			
248866002	1	52	-0.763	0.0731	3/15/2010@13:27:09			
248867001	1	53	-0.0921	0.107	3/15/2010@13:28:01			
248867002	1	54	-1.38	0.0421	3/15/2010@13:28:55			
248867003	1	55	-1.58	0.0319	3/15/2010@13:29:47			
248867004	1	56	-1.35	0.0434	3/15/2010@13:30:40			
WCN100315-03	1	S3	105	5.40	3/15/2010@13:31:33			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100315-08	1	S7	-1.57	0.0325	3/15/2010@13:33:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.57 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.57 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_3-15-2010_12-08-48.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 3/15/2010

Channel 1: Current View

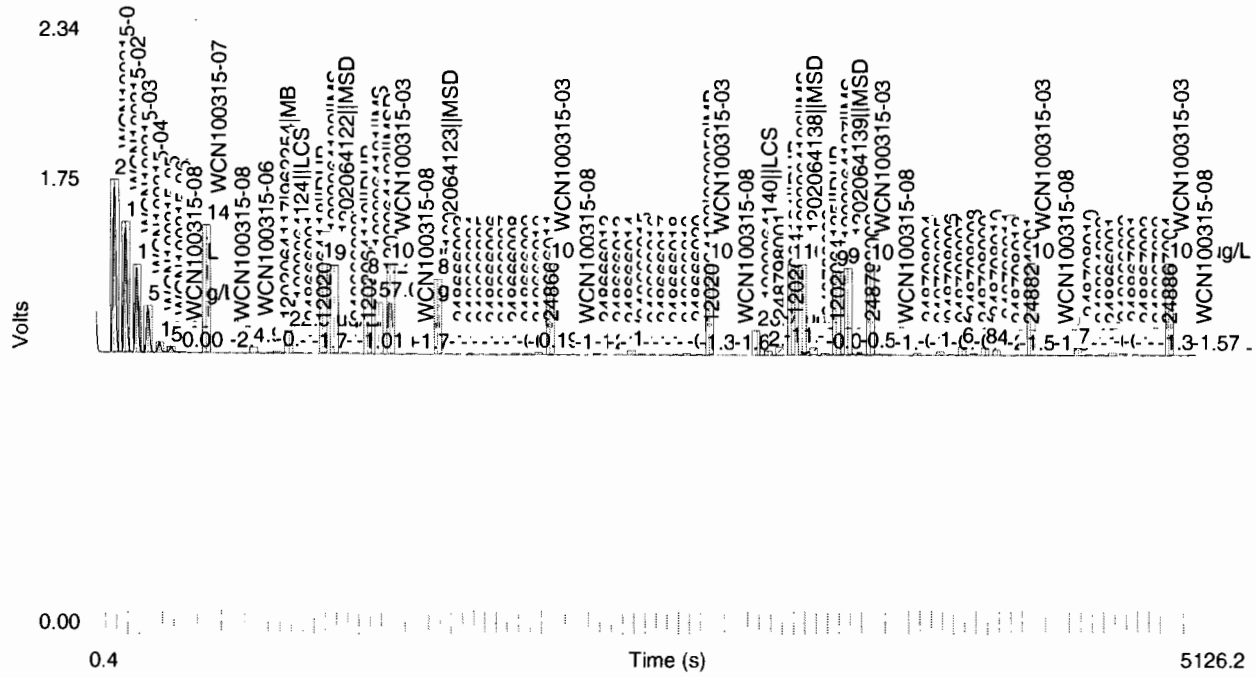

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.2	0.676	0.1	3/15/2010	12:10:36
2	150	1	7.68	0.511	0.2	3/15/2010	12:11:28
3	100	1	5.17	0.344	0.1	3/15/2010	12:12:20
4	50.0	1	2.73	0.183	-3.6	3/15/2010	12:13:13
5	10.0	1	0.640	0.0416	-3.6	3/15/2010	12:14:07
6	5.00	1	0.360	0.0234	1.3	3/15/2010	12:15:00
7	0.00	1	0.0305	0.00154		3/15/2010	12:15:55

Figure 1: TCYANIDE

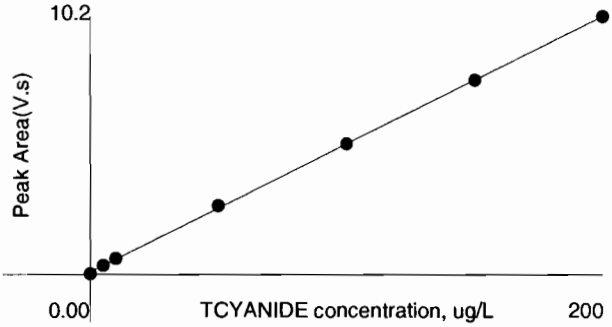

Area = 0.0506 * Conc + 0.112
Conc = 19.8 * Area - 2.21
Correlation Coefficient (r) = 0.99991

No Weighting

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/16/2010 11:37:26	OM_3-16-2010_11-35-56
150 ppb		1	axc2	3/16/2010 11:38:18	OM_3-16-2010_11-35-56
100 ppb		1	axc2	3/16/2010 11:39:11	OM_3-16-2010_11-35-56
50 ppb		1	axc2	3/16/2010 11:40:04	OM_3-16-2010_11-35-56
10 ppb		1	axc2	3/16/2010 11:40:57	OM_3-16-2010_11-35-56
CRDL 5.0 ppb		1	axc2	3/16/2010 11:41:50	OM_3-16-2010_11-35-56
ICAL-00		1	axc2	3/16/2010 11:42:45	OM_3-16-2010_11-35-56
ICV		1	axc2	3/16/2010 11:44:35	OM_3-16-2010_11-35-56
ICB		1	axc2	3/16/2010 11:46:25	OM_3-16-2010_11-35-56
CRDL		1	axc2	3/16/2010 11:48:15	OM_3-16-2010_11-35-56
1202068586	964224	1	axc2	3/16/2010 11:50:05	OM_3-16-2010_11-35-56
1202068593	964224	25	axc2	3/16/2010 11:50:58	OM_3-16-2010_11-35-56
249057002	964224	1	axc2	3/16/2010 11:51:51	OM_3-16-2010_11-35-56
1202068588	964224	1	axc2	3/16/2010 11:52:44	OM_3-16-2010_11-35-56
1202068590	964224	1	axc2	3/16/2010 11:53:37	OM_3-16-2010_11-35-56
1202068592	964224	1	axc2	3/16/2010 11:54:29	OM_3-16-2010_11-35-56
249076003	964224	1	axc2	3/16/2010 11:55:22	OM_3-16-2010_11-35-56
249076004	964224	1	axc2	3/16/2010 11:56:15	OM_3-16-2010_11-35-56
249076005	964224	1	axc2	3/16/2010 11:57:07	OM_3-16-2010_11-35-56
249076006	964224	1	axc2	3/16/2010 11:58:00	OM_3-16-2010_11-35-56
CCV		1	axc2	3/16/2010 11:58:52	OM_3-16-2010_11-35-56
CCB		1	axc2	3/16/2010 12:00:42	OM_3-16-2010_11-35-56
1202068587	964224	1	axc2	3/16/2010 12:02:30	OM_3-16-2010_11-35-56
1202068589	964224	1	axc2	3/16/2010 12:03:22	OM_3-16-2010_11-35-56
1202068591	964224	1	axc2	3/16/2010 12:04:14	OM_3-16-2010_11-35-56
249076007	964224	1	axc2	3/16/2010 12:05:06	OM_3-16-2010_11-35-56
249076008	964224	1	axc2	3/16/2010 12:05:57	OM_3-16-2010_11-35-56
249076009	964224	1	axc2	3/16/2010 12:06:51	OM_3-16-2010_11-35-56
249076010	964224	1	axc2	3/16/2010 12:07:45	OM_3-16-2010_11-35-56
249076011	964224	1	axc2	3/16/2010 12:08:39	OM_3-16-2010_11-35-56
249076012*	964224	1	axc2	3/16/2010 12:09:32	OM_3-16-2010_11-35-56
249076013	964224	1	axc2	3/16/2010 12:10:25	OM_3-16-2010_11-35-56
CCV		1	axc2	3/16/2010 12:11:17	OM_3-16-2010_11-35-56
CCB		1	axc2	3/16/2010 12:13:08	OM_3-16-2010_11-35-56
249076012*	964224	1	axc2	3/16/2010 12:14:57	OM_3-16-2010_11-35-56
249076014*	964224	1	axc2	3/16/2010 12:15:50	OM_3-16-2010_11-35-56
249076015*	964224	1	axc2	3/16/2010 12:16:43	OM_3-16-2010_11-35-56
249076016*	964224	1	axc2	3/16/2010 12:17:36	OM_3-16-2010_11-35-56
249076017*	964224	1	axc2	3/16/2010 12:18:28	OM_3-16-2010_11-35-56
249076018*	964224	1	axc2	3/16/2010 12:19:21	OM_3-16-2010_11-35-56
249076019*	964224	1	axc2	3/16/2010 12:20:13	OM_3-16-2010_11-35-56
249076020*	964224	1	axc2	3/16/2010 12:21:06	OM_3-16-2010_11-35-56
249097002*	964224	1	axc2	3/16/2010 12:21:57	OM_3-16-2010_11-35-56
249076016*	964224	1	axc2	3/16/2010 12:22:50	OM_3-16-2010_11-35-56
CCV		1	axc2	3/16/2010 12:23:42	OM_3-16-2010_11-35-56
CCB		1	axc2	3/16/2010 12:25:32	OM_3-16-2010_11-35-56

Author: axc2 Date : 3/16/2010

Original Run Filename: OM_3-16-2010_11-35-56.OMN created 3/16/2010 11:35:56
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-16-2010_11-35-56.OMN last modified 3/16/2010 12:26:37
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100316-01	1	S1	200	9.76	3/16/2010@11:37:26			200 ppb
WCN100316-02	1	S2	150	7.51	3/16/2010@11:38:18			150 ppb
WCN100316-03	1	S3	100	4.94	3/16/2010@11:39:11			100 ppb
WCN100316-04	1	S4	50.0	2.64	3/16/2010@11:40:04			50 ppb
WCN100316-05	1	S5	10.0	0.638	3/16/2010@11:40:57			10 ppb
WCN100316-06	1	S6	5.00	0.357	3/16/2010@11:41:50			CRDL 5.0 ppb
WCN100316-08	1	S7	0.00	-0.00167	3/16/2010@11:42:45			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99976 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100316-07	1	S8	150	7.40	3/16/2010@11:44:35			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-0.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100316-08	1	S7	-1.57	0.0343	3/16/2010@11:46:25			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.57 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.57 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100316-06	1	S6	5.32	0.370	3/16/2010@11:48:15			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.32 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.32 > 2.50					
		Message	Pass					
		Action	None					
1202068586|964224|MB	1	1	-2.27	6.18e-4	3/16/2010@11:50:05			
1202068593||LCS	1	2	25.7	1.36	3/16/2010@11:50:58		25.00	
249057002	1	3	-0.148	0.104	3/16/2010@11:51:51			
1202068588||DUP	1	4	-1.32	0.0465	3/16/2010@11:52:44			
1202068590||MS	1	5	65.5	3.30	3/16/2010@11:53:37			
1202068592||MSD	1	6	50.1	2.55	3/16/2010@11:54:29			
249076003	1	7	-1.29	0.0482	3/16/2010@11:55:22			
249076004	1	8	-1.74	0.0261	3/16/2010@11:56:15			
249076005	1	9	-1.54	0.0360	3/16/2010@11:57:07			
249076006	1	10	-1.62	0.0319	3/16/2010@11:58:00			
WCN100316-03	1	S3	104	5.18	3/16/2010@11:58:52			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.0 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-0.661	0.0787	3/16/2010@12:00:42			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.661 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.661 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202068587||DUP	1	11	-1.57	0.0343	3/16/2010@12:02:30			
1202068589||MS	1	12	105	5.23	3/16/2010@12:03:22			
1202068591||MSD	1	13	102	5.06	3/16/2010@12:04:14			
249076007	1	14	-1.54	0.0360	3/16/2010@12:05:06			
249076008	1	15	-1.55	0.0353	3/16/2010@12:05:57			
249076009	1	16	-2.51	-0.0113	3/16/2010@12:06:51			
249076010	1	17	-2.28	-1.61e-4	3/16/2010@12:07:45			
249076011	1	18	-1.46	0.0401	3/16/2010@12:08:39			
249076012	1	19	-10.7	-0.410	3/16/2010@12:09:32			
249076013	1	20	1.99	0.208	3/16/2010@12:10:25			
WCN100316-03	1	S3	103	5.14	3/16/2010@12:11:17			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	4.21	0.316	3/16/2010@12:13:08			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	4.21 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	4.21 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249076012	1	19	-3.02	-0.0360	3/16/2010@12:14:57			
249076014	1	21	-1.62	0.0320	3/16/2010@12:15:50			
249076015	1	22	0.262	0.124	3/16/2010@12:16:43			
249076016	1	23	-5.77	-0.170	3/16/2010@12:17:36			
249076017	1	24	-1.58	0.0341	3/16/2010@12:18:28			
249076018	1	25	-2.16	0.00576	3/16/2010@12:19:21			
249076019	1	26	-4.94	-0.130	3/16/2010@12:20:13			
249076020	1	27	-2.28	-2.14e-4	3/16/2010@12:21:06			
249097002	1	28	-1.64	0.0313	3/16/2010@12:21:57			
249076016	1	23	-1.01	0.0618	3/16/2010@12:22:50			
WCN100316-03	1	S3	103	5.10	3/16/2010@12:23:42			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	9.14	0.556	3/16/2010@12:25:32			CCB
		Known Conc:	0.00					

Author: axc2 Date : 3/16/2010

DQM Test: > + Concentration Limit						
Result:	9.14 > 5.00					
Message	CCB Failed					
Action	Stop Run					
DQM Test: < - Concentration Limit						
Result:	9.14 > -5.00					
Message	CCB Passed					
Action	Continue					

Analyte Properties Table for OM_3-16-2010_11-35-56.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

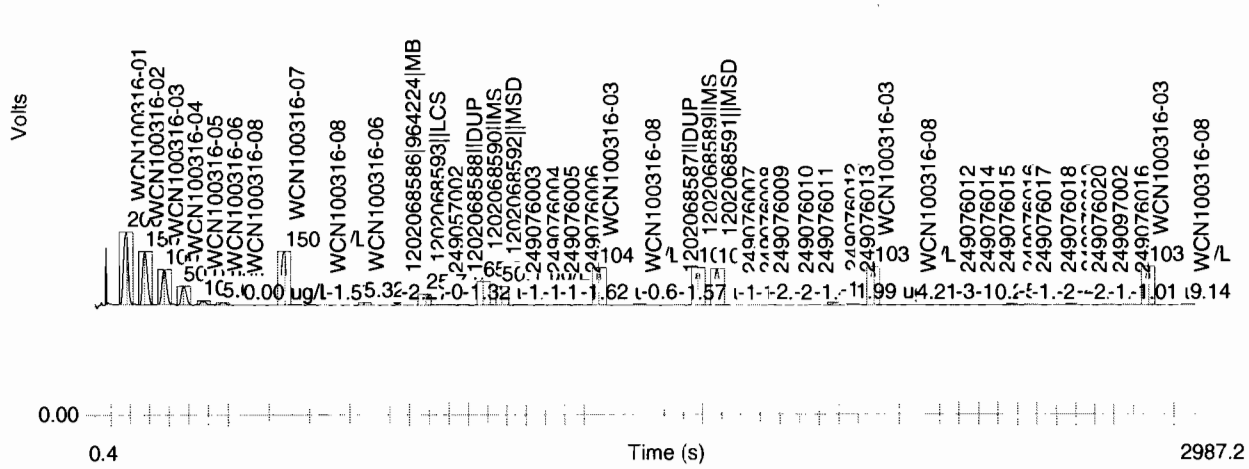

Author: axc2 Date : 3/16/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.76	0.694	0.8	3/16/2010	11:38:29
2	150	1	7.51	0.508	-1.4	3/16/2010	11:39:21
3	100	1	4.94	0.333	0.7	3/16/2010	11:40:14
4	50.0	1	2.64	0.177	-3.6	3/16/2010	11:41:07
5	10.0	1	0.638	0.0416	-6.6	3/16/2010	11:42:00
6	5.00	1	0.357	0.0229	-0.2	3/16/2010	11:42:53
7	0.00	1	-0.00167	-0.00189		3/16/2010	11:43:48

Figure 1: TCYANIDE

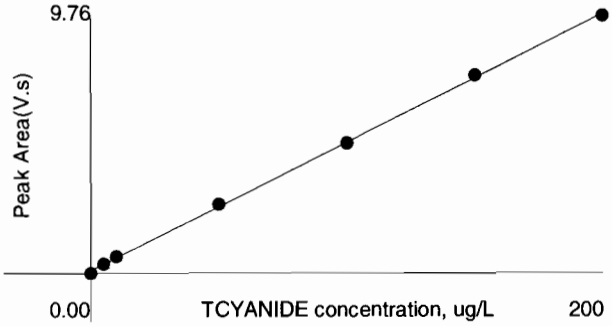

Area = 0.0487 * Conc + 0.113
Conc = 20.5 * Area - 2.28
Correlation Coefficient (r) = 0.99976

No Weighting

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	3/16/2010 20:25:01	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 20:26:51	OM_3-16-2010_20-23-30
249076012	964224	1	axc2	3/16/2010 20:28:41	OM_3-16-2010_20-23-30
249076014	964224	1	axc2	3/16/2010 20:29:34	OM_3-16-2010_20-23-30
249076015	964224	1	axc2	3/16/2010 20:30:27	OM_3-16-2010_20-23-30
249076016	964224	1	axc2	3/16/2010 20:31:20	OM_3-16-2010_20-23-30
249076017	964224	1	axc2	3/16/2010 20:32:13	OM_3-16-2010_20-23-30
249076018	964224	1	axc2	3/16/2010 20:33:05	OM_3-16-2010_20-23-30
249076019	964224	1	axc2	3/16/2010 20:33:57	OM_3-16-2010_20-23-30
249076020	964224	1	axc2	3/16/2010 20:34:49	OM_3-16-2010_20-23-30
249097002	964224	1	axc2	3/16/2010 20:35:42	OM_3-16-2010_20-23-30
1202064134*	962258	1	axc2	3/16/2010 20:36:36	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 20:37:28	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 20:39:18	OM_3-16-2010_20-23-30
1202064134	962258	1	axc2	3/16/2010 20:41:09	OM_3-16-2010_20-23-30
248798002	962258	1	axc2	3/16/2010 20:42:03	OM_3-16-2010_20-23-30
1202064149	962262	1	axc2	3/16/2010 20:42:54	OM_3-16-2010_20-23-30
1202064156	962262	25	axc2	3/16/2010 20:43:46	OM_3-16-2010_20-23-30
248814001	962262	1	axc2	3/16/2010 20:44:40	OM_3-16-2010_20-23-30
1202064150	962262	1	axc2	3/16/2010 20:45:34	OM_3-16-2010_20-23-30
1202064152	962262	1	axc2	3/16/2010 20:46:27	OM_3-16-2010_20-23-30
1202064154	962262	1	axc2	3/16/2010 20:47:21	OM_3-16-2010_20-23-30
248814002	962262	1	axc2	3/16/2010 20:48:14	OM_3-16-2010_20-23-30
1202064151	962262	1	axc2	3/16/2010 20:49:07	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 20:50:00	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 20:51:50	OM_3-16-2010_20-23-30
1202064153	962262	1	axc2	3/16/2010 20:53:39	OM_3-16-2010_20-23-30
1202064155	962262	1	axc2	3/16/2010 20:54:32	OM_3-16-2010_20-23-30
248814003	962262	1	axc2	3/16/2010 20:55:25	OM_3-16-2010_20-23-30
248814004	962262	1	axc2	3/16/2010 20:56:18	OM_3-16-2010_20-23-30
248814005	962262	1	axc2	3/16/2010 20:57:10	OM_3-16-2010_20-23-30
248814006	962262	1	axc2	3/16/2010 20:58:02	OM_3-16-2010_20-23-30
248814007	962262	1	axc2	3/16/2010 20:58:55	OM_3-16-2010_20-23-30
248814008	962262	1	axc2	3/16/2010 20:59:46	OM_3-16-2010_20-23-30
248814009	962262	1	axc2	3/16/2010 21:00:38	OM_3-16-2010_20-23-30
248834001	962262	1	axc2	3/16/2010 21:01:32	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 21:02:25	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 21:04:15	OM_3-16-2010_20-23-30
248834002	962262	1	axc2	3/16/2010 21:06:05	OM_3-16-2010_20-23-30
248834003	962262	1	axc2	3/16/2010 21:06:58	OM_3-16-2010_20-23-30
248834004	962262	1	axc2	3/16/2010 21:07:52	OM_3-16-2010_20-23-30
248834005	962262	1	axc2	3/16/2010 21:08:45	OM_3-16-2010_20-23-30
248834006	962262	1	axc2	3/16/2010 21:09:39	OM_3-16-2010_20-23-30
248834007	962262	1	axc2	3/16/2010 21:10:32	OM_3-16-2010_20-23-30
248834008	962262	1	axc2	3/16/2010 21:11:25	OM_3-16-2010_20-23-30
248834009	962262	1	axc2	3/16/2010 21:12:18	OM_3-16-2010_20-23-30
248834010	962262	1	axc2	3/16/2010 21:13:11	OM_3-16-2010_20-23-30
248834011	962262	1	axc2	3/16/2010 21:14:04	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 21:14:56	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 21:16:46	OM_3-16-2010_20-23-30
1202064141	962260	1	axc2	3/16/2010 21:18:34	OM_3-16-2010_20-23-30
248700001	962260	1	axc2	3/16/2010 21:19:26	OM_3-16-2010_20-23-30
1202064148*	962260	25	axc2	3/16/2010 21:20:18	OM_3-16-2010_20-23-30
1202064142	962260	1	axc2	3/16/2010 21:21:11	OM_3-16-2010_20-23-30
1202064144	962260	1	axc2	3/16/2010 21:22:04	OM_3-16-2010_20-23-30
1202064146	962260	1	axc2	3/16/2010 21:22:59	OM_3-16-2010_20-23-30
248700002	962260	1	axc2	3/16/2010 21:23:53	OM_3-16-2010_20-23-30
1202064143	962260	1	axc2	3/16/2010 21:24:47	OM_3-16-2010_20-23-30

1202064145	962260	1	axc2	3/16/2010	21:25:41	OM_3-16-2010_20-23-30
1202064147	962260	1	axc2	3/16/2010	21:26:35	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010	21:27:27	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010	21:29:17	OM_3-16-2010_20-23-30
1202064148	962260	25	axc2	3/16/2010	21:31:06	OM_3-16-2010_20-23-30
248700003	962260	1	axc2	3/16/2010	21:31:59	OM_3-16-2010_20-23-30
248700004	962260	1	axc2	3/16/2010	21:32:52	OM_3-16-2010_20-23-30
248700005	962260	1	axc2	3/16/2010	21:33:45	OM_3-16-2010_20-23-30
248700006	962260	1	axc2	3/16/2010	21:34:38	OM_3-16-2010_20-23-30
248700007	962260	1	axc2	3/16/2010	21:35:31	OM_3-16-2010_20-23-30
248700008	962260	1	axc2	3/16/2010	21:36:24	OM_3-16-2010_20-23-30
248700009	962260	1	axc2	3/16/2010	21:37:16	OM_3-16-2010_20-23-30
248700010	962260	1	axc2	3/16/2010	21:38:09	OM_3-16-2010_20-23-30
248700011	962260	1	axc2	3/16/2010	21:39:01	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010	21:39:53	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010	21:41:43	OM_3-16-2010_20-23-30
248700012*	962260	1	axc2	3/16/2010	21:43:35	OM_3-16-2010_20-23-30
248700013*	962260	1	axc2	3/16/2010	21:44:29	OM_3-16-2010_20-23-30
248700014*	962260	1	axc2	3/16/2010	21:45:23	OM_3-16-2010_20-23-30
248700015*	962260	1	axc2	3/16/2010	21:46:17	OM_3-16-2010_20-23-30
248700016*	962260	1	axc2	3/16/2010	21:47:11	OM_3-16-2010_20-23-30
1202068608*	964231	1	axc2	3/16/2010	21:48:04	OM_3-16-2010_20-23-30
1202068618*	964231	1	axc2	3/16/2010	21:48:58	OM_3-16-2010_20-23-30
249076001*	964231	1	axc2	3/16/2010	21:49:51	OM_3-16-2010_20-23-30
248634002*	964231	1	axc2	3/16/2010	21:50:45	OM_3-16-2010_20-23-30
248885002*	964231	1	axc2	3/16/2010	21:51:37	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010	21:52:30	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010	21:54:21	OM_3-16-2010_20-23-30
248952011*	964231	1	axc2	3/16/2010	21:56:10	OM_3-16-2010_20-23-30
1202068610*	964231	1	axc2	3/16/2010	21:57:03	OM_3-16-2010_20-23-30
1202068613*	964231	1	axc2	3/16/2010	21:57:57	OM_3-16-2010_20-23-30
1202068616*	964231	1	axc2	3/16/2010	21:58:49	OM_3-16-2010_20-23-30
248952012*	964231	1	axc2	3/16/2010	21:59:41	OM_3-16-2010_20-23-30
248952018*	964231	1	axc2	3/16/2010	22:00:33	OM_3-16-2010_20-23-30
248964002*	964231	1	axc2	3/16/2010	22:01:28	OM_3-16-2010_20-23-30
1202068611*	964231	1	axc2	3/16/2010	22:02:23	OM_3-16-2010_20-23-30
1202068614*	964231	1	axc2	3/16/2010	22:03:17	OM_3-16-2010_20-23-30
1202068617*	964231	1	axc2	3/16/2010	22:04:11	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010	22:05:03	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010	22:06:55	OM_3-16-2010_20-23-30
1202068608*	964231	1	axc2	3/16/2010	22:08:43	OM_3-16-2010_20-23-30
1202068618*	964231	1	axc2	3/16/2010	22:09:37	OM_3-16-2010_20-23-30
249076001*	964231	1	axc2	3/16/2010	22:10:30	OM_3-16-2010_20-23-30
248964003*	964231	1	axc2	3/16/2010	22:11:25	OM_3-16-2010_20-23-30
1202068608*	964231	1	axc2	3/16/2010	22:12:18	OM_3-16-2010_20-23-30
1202068618*	964231	1	axc2	3/16/2010	22:13:11	OM_3-16-2010_20-23-30

Author: axc2 Date : 3/30/2010

Original Run Filename: OM_3-16-2010_20-23-30.OMN created 3/16/2010 20:23:30
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-16-2010_20-23-30.OMN last modified 3/16/2010 22:15:07
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100316-03	1	S3	105	5.22	3/16/2010@20:25:01			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100316-08	1	S7	-1.78	0.0243	3/16/2010@20:26:51			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.78 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.78 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249076012|964224|	1	19	-1.65	0.0306	3/16/2010@20:28:41			
249076014	1	21	-1.68	0.0291	3/16/2010@20:29:34			
249076015	1	22	-2.19	0.00410	3/16/2010@20:30:27			
249076016	1	23	0.0867	0.115	3/16/2010@20:31:20			
249076017	1	24	-1.82	0.0224	3/16/2010@20:32:13			
249076018	1	25	-1.50	0.0380	3/16/2010@20:33:05			
249076019	1	26	-1.82	0.0222	3/16/2010@20:33:57			
249076020	1	27	-2.06	0.0107	3/16/2010@20:34:49			
249097002	1	28	-1.44	0.0407	3/16/2010@20:35:42			
1202064134|962258|DUP	1	112	519	25.4	3/16/2010@20:36:36			
WCN100316-03	1	S3	106	5.29	3/16/2010@20:37:28			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-1.61	0.0325	3/16/2010@20:39:18			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.61 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.61 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064134|962258|DUP	1	112	-2.01	0.0133	3/16/2010@20:41:09			
248798002	1	113	-2.12	0.00795	3/16/2010@20:42:03			
1202064149|962262|MB	1	29	-1.85	0.0208	3/16/2010@20:42:54			
1202064156||LCS	1	30	21.2	1.14	3/16/2010@20:43:46		25.00	
248814001	1	31	-1.92	0.0176	3/16/2010@20:44:40			

1202064150||DUP	1	32	-1.94	0.0167	3/16/2010@20:45:34			
1202064152||MS	1	33	93.0	4.64	3/16/2010@20:46:27			
1202064154||MSD	1	34	95.0	4.73	3/16/2010@20:47:21			
248814002	1	35	-1.81	0.0230	3/16/2010@20:48:14			
1202064151||DUP	1	36	-1.70	0.0279	3/16/2010@20:49:07			
WCN100316-03	1	S3	107	5.32	3/16/2010@20:50:00			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		7.0 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		7.0 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100316-08	1	S7	-2.40	-0.00592	3/16/2010@20:51:50			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-2.40 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-2.40 > -5.00					
	Message		CCB Passed					
	Action		Continue					
1202064153||MS	1	37	56.8	2.87	3/16/2010@20:53:39			
1202064155||MSD	1	38	68.7	3.45	3/16/2010@20:54:32			
248814003	1	39	-1.21	0.0520	3/16/2010@20:55:25			
248814004	1	40	-1.64	0.0311	3/16/2010@20:56:18			
248814005	1	41	-1.31	0.0473	3/16/2010@20:57:10			
248814006	1	42	-1.36	0.0446	3/16/2010@20:58:02			
248814007	1	43	-1.56	0.0349	3/16/2010@20:58:55			
248814008	1	44	-1.71	0.0279	3/16/2010@20:59:46			
248814009	1	45	-1.60	0.0332	3/16/2010@21:00:38			
248834001	1	46	-1.80	0.0231	3/16/2010@21:01:32			
WCN100316-03	1	S3	108	5.36	3/16/2010@21:02:25			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		7.8 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		7.8 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100316-08	1	S7	-1.85	0.0210	3/16/2010@21:04:15			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.85 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.85 > -5.00					
	Message		CCB Passed					
	Action		Continue					
248834002	1	47	1.43	0.181	3/16/2010@21:06:05			
248834003	1	48	-1.90	0.0185	3/16/2010@21:06:58			
248834004	1	49	-1.78	0.0243	3/16/2010@21:07:52			
248834005	1	50	-1.74	0.0262	3/16/2010@21:08:45			
248834006	1	51	-2.13	0.00738	3/16/2010@21:09:39			
248834007	1	52	-2.40	-0.00569	3/16/2010@21:10:32			
248834008	1	53	-2.10	0.00869	3/16/2010@21:11:25			
248834009	1	54	-1.82	0.0221	3/16/2010@21:12:18			
248834010	1	55	-1.46	0.0397	3/16/2010@21:13:11			
248834011	1	56	-1.79	0.0236	3/16/2010@21:14:04			
WCN100316-03	1	S3	109	5.40	3/16/2010@21:14:56			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								

		Result:	8.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	8.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-2.15	0.00636	3/16/2010@21:16:46			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.15 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.15 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064141|962260|MB	1	57	-1.27	0.0492	3/16/2010@21:18:34			
248700001	1	58	-1.98	0.0144	3/16/2010@21:19:26		25.00	
1202064148||LCS	1	59	711	34.7	3/16/2010@21:20:18			
1202064142||DUP	1	60	1.08	0.163	3/16/2010@21:21:11			
1202064144||MS	1	61	102	5.07	3/16/2010@21:22:04			
1202064146||MSD	1	62	99.0	4.93	3/16/2010@21:22:59			
248700002	1	63	-0.804	0.0718	3/16/2010@21:23:53			
1202064143||DUP	1	64	-2.28	-2.93e-4	3/16/2010@21:24:47			
1202064145||MS	1	65	103	5.13	3/16/2010@21:25:41			
1202064147||MSD	1	66	105	5.24	3/16/2010@21:26:35			
WCN100316-03	1	S3	105	5.22	3/16/2010@21:27:27			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-2.13	0.00714	3/16/2010@21:29:17			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.13 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.13 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064148||LCS	1	59	25.3	1.34	3/16/2010@21:31:06		25.00	
248700003	1	67	-0.850	0.0695	3/16/2010@21:31:59			
248700004	1	68	-0.511	0.0860	3/16/2010@21:32:52			
248700005	1	69	-0.731	0.0753	3/16/2010@21:33:45			
248700006	1	70	0.111	0.116	3/16/2010@21:34:38			
248700007	1	71	-1.12	0.0562	3/16/2010@21:35:31			
248700008	1	72	-1.75	0.0256	3/16/2010@21:36:24			
248700009	1	73	-0.966	0.0639	3/16/2010@21:37:16			
248700010	1	74	2.32	0.224	3/16/2010@21:38:09			
248700011	1	75	-0.512	0.0860	3/16/2010@21:39:01			
WCN100316-03	1	S3	103	5.13	3/16/2010@21:39:53			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-1.67	0.0295	3/16/2010@21:41:43			CCB

		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.67 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.67 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248700012	1	76	7.01	0.452	3/16/2010@21:43:35			
248700013	1	77	-57.1	-2.67	3/16/2010@21:44:29			
248700014	1	78	1.66	0.192	3/16/2010@21:45:23			
248700015	1	79	12.0	0.695	3/16/2010@21:46:17			
248700016	1	80	20.0	1.08	3/16/2010@21:47:11			
1202068608|964231|MB	1	81	9.84	0.590	3/16/2010@21:48:04			
1202068618||LCS	1	82	61.6	3.11	3/16/2010@21:48:58			
249076001	1	102	-10.7	-0.409	3/16/2010@21:49:51			
248634002	1	83	-1.11	0.0570	3/16/2010@21:50:45			
248885002	1	84	-0.520	0.0856	3/16/2010@21:51:37			
WCN100316-03	1	S3	103	5.13	3/16/2010@21:52:30			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-1.84	0.0211	3/16/2010@21:54:21			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.84 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.84 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248952011	1	85	-3.64	-0.0664	3/16/2010@21:56:10			
1202068610||DUP	1	86	-1.43	0.0415	3/16/2010@21:57:03			
1202068613||MS	1	87	102	5.09	3/16/2010@21:57:57			
1202068616||MSD	1	88	109	5.41	3/16/2010@21:58:49			
248952012	1	89	-1.36	0.0445	3/16/2010@21:59:41			
248952018	1	90	-1.18	0.0533	3/16/2010@22:00:33			
248964002	1	91	-1.61	0.0323	3/16/2010@22:01:28			
1202068611||DUP	1	92	0.111	0.116	3/16/2010@22:02:23			
1202068614||MS	1	93	121	5.99	3/16/2010@22:03:17			
1202068617||MSD	1	94	108	5.38	3/16/2010@22:04:11			
WCN100316-03	1	S3	105	5.23	3/16/2010@22:05:03			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-0.763	0.0738	3/16/2010@22:06:55			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.763 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.763 > -5.00					
		Message	CCB Passed					

Author: axc2 Date : 3/30/2010

		Action	Continue					
1202068608|964231|MB	1	81	13.0	0.742	3/16/2010@22:08:43			
1202068618||LCS	1	82	59.6	3.01	3/16/2010@22:09:37			
249076001	1	102	-0.852	0.0694	3/16/2010@22:10:30			
248964003	1	95	15.4	0.863	3/16/2010@22:11:25			
1202068608|964231|MB	1	81	-2.86	-0.0283	3/16/2010@22:12:18			
1202068618||LCS	1	82	68.5	3.45	3/16/2010@22:13:11			

Analyte Properties Table for OM_3-16-2010_20-23-30.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

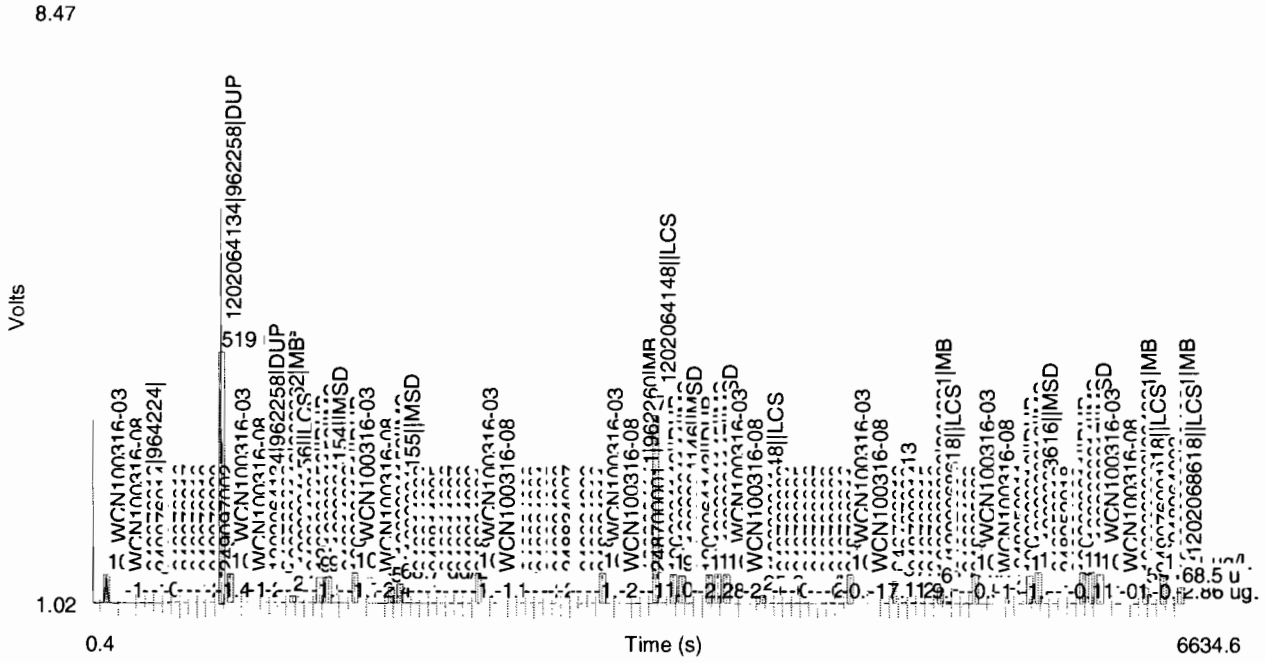

Author: axc2 Date : 3/30/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.76	0.694	0.8	3/16/2010	11:38:29
2	150	1	7.51	0.508	-1.4	3/16/2010	11:39:21
3	100	1	4.94	0.333	0.7	3/16/2010	11:40:14
4	50.0	1	2.64	0.177	-3.6	3/16/2010	11:41:07
5	10.0	1	0.638	0.0416	-6.6	3/16/2010	11:42:00
6	5.00	1	0.357	0.0229	-0.2	3/16/2010	11:42:53
7	0.00	1	-0.00167	-0.00189		3/16/2010	11:43:48

Figure 1: TCYANIDE

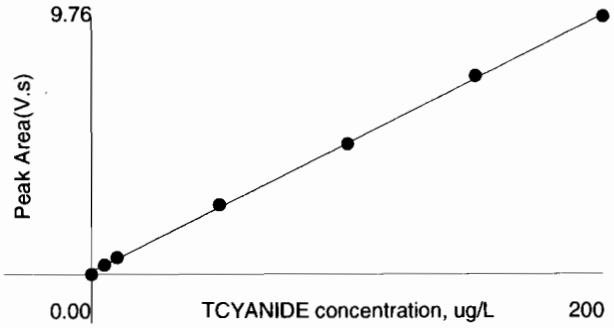

Area = 0.0487 * Conc + 0.113
Conc = 20.5 * Area - 2.28
Correlation Coefficient (r) = 0.99976

No Weighting

Ion Chromatography

Prep Logbook

Ion Chromatography (IC)

Batch ID: **968639.0** Verified by:
Analyst: Virginia Wininger
Method: EPA 300.0 PREP
Lab SOP: GL-GC-E-086 REV# 17
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202079405	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202079401	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202079402	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202079403	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202079404	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202079398 MB	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079405 LCS	29-MAR-2010 16:37:00	Soil	4	40	10	
248814001	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079399 DUP (248814001)	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079401 MS (248814001)	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079403 MSD (248814001)	29-MAR-2010 16:37:00	Soil	4	40	10	
248814002	29-MAR-2010 16:37:00	Soil	4	40	10	
248814003	29-MAR-2010 16:37:00	Soil	4	40	10	
248814004	29-MAR-2010 16:37:00	Soil	4	40	10	
248814005	29-MAR-2010 16:37:00	Soil	4	40	10	
248814006	29-MAR-2010 16:37:00	Soil	4	40	10	
248814007	29-MAR-2010 16:37:00	Soil	4	40	10	
248814008	29-MAR-2010 16:37:00	Soil	4	40	10	
248814009	29-MAR-2010 16:37:00	Soil	4	40	10	
248824001	29-MAR-2010 16:37:00	Soil	4	40	10	
248824002	29-MAR-2010 16:37:00	Soil	4	40	10	
248865001	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079400 DUP (248865001)	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079402 MS (248865001)	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079404 MSD (248865001)	29-MAR-2010 16:37:00	Soil	4	40	10	
248866001	29-MAR-2010 16:37:00	Soil	4	40	10	
248866002	29-MAR-2010 16:37:00	Soil	4	40	10	

Reagent/Solvent Lot ID	Description	Amount

Prep Logbook

Batch ID: **968639.0** Verified by: _____

Analyst: Virginia Wininger

Method: EPA 300.0 PREP

Lab SOP: GL-GC-E-086 REV# 17

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202079405	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202079401	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202079402	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202079403	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202079404	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1

Comments:

This is runlog for Sequence 100330.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	03/23/10 16:00		1	100330	MAR1
ICAL-06	03/23/10 16:27		1	100330	MAR1
ICAL-05	03/23/10 16:53		1	100330	MAR1
ICAL-04	03/23/10 17:20		1	100330	MAR1
ICAL-03	03/23/10 17:47		1	100330	MAR1
ICAL-02	03/23/10 18:14		1	100330	MAR1
ICAL-01	03/23/10 18:41		1	100330	MAR1

8 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	1.0
Vial Number:	46	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 16:00	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056

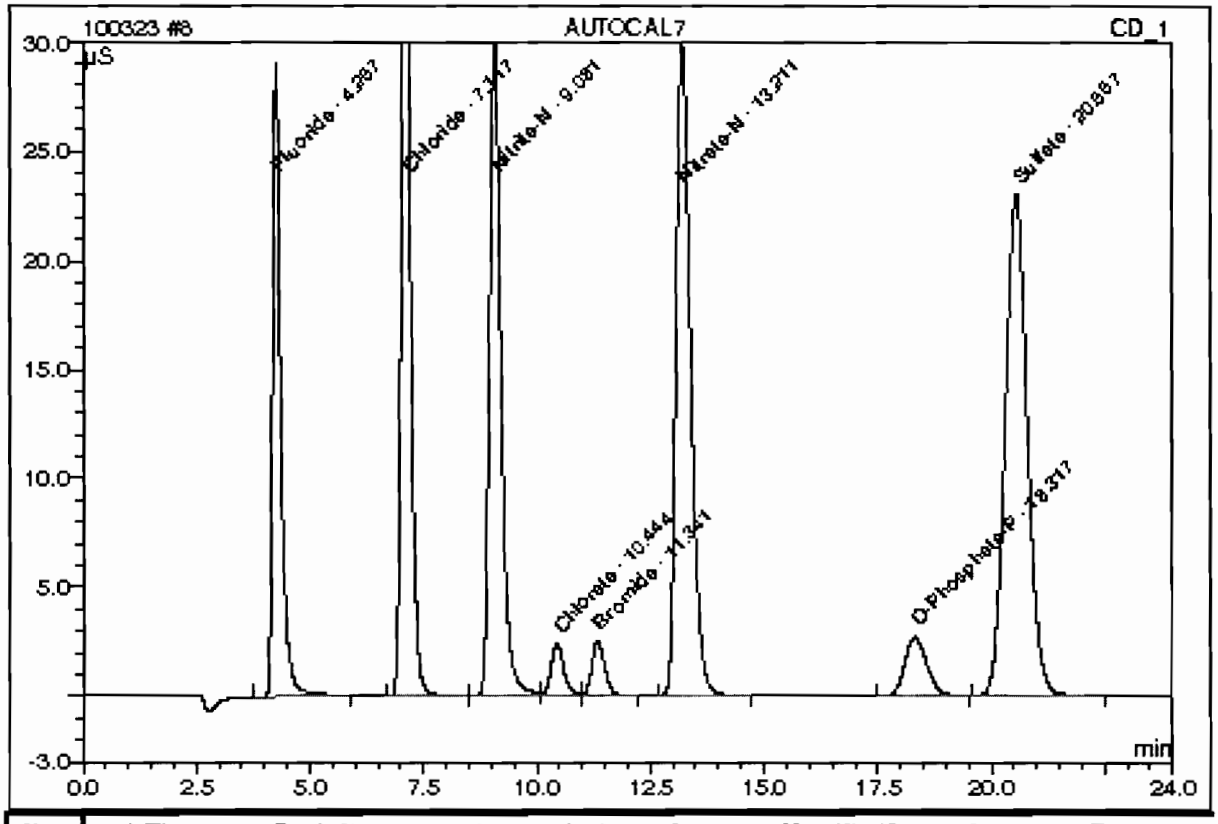

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	10.0000	10.0652		6.02041	11.75
2	7.12	Chloride	20.0000	20.3058		9.29780	18.14
3	9.08	Nitrite-N	10.0000	10.0773		8.89622	17.36
4	10.44	Chlorate	5.0000	5.0763		0.77530	1.51
5	11.34	Bromide	5.0000	5.0450		0.82220	1.60
6	13.21	Nitrate-N	10.0000	10.1395		11.02745	21.52
7	18.32	O-Phosphate-P	5.0000	5.1121		1.49471	2.92
8	20.56	Sulfate	40.0000	40.4690		12.91152	25.20
Total:				106.2901	0.000	51.246	100.00

9 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	1.0
Vial Number:	47	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 16:27	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;8056

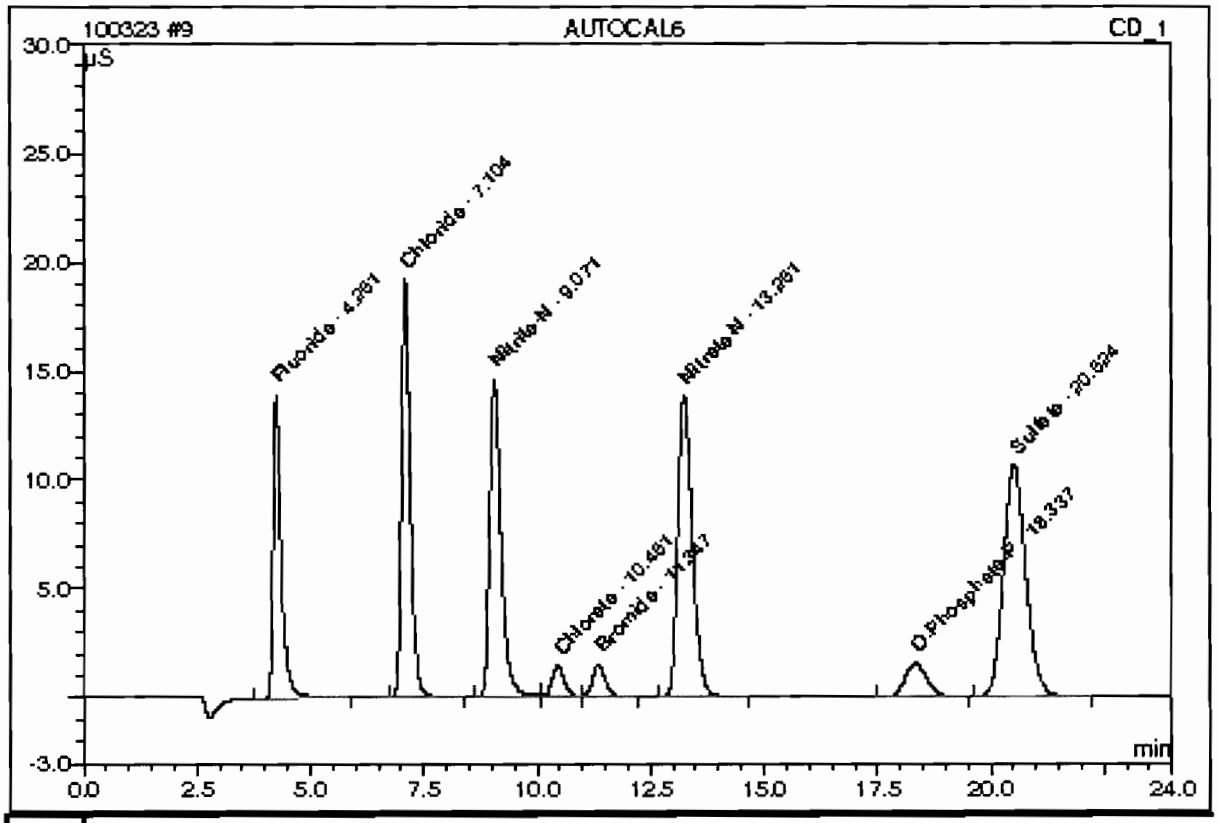

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	5.0000	4.8849		2.90201	11.92
2	7.10	Chloride	10.0000	9.4230		4.26930	17.53
3	9.07	Nitrite-N	5.0000	4.8599		4.25796	17.48
4	10.45	Chlorate	3.0000	2.9924		0.45332	1.86
5	11.35	Bromide	3.0000	3.0046		0.48728	2.00
6	13.25	Nitrate-N	5.0000	4.7372		5.09401	20.92
7	18.34	O-Phosphate-P	3.0000	2.9633		0.84358	3.46
8	20.52	Sulfate	20.0000	19.1180		6.04506	24.82
Total:				51.9833	0.000	24.353	100.00

10 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	1.0
Vial Number:	48	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 16:53	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

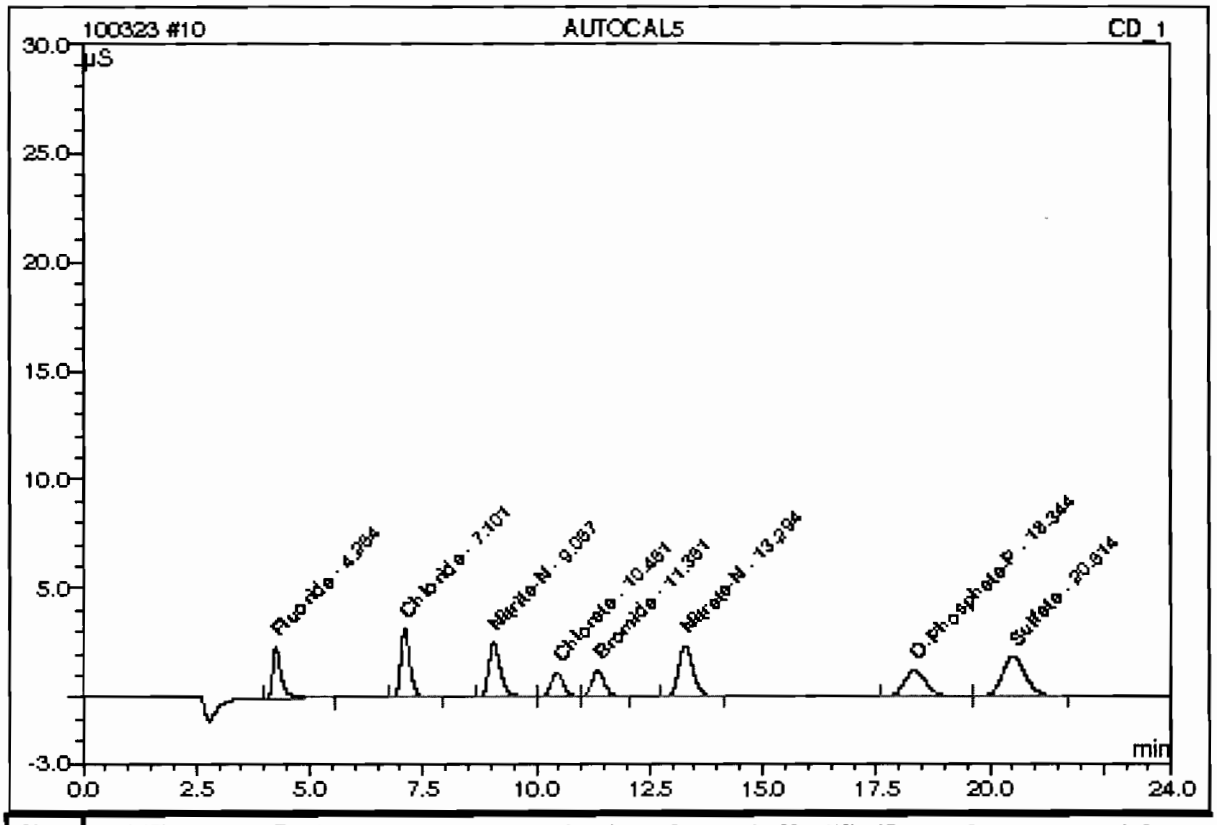

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	1.0000	0.9125		0.51078	9.53
2	7.10	Chloride	2.0000	1.7708		0.73350	13.68
3	9.07	Nitrite-N	1.0000	0.9189		0.75453	14.07
4	10.45	Chlorate	2.5000	2.3650		0.35638	6.65
5	11.35	Bromide	2.5000	2.4114		0.38991	7.27
6	13.29	Nitrate-N	1.0000	0.9005		0.88006	16.42
7	18.34	O-Phosphate-P	2.5000	2.3684		0.66331	12.37
8	20.51	Sulfate	4.0000	3.6570		1.07282	20.01
Total:				15.3047	0.000	5.361	100.00

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR7 Build 2528 (148369)

11 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	1.0
Vial Number:	49	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 17:20	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

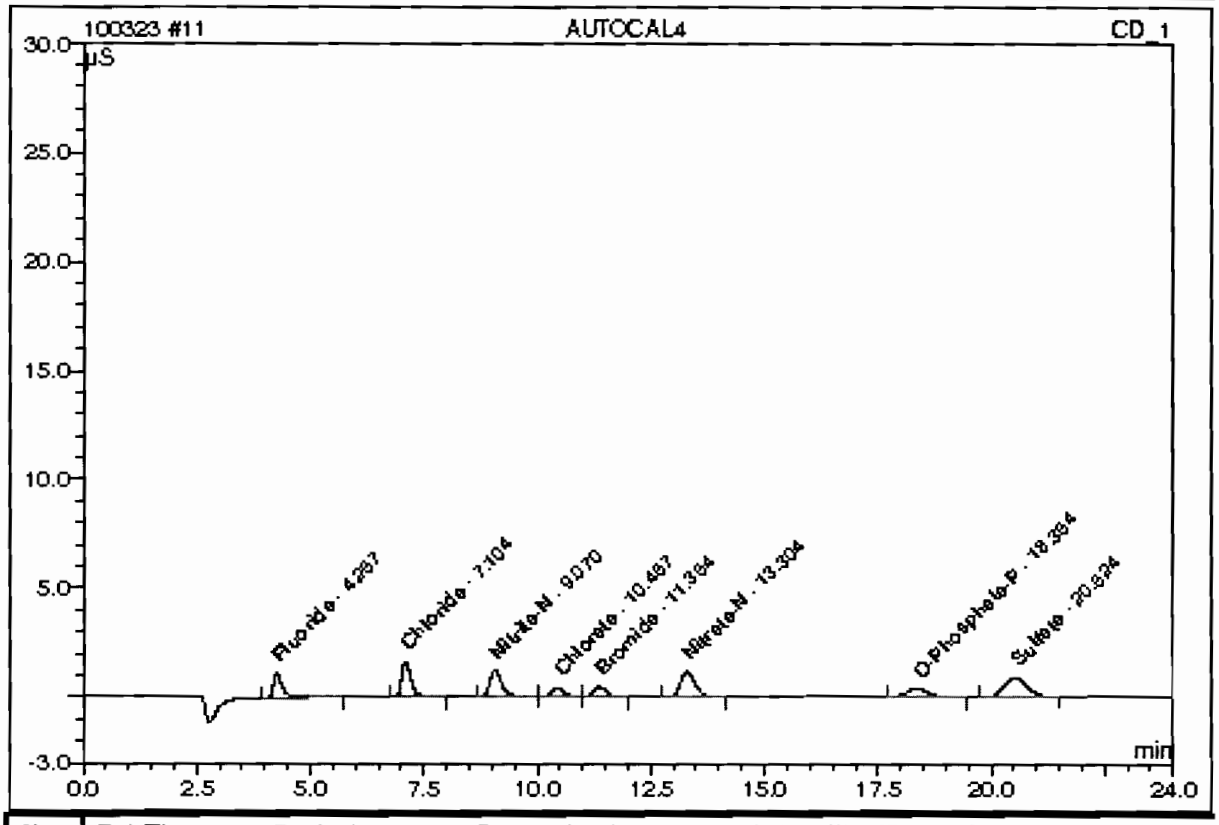

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.5000	0.5017		0.26350	10.50
2	7.10	Chloride	1.0000	1.0243		0.38857	15.49
3	9.07	Nitrite-N	0.5000	0.4901		0.37331	14.88
4	10.46	Chlorate	1.0000	0.9701		0.14085	5.61
5	11.35	Bromide	1.0000	0.9780		0.15461	6.16
6	13.30	Nitrate-N	0.5000	0.4967		0.43652	17.40
7	18.36	O-Phosphate-P	1.0000	0.8958		0.21705	8.65
8	20.52	Sulfate	2.0000	1.9836		0.53465	21.31
Total:				7.3402	0.000	2.509	100.00

12 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	1.0
Vial Number:	50	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 17:47	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056

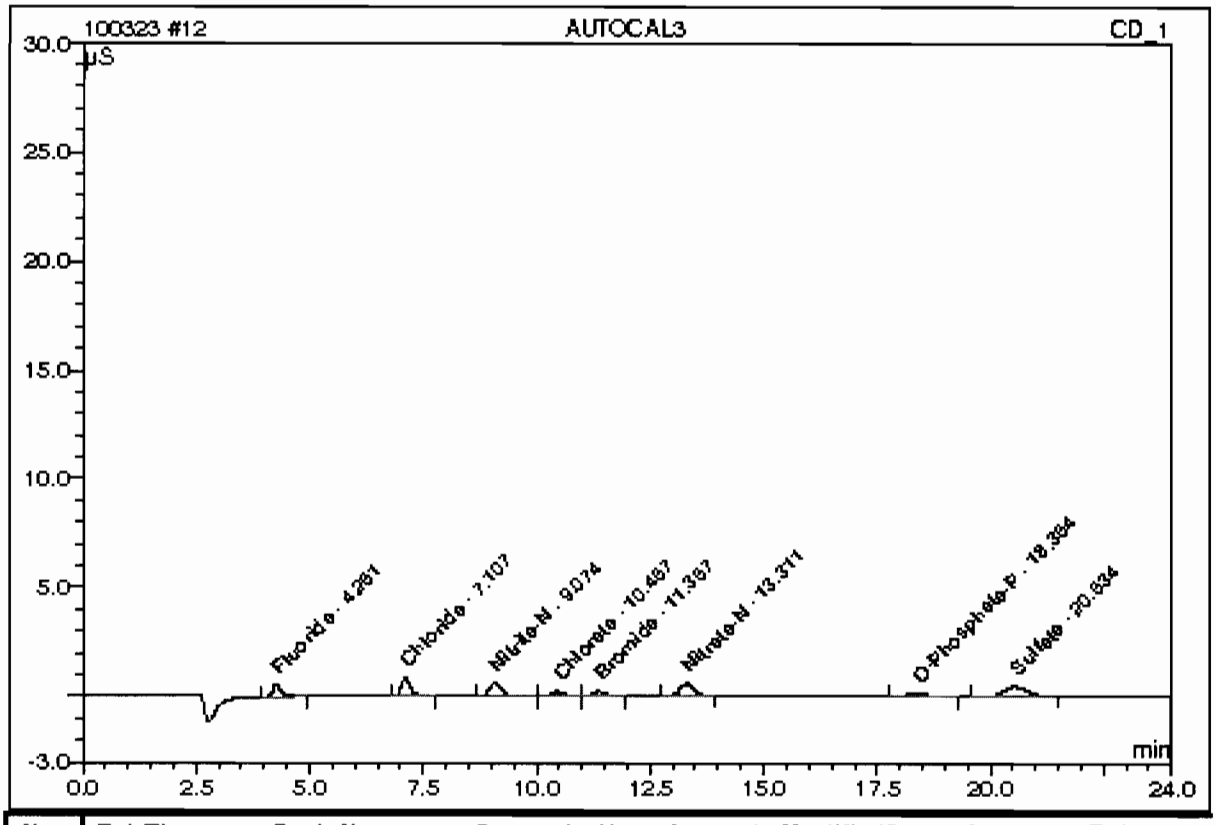

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.2500	0.2725		0.12551	10.22
2	7.11	Chloride	0.5000	0.6010		0.19297	15.72
3	9.07	Nitrite-N	0.2500	0.2827		0.18893	15.39
4	10.46	Chlorate	0.5000	0.5047		0.06895	5.62
5	11.36	Bromide	0.5000	0.4987		0.07594	6.19
6	13.31	Nitrate-N	0.2500	0.2965		0.21665	17.65
7	18.36	O-Phosphate-P	0.5000	0.4552		0.08354	6.81
8	20.53	Sulfate	1.0000	1.1764		0.27506	22.41
Total:				4.0878	0.000	1.228	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	1.0
Vial Number:	1	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:14	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

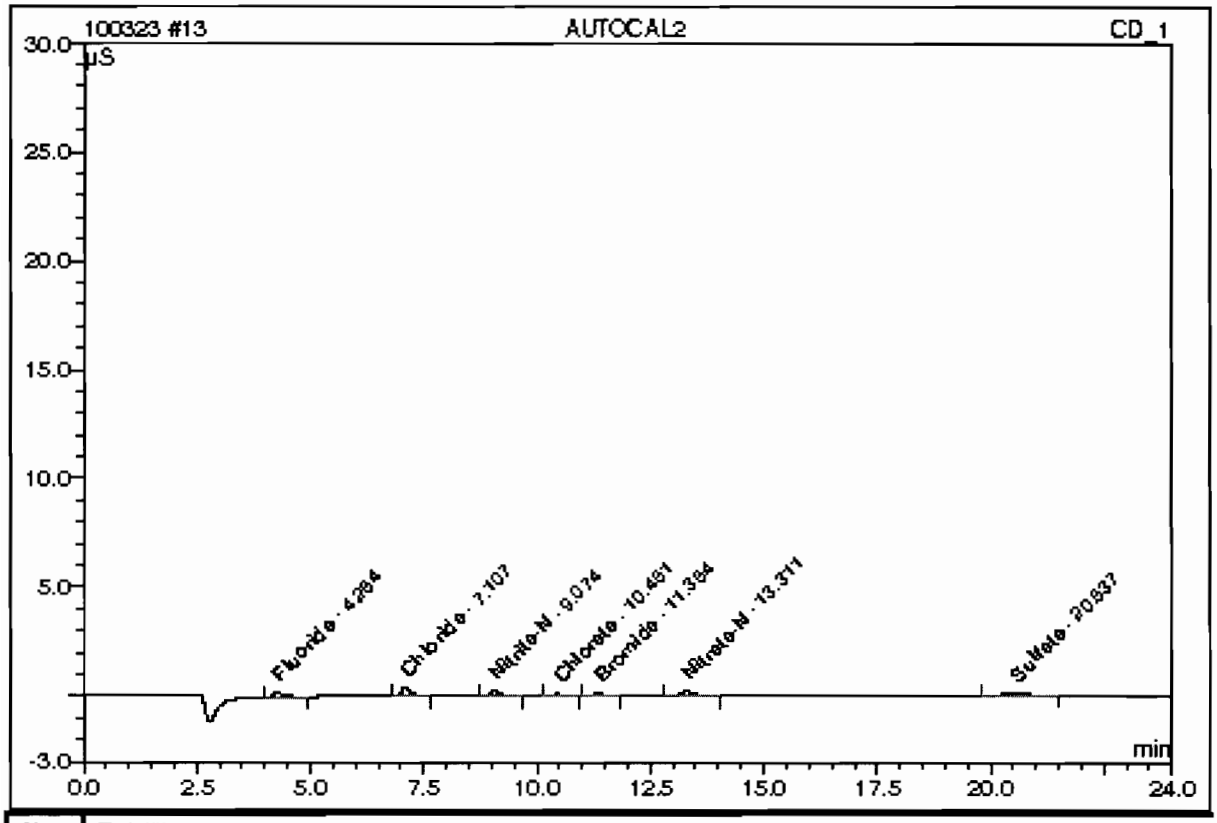

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.1000	0.1492		0.05126	10.67
2	7.11	Chloride	0.2000	0.3919		0.09636	20.06
3	9.07	Nitrite-N	0.1000	0.1509		0.07173	14.93
4	10.46	Chlorate	0.2000	0.2331		0.02698	5.62
5	11.35	Bromide	0.2000	0.2262		0.03122	6.50
6	13.31	Nitrate-N	0.1000	0.1803		0.08899	18.53
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	20.54	Sulfate	0.4000	0.6748		0.11374	23.68
Total:				2.0063	0.000	0.480	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	1.0
Vial Number:	1	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:14	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

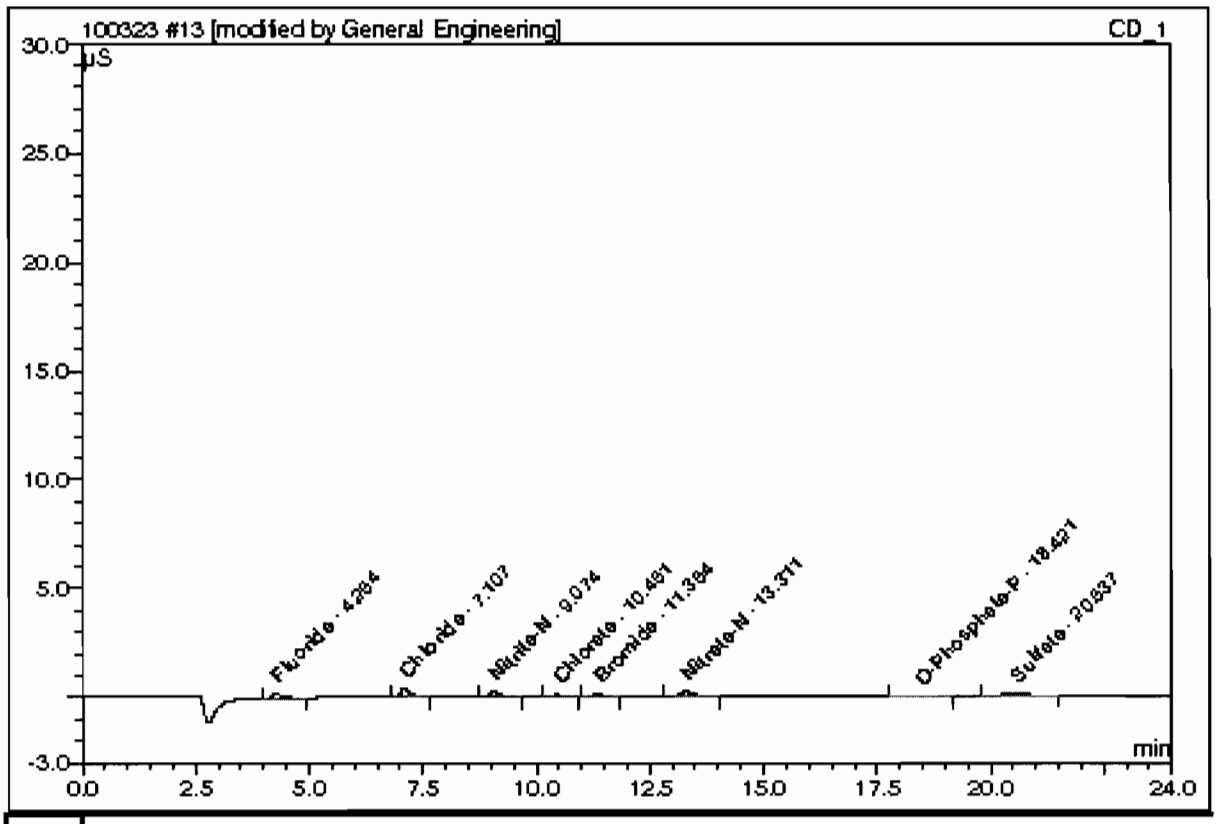

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.1000	0.1492		0.05126	10.37
2	7.11	Chloride	0.2000	0.3919		0.09636	19.50
3	9.07	Nitrite-N	0.1000	0.1509		0.07173	14.51
4	10.46	Chlorate	0.2000	0.2331		0.02698	5.46
5	11.35	Bromide	0.2000	0.2262		0.03122	6.32
6	13.31	Nitrate-N	0.1000	0.1803		0.08899	18.00
7	18.42	O-Phosphate-P	0.2000	0.2257		0.01399	2.83
8	20.54	Sulfate	0.4000	0.6748		0.11374	23.01
Total:				2.2320	0.000	0.494	100.00

14 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	1.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:41	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC B086;300;9056

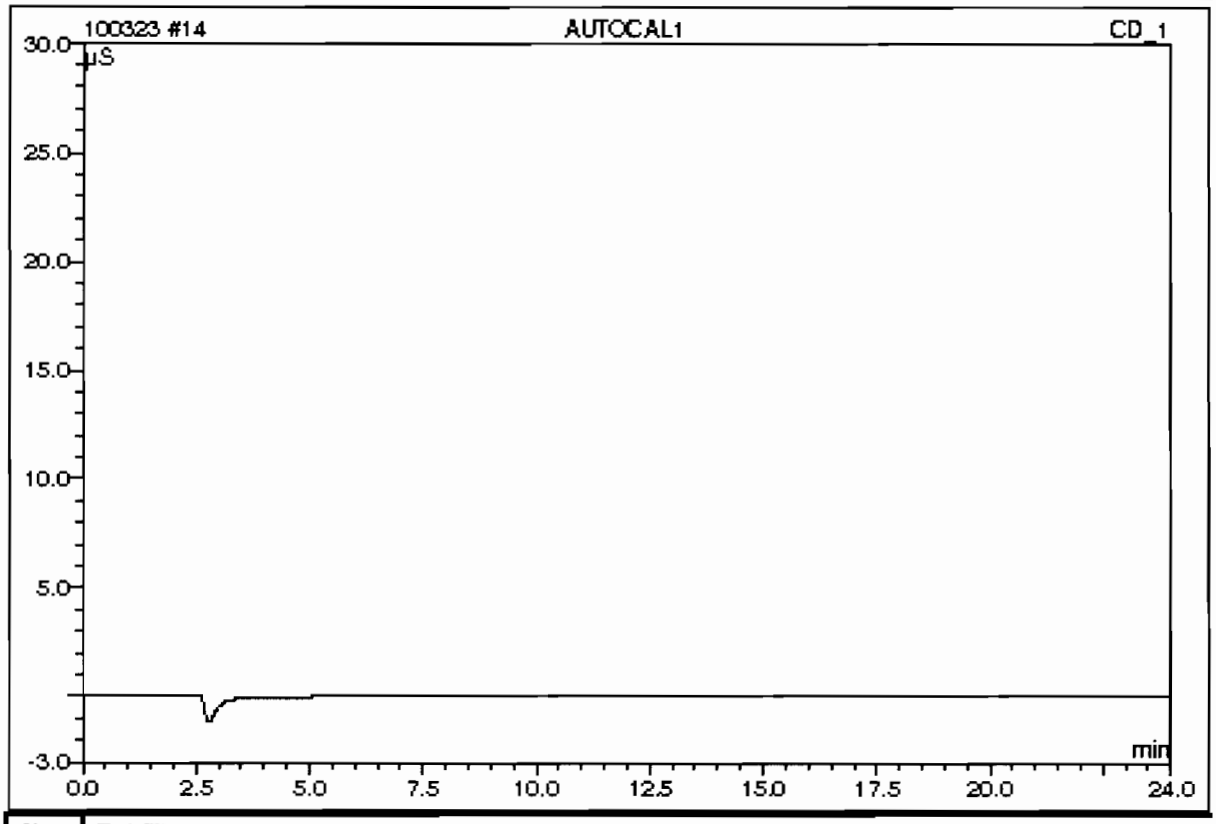

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

14 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	1.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:41	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-002712; GL GC E086;300;9056

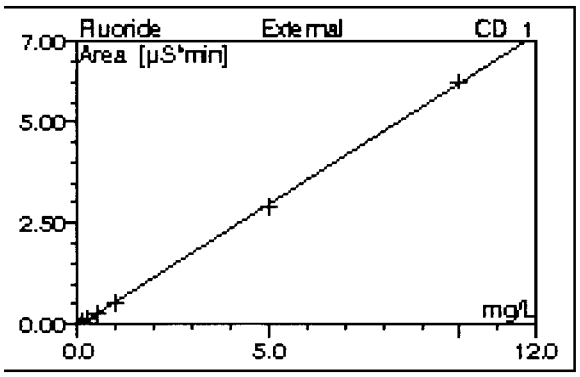

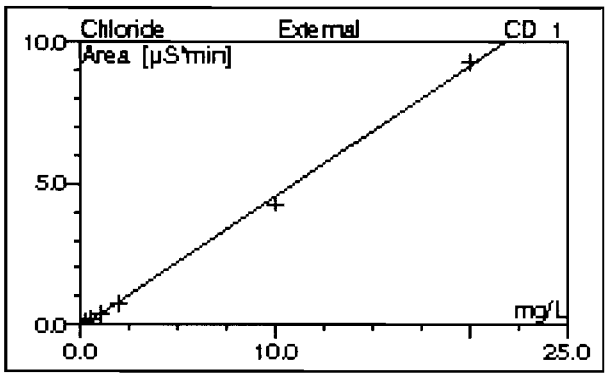

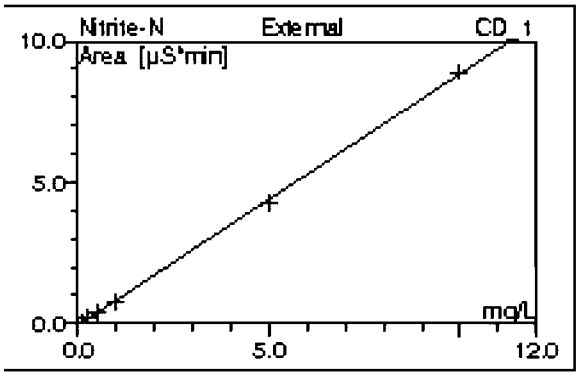

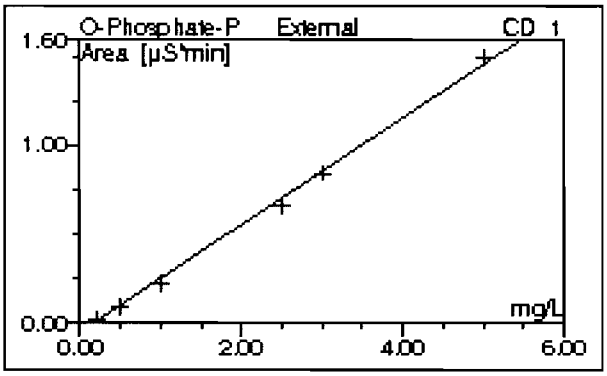

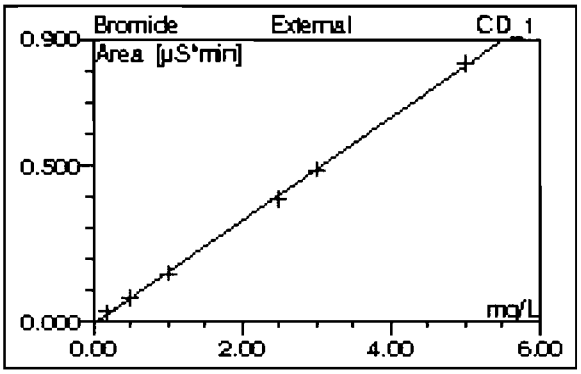

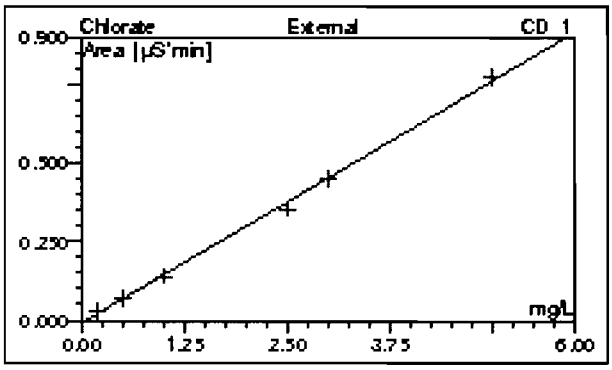

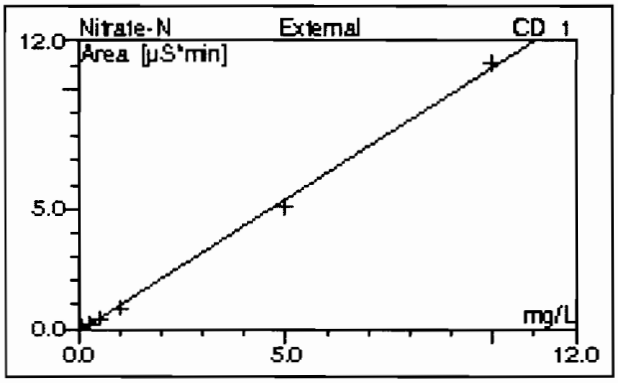

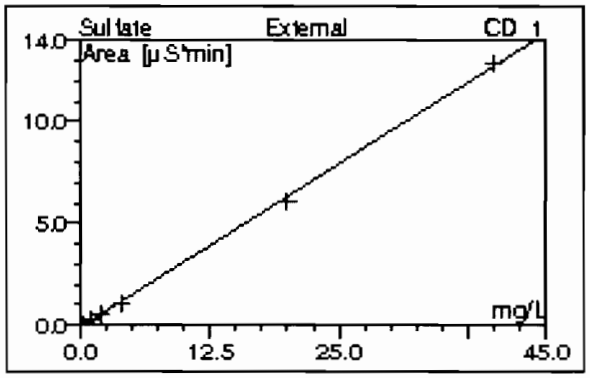

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	0LOff	99.9646	-0.0385	0.6020	0.0000
n.a.	n.a.	Chloride	0LOff	99.8347	-0.0847	0.4621	0.0000
n.a.	n.a.	Nitrite-N	0LOff	99.9547	-0.0624	0.8890	0.0000
n.a.	n.a.	Chlorate	0LOff	99.8463	-0.0090	0.1545	0.0000
n.a.	n.a.	Bromide	0LOff	99.9345	-0.0059	0.1641	0.0000
n.a.	n.a.	Nitrate-N	0LOff	99.8657	-0.1090	1.0983	0.0000
n.a.	n.a.	O-Phosphate-P	0LOff	99.7443	-0.0544	0.3030	0.0000
n.a.	n.a.	Sulfate	0LOff	99.9039	-0.1033	0.3216	0.0000
Average:				99.8811	-0.0584	0.4993	0.0000

This is runlog for Sequence 100323.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/23/10 15:33		1	100323	MAR1
ICAL-07	03/23/10 16:00		1	100323	MAR1
ICAL-06	03/23/10 16:27		1	100323	MAR1
ICAL-05	03/23/10 16:53		1	100323	MAR1
ICAL-04	03/23/10 17:20		1	100323	MAR1
ICAL-03	03/23/10 17:47		1	100323	MAR1
ICAL-02	03/23/10 18:14		1	100323	MAR1
ICAL-01	03/23/10 18:41		1	100323	MAR1
ICV	03/23/10 19:08		1	100323	MAR1
ICB	03/23/10 19:35		1	100323	MAR1
1202073661	03/23/10 20:02	966275	1	100323	MAR1
1202073665	03/23/10 20:29	966275	1	100323	MAR1
248534001	03/23/10 20:56	966275	1	100323	MAR1
1202073662	03/23/10 21:23	966275	1	100323	MAR1
1202073663	03/23/10 21:50	966275	1	100323	MAR1
1202073664	03/23/10 22:16	966275	1	100323	MAR1
248534002	03/23/10 22:43	966275	1	100323	MAR1
248534003	03/23/10 23:10	966275	1	100323	MAR1
248534004	03/23/10 23:37	966275	1	100323	MAR1

15 WIC100323-02ICV

Sample Name:	WIC100323-02ICV	*Injection Volume:*	1.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 19:08	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

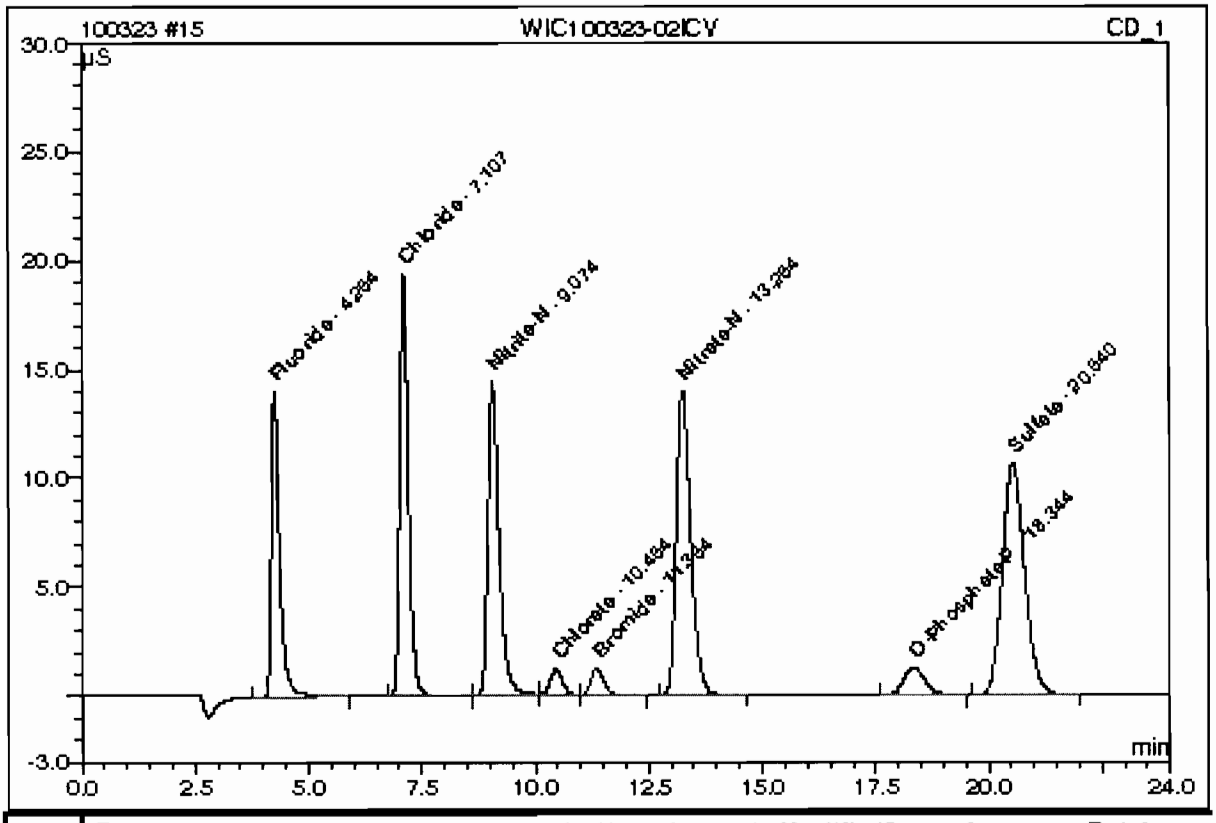

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.8960		2.90874	12.07
2	7.11	Chloride	n.a.	9.4929		4.30159	17.85
3	9.07	Nitrite-N	n.a.	4.8019		4.20641	17.46
4	10.45	Chlorate	n.a.	2.5622		0.38685	1.61
5	11.35	Bromide	n.a.	2.5972		0.42040	1.74
6	13.25	Nitrate-N	n.a.	4.7960		5.15850	21.41
7	18.34	O-Phosphate-P	n.a.	2.4576		0.69032	2.86
8	20.54	Sulfate	n.a.	19.0532		6.02422	25.00
Total:				50.6569	0.000	24.097	100.00

15 WIC100323-02ICV

Sample Name:	WIC100323-02ICV	*Injection Volume:*	1.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 19:08	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

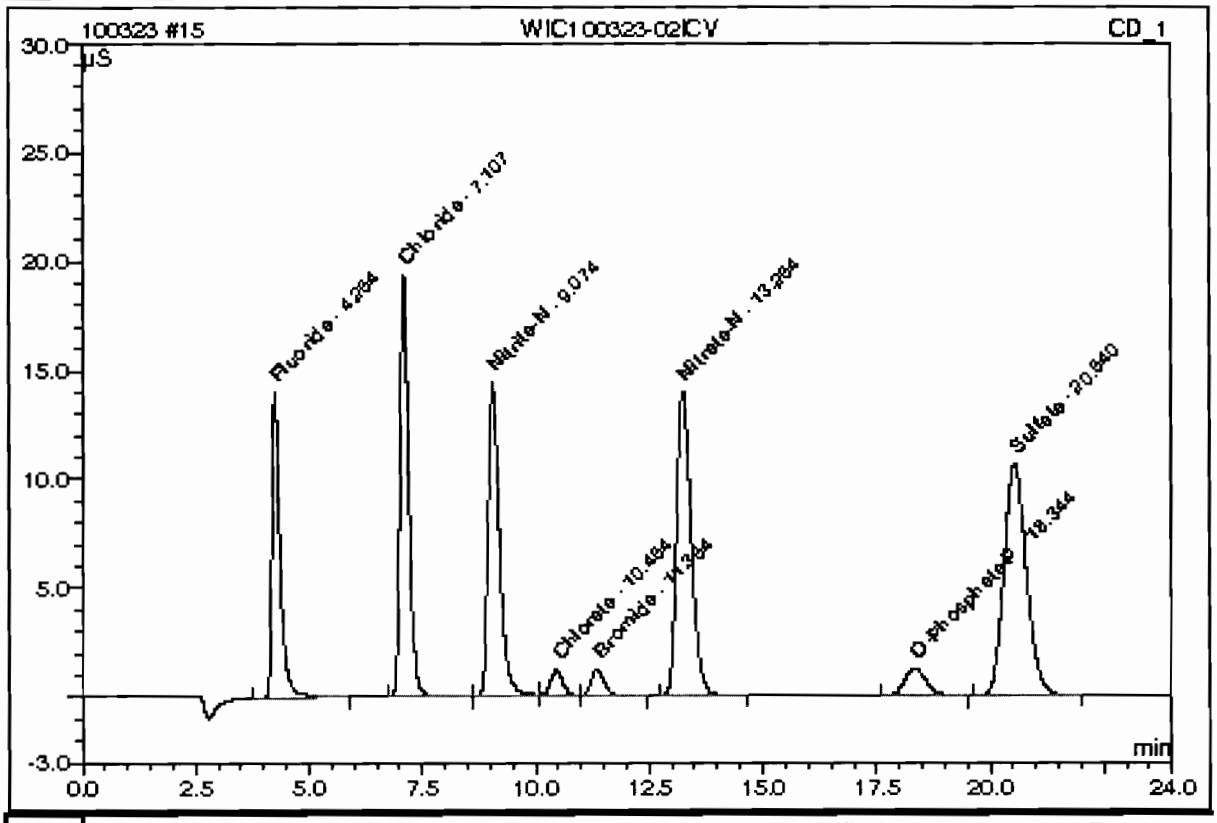

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.8960		2.90874	12.07
2	7.11	Chloride	n.a.	9.4929		4.30159	17.85
3	9.07	Nitrite-N	n.a.	4.8019		4.20641	17.46
4	10.45	Chlorate	n.a.	2.5622		0.38685	1.61
5	11.35	Bromide	n.a.	2.5972		0.42040	1.74
6	13.25	Nitrate-N	n.a.	4.7960		5.15850	21.41
7	18.34	O-Phosphate-P	n.a.	2.4576		0.69032	2.86
8	20.54	Sulfate	n.a.	19.0532		6.02422	25.00
Total:				50.6569	0.000	24.097	100.00

16 ICB

Sample Name:	ICB	*Injection Volume:*	1.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 19:35	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

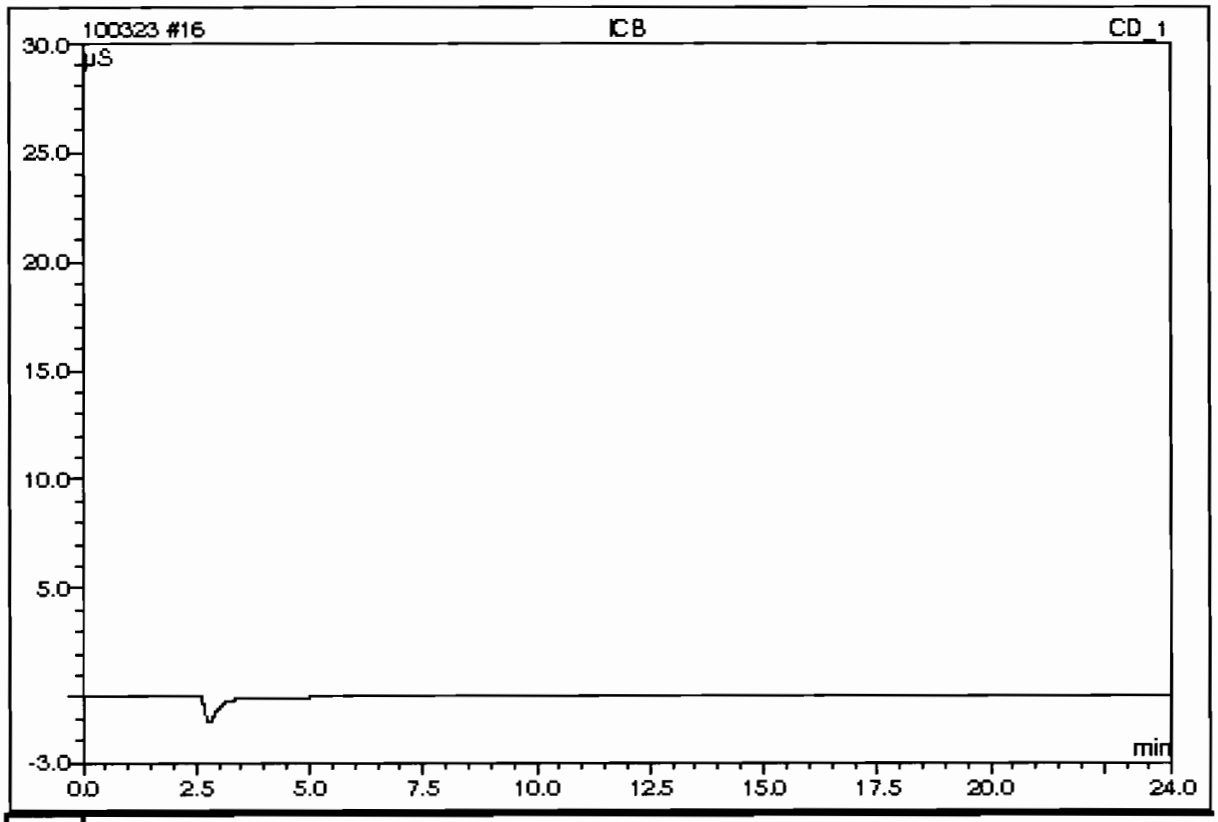

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100329.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/29/10 17:00		1	100329	VH1
BLK	03/29/10 17:26		1	100329	VH1
ICV	03/29/10 17:53		1	100329	VH1
ICB	03/29/10 18:20		1	100329	VH1
1202079398	03/29/10 18:47	968640	1	100329	VH1
1202079405	03/29/10 19:13	968640	1	100329	VH1
248814001	03/29/10 19:40	968640	1	100329	VH1
1202079399	03/29/10 20:07	968640	1	100329	VH1
1202079401	03/29/10 20:34	968640	1	100329	VH1
1202079403	03/29/10 21:01	968640	1	100329	VH1
248814002	03/29/10 21:28	968640	1	100329	VH1
248814003	03/29/10 21:55	968640	1	100329	VH1
248814004	03/29/10 22:22	968640	1	100329	VH1
248814005	03/29/10 22:49	968640	1	100329	VH1
CVH	03/29/10 23:15		1	100329	VH1
CCB	03/29/10 23:42		1	100329	VH1

16 WIC100329-02ICV

Sample Name:	WIC100329-02ICV	*Injection Volume:*	1.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 17:53	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

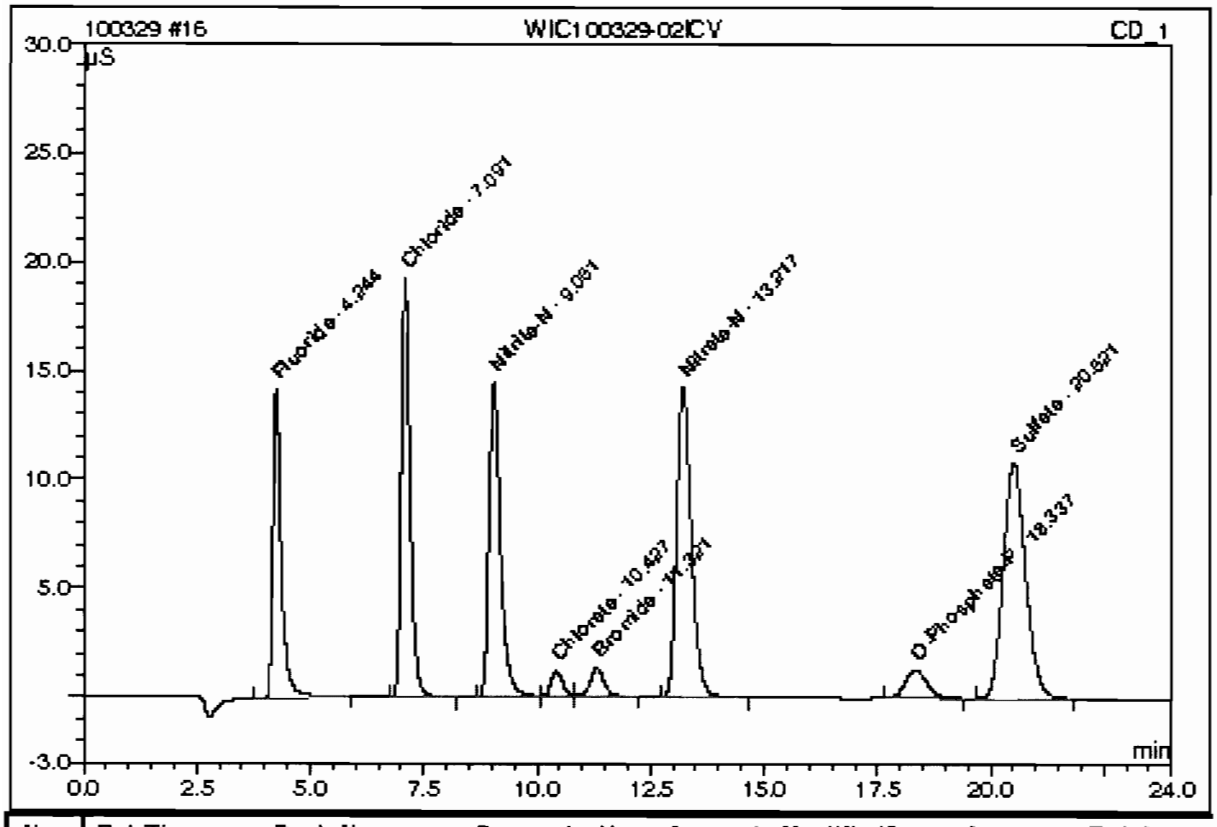

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	5.0909		3.02601	12.24
2	7.09	Chloride	n.a.	9.6162		4.35858	17.63
3	9.05	Nitrite-N	n.a.	4.8968		4.29077	17.35
4	10.43	Chlorate	n.a.	2.4223		0.36524	1.48
5	11.32	Bromide	n.a.	3.0172		0.48934	1.98
6	13.22	Nitrate-N	n.a.	4.9061		5.27947	21.35
7	18.34	O-Phosphate-P	n.a.	2.5597		0.72126	2.92
8	20.52	Sulfate	n.a.	19.5894		6.19667	25.06
Total:				52.0986	0.000	24.727	100.00

17 ICB

Sample Name:	ICB	*Injection Volume:*	1.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 18:20	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

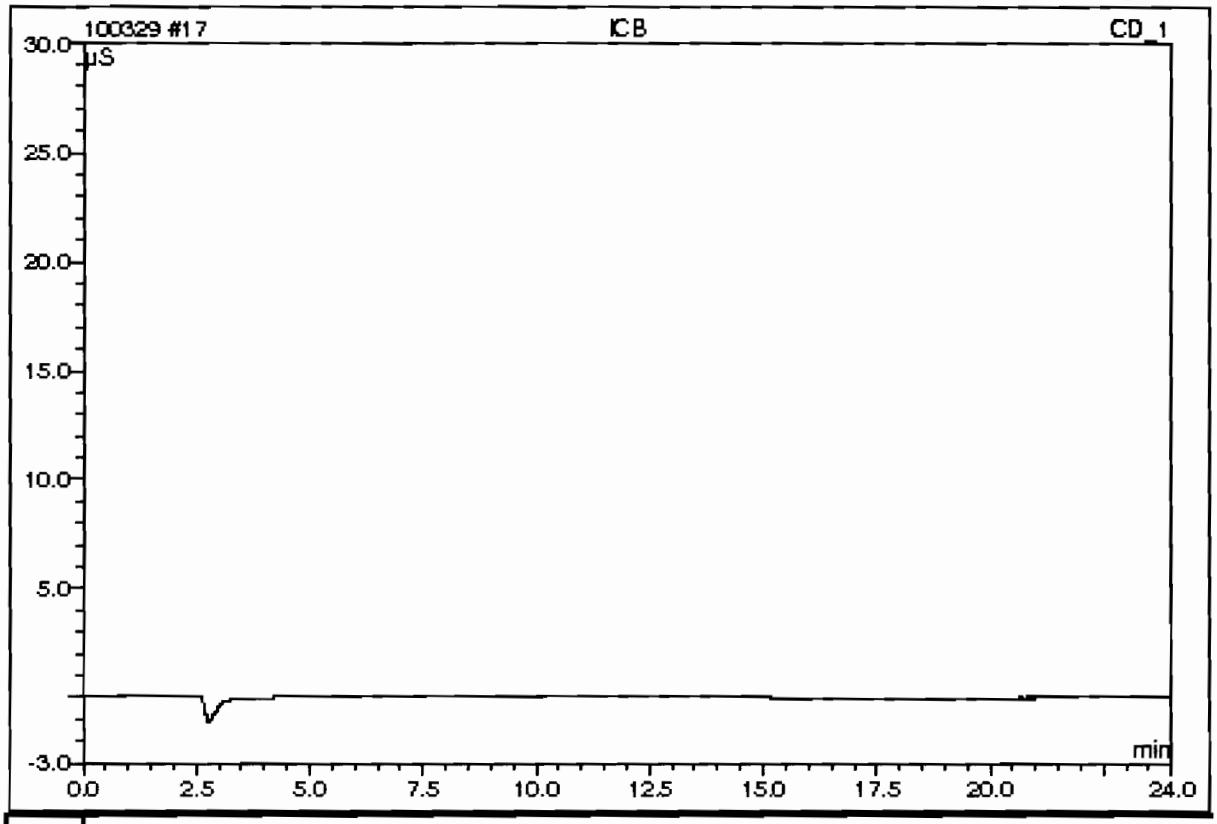

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

18 1202079398/968640/1/1/MB

Sample Name:	1202079398/968640/1/1/MB	*Injection Volume:*	1.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 18:47	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

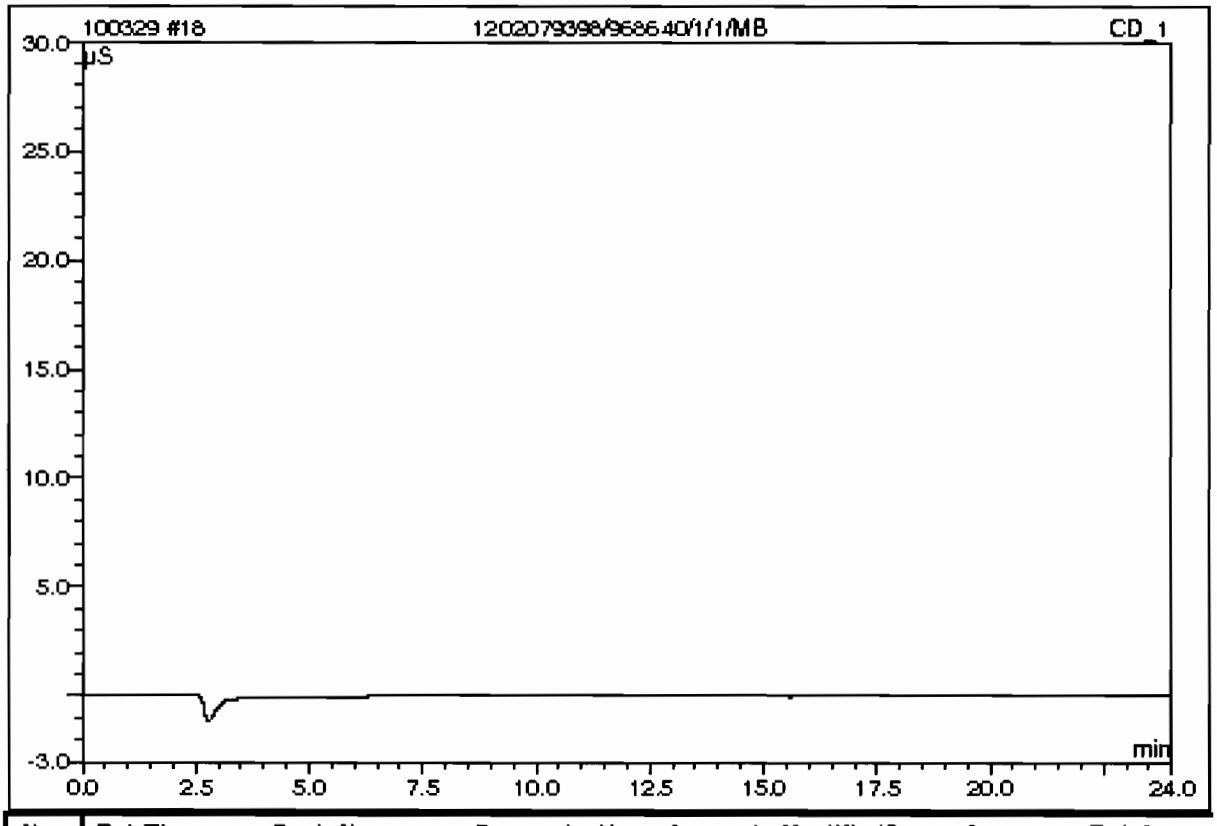

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

19 1202079405/968640/1/1/LCS

Sample Name:	1202079405/968640/1/1/LCS	*Injection Volume:*	1.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 19:13	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528;GLGCE086;300;9056

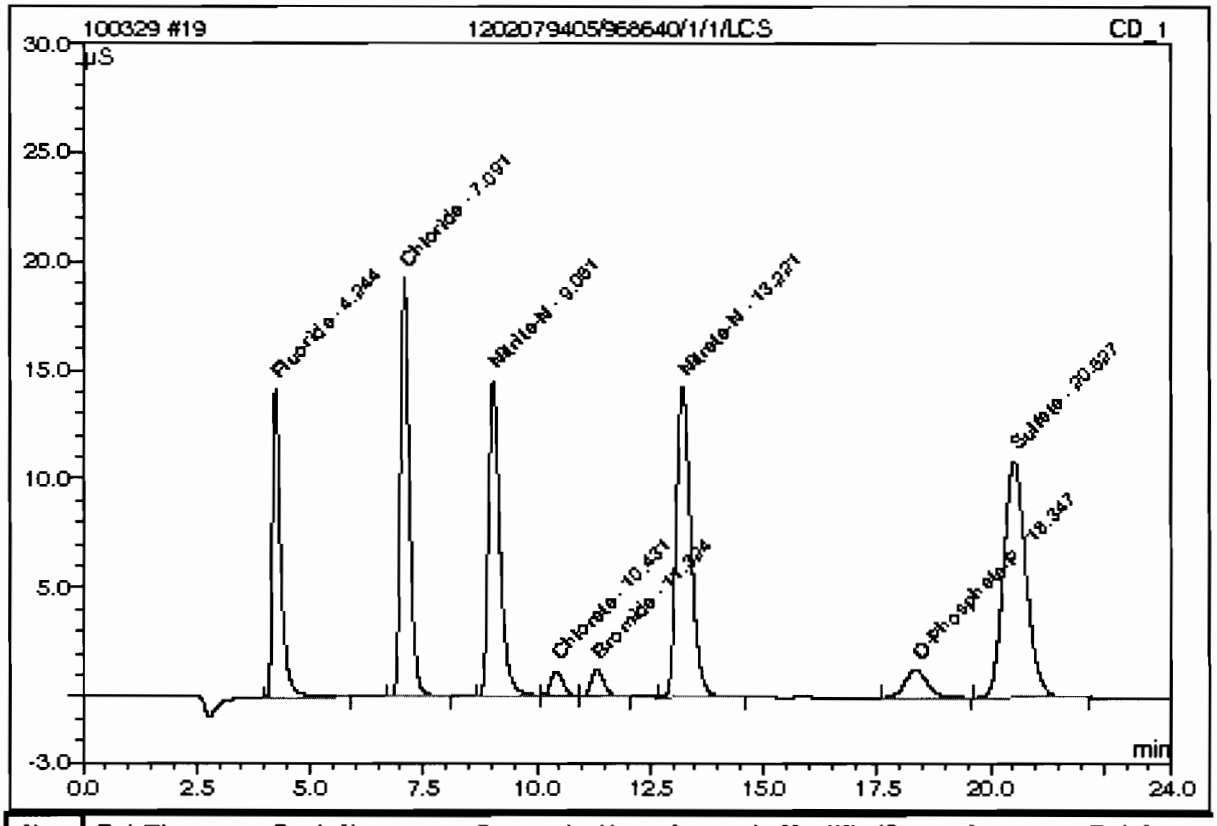

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	5.0300		2.98940	12.12
2	7.09	Chloride	n.a.	9.6004		4.35128	17.64
3	9.05	Nitrite-N	n.a.	4.9223		4.31350	17.49
4	10.43	Chlorate	n.a.	2.5905		0.39122	1.59
5	11.32	Bromide	n.a.	2.5475		0.41224	1.67
6	13.22	Nitrate-N	n.a.	4.9015		5.27443	21.38
7	18.35	O-Phosphate-P	n.a.	2.5426		0.71610	2.90
8	20.53	Sulfate	n.a.	19.6645		6.22082	25.22
Total:				51.7994	0.000	24.669	100.00

20 248814001/968640/1/1/

Sample Name:	248814001/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 19:40	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

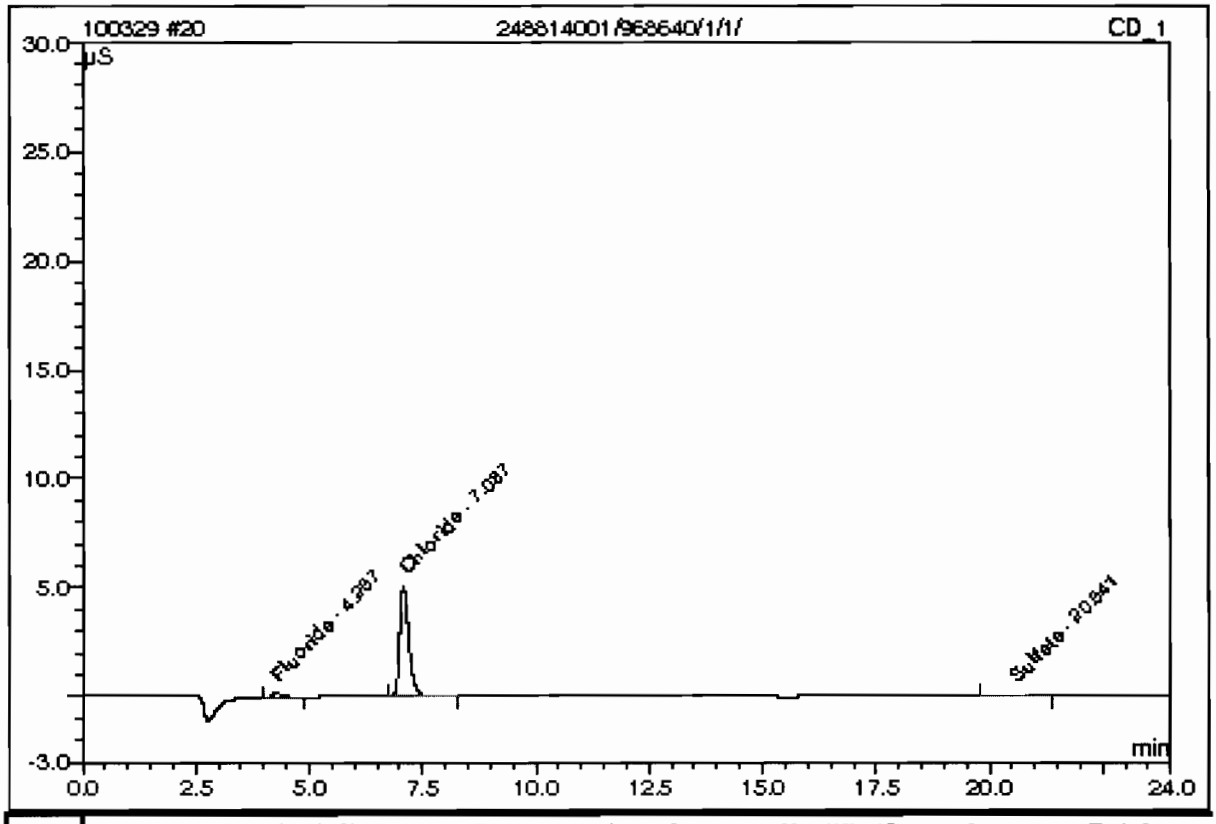

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1556		0.05514	4.22
2	7.09	Chloride	n.a.	2.7852		1.20222	92.04
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.54	Sulfate	n.a.	0.4730		0.04884	3.74
Total:				3.4138	0.000	1.306	100.00

21 1202079399/968640/1/1/DUP

Sample Name:	1202079399/968640/1/1/DUP	*Injection Volume:*	1.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 20:07	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056

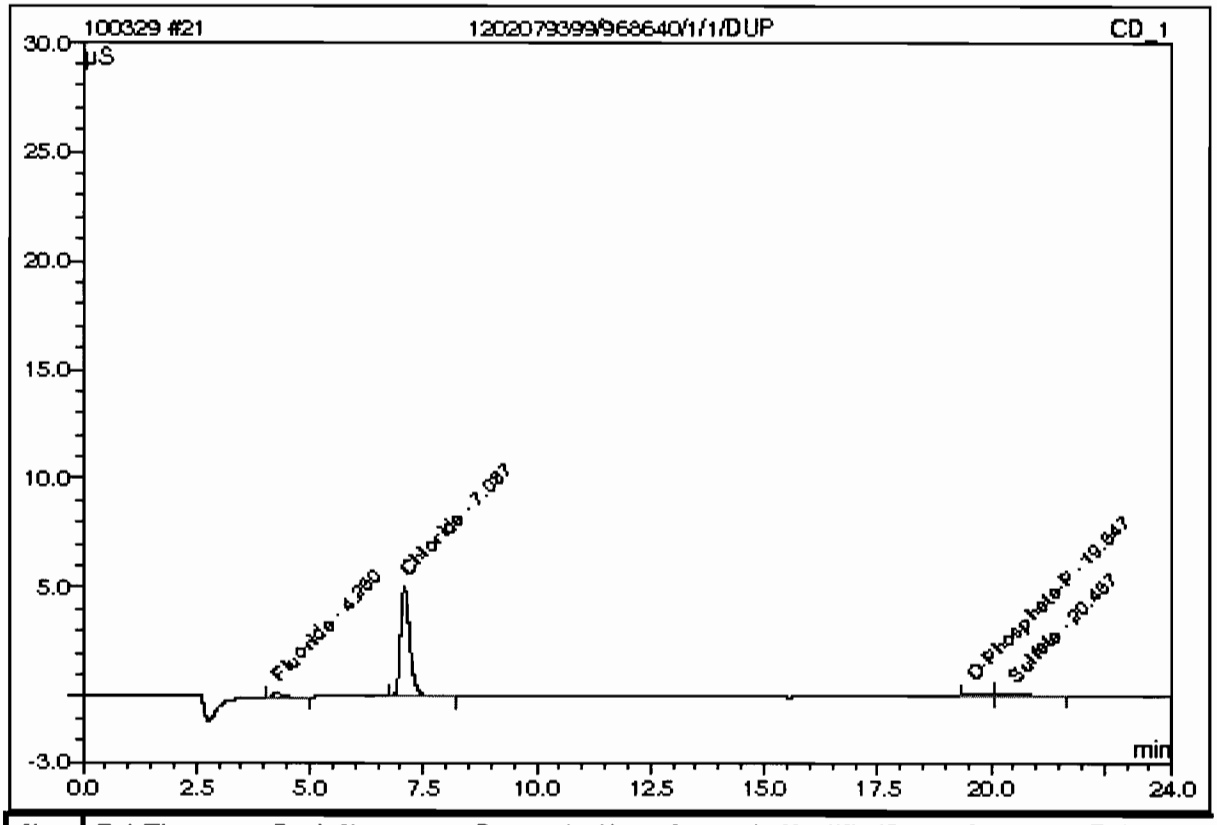

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1524		0.05323	3.63
2	7.09	Chloride	n.a.	2.7558		1.18863	80.99
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
3	19.55	O-Phosphate-P	n.a.	0.5604		0.11542	7.86
4	20.47	Sulfate	n.a.	0.6645		0.11043	7.52
Total:				4.1331	0.000	1.468	100.00

22 1202079401/968640/1/1/MS

Sample Name:	1202079401/968640/1/1/MS	*Injection Volume:*	1.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 20:34	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

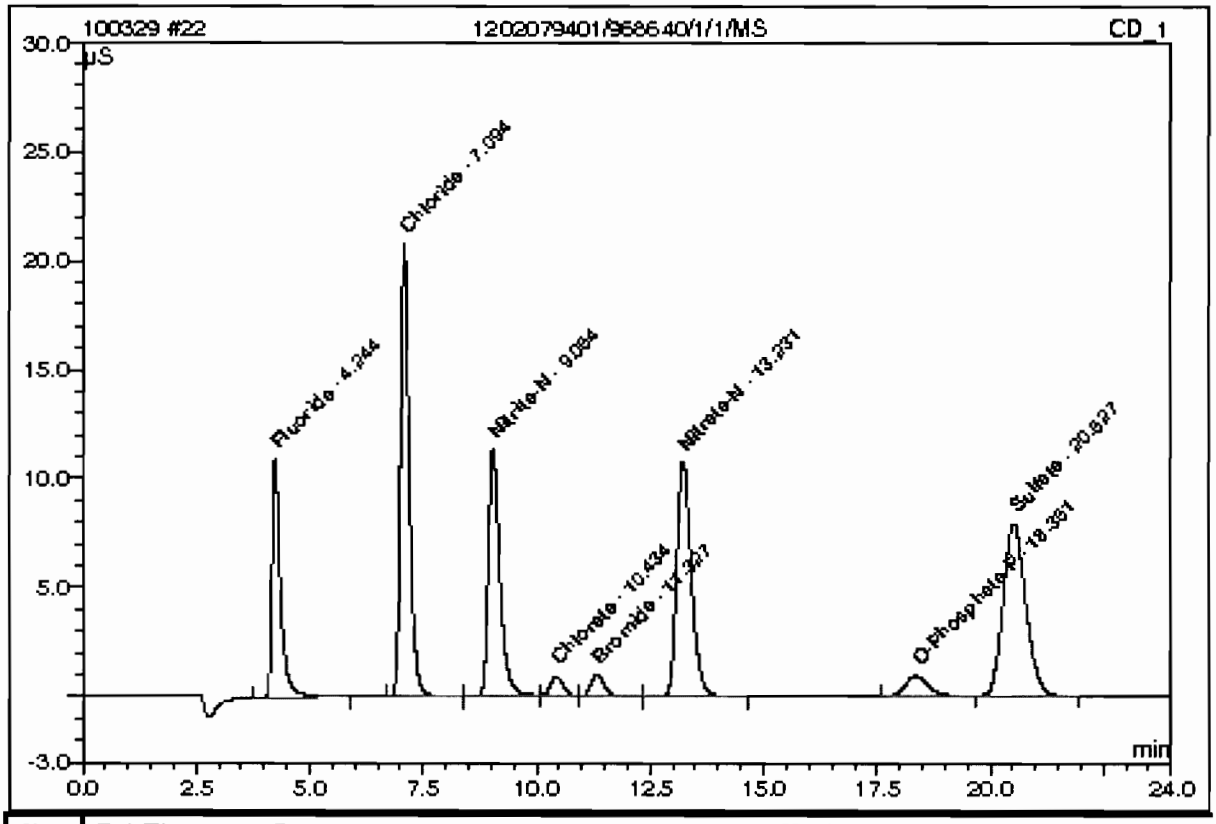

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	3.9468		2.33731	11.51
2	7.09	Chloride	n.a.	10.3461		4.69584	23.12
3	9.05	Nitrite-N	n.a.	3.8967		3.40172	16.75
4	10.43	Chlorate	n.a.	2.1056		0.31630	1.56
5	11.33	Bromide	n.a.	2.0992		0.33866	1.67
6	13.23	Nitrate-N	n.a.	3.7642		4.02533	19.82
7	18.36	O-Phosphate-P	n.a.	1.9965		0.55060	2.71
8	20.53	Sulfate	n.a.	14.7572		4.64263	22.86
Total:				42.9123	0.000	20.308	100.00

23 1202079403/968640/1/1/MSD

Sample Name:	1202079403/968640/1/1/MSD	*Injection Volume:*	1.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 21:01	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056

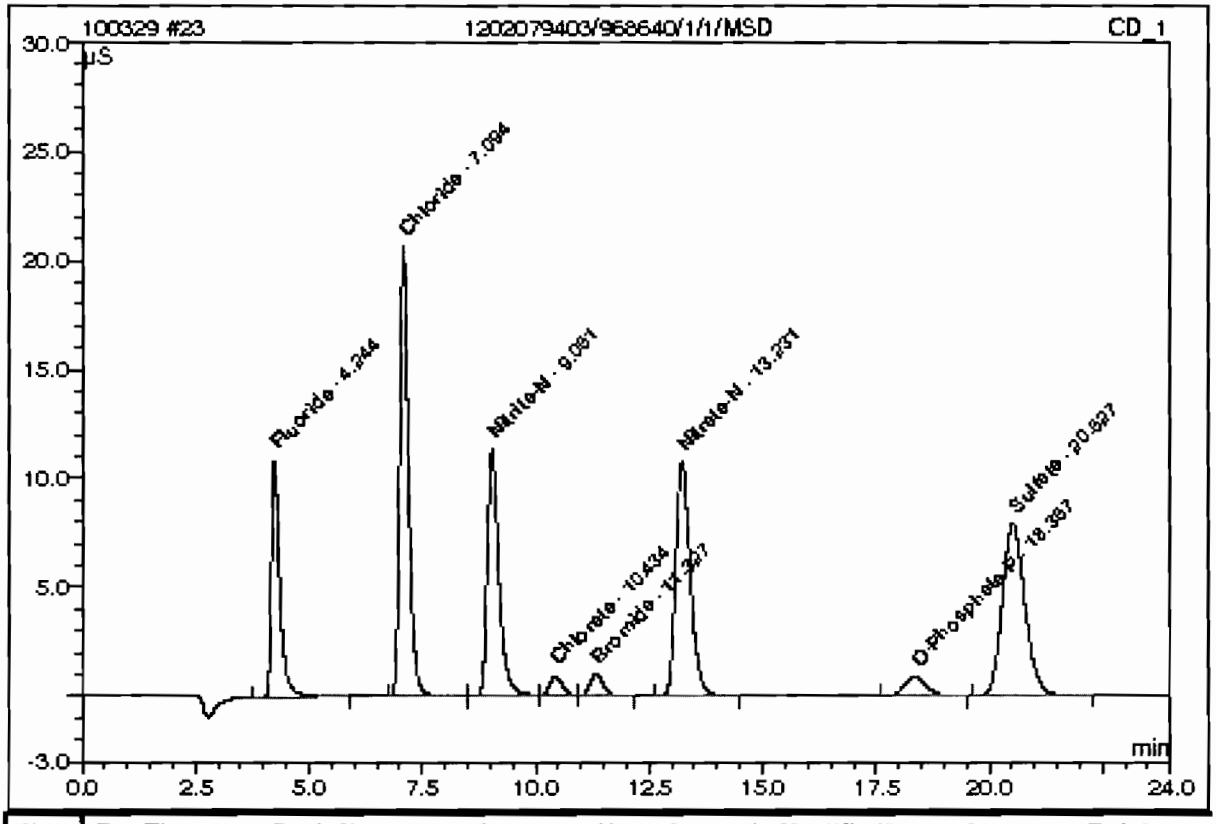

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	3.9227		2.32279	11.55
2	7.09	Chloride	n.a.	10.2975		4.67337	23.24
3	9.05	Nitrite-N	n.a.	3.8682		3.37635	16.79
4	10.43	Chlorate	n.a.	2.0549		0.30848	1.53
5	11.33	Bromide	n.a.	2.0620		0.33256	1.65
6	13.23	Nitrate-N	n.a.	3.7431		4.00210	19.90
7	18.36	O-Phosphate-P	n.a.	1.8390		0.50287	2.50
8	20.53	Sulfate	n.a.	14.6018		4.59266	22.84
Total:				42.3892	0.000	20.111	100.00

28 WIC100329-02CVH

Sample Name:	WIC100329-02CVH	*Injection Volume:*	1.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 23:15	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GC B086;300;9056

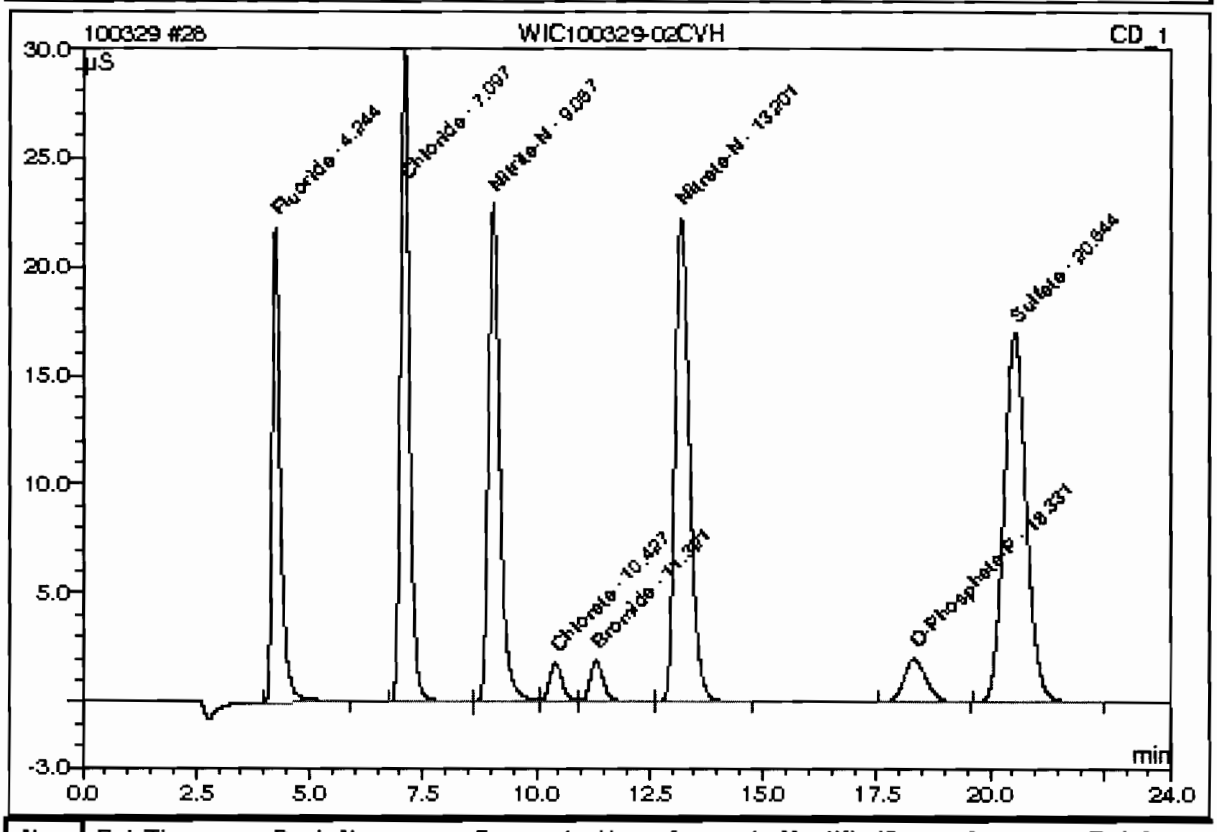

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	7.6885		4.58972	11.92
2	7.10	Chloride	n.a.	15.0164		6.85380	17.81
3	9.06	Nitrite-N	n.a.	7.6708		6.75687	17.55
4	10.43	Chlorate	n.a.	3.9182		0.59636	1.55
5	11.32	Bromide	n.a.	3.9191		0.63739	1.66
6	13.20	Nitrate-N	n.a.	7.6315		8.27283	21.49
7	18.33	O-Phosphate-P	n.a.	3.9213		1.13389	2.95
8	20.54	Sulfate	n.a.	30.3346		9.65232	25.08
Total:				80.1005	0.000	38.493	100.00

29 CCB

Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 23:42	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

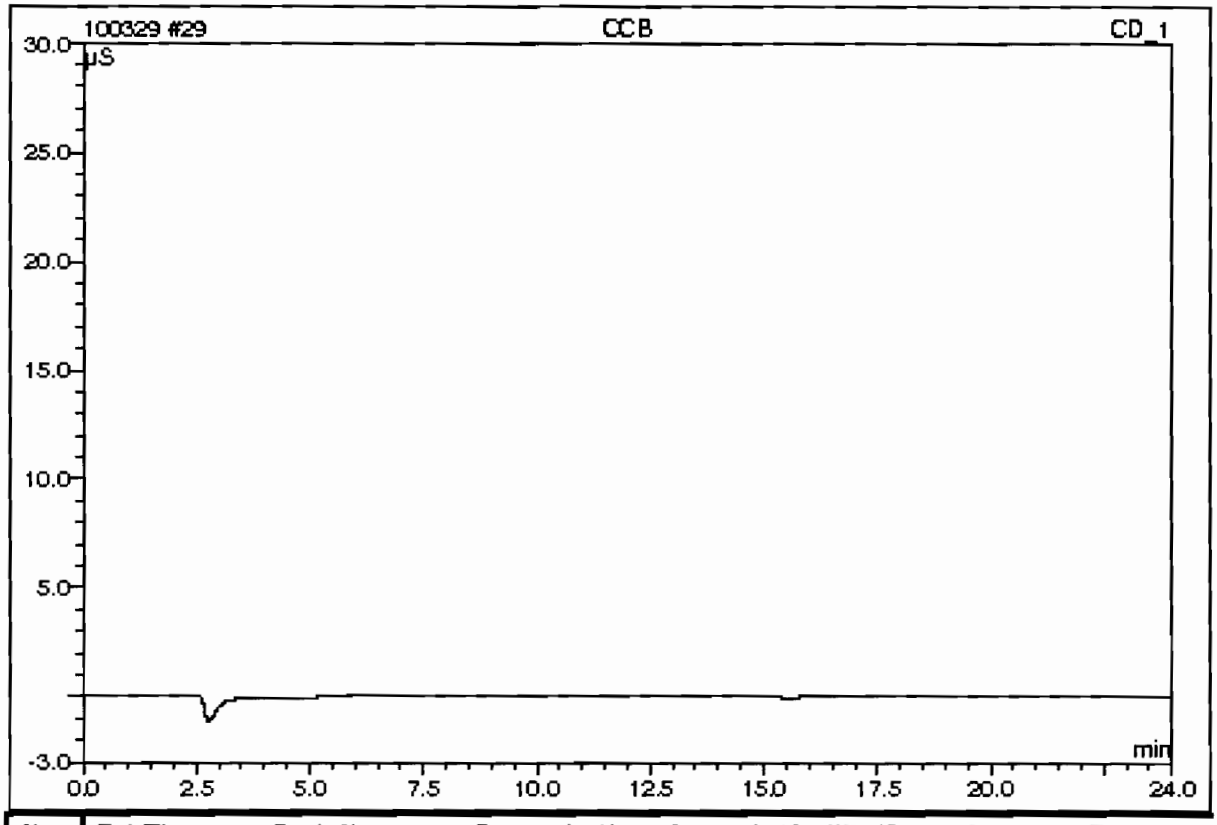

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100329.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
248814006	03/30/10 00:09	968640	1	100329	VH1
248814007	03/30/10 00:36	968640	1	100329	VH1
248814008	03/30/10 01:03	968640	1	100329	VH1
248814009	03/30/10 01:30	968640	1	100329	VH1
248824001	03/30/10 01:57	968640	1	100329	VH1
248824002	03/30/10 02:24	968640	1	100329	VH1
248865001	03/30/10 02:51	968640	1	100329	VH1
1202079400	03/30/10 03:18	968640	1	100329	VH1
1202079402	03/30/10 03:45	968640	1	100329	VH1
1202079404	03/30/10 04:11	968640	1	100329	VH1
CCV	03/30/10 04:38		1	100329	VH1
CCB	03/30/10 05:05		1	100329	VH1
248866001	03/30/10 05:32	968640	1	100329	VH1
248866002	03/30/10 05:59	968640	1	100329	VH1
CVH	03/30/10 06:26		1	100329	VH1
CCB	03/30/10 06:53		1	100329	VH1
1202083083	03/30/10 07:20	970116	1	100329	VH1
1202083086	03/30/10 07:47	970116	1	100329	VH1
248847001	03/30/10 08:14	970116	100	100329	VH1
248847003	03/30/10 08:41	970116	100	100329	VH1
248847005	03/30/10 09:07	970116	100	100329	VH1
1202083084	03/30/10 09:34	970116	100	100329	VH1
1202083085	03/30/10 10:01	970116	100	100329	VH1
248847007	03/30/10 10:28	970116	100	100329	VH1
248847009	03/30/10 10:55	970116	100	100329	VH1
CVH	03/30/10 11:22		1	100329	VH1
CCB	03/30/10 11:49		1	100329	VH1

34 248824001/968640/1/1/

Sample Name:	248824001/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	21	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 1:57	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GC B086;300;9056

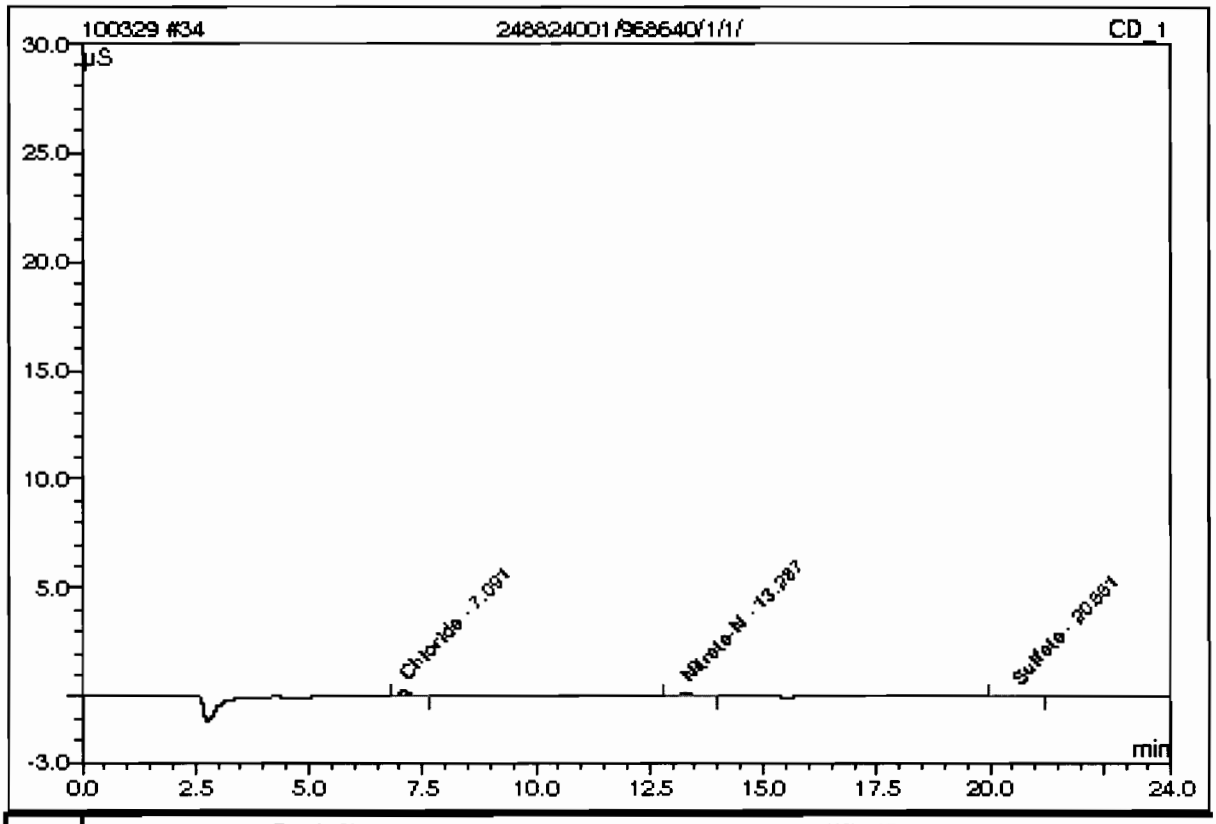

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.09	Chloride	n.a.	0.3164		0.06146	42.12
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
2	13.29	Nitrate-N	n.a.	0.1452		0.05045	34.57
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.55	Sulfate	n.a.	0.4270		0.03403	23.32
Total:				0.8885	0.000	0.146	100.00

35 248824002/968640/1/1/

Sample Name:	248824002/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	22	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 2:24	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GC B086;300;9056

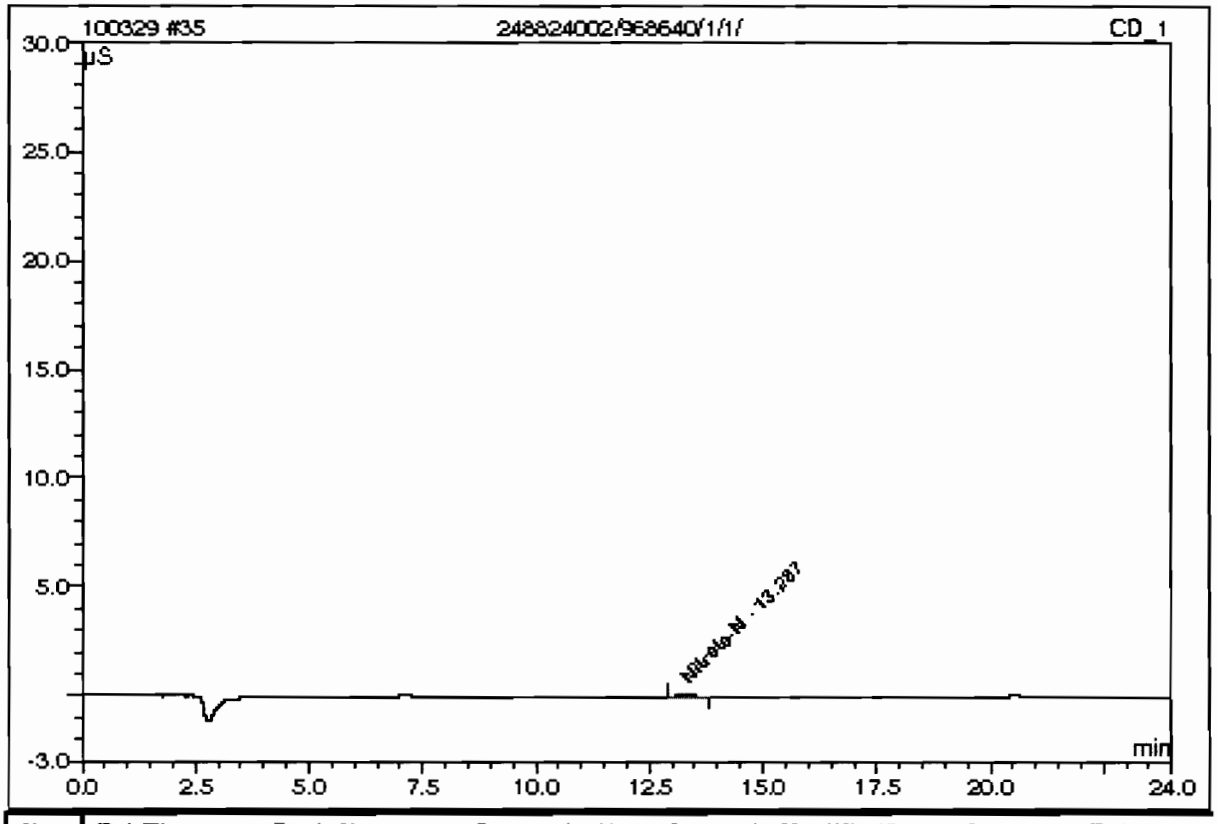

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
1	13.29	Nitrate-N	n.a.	0.1181		0.02069	100.00
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.1181	0.000	0.021	100.00

36 248865001/968640/1/1/

Sample Name:	248865001/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	23	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 2:51	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056

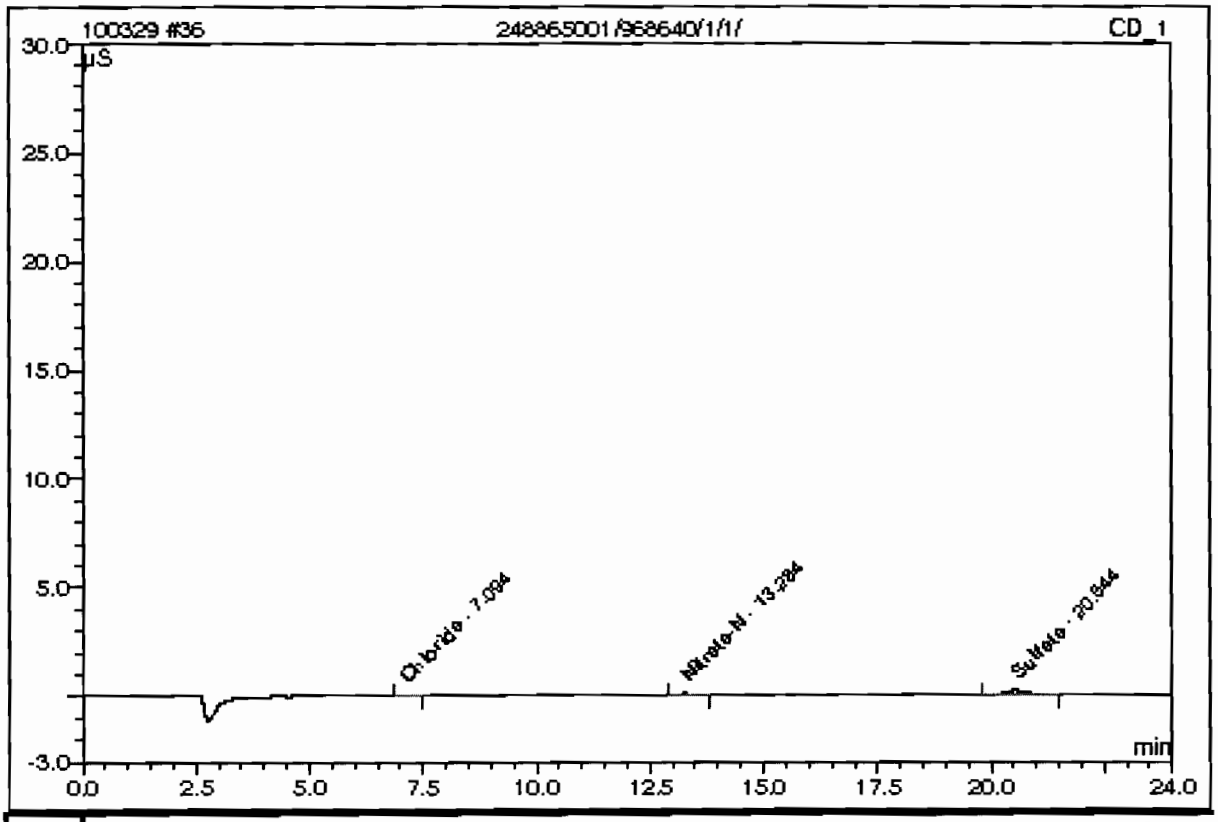

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.09	Chloride	n.a.	0.2180		0.01602	8.82
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
2	13.28	Nitrate-N	n.a.	0.1286		0.03219	17.73
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.54	Sulfate	n.a.	0.7360		0.13342	73.46
Total:				1.0826	0.000	0.182	100.00

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Version 6.80 SR7 Build 2528 (148369)

37 1202079400/968640/1/1/DUP

Sample Name:	1202079400/968640/1/1/DUP	*Injection Volume:*	1.0
Vial Number:	24	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 3:18	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

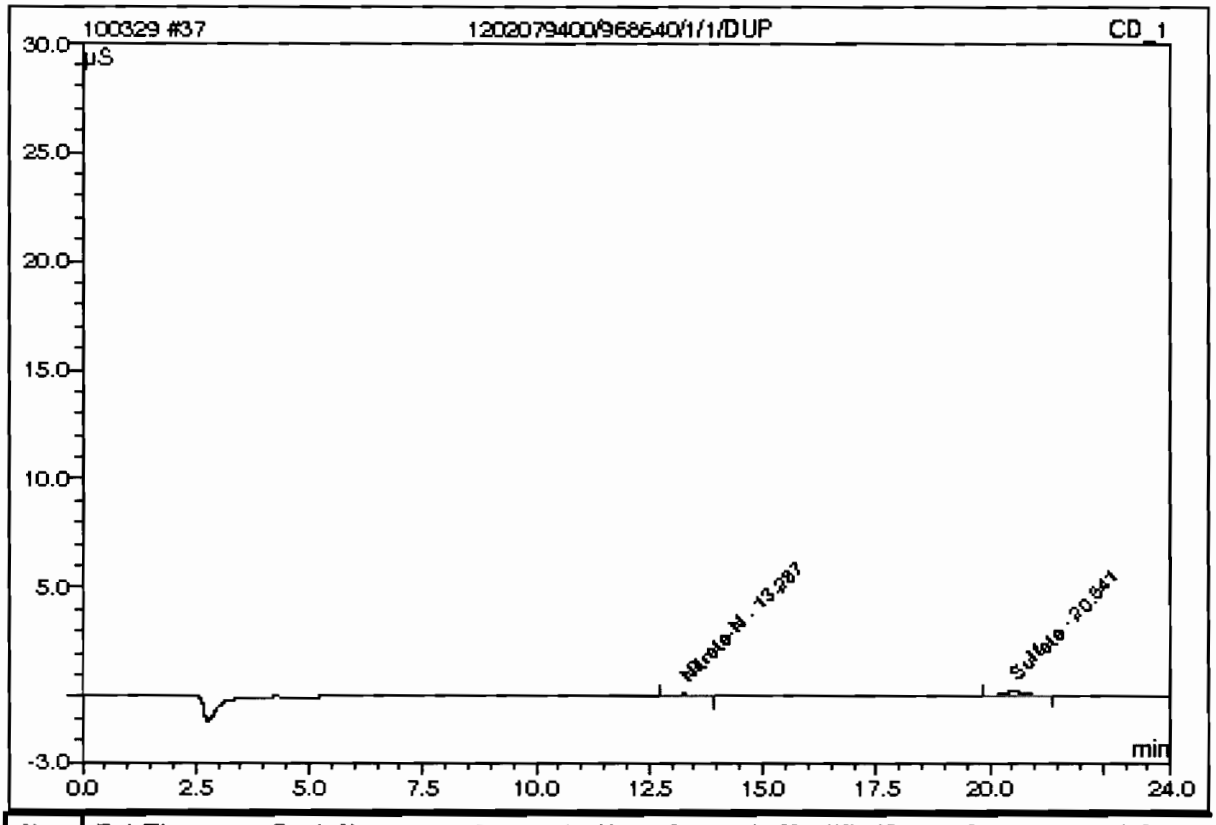

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
1	13.29	Nitrate-N	n.a.	0.1355		0.03982	23.47
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
2	20.54	Sulfate	n.a.	0.7248		0.12982	76.53
Total:				0.8603	0.000	0.170	100.00

38 1202079402/968640/1/1/MS

Sample Name:	1202079402/968640/1/1/MS	*Injection Volume:*	1.0
Vial Number:	25	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 3:45	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056

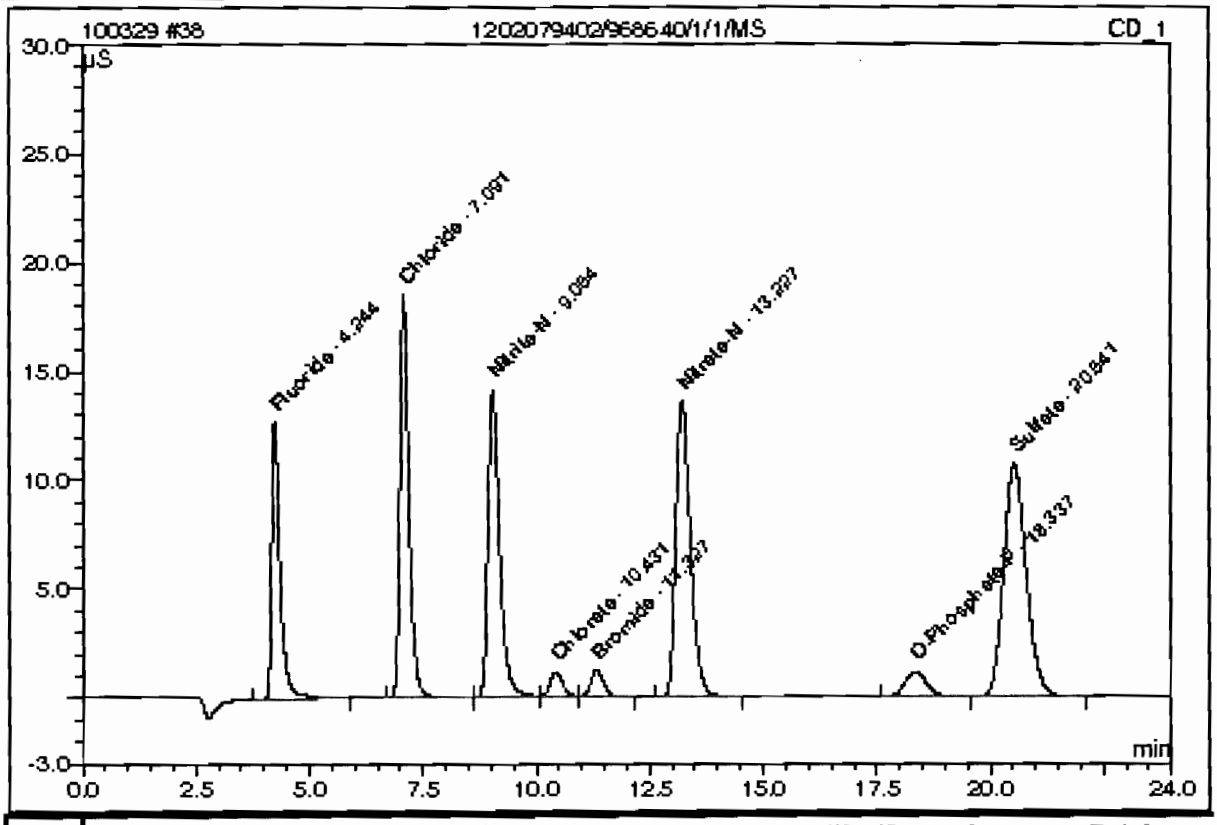

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	4.5439		2.69676	11.36
2	7.09	Chloride	n.a.	9.2811		4.20373	17.71
3	9.05	Nitrite-N	n.a.	4.7837		4.19022	17.66
4	10.43	Chlorate	n.a.	2.5201		0.38035	1.60
5	11.33	Bromide	n.a.	2.4931		0.40331	1.70
6	13.23	Nitrate-N	n.a.	4.7085		5.06242	21.33
7	18.34	O-Phosphate-P	n.a.	2.3203		0.64873	2.73
8	20.54	Sulfate	n.a.	19.4286		6.14494	25.89
Total:				50.0792	0.000	23.730	100.00

39 1202079404/968640/1/1/MSD

Sample Name:	1202079404/968640/1/1/MSD	*Injection Volume:*	1.0
Vial Number:	26	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 4:11	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

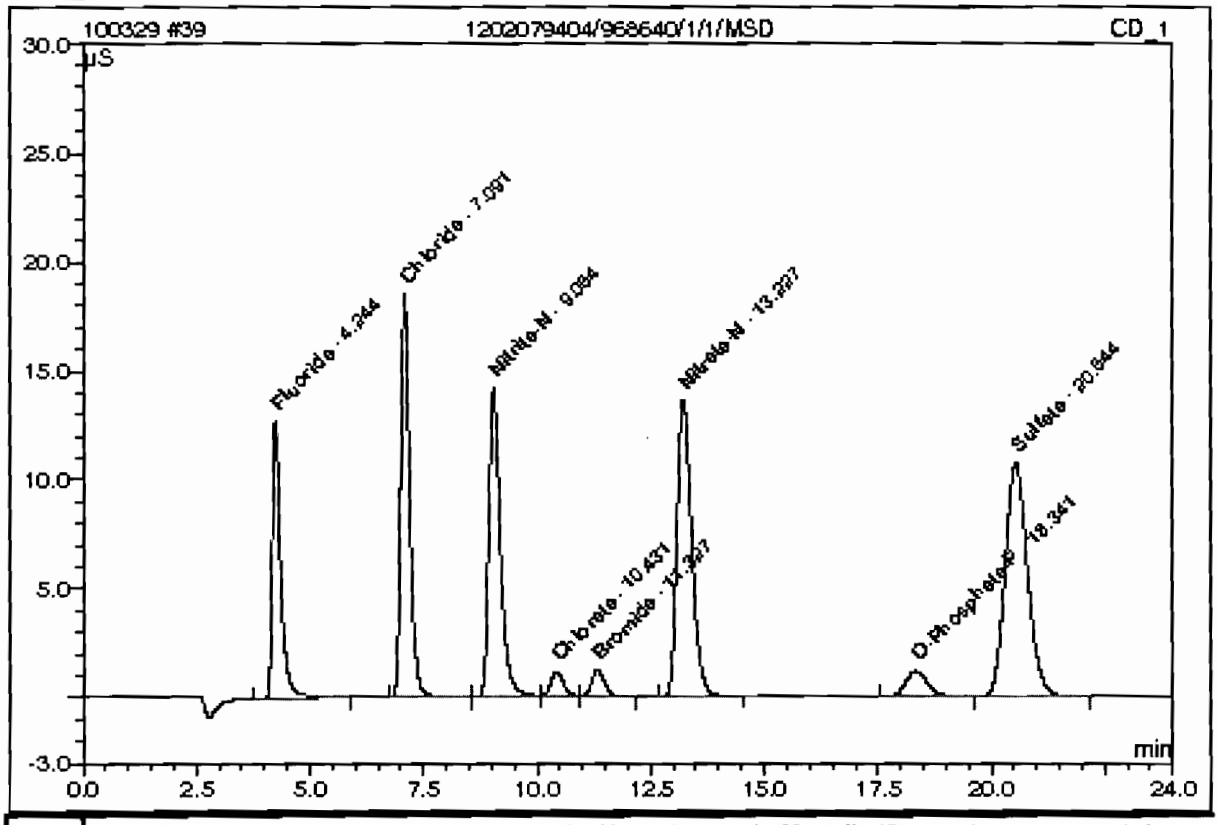

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	4.5453		2.69759	11.33
2	7.09	Chloride	n.a.	9.2944		4.20987	17.69
3	9.05	Nitrite-N	n.a.	4.8022		4.20673	17.67
4	10.43	Chlorate	n.a.	2.5162		0.37974	1.60
5	11.33	Bromide	n.a.	2.5045		0.40518	1.70
6	13.23	Nitrate-N	n.a.	4.7106		5.06479	21.28
7	18.34	O-Phosphate-P	n.a.	2.3793		0.66661	2.80
8	20.54	Sulfate	n.a.	19.5124		6.17190	25.93
Total:				50.2649	0.000	23.802	100.00

40 WIC100329-02CCV

Sample Name:	WIC100329-02CCV	*Injection Volume:*	1.0
Vial Number:	27	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 4:38	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

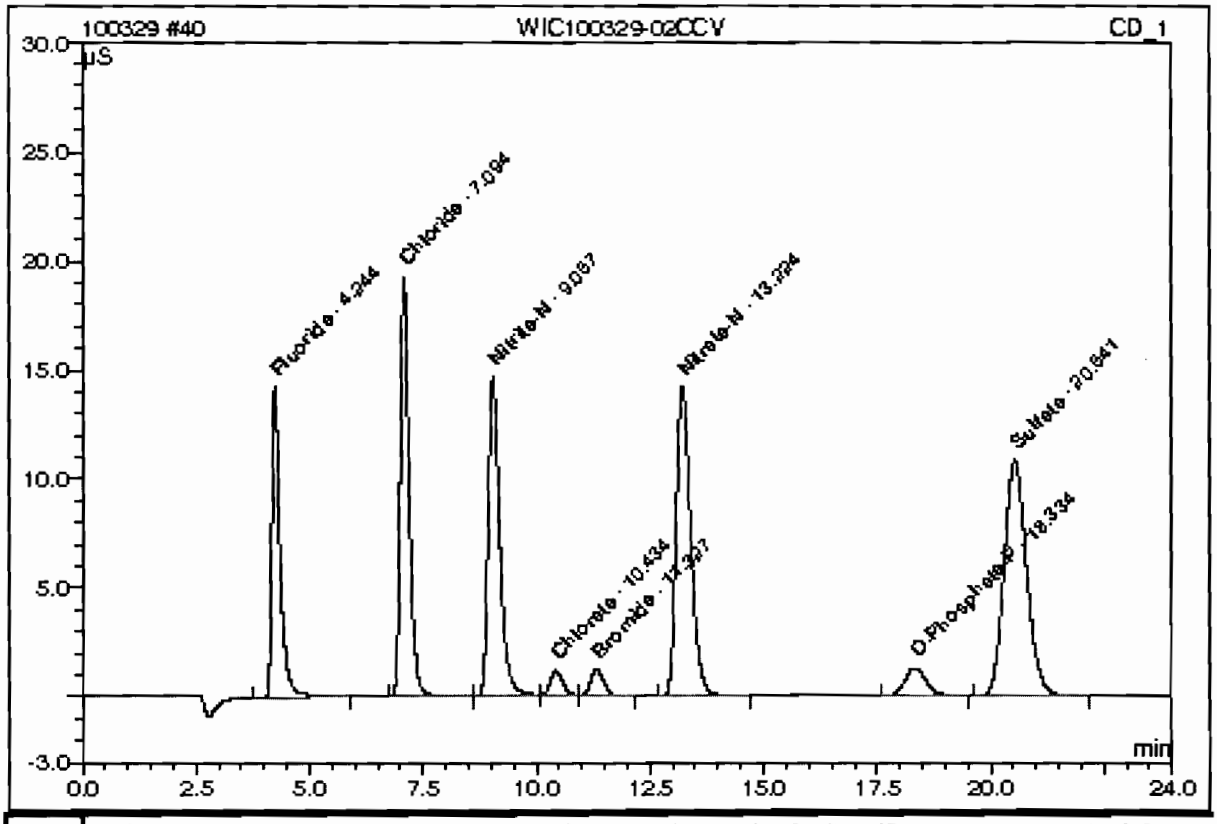

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	5.0481		3.00029	12.11
2	7.09	Chloride	n.a.	9.6466		4.37260	17.65
3	9.06	Nitrite-N	n.a.	4.9604		4.34732	17.55
4	10.43	Chlorate	n.a.	2.5856		0.39047	1.58
5	11.33	Bromide	n.a.	2.5695		0.41585	1.68
6	13.22	Nitrate-N	n.a.	4.9119		5.28580	21.34
7	18.33	O-Phosphate-P	n.a.	2.5842		0.72869	2.94
8	20.54	Sulfate	n.a.	19.6878		6.22832	25.15
Total:				51.9941	0.000	24.769	100.00

41 CCB

Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	28	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 5:05	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056

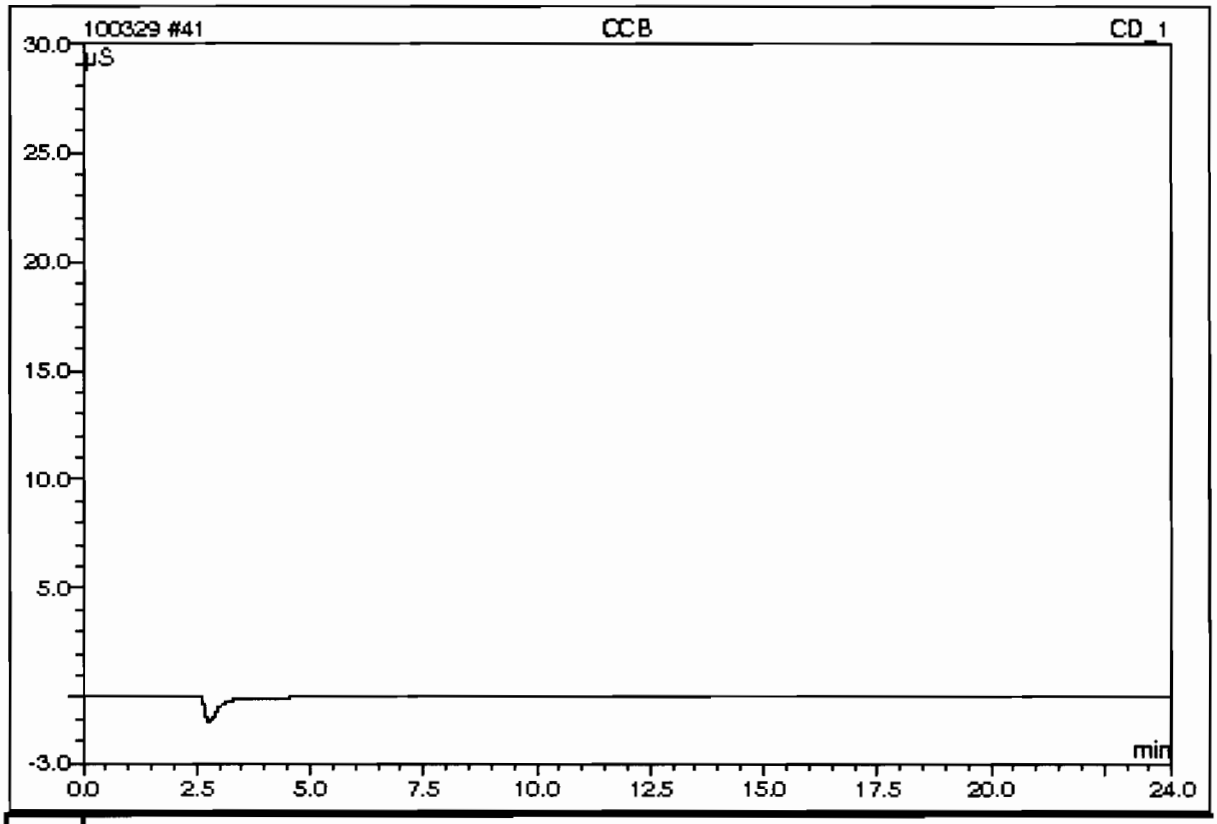

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
25-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	SW846 9012A	Solid	LANL
Batch ID:	**Sample Numbers:**		
962258	See Below		

Potentially affected work order(s)(SDG): 248798(10-2289),248824(10-2305),248866(10-2319),248867(10-2320)

Application Issues:

Sample Analyzed out of Holding

Specification and Requirements Exception Description:	DER Disposition:
1. Sample Analyzed out of Holding: 248798 002 QC 1202064134DUP	1. Samples were initially analyzed within holding; however, due to instrument failure the holding times had expired prior to reanalysis.

Originator's Name:

Ashley Earl 25-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc 25-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
30-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
IC	EPA 300.0	Solid	LANL
Batch ID:	**Sample Numbers:**		
968640	See Below		

Potentially affected work order(s)(SDG): 248814(10-2303),248824(10-2305),248865(10-2318),248866(10-2319)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS, MSD/PSD: QC 1202079401MS, 1202079403MSD	1. . MS and MSD failed required acceptance limits for nitrate due to matrix interference. The MSD was performed with the QC to verify that matrix interference caused unacceptable recoveries in the spike QC.

Originator's Name:

Virginia Wininger 30-MAR-10

Data Validator/Group Leader:

Mary Sherwood 01-APR-10

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2305

Method/Analysis Information

Product:	**Dry Weight-Percent Moisture**
Analytical Method:	Dry Soil Prep
Analytical Batch Number:	962374

Sample ID	Client ID
248824001	RE46-10-11926
248824002	RE46-10-11925
1202064431	248824001(RE46-10-11926) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 248824001 (RE46-10-11926). The QC was from LANL work order 248824.

QC Information
All of the QC samples met the required acceptance limits.

CSU
Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965811
Prep Batch Number:	962374

Sample ID	Client ID
248824001	RE46-10-11926
248824002	RE46-10-11925
1202072522	Method Blank (MB)
1202072523	248867001(RE46-10-12931) Sample Duplicate (DUP)
1202072524	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202072522 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248867001 (RE46-10-12931). The QC was from LANL work order 248867.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep

Analytical Batch Number: 965813

Prep Batch Number: 962374

Sample ID	Client ID
248824001	RE46-10-11926
248824002	RE46-10-11925
1202072525	Method Blank (MB)
1202072526	248867001(RE46-10-12931) Sample Duplicate (DUP)
1202072527	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202072525 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248867001 (RE46-10-12931). The QC was from LANL work order 248867.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOTH**
Analytical Method:	DOE EML HASL-300, Th-01-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965814
Prep Batch Number:	962374

Sample ID	Client ID
248824001	RE46-10-11926
248824002	RE46-10-11925
1202072528	Method Blank (MB)
1202072529	248867001(RE46-10-12931) Sample Duplicate (DUP)
1202072530	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-038 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202072528 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248867001 (RE46-10-12931). The QC was from LANL work order 248867.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The Th230 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were recounted due to high relative percent difference/relative error ratio.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep

Analytical Batch Number: 971197

Prep Batch Number: 962374

Sample ID	Client ID
248824001	RE46-10-11926
248824002	RE46-10-11925
1202085875	Method Blank (MB)
1202085876	248867001(RE46-10-12931) Sample Duplicate (DUP)
1202085877	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202085875 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248867001 (RE46-10-12931). The QC was from LANL work order 248867.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were reprepped due to high relative percent difference/relative error ratio.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962631
Prep Batch Number:	962374

Sample ID	Client ID
248824001	RE46-10-11926
248824002	RE46-10-11925
1202065185	Method Blank (MB)
1202065186	248824001(RE46-10-11926) Sample Duplicate (DUP)
1202065187	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 19.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in May 2009, December 2009 and February 2010.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 248824001 (RE46-10-11926). The QC was from LANL work order 248824.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to high peak-width.	Radium-224	1202065185	MB for batch 962631
UI	Data rejected due to interference.	Bismuth-211	248824001	RE46-10-11926
			248824002	RE46-10-11925
			1202065186	RE46-10-11926(248824001DUP)
		Cadmium-109	248824002	RE46-10-11925

			1202065186	RE46-10-11926(248824001DUP)
		Mercury-203	1202065186	RE46-10-11926(248824001DUP)
		Radium-224	248824001	RE46-10-11926
			248824002	RE46-10-11925
			1202065186	RE46-10-11926(248824001DUP)
UI	Data rejected due to low abundance.	Cadmium-109	248824001	RE46-10-11926
		Cesium-134	248824001	RE46-10-11926
			248824002	RE46-10-11925
			1202065186	RE46-10-11926(248824001DUP)
		Lead-212	1202065185	MB for batch 962631
		Strontium-85	248824001	RE46-10-11926
			1202065186	RE46-10-11926(248824001DUP)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: Sharon L Austin 4/5/2010

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2305 GEL Work Order: 248824

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Theron L. Austin

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID:	RE46-10-11926	Project:	LANL01004
Sample ID:	248824001	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	1.76%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00195	0.0217	+/-0.00237	0.050	pCi/g		AYB1	03/29/10	1201	965811	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	1.58E-10	0.0187	+/-0.00266	0.050	pCi/g		AYB1	03/27/10	1340	965813	3
Plutonium-239/240	U	0.00398	0.0158	+/-0.00398	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.55	0.178	+/-0.162	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
Thorium-230		1.18	0.223	+/-0.129	0.100	pCi/g						
Thorium-232		1.72	0.0951	+/-0.171	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.855	0.112	+/-0.0851	0.100	pCi/g		AYB1	04/02/10	1137	971197	6
Uranium-235/236		0.0881	0.0682	+/-0.0217	0.100	pCi/g						
Uranium-238		1.14	0.0785	+/-0.107	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0757	0.360	+/-0.122	0.200	pCi/g		MXR1	03/23/10	1425	962631	8
Bismuth-211	UI	5.22	0.440	+/-0.390		pCi/g						
Bismuth-214		1.70	0.154	+/-0.136	0.200	pCi/g						
Cadmium-109	UI	6.27	2.36	+/-0.969		pCi/g						
Cerium-139	U	0.028	0.0711	+/-0.0216	0.050	pCi/g						
Cesium-134	UI	0.160	0.126	+/-0.0469	0.100	pCi/g						
Cesium-137	U	-0.0349	0.0804	+/-0.0254	0.100	pCi/g						
Cobalt-60	U	-0.0165	0.0887	+/-0.0276	0.100	pCi/g						
Europium-152	U	0.120	0.215	+/-0.0747	0.200	pCi/g						
Lanthanum-140	U	0.110	0.246	+/-0.0679		pCi/g						
Lead-212		2.33	0.123	+/-0.140	0.100	pCi/g						
Lead-214		1.90	0.160	+/-0.151	0.100	pCi/g						
Mercury-203	U	0.102	0.102	+/-0.0326	0.100	pCi/g						
Potassium-40		39.5	0.770	+/-2.41	1.00	pCi/g						
Radium-223	U	0.396	1.51	+/-0.513		pCi/g						

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-11926
Sample ID: 248824001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-224	UI	5.86	1.32	+/-0.772		pCi/g						
Radium-226		1.70	0.154	+/-0.136		pCi/g						
Radium-228		2.32	0.301	+/-0.273	0.500	pCi/g						
Ruthenium-106	U	-0.0495	0.693	+/-0.209	0.800	pCi/g						
Sodium-22	U	-0.036	0.094	+/-0.0299	0.080	pCi/g						
Strontium-85	UI	0.135	0.107	+/-0.0338		pCi/g						
Thallium-208		0.644	0.0682	+/-0.0664	0.080	pCi/g						
Thorium-227	U	0.380	0.627	+/-0.182		pCi/g						
Thorium-231	U	0.396	1.51	+/-0.513		pCi/g						
Thorium-234		3.10	3.06	+/-1.24	2.00	pCi/g						
Tin-113	U	-0.0337	0.0985	+/-0.0311	0.100	pCi/g						
Uranium-235	U	0.148	0.477	+/-0.147	0.500	pCi/g						
Yttrium-88	U	0.0165	0.0685	+/-0.0195	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.5	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	89.2	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	81.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	83.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-11926
Sample ID: 248824001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
JNX Non Calibrated Compound
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID:	RE46-10-11925	Project:	LANL01004
Sample ID:	248824002	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	1.52%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00838	0.0236	+/-0.00327	0.050	pCi/g		AYB1	03/29/10	1201	965811	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00269	0.0189	+/-0.00465	0.050	pCi/g		AYB1	03/27/10	1340	965813	3
Plutonium-239/240	U	0.00403	0.016	+/-0.00586	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		2.22	0.165	+/-0.205	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
Thorium-230		1.08	0.207	+/-0.119	0.100	pCi/g						
Thorium-232		1.95	0.0884	+/-0.184	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.902	0.106	+/-0.0875	0.100	pCi/g		AYB1	04/02/10	1137	971197	6
Uranium-235/236	U	0.0513	0.065	+/-0.0159	0.100	pCi/g						
Uranium-238		1.01	0.0748	+/-0.0955	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0253	0.403	+/-0.125	0.200	pCi/g		MXR1	03/23/10	1438	962631	8
Bismuth-211	UI	4.34	0.319	+/-0.289		pCi/g						
Bismuth-214		1.31	0.112	+/-0.0969	0.200	pCi/g						
Cadmium-109	UI	4.04	1.55	+/-0.636		pCi/g						
Cerium-139	U	0.0411	0.0523	+/-0.0147	0.050	pCi/g						
Cesium-134	UI	0.128	0.0909	+/-0.0486	0.100	pCi/g						
Cesium-137	U	-0.0462	0.0632	+/-0.0199	0.100	pCi/g						
Cobalt-60	U	0.0272	0.0728	+/-0.0203	0.100	pCi/g						
Europium-152	U	-0.017	0.161	+/-0.0544	0.200	pCi/g						
Lanthanum-140	U	-0.0565	0.183	+/-0.0602		pCi/g						
Lead-212		2.04	0.0971	+/-0.104	0.100	pCi/g						
Lead-214		1.58	0.116	+/-0.113	0.100	pCi/g						
Mercury-203	U	0.0418	0.0719	+/-0.0221	0.100	pCi/g						
Potassium-40		34.6	0.595	+/-1.57	1.00	pCi/g						
Radium-223	U	0.126	1.05	+/-0.344		pCi/g						
Radium-224	UI	4.90	1.04	+/-0.729		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-11925
Sample ID: 248824002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-226		1.31	0.112	+/-0.0969		pCi/g						
Radium-228		1.81	0.229	+/-0.219	0.500	pCi/g						
Ruthenium-106	U	-0.0768	0.540	+/-0.170	0.800	pCi/g						
Sodium-22	U	-0.0121	0.0686	+/-0.0211	0.080	pCi/g						
Strontium-85	U	0.042	0.0732	+/-0.0234		pCi/g						
Thallium-208		0.635	0.0589	+/-0.0486	0.080	pCi/g						
Thorium-227	U	-0.0579	0.417	+/-0.121		pCi/g						
Thorium-231	U	0.126	1.05	+/-0.344		pCi/g						
Thorium-234		4.85	2.98	+/-1.47	2.00	pCi/g						
Tin-113	U	0.00825	0.0781	+/-0.0229	0.100	pCi/g						
Uranium-235	U	0.182	0.339	+/-0.0989	0.500	pCi/g						
Yttrium-88	U	0.00403	0.0539	+/-0.0162	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.7	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	82.5	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	88.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	87.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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< Result is less than value reported

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Certificate of Analysis

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-11925
Sample ID: 248824002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

> Result is greater than value reported
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UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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QC Summary

Report Date: April 5, 2010

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 248824

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965811										
QC1202072523 248867001 DUP										
Americium-241	U	-0.00415	U	-0.00142	pCi/g	0.342		(0-1)	AYB1	03/29/1021:46
	TPU:	+/-0.00255		+/-0.00145						
	Yield:	86.5		85.7						
QC1202072524 LCS										
Americium-241	33.1			29.0	pCi/g		87.5	(75%-125%)		03/29/1021:46
	TPU:			+/-2.19						
	Yield:			100						
QC1202072522 MB										
Americium-241			U	-0.00591	pCi/g					03/29/1021:46
	TPU:			+/-0.00361						
	Yield:			85.7						
Batch 965813										
QC1202072526 248867001 DUP										
Plutonium-238	U	-0.00699	U	-0.0017	pCi/g	0.241		(0-1)	AYB1	03/29/1009:33
	TPU:	+/-0.00461		+/-0.00635						
	Yield:	90.1		94.2						
Plutonium-239/240	U	0.0098	U	-0.00321	pCi/g	0.737		(0-1)		
	TPU:	+/-0.00478		+/-0.00406						
	Yield:	90.1		94.2						
QC1202072527 LCS										
Plutonium-238				2.79	pCi/g			(75%-125%)		
	TPU:			+/-0.306						
	Yield:			89.4						
Plutonium-239/240	41.8			38.2	pCi/g		91.3	(75%-125%)		
	TPU:			+/-2.65						
	Yield:			89.4						
QC1202072525 MB										
Plutonium-238			U	0.00642	pCi/g					
	TPU:			+/-0.00852						
	Yield:			92.8						
Plutonium-239/240			U	0.00683	pCi/g					
	TPU:			+/-0.00445						
	Yield:			92.8						
Batch 965814										
QC1202072529 248867001 DUP										
Thorium-228		1.53		1.98	pCi/g	0.649		(0-1)	AYB1	03/29/1017:06
	TPU:	+/-0.159		+/-0.188						
	Yield:	85.0		88.3						
Thorium-230		0.881		1.24	pCi/g	0.762		(0-1)		
	TPU:	+/-0.105		+/-0.132						
	Yield:	85.0		88.3						
Thorium-232		1.36		1.62	pCi/g	0.429		(0-1)		
	TPU:	+/-0.143		+/-0.159						

QC Summary

Workorder: 248824

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965814										
Yield:		85.0		88.3						
QC1202072530 LCS										
Thorium-228				1.33	pCi/g					03/29/1017:06
TPU:				+/-0.201						
Yield:				86.8						
Thorium-230	25.6			26.3	pCi/g		103	(75%-125%)		
TPU:				+/-2.12						
Yield:				86.8						
Thorium-232				1.10	pCi/g			(75%-125%)		
TPU:				+/-0.172						
Yield:				86.8						
QC1202072528 MB										
Thorium-228			U	-0.000358	pCi/g					03/29/1017:06
TPU:				+/-0.00567						
Yield:				93.1						
Thorium-230			U	0.00587	pCi/g					
TPU:				+/-0.00328						
Yield:				93.1						
Thorium-232			U	0.00141	pCi/g					
TPU:				+/-0.00301						
Yield:				93.1						
Batch 971197										
QC1202085876 248867001 DUP										
Uranium-233/234		1.71		2.17	pCi/g	0.634		(0-1)	AYB1	04/02/1011:37
TPU:		+/-0.155		+/-0.205						
Yield:		72.9		52.6						
Uranium-235/236		0.0812	U	0.0804	pCi/g	0.00756		(0-1)		
TPU:		+/-0.0225		+/-0.0285						
Yield:		72.9		52.6						
Uranium-238		0.863		0.950	pCi/g	0.219		(0-1)		
TPU:		+/-0.0905		+/-0.107						
Yield:		72.9		52.6						
QC1202085877 LCS										
Uranium-233/234				5.33	pCi/g					04/02/1011:37
TPU:				+/-0.523						
Yield:				89.3						
Uranium-235/236			U	0.231	pCi/g					
TPU:				+/-0.0753						
Yield:				89.3						
Uranium-238	5.75			5.72	pCi/g		99.5	(75%-125%)		
TPU:				+/-0.555						
Yield:				89.3						
QC1202085875 MB										
Uranium-233/234			U	0.00363	pCi/g					04/02/1011:37
TPU:				+/-0.00376						
Yield:				89.8						
Uranium-235/236			U	0.00234	pCi/g					
TPU:				+/-0.00524						
Yield:				89.8						
Uranium-238			U	0.00568	pCi/g					

QC Summary

Workorder: 248824

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 971197										
	TPU:			+/-0.00425						
	Yield:			89.8						
Rad Gamma Spec										
Batch 962631										
QC1202065186 248824001 DUP										
Americium-241	U	0.0757	U	0.303	pCi/g	0.360		(0-1)	MXR1	03/23/1014:39
	TPU:	+/-0.122		+/-0.194						
Bismuth-211	UI	5.22	UI	5.75	pCi/g	0.310		(0-1)		
	TPU:	+/-0.390		+/-0.460						
Bismuth-214		1.70		1.57	pCi/g	0.235		(0-1)		
	TPU:	+/-0.136		+/-0.141						
Cadmium-109	UI	6.27	UI	2.83	pCi/g	0.964		(0-1)		
	TPU:	+/-0.969		+/-0.813						
Cerium-139	U	0.028	U	0.00175	pCi/g	0.282		(0-1)		
	TPU:	+/-0.0216		+/-0.025						
Cesium-134	UI	0.160	UI	0.227	pCi/g	0.349		(0-1)		
	TPU:	+/-0.0469		+/-0.0488						
Cesium-137	U	-0.0349	U	0.0237	pCi/g	0.556		(0-1)		
	TPU:	+/-0.0254		+/-0.0274						
Cobalt-60	U	-0.0165	U	-0.0192	pCi/g	0.0237		(0-1)		
	TPU:	+/-0.0276		+/-0.0294						
Europium-152	U	0.120	U	-0.0656	pCi/g	0.540		(0-1)		
	TPU:	+/-0.0747		+/-0.0974						
Lanthanum-140	U	0.110	U	-0.0825	pCi/g	0.643		(0-1)		
	TPU:	+/-0.0679		+/-0.0819						
Lead-212		2.33		2.31	pCi/g	0.0414		(0-1)		
	TPU:	+/-0.140		+/-0.163						
Lead-214		1.90		2.09	pCi/g	0.292		(0-1)		
	TPU:	+/-0.151		+/-0.176						
Mercury-203	U	0.102	UI	0.132	pCi/g	0.209		(0-1)		
	TPU:	+/-0.0326		+/-0.0396						
Potassium-40		39.5		39.7	pCi/g	0.0159		(0-1)		
	TPU:	+/-2.41		+/-2.30						
Radium-223	U	0.396	U	-0.963	pCi/g	0.655		(0-1)		
	TPU:	+/-0.513		+/-0.525						
Radium-224	UI	5.86	UI	6.23	pCi/g	0.105		(0-1)		
	TPU:	+/-0.772		+/-0.983						
Radium-226		1.70		1.57	pCi/g	0.235		(0-1)		
	TPU:	+/-0.136		+/-0.141						
Radium-228		2.32		2.09	pCi/g	0.222		(0-1)		
	TPU:	+/-0.273		+/-0.240						
Ruthenium-106	U	-0.0495	U	0.328	pCi/g	0.435		(0-1)		
	TPU:	+/-0.209		+/-0.226						
Sodium-22	U	-0.036	U	-0.061	pCi/g	0.192		(0-1)		
	TPU:	+/-0.0299		+/-0.035						
Strontium-85	UI	0.135	UI	0.167	pCi/g	0.218		(0-1)		
	TPU:	+/-0.0338		+/-0.0388						
Thallium-208		0.644		0.752	pCi/g	0.386		(0-1)		
	TPU:	+/-0.0664		+/-0.0732						
Thorium-227	U	0.380	U	0.0182	pCi/g	0.481		(0-1)		

QC Summary

Workorder: 248824

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962631										
	TPU:	+/-0.182		+/-0.194						
Thorium-231	U	0.396	U	-0.963	pCi/g	0.655		(0-1)		
	TPU:	+/-0.513		+/-0.525						
Thorium-234		3.10		6.02	pCi/g	0.448		(0-1)		
	TPU:	+/-1.24		+/-2.01						
Tin-113	U	-0.0337	U	0.0133	pCi/g	0.349		(0-1)		
	TPU:	+/-0.0311		+/-0.0361						
Uranium-235	U	0.148	U	-0.0776	pCi/g	0.361		(0-1)		
	TPU:	+/-0.147		+/-0.165						
Yttrium-88	U	0.0165	U	0.0422	pCi/g	0.276		(0-1)		
	TPU:	+/-0.0195		+/-0.0271						
QC1202065187 LCS										
Americium-241	16.3			13.6	pCi/g		83.7	(75%-125%)		03/23/1014:40
	TPU:			+/-0.599						
Bismuth-211				3.40	pCi/g					
	TPU:			+/-0.374						
Bismuth-214				0.715	pCi/g					
	TPU:			+/-0.0974						
Cadmium-109				35.2	pCi/g					
	TPU:			+/-1.95						
Cerium-139			U	-0.00872	pCi/g					
	TPU:			+/-0.0216						
Cesium-134			U	0.053	pCi/g					
	TPU:			+/-0.0399						
Cesium-137	5.69			6.00	pCi/g		106	(75%-125%)		
	TPU:			+/-0.336						
Cobalt-60	6.49			6.63	pCi/g		102	(75%-125%)		
	TPU:			+/-0.326						
Europium-152			U	0.132	pCi/g					
	TPU:			+/-0.107						
Lanthanum-140			U	-0.128	pCi/g					
	TPU:			+/-0.0551						
Lead-212				1.57	pCi/g					
	TPU:			+/-0.128						
Lead-214				1.23	pCi/g					
	TPU:			+/-0.140						
Mercury-203			U	0.0203	pCi/g					
	TPU:			+/-0.0314						
Potassium-40			U	0.260	pCi/g					
	TPU:			+/-0.269						
Radium-223			U	-0.252	pCi/g					
	TPU:			+/-0.518						
Radium-224				3.47	pCi/g					
	TPU:			+/-0.978						
Radium-226				0.715	pCi/g					
	TPU:			+/-0.0974						
Radium-228				1.66	pCi/g					
	TPU:			+/-0.303						
Ruthenium-106			U	0.113	pCi/g					
	TPU:			+/-0.266						
Sodium-22			U	-0.0666	pCi/g					

QC Summary

Workorder: 248824

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962631										
	TPU:			+/-0.0239						
Strontium-85			U	-0.00466	pCi/g					
	TPU:			+/-0.0361						
Thallium-208				0.394	pCi/g					
	TPU:			+/-0.0551						
Thorium-227			U	0.0715	pCi/g					
	TPU:			+/-0.212						
Thorium-231			U	-0.252	pCi/g					
	TPU:			+/-0.518						
Thorium-234			U	-0.70	pCi/g					
	TPU:			+/-0.982						
Tin-113			U	0.0118	pCi/g					
	TPU:			+/-0.0383						
Uranium-235			U	-0.0818	pCi/g					
	TPU:			+/-0.144						
Yttrium-88			U	0.0286	pCi/g					
	TPU:			+/-0.0237						
QC1202065185 MB										
Americium-241			U	-0.0199	pCi/g					03/23/1014:39
	TPU:			+/-0.0419						
Bismuth-211			U	0.0304	pCi/g					
	TPU:			+/-0.0744						
Bismuth-214			U	-0.016	pCi/g					
	TPU:			+/-0.0272						
Cadmium-109			U	-0.0647	pCi/g					
	TPU:			+/-0.187						
Cerium-139			U	-0.00276	pCi/g					
	TPU:			+/-0.00912						
Cesium-134			U	-0.00715	pCi/g					
	TPU:			+/-0.0113						
Cesium-137			U	0.000152	pCi/g					
	TPU:			+/-0.0124						
Cobalt-60			U	-0.00737	pCi/g					
	TPU:			+/-0.0113						
Europium-152			U	0.0314	pCi/g					
	TPU:			+/-0.0313						
Lanthanum-140			U	0.0102	pCi/g					
	TPU:			+/-0.0262						
Lead-212			UI	0.079	pCi/g					
	TPU:			+/-0.0404						
Lead-214			U	0.0102	pCi/g					
	TPU:			+/-0.0275						
Mercury-203			U	-0.0217	pCi/g					
	TPU:			+/-0.0127						
Potassium-40			U	-0.309	pCi/g					
	TPU:			+/-0.134						
Radium-223			U	0.0566	pCi/g					
	TPU:			+/-0.203						
Radium-224			UI	0.840	pCi/g					
	TPU:			+/-0.429						
Radium-226			U	-0.016	pCi/g					

QC Summary

Workorder: **248824**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 962631											
	TPU:			+/-0.0272							
Radium-228			U	0.0183	pCi/g						
	TPU:			+/-0.0474							
Ruthenium-106			U	-0.0474	pCi/g						
	TPU:			+/-0.0983							
Sodium-22			U	0.000677	pCi/g						
	TPU:			+/-0.0103							
Strontium-85			U	-0.07	pCi/g						
	TPU:			+/-0.0191							
Thallium-208			U	0.000768	pCi/g						
	TPU:			+/-0.0131							
Thorium-227			U	-0.0114	pCi/g						
	TPU:			+/-0.0763							
Thorium-231			U	0.0566	pCi/g						
	TPU:			+/-0.203							
Thorium-234			U	0.0562	pCi/g						
	TPU:			+/-0.391							
Tin-113			U	-0.00664	pCi/g						
	TPU:			+/-0.0145							
Uranium-235			U	-0.0424	pCi/g						
	TPU:			+/-0.0616							
Yttrium-88			U	0.000102	pCi/g						
	TPU:			+/-0.00764							

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
JNX	Non Calibrated Compound
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor

QC Summary

Workorder: **248824**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 965811 Product: Am Date: 3/30/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 3/30/10

Secondary Review Performed By: [illegible] 3/30/10

4/2
LANL

P ✓

Am/Cm Que Sheet

16-MAR-10

Batch #: 965811 Analyst: AYB1 First Client Due Date: 02-APR-10 Internal Due Date22-MAR-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-96-2-VV Expiration Date: 03/9/11 Vol: 0.1

LCS Isotope(s): Am241/Cm244 LCS Code(s): / / Expiration Date: / / Vol(s): / /

Spike Isotope(s): Am241/Cm244 Spike Code(s): / / Expiration Date: / / Vol(s): / /

Prep Date: 3/25/10 Initials: AYB Pipet ID: 1042319 Balance ID: 193502098 Witness: AW 3/26/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g / l / f)	Am/Cm Det #
248824001-1	RE46-10-11926	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	1	1	1.254	231
248824002-1	RE46-10-11925	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	2	2	1.259	232
248860001-1	RE46-10-13782	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	3	3	1.251	233
248860002-1	RE46-10-13783	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	4	4	1.259	234
248860003-1	RE46-10-13777	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	5	5	1.258	240
248860004-1	RE46-10-13775	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	6	6	1.253	241
248860005-1	RE46-10-13776	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	7	7	1.258	242
248860006-1	RE46-10-13781	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	8	8	1.259	243
248860007-1	RE46-10-13779	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	9	9	1.252	244
248860008-1	RE46-10-13780	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	10	10	1.259	245
248860009-1	RE46-10-13778	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	11	11	1.259	246
248867001-1	RE46-10-12931	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	12	12	1.253	247
248867002-1	RE46-10-12932	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	13	13	1.258	248
248867003-1	RE46-10-12934	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	14	14	1.255	235
248867004-1	RE46-10-12933	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	15	15	1.253	236
1202072522-1	MB for batch 965811	MB		.05 pCi/g	SOIL	QC ACCOUNT		16	16	1	237
1202072523-1	RE46-10-12931(248867001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	05-MAR-10	17	17	1.255	238
1202072524-1	LCS for batch 965811	LCS		.05 pCi/g	SOIL	QC ACCOUNT		18	18	0.102	239

*SRM 0244-B EXP: 04/30/20

Choose SOP Used: GL-RAD-A-011
GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: 3/30/10

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 965811

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202072523	DUP	Americium-241	1.26 g	-0.00142	0.00145	0.0212	-.00469048	pCi/g	NO
1202072524	LCS	Americium-241	0.102 g	29.0	2.19	0.228	-.05794118	pCi/g	NO
1202072522	MB	Americium-241	1.00 g	-0.00591	0.00361	0.0261	-.00591	pCi/g	NO
248824001	RE46-10-11926	Americium-241	1.25 g	0.00195	0.00237	0.0217	-.004728	pCi/g	NO
248824002	RE46-10-11925	Americium-241	1.26 g	-0.00838	0.00327	0.0236	-.00469048	pCi/g	NO
248860001	RE46-10-13782	Americium-241	1.25 g	0.00355	0.00288	0.0222	-.004728	pCi/g	NO
248860002	RE46-10-13783	Americium-241	1.26 g	0.00114	0.00292	0.024	-.00469048	pCi/g	NO
248860003	RE46-10-13777	Americium-241	1.26 g	0.0022	0.002	0.0265	-.00469048	pCi/g	NO
248860004	RE46-10-13775	Americium-241	1.25 g	8.16E-05	0.00151	0.022	-.004728	pCi/g	NO
248860005	RE46-10-13776	Americium-241	1.26 g	-0.00102	0.00172	0.0205	-.00469048	pCi/g	NO
248860006	RE46-10-13781	Americium-241	1.26 g	0.00355	0.00244	0.0243	-.00469048	pCi/g	NO
248860007	RE46-10-13779	Americium-241	1.25 g	5.86E-05	0.00148	0.0217	-.004728	pCi/g	NO
248860008	RE46-10-13780	Americium-241	1.26 g	0.00476	0.00273	0.0226	-.00469048	pCi/g	NO
248860009	RE46-10-13778	Americium-241	1.26 g	0.000934	0.00243	0.0269	-.00469048	pCi/g	NO
248867001	RE46-10-12931	Americium-241	1.25 g	-0.00415	0.00255	0.0213	-.004728	pCi/g	NO
248867002	RE46-10-12932	Americium-241	1.25 g	-0.00165	0.00225	0.0206	-.004728	pCi/g	NO
248867003	RE46-10-12934	Americium-241	1.26 g	0.00204	0.00244	0.0223	-.00469048	pCi/g	NO
248867004	RE46-10-12933	Americium-241	1.25 g	-0.000954	0.00206	0.0245	-.004728	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 231	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248824001_AM	DETECTOR S/N : 79424	BKG FILE : B231.CNF;93
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 40.4350	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 12:01:05	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W231.CNF;30
% YIELD : 83.467		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.8991E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5505.228	4.945	3.000	1.320	0.720	2.7707	99.94000	1.95E-03	2.37E-03	8.84E-03	2.17E-02	2.37E-03
AM243	5270.000	5274.681	47.417	556.000	551.680	4.320	2.0785	99.78000	8.17E-01	6.48E-02	6.64E-03	1.73E-02	3.50E-02
CM-242	6102.000	6039.940	79.114	3.000	3.000	0.000	4.0092	100.0000	4.97E-03	2.89E-03	1.28E-02	2.96E-02	2.87E-03
CM-3/4	5795.020	5789.646	108.782	6.000	5.280	0.720	4.8510	100.0000	7.83E-03	3.82E-03	1.55E-02	3.49E-02	3.78E-03
CM-5/6	5386.000	5383.109	14.834	2.000	2.000	0.000	6.1294	86.09000	3.43E-03	2.44E-03	2.27E-02	5.01E-02	2.43E-03
CM-247	4946.000	4943.362	44.502	3.000	-0.600	3.600	6.3427	79.30000	-1.12E-03	4.41E-03	2.55E-02	5.61E-02	4.41E-03
CM-248	5078.600	5078.351	4.945	6.000	6.000	0.000	11.0244	91.00000	9.75E-03	4.03E-03	3.86E-02	8.17E-02	3.98E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

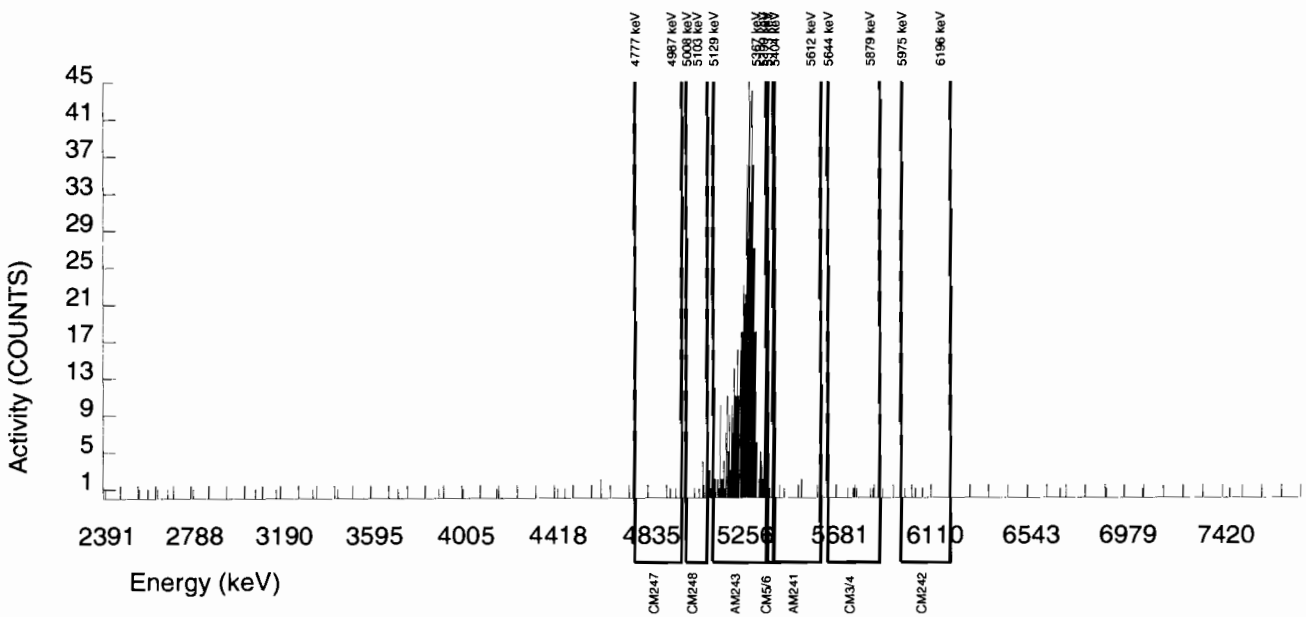

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 232	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248824002_AM	DETECTOR S/N : 79425	BKG FILE : B232.CNF;95
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 38.7095	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 12:01:10	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W232.CNF;30
% YIELD : 79.696		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.8133E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5507.174	0.000	0.000	-5.197	4.320	2.7707	99.94000	-8.38E-03	3.27E-03	9.63E-03	2.36E-02	3.27E-03
AM243	5270.000	5285.221	37.854	505.000	504.280	0.720	0.8485	99.78000	8.14E-01	6.61E-02	2.96E-03	1.03E-02	3.63E-02
CM-242	6102.000	5984.999	4.988	1.000	1.000	0.000	4.0092	100.0000	1.80E-03	1.81E-03	1.39E-02	3.22E-02	1.80E-03
CM-3/4	5795.020	5749.552	139.670	4.000	3.280	0.720	4.8510	100.0000	5.30E-03	3.45E-03	1.69E-02	3.81E-02	3.43E-03
CM-5/6	5386.000	5380.911	15.328	14.000	14.000	0.000	6.1294	86.09000	2.62E-02	7.22E-03	2.47E-02	5.46E-02	7.00E-03
CM-247	4946.000	4963.488	4.988	3.000	2.280	0.720	6.3427	79.30000	4.63E-03	3.82E-03	2.78E-02	6.11E-02	3.81E-03
CM-248	5078.600	5067.905	54.870	6.000	6.000	0.000	11.0244	91.00000	1.06E-02	4.40E-03	4.21E-02	8.90E-02	4.34E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

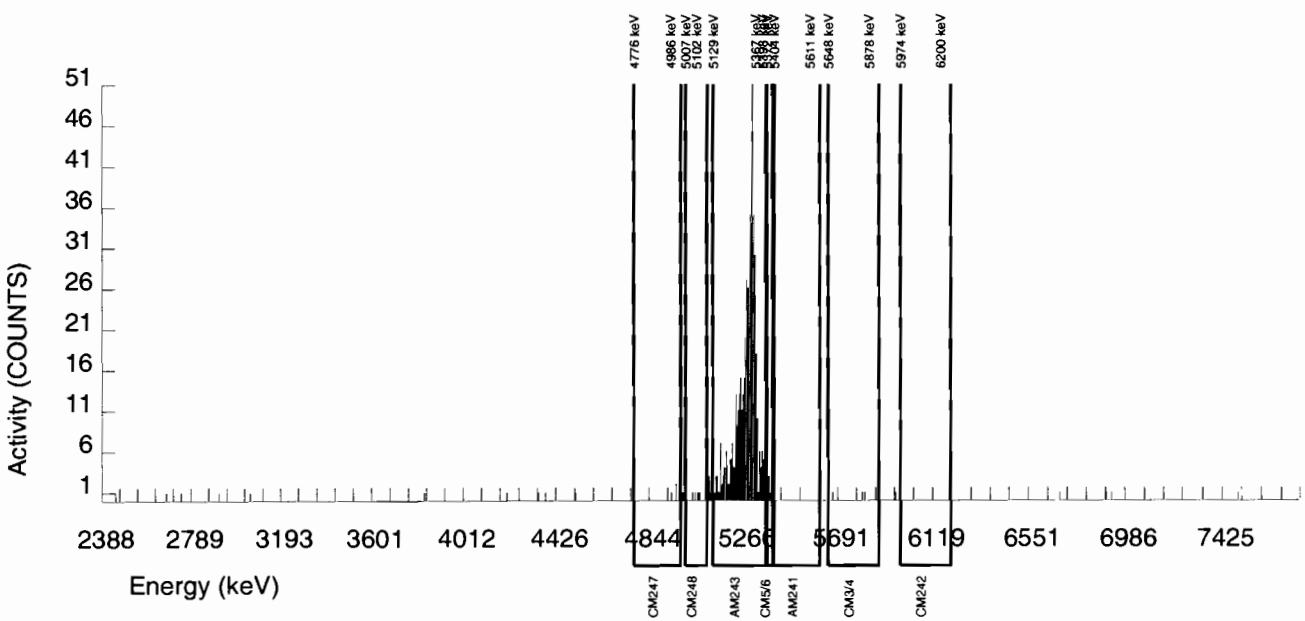

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 247	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248867001_AM	DETECTOR S/N : 79440	BKG FILE : B247.CNF;94
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 39.7832	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 21:47:19	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W247.CNF;31
% YIELD : 86.483		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.9678E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5567.438	4.925	1.000	-2.858	2.880	2.7707	99.94000	-4.15E-03	2.55E-03	8.68E-03	2.13E-02	2.55E-03
AM243	5270.000	5277.115	56.870	566.000	562.400	3.600	1.8974	99.78000	8.18E-01	6.45E-02	5.95E-03	1.58E-02	3.47E-02
CM-242	6102.000	6027.518	9.234	2.000	2.000	0.000	4.0092	100.0000	3.23E-03	2.29E-03	1.26E-02	2.90E-02	2.28E-03
CM-3/4	5795.020	5764.574	93.573	4.000	1.840	2.160	4.8510	100.0000	2.68E-03	3.43E-03	1.52E-02	3.43E-02	3.43E-03
CM-5/6	5386.000	5373.456	0.000	6.000	6.000	0.000	6.1294	86.09000	1.01E-02	4.18E-03	2.23E-02	4.92E-02	4.13E-03
CM-247	4946.000	4864.947	128.047	5.000	4.280	0.720	6.3427	79.30000	7.83E-03	4.33E-03	2.50E-02	5.50E-02	4.30E-03
CM-248	5078.600	5073.172	9.850	12.000	11.280	0.720	11.0244	91.00000	1.80E-02	5.77E-03	3.79E-02	8.02E-02	5.64E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

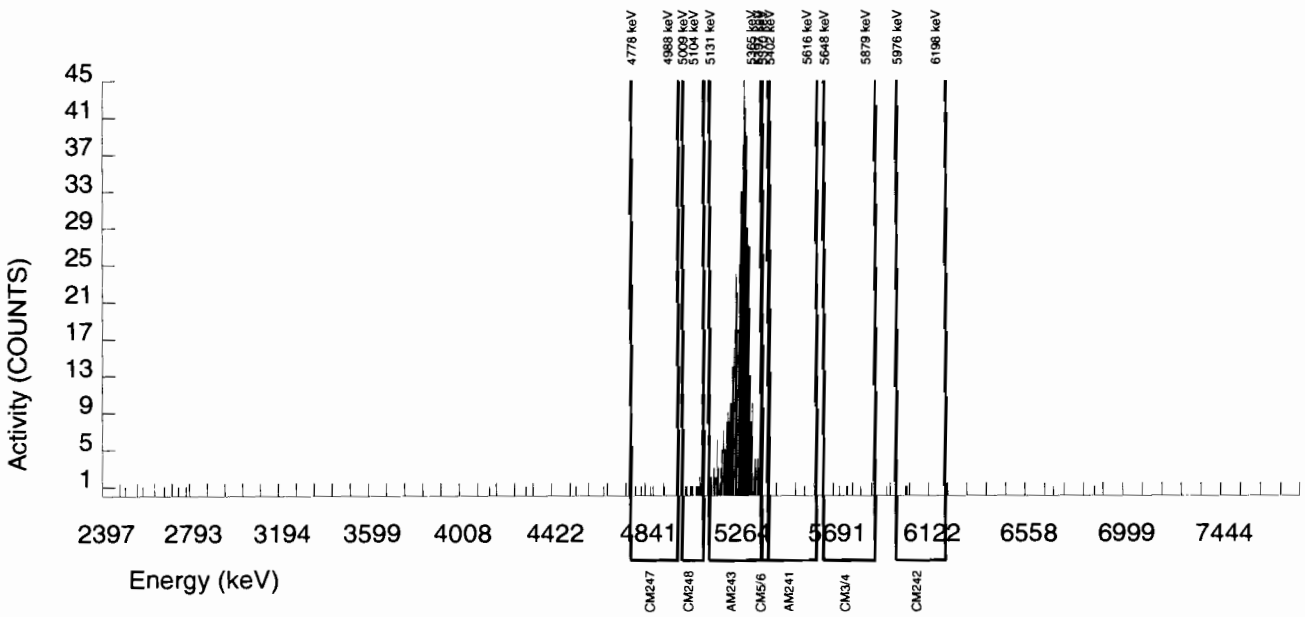

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 237	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202072522_AM	DETECTOR S/N : 79430	BKG FILE : B237.CNF;93
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 41.0426	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 21:46:54	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W237.CNF;30
% YIELD : 85.684		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3148E+01 pCi/G	NOMINAL : 3.3148E+01 pCi/G
RESULTS : 1.9496E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5505.079	34.542	2.000	-3.320	4.320	2.7707	99.94000	-5.91E-03	3.61E-03	1.06E-02	2.61E-02	3.61E-03
AM243	5270.000	5277.094	55.959	577.000	574.840	2.160	1.4697	99.78000	1.02E+00	8.02E-02	5.65E-03	1.61E-02	4.29E-02
CM-242	6102.000	6046.952	14.187	3.000	3.000	0.000	4.0092	100.0000	5.46E-03	3.17E-03	1.54E-02	3.56E-02	3.15E-03
CM-3/4	5795.020	5820.809	0.000	3.000	3.000	0.000	4.8510	100.0000	5.34E-03	3.10E-03	1.86E-02	4.21E-02	3.08E-03
CM-5/6	5386.000	5375.778	0.000	7.000	7.000	0.000	6.1294	86.09000	1.45E-02	5.55E-03	2.73E-02	6.03E-02	5.47E-03
CM-247	4946.000	4931.275	0.000	6.000	6.000	0.000	6.3427	79.30000	1.35E-02	5.57E-03	3.07E-02	6.75E-02	5.50E-03
CM-248	5078.600	5077.306	9.869	16.000	16.000	0.000	11.0244	91.00000	3.13E-02	8.09E-03	4.65E-02	9.83E-02	7.82E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

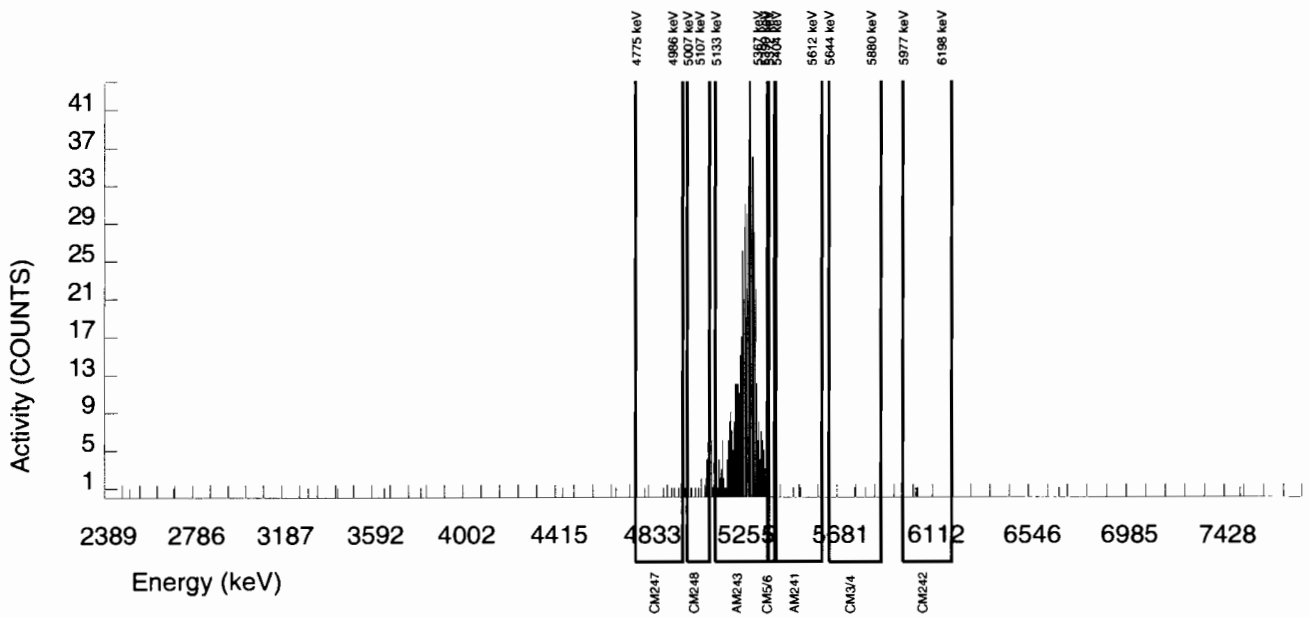

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811
SAMPLE ID : S1202072523_AM
SAMPLE QTY : 1.255 G
SAMPLE DATE : 5-MAR-2010 00:00:00.
ANALYST : AYB1
% YIELD : 85.716

CHAMBER : 238
DETECTOR S/N : 79431
AVERAGE %EFFICIENCY : 40.1819
COUNT DATE : 29-MAR-2010 21:46:57
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B238.CNF;97
BKG DATE : 28-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W238.CNF;32
CAL DATE : 28-FEB-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.9503E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3151E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3151E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5508.446	0.000	0.000	-0.980	0.000	2.7707	99.94000	-1.42E-03	1.45E-03	8.66E-03	2.12E-02	1.45E-03
AM243	5270.000	5269.723	47.087	563.000	563.000	0.000	0.0000	99.78000	8.17E-01	6.41E-02	0.00E+00	3.93E-03	3.44E-02
CM-242	6102.000	6033.972	7.205	6.000	6.000	0.000	4.0092	100.0000	9.67E-03	4.00E-03	1.25E-02	2.90E-02	3.95E-03
CM-3/4	5795.020	5765.440	127.535	4.000	3.280	0.720	4.8510	100.0000	4.76E-03	3.10E-03	1.51E-02	3.42E-02	3.08E-03
CM-5/6	5386.000	5377.899	4.905	1.000	1.000	0.000	6.1294	86.09000	1.68E-03	1.68E-03	2.22E-02	4.90E-02	1.68E-03
CM-247	4946.000	4939.447	4.905	8.000	8.000	0.000	6.3427	79.30000	1.46E-02	5.25E-03	2.50E-02	5.49E-02	5.16E-03
CM-248	5078.600	5061.650	0.000	19.000	19.000	0.000	11.0244	91.00000	3.02E-02	7.22E-03	3.78E-02	8.00E-02	6.93E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

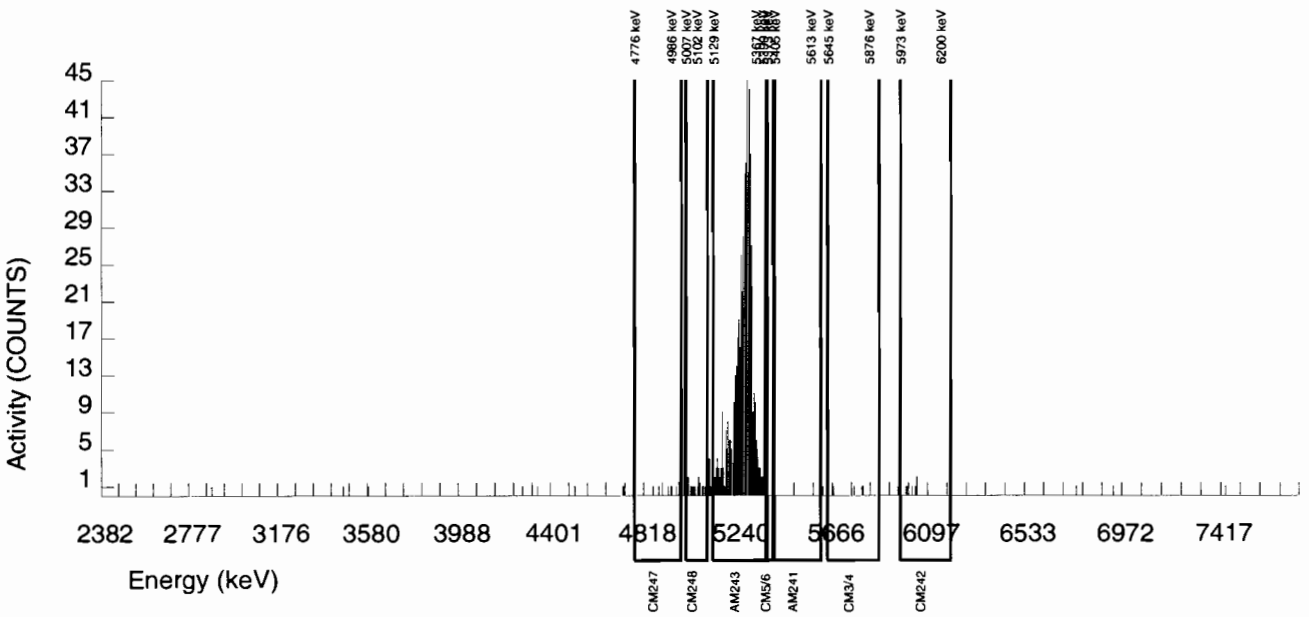

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 239	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202072524_AM	DETECTOR S/N : 79432	BKG FILE : B239.CNF;93
SAMPLE QTY : 0.102 G	AVERAGE %EFFICIENCY : 39.3422	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 21:46:58	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W239.CNF;30
% YIELD : 100.185		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3148E+01 pCi/G	NOMINAL : 3.3148E+01 pCi/G
RESULTS : 2.2795E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5491.419	70.872	1863.000	1861.879	0.000	2.7707	99.94000	2.90E+01	2.19E+00	9.31E-02	2.28E-01	6.72E-01
AM243	5270.000	5275.718	60.577	645.000	644.280	0.720	0.8485	99.78000	1.00E+01	8.24E-01	2.86E-02	9.94E-02	3.96E-01
CM-242	6102.000	6029.619	43.745	3.000	3.000	0.000	4.0092	100.0000	4.77E-02	2.78E-02	1.35E-01	3.11E-01	2.76E-02
CM-3/4	5795.020	5751.902	0.000	7.000	4.840	2.160	4.8510	100.0000	7.54E-02	4.59E-02	1.63E-01	3.68E-01	4.55E-02
CM-5/6	5386.000	5383.977	0.000	95.000	95.000	0.000	6.1294	86.09000	1.72E+00	2.15E-01	2.39E-01	5.27E-01	1.76E-01
CM-247	4946.000	4921.181	4.929	7.000	4.840	2.160	6.3427	79.30000	9.50E-02	5.78E-02	2.69E-01	5.90E-01	5.74E-02
CM-248	5078.600	5062.772	0.000	29.000	29.000	0.000	11.0244	91.00000	4.96E-01	9.87E-02	4.07E-01	8.60E-01	9.21E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

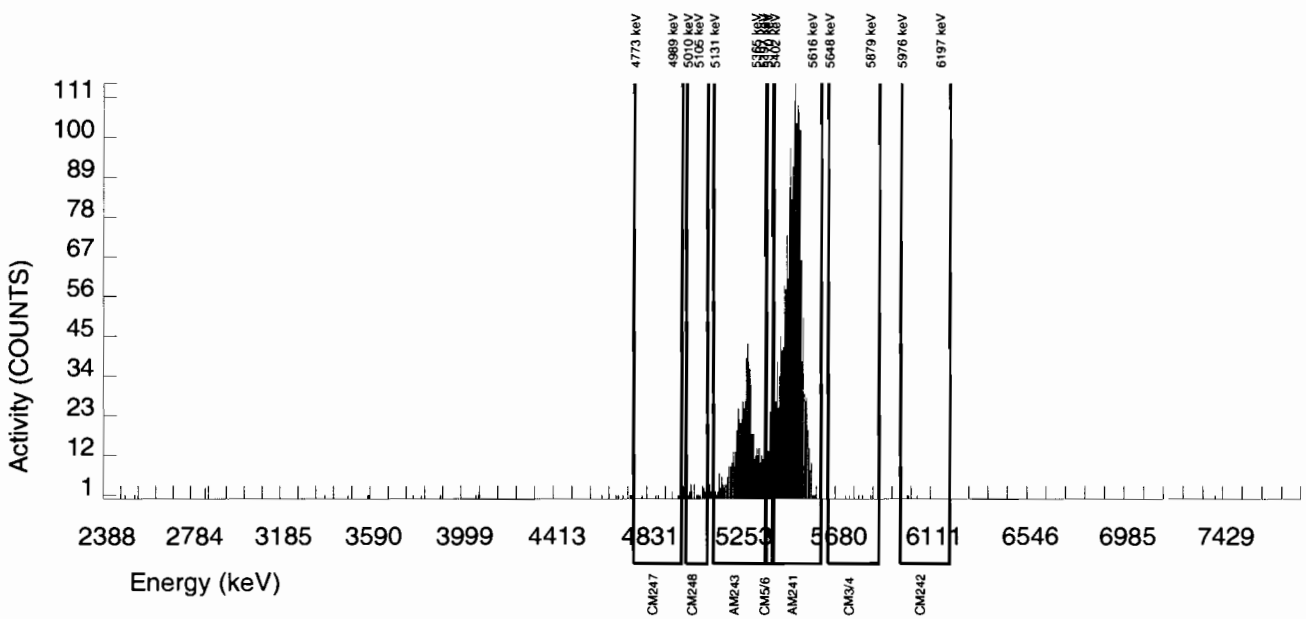

Radiochemistry Batch Checklist, Rev10

Batch# 965813 Product: PU Date: 3/30/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 3/30/10

Secondary Review Performed By: [illegible] 3/30/10

4/2
UANC

Plutonium Que Sheet

16-MAR-10

Batch #: 965813 Analyst: AYB1 First Client Due Date:02-APR-10 Internal Due Date:22-MAR-10

Tracer Isotope(s): ~~Pu-242/Pu-238~~ PU236 Tracer Code: 1430-C Expiration Date: 03/4/11 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: Expiration Date: Vol:

Spike Isotope(s): Pu-239/Pu-238 Spike Code: Expiration Date: Vol:

Prep Date: 3/25/10 Initials: AYB Pipet ID: 11642319 Balance ID: 19350208 Witness: AMD 3/25/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) 1 / f)	Pu Det #
248824001-1	RE46-10-11926	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	1	1	1.264	86
248824002-1	RE46-10-11925	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	2	2	1.259	87
248860001-1	RE46-10-13782	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	3	3	1.251	88
248860002-1	RE46-10-13783	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	4	4	1.259	25
248860003-1	RE46-10-13777	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	5	5	1.258	26
248860004-1	RE46-10-13775	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	6	6	1.253	27
248860005-1	RE46-10-13776	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	7	7	1.258	28
248860006-1	RE46-10-13781	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	8	8	1.259	30
248860007-1	RE46-10-13779	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	9	9	1.252	13
248860008-1	RE46-10-13780	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	10	10	1.259	14
248860009-1	RE46-10-13778	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	11	11	1.259	16
248867001-1	RE46-10-12931	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	12	12	1.259	17
248867002-1	RE46-10-12932	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	13	13	1.253	18
248867003-1	RE46-10-12934	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	14	14	1.253	19
248867004-1	RE46-10-12933	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	15	15	1.255	20
1202072525-1	MB for batch 965813	MB		.05 pCi/g	SOIL	QC ACCOUNT		16 DS 3/30/10	16	1.0 ~~1.255~~	22
1202072526-1	RE46-10-12931(248867001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	05-MAR-10	17	17	1.255	23
1202072527-1	LCS for batch 965813	LCS		.05 pCi/g	SOIL	QC ACCOUNT		18	18	0.102	24

SRM 0244-B exp. 4/30/2010

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 3/30/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 965813

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202072526	DUP	Plutonium-238	1.26 g	-0.0017	0.00635	0.0209	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	-0.00321	0.00406	0.0177	.005420635	pCi/g	YES
1202072527	LCS	Plutonium-238	0.102 g	2.79	0.306	0.266	.062941176	pCi/g	NO
		Plutonium-239/240	0.102 g	38.2	2.65	0.225	.066960784	pCi/g	NO
1202072525	MB	Plutonium-238	1.00 g	0.00642	0.00852	0.0277	.00642	pCi/g	YES
		Plutonium-239/240	1.00 g	0.00683	0.00445	0.0234	.00683	pCi/g	YES
248824001	RE46-10-11926	Plutonium-238	1.25 g	1.58E-10	0.00266	0.0187	.005136	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00398	0.00398	0.0158	.005464	pCi/g	YES
248824002	RE46-10-11925	Plutonium-238	1.26 g	-0.00269	0.00465	0.0189	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00403	0.00586	0.016	.005420635	pCi/g	YES
248860001	RE46-10-13782	Plutonium-238	1.25 g	-0.00512	0.00572	0.018	.005136	pCi/g	YES
		Plutonium-239/240	1.25 g	-0.00128	0.00384	0.0152	.005464	pCi/g	YES
248860002	RE46-10-13783	Plutonium-238	1.26 g	0.00492	0.00759	0.0224	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.006	0.00415	0.0189	.005420635	pCi/g	YES
248860003	RE46-10-13777	Plutonium-238	1.26 g	0.00491	0.00431	0.0254	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00023	0.00432	0.0215	.005420635	pCi/g	YES
248860004	RE46-10-13775	Plutonium-238	1.25 g	0.00347	0.00246	0.023	.005136	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0052	0.00302	0.0195	.005464	pCi/g	YES
248860005	RE46-10-13776	Plutonium-238	1.26 g	0.00997	0.0045	0.0265	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0185	0.00656	0.0224	.005420635	pCi/g	YES
248860006	RE46-10-13781	Plutonium-238	1.26 g	-0.000875	0.00739	0.0223	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0151	0.00512	0.0189	.005420635	pCi/g	YES
248860007	RE46-10-13779	Plutonium-238	1.25 g	0.0125	0.00629	0.0225	.005136	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00603	0.00418	0.019	.005464	pCi/g	YES
248860008	RE46-10-13780	Plutonium-238	1.26 g	0.0226	0.0111	0.0255	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00491	0.00432	0.0215	.005420635	pCi/g	YES
248860009	RE46-10-13778	Plutonium-238	1.26 g	0.00536	0.00681	0.0212	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00363	0.003	0.0179	.005420635	pCi/g	YES
248867001	RE46-10-12931	Plutonium-238	1.26 g	-0.00699	0.00461	0.0247	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0098	0.00478	0.0208	.005420635	pCi/g	YES
248867002	RE46-10-12932	Plutonium-238	1.25 g	0.00853	0.00636	0.0242	.005136	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0109	0.00451	0.0204	.005464	pCi/g	YES
248867003	RE46-10-12934	Plutonium-238	1.25 g	0.0042	0.008	0.0268	.005136	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0101	0.00455	0.0226	.005464	pCi/g	YES
248867004	RE46-10-12933	Plutonium-238	1.26 g	0.00534	0.0071	0.023	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00395	0.00326	0.0195	.005420635	pCi/g	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 086	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248824001_PU	DETECTOR S/N : 78198	BKG FILE : B086.CNF;1034
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 30.3911	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:31	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W086.CNF;285
% YIELD : 89.205		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6796E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5773.994	32.075	802.000	801.000	1.000	1.0000	100.0000	1.08E+00	7.03E-02	3.08E-03	9.76E-03	3.82E-02
PU-238	5499.000	5482.187	15.082	2.000	0.000	2.000	2.4495	99.90000	1.58E-10	2.66E-03	7.56E-03	1.87E-02	2.65E-03
PU-9/0	5155.000	5124.164	170.933	6.000	3.000	3.000	1.9732	99.90000	3.98E-03	3.98E-03	6.09E-03	1.58E-02	3.98E-03
PU242	4890.000	4775.243	130.713	3.000	0.000	3.000	*******	100.0000	3.16E-10	3.25E-03	3.84E-01	7.72E-01	3.25E-03
PU-244	4589.000	4526.632	0.000	0.000	-1.000	1.000	6.4609	99.90000	-1.33E-03	1.88E-03	1.99E-02	4.35E-02	1.88E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

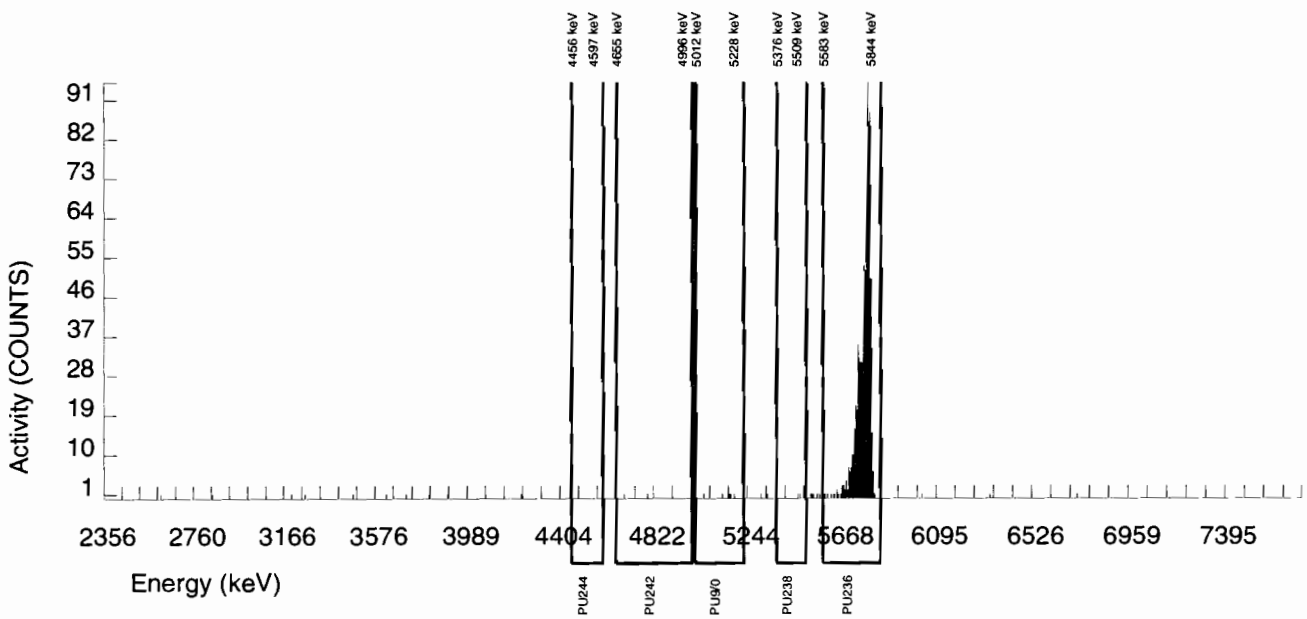

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 087	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248824002_PU	DETECTOR S/N : 78199	BKG FILE : B087.CNF;1041
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 32.3127	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:31	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W087.CNF;278
% YIELD : 82.538		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.4794E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5772.486	45.540	790.000	788.000	2.000	1.4142	100.0000	1.07E+00	7.04E-02	4.41E-03	1.25E-02	3.84E-02
PU-238	5499.000	5425.508	49.096	5.000	-2.000	7.000	2.4495	99.90000	-2.69E-03	4.65E-03	7.65E-03	1.89E-02	4.65E-03
PU-9/0	5155.000	5148.474	7.302	11.000	3.000	8.000	1.9732	99.90000	4.03E-03	5.86E-03	6.16E-03	1.60E-02	5.85E-03
PU242	4890.000	4838.779	218.759	7.000	5.000	2.000	*******	100.0000	6.71E-03	4.04E-03	3.89E-01	7.82E-01	4.02E-03
PU-244	4589.000	4524.985	0.000	0.000	-2.000	2.000	6.4609	99.90000	-2.69E-03	2.33E-03	2.02E-02	4.40E-02	2.33E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

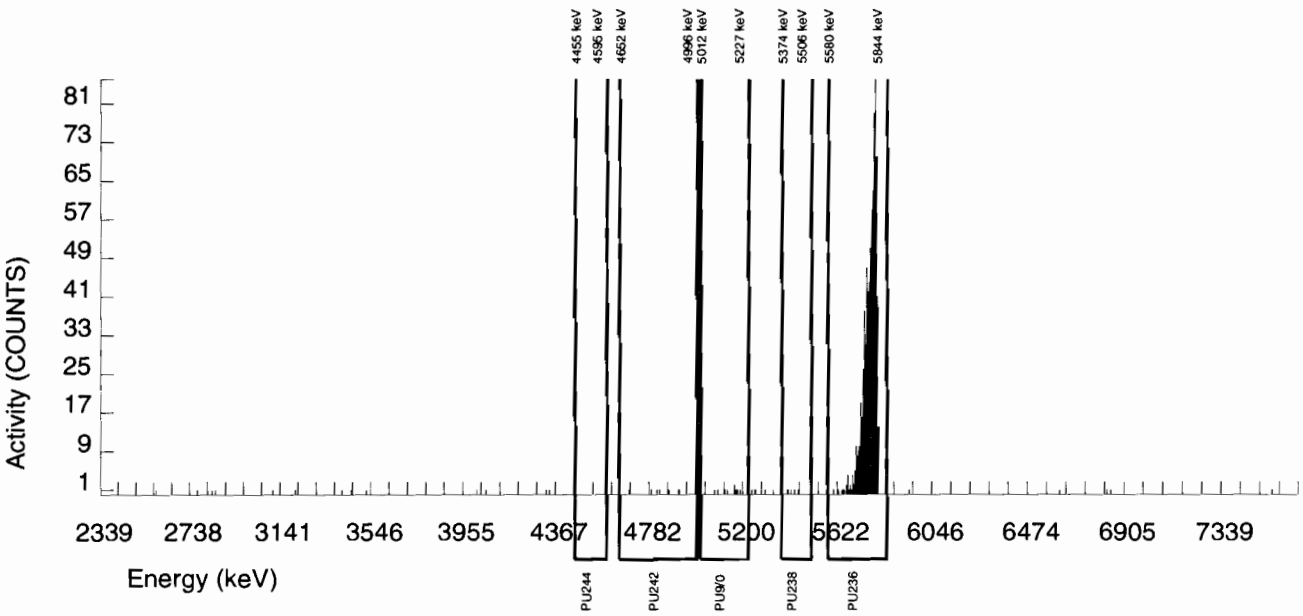

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 017	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248867001_PU	DETECTOR S/N : 78791	BKG FILE : B017.CNF;1950
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 29.7179	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 09:33:15	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W017.CNF;1264
% YIELD : 90.137		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0000E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7041E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5761.216	57.930	580.000	569.200	10.800	3.2863	100.0000	1.07E+00	7.86E-02	1.32E-02	3.13E-02	4.57E-02
PU-238	5499.000	5452.533	19.836	2.000	-3.760	5.760	2.4495	99.90000	-6.99E-03	4.61E-03	9.81E-03	2.47E-02	4.61E-03
PU-9/0	5155.000	5158.643	0.000	6.000	5.280	0.720	1.9732	99.90000	9.80E-03	4.78E-03	7.91E-03	2.08E-02	4.74E-03
PU242	4890.000	4822.817	0.000	0.000	-0.720	0.720	*******	100.0000	-1.34E-03	2.29E-03	4.99E-01	1.00E+00	2.29E-03
PU-244	4589.000	4524.268	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.86E-03	2.59E-02	5.68E-02	1.86E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

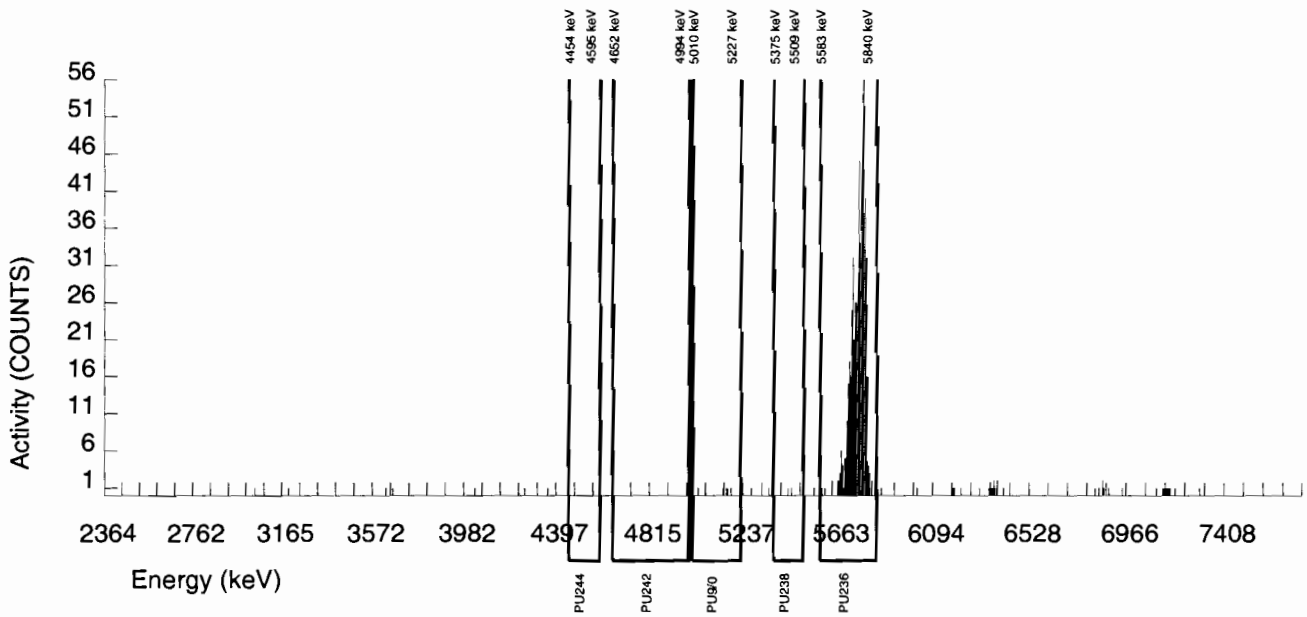

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 022	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202072525_PU	DETECTOR S/N : 72530	BKG FILE : B022.CNF;1121
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 32.3779	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 09:33:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W022.CNF;320
% YIELD : 92.836		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9604E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7483E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5772.790	50.094	656.000	638.720	17.280	4.1569	100.0000	1.33E+00	9.45E-02	1.87E-02	4.30E-02	5.40E-02
PU-238	5499.000	5443.001	57.406	11.000	3.080	7.920	2.4495	99.90000	6.42E-03	8.52E-03	1.10E-02	2.77E-02	8.52E-03
PU-9/0	5155.000	5129.756	169.723	4.000	3.280	0.720	1.9732	99.90000	6.83E-03	4.45E-03	8.87E-03	2.34E-02	4.43E-03
PU242	4890.000	4889.131	0.000	4.000	1.120	2.880	*******	100.0000	2.33E-03	5.13E-03	5.60E-01	1.13E+00	5.13E-03
PU-244	4589.000	4523.068	4.992	1.000	0.280	0.720	6.4609	99.90000	5.83E-04	2.57E-03	2.90E-02	6.37E-02	2.57E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

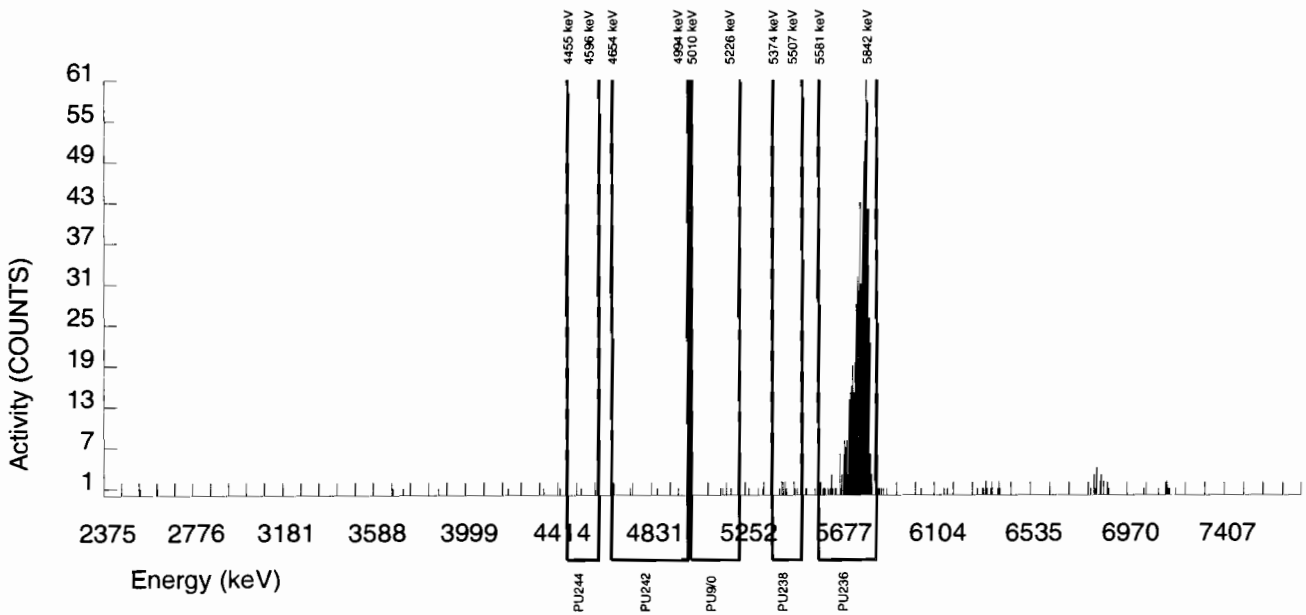

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 023	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202072526_PU	DETECTOR S/N : 78264	BKG FILE : B023.CNF;1121
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 33.6228	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 09:33:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W023.CNF;303
% YIELD : 94.225		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0000E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8267E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5771.276	31.189	684.000	673.200	10.800	3.2863	100.0000	1.08E+00	7.45E-02	1.12E-02	2.66E-02	4.21E-02
PU-238	5499.000	5445.841	83.533	9.000	-1.080	10.080	2.4495	99.90000	-1.70E-03	6.35E-03	8.32E-03	2.09E-02	6.35E-03
PU-9/0	5155.000	5179.405	0.000	3.000	-2.040	5.040	1.9732	99.90000	-3.21E-03	4.06E-03	6.71E-03	1.77E-02	4.06E-03
PU242	4890.000	4840.904	269.302	5.000	-8.680	13.680	*******	100.0000	-1.37E-02	6.06E-03	4.23E-01	8.51E-01	6.06E-03
PU-244	4589.000	4575.782	4.987	1.000	-1.880	2.880	6.4609	99.90000	-2.96E-03	2.76E-03	2.20E-02	4.82E-02	2.76E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

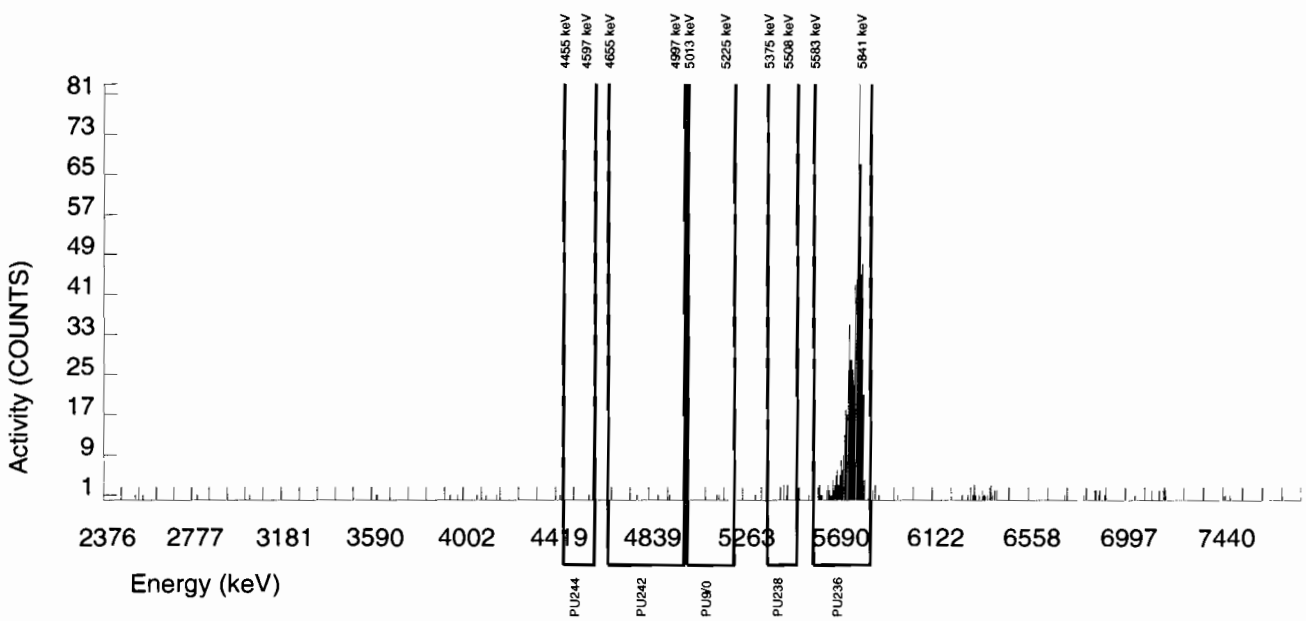

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 024	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202072527_PU	DETECTOR S/N : 76542	BKG FILE : B024.CNF;1114
SAMPLE QTY : 0.102 G	AVERAGE %EFFICIENCY : 34.2324	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 09:33:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W024.CNF;303
% YIELD : 89.445		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9604E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6480E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5778.125	48.844	660.000	650.640	9.360	3.0594	100.0000	1.31E+01	1.00E+00	1.32E-01	3.19E-01	5.19E-01
PU-238	5499.000	5483.209	0.000	145.000	139.240	5.760	2.4495	99.90000	2.79E+00	3.06E-01	1.06E-01	2.66E-01	2.45E-01
PU-9/0	5155.000	5163.137	35.601	1904.000	1902.560	1.440	1.9732	99.90000	3.81E+01	2.65E+00	8.54E-02	2.25E-01	8.75E-01
PU242	4890.000	4865.821	269.540	13.000	11.560	1.440	*******	100.0000	2.32E-01	7.66E-02	5.39E+00	1.08E+01	7.51E-02
PU-244	4589.000	4533.554	104.821	2.000	-0.880	2.880	6.4609	99.90000	-1.76E-02	4.05E-02	2.79E-01	6.13E-01	4.05E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

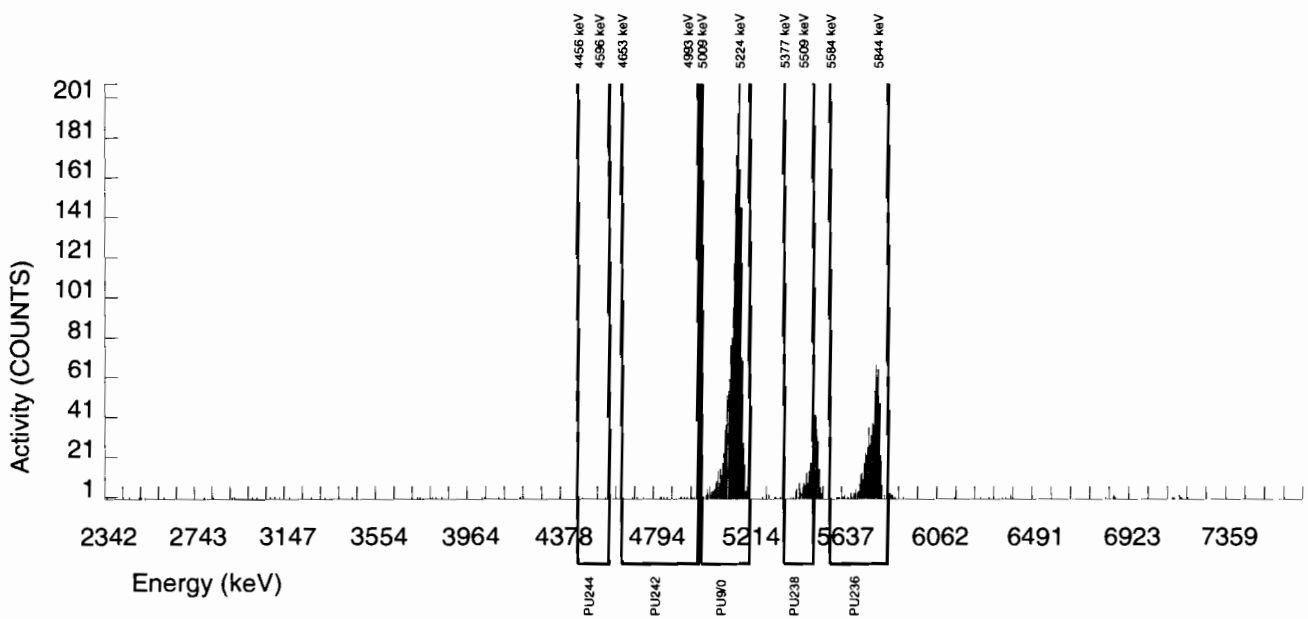

Radiochemistry Batch Checklist, Rev10

Batch# 965814 Product: Th Date: 3/30/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.		✓	DER 811473
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time	✓		
Sample was correctly preserved if required			N/A
Smears Taken for Radioactive batches			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	✓		DER 811473
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	✓		DER 811473
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JoLMc 3/30/10

Secondary Review Performed By: [signature] 3/30/10

4/2

Thorium Que Sheet

26-MAR-10

Batch #: 965814 Analyst: AYB1 First Client Due Date:02-APR-10 Internal Due Date22-MAR-10

Tracer Isotope: Th-229 Tracer Code: 0934-L Expiration Date: 03/9/11 Vol: 0.1

LCS Isotope: Th-230 LCS Code: Expiration Date: Vol:

Spike Isotope: Th-230 Spike Code: Expiration Date: Vol:

Prep Date: 3/25/10 Initials: NAB Pipet ID: 16423/9 Balance ID: 19350208 Witness: AM 3/25/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/ Dry Aliquot (g / l / f)	Th Det #
248824001-1	RE46-10-11926	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	1	1	0.251	173
248824002-1	RE46-10-11925	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	2	2	0.250	174
248863001-1	RE46-10-12936	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	3	3	0.258	177
248863002-1	RE46-10-12930	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	4	4	0.259	178
248863003-1	RE46-10-12929	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	5	5	0.258	179
248863004-1	RE46-10-12935	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	6	6	0.257	180
248865001-1	RE46-10-11924	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	7	7	0.251	181
248867001-1	RE46-10-12931	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	8	8	0.258	182
248867002-1	RE46-10-12932	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	9	9	0.251	183
248867003-1	RE46-10-12934	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	10	10	0.256	184
248867004-1	RE46-10-12933	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	11	11	0.253	185
249179001-1	RE46-10-13437	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	12	12	0.252	186
249179002-1	RE46-10-13436	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	13	13	0.256	187
249179003-1	RE46-10-13434	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	14	14	0.259	188
249179004-1	RE46-10-13438	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	15	15	0.257	189
249179005-1	RE46-10-13435	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	16	16	0.251	190
249179006-1	RE46-10-13439	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	17	17	0.253	191
249179007-1	RE46-10-13463	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	18	18	0.251	192
1202072528-1	MB for batch 965814	MB		.1 pCi/g	SOIL	QC ACCOUNT		19	19		193
1202072529-1	RE46-10-12931(248867001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	05-MAR-10	20	20	0.259	194
1202072530-1	LCS for batch 965814	LCS		.1 pCi/g	SOIL	QC ACCOUNT		21	21	0.108	195

Data Reviewed By: JoLMcI 3/30/10

GEL Laboratories LLC, Radiochemistry Division

Solid Sample Dissolution by: LEACH or DIGESTION Circle One

Choose SOP Used: GL-RAD-A-032, GL-RAD-A-038, GL-RAD-A-043

Blank Correction Report

Batch ID 965814

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202072529	DUP	Thorium-228	0.259 g	1.98	0.188	0.164	-.00138224	pCi/g	NO
		Thorium-230	0.259 g	1.24	0.132	0.206	.022664093	pCi/g	NO
		Thorium-232	0.259 g	1.62	0.159	0.0878	.005444015	pCi/g	NO
1202072530	LCS	Thorium-228	0.108 g	1.33	0.201	0.378	-.00331481	pCi/g	NO
		Thorium-230	0.108 g	26.3	2.12	0.474	.054351852	pCi/g	NO
		Thorium-232	0.108 g	1.10	0.172	0.202	.013055556	pCi/g	NO
1202072528	MB	Thorium-228	1.00 g	-0.000358	0.00567	0.0395	-.000358	pCi/g	NO
		Thorium-230	1.00 g	0.00587	0.00328	0.0496	.00587	pCi/g	YES
		Thorium-232	1.00 g	0.00141	0.00301	0.0212	.00141	pCi/g	YES
248824001	RE46-10-11926	Thorium-228	0.251 g	1.55	0.162	0.178	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	1.18	0.129	0.223	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.72	0.171	0.0951	.005617530	pCi/g	NO
248824002	RE46-10-11925	Thorium-228	0.250 g	2.22	0.205	0.165	-.001432	pCi/g	NO
		Thorium-230	0.250 g	1.08	0.119	0.207	.02348	pCi/g	NO
		Thorium-232	0.250 g	1.95	0.184	0.0884	.00564	pCi/g	NO
248863001	RE46-10-12936	Thorium-228	0.258 g	1.84	0.186	0.184	-.00138760	pCi/g	NO
		Thorium-230	0.258 g	1.11	0.127	0.232	.022751938	pCi/g	NO
		Thorium-232	0.258 g	1.77	0.178	0.0987	.005465116	pCi/g	NO
248863002	RE46-10-12930	Thorium-228	0.259 g	1.76	0.174	0.169	-.00138224	pCi/g	NO
		Thorium-230	0.259 g	1.17	0.128	0.213	.022664093	pCi/g	NO
		Thorium-232	0.259 g	1.89	0.182	0.0906	.005444015	pCi/g	NO
248863003	RE46-10-12929	Thorium-228	0.258 g	1.94	0.184	0.161	-.00138760	pCi/g	NO
		Thorium-230	0.258 g	1.10	0.119	0.202	.022751938	pCi/g	NO
		Thorium-232	0.258 g	1.83	0.174	0.0863	.005465116	pCi/g	NO
248863004	RE46-10-12935	Thorium-228	0.257 g	1.71	0.181	0.205	-.00139300	pCi/g	NO
		Thorium-230	0.257 g	1.47	0.160	0.257	.022840467	pCi/g	NO
		Thorium-232	0.257 g	1.69	0.178	0.110	.005486381	pCi/g	NO
248865001	RE46-10-11924	Thorium-228	0.251 g	1.83	0.190	0.198	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	1.13	0.131	0.249	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.68	0.174	0.106	.005617530	pCi/g	NO
248867001	RE46-10-12931	Thorium-228	0.258 g	1.53	0.159	0.174	-.00138760	pCi/g	NO
		Thorium-230	0.258 g	0.881	0.105	0.218	.022751938	pCi/g	NO
		Thorium-232	0.258 g	1.36	0.143	0.093	.005465116	pCi/g	NO
248867002	RE46-10-12932	Thorium-228	0.251 g	1.26	0.133	0.162	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	0.971	0.110	0.203	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.21	0.128	0.0865	.005617530	pCi/g	NO
248867003	RE46-10-12934	Thorium-228	0.256 g	0.0354	0.0303	0.158	-.00139844	pCi/g	NO
		Thorium-230	0.256 g	0.00981	0.0132	0.198	.022929688	pCi/g	YES
		Thorium-232	0.256 g	-0.00151	0.0072	0.0844	.005507813	pCi/g	YES
248867004	RE46-10-12933	Thorium-228	0.253 g	1.54	0.156	0.168	-.00141502	pCi/g	NO
		Thorium-230	0.253 g	0.916	0.107	0.210	.023201581	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248867004	RE46-10-12933	Thorium-232	0.253 g	1.25	0.133	0.0897	.005573123	pCi/g	NO
249179001	RE46-10-13437	Thorium-228	0.252 g	1.83	0.190	0.203	-.00142063	pCi/g	NO
		Thorium-230	0.252 g	0.970	0.119	0.255	.023293651	pCi/g	NO
		Thorium-232	0.252 g	1.64	0.174	0.109	.005595238	pCi/g	NO
249179002	RE46-10-13436	Thorium-228	0.256 g	2.25	0.237	0.237	-.00139844	pCi/g	NO
		Thorium-230	0.256 g	2.26	0.234	0.298	.022929688	pCi/g	NO
		Thorium-232	0.256 g	1.60	0.180	0.127	.005507813	pCi/g	NO
249179003	RE46-10-13434	Thorium-228	0.259 g	2.24	0.237	0.235	-.00138224	pCi/g	NO
		Thorium-230	0.259 g	2.74	0.272	0.294	.022664093	pCi/g	NO
		Thorium-232	0.259 g	1.90	0.204	0.126	.005444015	pCi/g	NO
249179004	RE46-10-13438	Thorium-228	0.257 g	2.04	0.198	0.179	-.00139300	pCi/g	NO
		Thorium-230	0.257 g	1.31	0.141	0.224	.022840467	pCi/g	NO
		Thorium-232	0.257 g	1.91	0.186	0.0956	.005486381	pCi/g	NO
249179005	RE46-10-13435	Thorium-228	0.251 g	2.00	0.195	0.178	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	1.39	0.146	0.223	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.54	0.158	0.0953	.005617530	pCi/g	NO
249179006	RE46-10-13439	Thorium-228	0.253 g	2.04	0.201	0.186	-.00141502	pCi/g	NO
		Thorium-230	0.253 g	1.60	0.165	0.233	.023201581	pCi/g	NO
		Thorium-232	0.253 g	1.94	0.190	0.0994	.005573123	pCi/g	NO
249179007	RE46-10-13463	Thorium-228	0.251 g	2.05	0.200	0.179	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	1.14	0.127	0.224	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.81	0.179	0.0956	.005617530	pCi/g	NO

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814	CHAMBER : 173	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0248824001_TH	DETECTOR S/N : 74431	BKG FILE : B173.CNF;185
SAMPLE QTY : 0.251 G	AVERAGE %EFFICIENCY : 27.1809	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 17:05:23	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W173.CNF;58
% YIELD : 81.608		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.8041E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6019.101	0.000	32.000	26.000	6.000	2.0641	57.44000	1.00E+00	2.48E-01	6.76E-02	1.73E-01	2.37E-01
TH-228	5363.000	5400.884	36.494	193.000	185.825	7.000	4.1318	99.94000	1.55E+00	1.62E-01	7.78E-02	1.78E-01	1.18E-01
TH229	4900.000	4891.489	93.208	493.000	488.000	5.000	2.2361	99.52000	3.97E+00	3.39E-01	4.23E-02	1.07E-01	1.81E-01
TH-230	4671.390	4659.489	57.739	150.000	144.895	0.000	5.3214	99.70000	1.18E+00	1.29E-01	1.00E-01	2.23E-01	9.77E-02
TH-232	3972.000	3987.827	52.318	213.000	212.809	0.000	1.9427	100.0000	1.72E+00	1.71E-01	3.66E-02	9.51E-02	1.18E-01

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

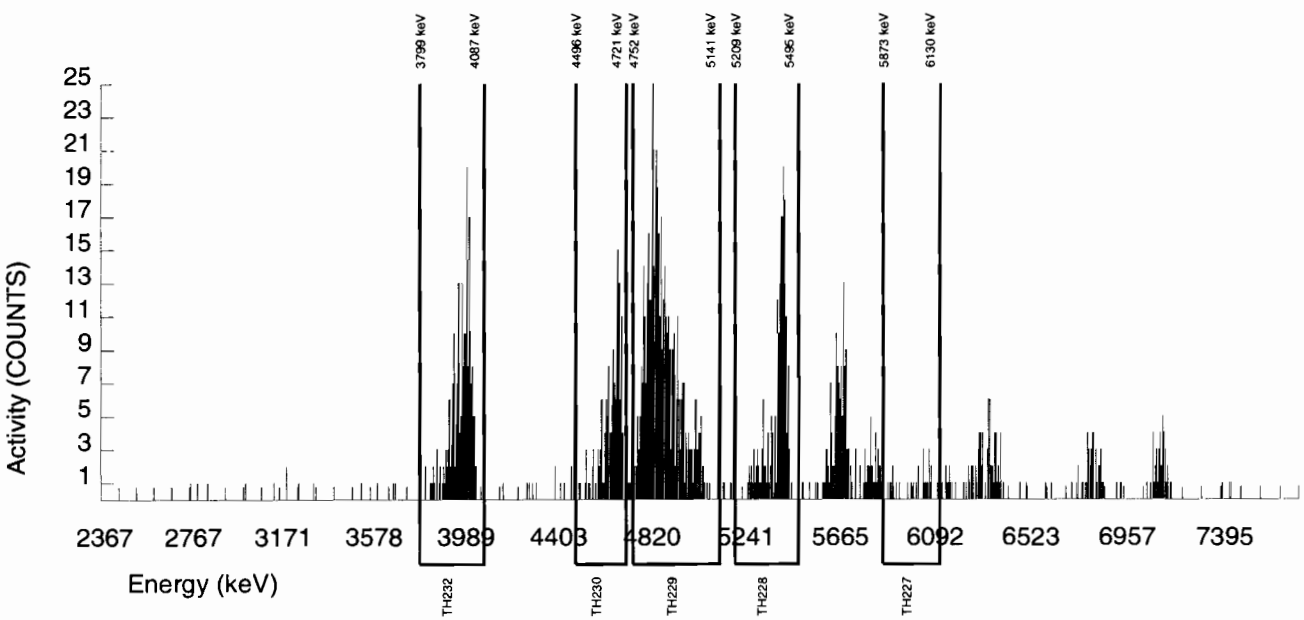

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814	CHAMBER : 174	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0248824002_TH	DETECTOR S/N : 74432	BKG FILE : B174.CNF;185
SAMPLE QTY : 0.250 G	AVERAGE %EFFICIENCY : 27.1359	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 17:05:25	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W174.CNF;58
% YIELD : 88.277		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.9515E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5986.916	0.000	47.000	33.000	14.000	2.0641	57.44000	1.18E+00	2.91E-01	6.29E-02	1.61E-01	2.79E-01
TH-228	5363.000	5410.218	28.432	290.000	286.811	3.000	4.1318	99.94000	2.22E+00	2.05E-01	7.23E-02	1.65E-01	1.32E-01
TH229	4900.000	4912.837	42.547	529.000	527.000	2.000	1.4142	99.52000	3.98E+00	3.32E-01	2.49E-02	7.02E-02	1.74E-01
TH-230	4671.390	4670.014	0.000	150.000	143.487	1.000	5.3214	99.70000	1.08E+00	1.19E-01	9.34E-02	2.07E-01	9.10E-02
TH-232	3972.000	4007.871	62.249	260.000	259.794	0.000	1.9427	100.0000	1.95E+00	1.84E-01	3.40E-02	8.84E-02	1.21E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

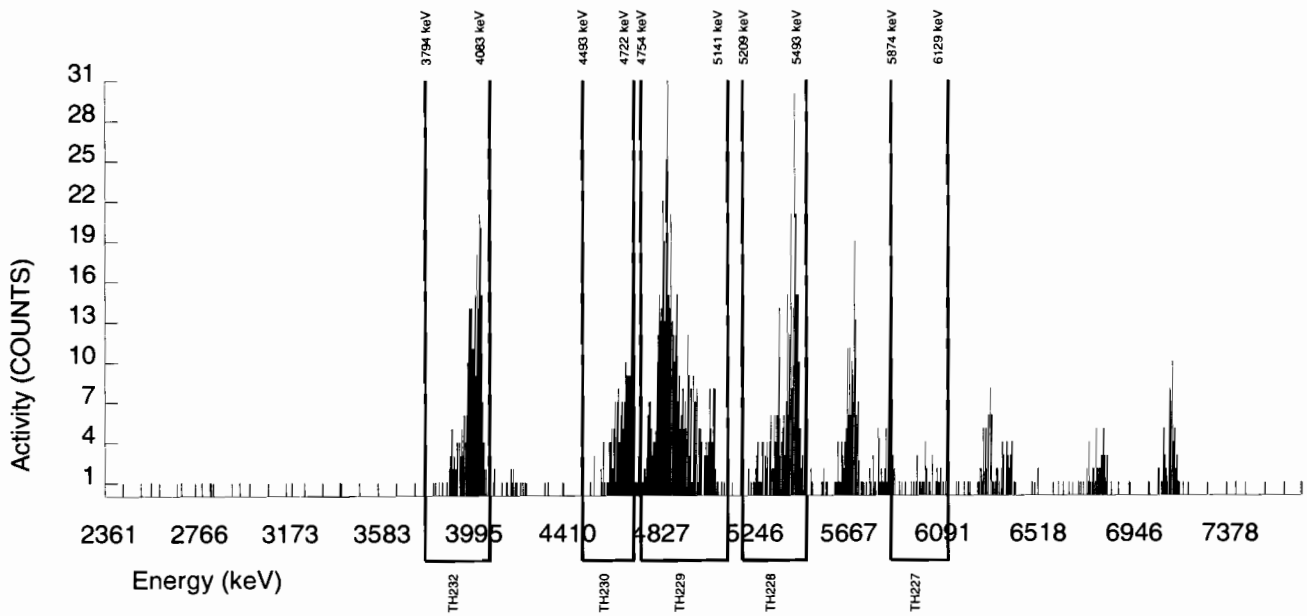

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814	CHAMBER : 182	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0248867001_TH	DETECTOR S/N : 74440	BKG FILE : B182.CNF;184
SAMPLE QTY : 0.258 G	AVERAGE %EFFICIENCY : 25.9311	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 17:05:41	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W182.CNF;58
% YIELD : 85.016		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.8794E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5993.047	0.000	16.000	8.000	8.000	2.0641	57.44000	2.80E-01	1.72E-01	6.62E-02	1.70E-01	1.71E-01
TH-228	5363.000	5404.155	39.178	195.000	187.826	7.000	4.1318	99.94000	1.53E+00	1.59E-01	7.62E-02	1.74E-01	1.15E-01
TH229	4900.000	4902.941	66.033	486.000	485.000	1.000	1.0000	99.52000	3.86E+00	3.28E-01	1.85E-02	5.86E-02	1.76E-01
TH-230	4671.390	4665.209	17.769	116.000	110.927	0.000	5.3214	99.70000	8.81E-01	1.05E-01	9.83E-02	2.18E-01	8.37E-02
TH-232	3972.000	3994.840	84.512	173.000	171.811	1.000	1.9427	100.0000	1.36E+00	1.43E-01	3.58E-02	9.30E-02	1.04E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

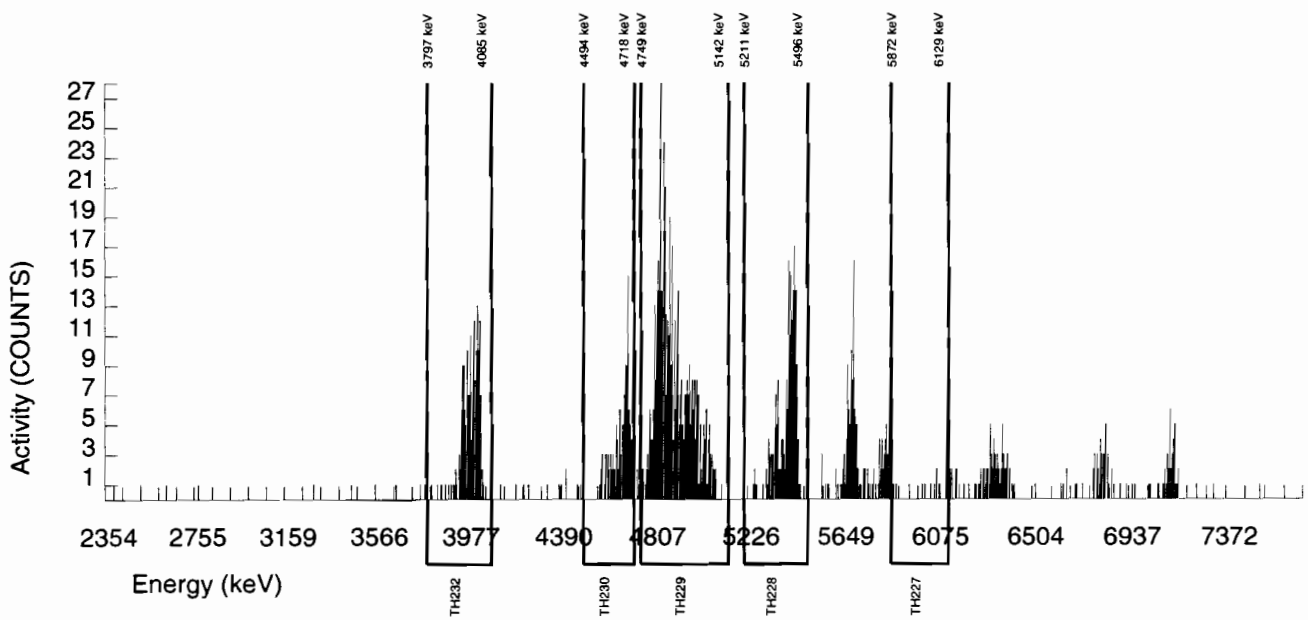

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814	CHAMBER : 193	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S1202072528_TH	DETECTOR S/N : 68627	BKG FILE : B193.CNF;168
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 26.8495	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 17:06:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W193.CNF;56
% YIELD : 93.112		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 2.0583E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5991.142	0.000	7.000	4.000	3.000	2.0641	57.44000	1.51E-02	1.20E-02	1.51E-02	3.86E-02	1.20E-02
TH-228	5363.000	5346.354	231.470	5.000	-0.198	5.000	4.1318	99.94000	-3.58E-04	5.67E-03	1.73E-02	3.95E-02	5.67E-03
TH229	4900.000	4900.657	36.674	558.000	550.000	8.000	2.8284	99.52000	9.96E-01	8.15E-02	1.19E-02	2.87E-02	4.31E-02
TH-230	4671.390	4682.640	33.859	9.000	3.247	0.000	5.3214	99.70000	5.87E-03	3.28E-03	2.24E-02	4.96E-02	3.26E-03
TH-232	3972.000	4057.201	44.324	2.000	0.785	1.000	1.9427	100.0000	1.41E-03	3.01E-03	8.14E-03	2.12E-02	3.01E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

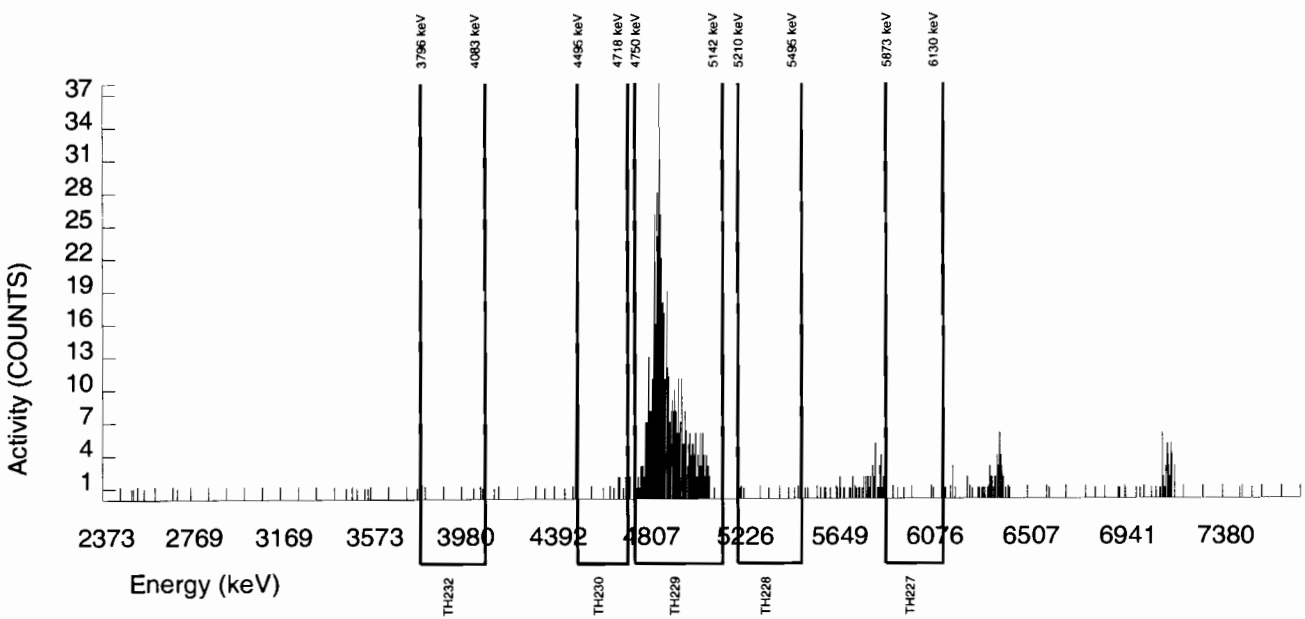

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814	CHAMBER : 194	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S1202072529_TH	DETECTOR S/N : 68635	BKG FILE : B194.CNF;166
SAMPLE QTY : 0.259 G	AVERAGE %EFFICIENCY : 26.3668	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 17:06:09	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W194.CNF;57
% YIELD : 88.265		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.9512E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6000.047	0.000	54.000	47.000	7.000	2.0641	57.44000	1.55E+00	2.80E-01	6.25E-02	1.60E-01	2.58E-01
TH-228	5363.000	5391.808	43.595	262.000	257.816	4.000	4.1318	99.94000	1.98E+00	1.88E-01	7.19E-02	1.64E-01	1.25E-01
TH229	4900.000	4894.379	86.369	512.000	512.000	0.000	0.0000	99.52000	3.84E+00	3.22E-01	0.00E+00	2.03E-02	1.70E-01
TH-230	4671.390	4656.261	78.749	173.000	165.644	2.000	5.3214	99.70000	1.24E+00	1.32E-01	9.28E-02	2.06E-01	9.76E-02
TH-232	3972.000	3986.583	94.920	217.000	216.800	0.000	1.9427	100.0000	1.62E+00	1.59E-01	3.38E-02	8.78E-02	1.10E-01

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

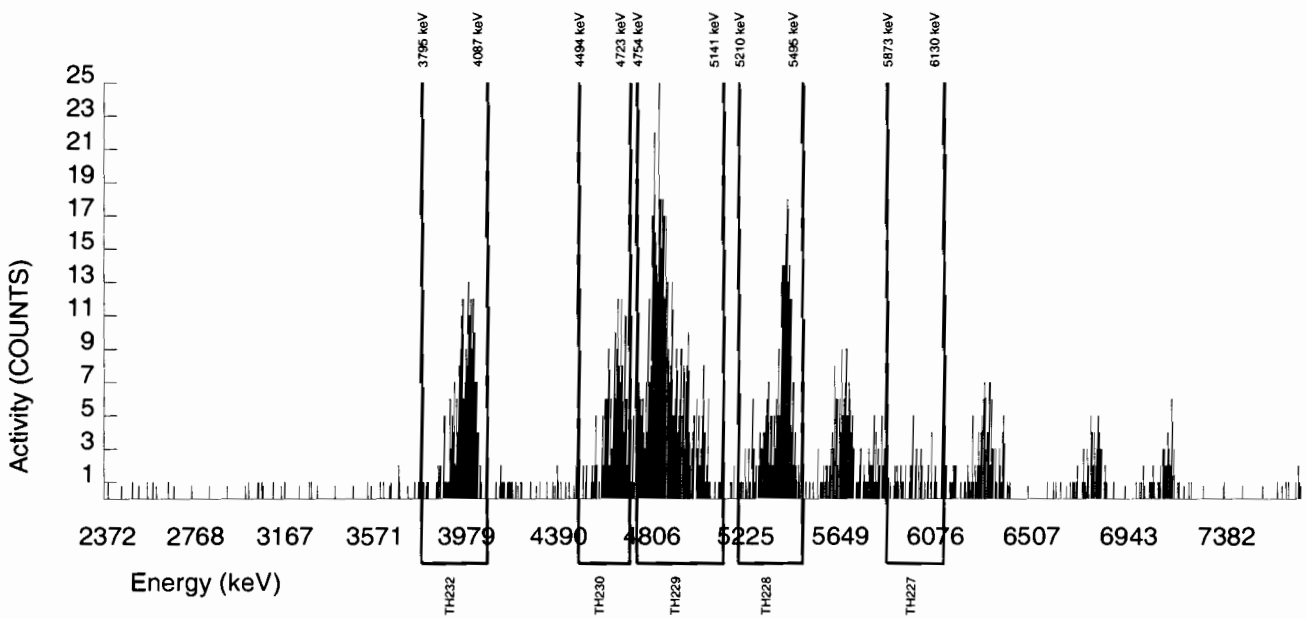

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814	CHAMBER : 195	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S1202072530_TH	DETECTOR S/N : 68636	BKG FILE : B195.CNF;173
SAMPLE QTY : 0.108 G	AVERAGE %EFFICIENCY : 27.9072	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 17:06:12	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W195.CNF;56
% YIELD : 86.814		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.9191E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5997.009	225.079	24.000	17.000	7.000	2.0641	57.44000	6.15E-01	2.07E-01	1.44E-01	3.69E-01	2.01E-01
TH-228	5363.000	5408.161	87.704	89.000	76.808	12.000	4.1318	99.94000	1.33E+00	2.01E-01	1.66E-01	3.78E-01	1.74E-01
TH229	4900.000	4905.651	44.507	549.000	533.000	16.000	4.0000	99.52000	9.22E+00	8.15E-01	1.61E-01	3.69E-01	4.11E-01
TH-230	4671.390	4669.708	35.287	1545.000	1523.425	16.000	5.3214	99.70000	2.63E+01	2.12E+00	2.14E-01	4.74E-01	6.81E-01
TH-232	3972.000	3997.294	80.579	70.000	63.792	6.000	1.9427	100.0000	1.10E+00	1.72E-01	7.78E-02	2.02E-01	1.50E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

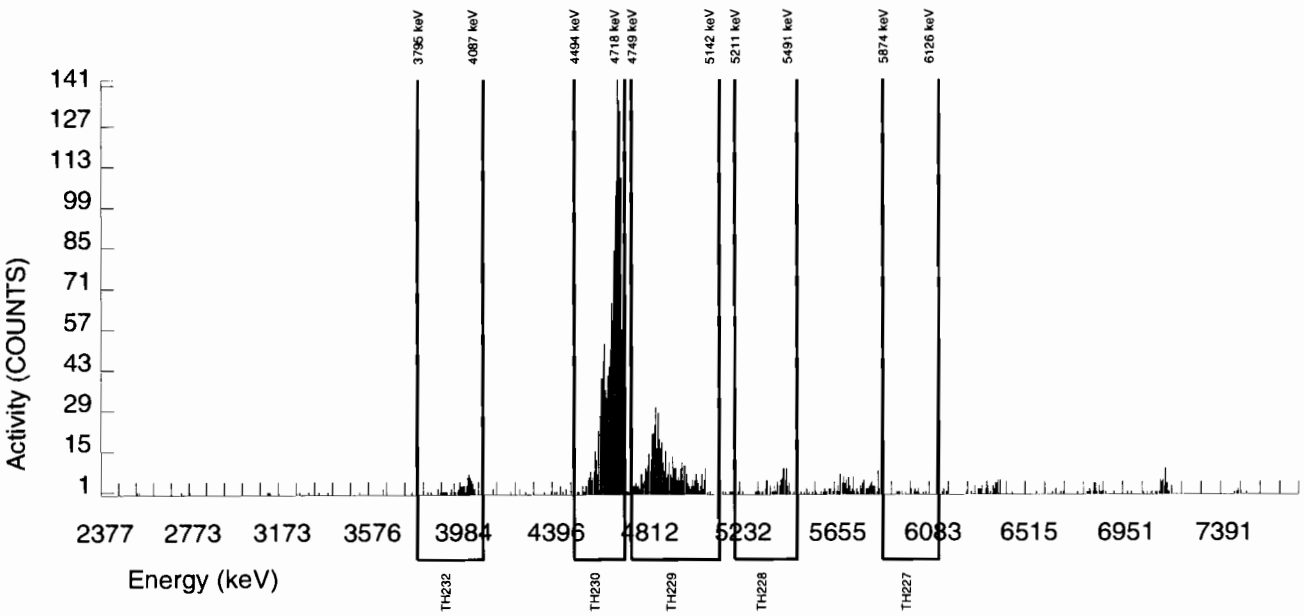

Radiochemistry Batch Checklist, Rev10

Batch# 971197 Product: U Date: 4/5/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.		✓	DER 813673
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.		✓	Case Narrative/DER 813673
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	✓		DER 813673
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	✓		DER 813673
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JyLMr 4/5/10

Secondary Review Performed By: [signature] 4/5/10

4/2

LANL

Uranium Que Sheet

01-APR-10

Batch #: 971197 Analyst: AYB1 First Client Due Date:02-APR-10 Internal Due Date:27-MAR-10

Tracer Isotope: U-232/U-236 Tracer Code: D93-17 Expiration Date: 12/9/10 Vol: 0.1 Analyzed Sequentially with Pu: AYB 4/1/10

LCS Isotope: U-238 LCS Code: AP 4/5/10 Expiration Date: AP 4/5/10 Vol: AP 4/5/10 Pu-236 ID:

Spike Isotope: U-238 Spike Code: Expiration Date: Vol: Vol.:

Prep Date: 4/1/10 Initials: ~~1642351~~ AYB Pipet ID: 1642319 Balance ID: 19350208 Witness: MDA 4/1/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g / l / f)	U Det #
248824001-2	RE46-10-11926	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	1	1	0.516	132
248824002-2	RE46-10-11925	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	2	2	0.517	135
248860001-2	RE46-10-13782	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	3	3	0.501	136
248860002-2	RE46-10-13783	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	4	4	0.506	~~137~~ 1
248860003-2	RE46-10-13777	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	5	5	0.513	~~138~~ 2
248860004-2	RE46-10-13775	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	6	6	0.508	139
248860005-2	RE46-10-13776	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	7	7	0.509	140
248860006-2	RE46-10-13781	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	8	8	0.504	141
248860007-2	RE46-10-13779	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	9	9	0.501	142
248860008-2	RE46-10-13780	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	10	10	0.511	143
248860009-2	RE46-10-13778	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	11	11	0.508	115
248867001-2	RE46-10-12931	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	12	12	0.507	116
248867002-2	RE46-10-12932	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	13	13	0.510	126
248867003-2	RE46-10-12934	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	14	14	0.502	127
248867004-2	RE46-10-12933	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	15	15	0.508	128
1202085875-1	MB for batch 971197	MB		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		16	16	1.00	129
1202085876-2	RE46-10-12931(248867001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	05-MAR-10	17	17	0.509	130
1202085877-1	LCS for batch 971197	LCS		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		18	18	0.106	131

BAB 4/5/10

*SRM 0244-A exp: 10/31/20

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: JLM 4/5/10

Blank Correction Report

Batch ID 971197

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202085876	DUP	Uranium-233/234	0.509 g	2.17	0.205	0.183	.007131631	pCi/g	NO
		Uranium-235/236	0.509 g	0.0804	0.0285	0.112	.004597250	pCi/g	NO
		Uranium-238	0.509 g	0.950	0.107	0.129	.011159136	pCi/g	NO
1202085877	LCS	Uranium-233/234	0.106 g	5.33	0.523	0.527	.034245283	pCi/g	NO
		Uranium-235/236	0.106 g	0.231	0.0753	0.322	.022075472	pCi/g	NO
		Uranium-238	0.106 g	5.72	0.555	0.371	.053584906	pCi/g	NO
1202085875	MB	Uranium-233/234	1.00 g	0.00363	0.00376	0.0534	.00363	pCi/g	YES
		Uranium-235/236	1.00 g	0.00234	0.00524	0.0326	.00234	pCi/g	YES
		Uranium-238	1.00 g	0.00568	0.00425	0.0375	.00568	pCi/g	YES
248824001	RE46-10-11926	Uranium-233/234	0.516 g	0.855	0.0851	0.112	.007034884	pCi/g	NO
		Uranium-235/236	0.516 g	0.0881	0.0217	0.0682	.004534884	pCi/g	NO
		Uranium-238	0.516 g	1.14	0.107	0.0785	.011007752	pCi/g	NO
248824002	RE46-10-11925	Uranium-233/234	0.517 g	0.902	0.0875	0.106	.007021277	pCi/g	NO
		Uranium-235/236	0.517 g	0.0513	0.0159	0.065	.004526112	pCi/g	NO
		Uranium-238	0.517 g	1.01	0.0955	0.0748	.010986460	pCi/g	NO
248860001	RE46-10-13782	Uranium-233/234	0.501 g	0.746	0.0773	0.114	.007245509	pCi/g	NO
		Uranium-235/236	0.501 g	0.0451	0.0169	0.0698	.004670659	pCi/g	NO
		Uranium-238	0.501 g	0.717	0.0751	0.0803	.011337325	pCi/g	NO
248860002	RE46-10-13783	Uranium-233/234	0.506 g	0.685	0.0838	0.173	.007173913	pCi/g	NO
		Uranium-235/236	0.506 g	0.038	0.0172	0.106	.004624506	pCi/g	NO
		Uranium-238	0.506 g	0.683	0.0832	0.122	.011225296	pCi/g	NO
248860003	RE46-10-13777	Uranium-233/234	0.513 g	0.973	0.121	0.240	.007076023	pCi/g	NO
		Uranium-235/236	0.513 g	0.063	0.0301	0.146	.004561404	pCi/g	NO
		Uranium-238	0.513 g	1.10	0.131	0.168	.011072125	pCi/g	NO
248860004	RE46-10-13775	Uranium-233/234	0.508 g	0.854	0.0996	0.182	.007145669	pCi/g	NO
		Uranium-235/236	0.508 g	0.0479	0.0229	0.111	.004606299	pCi/g	NO
		Uranium-238	0.508 g	0.691	0.0853	0.128	.011181102	pCi/g	NO
248860005	RE46-10-13776	Uranium-233/234	0.509 g	0.779	0.0852	0.140	.007131631	pCi/g	NO
		Uranium-235/236	0.509 g	0.0368	0.0153	0.0854	.004597250	pCi/g	NO
		Uranium-238	0.509 g	0.773	0.0848	0.0983	.011159136	pCi/g	NO
248860006	RE46-10-13781	Uranium-233/234	0.504 g	0.755	0.0851	0.151	.007202381	pCi/g	NO
		Uranium-235/236	0.504 g	0.0396	0.0211	0.0921	.004642857	pCi/g	NO
		Uranium-238	0.504 g	0.855	0.0941	0.106	.011269841	pCi/g	NO
248860007	RE46-10-13779	Uranium-233/234	0.501 g	0.967	0.119	0.226	.007245509	pCi/g	NO
		Uranium-235/236	0.501 g	0.0298	0.0223	0.138	.004670859	pCi/g	NO
		Uranium-238	0.501 g	0.947	0.116	0.159	.011337325	pCi/g	NO
248860008	RE46-10-13780	Uranium-233/234	0.511 g	0.825	0.0832	0.114	.007103718	pCi/g	NO
		Uranium-235/236	0.511 g	0.0448	0.0153	0.0693	.004579256	pCi/g	NO
		Uranium-238	0.511 g	0.837	0.0841	0.0798	.011115460	pCi/g	NO
248860009	RE46-10-13778	Uranium-233/234	0.508 g	0.719	0.0761	0.117	.007145669	pCi/g	NO
		Uranium-235/236	0.508 g	0.046	0.0173	0.0712	.004606299	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248860009	RE46-10-13778	Uranium-238	0.508 g	0.847	0.0855	0.0819	.011181102	pCi/g	NO
248867001	RE46-10-12931	Uranium-233/234	0.507 g	1.71	0.155	0.132	.007159763	pCi/g	NO
		Uranium-235/236	0.507 g	0.0812	0.0225	0.0808	.004615385	pCi/g	NO
		Uranium-238	0.507 g	0.863	0.0905	0.093	.011203156	pCi/g	NO
248867002	RE46-10-12932	Uranium-233/234	0.510 g	0.748	0.0912	0.188	.007117647	pCi/g	NO
		Uranium-235/236	0.510 g	0.00823	0.0143	0.115	.004588235	pCi/g	YES
		Uranium-238	0.510 g	0.878	0.102	0.132	.011137255	pCi/g	NO
248867003	RE46-10-12934	Uranium-233/234	0.502 g	2.64	0.241	0.181	.007231076	pCi/g	NO
		Uranium-235/236	0.502 g	0.111	0.0309	0.111	.004661355	pCi/g	NO
		Uranium-238	0.502 g	0.938	0.106	0.127	.011314741	pCi/g	NO
248867004	RE46-10-12933	Uranium-233/234	0.508 g	0.898	0.098	0.158	.007145669	pCi/g	NO
		Uranium-235/236	0.508 g	0.0346	0.0157	0.0965	.004606299	pCi/g	NO
		Uranium-238	0.508 g	0.840	0.0933	0.111	.011181102	pCi/g	NO

DER Report No.: 813673
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
05-APR-10	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ALPHA SPECTROMETER	DOE EML HASL-300, U-02-RC Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
971197	See Below		

Potentially affected work order(s)(SDG): 248824(10-2305),248860(10-2313),248867(10-2320)

Application Issues:

RDL less than MDA

Specification and Requirements Exception Description:	DER Disposition:
1. Sample 248860003 does not meet the client's tracer yield requirement of 50 - 105%, nor the required detection limit for U235.	1. The sample has been prepped two times and the original analysis meets the client's tracer yield requirements and required detection limits. The results of the first and second analysis meet the relative error ratio duplication requirement. Reporting results.

Originator's Name:

Joseph Moulden 05-APR-10

Data Validator/Group Leader:

Jessica Downey 05-APR-10

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 132	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248824001_UU	DETECTOR S/N : 67579	BKG FILE : B132.CNF;457
SAMPLE QTY : 0.516 G	AVERAGE %EFFICIENCY : 26.4369	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:38	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W132.CNF;134
% YIELD : 83.420		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.7555E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.830	40.369	995.000	992.000	3.000	1.7321	100.0000	3.93E+00	3.12E-01	1.59E-02	4.26E-02	1.25E-01
U-3/4	4763.020	4754.126	81.609	217.000	215.995	0.000	5.4790	100.0000	8.55E-01	8.51E-02	5.05E-02	1.12E-01	5.82E-02
U-235	4391.000	4405.188	35.254	18.000	18.000	0.000	2.4127	80.90000	8.81E-02	2.17E-02	2.75E-02	6.82E-02	2.08E-02
U-238	4184.730	4184.427	48.539	289.000	289.000	0.000	3.6781	100.0000	1.14E+00	1.07E-01	3.39E-02	7.85E-02	6.73E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

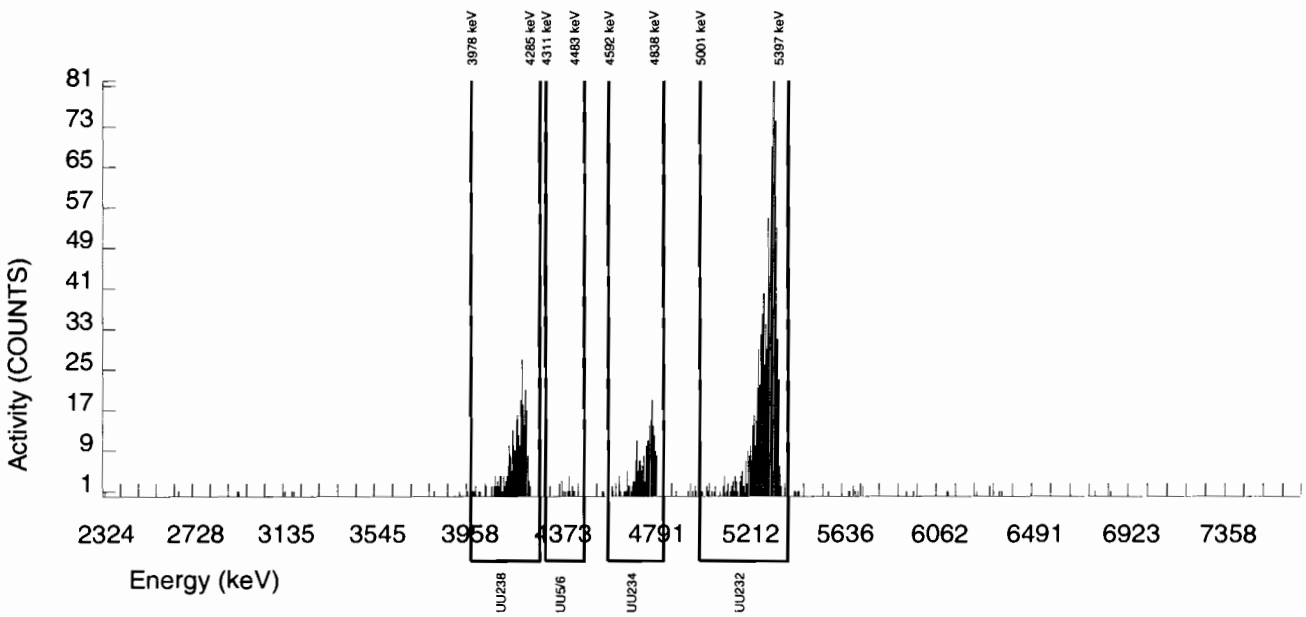

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 135	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248824002_UU	DETECTOR S/N : 80005	BKG FILE : B135.CNF;460
SAMPLE QTY : 0.517 G	AVERAGE %EFFICIENCY : 26.4506	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:47	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W135.CNF;144
% YIELD : 87.243		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9276E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5291.951	76.195	1039.000	1038.000	1.000	1.0000	100.0000	3.92E+00	3.09E-01	8.78E-03	2.78E-02	1.22E-01
U-3/4	4763.020	4745.734	55.392	240.000	238.948	0.000	5.4790	100.0000	9.02E-01	8.75E-02	4.81E-02	1.06E-01	5.84E-02
U-235	4391.000	4394.523	4.924	11.000	11.000	0.000	2.4127	80.90000	5.13E-02	1.59E-02	2.62E-02	6.50E-02	1.55E-02
U-238	4184.730	4167.937	25.289	267.000	267.000	0.000	3.6781	100.0000	1.01E+00	9.55E-02	3.23E-02	7.48E-02	6.17E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

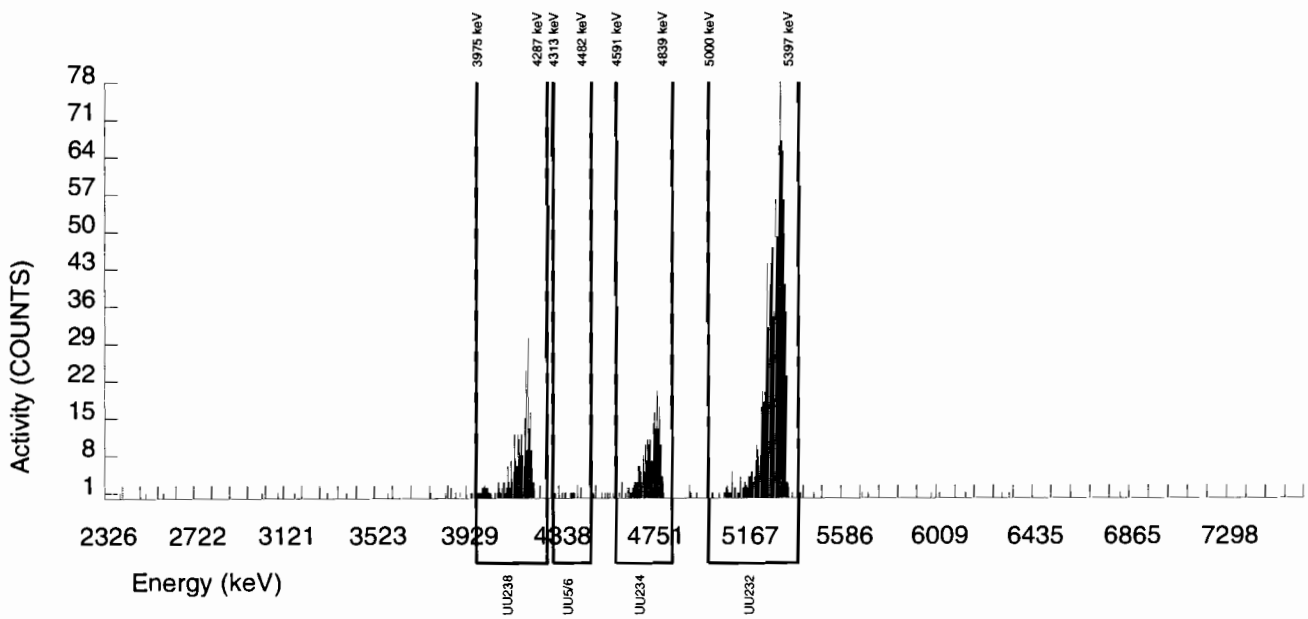

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 116	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248867001_UU	DETECTOR S/N : 80004	BKG FILE : B116.CNF;454
SAMPLE QTY : 0.507 G	AVERAGE %EFFICIENCY : 25.9691	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:05	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W116.CNF;113
% YIELD : 72.937		CAL DATE : 19-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5017E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.2834E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5282.761	67.215	852.000	852.000	0.000	0.0000	100.0000	4.00E+00	3.25E-01	0.00E+00	1.27E-02	1.37E-01
U-3/4	4763.020	4742.157	61.352	367.000	365.137	1.000	5.4790	100.0000	1.71E+00	1.55E-01	5.98E-02	1.32E-01	8.99E-02
U-235	4391.000	4384.421	7.334	14.000	14.000	0.000	2.4127	80.90000	8.12E-02	2.25E-02	3.25E-02	8.08E-02	2.17E-02
U-238	4184.730	4167.612	80.033	186.000	184.000	2.000	3.6781	100.0000	8.63E-01	9.05E-02	4.01E-02	9.30E-02	6.43E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

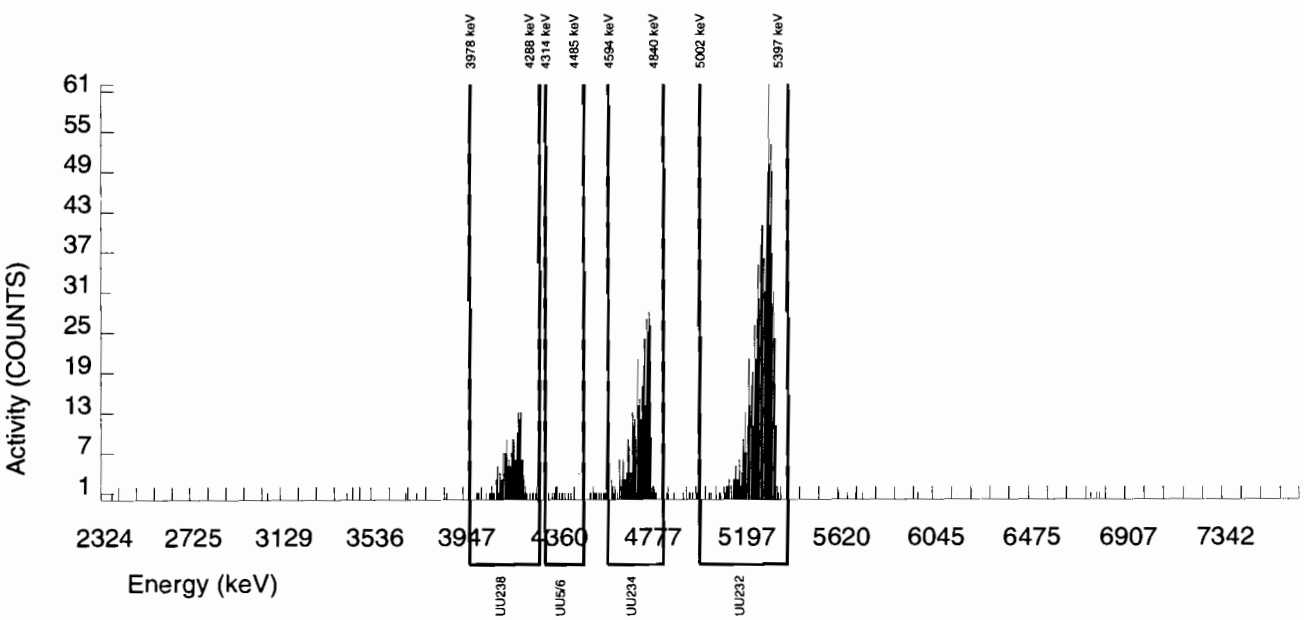

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 129	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202085875_UU	DETECTOR S/N : 76227	BKG FILE : B129.CNF;463
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 26.5015	BKG DATE : 28-MAR-2010
SAMPLE DATE : 1-APR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W129.CNF;132
% YIELD : 89.760		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4984E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.0377E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5313.450	35.925	1075.000	1070.000	5.000	2.2361	100.0000	2.03E+00	1.58E-01	9.85E-03	2.48E-02	6.22E-02
U-3/4	4763.020	4715.794	4.947	4.000	1.916	1.000	5.4790	100.0000	3.63E-03	3.76E-03	2.41E-02	5.34E-02	3.75E-03
U-235	4391.000	4384.568	98.946	3.000	1.000	2.000	2.4127	80.90000	2.34E-03	5.24E-03	1.31E-02	3.26E-02	5.23E-03
U-238	4184.730	4185.691	173.156	4.000	3.000	1.000	3.6781	100.0000	5.68E-03	4.25E-03	1.62E-02	3.75E-02	4.23E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

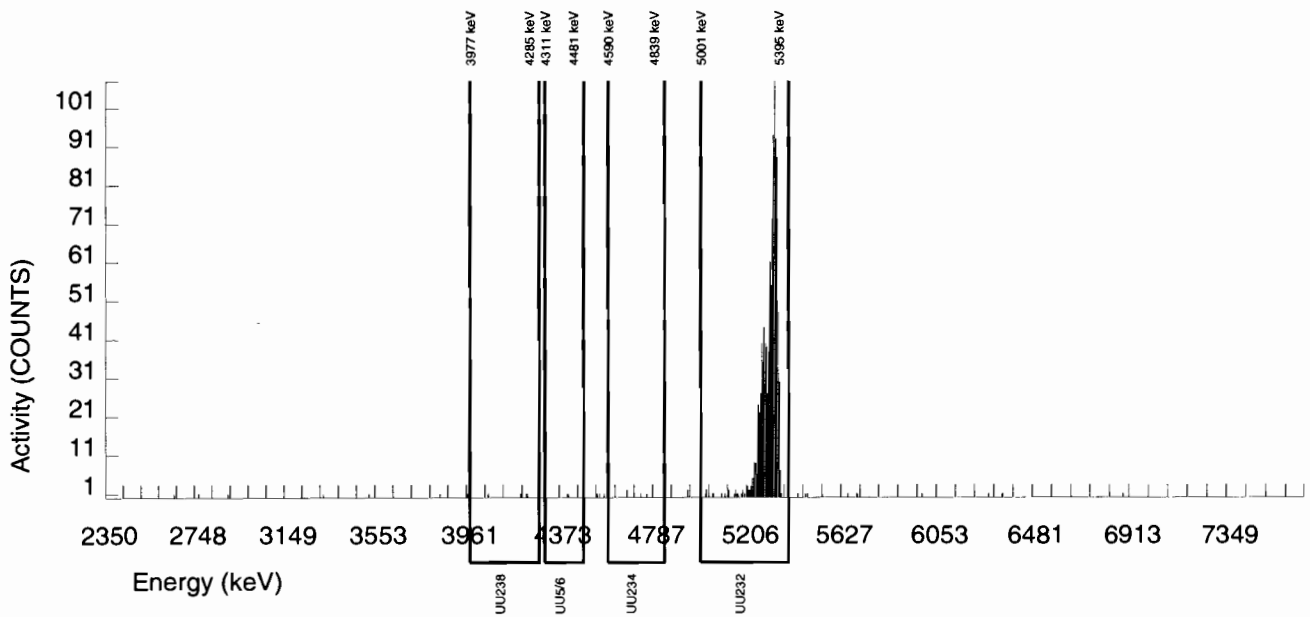

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 130	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202085876_UU	DETECTOR S/N : 76228	BKG FILE : B130.CNF;463
SAMPLE QTY : 0.509 G	AVERAGE %EFFICIENCY : 25.8660	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W130.CNF;134
% YIELD : 52.601		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5017E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.3679E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5283.543	80.711	613.000	612.000	1.000	1.0000	100.0000	3.98E+00	3.46E-01	1.51E-02	4.79E-02	1.61E-01
U-3/4	4763.020	4738.464	54.129	334.000	333.380	0.000	5.4790	100.0000	2.17E+00	2.05E-01	8.29E-02	1.83E-01	1.19E-01
U-235	4391.000	4415.515	34.839	11.000	10.000	1.000	2.4127	80.90000	8.04E-02	2.85E-02	4.51E-02	1.12E-01	2.79E-02
U-238	4184.730	4164.388	77.944	146.000	146.000	0.000	3.6781	100.0000	9.50E-01	1.07E-01	5.57E-02	1.29E-01	7.86E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

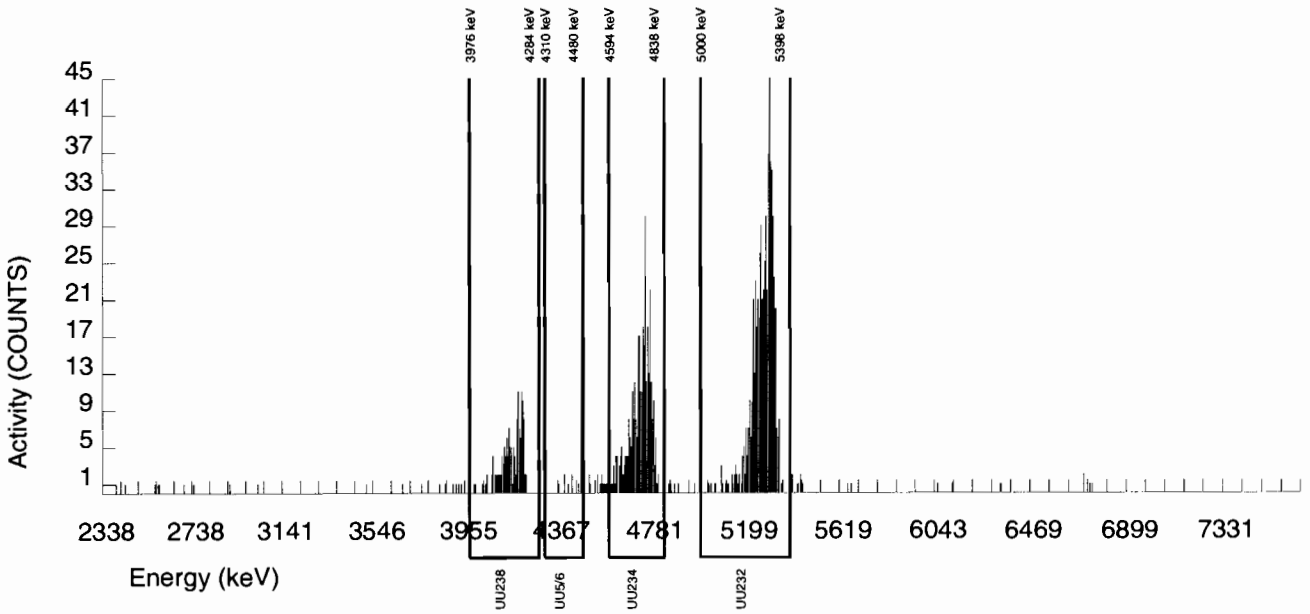

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 131	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202085877_UU	DETECTOR S/N : 80008	BKG FILE : B131.CNF;461
SAMPLE QTY : 0.106 G	AVERAGE %EFFICIENCY : 25.4483	BKG DATE : 28-MAR-2010
SAMPLE DATE : 1-APR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:35	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W131.CNF;136
% YIELD : 89.281		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4984E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.0162E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.589	32.753	1026.000	1022.000	4.000	2.0000	100.0000	1.91E+01	1.61E+00	8.70E-02	2.25E-01	6.00E-01
U-3/4	4763.020	4759.419	35.822	286.000	284.964	0.000	5.4790	100.0000	5.33E+00	5.23E-01	2.38E-01	5.27E-01	3.16E-01
U-235	4391.000	4398.254	11.946	10.000	10.000	0.000	2.4127	80.90000	2.31E-01	7.53E-02	1.30E-01	3.22E-01	7.31E-02
U-238	4184.730	4189.255	39.676	306.000	306.000	0.000	3.6781	100.0000	5.72E+00	5.55E-01	1.60E-01	3.71E-01	3.27E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

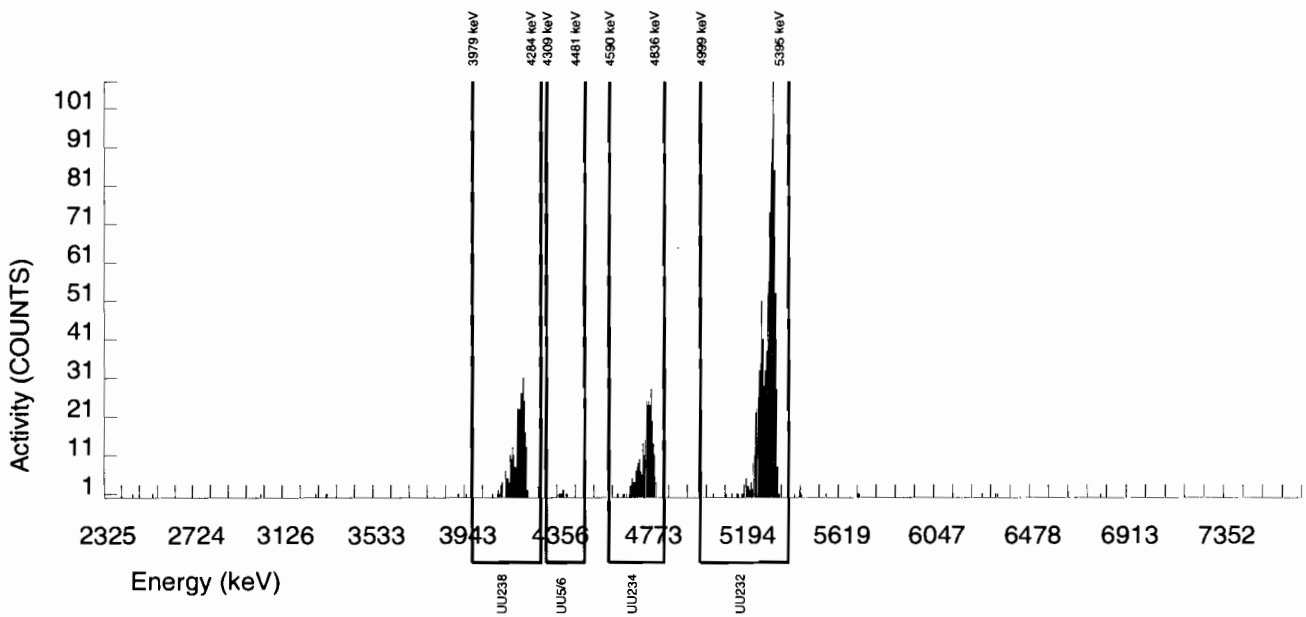

Radiochemistry Batch Checklist, Rev10

Batch# 962631 Product: γS / LANL Date: 3/24/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			n/a
Samples have been blank corrected (if required)			n/a
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			n/a
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			n/a
Smears Taken for Radioactive batches.			n/a
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			n/a
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			n/a
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			n/a
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			n/a
Aliquot Correction completed if required.			n/a
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: M Stamper 3/24/10

Secondary Review Performed By: [illegible] 3/25/10

4/1/10

Gamma Spec Que Sheet 1.G.-3/16/10

03/08/2010

Batch #:962631 **Analyst:** MXR1 **First Client DueDate**04/01/2010 **Internal Due Date:** 03/21/2010

Gamma Spike Isotope: Mixed Gamma **Spike Code:** Na **Expiration Date:** Na **Vol:** Na **Nominal Concentration:** Na
Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0 mL **Nominal Concentration:** Cs137-5.685 Co60-6.485
Initials: US **Prep Date:** 3/9/10 **Library:** SOLID **Witness:** Na Am241-16.29

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Wet/Dry Aliquot (1/B/F)	Detector	Sealing Date/Time (if Applicable)
248702001-1	RE46-10-13203	SAMPLE		LANL010	SOIL	02-MAR-10 12:00:00 RF	can	133.70	5	3/8/10
248702002-1	RE46-10-13202	SAMPLE		LANL010	SOIL	02-MAR-10 12:00:00 RF		113.61	15	3/8/10
248818001-1	RE46-10-13553	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		122.42	16	3/9/10
248818002-1	RE46-10-13549	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		121.17	5	
248818003-1	RE46-10-13551	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		128.87	18	
248818004-1	RE46-10-13550	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		119.44	1	
248818005-1	RE46-10-13548	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		113.15	16	
248818006-1	RE46-10-13546	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		125.16	20	
248818007-1	RE46-10-13552	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		114.31	17	
248818008-1	RE46-10-13547	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		133.63	21	
248818009-1	RE46-10-13556	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		102.58	23	
248824001-1	RE46-10-11926	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		103.87	29	
248824002-1	RE46-10-11925	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		128.93	4	
1202065185-1	MB	MB		QC ACCOUNT	SOIL	3/9/10 RF		133.70	6	
1202065186-1	DUP RE46-10-11926(248824001)	DUP		QC ACCOUNT	SOIL	03-MAR-10 12:00:00 RF		105.55	15	
1202065187-1	LCS	LCS		QC ACCOUNT	SOIL	3/9/10 RF		151.73	22	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: M. Stamps 3/24/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
962631	248702001	SAMPLE	23-MAR-10		Cerium-139	-0.01949	0.05367	0.050
					Cesium-134	0.08432	0.1035	0.100
					Sodium-22	0.02953	0.09131	0.080
962631	248702002	SAMPLE	23-MAR-10		Americium-241	-0.1635	0.592	0.200
					Cerium-139	-0.01591	0.07347	0.050
					Europium-152	-0.08195	0.2165	0.200
					Sodium-22	0.02703	0.1091	0.080
					Thorium-234	1.67	4.791	2.00
					Tin-113	0.06093	0.1188	0.100
962631	248818001	SAMPLE	23-MAR-10		Americium-241	-0.202	0.4285	0.200
					Cerium-139	-0.03331	0.05437	0.050
					Cesium-134	0.07987	0.1002	0.100
					Sodium-22	-0.05477	0.08189	0.080
					Thorium-234	1.507	3.631	2.00
962631	248818002	SAMPLE	23-MAR-10		Cerium-139	-0.00331	0.06202	0.050
					Europium-152	-0.0237	0.2078	0.200
					Sodium-22	0.02973	0.1029	0.080
962631	248818003	SAMPLE	23-MAR-10		Americium-241	-0.07452	0.295	0.200
					Thorium-234	1.813	2.682	2.00
962631	248818004	SAMPLE	23-MAR-10		Americium-241	-0.1378	0.3224	0.200
					Cerium-139	0.02073	0.06375	0.050
					Cesium-134	0.07912	0.1076	0.100
					Europium-152	0.07322	0.2063	0.200
					Sodium-22	0.02654	0.09217	0.080
					Thorium-234	1.849	3.104	2.00
962631	248818005	SAMPLE	23-MAR-10		Americium-241	0.04214	0.253	0.200
					Cerium-139	-0.00772	0.05172	0.050
					Sodium-22	0.00954	0.08094	0.080
962631	248818006	SAMPLE	23-MAR-10					
962631	248818007	SAMPLE	23-MAR-10		Cerium-139	-0.00718	0.05891	0.050
					Cesium-134	0.09814	0.1284	0.100
					Cobalt-60	0.01713	0.102	0.100
					Sodium-22	-0.00632	0.09898	0.080
962631	248818008	SAMPLE	23-MAR-10		Cesium-134	0.1051	0.1159	0.100
					Sodium-22	-0.06933	0.0994	0.080
962631	248818009	SAMPLE	23-MAR-10		Americium-241	-0.1469	0.4262	0.200
					Cerium-139	0.00169	0.06644	0.050
					Cesium-134	0.07345	0.1164	0.100
					Europium-152	0.06583	0.2179	0.200
					Sodium-22	-0.0248	0.1044	0.080
					Thorium-234	0.8359	3.643	2.00
					Tin-113	-0.04453	0.1045	0.100
962631	248824001	SAMPLE	23-MAR-10		Americium-241	0.07572	0.3604	0.200
					Cerium-139	0.02796	0.0711	0.050
					Europium-152	0.1204	0.2152	0.200

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
962631	248824001	SAMPLE	23-MAR-10		Mercury-203	0.1018	0.1023	0.100
					Sodium-22	-0.03604	0.09398	0.080
962631	248824002	SAMPLE	23-MAR-10		Americium-241	0.02526	0.4029	0.200
					Cerium-139	0.04107	0.05231	0.050
962631	1202065185	MB	23-MAR-10					
962631	1202065186	DUP	23-MAR-10		Americium-241	0.3026	0.5921	0.200
					Cerium-139	0.00175	0.07846	0.050
					Europium-152	-0.06564	0.2356	0.200
					Sodium-22	-0.06097	0.1016	0.080
					Tin-113	0.01325	0.1202	0.100
					Uranium-235	-0.07759	0.5243	0.500
962631	1202065187	LCS	23-MAR-10		Cerium-139	-0.00872	0.07594	0.050
					Cesium-134	0.05304	0.1363	0.100
					Europium-152	0.1315	0.2694	0.200
					Mercury-203	0.02032	0.1069	0.100
					Ruthenium-106	0.1129	0.9141	0.800
					Thorium-234	-0.7001	3.198	2.00
					Tin-113	0.01181	0.132	0.100
					Uranium-235	-0.08175	0.5099	0.500

Gamma Review Report based on Result > MDA for Batch:962631

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248702001	02-MAR-10 12:00	23-MAR-10 08:52	20.9	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		1.692	0.1961	pCi/g	0.2275	N	910.9	3	1.412	IDENTIFIED	9.702	☐	
Annihilation Rad.	HE	0.1307	0.04068	pCi/g	0.05323	N	510.1	1	2.015	IDENTIFIED	30.95	☐	
Bismuth-211 INT		3.953	0.2825	pCi/g	0.3403	Y	351.5	2	1.186	IDENTIFIED	5.95	☑ UI	
Bismuth-214 ✓		1.288	0.1089	pCi/g	0.1194	0.200	608.8	3	1.638	IDENTIFIED	7.326	☐	
Cadmium-109 INT		2.537	0.4253	pCi/g	0.9936	Y	89.31	1	1.452	IDENTIFIED	16.3	☑ UI	
Cadmium-115	HE	48.31	37.9	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cerium-143		20060	2970	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Gross Gamma		8.326	1.23	pCi/g	4.056	N		0				☐	
Lead-210	HE	1.391	0.3857	pCi/g	0.8489	N	45.85	1	1.025	IDENTIFIED	27.46	☐	
Lead-212 ✓		1.622	0.1052	pCi/g	0.09513	0.100	238.2	2	1.282	IDENTIFIED	3.566	☐	
Lead-214 ✓		1.435	0.1099	pCi/g	0.1288	0.100	351.5	2	1.186	IDENTIFIED	5.95	☐	
Neptunium-237 INT nr		1.253	0.1788	pCi/g	0.2861	N	86.71	2	1.385	IDENTIFIED	8.894	☐	
Niobium-95m		1.213	0.1153	pCi/g	0.3626	N	0	4	0	NOT_IDENTI	0	☐	
Potassium-40 ✓		21.53	1.037	pCi/g	0.6286	1.00	1460	1	2.054	IDENTIFIED	3.677	☐	
Promethium-149	HE	155.4	281.2	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Radium-224 INT		5.125	0.7455	pCi/g	1.02	Y	241.2	1	2.024	IDENTIFIED	13.7	☑ UI	
Radium-226 ✓		1.288	0.1089	pCi/g	0.1194	Y	608.8	3	1.638	IDENTIFIED	7.326	☐	
Radium-228 ✓		1.692	0.1961	pCi/g	0.2275	0.500	910.9	3	1.412	IDENTIFIED	9.702	☐	
Thallium-208 ✓		0.4926	0.04859	pCi/g	0.06203	0.080	582.8	1	1.432	IDENTIFIED	9.153	☐	
Thorium-228 nr		1.622	0.1052	pCi/g	0.09513	N	238.2	2	1.282	IDENTIFIED	3.566	☐	
Thorium-230 nr		1.288	0.1034	pCi/g	0.1194	N	608.8	3	1.638	IDENTIFIED	7.326	☐	
Thorium-232 nr		1.692	0.1961	pCi/g	0.2275	N	910.9	3	1.412	IDENTIFIED	9.702	☐	
Thorium-234 ✓		1.675	0.5328	pCi/g	1.106	2.00	62.38	2	0.9936	IDENTIFIED	30.49	☐	
Tin-126 INT nr		0.4199	0.04064	pCi/g	0.09617	N	86.71	2	1.385	IDENTIFIED	8.894	☐	
Total Uranium		5.0254	1.59E-06	ug/g	1.6485	N		0				☐	
Uranium-238	HE	1.675	0.5328	pCi/g	1.106	N	62.38	2	0.9936	IDENTIFIED	30.49	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248702002	02-MAR-10 12:00	23-MAR-10 12:23	21	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		2.422	0.2842	pCi/g	0.3383	N	911.2	3	1.878	IDENTIFIED	10.05	☐	
Annihilation Rad.	HE	0.137	0.04342	pCi/g	0.06758	N	510.6	1	1.701	IDENTIFIED	31.4	☐	
Bismuth-211 INT		4.017	0.3436	pCi/g	0.4322	Y	351.9	2	1.289	IDENTIFIED	6.96	☑ UI	
Bismuth-214 ✓		1.475	0.1379	pCi/g	0.1519	0.200	609.3	3	1.528	IDENTIFIED	7.91	☐	
Cadmium-109 INT		2.269	0.7542	pCi/g	2.216	Y	87.21	2	0.9653	IDENTIFIED	32.66	☑ UI	
Cerium-143		17630	3231	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-134 LA		0.1607	0.04427	pCi/g	0.125	0.100	0	5	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		10.58	1.826	pCi/g	4.652	N		0				☐	
Iodine-133	HE	1.42E+05	4.46E+05	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-212 ✓		2.433	0.1672	pCi/g	0.128	0.100	238.7	2	1.32	IDENTIFIED	3.399	☐	
Lead-214 ✓		1.458	0.131	pCi/g	0.1711	0.100	351.9	2	1.289	IDENTIFIED	6.96	☐	
Neptunium-237	HE	0.656	0.2286	pCi/g	0.6202	N	87.21	2	0.9653	IDENTIFIED	32.66	☐	
Niobium-95m	HE	0.5605	0.1204	pCi/g	0.3837	N	0	5	0	NOT_IDENTI	0	☐	
Potassium-40 ✓		29.09	1.757	pCi/g	0.6942	1.00	1460	1	2.139	IDENTIFIED	3.512	☐	

Radium-224 INT	5.684	1.035	pCi/g	1.371	Y	241.6	1	2.017	IDENTIFIED	17.35	☑	UI	
Radium-226 ✓	1.475	0.1379	pCi/g	0.1519	Y	609.3	3	1.528	IDENTIFIED	7.91	☐		
Radium-228 ✓	2.422	0.2842	pCi/g	0.3383	0.500	911.2	3	1.878	IDENTIFIED	10.05	☐		
Strontium-85 LA	0.133	0.03248	pCi/g	0.1069	Y	0	5	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✓	0.671	0.06015	pCi/g	0.0801	0.080	583.3	1	1.384	IDENTIFIED	7.71	☐		
Thorium-228 nr	2.433	0.1672	pCi/g	0.128	N	238.7	2	1.32	IDENTIFIED	3.399	☐		
Thorium-230 nr	1.475	0.1323	pCi/g	0.1519	N	609.3	3	1.528	IDENTIFIED	7.91	☐		
Thorium-232 nr	2.422	0.2842	pCi/g	0.3383	N	911.2	3	1.878	IDENTIFIED	10.05	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818001	03-MAR-10 12:00	23-MAR-10 12:59	20	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228 ✓ nr	2.179	0.2373	pCi/g	0.2442	N	911.8	3	1.65	IDENTIFIED	8.952	☐		
Annihilation Rad.	0.1793	0.03834	pCi/g	0.05036	N	510.8	1	1.815	IDENTIFIED	20.96	☐		
Bismuth-211 INT	5.389	0.3762	pCi/g	0.356	Y	352	2	1.398	IDENTIFIED	5.169	☑	UI	
Bismuth-212 HE	1.834	0.4542	pCi/g	1.327	N	0	4	0	FAIL_ABUND	0	☐		
Bismuth-214 ✓	1.5	0.1248	pCi/g	0.1243	0.200	609.8	3	1.423	IDENTIFIED	6.708	☐		
Cadmium-109 INT	4.295	0.6853	pCi/g	1.511	Y	87.14	3	1.235	IDENTIFIED	14.94	☑	UI	
Cerium-143	7264	1376	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐		
Gross Gamma	12.17	1.694	pCi/g	4.744	N		0				☐		
Iodine-135	1.22E+21	0	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐		
Lead-212 ✓	2.01	0.1296	pCi/g	0.1132	0.100	238.6	2	1.165	IDENTIFIED	3.536	☐		
Lead-214 ✓	1.956	0.1468	pCi/g	0.1295	0.100	352	2	1.398	IDENTIFIED	5.169	☐		
Neptunium-237 INT nr	1.243	0.2374	pCi/g	0.5115	N	87.14	3	1.235	IDENTIFIED	14.94	☐		
Potassium-40 ✓	38.94	2.131	pCi/g	0.5698	1.00	1462	1	2.304	IDENTIFIED	2.699	☐		
Radium-224 INT	4.348	0.5363	pCi/g	1.468	Y	241.7	1	1.975	IDENTIFIED	11.33	☑	UI	
Radium-226 ✓	1.5	0.1248	pCi/g	0.1243	Y	609.8	3	1.423	IDENTIFIED	6.708	☐		
Radium-228 ✓	2.179	0.2373	pCi/g	0.2442	0.500	911.8	3	1.65	IDENTIFIED	8.952	☐		
Sodium-24 HE	2.02E+07	9.76E+07	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐		
Thallium-208 ✓	0.7185	0.05204	pCi/g	0.06379	0.080	583.5	1	1.622	IDENTIFIED	5.672	☐		
Thorium-228 nr	2.01	0.1296	pCi/g	0.1132	N	238.6	2	1.165	IDENTIFIED	3.536	☐		
Thorium-230 nr	1.5	0.1183	pCi/g	0.1243	N	609.8	3	1.423	IDENTIFIED	6.708	☐		
Thorium-232 nr	2.179	0.2373	pCi/g	0.2442	N	911.8	3	1.65	IDENTIFIED	8.952	☐		
Tin-126 nr	0.4167	0.06649	pCi/g	0.1477	N	87.14	3	1.235	IDENTIFIED	14.94	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818002	03-MAR-10 12:00	23-MAR-10 13:02	20	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228 ✓ nr	2.187	0.2509	pCi/g	0.312	N	910.8	3	1.417	IDENTIFIED	9.554	☐		
Annihilation Rad.	0.1778	0.03772	pCi/g	0.06241	N	510.6	1	1.703	IDENTIFIED	20.97	☐		
Bismuth-211 INT	4.766	0.3649	pCi/g	0.4194	Y	351.5	2	1.318	IDENTIFIED	6.556	☑	UI	
Bismuth-212 LA	2.543	0.5232	pCi/g	1.399	N	0	8	0	FAIL_ABUND	0	☐		
Bismuth-214 ✓	1.438	0.1275	pCi/g	0.1653	0.200	609	3	1.373	IDENTIFIED	7.799	☐		
Cadmium-109 INT	3.124	0.4595	pCi/g	1.354	Y	86.75	3	0.9615	IDENTIFIED	14.21	☑	UI	
Cerium-143	18480	2600	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Cesium-134 LA	0.125	0.04481	pCi/g	0.1222	0.100	0	8	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	11.49	1.614	pCi/g	5.912	N		0				☐		
Iodine-135	5.18E+20	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Lead-210 HE	1.882	0.5411	pCi/g	1.03	N	45.63	1	1.101	IDENTIFIED	28.49	☐		

Lead-212 ✓	2.151	0.134	pCi/g	0.113	0.100	238.3	2	1.246	IDENTIFIED	3.077	☐	
Lead-214 ✓	1.73	0.1408	pCi/g	0.1526	0.100	351.5	2	1.318	IDENTIFIED	6.556	☐	
Neptunium-237 nr	0.9045	0.1634	pCi/g	0.3904	N	86.75	3	0.9615	IDENTIFIED	14.21	☐	
Niobium-95m	1.378	0.129	pCi/g	0.3976	N	0	8	0	NOT_IDENTI	0	☐	
Potassium-40 ✓	37.65	1.621	pCi/g	0.7031	1.00	1460	1	2.041	IDENTIFIED	2.977	☐	
Promethium-149 HE	358.4	250.7	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Radium-224 INT	5.795	0.7868	pCi/g	1.211	Y	241.3	1	1.83	IDENTIFIED	12.67	☑ UI	
Radium-226 ✓	1.438	0.1275	pCi/g	0.1653	Y	609	3	1.373	IDENTIFIED	7.799	☐	
Radium-228 ✓	2.187	0.2509	pCi/g	0.312	0.500	910.8	3	1.417	IDENTIFIED	9.554	☐	
Sodium-24 HE	2.43E+08	1.29E+08	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Strontium-85 LA	0.1181	0.02736	pCi/g	0.09244	Y	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓	0.59	0.06143	pCi/g	0.07753	0.080	582.9	1	1.539	IDENTIFIED	9.744	☐	
Thorium-228 nr	2.151	0.134	pCi/g	0.113	N	238.3	2	1.246	IDENTIFIED	3.077	☐	
Thorium-230 nr	1.438	0.1218	pCi/g	0.1653	N	609	3	1.373	IDENTIFIED	7.799	☐	
Thorium-232 nr	2.187	0.2509	pCi/g	0.312	N	910.8	3	1.417	IDENTIFIED	9.554	☐	
Thorium-234 ✓	2.417	0.6136	pCi/g	1.265	2.00	62.75	2	1.537	IDENTIFIED	23.71	☐	
Tin-126 nr	0.3031	0.04459	pCi/g	0.1312	N	86.75	3	0.9615	IDENTIFIED	14.21	☐	
Total Uranium	7.233	1.83E-06	ug/g	1.8848	N		0				☐	
Uranium-238 HE	2.417	0.6136	pCi/g	1.265	N	62.75	2	1.537	IDENTIFIED	23.71	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818003	03-MAR-10 12:00	23-MAR-10 13:05	20	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr	1.818	0.192	pCi/g	0.2011	N	910.7	3	1.907	IDENTIFIED	8.1	☐	
Annihilation Rad.	0.09908	0.02423	pCi/g	0.04043	N	510.5	1	1.776	IDENTIFIED	24.23	☐	
Bismuth-211 INT	3.774	0.2106	pCi/g	0.2658	Y	351.8	2	1.384	IDENTIFIED	4.564	☑ UI	
Bismuth-212 ✓ nr	1.553	0.4163	pCi/g	0.6154	N	727.2	1	1.78	IDENTIFIED	26.08	☐	
Bismuth-214 ✓	1.045	0.08124	pCi/g	0.09997	0.200	609	3	1.58	IDENTIFIED	6.346	☐	
Cadmium-109 INT	3.702	0.4873	pCi/g	1.28	Y	87.26	3	0.9561	IDENTIFIED	12.33	☑ UI	
Cerium-143	9939	1415	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-134 LA	0.08143	0.03625	pCi/g	0.07605	0.100	0	6	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135 HE	0.3465	0.07636	pCi/g	0.2508	N	0	6	0	NOT_IDENTI	0	☐	
Gross Gamma	9.651	1.302	pCi/g	2.567	N		0				☐	
Iodine-133 HE	34660	1.22E+05	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212 ✓	1.387	0.07776	pCi/g	0.1048	0.100	238.5	2	1.19	IDENTIFIED	4.293	☐	
Lead-214 ✓	1.37	0.08525	pCi/g	0.09665	0.100	351.8	2	1.384	IDENTIFIED	4.564	☐	
Neptunium-237 nr	1.072	0.1804	pCi/g	0.348	N	87.26	3	0.9561	IDENTIFIED	12.33	☐	
Potassium-40 ✓	37.64	1.627	pCi/g	0.4532	1.00	1460	1	2.393	IDENTIFIED	2.065	☐	
Radium-224 INT	3.199	0.3693	pCi/g	1.122	Y	241.8	1	1.755	IDENTIFIED	11.2	☑ UI	
Radium-226 ✓	1.045	0.08124	pCi/g	0.09997	Y	609	3	1.58	IDENTIFIED	6.346	☐	
Radium-228 ✓	1.818	0.192	pCi/g	0.2011	0.500	910.7	3	1.907	IDENTIFIED	8.1	☐	
Strontium-85 LA	0.08688	0.01782	pCi/g	0.06036	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	9.58E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208 ✓	0.5426	0.03957	pCi/g	0.04494	0.080	583	1	1.85	IDENTIFIED	6.155	☐	
Thorium-228 nr	1.387	0.07776	pCi/g	0.1048	N	238.5	2	1.19	IDENTIFIED	4.293	☐	
Thorium-230 nr	1.045	0.07642	pCi/g	0.09996	N	609	3	1.58	IDENTIFIED	6.346	☐	
Thorium-232 nr	1.818	0.192	pCi/g	0.2011	N	910.7	3	1.907	IDENTIFIED	8.1	☐	
Tin-126 nr	0.3592	0.04728	pCi/g	0.1124	N	87.26	3	0.9561	IDENTIFIED	12.33	☐	
Total Uranium	5.3799	2.25E-06	ug/g	3.9929	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818004	03-MAR-10 12:00	23-MAR-10 13:33	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		2.245	0.248	pCi/g	0.2587	N	911.8	3	1.444	IDENTIFIED	9.304	☐	
Annihilation Rad.	HE	0.09448	0.04036	pCi/g	0.05833	N	511.2	1	1.855	IDENTIFIED	42.51	☐	
Bismuth-211 INT		4.831	0.3412	pCi/g	0.3868	Y	352.3	2	1.39	IDENTIFIED	5.41	☑ ✓ UI	
Bismuth-212	HE	1.703	0.4944	pCi/g	1.364	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.388	0.1257	pCi/g	0.1336	0.200	609.8	3	1.507	IDENTIFIED	7.585	☐	
Cadmium-109 INT		3.419	0.6327	pCi/g	1.903	Y	87.19	3	1.187	IDENTIFIED	17.9	☑ ✓ UI	
Cerium-143		5161	1281	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Gross Gamma		10.81	1.572	pCi/g	4.243	N		0				☐	
Iodine-133	HE	1.41E+05	1.85E+05	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-212 ✓		1.935	0.1209	pCi/g	0.1138	0.100	239.1	2	1.17	IDENTIFIED	3.627	☐	
Lead-214 ✓		1.753	0.1329	pCi/g	0.1477	0.100	352.3	2	1.39	IDENTIFIED	5.41	☐	
Neptunium-237 nr		0.9899	0.2105	pCi/g	0.5076	N	87.19	3	1.187	IDENTIFIED	17.9	☐	
Potassium-40 ✓		34.44	1.868	pCi/g	0.5348	1.00	1461	1	2.023	IDENTIFIED	3.11	☐	
Radium-224 INT		5.673	0.8542	pCi/g	1.219	Y	242	1	1.879	IDENTIFIED	14.36	☑ ✓ UI	
Radium-226 ✓		1.388	0.1257	pCi/g	0.1336	Y	609.8	3	1.507	IDENTIFIED	7.585	☐	
Radium-228 ✓		2.245	0.248	pCi/g	0.2587	0.500	911.8	3	1.444	IDENTIFIED	9.304	☐	
Sodium-24	HE	3.38E+07	9.82E+07	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Strontium-85 LA		0.1084	0.03054	pCi/g	0.09904	Y	0	5	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓		0.6121	0.05514	pCi/g	0.07032	0.080	583.7	1	1.278	IDENTIFIED	7.785	☐	
Thorium-228 nr		1.935	0.1209	pCi/g	0.1138	N	239.1	2	1.17	IDENTIFIED	3.627	☐	
Thorium-230 nr		1.388	0.1203	pCi/g	0.1336	N	609.8	3	1.507	IDENTIFIED	7.585	☐	
Thorium-232 nr		2.245	0.248	pCi/g	0.2587	N	911.8	3	1.444	IDENTIFIED	9.304	☐	
Tin-126 nr		0.3318	0.06139	pCi/g	0.1848	N	87.19	3	1.187	IDENTIFIED	17.9	☐	
Total Uranium		5.499	2.69E-06	ug/g	4.6206	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818005	03-MAR-10 12:00	23-MAR-10 13:33	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		2.648	0.2328	pCi/g	0.2486	N	910.8	3	1.667	IDENTIFIED	6.327	☐	
Annihilation Rad.		0.1548	0.03786	pCi/g	0.04678	N	510.9	1	1.509	IDENTIFIED	23.98	☐	
Bismuth-211 INT		4.394	0.3408	pCi/g	0.3254	Y	351.7	2	1.106	IDENTIFIED	5.509	☑ ✓ UI	
Bismuth-212 ✓ nr		2.193	0.4075	pCi/g	0.9146	N	727	1	1.04	IDENTIFIED	17.45	☐	
Bismuth-214 ✓		1.195	0.1073	pCi/g	0.1279	0.200	609.1	3	1.271	IDENTIFIED	7.246	☐	
Cadmium-109 INT		4.609	0.5797	pCi/g	1.194	Y	87.15	3	1.222	IDENTIFIED	11.64	☑ ✓ UI	
Cadmium-115	HE	23.75	26.91	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cerium-143		5979	1262	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-134 LA		0.1154	0.0405	pCi/g	0.1079	0.100	0	5	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Europium-155	HE	0.2536	0.07335	pCi/g	0.176	N	105.3	1	1.325	IDENTIFIED	28.59	☐	
Gross Gamma		11.87	1.672	pCi/g	4.093	N		0				☐	
Iodine-133	HE	22900	1.59E+05	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-212 ✓		1.974	0.1331	pCi/g	0.09341	0.100	238.5	2	0.9514	IDENTIFIED	3.197	☐	
Lead-214 ✓		1.595	0.1313	pCi/g	0.1255	0.100	351.7	2	1.106	IDENTIFIED	5.509	☐	
Neptunium-237 nr		1.334	0.2185	pCi/g	0.3513	N	87.15	3	1.222	IDENTIFIED	11.64	☐	
Potassium-40 ✓		41.04	2.097	pCi/g	0.5373	1.00	1460	1	1.944	IDENTIFIED	2.609	☐	
Radium-224 INT		4.301	0.5889	pCi/g	1.001	Y	241.4	1	1.519	IDENTIFIED	12.53	☑ ✓ UI	
Radium-226 ✓		1.195	0.1073	pCi/g	0.1279	Y	609.1	3	1.271	IDENTIFIED	7.246	☐	
Radium-228 ✓		2.648	0.2328	pCi/g	0.2486	0.500	910.8	3	1.667	IDENTIFIED	6.327	☐	

Tellurium-125m	HE	18.48	5.439	pCi/g	18.02	N	0	5	0	NOT_IDENTI	0	☐
Thallium-208 ✓		0.5786	0.05577	pCi/g	0.06189	0.080	583	1	1.379	IDENTIFIED	8.27	☐
Thorium-228 nr		1.974	0.1331	pCi/g	0.09341	N	238.5	2	0.9514	IDENTIFIED	3.197	☐
Thorium-230 nr		1.195	0.1026	pCi/g	0.1279	N	609.1	3	1.271	IDENTIFIED	7.246	☐
Thorium-232 nr		2.648	0.2328	pCi/g	0.2486	N	910.8	3	1.667	IDENTIFIED	6.327	☐
Thorium-234 ✓		2.623	0.9397	pCi/g	2.091	2.00	63.22	2	0.6979	IDENTIFIED	34.69	☐
Tin-126 nr		0.4472	0.05624	pCi/g	0.1164	N	87.15	3	1.222	IDENTIFIED	11.64	☐
Total Uranium		7.8568	2.80E-06	ug/g	3.113	N		0				☐
Uranium-238	HE	2.623	0.9397	pCi/g	2.091	N	63.22	2	0.6979	IDENTIFIED	34.69	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818006	03-MAR-10 12:00	23-MAR-10 13:34	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		1.635	0.176	pCi/g	0.2394	N	911.8	3	1.327	IDENTIFIED	8.743	☐	
Annihilation Rad.		0.1192	0.03518	pCi/g	0.04586	N	511.3	1	2.026	IDENTIFIED	29.14	☐	
Bismuth-211 INT		3.534	0.2684	pCi/g	0.3073	Y	352.1	2	1.201	IDENTIFIED	5.9	☑ UI	
Bismuth-212 LA		2.062	0.4095	pCi/g	1.103	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.146	0.09791	pCi/g	0.1067	0.200	609.7	3	1.391	IDENTIFIED	6.469	☐	
Cadmium-109 INT		2.838	0.4261	pCi/g	1.329	Y	87.29	3	1.258	IDENTIFIED	14.26	☑ UI	
Cerium-143		5856	1136	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134 LA		0.1043	0.02429	pCi/g	0.09191	0.100	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		9.818	1.393	pCi/g	3.686	N		0				☐	
Iodine-133	HE	2.25E+05	1.48E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212 ✓		1.527	0.09708	pCi/g	0.08824	0.100	238.8	2	1.082	IDENTIFIED	3.449	☐	
Lead-214 ✓		1.282	0.1036	pCi/g	0.1118	0.100	352.1	2	1.201	IDENTIFIED	5.9	☐	
Neptunium-237 nr		0.8216	0.1504	pCi/g	0.3073	N	87.29	3	1.258	IDENTIFIED	14.26	☐	
Potassium-40 ✓		36.77	1.865	pCi/g	0.4628	1.00	1462	1	1.842	IDENTIFIED	2.591	☐	
Promethium-149		436.5	202.8	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Radium-224 INT		4.336	0.5802	pCi/g	0.9455	Y	241.6	1	1.706	IDENTIFIED	12.48	☑ UI	
Radium-226 ✓		1.146	0.09791	pCi/g	0.1067	Y	609.7	3	1.391	IDENTIFIED	6.469	☐	
Radium-228 ✓		1.635	0.176	pCi/g	0.2394	0.500	911.8	3	1.327	IDENTIFIED	8.743	☐	
Sodium-24	HE	2.64E+07	7.69E+07	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Strontium-85 LA		0.08419	0.02133	pCi/g	0.07732	Y	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓		0.4587	0.0474	pCi/g	0.05786	0.080	583.6	1	1.344	IDENTIFIED	8.967	☐	
Thorium-228 nr		1.527	0.09708	pCi/g	0.08824	N	238.8	2	1.082	IDENTIFIED	3.449	☐	
Thorium-230 nr		1.146	0.09313	pCi/g	0.1067	N	609.7	3	1.391	IDENTIFIED	6.469	☐	
Thorium-232 nr		1.635	0.176	pCi/g	0.2394	N	911.8	3	1.327	IDENTIFIED	8.743	☐	
Thorium-234 ✓		2.299	0.7954	pCi/g	1.645	2.00	63.76	2	1.006	IDENTIFIED	33.44	☐	
Tin-126 nr		0.2754	0.04134	pCi/g	0.1296	N	87.29	3	1.258	IDENTIFIED	14.26	☐	
Total Uranium		6.8817	2.37E-06	ug/g	2.4501	N		0				☐	
Uranium-238	HE	2.299	0.7954	pCi/g	1.645	N	63.76	2	1.006	IDENTIFIED	33.44	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818007	03-MAR-10 12:00	23-MAR-10 13:54	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		2.26	0.2609	pCi/g	0.3614	N	911.4	3	1.621	IDENTIFIED	9.958	☐	
Annihilation Rad.	HE	0.1169	0.04555	pCi/g	0.05922	N	511	1	1.643	IDENTIFIED	38.71	☐	
Bismuth-211 INT		3.722	0.3368	pCi/g	0.4327	Y	351.9	2	1.106	IDENTIFIED	7.755	☑ UI	
Bismuth-212	HE	2.805	0.6396	pCi/g	1.752	N	0	3	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.08	0.1276	pCi/g	0.1472	0.200	609.4	3	1.769	IDENTIFIED	10.66	☐	

Cadmium-109 int		4.975	0.5398	pCi/g	0.9812	Y	87.29	3	1.119	IDENTIFIED	9.691	☑ ui	
Cadmium-115	HE	22.15	34.63	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Cerium-143		4289	1166	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Gross Gamma		10.69	1.487	pCi/g	3.577	N		0				☐	
Lead-212 ✓		2.001	0.1237	pCi/g	0.1076	0.100	238.8	2	1.095	IDENTIFIED	3.54	☐	
Lead-214 ✓		1.351	0.1278	pCi/g	0.1594	0.100	351.9	2	1.106	IDENTIFIED	7.755	☐	
Neptunium-237 nr		1.44	0.2173	pCi/g	0.2828	N	87.29	3	1.119	IDENTIFIED	9.691	☐	
Potassium-40 ✓		37.35	2.109	pCi/g	0.8407	1.00	1461	1	2.137	IDENTIFIED	3.487	☐	
Radium-224 int		5.909	0.9135	pCi/g	1.154	Y	241.7	1	2.003	IDENTIFIED	14.78	☑ ui	
Radium-226 ✓		1.08	0.1276	pCi/g	0.1472	Y	609.4	3	1.769	IDENTIFIED	10.66	☐	
Radium-228 ✓		2.26	0.2609	pCi/g	0.3614	0.500	911.4	3	1.621	IDENTIFIED	9.958	☐	
Thallium-208 ✓		0.545	0.05806	pCi/g	0.08051	0.080	583.4	1	1.143	IDENTIFIED	9.549	☐	
Thorium-228 nr		2.001	0.1237	pCi/g	0.1076	N	238.8	2	1.095	IDENTIFIED	3.54	☐	
Thorium-230 nr		1.08	0.1244	pCi/g	0.1472	N	609.4	3	1.769	IDENTIFIED	10.66	☐	
Thorium-232 nr		2.26	0.2609	pCi/g	0.3614	N	911.4	3	1.621	IDENTIFIED	9.958	☐	
Thorium-234 ✓		1.778	0.6677	pCi/g	1.152	2.00	63.53	2	1.041	IDENTIFIED	36.34	☐	
Tin-126 nr		0.4827	0.05237	pCi/g	0.09507	N	87.29	3	1.119	IDENTIFIED	9.691	☐	
Total Uranium		5.3548	1.99E-06	ug/g	1.7168	N		0				☐	
Uranium-238	HE	1.778	0.6677	pCi/g	1.152	N	63.53	2	1.041	IDENTIFIED	36.34	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818008	03-MAR-10 12:00	23-MAR-10 14:24	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		1.914	0.2075	pCi/g	0.2909	N	910.8	3	1.82	IDENTIFIED	9.124	☐	
Annihilation Rad.		0.1652	0.04399	pCi/g	0.05055	N	510.5	1	1.829	IDENTIFIED	26.2	☐	
Bismuth-211 int		3.709	0.2906	pCi/g	0.3204	Y	351.7	2	1.059	IDENTIFIED	6.406	☑ ui	
Bismuth-212	HE	2.241	0.5605	pCi/g	1.428	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.318	0.1272	pCi/g	0.1362	0.200	609	3	1.346	IDENTIFIED	7.62	☐	
Cadmium-109 int		2.927	0.3765	pCi/g	0.8389	Y	87.14	3	0.9226	IDENTIFIED	11.99	☑ ui	
Cadmium-115	HE	6.371	27.33	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cerium-143		2608	959.3	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Europium-155	HE	0.1231	0.05661	pCi/g	0.1198	N	105	1	1.348	IDENTIFIED	45.68	☐	
Gross Gamma		9.944	1.412	pCi/g	3.22	N		0				☐	
Iodine-133	HE	18160	1.62E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Iodine-135		5.75E+20	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-210	HE	1.003	0.2744	pCi/g	0.633	N	46.6	1	0.7603	IDENTIFIED	26.96	☐	
Lead-212 ✓		1.458	0.09977	pCi/g	0.09866	0.100	238.4	2	0.9436	IDENTIFIED	4.679	☐	
Lead-214 ✓		1.346	0.1118	pCi/g	0.1166	0.100	351.7	2	1.059	IDENTIFIED	6.406	☐	
Neptunium-237 nr		0.8472	0.1406	pCi/g	0.2149	N	87.14	3	0.9226	IDENTIFIED	11.99	☐	
Potassium-40 ✓		37.1	1.984	pCi/g	0.7074	1.00	1460	1	2.128	IDENTIFIED	3.222	☐	
Promethium-149	HE	170.3	207.6	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Radium-224 int		2.813	0.5998	pCi/g	1.271	Y	241.4	1	1.472	IDENTIFIED	20.85	☑ ui	
Radium-226 ✓		1.318	0.1272	pCi/g	0.1362	Y	609	3	1.346	IDENTIFIED	7.62	☐	
Radium-228 ✓		1.914	0.2075	pCi/g	0.2909	0.500	910.8	3	1.82	IDENTIFIED	9.124	☐	
Sodium-24	HE	7.22E+07	1.08E+08	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-208 ✓		0.5199	0.04949	pCi/g	0.0686	0.080	583	1	1.104	IDENTIFIED	7.812	☐	
Thorium-228 nr		1.458	0.09977	pCi/g	0.09866	N	238.4	2	0.9436	IDENTIFIED	4.679	☐	
Thorium-230 nr		1.318	0.1224	pCi/g	0.1362	N	609	3	1.346	IDENTIFIED	7.62	☐	
Thorium-232 nr ✓		1.914	0.2075	pCi/g	0.2909	N	910.8	3	1.82	IDENTIFIED	9.124	☐	
Thorium-234 ✓		1.848	0.4478	pCi/g	0.7839	2.00	63.38	2	0.9593	IDENTIFIED	22.5	☐	
Tin-126 nr		0.2839	0.03653	pCi/g	0.07413	N	87.14	3	0.9226	IDENTIFIED	11.99	☐	

Total Uranium	5.5174	1.33E-06	ug/g	1.1685	N		0				☐
Uranium-238 nr	1.848	0.4478	pCi/g	0.7839	N	63.38	2	0.9593	IDENTIFIED	22.5	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818009	03-MAR-10 12:00	23-MAR-10 14:25	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr	2.162	0.2545	pCi/g	0.3222	N	910.2	3	1.756	IDENTIFIED	10.16	☐	
Annihilation Rad.	0.1682	0.04918	pCi/g	0.06237	N	510.5	1	2.076	IDENTIFIED	29.09	☐	
Bismuth-211 INT	4.294	0.3101	pCi/g	0.4472	Y	351.4	2	1.351	IDENTIFIED	6.444	☑ UI	
Bismuth-212 HE	1.812	0.5554	pCi/g	1.523	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 LA	1.381	0.1106	pCi/g	0.3572	0.200	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cadmium-109 INT	4.01	0.7935	pCi/g	1.763	Y	87.2	3	1.549	IDENTIFIED	19.19	☑ UI	
Cerium-143	17870	2743	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Gross Gamma	10.6	1.463	pCi/g	3.681	N		0				☐	
Lead-212 ✓	1.957	0.1002	pCi/g	0.1205	0.100	238.3	2	1.185	IDENTIFIED	3.611	☐	
Lead-214 ✓	1.558	0.1205	pCi/g	0.1595	0.100	351.4	2	1.351	IDENTIFIED	6.444	☐	
Neptunium-237 nr	1.161	0.2599	pCi/g	0.5214	N	87.2	3	1.549	IDENTIFIED	19.19	☐	
Niobium-95m	0.7492	0.1163	pCi/g	0.3746	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40 ✓	35	1.796	pCi/g	0.8711	1.00	1459	1	2.122	IDENTIFIED	3.509	☐	
Promethium-149 HE	173.5	293.9	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Radium-224 INT	5.86	0.8242	pCi/g	1.292	Y	241.3	1	1.774	IDENTIFIED	13.78	☑ UI	
Radium-226 LA	1.381	0.1106	pCi/g	0.3572	Y	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Radium-228 ✓	2.162	0.2545	pCi/g	0.3222	0.500	910.2	3	1.756	IDENTIFIED	10.16	☐	
Thallium-208 ✓	0.6247	0.06061	pCi/g	0.07968	0.080	582.3	1	1.587	IDENTIFIED	9.145	☐	
Thorium-228 nr	1.957	0.1002	pCi/g	0.1205	N	238.3	2	1.185	IDENTIFIED	3.611	☐	
Thorium-230 nr	1.381	0.1044	pCi/g	0.3572	N	0	7	0	FAIL_ABUND	0	☐	
Thorium-232 nr	2.162	0.2545	pCi/g	0.3222	N	910.2	3	1.756	IDENTIFIED	10.16	☐	
Tin-126 nr	0.389	0.07698	pCi/g	0.1721	N	87.2	3	1.549	IDENTIFIED	19.19	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248824001	03-MAR-10 12:00	23-MAR-10 14:25	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr	2.321	0.2729	pCi/g	0.3006	N	911.2	3	1.629	IDENTIFIED	8.957	☐	
Annihilation Rad.	0.2108	0.04863	pCi/g	0.06309	N	510.6	1	1.868	IDENTIFIED	22.63	☐	
Bismuth-211 INT	5.221	0.3902	pCi/g	0.4397	Y	351.9	2	1.18	IDENTIFIED	5.74	☑ UI	
Bismuth-212 HE	2.165	0.4775	pCi/g	1.578	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓ MS 7/20/10	1.704	0.1357	pCi/g	0.1541	0.200	609.2	3	1.338	IDENTIFIED	6.157	☐	
Cadmium-109 ~~INT~~ LA	6.27	0.9692	pCi/g	2.355	Y	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Cerium-143	16440	2478	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-134 LA	0.1598	0.04686	pCi/g	0.1262	0.100	0	9	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	12.63	1.969	pCi/g	5.103	N		0				☐	
Iodine-133 HE	2.24E+05	2.01E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Iodine-135	1.55E+21	0	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212 ✓	2.334	0.1395	pCi/g	0.123	0.100	238.5	2	1.151	IDENTIFIED	3.3	☐	
Lead-214 ✓	1.895	0.151	pCi/g	0.1599	0.100	351.9	2	1.18	IDENTIFIED	5.74	☐	
Neptunium-237 nr	1.827	0.3589	pCi/g	0.5364	N	86.35	2	1.215	IDENTIFIED	15.95	☐	
Niobium-95m	1.086	0.1258	pCi/g	0.4008	N	0	9	0	NOT_IDENTI	0	☐	
Potassium-40 ✓	39.52	2.414	pCi/g	0.7697	1.00	1461	1	1.85	IDENTIFIED	2.781	☐	
Promethium-149 HE	475.3	299.3	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Radium-224 INT	5.861	0.7723	pCi/g	1.317	Y	241.5	1	1.735	IDENTIFIED	12.41	☑ UI	

Radium-226 ✓		1.704	0.1357	pCi/g	0.1541	Y	609.2	3	1.338	IDENTIFIED	6.157	☐	
Radium-228 ✓		2.321	0.2729	pCi/g	0.3006	0.500	911.2	3	1.629	IDENTIFIED	8.957	☐	
Strontium-85 LA		0.1349	0.0338	pCi/g	0.1074	Y	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓		0.6442	0.06636	pCi/g	0.0682	0.080	583.2	1	1.61	IDENTIFIED	9.175	☐	
Thorium-228 nr		2.334	0.1395	pCi/g	0.123	N	238.5	2	1.151	IDENTIFIED	3.3	☐	
Thorium-230 nr		1.704	0.128	pCi/g	0.1541	N	609.2	3	1.338	IDENTIFIED	6.157	☐	
Thorium-232 nr		2.321	0.2729	pCi/g	0.3006	N	911.2	3	1.629	IDENTIFIED	8.957	☐	
Thorium-234 ✓		3.103	1.24	pCi/g	3.061	2.00	63.32	2	1.105	IDENTIFIED	38.94	☐	
Tin-126 nr		0.6123	0.1017	pCi/g	0.1725	N	86.35	2	1.215	IDENTIFIED	15.95	☐	
Total Uranium		9.2993	3.69E-06	ug/g	4.5575	N		0				☐	
Uranium-238	HE	3.103	1.24	pCi/g	3.061	N	63.32	2	1.105	IDENTIFIED	38.94	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248824002	03-MAR-10 12:00	23-MAR-10 14:38	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		1.811	0.2191	pCi/g	0.2287	N	912	3	1.639	IDENTIFIED	10.71	☐	
Annihilation Rad.		0.1916	0.03235	pCi/g	0.0466	N	511.2	1	1.33	IDENTIFIED	16.65	☐	
Bismuth-211 INT		4.343	0.2886	pCi/g	0.3194	Y	352.1	2	1.186	IDENTIFIED	5.725	☑ ✓ UI	
Bismuth-212	HE	1.827	0.4015	pCi/g	1.249	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.311	0.09689	pCi/g	0.1115	0.200	609.7	3	1.351	IDENTIFIED	6.396	☐	
Cadmium-109 INT		4.038	0.6364	pCi/g	1.553	Y	87.26	3	1.243	IDENTIFIED	14.58	☑ ✓ UI	
Cadmium-115		84.69	27.69	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cerium-143		4570	1078	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-134 LA		0.1284	0.04857	pCi/g	0.09085	0.100	0	5	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		10.68	1.43	pCi/g	3.385	N		0				☐	
Lead-212 ✓		2.035	0.1039	pCi/g	0.09706	0.100	238.7	2	1.153	IDENTIFIED	3.117	☐	
Lead-214 ✓		1.576	0.1134	pCi/g	0.1162	0.100	352.1	2	1.186	IDENTIFIED	5.725	☐	
Neptunium-237 nr		1.169	0.2213	pCi/g	0.4681	N	87.26	3	1.243	IDENTIFIED	14.58	☐	
Potassium-40 ✓		34.55	1.565	pCi/g	0.5951	1.00	1462	1	2.018	IDENTIFIED	2.808	☐	
Radium-224 INT		4.899	0.729	pCi/g	1.04	Y	241.7	1	1.834	IDENTIFIED	14.5	☑ ✓ UI	
Radium-226 ✓		1.311	0.09689	pCi/g	0.1115	Y	609.7	3	1.351	IDENTIFIED	6.396	☐	
Radium-228 ✓		1.811	0.2191	pCi/g	0.2287	0.500	912	3	1.639	IDENTIFIED	10.71	☐	
Sodium-24		2.14E+08	9.84E+07	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Thallium-208 ✓		0.6351	0.04855	pCi/g	0.05885	0.080	583.5	1	1.355	IDENTIFIED	6.971	☐	
Thorium-228 nr		2.035	0.1039	pCi/g	0.09706	N	238.7	2	1.153	IDENTIFIED	3.117	☐	
Thorium-230 nr		1.311	0.09051	pCi/g	0.1115	N	609.7	3	1.351	IDENTIFIED	6.396	☐	
Thorium-232 nr		1.811	0.2191	pCi/g	0.2287	N	912	3	1.639	IDENTIFIED	10.71	☐	
Thorium-234 ✓		4.849	1.474	pCi/g	2.981	2.00	63.07	2	1.316	IDENTIFIED	28.7	☐	
Tin-126 nr		0.3917	0.06174	pCi/g	0.1518	N	87.26	3	1.243	IDENTIFIED	14.58	☐	
Total Uranium		14.509	4.39E-06	ug/g	4.4373	N		0				☐	
Uranium-238	HE	4.849	1.474	pCi/g	2.981	N	63.07	2	1.316	IDENTIFIED	28.7	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065185		23-MAR-10 14:39	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Cerium-143	HE	36.03	30.4	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Gross Gamma	HE	0.03444	0.01752	pCi/g	0.02892	N		0				☐	
Lead-212 LA us 3/24/10		0.079	0.04039	pCi/g	0.07152	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Radium-224 LA TPW		0.8401	0.4291	pCi/g	0.6389	Y	240.1	1	4.131	IDENTIFIED	50.87	☑ UI	Data rejected due to high peak-width.
Technetium-99m	HE	1.92E+14	2.59E+15	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	

Thorium-228	HE	0.079	0.04039	pCi/g	0.07152	N	0	4	0	FAIL_ABUND	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065186	03-MAR-10 12:00	23-MAR-10 14:39	20.1	DUP	LOAD	1		LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		2.093	0.2402	pCi/g	0.3513	N	910.9	3	1.476	IDENTIFIED	9.749	☐	
Annihilation Rad.		0.1859	0.04677	pCi/g	0.07557	N	511	1	2.207	IDENTIFIED	24.78	☐	
Bismuth-211 INT		5.748	0.4596	pCi/g	0.4943	Y	352.1	2	1.52	IDENTIFIED	6.263	☑ UI	
Bismuth-212	HE	1.718	0.6941	pCi/g	1.656	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.574	0.1413	pCi/g	0.1775	0.200	609.4	3	1.434	IDENTIFIED	7.467	☐	
Cadmium-109 INT		2.833	0.8134	pCi/g	2.429	Y	87.26	3	1.591	IDENTIFIED	28.04	☑ UI	
Cerium-143		15270	2491	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134 LA		0.2265	0.04879	pCi/g	0.129	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		12.65	2.047	pCi/g	4.938	N		0				☐	
Iodine-133	HE	2.46E+05	2.36E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212 ✓		2.309	0.1627	pCi/g	0.1438	0.100	238.8	2	1.309	IDENTIFIED	3.734	☐	
Lead-214 ✓		2.086	0.1764	pCi/g	0.1797	0.100	352.1	2	1.52	IDENTIFIED	6.263	☐	
Mercury-203 INT		0.1319	0.03959	pCi/g	0.1019	0.100	277.9	1	1.181	IDENTIFIED	29.51	☑ UI	
Neptunium-237	HE	0.82	0.2507	pCi/g	0.652	N	87.26	3	1.591	IDENTIFIED	28.04	☐	
Niobium-95m	HE	0.6092	0.1253	pCi/g	0.3974	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40 ✓		39.67	2.298	pCi/g	0.5815	1.00	1460	1	2.07	IDENTIFIED	3.069	☐	
Promethium-149	HE	105.1	330.5	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Radium-224 INT		6.231	0.9826	pCi/g	1.54	Y	241.7	1	1.854	IDENTIFIED	14.77	☑ UI	
Radium-226 ✓		1.574	0.1413	pCi/g	0.1775	Y	609.4	3	1.434	IDENTIFIED	7.467	☐	
Radium-228 ✓		2.093	0.2402	pCi/g	0.3513	0.500	910.9	3	1.476	IDENTIFIED	9.749	☐	
Strontium-85 LA		0.1665	0.0388	pCi/g	0.1255	Y	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓		0.7518	0.07319	pCi/g	0.09142	0.080	583.1	1	1.67	IDENTIFIED	8.595	☐	
Thorium-228 nr		2.309	0.1627	pCi/g	0.1438	N	238.8	2	1.309	IDENTIFIED	3.734	☐	
Thorium-230 nr		1.574	0.135	pCi/g	0.1775	N	609.4	3	1.434	IDENTIFIED	7.467	☐	
Thorium-232 nr		2.093	0.2402	pCi/g	0.3513	N	910.9	3	1.476	IDENTIFIED	9.749	☐	
Thorium-234 ✓		6.017	2.011	pCi/g	4.652	2.00	63.18	2	1.367	IDENTIFIED	31.92	☐	
Tin-126	HE	0.2748	0.07891	pCi/g	0.24	N	87.26	3	1.591	IDENTIFIED	28.04	☐	
Total Uranium		17.865	5.98E-06	ug/g	6.9244	N		0				☐	
Uranium-238	HE	6.017	2.011	pCi/g	4.652	N	63.18	2	1.367	IDENTIFIED	31.92	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065187		23-MAR-10 14:40	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	1.664	0.3029	pCi/g	0.4698	N	911.5	3	1.943	IDENTIFIED	16.89	☐	
Americium-241 ✓	13.63	0.5991	pCi/g	0.4769	0.200	59.58	1	0.9804	IDENTIFIED	2.006	☐ 83.7 d	
Barium-137m	5.677	0.3179	pCi/g	0.09013	N	661.7	2	1.837	IDENTIFIED	1.884	☐	
Bismuth-211	3.397	0.3742	pCi/g	0.5592	Y	351.8	2	1.559	IDENTIFIED	9.354	☐	
Bismuth-214	0.7152	0.09742	pCi/g	0.1938	0.200	609.3	3	1.663	IDENTIFIED	12.31	☐	
Cadmium-109	35.16	1.951	pCi/g	1.962	Y	88.01	2	1.188	IDENTIFIED	2.874	☐	
Californium-249	HE 0.1449	0.03507	pCi/g	0.1281	N	0	4	0	NOT_IDENTI	0	☐	
Cerium-143	346.3	101.5	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-137 ✓	5.998	0.3362	pCi/g	0.09521	0.100	661.7	2	1.837	IDENTIFIED	1.884	☐ 105.5 d	
Cobalt-57	0.2391	0.03642	pCi/g	0.06251	N	122.1	1	1.145	IDENTIFIED	14.67	☐	
Cobalt-60 ✓	6.634	0.3256	pCi/g	0.08139	0.100	1333	1	2.503	IDENTIFIED	2.05	☐ 102.3 d	
Gross Gamma	29.09	2.739	pCi/g	3.285	N		0				☐	

Lead-212	**1.57**	0.1276	pCi/g	**0.1547**	**0.100**	238.7	2	1.275	IDENTIFIED	4.7	☐
Lead-214	**1.233**	0.14	pCi/g	**0.2033**	**0.100**	351.8	2	1.559	IDENTIFIED	9.354	☐
Neptunium-237	**5.005**	0.6313	pCi/g	**1.044**	**N**	0	4	0	NOT_IDENTI	0	☐
Radium-224	**3.47**	0.9782	pCi/g	**1.656**	**Y**	241.8	1	2.074	IDENTIFIED	27.49	☐
Radium-226	**0.7152**	0.09742	pCi/g	**0.1938**	**Y**	609.3	3	1.663	IDENTIFIED	12.31	☐
Radium-228	**1.664**	0.3029	pCi/g	**0.4698**	**0.500**	911.5	3	1.943	IDENTIFIED	16.89	☐
Silver-110m	**0.645**	0.05843	pCi/g	**0.181**	**N**	0	4	0	NOT_IDENTI	0	☐
Thallium-208	**0.3935**	0.05505	pCi/g	**0.09982**	**0.080**	583.2	1	1.733	IDENTIFIED	12.9	☐
Thorium-228	**1.57**	0.1276	pCi/g	**0.1547**	**N**	238.7	2	1.275	IDENTIFIED	4.7	☐
Thorium-230	**0.7151**	0.09558	pCi/g	**0.1938**	**N**	609.3	3	1.663	IDENTIFIED	12.31	☐
Thorium-232	**1.664**	0.3029	pCi/g	**0.4698**	**N**	911.5	3	1.943	IDENTIFIED	16.89	☐
Tin-126	**3.44**	0.1909	pCi/g	**0.1927**	**N**	88.01	2	1.188	IDENTIFIED	2.874	☐

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

MS 3/24/10

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
962631	248824001	SAMPLE	23-MAR-10	Thallium-208	0.6442	0.06636	pCi/g	0.03412	0.080
				Thorium-227	0.3801	0.1817	pCi/g	0.3185	Y
				Thorium-234	3.103	1.24	pCi/g	1.531	2.00
962631	248824002	SAMPLE	23-MAR-10	Bismuth-211	4.343	0.2886	pCi/g	0.1598	Y
				Bismuth-214	1.311	0.09689	pCi/g	0.05578	0.200
				Cadmium-109	4.038	0.8364	pCi/g	0.7768	Y
				Cadmium-115	84.69	27.69	pCi/g	0	N
				Cerium-139	0.04107	0.01471	pCi/g	0.02617	0.050
				Cerium-143	4570	1078	pCi/g	0	N
				Cesium-134	0.1284	0.04857	pCi/g	0.04545	0.100
				Gross Gamma	10.68	1.43	pCi/g	1.639	N
				Lead-212	2.035	0.1039	pCi/g	0.04856	0.100
				Lead-214	1.576	0.1134	pCi/g	0.05811	0.100
				Mercury-203	0.04183	0.02209	pCi/g	0.03599	0.100
				Potassium-40	34.55	1.565	pCi/g	0.2977	1.00
				Radium-224	4.899	0.729	pCi/g	0.5206	Y
				Radium-226	1.311	0.09689	pCi/g	0.05578	Y
				Radium-228	1.811	0.2191	pCi/g	0.1144	0.500
				Sodium-24	2.14E+08	9.84E+07	pCi/g	0	N
				Strontium-85	0.04203	0.02338	pCi/g	0.03661	Y
				Thallium-208	0.6351	0.04855	pCi/g	0.02944	0.080
				Thorium-234	4.849	1.474	pCi/g	1.491	2.00
				Uranium-235	0.1816	0.09885	pCi/g	0.1696	0.500
962631	1202065185	MB	23-MAR-10	Cerium-143	36.03	30.4	pCi/g	0	N
				Lead-212	0.079	0.04039	pCi/g	0.03578	0.100
				Radium-224	0.8401	0.4291	pCi/g	0.3196	Y
				Technetium-99m	1.92E+14	2.59E+15	pCi/g	0	N
962631	1202065186	DUP	23-MAR-10	Americium-241	0.3026	0.1938	pCi/g	0.2962	0.200
				Bismuth-211	5.748	0.4596	pCi/g	0.2473	Y
				Bismuth-214	1.574	0.1413	pCi/g	0.08881	0.200
				Cadmium-109	2.833	0.8134	pCi/g	1.215	Y
				Cerium-143	15270	2491	pCi/g	0	N
				Cesium-134	0.2265	0.04879	pCi/g	0.06452	0.100
				Gross Gamma	12.65	2.047	pCi/g	2.401	N
				Iodine-133	2.46E+05	2.36E+05	pCi/g	0	N
				Lead-212	2.309	0.1627	pCi/g	0.07193	0.100
				Lead-214	2.086	0.1764	pCi/g	0.08993	0.100

MS 3/24/10

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:27:04.00

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824001.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 14:25:27
Sample ID         : G248824001           Sample quantity  : 1.03870E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:58.14  0.8%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.32*	108	515	1.11	126.87	123	8	1.50E-02	38.9	
2	2	74.68*	509	715	1.62	149.56	142	18	7.07E-02	11.6	1.20E+01
3	2	77.13*	832	604	1.50	154.46	142	18	1.16E-01	6.7	
4	0	86.35*	365	741	1.22	172.87	166	12	5.07E-02	15.9	
5	0	90.30	84	422	0.98	180.77	177	6	1.16E-02	40.6	
6	0	92.86*	285	569	1.52	185.88	183	11	3.97E-02	18.1	
7	0	185.67*	138	388	1.22	371.29	367	10	1.92E-02	29.3	
8	0	209.27	112	372	0.81	418.42	414	11	1.56E-02	34.5	
9	4	238.52*	1405	201	1.15	476.86	468	20	1.95E-01	3.3	2.51E+00
10	4	241.46	329	277	1.74	482.74	468	20	4.57E-02	12.4	
11	0	277.01	74	240	0.92	553.77	549	11	1.03E-02	41.9	
12	0	295.06	435	193	1.24	589.82	585	10	6.04E-02	7.7	
13	0	299.51	59	216	1.12	598.72	596	10	8.22E-03	48.0	
14	0	327.80	52	197	0.85	655.24	650	10	7.18E-03	52.7	
15	0	338.21	284	175	1.01	676.05	671	10	3.95E-02	10.5	
16	0	351.87	718	231	1.18	703.35	697	13	9.97E-02	5.7	
17	0	463.22	90	106	0.75	925.85	922	10	1.25E-02	24.0	
18	0	510.58*	171	189	1.87	1020.52	1013	18	2.38E-02	22.6	
19	0	583.16*	401	166	1.61	1165.58	1157	18	5.57E-02	9.2	
20	0	609.16*	548	113	1.34	1217.56	1210	16	7.61E-02	6.2	
21	0	727.21	88	79	1.58	1453.56	1449	9	1.22E-02	21.1	
22	0	768.37*	84	103	0.93	1535.84	1529	18	1.17E-02	31.1	
23	0	795.24	68	74	1.08	1589.57	1582	13	9.46E-03	28.8	
24	0	911.21*	299	84	1.63	1821.46	1816	15	4.16E-02	9.0	
25	0	969.55*	157	153	1.69	1938.14	1930	17	2.19E-02	20.7	
26	0	1120.98	120	90	1.54	2241.03	2232	17	1.67E-02	20.5	
27	0	1242.46	81	208	9.58	2484.05	2466	37	1.12E-02	59.0	
28	0	1378.00*	35	17	1.88	2755.28	2747	13	4.89E-03	30.3	
29	0	1460.73*	1411	21	1.85	2920.83	2912	15	1.96E-01	2.8	
30	0	1661.06	17	2	1.55	3321.83	3318	8	2.35E-03	28.4	
31	0	1729.60	30	15	2.82	3459.04	3453	12	4.14E-03	31.8	
32	0	1764.17*	83	11	2.01	3528.27	3519	17	1.16E-02	15.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 16:27:06

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 14:25:27
Sample ID : G248824001 Sample quantity : 103.87 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAM29 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:58.14 0.8%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.952E+01	4.827E+00	7.755E-01	8.435E-02	50.952
SN-126	+	64.28		1.196E+00	9.480E-01	1.141E+00	1.692E-01	1.048
	+	86.94		2.546E+00	1.332E+00	7.180E-01	2.981E-01	3.545
	+	87.57	*	6.123E-01	2.034E-01	1.716E-01	1.613E-02	3.568
TL-208	+	277.37		9.007E-01	7.629E-01	8.392E-01	1.079E-01	1.073
	+	583.19	*	6.442E-01	1.327E-01	6.843E-02	6.412E-03	9.413
		860.56		6.276E-01	4.099E-01	7.360E-01	9.439E-02	0.853
BI-211		72.87		1.936E+01	5.117E+00	8.784E+00	7.259E-01	2.204
	+	351.06	*	5.221E+00	7.804E-01	4.402E-01	4.214E-02	11.862
PB-212	+	74.82		3.705E+00	9.792E-01	8.148E-01	1.046E-01	4.547
	+	77.11		3.461E+00	5.479E-01	4.682E-01	3.987E-02	7.394
	+	238.63	*	2.334E+00	2.791E-01	1.229E-01	1.226E-02	18.986
	+	300.09		1.509E+00	1.457E+00	1.667E+00	1.831E-01	0.905
BI-214	+	609.32	*	1.704E+00	2.713E-01	1.546E-01	1.562E-02	11.018
	+	1120.29		1.943E+00	8.265E-01	5.953E-01	6.950E-02	3.263
	+	1764.49		1.820E+00	5.995E-01	2.707E-01	2.458E-02	6.726
PB-214	+	74.82		6.567E+00	1.696E+00	1.444E+00	1.665E-01	4.547
	+	77.11		6.102E+00	1.089E+00	8.253E-01	9.784E-02	7.394
	+	242.00		3.315E+00	8.944E-01	7.193E-01	7.626E-02	4.608
	+	295.22		1.966E+00	3.734E-01	2.997E-01	3.367E-02	6.559
	+	351.93	*	1.895E+00	3.019E-01	1.601E-01	1.768E-02	11.839
RA-224	+	240.99	*	5.861E+00	1.545E+00	1.316E+00	1.168E-01	4.453
RA-226	+	609.32	*	1.704E+00	2.713E-01	1.546E-01	1.562E-02	11.018
	+	1120.29		1.943E+00	8.265E-01	5.953E-01	6.950E-02	3.263
	+	1764.49		1.820E+00	5.995E-01	2.707E-01	2.458E-02	6.726
AC-228	+	338.32		2.304E+00	1.080E+00	5.057E-01	2.116E-01	4.557
	+	911.20	*	2.321E+00	5.457E-01	3.022E-01	4.604E-02	7.679
	+	968.97		2.105E+00	1.029E+00	6.631E-01	1.718E-01	3.175
RA-228	+	338.32		2.304E+00	1.080E+00	5.057E-01	2.116E-01	4.557
	+	911.20	*	2.321E+00	5.457E-01	3.022E-01	4.604E-02	7.679
	+	968.97		2.105E+00	1.029E+00	6.631E-01	1.718E-01	3.175
TH-228	+	74.82		3.705E+00	9.115E-01	8.148E-01	6.887E-02	4.547
	+	77.11		3.461E+00	5.479E-01	4.682E-01	3.987E-02	7.394
	+	238.63	*	2.334E+00	2.791E-01	1.229E-01	1.226E-02	18.986

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	300.09		1.509E+00	1.718E+00	1.667E+00	1.022E+00	0.905
TH-230	+	609.32	*	1.704E+00	2.560E-01	1.546E-01	1.332E-02	11.018
	+	1120.29		1.943E+00	8.161E-01	5.953E-01	5.690E-02	3.263
	+	1764.49		1.820E+00	5.995E-01	2.707E-01	2.458E-02	6.726
TH-232	+	338.32		2.304E+00	5.297E-01	5.057E-01	4.644E-02	4.557
	+	911.20	*	2.321E+00	5.457E-01	3.022E-01	4.604E-02	7.679
	+	968.97		2.105E+00	1.029E+00	6.631E-01	1.718E-01	3.175
TH-234	+	63.29	*	3.103E+00	2.481E+00	3.042E+00	5.496E-01	1.020
	+	92.59		3.946E+00	1.679E+00	1.452E+00	3.238E-01	2.718
U-235	+	89.96		1.439E+00	1.221E+00	2.470E+00	6.141E-01	0.582
	+	93.35		2.981E+00	1.284E+00	1.007E+00	2.345E-01	2.960
		143.76	*	1.482E-01	2.942E-01	4.753E-01	8.033E-02	0.312
		163.33		5.062E-02	6.216E-01	9.891E-01	1.756E-01	0.051
	+	185.72		1.509E-01	8.944E-02	9.130E-02	7.624E-03	1.652
		205.31		4.199E-01	7.453E-01	1.120E+00	2.029E-01	0.375
NP-237	+	86.48	*	1.827E+00	7.177E-01	5.337E-01	1.224E-01	3.424
		95.86		-1.512E+00	1.562E+00	2.069E+00	4.994E-01	-0.731
U-238	+	63.29	*	3.103E+00	2.481E+00	3.042E+00	5.496E-01	1.020
	+	92.59		3.946E+00	1.475E+00	1.452E+00	1.331E-01	2.718
ANH-511	+	511.00	*	2.108E-01	9.727E-02	6.327E-02	5.728E-03	3.331

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.560E-01	4.676E-01	7.429E-01	7.232E-02	-0.210
NA-22		1274.54	*	-3.604E-02	5.981E-02	9.463E-02	9.446E-03	-0.381
NA-24		1368.63	*	-8.221E+01	5.981E-02	Half-Life too short		
SC-46		889.28	*	-2.399E-02	5.004E-02	7.847E-02	1.025E-02	-0.306
	+	1120.55		3.425E-01	1.439E-01	1.819E-01	1.737E-02	1.883
V-48		944.13		-1.518E+00	1.604E+00	2.405E+00	3.054E-01	-0.631
		983.53	*	2.292E-02	1.133E-01	1.888E-01	2.290E-02	0.121
		1312.11		-2.759E-02	1.411E-01	2.315E-01	2.457E-02	-0.119
CR-51		320.08	*	-4.801E-02	6.166E-01	9.898E-01	9.517E-02	-0.049
MN-54		834.85	*	-2.967E-03	5.398E-02	8.883E-02	1.047E-02	-0.033
CO-56		846.77	*	2.191E-02	5.824E-02	9.875E-02	1.191E-02	0.222
		1037.84		-9.812E-02	4.491E-01	7.180E-01	8.307E-02	-0.137
		1238.28		2.922E-01	1.439E-01	2.603E-01	2.499E-02	1.123
		1771.35		-1.291E+00	4.759E-01	4.542E-01	4.102E-02	-2.842
CO-57		122.06	*	3.771E-02	3.683E-02	6.174E-02	5.578E-03	0.611
		136.47		1.134E-01	2.952E-01	4.837E-01	4.493E-02	0.235
CO-58		810.76	*	9.001E-03	5.412E-02	9.070E-02	1.021E-02	0.099
FE-59		1099.45	*	-1.566E-01	1.405E-01	2.038E-01	2.163E-02	-0.769
		1291.59		5.601E-02	1.756E-01	3.019E-01	3.399E-02	0.186
CO-60		1173.23		9.217E-02	6.846E-02	1.213E-01	1.008E-02	0.760
		1332.49	*	-1.653E-02	5.515E-02	8.928E-02	9.792E-03	-0.185
ZN-65		1115.54	*	-6.169E-02	1.453E-01	1.907E-01	1.844E-02	-0.323
SE-75		121.12		2.041E-01	1.958E-01	3.277E-01	3.733E-02	0.623
		136.00		5.796E-03	5.815E-02	9.428E-02	8.229E-03	0.061

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		264.66	*	-5.023E-02	6.433E-02	1.033E-01	9.369E-03	-0.486
		279.54		1.908E-01	1.769E-01	2.718E-01	2.558E-02	0.702
		400.66		1.050E-01	3.576E-01	5.955E-01	6.791E-02	0.176
SR-85		514.00	*	1.349E-01	6.760E-02	1.077E-01	9.746E-03	1.252
Y-88		898.04		-2.218E-03	5.611E-02	9.199E-02	1.223E-02	-0.024
		1836.06	*	1.645E-02	3.905E-02	6.904E-02	5.904E-03	0.238
Y-91		1204.77	*	-2.140E+01	3.425E+01	5.247E+01	4.628E+00	-0.408
NB-94		702.65	*	1.995E-02	4.695E-02	8.035E-02	7.217E-03	0.248
		871.09		-3.219E-02	4.647E-02	7.178E-02	9.062E-03	-0.448
NB-95		765.81	*	1.062E-01	7.518E-02	1.198E-01	1.230E-02	0.886
NB-95M		235.69	*	1.086E+00	2.516E-01	4.005E-01	4.033E-02	2.711
ZR-95		724.19		2.101E-01	1.543E-01	2.468E-01	2.488E-02	0.851
		756.73	*	-2.481E-02	1.024E-01	1.671E-01	1.815E-02	-0.149
MO-99		140.51		-9.643E+01	1.138E+02	1.739E+02	4.127E+01	-0.554
		181.07		-2.732E+01	1.013E+02	1.389E+02	2.589E+01	-0.197
		366.42		1.426E+02	4.466E+02	7.482E+02	6.820E+01	0.191
		739.50	*	-2.221E+00	5.864E+01	9.726E+01	1.594E+01	-0.023
		777.92		-1.513E+02	1.766E+02	2.357E+02	2.482E+01	-0.642
TC-99M		140.51	*	-4.526E+16	1.766E+02	Half-Life too short		
RU-103		497.08	*	5.669E-03	5.412E-02	8.845E-02	1.261E-02	0.064
	+	610.33		1.920E+01	3.929E+00	4.069E+00	6.649E-01	4.719
RH-106		621.93	*	-4.949E-02	4.177E-01	6.953E-01	9.174E-02	-0.071
		1050.41		-2.681E+00	3.672E+00	5.580E+00	6.131E-01	-0.480
RU-106		621.93	*	-4.949E-02	4.177E-01	6.953E-01	5.927E-02	-0.071
		1050.41		-2.681E+00	3.672E+00	5.580E+00	6.131E-01	-0.480
AG-108M		433.94	*	-4.201E-02	4.021E-02	6.094E-02	5.702E-03	-0.689
		614.28		2.891E-02	5.326E-02	8.095E-02	7.174E-03	0.357
		722.91		-3.284E-02	5.945E-02	7.995E-02	7.708E-03	-0.411
CD-109		88.03	*	6.270E+00	1.938E+00	2.344E+00	2.213E-01	2.675
AG-110M		657.76	*	1.796E-02	4.575E-02	7.856E-02	6.679E-03	0.229
		677.62		-6.008E-02	4.079E-01	6.743E-01	5.900E-02	-0.089
		706.68		-1.458E-01	2.887E-01	4.640E-01	4.314E-02	-0.314
		763.94		3.529E-02	2.524E-01	3.658E-01	3.815E-02	0.096
		884.68		2.118E-02	6.523E-02	1.103E-01	1.448E-02	0.192
		937.49		-5.782E-02	1.620E-01	2.580E-01	3.353E-02	-0.224
		1384.29		1.957E-01	2.225E-01	3.629E-01	4.015E-02	0.539
		1505.03		-3.637E-01	3.617E-01	5.125E-01	5.393E-02	-0.710
SN-113		391.69	*	-3.368E-02	6.219E-02	9.869E-02	9.128E-03	-0.341
CD-115		260.90		-6.546E-04	6.219E-02	Half-Life too short		
		492.35		-1.195E-04	6.219E-02	Half-Life too short		
		527.90	*	-4.103E-05	6.219E-02	Half-Life too short		
SN-117M		156.02		2.251E+00	4.211E+00	6.905E+00	5.735E-01	0.326
		158.56	*	-4.001E-03	1.008E-01	1.617E-01	1.336E-02	-0.025
TE-123M		159.00	*	-6.678E-03	4.169E-02	6.655E-02	5.532E-03	-0.100
SB-124		602.73		1.014E-03	6.584E-02	9.117E-02	7.892E-03	0.011
		645.85		3.136E-01	6.713E-01	1.159E+00	1.026E-01	0.270
		722.78		-3.662E-01	6.315E-01	8.465E-01	8.097E-02	-0.433
		1690.97	*	-7.132E-03	9.713E-02	1.574E-01	1.559E-02	-0.045
SB-125		427.87	*	8.965E-02	1.199E-01	2.044E-01	1.888E-02	0.439

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	463.37		9.874E-01	4.834E-01	7.240E-01	7.042E-02	1.364
		600.60		2.265E-01	2.671E-01	4.293E-01	3.994E-02	0.528
		635.95		3.664E-02	3.484E-01	5.883E-01	5.372E-02	0.062
TE-125M		109.28	*	-5.953E+00	1.493E+01	2.391E+01	2.555E+00	-0.249
I-126		388.63		4.088E-01	2.955E-01	5.182E-01	4.670E-02	0.789
		666.33	*	2.709E-01	3.933E-01	6.853E-01	5.677E-02	0.395
		753.82		-3.740E-02	3.082E+00	5.115E+00	5.125E-01	-0.007
SB-126		414.70		-2.052E-02	1.348E-01	2.186E-01	1.980E-02	-0.094
		666.50		1.426E-01	1.344E-01	2.391E-01	1.982E-02	0.596
		695.00		-4.507E-02	1.360E-01	2.217E-01	1.958E-02	-0.203
		697.00		-4.851E-02	4.932E-01	8.175E-01	7.253E-02	-0.059
		720.70	*	-2.124E-02	2.770E-01	4.106E-01	3.836E-02	-0.052
		856.80		-7.151E-01	8.844E-01	1.361E+00	1.672E-01	-0.526
SB-127		252.40		-7.496E+00	1.503E+01	2.403E+01	1.010E+01	-0.312
		473.00		6.111E+00	5.579E+00	9.573E+00	1.388E+00	0.638
		685.70	*	1.590E+00	4.117E+00	7.056E+00	9.155E-01	0.225
		783.70		8.644E+00	1.150E+01	1.996E+01	3.029E+00	0.433
I-131		80.19		6.747E+00	1.503E+01	1.610E+01	1.422E+00	0.419
		284.31		-3.189E+00	3.214E+00	4.919E+00	4.709E-01	-0.648
		364.49	*	-1.846E-01	2.305E-01	3.602E-01	3.458E-02	-0.513
		636.99		2.830E-01	3.223E+00	5.433E+00	4.866E-01	0.052
TE-132		49.72		-1.279E+02	8.233E+01	1.238E+02	1.554E+01	-1.033
		111.76		-6.542E+01	1.370E+02	2.182E+02	2.771E+01	-0.300
		116.30		-2.769E+01	1.197E+02	1.924E+02	2.450E+01	-0.144
		228.16	*	7.252E-01	2.866E+00	4.851E+00	8.242E-01	0.149
BA-133		81.00		1.216E-01	1.955E-01	2.115E-01	3.304E-02	0.575
	+	276.40		8.333E-01	7.078E-01	8.704E-01	1.254E-01	0.957
		302.85		-3.802E-02	2.141E-01	3.044E-01	4.090E-02	-0.125
		356.01	*	3.021E-02	6.599E-02	9.729E-02	1.295E-02	0.311
		383.85		-4.267E-01	4.037E-01	6.162E-01	7.837E-02	-0.692
I-133		529.87	*	2.239E-01	4.037E-01	Half-Life too short		
		875.33		1.673E+00	4.037E-01	Half-Life too short		
		1298.22		2.379E+00	4.037E-01	Half-Life too short		
CS-134		563.25		2.006E-01	5.005E-01	8.284E-01	7.418E-02	0.242
		569.33		-5.599E-03	2.666E-01	4.287E-01	3.841E-02	-0.013
		604.72		-6.483E-03	5.347E-02	7.300E-02	6.325E-03	-0.089
	+	795.86	*	1.598E-01	9.373E-02	1.268E-01	1.390E-02	1.260
		801.95		-5.324E-01	5.961E-01	7.961E-01	8.828E-02	-0.669
		1365.19		9.245E-01	1.569E+00	2.781E+00	3.125E-01	0.332
CS-135		268.22	*	1.535E-01	2.233E-01	3.818E-01	3.947E-02	0.402
I-135		546.56		-5.887E+15	2.233E-01	Half-Life too short		
		836.80		6.654E+15	2.233E-01	Half-Life too short		
		1038.76		-1.595E+15	2.233E-01	Half-Life too short		
		1131.51		-1.008E+13	2.233E-01	Half-Life too short		
		1260.41	*	1.550E+15	2.233E-01	Half-Life too short		
		1457.56		3.694E+17	2.233E-01	Half-Life too short		
		1678.03		-2.398E+15	2.233E-01	Half-Life too short		
		1791.20		-6.970E+14	2.233E-01	Half-Life too short		
CS-136		153.25		-2.324E-01	1.578E+00	2.523E+00	2.535E-01	-0.092

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		176.60		-4.324E-01	9.367E-01	1.469E+00	1.349E-01	-0.294
		273.65		-2.339E+00	1.167E+00	1.451E+00	1.418E-01	-1.612
		340.55		1.069E+00	3.451E-01	5.509E-01	5.230E-02	1.940
		818.51		9.367E-03	1.133E-01	1.887E-01	2.157E-02	0.050
		1048.07	*	1.163E-02	1.910E-01	3.130E-01	3.544E-02	0.037
		1235.36		1.806E+00	1.294E+00	2.011E+00	2.472E-01	0.898
BA-137M		661.66	*	-3.303E-02	4.799E-02	7.644E-02	6.266E-03	-0.432
CS-137		661.66	*	-3.490E-02	5.070E-02	8.075E-02	6.634E-03	-0.432
CE-139		165.86	*	2.796E-02	4.313E-02	7.095E-02	5.783E-03	0.394
BA-140		162.66		-3.185E-01	1.527E+00	2.401E+00	2.114E-01	-0.133
		304.85		4.737E-01	2.741E+00	3.987E+00	1.174E+00	0.119
		423.72		2.677E-01	3.303E+00	5.425E+00	1.791E+00	0.049
		537.26	*	2.118E-01	4.847E-01	7.980E-01	2.714E-01	0.265
LA-140	+	328.76		6.807E-01	7.209E-01	9.687E-01	9.352E-02	0.703
		487.02		-3.021E-03	2.254E-01	3.657E-01	3.511E-02	-0.008
		815.77		-1.676E-01	5.303E-01	8.524E-01	1.035E-01	-0.197
		1596.21	*	1.100E-01	1.357E-01	2.480E-01	2.509E-02	0.444
CE-141		145.44	*	4.440E-02	9.961E-02	1.632E-01	1.411E-02	0.272
CE-143		57.36		-6.957E-03	9.961E-02	Half-Life too short		
		293.27	*	1.644E-02	9.961E-02	Half-Life too short		
		664.57		1.483E-02	9.961E-02	Half-Life too short		
		721.93		-1.144E-02	9.961E-02	Half-Life too short		
CE-144		80.12		4.701E+00	5.218E+00	5.770E+00	5.039E-01	0.815
		133.52	*	-3.202E-01	2.954E-01	4.507E-01	6.916E-02	-0.710
PM-144		476.78		-6.598E-02	9.131E-02	1.410E-01	1.384E-02	-0.468
		618.01		2.732E-02	4.529E-02	7.569E-02	6.658E-03	0.361
		696.49	*	-2.234E-02	4.828E-02	7.803E-02	6.919E-03	-0.286
PR-144		696.51	*	-1.540E+00	3.616E+00	5.859E+00	5.193E-01	-0.263
		1489.16		-8.909E+00	1.568E+01	2.377E+01	2.515E+00	-0.375
PM-146		453.88	*	4.033E-03	5.787E-02	9.469E-02	1.041E-02	0.043
		633.25		5.966E-01	1.827E+00	3.108E+00	1.186E+00	0.192
		735.93		-1.140E-01	2.017E-01	3.174E-01	9.000E-02	-0.359
		747.24		-2.789E-02	1.291E-01	2.111E-01	3.243E-02	-0.132
ND-147	+	91.11		6.381E-01	5.218E-01	1.050E+00	1.041E-01	0.608
		319.41		-3.256E-02	6.542E+00	1.083E+01	9.953E-01	-0.003
		531.02	*	-9.714E-02	9.787E-01	1.570E+00	2.382E-01	-0.062
PM-149		285.90	*	4.753E-04	9.787E-01	Half-Life too short		
EU-152		121.78		1.138E-01	1.049E-01	1.758E-01	1.804E-02	0.647
		244.70		1.261E-01	4.979E-01	7.355E-01	6.546E-02	0.171
		344.28	*	1.204E-01	1.494E-01	2.154E-01	2.080E-02	0.559
		778.90		-2.290E-01	3.286E-01	4.828E-01	5.093E-02	-0.474
		964.08		6.235E-01	4.986E-01	7.844E-01	9.742E-02	0.795
		1085.87		-3.387E-01	5.283E-01	8.059E-01	8.294E-02	-0.420
		1112.07		3.466E-02	4.804E-01	6.738E-01	6.562E-02	0.051
		1408.01		1.586E-01	2.628E-01	4.456E-01	4.824E-02	0.356
GD-153		69.67		-2.135E-04	2.876E+00	4.153E+00	3.373E-01	0.000
		97.43	*	5.381E-02	1.389E-01	1.997E-01	1.794E-02	0.269
		103.18		-2.216E-01	1.650E-01	2.538E-01	2.252E-02	-0.873
EU-154		123.07		1.687E-02	7.386E-02	1.207E-01	1.405E-02	0.140

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		723.31		-1.419E-03	2.591E-01	3.695E-01	3.770E-02	-0.004
		873.19		-2.258E-02	3.863E-01	6.334E-01	9.560E-02	-0.036
		996.26		1.196E-01	4.523E-01	7.565E-01	1.462E-01	0.158
		1004.73		2.221E-01	2.788E-01	4.844E-01	6.853E-02	0.459
		1274.44	*	-9.878E-02	1.695E-01	2.684E-01	3.337E-02	-0.368
EU-155	+	86.55		7.440E-01	2.473E-01	2.702E-01	2.535E-02	2.753
		105.31	*	9.616E-02	1.530E-01	2.542E-01	2.276E-02	0.378
TB-160	+	86.79		2.066E+00	6.864E-01	7.424E-01	6.921E-02	2.783
		197.04		2.687E-01	8.241E-01	1.378E+00	1.167E-01	0.195
		215.65		-4.009E-01	1.195E+00	1.800E+00	1.558E-01	-0.223
	+	298.57		2.229E-01	2.148E-01	2.973E-01	2.723E-02	0.750
		879.36	*	-3.870E-02	2.083E-01	3.379E-01	4.331E-02	-0.115
		962.29		7.078E-01	9.213E-01	1.398E+00	1.740E-01	0.506
		966.15		1.660E+00	4.863E-01	7.944E-01	9.843E-02	2.090
		1177.93		-4.663E-01	5.866E-01	8.871E-01	7.441E-02	-0.526
		1271.85		5.703E-01	9.650E-01	1.696E+00	1.683E-01	0.336
HO-166M		80.57		2.196E-01	5.740E-01	6.119E-01	5.366E-02	0.359
	+	184.41		1.199E-01	7.106E-02	9.546E-02	7.958E-03	1.256
		280.46		4.401E-02	1.276E-01	1.887E-01	1.717E-02	0.233
		410.95		2.810E-01	3.323E-01	5.682E-01	5.142E-02	0.495
		711.68	*	-6.192E-02	8.514E-02	1.252E-01	1.147E-02	-0.495
		752.31		4.899E-02	3.563E-01	5.980E-01	5.973E-02	0.082
		810.29		1.707E-02	7.748E-02	1.304E-01	1.465E-02	0.131
TA-182		67.75		6.713E-02	2.592E-01	2.756E-01	2.220E-02	0.244
		100.11		2.942E-01	2.786E-01	4.375E-01	3.902E-02	0.672
		152.43		-7.854E-02	5.074E-01	8.113E-01	6.786E-02	-0.097
		222.11		1.078E-01	4.854E-01	8.220E-01	7.164E-02	0.131
	+	1121.30		9.383E-01	3.942E-01	4.966E-01	4.735E-02	1.889
		1189.05		-5.794E-02	4.965E-01	7.957E-01	6.815E-02	-0.073
		1221.41	*	-8.762E-02	2.922E-01	4.601E-01	4.182E-02	-0.190
		1231.02		-2.454E-01	8.285E-01	1.102E+00	1.019E-01	-0.223
IR-192	+	295.96		1.523E+00	2.722E-01	4.034E-01	3.717E-02	3.776
		308.46		-7.473E-02	1.356E-01	2.183E-01	2.013E-02	-0.342
		316.51	*	2.936E-02	4.974E-02	8.464E-02	7.793E-03	0.347
		468.07		-3.220E-02	1.121E-01	1.533E-01	1.487E-02	-0.210
HG-203		70.83		1.348E+00	2.356E+00	3.465E+00	5.483E-01	0.389
		72.87		5.192E+00	1.527E+00	2.355E+00	3.613E-01	2.204
		279.20	*	1.018E-01	6.512E-02	1.023E-01	9.524E-03	0.995
BI-207		72.81		1.025E+00	2.904E-01	4.991E-01	4.123E-02	2.055
	+	74.97		1.068E+00	2.625E-01	3.591E-01	3.009E-02	2.974
		569.70		-8.328E-04	4.183E-02	6.728E-02	5.949E-03	-0.012
		1063.66	*	1.161E-03	7.351E-02	1.199E-01	1.287E-02	0.010
		1770.23		-2.709E-01	6.460E-01	7.927E-01	7.165E-02	-0.342
PB-210		46.54	*	-1.765E+00	5.088E+00	8.452E+00	8.065E-01	-0.209
PB-211		404.85	*	-8.065E-01	1.063E+00	1.542E+00	7.475E-01	-0.523
		427.09		9.192E-01	2.028E+00	3.333E+00	1.545E+00	0.276
		832.01		3.214E-01	1.334E+00	2.227E+00	1.168E+00	0.144
BI-212	+	727.33	*	2.165E+00	9.550E-01	1.585E+00	2.070E-01	1.366
		785.37		4.704E+00	4.371E+00	7.610E+00	8.134E-01	0.618

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		1.939E+00	2.491E+00	4.614E+00	4.608E-01	0.420
RN-219		271.23		7.741E-01	3.798E-01	6.024E-01	6.403E-02	1.285
		401.81	*	1.092E-02	5.492E-01	9.010E-01	1.362E-01	0.012
RA-223		81.07		2.635E-01	4.408E-01	4.775E-01	4.206E-02	0.552
		83.79		7.159E-02	2.024E-01	2.932E-01	2.651E-02	0.244
		94.87		1.723E+00	7.567E-01	1.164E+00	1.056E-01	1.480
		144.24		4.087E-01	9.869E-01	1.593E+00	1.517E-01	0.257
		154.21		3.725E-01	5.493E-01	9.054E-01	8.316E-02	0.411
		269.46		5.404E-01	2.643E-01	4.683E-01	4.315E-02	1.154
		323.87	*	3.961E-01	1.026E+00	1.508E+00	2.658E-01	0.263
	+	338.28		9.145E+00	2.240E+00	3.179E+00	3.968E-01	2.876
AC-227		79.69		3.800E+00	2.679E+00	2.990E+00	5.166E-01	1.271
		235.96		2.122E+00	3.621E-01	5.358E-01	5.637E-02	3.960
		256.23	*	3.801E-01	3.626E-01	6.265E-01	7.711E-02	0.607
	+	299.98		1.660E+00	1.607E+00	2.134E+00	2.792E-01	0.778
		304.50		6.512E-01	2.527E+00	3.699E+00	6.224E-01	0.176
		334.37		4.635E-01	2.905E+00	3.692E+00	5.874E-01	0.126
TH-227		79.80		4.509E+00	3.552E+00	3.894E+00	8.494E-01	1.158
		235.96		2.122E+00	3.547E-01	5.358E-01	5.330E-02	3.960
		256.23	*	3.801E-01	3.634E-01	6.265E-01	8.667E-02	0.607
	+	299.98		1.660E+00	1.607E+00	2.134E+00	2.792E-01	0.778
		304.50		6.512E-01	2.527E+00	3.699E+00	6.224E-01	0.176
		334.37		4.635E-01	2.905E+00	3.692E+00	5.874E-01	0.126
TH-229	+	85.43		1.541E+00	5.120E-01	5.587E-01	5.135E-02	2.759
		88.47		9.665E-01	2.902E-01	3.516E-01	3.309E-02	2.749
		193.51	*	-1.636E-01	7.672E-01	1.213E+00	1.023E-01	-0.135
		210.85		2.725E+00	1.436E+00	2.271E+00	1.955E-01	1.200
PA-231		283.69	*	-2.707E+00	2.276E+00	3.142E+00	4.677E-01	-0.861
		301.36		1.070E+00	9.251E-01	1.413E+00	1.773E-01	0.757
TH-231		81.07		2.635E-01	4.408E-01	4.775E-01	4.206E-02	0.552
		83.79		7.159E-02	2.024E-01	2.932E-01	2.651E-02	0.244
		94.87		1.723E+00	7.567E-01	1.164E+00	1.056E-01	1.480
		144.24		4.087E-01	9.869E-01	1.593E+00	1.517E-01	0.257
		154.21		3.725E-01	5.493E-01	9.054E-01	8.316E-02	0.411
		269.46		5.404E-01	2.643E-01	4.683E-01	4.315E-02	1.154
		323.87	*	3.961E-01	1.026E+00	1.508E+00	2.658E-01	0.263
	+	338.28		9.145E+00	2.240E+00	3.179E+00	3.968E-01	2.876
PA-233	+	300.13		7.511E-01	7.293E-01	9.647E-01	1.462E-01	0.779
		311.90	*	-3.476E-02	8.417E-02	1.363E-01	1.284E-02	-0.255
		340.48		3.800E+00	1.436E+00	1.852E+00	4.496E-01	2.052
PA-234		94.67		8.003E-01	2.917E-01	4.386E-01	5.581E-02	1.824
		98.44		1.996E-01	1.852E-01	2.225E-01	1.243E-01	0.897
		111.00		-1.134E-01	2.594E-01	4.142E-01	5.078E-02	-0.274
		131.20		1.154E-01	1.511E-01	2.508E-01	2.201E-02	0.460
		569.50		-3.173E-02	3.697E-01	5.917E-01	5.232E-02	-0.054
		733.00		2.983E-01	5.689E-01	8.544E-01	1.930E-01	0.349
		880.51		-3.187E-02	3.961E-01	6.481E-01	8.327E-02	-0.049
		883.24		2.882E-01	4.288E-01	6.671E-01	4.530E-01	0.432
		926.50		-2.271E-01	2.306E-01	3.294E-01	8.912E-02	-0.689

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	2.026E-01	4.267E-01	7.230E-01	1.514E-01	0.280
		949.00		6.256E-01	6.328E-01	1.110E+00	1.402E-01	0.564
PA-234M		766.42		2.161E+01	2.240E+01	3.052E+01	1.558E+01	0.708
		1001.03	*	-4.286E+00	6.047E+00	9.319E+00	1.199E+00	-0.460
NP-239		99.53		2.101E-01	2.685E-01	3.927E-01	3.506E-02	0.535
		103.37		-8.453E-02	1.453E-01	2.315E-01	2.053E-02	-0.365
		106.12		1.156E-01	1.219E-01	2.044E-01	1.809E-02	0.565
		117.23	*	-3.742E-01	5.714E-01	9.023E-01	8.059E-02	-0.415
		228.18		7.424E-02	2.883E-01	4.884E-01	4.283E-02	0.152
	+	277.60		4.117E-01	3.467E-01	4.306E-01	3.915E-02	0.956
AM-241		59.54	*	7.572E-02	2.435E-01	3.580E-01	3.090E-02	0.211
CM-247	+	278.00		1.748E+00	1.472E+00	1.838E+00	1.671E-01	0.951
		287.50		8.499E-01	1.716E+00	2.844E+00	2.597E-01	0.299
		402.40	*	-2.206E-02	5.063E-02	8.079E-02	7.293E-03	-0.273
CF-249		252.80		-5.260E-01	1.334E+00	2.191E+00	1.962E-01	-0.240
		333.37		9.161E-02	4.028E-01	3.985E-01	3.661E-02	0.230
		388.16	*	6.348E-02	5.438E-02	9.449E-02	8.517E-03	0.672
CF-251		177.52	*	-1.366E-01	1.882E-01	2.914E-01	2.408E-02	-0.469
		227.38		1.775E-01	4.728E-01	8.046E-01	7.050E-02	0.221
		285.41		-1.452E+00	2.983E+00	4.843E+00	4.418E-01	-0.300

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824001      *
* Acquisition date : 23-MAR-2010 14:25:27 Detector SN#     :               *
* Detector ID        : GAM29               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:58.14     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        :  3-MAR-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G248824001           Analyst initials: MXR1          *
* Batch Number       : 962631               Sample Quantity : 1.0387E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.952E+01	4.731E+00	7.697E-01	0.000E+00
SN-126	6.123E-01	1.993E-01	1.725E-01	0.000E+00
TL-208	6.442E-01	1.301E-01	6.820E-02	0.000E+00
BI-211	5.221E+00	7.648E-01	4.397E-01	0.000E+00
PB-212	2.334E+00	2.735E-01	1.230E-01	0.000E+00
BI-214	1.704E+00	2.659E-01	1.541E-01	0.000E+00
PB-214	1.895E+00	2.959E-01	1.599E-01	0.000E+00
RA-224	5.861E+00	1.514E+00	1.317E+00	0.000E+00
RA-226	1.704E+00	2.659E-01	1.541E-01	0.000E+00
AC-228	2.321E+00	5.348E-01	3.006E-01	0.000E+00
RA-228	2.321E+00	5.348E-01	3.006E-01	0.000E+00
TH-228	2.334E+00	2.735E-01	1.230E-01	0.000E+00
TH-230	1.704E+00	2.509E-01	1.541E-01	0.000E+00
TH-232	2.321E+00	5.348E-01	3.006E-01	0.000E+00
TH-234	3.103E+00	2.431E+00	3.061E+00	0.000E+00
U-235	1.482E-01	2.883E-01	4.766E-01	0.000E+00
NP-237	1.827E+00	7.034E-01	5.364E-01	0.000E+00
U-238	3.103E+00	2.431E+00	3.061E+00	0.000E+00
ANH-511	2.108E-01	9.532E-02	6.309E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-1.560E-01		4.583E-01	7.410E-01	0.000E+00	NOT IDENT.
NA-22	-3.604E-02		5.862E-02	9.398E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		2.475E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.399E-02		4.903E-02	7.806E-02	0.000E+00	FAIL ABUN
V-48	2.292E-02		1.111E-01	1.877E-01	0.000E+00	NOT IDENT.
CR-51	-4.801E-02		6.043E-01	9.890E-01	0.000E+00	NOT IDENT.
MN-54	-2.967E-03		5.290E-02	8.839E-02	0.000E+00	NOT IDENT.
CO-56	2.191E-02		5.708E-02	9.825E-02	0.000E+00	NOT IDENT.

CO-57	3.771E-02	3.609E-02	6.195E-02	0.000E+00	NOT IDENT.
CO-58	9.001E-03	5.303E-02	9.026E-02	0.000E+00	NOT IDENT.
FE-59	-1.566E-01	1.377E-01	2.025E-01	0.000E+00	NOT IDENT.
CO-60	-1.653E-02	5.405E-02	8.865E-02	0.000E+00	NOT IDENT.
ZN-65	-6.169E-02	1.424E-01	1.895E-01	0.000E+00	NOT IDENT.
SE-75	-5.023E-02	6.304E-02	1.033E-01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	6.625E-02	1.074E-01	0.000E+00	NOT IDENT.
Y-88	1.645E-02	3.827E-02	6.845E-02	0.000E+00	NOT IDENT.
Y-91	-2.140E+01	3.356E+01	5.213E+01	0.000E+00	NOT IDENT.
NB-94	1.995E-02	4.601E-02	8.001E-02	0.000E+00	NOT IDENT.
NB-95	1.062E-01	7.368E-02	1.192E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.465E-01	4.008E-01	0.000E+00	NOT IDENT.
ZR-95	-2.481E-02	1.004E-01	1.663E-01	0.000E+00	NOT IDENT.
MO-99	-2.221E+00	5.747E+01	9.682E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.400E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	5.669E-03	5.304E-02	8.821E-02	0.000E+00	FAIL ABUN
RH-106	-4.949E-02	4.094E-01	6.928E-01	0.000E+00	NOT IDENT.
RU-106	-4.949E-02	4.093E-01	6.928E-01	0.000E+00	NOT IDENT.
AG-108M	-4.201E-02	3.940E-02	6.081E-02	0.000E+00	NOT IDENT.
CD-109	0.000E+00	1.900E+00	2.355E+00	0.000E+00	NOT IDENT.
AG-110M	1.796E-02	4.484E-02	7.825E-02	0.000E+00	NOT IDENT.
SN-113	-3.368E-02	6.094E-02	9.852E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	6.751E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-4.001E-03	9.877E-02	1.621E-01	0.000E+00	NOT IDENT.
TE-123M	-6.678E-03	4.086E-02	6.670E-02	0.000E+00	NOT IDENT.
SB-124	-7.132E-03	9.518E-02	1.562E-01	0.000E+00	NOT IDENT.
SB-125	8.965E-02	1.175E-01	2.040E-01	0.000E+00	FAIL ABUN
TE-125M	-5.953E+00	1.463E+01	2.400E+01	0.000E+00	NOT IDENT.
I-126	2.709E-01	3.854E-01	6.826E-01	0.000E+00	NOT IDENT.
SB-126	-2.124E-02	2.715E-01	4.088E-01	0.000E+00	NOT IDENT.
SB-127	1.590E+00	4.035E+00	7.027E+00	0.000E+00	NOT IDENT.
I-131	-1.846E-01	2.259E-01	3.597E-01	0.000E+00	NOT IDENT.
TE-132	7.252E-01	2.808E+00	4.855E+00	0.000E+00	NOT IDENT.
BA-133	3.021E-02	6.467E-02	9.717E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	3.945E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.185E-02	1.262E-01	0.000E+00	FAIL ABUN
CS-135	1.535E-01	2.189E-01	3.818E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.674E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.163E-02	1.872E-01	3.112E-01	0.000E+00	NOT IDENT.
BA-137M	-3.303E-02	4.703E-02	7.614E-02	0.000E+00	NOT IDENT.
CS-137	-3.490E-02	4.969E-02	8.043E-02	0.000E+00	NOT IDENT.
CE-139	2.796E-02	4.227E-02	7.110E-02	0.000E+00	NOT IDENT.
BA-140	2.118E-01	4.750E-01	7.955E-01	0.000E+00	NOT IDENT.
LA-140	1.100E-01	1.330E-01	2.460E-01	0.000E+00	FAIL ABUN
CE-141	4.440E-02	9.761E-02	1.636E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.857E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.202E-01	2.895E-01	4.521E-01	0.000E+00	NOT IDENT.
PM-144	-2.234E-02	4.731E-02	7.770E-02	0.000E+00	NOT IDENT.
PR-144	-1.540E+00	3.543E+00	5.835E+00	0.000E+00	NOT IDENT.
PM-146	4.033E-03	5.671E-02	9.447E-02	0.000E+00	NOT IDENT.
ND-147	-9.714E-02	9.591E-01	1.565E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	5.867E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	1.204E-01	1.464E-01	2.152E-01	0.000E+00	NOT IDENT.
GD-153	5.381E-02	1.361E-01	2.006E-01	0.000E+00	NOT IDENT.
EU-154	-9.878E-02	1.661E-01	2.665E-01	0.000E+00	NOT IDENT.
EU-155	9.616E-02	1.499E-01	2.553E-01	0.000E+00	FAIL ABUN
TB-160	-3.870E-02	2.041E-01	3.361E-01	0.000E+00	FAIL ABUN
HO-166M	-6.192E-02	8.343E-02	1.247E-01	0.000E+00	FAIL ABUN
TA-182	-8.762E-02	2.864E-01	4.570E-01	0.000E+00	FAIL ABUN
IR-192	2.936E-02	4.875E-02	8.458E-02	0.000E+00	FAIL ABUN
HG-203	1.018E-01	6.382E-02	1.023E-01	0.000E+00	NOT IDENT.
BI-207	1.161E-03	7.204E-02	1.191E-01	0.000E+00	FAIL ABUN
PB-210	-1.765E+00	4.986E+00	8.517E+00	0.000E+00	NOT IDENT.
PB-211	-8.065E-01	1.041E+00	1.539E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	9.359E-01	1.578E+00	0.000E+00	FAIL ABUN
RN-219	1.092E-02	5.382E-01	8.994E-01	0.000E+00	NOT IDENT.
RA-223	3.961E-01	1.005E+00	1.507E+00	0.000E+00	FAIL ABUN
AC-227	3.801E-01	3.554E-01	6.266E-01	0.000E+00	FAIL ABUN
TH-227	3.801E-01	3.562E-01	6.266E-01	0.000E+00	FAIL ABUN
TH-229	-1.636E-01	7.519E-01	1.214E+00	0.000E+00	FAIL ABUN
PA-231	-2.707E+00	2.231E+00	3.142E+00	0.000E+00	NOT IDENT.
TH-231	3.961E-01	1.005E+00	1.507E+00	0.000E+00	FAIL ABUN
PA-233	-3.476E-02	8.248E-02	1.363E-01	0.000E+00	FAIL ABUN
PA-234	2.026E-01	4.181E-01	7.190E-01	0.000E+00	NOT IDENT.
PA-234M	-4.286E+00	5.926E+00	9.265E+00	0.000E+00	NOT IDENT.
NP-239	-3.742E-01	5.599E-01	9.056E-01	0.000E+00	FAIL ABUN
AM-241	7.572E-02	2.386E-01	3.604E-01	0.000E+00	NOT IDENT.
CM-247	-2.206E-02	4.962E-02	8.065E-02	0.000E+00	FAIL ABUN

CF-249	6.348E-02	5.329E-02	9.434E-02	0.000E+00	NOT IDENT.
CF-251	-1.366E-01	1.844E-01	2.919E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:27:04.87

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824001.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 14:25:27
Sample ID         : G248824001           Sample quantity  : 1.03870E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:58.14  0.8%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1411	10.66*	1.210E+00	3.952E+01	3.952E+01	12.22
SN-126	64.28	108	9.60	3.404E+00	1.196E+00	1.196E+00	79.28
	86.94	365	8.90	5.822E+00	2.546E+00	2.546E+00	52.34
	87.57	365	37.00*	5.822E+00	6.123E-01	6.123E-01	33.22
TL-208	277.37	74	6.60	4.528E+00	9.007E-01	9.007E-01	84.70
	583.19	401	85.00*	2.646E+00	6.442E-01	6.442E-01	20.60
	860.56	------	12.50	1.902E+00	------	Line Not Found	------
BI-211	72.87	------	1.23	4.632E+00	------	Line Not Found	------
	351.06	718	12.92*	3.847E+00	5.221E+00	5.221E+00	14.95
PB-212	74.82	509	10.28	4.830E+00	3.705E+00	3.705E+00	26.43
	77.11	832	17.10	5.079E+00	3.461E+00	3.461E+00	15.83
	238.63	1405	43.60*	4.992E+00	2.334E+00	2.334E+00	11.96
	300.09	59	3.30	4.297E+00	1.509E+00	1.509E+00	96.54
BI-214	609.32	548	45.49*	2.555E+00	1.704E+00	1.704E+00	15.93
	1120.29	120	14.92	1.502E+00	1.943E+00	1.943E+00	42.54
	1764.49	83	15.30	1.081E+00	1.820E+00	1.820E+00	32.93
PB-214	74.82	509	5.80	4.830E+00	6.566E+00	6.567E+00	25.82
	77.11	832	9.70	5.079E+00	6.102E+00	6.102E+00	17.85
	242.00	329	7.25	4.953E+00	3.315E+00	3.315E+00	26.98
	295.22	435	18.42	4.341E+00	1.966E+00	1.966E+00	18.99
	351.93	718	35.60*	3.847E+00	1.895E+00	1.895E+00	15.93
RA-224	240.99	329	4.10*	4.953E+00	5.861E+00	5.861E+00	26.35
RA-226	609.32	548	45.49*	2.555E+00	1.704E+00	1.704E+00	15.93
	1120.29	120	14.92	1.502E+00	1.943E+00	1.943E+00	42.54
	1764.49	83	15.30	1.081E+00	1.820E+00	1.820E+00	32.93
AC-228	338.32	284	11.27	3.954E+00	2.304E+00	2.304E+00	46.84
	911.20	299	25.80*	1.808E+00	2.321E+00	2.321E+00	23.52
	968.97	157	15.80	1.710E+00	2.105E+00	2.105E+00	48.87
RA-228	338.32	284	11.27	3.954E+00	2.304E+00	2.304E+00	46.84
	911.20	299	25.80*	1.808E+00	2.321E+00	2.321E+00	23.52
	968.97	157	15.80	1.710E+00	2.105E+00	2.105E+00	48.87
TH-228	74.82	509	10.28	4.830E+00	3.705E+00	3.705E+00	24.60

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	832	17.10	5.079E+00	3.461E+00	3.461E+00	15.83
	238.63	1405	43.60*	4.992E+00	2.334E+00	2.334E+00	11.96
	300.09	59	3.30	4.297E+00	1.509E+00	1.509E+00	113.82
TH-230	609.32	548	45.49*	2.555E+00	1.704E+00	1.704E+00	15.03
	1120.29	120	14.92	1.502E+00	1.943E+00	1.943E+00	42.01
	1764.49	83	15.30	1.081E+00	1.820E+00	1.820E+00	32.93
TH-232	338.32	284	11.27	3.954E+00	2.304E+00	2.304E+00	22.99
	911.20	299	25.80*	1.808E+00	2.321E+00	2.321E+00	23.52
	968.97	157	15.80	1.710E+00	2.105E+00	2.105E+00	48.87
TH-234	63.29	108	3.70*	3.404E+00	3.103E+00	3.103E+00	79.95
	92.59	285	4.23	6.181E+00	3.946E+00	3.946E+00	42.55
U-235	89.96	84	3.47	6.055E+00	1.439E+00	1.439E+00	84.88
	93.35	285	5.60	6.181E+00	2.981E+00	2.981E+00	43.08
	143.76	------	10.96*	6.480E+00	------	Line Not Found	------
	163.33	------	5.08	6.173E+00	------	Line Not Found	------
	185.72	138	57.20	5.793E+00	1.509E-01	1.509E-01	59.29
	205.31	------	5.01	5.473E+00	------	Line Not Found	------
NP-237	86.48	365	12.40*	5.822E+00	1.827E+00	1.827E+00	39.28
	95.86	------	2.68	6.306E+00	------	Line Not Found	------
U-238	63.29	108	3.70*	3.404E+00	3.103E+00	3.103E+00	79.95
	92.59	285	4.23	6.181E+00	3.946E+00	3.946E+00	37.38
ANH-511	511.00	171	100.00*	2.935E+00	2.108E-01	2.108E-01	46.15

Flag: "*" = Keyline

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

Total number of lines in spectrum 32
Number of unidentified lines 6
Number of lines tentatively identified by NID 26 81.25%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.952E+01	3.952E+01	0.483E+01	12.22	
SN-126	2.30E+05Y	1.00	6.123E-01	6.123E-01	2.034E-01	33.22	
TL-208	1.41E+10Y	1.00	6.442E-01	6.442E-01	1.327E-01	20.60	
BI-211	7.04E+08Y	1.00	5.221E+00	5.221E+00	0.780E+00	14.95	
PB-212	1.41E+10Y	1.00	2.334E+00	2.334E+00	0.279E+00	11.96	
BI-214	1600.00Y	1.00	1.704E+00	1.704E+00	0.271E+00	15.93	
PB-214	1600.00Y	1.00	1.895E+00	1.895E+00	0.302E+00	15.93	
RA-224	1.41E+10Y	1.00	5.861E+00	5.861E+00	1.545E+00	26.35	
RA-226	1600.00Y	1.00	1.704E+00	1.704E+00	0.271E+00	15.93	
AC-228	1.41E+10Y	1.00	2.321E+00	2.321E+00	0.546E+00	23.52	
RA-228	1.41E+10Y	1.00	2.321E+00	2.321E+00	0.546E+00	23.52	
TH-228	1.41E+10Y	1.00	2.334E+00	2.334E+00	0.279E+00	11.96	
TH-230	7.54E+04Y	1.00	1.704E+00	1.704E+00	0.256E+00	15.03	
TH-232	1.41E+10Y	1.00	2.321E+00	2.321E+00	0.546E+00	23.52	
TH-234	4.47E+09Y	1.00	3.103E+00	3.103E+00	2.481E+00	79.95	
U-235	7.04E+08Y	1.00	1.509E-01	1.509E-01	0.894E-01	59.29	K
NP-237	2.14E+06Y	1.00	1.827E+00	1.827E+00	0.718E+00	39.28	
U-238	4.47E+09Y	1.00	3.103E+00	3.103E+00	2.481E+00	79.95	
ANH-511	1.00E+09Y	1.00	2.108E-01	2.108E-01	0.973E-01	46.15	
			---	---			
	Total Activity :		7.888E+01	7.888E+01			

Grand Total Activity : 7.888E+01 7.888E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.27	112	372	0.81	418.42	414	11	1.56E-02	69.0	5.41E+00	
0	327.80	52	197	0.85	655.24	650	10	7.18E-03	****	4.04E+00	T
0	463.22	90	106	0.75	925.85	922	10	1.25E-02	48.0	3.16E+00	T
0	727.21	88	79	1.58	1453.56	1449	9	1.22E-02	42.1	2.20E+00	T
0	768.37	84	103	0.93	1535.84	1529	18	1.17E-02	62.3	2.10E+00	
0	795.24	68	74	1.08	1589.57	1582	13	9.46E-03	57.6	2.04E+00	T
0	1242.46	81	208	9.58	2484.05	2466	37	1.12E-02	****	1.37E+00	
0	1378.00	35	17	1.88	2755.28	2747	13	4.89E-03	60.6	1.26E+00	
0	1661.06	17	2	1.55	3321.83	3318	8	2.35E-03	56.8	1.11E+00	
0	1729.60	30	15	2.82	3459.04	3453	12	4.14E-03	63.6	1.09E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:27:08.54

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824001.CNF;1 *
* Acquisition date  : 23-MAR-2010 14:25:27  Detector SN#     :             *
* Detector ID       : GAM29                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:58.14          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID        *
* Sample ID         : G248824001            Analyst initials: MXR1         *
* Batch Number      : 962631                Sample Quantity : 1.03870E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45.9MS Isotope      :               *
* MSD ID           :                      MSD Isotope     :               *
* LCS ID           : 1032-A               LCS Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.952E+01	4.827E+00	7.755E-01	8.435E-02	50.952
SN-126	6.123E-01	2.034E-01	1.716E-01	1.613E-02	3.568
TL-208	6.442E-01	1.327E-01	6.843E-02	6.412E-03	9.413
BI-211	5.221E+00	7.804E-01	4.402E-01	4.214E-02	11.862
PB-212	2.334E+00	2.791E-01	1.229E-01	1.226E-02	18.986
BI-214	1.704E+00	2.713E-01	1.546E-01	1.562E-02	11.018
PB-214	1.895E+00	3.019E-01	1.601E-01	1.768E-02	11.839
RA-224	5.861E+00	1.545E+00	1.316E+00	1.168E-01	4.453
RA-226	1.704E+00	2.713E-01	1.546E-01	1.562E-02	11.018
AC-228	2.321E+00	5.457E-01	3.022E-01	4.604E-02	7.679
RA-228	2.321E+00	5.457E-01	3.022E-01	4.604E-02	7.679
TH-228	2.334E+00	2.791E-01	1.229E-01	1.226E-02	18.986
TH-230	1.704E+00	2.560E-01	1.546E-01	1.332E-02	11.018
TH-232	2.321E+00	5.457E-01	3.022E-01	4.604E-02	7.679
TH-234	3.103E+00	2.481E+00	3.042E+00	5.496E-01	1.020
U-235	1.509E-01	8.944E-02	4.753E-01	8.033E-02	0.317
NP-237	1.827E+00	7.177E-01	5.337E-01	1.224E-01	3.424
U-238	3.103E+00	2.481E+00	3.042E+00	5.496E-01	1.020

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	2.108E-01	9.727E-02	6.327E-02	5.728E-03	3.331

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.560E-01		4.676E-01	7.429E-01	7.232E-02	-0.210
NA-22	-3.604E-02		5.981E-02	9.463E-02	9.446E-03	-0.381
NA-24	-8.221E+01		1.263E+02	Half-Life too short		
SC-46	-2.399E-02		5.004E-02	7.847E-02	1.025E-02	-0.306
V-48	2.292E-02		1.133E-01	1.888E-01	2.290E-02	0.121
CR-51	-4.801E-02		6.166E-01	9.898E-01	9.517E-02	-0.049
MN-54	-2.967E-03		5.398E-02	8.883E-02	1.047E-02	-0.033
CO-56	2.191E-02		5.824E-02	9.875E-02	1.191E-02	0.222
CO-57	3.771E-02		3.683E-02	6.174E-02	5.578E-03	0.611
CO-58	9.001E-03		5.412E-02	9.070E-02	1.021E-02	0.099
FE-59	-1.566E-01		1.405E-01	2.038E-01	2.163E-02	-0.769
CO-60	-1.653E-02		5.515E-02	8.928E-02	9.792E-03	-0.185
ZN-65	-6.169E-02		1.453E-01	1.907E-01	1.844E-02	-0.323
SE-75	-5.023E-02		6.433E-02	1.033E-01	9.369E-03	-0.486
SR-85	1.349E-01		6.760E-02	1.077E-01	9.746E-03	1.252
Y-88	1.645E-02		3.905E-02	6.904E-02	5.904E-03	0.238
Y-91	-2.140E+01		3.425E+01	5.247E+01	4.628E+00	-0.408
NB-94	1.995E-02		4.695E-02	8.035E-02	7.217E-03	0.248
NB-95	1.062E-01		7.518E-02	1.198E-01	1.230E-02	0.886
NB-95M	1.086E+00		2.516E-01	4.005E-01	4.033E-02	2.711
ZR-95	-2.481E-02		1.024E-01	1.671E-01	1.815E-02	-0.149
MO-99	-2.221E+00		5.864E+01	9.726E+01	1.594E+01	-0.023
TC-99M	-4.526E+16		2.755E+16	Half-Life too short		
RU-103	5.669E-03		5.412E-02	8.845E-02	1.261E-02	0.064
RH-106	-4.949E-02		4.177E-01	6.953E-01	9.174E-02	-0.071
RU-106	-4.949E-02		4.177E-01	6.953E-01	5.927E-02	-0.071
AG-108M	-4.201E-02		4.021E-02	6.094E-02	5.702E-03	-0.689
CD-109	6.270E+00		1.938E+00	2.344E+00	2.213E-01	2.675
AG-110M	1.796E-02		4.575E-02	7.856E-02	6.679E-03	0.229
SN-113	-3.368E-02		6.219E-02	9.869E-02	9.128E-03	-0.341
CD-115	-4.103E-05		3.444E-05	Half-Life too short		
SN-117M	-4.001E-03		1.008E-01	1.617E-01	1.336E-02	-0.025
TE-123M	-6.678E-03		4.169E-02	6.655E-02	5.532E-03	-0.100
SB-124	-7.132E-03		9.713E-02	1.574E-01	1.559E-02	-0.045
SB-125	8.965E-02		1.199E-01	2.044E-01	1.888E-02	0.439
TE-125M	-5.953E+00		1.493E+01	2.391E+01	2.555E+00	-0.249
I-126	2.709E-01		3.933E-01	6.853E-01	5.677E-02	0.395
SB-126	-2.124E-02		2.770E-01	4.106E-01	3.836E-02	-0.052
SB-127	1.590E+00		4.117E+00	7.056E+00	9.155E-01	0.225
I-131	-1.846E-01		2.305E-01	3.602E-01	3.458E-02	-0.513
TE-132	7.252E-01		2.866E+00	4.851E+00	8.242E-01	0.149
BA-133	3.021E-02		6.599E-02	9.729E-02	1.295E-02	0.311

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	2.239E-01		2.013E-01	Half-Life too short		
CS-134	1.598E-01	+	9.373E-02	1.268E-01	1.390E-02	1.260
CS-135	1.535E-01		2.233E-01	3.818E-01	3.947E-02	0.402
I-135	1.550E+15		1.364E+15	Half-Life too short		
CS-136	1.163E-02		1.910E-01	3.130E-01	3.544E-02	0.037
BA-137M	-3.303E-02		4.799E-02	7.644E-02	6.266E-03	-0.432
CS-137	-3.490E-02		5.070E-02	8.075E-02	6.634E-03	-0.432
CE-139	2.796E-02		4.313E-02	7.095E-02	5.783E-03	0.394
BA-140	2.118E-01		4.847E-01	7.980E-01	2.714E-01	0.265
LA-140	1.100E-01		1.357E-01	2.480E-01	2.509E-02	0.444
CE-141	4.440E-02		9.961E-02	1.632E-01	1.411E-02	0.272
CE-143	1.644E-02		2.478E-03	Half-Life too short		
CE-144	-3.202E-01		2.954E-01	4.507E-01	6.916E-02	-0.710
PM-144	-2.234E-02		4.828E-02	7.803E-02	6.919E-03	-0.286
PR-144	-1.540E+00		3.616E+00	5.859E+00	5.193E-01	-0.263
PM-146	4.033E-03		5.787E-02	9.469E-02	1.041E-02	0.043
ND-147	-9.714E-02		9.787E-01	1.570E+00	2.382E-01	-0.062
PM-149	4.753E-04		2.993E-04	Half-Life too short		
EU-152	1.204E-01		1.494E-01	2.154E-01	2.080E-02	0.559
GD-153	5.381E-02		1.389E-01	1.997E-01	1.794E-02	0.269
EU-154	-9.878E-02		1.695E-01	2.684E-01	3.337E-02	-0.368
EU-155	9.616E-02		1.530E-01	2.542E-01	2.276E-02	0.378
TB-160	-3.870E-02		2.083E-01	3.379E-01	4.331E-02	-0.115
HO-166M	-6.192E-02		8.514E-02	1.252E-01	1.147E-02	-0.495
TA-182	-8.762E-02		2.922E-01	4.601E-01	4.182E-02	-0.190
IR-192	2.936E-02		4.974E-02	8.464E-02	7.793E-03	0.347
HG-203	1.018E-01		6.512E-02	1.023E-01	9.524E-03	0.995
BI-207	1.161E-03		7.351E-02	1.199E-01	1.287E-02	0.010
PB-210	-1.765E+00		5.088E+00	8.452E+00	8.065E-01	-0.209
PB-211	-8.065E-01		1.063E+00	1.542E+00	7.475E-01	-0.523
BI-212	2.165E+00	+	9.550E-01	1.585E+00	2.070E-01	1.366
RN-219	1.092E-02		5.492E-01	9.010E-01	1.362E-01	0.012
RA-223	3.961E-01		1.026E+00	1.508E+00	2.658E-01	0.263
AC-227	3.801E-01		3.626E-01	6.265E-01	7.711E-02	0.607
TH-227	3.801E-01		3.634E-01	6.265E-01	8.667E-02	0.607
TH-229	-1.636E-01		7.672E-01	1.213E+00	1.023E-01	-0.135
PA-231	-2.707E+00		2.276E+00	3.142E+00	4.677E-01	-0.861
TH-231	3.961E-01		1.026E+00	1.508E+00	2.658E-01	0.263
PA-233	-3.476E-02		8.417E-02	1.363E-01	1.284E-02	-0.255
PA-234	2.026E-01		4.267E-01	7.230E-01	1.514E-01	0.280
PA-234M	-4.286E+00		6.047E+00	9.319E+00	1.199E+00	-0.460
NP-239	-3.742E-01		5.714E-01	9.023E-01	8.059E-02	-0.415
AM-241	7.572E-02		2.435E-01	3.580E-01	3.090E-02	0.211
CM-247	-2.206E-02		5.063E-02	8.079E-02	7.293E-03	-0.273
CF-249	6.348E-02		5.438E-02	9.449E-02	8.517E-03	0.672
CF-251	-1.366E-01		1.882E-01	2.914E-01	2.408E-02	-0.469

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248824001           *
* Acquisition date  : 23-MAR-2010 14:25:27 Detector SN#     :               *
* Detector ID       : GAM29                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:58.14      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  3-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248824001           Analyst initials: MXR1           *
* Batch Number      : 962631               Sample Quantity : 1.0387E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.952E+01	4.731E+00	3.851E-01	2.414E+00
SN-126	6.123E-01	1.993E-01	8.629E-02	1.017E-01
TL-208	6.442E-01	1.301E-01	3.412E-02	6.636E-02
BI-211	5.221E+00	7.648E-01	2.200E-01	3.902E-01
PB-212	2.334E+00	2.735E-01	6.153E-02	1.395E-01
BI-214	1.704E+00	2.659E-01	7.709E-02	1.357E-01
PB-214	1.895E+00	2.959E-01	7.998E-02	1.510E-01
RA-224	5.861E+00	1.514E+00	6.589E-01	7.723E-01
RA-226	1.704E+00	2.659E-01	7.709E-02	1.357E-01
AC-228	2.321E+00	5.348E-01	1.504E-01	2.729E-01
RA-228	2.321E+00	5.348E-01	1.504E-01	2.729E-01
TH-228	2.334E+00	2.735E-01	6.153E-02	1.395E-01
TH-230	1.704E+00	2.509E-01	7.709E-02	1.280E-01
TH-232	2.321E+00	5.348E-01	1.504E-01	2.729E-01
TH-234	3.103E+00	2.431E+00	1.531E+00	1.240E+00
U-235	1.482E-01	2.883E-01	2.385E-01	1.471E-01
NP-237	1.827E+00	7.034E-01	2.683E-01	3.589E-01
U-238	3.103E+00	2.431E+00	1.531E+00	1.240E+00
ANH-511	2.108E-01	9.532E-02	3.156E-02	4.863E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.560E-01	4.583E-01	3.707E-01	2.338E-01	NOT IDENT.
NA-22	-3.604E-02	5.862E-02	4.702E-02	2.991E-02	NOT IDENT.
NA-24	-8.221E+07	2.475E+08	0.000E+00	1.263E+08	SHORT HLIF
SC-46	-2.399E-02	4.903E-02	3.905E-02	2.502E-02	FAIL ABUN
V-48	2.292E-02	1.111E-01	9.391E-02	5.666E-02	NOT IDENT.
CR-51	-4.801E-02	6.043E-01	4.948E-01	3.083E-01	NOT IDENT.
MN-54	-2.967E-03	5.290E-02	4.422E-02	2.699E-02	NOT IDENT.
CO-56	2.191E-02	5.708E-02	4.915E-02	2.912E-02	NOT IDENT.

CO-57	3.771E-02	3.609E-02	3.099E-02	1.841E-02	NOT IDENT.
CO-58	9.001E-03	5.303E-02	4.516E-02	2.706E-02	NOT IDENT.
FE-59	-1.566E-01	1.377E-01	1.013E-01	7.027E-02	NOT IDENT.
CO-60	-1.653E-02	5.405E-02	4.435E-02	2.757E-02	NOT IDENT.
ZN-65	-6.169E-02	1.424E-01	9.482E-02	7.265E-02	NOT IDENT.
SE-75	-5.023E-02	6.304E-02	5.170E-02	3.216E-02	NOT IDENT.
SR-85	1.349E-01	6.625E-02	5.375E-02	3.380E-02	NOT IDENT.
Y-88	1.645E-02	3.827E-02	3.425E-02	1.952E-02	NOT IDENT.
Y-91	-2.140E+01	3.356E+01	2.608E+01	1.712E+01	NOT IDENT.
NB-94	1.995E-02	4.601E-02	4.003E-02	2.348E-02	NOT IDENT.
NB-95	1.062E-01	7.368E-02	5.964E-02	3.759E-02	NOT IDENT.
NB-95M	1.086E+00	2.465E-01	2.005E-01	1.258E-01	NOT IDENT.
ZR-95	-2.481E-02	1.004E-01	8.320E-02	5.122E-02	NOT IDENT.
MO-99	-2.221E+00	5.747E+01	4.844E+01	2.932E+01	NOT IDENT.
TC-99M	-4.526E+22	5.400E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	5.669E-03	5.304E-02	4.413E-02	2.706E-02	FAIL ABUN
RH-106	-4.949E-02	4.094E-01	3.466E-01	2.089E-01	NOT IDENT.
RU-106	-4.949E-02	4.093E-01	3.466E-01	2.088E-01	NOT IDENT.
AG-108M	-4.201E-02	3.940E-02	3.042E-02	2.010E-02	NOT IDENT.
CD-109	6.270E+00	1.900E+00	1.178E+00	9.692E-01	NOT IDENT.
AG-110M	1.796E-02	4.484E-02	3.915E-02	2.288E-02	NOT IDENT.
SN-113	-3.368E-02	6.094E-02	4.929E-02	3.109E-02	NOT IDENT.
CD-115	-4.103E+01	6.751E+01	0.000E+00	3.444E+01	SHORT HLIF
SN-117M	-4.001E-03	9.877E-02	8.108E-02	5.039E-02	NOT IDENT.
TE-123M	-6.678E-03	4.086E-02	3.337E-02	2.085E-02	NOT IDENT.
SB-124	-7.132E-03	9.518E-02	7.813E-02	4.856E-02	NOT IDENT.
SB-125	8.965E-02	1.175E-01	1.021E-01	5.995E-02	FAIL ABUN
TE-125M	-5.953E+00	1.463E+01	1.201E+01	7.465E+00	NOT IDENT.
I-126	2.709E-01	3.854E-01	3.415E-01	1.966E-01	NOT IDENT.
SB-126	-2.124E-02	2.715E-01	2.045E-01	1.385E-01	NOT IDENT.
SB-127	1.590E+00	4.035E+00	3.516E+00	2.059E+00	NOT IDENT.
I-131	-1.846E-01	2.259E-01	1.799E-01	1.153E-01	NOT IDENT.
TE-132	7.252E-01	2.808E+00	2.429E+00	1.433E+00	NOT IDENT.
BA-133	3.021E-02	6.467E-02	4.861E-02	3.299E-02	FAIL ABUN
I-133	2.239E+05	3.945E+05	0.000E+00	2.013E+05	SHORT HLIF
CS-134	1.598E-01	9.185E-02	6.313E-02	4.686E-02	FAIL ABUN
CS-135	1.535E-01	2.189E-01	1.910E-01	1.117E-01	NOT IDENT.
I-135	1.550E+21	2.674E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.163E-02	1.872E-01	1.557E-01	9.552E-02	NOT IDENT.
BA-137M	-3.303E-02	4.703E-02	3.809E-02	2.400E-02	NOT IDENT.
CS-137	-3.490E-02	4.969E-02	4.024E-02	2.535E-02	NOT IDENT.
CE-139	2.796E-02	4.227E-02	3.557E-02	2.157E-02	NOT IDENT.
BA-140	2.118E-01	4.750E-01	3.980E-01	2.423E-01	NOT IDENT.
LA-140	1.100E-01	1.330E-01	1.231E-01	6.785E-02	FAIL ABUN
CE-141	4.440E-02	9.761E-02	8.185E-02	4.980E-02	NOT IDENT.
CE-143	1.644E+04	4.857E+03	0.000E+00	2.478E+03	SHORT HLIF
CE-144	-3.202E-01	2.895E-01	2.262E-01	1.477E-01	NOT IDENT.
PM-144	-2.234E-02	4.731E-02	3.887E-02	2.414E-02	NOT IDENT.
PR-144	-1.540E+00	3.543E+00	2.919E+00	1.808E+00	NOT IDENT.
PM-146	4.033E-03	5.671E-02	4.726E-02	2.893E-02	NOT IDENT.
ND-147	-9.714E-02	9.591E-01	7.831E-01	4.894E-01	FAIL ABUN
PM-149	4.753E+02	5.867E+02	0.000E+00	2.993E+02	SHORT HLIF
EU-152	1.204E-01	1.464E-01	1.077E-01	7.471E-02	NOT IDENT.
GD-153	5.381E-02	1.361E-01	1.004E-01	6.944E-02	NOT IDENT.
EU-154	-9.878E-02	1.661E-01	1.334E-01	8.473E-02	NOT IDENT.
EU-155	9.616E-02	1.499E-01	1.277E-01	7.650E-02	FAIL ABUN
TB-160	-3.870E-02	2.041E-01	1.681E-01	1.041E-01	FAIL ABUN
HO-166M	-6.192E-02	8.343E-02	6.236E-02	4.257E-02	FAIL ABUN
TA-182	-8.762E-02	2.864E-01	2.287E-01	1.461E-01	FAIL ABUN
IR-192	2.936E-02	4.875E-02	4.232E-02	2.487E-02	FAIL ABUN
HG-203	1.018E-01	6.382E-02	5.119E-02	3.256E-02	NOT IDENT.
BI-207	1.161E-03	7.204E-02	5.961E-02	3.675E-02	FAIL ABUN
PB-210	-1.765E+00	4.986E+00	4.261E+00	2.544E+00	NOT IDENT.
PB-211	-8.065E-01	1.041E+00	7.702E-01	5.313E-01	NOT IDENT.
BI-212	2.165E+00	9.359E-01	7.894E-01	4.775E-01	FAIL ABUN
RN-219	1.092E-02	5.382E-01	4.500E-01	2.746E-01	NOT IDENT.
RA-223	3.961E-01	1.005E+00	7.539E-01	5.128E-01	FAIL ABUN
AC-227	3.801E-01	3.554E-01	3.135E-01	1.813E-01	FAIL ABUN
TH-227	3.801E-01	3.562E-01	3.135E-01	1.817E-01	FAIL ABUN
TH-229	-1.636E-01	7.519E-01	6.076E-01	3.836E-01	FAIL ABUN
PA-231	-2.707E+00	2.231E+00	1.572E+00	1.138E+00	NOT IDENT.
TH-231	3.961E-01	1.005E+00	7.539E-01	5.128E-01	FAIL ABUN
PA-233	-3.476E-02	8.248E-02	6.817E-02	4.208E-02	FAIL ABUN
PA-234	2.026E-01	4.181E-01	3.597E-01	2.133E-01	NOT IDENT.
PA-234M	-4.286E+00	5.926E+00	4.635E+00	3.024E+00	NOT IDENT.
NP-239	-3.742E-01	5.599E-01	4.531E-01	2.857E-01	FAIL ABUN
AM-241	7.572E-02	2.386E-01	1.803E-01	1.217E-01	NOT IDENT.
CM-247	-2.206E-02	4.962E-02	4.035E-02	2.531E-02	FAIL ABUN

CF-249	6.348E-02	5.329E-02	4.720E-02	2.719E-02	NOT IDENT.
CF-251	-1.366E-01	1.844E-01	1.460E-01	9.409E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	420.2925
49.72	489.1980
57.36	0.0000
59.54	454.8640
63.29	518.5618
63.29	518.5618
64.28	532.3501
67.75	547.7212
69.67	576.2681
70.83	569.2237
72.81	581.5626
72.87	581.6093
72.87	581.6093
74.82	583.1412
74.82	583.1412
74.82	583.1412
74.97	583.2589
77.11	584.9150
77.11	584.9150
77.11	584.9150
79.69	475.9594
79.80	476.0260
80.12	476.2223
80.19	512.5908
80.57	512.8389
81.00	476.7588
81.07	476.8002
81.07	476.8002
83.79	546.5575
83.79	546.5575
85.43	526.5455
86.48	527.2258
86.55	527.2712
86.79	496.4962
86.94	496.5893
87.57	496.9709
88.03	497.2483
88.47	497.5126
89.96	947.7888
91.11	507.2712
92.59	508.1586
92.59	508.1586
93.35	433.1411
94.67	440.3810
94.87	440.4825
94.87	440.4825
95.86	503.5142
97.43	395.6250
98.44	366.3732
99.53	383.3480
100.11	373.4024
103.18	464.5447
103.37	432.4905
105.31	395.9918
106.12	388.0185
109.28	421.6923
111.00	398.4103
111.76	393.4952
116.30	377.4742
117.23	392.5675
121.12	340.2223
121.78	339.3886
122.06	341.5980
123.07	363.1121
131.20	363.8475
133.52	411.6943
136.00	361.2018

136.47	347.4190
140.51	407.9038
140.51	0.0000
143.76	359.4475
144.24	363.9221
144.24	363.9221
145.44	363.2292
152.43	362.1990
153.25	366.8094
154.21	339.8765
154.21	339.8765
156.02	352.4040
158.56	348.7894
159.00	350.0122
162.66	340.1126
163.33	327.1288
165.86	315.7083
176.60	348.3989
177.52	355.3125
181.07	342.0446
184.41	337.5652
185.72	324.0486
193.51	336.0670
197.04	311.9258
205.31	302.3091
210.85	301.9778
215.65	321.0432
222.11	276.1947
227.38	263.3630
228.16	264.4222
228.18	264.4257
235.69	270.0587
235.96	270.1068
235.96	270.1068
238.63	253.2581
238.63	253.2581
240.99	253.6447
242.00	235.5255
244.70	253.0062
252.40	264.8427
252.80	263.0362
256.23	237.3303
256.23	237.3303
260.90	0.0000
264.66	260.2425
268.22	251.3525
269.46	223.1715
269.46	223.1715
271.23	209.8365
273.65	342.8593
276.40	226.3061
277.37	222.3171
277.60	224.8824
278.00	224.9344
279.20	198.1456
279.54	209.2820
280.46	203.0495
283.69	257.4657
284.31	238.4796
285.41	229.0840
285.90	0.0000
287.50	202.8131
293.27	0.0000
295.22	203.1711
295.96	249.6692
298.57	250.0342
299.98	197.2975
299.98	197.2975
300.09	197.3075
300.09	197.3075
300.13	197.3125
301.36	223.1319
302.85	207.2498
304.50	201.0066
304.50	201.0066
304.85	201.0447
308.46	202.0886
311.90	186.0000

316.51	180.6348
319.41	210.0964
320.08	212.9811
323.87	194.9951
323.87	194.9951
328.76	192.2373
333.37	176.3701
334.37	174.0115
334.37	174.0115
338.28	179.7653
338.28	179.7653
338.32	179.7676
338.32	179.7676
338.32	179.7676
340.48	180.2942
340.55	177.0227
344.28	141.8871
351.06	170.0579
351.93	170.1313
356.01	166.8436
364.49	160.2414
366.42	140.4682
383.85	177.8103
388.16	135.8932
388.63	129.8818
391.69	164.3490
400.66	150.8552
401.81	152.9612
402.40	162.1211
404.85	175.4898
410.95	140.3719
414.70	148.7589
423.72	128.8962
427.09	121.9154
427.87	118.8830
433.94	153.1069
453.88	133.6879
463.37	148.7849
468.07	138.9974
473.00	111.7701
476.78	143.3282
477.60	130.8182
487.02	101.9009
492.35	0.0000
497.08	98.0893
511.00	121.9559
514.00	125.6360
527.90	0.0000
529.87	0.0000
531.02	98.3138
537.26	106.0407
546.56	0.0000
563.25	108.1396
569.33	108.3765
569.50	111.6353
569.70	111.6428
583.19	83.8634
600.60	105.4685
602.73	116.9688
604.72	118.8757
609.32	114.3010
609.32	114.3010
609.32	114.3010
610.33	114.3416
614.28	102.2267
618.01	97.0041
621.93	102.0978
621.93	102.0978
633.25	86.7901
635.95	89.6409
636.99	97.9905
645.85	85.2973
657.76	89.3535
661.66	114.6268
661.66	114.6268
664.57	0.0000
666.33	97.0662
666.50	87.7387

677.62	91.7972
685.70	80.7615
695.00	103.6017
696.49	116.8403
696.51	115.8981
697.00	111.2060
702.65	104.7919
706.68	106.8111
711.68	94.6696
720.70	91.1328
721.93	0.0000
722.78	105.8449
722.91	105.8494
723.31	91.2051
724.19	87.9704
727.33	92.2656
733.00	80.0369
735.93	100.1337
739.50	90.6938
747.24	88.9888
752.31	81.4549
753.82	84.3674
756.73	92.1152
763.94	92.3105
765.81	95.6599
766.42	95.6761
777.92	82.5463
778.90	76.4849
783.70	77.3649
785.37	75.9934
795.86	69.8687
801.95	87.4860
810.29	73.0759
810.76	74.0595
815.77	69.2839
818.51	57.6172
832.01	77.4361
834.85	99.0767
836.80	0.0000
846.77	79.7146
856.80	98.6796
860.56	67.1699
871.09	81.2259
873.19	75.3243
875.33	0.0000
879.36	82.3955
880.51	79.4401
883.24	60.6165
884.68	62.6283
889.28	63.6979
898.04	68.8315
911.20	70.3515
911.20	70.3515
911.20	70.3515
926.50	72.3486
937.49	85.6485
944.13	91.8461
946.00	69.6738
949.00	63.6627
962.29	81.6861
964.08	86.9385
966.15	97.4219
968.97	113.7363
968.97	113.7363
968.97	113.7363
983.53	58.0889
996.26	56.2230
1001.03	66.5208
1004.73	54.2886
1037.84	71.2292
1038.76	0.0000
1048.07	66.2240
1050.41	80.7549
1050.41	80.7549
1063.66	69.5763
1085.87	72.0154
1099.45	85.8438
1112.07	66.5876

1115.54	79.2467
1120.29	63.1030
1120.29	63.1030
1120.29	63.1030
1120.55	63.1079
1121.30	63.1177
1131.51	0.0000
1173.23	70.2109
1177.93	103.2914
1189.05	97.1318
1204.77	98.5212
1221.41	91.3397
1231.02	94.1344
1235.36	83.1320
1238.28	72.2453
1260.41	0.0000
1271.85	49.3178
1274.44	68.8950
1274.54	68.8950
1291.59	50.4461
1298.22	0.0000
1312.11	59.0911
1332.49	52.7324
1365.19	29.3739
1368.63	0.0000
1384.29	24.9628
1408.01	32.4762
1457.56	0.0000
1460.82	35.4426
1489.16	28.1099
1505.03	36.9371
1596.21	17.7727
1620.50	11.8966
1678.03	0.0000
1690.97	16.0458
1764.49	7.1021
1764.49	7.1021
1764.49	7.1021
1770.23	17.7710
1771.35	63.9866
1791.20	0.0000
1836.06	10.2577

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248824001

Total Uranium Activity	9.2993E+00	ug/g
Total Uranium Counting Unc.	7.2333E+00	ug/g
Total Uranium Tpu	3.6904E-06	ug/g
Total Uranium Mda	4.5575E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962631                    SAMPLE ID  : G248824001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM29            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 14:25:27.95    SAMPLE ALQT:  103.870 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.263E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.969E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 5.103E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.488E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:40:17.98

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824002.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 14:38:47
Sample ID         : G248824002           Sample quantity  : 1.28930E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.38  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.07*	126	363	1.32	126.18	122	8	1.74E-02	28.7	
2	3	74.91	329	417	1.15	149.87	143	16	4.57E-02	11.7	9.13E-01
3	3	77.15*	604	339	1.00	154.35	143	16	8.39E-02	6.5	
4	3	87.26	250	401	1.24	174.56	171	12	3.47E-02	14.6	7.06E-01
5	3	89.91	161	267	0.85	179.85	171	12	2.23E-02	17.4	
6	0	92.95*	224	400	1.70	185.93	183	8	3.11E-02	17.3	
7	0	186.15*	263	397	1.36	372.36	367	12	3.66E-02	16.5	
8	0	210.32	280	369	1.36	420.71	414	15	3.89E-02	16.2	
9	6	238.73*	1470	205	1.15	477.54	470	19	2.04E-01	3.1	1.25E+00
10	6	241.72*	330	290	1.83	483.50	470	19	4.58E-02	14.5	
11	0	270.01	97	210	1.59	540.10	536	10	1.35E-02	29.5	
12	0	277.64	61	138	0.78	555.36	552	7	8.53E-03	34.4	
13	0	295.43*	393	211	1.11	590.94	586	11	5.46E-02	8.9	
14	0	300.14	91	155	1.04	600.37	597	8	1.27E-02	25.8	
15	0	328.20	78	185	1.42	656.47	652	11	1.09E-02	35.6	
16	0	338.38*	278	175	1.12	676.84	673	11	3.86E-02	11.0	
17	0	352.08*	699	205	1.19	704.25	698	13	9.70E-02	5.7	
18	0	463.31	85	135	0.93	926.71	921	12	1.18E-02	29.3	
19	0	511.20*	180	112	1.33	1022.49	1015	15	2.49E-02	16.6	
20	0	583.54	455	122	1.35	1167.17	1161	14	6.32E-02	7.0	
21	0	609.73*	485	98	1.35	1219.56	1214	14	6.73E-02	6.4	
22	0	727.80*	85	65	0.89	1455.68	1451	10	1.18E-02	21.3	
23	0	768.04	45	91	1.49	1536.17	1529	13	6.24E-03	46.3	
24	0	796.50	62	84	3.84	1593.08	1585	19	8.66E-03	37.7	
25	0	861.62	68	61	1.21	1723.32	1717	13	9.49E-03	26.6	
26	0	911.96*	265	105	1.64	1823.97	1815	16	3.68E-02	10.7	
27	0	970.09*	121	146	1.76	1940.23	1932	12	1.68E-02	22.1	
28	0	1120.64*	84	87	2.36	2241.29	2234	15	1.17E-02	26.7	
29	0	1378.73	37	13	2.57	2757.39	2752	11	5.18E-03	25.1	
30	0	1461.62*	1359	15	2.02	2923.13	2913	19	1.89E-01	2.8	
31	0	1730.48	13	10	0.70	3460.69	3457	10	1.81E-03	53.3	
32	0	1765.36*	87	0	2.40	3530.44	3522	16	1.21E-02	11.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 16:40:20

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 14:38:47
Sample ID : G248824002 Sample quantity : 128.93 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA4 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.38 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.455E+01	3.129E+00	5.949E-01	4.228E-02	58.070
CD-109	+	88.03	*	4.038E+00	1.273E+00	1.486E+00	1.786E-01	2.717
SN-126	+	64.28		1.869E+00	1.120E+00	1.028E+00	1.770E-01	1.818
	+	86.94		1.629E+00	8.352E-01	6.104E-01	2.575E-01	2.668
	+	87.57	*	3.917E-01	1.235E-01	1.453E-01	1.742E-02	2.697
TL-208	+	277.37		6.267E-01	4.373E-01	6.043E-01	6.808E-02	1.037
	+	583.19	*	6.351E-01	9.710E-02	5.797E-02	3.638E-03	10.955
	+	860.56		9.136E-01	4.916E-01	5.092E-01	4.246E-02	1.794
BI-211		72.87		2.633E+00	3.676E+00	6.311E+00	7.235E-01	0.417
	+	351.06	*	4.343E+00	5.772E-01	3.121E-01	2.109E-02	13.916
PB-212	+	74.82		2.553E+00	7.090E-01	6.676E-01	1.003E-01	3.825
	+	77.11		2.616E+00	4.552E-01	3.728E-01	4.277E-02	7.016
	+	238.63	*	2.035E+00	2.078E-01	9.430E-02	7.628E-03	21.582
	+	300.09		1.972E+00	1.033E+00	1.240E+00	1.108E-01	1.590
BI-214	+	609.32	*	1.311E+00	1.938E-01	1.099E-01	8.148E-03	11.926
	+	1120.29		1.214E+00	6.579E-01	5.081E-01	4.762E-02	2.389
	+	1764.49		1.734E+00	4.040E-01	2.995E-01	1.826E-02	5.790
PB-214	+	74.82		4.526E+00	1.231E+00	1.183E+00	1.648E-01	3.825
	+	77.11		4.611E+00	8.881E-01	6.572E-01	9.285E-02	7.016
	+	242.00		2.770E+00	8.400E-01	5.737E-01	5.068E-02	4.829
	+	295.22		1.504E+00	3.016E-01	2.232E-01	2.069E-02	6.736
	+	351.93	*	1.576E+00	2.268E-01	1.135E-01	9.895E-03	13.886
RA-224	+	240.99	*	4.899E+00	1.458E+00	1.011E+00	6.740E-02	4.846
RA-226	+	609.32	*	1.311E+00	1.938E-01	1.099E-01	8.148E-03	11.926
	+	1120.29		1.214E+00	6.579E-01	5.081E-01	4.762E-02	2.389
	+	1764.49		1.734E+00	4.040E-01	2.995E-01	1.826E-02	5.790
AC-228	+	338.32		1.924E+00	8.995E-01	3.709E-01	1.532E-01	5.187
	+	911.20	*	1.811E+00	4.382E-01	2.269E-01	2.555E-02	7.979
	+	968.97		1.433E+00	7.204E-01	5.298E-01	1.277E-01	2.704
RA-228	+	338.32		1.924E+00	8.995E-01	3.709E-01	1.532E-01	5.187
	+	911.20	*	1.811E+00	4.382E-01	2.269E-01	2.555E-02	7.979
	+	968.97		1.433E+00	7.204E-01	5.298E-01	1.277E-01	2.704
TH-228	+	74.82		2.553E+00	6.648E-01	6.676E-01	7.685E-02	3.825
	+	77.11		2.616E+00	4.552E-01	3.728E-01	4.277E-02	7.016

Sample ID : G248824002 Acquisition date : 23-MAR-2010 14:38:47

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	2.035E+00	2.078E-01	9.430E-02	7.628E-03	21.582
	+	300.09		1.972E+00	1.575E+00	1.240E+00	7.560E-01	1.590
TH-230	+	609.32	*	1.311E+00	1.810E-01	1.099E-01	5.724E-03	11.926
	+	1120.29		1.214E+00	6.528E-01	5.080E-01	3.329E-02	2.389
	+	1764.49		1.734E+00	4.040E-01	2.995E-01	1.826E-02	5.790
TH-232	+	338.32		1.924E+00	4.387E-01	3.709E-01	2.332E-02	5.187
	+	911.20	*	1.811E+00	4.382E-01	2.269E-01	2.555E-02	7.979
	+	968.97		1.433E+00	7.204E-01	5.298E-01	1.277E-01	2.704
TH-234	+	63.29	*	4.849E+00	2.949E+00	2.839E+00	5.713E-01	1.708
	+	92.59		2.814E+00	1.167E+00	1.006E+00	2.316E-01	2.797
U-235	+	89.96		2.569E+00	1.114E+00	1.271E+00	3.272E-01	2.022
	+	93.35		2.126E+00	8.931E-01	7.134E-01	1.707E-01	2.979
		143.76	*	1.816E-01	1.977E-01	3.269E-01	5.227E-02	0.556
		163.33		-3.794E-02	4.403E-01	7.101E-01	1.206E-01	-0.053
	+	185.72		2.354E-01	7.921E-02	6.389E-02	4.119E-03	3.684
		205.31		1.659E-01	5.312E-01	7.703E-01	1.329E-01	0.215
NP-237	+	86.48	*	1.169E+00	4.425E-01	4.479E-01	1.080E-01	2.610
		95.86		-2.143E-01	1.008E+00	1.482E+00	3.640E-01	-0.145
U-238	+	63.29	*	4.849E+00	2.949E+00	2.839E+00	5.713E-01	1.708
	+	92.59		2.814E+00	1.017E+00	1.006E+00	1.087E-01	2.797
ANH-511	+	511.00	*	1.916E-01	6.470E-02	4.581E-02	2.562E-03	4.183

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-3.442E-02	3.401E-01	5.502E-01	3.643E-02	-0.063
NA-22		1274.54	*	-1.213E-02	4.224E-02	6.844E-02	4.475E-03	-0.177
NA-24		1368.63	*	2.140E+02	4.224E-02	Half-Life too short		
SC-46		889.28	*	1.076E-03	4.852E-02	7.863E-02	6.360E-03	0.014
	+	1120.55		2.140E-01	1.151E-01	1.459E-01	9.555E-03	1.467
V-48		944.13		1.881E-01	1.145E+00	1.921E+00	1.536E-01	0.098
		983.53	*	-6.046E-03	9.297E-02	1.509E-01	1.169E-02	-0.040
		1312.11		-2.914E-02	1.064E-01	1.723E-01	1.161E-02	-0.169
CR-51		320.08	*	3.364E-02	3.998E-01	6.724E-01	4.729E-02	0.050
MN-54		834.85	*	5.191E-03	3.985E-02	6.664E-02	4.823E-03	0.078
CO-56		846.77	*	-1.723E-02	4.163E-02	6.608E-02	4.903E-03	-0.261
		1037.84		-1.254E-01	3.502E-01	5.485E-01	4.312E-02	-0.229
		1238.28		1.305E-01	1.139E-01	2.049E-01	1.364E-02	0.637
		1771.35		1.062E-01	2.090E-01	3.458E-01	2.100E-02	0.307
CO-57		122.06	*	-8.411E-03	2.610E-02	4.164E-02	2.891E-03	-0.202
		136.47		-1.037E-01	2.078E-01	3.320E-01	2.465E-02	-0.312
CO-58		810.76	*	-2.508E-02	4.563E-02	7.213E-02	4.979E-03	-0.348
FE-59		1099.45	*	6.455E-03	1.187E-01	1.930E-01	1.474E-02	0.033
		1291.59		-8.168E-02	1.386E-01	2.167E-01	1.751E-02	-0.377
CO-60		1173.23		5.757E-02	5.630E-02	9.822E-02	5.841E-03	0.586
		1332.49	*	2.723E-02	4.054E-02	7.269E-02	4.981E-03	0.375
ZN-65		1115.54	*	3.631E-02	1.154E-01	1.677E-01	1.109E-02	0.217
SE-75		121.12		-9.726E-02	1.376E-01	2.187E-01	2.162E-02	-0.445

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		136.00		-2.151E-02	4.053E-02	6.467E-02	4.336E-03	-0.333
		264.66	*	-1.136E-02	4.859E-02	7.536E-02	5.070E-03	-0.151
		279.54		8.188E-03	1.200E-01	1.795E-01	1.269E-02	0.046
		400.66		-2.325E-03	2.677E-01	4.415E-01	3.960E-02	-0.005
SR-85		514.00	*	4.203E-02	4.675E-02	7.194E-02	4.018E-03	0.584
Y-88		898.04		-1.674E-02	4.662E-02	7.414E-02	6.134E-03	-0.226
		1836.06	*	4.032E-03	3.244E-02	5.411E-02	3.157E-03	0.075
Y-91		1204.77	*	3.853E+00	2.791E+01	4.537E+01	2.780E+00	0.085
NB-94		702.65	*	2.037E-02	3.643E-02	6.340E-02	3.416E-03	0.321
		871.09		-1.400E-02	3.754E-02	5.980E-02	4.663E-03	-0.234
NB-95		765.81	*	4.716E-02	4.971E-02	7.953E-02	4.957E-03	0.593
NB-95M		235.69	*	1.166E-01	1.517E-01	2.241E-01	1.844E-02	0.520
ZR-95		724.19		7.371E-02	1.044E-01	1.640E-01	1.103E-02	0.449
		756.73	*	4.718E-02	7.229E-02	1.272E-01	9.316E-03	0.371
MO-99		140.51		-8.055E+01	8.027E+01	1.208E+02	2.787E+01	-0.667
		181.07		-2.754E+00	6.578E+01	9.408E+01	1.683E+01	-0.029
		366.42		-3.095E+01	3.512E+02	5.796E+02	3.465E+01	-0.053
		739.50	*	1.154E+01	4.346E+01	7.412E+01	1.070E+01	0.156
		777.92		-2.972E+01	1.290E+02	2.103E+02	1.347E+01	-0.141
TC-99M		140.51	*	-3.867E+16	1.290E+02	Half-Life too short		
RU-103		497.08	*	-2.199E-02	4.173E-02	6.471E-02	7.987E-03	-0.340
	+	610.33		1.477E+01	2.894E+00	3.355E+00	4.976E-01	4.403
RH-106		621.93	*	-7.679E-02	3.397E-01	5.323E-01	6.018E-02	-0.144
		1050.41		1.282E+00	2.904E+00	4.913E+00	3.552E-01	0.261
RU-106		621.93	*	-7.679E-02	3.396E-01	5.323E-01	2.735E-02	-0.144
		1050.41		1.282E+00	2.904E+00	4.913E+00	3.552E-01	0.261
AG-108M		433.94	*	-2.316E-02	2.896E-02	4.464E-02	2.717E-03	-0.519
		614.28		-7.362E-03	4.150E-02	5.668E-02	3.197E-03	-0.130
		722.91		9.224E-03	4.262E-02	6.351E-02	3.852E-03	0.145
AG-110M		657.76	*	-5.336E-03	3.479E-02	5.788E-02	3.093E-03	-0.092
		677.62		1.420E-01	3.309E-01	5.733E-01	3.144E-02	0.248
		706.68		-1.759E-01	2.281E-01	3.595E-01	2.094E-02	-0.489
		763.94		1.620E-01	1.805E-01	2.882E-01	1.882E-02	0.562
		884.68		-1.994E-02	5.518E-02	8.787E-02	7.303E-03	-0.227
		937.49		-6.139E-02	1.233E-01	1.925E-01	1.610E-02	-0.319
		1384.29		-7.562E-02	1.681E-01	2.158E-01	1.541E-02	-0.350
		1505.03		-1.048E-01	2.729E-01	4.225E-01	2.852E-02	-0.248
SN-113		391.69	*	8.253E-03	4.572E-02	7.642E-02	4.605E-03	0.108
CD-115		260.90		1.389E-04	4.572E-02	Half-Life too short		
		492.35		9.961E-05	4.572E-02	Half-Life too short		
		527.90	*	8.469E-05	4.572E-02	Half-Life too short		
SN-117M		156.02		-1.837E+00	2.980E+00	4.701E+00	3.016E-01	-0.391
		158.56	*	-4.727E-02	7.087E-02	1.113E-01	7.120E-03	-0.425
TE-123M		159.00	*	-3.269E-02	3.033E-02	4.668E-02	3.017E-03	-0.700
SB-124		602.73		-3.572E-02	4.185E-02	5.543E-02	2.908E-03	-0.644
		645.85		9.970E-02	5.033E-01	8.616E-01	4.999E-02	0.116
		722.78		1.978E-01	4.412E-01	6.747E-01	4.012E-02	0.293
		1690.97	*	-4.040E-02	9.010E-02	1.347E-01	9.189E-03	-0.300
SB-125		427.87	*	6.319E-02	9.325E-02	1.600E-01	9.458E-03	0.395

---- Non-Identified Nuclides ----

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	+	463.37		8.087E-01	4.774E-01	5.938E-01	3.926E-02	1.362
		600.60		-7.475E-02	1.721E-01	2.650E-01	1.655E-02	-0.282
		635.95		3.990E-02	2.747E-01	4.443E-01	2.741E-02	0.090
TE-125M		109.28	*	2.505E+00	1.047E+01	1.747E+01	1.764E+00	0.143
I-126		388.63		6.152E-02	2.129E-01	3.585E-01	2.034E-02	0.172
		666.33	*	8.672E-02	3.071E-01	5.268E-01	2.599E-02	0.165
		753.82		2.039E+00	2.235E+00	4.012E+00	2.434E-01	0.508
SB-126		414.70		-4.068E-02	1.007E-01	1.612E-01	9.122E-03	-0.252
		666.50		1.137E-01	1.022E-01	1.852E-01	9.139E-03	0.614
		695.00		5.749E-02	1.085E-01	1.887E-01	9.983E-03	0.305
		697.00		3.087E-02	3.809E-01	6.424E-01	3.414E-02	0.048
		720.70	*	-1.099E-01	1.982E-01	3.073E-01	1.727E-02	-0.358
		856.80		1.686E-01	7.533E-01	1.109E+00	8.397E-02	0.152
SB-127		252.40		-5.399E+00	1.035E+01	1.670E+01	6.951E+00	-0.323
		473.00		4.462E+00	4.095E+00	7.139E+00	9.009E-01	0.625
		685.70	*	1.954E-01	3.378E+00	5.696E+00	6.247E-01	0.034
		783.70		7.236E+00	8.912E+00	1.570E+01	1.979E+00	0.461
I-131		80.19		8.720E+00	8.146E+00	1.280E+01	1.488E+00	0.681
		284.31		8.811E-01	2.206E+00	3.794E+00	2.749E-01	0.232
		364.49	*	6.656E-02	1.832E-01	3.107E-01	2.084E-02	0.214
		636.99		-7.874E-01	2.402E+00	3.712E+00	2.194E-01	-0.212
TE-132		49.72		1.061E+02	1.187E+02	2.079E+02	3.184E+01	0.511
		111.76		-2.051E+01	1.019E+02	1.667E+02	2.004E+01	-0.123
		116.30		-2.043E+01	8.592E+01	1.401E+02	1.644E+01	-0.146
		228.16	*	2.597E-02	2.249E+00	3.574E+00	5.717E-01	0.007
BA-133		81.00		-6.016E-02	1.154E-01	1.683E-01	2.919E-02	-0.357
	+	276.40		5.798E-01	4.063E-01	6.387E-01	8.306E-02	0.908
		302.85		-8.364E-02	1.573E-01	2.231E-01	2.634E-02	-0.375
		356.01	*	2.038E-03	4.502E-02	6.609E-02	7.557E-03	0.031
		383.85		8.717E-02	2.821E-01	4.761E-01	5.062E-02	0.183
I-133		529.87	*	-2.672E-01	2.821E-01	Half-Life too short		
		875.33		-6.423E-01	2.821E-01	Half-Life too short		
		1298.22		9.130E+00	2.821E-01	Half-Life too short		
CS-134		563.25		2.208E-01	3.867E-01	6.452E-01	3.586E-02	0.342
		569.33		-4.604E-02	2.054E-01	3.245E-01	1.814E-02	-0.142
		604.72		-1.197E-02	3.645E-02	4.654E-02	2.452E-03	-0.257
	+	795.86	*	1.284E-01	9.714E-02	8.994E-02	6.062E-03	1.428
		801.95		-4.632E-01	4.805E-01	6.035E-01	4.110E-02	-0.767
		1365.19		-1.435E+00	1.276E+00	1.781E+00	1.309E-01	-0.806
CS-135		268.22	*	1.174E-01	1.676E-01	2.617E-01	2.182E-02	0.449
I-135		546.56		-3.054E+15	1.676E-01	Half-Life too short		
		836.80		-3.490E+15	1.676E-01	Half-Life too short		
		1038.76		-5.385E+15	1.676E-01	Half-Life too short		
		1131.51		2.145E+15	1.676E-01	Half-Life too short		
		1260.41	*	-1.372E+15	1.676E-01	Half-Life too short		
		1457.56		6.269E+16	1.676E-01	Half-Life too short		
		1678.03		2.808E+15	1.676E-01	Half-Life too short		
		1791.20		3.139E+15	1.676E-01	Half-Life too short		
CS-136		153.25		8.113E-01	1.159E+00	1.935E+00	1.648E-01	0.419

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		176.60		6.681E-01	6.274E-01	1.060E+00	8.019E-02	0.630
		273.65		-2.833E-01	1.013E+00	1.062E+00	8.061E-02	-0.267
		340.55		4.328E-01	2.273E-01	3.737E-01	2.509E-02	1.158
		818.51		7.051E-02	1.069E-01	1.864E-01	1.307E-02	0.378
		1048.07	*	-6.787E-02	1.575E-01	2.449E-01	1.882E-02	-0.277
		1235.36		-2.463E-01	9.118E-01	1.500E+00	1.530E-01	-0.164
BA-137M		661.66	*	-4.373E-02	3.767E-02	5.902E-02	2.879E-03	-0.741
CS-137		661.66	*	-4.619E-02	3.980E-02	6.235E-02	3.059E-03	-0.741
CE-139		165.86	*	4.107E-02	2.943E-02	5.053E-02	3.211E-03	0.813
BA-140		162.66		-8.409E-02	1.058E+00	1.707E+00	1.218E-01	-0.049
		304.85		1.034E+00	1.908E+00	2.906E+00	8.347E-01	0.356
		423.72		-7.125E-01	2.691E+00	4.330E+00	1.396E+00	-0.165
		537.26	*	-9.416E-02	3.372E-01	5.294E-01	1.761E-01	-0.178
LA-140	+	328.76		8.800E-01	6.292E-01	7.514E-01	5.277E-02	1.171
		487.02		8.259E-03	1.764E-01	2.883E-01	1.852E-02	0.029
		815.77		4.350E-02	4.881E-01	8.149E-01	6.659E-02	0.053
		1596.21	*	-5.648E-02	1.203E-01	1.829E-01	1.205E-02	-0.309
CE-141		145.44	*	-4.971E-02	6.823E-02	1.074E-01	7.211E-03	-0.463
CE-143		57.36		-8.981E-04	6.823E-02	Half-Life too short		
		293.27	*	4.570E-03	6.823E-02	Half-Life too short		
		664.57		3.505E-03	6.823E-02	Half-Life too short		
		721.93		2.423E-03	6.823E-02	Half-Life too short		
CE-144		80.12		3.030E+00	2.895E+00	4.546E+00	5.253E-01	0.666
		133.52	*	2.565E-02	1.961E-01	3.228E-01	4.608E-02	0.079
PM-144		476.78		-1.786E-02	6.572E-02	1.049E-01	7.069E-03	-0.170
		618.01		1.888E-02	3.667E-02	6.101E-02	3.390E-03	0.309
		696.49	*	1.163E-02	3.708E-02	6.356E-02	3.380E-03	0.183
PR-144		696.51	*	5.567E-01	2.802E+00	4.765E+00	2.530E-01	0.117
		1489.16		-4.803E+00	1.136E+01	1.729E+01	1.171E+00	-0.278
PM-146		453.88	*	8.517E-03	4.231E-02	7.022E-02	5.876E-03	0.121
		633.25		1.298E+00	1.458E+00	2.387E+00	8.964E-01	0.544
		735.93		-5.724E-02	1.460E-01	2.343E-01	6.395E-02	-0.244
		747.24		3.327E-02	1.006E-01	1.722E-01	2.272E-02	0.193
ND-147	+	91.11		1.140E+00	4.206E-01	7.114E-01	8.345E-02	1.603
		319.41		9.335E-02	4.307E+00	7.218E+00	4.655E-01	0.013
		531.02	*	-9.260E-01	7.737E-01	1.103E+00	1.480E-01	-0.839
PM-149		285.90	*	-8.420E-05	7.737E-01	Half-Life too short		
EU-152		121.78		7.442E-03	7.334E-02	1.211E-01	1.029E-02	0.061
		244.70		3.750E-01	3.560E-01	5.388E-01	3.595E-02	0.696
		344.28	*	-1.699E-02	1.088E-01	1.574E-01	1.088E-02	-0.108
		778.90		6.633E-02	2.594E-01	4.410E-01	2.829E-02	0.150
		964.08		3.612E-01	3.592E-01	5.652E-01	4.450E-02	0.639
		1085.87		2.051E-01	4.329E-01	7.334E-01	5.063E-02	0.280
		1112.07		-7.267E-02	3.560E-01	5.478E-01	3.637E-02	-0.133
		1408.01		1.933E-01	1.864E-01	3.477E-01	2.378E-02	0.556
GD-153		69.67		2.068E+00	2.319E+00	3.647E+00	4.211E-01	0.567
		97.43	*	-8.781E-02	1.027E-01	1.454E-01	1.427E-02	-0.604
		103.18		-1.835E-01	1.120E-01	1.703E-01	1.515E-02	-1.078
EU-154		123.07		-2.257E-02	5.278E-02	8.375E-02	8.466E-03	-0.269

---- Non-Identified Nuclides ----

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		723.31		7.468E-02	1.874E-01	2.851E-01	1.972E-02	0.262
		873.19		1.279E-02	2.883E-01	4.774E-01	5.412E-02	0.027
		996.26		5.627E-02	3.760E-01	6.225E-01	1.059E-01	0.090
		1004.73		1.664E-01	2.386E-01	4.127E-01	4.498E-02	0.403
		1274.44	*	-4.125E-02	1.201E-01	1.932E-01	1.910E-02	-0.213
EU-155	+	86.55		4.759E-01	1.501E-01	2.096E-01	2.510E-02	2.271
		105.31	*	-9.307E-03	1.046E-01	1.725E-01	1.502E-02	-0.054
TB-160	+	86.79		1.322E+00	4.168E-01	5.873E-01	7.008E-02	2.251
		197.04		-4.429E-01	6.305E-01	9.620E-01	6.260E-02	-0.460
		215.65		3.820E-01	8.546E-01	1.249E+00	8.238E-02	0.306
		298.57		2.784E-01	1.713E-01	2.208E-01	1.451E-02	1.261
		879.36	*	3.003E-03	1.471E-01	2.430E-01	1.926E-02	0.012
		962.29		-4.779E-01	6.851E-01	8.803E-01	6.942E-02	-0.543
		966.15		5.674E-01	2.898E-01	4.861E-01	3.822E-02	1.167
		1177.93		-5.084E-01	4.892E-01	7.133E-01	4.261E-02	-0.713
		1271.85		-4.345E-01	7.105E-01	1.106E+00	7.199E-02	-0.393
HO-166M		80.57		2.470E-01	3.135E-01	4.874E-01	5.640E-02	0.507
		184.41		7.563E-02	3.903E-02	6.177E-02	3.978E-03	1.225
		280.46		-4.679E-02	8.935E-02	1.276E-01	8.479E-03	-0.367
		410.95		2.898E-01	2.559E-01	4.495E-01	2.542E-02	0.645
		711.68	*	-5.247E-03	6.399E-02	1.065E-01	5.861E-03	-0.049
		752.31		-2.477E-01	2.767E-01	4.250E-01	2.569E-02	-0.583
		810.29		-4.280E-03	6.495E-02	1.071E-01	7.360E-03	-0.040
TA-182		67.75		-4.614E-02	1.402E-01	2.331E-01	2.712E-02	-0.198
		100.11		2.578E-01	1.903E-01	3.299E-01	3.087E-02	0.781
		152.43		1.310E-01	3.702E-01	6.106E-01	3.933E-02	0.214
		222.11		-2.752E-01	3.796E-01	5.800E-01	3.839E-02	-0.474
	+	1121.30		5.863E-01	3.153E-01	3.952E-01	2.586E-02	1.483
		1189.05		2.525E-02	3.692E-01	5.973E-01	3.607E-02	0.042
		1221.41	*	-2.793E-02	2.533E-01	4.220E-01	2.626E-02	-0.066
		1231.02		-4.744E-01	5.882E-01	9.263E-01	5.815E-02	-0.512
IR-192	+	295.96		1.165E+00	2.214E-01	3.202E-01	2.135E-02	3.639
		308.46		1.158E-02	9.950E-02	1.679E-01	1.105E-02	0.069
		316.51	*	-9.186E-03	3.469E-02	5.719E-02	3.713E-03	-0.161
		468.07		-2.445E-02	8.050E-02	1.114E-01	7.328E-03	-0.219
HG-203		70.83		5.104E-01	1.902E+00	2.910E+00	5.174E-01	0.175
		72.87		7.061E-01	9.902E-01	1.692E+00	2.924E-01	0.417
		279.20	*	4.183E-02	4.418E-02	7.005E-02	4.855E-03	0.597
BI-207		72.81		1.294E-01	2.110E-01	3.613E-01	4.143E-02	0.358
	+	74.97		7.361E-01	1.915E-01	2.714E-01	3.108E-02	2.713
		569.70		-3.899E-03	3.160E-02	5.034E-02	2.719E-03	-0.077
		1063.66	*	1.649E-02	6.330E-02	1.051E-01	7.476E-03	0.157
		1770.23		7.372E-02	5.006E-01	7.292E-01	4.430E-02	0.101
PB-210		46.54	*	1.381E-02	8.887E+00	1.508E+01	1.316E+00	0.001
PB-211		404.85	*	-5.274E-01	7.860E-01	1.171E+00	5.617E-01	-0.450
		427.09		3.172E-01	1.596E+00	2.646E+00	1.212E+00	0.120
		832.01		6.970E-01	1.131E+00	1.869E+00	9.653E-01	0.373
BI-212	+	727.33	*	1.827E+00	8.030E-01	1.235E+00	1.315E-01	1.480
		785.37		2.113E+00	3.331E+00	5.808E+00	3.780E-01	0.364

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		1.645E+00	2.718E+00	4.835E+00	3.157E-01	0.340
RN-219	+	271.23		5.944E-01	3.549E-01	4.406E-01	3.823E-02	1.349
		401.81	*	-4.507E-02	4.125E-01	6.756E-01	9.033E-02	-0.067
RA-223		81.07		-1.423E-01	2.601E-01	3.798E-01	4.402E-02	-0.375
		83.79		9.992E-02	1.477E-01	2.279E-01	2.673E-02	0.438
		94.87		3.654E-01	5.011E-01	7.728E-01	7.968E-02	0.473
		144.24		6.417E-01	6.446E-01	1.077E+00	8.403E-02	0.596
		154.21		2.682E-01	3.978E-01	6.638E-01	4.977E-02	0.404
	+	269.46		4.618E-01	2.747E-01	3.405E-01	2.345E-02	1.356
		323.87	*	1.262E-01	6.878E-01	1.028E+00	1.680E-01	0.123
	+	338.28		7.635E+00	1.857E+00	2.551E+00	2.687E-01	2.992
AC-227		79.69		1.082E+00	1.431E+00	2.211E+00	4.171E-01	0.489
		235.96		1.711E-01	1.723E-01	2.577E-01	2.261E-02	0.664
		256.23	*	-5.792E-02	2.420E-01	4.054E-01	4.357E-02	-0.143
	+	299.98		2.169E+00	1.146E+00	1.694E+00	1.933E-01	1.281
		304.50		1.102E+00	1.694E+00	2.621E+00	4.075E-01	0.421
		334.37		8.317E-01	2.063E+00	2.680E+00	3.871E-01	0.310
TH-227		79.80		1.606E+00	1.907E+00	2.933E+00	6.774E-01	0.547
		235.96		1.711E-01	1.722E-01	2.577E-01	2.081E-02	0.664
		256.23	*	-5.792E-02	2.421E-01	4.054E-01	5.054E-02	-0.143
	+	299.98		2.169E+00	1.146E+00	1.694E+00	1.933E-01	1.281
		304.50		1.102E+00	1.694E+00	2.621E+00	4.075E-01	0.421
		334.37		8.317E-01	2.063E+00	2.680E+00	3.871E-01	0.310
TH-229		85.43		3.726E-01	2.460E-01	3.884E-01	4.596E-02	0.960
	+	88.47		6.039E-01	1.904E-01	2.572E-01	3.057E-02	2.348
		193.51	*	-4.494E-01	5.336E-01	8.186E-01	5.312E-02	-0.549
	+	210.85		5.525E+00	1.826E+00	1.642E+00	1.080E-01	3.364
PA-231		283.69	*	4.308E-01	1.397E+00	2.391E+00	3.229E-01	0.180
	+	301.36		1.394E+00	7.346E-01	1.090E+00	1.176E-01	1.278
TH-231		81.07		-1.423E-01	2.601E-01	3.798E-01	4.402E-02	-0.375
		83.79		9.992E-02	1.477E-01	2.279E-01	2.673E-02	0.438
		94.87		3.654E-01	5.011E-01	7.728E-01	7.968E-02	0.473
		144.24		6.417E-01	6.446E-01	1.077E+00	8.403E-02	0.596
		154.21		2.682E-01	3.978E-01	6.638E-01	4.977E-02	0.404
	+	269.46		4.618E-01	2.747E-01	3.405E-01	2.345E-02	1.356
		323.87	*	1.262E-01	6.878E-01	1.028E+00	1.680E-01	0.123
	+	338.28		7.635E+00	1.857E+00	2.551E+00	2.687E-01	2.992
PA-233	+	300.13		9.816E-01	5.241E-01	7.660E-01	1.052E-01	1.281
		311.90	*	6.575E-03	6.428E-02	1.084E-01	7.391E-03	0.061
		340.48		1.698E+00	8.505E-01	1.268E+00	2.958E-01	1.339
PA-234		94.67		2.269E-01	1.879E-01	2.930E-01	4.004E-02	0.774
		98.44		9.235E-02	1.079E-01	1.633E-01	9.139E-02	0.565
		111.00		2.948E-03	1.880E-01	3.106E-01	3.607E-02	0.009
		131.20		-8.418E-02	1.086E-01	1.719E-01	1.153E-02	-0.490
		569.50		-1.022E-01	2.843E-01	4.441E-01	2.399E-02	-0.230
		733.00		2.216E-01	3.870E-01	5.995E-01	1.274E-01	0.370
		880.51		1.256E-01	2.893E-01	4.959E-01	3.941E-02	0.253
		883.24		8.248E-02	3.125E-01	5.191E-01	3.485E-01	0.159
		926.50		-1.123E-01	1.763E-01	2.660E-01	6.677E-02	-0.422

Sample ID : G248824002 Acquisition date : 23-MAR-2010 14:38:47

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	7.878E-02	3.213E-01	5.381E-01	9.945E-02	0.146
		949.00		-2.860E-01	5.127E-01	7.964E-01	6.344E-02	-0.359
PA-234M		766.42		1.272E+01	1.457E+01	2.092E+01	1.054E+01	0.608
		1001.03	*	-2.140E+00	4.994E+00	7.713E+00	7.032E-01	-0.277
NP-239		99.53		2.339E-01	1.714E-01	2.971E-01	2.809E-02	0.787
		103.37		-9.862E-02	9.806E-02	1.546E-01	1.371E-02	-0.638
		106.12		-1.867E-02	8.365E-02	1.371E-01	1.166E-02	-0.136
		117.23	*	-2.966E-01	4.015E-01	6.390E-01	4.689E-02	-0.464
		228.18		4.080E-03	2.259E-01	3.592E-01	2.384E-02	0.011
	+	277.60		2.864E-01	1.982E-01	3.080E-01	2.049E-02	0.930
AM-241		59.54	*	2.526E-02	2.501E-01	3.833E-01	4.839E-02	0.066
CM-247	+	278.00		1.217E+00	8.416E-01	1.301E+00	8.655E-02	0.935
		287.50		3.082E-03	1.228E+00	2.069E+00	1.370E-01	0.001
		402.40	*	1.072E-02	3.757E-02	6.311E-02	3.561E-03	0.170
CF-249		252.80		-8.668E-01	9.156E-01	1.478E+00	9.868E-02	-0.587
		333.37		2.548E-01	2.270E-01	2.850E-01	1.805E-02	0.894
		388.16	*	1.089E-02	3.823E-02	6.440E-02	3.657E-03	0.169
CF-251		177.52	*	7.013E-02	1.247E-01	2.065E-01	1.323E-02	0.340
		227.38		-3.957E-01	3.784E-01	5.662E-01	3.757E-02	-0.699
		285.41		2.054E-01	2.111E+00	3.575E+00	2.369E-01	0.057

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824002       *
* Acquisition date : 23-MAR-2010 14:38:47 Detector SN#    :                 *
* Detector ID      : GAM04                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.38     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248824002           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.2893E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.455E+01	3.066E+00	5.951E-01	0.000E+00
CD-109	4.038E+00	1.247E+00	1.553E+00	0.000E+00
SN-126	3.917E-01	1.210E-01	1.518E-01	0.000E+00
TL-208	6.351E-01	9.516E-02	5.885E-02	0.000E+00
BI-211	4.343E+00	5.657E-01	3.194E-01	0.000E+00
PB-212	2.035E+00	2.037E-01	9.706E-02	0.000E+00
BI-214	1.311E+00	1.899E-01	1.115E-01	0.000E+00
PB-214	1.576E+00	2.223E-01	1.162E-01	0.000E+00
RA-224	4.899E+00	1.429E+00	1.040E+00	0.000E+00
RA-226	1.311E+00	1.899E-01	1.115E-01	0.000E+00
AC-228	1.811E+00	4.294E-01	2.287E-01	0.000E+00
RA-228	1.811E+00	4.294E-01	2.287E-01	0.000E+00
TH-228	2.035E+00	2.037E-01	9.706E-02	0.000E+00
TH-230	1.311E+00	1.774E-01	1.115E-01	0.000E+00
TH-232	1.811E+00	4.294E-01	2.287E-01	0.000E+00
TH-234	4.849E+00	2.890E+00	2.981E+00	0.000E+00
U-235	1.816E-01	1.937E-01	3.391E-01	0.000E+00
NP-237	1.169E+00	4.337E-01	4.681E-01	0.000E+00
U-238	4.849E+00	2.890E+00	2.981E+00	0.000E+00
ANH-511	1.916E-01	6.340E-02	4.660E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-3.442E-02	3.333E-01	5.603E-01	0.000E+00	NOT IDENT.
NA-22	-1.213E-02	4.139E-02	6.861E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.928E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	1.076E-03	4.755E-02	7.929E-02	0.000E+00	FAIL ABUN
V-48	-6.046E-03	9.112E-02	1.519E-01	0.000E+00	NOT IDENT.
CR-51	3.364E-02	3.918E-01	6.890E-01	0.000E+00	NOT IDENT.
MN-54	5.191E-03	3.905E-02	6.727E-02	0.000E+00	NOT IDENT.

CO-56	-1.723E-02	4.079E-02	6.669E-02	0.000E+00	NOT IDENT.
CO-57	-8.411E-03	2.557E-02	4.331E-02	0.000E+00	NOT IDENT.
CO-58	-2.508E-02	4.471E-02	7.284E-02	0.000E+00	NOT IDENT.
FE-59	6.455E-03	1.163E-01	1.940E-01	0.000E+00	NOT IDENT.
CO-60	2.723E-02	3.973E-02	7.282E-02	0.000E+00	NOT IDENT.
ZN-65	3.631E-02	1.131E-01	1.685E-01	0.000E+00	NOT IDENT.
SE-75	-1.136E-02	4.762E-02	7.745E-02	0.000E+00	NOT IDENT.
SR-85	4.203E-02	4.582E-02	7.317E-02	0.000E+00	NOT IDENT.
Y-88	4.032E-03	3.179E-02	5.393E-02	0.000E+00	NOT IDENT.
Y-91	3.853E+00	2.736E+01	4.552E+01	0.000E+00	NOT IDENT.
NB-94	2.037E-02	3.570E-02	6.417E-02	0.000E+00	NOT IDENT.
NB-95	4.716E-02	4.872E-02	8.038E-02	0.000E+00	NOT IDENT.
NB-95M	1.166E-01	1.487E-01	2.307E-01	0.000E+00	NOT IDENT.
ZR-95	4.718E-02	7.085E-02	1.286E-01	0.000E+00	NOT IDENT.
MO-99	1.154E+01	4.259E+01	7.496E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.940E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.199E-02	4.090E-02	6.585E-02	0.000E+00	FAIL ABUN
RH-106	-7.679E-02	3.329E-01	5.398E-01	0.000E+00	NOT IDENT.
RU-106	-7.679E-02	3.328E-01	5.398E-01	0.000E+00	NOT IDENT.
AG-108M	-2.316E-02	2.838E-02	4.553E-02	0.000E+00	NOT IDENT.
AG-110M	-5.336E-03	3.409E-02	5.865E-02	0.000E+00	NOT IDENT.
SN-113	8.253E-03	4.480E-02	7.807E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	5.427E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-4.727E-02	6.945E-02	1.153E-01	0.000E+00	NOT IDENT.
TE-123M	-3.269E-02	2.973E-02	4.835E-02	0.000E+00	NOT IDENT.
SB-124	-4.040E-02	8.830E-02	1.344E-01	0.000E+00	NOT IDENT.
SB-125	6.319E-02	9.139E-02	1.632E-01	0.000E+00	FAIL ABUN
TE-125M	2.505E+00	1.026E+01	1.819E+01	0.000E+00	NOT IDENT.
I-126	8.672E-02	3.010E-01	5.337E-01	0.000E+00	NOT IDENT.
SB-126	-1.099E-01	1.943E-01	3.109E-01	0.000E+00	NOT IDENT.
SB-127	1.954E-01	3.310E+00	5.768E+00	0.000E+00	NOT IDENT.
I-131	6.656E-02	1.795E-01	3.177E-01	0.000E+00	NOT IDENT.
TE-132	2.597E-02	2.204E+00	3.681E+00	0.000E+00	NOT IDENT.
BA-133	2.038E-03	4.412E-02	6.761E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	3.330E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.520E-02	9.085E-02	0.000E+00	FAIL ABUN
CS-135	1.174E-01	1.642E-01	2.689E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.417E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.787E-02	1.544E-01	2.463E-01	0.000E+00	NOT IDENT.
BA-137M	-4.373E-02	3.692E-02	5.980E-02	0.000E+00	NOT IDENT.
CS-137	-4.619E-02	3.900E-02	6.317E-02	0.000E+00	NOT IDENT.
CE-139	4.107E-02	2.884E-02	5.231E-02	0.000E+00	NOT IDENT.
BA-140	-9.416E-02	3.304E-01	5.381E-01	0.000E+00	NOT IDENT.
LA-140	-5.648E-02	1.179E-01	1.827E-01	0.000E+00	FAIL ABUN
CE-141	-4.971E-02	6.687E-02	1.114E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.112E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	2.565E-02	1.922E-01	3.352E-01	0.000E+00	NOT IDENT.
PM-144	1.163E-02	3.634E-02	6.434E-02	0.000E+00	NOT IDENT.
PR-144	5.567E-01	2.746E+00	4.824E+00	0.000E+00	NOT IDENT.
PM-146	8.517E-03	4.146E-02	7.156E-02	0.000E+00	NOT IDENT.
ND-147	-9.260E-01	7.582E-01	1.122E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	4.227E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-1.699E-02	1.066E-01	1.611E-01	0.000E+00	NOT IDENT.
GD-153	-8.781E-02	1.007E-01	1.517E-01	0.000E+00	NOT IDENT.
EU-154	-4.125E-02	1.177E-01	1.937E-01	0.000E+00	NOT IDENT.
EU-155	-9.307E-03	1.025E-01	1.797E-01	0.000E+00	FAIL ABUN
TB-160	3.003E-03	1.442E-01	2.450E-01	0.000E+00	FAIL ABUN
HO-166M	-5.247E-03	6.271E-02	1.078E-01	0.000E+00	NOT IDENT.
TA-182	-2.793E-02	2.482E-01	4.233E-01	0.000E+00	FAIL ABUN
IR-192	-9.186E-03	3.400E-02	5.861E-02	0.000E+00	FAIL ABUN
HG-203	4.183E-02	4.330E-02	7.193E-02	0.000E+00	NOT IDENT.
BI-207	1.649E-02	6.203E-02	1.057E-01	0.000E+00	FAIL ABUN
PB-210	1.381E-02	8.709E+00	1.590E+01	0.000E+00	NOT IDENT.
PB-211	-5.274E-01	7.703E-01	1.196E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.869E-01	1.249E+00	0.000E+00	FAIL ABUN
RN-219	-4.507E-02	4.042E-01	6.899E-01	0.000E+00	FAIL ABUN
RA-223	1.262E-01	6.740E-01	1.053E+00	0.000E+00	FAIL ABUN
AC-227	-5.792E-02	2.372E-01	4.168E-01	0.000E+00	FAIL ABUN
TH-227	-5.792E-02	2.372E-01	4.168E-01	0.000E+00	FAIL ABUN
TH-229	-4.494E-01	5.230E-01	8.453E-01	0.000E+00	FAIL ABUN
PA-231	4.308E-01	1.370E+00	2.455E+00	0.000E+00	FAIL ABUN
TH-231	1.262E-01	6.740E-01	1.053E+00	0.000E+00	FAIL ABUN
PA-233	6.575E-03	6.300E-02	1.111E-01	0.000E+00	FAIL ABUN
PA-234	7.878E-02	3.148E-01	5.421E-01	0.000E+00	NOT IDENT.
PA-234M	-2.140E+00	4.894E+00	7.763E+00	0.000E+00	NOT IDENT.
NP-239	-2.966E-01	3.934E-01	6.649E-01	0.000E+00	FAIL ABUN
AM-241	2.526E-02	2.451E-01	4.029E-01	0.000E+00	NOT IDENT.
CM-247	1.072E-02	3.682E-02	6.444E-02	0.000E+00	FAIL ABUN

CF-249	1.089E-02	3.747E-02	6.579E-02	0.000E+00 NOT IDENT.
CF-251	7.013E-02	1.222E-01	2.135E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:40:18.86

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824002.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 14:38:47
Sample ID         : G248824002           Sample quantity  : 1.28930E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.38  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1359	10.66*	1.074E+00	3.455E+01	3.455E+01	9.06
CD-109	88.03	250	3.70*	5.018E+00	3.917E+00	4.038E+00	31.52
SN-126	64.28	126	9.60	2.038E+00	1.869E+00	1.869E+00	59.94
	86.94	250	8.90	5.018E+00	1.629E+00	1.629E+00	51.28
	87.57	250	37.00*	5.018E+00	3.917E-01	3.917E-01	31.52
TL-208	277.37	61	6.60	4.323E+00	6.267E-01	6.267E-01	69.77
	583.19	455	85.00*	2.454E+00	6.351E-01	6.351E-01	15.29
	860.56	68	12.50	1.742E+00	9.136E-01	9.136E-01	53.81
BI-211	72.87	------	1.23	3.384E+00	------	Line Not Found	------
	351.06	699	12.92*	3.625E+00	4.343E+00	4.343E+00	13.29
PB-212	74.82	329	10.28	3.652E+00	2.553E+00	2.553E+00	27.77
	77.11	604	17.10	3.933E+00	2.616E+00	2.616E+00	17.40
	238.63	1470	43.60*	4.824E+00	2.035E+00	2.035E+00	10.21
	300.09	91	3.30	4.081E+00	1.972E+00	1.972E+00	52.37
BI-214	609.32	485	45.49*	2.366E+00	1.311E+00	1.311E+00	14.78
	1120.29	84	14.92	1.357E+00	1.214E+00	1.214E+00	54.19
	1764.49	87	15.30	9.527E-01	1.734E+00	1.734E+00	23.29
PB-214	74.82	329	5.80	3.652E+00	4.526E+00	4.526E+00	27.19
	77.11	604	9.70	3.933E+00	4.611E+00	4.611E+00	19.26
	242.00	330	7.25	4.781E+00	2.770E+00	2.770E+00	30.32
	295.22	393	18.42	4.129E+00	1.504E+00	1.504E+00	20.06
	351.93	699	35.60*	3.625E+00	1.576E+00	1.576E+00	14.39
RA-224	240.99	330	4.10*	4.781E+00	4.899E+00	4.899E+00	29.76
RA-226	609.32	485	45.49*	2.366E+00	1.311E+00	1.311E+00	14.78
	1120.29	84	14.92	1.357E+00	1.214E+00	1.214E+00	54.19
	1764.49	87	15.30	9.527E-01	1.734E+00	1.734E+00	23.29
AC-228	338.32	278	11.27	3.734E+00	1.924E+00	1.924E+00	46.75
	911.20	265	25.80*	1.651E+00	1.811E+00	1.811E+00	24.20
	968.97	121	15.80	1.557E+00	1.433E+00	1.433E+00	50.28
RA-228	338.32	278	11.27	3.734E+00	1.924E+00	1.924E+00	46.75
	911.20	265	25.80*	1.651E+00	1.811E+00	1.811E+00	24.20
	968.97	121	15.80	1.557E+00	1.433E+00	1.433E+00	50.28

Sample ID : G248824002 Acquisition date : 23-MAR-2010 14:38:47

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	329	10.28	3.652E+00	2.553E+00	2.553E+00	26.03
	77.11	604	17.10	3.933E+00	2.616E+00	2.616E+00	17.40
	238.63	1470	43.60*	4.824E+00	2.035E+00	2.035E+00	10.21
	300.09	91	3.30	4.081E+00	1.972E+00	1.972E+00	79.87
TH-230	609.32	485	45.49*	2.366E+00	1.311E+00	1.311E+00	13.81
	1120.29	84	14.92	1.357E+00	1.214E+00	1.214E+00	53.78
	1764.49	87	15.30	9.527E-01	1.734E+00	1.734E+00	23.29
TH-232	338.32	278	11.27	3.734E+00	1.924E+00	1.924E+00	22.80
	911.20	265	25.80*	1.651E+00	1.811E+00	1.811E+00	24.20
	968.97	121	15.80	1.557E+00	1.433E+00	1.433E+00	50.28
TH-234	63.29	126	3.70*	2.038E+00	4.849E+00	4.849E+00	60.82
	92.59	224	4.23	5.481E+00	2.814E+00	2.814E+00	41.47
U-235	89.96	161	3.47	5.247E+00	2.569E+00	2.569E+00	43.35
	93.35	224	5.60	5.481E+00	2.126E+00	2.126E+00	42.02
	143.76	------	10.96*	6.399E+00	------	Line Not Found	------
	163.33	------	5.08	6.104E+00	------	Line Not Found	------
	185.72	263	57.20	5.693E+00	2.354E-01	2.354E-01	33.65
	205.31	------	5.01	5.352E+00	------	Line Not Found	------
NP-237	86.48	250	12.40*	5.018E+00	1.169E+00	1.169E+00	37.86
	95.86	------	2.68	5.677E+00	------	Line Not Found	------
U-238	63.29	126	3.70*	2.038E+00	4.849E+00	4.849E+00	60.82
	92.59	224	4.23	5.481E+00	2.814E+00	2.814E+00	36.14
ANH-511	511.00	180	100.00*	2.729E+00	1.916E-01	1.916E-01	33.76

Flag: "*" = Keyline

Sample ID : G248824002 Acquisition date : 23-MAR-2010 14:38:47

Total number of lines in spectrum 32
Number of unidentified lines 3
Number of lines tentatively identified by NID 29 90.63%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.455E+01	3.455E+01	0.313E+01	9.06	
CD-109	461.40D	1.03	3.917E+00	4.038E+00	1.273E+00	31.52	
SN-126	2.30E+05Y	1.00	3.917E-01	3.917E-01	1.235E-01	31.52	
TL-208	1.41E+10Y	1.00	6.351E-01	6.351E-01	0.971E-01	15.29	
BI-211	7.04E+08Y	1.00	4.343E+00	4.343E+00	0.577E+00	13.29	
PB-212	1.41E+10Y	1.00	2.035E+00	2.035E+00	0.208E+00	10.21	
BI-214	1600.00Y	1.00	1.311E+00	1.311E+00	0.194E+00	14.78	
PB-214	1600.00Y	1.00	1.576E+00	1.576E+00	0.227E+00	14.39	
RA-224	1.41E+10Y	1.00	4.899E+00	4.899E+00	1.458E+00	29.76	
RA-226	1600.00Y	1.00	1.311E+00	1.311E+00	0.194E+00	14.78	
AC-228	1.41E+10Y	1.00	1.811E+00	1.811E+00	0.438E+00	24.20	
RA-228	1.41E+10Y	1.00	1.811E+00	1.811E+00	0.438E+00	24.20	
TH-228	1.41E+10Y	1.00	2.035E+00	2.035E+00	0.208E+00	10.21	
TH-230	7.54E+04Y	1.00	1.311E+00	1.311E+00	0.181E+00	13.81	
TH-232	1.41E+10Y	1.00	1.811E+00	1.811E+00	0.438E+00	24.20	
TH-234	4.47E+09Y	1.00	4.849E+00	4.849E+00	2.949E+00	60.82	
U-235	7.04E+08Y	1.00	2.354E-01	2.354E-01	0.792E-01	33.65	K
NP-237	2.14E+06Y	1.00	1.169E+00	1.169E+00	0.443E+00	37.86	
U-238	4.47E+09Y	1.00	4.849E+00	4.849E+00	2.949E+00	60.82	
ANH-511	1.00E+09Y	1.00	1.916E-01	1.916E-01	0.647E-01	33.76	
	Total Activity :		7.504E+01	7.516E+01			

Grand Total Activity : 7.504E+01 7.516E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248824002 Acquisition date : 23-MAR-2010 14:38:47

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	210.32	280	369	1.36	420.71	414	15	3.89E-02	32.4	5.27E+00	T
0	270.01	97	210	1.59	540.10	536	10	1.35E-02	59.1	4.41E+00	T
0	328.20	78	185	1.42	656.47	652	11	1.09E-02	71.2	3.82E+00	T
0	463.31	85	135	0.93	926.71	921	12	1.18E-02	58.7	2.95E+00	T
0	727.80	85	65	0.89	1455.68	1451	10	1.18E-02	42.6	2.03E+00	T
0	768.04	45	91	1.49	1536.17	1529	13	6.24E-03	92.5	1.94E+00	
0	796.50	62	84	3.84	1593.08	1585	19	8.66E-03	75.3	1.87E+00	T
0	1378.73	37	13	2.57	2757.39	2752	11	5.18E-03	50.2	1.13E+00	
0	1730.48	13	10	0.70	3460.69	3457	10	1.81E-03	****	9.62E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:40:22.44

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824002.CNF;1  *
* Acquisition date : 23-MAR-2010 14:38:47  Detector SN#    :                *
* Detector ID      : GAM04                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.38         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248824002            Analyst initials: MXR1           *
* Batch Number     : 962631                Sample Quantity : 1.28930E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 5-MAY-2009 14:25:41.36MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.455E+01	3.129E+00	5.949E-01	4.228E-02	58.070
CD-109	4.038E+00	1.273E+00	1.486E+00	1.786E-01	2.717
SN-126	3.917E-01	1.235E-01	1.453E-01	1.742E-02	2.697
TL-208	6.351E-01	9.710E-02	5.797E-02	3.638E-03	10.955
BI-211	4.343E+00	5.772E-01	3.121E-01	2.109E-02	13.916
PB-212	2.035E+00	2.078E-01	9.430E-02	7.628E-03	21.582
BI-214	1.311E+00	1.938E-01	1.099E-01	8.148E-03	11.926
PB-214	1.576E+00	2.268E-01	1.135E-01	9.895E-03	13.886
RA-224	4.899E+00	1.458E+00	1.011E+00	6.740E-02	4.846
RA-226	1.311E+00	1.938E-01	1.099E-01	8.148E-03	11.926
AC-228	1.811E+00	4.382E-01	2.269E-01	2.555E-02	7.979
RA-228	1.811E+00	4.382E-01	2.269E-01	2.555E-02	7.979
TH-228	2.035E+00	2.078E-01	9.430E-02	7.628E-03	21.582
TH-230	1.311E+00	1.810E-01	1.099E-01	5.724E-03	11.926
TH-232	1.811E+00	4.382E-01	2.269E-01	2.555E-02	7.979
TH-234	4.849E+00	2.949E+00	2.839E+00	5.713E-01	1.708
U-235	2.354E-01	7.921E-02	3.269E-01	5.227E-02	0.720
NP-237	1.169E+00	4.425E-01	4.479E-01	1.080E-01	2.610

Sample ID : G248824002 Acquisition date : 23-MAR-2010 14:38:47

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-238	4.849E+00	2.949E+00	2.839E+00	5.713E-01	1.708
ANH-511	1.916E-01	6.470E-02	4.581E-02	2.562E-03	4.183

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.442E-02		3.401E-01	5.502E-01	3.643E-02	-0.063
NA-22	-1.213E-02		4.224E-02	6.844E-02	4.475E-03	-0.177
NA-24	2.140E+02		9.838E+01	Half-Life too short		
SC-46	1.076E-03		4.852E-02	7.863E-02	6.360E-03	0.014
V-48	-6.046E-03		9.297E-02	1.509E-01	1.169E-02	-0.040
CR-51	3.364E-02		3.998E-01	6.724E-01	4.729E-02	0.050
MN-54	5.191E-03		3.985E-02	6.664E-02	4.823E-03	0.078
CO-56	-1.723E-02		4.163E-02	6.608E-02	4.903E-03	-0.261
CO-57	-8.411E-03		2.610E-02	4.164E-02	2.891E-03	-0.202
CO-58	-2.508E-02		4.563E-02	7.213E-02	4.979E-03	-0.348
FE-59	6.455E-03		1.187E-01	1.930E-01	1.474E-02	0.033
CO-60	2.723E-02		4.054E-02	7.269E-02	4.981E-03	0.375
ZN-65	3.631E-02		1.154E-01	1.677E-01	1.109E-02	0.217
SE-75	-1.136E-02		4.859E-02	7.536E-02	5.070E-03	-0.151
SR-85	4.203E-02		4.675E-02	7.194E-02	4.018E-03	0.584
Y-88	4.032E-03		3.244E-02	5.411E-02	3.157E-03	0.075
Y-91	3.853E+00		2.791E+01	4.537E+01	2.780E+00	0.085
NB-94	2.037E-02		3.643E-02	6.340E-02	3.416E-03	0.321
NB-95	4.716E-02		4.971E-02	7.953E-02	4.957E-03	0.593
NB-95M	1.166E-01		1.517E-01	2.241E-01	1.844E-02	0.520
ZR-95	4.718E-02		7.229E-02	1.272E-01	9.316E-03	0.371
MO-99	1.154E+01		4.346E+01	7.412E+01	1.070E+01	0.156
TC-99M	-3.867E+16		2.010E+16	Half-Life too short		
RU-103	-2.199E-02		4.173E-02	6.471E-02	7.987E-03	-0.340
RH-106	-7.679E-02		3.397E-01	5.323E-01	6.018E-02	-0.144
RU-106	-7.679E-02		3.396E-01	5.323E-01	2.735E-02	-0.144
AG-108M	-2.316E-02		2.896E-02	4.464E-02	2.717E-03	-0.519
AG-110M	-5.336E-03		3.479E-02	5.788E-02	3.093E-03	-0.092
SN-113	8.253E-03		4.572E-02	7.642E-02	4.605E-03	0.108
CD-115	8.469E-05		2.769E-05	Half-Life too short		
SN-117M	-4.727E-02		7.087E-02	1.113E-01	7.120E-03	-0.425
TE-123M	-3.269E-02		3.033E-02	4.668E-02	3.017E-03	-0.700
SB-124	-4.040E-02		9.010E-02	1.347E-01	9.189E-03	-0.300
SB-125	6.319E-02		9.325E-02	1.600E-01	9.458E-03	0.395
TE-125M	2.505E+00		1.047E+01	1.747E+01	1.764E+00	0.143
I-126	8.672E-02		3.071E-01	5.268E-01	2.599E-02	0.165
SB-126	-1.099E-01		1.982E-01	3.073E-01	1.727E-02	-0.358
SB-127	1.954E-01		3.378E+00	5.696E+00	6.247E-01	0.034
I-131	6.656E-02		1.832E-01	3.107E-01	2.084E-02	0.214
TE-132	2.597E-02		2.249E+00	3.574E+00	5.717E-01	0.007
BA-133	2.038E-03		4.502E-02	6.609E-02	7.557E-03	0.031

Sample ID : G248824002 Acquisition date : 23-MAR-2010 14:38:47

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	-2.672E-01		1.699E-01	Half-Life too short		
CS-134	1.284E-01	+	9.714E-02	8.994E-02	6.062E-03	1.428
CS-135	1.174E-01		1.676E-01	2.617E-01	2.182E-02	0.449
I-135	-1.372E+15		1.233E+15	Half-Life too short		
CS-136	-6.787E-02		1.575E-01	2.449E-01	1.882E-02	-0.277
BA-137M	-4.373E-02		3.767E-02	5.902E-02	2.879E-03	-0.741
CS-137	-4.619E-02		3.980E-02	6.235E-02	3.059E-03	-0.741
CE-139	4.107E-02		2.943E-02	5.053E-02	3.211E-03	0.813
BA-140	-9.416E-02		3.372E-01	5.294E-01	1.761E-01	-0.178
LA-140	-5.648E-02		1.203E-01	1.829E-01	1.205E-02	-0.309
CE-141	-4.971E-02		6.823E-02	1.074E-01	7.211E-03	-0.463
CE-143	4.570E-03		1.078E-03	Half-Life too short		
CE-144	2.565E-02		1.961E-01	3.228E-01	4.608E-02	0.079
PM-144	1.163E-02		3.708E-02	6.356E-02	3.380E-03	0.183
PR-144	5.567E-01		2.802E+00	4.765E+00	2.530E-01	0.117
PM-146	8.517E-03		4.231E-02	7.022E-02	5.876E-03	0.121
ND-147	-9.260E-01		7.737E-01	1.103E+00	1.480E-01	-0.839
PM-149	-8.420E-05		2.157E-04	Half-Life too short		
EU-152	-1.699E-02		1.088E-01	1.574E-01	1.088E-02	-0.108
GD-153	-8.781E-02		1.027E-01	1.454E-01	1.427E-02	-0.604
EU-154	-4.125E-02		1.201E-01	1.932E-01	1.910E-02	-0.213
EU-155	-9.307E-03		1.046E-01	1.725E-01	1.502E-02	-0.054
TB-160	3.003E-03		1.471E-01	2.430E-01	1.926E-02	0.012
HO-166M	-5.247E-03		6.399E-02	1.065E-01	5.861E-03	-0.049
TA-182	-2.793E-02		2.533E-01	4.220E-01	2.626E-02	-0.066
IR-192	-9.186E-03		3.469E-02	5.719E-02	3.713E-03	-0.161
HG-203	4.183E-02		4.418E-02	7.005E-02	4.855E-03	0.597
BI-207	1.649E-02		6.330E-02	1.051E-01	7.476E-03	0.157
PB-210	1.381E-02		8.887E+00	1.508E+01	1.316E+00	0.001
PB-211	-5.274E-01		7.860E-01	1.171E+00	5.617E-01	-0.450
BI-212	1.827E+00	+	8.030E-01	1.235E+00	1.315E-01	1.480
RN-219	-4.507E-02		4.125E-01	6.756E-01	9.033E-02	-0.067
RA-223	1.262E-01		6.878E-01	1.028E+00	1.680E-01	0.123
AC-227	-5.792E-02		2.420E-01	4.054E-01	4.357E-02	-0.143
TH-227	-5.792E-02		2.421E-01	4.054E-01	5.054E-02	-0.143
TH-229	-4.494E-01		5.336E-01	8.186E-01	5.312E-02	-0.549
PA-231	4.308E-01		1.397E+00	2.391E+00	3.229E-01	0.180
TH-231	1.262E-01		6.878E-01	1.028E+00	1.680E-01	0.123
PA-233	6.575E-03		6.428E-02	1.084E-01	7.391E-03	0.061
PA-234	7.878E-02		3.213E-01	5.381E-01	9.945E-02	0.146
PA-234M	-2.140E+00		4.994E+00	7.713E+00	7.032E-01	-0.277
NP-239	-2.966E-01		4.015E-01	6.390E-01	4.689E-02	-0.464
AM-241	2.526E-02		2.501E-01	3.833E-01	4.839E-02	0.066
CM-247	1.072E-02		3.757E-02	6.311E-02	3.561E-03	0.170
CF-249	1.089E-02		3.823E-02	6.440E-02	3.657E-03	0.169
CF-251	7.013E-02		1.247E-01	2.065E-01	1.323E-02	0.340

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248824002           *
* Acquisition date  : 23-MAR-2010 14:38:47 Detector SN#     :               *
* Detector ID       : GAM04                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.38      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  3-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248824002           Analyst initials: MXR1           *
* Batch Number      : 962631               Sample Quantity : 1.2893E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.455E+01	3.066E+00	2.977E-01	1.565E+00
CD-109	4.038E+00	1.247E+00	7.768E-01	6.364E-01
SN-126	3.917E-01	1.210E-01	7.595E-02	6.174E-02
TL-208	6.351E-01	9.516E-02	2.944E-02	4.855E-02
BI-211	4.343E+00	5.657E-01	1.598E-01	2.886E-01
PB-212	2.035E+00	2.037E-01	4.856E-02	1.039E-01
BI-214	1.311E+00	1.899E-01	5.578E-02	9.689E-02
PB-214	1.576E+00	2.223E-01	5.811E-02	1.134E-01
RA-224	4.899E+00	1.429E+00	5.206E-01	7.290E-01
RA-226	1.311E+00	1.899E-01	5.578E-02	9.689E-02
AC-228	1.811E+00	4.294E-01	1.144E-01	2.191E-01
RA-228	1.811E+00	4.294E-01	1.144E-01	2.191E-01
TH-228	2.035E+00	2.037E-01	4.856E-02	1.039E-01
TH-230	1.311E+00	1.774E-01	5.578E-02	9.051E-02
TH-232	1.811E+00	4.294E-01	1.144E-01	2.191E-01
TH-234	4.849E+00	2.890E+00	1.491E+00	1.474E+00
U-235	1.816E-01	1.937E-01	1.696E-01	9.885E-02
NP-237	1.169E+00	4.337E-01	2.342E-01	2.213E-01
U-238	4.849E+00	2.890E+00	1.491E+00	1.474E+00
ANH-511	1.916E-01	6.340E-02	2.331E-02	3.235E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-3.442E-02	3.333E-01	2.803E-01	1.701E-01	NOT IDENT.
NA-22	-1.213E-02	4.139E-02	3.433E-02	2.112E-02	NOT IDENT.
NA-24	2.140E+08	1.928E+08	0.000E+00	9.838E+07	SHORT HLIF
SC-46	1.076E-03	4.755E-02	3.967E-02	2.426E-02	FAIL ABUN
V-48	-6.046E-03	9.112E-02	7.599E-02	4.649E-02	NOT IDENT.
CR-51	3.364E-02	3.918E-01	3.447E-01	1.999E-01	NOT IDENT.
MN-54	5.191E-03	3.905E-02	3.365E-02	1.992E-02	NOT IDENT.

CO-56	-1.723E-02	4.079E-02	3.336E-02	2.081E-02	NOT IDENT.
CO-57	-8.411E-03	2.557E-02	2.167E-02	1.305E-02	NOT IDENT.
CO-58	-2.508E-02	4.471E-02	3.644E-02	2.281E-02	NOT IDENT.
FE-59	6.455E-03	1.163E-01	9.703E-02	5.933E-02	NOT IDENT.
CO-60	2.723E-02	3.973E-02	3.643E-02	2.027E-02	NOT IDENT.
ZN-65	3.631E-02	1.131E-01	8.430E-02	5.771E-02	NOT IDENT.
SE-75	-1.136E-02	4.762E-02	3.875E-02	2.429E-02	NOT IDENT.
SR-85	4.203E-02	4.582E-02	3.661E-02	2.338E-02	NOT IDENT.
Y-88	4.032E-03	3.179E-02	2.698E-02	1.622E-02	NOT IDENT.
Y-91	3.853E+00	2.736E+01	2.278E+01	1.396E+01	NOT IDENT.
NB-94	2.037E-02	3.570E-02	3.211E-02	1.822E-02	NOT IDENT.
NB-95	4.716E-02	4.872E-02	4.022E-02	2.485E-02	NOT IDENT.
NB-95M	1.166E-01	1.487E-01	1.154E-01	7.584E-02	NOT IDENT.
ZR-95	4.718E-02	7.085E-02	6.432E-02	3.615E-02	NOT IDENT.
MO-99	1.154E+01	4.259E+01	3.750E+01	2.173E+01	NOT IDENT.
TC-99M	-3.867E+22	3.940E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.199E-02	4.090E-02	3.294E-02	2.087E-02	FAIL ABUN
RH-106	-7.679E-02	3.329E-01	2.701E-01	1.698E-01	NOT IDENT.
RU-106	-7.679E-02	3.328E-01	2.701E-01	1.698E-01	NOT IDENT.
AG-108M	-2.316E-02	2.838E-02	2.278E-02	1.448E-02	NOT IDENT.
AG-110M	-5.336E-03	3.409E-02	2.934E-02	1.739E-02	NOT IDENT.
SN-113	8.253E-03	4.480E-02	3.906E-02	2.286E-02	NOT IDENT.
CD-115	8.469E+01	5.427E+01	0.000E+00	2.769E+01	SHORT HLIF
SN-117M	-4.727E-02	6.945E-02	5.768E-02	3.543E-02	NOT IDENT.
TE-123M	-3.269E-02	2.973E-02	2.419E-02	1.517E-02	NOT IDENT.
SB-124	-4.040E-02	8.830E-02	6.725E-02	4.505E-02	NOT IDENT.
SB-125	6.319E-02	9.139E-02	8.165E-02	4.663E-02	FAIL ABUN
TE-125M	2.505E+00	1.026E+01	9.103E+00	5.237E+00	NOT IDENT.
I-126	8.672E-02	3.010E-01	2.670E-01	1.536E-01	NOT IDENT.
SB-126	-1.099E-01	1.943E-01	1.555E-01	9.912E-02	NOT IDENT.
SB-127	1.954E-01	3.310E+00	2.886E+00	1.689E+00	NOT IDENT.
I-131	6.656E-02	1.795E-01	1.589E-01	9.160E-02	NOT IDENT.
TE-132	2.597E-02	2.204E+00	1.842E+00	1.124E+00	NOT IDENT.
BA-133	2.038E-03	4.412E-02	3.383E-02	2.251E-02	FAIL ABUN
I-133	-2.672E+05	3.330E+05	0.000E+00	1.699E+05	SHORT HLIF
CS-134	1.284E-01	9.520E-02	4.545E-02	4.857E-02	FAIL ABUN
CS-135	1.174E-01	1.642E-01	1.346E-01	8.378E-02	NOT IDENT.
I-135	-1.372E+21	2.417E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.787E-02	1.544E-01	1.232E-01	7.875E-02	NOT IDENT.
BA-137M	-4.373E-02	3.692E-02	2.992E-02	1.884E-02	NOT IDENT.
CS-137	-4.619E-02	3.900E-02	3.160E-02	1.990E-02	NOT IDENT.
CE-139	4.107E-02	2.884E-02	2.617E-02	1.471E-02	NOT IDENT.
BA-140	-9.416E-02	3.304E-01	2.692E-01	1.686E-01	NOT IDENT.
LA-140	-5.648E-02	1.179E-01	9.140E-02	6.015E-02	FAIL ABUN
CE-141	-4.971E-02	6.687E-02	5.573E-02	3.412E-02	NOT IDENT.
CE-143	4.570E+03	2.112E+03	0.000E+00	1.078E+03	SHORT HLIF
CE-144	2.565E-02	1.922E-01	1.677E-01	9.807E-02	NOT IDENT.
PM-144	1.163E-02	3.634E-02	3.219E-02	1.854E-02	NOT IDENT.
PR-144	5.567E-01	2.746E+00	2.413E+00	1.401E+00	NOT IDENT.
PM-146	8.517E-03	4.146E-02	3.580E-02	2.115E-02	NOT IDENT.
ND-147	-9.260E-01	7.582E-01	5.612E-01	3.868E-01	FAIL ABUN
PM-149	-8.420E+01	4.227E+02	0.000E+00	2.157E+02	SHORT HLIF
EU-152	-1.699E-02	1.066E-01	8.059E-02	5.439E-02	NOT IDENT.
GD-153	-8.781E-02	1.007E-01	7.591E-02	5.136E-02	NOT IDENT.
EU-154	-4.125E-02	1.177E-01	9.691E-02	6.003E-02	NOT IDENT.
EU-155	-9.307E-03	1.025E-01	8.991E-02	5.230E-02	FAIL ABUN
TB-160	3.003E-03	1.442E-01	1.226E-01	7.356E-02	FAIL ABUN
HO-166M	-5.247E-03	6.271E-02	5.391E-02	3.200E-02	NOT IDENT.
TA-182	-2.793E-02	2.482E-01	2.118E-01	1.266E-01	FAIL ABUN
IR-192	-9.186E-03	3.400E-02	2.932E-02	1.735E-02	FAIL ABUN
HG-203	4.183E-02	4.330E-02	3.599E-02	2.209E-02	NOT IDENT.
BI-207	1.649E-02	6.203E-02	5.288E-02	3.165E-02	FAIL ABUN
PB-210	1.381E-02	8.709E+00	7.956E+00	4.443E+00	NOT IDENT.
PB-211	-5.274E-01	7.703E-01	5.983E-01	3.930E-01	NOT IDENT.
BI-212	1.827E+00	7.869E-01	6.248E-01	4.015E-01	FAIL ABUN
RN-219	-4.507E-02	4.042E-01	3.451E-01	2.062E-01	FAIL ABUN
RA-223	1.262E-01	6.740E-01	5.267E-01	3.439E-01	FAIL ABUN
AC-227	-5.792E-02	2.372E-01	2.085E-01	1.210E-01	FAIL ABUN
TH-227	-5.792E-02	2.372E-01	2.085E-01	1.210E-01	FAIL ABUN
TH-229	-4.494E-01	5.230E-01	4.229E-01	2.668E-01	FAIL ABUN
PA-231	4.308E-01	1.370E+00	1.228E+00	6.987E-01	FAIL ABUN
TH-231	1.262E-01	6.740E-01	5.267E-01	3.439E-01	FAIL ABUN
PA-233	6.575E-03	6.300E-02	5.557E-02	3.214E-02	FAIL ABUN
PA-234	7.878E-02	3.148E-01	2.712E-01	1.606E-01	NOT IDENT.
PA-234M	-2.140E+00	4.894E+00	3.884E+00	2.497E+00	NOT IDENT.
NP-239	-2.966E-01	3.934E-01	3.326E-01	2.007E-01	FAIL ABUN
AM-241	2.526E-02	2.451E-01	2.016E-01	1.251E-01	NOT IDENT.
CM-247	1.072E-02	3.682E-02	3.224E-02	1.879E-02	FAIL ABUN

CF-249	1.089E-02	3.747E-02	3.292E-02	1.911E-02	NOT IDENT.
CF-251	7.013E-02	1.222E-01	1.068E-01	6.237E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	221.0750
49.72	206.7767
57.36	0.0000
59.54	249.5046
63.29	257.2178
63.29	257.2178
64.28	257.8403
67.75	299.7065
69.67	281.5549
70.83	319.1239
72.81	338.8209
72.87	338.8662
72.87	338.8662
74.82	340.3343
74.82	340.3343
74.82	340.3343
74.97	340.4456
77.11	342.0345
77.11	342.0345
77.11	342.0345
79.69	292.0088
79.80	292.0761
80.12	289.4888
80.19	289.5309
80.57	305.0865
81.00	373.6833
81.07	373.7364
81.07	373.7364
83.79	339.3764
83.79	339.3764
85.43	326.4341
86.48	411.7233
86.55	411.7812
86.79	400.6880
86.94	400.8094
87.57	401.3121
88.03	401.6761
88.47	402.0249
89.96	292.4599
91.11	293.1106
92.59	293.9435
92.59	293.9435
93.35	264.3595
94.67	293.6693
94.87	292.3473
94.87	292.3473
95.86	288.5802
97.43	335.4975
98.44	272.1656
99.53	261.1432
100.11	258.5236
103.18	306.5043
103.37	282.3503
105.31	272.6058
106.12	280.7900
109.28	282.3193
111.00	291.9923
111.76	308.1142
116.30	285.6416
117.23	290.0470
121.12	289.8628
121.78	270.1538
122.06	270.2733
123.07	275.7161
131.20	321.8145
133.52	260.7891
136.00	282.1908

136.47	282.3845
140.51	303.5916
140.51	0.0000
143.76	236.7573
144.24	224.5031
144.24	224.5031
145.44	287.0595
152.43	284.5950
153.25	282.8156
154.21	272.6900
154.21	272.6900
156.02	296.4810
158.56	278.4885
159.00	305.0370
162.66	260.8895
163.33	268.5449
165.86	205.5219
176.60	206.1278
177.52	213.9199
181.07	224.6017
184.41	228.7625
185.72	236.7522
193.51	257.6085
197.04	259.7445
205.31	217.5163
210.85	224.4344
215.65	192.8708
222.11	239.5944
227.38	247.7386
228.16	215.9434
228.18	215.9473
235.69	219.3006
235.96	212.4498
235.96	212.4498
238.63	214.7390
238.63	214.7390
240.99	215.2328
242.00	215.4447
244.70	158.5210
252.40	186.0046
252.80	193.9736
256.23	178.7463
256.23	178.7463
260.90	0.0000
264.66	179.8382
268.22	159.5262
269.46	168.2595
269.46	168.2595
271.23	181.3781
273.65	189.6406
276.40	182.9264
277.37	162.4404
277.60	166.0641
278.00	166.1206
279.20	143.8232
279.54	158.2512
280.46	161.2598
283.69	152.5064
284.31	149.8777
285.41	156.3457
285.90	0.0000
287.50	165.6790
293.27	0.0000
295.22	157.4675
295.96	157.5650
298.57	135.2429
299.98	147.8432
299.98	147.8432
300.09	152.2498
300.09	152.2498
300.13	152.2549
301.36	139.2181
302.85	170.2023
304.50	124.8853
304.50	124.8853
304.85	133.7385
308.46	144.6338
311.90	145.9600

316.51	137.2256
319.41	128.2463
320.08	131.1031
323.87	129.8139
323.87	129.8139
328.76	141.3528
333.37	86.4283
334.37	115.3257
334.37	115.3257
338.28	132.9534
338.28	132.9534
338.32	132.9577
338.32	132.9577
338.32	132.9577
340.48	143.5646
340.55	143.5715
344.28	134.8798
351.06	117.0899
351.93	117.1631
356.01	116.1746
364.49	123.0371
366.42	126.0947
383.85	104.2538
388.16	103.5836
388.63	107.5259
391.69	112.6469
400.66	120.2222
401.81	120.3153
402.40	112.4692
404.85	136.3660
410.95	108.1401
414.70	117.3554
423.72	121.0351
427.09	110.2686
427.87	98.2871
433.94	107.7233
453.88	94.7795
463.37	90.1941
468.07	100.3119
473.00	79.3687
476.78	96.0709
477.60	90.9501
487.02	83.1299
492.35	0.0000
497.08	85.6949
511.00	85.3073
514.00	94.5198
527.90	0.0000
529.87	0.0000
531.02	93.6880
537.26	76.9087
546.56	0.0000
563.25	79.0351
569.33	87.9684
569.50	91.2341
569.70	85.8108
583.19	79.8304
600.60	78.3084
602.73	78.2309
604.72	68.9603
609.32	76.4226
609.32	76.4226
609.32	76.4226
610.33	76.4605
614.28	83.4870
618.01	84.5259
621.93	82.4528
621.93	82.4528
633.25	52.6469
635.95	66.1715
636.99	69.5684
645.85	66.6976
657.76	75.2147
661.66	83.5165
661.66	83.5165
664.57	0.0000
666.33	83.6917
666.50	65.5031

677.62	73.1406
685.70	76.1529
695.00	76.4589
696.49	82.0393
696.51	84.8058
697.00	85.7457
702.65	81.3313
706.68	92.5806
711.68	79.7894
720.70	78.6430
721.93	0.0000
722.78	63.6955
722.91	69.9133
723.31	63.7088
724.19	59.0688
727.33	77.8239
733.00	48.3643
735.93	69.3533
739.50	61.9475
747.24	64.9671
752.31	76.4240
753.82	48.1474
756.73	51.0403
763.94	55.2956
765.81	58.4990
766.42	64.8383
777.92	66.7239
778.90	59.1210
783.70	59.2315
785.37	65.0067
795.86	66.2323
801.95	75.3671
810.29	70.4603
810.76	77.2305
815.77	71.5755
818.51	60.0307
832.01	61.3081
834.85	68.1919
836.80	0.0000
846.77	60.6665
856.80	60.5616
860.56	67.2006
871.09	66.1396
873.19	53.3474
875.33	0.0000
879.36	51.4846
880.51	49.5251
883.24	55.5215
884.68	65.4699
889.28	61.6019
898.04	64.7826
911.20	51.0623
911.20	51.0623
911.20	51.0623
926.50	54.3520
937.49	65.6681
944.13	48.6023
946.00	52.6855
949.00	70.9946
962.29	76.4026
964.08	62.8575
966.15	64.5997
968.97	92.9062
968.97	92.9062
968.97	92.9062
983.53	52.3173
996.26	50.4738
1001.03	58.8035
1004.73	51.6431
1037.84	56.3599
1038.76	0.0000
1048.07	61.7743
1050.41	52.3901
1050.41	52.3901
1063.66	62.0710
1085.87	49.7791
1099.45	64.8691
1112.07	61.6738

1115.54	56.9870
1120.29	57.7784
1120.29	57.7784
1120.29	57.7784
1120.55	57.7837
1121.30	57.7969
1131.51	0.0000
1173.23	61.9235
1177.93	92.4624
1189.05	64.3786
1204.77	72.3325
1221.41	89.9091
1231.02	94.7436
1235.36	97.6152
1238.28	78.3386
1260.41	0.0000
1271.85	42.7750
1274.44	41.8744
1274.54	40.9438
1291.59	46.7346
1298.22	0.0000
1312.11	42.2845
1332.49	27.3922
1365.19	36.1878
1368.63	0.0000
1384.29	24.6041
1408.01	20.2096
1457.56	0.0000
1460.82	25.3377
1489.16	17.6572
1505.03	22.6444
1596.21	25.1180
1620.50	19.1902
1678.03	0.0000
1690.97	18.4519
1764.49	10.4057
1764.49	10.4057
1764.49	10.4057
1770.23	10.7151
1771.35	5.3586
1791.20	0.0000
1836.06	9.4973

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248824002

Total Uranium Activity	1.4509E+01	ug/g
Total Uranium Counting Unc.	8.5982E+00	ug/g
Total Uranium Tpu	4.3868E-06	ug/g
Total Uranium Mda	4.4373E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 962631                    SAMPLE ID  : G248824002        *
*   ANALYST      : MXR1                      DETECTOR   : GAM04             *
*   SAMPLE DATE  :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 14:38:47.71   SAMPLE ALQT:  128.930 GRAM     *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.068E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.430E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 3.385E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.639E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:41:02.38

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065185.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 23-MAR-2010 14:39:21
Sample ID         : G1202065185          Sample quantity  : 1.33700E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.47  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	240.08*	51	101	4.13	479.56	473	18	7.11E-03	50.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 16:41:05

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065185.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 9-MAR-2010 00:00:00 Acquisition date : 23-MAR-2010 14:39:21
Sample ID : G1202065185 Sample quantity : 133.70 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA6 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.47 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	+	240.99	*	8.401E-01	8.581E-01	6.175E-01	5.678E-02	1.360

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-5.824E-02	1.788E-01	2.882E-01	2.692E-02	-0.202
NA-22		1274.54	*	6.768E-04	2.068E-02	3.418E-02	3.003E-03	0.020
NA-24		1368.63	*	-2.933E-02	2.068E-02	Half-Life too short		
K-40		1460.82	*	-3.089E-01	2.679E-01	3.822E-01	3.603E-02	-0.808
SC-46		889.28	*	-8.074E-03	2.189E-02	3.234E-02	2.989E-03	-0.250
		1120.55		2.229E-02	2.724E-02	5.161E-02	4.370E-03	0.432
V-48		944.13		2.163E-01	4.755E-01	8.629E-01	7.939E-02	0.251
		983.53	*	4.050E-02	3.815E-02	7.560E-02	6.879E-03	0.536
		1312.11		2.680E-02	4.688E-02	8.604E-02	7.759E-03	0.311
CR-51		320.08	*	1.195E-02	2.253E-01	3.715E-01	3.576E-02	0.032
MN-54		834.85	*	-3.960E-03	2.279E-02	3.577E-02	3.224E-03	-0.111
CO-56		846.77	*	-4.125E-02	2.353E-02	2.123E-02	1.924E-03	-1.943
		1037.84		-6.422E-02	1.943E-01	3.043E-01	2.841E-02	-0.211
		1238.28		1.755E-02	4.724E-02	8.281E-02	7.282E-03	0.212
		1771.35		1.998E-02	1.767E-01	3.014E-01	2.591E-02	0.066
CO-57		122.06	*	-5.494E-03	1.440E-02	2.238E-02	1.884E-03	-0.246
		136.47		4.219E-02	1.139E-01	1.883E-01	1.691E-02	0.224
CO-58		810.76	*	-5.484E-03	2.142E-02	3.293E-02	2.937E-03	-0.167
FE-59		1099.45	*	-3.661E-02	5.618E-02	8.138E-02	7.565E-03	-0.450
		1291.59		2.229E-02	7.292E-02	1.270E-01	1.273E-02	0.175
CO-60		1173.23		7.766E-03	2.171E-02	3.859E-02	3.129E-03	0.201
		1332.49	*	-7.372E-03	2.264E-02	3.447E-02	3.153E-03	-0.214
ZN-65		1115.54	*	-4.155E-02	4.802E-02	6.426E-02	5.468E-03	-0.647
SE-75		121.12		-2.759E-02	7.457E-02	1.160E-01	1.270E-02	-0.238
		136.00		1.407E-02	2.202E-02	3.717E-02	3.117E-03	0.378
		264.66	*	1.644E-02	2.981E-02	5.168E-02	4.823E-03	0.318
		279.54		-4.146E-02	7.160E-02	1.119E-01	1.076E-02	-0.371
		400.66		6.772E-02	1.534E-01	2.614E-01	2.873E-02	0.259

Sample ID : G1202065185 Acquisition date : 23-MAR-2010 14:39:21

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SR-85		514.00	*	-6.996E-02	3.825E-02	5.444E-02	4.723E-03	-1.285
Y-88		898.04		9.272E-03	2.247E-02	3.928E-02	3.659E-03	0.236
		1836.06	*	1.022E-04	1.528E-02	2.529E-02	2.114E-03	0.004
Y-91		1204.77	*	9.722E+00	1.102E+01	2.120E+01	1.764E+00	0.458
NB-94		702.65	*	-2.175E-02	2.213E-02	3.074E-02	2.561E-03	-0.708
		871.09		2.198E-02	2.274E-02	4.241E-02	3.888E-03	0.518
NB-95		765.81	*	1.609E-02	2.271E-02	4.139E-02	3.591E-03	0.389
NB-95M		235.69	*	7.476E-02	8.494E-02	1.360E-01	1.409E-02	0.550
ZR-95		724.19		-2.943E-02	4.910E-02	7.138E-02	6.563E-03	-0.412
		756.73	*	2.257E-02	3.578E-02	6.540E-02	6.234E-03	0.345
MO-99		140.51		3.977E-01	1.073E+01	1.719E+01	4.064E+00	0.023
		181.07		1.093E+00	8.764E+00	1.498E+01	2.815E+00	0.073
		366.42		-4.548E+00	6.081E+01	9.799E+01	8.618E+00	-0.046
		739.50	*	-1.092E+00	6.568E+00	1.043E+01	1.639E+00	-0.105
		777.92		1.936E-01	1.869E+01	3.048E+01	2.664E+00	0.006
TC-99M		140.51	*	1.919E+08	1.869E+01	Half-Life too short		
RU-103		497.08	*	-1.279E-03	2.804E-02	4.410E-02	6.177E-03	-0.029
		610.33		-2.521E-01	5.544E-01	8.587E-01	1.394E-01	-0.294
RH-106		621.93	*	-4.742E-02	1.967E-01	3.142E-01	4.108E-02	-0.151
		1050.41		-4.692E-01	1.468E+00	2.287E+00	2.023E-01	-0.205
RU-106		621.93	*	-4.742E-02	1.966E-01	3.142E-01	2.620E-02	-0.151
		1050.41		-4.692E-01	1.468E+00	2.287E+00	2.023E-01	-0.205
AG-108M		433.94	*	-3.045E-03	2.008E-02	3.163E-02	2.810E-03	-0.096
		614.28		-1.153E-02	2.123E-02	3.237E-02	2.806E-03	-0.356
		722.91		-5.433E-03	1.967E-02	3.056E-02	2.668E-03	-0.178
CD-109		88.03	*	-6.473E-02	3.739E-01	5.864E-01	6.524E-02	-0.110
AG-110M		657.76	*	-1.736E-02	2.197E-02	3.172E-02	2.662E-03	-0.547
		677.62		7.156E-02	1.791E-01	3.133E-01	2.647E-02	0.228
		706.68		6.052E-06	1.262E-01	2.071E-01	1.783E-02	0.000
		763.94		3.220E-02	8.897E-02	1.541E-01	1.372E-02	0.209
		884.68		1.768E-02	3.164E-02	5.599E-02	5.309E-03	0.316
		937.49		-9.736E-03	6.106E-02	9.944E-02	9.453E-03	-0.098
		1384.29		5.458E-02	9.400E-02	1.748E-01	1.644E-02	0.312
		1505.03		7.165E-02	1.630E-01	2.967E-01	2.722E-02	0.241
SN-113		391.69	*	-6.644E-03	2.906E-02	4.569E-02	3.985E-03	-0.145
CD-115		260.90		-1.503E+01	7.479E+01	1.218E+02	1.131E+01	-0.123
		492.35		-2.332E+01	2.059E+01	2.933E+01	2.547E+00	-0.795
		527.90	*	-7.018E+00	7.236E+00	9.285E+00	8.041E-01	-0.756
SN-117M		156.02		-2.219E-01	1.217E+00	1.898E+00	1.592E-01	-0.117
		158.56	*	2.781E-02	2.929E-02	5.048E-02	4.243E-03	0.551
TE-123M		159.00	*	1.090E-02	1.564E-02	2.641E-02	2.234E-03	0.413
SB-124		602.73		9.786E-03	2.716E-02	4.691E-02	3.957E-03	0.209
		645.85		1.678E-02	3.029E-01	5.043E-01	4.396E-02	0.033
		722.78		-5.425E-02	1.965E-01	3.052E-01	2.640E-02	-0.178
		1690.97	*	-6.903E-03	4.279E-02	6.669E-02	6.136E-03	-0.104
SB-125		427.87	*	3.118E-03	6.034E-02	9.762E-02	8.544E-03	0.032
		463.37		1.158E-02	1.843E-01	2.968E-01	2.764E-02	0.039
		600.60		3.828E-02	1.226E-01	2.109E-01	1.918E-02	0.181
		635.95		8.872E-02	1.644E-01	2.928E-01	2.632E-02	0.303

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-125M		109.28	*	8.147E-01	5.684E+00	8.963E+00	9.648E-01	0.091
I-126		388.63		3.795E-02	1.039E-01	1.753E-01	1.490E-02	0.216
		666.33	*	-2.282E-02	1.460E-01	2.354E-01	1.912E-02	-0.097
		753.82		4.300E-01	9.536E-01	1.682E+00	1.449E-01	0.256
SB-126		414.70		6.788E-03	4.697E-02	7.704E-02	6.585E-03	0.088
		666.50		-8.965E-03	4.989E-02	8.019E-02	6.512E-03	-0.112
		695.00		1.771E-02	5.115E-02	8.789E-02	7.286E-03	0.202
		697.00		1.551E-01	1.859E-01	3.362E-01	2.790E-02	0.461
		720.70	*	2.865E-02	7.188E-02	1.262E-01	1.065E-02	0.227
		856.80		2.386E-02	3.141E-01	5.138E-01	4.680E-02	0.046
SN-126		64.28		-8.076E-02	2.934E-01	4.556E-01	7.053E-02	-0.177
		86.94		-1.478E-01	1.699E-01	2.320E-01	9.724E-02	-0.637
		87.57	*	-4.021E-02	3.884E-02	5.614E-02	6.218E-03	-0.716
SB-127		252.40		-1.709E-01	2.435E+00	4.021E+00	1.674E+00	-0.042
		473.00		2.286E-01	9.826E-01	1.617E+00	2.050E-01	0.141
		685.70	*	3.401E-01	6.511E-01	1.163E+00	1.272E-01	0.292
		783.70		1.350E+00	1.792E+00	3.283E+00	4.047E-01	0.411
I-131		80.19		-1.755E+00	1.903E+00	2.846E+00	2.925E-01	-0.617
		284.31		-6.809E-01	9.241E-01	1.412E+00	1.373E-01	-0.482
		364.49	*	-3.778E-03	7.608E-02	1.230E-01	1.140E-02	-0.031
		636.99		1.711E-01	9.021E-01	1.534E+00	1.344E-01	0.112
TE-132		49.72		2.943E+00	1.098E+01	1.873E+01	2.166E+00	0.157
		111.76		-1.308E+01	1.865E+01	2.697E+01	2.976E+00	-0.485
		116.30		-5.631E-02	1.384E+01	2.232E+01	2.425E+00	-0.003
		228.16	*	-1.671E-01	4.067E-01	6.558E-01	1.049E-01	-0.255
BA-133		81.00		-1.475E-02	3.801E-02	5.991E-02	9.897E-03	-0.246
		276.40		3.123E-01	2.209E-01	4.033E-01	5.866E-02	0.774
		302.85		6.041E-02	8.579E-02	1.503E-01	2.030E-02	0.402
		356.01	*	-2.918E-02	2.694E-02	3.763E-02	4.948E-03	-0.775
		383.85		4.983E-03	1.822E-01	2.960E-01	3.667E-02	0.017
I-133		529.87	*	-1.417E-03	1.822E-01	Half-Life too short		
		875.33		-3.673E-02	1.822E-01	Half-Life too short		
		1298.22		-3.587E-03	1.822E-01	Half-Life too short		
CS-134		563.25		-5.534E-02	2.538E-01	4.123E-01	3.573E-02	-0.134
		569.33		-5.352E-02	1.464E-01	2.250E-01	1.953E-02	-0.238
		604.72		-3.258E-03	2.482E-02	4.058E-02	3.428E-03	-0.080
		795.86	*	-7.150E-03	2.265E-02	3.426E-02	3.046E-03	-0.209
		801.95		5.637E-02	2.712E-01	4.184E-01	3.726E-02	0.135
		1365.19		3.672E-01	6.710E-01	1.256E+00	1.199E-01	0.292
CS-135		268.22	*	3.577E-04	9.760E-02	1.618E-01	1.708E-02	0.002
I-135		546.56		5.900E+08	9.760E-02	Half-Life too short		
		836.80		8.401E+08	9.760E-02	Half-Life too short		
		1038.76		-3.855E+08	9.760E-02	Half-Life too short		
		1131.51		7.639E+08	9.760E-02	Half-Life too short		
		1260.41	*	-2.989E+07	9.760E-02	Half-Life too short		
		1457.56		6.081E+08	9.760E-02	Half-Life too short		
		1678.03		-2.909E+08	9.760E-02	Half-Life too short		
		1791.20		1.170E+09	9.760E-02	Half-Life too short		
CS-136		153.25		5.848E-01	4.302E-01	7.660E-01	7.706E-02	0.763

Sample ID : G1202065185 Acquisition date : 23-MAR-2010 14:39:21

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		176.60		-7.393E-02	2.755E-01	4.574E-01	4.333E-02	-0.162
		273.65		-1.649E-01	3.105E-01	4.878E-01	4.873E-02	-0.338
		340.55		5.207E-02	8.914E-02	1.538E-01	1.441E-02	0.338
		818.51		-1.035E-02	3.720E-02	5.652E-02	5.055E-03	-0.183
		1048.07	*	-4.921E-02	6.097E-02	8.429E-02	7.762E-03	-0.584
		1235.36		2.819E-02	2.828E-01	4.735E-01	5.537E-02	0.060
BA-137M		661.66	*	1.440E-04	2.340E-02	3.862E-02	3.125E-03	0.004
CS-137		661.66	*	1.521E-04	2.472E-02	4.079E-02	3.308E-03	0.004
CE-139		165.86	*	-2.763E-03	1.824E-02	2.847E-02	2.408E-03	-0.097
BA-140		162.66		-3.313E-02	4.797E-01	7.554E-01	6.817E-02	-0.044
		304.85		-4.795E-01	8.593E-01	1.314E+00	3.873E-01	-0.365
		423.72		1.718E-01	1.329E+00	2.168E+00	7.130E-01	0.079
		537.26	*	-2.771E-02	1.775E-01	2.911E-01	9.874E-02	-0.095
LA-140		328.76		-6.750E-02	1.891E-01	2.979E-01	2.865E-02	-0.227
		487.02		2.793E-02	8.272E-02	1.449E-01	1.335E-02	0.193
		815.77		-9.560E-02	1.600E-01	2.220E-01	2.198E-02	-0.431
		1596.21	*	1.018E-02	5.232E-02	9.177E-02	8.316E-03	0.111
CE-141		145.44	*	-1.530E-02	3.826E-02	5.475E-02	4.654E-03	-0.279
CE-143		57.36		-1.415E-04	3.826E-02	Half-Life too short		
		293.27	*	3.603E-05	3.826E-02	Half-Life too short		
		664.57		2.918E-04	3.826E-02	Half-Life too short		
		721.93		3.065E-04	3.826E-02	Half-Life too short		
CE-144		80.12		-9.579E-01	1.076E+00	1.616E+00	1.653E-01	-0.593
		133.52	*	5.440E-03	1.046E-01	1.684E-01	2.547E-02	0.032
PM-144		476.78		1.331E-02	3.519E-02	6.228E-02	5.866E-03	0.214
		618.01		1.316E-02	1.920E-02	3.481E-02	2.996E-03	0.378
		696.49	*	6.284E-03	2.506E-02	4.244E-02	3.523E-03	0.148
PR-144		696.51	*	4.701E-01	1.875E+00	3.175E+00	2.635E-01	0.148
		1489.16		4.202E+00	8.021E+00	1.486E+01	1.365E+00	0.283
PM-146		453.88	*	-4.800E-03	2.748E-02	4.293E-02	4.557E-03	-0.112
		633.25		-1.306E-01	8.225E-01	1.323E+00	5.045E-01	-0.099
		735.93		-8.443E-02	9.161E-02	1.196E-01	3.349E-02	-0.706
		747.24		-3.988E-02	5.604E-02	7.861E-02	1.145E-02	-0.507
ND-147		91.11		5.746E-02	1.291E-01	2.173E-01	2.439E-02	0.264
		319.41		-1.699E-01	2.038E+00	3.311E+00	3.049E-01	-0.051
		531.02	*	-1.984E-03	3.272E-01	5.475E-01	8.196E-02	-0.004
PM-149		285.90	*	-6.221E+00	5.080E+01	8.286E+01	1.320E+01	-0.075
EU-152		121.78		-1.056E-02	4.039E-02	6.344E-02	6.175E-03	-0.166
		244.70		9.850E-02	1.855E-01	2.920E-01	2.691E-02	0.337
		344.28	*	3.140E-02	6.253E-02	1.073E-01	1.021E-02	0.292
		778.90		-4.207E-02	1.502E-01	2.318E-01	2.027E-02	-0.182
		964.08		-2.138E-02	1.662E-01	2.819E-01	2.580E-02	-0.076
		1085.87		2.415E-02	2.453E-01	4.142E-01	3.591E-02	0.058
		1112.07		4.740E-02	1.470E-01	2.607E-01	2.222E-02	0.182
		1408.01		-2.457E-03	1.216E-01	1.965E-01	1.808E-02	-0.013
GD-153		69.67		7.086E-02	8.234E-01	1.368E+00	1.287E-01	0.052
		97.43	*	2.749E-02	4.047E-02	6.967E-02	6.875E-03	0.395
		103.18		-1.969E-02	5.575E-02	8.746E-02	8.190E-03	-0.225
EU-154		123.07		-1.912E-02	2.947E-02	4.453E-02	4.981E-03	-0.429

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		723.31		-5.177E-02	9.301E-02	1.366E-01	1.276E-02	-0.379
		873.19		-4.357E-02	1.779E-01	2.733E-01	3.363E-02	-0.159
		996.26		-1.934E-01	2.629E-01	3.856E-01	6.822E-02	-0.501
		1004.73		-1.888E-01	1.482E-01	1.899E-01	2.268E-02	-0.994
		1274.44	*	-2.984E-03	6.139E-02	9.930E-02	1.142E-02	-0.030
EU-155		86.55		-3.079E-02	4.742E-02	7.143E-02	7.869E-03	-0.431
		105.31	*	1.272E-02	5.196E-02	8.607E-02	8.010E-03	0.148
TB-160		86.79		-1.013E-01	1.235E-01	1.826E-01	2.004E-02	-0.555
		197.04		1.643E-01	3.870E-01	6.183E-01	5.450E-02	0.266
		215.65		-2.438E-02	4.516E-01	7.545E-01	6.793E-02	-0.032
		298.57		-6.017E-02	6.636E-02	9.835E-02	9.138E-03	-0.612
		879.36	*	-3.225E-02	8.310E-02	1.231E-01	1.133E-02	-0.262
		962.29		-7.580E-02	2.957E-01	4.922E-01	4.507E-02	-0.154
		966.15		-1.262E-02	1.172E-01	1.914E-01	1.751E-02	-0.066
		1177.93		-1.552E-02	1.437E-01	2.297E-01	1.870E-02	-0.068
		1271.85		3.905E-02	3.651E-01	6.135E-01	5.374E-02	0.064
HO-166M		80.57		-1.070E-01	1.142E-01	1.702E-01	1.748E-02	-0.629
		184.41		-2.640E-02	2.317E-02	3.549E-02	3.077E-03	-0.744
		280.46		-1.178E-03	5.389E-02	8.887E-02	8.277E-03	-0.013
		410.95		-6.140E-02	1.575E-01	2.294E-01	1.957E-02	-0.268
		711.68	*	3.110E-03	3.914E-02	6.492E-02	5.444E-03	0.048
		752.31		3.033E-02	1.471E-01	2.494E-01	2.147E-02	0.122
		810.29		-2.773E-04	3.138E-02	5.084E-02	4.524E-03	-0.005
TA-182		67.75		-4.364E-02	5.919E-02	8.779E-02	8.164E-03	-0.497
		100.11		1.953E-03	8.887E-02	1.447E-01	1.391E-02	0.014
		152.43		7.591E-02	1.837E-01	3.036E-01	2.540E-02	0.250
		222.11		-1.177E-01	2.031E-01	3.226E-01	2.923E-02	-0.365
		1121.30		8.492E-02	7.467E-02	1.480E-01	1.252E-02	0.574
		1189.05		3.482E-02	1.266E-01	2.233E-01	1.834E-02	0.156
		1221.41	*	3.787E-02	8.774E-02	1.583E-01	1.334E-02	0.239
		1231.02		-1.210E-01	2.395E-01	3.493E-01	2.966E-02	-0.347
IR-192		295.96		-1.962E-02	6.860E-02	1.025E-01	9.591E-03	-0.191
		308.46		-1.756E-02	6.531E-02	1.045E-01	9.715E-03	-0.168
		316.51	*	-9.933E-03	2.206E-02	3.440E-02	3.179E-03	-0.289
		468.07		-1.701E-02	4.206E-02	6.316E-02	5.870E-03	-0.269
HG-203		70.83		2.417E-01	6.290E-01	1.067E+00	1.764E-01	0.227
		72.87		-1.127E-01	3.675E-01	5.900E-01	9.503E-02	-0.191
		279.20	*	-2.166E-02	2.544E-02	3.862E-02	3.676E-03	-0.561
BI-207		72.81		-2.588E-02	8.566E-02	1.377E-01	1.323E-02	-0.188
		74.97		-9.019E-04	5.261E-02	8.226E-02	8.034E-03	-0.011
		569.70		-1.051E-02	2.278E-02	3.456E-02	2.959E-03	-0.304
		1063.66	*	5.400E-03	3.217E-02	5.507E-02	4.837E-03	0.098
		1770.23		-3.716E-01	5.032E-01	6.114E-01	5.258E-02	-0.608
TL-208		277.37		1.179E-01	2.492E-01	4.284E-01	5.575E-02	0.275
		583.19	*	7.678E-04	2.623E-02	4.381E-02	4.000E-03	0.018
		860.56		8.099E-03	1.892E-01	3.078E-01	2.993E-02	0.026
PB-210		46.54	*	-2.399E+00	2.618E+00	3.864E+00	3.718E-01	-0.621
BI-211		72.87		-4.561E-01	1.486E+00	2.388E+00	2.295E-01	-0.191
		351.06	*	3.037E-02	1.489E-01	2.378E-01	2.231E-02	0.128

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PB-211		404.85	*	-1.737E-01	4.310E-01	6.436E-01	3.113E-01	-0.270
		427.09		1.162E-01	1.003E+00	1.634E+00	7.557E-01	0.071
		832.01		-1.101E-01	5.888E-01	9.156E-01	4.754E-01	-0.120
BI-212		727.33	*	-1.348E-01	3.011E-01	4.549E-01	5.621E-02	-0.296
		785.37		-6.601E-01	1.696E+00	2.544E+00	2.233E-01	-0.259
		1620.50		-1.936E-01	1.404E+00	2.243E+00	2.022E-01	-0.086
PB-212		74.82		-1.098E-01	1.912E-01	2.862E-01	3.943E-02	-0.384
		77.11		5.051E-02	9.410E-02	1.609E-01	1.601E-02	0.314
	+	238.63	*	7.900E-02	8.077E-02	6.912E-02	7.094E-03	1.143
		300.09		7.445E-02	4.574E-01	7.653E-01	8.487E-02	0.097
BI-214		609.32	*	-1.596E-02	5.431E-02	8.601E-02	8.534E-03	-0.186
		1120.29		1.157E-01	1.585E-01	2.968E-01	3.206E-02	0.390
		1764.49		9.559E-02	1.661E-01	3.132E-01	2.700E-02	0.305
PB-214		74.82		-1.945E-01	3.386E-01	5.073E-01	6.378E-02	-0.384
		77.11		8.904E-02	1.661E-01	2.837E-01	3.666E-02	0.314
		242.00		4.157E-02	2.139E-01	3.622E-01	3.939E-02	0.115
		295.22		8.118E-03	9.385E-02	1.461E-01	1.659E-02	0.056
		351.93	*	1.022E-02	5.505E-02	8.783E-02	9.555E-03	0.116
RN-219		271.23		-9.986E-02	1.469E-01	2.271E-01	2.461E-02	-0.440
		401.81	*	-1.260E-01	2.539E-01	3.821E-01	5.656E-02	-0.330
RA-223		81.07		-2.951E-02	8.632E-02	1.369E-01	1.413E-02	-0.216
		83.79		5.426E-02	5.561E-02	9.780E-02	1.038E-02	0.555
		94.87		-4.443E-01	2.476E-01	3.374E-01	3.424E-02	-1.317
		144.24		2.913E-02	4.071E-01	6.096E-01	5.711E-02	0.048
		154.21		-6.110E-02	2.136E-01	3.300E-01	3.044E-02	-0.185
		269.46		1.003E-01	1.084E-01	1.939E-01	1.835E-02	0.517
		323.87	*	5.661E-02	4.052E-01	6.731E-01	1.186E-01	0.084
		338.28		-1.718E-01	6.845E-01	1.024E+00	1.270E-01	-0.168
RA-226		609.32	*	-1.596E-02	5.431E-02	8.601E-02	8.534E-03	-0.186
		1120.29		1.157E-01	1.585E-01	2.968E-01	3.206E-02	0.390
		1764.49		9.559E-02	1.661E-01	3.132E-01	2.700E-02	0.305
AC-227		79.69		-5.971E-01	5.571E-01	8.093E-01	1.462E-01	-0.738
		235.96		9.941E-02	1.004E-01	1.626E-01	1.756E-02	0.612
		256.23	*	-1.136E-02	1.525E-01	2.516E-01	3.151E-02	-0.045
		299.98		-1.622E-01	5.268E-01	8.392E-01	1.105E-01	-0.193
		304.50		-4.118E-01	1.050E+00	1.655E+00	2.793E-01	-0.249
		334.37		4.537E-02	1.117E+00	1.834E+00	2.909E-01	0.025
TH-227		79.80		-7.666E-01	7.420E-01	1.072E+00	2.407E-01	-0.715
		235.96		9.941E-02	1.004E-01	1.626E-01	1.665E-02	0.612
		256.23	*	-1.136E-02	1.525E-01	2.516E-01	3.529E-02	-0.045
		299.98		-1.622E-01	5.268E-01	8.392E-01	1.105E-01	-0.193
		304.50		-4.118E-01	1.050E+00	1.655E+00	2.793E-01	-0.249
		334.37		4.537E-02	1.117E+00	1.834E+00	2.909E-01	0.025
AC-228		338.32		-4.329E-02	1.734E-01	2.581E-01	1.079E-01	-0.168
		911.20	*	1.830E-02	9.475E-02	1.572E-01	1.899E-02	0.116
		968.97		-7.063E-02	1.534E-01	2.313E-01	5.679E-02	-0.305
RA-228		338.32		-4.329E-02	1.734E-01	2.581E-01	1.079E-01	-0.168
		911.20	*	1.830E-02	9.475E-02	1.572E-01	1.899E-02	0.116
		968.97		-7.063E-02	1.534E-01	2.313E-01	5.679E-02	-0.305

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228		74.82		-1.098E-01	1.909E-01	2.862E-01	2.812E-02	-0.384
		77.11		5.051E-02	9.410E-02	1.609E-01	1.601E-02	0.314
	+	238.63	*	7.900E-02	8.077E-02	6.912E-02	7.094E-03	1.143
		300.09		7.445E-02	4.596E-01	7.653E-01	4.693E-01	0.097
TH-229		85.43		1.596E-02	9.200E-02	1.527E-01	1.650E-02	0.105
		88.47		1.417E-02	5.694E-02	9.256E-02	1.023E-02	0.153
		193.51	*	-4.037E-01	3.381E-01	4.906E-01	4.306E-02	-0.823
		210.85		1.480E-01	4.814E-01	8.289E-01	7.426E-02	0.179
TH-230		609.32	*	-1.596E-02	5.430E-02	8.601E-02	7.228E-03	-0.186
		1120.29		1.157E-01	1.583E-01	2.968E-01	2.514E-02	0.390
		1764.49		9.559E-02	1.661E-01	3.132E-01	2.700E-02	0.305
PA-231		283.69	*	-5.987E-01	9.228E-01	1.419E+00	2.129E-01	-0.422
		301.36		1.734E-01	3.410E-01	5.876E-01	7.423E-02	0.295
TH-231		81.07		-2.951E-02	8.632E-02	1.369E-01	1.413E-02	-0.216
		83.79		5.426E-02	5.561E-02	9.780E-02	1.038E-02	0.555
		94.87		-4.443E-01	2.476E-01	3.374E-01	3.424E-02	-1.317
		144.24		2.913E-02	4.071E-01	6.096E-01	5.711E-02	0.048
		154.21		-6.110E-02	2.136E-01	3.300E-01	3.044E-02	-0.185
		269.46		1.003E-01	1.084E-01	1.939E-01	1.835E-02	0.517
		323.87	*	5.661E-02	4.052E-01	6.731E-01	1.186E-01	0.084
		338.28		-1.718E-01	6.845E-01	1.024E+00	1.270E-01	-0.168
TH-232		338.32		-4.329E-02	1.725E-01	2.581E-01	2.343E-02	-0.168
		911.20	*	1.830E-02	9.475E-02	1.572E-01	1.899E-02	0.116
		968.97		-7.063E-02	1.534E-01	2.313E-01	5.679E-02	-0.305
PA-233		300.13		3.994E-02	2.280E-01	3.820E-01	5.816E-02	0.105
		311.90	*	3.413E-02	4.183E-02	7.397E-02	7.009E-03	0.461
		340.48		1.880E-01	3.968E-01	6.742E-01	1.633E-01	0.279
PA-234		94.67		-1.497E-01	9.144E-02	1.257E-01	1.700E-02	-1.191
		98.44		3.251E-02	4.782E-02	7.658E-02	4.287E-02	0.425
		111.00		8.082E-02	1.023E-01	1.752E-01	2.150E-02	0.461
		131.20		-1.984E-02	5.158E-02	7.939E-02	6.617E-03	-0.250
		569.50		-8.180E-02	2.010E-01	3.069E-01	2.628E-02	-0.267
		733.00		1.153E-01	2.241E-01	3.945E-01	8.738E-02	0.292
		880.51		4.752E-02	1.761E-01	2.981E-01	2.744E-02	0.159
		883.24		4.452E-02	1.881E-01	3.123E-01	2.102E-01	0.143
		926.50		-3.570E-02	8.723E-02	1.242E-01	3.166E-02	-0.287
		946.00	*	0.000E+00	1.558E-01	2.614E-01	4.975E-02	0.000
		949.00		-1.020E-01	2.173E-01	3.259E-01	2.994E-02	-0.313
PA-234M		766.42		7.557E-01	6.011E+00	9.998E+00	5.074E+00	0.076
		1001.03	*	8.694E-02	3.439E+00	5.819E+00	6.013E-01	0.015
TH-234		63.29	*	5.619E-02	7.825E-01	1.247E+00	2.318E-01	0.045
		92.59		-2.156E-02	3.874E-01	6.422E-01	1.467E-01	-0.034
U-235		89.96		-7.989E-01	4.803E-01	6.097E-01	1.553E-01	-1.310
		93.35		-2.714E-02	2.866E-01	4.741E-01	1.128E-01	-0.057
		143.76	*	-4.243E-02	1.232E-01	1.773E-01	2.980E-02	-0.239
		163.33		9.586E-02	2.631E-01	4.294E-01	7.671E-02	0.223
		185.72		3.683E-03	2.999E-02	5.025E-02	4.365E-03	0.073
		205.31		-1.312E-01	2.749E-01	4.427E-01	8.094E-02	-0.296
NP-237		86.48	*	-6.231E-02	1.171E-01	1.772E-01	4.190E-02	-0.352

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		95.86		-1.105E+00	5.704E-01	6.633E-01	1.627E-01	-1.666
U-238		63.29	*	5.619E-02	7.825E-01	1.247E+00	2.318E-01	0.045
		92.59		-2.156E-02	3.873E-01	6.422E-01	6.698E-02	-0.034
NP-239		99.53		1.054E-03	8.328E-02	1.355E-01	1.310E-02	0.008
		103.37		-1.876E-02	5.070E-02	7.940E-02	7.424E-03	-0.236
		106.12		-6.885E-03	4.298E-02	6.862E-02	6.284E-03	-0.100
		117.23	*	-1.887E-02	2.212E-01	3.539E-01	3.039E-02	-0.053
		228.18		-8.350E-02	1.365E-01	2.165E-01	1.972E-02	-0.386
		277.60		2.298E-02	1.155E-01	1.943E-01	1.810E-02	0.118
AM-241		59.54	*	-1.988E-02	8.385E-02	1.298E-01	1.232E-02	-0.153
CM-247		278.00		-1.324E-01	4.898E-01	7.902E-01	7.359E-02	-0.168
		287.50		9.617E-01	7.709E-01	1.412E+00	1.314E-01	0.681
		402.40	*	-1.463E-02	2.327E-02	3.439E-02	2.923E-03	-0.425
CF-249		252.80		2.254E-01	5.735E-01	9.873E-01	9.137E-02	0.228
		333.37		1.100E-02	1.170E-01	1.930E-01	1.760E-02	0.057
		388.16	*	2.261E-03	2.720E-02	4.443E-02	3.778E-03	0.051
CF-251		177.52	*	4.509E-02	7.548E-02	1.333E-01	1.145E-02	0.338
		227.38		6.218E-02	2.130E-01	3.648E-01	3.321E-02	0.170
		285.41		-2.052E-01	1.419E+00	2.311E+00	2.152E-01	-0.089
ANH-511		511.00	*	-4.133E-03	3.722E-02	7.118E-02	6.177E-03	-0.058

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065185    *
* Acquisition date : 23-MAR-2010 14:39:21 Detector SN#     :               *
* Detector ID        : GAM06               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:00.47     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        :  9-MAR-2010 00:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202065185         Analyst initials: MXR1           *
* Batch Number       : 962631              Sample Quantity : 1.3370E+02 GRAM *
* Recovery           :    1.00000          Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04 MS Isotope       :               *
* MSD DPM            :    0.000            MSD Isotope      :               *
* LCS DPM            :    0.000            LCS Isotope      :               *
* LCSD DPM           :    0.000            LCSD Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
RA-224	8.401E-01	8.409E-01	6.389E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-5.824E-02	1.752E-01	2.946E-01	0.000E+00	NOT IDENT.
NA-22	6.768E-04	2.027E-02	3.432E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.554E+05	0.000E+00	0.000E+00	SHORT HLIF
K-40	-3.089E-01	2.625E-01	3.828E-01	0.000E+00	NOT IDENT.
SC-46	-8.074E-03	2.145E-02	3.269E-02	0.000E+00	NOT IDENT.
V-48	4.050E-02	3.739E-02	7.629E-02	0.000E+00	NOT IDENT.
CR-51	1.195E-02	2.208E-01	3.824E-01	0.000E+00	NOT IDENT.
MN-54	-3.960E-03	2.234E-02	3.620E-02	0.000E+00	NOT IDENT.
CO-56	-4.125E-02	2.306E-02	2.148E-02	0.000E+00	NOT IDENT.
CO-57	-5.494E-03	1.411E-02	2.342E-02	0.000E+00	NOT IDENT.
CO-58	-5.484E-03	2.099E-02	3.334E-02	0.000E+00	NOT IDENT.
FE-59	-3.661E-02	5.506E-02	8.195E-02	0.000E+00	NOT IDENT.
CO-60	-7.372E-03	2.219E-02	3.459E-02	0.000E+00	NOT IDENT.
ZN-65	-4.155E-02	4.706E-02	6.470E-02	0.000E+00	NOT IDENT.
SE-75	1.644E-02	2.922E-02	5.338E-02	0.000E+00	NOT IDENT.
SR-85	-6.996E-02	3.748E-02	5.558E-02	0.000E+00	NOT IDENT.
Y-88	1.022E-04	1.498E-02	2.523E-02	0.000E+00	NOT IDENT.
Y-91	9.722E+00	1.080E+01	2.132E+01	0.000E+00	NOT IDENT.
NB-94	-2.175E-02	2.169E-02	3.121E-02	0.000E+00	NOT IDENT.
NB-95	1.609E-02	2.226E-02	4.195E-02	0.000E+00	NOT IDENT.
NB-95M	7.476E-02	8.324E-02	1.408E-01	0.000E+00	NOT IDENT.
ZR-95	2.257E-02	3.506E-02	6.631E-02	0.000E+00	NOT IDENT.
MO-99	-1.092E+00	6.437E+00	1.058E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.075E+15	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.279E-03	2.748E-02	4.505E-02	0.000E+00	NOT IDENT.
RH-106	-4.742E-02	1.928E-01	3.197E-01	0.000E+00	NOT IDENT.

RU-106	-4.742E-02	1.927E-01	3.197E-01	0.000E+00	NOT IDENT.
AG-108M	-3.045E-03	1.968E-02	3.239E-02	0.000E+00	NOT IDENT.
CD-109	-6.473E-02	3.665E-01	6.171E-01	0.000E+00	NOT IDENT.
AG-110M	-1.736E-02	2.153E-02	3.224E-02	0.000E+00	NOT IDENT.
SN-113	-6.644E-03	2.848E-02	4.687E-02	0.000E+00	NOT IDENT.
CD-115	-7.018E+00	7.092E+00	9.475E+00	0.000E+00	NOT IDENT.
SN-117M	2.781E-02	2.870E-02	5.260E-02	0.000E+00	NOT IDENT.
TE-123M	1.090E-02	1.533E-02	2.752E-02	0.000E+00	NOT IDENT.
SB-124	-6.903E-03	4.193E-02	6.663E-02	0.000E+00	NOT IDENT.
SB-125	3.118E-03	5.913E-02	9.999E-02	0.000E+00	NOT IDENT.
TE-125M	8.147E-01	5.570E+00	9.398E+00	0.000E+00	NOT IDENT.
I-126	-2.282E-02	1.431E-01	2.392E-01	0.000E+00	NOT IDENT.
SB-126	2.865E-02	7.044E-02	1.281E-01	0.000E+00	NOT IDENT.
SN-126	-4.021E-02	3.806E-02	5.908E-02	0.000E+00	NOT IDENT.
SB-127	3.401E-01	6.380E-01	1.182E+00	0.000E+00	NOT IDENT.
I-131	-3.778E-03	7.456E-02	1.263E-01	0.000E+00	NOT IDENT.
TE-132	-1.671E-01	3.986E-01	6.791E-01	0.000E+00	NOT IDENT.
BA-133	-2.918E-02	2.640E-02	3.867E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.417E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-7.150E-03	2.219E-02	3.471E-02	0.000E+00	NOT IDENT.
CS-135	3.577E-04	9.565E-02	1.671E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.860E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.921E-02	5.975E-02	8.495E-02	0.000E+00	NOT IDENT.
BA-137M	1.440E-04	2.294E-02	3.925E-02	0.000E+00	NOT IDENT.
CS-137	1.521E-04	2.423E-02	4.146E-02	0.000E+00	NOT IDENT.
CE-139	-2.763E-03	1.788E-02	2.965E-02	0.000E+00	NOT IDENT.
BA-140	-2.771E-02	1.740E-01	2.969E-01	0.000E+00	NOT IDENT.
LA-140	1.018E-02	5.127E-02	9.179E-02	0.000E+00	NOT IDENT.
CE-141	-1.530E-02	3.749E-02	5.714E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.959E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	5.440E-03	1.026E-01	1.760E-01	0.000E+00	NOT IDENT.
PM-144	6.284E-03	2.456E-02	4.309E-02	0.000E+00	NOT IDENT.
PR-144	4.701E-01	1.838E+00	3.224E+00	0.000E+00	NOT IDENT.
PM-146	-4.800E-03	2.693E-02	4.392E-02	0.000E+00	NOT IDENT.
ND-147	-1.984E-03	3.206E-01	5.586E-01	0.000E+00	NOT IDENT.
PM-149	-6.221E+00	4.978E+01	8.547E+01	0.000E+00	NOT IDENT.
EU-152	3.140E-02	6.128E-02	1.104E-01	0.000E+00	NOT IDENT.
GD-153	2.749E-02	3.966E-02	7.320E-02	0.000E+00	NOT IDENT.
EU-154	-2.984E-03	6.016E-02	9.973E-02	0.000E+00	NOT IDENT.
EU-155	1.272E-02	5.092E-02	9.031E-02	0.000E+00	NOT IDENT.
TB-160	-3.225E-02	8.144E-02	1.245E-01	0.000E+00	NOT IDENT.
HO-166M	3.110E-03	3.835E-02	6.590E-02	0.000E+00	NOT IDENT.
TA-182	3.787E-02	8.598E-02	1.591E-01	0.000E+00	NOT IDENT.
IR-192	-9.933E-03	2.162E-02	3.543E-02	0.000E+00	NOT IDENT.
HG-203	-2.166E-02	2.493E-02	3.985E-02	0.000E+00	NOT IDENT.
BI-207	5.400E-03	3.152E-02	5.549E-02	0.000E+00	NOT IDENT.
TL-208	7.678E-04	2.571E-02	4.463E-02	0.000E+00	NOT IDENT.
PB-210	-2.399E+00	2.565E+00	4.110E+00	0.000E+00	NOT IDENT.
BI-211	3.037E-02	1.459E-01	2.444E-01	0.000E+00	NOT IDENT.
PB-211	-1.737E-01	4.224E-01	6.598E-01	0.000E+00	NOT IDENT.
BI-212	-1.348E-01	2.951E-01	4.616E-01	0.000E+00	NOT IDENT.
PB-212	0.000E+00	7.916E-02	7.152E-02	0.000E+00	FAIL ABUN
BI-214	-1.596E-02	5.322E-02	8.755E-02	0.000E+00	NOT IDENT.
PB-214	1.022E-02	5.394E-02	9.026E-02	0.000E+00	NOT IDENT.
RN-219	-1.260E-01	2.488E-01	3.918E-01	0.000E+00	NOT IDENT.
RA-223	5.661E-02	3.971E-01	6.928E-01	0.000E+00	NOT IDENT.
RA-226	-1.596E-02	5.322E-02	8.755E-02	0.000E+00	NOT IDENT.
AC-227	-1.136E-02	1.494E-01	2.600E-01	0.000E+00	NOT IDENT.
TH-227	-1.136E-02	1.494E-01	2.600E-01	0.000E+00	NOT IDENT.
AC-228	1.830E-02	9.286E-02	1.589E-01	0.000E+00	NOT IDENT.
RA-228	1.830E-02	9.286E-02	1.589E-01	0.000E+00	NOT IDENT.
TH-228	0.000E+00	7.916E-02	7.152E-02	0.000E+00	FAIL ABUN
TH-229	-4.037E-01	3.313E-01	5.095E-01	0.000E+00	NOT IDENT.
TH-230	-1.596E-02	5.322E-02	8.755E-02	0.000E+00	NOT IDENT.
PA-231	-5.987E-01	9.044E-01	1.464E+00	0.000E+00	NOT IDENT.
TH-231	5.661E-02	3.971E-01	6.928E-01	0.000E+00	NOT IDENT.
TH-232	1.830E-02	9.286E-02	1.589E-01	0.000E+00	NOT IDENT.
PA-233	3.413E-02	4.099E-02	7.618E-02	0.000E+00	NOT IDENT.
PA-234	0.000E+00	1.527E-01	2.639E-01	0.000E+00	NOT IDENT.
PA-234M	8.694E-02	3.370E+00	5.870E+00	0.000E+00	NOT IDENT.
TH-234	5.619E-02	7.669E-01	1.319E+00	0.000E+00	NOT IDENT.
U-235	-4.243E-02	1.207E-01	1.851E-01	0.000E+00	NOT IDENT.
NP-237	-6.231E-02	1.147E-01	1.865E-01	0.000E+00	NOT IDENT.
U-238	5.619E-02	7.669E-01	1.319E+00	0.000E+00	NOT IDENT.
NP-239	-1.887E-02	2.167E-01	3.706E-01	0.000E+00	NOT IDENT.
AM-241	-1.988E-02	8.218E-02	1.375E-01	0.000E+00	NOT IDENT.
CM-247	-1.463E-02	2.281E-02	3.526E-02	0.000E+00	NOT IDENT.
CF-249	2.261E-03	2.665E-02	4.558E-02	0.000E+00	NOT IDENT.

CF-251	4.509E-02	7.397E-02	1.386E-01	0.000E+00	NOT IDENT.
ANH-511	-4.133E-03	3.648E-02	7.268E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:41:03.29

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065185.CNF;1
Sample date      : 9-MAR-2010 00:00:00. Acquisition date : 23-MAR-2010 14:39:21
Sample ID        : G1202065185          Sample quantity  : 1.33700E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:00.47  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 962631               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-224	240.99	51	4.10*	4.174E+00	8.401E-01	8.401E-01	102.14

Flag: "*" = Keyline

Sample ID : G1202065185 Acquisition date : 23-MAR-2010 14:39:21

Total number of lines in spectrum	1	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	1	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
RA-224	1.41E+10Y	1.00	8.401E-01	8.401E-01	8.581E-01	102.14	
		Total Activity :	8.401E-01	8.401E-01			
		Grand Total Activity :	8.401E-01	8.401E-01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

None

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:41:07.78

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065185.CNF;1 *
* Acquisition date : 23-MAR-2010 14:39:21  Detector SN#     :              *
* Detector ID      : GAM06                 Sensitivity      : 5.00000      *
* Geometry         : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:00.47         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 9-MAR-2010 00:00:00.  Nuclide Library : SOLID         *
* Sample ID        : G1202065185           Analyst initials: MXR1          *
* Batch Number     : 962631                Sample Quantity : 1.33700E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04.7MS Isotope      :               *
* MSD ID           :                       MSD Isotope     :               *
* LCS ID           : 1032-A                LCS Isotope     :               *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	8.401E-01	8.581E-01	6.175E-01	5.678E-02	1.360

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-5.824E-02		1.788E-01	2.882E-01	2.692E-02	-0.202
NA-22	6.768E-04		2.068E-02	3.418E-02	3.003E-03	0.020
NA-24	-2.933E-02		1.303E-01	Half-Life too short		
K-40	-3.089E-01		2.679E-01	3.822E-01	3.603E-02	-0.808
SC-46	-8.074E-03		2.189E-02	3.234E-02	2.989E-03	-0.250
V-48	4.050E-02		3.815E-02	7.560E-02	6.879E-03	0.536
CR-51	1.195E-02		2.253E-01	3.715E-01	3.576E-02	0.032
MN-54	-3.960E-03		2.279E-02	3.577E-02	3.224E-03	-0.111
CO-56	-4.125E-02		2.353E-02	2.123E-02	1.924E-03	-1.943
CO-57	-5.494E-03		1.440E-02	2.238E-02	1.884E-03	-0.246
CO-58	-5.484E-03		2.142E-02	3.293E-02	2.937E-03	-0.167

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
FE-59	-3.661E-02		5.618E-02	8.138E-02	7.565E-03	-0.450
CO-60	-7.372E-03		2.264E-02	3.447E-02	3.153E-03	-0.214
ZN-65	-4.155E-02		4.802E-02	6.426E-02	5.468E-03	-0.647
SE-75	1.644E-02		2.981E-02	5.168E-02	4.823E-03	0.318
SR-85	-6.996E-02		3.825E-02	5.444E-02	4.723E-03	-1.285
Y-88	1.022E-04		1.528E-02	2.529E-02	2.114E-03	0.004
Y-91	9.722E+00		1.102E+01	2.120E+01	1.764E+00	0.458
NB-94	-2.175E-02		2.213E-02	3.074E-02	2.561E-03	-0.708
NB-95	1.609E-02		2.271E-02	4.139E-02	3.591E-03	0.389
NB-95M	7.476E-02		8.494E-02	1.360E-01	1.409E-02	0.550
ZR-95	2.257E-02		3.578E-02	6.540E-02	6.234E-03	0.345
MO-99	-1.092E+00		6.568E+00	1.043E+01	1.639E+00	-0.105
TC-99M	1.919E+08		2.589E+09	Half-Life too short		
RU-103	-1.279E-03		2.804E-02	4.410E-02	6.177E-03	-0.029
RH-106	-4.742E-02		1.967E-01	3.142E-01	4.108E-02	-0.151
RU-106	-4.742E-02		1.966E-01	3.142E-01	2.620E-02	-0.151
AG-108M	-3.045E-03		2.008E-02	3.163E-02	2.810E-03	-0.096
CD-109	-6.473E-02		3.739E-01	5.864E-01	6.524E-02	-0.110
AG-110M	-1.736E-02		2.197E-02	3.172E-02	2.662E-03	-0.547
SN-113	-6.644E-03		2.906E-02	4.569E-02	3.985E-03	-0.145
CD-115	-7.018E+00		7.236E+00	9.285E+00	8.041E-01	-0.756
SN-117M	2.781E-02		2.929E-02	5.048E-02	4.243E-03	0.551
TE-123M	1.090E-02		1.564E-02	2.641E-02	2.234E-03	0.413
SB-124	-6.903E-03		4.279E-02	6.669E-02	6.136E-03	-0.104
SB-125	3.118E-03		6.034E-02	9.762E-02	8.544E-03	0.032
TE-125M	8.147E-01		5.684E+00	8.963E+00	9.648E-01	0.091
I-126	-2.282E-02		1.460E-01	2.354E-01	1.912E-02	-0.097
SB-126	2.865E-02		7.188E-02	1.262E-01	1.065E-02	0.227
SN-126	-4.021E-02		3.884E-02	5.614E-02	6.218E-03	-0.716
SB-127	3.401E-01		6.511E-01	1.163E+00	1.272E-01	0.292
I-131	-3.778E-03		7.608E-02	1.230E-01	1.140E-02	-0.031
TE-132	-1.671E-01		4.067E-01	6.558E-01	1.049E-01	-0.255
BA-133	-2.918E-02		2.694E-02	3.763E-02	4.948E-03	-0.775
I-133	-1.417E-03		1.233E-03	Half-Life too short		
CS-134	-7.150E-03		2.265E-02	3.426E-02	3.046E-03	-0.209
CS-135	3.577E-04		9.760E-02	1.618E-01	1.708E-02	0.002
I-135	-2.989E+07		4.520E+08	Half-Life too short		
CS-136	-4.921E-02		6.097E-02	8.429E-02	7.762E-03	-0.584
BA-137M	1.440E-04		2.340E-02	3.862E-02	3.125E-03	0.004
CS-137	1.521E-04		2.472E-02	4.079E-02	3.308E-03	0.004
CE-139	-2.763E-03		1.824E-02	2.847E-02	2.408E-03	-0.097
BA-140	-2.771E-02		1.775E-01	2.911E-01	9.874E-02	-0.095
LA-140	1.018E-02		5.232E-02	9.177E-02	8.316E-03	0.111
CE-141	-1.530E-02		3.826E-02	5.475E-02	4.654E-03	-0.279
CE-143	3.603E-05		3.040E-05	Half-Life too short		
CE-144	5.440E-03		1.046E-01	1.684E-01	2.547E-02	0.032
PM-144	6.284E-03		2.506E-02	4.244E-02	3.523E-03	0.148
PR-144	4.701E-01		1.875E+00	3.175E+00	2.635E-01	0.148

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	-4.800E-03		2.748E-02	4.293E-02	4.557E-03	-0.112
ND-147	-1.984E-03		3.272E-01	5.475E-01	8.196E-02	-0.004
PM-149	-6.221E+00		5.080E+01	8.286E+01	1.320E+01	-0.075
EU-152	3.140E-02		6.253E-02	1.073E-01	1.021E-02	0.292
GD-153	2.749E-02		4.047E-02	6.967E-02	6.875E-03	0.395
EU-154	-2.984E-03		6.139E-02	9.930E-02	1.142E-02	-0.030
EU-155	1.272E-02		5.196E-02	8.607E-02	8.010E-03	0.148
TB-160	-3.225E-02		8.310E-02	1.231E-01	1.133E-02	-0.262
HO-166M	3.110E-03		3.914E-02	6.492E-02	5.444E-03	0.048
TA-182	3.787E-02		8.774E-02	1.583E-01	1.334E-02	0.239
IR-192	-9.933E-03		2.206E-02	3.440E-02	3.179E-03	-0.289
HG-203	-2.166E-02		2.544E-02	3.862E-02	3.676E-03	-0.561
BI-207	5.400E-03		3.217E-02	5.507E-02	4.837E-03	0.098
TL-208	7.678E-04		2.623E-02	4.381E-02	4.000E-03	0.018
PB-210	-2.399E+00		2.618E+00	3.864E+00	3.718E-01	-0.621
BI-211	3.037E-02		1.489E-01	2.378E-01	2.231E-02	0.128
PB-211	-1.737E-01		4.310E-01	6.436E-01	3.113E-01	-0.270
BI-212	-1.348E-01		3.011E-01	4.549E-01	5.621E-02	-0.296
PB-212	7.900E-02	+	8.077E-02	6.912E-02	7.094E-03	1.143
BI-214	-1.596E-02		5.431E-02	8.601E-02	8.534E-03	-0.186
PB-214	1.022E-02		5.505E-02	8.783E-02	9.555E-03	0.116
RN-219	-1.260E-01		2.539E-01	3.821E-01	5.656E-02	-0.330
RA-223	5.661E-02		4.052E-01	6.731E-01	1.186E-01	0.084
RA-226	-1.596E-02		5.431E-02	8.601E-02	8.534E-03	-0.186
AC-227	-1.136E-02		1.525E-01	2.516E-01	3.151E-02	-0.045
TH-227	-1.136E-02		1.525E-01	2.516E-01	3.529E-02	-0.045
AC-228	1.830E-02		9.475E-02	1.572E-01	1.899E-02	0.116
RA-228	1.830E-02		9.475E-02	1.572E-01	1.899E-02	0.116
TH-228	7.900E-02	+	8.077E-02	6.912E-02	7.094E-03	1.143
TH-229	-4.037E-01		3.381E-01	4.906E-01	4.306E-02	-0.823
TH-230	-1.596E-02		5.430E-02	8.601E-02	7.228E-03	-0.186
PA-231	-5.987E-01		9.228E-01	1.419E+00	2.129E-01	-0.422
TH-231	5.661E-02		4.052E-01	6.731E-01	1.186E-01	0.084
TH-232	1.830E-02		9.475E-02	1.572E-01	1.899E-02	0.116
PA-233	3.413E-02		4.183E-02	7.397E-02	7.009E-03	0.461
PA-234	0.000E+00		1.558E-01	2.614E-01	4.975E-02	0.000
PA-234M	8.694E-02		3.439E+00	5.819E+00	6.013E-01	0.015
TH-234	5.619E-02		7.825E-01	1.247E+00	2.318E-01	0.045
U-235	-4.243E-02		1.232E-01	1.773E-01	2.980E-02	-0.239
NP-237	-6.231E-02		1.171E-01	1.772E-01	4.190E-02	-0.352
U-238	5.619E-02		7.825E-01	1.247E+00	2.318E-01	0.045
NP-239	-1.887E-02		2.212E-01	3.539E-01	3.039E-02	-0.053
AM-241	-1.988E-02		8.385E-02	1.298E-01	1.232E-02	-0.153
CM-247	-1.463E-02		2.327E-02	3.439E-02	2.923E-03	-0.425
CF-249	2.261E-03		2.720E-02	4.443E-02	3.778E-03	0.051
CF-251	4.509E-02		7.548E-02	1.333E-01	1.145E-02	0.338
ANH-511	-4.133E-03		3.722E-02	7.118E-02	6.177E-03	-0.058

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065185           *
* Acquisition date : 23-MAR-2010 14:39:21 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.47     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065185          Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.3370E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
RA-224	8.401E-01	8.409E-01	3.196E-01	4.291E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-5.824E-02	1.752E-01	1.474E-01	8.941E-02 NOT IDENT.
NA-22	6.768E-04	2.027E-02	1.717E-02	1.034E-02 NOT IDENT.
NA-24	-2.933E+04	2.554E+05	0.000E+00	1.303E+05 SHORT HLIF
K-40	-3.089E-01	2.625E-01	1.915E-01	1.339E-01 NOT IDENT.
SC-46	-8.074E-03	2.145E-02	1.636E-02	1.095E-02 NOT IDENT.
V-48	4.050E-02	3.739E-02	3.817E-02	1.908E-02 NOT IDENT.
CR-51	1.195E-02	2.208E-01	1.913E-01	1.127E-01 NOT IDENT.
MN-54	-3.960E-03	2.234E-02	1.811E-02	1.140E-02 NOT IDENT.
CO-56	-4.125E-02	2.306E-02	1.075E-02	1.177E-02 NOT IDENT.
CO-57	-5.494E-03	1.411E-02	1.172E-02	7.199E-03 NOT IDENT.
CO-58	-5.484E-03	2.099E-02	1.668E-02	1.071E-02 NOT IDENT.
FE-59	-3.661E-02	5.506E-02	4.100E-02	2.809E-02 NOT IDENT.
CO-60	-7.372E-03	2.219E-02	1.731E-02	1.132E-02 NOT IDENT.
ZN-65	-4.155E-02	4.706E-02	3.237E-02	2.401E-02 NOT IDENT.
SE-75	1.644E-02	2.922E-02	2.671E-02	1.491E-02 NOT IDENT.
SR-85	-6.996E-02	3.748E-02	2.781E-02	1.912E-02 NOT IDENT.
Y-88	1.022E-04	1.498E-02	1.262E-02	7.642E-03 NOT IDENT.
Y-91	9.722E+00	1.080E+01	1.067E+01	5.512E+00 NOT IDENT.
NB-94	-2.175E-02	2.169E-02	1.561E-02	1.107E-02 NOT IDENT.
NB-95	1.609E-02	2.226E-02	2.099E-02	1.136E-02 NOT IDENT.
NB-95M	7.476E-02	8.324E-02	7.042E-02	4.247E-02 NOT IDENT.
ZR-95	2.257E-02	3.506E-02	3.318E-02	1.789E-02 NOT IDENT.
MO-99	-1.092E+00	6.437E+00	5.293E+00	3.284E+00 NOT IDENT.
TC-99M	1.919E+14	5.075E+15	0.000E+00	2.589E+15 SHORT HLIF
RU-103	-1.279E-03	2.748E-02	2.254E-02	1.402E-02 NOT IDENT.
RH-106	-4.742E-02	1.928E-01	1.599E-01	9.835E-02 NOT IDENT.

RU-106	-4.742E-02	1.927E-01	1.599E-01	9.832E-02	NOT IDENT.
AG-108M	-3.045E-03	1.968E-02	1.620E-02	1.004E-02	NOT IDENT.
CD-109	-6.473E-02	3.665E-01	3.087E-01	1.870E-01	NOT IDENT.
AG-110M	-1.736E-02	2.153E-02	1.613E-02	1.098E-02	NOT IDENT.
SN-113	-6.644E-03	2.848E-02	2.345E-02	1.453E-02	NOT IDENT.
CD-115	-7.018E+00	7.092E+00	4.740E+00	3.618E+00	NOT IDENT.
SN-117M	2.781E-02	2.870E-02	2.632E-02	1.464E-02	NOT IDENT.
TE-123M	1.090E-02	1.533E-02	1.377E-02	7.819E-03	NOT IDENT.
SB-124	-6.903E-03	4.193E-02	3.334E-02	2.139E-02	NOT IDENT.
SB-125	3.118E-03	5.913E-02	5.002E-02	3.017E-02	NOT IDENT.
TE-125M	8.147E-01	5.570E+00	4.702E+00	2.842E+00	NOT IDENT.
I-126	-2.282E-02	1.431E-01	1.197E-01	7.299E-02	NOT IDENT.
SB-126	2.865E-02	7.044E-02	6.408E-02	3.594E-02	NOT IDENT.
SN-126	-4.021E-02	3.806E-02	2.956E-02	1.942E-02	NOT IDENT.
SB-127	3.401E-01	6.380E-01	5.912E-01	3.255E-01	NOT IDENT.
I-131	-3.778E-03	7.456E-02	6.319E-02	3.804E-02	NOT IDENT.
TE-132	-1.671E-01	3.986E-01	3.398E-01	2.034E-01	NOT IDENT.
BA-133	-2.918E-02	2.640E-02	1.934E-02	1.347E-02	NOT IDENT.
I-133	-1.417E+03	2.417E+03	0.000E+00	1.233E+03	SHORT HLIF
CS-134	-7.150E-03	2.219E-02	1.736E-02	1.132E-02	NOT IDENT.
CS-135	3.577E-04	9.565E-02	8.358E-02	4.880E-02	NOT IDENT.
I-135	-2.989E+13	8.860E+14	0.000E+00	4.520E+14	SHORT HLIF
CS-136	-4.921E-02	5.975E-02	4.250E-02	3.048E-02	NOT IDENT.
BA-137M	1.440E-04	2.294E-02	1.963E-02	1.170E-02	NOT IDENT.
CS-137	1.521E-04	2.423E-02	2.074E-02	1.236E-02	NOT IDENT.
CE-139	-2.763E-03	1.788E-02	1.483E-02	9.121E-03	NOT IDENT.
BA-140	-2.771E-02	1.740E-01	1.486E-01	8.876E-02	NOT IDENT.
LA-140	1.018E-02	5.127E-02	4.592E-02	2.616E-02	NOT IDENT.
CE-141	-1.530E-02	3.749E-02	2.858E-02	1.913E-02	NOT IDENT.
CE-143	3.603E+01	5.959E+01	0.000E+00	3.040E+01	SHORT HLIF
CE-144	5.440E-03	1.026E-01	8.806E-02	5.232E-02	NOT IDENT.
PM-144	6.284E-03	2.456E-02	2.156E-02	1.253E-02	NOT IDENT.
PR-144	4.701E-01	1.838E+00	1.613E+00	9.375E-01	NOT IDENT.
PM-146	-4.800E-03	2.693E-02	2.198E-02	1.374E-02	NOT IDENT.
ND-147	-1.984E-03	3.206E-01	2.795E-01	1.636E-01	NOT IDENT.
PM-149	-6.221E+00	4.978E+01	4.276E+01	2.540E+01	NOT IDENT.
EU-152	3.140E-02	6.128E-02	5.522E-02	3.127E-02	NOT IDENT.
GD-153	2.749E-02	3.966E-02	3.662E-02	2.024E-02	NOT IDENT.
EU-154	-2.984E-03	6.016E-02	4.990E-02	3.069E-02	NOT IDENT.
EU-155	1.272E-02	5.092E-02	4.518E-02	2.598E-02	NOT IDENT.
TB-160	-3.225E-02	8.144E-02	6.229E-02	4.155E-02	NOT IDENT.
HO-166M	3.110E-03	3.835E-02	3.297E-02	1.957E-02	NOT IDENT.
TA-182	3.787E-02	8.598E-02	7.959E-02	4.387E-02	NOT IDENT.
IR-192	-9.933E-03	2.162E-02	1.772E-02	1.103E-02	NOT IDENT.
HG-203	-2.166E-02	2.493E-02	1.994E-02	1.272E-02	NOT IDENT.
BI-207	5.400E-03	3.152E-02	2.776E-02	1.608E-02	NOT IDENT.
TL-208	7.678E-04	2.571E-02	2.233E-02	1.312E-02	NOT IDENT.
PB-210	-2.399E+00	2.565E+00	2.056E+00	1.309E+00	NOT IDENT.
BI-211	3.037E-02	1.459E-01	1.223E-01	7.444E-02	NOT IDENT.
PB-211	-1.737E-01	4.224E-01	3.301E-01	2.155E-01	NOT IDENT.
BI-212	-1.348E-01	2.951E-01	2.309E-01	1.505E-01	NOT IDENT.
PB-212	7.900E-02	7.916E-02	3.578E-02	4.039E-02	FAIL ABUN
BI-214	-1.596E-02	5.322E-02	4.380E-02	2.716E-02	NOT IDENT.
PB-214	1.022E-02	5.394E-02	4.516E-02	2.752E-02	NOT IDENT.
RN-219	-1.260E-01	2.488E-01	1.960E-01	1.269E-01	NOT IDENT.
RA-223	5.661E-02	3.971E-01	3.466E-01	2.026E-01	NOT IDENT.
RA-226	-1.596E-02	5.322E-02	4.380E-02	2.716E-02	NOT IDENT.
AC-227	-1.136E-02	1.494E-01	1.301E-01	7.625E-02	NOT IDENT.
TH-227	-1.136E-02	1.494E-01	1.301E-01	7.625E-02	NOT IDENT.
AC-228	1.830E-02	9.286E-02	7.949E-02	4.738E-02	NOT IDENT.
RA-228	1.830E-02	9.286E-02	7.949E-02	4.738E-02	NOT IDENT.
TH-228	7.900E-02	7.916E-02	3.578E-02	4.039E-02	FAIL ABUN
TH-229	-4.037E-01	3.313E-01	2.549E-01	1.690E-01	NOT IDENT.
TH-230	-1.596E-02	5.322E-02	4.380E-02	2.715E-02	NOT IDENT.
PA-231	-5.987E-01	9.044E-01	7.324E-01	4.614E-01	NOT IDENT.
TH-231	5.661E-02	3.971E-01	3.466E-01	2.026E-01	NOT IDENT.
TH-232	1.830E-02	9.286E-02	7.949E-02	4.738E-02	NOT IDENT.
PA-233	3.413E-02	4.099E-02	3.812E-02	2.091E-02	NOT IDENT.
PA-234	0.000E+00	1.527E-01	1.320E-01	0.000E+00	NOT IDENT.
PA-234M	8.694E-02	3.370E+00	2.937E+00	1.719E+00	NOT IDENT.
TH-234	5.619E-02	7.669E-01	6.601E-01	3.913E-01	NOT IDENT.
U-235	-4.243E-02	1.207E-01	9.259E-02	6.161E-02	NOT IDENT.
NP-237	-6.231E-02	1.147E-01	9.331E-02	5.854E-02	NOT IDENT.
U-238	5.619E-02	7.669E-01	6.601E-01	3.913E-01	NOT IDENT.
NP-239	-1.887E-02	2.167E-01	1.854E-01	1.106E-01	NOT IDENT.
AM-241	-1.988E-02	8.218E-02	6.880E-02	4.193E-02	NOT IDENT.
CM-247	-1.463E-02	2.281E-02	1.764E-02	1.164E-02	NOT IDENT.
CF-249	2.261E-03	2.665E-02	2.281E-02	1.360E-02	NOT IDENT.

CF-251	4.509E-02	7.397E-02	6.936E-02	3.774E-02	NOT IDENT.
ANH-511	-4.133E-03	3.648E-02	3.636E-02	1.861E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	75.0736
49.72	67.3621
57.36	0.0000
59.54	60.5413
63.29	69.8479
63.29	69.8479
64.28	78.7704
67.75	77.4695
69.67	71.9091
70.83	70.1261
72.81	85.3251
72.87	85.3369
72.87	85.3369
74.82	93.6821
74.82	93.6821
74.82	93.6821
74.97	77.7620
77.11	71.1159
77.11	71.1159
77.11	71.1159
79.69	82.5902
79.80	82.6093
80.12	77.6251
80.19	77.6364
80.57	74.6715
81.00	62.6193
81.07	62.6285
81.07	62.6285
83.79	59.9354
83.79	59.9354
85.43	71.3480
86.48	81.7135
86.55	83.7684
86.79	83.8084
86.94	83.8339
87.57	89.0576
88.03	69.6719
88.47	66.6563
89.96	127.5332
91.11	86.5874
92.59	63.0586
92.59	63.0586
93.35	60.0447
94.67	117.2773
94.87	117.3215
94.87	117.3215
95.86	117.5405
97.43	55.2911
98.44	55.3943
99.53	69.1196
100.11	67.0960
103.18	70.6307
103.37	70.6545
105.31	60.3158
106.12	69.9387
109.28	71.3879
111.00	68.3916
111.76	83.4594
116.30	70.0771
117.23	74.5029
121.12	79.3184
121.78	75.0511
122.06	80.5254
123.07	83.9242
131.20	61.8066
133.52	64.2375
136.00	63.3619

136.47	65.6308
140.51	71.6120
140.51	0.0000
143.76	70.8212
144.24	62.9949
144.24	62.9949
145.44	70.9891
152.43	58.0251
153.25	44.4213
154.21	70.7105
154.21	70.7105
156.02	68.5956
158.56	52.7682
159.00	56.2420
162.66	78.4251
163.33	71.5670
165.86	78.7488
176.60	75.7067
177.52	67.8597
181.07	71.6926
184.41	84.4202
185.72	71.2006
193.51	89.8109
197.04	65.8260
205.31	73.7159
210.85	59.5123
215.65	71.7819
222.11	68.5631
227.38	61.4832
228.16	73.6520
228.18	78.3148
235.69	63.1266
235.96	58.6333
235.96	58.6333
238.63	65.0060
238.63	65.0060
240.99	65.1565
242.00	65.2208
244.70	37.9083
252.40	58.2365
252.80	49.6633
256.23	54.6138
256.23	54.6138
260.90	59.6623
264.66	56.9717
268.22	58.1241
269.46	43.6418
269.46	43.6418
271.23	66.0524
273.65	64.2487
276.40	39.0332
277.37	55.6702
277.60	60.5658
278.00	65.4736
279.20	71.4116
279.54	66.5401
280.46	55.8215
283.69	59.9063
284.31	62.8867
285.41	57.0451
285.90	56.0850
287.50	37.4416
293.27	0.0000
295.22	47.6052
295.96	50.6125
298.57	57.6849
299.98	52.7736
299.98	52.7736
300.09	43.8160
300.09	43.8160
300.13	43.8174
301.36	44.8592
302.85	40.9218
304.50	55.9692
304.50	55.9692
304.85	57.9850
308.46	57.1531
311.90	40.2197

316.51	50.4608
319.41	45.5191
320.08	42.5069
323.87	44.6647
323.87	44.6647
328.76	55.0250
333.37	48.0621
334.37	49.1228
334.37	49.1228
338.28	51.3222
338.28	51.3222
338.32	51.3237
338.32	51.3237
338.32	51.3237
340.48	45.2387
340.55	43.1843
344.28	39.1811
351.06	34.1979
351.93	36.2935
356.01	50.9634
364.49	44.9979
366.42	47.1561
383.85	35.0061
388.16	41.4934
388.63	34.0566
391.69	40.5269
400.66	28.9693
401.81	38.6554
402.40	39.7450
404.85	34.4297
410.95	31.3276
414.70	33.5699
423.72	39.2113
427.09	33.8381
427.87	34.9468
433.94	37.2731
453.88	33.2945
463.37	35.7173
468.07	32.4595
473.00	29.1861
476.78	20.7006
477.60	27.0135
487.02	26.2554
492.35	38.1409
497.08	28.2273
511.00	29.3652
514.00	113.0581
527.90	28.7106
529.87	0.0000
531.02	25.0482
537.26	33.5083
546.56	0.0000
563.25	35.8523
569.33	33.1244
569.50	33.1278
569.70	34.0770
583.19	23.8257
600.60	29.7981
602.73	31.7536
604.72	40.4527
609.32	27.0279
609.32	27.0279
609.32	27.0279
610.33	28.0067
614.28	28.0598
618.01	17.4476
621.93	25.2491
621.93	25.2491
633.25	20.5022
635.95	17.5953
636.99	19.5596
645.85	21.6036
657.76	28.6325
661.66	25.7156
661.66	25.7156
664.57	0.0000
666.33	28.7430
666.50	28.7458

677.62	15.9383
685.70	12.9959
695.00	24.0896
696.49	29.1271
696.51	29.1274
697.00	23.1061
702.65	32.2258
706.68	20.1758
711.68	22.2406
720.70	12.1775
721.93	0.0000
722.78	17.2669
722.91	17.2677
723.31	20.3184
724.19	20.3257
727.33	22.3878
733.00	15.3003
735.93	24.5104
739.50	19.4328
747.24	20.5205
752.31	13.3659
753.82	12.3451
756.73	9.2698
763.94	14.4618
765.81	12.4052
766.42	15.5101
777.92	16.6199
778.90	17.6657
783.70	11.4522
785.37	16.6688
795.86	13.5989
801.95	13.6310
810.29	12.6229
810.76	14.7294
815.77	13.7033
818.51	12.6624
832.01	16.9695
834.85	19.1109
836.80	0.0000
846.77	24.5279
856.80	20.3369
860.56	19.2929
871.09	11.8352
873.19	17.2277
875.33	0.0000
879.36	16.1869
880.51	14.0344
883.24	15.1286
884.68	12.9741
889.28	14.0785
898.04	9.7767
911.20	10.9131
911.20	10.9131
911.20	10.9131
926.50	10.9709
937.49	13.7653
944.13	10.1174
946.00	11.0439
949.00	11.9764
962.29	11.1045
964.08	12.0370
966.15	13.8983
968.97	14.8385
968.97	14.8385
968.97	14.8385
983.53	6.5231
996.26	26.2004
1001.03	15.9320
1004.73	27.2099
1037.84	17.0669
1038.76	0.0000
1048.07	17.1218
1050.41	14.2786
1050.41	14.2786
1063.66	13.3808
1085.87	14.4336
1099.45	18.3568
1112.07	7.7581

1115.54	16.5033
1120.29	8.7491
1120.29	8.7491
1120.29	8.7491
1120.55	8.7499
1121.30	6.8069
1131.51	0.0000
1173.23	7.8965
1177.93	6.9185
1189.05	5.9487
1204.77	6.9704
1221.41	7.0026
1231.02	14.0416
1235.36	12.0498
1238.28	12.0591
1260.41	0.0000
1271.85	8.1120
1274.44	8.1175
1274.54	7.1028
1291.59	9.1732
1298.22	0.0000
1312.11	7.1726
1332.49	6.1802
1365.19	4.1541
1368.63	0.0000
1384.29	5.2173
1408.01	9.4453
1457.56	0.0000
1460.82	8.5026
1489.16	4.2795
1505.03	4.2951
1596.21	5.6359
1620.50	5.6656
1678.03	0.0000
1690.97	3.8337
1764.49	4.8645
1764.49	4.8645
1764.49	4.8645
1770.23	6.8181
1771.35	5.8456
1791.20	0.0000
1836.06	1.9734

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065185

Total Uranium Activity	1.4754E-01	ug/g
Total Uranium Counting Unc.	2.2822E+00	ug/g
Total Uranium Tpu	1.1644E-06	ug/g
Total Uranium Mda	1.9643E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962631                    SAMPLE ID  : G1202065185      *
*   ANALYST       : MXR1                      DETECTOR   : GAM06            *
*   SAMPLE DATE   :  9-MAR-2010 00:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 14:39:21.19    SAMPLE ALQT:  133.700 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 3.444E-02
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.752E-02
GROSS GAMMA MDA     (pCi/GRAM  )  : 2.892E-02
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.356E-02
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:41:59.59

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065186.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 14:39:49
Sample ID         : G1202065186          Sample quantity  : 1.05550E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.31  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.18*	113	345	1.37	125.28	121	9	1.57E-02	31.9	
2	3	74.90*	339	465	1.58	148.72	141	19	4.71E-02	13.1	9.41E-01
3	3	77.28*	486	396	1.27	153.49	141	19	6.75E-02	8.9	
4	0	87.26	127	418	1.59	173.44	171	7	1.76E-02	28.0	
5	0	93.33*	179	461	1.78	185.59	182	11	2.49E-02	25.9	
6	0	186.06*	170	423	1.11	371.02	365	12	2.36E-02	26.2	
7	0	209.34	81	327	1.42	417.59	413	10	1.13E-02	43.1	
8	2	238.75*	1165	198	1.31	476.41	470	18	1.62E-01	3.7	1.17E+00
9	2	241.73*	293	227	1.85	482.36	470	18	4.07E-02	14.8	
10	0	271.14	129	377	2.11	541.18	533	19	1.79E-02	37.6	
11	0	277.87	83	147	1.18	554.64	551	10	1.15E-02	29.5	
12	1	295.21*	363	174	1.46	589.32	583	23	5.04E-02	8.6	6.86E-01
13	0	338.46	247	198	1.41	675.83	670	13	3.43E-02	13.4	
14	0	352.06*	656	193	1.52	703.02	696	16	9.11E-02	6.3	
15	0	464.57	77	188	4.68	928.05	918	18	1.06E-02	43.6	
16	0	510.95*	126	131	2.21	1020.81	1013	15	1.76E-02	24.8	
17	0	583.12*	394	125	1.67	1165.15	1156	18	5.47E-02	8.6	
18	0	609.37*	426	121	1.43	1217.66	1211	14	5.92E-02	7.5	
19	0	727.54*	59	105	1.45	1454.01	1447	14	8.19E-03	39.9	
20	0	772.09	80	170	4.38	1543.12	1527	32	1.12E-02	50.7	
21	0	795.62	81	37	2.30	1590.20	1583	16	1.13E-02	21.1	
22	0	910.88*	227	55	1.48	1820.75	1814	13	3.15E-02	9.7	
23	3	964.42	51	34	1.84	1927.85	1924	20	7.02E-03	23.0	2.04E+00
24	3	968.89	147	53	2.21	1936.79	1924	20	2.04E-02	13.5	
25	0	1120.31	108	70	1.82	2239.70	2234	16	1.50E-02	20.0	
26	0	1237.58	69	52	2.13	2474.28	2467	16	9.64E-03	26.1	
27	0	1408.16	35	17	1.91	2815.54	2807	17	4.86E-03	31.8	
28	0	1460.34*	1149	15	2.07	2919.93	2910	18	1.60E-01	3.1	
29	0	1763.83	66	10	2.56	3527.15	3519	14	9.16E-03	16.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 16:42:04

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065186.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 14:39:49
Sample ID : G1202065186 Sample quantity : 105.55 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.31 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.967E+01	4.596E+00	5.856E-01	5.754E-02	67.739
CD-109	+	88.03	*	2.833E+00	1.627E+00	2.410E+00	2.992E-01	1.175
SN-126	+	64.28		2.319E+00	1.532E+00	1.706E+00	2.888E-01	1.360
	+	86.94		1.143E+00	8.025E-01	9.988E-01	4.223E-01	1.144
	+	87.57	*	2.748E-01	1.578E-01	2.381E-01	2.947E-02	1.154
HG-203		70.83		1.277E+00	3.062E+00	4.510E+00	7.993E-01	0.283
		72.87		4.967E+00	1.830E+00	2.912E+00	5.029E-01	1.706
	+	279.20	*	1.319E-01	7.917E-02	1.017E-01	1.118E-02	1.296
TL-208	+	277.37		1.207E+00	7.328E-01	7.179E-01	1.015E-01	1.682
	+	583.19	*	7.518E-01	1.464E-01	9.162E-02	8.380E-03	8.206
		860.56		9.267E-01	4.816E-01	8.791E-01	8.595E-02	1.054
BI-211		72.87		1.852E+01	6.390E+00	1.086E+01	1.244E+00	1.706
	+	351.06	*	5.748E+00	9.191E-01	4.941E-01	4.921E-02	11.634
PB-212	+	74.82		3.625E+00	1.096E+00	9.917E-01	1.494E-01	3.655
	+	77.11		2.887E+00	6.126E-01	5.531E-01	6.412E-02	5.219
	+	238.63	*	2.309E+00	3.254E-01	1.434E-01	1.714E-02	16.103
		300.09		1.564E+00	1.345E+00	2.284E+00	2.781E-01	0.685
BI-214	+	609.32	*	1.574E+00	2.825E-01	1.779E-01	1.773E-02	8.844
	+	1120.29		2.094E+00	8.693E-01	6.815E-01	7.380E-02	3.073
	+	1764.49		1.792E+00	5.980E-01	4.726E-01	4.143E-02	3.791
PB-214	+	74.82		6.425E+00	1.908E+00	1.758E+00	2.456E-01	3.655
	+	77.11		5.089E+00	1.159E+00	9.751E-01	1.387E-01	5.219
	+	242.00		3.524E+00	1.130E+00	8.719E-01	1.086E-01	4.042
	+	295.22		1.974E+00	4.183E-01	3.451E-01	4.302E-02	5.721
	+	351.93	*	2.086E+00	3.529E-01	1.797E-01	2.042E-02	11.612
RA-224	+	240.99	*	6.231E+00	1.965E+00	1.537E+00	1.695E-01	4.055
RA-226	+	609.32	*	1.574E+00	2.825E-01	1.779E-01	1.773E-02	8.844
	+	1120.29		2.094E+00	8.693E-01	6.815E-01	7.380E-02	3.073
	+	1764.49		1.792E+00	5.980E-01	4.726E-01	4.143E-02	3.791
AC-228	+	338.32		2.416E+00	1.203E+00	5.719E-01	2.401E-01	4.225
	+	911.20	*	2.093E+00	4.804E-01	3.529E-01	4.275E-02	5.930
	+	968.97		2.351E+00	8.584E-01	5.850E-01	1.437E-01	4.018
RA-228	+	338.32		2.416E+00	1.203E+00	5.719E-01	2.401E-01	4.225
	+	911.20	*	2.093E+00	4.804E-01	3.529E-01	4.275E-02	5.930

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		2.351E+00	8.584E-01	5.850E-01	1.437E-01	4.018
TH-228	+	74.82		3.625E+00	1.039E+00	9.917E-01	1.147E-01	3.655
	+	77.11		2.887E+00	6.126E-01	5.531E-01	6.412E-02	5.219
	+	238.63	*	2.309E+00	3.254E-01	1.434E-01	1.714E-02	16.103
		300.09		1.564E+00	1.643E+00	2.284E+00	1.405E+00	0.685
TH-230	+	609.32	*	1.574E+00	2.700E-01	1.779E-01	1.504E-02	8.844
	+	1120.29		2.094E+00	8.578E-01	6.815E-01	5.797E-02	3.073
	+	1764.49		1.792E+00	5.980E-01	4.726E-01	4.143E-02	3.791
TH-232	+	338.32		2.416E+00	6.881E-01	5.719E-01	5.638E-02	4.225
	+	911.20	*	2.093E+00	4.804E-01	3.529E-01	4.275E-02	5.930
	+	968.97		2.351E+00	8.584E-01	5.850E-01	1.437E-01	4.018
TH-234	+	63.29	*	6.017E+00	4.023E+00	4.609E+00	9.138E-01	1.306
	+	92.59		3.095E+00	1.761E+00	1.907E+00	4.467E-01	1.623
NP-237	+	86.48	*	8.200E-01	5.013E-01	6.470E-01	1.572E-01	1.267
		95.86		3.801E-01	1.644E+00	2.381E+00	5.961E-01	0.160
U-238	+	63.29	*	6.017E+00	4.023E+00	4.609E+00	9.138E-01	1.306
	+	92.59		3.095E+00	1.645E+00	1.907E+00	2.217E-01	1.623
ANH-511	+	511.00	*	1.859E-01	9.355E-02	7.568E-02	6.539E-03	2.457

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	8.309E-02	4.884E-01	8.061E-01	7.492E-02	0.103
NA-22		1274.54	*	-6.097E-02	7.000E-02	1.022E-01	9.285E-03	-0.597
NA-24		1368.63	*	-3.373E+02	7.000E-02	Half-Life too short		
SC-46		889.28	*	-2.742E-02	6.322E-02	1.004E-01	9.329E-03	-0.273
	+	1120.55		3.691E-01	1.512E-01	2.007E-01	1.707E-02	1.839
V-48		944.13		-1.251E+00	1.594E+00	2.417E+00	2.234E-01	-0.518
		983.53	*	7.575E-03	1.276E-01	2.107E-01	1.926E-02	0.036
		1312.11		6.446E-02	1.380E-01	2.354E-01	2.218E-02	0.274
CR-51		320.08	*	-1.772E-01	6.398E-01	1.046E+00	1.110E-01	-0.169
MN-54		834.85	*	5.296E-02	5.726E-02	1.012E-01	9.182E-03	0.523
CO-56		846.77	*	1.529E-02	6.345E-02	1.071E-01	9.774E-03	0.143
		1037.84		1.791E-03	4.974E-01	8.145E-01	7.637E-02	0.002
	+	1238.28		3.962E-01	2.101E-01	2.700E-01	2.427E-02	1.467
		1771.35		-1.161E+00	4.762E-01	4.243E-01	3.707E-02	-2.737
CO-57		122.06	*	-2.128E-03	4.042E-02	6.466E-02	6.513E-03	-0.033
		136.47		-7.430E-02	3.347E-01	5.371E-01	5.707E-02	-0.138
CO-58		810.76	*	-5.470E-02	5.987E-02	9.108E-02	8.188E-03	-0.601
FE-59		1099.45	*	-4.429E-02	1.495E-01	2.368E-01	2.209E-02	-0.187
		1291.59		1.170E-01	2.034E-01	3.482E-01	3.597E-02	0.336
CO-60		1173.23		3.052E-02	7.640E-02	1.281E-01	1.043E-02	0.238
		1332.49	*	-1.923E-02	5.880E-02	9.068E-02	8.718E-03	-0.212
ZN-65		1115.54	*	1.083E-01	1.488E-01	2.280E-01	1.949E-02	0.475
SE-75		121.12		-1.800E-02	2.107E-01	3.364E-01	4.120E-02	-0.054
		136.00		-3.404E-03	6.548E-02	1.058E-01	1.071E-02	-0.032
		264.66	*	7.829E-03	7.960E-02	1.166E-01	1.278E-02	0.067
		279.54		1.120E-01	1.914E-01	2.886E-01	3.195E-02	0.388

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.66		1.852E-03	4.002E-01	6.582E-01	7.211E-02	0.003
SR-85		514.00	*	1.665E-01	7.759E-02	1.257E-01	1.086E-02	1.324
Y-88		898.04		-8.852E-02	6.828E-02	9.903E-02	9.273E-03	-0.894
		1836.06	*	4.223E-02	5.421E-02	1.005E-01	8.463E-03	0.420
Y-91		1204.77	*	2.332E+01	4.029E+01	6.821E+01	5.750E+00	0.342
NB-94		702.65	*	2.050E-02	4.867E-02	8.382E-02	7.076E-03	0.245
		871.09		1.723E-02	5.298E-02	8.763E-02	8.082E-03	0.197
NB-95		765.81	*	6.269E-02	7.838E-02	1.213E-01	1.062E-02	0.517
NB-95M		235.69	*	6.092E-01	2.506E-01	3.964E-01	4.776E-02	1.537
ZR-95		724.19		2.475E-01	1.589E-01	2.630E-01	2.443E-02	0.941
		756.73	*	-3.315E-02	1.082E-01	1.758E-01	1.689E-02	-0.189
MO-99		140.51		-6.629E+01	1.273E+02	1.961E+02	4.770E+01	-0.338
		181.07		-2.480E+01	1.168E+02	1.612E+02	3.203E+01	-0.154
		366.42		2.439E+02	5.516E+02	9.322E+02	8.542E+01	0.262
		739.50	*	-4.363E+01	6.572E+01	1.034E+02	1.630E+01	-0.422
		777.92		-1.302E+02	2.104E+02	2.775E+02	2.447E+01	-0.469
TC-99M		140.51	*	-3.188E+16	2.104E+02	Half-Life too short		
RU-103		497.08	*	-7.209E-03	6.167E-02	9.944E-02	1.390E-02	-0.072
	+	610.33		1.774E+01	3.916E+00	4.490E+00	7.299E-01	3.951
RH-106		621.93	*	3.283E-01	4.529E-01	7.694E-01	1.009E-01	0.427
		1050.41		-2.035E+00	3.888E+00	6.027E+00	5.355E-01	-0.338
RU-106		621.93	*	3.283E-01	4.517E-01	7.694E-01	6.466E-02	0.427
		1050.41		-2.035E+00	3.888E+00	6.027E+00	5.355E-01	-0.338
AG-108M		433.94	*	3.982E-02	4.342E-02	7.518E-02	6.644E-03	0.530
		614.28		2.329E-02	6.036E-02	8.724E-02	7.609E-03	0.267
		722.91		1.347E-02	5.942E-02	8.776E-02	7.747E-03	0.153
AG-110M		657.76	*	1.586E-02	4.975E-02	8.543E-02	7.270E-03	0.186
		677.62		1.166E-01	4.307E-01	7.369E-01	6.312E-02	0.158
		706.68		-1.633E-01	3.192E-01	5.134E-01	4.475E-02	-0.318
		763.94		1.050E-01	2.558E-01	3.845E-01	3.455E-02	0.273
		884.68		1.409E-02	7.158E-02	1.204E-01	1.148E-02	0.117
		937.49		6.539E-02	1.807E-01	2.933E-01	2.801E-02	0.223
		1384.29		-1.224E-01	2.264E-01	3.515E-01	3.459E-02	-0.348
		1505.03		-7.175E-01	4.293E-01	5.233E-01	5.001E-02	-1.371
SN-113		391.69	*	1.325E-02	7.226E-02	1.202E-01	1.044E-02	0.110
CD-115		260.90		-3.255E-04	7.226E-02	Half-Life too short		
		492.35		-1.183E-04	7.226E-02	Half-Life too short		
		527.90	*	-5.711E-05	7.226E-02	Half-Life too short		
SN-117M		156.02		-1.727E+00	4.800E+00	7.621E+00	7.943E-01	-0.227
		158.56	*	1.044E-01	1.127E-01	1.876E-01	1.967E-02	0.557
TE-123M		159.00	*	4.273E-02	4.669E-02	7.771E-02	8.189E-03	0.550
SB-124		602.73		3.961E-02	7.017E-02	1.032E-01	8.748E-03	0.384
		645.85		-1.607E-01	7.188E-01	1.130E+00	9.957E-02	-0.142
		722.78		1.138E-01	6.301E-01	9.260E-01	8.100E-02	0.123
		1690.97	*	2.407E-03	1.136E-01	1.880E-01	1.771E-02	0.013
SB-125		427.87	*	6.972E-02	1.390E-01	2.349E-01	2.044E-02	0.297
	+	463.37		1.009E+00	8.853E-01	8.116E-01	7.519E-02	1.243
		600.60		1.213E-03	2.843E-01	4.457E-01	4.068E-02	0.003
		635.95		1.823E-01	3.932E-01	6.561E-01	5.948E-02	0.278

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-125M		109.28	*	-7.058E+00	1.684E+01	2.698E+01	3.208E+00	-0.262
I-126		388.63		2.919E-01	3.431E-01	5.908E-01	5.027E-02	0.494
		666.33	*	5.825E-02	4.147E-01	7.026E-01	5.794E-02	0.083
		753.82		1.347E+00	3.280E+00	5.644E+00	4.912E-01	0.239
SB-126		414.70		-8.242E-02	1.573E-01	2.496E-01	2.122E-02	-0.330
		666.50		2.025E-02	1.441E-01	2.442E-01	2.014E-02	0.083
		695.00		6.366E-02	1.487E-01	2.565E-01	2.155E-02	0.248
		697.00		-1.091E-01	5.228E-01	8.618E-01	7.250E-02	-0.127
		720.70	*	7.011E-02	3.031E-01	4.482E-01	3.826E-02	0.156
		856.80		-1.199E+00	9.825E-01	1.451E+00	1.330E-01	-0.826
SB-127		252.40		-2.170E+00	1.564E+01	2.599E+01	1.105E+01	-0.084
		473.00		1.918E+00	6.172E+00	1.001E+01	1.422E+00	0.192
		685.70	*	3.051E+00	4.783E+00	8.353E+00	1.067E+00	0.365
		783.70		1.759E+01	1.355E+01	2.260E+01	3.157E+00	0.778
I-131		80.19		-8.528E+00	1.356E+01	1.890E+01	2.236E+00	-0.451
		284.31		1.277E-01	3.830E+00	5.825E+00	6.493E-01	0.022
		364.49	*	-8.183E-02	2.800E-01	4.543E-01	4.402E-02	-0.180
		636.99		3.421E+00	3.490E+00	6.045E+00	5.375E-01	0.566
TE-132		49.72		-2.945E+01	1.962E+02	3.241E+02	5.302E+01	-0.091
		111.76		1.218E+01	1.560E+02	2.550E+02	3.484E+01	0.048
		116.30		6.570E+00	1.309E+02	2.135E+02	2.902E+01	0.031
		228.16	*	-1.053E+00	3.388E+00	5.617E+00	1.026E+00	-0.187
BA-133		81.00		-3.940E-01	1.987E-01	2.410E-01	4.216E-02	-1.635
	+	276.40		1.117E+00	6.818E-01	9.372E-01	1.459E-01	1.192
		302.85		1.423E-01	2.492E-01	3.734E-01	5.373E-02	0.381
		356.01	*	1.460E-02	7.134E-02	1.039E-01	1.405E-02	0.140
		383.85		3.146E-02	4.477E-01	7.406E-01	9.221E-02	0.042
I-133		529.87	*	2.455E-01	4.477E-01	Half-Life too short		
		875.33		-1.664E+00	4.477E-01	Half-Life too short		
		1298.22		-1.349E+01	4.477E-01	Half-Life too short		
CS-134		563.25		-1.718E-02	5.400E-01	8.710E-01	7.545E-02	-0.020
		569.33		1.413E-01	3.209E-01	5.340E-01	4.638E-02	0.265
		604.72		1.771E-02	5.818E-02	8.335E-02	7.076E-03	0.213
	+	795.86	*	2.265E-01	9.759E-02	1.294E-01	1.160E-02	1.749
		801.95		-3.912E-01	6.384E-01	8.599E-01	7.720E-02	-0.455
		1365.19		5.687E-01	1.776E+00	3.084E+00	3.080E-01	0.184
CS-135		268.22	*	2.230E-01	2.863E-01	4.347E-01	5.216E-02	0.513
I-135		546.56		-2.311E+15	2.863E-01	Half-Life too short		
		836.80		1.814E+16	2.863E-01	Half-Life too short		
		1038.76		1.299E+14	2.863E-01	Half-Life too short		
		1131.51		2.034E+15	2.863E-01	Half-Life too short		
		1260.41	*	-1.365E+15	2.863E-01	Half-Life too short		
		1457.56		4.652E+17	2.863E-01	Half-Life too short		
		1678.03		-4.987E+15	2.863E-01	Half-Life too short		
		1791.20		-2.741E+15	2.863E-01	Half-Life too short		
CS-136		153.25		1.251E+00	1.782E+00	2.944E+00	3.465E-01	0.425
		176.60		4.276E-01	1.036E+00	1.691E+00	1.942E-01	0.253
		273.65		7.281E-01	1.138E+00	1.720E+00	1.970E-01	0.423
		340.55		1.243E+00	3.906E-01	6.309E-01	6.373E-02	1.970

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		818.51		9.536E-04	1.343E-01	2.231E-01	2.011E-02	0.004
		1048.07	*	-5.844E-02	2.133E-01	3.397E-01	3.143E-02	-0.172
		1235.36		1.760E+00	1.389E+00	2.178E+00	2.578E-01	0.808
BA-137M		661.66	*	2.248E-02	5.190E-02	8.967E-02	7.372E-03	0.251
CS-137		661.66	*	2.374E-02	5.483E-02	9.473E-02	7.804E-03	0.251
CE-139		165.86	*	1.751E-03	4.993E-02	7.812E-02	8.339E-03	0.022
BA-140		162.66		-1.263E+00	1.694E+00	2.631E+00	2.912E-01	-0.480
		304.85		2.048E+00	3.061E+00	4.552E+00	1.360E+00	0.450
		423.72		2.793E-01	3.882E+00	6.394E+00	2.102E+00	0.044
		537.26	*	-2.680E-01	5.062E-01	7.719E-01	2.618E-01	-0.347
LA-140		328.76		7.906E-01	6.398E-01	1.114E+00	1.168E-01	0.710
		487.02		3.111E-01	2.658E-01	4.661E-01	4.273E-02	0.667
		815.77		4.886E-01	5.966E-01	1.057E+00	1.053E-01	0.462
		1596.21	*	-8.249E-02	1.638E-01	2.566E-01	2.406E-02	-0.321
CE-141		145.44	*	1.107E-01	1.117E-01	1.865E-01	1.928E-02	0.593
CE-143		57.36		-5.340E-03	1.117E-01	Half-Life too short		
		293.27	*	1.527E-02	1.117E-01	Half-Life too short		
		664.57		2.219E-03	1.117E-01	Half-Life too short		
		721.93		1.100E-02	1.117E-01	Half-Life too short		
CE-144		80.12		-2.298E+00	4.843E+00	6.814E+00	8.008E-01	-0.337
		133.52	*	-9.310E-02	3.404E-01	5.327E-01	8.596E-02	-0.175
PM-144		476.78		-2.400E-02	9.648E-02	1.545E-01	1.448E-02	-0.155
		618.01		-8.047E-04	5.024E-02	7.848E-02	6.803E-03	-0.010
		696.49	*	2.594E-02	5.041E-02	8.737E-02	7.353E-03	0.297
PR-144		696.51	*	1.652E+00	3.800E+00	6.551E+00	5.509E-01	0.252
		1489.16		-4.950E+00	1.841E+01	2.939E+01	2.815E+00	-0.168
PM-146		453.88	*	4.682E-03	6.290E-02	1.033E-01	1.093E-02	0.045
		633.25		5.977E-01	2.055E+00	3.364E+00	1.283E+00	0.178
		735.93		6.706E-02	2.289E-01	3.727E-01	1.044E-01	0.180
		747.24		-7.339E-02	1.451E-01	2.316E-01	3.385E-02	-0.317
ND-147		91.11		9.984E-01	1.021E+00	1.125E+00	1.393E-01	0.887
		319.41		-3.954E+00	7.055E+00	1.134E+01	1.162E+00	-0.349
		531.02	*	4.518E-01	1.108E+00	1.850E+00	2.767E-01	0.244
PM-149		285.90	*	1.051E-04	1.108E+00	Half-Life too short		
EU-152		121.78		-1.810E-02	1.147E-01	1.826E-01	2.043E-02	-0.099
		244.70		6.435E-01	5.536E-01	8.605E-01	9.485E-02	0.748
		344.28	*	-6.564E-02	1.948E-01	2.354E-01	2.396E-02	-0.279
		778.90		-2.607E-01	4.455E-01	5.921E-01	5.225E-02	-0.440
	+	964.08		8.696E-01	4.075E-01	8.583E-01	7.894E-02	1.013
		1085.87		-5.088E-02	5.637E-01	9.118E-01	7.940E-02	-0.056
		1112.07		-7.901E-02	4.960E-01	7.571E-01	6.478E-02	-0.104
	+	1408.01		5.952E-01	3.834E-01	5.545E-01	5.343E-02	1.073
GD-153		69.67		-1.458E+00	3.916E+00	5.564E+00	6.352E-01	-0.262
		97.43	*	-1.282E-01	1.540E-01	2.096E-01	2.313E-02	-0.612
		103.18		-2.973E-01	1.838E-01	2.767E-01	2.925E-02	-1.074
EU-154		123.07		8.575E-03	8.099E-02	1.321E-01	1.649E-02	0.065
		723.31		1.218E-01	2.713E-01	4.099E-01	3.865E-02	0.297
		873.19		2.209E-01	4.067E-01	7.034E-01	8.683E-02	0.314
		996.26		-7.764E-01	5.768E-01	7.978E-01	1.413E-01	-0.973

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1004.73		-7.073E-02	3.142E-01	5.040E-01	6.035E-02	-0.140
		1274.44	*	-1.998E-01	1.999E-01	2.863E-01	3.357E-02	-0.698
EU-155	+	86.55		3.339E-01	1.918E-01	3.086E-01	3.806E-02	1.082
		105.31	*	1.908E-01	1.680E-01	2.841E-01	2.993E-02	0.671
TB-160	+	86.79		9.275E-01	5.326E-01	8.475E-01	1.042E-01	1.094
		197.04		2.366E-01	9.581E-01	1.548E+00	1.688E-01	0.153
		215.65		-1.943E-01	1.269E+00	2.007E+00	2.208E-01	-0.097
		298.57		3.972E-01	1.967E-01	3.482E-01	3.684E-02	1.141
		879.36	*	-3.299E-02	2.118E-01	3.451E-01	3.194E-02	-0.096
		962.29		1.228E+00	1.014E+00	1.609E+00	1.480E-01	0.763
		966.15		1.860E+00	4.495E-01	8.489E-01	7.803E-02	2.191
		1177.93		-7.450E-02	6.450E-01	1.037E+00	8.489E-02	-0.072
		1271.85		1.161E-01	1.117E+00	1.825E+00	1.652E-01	0.064
HO-166M		80.57		-1.037E+00	5.466E-01	6.954E-01	8.193E-02	-1.491
		184.41		1.762E-01	6.956E-02	1.059E-01	1.145E-02	1.664
		280.46		1.674E-03	1.449E-01	2.104E-01	2.273E-02	0.008
		410.95		5.135E-01	3.931E-01	6.886E-01	5.845E-02	0.746
		711.68	*	3.977E-02	8.280E-02	1.435E-01	1.218E-02	0.277
		752.31		1.546E-01	3.913E-01	6.722E-01	5.845E-02	0.230
		810.29		-6.984E-02	8.594E-02	1.322E-01	1.185E-02	-0.528
TA-182		67.75		-4.623E-02	3.169E-01	3.828E-01	4.368E-02	-0.121
		100.11		2.203E-01	3.054E-01	4.764E-01	5.142E-02	0.462
		152.43		3.627E-01	5.748E-01	9.488E-01	9.812E-02	0.382
		222.11		4.740E-01	5.706E-01	9.877E-01	1.088E-01	0.480
	+	1121.30		1.011E+00	4.143E-01	5.506E-01	4.680E-02	1.837
		1189.05		9.163E-02	5.109E-01	8.422E-01	6.977E-02	0.109
		1221.41	*	2.101E-01	3.266E-01	5.568E-01	4.779E-02	0.377
		1231.02		1.702E-01	8.397E-01	1.194E+00	1.036E-01	0.143
IR-192	+	295.96		1.530E+00	3.089E-01	4.594E-01	4.900E-02	3.331
		308.46		4.483E-02	1.573E-01	2.651E-01	2.775E-02	0.169
		316.51	*	1.606E-02	5.525E-02	9.314E-02	9.603E-03	0.172
		468.07		-5.368E-02	1.303E-01	1.766E-01	1.633E-02	-0.304
BI-207		72.81		1.008E+00	3.645E-01	6.205E-01	7.106E-02	1.625
	+	74.97		1.045E+00	2.991E-01	4.280E-01	4.926E-02	2.441
		569.70		3.150E-02	5.004E-02	8.424E-02	7.216E-03	0.374
		1063.66	*	-1.919E-03	8.442E-02	1.377E-01	1.215E-02	-0.014
		1770.23		-3.209E+00	1.061E+00	8.511E-01	7.440E-02	-3.771
PB-210		46.54	*	-1.110E+01	1.511E+01	2.391E+01	2.944E+00	-0.464
PB-211		404.85	*	-1.165E+00	1.249E+00	1.715E+00	8.296E-01	-0.679
		427.09		8.501E-01	2.385E+00	3.943E+00	1.824E+00	0.216
		832.01		-1.286E+00	1.638E+00	2.302E+00	1.195E+00	-0.559
BI-212	+	727.33	*	1.718E+00	1.388E+00	1.661E+00	2.064E-01	1.034
		785.37		2.418E+00	4.710E+00	7.979E+00	7.065E-01	0.303
		1620.50		5.256E+00	3.933E+00	7.537E+00	7.015E-01	0.697
RN-219	+	271.23		1.125E+00	8.563E-01	7.128E-01	8.711E-02	1.578
		401.81	*	-4.119E-01	6.073E-01	9.502E-01	1.404E-01	-0.433
RA-223		81.07		-8.799E-01	4.345E-01	5.464E-01	6.456E-02	-1.610
		83.79		2.039E-01	2.806E-01	3.493E-01	4.199E-02	0.584
		94.87		2.603E+00	8.598E-01	1.335E+00	1.511E-01	1.949

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		144.24		-2.138E-01	1.109E+00	1.754E+00	1.937E-01	-0.122
		154.21		3.140E-01	6.238E-01	1.025E+00	1.135E-01	0.306
		269.46		6.778E-01	3.383E-01	5.390E-01	5.947E-02	1.258
		323.87	*	-9.625E-01	1.049E+00	1.635E+00	2.967E-01	-0.589
	+	338.28		9.588E+00	2.848E+00	3.583E+00	4.653E-01	2.676
AC-227		79.69		3.067E+00	2.495E+00	3.702E+00	7.027E-01	0.828
		235.96		1.225E+00	3.290E-01	5.103E-01	6.341E-02	2.400
		256.23	*	1.816E-02	3.885E-01	6.521E-01	9.024E-02	0.028
		299.98		1.757E+00	1.487E+00	2.518E+00	3.548E-01	0.698
		304.50		1.842E+00	2.772E+00	4.175E+00	7.339E-01	0.441
		334.37		-1.146E+00	3.053E+00	4.256E+00	6.961E-01	-0.269
TH-227		79.80		6.993E-01	3.226E+00	4.694E+00	1.088E+00	0.149
		235.96		1.225E+00	3.263E-01	5.103E-01	6.095E-02	2.400
		256.23	*	1.816E-02	3.885E-01	6.521E-01	9.919E-02	0.028
		299.98		1.757E+00	1.487E+00	2.518E+00	3.548E-01	0.698
		304.50		1.842E+00	2.772E+00	4.175E+00	7.339E-01	0.441
		334.37		-1.146E+00	3.053E+00	4.256E+00	6.961E-01	-0.269
TH-229		85.43		1.023E+00	4.102E-01	6.272E-01	7.630E-02	1.630
	+	88.47		4.237E-01	2.433E-01	3.876E-01	4.778E-02	1.093
		193.51	*	-2.538E-02	8.496E-01	1.357E+00	1.477E-01	-0.019
		210.85		2.511E+00	1.607E+00	2.518E+00	2.765E-01	0.997
PA-231		283.69	*	4.233E-01	2.503E+00	3.673E+00	5.857E-01	0.115
		301.36		1.222E+00	1.057E+00	1.613E+00	2.191E-01	0.758
TH-231		81.07		-8.799E-01	4.345E-01	5.464E-01	6.456E-02	-1.610
		83.79		2.039E-01	2.806E-01	3.493E-01	4.199E-02	0.584
		94.87		2.603E+00	8.598E-01	1.335E+00	1.511E-01	1.949
		144.24		-2.138E-01	1.109E+00	1.754E+00	1.937E-01	-0.122
		154.21		3.140E-01	6.238E-01	1.025E+00	1.135E-01	0.306
		269.46		6.778E-01	3.383E-01	5.390E-01	5.947E-02	1.258
		323.87	*	-9.625E-01	1.049E+00	1.635E+00	2.967E-01	-0.589
	+	338.28		9.588E+00	2.848E+00	3.583E+00	4.653E-01	2.676
PA-233		300.13		7.723E-01	6.741E-01	1.136E+00	1.822E-01	0.680
		311.90	*	2.660E-03	9.897E-02	1.647E-01	1.743E-02	0.016
		340.48		4.330E+00	1.620E+00	2.102E+00	5.154E-01	2.060
PA-234	+	94.67		8.338E-01	4.493E-01	4.987E-01	7.196E-02	1.672
		98.44		1.117E-01	1.677E-01	2.317E-01	1.302E-01	0.482
		111.00		7.648E-02	2.917E-01	4.799E-01	6.371E-02	0.159
		131.20		4.890E-02	1.762E-01	2.885E-01	2.896E-02	0.169
		569.50		2.787E-01	4.419E-01	7.441E-01	6.374E-02	0.375
		733.00		6.362E-01	6.330E-01	9.883E-01	2.193E-01	0.644
		880.51		1.039E-01	3.989E-01	6.748E-01	6.249E-02	0.154
		883.24		4.085E-01	5.011E-01	7.506E-01	5.052E-01	0.544
		926.50		-1.612E-01	2.369E-01	3.565E-01	9.095E-02	-0.452
		946.00	*	1.450E-01	4.169E-01	7.077E-01	1.349E-01	0.205
		949.00		3.621E-01	6.115E-01	1.062E+00	9.808E-02	0.341
PA-234M		766.42		2.093E+01	2.246E+01	3.136E+01	1.592E+01	0.667
		1001.03	*	2.196E+00	7.256E+00	1.215E+01	1.260E+00	0.181
U-235		89.96		6.775E-01	2.295E+00	2.422E+00	6.301E-01	0.280
	+	93.35		2.338E+00	1.339E+00	1.534E+00	3.731E-01	1.524

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		143.76	*	-7.759E-02	3.305E-01	5.216E-01	9.281E-02	-0.149
		163.33		-4.494E-01	7.129E-01	1.076E+00	2.042E-01	-0.418
	+	185.72		2.176E-01	1.164E-01	1.388E-01	1.502E-02	1.568
		205.31		-7.598E-01	9.446E-01	1.223E+00	2.368E-01	-0.621
NP-239		99.53		2.337E-01	2.886E-01	4.299E-01	4.661E-02	0.544
		103.37		-2.444E-01	1.639E-01	2.487E-01	2.626E-02	-0.983
		106.12		1.157E-01	1.348E-01	2.262E-01	2.355E-02	0.512
		117.23	*	-1.015E-01	6.155E-01	9.946E-01	1.004E-01	-0.102
		228.18		-1.099E-01	3.397E-01	5.634E-01	6.215E-02	-0.195
	+	277.60		5.519E-01	3.312E-01	4.597E-01	4.978E-02	1.200
AM-241		59.54	*	3.026E-01	3.875E-01	5.864E-01	6.883E-02	0.516
CM-247	+	278.00		2.344E+00	1.406E+00	1.978E+00	2.141E-01	1.185
		287.50		2.248E-01	1.984E+00	3.144E+00	3.371E-01	0.071
		402.40	*	-1.378E-02	5.525E-02	8.936E-02	7.557E-03	-0.154
CF-249		252.80		-4.190E-01	1.421E+00	2.346E+00	2.580E-01	-0.179
		333.37		-1.120E-01	3.299E-01	4.623E-01	4.607E-02	-0.242
		388.16	*	6.316E-02	6.235E-02	1.082E-01	9.223E-03	0.584
CF-251		177.52	*	3.845E-03	2.108E-01	3.386E-01	3.643E-02	0.011
		227.38		8.918E-02	5.590E-01	9.461E-01	1.044E-01	0.094
		285.41		-7.675E-01	3.407E+00	5.467E+00	5.875E-01	-0.140

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065186    *
* Acquisition date : 23-MAR-2010 14:39:49 Detector SN#     :               *
* Detector ID        : GAM15               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.31      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        :  3-MAR-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202065186          Analyst initials: MXR1          *
* Batch Number       : 962631               Sample Quantity : 1.0555E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.967E+01	4.504E+00	5.815E-01	0.000E+00
CD-109	2.833E+00	1.594E+00	2.429E+00	0.000E+00
SN-126	2.748E-01	1.547E-01	2.400E-01	0.000E+00
HG-203	1.319E-01	7.759E-02	1.019E-01	0.000E+00
TL-208	7.518E-01	1.435E-01	9.142E-02	0.000E+00
BI-211	5.748E+00	9.007E-01	4.943E-01	0.000E+00
PB-212	2.309E+00	3.189E-01	1.438E-01	0.000E+00
BI-214	1.574E+00	2.769E-01	1.775E-01	0.000E+00
PB-214	2.086E+00	3.458E-01	1.797E-01	0.000E+00
RA-224	6.231E+00	1.926E+00	1.540E+00	0.000E+00
RA-226	1.574E+00	2.769E-01	1.775E-01	0.000E+00
AC-228	2.093E+00	4.708E-01	3.513E-01	0.000E+00
RA-228	2.093E+00	4.708E-01	3.513E-01	0.000E+00
TH-228	2.309E+00	3.189E-01	1.438E-01	0.000E+00
TH-230	1.574E+00	2.646E-01	1.775E-01	0.000E+00
TH-232	2.093E+00	4.708E-01	3.513E-01	0.000E+00
TH-234	6.017E+00	3.942E+00	4.652E+00	0.000E+00
NP-237	8.200E-01	4.913E-01	6.520E-01	0.000E+00
U-238	6.017E+00	3.942E+00	4.652E+00	0.000E+00
ANH-511	1.859E-01	9.168E-02	7.557E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	8.309E-02	4.786E-01	8.052E-01	0.000E+00	NOT IDENT.
NA-22	-6.097E-02	6.860E-02	1.016E-01	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.710E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.742E-02	6.196E-02	9.995E-02	0.000E+00	FAIL ABUN
V-48	7.575E-03	1.250E-01	2.097E-01	0.000E+00	NOT IDENT.
CR-51	-1.772E-01	6.270E-01	1.047E+00	0.000E+00	NOT IDENT.
MN-54	5.296E-02	5.611E-02	1.008E-01	0.000E+00	NOT IDENT.

CO-56	1.529E-02	6.218E-02	1.067E-01	0.000E+00	FAIL ABUN
CO-57	-2.128E-03	3.961E-02	6.504E-02	0.000E+00	NOT IDENT.
CO-58	-5.470E-02	5.867E-02	9.072E-02	0.000E+00	NOT IDENT.
FE-59	-4.429E-02	1.465E-01	2.355E-01	0.000E+00	NOT IDENT.
CO-60	-1.923E-02	5.762E-02	9.010E-02	0.000E+00	NOT IDENT.
ZN-65	1.083E-01	1.458E-01	2.268E-01	0.000E+00	NOT IDENT.
SE-75	7.829E-03	7.800E-02	1.168E-01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	7.604E-02	1.255E-01	0.000E+00	NOT IDENT.
Y-88	4.223E-02	5.313E-02	9.967E-02	0.000E+00	NOT IDENT.
Y-91	2.332E+01	3.948E+01	6.780E+01	0.000E+00	NOT IDENT.
NB-94	2.050E-02	4.770E-02	8.355E-02	0.000E+00	NOT IDENT.
NB-95	6.269E-02	7.681E-02	1.208E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.456E-01	3.974E-01	0.000E+00	NOT IDENT.
ZR-95	-3.315E-02	1.061E-01	1.751E-01	0.000E+00	NOT IDENT.
MO-99	-4.363E+01	6.441E+01	1.031E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.070E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-7.209E-03	6.044E-02	9.931E-02	0.000E+00	FAIL ABUN
RH-106	3.283E-01	4.439E-01	7.675E-01	0.000E+00	NOT IDENT.
RU-106	3.283E-01	4.427E-01	7.675E-01	0.000E+00	NOT IDENT.
AG-108M	3.982E-02	4.255E-02	7.513E-02	0.000E+00	NOT IDENT.
AG-110M	1.586E-02	4.876E-02	8.519E-02	0.000E+00	NOT IDENT.
SN-113	1.325E-02	7.081E-02	1.202E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	7.978E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	1.044E-01	1.104E-01	1.884E-01	0.000E+00	NOT IDENT.
TE-123M	4.273E-02	4.576E-02	7.806E-02	0.000E+00	NOT IDENT.
SB-124	2.407E-03	1.113E-01	1.866E-01	0.000E+00	NOT IDENT.
SB-125	6.972E-02	1.362E-01	2.347E-01	0.000E+00	FAIL ABUN
TE-125M	-7.058E+00	1.650E+01	2.716E+01	0.000E+00	NOT IDENT.
I-126	5.825E-02	4.064E-01	7.006E-01	0.000E+00	NOT IDENT.
SB-126	7.011E-02	2.970E-01	4.467E-01	0.000E+00	NOT IDENT.
SB-127	3.051E+00	4.688E+00	8.328E+00	0.000E+00	NOT IDENT.
I-131	-8.183E-02	2.744E-01	4.544E-01	0.000E+00	NOT IDENT.
TE-132	-1.053E+00	3.320E+00	5.632E+00	0.000E+00	NOT IDENT.
BA-133	1.460E-02	6.991E-02	1.040E-01	0.000E+00	FAIL ABUN
I-133	0.000E+00	4.622E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.564E-02	1.290E-01	0.000E+00	FAIL ABUN
CS-135	2.230E-01	2.805E-01	4.355E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.116E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.844E-02	2.090E-01	3.379E-01	0.000E+00	NOT IDENT.
BA-137M	2.248E-02	5.086E-02	8.942E-02	0.000E+00	NOT IDENT.
CS-137	2.374E-02	5.373E-02	9.446E-02	0.000E+00	NOT IDENT.
CE-139	1.751E-03	4.893E-02	7.846E-02	0.000E+00	NOT IDENT.
BA-140	-2.680E-01	4.961E-01	7.706E-01	0.000E+00	NOT IDENT.
LA-140	-8.249E-02	1.605E-01	2.547E-01	0.000E+00	NOT IDENT.
CE-141	1.107E-01	1.094E-01	1.874E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.882E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-9.310E-02	3.336E-01	5.356E-01	0.000E+00	NOT IDENT.
PM-144	2.594E-02	4.940E-02	8.710E-02	0.000E+00	NOT IDENT.
PR-144	1.652E+00	3.724E+00	6.531E+00	0.000E+00	NOT IDENT.
PM-146	4.682E-03	6.164E-02	1.032E-01	0.000E+00	NOT IDENT.
ND-147	4.518E-01	1.086E+00	1.847E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	6.477E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-6.564E-02	1.909E-01	2.356E-01	0.000E+00	FAIL ABUN
GD-153	-1.282E-01	1.510E-01	2.110E-01	0.000E+00	NOT IDENT.
EU-154	-1.998E-01	1.959E-01	2.845E-01	0.000E+00	NOT IDENT.
EU-155	1.908E-01	1.647E-01	2.861E-01	0.000E+00	FAIL ABUN
TB-160	-3.299E-02	2.076E-01	3.436E-01	0.000E+00	FAIL ABUN
HO-166M	3.977E-02	8.115E-02	1.431E-01	0.000E+00	NOT IDENT.
TA-182	2.101E-01	3.201E-01	5.534E-01	0.000E+00	FAIL ABUN
IR-192	1.606E-02	5.415E-02	9.323E-02	0.000E+00	FAIL ABUN
BI-207	-1.919E-03	8.274E-02	1.370E-01	0.000E+00	FAIL ABUN
PB-210	-1.110E+01	1.481E+01	2.417E+01	0.000E+00	NOT IDENT.
PB-211	-1.165E+00	1.224E+00	1.715E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.361E+00	1.656E+00	0.000E+00	FAIL ABUN
RN-219	-4.119E-01	5.952E-01	9.500E-01	0.000E+00	FAIL ABUN
RA-223	-9.625E-01	1.028E+00	1.636E+00	0.000E+00	FAIL ABUN
AC-227	1.816E-02	3.808E-01	6.534E-01	0.000E+00	NOT IDENT.
TH-227	1.816E-02	3.808E-01	6.534E-01	0.000E+00	NOT IDENT.
TH-229	-2.538E-02	8.326E-01	1.362E+00	0.000E+00	FAIL ABUN
PA-231	4.233E-01	2.453E+00	3.679E+00	0.000E+00	NOT IDENT.
TH-231	-9.625E-01	1.028E+00	1.636E+00	0.000E+00	FAIL ABUN
PA-233	2.660E-03	9.699E-02	1.649E-01	0.000E+00	NOT IDENT.
PA-234	1.450E-01	4.085E-01	7.044E-01	0.000E+00	FAIL ABUN
PA-234M	2.196E+00	7.111E+00	1.209E+01	0.000E+00	NOT IDENT.
U-235	-7.759E-02	3.239E-01	5.243E-01	0.000E+00	FAIL ABUN
NP-239	-1.015E-01	6.032E-01	1.001E+00	0.000E+00	FAIL ABUN
AM-241	3.026E-01	3.798E-01	5.921E-01	0.000E+00	NOT IDENT.
CM-247	-1.378E-02	5.414E-02	8.934E-02	0.000E+00	FAIL ABUN

CF-249	6.316E-02	6.110E-02	1.082E-01	0.000E+00	NOT IDENT.
CF-251	3.845E-03	2.066E-01	3.400E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:42:01.87

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065186.CNF;1
Sample date      : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 14:39:49
Sample ID        : G1202065186          Sample quantity  : 1.05550E+02 GRAM
Detector name    : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:01.31  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 962631               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1149	10.66*	9.664E-01	3.967E+01	3.967E+01	11.59
CD-109	88.03	127	3.70*	4.441E+00	2.748E+00	2.833E+00	57.43
SN-126	64.28	113	9.60	1.805E+00	2.319E+00	2.319E+00	66.05
	86.94	127	8.90	4.441E+00	1.143E+00	1.143E+00	70.24
	87.57	127	37.00*	4.441E+00	2.748E-01	2.748E-01	57.43
HG-203	70.83	------	3.69	2.755E+00	------	Line Not Found	------
	72.87	------	6.19	3.001E+00	------	Line Not Found	------
	279.20	83	81.56*	3.700E+00	9.770E-02	1.319E-01	60.04
TL-208	277.37	83	6.60	3.700E+00	1.207E+00	1.207E+00	60.69
	583.19	394	85.00*	2.191E+00	7.518E-01	7.518E-01	19.47
	860.56	------	12.50	1.576E+00	------	Line Not Found	------
BI-211	72.87	------	1.23	3.001E+00	------	Line Not Found	------
	351.06	656	12.92*	3.140E+00	5.748E+00	5.748E+00	15.99
PB-212	74.82	339	10.28	3.237E+00	3.625E+00	3.625E+00	30.23
	77.11	486	17.10	3.504E+00	2.887E+00	2.887E+00	21.22
	238.63	1165	43.60*	4.114E+00	2.309E+00	2.309E+00	14.09
	300.09	------	3.30	3.507E+00	------	Line Not Found	------
BI-214	609.32	426	45.49*	2.117E+00	1.574E+00	1.574E+00	17.95
	1120.29	108	14.92	1.226E+00	2.094E+00	2.094E+00	41.51
	1764.49	66	15.30	8.555E-01	1.792E+00	1.792E+00	33.38
PB-214	74.82	339	5.80	3.237E+00	6.425E+00	6.425E+00	29.71
	77.11	486	9.70	3.504E+00	5.089E+00	5.089E+00	22.77
	242.00	293	7.25	4.079E+00	3.524E+00	3.524E+00	32.07
	295.22	363	18.42	3.547E+00	1.974E+00	1.974E+00	21.19
	351.93	656	35.60*	3.140E+00	2.086E+00	2.086E+00	16.91
RA-224	240.99	293	4.10*	4.079E+00	6.231E+00	6.231E+00	31.54
RA-226	609.32	426	45.49*	2.117E+00	1.574E+00	1.574E+00	17.95
	1120.29	108	14.92	1.226E+00	2.094E+00	2.094E+00	41.51
	1764.49	66	15.30	8.555E-01	1.792E+00	1.792E+00	33.38
AC-228	338.32	247	11.27	3.227E+00	2.416E+00	2.416E+00	49.77
	911.20	227	25.80*	1.495E+00	2.093E+00	2.093E+00	22.96
	968.97	147	15.80	1.410E+00	2.351E+00	2.351E+00	36.52

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	247	11.27	3.227E+00	2.416E+00	2.416E+00	49.77
	911.20	227	25.80*	1.495E+00	2.093E+00	2.093E+00	22.96
	968.97	147	15.80	1.410E+00	2.351E+00	2.351E+00	36.52
TH-228	74.82	339	10.28	3.237E+00	3.625E+00	3.625E+00	28.65
	77.11	486	17.10	3.504E+00	2.887E+00	2.887E+00	21.22
	238.63	1165	43.60*	4.114E+00	2.309E+00	2.309E+00	14.09
	300.09	------	3.30	3.507E+00	------ Line Not Found		------
TH-230	609.32	426	45.49*	2.117E+00	1.574E+00	1.574E+00	17.16
	1120.29	108	14.92	1.226E+00	2.094E+00	2.094E+00	40.97
	1764.49	66	15.30	8.555E-01	1.792E+00	1.792E+00	33.38
TH-232	338.32	247	11.27	3.227E+00	2.416E+00	2.416E+00	28.48
	911.20	227	25.80*	1.495E+00	2.093E+00	2.093E+00	22.96
	968.97	147	15.80	1.410E+00	2.351E+00	2.351E+00	36.52
TH-234	63.29	113	3.70*	1.805E+00	6.017E+00	6.017E+00	66.85
	92.59	179	4.23	4.861E+00	3.095E+00	3.095E+00	56.89
NP-237	86.48	127	12.40*	4.441E+00	8.200E-01	8.200E-01	61.13
	95.86	------	2.68	5.004E+00	------ Line Not Found		------
U-238	63.29	113	3.70*	1.805E+00	6.017E+00	6.017E+00	66.85
	92.59	179	4.23	4.861E+00	3.095E+00	3.095E+00	53.14
ANH-511	511.00	126	100.00*	2.419E+00	1.859E-01	1.859E-01	50.32

Flag: "*" = Keyline

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

Total number of lines in spectrum 29
Number of unidentified lines 2
Number of lines tentatively identified by NID 27 93.10%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.967E+01	3.967E+01	0.460E+01	11.59	
CD-109	461.40D	1.03	2.748E+00	2.833E+00	1.627E+00	57.43	
SN-126	2.30E+05Y	1.00	2.748E-01	2.748E-01	1.578E-01	57.43	
HG-203	46.59D	1.35	9.770E-02	1.319E-01	0.792E-01	60.04	
TL-208	1.41E+10Y	1.00	7.518E-01	7.518E-01	1.464E-01	19.47	
BI-211	7.04E+08Y	1.00	5.748E+00	5.748E+00	0.919E+00	15.99	
PB-212	1.41E+10Y	1.00	2.309E+00	2.309E+00	0.325E+00	14.09	
BI-214	1600.00Y	1.00	1.574E+00	1.574E+00	0.283E+00	17.95	
PB-214	1600.00Y	1.00	2.086E+00	2.086E+00	0.353E+00	16.91	
RA-224	1.41E+10Y	1.00	6.231E+00	6.231E+00	1.965E+00	31.54	
RA-226	1600.00Y	1.00	1.574E+00	1.574E+00	0.283E+00	17.95	
AC-228	1.41E+10Y	1.00	2.093E+00	2.093E+00	0.480E+00	22.96	
RA-228	1.41E+10Y	1.00	2.093E+00	2.093E+00	0.480E+00	22.96	
TH-228	1.41E+10Y	1.00	2.309E+00	2.309E+00	0.325E+00	14.09	
TH-230	7.54E+04Y	1.00	1.574E+00	1.574E+00	0.270E+00	17.16	
TH-232	1.41E+10Y	1.00	2.093E+00	2.093E+00	0.480E+00	22.96	
TH-234	4.47E+09Y	1.00	6.017E+00	6.017E+00	4.023E+00	66.85	
NP-237	2.14E+06Y	1.00	8.200E-01	8.200E-01	5.013E-01	61.13	
U-238	4.47E+09Y	1.00	6.017E+00	6.017E+00	4.023E+00	66.85	
ANH-511	1.00E+09Y	1.00	1.859E-01	1.859E-01	0.935E-01	50.32	
		Total Activity :	8.626E+01	8.638E+01			

Grand Total Activity : 8.626E+01 8.638E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	186.06	170	423	1.11	371.02	365	12	2.36E-02	52.4	4.86E+00	T
0	209.34	81	327	1.42	417.59	413	10	1.13E-02	86.2	4.50E+00	
0	271.14	129	377	2.11	541.18	533	19	1.79E-02	75.1	3.76E+00	T
0	464.57	77	188	4.68	928.05	918	18	1.06E-02	87.3	2.59E+00	T
0	727.54	59	105	1.45	1454.01	1447	14	8.19E-03	79.9	1.83E+00	T
0	772.09	80	170	4.38	1543.12	1527	32	1.12E-02	****	1.74E+00	
0	795.62	81	37	2.30	1590.20	1583	16	1.13E-02	42.1	1.69E+00	T
3	964.42	51	34	1.84	1927.85	1924	20	7.02E-03	46.0	1.42E+00	T
0	1237.58	69	52	2.13	2474.28	2467	16	9.64E-03	52.3	1.12E+00	T
0	1408.16	35	17	1.91	2815.54	2807	17	4.86E-03	63.7	9.95E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:42:07.83

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065186.CNF;1  *
* Acquisition date : 23-MAR-2010 14:39:49  Detector SN#     :               *
* Detector ID      : GAM15                 Sensitivity      : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.31         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G1202065186           Analyst initials: MXR1           *
* Batch Number     : 962631                Sample Quantity : 1.05550E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.967E+01	4.596E+00	5.856E-01	5.754E-02	67.739
CD-109	2.833E+00	1.627E+00	2.410E+00	2.992E-01	1.175
SN-126	2.748E-01	1.578E-01	2.381E-01	2.947E-02	1.154
HG-203	1.319E-01	7.917E-02	1.017E-01	1.118E-02	1.296
TL-208	7.518E-01	1.464E-01	9.162E-02	8.380E-03	8.206
BI-211	5.748E+00	9.191E-01	4.941E-01	4.921E-02	11.634
PB-212	2.309E+00	3.254E-01	1.434E-01	1.714E-02	16.103
BI-214	1.574E+00	2.825E-01	1.779E-01	1.773E-02	8.844
PB-214	2.086E+00	3.529E-01	1.797E-01	2.042E-02	11.612
RA-224	6.231E+00	1.965E+00	1.537E+00	1.695E-01	4.055
RA-226	1.574E+00	2.825E-01	1.779E-01	1.773E-02	8.844
AC-228	2.093E+00	4.804E-01	3.529E-01	4.275E-02	5.930
RA-228	2.093E+00	4.804E-01	3.529E-01	4.275E-02	5.930
TH-228	2.309E+00	3.254E-01	1.434E-01	1.714E-02	16.103
TH-230	1.574E+00	2.700E-01	1.779E-01	1.504E-02	8.844
TH-232	2.093E+00	4.804E-01	3.529E-01	4.275E-02	5.930
TH-234	6.017E+00	4.023E+00	4.609E+00	9.138E-01	1.306
NP-237	8.200E-01	5.013E-01	6.470E-01	1.572E-01	1.267

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-238	6.017E+00	4.023E+00	4.609E+00	9.138E-01	1.306
ANH-511	1.859E-01	9.355E-02	7.568E-02	6.539E-03	2.457

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	8.309E-02		4.884E-01	8.061E-01	7.492E-02	0.103
NA-22	-6.097E-02		7.000E-02	1.022E-01	9.285E-03	-0.597
NA-24	-3.373E+02		1.383E+02	Half-Life too short		
SC-46	-2.742E-02		6.322E-02	1.004E-01	9.329E-03	-0.273
V-48	7.575E-03		1.276E-01	2.107E-01	1.926E-02	0.036
CR-51	-1.772E-01		6.398E-01	1.046E+00	1.110E-01	-0.169
MN-54	5.296E-02		5.726E-02	1.012E-01	9.182E-03	0.523
CO-56	1.529E-02		6.345E-02	1.071E-01	9.774E-03	0.143
CO-57	-2.128E-03		4.042E-02	6.466E-02	6.513E-03	-0.033
CO-58	-5.470E-02		5.987E-02	9.108E-02	8.188E-03	-0.601
FE-59	-4.429E-02		1.495E-01	2.368E-01	2.209E-02	-0.187
CO-60	-1.923E-02		5.880E-02	9.068E-02	8.718E-03	-0.212
ZN-65	1.083E-01		1.488E-01	2.280E-01	1.949E-02	0.475
SE-75	7.829E-03		7.960E-02	1.166E-01	1.278E-02	0.067
SR-85	1.665E-01		7.759E-02	1.257E-01	1.086E-02	1.324
Y-88	4.223E-02		5.421E-02	1.005E-01	8.463E-03	0.420
Y-91	2.332E+01		4.029E+01	6.821E+01	5.750E+00	0.342
NB-94	2.050E-02		4.867E-02	8.382E-02	7.076E-03	0.245
NB-95	6.269E-02		7.838E-02	1.213E-01	1.062E-02	0.517
NB-95M	6.092E-01		2.506E-01	3.964E-01	4.776E-02	1.537
ZR-95	-3.315E-02		1.082E-01	1.758E-01	1.689E-02	-0.189
MO-99	-4.363E+01		6.572E+01	1.034E+02	1.630E+01	-0.422
TC-99M	-3.188E+16		3.097E+16	Half-Life too short		
RU-103	-7.209E-03		6.167E-02	9.944E-02	1.390E-02	-0.072
RH-106	3.283E-01		4.529E-01	7.694E-01	1.009E-01	0.427
RU-106	3.283E-01		4.517E-01	7.694E-01	6.466E-02	0.427
AG-108M	3.982E-02		4.342E-02	7.518E-02	6.644E-03	0.530
AG-110M	1.586E-02		4.975E-02	8.543E-02	7.270E-03	0.186
SN-113	1.325E-02		7.226E-02	1.202E-01	1.044E-02	0.110
CD-115	-5.711E-05		4.070E-05	Half-Life too short		
SN-117M	1.044E-01		1.127E-01	1.876E-01	1.967E-02	0.557
TE-123M	4.273E-02		4.669E-02	7.771E-02	8.189E-03	0.550
SB-124	2.407E-03		1.136E-01	1.880E-01	1.771E-02	0.013
SB-125	6.972E-02		1.390E-01	2.349E-01	2.044E-02	0.297
TE-125M	-7.058E+00		1.684E+01	2.698E+01	3.208E+00	-0.262
I-126	5.825E-02		4.147E-01	7.026E-01	5.794E-02	0.083
SB-126	7.011E-02		3.031E-01	4.482E-01	3.826E-02	0.156
SB-127	3.051E+00		4.783E+00	8.353E+00	1.067E+00	0.365
I-131	-8.183E-02		2.800E-01	4.543E-01	4.402E-02	-0.180
TE-132	-1.053E+00		3.388E+00	5.617E+00	1.026E+00	-0.187
BA-133	1.460E-02		7.134E-02	1.039E-01	1.405E-02	0.140

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	2.455E-01		2.358E-01	Half-Life too short		
CS-134	2.265E-01	+	9.759E-02	1.294E-01	1.160E-02	1.749
CS-135	2.230E-01		2.863E-01	4.347E-01	5.216E-02	0.513
I-135	-1.365E+15		1.590E+15	Half-Life too short		
CS-136	-5.844E-02		2.133E-01	3.397E-01	3.143E-02	-0.172
BA-137M	2.248E-02		5.190E-02	8.967E-02	7.372E-03	0.251
CS-137	2.374E-02		5.483E-02	9.473E-02	7.804E-03	0.251
CE-139	1.751E-03		4.993E-02	7.812E-02	8.339E-03	0.022
BA-140	-2.680E-01		5.062E-01	7.719E-01	2.618E-01	-0.347
LA-140	-8.249E-02		1.638E-01	2.566E-01	2.406E-02	-0.321
CE-141	1.107E-01		1.117E-01	1.865E-01	1.928E-02	0.593
CE-143	1.527E-02		2.491E-03	Half-Life too short		
CE-144	-9.310E-02		3.404E-01	5.327E-01	8.596E-02	-0.175
PM-144	2.594E-02		5.041E-02	8.737E-02	7.353E-03	0.297
PR-144	1.652E+00		3.800E+00	6.551E+00	5.509E-01	0.252
PM-146	4.682E-03		6.290E-02	1.033E-01	1.093E-02	0.045
ND-147	4.518E-01		1.108E+00	1.850E+00	2.767E-01	0.244
PM-149	1.051E-04		3.305E-04	Half-Life too short		
EU-152	-6.564E-02		1.948E-01	2.354E-01	2.396E-02	-0.279
GD-153	-1.282E-01		1.540E-01	2.096E-01	2.313E-02	-0.612
EU-154	-1.998E-01		1.999E-01	2.863E-01	3.357E-02	-0.698
EU-155	1.908E-01		1.680E-01	2.841E-01	2.993E-02	0.671
TB-160	-3.299E-02		2.118E-01	3.451E-01	3.194E-02	-0.096
HO-166M	3.977E-02		8.280E-02	1.435E-01	1.218E-02	0.277
TA-182	2.101E-01		3.266E-01	5.568E-01	4.779E-02	0.377
IR-192	1.606E-02		5.525E-02	9.314E-02	9.603E-03	0.172
BI-207	-1.919E-03		8.442E-02	1.377E-01	1.215E-02	-0.014
PB-210	-1.110E+01		1.511E+01	2.391E+01	2.944E+00	-0.464
PB-211	-1.165E+00		1.249E+00	1.715E+00	8.296E-01	-0.679
BI-212	1.718E+00	+	1.388E+00	1.661E+00	2.064E-01	1.034
RN-219	-4.119E-01		6.073E-01	9.502E-01	1.404E-01	-0.433
RA-223	-9.625E-01		1.049E+00	1.635E+00	2.967E-01	-0.589
AC-227	1.816E-02		3.885E-01	6.521E-01	9.024E-02	0.028
TH-227	1.816E-02		3.885E-01	6.521E-01	9.919E-02	0.028
TH-229	-2.538E-02		8.496E-01	1.357E+00	1.477E-01	-0.019
PA-231	4.233E-01		2.503E+00	3.673E+00	5.857E-01	0.115
TH-231	-9.625E-01		1.049E+00	1.635E+00	2.967E-01	-0.589
PA-233	2.660E-03		9.897E-02	1.647E-01	1.743E-02	0.016
PA-234	1.450E-01		4.169E-01	7.077E-01	1.349E-01	0.205
PA-234M	2.196E+00		7.256E+00	1.215E+01	1.260E+00	0.181
U-235	-7.759E-02		3.305E-01	5.216E-01	9.281E-02	-0.149
NP-239	-1.015E-01		6.155E-01	9.946E-01	1.004E-01	-0.102
AM-241	3.026E-01		3.875E-01	5.864E-01	6.883E-02	0.516
CM-247	-1.378E-02		5.525E-02	8.936E-02	7.557E-03	-0.154
CF-249	6.316E-02		6.235E-02	1.082E-01	9.223E-03	0.584
CF-251	3.845E-03		2.108E-01	3.386E-01	3.643E-02	0.011

VAX/VMS Nuclide Identification Report Generated

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*************************************************************************
*                        GEL Laboratories LLC                           *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
*                                                                       *
*                             DETECTOR DATA                             *
*                                                                       *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065186       *
* Acquisition date : 23-MAR-2010 14:39:49 Detector SN#    :             *
* Detector ID      : GAM15                Sensitivity     : 5.000      *
* Geometry         : CAN                  Energy tolerance: 1.500      *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000     *
* Elapsed real time:    0 02:00:01.31     Half life ratio : 8.000      *
*************************************************************************
*                                                                       *
*                              SAMPLE DATA                              *
*                                                                       *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID       *
* Sample ID        : G1202065186          Analyst initials: MXR1        *
* Batch Number     : 962631               Sample Quantity : 1.0555E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000   *
*************************************************************************
*                                                                       *
*                                QC DATA                                *
*                                                                       *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :             *
* MSD DPM          :    0.000             MSD Isotope     :             *
* LCS DPM          :    0.000             LCS Isotope     :             *
* LCSD DPM         :    0.000             LCSD Isotope    :             *
*************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.967E+01	4.504E+00	2.909E-01	2.298E+00
CD-109	2.833E+00	1.594E+00	1.215E+00	8.134E-01
SN-126	2.748E-01	1.547E-01	1.201E-01	7.891E-02
HG-203	1.319E-01	7.759E-02	5.099E-02	3.959E-02
TL-208	7.518E-01	1.435E-01	4.574E-02	7.319E-02
BI-211	5.748E+00	9.007E-01	2.473E-01	4.596E-01
PB-212	2.309E+00	3.189E-01	7.193E-02	1.627E-01
BI-214	1.574E+00	2.769E-01	8.881E-02	1.413E-01
PB-214	2.086E+00	3.458E-01	8.993E-02	1.764E-01
RA-224	6.231E+00	1.926E+00	7.707E-01	9.826E-01
RA-226	1.574E+00	2.769E-01	8.881E-02	1.413E-01
AC-228	2.093E+00	4.708E-01	1.758E-01	2.402E-01
RA-228	2.093E+00	4.708E-01	1.758E-01	2.402E-01
TH-228	2.309E+00	3.189E-01	7.193E-02	1.627E-01
TH-230	1.574E+00	2.646E-01	8.881E-02	1.350E-01
TH-232	2.093E+00	4.708E-01	1.758E-01	2.402E-01
TH-234	6.017E+00	3.942E+00	2.327E+00	2.011E+00
NP-237	8.200E-01	4.913E-01	3.262E-01	2.507E-01
U-238	6.017E+00	3.942E+00	2.327E+00	2.011E+00
ANH-511	1.859E-01	9.168E-02	3.781E-02	4.677E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	8.309E-02	4.786E-01	4.028E-01	2.442E-01	NOT IDENT.
NA-22	-6.097E-02	6.860E-02	5.082E-02	3.500E-02	NOT IDENT.
NA-24	-3.373E+08	2.710E+08	0.000E+00	1.383E+08	SHORT HLIF
SC-46	-2.742E-02	6.196E-02	5.001E-02	3.161E-02	FAIL ABUN
V-48	7.575E-03	1.250E-01	1.049E-01	6.379E-02	NOT IDENT.
CR-51	-1.772E-01	6.270E-01	5.238E-01	3.199E-01	NOT IDENT.
MN-54	5.296E-02	5.611E-02	5.042E-02	2.863E-02	NOT IDENT.

CO-56	1.529E-02	6.218E-02	5.337E-02	3.172E-02	FAIL ABUN
CO-57	-2.128E-03	3.961E-02	3.254E-02	2.021E-02	NOT IDENT.
CO-58	-5.470E-02	5.867E-02	4.539E-02	2.993E-02	NOT IDENT.
FE-59	-4.429E-02	1.465E-01	1.178E-01	7.475E-02	NOT IDENT.
CO-60	-1.923E-02	5.762E-02	4.508E-02	2.940E-02	NOT IDENT.
ZN-65	1.083E-01	1.458E-01	1.135E-01	7.439E-02	NOT IDENT.
SE-75	7.829E-03	7.800E-02	5.844E-02	3.980E-02	NOT IDENT.
SR-85	1.665E-01	7.604E-02	6.281E-02	3.880E-02	NOT IDENT.
Y-88	4.223E-02	5.313E-02	4.987E-02	2.711E-02	NOT IDENT.
Y-91	2.332E+01	3.948E+01	3.392E+01	2.015E+01	NOT IDENT.
NB-94	2.050E-02	4.770E-02	4.180E-02	2.433E-02	NOT IDENT.
NB-95	6.269E-02	7.681E-02	6.045E-02	3.919E-02	NOT IDENT.
NB-95M	6.092E-01	2.456E-01	1.988E-01	1.253E-01	NOT IDENT.
ZR-95	-3.315E-02	1.061E-01	8.763E-02	5.411E-02	NOT IDENT.
MO-99	-4.363E+01	6.441E+01	5.156E+01	3.286E+01	NOT IDENT.
TC-99M	-3.188E+22	6.070E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-7.209E-03	6.044E-02	4.968E-02	3.084E-02	FAIL ABUN
RH-106	3.283E-01	4.439E-01	3.840E-01	2.265E-01	NOT IDENT.
RU-106	3.283E-01	4.427E-01	3.840E-01	2.259E-01	NOT IDENT.
AG-108M	3.982E-02	4.255E-02	3.759E-02	2.171E-02	NOT IDENT.
AG-110M	1.586E-02	4.876E-02	4.262E-02	2.488E-02	NOT IDENT.
SN-113	1.325E-02	7.081E-02	6.011E-02	3.613E-02	NOT IDENT.
CD-115	-5.711E+01	7.978E+01	0.000E+00	4.070E+01	SHORT HLIF
SN-117M	1.044E-01	1.104E-01	9.427E-02	5.633E-02	NOT IDENT.
TE-123M	4.273E-02	4.576E-02	3.905E-02	2.334E-02	NOT IDENT.
SB-124	2.407E-03	1.113E-01	9.334E-02	5.678E-02	NOT IDENT.
SB-125	6.972E-02	1.362E-01	1.174E-01	6.951E-02	FAIL ABUN
TE-125M	-7.058E+00	1.650E+01	1.359E+01	8.419E+00	NOT IDENT.
I-126	5.825E-02	4.064E-01	3.505E-01	2.073E-01	NOT IDENT.
SB-126	7.011E-02	2.970E-01	2.235E-01	1.515E-01	NOT IDENT.
SB-127	3.051E+00	4.688E+00	4.167E+00	2.392E+00	NOT IDENT.
I-131	-8.183E-02	2.744E-01	2.273E-01	1.400E-01	NOT IDENT.
TE-132	-1.053E+00	3.320E+00	2.818E+00	1.694E+00	NOT IDENT.
BA-133	1.460E-02	6.991E-02	5.203E-02	3.567E-02	FAIL ABUN
I-133	2.455E+05	4.622E+05	0.000E+00	2.358E+05	SHORT HLIF
CS-134	2.265E-01	9.564E-02	6.452E-02	4.879E-02	FAIL ABUN
CS-135	2.230E-01	2.805E-01	2.179E-01	1.431E-01	NOT IDENT.
I-135	-1.365E+21	3.116E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.844E-02	2.090E-01	1.691E-01	1.066E-01	NOT IDENT.
BA-137M	2.248E-02	5.086E-02	4.474E-02	2.595E-02	NOT IDENT.
CS-137	2.374E-02	5.373E-02	4.726E-02	2.741E-02	NOT IDENT.
CE-139	1.751E-03	4.893E-02	3.925E-02	2.497E-02	NOT IDENT.
BA-140	-2.680E-01	4.961E-01	3.855E-01	2.531E-01	NOT IDENT.
LA-140	-8.249E-02	1.605E-01	1.274E-01	8.188E-02	NOT IDENT.
CE-141	1.107E-01	1.094E-01	9.376E-02	5.583E-02	NOT IDENT.
CE-143	1.527E+04	4.882E+03	0.000E+00	2.491E+03	SHORT HLIF
CE-144	-9.310E-02	3.336E-01	2.680E-01	1.702E-01	NOT IDENT.
PM-144	2.594E-02	4.940E-02	4.358E-02	2.521E-02	NOT IDENT.
PR-144	1.652E+00	3.724E+00	3.267E+00	1.900E+00	NOT IDENT.
PM-146	4.682E-03	6.164E-02	5.165E-02	3.145E-02	NOT IDENT.
ND-147	4.518E-01	1.086E+00	9.241E-01	5.540E-01	NOT IDENT.
PM-149	1.051E+02	6.477E+02	0.000E+00	3.305E+02	SHORT HLIF
EU-152	-6.564E-02	1.909E-01	1.179E-01	9.740E-02	FAIL ABUN
GD-153	-1.282E-01	1.510E-01	1.056E-01	7.702E-02	NOT IDENT.
EU-154	-1.998E-01	1.959E-01	1.423E-01	9.996E-02	NOT IDENT.
EU-155	1.908E-01	1.647E-01	1.431E-01	8.402E-02	FAIL ABUN
TB-160	-3.299E-02	2.076E-01	1.719E-01	1.059E-01	FAIL ABUN
HO-166M	3.977E-02	8.115E-02	7.157E-02	4.140E-02	NOT IDENT.
TA-182	2.101E-01	3.201E-01	2.769E-01	1.633E-01	FAIL ABUN
IR-192	1.606E-02	5.415E-02	4.664E-02	2.763E-02	FAIL ABUN
BI-207	-1.919E-03	8.274E-02	6.853E-02	4.221E-02	FAIL ABUN
PB-210	-1.110E+01	1.481E+01	1.209E+01	7.556E+00	NOT IDENT.
PB-211	-1.165E+00	1.224E+00	8.580E-01	6.247E-01	NOT IDENT.
BI-212	1.718E+00	1.361E+00	8.285E-01	6.941E-01	FAIL ABUN
RN-219	-4.119E-01	5.952E-01	4.753E-01	3.037E-01	FAIL ABUN
RA-223	-9.625E-01	1.028E+00	8.187E-01	5.246E-01	FAIL ABUN
AC-227	1.816E-02	3.808E-01	3.269E-01	1.943E-01	NOT IDENT.
TH-227	1.816E-02	3.808E-01	3.269E-01	1.943E-01	NOT IDENT.
TH-229	-2.538E-02	8.326E-01	6.816E-01	4.248E-01	FAIL ABUN
PA-231	4.233E-01	2.453E+00	1.840E+00	1.252E+00	NOT IDENT.
TH-231	-9.625E-01	1.028E+00	8.187E-01	5.246E-01	FAIL ABUN
PA-233	2.660E-03	9.699E-02	8.249E-02	4.949E-02	NOT IDENT.
PA-234	1.450E-01	4.085E-01	3.524E-01	2.084E-01	FAIL ABUN
PA-234M	2.196E+00	7.111E+00	6.048E+00	3.628E+00	NOT IDENT.
U-235	-7.759E-02	3.239E-01	2.623E-01	1.653E-01	FAIL ABUN
NP-239	-1.015E-01	6.032E-01	5.006E-01	3.078E-01	FAIL ABUN
AM-241	3.026E-01	3.798E-01	2.962E-01	1.938E-01	NOT IDENT.
CM-247	-1.378E-02	5.414E-02	4.470E-02	2.762E-02	FAIL ABUN

CF-249	6.316E-02	6.110E-02	5.413E-02	3.117E-02	NOT IDENT.
CF-251	3.845E-03	2.066E-01	1.701E-01	1.054E-01	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	290.1278
49.72	287.8856
57.36	0.0000
59.54	262.6911
63.29	351.6878
63.29	351.6878
64.28	369.4115
67.75	401.1254
69.67	427.4337
70.83	394.9371
72.81	395.0061
72.87	395.0373
72.87	395.0373
74.82	396.0624
74.82	396.0624
74.82	396.0624
74.97	396.1416
77.11	397.2496
77.11	397.2496
77.11	397.2496
79.69	407.5564
79.80	442.7807
80.12	442.9599
80.19	442.9988
80.57	508.8136
81.00	517.0938
81.07	517.1391
81.07	517.1391
83.79	404.2979
83.79	404.2979
85.43	391.1597
86.48	451.2932
86.55	451.3325
86.79	522.0014
86.94	563.4226
87.57	566.0106
88.03	554.4045
88.47	525.0762
89.96	526.0045
91.11	526.7166
92.59	551.9771
92.59	551.9771
93.35	448.8759
94.67	449.5588
94.87	310.8973
94.87	310.8973
95.86	358.5057
97.43	360.7747
98.44	292.5422
99.53	307.6239
100.11	309.7315
103.18	402.5019
103.37	397.4507
105.31	314.9217
106.12	332.7050
109.28	382.3938
111.00	343.7365
111.76	352.2968
116.30	321.6632
117.23	323.0069
121.12	303.3371
121.78	316.0941
122.06	315.1346
123.07	325.9246
131.20	384.4422
133.52	373.6297
136.00	346.9011

136.47	350.2348
140.51	355.7771
140.51	0.0000
143.76	351.4677
144.24	350.5470
144.24	350.5470
145.44	324.1706
152.43	326.1379
153.25	325.2873
154.21	332.0202
154.21	332.0202
156.02	364.9168
158.56	297.5313
159.00	297.6383
162.66	338.7054
163.33	329.1154
165.86	309.1104
176.60	293.0905
177.52	311.9727
181.07	331.3316
184.41	332.1739
185.72	300.6667
193.51	295.7371
197.04	300.9567
205.31	324.7174
210.85	276.1497
215.65	275.5574
222.11	254.9855
227.38	266.8081
228.16	274.2344
228.18	274.2381
235.69	251.7784
235.96	251.8221
235.96	251.8221
238.63	242.1633
238.63	242.1633
240.99	242.5274
242.00	242.6837
244.70	199.5121
252.40	202.6298
252.80	208.2321
256.23	213.3080
256.23	213.3080
260.90	0.0000
264.66	195.7522
268.22	216.4070
269.46	193.1950
269.46	193.1950
271.23	193.3968
273.65	193.6718
276.40	112.6348
277.37	112.6978
277.60	112.7139
278.00	181.6347
279.20	188.0298
279.54	178.6631
280.46	188.1665
283.69	182.2294
284.31	188.5815
285.41	192.8920
285.90	0.0000
287.50	184.2003
293.27	0.0000
295.22	185.9464
295.96	186.0229
298.57	186.2933
299.98	186.4369
299.98	186.4369
300.09	186.4488
300.09	186.4488
300.13	186.4536
301.36	179.2799
302.85	181.0149
304.50	158.9274
304.50	158.9274
304.85	158.9579
308.46	172.9664
311.90	170.4146

316.51	159.3170
319.41	178.7866
320.08	171.1555
323.87	208.1083
323.87	208.1083
328.76	176.7630
333.37	192.0289
334.37	182.4410
334.37	182.4410
338.28	158.2147
338.28	158.2147
338.32	158.2186
338.32	158.2186
338.32	158.2186
340.48	153.8570
340.55	153.8618
344.28	160.6414
351.06	147.5089
351.93	147.5715
356.01	138.7285
364.49	155.3634
366.42	145.6658
383.85	136.9488
388.16	126.2853
388.63	131.2846
391.69	142.4257
400.66	136.0100
401.81	140.0820
402.40	132.1128
404.85	160.3145
410.95	127.5969
414.70	146.9303
423.72	124.2747
427.09	121.4209
427.87	115.3888
433.94	97.4238
453.88	110.5286
463.37	105.8252
468.07	133.8213
473.00	103.1458
476.78	107.4353
477.60	94.0359
487.02	81.9432
492.35	0.0000
497.08	92.6808
511.00	122.4965
514.00	113.5523
527.90	0.0000
529.87	0.0000
531.02	82.2847
537.26	93.0488
546.56	0.0000
563.25	94.9992
569.33	104.8332
569.50	102.7008
569.70	103.7777
583.19	106.4202
600.60	102.1365
602.73	88.3818
604.72	95.6614
609.32	107.3797
609.32	107.3797
609.32	107.3797
610.33	113.9286
614.28	86.9180
618.01	88.2361
621.93	67.5340
621.93	67.5340
633.25	72.1617
635.95	70.0359
636.99	63.4927
645.85	71.3619
657.76	76.2286
661.66	81.8405
661.66	81.8405
664.57	0.0000
666.33	83.8036
666.50	83.8092

677.62	68.3919
685.70	74.1243
695.00	78.9837
696.49	79.0200
696.51	80.8793
697.00	91.1193
702.65	80.1001
706.68	94.1882
711.68	65.3772
720.70	69.0352
721.93	0.0000
722.78	72.2900
722.91	72.2932
723.31	70.6959
724.19	62.6786
727.33	83.5154
733.00	62.8432
735.93	75.6384
739.50	88.5266
747.24	84.0079
752.31	67.1172
753.82	63.3632
756.73	74.7761
763.94	65.0405
765.81	81.3442
766.42	79.7310
777.92	75.0949
778.90	80.0146
783.70	54.3699
785.37	69.7510
795.86	50.7280
801.95	62.4564
810.29	75.9173
810.76	76.8880
815.77	50.0460
818.51	58.7525
832.01	84.1025
834.85	66.7525
836.80	0.0000
846.77	68.9084
856.80	92.4487
860.56	53.5755
871.09	58.6084
873.19	52.7761
875.33	0.0000
879.36	60.6932
880.51	53.8564
883.24	48.9950
884.68	54.8949
889.28	71.6455
898.04	86.5605
911.20	67.6772
911.20	67.6772
911.20	67.6772
926.50	54.4920
937.49	57.6224
944.13	64.6826
946.00	47.7871
949.00	44.8343
962.29	68.5407
964.08	77.1429
966.15	62.0303
968.97	62.0732
968.97	62.0732
968.97	62.0732
983.53	53.2491
996.26	79.6124
1001.03	56.4979
1004.73	59.5762
1037.84	59.0195
1038.76	0.0000
1048.07	61.1987
1050.41	62.2535
1050.41	62.2535
1063.66	64.4868
1085.87	52.4651
1099.45	60.8774
1112.07	63.3242

1115.54	47.9280
1120.29	56.8616
1120.29	56.8616
1120.29	56.8616
1120.55	58.0508
1121.30	58.0599
1131.51	0.0000
1173.23	71.2871
1177.93	78.7048
1189.05	67.3177
1204.77	78.0890
1221.41	66.7094
1231.02	61.8385
1235.36	65.5338
1238.28	61.6250
1260.41	0.0000
1271.85	45.9954
1274.44	64.2114
1274.54	62.0734
1291.59	39.7310
1298.22	0.0000
1312.11	30.1875
1332.49	37.8825
1365.19	27.0712
1368.63	0.0000
1384.29	33.7249
1408.01	22.5820
1457.56	0.0000
1460.82	13.2993
1489.16	23.8682
1505.03	39.2526
1596.21	23.3371
1620.50	16.5968
1678.03	0.0000
1690.97	13.8247
1764.49	13.9854
1764.49	13.9854
1764.49	13.9854
1770.23	61.9892
1771.35	15.5556
1791.20	0.0000
1836.06	11.1086

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065186

Total Uranium Activity	1.7865E+01	ug/g
Total Uranium Counting Unc.	1.1729E+01	ug/g
Total Uranium Tpu	5.9842E-06	ug/g
Total Uranium Mda	6.9244E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 962631                    SAMPLE ID  : G1202065186       *
*   ANALYST      : MXR1                      DETECTOR   : GAM15             *
*   SAMPLE DATE  :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 14:39:49.66   SAMPLE ALQT:  105.550 GRAM     *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.265E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 2.047E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 4.938E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.401E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:41:00.47

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065187.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 23-MAR-2010 14:40:28
Sample ID         : G1202065187          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:02.28  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	57.89	114	718	1.21	116.04	113	12	3.17E-02	33.7	1.20E+00
2	3	59.58	3608	618	0.98	119.42	113	12	1.00E+00	2.0	
3	2	74.88	240	523	1.14	149.98	146	14	6.65E-02	17.0	1.93E+00
4	2	77.24*	387	474	1.23	154.70	146	14	1.08E-01	11.0	
5	3	88.01	1940	430	1.19	176.21	171	19	5.39E-01	2.9	5.46E+00
6	3	90.20	88	358	1.09	180.60	171	19	2.45E-02	49.7	
7	0	122.13	341	540	1.14	244.40	239	12	9.47E-02	14.7	
8	0	185.85*	84	351	1.60	371.72	369	8	2.33E-02	41.5	
9	0	209.69	140	416	1.18	419.34	415	10	3.89E-02	28.6	
10	4	238.72*	928	308	1.28	477.36	472	22	2.58E-01	4.7	7.94E-01
11	4	241.83	192	430	2.07	483.56	472	22	5.32E-02	27.5	
12	0	295.31*	256	302	1.63	590.45	586	10	7.11E-02	14.2	
13	0	338.41*	201	240	1.34	676.57	672	10	5.59E-02	16.2	
14	0	351.84*	479	335	1.56	703.41	695	14	1.33E-01	9.4	
15	0	462.86	64	257	1.56	925.30	921	10	1.77E-02	48.7	
16	0	583.15*	266	208	1.73	1165.72	1159	13	7.38E-02	12.9	
17	0	609.26*	251	165	1.66	1217.89	1213	12	6.96E-02	12.3	
18	0	661.69	3699	233	1.84	1322.70	1315	16	1.03E+00	1.9	
19	0	911.53*	242	252	1.94	1822.19	1814	18	6.72E-02	16.9	
20	0	970.01*	91	226	1.57	1939.10	1931	13	2.54E-02	36.3	
21	0	1000.99*	44	73	1.69	2001.04	1997	9	1.23E-02	39.1	
22	0	1173.33	3088	128	2.37	2345.67	2334	25	8.58E-01	2.1	
23	0	1332.51	2721	59	2.50	2664.03	2651	23	7.56E-01	2.0	
24	0	1731.09	22	20	1.92	3461.36	3452	13	6.12E-03	46.6	
25	0	1764.47*	89	11	2.95	3528.13	3515	22	2.47E-02	15.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 15:41:03

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065187.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 9-MAR-2010 00:00:00 Acquisition date : 23-MAR-2010 14:40:28
Sample ID : G1202065187 Sample quantity : 151.73 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:02.28 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	+	122.06	*	2.391E-01	7.284E-02	5.832E-02	4.809E-03	4.100
		136.47		3.689E-01	2.988E-01	5.227E-01	4.844E-02	0.706
CO-60	+	1173.23		6.814E+00	6.156E-01	9.392E-02	7.553E-03	72.549
	+	1332.49	*	6.634E+00	6.511E-01	8.060E-02	7.187E-03	82.313
CD-109	+	88.03	*	3.516E+01	3.902E+00	1.816E+00	1.724E-01	19.360
SN-126		64.28		-1.808E-01	7.411E-01	1.113E+00	1.617E-01	-0.162
	+	86.94		1.430E+01	5.998E+00	7.459E-01	3.097E-01	19.171
	+	87.57	*	3.440E+00	3.817E-01	1.784E-01	1.684E-02	19.282
BA-137M	+	661.66	*	5.677E+00	6.358E-01	8.764E-02	9.241E-03	64.783
CS-137	+	661.66	*	5.998E+00	6.724E-01	9.258E-02	9.775E-03	64.783
TL-208		277.37		8.934E-01	6.293E-01	1.040E+00	1.730E-01	0.859
	+	583.19	*	3.935E-01	1.101E-01	9.675E-02	1.048E-02	4.067
		860.56		3.197E-01	5.362E-01	9.153E-01	1.066E-01	0.349
BI-211		72.87		1.841E+00	4.766E+00	7.113E+00	5.693E-01	0.259
	+	351.06	*	3.397E+00	7.485E-01	5.352E-01	6.245E-02	6.348
PB-212	+	74.82		1.867E+00	6.785E-01	7.850E-01	9.969E-02	2.378
	+	77.11		1.731E+00	4.081E-01	4.521E-01	3.781E-02	3.828
	+	238.63	*	1.570E+00	2.551E-01	1.466E-01	1.943E-02	10.710
		300.09		1.533E+00	1.440E+00	2.202E+00	3.229E-01	0.696
BI-214	+	609.32	*	7.152E-01	1.948E-01	1.881E-01	2.195E-02	3.802
		1120.29		1.085E+00	5.683E-01	9.981E-01	1.108E-01	1.087
	+	1764.49		1.673E+00	5.239E-01	3.876E-01	3.229E-02	4.317
PB-214	+	74.82		3.309E+00	1.188E+00	1.391E+00	1.584E-01	2.378
	+	77.11		3.051E+00	7.622E-01	7.970E-01	9.361E-02	3.828
	+	242.00		1.962E+00	1.112E+00	8.905E-01	1.231E-01	2.204
	+	295.22		1.151E+00	3.701E-01	3.747E-01	5.622E-02	3.072
	+	351.93	*	1.233E+00	2.800E-01	1.946E-01	2.505E-02	6.336
RA-224	+	240.99	*	3.470E+00	1.956E+00	1.570E+00	1.965E-01	2.210
RA-226	+	609.32	*	7.152E-01	1.948E-01	1.881E-01	2.195E-02	3.802
		1120.29		1.085E+00	5.683E-01	9.981E-01	1.108E-01	1.087
	+	1764.49		1.673E+00	5.239E-01	3.876E-01	3.229E-02	4.317
AC-228	+	338.32		1.601E+00	8.563E-01	6.001E-01	2.551E-01	2.667
	+	911.20	*	1.664E+00	6.057E-01	4.606E-01	6.240E-02	3.613
	+	968.97		1.082E+00	8.307E-01	8.032E-01	2.019E-01	1.347

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	+	338.32		1.601E+00	8.563E-01	6.001E-01	2.551E-01	2.667
	+	911.20	*	1.664E+00	6.057E-01	4.606E-01	6.240E-02	3.613
	+	968.97		1.082E+00	8.307E-01	8.032E-01	2.019E-01	1.347
TH-228	+	74.82		1.867E+00	6.541E-01	7.850E-01	6.473E-02	2.378
	+	77.11		1.731E+00	4.081E-01	4.521E-01	3.781E-02	3.828
	+	238.63	*	1.570E+00	2.551E-01	1.466E-01	1.943E-02	10.710
		300.09		1.533E+00	1.711E+00	2.202E+00	1.366E+00	0.696
TH-230	+	609.32	*	7.151E-01	1.912E-01	1.881E-01	1.958E-02	3.802
		1120.29		1.085E+00	5.636E-01	9.981E-01	8.827E-02	1.087
	+	1764.49		1.673E+00	5.239E-01	3.876E-01	3.229E-02	4.317
TH-232	+	338.32		1.601E+00	5.536E-01	6.001E-01	7.136E-02	2.667
	+	911.20	*	1.664E+00	6.057E-01	4.606E-01	6.240E-02	3.613
	+	968.97		1.082E+00	8.307E-01	8.032E-01	2.019E-01	1.347
AM-241	+	59.54	*	1.363E+01	1.198E+00	4.375E-01	3.420E-02	31.159

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.348E-01	5.697E-01	9.097E-01	9.492E-02	-0.148
NA-22		1274.54	*	-6.664E-02	4.787E-02	6.710E-02	5.782E-03	-0.993
NA-24		1368.63	*	-3.645E-01	4.787E-02	Half-Life too short		
K-40		1460.82	*	2.601E-01	5.381E-01	9.602E-01	8.797E-02	0.271
SC-46		889.28	*	9.258E-03	7.597E-02	1.268E-01	1.419E-02	0.073
		1120.55		1.779E-01	9.489E-02	1.678E-01	1.483E-02	1.060
V-48		944.13		-7.992E-01	1.826E+00	2.946E+00	3.195E-01	-0.271
		983.53	*	-1.237E-01	1.386E-01	2.158E-01	2.264E-02	-0.573
		1312.11		7.982E-03	9.627E-02	1.601E-01	1.411E-02	0.050
CR-51		320.08	*	-2.685E-01	5.718E-01	9.362E-01	1.212E-01	-0.287
MN-54		834.85	*	-2.402E-02	6.535E-02	1.070E-01	1.188E-02	-0.225
CO-56		846.77	*	8.165E-03	7.362E-02	1.233E-01	1.373E-02	0.066
		1037.84		3.690E-01	5.709E-01	9.647E-01	9.940E-02	0.383
		1238.28		1.415E-01	9.100E-02	1.674E-01	1.451E-02	0.845
		1771.35		-1.100E-01	3.667E-01	4.782E-01	3.973E-02	-0.230
CO-58		810.76	*	-2.736E-02	6.718E-02	1.099E-01	1.217E-02	-0.249
FE-59		1099.45	*	-1.054E-01	1.668E-01	2.603E-01	2.550E-02	-0.405
		1291.59		3.062E-02	1.201E-01	2.041E-01	2.011E-02	0.150
ZN-65		1115.54	*	-1.503E-01	1.725E-01	2.657E-01	2.370E-02	-0.566
SE-75	+	121.12		1.247E+00	3.899E-01	4.210E-01	4.545E-02	2.963
		136.00		6.337E-02	5.775E-02	1.008E-01	8.747E-03	0.629
		264.66	*	-7.144E-02	7.296E-02	1.111E-01	1.496E-02	-0.643
		279.54		3.672E-02	1.786E-01	2.881E-01	4.090E-02	0.127
		400.66		1.835E-01	4.342E-01	7.249E-01	8.466E-02	0.253
SR-85		514.00	*	-4.662E-03	7.228E-02	1.157E-01	1.161E-02	-0.040
Y-88		898.04		1.090E-02	7.911E-02	1.320E-01	1.483E-02	0.083
		1836.06	*	2.860E-02	4.735E-02	8.388E-02	6.782E-03	0.341
Y-91		1204.77	*	-3.586E+00	2.484E+01	4.086E+01	3.359E+00	-0.088
NB-94		702.65	*	5.604E-03	5.040E-02	8.281E-02	8.874E-03	0.068
		871.09		8.534E-03	6.654E-02	1.113E-01	1.243E-02	0.077

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	3.458E-02	6.781E-02	1.127E-01	1.233E-02	0.307
NB-95M		235.69	*	2.881E-01	2.183E-01	3.265E-01	4.320E-02	0.882
ZR-95		724.19		-2.772E-02	1.452E-01	2.337E-01	2.661E-02	-0.119
		756.73	*	2.071E-02	1.144E-01	1.874E-01	2.181E-02	0.111
MO-99		140.51		-1.264E+01	2.810E+01	4.643E+01	1.105E+01	-0.272
		181.07		-2.924E+01	2.549E+01	3.607E+01	7.078E+00	-0.811
		366.42		-3.780E+01	1.417E+02	2.316E+02	2.457E+01	-0.163
		739.50	*	3.164E+00	1.720E+01	2.824E+01	4.823E+00	0.112
		777.92		-2.882E+01	5.469E+01	8.553E+01	9.383E+00	-0.337
TC-99M		140.51	*	-5.811E+09	5.469E+01	Half-Life too short		
RU-103		497.08	*	2.152E-02	6.629E-02	1.084E-01	1.607E-02	0.199
	+	610.33		7.313E+00	2.203E+00	2.841E+00	4.931E-01	2.574
RH-106		621.93	*	1.129E-01	5.320E-01	8.875E-01	1.288E-01	0.127
		1050.41		3.936E-01	4.701E+00	7.708E+00	7.524E-01	0.051
RU-106		621.93	*	1.129E-01	5.319E-01	8.875E-01	9.270E-02	0.127
		1050.41		3.936E-01	4.701E+00	7.708E+00	7.524E-01	0.051
AG-108M		433.94	*	3.888E-03	5.247E-02	8.582E-02	8.446E-03	0.045
		614.28		9.682E-03	6.418E-02	9.224E-02	9.831E-03	0.105
		722.91		-1.176E-01	6.276E-02	8.884E-02	9.785E-03	-1.324
AG-110M		657.76	*	6.450E-01	1.169E-01	1.760E-01	1.891E-02	3.666
		677.62		-5.653E-02	4.894E-01	7.963E-01	8.613E-02	-0.071
		706.68		-6.460E-03	3.236E-01	5.274E-01	5.765E-02	-0.012
		763.94		8.424E-02	2.623E-01	4.322E-01	4.804E-02	0.195
		884.68		4.092E-02	9.650E-02	1.633E-01	1.862E-02	0.251
		937.49		5.545E-02	2.244E-01	3.745E-01	4.176E-02	0.148
		1384.29		5.972E-02	1.964E-01	3.326E-01	3.047E-02	0.180
		1505.03		-5.711E-02	3.477E-01	5.544E-01	4.930E-02	-0.103
SN-113		391.69	*	1.181E-02	7.651E-02	1.267E-01	1.210E-02	0.093
CD-115		260.90		7.508E+01	1.955E+02	3.193E+02	4.242E+01	0.235
		492.35		9.656E-01	5.660E+01	9.128E+01	9.060E+00	0.011
		527.90	*	8.967E+00	1.586E+01	2.723E+01	2.750E+00	0.329
SN-117M		156.02		-5.731E-01	3.154E+00	5.248E+00	4.920E-01	-0.109
		158.56	*	1.276E-02	7.660E-02	1.289E-01	1.222E-02	0.099
TE-123M		159.00	*	5.687E-03	4.016E-02	6.751E-02	6.447E-03	0.084
SB-124		602.73		9.368E-02	6.942E-02	1.075E-01	1.117E-02	0.871
		645.85		1.316E-01	8.289E-01	1.375E+00	1.501E-01	0.096
		722.78		-1.191E+00	6.260E-01	8.837E-01	9.677E-02	-1.348
		1690.97	*	9.565E-02	1.054E-01	1.934E-01	1.725E-02	0.494
SB-125		427.87	*	-1.364E-01	1.644E-01	2.576E-01	2.498E-02	-0.530
	+	463.37		6.591E-01	6.456E-01	8.886E-01	9.193E-02	0.742
		600.60		1.259E-01	2.852E-01	4.822E-01	5.263E-02	0.261
		635.95		-3.329E-01	4.565E-01	7.206E-01	7.975E-02	-0.462
TE-125M		109.28	*	-1.708E+01	1.427E+01	2.141E+01	2.201E+00	-0.798
I-126		388.63		4.454E-01	2.852E-01	4.943E-01	4.680E-02	0.901
		666.33	*	3.979E-01	4.208E-01	6.305E-01	6.662E-02	0.631
		753.82		5.865E-01	2.817E+00	4.624E+00	5.039E-01	0.127
SB-126		414.70		-8.754E-02	1.309E-01	2.076E-01	1.964E-02	-0.422
		666.50		4.147E-02	1.393E-01	2.006E-01	2.119E-02	0.207
		695.00		2.436E-02	1.161E-01	1.920E-01	2.052E-02	0.127

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		697.00		-6.569E-04	3.965E-01	6.477E-01	6.926E-02	-0.001
		720.70	*	-2.361E-01	2.253E-01	3.419E-01	3.687E-02	-0.690
		856.80		-2.028E-01	8.396E-01	1.380E+00	1.539E-01	-0.147
SB-127		252.40		-9.111E-01	6.448E+00	1.033E+01	4.399E+00	-0.088
		473.00		-8.423E-01	2.727E+00	4.343E+00	5.855E-01	-0.194
		685.70	*	1.122E-01	1.908E+00	3.133E+00	4.023E-01	0.036
		783.70		2.548E+00	5.590E+00	9.236E+00	1.292E+00	0.276
I-131		80.19		-2.260E+00	6.677E+00	9.582E+00	8.339E-01	-0.236
		284.31		8.802E-01	2.327E+00	3.774E+00	5.332E-01	0.233
		364.49	*	-3.416E-02	1.809E-01	2.968E-01	3.288E-02	-0.115
		636.99		2.027E-01	2.465E+00	4.079E+00	4.443E-01	0.050
TE-132		49.72		1.777E+01	2.854E+01	4.865E+01	5.050E+00	0.365
		111.76		4.963E+01	4.355E+01	7.217E+01	7.673E+00	0.688
		116.30		-8.765E+00	4.071E+01	6.093E+01	6.449E+00	-0.144
		228.16	*	1.264E+00	1.093E+00	1.816E+00	3.236E-01	0.696
BA-133		81.00		-1.363E-01	1.503E-01	2.079E-01	3.238E-02	-0.656
		276.40		4.786E-01	5.749E-01	9.432E-01	1.681E-01	0.507
		302.85		5.340E-03	2.258E-01	3.799E-01	6.268E-02	0.014
		356.01	*	2.407E-02	7.825E-02	1.146E-01	1.688E-02	0.210
		383.85		-3.970E-01	4.975E-01	7.864E-01	1.039E-01	-0.505
I-133		529.87	*	-1.087E-03	4.975E-01	Half-Life too short		
		875.33		-1.718E-01	4.975E-01	Half-Life too short		
		1298.22		-8.533E-02	4.975E-01	Half-Life too short		
CS-134		563.25		3.191E-01	5.653E-01	9.666E-01	9.973E-02	0.330
		569.33		-1.275E-01	3.155E-01	5.136E-01	5.326E-02	-0.248
		604.72		4.246E-02	6.160E-02	9.177E-02	9.555E-03	0.463
		795.86	*	5.304E-02	7.984E-02	1.332E-01	1.474E-02	0.398
		801.95		-5.015E-01	7.126E-01	1.098E+00	1.216E-01	-0.457
		1365.19		8.051E-02	1.417E+00	2.344E+00	2.184E-01	0.034
CS-135		268.22	*	8.156E-02	2.519E-01	4.096E-01	5.924E-02	0.199
I-135		546.56		3.315E+08	2.519E-01	Half-Life too short		
		836.80		3.835E+09	2.519E-01	Half-Life too short		
		1038.76		4.685E+09	2.519E-01	Half-Life too short		
		1131.51		-6.257E+08	2.519E-01	Half-Life too short		
		1260.41	*	-3.437E+08	2.519E-01	Half-Life too short		
		1457.56		1.380E+10	2.519E-01	Half-Life too short		
		1678.03		-2.759E+08	2.519E-01	Half-Life too short		
		1791.20		-1.138E+09	2.519E-01	Half-Life too short		
CS-136		153.25		1.063E+00	1.182E+00	2.035E+00	2.199E-01	0.523
		176.60		6.116E-01	7.259E-01	1.236E+00	1.351E-01	0.495
		273.65		-1.441E+00	8.581E-01	1.237E+00	1.763E-01	-1.165
		340.55		5.764E-01	2.651E-01	4.149E-01	4.994E-02	1.389
		818.51		1.336E-02	1.246E-01	2.095E-01	2.321E-02	0.064
		1048.07	*	-7.911E-02	1.953E-01	3.111E-01	3.145E-02	-0.254
		1235.36		3.107E-01	5.753E-01	9.949E-01	1.154E-01	0.312
CE-139		165.86	*	-8.723E-03	4.312E-02	7.136E-02	6.999E-03	-0.122
BA-140		162.66		4.542E-01	1.135E+00	1.922E+00	1.957E-01	0.236
		304.85		-2.325E+00	2.234E+00	3.402E+00	1.052E+00	-0.683
		423.72		2.009E+00	3.432E+00	5.641E+00	1.870E+00	0.356

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		537.26	*	-2.025E-01	4.062E-01	6.524E-01	2.240E-01	-0.310
LA-140		328.76		5.182E-01	4.636E-01	7.994E-01	1.010E-01	0.648
		487.02		-5.817E-02	2.376E-01	3.784E-01	3.923E-02	-0.154
		815.77		2.139E-02	5.383E-01	9.020E-01	1.071E-01	0.024
		1596.21	*	-1.275E-01	1.103E-01	1.557E-01	1.365E-02	-0.819
CE-141		145.44	*	-3.693E-02	8.801E-02	1.459E-01	1.328E-02	-0.253
CE-143	+	57.36		2.299E-03	8.801E-02	Half-Life too short		
		293.27	*	3.463E-04	8.801E-02	Half-Life too short		
		664.57		8.370E-02	8.801E-02	Half-Life too short		
		721.93		-2.968E-03	8.801E-02	Half-Life too short		
CE-144		80.12		-1.167E+00	3.776E+00	5.427E+00	4.691E-01	-0.215
		133.52	*	-3.702E-01	2.867E-01	4.540E-01	6.919E-02	-0.815
PM-144		476.78		-2.177E-02	1.147E-01	1.836E-01	1.928E-02	-0.119
		618.01		1.704E-02	5.444E-02	8.942E-02	9.508E-03	0.191
		696.49	*	9.684E-03	5.280E-02	8.716E-02	9.321E-03	0.111
PR-144		696.51	*	7.645E-01	3.953E+00	6.528E+00	6.980E-01	0.117
		1489.16		-7.836E+00	1.527E+01	2.311E+01	2.058E+00	-0.339
PM-146		453.88	*	-3.763E-03	7.873E-02	1.275E-01	1.467E-02	-0.030
		633.25		-2.967E-01	2.368E+00	3.873E+00	1.497E+00	-0.077
		735.93		5.205E-02	2.297E-01	3.776E-01	1.087E-01	0.138
		747.24		-6.486E-02	1.571E-01	2.479E-01	3.972E-02	-0.262
ND-147	+	91.11		5.114E-01	5.113E-01	5.904E-01	5.836E-02	0.866
		319.41		-3.741E+00	5.160E+00	8.341E+00	1.056E+00	-0.448
		531.02	*	1.030E-01	8.703E-01	1.466E+00	2.324E-01	0.070
PM-149		285.90	*	-1.615E+01	1.304E+02	2.069E+02	3.915E+01	-0.078
EU-152	+	121.78		6.891E-01	2.126E-01	2.366E-01	2.265E-02	2.913
		244.70		5.430E-01	5.910E-01	8.727E-01	1.105E-01	0.622
		344.28	*	1.315E-01	2.143E-01	2.577E-01	3.097E-02	0.510
		778.90		-3.357E-02	4.485E-01	7.217E-01	7.919E-02	-0.047
		964.08		1.632E-01	6.552E-01	9.350E-01	9.977E-02	0.175
		1085.87		-6.374E-02	7.441E-01	1.204E+00	1.122E-01	-0.053
		1112.07		-5.067E-01	5.741E-01	8.808E-01	7.893E-02	-0.575
		1408.01		2.899E-01	2.312E-01	4.238E-01	3.790E-02	0.684
GD-153		69.67		3.960E-01	2.493E+00	3.938E+00	3.057E-01	0.101
		97.43	*	-2.757E-02	1.251E-01	1.898E-01	1.669E-02	-0.145
		103.18		-4.288E-03	1.603E-01	2.570E-01	2.196E-02	-0.017
EU-154	+	123.07		4.872E-01	1.527E-01	1.654E-01	1.833E-02	2.946
		723.31		-4.131E-01	2.805E-01	4.111E-01	4.729E-02	-1.005
		873.19		-2.795E-01	5.544E-01	8.960E-01	1.242E-01	-0.312
		996.26		-3.856E-01	7.862E-01	1.050E+00	1.930E-01	-0.367
		1004.73		2.002E-01	4.610E-01	6.657E-01	8.594E-02	0.301
		1274.44	*	-1.902E-01	1.363E-01	1.896E-01	2.156E-02	-1.003
EU-155	+	86.55		4.170E+00	4.656E-01	4.055E-01	3.814E-02	10.283
		105.31	*	1.105E-01	1.524E-01	2.509E-01	2.153E-02	0.440
TB-160	+	86.79		1.101E+01	1.222E+00	1.159E+00	1.084E-01	9.499
		197.04		-1.090E+00	8.779E-01	1.367E+00	1.487E-01	-0.797
		215.65		4.851E-01	1.323E+00	2.031E+00	2.348E-01	0.239
		298.57		1.234E-01	2.031E-01	3.061E-01	4.103E-02	0.403
		879.36	*	1.169E-01	2.689E-01	4.523E-01	5.058E-02	0.258

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		962.29		-1.207E+00	1.245E+00	1.625E+00	1.737E-01	-0.743
		966.15		1.205E+00	4.753E-01	7.479E-01	7.967E-02	1.612
		1177.93		1.202E+01	1.421E+00	2.244E+00	1.811E-01	5.357
		1271.85		-4.574E-01	7.821E-01	1.218E+00	1.047E-01	-0.375
HO-166M		80.57		-1.302E-01	4.115E-01	5.909E-01	5.134E-02	-0.220
	+	184.41		7.574E-02	6.341E-02	9.133E-02	9.522E-03	0.829
		280.46		-3.357E-02	1.376E-01	2.175E-01	3.037E-02	-0.154
		410.95		2.025E-01	4.310E-01	7.191E-01	6.788E-02	0.282
		711.68	*	-8.677E-02	9.527E-02	1.461E-01	1.570E-02	-0.594
		752.31		6.216E-02	4.367E-01	7.143E-01	7.781E-02	0.087
		810.29		-5.243E-02	1.026E-01	1.667E-01	1.843E-02	-0.314
TA-182		67.75		4.388E-02	1.515E-01	2.528E-01	1.928E-02	0.174
		100.11		1.203E-01	2.476E-01	4.057E-01	3.515E-02	0.297
		152.43		1.574E-01	4.894E-01	8.302E-01	7.660E-02	0.190
		222.11		1.508E-01	5.705E-01	9.391E-01	1.108E-01	0.161
		1121.30		3.659E-01	2.618E-01	4.556E-01	4.023E-02	0.803
		1189.05		2.295E-01	3.987E-01	6.902E-01	5.613E-02	0.332
		1221.41	*	1.330E-01	2.113E-01	3.686E-01	3.065E-02	0.361
		1231.02		-6.985E-01	5.133E-01	7.458E-01	6.242E-02	-0.937
IR-192	+	295.96		8.471E-01	2.668E-01	3.589E-01	4.855E-02	2.360
		308.46		6.358E-02	1.516E-01	2.582E-01	3.381E-02	0.246
		316.51	*	5.225E-02	5.425E-02	9.369E-02	1.197E-02	0.558
		468.07		8.811E-02	1.447E-01	2.095E-01	2.168E-02	0.421
HG-203		70.83		3.626E-01	1.995E+00	2.959E+00	4.633E-01	0.123
		72.87		4.549E-01	1.179E+00	1.757E+00	2.671E-01	0.259
		279.20	*	2.032E-02	6.277E-02	1.017E-01	1.438E-02	0.200
BI-207		72.81		8.760E-02	2.739E-01	4.078E-01	3.262E-02	0.215
	+	74.97		5.381E-01	1.884E-01	2.769E-01	2.264E-02	1.943
		569.70		-4.804E-03	4.889E-02	8.091E-02	8.311E-03	-0.059
		1063.66	*	5.816E-02	1.006E-01	1.690E-01	1.622E-02	0.344
		1770.23		4.118E-01	8.163E-01	1.238E+00	1.029E-01	0.333
PB-210		46.54	*	-9.533E-02	5.509E+00	9.272E+00	8.539E-01	-0.010
PB-211		404.85	*	-9.115E-02	1.265E+00	2.067E+00	1.003E+00	-0.044
		427.09		-2.354E+00	2.998E+00	4.388E+00	2.038E+00	-0.537
		832.01		1.055E+00	1.794E+00	2.938E+00	1.537E+00	0.359
BI-212		727.33	*	1.228E+00	8.684E-01	1.491E+00	2.096E-01	0.824
		785.37		1.823E+00	5.475E+00	9.000E+00	9.892E-01	0.203
		1620.50		2.939E+00	3.109E+00	5.692E+00	4.962E-01	0.516
RN-219		271.23		3.471E-01	3.850E-01	6.351E-01	9.383E-02	0.547
		401.81	*	-1.248E-01	7.128E-01	1.161E+00	1.779E-01	-0.108
RA-223		81.07		-3.035E-01	3.382E-01	4.714E-01	4.119E-02	-0.644
		83.79		-2.524E-02	2.046E-01	2.957E-01	2.667E-02	-0.085
		94.87		9.346E-01	6.689E-01	1.023E+00	9.151E-02	0.913
		144.24		-3.486E-01	9.669E-01	1.602E+00	1.583E-01	-0.218
		154.21		4.572E-02	5.514E-01	9.271E-01	9.335E-02	0.049
		269.46		4.977E-01	2.991E-01	5.003E-01	6.869E-02	0.995
		323.87	*	-2.520E-01	1.036E+00	1.712E+00	3.346E-01	-0.147
	+	338.28		6.351E+00	2.262E+00	3.086E+00	4.502E-01	2.058
AC-227		79.69		7.854E-03	1.834E+00	2.676E+00	4.610E-01	0.003

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		235.96		6.138E-01	2.880E-01	4.334E-01	5.889E-02	1.416
		256.23	*	7.149E-02	4.241E-01	6.880E-01	1.072E-01	0.104
		299.98		1.299E+00	1.598E+00	2.421E+00	3.944E-01	0.537
		304.50		-2.644E+00	2.671E+00	4.232E+00	8.176E-01	-0.625
		334.37		-5.788E-01	3.057E+00	4.377E+00	7.757E-01	-0.132
TH-227		79.80		1.406E-01	2.422E+00	3.542E+00	7.712E-01	0.040
		235.96		6.138E-01	2.872E-01	4.334E-01	5.698E-02	1.416
		256.23	*	7.149E-02	4.241E-01	6.880E-01	1.157E-01	0.104
		299.98		1.299E+00	1.598E+00	2.421E+00	3.944E-01	0.537
		304.50		-2.644E+00	2.671E+00	4.232E+00	8.176E-01	-0.625
		334.37		-5.788E-01	3.057E+00	4.377E+00	7.757E-01	-0.132
TH-229		85.43		2.358E-01	3.408E-01	5.078E-01	4.671E-02	0.464
	+	88.47		5.303E+00	5.885E-01	6.051E-01	5.715E-02	8.764
		193.51	*	4.681E-01	8.318E-01	1.396E+00	1.500E-01	0.335
	+	210.85		3.446E+00	2.008E+00	2.450E+00	2.788E-01	1.407
PA-231		283.69	*	7.296E-01	2.363E+00	3.821E+00	6.949E-01	0.191
		301.36		1.240E+00	9.837E-01	1.566E+00	2.479E-01	0.792
TH-231		81.07		-3.035E-01	3.382E-01	4.714E-01	4.119E-02	-0.644
		83.79		-2.524E-02	2.046E-01	2.957E-01	2.667E-02	-0.085
		94.87		9.346E-01	6.689E-01	1.023E+00	9.151E-02	0.913
		144.24		-3.486E-01	9.669E-01	1.602E+00	1.583E-01	-0.218
		154.21		4.572E-02	5.514E-01	9.271E-01	9.335E-02	0.049
		269.46		4.977E-01	2.991E-01	5.003E-01	6.869E-02	0.995
		323.87	*	-2.520E-01	1.036E+00	1.712E+00	3.346E-01	-0.147
	+	338.28		6.351E+00	2.262E+00	3.086E+00	4.502E-01	2.058
PA-233		300.13		6.912E-01	7.231E-01	1.097E+00	1.973E-01	0.630
		311.90	*	-2.290E-02	1.019E-01	1.692E-01	2.217E-02	-0.135
		340.48		2.783E+00	1.329E+00	1.843E+00	4.677E-01	1.510
PA-234		94.67		4.261E-01	2.494E-01	3.812E-01	4.817E-02	1.118
		98.44		4.934E-02	1.323E-01	2.116E-01	1.181E-01	0.233
		111.00		7.085E-02	2.722E-01	4.373E-01	5.201E-02	0.162
		131.20		9.864E-04	1.451E-01	2.460E-01	2.083E-02	0.004
		569.50		-1.157E-01	4.347E-01	7.131E-01	7.324E-02	-0.162
		733.00		-1.004E+00	6.808E-01	9.459E-01	2.189E-01	-1.061
		880.51		2.138E-01	5.518E-01	9.262E-01	1.036E-01	0.231
		883.24		1.352E-01	5.688E-01	9.429E-01	6.374E-01	0.143
		926.50		-1.131E-01	3.384E-01	5.472E-01	1.433E-01	-0.207
		946.00	*	2.814E-01	6.346E-01	1.064E+00	2.115E-01	0.264
		949.00		6.896E-01	9.320E-01	1.585E+00	1.712E-01	0.435
PA-234M		766.42		1.724E+01	2.001E+01	3.062E+01	1.567E+01	0.563
	+	1001.03	*	1.013E+01	8.014E+00	1.401E+01	1.605E+00	0.723
TH-234		63.29	*	-7.001E-01	1.965E+00	2.938E+00	5.228E-01	-0.238
		92.59		4.668E-02	9.785E-01	1.623E+00	3.615E-01	0.029
U-235	+	89.96		1.633E+00	1.674E+00	2.571E+00	6.392E-01	0.635
		93.35		9.168E-01	7.841E-01	1.190E+00	2.767E-01	0.771
		143.76	*	-8.175E-02	2.876E-01	4.775E-01	8.162E-02	-0.171
		163.33		1.550E-01	6.270E-01	1.055E+00	1.951E-01	0.147
	+	185.72		9.534E-02	7.982E-02	1.168E-01	1.223E-02	0.816
		205.31		4.425E-02	8.507E-01	1.227E+00	2.392E-01	0.036

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237		86.48	*	5.005E+00	1.263E+00	9.665E-01	2.218E-01	5.179
		95.86		-1.553E+00	1.463E+00	1.913E+00	4.607E-01	-0.812
U-238		63.29	*	-7.001E-01	1.965E+00	2.938E+00	5.228E-01	-0.238
		92.59		4.668E-02	9.784E-01	1.623E+00	1.476E-01	0.029
NP-239		99.53		1.941E-01	2.306E-01	3.826E-01	3.325E-02	0.507
		103.37		-8.273E-04	1.457E-01	2.338E-01	1.996E-02	-0.004
		106.12		6.427E-02	1.183E-01	1.936E-01	1.637E-02	0.332
		117.23	*	-1.199E-01	6.736E-01	9.422E-01	7.786E-02	-0.127
		228.18		4.206E-01	3.586E-01	6.031E-01	7.255E-02	0.697
		277.60		3.517E-01	2.857E-01	4.746E-01	6.615E-02	0.741
CM-247		278.00		1.401E+00	1.209E+00	2.006E+00	2.799E-01	0.699
		287.50		1.657E+00	2.050E+00	3.367E+00	4.632E-01	0.492
		402.40	*	-1.938E-02	6.462E-02	1.046E-01	9.813E-03	-0.185
CF-249		252.80		-5.025E-01	1.595E+00	2.537E+00	3.291E-01	-0.198
		333.37		-2.065E-01	3.317E-01	4.618E-01	5.588E-02	-0.447
		388.16	*	1.449E-01	7.014E-02	1.229E-01	1.167E-02	1.178
CF-251		177.52	*	1.522E-01	1.939E-01	3.298E-01	3.361E-02	0.461
		227.38		6.028E-01	5.856E-01	9.822E-01	1.179E-01	0.614
		285.41		3.807E-01	3.579E+00	5.741E+00	7.934E-01	0.066
ANH-511		511.00	*	6.464E-02	6.117E-02	1.100E-01	1.102E-02	0.588

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065187     *
* Acquisition date : 23-MAR-2010 14:40:28 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:02.28     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065187          Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-57	2.391E-01	7.139E-02	6.251E-02	0.000E+00
CO-60	6.634E+00	6.381E-01	8.139E-02	0.000E+00
CD-109	3.516E+01	3.824E+00	1.962E+00	0.000E+00
SN-126	3.440E+00	3.741E-01	1.927E-01	0.000E+00
BA-137M	5.677E+00	6.231E-01	9.013E-02	0.000E+00
CS-137	5.998E+00	6.590E-01	9.521E-02	0.000E+00
TL-208	3.935E-01	1.079E-01	9.982E-02	0.000E+00
BI-211	3.397E+00	7.335E-01	5.592E-01	0.000E+00
PB-212	1.570E+00	2.500E-01	1.547E-01	0.000E+00
BI-214	7.152E-01	1.910E-01	1.938E-01	0.000E+00
PB-214	1.233E+00	2.744E-01	2.033E-01	0.000E+00
RA-224	3.470E+00	1.917E+00	1.656E+00	0.000E+00
RA-226	7.152E-01	1.910E-01	1.938E-01	0.000E+00
AC-228	1.664E+00	5.936E-01	4.698E-01	0.000E+00
RA-228	1.664E+00	5.936E-01	4.698E-01	0.000E+00
TH-228	1.570E+00	2.500E-01	1.547E-01	0.000E+00
TH-230	7.151E-01	1.873E-01	1.938E-01	0.000E+00
TH-232	1.664E+00	5.936E-01	4.698E-01	0.000E+00
AM-241	1.363E+01	1.174E+00	4.769E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-1.348E-01		5.583E-01	9.433E-01	0.000E+00	NOT IDENT.
NA-22	-6.664E-02		4.691E-02	6.784E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		4.517E+05	0.000E+00	0.000E+00	SHORT HLIF
K-40	2.601E-01		5.273E-01	9.673E-01	0.000E+00	NOT IDENT.
SC-46	9.258E-03		7.445E-02	1.294E-01	0.000E+00	NOT IDENT.
V-48	-1.237E-01		1.358E-01	2.197E-01	0.000E+00	NOT IDENT.
CR-51	-2.685E-01		5.604E-01	9.805E-01	0.000E+00	NOT IDENT.
MN-54	-2.402E-02		6.404E-02	1.093E-01	0.000E+00	NOT IDENT.

CO-56	8.165E-03	7.214E-02	1.260E-01	0.000E+00	NOT IDENT.
CO-58	-2.736E-02	6.583E-02	1.124E-01	0.000E+00	NOT IDENT.
FE-59	-1.054E-01	1.635E-01	2.642E-01	0.000E+00	NOT IDENT.
ZN-65	-1.503E-01	1.691E-01	2.696E-01	0.000E+00	NOT IDENT.
SE-75	-7.144E-02	7.150E-02	1.169E-01	0.000E+00	FAIL ABUN
SR-85	-4.662E-03	7.083E-02	1.197E-01	0.000E+00	NOT IDENT.
Y-88	2.860E-02	4.640E-02	8.399E-02	0.000E+00	NOT IDENT.
Y-91	-3.586E+00	2.434E+01	4.137E+01	0.000E+00	NOT IDENT.
NB-94	5.604E-03	4.940E-02	8.503E-02	0.000E+00	NOT IDENT.
NB-95	3.458E-02	6.645E-02	1.155E-01	0.000E+00	NOT IDENT.
NB-95M	2.881E-01	2.139E-01	3.445E-01	0.000E+00	NOT IDENT.
ZR-95	2.071E-02	1.121E-01	1.921E-01	0.000E+00	NOT IDENT.
MO-99	3.164E+00	1.686E+01	2.896E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.269E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.152E-02	6.496E-02	1.123E-01	0.000E+00	FAIL ABUN
RH-106	1.129E-01	5.214E-01	9.141E-01	0.000E+00	NOT IDENT.
RU-106	1.129E-01	5.213E-01	9.141E-01	0.000E+00	NOT IDENT.
AG-108M	3.888E-03	5.142E-02	8.920E-02	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	1.145E-01	1.810E-01	0.000E+00	NOT IDENT.
SN-113	1.181E-02	7.498E-02	1.320E-01	0.000E+00	NOT IDENT.
CD-115	8.967E+00	1.554E+01	2.817E+01	0.000E+00	NOT IDENT.
SN-117M	1.276E-02	7.506E-02	1.373E-01	0.000E+00	NOT IDENT.
TE-123M	5.687E-03	3.935E-02	7.192E-02	0.000E+00	NOT IDENT.
SB-124	9.565E-02	1.033E-01	1.941E-01	0.000E+00	NOT IDENT.
SB-125	-1.364E-01	1.611E-01	2.678E-01	0.000E+00	FAIL ABUN
TE-125M	-1.708E+01	1.399E+01	2.301E+01	0.000E+00	NOT IDENT.
I-126	3.979E-01	4.123E-01	6.483E-01	0.000E+00	NOT IDENT.
SB-126	-2.361E-01	2.208E-01	3.508E-01	0.000E+00	NOT IDENT.
SB-127	1.122E-01	1.870E+00	3.219E+00	0.000E+00	NOT IDENT.
I-131	-3.416E-02	1.773E-01	3.099E-01	0.000E+00	NOT IDENT.
TE-132	1.264E+00	1.071E+00	1.918E+00	0.000E+00	NOT IDENT.
BA-133	2.407E-02	7.669E-02	1.197E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.134E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.304E-02	7.825E-02	1.363E-01	0.000E+00	NOT IDENT.
CS-135	8.156E-02	2.469E-01	4.308E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.926E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-7.911E-02	1.914E-01	3.161E-01	0.000E+00	NOT IDENT.
CE-139	-8.723E-03	4.226E-02	7.594E-02	0.000E+00	NOT IDENT.
BA-140	-2.025E-01	3.981E-01	6.745E-01	0.000E+00	NOT IDENT.
LA-140	-1.275E-01	1.081E-01	1.565E-01	0.000E+00	NOT IDENT.
CE-141	-3.693E-02	8.625E-02	1.557E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.989E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.702E-01	2.810E-01	4.856E-01	0.000E+00	NOT IDENT.
PM-144	9.684E-03	5.175E-02	8.951E-02	0.000E+00	NOT IDENT.
PR-144	7.645E-01	3.874E+00	6.705E+00	0.000E+00	NOT IDENT.
PM-146	-3.763E-03	7.716E-02	1.324E-01	0.000E+00	NOT IDENT.
ND-147	1.030E-01	8.529E-01	1.516E+00	0.000E+00	FAIL ABUN
PM-149	-1.615E+01	1.278E+02	2.173E+02	0.000E+00	NOT IDENT.
EU-152	1.315E-01	2.100E-01	2.694E-01	0.000E+00	FAIL ABUN
GD-153	-2.757E-02	1.226E-01	2.046E-01	0.000E+00	NOT IDENT.
EU-154	-1.902E-01	1.335E-01	1.917E-01	0.000E+00	FAIL ABUN
EU-155	1.105E-01	1.494E-01	2.699E-01	0.000E+00	FAIL ABUN
TB-160	1.169E-01	2.635E-01	4.618E-01	0.000E+00	FAIL ABUN
HO-166M	-8.677E-02	9.337E-02	1.499E-01	0.000E+00	FAIL ABUN
TA-182	1.330E-01	2.070E-01	3.730E-01	0.000E+00	NOT IDENT.
IR-192	5.225E-02	5.316E-02	9.815E-02	0.000E+00	FAIL ABUN
HG-203	2.032E-02	6.151E-02	1.069E-01	0.000E+00	NOT IDENT.
BI-207	5.816E-02	9.862E-02	1.717E-01	0.000E+00	FAIL ABUN
PB-210	-9.533E-02	5.398E+00	1.016E+01	0.000E+00	NOT IDENT.
PB-211	-9.115E-02	1.240E+00	2.153E+00	0.000E+00	NOT IDENT.
BI-212	1.228E+00	8.510E-01	1.529E+00	0.000E+00	NOT IDENT.
RN-219	-1.248E-01	6.986E-01	1.209E+00	0.000E+00	NOT IDENT.
RA-223	-2.520E-01	1.015E+00	1.793E+00	0.000E+00	FAIL ABUN
AC-227	7.149E-02	4.156E-01	7.245E-01	0.000E+00	NOT IDENT.
TH-227	7.149E-02	4.156E-01	7.245E-01	0.000E+00	NOT IDENT.
TH-229	4.681E-01	8.152E-01	1.480E+00	0.000E+00	FAIL ABUN
PA-231	7.296E-01	2.315E+00	4.013E+00	0.000E+00	NOT IDENT.
TH-231	-2.520E-01	1.015E+00	1.793E+00	0.000E+00	FAIL ABUN
PA-233	-2.290E-02	9.983E-02	1.773E-01	0.000E+00	NOT IDENT.
PA-234	2.814E-01	6.219E-01	1.084E+00	0.000E+00	NOT IDENT.
PA-234M	1.013E+01	7.854E+00	1.425E+01	0.000E+00	FAIL ABUN
TH-234	-7.001E-01	1.925E+00	3.198E+00	0.000E+00	NOT IDENT.
U-235	-8.175E-02	2.819E-01	5.099E-01	0.000E+00	FAIL ABUN
NP-237	0.000E+00	1.237E+00	1.044E+00	0.000E+00	NOT IDENT.
U-238	-7.001E-01	1.925E+00	3.198E+00	0.000E+00	NOT IDENT.
NP-239	-1.199E-01	6.601E-01	1.011E+00	0.000E+00	NOT IDENT.
CM-247	-1.938E-02	6.333E-02	1.090E-01	0.000E+00	NOT IDENT.
CF-249	0.000E+00	6.873E-02	1.281E-01	0.000E+00	NOT IDENT.

CF-251	1.522E-01	1.900E-01	3.504E-01	0.000E+00	NOT IDENT.
ANH-511	6.464E-02	5.995E-02	1.139E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:41:01.57

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065187.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 23-MAR-2010 14:40:28
Sample ID         : G1202065187          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:02.28  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	341	85.60*	8.558E+00	2.303E-01	2.391E-01	30.47
	136.47	------	10.68	8.461E+00	------	Line Not Found	------
CO-60	1173.23	3088	99.85	2.258E+00	6.778E+00	6.814E+00	9.03
	1332.49	2721	99.98*	2.041E+00	6.599E+00	6.634E+00	9.81
CD-109	88.03	1940	3.70*	7.541E+00	3.440E+01	3.516E+01	11.10
SN-126	64.28	------	9.60	4.512E+00	------	Line Not Found	------
	86.94	1940	8.90	7.541E+00	1.430E+01	1.430E+01	41.94
	87.57	1940	37.00*	7.541E+00	3.440E+00	3.440E+00	11.10
BA-137M	661.66	3699	89.90*	3.590E+00	5.672E+00	5.677E+00	11.20
CS-137	661.66	3699	85.10*	3.590E+00	5.992E+00	5.998E+00	11.21
TL-208	277.37	------	6.60	6.182E+00	------	Line Not Found	------
	583.19	266	85.00*	3.931E+00	3.935E-01	3.935E-01	27.99
	860.56	------	12.50	2.923E+00	------	Line Not Found	------
BI-211	72.87	------	1.23	5.897E+00	------	Line Not Found	------
	351.06	479	12.92*	5.402E+00	3.397E+00	3.397E+00	22.03
PB-212	74.82	240	10.28	6.174E+00	1.867E+00	1.867E+00	36.34
	77.11	387	17.10	6.477E+00	1.731E+00	1.731E+00	23.58
	238.63	928	43.60*	6.709E+00	1.570E+00	1.570E+00	16.25
	300.09	------	3.30	5.916E+00	------	Line Not Found	------
BI-214	609.32	251	45.49*	3.811E+00	7.151E-01	7.152E-01	27.25
	1120.29	------	14.92	2.346E+00	------	Line Not Found	------
	1764.49	89	15.30	1.716E+00	1.673E+00	1.673E+00	31.31
PB-214	74.82	240	5.80	6.174E+00	3.309E+00	3.309E+00	35.90
	77.11	387	9.70	6.477E+00	3.051E+00	3.051E+00	24.98
	242.00	192	7.25	6.662E+00	1.962E+00	1.962E+00	56.68
	295.22	256	18.42	5.969E+00	1.151E+00	1.151E+00	32.15
	351.93	479	35.60*	5.402E+00	1.233E+00	1.233E+00	22.71
RA-224	240.99	192	4.10*	6.662E+00	3.470E+00	3.470E+00	56.39
RA-226	609.32	251	45.49*	3.811E+00	7.151E-01	7.152E-01	27.25
	1120.29	------	14.92	2.346E+00	------	Line Not Found	------
	1764.49	89	15.30	1.716E+00	1.673E+00	1.673E+00	31.31
AC-228	338.32	201	11.27	5.525E+00	1.601E+00	1.601E+00	53.50

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	242	25.80*	2.787E+00	1.664E+00	1.664E+00	36.40
	968.97	91	15.80	2.647E+00	1.082E+00	1.082E+00	76.77
RA-228	338.32	201	11.27	5.525E+00	1.601E+00	1.601E+00	53.50
	911.20	242	25.80*	2.787E+00	1.664E+00	1.664E+00	36.40
	968.97	91	15.80	2.647E+00	1.082E+00	1.082E+00	76.77
TH-228	74.82	240	10.28	6.174E+00	1.867E+00	1.867E+00	35.04
	77.11	387	17.10	6.477E+00	1.731E+00	1.731E+00	23.58
	238.63	928	43.60*	6.709E+00	1.570E+00	1.570E+00	16.25
	300.09	------	3.30	5.916E+00	------	Line Not Found	------
TH-230	609.32	251	45.49*	3.811E+00	7.151E-01	7.151E-01	26.73
	1120.29	------	14.92	2.346E+00	------	Line Not Found	------
	1764.49	89	15.30	1.716E+00	1.673E+00	1.673E+00	31.31
TH-232	338.32	201	11.27	5.525E+00	1.601E+00	1.601E+00	34.59
	911.20	242	25.80*	2.787E+00	1.664E+00	1.664E+00	36.40
	968.97	91	15.80	2.647E+00	1.082E+00	1.082E+00	76.77
AM-241	59.54	3608	35.90*	3.647E+00	1.363E+01	1.363E+01	8.79

Flag: "*" = Keyline

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

Total number of lines in spectrum 25
Number of unidentified lines 1
Number of lines tentatively identified by NID 24 96.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	271.74D	1.04	2.303E-01	2.391E-01	0.728E-01	30.47	
CO-60	5.27Y	1.01	6.599E+00	6.634E+00	0.651E+00	9.81	
CD-109	461.40D	1.02	3.440E+01	3.516E+01	0.390E+01	11.10	
SN-126	2.30E+05Y	1.00	3.440E+00	3.440E+00	0.382E+00	11.10	
BA-137M	30.08Y	1.00	5.672E+00	5.677E+00	0.636E+00	11.20	
CS-137	30.08Y	1.00	5.992E+00	5.998E+00	0.672E+00	11.21	
TL-208	1.41E+10Y	1.00	3.935E-01	3.935E-01	1.101E-01	27.99	
BI-211	7.04E+08Y	1.00	3.397E+00	3.397E+00	0.748E+00	22.03	
PB-212	1.41E+10Y	1.00	1.570E+00	1.570E+00	0.255E+00	16.25	
BI-214	1600.00Y	1.00	7.151E-01	7.152E-01	1.948E-01	27.25	
PB-214	1600.00Y	1.00	1.233E+00	1.233E+00	0.280E+00	22.71	
RA-224	1.41E+10Y	1.00	3.470E+00	3.470E+00	1.956E+00	56.39	
RA-226	1600.00Y	1.00	7.151E-01	7.152E-01	1.948E-01	27.25	
AC-228	1.41E+10Y	1.00	1.664E+00	1.664E+00	0.606E+00	36.40	
RA-228	1.41E+10Y	1.00	1.664E+00	1.664E+00	0.606E+00	36.40	
TH-228	1.41E+10Y	1.00	1.570E+00	1.570E+00	0.255E+00	16.25	
TH-230	7.54E+04Y	1.00	7.151E-01	7.151E-01	1.912E-01	26.73	
TH-232	1.41E+10Y	1.00	1.664E+00	1.664E+00	0.606E+00	36.40	
AM-241	432.60Y	1.00	1.363E+01	1.363E+01	0.120E+01	8.79	
			---	---			
	Total Activity :		8.874E+01	8.956E+01			

Grand Total Activity : 8.874E+01 8.956E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	57.89	114	718	1.21	116.04	113	12	3.17E-02	67.4	3.33E+00	T
3	90.20	88	358	1.09	180.60	171	19	2.45E-02	99.5	7.70E+00	T
0	185.85	84	351	1.60	371.72	369	8	2.33E-02	83.1	7.61E+00	T
0	209.69	140	416	1.18	419.34	415	10	3.89E-02	57.2	7.18E+00	T
0	462.86	64	257	1.56	925.30	921	10	1.77E-02	97.4	4.58E+00	T
0	1000.99	44	73	1.69	2001.04	1997	9	1.23E-02	78.3	2.58E+00	T
0	1731.09	22	20	1.92	3461.36	3452	13	6.12E-03	93.1	1.73E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:41:05.77

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065187.CNF;1  *
* Acquisition date  : 23-MAR-2010 14:40:28  Detector SN#     :              *
* Detector ID       : GAM22                 Sensitivity      : 5.00000      *
* Geometry          : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 01:00:00.00          Abundance limit : 75.00000      *
* Elapsed real time: 0 01:00:02.28          Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 9-MAR-2010 00:00:00.  Nuclide Library : SOLID         *
* Sample ID         : G1202065187           Analyst initials: MXR1          *
* Batch Number      : 962631                Sample Quantity : 1.51730E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	2.391E-01	7.284E-02	5.832E-02	4.809E-03	4.100
CO-60	6.634E+00	6.511E-01	8.060E-02	7.187E-03	82.313
CD-109	3.516E+01	3.902E+00	1.816E+00	1.724E-01	19.360
SN-126	3.440E+00	3.817E-01	1.784E-01	1.684E-02	19.282
BA-137M	5.677E+00	6.358E-01	8.764E-02	9.241E-03	64.783
CS-137	5.998E+00	6.724E-01	9.258E-02	9.775E-03	64.783
TL-208	3.935E-01	1.101E-01	9.675E-02	1.048E-02	4.067
BI-211	3.397E+00	7.485E-01	5.352E-01	6.245E-02	6.348
PB-212	1.570E+00	2.551E-01	1.466E-01	1.943E-02	10.710
BI-214	7.152E-01	1.948E-01	1.881E-01	2.195E-02	3.802
PB-214	1.233E+00	2.800E-01	1.946E-01	2.505E-02	6.336
RA-224	3.470E+00	1.956E+00	1.570E+00	1.965E-01	2.210
RA-226	7.152E-01	1.948E-01	1.881E-01	2.195E-02	3.802
AC-228	1.664E+00	6.057E-01	4.606E-01	6.240E-02	3.613
RA-228	1.664E+00	6.057E-01	4.606E-01	6.240E-02	3.613
TH-228	1.570E+00	2.551E-01	1.466E-01	1.943E-02	10.710
TH-230	7.151E-01	1.912E-01	1.881E-01	1.958E-02	3.802
TH-232	1.664E+00	6.057E-01	4.606E-01	6.240E-02	3.613

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-241	1.363E+01	1.198E+00	4.375E-01	3.420E-02	31.159

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.348E-01		5.697E-01	9.097E-01	9.492E-02	-0.148
NA-22	-6.664E-02		4.787E-02	6.710E-02	5.782E-03	-0.993
NA-24	-3.645E-01		2.304E-01	Half-Life too short		
K-40	2.601E-01		5.381E-01	9.602E-01	8.797E-02	0.271
SC-46	9.258E-03		7.597E-02	1.268E-01	1.419E-02	0.073
V-48	-1.237E-01		1.386E-01	2.158E-01	2.264E-02	-0.573
CR-51	-2.685E-01		5.718E-01	9.362E-01	1.212E-01	-0.287
MN-54	-2.402E-02		6.535E-02	1.070E-01	1.188E-02	-0.225
CO-56	8.165E-03		7.362E-02	1.233E-01	1.373E-02	0.066
CO-58	-2.736E-02		6.718E-02	1.099E-01	1.217E-02	-0.249
FE-59	-1.054E-01		1.668E-01	2.603E-01	2.550E-02	-0.405
ZN-65	-1.503E-01		1.725E-01	2.657E-01	2.370E-02	-0.566
SE-75	-7.144E-02		7.296E-02	1.111E-01	1.496E-02	-0.643
SR-85	-4.662E-03		7.228E-02	1.157E-01	1.161E-02	-0.040
Y-88	2.860E-02		4.735E-02	8.388E-02	6.782E-03	0.341
Y-91	-3.586E+00		2.484E+01	4.086E+01	3.359E+00	-0.088
NB-94	5.604E-03		5.040E-02	8.281E-02	8.874E-03	0.068
NB-95	3.458E-02		6.781E-02	1.127E-01	1.233E-02	0.307
NB-95M	2.881E-01		2.183E-01	3.265E-01	4.320E-02	0.882
ZR-95	2.071E-02		1.144E-01	1.874E-01	2.181E-02	0.111
MO-99	3.164E+00		1.720E+01	2.824E+01	4.823E+00	0.112
TC-99M	-5.811E+09		6.475E+09	Half-Life too short		
RU-103	2.152E-02		6.629E-02	1.084E-01	1.607E-02	0.199
RH-106	1.129E-01		5.320E-01	8.875E-01	1.288E-01	0.127
RU-106	1.129E-01		5.319E-01	8.875E-01	9.270E-02	0.127
AG-108M	3.888E-03		5.247E-02	8.582E-02	8.446E-03	0.045
AG-110M	6.450E-01		1.169E-01	1.760E-01	1.891E-02	3.666
SN-113	1.181E-02		7.651E-02	1.267E-01	1.210E-02	0.093
CD-115	8.967E+00		1.586E+01	2.723E+01	2.750E+00	0.329
SN-117M	1.276E-02		7.660E-02	1.289E-01	1.222E-02	0.099
TE-123M	5.687E-03		4.016E-02	6.751E-02	6.447E-03	0.084
SB-124	9.565E-02		1.054E-01	1.934E-01	1.725E-02	0.494
SB-125	-1.364E-01		1.644E-01	2.576E-01	2.498E-02	-0.530
TE-125M	-1.708E+01		1.427E+01	2.141E+01	2.201E+00	-0.798
I-126	3.979E-01		4.208E-01	6.305E-01	6.662E-02	0.631
SB-126	-2.361E-01		2.253E-01	3.419E-01	3.687E-02	-0.690
SB-127	1.122E-01		1.908E+00	3.133E+00	4.023E-01	0.036
I-131	-3.416E-02		1.809E-01	2.968E-01	3.288E-02	-0.115
TE-132	1.264E+00		1.093E+00	1.816E+00	3.236E-01	0.696
BA-133	2.407E-02		7.825E-02	1.146E-01	1.688E-02	0.210
I-133	-1.087E-03		3.129E-03	Half-Life too short		
CS-134	5.304E-02		7.984E-02	1.332E-01	1.474E-02	0.398

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-135	8.156E-02		2.519E-01	4.096E-01	5.924E-02	0.199
I-135	-3.437E+08		9.828E+08	Half-Life too short		
CS-136	-7.911E-02		1.953E-01	3.111E-01	3.145E-02	-0.254
CE-139	-8.723E-03		4.312E-02	7.136E-02	6.999E-03	-0.122
BA-140	-2.025E-01		4.062E-01	6.524E-01	2.240E-01	-0.310
LA-140	-1.275E-01		1.103E-01	1.557E-01	1.365E-02	-0.819
CE-141	-3.693E-02		8.801E-02	1.459E-01	1.328E-02	-0.253
CE-143	3.463E-04		1.015E-04	Half-Life too short		
CE-144	-3.702E-01		2.867E-01	4.540E-01	6.919E-02	-0.815
PM-144	9.684E-03		5.280E-02	8.716E-02	9.321E-03	0.111
PR-144	7.645E-01		3.953E+00	6.528E+00	6.980E-01	0.117
PM-146	-3.763E-03		7.873E-02	1.275E-01	1.467E-02	-0.030
ND-147	1.030E-01		8.703E-01	1.466E+00	2.324E-01	0.070
PM-149	-1.615E+01		1.304E+02	2.069E+02	3.915E+01	-0.078
EU-152	1.315E-01		2.143E-01	2.577E-01	3.097E-02	0.510
GD-153	-2.757E-02		1.251E-01	1.898E-01	1.669E-02	-0.145
EU-154	-1.902E-01		1.363E-01	1.896E-01	2.156E-02	-1.003
EU-155	1.105E-01		1.524E-01	2.509E-01	2.153E-02	0.440
TB-160	1.169E-01		2.689E-01	4.523E-01	5.058E-02	0.258
HO-166M	-8.677E-02		9.527E-02	1.461E-01	1.570E-02	-0.594
TA-182	1.330E-01		2.113E-01	3.686E-01	3.065E-02	0.361
IR-192	5.225E-02		5.425E-02	9.369E-02	1.197E-02	0.558
HG-203	2.032E-02		6.277E-02	1.017E-01	1.438E-02	0.200
BI-207	5.816E-02		1.006E-01	1.690E-01	1.622E-02	0.344
PB-210	-9.533E-02		5.509E+00	9.272E+00	8.539E-01	-0.010
PB-211	-9.115E-02		1.265E+00	2.067E+00	1.003E+00	-0.044
BI-212	1.228E+00		8.684E-01	1.491E+00	2.096E-01	0.824
RN-219	-1.248E-01		7.128E-01	1.161E+00	1.779E-01	-0.108
RA-223	-2.520E-01		1.036E+00	1.712E+00	3.346E-01	-0.147
AC-227	7.149E-02		4.241E-01	6.880E-01	1.072E-01	0.104
TH-227	7.149E-02		4.241E-01	6.880E-01	1.157E-01	0.104
TH-229	4.681E-01		8.318E-01	1.396E+00	1.500E-01	0.335
PA-231	7.296E-01		2.363E+00	3.821E+00	6.949E-01	0.191
TH-231	-2.520E-01		1.036E+00	1.712E+00	3.346E-01	-0.147
PA-233	-2.290E-02		1.019E-01	1.692E-01	2.217E-02	-0.135
PA-234	2.814E-01		6.346E-01	1.064E+00	2.115E-01	0.264
PA-234M	1.013E+01	+	8.014E+00	1.401E+01	1.605E+00	0.723
TH-234	-7.001E-01		1.965E+00	2.938E+00	5.228E-01	-0.238
U-235	-8.175E-02		2.876E-01	4.775E-01	8.162E-02	-0.171
NP-237	5.005E+00		1.263E+00	9.665E-01	2.218E-01	5.179
U-238	-7.001E-01		1.965E+00	2.938E+00	5.228E-01	-0.238
NP-239	-1.199E-01		6.736E-01	9.422E-01	7.786E-02	-0.127
CM-247	-1.938E-02		6.462E-02	1.046E-01	9.813E-03	-0.185
CF-249	1.449E-01		7.014E-02	1.229E-01	1.167E-02	1.178
CF-251	1.522E-01		1.939E-01	3.298E-01	3.361E-02	0.461
ANH-511	6.464E-02		6.117E-02	1.100E-01	1.102E-02	0.588

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065187           *
* Acquisition date : 23-MAR-2010 14:40:28 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:02.28     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065187          Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
CO-57	2.391E-01	7.139E-02	3.127E-02	3.642E-02
CO-60	6.634E+00	6.381E-01	4.072E-02	3.256E-01
CD-109	3.516E+01	3.824E+00	9.815E-01	1.951E+00
SN-126	3.440E+00	3.741E-01	9.641E-02	1.909E-01
BA-137M	5.677E+00	6.231E-01	4.509E-02	3.179E-01
CS-137	5.998E+00	6.590E-01	4.763E-02	3.362E-01
TL-208	3.935E-01	1.079E-01	4.994E-02	5.505E-02
BI-211	3.397E+00	7.335E-01	2.798E-01	3.742E-01
PB-212	1.570E+00	2.500E-01	7.738E-02	1.276E-01
BI-214	7.152E-01	1.910E-01	9.698E-02	9.742E-02
PB-214	1.233E+00	2.744E-01	1.017E-01	1.400E-01
RA-224	3.470E+00	1.917E+00	8.284E-01	9.782E-01
RA-226	7.152E-01	1.910E-01	9.698E-02	9.742E-02
AC-228	1.664E+00	5.936E-01	2.351E-01	3.029E-01
RA-228	1.664E+00	5.936E-01	2.351E-01	3.029E-01
TH-228	1.570E+00	2.500E-01	7.738E-02	1.276E-01
TH-230	7.151E-01	1.873E-01	9.698E-02	9.558E-02
TH-232	1.664E+00	5.936E-01	2.351E-01	3.029E-01
AM-241	1.363E+01	1.174E+00	2.386E-01	5.991E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.348E-01	5.583E-01	4.719E-01	2.848E-01	NOT IDENT.
NA-22	-6.664E-02	4.691E-02	3.394E-02	2.393E-02	NOT IDENT.
NA-24	-3.645E+05	4.517E+05	0.000E+00	2.304E+05	SHORT HLIF
K-40	2.601E-01	5.273E-01	4.839E-01	2.690E-01	NOT IDENT.
SC-46	9.258E-03	7.445E-02	6.473E-02	3.799E-02	NOT IDENT.
V-48	-1.237E-01	1.358E-01	1.099E-01	6.930E-02	NOT IDENT.
CR-51	-2.685E-01	5.604E-01	4.906E-01	2.859E-01	NOT IDENT.
MN-54	-2.402E-02	6.404E-02	5.471E-02	3.268E-02	NOT IDENT.

CO-56	8.165E-03	7.214E-02	6.305E-02	3.681E-02	NOT IDENT.
CO-58	-2.736E-02	6.583E-02	5.624E-02	3.359E-02	NOT IDENT.
FE-59	-1.054E-01	1.635E-01	1.322E-01	8.340E-02	NOT IDENT.
ZN-65	-1.503E-01	1.691E-01	1.349E-01	8.625E-02	NOT IDENT.
SE-75	-7.144E-02	7.150E-02	5.850E-02	3.648E-02	FAIL ABUN
SR-85	-4.662E-03	7.083E-02	5.989E-02	3.614E-02	NOT IDENT.
Y-88	2.860E-02	4.640E-02	4.202E-02	2.368E-02	NOT IDENT.
Y-91	-3.586E+00	2.434E+01	2.070E+01	1.242E+01	NOT IDENT.
NB-94	5.604E-03	4.940E-02	4.254E-02	2.520E-02	NOT IDENT.
NB-95	3.458E-02	6.645E-02	5.779E-02	3.390E-02	NOT IDENT.
NB-95M	2.881E-01	2.139E-01	1.724E-01	1.092E-01	NOT IDENT.
ZR-95	2.071E-02	1.121E-01	9.611E-02	5.721E-02	NOT IDENT.
MO-99	3.164E+00	1.686E+01	1.449E+01	8.601E+00	NOT IDENT.
TC-99M	-5.811E+15	1.269E+16	0.000E+00	6.475E+15	SHORT HLIF
RU-103	2.152E-02	6.496E-02	5.618E-02	3.315E-02	FAIL ABUN
RH-106	1.129E-01	5.214E-01	4.573E-01	2.660E-01	NOT IDENT.
RU-106	1.129E-01	5.213E-01	4.573E-01	2.660E-01	NOT IDENT.
AG-108M	3.888E-03	5.142E-02	4.463E-02	2.624E-02	NOT IDENT.
AG-110M	6.450E-01	1.145E-01	9.054E-02	5.843E-02	NOT IDENT.
SN-113	1.181E-02	7.498E-02	6.603E-02	3.825E-02	NOT IDENT.
CD-115	8.967E+00	1.554E+01	1.409E+01	7.929E+00	NOT IDENT.
SN-117M	1.276E-02	7.506E-02	6.870E-02	3.830E-02	NOT IDENT.
TE-123M	5.687E-03	3.935E-02	3.598E-02	2.008E-02	NOT IDENT.
SB-124	9.565E-02	1.033E-01	9.711E-02	5.268E-02	NOT IDENT.
SB-125	-1.364E-01	1.611E-01	1.340E-01	8.222E-02	FAIL ABUN
TE-125M	-1.708E+01	1.399E+01	1.151E+01	7.137E+00	NOT IDENT.
I-126	3.979E-01	4.123E-01	3.244E-01	2.104E-01	NOT IDENT.
SB-126	-2.361E-01	2.208E-01	1.755E-01	1.127E-01	NOT IDENT.
SB-127	1.122E-01	1.870E+00	1.610E+00	9.541E-01	NOT IDENT.
I-131	-3.416E-02	1.773E-01	1.550E-01	9.044E-02	NOT IDENT.
TE-132	1.264E+00	1.071E+00	9.595E-01	5.463E-01	NOT IDENT.
BA-133	2.407E-02	7.669E-02	5.990E-02	3.913E-02	NOT IDENT.
I-133	-1.087E+03	6.134E+03	0.000E+00	3.129E+03	SHORT HLIF
CS-134	5.304E-02	7.825E-02	6.820E-02	3.992E-02	NOT IDENT.
CS-135	8.156E-02	2.469E-01	2.155E-01	1.260E-01	NOT IDENT.
I-135	-3.437E+14	1.926E+15	0.000E+00	9.828E+14	SHORT HLIF
CS-136	-7.911E-02	1.914E-01	1.582E-01	9.765E-02	NOT IDENT.
CE-139	-8.723E-03	4.226E-02	3.799E-02	2.156E-02	NOT IDENT.
BA-140	-2.025E-01	3.981E-01	3.374E-01	2.031E-01	NOT IDENT.
LA-140	-1.275E-01	1.081E-01	7.829E-02	5.514E-02	NOT IDENT.
CE-141	-3.693E-02	8.625E-02	7.790E-02	4.401E-02	NOT IDENT.
CE-143	3.463E+02	1.989E+02	0.000E+00	1.015E+02	SHORT HLIF
CE-144	-3.702E-01	2.810E-01	2.429E-01	1.434E-01	NOT IDENT.
PM-144	9.684E-03	5.175E-02	4.478E-02	2.640E-02	NOT IDENT.
PR-144	7.645E-01	3.874E+00	3.354E+00	1.976E+00	NOT IDENT.
PM-146	-3.763E-03	7.716E-02	6.625E-02	3.937E-02	NOT IDENT.
ND-147	1.030E-01	8.529E-01	7.583E-01	4.351E-01	FAIL ABUN
PM-149	-1.615E+01	1.278E+02	1.087E+02	6.519E+01	NOT IDENT.
EU-152	1.315E-01	2.100E-01	1.348E-01	1.071E-01	FAIL ABUN
GD-153	-2.757E-02	1.226E-01	1.023E-01	6.254E-02	NOT IDENT.
EU-154	-1.902E-01	1.335E-01	9.592E-02	6.813E-02	FAIL ABUN
EU-155	1.105E-01	1.494E-01	1.350E-01	7.621E-02	FAIL ABUN
TB-160	1.169E-01	2.635E-01	2.310E-01	1.344E-01	FAIL ABUN
HO-166M	-8.677E-02	9.337E-02	7.501E-02	4.764E-02	FAIL ABUN
TA-182	1.330E-01	2.070E-01	1.866E-01	1.056E-01	NOT IDENT.
IR-192	5.225E-02	5.316E-02	4.910E-02	2.712E-02	FAIL ABUN
HG-203	2.032E-02	6.151E-02	5.347E-02	3.138E-02	NOT IDENT.
BI-207	5.816E-02	9.862E-02	8.588E-02	5.032E-02	FAIL ABUN
PB-210	-9.533E-02	5.398E+00	5.084E+00	2.754E+00	NOT IDENT.
PB-211	-9.115E-02	1.240E+00	1.077E+00	6.326E-01	NOT IDENT.
BI-212	1.228E+00	8.510E-01	7.650E-01	4.342E-01	NOT IDENT.
RN-219	-1.248E-01	6.986E-01	6.048E-01	3.564E-01	NOT IDENT.
RA-223	-2.520E-01	1.015E+00	8.968E-01	5.178E-01	FAIL ABUN
AC-227	7.149E-02	4.156E-01	3.625E-01	2.121E-01	NOT IDENT.
TH-227	7.149E-02	4.156E-01	3.625E-01	2.121E-01	NOT IDENT.
TH-229	4.681E-01	8.152E-01	7.405E-01	4.159E-01	FAIL ABUN
PA-231	7.296E-01	2.315E+00	2.008E+00	1.181E+00	NOT IDENT.
TH-231	-2.520E-01	1.015E+00	8.968E-01	5.178E-01	FAIL ABUN
PA-233	-2.290E-02	9.983E-02	8.869E-02	5.094E-02	NOT IDENT.
PA-234	2.814E-01	6.219E-01	5.425E-01	3.173E-01	NOT IDENT.
PA-234M	1.013E+01	7.854E+00	7.130E+00	4.007E+00	FAIL ABUN
TH-234	-7.001E-01	1.925E+00	1.600E+00	9.823E-01	NOT IDENT.
U-235	-8.175E-02	2.819E-01	2.551E-01	1.438E-01	FAIL ABUN
NP-237	5.005E+00	1.237E+00	5.225E-01	6.313E-01	NOT IDENT.
U-238	-7.001E-01	1.925E+00	1.600E+00	9.823E-01	NOT IDENT.
NP-239	-1.199E-01	6.601E-01	5.058E-01	3.368E-01	NOT IDENT.
CM-247	-1.938E-02	6.333E-02	5.451E-02	3.231E-02	NOT IDENT.
CF-249	1.449E-01	6.873E-02	6.411E-02	3.507E-02	NOT IDENT.

CF-251	1.522E-01	1.900E-01	1.753E-01	9.694E-02	NOT IDENT.
ANH-511	6.464E-02	5.995E-02	5.697E-02	3.058E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	484.1933
49.72	547.3168
57.36	0.0000
59.54	617.4109
63.29	395.6656
63.29	395.6656
64.28	408.8275
67.75	411.1249
69.67	452.6741
70.83	444.0544
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72.87	475.8058
74.82	467.8417
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74.82	467.8417
74.97	468.0772
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77.11	471.4048
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79.80	431.3626
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81.00	514.9722
81.07	515.0865
81.07	515.0865
83.79	522.5915
83.79	522.5915
85.43	507.9705
86.48	563.0568
86.55	563.1743
86.79	462.8271
86.94	463.0379
87.57	463.9082
88.03	464.5430
88.47	465.1486
89.96	467.1864
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92.59	470.7427
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94.87	322.3038
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98.44	341.7707
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100.11	323.6987
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103.37	352.8962
105.31	328.1641
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116.30	359.7371
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121.78	319.7690
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144.24	373.0732
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154.21	349.9892
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163.33	337.2308
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177.52	329.4338
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184.41	314.9617
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193.51	367.9301
197.04	398.8401
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210.85	404.7192
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222.11	365.5703
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228.18	337.4695
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235.96	348.6859
235.96	348.6859
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238.63	347.6222
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242.00	349.1935
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256.23	327.6023
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269.46	272.5858
269.46	272.5858
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273.65	388.8618
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279.20	302.4805
279.54	302.6008
280.46	302.9287
283.69	281.7197
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285.41	289.0060
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287.50	273.9862
293.27	0.0000
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295.96	364.3193
298.57	310.8074
299.98	302.1843
299.98	302.1843
300.09	288.5563
300.09	288.5563
300.13	294.6430
301.36	282.8788
302.85	314.4207
304.50	332.3940
304.50	332.3940
304.85	335.2706
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323.87	294.4935
328.76	265.9240
333.37	300.5437
334.37	275.6449
334.37	275.6449
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338.28	263.7708
338.32	263.7844
338.32	263.7844
338.32	263.7844
340.48	247.2380
340.55	250.4270
344.28	225.9052
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351.93	264.4794
356.01	257.4805
364.49	256.0044
366.42	260.3739
383.85	281.4450
388.16	224.8385
388.63	241.8520
391.69	268.4615
400.66	256.5097
401.81	284.9622
402.40	281.0775
404.85	288.7441
410.95	275.0392
414.70	294.2459
423.72	256.4728
427.09	301.4302
427.87	291.3290
433.94	255.5389
453.88	278.5703
463.37	281.6931
468.07	263.9360
473.00	263.5049
476.78	241.7913
477.60	245.1519
487.02	235.0206
492.35	217.5447
497.08	196.5746
511.00	223.7774
514.00	315.4915
527.90	185.9225
529.87	0.0000
531.02	188.1773
537.26	187.1166
546.56	0.0000
563.25	172.3838
569.33	192.0833
569.50	189.2508
569.70	185.4706
583.19	197.3563
600.60	184.2712
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609.32	200.8575
609.32	200.8575
609.32	200.8575
610.33	183.9791
614.28	179.3907
618.01	182.8489
621.93	187.6542
621.93	187.6542
633.25	182.9826
635.95	195.1643
636.99	172.4813
645.85	181.3446
657.76	197.7806
661.66	150.8209
661.66	150.8209
664.57	0.0000
666.33	172.8202
666.50	172.8376

677.62	157.2484
685.70	155.9105
695.00	152.6074
696.49	153.7567
696.51	153.7598
697.00	153.7994
702.65	148.0986
706.68	151.5100
711.68	168.4486
720.70	174.4463
721.93	0.0000
722.78	211.0205
722.91	211.0329
723.31	200.6804
724.19	172.6836
727.33	142.7502
733.00	203.7836
735.93	140.2485
739.50	143.6532
747.24	156.8544
752.31	144.5953
753.82	145.7603
756.73	143.8608
763.94	160.3054
765.81	160.4559
766.42	150.9357
777.92	176.3834
778.90	167.9145
783.70	170.4514
785.37	170.5905
795.86	161.7554
801.95	177.3697
810.29	178.6975
810.76	174.0831
815.77	156.7646
818.51	159.7698
832.01	159.8375
834.85	195.8234
836.80	0.0000
846.77	189.3241
856.80	194.9438
860.56	187.6523
871.09	190.4527
873.19	206.9146
875.33	0.0000
879.36	175.7814
880.51	181.6370
883.24	188.5898
884.68	183.8955
889.28	188.1241
898.04	184.9680
911.20	207.4432
911.20	207.4432
911.20	207.4432
926.50	187.2296
937.49	201.8791
944.13	227.1242
946.00	206.5471
949.00	198.8864
962.29	264.6409
964.08	236.9541
966.15	193.5590
968.97	213.4813
968.97	213.4813
968.97	213.4813
983.53	203.6974
996.26	174.7244
1001.03	172.7803
1004.73	157.5996
1037.84	146.5610
1038.76	0.0000
1048.07	168.7361
1050.41	155.4976
1050.41	155.4976
1063.66	158.3362
1085.87	169.0287
1099.45	169.8649
1112.07	185.3856

1115.54	208.8143
1120.29	141.5571
1120.29	141.5571
1120.29	141.5571
1120.55	142.6277
1121.30	152.1763
1131.51	0.0000
1173.23	83.7960
1177.93	70.4147
1189.05	83.3003
1204.77	77.0795
1221.41	60.2814
1231.02	86.3855
1235.36	62.4788
1238.28	45.2200
1260.41	0.0000
1271.85	58.3521
1274.44	65.2130
1274.54	65.2150
1291.59	36.2085
1298.22	0.0000
1312.11	54.1658
1332.49	50.5409
1365.19	36.0286
1368.63	0.0000
1384.29	41.2640
1408.01	33.4431
1457.56	0.0000
1460.82	44.2361
1489.16	34.2155
1505.03	37.4886
1596.21	44.5687
1620.50	26.7171
1678.03	0.0000
1690.97	21.3638
1764.49	19.5696
1764.49	19.5696
1764.49	19.5696
1770.23	30.2846
1771.35	28.5109
1791.20	0.0000
1836.06	22.1068

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065187

Total Uranium Activity	-2.1207E+00	ug/g
Total Uranium Counting Unc.	5.7292E+00	ug/g
Total Uranium Tpu	2.9231E-06	ug/g
Total Uranium Mda	4.7606E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                               GROSS GAMMA REPORT                          *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962631                    SAMPLE ID  : G1202065187      *
*   ANALYST       : MXR1                      DETECTOR   : GAM22            *
*   SAMPLE DATE   :  9-MAR-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 14:40:28.19    SAMPLE ALQT:  151.730 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.909E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 2.739E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.285E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.599E+00
```

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W017.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.276155 through 0.308631

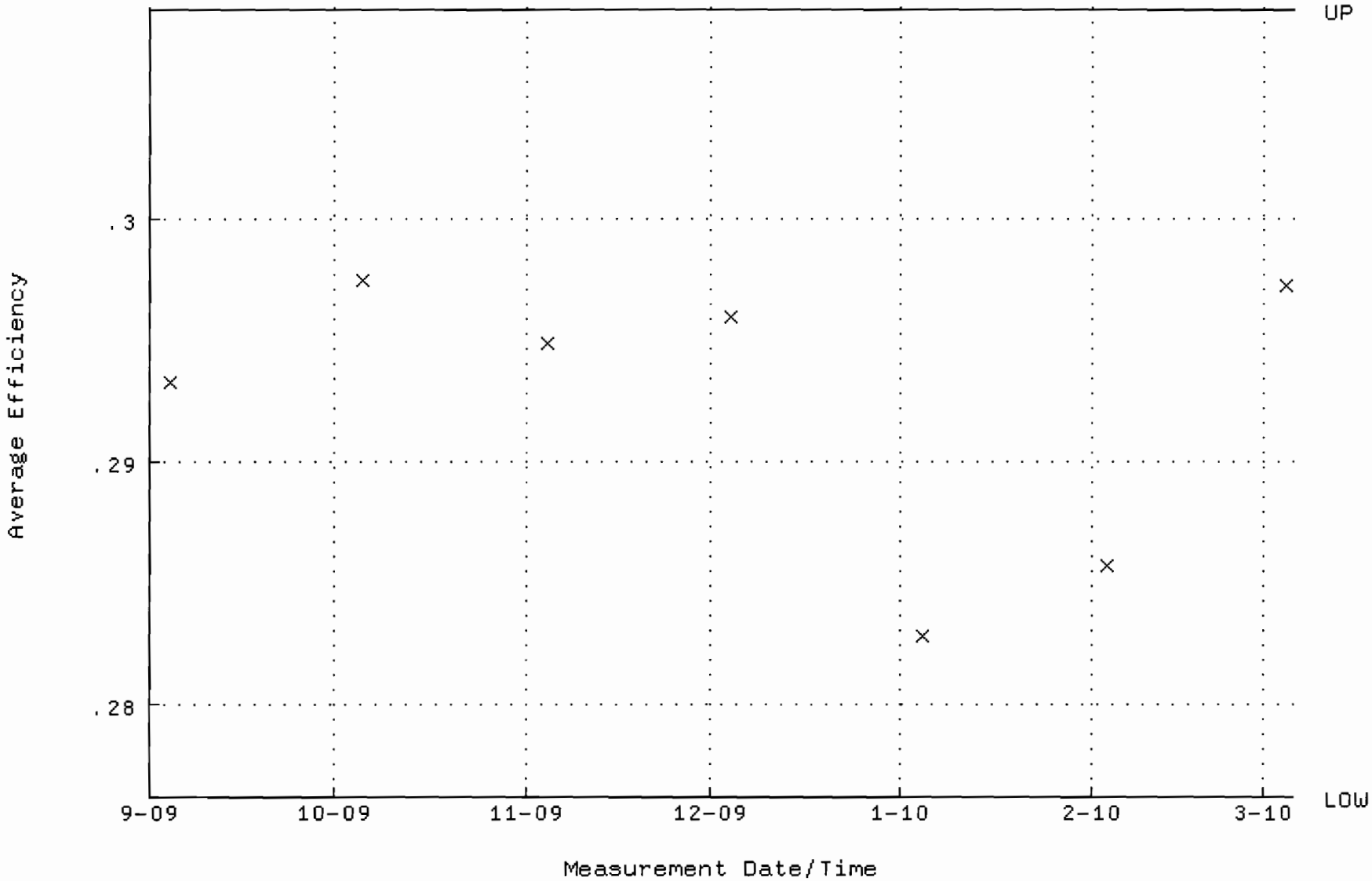

QA filename : DKA100:[ENV_ALPHA.QA.W]W017.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 90.4251 through 97.0169

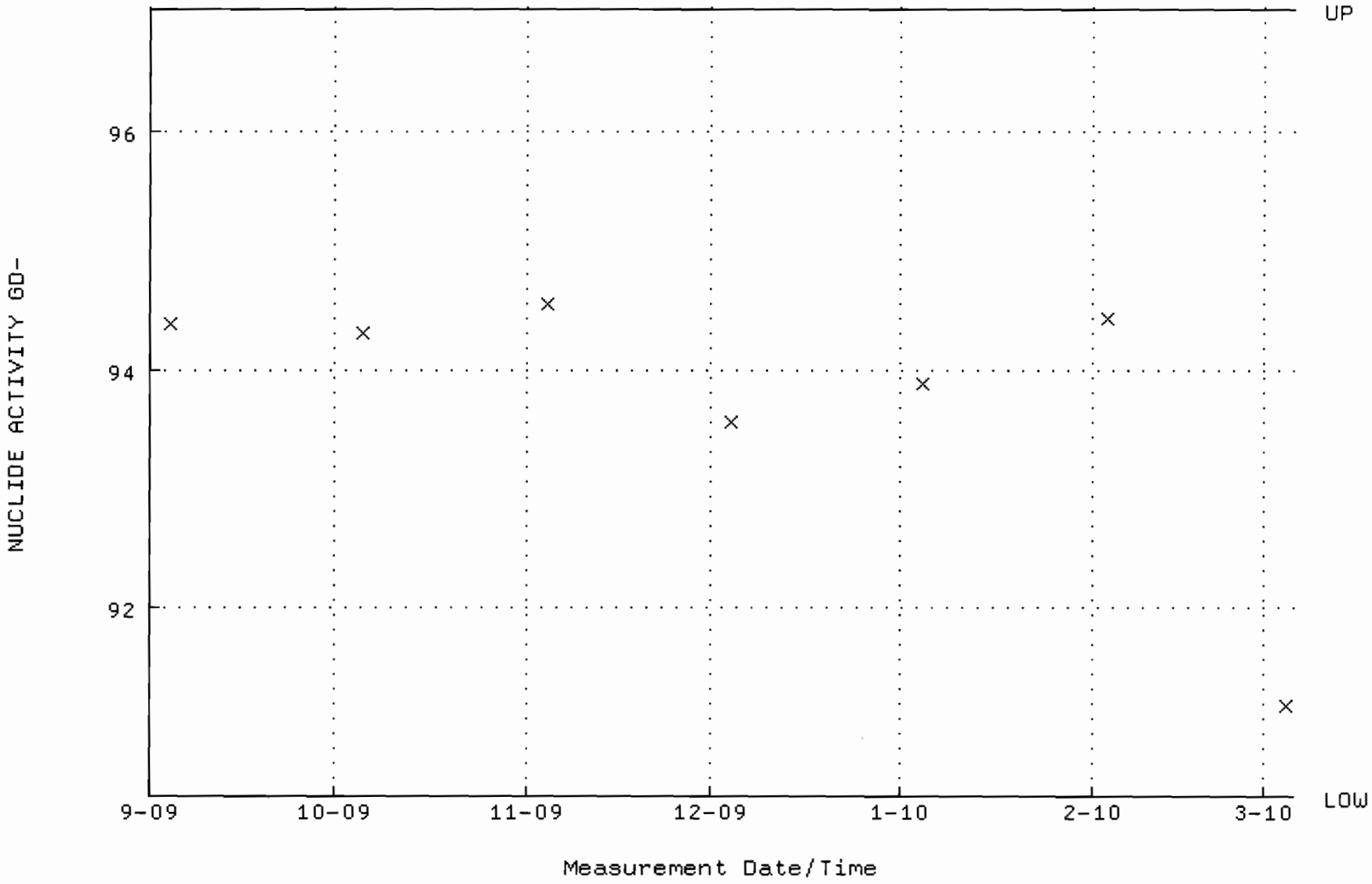

QA filename : DKA100:[ENV_ALPHA.QA.B]B017.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:02 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

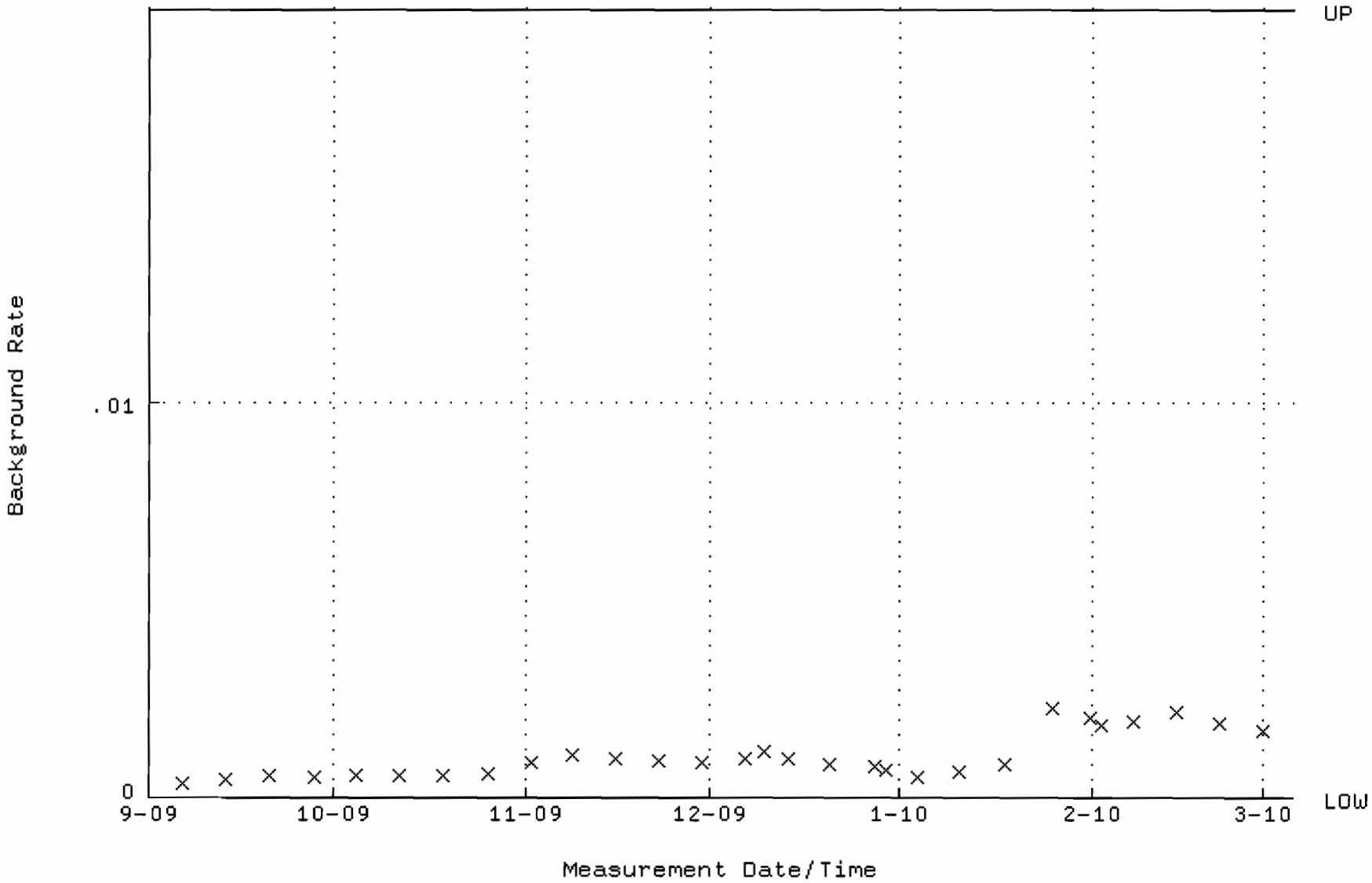

QA filename : DKA100:[ENV_ALPHA.QA.W]W022.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.305380 through 0.327376

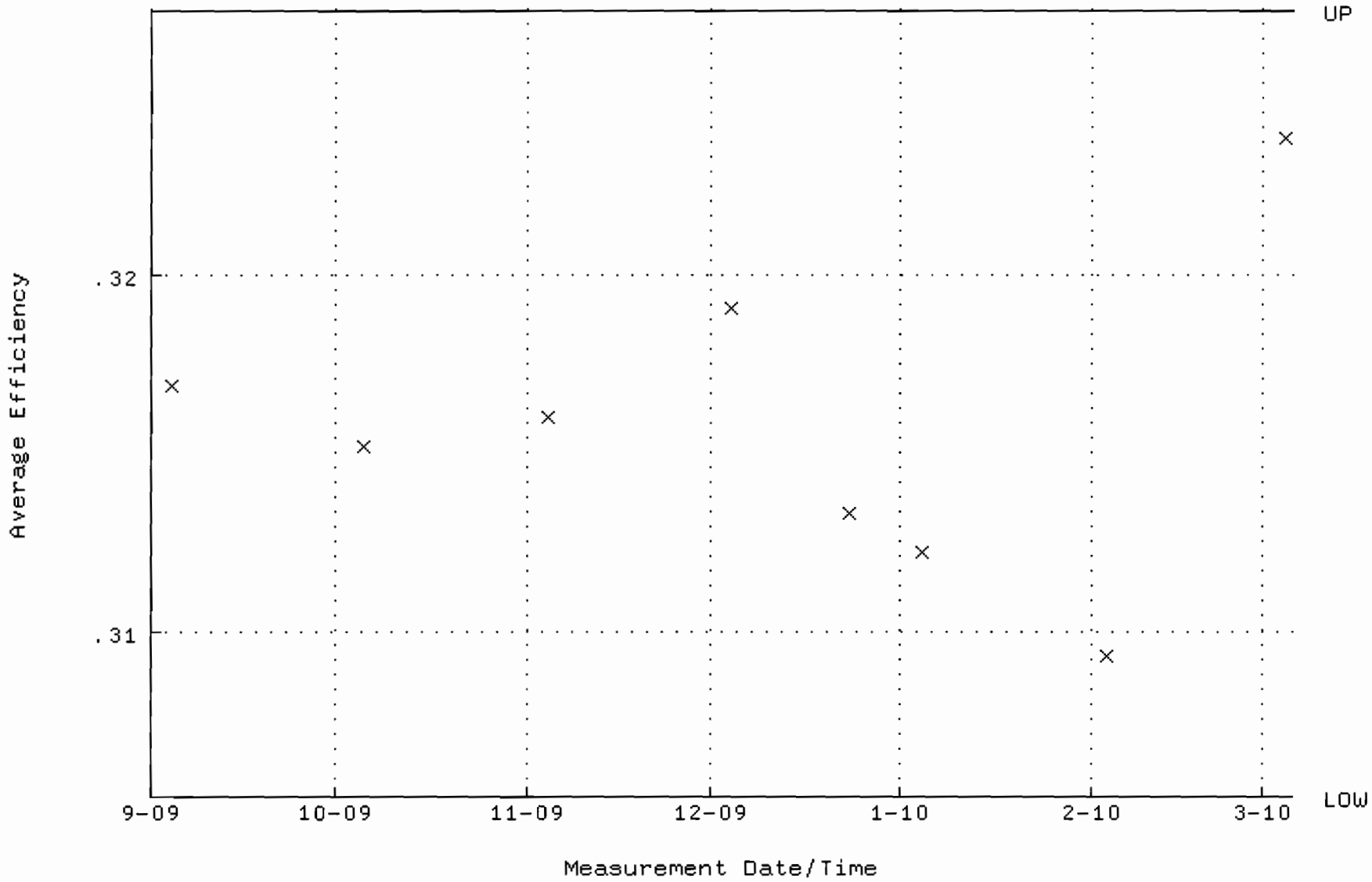

QA filename : DKA100:[ENV_ALPHA.QA.W]W022.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 89.9706 through 94.2088

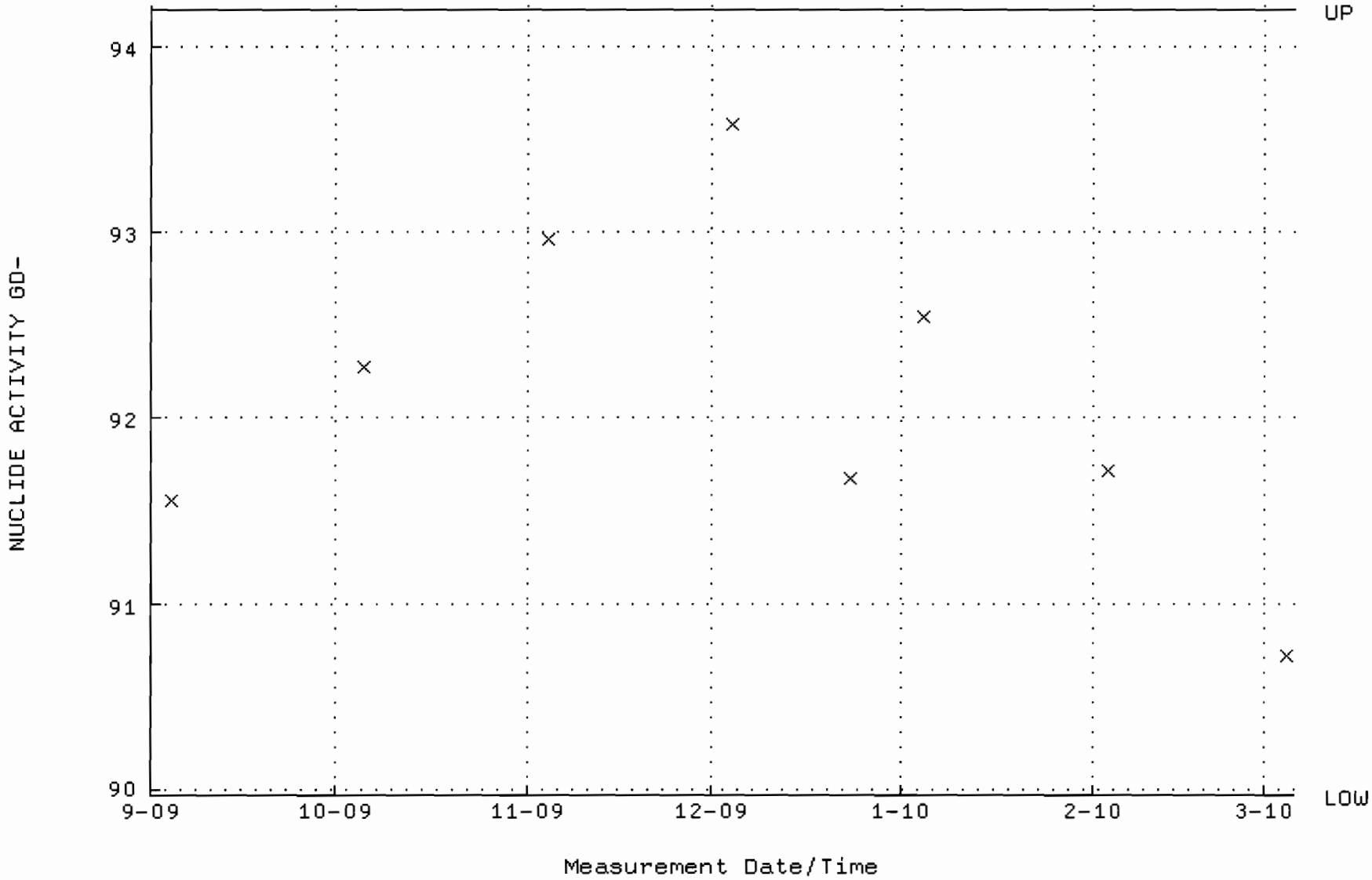

QA filename : DKA100:[ENV_ALPHA.QA.B]B022.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

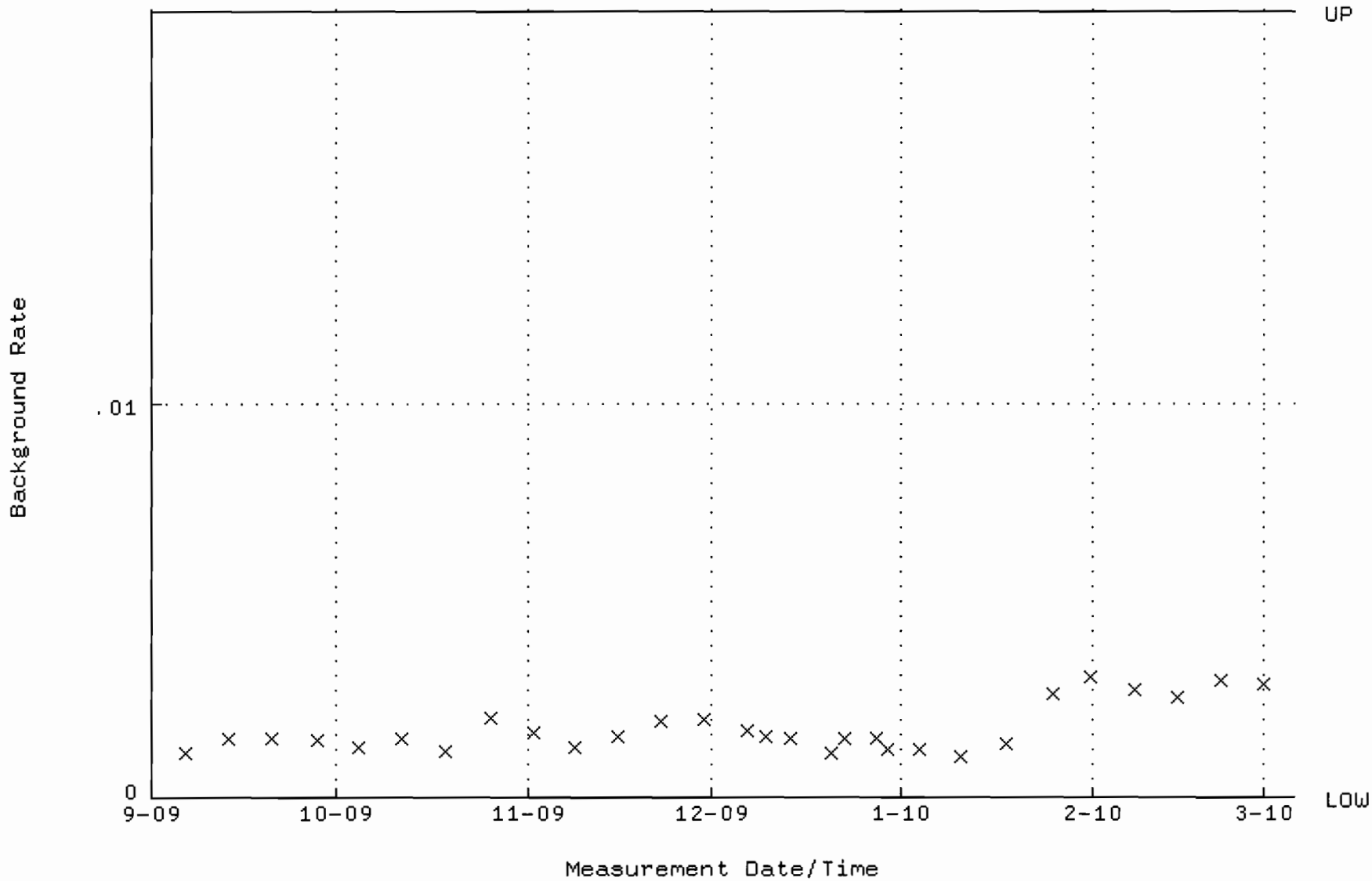

QA filename : DKA100:[ENV_ALPHA.QA.W]W023.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

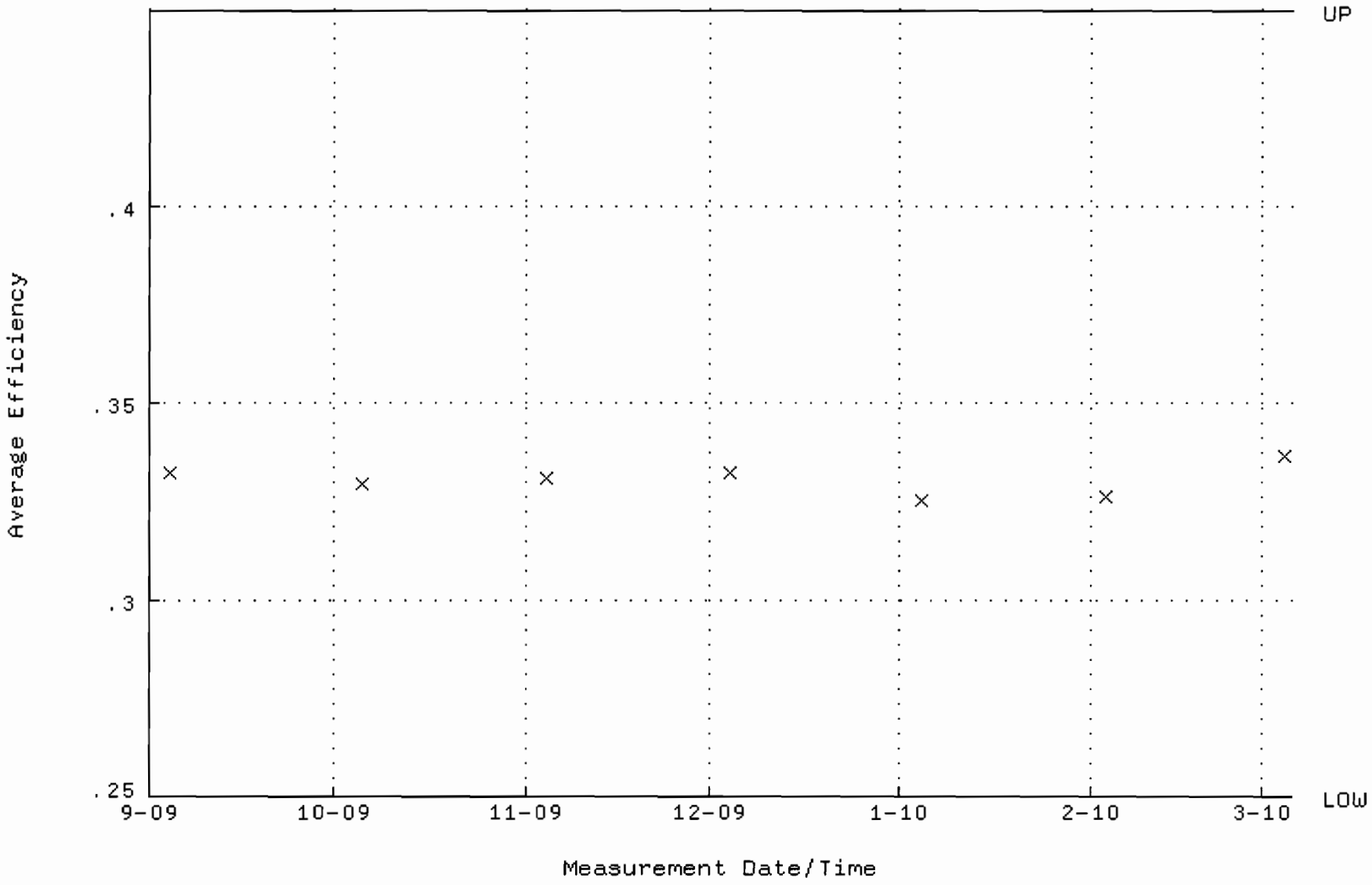

QA filename : DKA100:[ENV_ALPHA.QA.W]W023.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

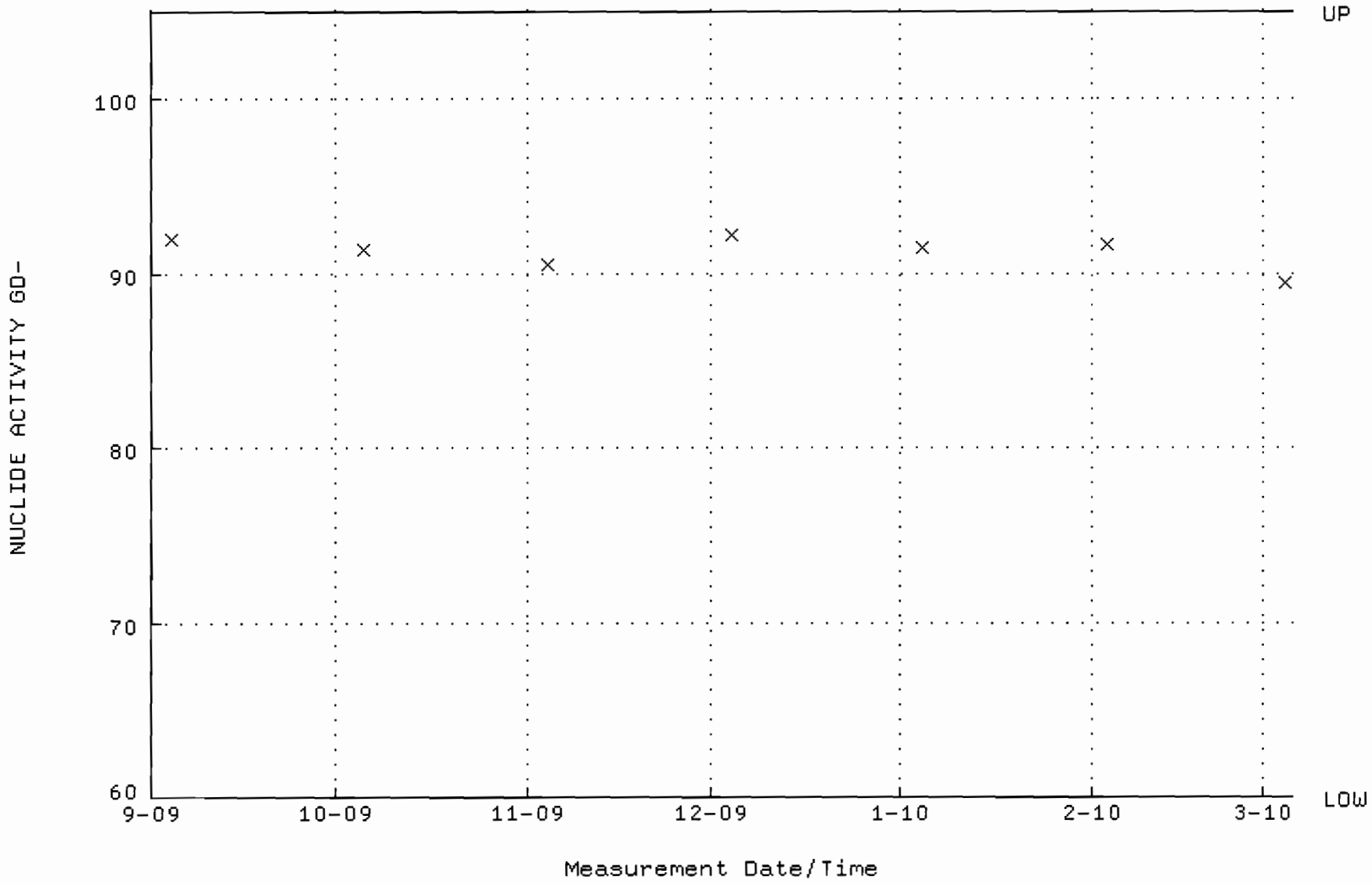

QA filename : DKA100:[ENV_ALPHA.QA.B]B023.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

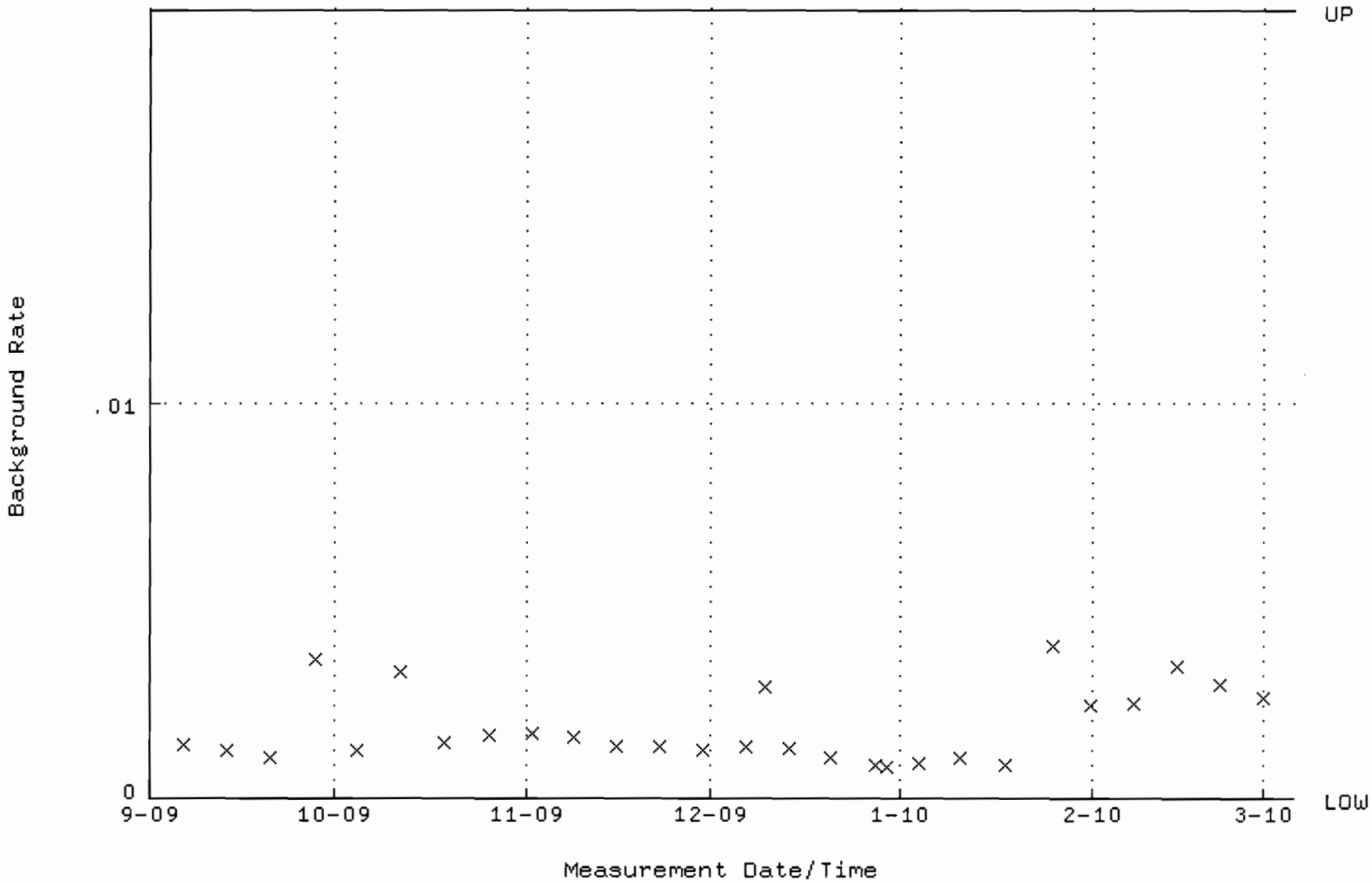

QA filename : DKA100:[ENV_ALPHA.QA.W]W024.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.314917 through 0.353325

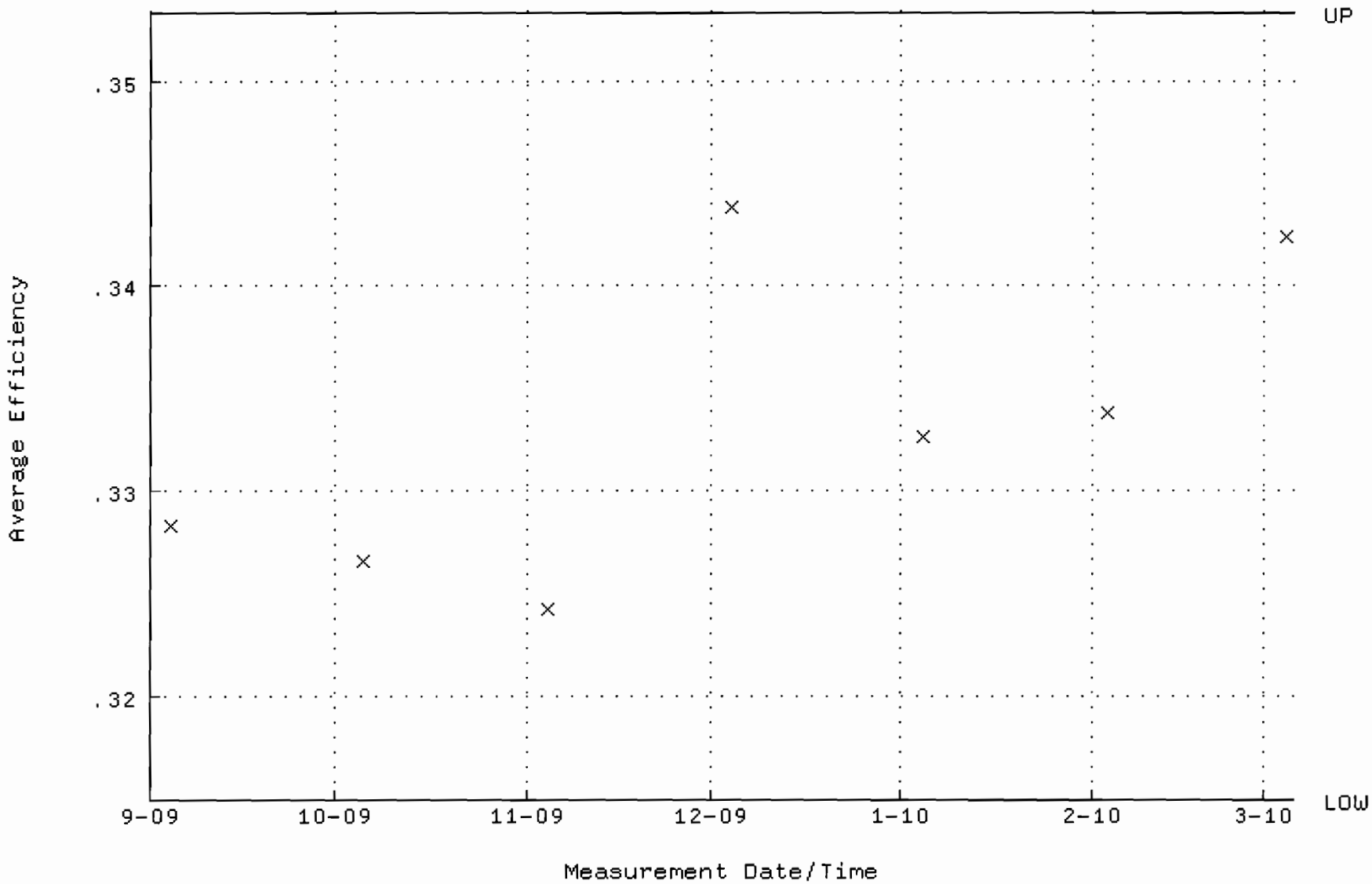

QA filename : DKA100:[ENV_ALPHA.QA.W]W024.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 85.3858 through 93.1784

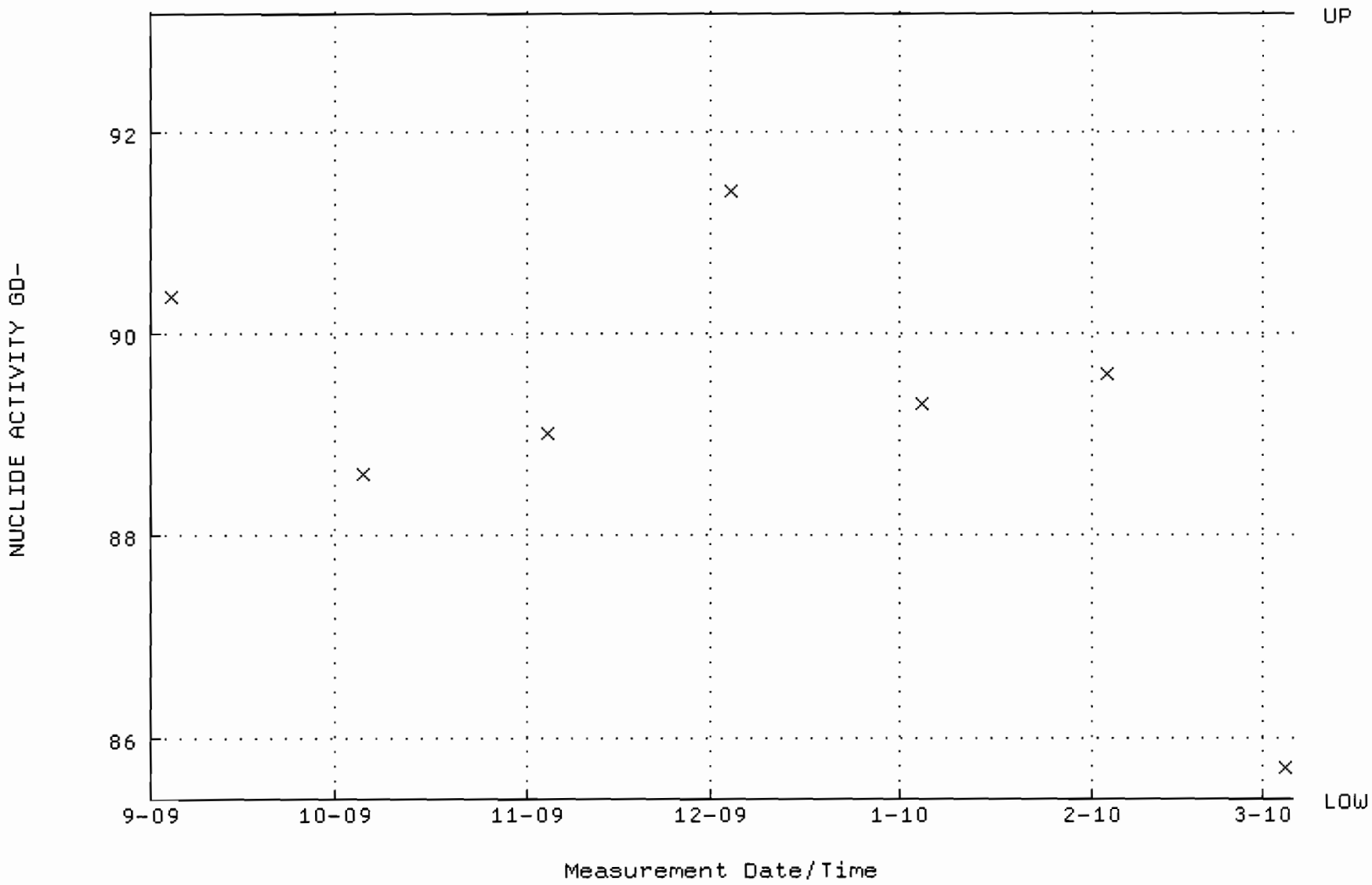

QA filename : DKA100:[ENV_ALPHA.QA.B]B024.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

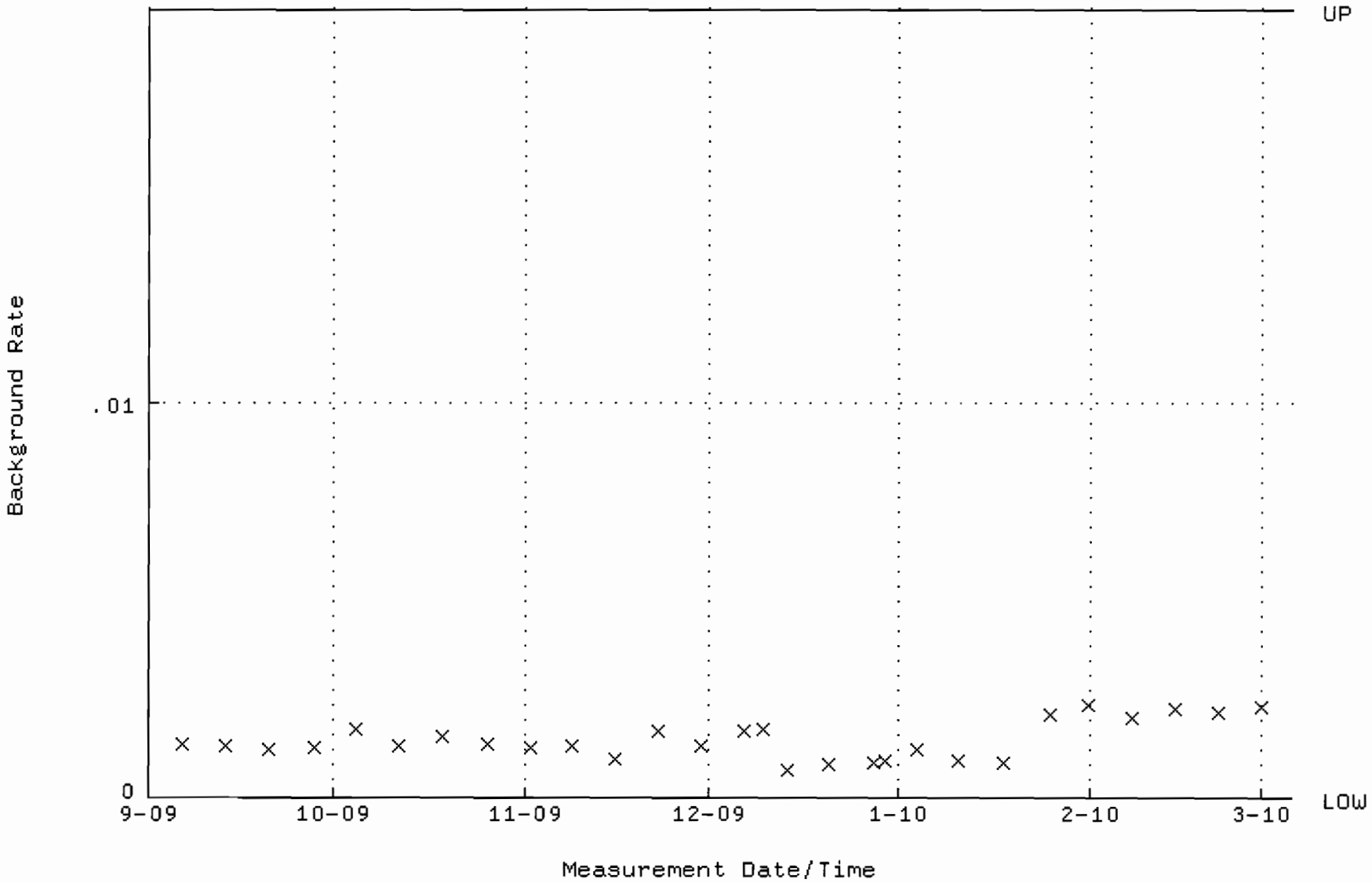

QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.287158 through 0.309794

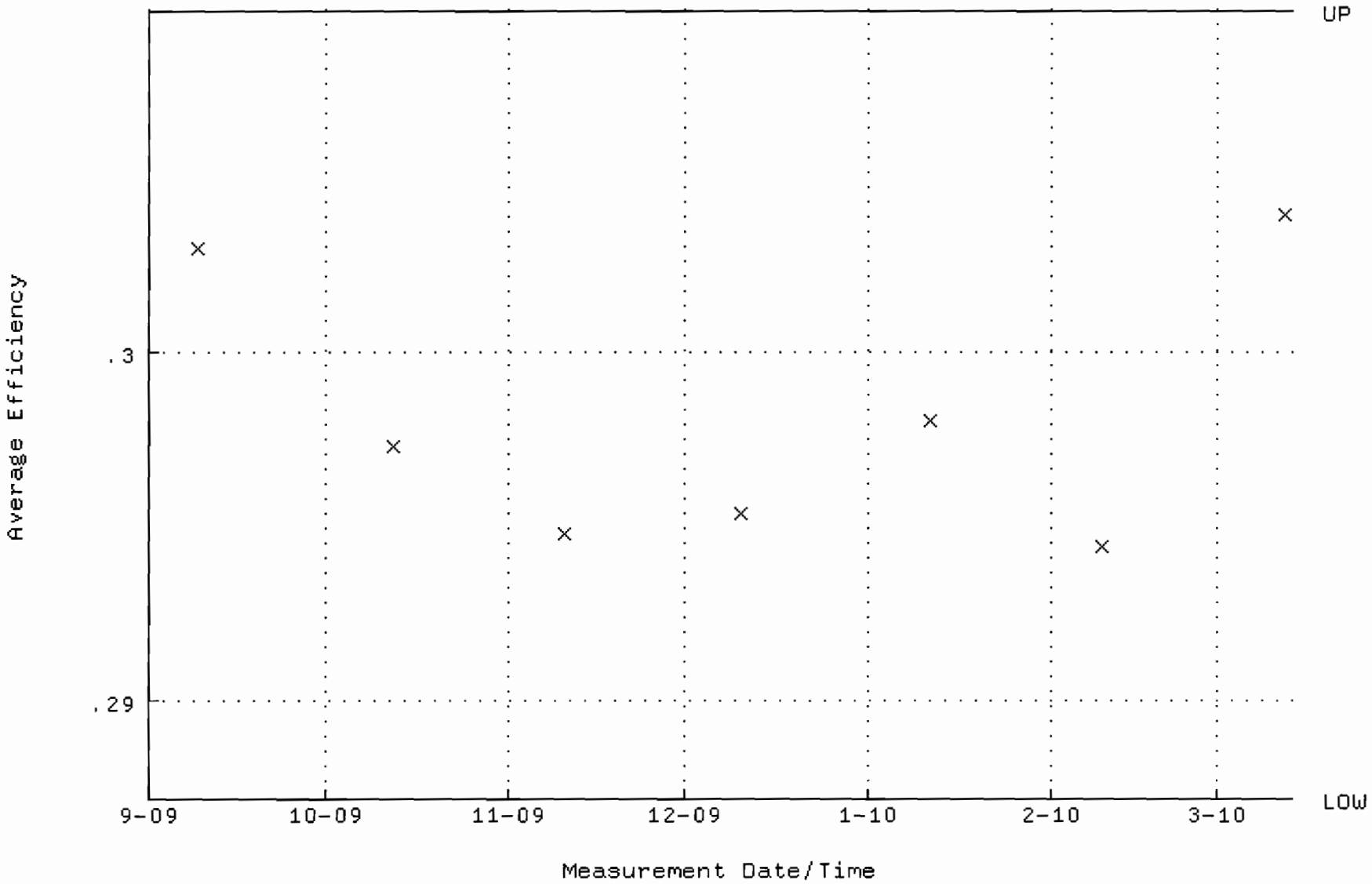

QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 89.1886 through 95.1274

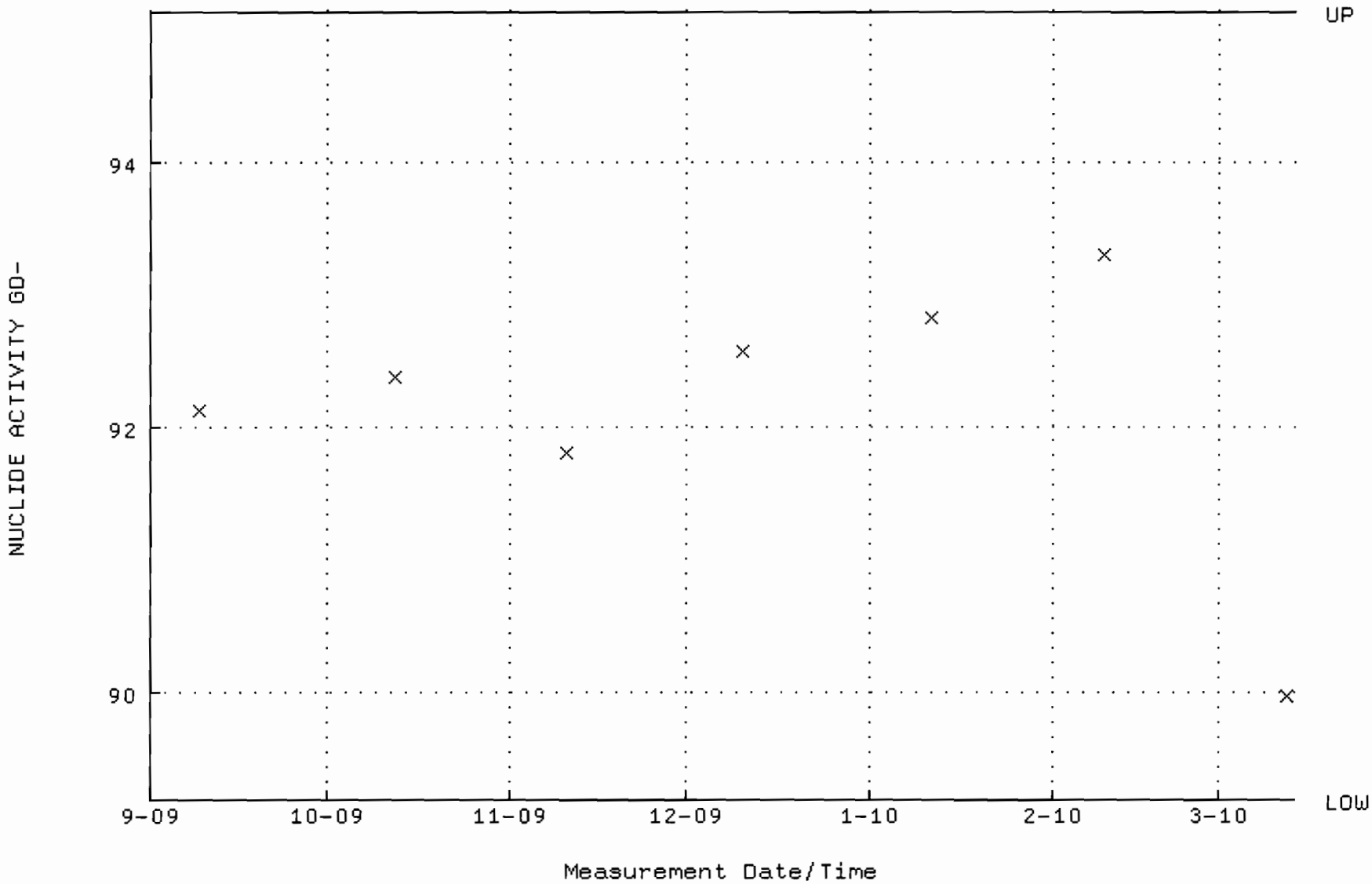

QA filename : DKA100:[ENV_ALPHA.QA.B]B086.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:09 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

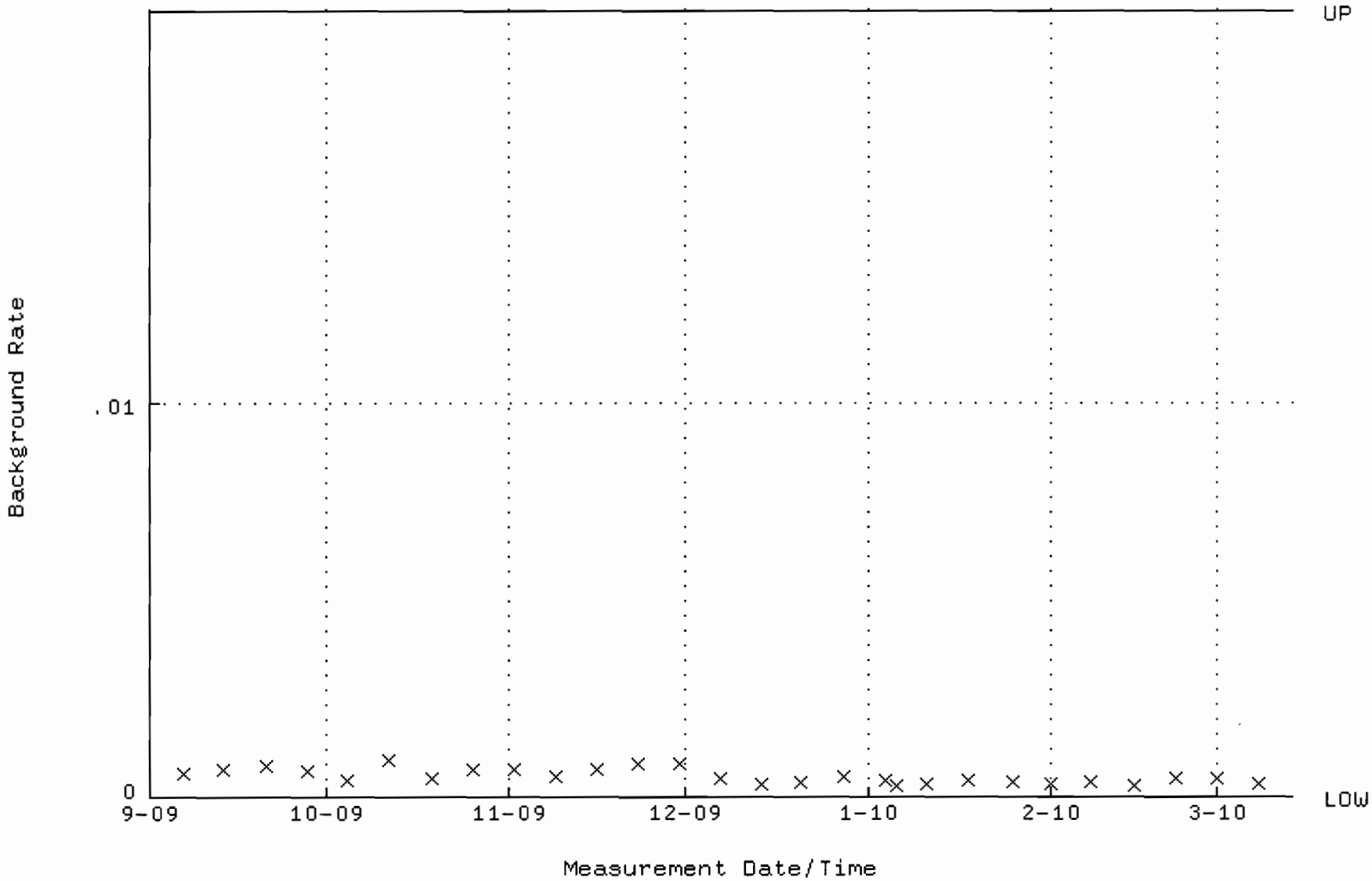

QA filename : DKA100:[ENV_ALPHA.QA.W]W087.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.300487 through 0.326465

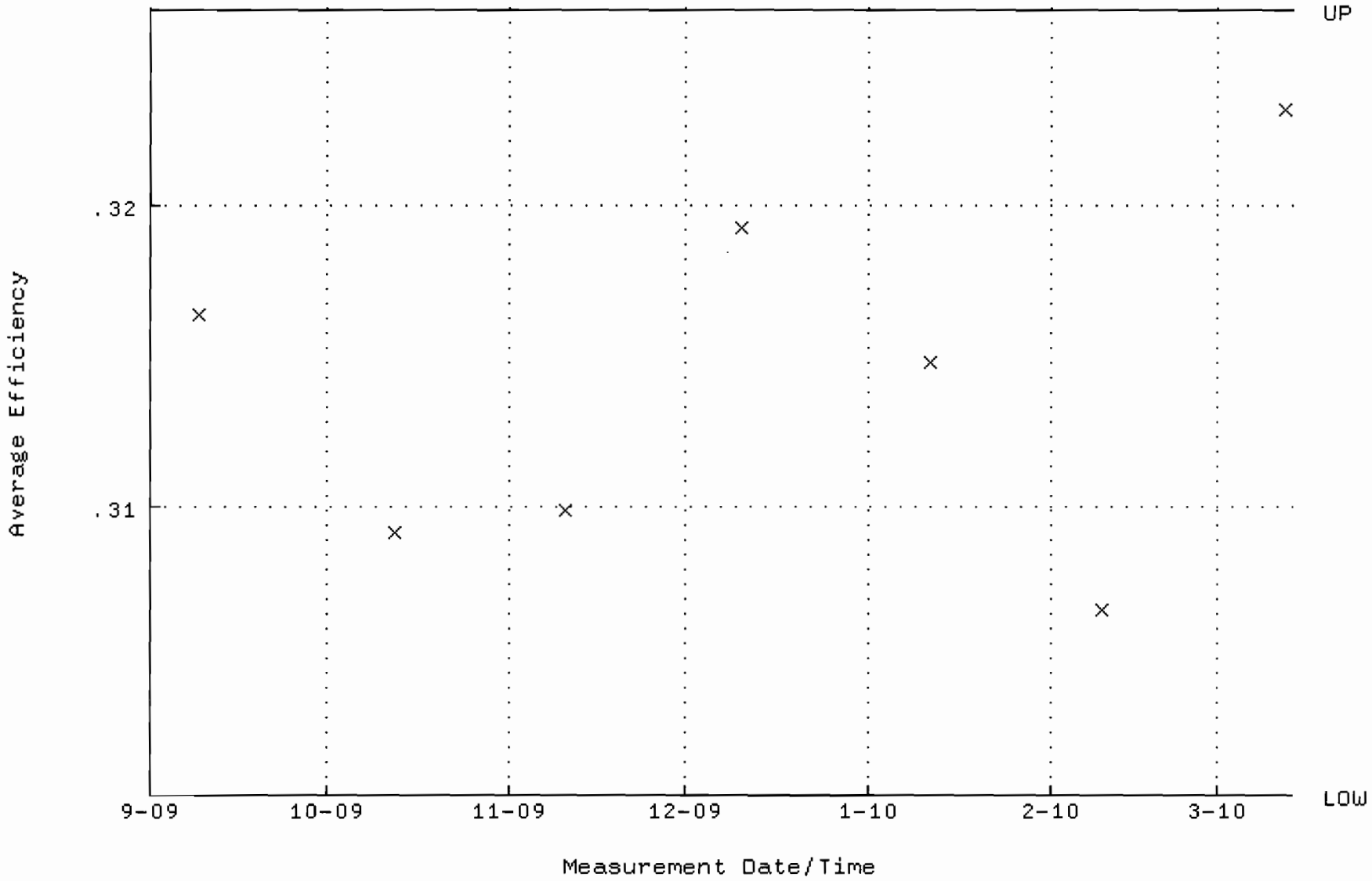

QA filename : DKA100:[ENV_ALPHA.QA.W]W087.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 89.7763 through 93.5625

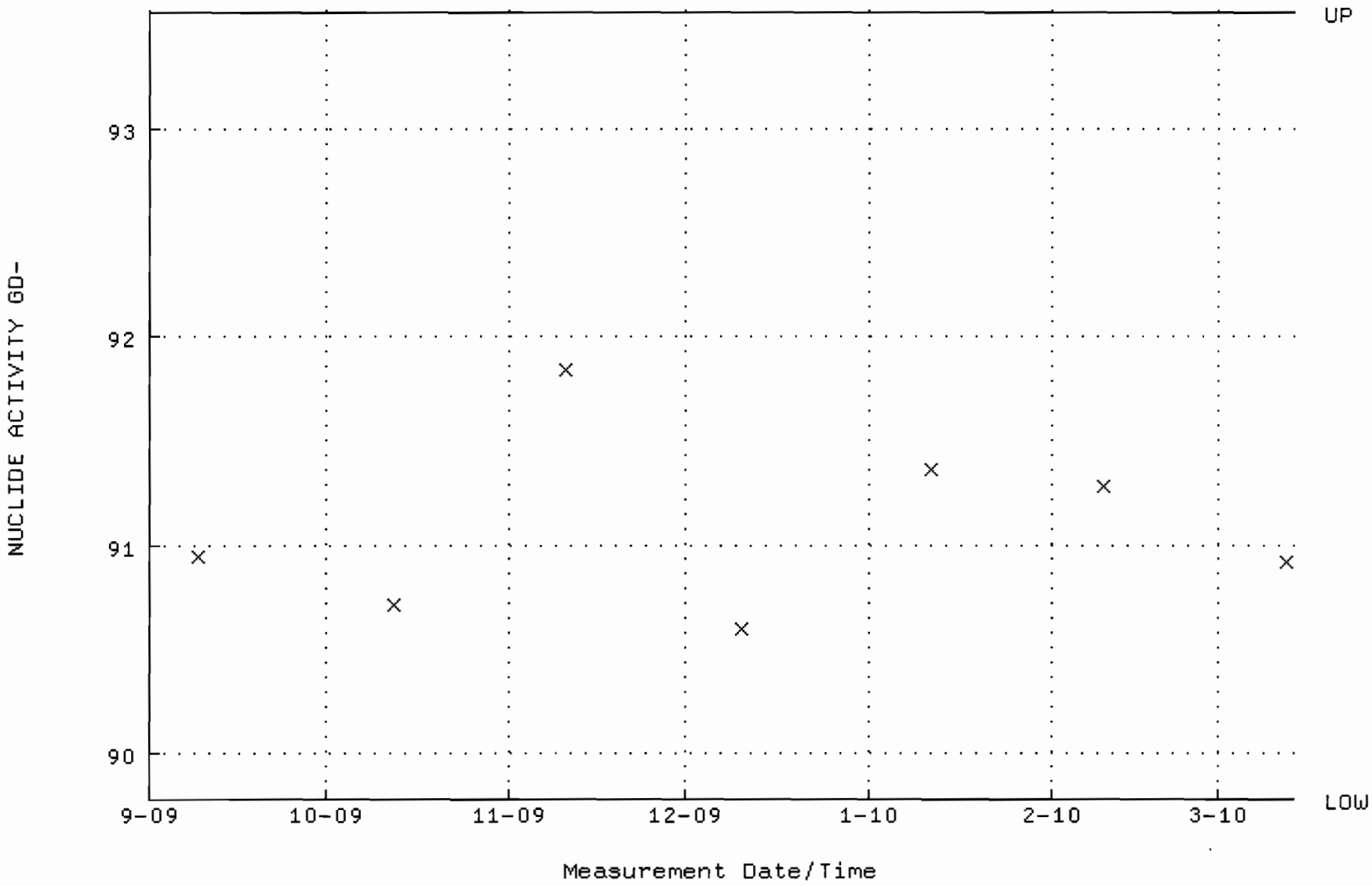

QA filename : DKA100:[ENV_ALPHA.QA.B]B087.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:09 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

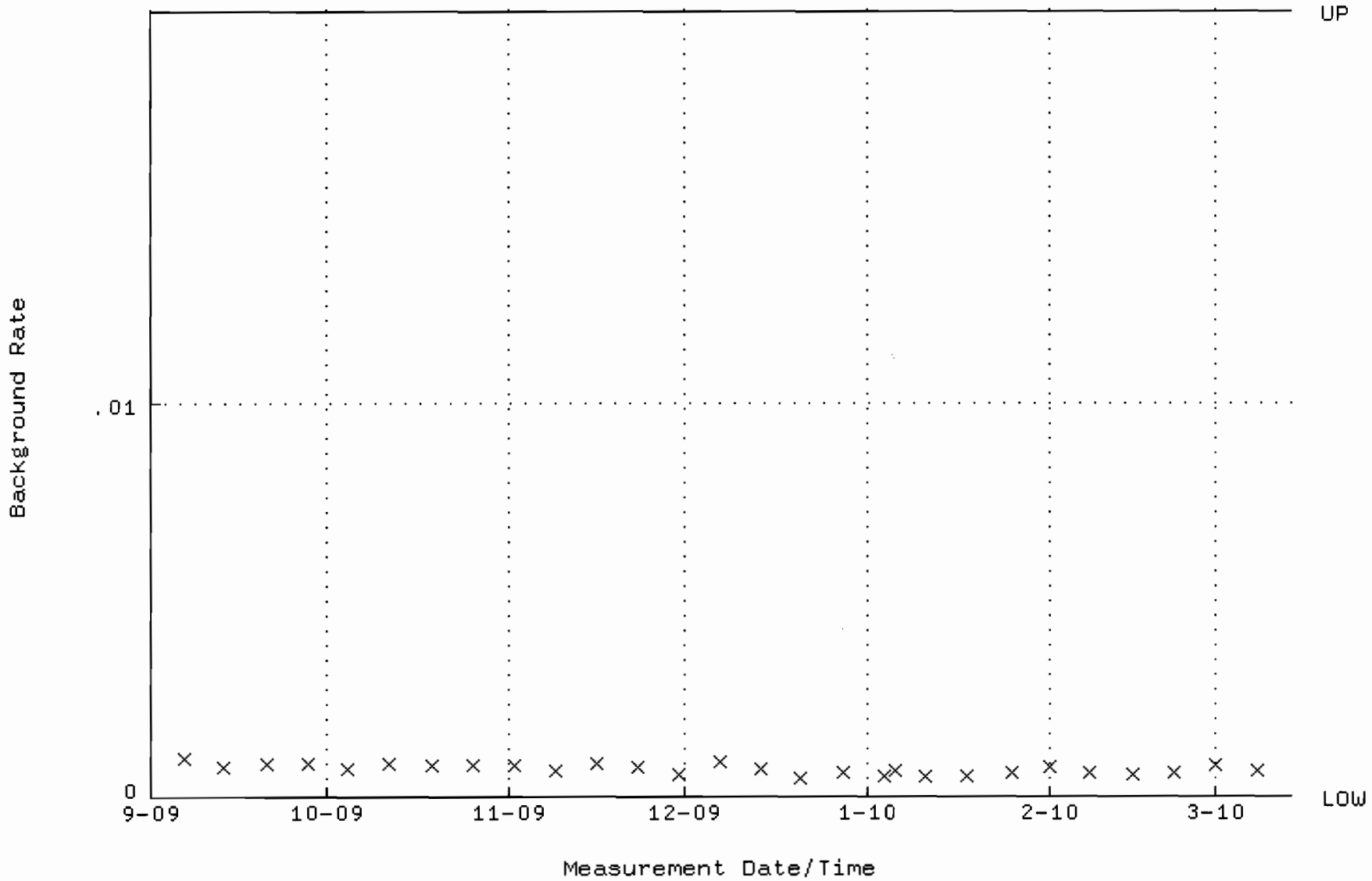

QA filename : DKA100:[ENV_ALPHA.QA.W]W116.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:22:54 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.249691 through 0.269691

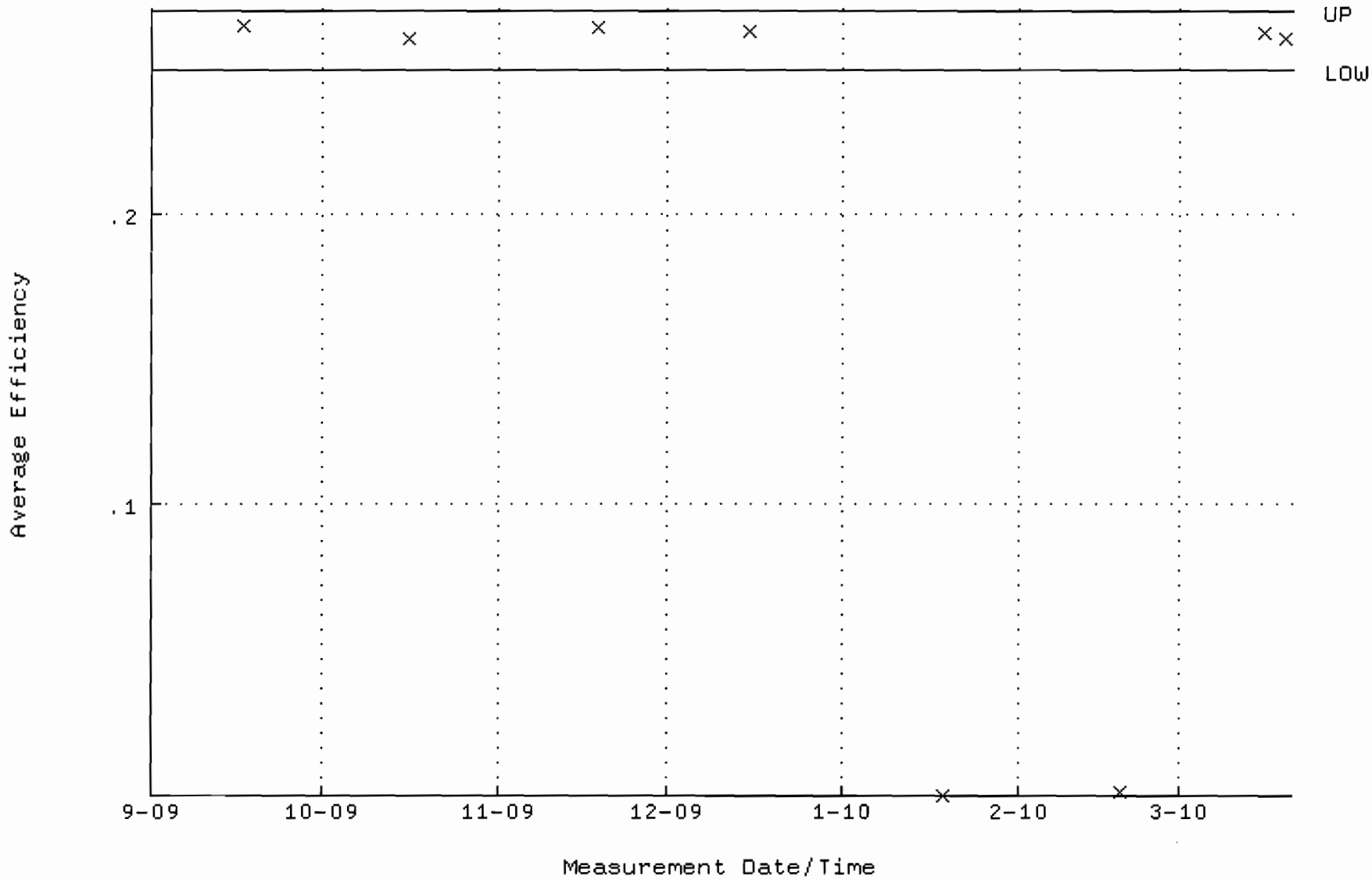

QA filename : DKA100:[ENV_ALPHA.QA.W]W116.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:22:54 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 84.7644 through 93.6870

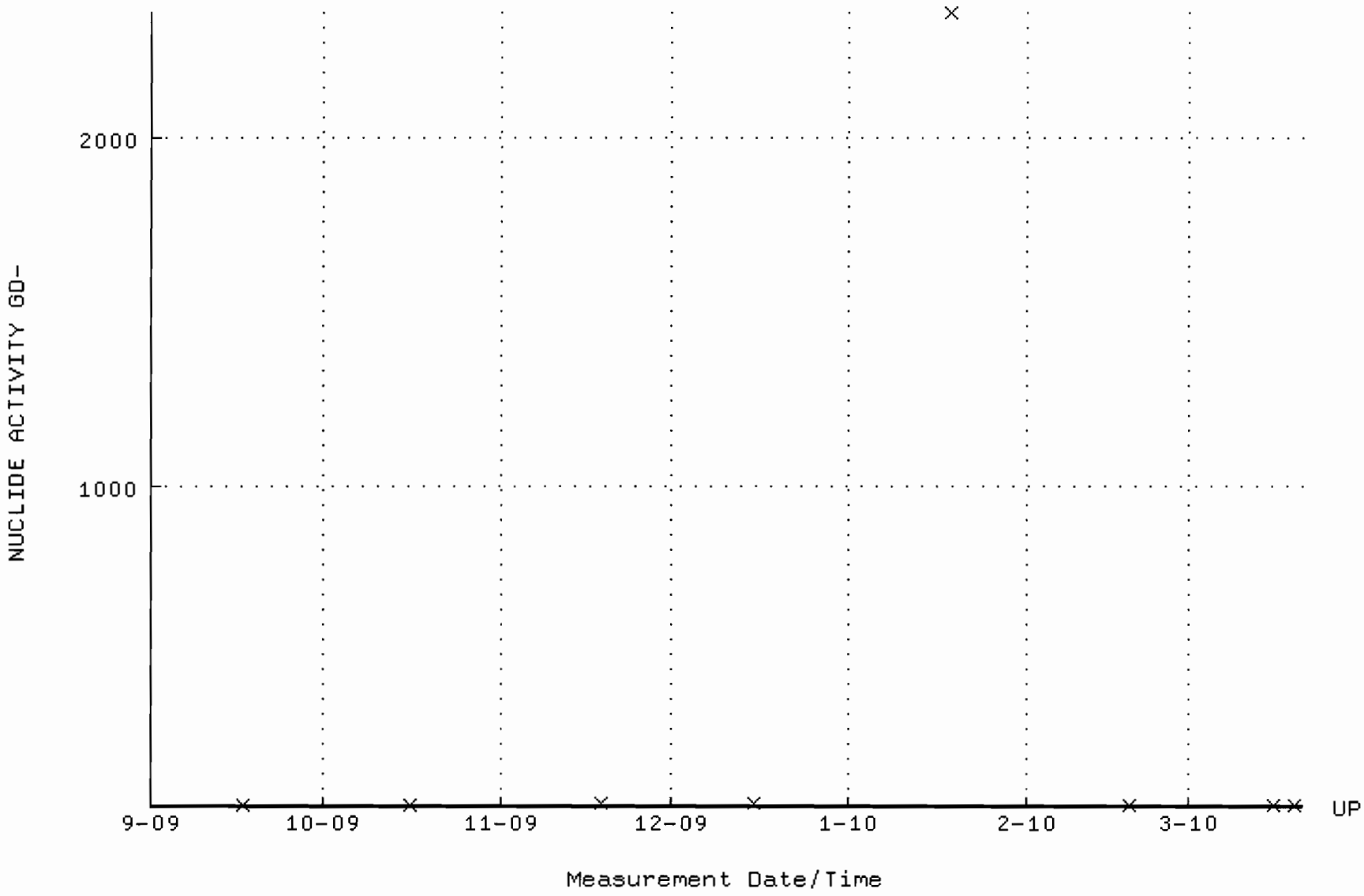

QA filename : DKA100:[ENV_ALPHA.QA.B]B116.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:21 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

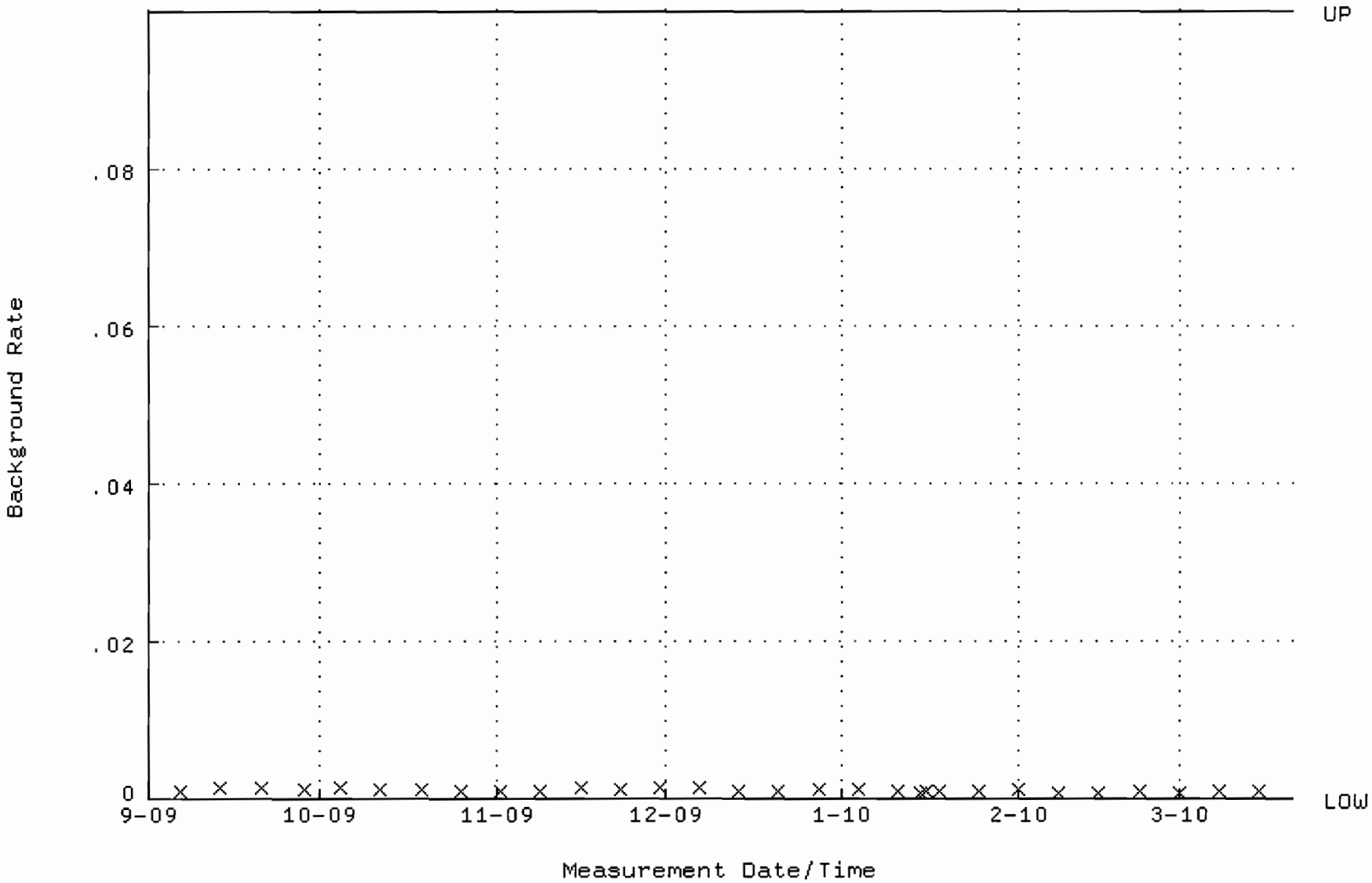

QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:21 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.259560 through 0.269146

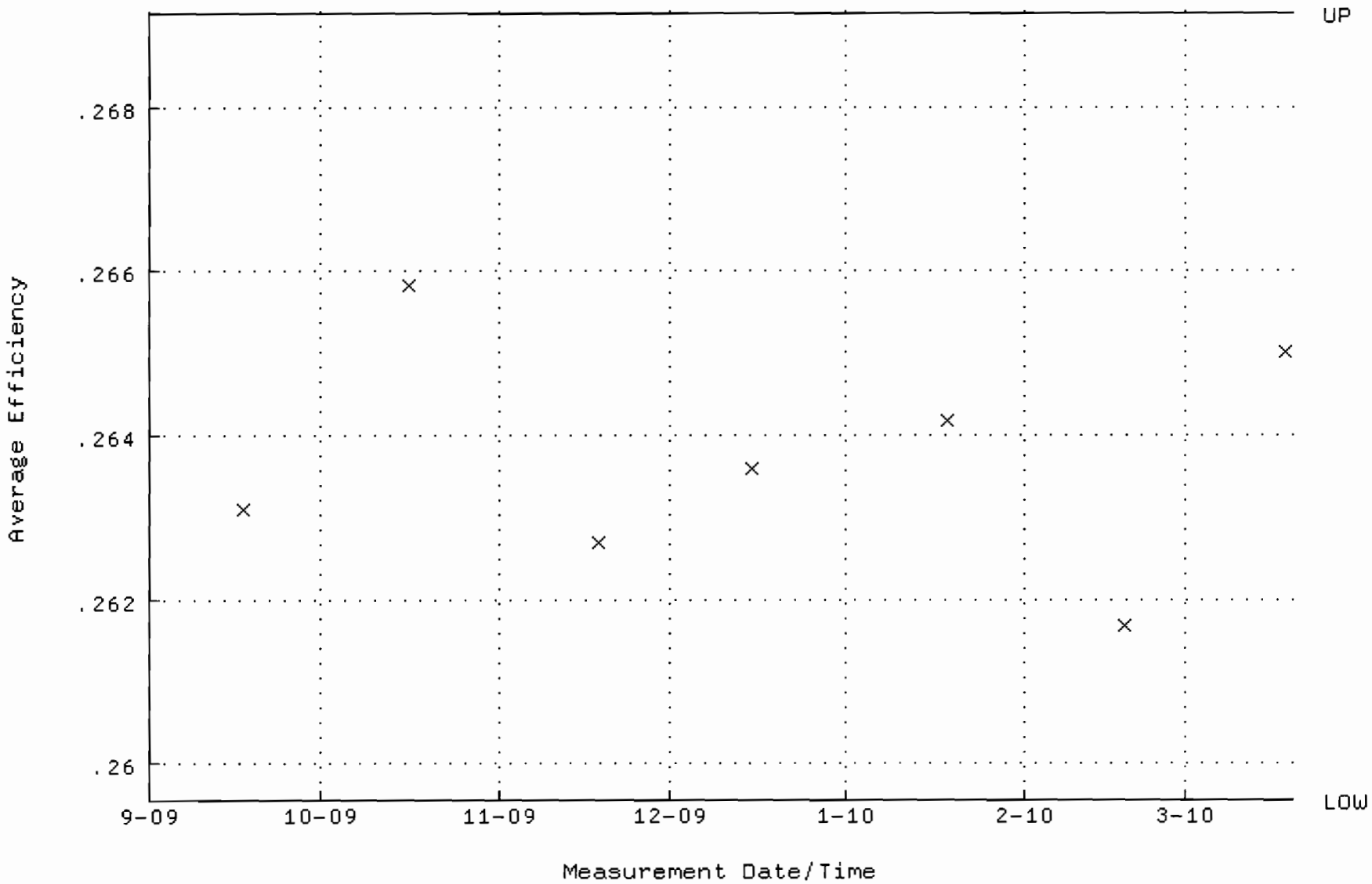

QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:21 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 89.1401 through 92.8201

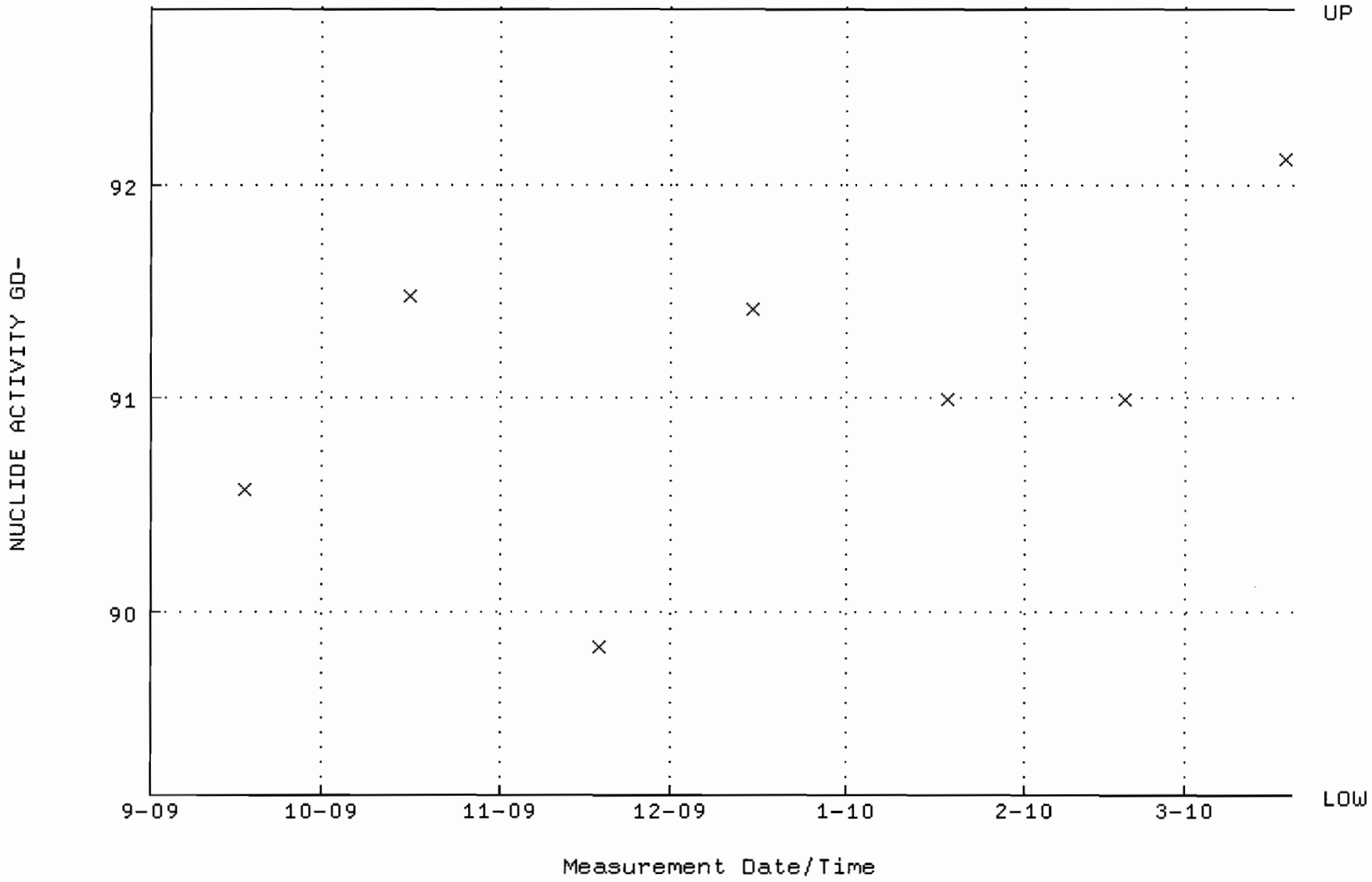

QA filename : DKA100:[ENV_ALPHA.QA.B]B129.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:19 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

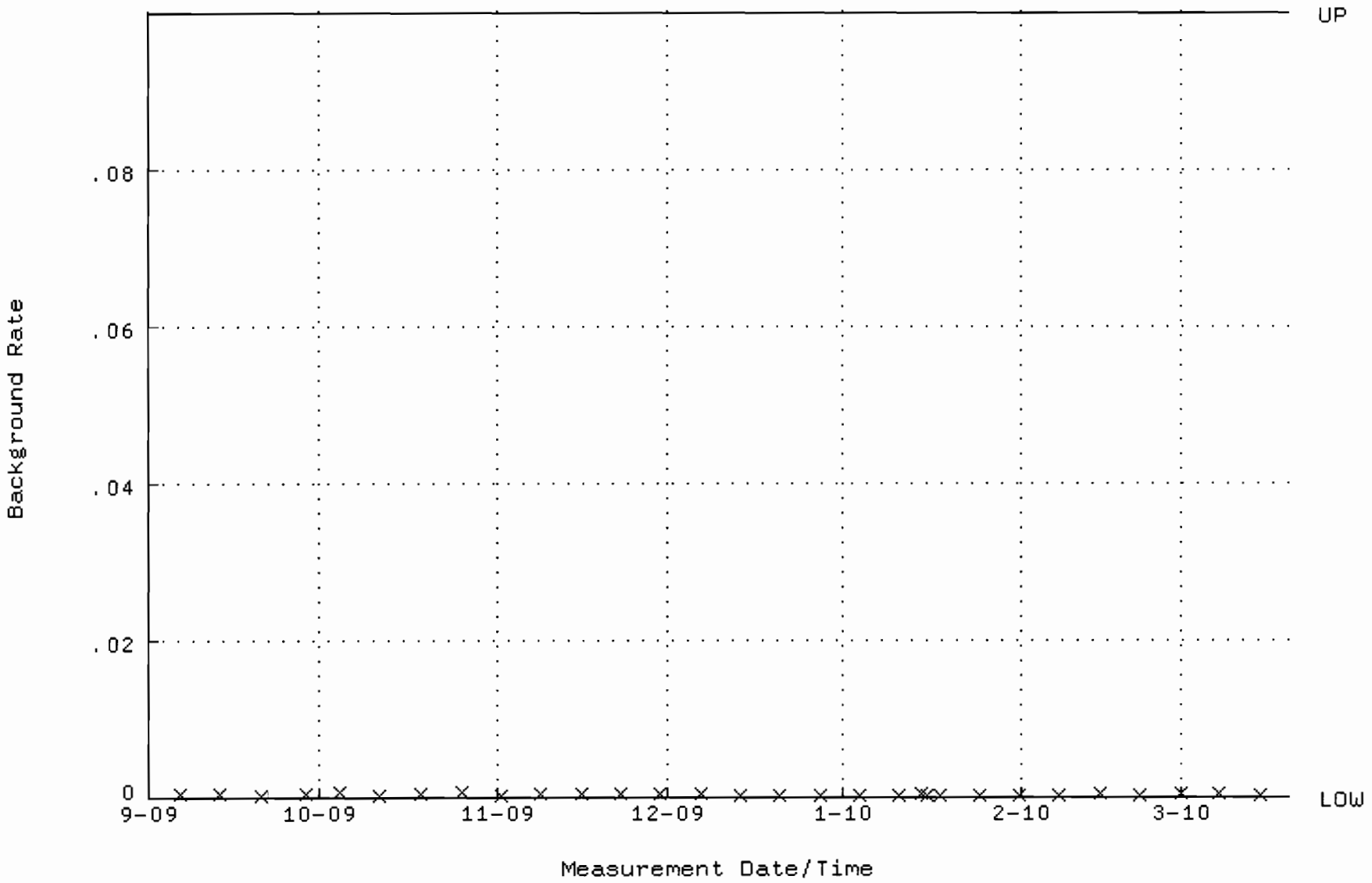

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:25 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.235120 through 0.263192

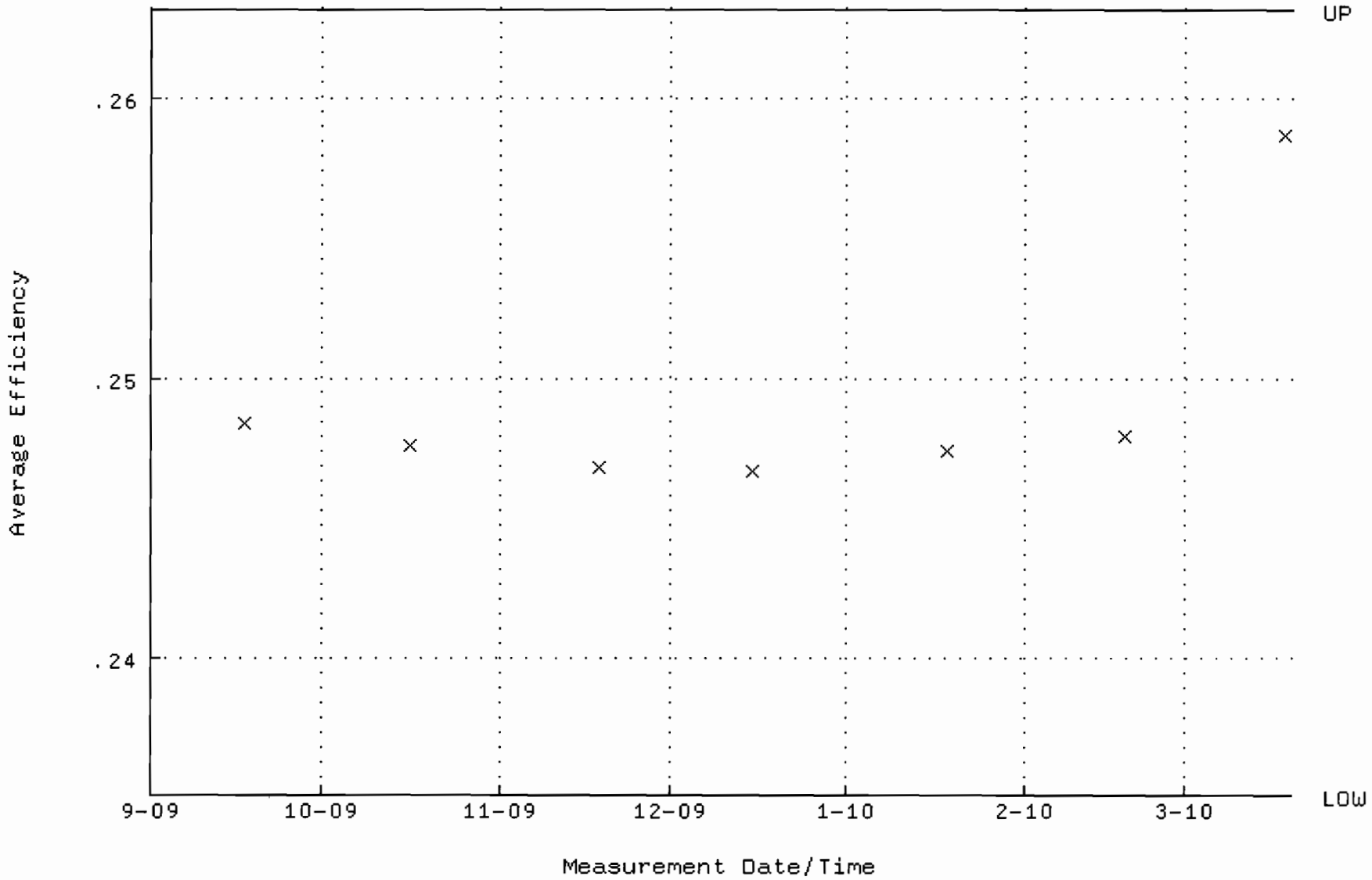

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:25 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 86.8592 through 96.7952

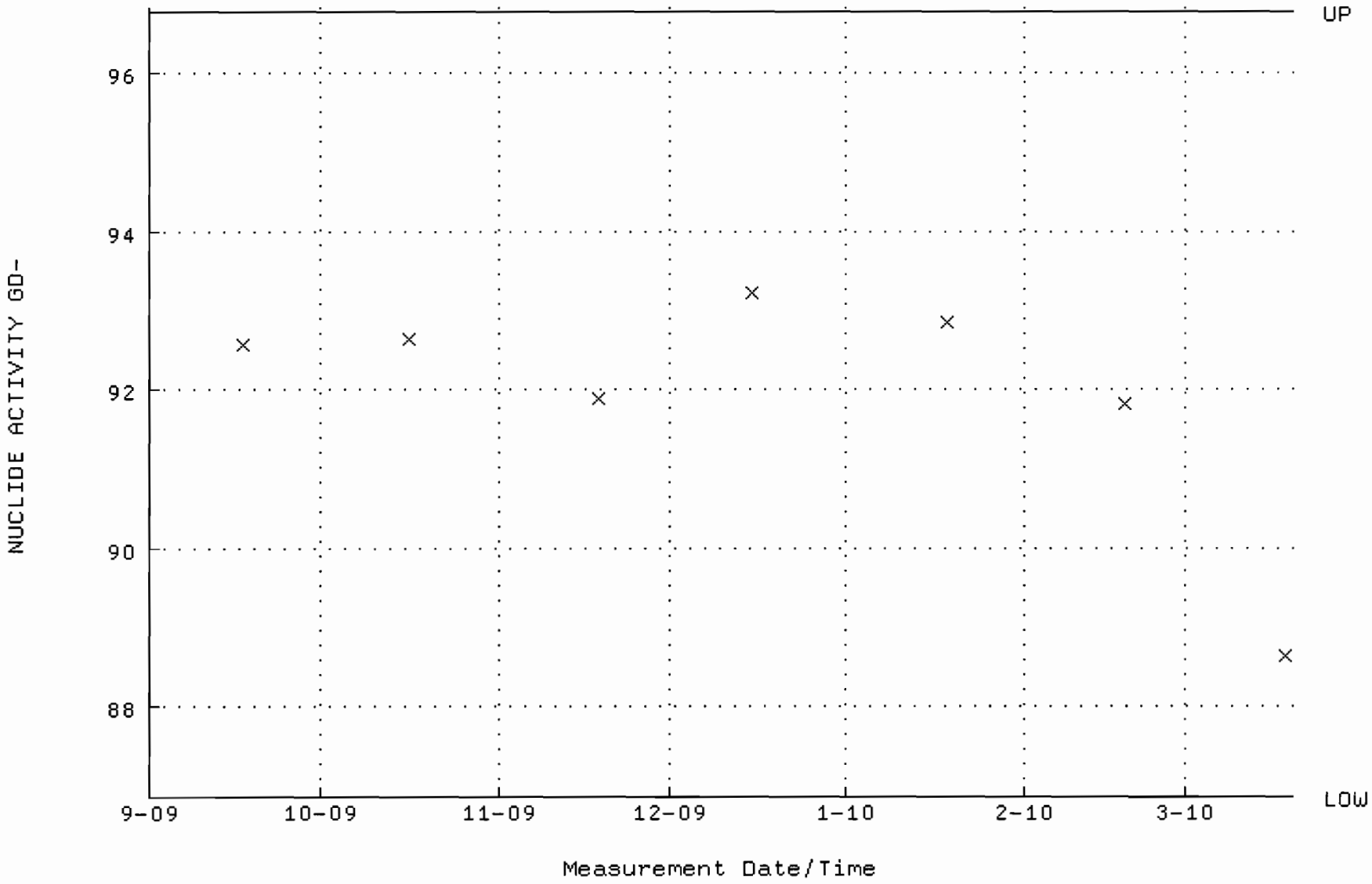

QA filename : DKA100:[ENV_ALPHA.QA.B]B130.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:24 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

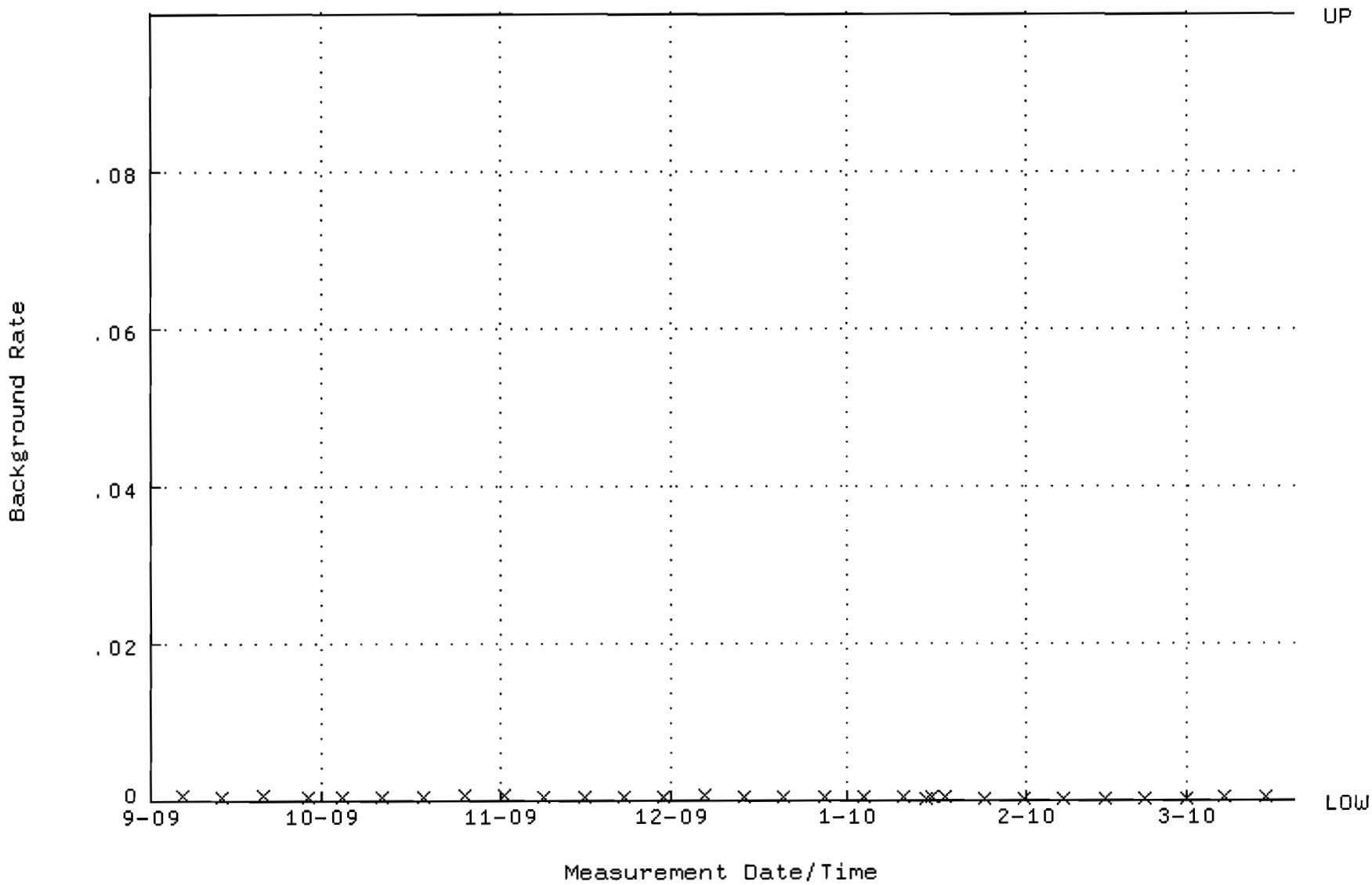

QA filename : DKA100:[ENV_ALPHA.QA.W]W131.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:30 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.251694 through 0.260714

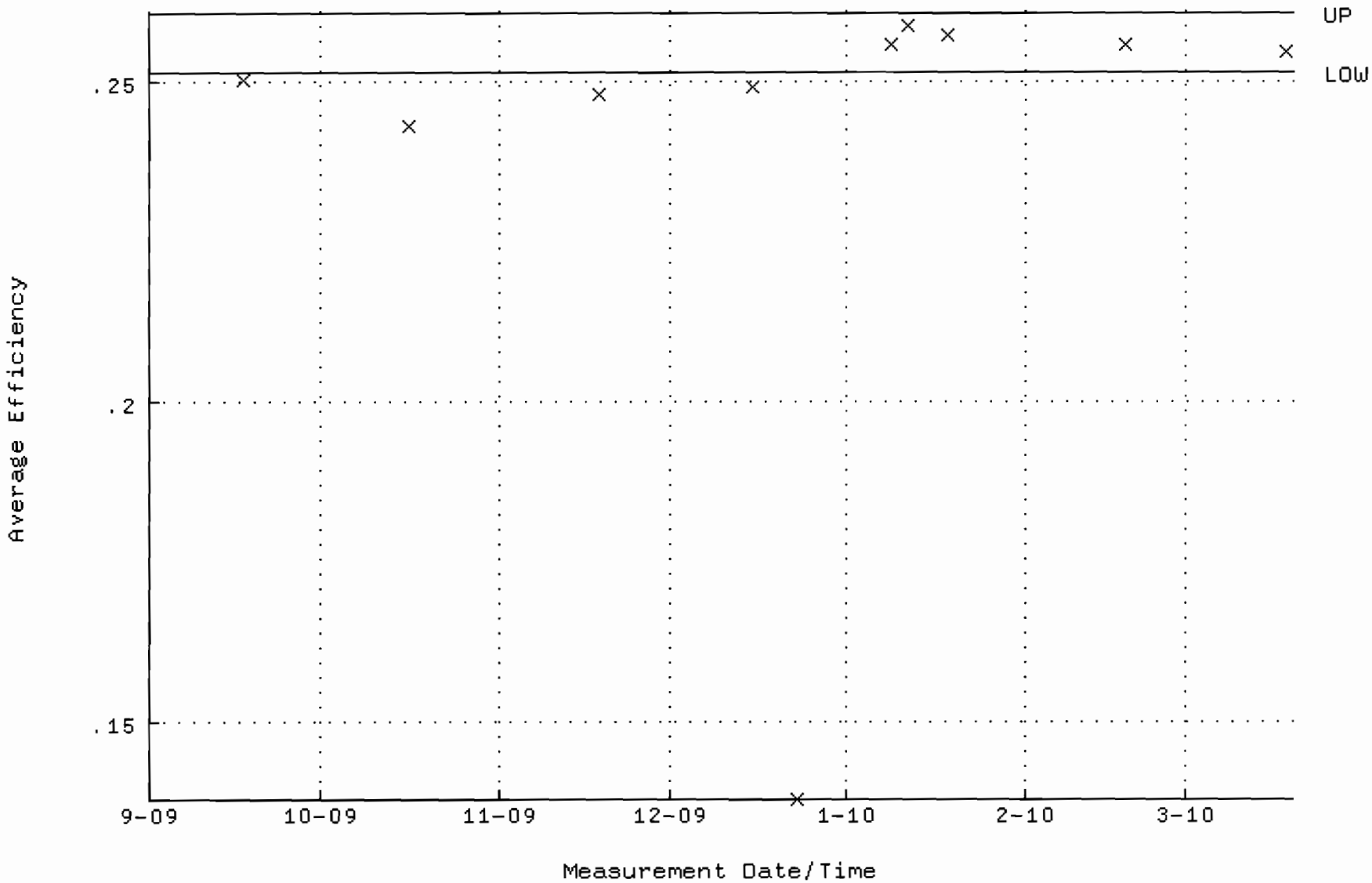

QA filename : DKA100:[ENV_ALPHA.QA.W]W131.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:30 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 88.4061 through 94.3891

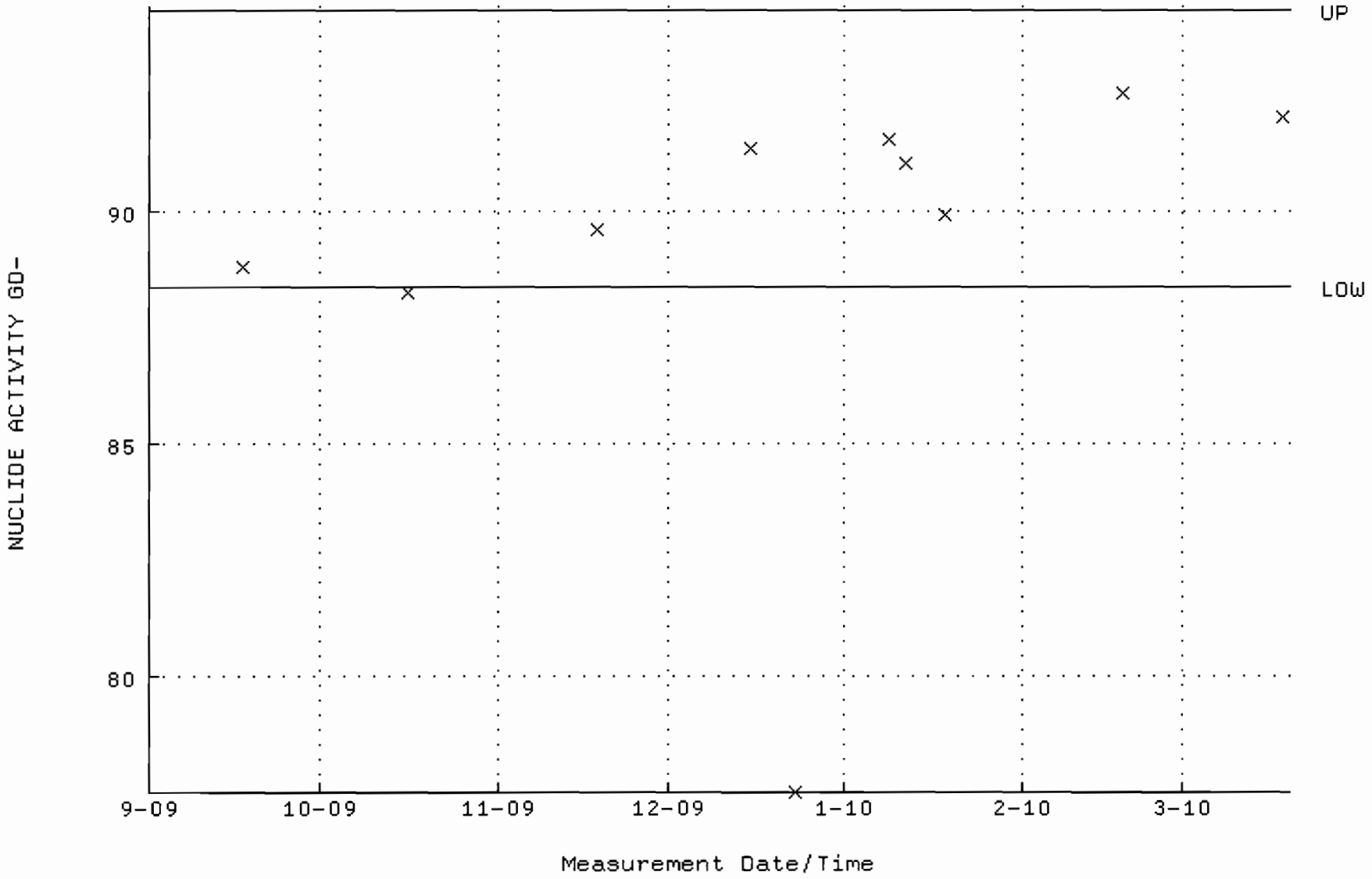

QA filename : DKA100:[ENV_ALPHA.QA.B]B131.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:28 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

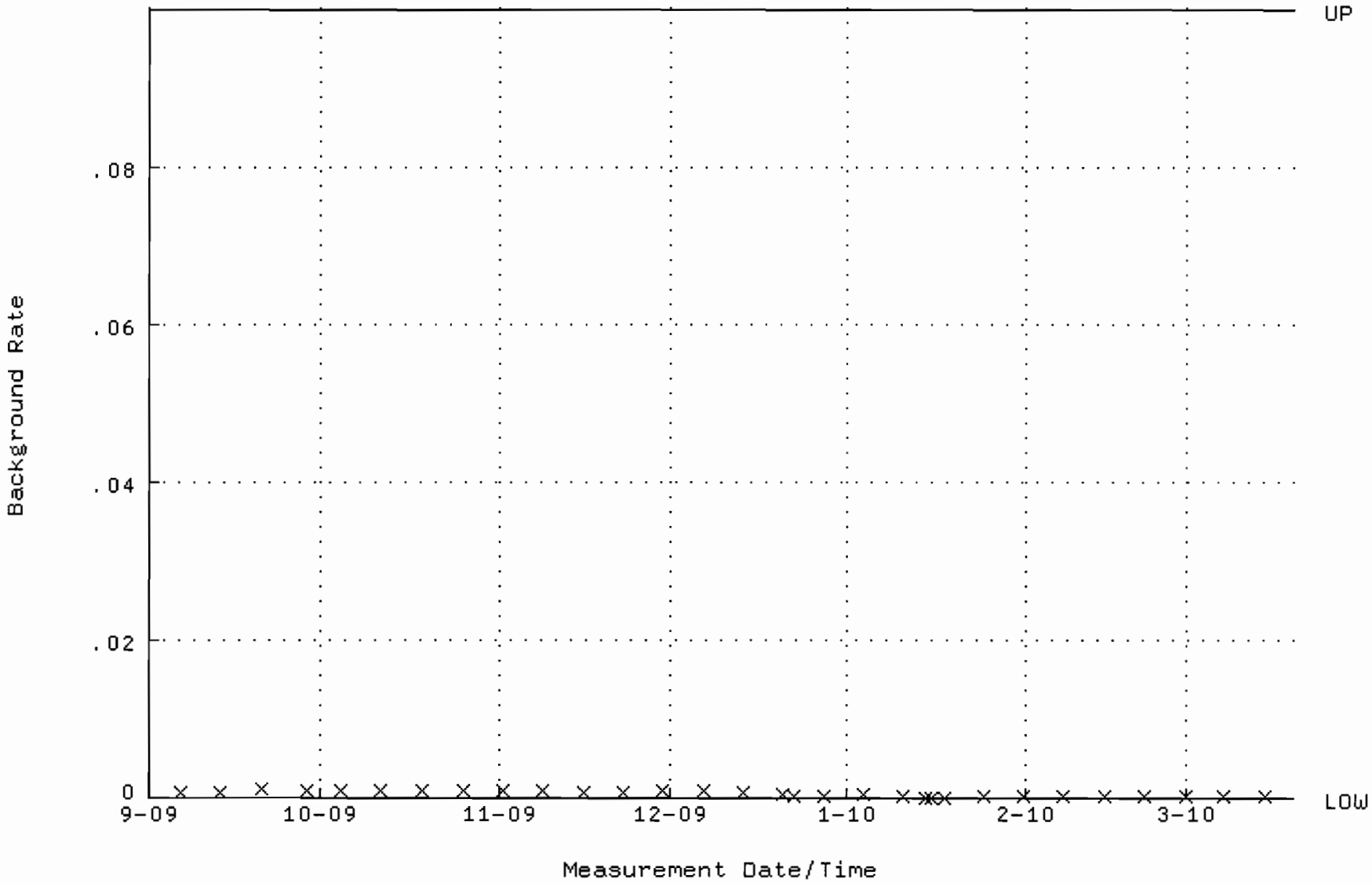

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:36 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.233719 through 0.270221

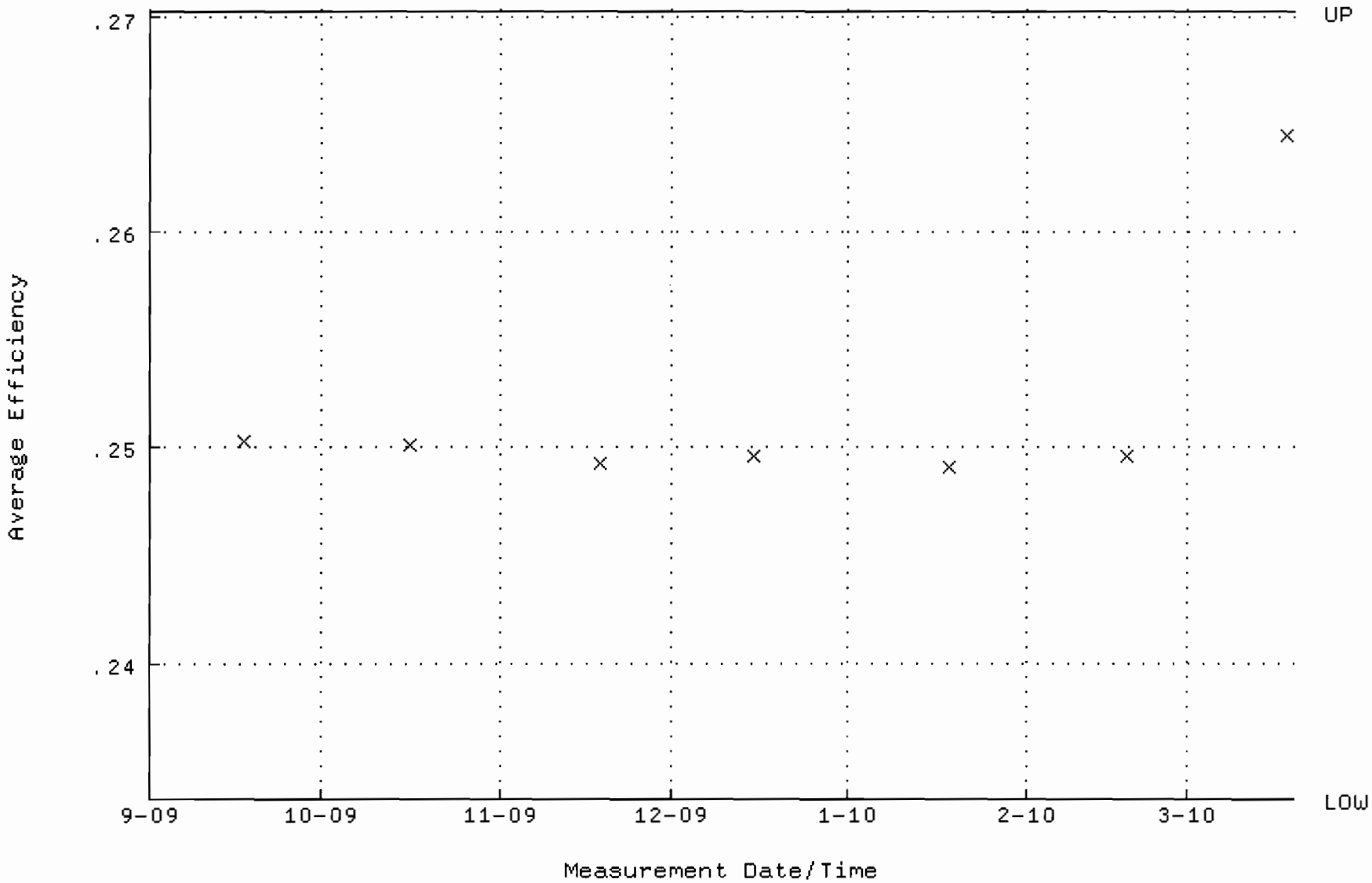

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:36 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 88.2311 through 95.5107

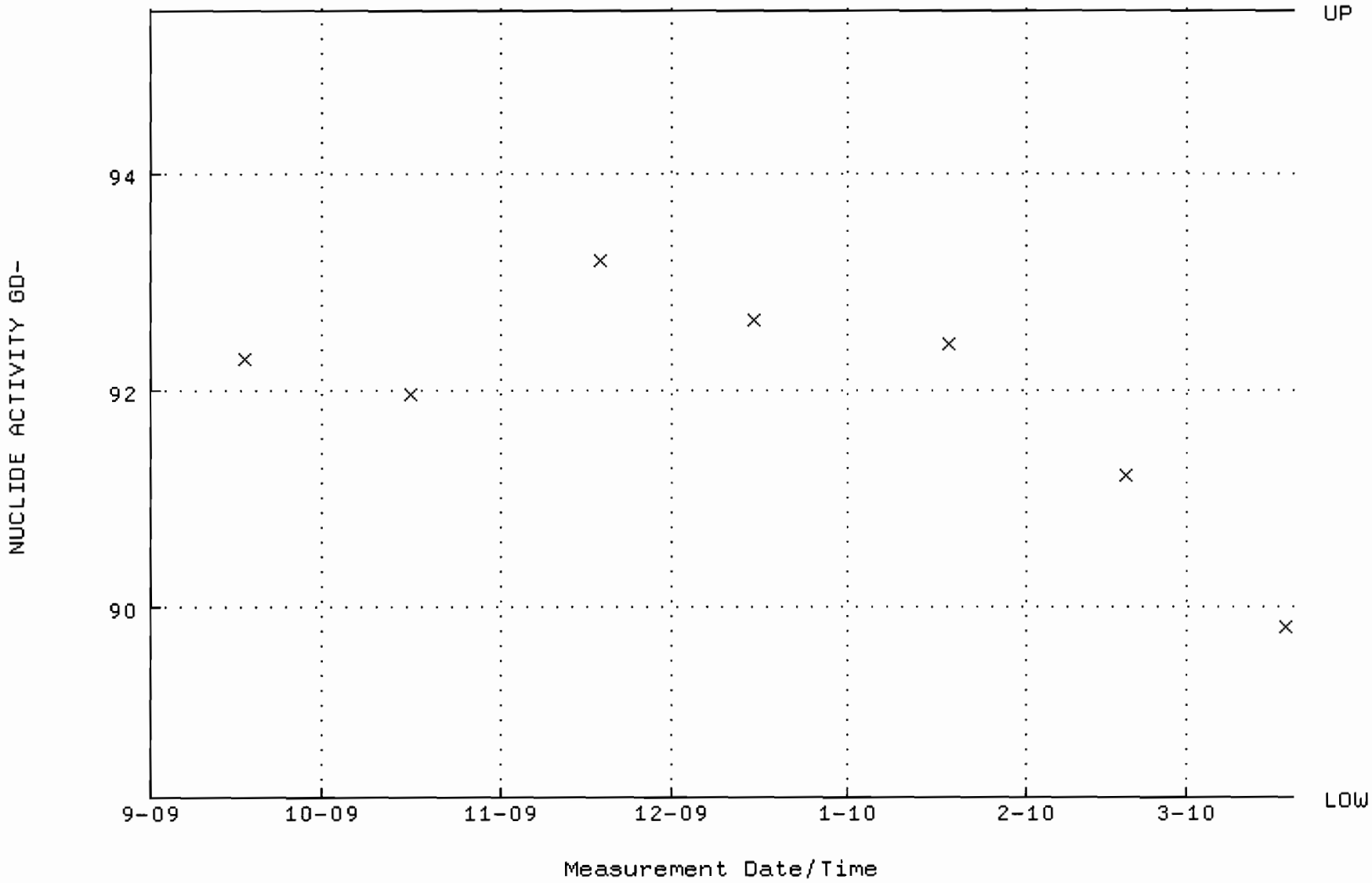

QA filename : DKA100:[ENV_ALPHA.QA.B]B132.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:32 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

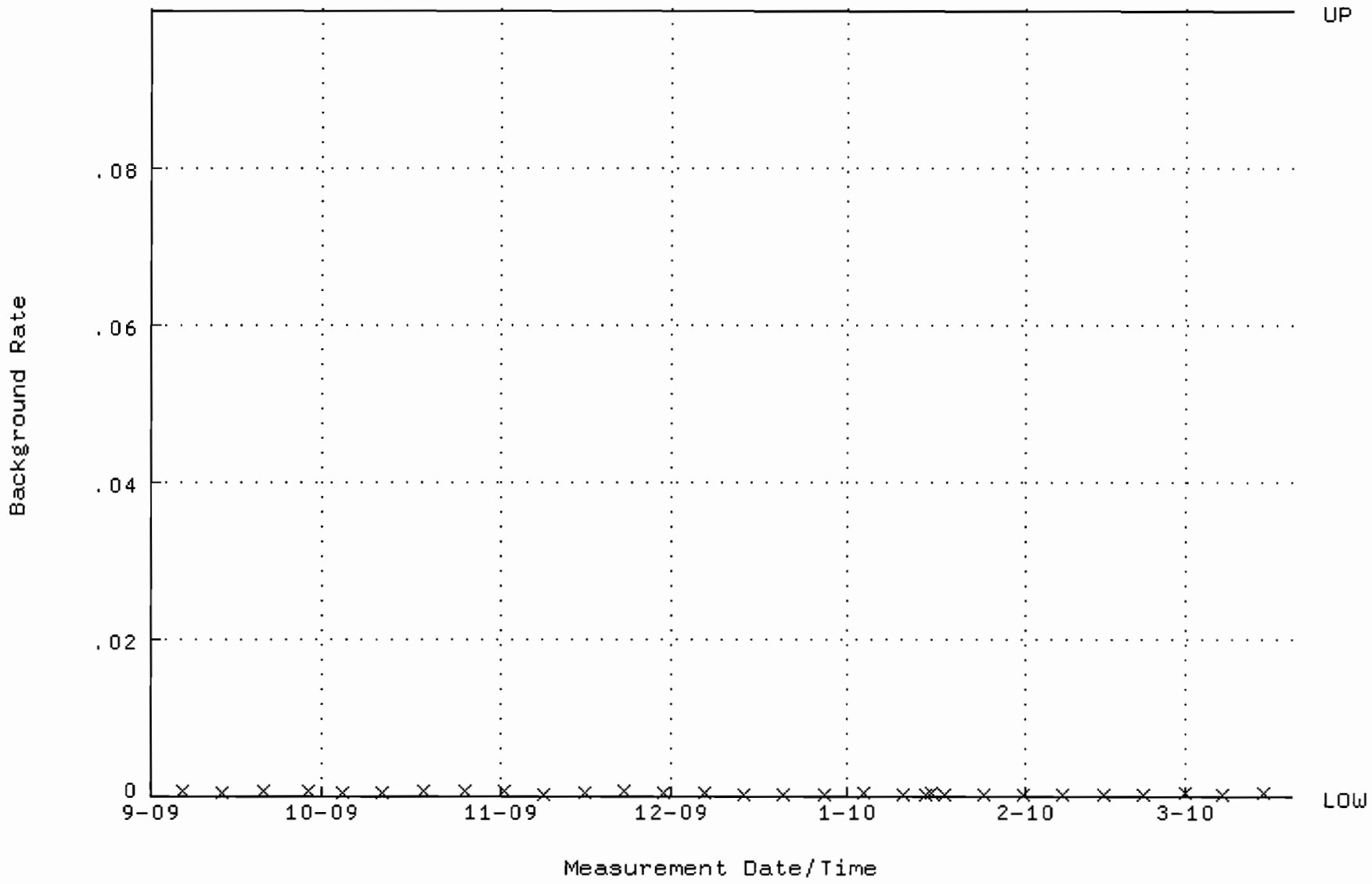

QA filename : DKA100:[ENV_ALPHA.QA.W]W135.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:53 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.194457 through 0.303279

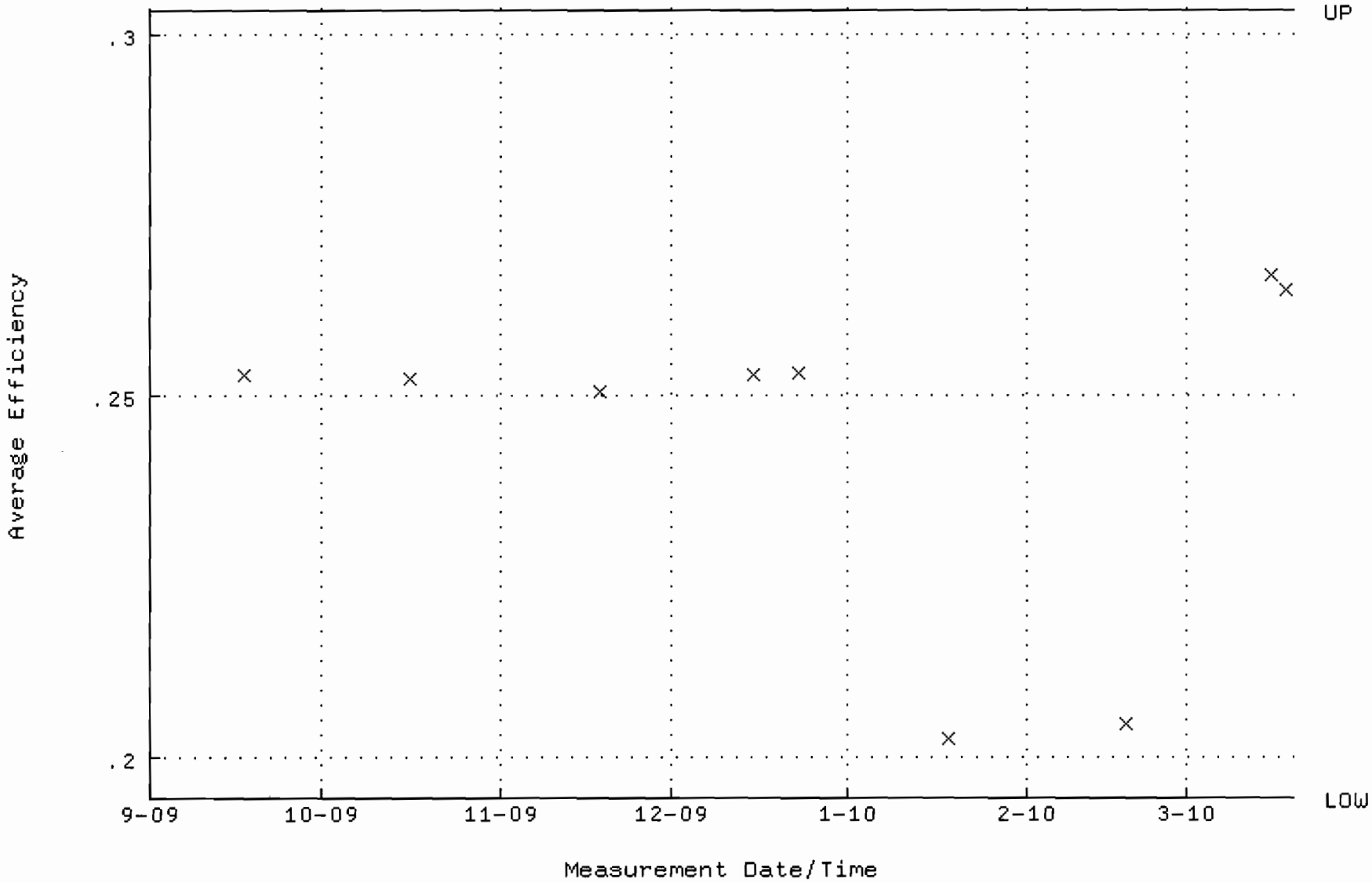

QA filename : DKA100:[ENV_ALPHA.QA.W]W135.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:53 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 77.0697 through 108.428

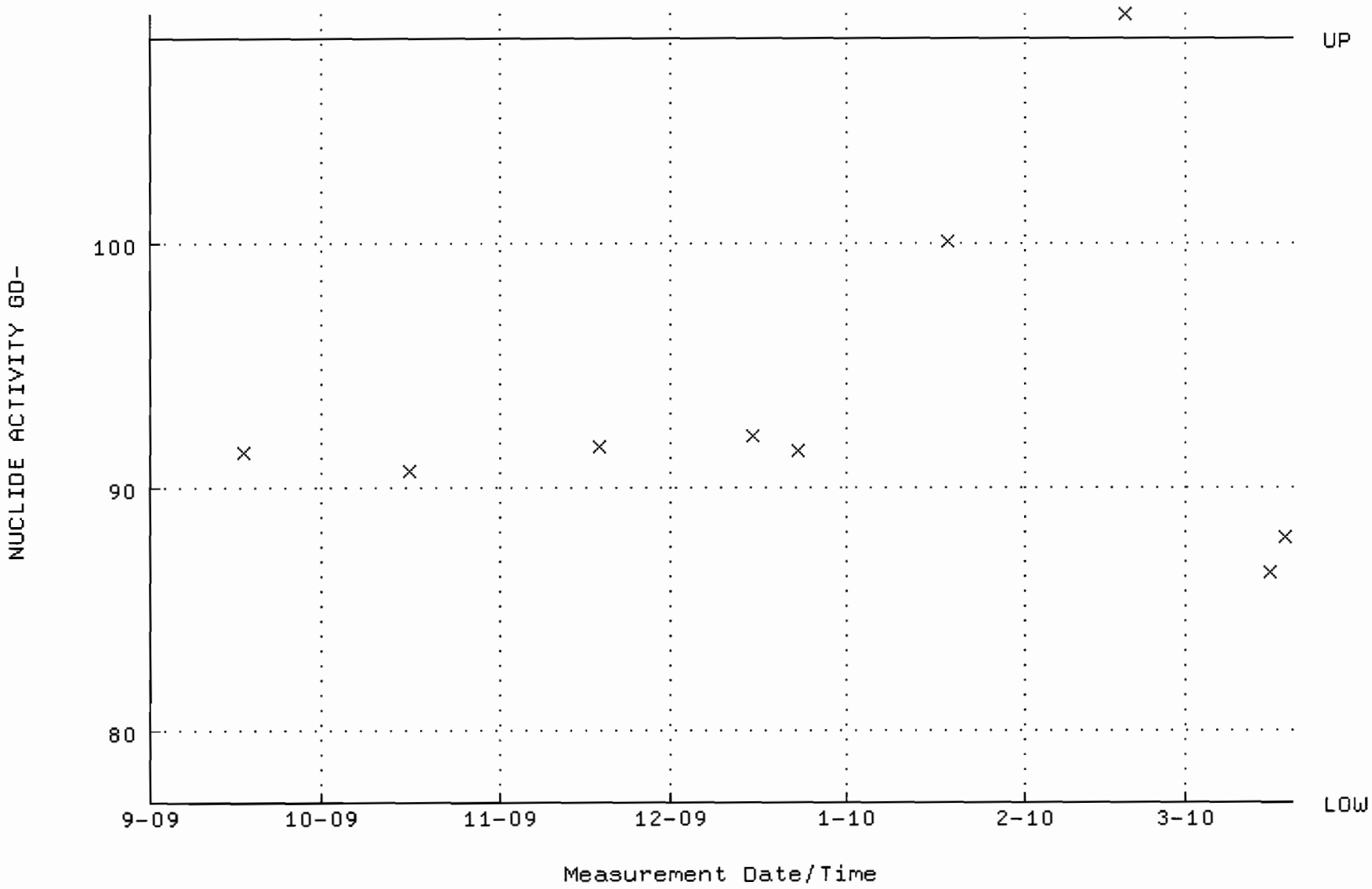

QA filename : DKA100:[ENV_ALPHA.QA.B]B135.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:45 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

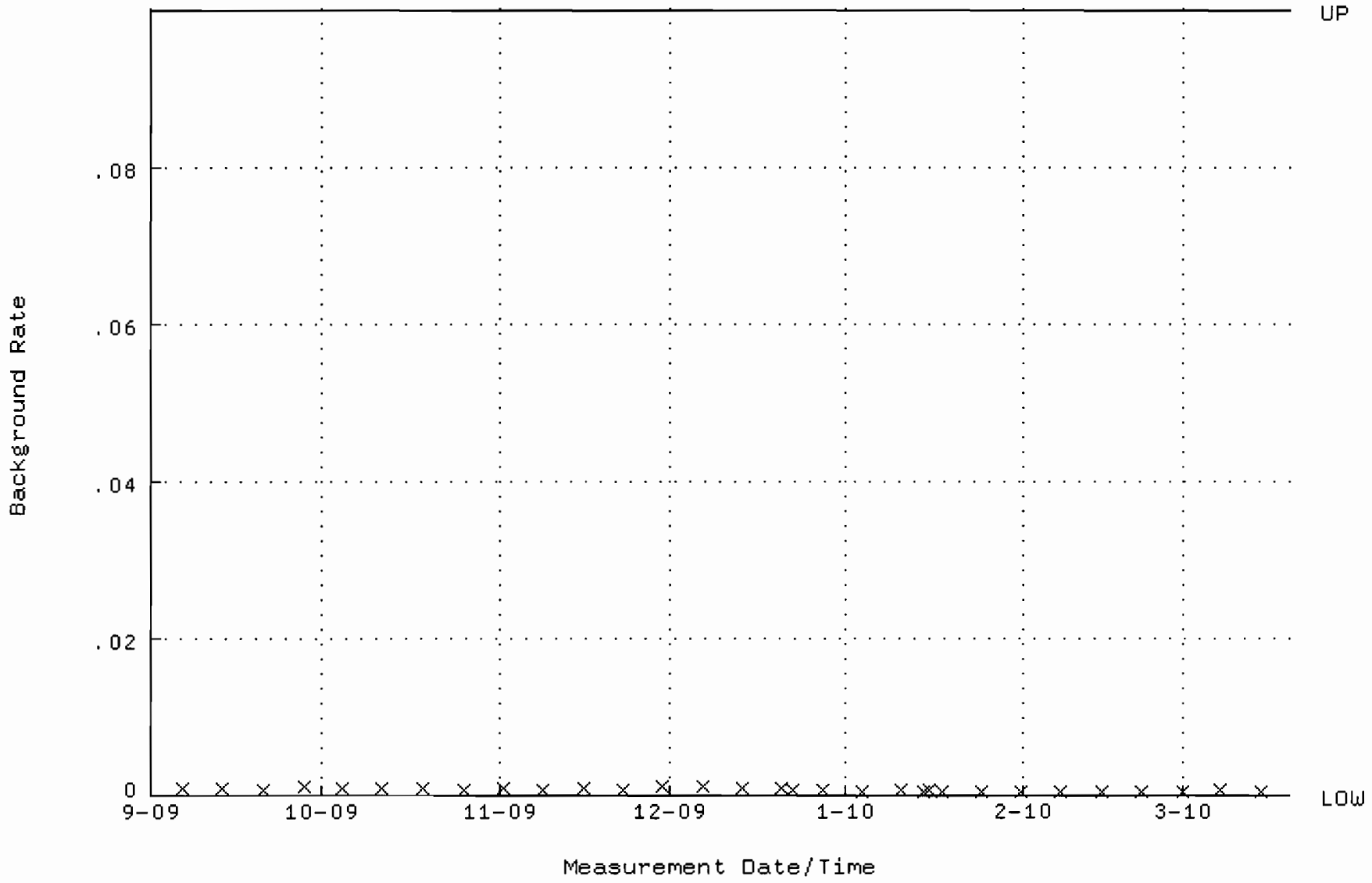

QA filename : DKA100:[ENV_ALPHA.QA.W]W173.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:29:38 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.248314 through 0.274256

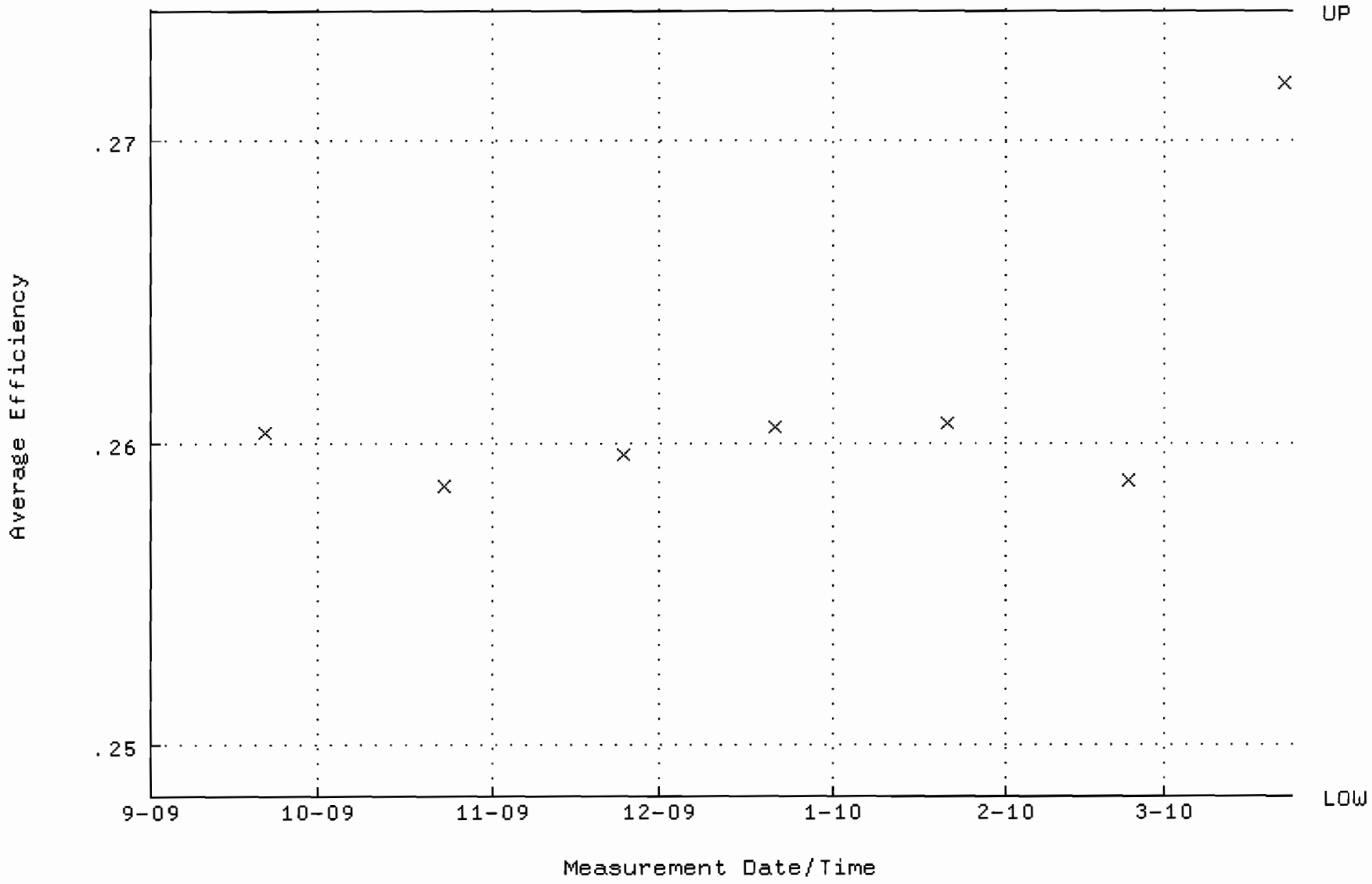

QA filename : DKA100:[ENV_ALPHA.QA.W]W173.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:29:38 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.6391 through 98.2805

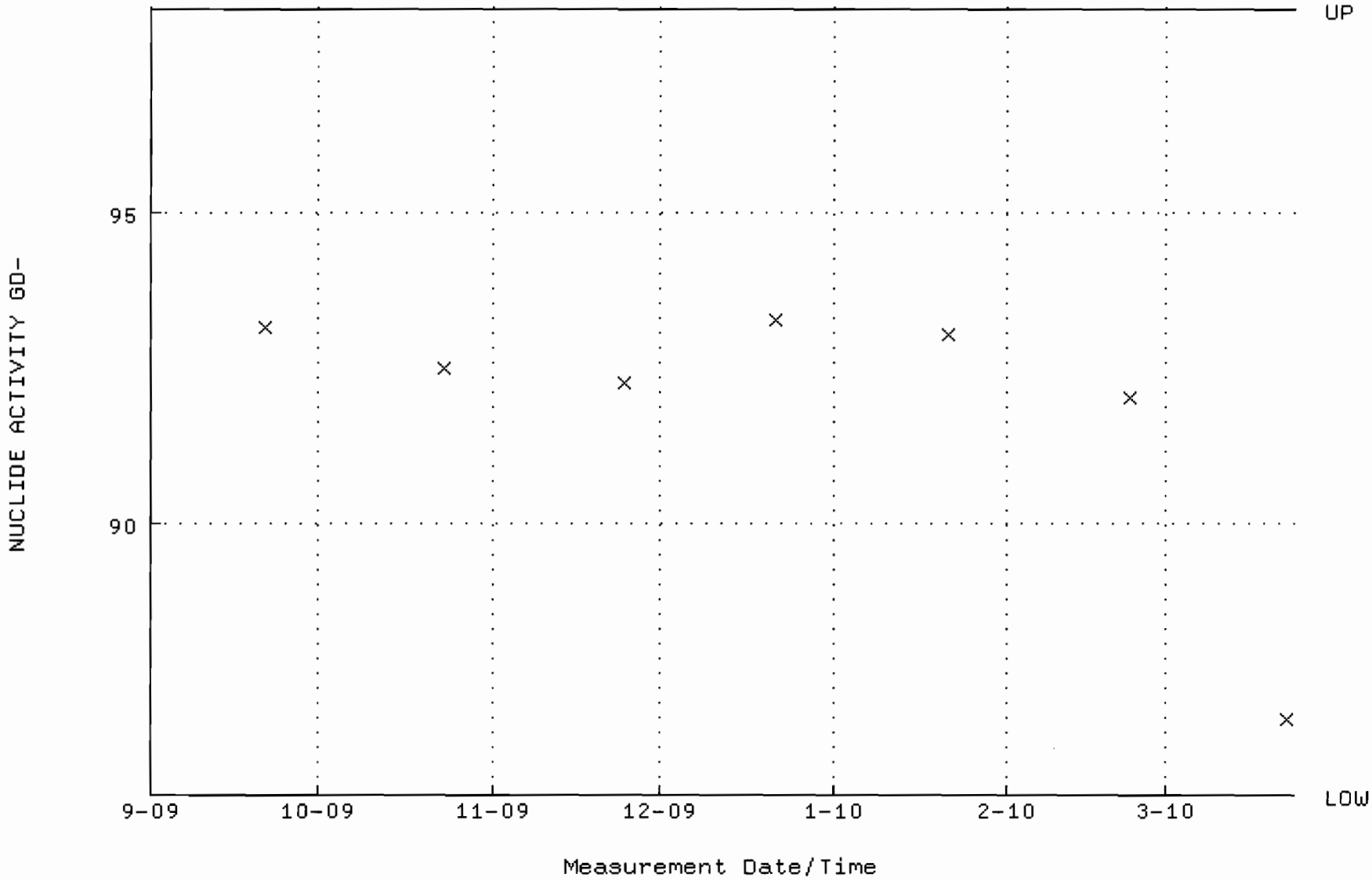

QA filename : DKA100:[ENV_ALPHA.QA.B]B173.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:07 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

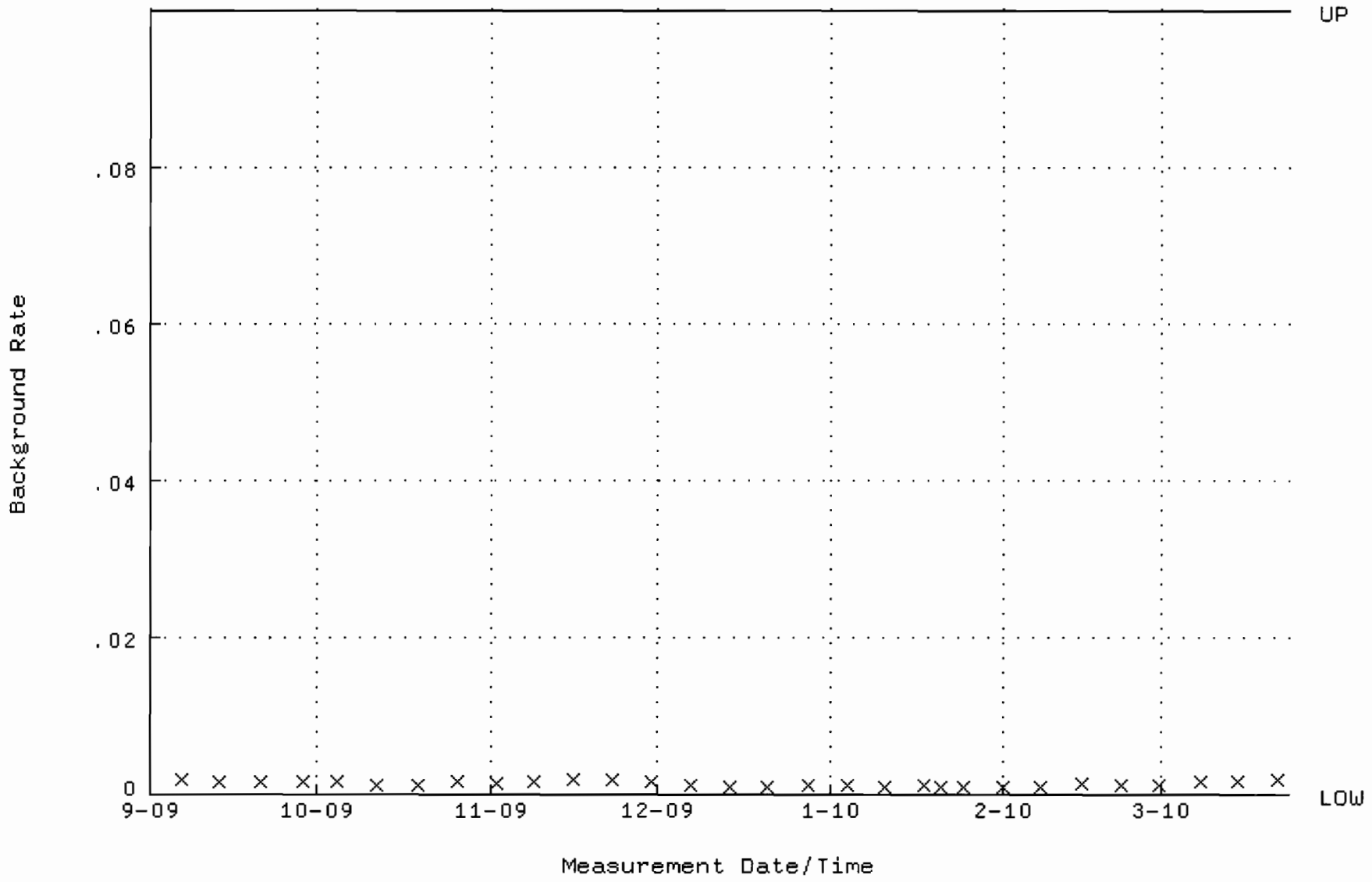

QA filename : DKA100:[ENV_ALPHA.QA.W]W174.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:29:43 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.237559 through 0.274837

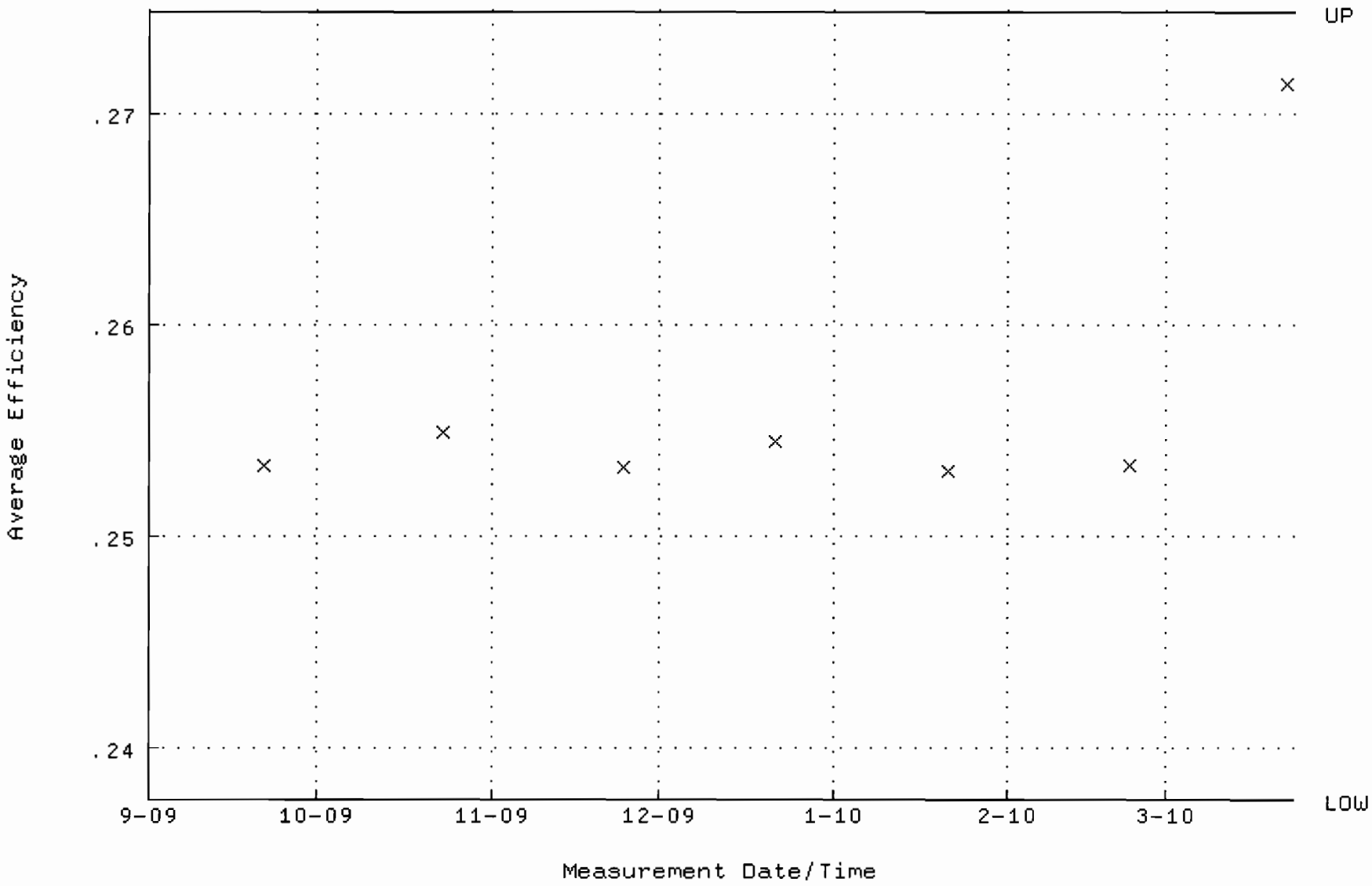

QA filename : DKA100:[ENV_ALPHA.QA.W]W174.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:29:43 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 83.3921 through 94.7659

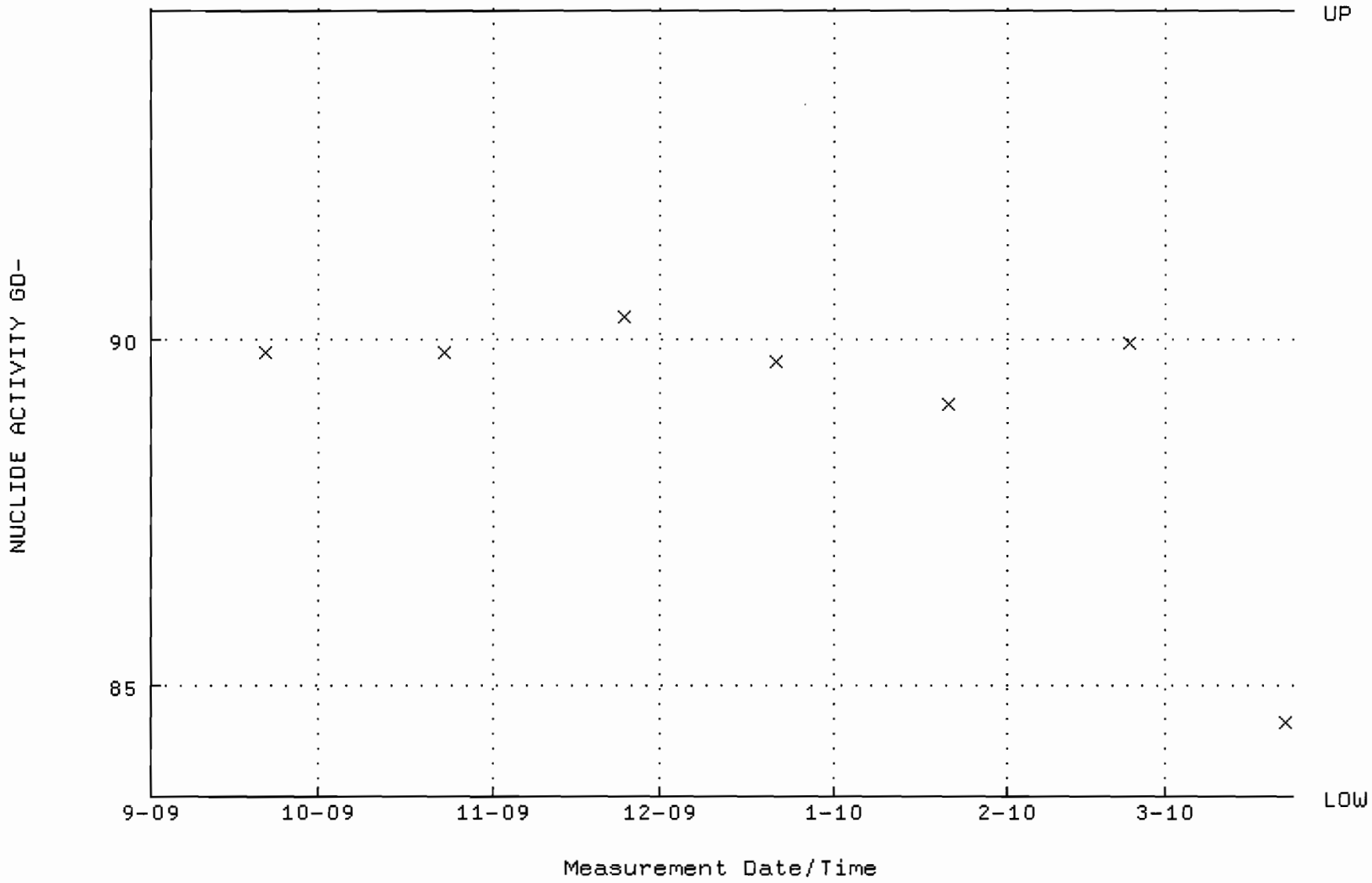

QA filename : DKA100:[ENV_ALPHA.QA.B]B174.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:12 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

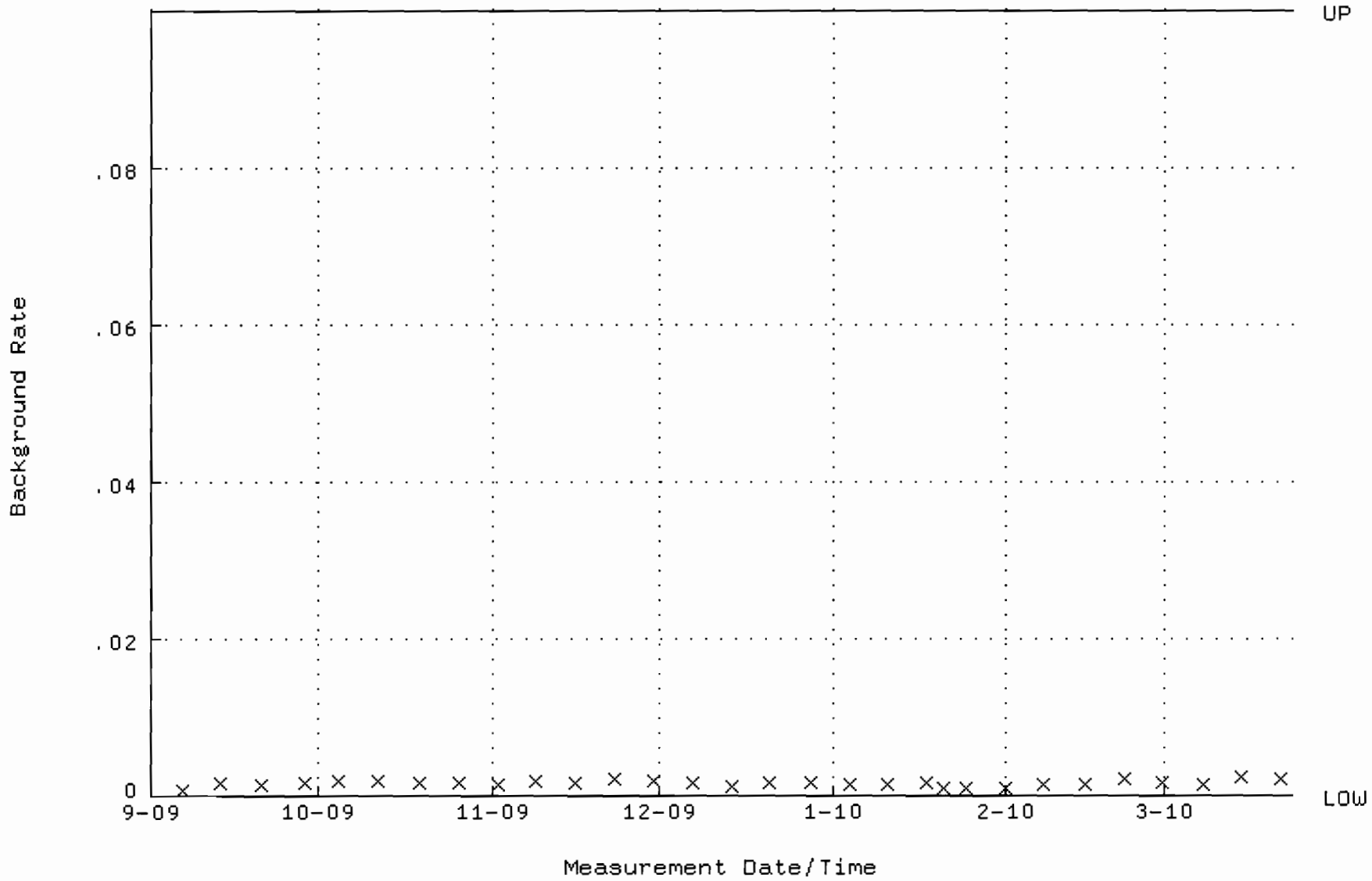

QA filename : DKA100:[ENV_ALPHA.QA.W]W182.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:34 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.245707 through 0.265707

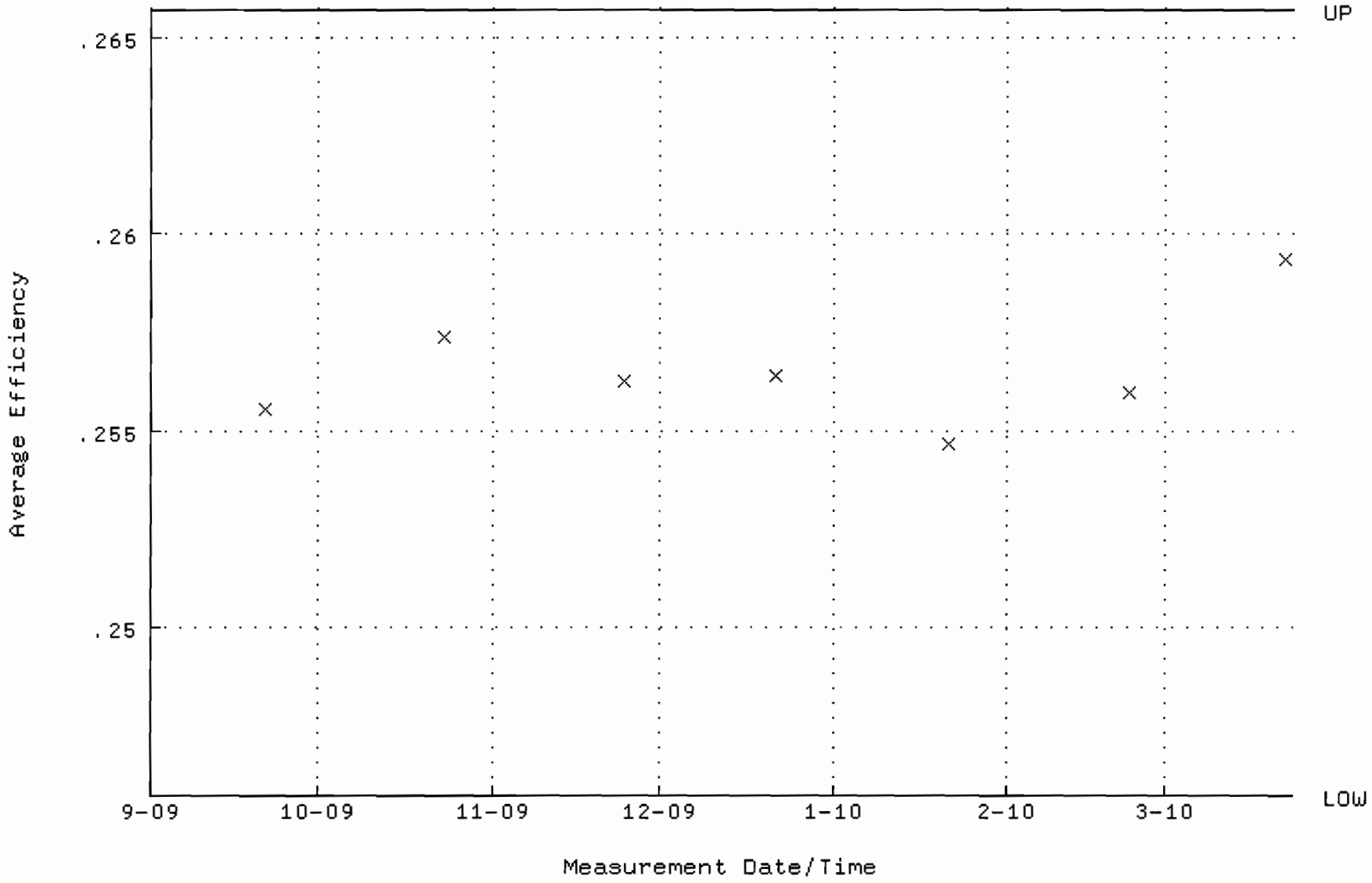

QA filename : DKA100:[ENV_ALPHA.QA.W]W182.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:34 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 87.3454 through 96.5396

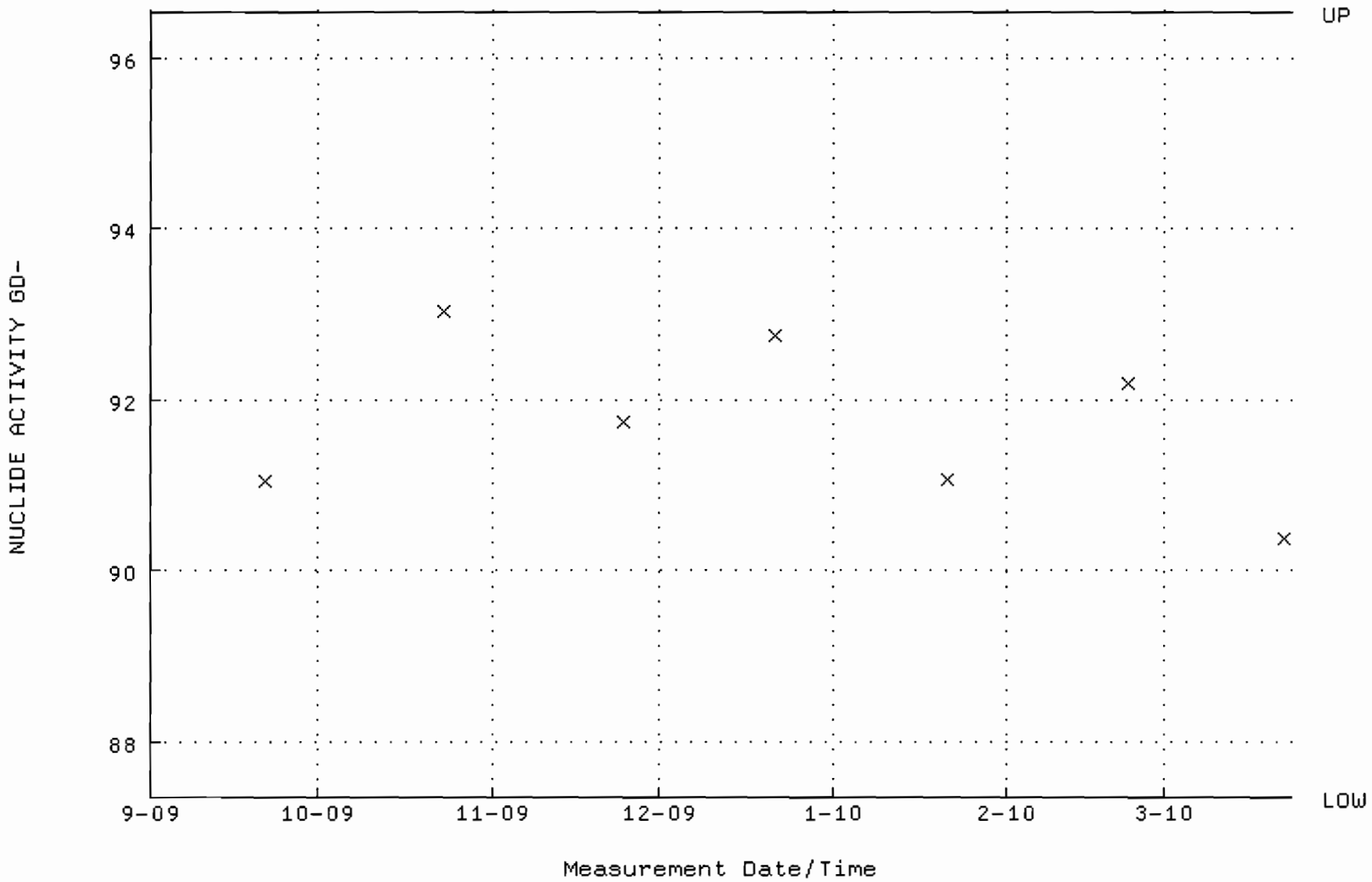

QA filename : DKA100:[ENV_ALPHA.QA.B]B182.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:49 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

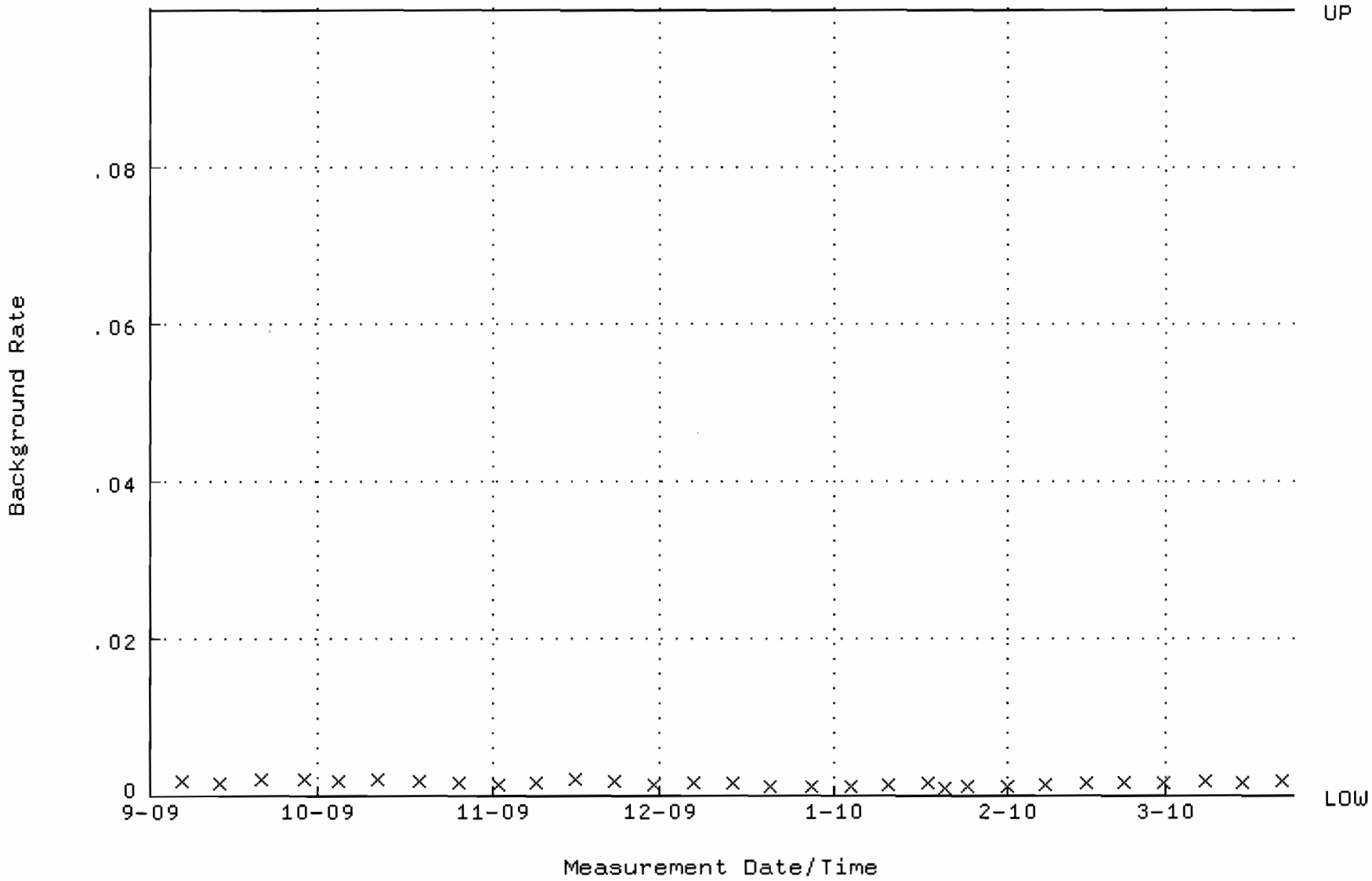

QA filename : DKA100:[ENV_ALPHA.QA.W]W193.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:40 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250400 through 0.272904

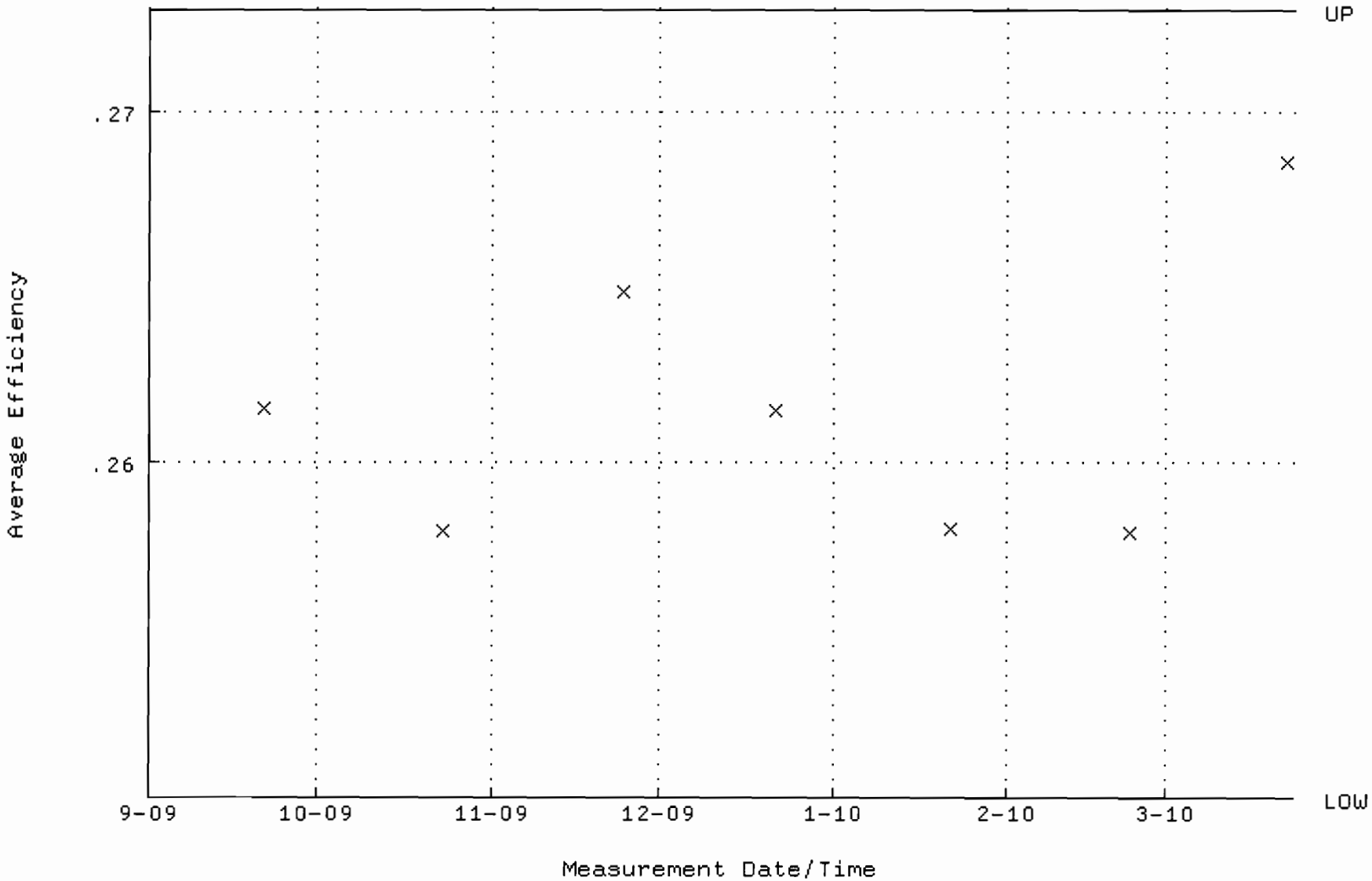

QA filename : DKA100:[ENV_ALPHA.QA.W]W193.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:40 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.1081 through 93.4501

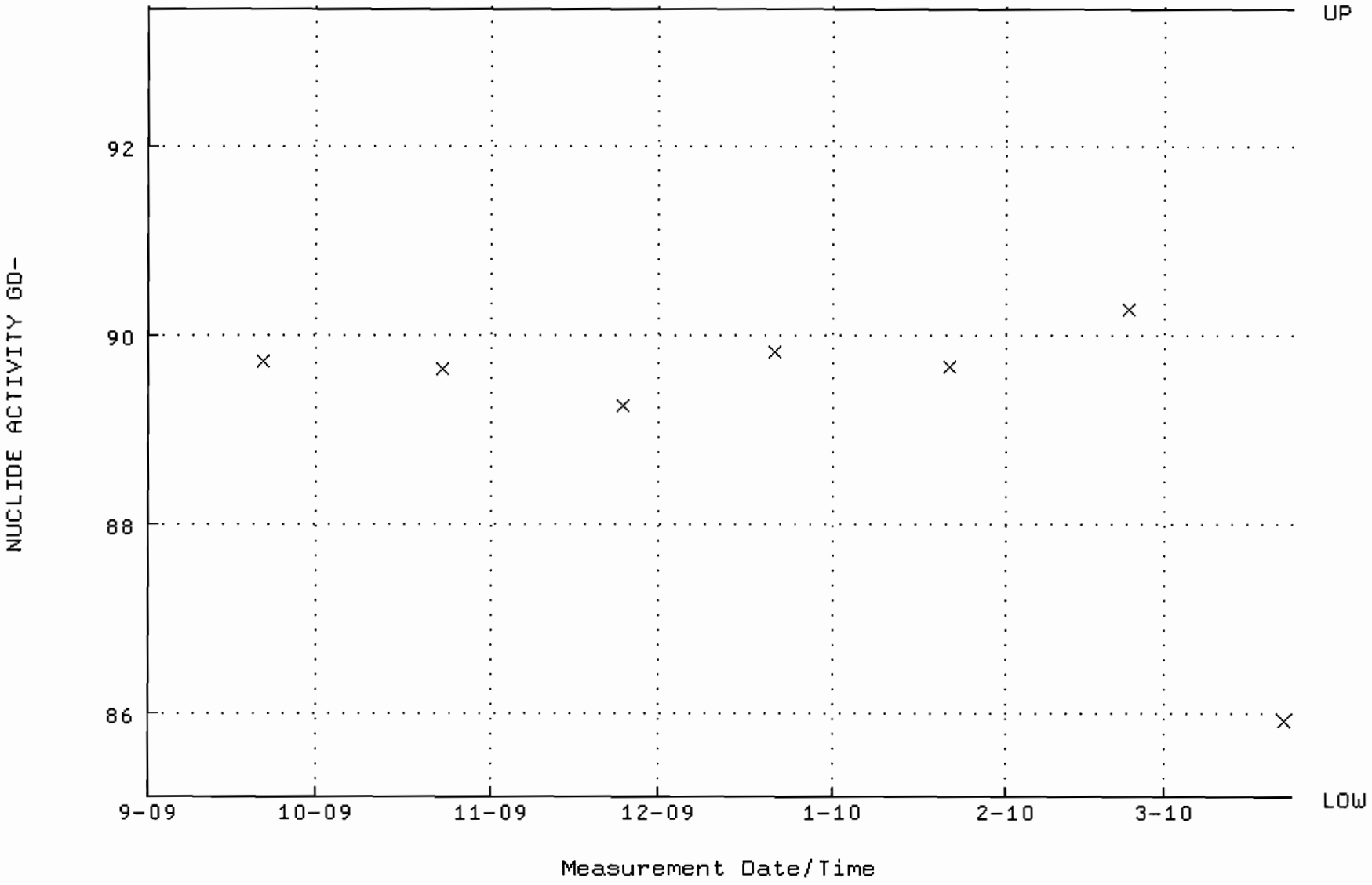

QA filename : DKA100:[ENV_ALPHA.QA.B]B193.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:36 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

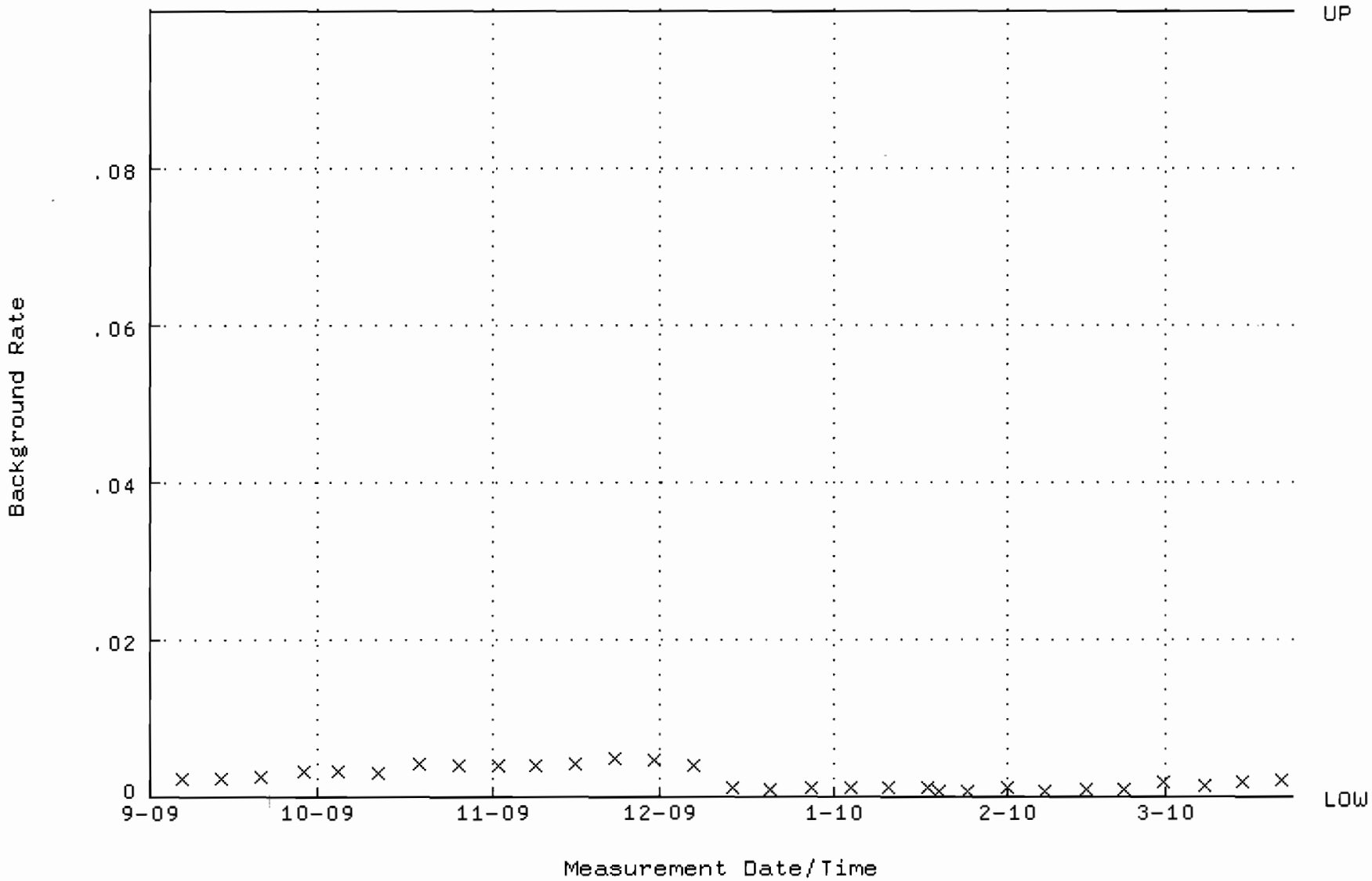

QA filename : DKA100:[ENV_ALPHA.QA.W]W194.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:45 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.246760 through 0.266760

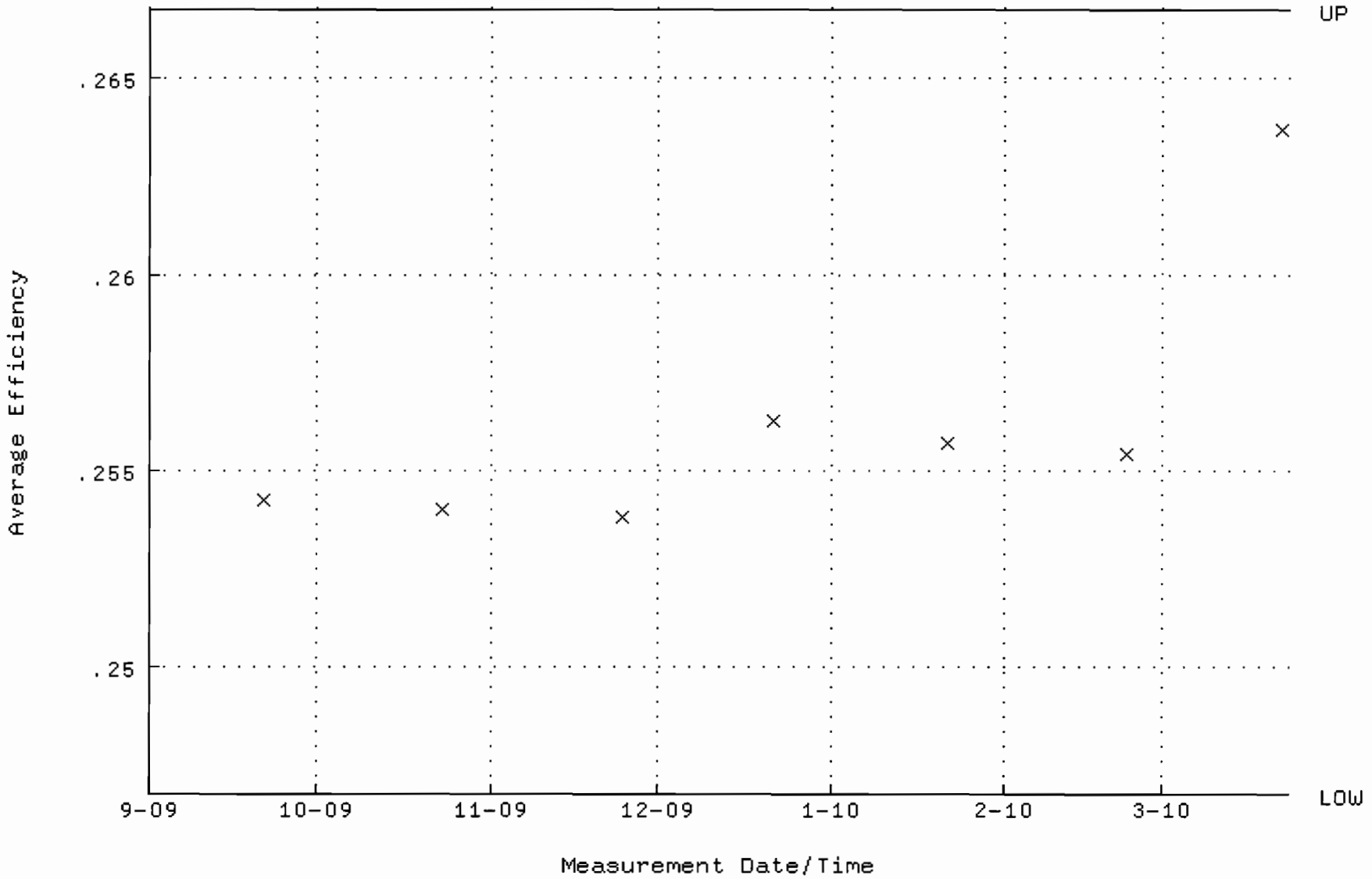

QA filename : DKA100:[ENV_ALPHA.QA.W]W194.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:45 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 86.0376 through 95.0942

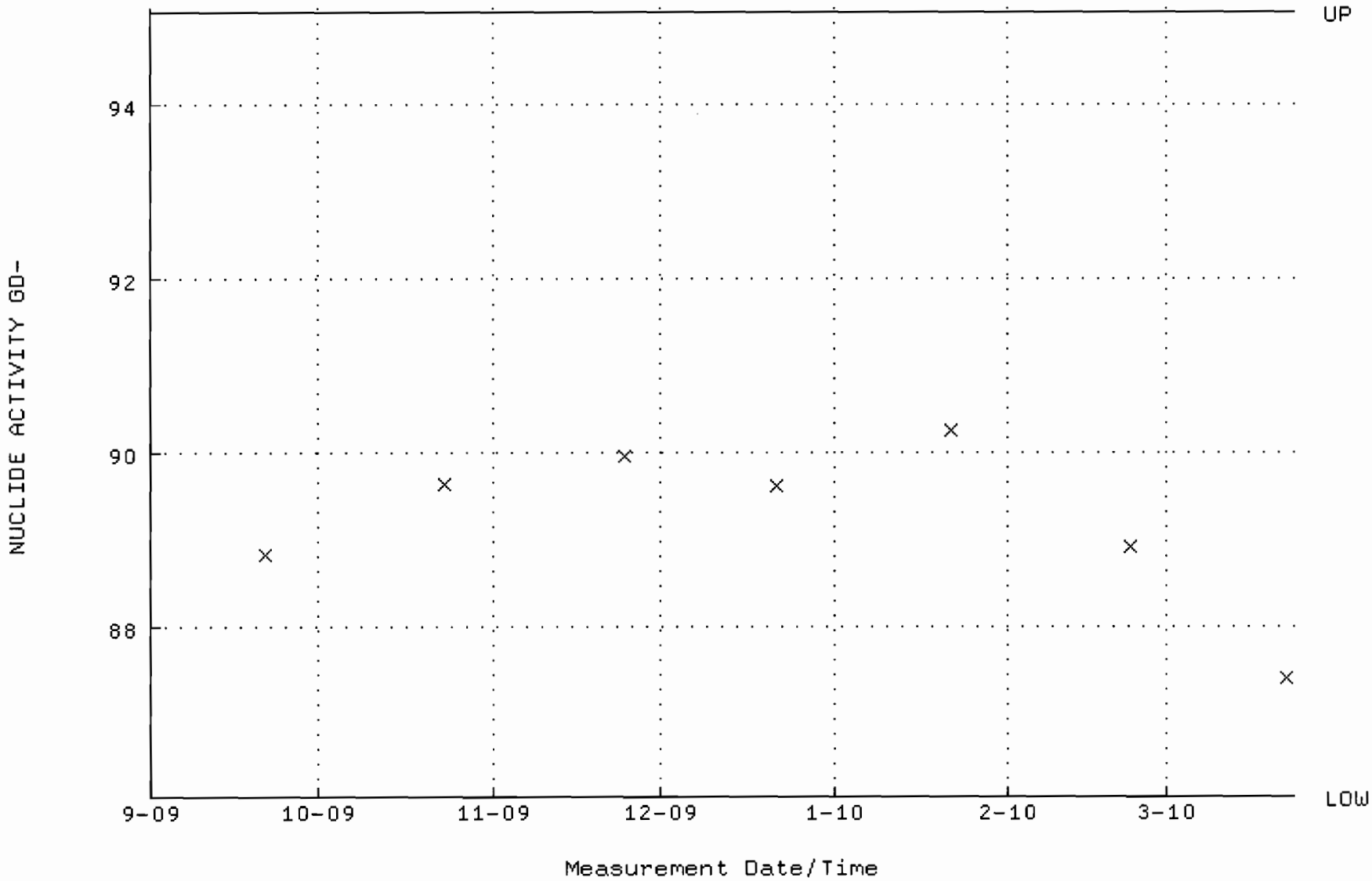

QA filename : DKA100:[ENV_ALPHA.QA.B]B194.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:41 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

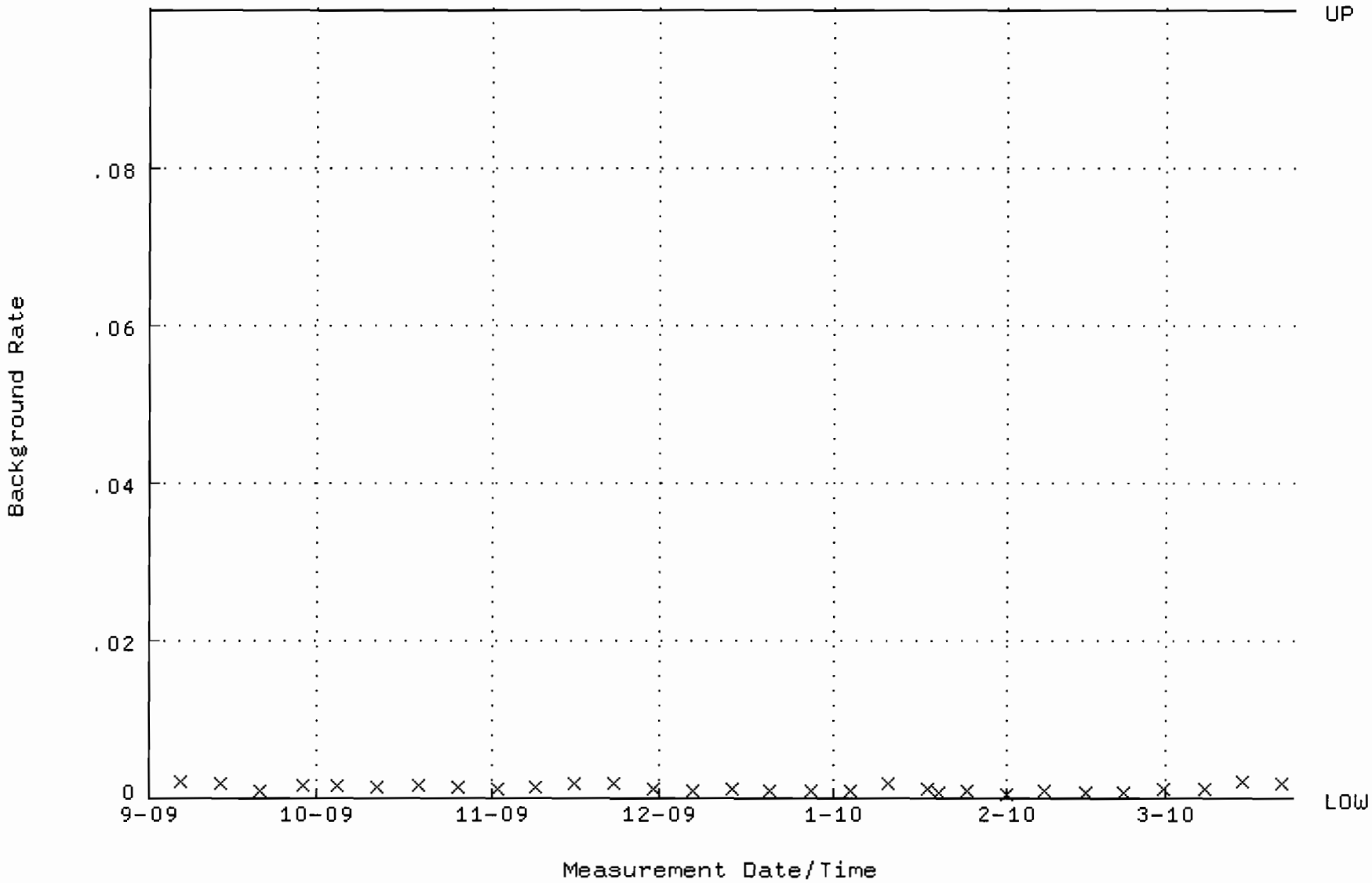

QA filename : DKA100:[ENV_ALPHA.QA.W]W195.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:51 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.237531 through 0.281633

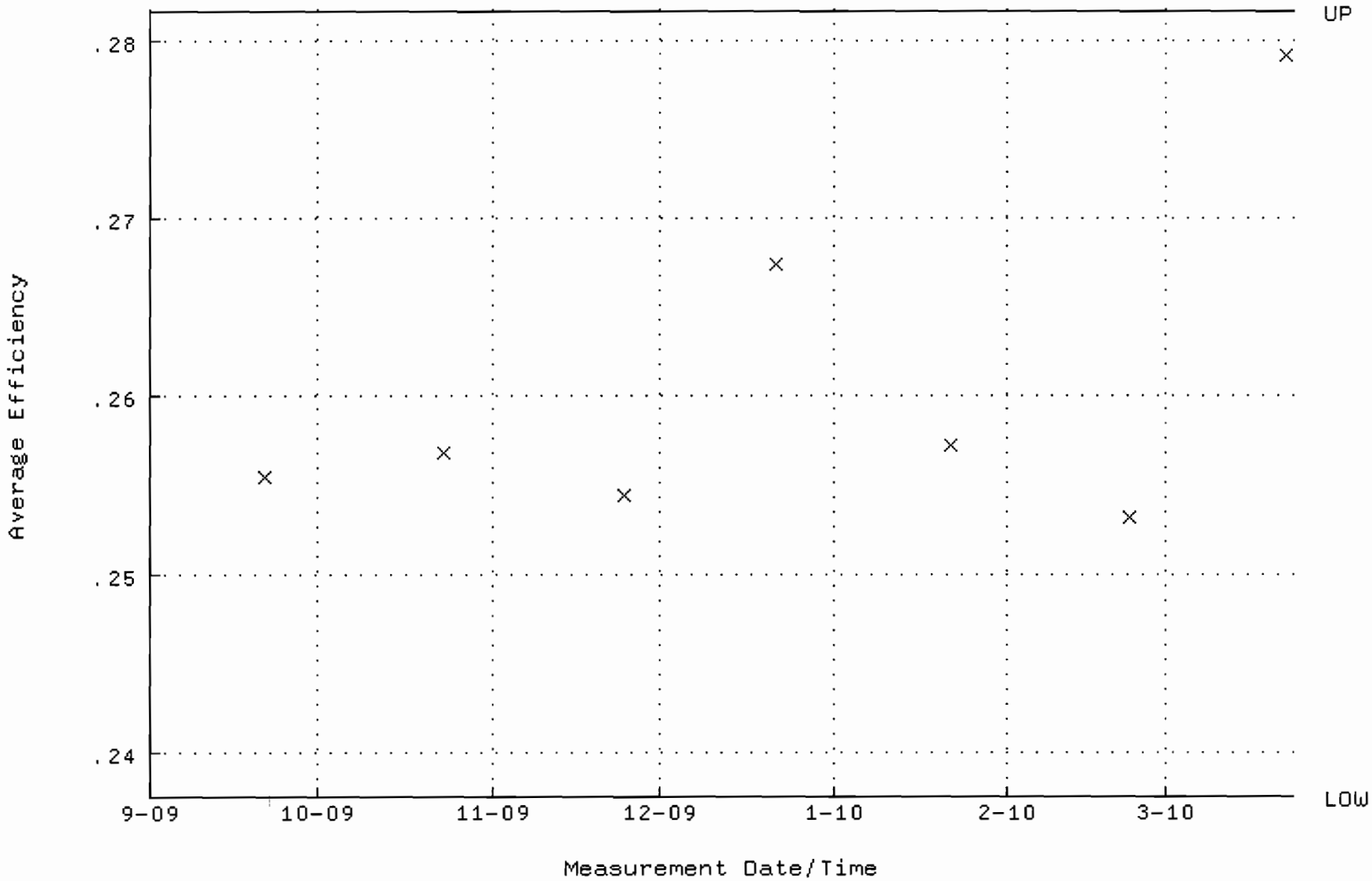

QA filename : DKA100:[ENV_ALPHA.QA.W]W195.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:51 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.6297 through 91.3753

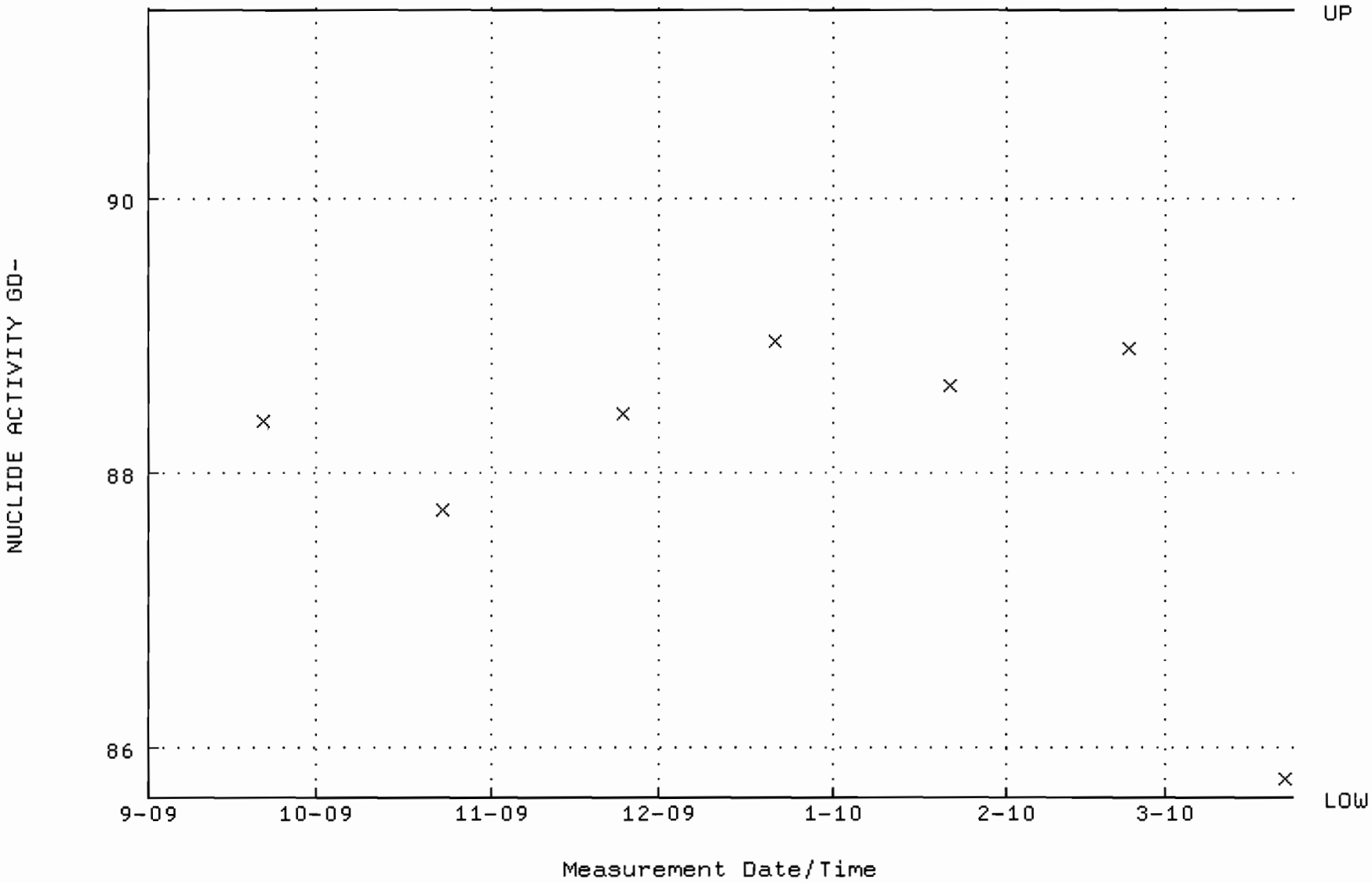

QA filename : DKA100:[ENV_ALPHA.QA.B]B195.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:44 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

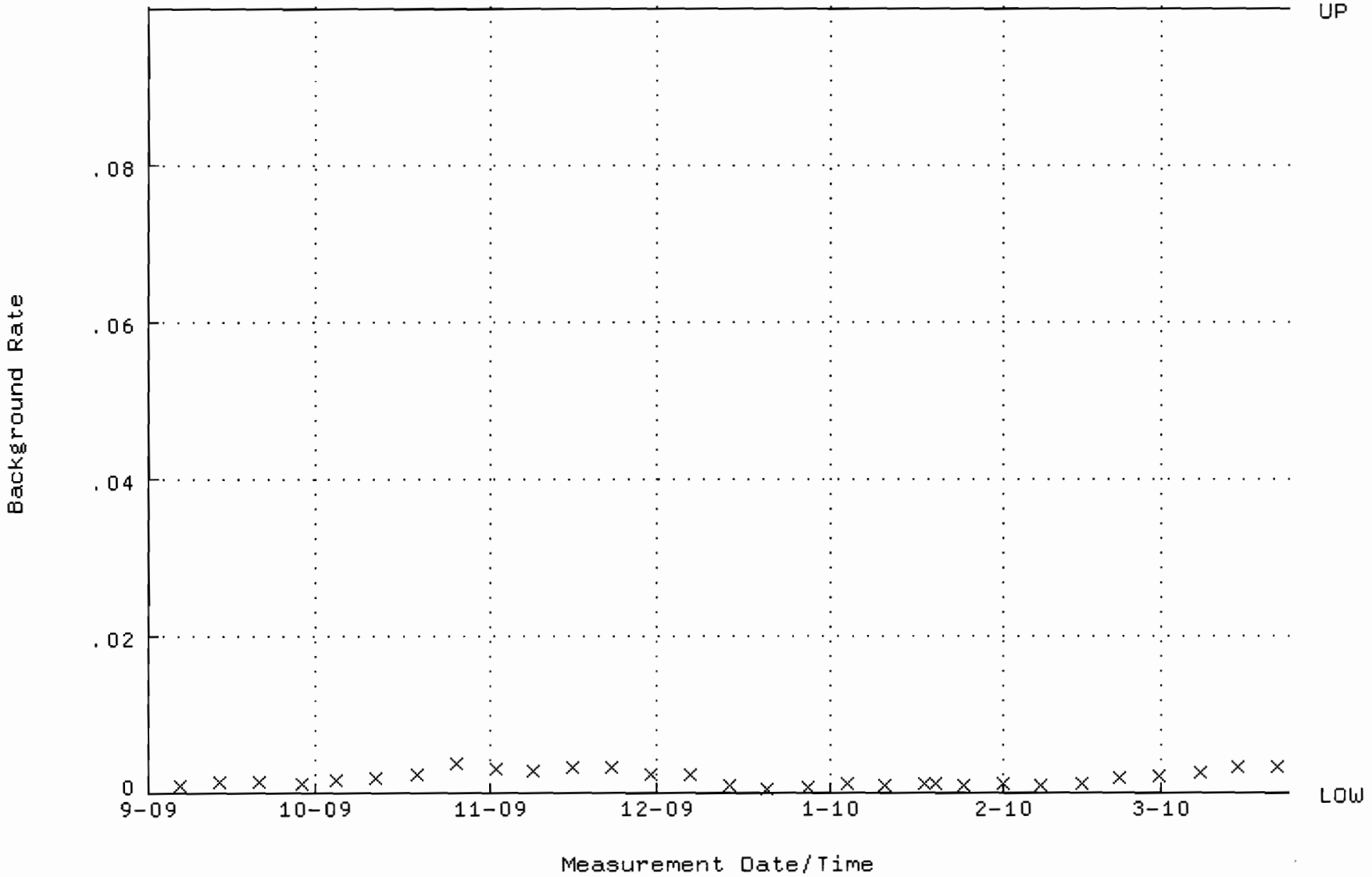

QA filename : DKA100:[ENV_ALPHA.QA.W]W231.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:26 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.369606 through 0.416088

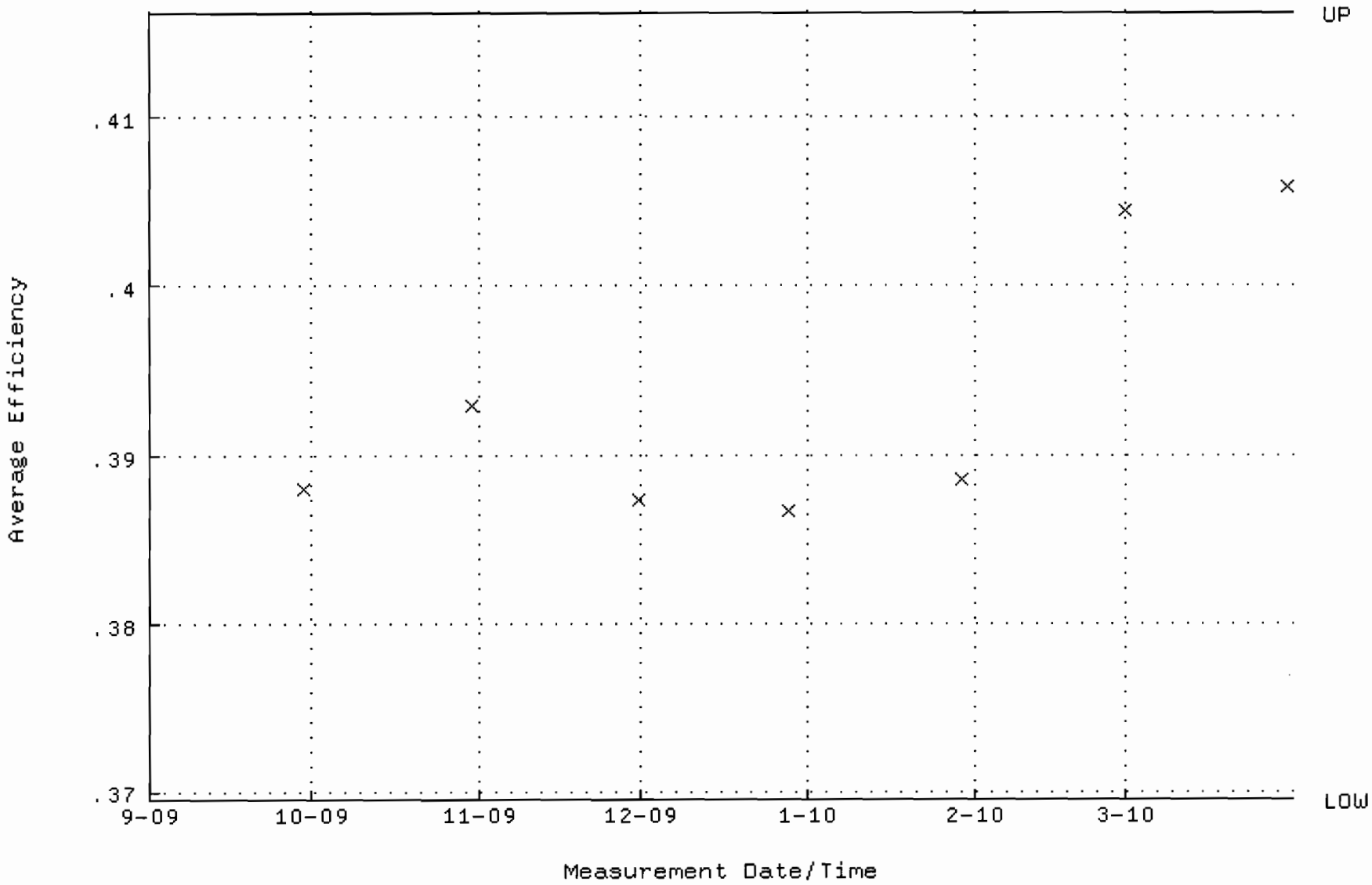

QA filename : DKA100:[ENV_ALPHA.QA.W]W231.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:26 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.9098 through 96.2570

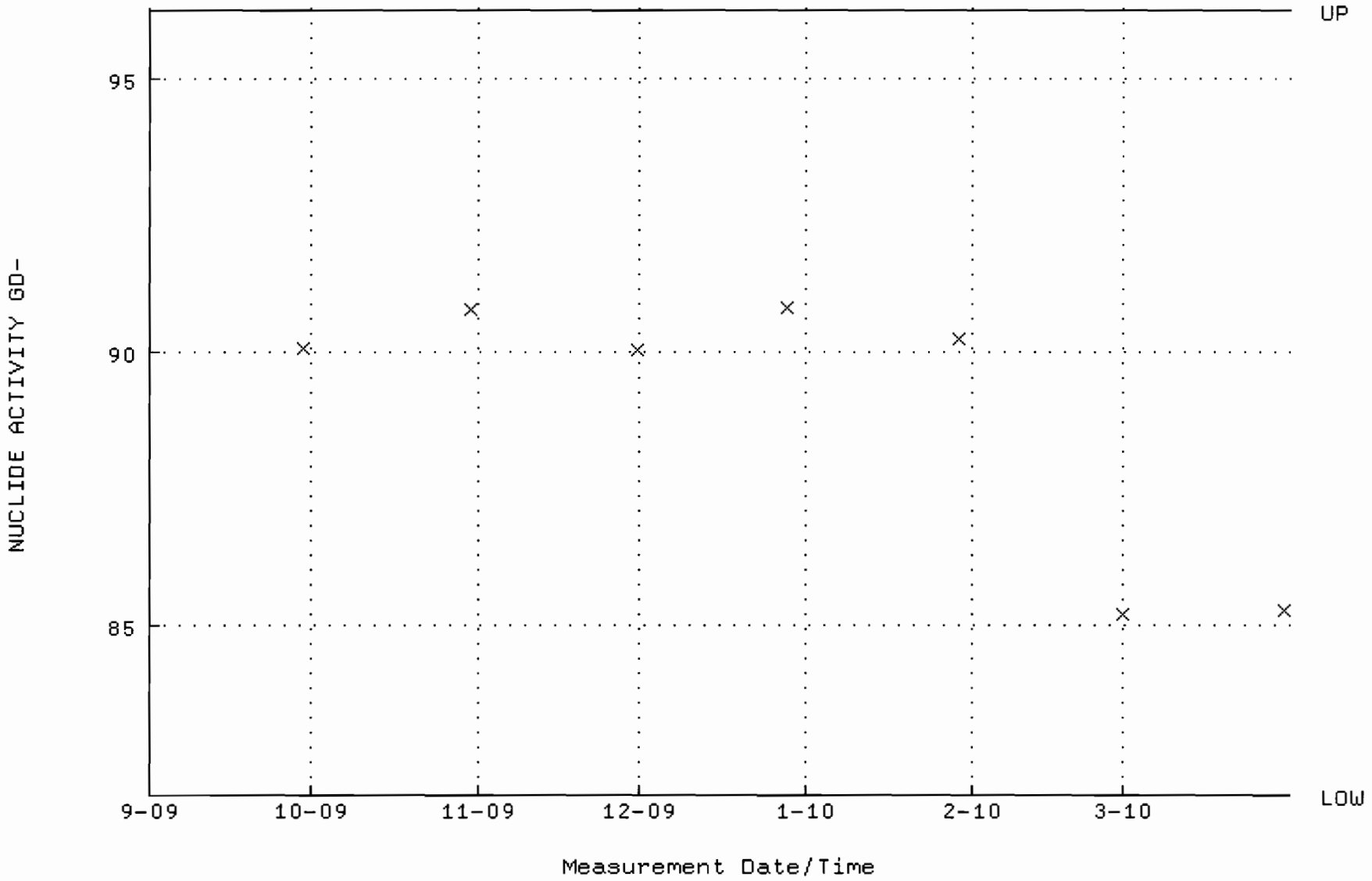

QA filename : DKA100:[ENV_ALPHA.QA.B]B231.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:03 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

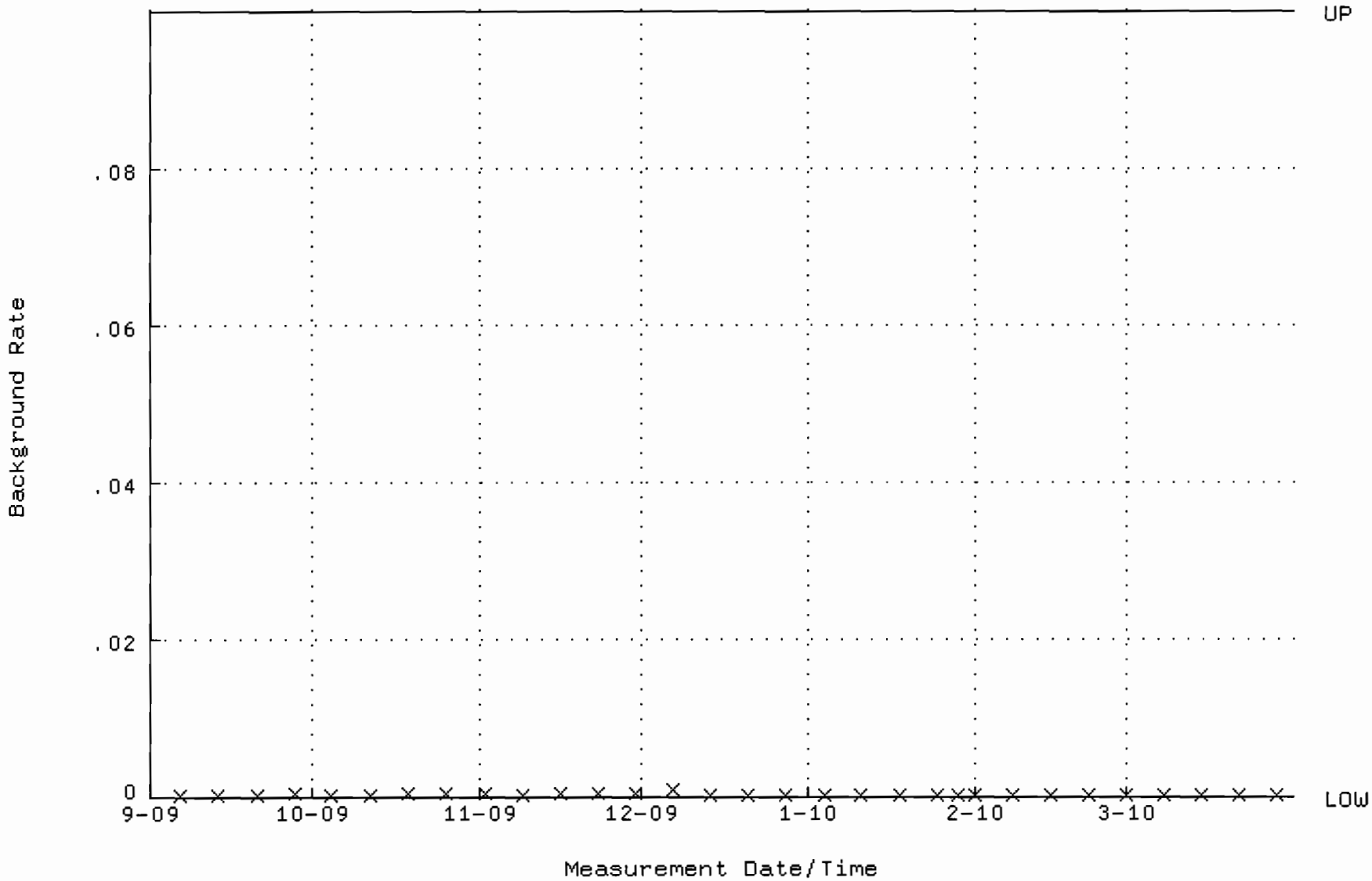

QA filename : DKA100:[ENV_ALPHA.QA.W]W232.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:31 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.356063 through 0.392181

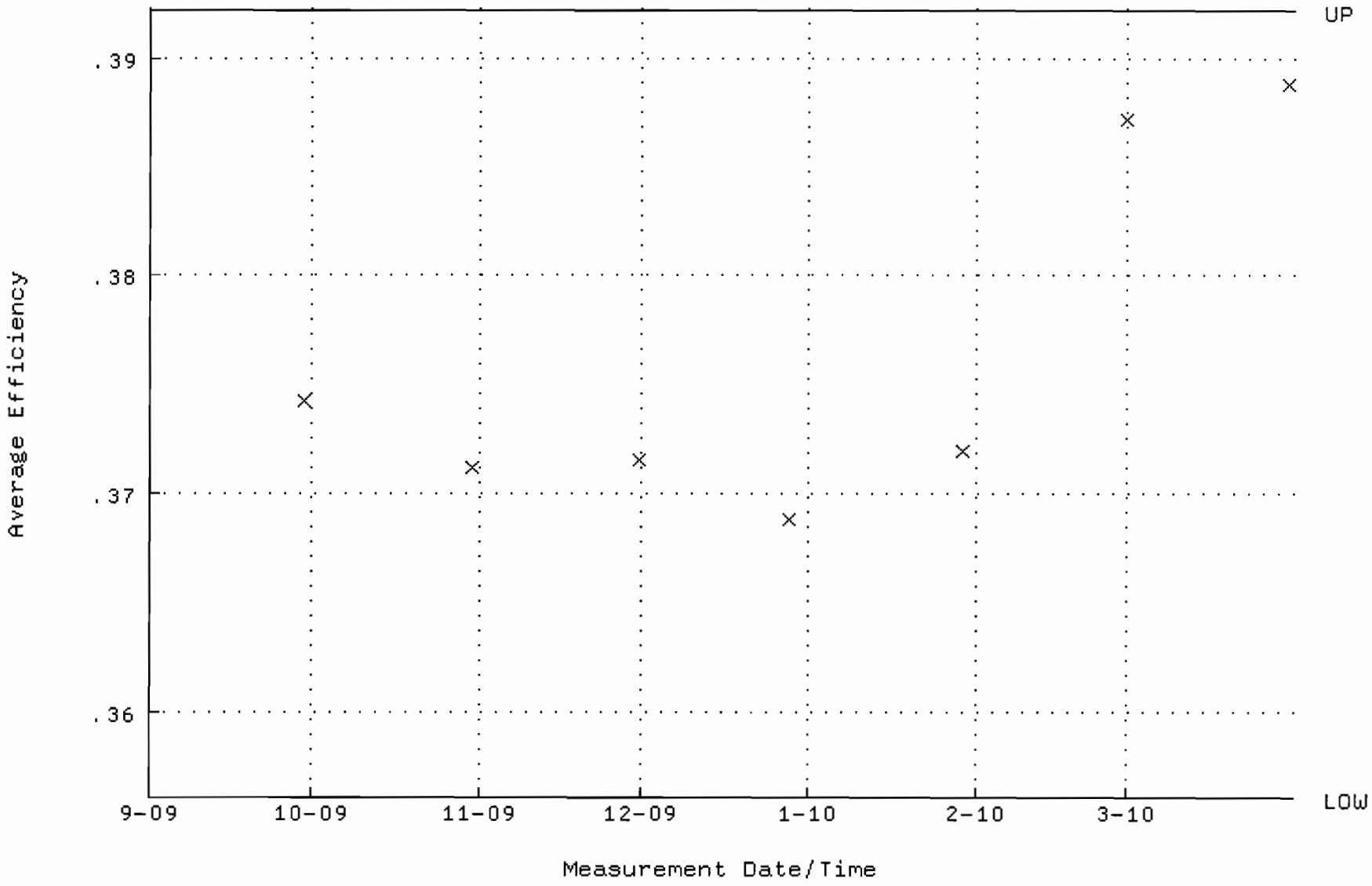

QA filename : DKA100:[ENV_ALPHA.QA.W]W232.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:31 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 83.5615 through 93.0435

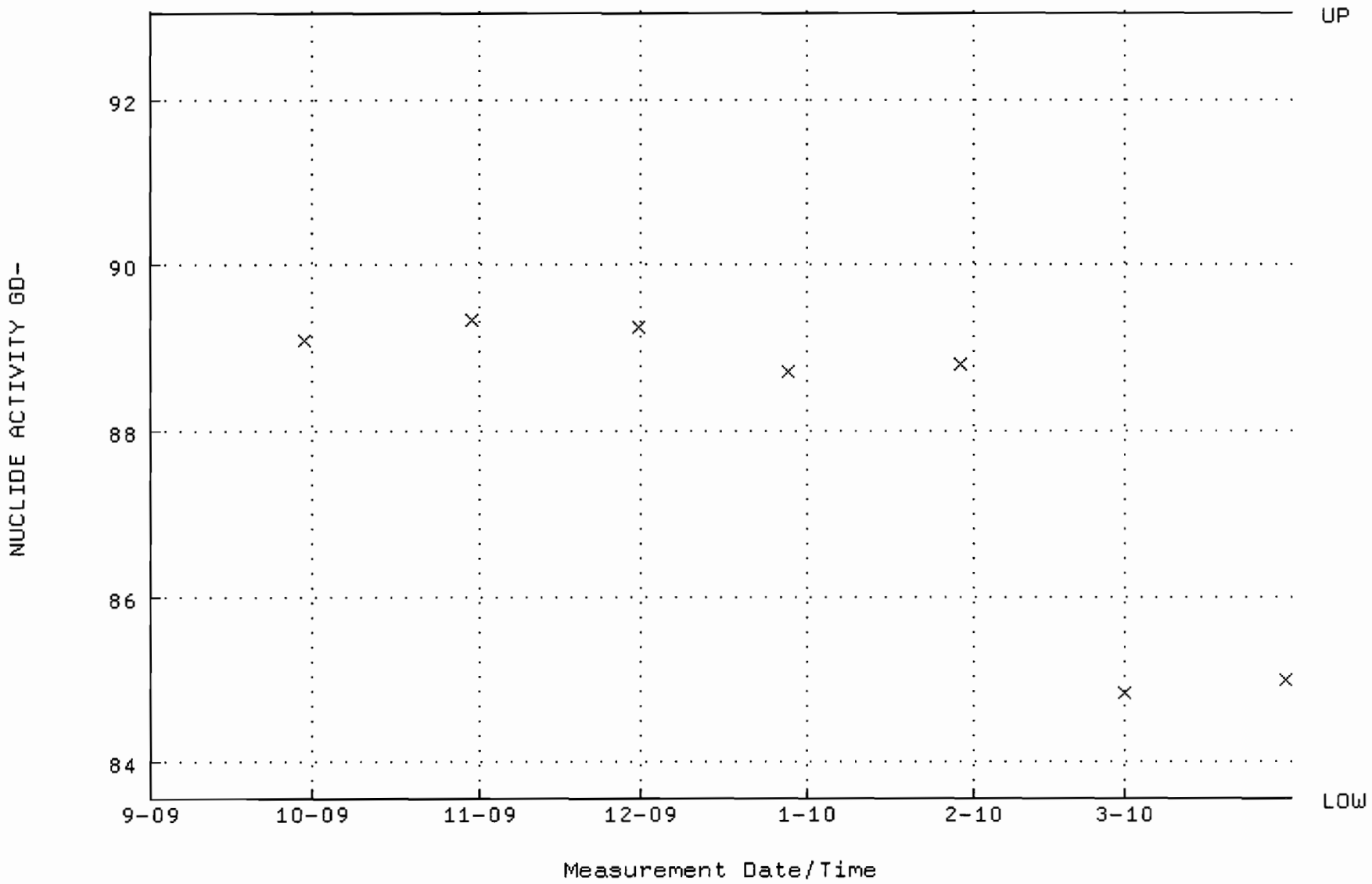

QA filename : DKA100:[ENV_ALPHA.QA.B]B232.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:07 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

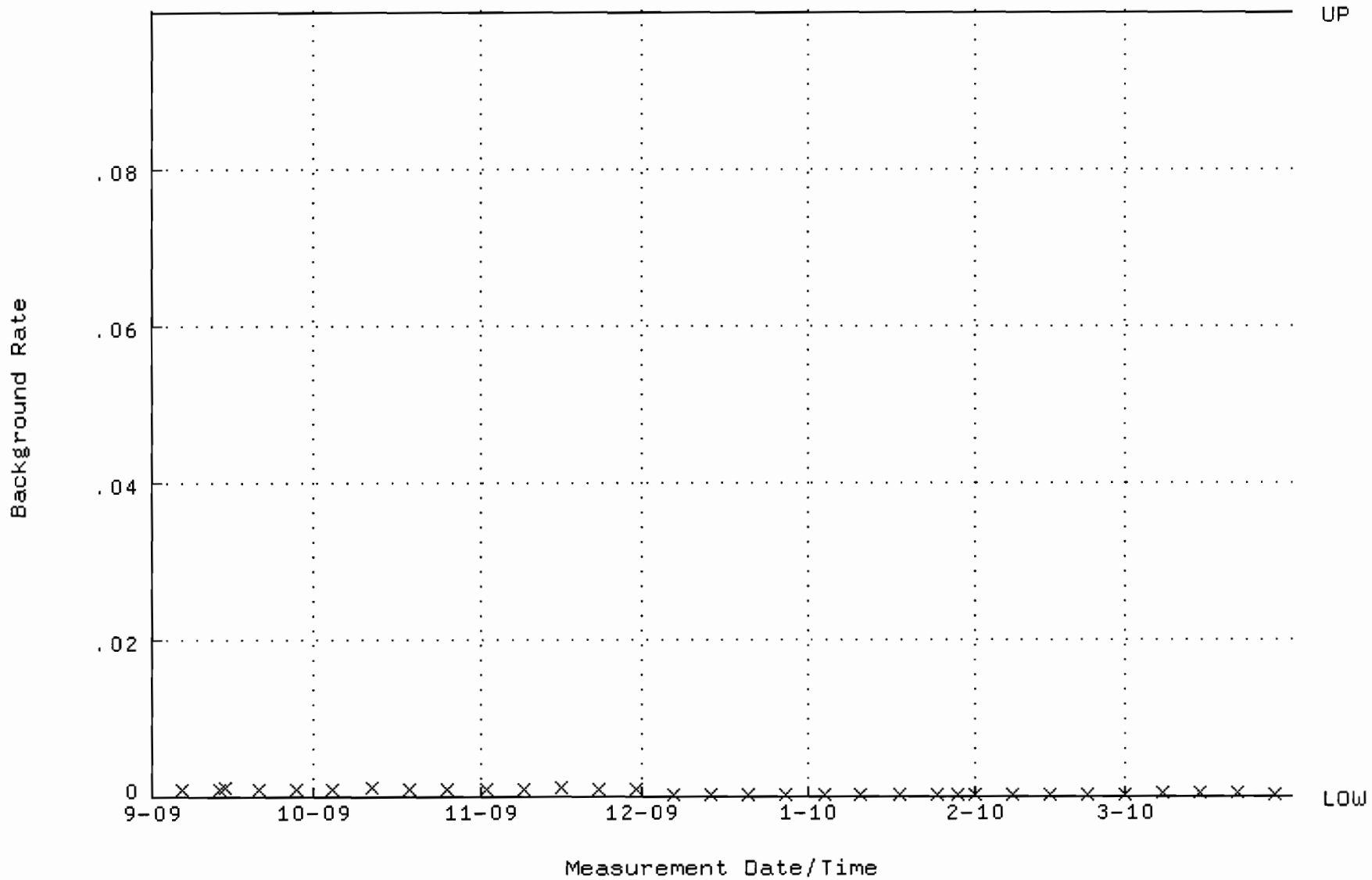

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:58 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.385327 through 0.415351

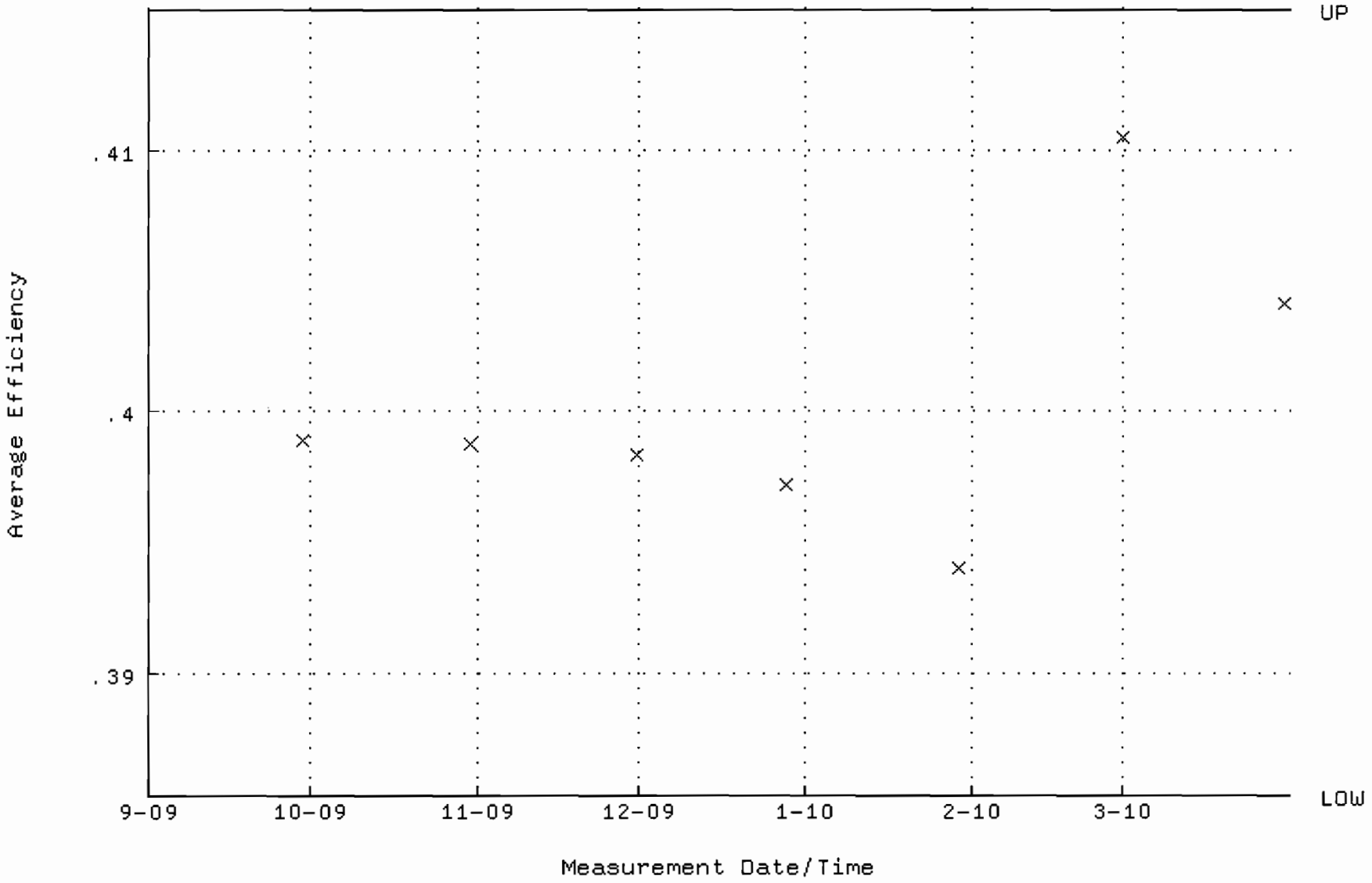

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:58 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5268 through 85.6787

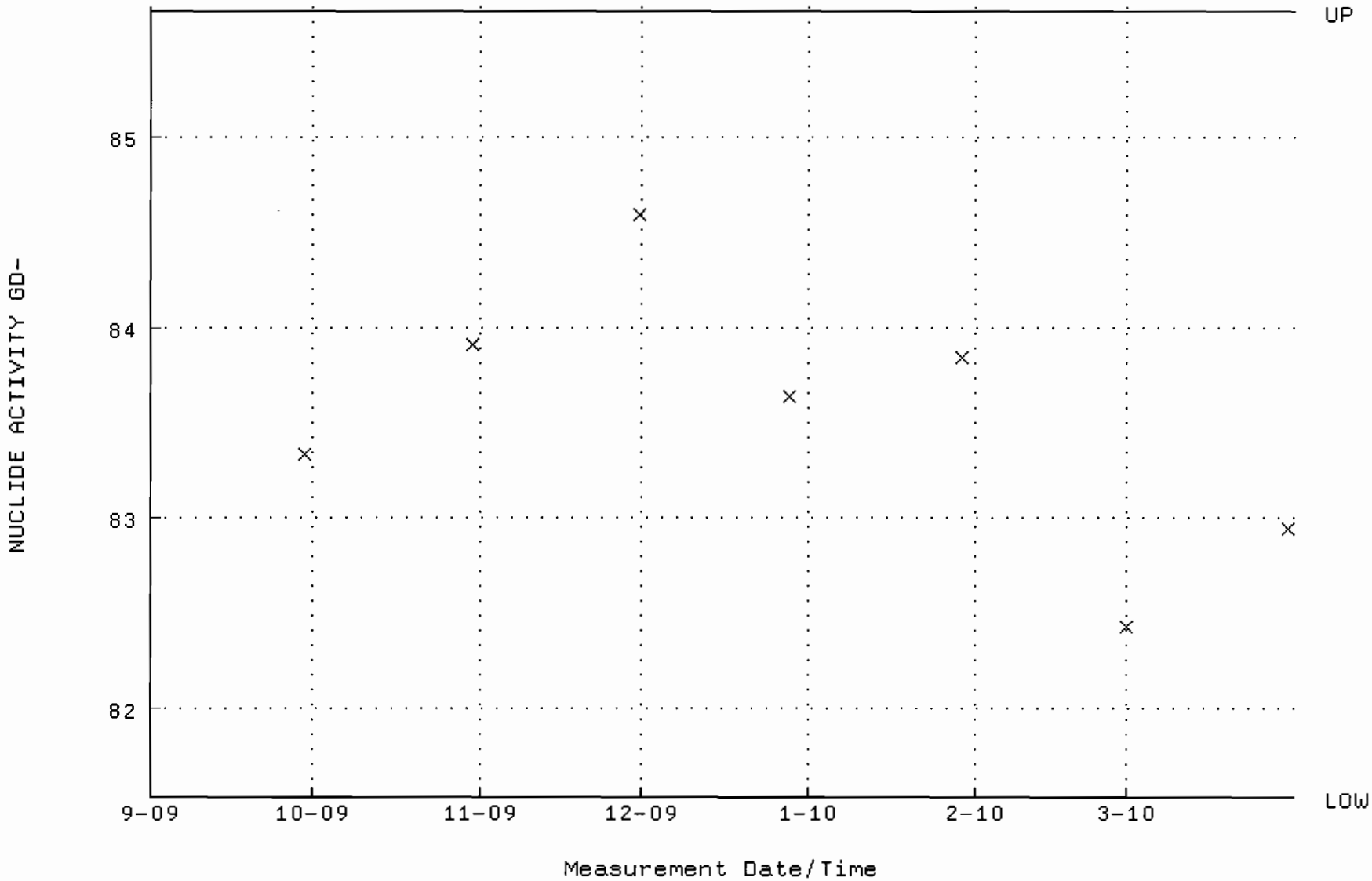

QA filename : DKA100:[ENV_ALPHA.QA.B]B237.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:30 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

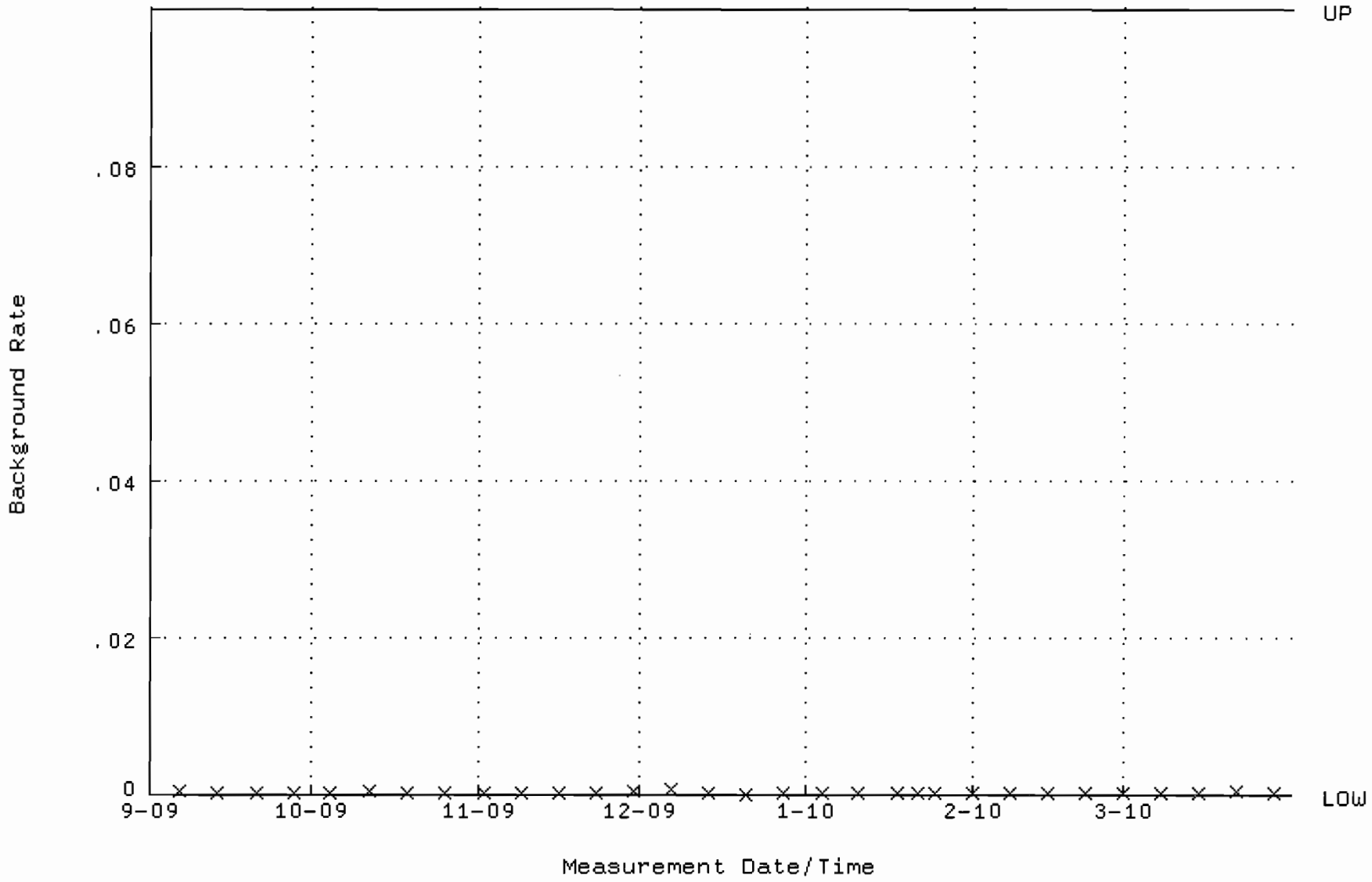

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:04 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.389351 through 0.404525

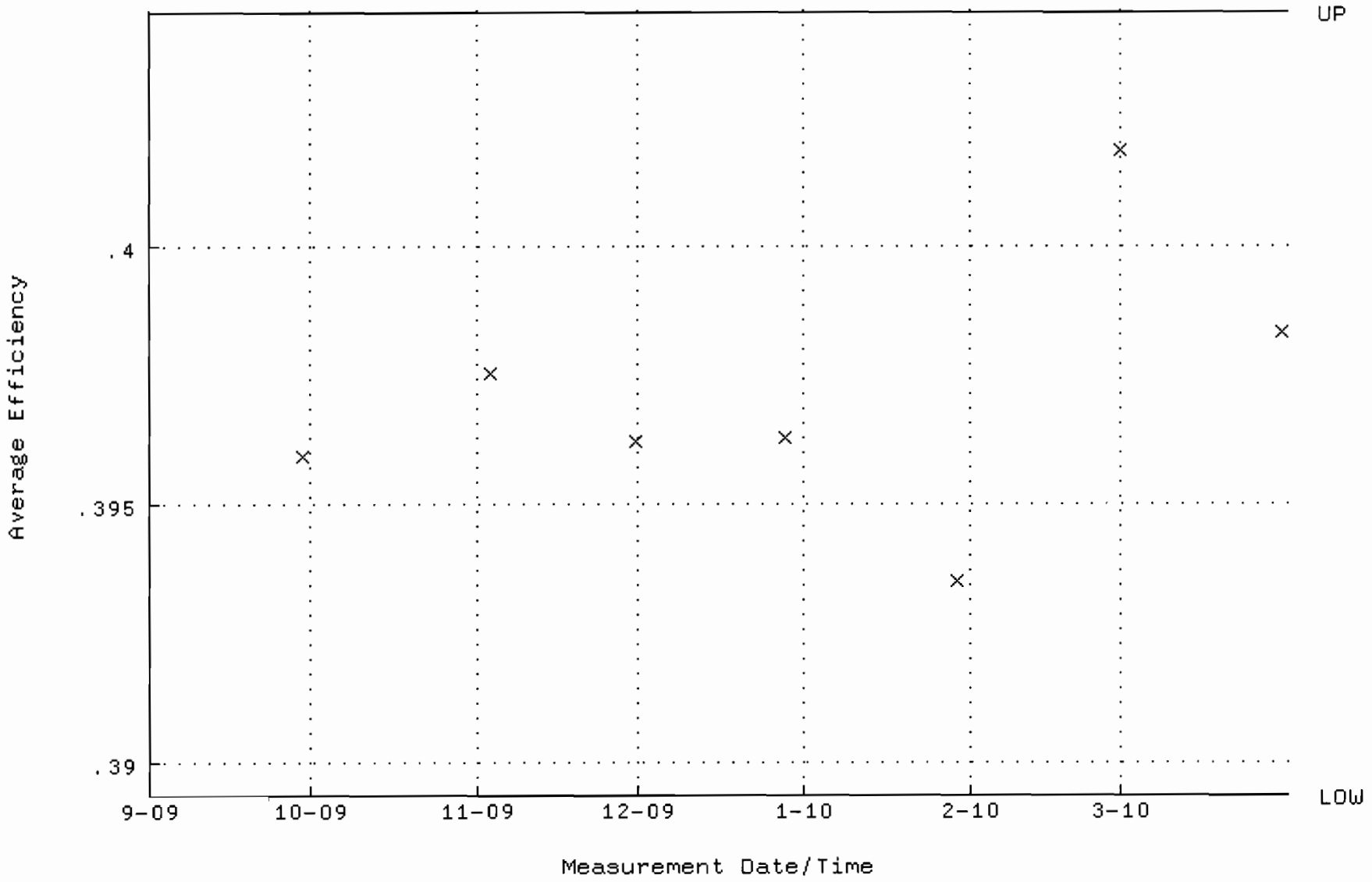

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:04 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 82.7118 through 85.8726

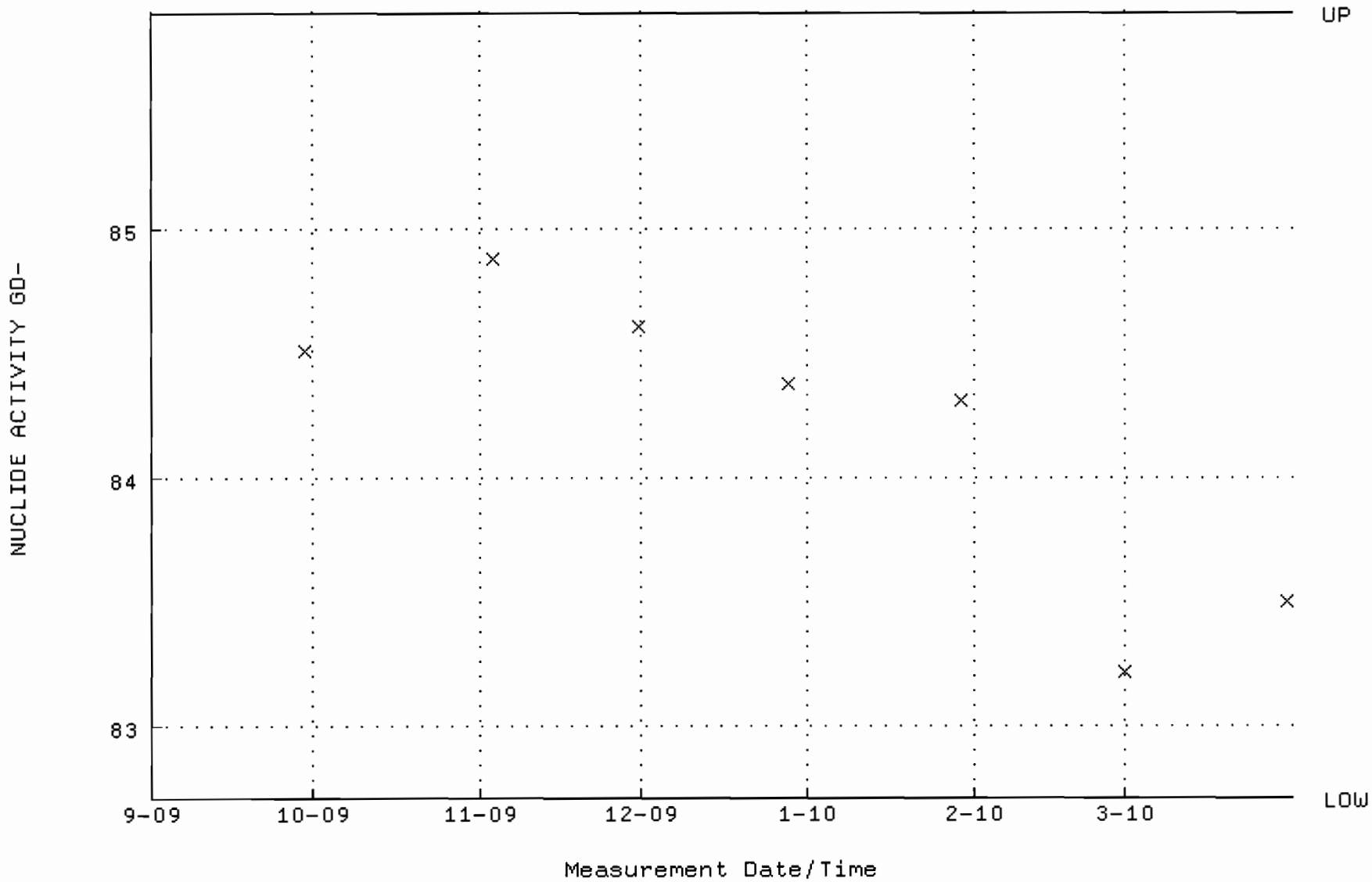

QA filename : DKA100:[ENV_ALPHA.QA.B]B238.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:34 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

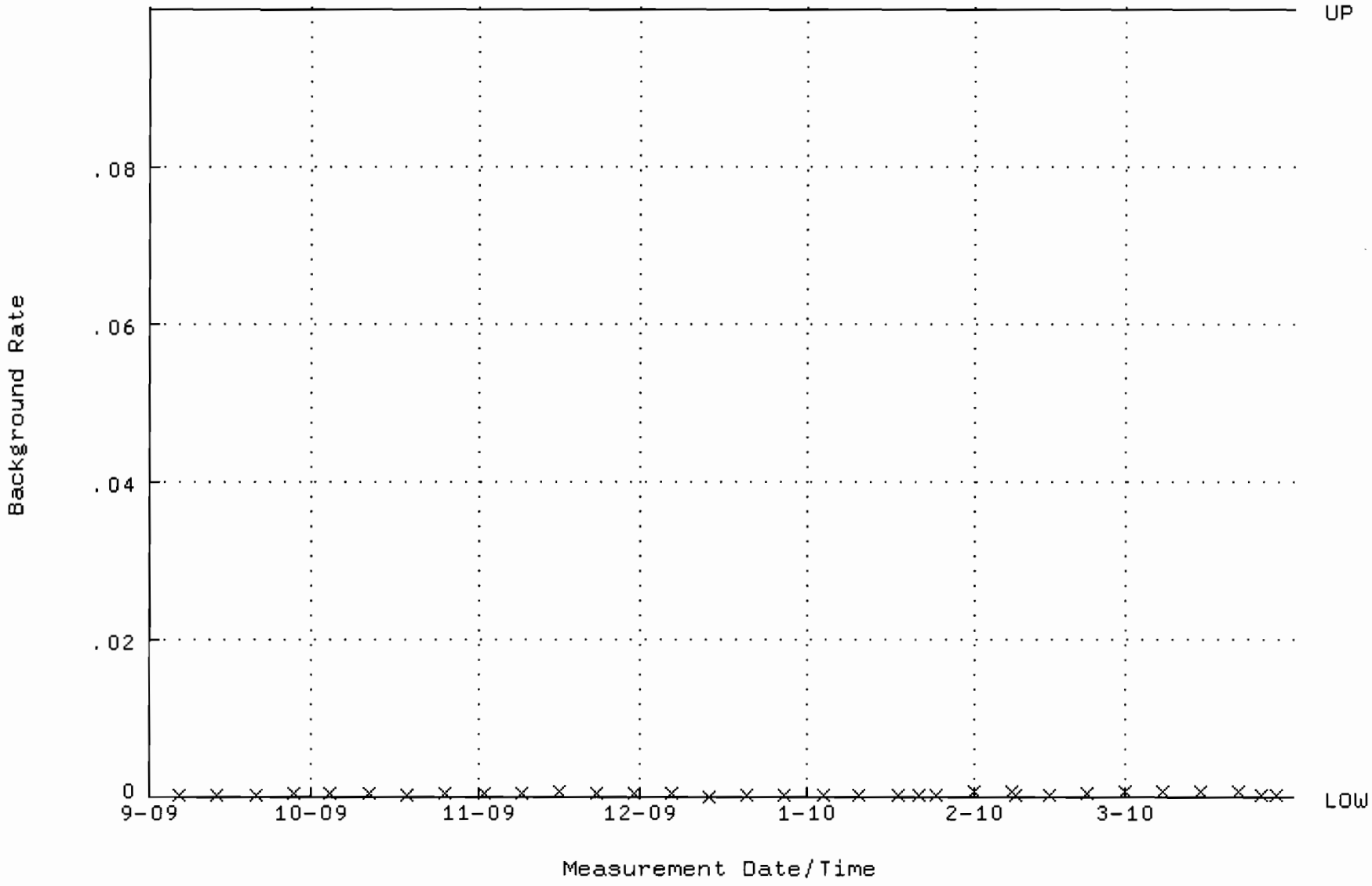

QA filename : DKA100:[ENV_ALPHA.QA.W]W239.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:10 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.366465 through 0.400837

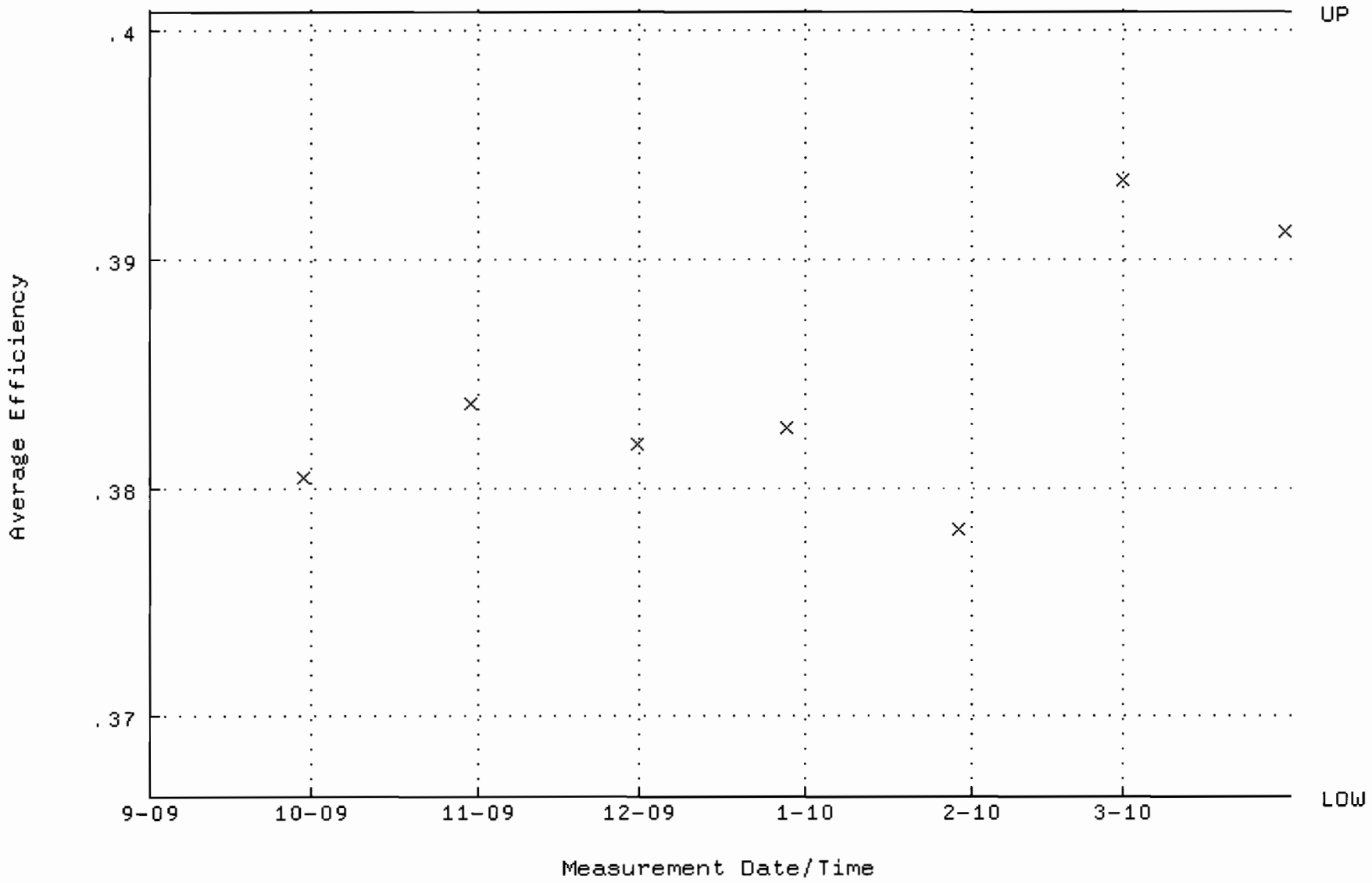

QA filename : DKA100:[ENV_ALPHA.QA.W]W239.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:10 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 82.5482 through 91.4126

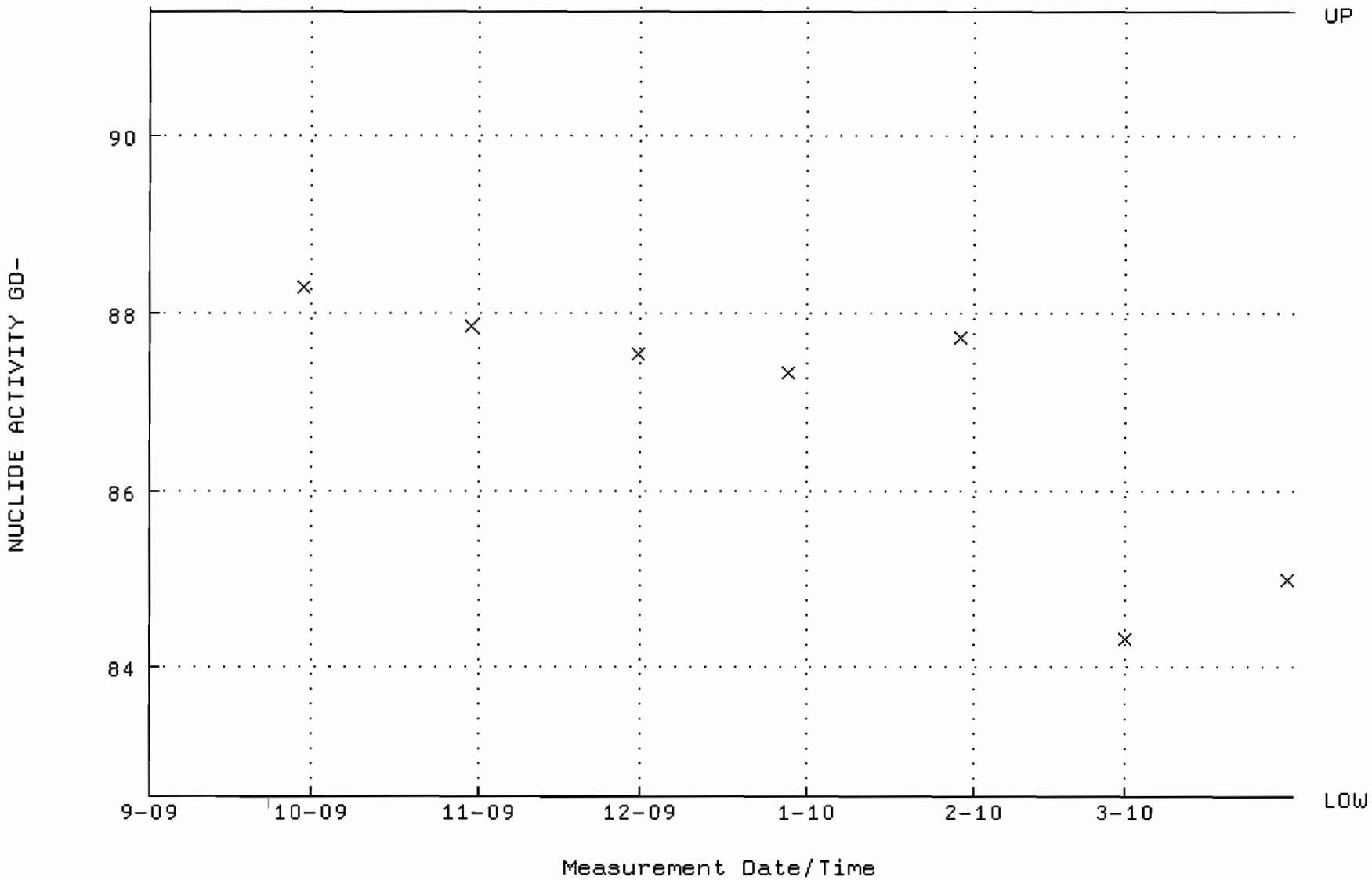

QA filename : DKA100:[ENV_ALPHA.QA.B]B239.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:39 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

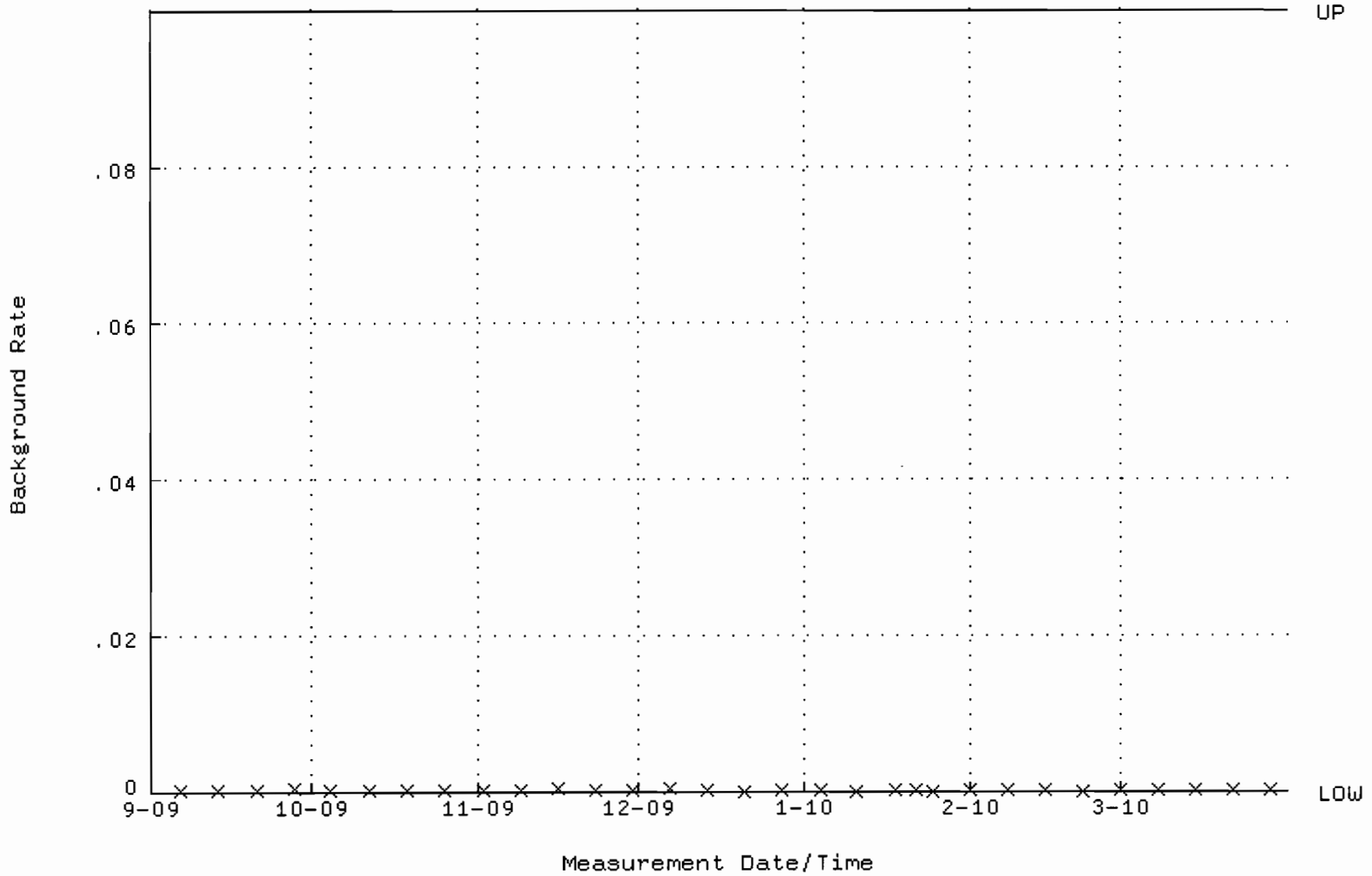

QA filename : DKA100:[ENV_ALPHA.QA.W]W247.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:55 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.352698 through 0.404942

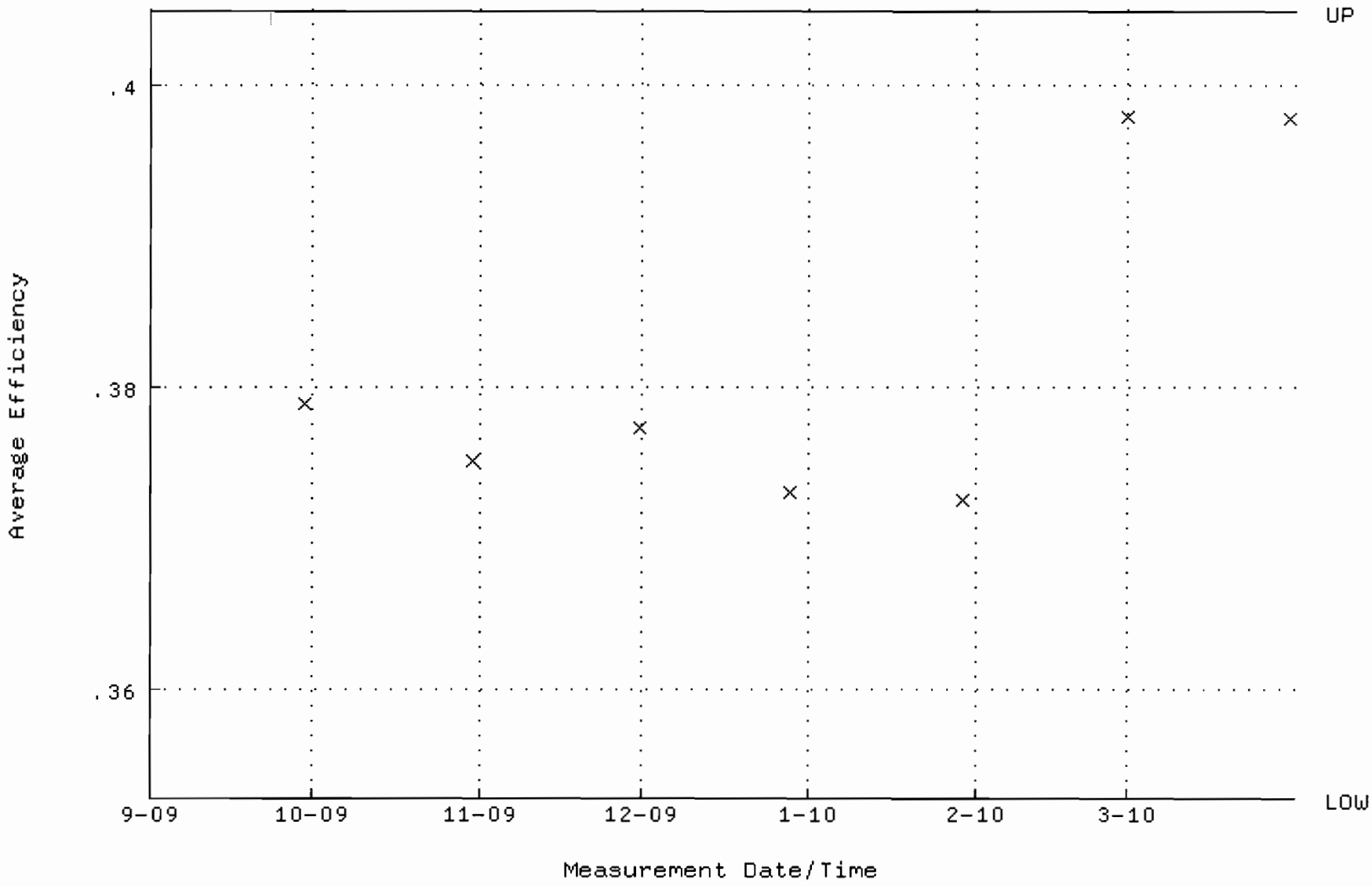

QA filename : DKA100:[ENV_ALPHA.QA.W]W247.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:55 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.8318 through 94.4164

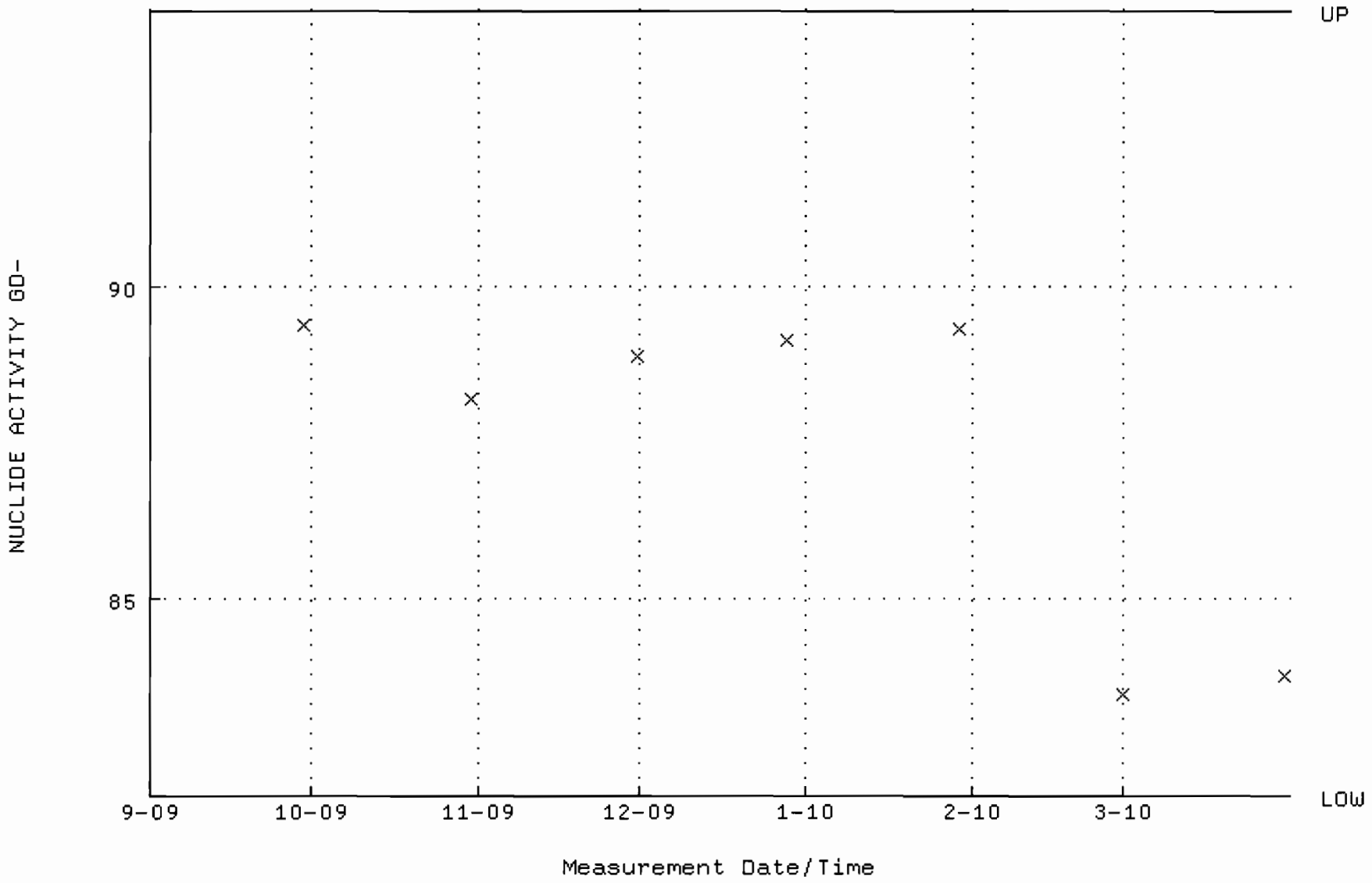

QA filename : DKA100:[ENV_ALPHA.QA.B]B247.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:16 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

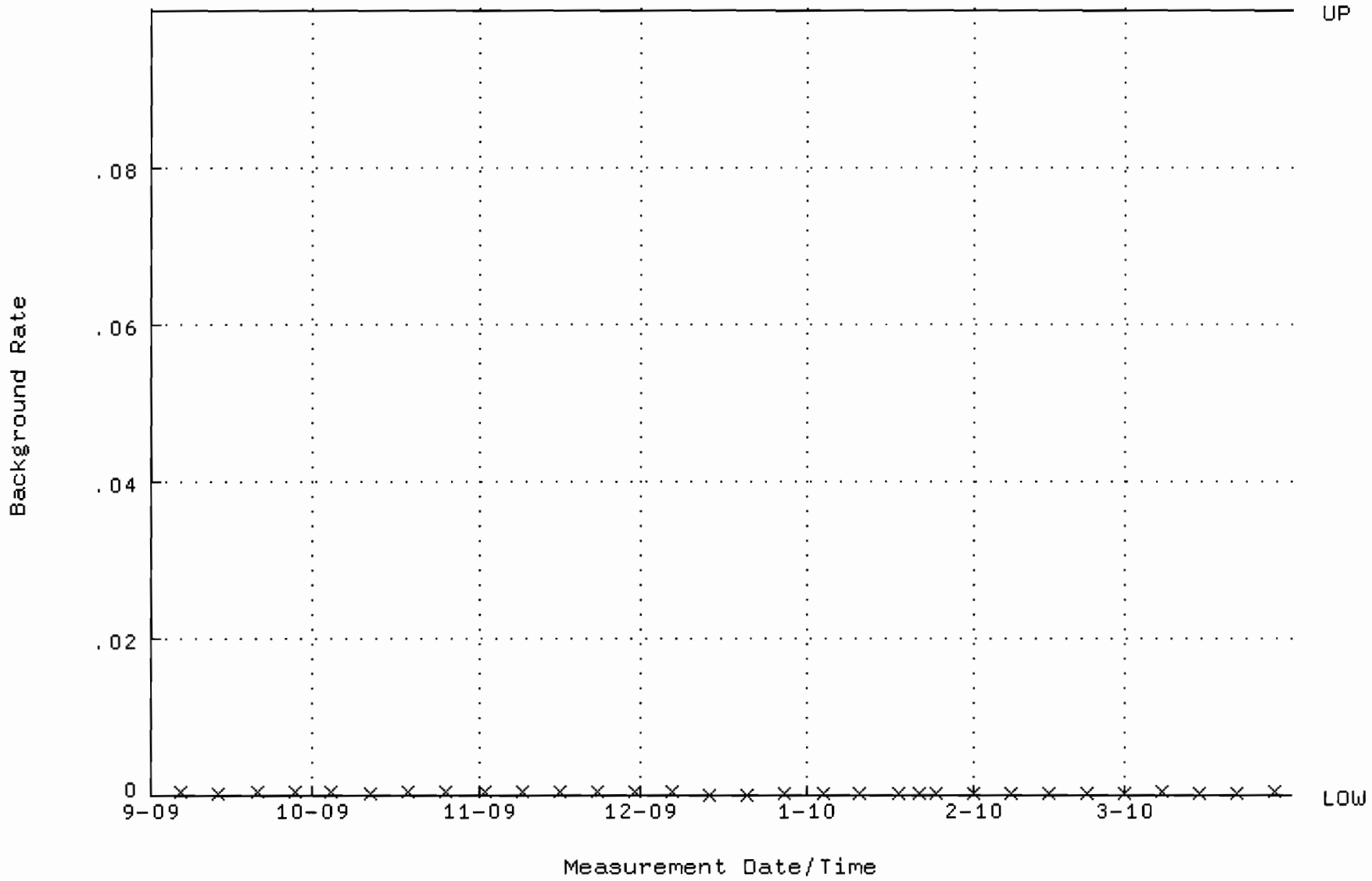

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM04_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 05:22:58 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

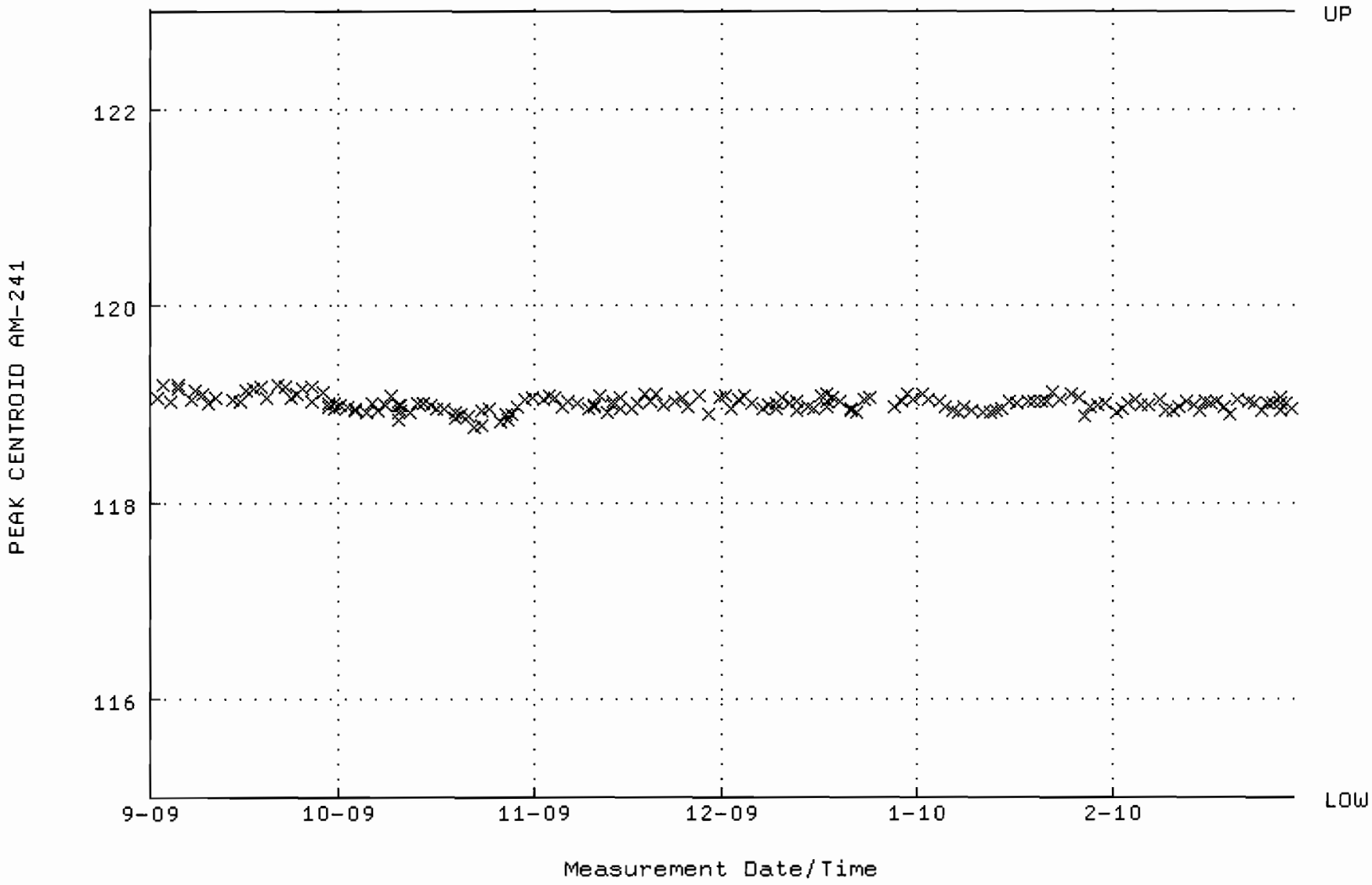

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM04.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:38:33 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.32050 +- 2.495234E-02 (1.89 %)

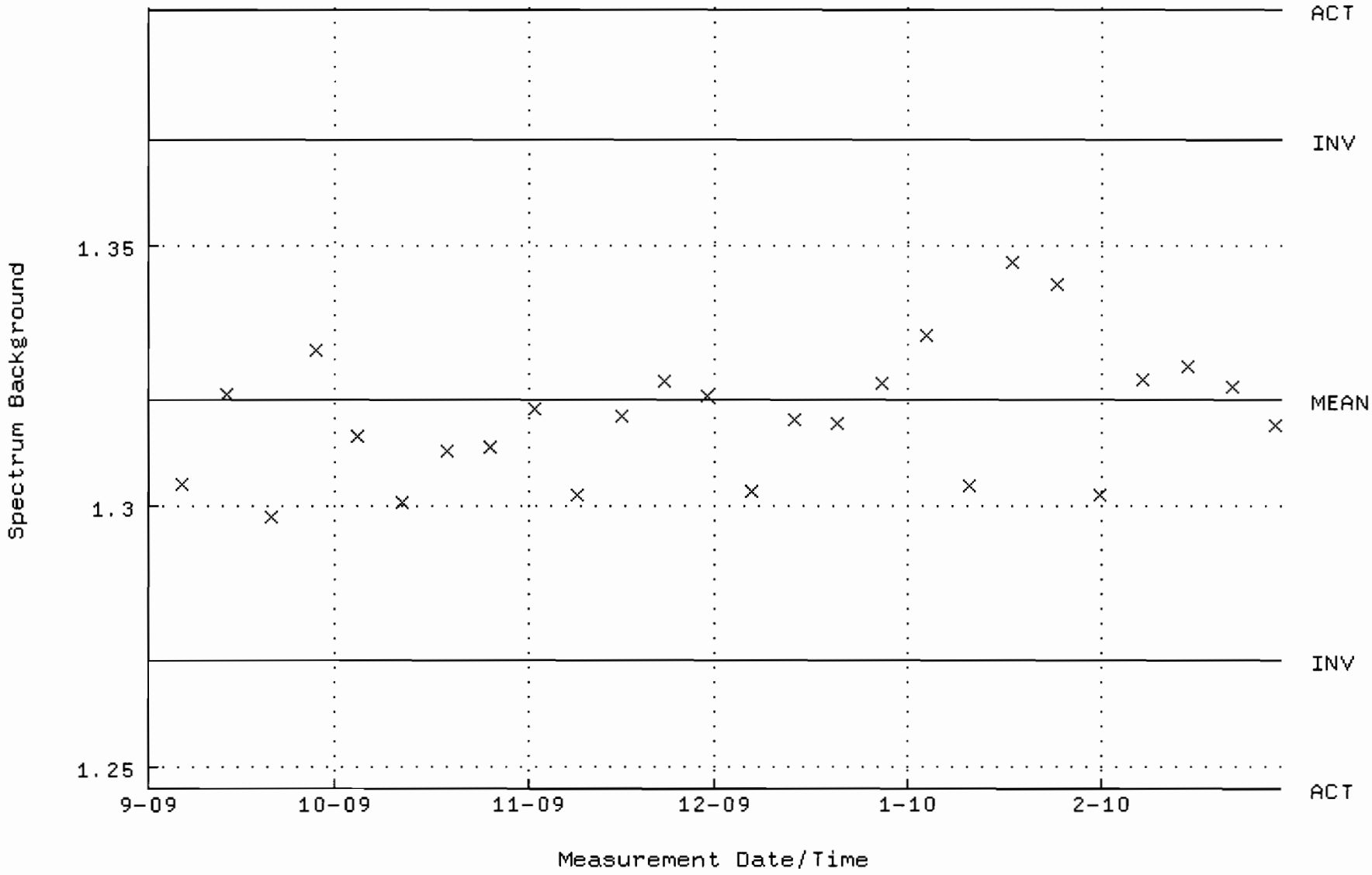

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM06_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:40:19 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

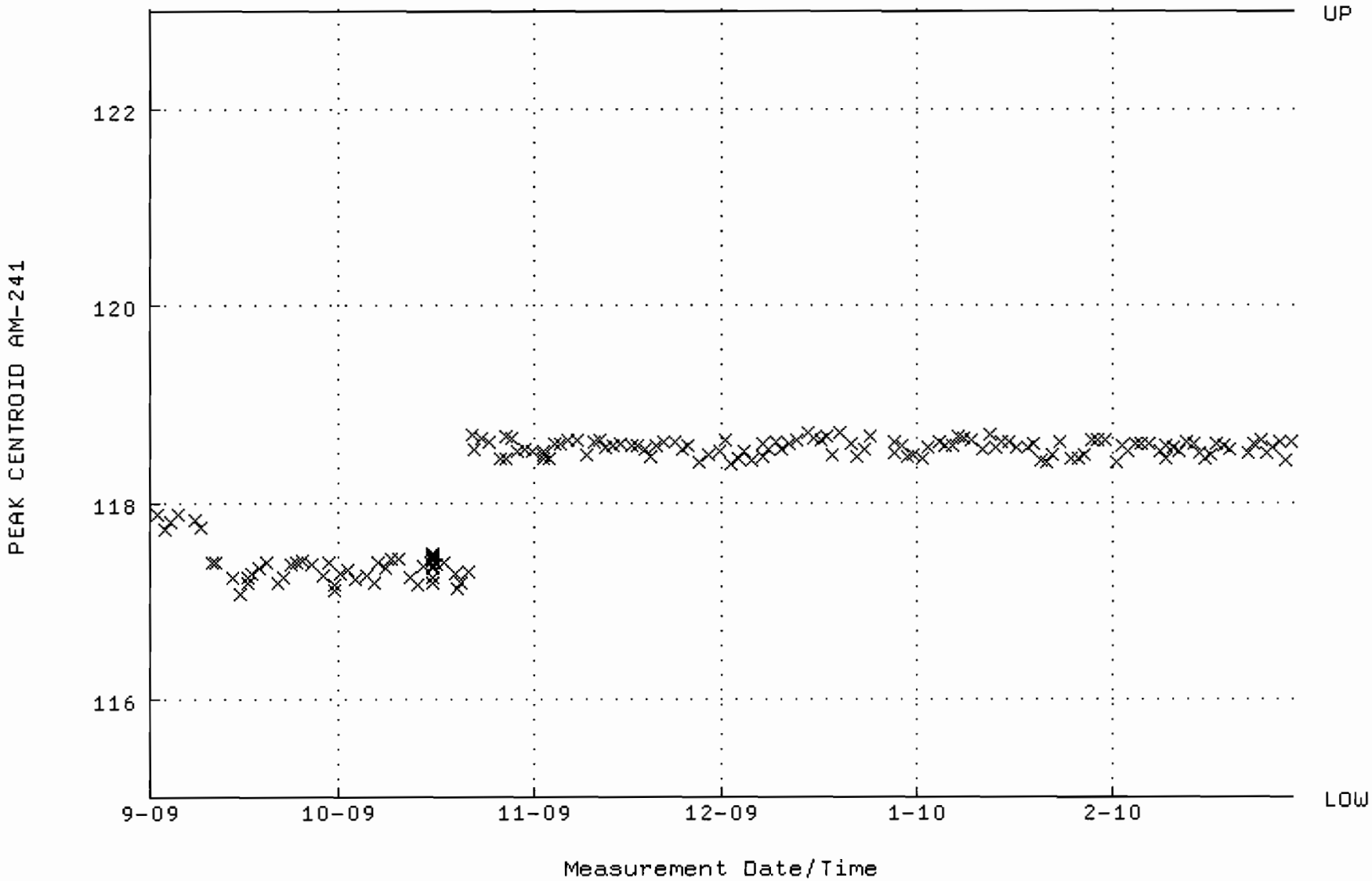

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM06.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:39:28 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.52603 +- 1.215987E-02 (0.80 %)

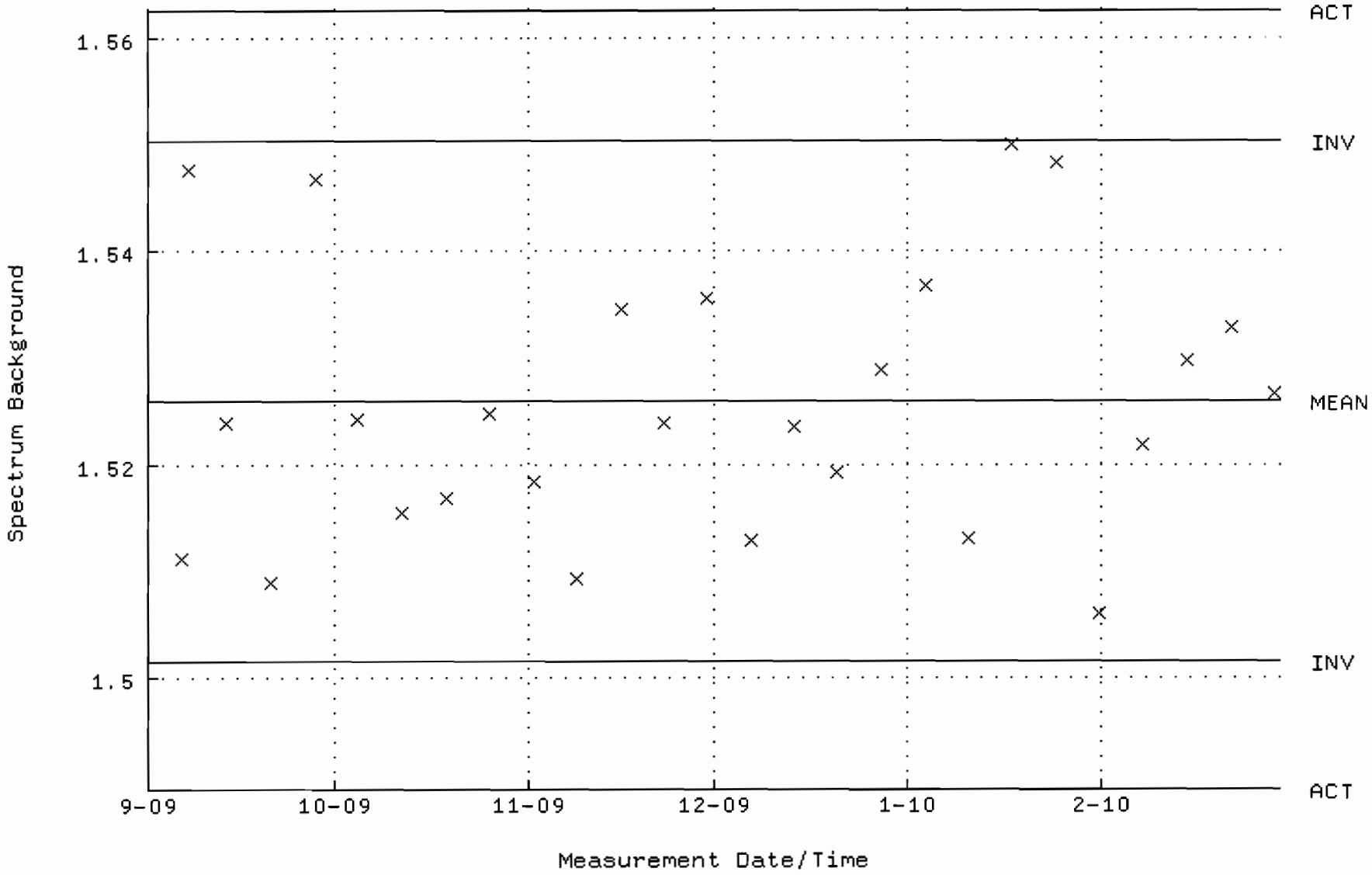

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:32:23 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

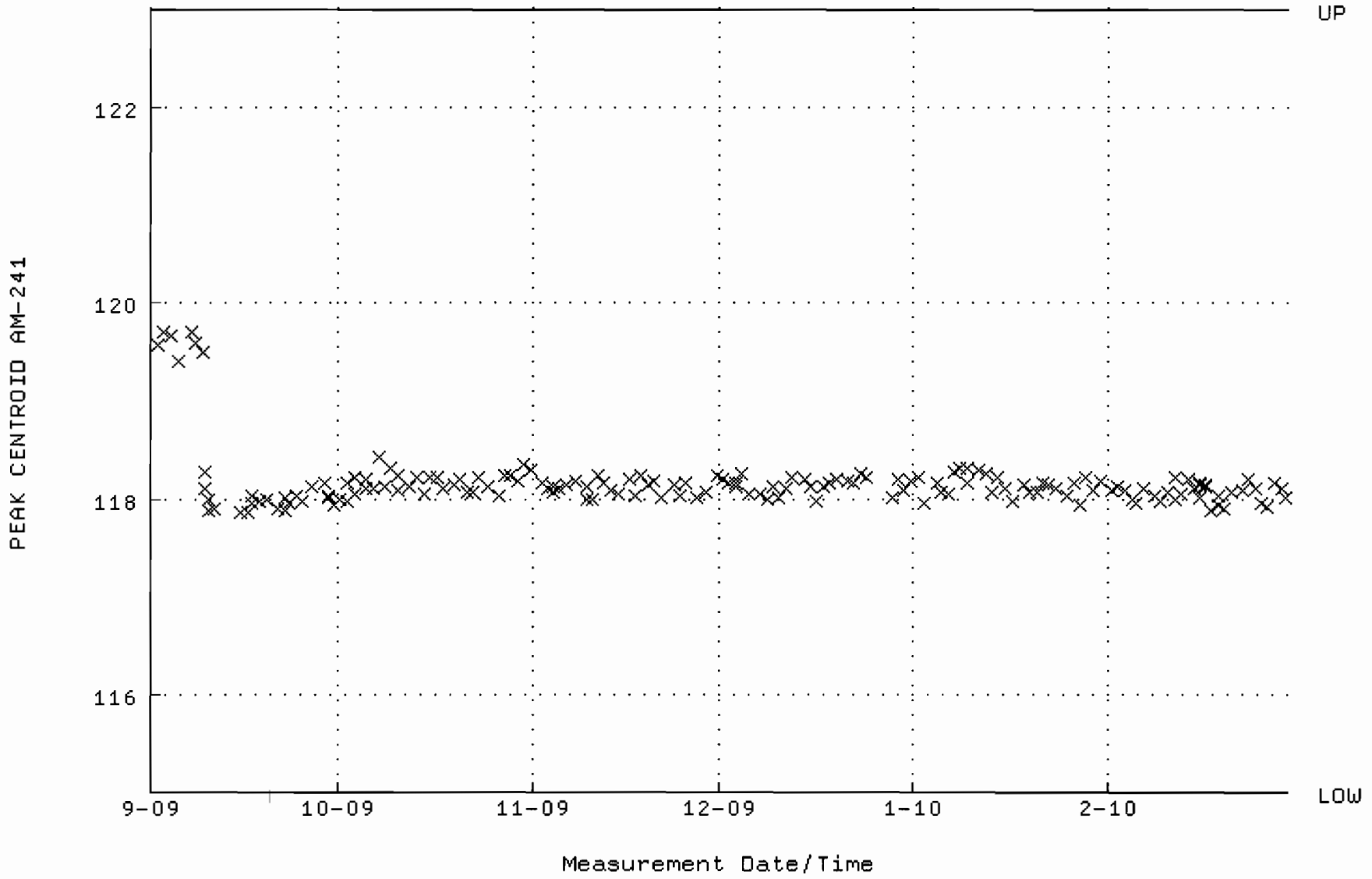

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:43:44 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)

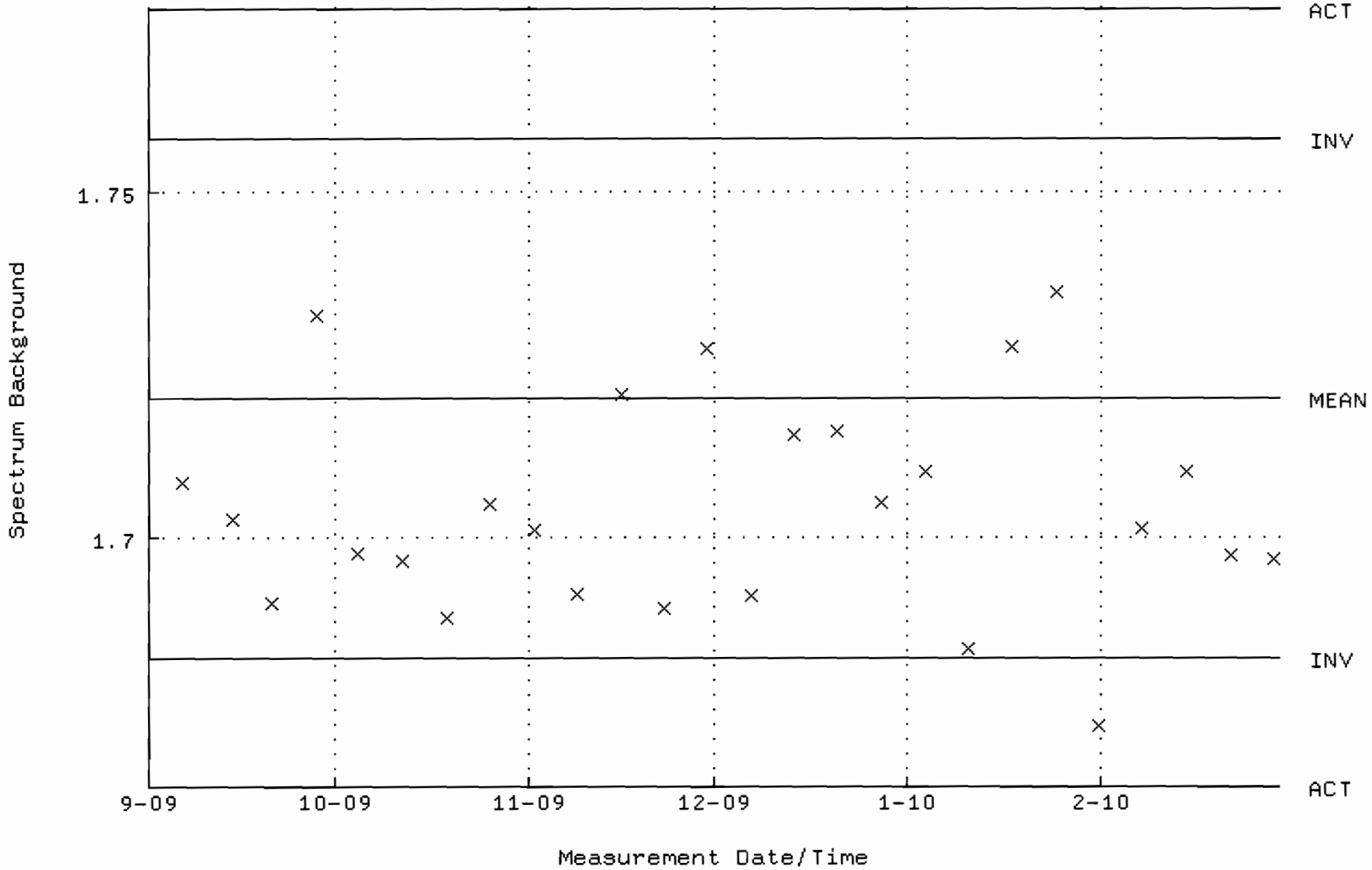

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

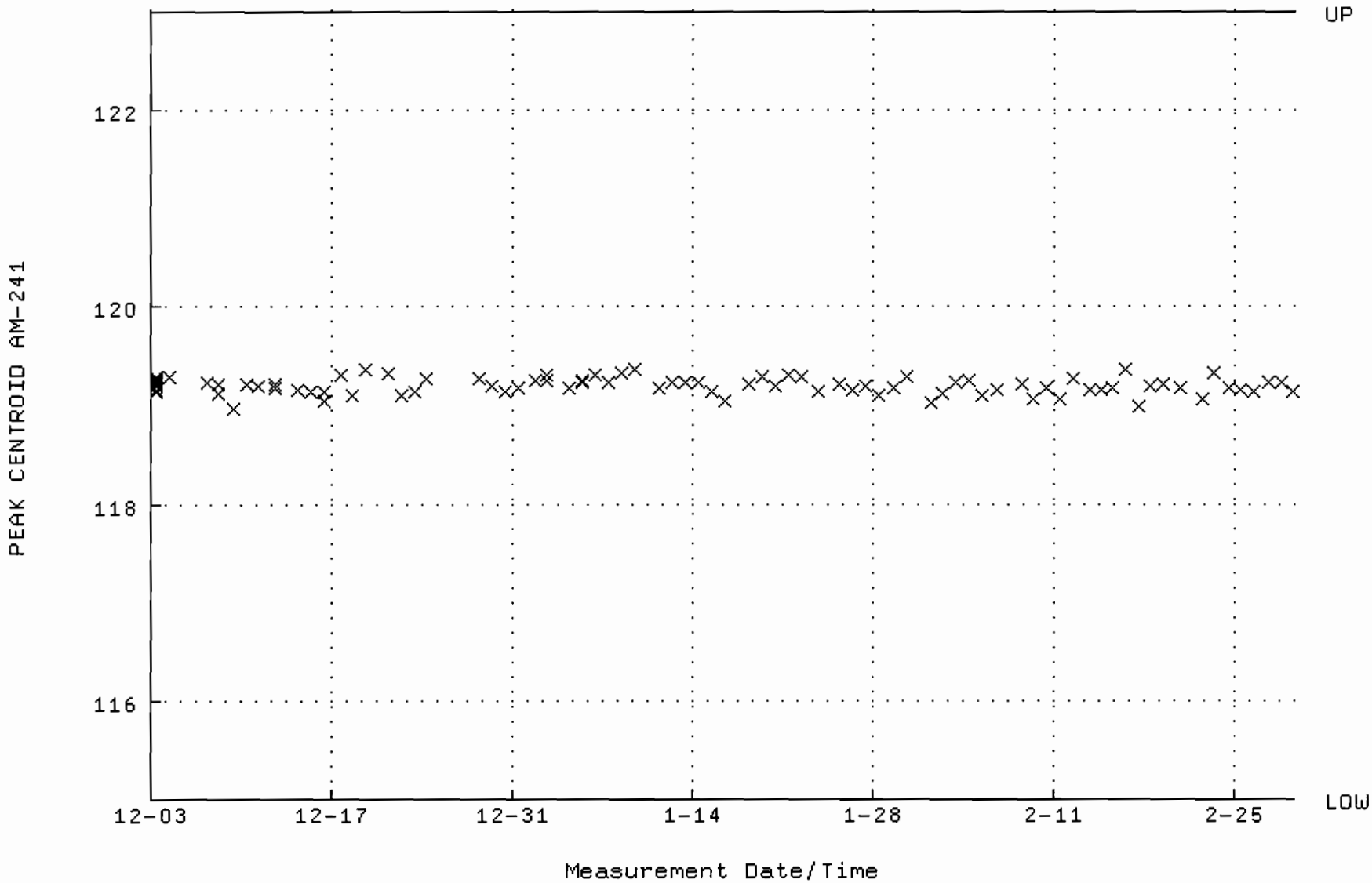

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

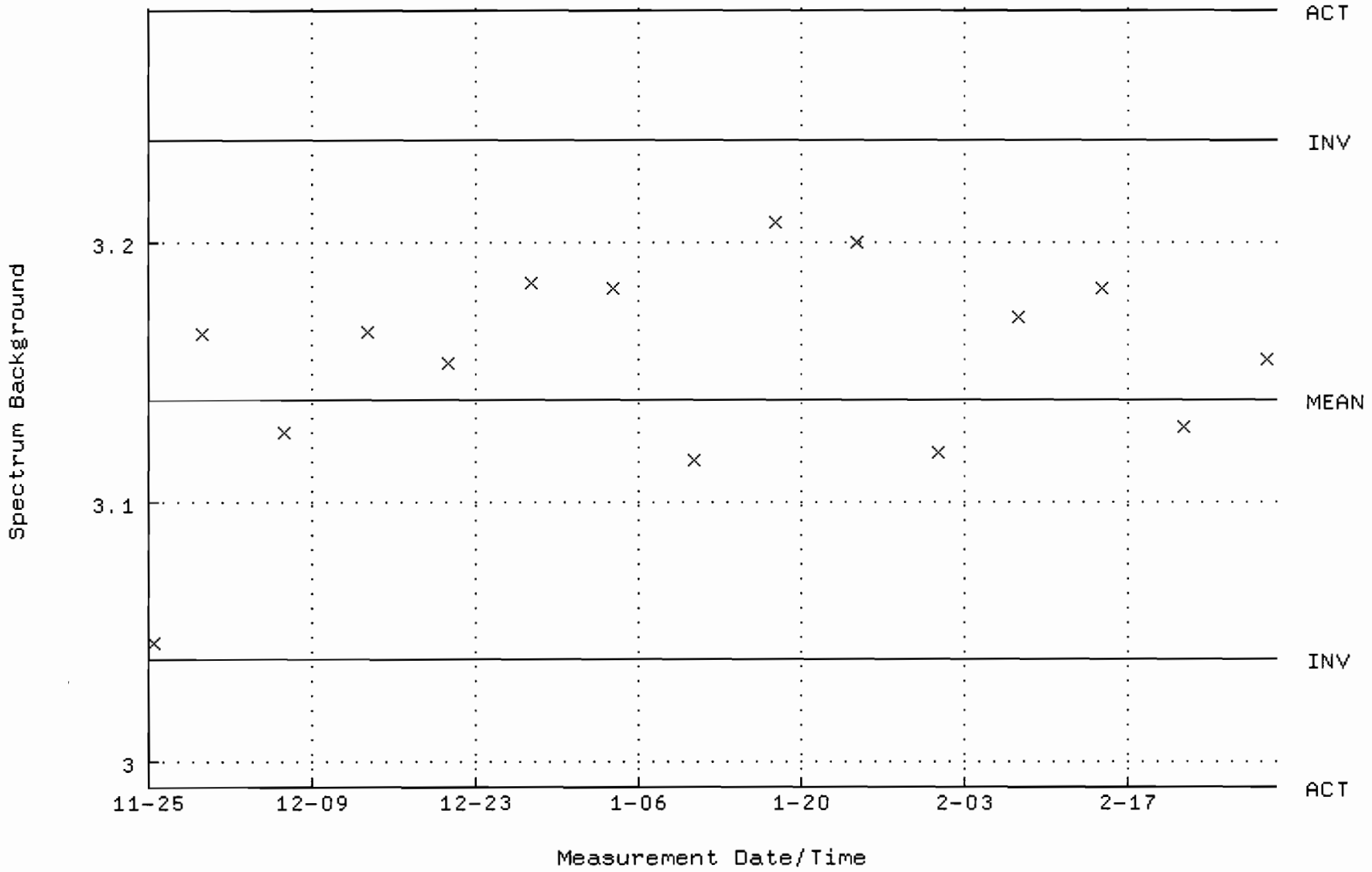

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM29_CAN.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 2-MAR-2010 08:30:43 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

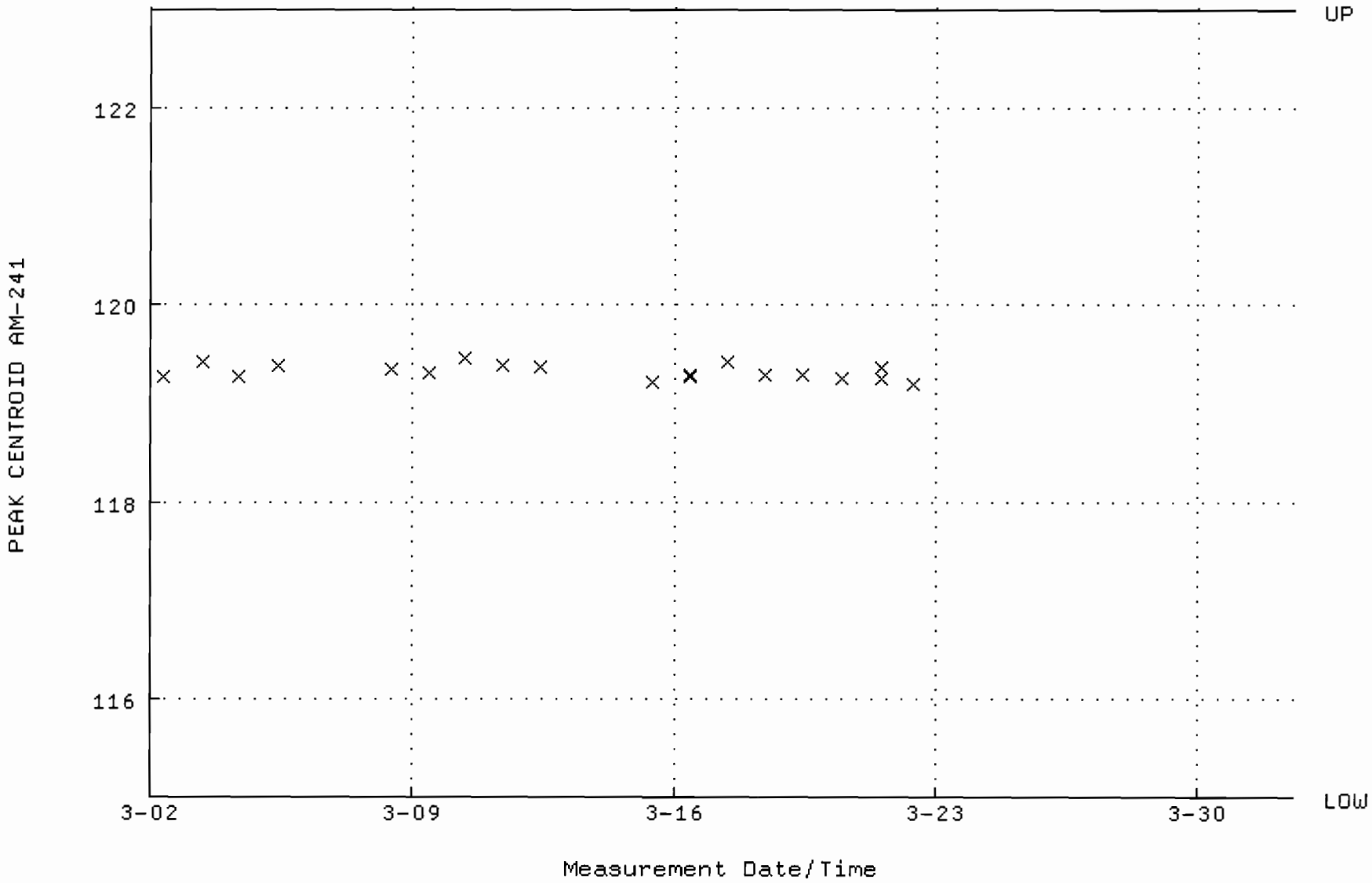

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM29.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 7-MAR-2010 16:47:12 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 1.94193 through 2.37347

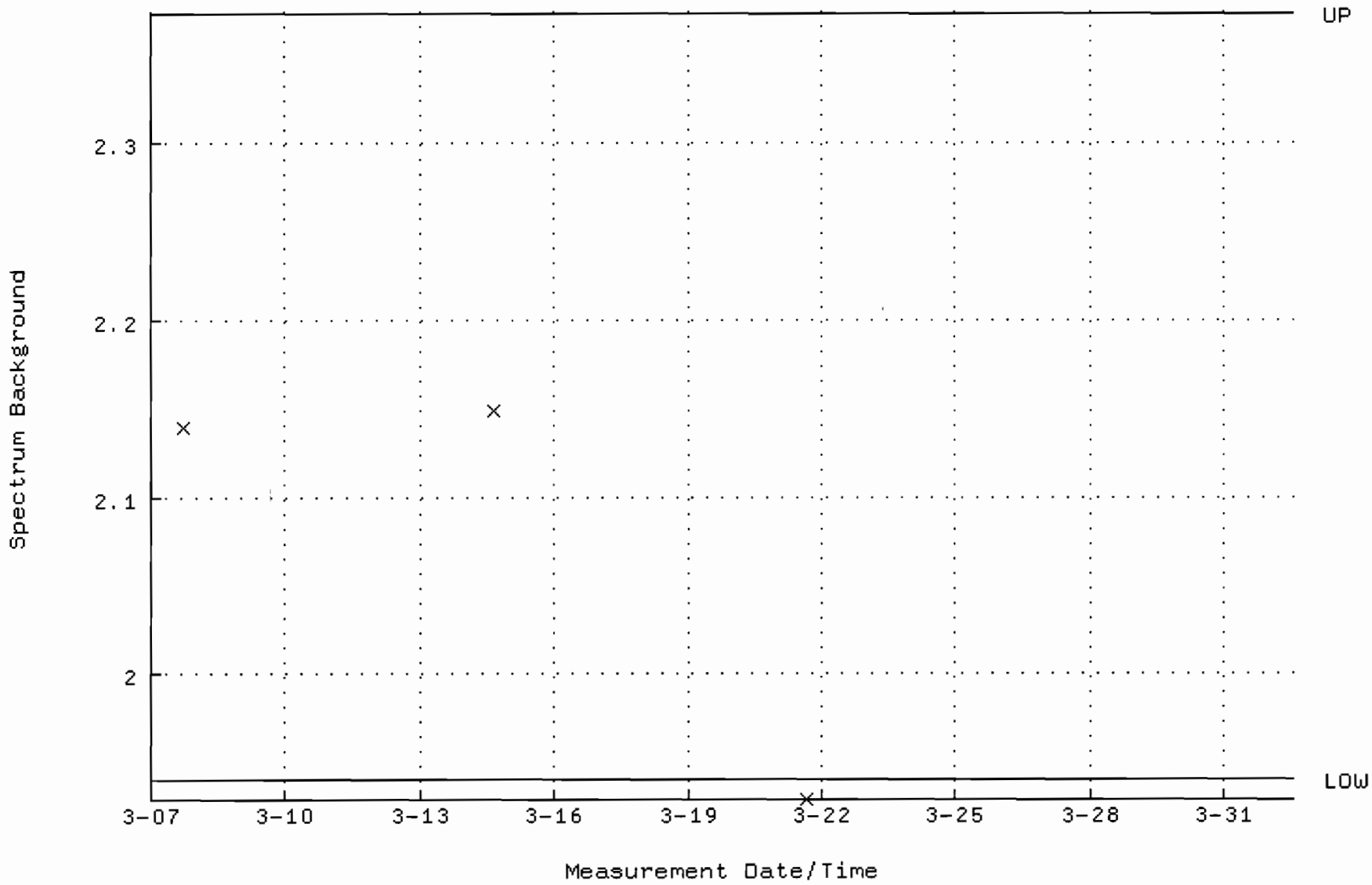

STANDARDS DATA

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

Laboratory

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

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ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER. JAR-1
	Mixed Gamma N2	2510	pCi/L	- VER. JAR-3
	Mixed Gamma N3	2413	pCi/L	- VER. JAR-5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 verification 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER. JAR.1
	Mixed Gamma N2	907.6	pCi/L	- VER. JAR.3
	Mixed Gamma N3	898.9	pCi/L	- VER. JAR.2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result	
	Mixed Gamma N1	1572	pCi/L - VER-JAR-5
	Mixed Gamma N2	1495	pCi/L - VER-JAR-2
	Mixed Gamma N3	1501	pCi/L - VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**
Stdev =	42.829	**Rule 3 (Pass/Fail)**	

Certificate Value =	1545.8378	pCi/L
Lower Limit =	1437.008431	pCi/L
Upper Limit =	1608.324902	pCi/L
Rule 1 (Pass/Fail)	**Pass**	
Two sigma =	85.65823564	
10 % of Mean =	152.26666667	
Rule 2 (Pass/Fail)	**Pass**	

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATA 4/14/2000 Scott C Reid 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 bottles of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM-1	TRM-2	TRM-3	TRM-4
U-238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U-234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th-230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra-226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb-210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 13
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

QC Initials

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized rad materials being sent to GEL on behalf of Hank Hinton
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATE 4/14/2000

Amanda L. Fehr 4/30/04
[illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 226794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 13
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept. _____
P.O. Box 5800 MS 0154

Location — Tech Area VI
Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID (LAB USE)
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Trackings (LAB USE) SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized rad materials being sent to GEL on behalf of Hank Hinton
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Turnaround Time ☒Normal ☐Rush Required Report Date

QC Initials

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	[signature]	DP	Weston / 7577 / 845-0867

1. Relinquished by	[signature]	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0934

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

72858-278

Th-229 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Th-229
ACTIVITY (dps):	3.842 E3
HALF-LIFE:	7340 years
CALIBRATION DATE:	May 2, 2006 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	3.5%

Impurities: Th-228 5.7 dps
Th-230 24 dps
Th-232 1.5 dps

5.05657 grams 0.5M HNO_3 solution.

P O NUMBER 2724RD, Item 1

SOURCE PREPARED BY: M Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 05-02-2006

RECEIVED 5/5/06 MLK

RCS-041-110

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0934
Prepared By:	Daniel Roy
Carrier Conc:	0.05M HNO3
Reference Date:	05/02/2006
Ampoule Mass (g):	5.05657 g
Uncertainty:	+/- 3.5 %
LogBook No:	RC-S-041-110

A Solution Material Info	
Isotope:	Thorium-229
Prepared By:	Daniel Roy
Prep Date:	04/23/2008
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	0934-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8973 g
Density(g/mL):	1.0143
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8973 g) * (3842 dps) * (60 dpm/dps) / (5.05657 g * 100 mL) = 2232.5917 dpm/mL
(4.8973 g) * (3842 dps) * (60 dpm/dps) / (1.0143 g/mL)/ (5.05657 g * 100 mL) = 2201.0332 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
04/23/2008	Daniel Roy	2.5898	250	0934-B	22.8009 dpm/ml	04/23/2008	04/23/2009
09/25/2008	Daniel Roy	2.6237	250	0934-C	23.0994 dpm/ml	09/25/2008	09/25/2009
12/16/2008	Daniel Roy	2.6547	250	0934-D	23.3723 dpm/ml	12/16/2008	12/16/2009
01/09/2009	Daniel Roy	2.5399	250	0934-E	22.3616 dpm/ml	01/09/2009	01/09/2010
04/03/2009	Mary Aders	2.5434	250	0934-F	22.3924 dpm/ml	04/03/2009	04/03/2010
04/22/2009	Mary Aders	2.5138	250	0934-G	22.1318 dpm/ml	04/28/2009	04/28/2010
07/31/2009	Mary Aders	2.579	250	0934-H	22.7059 dpm/mL	07/31/2009	07/31/2010
09/16/2009	Mary Aders	2.5029	250	0934-I	22.0359 dpm/mL	09/16/2009	09/16/2010
10/21/2009	Mary Aders	2.4847	250	0934-J	21.8756 dpm/mL	10/21/2009	10/21/2010
12/02/2009	Ashley Drochter	5.0356	500	0934-K	22.167 dpm/mL	12/02/2009	12/02/2010
03/09/2010	Ashley Drochter	5.0236	500	0934-L	22.1142 dpm/mL	03/09/2010	03/09/2011

Verification for Th-229 Standard 0934-L

A.DROCHTER	Isotope	Value	Uncertainty
3/15/2010	0934-L	0.958	0.1630
	0934-L	1.020	0.2040
	0934-L	0.978	0.1550

Mean Value (Counting) =	0.985	98.95	**Pass**
Stdev =	0.031643851		**Rule 3 (Pass/Fail)**

Target =	0.996
Lower Limit =	0.92204563
Upper Limit =	1.048621036
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.063287703
10 % of Mean =	0.098533333
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard 0934-L using 0.1 mL for each source. Each standard was combined with 0.1 mL of Th-230 standard A2796-J and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Two mL of 49% HF was added to precipitate neodymium(and Thorium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Th-229 were calculated by comparison to Th-230 certified values.

3/18/10

3/18/10

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Kuen
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ 1. STANDARD WIPE TEST

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 2. SOAK TEST

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 3. SOAK TEST -- BERYLLIUM WINDOW

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 4. GAS SOURCE TEST (Radioactive Gas)

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ 5. OTHER LEAK TEST

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 6. LEAK TEST NOT APPLICABLE

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	03/09/2010
Expiration Date:	03/09/2011
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Tara Sides	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/14/2009	09/14/2010
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/09/2010	Ashley Drochter	.011	1000	445-96-2-VV	22.7878 dpm/mL	03/09/2010	03/09/2011
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
03/23/2010	Ashley Drochter	.0163	1000	445-96-2-WW	33.7674 dpm/mL	03/23/2010	03/23/2011
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-VV*

A.Drochter	Isotope	Value	Uncertainty
3/15/2010	445-96-2-VV #1	1.040	0.1630
	445-96-2-VV #2	0.964	0.1480
	445-96-2-VV #3	0.970	0.1550

Mean Value (Counting) =	0.991	96.72	**Pass**
Stdev =	0.042253205		**Rule 3 (Pass/Fail)**

Target =	1.025
Lower Limit =	0.906826923
Upper Limit =	1.075839743
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.08450641
10 % of Mean =	0.099133333
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-VV*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

3/15/10

3/16/10

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-OE

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	Serial #	Value		Uncertainty	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L

Mean Value (Counting) =	2.027	pCi/L	**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L		**Rule 3 (Pass/Fail)**

Target =	2.033	pCi/L
Lower Limit =	1.965565657	pCi/L
Upper Limit =	2.087767676	pCi/L
Rule 1 Pass/Fail	**Pass**	
Two sigma =	0.061101009	
10 % of Mean =	0.202666667	
Rule 2 (Pass/Fail)	**Pass**	

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A. Drochter AMD 12/14/09

1430

NATIONAL PHYSICAL LABORATORY

Teddington Middlesex UK TW11 0LW Telephone +44 20 8977 3222

Certificate of Calibration

UKAS CALIBRATION 0478

PLUTONIUM-236 SOLUTION
R37-02

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

FOR:	GEL Laboratories LLC 2040 Savage Road Charleston, SC 29407 USA
FOR THE ATTENTION OF:	Mr Tim Winters
NPL PRODUCT CODE:	R37-02
IDENTIFICATION:	A09881
DESCRIPTION:	An aqueous solution of ^{236}Pu also containing 2 mol dm^{-3} of nitric acid. The solution is contained in a flame sealed ampoule of type Q and nominal volume 5 ml (squat) as defined in BS 795:1983.
DATE(S) OF CALIBRATION:	26 June 2009 to 1 July 2009
INTENDED USE:	Calibration of instruments for response to ^{236}Pu
STORAGE:	The material may be stored at room temperature in a suitably sealed container. Flame-sealed glass ampoules are recommended for long-term storage. Regulatory conditions may apply to the manner in which this material is stored.

RECEIVED 11/24/09 AWS.

MEASUREMENTS

The samples were prepared by gravimetric dilution of a ^{236}Pu solution, which had been previously standardised using liquid scintillation counting. The accuracy of the dilution factor was checked using liquid scintillation counting.

Reference: 2009100356

Date of Issue: 4 November 2009

Checked by:

Signed:

Name: Dr Arvic Harms

(Authorised Signatory)

for Managing Director

RESULTS

Principal radionuclide:	^{236}Pu
Reference time:	2009-07-01 12:00 UTC
Activity concentration of principal radionuclide:	170.8 Bq g^{-1}
Expanded uncertainty:	±0.6 Bq g^{-1} (±0.36 %)
Contaminants present:	^{226}Ra, ^{232}U, ^{228}Th, ^{237}Np
Activity concentration of ^{226}Ra:	11.0 mBq g^{-1}
Expanded uncertainty:	±4.0 mBq g^{-1} (±36 %)
Activity concentration of ^{232}U:	0.67 Bq g^{-1}
Expanded uncertainty:	±0.12 Bq g^{-1} (±18 %)
Activity concentration of ^{228}Th:	11.38 mBq g^{-1}
Expanded uncertainty:	±0.46 mBq g^{-1} (±4 %)
Activity concentration of ^{237}Np:	5.00 mBq g^{-1}
Expanded uncertainty:	±0.34 mBq g^{-1} (±8 %)
Sample Mass:	4.97 g ± 0.02 g

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

NOTES

[1]. The reported reference time is stated consistent with the format given in ISO 8601:2004. UTC is the abbreviation for Universal Time, Coordinated. The date is stated in the format YYYY-MM-DD such that 2008-09-01 represents 1 September 2008.

[2]. The recommended half life of ^{236}Pu is 1044 (6) days and is taken from the evaluations published in *Nuclear Data Sheets*.

[3]. The recommended half life of ^{226}Ra is 5.844 (50) × 10^5 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[4]. The recommended half life of ^{232}U is 25800 (800) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[5]. The recommended half life of ^{237}Np is 7.83 (6) × 10^8 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[6]. The recommended half life of ^{228}Th is 698.60 (46) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Checked by:

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1430
Prepared By:	Ashley Drochter
Carrier Conc:	2 M HNO3
Reference Date:	07/01/2009
Ampoule Mass (g):	4.97 g
Uncertainty:	+/- .36 %
LogBook No:	RC-S-051-149

A Solution Material Info	
Isotope:	Plutonium-236
Prepared By:	Ashley Drochter
Prep Date:	01/27/2010
Verification Date:	01/27/2010
Expiration Date:	01/27/2011
Primary Code:	1430-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8051 g
Density(g/mL):	1.0610
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (100 mL) = 492.4266 dpm/mL
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (1.0610 g/mL) / (100 mL) = 464.1156 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/27/2010	Bethany Fiem	33.0429	200	1430-B	76.6786262 dpm/mL	01/27/2010	01/27/2011
03/04/2010	Ashley Drochter	15.2331	200	1430-C	35.3496 dpm/mL	03/04/2010	03/04/2011
03/17/2010	Ashley Drochter	15.0683	200	1430-D	34.9672 dpm/mL	03/17/2010	03/17/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-236 Standard 1430-C

	Isotope	Value	Uncertainty
A. Drochter	1430-C	2.760	0.4480
3/4/2010	1430-C	2.770	0.4520
	1430-C	2.950	0.4850
Mean Value (Counting) =	2.827	104.54659	% of Known Value
Stdev =	0.106926766		
Target =	2.70		
Lower Limit =	2.612813134		
Upper Limit =	3.040520199		
Rule 1 Pass/Fail	Pass	Pass	Pass
Two sigma =	0.213853532		
10 % of Mean =	0.282666667		
Rule 2 (Pass/Fail)	Pass		

The analyst prepared three standard verification sources for standard 1430-B using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. After approximately ten minutes, two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-236 were calculated by comparison to Pu-239 certified values.

3/5/10

3/5/10

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 962631**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status		Geometry	Calibration Date
248702001	SAMPLE	MXR1	GAM05	23-MAR-10 08:52	DONE	CAN		11-JUN-09 00:00
248702002	SAMPLE	MXR1	GAM15	23-MAR-10 12:23	DONE	CAN		03-FEB-10 00:00
248818001	SAMPLE	MXR1	GAM10	23-MAR-10 12:59	DONE	CAN		13-MAR-10 00:00
248818002	SAMPLE	MXR1	GAM05	23-MAR-10 13:02	DONE	CAN		11-JUN-09 00:00
248818003	SAMPLE	MXR1	GAM18	23-MAR-10 13:05	DONE	CAN		23-APR-09 00:00
248818004	SAMPLE	MXR1	GAM01	23-MAR-10 13:33	DONE	CAN		12-JAN-10 00:00
248818005	SAMPLE	MXR1	GAM16	23-MAR-10 13:33	DONE	CAN		16-NOV-09 00:00
248818006	SAMPLE	MXR1	GAM20	23-MAR-10 13:34	DONE	CAN		26-AUG-09 00:00
248818007	SAMPLE	MXR1	GAM17	23-MAR-10 13:54	DONE	CAN		06-JAN-10 00:00
248818008	SAMPLE	MXR1	GAM21	23-MAR-10 14:24	DONE	CAN		28-JUL-09 00:00
248818009	SAMPLE	MXR1	GAM23	23-MAR-10 14:25	DONE	CAN		02-JUN-09 00:00
248824001	SAMPLE	MXR1	GAM29	23-MAR-10 14:25	DONE	CAN		23-FEB-10 00:00
248824002	SAMPLE	MXR1	GAM04	23-MAR-10 14:38	DONE	CAN		05-MAY-09 00:00
1202065185	MB	MXR1	GAM06	23-MAR-10 14:39	DONE	CAN		16-FEB-10 00:00
1202065186	DUP	MXR1	GAM15	23-MAR-10 14:39	DONE	CAN		03-FEB-10 00:00
1202065187	LCS	MXR1	GAM22	23-MAR-10 14:40	DONE	CAN		02-DEC-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965811**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248824001	SAMPLE	AYB1	1231	29-MAR-10 12:01	DONE		
248824002	SAMPLE	AYB1	1232	29-MAR-10 12:01	DONE		
248860001	SAMPLE	AYB1	1233	29-MAR-10 12:01	DONE		
248860002	SAMPLE	AYB1	1234	29-MAR-10 12:01	DONE		
248867003	SAMPLE	AYB1	1235	29-MAR-10 21:46	DONE		
248867004	SAMPLE	AYB1	1236	29-MAR-10 21:46	DONE		
1202072522	MB	AYB1	1237	29-MAR-10 21:46	DONE		
1202072523	DUP	AYB1	1238	29-MAR-10 21:46	DONE		
1202072524	LCS	AYB1	1239	29-MAR-10 21:46	DONE		
248860003	SAMPLE	AYB1	1240	29-MAR-10 21:47	DONE		
248860004	SAMPLE	AYB1	1241	29-MAR-10 21:47	DONE		
248860005	SAMPLE	AYB1	1242	29-MAR-10 21:47	DONE		
248860006	SAMPLE	AYB1	1243	29-MAR-10 21:47	DONE		
248860007	SAMPLE	AYB1	1244	29-MAR-10 21:47	DONE		
248860008	SAMPLE	AYB1	1245	29-MAR-10 21:47	DONE		
248860009	SAMPLE	AYB1	1246	29-MAR-10 21:47	DONE		
248867001	SAMPLE	AYB1	1247	29-MAR-10 21:47	DONE		
248867002	SAMPLE	AYB1	1248	29-MAR-10 21:47	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965813**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248824001	SAMPLE	AYB1	1086	27-MAR-10 13:40	DONE		
248824002	SAMPLE	AYB1	1087	27-MAR-10 13:40	DONE		
248860001	SAMPLE	AYB1	1088	27-MAR-10 13:40	DONE		
248860007	SAMPLE	AYB1	1013	29-MAR-10 09:33	DONE		
248860008	SAMPLE	AYB1	1014	29-MAR-10 09:33	DONE		
248860009	SAMPLE	AYB1	1016	29-MAR-10 09:33	DONE		
248867001	SAMPLE	AYB1	1017	29-MAR-10 09:33	DONE		
248867002	SAMPLE	AYB1	1018	29-MAR-10 09:33	DONE		
248867003	SAMPLE	AYB1	1019	29-MAR-10 09:33	DONE		
248867004	SAMPLE	AYB1	1020	29-MAR-10 09:33	DONE		
1202072525	MB	AYB1	1022	29-MAR-10 09:33	DONE		
1202072526	DUP	AYB1	1023	29-MAR-10 09:33	DONE		
1202072527	LCS	AYB1	1024	29-MAR-10 09:33	DONE		
248860002	SAMPLE	AYB1	1025	29-MAR-10 09:33	DONE		
248860003	SAMPLE	AYB1	1026	29-MAR-10 09:33	DONE		
248860004	SAMPLE	AYB1	1027	29-MAR-10 09:33	DONE		
248860005	SAMPLE	AYB1	1028	29-MAR-10 09:33	DONE		
248860006	SAMPLE	AYB1	1030	29-MAR-10 09:33	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965814**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248824001	SAMPLE	AYB1	1173	27-MAR-10 13:52	DUSE		
248824002	SAMPLE	AYB1	1174	27-MAR-10 13:52	DUSE		
248863001	SAMPLE	AYB1	1177	27-MAR-10 13:52	DUSE		
248863002	SAMPLE	AYB1	1178	27-MAR-10 13:52	DUSE		
248863003	SAMPLE	AYB1	1179	27-MAR-10 13:52	DUSE		
248863004	SAMPLE	AYB1	1180	27-MAR-10 13:52	DUSE		
248865001	SAMPLE	AYB1	1181	27-MAR-10 13:52	DUSE		
248867001	SAMPLE	AYB1	1182	27-MAR-10 13:52	DUSE		
248867002	SAMPLE	AYB1	1183	27-MAR-10 13:52	DUSE		
248867003	SAMPLE	AYB1	1184	27-MAR-10 13:52	DUSE		
248867004	SAMPLE	AYB1	1185	27-MAR-10 13:52	DUSE		
249179001	SAMPLE	AYB1	1186	27-MAR-10 13:52	DUSE		
249179002	SAMPLE	AYB1	1187	27-MAR-10 13:53	DUSE		
249179003	SAMPLE	AYB1	1188	27-MAR-10 13:53	DUSE		
249179004	SAMPLE	AYB1	1189	27-MAR-10 13:53	DUSE		
249179005	SAMPLE	AYB1	1190	27-MAR-10 13:53	DUSE		
249179006	SAMPLE	AYB1	1191	27-MAR-10 13:53	DUSE		
249179007	SAMPLE	AYB1	1192	27-MAR-10 13:53	DUSE		
1202072528	MB	AYB1	1193	27-MAR-10 13:53	DUSE		
1202072529	DUP	AYB1	1194	27-MAR-10 13:53	DUSE		
1202072530	LCS	AYB1	1195	27-MAR-10 13:53	DUSE		
248824001	SAMPLE	AYB1	1173	29-MAR-10 17:05	DONE		
248824002	SAMPLE	AYB1	1174	29-MAR-10 17:05	DONE		
248863001	SAMPLE	AYB1	1177	29-MAR-10 17:05	DONE		
248863002	SAMPLE	AYB1	1178	29-MAR-10 17:05	DONE		
248863003	SAMPLE	AYB1	1179	29-MAR-10 17:05	DONE		
248863004	SAMPLE	AYB1	1180	29-MAR-10 17:05	DONE		
248865001	SAMPLE	AYB1	1181	29-MAR-10 17:05	DONE		
248867001	SAMPLE	AYB1	1182	29-MAR-10 17:05	DONE		
248867002	SAMPLE	AYB1	1183	29-MAR-10 17:05	DONE		
248867003	SAMPLE	AYB1	1184	29-MAR-10 17:05	DONE		
248867004	SAMPLE	AYB1	1185	29-MAR-10 17:05	DONE		
249179001	SAMPLE	AYB1	1186	29-MAR-10 17:05	DONE		
249179002	SAMPLE	AYB1	1187	29-MAR-10 17:05	DONE		
249179003	SAMPLE	AYB1	1188	29-MAR-10 17:05	DONE		
249179004	SAMPLE	AYB1	1189	29-MAR-10 17:05	DONE		
249179005	SAMPLE	AYB1	1190	29-MAR-10 17:06	DONE		
249179006	SAMPLE	AYB1	1191	29-MAR-10 17:06	DONE		
249179007	SAMPLE	AYB1	1192	29-MAR-10 17:06	DONE		
1202072528	MB	AYB1	1193	29-MAR-10 17:06	DONE		
1202072529	DUP	AYB1	1194	29-MAR-10 17:06	DONE		
1202072530	LCS	AYB1	1195	29-MAR-10 17:06	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 971197**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248860009	SAMPLE	AYB1	1115	02-APR-10 11:37	DONE		
248867001	SAMPLE	AYB1	1116	02-APR-10 11:37	DONE		
248867002	SAMPLE	AYB1	1126	02-APR-10 11:37	DONE		
248867003	SAMPLE	AYB1	1127	02-APR-10 11:37	DONE		
248867004	SAMPLE	AYB1	1128	02-APR-10 11:37	DONE		
1202085875	MB	AYB1	1129	02-APR-10 11:37	DONE		
1202085876	DUP	AYB1	1130	02-APR-10 11:37	DONE		
1202085877	LCS	AYB1	1131	02-APR-10 11:37	DONE		
248824001	SAMPLE	AYB1	1132	02-APR-10 11:37	DONE		
248824002	SAMPLE	AYB1	1135	02-APR-10 11:37	DONE		
248860001	SAMPLE	AYB1	1136	02-APR-10 11:37	DONE		
248860004	SAMPLE	AYB1	1139	02-APR-10 11:37	DONE		
248860005	SAMPLE	AYB1	1140	02-APR-10 11:37	DONE		
248860006	SAMPLE	AYB1	1141	02-APR-10 11:38	DONE		
248860007	SAMPLE	AYB1	1142	02-APR-10 11:38	DONE		
248860008	SAMPLE	AYB1	1143	02-APR-10 11:38	DONE		
248860002	SAMPLE	AYB1	1001	03-APR-10 16:18	DONE		
248860003	SAMPLE	AYB1	1002	03-APR-10 16:18	DONE		

Hard Copy Required

Thursday, March 04, 2010

REQUEST NUMBER: 10-2304

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2304

Per Agreement Number:126310011

Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13546	S	3/3/2010	
		1	RE46-10-13547	S	3/3/2010	
		1	RE46-10-13548	S	3/3/2010	
		1	RE46-10-13549	S	3/3/2010	
		1	RE46-10-13550	S	3/3/2010	
		1	RE46-10-13551	S	3/3/2010	

	1	RE46-10-13552	S	3/3/2010
	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010
HASL-300:AM-241	1	RE46-10-13546	S	3/3/2010
	1	RE46-10-13547	S	3/3/2010
	1	RE46-10-13548	S	3/3/2010
	1	RE46-10-13549	S	3/3/2010
	1	RE46-10-13550	S	3/3/2010
	1	RE46-10-13551	S	3/3/2010
	1	RE46-10-13552	S	3/3/2010
	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010
HASL-300:ISOPU	1	RE46-10-13546	S	3/3/2010
	1	RE46-10-13547	S	3/3/2010
	1	RE46-10-13548	S	3/3/2010
	1	RE46-10-13549	S	3/3/2010
	1	RE46-10-13550	S	3/3/2010
	1	RE46-10-13551	S	3/3/2010
	1	RE46-10-13552	S	3/3/2010
	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010
HASL-300:ISOTH	1	RE46-10-13546	S	3/3/2010
	1	RE46-10-13547	S	3/3/2010
	1	RE46-10-13548	S	3/3/2010
	1	RE46-10-13549	S	3/3/2010
	1	RE46-10-13550	S	3/3/2010
	1	RE46-10-13551	S	3/3/2010
	1	RE46-10-13552	S	3/3/2010
	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010
HASL-300:ISOU	1	RE46-10-13546	S	3/3/2010
	1	RE46-10-13547	S	3/3/2010
	1	RE46-10-13548	S	3/3/2010
	1	RE46-10-13549	S	3/3/2010
	1	RE46-10-13550	S	3/3/2010
	1	RE46-10-13551	S	3/3/2010
	1	RE46-10-13552	S	3/3/2010

1	RE46-10-13553	S	3/3/2010
1	RE46-10-13556	S	3/3/2010

Final Page of REQUEST NUMBER 10-2304

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2304C

REQUEST NUMBER: 10-2304

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13553	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13549	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13551	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13550	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13548	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13546	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13552	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13547	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13556	1	POLY	AM241+GS+ISOPU/TH/U	None	S

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	3/4/10	1400	Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name / Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13546 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1100	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611622	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	8 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	9 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R JRJ 3-3-10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ **COMPOSITE TIME INTERVAL:** _____ **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** _____ **BOREHOLE DIRECTION:** _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1-2	4 Week 2-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: tuff, Pinkish gray (7.5YR 6/3), solvent odor?

SAMPLE COMMENTS: Base of well

LOCATION DESC: 4c-1

FIELD SCREENING/MEASUREMENT RESULTS: PID: ~~NA~~ JRJ 3-3-10 373 ppm

Background: α: 12 dpm β: 827

Samples MDA

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-3-10	(Printed Name) Sheri Sherwood	3-3-10
(Signature)	1715	(Signature) Sheri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13547 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1125	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611622	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	13 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	14 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	SR JRJ 3-3-10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: tuff moist pinkish gray (7.5YR 6/3), solvent odor?

SAMPLE COMMENTS: 5ft below base of well

LOCATION DESC: 4C-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 421 ppm Background: α: 12 dpm β: 827 Samples < MDA

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13548 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QB + 3
TIME COLLECTED (HH:MM)		1140	SUB-MEDIA:	SOIL	O/C
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611622	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	18	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	19	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 ~~2~~ 3-3-10		ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice JT 3-3-10	Y	Plus Cesium Metal

SAMPLE DESC: tuff, pinkish-gray (7.5YR 6/3), solvent odor? Sl. moist

SAMPLE COMMENTS: 10 ft below base of well

LOCATION DESC: 4c-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 433 ppm

Background: α: 12 β: 807 dpm

Sample's MDA

COLLECTED BY (PRINT) J. Jones **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jones	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13549 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1205	SUB-MEDIA:	SOIL	Ole
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611622	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK SJS 3-3-10	FIELD PREP:	NA	
TOP DEPTH:	0	~~24~~ 23 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	24 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	SR SJS 3-3-10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ **COMPOSITE TIME INTERVAL:** _____ **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** _____ **BOREHOLE DIRECTION:** _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 ~~2~~	ALL 3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: tuff, pinkish gray (7.5 YR 6/3) solvent odor, sl. moist

SAMPLE COMMENTS: 15 ft below base of well

LOCATION DESC: 4C-1

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples < MDA

PID = 390 ppm α: 12 dpm

β: 827

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13550 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1335	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611623	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	8 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	9 ft	SCREEN/PORT DESC:		
FIELD MATRIX:	~~S~~ R JLJ 3-3-10		EXCAVATED: YES / NO / NA	NA	

COMPOSITE TYPE: ——— **COMPOSITE TIME INTERVAL:** ——— **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** ——— **BOREHOLE DIRECTION:** ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
~~1~~ 2	LW 3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: tuff, pinkish-gray (7.5YR 6/3), solvent odor, moist

SAMPLE COMMENTS: base of well

LOCATION DESC: 4C-2

FIELD SCREENING/MEASUREMENT RESULTS: PID 265 ppm

Background: Samples < MDA
α: 12 dpm
β: 827 dpm

COLLECTED BY (PRINT) J. J[illegible] **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J[illegible]	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13551 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT 3
TIME COLLECTED (HH:MM)			SUB-MEDIA:	SOIL	ok
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611623	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	13 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	14 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R	SLS 3-3-10	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 ~~2~~	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: ~~tuff, pinkish-gray (7.5YR 6/3)~~ JT 3-3-10
Sand, brn (7.5YR 4/3), coarse gr, sub angular - sub rounded wet, solvent odor

SAMPLE COMMENTS: 5 ft below base of well

LOCATION DESC: 4C-2

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples < MDA
PID = 373 ppm α: 12 β: 827 dpm

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13552 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1415	SUB-MEDIA:	SOIL	ok
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611623	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	18 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	19 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 2 3-3-10		ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: fnff, Pinkish-gray (7.5YR 6/3), Solvent odor, moist

SAMPLE COMMENTS: 10 ft below base of well

LOCATION DESC: 4c-2

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples < MDA
PID = 360 ppm
α: 12 dpm
β: 837

COLLECTED BY (PRINT) J. Jack **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jack	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13553 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611623	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	23 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	24 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 ~~2~~	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: Tuff, Pinkish-gray (7.5YR 6/3), solvent odor, sl. moist

SAMPLE COMMENTS: 15 ft below base of well

LOCATION DESC: 4c-2

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples < MDA
PID = 323 ppm α: 12 β: 827 dpm

COLLECTED BY (PRINT) J. [illegible] **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) James Jordan	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature) James Jordan	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13555 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	NA	All H
TIME COLLECTED (HH:MM)		1100	SUB-MEDIA:	OTHER	O/C
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611622	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	8 ft	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	9 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 ~~2~~		8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13546

SAMPLE COMMENTS: NA

LOCATION DESC: 4C-1

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Andress **REVIEWED BY (PRINT)** J. Rennie

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13556 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1415	SUB-MEDIA:	SOIL	ok
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	~~UNK~~ 46-611623		FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	18 ft	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	19 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
0 1		ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: QC Sample of RE46-10-13552
tuff, Pinkish-gray (7.5YR 6/3), solvent odor, sl. moist

SAMPLE COMMENTS: NA

LOCATION DESC: 4C-2

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) J. J[illegible] **REVIEWED BY (PRINT)** J. POWERS

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. J[illegible]	3-3-10	(Printed Name) Sherri Henwood	3-3-10
(Signature) [illegible]	1715	(Signature) Sherri Henwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2304 VALIDATION DATE: 04/23/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. All reported gamma spec results that were rejected by the laboratory due to high peak-width, interference, and low abundance were qualified R,R5a. Also, it should be noted that several results in the matrix QC samples were rejected by the laboratory. No sample data were qualified as a result.
2. The alpha spec Th- 229 tracer %R for samples RE46-10-13549 was < the laboratory LAL. The associated sample results were detects and, thus, were qualified J+,R3b.
3. It should be noted that the parent samples for all matrix QC analyses <u>except</u> alpha spec isotopic-Th were LANL samples from other RNs. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 04/23/10

VALIDATOR'S SIGNATURE: Kevin A Lambert DATE: 04/23/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☐	☒	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13553
Sample ID: 248818001
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 13.9%

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
ericium-241	U	0.000208		0.0238	+/-0.00163	0.050	pCi/g		JXH2	03/26/10	0744	965807	1
OPU "Dry Weight Corrected"													
tonium-238	U	-0.00127		0.0179	+/-0.0022	0.050	pCi/g		JXH2	03/30/10	0802	965808	2
tonium-239/240	U	0.00254		0.0151	+/-0.00254	0.050	pCi/g						
OTH "Dry Weight Corrected"													
rium-228		2.10		0.187	+/-0.207	0.100	pCi/g		JXH2	03/29/10	1514	965809	3
rium-230		1.04		0.235	+/-0.121	0.100	pCi/g						
rium-232		1.68		0.100	+/-0.171	0.100	pCi/g						
OU "Dry Weight Corrected"													
nium-233/234		0.961		0.0824	+/-0.0863	0.100	pCi/g		JXH2	03/30/10	1645	965810	6
nium-235/236		0.0578		0.0504	+/-0.015	0.100	pCi/g						
nium-238		0.997		0.058	+/-0.0888	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.202		0.429	+/-0.128	0.200	pCi/g		MXR1	03/23/10	1259	962631	7
muth-211	UI	5.39	R,R5a	0.356	+/-0.376		pCi/g						
muth-214		1.50		0.124	+/-0.125	0.200	pCi/g						
lmium-109	UI	4.30	R,R5a	1.51	+/-0.685		pCi/g						
ium-139	U	-0.0333		0.0544	+/-0.0174	0.050	pCi/g						
ium-134	U	0.0799		0.100	+/-0.0276	0.100	pCi/g						
ium-137	U	-0.0259		0.068	+/-0.0211	0.100	pCi/g						
alt-60	U	-0.0548		0.0746	+/-0.0255	0.100	pCi/g						
opium-152	U	0.0439		0.183	+/-0.0649	0.200	pCi/g						
thanum-140	U	0.128		0.248	+/-0.073		pCi/g						
d-212		2.01		0.113	+/-0.130	0.100	pCi/g						
d-214		1.96		0.130	+/-0.147	0.100	pCi/g						
rcury-203	U	0.0709		0.0848	+/-0.0236	0.100	pCi/g						
assium-40		38.9		0.570	+/-2.13	1.00	pCi/g						
lium-223	U	-0.116		1.13	+/-0.388		pCi/g						
lium-224	UI	4.35	R,R5a	1.47	+/-0.536		pCi/g						
lium-226		1.50		0.124	+/-0.125		pCi/g						

KAL
04/23/

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13553 Project: LANL01004
Sample ID: 248818001 Client ID: LANL010

ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis												
MMA SPEC "Dry Weight Corrected"												
lium-228		2.18	0.244	+/-0.237	0.500	pCi/g						
henium-106	U	-0.121	0.539	+/-0.164	0.800	pCi/g						
lium-22	U	-0.0548	0.0819	+/-0.0273	0.080	pCi/g						
ntium-85	U	0.0579	0.0826	+/-0.0267		pCi/g						
llium-208		0.719	0.0638	+/-0.052	0.080	pCi/g						
rium-227	U	0.105	0.471	+/-0.135		pCi/g						
rium-231	U	-0.116	1.13	+/-0.388		pCi/g						
rium-234	U	1.51	3.63	+/-1.04	2.00	pCi/g						
-113	U	0.000781	0.0854	+/-0.0257	0.100	pCi/g						
nium-235	U	0.043	0.384	+/-0.117	0.500	pCi/g						
ium-88	U	0.026	0.0653	+/-0.0176	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	78.7	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	86.1	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	77.2	(50%-105%)
ium-232 Tracer	ISOU "Dry Weight Corrected"	88.0	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported
\ The TIC is a suspected aldol-condensation product

KAL
04/23/

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13549
Sample ID: 248818002
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 16.6%

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mt.
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
ericium-241	U	-0.00811		0.0227	+/-0.00314	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
)PU "Dry Weight Corrected"													
tonium-238	U	0.00112		0.0158	+/-0.00336	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
tonium-239/240	U	0.00672		0.0133	+/-0.00356	0.050	pCi/g						
)TH "Dry Weight Corrected"													
rium-228		1.87	J+,R3b	0.308	+/-0.227	0.100	pCi/g		JXH2	03/29/10	1514	965809	3
rium-230		0.902		0.386	+/-0.135	0.100	pCi/g						
rium-232		1.85		0.165	+/-0.222	0.100	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		1.00		0.082	+/-0.0892	0.100	pCi/g		JXH2	03/30/10	1645	965810	5
nium-235/236		0.0647		0.0501	+/-0.0167	0.100	pCi/g						
nium-238		1.00		0.0576	+/-0.0892	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	0.0958		0.129	+/-0.041	0.200	pCi/g		MXR1	03/23/10	1302	962631	6
muth-211	UI	4.77	R,R5a	0.419	+/-0.365		pCi/g						
muth-214		1.44		0.165	+/-0.128	0.200	pCi/g						
lmium-109	UI	3.12	R,R5a	1.35	+/-0.460		pCi/g						
ium-139	U	-0.00331		0.062	+/-0.0189	0.050	pCi/g						
ium-134	UI	0.125	R,R5a	0.122	+/-0.0448	0.100	pCi/g						
ium-137	U	0.00724		0.0864	+/-0.0264	0.100	pCi/g						
alt-60	U	0.0291		0.0925	+/-0.0271	0.100	pCi/g						
opium-152	U	-0.0237		0.208	+/-0.0825	0.200	pCi/g						
thanum-140	U	0.0952		0.246	+/-0.0767		pCi/g						
d-212		2.15		0.113	+/-0.134	0.100	pCi/g						
d-214		1.73		0.153	+/-0.141	0.100	pCi/g						
rcury-203	U	0.0542		0.0895	+/-0.0286	0.100	pCi/g						
assium-40		37.7		0.703	+/-1.62	1.00	pCi/g						
lium-223	U	1.29		1.41	+/-0.449		pCi/g						
lium-224	UI	5.80	R,R5a	1.21	+/-0.787		pCi/g						
lium-226		1.44		0.165	+/-0.128		pCi/g						
lium-228		2.19		0.312	+/-0.251	0.500	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13549
Sample ID: 248818002

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
henium-106	U	-0.0518		0.687	+/-0.214	0.800	pCi/g						
lium-22	U	0.0297		0.103	+/-0.0304	0.080	pCi/g						
ontium-85	UI	0.118	R,R5a	0.0924	+/-0.0274		pCi/g						
illium-208		0.590		0.0775	+/-0.0614	0.080	pCi/g						
rium-227	U	0.0468		0.523	+/-0.152		pCi/g						
rium-231	U	1.29		1.41	+/-0.449		pCi/g						
rium-234		2.42		1.27	+/-0.614	2.00	pCi/g						
-113	U	-0.0463		0.0952	+/-0.0298	0.100	pCi/g						
nium-235	U	0.0933		0.428	+/-0.127	0.500	pCi/g						
ium-88	U	-0.00545		0.0647	+/-0.0204	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	81.0	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	95.2	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	45.5 *	(50%-105%)
ium-232 Tracer	ISOU "Dry Weight Corrected"	96.4	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
3D Results are either below the MDC or tracer recovery is low

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID:	RE46-10-13551	Project:	LANL01004
Sample ID:	248818003	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	20.7%		

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Alpha Spec Analysis													
241 "Dry Weight Corrected"													
ericium-241	U	0.00424		0.0208	+/-0.00247	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
)PU "Dry Weight Corrected"													
tonium-238	U	0.00362		0.017	+/-0.0032	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
tonium-239/240	U	0.00843		0.0143	+/-0.00364	0.050	pCi/g						
)TH "Dry Weight Corrected"													
rium-228		1.59		0.193	+/-0.168	0.100	pCi/g		JXH2	03/29/10	1514	965809	3
rium-230		0.735		0.242	+/-0.0985	0.100	pCi/g						
rium-232		1.32		0.103	+/-0.145	0.100	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		1.20		0.0909	+/-0.106	0.100	pCi/g		JXH2	03/30/10	1645	965810	5
nium-235/236	U	0.0518		0.0555	+/-0.0168	0.100	pCi/g						
nium-238		1.04		0.0639	+/-0.0945	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.0745		0.295	+/-0.0853	0.200	pCi/g		MXR1	03/23/10	1305	962631	6
muth-211	UI	3.77	R,R5a	0.266	+/-0.211		pCi/g						
muth-214		1.05		0.100	+/-0.0812	0.200	pCi/g						
lmium-109	UI	3.70	R,R5a	1.28	+/-0.487		pCi/g						
ium-139	U	-0.0142		0.0425	+/-0.0124	0.050	pCi/g						
ium-134	UI	0.0814	R,R5a	0.0761	+/-0.0363	0.100	pCi/g						
ium-137	U	0.0183		0.0505	+/-0.0143	0.100	pCi/g						
alt-60	U	-0.00411		0.0521	+/-0.0161	0.100	pCi/g						
opium-152	U	-0.0443		0.127	+/-0.0434	0.200	pCi/g						
thanum-140	U	-0.0397		0.135	+/-0.043		pCi/g						
d-212		1.39		0.105	+/-0.0778	0.100	pCi/g						
d-214		1.37		0.0967	+/-0.0853	0.100	pCi/g						
rcury-203	U	0.0364		0.062	+/-0.0178	0.100	pCi/g						
assium-40		37.6		0.453	+/-1.63	1.00	pCi/g						
lium-223	U	-0.426		0.805	+/-0.298		pCi/g						
lium-224	UI	3.20	R,R5a	1.12	+/-0.369		pCi/g						
lium-226		1.05		0.100	+/-0.0812		pCi/g						
lium-228		1.82		0.201	+/-0.192	0.500	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13551
Sample ID: 248818003
Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
henium-106	U	0.0731		0.442	+/-0.133	0.800	pCi/g						
lium-22	U	-0.038		0.0615	+/-0.0201	0.080	pCi/g						
ontium-85	UI	0.0869	R,R5a	0.0604	+/-0.0178		pCi/g						
illium-208		0.543		0.0449	+/-0.0396	0.080	pCi/g						
rium-227	U	0.140		0.366	+/-0.106		pCi/g						
rium-231	U	-0.426		0.805	+/-0.298		pCi/g						
rium-234	U	1.81		2.68	+/-0.756	2.00	pCi/g						
-113	U	-0.0218		0.0587	+/-0.0177	0.100	pCi/g						
nium-235	U	-0.0268		0.302	+/-0.0933	0.500	pCi/g						
ium-88	U	-0.012		0.0376	+/-0.0125	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	90.4	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	87.1	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	77.4	(50%-105%)
nium-232 Tracer	ISOU "Dry Weight Corrected"	90.3	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

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3D Results are either below the MDC or tracer recovery is low

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID:	RE46-10-13550	Project:	LANL01004
Sample ID:	248818004	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	18.4%		

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Alpha Spec Analysis													
241 "Dry Weight Corrected"													
ericium-241	U	0.000135		0.0228	+/-0.00156	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
DPU "Dry Weight Corrected"													
tonium-238	U	0.00391		0.0184	+/-0.00227	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
tonium-239/240	U	0.00652		0.0155	+/-0.00472	0.050	pCi/g						
DTH "Dry Weight Corrected"													
rium-228		1.92		0.223	+/-0.203	0.100	pCi/g		JXH2	03/29/10	1514	965809	3
rium-230		1.03		0.280	+/-0.129	0.100	pCi/g						
rium-232		1.61		0.119	+/-0.178	0.100	pCi/g						
DU "Dry Weight Corrected"													
nium-233/234		0.941		0.0758	+/-0.0832	0.100	pCi/g		JXH2	03/30/10	1645	965810	5
nium-235/236		0.0564		0.0463	+/-0.0143	0.100	pCi/g						
nium-238		0.980		0.0532	+/-0.086	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.138		0.322	+/-0.099	0.200	pCi/g		MXR1	03/23/10	1333	962631	6
muth-211	UI	4.83	R,R5a	0.387	+/-0.341		pCi/g						
muth-214		1.39		0.134	+/-0.126	0.200	pCi/g						
lmium-109	UI	3.42	R,R5a	1.90	+/-0.633		pCi/g						
ium-139	U	0.0207		0.0638	+/-0.0181	0.050	pCi/g						
ium-134	U	0.0791		0.108	+/-0.0406	0.100	pCi/g						
ium-137	U	-0.00982		0.083	+/-0.0251	0.100	pCi/g						
alt-60	U	-0.0178		0.0755	+/-0.0239	0.100	pCi/g						
opium-152	U	0.0732		0.206	+/-0.0681	0.200	pCi/g						
thanum-140	U	-0.0236		0.248	+/-0.0814		pCi/g						
d-212		1.94		0.114	+/-0.121	0.100	pCi/g						
d-214		1.75		0.148	+/-0.133	0.100	pCi/g						
rcury-203	U	0.0516		0.0904	+/-0.0258	0.100	pCi/g						
assium-40		34.4		0.535	+/-1.87	1.00	pCi/g						
lium-223	U	0.0778		1.44	+/-0.490		pCi/g						
lium-224	UI	5.67	R,R5a	1.22	+/-0.854		pCi/g						
lium-226		1.39		0.134	+/-0.126		pCi/g						
lium-228		2.25		0.259	+/-0.248	0.500	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13550 Project: LANL01004
Sample ID: 248818004 Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
henium-106	U	0.459		0.713	+/-0.196	0.800	pCi/g						
lium-22	U	0.0265		0.0922	+/-0.0263	0.080	pCi/g						
ontium-85	UI	0.108	R,R5a	0.099	+/-0.0305		pCi/g						
illium-208		0.612		0.0703	+/-0.0551	0.080	pCi/g						
rium-227	U	0.217		0.539	+/-0.155		pCi/g						
rium-231	U	0.0778		1.44	+/-0.490		pCi/g						
rium-234	U	1.85		3.10	+/-0.903	2.00	pCi/g						
-113	U	-0.00677		0.0937	+/-0.0288	0.100	pCi/g						
nium-235	U	-0.00453		0.423	+/-0.124	0.500	pCi/g						
ium-88	U	0.00936		0.0733	+/-0.0217	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	81.1	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	87.5	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	64.0	(50%-105%)
nium-232 Tracer	ISOU "Dry Weight Corrected"	98.7	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

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: Result is less than value reported
· Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
3D Results are either below the MDC or tracer recovery is low

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13548
Sample ID: 248818005
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 17.2%

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Alpha Spec Analysis													
241 "Dry Weight Corrected"													
ericium-241	U	0.00192		0.0215	+/-0.00234	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
)PU "Dry Weight Corrected"													
tonium-238	U	0.0101		0.0158	+/-0.00644	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
tonium-239/240	U	-0.00223		0.0133	+/-0.00316	0.050	pCi/g						
)TH "Dry Weight Corrected"													
rium-228		1.43		0.275	+/-0.177	0.100	pCi/g		JXH2	03/29/10	1514	965809	3
rium-230		0.764		0.345	+/-0.117	0.100	pCi/g						
rium-232		1.54		0.147	+/-0.186	0.100	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		1.42		0.0772	+/-0.118	0.100	pCi/g		JXH2	03/30/10	1645	965810	5
nium-235/236		0.0812		0.0472	+/-0.0175	0.100	pCi/g						
nium-238		1.31		0.0543	+/-0.110	0.100	pCi/g						
Gamma Spec Analysis													
!MMA SPEC "Dry Weight Corrected"													
ericium-241	U	0.0421		0.253	+/-0.0853	0.200	pCi/g		MXR1	03/23/10	1333	962631	6
muth-211	UI	4.39	R,R5a	0.325	+/-0.341		pCi/g						
muth-214		1.20		0.128	+/-0.107	0.200	pCi/g						
lmium-109	UI	4.61	R,R5a	1.19	+/-0.580		pCi/g						
ium-139	U	-0.00772		0.0517	+/-0.0156	0.050	pCi/g						
ium-134	UI	0.115	R,R5a	0.108	+/-0.0405	0.100	pCi/g						
ium-137	U	-0.0318		0.0657	+/-0.0216	0.100	pCi/g						
alt-60	U	0.00233		0.0705	+/-0.0218	0.100	pCi/g						
opium-152	U	0.00971		0.158	+/-0.0475	0.200	pCi/g						
thanum-140	U	-0.146		0.167	+/-0.0622		pCi/g						
d-212		1.97		0.0934	+/-0.133	0.100	pCi/g						
d-214		1.60		0.126	+/-0.131	0.100	pCi/g						
rcury-203	U	-0.0172		0.0689	+/-0.0225	0.100	pCi/g						
assium-40		41.0		0.537	+/-2.10	1.00	pCi/g						
lium-223	U	0.0187		1.11	+/-0.348		pCi/g						
lium-224	UI	4.30	R,R5a	1.00	+/-0.589		pCi/g						
lium-226		1.20		0.128	+/-0.107		pCi/g						
lium-228		2.65		0.249	+/-0.233	0.500	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13548
Sample ID: 248818005
Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis												
MMA SPEC "Dry Weight Corrected"												
henium-106	U	0.00783	0.513	+/-0.157	0.800	pCi/g						
lium-22	U	0.00954	0.0809	+/-0.0245	0.080	pCi/g						
ontium-85	U	0.020	0.0649	+/-0.0213		pCi/g						
llium-208		0.579	0.0619	+/-0.0558	0.080	pCi/g						
rium-227	U	-0.131	0.423	+/-0.135		pCi/g						
rium-231	U	0.0187	1.11	+/-0.348		pCi/g						
rium-234		2.62	2.09	+/-0.940	2.00	pCi/g						
-113	U	-0.0375	0.075	+/-0.0234	0.100	pCi/g						
nium-235	U	0.112	0.347	+/-0.103	0.500	pCi/g						
ium-88	U	0.0191	0.062	+/-0.017	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	88.8	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	99.0	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	53.4	(50%-105%)
nium-232 Tracer	ISOU "Dry Weight Corrected"	93.8	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
3D Results are either below the MDC or tracer recovery is low

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13546
Sample ID: 248818006
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 17.5%

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Alpha Spec Analysis													
241 "Dry Weight Corrected"													
ericium-241	U	0.00142		0.0208	+/-0.00142	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
)PU "Dry Weight Corrected"													
tonium-238	U	0.00221		0.0156	+/-0.00565	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
tonium-239/240	U	0.00332		0.0132	+/-0.00332	0.050	pCi/g						
)TH "Dry Weight Corrected"													
rium-228		1.12		0.233	+/-0.140	0.100	pCi/g		JXH2	03/29/10	1514	965809	3
rium-230		0.621		0.293	+/-0.0954	0.100	pCi/g						
rium-232		0.945		0.125	+/-0.125	0.100	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		1.17		0.0832	+/-0.101	0.100	pCi/g		JXH2	03/30/10	1645	965810	5
nium-235/236		0.062		0.0508	+/-0.0157	0.100	pCi/g						
nium-238		1.08		0.0585	+/-0.0954	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	0.102		0.192	+/-0.060	0.200	pCi/g		MXR1	03/23/10	1334	962631	3
muth-211	UI	3.53	R,R5a	0.307	+/-0.268		pCi/g						
muth-214		1.15		0.107	+/-0.0979	0.200	pCi/g						
lmium-109	UI	2.84	R,R5a	1.33	+/-0.426		pCi/g						
ium-139	U	-0.0238		0.0461	+/-0.0147	0.050	pCi/g						
ium-134	UI	0.104	R,R5a	0.0919	+/-0.0243	0.100	pCi/g						
ium-137	U	-0.0135		0.0591	+/-0.0179	0.100	pCi/g						
alt-60	U	0.014		0.0713	+/-0.0214	0.100	pCi/g						
opium-152	U	-0.00742		0.153	+/-0.0472	0.200	pCi/g						
thanum-140	U	0.0336		0.164	+/-0.0501		pCi/g						
d-212		1.53		0.0882	+/-0.0971	0.100	pCi/g						
d-214		1.28		0.112	+/-0.104	0.100	pCi/g						
rcury-203	U	0.0202		0.0669	+/-0.0191	0.100	pCi/g						
assium-40		36.8		0.463	+/-1.87	1.00	pCi/g						
lium-223	U	-0.26		0.928	+/-0.325		pCi/g						
lium-224	UI	4.34	R,R5a	0.946	+/-0.580		pCi/g						
lium-226		1.15		0.107	+/-0.0979		pCi/g						
lium-228		1.64		0.239	+/-0.176	0.500	pCi/g						

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Company : Los Alamos National Laboratory
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TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13546
Sample ID: 248818006
Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
henium-106	U	-0.139		0.502	+/-0.162	0.800	pCi/g						
lium-22	U	-0.00521		0.0752	+/-0.0236	0.080	pCi/g						
ontium-85	UI	0.0842	R,R5a	0.0773	+/-0.0213		pCi/g						
illium-208		0.459		0.0579	+/-0.0474	0.080	pCi/g						
rium-227	U	0.135		0.416	+/-0.118		pCi/g						
rium-231	U	-0.26		0.928	+/-0.325		pCi/g						
rium-234		2.30		1.65	+/-0.795	2.00	pCi/g						
-113	U	0.038		0.0749	+/-0.0212	0.100	pCi/g						
nium-235	U	0.0902		0.322	+/-0.0975	0.500	pCi/g						
ium-88	U	0.00947		0.0575	+/-0.0167	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	90.7	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	92.1	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	61.8	(50%-105%)
ium-232 Tracer	ISOU "Dry Weight Corrected"	97.4	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
e Qualifiers in this report are defined as follows :

* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
3D Results are either below the MDC or tracer recovery is low

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13552
Sample ID: 248818007
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 12.7%

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
ericium-241	U	-0.00142		0.0298	+/-0.00204	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
)PU "Dry Weight Corrected"													
tonium-238	U	0.0119		0.014	+/-0.00492	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
tonium-239/240	U	0.00696		0.0118	+/-0.00457	0.050	pCi/g						
)TH "Dry Weight Corrected"													
rium-228		1.86		0.193	+/-0.188	0.100	pCi/g		JXH2	03/29/10	1514	965809	3
rium-230		0.921		0.242	+/-0.113	0.100	pCi/g						
rium-232		1.58		0.103	+/-0.166	0.100	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		0.705		0.0772	+/-0.0663	0.100	pCi/g		JXH2	03/30/10	1645	965810	5
nium-235/236	U	0.0406		0.0471	+/-0.0161	0.100	pCi/g						
nium-238		0.873		0.0543	+/-0.0788	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	0.00127		0.115	+/-0.0364	0.200	pCi/g		MXR1	03/23/10	1354	962631	6
muth-211	UI	3.72	R,R5a	0.433	+/-0.337		pCi/g						
muth-214		1.08	R,R5a	0.147	+/-0.128	0.200	pCi/g						
lmium-109	UI	4.98		0.981	+/-0.540		pCi/g						
ium-139	U	-0.00718		0.0589	+/-0.018	0.050	pCi/g						
ium-134	U	0.0981		0.128	+/-0.0416	0.100	pCi/g						
ium-137	U	-0.0205		0.0845	+/-0.0278	0.100	pCi/g						
alt-60	U	0.0171		0.102	+/-0.0295	0.100	pCi/g						
opium-152	U	-0.0579		0.197	+/-0.0602	0.200	pCi/g						
thanum-140	U	-0.103		0.232	+/-0.0802		pCi/g						
d-212		2.00		0.108	+/-0.124	0.100	pCi/g						
d-214		1.35		0.159	+/-0.128	0.100	pCi/g						
rcury-203	U	-0.021		0.084	+/-0.0254	0.100	pCi/g						
assium-40		37.4		0.841	+/-2.11	1.00	pCi/g						
lium-223	U	-0.0942		1.25	+/-0.423		pCi/g						
lium-224	UI	5.91	R,R5a	1.15	+/-0.914		pCi/g						
lium-226		1.08		0.147	+/-0.128		pCi/g						
lium-228		2.26		0.361	+/-0.261	0.500	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13552
Sample ID: 248818007

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis												
MMA SPEC "Dry Weight Corrected"												
henium-106	U	-0.146	0.655	+/-0.211	0.800	pCi/g						
lium-22	U	-0.00632	0.099	+/-0.0313	0.080	pCi/g						
ontium-85	U	0.0501	0.0921	+/-0.0294		pCi/g						
llium-208		0.545	0.0805	+/-0.0581	0.080	pCi/g						
rium-227	U	-0.109	0.480	+/-0.153		pCi/g						
rium-231	U	-0.0942	1.25	+/-0.423		pCi/g						
rium-234		1.78	1.15	+/-0.668	2.00	pCi/g						
-113	U	-0.0111	0.0986	+/-0.0298	0.100	pCi/g						
nium-235	U	0.144	0.382	+/-0.114	0.500	pCi/g						
ium-88	U	-0.0337	0.0568	+/-0.0226	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	63.2	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	97.5	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	74.1	(50%-105%)
ium-232 Tracer	ISOU "Dry Weight Corrected"	103	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
3D Results are either below the MDC or tracer recovery is low

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID:	RE46-10-13547	Project:	LANL01004
Sample ID:	248818008	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	12.7%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
ericium-241	U	0.000688		0.024	+/-0.00211	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
)PU "Dry Weight Corrected"													
tonium-238	U	0.00917		0.0144	+/-0.00447	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
tonium-239/240	U	0.00407		0.0121	+/-0.00323	0.050	pCi/g						
)TH "Dry Weight Corrected"													
›rium-228		1.30		0.229	+/-0.156	0.100	pCi/g		JXH2	03/29/10	1514	965809	3
›rium-230		0.838		0.287	+/-0.114	0.100	pCi/g						
›rium-232		1.20		0.123	+/-0.146	0.100	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		0.977		0.0988	+/-0.0913	0.100	pCi/g		JXH2	03/30/10	1643	965810	5
nium-235/236	U	0.0346		0.0603	+/-0.0139	0.100	pCi/g						
nium-238		0.946		0.0694	+/-0.089	0.100	pCi/g						
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
ericium-241	U	0.0162		0.0816	+/-0.0246	0.200	pCi/g		MXR1	03/23/10	1424	962631	6
muth-211	UI	3.71	R,R5a	0.320	+/-0.291		pCi/g						
muth-214		1.32		0.136	+/-0.127	0.200	pCi/g						
lmium-109	UI	2.93	R,R5a	0.839	+/-0.377		pCi/g						
ium-139	U	-0.0252		0.0396	+/-0.0118	0.050	pCi/g						
ium-134	U	0.105		0.116	+/-0.0312	0.100	pCi/g						
ium-137	U	-0.0305		0.0664	+/-0.022	0.100	pCi/g						
›alt-60	U	-0.0167		0.0836	+/-0.0259	0.100	pCi/g						
opium-152	U	-0.0662		0.154	+/-0.0493	0.200	pCi/g						
ıthanum-140	U	-0.134		0.238	+/-0.0838		pCi/g						
d-212		1.46		0.0987	+/-0.0998	0.100	pCi/g						
d-214		1.35		0.117	+/-0.112	0.100	pCi/g						
rcury-203	U	0.0275		0.0672	+/-0.0215	0.100	pCi/g						
assium-40		37.1		0.707	+/-1.98	1.00	pCi/g						
lium-223	U	-0.464		1.00	+/-0.321		pCi/g						
lium-224	UI	2.81	R,R5a	1.27	+/-0.600		pCi/g						
lium-226		1.32		0.136	+/-0.127		pCi/g						
lium-228		1.91		0.291	+/-0.208	0.500	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13547 Project: LANL01004
Sample ID: 248818008 Client ID: LANL010

ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis												
MMA SPEC "Dry Weight Corrected"												
henium-106	U	-0.16	0.541	+/-0.171	0.800	pCi/g						
lium-22	U	-0.0693	0.0994	+/-0.0349	0.080	pCi/g						
ontium-85	U	0.0168	0.0735	+/-0.0236		pCi/g						
llium-208		0.520	0.0686	+/-0.0495	0.080	pCi/g						
rium-227	U	-0.0732	0.371	+/-0.111		pCi/g						
rium-231	U	-0.464	1.00	+/-0.321		pCi/g						
rium-234		1.85	0.784	+/-0.448	2.00	pCi/g						
-113	U	-0.00471	0.0808	+/-0.025	0.100	pCi/g						
nium-235	U	0.0451	0.277	+/-0.0844	0.500	pCi/g						
ium-88	U	0.0161	0.0693	+/-0.0191	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	78.1	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	98.5	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	64.1	(50%-105%)
ium-232 Tracer	ISOU "Dry Weight Corrected"	98.3	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
e Qualifiers in this report are defined as follows :

* Analyte is a surrogate compound
: Result is less than value reported
Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
3D Results are either below the MDC or tracer recovery is low

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13556
Sample ID: 248818009
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 13.2%

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Alpha Spec Analysis													
241 "Dry Weight Corrected"													
ericium-241	U	-6.73E-05		0.0199	+/-0.00136	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
)PU "Dry Weight Corrected"													
tonium-238	U	0.00358		0.0168	+/-0.00267	0.050	pCi/g		JXH2	03/30/10	0802	965808	2
tonium-239/240	U	0.00		0.0142	+/-0.00119	0.050	pCi/g						
)TH "Dry Weight Corrected"													
rium-228		1.53		0.177	+/-0.158	0.100	pCi/g		JXH2	03/29/10	1514	965809	4
rium-230		0.680		0.222	+/-0.0888	0.100	pCi/g						
rium-232		1.20		0.0949	+/-0.132	0.100	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		0.774		0.0963	+/-0.0758	0.100	pCi/g		JXH2	03/30/10	1643	965810	6
nium-235/236	U	0.0506		0.0588	+/-0.0162	0.100	pCi/g						
nium-238		0.812		0.0677	+/-0.0786	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.147		0.426	+/-0.129	0.200	pCi/g		MXR1	03/23/10	1425	962631	7
muth-211	UI	4.29	R,R5a	0.447	+/-0.310		pCi/g						
muth-214	UI	1.38		0.357	+/-0.111	0.200	pCi/g						
lmium-109	UI	4.01		1.76	+/-0.794		pCi/g						
ium-139	U	0.00169		0.0664	+/-0.0207	0.050	pCi/g						
ium-134	U	0.0735		0.116	+/-0.0322	0.100	pCi/g						
ium-137	U	0.0019		0.0949	+/-0.0294	0.100	pCi/g						
alt-60	U	-0.0567		0.0813	+/-0.029	0.100	pCi/g						
opium-152	U	0.0658		0.218	+/-0.0765	0.200	pCi/g						
thanum-140	U	-0.168		0.210	+/-0.0775		pCi/g						
d-212		1.96		0.121	+/-0.100	0.100	pCi/g						
d-214		1.56		0.160	+/-0.121	0.100	pCi/g						
rcury-203	U	0.0146		0.0948	+/-0.0278	0.100	pCi/g						
assium-40		35.0		0.871	+/-1.80	1.00	pCi/g						
lium-223	U	-0.656		1.40	+/-0.448		pCi/g						
lium-224	UI	5.86	R,R5a	1.29	+/-0.824		pCi/g						
lium-226	UI	1.38	R,R5a	0.357	+/-0.111		pCi/g						
lium-228		2.16		0.322	+/-0.255	0.500	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13556
Sample ID: 248818009

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis												
MMA SPEC "Dry Weight Corrected"												
henium-106	U	-0.561	0.624	+/-0.219	0.800	pCi/g						
lium-22	U	-0.0248	0.104	+/-0.0336	0.080	pCi/g						
ontium-85	U	0.0469	0.0917	+/-0.0301		pCi/g						
allium-208		0.625	0.0797	+/-0.0606	0.080	pCi/g						
orium-227	U	0.349	0.586	+/-0.175		pCi/g						
orium-231	U	-0.656	1.40	+/-0.448		pCi/g						
orium-234	U	0.836	3.64	+/-1.09	2.00	pCi/g						
-113	U	-0.0445	0.105	+/-0.0329	0.100	pCi/g						
nium-235	U	0.426	0.489	+/-0.148	0.500	pCi/g						
ium-88	U	0.0351	0.0848	+/-0.0224	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	96.6	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	85.6	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	83.4	(50%-105%)
nium-232 Tracer	ISOU "Dry Weight Corrected"	98.0	(50%-105%)

tes:
?U is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

KAL
04/23/

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2304

REQUEST NUMBER: 10-2304

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248818

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13553	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13549	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13551	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13550	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13548	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13546	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13552	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13547	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13556	1	POLY	AM241+GS+ISOPU/TH/U	None	S

Relinquished By:	Date	Time	Received By:	Date	Time
Jeremy W	3/4/10	1400	Patricia Dover-Dent P. Wilbert	3/5/10	10:2
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Thursday, March 04, 2010

REQUEST NUMBER: 10-2304

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2304

Per Agreement Number:126310011

Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13546	S	3/3/2010	
		1	RE46-10-13547	S	3/3/2010	
		1	RE46-10-13548	S	3/3/2010	
		1	RE46-10-13549	S	3/3/2010	
		1	RE46-10-13550	S	3/3/2010	
		1	RE46-10-13551	S	3/3/2010	

	1	RE46-10-13552	S	3/3/2010
	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010
HASL-300:AM-241	1	RE46-10-13546	S	3/3/2010
	1	RE46-10-13547	S	3/3/2010
	1	RE46-10-13548	S	3/3/2010
	1	RE46-10-13549	S	3/3/2010
	1	RE46-10-13550	S	3/3/2010
	1	RE46-10-13551	S	3/3/2010
	1	RE46-10-13552	S	3/3/2010
	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010
HASL-300:ISOPU	1	RE46-10-13546	S	3/3/2010
	1	RE46-10-13547	S	3/3/2010
	1	RE46-10-13548	S	3/3/2010
	1	RE46-10-13549	S	3/3/2010
	1	RE46-10-13550	S	3/3/2010
	1	RE46-10-13551	S	3/3/2010
	1	RE46-10-13552	S	3/3/2010
	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010
HASL-300:ISOTH	1	RE46-10-13546	S	3/3/2010
	1	RE46-10-13547	S	3/3/2010
	1	RE46-10-13548	S	3/3/2010
	1	RE46-10-13549	S	3/3/2010
	1	RE46-10-13550	S	3/3/2010
	1	RE46-10-13551	S	3/3/2010
	1	RE46-10-13552	S	3/3/2010
	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010
HASL-300:ISOU	1	RE46-10-13546	S	3/3/2010
	1	RE46-10-13547	S	3/3/2010
	1	RE46-10-13548	S	3/3/2010
	1	RE46-10-13549	S	3/3/2010
	1	RE46-10-13550	S	3/3/2010
	1	RE46-10-13551	S	3/3/2010
	1	RE46-10-13552	S	3/3/2010

1	RE46-10-13553	S	3/3/2010
1	RE46-10-13556	S	3/3/2010

Final Page of REQUEST NUMBER 10-2304

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

March 12, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 248818
SDG: 10-2304

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 05, 2010, and analyzed for Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2304
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 248818
SDG: 10-2304

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- Sample Data Summary.....29
- Quality Control Data.....58
- Raw Data..... 66
- Background and Efficiency Data.....525
- Standards Data.....705
- Runlogs.....737

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 248818
SDG # : 10-2304

March 12, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 05, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 13/15C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
248818001	RE46-10-13553
248818002	RE46-10-13549
248818003	RE46-10-13551
248818004	RE46-10-13550
248818005	RE46-10-13548
248818006	RE46-10-13546
248818007	RE46-10-13552
248818008	RE46-10-13547
248818009	RE46-10-13556

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 12 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2304C

REQUEST NUMBER: 10-2304

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 248818'/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13553	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13549	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13551	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13550	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13548	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13546	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13552	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13547	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13556	1	POLY	AM241+GS+ISOPU/TH/U	None	S

Relinquished By:	Date	Time	Received By:	Date	Time
Jeff Wg	3/4/10	1400	Patricia Dover-Dent P. Dover-Dent	3/5/10	10:20
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Thursday, March 04, 2010

REQUEST NUMBER: 10-2304

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2304

Per Agreement Number:126310011

Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13546	S	3/3/2010	
		1	RE46-10-13547	S	3/3/2010	
		1	RE46-10-13548	S	3/3/2010	
		1	RE46-10-13549	S	3/3/2010	
		1	RE46-10-13550	S	3/3/2010	
		1	RE46-10-13551	S	3/3/2010	

	1	RE46-10-13552	S	3/3/2010
	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010
HASL-300:AM-241	1	RE46-10-13546	S	3/3/2010
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	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010
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	1	RE46-10-13549	S	3/3/2010
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	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010
HASL-300:ISOTH	1	RE46-10-13546	S	3/3/2010
	1	RE46-10-13547	S	3/3/2010
	1	RE46-10-13548	S	3/3/2010
	1	RE46-10-13549	S	3/3/2010
	1	RE46-10-13550	S	3/3/2010
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HASL-300:ISOU	1	RE46-10-13546	S	3/3/2010
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	1	RE46-10-13548	S	3/3/2010
	1	RE46-10-13549	S	3/3/2010
	1	RE46-10-13550	S	3/3/2010
	1	RE46-10-13551	S	3/3/2010
	1	RE46-10-13552	S	3/3/2010

1	RE46-10-13553	S	3/3/2010
1	RE46-10-13556	S	3/3/2010

Final Page of REQUEST NUMBER 10-2304

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order:10-2304**
Received By:Patricia Dover-Dent	**Date Received: 3/5/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **1-5** **13,15**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers:

7209 7850 3587 1C **7209 7850 3668 4C**
7209 7850 3613 2C **7209 7850 3657 5C**
7209 7850 3598 2C **7209 7850 3565 13C**
7209 7850 3602 3C **7209 7850 3543 13C**
7209 7850 3635 3C **7209 7850 3554 15C**
7209 7850 3576 3C
7209 7850 3646 3C
7209 7850 3624 3C

PM (or PMA) review: Initials _____ Date 3/8/10

N ID: SAFA (505) 665-9988
NE VALDEZ
LAMOS NATL LAB.
BLDG 1237 DPU 03

LAMOS, NM 87545
ED STATES US

ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
) 556-8171
F: 6B010AMR3A0223KY10

1°

FedEx Express

FRI - 05MAR A1
PRIORITY OVERNIGHT

K# 7209 7850 3587
01

29407
SC-US
CHS

X CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

2°

FedEx Express

3 of 3
MPS# 0263 7209 7850 3613
Mstr# 7209 7850 3598 0201

FRI - 05MAR A1
PRIORITY OVERNIGHT

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SC-US
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X CHSA

LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

04MAR10
ACTWGT: 44.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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1 of 3
K# 01 7209 7850 3598
MASTER ##

FRI - 05MAR A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X CHSA

ORIGIN ID: SAFA (505) 665-9988
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE24

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

3°

2 of 3
MPS# 0263 7209 7850 3602
Mstr# 7209 7850 3598 0201

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LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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1 of 3
7209 7850 3635
MASTER

FRI - 05MAR A1
PRIORITY OVERNIGHT

X CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

3

FedEx Express

2 of 2
MPS# 7209 7850 3576
0263
Mstr# 7209 7850 3565 0201

FRI - 05MAR A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156146-434 NAITC 04-06

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

LERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
). 556-8171
: 6B010AMR1A015AGWM0

3

FedEx Express

2 of 3
7209 7850 3646
7209 7850 3635 0201

FRI - 05MAR A1
PRIORITY OVERNIGHT

CHSA

29407
SC-US
CHS

ACTWGT: 66.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

3

FedEx Express

TRK# 7209 7850 3624
0201

FRI - 05MAR A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

RIT V3 04-06

IGIN ID: SAFA (505) 665-9968
YLENE VALDEZ
S ALAMOS NATL LAB.
00 BLDG 1237 DPU 03

S ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
13) 556-8171
F: 6B010AMR1A015AGWMO

4°

FedEx Express

FRI - 05MAR A1
PRIORITY OVERNIGHT

7209 7850 3668

X CHSA

2940
SC-
CH

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWMO

5°

FedEx Express

3 of 3
MPS# 0263 7209 7850 3657
MstrW 7209 7850 3635 0201

FRI - 05MAR A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-436 NHTYG 04-05

RIGIN ID: SAFA (505) 665-9968
OYLENE VALDEZ
OS ALAMOS NATL LAB.
A00 BLDG 1237 DPU 03

OS ALAMOS, NM 87545
NITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

HARLESTON SC 29407
43) 556-8171
EF: 6B010AMR2A0515BYDO

13°

FedEx Express

1 of 2
7209 7850 3565
MASTER ##

FRI - 05MAR A1
PRIORITY OVERNIGHT

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29407
SC-US
CHS

ORIGIN ID: SAFA (505)
LENE VALDEZ
ALAMOS NATL LAB.
0 BLDG 1237 DPU 03

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REF: 6B010AMR2A0515BYDO

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FedEx Express

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TRK# 0201 7209 7850 3543

FRI - 05 MAR A1
PRIORITY OVERNIGHT

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29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
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CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

15°

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3 of 3

MPS# 0263 7209 7850 3554

Mstr# 7209 7850 3532 0201

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PRIORITY OVERNI

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XX CHSA

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2304

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965807
Prep Batch Number:	962371

Sample ID	Client ID
248818001	RE46-10-13553
248818002	RE46-10-13549
248818003	RE46-10-13551
248818004	RE46-10-13550
248818005	RE46-10-13548
248818006	RE46-10-13546
248818007	RE46-10-13552
248818008	RE46-10-13547
248818009	RE46-10-13556
1202072510	Method Blank (MB)
1202072511	248841001(RE46-10-13867) Sample Duplicate (DUP)
1202072512	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202072510 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248841001 (RE46-10-13867). The QC was from LANL work order 248841.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples 1202072510 (MB), 1202072511 (RE46-10-13867) and 1202072512 (LCS) were recounted to verify results.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965808
Prep Batch Number:	962371

Sample ID	**Client ID**
248818001	RE46-10-13553
248818002	RE46-10-13549
248818003	RE46-10-13551
248818004	RE46-10-13550
248818005	RE46-10-13548
248818006	RE46-10-13546
248818007	RE46-10-13552
248818008	RE46-10-13547
248818009	RE46-10-13556
1202072513	Method Blank (MB)
1202072514	248841001(RE46-10-13867) Sample Duplicate (DUP)
1202072515	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202072513 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248841001 (RE46-10-13867). The QC was from LANL work order 248841.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The Pu238 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples 248818001 (RE46-10-13553) and 248818009 (RE46-10-13556) were given additional clean-up steps and recounted in order to remove suspected interferences.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
Manual integrations of alpha spectroscopy spectra 248818005 (RE46-10-13548) and 248818006 (RE46-10-13546) were performed to fully separate counts in Regions of Interest which would have been biased.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The Pu238 blank result is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOTH**
Analytical Method:	DOE EML HASL-300, Th-01-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965809
Prep Batch Number:	962371

Sample ID	Client ID
248818001	RE46-10-13553
248818002	RE46-10-13549
248818003	RE46-10-13551
248818004	RE46-10-13550
248818005	RE46-10-13548
248818006	RE46-10-13546
248818007	RE46-10-13552
248818008	RE46-10-13547
248818009	RE46-10-13556
1202072516	Method Blank (MB)
1202072517	248818001(RE46-10-13553) Sample Duplicate (DUP)
1202072518	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-038 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202072516 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248818001 (RE46-10-13553). The QC was from LANL work order 248818.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The Th232 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were recounted due to high relative percent difference/relative error ratio.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Sample 248818002 (RE46-10-13549) did not meet the client's yield requirement. However, GEL's standard tracer yield requirements are met, and the client's detection limits are met.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965810
Prep Batch Number:	962371

Sample ID	Client ID
248818001	RE46-10-13553
248818002	RE46-10-13549
248818003	RE46-10-13551
248818004	RE46-10-13550
248818005	RE46-10-13548
248818006	RE46-10-13546
248818007	RE46-10-13552
248818008	RE46-10-13547
248818009	RE46-10-13556
1202072519	Method Blank (MB)
1202072520	248841001(RE46-10-13867) Sample Duplicate (DUP)
1202072521	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202072519 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248841001 (RE46-10-13867). The QC was from LANL work order 248841.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-233/234, U-235/236, and U-238 blank, 1202072519 (MB), results are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U-235/236 and U-238 blank, 1202072519 (MB), results are greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962631
Prep Batch Number:	962371

Sample ID	Client ID
248818001	RE46-10-13553
248818002	RE46-10-13549
248818003	RE46-10-13551
248818004	RE46-10-13550
248818005	RE46-10-13548
248818006	RE46-10-13546
248818007	RE46-10-13552
248818008	RE46-10-13547
248818009	RE46-10-13556
1202065185	Method Blank (MB)
1202065186	248824001(RE46-10-11926) Sample Duplicate (DUP)
1202065187	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 19.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in March 2009, April 2009, June 2009, July 2009, August 2009, November 2009, December 2009, January 2010, February 2010 and March 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 248824001 (RE46-10-11926). The QC was from LANL work order 248824.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to high peak-width.	Radium-224	1202065185	MB for batch 962631
UI	Data rejected due to interference.	Bismuth-211	248818001	RE46-10-13553
			248818002	RE46-10-13549
			248818003	RE46-10-13551
			248818004	RE46-10-13550

			248818005	RE46-10-13548
			248818006	RE46-10-13546
			248818007	RE46-10-13552
			248818008	RE46-10-13547
			248818009	RE46-10-13556
			1202065186	RE46-10-11926(248824001DUP)
		Cadmium-109	248818001	RE46-10-13553
			248818002	RE46-10-13549
			248818003	RE46-10-13551
			248818004	RE46-10-13550
			248818005	RE46-10-13548
			248818006	RE46-10-13546
			248818007	RE46-10-13552
			248818008	RE46-10-13547
			248818009	RE46-10-13556
			1202065186	RE46-10-11926(248824001DUP)
		Mercury-203	1202065186	RE46-10-11926(248824001DUP)
		Radium-224	248818001	RE46-10-13553
			248818002	RE46-10-13549
			248818003	RE46-10-13551
			248818004	RE46-10-13550
			248818005	RE46-10-13548
			248818006	RE46-10-13546
			248818007	RE46-10-13552
			248818008	RE46-10-13547
			248818009	RE46-10-13556
			1202065186	RE46-10-11926(248824001DUP)
UI	Data rejected due to low abundance.	Bismuth-214	248818009	RE46-10-13556
		Cesium-134	248818002	RE46-10-13549

	248818003	RE46-10-13551
	248818005	RE46-10-13548
	248818006	RE46-10-13546
	1202065186	RE46-10-11926(248824001DUP)
Lead-212	1202065185	MB for batch 962631
Radium-226	248818009	RE46-10-13556
Strontium-85	248818002	RE46-10-13549
	248818003	RE46-10-13551
	248818004	RE46-10-13550
	248818006	RE46-10-13546
	1202065186	RE46-10-11926(248824001DUP)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: Pamela Wells 5/21/10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2304 GEL Work Order: 248818

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID:	RE46-10-13553	Project:	LANL01004
Sample ID:	248818001	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	13.9%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.000208	0.0238	+/-0.00163	0.050	pCi/g		JXH2	03/26/10	0744	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00127	0.0179	+/-0.0022	0.050	pCi/g		JXH2	03/30/10	0802	965808	2
Plutonium-239/240	U	0.00254	0.0151	+/-0.00254	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		2.10	0.187	+/-0.207	0.100	pCi/g		JXH2	03/29/10	1514	965809	4
Thorium-230		1.04	0.235	+/-0.121	0.100	pCi/g						
Thorium-232		1.68	0.100	+/-0.171	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.961	0.0824	+/-0.0863	0.100	pCi/g		JXH2	03/30/10	1645	965810	6
Uranium-235/236		0.0578	0.0504	+/-0.015	0.100	pCi/g						
Uranium-238		0.997	0.058	+/-0.0888	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.202	0.429	+/-0.128	0.200	pCi/g		MXR1	03/23/10	1259	962631	7
Bismuth-211	UI	5.39	0.356	+/-0.376		pCi/g						
Bismuth-214		1.50	0.124	+/-0.125	0.200	pCi/g						
Cadmium-109	UI	4.30	1.51	+/-0.685		pCi/g						
Cerium-139	U	-0.0333	0.0544	+/-0.0174	0.050	pCi/g						
Cesium-134	U	0.0799	0.100	+/-0.0276	0.100	pCi/g						
Cesium-137	U	-0.0259	0.068	+/-0.0211	0.100	pCi/g						
Cobalt-60	U	-0.0548	0.0746	+/-0.0255	0.100	pCi/g						
Europium-152	U	0.0439	0.183	+/-0.0649	0.200	pCi/g						
Lanthanum-140	U	0.128	0.248	+/-0.073		pCi/g						
Lead-212		2.01	0.113	+/-0.130	0.100	pCi/g						
Lead-214		1.96	0.130	+/-0.147	0.100	pCi/g						
Mercury-203	U	0.0709	0.0848	+/-0.0236	0.100	pCi/g						
Potassium-40		38.9	0.570	+/-2.13	1.00	pCi/g						
Radium-223	U	-0.116	1.13	+/-0.388		pCi/g						
Radium-224	UI	4.35	1.47	+/-0.536		pCi/g						
Radium-226		1.50	0.124	+/-0.125		pCi/g						

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13553
Sample ID: 248818001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-228		2.18	0.244	+/-0.237	0.500	pCi/g						
Ruthenium-106	U	-0.121	0.539	+/-0.164	0.800	pCi/g						
Sodium-22	U	-0.0548	0.0819	+/-0.0273	0.080	pCi/g						
Strontium-85	U	0.0579	0.0826	+/-0.0267		pCi/g						
Thallium-208		0.719	0.0638	+/-0.052	0.080	pCi/g						
Thorium-227	U	0.105	0.471	+/-0.135		pCi/g						
Thorium-231	U	-0.116	1.13	+/-0.388		pCi/g						
Thorium-234	U	1.51	3.63	+/-1.04	2.00	pCi/g						
Tin-113	U	0.000781	0.0854	+/-0.0257	0.100	pCi/g						
Uranium-235	U	0.043	0.384	+/-0.117	0.500	pCi/g						
Yttrium-88	U	0.026	0.0653	+/-0.0176	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.7	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	86.1	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	77.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	88.0	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13553
Sample ID: 248818001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID:	RE46-10-13549	Project:	LANL01004
Sample ID:	248818002	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	16.6%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00811	0.0227	+/-0.00314	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00112	0.0158	+/-0.00336	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
Plutonium-239/240	U	0.00672	0.0133	+/-0.00356	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.87	0.308	+/-0.227	0.100	pCi/g		JXH2	03/29/10	1514	965809	3
Thorium-230		0.902	0.386	+/-0.135	0.100	pCi/g						
Thorium-232		1.85	0.165	+/-0.222	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.00	0.082	+/-0.0892	0.100	pCi/g		JXH2	03/30/10	1645	965810	5
Uranium-235/236		0.0647	0.0501	+/-0.0167	0.100	pCi/g						
Uranium-238		1.00	0.0576	+/-0.0892	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0958	0.129	+/-0.041	0.200	pCi/g		MXR1	03/23/10	1302	962631	6
Bismuth-211	UI	4.77	0.419	+/-0.365		pCi/g						
Bismuth-214		1.44	0.165	+/-0.128	0.200	pCi/g						
Cadmium-109	UI	3.12	1.35	+/-0.460		pCi/g						
Cerium-139	U	-0.00331	0.062	+/-0.0189	0.050	pCi/g						
Cesium-134	UI	0.125	0.122	+/-0.0448	0.100	pCi/g						
Cesium-137	U	0.00724	0.0864	+/-0.0264	0.100	pCi/g						
Cobalt-60	U	0.0291	0.0925	+/-0.0271	0.100	pCi/g						
Europium-152	U	-0.0237	0.208	+/-0.0825	0.200	pCi/g						
Lanthanum-140	U	0.0952	0.246	+/-0.0767		pCi/g						
Lead-212		2.15	0.113	+/-0.134	0.100	pCi/g						
Lead-214		1.73	0.153	+/-0.141	0.100	pCi/g						
Mercury-203	U	0.0542	0.0895	+/-0.0286	0.100	pCi/g						
Potassium-40		37.7	0.703	+/-1.62	1.00	pCi/g						
Radium-223	U	1.29	1.41	+/-0.449		pCi/g						
Radium-224	UI	5.80	1.21	+/-0.787		pCi/g						
Radium-226		1.44	0.165	+/-0.128		pCi/g						
Radium-228		2.19	0.312	+/-0.251	0.500	pCi/g						

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Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13549
Sample ID: 248818002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Ruthenium-106	U	-0.0518	0.687	+/-0.214	0.800	pCi/g						
Sodium-22	U	0.0297	0.103	+/-0.0304	0.080	pCi/g						
Strontium-85	UI	0.118	0.0924	+/-0.0274		pCi/g						
Thallium-208		0.590	0.0775	+/-0.0614	0.080	pCi/g						
Thorium-227	U	0.0468	0.523	+/-0.152		pCi/g						
Thorium-231	U	1.29	1.41	+/-0.449		pCi/g						
Thorium-234		2.42	1.27	+/-0.614	2.00	pCi/g						
Tin-113	U	-0.0463	0.0952	+/-0.0298	0.100	pCi/g						
Uranium-235	U	0.0933	0.428	+/-0.127	0.500	pCi/g						
Yttrium-88	U	-0.00545	0.0647	+/-0.0204	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Th-01-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	81.0	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	95.2	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	45.5 *	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	96.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13549
Sample ID: 248818002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID:	RE46-10-13551	Project:	LANL01004
Sample ID:	248818003	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	20.7%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00424	0.0208	+/-0.00247	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00362	0.017	+/-0.0032	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
Plutonium-239/240	U	0.00843	0.0143	+/-0.00364	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.59	0.193	+/-0.168	0.100	pCi/g		JXH2	03/29/10	1514	965809	3
Thorium-230		0.735	0.242	+/-0.0985	0.100	pCi/g						
Thorium-232		1.32	0.103	+/-0.145	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.20	0.0909	+/-0.106	0.100	pCi/g		JXH2	03/30/10	1645	965810	5
Uranium-235/236	U	0.0518	0.0555	+/-0.0168	0.100	pCi/g						
Uranium-238		1.04	0.0639	+/-0.0945	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0745	0.295	+/-0.0853	0.200	pCi/g		MXR1	03/23/10	1305	962631	6
Bismuth-211	UI	3.77	0.266	+/-0.211		pCi/g						
Bismuth-214		1.05	0.100	+/-0.0812	0.200	pCi/g						
Cadmium-109	UI	3.70	1.28	+/-0.487		pCi/g						
Cerium-139	U	-0.0142	0.0425	+/-0.0124	0.050	pCi/g						
Cesium-134	UI	0.0814	0.0761	+/-0.0363	0.100	pCi/g						
Cesium-137	U	0.0183	0.0505	+/-0.0143	0.100	pCi/g						
Cobalt-60	U	-0.00411	0.0521	+/-0.0161	0.100	pCi/g						
Europium-152	U	-0.0443	0.127	+/-0.0434	0.200	pCi/g						
Lanthanum-140	U	-0.0397	0.135	+/-0.043		pCi/g						
Lead-212		1.39	0.105	+/-0.0778	0.100	pCi/g						
Lead-214		1.37	0.0967	+/-0.0853	0.100	pCi/g						
Mercury-203	U	0.0364	0.062	+/-0.0178	0.100	pCi/g						
Potassium-40		37.6	0.453	+/-1.63	1.00	pCi/g						
Radium-223	U	-0.426	0.805	+/-0.298		pCi/g						
Radium-224	UI	3.20	1.12	+/-0.369		pCi/g						
Radium-226		1.05	0.100	+/-0.0812		pCi/g						
Radium-228		1.82	0.201	+/-0.192	0.500	pCi/g						

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Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13551
Sample ID: 248818003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Ruthenium-106	U	0.0731	0.442	+/-0.133	0.800	pCi/g						
Sodium-22	U	-0.038	0.0615	+/-0.0201	0.080	pCi/g						
Strontium-85	UI	0.0869	0.0604	+/-0.0178		pCi/g						
Thallium-208		0.543	0.0449	+/-0.0396	0.080	pCi/g						
Thorium-227	U	0.140	0.366	+/-0.106		pCi/g						
Thorium-231	U	-0.426	0.805	+/-0.298		pCi/g						
Thorium-234	U	1.81	2.68	+/-0.756	2.00	pCi/g						
Tin-113	U	-0.0218	0.0587	+/-0.0177	0.100	pCi/g						
Uranium-235	U	-0.0268	0.302	+/-0.0933	0.500	pCi/g						
Yttrium-88	U	-0.012	0.0376	+/-0.0125	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Th-01-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	90.4	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	87.1	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	77.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	90.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Report Date: March 31, 2010

Client Sample ID: RE46-10-13551
Sample ID: 248818003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13550
Sample ID: 248818004
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 18.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.000135	0.0228	+/-0.00156	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00391	0.0184	+/-0.00227	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
Plutonium-239/240	U	0.00652	0.0155	+/-0.00472	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.92	0.223	+/-0.203	0.100	pCi/g		JXH2	03/29/10	1514	965809	3
Thorium-230		1.03	0.280	+/-0.129	0.100	pCi/g						
Thorium-232		1.61	0.119	+/-0.178	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.941	0.0758	+/-0.0832	0.100	pCi/g		JXH2	03/30/10	1645	965810	5
Uranium-235/236		0.0564	0.0463	+/-0.0143	0.100	pCi/g						
Uranium-238		0.980	0.0532	+/-0.086	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.138	0.322	+/-0.099	0.200	pCi/g		MXR1	03/23/10	1333	962631	6
Bismuth-211	UI	4.83	0.387	+/-0.341		pCi/g						
Bismuth-214		1.39	0.134	+/-0.126	0.200	pCi/g						
Cadmium-109	UI	3.42	1.90	+/-0.633		pCi/g						
Cerium-139	U	0.0207	0.0638	+/-0.0181	0.050	pCi/g						
Cesium-134	U	0.0791	0.108	+/-0.0406	0.100	pCi/g						
Cesium-137	U	-0.00982	0.083	+/-0.0251	0.100	pCi/g						
Cobalt-60	U	-0.0178	0.0755	+/-0.0239	0.100	pCi/g						
Europium-152	U	0.0732	0.206	+/-0.0681	0.200	pCi/g						
Lanthanum-140	U	-0.0236	0.248	+/-0.0814		pCi/g						
Lead-212		1.94	0.114	+/-0.121	0.100	pCi/g						
Lead-214		1.75	0.148	+/-0.133	0.100	pCi/g						
Mercury-203	U	0.0516	0.0904	+/-0.0258	0.100	pCi/g						
Potassium-40		34.4	0.535	+/-1.87	1.00	pCi/g						
Radium-223	U	0.0778	1.44	+/-0.490		pCi/g						
Radium-224	UI	5.67	1.22	+/-0.854		pCi/g						
Radium-226		1.39	0.134	+/-0.126		pCi/g						
Radium-228		2.25	0.259	+/-0.248	0.500	pCi/g						

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Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13550
Sample ID: 248818004
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Ruthenium-106	U	0.459	0.713	+/-0.196	0.800	pCi/g						
Sodium-22	U	0.0265	0.0922	+/-0.0263	0.080	pCi/g						
Strontium-85	UI	0.108	0.099	+/-0.0305		pCi/g						
Thallium-208		0.612	0.0703	+/-0.0551	0.080	pCi/g						
Thorium-227	U	0.217	0.539	+/-0.155		pCi/g						
Thorium-231	U	0.0778	1.44	+/-0.490		pCi/g						
Thorium-234	U	1.85	3.10	+/-0.903	2.00	pCi/g						
Tin-113	U	-0.00677	0.0937	+/-0.0288	0.100	pCi/g						
Uranium-235	U	-0.00453	0.423	+/-0.124	0.500	pCi/g						
Yttrium-88	U	0.00936	0.0733	+/-0.0217	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Th-01-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	81.1	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	87.5	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	64.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	98.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13550
Sample ID: 248818004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID:	RE46-10-13548	Project:	LANL01004
Sample ID:	248818005	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	17.2%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00192	0.0215	+/-0.00234	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0101	0.0158	+/-0.00644	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
Plutonium-239/240	U	-0.00223	0.0133	+/-0.00316	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.43	0.275	+/-0.177	0.100	pCi/g		JXH2	03/29/10	1514	965809	3
Thorium-230		0.764	0.345	+/-0.117	0.100	pCi/g						
Thorium-232		1.54	0.147	+/-0.186	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.42	0.0772	+/-0.118	0.100	pCi/g		JXH2	03/30/10	1645	965810	5
Uranium-235/236		0.0812	0.0472	+/-0.0175	0.100	pCi/g						
Uranium-238		1.31	0.0543	+/-0.110	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0421	0.253	+/-0.0853	0.200	pCi/g		MXR1	03/23/10	1333	962631	6
Bismuth-211	UI	4.39	0.325	+/-0.341		pCi/g						
Bismuth-214		1.20	0.128	+/-0.107	0.200	pCi/g						
Cadmium-109	UI	4.61	1.19	+/-0.580		pCi/g						
Cerium-139	U	-0.00772	0.0517	+/-0.0156	0.050	pCi/g						
Cesium-134	UI	0.115	0.108	+/-0.0405	0.100	pCi/g						
Cesium-137	U	-0.0318	0.0657	+/-0.0216	0.100	pCi/g						
Cobalt-60	U	0.00233	0.0705	+/-0.0218	0.100	pCi/g						
Europium-152	U	0.00971	0.158	+/-0.0475	0.200	pCi/g						
Lanthanum-140	U	-0.146	0.167	+/-0.0622		pCi/g						
Lead-212		1.97	0.0934	+/-0.133	0.100	pCi/g						
Lead-214		1.60	0.126	+/-0.131	0.100	pCi/g						
Mercury-203	U	-0.0172	0.0689	+/-0.0225	0.100	pCi/g						
Potassium-40		41.0	0.537	+/-2.10	1.00	pCi/g						
Radium-223	U	0.0187	1.11	+/-0.348		pCi/g						
Radium-224	UI	4.30	1.00	+/-0.589		pCi/g						
Radium-226		1.20	0.128	+/-0.107		pCi/g						
Radium-228		2.65	0.249	+/-0.233	0.500	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13548
Sample ID: 248818005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Ruthenium-106	U	0.00783	0.513	+/-0.157	0.800	pCi/g						
Sodium-22	U	0.00954	0.0809	+/-0.0245	0.080	pCi/g						
Strontium-85	U	0.020	0.0649	+/-0.0213		pCi/g						
Thallium-208		0.579	0.0619	+/-0.0558	0.080	pCi/g						
Thorium-227	U	-0.131	0.423	+/-0.135		pCi/g						
Thorium-231	U	0.0187	1.11	+/-0.348		pCi/g						
Thorium-234		2.62	2.09	+/-0.940	2.00	pCi/g						
Tin-113	U	-0.0375	0.075	+/-0.0234	0.100	pCi/g						
Uranium-235	U	0.112	0.347	+/-0.103	0.500	pCi/g						
Yttrium-88	U	0.0191	0.062	+/-0.017	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Th-01-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.8	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	99.0	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	53.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	93.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13548
Sample ID: 248818005
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID:	RE46-10-13546	Project:	LANL01004
Sample ID:	248818006	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	17.5%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00142	0.0208	+/-0.00142	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00221	0.0156	+/-0.00565	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
Plutonium-239/240	U	0.00332	0.0132	+/-0.00332	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.12	0.233	+/-0.140	0.100	pCi/g		JXH2	03/29/10	1514	965809	3
Thorium-230		0.621	0.293	+/-0.0954	0.100	pCi/g						
Thorium-232		0.945	0.125	+/-0.125	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.17	0.0832	+/-0.101	0.100	pCi/g		JXH2	03/30/10	1645	965810	5
Uranium-235/236		0.062	0.0508	+/-0.0157	0.100	pCi/g						
Uranium-238		1.08	0.0585	+/-0.0954	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.102	0.192	+/-0.060	0.200	pCi/g		MXR1	03/23/10	1334	962631	6
Bismuth-211	UI	3.53	0.307	+/-0.268		pCi/g						
Bismuth-214		1.15	0.107	+/-0.0979	0.200	pCi/g						
Cadmium-109	UI	2.84	1.33	+/-0.426		pCi/g						
Cerium-139	U	-0.0238	0.0461	+/-0.0147	0.050	pCi/g						
Cesium-134	UI	0.104	0.0919	+/-0.0243	0.100	pCi/g						
Cesium-137	U	-0.0135	0.0591	+/-0.0179	0.100	pCi/g						
Cobalt-60	U	0.014	0.0713	+/-0.0214	0.100	pCi/g						
Europium-152	U	-0.00742	0.153	+/-0.0472	0.200	pCi/g						
Lanthanum-140	U	0.0336	0.164	+/-0.0501		pCi/g						
Lead-212		1.53	0.0882	+/-0.0971	0.100	pCi/g						
Lead-214		1.28	0.112	+/-0.104	0.100	pCi/g						
Mercury-203	U	0.0202	0.0669	+/-0.0191	0.100	pCi/g						
Potassium-40		36.8	0.463	+/-1.87	1.00	pCi/g						
Radium-223	U	-0.26	0.928	+/-0.325		pCi/g						
Radium-224	UI	4.34	0.946	+/-0.580		pCi/g						
Radium-226		1.15	0.107	+/-0.0979		pCi/g						
Radium-228		1.64	0.239	+/-0.176	0.500	pCi/g						

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Report Date: March 31, 2010

Client Sample ID: RE46-10-13546
Sample ID: 248818006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Ruthenium-106	U	-0.139	0.502	+/-0.162	0.800	pCi/g						
Sodium-22	U	-0.00521	0.0752	+/-0.0236	0.080	pCi/g						
Strontium-85	UI	0.0842	0.0773	+/-0.0213		pCi/g						
Thallium-208		0.459	0.0579	+/-0.0474	0.080	pCi/g						
Thorium-227	U	0.135	0.416	+/-0.118		pCi/g						
Thorium-231	U	-0.26	0.928	+/-0.325		pCi/g						
Thorium-234		2.30	1.65	+/-0.795	2.00	pCi/g						
Tin-113	U	0.038	0.0749	+/-0.0212	0.100	pCi/g						
Uranium-235	U	0.0902	0.322	+/-0.0975	0.500	pCi/g						
Yttrium-88	U	0.00947	0.0575	+/-0.0167	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Th-01-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	90.7	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	92.1	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	61.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Report Date: March 31, 2010

Client Sample ID: RE46-10-13546
Sample ID: 248818006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13552
Sample ID: 248818007
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 12.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00142	0.0298	+/-0.00204	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0119	0.014	+/-0.00492	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
Plutonium-239/240	U	0.00696	0.0118	+/-0.00457	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.86	0.193	+/-0.188	0.100	pCi/g		JXH2	03/29/10	1514	965809	3
Thorium-230		0.921	0.242	+/-0.113	0.100	pCi/g						
Thorium-232		1.58	0.103	+/-0.166	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.705	0.0772	+/-0.0663	0.100	pCi/g		JXH2	03/30/10	1645	965810	5
Uranium-235/236	U	0.0406	0.0471	+/-0.0161	0.100	pCi/g						
Uranium-238		0.873	0.0543	+/-0.0788	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.00127	0.115	+/-0.0364	0.200	pCi/g		MXR1	03/23/10	1354	962631	6
Bismuth-211	UI	3.72	0.433	+/-0.337		pCi/g						
Bismuth-214		1.08	0.147	+/-0.128	0.200	pCi/g						
Cadmium-109	UI	4.98	0.981	+/-0.540		pCi/g						
Cerium-139	U	-0.00718	0.0589	+/-0.018	0.050	pCi/g						
Cesium-134	U	0.0981	0.128	+/-0.0416	0.100	pCi/g						
Cesium-137	U	-0.0205	0.0845	+/-0.0278	0.100	pCi/g						
Cobalt-60	U	0.0171	0.102	+/-0.0295	0.100	pCi/g						
Europium-152	U	-0.0579	0.197	+/-0.0602	0.200	pCi/g						
Lanthanum-140	U	-0.103	0.232	+/-0.0802		pCi/g						
Lead-212		2.00	0.108	+/-0.124	0.100	pCi/g						
Lead-214		1.35	0.159	+/-0.128	0.100	pCi/g						
Mercury-203	U	-0.021	0.084	+/-0.0254	0.100	pCi/g						
Potassium-40		37.4	0.841	+/-2.11	1.00	pCi/g						
Radium-223	U	-0.0942	1.25	+/-0.423		pCi/g						
Radium-224	UI	5.91	1.15	+/-0.914		pCi/g						
Radium-226		1.08	0.147	+/-0.128		pCi/g						
Radium-228		2.26	0.361	+/-0.261	0.500	pCi/g						

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Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13552
Sample ID: 248818007
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Ruthenium-106	U	-0.146	0.655	+/-0.211	0.800	pCi/g						
Sodium-22	U	-0.00632	0.099	+/-0.0313	0.080	pCi/g						
Strontium-85	U	0.0501	0.0921	+/-0.0294		pCi/g						
Thallium-208		0.545	0.0805	+/-0.0581	0.080	pCi/g						
Thorium-227	U	-0.109	0.480	+/-0.153		pCi/g						
Thorium-231	U	-0.0942	1.25	+/-0.423		pCi/g						
Thorium-234		1.78	1.15	+/-0.668	2.00	pCi/g						
Tin-113	U	-0.0111	0.0986	+/-0.0298	0.100	pCi/g						
Uranium-235	U	0.144	0.382	+/-0.114	0.500	pCi/g						
Yttrium-88	U	-0.0337	0.0568	+/-0.0226	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Th-01-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	63.2	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	97.5	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	74.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	103	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13552
Sample ID: 248818007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13547
Sample ID: 248818008
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 12.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.000688	0.024	+/-0.00211	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00917	0.0144	+/-0.00447	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
Plutonium-239/240	U	0.00407	0.0121	+/-0.00323	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.30	0.229	+/-0.156	0.100	pCi/g		JXH2	03/29/10	1514	965809	3
Thorium-230		0.838	0.287	+/-0.114	0.100	pCi/g						
Thorium-232		1.20	0.123	+/-0.146	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.977	0.0988	+/-0.0913	0.100	pCi/g		JXH2	03/30/10	1643	965810	5
Uranium-235/236	U	0.0346	0.0603	+/-0.0139	0.100	pCi/g						
Uranium-238		0.946	0.0694	+/-0.089	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0162	0.0816	+/-0.0246	0.200	pCi/g		MXR1	03/23/10	1424	962631	6
Bismuth-211	UI	3.71	0.320	+/-0.291		pCi/g						
Bismuth-214		1.32	0.136	+/-0.127	0.200	pCi/g						
Cadmium-109	UI	2.93	0.839	+/-0.377		pCi/g						
Cerium-139	U	-0.0252	0.0396	+/-0.0118	0.050	pCi/g						
Cesium-134	U	0.105	0.116	+/-0.0312	0.100	pCi/g						
Cesium-137	U	-0.0305	0.0664	+/-0.022	0.100	pCi/g						
Cobalt-60	U	-0.0167	0.0836	+/-0.0259	0.100	pCi/g						
Europium-152	U	-0.0662	0.154	+/-0.0493	0.200	pCi/g						
Lanthanum-140	U	-0.134	0.238	+/-0.0838		pCi/g						
Lead-212		1.46	0.0987	+/-0.0998	0.100	pCi/g						
Lead-214		1.35	0.117	+/-0.112	0.100	pCi/g						
Mercury-203	U	0.0275	0.0672	+/-0.0215	0.100	pCi/g						
Potassium-40		37.1	0.707	+/-1.98	1.00	pCi/g						
Radium-223	U	-0.464	1.00	+/-0.321		pCi/g						
Radium-224	UI	2.81	1.27	+/-0.600		pCi/g						
Radium-226		1.32	0.136	+/-0.127		pCi/g						
Radium-228		1.91	0.291	+/-0.208	0.500	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13547
Sample ID: 248818008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Ruthenium-106	U	-0.16	0.541	+/-0.171	0.800	pCi/g						
Sodium-22	U	-0.0693	0.0994	+/-0.0349	0.080	pCi/g						
Strontium-85	U	0.0168	0.0735	+/-0.0236		pCi/g						
Thallium-208		0.520	0.0686	+/-0.0495	0.080	pCi/g						
Thorium-227	U	-0.0732	0.371	+/-0.111		pCi/g						
Thorium-231	U	-0.464	1.00	+/-0.321		pCi/g						
Thorium-234		1.85	0.784	+/-0.448	2.00	pCi/g						
Tin-113	U	-0.00471	0.0808	+/-0.025	0.100	pCi/g						
Uranium-235	U	0.0451	0.277	+/-0.0844	0.500	pCi/g						
Yttrium-88	U	0.0161	0.0693	+/-0.0191	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Th-01-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.1	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	98.5	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	64.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	98.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13547
Sample ID: 248818008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13556
Sample ID: 248818009
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 13.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-6.73E-05	0.0199	+/-0.00136	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00358	0.0168	+/-0.00267	0.050	pCi/g		JXH2	03/30/10	0802	965808	2
Plutonium-239/240	U	0.00	0.0142	+/-0.00119	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.53	0.177	+/-0.158	0.100	pCi/g		JXH2	03/29/10	1514	965809	4
Thorium-230		0.680	0.222	+/-0.0888	0.100	pCi/g						
Thorium-232		1.20	0.0949	+/-0.132	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.774	0.0963	+/-0.0758	0.100	pCi/g		JXH2	03/30/10	1643	965810	6
Uranium-235/236	U	0.0506	0.0588	+/-0.0162	0.100	pCi/g						
Uranium-238		0.812	0.0677	+/-0.0786	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.147	0.426	+/-0.129	0.200	pCi/g		MXR1	03/23/10	1425	962631	7
Bismuth-211	UI	4.29	0.447	+/-0.310		pCi/g						
Bismuth-214	UI	1.38	0.357	+/-0.111	0.200	pCi/g						
Cadmium-109	UI	4.01	1.76	+/-0.794		pCi/g						
Cerium-139	U	0.00169	0.0664	+/-0.0207	0.050	pCi/g						
Cesium-134	U	0.0735	0.116	+/-0.0322	0.100	pCi/g						
Cesium-137	U	0.0019	0.0949	+/-0.0294	0.100	pCi/g						
Cobalt-60	U	-0.0567	0.0813	+/-0.029	0.100	pCi/g						
Europium-152	U	0.0658	0.218	+/-0.0765	0.200	pCi/g						
Lanthanum-140	U	-0.168	0.210	+/-0.0775		pCi/g						
Lead-212		1.96	0.121	+/-0.100	0.100	pCi/g						
Lead-214		1.56	0.160	+/-0.121	0.100	pCi/g						
Mercury-203	U	0.0146	0.0948	+/-0.0278	0.100	pCi/g						
Potassium-40		35.0	0.871	+/-1.80	1.00	pCi/g						
Radium-223	U	-0.656	1.40	+/-0.448		pCi/g						
Radium-224	UI	5.86	1.29	+/-0.824		pCi/g						
Radium-226	UI	1.38	0.357	+/-0.111		pCi/g						
Radium-228		2.16	0.322	+/-0.255	0.500	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13556
Sample ID: 248818009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Ruthenium-106	U	-0.561	0.624	+/-0.219	0.800	pCi/g						
Sodium-22	U	-0.0248	0.104	+/-0.0336	0.080	pCi/g						
Strontium-85	U	0.0469	0.0917	+/-0.0301		pCi/g						
Thallium-208		0.625	0.0797	+/-0.0606	0.080	pCi/g						
Thorium-227	U	0.349	0.586	+/-0.175		pCi/g						
Thorium-231	U	-0.656	1.40	+/-0.448		pCi/g						
Thorium-234	U	0.836	3.64	+/-1.09	2.00	pCi/g						
Tin-113	U	-0.0445	0.105	+/-0.0329	0.100	pCi/g						
Uranium-235	U	0.426	0.489	+/-0.148	0.500	pCi/g						
Yttrium-88	U	0.0351	0.0848	+/-0.0224	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	96.6	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	85.6	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	83.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	98.0	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 31, 2010

Client Sample ID: RE46-10-13556
Sample ID: 248818009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

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QC Summary

Report Date: March 31, 2010

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 248818

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965807										
QC1202072511 248841001 DUP										
Americium-241	U	0.00278	U	-0.00331	pCi/g	0.511		(0-1)	JXH2	03/30/1019:03
	TPU:	+/-0.00336		+/-0.0026						
	Yield:	78.5		76.3						
QC1202072512 LCS										
Americium-241	33.1			25.2	pCi/g		76.1	(75%-125%)		03/30/1019:03
	TPU:			+/-1.96						
	Yield:			82.7						
QC1202072510 MB										
Americium-241			U	-0.00156	pCi/g					03/30/1019:03
	TPU:			+/-0.00365						
	Yield:			87.1						
Batch 965808										
QC1202072514 248841001 DUP										
Plutonium-238	U	0.0108	U	0.00797	pCi/g	0.187		(0-1)	JXH2	03/27/1013:40
	TPU:	+/-0.00401		+/-0.00344						
	Yield:	89.2		90.0						
Plutonium-239/240	U	0.00597	U	0.00683	pCi/g	0.0537		(0-1)		
	TPU:	+/-0.00398		+/-0.00396						
	Yield:	89.2		90.0						
QC1202072515 LCS										
Plutonium-238				5.02	pCi/g			(75%-125%)		
	TPU:			+/-0.399						
	Yield:			90.0						
Plutonium-239/240	41.8			40.3	pCi/g		96.4	(75%-125%)		
	TPU:			+/-2.55						
	Yield:			90.0						
QC1202072513 MB										
Plutonium-238			U	0.0108	pCi/g					
	TPU:			+/-0.0043						
	Yield:			93.8						
Plutonium-239/240			U	0.00135	pCi/g					
	TPU:			+/-0.00234						
	Yield:			93.8						
Batch 965809										
QC1202072517 248818001 DUP										
Thorium-228		2.10		1.87	pCi/g	0.296		(0-1)	JXH2	03/29/1015:14
	TPU:	+/-0.207		+/-0.187						
	Yield:	77.2		77.6						
Thorium-230		1.04		1.03	pCi/g	0.0333		(0-1)		
	TPU:	+/-0.121		+/-0.121						
	Yield:	77.2		77.6						
Thorium-232		1.68		1.75	pCi/g	0.103		(0-1)		
	TPU:	+/-0.171		+/-0.176						

QC Summary

Workorder: 248818

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965809										
	Yield:	77.2		77.6						
QC1202072518 LCS										
Thorium-228				1.39	pCi/g					03/29/1015:14
	TPU:			+/-0.182						
	Yield:			105						
Thorium-230	25.6			21.2	pCi/g		82.8	(75%-125%)		
	TPU:			+/-1.67						
	Yield:			105						
Thorium-232				1.21	pCi/g			(75%-125%)		
	TPU:			+/-0.163						
	Yield:			105						
QC1202072516 MB										
Thorium-228			U	-0.000359	pCi/g					03/29/1015:14
	TPU:			+/-0.00199						
	Yield:			87.4						
Thorium-230			U	-0.000537	pCi/g					
	TPU:			+/-0.00198						
	Yield:			87.4						
Thorium-232			U	0.00748	pCi/g					
	TPU:			+/-0.00387						
	Yield:			87.4						
Batch 965810										
QC1202072520 248841001 DUP										
Uranium-233/234		0.916		0.872	pCi/g	0.128		(0-1)	JXH2	03/30/1016:44
	TPU:	+/-0.0871		+/-0.0827						
	Yield:	96.0		104						
Uranium-235/236	U	0.0308	U	0.0418	pCi/g	0.216		(0-1)		
	TPU:	+/-0.0119		+/-0.0136						
	Yield:	96.0		104						
Uranium-238		0.795		0.870	pCi/g	0.232		(0-1)		
	TPU:	+/-0.0781		+/-0.0825						
	Yield:	96.0		104						
QC1202072521 LCS										
Uranium-233/234				5.45	pCi/g					03/30/1016:44
	TPU:			+/-0.518						
	Yield:			101						
Uranium-235/236				0.303	pCi/g					
	TPU:			+/-0.0816						
	Yield:			101						
Uranium-238	5.75			5.52	pCi/g		96	(75%-125%)		
	TPU:			+/-0.523						
	Yield:			101						
QC1202072519 MB										
Uranium-233/234			U	0.0134	pCi/g					03/30/1016:44
	TPU:			+/-0.0049						
	Yield:			101						
Uranium-235/236			U	0.0128	pCi/g					
	TPU:			+/-0.00609						
	Yield:			101						
Uranium-238			U	0.0155	pCi/g					

QC Summary

Workorder: 248818

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965810										
	TPU:			+/-0.00528						
	Yield:			101						
Rad Gamma Spec										
Batch 962631										
QC1202065186 248824001 DUP										
Americium-241	U	0.0757	U	0.303	pCi/g	0.360		(0-1)	MXR1	03/23/1014:39
	TPU:	+/-0.122		+/-0.194						
Bismuth-211	UI	5.22	UI	5.75	pCi/g	0.310		(0-1)		
	TPU:	+/-0.390		+/-0.460						
Bismuth-214		1.70		1.57	pCi/g	0.235		(0-1)		
	TPU:	+/-0.136		+/-0.141						
Cadmium-109	UI	6.27	UI	2.83	pCi/g	0.964		(0-1)		
	TPU:	+/-0.969		+/-0.813						
Cerium-139	U	0.028	U	0.00175	pCi/g	0.282		(0-1)		
	TPU:	+/-0.0216		+/-0.025						
Cesium-134	UI	0.160	UI	0.227	pCi/g	0.349		(0-1)		
	TPU:	+/-0.0469		+/-0.0488						
Cesium-137	U	-0.0349	U	0.0237	pCi/g	0.556		(0-1)		
	TPU:	+/-0.0254		+/-0.0274						
Cobalt-60	U	-0.0165	U	-0.0192	pCi/g	0.0237		(0-1)		
	TPU:	+/-0.0276		+/-0.0294						
Europium-152	U	0.120	U	-0.0656	pCi/g	0.540		(0-1)		
	TPU:	+/-0.0747		+/-0.0974						
Lanthanum-140	U	0.110	U	-0.0825	pCi/g	0.643		(0-1)		
	TPU:	+/-0.0679		+/-0.0819						
Lead-212		2.33		2.31	pCi/g	0.0414		(0-1)		
	TPU:	+/-0.140		+/-0.163						
Lead-214		1.90		2.09	pCi/g	0.292		(0-1)		
	TPU:	+/-0.151		+/-0.176						
Mercury-203	U	0.102	UI	0.132	pCi/g	0.209		(0-1)		
	TPU:	+/-0.0326		+/-0.0396						
Potassium-40		39.5		39.7	pCi/g	0.0159		(0-1)		
	TPU:	+/-2.41		+/-2.30						
Radium-223	U	0.396	U	-0.963	pCi/g	0.655		(0-1)		
	TPU:	+/-0.513		+/-0.525						
Radium-224	UI	5.86	UI	6.23	pCi/g	0.105		(0-1)		
	TPU:	+/-0.772		+/-0.983						
Radium-226		1.70		1.57	pCi/g	0.235		(0-1)		
	TPU:	+/-0.136		+/-0.141						
Radium-228		2.32		2.09	pCi/g	0.222		(0-1)		
	TPU:	+/-0.273		+/-0.240						
Ruthenium-106	U	-0.0495	U	0.328	pCi/g	0.435		(0-1)		
	TPU:	+/-0.209		+/-0.226						
Sodium-22	U	-0.036	U	-0.061	pCi/g	0.192		(0-1)		
	TPU:	+/-0.0299		+/-0.035						
Strontium-85	UI	0.135	UI	0.167	pCi/g	0.218		(0-1)		
	TPU:	+/-0.0338		+/-0.0388						
Thallium-208		0.644		0.752	pCi/g	0.386		(0-1)		
	TPU:	+/-0.0664		+/-0.0732						
Thorium-227	U	0.380	U	0.0182	pCi/g	0.481		(0-1)		

QC Summary

Workorder: 248818

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962631										
	TPU:	+/-0.182		+/-0.194						
Thorium-231	U	0.396	U	-0.963	pCi/g	0.655		(0-1)		
	TPU:	+/-0.513		+/-0.525						
Thorium-234		3.10		6.02	pCi/g	0.448		(0-1)		
	TPU:	+/-1.24		+/-2.01						
Tin-113	U	-0.0337	U	0.0133	pCi/g	0.349		(0-1)		
	TPU:	+/-0.0311		+/-0.0361						
Uranium-235	U	0.148	U	-0.0776	pCi/g	0.361		(0-1)		
	TPU:	+/-0.147		+/-0.165						
Yttrium-88	U	0.0165	U	0.0422	pCi/g	0.276		(0-1)		
	TPU:	+/-0.0195		+/-0.0271						
QC1202065187 LCS										
Americium-241	16.3			13.6	pCi/g		83.7	(75%-125%)		03/23/1014:40
	TPU:			+/-0.599						
Bismuth-211				3.40	pCi/g					
	TPU:			+/-0.374						
Bismuth-214				0.715	pCi/g					
	TPU:			+/-0.0974						
Cadmium-109				35.2	pCi/g					
	TPU:			+/-1.95						
Cerium-139			U	-0.00872	pCi/g					
	TPU:			+/-0.0216						
Cesium-134			U	0.053	pCi/g					
	TPU:			+/-0.0399						
Cesium-137	5.69			6.00	pCi/g		106	(75%-125%)		
	TPU:			+/-0.336						
Cobalt-60	6.49			6.63	pCi/g		102	(75%-125%)		
	TPU:			+/-0.326						
Europium-152			U	0.132	pCi/g					
	TPU:			+/-0.107						
Lanthanum-140			U	-0.128	pCi/g					
	TPU:			+/-0.0551						
Lead-212				1.57	pCi/g					
	TPU:			+/-0.128						
Lead-214				1.23	pCi/g					
	TPU:			+/-0.140						
Mercury-203			U	0.0203	pCi/g					
	TPU:			+/-0.0314						
Potassium-40			U	0.260	pCi/g					
	TPU:			+/-0.269						
Radium-223			U	-0.252	pCi/g					
	TPU:			+/-0.518						
Radium-224				3.47	pCi/g					
	TPU:			+/-0.978						
Radium-226				0.715	pCi/g					
	TPU:			+/-0.0974						
Radium-228				1.66	pCi/g					
	TPU:			+/-0.303						
Ruthenium-106			U	0.113	pCi/g					
	TPU:			+/-0.266						
Sodium-22			U	-0.0666	pCi/g					

QC Summary

Workorder: 248818

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962631										
	TPU:			+/-0.0239						
Strontium-85			U	-0.00466	pCi/g					
	TPU:			+/-0.0361						
Thallium-208				0.394	pCi/g					
	TPU:			+/-0.0551						
Thorium-227			U	0.0715	pCi/g					
	TPU:			+/-0.212						
Thorium-231			U	-0.252	pCi/g					
	TPU:			+/-0.518						
Thorium-234			U	-0.70	pCi/g					
	TPU:			+/-0.982						
Tin-113			U	0.0118	pCi/g					
	TPU:			+/-0.0383						
Uranium-235			U	-0.0818	pCi/g					
	TPU:			+/-0.144						
Yttrium-88			U	0.0286	pCi/g					
	TPU:			+/-0.0237						
QC1202065185 MB										
Americium-241			U	-0.0199	pCi/g					03/23/1014:39
	TPU:			+/-0.0419						
Bismuth-211			U	0.0304	pCi/g					
	TPU:			+/-0.0744						
Bismuth-214			U	-0.016	pCi/g					
	TPU:			+/-0.0272						
Cadmium-109			U	-0.0647	pCi/g					
	TPU:			+/-0.187						
Cerium-139			U	-0.00276	pCi/g					
	TPU:			+/-0.00912						
Cesium-134			U	-0.00715	pCi/g					
	TPU:			+/-0.0113						
Cesium-137			U	0.000152	pCi/g					
	TPU:			+/-0.0124						
Cobalt-60			U	-0.00737	pCi/g					
	TPU:			+/-0.0113						
Europium-152			U	0.0314	pCi/g					
	TPU:			+/-0.0313						
Lanthanum-140			U	0.0102	pCi/g					
	TPU:			+/-0.0262						
Lead-212			UI	0.079	pCi/g					
	TPU:			+/-0.0404						
Lead-214			U	0.0102	pCi/g					
	TPU:			+/-0.0275						
Mercury-203			U	-0.0217	pCi/g					
	TPU:			+/-0.0127						
Potassium-40			U	-0.309	pCi/g					
	TPU:			+/-0.134						
Radium-223			U	0.0566	pCi/g					
	TPU:			+/-0.203						
Radium-224			UI	0.840	pCi/g					
	TPU:			+/-0.429						
Radium-226			U	-0.016	pCi/g					

QC Summary

Workorder: 248818

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962631										
	TPU:			+/-0.0272						
Radium-228			U	0.0183	pCi/g					
	TPU:			+/-0.0474						
Ruthenium-106			U	-0.0474	pCi/g					
	TPU:			+/-0.0983						
Sodium-22			U	0.000677	pCi/g					
	TPU:			+/-0.0103						
Strontium-85			U	-0.07	pCi/g					
	TPU:			+/-0.0191						
Thallium-208			U	0.000768	pCi/g					
	TPU:			+/-0.0131						
Thorium-227			U	-0.0114	pCi/g					
	TPU:			+/-0.0763						
Thorium-231			U	0.0566	pCi/g					
	TPU:			+/-0.203						
Thorium-234			U	0.0562	pCi/g					
	TPU:			+/-0.391						
Tin-113			U	-0.00664	pCi/g					
	TPU:			+/-0.0145						
Uranium-235			U	-0.0424	pCi/g					
	TPU:			+/-0.0616						
Yttrium-88			U	0.000102	pCi/g					
	TPU:			+/-0.00764						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification

QC Summary

Workorder: **248818**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 965807 Product: Am Date: 3/31/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Dean 3/31/10

Secondary Review Performed By: _____

4/2

LANL

Am/Cm Que Sheet

16-MAR-10

Batch #: 965807 Analyst: JXH2 First Client Due Date: 02-APR-10 Internal Due Date22-MAR-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-96-2-VK Expiration Date: 3-9-11 Vol: 0.1

LCS Isotope(s): Am241/Cm244 LCS Code(s): — / — Expiration Date: — / — Vol(s): — / —

Spike Isotope(s): Am241/Cm244 Spike Code(s): — / — Expiration Date: — / — Vol(s): — / —

Prep Date: 3-22-10 Initials: JEH Pipet ID: 4497063 Balance ID: 50410272 Witness: MW 3/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) 1/1	Am/Cm Det #
248818001-1	RE46-10-13553	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	1	1	1.259	220
248818002-1	RE46-10-13549	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	2	2	1.256	221
248818003-1	RE46-10-13551	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	3	3	1.255	222
248818004-1	RE46-10-13550	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	4	4	1.252	223
248818005-1	RE46-10-13548	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	5	5	1.253	224
248818006-1	RE46-10-13546	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	6	6	1.254	225
248818007-1	RE46-10-13552	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	7	7	1.254	226
248818008-1	RE46-10-13547	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	8	8	1.262	227
248818009-1	RE46-10-13556	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	9	9	1.251	228
248841001-1	RE46-10-13867	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	10	10	1.257	229
248841002-1	RE46-10-13864	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	11	11	1.251	230
248841003-1	RE46-10-13863	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	12	12	1.255	209
248841004-1	RE46-10-13869	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	13	13	1.256	210
248841005-1	RE46-10-13861	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	14	14	1.257	211
248841006-1	RE46-10-13866	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	15	15	1.257	212
248841007-1	RE46-10-13860	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	16	16	1.258	213
248841008-1	RE46-10-13865	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	17	17	1.255	214
248841009-1	RE46-10-13868	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	18	18	1.260	215
248841010-1	RE46-10-13862	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	19	19	1.252	216
248841011-1	RE46-10-13873	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	20	20	1.260	217
1202072510-1	MB for batch 965807	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1	247 218
1202072511-1	RE46-10-13867(248841001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	03-MAR-10	22	22	1.251	248 219
1202072512-1	LCS for batch 965807	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.107	256 220

* SRM 0244-B 4-30-20

Choose SOP Used: ~~GL-RAD-A-011~~ GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 3/31/10

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 965807

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202072511	DUP	Americium-241	1.25 g	-0.00331	0.0026	0.0238	-.001248	pCi/g	NO
1202072512	LCS	Americium-241	0.107 g	25.2	1.96	0.258	-.01457944	pCi/g	NO
1202072510	MB	Americium-241	1.00 g	-0.00156	0.00365	0.0265	-.00156	pCi/g	NO
248818001	RE46-10-13553	Americium-241	1.26 g	0.000208	0.00163	0.0238	-.00123810	pCi/g	NO
248818002	RE46-10-13549	Americium-241	1.26 g	-0.00811	0.00314	0.0227	-.00123810	pCi/g	YES
248818003	RE46-10-13551	Americium-241	1.26 g	0.00424	0.00247	0.0208	-.00123810	pCi/g	NO
248818004	RE46-10-13550	Americium-241	1.25 g	0.000135	0.00156	0.0228	-.001248	pCi/g	NO
248818005	RE46-10-13548	Americium-241	1.25 g	0.00192	0.00234	0.0215	-.001248	pCi/g	NO
248818006	RE46-10-13546	Americium-241	1.25 g	0.00142	0.00142	0.0208	-.001248	pCi/g	NO
248818007	RE46-10-13552	Americium-241	1.25 g	-0.00142	0.00204	0.0298	-.001248	pCi/g	NO
248818008	RE46-10-13547	Americium-241	1.26 g	0.000688	0.00211	0.024	-.00123810	pCi/g	NO
248818009	RE46-10-13556	Americium-241	1.25 g	-6.73E-05	0.00136	0.0199	-.001248	pCi/g	NO
248841001	RE46-10-13867	Americium-241	1.26 g	0.00278	0.00336	0.0241	-.00123810	pCi/g	NO
248841002	RE46-10-13864	Americium-241	1.25 g	0.00238	0.003	0.0218	-.001248	pCi/g	NO
248841003	RE46-10-13863	Americium-241	1.26 g	3.22E-05	0.00145	0.0213	-.00123810	pCi/g	NO
248841004	RE46-10-13869	Americium-241	1.26 g	0.00167	0.00161	0.0226	-.00123810	pCi/g	NO
248841005	RE46-10-13861	Americium-241	1.26 g	0.0018	0.00224	0.0207	-.00123810	pCi/g	NO
248841006	RE46-10-13866	Americium-241	1.26 g	-1.28E-06	0.00142	0.0208	-.00123810	pCi/g	NO
248841007	RE46-10-13860	Americium-241	1.26 g	-0.000853	0.00248	0.0295	-.00123810	pCi/g	NO
248841008	RE46-10-13865	Americium-241	1.26 g	0.000375	0.00173	0.0205	-.00123810	pCi/g	NO
248841009	RE46-10-13868	Americium-241	1.26 g	0.00416	0.00242	0.0204	-.00123810	pCi/g	NO
248841010	RE46-10-13862	Americium-241	1.25 g	-0.000232	0.00267	0.0208	-.001248	pCi/g	NO
248841011	RE46-10-13873	Americium-241	1.26 g	0.00066	0.00208	0.0237	-.00123810	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 220	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248818001_AM	DETECTOR S/N : 79413	BKG FILE : B220.CNF;91
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 38.9430	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 26-MAR-2010 07:44:00	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W220.CNF;32
% YIELD : 78.703		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.7907E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5535.590	4.926	1.000	0.128	0.000	2.7707	99.94000	2.08E-04	1.63E-03	9.70E-03	2.38E-02	1.62E-03
AM243	5270.000	5277.120	50.295	501.000	501.000	0.000	0.0000	99.78000	8.14E-01	6.61E-02	0.00E+00	4.40E-03	3.64E-02
CM-242	6102.000	6029.610	43.715	5.000	5.000	0.000	4.0092	100.0000	8.96E-03	4.05E-03	1.40E-02	3.24E-02	4.01E-03
CM-3/4	5795.020	5867.183	4.926	1.000	0.280	0.720	4.8510	100.0000	4.55E-04	2.01E-03	1.70E-02	3.83E-02	2.00E-03
CM-5/6	5386.000	5374.274	7.235	3.000	3.000	0.000	6.1294	86.09000	5.65E-03	3.28E-03	2.49E-02	5.49E-02	3.26E-03
CM-247	4946.000	4962.221	0.000	3.000	1.560	1.440	6.3427	79.30000	3.19E-03	4.11E-03	2.80E-02	6.15E-02	4.11E-03
CM-248	5078.600	5075.483	14.674	11.000	11.000	0.000	11.0244	91.00000	1.96E-02	6.06E-03	4.24E-02	8.96E-02	5.91E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

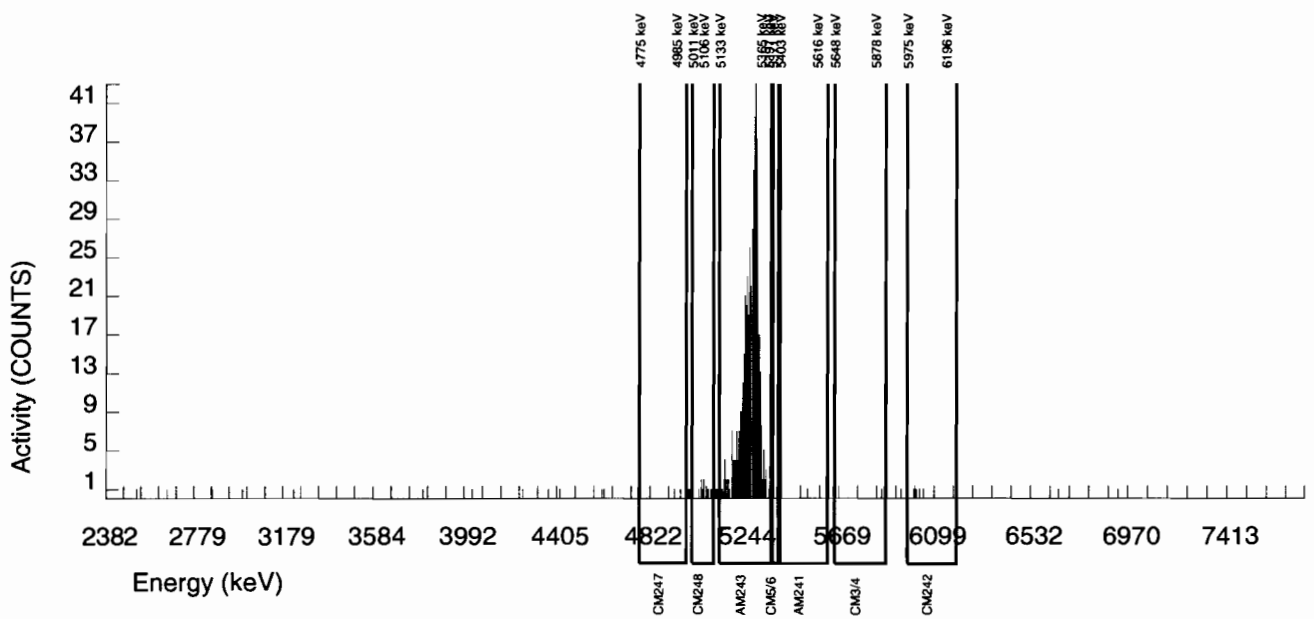

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 221	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248818002_AM	DETECTOR S/N : 79414	BKG FILE : B221.CNF;93
SAMPLE QTY : 1.256 G	AVERAGE %EFFICIENCY : 39.7297	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:41:21	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W221.CNF;30
% YIELD : 80.995		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.8429E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5508.437	0.000	0.000	-5.235	4.320	2.7707	99.94000	-8.11E-03	3.14E-03	9.26E-03	2.27E-02	3.14E-03
AM243	5270.000	5275.013	33.291	526.000	526.000	0.000	0.0000	99.78000	8.16E-01	6.53E-02	0.00E+00	4.20E-03	3.56E-02
CM-242	6102.000	6042.693	69.513	5.000	5.000	0.000	4.0092	100.0000	8.67E-03	3.92E-03	1.34E-02	3.10E-02	3.88E-03
CM-3/4	5795.020	5742.591	4.965	3.000	0.840	2.160	4.8510	100.0000	1.30E-03	3.31E-03	1.62E-02	3.66E-02	3.31E-03
CM-5/6	5386.000	5375.404	0.000	4.000	4.000	0.000	6.1294	86.09000	7.19E-03	3.63E-03	2.38E-02	5.24E-02	3.60E-03
CM-247	4946.000	4915.741	4.965	7.000	7.000	0.000	6.3427	79.30000	1.37E-02	5.25E-03	2.67E-02	5.87E-02	5.16E-03
CM-248	5078.600	5062.490	39.722	12.000	12.000	0.000	11.0244	91.00000	2.04E-02	6.05E-03	4.05E-02	8.55E-02	5.89E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

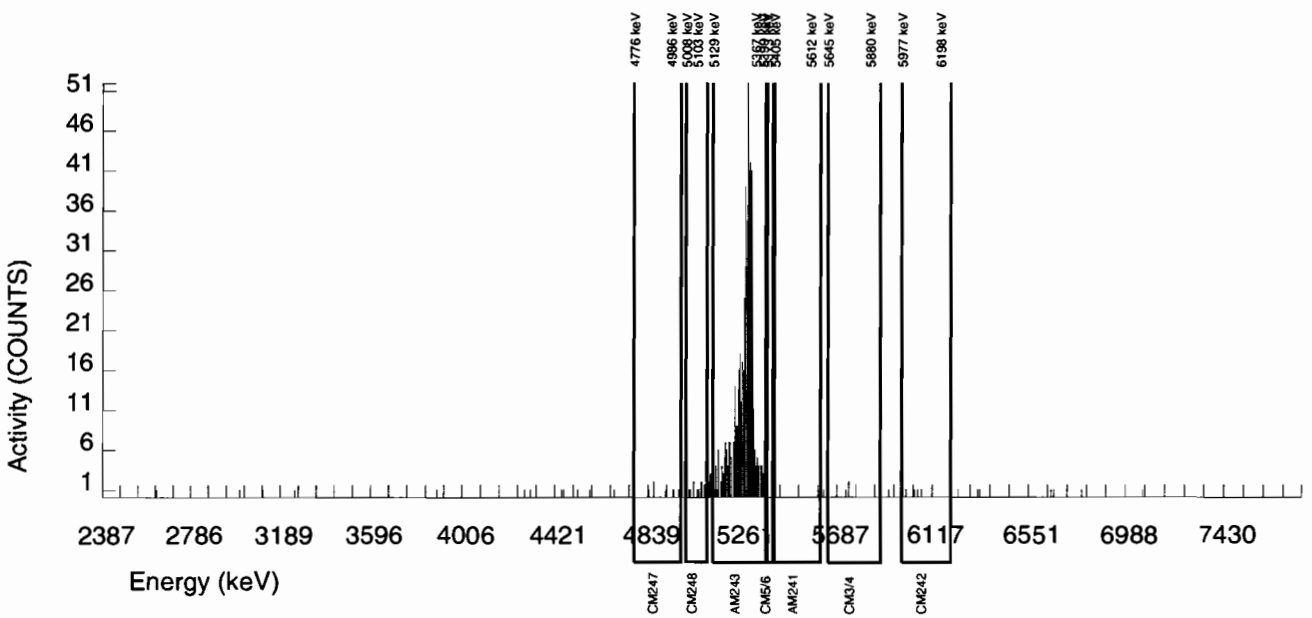

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 222	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248818003_AM	DETECTOR S/N : 79415	BKG FILE : B222.CNF;93
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 38.9602	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:41:23	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W222.CNF;30
% YIELD : 90.445		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 2.0579E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5489.861	0.000	4.000	2.998	0.000	2.7707	99.94000	4.24E-03	2.47E-03	8.46E-03	2.08E-02	2.45E-03
AM243	5270.000	5283.233	57.790	576.000	576.000	0.000	0.0000	99.78000	8.17E-01	6.37E-02	0.00E+00	3.84E-03	3.40E-02
CM-242	6102.000	6087.249	25.124	4.000	4.000	0.000	4.0092	100.0000	6.34E-03	3.20E-03	1.22E-02	2.83E-02	3.17E-03
CM-3/4	5795.020	5768.487	0.000	8.000	6.560	1.440	4.8510	100.0000	9.31E-03	4.31E-03	1.48E-02	3.34E-02	4.26E-03
CM-5/6	5386.000	5385.851	0.000	11.000	10.280	0.720	6.1294	86.09000	1.69E-02	5.69E-03	2.17E-02	4.79E-02	5.58E-03
CM-247	4946.000	4887.197	170.841	8.000	8.000	0.000	6.3427	79.30000	1.43E-02	5.13E-03	2.44E-02	5.37E-02	5.05E-03
CM-248	5078.600	5057.209	58.569	16.000	16.000	0.000	11.0244	91.00000	2.49E-02	6.43E-03	3.70E-02	7.82E-02	6.22E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

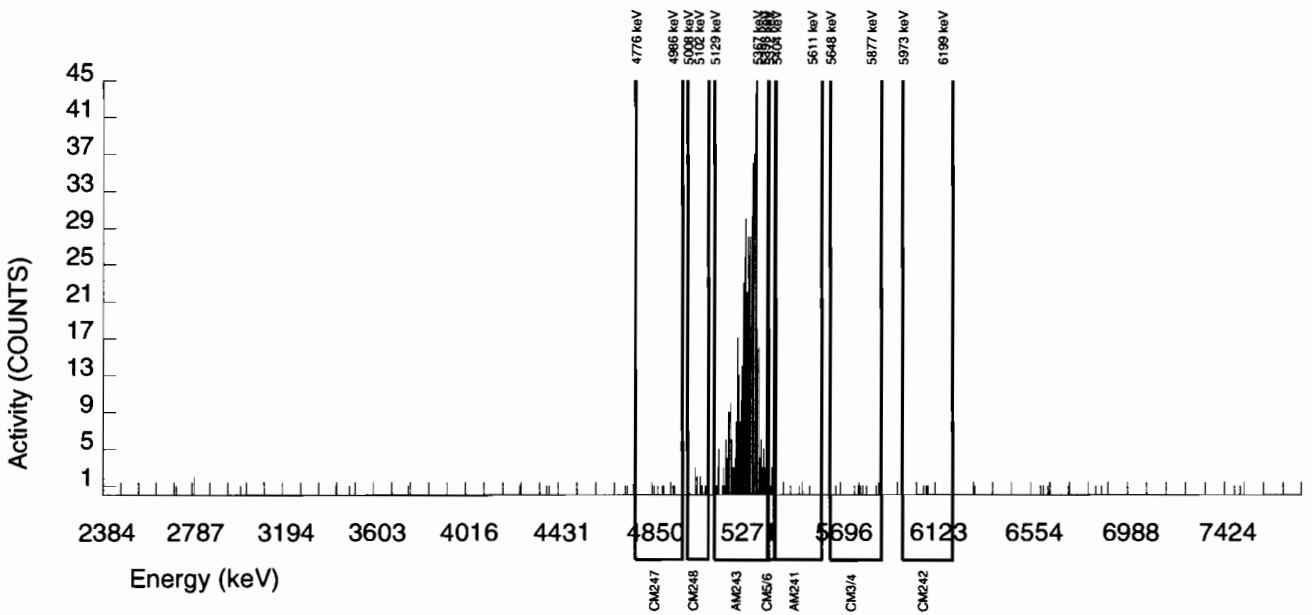

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 223	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248818004_AM	DETECTOR S/N : 79416	BKG FILE : B223.CNF;95
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 39.5920	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:41:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W223.CNF;30
% YIELD : 81.122		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.8458E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5604.203	4.946	1.000	0.087	0.000	2.7707	99.94000	1.35E-04	1.56E-03	9.31E-03	2.28E-02	1.56E-03
AM243	5270.000	5274.523	43.277	525.000	525.000	0.000	0.0000	99.78000	8.19E-01	6.56E-02	0.00E+00	4.23E-03	3.57E-02
CM-242	6102.000	6056.642	4.946	5.000	5.000	0.000	4.0092	100.0000	8.72E-03	3.94E-03	1.35E-02	3.11E-02	3.90E-03
CM-3/4	5795.020	5747.586	148.379	7.000	7.000	0.000	4.8510	100.0000	1.09E-02	4.19E-03	1.63E-02	3.68E-02	4.13E-03
CM-5/6	5386.000	5372.623	0.000	9.000	9.000	0.000	6.1294	86.09000	1.63E-02	5.53E-03	2.39E-02	5.27E-02	5.42E-03
CM-247	4946.000	4882.083	187.947	10.000	10.000	0.000	6.3427	79.30000	1.96E-02	6.34E-03	2.68E-02	5.90E-02	6.20E-03
CM-248	5078.600	5073.285	0.000	13.000	13.000	0.000	11.0244	91.00000	2.22E-02	6.34E-03	4.07E-02	8.60E-02	6.16E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

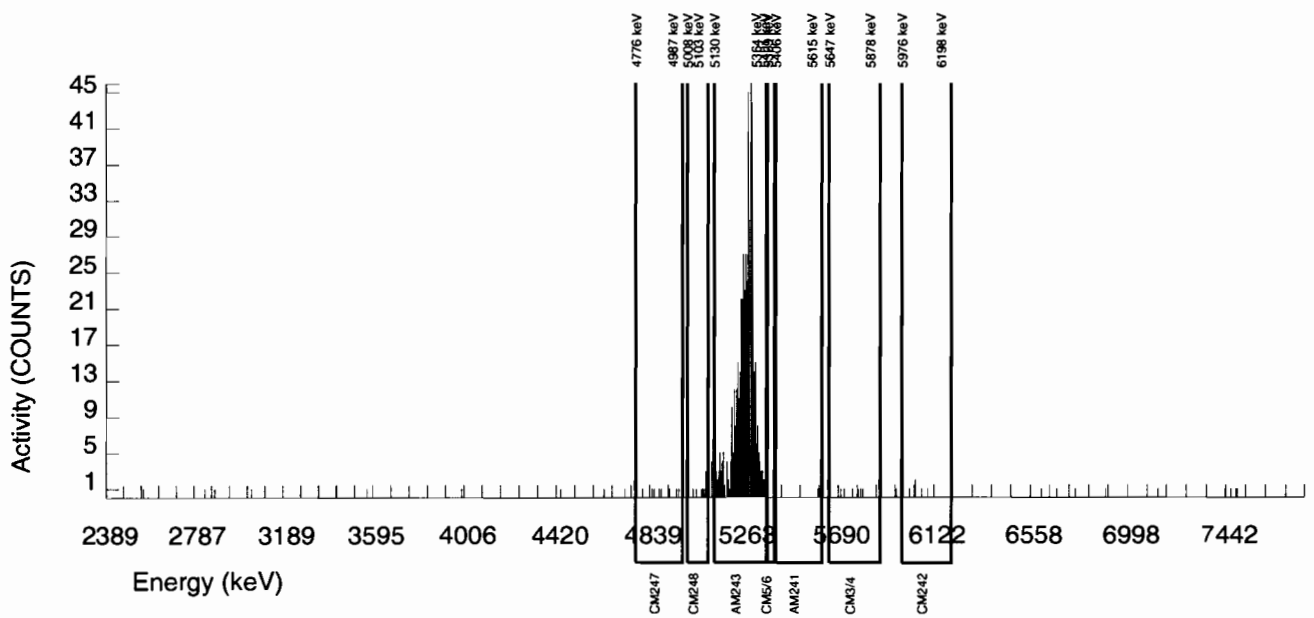

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 224	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248818005_AM	DETECTOR S/N : 79417	BKG FILE : B224.CNF;93
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 38.4049	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:41:29	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W224.CNF;30
% YIELD : 88.771		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 2.0198E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5543.375	60.025	3.000	1.310	0.720	2.7707	99.94000	1.92E-03	2.34E-03	8.76E-03	2.15E-02	2.34E-03
AM243	5270.000	5280.153	56.257	558.000	557.280	0.720	0.8485	99.78000	8.18E-01	6.45E-02	2.69E-03	9.35E-03	3.47E-02
CM-242	6102.000	6035.083	45.019	6.000	5.280	0.720	4.0092	100.0000	8.66E-03	4.23E-03	1.27E-02	2.93E-02	4.19E-03
CM-3/4	5795.020	5737.750	7.347	5.000	5.000	0.000	4.8510	100.0000	7.34E-03	3.32E-03	1.53E-02	3.46E-02	3.28E-03
CM-5/6	5386.000	5379.566	0.000	8.000	8.000	0.000	6.1294	86.09000	1.36E-02	4.90E-03	2.25E-02	4.96E-02	4.81E-03
CM-247	4946.000	4892.863	147.405	12.000	12.000	0.000	6.3427	79.30000	2.22E-02	6.56E-03	2.53E-02	5.55E-02	6.40E-03
CM-248	5078.600	5060.172	60.025	9.000	9.000	0.000	11.0244	91.00000	1.45E-02	4.92E-03	3.83E-02	8.09E-02	4.83E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

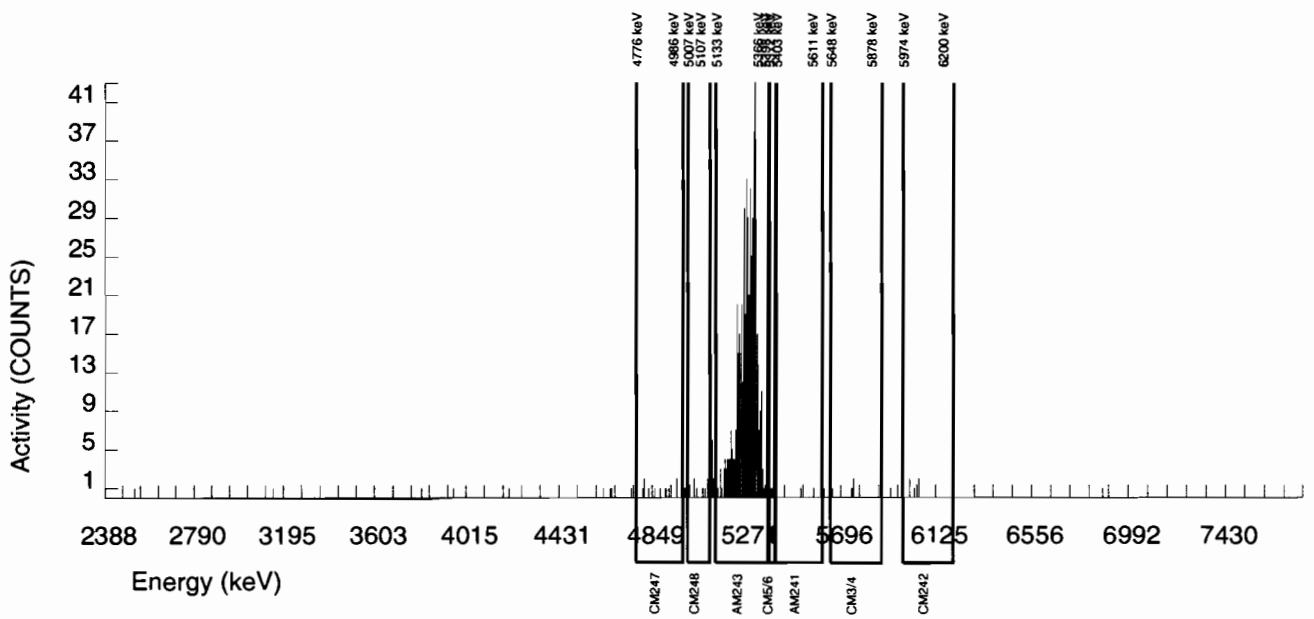

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 225	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248818006_AM	DETECTOR S/N : 79418	BKG FILE : B225.CNF;93
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 38.8004	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:41:31	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W225.CNF;30
% YIELD : 90.748		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 2.0648E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5462.045	83.966	2.000	0.999	0.000	2.7707	99.94000	1.42E-03	1.42E-03	8.47E-03	2.08E-02	1.42E-03
AM243	5270.000	5278.384	42.981	577.000	575.560	1.440	1.2000	99.78000	8.17E-01	6.38E-02	3.68E-03	1.12E-02	3.41E-02
CM-242	6102.000	6040.150	39.513	4.000	4.000	0.000	4.0092	100.0000	6.35E-03	3.20E-03	1.23E-02	2.84E-02	3.18E-03
CM-3/4	5795.020	5756.292	0.000	7.000	7.000	0.000	4.8510	100.0000	9.95E-03	3.82E-03	1.48E-02	3.35E-02	3.76E-03
CM-5/6	5386.000	5374.668	0.000	9.000	9.000	0.000	6.1294	86.09000	1.48E-02	5.03E-03	2.18E-02	4.80E-02	4.94E-03
CM-247	4946.000	4901.353	4.939	11.000	10.280	0.720	6.3427	79.30000	1.84E-02	6.18E-03	2.44E-02	5.37E-02	6.06E-03
CM-248	5078.600	5066.847	66.679	11.000	11.000	0.000	11.0244	91.00000	1.71E-02	5.29E-03	3.70E-02	7.83E-02	5.16E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

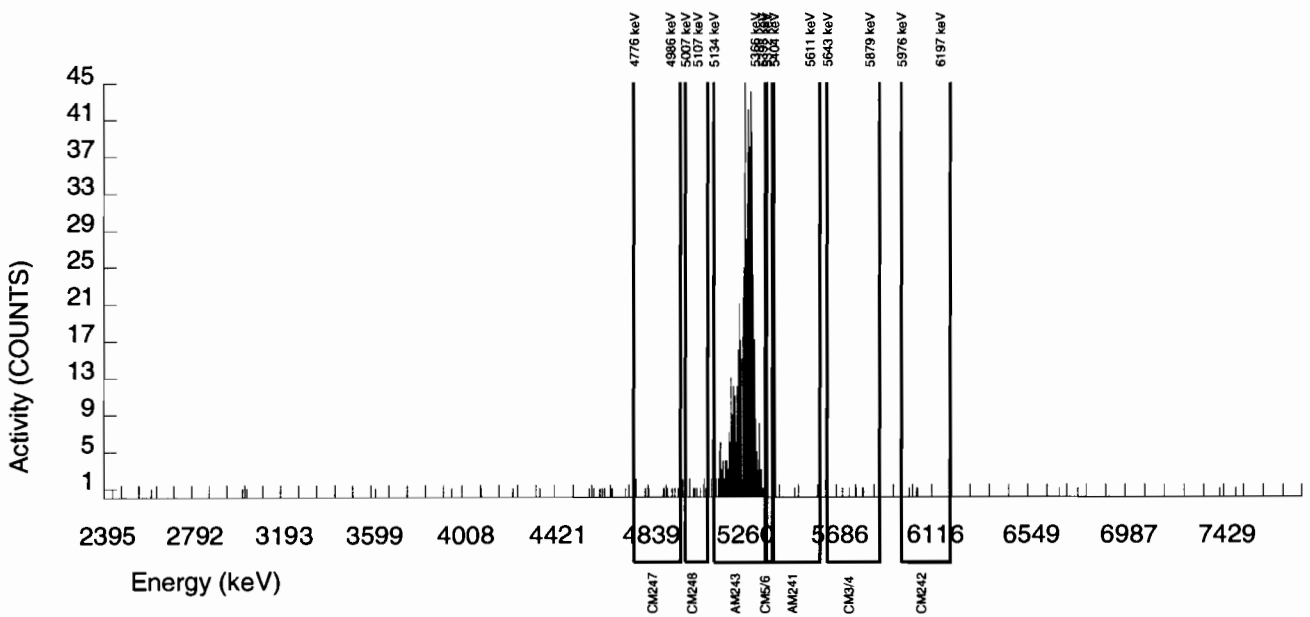

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 226	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248818007_AM	DETECTOR S/N : 79419	BKG FILE : B226.CNF;93
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 38.9218	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:41:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W226.CNF;30
% YIELD : 63.185		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.4377E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5508.108	0.000	0.000	-0.699	0.000	2.7707	99.94000	-1.42E-03	2.04E-03	1.21E-02	2.98E-02	2.03E-03
AM243	5270.000	5281.207	46.364	402.000	402.000	0.000	0.0000	99.78000	8.17E-01	7.12E-02	0.00E+00	5.51E-03	4.08E-02
CM-242	6102.000	6043.698	68.972	5.000	5.000	0.000	4.0092	100.0000	1.14E-02	5.15E-03	1.75E-02	4.06E-02	5.08E-03
CM-3/4	5795.020	5750.841	49.710	3.000	3.000	0.000	4.8510	100.0000	6.10E-03	3.55E-03	2.12E-02	4.80E-02	3.52E-03
CM-5/6	5386.000	5385.332	7.301	5.000	5.000	0.000	6.1294	86.09000	1.18E-02	5.34E-03	3.12E-02	6.87E-02	5.27E-03
CM-247	4946.000	4915.702	129.245	6.000	4.560	1.440	6.3427	79.30000	1.17E-02	6.84E-03	3.50E-02	7.69E-02	6.79E-03
CM-248	5078.600	5063.733	34.797	13.000	13.000	0.000	11.0244	91.00000	2.90E-02	8.30E-03	5.30E-02	1.12E-01	8.04E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

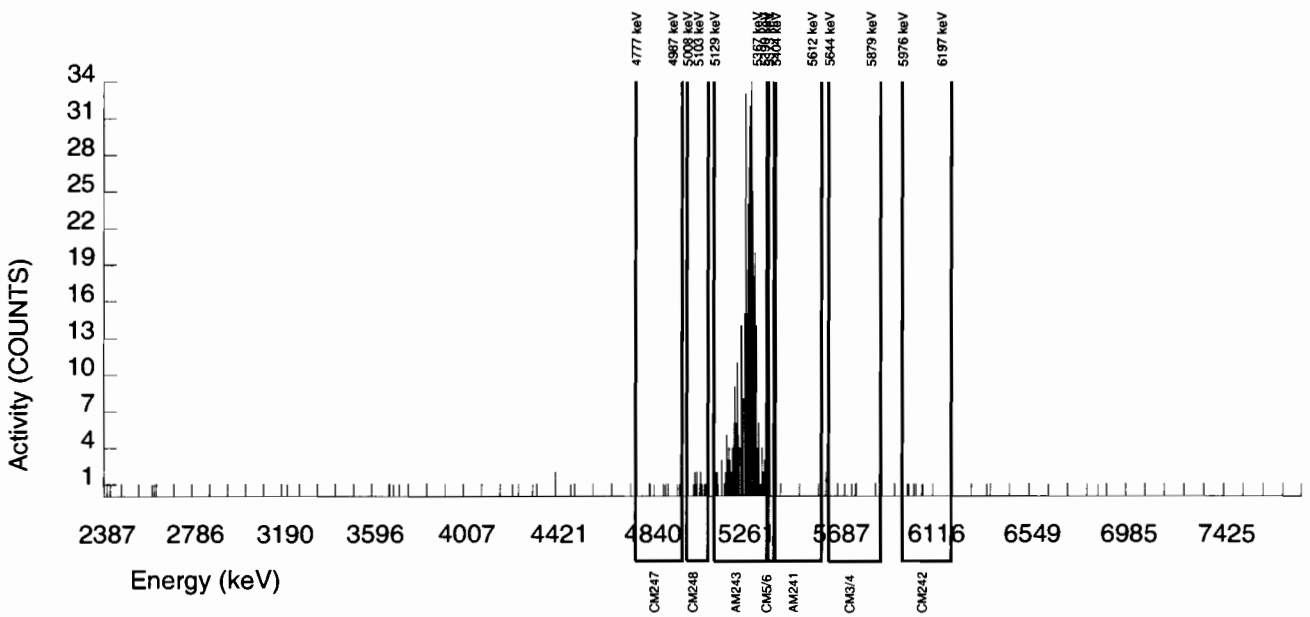

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 227	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248818008_AM	DETECTOR S/N : 79420	BKG FILE : B227.CNF;93
SAMPLE QTY : 1.262 G	AVERAGE %EFFICIENCY : 38.7585	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:41:35	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W227.CNF;30
% YIELD : 78.062		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.7761E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5482.780	14.788	2.000	0.420	0.720	2.7707	99.94000	6.88E-04	2.11E-03	9.80E-03	2.40E-02	2.11E-03
AM243	5270.000	5276.594	45.283	496.000	494.560	1.440	1.2000	99.78000	8.12E-01	6.64E-02	4.25E-03	1.30E-02	3.66E-02
CM-242	6102.000	6040.160	7.240	8.000	7.280	0.720	4.0092	100.0000	1.34E-02	5.44E-03	1.42E-02	3.28E-02	5.36E-03
CM-3/4	5795.020	5746.154	4.929	4.000	4.000	0.000	4.8510	100.0000	6.57E-03	3.32E-03	1.71E-02	3.87E-02	3.29E-03
CM-5/6	5386.000	5377.806	0.000	7.000	7.000	0.000	6.1294	86.09000	1.33E-02	5.12E-03	2.52E-02	5.55E-02	5.04E-03
CM-247	4946.000	4917.640	162.673	7.000	7.000	0.000	6.3427	79.30000	1.45E-02	5.55E-03	2.83E-02	6.21E-02	5.47E-03
CM-248	5078.600	5051.146	39.407	16.000	16.000	0.000	11.0244	91.00000	2.88E-02	7.46E-03	4.28E-02	9.05E-02	7.20E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

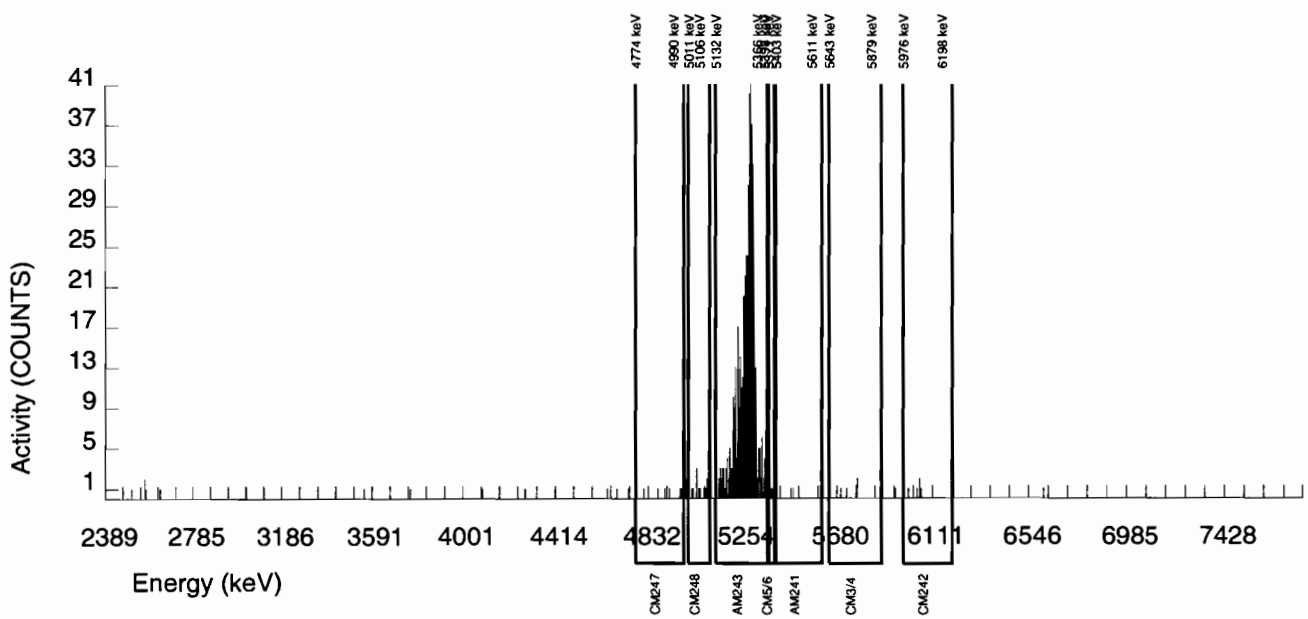

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 228	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248818009_AM	DETECTOR S/N : 79421	BKG FILE : B228.CNF;93
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 38.2168	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:41:38	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W228.CNF;30
% YIELD : 96.571		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 2.1973E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5607.854	4.936	1.000	-0.050	0.000	2.7707	99.94000	-6.73E-05	1.36E-03	8.10E-03	1.99E-02	1.36E-03
AM243	5270.000	5281.446	34.839	604.000	603.280	0.720	0.8485	99.78000	8.19E-01	6.31E-02	2.49E-03	8.65E-03	3.34E-02
CM-242	6102.000	6048.295	4.936	7.000	7.000	0.000	4.0092	100.0000	1.06E-02	4.08E-03	1.17E-02	2.71E-02	4.02E-03
CM-3/4	5795.020	5752.395	98.726	6.000	5.280	0.720	4.8510	100.0000	7.17E-03	3.50E-03	1.42E-02	3.20E-02	3.47E-03
CM-5/6	5386.000	5378.639	0.000	5.000	5.000	0.000	6.1294	86.09000	7.87E-03	3.56E-03	2.08E-02	4.59E-02	3.52E-03
CM-247	4946.000	4931.705	4.936	4.000	3.280	0.720	6.3427	79.30000	5.60E-03	3.65E-03	2.34E-02	5.14E-02	3.63E-03
CM-248	5078.600	5061.984	4.936	9.000	9.000	0.000	11.0244	91.00000	1.34E-02	4.55E-03	3.54E-02	7.49E-02	4.47E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

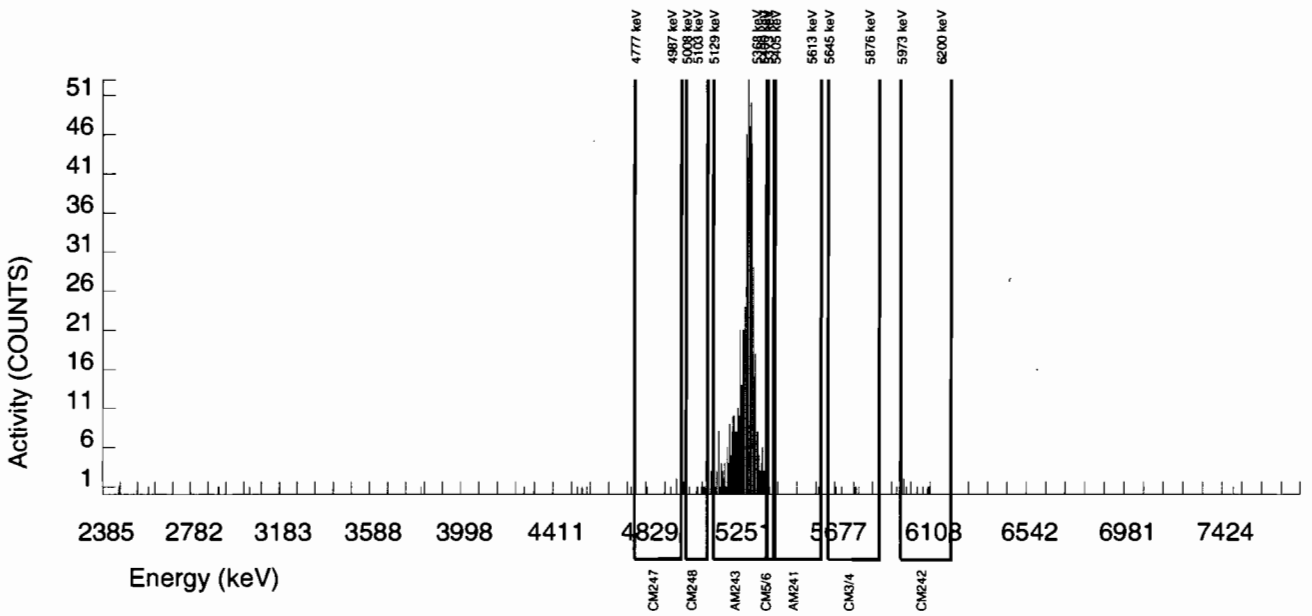

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 229	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248841001_AM	DETECTOR S/N : 79422	BKG FILE : B229.CNF;93
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 38.6797	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:41:40	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W229.CNF;30
% YIELD : 78.492		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.7860E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5534.779	138.677	4.000	1.697	1.440	2.7707	99.94000	2.78E-03	3.36E-03	9.81E-03	2.41E-02	3.35E-03
AM243	5270.000	5277.013	37.894	497.000	496.280	0.720	0.8485	99.78000	8.15E-01	6.65E-02	3.01E-03	1.05E-02	3.66E-02
CM-242	6102.000	6042.572	0.000	8.000	7.280	0.720	4.0092	100.0000	1.34E-02	5.44E-03	1.42E-02	3.28E-02	5.36E-03
CM-3/4	5795.020	5775.715	7.274	9.000	9.000	0.000	4.8510	100.0000	1.48E-02	5.03E-03	1.72E-02	3.88E-02	4.93E-03
CM-5/6	5386.000	5375.107	0.000	9.000	9.000	0.000	6.1294	86.09000	1.71E-02	5.83E-03	2.52E-02	5.55E-02	5.71E-03
CM-247	4946.000	4937.047	4.953	11.000	11.000	0.000	6.3427	79.30000	2.27E-02	7.03E-03	2.83E-02	6.22E-02	6.86E-03
CM-248	5078.600	5071.775	37.919	11.000	11.000	0.000	11.0244	91.00000	1.98E-02	6.13E-03	4.28E-02	9.06E-02	5.97E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

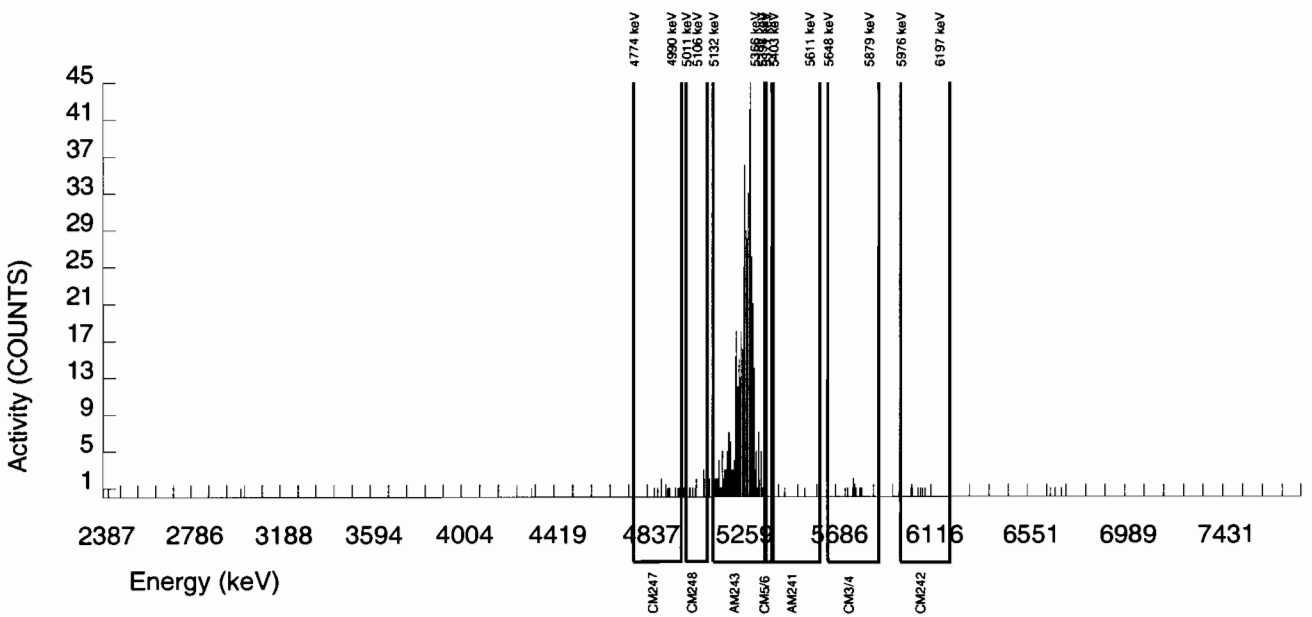

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 247	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202072510_AM	DETECTOR S/N : 79440	BKG FILE : B247.CNF;94
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 39.7754	BKG DATE : 28-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 30-MAR-2010 19:03:32	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W247.CNF;34
% YIELD : 87.115		CAL DATE : 30-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3148E+01 pCi/G	NOMINAL : 3.3148E+01 pCi/G
RESULTS : 1.9821E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5508.301	162.727	3.000	-0.865	2.880	2.7707	99.94000	-1.56E-03	3.65E-03	1.08E-02	2.65E-02	3.65E-03
AM243	5270.000	5277.609	50.410	570.000	566.400	3.600	1.8974	99.78000	1.02E+00	8.06E-02	7.41E-03	1.97E-02	4.33E-02
CM-242	6102.000	6050.686	59.174	2.000	2.000	0.000	4.0092	100.0000	3.75E-03	2.67E-03	1.56E-02	3.61E-02	2.65E-03
CM-3/4	5795.020	5763.120	93.691	5.000	2.840	2.160	4.8510	100.0000	5.13E-03	4.64E-03	1.89E-02	4.27E-02	4.63E-03
CM-5/6	5386.000	5376.673	0.000	8.000	8.000	0.000	6.1294	86.09000	1.68E-02	6.04E-03	2.77E-02	6.12E-02	5.93E-03
CM-247	4946.000	4899.927	0.000	8.000	7.280	0.720	6.3427	79.30000	1.66E-02	6.74E-03	3.12E-02	6.85E-02	6.65E-03
CM-248	5078.600	5069.560	16.951	14.000	13.280	0.720	11.0244	91.00000	2.63E-02	7.76E-03	4.72E-02	9.98E-02	7.56E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

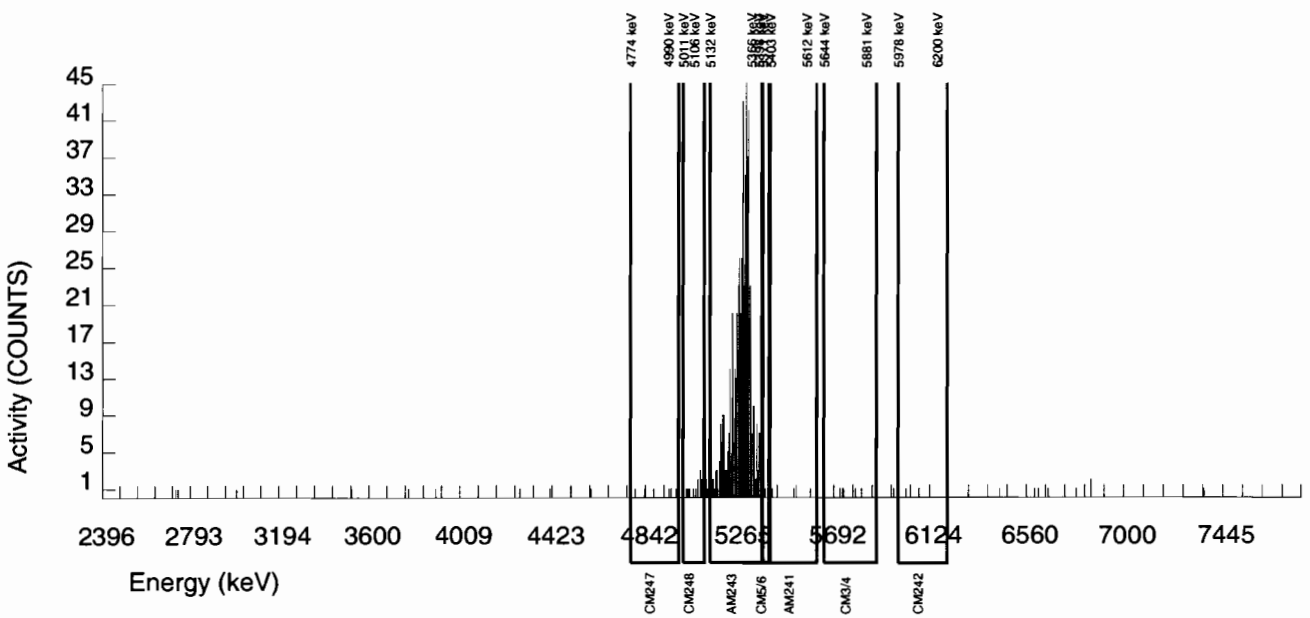

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 248	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202072511_AM	DETECTOR S/N : 79441	BKG FILE : B248.CNF;96
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 40.3361	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 19:03:34	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W248.CNF;34
% YIELD : 76.307		CAL DATE : 30-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.7362E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5580.021	4.922	1.000	-2.035	2.160	2.7707	99.94000	-3.31E-03	2.60E-03	9.72E-03	2.38E-02	2.60E-03
AM243	5270.000	5280.404	31.134	506.000	503.120	2.880	1.6971	99.78000	8.19E-01	6.67E-02	5.96E-03	1.63E-02	3.67E-02
CM-242	6102.000	6048.942	7.229	5.000	4.280	0.720	4.0092	100.0000	7.84E-03	4.33E-03	1.41E-02	3.25E-02	4.30E-03
CM-3/4	5795.020	5794.955	118.120	5.000	2.840	2.160	4.8510	100.0000	4.63E-03	4.18E-03	1.70E-02	3.84E-02	4.17E-03
CM-5/6	5386.000	5383.542	4.922	4.000	4.000	0.000	6.1294	86.09000	7.55E-03	3.81E-03	2.50E-02	5.50E-02	3.77E-03
CM-247	4946.000	4928.409	4.922	7.000	5.560	1.440	6.3427	79.30000	1.14E-02	5.86E-03	2.80E-02	6.16E-02	5.81E-03
CM-248	5078.600	5063.479	0.000	12.000	12.000	0.000	11.0244	91.00000	2.14E-02	6.35E-03	4.25E-02	8.98E-02	6.19E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

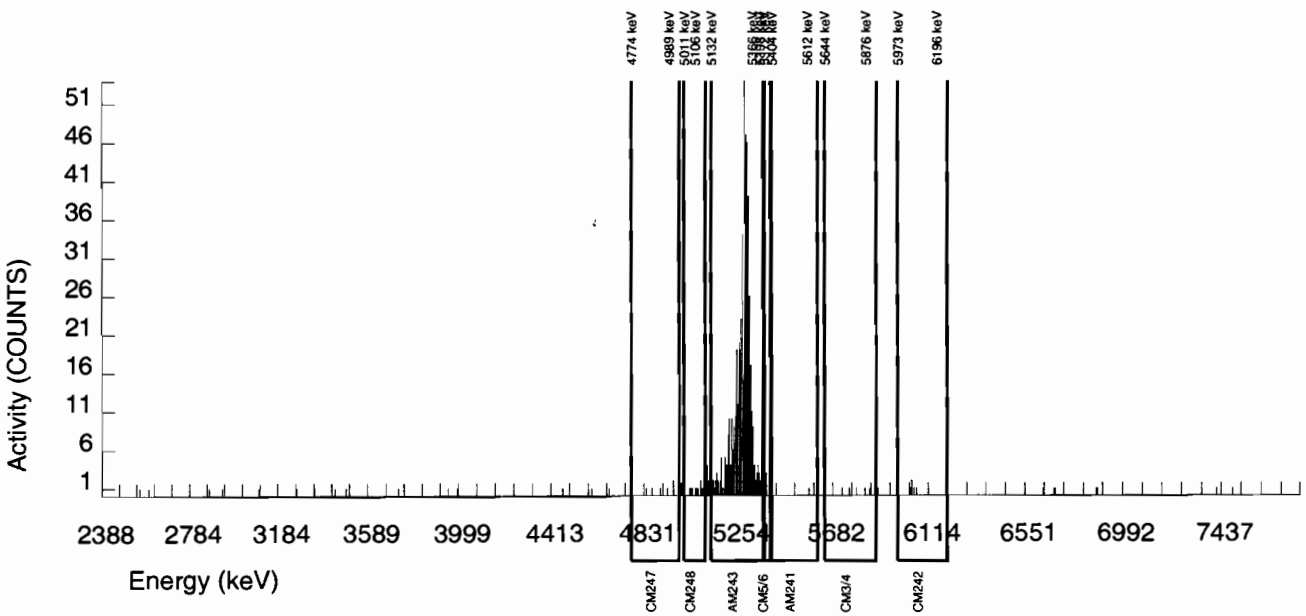

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 256	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202072512_AM	DETECTOR S/N : 79449	BKG FILE : B256.CNF;95
SAMPLE QTY : 0.107 G	AVERAGE %EFFICIENCY : 40.2693	BKG DATE : 28-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 30-MAR-2010 19:03:37	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W256.CNF;33
% YIELD : 82.729		CAL DATE : 30-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3148E+01 pCi/G	NOMINAL : 3.3148E+01 pCi/G
RESULTS : 1.8823E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5494.719	61.740	1440.000	1436.172	2.880	2.7707	99.94000	2.52E+01	1.96E+00	1.05E-01	2.58E-01	6.67E-01
AM243	5270.000	5273.722	40.072	546.000	544.560	1.440	1.2000	99.78000	9.58E+00	8.13E-01	4.55E-02	1.39E-01	4.11E-01
CM-242	6102.000	6087.735	0.000	0.000	0.000	0.000	4.0092	100.0000	0.00E+00	1.83E-02	1.52E-01	3.51E-01	1.82E-02
CM-3/4	5795.020	5775.554	4.936	10.000	8.560	1.440	4.8510	100.0000	1.50E-01	5.94E-02	1.84E-01	4.15E-01	5.84E-02
CM-5/6	5386.000	5382.953	0.000	54.000	54.000	0.000	6.1294	86.09000	1.10E+00	1.70E-01	2.70E-01	5.94E-01	1.50E-01
CM-247	4946.000	4904.651	7.249	11.000	7.400	3.600	6.3427	79.30000	1.64E-01	8.25E-02	3.03E-01	6.66E-01	8.16E-02
CM-248	5078.600	5061.882	31.876	23.000	23.000	0.000	11.0244	91.00000	4.44E-01	9.80E-02	4.59E-01	9.70E-01	9.25E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

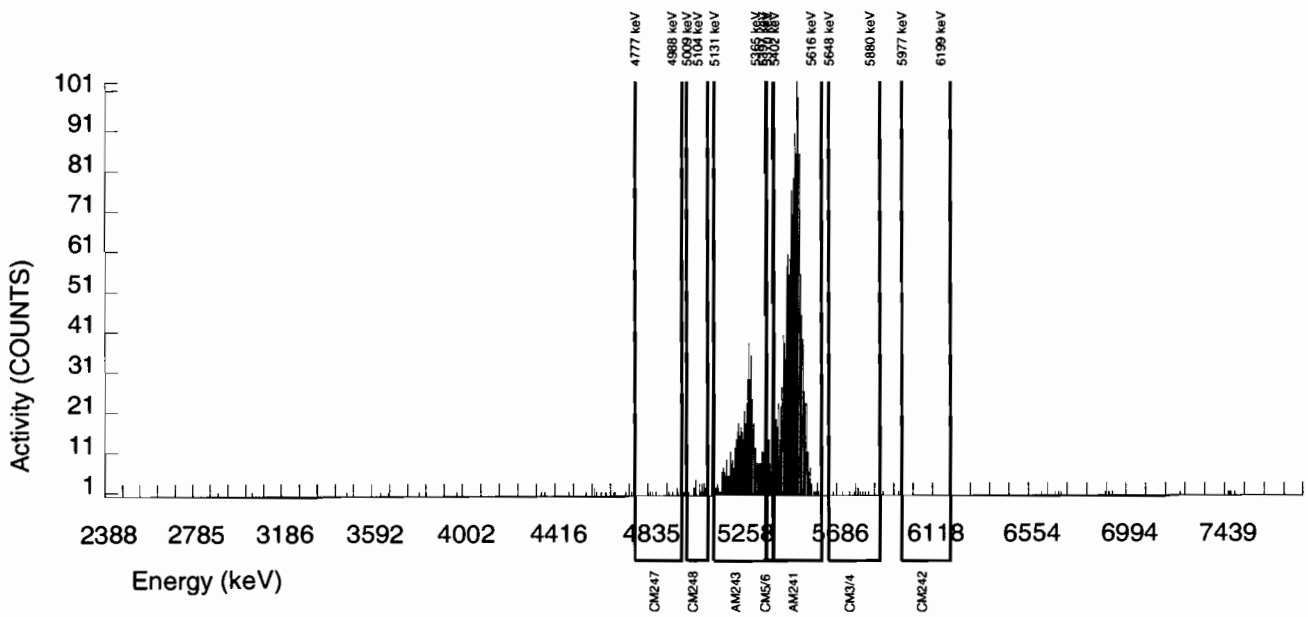

Radiochemistry Batch Checklist, Rev10

Batch# 965 808 Product: Pu Date: 3/31/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.	✗		N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JapLMLr 3/31/10

Secondary Review Performed By: [illegible] 3/31/10

4/2

LANL

Pu

Plutonium Que Sheet

22-MAR-10

Batch #: 965808 Pu-236 Analyst: JXH2 First Client Due Date:02-APR-10 Internal Due Date:22-MAR-10

Tracer Isotope(s): ~~Pu-242/Pu-238~~ Tracer Code: 1430-C Expiration Date: 3-4-11 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: — Expiration Date: — Vol: —

Spike Isotope(s): Pu-239/Pu-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 3-22-10 Initials: JEH Pipet ID: 4497063 Balance ID: 50410272 Witness: 3/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g / ml / l)	Pu Det #
248818001-1	RE46-10-13553	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	1	1	1.254	107 ~~25~~
248818002-1	RE46-10-13549	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	2	2	1.256	26
248818003-1	RE46-10-13551	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	3	3	1.255	27
248818004-1	RE46-10-13550	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	4	4	1.252	28
248818005-1	RE46-10-13548	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	5	5	1.253	29
248818006-1	RE46-10-13546	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	6	6	1.254	30
248818007-1	RE46-10-13552	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	7	7	1.254	37
248818008-1	RE46-10-13547	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	8	8	1.262	38
248818009-1	RE46-10-13556	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	9	9	1.251	108 ~~39~~
248841001-1	RE46-10-13867	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	10	10	1.257	40
248841002-1	RE46-10-13864	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	11	11	1.251	41
248841003-1	RE46-10-13863	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	12	12	1.255	42
248841004-1	RE46-10-13869	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	13	13	1.256	89
248841005-1	RE46-10-13861	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	14	14	1.257	90
248841006-1	RE46-10-13866	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	15	15	1.257	91
248841007-1	RE46-10-13860	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	16	16	1.258	93
248841008-1	RE46-10-13865	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	17	17	1.255	94
248841009-1	RE46-10-13868	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	18	18 JH 3-25-10	~~1.256~~ 1.260	109 ~~95~~
248841010-1	RE46-10-13862	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	19	19	1.252	96
248841011-1	RE46-10-13873	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	20	20	1.260	97
1202072513-1	MB for batch 965808	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1	98
1202072514-1	RE46-10-13867(248841001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	03-MAR-10	22	22	1.251	99
1202072515-1	LCS for batch 965808	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.107	100

* SRM 0244-B, 4-30-20

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by LEACH or DIGESTION Circle One

Data Reviewed By: JeLMS 3/31/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 965808

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202072514	DUP	Plutonium-238	1.25 g	0.00797	0.00344	0.0161	.00864	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00683	0.00396	0.0135	.00108	pCi/g	NO
1202072515	LCS	Plutonium-238	0.107 g	5.02	0.399	0.185	.100934579	pCi/g	NO
		Plutonium-239/240	0.107 g	40.3	2.55	0.156	.012616822	pCi/g	NO
1202072513	MB	Plutonium-238	1.00 g	0.0108	0.0043	0.019	.0108	pCi/g	YES
		Plutonium-239/240	1.00 g	0.00135	0.00234	0.016	.00135	pCi/g	YES
248818001	RE46-10-13553	Plutonium-238	1.26 g	-0.00127	0.0022	0.0179	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00254	0.00254	0.0151	.001071429	pCi/g	YES
248818002	RE46-10-13549	Plutonium-238	1.26 g	0.00112	0.00336	0.0158	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00672	0.00356	0.0133	.001071429	pCi/g	NO
248818003	RE46-10-13551	Plutonium-238	1.26 g	0.00362	0.0032	0.017	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00843	0.00364	0.0143	.001071429	pCi/g	NO
248818004	RE46-10-13550	Plutonium-238	1.25 g	0.00391	0.00227	0.0184	.00864	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00652	0.00472	0.0155	.00108	pCi/g	NO
248818005	RE46-10-13548	Plutonium-238	1.25 g	0.0101	0.00644	0.0158	.00864	pCi/g	YES
		Plutonium-239/240	1.25 g	-0.00223	0.00316	0.0133	.00108	pCi/g	YES
248818006	RE46-10-13546	Plutonium-238	1.25 g	0.00221	0.00565	0.0156	.00864	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00332	0.00332	0.0132	.00108	pCi/g	YES
248818007	RE46-10-13552	Plutonium-238	1.25 g	0.0119	0.00492	0.014	.00864	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00696	0.00457	0.0118	.00108	pCi/g	NO
248818008	RE46-10-13547	Plutonium-238	1.26 g	0.00917	0.00447	0.0144	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00407	0.00323	0.0121	.001071429	pCi/g	YES
248818009	RE46-10-13556	Plutonium-238	1.25 g	0.00358	0.00267	0.0168	.00864	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00	0.00119	0.0142	.00108	pCi/g	YES
248841001	RE46-10-13867	Plutonium-238	1.26 g	0.0108	0.00401	0.0169	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00597	0.00398	0.0142	.001071429	pCi/g	NO
248841002	RE46-10-13864	Plutonium-238	1.25 g	0.00228	0.0028	0.0161	.00864	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0148	0.00477	0.0136	.00108	pCi/g	NO
248841003	RE46-10-13863	Plutonium-238	1.26 g	0.00628	0.00259	0.0148	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	-0.00105	0.00347	0.0124	.001071429	pCi/g	YES
248841004	RE46-10-13869	Plutonium-238	1.26 g	0.0065	0.00293	0.0183	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0039	0.00226	0.0155	.001071429	pCi/g	YES
248841005	RE46-10-13861	Plutonium-238	1.26 g	0.00503	0.00226	0.0142	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00603	0.00248	0.0119	.001071429	pCi/g	NO
248841006	RE46-10-13866	Plutonium-238	1.26 g	0.00624	0.00257	0.0147	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00624	0.00257	0.0124	.001071429	pCi/g	NO
248841007	RE46-10-13860	Plutonium-238	1.26 g	-0.0011	0.0019	0.0154	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0142	0.00431	0.013	.001071429	pCi/g	NO
248841008	RE46-10-13865	Plutonium-238	1.26 g	0.00463	0.00233	0.0163	.008571429	pCi/g	YES

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248841008	RE46-10-13865	Plutonium-239/240	1.26 g	0.00	0.00116	0.0138	.001071429	pCi/g	YES
248841009	RE46-10-13868	Plutonium-238	1.26 g	0.00591	0.00266	0.0167	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00354	0.00265	0.014	.001071429	pCi/g	YES
248841010	RE46-10-13862	Plutonium-238	1.25 g	0.00919	0.00401	0.0162	.00864	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0207	0.00573	0.0136	.00108	pCi/g	NO
248841011	RE46-10-13873	Plutonium-238	1.26 g	0.014	0.00526	0.0164	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00932	0.00333	0.0138	.001071429	pCi/g	NO

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 029	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248818005_PU	DETECTOR S/N : 33454	BKG FILE : B029.CNF;1125
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 32.5354	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:25	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W029.CNF;322
% YIELD : 93.312		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8030E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5795.856	0.000	902.000	897.000	5.000	2.2361	100.0000	1.08E+00	6.83E-02	6.16E-03	1.55E-02	3.63E-02
PU-238	5499.000	5466.062	11.482	21.000	9.000	12.000	2.4495	99.90000	1.07E-02	6.84E-03	6.75E-03	1.67E-02	6.81E-03
PU-9/0	5155.000	5127.651	92.464	3.000	-2.000	5.000	1.9732	99.90000	-2.37E-03	3.35E-03	5.44E-03	1.41E-02	3.35E-03
PU242	4890.000	4755.891	48.665	11.000	7.000	4.000	*******	100.0000	8.29E-03	4.61E-03	3.43E-01	6.90E-01	4.59E-03
PU-244	4589.000	4550.099	48.665	3.000	1.000	2.000	6.4609	99.90000	1.19E-03	2.65E-03	1.78E-02	3.88E-02	2.65E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

Integrated

DO NOT REPORT

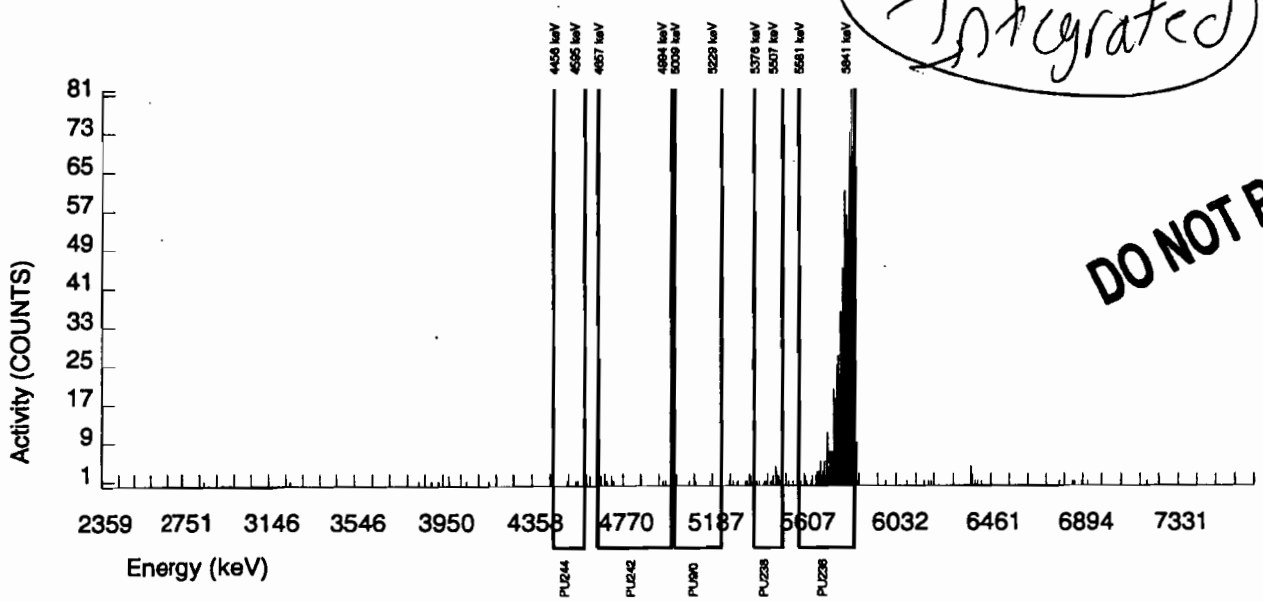

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 030	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248818006_PU	DETECTOR S/N : 33447	BKG FILE : B030.CNF;1122
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 35.2784	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:25	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W030.CNF;307
% YIELD : 90.854		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7291E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5785.373	58.553	965.000	947.000	18.000	4.2426	100.0000	1.08E+00	6.77E-02	1.11E-02	2.52E-02	3.57E-02
PU-238	5499.000	5445.624	0.000	14.000	2.000	12.000	2.4495	99.90000	2.24E-03	5.72E-03	6.39E-03	1.58E-02	5.72E-03
PU-9/0	5155.000	5076.025	147.563	6.000	3.000	3.000	1.9732	99.90000	3.37E-03	3.37E-03	5.15E-03	1.33E-02	3.37E-03
PU242	4890.000	4832.479	4.919	12.000	11.000	1.000	*******	100.0000	1.23E-02	4.09E-03	3.25E-01	6.53E-01	4.04E-03
PU-244	4589.000	4535.597	113.132	5.000	4.000	1.000	6.4609	99.90000	4.49E-03	2.76E-03	1.69E-02	3.68E-02	2.75E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

Integrated

DO NOT REPORT

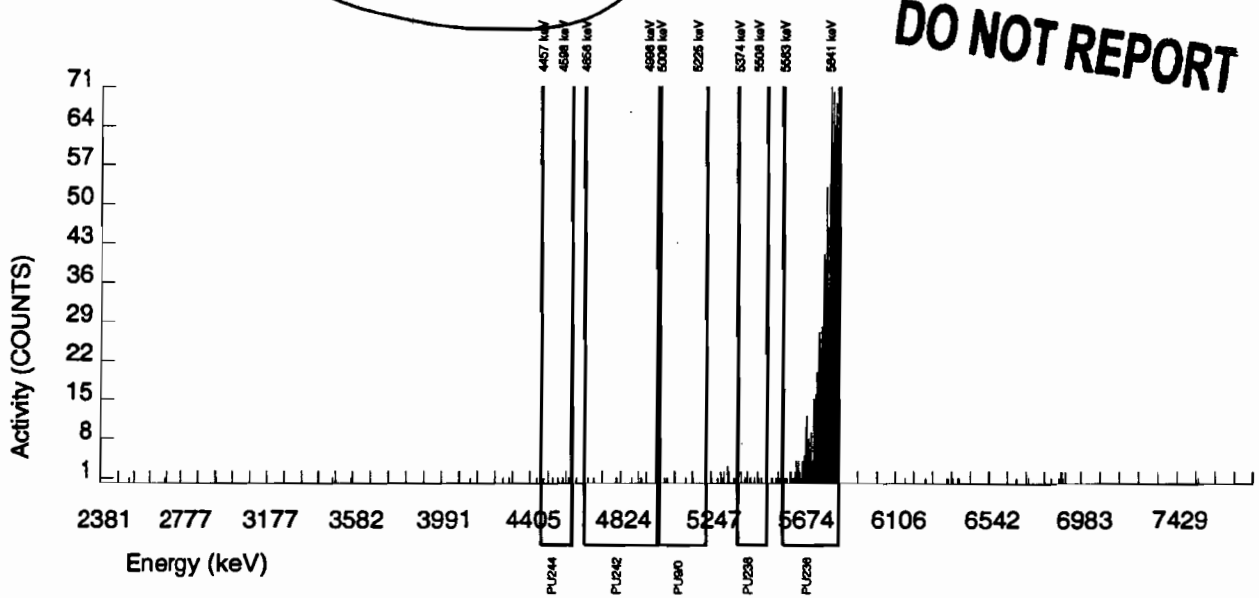

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 107	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248818001_PU	DETECTOR S/N : 67578	BKG FILE : B107.CNF;697
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 32.7767	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 08:02:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W107.CNF;234
% YIELD : 86.071		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.5855E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5762.942	57.727	833.000	832.000	1.000	1.0000	100.0000	1.07E+00	6.93E-02	2.95E-03	9.34E-03	3.73E-02
PU-238	5499.000	5448.752	4.960	1.000	-1.000	2.000	2.4495	99.90000	-1.27E-03	2.20E-03	7.23E-03	1.79E-02	2.20E-03
PU-9/0	5155.000	5164.096	79.364	3.000	2.000	1.000	1.9732	99.90000	2.54E-03	2.54E-03	5.83E-03	1.51E-02	2.54E-03
PU242	4890.000	4820.407	173.609	5.000	4.000	1.000	*******	100.0000	5.07E-03	3.12E-03	3.68E-01	7.39E-01	3.11E-03
PU-244	4589.000	4495.546	4.960	1.000	0.000	1.000	6.4609	99.90000	7.57E-11	1.80E-03	1.91E-02	4.16E-02	1.80E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

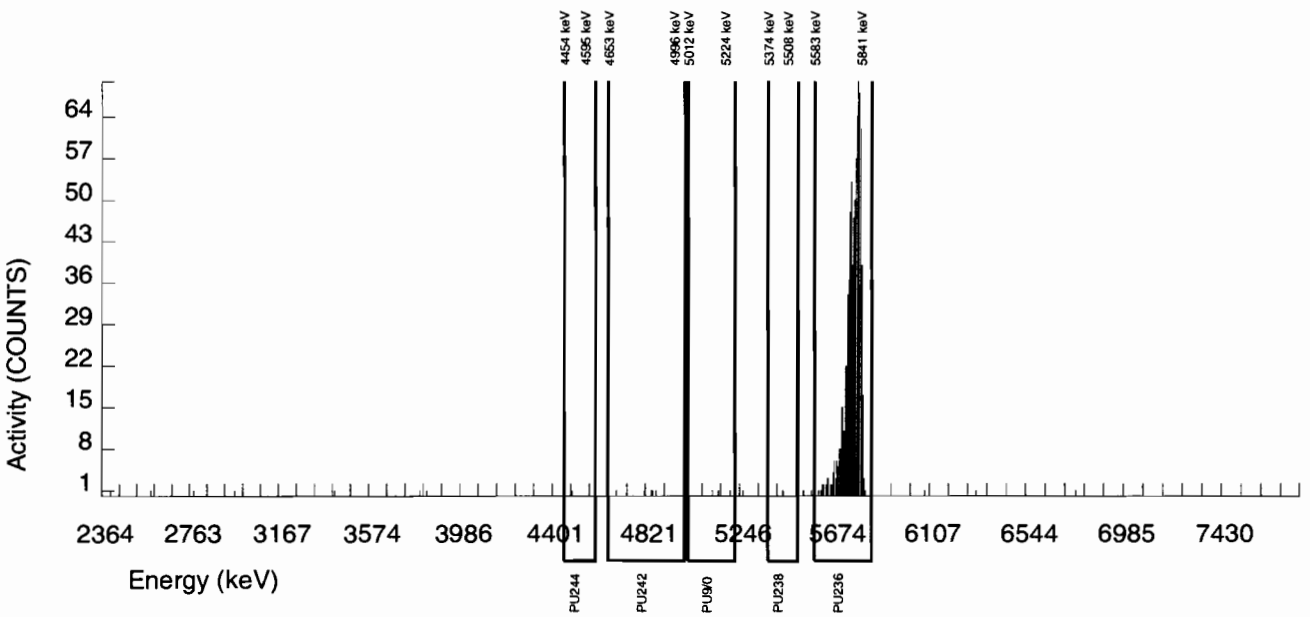

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 026	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248818002_PU	DETECTOR S/N : 78204	BKG FILE : B026.CNF;1124
SAMPLE QTY : 1.256 G	AVERAGE %EFFICIENCY : 33.6708	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:25	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W026.CNF;304
% YIELD : 95.192		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8594E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5753.952	28.137	949.000	947.000	2.000	1.4142	100.0000	1.08E+00	6.70E-02	3.68E-03	1.04E-02	3.51E-02
PU-238	5499.000	5469.461	48.590	5.000	1.000	4.000	2.4495	99.90000	1.12E-03	3.36E-03	6.38E-03	1.58E-02	3.36E-03
PU-9/0	5155.000	5070.354	0.000	8.000	6.000	2.000	1.9732	99.90000	6.72E-03	3.56E-03	5.14E-03	1.33E-02	3.54E-03
PU242	4890.000	4809.500	0.000	8.000	1.000	7.000	*******	100.0000	1.12E-03	4.33E-03	3.24E-01	6.52E-01	4.33E-03
PU-244	4589.000	4496.216	9.226	2.000	1.000	1.000	6.4609	99.90000	1.12E-03	1.94E-03	1.68E-02	3.67E-02	1.94E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

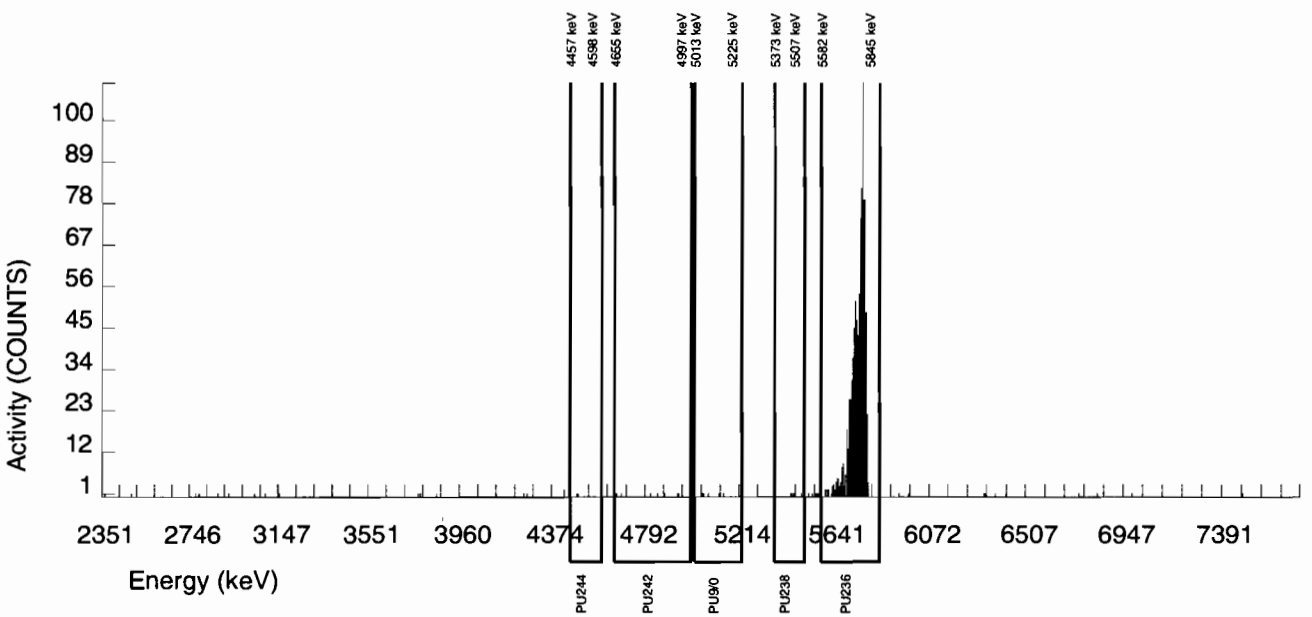

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 027	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248818003_PU	DETECTOR S/N : 42484	BKG FILE : B027.CNF;1130
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 34.2191	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:25	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W027.CNF;331
% YIELD : 87.138		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6175E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5762.534	50.123	882.000	881.000	1.000	1.0000	100.0000	1.08E+00	6.84E-02	2.80E-03	8.86E-03	3.64E-02
PU-238	5499.000	5478.531	4.967	5.000	3.000	2.000	2.4495	99.90000	3.62E-03	3.20E-03	6.87E-03	1.70E-02	3.19E-03
PU-9/0	5155.000	5129.222	153.981	8.000	7.000	1.000	1.9732	99.90000	8.43E-03	3.64E-03	5.53E-03	1.43E-02	3.61E-03
PU242	4890.000	4820.438	273.192	8.000	5.000	3.000	*******	100.0000	6.02E-03	4.01E-03	3.49E-01	7.01E-01	3.99E-03
PU-244	4589.000	4462.375	0.000	3.000	3.000	0.000	6.4609	99.90000	3.61E-03	2.10E-03	1.81E-02	3.95E-02	2.09E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

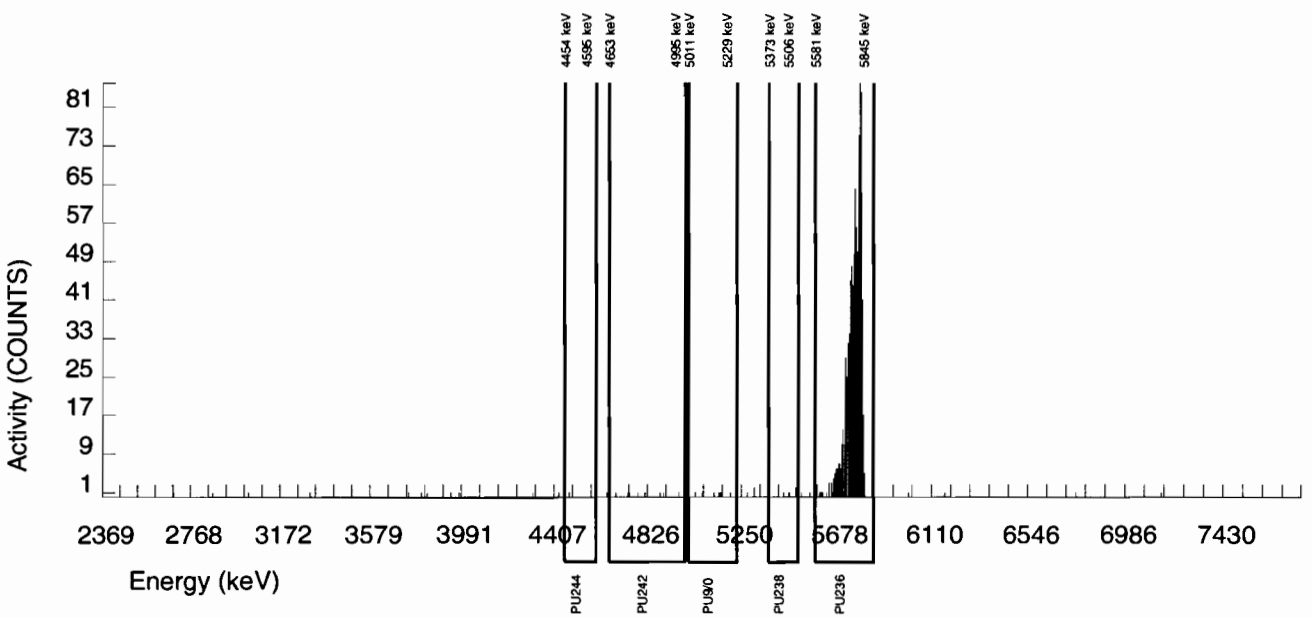

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 028	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248818004_PU	DETECTOR S/N : 78792	BKG FILE : B028.CNF;1134
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 31.5679	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:25	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W028.CNF;323
% YIELD : 87.487		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6280E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5760.625	37.214	821.000	816.000	5.000	2.2361	100.0000	1.08E+00	7.03E-02	6.78E-03	1.71E-02	3.81E-02
PU-238	5499.000	5473.057	0.000	3.000	3.000	0.000	2.4495	99.90000	3.91E-03	2.27E-03	7.43E-03	1.84E-02	2.26E-03
PU-9/0	5155.000	5148.090	6.128	9.000	5.000	4.000	1.9732	99.90000	6.52E-03	4.72E-03	5.99E-03	1.55E-02	4.70E-03
PU242	4890.000	4788.274	4.944	8.000	7.000	1.000	*******	100.0000	9.12E-03	3.94E-03	3.78E-01	7.59E-01	3.91E-03
PU-244	4589.000	4550.815	49.438	3.000	2.000	1.000	6.4609	99.90000	2.61E-03	2.61E-03	1.96E-02	4.27E-02	2.61E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

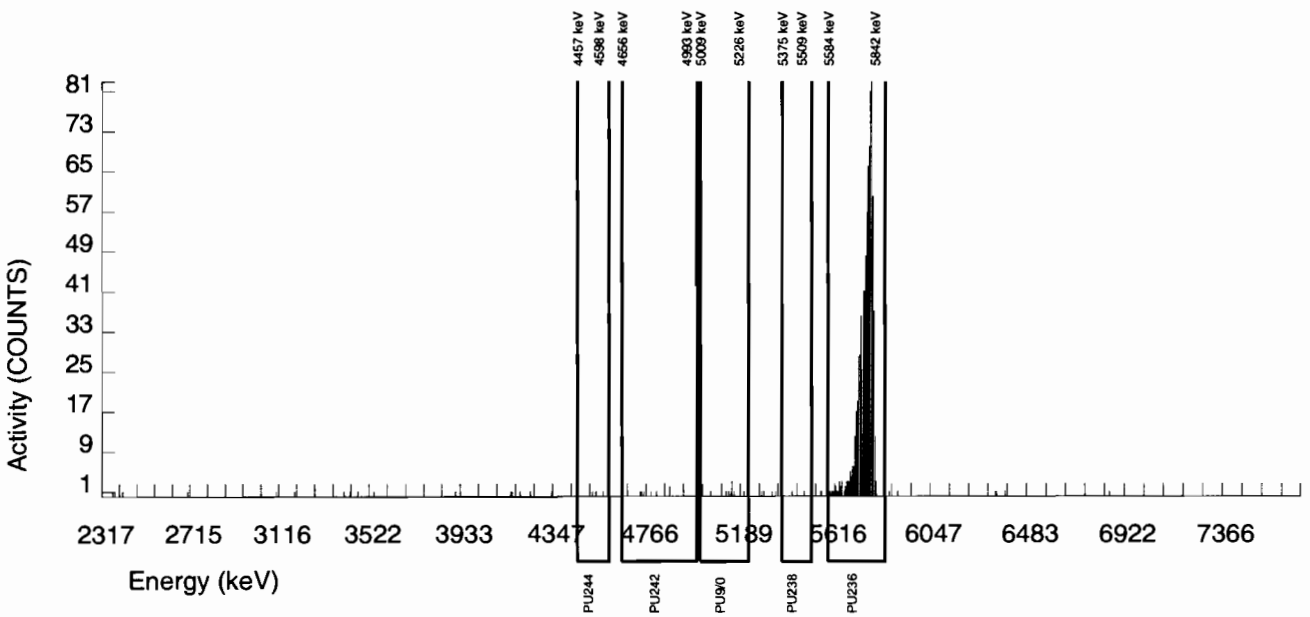

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 029	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248818005_PU	DETECTOR S/N : 33454	BKG FILE : B029.CNF;1125
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 32.5354	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:25	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W029.CNF;322
% YIELD : 99.034		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9749E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5798.923	52.856	957.000	952.000	5.000	2.2361	100.0000	1.08E+00	6.72E-02	5.80E-03	1.46E-02	3.52E-02
PU-238	5499.000	5466.062	11.482	21.000	9.000	12.000	2.4495	99.90000	1.01E-02	6.44E-03	6.36E-03	1.58E-02	6.42E-03
PU-9/0	5155.000	5127.651	92.464	3.000	-2.000	5.000	1.9732	99.90000	-2.23E-03	3.16E-03	5.13E-03	1.33E-02	3.16E-03
PU242	4890.000	4755.891	48.665	11.000	7.000	4.000	*******	100.0000	7.81E-03	4.34E-03	3.24E-01	6.50E-01	4.32E-03
PU-244	4589.000	4550.099	48.665	3.000	1.000	2.000	6.4609	99.90000	1.12E-03	2.50E-03	1.68E-02	3.66E-02	2.50E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

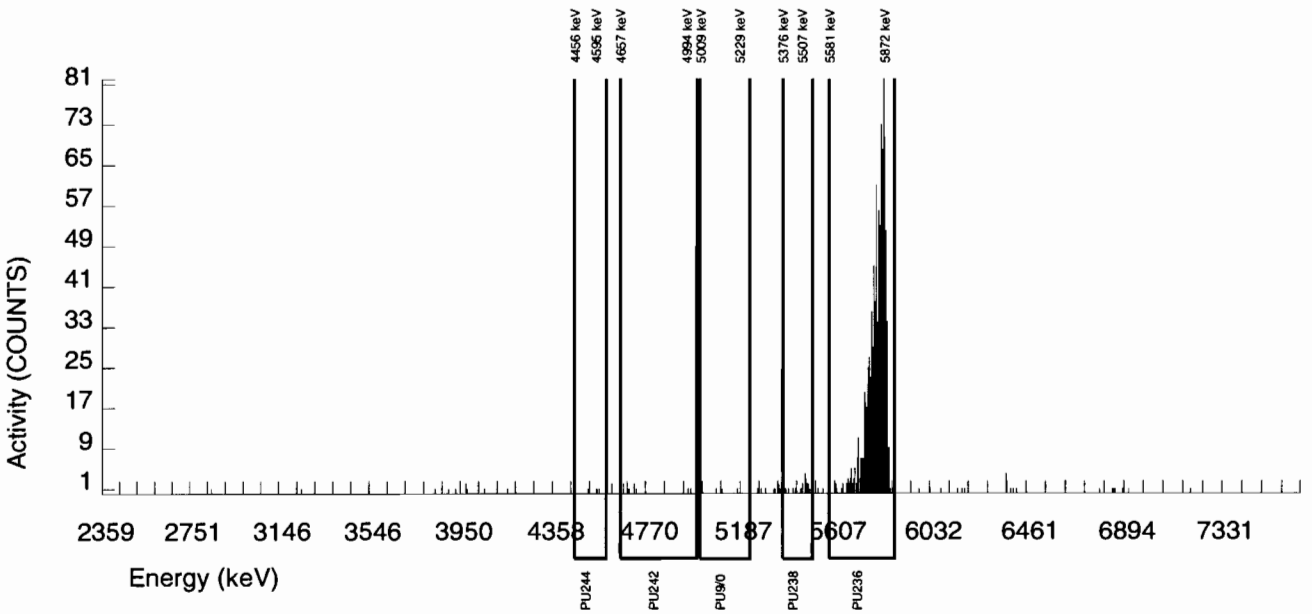

Alpha Spectroscopy Software Version 2.1
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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 030	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248818006_PU	DETECTOR S/N : 33447	BKG FILE : B030.CNF;1122
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 35.2784	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:25	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W030.CNF;307
% YIELD : 92.101		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7666E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5786.203	58.553	978.000	960.000	18.000	4.2426	100.0000	1.08E+00	6.74E-02	1.09E-02	2.48E-02	3.55E-02
PU-238	5499.000	5445.624	0.000	14.000	2.000	12.000	2.4495	99.90000	2.21E-03	5.65E-03	6.31E-03	1.56E-02	5.65E-03
PU-9/0	5155.000	5076.025	147.563	6.000	3.000	3.000	1.9732	99.90000	3.32E-03	3.32E-03	5.08E-03	1.32E-02	3.32E-03
PU242	4890.000	4832.479	4.919	12.000	11.000	1.000	*******	100.0000	1.22E-02	4.04E-03	3.21E-01	6.44E-01	3.99E-03
PU-244	4589.000	4535.597	113.132	5.000	4.000	1.000	6.4609	99.90000	4.43E-03	2.72E-03	1.66E-02	3.63E-02	2.71E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

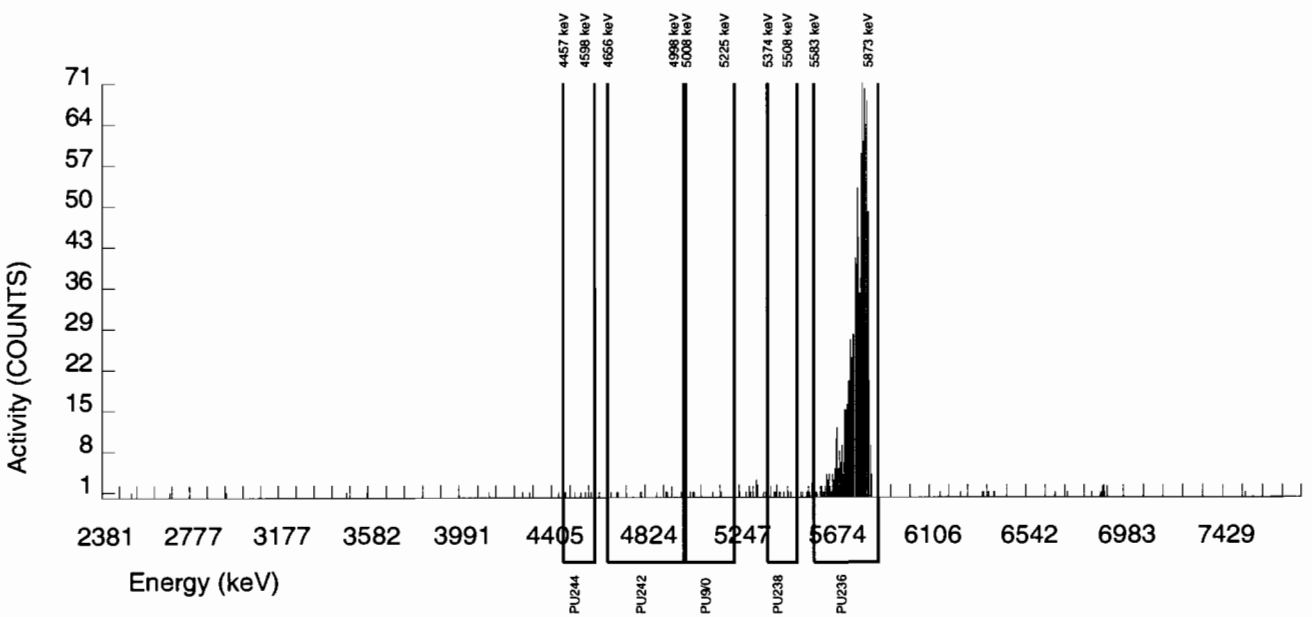

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 037	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248818007_PU	DETECTOR S/N : 45-149BB5	BKG FILE : B037.CNF;1127
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 37.0710	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W037.CNF;309
% YIELD : 97.508		CAL DATE : 5-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9290E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5772.496	62.222	1079.000	1068.000	11.000	3.3166	100.0000	1.08E+00	6.52E-02	7.67E-03	1.80E-02	3.34E-02
PU-238	5499.000	5442.254	29.334	18.000	12.000	6.000	2.4495	99.90000	1.19E-02	4.92E-03	5.67E-03	1.40E-02	4.88E-03
PU-9/0	5155.000	5149.655	25.754	14.000	7.000	7.000	1.9732	99.90000	6.96E-03	4.57E-03	4.57E-03	1.18E-02	4.56E-03
PU242	4890.000	4786.602	58.872	17.000	11.000	6.000	*******	100.0000	1.09E-02	4.80E-03	2.88E-01	5.79E-01	4.77E-03
PU-244	4589.000	4528.159	0.000	0.000	-1.000	1.000	6.4609	99.90000	-9.95E-04	1.41E-03	1.50E-02	3.26E-02	1.41E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

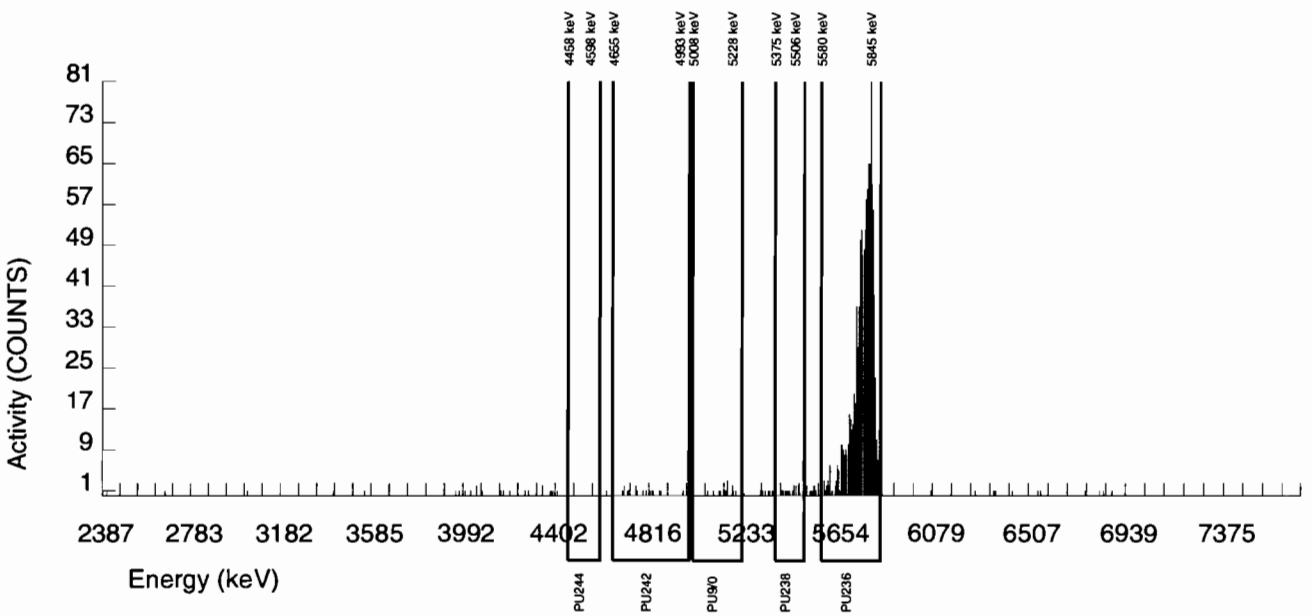

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 038	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248818008_PU	DETECTOR S/N : 72532	BKG FILE : B038.CNF;1124
SAMPLE QTY : 1.262 G	AVERAGE %EFFICIENCY : 35.6360	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W038.CNF;323
% YIELD : 98.490		CAL DATE : 5-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9585E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5767.874	53.818	1042.000	1037.000	5.000	2.2361	100.0000	1.07E+00	6.51E-02	5.29E-03	1.33E-02	3.35E-02
PU-238	5499.000	5430.954	97.146	14.000	9.000	5.000	2.4495	99.90000	9.17E-03	4.47E-03	5.80E-03	1.44E-02	4.44E-03
PU-9/0	5155.000	5107.453	0.000	7.000	4.000	3.000	1.9732	99.90000	4.07E-03	3.23E-03	4.67E-03	1.21E-02	3.22E-03
PU242	4890.000	4865.236	4.923	11.000	11.000	0.000	*******	100.0000	1.12E-02	3.42E-03	2.95E-01	5.93E-01	3.37E-03
PU-244	4589.000	4477.355	19.694	2.000	2.000	0.000	6.4609	99.90000	2.04E-03	1.44E-03	1.53E-02	3.34E-02	1.44E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

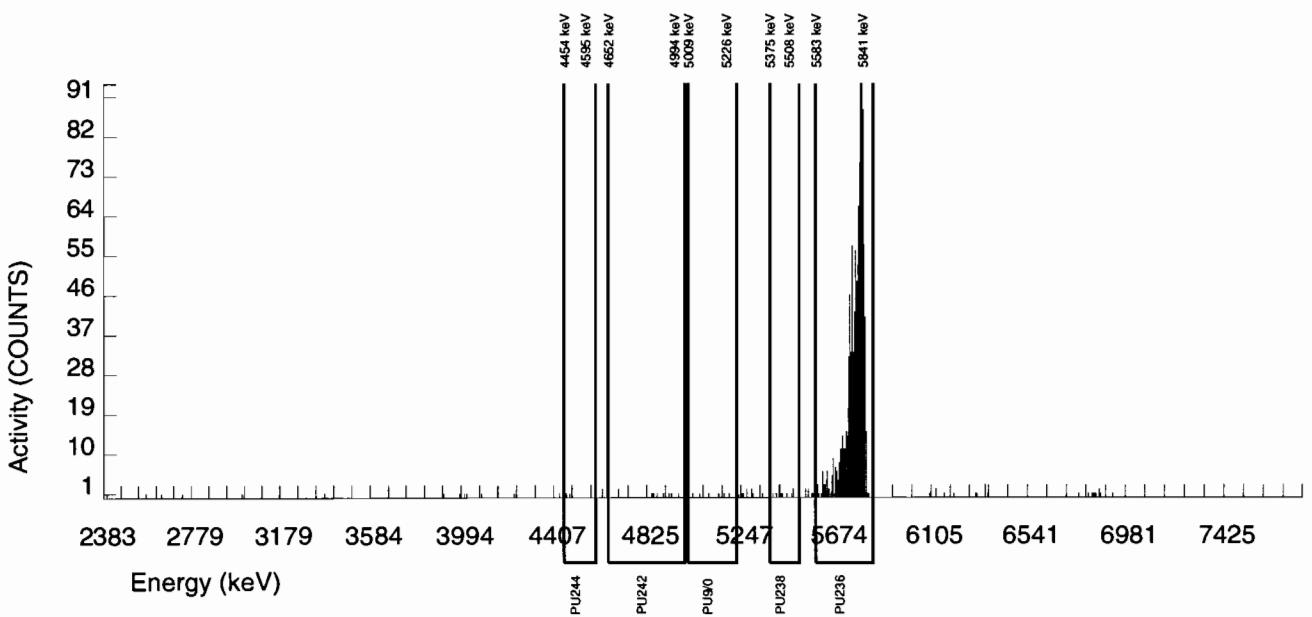

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 108	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248818009_PU	DETECTOR S/N : 78778	BKG FILE : B108.CNF;695
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 35.3171	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 08:02:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W108.CNF;215
% YIELD : 85.640		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.5725E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5765.260	37.886	892.000	892.000	0.000	0.0000	100.0000	1.08E+00	6.83E-02	0.00E+00	3.23E-03	3.62E-02
PU-238	5499.000	5445.612	0.000	4.000	3.000	1.000	2.4495	99.90000	3.58E-03	2.67E-03	6.79E-03	1.68E-02	2.67E-03
PU-9/0	5155.000	5117.259	0.000	0.000	0.000	0.000	1.9732	99.90000	0.00E+00	1.19E-03	5.47E-03	1.42E-02	1.19E-03
PU242	4890.000	4813.793	0.000	6.000	3.000	3.000	*******	100.0000	3.57E-03	3.58E-03	3.45E-01	6.94E-01	3.57E-03
PU-244	4589.000	4528.223	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.19E-03	1.79E-02	3.91E-02	1.19E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

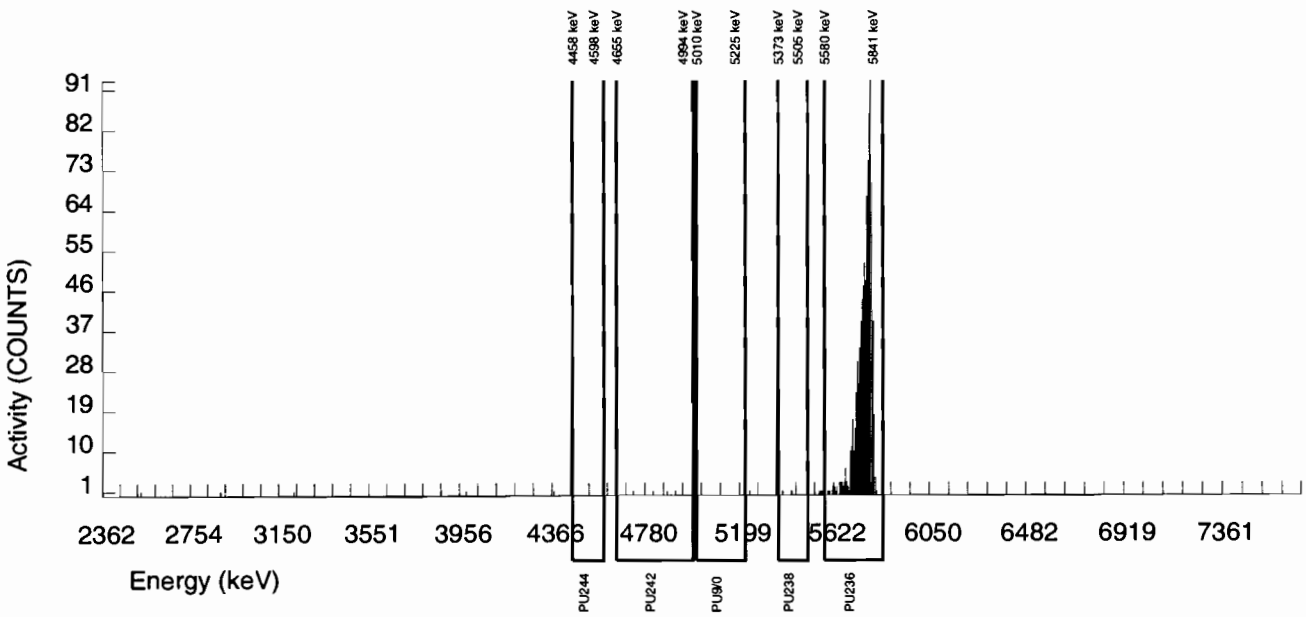

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 040	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248841001_PU	DETECTOR S/N : 78773	BKG FILE : B040.CNF;1127
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 33.6397	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W040.CNF;319
% YIELD : 89.243		CAL DATE : 5-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6807E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5751.945	49.718	888.000	887.000	1.000	1.0000	100.0000	1.08E+00	6.81E-02	2.78E-03	8.79E-03	3.62E-02
PU-238	5499.000	5438.150	19.414	10.000	9.000	1.000	2.4495	99.90000	1.08E-02	4.01E-03	6.81E-03	1.69E-02	3.97E-03
PU-9/0	5155.000	5126.188	4.879	8.000	5.000	3.000	1.9732	99.90000	5.97E-03	3.98E-03	5.48E-03	1.42E-02	3.96E-03
PU242	4890.000	4783.268	301.890	13.000	11.000	2.000	*******	100.0000	1.31E-02	4.68E-03	3.46E-01	6.95E-01	4.62E-03
PU-244	4589.000	4564.943	24.395	2.000	2.000	0.000	6.4609	99.90000	2.39E-03	1.69E-03	1.80E-02	3.92E-02	1.69E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

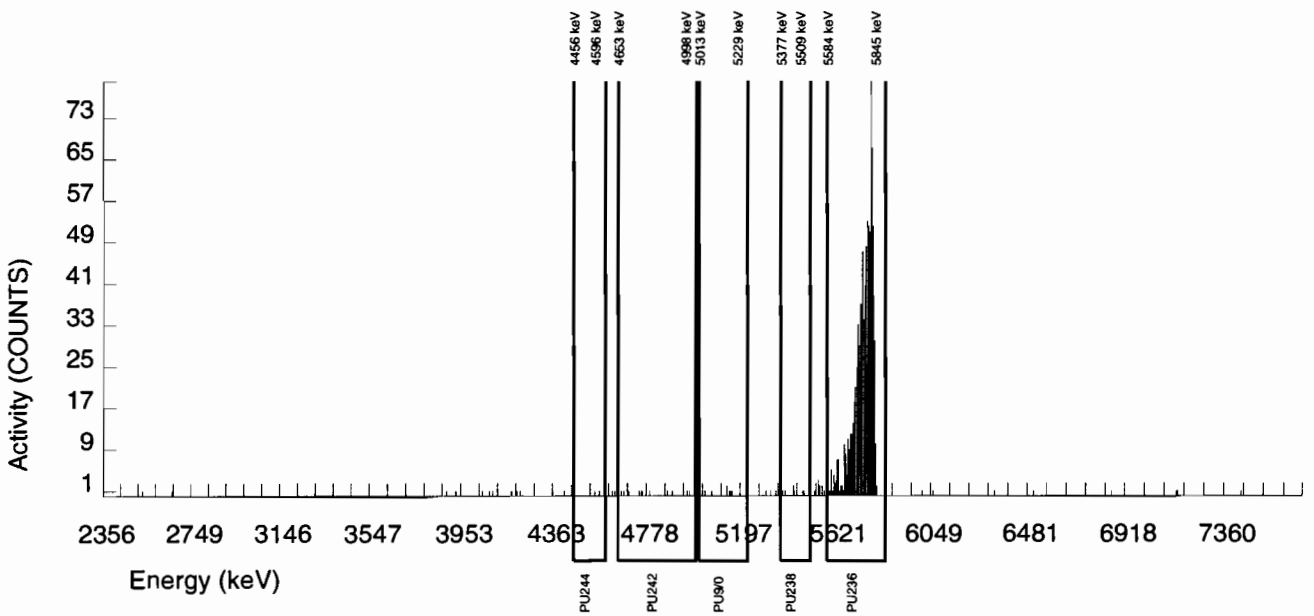

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 098	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202072513_PU	DETECTOR S/N : 80017	BKG FILE : B098.CNF;692
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 35.6488	BKG DATE : 21-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 27-MAR-2010 13:40:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W098.CNF;200
% YIELD : 93.803		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9662E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7824E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5770.160	42.336	989.000	988.000	1.000	1.0000	100.0000	1.34E+00	8.21E-02	3.13E-03	9.92E-03	4.26E-02
PU-238	5499.000	5449.054	0.000	9.000	8.000	1.000	2.4495	99.90000	1.08E-02	4.30E-03	7.68E-03	1.90E-02	4.26E-03
PU-9/0	5155.000	5149.535	64.398	2.000	1.000	1.000	1.9732	99.90000	1.35E-03	2.34E-03	6.19E-03	1.60E-02	2.34E-03
PU242	4890.000	4746.538	158.518	4.000	3.000	1.000	*******	100.0000	4.04E-03	3.02E-03	3.91E-01	7.85E-01	3.01E-03
PU-244	4589.000	4572.805	4.954	1.000	0.000	1.000	6.4609	99.90000	0.00E+00	1.91E-03	2.03E-02	4.42E-02	1.91E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

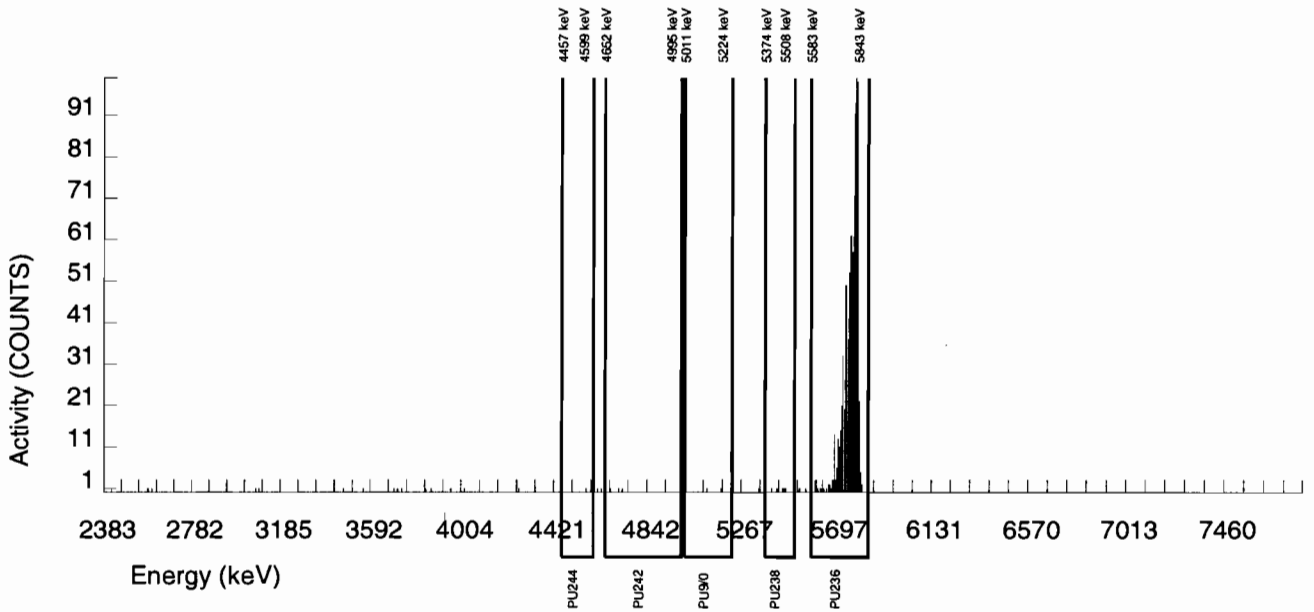

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 099	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202072514_PU	DETECTOR S/N : 70317	BKG FILE : B099.CNF;689
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 35.1904	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W099.CNF;195
% YIELD : 90.023		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7042E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5771.542	51.466	938.000	936.000	2.000	1.4142	100.0000	1.08E+00	6.74E-02	3.74E-03	1.06E-02	3.54E-02
PU-238	5499.000	5456.988	0.000	8.000	7.000	1.000	2.4495	99.90000	7.97E-03	3.44E-03	6.48E-03	1.61E-02	3.42E-03
PU-9/0	5155.000	5120.149	4.915	9.000	6.000	3.000	1.9732	99.90000	6.83E-03	3.96E-03	5.22E-03	1.35E-02	3.94E-03
PU242	4890.000	4858.543	275.266	8.000	7.000	1.000	*******	100.0000	7.96E-03	3.44E-03	3.30E-01	6.62E-01	3.41E-03
PU-244	4589.000	4541.741	68.817	3.000	2.000	1.000	6.4609	99.90000	2.28E-03	2.28E-03	1.71E-02	3.73E-02	2.28E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

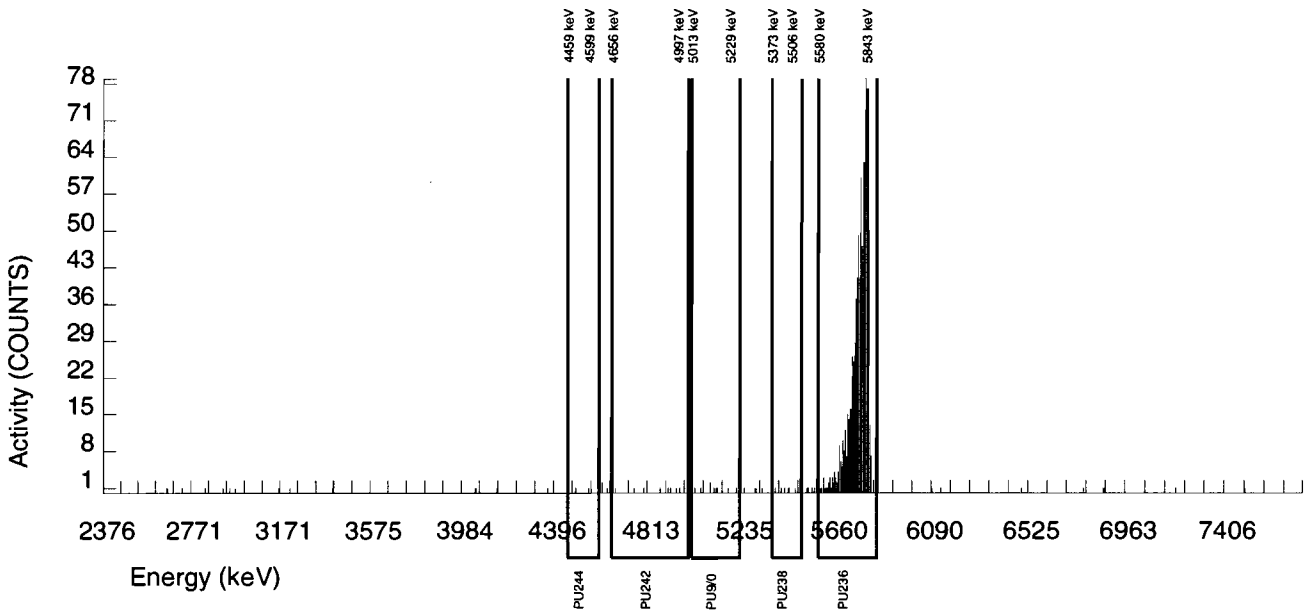

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 100	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202072515_PU	DETECTOR S/N : 79456	BKG FILE : B100.CNF;690
SAMPLE QTY : 0.107 G	AVERAGE %EFFICIENCY : 35.7974	BKG DATE : 21-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 27-MAR-2010 13:40:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W100.CNF;203
% YIELD : 90.009		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9662E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6699E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5761.045	54.643	952.000	952.000	0.000	0.0000	100.0000	1.25E+01	8.60E-01	0.00E+00	3.54E-02	4.05E-01
PU-238	5499.000	5477.716	0.000	384.000	384.000	0.000	2.4495	99.90000	5.02E+00	3.99E-01	7.45E-02	1.84E-01	2.56E-01
PU-9/0	5155.000	5145.080	32.162	3079.000	3078.000	1.000	1.9732	99.90000	4.03E+01	2.55E+00	6.00E-02	1.56E-01	7.26E-01
PU242	4890.000	4877.870	154.014	57.000	54.000	3.000	*******	100.0000	7.06E-01	1.10E-01	3.79E+00	7.61E+00	1.01E-01
PU-244	4589.000	4534.087	24.182	15.000	15.000	0.000	6.4609	99.90000	1.96E-01	5.20E-02	1.97E-01	4.29E-01	5.07E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

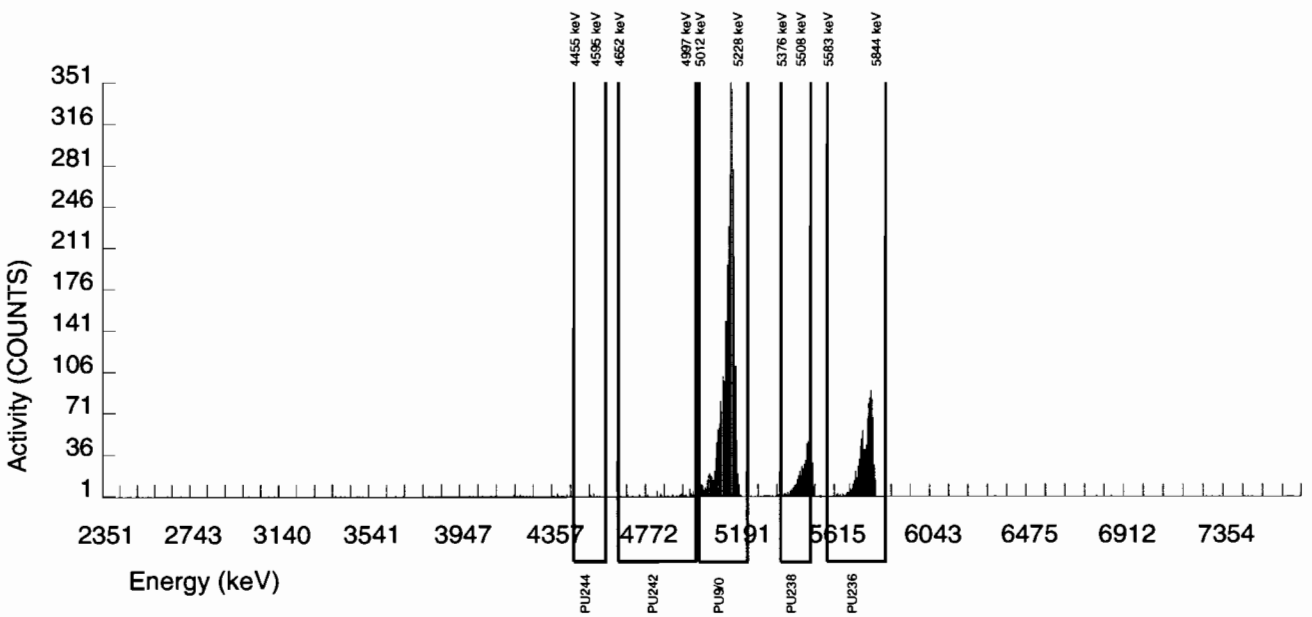

Radiochemistry Batch Checklist, Rev10

Batch# 965809 Product: Th Date: 3/30/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		Case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time	✓		
Sample was correctly preserved if required			N/A
Smears Taken for Radioactive batches			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JoeCMLL 3/30/10

Secondary Review Performed By: [illegible] 3/30/10

4/2

LANL

Thorium Que Sheet

16-MAR-10

Batch #: 965809 **Analyst:** JXH2 **First Client Due Date:** 02-APR-10 **Internal Due Date:** 22-MAR-10

Tracer Isotope: Th-229 **Tracer Code:** 0934-L **Expiration Date:** 3-9-11 **Vol:** 0.1
LCS Isotope: Th-230 **LCS Code:** — **Expiration Date:** — **Vol:** —
Spike Isotope: Th-230 **Spike Code:** — **Expiration Date:** — **Vol:** —
Prep Date: 3-22-10 **Initials:** JEH **Pipet ID:** 4497063 **Balance ID:** 50410272 **Witness:** 3/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/ Dry Aliquot (g) 1/f)	Th Det #
248818001-1	RE46-10-13553	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	1	1	0.257	185 197
248818002-1	RE46-10-13549	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	2	2	0.259	186 198
248818003-1	RE46-10-13551	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	3	3	0.252	187 199
248818004-1	RE46-10-13550	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	4	4	0.251	188 200
248818005-1	RE46-10-13548	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	5	5	0.255	189 201
248818006-1	RE46-10-13546	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	6	6	0.256	190 202
248818007-1	RE46-10-13552	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	7	7	0.258	191 203
248818008-1	RE46-10-13547	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	8	8	0.256	192 204
248818009-1	RE46-10-13556	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	9	9	0.252	193 205
1202072516-1	MB for batch 965809	MB		.1 pCi/g	SOIL	QC ACCOUNT		10	10	1	194 206
1202072517-1	RE46-10-13553(248818001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	03-MAR-10	11	11	0.251	195 207
1202072518-1	LCS for batch 965809	LCS		.1 pCi/g	SOIL	QC ACCOUNT		12	12	0.105	196 208

* SRM 0244-A exp 10-31-20

3/30/10

Data Reviewed By: 3/30/10
GEL Laboratories LLC, Radiochemistry Division

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Choose SOP Used: GL-RAD-A-032, GL-RAD-A-038, GL-RAD-A-043

Page 1 of 1

Blank Correction Report

Batch ID 965809

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202072517	DUP	Thorium-228	0.251 g	1.87	0.187	0.187	-.00143028	pCi/g	NO
		Thorium-230	0.251 g	1.03	0.121	0.235	-.00213944	pCi/g	NO
		Thorium-232	0.251 g	1.75	0.176	0.100	.029800797	pCi/g	NO
1202072518	LCS	Thorium-228	0.105 g	1.39	0.182	0.334	-.00341905	pCi/g	NO
		Thorium-230	0.105 g	21.2	1.67	0.419	-.00511429	pCi/g	NO
		Thorium-232	0.105 g	1.21	0.163	0.179	.071238095	pCi/g	NO
1202072516	MB	Thorium-228	1.00 g	-0.000359	0.00199	0.0432	-.000359	pCi/g	NO
		Thorium-230	1.00 g	-0.000537	0.00198	0.0542	-.000537	pCi/g	NO
		Thorium-232	1.00 g	0.00748	0.00387	0.0231	.00748	pCi/g	YES
248818001	RE46-10-13553	Thorium-228	0.257 g	2.10	0.207	0.187	-.00139689	pCi/g	NO
		Thorium-230	0.257 g	1.04	0.121	0.235	-.00208949	pCi/g	NO
		Thorium-232	0.257 g	1.68	0.171	0.100	.029105058	pCi/g	NO
248818002	RE46-10-13549	Thorium-228	0.259 g	1.87	0.227	0.308	-.00138610	pCi/g	NO
		Thorium-230	0.259 g	0.902	0.135	0.386	-.00207336	pCi/g	NO
		Thorium-232	0.259 g	1.85	0.222	0.165	.028880309	pCi/g	NO
248818003	RE46-10-13551	Thorium-228	0.252 g	1.59	0.168	0.193	-.00142460	pCi/g	NO
		Thorium-230	0.252 g	0.735	0.0985	0.242	-.00213095	pCi/g	NO
		Thorium-232	0.252 g	1.32	0.145	0.103	.029682540	pCi/g	NO
248818004	RE46-10-13550	Thorium-228	0.251 g	1.92	0.203	0.223	-.00143028	pCi/g	NO
		Thorium-230	0.251 g	1.03	0.129	0.280	-.00213944	pCi/g	NO
		Thorium-232	0.251 g	1.61	0.178	0.119	.029800797	pCi/g	NO
248818005	RE46-10-13548	Thorium-228	0.255 g	1.43	0.177	0.275	-.00140784	pCi/g	NO
		Thorium-230	0.255 g	0.764	0.117	0.345	-.00210588	pCi/g	NO
		Thorium-232	0.255 g	1.54	0.186	0.147	.029333333	pCi/g	NO
248818006	RE46-10-13546	Thorium-228	0.256 g	1.12	0.140	0.233	-.00140234	pCi/g	NO
		Thorium-230	0.256 g	0.621	0.0954	0.293	-.00209766	pCi/g	NO
		Thorium-232	0.256 g	0.945	0.125	0.125	.02921875	pCi/g	NO
248818007	RE46-10-13552	Thorium-228	0.258 g	1.86	0.188	0.193	-.00139147	pCi/g	NO
		Thorium-230	0.258 g	0.921	0.113	0.242	-.00208140	pCi/g	NO
		Thorium-232	0.258 g	1.58	0.166	0.103	.028992248	pCi/g	NO
248818008	RE46-10-13547	Thorium-228	0.256 g	1.30	0.156	0.229	-.00140234	pCi/g	NO
		Thorium-230	0.256 g	0.838	0.114	0.287	-.00209766	pCi/g	NO
		Thorium-232	0.256 g	1.20	0.146	0.123	.02921875	pCi/g	NO
248818009	RE46-10-13556	Thorium-228	0.252 g	1.53	0.158	0.177	-.00142460	pCi/g	NO
		Thorium-230	0.252 g	0.680	0.0888	0.222	-.00213095	pCi/g	NO
		Thorium-232	0.252 g	1.20	0.132	0.0949	.029682540	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965809	CHAMBER : 197	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0248818001_TH	DETECTOR S/N : 78894	BKG FILE : B197.CNF;112
SAMPLE QTY : 0.257 G	AVERAGE %EFFICIENCY : 26.6659	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 15:14:20	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W197.CNF;56
% YIELD : 77.218		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.7070E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6050.155	4.984	25.000	18.000	7.000	2.0641	57.44000	7.26E-01	2.34E-01	7.12E-02	1.82E-01	2.28E-01
TH-228	5363.000	5411.482	38.161	246.000	239.837	6.000	4.1318	99.94000	2.10E+00	2.07E-01	8.19E-02	1.87E-01	1.39E-01
TH229	4900.000	4910.163	42.906	453.000	453.000	0.000	0.0000	99.52000	3.87E+00	3.36E-01	0.00E+00	2.32E-02	1.82E-01
TH-230	4671.390	4667.144	22.132	127.000	122.261	0.000	5.3214	99.70000	1.04E+00	1.21E-01	1.06E-01	2.35E-01	9.44E-02
TH-232	3972.000	4003.210	36.390	197.000	196.823	0.000	1.9427	100.0000	1.68E+00	1.71E-01	3.85E-02	1.00E-01	1.19E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

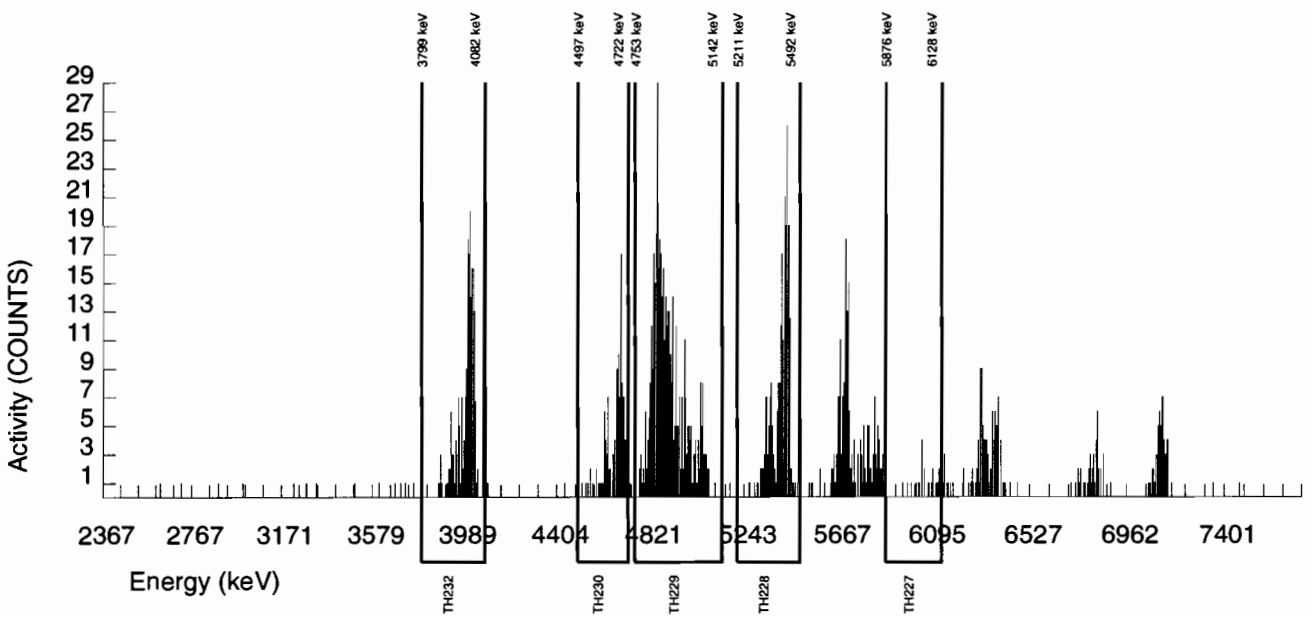

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965809	CHAMBER : 198	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0248818002_TH	DETECTOR S/N : 78895	BKG FILE : B198.CNF;112
SAMPLE QTY : 0.259 G	AVERAGE %EFFICIENCY : 27.2951	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 15:14:21	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W198.CNF;54
% YIELD : 45.463		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.0050E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6021.651	154.448	14.000	12.000	2.000	2.0641	57.44000	7.97E-01	2.74E-01	1.17E-01	3.00E-01	2.66E-01
TH-228	5363.000	5406.144	43.784	132.000	129.902	2.000	4.1318	99.94000	1.87E+00	2.27E-01	1.35E-01	3.08E-01	1.67E-01
TH229	4900.000	4907.092	75.431	273.000	273.000	0.000	0.0000	99.52000	3.84E+00	3.93E-01	0.00E+00	3.82E-02	2.33E-01
TH-230	4671.390	4672.673	18.688	67.000	64.144	0.000	5.3214	99.70000	9.02E-01	1.35E-01	1.74E-01	3.86E-01	1.13E-01
TH-232	3972.000	4003.587	54.129	133.000	131.893	1.000	1.9427	100.0000	1.85E+00	2.22E-01	6.33E-02	1.65E-01	1.62E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

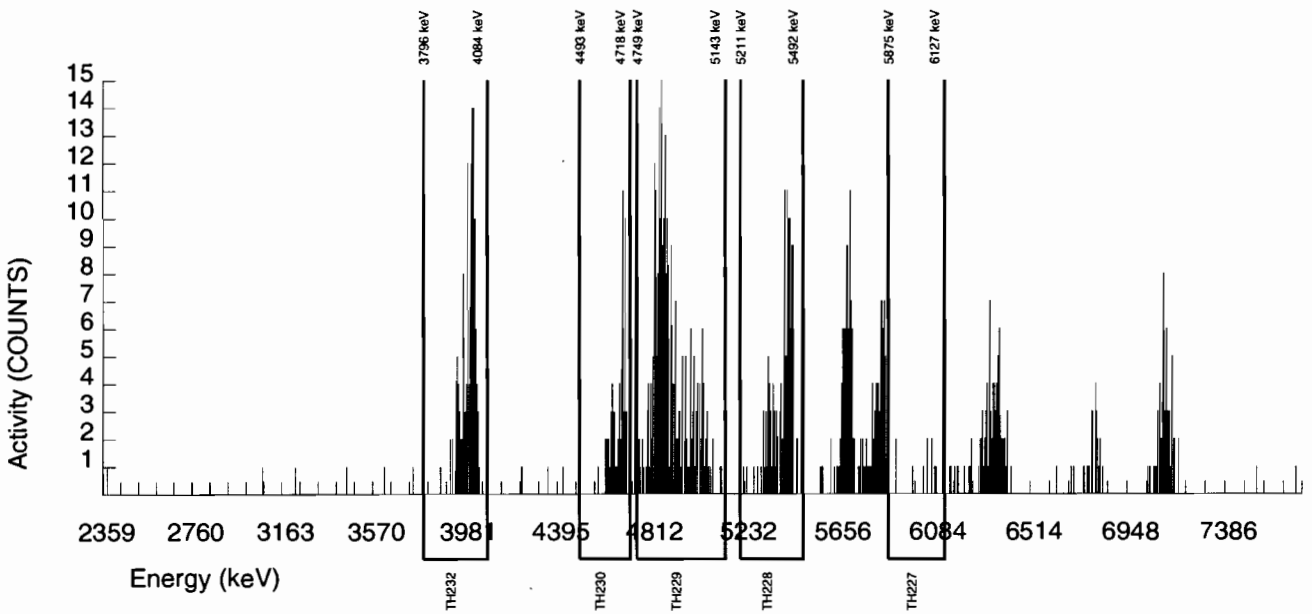

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965809	CHAMBER : 199	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0248818003_TH	DETECTOR S/N : 78896	BKG FILE : B199.CNF;112
SAMPLE QTY : 0.252 G	AVERAGE %EFFICIENCY : 26.2594	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 15:14:23	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W199.CNF;54
% YIELD : 77.375		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.7105E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6044.117	7.303	15.000	13.000	2.000	2.0641	57.44000	5.42E-01	1.76E-01	7.35E-02	1.89E-01	1.72E-01
TH-228	5363.000	5404.097	27.456	178.000	175.839	2.000	4.1318	99.94000	1.59E+00	1.68E-01	8.46E-02	1.93E-01	1.21E-01
TH229	4900.000	4905.308	112.232	448.000	447.000	1.000	1.0000	99.52000	3.95E+00	3.45E-01	2.06E-02	6.51E-02	1.87E-01
TH-230	4671.390	4662.466	47.237	90.000	83.324	2.000	5.3214	99.70000	7.35E-01	9.85E-02	1.09E-01	2.42E-01	8.25E-02
TH-232	3972.000	4000.614	30.455	150.000	149.825	0.000	1.9427	100.0000	1.32E+00	1.45E-01	3.98E-02	1.03E-01	1.08E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

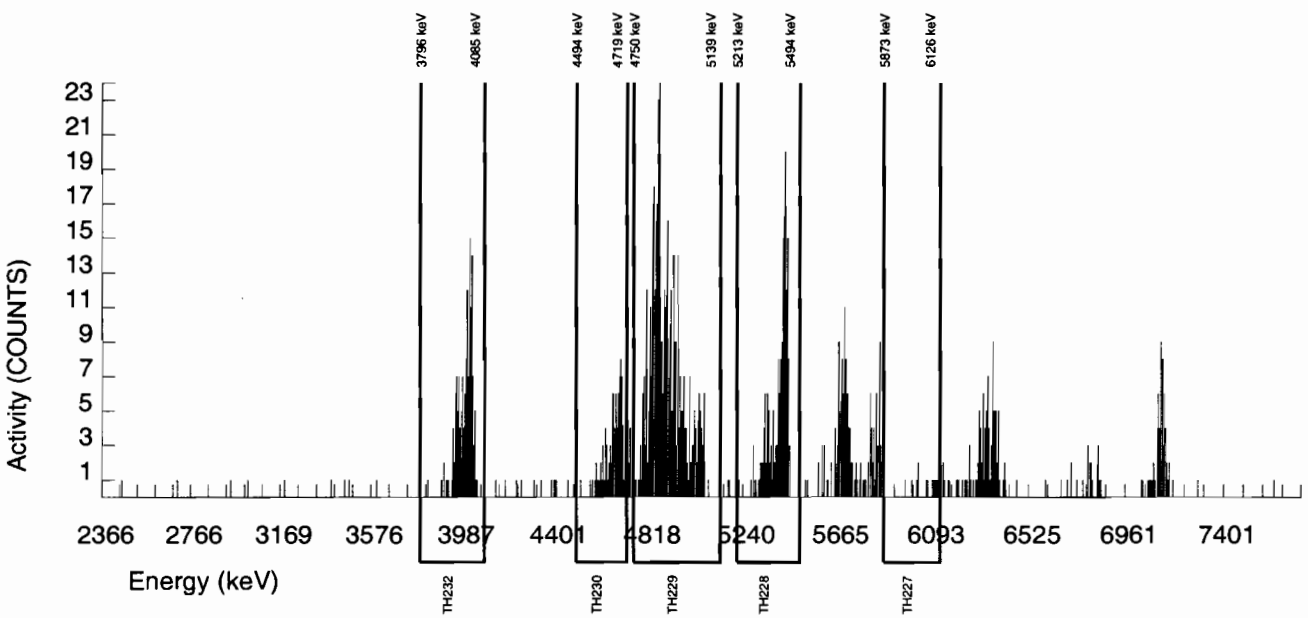

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965809	CHAMBER : 200	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0248818004_TH	DETECTOR S/N : 78900	BKG FILE : B200.CNF;112
SAMPLE QTY : 0.251 G	AVERAGE %EFFICIENCY : 27.6227	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 15:14:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W200.CNF;54
% YIELD : 64.012		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.4151E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6019.201	178.096	22.000	19.000	3.000	2.0641	57.44000	9.14E-01	2.50E-01	8.48E-02	2.18E-01	2.40E-01
TH-228	5363.000	5400.407	18.264	185.000	183.860	1.000	4.1318	99.94000	1.92E+00	2.03E-01	9.76E-02	2.23E-01	1.42E-01
TH229	4900.000	4914.408	79.170	394.000	389.000	5.000	2.2361	99.52000	3.97E+00	3.63E-01	5.31E-02	1.34E-01	2.04E-01
TH-230	4671.390	4660.611	22.016	105.000	100.931	0.000	5.3214	99.70000	1.03E+00	1.29E-01	1.26E-01	2.80E-01	1.02E-01
TH-232	3972.000	4000.225	15.685	160.000	158.848	1.000	1.9427	100.0000	1.61E+00	1.78E-01	4.59E-02	1.19E-01	1.29E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

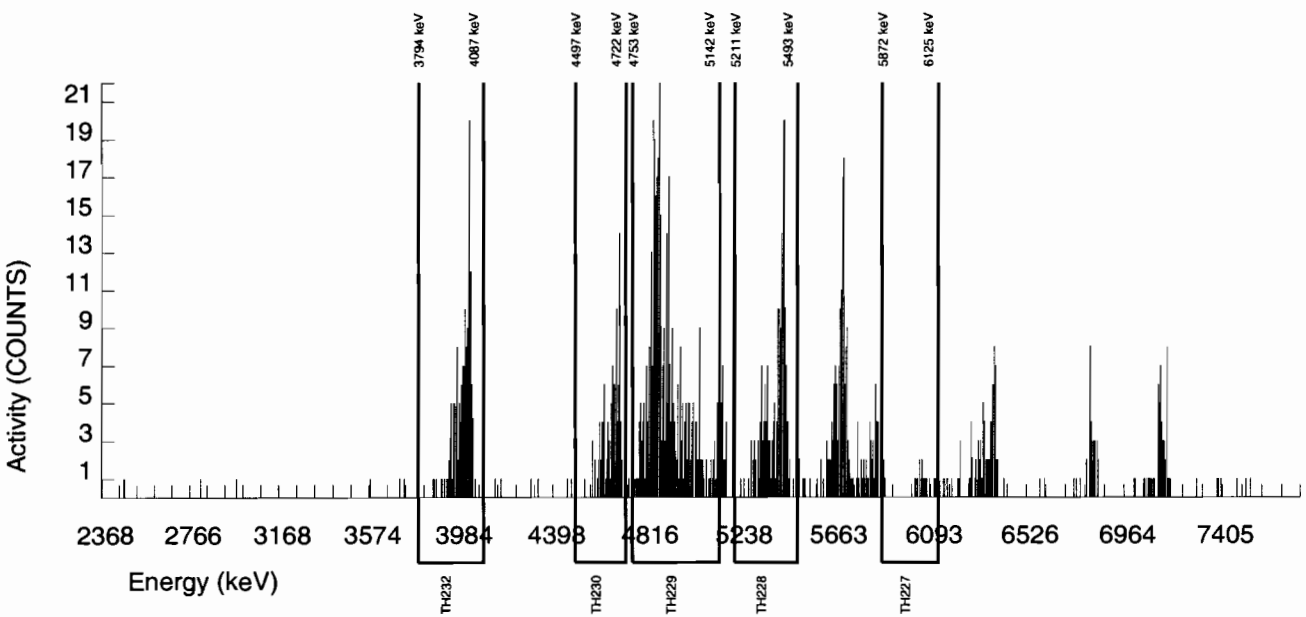

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965809	CHAMBER : 201	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0248818005_TH	DETECTOR S/N : 78902	BKG FILE : B201.CNF;112
SAMPLE QTY : 0.255 G	AVERAGE %EFFICIENCY : 26.3793	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 15:14:28	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W201.CNF;54
% YIELD : 53.417		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.1808E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5979.167	0.000	11.000	7.000	4.000	2.0641	57.44000	4.16E-01	2.32E-01	1.05E-01	2.69E-01	2.30E-01
TH-228	5363.000	5406.908	33.407	111.000	110.889	0.000	4.1318	99.94000	1.43E+00	1.77E-01	1.21E-01	2.75E-01	1.36E-01
TH229	4900.000	4898.457	38.214	313.000	310.000	3.000	1.7321	99.52000	3.90E+00	3.84E-01	5.08E-02	1.36E-01	2.24E-01
TH-230	4671.390	4668.308	53.403	65.000	60.757	1.000	5.3214	99.70000	7.64E-01	1.17E-01	1.56E-01	3.45E-01	9.96E-02
TH-232	3972.000	4009.661	45.671	123.000	122.879	0.000	1.9427	100.0000	1.54E+00	1.86E-01	5.67E-02	1.47E-01	1.39E-01

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

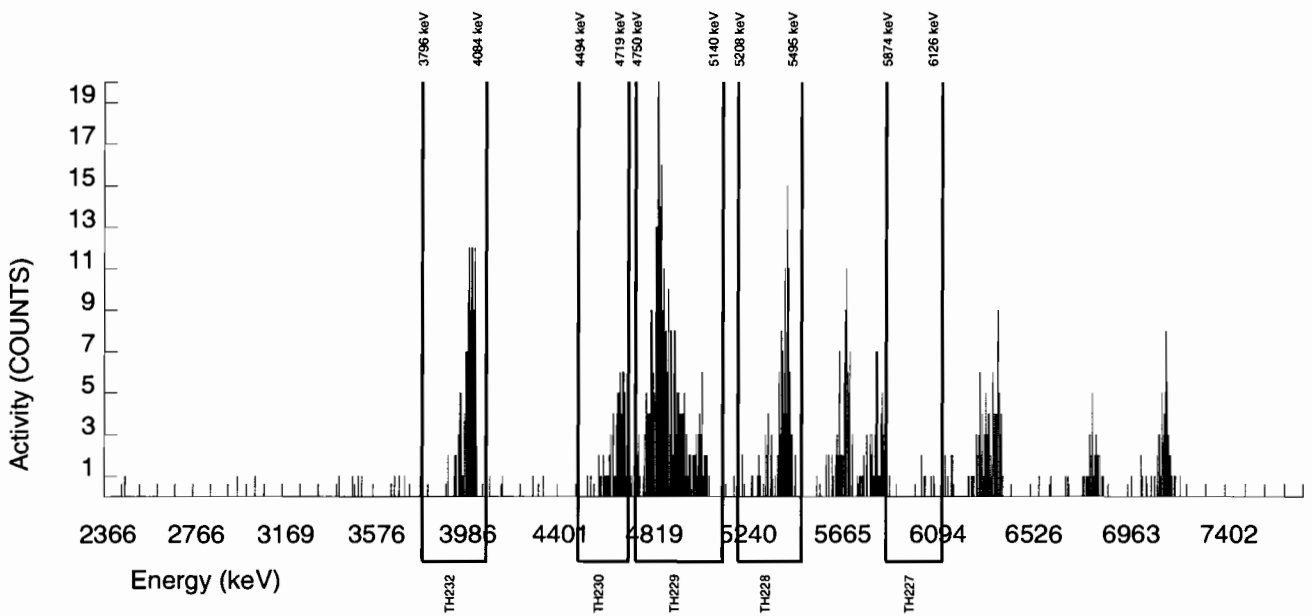

Alpha Spectroscopy Software Version 2.1
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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965809	CHAMBER : 202	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0248818006_TH	DETECTOR S/N : 78903	BKG FILE : B202.CNF;112
SAMPLE QTY : 0.256 G	AVERAGE %EFFICIENCY : 26.7590	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 15:14:31	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W202.CNF;54
% YIELD : 61.832		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.3669E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6030.872	0.000	15.000	12.000	3.000	2.0641	57.44000	6.05E-01	2.19E-01	8.89E-02	2.28E-01	2.14E-01
TH-228	5363.000	5405.886	20.931	103.000	102.869	0.000	4.1318	99.94000	1.12E+00	1.40E-01	1.02E-01	2.33E-01	1.11E-01
TH229	4900.000	4896.065	36.792	364.000	364.000	0.000	0.0000	99.52000	3.89E+00	3.61E-01	0.00E+00	2.90E-02	2.04E-01
TH-230	4671.390	4657.613	14.824	63.000	58.192	1.000	5.3214	99.70000	6.21E-01	9.54E-02	1.32E-01	2.93E-01	8.28E-02
TH-232	3972.000	3999.504	42.107	90.000	88.858	1.000	1.9427	100.0000	9.45E-01	1.25E-01	4.81E-02	1.25E-01	1.01E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

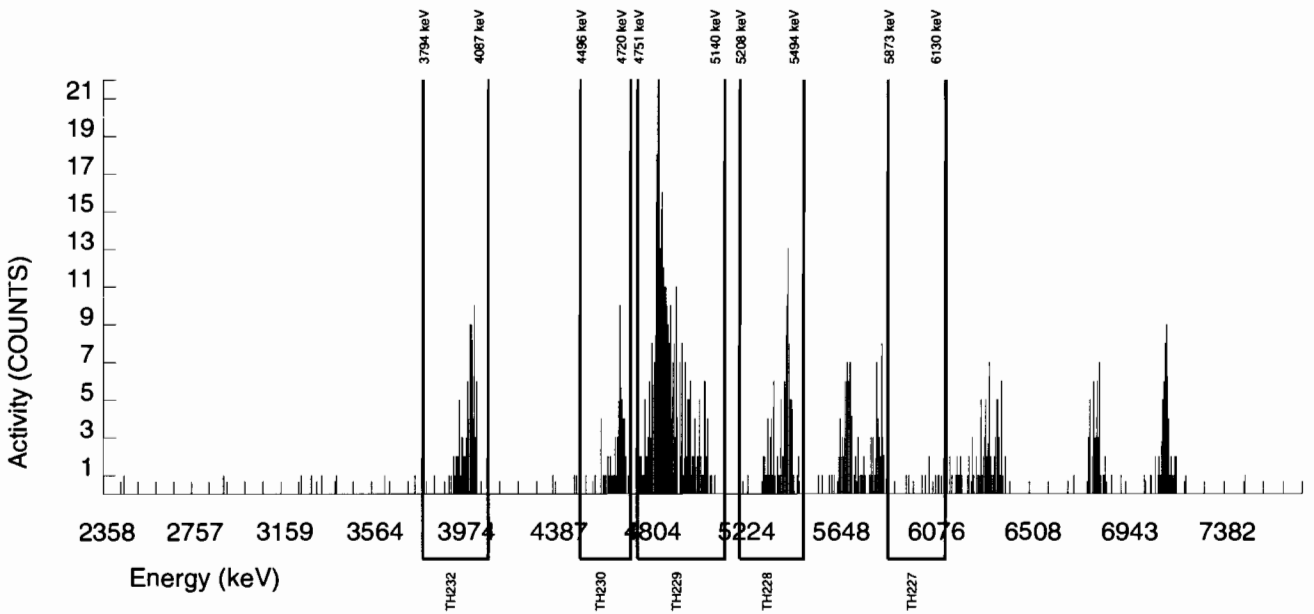

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965809	CHAMBER : 203	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0248818007_TH	DETECTOR S/N : 78905	BKG FILE : B203.CNF;112
SAMPLE QTY : 0.258 G	AVERAGE %EFFICIENCY : 26.8067	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 15:14:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W203.CNF;55
% YIELD : 74.100		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.6381E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6015.983	91.595	20.000	17.000	3.000	2.0641	57.44000	7.08E-01	2.06E-01	7.35E-02	1.88E-01	2.00E-01
TH-228	5363.000	5404.794	36.426	206.000	205.843	0.000	4.1318	99.94000	1.86E+00	1.88E-01	8.45E-02	1.93E-01	1.30E-01
TH229	4900.000	4900.943	100.457	437.000	437.000	0.000	0.0000	99.52000	3.86E+00	3.38E-01	0.00E+00	2.39E-02	1.85E-01
TH-230	4671.390	4658.512	25.422	109.000	104.429	0.000	5.3214	99.70000	9.21E-01	1.13E-01	1.09E-01	2.42E-01	9.01E-02
TH-232	3972.000	3995.715	43.810	182.000	179.829	2.000	1.9427	100.0000	1.58E+00	1.66E-01	3.97E-02	1.03E-01	1.19E-01

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

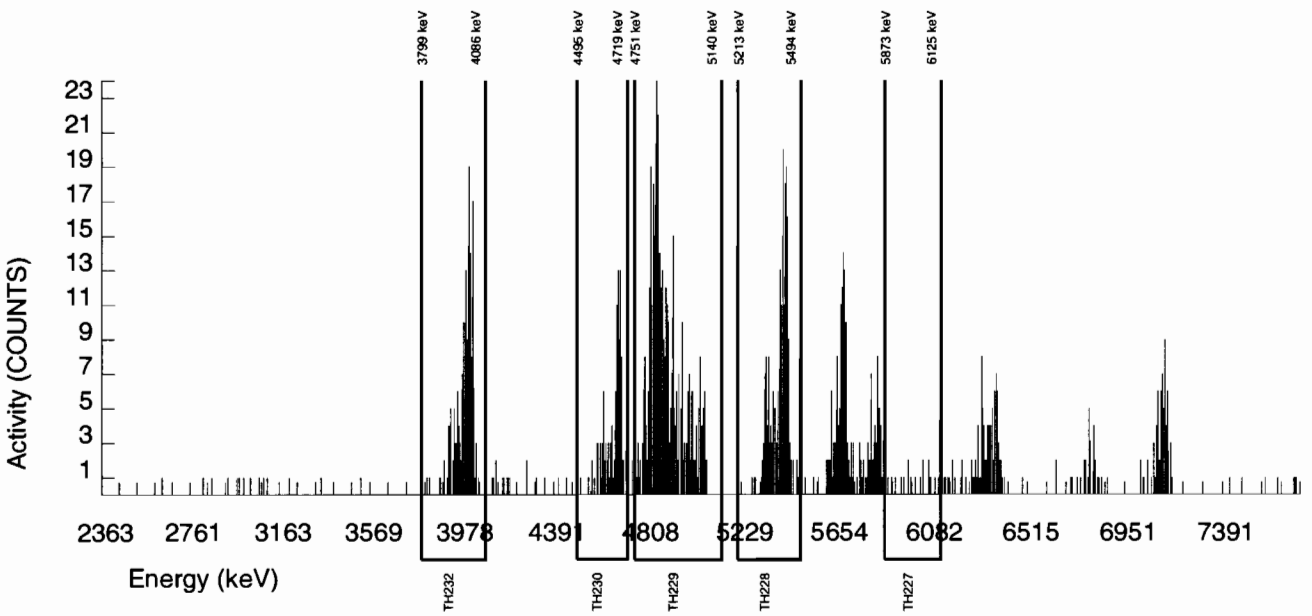

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965809	CHAMBER : 204	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0248818008_TH	DETECTOR S/N : 78907	BKG FILE : B204.CNF;112
SAMPLE QTY : 0.256 G	AVERAGE %EFFICIENCY : 26.3048	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 15:14:36	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W204.CNF;54
% YIELD : 64.109		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.4172E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6030.037	54.416	14.000	10.000	4.000	2.0641	57.44000	4.94E-01	2.13E-01	8.72E-02	2.24E-01	2.10E-01
TH-228	5363.000	5398.053	36.252	124.000	120.867	3.000	4.1318	99.94000	1.30E+00	1.56E-01	1.00E-01	2.29E-01	1.21E-01
TH229	4900.000	4898.936	55.146	374.000	371.000	3.000	1.7321	99.52000	3.89E+00	3.61E-01	4.22E-02	1.13E-01	2.04E-01
TH-230	4671.390	4661.511	57.856	84.000	80.119	0.000	5.3214	99.70000	8.38E-01	1.14E-01	1.30E-01	2.87E-01	9.37E-02
TH-232	3972.000	4004.163	52.127	117.000	114.855	2.000	1.9427	100.0000	1.20E+00	1.46E-01	4.72E-02	1.23E-01	1.14E-01

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

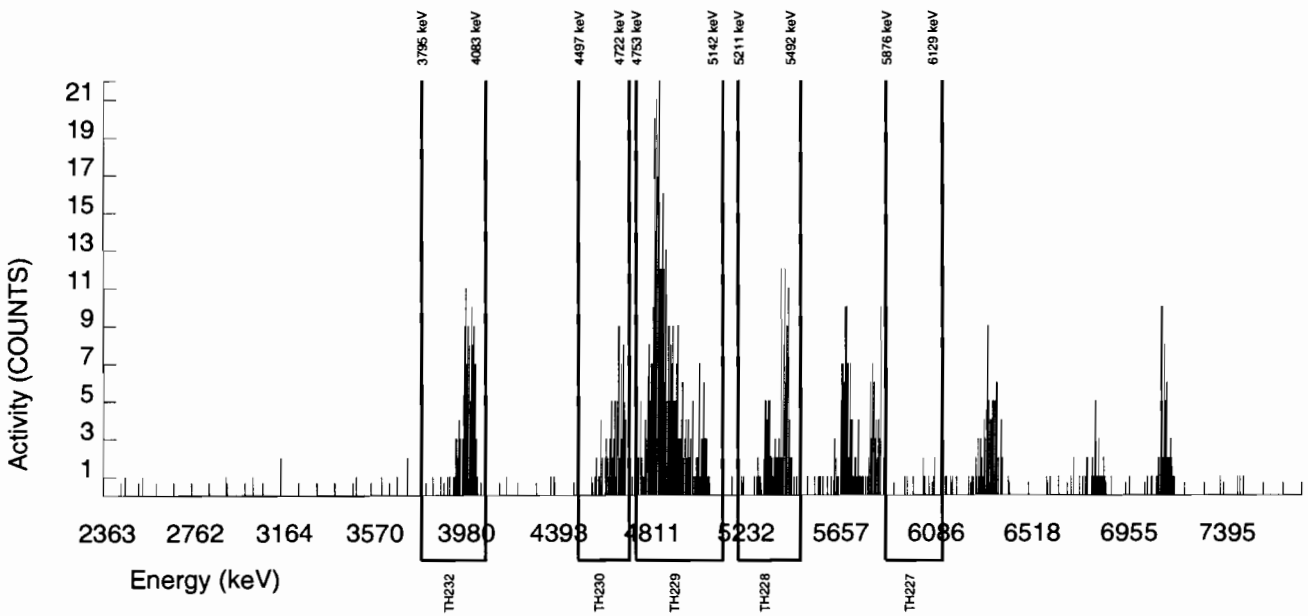

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965809	CHAMBER : 205	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0248818009_TH	DETECTOR S/N : 78908	BKG FILE : B205.CNF;112
SAMPLE QTY : 0.252 G	AVERAGE %EFFICIENCY : 26.5428	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 15:14:38	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W205.CNF;54
% YIELD : 83.399		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.8436E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6039.590	34.097	21.000	15.000	6.000	2.0641	57.44000	5.74E-01	2.03E-01	6.75E-02	1.73E-01	1.99E-01
TH-228	5363.000	5406.722	81.717	185.000	183.825	1.000	4.1318	99.94000	1.53E+00	1.58E-01	7.77E-02	1.77E-01	1.13E-01
TH229	4900.000	4903.485	77.885	488.000	487.000	1.000	1.0000	99.52000	3.95E+00	3.36E-01	1.89E-02	5.97E-02	1.79E-01
TH-230	4671.390	4666.828	85.128	89.000	83.906	0.000	5.3214	99.70000	6.80E-01	8.88E-02	1.00E-01	2.22E-01	7.42E-02
TH-232	3972.000	4004.009	48.356	150.000	148.810	1.000	1.9427	100.0000	1.20E+00	1.32E-01	3.65E-02	9.49E-02	9.92E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

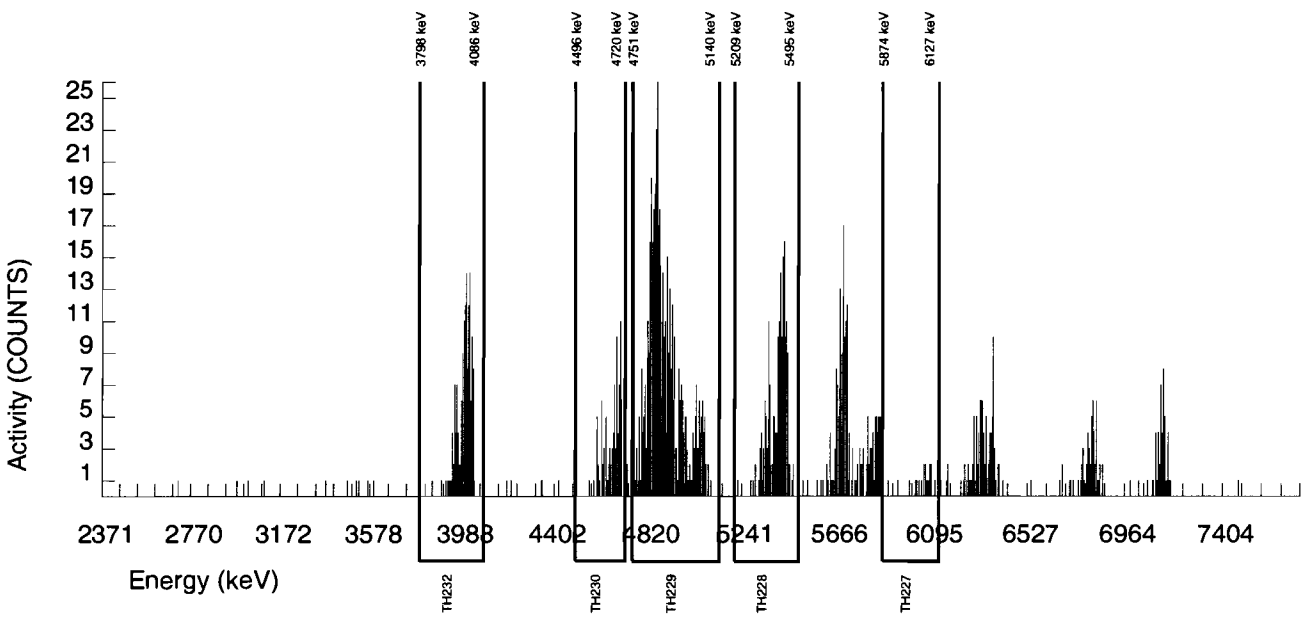

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965809	CHAMBER : 206	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S1202072516_TH	DETECTOR S/N : 78909	BKG FILE : B206.CNF;112
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 26.2065	BKG DATE : 28-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 15:14:40	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W206.CNF;54
% YIELD : 87.418		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.9325E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5979.403	7.265	7.000	2.000	5.000	2.0641	57.44000	9.21E-03	1.60E-02	1.64E-02	4.22E-02	1.59E-02
TH-228	5363.000	5351.783	0.000	0.000	-0.181	0.000	4.1318	99.94000	-3.59E-04	1.99E-03	1.89E-02	4.32E-02	1.98E-03
TH229	4900.000	4904.187	88.769	507.000	504.000	3.000	1.7321	99.52000	9.96E-01	8.32E-02	7.96E-03	2.13E-02	4.46E-02
TH-230	4671.390	4700.679	4.946	5.000	-0.272	0.000	5.3214	99.70000	-5.37E-04	1.98E-03	2.44E-02	5.42E-02	1.97E-03
TH-232	3972.000	3967.992	4.946	4.000	3.803	0.000	1.9427	100.0000	7.48E-03	3.87E-03	8.89E-03	2.31E-02	3.83E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

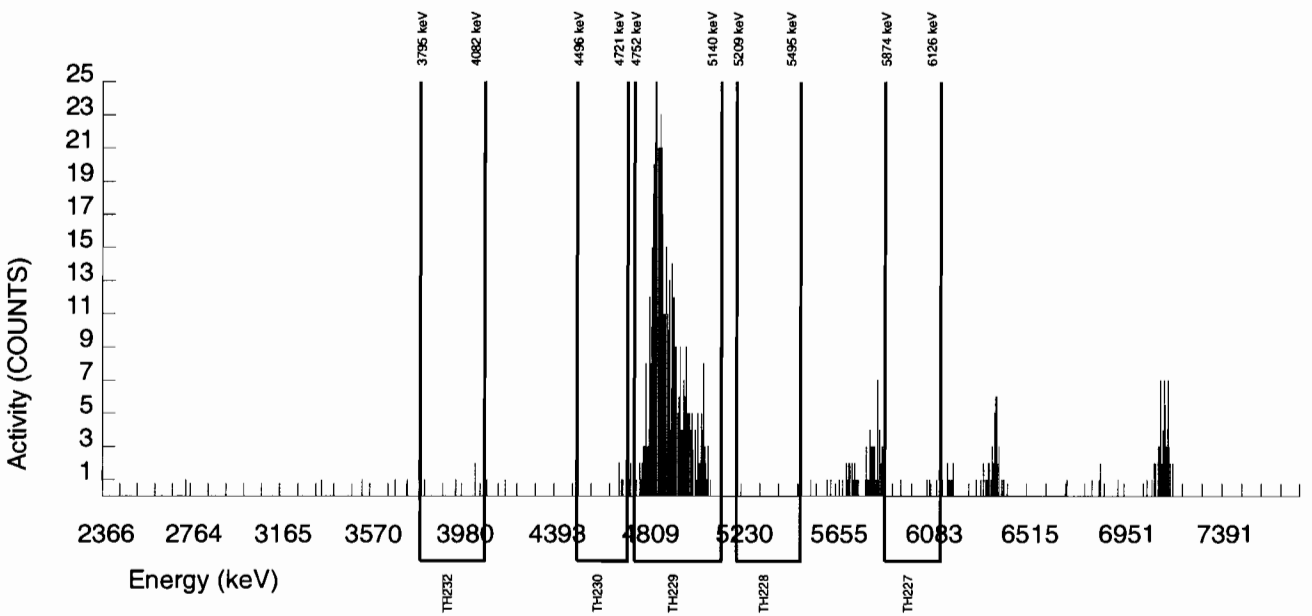

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965809	CHAMBER : 207	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S1202072517_TH	DETECTOR S/N : 78910	BKG FILE : B207.CNF;112
SAMPLE QTY : 0.251 G	AVERAGE %EFFICIENCY : 27.1378	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 15:14:43	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W207.CNF;54
% YIELD : 77.551		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.7144E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6020.748	0.000	20.000	15.000	5.000	2.0641	57.44000	6.06E-01	2.07E-01	7.13E-02	1.83E-01	2.02E-01
TH-228	5363.000	5411.313	22.813	214.000	212.834	1.000	4.1318	99.94000	1.87E+00	1.87E-01	8.20E-02	1.87E-01	1.28E-01
TH229	4900.000	4899.705	36.017	466.000	463.000	3.000	1.7321	99.52000	3.97E+00	3.43E-01	3.45E-02	9.23E-02	1.86E-01
TH-230	4671.390	4661.558	87.229	126.000	120.157	1.000	5.3214	99.70000	1.03E+00	1.21E-01	1.06E-01	2.35E-01	9.45E-02
TH-232	3972.000	3995.554	46.149	205.000	204.819	0.000	1.9427	100.0000	1.75E+00	1.76E-01	3.85E-02	1.00E-01	1.22E-01

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

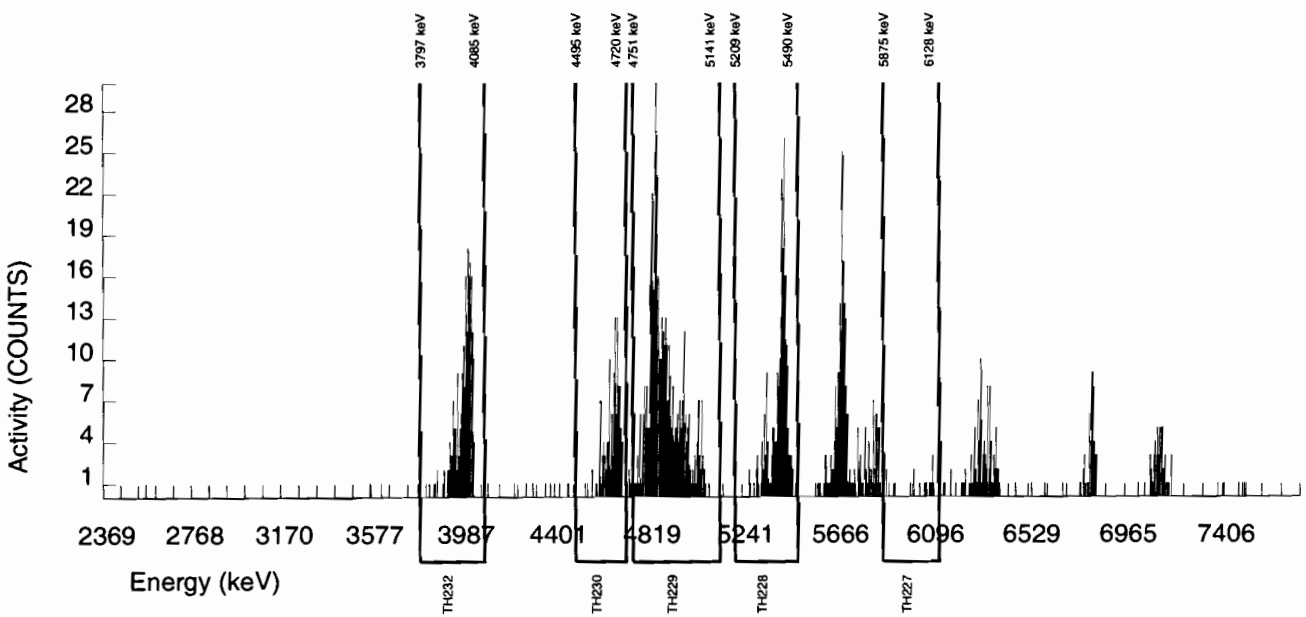

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965809	CHAMBER : 208	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S1202072518_TH	DETECTOR S/N : 78911	BKG FILE : B208.CNF;112
SAMPLE QTY : 0.105 G	AVERAGE %EFFICIENCY : 26.8528	BKG DATE : 28-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 15:14:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W208.CNF;54
% YIELD : 104.950		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 2.3200E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6029.698	72.747	31.000	30.000	1.000	2.0641	57.44000	1.07E+00	2.17E-01	1.27E-01	3.26E-01	2.02E-01
TH-228	5363.000	5400.861	40.041	93.000	90.777	2.000	4.1318	99.94000	1.39E+00	1.82E-01	1.46E-01	3.34E-01	1.49E-01
TH229	4900.000	4908.424	42.511	621.000	620.000	1.000	1.0000	99.52000	9.48E+00	8.01E-01	3.56E-02	1.13E-01	3.81E-01
TH-230	4671.390	4661.262	29.813	1394.000	1385.515	2.000	5.3214	99.70000	2.12E+01	1.67E+00	1.89E-01	4.19E-01	5.69E-01
TH-232	3972.000	3994.243	93.188	80.000	79.758	0.000	1.9427	100.0000	1.21E+00	1.63E-01	6.88E-02	1.79E-01	1.36E-01

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

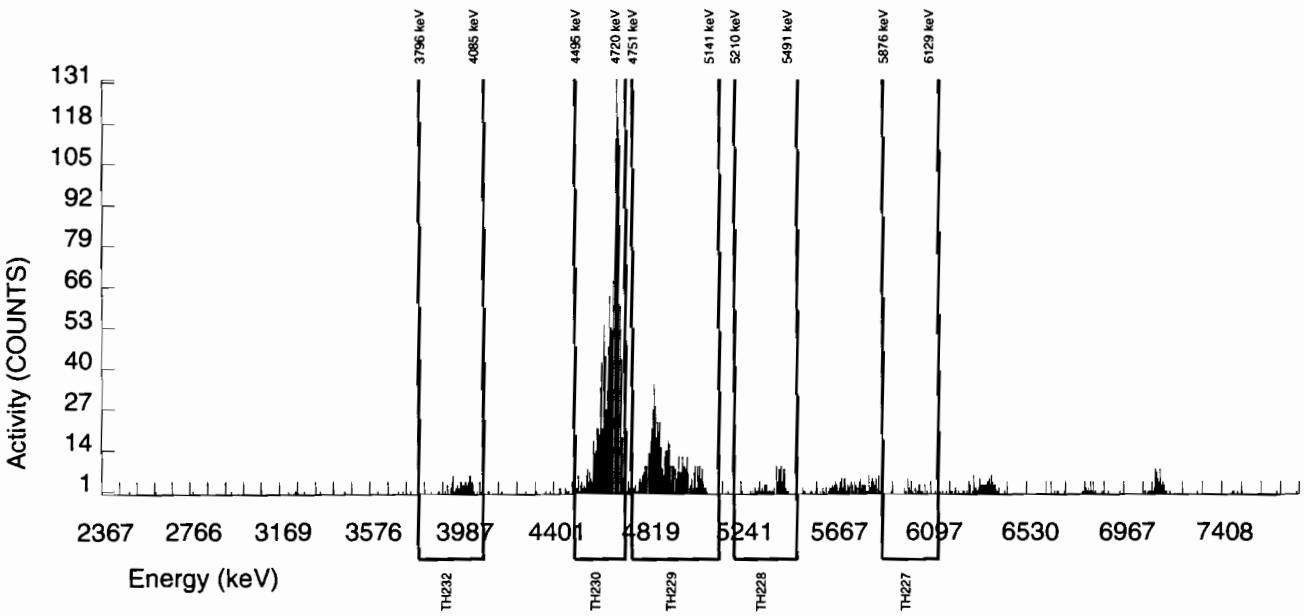

Radiochemistry Batch Checklist, Rev10

Batch# 965810 Product: U Date: 3/31/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 3/31/10

Secondary Review Performed By: [illegible] 3/31/10

4/2
LANL

Uranium Que Sheet

16-MAR-10

Batch #: 965810 Analyst: JXH2 First Client Due Date:02-APR-10 Internal Due Date:22-MAR-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12-9-10 Vol: 0.1 Analyzed Sequentially with Pu N/A

LCS Isotope: U-238 LCS Code: — Expiration Date: — Vol: — Pu-236 ID: /

Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: — Vol.: /

Prep Date: 3-22-10 Initials: JEH Pipet ID: 4497063 Balance ID: 50410272 Witness: 3/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	U Det #
248818001-1	RE46-10-13553	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	1	1	0.503	1
248818002-1	RE46-10-13549	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	2	2	0.501	6
248818003-1	RE46-10-13551	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	3	3	0.502	7
248818004-1	RE46-10-13550	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	4	4	0.508	8
248818005-1	RE46-10-13548	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	5	5	0.511	9
248818006-1	RE46-10-13546	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	6	6	0.500	10
248818007-1	RE46-10-13552	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	7	7	0.511	11
248818008-1	RE46-10-13547	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	8	8	0.507	113
248818009-1	RE46-10-13556	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	9	9	0.514	114
248841001-1	RE46-10-13867	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	10	10	0.508	119
248841002-1	RE46-10-13864	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	11	11	0.502	120
248841003-1	RE46-10-13863	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	12	12	0.500	121
248841004-1	RE46-10-13869	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	13	13	0.504	122
248841005-1	RE46-10-13861	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	14	14	0.504	123
248841006-1	RE46-10-13866	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	15	15	0.502	124
248841007-1	RE46-10-13860	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	16	16	0.508	125
248841008-1	RE46-10-13865	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	17	17	0.515	126
248841009-1	RE46-10-13868	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	18	18	0.511	127
248841010-1	RE46-10-13862	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	19	19	0.504	128
248841011-1	RE46-10-13873	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	20	20	0.507	129
1202072519-1	MB for batch 965810	MB		.1 pCi/g	SOIL	QC ACCOUNT		21	21	1	130
1202072520-1	RE46-10-13867(248841001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	03-MAR-10	22	22	0.502	131
1202072521-1	LCS for batch 965810	LCS		.1 pCi/g	SOIL	QC ACCOUNT		23	23	0.103	132

SBM 0244-A exp. 10/31/20

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: 3/31/10

Blank Correction Report

Batch ID 965810

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202072520	DUP	Uranium-233/234	0.502 g	0.872	0.0827	0.0954	.026693227	pCi/g	NO
		Uranium-235/236	0.502 g	0.0418	0.0136	0.0583	.025498008	pCi/g	YES
		Uranium-238	0.502 g	0.870	0.0825	0.0671	.030876494	pCi/g	NO
1202072521	LCS	Uranium-233/234	0.103 g	5.45	0.518	0.460	.130097087	pCi/g	NO
		Uranium-235/236	0.103 g	0.303	0.0816	0.281	.124271845	pCi/g	YES
		Uranium-238	0.103 g	5.52	0.523	0.324	.150485437	pCi/g	NO
1202072519	MB	Uranium-233/234	1.00 g	0.0134	0.0049	0.0486	.0134	pCi/g	YES
		Uranium-235/236	1.00 g	0.0128	0.00609	0.0297	.0128	pCi/g	YES
		Uranium-238	1.00 g	0.0155	0.00528	0.0341	.0155	pCi/g	YES
248818001	RE46-10-13553	Uranium-233/234	0.503 g	0.961	0.0863	0.0824	.026640159	pCi/g	NO
		Uranium-235/236	0.503 g	0.0578	0.015	0.0504	.025447316	pCi/g	YES
		Uranium-238	0.503 g	0.997	0.0888	0.058	.030815109	pCi/g	NO
248818002	RE46-10-13549	Uranium-233/234	0.501 g	1.00	0.0892	0.082	.026746507	pCi/g	NO
		Uranium-235/236	0.501 g	0.0647	0.0167	0.0501	.025548902	pCi/g	YES
		Uranium-238	0.501 g	1.00	0.0892	0.0576	.030938124	pCi/g	NO
248818003	RE46-10-13551	Uranium-233/234	0.502 g	1.20	0.106	0.0909	.026693227	pCi/g	NO
		Uranium-235/236	0.502 g	0.0518	0.0168	0.0555	.025498008	pCi/g	YES
		Uranium-238	0.502 g	1.04	0.0945	0.0639	.030876494	pCi/g	NO
248818004	RE46-10-13550	Uranium-233/234	0.508 g	0.941	0.0832	0.0758	.026377953	pCi/g	NO
		Uranium-235/236	0.508 g	0.0564	0.0143	0.0463	.025196850	pCi/g	YES
		Uranium-238	0.508 g	0.980	0.086	0.0532	.030511811	pCi/g	NO
248818005	RE46-10-13548	Uranium-233/234	0.511 g	1.42	0.118	0.0772	.026223092	pCi/g	NO
		Uranium-235/236	0.511 g	0.0812	0.0175	0.0472	.025048924	pCi/g	YES
		Uranium-238	0.511 g	1.31	0.110	0.0543	.030332681	pCi/g	NO
248818006	RE46-10-13546	Uranium-233/234	0.500 g	1.17	0.101	0.0832	.0268	pCi/g	NO
		Uranium-235/236	0.500 g	0.062	0.0157	0.0508	.0256	pCi/g	YES
		Uranium-238	0.500 g	1.08	0.0954	0.0585	.031	pCi/g	NO
248818007	RE46-10-13552	Uranium-233/234	0.511 g	0.705	0.0663	0.0772	.026223092	pCi/g	NO
		Uranium-235/236	0.511 g	0.0406	0.0161	0.0471	.025048924	pCi/g	YES
		Uranium-238	0.511 g	0.873	0.0788	0.0543	.030332681	pCi/g	NO
248818008	RE46-10-13547	Uranium-233/234	0.507 g	0.977	0.0913	0.0988	.026429980	pCi/g	NO
		Uranium-235/236	0.507 g	0.0346	0.0139	0.0603	.025246548	pCi/g	YES
		Uranium-238	0.507 g	0.946	0.089	0.0694	.030571992	pCi/g	NO
248818009	RE46-10-13556	Uranium-233/234	0.514 g	0.774	0.0758	0.0963	.026070039	pCi/g	NO
		Uranium-235/236	0.514 g	0.0506	0.0162	0.0588	.024902724	pCi/g	YES
		Uranium-238	0.514 g	0.812	0.0786	0.0677	.030155642	pCi/g	NO
248841001	RE46-10-13867	Uranium-233/234	0.508 g	0.916	0.0871	0.101	.026377953	pCi/g	NO
		Uranium-235/236	0.508 g	0.0308	0.0119	0.0614	.025196850	pCi/g	YES
		Uranium-238	0.508 g	0.795	0.0781	0.0707	.030511811	pCi/g	NO
248841002	RE46-10-13864	Uranium-233/234	0.502 g	0.799	0.0797	0.107	.026693227	pCi/g	NO
		Uranium-235/236	0.502 g	0.0517	0.016	0.0655	.025498008	pCi/g	YES

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248841002	RE46-10-13864	Uranium-238	0.502 g	0.883	0.0863	0.0754	.030876494	pCi/g	NO
248841003	RE46-10-13863	Uranium-233/234	0.500 g	0.884	0.0877	0.113	.0268	pCi/g	NO
		Uranium-235/236	0.500 g	0.0496	0.0161	0.0692	.0256	pCi/g	YES
		Uranium-238	0.500 g	0.827	0.0834	0.0796	.031	pCi/g	NO
248841004	RE46-10-13869	Uranium-233/234	0.504 g	0.857	0.082	0.0963	.026587302	pCi/g	NO
		Uranium-235/236	0.504 g	0.0338	0.0122	0.0588	.025396825	pCi/g	YES
		Uranium-238	0.504 g	0.803	0.0777	0.0677	.030753968	pCi/g	NO
248841005	RE46-10-13861	Uranium-233/234	0.504 g	0.883	0.0874	0.112	.026587302	pCi/g	NO
		Uranium-235/236	0.504 g	0.0246	0.0149	0.0685	.025396825	pCi/g	YES
		Uranium-238	0.504 g	0.799	0.081	0.0788	.030753968	pCi/g	NO
248841006	RE46-10-13866	Uranium-233/234	0.502 g	0.888	0.0847	0.0994	.026693227	pCi/g	NO
		Uranium-235/236	0.502 g	0.0349	0.0153	0.0607	.025498008	pCi/g	YES
		Uranium-238	0.502 g	0.825	0.080	0.0699	.030876494	pCi/g	NO
248841007	RE46-10-13860	Uranium-233/234	0.508 g	0.875	0.0842	0.0999	.026377953	pCi/g	NO
		Uranium-235/236	0.508 g	0.0569	0.0163	0.061	.025196850	pCi/g	YES
		Uranium-238	0.508 g	0.783	0.077	0.0702	.030511811	pCi/g	NO
248841008	RE46-10-13865	Uranium-233/234	0.515 g	0.889	0.0844	0.0969	.026019417	pCi/g	NO
		Uranium-235/236	0.515 g	0.068	0.0187	0.0592	.024854369	pCi/g	YES
		Uranium-238	0.515 g	0.687	0.0692	0.0681	.030097087	pCi/g	NO
248841009	RE46-10-13868	Uranium-233/234	0.511 g	0.809	0.0791	0.101	.026223092	pCi/g	NO
		Uranium-235/236	0.511 g	0.0264	0.011	0.0614	.025048924	pCi/g	YES
		Uranium-238	0.511 g	0.820	0.0801	0.0707	.030332681	pCi/g	NO
248841010	RE46-10-13862	Uranium-233/234	0.504 g	0.935	0.0867	0.0929	.026587302	pCi/g	NO
		Uranium-235/236	0.504 g	0.0407	0.0132	0.0568	.025396825	pCi/g	YES
		Uranium-238	0.504 g	0.992	0.0909	0.0653	.030753968	pCi/g	NO
248841011	RE46-10-13873	Uranium-233/234	0.507 g	0.736	0.0734	0.0989	.026429980	pCi/g	NO
		Uranium-235/236	0.507 g	0.0433	0.0165	0.0604	.025246548	pCi/g	YES
		Uranium-238	0.507 g	0.824	0.080	0.0695	.030571992	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 001	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248818001_UU	DETECTOR S/N : 79451	BKG FILE : B001.CNF;1137
SAMPLE QTY : 0.503 G	AVERAGE %EFFICIENCY : 34.8147	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:45:41	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W001.CNF;384
% YIELD : 87.988		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9612E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5310.093	32.929	1387.000	1378.000	9.000	3.0000	100.0000	4.03E+00	3.05E-01	2.04E-02	4.87E-02	1.09E-01
U-3/4	4763.020	4765.280	59.855	331.000	328.604	1.000	5.4790	100.0000	9.61E-01	8.63E-02	3.73E-02	8.24E-02	5.32E-02
U-235	4391.000	4390.610	83.293	16.000	16.000	0.000	2.4127	80.90000	5.78E-02	1.50E-02	2.03E-02	5.04E-02	1.45E-02
U-238	4184.730	4195.180	41.851	341.000	341.000	0.000	3.6781	100.0000	9.97E-01	8.88E-02	2.50E-02	5.80E-02	5.40E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

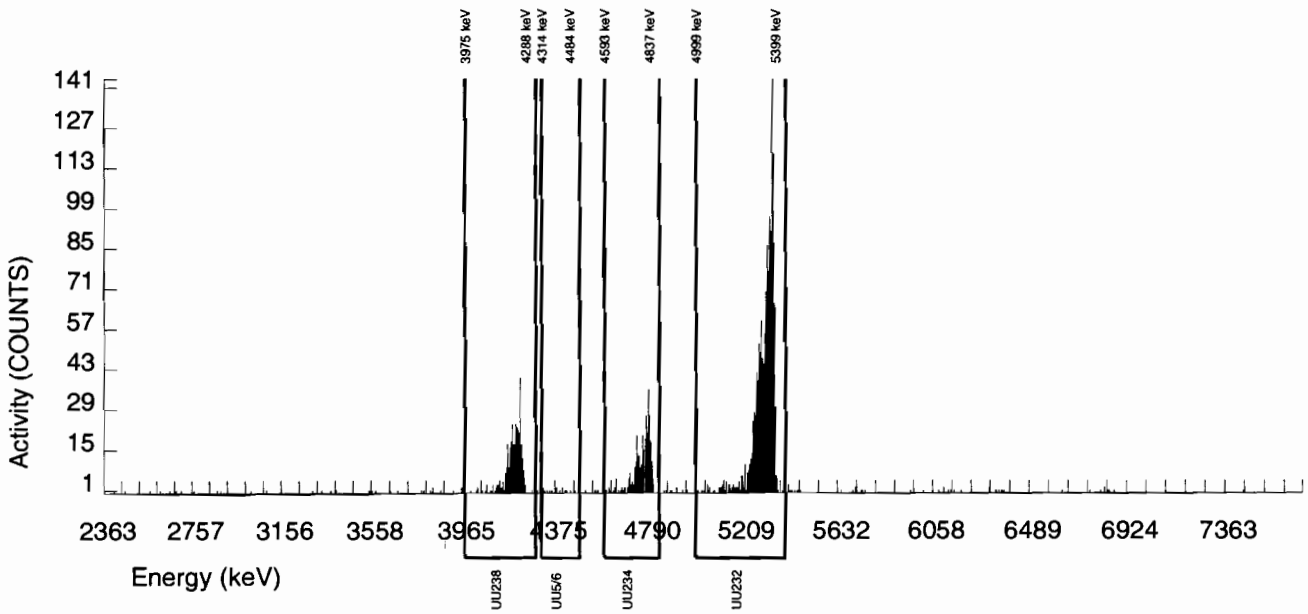

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 006	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248818002_UU	DETECTOR S/N : 79455	BKG FILE : B006.CNF;1130
SAMPLE QTY : 0.501 G	AVERAGE %EFFICIENCY : 32.0671	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:45:41	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W006.CNF;363
% YIELD : 96.428		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3411E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.237	52.778	1392.000	1391.000	1.000	1.0000	100.0000	4.05E+00	3.06E-01	6.76E-03	2.14E-02	1.09E-01
U-3/4	4763.020	4757.438	40.537	347.000	345.591	0.000	5.4790	100.0000	1.00E+00	8.92E-02	3.71E-02	8.20E-02	5.41E-02
U-235	4391.000	4401.177	54.376	19.000	18.000	1.000	2.4127	80.90000	6.47E-02	1.67E-02	2.02E-02	5.01E-02	1.61E-02
U-238	4184.730	4188.527	43.245	347.000	345.000	2.000	3.6781	100.0000	1.00E+00	8.92E-02	2.49E-02	5.76E-02	5.43E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

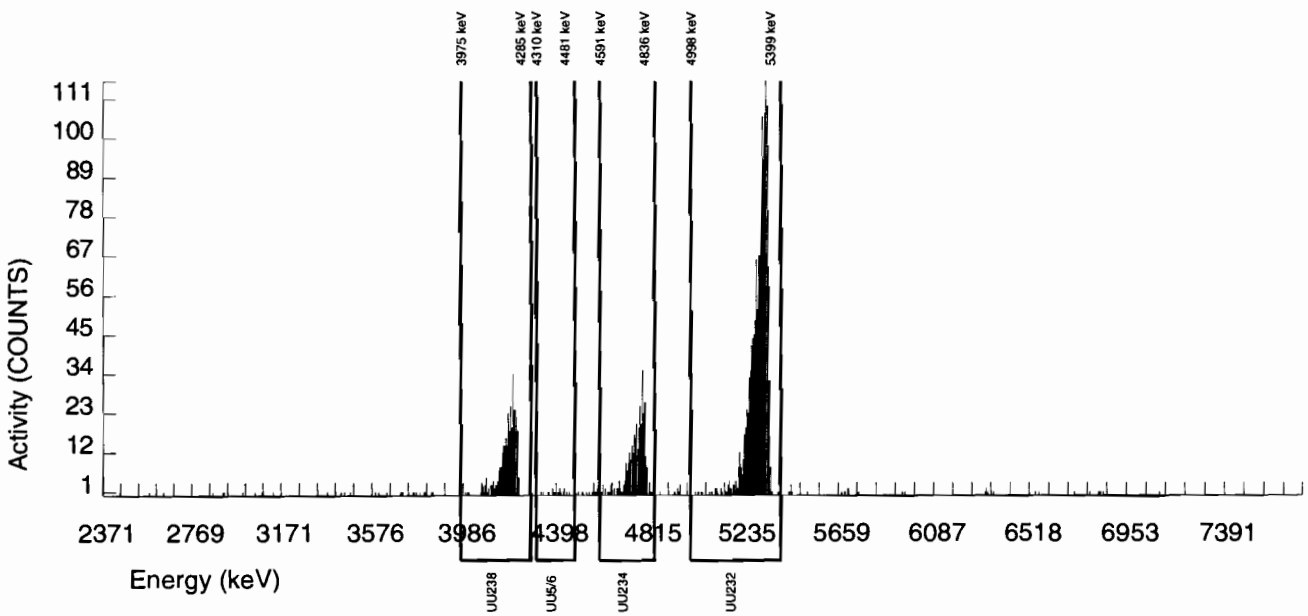

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 007	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248818003_UU	DETECTOR S/N : 67607	BKG FILE : B007.CNF;1125
SAMPLE QTY : 0.502 G	AVERAGE %EFFICIENCY : 30.8124	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:45:42	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W007.CNF;314
% YIELD : 90.326		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.0664E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5301.058	42.815	1267.000	1252.000	15.000	3.8730	100.0000	4.04E+00	3.10E-01	2.90E-02	6.68E-02	1.16E-01
U-3/4	4763.020	4757.036	45.571	376.000	370.731	4.000	5.4790	100.0000	1.20E+00	1.06E-01	4.11E-02	9.09E-02	6.27E-02
U-235	4391.000	4407.891	25.773	15.000	13.000	2.000	2.4127	80.90000	5.18E-02	1.68E-02	2.24E-02	5.55E-02	1.64E-02
U-238	4184.730	4186.457	63.831	326.000	323.000	3.000	3.6781	100.0000	1.04E+00	9.45E-02	2.76E-02	6.39E-02	5.85E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

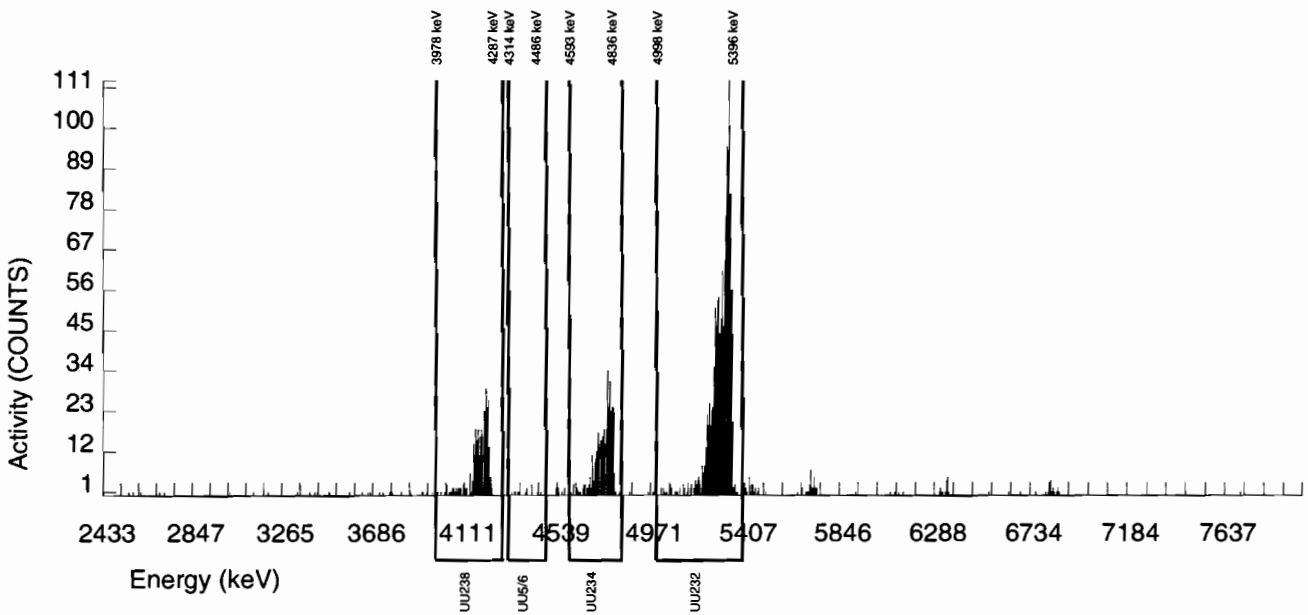

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 008	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248818004_UU	DETECTOR S/N : 78788	BKG FILE : B008.CNF;1127
SAMPLE QTY : 0.508 G	AVERAGE %EFFICIENCY : 33.4538	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:45:42	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W008.CNF;345
% YIELD : 98.677		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4424E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5293.045	42.952	1492.000	1485.000	7.000	2.6458	100.0000	3.99E+00	2.99E-01	1.65E-02	4.03E-02	1.04E-01
U-3/4	4763.020	4746.842	54.156	353.000	350.495	1.000	5.4790	100.0000	9.41E-01	8.32E-02	3.42E-02	7.58E-02	5.04E-02
U-235	4391.000	4381.461	59.501	17.000	17.000	0.000	2.4127	80.90000	5.64E-02	1.43E-02	1.86E-02	4.63E-02	1.37E-02
U-238	4184.730	4175.293	31.864	366.000	365.000	1.000	3.6781	100.0000	9.80E-01	8.60E-02	2.30E-02	5.32E-02	5.15E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

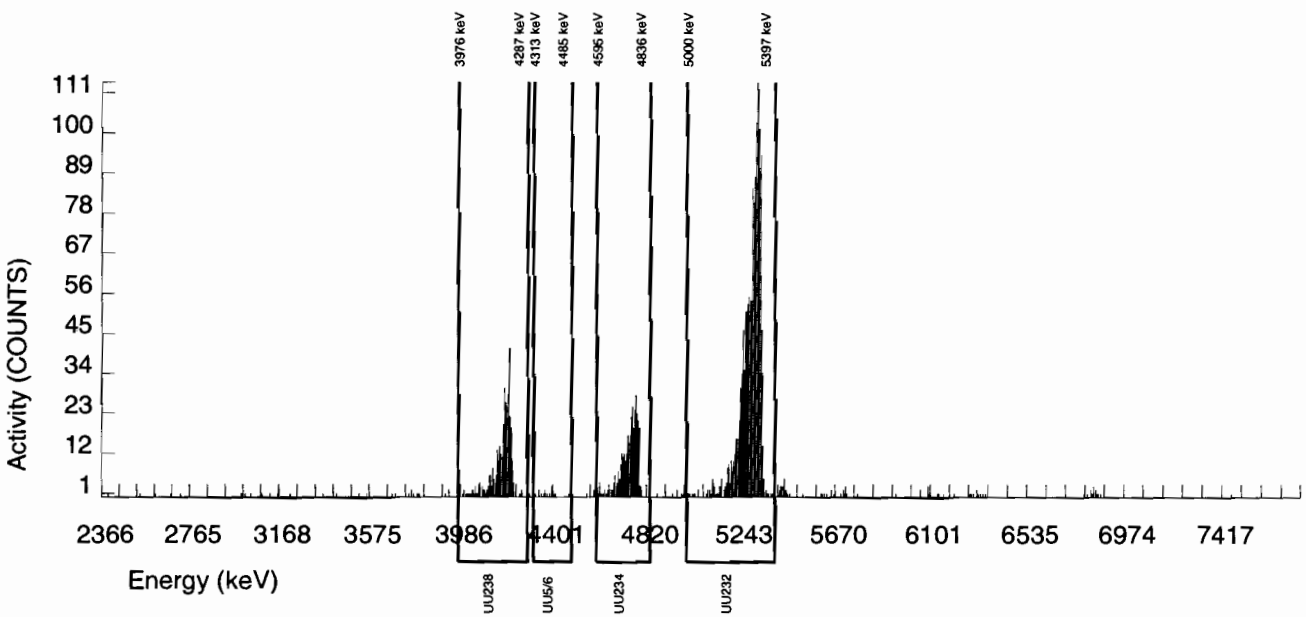

Alpha Spectroscopy Software Version 2.1
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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 009	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248818005_UU	DETECTOR S/N : 72528	BKG FILE : B009.CNF;1118
SAMPLE QTY : 0.511 G	AVERAGE %EFFICIENCY : 34.3260	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:45:42	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W009.CNF;309
% YIELD : 93.773		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.2216E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5299.009	59.688	1460.000	1448.000	12.000	3.4641	100.0000	3.97E+00	2.99E-01	2.21E-02	5.16E-02	1.05E-01
U-3/4	4763.020	4755.169	63.607	521.000	519.533	0.000	5.4790	100.0000	1.42E+00	1.18E-01	3.49E-02	7.72E-02	6.24E-02
U-235	4391.000	4388.445	52.705	24.000	24.000	0.000	2.4127	80.90000	8.12E-02	1.75E-02	1.90E-02	4.72E-02	1.66E-02
U-238	4184.730	4184.365	41.731	482.000	480.000	2.000	3.6781	100.0000	1.31E+00	1.10E-01	2.34E-02	5.43E-02	6.02E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

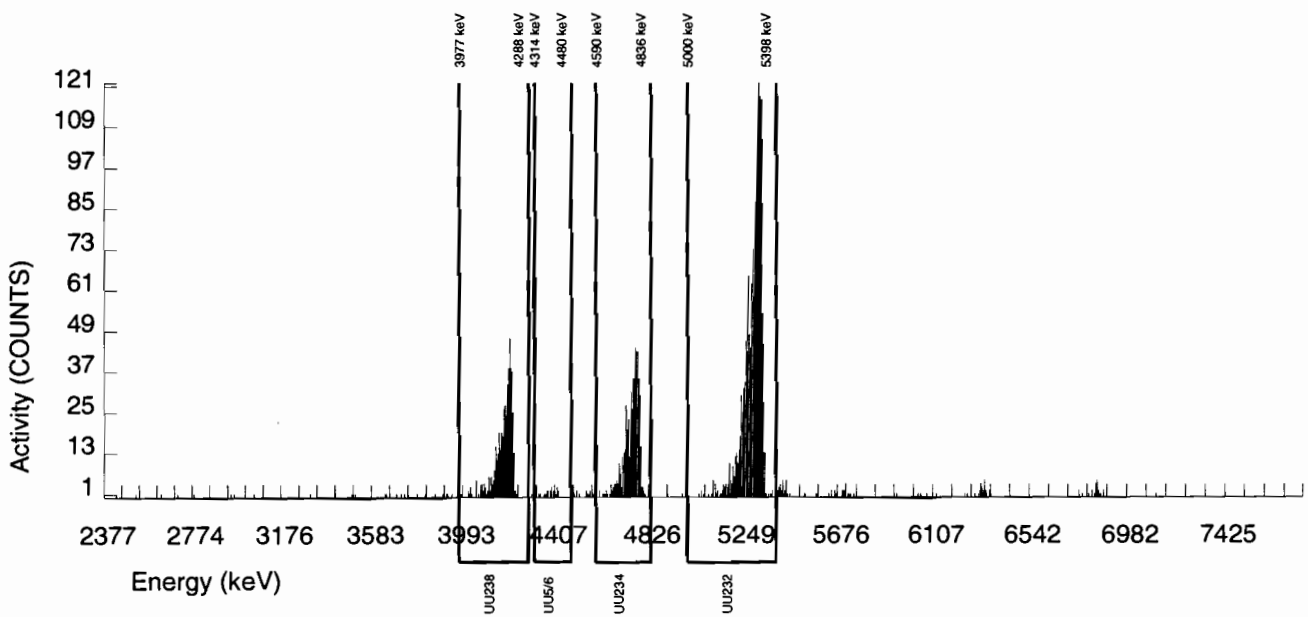

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 010	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248818006_UU	DETECTOR S/N : 72529	BKG FILE : B010.CNF;1136
SAMPLE QTY : 0.500 G	AVERAGE %EFFICIENCY : 31.3468	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:45:42	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W010.CNF;337
% YIELD : 97.438		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3866E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5308.186	37.966	1382.000	1374.000	8.000	2.8284	100.0000	4.06E+00	3.07E-01	1.94E-02	4.68E-02	1.10E-01
U-3/4	4763.020	4759.908	61.554	399.000	395.608	2.000	5.4790	100.0000	1.17E+00	1.01E-01	3.76E-02	8.32E-02	5.90E-02
U-235	4391.000	4388.516	59.515	17.000	17.000	0.000	2.4127	80.90000	6.20E-02	1.57E-02	2.05E-02	5.08E-02	1.50E-02
U-238	4184.730	4190.005	42.962	370.000	367.000	3.000	3.6781	100.0000	1.08E+00	9.54E-02	2.52E-02	5.85E-02	5.70E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

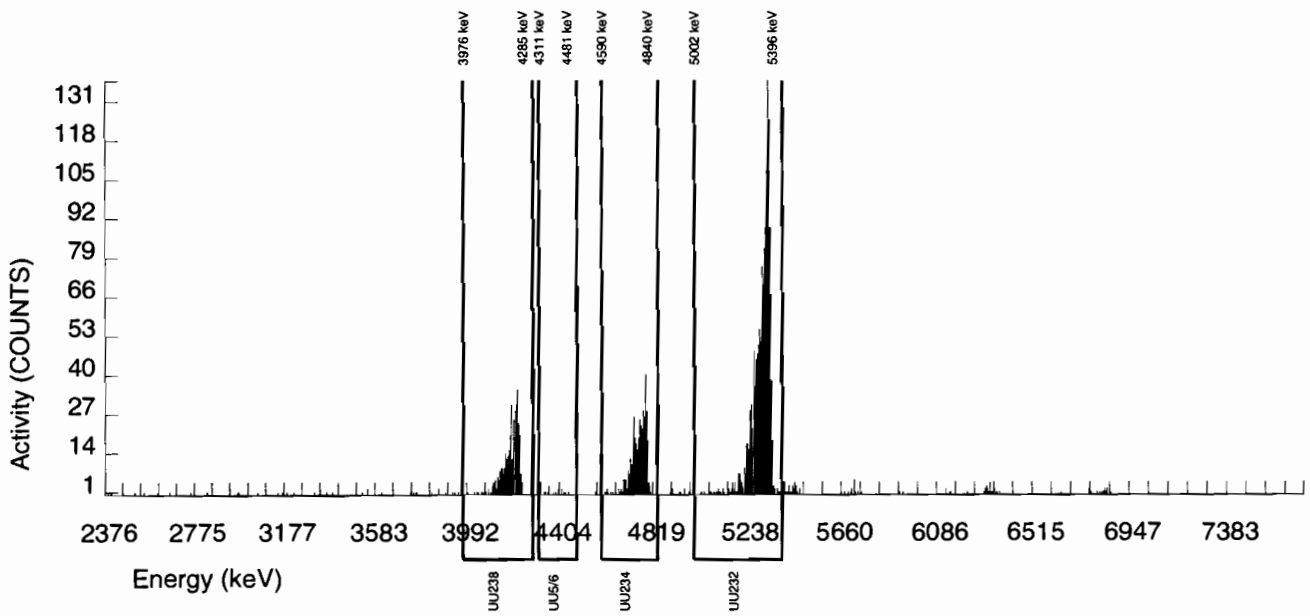

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 011	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248818007_UU	DETECTOR S/N : 72531	BKG FILE : B011.CNF;1128
SAMPLE QTY : 0.511 G	AVERAGE %EFFICIENCY : 31.2445	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:45:42	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W011.CNF;315
% YIELD : 103.093		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.6412E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.975	62.529	1459.000	1449.000	10.000	3.1623	100.0000	3.97E+00	2.99E-01	2.01E-02	4.77E-02	1.05E-01
U-3/4	4763.020	4759.140	65.422	259.000	257.532	0.000	5.4790	100.0000	7.05E-01	6.63E-02	3.49E-02	7.72E-02	4.39E-02
U-235	4391.000	4409.366	35.933	17.000	12.000	5.000	2.4127	80.90000	4.06E-02	1.61E-02	1.90E-02	4.71E-02	1.59E-02
U-238	4184.730	4185.711	30.066	322.000	319.000	3.000	3.6781	100.0000	8.73E-01	7.88E-02	2.34E-02	5.43E-02	4.93E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

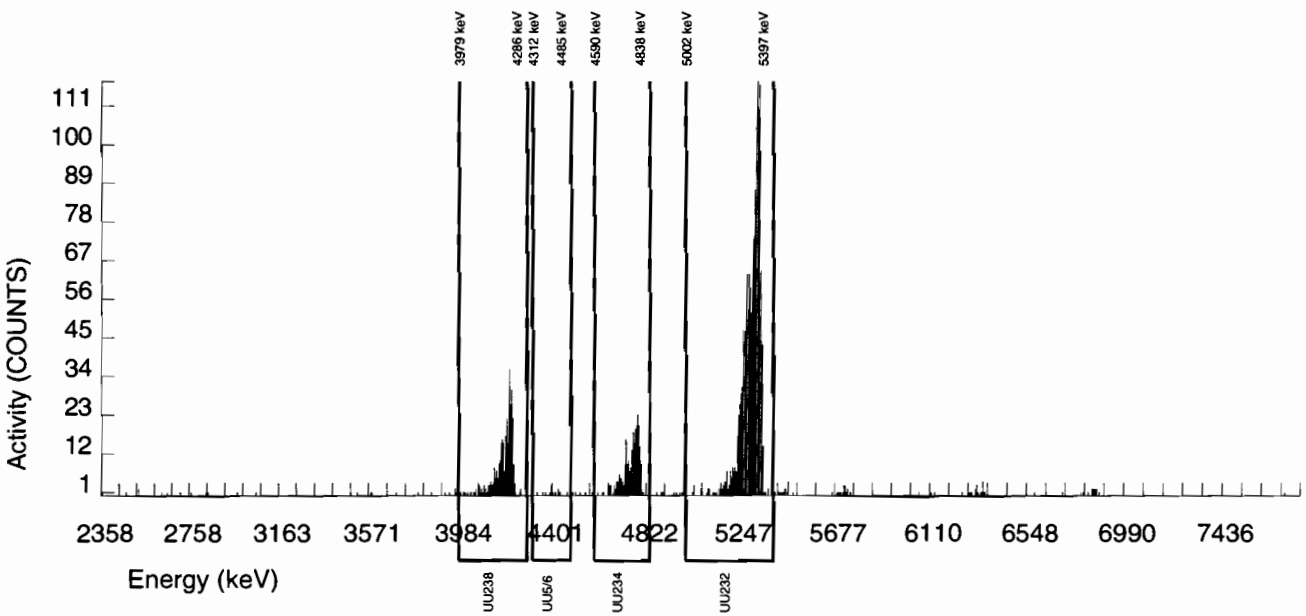

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 113	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248818008_UU	DETECTOR S/N : 80009	BKG FILE : B113.CNF;459
SAMPLE QTY : 0.507 G	AVERAGE %EFFICIENCY : 25.8099	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:43:46	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W113.CNF;133
% YIELD : 98.273		CAL DATE : 29-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4242E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5316.225	29.124	1141.000	1141.000	0.000	0.0000	100.0000	4.00E+00	3.10E-01	0.00E+00	9.49E-03	1.18E-01
U-3/4	4763.020	4769.334	44.004	280.000	278.844	0.000	5.4790	100.0000	9.77E-01	9.13E-02	4.46E-02	9.88E-02	5.85E-02
U-235	4391.000	4399.741	22.197	9.000	8.000	1.000	2.4127	80.90000	3.46E-02	1.39E-02	2.43E-02	6.03E-02	1.37E-02
U-238	4184.730	4190.385	67.087	270.000	270.000	0.000	3.6781	100.0000	9.46E-01	8.90E-02	3.00E-02	6.94E-02	5.76E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

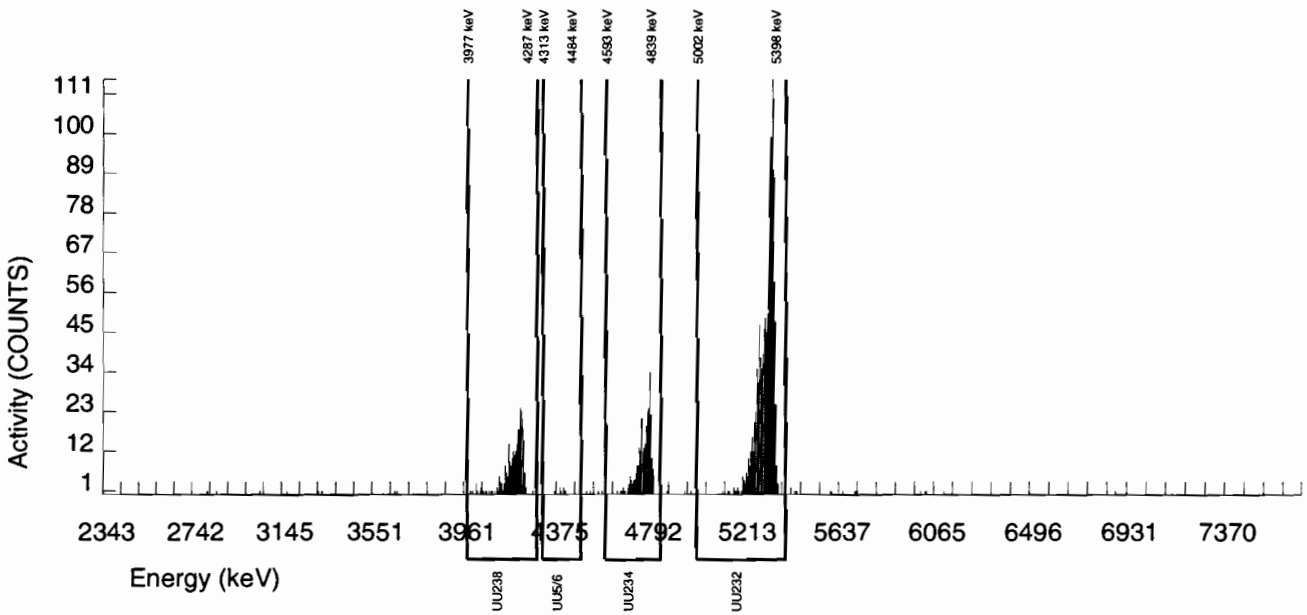

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 114	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248818009_UU	DETECTOR S/N : 78258	BKG FILE : B114.CNF;463
SAMPLE QTY : 0.514 G	AVERAGE %EFFICIENCY : 26.1905	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:43:47	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W114.CNF;123
% YIELD : 98.033		CAL DATE : 19-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4134E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5312.146	38.153	1158.000	1155.000	3.000	1.7321	100.0000	3.95E+00	3.06E-01	1.38E-02	3.68E-02	1.16E-01
U-3/4	4763.020	4760.556	44.328	229.000	226.830	1.000	5.4790	100.0000	7.74E-01	7.58E-02	4.35E-02	9.63E-02	5.16E-02
U-235	4391.000	4403.616	18.191	13.000	12.000	1.000	2.4127	80.90000	5.06E-02	1.62E-02	2.37E-02	5.88E-02	1.58E-02
U-238	4184.730	4195.237	35.678	239.000	238.000	1.000	3.6781	100.0000	8.12E-01	7.86E-02	2.92E-02	6.77E-02	5.29E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

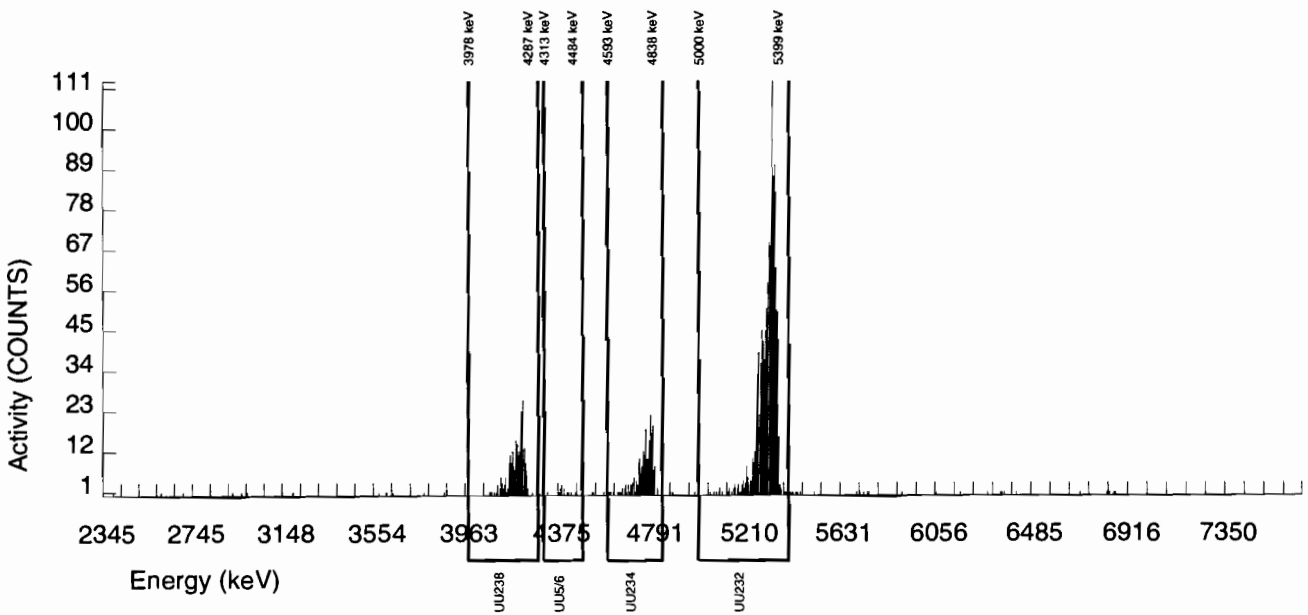

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 119	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248841001_UU	DETECTOR S/N : 79450	BKG FILE : B119.CNF;473
SAMPLE QTY : 0.508 G	AVERAGE %EFFICIENCY : 25.9082	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:43:50	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W119.CNF;123
% YIELD : 96.012		CAL DATE : 19-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3224E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5311.039	80.166	1122.000	1119.000	3.000	1.7321	100.0000	3.99E+00	3.11E-01	1.44E-02	3.84E-02	1.20E-01
U-3/4	4763.020	4764.605	50.385	258.000	256.866	0.000	5.4790	100.0000	9.16E-01	8.71E-02	4.54E-02	1.01E-01	5.71E-02
U-235	4391.000	4393.862	108.845	7.000	7.000	0.000	2.4127	80.90000	3.08E-02	1.19E-02	2.47E-02	6.14E-02	1.17E-02
U-238	4184.730	4195.082	49.406	223.000	223.000	0.000	3.6781	100.0000	7.95E-01	7.81E-02	3.05E-02	7.07E-02	5.32E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

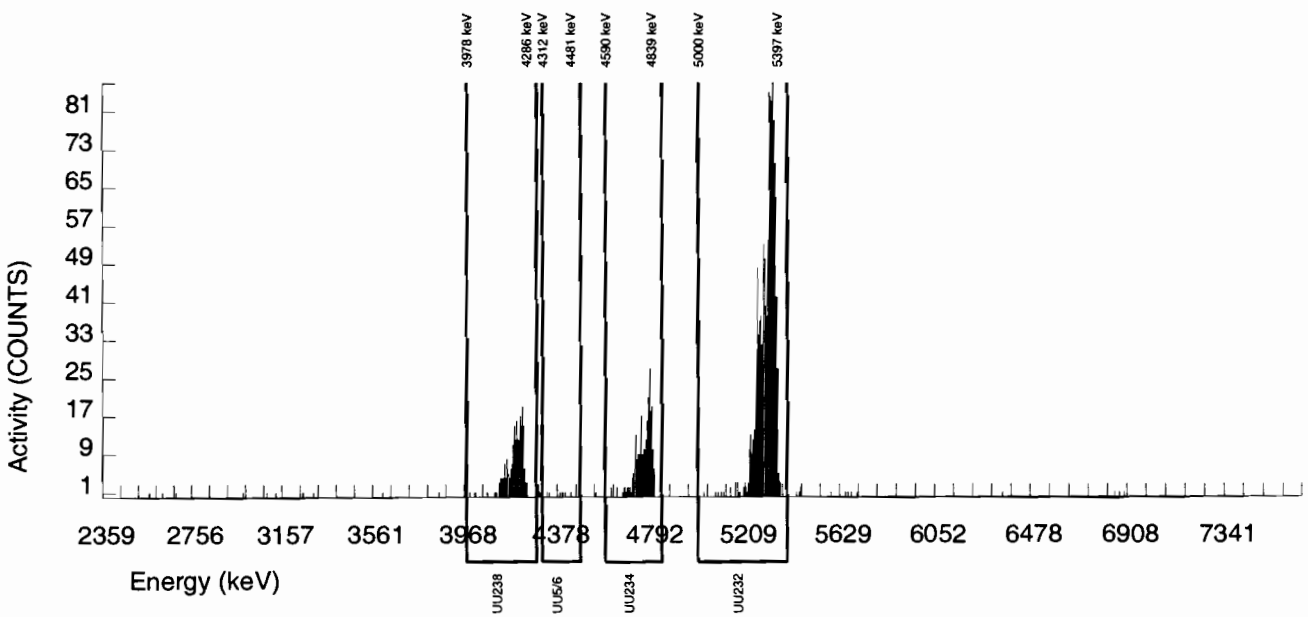

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 130	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202072519_UU	DETECTOR S/N : 76228	BKG FILE : B130.CNF;463
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 25.8660	BKG DATE : 28-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 30-MAR-2010 16:44:20	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W130.CNF;134
% YIELD : 101.154		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4996E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.5515E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.625	63.501	1178.000	1177.000	1.000	1.0000	100.0000	2.03E+00	1.56E-01	4.01E-03	1.27E-02	5.91E-02
U-3/4	4763.020	4703.280	208.412	9.000	7.807	0.000	5.4790	100.0000	1.34E-02	4.90E-03	2.19E-02	4.86E-02	4.81E-03
U-235	4391.000	4365.938	4.977	7.000	6.000	1.000	2.4127	80.90000	1.28E-02	6.09E-03	1.19E-02	2.97E-02	6.02E-03
U-238	4184.730	4213.127	4.977	9.000	9.000	0.000	3.6781	100.0000	1.55E-02	5.28E-03	1.47E-02	3.41E-02	5.16E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

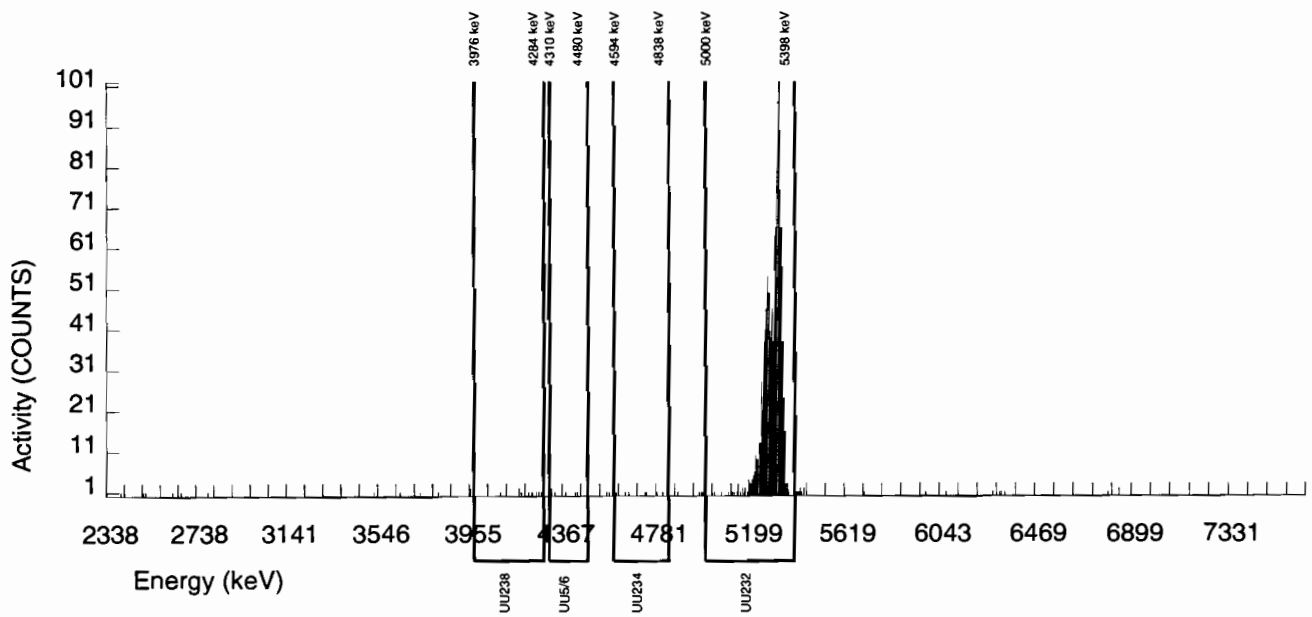

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 131	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202072520_UU	DETECTOR S/N : 80008	BKG FILE : B131.CNF;461
SAMPLE QTY : 0.502 G	AVERAGE %EFFICIENCY : 25.4483	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:44:23	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W131.CNF;136
% YIELD : 104.212		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.6916E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.175	42.297	1197.000	1193.000	4.000	2.0000	100.0000	4.04E+00	3.12E-01	1.57E-02	4.07E-02	1.17E-01
U-3/4	4763.020	4758.878	53.878	259.000	257.791	0.000	5.4790	100.0000	8.72E-01	8.27E-02	4.31E-02	9.54E-02	5.43E-02
U-235	4391.000	4396.176	7.292	10.000	10.000	0.000	2.4127	80.90000	4.18E-02	1.36E-02	2.35E-02	5.83E-02	1.32E-02
U-238	4184.730	4181.762	59.027	257.000	257.000	0.000	3.6781	100.0000	8.70E-01	8.25E-02	2.90E-02	6.71E-02	5.42E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

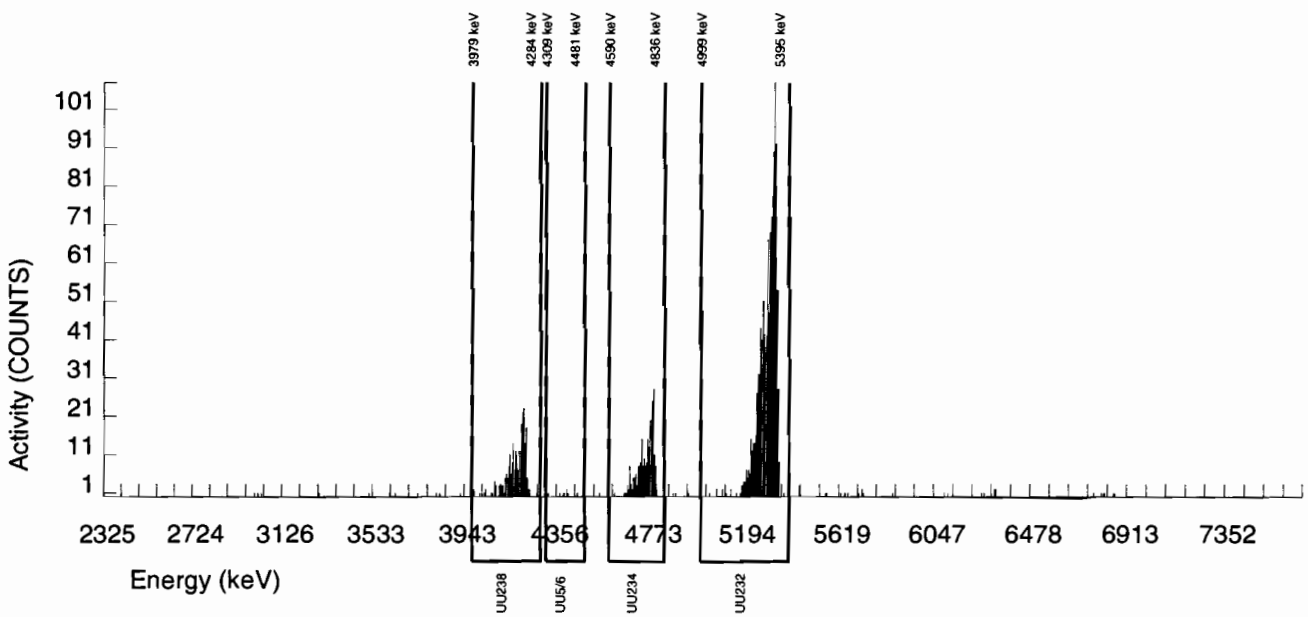

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 132	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202072521_UU	DETECTOR S/N : 67579	BKG FILE : B132.CNF;457
SAMPLE QTY : 0.103 G	AVERAGE %EFFICIENCY : 26.4369	BKG DATE : 28-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 30-MAR-2010 16:44:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W132.CNF;134
% YIELD : 101.324		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4996E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.5592E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.996	46.228	1208.000	1205.000	3.000	1.7321	100.0000	1.97E+01	1.63E+00	6.58E-02	1.76E-01	5.68E-01
U-3/4	4763.020	4762.833	64.600	335.000	333.779	0.000	5.4790	100.0000	5.45E+00	5.18E-01	2.08E-01	4.60E-01	2.98E-01
U-235	4391.000	4415.090	55.336	15.000	15.000	0.000	2.4127	80.90000	3.03E-01	8.16E-02	1.13E-01	2.81E-01	7.82E-02
U-238	4184.730	4192.496	50.602	338.000	338.000	0.000	3.6781	100.0000	5.52E+00	5.23E-01	1.40E-01	3.24E-01	3.00E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

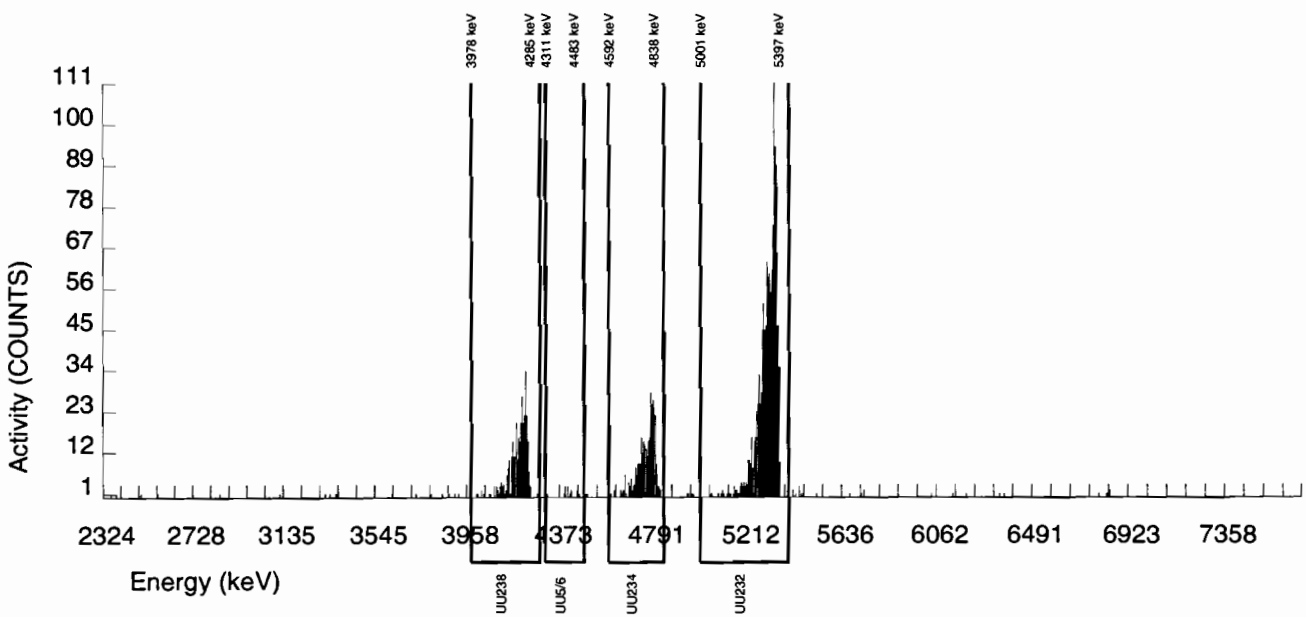

Radiochemistry Batch Checklist, Rev10

Batch# 962631 Product: γS / LANL Date: 3/24/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			n/a
Samples have been blank corrected (if required)			n/a
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			n/a
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			n/a
Smears Taken for Radioactive batches.			n/a
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			n/a
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			n/a
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			n/a
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			n/a
Aliquot Correction completed if required.			n/a
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: M Stamper 3/24/10

Secondary Review Performed By: [illegible] 3/25/10

4/1/10

Gamma Spec Que Sheet

I.G.-3/16/10

03/08/2010

Batch #:962631 **Analyst:** MXR1 **First Client DueDate**04/01/2010 **Internal Due Date:** 03/21/2010

Gamma Spike Isotope: Mixed Gamma **Spike Code:** Na **Expiration Date:** Na **Vol:** Na **Nominal Concentration:** Na

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0 mL **Nominal Concentration:** Cs137-5.685 Co60-6.485

Initials: US **Prep Date:** 3/9/10 **Library:** SOLID **Witness:** Na Am241-16.29

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Wet/Dry Aliquot (1/E/F)	Detector	Sealing Date/Time (if Applicable)
248702001-1	RE46-10-13203	SAMPLE		LANL010	SOIL	02-MAR-10 12:00:00 RF	can	133.70	5	3/8/10
248702002-1	RE46-10-13202	SAMPLE		LANL010	SOIL	02-MAR-10 12:00:00 RF		113.61	15	3/8/10
248818001-1	RE46-10-13553	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		122.42	16	3/9/10
248818002-1	RE46-10-13549	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		121.17	5	
248818003-1	RE46-10-13551	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		128.87	18	
248818004-1	RE46-10-13550	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		119.44	1	
248818005-1	RE46-10-13548	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		113.15	16	
248818006-1	RE46-10-13546	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		125.16	20	
248818007-1	RE46-10-13552	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		114.31	17	
248818008-1	RE46-10-13547	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		133.63	21	
248818009-1	RE46-10-13556	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		102.58	23	
248824001-1	RE46-10-11926	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		103.87	29	
248824002-1	RE46-10-11925	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 RF		128.93	4	
1202065185-1	MB	MB		QC ACCOUNT	SOIL	3/9/10 RF		133.70	6	
1202065186-1	DUP RE46-10-11926(248824001)	DUP		QC ACCOUNT	SOIL	03-MAR-10 12:00:00 RF		105.55	15	
1202065187-1	LCS	LCS		QC ACCOUNT	SOIL	3/9/10 RF		151.73	22	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: M. Stamps 3/24/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
962631	248702001	SAMPLE	23-MAR-10		Cerium-139	-0.01949	0.05367	0.050
					Cesium-134	0.08432	0.1035	0.100
					Sodium-22	0.02953	0.09131	0.080
962631	248702002	SAMPLE	23-MAR-10		Americium-241	-0.1635	0.592	0.200
					Cerium-139	-0.01591	0.07347	0.050
					Europium-152	-0.08195	0.2165	0.200
					Sodium-22	0.02703	0.1091	0.080
					Thorium-234	1.67	4.791	2.00
					Tin-113	0.06093	0.1188	0.100
962631	248818001	SAMPLE	23-MAR-10		Americium-241	-0.202	0.4285	0.200
					Cerium-139	-0.03331	0.05437	0.050
					Cesium-134	0.07987	0.1002	0.100
					Sodium-22	-0.05477	0.08189	0.080
					Thorium-234	1.507	3.631	2.00
962631	248818002	SAMPLE	23-MAR-10		Cerium-139	-0.00331	0.06202	0.050
					Europium-152	-0.0237	0.2078	0.200
					Sodium-22	0.02973	0.1029	0.080
962631	248818003	SAMPLE	23-MAR-10		Americium-241	-0.07452	0.295	0.200
					Thorium-234	1.813	2.682	2.00
962631	248818004	SAMPLE	23-MAR-10		Americium-241	-0.1378	0.3224	0.200
					Cerium-139	0.02073	0.06375	0.050
					Cesium-134	0.07912	0.1076	0.100
					Europium-152	0.07322	0.2063	0.200
					Sodium-22	0.02654	0.09217	0.080
					Thorium-234	1.849	3.104	2.00
962631	248818005	SAMPLE	23-MAR-10		Americium-241	0.04214	0.253	0.200
					Cerium-139	-0.00772	0.05172	0.050
					Sodium-22	0.00954	0.08094	0.080
962631	248818006	SAMPLE	23-MAR-10					
962631	248818007	SAMPLE	23-MAR-10		Cerium-139	-0.00718	0.05891	0.050
					Cesium-134	0.09814	0.1284	0.100
					Cobalt-60	0.01713	0.102	0.100
					Sodium-22	-0.00632	0.09898	0.080
962631	248818008	SAMPLE	23-MAR-10		Cesium-134	0.1051	0.1159	0.100
					Sodium-22	-0.06933	0.0994	0.080
962631	248818009	SAMPLE	23-MAR-10		Americium-241	-0.1469	0.4262	0.200
					Cerium-139	0.00169	0.06644	0.050
					Cesium-134	0.07345	0.1164	0.100
					Europium-152	0.06583	0.2179	0.200
					Sodium-22	-0.0248	0.1044	0.080
					Thorium-234	0.8359	3.643	2.00
					Tin-113	-0.04453	0.1045	0.100
962631	248824001	SAMPLE	23-MAR-10		Americium-241	0.07572	0.3604	0.200
					Cerium-139	0.02796	0.0711	0.050
					Europium-152	0.1204	0.2152	0.200

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
962631	248824001	SAMPLE	23-MAR-10		Mercury-203	0.1018	0.1023	0.100
					Sodium-22	-0.03604	0.09398	0.080
962631	248824002	SAMPLE	23-MAR-10		Americium-241	0.02526	0.4029	0.200
					Cerium-139	0.04107	0.05231	0.050
962631	1202065185	MB	23-MAR-10					
962631	1202065186	DUP	23-MAR-10		Americium-241	0.3026	0.5921	0.200
					Cerium-139	0.00175	0.07846	0.050
					Europium-152	-0.06564	0.2356	0.200
					Sodium-22	-0.06097	0.1016	0.080
					Tin-113	0.01325	0.1202	0.100
					Uranium-235	-0.07759	0.5243	0.500
962631	1202065187	LCS	23-MAR-10		Cerium-139	-0.00872	0.07594	0.050
					Cesium-134	0.05304	0.1363	0.100
					Europium-152	0.1315	0.2694	0.200
					Mercury-203	0.02032	0.1069	0.100
					Ruthenium-106	0.1129	0.9141	0.800
					Thorium-234	-0.7001	3.198	2.00
					Tin-113	0.01181	0.132	0.100
					Uranium-235	-0.08175	0.5099	0.500

Gamma Review Report based on Result > MDA for Batch:962631

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248702001	02-MAR-10 12:00	23-MAR-10 08:52	20.9	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		1.692	0.1961	pCi/g	0.2275	N	910.9	3	1.412	IDENTIFIED	9.702	☐	
Annihilation Rad.	HE	0.1307	0.04068	pCi/g	0.05323	N	510.1	1	2.015	IDENTIFIED	30.95	☐	
Bismuth-211 INT		3.953	0.2825	pCi/g	0.3403	Y	351.5	2	1.186	IDENTIFIED	5.95	☑ UI	
Bismuth-214 ✓		1.288	0.1089	pCi/g	0.1194	0.200	608.8	3	1.638	IDENTIFIED	7.326	☐	
Cadmium-109 INT		2.537	0.4253	pCi/g	0.9936	Y	89.31	1	1.452	IDENTIFIED	16.3	☑ UI	
Cadmium-115	HE	48.31	37.9	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cerium-143		20060	2970	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Gross Gamma		8.326	1.23	pCi/g	4.056	N		0				☐	
Lead-210	HE	1.391	0.3857	pCi/g	0.8489	N	45.85	1	1.025	IDENTIFIED	27.46	☐	
Lead-212 ✓		1.622	0.1052	pCi/g	0.09513	0.100	238.2	2	1.282	IDENTIFIED	3.566	☐	
Lead-214 ✓		1.435	0.1099	pCi/g	0.1288	0.100	351.5	2	1.186	IDENTIFIED	5.95	☐	
Neptunium-237 INT nr		1.253	0.1788	pCi/g	0.2861	N	86.71	2	1.385	IDENTIFIED	8.894	☐	
Niobium-95m		1.213	0.1153	pCi/g	0.3626	N	0	4	0	NOT_IDENTI	0	☐	
Potassium-40 ✓		21.53	1.037	pCi/g	0.6286	1.00	1460	1	2.054	IDENTIFIED	3.677	☐	
Promethium-149	HE	155.4	281.2	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Radium-224 INT		5.125	0.7455	pCi/g	1.02	Y	241.2	1	2.024	IDENTIFIED	13.7	☑ UI	
Radium-226 ✓		1.288	0.1089	pCi/g	0.1194	Y	608.8	3	1.638	IDENTIFIED	7.326	☐	
Radium-228 ✓		1.692	0.1961	pCi/g	0.2275	0.500	910.9	3	1.412	IDENTIFIED	9.702	☐	
Thallium-208 ✓		0.4926	0.04859	pCi/g	0.06203	0.080	582.8	1	1.432	IDENTIFIED	9.153	☐	
Thorium-228 nr		1.622	0.1052	pCi/g	0.09513	N	238.2	2	1.282	IDENTIFIED	3.566	☐	
Thorium-230 nr		1.288	0.1034	pCi/g	0.1194	N	608.8	3	1.638	IDENTIFIED	7.326	☐	
Thorium-232 nr		1.692	0.1961	pCi/g	0.2275	N	910.9	3	1.412	IDENTIFIED	9.702	☐	
Thorium-234 ✓		1.675	0.5328	pCi/g	1.106	2.00	62.38	2	0.9936	IDENTIFIED	30.49	☐	
Tin-126 INT nr		0.4199	0.04064	pCi/g	0.09617	N	86.71	2	1.385	IDENTIFIED	8.894	☐	
Total Uranium		5.0254	1.59E-06	ug/g	1.6485	N		0				☐	
Uranium-238	HE	1.675	0.5328	pCi/g	1.106	N	62.38	2	0.9936	IDENTIFIED	30.49	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248702002	02-MAR-10 12:00	23-MAR-10 12:23	21	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		2.422	0.2842	pCi/g	0.3383	N	911.2	3	1.878	IDENTIFIED	10.05	☐	
Annihilation Rad.	HE	0.137	0.04342	pCi/g	0.06758	N	510.6	1	1.701	IDENTIFIED	31.4	☐	
Bismuth-211 INT		4.017	0.3436	pCi/g	0.4322	Y	351.9	2	1.289	IDENTIFIED	6.96	☑ UI	
Bismuth-214 ✓		1.475	0.1379	pCi/g	0.1519	0.200	609.3	3	1.528	IDENTIFIED	7.91	☐	
Cadmium-109 INT		2.269	0.7542	pCi/g	2.216	Y	87.21	2	0.9653	IDENTIFIED	32.66	☑ UI	
Cerium-143		17630	3231	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-134 LA		0.1607	0.04427	pCi/g	0.125	0.100	0	5	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		10.58	1.826	pCi/g	4.652	N		0				☐	
Iodine-133	HE	1.42E+05	4.46E+05	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-212 ✓		2.433	0.1672	pCi/g	0.128	0.100	238.7	2	1.32	IDENTIFIED	3.399	☐	
Lead-214 ✓		1.458	0.131	pCi/g	0.1711	0.100	351.9	2	1.289	IDENTIFIED	6.96	☐	
Neptunium-237	HE	0.656	0.2286	pCi/g	0.6202	N	87.21	2	0.9653	IDENTIFIED	32.66	☐	
Niobium-95m	HE	0.5605	0.1204	pCi/g	0.3837	N	0	5	0	NOT_IDENTI	0	☐	
Potassium-40 ✓		29.09	1.757	pCi/g	0.6942	1.00	1460	1	2.139	IDENTIFIED	3.512	☐	

Radium-224 INT	5.684	1.035	pCi/g	1.371	Y	241.6	1	2.017	IDENTIFIED	17.35	☑ UI		
Radium-226 ✓	1.475	0.1379	pCi/g	0.1519	Y	609.3	3	1.528	IDENTIFIED	7.91	☐		
Radium-228 ✓	2.422	0.2842	pCi/g	0.3383	0.500	911.2	3	1.878	IDENTIFIED	10.05	☐		
Strontium-85 LA	0.133	0.03248	pCi/g	0.1069	Y	0	5	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.	
Thallium-208 ✓	0.671	0.06015	pCi/g	0.0801	0.080	583.3	1	1.384	IDENTIFIED	7.71	☐		
Thorium-228 nr	2.433	0.1672	pCi/g	0.128	N	238.7	2	1.32	IDENTIFIED	3.399	☐		
Thorium-230 nr	1.475	0.1323	pCi/g	0.1519	N	609.3	3	1.528	IDENTIFIED	7.91	☐		
Thorium-232 nr	2.422	0.2842	pCi/g	0.3383	N	911.2	3	1.878	IDENTIFIED	10.05	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818001	03-MAR-10 12:00	23-MAR-10 12:59	20	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		2.179	0.2373	pCi/g	0.2442	N	911.8	3	1.65	IDENTIFIED	8.952	☐	
Annihilation Rad.		0.1793	0.03834	pCi/g	0.05036	N	510.8	1	1.815	IDENTIFIED	20.96	☐	
Bismuth-211 INT		5.389	0.3762	pCi/g	0.356	Y	352	2	1.398	IDENTIFIED	5.169	☑ UI	
Bismuth-212	HE	1.834	0.4542	pCi/g	1.327	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.5	0.1248	pCi/g	0.1243	0.200	609.8	3	1.423	IDENTIFIED	6.708	☐	
Cadmium-109 INT		4.295	0.6853	pCi/g	1.511	Y	87.14	3	1.235	IDENTIFIED	14.94	☑ UI	
Cerium-143		7264	1376	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Gross Gamma		12.17	1.694	pCi/g	4.744	N		0				☐	
Iodine-135		1.22E+21	0	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Lead-212 ✓		2.01	0.1296	pCi/g	0.1132	0.100	238.6	2	1.165	IDENTIFIED	3.536	☐	
Lead-214 ✓		1.956	0.1468	pCi/g	0.1295	0.100	352	2	1.398	IDENTIFIED	5.169	☐	
Neptunium-237 INT nr		1.243	0.2374	pCi/g	0.5115	N	87.14	3	1.235	IDENTIFIED	14.94	☐	
Potassium-40 ✓		38.94	2.131	pCi/g	0.5698	1.00	1462	1	2.304	IDENTIFIED	2.699	☐	
Radium-224 INT		4.348	0.5363	pCi/g	1.468	Y	241.7	1	1.975	IDENTIFIED	11.33	☑ UI	
Radium-226 ✓		1.5	0.1248	pCi/g	0.1243	Y	609.8	3	1.423	IDENTIFIED	6.708	☐	
Radium-228 ✓		2.179	0.2373	pCi/g	0.2442	0.500	911.8	3	1.65	IDENTIFIED	8.952	☐	
Sodium-24	HE	2.02E+07	9.76E+07	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Thallium-208 ✓		0.7185	0.05204	pCi/g	0.06379	0.080	583.5	1	1.622	IDENTIFIED	5.672	☐	
Thorium-228 nr		2.01	0.1296	pCi/g	0.1132	N	238.6	2	1.165	IDENTIFIED	3.536	☐	
Thorium-230 nr		1.5	0.1183	pCi/g	0.1243	N	609.8	3	1.423	IDENTIFIED	6.708	☐	
Thorium-232 nr		2.179	0.2373	pCi/g	0.2442	N	911.8	3	1.65	IDENTIFIED	8.952	☐	
Tin-126 nr		0.4167	0.06649	pCi/g	0.1477	N	87.14	3	1.235	IDENTIFIED	14.94	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818002	03-MAR-10 12:00	23-MAR-10 13:02	20	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		2.187	0.2509	pCi/g	0.312	N	910.8	3	1.417	IDENTIFIED	9.554	☐	
Annihilation Rad.		0.1778	0.03772	pCi/g	0.06241	N	510.6	1	1.703	IDENTIFIED	20.97	☐	
Bismuth-211 INT		4.766	0.3649	pCi/g	0.4194	Y	351.5	2	1.318	IDENTIFIED	6.556	☑ UI	
Bismuth-212 LA		2.543	0.5232	pCi/g	1.399	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.438	0.1275	pCi/g	0.1653	0.200	609	3	1.373	IDENTIFIED	7.799	☐	
Cadmium-109 INT		3.124	0.4595	pCi/g	1.354	Y	86.75	3	0.9615	IDENTIFIED	14.21	☑ UI	
Cerium-143		18480	2600	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134 LA		0.125	0.04481	pCi/g	0.1222	0.100	0	8	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		11.49	1.614	pCi/g	5.912	N		0				☐	
Iodine-135		5.18E+20	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-210	HE	1.882	0.5411	pCi/g	1.03	N	45.63	1	1.101	IDENTIFIED	28.49	☐	

Lead-212 ✓	2.151	0.134	pCi/g	0.113	0.100	238.3	2	1.246	IDENTIFIED	3.077	☐		
Lead-214 ✓	1.73	0.1408	pCi/g	0.1526	0.100	351.5	2	1.318	IDENTIFIED	6.556	☐		
Neptunium-237 nr	0.9045	0.1634	pCi/g	0.3904	N	86.75	3	0.9615	IDENTIFIED	14.21	☐		
Niobium-95m	1.378	0.129	pCi/g	0.3976	N	0	8	0	NOT_IDENTI	0	☐		
Potassium-40 ✓	37.65	1.621	pCi/g	0.7031	1.00	1460	1	2.041	IDENTIFIED	2.977	☐		
Promethium-149 HE	358.4	250.7	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Radium-224 INT	5.795	0.7868	pCi/g	1.211	Y	241.3	1	1.83	IDENTIFIED	12.67	☑ UI		
Radium-226 ✓	1.438	0.1275	pCi/g	0.1653	Y	609	3	1.373	IDENTIFIED	7.799	☐		
Radium-228 ✓	2.187	0.2509	pCi/g	0.312	0.500	910.8	3	1.417	IDENTIFIED	9.554	☐		
Sodium-24 HE	2.43E+08	1.29E+08	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Strontium-85 LA	0.1181	0.02736	pCi/g	0.09244	Y	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.	
Thallium-208 ✓	0.59	0.06143	pCi/g	0.07753	0.080	582.9	1	1.539	IDENTIFIED	9.744	☐		
Thorium-228 nr	2.151	0.134	pCi/g	0.113	N	238.3	2	1.246	IDENTIFIED	3.077	☐		
Thorium-230 nr	1.438	0.1218	pCi/g	0.1653	N	609	3	1.373	IDENTIFIED	7.799	☐		
Thorium-232 nr	2.187	0.2509	pCi/g	0.312	N	910.8	3	1.417	IDENTIFIED	9.554	☐		
Thorium-234 ✓	2.417	0.6136	pCi/g	1.265	2.00	62.75	2	1.537	IDENTIFIED	23.71	☐		
Tin-126 nr	0.3031	0.04459	pCi/g	0.1312	N	86.75	3	0.9615	IDENTIFIED	14.21	☐		
Total Uranium	7.233	1.83E-06	ug/g	1.8848	N		0				☐		
Uranium-238 HE	2.417	0.6136	pCi/g	1.265	N	62.75	2	1.537	IDENTIFIED	23.71	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818003	03-MAR-10 12:00	23-MAR-10 13:05	20	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr	1.818	0.192	pCi/g	0.2011	N	910.7	3	1.907	IDENTIFIED	8.1	☐	
Annihilation Rad.	0.09908	0.02423	pCi/g	0.04043	N	510.5	1	1.776	IDENTIFIED	24.23	☐	
Bismuth-211 INT	3.774	0.2106	pCi/g	0.2658	Y	351.8	2	1.384	IDENTIFIED	4.564	☑ UI	
Bismuth-212 ✓ nr	1.553	0.4163	pCi/g	0.6154	N	727.2	1	1.78	IDENTIFIED	26.08	☐	
Bismuth-214 ✓	1.045	0.08124	pCi/g	0.09997	0.200	609	3	1.58	IDENTIFIED	6.346	☐	
Cadmium-109 INT	3.702	0.4873	pCi/g	1.28	Y	87.26	3	0.9561	IDENTIFIED	12.33	☑ UI	
Cerium-143	9939	1415	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-134 LA	0.08143	0.03625	pCi/g	0.07605	0.100	0	6	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135 HE	0.3465	0.07636	pCi/g	0.2508	N	0	6	0	NOT_IDENTI	0	☐	
Gross Gamma	9.651	1.302	pCi/g	2.567	N		0				☐	
Iodine-133 HE	34660	1.22E+05	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212 ✓	1.387	0.07776	pCi/g	0.1048	0.100	238.5	2	1.19	IDENTIFIED	4.293	☐	
Lead-214 ✓	1.37	0.08525	pCi/g	0.09665	0.100	351.8	2	1.384	IDENTIFIED	4.564	☐	
Neptunium-237 nr	1.072	0.1804	pCi/g	0.348	N	87.26	3	0.9561	IDENTIFIED	12.33	☐	
Potassium-40 ✓	37.64	1.627	pCi/g	0.4532	1.00	1460	1	2.393	IDENTIFIED	2.065	☐	
Radium-224 INT	3.199	0.3693	pCi/g	1.122	Y	241.8	1	1.755	IDENTIFIED	11.2	☑ UI	
Radium-226 ✓	1.045	0.08124	pCi/g	0.09997	Y	609	3	1.58	IDENTIFIED	6.346	☐	
Radium-228 ✓	1.818	0.192	pCi/g	0.2011	0.500	910.7	3	1.907	IDENTIFIED	8.1	☐	
Strontium-85 LA	0.08688	0.01782	pCi/g	0.06036	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	9.58E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208 ✓	0.5426	0.03957	pCi/g	0.04494	0.080	583	1	1.85	IDENTIFIED	6.155	☐	
Thorium-228 nr	1.387	0.07776	pCi/g	0.1048	N	238.5	2	1.19	IDENTIFIED	4.293	☐	
Thorium-230 nr	1.045	0.07642	pCi/g	0.09996	N	609	3	1.58	IDENTIFIED	6.346	☐	
Thorium-232 nr	1.818	0.192	pCi/g	0.2011	N	910.7	3	1.907	IDENTIFIED	8.1	☐	
Tin-126 nr	0.3592	0.04728	pCi/g	0.1124	N	87.26	3	0.9561	IDENTIFIED	12.33	☐	
Total Uranium	5.3799	2.25E-06	ug/g	3.9929	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818004	03-MAR-10 12:00	23-MAR-10 13:33	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		2.245	0.248	pCi/g	0.2587	N	911.8	3	1.444	IDENTIFIED	9.304	☐	
Annihilation Rad.	HE	0.09448	0.04036	pCi/g	0.05833	N	511.2	1	1.855	IDENTIFIED	42.51	☐	
Bismuth-211 INT		4.831	0.3412	pCi/g	0.3868	Y	352.3	2	1.39	IDENTIFIED	5.41	☑ UI	
Bismuth-212	HE	1.703	0.4944	pCi/g	1.364	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.388	0.1257	pCi/g	0.1336	0.200	609.8	3	1.507	IDENTIFIED	7.585	☐	
Cadmium-109 INT		3.419	0.6327	pCi/g	1.903	Y	87.19	3	1.187	IDENTIFIED	17.9	☑ UI	
Cerium-143		5161	1281	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Gross Gamma		10.81	1.572	pCi/g	4.243	N		0				☐	
Iodine-133	HE	1.41E+05	1.85E+05	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-212 ✓		1.935	0.1209	pCi/g	0.1138	0.100	239.1	2	1.17	IDENTIFIED	3.627	☐	
Lead-214 ✓		1.753	0.1329	pCi/g	0.1477	0.100	352.3	2	1.39	IDENTIFIED	5.41	☐	
Neptunium-237 nr		0.9899	0.2105	pCi/g	0.5076	N	87.19	3	1.187	IDENTIFIED	17.9	☐	
Potassium-40 ✓		34.44	1.868	pCi/g	0.5348	1.00	1461	1	2.023	IDENTIFIED	3.11	☐	
Radium-224 INT		5.673	0.8542	pCi/g	1.219	Y	242	1	1.879	IDENTIFIED	14.36	☑ UI	
Radium-226 ✓		1.388	0.1257	pCi/g	0.1336	Y	609.8	3	1.507	IDENTIFIED	7.585	☐	
Radium-228 ✓		2.245	0.248	pCi/g	0.2587	0.500	911.8	3	1.444	IDENTIFIED	9.304	☐	
Sodium-24	HE	3.38E+07	9.82E+07	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Strontium-85 LA		0.1084	0.03054	pCi/g	0.09904	Y	0	5	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓		0.6121	0.05514	pCi/g	0.07032	0.080	583.7	1	1.278	IDENTIFIED	7.785	☐	
Thorium-228 nr		1.935	0.1209	pCi/g	0.1138	N	239.1	2	1.17	IDENTIFIED	3.627	☐	
Thorium-230 nr		1.388	0.1203	pCi/g	0.1336	N	609.8	3	1.507	IDENTIFIED	7.585	☐	
Thorium-232 nr		2.245	0.248	pCi/g	0.2587	N	911.8	3	1.444	IDENTIFIED	9.304	☐	
Tin-126 nr		0.3318	0.06139	pCi/g	0.1848	N	87.19	3	1.187	IDENTIFIED	17.9	☐	
Total Uranium		5.499	2.69E-06	ug/g	4.6206	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818005	03-MAR-10 12:00	23-MAR-10 13:33	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		2.648	0.2328	pCi/g	0.2486	N	910.8	3	1.667	IDENTIFIED	6.327	☐	
Annihilation Rad.		0.1548	0.03786	pCi/g	0.04678	N	510.9	1	1.509	IDENTIFIED	23.98	☐	
Bismuth-211 INT		4.394	0.3408	pCi/g	0.3254	Y	351.7	2	1.106	IDENTIFIED	5.509	☑ UI	
Bismuth-212 ✓ nr		2.193	0.4075	pCi/g	0.9146	N	727	1	1.04	IDENTIFIED	17.45	☐	
Bismuth-214 ✓		1.195	0.1073	pCi/g	0.1279	0.200	609.1	3	1.271	IDENTIFIED	7.246	☐	
Cadmium-109 INT		4.609	0.5797	pCi/g	1.194	Y	87.15	3	1.222	IDENTIFIED	11.64	☑ UI	
Cadmium-115	HE	23.75	26.91	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cerium-143		5979	1262	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-134 LA		0.1154	0.0405	pCi/g	0.1079	0.100	0	5	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Europium-155	HE	0.2536	0.07335	pCi/g	0.176	N	105.3	1	1.325	IDENTIFIED	28.59	☐	
Gross Gamma		11.87	1.672	pCi/g	4.093	N		0				☐	
Iodine-133	HE	22900	1.59E+05	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-212 ✓		1.974	0.1331	pCi/g	0.09341	0.100	238.5	2	0.9514	IDENTIFIED	3.197	☐	
Lead-214 ✓		1.595	0.1313	pCi/g	0.1255	0.100	351.7	2	1.106	IDENTIFIED	5.509	☐	
Neptunium-237 nr		1.334	0.2185	pCi/g	0.3513	N	87.15	3	1.222	IDENTIFIED	11.64	☐	
Potassium-40 ✓		41.04	2.097	pCi/g	0.5373	1.00	1460	1	1.944	IDENTIFIED	2.609	☐	
Radium-224 INT		4.301	0.5889	pCi/g	1.001	Y	241.4	1	1.519	IDENTIFIED	12.53	☑ UI	
Radium-226 ✓		1.195	0.1073	pCi/g	0.1279	Y	609.1	3	1.271	IDENTIFIED	7.246	☐	
Radium-228 ✓		2.648	0.2328	pCi/g	0.2486	0.500	910.8	3	1.667	IDENTIFIED	6.327	☐	

Tellurium-125m	HE	18.48	5.439	pCi/g	18.02	N	0	5	0	NOT_IDENTI	0	☐
Thallium-208 ✓		0.5786	0.05577	pCi/g	0.06189	0.080	583	1	1.379	IDENTIFIED	8.27	☐
Thorium-228 nr		1.974	0.1331	pCi/g	0.09341	N	238.5	2	0.9514	IDENTIFIED	3.197	☐
Thorium-230 nr		1.195	0.1026	pCi/g	0.1279	N	609.1	3	1.271	IDENTIFIED	7.246	☐
Thorium-232 nr		2.648	0.2328	pCi/g	0.2486	N	910.8	3	1.667	IDENTIFIED	6.327	☐
Thorium-234 ✓		2.623	0.9397	pCi/g	2.091	2.00	63.22	2	0.6979	IDENTIFIED	34.69	☐
Tin-126 nr		0.4472	0.05624	pCi/g	0.1164	N	87.15	3	1.222	IDENTIFIED	11.64	☐
Total Uranium		7.8568	2.80E-06	ug/g	3.113	N		0				☐
Uranium-238	HE	2.623	0.9397	pCi/g	2.091	N	63.22	2	0.6979	IDENTIFIED	34.69	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818006	03-MAR-10 12:00	23-MAR-10 13:34	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		1.635	0.176	pCi/g	0.2394	N	911.8	3	1.327	IDENTIFIED	8.743	☐	
Annihilation Rad.		0.1192	0.03518	pCi/g	0.04586	N	511.3	1	2.026	IDENTIFIED	29.14	☐	
Bismuth-211 INT		3.534	0.2684	pCi/g	0.3073	Y	352.1	2	1.201	IDENTIFIED	5.9	☑ UI	
Bismuth-212 LA		2.062	0.4095	pCi/g	1.103	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.146	0.09791	pCi/g	0.1067	0.200	609.7	3	1.391	IDENTIFIED	6.469	☐	
Cadmium-109 INT		2.838	0.4261	pCi/g	1.329	Y	87.29	3	1.258	IDENTIFIED	14.26	☑ UI	
Cerium-143		5856	1136	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134 LA		0.1043	0.02429	pCi/g	0.09191	0.100	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		9.818	1.393	pCi/g	3.686	N		0				☐	
Iodine-133	HE	2.25E+05	1.48E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212 ✓		1.527	0.09708	pCi/g	0.08824	0.100	238.8	2	1.082	IDENTIFIED	3.449	☐	
Lead-214 ✓		1.282	0.1036	pCi/g	0.1118	0.100	352.1	2	1.201	IDENTIFIED	5.9	☐	
Neptunium-237 nr		0.8216	0.1504	pCi/g	0.3073	N	87.29	3	1.258	IDENTIFIED	14.26	☐	
Potassium-40 ✓		36.77	1.865	pCi/g	0.4628	1.00	1462	1	1.842	IDENTIFIED	2.591	☐	
Promethium-149		436.5	202.8	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Radium-224 INT		4.336	0.5802	pCi/g	0.9455	Y	241.6	1	1.706	IDENTIFIED	12.48	☑ UI	
Radium-226 ✓		1.146	0.09791	pCi/g	0.1067	Y	609.7	3	1.391	IDENTIFIED	6.469	☐	
Radium-228 ✓		1.635	0.176	pCi/g	0.2394	0.500	911.8	3	1.327	IDENTIFIED	8.743	☐	
Sodium-24	HE	2.64E+07	7.69E+07	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Strontium-85 LA		0.08419	0.02133	pCi/g	0.07732	Y	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓		0.4587	0.0474	pCi/g	0.05786	0.080	583.6	1	1.344	IDENTIFIED	8.967	☐	
Thorium-228 nr		1.527	0.09708	pCi/g	0.08824	N	238.8	2	1.082	IDENTIFIED	3.449	☐	
Thorium-230 nr		1.146	0.09313	pCi/g	0.1067	N	609.7	3	1.391	IDENTIFIED	6.469	☐	
Thorium-232 nr		1.635	0.176	pCi/g	0.2394	N	911.8	3	1.327	IDENTIFIED	8.743	☐	
Thorium-234 ✓		2.299	0.7954	pCi/g	1.645	2.00	63.76	2	1.006	IDENTIFIED	33.44	☐	
Tin-126 nr		0.2754	0.04134	pCi/g	0.1296	N	87.29	3	1.258	IDENTIFIED	14.26	☐	
Total Uranium		6.8817	2.37E-06	ug/g	2.4501	N		0				☐	
Uranium-238	HE	2.299	0.7954	pCi/g	1.645	N	63.76	2	1.006	IDENTIFIED	33.44	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818007	03-MAR-10 12:00	23-MAR-10 13:54	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		2.26	0.2609	pCi/g	0.3614	N	911.4	3	1.621	IDENTIFIED	9.958	☐	
Annihilation Rad.	HE	0.1169	0.04555	pCi/g	0.05922	N	511	1	1.643	IDENTIFIED	38.71	☐	
Bismuth-211 INT		3.722	0.3368	pCi/g	0.4327	Y	351.9	2	1.106	IDENTIFIED	7.755	☑ UI	
Bismuth-212	HE	2.805	0.6396	pCi/g	1.752	N	0	3	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.08	0.1276	pCi/g	0.1472	0.200	609.4	3	1.769	IDENTIFIED	10.66	☐	

Cadmium-109	int	4.975	0.5398	pCi/g	0.9812	Y	87.29	3	1.119	IDENTIFIED	9.691	☑	ui
Cadmium-115	HE	22.15	34.63	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Cerium-143		4289	1166	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Gross Gamma		10.69	1.487	pCi/g	3.577	N		0				☐	
Lead-212		2.001	0.1237	pCi/g	0.1076	0.100	238.8	2	1.095	IDENTIFIED	3.54	☐	
Lead-214		1.351	0.1278	pCi/g	0.1594	0.100	351.9	2	1.106	IDENTIFIED	7.755	☐	
Neptunium-237	nr	1.44	0.2173	pCi/g	0.2828	N	87.29	3	1.119	IDENTIFIED	9.691	☐	
Potassium-40		37.35	2.109	pCi/g	0.8407	1.00	1461	1	2.137	IDENTIFIED	3.487	☐	
Radium-224	int	5.909	0.9135	pCi/g	1.154	Y	241.7	1	2.003	IDENTIFIED	14.78	☑	ui
Radium-226		1.08	0.1276	pCi/g	0.1472	Y	609.4	3	1.769	IDENTIFIED	10.66	☐	
Radium-228		2.26	0.2609	pCi/g	0.3614	0.500	911.4	3	1.621	IDENTIFIED	9.958	☐	
Thallium-208		0.545	0.05806	pCi/g	0.08051	0.080	583.4	1	1.143	IDENTIFIED	9.549	☐	
Thorium-228	nr	2.001	0.1237	pCi/g	0.1076	N	238.8	2	1.095	IDENTIFIED	3.54	☐	
Thorium-230	nr	1.08	0.1244	pCi/g	0.1472	N	609.4	3	1.769	IDENTIFIED	10.66	☐	
Thorium-232	nr	2.26	0.2609	pCi/g	0.3614	N	911.4	3	1.621	IDENTIFIED	9.958	☐	
Thorium-234		1.778	0.6677	pCi/g	1.152	2.00	63.53	2	1.041	IDENTIFIED	36.34	☐	
Tin-126	nr	0.4827	0.05237	pCi/g	0.09507	N	87.29	3	1.119	IDENTIFIED	9.691	☐	
Total Uranium		5.3548	1.99E-06	ug/g	1.7168	N		0				☐	
Uranium-238	HE	1.778	0.6677	pCi/g	1.152	N	63.53	2	1.041	IDENTIFIED	36.34	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818008	03-MAR-10 12:00	23-MAR-10 14:24	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.914	0.2075	pCi/g	0.2909	N	910.8	3	1.82	IDENTIFIED	9.124	☐	
Annihilation Rad.		0.1652	0.04399	pCi/g	0.05055	N	510.5	1	1.829	IDENTIFIED	26.2	☐	
Bismuth-211	int	3.709	0.2906	pCi/g	0.3204	Y	351.7	2	1.059	IDENTIFIED	6.406	☑	ui
Bismuth-212	HE	2.241	0.5605	pCi/g	1.428	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214		1.318	0.1272	pCi/g	0.1362	0.200	609	3	1.346	IDENTIFIED	7.62	☐	
Cadmium-109	int	2.927	0.3765	pCi/g	0.8389	Y	87.14	3	0.9226	IDENTIFIED	11.99	☑	ui
Cadmium-115	HE	6.371	27.33	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cerium-143		2608	959.3	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Europium-155	HE	0.1231	0.05661	pCi/g	0.1198	N	105	1	1.348	IDENTIFIED	45.68	☐	
Gross Gamma		9.944	1.412	pCi/g	3.22	N		0				☐	
Iodine-133	HE	18160	1.62E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Iodine-135		5.75E+20	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-210	HE	1.003	0.2744	pCi/g	0.633	N	46.6	1	0.7603	IDENTIFIED	26.96	☐	
Lead-212		1.458	0.09977	pCi/g	0.09866	0.100	238.4	2	0.9436	IDENTIFIED	4.679	☐	
Lead-214		1.346	0.1118	pCi/g	0.1166	0.100	351.7	2	1.059	IDENTIFIED	6.406	☐	
Neptunium-237	nr	0.8472	0.1406	pCi/g	0.2149	N	87.14	3	0.9226	IDENTIFIED	11.99	☐	
Potassium-40		37.1	1.984	pCi/g	0.7074	1.00	1460	1	2.128	IDENTIFIED	3.222	☐	
Promethium-149	HE	170.3	207.6	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Radium-224	int	2.813	0.5998	pCi/g	1.271	Y	241.4	1	1.472	IDENTIFIED	20.85	☑	ui
Radium-226		1.318	0.1272	pCi/g	0.1362	Y	609	3	1.346	IDENTIFIED	7.62	☐	
Radium-228		1.914	0.2075	pCi/g	0.2909	0.500	910.8	3	1.82	IDENTIFIED	9.124	☐	
Sodium-24	HE	7.22E+07	1.08E+08	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-208		0.5199	0.04949	pCi/g	0.0686	0.080	583	1	1.104	IDENTIFIED	7.812	☐	
Thorium-228	nr	1.458	0.09977	pCi/g	0.09866	N	238.4	2	0.9436	IDENTIFIED	4.679	☐	
Thorium-230	nr	1.318	0.1224	pCi/g	0.1362	N	609	3	1.346	IDENTIFIED	7.62	☐	
Thorium-232	nr	1.914	0.2075	pCi/g	0.2909	N	910.8	3	1.82	IDENTIFIED	9.124	☐	
Thorium-234		1.848	0.4478	pCi/g	0.7839	2.00	63.38	2	0.9593	IDENTIFIED	22.5	☐	
Tin-126	nr	0.2839	0.03653	pCi/g	0.07413	N	87.14	3	0.9226	IDENTIFIED	11.99	☐	

Total Uranium	5.5174	1.33E-06	ug/g	1.1685	N			0				☐
Uranium-238 nr	1.848	0.4478	pCi/g	0.7839	N	63.38	2	0.9593	IDENTIFIED	22.5		☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248818009	03-MAR-10 12:00	23-MAR-10 14:25	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr	2.162	0.2545	pCi/g	0.3222	N	910.2	3	1.756	IDENTIFIED	10.16	☐	
Annihilation Rad.	0.1682	0.04918	pCi/g	0.06237	N	510.5	1	2.076	IDENTIFIED	29.09	☐	
Bismuth-211 INT	4.294	0.3101	pCi/g	0.4472	Y	351.4	2	1.351	IDENTIFIED	6.444	☑ UI	
Bismuth-212 HE	1.812	0.5554	pCi/g	1.523	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 LA	1.381	0.1106	pCi/g	0.3572	0.200	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cadmium-109 INT	4.01	0.7935	pCi/g	1.763	Y	87.2	3	1.549	IDENTIFIED	19.19	☑ UI	
Cerium-143	17870	2743	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Gross Gamma	10.6	1.463	pCi/g	3.681	N		0				☐	
Lead-212 ✓	1.957	0.1002	pCi/g	0.1205	0.100	238.3	2	1.185	IDENTIFIED	3.611	☐	
Lead-214 ✓	1.558	0.1205	pCi/g	0.1595	0.100	351.4	2	1.351	IDENTIFIED	6.444	☐	
Neptunium-237 nr	1.161	0.2599	pCi/g	0.5214	N	87.2	3	1.549	IDENTIFIED	19.19	☐	
Niobium-95m	0.7492	0.1163	pCi/g	0.3746	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40 ✓	35	1.796	pCi/g	0.8711	1.00	1459	1	2.122	IDENTIFIED	3.509	☐	
Promethium-149 HE	173.5	293.9	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Radium-224 INT	5.86	0.8242	pCi/g	1.292	Y	241.3	1	1.774	IDENTIFIED	13.78	☑ UI	
Radium-226 LA	1.381	0.1106	pCi/g	0.3572	Y	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Radium-228 ✓	2.162	0.2545	pCi/g	0.3222	0.500	910.2	3	1.756	IDENTIFIED	10.16	☐	
Thallium-208 ✓	0.6247	0.06061	pCi/g	0.07968	0.080	582.3	1	1.587	IDENTIFIED	9.145	☐	
Thorium-228 nr	1.957	0.1002	pCi/g	0.1205	N	238.3	2	1.185	IDENTIFIED	3.611	☐	
Thorium-230 nr	1.381	0.1044	pCi/g	0.3572	N	0	7	0	FAIL_ABUND	0	☐	
Thorium-232 nr	2.162	0.2545	pCi/g	0.3222	N	910.2	3	1.756	IDENTIFIED	10.16	☐	
Tin-126 nr	0.389	0.07698	pCi/g	0.1721	N	87.2	3	1.549	IDENTIFIED	19.19	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248824001	03-MAR-10 12:00	23-MAR-10 14:25	20.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr	2.321	0.2729	pCi/g	0.3006	N	911.2	3	1.629	IDENTIFIED	8.957	☐	
Annihilation Rad.	0.2108	0.04863	pCi/g	0.06309	N	510.6	1	1.868	IDENTIFIED	22.63	☐	
Bismuth-211 INT	5.221	0.3902	pCi/g	0.4397	Y	351.9	2	1.18	IDENTIFIED	5.74	☑ UI	
Bismuth-212 HE	2.165	0.4775	pCi/g	1.578	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓ MS 2/24/10	1.704	0.1357	pCi/g	0.1541	0.200	609.2	3	1.338	IDENTIFIED	6.157	☐	
Cadmium-109 ~~INT~~ LA	6.27	0.9692	pCi/g	2.355	Y	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Cerium-143	16440	2478	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-134 LA	0.1598	0.04686	pCi/g	0.1262	0.100	0	9	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	12.63	1.969	pCi/g	5.103	N		0				☐	
Iodine-133 HE	2.24E+05	2.01E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Iodine-135	1.55E+21	0	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212 ✓	2.334	0.1395	pCi/g	0.123	0.100	238.5	2	1.151	IDENTIFIED	3.3	☐	
Lead-214 ✓	1.895	0.151	pCi/g	0.1599	0.100	351.9	2	1.18	IDENTIFIED	5.74	☐	
Neptunium-237 nr	1.827	0.3589	pCi/g	0.5364	N	86.35	2	1.215	IDENTIFIED	15.95	☐	
Niobium-95m	1.086	0.1258	pCi/g	0.4008	N	0	9	0	NOT_IDENTI	0	☐	
Potassium-40 ✓	39.52	2.414	pCi/g	0.7697	1.00	1461	1	1.85	IDENTIFIED	2.781	☐	
Promethium-149 HE	475.3	299.3	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Radium-224 INT	5.861	0.7723	pCi/g	1.317	Y	241.5	1	1.735	IDENTIFIED	12.41	☑ UI	

Radium-226 ✓		1.704	0.1357	pCi/g	0.1541	Y	609.2	3	1.338	IDENTIFIED	6.157	☐	
Radium-228 ✓		2.321	0.2729	pCi/g	0.3006	0.500	911.2	3	1.629	IDENTIFIED	8.957	☐	
Strontium-85 LA		0.1349	0.0338	pCi/g	0.1074	Y	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓		0.6442	0.06636	pCi/g	0.0682	0.080	583.2	1	1.61	IDENTIFIED	9.175	☐	
Thorium-228 nr		2.334	0.1395	pCi/g	0.123	N	238.5	2	1.151	IDENTIFIED	3.3	☐	
Thorium-230 nr		1.704	0.128	pCi/g	0.1541	N	609.2	3	1.338	IDENTIFIED	6.157	☐	
Thorium-232 nr		2.321	0.2729	pCi/g	0.3006	N	911.2	3	1.629	IDENTIFIED	8.957	☐	
Thorium-234 ✓		3.103	1.24	pCi/g	3.061	2.00	63.32	2	1.105	IDENTIFIED	38.94	☐	
Tin-126 nr		0.6123	0.1017	pCi/g	0.1725	N	86.35	2	1.215	IDENTIFIED	15.95	☐	
Total Uranium		9.2993	3.69E-06	ug/g	4.5575	N		0				☐	
Uranium-238	HE	3.103	1.24	pCi/g	3.061	N	63.32	2	1.105	IDENTIFIED	38.94	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals		Zero?	queue
248824002	03-MAR-10 12:00	23-MAR-10 14:38	20.1	SAMPLE	LOAD	1	LANL	LANL01004	GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		1.811	0.2191	pCi/g	0.2287	N	912	3	1.639	IDENTIFIED	10.71	☐	
Annihilation Rad.		0.1916	0.03235	pCi/g	0.0466	N	511.2	1	1.33	IDENTIFIED	16.65	☐	
Bismuth-211 INT		4.343	0.2886	pCi/g	0.3194	Y	352.1	2	1.186	IDENTIFIED	5.725	☑ UI	
Bismuth-212	HE	1.827	0.4015	pCi/g	1.249	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.311	0.09689	pCi/g	0.1115	0.200	609.7	3	1.351	IDENTIFIED	6.396	☐	
Cadmium-109 INT		4.038	0.6364	pCi/g	1.553	Y	87.26	3	1.243	IDENTIFIED	14.58	☑ UI	
Cadmium-115		84.69	27.69	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cerium-143		4570	1078	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-134 LA		0.1284	0.04857	pCi/g	0.09085	0.100	0	5	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		10.68	1.43	pCi/g	3.385	N		0				☐	
Lead-212 ✓		2.035	0.1039	pCi/g	0.09706	0.100	238.7	2	1.153	IDENTIFIED	3.117	☐	
Lead-214 ✓		1.576	0.1134	pCi/g	0.1162	0.100	352.1	2	1.186	IDENTIFIED	5.725	☐	
Neptunium-237 nr		1.169	0.2213	pCi/g	0.4681	N	87.26	3	1.243	IDENTIFIED	14.58	☐	
Potassium-40 ✓		34.55	1.565	pCi/g	0.5951	1.00	1462	1	2.018	IDENTIFIED	2.808	☐	
Radium-224 INT		4.899	0.729	pCi/g	1.04	Y	241.7	1	1.834	IDENTIFIED	14.5	☑ UI	
Radium-226 ✓		1.311	0.09689	pCi/g	0.1115	Y	609.7	3	1.351	IDENTIFIED	6.396	☐	
Radium-228 ✓		1.811	0.2191	pCi/g	0.2287	0.500	912	3	1.639	IDENTIFIED	10.71	☐	
Sodium-24		2.14E+08	9.84E+07	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Thallium-208 ✓		0.6351	0.04855	pCi/g	0.05885	0.080	583.5	1	1.355	IDENTIFIED	6.971	☐	
Thorium-228 nr		2.035	0.1039	pCi/g	0.09706	N	238.7	2	1.153	IDENTIFIED	3.117	☐	
Thorium-230 nr		1.311	0.09051	pCi/g	0.1115	N	609.7	3	1.351	IDENTIFIED	6.396	☐	
Thorium-232 nr		1.811	0.2191	pCi/g	0.2287	N	912	3	1.639	IDENTIFIED	10.71	☐	
Thorium-234 ✓		4.849	1.474	pCi/g	2.981	2.00	63.07	2	1.316	IDENTIFIED	28.7	☐	
Tin-126 nr		0.3917	0.06174	pCi/g	0.1518	N	87.26	3	1.243	IDENTIFIED	14.58	☐	
Total Uranium		14.509	4.39E-06	ug/g	4.4373	N		0				☐	
Uranium-238	HE	4.849	1.474	pCi/g	2.981	N	63.07	2	1.316	IDENTIFIED	28.7	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals		Zero?	queue
1202065185		23-MAR-10 14:39	0	MB	LOAD	1		GEL		N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Cerium-143	HE	36.03	30.4	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Gross Gamma	HE	0.03444	0.01752	pCi/g	0.02892	N		0				☐	
Lead-212 LA		0.079	0.04039	pCi/g	0.07152	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Radium-224 LA		0.8401	0.4291	pCi/g	0.6389	Y	240.1	1	4.131	IDENTIFIED	50.87	☑ UI	Data rejected due to high peak-width.
Technetium-99m	HE	1.92E+14	2.59E+15	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	

Thorium-228	HE	0.079	0.04039	pCi/g	0.07152	N	0	4	0	FAIL_ABUND	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065186	03-MAR-10 12:00	23-MAR-10 14:39	20.1	DUP	LOAD	1		LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 ✓ nr		2.093	0.2402	pCi/g	0.3513	N	910.9	3	1.476	IDENTIFIED	9.749	☐	
Annihilation Rad.		0.1859	0.04677	pCi/g	0.07557	N	511	1	2.207	IDENTIFIED	24.78	☐	
Bismuth-211 INT		5.748	0.4596	pCi/g	0.4943	Y	352.1	2	1.52	IDENTIFIED	6.263	☑ UI	
Bismuth-212	HE	1.718	0.6941	pCi/g	1.656	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.574	0.1413	pCi/g	0.1775	0.200	609.4	3	1.434	IDENTIFIED	7.467	☐	
Cadmium-109 INT		2.833	0.8134	pCi/g	2.429	Y	87.26	3	1.591	IDENTIFIED	28.04	☑ UI	
Cerium-143		15270	2491	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134 LA		0.2265	0.04879	pCi/g	0.129	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		12.65	2.047	pCi/g	4.938	N		0				☐	
Iodine-133	HE	2.46E+05	2.36E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212 ✓		2.309	0.1627	pCi/g	0.1438	0.100	238.8	2	1.309	IDENTIFIED	3.734	☐	
Lead-214 ✓		2.086	0.1764	pCi/g	0.1797	0.100	352.1	2	1.52	IDENTIFIED	6.263	☐	
Mercury-203 INT		0.1319	0.03959	pCi/g	0.1019	0.100	277.9	1	1.181	IDENTIFIED	29.51	☑ UI	
Neptunium-237	HE	0.82	0.2507	pCi/g	0.652	N	87.26	3	1.591	IDENTIFIED	28.04	☐	
Niobium-95m	HE	0.6092	0.1253	pCi/g	0.3974	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40 ✓		39.67	2.298	pCi/g	0.5815	1.00	1460	1	2.07	IDENTIFIED	3.069	☐	
Promethium-149	HE	105.1	330.5	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Radium-224 INT		6.231	0.9826	pCi/g	1.54	Y	241.7	1	1.854	IDENTIFIED	14.77	☑ UI	
Radium-226 ✓		1.574	0.1413	pCi/g	0.1775	Y	609.4	3	1.434	IDENTIFIED	7.467	☐	
Radium-228 ✓		2.093	0.2402	pCi/g	0.3513	0.500	910.9	3	1.476	IDENTIFIED	9.749	☐	
Strontium-85 LA		0.1665	0.0388	pCi/g	0.1255	Y	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓		0.7518	0.07319	pCi/g	0.09142	0.080	583.1	1	1.67	IDENTIFIED	8.595	☐	
Thorium-228 nr		2.309	0.1627	pCi/g	0.1438	N	238.8	2	1.309	IDENTIFIED	3.734	☐	
Thorium-230 nr		1.574	0.135	pCi/g	0.1775	N	609.4	3	1.434	IDENTIFIED	7.467	☐	
Thorium-232 nr		2.093	0.2402	pCi/g	0.3513	N	910.9	3	1.476	IDENTIFIED	9.749	☐	
Thorium-234 ✓		6.017	2.011	pCi/g	4.652	2.00	63.18	2	1.367	IDENTIFIED	31.92	☐	
Tin-126	HE	0.2748	0.07891	pCi/g	0.24	N	87.26	3	1.591	IDENTIFIED	28.04	☐	
Total Uranium		17.865	5.98E-06	ug/g	6.9244	N		0				☐	
Uranium-238	HE	6.017	2.011	pCi/g	4.652	N	63.18	2	1.367	IDENTIFIED	31.92	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065187		23-MAR-10 14:40	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	1.664	0.3029	pCi/g	0.4698	N	911.5	3	1.943	IDENTIFIED	16.89	☐	
Americium-241 ✓	13.63	0.5991	pCi/g	0.4769	0.200	59.58	1	0.9804	IDENTIFIED	2.006	☐ 83.7 d	
Barium-137m	5.677	0.3179	pCi/g	0.09013	N	661.7	2	1.837	IDENTIFIED	1.884	☐	
Bismuth-211	3.397	0.3742	pCi/g	0.5592	Y	351.8	2	1.559	IDENTIFIED	9.354	☐	
Bismuth-214	0.7152	0.09742	pCi/g	0.1938	0.200	609.3	3	1.663	IDENTIFIED	12.31	☐	
Cadmium-109	35.16	1.951	pCi/g	1.962	Y	88.01	2	1.188	IDENTIFIED	2.874	☐	
Californium-249	HE 0.1449	0.03507	pCi/g	0.1281	N	0	4	0	NOT_IDENTI	0	☐	
Cerium-143	346.3	101.5	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-137 ✓	5.998	0.3362	pCi/g	0.09521	0.100	661.7	2	1.837	IDENTIFIED	1.884	☐ 105.5 d	
Cobalt-57	0.2391	0.03642	pCi/g	0.06251	N	122.1	1	1.145	IDENTIFIED	14.67	☐	
Cobalt-60 ✓	6.634	0.3256	pCi/g	0.08139	0.100	1333	1	2.503	IDENTIFIED	2.05	☐ 102.3 d	
Gross Gamma	29.09	2.739	pCi/g	3.285	N		0				☐	

Lead-212	**1.57**	0.1276	pCi/g	**0.1547**	**0.100**	238.7	2	1.275	IDENTIFIED	4.7	☐
Lead-214	**1.233**	0.14	pCi/g	**0.2033**	**0.100**	351.8	2	1.559	IDENTIFIED	9.354	☐
Neptunium-237	**5.005**	0.6313	pCi/g	**1.044**	N	0	4	0	NOT_IDENTI	0	☐
Radium-224	**3.47**	0.9782	pCi/g	**1.656**	Y	241.8	1	2.074	IDENTIFIED	27.49	☐
Radium-226	**0.7152**	0.09742	pCi/g	**0.1938**	Y	609.3	3	1.663	IDENTIFIED	12.31	☐
Radium-228	**1.664**	0.3029	pCi/g	**0.4698**	**0.500**	911.5	3	1.943	IDENTIFIED	16.89	☐
Silver-110m	**0.645**	0.05843	pCi/g	**0.181**	N	0	4	0	NOT_IDENTI	0	☐
Thallium-208	**0.3935**	0.05505	pCi/g	**0.09982**	**0.080**	583.2	1	1.733	IDENTIFIED	12.9	☐
Thorium-228	**1.57**	0.1276	pCi/g	**0.1547**	N	238.7	2	1.275	IDENTIFIED	4.7	☐
Thorium-230	**0.7151**	0.09558	pCi/g	**0.1938**	N	609.3	3	1.663	IDENTIFIED	12.31	☐
Thorium-232	**1.664**	0.3029	pCi/g	**0.4698**	N	911.5	3	1.943	IDENTIFIED	16.89	☐
Tin-126	**3.44**	0.1909	pCi/g	**0.1927**	N	88.01	2	1.188	IDENTIFIED	2.874	☐

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

HC 3/24/10

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
962631	248824001	SAMPLE	23-MAR-10	Thallium-208	0.6442	0.06636	pCi/g	0.03412	0.080
				Thorium-227	0.3801	0.1817	pCi/g	0.3185	Y
				Thorium-234	3.103	1.24	pCi/g	1.531	2.00
962631	248824002	SAMPLE	23-MAR-10	Bismuth-211	4.343	0.2886	pCi/g	0.1598	Y
				Bismuth-214	1.311	0.09689	pCi/g	0.05578	0.200
				Cadmium-109	4.038	0.8364	pCi/g	0.7768	Y
				Cadmium-115	84.69	27.69	pCi/g	0	N
				Cerium-139	0.04107	0.01471	pCi/g	0.02617	0.050
				Cerium-143	4570	1076	pCi/g	0	N
				Cesium-134	0.1284	0.04857	pCi/g	0.04545	0.100
				Gross Gamma	10.68	1.43	pCi/g	1.639	N
				Lead-212	2.035	0.1039	pCi/g	0.04856	0.100
				Lead-214	1.576	0.1134	pCi/g	0.05611	0.100
				Mercury-203	0.04183	0.02209	pCi/g	0.03599	0.100
				Potassium-40	34.55	1.565	pCi/g	0.2977	1.00
				Radium-224	4.899	0.729	pCi/g	0.5206	Y
				Radium-226	1.311	0.09689	pCi/g	0.05578	Y
				Radium-228	1.811	0.2191	pCi/g	0.1144	0.500
				Sodium-24	2.14E+08	9.84E+07	pCi/g	0	N
				Strontium-85	0.04203	0.02338	pCi/g	0.03661	Y
				Thallium-208	0.6351	0.04855	pCi/g	0.02944	0.080
				Thorium-234	4.849	1.474	pCi/g	1.491	2.00
				Uranium-235	0.1816	0.09885	pCi/g	0.1696	0.500
962631	1202065185	MB	23-MAR-10	Cerium-143	36.03	30.4	pCi/g	0	N
				Lead-212	0.079	0.04039	pCi/g	0.03578	0.100
				Radium-224	0.8401	0.4291	pCi/g	0.3196	Y
				Technetium-99m	1.92E+14	2.59E+15	pCi/g	0	N
962631	1202065186	DUP	23-MAR-10	Americium-241	0.3028	0.1938	pCi/g	0.2962	0.200
				Bismuth-211	5.748	0.4596	pCi/g	0.2473	Y
				Bismuth-214	1.574	0.1413	pCi/g	0.08881	0.200
				Cadmium-109	2.833	0.8134	pCi/g	1.215	Y
				Cerium-143	15270	2491	pCi/g	0	N
				Cesium-134	0.2265	0.04879	pCi/g	0.06452	0.100
				Gross Gamma	12.65	2.047	pCi/g	2.401	N
				Iodine-133	2.46E+05	2.36E+05	pCi/g	0	N
				Lead-212	2.309	0.1627	pCi/g	0.07193	0.100
				Lead-214	2.086	0.1764	pCi/g	0.08993	0.100

MS 3/24/10

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:00:13.76

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818001.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 12:59:43
Sample ID         : G248818001           Sample quantity  : 1.22420E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.22  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	74.63*	409	430	1.00	149.39	143	17	5.69E-02	9.7	2.29E+00
2	2	76.90	676	470	1.19	153.94	143	17	9.39E-02	7.0	
3	0	87.14	266	477	1.24	174.40	171	7	3.70E-02	14.9	
4	5	89.78	173	251	1.01	179.67	178	17	2.40E-02	14.7	1.05E+00
5	5	92.75*	297	515	1.53	185.61	178	17	4.12E-02	15.6	
6	0	128.68	101	436	1.55	257.40	253	9	1.40E-02	38.5	
7	0	154.12	76	395	1.35	308.23	304	9	1.05E-02	48.8	
8	0	185.91*	238	395	1.13	371.77	366	10	3.31E-02	17.3	
9	0	209.07	121	394	0.96	418.06	414	10	1.68E-02	31.9	
10	0	238.63*	1431	357	1.17	477.12	473	8	1.99E-01	3.5	
11	0	241.74	288	262	1.98	483.34	481	7	4.01E-02	11.3	
12	0	270.16	191	184	1.20	540.14	536	11	2.66E-02	15.4	
13	0	295.34	497	249	1.26	590.46	584	12	6.90E-02	7.8	
14	0	300.33	101	183	1.42	600.43	596	9	1.40E-02	26.1	
15	0	327.76	83	227	1.46	655.25	650	12	1.16E-02	37.7	
16	0	338.47	347	219	1.36	676.67	671	14	4.82E-02	10.5	
17	0	352.02*	860	225	1.40	703.75	696	15	1.19E-01	5.2	
18	0	409.25	51	130	1.04	818.13	815	9	7.12E-03	42.5	
19	0	463.05	91	176	1.19	925.68	922	12	1.26E-02	30.9	
20	0	510.80*	167	166	1.81	1021.12	1013	17	2.32E-02	21.0	
21	0	583.49*	511	73	1.62	1166.43	1159	13	7.09E-02	5.7	
22	0	609.80*	550	168	1.42	1219.02	1213	14	7.64E-02	6.7	
23	0	727.86	84	91	1.08	1455.06	1449	11	1.17E-02	24.0	
24	2	769.08	66	56	1.98	1537.46	1531	24	9.20E-03	26.9	2.03E+00
25	2	773.60	50	51	1.98	1546.50	1531	24	6.96E-03	32.9	
26	0	861.16	74	60	1.65	1721.57	1716	14	1.03E-02	25.0	
27	0	911.79*	313	85	1.65	1822.83	1814	17	4.35E-02	9.0	
28	0	969.86*	169	99	1.94	1938.95	1933	12	2.34E-02	14.4	
29	0	1121.39*	137	59	2.23	2241.99	2235	14	1.90E-02	15.0	
30	0	1379.35	30	35	1.71	2757.97	2751	13	4.13E-03	45.3	
31	0	1461.90*	1484	17	2.30	2923.12	2915	21	2.06E-01	2.7	
32	0	1595.00	14	15	1.14	3189.42	3185	8	1.90E-03	57.1	
33	0	1632.48	24	20	0.68	3264.41	3255	19	3.39E-03	47.5	
34	0	1731.71	25	6	1.18	3462.97	3456	13	3.45E-03	29.1	
35	0	1765.82*	102	16	1.72	3531.22	3523	16	1.41E-02	13.8	
36	0	1848.90	20	7	1.44	3697.49	3691	13	2.71E-03	35.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 15:00:17

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 12:59:43
Sample ID : G248818001 Sample quantity : 122.42 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA10 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.22 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.894E+01	4.263E+00	5.708E-01	5.436E-02	68.226
CD-109	+	88.03	*	4.295E+00	1.371E+00	1.460E+00	1.651E-01	2.941
SN-126		64.28		9.190E-01	7.606E-01	1.291E+00	2.055E-01	0.712
	+	86.94		1.732E+00	8.926E-01	6.803E-01	2.855E-01	2.547
	+	87.57	*	4.167E-01	1.330E-01	1.427E-01	1.608E-02	2.920
TL-208		277.37		2.877E-01	4.289E-01	7.348E-01	9.775E-02	0.392
	+	583.19	*	7.185E-01	1.041E-01	6.313E-02	5.690E-03	11.380
	+	860.56		1.003E+00	5.123E-01	4.635E-01	4.661E-02	2.164
BI-211		72.87		1.329E+01	4.552E+00	7.771E+00	7.917E-01	1.710
	+	351.06	*	5.389E+00	7.524E-01	3.500E-01	3.290E-02	15.396
PB-212	+	74.82		3.131E+00	7.501E-01	7.052E-01	9.981E-02	4.439
	+	77.11		2.893E+00	5.034E-01	3.955E-01	4.117E-02	7.316
	+	238.63	*	2.010E+00	2.591E-01	1.108E-01	1.194E-02	18.148
	+	300.09		2.209E+00	1.179E+00	1.359E+00	1.540E-01	1.626
BI-214	+	609.32	*	1.500E+00	2.495E-01	1.231E-01	1.212E-02	12.181
	+	1120.29		2.018E+00	6.435E-01	5.704E-01	6.213E-02	3.537
	+	1764.49		2.106E+00	6.072E-01	2.900E-01	2.504E-02	7.261
PB-214	+	74.82		5.549E+00	1.292E+00	1.250E+00	1.623E-01	4.439
	+	77.11		5.101E+00	9.822E-01	6.972E-01	9.260E-02	7.316
	+	242.00		2.459E+00	6.231E-01	7.721E-01	8.760E-02	3.185
	+	295.22		1.922E+00	3.731E-01	2.482E-01	2.883E-02	7.744
	+	351.93	*	1.956E+00	2.936E-01	1.273E-01	1.386E-02	15.364
RA-224	+	240.99	*	4.348E+00	1.073E+00	1.437E+00	1.402E-01	3.025
RA-226	+	609.32	*	1.500E+00	2.495E-01	1.231E-01	1.212E-02	12.181
	+	1120.29		2.018E+00	6.435E-01	5.704E-01	6.213E-02	3.537
	+	1764.49		2.106E+00	6.072E-01	2.900E-01	2.504E-02	7.261
AC-228	+	338.32		2.423E+00	1.134E+00	3.902E-01	1.632E-01	6.211
	+	911.20	*	2.179E+00	4.746E-01	2.431E-01	3.017E-02	8.961
	+	968.97		2.032E+00	7.702E-01	6.373E-01	1.573E-01	3.189
RA-228	+	338.32		2.423E+00	1.134E+00	3.902E-01	1.632E-01	6.211
	+	911.20	*	2.179E+00	4.746E-01	2.431E-01	3.017E-02	8.961
	+	968.97		2.032E+00	7.702E-01	6.373E-01	1.573E-01	3.189
TH-228	+	74.82		3.131E+00	6.865E-01	7.052E-01	7.297E-02	4.439
	+	77.11		2.893E+00	5.034E-01	3.955E-01	4.117E-02	7.316

Sample ID : G248818001 Acquisition date : 23-MAR-2010 12:59:43

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	2.010E+00	2.591E-01	1.108E-01	1.194E-02	18.148
	+	300.09		2.209E+00	1.779E+00	1.359E+00	8.338E-01	1.626
TH-230	+	609.32	*	1.500E+00	2.367E-01	1.231E-01	1.023E-02	12.181
	+	1120.29		2.018E+00	6.291E-01	5.704E-01	4.897E-02	3.537
	+	1764.49		2.105E+00	6.072E-01	2.900E-01	2.504E-02	7.261
TH-232	+	338.32		2.423E+00	5.547E-01	3.902E-01	3.576E-02	6.211
	+	911.20	*	2.179E+00	4.746E-01	2.431E-01	3.017E-02	8.961
	+	968.97		2.032E+00	7.702E-01	6.373E-01	1.573E-01	3.189
U-235	+	89.96		2.763E+00	1.078E+00	1.646E+00	4.201E-01	1.679
	+	93.35		2.828E+00	1.113E+00	8.143E-01	1.942E-01	3.473
		143.76	*	4.303E-02	2.340E-01	3.731E-01	6.390E-02	0.115
		163.33		2.031E-01	4.763E-01	7.731E-01	1.413E-01	0.263
	+	185.72		2.172E-01	7.786E-02	7.426E-02	7.030E-03	2.925
		205.31		3.628E-01	5.815E-01	8.945E-01	1.667E-01	0.406
NP-237	+	86.48	*	1.243E+00	4.748E-01	4.942E-01	1.174E-01	2.516
		95.86		-5.072E-01	1.135E+00	1.613E+00	3.966E-01	-0.314
ANH-511	+	511.00	*	1.793E-01	7.668E-02	4.976E-02	4.223E-03	3.603

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	6.283E-02	3.966E-01	6.252E-01	5.716E-02	0.100
NA-22		1274.54	*	-5.477E-02	5.452E-02	8.188E-02	7.247E-03	-0.669
NA-24		1368.63	*	2.020E+01	5.452E-02	Half-Life too short		
SC-46		889.28	*	-9.720E-03	5.035E-02	8.096E-02	7.825E-03	-0.120
	+	1120.55		3.555E-01	1.108E-01	1.627E-01	1.396E-02	2.185
V-48		944.13		-6.024E-01	1.242E+00	1.924E+00	1.846E-01	-0.313
		983.53	*	5.189E-02	9.643E-02	1.645E-01	1.554E-02	0.315
		1312.11		-4.400E-02	1.135E-01	1.804E-01	1.643E-02	-0.244
CR-51		320.08	*	1.699E-01	4.466E-01	7.545E-01	7.400E-02	0.225
MN-54		834.85	*	-5.459E-02	4.350E-02	6.339E-02	5.898E-03	-0.861
CO-56		846.77	*	3.954E-02	4.630E-02	8.120E-02	7.621E-03	0.487
		1037.84		-2.943E-01	3.825E-01	5.683E-01	5.450E-02	-0.518
		1238.28		2.446E-01	1.269E-01	2.337E-01	2.064E-02	1.047
		1771.35		-1.892E-03	2.722E-01	3.758E-01	3.236E-02	-0.005
CO-57		122.06	*	1.693E-02	2.793E-02	4.635E-02	4.141E-03	0.365
		136.47		1.271E-01	2.260E-01	3.725E-01	3.542E-02	0.341
CO-58		810.76	*	-1.635E-02	4.516E-02	7.194E-02	6.590E-03	-0.227
FE-59		1099.45	*	5.863E-02	1.241E-01	2.078E-01	1.962E-02	0.282
		1291.59		4.366E-02	1.614E-01	2.749E-01	2.774E-02	0.159
CO-60		1173.23		1.334E-02	5.551E-02	9.464E-02	7.673E-03	0.141
		1332.49	*	-5.479E-02	5.100E-02	7.458E-02	6.899E-03	-0.735
ZN-65		1115.54	*	4.239E-04	1.230E-01	1.702E-01	1.469E-02	0.002
SE-75		121.12		1.500E-01	1.491E-01	2.503E-01	2.837E-02	0.599
		136.00		9.377E-03	4.441E-02	7.223E-02	6.463E-03	0.130
		264.66	*	3.419E-02	5.182E-02	8.350E-02	8.173E-03	0.409
		279.54		1.127E-01	1.267E-01	2.190E-01	2.190E-02	0.514
		400.66		-1.853E-01	2.871E-01	4.486E-01	4.847E-02	-0.413

Sample ID : G248818001 Acquisition date : 23-MAR-2010 12:59:43

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SR-85		514.00	*	5.792E-02	5.336E-02	8.160E-02	6.926E-03	0.710
Y-88		898.04		1.395E-02	5.076E-02	8.486E-02	8.280E-03	0.164
		1836.06	*	2.599E-02	3.526E-02	6.558E-02	5.471E-03	0.396
Y-91		1204.77	*	3.839E+00	2.640E+01	4.464E+01	3.722E+00	0.086
NB-94		702.65	*	2.119E-02	3.710E-02	6.414E-02	5.366E-03	0.330
		871.09		2.052E-02	3.840E-02	6.578E-02	6.279E-03	0.312
NB-95		765.81	*	2.866E-02	5.682E-02	8.572E-02	7.565E-03	0.334
NB-95M		235.69	*	1.645E-01	1.545E-01	2.417E-01	2.629E-02	0.681
ZR-95		724.19		-5.006E-02	1.305E-01	1.806E-01	1.672E-02	-0.277
		756.73	*	8.193E-03	9.345E-02	1.556E-01	1.501E-02	0.053
MO-99		140.51		-4.669E+01	8.540E+01	1.313E+02	3.133E+01	-0.356
		181.07		2.968E+01	7.701E+01	1.109E+02	2.127E+01	0.268
		366.42		-3.204E+02	3.639E+02	5.629E+02	4.907E+01	-0.569
		739.50	*	1.331E+01	4.773E+01	8.072E+01	1.273E+01	0.165
		777.92		-9.921E+01	1.672E+02	2.225E+02	1.983E+01	-0.446
TC-99M		140.51	*	-1.886E+16	1.672E+02	Half-Life too short		
RU-103		497.08	*	1.103E-02	4.771E-02	7.812E-02	1.085E-02	0.141
	+	610.33		1.689E+01	3.550E+00	3.705E+00	5.994E-01	4.559
RH-106		621.93	*	-1.209E-01	3.275E-01	5.334E-01	6.946E-02	-0.227
		1050.41		1.067E+00	3.145E+00	5.125E+00	4.658E-01	0.208
RU-106		621.93	*	-1.209E-01	3.273E-01	5.334E-01	4.403E-02	-0.227
		1050.41		1.067E+00	3.145E+00	5.125E+00	4.658E-01	0.208
AG-108M		433.94	*	1.018E-02	3.114E-02	5.174E-02	4.482E-03	0.197
		614.28		-8.353E-03	4.077E-02	5.828E-02	5.000E-03	-0.143
		722.91		-6.836E-02	5.366E-02	6.679E-02	5.874E-03	-1.024
AG-110M		657.76	*	-1.198E-02	3.743E-02	6.100E-02	5.097E-03	-0.196
		677.62		5.572E-03	3.405E-01	5.684E-01	4.798E-02	0.010
		706.68		-9.081E-02	2.300E-01	3.706E-01	3.205E-02	-0.245
		763.94		4.355E-02	2.082E-01	3.054E-01	2.761E-02	0.143
		884.68		1.831E-02	5.891E-02	9.890E-02	9.775E-03	0.185
		937.49		-1.052E-01	1.374E-01	2.078E-01	2.056E-02	-0.506
		1384.29		1.539E-01	2.103E-01	3.355E-01	3.189E-02	0.459
		1505.03		-6.322E-02	3.438E-01	5.506E-01	5.103E-02	-0.115
SN-113		391.69	*	7.809E-04	5.137E-02	8.412E-02	7.141E-03	0.009
CD-115		260.90		2.314E-04	5.137E-02	Half-Life too short		
		492.35		-7.670E-05	5.137E-02	Half-Life too short		
		527.90	*	-9.870E-06	5.137E-02	Half-Life too short		
SN-117M		156.02		5.486E-01	3.546E+00	5.098E+00	4.659E-01	0.108
		158.56	*	6.633E-03	8.517E-02	1.218E-01	1.119E-02	0.054
TE-123M		159.00	*	1.395E-02	3.297E-02	5.122E-02	4.735E-03	0.272
SB-124		602.73		1.403E-02	4.742E-02	7.698E-02	6.412E-03	0.182
		645.85		-6.753E-02	5.288E-01	8.758E-01	7.591E-02	-0.077
		722.78		-7.574E-01	5.689E-01	7.021E-01	6.118E-02	-1.079
		1690.97	*	1.828E-02	7.601E-02	1.300E-01	1.202E-02	0.141
SB-125		427.87	*	-1.339E-02	9.524E-02	1.534E-01	1.307E-02	-0.087
	+	463.37		8.679E-01	5.419E-01	6.443E-01	5.868E-02	1.347
		600.60		1.149E-01	2.004E-01	3.485E-01	3.135E-02	0.330
		635.95		3.450E-01	3.130E-01	5.599E-01	4.998E-02	0.616
TE-125M		109.28	*	3.539E-01	1.120E+01	1.826E+01	2.009E+00	0.019

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-126		388.63		-6.923E-02	2.472E-01	3.978E-01	3.292E-02	-0.174
		666.33	*	1.748E-01	3.230E-01	5.585E-01	4.521E-02	0.313
		753.82		3.746E+00	2.825E+00	5.078E+00	4.438E-01	0.738
SB-126		414.70		-1.286E-01	1.305E-01	1.683E-01	1.398E-02	-0.764
		666.50		8.010E-02	1.109E-01	1.941E-01	1.571E-02	0.413
		695.00		-3.573E-02	1.111E-01	1.804E-01	1.499E-02	-0.198
		697.00		1.789E-01	3.654E-01	6.302E-01	5.246E-02	0.284
		720.70	*	1.298E-01	2.398E-01	3.796E-01	3.226E-02	0.342
		856.80		-2.922E-01	7.753E-01	1.045E+00	9.874E-02	-0.280
SB-127		252.40		-3.747E+00	1.082E+01	1.767E+01	7.462E+00	-0.212
		473.00		3.991E-01	4.425E+00	7.195E+00	1.013E+00	0.055
		685.70	*	-1.974E+00	3.511E+00	5.582E+00	7.079E-01	-0.354
		783.70		6.759E+00	9.897E+00	1.709E+01	2.395E+00	0.396
I-131		80.19		1.086E+01	8.665E+00	1.345E+01	1.438E+00	0.807
		284.31		-1.932E+00	2.388E+00	3.801E+00	3.844E-01	-0.508
		364.49	*	-7.286E-02	1.818E-01	2.909E-01	2.690E-02	-0.251
		636.99		3.523E+00	2.732E+00	4.939E+00	4.321E-01	0.713
TE-132		49.72		-2.042E+02	1.253E+02	1.913E+02	2.684E+01	-1.067
		111.76		-2.336E+01	1.054E+02	1.698E+02	2.186E+01	-0.138
		116.30		1.189E+02	9.116E+01	1.540E+02	1.968E+01	0.772
		228.16	*	-2.535E+00	2.335E+00	3.663E+00	6.404E-01	-0.692
BA-133		81.00		-7.202E-02	1.222E-01	1.744E-01	2.921E-02	-0.413
		276.40		1.754E-01	4.194E-01	6.640E-01	9.832E-02	0.264
		302.85		1.693E-04	1.785E-01	2.608E-01	3.574E-02	0.001
		356.01	*	1.208E-02	4.750E-02	7.007E-02	9.207E-03	0.172
		383.85		-5.889E-02	3.382E-01	5.482E-01	6.720E-02	-0.107
I-133		529.87	*	-2.089E-02	3.382E-01	Half-Life too short		
		875.33		7.775E-01	3.382E-01	Half-Life too short		
		1298.22		1.299E+01	3.382E-01	Half-Life too short		
CS-134		563.25		9.622E-02	4.147E-01	6.735E-01	5.739E-02	0.143
		569.33		-1.020E-01	2.347E-01	3.618E-01	3.091E-02	-0.282
		604.72		-2.768E-02	4.443E-02	6.124E-02	5.110E-03	-0.452
		795.86	*	7.987E-02	5.518E-02	9.961E-02	9.061E-03	0.802
		801.95		-9.874E-02	4.189E-01	6.756E-01	6.165E-02	-0.146
		1365.19		9.257E-01	1.473E+00	2.607E+00	2.516E-01	0.355
CS-135		268.22	*	2.334E-02	1.816E-01	2.698E-01	2.955E-02	0.086
I-135		546.56		-6.788E+14	1.816E-01	Half-Life too short		
		836.80		3.660E+15	1.816E-01	Half-Life too short		
		1038.76		3.163E+15	1.816E-01	Half-Life too short		
		1131.51		-1.236E+14	1.816E-01	Half-Life too short		
		1260.41	*	1.218E+15	1.816E-01	Half-Life too short		
		1457.56		3.368E+16	1.816E-01	Half-Life too short		
		1678.03		-7.819E+14	1.816E-01	Half-Life too short		
		1791.20		6.907E+14	1.816E-01	Half-Life too short		
CS-136	+	153.25		1.806E+00	1.774E+00	2.124E+00	2.267E-01	0.850
		176.60		-1.059E-01	7.284E-01	1.151E+00	1.177E-01	-0.092
		273.65		-1.260E+00	8.229E-01	1.064E+00	1.105E-01	-1.184
		340.55		6.917E-01	2.568E-01	4.228E-01	3.996E-02	1.636
		818.51		1.539E-02	1.010E-01	1.684E-01	1.550E-02	0.091

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1048.07	*	-7.277E-03	1.692E-01	2.720E-01	2.571E-02	-0.027
		1235.36		-8.954E-02	9.619E-01	1.594E+00	1.869E-01	-0.056
BA-137M		661.66	*	-2.449E-02	4.000E-02	6.382E-02	5.144E-03	-0.384
CS-137		661.66	*	-2.588E-02	4.226E-02	6.742E-02	5.446E-03	-0.384
CE-139		165.86	*	-3.331E-02	3.481E-02	5.296E-02	4.943E-03	-0.629
BA-140		162.66		6.551E-01	1.141E+00	1.867E+00	1.832E-01	0.351
		304.85		1.856E+00	2.216E+00	3.325E+00	9.827E-01	0.558
		423.72		1.329E+00	2.781E+00	4.613E+00	1.514E+00	0.288
		537.26	*	-1.801E-01	3.877E-01	5.901E-01	1.999E-01	-0.305
LA-140	+	328.76		9.398E-01	7.140E-01	7.899E-01	7.702E-02	1.190
		487.02		-3.880E-02	2.159E-01	3.438E-01	3.101E-02	-0.113
		815.77		6.129E-02	4.636E-01	7.717E-01	7.818E-02	0.079
	+	1596.21	*	1.275E-01	1.460E-01	2.482E-01	2.268E-02	0.514
CE-141		145.44	*	3.378E-02	8.110E-02	1.304E-01	1.190E-02	0.259
CE-143		57.36		6.102E-03	8.110E-02	Half-Life too short		
		293.27	*	7.264E-03	8.110E-02	Half-Life too short		
		664.57		1.722E-02	8.110E-02	Half-Life too short		
		721.93		-4.828E-03	8.110E-02	Half-Life too short		
CE-144		80.12		3.909E+00	3.102E+00	4.817E+00	5.111E-01	0.811
		133.52	*	-7.078E-02	2.376E-01	3.594E-01	5.547E-02	-0.197
PM-144		476.78		-1.019E-03	7.326E-02	1.182E-01	1.090E-02	-0.009
		618.01		2.876E-02	3.462E-02	6.005E-02	5.119E-03	0.479
		696.49	*	1.210E-02	3.559E-02	6.075E-02	5.058E-03	0.199
PR-144		696.51	*	9.344E-01	2.672E+00	4.565E+00	3.798E-01	0.205
		1489.16		9.603E+00	1.335E+01	2.427E+01	2.253E+00	0.396
PM-146		453.88	*	-2.740E-03	4.251E-02	6.855E-02	7.152E-03	-0.040
		633.25		7.120E-02	1.501E+00	2.523E+00	9.615E-01	0.028
		735.93		-6.883E-02	1.642E-01	2.614E-01	7.325E-02	-0.263
		747.24		3.129E-03	1.118E-01	1.855E-01	2.713E-02	0.017
ND-147	+	91.11		1.221E+00	3.868E-01	8.089E-01	9.195E-02	1.509
		319.41		6.045E-01	4.944E+00	8.243E+00	7.751E-01	0.073
		531.02	*	1.057E-01	8.752E-01	1.416E+00	2.105E-01	0.075
PM-149		285.90	*	-3.378E-04	8.752E-01	Half-Life too short		
EU-152		121.78		6.748E-02	8.013E-02	1.339E-01	1.363E-02	0.504
		244.70		7.519E-02	3.490E-01	5.248E-01	5.122E-02	0.143
		344.28	*	4.385E-02	1.299E-01	1.803E-01	1.725E-02	0.243
		778.90		-1.312E-01	3.349E-01	4.566E-01	4.071E-02	-0.287
		964.08		2.450E-01	4.020E-01	6.005E-01	5.719E-02	0.408
		1085.87		3.257E-01	4.704E-01	8.047E-01	7.122E-02	0.405
		1112.07		-9.869E-02	3.598E-01	5.621E-01	4.863E-02	-0.176
		1408.01		7.627E-02	2.283E-01	3.904E-01	3.631E-02	0.195
GD-153		69.67		-1.386E+00	2.639E+00	3.820E+00	3.842E-01	-0.363
		97.43	*	4.380E-02	1.054E-01	1.575E-01	1.577E-02	0.278
		103.18		7.696E-02	1.203E-01	2.012E-01	1.922E-02	0.383
EU-154		123.07		-2.560E-02	5.796E-02	9.203E-02	1.065E-02	-0.278
		723.31		-2.388E-01	2.365E-01	3.036E-01	2.854E-02	-0.786
		873.19		-9.048E-02	3.463E-01	5.503E-01	6.930E-02	-0.164
		996.26		-3.849E-01	4.162E-01	6.022E-01	1.075E-01	-0.639
		1004.73		5.392E-02	2.476E-01	4.091E-01	4.984E-02	0.132

Sample ID : G248818001 Acquisition date : 23-MAR-2010 12:59:43

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1274.44	*	-1.469E-01	1.539E-01	2.318E-01	2.677E-02	-0.634
EU-155	+	86.55		5.063E-01	1.617E-01	2.321E-01	2.607E-02	2.181
		105.31	*	2.948E-02	1.164E-01	1.917E-01	1.824E-02	0.154
TB-160	+	86.79		1.405E+00	4.485E-01	6.445E-01	7.209E-02	2.181
		197.04		1.292E-01	6.318E-01	1.009E+00	9.635E-02	0.128
		215.65		-3.840E-01	8.288E-01	1.375E+00	1.328E-01	-0.279
		298.57		2.196E-01	1.793E-01	2.183E-01	2.094E-02	1.006
		879.36	*	-9.156E-03	1.695E-01	2.761E-01	2.651E-02	-0.033
		962.29		-1.045E+00	7.444E-01	9.737E-01	9.280E-02	-1.073
		966.15		5.926E-01	3.141E-01	5.151E-01	4.901E-02	1.151
		1177.93		-3.203E-01	4.707E-01	7.443E-01	6.061E-02	-0.430
		1271.85		4.554E-02	9.183E-01	1.535E+00	1.354E-01	0.030
HO-166M		80.57		1.710E-01	3.363E-01	5.079E-01	5.405E-02	0.337
		184.41		7.273E-02	4.734E-02	7.238E-02	6.846E-03	1.005
		280.46		-1.285E-02	9.733E-02	1.614E-01	1.566E-02	-0.080
		410.95		2.736E-01	3.130E-01	4.781E-01	3.966E-02	0.572
		711.68	*	-2.049E-04	6.306E-02	1.048E-01	8.834E-03	-0.002
		752.31		-1.479E-01	3.351E-01	5.364E-01	4.681E-02	-0.276
		810.29		-4.463E-03	6.351E-02	1.039E-01	9.494E-03	-0.043
TA-182		67.75		-7.317E-02	1.609E-01	2.627E-01	2.624E-02	-0.279
		100.11		-1.576E-01	2.113E-01	3.167E-01	3.096E-02	-0.498
		152.43		3.015E-01	4.500E-01	6.649E-01	6.036E-02	0.453
		222.11		3.076E-02	3.815E-01	6.467E-01	6.270E-02	0.048
	+	1121.30		9.742E-01	3.037E-01	4.494E-01	3.854E-02	2.168
		1189.05		6.011E-02	3.990E-01	6.748E-01	5.550E-02	0.089
		1221.41	*	-9.612E-02	2.569E-01	4.166E-01	3.525E-02	-0.231
		1231.02		-1.533E-02	5.584E-01	9.295E-01	7.928E-02	-0.016
IR-192	+	295.96		1.488E+00	2.726E-01	3.536E-01	3.419E-02	4.209
		308.46		-2.231E-02	1.094E-01	1.796E-01	1.715E-02	-0.124
		316.51	*	8.145E-03	3.795E-02	6.363E-02	6.012E-03	0.128
		468.07		1.492E-02	8.794E-02	1.263E-01	1.148E-02	0.118
HG-203		70.83		8.083E-01	2.114E+00	3.186E+00	5.384E-01	0.254
		72.87		3.561E+00	1.303E+00	2.082E+00	3.426E-01	1.710
		279.20	*	7.090E-02	4.721E-02	8.314E-02	8.233E-03	0.853
BI-207		72.81		6.825E-01	2.575E-01	4.401E-01	4.483E-02	1.551
	+	74.97		9.025E-01	1.976E-01	3.154E-01	3.245E-02	2.862
		569.70		-1.223E-02	3.651E-02	5.675E-02	4.780E-03	-0.215
		1063.66	*	2.485E-03	6.133E-02	9.927E-02	8.938E-03	0.025
		1770.23		4.426E-01	6.911E-01	1.094E+00	9.426E-02	0.404
PB-210		46.54	*	2.736E+00	9.087E+00	1.544E+01	1.536E+00	0.177
PB-211		404.85	*	4.902E-01	9.319E-01	1.348E+00	6.514E-01	0.364
		427.09		1.747E+00	1.771E+00	2.756E+00	1.274E+00	0.634
		832.01		-4.599E-02	1.133E+00	1.855E+00	9.643E-01	-0.025
BI-212	+	727.33	*	1.834E+00	9.084E-01	1.317E+00	1.635E-01	1.392
		785.37		7.947E-01	3.831E+00	6.416E+00	5.751E-01	0.124
		1620.50		5.261E+00	2.962E+00	5.880E+00	5.341E-01	0.895
RN-219	+	271.23		1.185E+00	3.879E-01	4.880E-01	5.470E-02	2.428
		401.81	*	-4.336E-01	4.603E-01	7.001E-01	1.027E-01	-0.619
RA-223		81.07		-1.702E-01	2.755E-01	3.936E-01	4.203E-02	-0.432

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		83.79		1.249E-01	1.639E-01	2.470E-01	2.693E-02	0.506
		94.87		4.802E-01	5.569E-01	8.468E-01	8.710E-02	0.567
		144.24		6.568E-01	7.683E-01	1.254E+00	1.245E-01	0.524
	+	154.21		6.326E-01	6.208E-01	7.384E-01	7.304E-02	0.857
	+	269.46		9.207E-01	2.974E-01	3.816E-01	3.775E-02	2.413
		323.87	*	-1.159E-01	7.754E-01	1.114E+00	1.973E-01	-0.104
	+	338.28		9.616E+00	2.346E+00	2.739E+00	3.415E-01	3.510
AC-227		79.69		1.683E+00	1.574E+00	2.398E+00	4.387E-01	0.702
		235.96		3.173E-01	1.837E-01	2.929E-01	3.308E-02	1.083
		256.23	*	1.054E-01	2.703E-01	4.608E-01	5.941E-02	0.229
	+	299.98		2.430E+00	1.308E+00	1.788E+00	2.391E-01	1.359
		304.50		1.814E+00	1.982E+00	3.047E+00	5.189E-01	0.595
		334.37		-1.092E+00	2.234E+00	2.875E+00	4.578E-01	-0.380
TH-227		79.80		2.637E+00	2.096E+00	3.154E+00	7.137E-01	0.836
		235.96		3.173E-01	1.834E-01	2.929E-01	3.152E-02	1.083
		256.23	*	1.054E-01	2.703E-01	4.608E-01	6.615E-02	0.229
	+	299.98		2.430E+00	1.308E+00	1.788E+00	2.391E-01	1.359
		304.50		1.814E+00	1.982E+00	3.047E+00	5.189E-01	0.595
		334.37		-1.092E+00	2.234E+00	2.875E+00	4.578E-01	-0.380
TH-229		85.43		5.711E-01	2.879E-01	4.456E-01	4.925E-02	1.282
	+	88.47		3.995E-01	1.257E-01	2.815E-01	3.159E-02	1.419
		193.51	*	1.233E-01	5.903E-01	9.434E-01	8.985E-02	0.131
		210.85		1.440E+00	1.094E+00	1.733E+00	1.670E-01	0.831
PA-231		283.69	*	-1.021E+00	1.565E+00	2.511E+00	3.827E-01	-0.407
	+	301.36		1.561E+00	8.382E-01	1.162E+00	1.492E-01	1.344
TH-231		81.07		-1.702E-01	2.755E-01	3.936E-01	4.203E-02	-0.432
		83.79		1.249E-01	1.639E-01	2.470E-01	2.693E-02	0.506
		94.87		4.802E-01	5.569E-01	8.468E-01	8.710E-02	0.567
		144.24		6.568E-01	7.683E-01	1.254E+00	1.245E-01	0.524
	+	154.21		6.326E-01	6.208E-01	7.384E-01	7.304E-02	0.857
	+	269.46		9.207E-01	2.974E-01	3.816E-01	3.775E-02	2.413
		323.87	*	-1.159E-01	7.754E-01	1.114E+00	1.973E-01	-0.104
	+	338.28		9.616E+00	2.346E+00	2.739E+00	3.415E-01	3.510
PA-233	+	300.13		1.099E+00	5.977E-01	8.083E-01	1.245E-01	1.360
		311.90	*	-3.960E-03	6.808E-02	1.126E-01	1.092E-02	-0.035
		340.48		2.548E+00	1.034E+00	1.429E+00	3.466E-01	1.783
PA-234		94.67		2.617E-01	2.074E-01	3.176E-01	4.329E-02	0.824
		98.44		1.715E-01	1.444E-01	1.710E-01	9.577E-02	1.003
		111.00		2.070E-01	1.967E-01	3.313E-01	4.136E-02	0.625
		131.20		8.575E-02	1.284E-01	1.913E-01	1.698E-02	0.448
		569.50		-1.255E-01	3.229E-01	4.997E-01	4.209E-02	-0.251
		733.00		2.834E-02	4.477E-01	6.491E-01	1.440E-01	0.044
		880.51		-5.793E-02	3.201E-01	5.150E-01	4.948E-02	-0.112
		883.24		-2.990E-01	3.957E-01	5.128E-01	3.454E-01	-0.583
		926.50		2.313E-01	1.964E-01	3.407E-01	8.738E-02	0.679
		946.00	*	-2.560E-01	3.424E-01	5.101E-01	9.809E-02	-0.502
		949.00		3.203E-01	4.847E-01	8.366E-01	8.014E-02	0.383
PA-234M		766.42		1.870E+01	1.720E+01	2.328E+01	1.182E+01	0.803
		1001.03	*	3.928E+00	4.940E+00	8.592E+00	9.119E-01	0.457

Sample ID : G248818001 Acquisition date : 23-MAR-2010 12:59:43

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	1.507E+00	2.078E+00	3.495E+00	6.620E-01	0.431
	+	92.59		3.744E+00	1.451E+00	1.565E+00	3.587E-01	2.392
U-238		63.29	*	1.507E+00	2.078E+00	3.495E+00	6.620E-01	0.431
	+	92.59		3.744E+00	1.235E+00	1.565E+00	1.655E-01	2.392
NP-239		99.53		-4.110E-02	2.013E-01	2.908E-01	2.856E-02	-0.141
		103.37		8.166E-02	1.076E-01	1.807E-01	1.724E-02	0.452
		106.12		5.099E-02	9.154E-02	1.524E-01	1.430E-02	0.335
		117.23	*	-4.947E-01	4.450E-01	6.846E-01	6.159E-02	-0.723
		228.18		-2.586E-01	2.351E-01	3.734E-01	3.629E-02	-0.693
		277.60		1.541E-01	1.962E-01	3.381E-01	3.284E-02	0.456
AM-241		59.54	*	-2.020E-01	2.553E-01	4.121E-01	4.128E-02	-0.490
CM-247		278.00		8.211E-01	8.314E-01	1.443E+00	1.401E-01	0.569
		287.50		-4.382E-01	1.281E+00	2.096E+00	2.026E-01	-0.209
		402.40	*	-2.355E-02	4.193E-02	6.604E-02	5.454E-03	-0.357
CF-249		252.80		-7.824E-01	1.000E+00	1.611E+00	1.573E-01	-0.486
		333.37		5.873E-02	2.982E-01	3.211E-01	2.964E-02	0.183
		388.16	*	-3.869E-03	4.526E-02	7.371E-02	6.109E-03	-0.052
CF-251		177.52	*	-4.643E-02	1.472E-01	2.306E-01	2.170E-02	-0.201
		227.38		-6.326E-02	3.785E-01	6.301E-01	6.122E-02	-0.100
		285.41		-1.540E+00	2.246E+00	3.600E+00	3.483E-01	-0.428

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818001      *
* Acquisition date : 23-MAR-2010 12:59:43 Detector SN#    :                 *
* Detector ID      : GAM10                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.22     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248818001           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.2242E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 13-MAR-2010 14:58:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.894E+01	4.178E+00	5.698E-01	0.000E+00
CD-109	4.295E+00	1.343E+00	1.511E+00	0.000E+00
SN-126	4.167E-01	1.303E-01	1.477E-01	0.000E+00
TL-208	7.185E-01	1.020E-01	6.379E-02	0.000E+00
BI-211	5.389E+00	7.374E-01	3.560E-01	0.000E+00
PB-212	2.010E+00	2.539E-01	1.132E-01	0.000E+00
BI-214	1.500E+00	2.446E-01	1.243E-01	0.000E+00
PB-214	1.956E+00	2.878E-01	1.295E-01	0.000E+00
RA-224	4.348E+00	1.051E+00	1.468E+00	0.000E+00
RA-226	1.500E+00	2.446E-01	1.243E-01	0.000E+00
AC-228	2.179E+00	4.651E-01	2.442E-01	0.000E+00
RA-228	2.179E+00	4.651E-01	2.442E-01	0.000E+00
TH-228	2.010E+00	2.539E-01	1.132E-01	0.000E+00
TH-230	1.500E+00	2.319E-01	1.243E-01	0.000E+00
TH-232	2.179E+00	4.651E-01	2.442E-01	0.000E+00
U-235	4.303E-02	2.293E-01	3.837E-01	0.000E+00
NP-237	1.243E+00	4.653E-01	5.115E-01	0.000E+00
ANH-511	1.793E-01	7.514E-02	5.036E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	6.283E-02	3.887E-01	6.333E-01	0.000E+00	NOT IDENT.
NA-22	-5.477E-02	5.343E-02	8.189E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.913E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-9.720E-03	4.935E-02	8.136E-02	0.000E+00	FAIL ABUN
V-48	5.189E-02	9.450E-02	1.651E-01	0.000E+00	NOT IDENT.
CR-51	1.699E-01	4.377E-01	7.682E-01	0.000E+00	NOT IDENT.
MN-54	-5.459E-02	4.263E-02	6.375E-02	0.000E+00	NOT IDENT.
CO-56	3.954E-02	4.537E-02	8.164E-02	0.000E+00	NOT IDENT.
CO-57	1.693E-02	2.738E-02	4.777E-02	0.000E+00	NOT IDENT.

CO-58	-1.635E-02	4.426E-02	7.238E-02	0.000E+00	NOT IDENT.
FE-59	5.863E-02	1.216E-01	2.083E-01	0.000E+00	NOT IDENT.
CO-60	-5.479E-02	4.998E-02	7.455E-02	0.000E+00	NOT IDENT.
ZN-65	4.239E-04	1.206E-01	1.705E-01	0.000E+00	NOT IDENT.
SE-75	3.419E-02	5.078E-02	8.522E-02	0.000E+00	NOT IDENT.
SR-85	5.792E-02	5.229E-02	8.258E-02	0.000E+00	NOT IDENT.
Y-88	2.599E-02	3.455E-02	6.527E-02	0.000E+00	NOT IDENT.
Y-91	3.839E+00	2.588E+01	4.467E+01	0.000E+00	NOT IDENT.
NB-94	2.119E-02	3.636E-02	6.465E-02	0.000E+00	NOT IDENT.
NB-95	2.866E-02	5.568E-02	8.631E-02	0.000E+00	NOT IDENT.
NB-95M	1.645E-01	1.514E-01	2.470E-01	0.000E+00	NOT IDENT.
ZR-95	8.193E-03	9.158E-02	1.567E-01	0.000E+00	NOT IDENT.
MO-99	1.331E+01	4.677E+01	8.131E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.424E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.103E-02	4.676E-02	7.910E-02	0.000E+00	FAIL ABUN
RH-106	-1.209E-01	3.210E-01	5.385E-01	0.000E+00	NOT IDENT.
RU-106	-1.209E-01	3.208E-01	5.385E-01	0.000E+00	NOT IDENT.
AG-108M	1.018E-02	3.052E-02	5.248E-02	0.000E+00	NOT IDENT.
AG-110M	-1.198E-02	3.668E-02	6.154E-02	0.000E+00	NOT IDENT.
SN-113	7.809E-04	5.034E-02	8.542E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	5.667E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	6.633E-03	8.346E-02	1.251E-01	0.000E+00	NOT IDENT.
TE-123M	1.395E-02	3.231E-02	5.261E-02	0.000E+00	NOT IDENT.
SB-124	1.828E-02	7.449E-02	1.296E-01	0.000E+00	NOT IDENT.
SB-125	-1.339E-02	9.334E-02	1.556E-01	0.000E+00	FAIL ABUN
TE-125M	3.539E-01	1.097E+01	1.884E+01	0.000E+00	NOT IDENT.
I-126	1.748E-01	3.165E-01	5.634E-01	0.000E+00	NOT IDENT.
SB-126	1.298E-01	2.350E-01	3.825E-01	0.000E+00	NOT IDENT.
SB-127	-1.974E+00	3.441E+00	5.628E+00	0.000E+00	NOT IDENT.
I-131	-7.286E-02	1.782E-01	2.957E-01	0.000E+00	NOT IDENT.
TE-132	-2.535E+00	2.288E+00	3.745E+00	0.000E+00	NOT IDENT.
BA-133	1.208E-02	4.655E-02	7.124E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.367E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.987E-02	5.408E-02	1.002E-01	0.000E+00	NOT IDENT.
CS-135	2.334E-02	1.780E-01	2.754E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.027E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-7.277E-03	1.658E-01	2.727E-01	0.000E+00	FAIL ABUN
BA-137M	-2.449E-02	3.920E-02	6.438E-02	0.000E+00	NOT IDENT.
CS-137	-2.588E-02	4.142E-02	6.801E-02	0.000E+00	NOT IDENT.
CE-139	-3.331E-02	3.411E-02	5.437E-02	0.000E+00	NOT IDENT.
BA-140	-1.801E-01	3.799E-01	5.968E-01	0.000E+00	NOT IDENT.
LA-140	1.275E-01	1.431E-01	2.475E-01	0.000E+00	FAIL ABUN
CE-141	3.378E-02	7.947E-02	1.341E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.698E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-7.078E-02	2.329E-01	3.700E-01	0.000E+00	NOT IDENT.
PM-144	1.210E-02	3.488E-02	6.124E-02	0.000E+00	NOT IDENT.
PR-144	9.344E-01	2.619E+00	4.602E+00	0.000E+00	NOT IDENT.
PM-146	-2.740E-03	4.166E-02	6.948E-02	0.000E+00	NOT IDENT.
ND-147	1.057E-01	8.577E-01	1.432E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	4.379E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	4.385E-02	1.273E-01	1.834E-01	0.000E+00	NOT IDENT.
GD-153	4.380E-02	1.033E-01	1.627E-01	0.000E+00	NOT IDENT.
EU-154	-1.469E-01	1.508E-01	2.318E-01	0.000E+00	NOT IDENT.
EU-155	2.948E-02	1.140E-01	1.979E-01	0.000E+00	FAIL ABUN
TB-160	-9.156E-03	1.662E-01	2.775E-01	0.000E+00	FAIL ABUN
HO-166M	-2.049E-04	6.180E-02	1.056E-01	0.000E+00	NOT IDENT.
TA-182	-9.612E-02	2.517E-01	4.169E-01	0.000E+00	FAIL ABUN
IR-192	8.145E-03	3.719E-02	6.479E-02	0.000E+00	FAIL ABUN
HG-203	7.090E-02	4.626E-02	8.479E-02	0.000E+00	NOT IDENT.
BI-207	2.485E-03	6.011E-02	9.951E-02	0.000E+00	FAIL ABUN
PB-210	2.736E+00	8.905E+00	1.610E+01	0.000E+00	NOT IDENT.
PB-211	4.902E-01	9.132E-01	1.368E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	8.902E-01	1.327E+00	0.000E+00	FAIL ABUN
RN-219	-4.336E-01	4.511E-01	7.108E-01	0.000E+00	FAIL ABUN
RA-223	-1.159E-01	7.599E-01	1.134E+00	0.000E+00	FAIL ABUN
AC-227	1.054E-01	2.649E-01	4.705E-01	0.000E+00	FAIL ABUN
TH-227	1.054E-01	2.649E-01	4.705E-01	0.000E+00	FAIL ABUN
TH-229	1.233E-01	5.784E-01	9.666E-01	0.000E+00	FAIL ABUN
PA-231	-1.021E+00	1.534E+00	2.561E+00	0.000E+00	FAIL ABUN
TH-231	-1.159E-01	7.599E-01	1.134E+00	0.000E+00	FAIL ABUN
PA-233	-3.960E-03	6.672E-02	1.146E-01	0.000E+00	FAIL ABUN
PA-234	-2.560E-01	3.356E-01	5.122E-01	0.000E+00	NOT IDENT.
PA-234M	3.928E+00	4.842E+00	8.620E+00	0.000E+00	NOT IDENT.
TH-234	1.507E+00	2.037E+00	3.631E+00	0.000E+00	FAIL ABUN
U-238	1.507E+00	2.037E+00	3.631E+00	0.000E+00	FAIL ABUN
NP-239	-4.947E-01	4.361E-01	7.059E-01	0.000E+00	NOT IDENT.
AM-241	-2.020E-01	2.502E-01	4.285E-01	0.000E+00	NOT IDENT.
CM-247	-2.355E-02	4.110E-02	6.704E-02	0.000E+00	NOT IDENT.

CF-249	-3.869E-03	4.436E-02	7.487E-02	0.000E+00	NOT IDENT.
CF-251	-4.643E-02	1.443E-01	2.366E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:00:15.12

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818001.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 12:59:43
Sample ID         : G248818001           Sample quantity  : 1.22420E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.22  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1484	10.66*	1.097E+00	3.894E+01	3.894E+01	10.95
CD-109	88.03	266	3.70*	5.296E+00	4.167E+00	4.295E+00	31.91
SN-126	64.28	------	9.60	2.443E+00	------ Line Not Found		------
	86.94	266	8.90	5.296E+00	1.732E+00	1.732E+00	51.52
	87.57	266	37.00*	5.296E+00	4.167E-01	4.167E-01	31.91
TL-208	277.37	------	6.60	4.501E+00	------ Line Not Found		------
	583.19	511	85.00*	2.565E+00	7.185E-01	7.185E-01	14.49
	860.56	74	12.50	1.807E+00	1.003E+00	1.003E+00	51.07
BI-211	72.87	------	1.23	3.666E+00	------ Line Not Found		------
	351.06	860	12.92*	3.787E+00	5.389E+00	5.389E+00	13.96
PB-212	74.82	409	10.28	3.900E+00	3.131E+00	3.131E+00	23.96
	77.11	676	17.10	4.192E+00	2.893E+00	2.893E+00	17.40
	238.63	1431	43.60*	5.006E+00	2.010E+00	2.010E+00	12.89
	300.09	101	3.30	4.251E+00	2.209E+00	2.209E+00	53.36
BI-214	609.32	550	45.49*	2.472E+00	1.500E+00	1.500E+00	16.64
	1120.29	137	14.92	1.396E+00	2.018E+00	2.018E+00	31.89
	1764.49	102	15.30	9.690E-01	2.105E+00	2.106E+00	28.84
PB-214	74.82	409	5.80	3.900E+00	5.549E+00	5.549E+00	23.29
	77.11	676	9.70	4.192E+00	5.101E+00	5.101E+00	19.26
	242.00	288	7.25	4.961E+00	2.459E+00	2.459E+00	25.34
	295.22	497	18.42	4.303E+00	1.922E+00	1.922E+00	19.41
	351.93	860	35.60*	3.787E+00	1.956E+00	1.956E+00	15.01
RA-224	240.99	288	4.10*	4.961E+00	4.348E+00	4.348E+00	24.67
RA-226	609.32	550	45.49*	2.472E+00	1.500E+00	1.500E+00	16.64
	1120.29	137	14.92	1.396E+00	2.018E+00	2.018E+00	31.89
	1764.49	102	15.30	9.690E-01	2.105E+00	2.106E+00	28.84
AC-228	338.32	347	11.27	3.898E+00	2.423E+00	2.423E+00	46.80
	911.20	313	25.80*	1.710E+00	2.179E+00	2.179E+00	21.78
	968.97	169	15.80	1.610E+00	2.032E+00	2.032E+00	37.89
RA-228	338.32	347	11.27	3.898E+00	2.423E+00	2.423E+00	46.80
	911.20	313	25.80*	1.710E+00	2.179E+00	2.179E+00	21.78
	968.97	169	15.80	1.610E+00	2.032E+00	2.032E+00	37.89

Sample ID : G248818001 Acquisition date : 23-MAR-2010 12:59:43

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr. pCi/GRAM	2-Sigma %Error
TH-228	74.82	409	10.28	3.900E+00	3.131E+00	3.131E+00	21.93
	77.11	676	17.10	4.192E+00	2.893E+00	2.893E+00	17.40
	238.63	1431	43.60*	5.006E+00	2.010E+00	2.010E+00	12.89
	300.09	101	3.30	4.251E+00	2.209E+00	2.209E+00	80.52
TH-230	609.32	550	45.49*	2.472E+00	1.500E+00	1.500E+00	15.78
	1120.29	137	14.92	1.396E+00	2.018E+00	2.018E+00	31.18
	1764.49	102	15.30	9.690E-01	2.105E+00	2.105E+00	28.84
TH-232	338.32	347	11.27	3.898E+00	2.423E+00	2.423E+00	22.89
	911.20	313	25.80*	1.710E+00	2.179E+00	2.179E+00	21.78
	968.97	169	15.80	1.610E+00	2.032E+00	2.032E+00	37.89
U-235	89.96	173	3.47	5.521E+00	2.763E+00	2.763E+00	39.02
	93.35	297	5.60	5.747E+00	2.828E+00	2.828E+00	39.34
	143.76	------	10.96*	6.601E+00	------	Line Not Found	------
	163.33	------	5.08	6.296E+00	------	Line Not Found	------
	185.72	238	57.20	5.883E+00	2.172E-01	2.172E-01	35.84
	205.31	------	5.01	5.536E+00	------	Line Not Found	------
NP-237	86.48	266	12.40*	5.296E+00	1.243E+00	1.243E+00	38.18
	95.86	------	2.68	5.952E+00	------	Line Not Found	------
ANH-511	511.00	167	100.00*	2.857E+00	1.793E-01	1.793E-01	42.77

Flag: "*" = Keyline

Sample ID : G248818001 Acquisition date : 23-MAR-2010 12:59:43

Total number of lines in spectrum 36
Number of unidentified lines 9
Number of lines tentatively identified by NID 27 75.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.894E+01	3.894E+01	0.426E+01	10.95	
CD-109	461.40D	1.03	4.167E+00	4.295E+00	1.371E+00	31.91	
SN-126	2.30E+05Y	1.00	4.167E-01	4.167E-01	1.330E-01	31.91	
TL-208	1.41E+10Y	1.00	7.185E-01	7.185E-01	1.041E-01	14.49	
BI-211	7.04E+08Y	1.00	5.389E+00	5.389E+00	0.752E+00	13.96	
PB-212	1.41E+10Y	1.00	2.010E+00	2.010E+00	0.259E+00	12.89	
BI-214	1600.00Y	1.00	1.500E+00	1.500E+00	0.250E+00	16.64	
PB-214	1600.00Y	1.00	1.956E+00	1.956E+00	0.294E+00	15.01	
RA-224	1.41E+10Y	1.00	4.348E+00	4.348E+00	1.073E+00	24.67	
RA-226	1600.00Y	1.00	1.500E+00	1.500E+00	0.250E+00	16.64	
AC-228	1.41E+10Y	1.00	2.179E+00	2.179E+00	0.475E+00	21.78	
RA-228	1.41E+10Y	1.00	2.179E+00	2.179E+00	0.475E+00	21.78	
TH-228	1.41E+10Y	1.00	2.010E+00	2.010E+00	0.259E+00	12.89	
TH-230	7.54E+04Y	1.00	1.500E+00	1.500E+00	0.237E+00	15.78	
TH-232	1.41E+10Y	1.00	2.179E+00	2.179E+00	0.475E+00	21.78	
U-235	7.04E+08Y	1.00	2.172E-01	2.172E-01	0.779E-01	35.84	K
NP-237	2.14E+06Y	1.00	1.243E+00	1.243E+00	0.475E+00	38.18	
ANH-511	1.00E+09Y	1.00	1.793E-01	1.793E-01	0.767E-01	42.77	
			---	---			
	Total Activity :		7.263E+01	7.276E+01			

Grand Total Activity : 7.263E+01 7.276E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248818001 Acquisition date : 23-MAR-2010 12:59:43

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.68	101	436	1.55	257.40	253	9	1.40E-02	77.0	6.72E+00	
0	154.12	76	395	1.35	308.23	304	9	1.05E-02	97.6	6.45E+00	T
0	209.07	121	394	0.96	418.06	414	10	1.68E-02	63.9	5.47E+00	
0	270.16	191	184	1.20	540.14	536	11	2.66E-02	30.8	4.59E+00	T
0	327.76	83	227	1.46	655.25	650	12	1.16E-02	75.3	3.99E+00	T
0	409.25	51	130	1.04	818.13	815	9	7.12E-03	85.0	3.39E+00	
0	463.05	91	176	1.19	925.68	922	12	1.26E-02	61.8	3.08E+00	T
0	727.86	84	91	1.08	1455.06	1449	11	1.17E-02	47.9	2.12E+00	T
2	769.08	66	56	1.98	1537.46	1531	24	9.20E-03	53.8	2.01E+00	
2	773.60	50	51	1.98	1546.50	1531	24	6.96E-03	65.8	2.00E+00	
0	1379.35	30	35	1.71	2757.97	2751	13	4.13E-03	90.6	1.15E+00	
0	1595.00	14	15	1.14	3189.42	3185	8	1.90E-03	****	1.03E+00	T
0	1632.48	24	20	0.68	3264.41	3255	19	3.39E-03	94.9	1.01E+00	
0	1731.71	25	6	1.18	3462.97	3456	13	3.45E-03	58.1	9.78E-01	
0	1848.90	20	7	1.44	3697.49	3691	13	2.71E-03	70.4	9.51E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:00:19.54

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818001.CNF;1  *
* Acquisition date : 23-MAR-2010 12:59:43  Detector SN#    :                *
* Detector ID      : GAM10                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.22         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248818001            Analyst initials: MXR1           *
* Batch Number     : 962631                Sample Quantity : 1.22420E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 13-MAR-2010 14:58:23.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.894E+01	4.263E+00	5.708E-01	5.436E-02	68.226
CD-109	4.295E+00	1.371E+00	1.460E+00	1.651E-01	2.941
SN-126	4.167E-01	1.330E-01	1.427E-01	1.608E-02	2.920
TL-208	7.185E-01	1.041E-01	6.313E-02	5.690E-03	11.380
BI-211	5.389E+00	7.524E-01	3.500E-01	3.290E-02	15.396
PB-212	2.010E+00	2.591E-01	1.108E-01	1.194E-02	18.148
BI-214	1.500E+00	2.495E-01	1.231E-01	1.212E-02	12.181
PB-214	1.956E+00	2.936E-01	1.273E-01	1.386E-02	15.364
RA-224	4.348E+00	1.073E+00	1.437E+00	1.402E-01	3.025
RA-226	1.500E+00	2.495E-01	1.231E-01	1.212E-02	12.181
AC-228	2.179E+00	4.746E-01	2.431E-01	3.017E-02	8.961
RA-228	2.179E+00	4.746E-01	2.431E-01	3.017E-02	8.961
TH-228	2.010E+00	2.591E-01	1.108E-01	1.194E-02	18.148
TH-230	1.500E+00	2.367E-01	1.231E-01	1.023E-02	12.181
TH-232	2.179E+00	4.746E-01	2.431E-01	3.017E-02	8.961
U-235	2.172E-01	7.786E-02	3.731E-01	6.390E-02	0.582
NP-237	1.243E+00	4.748E-01	4.942E-01	1.174E-01	2.516
ANH-511	1.793E-01	7.668E-02	4.976E-02	4.223E-03	3.603

Sample ID : G248818001 Acquisition date : 23-MAR-2010 12:59:43

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	6.283E-02		3.966E-01	6.252E-01	5.716E-02	0.100
NA-22	-5.477E-02		5.452E-02	8.188E-02	7.247E-03	-0.669
NA-24	2.020E+01		9.760E+01	Half-Life too short		
SC-46	-9.720E-03		5.035E-02	8.096E-02	7.825E-03	-0.120
V-48	5.189E-02		9.643E-02	1.645E-01	1.554E-02	0.315
CR-51	1.699E-01		4.466E-01	7.545E-01	7.400E-02	0.225
MN-54	-5.459E-02		4.350E-02	6.339E-02	5.898E-03	-0.861
CO-56	3.954E-02		4.630E-02	8.120E-02	7.621E-03	0.487
CO-57	1.693E-02		2.793E-02	4.635E-02	4.141E-03	0.365
CO-58	-1.635E-02		4.516E-02	7.194E-02	6.590E-03	-0.227
FE-59	5.863E-02		1.241E-01	2.078E-01	1.962E-02	0.282
CO-60	-5.479E-02		5.100E-02	7.458E-02	6.899E-03	-0.735
ZN-65	4.239E-04		1.230E-01	1.702E-01	1.469E-02	0.002
SE-75	3.419E-02		5.182E-02	8.350E-02	8.173E-03	0.409
SR-85	5.792E-02		5.336E-02	8.160E-02	6.926E-03	0.710
Y-88	2.599E-02		3.526E-02	6.558E-02	5.471E-03	0.396
Y-91	3.839E+00		2.640E+01	4.464E+01	3.722E+00	0.086
NB-94	2.119E-02		3.710E-02	6.414E-02	5.366E-03	0.330
NB-95	2.866E-02		5.682E-02	8.572E-02	7.565E-03	0.334
NB-95M	1.645E-01		1.545E-01	2.417E-01	2.629E-02	0.681
ZR-95	8.193E-03		9.345E-02	1.556E-01	1.501E-02	0.053
MO-99	1.331E+01		4.773E+01	8.072E+01	1.273E+01	0.165
TC-99M	-1.886E+16		1.747E+16	Half-Life too short		
RU-103	1.103E-02		4.771E-02	7.812E-02	1.085E-02	0.141
RH-106	-1.209E-01		3.275E-01	5.334E-01	6.946E-02	-0.227
RU-106	-1.209E-01		3.273E-01	5.334E-01	4.403E-02	-0.227
AG-108M	1.018E-02		3.114E-02	5.174E-02	4.482E-03	0.197
AG-110M	-1.198E-02		3.743E-02	6.100E-02	5.097E-03	-0.196
SN-113	7.809E-04		5.137E-02	8.412E-02	7.141E-03	0.009
CD-115	-9.870E-06		2.891E-05	Half-Life too short		
SN-117M	6.633E-03		8.517E-02	1.218E-01	1.119E-02	0.054
TE-123M	1.395E-02		3.297E-02	5.122E-02	4.735E-03	0.272
SB-124	1.828E-02		7.601E-02	1.300E-01	1.202E-02	0.141
SB-125	-1.339E-02		9.524E-02	1.534E-01	1.307E-02	-0.087
TE-125M	3.539E-01		1.120E+01	1.826E+01	2.009E+00	0.019
I-126	1.748E-01		3.230E-01	5.585E-01	4.521E-02	0.313
SB-126	1.298E-01		2.398E-01	3.796E-01	3.226E-02	0.342
SB-127	-1.974E+00		3.511E+00	5.582E+00	7.079E-01	-0.354
I-131	-7.286E-02		1.818E-01	2.909E-01	2.690E-02	-0.251
TE-132	-2.535E+00		2.335E+00	3.663E+00	6.404E-01	-0.692
BA-133	1.208E-02		4.750E-02	7.007E-02	9.207E-03	0.172
I-133	-2.089E-02		1.718E-01	Half-Life too short		
CS-134	7.987E-02		5.518E-02	9.961E-02	9.061E-03	0.802
CS-135	2.334E-02		1.816E-01	2.698E-01	2.955E-02	0.086
I-135	1.218E+15		1.034E+15	Half-Life too short		
CS-136	-7.277E-03		1.692E-01	2.720E-01	2.571E-02	-0.027
BA-137M	-2.449E-02		4.000E-02	6.382E-02	5.144E-03	-0.384
CS-137	-2.588E-02		4.226E-02	6.742E-02	5.446E-03	-0.384

Sample ID : G248818001 Acquisition date : 23-MAR-2010 12:59:43

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-139	-3.331E-02		3.481E-02	5.296E-02	4.943E-03	-0.629
BA-140	-1.801E-01		3.877E-01	5.901E-01	1.999E-01	-0.305
LA-140	1.275E-01	+	1.460E-01	2.482E-01	2.268E-02	0.514
CE-141	3.378E-02		8.110E-02	1.304E-01	1.190E-02	0.259
CE-143	7.264E-03		1.376E-03	Half-Life too short		
CE-144	-7.078E-02		2.376E-01	3.594E-01	5.547E-02	-0.197
PM-144	1.210E-02		3.559E-02	6.075E-02	5.058E-03	0.199
PR-144	9.344E-01		2.672E+00	4.565E+00	3.798E-01	0.205
PM-146	-2.740E-03		4.251E-02	6.855E-02	7.152E-03	-0.040
ND-147	1.057E-01		8.752E-01	1.416E+00	2.105E-01	0.075
PM-149	-3.378E-04		2.234E-04	Half-Life too short		
EU-152	4.385E-02		1.299E-01	1.803E-01	1.725E-02	0.243
GD-153	4.380E-02		1.054E-01	1.575E-01	1.577E-02	0.278
EU-154	-1.469E-01		1.539E-01	2.318E-01	2.677E-02	-0.634
EU-155	2.948E-02		1.164E-01	1.917E-01	1.824E-02	0.154
TB-160	-9.156E-03		1.695E-01	2.761E-01	2.651E-02	-0.033
HO-166M	-2.049E-04		6.306E-02	1.048E-01	8.834E-03	-0.002
TA-182	-9.612E-02		2.569E-01	4.166E-01	3.525E-02	-0.231
IR-192	8.145E-03		3.795E-02	6.363E-02	6.012E-03	0.128
HG-203	7.090E-02		4.721E-02	8.314E-02	8.233E-03	0.853
BI-207	2.485E-03		6.133E-02	9.927E-02	8.938E-03	0.025
PB-210	2.736E+00		9.087E+00	1.544E+01	1.536E+00	0.177
PB-211	4.902E-01		9.319E-01	1.348E+00	6.514E-01	0.364
BI-212	1.834E+00	+	9.084E-01	1.317E+00	1.635E-01	1.392
RN-219	-4.336E-01		4.603E-01	7.001E-01	1.027E-01	-0.619
RA-223	-1.159E-01		7.754E-01	1.114E+00	1.973E-01	-0.104
AC-227	1.054E-01		2.703E-01	4.608E-01	5.941E-02	0.229
TH-227	1.054E-01		2.703E-01	4.608E-01	6.615E-02	0.229
TH-229	1.233E-01		5.903E-01	9.434E-01	8.985E-02	0.131
PA-231	-1.021E+00		1.565E+00	2.511E+00	3.827E-01	-0.407
TH-231	-1.159E-01		7.754E-01	1.114E+00	1.973E-01	-0.104
PA-233	-3.960E-03		6.808E-02	1.126E-01	1.092E-02	-0.035
PA-234	-2.560E-01		3.424E-01	5.101E-01	9.809E-02	-0.502
PA-234M	3.928E+00		4.940E+00	8.592E+00	9.119E-01	0.457
TH-234	1.507E+00		2.078E+00	3.495E+00	6.620E-01	0.431
U-238	1.507E+00		2.078E+00	3.495E+00	6.620E-01	0.431
NP-239	-4.947E-01		4.450E-01	6.846E-01	6.159E-02	-0.723
AM-241	-2.020E-01		2.553E-01	4.121E-01	4.128E-02	-0.490
CM-247	-2.355E-02		4.193E-02	6.604E-02	5.454E-03	-0.357
CF-249	-3.869E-03		4.526E-02	7.371E-02	6.109E-03	-0.052
CF-251	-4.643E-02		1.472E-01	2.306E-01	2.170E-02	-0.201

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248818001            *
* Acquisition date : 23-MAR-2010 12:59:43 Detector SN#    :                 *
* Detector ID      : GAM10                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.22     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248818001           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.2242E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 13-MAR-2010 14:58:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.894E+01	4.178E+00	2.851E-01	2.131E+00
CD-109	4.295E+00	1.343E+00	7.560E-01	6.853E-01
SN-126	4.167E-01	1.303E-01	7.389E-02	6.649E-02
TL-208	7.185E-01	1.020E-01	3.191E-02	5.204E-02
BI-211	5.389E+00	7.374E-01	1.781E-01	3.762E-01
PB-212	2.010E+00	2.539E-01	5.664E-02	1.296E-01
BI-214	1.500E+00	2.446E-01	6.221E-02	1.248E-01
PB-214	1.956E+00	2.878E-01	6.477E-02	1.468E-01
RA-224	4.348E+00	1.051E+00	7.346E-01	5.363E-01
RA-226	1.500E+00	2.446E-01	6.221E-02	1.248E-01
AC-228	2.179E+00	4.651E-01	1.222E-01	2.373E-01
RA-228	2.179E+00	4.651E-01	1.222E-01	2.373E-01
TH-228	2.010E+00	2.539E-01	5.664E-02	1.296E-01
TH-230	1.500E+00	2.319E-01	6.221E-02	1.183E-01
TH-232	2.179E+00	4.651E-01	1.222E-01	2.373E-01
U-235	4.303E-02	2.293E-01	1.920E-01	1.170E-01
NP-237	1.243E+00	4.653E-01	2.559E-01	2.374E-01
ANH-511	1.793E-01	7.514E-02	2.519E-02	3.834E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	6.283E-02	3.887E-01	3.168E-01	1.983E-01	NOT IDENT.
NA-22	-5.477E-02	5.343E-02	4.097E-02	2.726E-02	NOT IDENT.
NA-24	2.020E+07	1.913E+08	0.000E+00	9.760E+07	SHORT HLIF
SC-46	-9.720E-03	4.935E-02	4.070E-02	2.518E-02	FAIL ABUN
V-48	5.189E-02	9.450E-02	8.260E-02	4.822E-02	NOT IDENT.
CR-51	1.699E-01	4.377E-01	3.843E-01	2.233E-01	NOT IDENT.
MN-54	-5.459E-02	4.263E-02	3.189E-02	2.175E-02	NOT IDENT.
CO-56	3.954E-02	4.537E-02	4.085E-02	2.315E-02	NOT IDENT.
CO-57	1.693E-02	2.738E-02	2.390E-02	1.397E-02	NOT IDENT.

CO-58	-1.635E-02	4.426E-02	3.621E-02	2.258E-02	NOT IDENT.
FE-59	5.863E-02	1.216E-01	1.042E-01	6.206E-02	NOT IDENT.
CO-60	-5.479E-02	4.998E-02	3.730E-02	2.550E-02	NOT IDENT.
ZN-65	4.239E-04	1.206E-01	8.531E-02	6.151E-02	NOT IDENT.
SE-75	3.419E-02	5.078E-02	4.263E-02	2.591E-02	NOT IDENT.
SR-85	5.792E-02	5.229E-02	4.132E-02	2.668E-02	NOT IDENT.
Y-88	2.599E-02	3.455E-02	3.266E-02	1.763E-02	NOT IDENT.
Y-91	3.839E+00	2.588E+01	2.235E+01	1.320E+01	NOT IDENT.
NB-94	2.119E-02	3.636E-02	3.234E-02	1.855E-02	NOT IDENT.
NB-95	2.866E-02	5.568E-02	4.318E-02	2.841E-02	NOT IDENT.
NB-95M	1.645E-01	1.514E-01	1.236E-01	7.725E-02	NOT IDENT.
ZR-95	8.193E-03	9.158E-02	7.837E-02	4.672E-02	NOT IDENT.
MO-99	1.331E+01	4.677E+01	4.068E+01	2.386E+01	NOT IDENT.
TC-99M	-1.886E+22	3.424E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.103E-02	4.676E-02	3.957E-02	2.386E-02	FAIL ABUN
RH-106	-1.209E-01	3.210E-01	2.694E-01	1.638E-01	NOT IDENT.
RU-106	-1.209E-01	3.208E-01	2.694E-01	1.636E-01	NOT IDENT.
AG-108M	1.018E-02	3.052E-02	2.625E-02	1.557E-02	NOT IDENT.
AG-110M	-1.198E-02	3.668E-02	3.079E-02	1.871E-02	NOT IDENT.
SN-113	7.809E-04	5.034E-02	4.274E-02	2.568E-02	NOT IDENT.
CD-115	-9.870E+00	5.667E+01	0.000E+00	2.891E+01	SHORT HLIF
SN-117M	6.633E-03	8.346E-02	6.259E-02	4.258E-02	NOT IDENT.
TE-123M	1.395E-02	3.231E-02	2.632E-02	1.649E-02	NOT IDENT.
SB-124	1.828E-02	7.449E-02	6.483E-02	3.801E-02	NOT IDENT.
SB-125	-1.339E-02	9.334E-02	7.785E-02	4.762E-02	FAIL ABUN
TE-125M	3.539E-01	1.097E+01	9.426E+00	5.599E+00	NOT IDENT.
I-126	1.748E-01	3.165E-01	2.818E-01	1.615E-01	NOT IDENT.
SB-126	1.298E-01	2.350E-01	1.914E-01	1.199E-01	NOT IDENT.
SB-127	-1.974E+00	3.441E+00	2.816E+00	1.756E+00	NOT IDENT.
I-131	-7.286E-02	1.782E-01	1.479E-01	9.090E-02	NOT IDENT.
TE-132	-2.535E+00	2.288E+00	1.874E+00	1.167E+00	NOT IDENT.
BA-133	1.208E-02	4.655E-02	3.564E-02	2.375E-02	NOT IDENT.
I-133	-2.089E+04	3.367E+05	0.000E+00	1.718E+05	SHORT HLIF
CS-134	7.987E-02	5.408E-02	5.015E-02	2.759E-02	NOT IDENT.
CS-135	2.334E-02	1.780E-01	1.378E-01	9.079E-02	NOT IDENT.
I-135	1.218E+21	2.027E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-7.277E-03	1.658E-01	1.365E-01	8.461E-02	FAIL ABUN
BA-137M	-2.449E-02	3.920E-02	3.221E-02	2.000E-02	NOT IDENT.
CS-137	-2.588E-02	4.142E-02	3.402E-02	2.113E-02	NOT IDENT.
CE-139	-3.331E-02	3.411E-02	2.720E-02	1.741E-02	NOT IDENT.
BA-140	-1.801E-01	3.799E-01	2.986E-01	1.938E-01	NOT IDENT.
LA-140	1.275E-01	1.431E-01	1.238E-01	7.300E-02	FAIL ABUN
CE-141	3.378E-02	7.947E-02	6.709E-02	4.055E-02	NOT IDENT.
CE-143	7.264E+03	2.698E+03	0.000E+00	1.376E+03	SHORT HLIF
CE-144	-7.078E-02	2.329E-01	1.851E-01	1.188E-01	NOT IDENT.
PM-144	1.210E-02	3.488E-02	3.064E-02	1.779E-02	NOT IDENT.
PR-144	9.344E-01	2.619E+00	2.302E+00	1.336E+00	NOT IDENT.
PM-146	-2.740E-03	4.166E-02	3.476E-02	2.125E-02	NOT IDENT.
ND-147	1.057E-01	8.577E-01	7.164E-01	4.376E-01	FAIL ABUN
PM-149	-3.378E+02	4.379E+02	0.000E+00	2.234E+02	SHORT HLIF
EU-152	4.385E-02	1.273E-01	9.175E-02	6.494E-02	NOT IDENT.
GD-153	4.380E-02	1.033E-01	8.141E-02	5.272E-02	NOT IDENT.
EU-154	-1.469E-01	1.508E-01	1.160E-01	7.695E-02	NOT IDENT.
EU-155	2.948E-02	1.140E-01	9.901E-02	5.818E-02	FAIL ABUN
TB-160	-9.156E-03	1.662E-01	1.388E-01	8.477E-02	FAIL ABUN
HO-166M	-2.049E-04	6.180E-02	5.282E-02	3.153E-02	NOT IDENT.
TA-182	-9.612E-02	2.517E-01	2.086E-01	1.284E-01	FAIL ABUN
IR-192	8.145E-03	3.719E-02	3.242E-02	1.897E-02	FAIL ABUN
HG-203	7.090E-02	4.626E-02	4.242E-02	2.360E-02	NOT IDENT.
BI-207	2.485E-03	6.011E-02	4.979E-02	3.067E-02	FAIL ABUN
PB-210	2.736E+00	8.905E+00	8.054E+00	4.544E+00	NOT IDENT.
PB-211	4.902E-01	9.132E-01	6.845E-01	4.659E-01	NOT IDENT.
BI-212	1.834E+00	8.902E-01	6.640E-01	4.542E-01	FAIL ABUN
RN-219	-4.336E-01	4.511E-01	3.556E-01	2.301E-01	FAIL ABUN
RA-223	-1.159E-01	7.599E-01	5.674E-01	3.877E-01	FAIL ABUN
AC-227	1.054E-01	2.649E-01	2.354E-01	1.351E-01	FAIL ABUN
TH-227	1.054E-01	2.649E-01	2.354E-01	1.352E-01	FAIL ABUN
TH-229	1.233E-01	5.784E-01	4.836E-01	2.951E-01	FAIL ABUN
PA-231	-1.021E+00	1.534E+00	1.281E+00	7.824E-01	FAIL ABUN
TH-231	-1.159E-01	7.599E-01	5.674E-01	3.877E-01	FAIL ABUN
PA-233	-3.960E-03	6.672E-02	5.736E-02	3.404E-02	FAIL ABUN
PA-234	-2.560E-01	3.356E-01	2.563E-01	1.712E-01	NOT IDENT.
PA-234M	3.928E+00	4.842E+00	4.312E+00	2.470E+00	NOT IDENT.
TH-234	1.507E+00	2.037E+00	1.816E+00	1.039E+00	FAIL ABUN
U-238	1.507E+00	2.037E+00	1.816E+00	1.039E+00	FAIL ABUN
NP-239	-4.947E-01	4.361E-01	3.532E-01	2.225E-01	NOT IDENT.
AM-241	-2.020E-01	2.502E-01	2.144E-01	1.277E-01	NOT IDENT.
CM-247	-2.355E-02	4.110E-02	3.354E-02	2.097E-02	NOT IDENT.

CF-249	-3.869E-03	4.436E-02	3.746E-02	2.263E-02	NOT IDENT.
CF-251	-4.643E-02	1.443E-01	1.184E-01	7.360E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	305.1329
49.72	352.9155
57.36	0.0000
59.54	379.6108
63.29	373.3917
63.29	373.3917
64.28	380.9098
67.75	417.5082
69.67	421.6538
70.83	403.8055
72.81	396.7296
72.87	396.7794
72.87	396.7794
74.82	398.3690
74.82	398.3690
74.82	398.3690
74.97	398.4915
77.11	400.2118
77.11	400.2118
77.11	400.2118
79.69	338.6639
79.80	325.4228
80.12	325.6259
80.19	325.6712
80.57	358.5024
81.00	415.1422
81.07	415.1978
81.07	415.1978
83.79	390.5294
83.79	390.5294
85.43	403.6961
86.48	506.3528
86.55	506.4198
86.79	502.1447
86.94	502.2853
87.57	390.2856
88.03	390.6149
88.47	390.9283
89.96	491.4897
91.11	341.4312
92.59	342.3312
92.59	342.3312
93.35	342.7899
94.67	343.5830
94.87	343.7020
94.87	343.7020
95.86	351.9106
97.43	310.0895
98.44	258.5982
99.53	320.3964
100.11	333.9056
103.18	283.7897
103.37	279.7654
105.31	311.6080
106.12	298.5854
109.28	311.5204
111.00	271.7569
111.76	321.0761
116.30	265.5890
117.23	340.6014
121.12	274.9143
121.78	282.5916
122.06	284.8246
123.07	329.7842
131.20	299.3097
133.52	334.4995
136.00	298.0594

136.47	285.2830
140.51	325.9552
140.51	0.0000
143.76	342.6389
144.24	307.9125
144.24	307.9125
145.44	330.2695
152.43	304.5535
153.25	301.5541
154.21	296.3856
154.21	296.3856
156.02	294.2852
158.56	281.8661
159.00	271.0045
162.66	269.3084
163.33	279.5894
165.86	330.9177
176.60	295.3221
177.52	301.3167
181.07	285.9712
184.41	323.1307
185.72	307.5305
193.51	270.7910
197.04	254.3839
205.31	269.9344
210.85	271.4555
215.65	270.8029
222.11	246.6085
227.38	237.0828
228.16	263.3204
228.18	263.3249
235.69	237.4917
235.96	237.5518
235.96	237.5518
238.63	287.5085
238.63	287.5085
240.99	422.0081
242.00	378.7012
244.70	179.5947
252.40	199.3946
252.80	215.0903
256.23	198.2228
256.23	198.2228
260.90	0.0000
264.66	177.0713
268.22	189.2815
269.46	158.1486
269.46	158.1486
271.23	162.4931
273.65	238.0575
276.40	206.3373
277.37	206.5018
277.60	204.6644
278.00	198.1570
279.20	187.0726
279.54	197.4678
280.46	225.8496
283.69	200.9680
284.31	192.5729
285.41	183.2959
285.90	0.0000
287.50	178.8717
293.27	0.0000
295.22	190.4510
295.96	144.8263
298.57	145.1232
299.98	178.9277
299.98	178.9277
300.09	178.9420
300.09	178.9420
300.13	178.9477
301.36	191.3666
302.85	199.2498
304.50	158.0683
304.50	158.0683
304.85	162.7162
308.46	174.1341
311.90	160.1210

316.51	149.0630
319.41	161.9953
320.08	152.3716
323.87	163.5037
323.87	163.5037
328.76	179.7184
333.37	156.7993
334.37	170.6414
334.37	170.6414
338.28	144.5663
338.28	144.5663
338.32	144.5708
338.32	144.5708
338.32	144.5708
340.48	156.0217
340.55	156.0313
344.28	152.0966
351.06	144.8794
351.93	144.9663
356.01	121.0786
364.49	130.1924
366.42	147.4082
383.85	154.1848
388.16	147.4957
388.63	151.6100
391.69	140.6932
400.66	143.5440
401.81	155.9614
402.40	149.8607
404.85	128.2963
410.95	127.1308
414.70	145.6275
423.72	112.3160
427.09	91.7020
427.87	111.5536
433.94	103.5862
453.88	96.3251
463.37	118.1306
468.07	109.2656
473.00	110.2076
476.78	111.5093
477.60	105.1239
487.02	125.0731
492.35	0.0000
497.08	97.5655
511.00	99.3778
514.00	117.2524
527.90	0.0000
529.87	0.0000
531.02	99.3027
537.26	99.6158
546.56	0.0000
563.25	97.5378
569.33	113.5664
569.50	113.5757
569.70	113.5849
583.19	93.2658
600.60	98.5896
602.73	100.5146
604.72	126.5196
609.32	94.4024
609.32	94.4024
609.32	94.4024
610.33	94.4452
614.28	87.2673
618.01	72.5890
621.93	84.8013
621.93	84.8013
633.25	80.5982
635.95	78.8408
636.99	74.2363
645.85	75.4570
657.76	86.1467
661.66	102.2354
661.66	102.2354
664.57	0.0000
666.33	86.4611
666.50	81.7685

677.62	80.2644
685.70	89.0636
695.00	89.4079
696.49	72.3299
696.51	72.3317
697.00	71.3947
702.65	81.1007
706.68	86.0120
711.68	73.7365
720.70	82.3807
721.93	0.0000
722.78	125.0457
722.91	125.0520
723.31	115.4531
724.19	104.2629
727.33	89.6192
733.00	69.2154
735.93	84.1219
739.50	74.5580
747.24	81.5801
752.31	99.2582
753.82	71.0788
756.73	92.6041
763.94	79.8264
765.81	79.8842
766.42	71.7489
777.92	86.8022
778.90	78.6426
783.70	74.8440
785.37	89.6714
795.86	67.2695
801.95	66.4291
810.29	64.6429
810.76	70.6221
815.77	61.7820
818.51	56.8567
832.01	74.1716
834.85	94.3144
836.80	0.0000
846.77	56.4238
856.80	67.4072
860.56	53.9974
871.09	55.8876
873.19	69.1472
875.33	0.0000
879.36	66.2362
880.51	65.2422
883.24	78.5678
884.68	63.2927
889.28	75.6621
898.04	65.6297
911.20	56.6489
911.20	56.6489
911.20	56.6489
926.50	40.3720
937.49	79.9947
944.13	64.5505
946.00	66.6734
949.00	47.9676
962.29	108.6462
964.08	80.3315
966.15	73.3940
968.97	129.4277
968.97	129.4277
968.97	129.4277
983.53	47.4401
996.26	68.7959
1001.03	45.5783
1004.73	58.3636
1037.84	67.5250
1038.76	0.0000
1048.07	63.4308
1050.41	54.8673
1050.41	54.8673
1063.66	57.2441
1085.87	53.2660
1099.45	62.2018
1112.07	63.5196

1115.54	63.9473
1120.29	69.5213
1120.29	69.5213
1120.29	69.5213
1120.55	72.4550
1121.30	72.4711
1131.51	0.0000
1173.23	71.4731
1177.93	84.5756
1189.05	76.4379
1204.77	66.4614
1221.41	90.2578
1231.02	71.6335
1235.36	100.0220
1238.28	78.3765
1260.41	0.0000
1271.85	58.0984
1274.44	69.5752
1274.54	70.5282
1291.59	49.7741
1298.22	0.0000
1312.11	46.1797
1332.49	58.9796
1365.19	29.2358
1368.63	0.0000
1384.29	26.8516
1408.01	36.4234
1457.56	0.0000
1460.82	21.9212
1489.16	15.0409
1505.03	31.1943
1596.21	21.1097
1620.50	12.3765
1678.03	0.0000
1690.97	9.4164
1764.49	9.0981
1764.49	9.0981
1764.49	9.0981
1770.23	16.3947
1771.35	10.9323
1791.20	0.0000
1836.06	7.5318

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248818001

Total Uranium Activity	4.5039E+00	ug/g
Total Uranium Counting Unc.	6.0604E+00	ug/g
Total Uranium Tpu	3.0921E-06	ug/g
Total Uranium Mda	5.4047E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962631                    SAMPLE ID  : G248818001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM10            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 12:59:43.22    SAMPLE ALQT:  122.420 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.217E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.694E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.744E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.307E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:03:17.50

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818002.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 13:02:47
Sample ID         : G248818002           Sample quantity  : 1.21170E+02 GRAM
Detector name     : GAM05                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.94  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	45.63*	195	646	1.10	92.24	86	12	2.71E-02	28.5	
2	0	62.75*	233	775	1.54	126.48	122	10	3.23E-02	23.7	
3	3	74.36*	977	808	1.63	149.70	145	13	1.36E-01	6.8	8.48E+00
4	3	76.70*	1259	545	1.10	154.38	145	13	1.75E-01	4.4	
5	4	86.75	285	564	0.96	174.48	169	14	3.96E-02	14.2	7.54E+00
6	4	89.55	181	567	1.23	180.08	169	14	2.51E-02	23.9	
7	0	92.71*	351	575	1.49	186.39	183	9	4.88E-02	13.9	
8	0	128.63	94	313	1.03	258.22	255	7	1.30E-02	33.0	
9	0	185.61*	245	527	1.41	372.16	366	14	3.40E-02	21.3	
10	0	208.57	116	336	1.37	418.07	414	10	1.61E-02	31.0	
11	3	238.30*	1447	169	1.25	477.52	471	20	2.01E-01	3.1	8.77E-01
12	3	241.30	363	269	1.83	483.53	471	20	5.04E-02	12.7	
13	0	276.94	61	196	0.86	554.80	550	9	8.42E-03	43.5	
14	0	294.91*	433	274	1.56	590.73	585	12	6.01E-02	9.2	
15	0	327.41	84	186	1.02	655.71	652	10	1.16E-02	32.4	
16	0	337.97	233	239	1.61	676.81	671	11	3.23E-02	14.4	
17	0	351.53*	699	276	1.32	703.93	696	16	9.71E-02	6.6	
18	0	510.56*	146	114	1.70	1021.86	1014	16	2.03E-02	21.0	
19	0	582.88*	366	165	1.54	1166.44	1158	17	5.08E-02	9.7	
20	0	609.02*	459	164	1.37	1218.70	1211	15	6.37E-02	7.8	
21	0	726.58	101	66	1.30	1453.67	1447	14	1.41E-02	19.7	
22	0	769.57	65	144	1.99	1539.61	1531	19	8.99E-03	46.6	
23	0	794.73	52	69	1.14	1589.89	1584	13	7.22E-03	35.6	
24	0	860.19	52	56	1.47	1720.70	1716	11	7.17E-03	31.7	
25	0	910.76*	275	80	1.42	1821.77	1814	16	3.82E-02	9.6	
26	0	968.96*	145	121	1.70	1938.09	1929	14	2.01E-02	18.2	
27	0	1238.21	33	81	0.71	2476.08	2471	13	4.52E-03	58.9	
28	0	1377.54	46	31	1.19	2754.44	2744	16	6.38E-03	31.2	
29	0	1460.26*	1300	30	2.04	2919.68	2911	20	1.81E-01	3.0	
30	0	1587.77	28	2	2.31	3174.36	3170	10	3.87E-03	21.6	
31	0	1592.21	22	7	1.10	3183.23	3179	9	3.08E-03	30.0	
32	0	1730.05	23	16	2.27	3458.54	3448	16	3.17E-03	44.4	
33	0	1763.70*	77	7	2.29	3525.74	3518	15	1.08E-02	14.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 15:03:20

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 13:02:47
Sample ID : G248818002 Sample quantity : 121.17 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA5 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.94 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.765E+01	3.242E+00	7.046E-01	4.382E-02	53.438
CD-109	+	88.03	*	3.124E+00	9.191E-01	1.311E+00	9.985E-02	2.382
SN-126		64.28		7.653E-01	3.678E-01	5.462E-01	8.141E-02	1.401
	+	86.94		1.260E+00	6.303E-01	5.273E-01	2.170E-01	2.390
	+	87.57	*	3.031E-01	8.918E-02	1.271E-01	9.676E-03	2.386
TL-208	+	277.37		6.673E-01	5.876E-01	7.035E-01	9.155E-02	0.949
	+	583.19	*	5.900E-01	1.229E-01	7.680E-02	5.641E-03	7.681
	+	860.56		8.042E-01	5.157E-01	6.055E-01	6.144E-02	1.328
PB-210	+	46.54	*	1.882E+00	1.082E+00	9.899E-01	7.635E-02	1.901
BI-211	+	72.87		3.061E+01	4.831E+00	3.905E+00	3.074E-01	7.839
	+	351.06	*	4.766E+00	7.299E-01	4.129E-01	3.273E-02	11.543
PB-212	+	74.82		3.662E+00	6.790E-01	4.542E-01	5.671E-02	8.063
	+	77.11		2.846E+00	3.343E-01	2.587E-01	2.014E-02	11.001
	+	238.63	*	2.151E+00	2.679E-01	1.107E-01	1.199E-02	19.428
		300.09		1.805E+00	1.158E+00	1.791E+00	1.923E-01	1.008
BI-214	+	609.32	*	1.438E+00	2.551E-01	1.639E-01	1.383E-02	8.777
		1120.29		1.153E+00	5.274E-01	9.581E-01	9.205E-02	1.203
	+	1764.49		1.821E+00	5.293E-01	4.555E-01	2.633E-02	3.997
PB-214	+	74.82		6.491E+00	1.147E+00	8.050E-01	8.972E-02	8.063
	+	77.11		5.018E+00	7.202E-01	4.561E-01	5.172E-02	11.001
	+	242.00		3.277E+00	9.099E-01	6.735E-01	7.653E-02	4.865
	+	295.22		1.793E+00	3.838E-01	3.090E-01	3.426E-02	5.802
	+	351.93	*	1.730E+00	2.816E-01	1.502E-01	1.447E-02	11.517
RA-224	+	240.99	*	5.795E+00	1.574E+00	1.187E+00	1.161E-01	4.882
RA-226	+	609.32	*	1.438E+00	2.551E-01	1.639E-01	1.383E-02	8.777
		1120.29		1.153E+00	5.274E-01	9.581E-01	9.205E-02	1.203
	+	1764.49		1.821E+00	5.293E-01	4.555E-01	2.633E-02	3.997
AC-228	+	338.32		1.759E+00	8.905E-01	5.052E-01	2.100E-01	3.482
	+	911.20	*	2.187E+00	5.018E-01	3.108E-01	3.945E-02	7.037
	+	968.97		1.989E+00	8.737E-01	4.329E-01	1.066E-01	4.596
RA-228	+	338.32		1.759E+00	8.905E-01	5.052E-01	2.100E-01	3.482
	+	911.20	*	2.187E+00	5.018E-01	3.108E-01	3.945E-02	7.037
	+	968.97		1.989E+00	8.737E-01	4.329E-01	1.066E-01	4.596
TH-228	+	74.82		3.662E+00	5.796E-01	4.542E-01	3.595E-02	8.063

Sample ID : G248818002 Acquisition date : 23-MAR-2010 13:02:47

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		2.846E+00	3.343E-01	2.587E-01	2.014E-02	11.001
	+	238.63	*	2.151E+00	2.679E-01	1.107E-01	1.199E-02	19.428
		300.09		1.805E+00	1.589E+00	1.791E+00	1.097E+00	1.008
TH-229	+	85.43		7.630E-01	2.245E-01	3.297E-01	2.521E-02	2.314
	+	88.47		2.990E-01	1.451E-01	1.964E-01	1.510E-02	1.522
		193.51	*	-1.685E-02	7.065E-01	1.130E+00	1.129E-01	-0.015
		210.85		1.295E+00	1.290E+00	1.890E+00	1.883E-01	0.685
TH-230	+	609.32	*	1.438E+00	2.435E-01	1.639E-01	1.079E-02	8.777
		1120.29		1.153E+00	5.217E-01	9.581E-01	6.595E-02	1.203
	+	1764.49		1.820E+00	5.292E-01	4.555E-01	2.633E-02	3.997
TH-232	+	338.32		1.759E+00	5.267E-01	5.052E-01	3.961E-02	3.482
	+	911.20	*	2.187E+00	5.018E-01	3.108E-01	3.945E-02	7.037
	+	968.97		1.989E+00	8.737E-01	4.329E-01	1.066E-01	4.596
TH-234	+	63.29	*	2.417E+00	1.227E+00	1.220E+00	2.214E-01	1.981
	+	92.59		3.319E+00	1.178E+00	1.071E+00	2.356E-01	3.099
U-235	+	89.96		2.068E+00	1.111E+00	1.295E+00	3.158E-01	1.597
	+	93.35		2.507E+00	9.062E-01	7.080E-01	1.633E-01	3.541
		143.76	*	9.332E-02	2.547E-01	4.165E-01	7.944E-02	0.224
		163.33		-1.380E-01	5.475E-01	8.723E-01	1.637E-01	-0.158
	+	185.72		2.340E-01	1.023E-01	8.285E-02	8.268E-03	2.824
		205.31		-3.644E-01	7.107E-01	9.548E-01	1.798E-01	-0.382
NP-237	+	86.48	*	9.045E-01	3.268E-01	3.779E-01	8.433E-02	2.393
		95.86		-5.779E-02	1.067E+00	1.527E+00	3.685E-01	-0.038
U-238	+	63.29	*	2.417E+00	1.227E+00	1.220E+00	2.214E-01	1.981
	+	92.59		3.319E+00	9.661E-01	1.071E+00	9.001E-02	3.099
ANH-511	+	511.00	*	1.778E-01	7.544E-02	6.173E-02	3.951E-03	2.880

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	4.976E-02	4.547E-01	7.476E-01	5.353E-02	0.067
NA-22		1274.54	*	2.973E-02	6.079E-02	1.030E-01	5.997E-03	0.289
NA-24		1368.63	*	2.427E+02	6.079E-02	Half-Life too short		
SC-46		889.28	*	2.549E-03	5.037E-02	8.371E-02	8.408E-03	0.030
		1120.55		2.058E-01	9.214E-02	1.694E-01	1.165E-02	1.215
V-48		944.13		4.984E-01	1.478E+00	2.504E+00	2.422E-01	0.199
		983.53	*	-6.336E-02	1.243E-01	1.951E-01	1.787E-02	-0.325
		1312.11		1.148E-01	1.305E-01	2.305E-01	1.337E-02	0.498
CR-51		320.08	*	-3.093E-01	5.162E-01	8.302E-01	7.336E-02	-0.373
MN-54		834.85	*	2.171E-02	5.254E-02	8.973E-02	8.220E-03	0.242
CO-56		846.77	*	1.706E-02	5.110E-02	8.714E-02	8.149E-03	0.196
		1037.84		2.363E-02	4.462E-01	7.350E-01	6.477E-02	0.032
	+	1238.28		1.564E-01	1.846E-01	2.366E-01	1.462E-02	0.661
		1771.35		-9.733E-01	4.508E-01	4.997E-01	2.886E-02	-1.948
CO-57		122.06	*	3.014E-03	3.109E-02	5.074E-02	7.199E-03	0.059
		136.47		-8.158E-02	2.529E-01	4.044E-01	5.414E-02	-0.202
CO-58		810.76	*	-7.114E-02	5.604E-02	8.290E-02	7.296E-03	-0.858
FE-59		1099.45	*	-6.934E-03	1.367E-01	2.223E-01	1.800E-02	-0.031

Sample ID : G248818002 Acquisition date : 23-MAR-2010 13:02:47

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1291.59		-1.795E-01	1.941E-01	2.836E-01	2.107E-02	-0.633
CO-60		1173.23		-5.501E-03	6.489E-02	1.048E-01	6.081E-03	-0.052
		1332.49	*	2.912E-02	5.413E-02	9.254E-02	5.355E-03	0.315
ZN-65		1115.54	*	-3.644E-01	1.604E-01	2.153E-01	1.504E-02	-1.693
SE-75		121.12		1.423E-01	1.636E-01	2.720E-01	4.250E-02	0.523
		136.00		-1.554E-02	4.962E-02	7.940E-02	1.035E-02	-0.196
		264.66	*	-9.820E-02	5.769E-02	8.784E-02	8.387E-03	-1.118
		279.54		7.326E-02	1.521E-01	2.278E-01	2.182E-02	0.322
		400.66		6.876E-02	3.485E-01	5.797E-01	5.285E-02	0.119
SR-85		514.00	*	1.181E-01	5.471E-02	9.143E-02	5.861E-03	1.292
Y-88		898.04		-3.564E-02	6.233E-02	9.820E-02	1.004E-02	-0.363
		1836.06	*	-5.452E-03	4.073E-02	6.500E-02	3.719E-03	-0.084
Y-91		1204.77	*	9.283E+00	3.170E+01	5.275E+01	3.065E+00	0.176
NB-94		702.65	*	1.125E-02	4.657E-02	7.922E-02	5.668E-03	0.142
		871.09		-8.654E-05	4.758E-02	7.878E-02	7.678E-03	-0.001
NB-95		765.81	*	5.476E-02	7.424E-02	1.138E-01	9.201E-03	0.481
NB-95M		235.69	*	1.378E+00	2.579E-01	3.895E-01	4.268E-02	3.538
ZR-95		724.19		3.284E-01	1.402E-01	2.445E-01	2.029E-02	1.343
		756.73	*	4.930E-02	1.072E-01	1.844E-01	1.645E-02	0.267
MO-99		140.51		-4.238E+01	9.600E+01	1.519E+02	3.867E+01	-0.279
		181.07		-1.454E+01	8.859E+01	1.228E+02	2.389E+01	-0.118
		366.42		2.056E+01	4.349E+02	7.205E+02	4.945E+01	0.029
		739.50	*	-4.437E+00	5.928E+01	9.852E+01	1.505E+01	-0.045
		777.92		-5.708E+01	1.992E+02	2.769E+02	2.291E+01	-0.206
TC-99M		140.51	*	-1.721E+16	1.992E+02	Half-Life too short		
RU-103		497.08	*	-1.511E-02	5.576E-02	8.908E-02	1.131E-02	-0.170
	+	610.33		1.619E+01	3.546E+00	3.943E+00	6.061E-01	4.107
RH-106		621.93	*	-5.183E-02	4.271E-01	6.815E-01	8.202E-02	-0.076
		1050.41		3.116E+00	3.492E+00	6.148E+00	5.006E-01	0.507
RU-106		621.93	*	-5.183E-02	4.271E-01	6.815E-01	4.492E-02	-0.076
		1050.41		3.116E+00	3.492E+00	6.148E+00	5.006E-01	0.507
AG-108M		433.94	*	-1.544E-02	4.006E-02	6.417E-02	4.143E-03	-0.241
		614.28		-2.417E-02	5.710E-02	7.582E-02	5.274E-03	-0.319
		722.91		9.769E-03	5.194E-02	7.649E-02	5.942E-03	0.128
AG-110M		657.76	*	1.807E-02	4.810E-02	7.945E-02	5.492E-03	0.227
		677.62		-6.685E-02	3.888E-01	6.440E-01	4.579E-02	-0.104
		706.68		-3.089E-02	2.913E-01	4.844E-01	3.637E-02	-0.064
		763.94		-4.269E-02	2.537E-01	3.581E-01	2.977E-02	-0.119
		884.68		-1.006E-02	6.461E-02	1.054E-01	1.076E-02	-0.095
		937.49		-3.152E-01	1.540E-01	1.993E-01	1.999E-02	-1.581
		1384.29		1.163E-02	2.390E-01	3.455E-01	2.130E-02	0.034
		1505.03		3.247E-02	3.332E-01	5.621E-01	3.304E-02	0.058
SN-113		391.69	*	-4.625E-02	5.968E-02	9.387E-02	5.823E-03	-0.493
CD-115		260.90		-2.106E-04	5.968E-02	Half-Life too short		
		492.35		6.438E-09	5.968E-02	Half-Life too short		
		527.90	*	-4.096E-05	5.968E-02	Half-Life too short		
SN-117M		156.02		-8.752E-01	3.739E+00	5.978E+00	6.592E-01	-0.146
		158.56	*	7.259E-03	9.037E-02	1.462E-01	1.572E-02	0.050
TE-123M		159.00	*	6.390E-03	3.762E-02	6.104E-02	6.559E-03	0.105

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-124		602.73		1.182E-02	6.932E-02	9.795E-02	6.450E-03	0.121
		645.85		-3.316E-02	6.967E-01	1.116E+00	8.060E-02	-0.030
		722.78		-3.514E-03	5.559E-01	8.014E-01	6.152E-02	-0.004
		1690.97	*	4.395E-02	9.068E-02	1.636E-01	1.040E-02	0.269
SB-125		427.87	*	1.261E-02	1.170E-01	1.932E-01	1.210E-02	0.065
		463.37		9.306E-01	3.809E-01	6.966E-01	4.936E-02	1.336
		600.60		4.207E-02	2.717E-01	4.176E-01	3.089E-02	0.101
		635.95		5.406E-02	3.519E-01	5.733E-01	4.290E-02	0.094
TE-125M		109.28	*	-9.529E+00	1.196E+01	1.887E+01	2.451E+00	-0.505
I-126		388.63		1.672E-01	2.725E-01	4.644E-01	2.764E-02	0.360
		666.33	*	3.121E-02	4.108E-01	6.628E-01	4.401E-02	0.047
		753.82		2.227E+00	3.175E+00	5.554E+00	4.392E-01	0.401
SB-126		414.70		7.448E-02	1.333E-01	2.258E-01	1.345E-02	0.330
		666.50		9.222E-03	1.426E-01	2.300E-01	1.528E-02	0.040
		695.00		1.297E-01	1.394E-01	2.471E-01	1.741E-02	0.525
		697.00		1.899E-01	4.915E-01	8.436E-01	5.968E-02	0.225
		720.70	*	-2.925E-02	2.640E-01	3.760E-01	2.789E-02	-0.078
		856.80		2.017E-01	9.945E-01	1.452E+00	1.381E-01	0.139
SB-127		252.40		7.003E+00	1.305E+01	2.182E+01	9.211E+00	0.321
		473.00		-4.146E+00	5.290E+00	8.151E+00	1.050E+00	-0.509
		685.70	*	3.137E+00	4.372E+00	7.655E+00	9.081E-01	0.410
		783.70		9.299E+00	1.110E+01	1.950E+01	2.661E+00	0.477
I-131		80.19		-9.493E+00	7.681E+00	9.698E+00	7.598E-01	-0.979
		284.31		4.472E-01	2.679E+00	4.509E+00	4.346E-01	0.099
		364.49	*	1.038E-01	2.239E-01	3.791E-01	2.864E-02	0.274
		636.99		1.807E+00	3.045E+00	5.133E+00	3.734E-01	0.352
TE-132		49.72		-8.446E+00	1.526E+01	2.175E+01	2.502E+00	-0.388
		111.76		4.035E+01	1.087E+02	1.792E+02	2.699E+01	0.225
		116.30		-1.187E+02	9.813E+01	1.496E+02	2.366E+01	-0.794
		228.16	*	9.952E-01	2.519E+00	4.296E+00	7.552E-01	0.232
BA-133		81.00		-1.903E-01	1.430E-01	1.322E-01	1.988E-02	-1.439
	+	276.40		6.173E-01	5.451E-01	7.666E-01	1.116E-01	0.805
		302.85		-1.948E-01	1.768E-01	2.759E-01	3.639E-02	-0.706
		356.01	*	-8.522E-04	5.970E-02	8.558E-02	1.034E-02	-0.010
		383.85		-8.800E-02	3.820E-01	6.217E-01	6.753E-02	-0.142
I-133		529.87	*	-3.550E-01	3.820E-01	Half-Life too short		
		875.33		-2.309E+00	3.820E-01	Half-Life too short		
		1298.22		6.455E+00	3.820E-01	Half-Life too short		
CS-134		563.25		-1.988E-02	4.933E-01	7.965E-01	5.291E-02	-0.025
		569.33		1.808E-02	2.619E-01	4.196E-01	2.811E-02	0.043
		604.72		-1.037E-02	5.723E-02	7.822E-02	5.173E-03	-0.133
	+	795.86	*	1.250E-01	8.963E-02	1.215E-01	1.046E-02	1.029
		801.95		-2.564E-01	6.161E-01	8.911E-01	7.745E-02	-0.288
		1365.19		4.789E-01	1.727E+00	2.876E+00	1.837E-01	0.167
CS-135		268.22	*	3.472E-01	2.033E-01	3.576E-01	3.826E-02	0.971
I-135		546.56		7.935E+14	2.033E-01	Half-Life too short		
		836.80		1.123E+15	2.033E-01	Half-Life too short		
		1038.76		2.596E+15	2.033E-01	Half-Life too short		
		1131.51		-1.349E+15	2.033E-01	Half-Life too short		

Sample ID : G248818002 Acquisition date : 23-MAR-2010 13:02:47

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1260.41	*	5.177E+14	2.033E-01	Half-Life too short		
		1457.56		3.802E+17	2.033E-01	Half-Life too short		
		1678.03		-1.056E+15	2.033E-01	Half-Life too short		
		1791.20		-3.084E+15	2.033E-01	Half-Life too short		
CS-136		153.25		4.397E-01	1.416E+00	2.310E+00	2.916E-01	0.190
		176.60		-3.622E-01	8.184E-01	1.289E+00	1.385E-01	-0.281
		273.65		-2.255E+00	1.031E+00	1.260E+00	1.266E-01	-1.790
		340.55		7.097E-01	2.879E-01	4.690E-01	3.816E-02	1.513
		818.51		1.390E-02	1.338E-01	2.241E-01	1.998E-02	0.062
		1048.07	*	1.182E-01	1.914E-01	3.298E-01	2.826E-02	0.358
		1235.36		7.710E-01	1.327E+00	1.947E+00	1.928E-01	0.396
BA-137M		661.66	*	6.855E-03	5.003E-02	8.114E-02	5.336E-03	0.084
CS-137		661.66	*	7.242E-03	5.285E-02	8.571E-02	5.655E-03	0.084
CE-139		165.86	*	-3.307E-03	3.771E-02	6.050E-02	6.006E-03	-0.055
BA-140		162.66		-2.419E-01	1.343E+00	2.148E+00	2.317E-01	-0.113
		304.85		-3.015E+00	2.331E+00	3.342E+00	9.795E-01	-0.902
		423.72		-1.927E+00	3.310E+00	5.142E+00	1.661E+00	-0.375
		537.26	*	1.575E-01	4.709E-01	7.772E-01	2.599E-01	0.203
LA-140	+	328.76		1.019E+00	6.655E-01	9.312E-01	8.055E-02	1.095
		487.02		-1.732E-02	2.445E-01	3.969E-01	2.788E-02	-0.044
		815.77		2.809E-01	5.839E-01	1.005E+00	9.896E-02	0.280
		1596.21	*	9.517E-02	1.534E-01	2.463E-01	1.447E-02	0.386
CE-141		145.44	*	9.657E-04	8.860E-02	1.434E-01	1.753E-02	0.007
CE-143		57.36		3.750E-03	8.860E-02	Half-Life too short		
		293.27	*	1.848E-02	8.860E-02	Half-Life too short		
		664.57		-1.304E-04	8.860E-02	Half-Life too short		
		721.93		-1.792E-03	8.860E-02	Half-Life too short		
CE-144		80.12		-3.349E+00	2.744E+00	3.468E+00	2.680E-01	-0.966
		133.52	*	-1.201E-01	2.646E-01	3.869E-01	7.072E-02	-0.311
PM-144		476.78		-3.656E-02	8.655E-02	1.373E-01	9.975E-03	-0.266
		618.01		-7.276E-03	4.551E-02	7.247E-02	5.005E-03	-0.100
		696.49	*	3.781E-02	4.790E-02	8.418E-02	5.954E-03	0.449
PR-144		696.51	*	2.807E+00	3.592E+00	6.309E+00	4.459E-01	0.445
		1489.16		-8.094E+00	1.476E+01	2.244E+01	1.319E+00	-0.361
PM-146		453.88	*	4.038E-02	5.249E-02	8.996E-02	7.838E-03	0.449
		633.25		-1.653E+00	1.994E+00	2.828E+00	1.069E+00	-0.585
		735.93		1.403E-01	2.017E-01	3.471E-01	9.628E-02	0.404
		747.24		8.917E-02	1.215E-01	2.132E-01	3.010E-02	0.418
ND-147		91.11		1.816E+00	6.208E-01	7.562E-01	6.731E-02	2.402
		319.41		-3.295E+00	5.528E+00	8.890E+00	7.462E-01	-0.371
		531.02	*	-2.204E-01	9.936E-01	1.587E+00	2.193E-01	-0.139
PM-149		285.90	*	3.584E-04	9.936E-01	Half-Life too short		
EU-152		121.78		3.703E-02	8.791E-02	1.449E-01	2.165E-02	0.256
		244.70		2.326E-01	4.352E-01	6.559E-01	6.395E-02	0.355
		344.28	*	-2.370E-02	1.650E-01	2.045E-01	1.681E-02	-0.116
		778.90		-8.421E-02	3.840E-01	5.816E-01	4.820E-02	-0.145
		964.08		2.641E-01	4.871E-01	7.255E-01	6.835E-02	0.364
		1085.87		-2.646E-02	5.204E-01	8.469E-01	6.375E-02	-0.031
		1112.07		-2.677E-01	4.392E-01	6.787E-01	4.779E-02	-0.394

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1408.01		1.164E-01	2.500E-01	4.380E-01	2.559E-02	0.266
GD-153		69.67		5.539E-01	1.412E+00	2.075E+00	1.650E-01	0.267
		97.43	*	1.452E-01	1.007E-01	1.528E-01	1.417E-02	0.950
		103.18		-1.118E-01	1.257E-01	1.982E-01	2.050E-02	-0.564
EU-154		123.07		2.507E-02	6.500E-02	1.034E-01	1.647E-02	0.242
		723.31		2.158E-01	2.338E-01	3.701E-01	3.127E-02	0.583
		873.19		-1.645E-01	3.870E-01	6.172E-01	7.876E-02	-0.267
		996.26		-7.293E-02	4.661E-01	7.546E-01	1.332E-01	-0.097
		1004.73		-2.867E-01	3.053E-01	4.576E-01	5.406E-02	-0.627
		1274.44	*	8.561E-02	1.721E-01	2.914E-01	2.749E-02	0.294
EU-155	+	86.55		3.683E-01	1.084E-01	1.889E-01	1.460E-02	1.950
		105.31	*	9.662E-02	1.200E-01	2.006E-01	2.172E-02	0.482
TB-160	+	86.79		1.022E+00	3.008E-01	5.228E-01	3.987E-02	1.955
		197.04		-4.885E-01	8.101E-01	1.253E+00	1.252E-01	-0.390
		215.65		-7.548E-01	9.569E-01	1.516E+00	1.508E-01	-0.498
		298.57		2.436E-01	1.733E-01	2.671E-01	2.376E-02	0.912
		879.36	*	1.443E-01	1.907E-01	3.348E-01	3.308E-02	0.431
		962.29		8.351E-01	9.035E-01	1.396E+00	1.319E-01	0.598
		966.15		1.580E+00	4.600E-01	7.824E-01	7.350E-02	2.020
		1177.93		2.783E-01	5.179E-01	8.807E-01	5.110E-02	0.316
		1271.85		3.080E-01	9.451E-01	1.582E+00	9.195E-02	0.195
HO-166M		80.57		-5.079E-01	3.372E-01	3.738E-01	2.886E-02	-1.359
	+	184.41		1.859E-01	8.127E-02	8.557E-02	8.539E-03	2.172
		280.46		-9.019E-02	1.172E-01	1.609E-01	1.489E-02	-0.561
		410.95		1.556E-01	3.271E-01	5.449E-01	3.234E-02	0.286
		711.68	*	-2.017E-02	8.016E-02	1.318E-01	9.601E-03	-0.153
		752.31		-5.250E-02	3.815E-01	6.306E-01	4.973E-02	-0.083
		810.29		-7.734E-02	7.876E-02	1.199E-01	1.052E-02	-0.645
TA-182		67.75		-3.663E-02	8.899E-02	1.270E-01	1.017E-02	-0.288
		100.11		9.098E-02	1.951E-01	3.239E-01	3.162E-02	0.281
		152.43		9.073E-02	4.582E-01	7.452E-01	8.500E-02	0.122
		222.11		-2.071E-01	4.238E-01	6.992E-01	6.935E-02	-0.296
		1121.30		6.394E-01	2.529E-01	4.706E-01	3.230E-02	1.359
		1189.05		-4.426E-01	4.603E-01	6.854E-01	3.980E-02	-0.646
		1221.41	*	9.904E-02	3.083E-01	5.074E-01	2.950E-02	0.195
		1231.02		6.850E-01	7.650E-01	1.209E+00	7.030E-02	0.567
IR-192	+	295.96		1.388E+00	2.835E-01	3.822E-01	3.446E-02	3.632
		308.46		3.233E-02	1.175E-01	1.983E-01	1.728E-02	0.163
		316.51	*	-3.866E-03	4.339E-02	7.181E-02	6.095E-03	-0.054
		468.07		-7.571E-02	9.403E-02	1.455E-01	1.030E-02	-0.520
HG-203		70.83		1.086E+00	1.195E+00	1.771E+00	2.779E-01	0.613
	+	72.87		8.200E+00	1.673E+00	1.442E+00	2.182E-01	5.687
		279.20	*	5.419E-02	5.722E-02	8.785E-02	8.333E-03	0.617
BI-207		72.81		1.092E+00	2.010E-01	3.075E-01	2.421E-02	3.552
	+	74.97		1.056E+00	1.666E-01	2.452E-01	1.919E-02	4.305
		569.70		8.862E-04	4.077E-02	6.512E-02	4.262E-03	0.014
		1063.66	*	-2.513E-03	7.045E-02	1.150E-01	9.103E-03	-0.022
		1770.23		3.101E-02	5.974E-01	8.928E-01	5.156E-02	0.035
PB-211		404.85	*	-1.014E-02	9.546E-01	1.569E+00	7.531E-01	-0.006

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.09		-7.988E-01	1.967E+00	3.089E+00	1.417E+00	-0.259
		832.01		-5.747E-01	1.456E+00	2.296E+00	1.192E+00	-0.250
BI-212	+	727.33	*	2.543E+00	1.046E+00	1.389E+00	1.629E-01	1.830
		785.37		-1.940E+00	4.012E+00	6.421E+00	5.385E-01	-0.302
		1620.50		2.096E+00	2.953E+00	5.385E+00	3.160E-01	0.389
RN-219		271.23		4.144E-01	3.454E-01	5.331E-01	5.827E-02	0.777
		401.81	*	-1.443E-01	5.386E-01	8.725E-01	1.175E-01	-0.165
RA-223		81.07		-4.268E-01	3.192E-01	2.999E-01	2.313E-02	-1.423
		83.79		4.528E-02	1.343E-01	1.960E-01	1.503E-02	0.231
		94.87		8.348E-01	5.439E-01	8.230E-01	7.249E-02	1.014
		144.24		5.373E-01	8.475E-01	1.398E+00	1.811E-01	0.384
		154.21		1.747E-01	4.919E-01	8.039E-01	9.538E-02	0.217
		269.46		5.724E-01	2.365E-01	4.227E-01	4.056E-02	1.354
		323.87	*	1.291E+00	8.976E-01	1.389E+00	2.383E-01	0.930
	+	338.28		6.980E+00	2.172E+00	2.969E+00	3.423E-01	2.351
AC-227		79.69		-6.508E-01	1.230E+00	1.732E+00	2.911E-01	-0.376
		235.96		2.539E+00	3.931E-01	5.240E-01	5.956E-02	4.846
		256.23	*	4.678E-02	3.041E-01	5.131E-01	6.560E-02	0.091
		299.98		1.956E+00	1.279E+00	1.965E+00	2.530E-01	0.995
		304.50		-3.285E+00	2.135E+00	3.175E+00	5.271E-01	-1.035
		334.37		-3.368E+00	3.021E+00	3.349E+00	5.102E-01	-1.005
TH-227		79.80		-2.042E+00	1.824E+00	2.256E+00	4.837E-01	-0.905
		235.96		2.539E+00	3.833E-01	5.240E-01	5.679E-02	4.846
		256.23	*	4.678E-02	3.041E-01	5.131E-01	7.317E-02	0.091
		299.98		1.956E+00	1.279E+00	1.965E+00	2.530E-01	0.995
		304.50		-3.285E+00	2.135E+00	3.175E+00	5.271E-01	-1.035
		334.37		-3.368E+00	3.021E+00	3.349E+00	5.102E-01	-1.005
PA-231		283.69	*	2.785E-01	1.708E+00	2.874E+00	4.292E-01	0.097
		301.36		1.422E+00	7.705E-01	1.260E+00	1.550E-01	1.129
TH-231		81.07		-4.268E-01	3.192E-01	2.999E-01	2.313E-02	-1.423
		83.79		4.528E-02	1.343E-01	1.960E-01	1.503E-02	0.231
		94.87		8.348E-01	5.439E-01	8.230E-01	7.249E-02	1.014
		144.24		5.373E-01	8.475E-01	1.398E+00	1.811E-01	0.384
		154.21		1.747E-01	4.919E-01	8.039E-01	9.538E-02	0.217
		269.46		5.724E-01	2.365E-01	4.227E-01	4.056E-02	1.354
		323.87	*	1.291E+00	8.976E-01	1.389E+00	2.383E-01	0.930
	+	338.28		6.980E+00	2.172E+00	2.969E+00	3.423E-01	2.351
PA-233		300.13		9.032E-01	5.843E-01	8.922E-01	1.336E-01	1.012
		311.90	*	-2.204E-02	7.576E-02	1.241E-01	1.096E-02	-0.178
		340.48		2.551E+00	1.116E+00	1.573E+00	3.740E-01	1.622
PA-234		94.67		4.920E-01	2.061E-01	3.108E-01	3.887E-02	1.583
		98.44		1.113E-01	1.207E-01	1.635E-01	9.142E-02	0.681
		111.00		3.308E-03	2.117E-01	3.454E-01	5.037E-02	0.010
		131.20		1.089E-01	1.430E-01	2.098E-01	2.817E-02	0.519
		569.50		2.896E-02	3.596E-01	5.767E-01	3.774E-02	0.050
		733.00		-2.952E-01	5.751E-01	7.765E-01	1.694E-01	-0.380
		880.51		7.912E-02	3.758E-01	6.328E-01	6.265E-02	0.125
		883.24		2.650E-01	4.080E-01	6.446E-01	4.345E-01	0.411
		926.50		-3.809E-01	2.573E-01	3.346E-01	8.612E-02	-1.138

Sample ID : G248818002 Acquisition date : 23-MAR-2010 13:02:47

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	-3.524E-01	4.403E-01	6.687E-01	1.288E-01	-0.527
		949.00		6.120E-01	6.489E-01	1.143E+00	1.098E-01	0.536
PA-234M		766.42		2.719E+01	2.313E+01	3.021E+01	1.530E+01	0.900
		1001.03	*	2.664E+00	6.121E+00	1.042E+01	1.065E+00	0.256
NP-239		99.53		1.314E-01	1.748E-01	2.924E-01	2.823E-02	0.450
		103.37		-3.646E-03	1.100E-01	1.796E-01	1.864E-02	-0.020
		106.12		5.152E-02	9.598E-02	1.593E-01	1.737E-02	0.323
		117.23	*	-5.742E-01	4.683E-01	7.173E-01	9.433E-02	-0.800
		228.18		1.021E-01	2.563E-01	4.379E-01	4.327E-02	0.233
	+	277.60		3.050E-01	2.671E-01	3.874E-01	3.606E-02	0.787
AM-241		59.54	*	9.584E-02	8.209E-02	1.244E-01	1.113E-02	0.770
CM-247	+	278.00		1.295E+00	1.134E+00	1.662E+00	1.545E-01	0.780
		287.50		1.636E-01	1.563E+00	2.477E+00	2.261E-01	0.066
		402.40	*	1.380E-02	4.849E-02	8.105E-02	4.768E-03	0.170
CF-249		252.80		7.652E-01	1.168E+00	2.009E+00	1.941E-01	0.381
		333.37		-1.924E-01	4.049E-01	3.636E-01	2.906E-02	-0.529
		388.16	*	3.370E-02	5.038E-02	8.608E-02	5.140E-03	0.392
CF-251		177.52	*	5.646E-03	1.631E-01	2.624E-01	2.614E-02	0.022
		227.38		1.984E-01	4.181E-01	7.163E-01	7.083E-02	0.277
		285.41		1.734E+00	2.526E+00	4.349E+00	3.987E-01	0.399

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818002       *
* Acquisition date : 23-MAR-2010 13:02:47 Detector SN#    :                 *
* Detector ID      : GAM05                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.94     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248818002           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.2117E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.765E+01	3.177E+00	7.031E-01	0.000E+00
CD-109	3.124E+00	9.007E-01	1.354E+00	0.000E+00
SN-126	3.031E-01	8.739E-02	1.312E-01	0.000E+00
TL-208	5.900E-01	1.204E-01	7.753E-02	0.000E+00
PB-210	1.882E+00	1.061E+00	1.030E+00	0.000E+00
BI-211	4.766E+00	7.153E-01	4.194E-01	0.000E+00
PB-212	2.151E+00	2.626E-01	1.130E-01	0.000E+00
BI-214	1.438E+00	2.500E-01	1.653E-01	0.000E+00
PB-214	1.730E+00	2.759E-01	1.526E-01	0.000E+00
RA-224	5.795E+00	1.542E+00	1.211E+00	0.000E+00
RA-226	1.438E+00	2.500E-01	1.653E-01	0.000E+00
AC-228	2.187E+00	4.917E-01	3.120E-01	0.000E+00
RA-228	2.187E+00	4.917E-01	3.120E-01	0.000E+00
TH-228	2.151E+00	2.626E-01	1.130E-01	0.000E+00
TH-229	-1.685E-02	6.924E-01	1.156E+00	0.000E+00
TH-230	1.438E+00	2.386E-01	1.653E-01	0.000E+00
TH-232	2.187E+00	4.917E-01	3.120E-01	0.000E+00
TH-234	2.417E+00	1.203E+00	1.265E+00	0.000E+00
U-235	9.332E-02	2.496E-01	4.276E-01	0.000E+00
NP-237	9.045E-01	3.202E-01	3.904E-01	0.000E+00
U-238	2.417E+00	1.203E+00	1.265E+00	0.000E+00
ANH-511	1.778E-01	7.393E-02	6.241E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	4.976E-02	4.457E-01	7.565E-01	0.000E+00	NOT IDENT.
NA-22	2.973E-02	5.957E-02	1.029E-01	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.535E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	2.549E-03	4.937E-02	8.406E-02	0.000E+00	NOT IDENT.
V-48	-6.336E-02	1.218E-01	1.957E-01	0.000E+00	NOT IDENT.

CR-51	-3.093E-01	5.059E-01	8.442E-01	0.000E+00	NOT IDENT.
MN-54	2.171E-02	5.149E-02	9.017E-02	0.000E+00	NOT IDENT.
CO-56	1.706E-02	5.008E-02	8.755E-02	0.000E+00	FAIL ABUN
CO-57	3.014E-03	3.047E-02	5.220E-02	0.000E+00	NOT IDENT.
CO-58	-7.114E-02	5.492E-02	8.334E-02	0.000E+00	NOT IDENT.
FE-59	-6.934E-03	1.340E-01	2.227E-01	0.000E+00	NOT IDENT.
CO-60	2.912E-02	5.305E-02	9.246E-02	0.000E+00	NOT IDENT.
ZN-65	-3.644E-01	1.572E-01	2.156E-01	0.000E+00	NOT IDENT.
SE-75	-9.820E-02	5.654E-02	8.953E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.362E-02	9.244E-02	0.000E+00	NOT IDENT.
Y-88	-5.452E-03	3.991E-02	6.468E-02	0.000E+00	NOT IDENT.
Y-91	9.283E+00	3.107E+01	5.277E+01	0.000E+00	NOT IDENT.
NB-94	1.125E-02	4.564E-02	7.978E-02	0.000E+00	NOT IDENT.
NB-95	5.476E-02	7.276E-02	1.144E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.528E-01	3.976E-01	0.000E+00	NOT IDENT.
ZR-95	4.930E-02	1.051E-01	1.856E-01	0.000E+00	NOT IDENT.
MO-99	-4.437E+00	5.810E+01	9.916E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.853E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.511E-02	5.465E-02	9.010E-02	0.000E+00	FAIL ABUN
RH-106	-5.183E-02	4.186E-01	6.873E-01	0.000E+00	NOT IDENT.
RU-106	-5.183E-02	4.186E-01	6.873E-01	0.000E+00	NOT IDENT.
AG-108M	-1.544E-02	3.926E-02	6.501E-02	0.000E+00	NOT IDENT.
AG-110M	1.807E-02	4.714E-02	8.008E-02	0.000E+00	NOT IDENT.
SN-113	-4.625E-02	5.849E-02	9.522E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	6.822E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	7.259E-03	8.856E-02	1.499E-01	0.000E+00	NOT IDENT.
TE-123M	6.390E-03	3.687E-02	6.260E-02	0.000E+00	NOT IDENT.
SB-124	4.395E-02	8.887E-02	1.629E-01	0.000E+00	NOT IDENT.
SB-125	1.261E-02	1.147E-01	1.958E-01	0.000E+00	NOT IDENT.
TE-125M	-9.529E+00	1.172E+01	1.944E+01	0.000E+00	NOT IDENT.
I-126	3.121E-02	4.025E-01	6.680E-01	0.000E+00	NOT IDENT.
SB-126	-2.925E-02	2.587E-01	3.785E-01	0.000E+00	NOT IDENT.
SB-127	3.137E+00	4.284E+00	7.711E+00	0.000E+00	NOT IDENT.
I-131	1.038E-01	2.194E-01	3.849E-01	0.000E+00	NOT IDENT.
TE-132	9.952E-01	2.468E+00	4.387E+00	0.000E+00	NOT IDENT.
BA-133	-8.522E-04	5.851E-02	8.691E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	3.998E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.783E-02	1.222E-01	0.000E+00	FAIL ABUN
CS-135	3.472E-01	1.992E-01	3.645E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.412E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.182E-01	1.875E-01	3.305E-01	0.000E+00	NOT IDENT.
BA-137M	6.855E-03	4.903E-02	8.178E-02	0.000E+00	NOT IDENT.
CS-137	7.242E-03	5.180E-02	8.639E-02	0.000E+00	NOT IDENT.
CE-139	-3.307E-03	3.696E-02	6.202E-02	0.000E+00	NOT IDENT.
BA-140	1.575E-01	4.615E-01	7.854E-01	0.000E+00	NOT IDENT.
LA-140	9.517E-02	1.504E-01	2.455E-01	0.000E+00	FAIL ABUN
CE-141	9.657E-04	8.683E-02	1.472E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.097E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.201E-01	2.594E-01	3.975E-01	0.000E+00	NOT IDENT.
PM-144	3.781E-02	4.695E-02	8.478E-02	0.000E+00	NOT IDENT.
PR-144	2.807E+00	3.520E+00	6.355E+00	0.000E+00	NOT IDENT.
PM-146	4.038E-02	5.144E-02	9.109E-02	0.000E+00	NOT IDENT.
ND-147	-2.204E-01	9.737E-01	1.604E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	4.914E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-2.370E-02	1.617E-01	2.078E-01	0.000E+00	NOT IDENT.
GD-153	1.452E-01	9.867E-02	1.576E-01	0.000E+00	NOT IDENT.
EU-154	8.561E-02	1.686E-01	2.913E-01	0.000E+00	NOT IDENT.
EU-155	9.662E-02	1.176E-01	2.067E-01	0.000E+00	FAIL ABUN
TB-160	1.443E-01	1.869E-01	3.362E-01	0.000E+00	FAIL ABUN
HO-166M	-2.017E-02	7.855E-02	1.327E-01	0.000E+00	FAIL ABUN
TA-182	9.904E-02	3.021E-01	5.075E-01	0.000E+00	NOT IDENT.
IR-192	-3.866E-03	4.253E-02	7.303E-02	0.000E+00	FAIL ABUN
HG-203	5.419E-02	5.607E-02	8.948E-02	0.000E+00	FAIL ABUN
BI-207	-2.513E-03	6.904E-02	1.152E-01	0.000E+00	FAIL ABUN
PB-211	-1.014E-02	9.355E-01	1.591E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.025E+00	1.399E+00	0.000E+00	FAIL ABUN
RN-219	-1.443E-01	5.278E-01	8.848E-01	0.000E+00	NOT IDENT.
RA-223	1.291E+00	8.797E-01	1.412E+00	0.000E+00	FAIL ABUN
AC-227	4.678E-02	2.980E-01	5.231E-01	0.000E+00	NOT IDENT.
TH-227	4.678E-02	2.980E-01	5.231E-01	0.000E+00	NOT IDENT.
PA-231	2.785E-01	1.674E+00	2.927E+00	0.000E+00	NOT IDENT.
TH-231	1.291E+00	8.797E-01	1.412E+00	0.000E+00	FAIL ABUN
PA-233	-2.204E-02	7.425E-02	1.262E-01	0.000E+00	NOT IDENT.
PA-234	-3.524E-01	4.315E-01	6.709E-01	0.000E+00	NOT IDENT.
PA-234M	2.664E+00	5.998E+00	1.045E+01	0.000E+00	NOT IDENT.
NP-239	-5.742E-01	4.590E-01	7.383E-01	0.000E+00	FAIL ABUN
AM-241	9.584E-02	8.044E-02	1.291E-01	0.000E+00	NOT IDENT.
CM-247	1.380E-02	4.752E-02	8.218E-02	0.000E+00	FAIL ABUN

CF-249	3.370E-02	4.937E-02	8.732E-02	0.000E+00	NOT IDENT.
CF-251	5.646E-03	1.599E-01	2.688E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:03:18.41

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818002.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 13:02:47
Sample ID         : G248818002           Sample quantity  : 1.21170E+02 GRAM
Detector name     : GAM05                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.94  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1300	10.66*	1.004E+00	3.765E+01	3.765E+01	8.61
CD-109	88.03	285	3.70*	7.868E+00	3.031E+00	3.124E+00	29.42
SN-126	64.28	------	9.60	8.070E+00	------ Line Not Found		------
	86.94	285	8.90	7.868E+00	1.260E+00	1.260E+00	50.02
	87.57	285	37.00*	7.868E+00	3.031E-01	3.031E-01	29.42
TL-208	277.37	61	6.60	4.266E+00	6.673E-01	6.673E-01	88.05
	583.19	366	85.00*	2.260E+00	5.900E-01	5.900E-01	20.83
	860.56	52	12.50	1.590E+00	8.042E-01	8.042E-01	64.12
PB-210	46.54	195	4.25*	7.584E+00	1.879E+00	1.882E+00	57.51
BI-211	72.87	977	1.23	8.040E+00	3.061E+01	3.061E+01	15.78
	351.06	699	12.92*	3.519E+00	4.766E+00	4.766E+00	15.31
PB-212	74.82	977	10.28	8.040E+00	3.662E+00	3.662E+00	18.54
	77.11	1259	17.10	8.016E+00	2.846E+00	2.846E+00	11.75
	238.63	1447	43.60*	4.777E+00	2.151E+00	2.151E+00	12.45
	300.09	------	3.30	4.005E+00	------ Line Not Found		------
BI-214	609.32	459	45.49*	2.172E+00	1.438E+00	1.438E+00	17.73
	1120.29	------	14.92	1.258E+00	------ Line Not Found		------
	1764.49	77	15.30	8.615E-01	1.820E+00	1.821E+00	29.07
PB-214	74.82	977	5.80	8.040E+00	6.491E+00	6.491E+00	17.66
	77.11	1259	9.70	8.016E+00	5.018E+00	5.018E+00	14.35
	242.00	363	7.25	4.734E+00	3.277E+00	3.277E+00	27.77
	295.22	433	18.42	4.061E+00	1.793E+00	1.793E+00	21.41
	351.93	699	35.60*	3.519E+00	1.730E+00	1.730E+00	16.28
RA-224	240.99	363	4.10*	4.734E+00	5.795E+00	5.795E+00	27.16
RA-226	609.32	459	45.49*	2.172E+00	1.438E+00	1.438E+00	17.73
	1120.29	------	14.92	1.258E+00	------ Line Not Found		------
	1764.49	77	15.30	8.615E-01	1.820E+00	1.821E+00	29.07
AC-228	338.32	233	11.27	3.636E+00	1.759E+00	1.759E+00	50.62
	911.20	275	25.80*	1.511E+00	2.187E+00	2.187E+00	22.94
	968.97	145	15.80	1.429E+00	1.989E+00	1.989E+00	43.92
RA-228	338.32	233	11.27	3.636E+00	1.759E+00	1.759E+00	50.62
	911.20	275	25.80*	1.511E+00	2.187E+00	2.187E+00	22.94

Sample ID : G248818002 Acquisition date : 23-MAR-2010 13:02:47

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	145	15.80	1.429E+00	1.989E+00	1.989E+00	43.92
TH-228	74.82	977	10.28	8.040E+00	3.662E+00	3.662E+00	15.83
	77.11	1259	17.10	8.016E+00	2.846E+00	2.846E+00	11.75
	238.63	1447	43.60*	4.777E+00	2.151E+00	2.151E+00	12.45
	300.09	------	3.30	4.005E+00	------	Line Not Found	------
TH-229	85.43	285	14.70	7.868E+00	7.630E-01	7.630E-01	29.42
	88.47	181	24.00	7.816E+00	2.990E-01	2.990E-01	48.53
	193.51	------	4.41*	5.516E+00	------	Line Not Found	------
	210.85	------	2.80	5.209E+00	------	Line Not Found	------
TH-230	609.32	459	45.49*	2.172E+00	1.438E+00	1.438E+00	16.93
	1120.29	------	14.92	1.258E+00	------	Line Not Found	------
	1764.49	77	15.30	8.615E-01	1.820E+00	1.820E+00	29.07
TH-232	338.32	233	11.27	3.636E+00	1.759E+00	1.759E+00	29.94
	911.20	275	25.80*	1.511E+00	2.187E+00	2.187E+00	22.94
	968.97	145	15.80	1.429E+00	1.989E+00	1.989E+00	43.92
TH-234	63.29	233	3.70*	8.062E+00	2.417E+00	2.417E+00	50.78
	92.59	351	4.23	7.753E+00	3.319E+00	3.319E+00	35.50
U-235	89.96	181	3.47	7.816E+00	2.068E+00	2.068E+00	53.73
	93.35	351	5.60	7.753E+00	2.507E+00	2.507E+00	36.14
	143.76	------	10.96*	6.557E+00	------	Line Not Found	------
	163.33	------	5.08	6.119E+00	------	Line Not Found	------
	185.72	245	57.20	5.665E+00	2.340E-01	2.340E-01	43.72
	205.31	------	5.01	5.304E+00	------	Line Not Found	------
NP-237	86.48	285	12.40*	7.868E+00	9.045E-01	9.045E-01	36.13
	95.86	------	2.68	7.688E+00	------	Line Not Found	------
U-238	63.29	233	3.70*	8.062E+00	2.417E+00	2.417E+00	50.78
	92.59	351	4.23	7.753E+00	3.319E+00	3.319E+00	29.11
ANH-511	511.00	146	100.00*	2.545E+00	1.778E-01	1.778E-01	42.43

Flag: "*" = Keyline

Sample ID : G248818002 Acquisition date : 23-MAR-2010 13:02:47

Total number of lines in spectrum 33
Number of unidentified lines 7
Number of lines tentatively identified by NID 26 78.79%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.765E+01	3.765E+01	0.324E+01	8.61	
CD-109	461.40D	1.03	3.031E+00	3.124E+00	0.919E+00	29.42	
SN-126	2.30E+05Y	1.00	3.031E-01	3.031E-01	0.892E-01	29.42	
TL-208	1.41E+10Y	1.00	5.900E-01	5.900E-01	1.229E-01	20.83	
PB-210	22.20Y	1.00	1.879E+00	1.882E+00	1.082E+00	57.51	
BI-211	7.04E+08Y	1.00	4.766E+00	4.766E+00	0.730E+00	15.31	
PB-212	1.41E+10Y	1.00	2.151E+00	2.151E+00	0.268E+00	12.45	
BI-214	1600.00Y	1.00	1.438E+00	1.438E+00	0.255E+00	17.73	
PB-214	1600.00Y	1.00	1.730E+00	1.730E+00	0.282E+00	16.28	
RA-224	1.41E+10Y	1.00	5.795E+00	5.795E+00	1.574E+00	27.16	
RA-226	1600.00Y	1.00	1.438E+00	1.438E+00	0.255E+00	17.73	
AC-228	1.41E+10Y	1.00	2.187E+00	2.187E+00	0.502E+00	22.94	
RA-228	1.41E+10Y	1.00	2.187E+00	2.187E+00	0.502E+00	22.94	
TH-228	1.41E+10Y	1.00	2.151E+00	2.151E+00	0.268E+00	12.45	
TH-229	7340.00Y	1.00	2.990E-01	2.990E-01	1.451E-01	48.53	K
TH-230	7.54E+04Y	1.00	1.438E+00	1.438E+00	0.244E+00	16.93	
TH-232	1.41E+10Y	1.00	2.187E+00	2.187E+00	0.502E+00	22.94	
TH-234	4.47E+09Y	1.00	2.417E+00	2.417E+00	1.227E+00	50.78	
U-235	7.04E+08Y	1.00	2.340E-01	2.340E-01	1.023E-01	43.72	K
NP-237	2.14E+06Y	1.00	9.045E-01	9.045E-01	3.268E-01	36.13	
U-238	4.47E+09Y	1.00	2.417E+00	2.417E+00	1.227E+00	50.78	
ANH-511	1.00E+09Y	1.00	1.778E-01	1.778E-01	0.754E-01	42.43	
	Total Activity :		7.737E+01	7.747E+01			

Grand Total Activity : 7.737E+01 7.747E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248818002 Acquisition date : 23-MAR-2010 13:02:47

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.63	94	313	1.03	258.22	255	7	1.30E-02	66.1	6.92E+00	
0	208.57	116	336	1.37	418.07	414	10	1.61E-02	62.0	5.25E+00	
0	327.41	84	186	1.02	655.71	652	10	1.16E-02	64.7	3.73E+00	T
0	726.58	101	66	1.30	1453.67	1447	14	1.41E-02	39.4	1.85E+00	T
0	769.57	65	144	1.99	1539.61	1531	19	8.99E-03	93.2	1.76E+00	
0	794.73	52	69	1.14	1589.89	1584	13	7.22E-03	71.2	1.71E+00	T
0	1238.21	33	81	0.71	2476.08	2471	13	4.52E-03	****	1.15E+00	T
0	1377.54	46	31	1.19	2754.44	2744	16	6.38E-03	62.4	1.05E+00	
0	1587.77	28	2	2.31	3174.36	3170	10	3.87E-03	43.2	9.37E-01	
0	1592.21	22	7	1.10	3183.23	3179	9	3.08E-03	60.0	9.35E-01	
0	1730.05	23	16	2.27	3458.54	3448	16	3.17E-03	88.8	8.75E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:03:23.02

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818002.CNF;1   *
* Acquisition date  : 23-MAR-2010 13:02:47  Detector SN#     :               *
* Detector ID       : GAM05                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.94          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID           *
* Sample ID         : G248818002            Analyst initials: MXR1            *
* Batch Number      : 962631                Sample Quantity : 1.21170E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00.5MS Isotope      :                  *
* MSD ID           :                      MSD Isotope     :                  *
* LCS ID           : 1032-A               LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.765E+01	3.242E+00	7.046E-01	4.382E-02	53.438
CD-109	3.124E+00	9.191E-01	1.311E+00	9.985E-02	2.382
SN-126	3.031E-01	8.918E-02	1.271E-01	9.676E-03	2.386
TL-208	5.900E-01	1.229E-01	7.680E-02	5.641E-03	7.681
PB-210	1.882E+00	1.082E+00	9.899E-01	7.635E-02	1.901
BI-211	4.766E+00	7.299E-01	4.129E-01	3.273E-02	11.543
PB-212	2.151E+00	2.679E-01	1.107E-01	1.199E-02	19.428
BI-214	1.438E+00	2.551E-01	1.639E-01	1.383E-02	8.777
PB-214	1.730E+00	2.816E-01	1.502E-01	1.447E-02	11.517
RA-224	5.795E+00	1.574E+00	1.187E+00	1.161E-01	4.882
RA-226	1.438E+00	2.551E-01	1.639E-01	1.383E-02	8.777
AC-228	2.187E+00	5.018E-01	3.108E-01	3.945E-02	7.037
RA-228	2.187E+00	5.018E-01	3.108E-01	3.945E-02	7.037
TH-228	2.151E+00	2.679E-01	1.107E-01	1.199E-02	19.428
TH-229	2.990E-01	1.451E-01	1.130E+00	1.129E-01	0.264
TH-230	1.438E+00	2.435E-01	1.639E-01	1.079E-02	8.777
TH-232	2.187E+00	5.018E-01	3.108E-01	3.945E-02	7.037
TH-234	2.417E+00	1.227E+00	1.220E+00	2.214E-01	1.981

Sample ID : G248818002 Acquisition date : 23-MAR-2010 13:02:47

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	2.340E-01	1.023E-01	4.165E-01	7.944E-02	0.562
NP-237	9.045E-01	3.268E-01	3.779E-01	8.433E-02	2.393
U-238	2.417E+00	1.227E+00	1.220E+00	2.214E-01	1.981
ANH-511	1.778E-01	7.544E-02	6.173E-02	3.951E-03	2.880

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.976E-02		4.547E-01	7.476E-01	5.353E-02	0.067
NA-22	2.973E-02		6.079E-02	1.030E-01	5.997E-03	0.289
NA-24	2.427E+02		1.293E+02	Half-Life too short		
SC-46	2.549E-03		5.037E-02	8.371E-02	8.408E-03	0.030
V-48	-6.336E-02		1.243E-01	1.951E-01	1.787E-02	-0.325
CR-51	-3.093E-01		5.162E-01	8.302E-01	7.336E-02	-0.373
MN-54	2.171E-02		5.254E-02	8.973E-02	8.220E-03	0.242
CO-56	1.706E-02		5.110E-02	8.714E-02	8.149E-03	0.196
CO-57	3.014E-03		3.109E-02	5.074E-02	7.199E-03	0.059
CO-58	-7.114E-02		5.604E-02	8.290E-02	7.296E-03	-0.858
FE-59	-6.934E-03		1.367E-01	2.223E-01	1.800E-02	-0.031
CO-60	2.912E-02		5.413E-02	9.254E-02	5.355E-03	0.315
ZN-65	-3.644E-01		1.604E-01	2.153E-01	1.504E-02	-1.693
SE-75	-9.820E-02		5.769E-02	8.784E-02	8.387E-03	-1.118
SR-85	1.181E-01		5.471E-02	9.143E-02	5.861E-03	1.292
Y-88	-5.452E-03		4.073E-02	6.500E-02	3.719E-03	-0.084
Y-91	9.283E+00		3.170E+01	5.275E+01	3.065E+00	0.176
NB-94	1.125E-02		4.657E-02	7.922E-02	5.668E-03	0.142
NB-95	5.476E-02		7.424E-02	1.138E-01	9.201E-03	0.481
NB-95M	1.378E+00		2.579E-01	3.895E-01	4.268E-02	3.538
ZR-95	4.930E-02		1.072E-01	1.844E-01	1.645E-02	0.267
MO-99	-4.437E+00		5.928E+01	9.852E+01	1.505E+01	-0.045
TC-99M	-1.721E+16		1.966E+16	Half-Life too short		
RU-103	-1.511E-02		5.576E-02	8.908E-02	1.131E-02	-0.170
RH-106	-5.183E-02		4.271E-01	6.815E-01	8.202E-02	-0.076
RU-106	-5.183E-02		4.271E-01	6.815E-01	4.492E-02	-0.076
AG-108M	-1.544E-02		4.006E-02	6.417E-02	4.143E-03	-0.241
AG-110M	1.807E-02		4.810E-02	7.945E-02	5.492E-03	0.227
SN-113	-4.625E-02		5.968E-02	9.387E-02	5.823E-03	-0.493
CD-115	-4.096E-05		3.480E-05	Half-Life too short		
SN-117M	7.259E-03		9.037E-02	1.462E-01	1.572E-02	0.050
TE-123M	6.390E-03		3.762E-02	6.104E-02	6.559E-03	0.105
SB-124	4.395E-02		9.068E-02	1.636E-01	1.040E-02	0.269
SB-125	1.261E-02		1.170E-01	1.932E-01	1.210E-02	0.065
TE-125M	-9.529E+00		1.196E+01	1.887E+01	2.451E+00	-0.505
I-126	3.121E-02		4.108E-01	6.628E-01	4.401E-02	0.047
SB-126	-2.925E-02		2.640E-01	3.760E-01	2.789E-02	-0.078
SB-127	3.137E+00		4.372E+00	7.655E+00	9.081E-01	0.410
I-131	1.038E-01		2.239E-01	3.791E-01	2.864E-02	0.274

Sample ID : G248818002 Acquisition date : 23-MAR-2010 13:02:47

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-132	9.952E-01		2.519E+00	4.296E+00	7.552E-01	0.232
BA-133	-8.522E-04		5.970E-02	8.558E-02	1.034E-02	-0.010
I-133	-3.550E-01		2.040E-01	Half-Life too short		
CS-134	1.250E-01	+	8.963E-02	1.215E-01	1.046E-02	1.029
CS-135	3.472E-01		2.033E-01	3.576E-01	3.826E-02	0.971
I-135	5.177E+14		1.230E+15	Half-Life too short		
CS-136	1.182E-01		1.914E-01	3.298E-01	2.826E-02	0.358
BA-137M	6.855E-03		5.003E-02	8.114E-02	5.336E-03	0.084
CS-137	7.242E-03		5.285E-02	8.571E-02	5.655E-03	0.084
CE-139	-3.307E-03		3.771E-02	6.050E-02	6.006E-03	-0.055
BA-140	1.575E-01		4.709E-01	7.772E-01	2.599E-01	0.203
LA-140	9.517E-02		1.534E-01	2.463E-01	1.447E-02	0.386
CE-141	9.657E-04		8.860E-02	1.434E-01	1.753E-02	0.007
CE-143	1.848E-02		2.600E-03	Half-Life too short		
CE-144	-1.201E-01		2.646E-01	3.869E-01	7.072E-02	-0.311
PM-144	3.781E-02		4.790E-02	8.418E-02	5.954E-03	0.449
PR-144	2.807E+00		3.592E+00	6.309E+00	4.459E-01	0.445
PM-146	4.038E-02		5.249E-02	8.996E-02	7.838E-03	0.449
ND-147	-2.204E-01		9.936E-01	1.587E+00	2.193E-01	-0.139
PM-149	3.584E-04		2.507E-04	Half-Life too short		
EU-152	-2.370E-02		1.650E-01	2.045E-01	1.681E-02	-0.116
GD-153	1.452E-01		1.007E-01	1.528E-01	1.417E-02	0.950
EU-154	8.561E-02		1.721E-01	2.914E-01	2.749E-02	0.294
EU-155	9.662E-02		1.200E-01	2.006E-01	2.172E-02	0.482
TB-160	1.443E-01		1.907E-01	3.348E-01	3.308E-02	0.431
HO-166M	-2.017E-02		8.016E-02	1.318E-01	9.601E-03	-0.153
TA-182	9.904E-02		3.083E-01	5.074E-01	2.950E-02	0.195
IR-192	-3.866E-03		4.339E-02	7.181E-02	6.095E-03	-0.054
HG-203	5.419E-02		5.722E-02	8.785E-02	8.333E-03	0.617
BI-207	-2.513E-03		7.045E-02	1.150E-01	9.103E-03	-0.022
PB-211	-1.014E-02		9.546E-01	1.569E+00	7.531E-01	-0.006
BI-212	2.543E+00	+	1.046E+00	1.389E+00	1.629E-01	1.830
RN-219	-1.443E-01		5.386E-01	8.725E-01	1.175E-01	-0.165
RA-223	1.291E+00		8.976E-01	1.389E+00	2.383E-01	0.930
AC-227	4.678E-02		3.041E-01	5.131E-01	6.560E-02	0.091
TH-227	4.678E-02		3.041E-01	5.131E-01	7.317E-02	0.091
PA-231	2.785E-01		1.708E+00	2.874E+00	4.292E-01	0.097
TH-231	1.291E+00		8.976E-01	1.389E+00	2.383E-01	0.930
PA-233	-2.204E-02		7.576E-02	1.241E-01	1.096E-02	-0.178
PA-234	-3.524E-01		4.403E-01	6.687E-01	1.288E-01	-0.527
PA-234M	2.664E+00		6.121E+00	1.042E+01	1.065E+00	0.256
NP-239	-5.742E-01		4.683E-01	7.173E-01	9.433E-02	-0.800
AM-241	9.584E-02		8.209E-02	1.244E-01	1.113E-02	0.770
CM-247	1.380E-02		4.849E-02	8.105E-02	4.768E-03	0.170
CF-249	3.370E-02		5.038E-02	8.608E-02	5.140E-03	0.392
CF-251	5.646E-03		1.631E-01	2.624E-01	2.614E-02	0.022

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248818002            *
* Acquisition date : 23-MAR-2010 13:02:47 Detector SN#    :                 *
* Detector ID      : GAM05                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.94     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248818002           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.2117E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.765E+01	3.177E+00	3.518E-01	1.621E+00
CD-109	3.124E+00	9.007E-01	6.775E-01	4.595E-01
SN-126	3.031E-01	8.739E-02	6.565E-02	4.459E-02
TL-208	5.900E-01	1.204E-01	3.879E-02	6.143E-02
PB-210	1.882E+00	1.061E+00	5.153E-01	5.411E-01
BI-211	4.766E+00	7.153E-01	2.098E-01	3.649E-01
PB-212	2.151E+00	2.626E-01	5.654E-02	1.340E-01
BI-214	1.438E+00	2.500E-01	8.271E-02	1.275E-01
PB-214	1.730E+00	2.759E-01	7.633E-02	1.408E-01
RA-224	5.795E+00	1.542E+00	6.059E-01	7.868E-01
RA-226	1.438E+00	2.500E-01	8.271E-02	1.275E-01
AC-228	2.187E+00	4.917E-01	1.561E-01	2.509E-01
RA-228	2.187E+00	4.917E-01	1.561E-01	2.509E-01
TH-228	2.151E+00	2.626E-01	5.654E-02	1.340E-01
TH-229	-1.685E-02	6.924E-01	5.786E-01	3.533E-01
TH-230	1.438E+00	2.386E-01	8.271E-02	1.218E-01
TH-232	2.187E+00	4.917E-01	1.561E-01	2.509E-01
TH-234	2.417E+00	1.203E+00	6.327E-01	6.136E-01
U-235	9.332E-02	2.496E-01	2.139E-01	1.273E-01
NP-237	9.045E-01	3.202E-01	1.953E-01	1.634E-01
U-238	2.417E+00	1.203E+00	6.327E-01	6.136E-01
ANH-511	1.778E-01	7.393E-02	3.122E-02	3.772E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	4.976E-02	4.457E-01	3.785E-01	2.274E-01	NOT IDENT.
NA-22	2.973E-02	5.957E-02	5.149E-02	3.039E-02	NOT IDENT.
NA-24	2.427E+08	2.535E+08	0.000E+00	1.293E+08	SHORT HLIF
SC-46	2.549E-03	4.937E-02	4.205E-02	2.519E-02	NOT IDENT.
V-48	-6.336E-02	1.218E-01	9.791E-02	6.213E-02	NOT IDENT.

CR-51	-3.093E-01	5.059E-01	4.224E-01	2.581E-01	NOT IDENT.
MN-54	2.171E-02	5.149E-02	4.511E-02	2.627E-02	NOT IDENT.
CO-56	1.706E-02	5.008E-02	4.380E-02	2.555E-02	FAIL ABUN
CO-57	3.014E-03	3.047E-02	2.611E-02	1.555E-02	NOT IDENT.
CO-58	-7.114E-02	5.492E-02	4.169E-02	2.802E-02	NOT IDENT.
FE-59	-6.934E-03	1.340E-01	1.114E-01	6.835E-02	NOT IDENT.
CO-60	2.912E-02	5.305E-02	4.626E-02	2.706E-02	NOT IDENT.
ZN-65	-3.644E-01	1.572E-01	1.078E-01	8.022E-02	NOT IDENT.
SE-75	-9.820E-02	5.654E-02	4.479E-02	2.885E-02	NOT IDENT.
SR-85	1.181E-01	5.362E-02	4.625E-02	2.736E-02	NOT IDENT.
Y-88	-5.452E-03	3.991E-02	3.236E-02	2.036E-02	NOT IDENT.
Y-91	9.283E+00	3.107E+01	2.640E+01	1.585E+01	NOT IDENT.
NB-94	1.125E-02	4.564E-02	3.991E-02	2.329E-02	NOT IDENT.
NB-95	5.476E-02	7.276E-02	5.725E-02	3.712E-02	NOT IDENT.
NB-95M	1.378E+00	2.528E-01	1.989E-01	1.290E-01	NOT IDENT.
ZR-95	4.930E-02	1.051E-01	9.284E-02	5.362E-02	NOT IDENT.
MO-99	-4.437E+00	5.810E+01	4.961E+01	2.964E+01	NOT IDENT.
TC-99M	-1.721E+22	3.853E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.511E-02	5.465E-02	4.508E-02	2.788E-02	FAIL ABUN
RH-106	-5.183E-02	4.186E-01	3.439E-01	2.136E-01	NOT IDENT.
RU-106	-5.183E-02	4.186E-01	3.439E-01	2.136E-01	NOT IDENT.
AG-108M	-1.544E-02	3.926E-02	3.252E-02	2.003E-02	NOT IDENT.
AG-110M	1.807E-02	4.714E-02	4.006E-02	2.405E-02	NOT IDENT.
SN-113	-4.625E-02	5.849E-02	4.764E-02	2.984E-02	NOT IDENT.
CD-115	-4.096E+01	6.822E+01	0.000E+00	3.480E+01	SHORT HLIF
SN-117M	7.259E-03	8.856E-02	7.500E-02	4.518E-02	NOT IDENT.
TE-123M	6.390E-03	3.687E-02	3.132E-02	1.881E-02	NOT IDENT.
SB-124	4.395E-02	8.887E-02	8.151E-02	4.534E-02	NOT IDENT.
SB-125	1.261E-02	1.147E-01	9.796E-02	5.850E-02	NOT IDENT.
TE-125M	-9.529E+00	1.172E+01	9.726E+00	5.981E+00	NOT IDENT.
I-126	3.121E-02	4.025E-01	3.342E-01	2.054E-01	NOT IDENT.
SB-126	-2.925E-02	2.587E-01	1.894E-01	1.320E-01	NOT IDENT.
SB-127	3.137E+00	4.284E+00	3.858E+00	2.186E+00	NOT IDENT.
I-131	1.038E-01	2.194E-01	1.926E-01	1.119E-01	NOT IDENT.
TE-132	9.952E-01	2.468E+00	2.195E+00	1.259E+00	NOT IDENT.
BA-133	-8.522E-04	5.851E-02	4.348E-02	2.985E-02	FAIL ABUN
I-133	-3.550E+05	3.998E+05	0.000E+00	2.040E+05	SHORT HLIF
CS-134	1.250E-01	8.783E-02	6.113E-02	4.481E-02	FAIL ABUN
CS-135	3.472E-01	1.992E-01	1.823E-01	1.017E-01	NOT IDENT.
I-135	5.177E+20	2.412E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.182E-01	1.875E-01	1.654E-01	9.568E-02	NOT IDENT.
BA-137M	6.855E-03	4.903E-02	4.091E-02	2.502E-02	NOT IDENT.
CS-137	7.242E-03	5.180E-02	4.322E-02	2.643E-02	NOT IDENT.
CE-139	-3.307E-03	3.696E-02	3.103E-02	1.886E-02	NOT IDENT.
BA-140	1.575E-01	4.615E-01	3.929E-01	2.355E-01	NOT IDENT.
LA-140	9.517E-02	1.504E-01	1.228E-01	7.672E-02	FAIL ABUN
CE-141	9.657E-04	8.683E-02	7.363E-02	4.430E-02	NOT IDENT.
CE-143	1.848E+04	5.097E+03	0.000E+00	2.600E+03	SHORT HLIF
CE-144	-1.201E-01	2.594E-01	1.989E-01	1.323E-01	NOT IDENT.
PM-144	3.781E-02	4.695E-02	4.242E-02	2.395E-02	NOT IDENT.
PR-144	2.807E+00	3.520E+00	3.179E+00	1.796E+00	NOT IDENT.
PM-146	4.038E-02	5.144E-02	4.557E-02	2.624E-02	NOT IDENT.
ND-147	-2.204E-01	9.737E-01	8.022E-01	4.968E-01	NOT IDENT.
PM-149	3.584E+02	4.914E+02	0.000E+00	2.507E+02	SHORT HLIF
EU-152	-2.370E-02	1.617E-01	1.039E-01	8.252E-02	NOT IDENT.
GD-153	1.452E-01	9.867E-02	7.886E-02	5.034E-02	NOT IDENT.
EU-154	8.561E-02	1.686E-01	1.458E-01	8.603E-02	NOT IDENT.
EU-155	9.662E-02	1.176E-01	1.034E-01	6.001E-02	FAIL ABUN
TB-160	1.443E-01	1.869E-01	1.682E-01	9.536E-02	FAIL ABUN
HO-166M	-2.017E-02	7.855E-02	6.638E-02	4.008E-02	FAIL ABUN
TA-182	9.904E-02	3.021E-01	2.539E-01	1.541E-01	NOT IDENT.
IR-192	-3.866E-03	4.253E-02	3.654E-02	2.170E-02	FAIL ABUN
HG-203	5.419E-02	5.607E-02	4.477E-02	2.861E-02	FAIL ABUN
BI-207	-2.513E-03	6.904E-02	5.762E-02	3.523E-02	FAIL ABUN
PB-211	-1.014E-02	9.355E-01	7.961E-01	4.773E-01	NOT IDENT.
BI-212	2.543E+00	1.025E+00	6.998E-01	5.232E-01	FAIL ABUN
RN-219	-1.443E-01	5.278E-01	4.427E-01	2.693E-01	NOT IDENT.
RA-223	1.291E+00	8.797E-01	7.063E-01	4.488E-01	FAIL ABUN
AC-227	4.678E-02	2.980E-01	2.617E-01	1.520E-01	NOT IDENT.
TH-227	4.678E-02	2.980E-01	2.617E-01	1.521E-01	NOT IDENT.
PA-231	2.785E-01	1.674E+00	1.464E+00	8.542E-01	NOT IDENT.
TH-231	1.291E+00	8.797E-01	7.063E-01	4.488E-01	FAIL ABUN
PA-233	-2.204E-02	7.425E-02	6.314E-02	3.788E-02	NOT IDENT.
PA-234	-3.524E-01	4.315E-01	3.357E-01	2.201E-01	NOT IDENT.
PA-234M	2.664E+00	5.998E+00	5.227E+00	3.060E+00	NOT IDENT.
NP-239	-5.742E-01	4.590E-01	3.694E-01	2.342E-01	FAIL ABUN
AM-241	9.584E-02	8.044E-02	6.457E-02	4.104E-02	NOT IDENT.
CM-247	1.380E-02	4.752E-02	4.112E-02	2.424E-02	FAIL ABUN

CF-249	3.370E-02	4.937E-02	4.369E-02	2.519E-02	NOT IDENT.
CF-251	5.646E-03	1.599E-01	1.345E-01	8.156E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                    GAMMA SPECTROSCOPY BACKGROUND REPORT                   *
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ENERGY	MDA COUNTS
46.54	495.2289
49.72	557.4671
57.36	0.0000
59.54	530.4716
63.29	638.4791
63.29	638.4791
64.28	652.8577
67.75	709.4116
69.67	671.9464
70.83	658.8169
72.81	720.6130
72.87	720.6714
72.87	720.6714
74.82	678.3550
74.82	678.3550
74.82	678.3550
74.97	678.4856
77.11	605.4747
77.11	605.4747
77.11	605.4747
79.69	685.5854
79.80	729.5316
80.12	729.8248
80.19	729.8890
80.57	768.8087
81.00	782.5286
81.07	782.5974
81.07	782.5974
83.79	679.4585
83.79	679.4585
85.43	704.8946
86.48	655.9451
86.55	655.9999
86.79	656.1867
86.94	656.3062
87.57	656.7968
88.03	657.1554
88.47	657.4966
89.96	593.2667
91.11	594.0629
92.59	595.0768
92.59	595.0768
93.35	453.7866
94.67	490.1768
94.87	509.7690
94.87	509.7690
95.86	481.0831
97.43	395.6373
98.44	414.2820
99.53	422.2597
100.11	426.6105
103.18	479.2330
103.37	435.2900
105.31	425.9281
106.12	437.5932
109.28	467.9000
111.00	430.5307
111.76	396.7690
116.30	428.6964
117.23	424.9376
121.12	371.2901
121.78	390.3129
122.06	405.0345
123.07	395.2790
131.20	365.5941
133.52	399.5830
136.00	389.2059

136.47	385.1393
140.51	422.6412
140.51	0.0000
143.76	410.0083
144.24	394.1977
144.24	394.1977
145.44	415.9431
152.43	395.9081
153.25	394.0339
154.21	383.6050
154.21	383.6050
156.02	403.5559
158.56	379.6021
159.00	377.5814
162.66	374.3828
163.33	368.0904
165.86	343.8867
176.60	353.3601
177.52	334.9980
181.07	353.0284
184.41	339.8303
185.72	346.9922
193.51	365.6028
197.04	379.8629
205.31	341.4242
210.85	305.0537
215.65	311.0527
222.11	283.8745
227.38	257.6454
228.16	260.5002
228.18	260.5037
235.69	247.7831
235.96	247.8262
235.96	247.8262
238.63	255.8623
238.63	255.8623
240.99	256.2434
242.00	256.4058
244.70	235.4365
252.40	227.6474
252.80	225.8594
256.23	228.1773
256.23	228.1773
260.90	0.0000
264.66	272.9692
268.22	223.3008
269.46	203.9090
269.46	203.9090
271.23	237.6742
273.65	331.3434
276.40	215.0157
277.37	188.6342
277.60	179.3038
278.00	184.0221
279.20	199.7552
279.54	199.7943
280.46	228.0092
283.69	195.2590
284.31	193.4494
285.41	175.7166
285.90	0.0000
287.50	198.7354
293.27	0.0000
295.22	256.9856
295.96	313.4882
298.57	190.8867
299.98	176.8229
299.98	176.8229
300.09	176.8343
300.09	176.8343
300.13	176.8389
301.36	180.1173
302.85	239.0862
304.50	250.6936
304.50	250.6936
304.85	229.8468
308.46	165.5825
311.90	176.3733

316.51	174.8910
319.41	188.5568
320.08	195.3240
323.87	147.1023
323.87	147.1023
328.76	198.7703
333.37	216.9113
334.37	233.9006
334.37	233.9006
338.28	206.1745
338.28	206.1745
338.32	206.1797
338.32	206.1797
338.32	206.1797
340.48	175.7656
340.55	175.7722
344.28	189.0229
351.06	170.2063
351.93	170.2789
356.01	164.1168
364.49	150.7591
366.42	160.6968
383.85	165.9677
388.16	139.5697
388.63	138.6106
391.69	172.5132
400.66	160.2728
401.81	167.3294
402.40	151.4322
404.85	165.5603
410.95	148.0090
414.70	147.2512
423.72	147.8290
427.09	139.9875
427.87	133.9904
433.94	153.5289
453.88	105.9259
463.37	108.3835
468.07	147.5174
473.00	139.5992
476.78	131.5859
477.60	123.4014
487.02	126.9579
492.35	0.0000
497.08	113.9867
511.00	118.7635
514.00	79.9609
527.90	0.0000
529.87	0.0000
531.02	106.0130
537.26	105.2026
546.56	0.0000
563.25	112.5655
569.33	95.7810
569.50	95.7854
569.70	97.9207
583.19	104.7997
600.60	119.6807
602.73	127.3932
604.72	136.4574
609.32	126.2377
609.32	126.2377
609.32	126.2377
610.33	109.7310
614.28	118.8838
618.01	108.2104
621.93	96.4311
621.93	96.4311
633.25	101.1420
635.95	81.6376
636.99	72.9541
645.85	89.5434
657.76	88.7895
661.66	99.8756
661.66	99.8756
664.57	0.0000
666.33	104.4188
666.50	104.4235

677.62	81.8088
685.70	85.7003
695.00	87.7927
696.49	93.3806
696.51	93.3806
697.00	100.7926
702.65	102.8182
706.68	100.1624
711.68	93.8121
720.70	75.0390
721.93	0.0000
722.78	78.2817
722.91	75.0882
723.31	65.5111
724.19	55.9387
727.33	62.3888
733.00	91.3368
735.93	78.5859
739.50	92.7158
747.24	63.8275
752.31	94.0023
753.82	77.1152
756.73	87.5338
763.94	93.7766
765.81	100.2981
766.42	90.6074
777.92	89.2810
778.90	88.4039
783.70	69.2380
785.37	83.5026
795.86	89.7299
801.95	75.7864
810.29	86.9491
810.76	93.6495
815.77	70.8113
818.51	77.5673
832.01	95.1509
834.85	83.6812
836.80	0.0000
846.77	58.8604
856.80	71.3177
860.56	69.7280
871.09	73.8044
873.19	76.7595
875.33	0.0000
879.36	55.4716
880.51	65.2225
883.24	53.5789
884.68	64.3188
889.28	56.5887
898.04	88.0060
911.20	70.6406
911.20	70.6406
911.20	70.6406
926.50	85.6849
937.49	91.8420
944.13	62.3181
946.00	86.0973
949.00	65.3635
962.29	78.3486
964.08	93.7179
966.15	95.4707
968.97	46.0616
968.97	46.0616
968.97	46.0616
983.53	75.8949
996.26	62.1022
1001.03	61.1688
1004.73	84.3059
1037.84	64.7266
1038.76	0.0000
1048.07	57.7816
1050.41	52.7406
1050.41	52.7406
1063.66	62.0549
1085.87	61.3403
1099.45	67.6758
1112.07	81.2309

1115.54	152.2938
1120.29	79.3154
1120.29	79.3154
1120.29	79.3154
1120.55	79.3185
1121.30	74.1797
1131.51	0.0000
1173.23	78.1281
1177.93	63.6062
1189.05	90.9259
1204.77	71.2982
1221.41	83.1146
1231.02	71.1530
1235.36	97.6678
1238.28	74.9521
1260.41	0.0000
1271.85	44.6353
1274.44	52.1004
1274.54	52.1004
1291.59	68.2786
1298.22	0.0000
1312.11	35.3458
1332.49	37.6333
1365.19	34.6198
1368.63	0.0000
1384.29	34.2006
1408.01	35.5176
1457.56	0.0000
1460.82	27.3635
1489.16	23.7069
1505.03	22.8214
1596.21	16.8994
1620.50	16.4824
1678.03	0.0000
1690.97	9.8061
1764.49	17.3584
1764.49	17.3584
1764.49	17.3584
1770.23	10.4242
1771.35	8.6884
1791.20	0.0000
1836.06	12.0322

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248818002

Total Uranium Activity	7.2330E+00	ug/g
Total Uranium Counting Unc.	3.5799E+00	ug/g
Total Uranium Tpu	1.8265E-06	ug/g
Total Uranium Mda	1.8848E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962631                    SAMPLE ID  : G248818002       *
*   ANALYST       : MXR1                      DETECTOR   : GAM05            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 13:02:47.76    SAMPLE ALQT:  121.170 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.149E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.614E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 5.912E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.893E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:05:53.24

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818003.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 13:05:26
Sample ID         : G248818003           Sample quantity  : 1.28870E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.80  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962631                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	75.04	378	532	0.93	149.20	146	13	5.26E-02	10.6	4.23E+00
2	3	77.23*	572	471	0.98	153.58	146	13	7.95E-02	7.5	
3	0	84.10*	81	381	1.29	167.32	165	6	1.13E-02	40.6	
4	0	87.26	294	411	0.96	173.62	171	6	4.08E-02	12.3	
5	0	89.99	138	323	1.30	179.08	177	5	1.91E-02	21.5	
6	0	93.04*	335	581	1.51	185.19	182	10	4.65E-02	15.1	
7	0	186.02*	208	396	1.40	371.07	367	8	2.89E-02	18.8	
8	0	209.50	139	444	1.23	418.03	413	11	1.93E-02	30.8	
9	0	238.53*	1411	697	1.19	476.06	469	11	1.96E-01	4.3	
10	0	241.80*	304	274	1.76	482.61	480	7	4.22E-02	11.2	
11	0	270.18	222	363	1.64	539.35	532	15	3.08E-02	20.0	
12	2	295.16*	525	196	1.29	589.28	584	21	7.30E-02	6.4	1.32E+00
13	2	300.14	109	222	1.71	599.25	584	21	1.51E-02	27.9	
14	0	327.98	88	252	1.57	654.91	649	12	1.22E-02	37.6	
15	0	338.26*	256	259	1.48	675.45	671	10	3.56E-02	13.7	
16	0	351.83*	913	188	1.38	702.59	697	12	1.27E-01	4.6	
17	0	462.68	143	242	1.91	924.23	915	19	1.99E-02	27.4	
18	0	510.47*	147	176	1.78	1019.77	1013	13	2.04E-02	24.2	
19	0	582.98*	623	137	1.85	1164.76	1156	19	8.65E-02	6.2	
20	0	608.98*	622	187	1.58	1216.74	1208	15	8.64E-02	6.3	
21	0	727.25*	119	157	1.78	1453.22	1447	17	1.65E-02	26.1	
22	0	767.72	77	146	2.46	1534.15	1525	15	1.07E-02	36.2	
23	0	785.82	42	89	1.25	1570.33	1564	11	5.78E-03	46.9	
24	0	795.74	66	144	1.64	1590.16	1582	17	9.11E-03	44.2	
25	0	861.28*	90	132	1.54	1721.21	1712	18	1.24E-02	32.4	
26	0	910.72*	448	145	1.91	1820.09	1812	19	6.22E-02	8.1	
27	0	968.50*	234	101	1.83	1935.62	1931	13	3.25E-02	11.3	
28	0	1119.74*	167	111	1.96	2238.05	2229	20	2.32E-02	17.6	
29	0	1459.64*	2609	38	2.39	2917.78	2905	25	3.62E-01	2.1	
30	0	1509.25	18	31	1.66	3016.97	3011	11	2.57E-03	62.2	
31	0	1620.07	20	23	1.38	3238.61	3225	19	2.77E-03	62.7	
32	0	1728.72	35	10	1.68	3455.88	3450	12	4.84E-03	25.8	
33	0	1763.17*	137	23	2.16	3524.78	3513	23	1.90E-02	12.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 15:05:56

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818003.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 13:05:26
Sample ID : G248818003 Sample quantity : 128.87 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.80 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.764E+01	3.253E+00	4.531E-01	3.438E-02	83.081
CD-109	+	88.03	*	3.702E+00	9.745E-01	1.225E+00	1.132E-01	3.023
SN-126		64.28		1.591E-01	5.456E-01	9.156E-01	1.353E-01	0.174
	+	86.94		1.493E+00	7.207E-01	5.101E-01	2.116E-01	2.928
	+	87.57	*	3.592E-01	9.456E-02	1.076E-01	9.913E-03	3.339
TL-208		277.37		3.048E-01	3.388E-01	5.536E-01	5.939E-02	0.551
	+	583.19	*	5.426E-01	7.914E-02	4.427E-02	3.465E-03	12.256
	+	860.56		7.172E-01	4.723E-01	3.528E-01	3.946E-02	2.033
BI-211		72.87		2.473E-01	3.607E+00	5.363E+00	4.429E-01	0.046
	+	351.06	*	3.774E+00	4.212E-01	2.598E-01	1.668E-02	14.527
BI-212	+	727.33	*	1.553E+00	8.327E-01	6.084E-01	7.557E-02	2.553
	+	785.37		3.513E+00	3.309E+00	4.319E+00	4.082E-01	0.813
	+	1620.50		2.229E+00	2.798E+00	3.270E+00	2.212E-01	0.682
PB-212	+	74.82		2.169E+00	5.389E-01	6.012E-01	7.708E-02	3.609
	+	77.11		1.857E+00	3.204E-01	3.402E-01	2.884E-02	5.457
	+	238.63	*	1.387E+00	1.555E-01	1.018E-01	7.339E-03	13.627
	+	300.09		1.606E+00	9.052E-01	1.037E+00	8.657E-02	1.550
BI-214	+	609.32	*	1.045E+00	1.625E-01	9.855E-02	8.856E-03	10.603
	+	1120.29		1.395E+00	5.087E-01	4.387E-01	4.225E-02	3.179
	+	1764.49		1.540E+00	4.059E-01	2.276E-01	1.384E-02	6.768
PB-214	+	74.82		3.845E+00	9.303E-01	1.066E+00	1.227E-01	3.609
	+	77.11		3.273E+00	6.260E-01	5.998E-01	7.093E-02	5.457
	+	242.00		1.809E+00	4.306E-01	6.026E-01	4.845E-02	3.002
	+	295.22		1.375E+00	2.134E-01	1.835E-01	1.593E-02	7.495
	+	351.93	*	1.370E+00	1.705E-01	9.446E-02	7.996E-03	14.500
RA-224	+	240.99	*	3.199E+00	7.385E-01	1.090E+00	6.071E-02	2.935
RA-226	+	609.32	*	1.045E+00	1.625E-01	9.855E-02	8.856E-03	10.603
	+	1120.29		1.395E+00	5.087E-01	4.387E-01	4.225E-02	3.179
	+	1764.49		1.540E+00	4.059E-01	2.276E-01	1.384E-02	6.768
AC-228	+	338.32		1.186E+00	5.869E-01	3.109E-01	1.282E-01	3.816
	+	911.20	*	1.818E+00	3.841E-01	1.995E-01	2.703E-02	9.113
	+	968.97		1.632E+00	5.502E-01	4.290E-01	1.070E-01	3.805
RA-228	+	338.32		1.186E+00	5.869E-01	3.109E-01	1.282E-01	3.816
	+	911.20	*	1.818E+00	3.841E-01	1.995E-01	2.703E-02	9.113

Sample ID : G248818003 Acquisition date : 23-MAR-2010 13:05:26

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		1.632E+00	5.502E-01	4.290E-01	1.070E-01	3.805
TH-228	+	74.82		2.169E+00	4.965E-01	6.012E-01	5.070E-02	3.609
	+	77.11		1.857E+00	3.204E-01	3.402E-01	2.884E-02	5.457
	+	238.63	*	1.387E+00	1.555E-01	1.018E-01	7.339E-03	13.627
	+	300.09		1.606E+00	1.326E+00	1.037E+00	6.310E-01	1.550
TH-229	+	85.43		2.630E-01	2.151E-01	2.854E-01	2.580E-02	0.921
	+	88.47		5.538E-01	1.458E-01	1.821E-01	1.668E-02	3.041
		193.51	*	2.020E-01	4.304E-01	7.323E-01	3.921E-02	0.276
	+	210.85		1.991E+00	1.229E+00	1.069E+00	5.812E-02	1.862
TH-230	+	609.32	*	1.045E+00	1.528E-01	9.854E-02	7.169E-03	10.603
	+	1120.29		1.395E+00	5.000E-01	4.387E-01	3.033E-02	3.179
	+	1764.49		1.540E+00	4.059E-01	2.276E-01	1.384E-02	6.768
TH-232	+	338.32		1.186E+00	3.315E-01	3.109E-01	1.799E-02	3.816
	+	911.20	*	1.818E+00	3.841E-01	1.995E-01	2.703E-02	9.113
	+	968.97		1.632E+00	5.502E-01	4.290E-01	1.070E-01	3.805
U-235	+	89.96		1.723E+00	8.544E-01	1.285E+00	3.176E-01	1.341
	+	93.35		2.499E+00	9.468E-01	6.493E-01	1.493E-01	3.848
		143.76	*	-2.675E-02	1.866E-01	2.911E-01	4.540E-02	-0.092
		163.33		-3.465E-01	3.530E-01	5.672E-01	9.419E-02	-0.611
	+	185.72		1.385E-01	5.264E-02	5.877E-02	3.126E-03	2.357
		205.31		6.544E-02	4.629E-01	6.830E-01	1.151E-01	0.096
NP-237	+	86.48	*	1.072E+00	3.607E-01	3.329E-01	7.613E-02	3.219
		95.86		-3.545E-02	9.354E-01	1.358E+00	3.229E-01	-0.026
ANH-511	+	511.00	*	9.908E-02	4.847E-02	3.975E-02	2.625E-03	2.493

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.537E-01	2.777E-01	4.720E-01	3.419E-02	0.326
NA-22		1274.54	*	-3.804E-02	4.021E-02	6.132E-02	4.173E-03	-0.620
NA-24		1368.63	*	-1.943E+02	4.021E-02	Half-Life too short		
SC-46		889.28	*	2.477E-02	3.190E-02	5.502E-02	6.137E-03	0.450
	+	1120.55		2.458E-01	8.810E-02	1.072E-01	7.408E-03	2.292
V-48		944.13		-3.812E-01	9.349E-01	1.472E+00	1.558E-01	-0.259
		983.53	*	9.986E-03	7.705E-02	1.259E-01	1.245E-02	0.079
		1312.11		2.201E-02	8.409E-02	1.406E-01	1.025E-02	0.157
CR-51		320.08	*	-2.457E-02	3.405E-01	5.463E-01	3.512E-02	-0.045
MN-54		834.85	*	1.108E-04	3.401E-02	5.592E-02	5.729E-03	0.002
CO-56		846.77	*	6.977E-03	3.536E-02	5.880E-02	6.139E-03	0.119
		1037.84		-8.742E-02	2.792E-01	4.574E-01	4.233E-02	-0.191
		1238.28		9.958E-02	9.139E-02	1.580E-01	1.053E-02	0.630
		1771.35		-1.168E-01	1.986E-01	2.348E-01	1.419E-02	-0.498
CO-57		122.06	*	-6.366E-03	2.341E-02	3.713E-02	2.199E-03	-0.171
		136.47		-1.614E-02	1.862E-01	2.954E-01	1.930E-02	-0.055
CO-58		810.76	*	-1.353E-03	3.309E-02	5.438E-02	5.368E-03	-0.025
FE-59		1099.45	*	-1.936E-02	8.429E-02	1.381E-01	1.136E-02	-0.140
		1291.59		8.860E-02	1.126E-01	1.955E-01	1.643E-02	0.453
CO-60		1173.23		5.763E-03	3.895E-02	6.508E-02	3.597E-03	0.089

Sample ID : G248818003 Acquisition date : 23-MAR-2010 13:05:26

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1332.49	*	-4.105E-03	3.216E-02	5.195E-02	3.925E-03	-0.079
ZN-65		1115.54	*	3.868E-02	9.355E-02	1.380E-01	9.723E-03	0.280
SE-75		121.12		-9.153E-02	1.244E-01	1.932E-01	1.772E-02	-0.474
		136.00		-1.870E-03	3.617E-02	5.749E-02	3.275E-03	-0.033
		264.66	*	-8.935E-03	4.274E-02	6.034E-02	3.452E-03	-0.148
		279.54		5.394E-02	9.566E-02	1.596E-01	9.873E-03	0.338
		400.66		3.105E-02	2.229E-01	3.657E-01	3.319E-02	0.085
SR-85		514.00	*	8.688E-02	3.564E-02	5.935E-02	3.932E-03	1.464
Y-88		898.04		1.494E-02	3.856E-02	6.305E-02	7.147E-03	0.237
		1836.06	*	-1.203E-02	2.506E-02	3.770E-02	2.147E-03	-0.319
Y-91		1204.77	*	-1.195E+00	2.077E+01	3.416E+01	2.019E+00	-0.035
NB-94		702.65	*	-1.817E-03	2.853E-02	4.745E-02	3.893E-03	-0.038
		871.09		4.506E-03	3.011E-02	4.874E-02	5.286E-03	0.092
NB-95		765.81	*	6.699E-02	3.968E-02	7.089E-02	6.485E-03	0.945
NB-95M		235.69	*	4.715E-02	1.254E-01	1.851E-01	1.363E-02	0.255
ZR-95		724.19		1.184E-01	9.293E-02	1.462E-01	1.353E-02	0.810
		756.73	*	4.381E-02	6.155E-02	1.064E-01	1.051E-02	0.412
MO-99		140.51		2.349E+01	7.019E+01	1.109E+02	2.529E+01	0.212
		181.07		3.135E+01	5.694E+01	8.629E+01	1.511E+01	0.363
		366.42		1.767E+02	2.569E+02	4.475E+02	2.585E+01	0.395
		739.50	*	-7.025E+00	3.500E+01	5.738E+01	9.083E+00	-0.122
		777.92		-7.814E+01	1.073E+02	1.538E+02	1.436E+01	-0.508
TC-99M		140.51	*	9.582E+15	1.073E+02	Half-Life too short		
RU-103		497.08	*	-9.888E-03	3.536E-02	5.712E-02	7.294E-03	-0.173
	+	610.33		1.176E+01	2.373E+00	2.401E+00	3.765E-01	4.900
RH-106		621.93	*	7.310E-02	2.654E-01	4.353E-01	5.430E-02	0.168
		1050.41		8.041E-01	2.153E+00	3.689E+00	3.152E-01	0.218
RU-106		621.93	*	7.310E-02	2.653E-01	4.353E-01	3.204E-02	0.168
		1050.41		8.041E-01	2.153E+00	3.689E+00	3.152E-01	0.218
AG-108M		433.94	*	3.240E-04	2.333E-02	3.881E-02	2.502E-03	0.008
		614.28		1.798E-02	3.281E-02	4.789E-02	3.659E-03	0.375
		722.91		-3.155E-02	3.446E-02	4.498E-02	3.950E-03	-0.701
AG-110M		657.76	*	-2.483E-02	2.787E-02	4.410E-02	3.478E-03	-0.563
		677.62		1.641E-01	2.470E-01	4.298E-01	3.489E-02	0.382
		706.68		2.184E-02	1.789E-01	3.006E-01	2.561E-02	0.073
		763.94		6.784E-02	1.542E-01	2.282E-01	2.132E-02	0.297
		884.68		-1.388E-03	4.023E-02	6.561E-02	7.409E-03	-0.021
		937.49		-4.751E-02	9.429E-02	1.473E-01	1.613E-02	-0.323
		1384.29		-1.042E-02	1.295E-01	2.092E-01	1.619E-02	-0.050
		1505.03		-2.612E-02	2.652E-01	3.718E-01	2.669E-02	-0.070
SN-113		391.69	*	-2.183E-02	3.546E-02	5.746E-02	3.524E-03	-0.380
CD-115		260.90		-2.895E-04	3.546E-02	Half-Life too short		
		492.35		1.480E-04	3.546E-02	Half-Life too short		
		527.90	*	-5.899E-06	3.546E-02	Half-Life too short		
SN-117M		156.02		1.718E+00	2.489E+00	4.315E+00	2.304E-01	0.398
		158.56	*	-2.726E-02	5.818E-02	9.689E-02	5.150E-03	-0.281
TE-123M		159.00	*	4.210E-03	2.390E-02	4.074E-02	2.198E-03	0.103
SB-124		602.73		-1.611E-03	3.858E-02	5.358E-02	3.875E-03	-0.030
		645.85		-1.111E-01	4.234E-01	6.673E-01	5.393E-02	-0.166

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		722.78		-3.539E-01	3.655E-01	4.739E-01	4.123E-02	-0.747
		1690.97	*	-2.631E-02	5.703E-02	8.721E-02	6.040E-03	-0.302
SB-125		427.87	*	-1.136E-02	7.023E-02	1.158E-01	7.228E-03	-0.098
	+	463.37		8.692E-01	4.805E-01	4.442E-01	3.170E-02	1.957
		600.60		-8.644E-03	1.611E-01	2.347E-01	1.870E-02	-0.037
		635.95		-1.508E-01	2.157E-01	3.286E-01	2.711E-02	-0.459
TE-125M		109.28	*	-3.216E+00	9.528E+00	1.519E+01	1.365E+00	-0.212
I-126		388.63		5.416E-02	1.674E-01	2.854E-01	1.640E-02	0.190
		666.33	*	-4.569E-02	2.266E-01	3.754E-01	2.886E-02	-0.122
		753.82		1.471E+00	1.929E+00	3.344E+00	2.998E-01	0.440
SB-126		414.70		-1.645E-02	8.010E-02	1.322E-01	7.819E-03	-0.124
		666.50		-1.160E-02	7.904E-02	1.314E-01	1.010E-02	-0.088
		695.00		3.301E-02	8.418E-02	1.437E-01	1.163E-02	0.230
		697.00		5.005E-02	2.999E-01	5.056E-01	4.107E-02	0.099
		720.70	*	-5.968E-02	1.686E-01	2.334E-01	1.977E-02	-0.256
		856.80		-1.083E-02	6.213E-01	8.726E-01	9.255E-02	-0.012
SB-127		252.40		-5.646E+00	9.119E+00	1.405E+01	5.825E+00	-0.402
		473.00		-2.179E+00	3.171E+00	5.002E+00	6.461E-01	-0.436
		685.70	*	1.443E+00	2.552E+00	4.405E+00	5.508E-01	0.328
		783.70		1.700E+01	8.025E+00	1.306E+01	1.871E+00	1.301
I-131		80.19		-6.482E-01	8.015E+00	1.073E+01	9.401E-01	-0.060
		284.31		-6.510E-01	1.873E+00	2.992E+00	1.919E-01	-0.218
		364.49	*	8.362E-02	1.331E-01	2.313E-01	1.505E-02	0.362
		636.99		-1.315E+00	1.931E+00	2.949E+00	2.380E-01	-0.446
TE-132		49.72		7.107E+01	7.156E+01	1.243E+02	1.485E+01	0.572
		111.76		-1.017E+01	8.798E+01	1.413E+02	1.578E+01	-0.072
		116.30		3.209E+01	7.505E+01	1.228E+02	1.351E+01	0.261
		228.16	*	-1.254E+00	1.785E+00	2.848E+00	4.428E-01	-0.440
BA-133		81.00		6.671E-02	1.201E-01	1.450E-01	2.258E-02	0.460
		276.40		3.113E-01	3.423E-01	5.125E-01	6.426E-02	0.607
		302.85		4.533E-02	1.306E-01	1.889E-01	2.150E-02	0.240
		356.01	*	1.666E-03	3.864E-02	5.394E-02	6.077E-03	0.031
		383.85		-6.085E-02	2.342E-01	3.879E-01	4.127E-02	-0.157
I-133		529.87	*	3.466E-02	2.342E-01	Half-Life too short		
		875.33		2.809E+00	2.342E-01	Half-Life too short		
		1298.22		-5.130E+00	2.342E-01	Half-Life too short		
CS-134		563.25		-1.493E-01	2.886E-01	4.532E-01	3.202E-02	-0.329
		569.33		-9.712E-02	1.685E-01	2.478E-01	1.772E-02	-0.392
		604.72		2.775E-02	3.128E-02	4.688E-02	3.408E-03	0.592
	+	795.86	*	8.143E-02	7.250E-02	7.529E-02	7.282E-03	1.082
		801.95		-1.959E-01	3.800E-01	5.077E-01	4.954E-02	-0.386
		1365.19		1.435E+00	9.541E-01	1.779E+00	1.416E-01	0.807
CS-135		268.22	*	3.465E-01	1.527E-01	2.441E-01	1.845E-02	1.419
I-135		546.56		-1.705E+15	1.527E-01	Half-Life too short		
		836.80		7.793E+15	1.527E-01	Half-Life too short		
		1038.76		-6.172E+13	1.527E-01	Half-Life too short		
		1131.51		-1.995E+15	1.527E-01	Half-Life too short		
		1260.41	*	-1.397E+15	1.527E-01	Half-Life too short		
		1457.56		4.843E+17	1.527E-01	Half-Life too short		

Sample ID : G248818003 Acquisition date : 23-MAR-2010 13:05:26

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1678.03		2.471E+15	1.527E-01	Half-Life too short		
		1791.20		-1.052E+14	1.527E-01	Half-Life too short		
CS-136		153.25		1.095E+00	9.471E-01	1.662E+00	1.288E-01	0.659
		176.60		-2.763E-01	5.346E-01	8.817E-01	5.857E-02	-0.313
		273.65		-8.129E-01	6.403E-01	8.355E-01	5.638E-02	-0.973
		340.55		4.832E-01	1.914E-01	3.060E-01	1.919E-02	1.579
		818.51		-4.072E-02	7.268E-02	1.143E-01	1.142E-02	-0.356
		1048.07	*	-1.563E-02	1.180E-01	1.955E-01	1.753E-02	-0.080
		1235.36		1.746E+00	7.292E-01	1.313E+00	1.338E-01	1.330
BA-137M		661.66	*	1.734E-02	2.711E-02	4.719E-02	3.597E-03	0.367
CS-137		661.66	*	1.832E-02	2.864E-02	4.985E-02	3.810E-03	0.367
CE-139		165.86	*	-1.418E-02	2.482E-02	4.103E-02	2.154E-03	-0.346
BA-140		162.66		-2.027E-01	8.460E-01	1.418E+00	8.763E-02	-0.143
		304.85		1.050E-02	1.699E+00	2.402E+00	6.860E-01	0.004
		423.72		-3.198E-01	1.920E+00	3.163E+00	1.022E+00	-0.101
		537.26	*	1.388E-01	2.661E-01	4.427E-01	1.483E-01	0.313
LA-140	+	328.76		6.622E-01	5.001E-01	5.749E-01	3.732E-02	1.152
		487.02		-9.075E-02	1.477E-01	2.341E-01	1.670E-02	-0.388
		815.77		-6.782E-02	3.197E-01	5.180E-01	5.606E-02	-0.131
		1596.21	*	-3.967E-02	8.602E-02	1.351E-01	9.270E-03	-0.294
CE-141		145.44	*	2.741E-04	6.440E-02	1.010E-01	5.766E-03	0.003
CE-143		57.36		4.003E-03	6.440E-02	Half-Life too short		
		293.27	*	9.939E-03	6.440E-02	Half-Life too short		
		664.57		1.015E-03	6.440E-02	Half-Life too short		
		721.93		-1.745E-02	6.440E-02	Half-Life too short		
CE-144		80.12		-2.596E-01	2.866E+00	3.836E+00	3.322E-01	-0.068
		133.52	*	-3.165E-02	1.790E-01	2.832E-01	3.917E-02	-0.112
PM-144		476.78		2.671E-02	5.307E-02	8.996E-02	6.606E-03	0.297
		618.01		-1.758E-02	2.781E-02	4.295E-02	3.272E-03	-0.409
		696.49	*	1.658E-02	2.907E-02	5.006E-02	4.065E-03	0.331
PR-144		696.51	*	1.255E+00	2.182E+00	3.758E+00	3.050E-01	0.334
		1489.16		-7.579E+00	1.074E+01	1.586E+01	1.146E+00	-0.478
PM-146		453.88	*	-1.211E-03	3.585E-02	5.591E-02	4.884E-03	-0.022
		633.25		-1.636E-02	1.130E+00	1.817E+00	6.893E-01	-0.009
		735.93		-5.405E-02	1.407E-01	1.930E-01	5.413E-02	-0.280
		747.24		1.621E-02	7.582E-02	1.276E-01	1.880E-02	0.127
ND-147	+	91.11		7.617E-01	3.355E-01	6.195E-01	5.831E-02	1.230
		319.41		1.933E+00	3.753E+00	6.206E+00	3.586E-01	0.312
		531.02	*	1.673E-01	5.970E-01	9.926E-01	1.385E-01	0.169
PM-149		285.90	*	-5.870E-05	5.970E-01	Half-Life too short		
EU-152		121.78		-2.258E-02	6.589E-02	1.042E-01	7.997E-03	-0.217
		244.70		9.282E-02	2.750E-01	4.055E-01	2.265E-02	0.229
		344.28	*	-4.430E-02	8.682E-02	1.236E-01	8.062E-03	-0.358
		778.90		3.986E-02	2.301E-01	3.331E-01	3.114E-02	0.120
		964.08		7.022E-01	2.992E-01	4.858E-01	4.975E-02	1.446
		1085.87		2.049E-01	3.445E-01	5.892E-01	4.564E-02	0.348
		1112.07		-2.293E-02	3.196E-01	4.517E-01	3.215E-02	-0.051
		1408.01		1.964E-01	1.551E-01	2.802E-01	2.081E-02	0.701
GD-153		69.67		-1.059E+00	1.763E+00	2.861E+00	2.322E-01	-0.370

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		97.43	*	-2.428E-02	9.043E-02	1.296E-01	1.013E-02	-0.187
		103.18		-1.301E-01	1.005E-01	1.536E-01	1.107E-02	-0.847
EU-154		123.07		2.344E-03	4.689E-02	7.536E-02	7.116E-03	0.031
		723.31		-9.799E-02	1.597E-01	2.158E-01	2.026E-02	-0.454
		873.19		7.362E-03	2.496E-01	4.094E-01	5.577E-02	0.018
		996.26		-5.903E-01	3.423E-01	4.537E-01	8.166E-02	-1.301
		1004.73		-2.661E-01	2.033E-01	2.901E-01	3.567E-02	-0.917
		1274.44	*	-9.888E-02	1.139E-01	1.745E-01	1.756E-02	-0.567
EU-155	+	86.55		4.364E-01	1.150E-01	1.815E-01	1.672E-02	2.404
		105.31	*	6.709E-02	9.676E-02	1.592E-01	1.138E-02	0.421
TB-160	+	86.79		1.212E+00	3.189E-01	5.067E-01	4.636E-02	2.391
		197.04		-1.493E-01	4.858E-01	7.827E-01	4.204E-02	-0.191
		215.65		-6.092E-01	7.026E-01	1.033E+00	5.641E-02	-0.590
		298.57		9.651E-02	9.864E-02	1.667E-01	9.572E-03	0.579
		879.36	*	4.702E-02	1.201E-01	2.019E-01	2.217E-02	0.233
		962.29		1.181E+00	5.692E-01	9.157E-01	9.407E-02	1.290
		966.15		1.367E+00	3.119E-01	5.047E-01	5.151E-02	2.709
		1177.93		3.403E-01	3.338E-01	5.864E-01	3.274E-02	0.580
		1271.85		1.147E-02	6.748E-01	1.110E+00	7.499E-02	0.010
HO-166M		80.57		-3.966E-02	3.581E-01	4.137E-01	3.594E-02	-0.096
		184.41		8.364E-02	3.603E-02	5.877E-02	3.123E-03	1.423
		280.46		-5.225E-02	7.336E-02	1.154E-01	6.581E-03	-0.453
		410.95		1.113E-01	2.115E-01	3.532E-01	2.079E-02	0.315
		711.68	*	1.292E-02	4.987E-02	8.442E-02	7.037E-03	0.153
		752.31		5.141E-02	2.211E-01	3.723E-01	3.328E-02	0.138
		810.29		-4.505E-03	4.731E-02	7.745E-02	7.626E-03	-0.058
TA-182		67.75		-9.151E-02	1.192E-01	1.896E-01	1.524E-02	-0.483
		100.11		1.886E-01	1.661E-01	2.808E-01	2.111E-02	0.672
		152.43		-1.426E-01	3.361E-01	5.218E-01	2.807E-02	-0.273
		222.11		-3.155E-01	3.052E-01	4.834E-01	2.653E-02	-0.653
		1121.30		4.682E-01	1.577E-01	2.930E-01	2.019E-02	1.598
		1189.05		2.920E-01	2.900E-01	5.076E-01	2.902E-02	0.575
		1221.41	*	-3.872E-02	1.797E-01	2.923E-01	1.788E-02	-0.132
		1231.02		-7.677E-01	4.728E-01	7.003E-01	4.368E-02	-1.096
IR-192	+	295.96		1.065E+00	1.504E-01	2.529E-01	1.475E-02	4.212
		308.46		-3.730E-02	8.366E-02	1.320E-01	7.689E-03	-0.283
		316.51	*	4.466E-03	3.085E-02	4.931E-02	2.860E-03	0.091
		468.07		2.616E-02	6.049E-02	8.982E-02	6.409E-03	0.291
HG-203		70.83		-5.525E-01	1.633E+00	2.386E+00	3.775E-01	-0.232
		72.87		6.626E-02	9.665E-01	1.437E+00	2.204E-01	0.046
		279.20	*	3.635E-02	3.556E-02	6.041E-02	3.642E-03	0.602
BI-207		72.81		-1.702E-02	2.071E-01	3.060E-01	2.525E-02	-0.056
	+	74.97		6.254E-01	1.430E-01	2.301E-01	1.924E-02	2.718
		569.70		-2.553E-02	2.641E-02	3.775E-02	2.645E-03	-0.676
		1063.66	*	2.162E-02	4.525E-02	7.789E-02	6.429E-03	0.278
		1770.23		-1.338E-01	3.685E-01	4.666E-01	2.823E-02	-0.287
PB-210		46.54	*	-4.044E+00	4.815E+00	7.876E+00	6.038E-01	-0.513
PB-211		404.85	*	-4.852E-01	6.535E-01	9.818E-01	4.710E-01	-0.494
		427.09		1.171E-01	1.157E+00	1.934E+00	8.867E-01	0.061

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		832.01		6.351E-02	8.383E-01	1.384E+00	7.218E-01	0.046
RN-219	+	271.23		9.423E-01	3.837E-01	3.884E-01	3.085E-02	2.426
		401.81	*	8.691E-02	3.478E-01	5.735E-01	7.711E-02	0.152
RA-223		81.07		1.523E-01	2.711E-01	3.281E-01	2.862E-02	0.464
	+	83.79		1.565E-01	1.280E-01	2.010E-01	1.792E-02	0.779
		94.87		1.085E+00	4.694E-01	7.438E-01	6.057E-02	1.458
		144.24		-3.029E-02	6.160E-01	9.641E-01	6.704E-02	-0.031
		154.21		4.829E-01	3.333E-01	5.897E-01	3.895E-02	0.819
	+	269.46		7.322E-01	2.956E-01	3.102E-01	1.839E-02	2.361
		323.87	*	-4.259E-01	5.960E-01	7.854E-01	1.265E-01	-0.542
	+	338.28		4.708E+00	1.375E+00	1.927E+00	1.973E-01	2.443
AC-227		79.69		-1.105E-01	1.287E+00	1.889E+00	3.257E-01	-0.058
		235.96		3.872E-01	1.539E-01	2.452E-01	1.953E-02	1.579
		256.23	*	1.401E-01	2.116E-01	3.561E-01	3.607E-02	0.393
	+	299.98		1.767E+00	1.004E+00	1.296E+00	1.421E-01	1.363
		304.50		4.254E-01	1.532E+00	2.204E+00	3.357E-01	0.193
		334.37		-1.061E+00	2.014E+00	2.229E+00	3.170E-01	-0.476
TH-227		79.80		-2.518E-01	1.867E+00	2.492E+00	5.429E-01	-0.101
		235.96		3.872E-01	1.534E-01	2.452E-01	1.763E-02	1.579
		256.23	*	1.401E-01	2.118E-01	3.561E-01	4.251E-02	0.393
	+	299.98		1.767E+00	1.004E+00	1.296E+00	1.421E-01	1.363
		304.50		4.254E-01	1.532E+00	2.204E+00	3.357E-01	0.193
		334.37		-1.061E+00	2.014E+00	2.229E+00	3.170E-01	-0.476
PA-231		283.69	*	-2.423E-01	1.185E+00	1.908E+00	2.495E-01	-0.127
	+	301.36		1.135E+00	6.433E-01	8.305E-01	8.567E-02	1.367
TH-231		81.07		1.523E-01	2.711E-01	3.281E-01	2.862E-02	0.464
	+	83.79		1.565E-01	1.280E-01	2.010E-01	1.792E-02	0.779
		94.87		1.085E+00	4.694E-01	7.438E-01	6.057E-02	1.458
		144.24		-3.029E-02	6.160E-01	9.641E-01	6.704E-02	-0.031
		154.21		4.829E-01	3.333E-01	5.897E-01	3.895E-02	0.819
	+	269.46		7.322E-01	2.956E-01	3.102E-01	1.839E-02	2.361
		323.87	*	-4.259E-01	5.960E-01	7.854E-01	1.265E-01	-0.542
	+	338.28		4.708E+00	1.375E+00	1.927E+00	1.973E-01	2.443
PA-233	+	300.13		7.995E-01	4.582E-01	5.873E-01	7.849E-02	1.361
		311.90	*	-4.925E-02	5.451E-02	8.330E-02	5.104E-03	-0.591
		340.48		1.753E+00	7.484E-01	1.028E+00	2.384E-01	1.706
PA-234		94.67		5.150E-01	1.821E-01	2.825E-01	3.416E-02	1.823
		98.44		8.561E-02	1.054E-01	1.429E-01	7.950E-02	0.599
		111.00		5.598E-02	1.669E-01	2.728E-01	2.927E-02	0.205
		131.20		-3.746E-02	9.788E-02	1.539E-01	8.758E-03	-0.243
		569.50		-2.186E-01	2.348E-01	3.367E-01	2.359E-02	-0.649
		733.00		1.307E-01	3.407E-01	5.037E-01	1.119E-01	0.259
		880.51		1.513E-02	2.352E-01	3.865E-01	4.253E-02	0.039
		883.24		-3.456E-02	2.293E-01	3.687E-01	2.492E-01	-0.094
		926.50		-1.154E-01	1.544E-01	2.325E-01	6.076E-02	-0.496
		946.00	*	1.391E-01	2.657E-01	4.453E-01	8.783E-02	0.313
		949.00		2.488E-01	3.880E-01	6.573E-01	6.903E-02	0.378
PA-234M	+	766.42		2.186E+01	1.933E+01	1.840E+01	9.353E+00	1.188
		1001.03	*	6.739E+00	4.082E+00	7.196E+00	7.763E-01	0.936

Sample ID : G248818003 Acquisition date : 23-MAR-2010 13:05:26

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	1.813E+00	1.512E+00	2.555E+00	4.602E-01	0.710
	+	92.59		3.308E+00	1.233E+00	1.271E+00	2.799E-01	2.603
U-238		63.29	*	1.813E+00	1.512E+00	2.555E+00	4.602E-01	0.710
	+	92.59		3.308E+00	1.034E+00	1.271E+00	1.076E-01	2.603
NP-239		99.53		1.506E-01	1.514E-01	2.548E-01	1.931E-02	0.591
		103.37		-1.026E-01	8.981E-02	1.383E-01	9.946E-03	-0.742
		106.12		2.946E-02	7.869E-02	1.280E-01	8.895E-03	0.230
		117.23	*	1.327E-01	3.507E-01	5.731E-01	3.540E-02	0.232
		228.18		-1.262E-01	1.810E-01	2.903E-01	1.601E-02	-0.435
		277.60		1.483E-01	1.548E-01	2.544E-01	1.449E-02	0.583
AM-241		59.54	*	-7.452E-02	1.706E-01	2.807E-01	2.328E-02	-0.266
CM-247		278.00		8.110E-01	6.357E-01	1.090E+00	6.212E-02	0.744
		287.50		-3.166E-01	1.004E+00	1.604E+00	9.177E-02	-0.197
		402.40	*	1.396E-02	3.163E-02	5.263E-02	3.064E-03	0.265
CF-249		252.80		-7.005E-01	8.104E-01	1.276E+00	7.168E-02	-0.549
		333.37		1.234E-01	2.195E-01	2.366E-01	1.368E-02	0.522
		388.16	*	-4.146E-03	3.097E-02	5.158E-02	2.965E-03	-0.080
CF-251		177.52	*	-8.353E-02	1.080E-01	1.763E-01	9.317E-03	-0.474
		227.38		-1.917E-01	2.958E-01	4.757E-01	2.622E-02	-0.403
		285.41		9.989E-02	1.750E+00	2.852E+00	1.630E-01	0.035

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818003       *
* Acquisition date : 23-MAR-2010 13:05:26 Detector SN#    :                 *
* Detector ID       : GAM18                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.80      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  3-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248818003           Analyst initials: MXR1           *
* Batch Number      : 962631               Sample Quantity : 1.2887E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.764E+01	3.188E+00	4.532E-01	0.000E+00
CD-109	3.702E+00	9.550E-01	1.280E+00	0.000E+00
SN-126	3.592E-01	9.266E-02	1.124E-01	0.000E+00
TL-208	5.426E-01	7.756E-02	4.494E-02	0.000E+00
BI-211	3.774E+00	4.128E-01	2.658E-01	0.000E+00
BI-212	1.553E+00	8.160E-01	6.154E-01	0.000E+00
PB-212	1.387E+00	1.524E-01	1.048E-01	0.000E+00
BI-214	1.045E+00	1.592E-01	9.997E-02	0.000E+00
PB-214	1.370E+00	1.671E-01	9.665E-02	0.000E+00
RA-224	3.199E+00	7.238E-01	1.122E+00	0.000E+00
RA-226	1.045E+00	1.592E-01	9.997E-02	0.000E+00
AC-228	1.818E+00	3.764E-01	2.011E-01	0.000E+00
RA-228	1.818E+00	3.764E-01	2.011E-01	0.000E+00
TH-228	1.387E+00	1.524E-01	1.048E-01	0.000E+00
TH-229	2.020E-01	4.218E-01	7.562E-01	0.000E+00
TH-230	1.045E+00	1.498E-01	9.996E-02	0.000E+00
TH-232	1.818E+00	3.764E-01	2.011E-01	0.000E+00
U-235	-2.675E-02	1.829E-01	3.019E-01	0.000E+00
NP-237	1.072E+00	3.535E-01	3.480E-01	0.000E+00
ANH-511	9.908E-02	4.750E-02	4.043E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.537E-01	2.722E-01	4.806E-01	0.000E+00	NOT IDENT.
NA-22	-3.804E-02	3.940E-02	6.148E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.533E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	2.477E-02	3.127E-02	5.548E-02	0.000E+00	FAIL ABUN
V-48	9.986E-03	7.551E-02	1.268E-01	0.000E+00	NOT IDENT.
CR-51	-2.457E-02	3.337E-01	5.598E-01	0.000E+00	NOT IDENT.
MN-54	1.108E-04	3.333E-02	5.645E-02	0.000E+00	NOT IDENT.

CO-56	6.977E-03	3.465E-02	5.934E-02	0.000E+00	NOT IDENT.
CO-57	-6.366E-03	2.294E-02	3.861E-02	0.000E+00	NOT IDENT.
CO-58	-1.353E-03	3.243E-02	5.491E-02	0.000E+00	NOT IDENT.
FE-59	-1.936E-02	8.260E-02	1.388E-01	0.000E+00	NOT IDENT.
CO-60	-4.105E-03	3.151E-02	5.205E-02	0.000E+00	NOT IDENT.
ZN-65	3.868E-02	9.168E-02	1.387E-01	0.000E+00	NOT IDENT.
SE-75	-8.935E-03	4.188E-02	6.201E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.493E-02	6.036E-02	0.000E+00	NOT IDENT.
Y-88	-1.203E-02	2.456E-02	3.757E-02	0.000E+00	NOT IDENT.
Y-91	-1.195E+00	2.035E+01	3.428E+01	0.000E+00	NOT IDENT.
NB-94	-1.817E-03	2.796E-02	4.802E-02	0.000E+00	NOT IDENT.
NB-95	6.699E-02	3.889E-02	7.165E-02	0.000E+00	NOT IDENT.
NB-95M	4.715E-02	1.229E-01	1.905E-01	0.000E+00	NOT IDENT.
ZR-95	4.381E-02	6.032E-02	1.076E-01	0.000E+00	NOT IDENT.
MO-99	-7.025E+00	3.430E+01	5.803E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.820E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-9.888E-03	3.465E-02	5.812E-02	0.000E+00	FAIL ABUN
RH-106	7.310E-02	2.601E-01	4.415E-01	0.000E+00	NOT IDENT.
RU-106	7.310E-02	2.600E-01	4.415E-01	0.000E+00	NOT IDENT.
AG-108M	3.240E-04	2.286E-02	3.958E-02	0.000E+00	NOT IDENT.
AG-110M	-2.483E-02	2.731E-02	4.468E-02	0.000E+00	NOT IDENT.
SN-113	-2.183E-02	3.475E-02	5.869E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	4.383E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-2.726E-02	5.701E-02	1.003E-01	0.000E+00	NOT IDENT.
TE-123M	4.210E-03	2.342E-02	4.220E-02	0.000E+00	NOT IDENT.
SB-124	-2.631E-02	5.589E-02	8.703E-02	0.000E+00	NOT IDENT.
SB-125	-1.136E-02	6.882E-02	1.181E-01	0.000E+00	FAIL ABUN
TE-125M	-3.216E+00	9.337E+00	1.582E+01	0.000E+00	NOT IDENT.
I-126	-4.569E-02	2.221E-01	3.803E-01	0.000E+00	NOT IDENT.
SB-126	-5.968E-02	1.652E-01	2.362E-01	0.000E+00	NOT IDENT.
SB-127	1.443E+00	2.501E+00	4.460E+00	0.000E+00	NOT IDENT.
I-131	8.362E-02	1.304E-01	2.365E-01	0.000E+00	NOT IDENT.
TE-132	-1.254E+00	1.750E+00	2.933E+00	0.000E+00	NOT IDENT.
BA-133	1.666E-03	3.787E-02	5.518E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.383E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.105E-02	7.605E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.497E-01	2.508E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.584E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.563E-02	1.156E-01	1.966E-01	0.000E+00	NOT IDENT.
BA-137M	1.734E-02	2.657E-02	4.781E-02	0.000E+00	NOT IDENT.
CS-137	1.832E-02	2.807E-02	5.051E-02	0.000E+00	NOT IDENT.
CE-139	-1.418E-02	2.432E-02	4.246E-02	0.000E+00	NOT IDENT.
BA-140	1.388E-01	2.607E-01	4.500E-01	0.000E+00	NOT IDENT.
LA-140	-3.967E-02	8.430E-02	1.349E-01	0.000E+00	FAIL ABUN
CE-141	2.741E-04	6.311E-02	1.047E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.774E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.165E-02	1.754E-01	2.941E-01	0.000E+00	NOT IDENT.
PM-144	1.658E-02	2.849E-02	5.067E-02	0.000E+00	NOT IDENT.
PR-144	1.255E+00	2.138E+00	3.804E+00	0.000E+00	NOT IDENT.
PM-146	-1.211E-03	3.514E-02	5.698E-02	0.000E+00	NOT IDENT.
ND-147	1.673E-01	5.850E-01	1.009E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	3.424E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-4.430E-02	8.509E-02	1.265E-01	0.000E+00	NOT IDENT.
GD-153	-2.428E-02	8.862E-02	1.352E-01	0.000E+00	NOT IDENT.
EU-154	-9.888E-02	1.116E-01	1.749E-01	0.000E+00	NOT IDENT.
EU-155	6.709E-02	9.483E-02	1.659E-01	0.000E+00	FAIL ABUN
TB-160	4.702E-02	1.177E-01	2.036E-01	0.000E+00	FAIL ABUN
HO-166M	1.292E-02	4.887E-02	8.542E-02	0.000E+00	NOT IDENT.
TA-182	-3.872E-02	1.761E-01	2.932E-01	0.000E+00	NOT IDENT.
IR-192	4.466E-03	3.023E-02	5.054E-02	0.000E+00	FAIL ABUN
HG-203	3.635E-02	3.485E-02	6.202E-02	0.000E+00	NOT IDENT.
BI-207	2.162E-02	4.435E-02	7.831E-02	0.000E+00	FAIL ABUN
PB-210	-4.044E+00	4.719E+00	8.307E+00	0.000E+00	NOT IDENT.
PB-211	-4.852E-01	6.404E-01	1.002E+00	0.000E+00	NOT IDENT.
RN-219	8.691E-02	3.408E-01	5.855E-01	0.000E+00	FAIL ABUN
RA-223	-4.259E-01	5.841E-01	8.046E-01	0.000E+00	FAIL ABUN
AC-227	1.401E-01	2.073E-01	3.662E-01	0.000E+00	FAIL ABUN
TH-227	1.401E-01	2.075E-01	3.662E-01	0.000E+00	FAIL ABUN
PA-231	-2.423E-01	1.162E+00	1.958E+00	0.000E+00	FAIL ABUN
TH-231	-4.259E-01	5.841E-01	8.046E-01	0.000E+00	FAIL ABUN
PA-233	-4.925E-02	5.342E-02	8.539E-02	0.000E+00	FAIL ABUN
PA-234	1.391E-01	2.604E-01	4.485E-01	0.000E+00	NOT IDENT.
PA-234M	6.739E+00	4.001E+00	7.243E+00	0.000E+00	FAIL ABUN
TH-234	1.813E+00	1.481E+00	2.682E+00	0.000E+00	FAIL ABUN
U-238	1.813E+00	1.481E+00	2.682E+00	0.000E+00	FAIL ABUN
NP-239	1.327E-01	3.437E-01	5.962E-01	0.000E+00	NOT IDENT.
AM-241	-7.452E-02	1.672E-01	2.950E-01	0.000E+00	NOT IDENT.
CM-247	1.396E-02	3.099E-02	5.373E-02	0.000E+00	NOT IDENT.

CF-249	-4.146E-03	3.035E-02	5.269E-02	0.000E+00 NOT IDENT.
CF-251	-8.353E-02	1.059E-01	1.823E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:05:54.16

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818003.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 13:05:26
Sample ID         : G248818003           Sample quantity  : 1.28870E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.80  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	2609	10.66*	1.894E+00	3.764E+01	3.764E+01	8.64
CD-109	88.03	294	3.70*	6.443E+00	3.592E+00	3.702E+00	26.32
SN-126	64.28	------	9.60	3.245E+00	------ Line Not Found		------
	86.94	294	8.90	6.443E+00	1.493E+00	1.493E+00	48.26
	87.57	294	37.00*	6.443E+00	3.592E-01	3.592E-01	26.32
TL-208	277.37	------	6.60	6.258E+00	------ Line Not Found		------
	583.19	623	85.00*	3.934E+00	5.426E-01	5.426E-01	14.59
	860.56	90	12.50	2.912E+00	7.172E-01	7.172E-01	65.85
BI-211	72.87	------	1.23	4.622E+00	------ Line Not Found		------
	351.06	913	12.92*	5.452E+00	3.774E+00	3.774E+00	11.16
BI-212	727.33	119	6.67*	3.337E+00	1.553E+00	1.553E+00	53.61
	785.37	42	1.10	3.138E+00	3.513E+00	3.513E+00	94.19
	1620.50	20	1.47	1.771E+00	2.229E+00	2.229E+00	125.52
PB-212	74.82	378	10.28	4.942E+00	2.169E+00	2.169E+00	24.84
	77.11	572	17.10	5.250E+00	1.857E+00	1.857E+00	17.26
	238.63	1411	43.60*	6.795E+00	1.387E+00	1.387E+00	11.21
	300.09	109	3.30	5.984E+00	1.606E+00	1.606E+00	56.35
BI-214	609.32	622	45.49*	3.813E+00	1.045E+00	1.045E+00	15.55
	1120.29	167	14.92	2.335E+00	1.395E+00	1.395E+00	36.47
	1764.49	137	15.30	1.695E+00	1.540E+00	1.540E+00	26.36
PB-214	74.82	378	5.80	4.942E+00	3.845E+00	3.845E+00	24.19
	77.11	572	9.70	5.250E+00	3.273E+00	3.273E+00	19.13
	242.00	304	7.25	6.746E+00	1.809E+00	1.809E+00	23.81
	295.22	525	18.42	6.042E+00	1.375E+00	1.375E+00	15.52
	351.93	913	35.60*	5.452E+00	1.370E+00	1.370E+00	12.45
RA-224	240.99	304	4.10*	6.746E+00	3.199E+00	3.199E+00	23.09
RA-226	609.32	622	45.49*	3.813E+00	1.045E+00	1.045E+00	15.55
	1120.29	167	14.92	2.335E+00	1.395E+00	1.395E+00	36.47
	1764.49	137	15.30	1.695E+00	1.540E+00	1.540E+00	26.36
AC-228	338.32	256	11.27	5.581E+00	1.186E+00	1.186E+00	49.47
	911.20	448	25.80*	2.780E+00	1.818E+00	1.818E+00	21.12
	968.97	234	15.80	2.640E+00	1.632E+00	1.632E+00	33.71

Sample ID : G248818003 Acquisition date : 23-MAR-2010 13:05:26

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	256	11.27	5.581E+00	1.186E+00	1.186E+00	49.47
	911.20	448	25.80*	2.780E+00	1.818E+00	1.818E+00	21.12
	968.97	234	15.80	2.640E+00	1.632E+00	1.632E+00	33.71
TH-228	74.82	378	10.28	4.942E+00	2.169E+00	2.169E+00	22.89
	77.11	572	17.10	5.250E+00	1.857E+00	1.857E+00	17.26
	238.63	1411	43.60*	6.795E+00	1.387E+00	1.387E+00	11.21
	300.09	109	3.30	5.984E+00	1.606E+00	1.606E+00	82.53
TH-229	85.43	81	14.70	6.107E+00	2.630E-01	2.630E-01	81.79
	88.47	294	24.00	6.443E+00	5.538E-01	5.538E-01	26.32
	193.51	------	4.41*	7.521E+00	------ Line Not Found		------
	210.85	139	2.80	7.254E+00	1.991E+00	1.991E+00	61.76
TH-230	609.32	622	45.49*	3.813E+00	1.045E+00	1.045E+00	14.63
	1120.29	167	14.92	2.335E+00	1.395E+00	1.395E+00	35.85
	1764.49	137	15.30	1.695E+00	1.540E+00	1.540E+00	26.36
TH-232	338.32	256	11.27	5.581E+00	1.186E+00	1.186E+00	27.94
	911.20	448	25.80*	2.780E+00	1.818E+00	1.818E+00	21.12
	968.97	234	15.80	2.640E+00	1.632E+00	1.632E+00	33.71
U-235	89.96	138	3.47	6.704E+00	1.723E+00	1.723E+00	49.58
	93.35	335	5.60	6.966E+00	2.499E+00	2.499E+00	37.89
	143.76	------	10.96*	8.222E+00	------ Line Not Found		------
	163.33	------	5.08	8.005E+00	------ Line Not Found		------
	185.72	208	57.20	7.647E+00	1.385E-01	1.385E-01	38.00
	205.31	------	5.01	7.323E+00	------ Line Not Found		------
NP-237	86.48	294	12.40*	6.443E+00	1.072E+00	1.072E+00	33.65
	95.86	------	2.68	7.180E+00	------ Line Not Found		------
ANH-511	511.00	147	100.00*	4.312E+00	9.908E-02	9.908E-02	48.92

Flag: "*" = Keyline

Sample ID : G248818003 Acquisition date : 23-MAR-2010 13:05:26

Total number of lines in spectrum 33
Number of unidentified lines 2
Number of lines tentatively identified by NID 31 93.94%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.764E+01	3.764E+01	0.325E+01	8.64	
CD-109	461.40D	1.03	3.592E+00	3.702E+00	0.975E+00	26.32	
SN-126	2.30E+05Y	1.00	3.592E-01	3.592E-01	0.946E-01	26.32	
TL-208	1.41E+10Y	1.00	5.426E-01	5.426E-01	0.791E-01	14.59	
BI-211	7.04E+08Y	1.00	3.774E+00	3.774E+00	0.421E+00	11.16	
BI-212	1.41E+10Y	1.00	1.553E+00	1.553E+00	0.833E+00	53.61	
PB-212	1.41E+10Y	1.00	1.387E+00	1.387E+00	0.156E+00	11.21	
BI-214	1600.00Y	1.00	1.045E+00	1.045E+00	0.162E+00	15.55	
PB-214	1600.00Y	1.00	1.370E+00	1.370E+00	0.171E+00	12.45	
RA-224	1.41E+10Y	1.00	3.199E+00	3.199E+00	0.739E+00	23.09	
RA-226	1600.00Y	1.00	1.045E+00	1.045E+00	0.162E+00	15.55	
AC-228	1.41E+10Y	1.00	1.818E+00	1.818E+00	0.384E+00	21.12	
RA-228	1.41E+10Y	1.00	1.818E+00	1.818E+00	0.384E+00	21.12	
TH-228	1.41E+10Y	1.00	1.387E+00	1.387E+00	0.156E+00	11.21	
TH-229	7340.00Y	1.00	5.538E-01	5.538E-01	1.458E-01	26.32	K
TH-230	7.54E+04Y	1.00	1.045E+00	1.045E+00	0.153E+00	14.63	
TH-232	1.41E+10Y	1.00	1.818E+00	1.818E+00	0.384E+00	21.12	
U-235	7.04E+08Y	1.00	1.385E-01	1.385E-01	0.526E-01	38.00	K
NP-237	2.14E+06Y	1.00	1.072E+00	1.072E+00	0.361E+00	33.65	
ANH-511	1.00E+09Y	1.00	9.908E-02	9.908E-02	4.847E-02	48.92	
	Total Activity :		6.526E+01	6.537E+01			

Grand Total Activity : 6.526E+01 6.537E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248818003 Acquisition date : 23-MAR-2010 13:05:26

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	270.18	222	363	1.64	539.35	532	15	3.08E-02	39.9	6.35E+00	T
0	327.98	88	252	1.57	654.91	649	12	1.22E-02	75.2	5.68E+00	T
0	462.68	143	242	1.91	924.23	915	19	1.99E-02	54.8	4.60E+00	T
0	767.72	77	146	2.46	1534.15	1525	15	1.07E-02	72.3	3.20E+00	T
0	795.74	66	144	1.64	1590.16	1582	17	9.11E-03	88.5	3.11E+00	T
0	1509.25	18	31	1.66	3016.97	3011	11	2.57E-03	****	1.85E+00	
0	1728.72	35	10	1.68	3455.88	3450	12	4.84E-03	51.6	1.71E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:05:58.25

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818003.CNF;1  *
* Acquisition date : 23-MAR-2010 13:05:26  Detector SN#    :                *
* Detector ID      : GAM18                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.80         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248818003            Analyst initials: MXR1           *
* Batch Number     : 962631                Sample Quantity : 1.28870E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23.2MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.764E+01	3.253E+00	4.531E-01	3.438E-02	83.081
CD-109	3.702E+00	9.745E-01	1.225E+00	1.132E-01	3.023
SN-126	3.592E-01	9.456E-02	1.076E-01	9.913E-03	3.339
TL-208	5.426E-01	7.914E-02	4.427E-02	3.465E-03	12.256
BI-211	3.774E+00	4.212E-01	2.598E-01	1.668E-02	14.527
BI-212	1.553E+00	8.327E-01	6.084E-01	7.557E-02	2.553
PB-212	1.387E+00	1.555E-01	1.018E-01	7.339E-03	13.627
BI-214	1.045E+00	1.625E-01	9.855E-02	8.856E-03	10.603
PB-214	1.370E+00	1.705E-01	9.446E-02	7.996E-03	14.500
RA-224	3.199E+00	7.385E-01	1.090E+00	6.071E-02	2.935
RA-226	1.045E+00	1.625E-01	9.855E-02	8.856E-03	10.603
AC-228	1.818E+00	3.841E-01	1.995E-01	2.703E-02	9.113
RA-228	1.818E+00	3.841E-01	1.995E-01	2.703E-02	9.113
TH-228	1.387E+00	1.555E-01	1.018E-01	7.339E-03	13.627
TH-229	5.538E-01	1.458E-01	7.323E-01	3.921E-02	0.756
TH-230	1.045E+00	1.528E-01	9.854E-02	7.169E-03	10.603
TH-232	1.818E+00	3.841E-01	1.995E-01	2.703E-02	9.113
U-235	1.385E-01	5.264E-02	2.911E-01	4.540E-02	0.476

Sample ID : G248818003 Acquisition date : 23-MAR-2010 13:05:26

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	1.072E+00	3.607E-01	3.329E-01	7.613E-02	3.219
ANH-511	9.908E-02	4.847E-02	3.975E-02	2.625E-03	2.493

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.537E-01		2.777E-01	4.720E-01	3.419E-02	0.326
NA-22	-3.804E-02		4.021E-02	6.132E-02	4.173E-03	-0.620
NA-24	-1.943E+02		7.820E+01	Half-Life too short		
SC-46	2.477E-02		3.190E-02	5.502E-02	6.137E-03	0.450
V-48	9.986E-03		7.705E-02	1.259E-01	1.245E-02	0.079
CR-51	-2.457E-02		3.405E-01	5.463E-01	3.512E-02	-0.045
MN-54	1.108E-04		3.401E-02	5.592E-02	5.729E-03	0.002
CO-56	6.977E-03		3.536E-02	5.880E-02	6.139E-03	0.119
CO-57	-6.366E-03		2.341E-02	3.713E-02	2.199E-03	-0.171
CO-58	-1.353E-03		3.309E-02	5.438E-02	5.368E-03	-0.025
FE-59	-1.936E-02		8.429E-02	1.381E-01	1.136E-02	-0.140
CO-60	-4.105E-03		3.216E-02	5.195E-02	3.925E-03	-0.079
ZN-65	3.868E-02		9.355E-02	1.380E-01	9.723E-03	0.280
SE-75	-8.935E-03		4.274E-02	6.034E-02	3.452E-03	-0.148
SR-85	8.688E-02		3.564E-02	5.935E-02	3.932E-03	1.464
Y-88	-1.203E-02		2.506E-02	3.770E-02	2.147E-03	-0.319
Y-91	-1.195E+00		2.077E+01	3.416E+01	2.019E+00	-0.035
NB-94	-1.817E-03		2.853E-02	4.745E-02	3.893E-03	-0.038
NB-95	6.699E-02		3.968E-02	7.089E-02	6.485E-03	0.945
NB-95M	4.715E-02		1.254E-01	1.851E-01	1.363E-02	0.255
ZR-95	4.381E-02		6.155E-02	1.064E-01	1.051E-02	0.412
MO-99	-7.025E+00		3.500E+01	5.738E+01	9.083E+00	-0.122
TC-99M	9.582E+15		1.439E+16	Half-Life too short		
RU-103	-9.888E-03		3.536E-02	5.712E-02	7.294E-03	-0.173
RH-106	7.310E-02		2.654E-01	4.353E-01	5.430E-02	0.168
RU-106	7.310E-02		2.653E-01	4.353E-01	3.204E-02	0.168
AG-108M	3.240E-04		2.333E-02	3.881E-02	2.502E-03	0.008
AG-110M	-2.483E-02		2.787E-02	4.410E-02	3.478E-03	-0.563
SN-113	-2.183E-02		3.546E-02	5.746E-02	3.524E-03	-0.380
CD-115	-5.899E-06		2.236E-05	Half-Life too short		
SN-117M	-2.726E-02		5.818E-02	9.689E-02	5.150E-03	-0.281
TE-123M	4.210E-03		2.390E-02	4.074E-02	2.198E-03	0.103
SB-124	-2.631E-02		5.703E-02	8.721E-02	6.040E-03	-0.302
SB-125	-1.136E-02		7.023E-02	1.158E-01	7.228E-03	-0.098
TE-125M	-3.216E+00		9.528E+00	1.519E+01	1.365E+00	-0.212
I-126	-4.569E-02		2.266E-01	3.754E-01	2.886E-02	-0.122
SB-126	-5.968E-02		1.686E-01	2.334E-01	1.977E-02	-0.256
SB-127	1.443E+00		2.552E+00	4.405E+00	5.508E-01	0.328
I-131	8.362E-02		1.331E-01	2.313E-01	1.505E-02	0.362
TE-132	-1.254E+00		1.785E+00	2.848E+00	4.428E-01	-0.440
BA-133	1.666E-03		3.864E-02	5.394E-02	6.077E-03	0.031

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	3.466E-02		1.216E-01	Half-Life too short		
CS-134	8.143E-02	+	7.250E-02	7.529E-02	7.282E-03	1.082
CS-135	3.465E-01		1.527E-01	2.441E-01	1.845E-02	1.419
I-135	-1.397E+15		8.083E+14	Half-Life too short		
CS-136	-1.563E-02		1.180E-01	1.955E-01	1.753E-02	-0.080
BA-137M	1.734E-02		2.711E-02	4.719E-02	3.597E-03	0.367
CS-137	1.832E-02		2.864E-02	4.985E-02	3.810E-03	0.367
CE-139	-1.418E-02		2.482E-02	4.103E-02	2.154E-03	-0.346
BA-140	1.388E-01		2.661E-01	4.427E-01	1.483E-01	0.313
LA-140	-3.967E-02		8.602E-02	1.351E-01	9.270E-03	-0.294
CE-141	2.741E-04		6.440E-02	1.010E-01	5.766E-03	0.003
CE-143	9.939E-03		1.415E-03	Half-Life too short		
CE-144	-3.165E-02		1.790E-01	2.832E-01	3.917E-02	-0.112
PM-144	1.658E-02		2.907E-02	5.006E-02	4.065E-03	0.331
PR-144	1.255E+00		2.182E+00	3.758E+00	3.050E-01	0.334
PM-146	-1.211E-03		3.585E-02	5.591E-02	4.884E-03	-0.022
ND-147	1.673E-01		5.970E-01	9.926E-01	1.385E-01	0.169
PM-149	-5.870E-05		1.747E-04	Half-Life too short		
EU-152	-4.430E-02		8.682E-02	1.236E-01	8.062E-03	-0.358
GD-153	-2.428E-02		9.043E-02	1.296E-01	1.013E-02	-0.187
EU-154	-9.888E-02		1.139E-01	1.745E-01	1.756E-02	-0.567
EU-155	6.709E-02		9.676E-02	1.592E-01	1.138E-02	0.421
TB-160	4.702E-02		1.201E-01	2.019E-01	2.217E-02	0.233
HO-166M	1.292E-02		4.987E-02	8.442E-02	7.037E-03	0.153
TA-182	-3.872E-02		1.797E-01	2.923E-01	1.788E-02	-0.132
IR-192	4.466E-03		3.085E-02	4.931E-02	2.860E-03	0.091
HG-203	3.635E-02		3.556E-02	6.041E-02	3.642E-03	0.602
BI-207	2.162E-02		4.525E-02	7.789E-02	6.429E-03	0.278
PB-210	-4.044E+00		4.815E+00	7.876E+00	6.038E-01	-0.513
PB-211	-4.852E-01		6.535E-01	9.818E-01	4.710E-01	-0.494
RN-219	8.691E-02		3.478E-01	5.735E-01	7.711E-02	0.152
RA-223	-4.259E-01		5.960E-01	7.854E-01	1.265E-01	-0.542
AC-227	1.401E-01		2.116E-01	3.561E-01	3.607E-02	0.393
TH-227	1.401E-01		2.118E-01	3.561E-01	4.251E-02	0.393
PA-231	-2.423E-01		1.185E+00	1.908E+00	2.495E-01	-0.127
TH-231	-4.259E-01		5.960E-01	7.854E-01	1.265E-01	-0.542
PA-233	-4.925E-02		5.451E-02	8.330E-02	5.104E-03	-0.591
PA-234	1.391E-01		2.657E-01	4.453E-01	8.783E-02	0.313
PA-234M	6.739E+00		4.082E+00	7.196E+00	7.763E-01	0.936
TH-234	1.813E+00		1.512E+00	2.555E+00	4.602E-01	0.710
U-238	1.813E+00		1.512E+00	2.555E+00	4.602E-01	0.710
NP-239	1.327E-01		3.507E-01	5.731E-01	3.540E-02	0.232
AM-241	-7.452E-02		1.706E-01	2.807E-01	2.328E-02	-0.266
CM-247	1.396E-02		3.163E-02	5.263E-02	3.064E-03	0.265
CF-249	-4.146E-03		3.097E-02	5.158E-02	2.965E-03	-0.080
CF-251	-8.353E-02		1.080E-01	1.763E-01	9.317E-03	-0.474

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248818003           *
* Acquisition date  : 23-MAR-2010 13:05:26 Detector SN#     :               *
* Detector ID       : GAM18                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.80      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  3-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248818003           Analyst initials: MXR1           *
* Batch Number      : 962631               Sample Quantity : 1.2887E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.764E+01	3.188E+00	2.267E-01	1.627E+00
CD-109	3.702E+00	9.550E-01	6.402E-01	4.873E-01
SN-126	3.592E-01	9.266E-02	5.625E-02	4.728E-02
TL-208	5.426E-01	7.756E-02	2.248E-02	3.957E-02
BI-211	3.774E+00	4.128E-01	1.330E-01	2.106E-01
BI-212	1.553E+00	8.160E-01	3.079E-01	4.163E-01
PB-212	1.387E+00	1.524E-01	5.242E-02	7.776E-02
BI-214	1.045E+00	1.592E-01	5.001E-02	8.124E-02
PB-214	1.370E+00	1.671E-01	4.835E-02	8.525E-02
RA-224	3.199E+00	7.238E-01	5.611E-01	3.693E-01
RA-226	1.045E+00	1.592E-01	5.001E-02	8.124E-02
AC-228	1.818E+00	3.764E-01	1.006E-01	1.920E-01
RA-228	1.818E+00	3.764E-01	1.006E-01	1.920E-01
TH-228	1.387E+00	1.524E-01	5.242E-02	7.776E-02
TH-229	2.020E-01	4.218E-01	3.783E-01	2.152E-01
TH-230	1.045E+00	1.498E-01	5.001E-02	7.642E-02
TH-232	1.818E+00	3.764E-01	1.006E-01	1.920E-01
U-235	-2.675E-02	1.829E-01	1.511E-01	9.332E-02
NP-237	1.072E+00	3.535E-01	1.741E-01	1.804E-01
ANH-511	9.908E-02	4.750E-02	2.023E-02	2.423E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.537E-01	2.722E-01	2.405E-01	1.389E-01	NOT IDENT.
NA-22	-3.804E-02	3.940E-02	3.076E-02	2.010E-02	NOT IDENT.
NA-24	-1.943E+08	1.533E+08	0.000E+00	7.820E+07	SHORT HLIF
SC-46	2.477E-02	3.127E-02	2.775E-02	1.595E-02	FAIL ABUN
V-48	9.986E-03	7.551E-02	6.341E-02	3.852E-02	NOT IDENT.
CR-51	-2.457E-02	3.337E-01	2.801E-01	1.703E-01	NOT IDENT.
MN-54	1.108E-04	3.333E-02	2.824E-02	1.701E-02	NOT IDENT.

CO-56	6.977E-03	3.465E-02	2.969E-02	1.768E-02	NOT IDENT.
CO-57	-6.366E-03	2.294E-02	1.931E-02	1.170E-02	NOT IDENT.
CO-58	-1.353E-03	3.243E-02	2.747E-02	1.654E-02	NOT IDENT.
FE-59	-1.936E-02	8.260E-02	6.945E-02	4.214E-02	NOT IDENT.
CO-60	-4.105E-03	3.151E-02	2.604E-02	1.608E-02	NOT IDENT.
ZN-65	3.868E-02	9.168E-02	6.939E-02	4.677E-02	NOT IDENT.
SE-75	-8.935E-03	4.188E-02	3.102E-02	2.137E-02	NOT IDENT.
SR-85	8.688E-02	3.493E-02	3.020E-02	1.782E-02	NOT IDENT.
Y-88	-1.203E-02	2.456E-02	1.880E-02	1.253E-02	NOT IDENT.
Y-91	-1.195E+00	2.035E+01	1.715E+01	1.038E+01	NOT IDENT.
NB-94	-1.817E-03	2.796E-02	2.403E-02	1.426E-02	NOT IDENT.
NB-95	6.699E-02	3.889E-02	3.585E-02	1.984E-02	NOT IDENT.
NB-95M	4.715E-02	1.229E-01	9.533E-02	6.271E-02	NOT IDENT.
ZR-95	4.381E-02	6.032E-02	5.382E-02	3.077E-02	NOT IDENT.
MO-99	-7.025E+00	3.430E+01	2.903E+01	1.750E+01	NOT IDENT.
TC-99M	9.582E+21	2.820E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-9.888E-03	3.465E-02	2.908E-02	1.768E-02	FAIL ABUN
RH-106	7.310E-02	2.601E-01	2.209E-01	1.327E-01	NOT IDENT.
RU-106	7.310E-02	2.600E-01	2.209E-01	1.327E-01	NOT IDENT.
AG-108M	3.240E-04	2.286E-02	1.980E-02	1.166E-02	NOT IDENT.
AG-110M	-2.483E-02	2.731E-02	2.235E-02	1.393E-02	NOT IDENT.
SN-113	-2.183E-02	3.475E-02	2.936E-02	1.773E-02	NOT IDENT.
CD-115	-5.899E+00	4.383E+01	0.000E+00	2.236E+01	SHORT HLIF
SN-117M	-2.726E-02	5.701E-02	5.020E-02	2.909E-02	NOT IDENT.
TE-123M	4.210E-03	2.342E-02	2.111E-02	1.195E-02	NOT IDENT.
SB-124	-2.631E-02	5.589E-02	4.354E-02	2.852E-02	NOT IDENT.
SB-125	-1.136E-02	6.882E-02	5.910E-02	3.511E-02	FAIL ABUN
TE-125M	-3.216E+00	9.337E+00	7.913E+00	4.764E+00	NOT IDENT.
I-126	-4.569E-02	2.221E-01	1.903E-01	1.133E-01	NOT IDENT.
SB-126	-5.968E-02	1.652E-01	1.182E-01	8.431E-02	NOT IDENT.
SB-127	1.443E+00	2.501E+00	2.231E+00	1.276E+00	NOT IDENT.
I-131	8.362E-02	1.304E-01	1.183E-01	6.655E-02	NOT IDENT.
TE-132	-1.254E+00	1.750E+00	1.467E+00	8.926E-01	NOT IDENT.
BA-133	1.666E-03	3.787E-02	2.761E-02	1.932E-02	NOT IDENT.
I-133	3.466E+04	2.383E+05	0.000E+00	1.216E+05	SHORT HLIF
CS-134	8.143E-02	7.105E-02	3.805E-02	3.625E-02	FAIL ABUN
CS-135	3.465E-01	1.497E-01	1.255E-01	7.636E-02	NOT IDENT.
I-135	-1.397E+21	1.584E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.563E-02	1.156E-01	9.838E-02	5.899E-02	NOT IDENT.
BA-137M	1.734E-02	2.657E-02	2.392E-02	1.356E-02	NOT IDENT.
CS-137	1.832E-02	2.807E-02	2.527E-02	1.432E-02	NOT IDENT.
CE-139	-1.418E-02	2.432E-02	2.124E-02	1.241E-02	NOT IDENT.
BA-140	1.388E-01	2.607E-01	2.251E-01	1.330E-01	NOT IDENT.
LA-140	-3.967E-02	8.430E-02	6.751E-02	4.301E-02	FAIL ABUN
CE-141	2.741E-04	6.311E-02	5.239E-02	3.220E-02	NOT IDENT.
CE-143	9.939E+03	2.774E+03	0.000E+00	1.415E+03	SHORT HLIF
CE-144	-3.165E-02	1.754E-01	1.471E-01	8.949E-02	NOT IDENT.
PM-144	1.658E-02	2.849E-02	2.535E-02	1.453E-02	NOT IDENT.
PR-144	1.255E+00	2.138E+00	1.903E+00	1.091E+00	NOT IDENT.
PM-146	-1.211E-03	3.514E-02	2.851E-02	1.793E-02	NOT IDENT.
ND-147	1.673E-01	5.850E-01	5.048E-01	2.985E-01	FAIL ABUN
PM-149	-5.870E+01	3.424E+02	0.000E+00	1.747E+02	SHORT HLIF
EU-152	-4.430E-02	8.509E-02	6.331E-02	4.341E-02	NOT IDENT.
GD-153	-2.428E-02	8.862E-02	6.763E-02	4.521E-02	NOT IDENT.
EU-154	-9.888E-02	1.116E-01	8.750E-02	5.694E-02	NOT IDENT.
EU-155	6.709E-02	9.483E-02	8.300E-02	4.838E-02	FAIL ABUN
TB-160	4.702E-02	1.177E-01	1.018E-01	6.004E-02	FAIL ABUN
HO-166M	1.292E-02	4.887E-02	4.274E-02	2.493E-02	NOT IDENT.
TA-182	-3.872E-02	1.761E-01	1.467E-01	8.984E-02	NOT IDENT.
IR-192	4.466E-03	3.023E-02	2.528E-02	1.542E-02	FAIL ABUN
HG-203	3.635E-02	3.485E-02	3.103E-02	1.778E-02	NOT IDENT.
BI-207	2.162E-02	4.435E-02	3.918E-02	2.263E-02	FAIL ABUN
PB-210	-4.044E+00	4.719E+00	4.156E+00	2.408E+00	NOT IDENT.
PB-211	-4.852E-01	6.404E-01	5.015E-01	3.268E-01	NOT IDENT.
RN-219	8.691E-02	3.408E-01	2.929E-01	1.739E-01	FAIL ABUN
RA-223	-4.259E-01	5.841E-01	4.025E-01	2.980E-01	FAIL ABUN
AC-227	1.401E-01	2.073E-01	1.832E-01	1.058E-01	FAIL ABUN
TH-227	1.401E-01	2.075E-01	1.832E-01	1.059E-01	FAIL ABUN
PA-231	-2.423E-01	1.162E+00	9.797E-01	5.927E-01	FAIL ABUN
TH-231	-4.259E-01	5.841E-01	4.025E-01	2.980E-01	FAIL ABUN
PA-233	-4.925E-02	5.342E-02	4.272E-02	2.726E-02	FAIL ABUN
PA-234	1.391E-01	2.604E-01	2.244E-01	1.328E-01	NOT IDENT.
PA-234M	6.739E+00	4.001E+00	3.623E+00	2.041E+00	FAIL ABUN
TH-234	1.813E+00	1.481E+00	1.342E+00	7.558E-01	FAIL ABUN
U-238	1.813E+00	1.481E+00	1.342E+00	7.558E-01	FAIL ABUN
NP-239	1.327E-01	3.437E-01	2.983E-01	1.754E-01	NOT IDENT.
AM-241	-7.452E-02	1.672E-01	1.476E-01	8.530E-02	NOT IDENT.
CM-247	1.396E-02	3.099E-02	2.688E-02	1.581E-02	NOT IDENT.

CF-249	-4.146E-03	3.035E-02	2.636E-02	1.548E-02	NOT IDENT.
CF-251	-8.353E-02	1.059E-01	9.120E-02	5.401E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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```

ENERGY	MDA COUNTS
46.54	323.4602
49.72	284.5919
57.36	0.0000
59.54	357.6357
63.29	361.3320
63.29	361.3320
64.28	396.6070
67.75	386.7639
69.67	430.5485
70.83	453.8562
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72.87	501.9431
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83.79	444.2375
83.79	444.2375
85.43	375.1352
86.48	376.1985
86.55	376.2704
86.79	461.5270
86.94	461.7148
87.57	362.0824
88.03	447.8256
88.47	448.3460
89.96	486.8453
91.11	362.3869
92.59	363.7679
92.59	363.7679
93.35	352.1169
94.67	342.4461
94.87	342.6181
94.87	342.6181
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97.43	380.6878
98.44	333.1440
99.53	328.2780
100.11	311.9869
103.18	363.8461
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105.31	308.4297
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111.00	338.2187
111.76	353.8480
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122.06	347.4685
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133.52	342.0557
136.00	333.5195

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140.51	0.0000
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144.24	344.4458
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153.25	336.0410
154.21	329.5909
154.21	329.5909
156.02	346.4544
158.56	344.4337
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162.66	318.3630
163.33	338.3070
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177.52	346.1290
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185.72	360.6530
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205.31	334.0203
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222.11	329.0632
227.38	307.8647
228.16	309.1507
228.18	309.1579
235.69	325.5414
235.96	309.8437
235.96	309.8437
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238.63	495.6512
240.99	497.0932
242.00	473.0211
244.70	215.7182
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252.80	280.3416
256.23	236.9225
256.23	236.9225
260.90	0.0000
264.66	235.5574
268.22	216.8010
269.46	227.1745
269.46	227.1745
271.23	227.6264
273.65	292.4778
276.40	238.6723
277.37	241.7697
277.60	241.8302
278.00	233.4869
279.20	235.8707
279.54	241.1545
280.46	274.6952
283.69	227.6233
284.31	231.9557
285.41	212.3546
285.90	0.0000
287.50	224.3611
293.27	0.0000
295.22	227.2499
295.96	227.4271
298.57	228.0438
299.98	228.3752
299.98	228.3752
300.09	228.4014
300.09	228.4014
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301.36	226.3565
302.85	213.0676
304.50	213.4247
304.50	213.4247
304.85	228.8730
308.46	217.4965
311.90	218.2461

316.51	199.8060
319.41	189.5451
320.08	197.2546
323.87	208.8633
323.87	208.8633
328.76	211.5964
333.37	171.2487
334.37	234.4075
334.37	234.4075
338.28	208.4318
338.28	208.4318
338.32	208.4404
338.32	208.4404
338.32	208.4404
340.48	203.3361
340.55	203.3473
344.28	201.0919
351.06	183.0010
351.93	183.1437
356.01	175.7468
364.49	149.9714
366.42	149.3198
383.85	183.7207
388.16	171.4778
388.63	160.4785
391.69	177.5297
400.66	178.8398
401.81	179.0074
402.40	171.6308
404.85	219.6355
410.95	180.3258
414.70	176.1525
423.72	149.8898
427.09	144.5744
427.87	153.2251
433.94	153.9386
453.88	155.2773
463.37	135.8304
468.07	127.4641
473.00	158.4136
476.78	142.0647
477.60	140.1730
487.02	158.9805
492.35	0.0000
497.08	149.0746
511.00	159.8998
514.00	112.9950
527.90	0.0000
529.87	0.0000
531.02	119.7108
537.26	107.8634
546.56	0.0000
563.25	138.8577
569.33	139.3740
569.50	149.8672
569.70	149.8882
583.19	119.4032
600.60	138.7756
602.73	140.7284
604.72	126.6219
609.32	159.1433
609.32	159.1433
609.32	159.1433
610.33	169.9725
614.28	123.7317
618.01	148.7914
621.93	124.2679
621.93	124.2679
633.25	113.0924
635.95	120.8832
636.99	124.2227
645.85	120.4468
657.76	136.8380
661.66	106.7534
661.66	106.7534
664.57	0.0000
666.33	129.1593
666.50	129.1707

677.62	104.8708
685.70	109.0400
695.00	127.3561
696.49	130.2644
696.51	130.2672
697.00	140.6097
702.65	145.7162
706.68	132.8243
711.68	122.7690
720.70	113.8354
721.93	0.0000
722.78	135.1182
722.91	135.1268
723.31	136.7813
724.19	117.2913
727.33	99.9329
733.00	104.7121
735.93	124.5232
739.50	119.6772
747.24	101.8658
752.31	109.8206
753.82	105.0793
756.73	102.3295
763.94	117.9008
765.81	122.1599
766.42	122.1958
777.92	115.7044
778.90	95.3187
783.70	77.0940
785.37	121.3208
795.86	100.2776
801.95	103.0886
810.29	101.9208
810.76	101.9438
815.77	88.2848
818.51	93.3574
832.01	113.8979
834.85	139.0481
836.80	0.0000
846.77	108.5977
856.80	115.9905
860.56	90.0230
871.09	103.0790
873.19	110.8428
875.33	0.0000
879.36	89.7188
880.51	97.9219
883.24	90.8849
884.68	90.9393
889.28	74.7332
898.04	100.6897
911.20	111.5618
911.20	111.5618
911.20	111.5618
926.50	112.2495
937.49	105.4323
944.13	104.6610
946.00	97.4067
949.00	94.3762
962.29	97.5737
964.08	99.4496
966.15	139.3423
968.97	174.3658
968.97	174.3658
968.97	174.3658
983.53	98.8257
996.26	136.6719
1001.03	74.8763
1004.73	134.9619
1037.84	107.7992
1038.76	0.0000
1048.07	101.6705
1050.41	91.4854
1050.41	91.4854
1063.66	95.6712
1085.87	87.9108
1099.45	106.3672
1112.07	116.8433

1115.54	115.3088
1120.29	127.2109
1120.29	127.2109
1120.29	127.2109
1120.55	127.2249
1121.30	127.2573
1131.51	0.0000
1173.23	109.9929
1177.93	101.3884
1189.05	110.5565
1204.77	130.7781
1221.41	132.4530
1231.02	185.3956
1235.36	120.1264
1238.28	148.0594
1260.41	0.0000
1271.85	98.3862
1274.44	113.5321
1274.54	114.5407
1291.59	69.6834
1298.22	0.0000
1312.11	70.1070
1332.49	62.3488
1365.19	30.9521
1368.63	0.0000
1384.29	52.9032
1408.01	43.8560
1457.56	0.0000
1460.82	45.5480
1489.16	46.9587
1505.03	45.0117
1596.21	40.3055
1620.50	39.4739
1678.03	0.0000
1690.97	23.5627
1764.49	18.9722
1764.49	18.9722
1764.49	18.9722
1770.23	21.3294
1771.35	23.1132
1791.20	0.0000
1836.06	22.3189

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248818003

Total Uranium Activity	5.3799E+00	ug/g
Total Uranium Counting Unc.	4.4078E+00	ug/g
Total Uranium Tpu	2.2489E-06	ug/g
Total Uranium Mda	3.9929E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962631                    SAMPLE ID  : G248818003       *
*   ANALYST       : MXR1                      DETECTOR   : GAM18            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 13:05:26.72    SAMPLE ALQT:  128.870 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.651E+00
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.302E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 2.567E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.248E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:33:38.77

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818004.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 13:33:11
Sample ID         : G248818004           Sample quantity  : 1.19440E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.22  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	74.86	407	495	1.30	150.44	146	13	5.65E-02	11.1	1.13E+00
2	3	77.17*	629	405	1.15	155.04	146	13	8.73E-02	6.9	
3	3	84.19*	113	292	1.33	169.09	166	13	1.57E-02	27.3	9.47E-01
4	3	87.19*	203	419	1.19	175.07	166	13	2.81E-02	17.9	
5	0	93.17*	195	524	1.42	187.04	183	11	2.71E-02	25.6	
6	0	186.63*	230	383	1.38	373.86	368	13	3.20E-02	19.5	
7	0	209.79*	115	307	1.51	420.14	415	10	1.60E-02	30.9	
8	4	239.08*	1166	196	1.17	478.68	472	18	1.62E-01	3.6	9.97E-01
9	4	242.05	319	262	1.88	484.62	472	18	4.42E-02	14.4	
10	0	270.76*	125	247	1.60	542.01	536	13	1.74E-02	27.7	
11	1	295.65	361	154	1.46	591.78	584	27	5.02E-02	8.2	9.63E-01
12	1	300.25	81	150	1.47	600.96	584	27	1.13E-02	29.6	
13	0	328.47	44	155	0.93	657.38	654	8	6.05E-03	52.5	
14	0	338.90	236	248	1.41	678.22	671	15	3.27E-02	16.0	
15	0	352.31*	640	139	1.39	705.03	699	11	8.90E-02	5.4	
16	0	463.76	78	97	0.89	927.79	923	10	1.08E-02	26.6	
17	0	511.22*	72	139	1.85	1022.66	1015	15	9.99E-03	42.5	
18	0	583.69*	355	96	1.28	1167.50	1161	12	4.92E-02	7.8	
19	0	609.80*	415	111	1.51	1219.69	1213	16	5.76E-02	7.6	
20	0	727.96	64	67	1.50	1455.86	1451	12	8.88E-03	28.4	
21	0	795.29*	31	55	1.92	1590.42	1583	11	4.32E-03	51.1	
22	0	860.87	66	37	2.79	1721.50	1716	12	9.23E-03	21.9	
23	0	911.75*	266	67	1.44	1823.19	1816	15	3.69E-02	9.3	
24	0	969.65*	164	35	2.06	1938.91	1934	15	2.28E-02	11.5	
25	0	1120.70*	109	54	1.81	2240.80	2234	15	1.51E-02	18.2	
26	0	1377.95	40	10	1.85	2754.91	2748	11	5.55E-03	22.4	
27	0	1461.32*	1104	11	2.02	2921.53	2914	15	1.53E-01	3.1	
28	0	1589.31	21	17	0.98	3177.30	3168	13	2.96E-03	44.7	
29	0	1765.64*	71	19	1.92	3529.68	3521	15	9.86E-03	18.4	
30	0	1848.54	13	8	1.07	3695.34	3690	12	1.75E-03	54.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 15:33:41

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818004.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 13:33:11
Sample ID : G248818004 Sample quantity : 119.44 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA1 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.22 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.444E+01	3.736E+00	5.362E-01	4.766E-02	64.227
CD-109	+	88.03	*	3.419E+00	1.265E+00	1.847E+00	1.748E-01	1.851
SN-126		64.28		2.057E-01	6.588E-01	1.085E+00	1.597E-01	0.190
	+	86.94		1.379E+00	7.562E-01	6.828E-01	2.835E-01	2.020
	+	87.57	*	3.318E-01	1.228E-01	1.794E-01	1.690E-02	1.849
TL-208		277.37		5.661E-01	5.044E-01	8.167E-01	1.053E-01	0.693
	+	583.19	*	6.121E-01	1.103E-01	6.975E-02	6.327E-03	8.775
	+	860.56		1.099E+00	4.915E-01	5.841E-01	5.596E-02	1.881
BI-211		72.87		6.782E+00	4.529E+00	6.905E+00	5.663E-01	0.982
	+	351.06	*	4.831E+00	6.824E-01	3.814E-01	3.470E-02	12.665
PB-212	+	74.82		2.991E+00	7.685E-01	7.146E-01	9.149E-02	4.185
	+	77.11		2.634E+00	4.265E-01	4.079E-01	3.461E-02	6.458
	+	238.63	*	1.935E+00	2.418E-01	1.117E-01	1.136E-02	17.326
	+	300.09		2.111E+00	1.269E+00	1.499E+00	1.637E-01	1.408
BI-214	+	609.32	*	1.388E+00	2.515E-01	1.326E-01	1.314E-02	10.464
	+	1120.29		1.924E+00	7.300E-01	5.614E-01	6.034E-02	3.426
	+	1764.49		1.767E+00	6.682E-01	3.527E-01	2.958E-02	5.009
PB-214	+	74.82		5.301E+00	1.329E+00	1.267E+00	1.456E-01	4.185
	+	77.11		4.644E+00	8.439E-01	7.190E-01	8.509E-02	6.458
	+	242.00		3.208E+00	9.839E-01	6.795E-01	7.325E-02	4.721
	+	295.22		1.667E+00	3.315E-01	2.648E-01	2.964E-02	6.296
	+	351.93	*	1.753E+00	2.659E-01	1.457E-01	1.549E-02	12.036
RA-224	+	240.99	*	5.673E+00	1.708E+00	1.197E+00	1.088E-01	4.738
RA-226	+	609.32	*	1.388E+00	2.515E-01	1.326E-01	1.314E-02	10.464
	+	1120.29		1.924E+00	7.300E-01	5.614E-01	6.034E-02	3.426
	+	1764.49		1.767E+00	6.682E-01	3.527E-01	2.958E-02	5.009
AC-228	+	338.32		1.975E+00	1.038E+00	4.461E-01	1.863E-01	4.428
	+	911.20	*	2.245E+00	4.960E-01	2.579E-01	3.073E-02	8.705
	+	968.97		2.396E+00	8.046E-01	6.392E-01	1.565E-01	3.749
RA-228	+	338.32		1.975E+00	1.038E+00	4.461E-01	1.863E-01	4.428
	+	911.20	*	2.245E+00	4.960E-01	2.579E-01	3.073E-02	8.705
	+	968.97		2.396E+00	8.046E-01	6.392E-01	1.565E-01	3.749
TH-228	+	74.82		2.991E+00	7.122E-01	7.146E-01	6.007E-02	4.185
	+	77.11		2.634E+00	4.265E-01	4.079E-01	3.461E-02	6.458

Sample ID : G248818004 Acquisition date : 23-MAR-2010 13:33:11

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	1.935E+00	2.418E-01	1.117E-01	1.136E-02	17.326
	+	300.09		2.111E+00	1.798E+00	1.499E+00	9.187E-01	1.408
TH-229	+	85.43		4.850E-01	2.681E-01	4.212E-01	3.876E-02	1.152
	+	88.47		5.115E-01	1.893E-01	2.538E-01	2.392E-02	2.015
		193.51	*	-4.165E-01	6.460E-01	1.014E+00	8.879E-02	-0.411
	+	210.85		2.703E+00	1.690E+00	1.816E+00	1.617E-01	1.489
TH-230	+	609.32	*	1.388E+00	2.406E-01	1.326E-01	1.113E-02	10.464
	+	1120.29		1.923E+00	7.185E-01	5.614E-01	4.717E-02	3.426
	+	1764.49		1.767E+00	6.682E-01	3.527E-01	2.958E-02	5.009
TH-232	+	338.32		1.975E+00	6.536E-01	4.461E-01	3.927E-02	4.428
	+	911.20	*	2.245E+00	4.960E-01	2.579E-01	3.073E-02	8.705
	+	968.97		2.396E+00	8.046E-01	6.392E-01	1.565E-01	3.749
NP-237	+	86.48	*	9.899E-01	4.211E-01	4.928E-01	1.130E-01	2.009
		95.86		-3.743E-01	1.216E+00	1.696E+00	4.088E-01	-0.221
ANH-511	+	511.00	*	9.448E-02	8.073E-02	5.777E-02	4.896E-03	1.635

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.953E-01	4.281E-01	6.605E-01	6.007E-02	-0.296
NA-22		1274.54	*	2.654E-02	5.253E-02	9.226E-02	7.747E-03	0.288
NA-24		1368.63	*	3.380E+01	5.253E-02	Half-Life too short		
SC-46		889.28	*	6.243E-03	5.073E-02	8.395E-02	7.589E-03	0.074
	+	1120.55		3.390E-01	1.266E-01	1.782E-01	1.497E-02	1.902
V-48		944.13		8.811E-02	1.388E+00	2.274E+00	2.048E-01	0.039
		983.53	*	4.331E-02	1.121E-01	1.891E-01	1.688E-02	0.229
		1312.11		3.637E-02	1.167E-01	2.014E-01	1.708E-02	0.181
CR-51		320.08	*	-4.134E-01	5.459E-01	8.532E-01	8.020E-02	-0.484
MN-54		834.85	*	1.258E-02	4.664E-02	7.837E-02	6.976E-03	0.160
CO-56		846.77	*	5.148E-02	5.376E-02	9.529E-02	8.514E-03	0.540
		1037.84		2.257E-01	4.267E-01	7.264E-01	6.690E-02	0.311
		1238.28		1.801E-01	1.353E-01	2.426E-01	2.074E-02	0.743
		1771.35		2.741E-02	2.984E-01	4.298E-01	3.598E-02	0.064
CO-57		122.06	*	6.034E-03	3.093E-02	4.950E-02	4.358E-03	0.122
		136.47		-1.665E-01	2.421E-01	3.993E-01	3.685E-02	-0.417
CO-58		810.76	*	-2.188E-02	4.713E-02	7.370E-02	6.520E-03	-0.297
FE-59		1099.45	*	-1.585E-01	1.309E-01	1.810E-01	1.668E-02	-0.876
		1291.59		-1.184E-01	1.961E-01	3.080E-01	2.963E-02	-0.384
CO-60		1173.23		3.057E-04	5.653E-02	9.494E-02	7.684E-03	0.003
		1332.49	*	-1.784E-02	4.774E-02	7.565E-02	6.448E-03	-0.236
ZN-65		1115.54	*	9.257E-03	1.295E-01	1.815E-01	1.532E-02	0.051
SE-75		121.12		2.099E-02	1.691E-01	2.698E-01	3.024E-02	0.078
		136.00		-4.037E-02	4.718E-02	7.725E-02	6.687E-03	-0.523
		264.66	*	-8.524E-03	6.271E-02	9.012E-02	8.280E-03	-0.095
		279.54		7.402E-02	1.401E-01	2.370E-01	2.241E-02	0.312
		400.66		1.833E-01	3.371E-01	5.644E-01	6.032E-02	0.325
SR-85		514.00	*	1.084E-01	6.108E-02	9.810E-02	8.317E-03	1.105
Y-88		898.04		-6.599E-03	5.150E-02	8.299E-02	7.551E-03	-0.080

Sample ID : G248818004 Acquisition date : 23-MAR-2010 13:33:11

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1836.06	*	9.356E-03	4.336E-02	7.369E-02	6.061E-03	0.127
Y-91		1204.77	*	-1.592E+01	2.923E+01	4.656E+01	3.814E+00	-0.342
NB-94		702.65	*	-2.392E-02	4.525E-02	7.201E-02	6.045E-03	-0.332
		871.09		2.764E-02	4.001E-02	7.002E-02	6.300E-03	0.395
NB-95		765.81	*	-5.562E-02	6.102E-02	9.140E-02	7.921E-03	-0.609
NB-95M		235.69	*	9.657E-02	1.751E-01	2.641E-01	2.714E-02	0.366
ZR-95		724.19		7.338E-02	1.185E-01	1.837E-01	1.696E-02	0.399
		756.73	*	4.607E-02	9.141E-02	1.575E-01	1.501E-02	0.292
MO-99		140.51		-7.439E+01	9.194E+01	1.469E+02	3.486E+01	-0.506
		181.07		1.803E+01	7.822E+01	1.173E+02	2.206E+01	0.154
		366.42		-1.716E+02	4.326E+02	6.852E+02	5.795E+01	-0.250
		739.50	*	-5.312E+00	5.342E+01	8.756E+01	1.377E+01	-0.061
		777.92		-6.751E+01	1.536E+02	2.428E+02	2.115E+01	-0.278
TC-99M		140.51	*	-3.185E+16	1.536E+02	Half-Life too short		
RU-103		497.08	*	-2.652E-03	5.284E-02	8.418E-02	1.167E-02	-0.031
	+	610.33		1.563E+01	3.472E+00	3.899E+00	6.326E-01	4.009
RH-106		621.93	*	4.592E-01	3.937E-01	7.074E-01	9.256E-02	0.649
		1050.41		4.995E-01	3.235E+00	5.317E+00	4.637E-01	0.094
RU-106		621.93	*	4.592E-01	3.910E-01	7.074E-01	5.909E-02	0.649
		1050.41		4.995E-01	3.235E+00	5.317E+00	4.636E-01	0.094
AG-108M		433.94	*	1.103E-02	3.729E-02	6.140E-02	5.255E-03	0.180
		614.28		9.781E-03	4.382E-02	6.542E-02	5.671E-03	0.150
		722.91		-5.744E-03	4.888E-02	6.917E-02	6.065E-03	-0.083
AG-110M		657.76	*	-1.655E-02	4.354E-02	7.024E-02	5.956E-03	-0.236
		677.62		7.498E-02	3.777E-01	6.383E-01	5.445E-02	0.117
		706.68		-5.395E-02	2.786E-01	4.550E-01	3.943E-02	-0.119
		763.94		-5.909E-02	2.078E-01	3.347E-01	2.977E-02	-0.177
		884.68		1.010E-02	6.298E-02	1.046E-01	9.723E-03	0.097
		937.49		-1.229E-01	1.360E-01	1.985E-01	1.849E-02	-0.619
		1384.29		5.853E-02	1.932E-01	3.129E-01	2.761E-02	0.187
		1505.03		-3.157E-01	3.777E-01	5.448E-01	4.717E-02	-0.580
SN-113		391.69	*	-6.774E-03	5.752E-02	9.252E-02	7.706E-03	-0.073
CD-115		260.90		-2.278E-04	5.752E-02	Half-Life too short		
		492.35		-2.462E-04	5.752E-02	Half-Life too short		
		527.90	*	-4.252E-05	5.752E-02	Half-Life too short		
SN-117M		156.02		1.750E+00	3.480E+00	5.984E+00	5.096E-01	0.292
		158.56	*	-8.546E-02	8.405E-02	1.357E-01	1.156E-02	-0.630
TE-123M		159.00	*	-2.769E-02	3.484E-02	5.685E-02	4.870E-03	-0.487
SB-124		602.73		1.272E-02	5.640E-02	8.769E-02	7.375E-03	0.145
		645.85		-7.560E-01	6.060E-01	8.903E-01	7.816E-02	-0.849
		722.78		5.558E-02	5.009E-01	7.303E-01	6.345E-02	0.076
		1690.97	*	-7.837E-04	7.951E-02	1.297E-01	1.153E-02	-0.006
SB-125		427.87	*	9.247E-02	1.092E-01	1.868E-01	1.571E-02	0.495
	+	463.37		9.036E-01	4.873E-01	6.952E-01	6.287E-02	1.300
		600.60		4.408E-02	2.340E-01	3.967E-01	3.597E-02	0.111
		635.95		-1.152E-01	3.152E-01	5.091E-01	4.595E-02	-0.226
TE-125M		109.28	*	2.686E+00	1.252E+01	2.013E+01	2.120E+00	0.133
I-126		388.63		-1.331E-03	2.670E-01	4.330E-01	3.507E-02	-0.003
		666.33	*	3.827E-02	3.908E-01	6.549E-01	5.380E-02	0.058

Sample ID : G248818004 Acquisition date : 23-MAR-2010 13:33:11

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		753.82		4.417E-01	2.842E+00	4.760E+00	4.102E-01	0.093
SB-126		414.70		-5.240E-02	1.365E-01	2.150E-01	1.757E-02	-0.244
		666.50		6.414E-03	1.346E-01	2.248E-01	1.847E-02	0.029
		695.00		-2.337E-02	1.289E-01	2.109E-01	1.763E-02	-0.111
		697.00		2.804E-01	4.653E-01	8.057E-01	6.742E-02	0.348
		720.70	*	-3.336E-02	2.194E-01	3.485E-01	2.954E-02	-0.096
		856.80		4.274E-01	8.525E-01	1.291E+00	1.157E-01	0.331
SB-127		252.40		-4.362E+00	1.237E+01	1.988E+01	8.369E+00	-0.219
		473.00		2.714E-01	4.685E+00	7.553E+00	1.061E+00	0.036
		685.70	*	-3.866E-01	3.969E+00	6.541E+00	8.331E-01	-0.059
		783.70		7.549E+00	1.085E+01	1.883E+01	2.614E+00	0.401
I-131		80.19		3.652E+00	1.130E+01	1.307E+01	1.153E+00	0.279
		284.31		-8.363E-01	2.669E+00	4.317E+00	4.140E-01	-0.194
		364.49	*	3.285E-02	2.235E-01	3.672E-01	3.304E-02	0.089
		636.99		-1.024E+00	2.743E+00	4.425E+00	3.917E-01	-0.231
TE-132		49.72		-4.377E+01	7.124E+01	1.126E+02	1.399E+01	-0.389
		111.76		-8.589E+01	1.227E+02	1.884E+02	2.364E+01	-0.456
		116.30		6.513E+01	1.017E+02	1.659E+02	2.085E+01	0.393
		228.16	*	-5.947E-01	2.695E+00	4.438E+00	7.594E-01	-0.134
BA-133		81.00		1.150E-01	1.420E-01	1.700E-01	2.654E-02	0.677
		276.40		2.011E-01	4.990E-01	7.421E-01	1.072E-01	0.271
		302.85		9.514E-03	1.667E-01	2.748E-01	3.674E-02	0.035
		356.01	*	-4.125E-02	5.917E-02	7.863E-02	1.017E-02	-0.525
		383.85		3.612E-01	3.506E-01	6.047E-01	7.332E-02	0.597
I-133		529.87	*	1.408E-01	3.506E-01	Half-Life too short		
		875.33		-7.162E+00	3.506E-01	Half-Life too short		
		1298.22		1.034E+01	3.506E-01	Half-Life too short		
CS-134		563.25		1.732E-01	4.458E-01	7.692E-01	6.586E-02	0.225
		569.33		-2.321E-02	2.558E-01	4.269E-01	3.668E-02	-0.054
		604.72		-2.416E-02	4.620E-02	6.336E-02	5.339E-03	-0.381
	+	795.86	*	7.912E-02	8.111E-02	1.071E-01	9.467E-03	0.739
		801.95		3.681E-01	4.967E-01	8.689E-01	7.685E-02	0.424
		1365.19		3.638E-01	1.414E+00	2.413E+00	2.165E-01	0.151
CS-135		268.22	*	1.313E-01	2.104E-01	3.183E-01	3.319E-02	0.413
I-135		546.56		3.769E+15	2.104E-01	Half-Life too short		
		836.80		-5.045E+15	2.104E-01	Half-Life too short		
		1038.76		6.484E+15	2.104E-01	Half-Life too short		
		1131.51		7.686E+14	2.104E-01	Half-Life too short		
		1260.41	*	-1.871E+15	2.104E-01	Half-Life too short		
		1457.56		8.549E+16	2.104E-01	Half-Life too short		
		1678.03		3.595E+15	2.104E-01	Half-Life too short		
		1791.20		-4.863E+14	2.104E-01	Half-Life too short		
CS-136		153.25		1.324E+00	1.334E+00	2.325E+00	2.369E-01	0.569
		176.60		-4.014E-02	7.713E-01	1.294E+00	1.230E-01	-0.031
		273.65		-2.418E-01	9.332E-01	1.327E+00	1.307E-01	-0.182
		340.55		1.021E+00	3.140E-01	5.225E-01	4.758E-02	1.955
		818.51		-7.413E-02	1.139E-01	1.742E-01	1.544E-02	-0.426
		1048.07	*	-1.429E-01	1.877E-01	2.781E-01	2.529E-02	-0.514
		1235.36		6.316E-01	1.049E+00	1.828E+00	2.107E-01	0.346

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-137M		661.66	*	-9.299E-03	4.758E-02	7.807E-02	6.394E-03	-0.119
CS-137		661.66	*	-9.823E-03	5.026E-02	8.247E-02	6.769E-03	-0.119
CE-139		165.86	*	2.073E-02	3.622E-02	6.234E-02	5.309E-03	0.333
BA-140		162.66		4.710E-01	1.250E+00	2.138E+00	1.946E-01	0.220
		304.85		-1.749E+00	2.494E+00	3.308E+00	9.726E-01	-0.529
		423.72		-1.197E+00	2.948E+00	4.564E+00	1.497E+00	-0.262
		537.26	*	1.252E-01	4.201E-01	7.192E-01	2.437E-01	0.174
LA-140	+	328.76		5.907E-01	6.224E-01	8.952E-01	8.390E-02	0.660
		487.02		1.667E-01	2.247E-01	3.803E-01	3.416E-02	0.438
		815.77		6.770E-03	4.897E-01	8.061E-01	7.924E-02	0.008
		1596.21	*	-2.362E-02	1.629E-01	2.489E-01	2.148E-02	-0.095
CE-141		145.44	*	9.032E-02	8.668E-02	1.496E-01	1.301E-02	0.604
CE-143		57.36		-1.229E-02	8.668E-02	Half-Life too short		
		293.27	*	5.161E-03	8.668E-02	Half-Life too short		
		664.57		2.605E-02	8.668E-02	Half-Life too short		
		721.93		-6.547E-04	8.668E-02	Half-Life too short		
CE-144		80.12		1.312E+00	4.036E+00	4.667E+00	4.070E-01	0.281
		133.52	*	2.110E-02	2.473E-01	3.924E-01	5.998E-02	0.054
PM-144		476.78		-3.415E-02	7.968E-02	1.232E-01	1.130E-02	-0.277
		618.01		-4.210E-03	4.167E-02	6.272E-02	5.404E-03	-0.067
		696.49	*	2.710E-02	4.392E-02	7.624E-02	6.382E-03	0.355
PR-144		696.51	*	2.071E+00	3.299E+00	5.730E+00	4.794E-01	0.361
		1489.16		-6.712E-01	1.529E+01	2.507E+01	2.170E+00	-0.027
PM-146		453.88	*	2.323E-03	5.363E-02	8.654E-02	8.973E-03	0.027
		633.25		6.354E-01	1.703E+00	2.899E+00	1.105E+00	0.219
		735.93		2.859E-03	1.871E-01	3.017E-01	8.449E-02	0.009
		747.24		5.634E-02	1.233E-01	2.112E-01	3.076E-02	0.267
ND-147		91.11		7.228E-01	6.955E-01	8.299E-01	8.208E-02	0.871
		319.41		-3.870E+00	5.894E+00	9.275E+00	8.322E-01	-0.417
		531.02	*	1.575E-01	9.082E-01	1.550E+00	2.305E-01	0.102
PM-149		285.90	*	-1.660E-04	9.082E-01	Half-Life too short		
EU-152		121.78		3.342E-02	8.867E-02	1.430E-01	1.438E-02	0.234
		244.70		5.246E-01	4.451E-01	6.951E-01	6.327E-02	0.755
		344.28	*	7.322E-02	1.362E-01	2.034E-01	1.880E-02	0.360
		778.90		5.750E-02	3.065E-01	5.140E-01	4.480E-02	0.112
		964.08		5.752E-01	3.954E-01	6.534E-01	5.862E-02	0.880
		1085.87		-3.524E-03	5.031E-01	8.107E-01	6.950E-02	-0.004
		1112.07		-3.411E-01	4.125E-01	5.810E-01	4.907E-02	-0.587
		1408.01		-9.635E-02	2.384E-01	3.746E-01	3.226E-02	-0.257
GD-153		69.67		-2.619E+00	2.374E+00	3.466E+00	2.780E-01	-0.756
		97.43	*	-2.375E-02	1.157E-01	1.626E-01	1.444E-02	-0.146
		103.18		-3.977E-02	1.399E-01	2.204E-01	1.922E-02	-0.180
EU-154		123.07		3.877E-03	6.403E-02	1.018E-01	1.168E-02	0.038
		723.31		4.867E-02	2.127E-01	3.149E-01	2.952E-02	0.155
		873.19		6.327E-02	3.486E-01	5.808E-01	7.071E-02	0.109
		996.26		-1.503E-01	4.454E-01	6.947E-01	1.223E-01	-0.216
		1004.73		-1.904E-01	3.018E-01	4.581E-01	5.417E-02	-0.416
		1274.44	*	3.484E-02	1.526E-01	2.606E-01	2.920E-02	0.134
EU-155	+	86.55		4.031E-01	1.493E-01	2.283E-01	2.145E-02	1.765

Sample ID : G248818004 Acquisition date : 23-MAR-2010 13:33:11

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		105.31	*	-2.369E-02	1.335E-01	2.112E-01	1.857E-02	-0.112
TB-160	+	86.79		1.119E+00	4.142E-01	6.340E-01	5.921E-02	1.765
		197.04		2.439E-01	7.289E-01	1.212E+00	1.066E-01	0.201
		215.65		-1.301E-02	9.954E-01	1.605E+00	1.435E-01	-0.008
		298.57		2.010E-01	1.462E-01	2.554E-01	2.322E-02	0.787
		879.36	*	1.101E-01	1.839E-01	3.179E-01	2.866E-02	0.346
		962.29		-8.797E-01	7.580E-01	1.052E+00	9.443E-02	-0.836
		966.15		5.770E-01	3.359E-01	5.552E-01	4.979E-02	1.039
		1177.93		-4.221E-01	5.086E-01	7.898E-01	6.404E-02	-0.534
		1271.85		-5.959E-01	9.132E-01	1.414E+00	1.185E-01	-0.421
HO-166M		80.57		3.509E-01	4.131E-01	4.977E-01	4.359E-02	0.705
		184.41		1.143E-01	4.565E-02	7.474E-02	6.486E-03	1.530
		280.46		-4.309E-02	1.041E-01	1.677E-01	1.533E-02	-0.257
		410.95		3.237E-01	3.287E-01	5.623E-01	4.586E-02	0.576
		711.68	*	2.249E-02	7.725E-02	1.310E-01	1.105E-02	0.172
		752.31		-1.878E-01	3.283E-01	5.130E-01	4.418E-02	-0.366
		810.29		-3.435E-02	6.734E-02	1.047E-01	9.239E-03	-0.328
TA-182		67.75		-2.551E-02	1.440E-01	2.301E-01	1.823E-02	-0.111
		100.11		9.774E-02	2.256E-01	3.668E-01	3.226E-02	0.266
		152.43		-2.894E-01	4.372E-01	7.201E-01	6.135E-02	-0.402
		222.11		-3.868E-01	4.337E-01	6.904E-01	6.204E-02	-0.560
	+	1121.30		9.288E-01	3.470E-01	4.831E-01	4.057E-02	1.923
		1189.05		1.657E-01	4.189E-01	7.255E-01	5.909E-02	0.228
		1221.41	*	-5.358E-02	2.862E-01	4.721E-01	3.891E-02	-0.113
		1231.02		-8.377E-01	6.933E-01	1.042E+00	8.616E-02	-0.804
IR-192	+	295.96		1.291E+00	2.430E-01	3.731E-01	3.418E-02	3.461
		308.46		-5.293E-02	1.385E-01	2.046E-01	1.859E-02	-0.259
		316.51	*	1.521E-02	4.629E-02	7.727E-02	6.962E-03	0.197
		468.07		9.508E-02	9.678E-02	1.493E-01	1.348E-02	0.637
HG-203		70.83		7.873E-01	2.025E+00	2.966E+00	4.680E-01	0.265
		72.87		1.817E+00	1.236E+00	1.851E+00	2.833E-01	0.982
		279.20	*	5.158E-02	5.154E-02	8.892E-02	8.317E-03	0.580
BI-207		72.81		3.285E-01	2.587E-01	3.916E-01	3.210E-02	0.839
	+	74.97		8.622E-01	2.051E-01	2.949E-01	2.459E-02	2.923
		569.70		1.219E-04	3.925E-02	6.592E-02	5.585E-03	0.002
		1063.66	*	6.375E-02	7.020E-02	1.232E-01	1.068E-02	0.517
		1770.23		-1.622E-01	6.708E-01	8.673E-01	7.263E-02	-0.187
PB-210		46.54	*	-2.821E-01	4.861E+00	7.843E+00	7.345E-01	-0.036
PB-211		404.85	*	-2.371E-01	8.821E-01	1.389E+00	6.708E-01	-0.171
		427.09		7.023E-01	1.826E+00	2.986E+00	1.379E+00	0.235
		832.01		-2.896E-01	1.158E+00	1.837E+00	9.533E-01	-0.158
BI-212	+	727.33	*	1.703E+00	9.887E-01	1.356E+00	1.679E-01	1.255
		785.37		3.734E+00	3.956E+00	7.010E+00	6.126E-01	0.533
		1620.50		2.961E+00	2.879E+00	5.479E+00	4.715E-01	0.540
RN-219	+	271.23		9.214E-01	5.192E-01	5.648E-01	6.046E-02	1.631
		401.81	*	3.210E-01	5.105E-01	8.580E-01	1.251E-01	0.374
RA-223		81.07		3.836E-03	3.400E-01	3.832E-01	3.372E-02	0.010
	+	83.79		2.887E-01	1.595E-01	2.510E-01	2.270E-02	1.150
		94.87		1.314E+00	6.014E-01	9.383E-01	8.438E-02	1.400

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		144.24		5.422E-01	8.323E-01	1.420E+00	1.357E-01	0.382
		154.21		6.206E-01	4.799E-01	8.422E-01	7.876E-02	0.737
	+	269.46		7.159E-01	4.016E-01	4.150E-01	3.865E-02	1.725
		323.87	*	7.775E-02	9.809E-01	1.416E+00	2.476E-01	0.055
	+	338.28		7.838E+00	2.677E+00	2.922E+00	3.565E-01	2.682
AC-227		79.69		1.843E+00	1.754E+00	2.402E+00	4.149E-01	0.767
		235.96		1.745E-01	2.010E-01	3.080E-01	3.300E-02	0.567
		256.23	*	2.173E-01	3.105E-01	5.300E-01	6.585E-02	0.410
	+	299.98		2.323E+00	1.406E+00	1.914E+00	2.492E-01	1.214
		304.50		-4.241E-01	2.179E+00	3.086E+00	5.173E-01	-0.137
		334.37		-1.567E+00	2.581E+00	3.215E+00	5.051E-01	-0.487
TH-227		79.80		1.608E+00	2.670E+00	3.130E+00	6.825E-01	0.514
		235.96		1.745E-01	2.009E-01	3.080E-01	3.127E-02	0.567
		256.23	*	2.173E-01	3.108E-01	5.300E-01	7.386E-02	0.410
	+	299.98		2.323E+00	1.406E+00	1.914E+00	2.492E-01	1.214
		304.50		-4.241E-01	2.179E+00	3.086E+00	5.173E-01	-0.137
		334.37		-1.567E+00	2.581E+00	3.215E+00	5.051E-01	-0.487
PA-231		283.69	*	-1.021E+00	1.728E+00	2.742E+00	4.084E-01	-0.372
	+	301.36		1.492E+00	9.012E-01	1.243E+00	1.552E-01	1.200
TH-231		81.07		3.836E-03	3.400E-01	3.832E-01	3.372E-02	0.010
	+	83.79		2.887E-01	1.595E-01	2.510E-01	2.270E-02	1.150
		94.87		1.314E+00	6.014E-01	9.383E-01	8.438E-02	1.400
		144.24		5.422E-01	8.323E-01	1.420E+00	1.357E-01	0.382
		154.21		6.206E-01	4.799E-01	8.422E-01	7.876E-02	0.737
	+	269.46		7.159E-01	4.016E-01	4.150E-01	3.865E-02	1.725
		323.87	*	7.775E-02	9.809E-01	1.416E+00	2.476E-01	0.055
	+	338.28		7.838E+00	2.677E+00	2.922E+00	3.565E-01	2.682
PA-233	+	300.13		1.051E+00	6.411E-01	8.699E-01	1.314E-01	1.208
		311.90	*	-1.650E-03	8.092E-02	1.326E-01	1.227E-02	-0.012
		340.48		3.792E+00	1.282E+00	1.743E+00	4.206E-01	2.175
PA-234	+	94.67		7.074E-01	3.738E-01	3.579E-01	4.535E-02	1.977
		98.44		1.716E-01	1.530E-01	1.839E-01	1.026E-01	0.934
		111.00		-5.891E-02	2.248E-01	3.534E-01	4.283E-02	-0.167
		131.20		-1.142E-01	1.354E-01	2.054E-01	1.775E-02	-0.556
		569.50		1.082E-03	3.483E-01	5.850E-01	4.956E-02	0.002
		733.00		1.095E-01	5.191E-01	7.640E-01	1.693E-01	0.143
		880.51		1.895E-01	3.684E-01	6.309E-01	5.691E-02	0.300
		883.24		-1.612E-02	3.810E-01	6.203E-01	4.173E-01	-0.026
		926.50		-3.021E-02	2.282E-01	3.670E-01	9.328E-02	-0.082
		946.00	*	-3.061E-01	4.179E-01	6.250E-01	1.184E-01	-0.490
		949.00		6.266E-01	6.100E-01	1.081E+00	9.727E-02	0.580
PA-234M		766.42		-7.568E+00	1.572E+01	2.375E+01	1.205E+01	-0.319
		1001.03	*	-2.262E+00	6.666E+00	1.072E+01	1.092E+00	-0.211
TH-234		63.29	*	1.849E+00	1.805E+00	3.002E+00	5.393E-01	0.616
	+	92.59		2.626E+00	1.468E+00	1.611E+00	3.589E-01	1.630
U-235		89.96		1.902E-01	1.548E+00	1.749E+00	4.348E-01	0.109
	+	93.35		1.983E+00	1.117E+00	1.195E+00	2.781E-01	1.660
		143.76	*	-4.527E-03	2.473E-01	4.131E-01	6.989E-02	-0.011
		163.33		7.214E-02	5.162E-01	8.751E-01	1.567E-01	0.082

Sample ID : G248818004 Acquisition date : 23-MAR-2010 13:33:11

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	185.72		2.454E-01	9.793E-02	1.086E-01	9.437E-03	2.260
		205.31		-1.397E-01	6.855E-01	9.869E-01	1.802E-01	-0.142
U-238		63.29	*	1.849E+00	1.805E+00	3.002E+00	5.393E-01	0.616
	+	92.59		2.626E+00	1.368E+00	1.611E+00	1.469E-01	1.630
NP-239		99.53		2.701E-01	2.050E-01	3.298E-01	2.905E-02	0.819
		103.37		5.253E-02	1.233E-01	2.002E-01	1.746E-02	0.262
		106.12		-3.363E-02	1.060E-01	1.667E-01	1.447E-02	-0.202
		117.23	*	-2.907E-01	4.977E-01	7.683E-01	6.694E-02	-0.378
		228.18		-6.083E-02	2.732E-01	4.501E-01	4.061E-02	-0.135
		277.60		2.329E-01	2.216E-01	3.722E-01	3.404E-02	0.626
AM-241		59.54	*	-1.378E-01	1.980E-01	3.116E-01	2.568E-02	-0.442
CM-247		278.00		1.005E+00	9.185E-01	1.591E+00	1.455E-01	0.632
		287.50		1.357E-01	1.497E+00	2.477E+00	2.261E-01	0.055
		402.40	*	1.199E-02	4.724E-02	7.778E-02	6.307E-03	0.154
CF-249		252.80		-4.334E-01	1.124E+00	1.823E+00	1.664E-01	-0.238
		333.37		-1.413E-01	3.545E-01	3.430E-01	3.037E-02	-0.412
		388.16	*	-6.485E-03	4.990E-02	8.023E-02	6.505E-03	-0.081
CF-251		177.52	*	5.899E-02	1.524E-01	2.601E-01	2.241E-02	0.227
		227.38		-7.400E-02	4.429E-01	7.317E-01	6.599E-02	-0.101
		285.41		2.057E-01	2.589E+00	4.284E+00	3.913E-01	0.048

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818004       *
* Acquisition date : 23-MAR-2010 13:33:11 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.22     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248818004           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.1944E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.444E+01	3.662E+00	5.348E-01	0.000E+00
CD-109	3.419E+00	1.240E+00	1.903E+00	0.000E+00
SN-126	3.318E-01	1.203E-01	1.848E-01	0.000E+00
TL-208	6.121E-01	1.081E-01	7.032E-02	0.000E+00
BI-211	4.831E+00	6.688E-01	3.868E-01	0.000E+00
PB-212	1.935E+00	2.369E-01	1.138E-01	0.000E+00
BI-214	1.388E+00	2.464E-01	1.336E-01	0.000E+00
PB-214	1.753E+00	2.606E-01	1.477E-01	0.000E+00
RA-224	5.673E+00	1.674E+00	1.219E+00	0.000E+00
RA-226	1.388E+00	2.464E-01	1.336E-01	0.000E+00
AC-228	2.245E+00	4.861E-01	2.587E-01	0.000E+00
RA-228	2.245E+00	4.861E-01	2.587E-01	0.000E+00
TH-228	1.935E+00	2.369E-01	1.138E-01	0.000E+00
TH-229	-4.165E-01	6.331E-01	1.035E+00	0.000E+00
TH-230	1.388E+00	2.357E-01	1.336E-01	0.000E+00
TH-232	2.245E+00	4.861E-01	2.587E-01	0.000E+00
NP-237	9.899E-01	4.127E-01	5.076E-01	0.000E+00
ANH-511	9.448E-02	7.911E-02	5.833E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-1.953E-01		4.195E-01	6.674E-01	0.000E+00	NOT IDENT.
NA-22	2.654E-02		5.148E-02	9.217E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		1.925E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	6.243E-03		4.971E-02	8.422E-02	0.000E+00	FAIL ABUN
V-48	4.331E-02		1.098E-01	1.895E-01	0.000E+00	NOT IDENT.
CR-51	-4.134E-01		5.349E-01	8.661E-01	0.000E+00	NOT IDENT.
MN-54	1.258E-02		4.570E-02	7.868E-02	0.000E+00	NOT IDENT.
CO-56	5.148E-02		5.269E-02	9.565E-02	0.000E+00	NOT IDENT.
CO-57	6.034E-03		3.031E-02	5.080E-02	0.000E+00	NOT IDENT.

CO-58	-2.188E-02	4.619E-02	7.401E-02	0.000E+00	NOT IDENT.
FE-59	-1.585E-01	1.283E-01	1.811E-01	0.000E+00	NOT IDENT.
CO-60	-1.784E-02	4.678E-02	7.553E-02	0.000E+00	NOT IDENT.
ZN-65	9.257E-03	1.269E-01	1.816E-01	0.000E+00	NOT IDENT.
SE-75	-8.524E-03	6.146E-02	9.168E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.985E-02	9.904E-02	0.000E+00	NOT IDENT.
Y-88	9.356E-03	4.250E-02	7.330E-02	0.000E+00	NOT IDENT.
Y-91	-1.592E+01	2.865E+01	4.654E+01	0.000E+00	NOT IDENT.
NB-94	-2.392E-02	4.434E-02	7.244E-02	0.000E+00	NOT IDENT.
NB-95	-5.562E-02	5.980E-02	9.186E-02	0.000E+00	NOT IDENT.
NB-95M	9.657E-02	1.716E-01	2.691E-01	0.000E+00	NOT IDENT.
ZR-95	4.607E-02	8.958E-02	1.583E-01	0.000E+00	NOT IDENT.
MO-99	-5.312E+00	5.235E+01	8.804E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.966E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.652E-03	5.178E-02	8.503E-02	0.000E+00	FAIL ABUN
RH-106	4.592E-01	3.858E-01	7.126E-01	0.000E+00	NOT IDENT.
RU-106	4.592E-01	3.832E-01	7.126E-01	0.000E+00	NOT IDENT.
AG-108M	1.103E-02	3.654E-02	6.212E-02	0.000E+00	NOT IDENT.
AG-110M	-1.655E-02	4.266E-02	7.072E-02	0.000E+00	NOT IDENT.
SN-113	-6.774E-03	5.637E-02	9.370E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	6.038E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-8.546E-02	8.237E-02	1.389E-01	0.000E+00	NOT IDENT.
TE-123M	-2.769E-02	3.414E-02	5.817E-02	0.000E+00	NOT IDENT.
SB-124	-7.837E-04	7.792E-02	1.292E-01	0.000E+00	NOT IDENT.
SB-125	9.247E-02	1.070E-01	1.890E-01	0.000E+00	FAIL ABUN
TE-125M	2.686E+00	1.227E+01	2.068E+01	0.000E+00	NOT IDENT.
I-126	3.827E-02	3.830E-01	6.593E-01	0.000E+00	NOT IDENT.
SB-126	-3.336E-02	2.150E-01	3.505E-01	0.000E+00	NOT IDENT.
SB-127	-3.866E-01	3.890E+00	6.582E+00	0.000E+00	NOT IDENT.
I-131	3.285E-02	2.191E-01	3.722E-01	0.000E+00	NOT IDENT.
TE-132	-5.947E-01	2.641E+00	4.522E+00	0.000E+00	NOT IDENT.
BA-133	-4.125E-02	5.799E-02	7.972E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.627E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.912E-02	7.949E-02	1.076E-01	0.000E+00	FAIL ABUN
CS-135	1.313E-01	2.062E-01	3.237E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.325E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.429E-01	1.839E-01	2.785E-01	0.000E+00	NOT IDENT.
BA-137M	-9.299E-03	4.663E-02	7.859E-02	0.000E+00	NOT IDENT.
CS-137	-9.823E-03	4.926E-02	8.302E-02	0.000E+00	NOT IDENT.
CE-139	2.073E-02	3.549E-02	6.375E-02	0.000E+00	NOT IDENT.
BA-140	1.252E-01	4.117E-01	7.257E-01	0.000E+00	NOT IDENT.
LA-140	-2.362E-02	1.596E-01	2.480E-01	0.000E+00	FAIL ABUN
CE-141	9.032E-02	8.494E-02	1.532E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.512E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	2.110E-02	2.423E-01	4.023E-01	0.000E+00	NOT IDENT.
PM-144	2.710E-02	4.304E-02	7.671E-02	0.000E+00	NOT IDENT.
PR-144	2.071E+00	3.233E+00	5.765E+00	0.000E+00	NOT IDENT.
PM-146	2.323E-03	5.256E-02	8.750E-02	0.000E+00	NOT IDENT.
ND-147	1.575E-01	8.901E-01	1.564E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	5.055E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	7.322E-02	1.335E-01	2.063E-01	0.000E+00	NOT IDENT.
GD-153	-2.375E-02	1.134E-01	1.672E-01	0.000E+00	NOT IDENT.
EU-154	3.484E-02	1.495E-01	2.604E-01	0.000E+00	NOT IDENT.
EU-155	-2.369E-02	1.308E-01	2.171E-01	0.000E+00	FAIL ABUN
TB-160	1.101E-01	1.803E-01	3.189E-01	0.000E+00	FAIL ABUN
HO-166M	2.249E-02	7.571E-02	1.318E-01	0.000E+00	NOT IDENT.
TA-182	-5.358E-02	2.805E-01	4.719E-01	0.000E+00	FAIL ABUN
IR-192	1.521E-02	4.537E-02	7.845E-02	0.000E+00	FAIL ABUN
HG-203	5.158E-02	5.051E-02	9.041E-02	0.000E+00	NOT IDENT.
BI-207	6.375E-02	6.880E-02	1.233E-01	0.000E+00	FAIL ABUN
PB-210	-2.821E-01	4.764E+00	8.135E+00	0.000E+00	NOT IDENT.
PB-211	-2.371E-01	8.645E-01	1.406E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	9.689E-01	1.364E+00	0.000E+00	FAIL ABUN
RN-219	3.210E-01	5.003E-01	8.687E-01	0.000E+00	FAIL ABUN
RA-223	7.775E-02	9.613E-01	1.437E+00	0.000E+00	FAIL ABUN
AC-227	2.173E-01	3.043E-01	5.393E-01	0.000E+00	FAIL ABUN
TH-227	2.173E-01	3.046E-01	5.393E-01	0.000E+00	FAIL ABUN
PA-231	-1.021E+00	1.694E+00	2.787E+00	0.000E+00	FAIL ABUN
TH-231	7.775E-02	9.613E-01	1.437E+00	0.000E+00	FAIL ABUN
PA-233	-1.650E-03	7.930E-02	1.346E-01	0.000E+00	FAIL ABUN
PA-234	-3.061E-01	4.096E-01	6.266E-01	0.000E+00	FAIL ABUN
PA-234M	-2.262E+00	6.533E+00	1.074E+01	0.000E+00	NOT IDENT.
TH-234	1.849E+00	1.769E+00	3.104E+00	0.000E+00	FAIL ABUN
U-235	-4.527E-03	2.424E-01	4.232E-01	0.000E+00	FAIL ABUN
U-238	1.849E+00	1.769E+00	3.104E+00	0.000E+00	FAIL ABUN
NP-239	-2.907E-01	4.877E-01	7.888E-01	0.000E+00	NOT IDENT.
AM-241	-1.378E-01	1.940E-01	3.224E-01	0.000E+00	NOT IDENT.
CM-247	1.199E-02	4.630E-02	7.875E-02	0.000E+00	NOT IDENT.

CF-249	-6.485E-03	4.890E-02	8.127E-02	0.000E+00 NOT IDENT.
CF-251	5.899E-02	1.494E-01	2.658E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:33:39.71

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818004.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 13:33:11
Sample ID         : G248818004           Sample quantity  : 1.19440E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.22  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1104	10.66*	9.454E-01	3.444E+01	3.444E+01	10.85
CD-109	88.03	203	3.70*	5.186E+00	3.318E+00	3.419E+00	37.01
SN-126	64.28	------	9.60	2.906E+00	------ Line Not Found		------
	86.94	203	8.90	5.186E+00	1.379E+00	1.379E+00	54.83
	87.57	203	37.00*	5.186E+00	3.318E-01	3.318E-01	37.01
TL-208	277.37	------	6.60	3.885E+00	------ Line Not Found		------
	583.19	355	85.00*	2.142E+00	6.121E-01	6.121E-01	18.02
	860.56	66	12.50	1.521E+00	1.099E+00	1.099E+00	44.74
BI-211	72.87	------	1.23	3.944E+00	------ Line Not Found		------
	351.06	640	12.92*	3.225E+00	4.831E+00	4.831E+00	14.13
PB-212	74.82	407	10.28	4.156E+00	2.991E+00	2.991E+00	25.70
	77.11	629	17.10	4.386E+00	2.634E+00	2.634E+00	16.19
	238.63	1166	43.60*	4.344E+00	1.935E+00	1.935E+00	12.49
	300.09	81	3.30	3.655E+00	2.111E+00	2.111E+00	60.10
BI-214	609.32	415	45.49*	2.064E+00	1.388E+00	1.388E+00	18.12
	1120.29	109	14.92	1.193E+00	1.923E+00	1.924E+00	37.95
	1764.49	71	15.30	8.254E-01	1.767E+00	1.767E+00	37.82
PB-214	74.82	407	5.80	4.156E+00	5.301E+00	5.301E+00	25.07
	77.11	629	9.70	4.386E+00	4.644E+00	4.644E+00	18.17
	242.00	319	7.25	4.305E+00	3.208E+00	3.208E+00	30.67
	295.22	361	18.42	3.699E+00	1.667E+00	1.667E+00	19.89
	351.93	640	35.60*	3.225E+00	1.753E+00	1.753E+00	15.17
RA-224	240.99	319	4.10*	4.305E+00	5.673E+00	5.673E+00	30.12
RA-226	609.32	415	45.49*	2.064E+00	1.388E+00	1.388E+00	18.12
	1120.29	109	14.92	1.193E+00	1.923E+00	1.924E+00	37.95
	1764.49	71	15.30	8.254E-01	1.767E+00	1.767E+00	37.82
AC-228	338.32	236	11.27	3.325E+00	1.975E+00	1.975E+00	52.55
	911.20	266	25.80*	1.443E+00	2.245E+00	2.245E+00	22.10
	968.97	164	15.80	1.364E+00	2.396E+00	2.396E+00	33.58
RA-228	338.32	236	11.27	3.325E+00	1.975E+00	1.975E+00	52.55
	911.20	266	25.80*	1.443E+00	2.245E+00	2.245E+00	22.10
	968.97	164	15.80	1.364E+00	2.396E+00	2.396E+00	33.58

Sample ID : G248818004 Acquisition date : 23-MAR-2010 13:33:11

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	407	10.28	4.156E+00	2.991E+00	2.991E+00	23.81
	77.11	629	17.10	4.386E+00	2.634E+00	2.634E+00	16.19
	238.63	1166	43.60*	4.344E+00	1.935E+00	1.935E+00	12.49
	300.09	81	3.30	3.655E+00	2.111E+00	2.111E+00	85.14
TH-229	85.43	113	14.70	4.981E+00	4.850E-01	4.850E-01	55.27
	88.47	203	24.00	5.186E+00	5.115E-01	5.115E-01	37.01
	193.51	------	4.41*	5.034E+00	------ Line Not Found		------
	210.85	115	2.80	4.770E+00	2.703E+00	2.703E+00	62.52
TH-230	609.32	415	45.49*	2.064E+00	1.388E+00	1.388E+00	17.34
	1120.29	109	14.92	1.193E+00	1.923E+00	1.923E+00	37.36
	1764.49	71	15.30	8.254E-01	1.767E+00	1.767E+00	37.82
TH-232	338.32	236	11.27	3.325E+00	1.975E+00	1.975E+00	33.09
	911.20	266	25.80*	1.443E+00	2.245E+00	2.245E+00	22.10
	968.97	164	15.80	1.364E+00	2.396E+00	2.396E+00	33.58
NP-237	86.48	203	12.40*	5.186E+00	9.899E-01	9.899E-01	42.54
	95.86	------	2.68	5.636E+00	------ Line Not Found		------
ANH-511	511.00	72	100.00*	2.392E+00	9.448E-02	9.448E-02	85.44

Flag: "*" = Keyline

Sample ID : G248818004 Acquisition date : 23-MAR-2010 13:33:11

Total number of lines in spectrum 30
Number of unidentified lines 3
Number of lines tentatively identified by NID 27 90.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.444E+01	3.444E+01	0.374E+01	10.85	
CD-109	461.40D	1.03	3.318E+00	3.419E+00	1.265E+00	37.01	
SN-126	2.30E+05Y	1.00	3.318E-01	3.318E-01	1.228E-01	37.01	
TL-208	1.41E+10Y	1.00	6.121E-01	6.121E-01	1.103E-01	18.02	
BI-211	7.04E+08Y	1.00	4.831E+00	4.831E+00	0.682E+00	14.13	
PB-212	1.41E+10Y	1.00	1.935E+00	1.935E+00	0.242E+00	12.49	
BI-214	1600.00Y	1.00	1.388E+00	1.388E+00	0.251E+00	18.12	
PB-214	1600.00Y	1.00	1.753E+00	1.753E+00	0.266E+00	15.17	
RA-224	1.41E+10Y	1.00	5.673E+00	5.673E+00	1.708E+00	30.12	
RA-226	1600.00Y	1.00	1.388E+00	1.388E+00	0.251E+00	18.12	
AC-228	1.41E+10Y	1.00	2.245E+00	2.245E+00	0.496E+00	22.10	
RA-228	1.41E+10Y	1.00	2.245E+00	2.245E+00	0.496E+00	22.10	
TH-228	1.41E+10Y	1.00	1.935E+00	1.935E+00	0.242E+00	12.49	
TH-229	7340.00Y	1.00	5.115E-01	5.115E-01	1.893E-01	37.01	K
TH-230	7.54E+04Y	1.00	1.388E+00	1.388E+00	0.241E+00	17.34	
TH-232	1.41E+10Y	1.00	2.245E+00	2.245E+00	0.496E+00	22.10	
NP-237	2.14E+06Y	1.00	9.899E-01	9.899E-01	4.211E-01	42.54	
ANH-511	1.00E+09Y	1.00	9.448E-02	9.448E-02	8.073E-02	85.44	
			---	---			
	Total Activity :		6.732E+01	6.742E+01			

Grand Total Activity : 6.732E+01 6.742E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248818004 Acquisition date : 23-MAR-2010 13:33:11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	93.17	195	524	1.42	187.04	183	11	2.71E-02	51.3	5.52E+00	T
0	186.63	230	383	1.38	373.86	368	13	3.20E-02	38.9	5.15E+00	T
0	270.76	125	247	1.60	542.01	536	13	1.74E-02	55.3	3.96E+00	T
0	328.47	44	155	0.93	657.38	654	8	6.05E-03	****	3.41E+00	T
0	463.76	78	97	0.89	927.79	923	10	1.08E-02	53.2	2.59E+00	T
0	727.96	64	67	1.50	1455.86	1451	12	8.88E-03	56.7	1.77E+00	T
0	795.29	31	55	1.92	1590.42	1583	11	4.32E-03	****	1.63E+00	T
0	1377.95	40	10	1.85	2754.91	2748	11	5.55E-03	44.8	9.93E-01	
0	1589.31	21	17	0.98	3177.30	3168	13	2.96E-03	89.3	8.86E-01	
0	1848.54	13	8	1.07	3695.34	3690	12	1.75E-03	****	8.04E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:33:44.00

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818004.CNF;1  *
* Acquisition date : 23-MAR-2010 13:33:11  Detector SN#     :               *
* Detector ID      : GAM01                 Sensitivity      : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.22         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248818004            Analyst initials: MXR1           *
* Batch Number     : 962631                Sample Quantity : 1.19440E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52.7MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.444E+01	3.736E+00	5.362E-01	4.766E-02	64.227
CD-109	3.419E+00	1.265E+00	1.847E+00	1.748E-01	1.851
SN-126	3.318E-01	1.228E-01	1.794E-01	1.690E-02	1.849
TL-208	6.121E-01	1.103E-01	6.975E-02	6.327E-03	8.775
BI-211	4.831E+00	6.824E-01	3.814E-01	3.470E-02	12.665
PB-212	1.935E+00	2.418E-01	1.117E-01	1.136E-02	17.326
BI-214	1.388E+00	2.515E-01	1.326E-01	1.314E-02	10.464
PB-214	1.753E+00	2.659E-01	1.457E-01	1.549E-02	12.036
RA-224	5.673E+00	1.708E+00	1.197E+00	1.088E-01	4.738
RA-226	1.388E+00	2.515E-01	1.326E-01	1.314E-02	10.464
AC-228	2.245E+00	4.960E-01	2.579E-01	3.073E-02	8.705
RA-228	2.245E+00	4.960E-01	2.579E-01	3.073E-02	8.705
TH-228	1.935E+00	2.418E-01	1.117E-01	1.136E-02	17.326
TH-229	5.115E-01	1.893E-01	1.014E+00	8.879E-02	0.505
TH-230	1.388E+00	2.406E-01	1.326E-01	1.113E-02	10.464
TH-232	2.245E+00	4.960E-01	2.579E-01	3.073E-02	8.705
NP-237	9.899E-01	4.211E-01	4.928E-01	1.130E-01	2.009
ANH-511	9.448E-02	8.073E-02	5.777E-02	4.896E-03	1.635

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.953E-01		4.281E-01	6.605E-01	6.007E-02	-0.296
NA-22	2.654E-02		5.253E-02	9.226E-02	7.747E-03	0.288
NA-24	3.380E+01		9.820E+01	Half-Life too short		
SC-46	6.243E-03		5.073E-02	8.395E-02	7.589E-03	0.074
V-48	4.331E-02		1.121E-01	1.891E-01	1.688E-02	0.229
CR-51	-4.134E-01		5.459E-01	8.532E-01	8.020E-02	-0.484
MN-54	1.258E-02		4.664E-02	7.837E-02	6.976E-03	0.160
CO-56	5.148E-02		5.376E-02	9.529E-02	8.514E-03	0.540
CO-57	6.034E-03		3.093E-02	4.950E-02	4.358E-03	0.122
CO-58	-2.188E-02		4.713E-02	7.370E-02	6.520E-03	-0.297
FE-59	-1.585E-01		1.309E-01	1.810E-01	1.668E-02	-0.876
CO-60	-1.784E-02		4.774E-02	7.565E-02	6.448E-03	-0.236
ZN-65	9.257E-03		1.295E-01	1.815E-01	1.532E-02	0.051
SE-75	-8.524E-03		6.271E-02	9.012E-02	8.280E-03	-0.095
SR-85	1.084E-01		6.108E-02	9.810E-02	8.317E-03	1.105
Y-88	9.356E-03		4.336E-02	7.369E-02	6.061E-03	0.127
Y-91	-1.592E+01		2.923E+01	4.656E+01	3.814E+00	-0.342
NB-94	-2.392E-02		4.525E-02	7.201E-02	6.045E-03	-0.332
NB-95	-5.562E-02		6.102E-02	9.140E-02	7.921E-03	-0.609
NB-95M	9.657E-02		1.751E-01	2.641E-01	2.714E-02	0.366
ZR-95	4.607E-02		9.141E-02	1.575E-01	1.501E-02	0.292
MO-99	-5.312E+00		5.342E+01	8.756E+01	1.377E+01	-0.061
TC-99M	-3.185E+16		2.024E+16	Half-Life too short		
RU-103	-2.652E-03		5.284E-02	8.418E-02	1.167E-02	-0.031
RH-106	4.592E-01		3.937E-01	7.074E-01	9.256E-02	0.649
RU-106	4.592E-01		3.910E-01	7.074E-01	5.909E-02	0.649
AG-108M	1.103E-02		3.729E-02	6.140E-02	5.255E-03	0.180
AG-110M	-1.655E-02		4.354E-02	7.024E-02	5.956E-03	-0.236
SN-113	-6.774E-03		5.752E-02	9.252E-02	7.706E-03	-0.073
CD-115	-4.252E-05		3.080E-05	Half-Life too short		
SN-117M	-8.546E-02		8.405E-02	1.357E-01	1.156E-02	-0.630
TE-123M	-2.769E-02		3.484E-02	5.685E-02	4.870E-03	-0.487
SB-124	-7.837E-04		7.951E-02	1.297E-01	1.153E-02	-0.006
SB-125	9.247E-02		1.092E-01	1.868E-01	1.571E-02	0.495
TE-125M	2.686E+00		1.252E+01	2.013E+01	2.120E+00	0.133
I-126	3.827E-02		3.908E-01	6.549E-01	5.380E-02	0.058
SB-126	-3.336E-02		2.194E-01	3.485E-01	2.954E-02	-0.096
SB-127	-3.866E-01		3.969E+00	6.541E+00	8.331E-01	-0.059
I-131	3.285E-02		2.235E-01	3.672E-01	3.304E-02	0.089
TE-132	-5.947E-01		2.695E+00	4.438E+00	7.594E-01	-0.134
BA-133	-4.125E-02		5.917E-02	7.863E-02	1.017E-02	-0.525
I-133	1.408E-01		1.850E-01	Half-Life too short		
CS-134	7.912E-02	+	8.111E-02	1.071E-01	9.467E-03	0.739
CS-135	1.313E-01		2.104E-01	3.183E-01	3.319E-02	0.413
I-135	-1.871E+15		1.186E+15	Half-Life too short		
CS-136	-1.429E-01		1.877E-01	2.781E-01	2.529E-02	-0.514
BA-137M	-9.299E-03		4.758E-02	7.807E-02	6.394E-03	-0.119
CS-137	-9.823E-03		5.026E-02	8.247E-02	6.769E-03	-0.119

Sample ID : G248818004 Acquisition date : 23-MAR-2010 13:33:11

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-139	2.073E-02		3.622E-02	6.234E-02	5.309E-03	0.333
BA-140	1.252E-01		4.201E-01	7.192E-01	2.437E-01	0.174
LA-140	-2.362E-02		1.629E-01	2.489E-01	2.148E-02	-0.095
CE-141	9.032E-02		8.668E-02	1.496E-01	1.301E-02	0.604
CE-143	5.161E-03		1.281E-03	Half-Life too short		
CE-144	2.110E-02		2.473E-01	3.924E-01	5.998E-02	0.054
PM-144	2.710E-02		4.392E-02	7.624E-02	6.382E-03	0.355
PR-144	2.071E+00		3.299E+00	5.730E+00	4.794E-01	0.361
PM-146	2.323E-03		5.363E-02	8.654E-02	8.973E-03	0.027
ND-147	1.575E-01		9.082E-01	1.550E+00	2.305E-01	0.102
PM-149	-1.660E-04		2.579E-04	Half-Life too short		
EU-152	7.322E-02		1.362E-01	2.034E-01	1.880E-02	0.360
GD-153	-2.375E-02		1.157E-01	1.626E-01	1.444E-02	-0.146
EU-154	3.484E-02		1.526E-01	2.606E-01	2.920E-02	0.134
EU-155	-2.369E-02		1.335E-01	2.112E-01	1.857E-02	-0.112
TB-160	1.101E-01		1.839E-01	3.179E-01	2.866E-02	0.346
HO-166M	2.249E-02		7.725E-02	1.310E-01	1.105E-02	0.172
TA-182	-5.358E-02		2.862E-01	4.721E-01	3.891E-02	-0.113
IR-192	1.521E-02		4.629E-02	7.727E-02	6.962E-03	0.197
HG-203	5.158E-02		5.154E-02	8.892E-02	8.317E-03	0.580
BI-207	6.375E-02		7.020E-02	1.232E-01	1.068E-02	0.517
PB-210	-2.821E-01		4.861E+00	7.843E+00	7.345E-01	-0.036
PB-211	-2.371E-01		8.821E-01	1.389E+00	6.708E-01	-0.171
BI-212	1.703E+00	+	9.887E-01	1.356E+00	1.679E-01	1.255
RN-219	3.210E-01		5.105E-01	8.580E-01	1.251E-01	0.374
RA-223	7.775E-02		9.809E-01	1.416E+00	2.476E-01	0.055
AC-227	2.173E-01		3.105E-01	5.300E-01	6.585E-02	0.410
TH-227	2.173E-01		3.108E-01	5.300E-01	7.386E-02	0.410
PA-231	-1.021E+00		1.728E+00	2.742E+00	4.084E-01	-0.372
TH-231	7.775E-02		9.809E-01	1.416E+00	2.476E-01	0.055
PA-233	-1.650E-03		8.092E-02	1.326E-01	1.227E-02	-0.012
PA-234	-3.061E-01		4.179E-01	6.250E-01	1.184E-01	-0.490
PA-234M	-2.262E+00		6.666E+00	1.072E+01	1.092E+00	-0.211
TH-234	1.849E+00		1.805E+00	3.002E+00	5.393E-01	0.616
U-235	-4.527E-03		2.473E-01	4.131E-01	6.989E-02	-0.011
U-238	1.849E+00		1.805E+00	3.002E+00	5.393E-01	0.616
NP-239	-2.907E-01		4.977E-01	7.683E-01	6.694E-02	-0.378
AM-241	-1.378E-01		1.980E-01	3.116E-01	2.568E-02	-0.442
CM-247	1.199E-02		4.724E-02	7.778E-02	6.307E-03	0.154
CF-249	-6.485E-03		4.990E-02	8.023E-02	6.505E-03	-0.081
CF-251	5.899E-02		1.524E-01	2.601E-01	2.241E-02	0.227

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248818004            *
* Acquisition date : 23-MAR-2010 13:33:11 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.22     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248818004           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.1944E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.444E+01	3.662E+00	2.675E-01	1.868E+00
CD-109	3.419E+00	1.240E+00	9.518E-01	6.327E-01
SN-126	3.318E-01	1.203E-01	9.247E-02	6.139E-02
TL-208	6.121E-01	1.081E-01	3.518E-02	5.514E-02
BI-211	4.831E+00	6.688E-01	1.935E-01	3.412E-01
PB-212	1.935E+00	2.369E-01	5.691E-02	1.209E-01
BI-214	1.388E+00	2.464E-01	6.685E-02	1.257E-01
PB-214	1.753E+00	2.606E-01	7.390E-02	1.329E-01
RA-224	5.673E+00	1.674E+00	6.101E-01	8.542E-01
RA-226	1.388E+00	2.464E-01	6.685E-02	1.257E-01
AC-228	2.245E+00	4.861E-01	1.294E-01	2.480E-01
RA-228	2.245E+00	4.861E-01	1.294E-01	2.480E-01
TH-228	1.935E+00	2.369E-01	5.691E-02	1.209E-01
TH-229	-4.165E-01	6.331E-01	5.177E-01	3.230E-01
TH-230	1.388E+00	2.357E-01	6.685E-02	1.203E-01
TH-232	2.245E+00	4.861E-01	1.294E-01	2.480E-01
NP-237	9.899E-01	4.127E-01	2.540E-01	2.105E-01
ANH-511	9.448E-02	7.911E-02	2.918E-02	4.036E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.953E-01	4.195E-01	3.339E-01	2.140E-01	NOT IDENT.
NA-22	2.654E-02	5.148E-02	4.611E-02	2.626E-02	NOT IDENT.
NA-24	3.380E+07	1.925E+08	0.000E+00	9.820E+07	SHORT HLIF
SC-46	6.243E-03	4.971E-02	4.213E-02	2.536E-02	FAIL ABUN
V-48	4.331E-02	1.098E-01	9.479E-02	5.603E-02	NOT IDENT.
CR-51	-4.134E-01	5.349E-01	4.333E-01	2.729E-01	NOT IDENT.
MN-54	1.258E-02	4.570E-02	3.936E-02	2.332E-02	NOT IDENT.
CO-56	5.148E-02	5.269E-02	4.785E-02	2.688E-02	NOT IDENT.
CO-57	6.034E-03	3.031E-02	2.542E-02	1.547E-02	NOT IDENT.

CO-58	-2.188E-02	4.619E-02	3.703E-02	2.357E-02	NOT IDENT.
FE-59	-1.585E-01	1.283E-01	9.060E-02	6.544E-02	NOT IDENT.
CO-60	-1.784E-02	4.678E-02	3.779E-02	2.387E-02	NOT IDENT.
ZN-65	9.257E-03	1.269E-01	9.087E-02	6.475E-02	NOT IDENT.
SE-75	-8.524E-03	6.146E-02	4.587E-02	3.136E-02	NOT IDENT.
SR-85	1.084E-01	5.985E-02	4.955E-02	3.054E-02	NOT IDENT.
Y-88	9.356E-03	4.250E-02	3.667E-02	2.168E-02	NOT IDENT.
Y-91	-1.592E+01	2.865E+01	2.329E+01	1.462E+01	NOT IDENT.
NB-94	-2.392E-02	4.434E-02	3.624E-02	2.262E-02	NOT IDENT.
NB-95	-5.562E-02	5.980E-02	4.596E-02	3.051E-02	NOT IDENT.
NB-95M	9.657E-02	1.716E-01	1.346E-01	8.753E-02	NOT IDENT.
ZR-95	4.607E-02	8.958E-02	7.921E-02	4.570E-02	NOT IDENT.
MO-99	-5.312E+00	5.235E+01	4.404E+01	2.671E+01	NOT IDENT.
TC-99M	-3.185E+22	3.966E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.652E-03	5.178E-02	4.254E-02	2.642E-02	FAIL ABUN
RH-106	4.592E-01	3.858E-01	3.565E-01	1.969E-01	NOT IDENT.
RU-106	4.592E-01	3.832E-01	3.565E-01	1.955E-01	NOT IDENT.
AG-108M	1.103E-02	3.654E-02	3.108E-02	1.864E-02	NOT IDENT.
AG-110M	-1.655E-02	4.266E-02	3.538E-02	2.177E-02	NOT IDENT.
SN-113	-6.774E-03	5.637E-02	4.688E-02	2.876E-02	NOT IDENT.
CD-115	-4.252E+01	6.038E+01	0.000E+00	3.080E+01	SHORT HLIF
SN-117M	-8.546E-02	8.237E-02	6.948E-02	4.203E-02	NOT IDENT.
TE-123M	-2.769E-02	3.414E-02	2.910E-02	1.742E-02	NOT IDENT.
SB-124	-7.837E-04	7.792E-02	6.463E-02	3.976E-02	NOT IDENT.
SB-125	9.247E-02	1.070E-01	9.456E-02	5.459E-02	FAIL ABUN
TE-125M	2.686E+00	1.227E+01	1.035E+01	6.261E+00	NOT IDENT.
I-126	3.827E-02	3.830E-01	3.298E-01	1.954E-01	NOT IDENT.
SB-126	-3.336E-02	2.150E-01	1.753E-01	1.097E-01	NOT IDENT.
SB-127	-3.866E-01	3.890E+00	3.293E+00	1.985E+00	NOT IDENT.
I-131	3.285E-02	2.191E-01	1.862E-01	1.118E-01	NOT IDENT.
TE-132	-5.947E-01	2.641E+00	2.262E+00	1.347E+00	NOT IDENT.
BA-133	-4.125E-02	5.799E-02	3.988E-02	2.959E-02	NOT IDENT.
I-133	1.408E+05	3.627E+05	0.000E+00	1.850E+05	SHORT HLIF
CS-134	7.912E-02	7.949E-02	5.383E-02	4.055E-02	FAIL ABUN
CS-135	1.313E-01	2.062E-01	1.620E-01	1.052E-01	NOT IDENT.
I-135	-1.871E+21	2.325E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.429E-01	1.839E-01	1.393E-01	9.383E-02	NOT IDENT.
BA-137M	-9.299E-03	4.663E-02	3.932E-02	2.379E-02	NOT IDENT.
CS-137	-9.823E-03	4.926E-02	4.154E-02	2.513E-02	NOT IDENT.
CE-139	2.073E-02	3.549E-02	3.190E-02	1.811E-02	NOT IDENT.
BA-140	1.252E-01	4.117E-01	3.631E-01	2.101E-01	NOT IDENT.
LA-140	-2.362E-02	1.596E-01	1.241E-01	8.144E-02	FAIL ABUN
CE-141	9.032E-02	8.494E-02	7.663E-02	4.334E-02	NOT IDENT.
CE-143	5.161E+03	2.512E+03	0.000E+00	1.281E+03	SHORT HLIF
CE-144	2.110E-02	2.423E-01	2.013E-01	1.236E-01	NOT IDENT.
PM-144	2.710E-02	4.304E-02	3.838E-02	2.196E-02	NOT IDENT.
PR-144	2.071E+00	3.233E+00	2.884E+00	1.649E+00	NOT IDENT.
PM-146	2.323E-03	5.256E-02	4.378E-02	2.682E-02	NOT IDENT.
ND-147	1.575E-01	8.901E-01	7.825E-01	4.541E-01	NOT IDENT.
PM-149	-1.660E+02	5.055E+02	0.000E+00	2.579E+02	SHORT HLIF
EU-152	7.322E-02	1.335E-01	1.032E-01	6.811E-02	NOT IDENT.
GD-153	-2.375E-02	1.134E-01	8.367E-02	5.784E-02	NOT IDENT.
EU-154	3.484E-02	1.495E-01	1.303E-01	7.629E-02	NOT IDENT.
EU-155	-2.369E-02	1.308E-01	1.086E-01	6.673E-02	FAIL ABUN
TB-160	1.101E-01	1.803E-01	1.596E-01	9.197E-02	FAIL ABUN
HO-166M	2.249E-02	7.571E-02	6.592E-02	3.863E-02	NOT IDENT.
TA-182	-5.358E-02	2.805E-01	2.361E-01	1.431E-01	FAIL ABUN
IR-192	1.521E-02	4.537E-02	3.925E-02	2.315E-02	FAIL ABUN
HG-203	5.158E-02	5.051E-02	4.523E-02	2.577E-02	NOT IDENT.
BI-207	6.375E-02	6.880E-02	6.170E-02	3.510E-02	FAIL ABUN
PB-210	-2.821E-01	4.764E+00	4.070E+00	2.431E+00	NOT IDENT.
PB-211	-2.371E-01	8.645E-01	7.034E-01	4.411E-01	NOT IDENT.
BI-212	1.703E+00	9.689E-01	6.824E-01	4.944E-01	FAIL ABUN
RN-219	3.210E-01	5.003E-01	4.346E-01	2.552E-01	FAIL ABUN
RA-223	7.775E-02	9.613E-01	7.189E-01	4.904E-01	FAIL ABUN
AC-227	2.173E-01	3.043E-01	2.698E-01	1.552E-01	FAIL ABUN
TH-227	2.173E-01	3.046E-01	2.698E-01	1.554E-01	FAIL ABUN
PA-231	-1.021E+00	1.694E+00	1.394E+00	8.641E-01	FAIL ABUN
TH-231	7.775E-02	9.613E-01	7.189E-01	4.904E-01	FAIL ABUN
PA-233	-1.650E-03	7.930E-02	6.736E-02	4.046E-02	FAIL ABUN
PA-234	-3.061E-01	4.096E-01	3.135E-01	2.090E-01	FAIL ABUN
PA-234M	-2.262E+00	6.533E+00	5.371E+00	3.333E+00	NOT IDENT.
TH-234	1.849E+00	1.769E+00	1.553E+00	9.027E-01	FAIL ABUN
U-235	-4.527E-03	2.424E-01	2.117E-01	1.237E-01	FAIL ABUN
U-238	1.849E+00	1.769E+00	1.553E+00	9.027E-01	FAIL ABUN
NP-239	-2.907E-01	4.877E-01	3.946E-01	2.488E-01	NOT IDENT.
AM-241	-1.378E-01	1.940E-01	1.613E-01	9.898E-02	NOT IDENT.
CM-247	1.199E-02	4.630E-02	3.940E-02	2.362E-02	NOT IDENT.

CF-249	-6.485E-03	4.890E-02	4.066E-02	2.495E-02	NOT IDENT.
CF-251	5.899E-02	1.494E-01	1.330E-01	7.620E-02	NOT IDENT.

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*******************************************************************************
*                          GEL Laboratories LLC                               *
*                             2040 SAVAGE ROAD                                *
*                           CHARLESTON ,SC 29417                              *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.54	267.1895
49.72	271.0228
57.36	0.0000
59.54	340.2669
63.29	325.6466
63.29	325.6466
64.28	351.6317
67.75	371.8438
69.67	443.8045
70.83	399.9954
72.81	420.6283
72.87	420.6682
72.87	420.6682
74.82	435.4577
74.82	435.4577
74.82	435.4577
74.97	435.5605
77.11	437.0297
77.11	437.0297
77.11	437.0297
79.69	330.1667
79.80	345.4300
80.12	345.5982
80.19	345.6354
80.57	303.4207
81.00	290.5591
81.07	346.0964
81.07	346.0964
83.79	327.8366
83.79	327.8366
85.43	461.1775
86.48	461.8842
86.55	461.9291
86.79	462.0897
86.94	462.1903
87.57	560.4091
88.03	565.1783
88.47	481.9141
89.96	482.9388
91.11	483.7230
92.59	432.7096
92.59	432.7096
93.35	433.1670
94.67	433.9545
94.87	284.7569
94.87	284.7569
95.86	325.1617
97.43	312.4851
98.44	256.0175
99.53	262.7577
100.11	306.3393
103.18	325.5346
103.37	297.5454
105.31	329.8083
106.12	333.5314
109.28	294.1385
111.00	307.2417
111.76	337.0345
116.30	267.0169
117.23	309.5822
121.12	286.9123
121.78	268.7576
122.06	268.8451
123.07	287.5659
131.20	341.3192
133.52	283.9990
136.00	307.2375

136.47	304.7682
140.51	314.0119
140.51	0.0000
143.76	307.1497
144.24	289.6426
144.24	289.6426
145.44	276.7430
152.43	333.0567
153.25	281.6400
154.21	287.2652
154.21	287.2652
156.02	285.9961
158.56	310.9080
159.00	304.7684
162.66	270.7742
163.33	279.0525
165.86	262.5865
176.60	269.7969
177.52	249.9556
181.07	238.6820
184.41	229.1174
185.72	255.4838
193.51	266.4844
197.04	250.5851
205.31	267.6631
210.85	273.3910
215.65	247.7401
222.11	243.4669
227.38	242.5683
228.16	247.4733
228.18	247.4773
235.69	223.6284
235.96	219.0787
235.96	219.0787
238.63	210.1162
238.63	210.1162
240.99	210.4871
242.00	210.6458
244.70	183.5029
252.40	180.2712
252.80	183.2322
256.23	174.9360
256.23	174.9360
260.90	0.0000
264.66	175.1996
268.22	166.2254
269.46	160.0897
269.46	160.0897
271.23	170.8910
273.65	199.9010
276.40	181.3496
277.37	159.1153
277.60	162.3340
278.00	163.7862
279.20	163.9204
279.54	173.8354
280.46	183.8260
283.69	169.3666
284.31	158.5352
285.41	155.6776
285.90	0.0000
287.50	160.8580
293.27	0.0000
295.22	152.6895
295.96	152.7619
298.57	153.0210
299.98	153.1588
299.98	153.1588
300.09	153.1704
300.09	153.1704
300.13	153.1728
301.36	153.2942
302.85	153.4389
304.50	149.3835
304.50	149.3835
304.85	167.0906
308.46	166.3979
311.90	154.3167

316.51	149.7028
319.41	170.2354
320.08	175.3732
323.87	173.9508
323.87	173.9508
328.76	155.9182
333.37	155.3282
334.37	155.4187
334.37	155.4187
338.28	131.1836
338.28	131.1836
338.32	131.1855
338.32	131.1855
338.32	131.1855
340.48	131.3535
340.55	142.8512
344.28	126.7079
351.06	118.9459
351.93	131.1955
356.01	139.1619
364.49	123.8082
366.42	132.2729
383.85	92.5345
388.16	121.2048
388.63	114.9110
391.69	120.3770
400.66	114.5836
401.81	107.2200
402.40	115.7493
404.85	115.8973
410.95	118.3948
414.70	138.9284
423.72	95.5484
427.09	88.1823
427.87	83.9128
433.94	99.2731
453.88	100.2404
463.37	118.2057
468.07	77.2224
473.00	81.3587
476.78	92.5146
477.60	96.9563
487.02	77.4586
492.35	0.0000
497.08	82.2575
511.00	89.4781
514.00	89.5953
527.90	0.0000
529.87	0.0000
531.02	77.6205
537.26	77.8283
546.56	0.0000
563.25	80.5041
569.33	95.3773
569.50	92.6335
569.70	92.6409
583.19	75.6218
600.60	93.7875
602.73	87.6240
604.72	89.9076
609.32	72.6756
609.32	72.6756
609.32	72.6756
610.33	72.7042
614.28	62.2347
618.01	70.7825
621.93	59.9203
621.93	59.9203
633.25	62.9973
635.95	67.7672
636.99	65.9104
645.85	77.4656
657.76	77.8059
661.66	90.2686
661.66	90.2686
664.57	0.0000
666.33	89.4698
666.50	88.5226

677.62	63.0738
685.70	69.9649
695.00	77.8874
696.49	69.2684
696.51	69.2701
697.00	75.0541
702.65	94.4853
706.68	81.1002
711.68	69.6357
720.70	58.2085
721.93	0.0000
722.78	55.0148
722.91	61.4887
723.31	53.4061
724.19	48.5657
727.33	61.5815
733.00	60.0768
735.93	65.0114
739.50	65.4150
747.24	60.6892
752.31	65.6947
753.82	58.8604
756.73	54.0063
763.94	75.7875
765.81	93.5620
766.42	87.6702
777.92	64.2684
778.90	53.4081
783.70	58.4440
785.37	54.5112
795.86	59.6646
801.95	46.8279
810.29	52.9444
810.76	52.9521
815.77	47.0310
818.51	56.0848
832.01	53.3015
834.85	58.3795
836.80	0.0000
846.77	49.5000
856.80	47.2853
860.56	57.8210
871.09	38.6680
873.19	48.8742
875.33	0.0000
879.36	45.9031
880.51	51.0205
883.24	58.2107
884.68	50.0611
889.28	49.1051
898.04	49.2305
911.20	43.2397
911.20	43.2397
911.20	43.2397
926.50	54.8025
937.49	56.0092
944.13	49.8785
946.00	67.5787
949.00	47.8654
962.29	82.3884
964.08	43.5364
966.15	57.5002
968.97	88.9325
968.97	88.9325
968.97	88.9325
983.53	45.1679
996.26	50.5922
1001.03	63.3208
1004.73	68.6658
1037.84	45.8198
1038.76	0.0000
1048.07	60.8993
1050.41	44.8998
1050.41	44.8998
1063.66	42.9063
1085.87	48.5420
1099.45	63.8600
1112.07	60.3190

1115.54	48.9001
1120.29	46.7793
1120.29	46.7793
1120.29	46.7793
1120.55	46.7835
1121.30	46.7919
1131.51	0.0000
1173.23	54.1722
1177.93	71.6968
1189.05	56.2170
1204.77	64.7449
1221.41	77.0627
1231.02	92.1196
1235.36	74.5150
1238.28	59.6510
1260.41	0.0000
1271.85	46.9523
1274.44	39.4639
1274.54	34.7658
1291.59	61.3051
1298.22	0.0000
1312.11	29.3678
1332.49	33.3024
1365.19	19.1618
1368.63	0.0000
1384.29	20.5208
1408.01	33.8322
1457.56	0.0000
1460.82	13.6776
1489.16	18.6660
1505.03	31.5352
1596.21	25.2656
1620.50	11.0779
1678.03	0.0000
1690.97	8.1592
1764.49	9.2970
1764.49	9.2970
1764.49	9.2970
1770.23	14.1808
1771.35	8.8647
1791.20	0.0000
1836.06	10.4549

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248818004

Total Uranium Activity	5.4990E+00	ug/g
Total Uranium Counting Unc.	5.2646E+00	ug/g
Total Uranium Tpu	2.6860E-06	ug/g
Total Uranium Mda	4.6206E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962631                    SAMPLE ID  : G248818004       *
*   ANALYST       : MXR1                      DETECTOR   : GAM01            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 13:33:11.14    SAMPLE ALQT:  119.440 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.081E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.572E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.243E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.058E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:34:30.45

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818005.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 13:33:35
Sample ID         : G248818005           Sample quantity  : 1.13150E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.04  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.22*	103	401	0.70	126.63	123	7	1.43E-02	34.7	
2	3	74.88*	409	399	0.94	149.94	144	15	5.68E-02	9.2	1.06E+00
3	3	77.15*	687	302	0.85	154.49	144	15	9.54E-02	5.5	
4	4	87.15	312	368	1.22	174.50	164	28	4.33E-02	11.6	1.82E+00
5	4	89.97	167	309	1.07	180.12	164	28	2.32E-02	18.5	
6	4	92.77*	316	352	1.10	185.72	164	28	4.39E-02	12.1	
7	0	105.30	113	309	1.32	210.79	208	8	1.56E-02	28.6	
8	0	128.82	65	363	1.04	257.83	255	8	8.97E-03	52.6	
9	0	185.95*	205	375	1.03	372.10	368	9	2.85E-02	19.1	
10	0	208.99	138	271	1.12	418.18	414	9	1.91E-02	23.2	
11	5	238.52*	1356	176	0.95	477.23	470	20	1.88E-01	3.2	1.59E+00
12	5	241.43	275	269	1.52	483.06	470	20	3.83E-02	12.5	
13	0	270.23	109	276	0.96	540.65	535	12	1.51E-02	32.0	
14	0	294.99	451	175	1.17	590.18	585	11	6.27E-02	7.4	
15	0	299.71*	55	191	0.84	599.61	596	9	7.58E-03	48.2	
16	0	338.12*	287	179	1.07	676.43	672	10	3.99E-02	10.6	
17	0	351.72*	674	181	1.11	703.62	697	11	9.37E-02	5.5	
18	0	462.64	66	104	1.44	925.46	921	9	9.20E-03	30.3	
19	0	510.87*	138	137	1.51	1021.90	1014	17	1.92E-02	24.0	
20	0	583.01*	396	140	1.38	1166.17	1159	14	5.49E-02	8.3	
21	0	609.11*	422	111	1.27	1218.36	1212	13	5.86E-02	7.2	
22	0	726.97	98	66	1.04	1454.04	1451	8	1.36E-02	17.4	
23	0	794.81	54	80	0.86	1589.69	1584	11	7.51E-03	34.8	
24	0	860.93	55	51	1.59	1721.88	1718	10	7.66E-03	27.9	
25	0	910.82*	376	39	1.67	1821.65	1815	14	5.22E-02	6.3	
26	0	934.24	36	61	1.66	1868.48	1863	11	4.93E-03	45.6	
27	1	964.41	46	32	1.76	1928.80	1923	20	6.38E-03	31.5	1.32E+00
28	1	968.53*	180	42	1.77	1937.03	1923	20	2.50E-02	10.1	
29	0	1119.79*	121	77	1.82	2239.47	2231	17	1.68E-02	19.2	
30	0	1155.84	28	56	1.13	2311.53	2307	12	3.91E-03	55.8	
31	0	1238.35	60	86	1.12	2476.49	2469	14	8.33E-03	36.4	
32	0	1460.34*	1593	19	1.94	2920.29	2912	19	2.21E-01	2.6	
33	0	1508.49	17	9	1.33	3016.54	3012	9	2.34E-03	40.4	
34	0	1619.92	28	0	0.84	3239.29	3232	14	3.89E-03	18.9	
35	0	1631.40	17	5	1.08	3262.23	3258	9	2.31E-03	36.7	
36	0	1763.91	100	7	1.94	3527.10	3520	14	1.39E-02	11.5	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 15:34:33

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818005.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 13:33:35
Sample ID : G248818005 Sample quantity : 113.15 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA16 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.04 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	4.104E+01	4.195E+00	5.397E-01	4.745E-02	76.028
CD-109	+	88.03	*	4.609E+00	1.159E+00	1.171E+00	1.128E-01	3.936
SN-126	+	64.28		1.011E+00	7.168E-01	7.477E-01	1.089E-01	1.352
	+	86.94		1.859E+00	8.855E-01	4.775E-01	1.984E-01	3.893
	+	87.57	*	4.472E-01	1.125E-01	1.141E-01	1.094E-02	3.918
EU-155	+	86.55		5.433E-01	1.368E-01	1.401E-01	1.338E-02	3.877
	+	105.31	*	2.536E-01	1.467E-01	1.729E-01	1.495E-02	1.467
TL-208		277.37		4.382E-01	4.195E-01	6.850E-01	1.029E-01	0.640
	+	583.19	*	5.786E-01	1.115E-01	6.167E-02	6.106E-03	9.382
	+	860.56		7.626E-01	4.330E-01	4.862E-01	4.866E-02	1.569
BI-211		72.87		5.275E-01	3.222E+00	5.015E+00	4.077E-01	0.105
	+	351.06	*	4.394E+00	6.815E-01	3.229E-01	3.531E-02	13.609
BI-212	+	727.33	*	2.193E+00	8.150E-01	9.132E-01	1.170E-01	2.401
		785.37		3.014E+00	3.235E+00	5.834E+00	5.421E-01	0.517
	+	1620.50		5.656E+00	2.191E+00	4.813E+00	4.089E-01	1.175
PB-212	+	74.82		2.580E+00	5.795E-01	5.452E-01	6.969E-02	4.733
	+	77.11		2.484E+00	3.443E-01	3.129E-01	2.658E-02	7.938
	+	238.63	*	1.974E+00	2.662E-01	9.237E-02	1.097E-02	21.368
	+	300.09		1.237E+00	1.205E+00	1.225E+00	1.616E-01	1.009
BI-214	+	609.32	*	1.195E+00	2.146E-01	1.275E-01	1.354E-02	9.370
	+	1120.29		1.775E+00	7.063E-01	4.548E-01	4.905E-02	3.903
	+	1764.49		2.056E+00	5.007E-01	2.483E-01	2.055E-02	8.279
PB-214	+	74.82		4.574E+00	9.943E-01	9.663E-01	1.109E-01	4.733
	+	77.11		4.379E+00	7.062E-01	5.516E-01	6.530E-02	7.938
	+	242.00		2.433E+00	6.808E-01	5.619E-01	7.009E-02	4.329
	+	295.22		1.811E+00	3.613E-01	2.232E-01	3.007E-02	8.114
	+	351.93	*	1.595E+00	2.625E-01	1.246E-01	1.523E-02	12.803
RA-224	+	240.99	*	4.301E+00	1.178E+00	9.902E-01	1.091E-01	4.344
RA-226	+	609.32	*	1.195E+00	2.146E-01	1.275E-01	1.354E-02	9.370
	+	1120.29		1.775E+00	7.063E-01	4.548E-01	4.905E-02	3.903
	+	1764.49		2.056E+00	5.007E-01	2.483E-01	2.055E-02	8.279
AC-228	+	338.32		2.082E+00	9.849E-01	3.956E-01	1.671E-01	5.262
	+	911.20	*	2.648E+00	4.657E-01	2.487E-01	3.036E-02	10.647
	+	968.97		2.188E+00	6.967E-01	4.587E-01	1.128E-01	4.771

Sample ID : G248818005 Acquisition date : 23-MAR-2010 13:33:35

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	+	338.32		2.082E+00	9.849E-01	3.956E-01	1.671E-01	5.262
	+	911.20	*	2.648E+00	4.657E-01	2.487E-01	3.036E-02	10.647
	+	968.97		2.188E+00	6.967E-01	4.587E-01	1.128E-01	4.771
TH-228	+	74.82		2.580E+00	5.232E-01	5.452E-01	4.565E-02	4.733
	+	77.11		2.484E+00	3.443E-01	3.129E-01	2.658E-02	7.938
	+	238.63	*	1.974E+00	2.662E-01	9.237E-02	1.097E-02	21.368
	+	300.09		1.237E+00	1.417E+00	1.225E+00	7.562E-01	1.009
TH-230	+	609.32	*	1.195E+00	2.051E-01	1.275E-01	1.175E-02	9.370
	+	1120.29		1.775E+00	6.962E-01	4.548E-01	3.843E-02	3.903
	+	1764.49		2.056E+00	5.006E-01	2.483E-01	2.055E-02	8.279
TH-232	+	338.32		2.082E+00	4.982E-01	3.956E-01	4.318E-02	5.262
	+	911.20	*	2.648E+00	4.657E-01	2.487E-01	3.036E-02	10.647
	+	968.97		2.188E+00	6.967E-01	4.587E-01	1.128E-01	4.771
TH-234	+	63.29	*	2.623E+00	1.879E+00	2.044E+00	3.645E-01	1.283
	+	92.59		3.757E+00	1.239E+00	9.571E-01	2.136E-01	3.926
U-235	+	89.96		2.476E+00	1.103E+00	1.191E+00	2.966E-01	2.080
	+	93.35		2.838E+00	9.557E-01	7.192E-01	1.676E-01	3.946
		143.76	*	1.121E-01	2.054E-01	3.418E-01	5.784E-02	0.328
		163.33		-1.702E-01	4.440E-01	7.184E-01	1.303E-01	-0.237
	+	185.72		1.940E-01	7.645E-02	6.857E-02	6.550E-03	2.829
		205.31		-9.990E-03	5.233E-01	7.590E-01	1.433E-01	-0.013
NP-237	+	86.48	*	1.334E+00	4.370E-01	3.444E-01	7.922E-02	3.874
		95.86		-5.182E-01	9.515E-01	1.396E+00	3.368E-01	-0.371
U-238	+	63.29	*	2.623E+00	1.879E+00	2.044E+00	3.645E-01	1.283
	+	92.59		3.757E+00	9.759E-01	9.571E-01	8.815E-02	3.926
ANH-511	+	511.00	*	1.548E-01	7.572E-02	4.656E-02	4.429E-03	3.325

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.272E-01	3.689E-01	5.960E-01	6.028E-02	-0.213
NA-22		1274.54	*	9.539E-03	4.908E-02	8.122E-02	6.758E-03	0.117
NA-24		1368.63	*	-9.414E+01	4.908E-02	Half-Life too short		
SC-46		889.28	*	1.194E-02	4.281E-02	7.331E-02	6.931E-03	0.163
	+	1120.55		3.128E-01	1.227E-01	1.531E-01	1.293E-02	2.043
V-48		944.13		7.395E-01	1.169E+00	2.052E+00	1.917E-01	0.360
		983.53	*	8.892E-02	8.575E-02	1.563E-01	1.438E-02	0.569
		1312.11		-1.403E-02	1.121E-01	1.786E-01	1.499E-02	-0.079
CR-51		320.08	*	-8.929E-02	4.552E-01	6.998E-01	8.177E-02	-0.128
MN-54		834.85	*	3.005E-02	3.938E-02	6.997E-02	6.571E-03	0.429
CO-56		846.77	*	-6.188E-02	4.453E-02	6.458E-02	6.077E-03	-0.958
		1037.84		6.053E-02	3.767E-01	6.305E-01	5.921E-02	0.096
	+	1238.28		2.567E-01	1.882E-01	2.179E-01	1.849E-02	1.178
		1771.35		-9.311E-02	2.470E-01	3.760E-01	3.107E-02	-0.248
CO-57		122.06	*	1.834E-02	2.516E-02	4.334E-02	3.602E-03	0.423
		136.47		1.851E-01	2.107E-01	3.626E-01	3.293E-02	0.511
CO-58		810.76	*	-4.647E-02	4.111E-02	6.140E-02	5.753E-03	-0.757
FE-59		1099.45	*	1.991E-02	1.154E-01	1.924E-01	1.788E-02	0.103

Sample ID : G248818005 Acquisition date : 23-MAR-2010 13:33:35

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1291.59		1.669E-02	1.486E-01	2.437E-01	2.327E-02	0.068
CO-60		1173.23		-5.833E-03	5.299E-02	8.568E-02	6.889E-03	-0.068
		1332.49	*	2.330E-03	4.354E-02	7.080E-02	5.972E-03	0.033
ZN-65		1115.54	*	-7.366E-03	1.107E-01	1.557E-01	1.322E-02	-0.047
SE-75		121.12		2.007E-02	1.351E-01	2.277E-01	2.469E-02	0.088
		136.00		1.010E-02	4.156E-02	6.992E-02	5.936E-03	0.144
		264.66	*	1.780E-02	5.218E-02	7.647E-02	8.924E-03	0.233
		279.54		-1.440E-01	1.233E-01	1.810E-01	2.216E-02	-0.795
		400.66		4.971E-02	2.835E-01	4.803E-01	5.579E-02	0.103
SR-85		514.00	*	2.003E-02	4.256E-02	6.456E-02	6.138E-03	0.310
Y-88		898.04		-2.890E-03	4.221E-02	7.000E-02	6.648E-03	-0.041
		1836.06	*	1.914E-02	3.405E-02	6.237E-02	5.064E-03	0.307
Y-91		1204.77	*	1.367E+01	2.937E+01	4.958E+01	4.032E+00	0.276
NB-94		702.65	*	1.209E-02	3.860E-02	6.367E-02	5.756E-03	0.190
		871.09		5.228E-03	3.592E-02	6.088E-02	5.746E-03	0.086
NB-95		765.81	*	-9.827E-03	5.508E-02	8.677E-02	8.021E-03	-0.113
NB-95M		235.69	*	5.759E-03	1.436E-01	2.073E-01	2.469E-02	0.028
ZR-95		724.19		7.428E-03	1.197E-01	1.689E-01	1.656E-02	0.044
		756.73	*	2.924E-02	8.219E-02	1.358E-01	1.367E-02	0.215
MO-99		140.51		-6.607E+01	8.063E+01	1.248E+02	2.958E+01	-0.529
		181.07		8.228E-01	6.587E+01	1.031E+02	1.977E+01	0.008
		366.42		-4.661E+01	3.246E+02	5.423E+02	5.486E+01	-0.086
		739.50	*	8.944E+00	4.506E+01	7.357E+01	1.182E+01	0.122
		777.92		3.655E+01	1.377E+02	2.252E+02	2.089E+01	0.162
TC-99M		140.51	*	-2.831E+16	1.377E+02	Half-Life too short		
RU-103		497.08	*	-4.382E-02	4.628E-02	7.023E-02	1.021E-02	-0.624
	+	610.33		1.345E+01	2.972E+00	3.247E+00	5.411E-01	4.143
RH-106		621.93	*	7.834E-03	3.140E-01	5.115E-01	6.957E-02	0.015
		1050.41		-2.688E+00	2.973E+00	4.460E+00	3.965E-01	-0.603
RU-106		621.93	*	7.834E-03	3.140E-01	5.115E-01	4.677E-02	0.015
		1050.41		-2.688E+00	2.973E+00	4.460E+00	3.965E-01	-0.603
AG-108M		433.94	*	-2.902E-03	3.046E-02	5.048E-02	4.884E-03	-0.057
		614.28		5.411E-02	4.004E-02	6.520E-02	6.164E-03	0.830
		722.91		-1.419E-02	4.621E-02	6.219E-02	5.830E-03	-0.228
AG-110M		657.76	*	4.946E-03	3.665E-02	6.001E-02	5.493E-03	0.082
		677.62		-2.219E-02	3.528E-01	5.664E-01	5.200E-02	-0.039
		706.68		-8.015E-02	2.388E-01	3.726E-01	3.462E-02	-0.215
		763.94		-9.691E-02	1.919E-01	2.929E-01	2.771E-02	-0.331
		884.68		1.188E-02	5.305E-02	9.043E-02	8.775E-03	0.131
		937.49		4.375E-02	1.316E-01	1.990E-01	1.920E-02	0.220
		1384.29		5.389E-02	1.652E-01	2.783E-01	2.429E-02	0.194
		1505.03		9.422E-02	2.365E-01	3.790E-01	3.241E-02	0.249
SN-113		391.69	*	-3.750E-02	4.687E-02	7.446E-02	7.068E-03	-0.504
CD-115		260.90		-5.785E-04	4.687E-02	Half-Life too short		
		492.35		1.154E-04	4.687E-02	Half-Life too short		
		527.90	*	2.375E-05	4.687E-02	Half-Life too short		
SN-117M		156.02		-1.059E-01	2.831E+00	4.675E+00	4.123E-01	-0.023
		158.56	*	-7.068E-02	7.207E-02	1.123E-01	9.972E-03	-0.629
TE-123M		159.00	*	-2.356E-02	2.988E-02	4.705E-02	4.208E-03	-0.501

Sample ID : G248818005 Acquisition date : 23-MAR-2010 13:33:35

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-124		602.73		-2.753E-03	5.205E-02	7.379E-02	6.826E-03	-0.037
		645.85		1.893E-01	5.420E-01	9.048E-01	8.566E-02	0.209
		722.78		-2.818E-01	5.120E-01	6.675E-01	6.208E-02	-0.422
		1690.97	*	-3.192E-02	8.074E-02	1.229E-01	1.079E-02	-0.260
SB-125		427.87	*	-7.697E-02	9.896E-02	1.564E-01	1.494E-02	-0.492
	+	463.37		6.588E-01	4.048E-01	5.806E-01	5.854E-02	1.135
		600.60		6.214E-02	1.936E-01	3.231E-01	3.185E-02	0.192
		635.95		-9.248E-02	2.941E-01	4.638E-01	4.511E-02	-0.199
TE-125M		109.28	*	1.848E+01	1.088E+01	1.770E+01	1.832E+00	1.044
I-126		388.63		8.044E-02	2.339E-01	4.006E-01	3.748E-02	0.201
		666.33	*	3.792E-01	3.290E-01	5.765E-01	5.128E-02	0.658
		753.82		-4.485E-01	2.636E+00	4.150E+00	3.822E-01	-0.108
SB-126		414.70		-5.440E-02	1.025E-01	1.652E-01	1.545E-02	-0.329
		666.50		8.137E-02	1.173E-01	1.993E-01	1.773E-02	0.408
		695.00		-5.346E-02	1.170E-01	1.811E-01	1.631E-02	-0.295
		697.00		1.051E-01	3.919E-01	6.453E-01	5.819E-02	0.163
		720.70	*	1.223E-01	2.055E-01	3.470E-01	3.159E-02	0.352
		856.80		2.026E-01	7.358E-01	1.109E+00	1.045E-01	0.183
SB-127		252.40		-1.870E+00	1.111E+01	1.765E+01	7.525E+00	-0.106
		473.00		-7.709E-01	4.064E+00	6.642E+00	9.788E-01	-0.116
		685.70	*	-7.151E-02	3.311E+00	5.328E+00	7.021E-01	-0.013
		783.70		8.117E+00	9.393E+00	1.605E+01	2.286E+00	0.506
I-131		80.19		8.420E+00	7.968E+00	1.058E+01	9.397E-01	0.796
		284.31		1.520E+00	2.352E+00	3.892E+00	4.787E-01	0.391
		364.49	*	-8.304E-02	1.752E-01	2.865E-01	3.039E-02	-0.290
		636.99		-2.402E+00	2.572E+00	3.800E+00	3.633E-01	-0.632
TE-132		49.72		-7.456E+01	5.388E+01	7.697E+01	9.356E+00	-0.969
		111.76		-7.883E+01	9.186E+01	1.480E+02	1.830E+01	-0.532
		116.30		1.891E+01	8.001E+01	1.356E+02	1.671E+01	0.139
		228.16	*	-1.101E+00	2.285E+00	3.593E+00	6.482E-01	-0.306
BA-133		81.00		5.391E-03	1.134E-01	1.400E-01	2.191E-02	0.039
		276.40		4.703E-01	3.884E-01	6.356E-01	1.039E-01	0.740
		302.85		-4.739E-02	1.655E-01	2.277E-01	3.473E-02	-0.208
		356.01	*	4.893E-02	4.667E-02	7.480E-02	1.064E-02	0.654
		383.85		3.178E-02	3.212E-01	5.383E-01	7.037E-02	0.059
I-133		529.87	*	2.290E-02	3.212E-01	Half-Life too short		
		875.33		4.281E+00	3.212E-01	Half-Life too short		
		1298.22		4.534E+00	3.212E-01	Half-Life too short		
CS-134		563.25		5.601E-01	4.014E-01	7.173E-01	6.804E-02	0.781
		569.33		1.265E-01	1.939E-01	3.338E-01	3.171E-02	0.379
		604.72		-8.254E-03	4.191E-02	5.847E-02	5.413E-03	-0.141
	+	795.86	*	1.154E-01	8.100E-02	1.078E-01	1.011E-02	1.071
		801.95		-1.951E-01	4.669E-01	7.258E-01	6.806E-02	-0.269
		1365.19		-2.063E-01	1.366E+00	2.154E+00	1.913E-01	-0.096
CS-135		268.22	*	1.130E-01	1.835E-01	2.731E-01	3.483E-02	0.414
I-135		546.56		3.841E+15	1.835E-01	Half-Life too short		
		836.80		9.679E+15	1.835E-01	Half-Life too short		
		1038.76		3.609E+15	1.835E-01	Half-Life too short		
		1131.51		4.858E+14	1.835E-01	Half-Life too short		

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		1260.41	*	-5.728E+14	1.835E-01	Half-Life too short		
		1457.56		2.870E+17	1.835E-01	Half-Life too short		
		1678.03		-7.075E+14	1.835E-01	Half-Life too short		
		1791.20		4.382E+15	1.835E-01	Half-Life too short		
CS-136		153.25		5.119E-01	1.086E+00	1.833E+00	1.904E-01	0.279
		176.60		1.496E-01	6.596E-01	1.095E+00	1.112E-01	0.137
		273.65		-5.637E-01	7.819E-01	1.044E+00	1.296E-01	-0.540
		340.55		1.683E-01	2.006E-01	3.183E-01	3.541E-02	0.529
		818.51		6.929E-02	1.039E-01	1.839E-01	1.724E-02	0.377
		1048.07	*	1.037E-01	1.535E-01	2.686E-01	2.487E-02	0.386
		1235.36		1.263E+00	1.111E+00	1.729E+00	1.984E-01	0.730
BA-137M		661.66	*	-3.009E-02	4.093E-02	6.202E-02	5.504E-03	-0.485
CS-137		661.66	*	-3.179E-02	4.324E-02	6.552E-02	5.825E-03	-0.485
CE-139		165.86	*	-7.717E-03	3.127E-02	5.098E-02	4.624E-03	-0.151
BA-140		162.66		1.875E-01	1.076E+00	1.789E+00	1.708E-01	0.105
		304.85		-1.243E+00	2.199E+00	2.908E+00	8.809E-01	-0.427
		423.72		7.917E-01	2.739E+00	4.638E+00	1.535E+00	0.171
		537.26	*	4.033E-02	3.600E-01	5.963E-01	2.036E-01	0.068
LA-140		328.76		1.870E-01	4.387E-01	7.105E-01	8.193E-02	0.263
		487.02		-5.446E-02	1.840E-01	2.976E-01	2.975E-02	-0.183
		815.77		4.805E-01	4.695E-01	8.493E-01	8.746E-02	0.566
		1596.21	*	-1.460E-01	1.245E-01	1.683E-01	1.434E-02	-0.867
CE-141		145.44	*	-2.621E-02	6.958E-02	1.136E-01	9.939E-03	-0.231
CE-143		57.36		2.435E-03	6.958E-02	Half-Life too short		
		293.27	*	5.979E-03	6.958E-02	Half-Life too short		
		664.57		1.168E-02	6.958E-02	Half-Life too short		
		721.93		1.614E-03	6.958E-02	Half-Life too short		
CE-144		80.12		2.949E+00	2.842E+00	3.770E+00	3.310E-01	0.782
		133.52	*	-5.351E-02	2.252E-01	3.322E-01	5.036E-02	-0.161
PM-144		476.78		-3.690E-02	7.071E-02	1.127E-01	1.148E-02	-0.327
		618.01		-2.074E-02	3.459E-02	5.324E-02	5.003E-03	-0.389
		696.49	*	-6.796E-03	4.027E-02	6.399E-02	5.773E-03	-0.106
PR-144		696.51	*	-4.918E-01	3.023E+00	4.806E+00	4.333E-01	-0.102
		1489.16		4.156E-01	1.128E+01	1.900E+01	1.624E+00	0.022
PM-146		453.88	*	1.787E-02	4.497E-02	7.667E-02	8.661E-03	0.233
		633.25		1.538E+00	1.562E+00	2.564E+00	9.822E-01	0.600
		735.93		-2.067E-01	1.668E-01	2.168E-01	6.113E-02	-0.953
		747.24		5.320E-02	1.011E-01	1.696E-01	2.532E-02	0.314
ND-147	+	91.11		1.096E+00	4.194E-01	6.538E-01	6.539E-02	1.676
		319.41		-8.149E-01	4.955E+00	7.636E+00	8.671E-01	-0.107
		531.02	*	-2.097E-01	7.763E-01	1.247E+00	1.929E-01	-0.168
PM-149		285.90	*	-5.151E-04	7.763E-01	Half-Life too short		
EU-152		121.78		4.908E-02	7.208E-02	1.239E-01	1.193E-02	0.396
		244.70		1.750E-01	3.637E-01	5.402E-01	6.006E-02	0.324
		344.28	*	9.708E-03	9.496E-02	1.567E-01	1.751E-02	0.062
		778.90		-1.144E-01	2.886E-01	4.425E-01	4.105E-02	-0.259
	+	964.08		6.016E-01	3.835E-01	5.831E-01	5.409E-02	1.032
		1085.87		1.875E-01	4.355E-01	7.443E-01	6.461E-02	0.252
		1112.07		-4.604E-02	3.785E-01	5.281E-01	4.493E-02	-0.087

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		1408.01		9.236E-02	1.726E-01	3.000E-01	2.555E-02	0.308
GD-153		69.67		3.639E-01	1.823E+00	2.849E+00	2.245E-01	0.128
		97.43	*	-2.262E-02	9.001E-02	1.352E-01	1.201E-02	-0.167
		103.18		-1.768E-02	1.163E-01	1.750E-01	1.508E-02	-0.101
EU-154		123.07		6.890E-03	5.065E-02	8.528E-02	9.478E-03	0.081
		723.31		-4.824E-02	1.977E-01	2.679E-01	2.664E-02	-0.180
		873.19		-1.135E-01	2.887E-01	4.645E-01	5.807E-02	-0.244
		996.26		-6.336E-01	4.417E-01	6.109E-01	1.084E-01	-1.037
		1004.73		-3.747E-01	2.483E-01	3.446E-01	4.138E-02	-1.087
		1274.44	*	-3.534E-02	1.447E-01	2.286E-01	2.548E-02	-0.155
TB-160	+	86.79		1.508E+00	3.795E-01	5.436E-01	5.163E-02	2.775
		197.04		-8.053E-01	6.390E-01	9.500E-01	9.355E-02	-0.848
		215.65		5.061E-01	8.096E-01	1.353E+00	1.399E-01	0.374
	+	298.57		1.826E-01	1.775E-01	2.165E-01	2.541E-02	0.844
		879.36	*	3.536E-02	1.419E-01	2.430E-01	2.295E-02	0.146
		962.29		1.499E-01	6.536E-01	9.839E-01	9.134E-02	0.152
		966.15		9.520E-01	2.982E-01	5.660E-01	5.247E-02	1.682
		1177.93		-7.563E-03	4.303E-01	7.013E-01	5.649E-02	-0.011
		1271.85		9.090E-02	8.280E-01	1.359E+00	1.128E-01	0.067
HO-166M		80.57		5.380E-02	3.250E-01	4.049E-01	3.573E-02	0.133
		184.41		6.830E-02	4.401E-02	7.069E-02	6.729E-03	0.966
		280.46		-1.374E-01	9.305E-02	1.326E-01	1.591E-02	-1.036
		410.95		3.367E-01	2.678E-01	4.773E-01	4.456E-02	0.705
		711.68	*	-4.509E-02	6.498E-02	9.743E-02	8.840E-03	-0.463
		752.31		-1.241E-01	3.086E-01	4.750E-01	4.373E-02	-0.261
		810.29		-7.323E-02	5.891E-02	8.671E-02	8.106E-03	-0.845
TA-182		67.75		-1.011E-01	1.203E-01	1.786E-01	1.382E-02	-0.566
		100.11		4.355E-02	1.791E-01	3.055E-01	2.672E-02	0.143
		152.43		-2.084E-01	3.466E-01	5.577E-01	4.873E-02	-0.374
		222.11		1.318E-01	3.839E-01	6.326E-01	6.653E-02	0.208
		1121.30		6.831E-01	2.322E-01	4.090E-01	3.453E-02	1.670
		1189.05		1.895E-01	3.688E-01	6.283E-01	5.081E-02	0.302
		1221.41	*	1.905E-02	2.356E-01	3.861E-01	3.158E-02	0.049
		1231.02		-4.272E-01	7.050E-01	9.169E-01	7.522E-02	-0.466
IR-192	+	295.96		1.403E+00	2.649E-01	3.326E-01	3.934E-02	4.217
		308.46		1.041E-01	1.051E-01	1.766E-01	2.049E-02	0.589
		316.51	*	-7.570E-03	3.817E-02	5.962E-02	6.814E-03	-0.127
		468.07		2.406E-02	7.580E-02	1.198E-01	1.206E-02	0.201
HG-203		70.83		9.301E-01	1.466E+00	2.323E+00	3.651E-01	0.400
		72.87		1.414E-01	8.637E-01	1.344E+00	2.052E-01	0.105
		279.20	*	-1.717E-02	4.503E-02	6.826E-02	8.307E-03	-0.251
BI-207		72.81		2.616E-02	1.855E-01	2.885E-01	2.344E-02	0.091
	+	74.97		7.439E-01	1.506E-01	2.322E-01	1.928E-02	3.204
		569.70		1.608E-02	3.095E-02	5.270E-02	4.948E-03	0.305
		1063.66	*	1.007E-02	5.788E-02	9.689E-02	8.541E-03	0.104
		1770.23		-1.846E+00	7.031E-01	6.093E-01	5.036E-02	-3.029
PB-210		46.54	*	1.552E+00	3.672E+00	5.843E+00	5.402E-01	0.266
PB-211		404.85	*	-6.099E-01	8.388E-01	1.254E+00	6.085E-01	-0.486
		427.09		-5.251E-01	1.653E+00	2.674E+00	1.241E+00	-0.196

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		832.01		-1.510E+00	1.267E+00	1.431E+00	7.441E-01	-1.055
RN-219	+	271.23		6.999E-01	4.565E-01	4.755E-01	6.205E-02	1.472
		401.81	*	2.941E-01	4.447E-01	7.702E-01	1.176E-01	0.382
RA-223		81.07		8.433E-03	2.564E-01	3.162E-01	2.806E-02	0.027
		83.79		2.708E-01	1.231E-01	2.150E-01	1.970E-02	1.260
		94.87		5.645E-01	4.619E-01	7.422E-01	6.712E-02	0.761
		144.24		4.208E-01	6.932E-01	1.159E+00	1.110E-01	0.363
		154.21		6.968E-02	3.789E-01	6.321E-01	6.061E-02	0.110
	+	269.46		5.438E-01	3.535E-01	3.658E-01	4.349E-02	1.487
		323.87	*	1.873E-02	6.956E-01	1.102E+00	2.070E-01	0.017
	+	338.28		8.260E+00	2.097E+00	2.763E+00	3.814E-01	2.990
AC-227		79.69		2.055E-01	1.492E+00	1.856E+00	3.210E-01	0.111
		235.96		6.876E-02	1.642E-01	2.429E-01	2.987E-02	0.283
		256.23	*	-1.310E-01	2.688E-01	4.186E-01	5.940E-02	-0.313
	+	299.98		1.360E+00	1.328E+00	1.668E+00	2.498E-01	0.816
		304.50		-1.280E+00	2.002E+00	2.651E+00	4.848E-01	-0.483
		334.37		-8.952E-01	1.970E+00	2.842E+00	4.839E-01	-0.315
TH-227		79.80		2.580E-01	1.966E+00	2.444E+00	5.335E-01	0.106
		235.96		6.876E-02	1.642E-01	2.429E-01	2.868E-02	0.283
		256.23	*	-1.310E-01	2.689E-01	4.186E-01	6.502E-02	-0.313
	+	299.98		1.360E+00	1.328E+00	1.668E+00	2.498E-01	0.816
		304.50		-1.280E+00	2.002E+00	2.651E+00	4.848E-01	-0.483
		334.37		-8.952E-01	1.970E+00	2.842E+00	4.839E-01	-0.315
TH-229		85.43		3.468E-01	1.896E-01	3.376E-01	3.154E-02	1.027
	+	88.47		6.894E-01	1.734E-01	2.219E-01	2.128E-02	3.106
		193.51	*	2.547E-01	5.405E-01	9.021E-01	8.800E-02	0.282
		210.85		8.953E-01	9.890E-01	1.513E+00	1.546E-01	0.592
PA-231		283.69	*	-1.684E-03	1.538E+00	2.454E+00	4.116E-01	-0.001
		301.36		6.414E-01	7.070E-01	1.043E+00	1.512E-01	0.615
TH-231		81.07		8.433E-03	2.564E-01	3.162E-01	2.806E-02	0.027
		83.79		2.708E-01	1.231E-01	2.150E-01	1.970E-02	1.260
		94.87		5.645E-01	4.619E-01	7.422E-01	6.712E-02	0.761
		144.24		4.208E-01	6.932E-01	1.159E+00	1.110E-01	0.363
		154.21		6.968E-02	3.789E-01	6.321E-01	6.061E-02	0.110
	+	269.46		5.438E-01	3.535E-01	3.658E-01	4.349E-02	1.487
		323.87	*	1.873E-02	6.956E-01	1.102E+00	2.070E-01	0.017
	+	338.28		8.260E+00	2.097E+00	2.763E+00	3.814E-01	2.990
PA-233	+	300.13		6.155E-01	6.030E-01	7.550E-01	1.270E-01	0.815
		311.90	*	-4.634E-03	6.629E-02	1.046E-01	1.223E-02	-0.044
		340.48		6.307E-01	6.794E-01	1.061E+00	2.649E-01	0.594
PA-234		94.67		3.320E-01	1.736E-01	2.810E-01	3.571E-02	1.182
		98.44		6.620E-02	9.962E-02	1.543E-01	8.612E-02	0.429
		111.00		-7.198E-02	1.723E-01	2.845E-01	3.396E-02	-0.253
		131.20		-2.944E-02	1.142E-01	1.684E-01	1.409E-02	-0.175
		569.50		1.963E-01	2.681E-01	4.640E-01	4.356E-02	0.423
		733.00		-2.201E-01	4.358E-01	6.351E-01	1.423E-01	-0.347
		880.51		-1.111E-01	2.761E-01	4.427E-01	4.182E-02	-0.251
		883.24		1.073E-01	2.976E-01	4.994E-01	3.362E-01	0.215
		926.50		-7.682E-03	1.914E-01	3.092E-01	7.900E-02	-0.025

Sample ID : G248818005 Acquisition date : 23-MAR-2010 13:33:35

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	1.962E-01	3.133E-01	5.476E-01	1.046E-01	0.358
		949.00		-2.956E-01	4.662E-01	7.254E-01	6.766E-02	-0.408
PA-234M		766.42		1.172E+01	1.508E+01	2.357E+01	1.198E+01	0.497
		1001.03	*	2.142E+00	5.398E+00	9.309E+00	9.692E-01	0.230
NP-239		99.53		4.580E-02	1.608E-01	2.748E-01	2.411E-02	0.167
		103.37		-9.016E-03	1.045E-01	1.579E-01	1.360E-02	-0.057
	+	106.12		2.019E-01	1.167E-01	1.455E-01	1.240E-02	1.387
		117.23	*	-3.559E-01	3.878E-01	6.234E-01	5.189E-02	-0.571
		228.18		-1.101E-01	2.313E-01	3.647E-01	3.894E-02	-0.302
		277.60		1.561E-01	1.911E-01	3.104E-01	3.716E-02	0.503
AM-241		59.54	*	4.214E-02	1.706E-01	2.472E-01	1.940E-02	0.170
CM-247		278.00		4.166E-01	8.128E-01	1.301E+00	1.559E-01	0.320
		287.50		1.225E-01	1.306E+00	2.095E+00	2.494E-01	0.058
		402.40	*	4.034E-02	4.061E-02	7.167E-02	6.664E-03	0.563
CF-249		252.80		8.686E-01	9.846E-01	1.656E+00	1.876E-01	0.525
		333.37		2.528E-02	2.070E-01	3.132E-01	3.457E-02	0.081
		388.16	*	1.938E-02	4.320E-02	7.440E-02	6.974E-03	0.260
CF-251		177.52	*	-1.120E-02	1.347E-01	2.204E-01	2.060E-02	-0.051
		227.38		-5.144E-01	3.851E-01	5.735E-01	6.113E-02	-0.897
		285.41		-1.242E+00	2.322E+00	3.571E+00	4.262E-01	-0.348

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818005      *
* Acquisition date : 23-MAR-2010 13:33:35 Detector SN#     :               *
* Detector ID        : GAM16               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:02.04     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        :  3-MAR-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G248818005          Analyst initials: MXR1           *
* Batch Number       : 962631              Sample Quantity : 1.1315E+02 GRAM *
* Recovery           :    1.00000          Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM            :    0.000            MSD Isotope     :               *
* LCS DPM            :    0.000            LCS Isotope     :               *
* LCSD DPM           :    0.000            LCSD Isotope    :               *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.104E+01	4.111E+00	5.373E-01	0.000E+00
CD-109	4.609E+00	1.136E+00	1.194E+00	0.000E+00
SN-126	4.472E-01	1.102E-01	1.164E-01	0.000E+00
EU-155	2.536E-01	1.438E-01	1.760E-01	0.000E+00
TL-208	5.786E-01	1.093E-01	6.189E-02	0.000E+00
BI-211	4.394E+00	6.679E-01	3.254E-01	0.000E+00
BI-212	2.193E+00	7.987E-01	9.146E-01	0.000E+00
PB-212	1.974E+00	2.609E-01	9.341E-02	0.000E+00
BI-214	1.195E+00	2.103E-01	1.279E-01	0.000E+00
PB-214	1.595E+00	2.573E-01	1.255E-01	0.000E+00
RA-224	4.301E+00	1.154E+00	1.001E+00	0.000E+00
RA-226	1.195E+00	2.103E-01	1.279E-01	0.000E+00
AC-228	2.648E+00	4.563E-01	2.486E-01	0.000E+00
RA-228	2.648E+00	4.563E-01	2.486E-01	0.000E+00
TH-228	1.974E+00	2.609E-01	9.341E-02	0.000E+00
TH-230	1.195E+00	2.010E-01	1.279E-01	0.000E+00
TH-232	2.648E+00	4.563E-01	2.486E-01	0.000E+00
TH-234	2.623E+00	1.842E+00	2.091E+00	0.000E+00
U-235	1.121E-01	2.013E-01	3.472E-01	0.000E+00
NP-237	1.334E+00	4.282E-01	3.513E-01	0.000E+00
U-238	2.623E+00	1.842E+00	2.091E+00	0.000E+00
ANH-511	1.548E-01	7.420E-02	4.678E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-1.272E-01		3.615E-01	5.991E-01	0.000E+00	NOT IDENT.
NA-22	9.539E-03		4.810E-02	8.094E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		1.845E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	1.194E-02		4.196E-02	7.330E-02	0.000E+00	FAIL ABUN
V-48	8.892E-02		8.403E-02	1.561E-01	0.000E+00	NOT IDENT.

CR-51	-8.929E-02	4.461E-01	7.059E-01	0.000E+00	NOT IDENT.
MN-54	3.005E-02	3.859E-02	6.999E-02	0.000E+00	NOT IDENT.
CO-56	-6.188E-02	4.364E-02	6.459E-02	0.000E+00	FAIL ABUN
CO-57	1.834E-02	2.466E-02	4.408E-02	0.000E+00	NOT IDENT.
CO-58	-4.647E-02	4.029E-02	6.144E-02	0.000E+00	NOT IDENT.
FE-59	1.991E-02	1.131E-01	1.920E-01	0.000E+00	NOT IDENT.
CO-60	2.330E-03	4.267E-02	7.053E-02	0.000E+00	NOT IDENT.
ZN-65	-7.366E-03	1.085E-01	1.554E-01	0.000E+00	NOT IDENT.
SE-75	1.780E-02	5.113E-02	7.726E-02	0.000E+00	NOT IDENT.
SR-85	2.003E-02	4.171E-02	6.485E-02	0.000E+00	NOT IDENT.
Y-88	1.914E-02	3.337E-02	6.196E-02	0.000E+00	NOT IDENT.
Y-91	1.367E+01	2.878E+01	4.944E+01	0.000E+00	NOT IDENT.
NB-94	1.209E-02	3.783E-02	6.379E-02	0.000E+00	NOT IDENT.
NB-95	-9.827E-03	5.398E-02	8.686E-02	0.000E+00	NOT IDENT.
NB-95M	5.759E-03	1.407E-01	2.097E-01	0.000E+00	NOT IDENT.
ZR-95	2.924E-02	8.055E-02	1.360E-01	0.000E+00	NOT IDENT.
MO-99	8.944E+00	4.416E+01	7.368E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.484E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.382E-02	4.536E-02	7.057E-02	0.000E+00	FAIL ABUN
RH-106	7.834E-03	3.078E-01	5.130E-01	0.000E+00	NOT IDENT.
RU-106	7.834E-03	3.077E-01	5.130E-01	0.000E+00	NOT IDENT.
AG-108M	-2.902E-03	2.985E-02	5.078E-02	0.000E+00	NOT IDENT.
AG-110M	4.946E-03	3.592E-02	6.016E-02	0.000E+00	NOT IDENT.
SN-113	-3.750E-02	4.593E-02	7.498E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	5.273E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-7.068E-02	7.062E-02	1.139E-01	0.000E+00	NOT IDENT.
TE-123M	-2.356E-02	2.929E-02	4.775E-02	0.000E+00	NOT IDENT.
SB-124	-3.192E-02	7.913E-02	1.221E-01	0.000E+00	NOT IDENT.
SB-125	-7.697E-02	9.698E-02	1.574E-01	0.000E+00	FAIL ABUN
TE-125M	0.000E+00	1.066E+01	1.802E+01	0.000E+00	NOT IDENT.
I-126	3.792E-01	3.225E-01	5.778E-01	0.000E+00	NOT IDENT.
SB-126	1.223E-01	2.014E-01	3.476E-01	0.000E+00	NOT IDENT.
SB-127	-7.151E-02	3.244E+00	5.339E+00	0.000E+00	NOT IDENT.
I-131	-8.304E-02	1.717E-01	2.887E-01	0.000E+00	NOT IDENT.
TE-132	-1.101E+00	2.240E+00	3.635E+00	0.000E+00	NOT IDENT.
BA-133	4.893E-02	4.574E-02	7.538E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.117E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.938E-02	1.079E-01	0.000E+00	FAIL ABUN
CS-135	1.130E-01	1.798E-01	2.759E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.999E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.037E-01	1.505E-01	2.681E-01	0.000E+00	NOT IDENT.
BA-137M	-3.009E-02	4.011E-02	6.217E-02	0.000E+00	NOT IDENT.
CS-137	-3.179E-02	4.237E-02	6.567E-02	0.000E+00	NOT IDENT.
CE-139	-7.717E-03	3.065E-02	5.172E-02	0.000E+00	NOT IDENT.
BA-140	4.033E-02	3.528E-01	5.988E-01	0.000E+00	NOT IDENT.
LA-140	-1.460E-01	1.220E-01	1.674E-01	0.000E+00	NOT IDENT.
CE-141	-2.621E-02	6.819E-02	1.154E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.474E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-5.351E-02	2.207E-01	3.377E-01	0.000E+00	NOT IDENT.
PM-144	-6.796E-03	3.947E-02	6.411E-02	0.000E+00	NOT IDENT.
PR-144	-4.918E-01	2.963E+00	4.815E+00	0.000E+00	NOT IDENT.
PM-146	1.787E-02	4.407E-02	7.711E-02	0.000E+00	NOT IDENT.
ND-147	-2.097E-01	7.607E-01	1.253E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	4.659E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	9.708E-03	9.306E-02	1.580E-01	0.000E+00	FAIL ABUN
GD-153	-2.262E-02	8.821E-02	1.378E-01	0.000E+00	NOT IDENT.
EU-154	-3.534E-02	1.418E-01	2.278E-01	0.000E+00	NOT IDENT.
TB-160	3.536E-02	1.391E-01	2.430E-01	0.000E+00	FAIL ABUN
HO-166M	-4.509E-02	6.368E-02	9.760E-02	0.000E+00	NOT IDENT.
TA-182	1.905E-02	2.309E-01	3.850E-01	0.000E+00	NOT IDENT.
IR-192	-7.570E-03	3.741E-02	6.015E-02	0.000E+00	FAIL ABUN
HG-203	-1.717E-02	4.413E-02	6.894E-02	0.000E+00	NOT IDENT.
BI-207	1.007E-02	5.672E-02	9.672E-02	0.000E+00	FAIL ABUN
PB-210	1.552E+00	3.599E+00	5.992E+00	0.000E+00	NOT IDENT.
PB-211	-6.099E-01	8.220E-01	1.263E+00	0.000E+00	NOT IDENT.
RN-219	2.941E-01	4.358E-01	7.754E-01	0.000E+00	FAIL ABUN
RA-223	1.873E-02	6.817E-01	1.111E+00	0.000E+00	FAIL ABUN
AC-227	-1.310E-01	2.634E-01	4.231E-01	0.000E+00	FAIL ABUN
TH-227	-1.310E-01	2.636E-01	4.231E-01	0.000E+00	FAIL ABUN
TH-229	2.547E-01	5.297E-01	9.140E-01	0.000E+00	FAIL ABUN
PA-231	-1.684E-03	1.507E+00	2.478E+00	0.000E+00	NOT IDENT.
TH-231	1.873E-02	6.817E-01	1.111E+00	0.000E+00	FAIL ABUN
PA-233	-4.634E-03	6.496E-02	1.055E-01	0.000E+00	FAIL ABUN
PA-234	1.962E-01	3.070E-01	5.472E-01	0.000E+00	NOT IDENT.
PA-234M	2.142E+00	5.290E+00	9.297E+00	0.000E+00	NOT IDENT.
NP-239	-3.559E-01	3.800E-01	6.343E-01	0.000E+00	FAIL ABUN
AM-241	4.214E-02	1.672E-01	2.530E-01	0.000E+00	NOT IDENT.
CM-247	4.034E-02	3.980E-02	7.216E-02	0.000E+00	NOT IDENT.

CF-249	1.938E-02	4.233E-02	7.492E-02	0.000E+00	NOT IDENT.
CF-251	-1.120E-02	1.320E-01	2.235E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:34:31.40

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818005.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 13:33:35
Sample ID         : G248818005           Sample quantity  : 1.13150E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.04  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1593	10.66*	1.208E+00	4.104E+01	4.104E+01	10.22
CD-109	88.03	312	3.70*	6.252E+00	4.472E+00	4.609E+00	25.16
SN-126	64.28	103	9.60	3.520E+00	1.011E+00	1.011E+00	70.89
	86.94	312	8.90	6.252E+00	1.859E+00	1.859E+00	47.63
	87.57	312	37.00*	6.252E+00	4.472E-01	4.472E-01	25.16
EU-155	86.55	312	30.70	6.252E+00	5.389E-01	5.433E-01	25.19
	105.31	113	21.10*	7.041E+00	2.516E-01	2.536E-01	57.84
TL-208	277.37	------	6.60	4.694E+00	------ Line Not Found		------
	583.19	396	85.00*	2.668E+00	5.786E-01	5.786E-01	19.28
	860.56	55	12.50	1.918E+00	7.626E-01	7.626E-01	56.77
BI-211	72.87	------	1.23	4.872E+00	------ Line Not Found		------
	351.06	674	12.92*	3.941E+00	4.394E+00	4.394E+00	15.51
BI-212	727.33	98	6.67*	2.222E+00	2.193E+00	2.193E+00	37.17
	785.37	------	1.10	2.079E+00	------ Line Not Found		------
	1620.50	28	1.47	1.117E+00	5.656E+00	5.656E+00	38.74
PB-212	74.82	409	10.28	5.112E+00	2.580E+00	2.580E+00	22.46
	77.11	687	17.10	5.367E+00	2.484E+00	2.484E+00	13.86
	238.63	1356	43.60*	5.226E+00	1.974E+00	1.974E+00	13.49
	300.09	55	3.30	4.437E+00	1.237E+00	1.237E+00	97.40
BI-214	609.32	422	45.49*	2.575E+00	1.195E+00	1.195E+00	17.97
	1120.29	121	14.92	1.517E+00	1.775E+00	1.775E+00	39.80
	1764.49	100	15.30	1.056E+00	2.056E+00	2.056E+00	24.35
PB-214	74.82	409	5.80	5.112E+00	4.573E+00	4.574E+00	21.74
	77.11	687	9.70	5.367E+00	4.379E+00	4.379E+00	16.13
	242.00	275	7.25	5.182E+00	2.433E+00	2.433E+00	27.99
	295.22	451	18.42	4.488E+00	1.811E+00	1.811E+00	19.95
	351.93	674	35.60*	3.941E+00	1.595E+00	1.595E+00	16.46
RA-224	240.99	275	4.10*	5.182E+00	4.301E+00	4.301E+00	27.38
RA-226	609.32	422	45.49*	2.575E+00	1.195E+00	1.195E+00	17.97
	1120.29	121	14.92	1.517E+00	1.775E+00	1.775E+00	39.80
	1764.49	100	15.30	1.056E+00	2.056E+00	2.056E+00	24.35
AC-228	338.32	287	11.27	4.059E+00	2.082E+00	2.082E+00	47.32

Sample ID : G248818005 Acquisition date : 23-MAR-2010 13:33:35

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	376	25.80*	1.825E+00	2.648E+00	2.648E+00	17.58
	968.97	180	15.80	1.728E+00	2.188E+00	2.188E+00	31.84
RA-228	338.32	287	11.27	4.059E+00	2.082E+00	2.082E+00	47.32
	911.20	376	25.80*	1.825E+00	2.648E+00	2.648E+00	17.58
	968.97	180	15.80	1.728E+00	2.188E+00	2.188E+00	31.84
TH-228	74.82	409	10.28	5.112E+00	2.580E+00	2.580E+00	20.28
	77.11	687	17.10	5.367E+00	2.484E+00	2.484E+00	13.86
	238.63	1356	43.60*	5.226E+00	1.974E+00	1.974E+00	13.49
	300.09	55	3.30	4.437E+00	1.237E+00	1.237E+00	114.55
TH-230	609.32	422	45.49*	2.575E+00	1.195E+00	1.195E+00	17.17
	1120.29	121	14.92	1.517E+00	1.775E+00	1.775E+00	39.23
	1764.49	100	15.30	1.056E+00	2.056E+00	2.056E+00	24.35
TH-232	338.32	287	11.27	4.059E+00	2.082E+00	2.082E+00	23.94
	911.20	376	25.80*	1.825E+00	2.648E+00	2.648E+00	17.58
	968.97	180	15.80	1.728E+00	2.188E+00	2.188E+00	31.84
TH-234	63.29	103	3.70*	3.520E+00	2.623E+00	2.623E+00	71.64
	92.59	316	4.23	6.594E+00	3.757E+00	3.757E+00	32.98
U-235	89.96	167	3.47	6.436E+00	2.476E+00	2.476E+00	44.54
	93.35	316	5.60	6.594E+00	2.838E+00	2.838E+00	33.67
	143.76	------	10.96*	6.943E+00	------ Line Not Found		------
	163.33	------	5.08	6.588E+00	------ Line Not Found		------
	185.72	205	57.20	6.144E+00	1.940E-01	1.940E-01	39.42
	205.31	------	5.01	5.780E+00	------ Line Not Found		------
NP-237	86.48	312	12.40*	6.252E+00	1.334E+00	1.334E+00	32.75
	95.86	------	2.68	6.742E+00	------ Line Not Found		------
U-238	63.29	103	3.70*	3.520E+00	2.623E+00	2.623E+00	71.64
	92.59	316	4.23	6.594E+00	3.757E+00	3.757E+00	25.97
ANH-511	511.00	138	100.00*	2.964E+00	1.548E-01	1.548E-01	48.90

Flag: "*" = Keyline

Sample ID : G248818005 Acquisition date : 23-MAR-2010 13:33:35

Total number of lines in spectrum 36
Number of unidentified lines 6
Number of lines tentatively identified by NID 30 83.33%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	4.104E+01	4.104E+01	0.419E+01	10.22	
CD-109	461.40D	1.03	4.472E+00	4.609E+00	1.159E+00	25.16	
SN-126	2.30E+05Y	1.00	4.472E-01	4.472E-01	1.125E-01	25.16	
EU-155	4.75Y	1.01	2.516E-01	2.536E-01	1.467E-01	57.84	
TL-208	1.41E+10Y	1.00	5.786E-01	5.786E-01	1.115E-01	19.28	
BI-211	7.04E+08Y	1.00	4.394E+00	4.394E+00	0.682E+00	15.51	
BI-212	1.41E+10Y	1.00	2.193E+00	2.193E+00	0.815E+00	37.17	
PB-212	1.41E+10Y	1.00	1.974E+00	1.974E+00	0.266E+00	13.49	
BI-214	1600.00Y	1.00	1.195E+00	1.195E+00	0.215E+00	17.97	
PB-214	1600.00Y	1.00	1.595E+00	1.595E+00	0.263E+00	16.46	
RA-224	1.41E+10Y	1.00	4.301E+00	4.301E+00	1.178E+00	27.38	
RA-226	1600.00Y	1.00	1.195E+00	1.195E+00	0.215E+00	17.97	
AC-228	1.41E+10Y	1.00	2.648E+00	2.648E+00	0.466E+00	17.58	
RA-228	1.41E+10Y	1.00	2.648E+00	2.648E+00	0.466E+00	17.58	
TH-228	1.41E+10Y	1.00	1.974E+00	1.974E+00	0.266E+00	13.49	
TH-230	7.54E+04Y	1.00	1.195E+00	1.195E+00	0.205E+00	17.17	
TH-232	1.41E+10Y	1.00	2.648E+00	2.648E+00	0.466E+00	17.58	
TH-234	4.47E+09Y	1.00	2.623E+00	2.623E+00	1.879E+00	71.64	
U-235	7.04E+08Y	1.00	1.940E-01	1.940E-01	0.765E-01	39.42	K
NP-237	2.14E+06Y	1.00	1.334E+00	1.334E+00	0.437E+00	32.75	
U-238	4.47E+09Y	1.00	2.623E+00	2.623E+00	1.879E+00	71.64	
ANH-511	1.00E+09Y	1.00	1.548E-01	1.548E-01	0.757E-01	48.90	
	Total Activity :		8.167E+01	8.181E+01			

Grand Total Activity : 8.167E+01 8.181E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248818005 Acquisition date : 23-MAR-2010 13:33:35

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.82	65	363	1.04	257.83	255	8	8.97E-03	****	7.13E+00	
0	208.99	138	271	1.12	418.18	414	9	1.91E-02	46.4	5.71E+00	
0	270.23	109	276	0.96	540.65	535	12	1.51E-02	63.9	4.78E+00	T
0	462.64	66	104	1.44	925.46	921	9	9.20E-03	60.6	3.20E+00	T
0	794.81	54	80	0.86	1589.69	1584	11	7.51E-03	69.5	2.06E+00	T
0	934.24	36	61	1.66	1868.48	1863	11	4.93E-03	91.3	1.78E+00	
1	964.41	46	32	1.76	1928.80	1923	20	6.38E-03	63.1	1.73E+00	T
0	1155.84	28	56	1.13	2311.53	2307	12	3.91E-03	****	1.47E+00	
0	1238.35	60	86	1.12	2476.49	2469	14	8.33E-03	72.8	1.39E+00	T
0	1508.49	17	9	1.33	3016.54	3012	9	2.34E-03	80.7	1.18E+00	
0	1631.40	17	5	1.08	3262.23	3258	9	2.31E-03	73.4	1.11E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:34:35.86

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818005.CNF;1  *
* Acquisition date : 23-MAR-2010 13:33:35  Detector SN#    :                *
* Detector ID      : GAM16                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:02.04         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248818005            Analyst initials: MXR1           *
* Batch Number     : 962631                Sample Quantity : 1.13150E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16.1MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	4.104E+01	4.195E+00	5.397E-01	4.745E-02	76.028
CD-109	4.609E+00	1.159E+00	1.171E+00	1.128E-01	3.936
SN-126	4.472E-01	1.125E-01	1.141E-01	1.094E-02	3.918
EU-155	2.536E-01	1.467E-01	1.729E-01	1.495E-02	1.467
TL-208	5.786E-01	1.115E-01	6.167E-02	6.106E-03	9.382
BI-211	4.394E+00	6.815E-01	3.229E-01	3.531E-02	13.609
BI-212	2.193E+00	8.150E-01	9.132E-01	1.170E-01	2.401
PB-212	1.974E+00	2.662E-01	9.237E-02	1.097E-02	21.368
BI-214	1.195E+00	2.146E-01	1.275E-01	1.354E-02	9.370
PB-214	1.595E+00	2.625E-01	1.246E-01	1.523E-02	12.803
RA-224	4.301E+00	1.178E+00	9.902E-01	1.091E-01	4.344
RA-226	1.195E+00	2.146E-01	1.275E-01	1.354E-02	9.370
AC-228	2.648E+00	4.657E-01	2.487E-01	3.036E-02	10.647
RA-228	2.648E+00	4.657E-01	2.487E-01	3.036E-02	10.647
TH-228	1.974E+00	2.662E-01	9.237E-02	1.097E-02	21.368
TH-230	1.195E+00	2.051E-01	1.275E-01	1.175E-02	9.370
TH-232	2.648E+00	4.657E-01	2.487E-01	3.036E-02	10.647
TH-234	2.623E+00	1.879E+00	2.044E+00	3.645E-01	1.283

Sample ID : G248818005 Acquisition date : 23-MAR-2010 13:33:35

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	1.940E-01	7.645E-02	3.418E-01	5.784E-02	0.567
NP-237	1.334E+00	4.370E-01	3.444E-01	7.922E-02	3.874
U-238	2.623E+00	1.879E+00	2.044E+00	3.645E-01	1.283
ANH-511	1.548E-01	7.572E-02	4.656E-02	4.429E-03	3.325

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.272E-01		3.689E-01	5.960E-01	6.028E-02	-0.213
NA-22	9.539E-03		4.908E-02	8.122E-02	6.758E-03	0.117
NA-24	-9.414E+01		9.411E+01	Half-Life too short		
SC-46	1.194E-02		4.281E-02	7.331E-02	6.931E-03	0.163
V-48	8.892E-02		8.575E-02	1.563E-01	1.438E-02	0.569
CR-51	-8.929E-02		4.552E-01	6.998E-01	8.177E-02	-0.128
MN-54	3.005E-02		3.938E-02	6.997E-02	6.571E-03	0.429
CO-56	-6.188E-02		4.453E-02	6.458E-02	6.077E-03	-0.958
CO-57	1.834E-02		2.516E-02	4.334E-02	3.602E-03	0.423
CO-58	-4.647E-02		4.111E-02	6.140E-02	5.753E-03	-0.757
FE-59	1.991E-02		1.154E-01	1.924E-01	1.788E-02	0.103
CO-60	2.330E-03		4.354E-02	7.080E-02	5.972E-03	0.033
ZN-65	-7.366E-03		1.107E-01	1.557E-01	1.322E-02	-0.047
SE-75	1.780E-02		5.218E-02	7.647E-02	8.924E-03	0.233
SR-85	2.003E-02		4.256E-02	6.456E-02	6.138E-03	0.310
Y-88	1.914E-02		3.405E-02	6.237E-02	5.064E-03	0.307
Y-91	1.367E+01		2.937E+01	4.958E+01	4.032E+00	0.276
NB-94	1.209E-02		3.860E-02	6.367E-02	5.756E-03	0.190
NB-95	-9.827E-03		5.508E-02	8.677E-02	8.021E-03	-0.113
NB-95M	5.759E-03		1.436E-01	2.073E-01	2.469E-02	0.028
ZR-95	2.924E-02		8.219E-02	1.358E-01	1.367E-02	0.215
MO-99	8.944E+00		4.506E+01	7.357E+01	1.182E+01	0.122
TC-99M	-2.831E+16		1.777E+16	Half-Life too short		
RU-103	-4.382E-02		4.628E-02	7.023E-02	1.021E-02	-0.624
RH-106	7.834E-03		3.140E-01	5.115E-01	6.957E-02	0.015
RU-106	7.834E-03		3.140E-01	5.115E-01	4.677E-02	0.015
AG-108M	-2.902E-03		3.046E-02	5.048E-02	4.884E-03	-0.057
AG-110M	4.946E-03		3.665E-02	6.001E-02	5.493E-03	0.082
SN-113	-3.750E-02		4.687E-02	7.446E-02	7.068E-03	-0.504
CD-115	2.375E-05		2.691E-05	Half-Life too short		
SN-117M	-7.068E-02		7.207E-02	1.123E-01	9.972E-03	-0.629
TE-123M	-2.356E-02		2.988E-02	4.705E-02	4.208E-03	-0.501
SB-124	-3.192E-02		8.074E-02	1.229E-01	1.079E-02	-0.260
SB-125	-7.697E-02		9.896E-02	1.564E-01	1.494E-02	-0.492
TE-125M	1.848E+01		1.088E+01	1.770E+01	1.832E+00	1.044
I-126	3.792E-01		3.290E-01	5.765E-01	5.128E-02	0.658
SB-126	1.223E-01		2.055E-01	3.470E-01	3.159E-02	0.352
SB-127	-7.151E-02		3.311E+00	5.328E+00	7.021E-01	-0.013
I-131	-8.304E-02		1.752E-01	2.865E-01	3.039E-02	-0.290

Sample ID : G248818005 Acquisition date : 23-MAR-2010 13:33:35

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-132	-1.101E+00		2.285E+00	3.593E+00	6.482E-01	-0.306
BA-133	4.893E-02		4.667E-02	7.480E-02	1.064E-02	0.654
I-133	2.290E-02		1.590E-01	Half-Life too short		
CS-134	1.154E-01	+	8.100E-02	1.078E-01	1.011E-02	1.071
CS-135	1.130E-01		1.835E-01	2.731E-01	3.483E-02	0.414
I-135	-5.728E+14		1.020E+15	Half-Life too short		
CS-136	1.037E-01		1.535E-01	2.686E-01	2.487E-02	0.386
BA-137M	-3.009E-02		4.093E-02	6.202E-02	5.504E-03	-0.485
CS-137	-3.179E-02		4.324E-02	6.552E-02	5.825E-03	-0.485
CE-139	-7.717E-03		3.127E-02	5.098E-02	4.624E-03	-0.151
BA-140	4.033E-02		3.600E-01	5.963E-01	2.036E-01	0.068
LA-140	-1.460E-01		1.245E-01	1.683E-01	1.434E-02	-0.867
CE-141	-2.621E-02		6.958E-02	1.136E-01	9.939E-03	-0.231
CE-143	5.979E-03		1.262E-03	Half-Life too short		
CE-144	-5.351E-02		2.252E-01	3.322E-01	5.036E-02	-0.161
PM-144	-6.796E-03		4.027E-02	6.399E-02	5.773E-03	-0.106
PR-144	-4.918E-01		3.023E+00	4.806E+00	4.333E-01	-0.102
PM-146	1.787E-02		4.497E-02	7.667E-02	8.661E-03	0.233
ND-147	-2.097E-01		7.763E-01	1.247E+00	1.929E-01	-0.168
PM-149	-5.151E-04		2.377E-04	Half-Life too short		
EU-152	9.708E-03		9.496E-02	1.567E-01	1.751E-02	0.062
GD-153	-2.262E-02		9.001E-02	1.352E-01	1.201E-02	-0.167
EU-154	-3.534E-02		1.447E-01	2.286E-01	2.548E-02	-0.155
TB-160	3.536E-02		1.419E-01	2.430E-01	2.295E-02	0.146
HO-166M	-4.509E-02		6.498E-02	9.743E-02	8.840E-03	-0.463
TA-182	1.905E-02		2.356E-01	3.861E-01	3.158E-02	0.049
IR-192	-7.570E-03		3.817E-02	5.962E-02	6.814E-03	-0.127
HG-203	-1.717E-02		4.503E-02	6.826E-02	8.307E-03	-0.251
BI-207	1.007E-02		5.788E-02	9.689E-02	8.541E-03	0.104
PB-210	1.552E+00		3.672E+00	5.843E+00	5.402E-01	0.266
PB-211	-6.099E-01		8.388E-01	1.254E+00	6.085E-01	-0.486
RN-219	2.941E-01		4.447E-01	7.702E-01	1.176E-01	0.382
RA-223	1.873E-02		6.956E-01	1.102E+00	2.070E-01	0.017
AC-227	-1.310E-01		2.688E-01	4.186E-01	5.940E-02	-0.313
TH-227	-1.310E-01		2.689E-01	4.186E-01	6.502E-02	-0.313
TH-229	2.547E-01		5.405E-01	9.021E-01	8.800E-02	0.282
PA-231	-1.684E-03		1.538E+00	2.454E+00	4.116E-01	-0.001
TH-231	1.873E-02		6.956E-01	1.102E+00	2.070E-01	0.017
PA-233	-4.634E-03		6.629E-02	1.046E-01	1.223E-02	-0.044
PA-234	1.962E-01		3.133E-01	5.476E-01	1.046E-01	0.358
PA-234M	2.142E+00		5.398E+00	9.309E+00	9.692E-01	0.230
NP-239	-3.559E-01		3.878E-01	6.234E-01	5.189E-02	-0.571
AM-241	4.214E-02		1.706E-01	2.472E-01	1.940E-02	0.170
CM-247	4.034E-02		4.061E-02	7.167E-02	6.664E-03	0.563
CF-249	1.938E-02		4.320E-02	7.440E-02	6.974E-03	0.260
CF-251	-1.120E-02		1.347E-01	2.204E-01	2.060E-02	-0.051

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248818005            *
* Acquisition date : 23-MAR-2010 13:33:35 Detector SN#    :                 *
* Detector ID      : GAM16                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.04     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248818005           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.1315E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	4.104E+01	4.111E+00	2.688E-01	2.097E+00
CD-109	4.609E+00	1.136E+00	5.975E-01	5.797E-01
SN-126	4.472E-01	1.102E-01	5.824E-02	5.624E-02
EU-155	2.536E-01	1.438E-01	8.807E-02	7.335E-02
TL-208	5.786E-01	1.093E-01	3.096E-02	5.577E-02
BI-211	4.394E+00	6.679E-01	1.628E-01	3.408E-01
BI-212	2.193E+00	7.987E-01	4.576E-01	4.075E-01
PB-212	1.974E+00	2.609E-01	4.673E-02	1.331E-01
BI-214	1.195E+00	2.103E-01	6.398E-02	1.073E-01
PB-214	1.595E+00	2.573E-01	6.281E-02	1.313E-01
RA-224	4.301E+00	1.154E+00	5.010E-01	5.889E-01
RA-226	1.195E+00	2.103E-01	6.398E-02	1.073E-01
AC-228	2.648E+00	4.563E-01	1.244E-01	2.328E-01
RA-228	2.648E+00	4.563E-01	1.244E-01	2.328E-01
TH-228	1.974E+00	2.609E-01	4.673E-02	1.331E-01
TH-230	1.195E+00	2.010E-01	6.398E-02	1.026E-01
TH-232	2.648E+00	4.563E-01	1.244E-01	2.328E-01
TH-234	2.623E+00	1.842E+00	1.046E+00	9.397E-01
U-235	1.121E-01	2.013E-01	1.737E-01	1.027E-01
NP-237	1.334E+00	4.282E-01	1.758E-01	2.185E-01
U-238	2.623E+00	1.842E+00	1.046E+00	9.397E-01
ANH-511	1.548E-01	7.420E-02	2.340E-02	3.786E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.272E-01	3.615E-01	2.997E-01	1.844E-01	NOT IDENT.
NA-22	9.539E-03	4.810E-02	4.050E-02	2.454E-02	NOT IDENT.
NA-24	-9.414E+07	1.845E+08	0.000E+00	9.411E+07	SHORT HLIF
SC-46	1.194E-02	4.196E-02	3.667E-02	2.141E-02	FAIL ABUN
V-48	8.892E-02	8.403E-02	7.809E-02	4.287E-02	NOT IDENT.

CR-51	-8.929E-02	4.461E-01	3.531E-01	2.276E-01	NOT IDENT.
MN-54	3.005E-02	3.859E-02	3.502E-02	1.969E-02	NOT IDENT.
CO-56	-6.188E-02	4.364E-02	3.232E-02	2.227E-02	FAIL ABUN
CO-57	1.834E-02	2.466E-02	2.205E-02	1.258E-02	NOT IDENT.
CO-58	-4.647E-02	4.029E-02	3.074E-02	2.056E-02	NOT IDENT.
FE-59	1.991E-02	1.131E-01	9.604E-02	5.768E-02	NOT IDENT.
CO-60	2.330E-03	4.267E-02	3.529E-02	2.177E-02	NOT IDENT.
ZN-65	-7.366E-03	1.085E-01	7.773E-02	5.535E-02	NOT IDENT.
SE-75	1.780E-02	5.113E-02	3.865E-02	2.609E-02	NOT IDENT.
SR-85	2.003E-02	4.171E-02	3.245E-02	2.128E-02	NOT IDENT.
Y-88	1.914E-02	3.337E-02	3.100E-02	1.702E-02	NOT IDENT.
Y-91	1.367E+01	2.878E+01	2.473E+01	1.468E+01	NOT IDENT.
NB-94	1.209E-02	3.783E-02	3.191E-02	1.930E-02	NOT IDENT.
NB-95	-9.827E-03	5.398E-02	4.346E-02	2.754E-02	NOT IDENT.
NB-95M	5.759E-03	1.407E-01	1.049E-01	7.181E-02	NOT IDENT.
ZR-95	2.924E-02	8.055E-02	6.802E-02	4.109E-02	NOT IDENT.
MO-99	8.944E+00	4.416E+01	3.686E+01	2.253E+01	NOT IDENT.
TC-99M	-2.831E+22	3.484E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.382E-02	4.536E-02	3.531E-02	2.314E-02	FAIL ABUN
RH-106	7.834E-03	3.078E-01	2.566E-01	1.570E-01	NOT IDENT.
RU-106	7.834E-03	3.077E-01	2.566E-01	1.570E-01	NOT IDENT.
AG-108M	-2.902E-03	2.985E-02	2.541E-02	1.523E-02	NOT IDENT.
AG-110M	4.946E-03	3.592E-02	3.010E-02	1.833E-02	NOT IDENT.
SN-113	-3.750E-02	4.593E-02	3.751E-02	2.343E-02	NOT IDENT.
CD-115	2.375E+01	5.273E+01	0.000E+00	2.691E+01	SHORT HLIF
SN-117M	-7.068E-02	7.062E-02	5.701E-02	3.603E-02	NOT IDENT.
TE-123M	-2.356E-02	2.929E-02	2.389E-02	1.494E-02	NOT IDENT.
SB-124	-3.192E-02	7.913E-02	6.111E-02	4.037E-02	NOT IDENT.
SB-125	-7.697E-02	9.698E-02	7.875E-02	4.948E-02	FAIL ABUN
TE-125M	1.848E+01	1.066E+01	9.017E+00	5.439E+00	NOT IDENT.
I-126	3.792E-01	3.225E-01	2.891E-01	1.645E-01	NOT IDENT.
SB-126	1.223E-01	2.014E-01	1.739E-01	1.028E-01	NOT IDENT.
SB-127	-7.151E-02	3.244E+00	2.671E+00	1.655E+00	NOT IDENT.
I-131	-8.304E-02	1.717E-01	1.444E-01	8.761E-02	NOT IDENT.
TE-132	-1.101E+00	2.240E+00	1.818E+00	1.143E+00	NOT IDENT.
BA-133	4.893E-02	4.574E-02	3.771E-02	2.334E-02	NOT IDENT.
I-133	2.290E+04	3.117E+05	0.000E+00	1.590E+05	SHORT HLIF
CS-134	1.154E-01	7.938E-02	5.397E-02	4.050E-02	FAIL ABUN
CS-135	1.130E-01	1.798E-01	1.380E-01	9.176E-02	NOT IDENT.
I-135	-5.728E+20	1.999E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.037E-01	1.505E-01	1.341E-01	7.677E-02	NOT IDENT.
BA-137M	-3.009E-02	4.011E-02	3.110E-02	2.046E-02	NOT IDENT.
CS-137	-3.179E-02	4.237E-02	3.286E-02	2.162E-02	NOT IDENT.
CE-139	-7.717E-03	3.065E-02	2.587E-02	1.564E-02	NOT IDENT.
BA-140	4.033E-02	3.528E-01	2.996E-01	1.800E-01	NOT IDENT.
LA-140	-1.460E-01	1.220E-01	8.376E-02	6.223E-02	NOT IDENT.
CE-141	-2.621E-02	6.819E-02	5.773E-02	3.479E-02	NOT IDENT.
CE-143	5.979E+03	2.474E+03	0.000E+00	1.262E+03	SHORT HLIF
CE-144	-5.351E-02	2.207E-01	1.689E-01	1.126E-01	NOT IDENT.
PM-144	-6.796E-03	3.947E-02	3.207E-02	2.014E-02	NOT IDENT.
PR-144	-4.918E-01	2.963E+00	2.409E+00	1.512E+00	NOT IDENT.
PM-146	1.787E-02	4.407E-02	3.858E-02	2.249E-02	NOT IDENT.
ND-147	-2.097E-01	7.607E-01	6.267E-01	3.881E-01	FAIL ABUN
PM-149	-5.151E+02	4.659E+02	0.000E+00	2.377E+02	SHORT HLIF
EU-152	9.708E-03	9.306E-02	7.903E-02	4.748E-02	FAIL ABUN
GD-153	-2.262E-02	8.821E-02	6.895E-02	4.501E-02	NOT IDENT.
EU-154	-3.534E-02	1.418E-01	1.140E-01	7.235E-02	NOT IDENT.
TB-160	3.536E-02	1.391E-01	1.215E-01	7.095E-02	FAIL ABUN
HO-166M	-4.509E-02	6.368E-02	4.883E-02	3.249E-02	NOT IDENT.
TA-182	1.905E-02	2.309E-01	1.926E-01	1.178E-01	NOT IDENT.
IR-192	-7.570E-03	3.741E-02	3.009E-02	1.909E-02	FAIL ABUN
HG-203	-1.717E-02	4.413E-02	3.449E-02	2.251E-02	NOT IDENT.
BI-207	1.007E-02	5.672E-02	4.839E-02	2.894E-02	FAIL ABUN
PB-210	1.552E+00	3.599E+00	2.998E+00	1.836E+00	NOT IDENT.
PB-211	-6.099E-01	8.220E-01	6.316E-01	4.194E-01	NOT IDENT.
RN-219	2.941E-01	4.358E-01	3.879E-01	2.224E-01	FAIL ABUN
RA-223	1.873E-02	6.817E-01	5.561E-01	3.478E-01	FAIL ABUN
AC-227	-1.310E-01	2.634E-01	2.117E-01	1.344E-01	FAIL ABUN
TH-227	-1.310E-01	2.636E-01	2.117E-01	1.345E-01	FAIL ABUN
TH-229	2.547E-01	5.297E-01	4.573E-01	2.703E-01	FAIL ABUN
PA-231	-1.684E-03	1.507E+00	1.240E+00	7.689E-01	NOT IDENT.
TH-231	1.873E-02	6.817E-01	5.561E-01	3.478E-01	FAIL ABUN
PA-233	-4.634E-03	6.496E-02	5.280E-02	3.315E-02	FAIL ABUN
PA-234	1.962E-01	3.070E-01	2.738E-01	1.566E-01	NOT IDENT.
PA-234M	2.142E+00	5.290E+00	4.651E+00	2.699E+00	NOT IDENT.
NP-239	-3.559E-01	3.800E-01	3.173E-01	1.939E-01	FAIL ABUN
AM-241	4.214E-02	1.672E-01	1.266E-01	8.531E-02	NOT IDENT.
CM-247	4.034E-02	3.980E-02	3.610E-02	2.031E-02	NOT IDENT.

CF-249	1.938E-02	4.233E-02	3.748E-02	2.160E-02	NOT IDENT.
CF-251	-1.120E-02	1.320E-01	1.118E-01	6.735E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	228.0712
49.72	254.0711
57.36	0.0000
59.54	268.6126
63.29	299.6431
63.29	299.6431
64.28	293.4006
67.75	340.4481
69.67	342.0540
70.83	325.4197
72.81	369.8759
72.87	369.9272
72.87	369.9272
74.82	344.1329
74.82	344.1329
74.82	344.1329
74.97	344.2529
77.11	345.9401
77.11	345.9401
77.11	345.9401
79.69	310.3302
79.80	310.4059
80.12	256.7139
80.19	256.7535
80.57	310.9321
81.00	311.2257
81.07	311.2737
81.07	311.2737
83.79	293.2735
83.79	293.2735
85.43	294.2973
86.48	294.9475
86.55	294.9908
86.79	295.1378
86.94	295.2328
87.57	295.6202
88.03	295.9021
88.47	296.1719
89.96	297.0781
91.11	297.7715
92.59	298.6587
92.59	298.6587
93.35	299.1118
94.67	260.6441
94.87	271.3350
94.87	271.3350
95.86	295.7329
97.43	279.3437
98.44	267.6251
99.53	281.3604
100.11	279.8878
103.18	256.8486
103.37	256.9404
105.31	272.7105
106.12	273.1143
109.28	214.8439
111.00	259.1452
111.76	272.2386
116.30	241.3509
117.23	272.9842
121.12	256.2695
121.78	240.8049
122.06	236.2843
123.07	250.5995
131.20	263.7649
133.52	271.7988
136.00	264.3127

136.47	242.6953
140.51	280.4281
140.51	0.0000
143.76	240.5697
144.24	243.6156
144.24	243.6156
145.44	273.8295
152.43	253.2978
153.25	237.0725
154.21	241.2818
154.21	241.2818
156.02	239.9416
158.56	265.2549
159.00	260.5151
162.66	247.0500
163.33	260.0791
165.86	255.0291
176.60	232.5475
177.52	246.8683
181.07	244.3406
184.41	256.5893
185.72	244.3293
193.51	219.0026
197.04	256.9097
205.31	196.0867
210.85	200.4453
215.65	199.4126
222.11	208.2143
227.38	243.3964
228.16	221.2581
228.18	221.2624
235.69	197.8011
235.96	191.4230
235.96	191.4230
238.63	186.0317
238.63	186.0317
240.99	186.4769
242.00	186.6670
244.70	165.5337
252.40	177.6992
252.80	148.3225
256.23	182.7378
256.23	182.7378
260.90	0.0000
264.66	145.6050
268.22	159.3721
269.46	156.2325
269.46	156.2325
271.23	156.4879
273.65	183.5336
276.40	141.6218
277.37	146.2103
277.60	151.8241
278.00	158.5800
279.20	168.8120
279.54	193.4670
280.46	194.7482
283.69	156.0272
284.31	134.7729
285.41	164.1342
285.90	0.0000
287.50	150.9245
293.27	0.0000
295.22	142.8779
295.96	129.3540
298.57	129.6439
299.98	134.9254
299.98	134.9254
300.09	134.9374
300.09	134.9374
300.13	134.9423
301.36	152.1838
302.85	152.3766
304.50	164.5928
304.50	164.5928
304.85	164.6426
308.46	115.8299
311.90	128.8141

316.51	133.9244
319.41	133.0857
320.08	134.3162
323.87	141.7004
323.87	141.7004
328.76	152.7534
333.37	143.2482
334.37	151.7959
334.37	151.7959
338.28	137.4593
338.28	137.4593
338.32	137.4641
338.32	137.4641
338.32	137.4641
340.48	118.6295
340.55	118.6356
344.28	113.3145
351.06	113.9043
351.93	128.2258
356.01	101.4688
364.49	118.6522
366.42	104.4188
383.85	124.8837
388.16	121.6068
388.63	121.6474
391.69	125.5757
400.66	123.5905
401.81	117.2273
402.40	110.8099
404.85	143.3707
410.95	107.7411
414.70	116.3921
423.72	109.5965
427.09	117.3496
427.87	125.8622
433.94	101.8416
453.88	97.4071
463.37	109.1226
468.07	86.0591
473.00	92.7583
476.78	107.4957
477.60	103.6726
487.02	89.6402
492.35	0.0000
497.08	102.9108
511.00	80.0248
514.00	77.5865
527.90	0.0000
529.87	0.0000
531.02	79.9268
537.26	78.1952
546.56	0.0000
563.25	71.1578
569.33	63.2261
569.50	63.2318
569.70	69.3593
583.19	82.1680
600.60	82.8931
602.73	94.5983
604.72	94.6929
609.32	93.6612
609.32	93.6612
609.32	93.6612
610.33	103.2839
614.28	56.7508
618.01	83.6084
621.93	63.8743
621.93	63.8743
633.25	53.6941
635.95	76.9565
636.99	82.2680
645.85	63.5486
657.76	67.0990
661.66	94.9618
661.66	94.9618
664.57	0.0000
666.33	69.5029
666.50	80.2025

677.62	76.3107
685.70	63.6454
695.00	79.0752
696.49	79.1264
696.51	79.1286
697.00	74.8076
702.65	80.4294
706.68	80.5717
711.68	76.3831
720.70	62.4412
721.93	0.0000
722.78	84.2063
722.91	75.4390
723.31	66.6781
724.19	73.7256
727.33	76.9000
733.00	76.7734
735.93	78.2868
739.50	58.5268
747.24	53.1782
752.31	74.3854
753.82	71.0996
756.73	60.0628
763.94	88.1300
765.81	97.1289
766.42	83.7547
777.92	60.5869
778.90	69.5892
783.70	56.2286
785.37	54.0161
795.86	75.3377
801.95	72.5000
810.29	67.2829
810.76	66.3862
815.77	51.9374
818.51	53.8159
832.01	73.3535
834.85	55.9916
836.80	0.0000
846.77	76.5318
856.80	55.5337
860.56	57.1561
871.09	53.0381
873.19	55.8721
875.33	0.0000
879.36	43.8663
880.51	51.3544
883.24	45.7975
884.68	52.3674
889.28	50.5828
898.04	48.8630
911.20	57.5911
911.20	57.5911
911.20	57.5911
926.50	53.7904
937.49	44.4678
944.13	46.7988
946.00	43.9617
949.00	58.3581
962.29	52.8569
964.08	61.5438
966.15	61.5875
968.97	65.8209
968.97	65.8209
968.97	65.8209
983.53	32.9101
996.26	82.6239
1001.03	55.4943
1004.73	77.9824
1037.84	58.1300
1038.76	0.0000
1048.07	46.4584
1050.41	68.2554
1050.41	68.2554
1063.66	51.6547
1085.87	50.0122
1099.45	59.2593
1112.07	53.7734

1115.54	55.5103
1120.29	44.4727
1120.29	44.4727
1120.29	44.4727
1120.55	44.4748
1121.30	52.2368
1131.51	0.0000
1173.23	66.7297
1177.93	61.6787
1189.05	58.7812
1204.77	75.6199
1221.41	68.6877
1231.02	88.6980
1235.36	80.0957
1238.28	72.1468
1260.41	0.0000
1271.85	45.3726
1274.44	53.8538
1274.54	45.4062
1291.59	42.4316
1298.22	0.0000
1312.11	41.5956
1332.49	34.3109
1365.19	30.2750
1368.63	0.0000
1384.29	23.9024
1408.01	18.5796
1457.56	0.0000
1460.82	20.2965
1489.16	14.8607
1505.03	9.5889
1596.21	31.4102
1620.50	26.2478
1678.03	0.0000
1690.97	14.5740
1764.49	6.7648
1764.49	6.7648
1764.49	6.7648
1770.23	48.3959
1771.35	14.8187
1791.20	0.0000
1836.06	8.0062

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248818005

Total Uranium Activity	7.8568E+00	ug/g
Total Uranium Counting Unc.	5.4803E+00	ug/g
Total Uranium Tpu	2.7961E-06	ug/g
Total Uranium Mda	3.1130E+00	ug/g

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*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 962631                    SAMPLE ID  : G248818005         *
*   ANALYST       : MXR1                      DETECTOR   : GAM16              *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 23-MAR-2010 13:33:35.61    SAMPLE ALQT:  113.150 GRAM      *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.187E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.672E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 4.093E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.980E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:35:21.63

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818006.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 13:34:08
Sample ID         : G248818006           Sample quantity  : 1.25160E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:32.88  0.5%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.76*	133	531	1.01	127.49	123	9	1.85E-02	33.4	
2	2	74.99*	457	486	1.13	149.93	145	15	6.35E-02	9.4	1.61E+00
3	2	77.23*	669	392	0.98	154.40	145	15	9.29E-02	6.4	
4	0	84.28*	112	328	1.21	168.47	166	6	1.55E-02	28.0	
5	0	87.29	236	361	1.26	174.49	172	6	3.27E-02	14.3	
6	0	93.35*	184	633	1.39	186.59	181	9	2.55E-02	27.2	
7	0	185.98*	236	303	1.32	371.59	367	11	3.28E-02	16.3	
8	0	209.23	137	288	1.21	418.02	414	11	1.90E-02	25.5	
9	7	238.75*	1165	155	1.08	476.99	470	19	1.62E-01	3.4	7.26E-01
10	7	241.64	308	217	1.71	482.77	470	19	4.28E-02	12.5	
11	0	269.94	166	209	1.44	539.29	533	12	2.30E-02	19.1	
12	0	295.43*	429	219	1.34	590.22	583	15	5.95E-02	9.1	
13	0	300.27	66	135	1.11	599.89	597	8	9.11E-03	32.9	
14	0	327.94	111	189	1.42	655.17	648	14	1.54E-02	28.0	
15	0	338.43	229	145	1.35	676.13	671	10	3.18E-02	11.9	
16	0	352.11*	604	172	1.20	703.45	697	11	8.39E-02	5.9	
17	0	463.09	88	108	1.46	925.21	919	13	1.23E-02	26.4	
18	0	511.30*	119	160	2.03	1021.55	1015	17	1.65E-02	29.1	
19	0	583.58*	350	142	1.34	1166.02	1161	13	4.87E-02	9.0	
20	0	609.74	452	97	1.39	1218.30	1213	13	6.28E-02	6.5	
21	0	727.68	103	60	1.37	1454.08	1447	14	1.43E-02	18.7	
22	0	768.98	59	66	1.98	1536.66	1531	10	8.18E-03	29.4	
23	0	865.38	87	141	10.47	1729.43	1714	30	1.21E-02	42.3	
24	0	911.82*	261	60	1.33	1822.31	1816	12	3.63E-02	8.7	
25	0	964.87	37	73	1.42	1928.43	1923	10	5.11E-03	46.9	
26	0	969.80	119	78	1.48	1938.28	1934	12	1.65E-02	18.0	
27	0	1121.51	107	111	2.04	2241.79	2234	19	1.49E-02	25.4	
28	0	1377.93	39	17	1.56	2754.97	2746	14	5.44E-03	27.7	
29	0	1461.71*	1637	30	1.84	2922.70	2915	15	2.27E-01	2.6	
30	0	1509.87	29	5	1.44	3019.12	3013	11	4.03E-03	24.2	
31	0	1588.89	25	13	1.45	3177.35	3173	10	3.50E-03	33.0	
32	0	1730.70	28	6	0.81	3461.38	3456	12	3.89E-03	25.8	
33	0	1765.19*	78	0	1.96	3530.46	3524	13	1.09E-02	11.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 15:35:24

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818006.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 13:34:08
Sample ID : G248818006 Sample quantity : 125.16 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA20 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:32.88 0.5%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.677E+01	3.730E+00	4.632E-01	4.040E-02	79.379
CD-109	+	88.03	*	2.838E+00	8.521E-01	1.279E+00	1.209E-01	2.219
SN-126	+	64.28		8.861E-01	6.063E-01	5.907E-01	8.553E-02	1.500
	+	86.94		1.145E+00	5.767E-01	5.163E-01	2.143E-01	2.217
	+	87.57	*	2.754E-01	8.268E-02	1.247E-01	1.173E-02	2.208
TL-208		277.37		3.610E-01	3.634E-01	6.305E-01	8.496E-02	0.573
	+	583.19	*	4.587E-01	9.479E-02	5.716E-02	5.870E-03	8.025
		860.56		4.417E-01	3.325E-01	5.957E-01	6.312E-02	0.741
BI-211		72.87		2.805E+00	2.895E+00	4.395E+00	3.471E-01	0.638
	+	351.06	*	3.534E+00	5.368E-01	3.014E-01	2.888E-02	11.725
PB-212	+	74.82		2.201E+00	5.001E-01	4.720E-01	5.963E-02	4.662
	+	77.11		1.874E+00	2.842E-01	2.747E-01	2.272E-02	6.821
	+	238.63	*	1.527E+00	1.942E-01	8.608E-02	9.192E-03	17.741
	+	300.09		1.338E+00	8.925E-01	8.284E-01	9.556E-02	1.615
BI-214	+	609.32	*	1.146E+00	1.958E-01	1.055E-01	1.178E-02	10.860
	+	1120.29		1.382E+00	7.173E-01	4.748E-01	5.160E-02	2.910
	+	1764.49		1.395E+00	3.492E-01	1.080E-01	8.876E-03	12.911
PB-214	+	74.82		3.901E+00	8.588E-01	8.366E-01	9.461E-02	4.662
	+	77.11		3.303E+00	5.703E-01	4.843E-01	5.657E-02	6.821
	+	242.00		2.452E+00	6.715E-01	5.234E-01	5.903E-02	4.685
	+	295.22		1.547E+00	3.345E-01	1.986E-01	2.346E-02	7.787
	+	351.93	*	1.282E+00	2.073E-01	1.096E-01	1.211E-02	11.700
RA-224	+	240.99	*	4.336E+00	1.160E+00	9.225E-01	8.917E-02	4.701
RA-226	+	609.32	*	1.146E+00	1.958E-01	1.055E-01	1.178E-02	10.860
	+	1120.29		1.382E+00	7.173E-01	4.748E-01	5.160E-02	2.910
	+	1764.49		1.395E+00	3.492E-01	1.080E-01	8.876E-03	12.911
AC-228	+	338.32		1.491E+00	7.176E-01	3.632E-01	1.521E-01	4.105
	+	911.20	*	1.635E+00	3.520E-01	2.380E-01	2.991E-02	6.870
	+	968.97		1.282E+00	5.594E-01	5.711E-01	1.413E-01	2.245
RA-228	+	338.32		1.491E+00	7.176E-01	3.632E-01	1.521E-01	4.105
	+	911.20	*	1.635E+00	3.520E-01	2.380E-01	2.991E-02	6.870
	+	968.97		1.282E+00	5.594E-01	5.711E-01	1.413E-01	2.245
TH-228	+	74.82		2.201E+00	4.527E-01	4.720E-01	3.845E-02	4.662
	+	77.11		1.874E+00	2.842E-01	2.747E-01	2.272E-02	6.821

Sample ID : G248818006 Acquisition date : 23-MAR-2010 13:34:08

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	1.527E+00	1.942E-01	8.608E-02	9.192E-03	17.741
	+	300.09		1.338E+00	1.203E+00	8.284E-01	5.086E-01	1.615
TH-229	+	85.43		3.360E-01	1.907E-01	2.513E-01	2.299E-02	1.337
	+	88.47		4.245E-01	1.275E-01	1.868E-01	1.760E-02	2.273
		193.51	*	1.694E-01	4.547E-01	7.826E-01	7.126E-02	0.216
		210.85		1.258E+00	9.168E-01	1.462E+00	1.364E-01	0.861
TH-230	+	609.32	*	1.146E+00	1.863E-01	1.055E-01	1.039E-02	10.860
	+	1120.29		1.382E+00	7.113E-01	4.748E-01	4.062E-02	2.910
	+	1764.49		1.395E+00	3.492E-01	1.080E-01	8.875E-03	12.911
TH-232	+	338.32		1.491E+00	3.801E-01	3.632E-01	3.403E-02	4.105
	+	911.20	*	1.635E+00	3.520E-01	2.380E-01	2.991E-02	6.870
	+	968.97		1.282E+00	5.594E-01	5.711E-01	1.413E-01	2.245
TH-234	+	63.29	*	2.299E+00	1.591E+00	1.577E+00	2.801E-01	1.458
	+	92.59		1.811E+00	1.064E+00	9.786E-01	2.181E-01	1.850
NP-237	+	86.48	*	8.216E-01	3.009E-01	2.957E-01	6.779E-02	2.779
		95.86		-4.662E-01	8.831E-01	1.228E+00	2.960E-01	-0.380
U-238	+	63.29	*	2.299E+00	1.591E+00	1.577E+00	2.801E-01	1.458
	+	92.59		1.811E+00	9.983E-01	9.786E-01	8.932E-02	1.850
ANH-511	+	511.00	*	1.192E-01	7.035E-02	4.522E-02	4.213E-03	2.636

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	2.397E-01	3.226E-01	5.513E-01	5.358E-02	0.435
NA-22		1274.54	*	-5.213E-03	4.714E-02	7.512E-02	6.223E-03	-0.069
NA-24		1368.63	*	2.640E+01	4.714E-02	Half-Life too short		
SC-46		889.28	*	1.912E-02	3.540E-02	6.158E-02	6.139E-03	0.310
	+	1120.55		2.435E-01	1.253E-01	1.327E-01	1.135E-02	1.834
V-48		944.13		-4.512E-01	1.063E+00	1.676E+00	1.635E-01	-0.269
		983.53	*	-3.608E-02	8.509E-02	1.336E-01	1.277E-02	-0.270
		1312.11		-1.120E-02	1.024E-01	1.627E-01	1.357E-02	-0.069
CR-51		320.08	*	-5.180E-02	3.754E-01	6.169E-01	6.180E-02	-0.084
MN-54		834.85	*	-2.155E-02	3.875E-02	6.133E-02	6.195E-03	-0.351
CO-56		846.77	*	-3.102E-02	3.987E-02	6.118E-02	6.166E-03	-0.507
		1037.84		1.266E-01	2.974E-01	5.072E-01	4.890E-02	0.250
		1238.28		1.727E-01	1.034E-01	1.860E-01	1.574E-02	0.929
		1771.35		-1.007E+00	3.360E-01	2.410E-01	1.977E-02	-4.181
CO-57		122.06	*	-4.255E-03	2.394E-02	3.815E-02	3.184E-03	-0.112
		136.47		6.658E-02	1.933E-01	3.141E-01	2.841E-02	0.212
CO-58		810.76	*	2.772E-03	3.966E-02	6.631E-02	6.733E-03	0.042
FE-59		1099.45	*	1.943E-02	9.436E-02	1.568E-01	1.479E-02	0.124
		1291.59		-6.311E-02	1.520E-01	2.343E-01	2.229E-02	-0.269
CO-60		1173.23		-3.071E-02	5.025E-02	7.702E-02	6.192E-03	-0.399
		1332.49	*	1.395E-02	4.284E-02	7.131E-02	5.973E-03	0.196
ZN-65		1115.54	*	3.318E-02	9.387E-02	1.386E-01	1.193E-02	0.239
SE-75		121.12		-2.405E-02	1.268E-01	2.020E-01	2.197E-02	-0.119
		136.00		1.532E-02	3.776E-02	6.153E-02	5.200E-03	0.249
		264.66	*	2.561E-03	4.489E-02	6.639E-02	6.574E-03	0.039

Sample ID : G248818006 Acquisition date : 23-MAR-2010 13:34:08

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		279.54		-3.500E-03	1.038E-01	1.728E-01	1.770E-02	-0.020
		400.66		1.123E-01	2.421E-01	4.086E-01	4.473E-02	0.275
SR-85		514.00	*	8.419E-02	4.266E-02	7.624E-02	7.119E-03	1.104
Y-88		898.04		2.482E-02	4.384E-02	7.576E-02	7.559E-03	0.328
		1836.06	*	9.465E-03	3.337E-02	5.771E-02	4.657E-03	0.164
Y-91		1204.77	*	-3.321E+00	2.541E+01	4.066E+01	3.302E+00	-0.082
NB-94		702.65	*	-2.182E-03	3.223E-02	5.377E-02	5.440E-03	-0.041
		871.09		-2.501E-02	3.973E-02	5.213E-02	5.224E-03	-0.480
NB-95		765.81	*	6.504E-02	4.681E-02	7.748E-02	7.874E-03	0.839
NB-95M		235.69	*	6.002E-02	1.303E-01	1.984E-01	2.135E-02	0.303
ZR-95		724.19		-2.189E-02	9.316E-02	1.316E-01	1.417E-02	-0.166
		756.73	*	2.262E-02	7.264E-02	1.242E-01	1.359E-02	0.182
MO-99		140.51		-8.027E+01	7.551E+01	1.089E+02	2.579E+01	-0.737
		181.07		-4.162E+01	6.388E+01	8.476E+01	1.605E+01	-0.491
		366.42		-2.157E+02	3.329E+02	5.244E+02	4.663E+01	-0.411
		739.50	*	-5.266E+00	3.981E+01	6.578E+01	1.095E+01	-0.080
		777.92		-1.363E+02	1.344E+02	2.051E+02	2.084E+01	-0.664
TC-99M		140.51	*	-3.444E+16	1.344E+02	Half-Life too short		
RU-103		497.08	*	1.710E-03	3.796E-02	6.169E-02	8.851E-03	0.028
	+	610.33		1.290E+01	2.759E+00	3.014E+00	5.132E-01	4.281
RH-106		621.93	*	-1.394E-01	3.235E-01	4.963E-01	7.008E-02	-0.281
		1050.41		-3.513E-01	2.461E+00	3.962E+00	3.616E-01	-0.089
RU-106		621.93	*	-1.394E-01	3.231E-01	4.963E-01	4.912E-02	-0.281
		1050.41		-3.513E-01	2.461E+00	3.962E+00	3.616E-01	-0.089
AG-108M		433.94	*	2.176E-02	2.729E-02	4.695E-02	4.232E-03	0.463
		614.28		-2.957E-02	4.061E-02	5.151E-02	5.210E-03	-0.574
		722.91		-1.986E-02	3.607E-02	4.868E-02	5.052E-03	-0.408
AG-110M		657.76	*	3.394E-04	3.259E-02	5.491E-02	5.625E-03	0.006
		677.62		3.773E-02	2.972E-01	5.042E-01	5.186E-02	0.075
		706.68		1.027E-02	1.992E-01	3.352E-01	3.464E-02	0.031
		763.94		3.058E-02	1.693E-01	2.508E-01	2.599E-02	0.122
		884.68		-2.532E-03	4.382E-02	7.200E-02	7.360E-03	-0.035
		937.49		6.635E-02	1.054E-01	1.835E-01	1.847E-02	0.362
		1384.29		8.257E-02	1.721E-01	2.777E-01	2.407E-02	0.297
		1505.03		-1.116E-01	2.305E-01	2.847E-01	2.413E-02	-0.392
SN-113		391.69	*	3.800E-02	4.244E-02	7.352E-02	6.342E-03	0.517
CD-115		260.90		-2.725E-04	4.244E-02	Half-Life too short		
		492.35		-3.297E-05	4.244E-02	Half-Life too short		
		527.90	*	-2.014E-05	4.244E-02	Half-Life too short		
SN-117M		156.02		1.959E+00	2.783E+00	4.566E+00	3.926E-01	0.429
		158.56	*	1.776E-02	6.633E-02	1.068E-01	9.218E-03	0.166
TE-123M		159.00	*	7.433E-03	2.738E-02	4.410E-02	3.831E-03	0.169
SB-124		602.73		-8.323E-03	4.155E-02	6.293E-02	6.179E-03	-0.132
		645.85		-4.533E-01	4.597E-01	7.058E-01	7.352E-02	-0.642
		722.78		-2.192E-01	3.830E-01	5.150E-01	5.311E-02	-0.426
		1690.97	*	1.658E-02	6.262E-02	1.093E-01	9.524E-03	0.152
SB-125		427.87	*	-2.038E-02	8.410E-02	1.348E-01	1.193E-02	-0.151
	+	463.37		7.879E-01	4.231E-01	5.040E-01	4.840E-02	1.563
		600.60		1.585E-01	1.758E-01	3.003E-01	3.116E-02	0.528

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		635.95		-9.444E-02	2.475E-01	4.044E-01	4.272E-02	-0.234
TE-125M		109.28	*	6.762E-01	9.608E+00	1.555E+01	1.616E+00	0.043
I-126		388.63		2.141E-02	2.017E-01	3.334E-01	2.808E-02	0.064
		666.33	*	1.533E-01	2.789E-01	4.866E-01	4.889E-02	0.315
		753.82		5.945E-01	2.201E+00	3.754E+00	3.815E-01	0.158
SB-126		414.70		-1.226E-02	9.023E-02	1.461E-01	1.252E-02	-0.084
		666.50		4.808E-02	9.649E-02	1.679E-01	1.687E-02	0.286
		695.00		1.412E-02	9.701E-02	1.645E-01	1.663E-02	0.086
		697.00		-4.695E-02	3.262E-01	5.410E-01	5.469E-02	-0.087
		720.70	*	-6.072E-02	1.932E-01	2.702E-01	2.740E-02	-0.225
		856.80		5.873E-02	6.949E-01	1.009E+00	1.015E-01	0.058
SB-127		252.40		3.607E+00	9.639E+00	1.625E+01	6.865E+00	0.222
		473.00		-3.784E+00	3.612E+00	5.278E+00	7.627E-01	-0.717
		685.70	*	-8.797E-01	3.077E+00	5.047E+00	7.047E-01	-0.174
		783.70		2.240E+00	7.837E+00	1.335E+01	1.979E+00	0.168
I-131		80.19		6.200E+00	6.861E+00	9.564E+00	8.294E-01	0.648
		284.31		-4.668E-01	2.138E+00	3.521E+00	3.644E-01	-0.133
		364.49	*	1.548E-01	1.604E-01	2.796E-01	2.633E-02	0.554
		636.99		7.565E-02	2.208E+00	3.732E+00	3.889E-01	0.020
TE-132		49.72		-1.801E+00	3.210E+01	5.293E+01	6.350E+00	-0.034
		111.76		-3.078E+01	9.443E+01	1.479E+02	1.834E+01	-0.208
		116.30		-3.233E+01	8.014E+01	1.265E+02	1.563E+01	-0.256
		228.16	*	-5.185E-01	1.981E+00	3.291E+00	5.723E-01	-0.158
BA-133		81.00		2.590E-02	1.086E-01	1.268E-01	1.970E-02	0.204
		276.40		5.066E-01	3.436E-01	5.857E-01	8.759E-02	0.865
		302.85		5.777E-02	1.433E-01	2.156E-01	2.990E-02	0.268
		356.01	*	-2.069E-03	4.390E-02	6.325E-02	8.390E-03	-0.033
		383.85		-2.500E-01	2.798E-01	4.290E-01	5.304E-02	-0.583
I-133		529.87	*	2.246E-01	2.798E-01	Half-Life too short		
		875.33		8.632E+00	2.798E-01	Half-Life too short		
		1298.22		6.530E+00	2.798E-01	Half-Life too short		
CS-134		563.25		5.313E-01	3.469E-01	6.189E-01	6.005E-02	0.858
		569.33		2.634E-02	1.942E-01	3.070E-01	2.998E-02	0.086
		604.72		4.268E-04	3.529E-02	4.928E-02	4.852E-03	0.009
		795.86	*	1.043E-01	4.858E-02	9.119E-02	9.304E-03	1.144
		801.95		-1.169E-01	3.798E-01	6.146E-01	6.261E-02	-0.190
		1365.19		2.320E-01	1.032E+00	1.783E+00	1.573E-01	0.130
CS-135		268.22	*	1.229E-01	1.588E-01	2.457E-01	2.723E-02	0.500
I-135		546.56		1.726E+14	1.588E-01	Half-Life too short		
		836.80		1.456E+14	1.588E-01	Half-Life too short		
		1038.76		1.285E+15	1.588E-01	Half-Life too short		
		1131.51		-4.820E+13	1.588E-01	Half-Life too short		
		1260.41	*	-1.228E+15	1.588E-01	Half-Life too short		
		1457.56		3.103E+16	1.588E-01	Half-Life too short		
		1678.03		2.040E+15	1.588E-01	Half-Life too short		
		1791.20		-1.258E+15	1.588E-01	Half-Life too short		
CS-136		153.25		3.532E-01	1.077E+00	1.740E+00	1.779E-01	0.203
		176.60		2.110E-01	6.101E-01	9.821E-01	9.571E-02	0.215
		273.65		-5.972E-01	7.093E-01	9.755E-01	1.031E-01	-0.612

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		340.55		4.384E-01	2.150E-01	3.503E-01	3.378E-02	1.252
		818.51		6.190E-02	8.808E-02	1.552E-01	1.573E-02	0.399
		1048.07	*	-1.879E-02	1.395E-01	2.250E-01	2.136E-02	-0.084
		1235.36		-1.165E+00	8.753E-01	1.249E+00	1.431E-01	-0.933
BA-137M		661.66	*	-1.276E-02	3.387E-02	5.534E-02	5.554E-03	-0.231
CS-137		661.66	*	-1.348E-02	3.578E-02	5.846E-02	5.876E-03	-0.231
CE-139		165.86	*	-2.379E-02	2.944E-02	4.470E-02	3.902E-03	-0.532
BA-140		162.66		3.573E-01	1.002E+00	1.595E+00	1.478E-01	0.224
		304.85		1.077E+00	1.747E+00	2.639E+00	7.819E-01	0.408
		423.72		-2.186E-01	2.309E+00	3.743E+00	1.232E+00	-0.058
		537.26	*	-1.425E-01	3.528E-01	5.304E-01	1.811E-01	-0.269
LA-140	+	328.76		1.168E+00	6.641E-01	6.965E-01	6.932E-02	1.677
		487.02		6.542E-02	1.573E-01	2.636E-01	2.546E-02	0.248
		815.77		4.871E-02	4.068E-01	6.830E-01	7.515E-02	0.071
		1596.21	*	3.364E-02	1.003E-01	1.645E-01	1.388E-02	0.205
CE-141		145.44	*	6.435E-03	6.728E-02	1.060E-01	9.149E-03	0.061
CE-143		57.36		-2.290E-03	6.728E-02	Half-Life too short		
		293.27	*	5.856E-03	6.728E-02	Half-Life too short		
		664.57		8.234E-03	6.728E-02	Half-Life too short		
		721.93		-9.142E-03	6.728E-02	Half-Life too short		
CE-144		80.12		2.118E+00	2.445E+00	3.403E+00	2.915E-01	0.622
		133.52	*	-8.520E-02	1.939E-01	3.035E-01	4.597E-02	-0.281
PM-144		476.78		6.030E-02	6.080E-02	1.056E-01	1.034E-02	0.571
		618.01		5.670E-03	3.248E-02	5.265E-02	5.315E-03	0.108
		696.49	*	-7.164E-03	3.173E-02	5.227E-02	5.286E-03	-0.137
PR-144		696.51	*	-5.537E-01	2.380E+00	3.918E+00	3.960E-01	-0.141
		1489.16		-4.779E-01	1.038E+01	1.717E+01	1.456E+00	-0.028
PM-146		453.88	*	2.972E-02	3.974E-02	6.796E-02	7.355E-03	0.437
		633.25		-2.438E-01	1.382E+00	2.163E+00	8.331E-01	-0.113
		735.93		-6.808E-02	1.345E-01	2.127E-01	6.070E-02	-0.320
		747.24		4.714E-02	9.088E-02	1.578E-01	2.452E-02	0.299
ND-147		91.11		4.240E-01	5.155E-01	6.174E-01	6.111E-02	0.687
		319.41		-1.895E+00	4.124E+00	6.638E+00	6.387E-01	-0.285
		531.02	*	-1.619E-01	7.494E-01	1.186E+00	1.832E-01	-0.136
PM-149		285.90	*	4.365E-04	7.494E-01	Half-Life too short		
EU-152		121.78		-3.419E-02	6.856E-02	1.075E-01	1.039E-02	-0.318
		244.70		3.258E-02	3.216E-01	4.791E-01	4.647E-02	0.068
		344.28	*	-7.415E-03	9.435E-02	1.498E-01	1.461E-02	-0.050
		778.90		-1.648E-01	2.637E-01	4.163E-01	4.230E-02	-0.396
	+	964.08		4.266E-01	4.020E-01	5.549E-01	5.361E-02	0.769
		1085.87		-6.134E-02	3.706E-01	5.938E-01	5.257E-02	-0.103
		1112.07		-4.963E-02	2.956E-01	4.730E-01	4.082E-02	-0.105
		1408.01		6.021E-02	1.827E-01	3.169E-01	2.678E-02	0.190
GD-153		69.67		-6.054E-02	1.459E+00	2.273E+00	1.739E-01	-0.027
		97.43	*	-6.061E-02	8.044E-02	1.193E-01	1.058E-02	-0.508
		103.18		-2.594E-02	1.018E-01	1.626E-01	1.407E-02	-0.159
EU-154		123.07		1.772E-03	4.755E-02	7.650E-02	8.521E-03	0.023
		723.31		-8.670E-02	1.640E-01	2.220E-01	2.418E-02	-0.391
		873.19		1.300E-01	3.322E-01	4.990E-01	6.458E-02	0.261

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		996.26		-1.080E-02	3.563E-01	5.826E-01	1.044E-01	-0.019
		1004.73		2.470E-02	2.197E-01	3.637E-01	4.456E-02	0.068
		1274.44	*	-5.467E-03	1.328E-01	2.131E-01	2.370E-02	-0.026
EU-155	+	86.55		3.345E-01	1.005E-01	1.615E-01	1.513E-02	2.071
		105.31	*	1.220E-01	9.629E-02	1.629E-01	1.416E-02	0.749
TB-160	+	86.79		9.289E-01	2.789E-01	4.502E-01	4.192E-02	2.063
		197.04		-3.905E-01	5.268E-01	8.467E-01	7.750E-02	-0.461
		215.65		9.118E-02	7.659E-01	1.209E+00	1.135E-01	0.075
		298.57		3.006E-01	1.331E-01	1.852E-01	1.821E-02	1.622
		879.36	*	3.605E-03	1.424E-01	2.360E-01	2.360E-02	0.015
		962.29		3.645E-02	6.102E-01	8.750E-01	8.461E-02	0.042
	+	966.15		3.123E-01	2.943E-01	4.479E-01	4.323E-02	0.697
		1177.93		5.962E-03	3.968E-01	6.441E-01	5.186E-02	0.009
		1271.85		-1.304E-01	7.986E-01	1.266E+00	1.047E-01	-0.103
HO-166M		80.57		2.832E-01	2.983E-01	3.664E-01	3.156E-02	0.773
		184.41		8.421E-02	3.623E-02	6.186E-02	5.556E-03	1.361
		280.46		-1.386E-01	7.962E-02	1.180E-01	1.175E-02	-1.174
		410.95		2.019E-01	2.265E-01	3.914E-01	3.340E-02	0.516
		711.68	*	-3.298E-02	5.502E-02	8.739E-02	8.852E-03	-0.377
		752.31		-1.051E-01	2.538E-01	4.084E-01	4.150E-02	-0.257
		810.29		-9.509E-03	5.742E-02	9.407E-02	9.536E-03	-0.101
TA-182		67.75		-3.433E-02	9.935E-02	1.429E-01	1.074E-02	-0.240
		100.11		1.334E-01	1.592E-01	2.662E-01	2.331E-02	0.501
		152.43		-9.697E-02	3.507E-01	5.513E-01	4.715E-02	-0.176
		222.11		-6.604E-02	3.239E-01	5.406E-01	5.117E-02	-0.122
	+	1121.30		6.672E-01	3.435E-01	3.722E-01	3.181E-02	1.792
		1189.05		1.545E-01	3.127E-01	5.296E-01	4.280E-02	0.292
		1221.41	*	8.876E-02	2.257E-01	3.763E-01	3.071E-02	0.236
		1231.02		-2.691E-02	5.219E-01	8.395E-01	6.869E-02	-0.032
IR-192	+	295.96		1.198E+00	2.473E-01	2.958E-01	2.930E-02	4.050
		308.46		-1.398E-02	8.716E-02	1.433E-01	1.401E-02	-0.098
		316.51	*	-9.524E-03	3.330E-02	5.426E-02	5.247E-03	-0.176
		468.07		6.200E-02	6.437E-02	1.014E-01	9.749E-03	0.612
HG-203		70.83		5.742E-01	1.287E+00	1.916E+00	2.990E-01	0.300
		72.87		7.517E-01	7.819E-01	1.178E+00	1.784E-01	0.638
		279.20	*	2.017E-02	3.821E-02	6.537E-02	6.635E-03	0.308
BI-207		72.81		1.362E-01	1.659E-01	2.505E-01	1.977E-02	0.544
	+	74.97		6.344E-01	1.303E-01	1.954E-01	1.578E-02	3.248
		569.70		2.528E-03	2.991E-02	4.707E-02	4.548E-03	0.054
		1063.66	*	2.677E-02	5.452E-02	9.290E-02	8.388E-03	0.288
		1770.23		-1.034E-01	3.596E-01	4.501E-01	3.693E-02	-0.230
PB-210		46.54	*	1.066E+00	1.918E+00	3.228E+00	2.966E-01	0.330
PB-211		404.85	*	-2.337E-01	6.813E-01	1.074E+00	5.195E-01	-0.218
		427.09		4.047E-01	1.379E+00	2.279E+00	1.055E+00	0.178
		832.01		2.714E-01	1.015E+00	1.704E+00	8.882E-01	0.159
BI-212	+	727.33	*	2.062E+00	8.189E-01	1.093E+00	1.482E-01	1.886
		785.37		-3.635E-01	2.885E+00	4.753E+00	4.828E-01	-0.076
		1620.50		2.598E+00	1.811E+00	3.705E+00	3.120E-01	0.701
RN-219	+	271.23		9.560E-01	3.815E-01	4.531E-01	5.147E-02	2.110

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		401.81	*	2.444E-02	3.737E-01	6.148E-01	9.084E-02	0.040
RA-223		81.07		5.436E-02	2.456E-01	2.865E-01	2.483E-02	0.190
	+	83.79		1.999E-01	1.135E-01	1.799E-01	1.613E-02	1.111
		94.87		1.139E+00	4.437E-01	7.070E-01	6.360E-02	1.611
		144.24		2.174E-01	6.547E-01	1.043E+00	9.886E-02	0.209
		154.21		-9.547E-02	3.835E-01	6.033E-01	5.673E-02	-0.158
	+	269.46		7.428E-01	2.938E-01	3.449E-01	3.466E-02	2.154
		323.87	*	-2.601E-01	6.490E-01	9.091E-01	1.620E-01	-0.286
	+	338.28		5.917E+00	1.589E+00	2.224E+00	2.806E-01	2.661
AC-227		79.69		4.400E-01	1.134E+00	1.679E+00	2.885E-01	0.262
		235.96		2.143E-01	1.511E-01	2.404E-01	2.689E-02	0.891
		256.23	*	1.354E-01	2.366E-01	4.063E-01	5.250E-02	0.333
	+	299.98		1.471E+00	9.873E-01	1.450E+00	1.965E-01	1.014
		304.50		4.585E-01	1.646E+00	2.456E+00	4.214E-01	0.187
		334.37		2.002E+00	1.934E+00	2.629E+00	4.220E-01	0.761
TH-227		79.80		1.185E+00	1.600E+00	2.189E+00	4.761E-01	0.541
		235.96		2.143E-01	1.509E-01	2.404E-01	2.560E-02	0.891
		256.23	*	1.354E-01	2.368E-01	4.063E-01	5.844E-02	0.333
	+	299.98		1.471E+00	9.873E-01	1.450E+00	1.965E-01	1.014
		304.50		4.585E-01	1.646E+00	2.456E+00	4.214E-01	0.187
		334.37		2.002E+00	1.934E+00	2.629E+00	4.220E-01	0.761
PA-231		283.69	*	-7.514E-01	1.353E+00	2.179E+00	3.355E-01	-0.345
	+	301.36		9.451E-01	6.333E-01	9.830E-01	1.280E-01	0.962
TH-231		81.07		5.436E-02	2.456E-01	2.865E-01	2.483E-02	0.190
	+	83.79		1.999E-01	1.135E-01	1.799E-01	1.613E-02	1.111
		94.87		1.139E+00	4.437E-01	7.070E-01	6.360E-02	1.611
		144.24		2.174E-01	6.547E-01	1.043E+00	9.886E-02	0.209
		154.21		-9.547E-02	3.835E-01	6.033E-01	5.673E-02	-0.158
	+	269.46		7.428E-01	2.938E-01	3.449E-01	3.466E-02	2.154
		323.87	*	-2.601E-01	6.490E-01	9.091E-01	1.620E-01	-0.286
	+	338.28		5.917E+00	1.589E+00	2.224E+00	2.806E-01	2.661
PA-233	+	300.13		6.657E-01	4.496E-01	6.586E-01	1.024E-01	1.011
		311.90	*	5.052E-03	5.577E-02	9.305E-02	9.234E-03	0.054
		340.48		1.629E+00	8.061E-01	1.180E+00	2.873E-01	1.380
PA-234	+	94.67		4.878E-01	2.725E-01	2.740E-01	3.472E-02	1.781
		98.44		5.231E-02	8.501E-02	1.329E-01	7.416E-02	0.394
		111.00		2.675E-02	1.727E-01	2.802E-01	3.356E-02	0.095
		131.20		3.503E-02	1.047E-01	1.700E-01	1.421E-02	0.206
		569.50		2.939E-02	2.659E-01	4.195E-01	4.052E-02	0.070
		733.00		3.505E-01	3.817E-01	6.041E-01	1.380E-01	0.580
		880.51		9.570E-02	2.538E-01	4.347E-01	4.345E-02	0.220
		883.24		5.403E-02	2.525E-01	4.221E-01	2.845E-01	0.128
		926.50		-6.959E-03	1.710E-01	2.807E-01	7.220E-02	-0.025
		946.00	*	1.463E-02	3.019E-01	4.990E-01	9.636E-02	0.029
		949.00		3.727E-01	4.603E-01	8.076E-01	7.862E-02	0.462
PA-234M		766.42		1.778E+01	1.545E+01	2.075E+01	1.059E+01	0.857
		1001.03	*	-1.639E-01	4.761E+00	7.853E+00	8.400E-01	-0.021
U-235		89.96		-3.064E-01	1.142E+00	1.278E+00	3.176E-01	-0.240
	+	93.35		1.368E+00	8.090E-01	9.566E-01	2.226E-01	1.430

Sample ID : G248818006 Acquisition date : 23-MAR-2010 13:34:08

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		143.76	*	9.019E-02	1.951E-01	3.116E-01	5.258E-02	0.289
		163.33		1.158E-01	4.130E-01	6.548E-01	1.178E-01	0.177
	+	185.72		2.007E-01	6.806E-02	8.892E-02	8.003E-03	2.257
		205.31		-3.410E-01	5.086E-01	7.218E-01	1.332E-01	-0.472
NP-239		99.53		2.216E-01	1.427E-01	2.441E-01	2.143E-02	0.908
		103.37		8.371E-03	9.056E-02	1.470E-01	1.270E-02	0.057
		106.12		2.889E-02	7.785E-02	1.276E-01	1.093E-02	0.226
		117.23	*	-2.028E-01	3.727E-01	5.843E-01	4.894E-02	-0.347
		228.18		-2.148E-02	1.993E-01	3.337E-01	3.182E-02	-0.064
		277.60		1.497E-01	1.646E-01	2.858E-01	2.843E-02	0.524
AM-241		59.54	*	1.017E-01	1.200E-01	1.838E-01	1.438E-02	0.554
CM-247		278.00		5.114E-01	6.939E-01	1.197E+00	1.191E-01	0.427
		287.50		5.363E-02	1.154E+00	1.928E+00	1.910E-01	0.028
		402.40	*	-1.853E-02	3.485E-02	5.493E-02	4.644E-03	-0.337
CF-249		252.80		4.362E-01	8.794E-01	1.508E+00	1.474E-01	0.289
		333.37		1.429E-01	2.365E-01	2.723E-01	2.571E-02	0.525
		388.16	*	8.879E-03	3.666E-02	6.113E-02	5.156E-03	0.145
CF-251		177.52	*	3.592E-02	1.227E-01	1.970E-01	1.751E-02	0.182
		227.38		-4.514E-02	3.264E-01	5.460E-01	5.201E-02	-0.083
		285.41		2.214E+00	2.000E+00	3.509E+00	3.482E-01	0.631

VAX/VMS Nuclide Identification Report Generated

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*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
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*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818006      *
* Acquisition date : 23-MAR-2010 13:34:08 Detector SN#    :                 *
* Detector ID      : GAM20                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:32.88     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248818006           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.2516E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.677E+01	3.655E+00	4.628E-01	0.000E+00
CD-109	2.838E+00	8.351E-01	1.329E+00	0.000E+00
SN-126	2.754E-01	8.102E-02	1.296E-01	0.000E+00
TL-208	4.587E-01	9.290E-02	5.786E-02	0.000E+00
BI-211	3.534E+00	5.260E-01	3.073E-01	0.000E+00
PB-212	1.527E+00	1.903E-01	8.824E-02	0.000E+00
BI-214	1.146E+00	1.919E-01	1.067E-01	0.000E+00
PB-214	1.282E+00	2.031E-01	1.118E-01	0.000E+00
RA-224	4.336E+00	1.137E+00	9.455E-01	0.000E+00
RA-226	1.146E+00	1.919E-01	1.067E-01	0.000E+00
AC-228	1.635E+00	3.450E-01	2.394E-01	0.000E+00
RA-228	1.635E+00	3.450E-01	2.394E-01	0.000E+00
TH-228	1.527E+00	1.903E-01	8.824E-02	0.000E+00
TH-229	1.694E-01	4.456E-01	8.045E-01	0.000E+00
TH-230	1.146E+00	1.825E-01	1.067E-01	0.000E+00
TH-232	1.635E+00	3.450E-01	2.394E-01	0.000E+00
TH-234	2.299E+00	1.559E+00	1.645E+00	0.000E+00
NP-237	8.216E-01	2.949E-01	3.073E-01	0.000E+00
U-238	2.299E+00	1.559E+00	1.645E+00	0.000E+00
ANH-511	1.192E-01	6.895E-02	4.586E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	2.397E-01	3.161E-01	5.597E-01	0.000E+00	NOT IDENT.
NA-22	-5.213E-03	4.620E-02	7.521E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.507E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	1.912E-02	3.469E-02	6.197E-02	0.000E+00	FAIL ABUN
V-48	-3.608E-02	8.339E-02	1.343E-01	0.000E+00	NOT IDENT.
CR-51	-5.180E-02	3.679E-01	6.298E-01	0.000E+00	NOT IDENT.
MN-54	-2.155E-02	3.797E-02	6.177E-02	0.000E+00	NOT IDENT.

CO-56	-3.102E-02	3.908E-02	6.161E-02	0.000E+00	NOT IDENT.
CO-57	-4.255E-03	2.346E-02	3.946E-02	0.000E+00	NOT IDENT.
CO-58	2.772E-03	3.886E-02	6.682E-02	0.000E+00	NOT IDENT.
FE-59	1.943E-02	9.247E-02	1.573E-01	0.000E+00	NOT IDENT.
CO-60	1.395E-02	4.198E-02	7.134E-02	0.000E+00	NOT IDENT.
ZN-65	3.318E-02	9.199E-02	1.391E-01	0.000E+00	NOT IDENT.
SE-75	2.561E-03	4.399E-02	6.796E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.181E-02	7.732E-02	0.000E+00	NOT IDENT.
Y-88	9.465E-03	3.270E-02	5.748E-02	0.000E+00	NOT IDENT.
Y-91	-3.321E+00	2.490E+01	4.074E+01	0.000E+00	NOT IDENT.
NB-94	-2.182E-03	3.159E-02	5.429E-02	0.000E+00	NOT IDENT.
NB-95	6.504E-02	4.588E-02	7.814E-02	0.000E+00	NOT IDENT.
NB-95M	6.002E-02	1.277E-01	2.034E-01	0.000E+00	NOT IDENT.
ZR-95	2.262E-02	7.119E-02	1.253E-01	0.000E+00	NOT IDENT.
MO-99	-5.266E+00	3.901E+01	6.637E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.328E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.710E-03	3.720E-02	6.259E-02	0.000E+00	FAIL ABUN
RH-106	-1.394E-01	3.170E-01	5.020E-01	0.000E+00	NOT IDENT.
RU-106	-1.394E-01	3.167E-01	5.020E-01	0.000E+00	NOT IDENT.
AG-108M	2.176E-02	2.674E-02	4.773E-02	0.000E+00	NOT IDENT.
AG-110M	3.394E-04	3.194E-02	5.549E-02	0.000E+00	NOT IDENT.
SN-113	3.800E-02	4.159E-02	7.485E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	4.869E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	1.776E-02	6.500E-02	1.101E-01	0.000E+00	NOT IDENT.
TE-123M	7.433E-03	2.683E-02	4.545E-02	0.000E+00	NOT IDENT.
SB-124	1.658E-02	6.137E-02	1.090E-01	0.000E+00	NOT IDENT.
SB-125	-2.038E-02	8.242E-02	1.371E-01	0.000E+00	FAIL ABUN
TE-125M	6.762E-01	9.416E+00	1.611E+01	0.000E+00	NOT IDENT.
I-126	1.533E-01	2.733E-01	4.917E-01	0.000E+00	NOT IDENT.
SB-126	-6.072E-02	1.893E-01	2.727E-01	0.000E+00	NOT IDENT.
SB-127	-8.797E-01	3.015E+00	5.098E+00	0.000E+00	NOT IDENT.
I-131	1.548E-01	1.572E-01	2.849E-01	0.000E+00	NOT IDENT.
TE-132	-5.185E-01	1.941E+00	3.376E+00	0.000E+00	NOT IDENT.
BA-133	-2.069E-03	4.302E-02	6.447E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.907E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.761E-02	9.191E-02	0.000E+00	NOT IDENT.
CS-135	1.229E-01	1.556E-01	2.515E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.879E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.879E-02	1.367E-01	2.259E-01	0.000E+00	NOT IDENT.
BA-137M	-1.276E-02	3.319E-02	5.593E-02	0.000E+00	NOT IDENT.
CS-137	-1.348E-02	3.507E-02	5.908E-02	0.000E+00	NOT IDENT.
CE-139	-2.379E-02	2.885E-02	4.605E-02	0.000E+00	NOT IDENT.
BA-140	-1.425E-01	3.457E-01	5.376E-01	0.000E+00	NOT IDENT.
LA-140	3.364E-02	9.826E-02	1.641E-01	0.000E+00	FAIL ABUN
CE-141	6.435E-03	6.593E-02	1.093E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.226E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-8.520E-02	1.900E-01	3.136E-01	0.000E+00	NOT IDENT.
PM-144	-7.164E-03	3.110E-02	5.278E-02	0.000E+00	NOT IDENT.
PR-144	-5.537E-01	2.332E+00	3.956E+00	0.000E+00	NOT IDENT.
PM-146	2.972E-02	3.895E-02	6.905E-02	0.000E+00	NOT IDENT.
ND-147	-1.619E-01	7.344E-01	1.203E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	3.975E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-7.415E-03	9.247E-02	1.528E-01	0.000E+00	FAIL ABUN
GD-153	-6.061E-02	7.883E-02	1.237E-01	0.000E+00	NOT IDENT.
EU-154	-5.467E-03	1.301E-01	2.134E-01	0.000E+00	NOT IDENT.
EU-155	1.220E-01	9.437E-02	1.689E-01	0.000E+00	FAIL ABUN
TB-160	3.605E-03	1.396E-01	2.375E-01	0.000E+00	FAIL ABUN
HO-166M	-3.298E-02	5.392E-02	8.822E-02	0.000E+00	NOT IDENT.
TA-182	8.876E-02	2.212E-01	3.770E-01	0.000E+00	FAIL ABUN
IR-192	-9.524E-03	3.264E-02	5.540E-02	0.000E+00	FAIL ABUN
HG-203	2.017E-02	3.744E-02	6.687E-02	0.000E+00	NOT IDENT.
BI-207	2.677E-02	5.343E-02	9.325E-02	0.000E+00	FAIL ABUN
PB-210	1.066E+00	1.879E+00	3.383E+00	0.000E+00	NOT IDENT.
PB-211	-2.337E-01	6.676E-01	1.093E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	8.025E-01	1.103E+00	0.000E+00	FAIL ABUN
RN-219	2.444E-02	3.662E-01	6.257E-01	0.000E+00	FAIL ABUN
RA-223	-2.601E-01	6.360E-01	9.280E-01	0.000E+00	FAIL ABUN
AC-227	1.354E-01	2.319E-01	4.161E-01	0.000E+00	FAIL ABUN
TH-227	1.354E-01	2.321E-01	4.161E-01	0.000E+00	FAIL ABUN
PA-231	-7.514E-01	1.326E+00	2.228E+00	0.000E+00	FAIL ABUN
TH-231	-2.601E-01	6.360E-01	9.280E-01	0.000E+00	FAIL ABUN
PA-233	5.052E-03	5.465E-02	9.503E-02	0.000E+00	FAIL ABUN
PA-234	1.463E-02	2.959E-01	5.018E-01	0.000E+00	FAIL ABUN
PA-234M	-1.639E-01	4.666E+00	7.889E+00	0.000E+00	NOT IDENT.
U-235	9.019E-02	1.911E-01	3.217E-01	0.000E+00	FAIL ABUN
NP-239	-2.028E-01	3.652E-01	6.047E-01	0.000E+00	NOT IDENT.
AM-241	1.017E-01	1.176E-01	1.919E-01	0.000E+00	NOT IDENT.
CM-247	-1.853E-02	3.415E-02	5.590E-02	0.000E+00	NOT IDENT.

CF-249	8.879E-03	3.593E-02	6.224E-02	0.000E+00 NOT IDENT.
CF-251	3.592E-02	1.203E-01	2.028E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:35:22.53

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818006.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 13:34:08
Sample ID         : G248818006           Sample quantity  : 1.25160E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:32.88  0.5%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1637	10.66*	1.252E+00	3.677E+01	3.677E+01	10.14
CD-109	88.03	236	3.70*	6.939E+00	2.754E+00	2.838E+00	30.03
SN-126	64.28	133	9.60	4.703E+00	8.861E-01	8.861E-01	68.42
	86.94	236	8.90	6.939E+00	1.145E+00	1.145E+00	50.38
	87.57	236	37.00*	6.939E+00	2.754E-01	2.754E-01	30.03
TL-208	277.37	------	6.60	4.721E+00	------ Line Not Found		------
	583.19	350	85.00*	2.695E+00	4.587E-01	4.587E-01	20.67
	860.56	------	12.50	1.954E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	5.845E+00	------ Line Not Found		------
	351.06	604	12.92*	3.968E+00	3.534E+00	3.534E+00	15.19
PB-212	74.82	457	10.28	6.058E+00	2.201E+00	2.201E+00	22.73
	77.11	669	17.10	6.262E+00	1.874E+00	1.874E+00	15.17
	238.63	1165	43.60*	5.247E+00	1.527E+00	1.527E+00	12.71
	300.09	66	3.30	4.459E+00	1.338E+00	1.338E+00	66.73
BI-214	609.32	452	45.49*	2.602E+00	1.146E+00	1.146E+00	17.09
	1120.29	107	14.92	1.556E+00	1.382E+00	1.382E+00	51.92
	1764.49	78	15.30	1.100E+00	1.395E+00	1.395E+00	25.04
PB-214	74.82	457	5.80	6.058E+00	3.900E+00	3.901E+00	22.02
	77.11	669	9.70	6.262E+00	3.303E+00	3.303E+00	17.26
	242.00	308	7.25	5.204E+00	2.452E+00	2.452E+00	27.38
	295.22	429	18.42	4.512E+00	1.547E+00	1.547E+00	21.62
	351.93	604	35.60*	3.968E+00	1.282E+00	1.282E+00	16.16
RA-224	240.99	308	4.10*	5.204E+00	4.336E+00	4.336E+00	26.76
RA-226	609.32	452	45.49*	2.602E+00	1.146E+00	1.146E+00	17.09
	1120.29	107	14.92	1.556E+00	1.382E+00	1.382E+00	51.92
	1764.49	78	15.30	1.100E+00	1.395E+00	1.395E+00	25.04
AC-228	338.32	229	11.27	4.085E+00	1.491E+00	1.491E+00	48.12
	911.20	261	25.80*	1.859E+00	1.635E+00	1.635E+00	21.53
	968.97	119	15.80	1.763E+00	1.282E+00	1.282E+00	43.63
RA-228	338.32	229	11.27	4.085E+00	1.491E+00	1.491E+00	48.12
	911.20	261	25.80*	1.859E+00	1.635E+00	1.635E+00	21.53
	968.97	119	15.80	1.763E+00	1.282E+00	1.282E+00	43.63

Sample ID : G248818006 Acquisition date : 23-MAR-2010 13:34:08

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	457	10.28	6.058E+00	2.201E+00	2.201E+00	20.57
	77.11	669	17.10	6.262E+00	1.874E+00	1.874E+00	15.17
	238.63	1165	43.60*	5.247E+00	1.527E+00	1.527E+00	12.71
	300.09	66	3.30	4.459E+00	1.338E+00	1.338E+00	89.94
TH-229	85.43	112	14.70	6.774E+00	3.360E-01	3.360E-01	56.75
	88.47	236	24.00	6.939E+00	4.245E-01	4.245E-01	30.03
	193.51	------	4.41*	6.026E+00	------ Line Not Found		------
	210.85	------	2.80	5.705E+00	------ Line Not Found		------
TH-230	609.32	452	45.49*	2.602E+00	1.146E+00	1.146E+00	16.26
	1120.29	107	14.92	1.556E+00	1.382E+00	1.382E+00	51.48
	1764.49	78	15.30	1.100E+00	1.395E+00	1.395E+00	25.04
TH-232	338.32	229	11.27	4.085E+00	1.491E+00	1.491E+00	25.49
	911.20	261	25.80*	1.859E+00	1.635E+00	1.635E+00	21.53
	968.97	119	15.80	1.763E+00	1.282E+00	1.282E+00	43.63
TH-234	63.29	133	3.70*	4.703E+00	2.299E+00	2.299E+00	69.19
	92.59	184	4.23	7.186E+00	1.811E+00	1.811E+00	58.76
NP-237	86.48	236	12.40*	6.939E+00	8.216E-01	8.216E-01	36.62
	95.86	------	2.68	7.260E+00	------ Line Not Found		------
U-238	63.29	133	3.70*	4.703E+00	2.299E+00	2.299E+00	69.19
	92.59	184	4.23	7.186E+00	1.811E+00	1.811E+00	55.13
ANH-511	511.00	119	100.00*	2.991E+00	1.192E-01	1.192E-01	59.02

Flag: "*" = Keyline

Sample ID : G248818006 Acquisition date : 23-MAR-2010 13:34:08

Total number of lines in spectrum 33
Number of unidentified lines 7
Number of lines tentatively identified by NID 26 78.79%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.677E+01	3.677E+01	0.373E+01	10.14	
CD-109	461.40D	1.03	2.754E+00	2.838E+00	0.852E+00	30.03	
SN-126	2.30E+05Y	1.00	2.754E-01	2.754E-01	0.827E-01	30.03	
TL-208	1.41E+10Y	1.00	4.587E-01	4.587E-01	0.948E-01	20.67	
BI-211	7.04E+08Y	1.00	3.534E+00	3.534E+00	0.537E+00	15.19	
PB-212	1.41E+10Y	1.00	1.527E+00	1.527E+00	0.194E+00	12.71	
BI-214	1600.00Y	1.00	1.146E+00	1.146E+00	0.196E+00	17.09	
PB-214	1600.00Y	1.00	1.282E+00	1.282E+00	0.207E+00	16.16	
RA-224	1.41E+10Y	1.00	4.336E+00	4.336E+00	1.160E+00	26.76	
RA-226	1600.00Y	1.00	1.146E+00	1.146E+00	0.196E+00	17.09	
AC-228	1.41E+10Y	1.00	1.635E+00	1.635E+00	0.352E+00	21.53	
RA-228	1.41E+10Y	1.00	1.635E+00	1.635E+00	0.352E+00	21.53	
TH-228	1.41E+10Y	1.00	1.527E+00	1.527E+00	0.194E+00	12.71	
TH-229	7340.00Y	1.00	4.245E-01	4.245E-01	1.275E-01	30.03	K
TH-230	7.54E+04Y	1.00	1.146E+00	1.146E+00	0.186E+00	16.26	
TH-232	1.41E+10Y	1.00	1.635E+00	1.635E+00	0.352E+00	21.53	
TH-234	4.47E+09Y	1.00	2.299E+00	2.299E+00	1.591E+00	69.19	
NP-237	2.14E+06Y	1.00	8.216E-01	8.216E-01	3.009E-01	36.62	
U-238	4.47E+09Y	1.00	2.299E+00	2.299E+00	1.591E+00	69.19	
ANH-511	1.00E+09Y	1.00	1.192E-01	1.192E-01	0.704E-01	59.02	
			---	---			
	Total Activity :		6.677E+01	6.685E+01			

Grand Total Activity : 6.677E+01 6.685E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248818006 Acquisition date : 23-MAR-2010 13:34:08

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	185.98	236	303	1.32	371.59	367	11	3.28E-02	32.7	6.17E+00	T
0	209.23	137	288	1.21	418.02	414	11	1.90E-02	51.1	5.73E+00	
0	269.94	166	209	1.44	539.29	533	12	2.30E-02	38.3	4.81E+00	T
0	327.94	111	189	1.42	655.17	648	14	1.54E-02	56.0	4.18E+00	T
0	463.09	88	108	1.46	925.21	919	13	1.23E-02	52.8	3.23E+00	T
0	727.68	103	60	1.37	1454.08	1447	14	1.43E-02	37.3	2.25E+00	T
0	768.98	59	66	1.98	1536.66	1531	10	8.18E-03	58.8	2.15E+00	
0	865.38	87	141	10.47	1729.43	1714	30	1.21E-02	84.6	1.94E+00	
0	964.87	37	73	1.42	1928.43	1923	10	5.11E-03	93.7	1.77E+00	T
0	1377.93	39	17	1.56	2754.97	2746	14	5.44E-03	55.3	1.31E+00	
0	1509.87	29	5	1.44	3019.12	3013	11	4.03E-03	48.3	1.22E+00	
0	1588.89	25	13	1.45	3177.35	3173	10	3.50E-03	66.1	1.18E+00	
0	1730.70	28	6	0.81	3461.38	3456	12	3.89E-03	51.5	1.11E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:35:27.44

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818006.CNF;1  *
* Acquisition date : 23-MAR-2010 13:34:08  Detector SN#    :                *
* Detector ID      : GAM20                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:32.88         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248818006            Analyst initials: MXR1           *
* Batch Number     : 962631                Sample Quantity : 1.25160E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11.7MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.677E+01	3.730E+00	4.632E-01	4.040E-02	79.379
CD-109	2.838E+00	8.521E-01	1.279E+00	1.209E-01	2.219
SN-126	2.754E-01	8.268E-02	1.247E-01	1.173E-02	2.208
TL-208	4.587E-01	9.479E-02	5.716E-02	5.870E-03	8.025
BI-211	3.534E+00	5.368E-01	3.014E-01	2.888E-02	11.725
PB-212	1.527E+00	1.942E-01	8.608E-02	9.192E-03	17.741
BI-214	1.146E+00	1.958E-01	1.055E-01	1.178E-02	10.860
PB-214	1.282E+00	2.073E-01	1.096E-01	1.211E-02	11.700
RA-224	4.336E+00	1.160E+00	9.225E-01	8.917E-02	4.701
RA-226	1.146E+00	1.958E-01	1.055E-01	1.178E-02	10.860
AC-228	1.635E+00	3.520E-01	2.380E-01	2.991E-02	6.870
RA-228	1.635E+00	3.520E-01	2.380E-01	2.991E-02	6.870
TH-228	1.527E+00	1.942E-01	8.608E-02	9.192E-03	17.741
TH-229	4.245E-01	1.275E-01	7.826E-01	7.126E-02	0.542
TH-230	1.146E+00	1.863E-01	1.055E-01	1.039E-02	10.860
TH-232	1.635E+00	3.520E-01	2.380E-01	2.991E-02	6.870
TH-234	2.299E+00	1.591E+00	1.577E+00	2.801E-01	1.458
NP-237	8.216E-01	3.009E-01	2.957E-01	6.779E-02	2.779

Sample ID : G248818006 Acquisition date : 23-MAR-2010 13:34:08

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-238	2.299E+00	1.591E+00	1.577E+00	2.801E-01	1.458
ANH-511	1.192E-01	7.035E-02	4.522E-02	4.213E-03	2.636

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.397E-01		3.226E-01	5.513E-01	5.358E-02	0.435
NA-22	-5.213E-03		4.714E-02	7.512E-02	6.223E-03	-0.069
NA-24	2.640E+01		7.688E+01	Half-Life too short		
SC-46	1.912E-02		3.540E-02	6.158E-02	6.139E-03	0.310
V-48	-3.608E-02		8.509E-02	1.336E-01	1.277E-02	-0.270
CR-51	-5.180E-02		3.754E-01	6.169E-01	6.180E-02	-0.084
MN-54	-2.155E-02		3.875E-02	6.133E-02	6.195E-03	-0.351
CO-56	-3.102E-02		3.987E-02	6.118E-02	6.166E-03	-0.507
CO-57	-4.255E-03		2.394E-02	3.815E-02	3.184E-03	-0.112
CO-58	2.772E-03		3.966E-02	6.631E-02	6.733E-03	0.042
FE-59	1.943E-02		9.436E-02	1.568E-01	1.479E-02	0.124
CO-60	1.395E-02		4.284E-02	7.131E-02	5.973E-03	0.196
ZN-65	3.318E-02		9.387E-02	1.386E-01	1.193E-02	0.239
SE-75	2.561E-03		4.489E-02	6.639E-02	6.574E-03	0.039
SR-85	8.419E-02		4.266E-02	7.624E-02	7.119E-03	1.104
Y-88	9.465E-03		3.337E-02	5.771E-02	4.657E-03	0.164
Y-91	-3.321E+00		2.541E+01	4.066E+01	3.302E+00	-0.082
NB-94	-2.182E-03		3.223E-02	5.377E-02	5.440E-03	-0.041
NB-95	6.504E-02		4.681E-02	7.748E-02	7.874E-03	0.839
NB-95M	6.002E-02		1.303E-01	1.984E-01	2.135E-02	0.303
ZR-95	2.262E-02		7.264E-02	1.242E-01	1.359E-02	0.182
MO-99	-5.266E+00		3.981E+01	6.578E+01	1.095E+01	-0.080
TC-99M	-3.444E+16		1.698E+16	Half-Life too short		
RU-103	1.710E-03		3.796E-02	6.169E-02	8.851E-03	0.028
RH-106	-1.394E-01		3.235E-01	4.963E-01	7.008E-02	-0.281
RU-106	-1.394E-01		3.231E-01	4.963E-01	4.912E-02	-0.281
AG-108M	2.176E-02		2.729E-02	4.695E-02	4.232E-03	0.463
AG-110M	3.394E-04		3.259E-02	5.491E-02	5.625E-03	0.006
SN-113	3.800E-02		4.244E-02	7.352E-02	6.342E-03	0.517
CD-115	-2.014E-05		2.484E-05	Half-Life too short		
SN-117M	1.776E-02		6.633E-02	1.068E-01	9.218E-03	0.166
TE-123M	7.433E-03		2.738E-02	4.410E-02	3.831E-03	0.169
SB-124	1.658E-02		6.262E-02	1.093E-01	9.524E-03	0.152
SB-125	-2.038E-02		8.410E-02	1.348E-01	1.193E-02	-0.151
TE-125M	6.762E-01		9.608E+00	1.555E+01	1.616E+00	0.043
I-126	1.533E-01		2.789E-01	4.866E-01	4.889E-02	0.315
SB-126	-6.072E-02		1.932E-01	2.702E-01	2.740E-02	-0.225
SB-127	-8.797E-01		3.077E+00	5.047E+00	7.047E-01	-0.174
I-131	1.548E-01		1.604E-01	2.796E-01	2.633E-02	0.554
TE-132	-5.185E-01		1.981E+00	3.291E+00	5.723E-01	-0.158
BA-133	-2.069E-03		4.390E-02	6.325E-02	8.390E-03	-0.033

Sample ID : G248818006 Acquisition date : 23-MAR-2010 13:34:08

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	2.246E-01		1.483E-01	Half-Life too short		
CS-134	1.043E-01		4.858E-02	9.119E-02	9.304E-03	1.144
CS-135	1.229E-01		1.588E-01	2.457E-01	2.723E-02	0.500
I-135	-1.228E+15		9.585E+14	Half-Life too short		
CS-136	-1.879E-02		1.395E-01	2.250E-01	2.136E-02	-0.084
BA-137M	-1.276E-02		3.387E-02	5.534E-02	5.554E-03	-0.231
CS-137	-1.348E-02		3.578E-02	5.846E-02	5.876E-03	-0.231
CE-139	-2.379E-02		2.944E-02	4.470E-02	3.902E-03	-0.532
BA-140	-1.425E-01		3.528E-01	5.304E-01	1.811E-01	-0.269
LA-140	3.364E-02		1.003E-01	1.645E-01	1.388E-02	0.205
CE-141	6.435E-03		6.728E-02	1.060E-01	9.149E-03	0.061
CE-143	5.856E-03		1.136E-03	Half-Life too short		
CE-144	-8.520E-02		1.939E-01	3.035E-01	4.597E-02	-0.281
PM-144	-7.164E-03		3.173E-02	5.227E-02	5.286E-03	-0.137
PR-144	-5.537E-01		2.380E+00	3.918E+00	3.960E-01	-0.141
PM-146	2.972E-02		3.974E-02	6.796E-02	7.355E-03	0.437
ND-147	-1.619E-01		7.494E-01	1.186E+00	1.832E-01	-0.136
PM-149	4.365E-04		2.028E-04	Half-Life too short		
EU-152	-7.415E-03		9.435E-02	1.498E-01	1.461E-02	-0.050
GD-153	-6.061E-02		8.044E-02	1.193E-01	1.058E-02	-0.508
EU-154	-5.467E-03		1.328E-01	2.131E-01	2.370E-02	-0.026
EU-155	1.220E-01		9.629E-02	1.629E-01	1.416E-02	0.749
TB-160	3.605E-03		1.424E-01	2.360E-01	2.360E-02	0.015
HO-166M	-3.298E-02		5.502E-02	8.739E-02	8.852E-03	-0.377
TA-182	8.876E-02		2.257E-01	3.763E-01	3.071E-02	0.236
IR-192	-9.524E-03		3.330E-02	5.426E-02	5.247E-03	-0.176
HG-203	2.017E-02		3.821E-02	6.537E-02	6.635E-03	0.308
BI-207	2.677E-02		5.452E-02	9.290E-02	8.388E-03	0.288
PB-210	1.066E+00		1.918E+00	3.228E+00	2.966E-01	0.330
PB-211	-2.337E-01		6.813E-01	1.074E+00	5.195E-01	-0.218
BI-212	2.062E+00	+	8.189E-01	1.093E+00	1.482E-01	1.886
RN-219	2.444E-02		3.737E-01	6.148E-01	9.084E-02	0.040
RA-223	-2.601E-01		6.490E-01	9.091E-01	1.620E-01	-0.286
AC-227	1.354E-01		2.366E-01	4.063E-01	5.250E-02	0.333
TH-227	1.354E-01		2.368E-01	4.063E-01	5.844E-02	0.333
PA-231	-7.514E-01		1.353E+00	2.179E+00	3.355E-01	-0.345
TH-231	-2.601E-01		6.490E-01	9.091E-01	1.620E-01	-0.286
PA-233	5.052E-03		5.577E-02	9.305E-02	9.234E-03	0.054
PA-234	1.463E-02		3.019E-01	4.990E-01	9.636E-02	0.029
PA-234M	-1.639E-01		4.761E+00	7.853E+00	8.400E-01	-0.021
U-235	9.019E-02		1.951E-01	3.116E-01	5.258E-02	0.289
NP-239	-2.028E-01		3.727E-01	5.843E-01	4.894E-02	-0.347
AM-241	1.017E-01		1.200E-01	1.838E-01	1.438E-02	0.554
CM-247	-1.853E-02		3.485E-02	5.493E-02	4.644E-03	-0.337
CF-249	8.879E-03		3.666E-02	6.113E-02	5.156E-03	0.145
CF-251	3.592E-02		1.227E-01	1.970E-01	1.751E-02	0.182

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248818006           *
* Acquisition date  : 23-MAR-2010 13:34:08 Detector SN#     :               *
* Detector ID       : GAM20                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:32.88      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  3-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248818006           Analyst initials: MXR1           *
* Batch Number      : 962631               Sample Quantity : 1.2516E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.677E+01	3.655E+00	2.316E-01	1.865E+00
CD-109	2.838E+00	8.351E-01	6.648E-01	4.261E-01
SN-126	2.754E-01	8.102E-02	6.482E-02	4.134E-02
TL-208	4.587E-01	9.290E-02	2.895E-02	4.740E-02
BI-211	3.534E+00	5.260E-01	1.537E-01	2.684E-01
PB-212	1.527E+00	1.903E-01	4.415E-02	9.708E-02
BI-214	1.146E+00	1.919E-01	5.339E-02	9.791E-02
PB-214	1.282E+00	2.031E-01	5.591E-02	1.036E-01
RA-224	4.336E+00	1.137E+00	4.730E-01	5.802E-01
RA-226	1.146E+00	1.919E-01	5.339E-02	9.791E-02
AC-228	1.635E+00	3.450E-01	1.198E-01	1.760E-01
RA-228	1.635E+00	3.450E-01	1.198E-01	1.760E-01
TH-228	1.527E+00	1.903E-01	4.415E-02	9.708E-02
TH-229	1.694E-01	4.456E-01	4.025E-01	2.273E-01
TH-230	1.146E+00	1.825E-01	5.339E-02	9.313E-02
TH-232	1.635E+00	3.450E-01	1.198E-01	1.760E-01
TH-234	2.299E+00	1.559E+00	8.232E-01	7.954E-01
NP-237	8.216E-01	2.949E-01	1.537E-01	1.504E-01
U-238	2.299E+00	1.559E+00	8.232E-01	7.954E-01
ANH-511	1.192E-01	6.895E-02	2.294E-02	3.518E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	2.397E-01	3.161E-01	2.800E-01	1.613E-01	NOT IDENT.
NA-22	-5.213E-03	4.620E-02	3.763E-02	2.357E-02	NOT IDENT.
NA-24	2.640E+07	1.507E+08	0.000E+00	7.688E+07	SHORT HLIF
SC-46	1.912E-02	3.469E-02	3.100E-02	1.770E-02	FAIL ABUN
V-48	-3.608E-02	8.339E-02	6.719E-02	4.255E-02	NOT IDENT.
CR-51	-5.180E-02	3.679E-01	3.151E-01	1.877E-01	NOT IDENT.
MN-54	-2.155E-02	3.797E-02	3.090E-02	1.937E-02	NOT IDENT.

CO-56	-3.102E-02	3.908E-02	3.082E-02	1.994E-02	NOT IDENT.
CO-57	-4.255E-03	2.346E-02	1.974E-02	1.197E-02	NOT IDENT.
CO-58	2.772E-03	3.886E-02	3.343E-02	1.983E-02	NOT IDENT.
FE-59	1.943E-02	9.247E-02	7.871E-02	4.718E-02	NOT IDENT.
CO-60	1.395E-02	4.198E-02	3.569E-02	2.142E-02	NOT IDENT.
ZN-65	3.318E-02	9.199E-02	6.957E-02	4.694E-02	NOT IDENT.
SE-75	2.561E-03	4.399E-02	3.400E-02	2.244E-02	NOT IDENT.
SR-85	8.419E-02	4.181E-02	3.868E-02	2.133E-02	NOT IDENT.
Y-88	9.465E-03	3.270E-02	2.875E-02	1.669E-02	NOT IDENT.
Y-91	-3.321E+00	2.490E+01	2.038E+01	1.270E+01	NOT IDENT.
NB-94	-2.182E-03	3.159E-02	2.716E-02	1.612E-02	NOT IDENT.
NB-95	6.504E-02	4.588E-02	3.909E-02	2.341E-02	NOT IDENT.
NB-95M	6.002E-02	1.277E-01	1.018E-01	6.513E-02	NOT IDENT.
ZR-95	2.262E-02	7.119E-02	6.269E-02	3.632E-02	NOT IDENT.
MO-99	-5.266E+00	3.901E+01	3.321E+01	1.990E+01	NOT IDENT.
TC-99M	-3.444E+22	3.328E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.710E-03	3.720E-02	3.131E-02	1.898E-02	FAIL ABUN
RH-106	-1.394E-01	3.170E-01	2.511E-01	1.617E-01	NOT IDENT.
RU-106	-1.394E-01	3.167E-01	2.511E-01	1.616E-01	NOT IDENT.
AG-108M	2.176E-02	2.674E-02	2.388E-02	1.364E-02	NOT IDENT.
AG-110M	3.394E-04	3.194E-02	2.776E-02	1.630E-02	NOT IDENT.
SN-113	3.800E-02	4.159E-02	3.745E-02	2.122E-02	NOT IDENT.
CD-115	-2.014E+01	4.869E+01	0.000E+00	2.484E+01	SHORT HLIF
SN-117M	1.776E-02	6.500E-02	5.508E-02	3.316E-02	NOT IDENT.
TE-123M	7.433E-03	2.683E-02	2.274E-02	1.369E-02	NOT IDENT.
SB-124	1.658E-02	6.137E-02	5.453E-02	3.131E-02	NOT IDENT.
SB-125	-2.038E-02	8.242E-02	6.859E-02	4.205E-02	FAIL ABUN
TE-125M	6.762E-01	9.416E+00	8.058E+00	4.804E+00	NOT IDENT.
I-126	1.533E-01	2.733E-01	2.460E-01	1.394E-01	NOT IDENT.
SB-126	-6.072E-02	1.893E-01	1.365E-01	9.658E-02	NOT IDENT.
SB-127	-8.797E-01	3.015E+00	2.551E+00	1.538E+00	NOT IDENT.
I-131	1.548E-01	1.572E-01	1.425E-01	8.019E-02	NOT IDENT.
TE-132	-5.185E-01	1.941E+00	1.689E+00	9.905E-01	NOT IDENT.
BA-133	-2.069E-03	4.302E-02	3.226E-02	2.195E-02	NOT IDENT.
I-133	2.246E+05	2.907E+05	0.000E+00	1.483E+05	SHORT HLIF
CS-134	1.043E-01	4.761E-02	4.598E-02	2.429E-02	NOT IDENT.
CS-135	1.229E-01	1.556E-01	1.258E-01	7.940E-02	NOT IDENT.
I-135	-1.228E+21	1.879E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.879E-02	1.367E-01	1.130E-01	6.976E-02	NOT IDENT.
BA-137M	-1.276E-02	3.319E-02	2.798E-02	1.694E-02	NOT IDENT.
CS-137	-1.348E-02	3.507E-02	2.956E-02	1.789E-02	NOT IDENT.
CE-139	-2.379E-02	2.885E-02	2.304E-02	1.472E-02	NOT IDENT.
BA-140	-1.425E-01	3.457E-01	2.689E-01	1.764E-01	NOT IDENT.
LA-140	3.364E-02	9.826E-02	8.211E-02	5.013E-02	FAIL ABUN
CE-141	6.435E-03	6.593E-02	5.470E-02	3.364E-02	NOT IDENT.
CE-143	5.856E+03	2.226E+03	0.000E+00	1.136E+03	SHORT HLIF
CE-144	-8.520E-02	1.900E-01	1.569E-01	9.693E-02	NOT IDENT.
PM-144	-7.164E-03	3.110E-02	2.641E-02	1.587E-02	NOT IDENT.
PR-144	-5.537E-01	2.332E+00	1.979E+00	1.190E+00	NOT IDENT.
PM-146	2.972E-02	3.895E-02	3.454E-02	1.987E-02	NOT IDENT.
ND-147	-1.619E-01	7.344E-01	6.017E-01	3.747E-01	NOT IDENT.
PM-149	4.365E+02	3.975E+02	0.000E+00	2.028E+02	SHORT HLIF
EU-152	-7.415E-03	9.247E-02	7.642E-02	4.718E-02	FAIL ABUN
GD-153	-6.061E-02	7.883E-02	6.191E-02	4.022E-02	NOT IDENT.
EU-154	-5.467E-03	1.301E-01	1.067E-01	6.640E-02	NOT IDENT.
EU-155	1.220E-01	9.437E-02	8.448E-02	4.815E-02	FAIL ABUN
TB-160	3.605E-03	1.396E-01	1.188E-01	7.120E-02	FAIL ABUN
HO-166M	-3.298E-02	5.392E-02	4.414E-02	2.751E-02	NOT IDENT.
TA-182	8.876E-02	2.212E-01	1.886E-01	1.129E-01	FAIL ABUN
IR-192	-9.524E-03	3.264E-02	2.772E-02	1.665E-02	FAIL ABUN
HG-203	2.017E-02	3.744E-02	3.345E-02	1.910E-02	NOT IDENT.
BI-207	2.677E-02	5.343E-02	4.665E-02	2.726E-02	FAIL ABUN
PB-210	1.066E+00	1.879E+00	1.692E+00	9.588E-01	NOT IDENT.
PB-211	-2.337E-01	6.676E-01	5.468E-01	3.406E-01	NOT IDENT.
BI-212	2.062E+00	8.025E-01	5.519E-01	4.095E-01	FAIL ABUN
RN-219	2.444E-02	3.662E-01	3.130E-01	1.868E-01	FAIL ABUN
RA-223	-2.601E-01	6.360E-01	4.643E-01	3.245E-01	FAIL ABUN
AC-227	1.354E-01	2.319E-01	2.082E-01	1.183E-01	FAIL ABUN
TH-227	1.354E-01	2.321E-01	2.082E-01	1.184E-01	FAIL ABUN
PA-231	-7.514E-01	1.326E+00	1.115E+00	6.764E-01	FAIL ABUN
TH-231	-2.601E-01	6.360E-01	4.643E-01	3.245E-01	FAIL ABUN
PA-233	5.052E-03	5.465E-02	4.755E-02	2.788E-02	FAIL ABUN
PA-234	1.463E-02	2.959E-01	2.510E-01	1.510E-01	FAIL ABUN
PA-234M	-1.639E-01	4.666E+00	3.947E+00	2.380E+00	NOT IDENT.
U-235	9.019E-02	1.911E-01	1.609E-01	9.753E-02	FAIL ABUN
NP-239	-2.028E-01	3.652E-01	3.025E-01	1.863E-01	NOT IDENT.
AM-241	1.017E-01	1.176E-01	9.602E-02	6.002E-02	NOT IDENT.
CM-247	-1.853E-02	3.415E-02	2.797E-02	1.742E-02	NOT IDENT.

CF-249	8.879E-03	3.593E-02	3.114E-02	1.833E-02	NOT IDENT.
CF-251	3.592E-02	1.203E-01	1.015E-01	6.137E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	260.6583
49.72	306.4863
57.36	0.0000
59.54	318.9556
63.29	375.9337
63.29	375.9337
64.28	377.6074
67.75	398.1432
69.67	419.5775
70.83	417.0357
72.81	445.9978
72.87	446.0422
72.87	446.0422
74.82	441.8272
74.82	441.8272
74.82	441.8272
74.97	441.9346
77.11	443.4538
77.11	443.4538
77.11	443.4538
79.69	396.7031
79.80	361.6407
80.12	361.8205
80.19	361.8596
80.57	347.5903
81.00	391.2987
81.07	391.3410
81.07	391.3410
83.79	430.3930
83.79	430.3930
85.43	328.2804
86.48	328.7915
86.55	328.8268
86.79	520.0418
86.94	520.1583
87.57	529.0033
88.03	527.2687
88.47	505.6234
89.96	528.7504
91.11	529.6245
92.59	451.7627
92.59	451.7627
93.35	302.0266
94.67	256.6450
94.87	278.9021
94.87	278.9021
95.86	323.7180
97.43	332.0534
98.44	281.3401
99.53	247.7343
100.11	266.0179
103.18	307.7124
103.37	294.9655
105.31	265.7175
106.12	300.3213
109.28	304.7769
111.00	303.2840
111.76	317.6192
116.30	307.4643
117.23	293.6742
121.12	277.5709
121.78	288.7258
122.06	277.8823
123.07	265.0715
131.20	308.4882
133.52	297.1026
136.00	251.2360

136.47	252.4793
140.51	291.5806
140.51	0.0000
143.76	253.3649
144.24	257.9826
144.24	257.9826
145.44	254.9432
152.43	290.7511
153.25	274.0101
154.21	295.8154
154.21	295.8154
156.02	249.8051
158.56	243.6148
159.00	240.3049
162.66	226.3211
163.33	228.7577
165.86	270.6015
176.60	225.8913
177.52	227.2431
181.07	237.2965
184.41	187.6163
185.72	205.8868
193.51	207.3193
197.04	238.0451
205.31	248.1135
210.85	213.4509
215.65	216.9315
222.11	208.7304
227.38	214.1415
228.16	218.8126
228.18	212.4606
235.69	204.5723
235.96	188.5365
235.96	188.5365
238.63	199.5401
238.63	199.5401
240.99	199.8976
242.00	200.0507
244.70	176.5503
252.40	165.5373
252.80	167.4366
256.23	169.7112
256.23	169.7112
260.90	0.0000
264.66	146.2966
268.22	154.1479
269.46	164.7664
269.46	164.7664
271.23	170.9694
273.65	201.3042
276.40	144.0621
277.37	160.9674
277.60	160.9935
278.00	161.9796
279.20	158.3408
279.54	168.7493
280.46	199.0408
283.69	172.0608
284.31	167.4040
285.41	134.4012
285.90	0.0000
287.50	160.1807
293.27	0.0000
295.22	140.2371
295.96	140.3045
298.57	76.3831
299.98	76.4539
299.98	76.4539
300.09	76.4587
300.09	76.4587
300.13	76.4612
301.36	151.5140
302.85	140.9356
304.50	136.4855
304.50	136.4855
304.85	121.1771
308.46	126.8397
311.90	121.3396

316.51	140.0439
319.41	138.3611
320.08	131.6442
323.87	135.0582
323.87	135.0582
328.76	129.4303
333.37	105.3962
334.37	96.3466
334.37	96.3466
338.28	143.8799
338.28	143.8799
338.32	143.8844
338.32	143.8844
338.32	143.8844
340.48	136.4260
340.55	136.4303
344.28	134.7133
351.06	123.2738
351.93	123.3368
356.01	123.4308
364.49	95.4097
366.42	137.3009
383.85	131.6057
388.16	106.7408
388.63	110.7973
391.69	96.8569
400.66	102.3916
401.81	107.5252
402.40	119.7357
404.85	118.8745
410.95	96.8308
414.70	102.1271
423.72	98.4976
427.09	89.4161
427.87	101.7901
433.94	84.5688
453.88	85.4058
463.37	79.5196
468.07	58.7241
473.00	96.7014
476.78	74.7604
477.60	80.0565
487.02	69.8279
492.35	0.0000
497.08	73.3388
511.00	94.1210
514.00	94.2466
527.90	0.0000
529.87	0.0000
531.02	88.4788
537.26	86.5527
546.56	0.0000
563.25	61.2568
569.33	71.2802
569.50	71.2842
569.70	71.2901
583.19	88.2275
600.60	74.4058
602.73	90.1887
604.72	78.3105
609.32	80.2332
609.32	80.2332
609.32	80.2332
610.33	80.2661
614.28	96.4670
618.01	79.3875
621.93	87.3477
621.93	87.3477
633.25	74.2299
635.95	74.7567
636.99	71.1829
645.85	76.8445
657.76	73.5546
661.66	84.5742
661.66	84.5742
664.57	0.0000
666.33	75.6098
666.50	75.6139

677.62	71.3464
685.70	77.9775
695.00	75.4756
696.49	75.5157
696.51	75.5157
697.00	75.5277
702.65	81.2174
706.68	72.0891
711.68	74.0684
720.70	66.5611
721.93	0.0000
722.78	65.0593
722.91	65.0627
723.31	65.0713
724.19	63.5403
727.33	61.4383
733.00	49.7435
735.93	69.0877
739.50	66.3666
747.24	59.0440
752.31	69.4708
753.82	62.9303
756.73	64.8728
763.94	64.3995
765.81	55.0094
766.42	64.4529
777.92	95.6245
778.90	82.3951
783.70	60.7078
785.37	65.4860
795.86	51.4239
801.95	67.7447
810.29	66.0099
810.76	62.1927
815.77	58.4578
818.51	46.9986
832.01	68.3878
834.85	84.8375
836.80	0.0000
846.77	69.6674
856.80	63.0862
860.56	72.8741
871.09	68.2329
873.19	60.1476
875.33	0.0000
879.36	57.6532
880.51	45.9420
883.24	44.0233
884.68	46.9781
889.28	40.1812
898.04	57.9715
911.20	67.0703
911.20	67.0703
911.20	67.0703
926.50	56.4684
937.49	46.7074
944.13	59.7393
946.00	58.7739
949.00	53.8392
962.29	66.7155
964.08	71.7542
966.15	130.2317
968.97	130.3333
968.97	130.3333
968.97	130.3333
983.53	57.3757
996.26	57.5747
1001.03	55.6257
1004.73	60.7427
1037.84	42.8962
1038.76	0.0000
1048.07	57.3480
1050.41	52.2576
1050.41	52.2576
1063.66	54.4932
1085.87	51.7017
1099.45	49.8023
1112.07	56.2043

1115.54	46.8787
1120.29	62.5781
1120.29	62.5781
1120.29	62.5781
1120.55	62.5811
1121.30	62.5928
1131.51	0.0000
1173.23	82.4027
1177.93	66.6299
1189.05	54.0804
1204.77	79.8230
1221.41	76.9289
1231.02	78.1685
1235.36	117.9063
1238.28	67.5712
1260.41	0.0000
1271.85	57.2804
1274.44	56.2326
1274.54	57.3140
1291.59	62.9589
1298.22	0.0000
1312.11	44.7056
1332.49	40.5229
1365.19	22.0586
1368.63	0.0000
1384.29	29.0673
1408.01	32.4579
1457.56	0.0000
1460.82	19.6849
1489.16	16.9680
1505.03	16.2102
1596.21	15.3958
1620.50	5.7996
1678.03	0.0000
1690.97	8.8114
1764.49	1.7001
1764.49	1.7001
1764.49	1.7001
1770.23	8.5090
1771.35	53.6177
1791.20	0.0000
1836.06	12.0464

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248818006

Total Uranium Activity	6.8817E+00	ug/g
Total Uranium Counting Unc.	4.6390E+00	ug/g
Total Uranium Tpu	2.3668E-06	ug/g
Total Uranium Mda	2.4501E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962631                   SAMPLE ID  : G248818006        *
*   ANALYST       : MXR1                     DETECTOR   : GAM20             *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00  COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 13:34:08.85   SAMPLE ALQT:  125.160 GRAM     *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.818E+00
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.393E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.686E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.790E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:54:48.13

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818007.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 13:54:10
Sample ID         : G248818007           Sample quantity  : 1.14310E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:10.03  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.53*	136	629	1.04	126.70	122	10	1.89E-02	36.3	
2	3	74.90*	569	461	1.00	149.45	146	16	7.91E-02	7.1	4.43E+00
3	3	77.24*	879	323	0.90	154.13	146	16	1.22E-01	4.7	
4	6	87.29*	363	306	1.12	174.24	162	30	5.04E-02	9.7	1.41E+00
5	6	90.01	226	238	0.97	179.69	162	30	3.15E-02	12.8	
6	6	93.01*	368	320	1.57	185.67	162	30	5.11E-02	11.4	
7	0	129.05	79	268	1.03	257.79	254	8	1.10E-02	37.6	
8	0	185.62*	173	289	1.27	370.96	365	11	2.40E-02	21.4	
9	0	209.15	101	257	1.01	418.05	413	11	1.41E-02	32.2	
10	6	238.76*	1068	103	1.09	477.29	474	17	1.48E-01	3.5	3.78E+00
11	6	241.65	294	154	2.00	483.08	474	17	4.08E-02	14.8	
12	0	270.43*	136	159	1.26	540.67	535	13	1.89E-02	21.4	
13	0	295.30*	249	134	1.11	590.43	586	9	3.46E-02	10.8	
14	0	300.84*	78	173	1.18	601.51	596	13	1.09E-02	37.1	
15	0	328.55	114	129	1.81	656.95	651	13	1.59E-02	22.5	
16	0	338.16*	207	115	1.08	676.17	671	9	2.87E-02	12.0	
17	0	351.91*	426	158	1.11	703.69	699	12	5.91E-02	7.8	
18	0	463.38	43	96	1.49	926.73	920	11	5.93E-03	47.0	
19	0	511.00*	73	111	1.64	1022.02	1015	16	1.02E-02	38.7	
20	0	583.37*	255	76	1.14	1166.85	1162	11	3.55E-02	9.5	
21	0	609.35*	260	111	1.77	1218.84	1213	13	3.61E-02	10.7	
22	0	727.89	83	62	1.15	1456.05	1450	12	1.16E-02	21.9	
23	0	794.66*	30	38	0.64	1589.67	1586	9	4.21E-03	42.1	
24	0	911.38*	210	44	1.62	1823.26	1817	15	2.91E-02	10.0	
25	1	964.88	69	36	1.83	1930.33	1920	27	9.60E-03	19.8	2.15E+00
26	1	968.82*	132	31	1.77	1938.22	1920	27	1.84E-02	12.1	
27	0	1460.64*	943	26	2.14	2922.63	2914	17	1.31E-01	3.5	
28	0	1764.26*	56	3	2.96	3530.46	3524	13	7.78E-03	15.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 15:54:51

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818007.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 13:54:10
Sample ID : G248818007 Sample quantity : 114.31 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA17 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:10.03 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.735E+01	4.218E+00	8.443E-01	7.496E-02	44.243
CD-109	+	88.03	*	4.975E+00	1.080E+00	9.603E-01	9.375E-02	5.181
SN-126	+	64.28		6.851E-01	5.098E-01	4.332E-01	6.915E-02	1.581
	+	86.94		2.007E+00	9.211E-01	3.861E-01	1.606E-01	5.198
	+	87.57	*	4.827E-01	1.047E-01	9.304E-02	9.079E-03	5.188
TL-208		277.37		3.345E-01	4.810E-01	8.106E-01	1.047E-01	0.413
	+	583.19	*	5.450E-01	1.161E-01	8.016E-02	7.573E-03	6.799
		860.56		4.981E-01	4.222E-01	7.728E-01	7.268E-02	0.645
BI-211		72.87		1.638E+00	2.480E+00	3.869E+00	3.783E-01	0.423
	+	351.06	*	3.722E+00	6.735E-01	4.288E-01	4.002E-02	8.680
PB-212	+	74.82		2.676E+00	5.284E-01	4.423E-01	6.096E-02	6.049
	+	77.11		2.490E+00	3.371E-01	2.671E-01	2.604E-02	9.320
	+	238.63	*	2.001E+00	2.473E-01	1.063E-01	1.076E-02	18.829
	+	300.09		2.336E+00	1.754E+00	1.387E+00	1.525E-01	1.685
BI-214	+	609.32	*	1.080E+00	2.552E-01	1.466E-01	1.498E-02	7.368
		1120.29		1.575E+00	5.874E-01	1.108E+00	1.190E-01	1.422
	+	1764.49		1.791E+00	5.712E-01	MDA could not be calculated		
PB-214	+	74.82		4.743E+00	8.978E-01	7.840E-01	9.861E-02	6.049
	+	77.11		4.389E+00	6.958E-01	4.709E-01	6.013E-02	9.320
	+	242.00		3.342E+00	1.051E+00	6.472E-01	6.954E-02	5.163
	+	295.22		1.310E+00	3.185E-01	2.630E-01	2.961E-02	4.981
	+	351.93	*	1.351E+00	2.555E-01	1.579E-01	1.711E-02	8.552
RA-224	+	240.99	*	5.909E+00	1.827E+00	1.140E+00	1.031E-01	5.182
RA-226	+	609.32	*	1.080E+00	2.552E-01	1.466E-01	1.498E-02	7.368
		1120.29		1.575E+00	5.874E-01	1.108E+00	1.190E-01	1.422
	+	1764.49		1.791E+00	5.712E-01	MDA could not be calculated		
AC-228	+	338.32		2.002E+00	9.653E-01	4.606E-01	1.925E-01	4.347
	+	911.20	*	2.260E+00	5.219E-01	3.613E-01	4.223E-02	6.255
	+	968.97		2.464E+00	8.458E-01	5.814E-01	1.419E-01	4.238
RA-228	+	338.32		2.002E+00	9.653E-01	4.606E-01	1.925E-01	4.347
	+	911.20	*	2.260E+00	5.219E-01	3.613E-01	4.223E-02	6.255
	+	968.97		2.464E+00	8.458E-01	5.814E-01	1.419E-01	4.238
TH-228	+	74.82		2.676E+00	4.610E-01	4.423E-01	4.349E-02	6.049
	+	77.11		2.490E+00	3.371E-01	2.671E-01	2.604E-02	9.320

Sample ID : G248818007 Acquisition date : 23-MAR-2010 13:54:10

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	2.001E+00	2.473E-01	1.063E-01	1.076E-02	18.829
	+	300.09		2.336E+00	2.250E+00	1.387E+00	8.500E-01	1.685
TH-230	+	609.32	*	1.080E+00	2.488E-01	1.466E-01	1.283E-02	7.368
		1120.29		1.575E+00	5.778E-01	1.108E+00	9.298E-02	1.422
	+	1764.49		1.791E+00	5.712E-01	MDA could not be calculated		
TH-232	+	338.32		2.002E+00	5.137E-01	4.606E-01	4.150E-02	4.347
	+	911.20	*	2.260E+00	5.219E-01	3.613E-01	4.223E-02	6.255
	+	968.97		2.464E+00	8.458E-01	5.814E-01	1.419E-01	4.238
TH-234	+	63.29	*	1.778E+00	1.335E+00	1.124E+00	2.139E-01	1.581
	+	92.59		4.333E+00	1.393E+00	8.271E-01	1.873E-01	5.239
U-235	+	89.96		3.229E+00	1.156E+00	9.995E-01	2.506E-01	3.231
	+	93.35		3.273E+00	1.075E+00	6.263E-01	1.481E-01	5.225
		143.76	*	1.441E-01	2.282E-01	3.753E-01	6.682E-02	0.384
		163.33		3.173E-01	5.080E-01	8.387E-01	1.504E-01	0.378
	+	185.72		2.061E-01	9.003E-02	7.339E-02	6.284E-03	2.808
		205.31		-3.166E-01	6.291E-01	8.619E-01	1.570E-01	-0.367
NP-237	+	86.48	*	1.440E+00	4.346E-01	2.767E-01	6.399E-02	5.205
		95.86		2.281E-01	8.507E-01	1.295E+00	3.182E-01	0.176
U-238	+	63.29	*	1.778E+00	1.335E+00	1.124E+00	2.139E-01	1.581
	+	92.59		4.333E+00	1.079E+00	8.271E-01	8.251E-02	5.239
ANH-511	+	511.00	*	1.169E-01	9.111E-02	5.889E-02	5.259E-03	1.985

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-2.801E-01	4.216E-01	6.474E-01	6.158E-02	-0.433
NA-22		1274.54	*	-6.317E-03	6.264E-02	9.927E-02	8.363E-03	-0.064
NA-24		1368.63	*	-3.119E+01	6.264E-02	Half-Life too short		
SC-46		889.28	*	-3.370E-02	5.878E-02	9.103E-02	7.970E-03	-0.370
		1120.55		2.813E-01	1.009E-01	1.943E-01	1.630E-02	1.448
V-48		944.13		8.647E-01	1.651E+00	2.863E+00	2.505E-01	0.302
		983.53	*	-5.913E-02	1.148E-01	1.757E-01	1.532E-02	-0.337
		1312.11		1.609E-03	1.484E-01	2.492E-01	2.115E-02	0.006
CR-51		320.08	*	1.336E-01	4.762E-01	8.157E-01	7.784E-02	0.164
MN-54		834.85	*	-2.734E-02	5.833E-02	9.286E-02	8.164E-03	-0.294
CO-56		846.77	*	2.890E-02	5.116E-02	9.031E-02	7.939E-03	0.320
		1037.84		-1.295E-01	5.154E-01	8.198E-01	7.447E-02	-0.158
		1238.28		3.060E-01	1.622E-01	2.985E-01	2.566E-02	1.025
		1771.35		-5.457E-01	3.490E-01	3.059E-01	2.583E-02	-1.784
CO-57		122.06	*	-1.480E-03	2.764E-02	4.559E-02	5.341E-03	-0.032
		136.47		3.282E-02	2.359E-01	3.904E-01	4.391E-02	0.084
CO-58		810.76	*	-8.711E-03	6.157E-02	1.012E-01	8.916E-03	-0.086
FE-59		1099.45	*	-3.229E-02	1.603E-01	2.552E-01	2.342E-02	-0.127
		1291.59		-5.344E-02	2.171E-01	3.376E-01	3.253E-02	-0.158
CO-60		1173.23		-1.167E-02	7.789E-02	1.241E-01	1.014E-02	-0.094
		1332.49	*	1.713E-02	5.902E-02	1.023E-01	8.722E-03	0.167
ZN-65		1115.54	*	-3.770E-01	1.632E-01	1.962E-01	1.651E-02	-1.922
SE-75		121.12		4.309E-02	1.407E-01	2.360E-01	3.205E-02	0.183

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		136.00		1.215E-02	4.630E-02	7.706E-02	8.334E-03	0.158
		264.66	*	2.048E-02	6.230E-02	9.022E-02	8.290E-03	0.227
		279.54		-1.195E-01	1.348E-01	2.134E-01	2.025E-02	-0.560
		400.66		-1.460E-02	3.362E-01	5.561E-01	6.107E-02	-0.026
SR-85		514.00	*	5.009E-02	5.875E-02	9.162E-02	8.186E-03	0.547
Y-88		898.04		-5.171E-02	6.092E-02	9.084E-02	7.978E-03	-0.569
		1836.06	*	-3.374E-02	4.523E-02	5.716E-02	4.766E-03	-0.590
Y-91		1204.77	*	1.894E+01	3.580E+01	6.087E+01	5.023E+00	0.311
NB-94		702.65	*	1.578E-02	5.019E-02	8.658E-02	7.427E-03	0.182
		871.09		-1.158E-02	4.639E-02	7.471E-02	6.557E-03	-0.155
NB-95		765.81	*	-1.281E-02	6.836E-02	1.127E-01	9.844E-03	-0.114
NB-95M		235.69	*	-1.915E-02	1.666E-01	2.339E-01	2.393E-02	-0.082
ZR-95		724.19		-1.174E-01	1.637E-01	2.181E-01	2.044E-02	-0.538
		756.73	*	1.018E-02	1.112E-01	1.878E-01	1.805E-02	0.054
MO-99		140.51		-1.581E+01	8.434E+01	1.329E+02	3.252E+01	-0.119
		181.07		-1.074E+01	7.561E+01	1.080E+02	2.024E+01	-0.099
		366.42		1.760E+02	4.138E+02	7.107E+02	6.221E+01	0.248
		739.50	*	1.147E+01	6.357E+01	1.083E+02	1.710E+01	0.106
		777.92		-3.537E+01	1.774E+02	2.909E+02	2.547E+01	-0.122
TC-99M		140.51	*	-7.023E+15	1.774E+02	Half-Life too short		
RU-103		497.08	*	-2.186E-02	5.779E-02	9.119E-02	1.290E-02	-0.240
	+	610.33		1.217E+01	3.273E+00	4.012E+00	6.585E-01	3.033
RH-106		621.93	*	-1.462E-01	4.218E-01	6.524E-01	8.678E-02	-0.224
		1050.41		6.373E-01	3.676E+00	6.125E+00	5.271E-01	0.104
RU-106		621.93	*	-1.462E-01	4.215E-01	6.524E-01	5.668E-02	-0.224
		1050.41		6.373E-01	3.676E+00	6.125E+00	5.271E-01	0.104
AG-108M		433.94	*	-2.410E-02	3.901E-02	6.116E-02	5.482E-03	-0.394
		614.28		-3.564E-02	5.209E-02	6.554E-02	5.904E-03	-0.544
		722.91		-3.457E-02	6.342E-02	8.658E-02	7.719E-03	-0.399
AG-110M		657.76	*	-3.132E-02	5.099E-02	7.637E-02	6.656E-03	-0.410
		677.62		-2.035E-01	4.705E-01	7.177E-01	6.273E-02	-0.284
		706.68		-3.137E-02	3.212E-01	5.366E-01	4.743E-02	-0.058
		763.94		-8.534E-02	2.526E-01	4.111E-01	3.685E-02	-0.208
		884.68		2.014E-02	7.031E-02	1.200E-01	1.084E-02	0.168
		937.49		-2.543E-01	1.685E-01	2.270E-01	2.056E-02	-1.120
		1384.29		-1.028E-01	2.002E-01	3.051E-01	2.689E-02	-0.337
		1505.03		-5.947E-01	3.928E-01	4.525E-01	3.913E-02	-1.314
SN-113		391.69	*	-1.112E-02	5.964E-02	9.779E-02	8.497E-03	-0.114
CD-115		260.90		3.165E-04	5.964E-02	Half-Life too short		
		492.35		-5.512E-05	5.964E-02	Half-Life too short		
		527.90	*	2.215E-05	5.964E-02	Half-Life too short		
SN-117M		156.02		-4.236E+00	3.445E+00	5.243E+00	4.827E-01	-0.808
		158.56	*	7.126E-02	7.915E-02	1.346E-01	1.210E-02	0.529
TE-123M		159.00	*	1.397E-02	3.306E-02	5.507E-02	4.957E-03	0.254
SB-124		602.73		-4.500E-02	6.064E-02	8.199E-02	7.201E-03	-0.549
		645.85		3.956E-01	7.185E-01	1.215E+00	1.098E-01	0.326
		722.78		-3.338E-01	6.770E-01	9.311E-01	8.228E-02	-0.358
		1690.97	*	-3.779E-02	1.261E-01	1.942E-01	1.732E-02	-0.195
SB-125		427.87	*	-9.194E-02	1.189E-01	1.840E-01	1.622E-02	-0.500

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	463.37		5.969E-01	5.643E-01	6.920E-01	6.543E-02	0.863
		600.60		3.783E-02	2.313E-01	3.789E-01	3.568E-02	0.100
		635.95		-1.029E-02	3.903E-01	6.248E-01	5.815E-02	-0.016
TE-125M		109.28	*	1.253E+00	1.029E+01	1.719E+01	2.137E+00	0.073
I-126		388.63		1.054E-01	2.773E-01	4.728E-01	4.001E-02	0.223
		666.33	*	1.314E-01	4.158E-01	6.852E-01	5.785E-02	0.192
		753.82		4.378E+00	3.392E+00	6.276E+00	5.468E-01	0.698
SB-126		414.70		2.465E-02	1.174E-01	1.976E-01	1.694E-02	0.125
		666.50		2.795E-02	1.443E-01	2.351E-01	1.985E-02	0.119
		695.00		7.554E-02	1.406E-01	2.474E-01	2.116E-02	0.305
		697.00		-8.583E-02	5.068E-01	8.422E-01	7.209E-02	-0.102
		720.70	*	1.378E-01	2.976E-01	4.936E-01	4.261E-02	0.279
		856.80		-8.066E-01	8.963E-01	1.344E+00	1.181E-01	-0.600
SB-127		252.40		-7.564E+00	1.229E+01	1.795E+01	7.557E+00	-0.421
		473.00		5.241E+00	5.255E+00	9.222E+00	1.322E+00	0.568
		685.70	*	-6.419E-01	4.883E+00	7.688E+00	9.900E-01	-0.083
		783.70		1.175E+01	1.285E+01	2.296E+01	3.193E+00	0.512
I-131		80.19		4.748E+00	6.956E+00	8.830E+00	8.677E-01	0.538
		284.31		-1.714E+00	2.609E+00	4.237E+00	4.083E-01	-0.405
		364.49	*	5.611E-02	2.203E-01	3.741E-01	3.468E-02	0.150
		636.99		9.790E-01	3.444E+00	5.660E+00	5.170E-01	0.173
TE-132		49.72		7.407E-01	1.205E+01	2.070E+01	2.800E+00	0.036
		111.76		5.102E+01	9.696E+01	1.644E+02	2.351E+01	0.310
		116.30		1.858E+01	8.547E+01	1.430E+02	2.077E+01	0.130
		228.16	*	-2.879E+00	2.681E+00	3.929E+00	6.712E-01	-0.733
BA-133		81.00		4.213E-02	9.405E-02	1.172E-01	1.895E-02	0.359
		276.40		8.214E-01	4.823E-01	7.906E-01	1.143E-01	1.039
		302.85		6.386E-02	1.763E-01	2.706E-01	3.636E-02	0.236
		356.01	*	-1.243E-02	6.019E-02	8.687E-02	1.139E-02	-0.143
		383.85		-1.005E-01	3.727E-01	6.078E-01	7.515E-02	-0.165
I-133		529.87	*	-1.199E-01	3.727E-01	Half-Life too short		
		875.33		3.535E+00	3.727E-01	Half-Life too short		
		1298.22		-7.542E+00	3.727E-01	Half-Life too short		
CS-134		563.25		5.706E-01	5.402E-01	9.459E-01	8.500E-02	0.603
		569.33		-4.338E-02	2.633E-01	4.195E-01	3.778E-02	-0.103
		604.72		2.073E-03	5.128E-02	7.253E-02	6.378E-03	0.029
	+	795.86	*	9.814E-02	8.310E-02	1.282E-01	1.133E-02	0.766
		801.95		-2.458E-01	5.870E-01	9.398E-01	8.296E-02	-0.262
		1365.19		1.041E+00	1.785E+00	3.217E+00	2.884E-01	0.324
CS-135		268.22	*	8.818E-03	2.187E-01	3.092E-01	3.227E-02	0.029
I-135		546.56		1.155E+15	2.187E-01	Half-Life too short		
		836.80		8.577E+15	2.187E-01	Half-Life too short		
		1038.76		2.495E+15	2.187E-01	Half-Life too short		
		1131.51		-1.823E+15	2.187E-01	Half-Life too short		
		1260.41	*	-2.531E+15	2.187E-01	Half-Life too short		
		1457.56		2.330E+17	2.187E-01	Half-Life too short		
		1678.03		2.622E+15	2.187E-01	Half-Life too short		
		1791.20		-2.556E+15	2.187E-01	Half-Life too short		
CS-136		153.25		1.011E+00	1.298E+00	2.191E+00	2.404E-01	0.462

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		176.60		1.504E-01	7.527E-01	1.234E+00	1.156E-01	0.122
		273.65		-1.047E-02	8.740E-01	1.224E+00	1.208E-01	-0.009
		340.55		2.812E-01	2.569E-01	4.120E-01	3.837E-02	0.683
		818.51		-5.374E-02	1.342E-01	2.139E-01	1.883E-02	-0.251
		1048.07	*	-1.004E-01	1.971E-01	3.014E-01	2.707E-02	-0.333
		1235.36		-2.857E-01	1.316E+00	2.079E+00	2.403E-01	-0.137
BA-137M		661.66	*	-1.942E-02	5.272E-02	7.977E-02	6.720E-03	-0.243
CS-137		661.66	*	-2.051E-02	5.569E-02	8.427E-02	7.113E-03	-0.243
CE-139		165.86	*	-7.183E-03	3.600E-02	5.799E-02	4.835E-03	-0.124
BA-140		162.66		-2.151E-01	1.248E+00	1.991E+00	1.833E-01	-0.108
		304.85		-1.674E+00	2.332E+00	3.169E+00	9.328E-01	-0.528
		423.72		5.668E-01	3.247E+00	5.429E+00	1.786E+00	0.104
		537.26	*	-2.191E-01	4.630E-01	7.086E-01	2.409E-01	-0.309
LA-140	+	328.76		1.789E+00	8.245E-01	9.547E-01	9.108E-02	1.874
		487.02		-1.465E-01	2.435E-01	3.774E-01	3.550E-02	-0.388
		815.77		-3.768E-01	6.219E-01	9.709E-01	9.498E-02	-0.388
		1596.21	*	-1.027E-01	1.604E-01	2.328E-01	2.009E-02	-0.441
CE-141		145.44	*	1.350E-02	8.095E-02	1.310E-01	1.336E-02	0.103
CE-143		57.36		1.879E-04	8.095E-02	Half-Life too short		
		293.27	*	4.289E-03	8.095E-02	Half-Life too short		
		664.57		3.752E-04	8.095E-02	Half-Life too short		
		721.93		3.401E-03	8.095E-02	Half-Life too short		
CE-144		80.12		1.660E+00	2.476E+00	3.141E+00	3.059E-01	0.528
		133.52	*	2.418E-02	2.409E-01	3.801E-01	6.350E-02	0.064
PM-144		476.78		-7.552E-02	8.095E-02	1.207E-01	1.157E-02	-0.626
		618.01		3.300E-02	4.131E-02	7.176E-02	6.422E-03	0.460
		696.49	*	7.380E-03	4.891E-02	8.346E-02	7.146E-03	0.088
PR-144		696.51	*	5.402E-01	3.669E+00	6.258E+00	5.355E-01	0.086
		1489.16		-2.154E+00	1.783E+01	2.897E+01	2.505E+00	-0.074
PM-146		453.88	*	2.488E-02	5.398E-02	9.199E-02	9.864E-03	0.270
		633.25		1.002E+00	1.944E+00	3.227E+00	1.232E+00	0.311
		735.93		-8.574E-02	2.087E-01	3.349E-01	9.391E-02	-0.256
		747.24		-3.526E-02	1.397E-01	2.287E-01	3.346E-02	-0.154
ND-147	+	91.11		1.430E+00	3.948E-01	6.487E-01	6.835E-02	2.205
		319.41		-1.575E+00	5.381E+00	8.881E+00	8.100E-01	-0.177
		531.02	*	-4.430E-01	1.015E+00	1.580E+00	2.391E-01	-0.280
PM-149		285.90	*	-4.326E-04	1.015E+00	Half-Life too short		
EU-152		121.78		4.731E-03	7.771E-02	1.289E-01	1.633E-02	0.037
		244.70		9.723E-02	3.909E-01	5.657E-01	5.128E-02	0.172
		344.28	*	-5.787E-02	1.204E-01	1.952E-01	1.845E-02	-0.297
		778.90		-7.567E-02	3.754E-01	6.158E-01	5.391E-02	-0.123
	+	964.08		1.388E+00	5.634E-01	8.556E-01	7.477E-02	1.622
		1085.87		6.048E-01	5.978E-01	1.074E+00	9.142E-02	0.563
		1112.07		-7.180E-02	4.212E-01	6.702E-01	5.645E-02	-0.107
		1408.01		2.839E-01	2.485E-01	4.777E-01	4.110E-02	0.594
GD-153		69.67		-3.667E-01	1.159E+00	1.941E+00	1.906E-01	-0.189
		97.43	*	-1.405E-01	9.383E-02	1.267E-01	1.295E-02	-1.109
		103.18		-9.991E-02	1.140E-01	1.818E-01	1.915E-02	-0.550
EU-154		123.07		4.582E-02	5.453E-02	9.313E-02	1.285E-02	0.492

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		723.31		-1.926E-01	2.853E-01	3.818E-01	3.631E-02	-0.504
		873.19		1.270E-01	3.891E-01	6.670E-01	8.009E-02	0.190
		996.26		-6.126E-01	5.519E-01	7.725E-01	1.353E-01	-0.793
		1004.73		-1.204E-01	3.327E-01	5.240E-01	6.126E-02	-0.230
		1274.44	*	-2.598E-02	1.761E-01	2.771E-01	3.111E-02	-0.094
EU-155	+	86.55		5.865E-01	1.275E-01	1.857E-01	1.826E-02	3.158
		105.31	*	7.602E-02	1.107E-01	1.854E-01	1.992E-02	0.410
TB-160	+	86.79		1.629E+00	3.534E-01	5.194E-01	5.067E-02	3.135
		197.04		9.812E-01	6.881E-01	1.185E+00	1.029E-01	0.828
		215.65		-2.244E-01	9.505E-01	1.503E+00	1.332E-01	-0.149
		298.57		2.975E-02	2.138E-01	2.371E-01	2.176E-02	0.126
		879.36	*	4.369E-02	2.177E-01	3.622E-01	3.175E-02	0.121
		962.29		8.320E-01	8.332E-01	1.489E+00	1.302E-01	0.559
	+	966.15		1.016E+00	4.125E-01	7.812E-01	6.826E-02	1.301
		1177.93		2.889E-01	6.367E-01	1.074E+00	8.791E-02	0.269
		1271.85		-1.535E+00	1.117E+00	1.432E+00	1.204E-01	-1.072
HO-166M		80.57		1.506E-01	2.672E-01	3.364E-01	3.277E-02	0.448
	+	184.41		1.637E-01	7.153E-02	7.409E-02	6.334E-03	2.210
		280.46		-6.200E-02	9.988E-02	1.631E-01	1.498E-02	-0.380
		410.95		2.856E-01	3.004E-01	5.303E-01	4.534E-02	0.539
		711.68	*	-1.261E-02	8.572E-02	1.424E-01	1.226E-02	-0.089
		752.31		-1.474E-01	3.948E-01	6.388E-01	5.564E-02	-0.231
		810.29		-1.929E-02	8.685E-02	1.417E-01	1.245E-02	-0.136
TA-182		67.75		5.672E-02	7.897E-02	1.232E-01	1.213E-02	0.461
		100.11		2.989E-01	1.883E-01	3.299E-01	3.419E-02	0.906
		152.43		2.554E-01	4.068E-01	6.844E-01	6.506E-02	0.373
		222.11		3.869E-02	4.321E-01	6.953E-01	6.197E-02	0.056
		1121.30		5.491E-01	2.738E-01	5.083E-01	4.264E-02	1.080
		1189.05		-2.333E-01	5.189E-01	7.987E-01	6.559E-02	-0.292
		1221.41	*	-2.296E-01	3.229E-01	4.807E-01	3.988E-02	-0.478
		1231.02		4.292E-01	7.454E-01	1.270E+00	1.057E-01	0.338
IR-192	+	295.96		1.015E+00	2.380E-01	3.646E-01	3.369E-02	2.784
		308.46		-9.068E-03	1.197E-01	2.009E-01	1.848E-02	-0.045
		316.51	*	4.675E-03	4.179E-02	7.087E-02	6.484E-03	0.066
		468.07		-1.337E-02	1.140E-01	1.620E-01	1.531E-02	-0.082
HG-203		70.83		-8.575E-01	1.111E+00	1.621E+00	2.710E-01	-0.529
		72.87		4.391E-01	6.673E-01	1.037E+00	1.681E-01	0.423
		279.20	*	-2.104E-02	5.080E-02	8.309E-02	7.801E-03	-0.253
BI-207		72.81		9.180E-02	1.426E-01	2.223E-01	2.174E-02	0.413
	+	74.97		7.714E-01	1.326E-01	1.929E-01	1.883E-02	3.999
		569.70		7.639E-03	3.950E-02	6.512E-02	5.790E-03	0.117
		1063.66	*	-2.139E-02	7.541E-02	1.188E-01	1.019E-02	-0.180
		1770.23		-6.051E-01	6.479E-01	4.742E-01	4.005E-02	-1.276
PB-210		46.54	*	6.647E-01	6.795E-01	1.130E+00	1.218E-01	0.588
PB-211		404.85	*	3.699E-01	9.093E-01	1.522E+00	7.365E-01	0.243
		427.09		-1.322E+00	2.085E+00	3.123E+00	1.445E+00	-0.423
		832.01		-1.259E+00	1.614E+00	2.251E+00	1.168E+00	-0.559
BI-212	+	727.33	*	2.805E+00	1.279E+00	1.748E+00	2.182E-01	1.605
		785.37		2.080E+00	4.667E+00	8.093E+00	7.092E-01	0.257

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		1.224E+00	3.504E+00	6.117E+00	5.270E-01	0.200
RN-219	+	271.23		1.137E+00	5.019E-01	5.588E-01	5.989E-02	2.035
		401.81	*	4.893E-02	5.080E-01	8.485E-01	1.256E-01	0.058
RA-223		81.07		9.358E-02	2.127E-01	2.653E-01	2.584E-02	0.353
		83.79		3.351E-01	1.126E-01	1.852E-01	1.804E-02	1.810
		94.87		1.076E+00	4.522E-01	7.440E-01	7.507E-02	1.446
		144.24		1.366E-01	7.830E-01	1.268E+00	1.398E-01	0.108
		154.21		1.251E-01	4.537E-01	7.509E-01	7.602E-02	0.167
	+	269.46		8.835E-01	3.871E-01	4.319E-01	4.027E-02	2.046
		323.87	*	-9.416E-02	8.460E-01	1.241E+00	2.182E-01	-0.076
	+	338.28		7.946E+00	2.146E+00	3.128E+00	3.864E-01	2.540
AC-227		79.69		8.547E-01	1.221E+00	1.545E+00	2.753E-01	0.553
		235.96		4.317E-02	1.932E-01	2.788E-01	2.976E-02	0.155
		256.23	*	-1.088E-01	3.065E-01	4.738E-01	5.882E-02	-0.230
	+	299.98		2.570E+00	1.938E+00	1.992E+00	2.608E-01	1.290
		304.50		-1.755E+00	2.131E+00	2.908E+00	4.891E-01	-0.604
		334.37		8.461E-01	2.834E+00	3.205E+00	5.070E-01	0.264
TH-227		79.80		1.032E+00	1.614E+00	2.027E+00	4.509E-01	0.509
		235.96		4.317E-02	1.932E-01	2.788E-01	2.818E-02	0.155
		256.23	*	-1.088E-01	3.065E-01	4.738E-01	6.599E-02	-0.230
	+	299.98		2.570E+00	1.938E+00	1.992E+00	2.608E-01	1.290
		304.50		-1.755E+00	2.131E+00	2.908E+00	4.891E-01	-0.604
		334.37		8.461E-01	2.834E+00	3.205E+00	5.070E-01	0.264
TH-229		85.43		6.144E-01	1.933E-01	3.180E-01	3.100E-02	1.932
	+	88.47		7.442E-01	1.615E-01	2.254E-01	2.205E-02	3.301
		193.51	*	-4.491E-01	6.127E-01	9.453E-01	8.175E-02	-0.475
		210.85		7.645E-01	1.231E+00	1.833E+00	1.616E-01	0.417
PA-231		283.69	*	2.418E-01	1.600E+00	2.736E+00	4.084E-01	0.088
	+	301.36		1.651E+00	1.243E+00	1.315E+00	1.651E-01	1.255
TH-231		81.07		9.358E-02	2.127E-01	2.653E-01	2.584E-02	0.353
		83.79		3.351E-01	1.126E-01	1.852E-01	1.804E-02	1.810
		94.87		1.076E+00	4.522E-01	7.440E-01	7.507E-02	1.446
		144.24		1.366E-01	7.830E-01	1.268E+00	1.398E-01	0.108
		154.21		1.251E-01	4.537E-01	7.509E-01	7.602E-02	0.167
	+	269.46		8.835E-01	3.871E-01	4.319E-01	4.027E-02	2.046
		323.87	*	-9.416E-02	8.460E-01	1.241E+00	2.182E-01	-0.076
	+	338.28		7.946E+00	2.146E+00	3.128E+00	3.864E-01	2.540
PA-233	+	300.13		1.163E+00	8.814E-01	9.062E-01	1.374E-01	1.283
		311.90	*	1.664E-02	7.852E-02	1.340E-01	1.257E-02	0.124
		340.48		1.203E+00	9.042E-01	1.407E+00	3.407E-01	0.855
PA-234		94.67		5.334E-01	1.796E-01	2.873E-01	3.866E-02	1.857
		98.44		6.784E-02	1.003E-01	1.531E-01	8.587E-02	0.443
		111.00		4.362E-02	1.843E-01	3.092E-01	4.294E-02	0.141
		131.20		-1.110E-02	1.296E-01	1.901E-01	2.110E-02	-0.058
		569.50		3.413E-03	3.542E-01	5.739E-01	5.103E-02	0.006
		733.00		5.166E-01	5.756E-01	9.239E-01	2.052E-01	0.559
		880.51		1.611E-01	4.136E-01	7.007E-01	6.142E-02	0.230
		883.24		-2.551E-01	4.561E-01	6.548E-01	4.403E-01	-0.390
		926.50		-1.103E-01	2.195E-01	3.354E-01	8.494E-02	-0.329

Sample ID : G248818007 Acquisition date : 23-MAR-2010 13:54:10

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	1.081E-01	4.742E-01	7.981E-01	1.502E-01	0.135
		949.00		3.488E-02	6.866E-01	1.136E+00	9.941E-02	0.031
PA-234M		766.42		1.285E+01	1.838E+01	3.042E+01	1.544E+01	0.422
		1001.03	*	4.010E+00	7.032E+00	1.218E+01	1.222E+00	0.329
NP-239		99.53		2.501E-01	1.654E-01	2.895E-01	2.992E-02	0.864
		103.37		-9.451E-02	1.027E-01	1.634E-01	1.724E-02	-0.578
		106.12		2.722E-02	8.716E-02	1.440E-01	1.541E-02	0.189
		117.23	*	3.973E-02	3.979E-01	6.623E-01	7.544E-02	0.060
		228.18		-2.903E-01	2.678E-01	3.974E-01	3.561E-02	-0.730
		277.60		5.156E-02	2.192E-01	3.613E-01	3.316E-02	0.143
AM-241		59.54	*	1.266E-03	7.280E-02	1.118E-01	1.187E-02	0.011
CM-247		278.00		-1.596E-01	9.223E-01	1.532E+00	1.406E-01	-0.104
		287.50		4.170E-01	1.366E+00	2.355E+00	2.163E-01	0.177
		402.40	*	9.418E-03	4.651E-02	7.827E-02	6.648E-03	0.120
CF-249		252.80		-1.089E+00	1.106E+00	1.622E+00	1.477E-01	-0.671
		333.37		9.436E-02	2.917E-01	3.319E-01	3.001E-02	0.284
		388.16	*	1.193E-02	5.227E-02	8.823E-02	7.472E-03	0.135
CF-251		177.52	*	-4.702E-02	1.534E-01	2.446E-01	2.072E-02	-0.192
		227.38		-2.454E-01	4.275E-01	6.583E-01	5.894E-02	-0.373
		285.41		-2.312E+00	2.466E+00	3.920E+00	3.601E-01	-0.590

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818007      *
* Acquisition date : 23-MAR-2010 13:54:10 Detector SN#     :               *
* Detector ID        : GAM17               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:10.03     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        :  3-MAR-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G248818007           Analyst initials: MXR1          *
* Batch Number       : 962631               Sample Quantity : 1.1431E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.735E+01	4.133E+00	8.407E-01	0.000E+00
CD-109	4.975E+00	1.058E+00	9.812E-01	0.000E+00
SN-126	4.827E-01	1.027E-01	9.507E-02	0.000E+00
TL-208	5.450E-01	1.138E-01	8.051E-02	0.000E+00
BI-211	3.722E+00	6.600E-01	4.327E-01	0.000E+00
PB-212	2.001E+00	2.424E-01	1.076E-01	0.000E+00
BI-214	1.080E+00	2.501E-01	1.472E-01	0.000E+00
PB-214	1.351E+00	2.504E-01	1.594E-01	0.000E+00
RA-224	5.909E+00	1.790E+00	1.154E+00	0.000E+00
RA-226	1.080E+00	2.501E-01	1.472E-01	0.000E+00
AC-228	2.260E+00	5.115E-01	3.614E-01	0.000E+00
RA-228	2.260E+00	5.115E-01	3.614E-01	0.000E+00
TH-228	2.001E+00	2.424E-01	1.076E-01	0.000E+00
TH-230	1.080E+00	2.438E-01	1.472E-01	0.000E+00
TH-232	2.260E+00	5.115E-01	3.614E-01	0.000E+00
TH-234	1.778E+00	1.309E+00	1.152E+00	0.000E+00
U-235	1.441E-01	2.236E-01	3.818E-01	0.000E+00
NP-237	1.440E+00	4.259E-01	2.828E-01	0.000E+00
U-238	1.778E+00	1.309E+00	1.152E+00	0.000E+00
ANH-511	1.169E-01	8.929E-02	5.922E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.801E-01	4.132E-01	6.514E-01	0.000E+00	NOT IDENT.
NA-22	-6.317E-03	6.139E-02	9.898E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.594E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-3.370E-02	5.760E-02	9.107E-02	0.000E+00	NOT IDENT.
V-48	-5.913E-02	1.125E-01	1.756E-01	0.000E+00	NOT IDENT.
CR-51	1.336E-01	4.667E-01	8.238E-01	0.000E+00	NOT IDENT.
MN-54	-2.734E-02	5.716E-02	9.295E-02	0.000E+00	NOT IDENT.

CO-56	2.890E-02	5.013E-02	9.039E-02	0.000E+00	NOT IDENT.
CO-57	-1.480E-03	2.709E-02	4.645E-02	0.000E+00	NOT IDENT.
CO-58	-8.711E-03	6.034E-02	1.014E-01	0.000E+00	NOT IDENT.
FE-59	-3.229E-02	1.571E-01	2.548E-01	0.000E+00	NOT IDENT.
CO-60	1.713E-02	5.784E-02	1.020E-01	0.000E+00	NOT IDENT.
ZN-65	-3.770E-01	1.600E-01	1.958E-01	0.000E+00	NOT IDENT.
SE-75	2.048E-02	6.106E-02	9.128E-02	0.000E+00	NOT IDENT.
SR-85	5.009E-02	5.758E-02	9.213E-02	0.000E+00	NOT IDENT.
Y-88	-3.374E-02	4.432E-02	5.680E-02	0.000E+00	NOT IDENT.
Y-91	1.894E+01	3.508E+01	6.072E+01	0.000E+00	NOT IDENT.
NB-94	1.578E-02	4.919E-02	8.681E-02	0.000E+00	NOT IDENT.
NB-95	-1.281E-02	6.699E-02	1.129E-01	0.000E+00	NOT IDENT.
NB-95M	-1.915E-02	1.632E-01	2.369E-01	0.000E+00	NOT IDENT.
ZR-95	1.018E-02	1.090E-01	1.882E-01	0.000E+00	NOT IDENT.
MO-99	1.147E+01	6.230E+01	1.085E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.677E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.186E-02	5.663E-02	9.172E-02	0.000E+00	FAIL ABUN
RH-106	-1.462E-01	4.133E-01	6.549E-01	0.000E+00	NOT IDENT.
RU-106	-1.462E-01	4.131E-01	6.549E-01	0.000E+00	NOT IDENT.
AG-108M	-2.410E-02	3.823E-02	6.159E-02	0.000E+00	NOT IDENT.
AG-110M	-3.132E-02	4.997E-02	7.661E-02	0.000E+00	NOT IDENT.
SN-113	-1.112E-02	5.845E-02	9.858E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	6.788E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	7.126E-02	7.756E-02	1.369E-01	0.000E+00	NOT IDENT.
TE-123M	1.397E-02	3.240E-02	5.597E-02	0.000E+00	NOT IDENT.
SB-124	-3.779E-02	1.236E-01	1.931E-01	0.000E+00	NOT IDENT.
SB-125	-9.194E-02	1.165E-01	1.854E-01	0.000E+00	FAIL ABUN
TE-125M	1.253E+00	1.008E+01	1.753E+01	0.000E+00	NOT IDENT.
I-126	1.314E-01	4.075E-01	6.873E-01	0.000E+00	NOT IDENT.
SB-126	1.378E-01	2.917E-01	4.948E-01	0.000E+00	NOT IDENT.
SB-127	-6.419E-01	4.785E+00	7.710E+00	0.000E+00	NOT IDENT.
I-131	5.611E-02	2.159E-01	3.774E-01	0.000E+00	NOT IDENT.
TE-132	-2.879E+00	2.627E+00	3.980E+00	0.000E+00	NOT IDENT.
BA-133	-1.243E-02	5.899E-02	8.764E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.138E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	9.814E-02	8.144E-02	1.284E-01	0.000E+00	FAIL ABUN
CS-135	8.818E-03	2.143E-01	3.128E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.847E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.004E-01	1.931E-01	3.011E-01	0.000E+00	NOT IDENT.
BA-137M	-1.942E-02	5.166E-02	8.003E-02	0.000E+00	NOT IDENT.
CS-137	-2.051E-02	5.458E-02	8.454E-02	0.000E+00	NOT IDENT.
CE-139	-7.183E-03	3.528E-02	5.891E-02	0.000E+00	NOT IDENT.
BA-140	-2.191E-01	4.537E-01	7.122E-01	0.000E+00	NOT IDENT.
LA-140	-1.027E-01	1.572E-01	2.316E-01	0.000E+00	FAIL ABUN
CE-141	1.350E-02	7.933E-02	1.332E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.286E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	2.418E-02	2.361E-01	3.870E-01	0.000E+00	NOT IDENT.
PM-144	7.380E-03	4.793E-02	8.368E-02	0.000E+00	NOT IDENT.
PR-144	5.402E-01	3.595E+00	6.275E+00	0.000E+00	NOT IDENT.
PM-146	2.488E-02	5.290E-02	9.260E-02	0.000E+00	NOT IDENT.
ND-147	-4.430E-01	9.947E-01	1.588E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	4.828E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-5.787E-02	1.180E-01	1.970E-01	0.000E+00	FAIL ABUN
GD-153	-1.405E-01	9.195E-02	1.293E-01	0.000E+00	NOT IDENT.
EU-154	-2.598E-02	1.725E-01	2.763E-01	0.000E+00	NOT IDENT.
EU-155	7.602E-02	1.084E-01	1.892E-01	0.000E+00	FAIL ABUN
TB-160	4.369E-02	2.133E-01	3.624E-01	0.000E+00	FAIL ABUN
HO-166M	-1.261E-02	8.400E-02	1.428E-01	0.000E+00	FAIL ABUN
TA-182	-2.296E-01	3.165E-01	4.795E-01	0.000E+00	NOT IDENT.
IR-192	4.675E-03	4.095E-02	7.158E-02	0.000E+00	FAIL ABUN
HG-203	-2.104E-02	4.979E-02	8.402E-02	0.000E+00	NOT IDENT.
BI-207	-2.139E-02	7.390E-02	1.187E-01	0.000E+00	FAIL ABUN
PB-210	6.647E-01	6.659E-01	1.161E+00	0.000E+00	NOT IDENT.
PB-211	3.699E-01	8.911E-01	1.534E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.254E+00	1.752E+00	0.000E+00	FAIL ABUN
RN-219	4.893E-02	4.979E-01	8.551E-01	0.000E+00	FAIL ABUN
RA-223	-9.416E-02	8.290E-01	1.253E+00	0.000E+00	FAIL ABUN
AC-227	-1.088E-01	3.003E-01	4.795E-01	0.000E+00	FAIL ABUN
TH-227	-1.088E-01	3.004E-01	4.795E-01	0.000E+00	FAIL ABUN
TH-229	-4.491E-01	6.005E-01	9.591E-01	0.000E+00	FAIL ABUN
PA-231	2.418E-01	1.568E+00	2.766E+00	0.000E+00	FAIL ABUN
TH-231	-9.416E-02	8.290E-01	1.253E+00	0.000E+00	FAIL ABUN
PA-233	1.664E-02	7.695E-02	1.354E-01	0.000E+00	FAIL ABUN
PA-234	1.081E-01	4.647E-01	7.979E-01	0.000E+00	NOT IDENT.
PA-234M	4.010E+00	6.891E+00	1.217E+01	0.000E+00	NOT IDENT.
NP-239	3.973E-02	3.899E-01	6.750E-01	0.000E+00	NOT IDENT.
AM-241	1.266E-03	7.134E-02	1.147E-01	0.000E+00	NOT IDENT.
CM-247	9.418E-03	4.558E-02	7.888E-02	0.000E+00	NOT IDENT.

CF-249	1.193E-02	5.122E-02	8.894E-02	0.000E+00	NOT IDENT.
CF-251	-4.702E-02	1.503E-01	2.484E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:54:49.12

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818007.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 13:54:10
Sample ID         : G248818007           Sample quantity  : 1.14310E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:10.03  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	943	10.66*	7.779E-01	3.735E+01	3.735E+01	11.29
CD-109	88.03	363	3.70*	6.675E+00	4.827E+00	4.975E+00	21.70
SN-126	64.28	136	9.60	6.779E+00	6.851E-01	6.851E-01	74.42
	86.94	363	8.90	6.675E+00	2.007E+00	2.007E+00	45.90
	87.57	363	37.00*	6.675E+00	4.827E-01	4.827E-01	21.70
TL-208	277.37	------	6.60	3.568E+00	------	Line Not Found	------
	583.19	255	85.00*	1.811E+00	5.450E-01	5.450E-01	21.31
	860.56	------	12.50	1.246E+00	------	Line Not Found	------
BI-211	72.87	------	1.23	6.803E+00	------	Line Not Found	------
	351.06	426	12.92*	2.907E+00	3.722E+00	3.722E+00	18.10
PB-212	74.82	569	10.28	6.795E+00	2.676E+00	2.676E+00	19.75
	77.11	879	17.10	6.781E+00	2.490E+00	2.490E+00	13.54
	238.63	1068	43.60*	4.020E+00	2.001E+00	2.001E+00	12.36
	300.09	78	3.30	3.333E+00	2.336E+00	2.336E+00	75.08
BI-214	609.32	260	45.49*	1.736E+00	1.080E+00	1.080E+00	23.63
	1120.29	------	14.92	9.769E-01	------	Line Not Found	------
	1764.49	56	15.30	6.715E-01	1.791E+00	1.791E+00	31.90
PB-214	74.82	569	5.80	6.795E+00	4.743E+00	4.743E+00	18.93
	77.11	879	9.70	6.781E+00	4.389E+00	4.389E+00	15.85
	242.00	294	7.25	3.983E+00	3.342E+00	3.342E+00	31.46
	295.22	249	18.42	3.386E+00	1.310E+00	1.310E+00	24.31
	351.93	426	35.60*	2.907E+00	1.351E+00	1.351E+00	18.92
RA-224	240.99	294	4.10*	3.983E+00	5.909E+00	5.909E+00	30.92
RA-226	609.32	260	45.49*	1.736E+00	1.080E+00	1.080E+00	23.63
	1120.29	------	14.92	9.769E-01	------	Line Not Found	------
	1764.49	56	15.30	6.715E-01	1.791E+00	1.791E+00	31.90
AC-228	338.32	207	11.27	3.012E+00	2.002E+00	2.002E+00	48.21
	911.20	210	25.80*	1.181E+00	2.260E+00	2.260E+00	23.09
	968.97	132	15.80	1.115E+00	2.464E+00	2.464E+00	34.33
RA-228	338.32	207	11.27	3.012E+00	2.002E+00	2.002E+00	48.21
	911.20	210	25.80*	1.181E+00	2.260E+00	2.260E+00	23.09
	968.97	132	15.80	1.115E+00	2.464E+00	2.464E+00	34.33

Sample ID : G248818007 Acquisition date : 23-MAR-2010 13:54:10

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	569	10.28	6.795E+00	2.676E+00	2.676E+00	17.23
	77.11	879	17.10	6.781E+00	2.490E+00	2.490E+00	13.54
	238.63	1068	43.60*	4.020E+00	2.001E+00	2.001E+00	12.36
	300.09	78	3.30	3.333E+00	2.336E+00	2.336E+00	96.30
TH-230	609.32	260	45.49*	1.736E+00	1.080E+00	1.080E+00	23.04
	1120.29	------	14.92	9.769E-01	------ Line Not Found		------
	1764.49	56	15.30	6.715E-01	1.791E+00	1.791E+00	31.90
TH-232	338.32	207	11.27	3.012E+00	2.002E+00	2.002E+00	25.65
	911.20	210	25.80*	1.181E+00	2.260E+00	2.260E+00	23.09
	968.97	132	15.80	1.115E+00	2.464E+00	2.464E+00	34.33
TH-234	63.29	136	3.70*	6.779E+00	1.778E+00	1.778E+00	75.13
	92.59	368	4.23	6.590E+00	4.333E+00	4.333E+00	32.15
U-235	89.96	226	3.47	6.636E+00	3.229E+00	3.229E+00	35.78
	93.35	368	5.60	6.590E+00	3.273E+00	3.273E+00	32.85
	143.76	------	10.96*	5.592E+00	------ Line Not Found		------
	163.33	------	5.08	5.211E+00	------ Line Not Found		------
	185.72	173	57.20	4.812E+00	2.061E-01	2.061E-01	43.69
	205.31	------	5.01	4.493E+00	------ Line Not Found		------
NP-237	86.48	363	12.40*	6.675E+00	1.440E+00	1.440E+00	30.17
	95.86	------	2.68	6.543E+00	------ Line Not Found		------
U-238	63.29	136	3.70*	6.779E+00	1.778E+00	1.778E+00	75.13
	92.59	368	4.23	6.590E+00	4.333E+00	4.333E+00	24.90
ANH-511	511.00	73	100.00*	2.056E+00	1.169E-01	1.169E-01	77.94

Flag: "*" = Keyline

Sample ID : G248818007 Acquisition date : 23-MAR-2010 13:54:10

Total number of lines in spectrum 28
Number of unidentified lines 2
Number of lines tentatively identified by NID 26 92.86%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.735E+01	3.735E+01	0.422E+01	11.29	
CD-109	461.40D	1.03	4.827E+00	4.975E+00	1.080E+00	21.70	
SN-126	2.30E+05Y	1.00	4.827E-01	4.827E-01	1.047E-01	21.70	
TL-208	1.41E+10Y	1.00	5.450E-01	5.450E-01	1.161E-01	21.31	
BI-211	7.04E+08Y	1.00	3.722E+00	3.722E+00	0.674E+00	18.10	
PB-212	1.41E+10Y	1.00	2.001E+00	2.001E+00	0.247E+00	12.36	
BI-214	1600.00Y	1.00	1.080E+00	1.080E+00	0.255E+00	23.63	
PB-214	1600.00Y	1.00	1.351E+00	1.351E+00	0.256E+00	18.92	
RA-224	1.41E+10Y	1.00	5.909E+00	5.909E+00	1.827E+00	30.92	
RA-226	1600.00Y	1.00	1.080E+00	1.080E+00	0.255E+00	23.63	
AC-228	1.41E+10Y	1.00	2.260E+00	2.260E+00	0.522E+00	23.09	
RA-228	1.41E+10Y	1.00	2.260E+00	2.260E+00	0.522E+00	23.09	
TH-228	1.41E+10Y	1.00	2.001E+00	2.001E+00	0.247E+00	12.36	
TH-230	7.54E+04Y	1.00	1.080E+00	1.080E+00	0.249E+00	23.04	
TH-232	1.41E+10Y	1.00	2.260E+00	2.260E+00	0.522E+00	23.09	
TH-234	4.47E+09Y	1.00	1.778E+00	1.778E+00	1.335E+00	75.13	
U-235	7.04E+08Y	1.00	2.061E-01	2.061E-01	0.900E-01	43.69	K
NP-237	2.14E+06Y	1.00	1.440E+00	1.440E+00	0.435E+00	30.17	
U-238	4.47E+09Y	1.00	1.778E+00	1.778E+00	1.335E+00	75.13	
ANH-511	1.00E+09Y	1.00	1.169E-01	1.169E-01	0.911E-01	77.94	
		Total Activity :	7.353E+01	7.368E+01			

Grand Total Activity : 7.353E+01 7.368E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248818007 Acquisition date : 23-MAR-2010 13:54:10

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.05	79	268	1.03	257.79	254	8	1.10E-02	75.1	5.89E+00	
0	209.15	101	257	1.01	418.05	413	11	1.41E-02	64.4	4.43E+00	
0	270.43	136	159	1.26	540.67	535	13	1.89E-02	42.8	3.64E+00	T
0	328.55	114	129	1.81	656.95	651	13	1.59E-02	45.1	3.09E+00	T
0	463.38	43	96	1.49	926.73	920	11	5.93E-03	94.1	2.26E+00	T
0	727.89	83	62	1.15	1456.05	1450	12	1.16E-02	43.9	1.46E+00	T
0	794.66	30	38	0.64	1589.67	1586	9	4.21E-03	84.2	1.34E+00	T
1	964.88	69	36	1.83	1930.33	1920	27	9.60E-03	39.6	1.12E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:54:53.42

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818007.CNF;1  *
* Acquisition date : 23-MAR-2010 13:54:10  Detector SN#    :                *
* Detector ID      : GAM17                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:10.03         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248818007            Analyst initials: MXR1           *
* Batch Number     : 962631                Sample Quantity : 1.14310E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 6-JAN-2010 11:41:36.18MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.735E+01	4.218E+00	8.443E-01	7.496E-02	44.243
CD-109	4.975E+00	1.080E+00	9.603E-01	9.375E-02	5.181
SN-126	4.827E-01	1.047E-01	9.304E-02	9.079E-03	5.188
TL-208	5.450E-01	1.161E-01	8.016E-02	7.573E-03	6.799
BI-211	3.722E+00	6.735E-01	4.288E-01	4.002E-02	8.680
PB-212	2.001E+00	2.473E-01	1.063E-01	1.076E-02	18.829
BI-214	1.080E+00	2.552E-01	1.466E-01	1.498E-02	7.368
PB-214	1.351E+00	2.555E-01	1.579E-01	1.711E-02	8.552
RA-224	5.909E+00	1.827E+00	1.140E+00	1.031E-01	5.182
RA-226	1.080E+00	2.552E-01	1.466E-01	1.498E-02	7.368
AC-228	2.260E+00	5.219E-01	3.613E-01	4.223E-02	6.255
RA-228	2.260E+00	5.219E-01	3.613E-01	4.223E-02	6.255
TH-228	2.001E+00	2.473E-01	1.063E-01	1.076E-02	18.829
TH-230	1.080E+00	2.488E-01	1.466E-01	1.283E-02	7.368
TH-232	2.260E+00	5.219E-01	3.613E-01	4.223E-02	6.255
TH-234	1.778E+00	1.335E+00	1.124E+00	2.139E-01	1.581
U-235	2.061E-01	9.003E-02	3.753E-01	6.682E-02	0.549
NP-237	1.440E+00	4.346E-01	2.767E-01	6.399E-02	5.205

Sample ID : G248818007 Acquisition date : 23-MAR-2010 13:54:10

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-238	1.778E+00	1.335E+00	1.124E+00	2.139E-01	1.581
ANH-511	1.169E-01	9.111E-02	5.889E-02	5.259E-03	1.985

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.801E-01		4.216E-01	6.474E-01	6.158E-02	-0.433
NA-22	-6.317E-03		6.264E-02	9.927E-02	8.363E-03	-0.064
NA-24	-3.119E+01		1.324E+02	Half-Life too short		
SC-46	-3.370E-02		5.878E-02	9.103E-02	7.970E-03	-0.370
V-48	-5.913E-02		1.148E-01	1.757E-01	1.532E-02	-0.337
CR-51	1.336E-01		4.762E-01	8.157E-01	7.784E-02	0.164
MN-54	-2.734E-02		5.833E-02	9.286E-02	8.164E-03	-0.294
CO-56	2.890E-02		5.116E-02	9.031E-02	7.939E-03	0.320
CO-57	-1.480E-03		2.764E-02	4.559E-02	5.341E-03	-0.032
CO-58	-8.711E-03		6.157E-02	1.012E-01	8.916E-03	-0.086
FE-59	-3.229E-02		1.603E-01	2.552E-01	2.342E-02	-0.127
CO-60	1.713E-02		5.902E-02	1.023E-01	8.722E-03	0.167
ZN-65	-3.770E-01		1.632E-01	1.962E-01	1.651E-02	-1.922
SE-75	2.048E-02		6.230E-02	9.022E-02	8.290E-03	0.227
SR-85	5.009E-02		5.875E-02	9.162E-02	8.186E-03	0.547
Y-88	-3.374E-02		4.523E-02	5.716E-02	4.766E-03	-0.590
Y-91	1.894E+01		3.580E+01	6.087E+01	5.023E+00	0.311
NB-94	1.578E-02		5.019E-02	8.658E-02	7.427E-03	0.182
NB-95	-1.281E-02		6.836E-02	1.127E-01	9.844E-03	-0.114
NB-95M	-1.915E-02		1.666E-01	2.339E-01	2.393E-02	-0.082
ZR-95	1.018E-02		1.112E-01	1.878E-01	1.805E-02	0.054
MO-99	1.147E+01		6.357E+01	1.083E+02	1.710E+01	0.106
TC-99M	-7.023E+15		1.876E+16	Half-Life too short		
RU-103	-2.186E-02		5.779E-02	9.119E-02	1.290E-02	-0.240
RH-106	-1.462E-01		4.218E-01	6.524E-01	8.678E-02	-0.224
RU-106	-1.462E-01		4.215E-01	6.524E-01	5.668E-02	-0.224
AG-108M	-2.410E-02		3.901E-02	6.116E-02	5.482E-03	-0.394
AG-110M	-3.132E-02		5.099E-02	7.637E-02	6.656E-03	-0.410
SN-113	-1.112E-02		5.964E-02	9.779E-02	8.497E-03	-0.114
CD-115	2.215E-05		3.463E-05	Half-Life too short		
SN-117M	7.126E-02		7.915E-02	1.346E-01	1.210E-02	0.529
TE-123M	1.397E-02		3.306E-02	5.507E-02	4.957E-03	0.254
SB-124	-3.779E-02		1.261E-01	1.942E-01	1.732E-02	-0.195
SB-125	-9.194E-02		1.189E-01	1.840E-01	1.622E-02	-0.500
TE-125M	1.253E+00		1.029E+01	1.719E+01	2.137E+00	0.073
I-126	1.314E-01		4.158E-01	6.852E-01	5.785E-02	0.192
SB-126	1.378E-01		2.976E-01	4.936E-01	4.261E-02	0.279
SB-127	-6.419E-01		4.883E+00	7.688E+00	9.900E-01	-0.083
I-131	5.611E-02		2.203E-01	3.741E-01	3.468E-02	0.150
TE-132	-2.879E+00		2.681E+00	3.929E+00	6.712E-01	-0.733
BA-133	-1.243E-02		6.019E-02	8.687E-02	1.139E-02	-0.143

Sample ID : G248818007 Acquisition date : 23-MAR-2010 13:54:10

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	-1.199E-01		2.111E-01	Half-Life too short		
CS-134	9.814E-02	+	8.310E-02	1.282E-01	1.133E-02	0.766
CS-135	8.818E-03		2.187E-01	3.092E-01	3.227E-02	0.029
I-135	-2.531E+15		1.453E+15	Half-Life too short		
CS-136	-1.004E-01		1.971E-01	3.014E-01	2.707E-02	-0.333
BA-137M	-1.942E-02		5.272E-02	7.977E-02	6.720E-03	-0.243
CS-137	-2.051E-02		5.569E-02	8.427E-02	7.113E-03	-0.243
CE-139	-7.183E-03		3.600E-02	5.799E-02	4.835E-03	-0.124
BA-140	-2.191E-01		4.630E-01	7.086E-01	2.409E-01	-0.309
LA-140	-1.027E-01		1.604E-01	2.328E-01	2.009E-02	-0.441
CE-141	1.350E-02		8.095E-02	1.310E-01	1.336E-02	0.103
CE-143	4.289E-03		1.166E-03	Half-Life too short		
CE-144	2.418E-02		2.409E-01	3.801E-01	6.350E-02	0.064
PM-144	7.380E-03		4.891E-02	8.346E-02	7.146E-03	0.088
PR-144	5.402E-01		3.669E+00	6.258E+00	5.355E-01	0.086
PM-146	2.488E-02		5.398E-02	9.199E-02	9.864E-03	0.270
ND-147	-4.430E-01		1.015E+00	1.580E+00	2.391E-01	-0.280
PM-149	-4.326E-04		2.464E-04	Half-Life too short		
EU-152	-5.787E-02		1.204E-01	1.952E-01	1.845E-02	-0.297
GD-153	-1.405E-01		9.383E-02	1.267E-01	1.295E-02	-1.109
EU-154	-2.598E-02		1.761E-01	2.771E-01	3.111E-02	-0.094
EU-155	7.602E-02		1.107E-01	1.854E-01	1.992E-02	0.410
TB-160	4.369E-02		2.177E-01	3.622E-01	3.175E-02	0.121
HO-166M	-1.261E-02		8.572E-02	1.424E-01	1.226E-02	-0.089
TA-182	-2.296E-01		3.229E-01	4.807E-01	3.988E-02	-0.478
IR-192	4.675E-03		4.179E-02	7.087E-02	6.484E-03	0.066
HG-203	-2.104E-02		5.080E-02	8.309E-02	7.801E-03	-0.253
BI-207	-2.139E-02		7.541E-02	1.188E-01	1.019E-02	-0.180
PB-210	6.647E-01		6.795E-01	1.130E+00	1.218E-01	0.588
PB-211	3.699E-01		9.093E-01	1.522E+00	7.365E-01	0.243
BI-212	2.805E+00	+	1.279E+00	1.748E+00	2.182E-01	1.605
RN-219	4.893E-02		5.080E-01	8.485E-01	1.256E-01	0.058
RA-223	-9.416E-02		8.460E-01	1.241E+00	2.182E-01	-0.076
AC-227	-1.088E-01		3.065E-01	4.738E-01	5.882E-02	-0.230
TH-227	-1.088E-01		3.065E-01	4.738E-01	6.599E-02	-0.230
TH-229	-4.491E-01		6.127E-01	9.453E-01	8.175E-02	-0.475
PA-231	2.418E-01		1.600E+00	2.736E+00	4.084E-01	0.088
TH-231	-9.416E-02		8.460E-01	1.241E+00	2.182E-01	-0.076
PA-233	1.664E-02		7.852E-02	1.340E-01	1.257E-02	0.124
PA-234	1.081E-01		4.742E-01	7.981E-01	1.502E-01	0.135
PA-234M	4.010E+00		7.032E+00	1.218E+01	1.222E+00	0.329
NP-239	3.973E-02		3.979E-01	6.623E-01	7.544E-02	0.060
AM-241	1.266E-03		7.280E-02	1.118E-01	1.187E-02	0.011
CM-247	9.418E-03		4.651E-02	7.827E-02	6.648E-03	0.120
CF-249	1.193E-02		5.227E-02	8.823E-02	7.472E-03	0.135
CF-251	-4.702E-02		1.534E-01	2.446E-01	2.072E-02	-0.192

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248818007            *
* Acquisition date : 23-MAR-2010 13:54:10 Detector SN#    :                 *
* Detector ID      : GAM17                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:10.03     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248818007           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.1431E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.735E+01	4.133E+00	4.206E-01	2.109E+00
CD-109	4.975E+00	1.058E+00	4.909E-01	5.398E-01
SN-126	4.827E-01	1.027E-01	4.756E-02	5.237E-02
TL-208	5.450E-01	1.138E-01	4.028E-02	5.806E-02
BI-211	3.722E+00	6.600E-01	2.165E-01	3.368E-01
PB-212	2.001E+00	2.424E-01	5.385E-02	1.237E-01
BI-214	1.080E+00	2.501E-01	7.362E-02	1.276E-01
PB-214	1.351E+00	2.504E-01	7.973E-02	1.278E-01
RA-224	5.909E+00	1.790E+00	5.776E-01	9.135E-01
RA-226	1.080E+00	2.501E-01	7.362E-02	1.276E-01
AC-228	2.260E+00	5.115E-01	1.808E-01	2.609E-01
RA-228	2.260E+00	5.115E-01	1.808E-01	2.609E-01
TH-228	2.001E+00	2.424E-01	5.385E-02	1.237E-01
TH-230	1.080E+00	2.438E-01	7.362E-02	1.244E-01
TH-232	2.260E+00	5.115E-01	1.808E-01	2.609E-01
TH-234	1.778E+00	1.309E+00	5.763E-01	6.677E-01
U-235	1.441E-01	2.236E-01	1.910E-01	1.141E-01
NP-237	1.440E+00	4.259E-01	1.415E-01	2.173E-01
U-238	1.778E+00	1.309E+00	5.763E-01	6.677E-01
ANH-511	1.169E-01	8.929E-02	2.963E-02	4.555E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.801E-01	4.132E-01	3.259E-01	2.108E-01	NOT IDENT.
NA-22	-6.317E-03	6.139E-02	4.952E-02	3.132E-02	NOT IDENT.
NA-24	-3.119E+07	2.594E+08	0.000E+00	1.324E+08	SHORT HLIF
SC-46	-3.370E-02	5.760E-02	4.556E-02	2.939E-02	NOT IDENT.
V-48	-5.913E-02	1.125E-01	8.785E-02	5.739E-02	NOT IDENT.
CR-51	1.336E-01	4.667E-01	4.122E-01	2.381E-01	NOT IDENT.
MN-54	-2.734E-02	5.716E-02	4.650E-02	2.916E-02	NOT IDENT.

CO-56	2.890E-02	5.013E-02	4.522E-02	2.558E-02	NOT IDENT.
CO-57	-1.480E-03	2.709E-02	2.324E-02	1.382E-02	NOT IDENT.
CO-58	-8.711E-03	6.034E-02	5.072E-02	3.078E-02	NOT IDENT.
FE-59	-3.229E-02	1.571E-01	1.275E-01	8.014E-02	NOT IDENT.
CO-60	1.713E-02	5.784E-02	5.103E-02	2.951E-02	NOT IDENT.
ZN-65	-3.770E-01	1.600E-01	9.797E-02	8.161E-02	NOT IDENT.
SE-75	2.048E-02	6.106E-02	4.566E-02	3.115E-02	NOT IDENT.
SR-85	5.009E-02	5.758E-02	4.609E-02	2.938E-02	NOT IDENT.
Y-88	-3.374E-02	4.432E-02	2.841E-02	2.261E-02	NOT IDENT.
Y-91	1.894E+01	3.508E+01	3.038E+01	1.790E+01	NOT IDENT.
NB-94	1.578E-02	4.919E-02	4.343E-02	2.510E-02	NOT IDENT.
NB-95	-1.281E-02	6.699E-02	5.648E-02	3.418E-02	NOT IDENT.
NB-95M	-1.915E-02	1.632E-01	1.185E-01	8.328E-02	NOT IDENT.
ZR-95	1.018E-02	1.090E-01	9.415E-02	5.560E-02	NOT IDENT.
MO-99	1.147E+01	6.230E+01	5.430E+01	3.178E+01	NOT IDENT.
TC-99M	-7.023E+21	3.677E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.186E-02	5.663E-02	4.589E-02	2.889E-02	FAIL ABUN
RH-106	-1.462E-01	4.133E-01	3.276E-01	2.109E-01	NOT IDENT.
RU-106	-1.462E-01	4.131E-01	3.276E-01	2.108E-01	NOT IDENT.
AG-108M	-2.410E-02	3.823E-02	3.082E-02	1.951E-02	NOT IDENT.
AG-110M	-3.132E-02	4.997E-02	3.833E-02	2.550E-02	NOT IDENT.
SN-113	-1.112E-02	5.845E-02	4.932E-02	2.982E-02	NOT IDENT.
CD-115	2.215E+01	6.788E+01	0.000E+00	3.463E+01	SHORT HLIF
SN-117M	7.126E-02	7.756E-02	6.847E-02	3.957E-02	NOT IDENT.
TE-123M	1.397E-02	3.240E-02	2.800E-02	1.653E-02	NOT IDENT.
SB-124	-3.779E-02	1.236E-01	9.660E-02	6.305E-02	NOT IDENT.
SB-125	-9.194E-02	1.165E-01	9.273E-02	5.945E-02	FAIL ABUN
TE-125M	1.253E+00	1.008E+01	8.771E+00	5.144E+00	NOT IDENT.
I-126	1.314E-01	4.075E-01	3.439E-01	2.079E-01	NOT IDENT.
SB-126	1.378E-01	2.917E-01	2.476E-01	1.488E-01	NOT IDENT.
SB-127	-6.419E-01	4.785E+00	3.857E+00	2.441E+00	NOT IDENT.
I-131	5.611E-02	2.159E-01	1.888E-01	1.102E-01	NOT IDENT.
TE-132	-2.879E+00	2.627E+00	1.991E+00	1.340E+00	NOT IDENT.
BA-133	-1.243E-02	5.899E-02	4.385E-02	3.009E-02	NOT IDENT.
I-133	-1.199E+05	4.138E+05	0.000E+00	2.111E+05	SHORT HLIF
CS-134	9.814E-02	8.144E-02	6.423E-02	4.155E-02	FAIL ABUN
CS-135	8.818E-03	2.143E-01	1.565E-01	1.093E-01	NOT IDENT.
I-135	-2.531E+21	2.847E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.004E-01	1.931E-01	1.506E-01	9.853E-02	NOT IDENT.
BA-137M	-1.942E-02	5.166E-02	4.004E-02	2.636E-02	NOT IDENT.
CS-137	-2.051E-02	5.458E-02	4.230E-02	2.784E-02	NOT IDENT.
CE-139	-7.183E-03	3.528E-02	2.947E-02	1.800E-02	NOT IDENT.
BA-140	-2.191E-01	4.537E-01	3.563E-01	2.315E-01	NOT IDENT.
LA-140	-1.027E-01	1.572E-01	1.159E-01	8.019E-02	FAIL ABUN
CE-141	1.350E-02	7.933E-02	6.666E-02	4.047E-02	NOT IDENT.
CE-143	4.289E+03	2.286E+03	0.000E+00	1.166E+03	SHORT HLIF
CE-144	2.418E-02	2.361E-01	1.936E-01	1.205E-01	NOT IDENT.
PM-144	7.380E-03	4.793E-02	4.187E-02	2.445E-02	NOT IDENT.
PR-144	5.402E-01	3.595E+00	3.140E+00	1.834E+00	NOT IDENT.
PM-146	2.488E-02	5.290E-02	4.633E-02	2.699E-02	NOT IDENT.
ND-147	-4.430E-01	9.947E-01	7.944E-01	5.075E-01	FAIL ABUN
PM-149	-4.326E+02	4.828E+02	0.000E+00	2.464E+02	SHORT HLIF
EU-152	-5.787E-02	1.180E-01	9.854E-02	6.021E-02	FAIL ABUN
GD-153	-1.405E-01	9.195E-02	6.470E-02	4.691E-02	NOT IDENT.
EU-154	-2.598E-02	1.725E-01	1.383E-01	8.803E-02	NOT IDENT.
EU-155	7.602E-02	1.084E-01	9.464E-02	5.533E-02	FAIL ABUN
TB-160	4.369E-02	2.133E-01	1.813E-01	1.088E-01	FAIL ABUN
HO-166M	-1.261E-02	8.400E-02	7.142E-02	4.286E-02	FAIL ABUN
TA-182	-2.296E-01	3.165E-01	2.399E-01	1.615E-01	NOT IDENT.
IR-192	4.675E-03	4.095E-02	3.581E-02	2.089E-02	FAIL ABUN
HG-203	-2.104E-02	4.979E-02	4.204E-02	2.540E-02	NOT IDENT.
BI-207	-2.139E-02	7.390E-02	5.937E-02	3.770E-02	FAIL ABUN
PB-210	6.647E-01	6.659E-01	5.809E-01	3.397E-01	NOT IDENT.
PB-211	3.699E-01	8.911E-01	7.676E-01	4.546E-01	NOT IDENT.
BI-212	2.805E+00	1.254E+00	8.765E-01	6.396E-01	FAIL ABUN
RN-219	4.893E-02	4.979E-01	4.278E-01	2.540E-01	FAIL ABUN
RA-223	-9.416E-02	8.290E-01	6.271E-01	4.230E-01	FAIL ABUN
AC-227	-1.088E-01	3.003E-01	2.399E-01	1.532E-01	FAIL ABUN
TH-227	-1.088E-01	3.004E-01	2.399E-01	1.533E-01	FAIL ABUN
TH-229	-4.491E-01	6.005E-01	4.798E-01	3.064E-01	FAIL ABUN
PA-231	2.418E-01	1.568E+00	1.384E+00	8.002E-01	FAIL ABUN
TH-231	-9.416E-02	8.290E-01	6.271E-01	4.230E-01	FAIL ABUN
PA-233	1.664E-02	7.695E-02	6.772E-02	3.926E-02	FAIL ABUN
PA-234	1.081E-01	4.647E-01	3.992E-01	2.371E-01	NOT IDENT.
PA-234M	4.010E+00	6.891E+00	6.087E+00	3.516E+00	NOT IDENT.
NP-239	3.973E-02	3.899E-01	3.377E-01	1.989E-01	NOT IDENT.
AM-241	1.266E-03	7.134E-02	5.737E-02	3.640E-02	NOT IDENT.
CM-247	9.418E-03	4.558E-02	3.946E-02	2.326E-02	NOT IDENT.

CF-249	1.193E-02	5.122E-02	4.450E-02	2.614E-02	NOT IDENT.
CF-251	-4.702E-02	1.503E-01	1.242E-01	7.669E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	253.4503
49.72	279.7933
57.36	0.0000
59.54	311.9944
63.29	340.6667
63.29	340.6667
64.28	341.4985
67.75	346.1258
69.67	407.8535
70.83	439.1071
72.81	407.6750
72.87	407.7309
72.87	407.7309
74.82	409.5133
74.82	409.5133
74.82	409.5133
74.97	409.6506
77.11	411.5773
77.11	411.5773
77.11	411.5773
79.69	279.5299
79.80	279.5943
80.12	279.7845
80.19	279.8254
80.57	280.0501
81.00	280.3047
81.07	280.3456
81.07	280.3456
83.79	224.4534
83.79	224.4534
85.43	225.2060
86.48	225.6852
86.55	225.7165
86.79	225.8241
86.94	225.8929
87.57	226.1782
88.03	226.3859
88.47	226.5836
89.96	227.2492
91.11	227.7597
92.59	228.4128
92.59	228.4128
93.35	228.7457
94.67	208.3456
94.87	208.4240
94.87	208.4240
95.86	208.8139
97.43	295.1651
98.44	239.9526
99.53	226.7000
100.11	230.7068
103.18	269.8634
103.37	272.7964
105.31	226.2119
106.12	229.3893
109.28	220.1219
111.00	214.0497
111.76	202.7922
116.30	200.4586
117.23	192.0361
121.12	193.2476
121.78	210.0604
122.06	216.9956
123.07	186.0146
131.20	224.5531
133.52	228.0249
136.00	215.6836

136.47	215.8330
140.51	197.0029
140.51	0.0000
143.76	185.8044
144.24	208.1605
144.24	208.1605
145.44	203.4516
152.43	196.2305
153.25	205.6578
154.21	216.1707
154.21	216.1707
156.02	245.4525
158.56	174.1506
159.00	186.6249
162.66	198.9180
163.33	176.2775
165.86	209.1031
176.60	185.5767
177.52	200.5626
181.07	173.3345
184.41	174.5603
185.72	174.8306
193.51	191.4843
197.04	154.4526
205.31	183.1373
210.85	190.8258
215.65	179.6807
222.11	160.9258
227.38	170.7289
228.16	186.4990
228.18	186.5024
235.69	158.6594
235.96	158.7025
235.96	158.7025
238.63	148.9659
238.63	148.9659
240.99	149.3110
242.00	149.4587
244.70	114.0910
252.40	125.7977
252.80	136.1411
256.23	137.7289
256.23	137.7289
260.90	0.0000
264.66	119.7182
268.22	128.8112
269.46	126.6300
269.46	126.6300
271.23	126.8318
273.65	124.1915
276.40	110.8179
277.37	126.3560
277.60	134.4066
278.00	147.4973
279.20	144.1381
279.54	144.1807
280.46	142.5361
283.69	109.4082
284.31	128.8895
285.41	129.8957
285.90	0.0000
287.50	105.3434
293.27	0.0000
295.22	115.4804
295.96	106.9940
298.57	128.6741
299.98	100.1960
299.98	100.1960
300.09	100.2063
300.09	100.2063
300.13	100.2097
301.36	100.3105
302.85	103.3049
304.50	123.5599
304.50	123.5599
304.85	120.7213
308.46	113.5088
311.90	112.9227

316.51	99.7412
319.41	109.9683
320.08	94.5674
323.87	106.5255
323.87	106.5255
328.76	92.4667
333.37	80.8524
334.37	84.5921
334.37	84.5921
338.28	104.7649
338.28	104.7649
338.32	104.7683
338.32	104.7683
338.32	104.7683
340.48	101.9839
340.55	101.9889
344.28	114.8745
351.06	111.7310
351.93	114.5974
356.01	109.1471
364.49	91.2024
366.42	82.8558
383.85	98.1719
388.16	96.5507
388.63	88.9315
391.69	99.6582
400.66	93.5129
401.81	86.8318
402.40	84.9358
404.85	82.1725
410.95	71.8264
414.70	71.0295
423.72	80.2520
427.09	94.1558
427.87	94.2026
433.94	91.6079
453.88	68.8084
463.37	85.0484
468.07	91.7232
473.00	60.5200
476.78	74.8062
477.60	70.7968
487.02	80.3356
492.35	0.0000
497.08	73.6370
511.00	62.8741
514.00	66.0757
527.90	0.0000
529.87	0.0000
531.02	66.6895
537.26	65.8666
546.56	0.0000
563.25	63.5852
569.33	62.7199
569.50	58.4727
569.70	55.2897
583.19	65.3002
600.60	55.0653
602.73	72.0540
604.72	62.3145
609.32	57.4657
609.32	57.4657
609.32	57.4657
610.33	57.4932
614.28	60.8638
618.01	41.3735
621.93	55.6318
621.93	55.6318
633.25	46.0580
635.95	58.1952
636.99	48.3358
645.85	47.4315
657.76	65.4333
661.66	58.8826
661.66	58.8826
664.57	0.0000
666.33	56.7805
666.50	57.8986

677.62	63.7806
685.70	61.7609
695.00	52.3161
696.49	60.4718
696.51	60.4734
697.00	65.9032
702.65	66.0636
706.68	68.8973
711.68	59.9591
720.70	58.1361
721.93	0.0000
722.78	71.4983
722.91	71.5021
723.31	71.5136
724.19	74.5846
727.33	52.1252
733.00	39.7215
735.93	58.7359
739.50	56.0661
747.24	57.1668
752.31	59.1328
753.82	40.6785
756.73	55.5366
763.94	72.4071
765.81	72.4604
766.42	61.3288
777.92	52.2744
778.90	55.0964
783.70	48.6522
785.37	53.3651
795.86	54.8370
801.95	57.4794
810.29	52.9375
810.76	53.8926
815.77	53.9955
818.51	47.4146
832.01	61.9531
834.85	65.8347
836.80	0.0000
846.77	29.7096
856.80	56.7529
860.56	34.6764
871.09	40.6106
873.19	36.7708
875.33	0.0000
879.36	38.7920
880.51	35.8970
883.24	50.4994
884.68	37.8936
889.28	47.6889
898.04	49.7885
911.20	51.9804
911.20	51.9804
911.20	51.9804
926.50	34.5087
937.49	59.3804
944.13	39.6758
946.00	46.6489
949.00	46.6959
962.29	44.9077
964.08	44.9352
966.15	44.9659
968.97	45.0077
968.97	45.0077
968.97	45.0077
983.53	36.1793
996.26	54.4931
1001.03	41.4384
1004.73	50.5945
1037.84	49.0828
1038.76	0.0000
1048.07	41.0332
1050.41	35.9297
1050.41	35.9297
1063.66	40.1997
1085.87	33.2078
1099.45	51.0576
1112.07	37.6523

1115.54	90.0396
1120.29	41.9375
1120.29	41.9375
1120.29	41.9375
1120.55	39.8425
1121.30	50.3391
1131.51	0.0000
1173.23	57.4857
1177.93	51.1664
1189.05	57.7415
1204.77	45.1069
1221.41	61.4949
1231.02	45.4310
1235.36	76.8901
1238.28	48.7727
1260.41	0.0000
1271.85	45.9313
1274.44	32.8301
1274.54	32.8315
1291.59	40.6729
1298.22	0.0000
1312.11	32.2329
1332.49	26.8465
1365.19	18.6678
1368.63	0.0000
1384.29	20.6322
1408.01	13.2059
1457.56	0.0000
1460.82	21.0153
1489.16	16.3470
1505.03	26.0574
1596.21	19.6997
1620.50	13.8621
1678.03	0.0000
1690.97	14.0706
1764.49	0.0000
1764.49	0.0000
1764.49	0.0000
1770.23	10.5059
1771.35	17.3673
1791.20	0.0000
1836.06	10.3471

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248818007

Total Uranium Activity	5.3548E+00	ug/g
Total Uranium Counting Unc.	3.8950E+00	ug/g
Total Uranium Tpu	1.9872E-06	ug/g
Total Uranium Mda	1.7168E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962631                    SAMPLE ID  : G248818007       *
*   ANALYST       : MXR1                      DETECTOR   : GAM17            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 13:54:10.15    SAMPLE ALQT:  114.310 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.069E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.487E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.577E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.733E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:26:14.72

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818008.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 14:24:29
Sample ID         : G248818008           Sample quantity  : 1.33630E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:25.60  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.60*	111	309	0.76	93.18	90	6	1.55E-02	27.0	
2	0	63.38	199	604	0.96	126.72	123	8	2.77E-02	22.5	
3	4	74.86*	731	396	0.86	149.67	144	14	1.02E-01	5.5	1.97E+00
4	4	77.11*	1058	292	0.74	154.16	144	14	1.47E-01	3.9	
5	0	84.11	170	418	1.33	168.17	165	7	2.37E-02	21.3	
6	0	87.14*	304	409	0.92	174.23	172	6	4.23E-02	12.0	
7	0	89.96	203	310	0.77	179.86	178	5	2.82E-02	14.9	
8	0	93.04*	437	409	1.44	186.02	183	9	6.07E-02	9.8	
9	0	104.96	71	327	1.35	209.84	207	8	9.83E-03	45.7	
10	0	128.80	68	340	0.62	257.50	254	8	9.44E-03	48.5	
11	0	185.79*	172	233	1.04	371.43	368	7	2.39E-02	17.0	
12	0	209.18	100	257	0.71	418.21	414	9	1.39E-02	30.9	
13	0	238.45*	993	348	0.94	476.71	472	9	1.38E-01	4.7	
14	0	241.40	178	308	1.47	482.62	481	10	2.47E-02	20.9	
15	0	270.60*	58	150	1.11	541.00	537	8	8.00E-03	40.2	
16	0	277.68	54	183	0.78	555.15	550	10	7.46E-03	49.0	
17	1	295.15*	393	122	1.14	590.08	585	20	5.45E-02	6.8	3.08E+00
18	1	300.05	68	125	1.15	599.88	585	20	9.43E-03	29.5	
19	0	338.16	203	148	0.90	676.09	671	10	2.83E-02	13.2	
20	0	351.70*	511	144	1.06	703.15	698	11	7.10E-02	6.4	
21	0	463.29	60	73	0.80	926.28	921	10	8.27E-03	30.1	
22	0	510.49*	120	133	1.83	1020.69	1013	18	1.67E-02	26.2	
23	0	583.04*	280	52	1.10	1165.77	1161	10	3.88E-02	7.8	
24	0	609.03*	363	94	1.35	1217.75	1212	12	5.04E-02	7.6	
25	0	727.45	76	56	1.60	1454.61	1449	15	1.05E-02	24.0	
26	0	860.58	43	34	1.29	1720.92	1717	10	5.97E-03	29.9	
27	0	910.83	200	33	1.82	1821.44	1816	12	2.77E-02	9.1	
28	2	964.26	44	29	1.95	1928.32	1924	34	6.09E-03	27.0	1.82E+00
29	2	968.72	108	38	1.67	1937.25	1924	34	1.50E-02	14.2	
30	0	1120.19*	73	30	1.47	2240.31	2235	11	1.01E-02	19.0	
31	0	1460.37*	1014	9	2.13	2921.12	2914	18	1.41E-01	3.2	
32	0	1764.03*	39	3	2.45	3529.01	3522	13	5.46E-03	20.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 16:26:17

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818008.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 14:24:29
Sample ID : G248818008 Sample quantity : 133.63 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA21 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:25.60 0.4%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.710E+01	3.968E+00	7.062E-01	6.029E-02	52.530
CD-109	+	88.03	*	2.927E+00	7.531E-01	7.972E-01	7.501E-02	3.671
SN-126	+	64.28		7.121E-01	3.373E-01	2.854E-01	4.229E-02	2.495
	+	86.94		1.180E+00	5.659E-01	2.921E-01	1.213E-01	4.041
	+	87.57	*	2.839E-01	7.307E-02	7.044E-02	6.603E-03	4.031
EU-155	+	86.55		3.450E-01	8.887E-02	8.316E-02	7.797E-03	4.148
	+	105.31	*	1.231E-01	1.132E-01	1.142E-01	1.190E-02	1.078
TL-208	+	277.37		6.017E-01	5.952E-01	5.052E-01	6.435E-02	1.191
	+	583.19	*	5.199E-01	9.898E-02	6.735E-02	7.331E-03	7.719
	+	860.56		8.037E-01	4.866E-01	6.095E-01	6.047E-02	1.319
PB-210	+	46.54	*	1.003E+00	5.488E-01	5.952E-01	5.629E-02	1.684
BI-211		72.87		6.214E-01	1.465E+00	2.440E+00	2.042E-01	0.255
	+	351.06	*	3.709E+00	5.812E-01	3.118E-01	2.814E-02	11.899
PB-212	+	74.82		2.415E+00	4.090E-01	2.838E-01	3.663E-02	8.510
	+	77.11		2.103E+00	2.437E-01	1.715E-01	1.479E-02	12.264
	+	238.63	*	1.458E+00	1.995E-01	9.536E-02	9.527E-03	15.287
	+	300.09		1.643E+00	9.867E-01	1.215E+00	1.310E-01	1.353
BI-214	+	609.32	*	1.318E+00	2.544E-01	1.338E-01	1.587E-02	9.846
	+	1120.29		1.479E+00	5.848E-01	6.119E-01	6.601E-02	2.417
	+	1764.49		1.206E+00	4.930E-01	3.804E-01	3.163E-02	3.171
PB-214	+	74.82		4.281E+00	6.837E-01	5.030E-01	5.841E-02	8.510
	+	77.11		3.708E+00	5.273E-01	3.024E-01	3.608E-02	12.264
	+	242.00		1.591E+00	6.847E-01	4.885E-01	5.184E-02	3.257
	+	295.22		1.674E+00	2.929E-01	2.135E-01	2.359E-02	7.842
	+	351.93	*	1.346E+00	2.236E-01	1.135E-01	1.200E-02	11.863
RA-224	+	240.99	*	2.813E+00	1.200E+00	1.229E+00	1.092E-01	2.290
RA-226	+	609.32	*	1.318E+00	2.544E-01	1.338E-01	1.587E-02	9.846
	+	1120.29		1.479E+00	5.848E-01	6.119E-01	6.601E-02	2.417
	+	1764.49		1.206E+00	4.930E-01	3.804E-01	3.163E-02	3.171
AC-228	+	338.32		1.625E+00	8.024E-01	3.611E-01	1.507E-01	4.500
	+	911.20	*	1.914E+00	4.149E-01	2.878E-01	3.366E-02	6.650
	+	968.97		1.794E+00	6.726E-01	5.110E-01	1.247E-01	3.512
RA-228	+	338.32		1.625E+00	8.024E-01	3.611E-01	1.507E-01	4.500
	+	911.20	*	1.914E+00	4.149E-01	2.878E-01	3.366E-02	6.650

Sample ID : G248818008 Acquisition date : 23-MAR-2010 14:24:29

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		1.794E+00	6.726E-01	5.110E-01	1.247E-01	3.512
TH-228	+	74.82		2.415E+00	3.360E-01	2.838E-01	2.430E-02	8.510
	+	77.11		2.103E+00	2.437E-01	1.715E-01	1.479E-02	12.264
	+	238.63	*	1.458E+00	1.995E-01	9.536E-02	9.527E-03	15.287
	+	300.09		1.643E+00	1.398E+00	1.215E+00	7.440E-01	1.353
TH-229	+	85.43		3.978E-01	1.734E-01	1.716E-01	1.580E-02	2.319
	+	88.47		4.377E-01	1.126E-01	1.195E-01	1.126E-02	3.665
		193.51	*	-5.021E-01	4.261E-01	6.707E-01	5.693E-02	-0.749
		210.85		-2.489E-01	7.993E-01	1.176E+00	1.020E-01	-0.212
TH-230	+	609.32	*	1.318E+00	2.447E-01	1.338E-01	1.421E-02	9.846
	+	1120.29		1.479E+00	5.763E-01	6.119E-01	5.172E-02	2.417
	+	1764.49		1.206E+00	4.930E-01	3.804E-01	3.163E-02	3.171
TH-232	+	338.32		1.625E+00	4.515E-01	3.611E-01	3.148E-02	4.500
	+	911.20	*	1.914E+00	4.149E-01	2.878E-01	3.366E-02	6.650
	+	968.97		1.794E+00	6.726E-01	5.110E-01	1.247E-01	3.512
TH-234	+	63.29	*	1.848E+00	8.956E-01	7.409E-01	1.337E-01	2.494
	+	92.59		3.618E+00	1.079E+00	5.474E-01	1.231E-01	6.609
U-235	+	89.96		2.037E+00	7.908E-01	8.027E-01	2.001E-01	2.537
	+	93.35		2.733E+00	8.361E-01	4.149E-01	9.752E-02	6.587
		143.76	*	4.512E-02	1.689E-01	2.655E-01	4.701E-02	0.170
		163.33		1.514E-01	3.434E-01	5.969E-01	1.064E-01	0.254
	+	185.72		1.549E-01	5.430E-02	5.781E-02	4.852E-03	2.679
		205.31		1.878E-01	4.564E-01	7.058E-01	1.281E-01	0.266
NP-237	+	86.48	*	8.472E-01	2.812E-01	2.042E-01	4.683E-02	4.149
		95.86		4.256E-01	5.720E-01	8.773E-01	2.144E-01	0.485
U-238	+	63.29	*	1.848E+00	8.956E-01	7.409E-01	1.337E-01	2.494
	+	92.59		3.618E+00	7.900E-01	5.474E-01	5.269E-02	6.609
ANH-511	+	511.00	*	1.652E-01	8.799E-02	4.951E-02	4.746E-03	3.336

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.144E-01	3.720E-01	6.385E-01	6.255E-02	0.179
NA-22		1274.54	*	-6.933E-02	6.969E-02	9.898E-02	8.120E-03	-0.701
NA-24		1368.63	*	7.223E+01	6.969E-02	Half-Life too short		
SC-46		889.28	*	7.100E-04	5.113E-02	8.552E-02	7.604E-03	0.008
	+	1120.55		2.607E-01	1.016E-01	1.696E-01	1.433E-02	1.537
V-48		944.13		-5.661E-01	1.424E+00	2.261E+00	1.982E-01	-0.250
		983.53	*	-2.346E-03	1.118E-01	1.796E-01	1.571E-02	-0.013
		1312.11		-5.845E-02	1.430E-01	2.166E-01	1.765E-02	-0.270
CR-51		320.08	*	1.384E-01	3.967E-01	6.586E-01	6.118E-02	0.210
MN-54		834.85	*	2.379E-02	5.651E-02	9.790E-02	9.488E-03	0.243
CO-56		846.77	*	3.896E-02	4.477E-02	8.197E-02	7.813E-03	0.475
		1037.84		-5.151E-01	4.219E-01	5.862E-01	5.347E-02	-0.879
		1238.28		8.141E-02	1.297E-01	2.218E-01	1.882E-02	0.367
		1771.35		-2.962E-01	3.225E-01	3.938E-01	3.272E-02	-0.752
CO-57		122.06	*	2.554E-02	1.990E-02	3.330E-02	3.825E-03	0.767
		136.47		3.410E-02	1.676E-01	2.654E-01	2.938E-02	0.129

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-58		810.76	*	2.087E-04	4.808E-02	8.105E-02	8.111E-03	0.003
FE-59		1099.45	*	-8.062E-02	1.427E-01	2.190E-01	2.021E-02	-0.368
		1291.59		3.948E-02	2.033E-01	3.342E-01	3.140E-02	0.118
CO-60		1173.23		1.503E-02	6.944E-02	1.151E-01	9.484E-03	0.131
		1332.49	*	-1.668E-02	5.188E-02	8.335E-02	6.765E-03	-0.200
ZN-65		1115.54	*	-1.773E-01	1.469E-01	1.652E-01	1.400E-02	-1.073
SE-75		121.12		-8.015E-02	1.080E-01	1.627E-01	2.176E-02	-0.493
		136.00		-8.768E-03	3.327E-02	5.126E-02	5.448E-03	-0.171
		264.66	*	-3.516E-03	4.140E-02	6.775E-02	6.083E-03	-0.052
		279.54		4.225E-02	1.170E-01	1.736E-01	1.603E-02	0.243
		400.66		-8.904E-03	2.639E-01	4.169E-01	4.451E-02	-0.021
SR-85		514.00	*	1.684E-02	4.726E-02	7.201E-02	6.929E-03	0.234
Y-88		898.04		-7.815E-04	4.867E-02	8.103E-02	7.122E-03	-0.010
		1836.06	*	1.609E-02	3.816E-02	6.950E-02	5.738E-03	0.232
Y-91		1204.77	*	2.227E+00	3.582E+01	5.836E+01	4.808E+00	0.038
NB-94		702.65	*	5.371E-02	4.251E-02	7.604E-02	8.281E-03	0.706
		871.09		-7.398E-03	4.273E-02	7.021E-02	6.445E-03	-0.105
NB-95		765.81	*	3.872E-02	5.909E-02	1.003E-01	1.048E-02	0.386
NB-95M		235.69	*	-7.572E-02	1.250E-01	1.774E-01	1.791E-02	-0.427
ZR-95		724.19		1.510E-01	1.279E-01	2.080E-01	2.363E-02	0.726
		756.73	*	1.022E-01	1.002E-01	1.760E-01	1.985E-02	0.581
MO-99		140.51		-1.886E+01	6.325E+01	9.677E+01	2.360E+01	-0.195
		181.07		-2.813E+00	5.164E+01	8.352E+01	1.558E+01	-0.034
		366.42		1.063E+01	3.505E+02	5.616E+02	4.710E+01	0.019
		739.50	*	3.635E+01	5.441E+01	9.303E+01	1.578E+01	0.391
		777.92		-1.547E+02	1.495E+02	2.061E+02	2.131E+01	-0.750
TC-99M		140.51	*	-8.835E+15	1.495E+02	Half-Life too short		
RU-103		497.08	*	2.445E-02	4.303E-02	7.531E-02	1.090E-02	0.325
	+	610.33		1.485E+01	3.444E+00	3.852E+00	6.736E-01	3.855
RH-106		621.93	*	-1.597E-01	3.429E-01	5.315E-01	7.821E-02	-0.300
		1050.41		8.731E-01	3.763E+00	6.324E+00	5.469E-01	0.138
RU-106		621.93	*	-1.597E-01	3.425E-01	5.315E-01	5.703E-02	-0.300
		1050.41		8.731E-01	3.763E+00	6.324E+00	5.469E-01	0.138
AG-108M		433.94	*	-3.326E-02	2.955E-02	4.513E-02	3.996E-03	-0.737
		614.28		2.038E-03	4.981E-02	7.185E-02	7.827E-03	0.028
		722.91		-1.594E-02	5.361E-02	7.222E-02	7.943E-03	-0.221
AG-110M		657.76	*	3.663E-03	4.086E-02	6.710E-02	7.527E-03	0.055
		677.62		-1.738E-01	4.053E-01	6.292E-01	7.042E-02	-0.276
		706.68		-2.359E-01	2.822E-01	4.163E-01	4.607E-02	-0.567
		763.94		-1.803E-01	2.245E-01	3.296E-01	3.514E-02	-0.547
		884.68		8.786E-03	6.615E-02	1.120E-01	1.034E-02	0.078
		937.49		-1.921E-02	1.408E-01	2.305E-01	2.091E-02	-0.083
		1384.29		9.896E-02	2.009E-01	3.588E-01	3.028E-02	0.276
		1505.03		-1.826E-01	3.223E-01	4.732E-01	3.937E-02	-0.386
SN-113		391.69	*	-4.709E-03	4.999E-02	7.875E-02	6.486E-03	-0.060
CD-115		260.90		-3.315E-04	4.999E-02	Half-Life too short		
		492.35		-1.145E-04	4.999E-02	Half-Life too short		
		527.90	*	6.371E-06	4.999E-02	Half-Life too short		
SN-117M		156.02		-2.023E+00	2.340E+00	3.849E+00	3.473E-01	-0.526

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		158.56	*	1.687E-02	5.704E-02	9.814E-02	8.639E-03	0.172
TE-123M		159.00	*	4.896E-03	2.382E-02	4.083E-02	3.599E-03	0.120
SB-124		602.73		1.180E-02	5.116E-02	7.966E-02	8.412E-03	0.148
		645.85		2.364E-02	5.428E-01	8.892E-01	1.007E-01	0.027
		722.78		-2.175E-01	5.666E-01	7.526E-01	8.230E-02	-0.289
		1690.97	*	2.097E-02	9.586E-02	1.653E-01	1.443E-02	0.127
SB-125		427.87	*	-7.916E-02	9.041E-02	1.420E-01	1.228E-02	-0.558
	+	463.37		7.121E-01	4.337E-01	5.861E-01	5.629E-02	1.215
		600.60		1.286E-01	2.098E-01	3.620E-01	4.007E-02	0.355
		635.95		-2.028E-01	3.103E-01	4.699E-01	5.362E-02	-0.432
TE-125M		109.28	*	2.138E+00	7.840E+00	1.172E+01	1.425E+00	0.182
I-126		388.63		-3.926E-02	2.279E-01	3.567E-01	2.857E-02	-0.110
		666.33	*	-9.510E-03	3.445E-01	5.583E-01	6.160E-02	-0.017
		753.82		1.273E-01	3.104E+00	5.003E+00	5.280E-01	0.025
SB-126		414.70		4.601E-02	9.461E-02	1.663E-01	1.380E-02	0.277
		666.50		-3.032E-02	1.207E-01	1.911E-01	2.109E-02	-0.159
		695.00		-5.506E-02	1.302E-01	2.017E-01	2.204E-02	-0.273
		697.00		2.203E-01	4.376E-01	7.413E-01	8.093E-02	0.297
		720.70	*	-9.188E-02	2.460E-01	3.658E-01	3.947E-02	-0.251
		856.80		-1.517E-01	8.588E-01	1.220E+00	1.145E-01	-0.124
SB-127		252.40		-2.455E+00	8.891E+00	1.432E+01	6.021E+00	-0.171
		473.00		-1.440E+00	4.343E+00	7.088E+00	1.027E+00	-0.203
		685.70	*	2.569E+00	3.960E+00	6.800E+00	9.941E-01	0.378
		783.70		6.587E+00	1.136E+01	1.917E+01	2.859E+00	0.344
I-131		80.19		5.138E+00	3.779E+00	6.059E+00	5.408E-01	0.848
		284.31		3.068E-01	2.170E+00	3.581E+00	3.363E-01	0.086
		364.49	*	1.049E-02	1.836E-01	2.949E-01	2.634E-02	0.036
		636.99		-5.498E-01	2.755E+00	4.403E+00	4.968E-01	-0.125
TE-132		49.72		-8.822E-01	7.919E+00	1.323E+01	1.635E+00	-0.067
		111.76		2.077E+01	6.954E+01	1.123E+02	1.581E+01	0.185
		116.30		-2.315E+01	6.268E+01	9.716E+01	1.391E+01	-0.238
		228.16	*	4.432E-01	1.853E+00	3.126E+00	5.318E-01	0.142
BA-133		81.00		-2.416E-02	5.314E-02	7.787E-02	1.220E-02	-0.310
	+	276.40		5.567E-01	5.519E-01	5.805E-01	8.301E-02	0.959
		302.85		-6.280E-02	1.497E-01	2.084E-01	2.764E-02	-0.301
		356.01	*	-9.235E-03	4.586E-02	6.390E-02	8.238E-03	-0.145
		383.85		2.746E-02	3.041E-01	4.875E-01	5.884E-02	0.056
I-133		529.87	*	1.816E-02	3.041E-01	Half-Life too short		
		875.33		-4.983E+00	3.041E-01	Half-Life too short		
		1298.22		-2.307E+01	3.041E-01	Half-Life too short		
CS-134		563.25		5.828E-01	4.297E-01	7.812E-01	8.002E-02	0.746
		569.33		6.272E-02	2.335E-01	3.955E-01	4.088E-02	0.159
		604.72		-3.188E-02	4.546E-02	5.935E-02	6.289E-03	-0.537
		795.86	*	1.051E-01	6.249E-02	1.145E-01	1.169E-02	0.919
		801.95		-1.658E-01	5.193E-01	8.502E-01	8.614E-02	-0.195
		1365.19		-5.569E-01	1.459E+00	2.289E+00	1.965E-01	-0.243
CS-135		268.22	*	-3.662E-02	1.737E-01	2.517E-01	2.578E-02	-0.145
I-135		546.56		6.030E+15	1.737E-01	Half-Life too short		
		836.80		8.685E+15	1.737E-01	Half-Life too short		

Sample ID : G248818008 Acquisition date : 23-MAR-2010 14:24:29

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1038.76		-1.187E+15	1.737E-01	Half-Life too short		
		1131.51		3.465E+14	1.737E-01	Half-Life too short		
		1260.41	*	5.748E+14	1.737E-01	Half-Life too short		
		1457.56		3.085E+17	1.737E-01	Half-Life too short		
		1678.03		5.181E+14	1.737E-01	Half-Life too short		
		1791.20		-4.951E+15	1.737E-01	Half-Life too short		
CS-136		153.25		1.538E+00	8.939E-01	1.616E+00	1.748E-01	0.952
		176.60		3.539E-01	5.181E-01	9.072E-01	8.348E-02	0.390
		273.65		-1.830E-01	7.746E-01	8.657E-01	8.346E-02	-0.211
		340.55		2.257E-01	1.821E-01	2.933E-01	2.648E-02	0.769
		818.51		-1.781E-02	9.812E-02	1.615E-01	1.601E-02	-0.110
		1048.07	*	1.529E-02	1.961E-01	3.248E-01	2.930E-02	0.047
		1235.36		3.510E-01	1.054E+00	1.755E+00	2.016E-01	0.200
BA-137M		661.66	*	-2.891E-02	4.160E-02	6.187E-02	6.833E-03	-0.467
CS-137		661.66	*	-3.054E-02	4.395E-02	6.536E-02	7.227E-03	-0.467
CE-139		165.86	*	-2.524E-02	2.362E-02	3.807E-02	3.094E-03	-0.663
BA-140		162.66		7.117E-01	8.459E-01	1.496E+00	1.350E-01	0.476
		304.85		6.764E-01	1.769E+00	2.646E+00	7.769E-01	0.256
		423.72		1.075E+00	2.540E+00	4.398E+00	1.445E+00	0.244
		537.26	*	1.970E-01	4.091E-01	6.967E-01	2.387E-01	0.283
LA-140		328.76		6.052E-01	4.182E-01	7.314E-01	6.786E-02	0.827
		487.02		-1.508E-01	1.912E-01	2.972E-01	2.908E-02	-0.507
		815.77		-1.547E-01	4.550E-01	7.355E-01	7.958E-02	-0.210
		1596.21	*	-1.342E-01	1.677E-01	2.380E-01	1.990E-02	-0.564
CE-141		145.44	*	-2.060E-03	5.755E-02	8.941E-02	8.965E-03	-0.023
CE-143		57.36		-1.125E-03	5.755E-02	Half-Life too short		
		293.27	*	2.608E-03	5.755E-02	Half-Life too short		
		664.57		7.377E-03	5.755E-02	Half-Life too short		
		721.93		-8.490E-03	5.755E-02	Half-Life too short		
CE-144		80.12		1.778E+00	1.341E+00	2.148E+00	1.895E-01	0.828
		133.52	*	-1.577E-02	1.632E-01	2.544E-01	4.219E-02	-0.062
PM-144		476.78		1.879E-02	7.045E-02	1.206E-01	1.190E-02	0.156
		618.01		2.262E-02	3.993E-02	6.853E-02	7.465E-03	0.330
		696.49	*	2.315E-03	4.333E-02	7.047E-02	7.699E-03	0.033
PR-144		696.51	*	2.093E-01	3.255E+00	5.299E+00	5.786E-01	0.040
		1489.16		-3.581E+00	1.628E+01	2.593E+01	2.155E+00	-0.138
PM-146		453.88	*	7.378E-03	4.474E-02	7.629E-02	8.224E-03	0.097
		633.25		6.500E-01	1.627E+00	2.733E+00	1.059E+00	0.238
		735.93		-7.182E-02	1.883E-01	2.770E-01	7.959E-02	-0.259
		747.24		7.886E-03	1.217E-01	1.969E-01	3.119E-02	0.040
ND-147	+	91.11		9.034E-01	2.841E-01	3.874E-01	3.953E-02	2.332
		319.41		-1.474E+00	4.435E+00	6.995E+00	6.195E-01	-0.211
		531.02	*	-5.351E-01	8.043E-01	1.242E+00	1.947E-01	-0.431
PM-149		285.90	*	1.703E-04	8.043E-01	Half-Life too short		
EU-152		121.78		5.990E-02	5.577E-02	9.257E-02	1.153E-02	0.647
		244.70		-1.964E-02	3.122E-01	4.610E-01	4.103E-02	-0.043
		344.28	*	-6.617E-02	9.855E-02	1.497E-01	1.373E-02	-0.442
		778.90		-1.692E-01	3.047E-01	4.530E-01	4.679E-02	-0.373
	+	964.08		7.849E-01	4.291E-01	7.554E-01	6.619E-02	1.039

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1085.87		1.971E-02	5.414E-01	8.899E-01	7.617E-02	0.022
		1112.07		2.711E-01	4.013E-01	7.025E-01	5.957E-02	0.386
		1408.01		1.860E-01	2.262E-01	4.204E-01	3.458E-02	0.442
GD-153		69.67		-5.738E-02	7.586E-01	1.244E+00	1.020E-01	-0.046
		97.43	*	-2.950E-02	6.012E-02	8.627E-02	8.522E-03	-0.342
		103.18		-1.986E-02	7.604E-02	1.101E-01	1.124E-02	-0.180
EU-154		123.07		2.058E-02	4.079E-02	6.601E-02	8.981E-03	0.312
		723.31		6.923E-02	2.320E-01	3.403E-01	3.909E-02	0.203
		873.19		9.870E-02	3.470E-01	5.973E-01	7.336E-02	0.165
		996.26		-2.713E-01	5.078E-01	7.890E-01	1.383E-01	-0.344
		1004.73		-2.789E-01	2.838E-01	4.133E-01	4.842E-02	-0.675
		1274.44	*	-1.763E-01	1.948E-01	2.791E-01	3.086E-02	-0.632
TB-160	+	86.79		9.582E-01	2.466E-01	3.535E-01	3.291E-02	2.711
		197.04		2.063E-01	4.880E-01	8.391E-01	7.157E-02	0.246
		215.65		-2.654E-01	6.428E-01	1.050E+00	9.155E-02	-0.253
	+	298.57		2.427E-01	1.450E-01	2.016E-01	1.799E-02	1.204
		879.36	*	1.207E-01	1.828E-01	3.254E-01	2.945E-02	0.371
		962.29		1.048E+00	8.722E-01	1.431E+00	1.254E-01	0.732
		966.15		9.275E-01	3.385E-01	6.527E-01	5.717E-02	1.421
		1177.93		-3.986E-01	6.238E-01	9.512E-01	7.839E-02	-0.419
		1271.85		4.173E-01	1.182E+00	1.974E+00	1.618E-01	0.211
HO-166M		80.57		3.385E-04	1.703E-01	2.259E-01	2.000E-02	0.001
	+	184.41		1.230E-01	4.314E-02	5.708E-02	4.781E-03	2.156
		280.46		9.963E-03	8.769E-02	1.273E-01	1.135E-02	0.078
		410.95		7.918E-03	2.595E-01	4.113E-01	3.389E-02	0.019
		711.68	*	-5.422E-02	7.884E-02	1.181E-01	1.280E-02	-0.459
		752.31		-2.469E-01	3.553E-01	5.257E-01	5.554E-02	-0.470
		810.29		-7.556E-03	7.105E-02	1.184E-01	1.184E-02	-0.064
TA-182		67.75		-8.293E-03	4.589E-02	7.507E-02	6.085E-03	-0.110
		100.11		6.362E-02	1.203E-01	1.980E-01	1.986E-02	0.321
		152.43		1.062E-01	3.152E-01	4.979E-01	4.645E-02	0.213
		222.11		4.322E-01	3.125E-01	5.561E-01	4.878E-02	0.777
	+	1121.30		7.143E-01	2.784E-01	4.637E-01	3.917E-02	1.541
		1189.05		2.417E-01	4.743E-01	8.066E-01	6.646E-02	0.300
		1221.41	*	1.278E-01	3.141E-01	5.267E-01	4.336E-02	0.243
		1231.02		-5.963E-01	7.596E-01	1.133E+00	9.318E-02	-0.527
IR-192	+	295.96		1.297E+00	2.110E-01	3.304E-01	2.969E-02	3.927
		308.46		-2.560E-02	9.172E-02	1.457E-01	1.303E-02	-0.176
		316.51	*	1.518E-02	3.288E-02	5.513E-02	4.900E-03	0.275
		468.07		3.449E-02	7.655E-02	1.193E-01	1.151E-02	0.289
HG-203		70.83		1.817E-01	7.020E-01	1.080E+00	1.714E-01	0.168
		72.87		1.666E-01	3.934E-01	6.542E-01	1.007E-01	0.255
		279.20	*	2.752E-02	4.292E-02	6.512E-02	5.945E-03	0.423
BI-207		72.81		2.757E-02	8.396E-02	1.394E-01	1.166E-02	0.198
	+	74.97		6.962E-01	9.653E-02	1.425E-01	1.210E-02	4.885
		569.70		6.279E-03	3.661E-02	6.152E-02	6.299E-03	0.102
		1063.66	*	-9.217E-03	6.571E-02	1.060E-01	9.135E-03	-0.087
		1770.23		-1.723E+00	8.388E-01	7.138E-01	5.932E-02	-2.413
PB-211		404.85	*	-5.918E-02	7.909E-01	1.243E+00	6.006E-01	-0.048

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.09		-1.823E+00	1.749E+00	2.353E+00	1.088E+00	-0.775
		832.01		-6.631E-01	1.513E+00	2.385E+00	1.241E+00	-0.278
BI-212	+	727.33	*	2.241E+00	1.121E+00	1.408E+00	1.973E-01	1.591
		785.37		2.384E+00	4.109E+00	6.946E+00	7.130E-01	0.343
		1620.50		1.425E+00	2.552E+00	4.699E+00	3.930E-01	0.303
RN-219	+	271.23		3.850E-01	3.124E-01	4.007E-01	4.215E-02	0.961
		401.81	*	-3.544E-02	4.239E-01	6.665E-01	9.716E-02	-0.053
RA-223		81.07		-5.380E-02	1.202E-01	1.766E-01	1.570E-02	-0.305
	+	83.79		2.368E-01	1.032E-01	1.329E-01	1.207E-02	1.782
		94.87		7.341E-02	2.856E-01	4.312E-01	4.201E-02	0.170
		144.24		1.668E-01	5.679E-01	8.946E-01	9.715E-02	0.186
		154.21		2.537E-01	3.180E-01	5.618E-01	5.595E-02	0.452
	+	269.46		2.991E-01	2.422E-01	3.352E-01	3.050E-02	0.892
		323.87	*	-4.637E-01	6.419E-01	9.735E-01	1.697E-01	-0.476
	+	338.28		6.449E+00	1.873E+00	2.554E+00	3.101E-01	2.525
AC-227		79.69		-5.805E-02	6.865E-01	1.030E+00	1.785E-01	-0.056
		235.96		-3.135E-02	1.420E-01	2.079E-01	2.193E-02	-0.151
		256.23	*	-7.316E-02	2.227E-01	3.594E-01	4.412E-02	-0.204
	+	299.98		1.808E+00	1.093E+00	1.623E+00	2.096E-01	1.114
		304.50		4.163E-01	1.656E+00	2.459E+00	4.102E-01	0.169
		334.37		-4.326E-01	1.851E+00	2.592E+00	4.059E-01	-0.167
TH-227		79.80		6.256E-01	8.863E-01	1.370E+00	2.993E-01	0.457
		235.96		-3.135E-02	1.420E-01	2.079E-01	2.073E-02	-0.151
		256.23	*	-7.316E-02	2.228E-01	3.594E-01	4.962E-02	-0.204
	+	299.98		1.808E+00	1.093E+00	1.623E+00	2.096E-01	1.114
		304.50		4.163E-01	1.656E+00	2.459E+00	4.102E-01	0.169
		334.37		-4.326E-01	1.851E+00	2.592E+00	4.059E-01	-0.167
PA-231		283.69	*	5.680E-01	1.342E+00	2.253E+00	3.327E-01	0.252
	+	301.36		1.161E+00	7.007E-01	9.983E-01	1.234E-01	1.163
TH-231		81.07		-5.380E-02	1.202E-01	1.766E-01	1.570E-02	-0.305
	+	83.79		2.368E-01	1.032E-01	1.329E-01	1.207E-02	1.782
		94.87		7.341E-02	2.856E-01	4.312E-01	4.201E-02	0.170
		144.24		1.668E-01	5.679E-01	8.946E-01	9.715E-02	0.186
		154.21		2.537E-01	3.180E-01	5.618E-01	5.595E-02	0.452
	+	269.46		2.991E-01	2.422E-01	3.352E-01	3.050E-02	0.892
		323.87	*	-4.637E-01	6.419E-01	9.735E-01	1.697E-01	-0.476
	+	338.28		6.449E+00	1.873E+00	2.554E+00	3.101E-01	2.525
PA-233	+	300.13		8.180E-01	4.985E-01	7.348E-01	1.103E-01	1.113
		311.90	*	1.389E-02	5.746E-02	9.495E-02	8.666E-03	0.146
		340.48		7.982E-01	6.279E-01	9.757E-01	2.351E-01	0.818
PA-234		94.67		1.349E-01	1.075E-01	1.694E-01	2.236E-02	0.796
		98.44		-4.235E-03	5.873E-02	9.388E-02	5.258E-02	-0.045
		111.00		-2.776E-02	1.327E-01	2.086E-01	2.848E-02	-0.133
		131.20		7.881E-04	8.970E-02	1.297E-01	1.414E-02	0.006
		569.50		5.014E-02	3.243E-01	5.443E-01	5.572E-02	0.092
		733.00		2.206E-02	4.659E-01	6.598E-01	1.523E-01	0.033
		880.51		8.074E-02	3.614E-01	6.176E-01	5.578E-02	0.131
		883.24		-3.333E-01	4.475E-01	5.909E-01	3.975E-01	-0.564
		926.50		-6.575E-02	1.964E-01	3.119E-01	7.901E-02	-0.211

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	1.395E-01	3.881E-01	6.669E-01	1.256E-01	0.209
		949.00		6.522E-01	5.442E-01	1.012E+00	8.874E-02	0.644
PA-234M		766.42		1.383E+01	1.660E+01	2.612E+01	1.334E+01	0.530
		1001.03	*	3.123E-01	6.214E+00	1.031E+01	1.037E+00	0.030
NP-239		99.53		9.391E-02	1.062E-01	1.775E-01	1.774E-02	0.529
		103.37		-1.404E-02	6.844E-02	9.950E-02	1.017E-02	-0.141
	+	106.12		9.799E-02	9.009E-02	9.871E-02	1.025E-02	0.993
		117.23	*	-1.531E-01	3.025E-01	4.649E-01	5.174E-02	-0.329
		228.18		4.328E-02	1.863E-01	3.144E-01	2.771E-02	0.138
	+	277.60		2.750E-01	2.709E-01	3.021E-01	2.695E-02	0.910
AM-241		59.54	*	1.619E-02	4.920E-02	7.702E-02	6.533E-03	0.210
CM-247	+	278.00		1.168E+00	1.151E+00	1.298E+00	1.157E-01	0.900
		287.50		3.003E-02	1.174E+00	1.922E+00	1.715E-01	0.016
		402.40	*	-1.795E-02	4.010E-02	6.097E-02	4.945E-03	-0.294
CF-249		252.80		-2.440E-01	7.995E-01	1.293E+00	1.154E-01	-0.189
		333.37		9.280E-03	1.896E-01	2.738E-01	2.398E-02	0.034
		388.16	*	2.243E-02	4.136E-02	6.869E-02	5.507E-03	0.327
CF-251		177.52	*	-6.150E-02	1.035E-01	1.705E-01	1.413E-02	-0.361
		227.38		3.564E-01	3.028E-01	5.345E-01	4.708E-02	0.667
		285.41		2.598E-01	2.046E+00	3.373E+00	3.010E-01	0.077

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818008       *
* Acquisition date : 23-MAR-2010 14:24:29 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:25.60     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248818008           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.3363E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.710E+01	3.889E+00	7.074E-01	0.000E+00
CD-109	2.927E+00	7.380E-01	8.389E-01	0.000E+00
SN-126	2.839E-01	7.160E-02	7.413E-02	0.000E+00
EU-155	1.231E-01	1.110E-01	1.198E-01	0.000E+00
TL-208	5.199E-01	9.700E-02	6.860E-02	0.000E+00
PB-210	1.003E+00	5.379E-01	6.330E-01	0.000E+00
BI-211	3.709E+00	5.696E-01	3.204E-01	0.000E+00
PB-212	1.458E+00	1.956E-01	9.866E-02	0.000E+00
BI-214	1.318E+00	2.493E-01	1.362E-01	0.000E+00
PB-214	1.346E+00	2.192E-01	1.166E-01	0.000E+00
RA-224	2.813E+00	1.176E+00	1.271E+00	0.000E+00
RA-226	1.318E+00	2.493E-01	1.362E-01	0.000E+00
AC-228	1.914E+00	4.066E-01	2.909E-01	0.000E+00
RA-228	1.914E+00	4.066E-01	2.909E-01	0.000E+00
TH-228	1.458E+00	1.956E-01	9.866E-02	0.000E+00
TH-229	-5.021E-01	4.175E-01	6.965E-01	0.000E+00
TH-230	1.318E+00	2.398E-01	1.362E-01	0.000E+00
TH-232	1.914E+00	4.066E-01	2.909E-01	0.000E+00
TH-234	1.848E+00	8.777E-01	7.839E-01	0.000E+00
U-235	4.512E-02	1.655E-01	2.771E-01	0.000E+00
NP-237	8.472E-01	2.756E-01	2.149E-01	0.000E+00
U-238	1.848E+00	8.777E-01	7.839E-01	0.000E+00
ANH-511	1.652E-01	8.623E-02	5.055E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.144E-01	3.645E-01	6.527E-01	0.000E+00	NOT IDENT.
NA-22	-6.933E-02	6.830E-02	9.940E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.122E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	7.100E-04	5.010E-02	8.645E-02	0.000E+00	FAIL ABUN

V-48	-2.346E-03	1.096E-01	1.812E-01	0.000E+00	NOT IDENT.
CR-51	1.384E-01	3.888E-01	6.780E-01	0.000E+00	NOT IDENT.
MN-54	2.379E-02	5.538E-02	9.908E-02	0.000E+00	NOT IDENT.
CO-56	3.896E-02	4.387E-02	8.293E-02	0.000E+00	NOT IDENT.
CO-57	2.554E-02	1.950E-02	3.484E-02	0.000E+00	NOT IDENT.
CO-58	2.087E-04	4.712E-02	8.207E-02	0.000E+00	NOT IDENT.
FE-59	-8.062E-02	1.399E-01	2.206E-01	0.000E+00	NOT IDENT.
CO-60	-1.668E-02	5.085E-02	8.364E-02	0.000E+00	NOT IDENT.
ZN-65	-1.773E-01	1.439E-01	1.663E-01	0.000E+00	NOT IDENT.
SE-75	-3.516E-03	4.057E-02	6.997E-02	0.000E+00	NOT IDENT.
SR-85	1.684E-02	4.632E-02	7.351E-02	0.000E+00	NOT IDENT.
Y-88	1.609E-02	3.739E-02	6.933E-02	0.000E+00	NOT IDENT.
Y-91	2.227E+00	3.511E+01	5.867E+01	0.000E+00	NOT IDENT.
NB-94	5.371E-02	4.166E-02	7.719E-02	0.000E+00	NOT IDENT.
NB-95	3.872E-02	5.791E-02	1.017E-01	0.000E+00	NOT IDENT.
NB-95M	-7.572E-02	1.225E-01	1.836E-01	0.000E+00	NOT IDENT.
ZR-95	1.022E-01	9.822E-02	1.784E-01	0.000E+00	NOT IDENT.
MO-99	3.635E+01	5.333E+01	9.436E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.915E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.445E-02	4.217E-02	7.693E-02	0.000E+00	FAIL ABUN
RH-106	-1.597E-01	3.360E-01	5.407E-01	0.000E+00	NOT IDENT.
RU-106	-1.597E-01	3.356E-01	5.407E-01	0.000E+00	NOT IDENT.
AG-108M	-3.326E-02	2.896E-02	4.621E-02	0.000E+00	NOT IDENT.
AG-110M	3.663E-03	4.005E-02	6.820E-02	0.000E+00	NOT IDENT.
SN-113	-4.709E-03	4.899E-02	8.078E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	5.356E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	1.687E-02	5.590E-02	1.023E-01	0.000E+00	NOT IDENT.
TE-123M	4.896E-03	2.335E-02	4.254E-02	0.000E+00	NOT IDENT.
SB-124	2.097E-02	9.394E-02	1.652E-01	0.000E+00	NOT IDENT.
SB-125	-7.916E-02	8.860E-02	1.454E-01	0.000E+00	FAIL ABUN
TE-125M	2.138E+00	7.683E+00	1.229E+01	0.000E+00	NOT IDENT.
I-126	-9.510E-03	3.376E-01	5.674E-01	0.000E+00	NOT IDENT.
SB-126	-9.188E-02	2.411E-01	3.712E-01	0.000E+00	NOT IDENT.
SB-127	2.569E+00	3.880E+00	6.907E+00	0.000E+00	NOT IDENT.
I-131	1.049E-02	1.799E-01	3.029E-01	0.000E+00	NOT IDENT.
TE-132	4.432E-01	1.816E+00	3.236E+00	0.000E+00	NOT IDENT.
BA-133	-9.235E-03	4.494E-02	6.566E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	3.178E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.051E-01	6.124E-02	1.159E-01	0.000E+00	NOT IDENT.
CS-135	-3.662E-02	1.702E-01	2.599E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.735E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.529E-02	1.922E-01	3.274E-01	0.000E+00	NOT IDENT.
BA-137M	-2.891E-02	4.077E-02	6.288E-02	0.000E+00	NOT IDENT.
CS-137	-3.054E-02	4.307E-02	6.643E-02	0.000E+00	NOT IDENT.
CE-139	-2.524E-02	2.314E-02	3.963E-02	0.000E+00	NOT IDENT.
BA-140	1.970E-01	4.010E-01	7.107E-01	0.000E+00	NOT IDENT.
LA-140	-1.342E-01	1.643E-01	2.380E-01	0.000E+00	NOT IDENT.
CE-141	-2.060E-03	5.640E-02	9.329E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.880E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.577E-02	1.599E-01	2.659E-01	0.000E+00	NOT IDENT.
PM-144	2.315E-03	4.246E-02	7.155E-02	0.000E+00	NOT IDENT.
PR-144	2.093E-01	3.189E+00	5.380E+00	0.000E+00	NOT IDENT.
PM-146	7.378E-03	4.384E-02	7.805E-02	0.000E+00	NOT IDENT.
ND-147	-5.351E-01	7.882E-01	1.268E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	4.069E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-6.617E-02	9.658E-02	1.539E-01	0.000E+00	FAIL ABUN
GD-153	-2.950E-02	5.892E-02	9.063E-02	0.000E+00	NOT IDENT.
EU-154	-1.763E-01	1.909E-01	2.803E-01	0.000E+00	NOT IDENT.
TB-160	1.207E-01	1.791E-01	3.290E-01	0.000E+00	FAIL ABUN
HO-166M	-5.422E-02	7.726E-02	1.198E-01	0.000E+00	FAIL ABUN
TA-182	1.278E-01	3.078E-01	5.294E-01	0.000E+00	FAIL ABUN
IR-192	1.518E-02	3.222E-02	5.676E-02	0.000E+00	FAIL ABUN
HG-203	2.752E-02	4.206E-02	6.719E-02	0.000E+00	NOT IDENT.
BI-207	-9.217E-03	6.439E-02	1.068E-01	0.000E+00	FAIL ABUN
PB-211	-5.918E-02	7.751E-01	1.275E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.099E+00	1.428E+00	0.000E+00	FAIL ABUN
RN-219	-3.544E-02	4.154E-01	6.833E-01	0.000E+00	FAIL ABUN
RA-223	-4.637E-01	6.290E-01	1.002E+00	0.000E+00	FAIL ABUN
AC-227	-7.316E-02	2.183E-01	3.714E-01	0.000E+00	FAIL ABUN
TH-227	-7.316E-02	2.183E-01	3.714E-01	0.000E+00	FAIL ABUN
PA-231	5.680E-01	1.315E+00	2.324E+00	0.000E+00	FAIL ABUN
TH-231	-4.637E-01	6.290E-01	1.002E+00	0.000E+00	FAIL ABUN
PA-233	1.389E-02	5.631E-02	9.779E-02	0.000E+00	FAIL ABUN
PA-234	1.395E-01	3.803E-01	6.734E-01	0.000E+00	NOT IDENT.
PA-234M	3.123E-01	6.089E+00	1.040E+01	0.000E+00	NOT IDENT.
NP-239	-1.531E-01	2.964E-01	4.868E-01	0.000E+00	FAIL ABUN
AM-241	1.619E-02	4.821E-02	8.157E-02	0.000E+00	NOT IDENT.
CM-247	-1.795E-02	3.930E-02	6.251E-02	0.000E+00	FAIL ABUN

CF-249	2.243E-02	4.053E-02	7.047E-02	0.000E+00	NOT IDENT.
CF-251	-6.150E-02	1.015E-01	1.773E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:26:15.72

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818008.CNF;1
Sample date      : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 14:24:29
Sample ID        : G248818008           Sample quantity  : 1.33630E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:25.60  0.4%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 962631               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1014	10.66*	7.205E-01	3.710E+01	3.710E+01	10.70
CD-109	88.03	304	3.70*	8.137E+00	2.839E+00	2.927E+00	25.73
SN-126	64.28	199	9.60	8.183E+00	7.121E-01	7.121E-01	47.36
	86.94	304	8.90	8.137E+00	1.180E+00	1.180E+00	47.94
	87.57	304	37.00*	8.137E+00	2.839E-01	2.839E-01	25.73
EU-155	86.55	304	30.70	8.137E+00	3.422E-01	3.450E-01	25.76
	105.31	71	21.10*	7.717E+00	1.221E-01	1.231E-01	91.95
TL-208	277.37	54	6.60	3.797E+00	6.017E-01	6.017E-01	98.92
	583.19	280	85.00*	1.777E+00	5.199E-01	5.199E-01	19.04
	860.56	43	12.50	1.201E+00	8.037E-01	8.037E-01	60.55
PB-210	46.54	111	4.25*	7.357E+00	1.001E+00	1.003E+00	54.74
BI-211	72.87	------	1.23	8.278E+00	------	Line Not Found	------
	351.06	511	12.92*	2.998E+00	3.709E+00	3.709E+00	15.67
PB-212	74.82	731	10.28	8.275E+00	2.415E+00	2.415E+00	16.94
	77.11	1058	17.10	8.264E+00	2.103E+00	2.103E+00	11.59
	238.63	993	43.60*	4.388E+00	1.458E+00	1.458E+00	13.69
	300.09	68	3.30	3.518E+00	1.643E+00	1.643E+00	60.04
BI-214	609.32	363	45.49*	1.700E+00	1.318E+00	1.318E+00	19.31
	1120.29	73	14.92	9.295E-01	1.479E+00	1.479E+00	39.54
	1764.49	39	15.30	5.984E-01	1.206E+00	1.206E+00	40.86
PB-214	74.82	731	5.80	8.275E+00	4.280E+00	4.281E+00	15.97
	77.11	1058	9.70	8.264E+00	3.708E+00	3.708E+00	14.22
	242.00	178	7.25	4.338E+00	1.591E+00	1.591E+00	43.03
	295.22	393	18.42	3.576E+00	1.674E+00	1.674E+00	17.49
	351.93	511	35.60*	2.998E+00	1.346E+00	1.346E+00	16.61
RA-224	240.99	178	4.10*	4.338E+00	2.813E+00	2.813E+00	42.64
RA-226	609.32	363	45.49*	1.700E+00	1.318E+00	1.318E+00	19.31
	1120.29	73	14.92	9.295E-01	1.479E+00	1.479E+00	39.54
	1764.49	39	15.30	5.984E-01	1.206E+00	1.206E+00	40.86
AC-228	338.32	203	11.27	3.120E+00	1.625E+00	1.625E+00	49.37
	911.20	200	25.80*	1.136E+00	1.914E+00	1.914E+00	21.67
	968.97	108	15.80	1.070E+00	1.794E+00	1.794E+00	37.48

Sample ID : G248818008 Acquisition date : 23-MAR-2010 14:24:29

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	203	11.27	3.120E+00	1.625E+00	1.625E+00	49.37
	911.20	200	25.80*	1.136E+00	1.914E+00	1.914E+00	21.67
	968.97	108	15.80	1.070E+00	1.794E+00	1.794E+00	37.48
TH-228	74.82	731	10.28	8.275E+00	2.415E+00	2.415E+00	13.91
	77.11	1058	17.10	8.264E+00	2.103E+00	2.103E+00	11.59
	238.63	993	43.60*	4.388E+00	1.458E+00	1.458E+00	13.69
	300.09	68	3.30	3.518E+00	1.643E+00	1.643E+00	85.09
TH-229	85.43	170	14.70	8.187E+00	3.978E-01	3.978E-01	43.59
	88.47	304	24.00	8.137E+00	4.377E-01	4.377E-01	25.73
	193.51	------	4.41*	5.271E+00	------ Line Not Found		------
	210.85	------	2.80	4.900E+00	------ Line Not Found		------
TH-230	609.32	363	45.49*	1.700E+00	1.318E+00	1.318E+00	18.57
	1120.29	73	14.92	9.295E-01	1.479E+00	1.479E+00	38.97
	1764.49	39	15.30	5.984E-01	1.206E+00	1.206E+00	40.86
TH-232	338.32	203	11.27	3.120E+00	1.625E+00	1.625E+00	27.78
	911.20	200	25.80*	1.136E+00	1.914E+00	1.914E+00	21.67
	968.97	108	15.80	1.070E+00	1.794E+00	1.794E+00	37.48
TH-234	63.29	199	3.70*	8.183E+00	1.848E+00	1.848E+00	48.48
	92.59	437	4.23	8.018E+00	3.618E+00	3.618E+00	29.84
U-235	89.96	203	3.47	8.084E+00	2.037E+00	2.037E+00	38.83
	93.35	437	5.60	8.018E+00	2.733E+00	2.733E+00	30.59
	143.76	------	10.96*	6.567E+00	------ Line Not Found		------
	163.33	------	5.08	6.017E+00	------ Line Not Found		------
	185.72	172	57.20	5.450E+00	1.549E-01	1.549E-01	35.06
	205.31	------	5.01	5.015E+00	------ Line Not Found		------
NP-237	86.48	304	12.40*	8.137E+00	8.472E-01	8.472E-01	33.19
	95.86	------	2.68	7.953E+00	------ Line Not Found		------
U-238	63.29	199	3.70*	8.183E+00	1.848E+00	1.848E+00	48.48
	92.59	437	4.23	8.018E+00	3.618E+00	3.618E+00	21.84
ANH-511	511.00	120	100.00*	2.039E+00	1.652E-01	1.652E-01	53.27

Flag: "*" = Keyline

Sample ID : G248818008 Acquisition date : 23-MAR-2010 14:24:29

Total number of lines in spectrum 32
Number of unidentified lines 2
Number of lines tentatively identified by NID 30 93.75%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.710E+01	3.710E+01	0.397E+01	10.70	
CD-109	461.40D	1.03	2.839E+00	2.927E+00	0.753E+00	25.73	
SN-126	2.30E+05Y	1.00	2.839E-01	2.839E-01	0.731E-01	25.73	
EU-155	4.75Y	1.01	1.221E-01	1.231E-01	1.132E-01	91.95	
TL-208	1.41E+10Y	1.00	5.199E-01	5.199E-01	0.990E-01	19.04	
PB-210	22.20Y	1.00	1.001E+00	1.003E+00	0.549E+00	54.74	
BI-211	7.04E+08Y	1.00	3.709E+00	3.709E+00	0.581E+00	15.67	
PB-212	1.41E+10Y	1.00	1.458E+00	1.458E+00	0.200E+00	13.69	
BI-214	1600.00Y	1.00	1.318E+00	1.318E+00	0.254E+00	19.31	
PB-214	1600.00Y	1.00	1.346E+00	1.346E+00	0.224E+00	16.61	
RA-224	1.41E+10Y	1.00	2.813E+00	2.813E+00	1.200E+00	42.64	
RA-226	1600.00Y	1.00	1.318E+00	1.318E+00	0.254E+00	19.31	
AC-228	1.41E+10Y	1.00	1.914E+00	1.914E+00	0.415E+00	21.67	
RA-228	1.41E+10Y	1.00	1.914E+00	1.914E+00	0.415E+00	21.67	
TH-228	1.41E+10Y	1.00	1.458E+00	1.458E+00	0.200E+00	13.69	
TH-229	7340.00Y	1.00	4.377E-01	4.377E-01	1.126E-01	25.73	K
TH-230	7.54E+04Y	1.00	1.318E+00	1.318E+00	0.245E+00	18.57	
TH-232	1.41E+10Y	1.00	1.914E+00	1.914E+00	0.415E+00	21.67	
TH-234	4.47E+09Y	1.00	1.848E+00	1.848E+00	0.896E+00	48.48	
U-235	7.04E+08Y	1.00	1.549E-01	1.549E-01	0.543E-01	35.06	K
NP-237	2.14E+06Y	1.00	8.472E-01	8.472E-01	2.812E-01	33.19	
U-238	4.47E+09Y	1.00	1.848E+00	1.848E+00	0.896E+00	48.48	
ANH-511	1.00E+09Y	1.00	1.652E-01	1.652E-01	0.880E-01	53.27	
	Total Activity :		6.764E+01	6.773E+01			

Grand Total Activity : 6.764E+01 6.773E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248818008 Acquisition date : 23-MAR-2010 14:24:29

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.80	68	340	0.62	257.50	254	8	9.44E-03	97.0	7.01E+00	
0	209.18	100	257	0.71	418.21	414	9	1.39E-02	61.7	4.93E+00	
0	270.60	58	150	1.11	541.00	537	8	8.00E-03	80.5	3.89E+00	T
0	463.29	60	73	0.80	926.28	921	10	8.27E-03	60.1	2.25E+00	T
0	727.45	76	56	1.60	1454.61	1449	15	1.05E-02	48.0	1.42E+00	T
2	964.26	44	29	1.95	1928.32	1924	34	6.09E-03	54.0	1.07E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:26:19.85

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818008.CNF;1   *
* Acquisition date : 23-MAR-2010 14:24:29  Detector SN#    :                 *
* Detector ID      : GAM21                 Sensitivity     : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000         *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000        *
* Elapsed real time: 0 02:00:25.60         Half life ratio : 8.00000         *
*****************************************************************************
*                                                                            *
*                                SAMPLE DATA                                 *
*                                                                            *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID            *
* Sample ID        : G248818008            Analyst initials: MXR1             *
* Batch Number     : 962631                Sample Quantity : 1.33630E+02 GRAM *
*****************************************************************************
*                                                                            *
*                                  QC DATA                                   *
*                                                                            *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51.9MS Isotope      :                 *
* MSD ID           :                       MSD Isotope     :                 *
* LCS ID           : 1032-A                LCS Isotope     :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.710E+01	3.968E+00	7.062E-01	6.029E-02	52.530
CD-109	2.927E+00	7.531E-01	7.972E-01	7.501E-02	3.671
SN-126	2.839E-01	7.307E-02	7.044E-02	6.603E-03	4.031
EU-155	1.231E-01	1.132E-01	1.142E-01	1.190E-02	1.078
TL-208	5.199E-01	9.898E-02	6.735E-02	7.331E-03	7.719
PB-210	1.003E+00	5.488E-01	5.952E-01	5.629E-02	1.684
BI-211	3.709E+00	5.812E-01	3.118E-01	2.814E-02	11.899
PB-212	1.458E+00	1.995E-01	9.536E-02	9.527E-03	15.287
BI-214	1.318E+00	2.544E-01	1.338E-01	1.587E-02	9.846
PB-214	1.346E+00	2.236E-01	1.135E-01	1.200E-02	11.863
RA-224	2.813E+00	1.200E+00	1.229E+00	1.092E-01	2.290
RA-226	1.318E+00	2.544E-01	1.338E-01	1.587E-02	9.846
AC-228	1.914E+00	4.149E-01	2.878E-01	3.366E-02	6.650
RA-228	1.914E+00	4.149E-01	2.878E-01	3.366E-02	6.650
TH-228	1.458E+00	1.995E-01	9.536E-02	9.527E-03	15.287
TH-229	4.377E-01	1.126E-01	6.707E-01	5.693E-02	0.653
TH-230	1.318E+00	2.447E-01	1.338E-01	1.421E-02	9.846
TH-232	1.914E+00	4.149E-01	2.878E-01	3.366E-02	6.650

Sample ID : G248818008 Acquisition date : 23-MAR-2010 14:24:29

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234	1.848E+00	8.956E-01	7.409E-01	1.337E-01	2.494
U-235	1.549E-01	5.430E-02	2.655E-01	4.701E-02	0.583
NP-237	8.472E-01	2.812E-01	2.042E-01	4.683E-02	4.149
U-238	1.848E+00	8.956E-01	7.409E-01	1.337E-01	2.494
ANH-511	1.652E-01	8.799E-02	4.951E-02	4.746E-03	3.336

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.144E-01		3.720E-01	6.385E-01	6.255E-02	0.179
NA-22	-6.933E-02		6.969E-02	9.898E-02	8.120E-03	-0.701
NA-24	7.223E+01		1.083E+02	Half-Life too short		
SC-46	7.100E-04		5.113E-02	8.552E-02	7.604E-03	0.008
V-48	-2.346E-03		1.118E-01	1.796E-01	1.571E-02	-0.013
CR-51	1.384E-01		3.967E-01	6.586E-01	6.118E-02	0.210
MN-54	2.379E-02		5.651E-02	9.790E-02	9.488E-03	0.243
CO-56	3.896E-02		4.477E-02	8.197E-02	7.813E-03	0.475
CO-57	2.554E-02		1.990E-02	3.330E-02	3.825E-03	0.767
CO-58	2.087E-04		4.808E-02	8.105E-02	8.111E-03	0.003
FE-59	-8.062E-02		1.427E-01	2.190E-01	2.021E-02	-0.368
CO-60	-1.668E-02		5.188E-02	8.335E-02	6.765E-03	-0.200
ZN-65	-1.773E-01		1.469E-01	1.652E-01	1.400E-02	-1.073
SE-75	-3.516E-03		4.140E-02	6.775E-02	6.083E-03	-0.052
SR-85	1.684E-02		4.726E-02	7.201E-02	6.929E-03	0.234
Y-88	1.609E-02		3.816E-02	6.950E-02	5.738E-03	0.232
Y-91	2.227E+00		3.582E+01	5.836E+01	4.808E+00	0.038
NB-94	5.371E-02		4.251E-02	7.604E-02	8.281E-03	0.706
NB-95	3.872E-02		5.909E-02	1.003E-01	1.048E-02	0.386
NB-95M	-7.572E-02		1.250E-01	1.774E-01	1.791E-02	-0.427
ZR-95	1.022E-01		1.002E-01	1.760E-01	1.985E-02	0.581
MO-99	3.635E+01		5.441E+01	9.303E+01	1.578E+01	0.391
TC-99M	-8.835E+15		1.487E+16	Half-Life too short		
RU-103	2.445E-02		4.303E-02	7.531E-02	1.090E-02	0.325
RH-106	-1.597E-01		3.429E-01	5.315E-01	7.821E-02	-0.300
RU-106	-1.597E-01		3.425E-01	5.315E-01	5.703E-02	-0.300
AG-108M	-3.326E-02		2.955E-02	4.513E-02	3.996E-03	-0.737
AG-110M	3.663E-03		4.086E-02	6.710E-02	7.527E-03	0.055
SN-113	-4.709E-03		4.999E-02	7.875E-02	6.486E-03	-0.060
CD-115	6.371E-06		2.733E-05	Half-Life too short		
SN-117M	1.687E-02		5.704E-02	9.814E-02	8.639E-03	0.172
TE-123M	4.896E-03		2.382E-02	4.083E-02	3.599E-03	0.120
SB-124	2.097E-02		9.586E-02	1.653E-01	1.443E-02	0.127
SB-125	-7.916E-02		9.041E-02	1.420E-01	1.228E-02	-0.558
TE-125M	2.138E+00		7.840E+00	1.172E+01	1.425E+00	0.182
I-126	-9.510E-03		3.445E-01	5.583E-01	6.160E-02	-0.017
SB-126	-9.188E-02		2.460E-01	3.658E-01	3.947E-02	-0.251
SB-127	2.569E+00		3.960E+00	6.800E+00	9.941E-01	0.378

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-131	1.049E-02		1.836E-01	2.949E-01	2.634E-02	0.036
TE-132	4.432E-01		1.853E+00	3.126E+00	5.318E-01	0.142
BA-133	-9.235E-03		4.586E-02	6.390E-02	8.238E-03	-0.145
I-133	1.816E-02		1.622E-01	Half-Life too short		
CS-134	1.051E-01		6.249E-02	1.145E-01	1.169E-02	0.919
CS-135	-3.662E-02		1.737E-01	2.517E-01	2.578E-02	-0.145
I-135	5.748E+14		1.396E+15	Half-Life too short		
CS-136	1.529E-02		1.961E-01	3.248E-01	2.930E-02	0.047
BA-137M	-2.891E-02		4.160E-02	6.187E-02	6.833E-03	-0.467
CS-137	-3.054E-02		4.395E-02	6.536E-02	7.227E-03	-0.467
CE-139	-2.524E-02		2.362E-02	3.807E-02	3.094E-03	-0.663
BA-140	1.970E-01		4.091E-01	6.967E-01	2.387E-01	0.283
LA-140	-1.342E-01		1.677E-01	2.380E-01	1.990E-02	-0.564
CE-141	-2.060E-03		5.755E-02	8.941E-02	8.965E-03	-0.023
CE-143	2.608E-03		9.593E-04	Half-Life too short		
CE-144	-1.577E-02		1.632E-01	2.544E-01	4.219E-02	-0.062
PM-144	2.315E-03		4.333E-02	7.047E-02	7.699E-03	0.033
PR-144	2.093E-01		3.255E+00	5.299E+00	5.786E-01	0.040
PM-146	7.378E-03		4.474E-02	7.629E-02	8.224E-03	0.097
ND-147	-5.351E-01		8.043E-01	1.242E+00	1.947E-01	-0.431
PM-149	1.703E-04		2.076E-04	Half-Life too short		
EU-152	-6.617E-02		9.855E-02	1.497E-01	1.373E-02	-0.442
GD-153	-2.950E-02		6.012E-02	8.627E-02	8.522E-03	-0.342
EU-154	-1.763E-01		1.948E-01	2.791E-01	3.086E-02	-0.632
TB-160	1.207E-01		1.828E-01	3.254E-01	2.945E-02	0.371
HO-166M	-5.422E-02		7.884E-02	1.181E-01	1.280E-02	-0.459
TA-182	1.278E-01		3.141E-01	5.267E-01	4.336E-02	0.243
IR-192	1.518E-02		3.288E-02	5.513E-02	4.900E-03	0.275
HG-203	2.752E-02		4.292E-02	6.512E-02	5.945E-03	0.423
BI-207	-9.217E-03		6.571E-02	1.060E-01	9.135E-03	-0.087
PB-211	-5.918E-02		7.909E-01	1.243E+00	6.006E-01	-0.048
BI-212	2.241E+00	+	1.121E+00	1.408E+00	1.973E-01	1.591
RN-219	-3.544E-02		4.239E-01	6.665E-01	9.716E-02	-0.053
RA-223	-4.637E-01		6.419E-01	9.735E-01	1.697E-01	-0.476
AC-227	-7.316E-02		2.227E-01	3.594E-01	4.412E-02	-0.204
TH-227	-7.316E-02		2.228E-01	3.594E-01	4.962E-02	-0.204
PA-231	5.680E-01		1.342E+00	2.253E+00	3.327E-01	0.252
TH-231	-4.637E-01		6.419E-01	9.735E-01	1.697E-01	-0.476
PA-233	1.389E-02		5.746E-02	9.495E-02	8.666E-03	0.146
PA-234	1.395E-01		3.881E-01	6.669E-01	1.256E-01	0.209
PA-234M	3.123E-01		6.214E+00	1.031E+01	1.037E+00	0.030
NP-239	-1.531E-01		3.025E-01	4.649E-01	5.174E-02	-0.329
AM-241	1.619E-02		4.920E-02	7.702E-02	6.533E-03	0.210
CM-247	-1.795E-02		4.010E-02	6.097E-02	4.945E-03	-0.294
CF-249	2.243E-02		4.136E-02	6.869E-02	5.507E-03	0.327
CF-251	-6.150E-02		1.035E-01	1.705E-01	1.413E-02	-0.361

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248818008           *
* Acquisition date : 23-MAR-2010 14:24:29 Detector SN#    :                *
* Detector ID      : GAM21                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:25.60     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G248818008           Analyst initials: MXR1           *
* Batch Number     : 962631               Sample Quantity : 1.3363E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.710E+01	3.889E+00	3.539E-01	1.984E+00
CD-109	2.927E+00	7.380E-01	4.197E-01	3.765E-01
SN-126	2.839E-01	7.160E-02	3.709E-02	3.653E-02
EU-155	1.231E-01	1.110E-01	5.994E-02	5.661E-02
TL-208	5.199E-01	9.700E-02	3.432E-02	4.949E-02
PB-210	1.003E+00	5.379E-01	3.167E-01	2.744E-01
BI-211	3.709E+00	5.696E-01	1.603E-01	2.906E-01
PB-212	1.458E+00	1.956E-01	4.936E-02	9.977E-02
BI-214	1.318E+00	2.493E-01	6.815E-02	1.272E-01
PB-214	1.346E+00	2.192E-01	5.835E-02	1.118E-01
RA-224	2.813E+00	1.176E+00	6.359E-01	5.998E-01
RA-226	1.318E+00	2.493E-01	6.815E-02	1.272E-01
AC-228	1.914E+00	4.066E-01	1.455E-01	2.075E-01
RA-228	1.914E+00	4.066E-01	1.455E-01	2.075E-01
TH-228	1.458E+00	1.956E-01	4.936E-02	9.977E-02
TH-229	-5.021E-01	4.175E-01	3.484E-01	2.130E-01
TH-230	1.318E+00	2.398E-01	6.814E-02	1.224E-01
TH-232	1.914E+00	4.066E-01	1.455E-01	2.075E-01
TH-234	1.848E+00	8.777E-01	3.922E-01	4.478E-01
U-235	4.512E-02	1.655E-01	1.386E-01	8.443E-02
NP-237	8.472E-01	2.756E-01	1.075E-01	1.406E-01
U-238	1.848E+00	8.777E-01	3.922E-01	4.478E-01
ANH-511	1.652E-01	8.623E-02	2.529E-02	4.399E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.144E-01	3.645E-01	3.265E-01	1.860E-01	NOT IDENT.
NA-22	-6.933E-02	6.830E-02	4.973E-02	3.485E-02	NOT IDENT.
NA-24	7.223E+07	2.122E+08	0.000E+00	1.083E+08	SHORT HLIF
SC-46	7.100E-04	5.010E-02	4.325E-02	2.556E-02	FAIL ABUN

V-48	-2.346E-03	1.096E-01	9.065E-02	5.591E-02	NOT IDENT.
CR-51	1.384E-01	3.888E-01	3.392E-01	1.984E-01	NOT IDENT.
MN-54	2.379E-02	5.538E-02	4.957E-02	2.825E-02	NOT IDENT.
CO-56	3.896E-02	4.387E-02	4.149E-02	2.238E-02	NOT IDENT.
CO-57	2.554E-02	1.950E-02	1.743E-02	9.949E-03	NOT IDENT.
CO-58	2.087E-04	4.712E-02	4.106E-02	2.404E-02	NOT IDENT.
FE-59	-8.062E-02	1.399E-01	1.104E-01	7.135E-02	NOT IDENT.
CO-60	-1.668E-02	5.085E-02	4.184E-02	2.594E-02	NOT IDENT.
ZN-65	-1.773E-01	1.439E-01	8.319E-02	7.343E-02	NOT IDENT.
SE-75	-3.516E-03	4.057E-02	3.501E-02	2.070E-02	NOT IDENT.
SR-85	1.684E-02	4.632E-02	3.678E-02	2.363E-02	NOT IDENT.
Y-88	1.609E-02	3.739E-02	3.468E-02	1.908E-02	NOT IDENT.
Y-91	2.227E+00	3.511E+01	2.935E+01	1.791E+01	NOT IDENT.
NB-94	5.371E-02	4.166E-02	3.862E-02	2.125E-02	NOT IDENT.
NB-95	3.872E-02	5.791E-02	5.088E-02	2.954E-02	NOT IDENT.
NB-95M	-7.572E-02	1.225E-01	9.185E-02	6.251E-02	NOT IDENT.
ZR-95	1.022E-01	9.822E-02	8.926E-02	5.011E-02	NOT IDENT.
MO-99	3.635E+01	5.333E+01	4.721E+01	2.721E+01	NOT IDENT.
TC-99M	-8.835E+21	2.915E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.445E-02	4.217E-02	3.849E-02	2.152E-02	FAIL ABUN
RH-106	-1.597E-01	3.360E-01	2.705E-01	1.714E-01	NOT IDENT.
RU-106	-1.597E-01	3.356E-01	2.705E-01	1.712E-01	NOT IDENT.
AG-108M	-3.326E-02	2.896E-02	2.312E-02	1.478E-02	NOT IDENT.
AG-110M	3.663E-03	4.005E-02	3.412E-02	2.043E-02	NOT IDENT.
SN-113	-4.709E-03	4.899E-02	4.042E-02	2.499E-02	NOT IDENT.
CD-115	6.371E+00	5.356E+01	0.000E+00	2.733E+01	SHORT HLIF
SN-117M	1.687E-02	5.590E-02	5.116E-02	2.852E-02	NOT IDENT.
TE-123M	4.896E-03	2.335E-02	2.128E-02	1.191E-02	NOT IDENT.
SB-124	2.097E-02	9.394E-02	8.264E-02	4.793E-02	NOT IDENT.
SB-125	-7.916E-02	8.860E-02	7.275E-02	4.520E-02	FAIL ABUN
TE-125M	2.138E+00	7.683E+00	6.146E+00	3.920E+00	NOT IDENT.
I-126	-9.510E-03	3.376E-01	2.839E-01	1.722E-01	NOT IDENT.
SB-126	-9.188E-02	2.411E-01	1.857E-01	1.230E-01	NOT IDENT.
SB-127	2.569E+00	3.880E+00	3.455E+00	1.980E+00	NOT IDENT.
I-131	1.049E-02	1.799E-01	1.515E-01	9.179E-02	NOT IDENT.
TE-132	4.432E-01	1.816E+00	1.619E+00	9.265E-01	NOT IDENT.
BA-133	-9.235E-03	4.494E-02	3.285E-02	2.293E-02	FAIL ABUN
I-133	1.816E+04	3.178E+05	0.000E+00	1.622E+05	SHORT HLIF
CS-134	1.051E-01	6.124E-02	5.801E-02	3.124E-02	NOT IDENT.
CS-135	-3.662E-02	1.702E-01	1.300E-01	8.686E-02	NOT IDENT.
I-135	5.748E+20	2.735E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.529E-02	1.922E-01	1.638E-01	9.804E-02	NOT IDENT.
BA-137M	-2.891E-02	4.077E-02	3.146E-02	2.080E-02	NOT IDENT.
CS-137	-3.054E-02	4.307E-02	3.323E-02	2.198E-02	NOT IDENT.
CE-139	-2.524E-02	2.314E-02	1.983E-02	1.181E-02	NOT IDENT.
BA-140	1.970E-01	4.010E-01	3.556E-01	2.046E-01	NOT IDENT.
LA-140	-1.342E-01	1.643E-01	1.191E-01	8.384E-02	NOT IDENT.
CE-141	-2.060E-03	5.640E-02	4.667E-02	2.878E-02	NOT IDENT.
CE-143	2.608E+03	1.880E+03	0.000E+00	9.593E+02	SHORT HLIF
CE-144	-1.577E-02	1.599E-01	1.330E-01	8.160E-02	NOT IDENT.
PM-144	2.315E-03	4.246E-02	3.580E-02	2.166E-02	NOT IDENT.
PR-144	2.093E-01	3.189E+00	2.692E+00	1.627E+00	NOT IDENT.
PM-146	7.378E-03	4.384E-02	3.905E-02	2.237E-02	NOT IDENT.
ND-147	-5.351E-01	7.882E-01	6.342E-01	4.022E-01	FAIL ABUN
PM-149	1.703E+02	4.069E+02	0.000E+00	2.076E+02	SHORT HLIF
EU-152	-6.617E-02	9.658E-02	7.702E-02	4.928E-02	FAIL ABUN
GD-153	-2.950E-02	5.892E-02	4.534E-02	3.006E-02	NOT IDENT.
EU-154	-1.763E-01	1.909E-01	1.402E-01	9.739E-02	NOT IDENT.
TB-160	1.207E-01	1.791E-01	1.646E-01	9.139E-02	FAIL ABUN
HO-166M	-5.422E-02	7.726E-02	5.995E-02	3.942E-02	FAIL ABUN
TA-182	1.278E-01	3.078E-01	2.648E-01	1.571E-01	FAIL ABUN
IR-192	1.518E-02	3.222E-02	2.840E-02	1.644E-02	FAIL ABUN
HG-203	2.752E-02	4.206E-02	3.362E-02	2.146E-02	NOT IDENT.
BI-207	-9.217E-03	6.439E-02	5.343E-02	3.285E-02	FAIL ABUN
PB-211	-5.918E-02	7.751E-01	6.376E-01	3.955E-01	NOT IDENT.
BI-212	2.241E+00	1.099E+00	7.146E-01	5.605E-01	FAIL ABUN
RN-219	-3.544E-02	4.154E-01	3.419E-01	2.120E-01	FAIL ABUN
RA-223	-4.637E-01	6.290E-01	5.012E-01	3.209E-01	FAIL ABUN
AC-227	-7.316E-02	2.183E-01	1.858E-01	1.114E-01	FAIL ABUN
TH-227	-7.316E-02	2.183E-01	1.858E-01	1.114E-01	FAIL ABUN
PA-231	5.680E-01	1.315E+00	1.163E+00	6.711E-01	FAIL ABUN
TH-231	-4.637E-01	6.290E-01	5.012E-01	3.209E-01	FAIL ABUN
PA-233	1.389E-02	5.631E-02	4.892E-02	2.873E-02	FAIL ABUN
PA-234	1.395E-01	3.803E-01	3.369E-01	1.940E-01	NOT IDENT.
PA-234M	3.123E-01	6.089E+00	5.203E+00	3.107E+00	NOT IDENT.
NP-239	-1.531E-01	2.964E-01	2.436E-01	1.512E-01	FAIL ABUN
AM-241	1.619E-02	4.821E-02	4.081E-02	2.460E-02	NOT IDENT.
CM-247	-1.795E-02	3.930E-02	3.127E-02	2.005E-02	FAIL ABUN

CF-249	2.243E-02	4.053E-02	3.526E-02	2.068E-02	NOT IDENT.
CF-251	-6.150E-02	1.015E-01	8.872E-02	5.177E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	202.0131
49.72	220.8103
57.36	0.0000
59.54	275.8865
63.29	294.8033
63.29	294.8033
64.28	295.9817
67.75	307.9605
69.67	327.1817
70.83	335.2820
72.81	339.0800
72.87	339.1531
72.87	339.1531
74.82	341.5448
74.82	341.5448
74.82	341.5448
74.97	341.7294
77.11	344.3134
77.11	344.3134
77.11	344.3134
79.69	299.1366
79.80	262.0154
80.12	240.2111
80.19	240.2678
80.57	290.3522
81.00	301.8478
81.07	301.9188
81.07	301.9188
83.79	244.5592
83.79	244.5592
85.43	248.6740
86.48	249.5112
86.55	249.5670
86.79	249.7561
86.94	262.5842
87.57	263.1083
88.03	316.6136
88.47	317.0502
89.96	297.1481
91.11	233.8421
92.59	202.5713
92.59	202.5713
93.35	203.0360
94.67	203.8393
94.87	212.6404
94.87	212.6404
95.86	172.6410
97.43	227.3619
98.44	210.4871
99.53	186.9530
100.11	198.2785
103.18	180.7376
103.37	180.8331
105.31	198.9395
106.12	199.3795
109.28	195.8080
111.00	211.0735
111.76	193.3006
116.30	203.6205
117.23	211.0157
121.12	222.3753
121.78	170.2578
122.06	170.3742
123.07	194.1880
131.20	197.1482
133.52	203.7868
136.00	202.5146

136.47	187.0402
140.51	204.5372
140.51	0.0000
143.76	194.9385
144.24	195.1375
144.24	195.1375
145.44	198.0956
152.43	203.4864
153.25	171.7295
154.21	203.8025
154.21	203.8025
156.02	225.5020
158.56	184.5161
159.00	188.8906
162.66	174.9546
163.33	178.5825
165.86	195.6857
176.60	161.2615
177.52	184.2301
181.07	177.1403
184.41	189.5837
185.72	190.4586
193.51	184.0254
197.04	166.1454
205.31	167.4726
210.85	164.7889
215.65	153.4605
222.11	126.7905
227.38	123.0506
228.16	142.1432
228.18	142.1478
235.69	168.1214
235.96	160.9991
235.96	160.9991
238.63	194.7958
238.63	194.7958
240.99	280.8554
242.00	137.7265
244.70	133.8756
252.40	114.6982
252.80	114.7601
256.23	125.1396
256.23	125.1396
260.90	0.0000
264.66	119.5532
268.22	148.6239
269.46	145.8523
269.46	145.8523
271.23	96.4473
273.65	105.8118
276.40	94.0425
277.37	94.1542
277.60	94.1826
278.00	94.2280
279.20	101.9783
279.54	106.5894
280.46	106.7111
283.69	106.1117
284.31	115.3818
285.41	112.4685
285.90	0.0000
287.50	115.8278
293.27	0.0000
295.22	115.8623
295.96	115.9626
298.57	116.3180
299.98	116.5072
299.98	116.5072
300.09	116.5231
300.09	116.5231
300.13	116.5277
301.36	93.7720
302.85	117.4164
304.50	95.6811
304.50	95.6811
304.85	89.4417
308.46	95.5878
311.90	83.3058

316.51	80.5552
319.41	103.1434
320.08	89.3867
323.87	115.4026
323.87	115.4026
328.76	102.0488
333.37	92.2980
334.37	100.5002
334.37	100.5002
338.28	94.4040
338.28	94.4040
338.32	94.4075
338.32	94.4075
338.32	94.4075
340.48	66.8878
340.55	66.8928
344.28	105.9142
351.06	85.7600
351.93	85.8362
356.01	86.1901
364.49	85.8041
366.42	82.6177
383.85	80.6045
388.16	74.0904
388.63	84.3867
391.69	89.2004
400.66	73.7930
401.81	79.6409
402.40	88.9232
404.85	89.1190
410.95	80.2950
414.70	63.9240
423.72	67.0764
427.09	88.5147
427.87	81.4869
433.94	82.7997
453.88	71.5082
463.37	68.4082
468.07	54.1992
473.00	75.3660
476.78	66.3706
477.60	66.4124
487.02	72.4716
492.35	0.0000
497.08	47.7479
511.00	59.5960
514.00	65.2249
527.90	0.0000
529.87	0.0000
531.02	60.4622
537.26	59.7654
546.56	0.0000
563.25	50.0475
569.33	55.1797
569.50	58.1411
569.70	58.1483
583.19	60.6575
600.60	56.3145
602.73	60.4193
604.72	74.2064
609.32	62.6925
609.32	62.6925
609.32	62.6925
610.33	61.5181
614.28	68.1618
618.01	55.9164
621.93	50.9567
621.93	50.9567
633.25	45.1548
635.95	55.5079
636.99	51.4282
645.85	40.3282
657.76	49.9849
661.66	56.3615
661.66	56.3615
664.57	0.0000
666.33	55.4682
666.50	58.6147

677.62	63.2043
685.70	45.5051
695.00	63.8287
696.49	57.4937
696.51	57.4953
697.00	51.1201
702.65	44.8711
706.68	70.6688
711.68	65.4938
720.70	56.7235
721.93	0.0000
722.78	58.7612
722.91	58.7662
723.31	48.4066
724.19	38.0510
727.33	48.7271
733.00	38.2314
735.93	52.2158
739.50	42.5051
747.24	48.1505
752.31	59.2504
753.82	53.8061
756.73	42.8907
763.94	71.7503
765.81	54.1411
766.42	53.0522
777.92	50.0290
778.90	45.6045
783.70	47.9446
785.37	46.8693
795.86	37.0193
801.95	57.6078
810.29	45.1904
810.76	41.5853
815.77	36.2490
818.51	31.7598
832.01	73.9797
834.85	68.5913
836.80	0.0000
846.77	26.6721
856.80	44.6611
860.56	49.0586
871.09	43.7160
873.19	38.1722
875.33	0.0000
879.36	35.4784
880.51	42.0359
883.24	57.0520
884.68	44.9227
889.28	41.2640
898.04	30.1281
911.20	41.6679
911.20	41.6679
911.20	41.6679
926.50	34.3195
937.49	42.1448
944.13	46.1063
946.00	38.4521
949.00	26.9514
962.29	46.7840
964.08	46.8182
966.15	43.6267
968.97	43.6783
968.97	43.6783
968.97	43.6783
983.53	36.8887
996.26	53.9849
1001.03	46.2220
1004.73	52.2003
1037.84	49.8950
1038.76	0.0000
1048.07	45.0857
1050.41	47.1308
1050.41	47.1308
1063.66	37.2927
1085.87	43.7055
1099.45	54.1413
1112.07	34.8948

1115.54	59.9455
1120.29	42.2052
1120.29	42.2052
1120.29	42.2052
1120.55	46.3271
1121.30	37.7588
1131.51	0.0000
1173.23	55.5982
1177.93	73.5513
1189.05	49.5749
1204.77	61.5089
1221.41	58.6577
1231.02	73.8246
1235.36	54.6457
1238.28	50.4080
1260.41	0.0000
1271.85	44.4614
1274.44	55.3504
1274.54	57.5236
1291.59	39.2871
1298.22	0.0000
1312.11	36.2500
1332.49	29.4805
1365.19	20.4719
1368.63	0.0000
1384.29	17.7831
1408.01	15.0814
1457.56	0.0000
1460.82	17.2288
1489.16	16.4030
1505.03	16.4757
1596.21	24.8342
1620.50	6.9980
1678.03	0.0000
1690.97	7.1248
1764.49	7.1060
1764.49	7.1060
1764.49	7.1060
1770.23	30.0939
1771.35	13.4941
1791.20	0.0000
1836.06	4.2158

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248818008

Total Uranium Activity	5.5174E+00	ug/g
Total Uranium Counting Unc.	2.6123E+00	ug/g
Total Uranium Tpu	1.3328E-06	ug/g
Total Uranium Mda	1.1685E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962631                    SAMPLE ID  : G248818008       *
*   ANALYST       : MXR1                      DETECTOR   : GAM21            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 14:24:29.37    SAMPLE ALQT:  133.630 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.944E+00
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.412E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.220E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.556E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:25:29.99

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818009.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 14:25:00
Sample ID         : G248818009           Sample quantity  : 1.02580E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.69  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	74.51*	387	445	1.52	149.02	141	18	5.38E-02	11.5	5.87E+00
2	2	76.99	507	337	1.02	153.98	141	18	7.04E-02	7.2	
3	2	87.20	205	427	1.55	174.40	163	31	2.85E-02	19.2	2.50E+00
4	2	89.87	175	354	1.41	179.74	163	31	2.44E-02	20.4	
5	2	92.78*	223	369	1.56	185.56	163	31	3.09E-02	18.4	
6	0	128.63	79	190	0.68	257.25	254	6	1.09E-02	29.9	
7	0	185.49*	118	345	1.32	370.98	366	11	1.64E-02	33.0	
8	0	208.90	120	243	1.51	417.81	414	10	1.67E-02	25.9	
9	2	238.32*	1082	141	1.19	476.65	469	19	1.50E-01	3.6	2.28E+00
10	2	241.33	302	216	1.77	482.65	469	19	4.19E-02	13.8	
11	0	269.78	102	141	1.16	539.57	535	10	1.41E-02	24.0	
12	0	294.72*	325	183	1.30	589.43	583	12	4.52E-02	10.1	
13	0	299.45	73	126	1.91	598.90	595	8	1.01E-02	29.3	
14	0	337.86	245	150	1.56	675.73	670	13	3.40E-02	12.1	
15	0	351.40*	522	148	1.35	702.81	698	12	7.25E-02	6.4	
16	0	463.16	74	125	1.14	926.33	919	13	1.03E-02	33.5	
17	0	510.49*	117	150	2.08	1020.98	1012	19	1.63E-02	29.1	
18	0	582.34*	331	110	1.59	1164.68	1157	17	4.59E-02	9.1	
19	0	608.63*	377	75	1.51	1217.26	1211	13	5.23E-02	7.1	
20	0	726.54	62	72	1.55	1453.08	1447	12	8.61E-03	30.2	
21	0	860.55	43	64	2.50	1721.10	1710	15	5.96E-03	43.4	
22	0	910.22*	233	60	1.76	1820.44	1813	17	3.23E-02	10.2	
23	0	967.92	115	43	1.75	1935.83	1932	9	1.59E-02	14.1	
24	0	1118.71	105	48	2.52	2237.43	2228	16	1.46E-02	17.7	
25	0	1459.38*	1017	42	2.12	2918.76	2911	18	1.41E-01	3.5	
26	0	1762.80	74	7	3.79	3525.59	3518	15	1.02E-02	14.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 16:25:32

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818009.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 14:25:00
Sample ID : G248818009 Sample quantity : 102.58 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA23 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.69 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.500E+01	3.591E+00	8.780E-01	6.568E-02	39.868
CD-109	+	88.03	*	4.010E+00	1.587E+00	1.759E+00	1.717E-01	2.280
SN-126		64.28		2.596E-01	7.926E-01	1.324E+00	2.015E-01	0.196
	+	86.94		1.617E+00	9.152E-01	7.197E-01	2.993E-01	2.247
	+	87.57	*	3.890E-01	1.540E-01	1.716E-01	1.670E-02	2.266
TL-208		277.37		5.344E-01	5.330E-01	8.923E-01	9.628E-02	0.599
	+	583.19	*	6.247E-01	1.212E-01	8.003E-02	5.183E-03	7.806
	+	860.56		7.809E-01	6.807E-01	6.263E-01	5.661E-02	1.247
BI-211		72.87		1.893E+01	5.192E+00	9.094E+00	8.022E-01	2.082
	+	351.06	*	4.294E+00	6.201E-01	4.482E-01	2.921E-02	9.580
PB-212	+	74.82		3.430E+00	9.066E-01	8.069E-01	1.063E-01	4.251
	+	77.11		2.525E+00	4.271E-01	4.573E-01	4.115E-02	5.522
	+	238.63	*	1.957E+00	2.004E-01	1.207E-01	8.753E-03	16.223
	+	300.09		2.061E+00	1.220E+00	1.719E+00	1.452E-01	1.199
PB-214	+	74.82		6.079E+00	1.570E+00	1.430E+00	1.704E-01	4.251
	+	77.11		4.452E+00	8.378E-01	8.063E-01	9.841E-02	5.522
	+	242.00		3.314E+00	9.518E-01	7.055E-01	5.705E-02	4.697
	+	295.22		1.636E+00	3.604E-01	2.735E-01	2.398E-02	5.984
	+	351.93	*	1.558E+00	2.409E-01	1.599E-01	1.365E-02	9.749
RA-224	+	240.99	*	5.860E+00	1.648E+00	1.293E+00	7.288E-02	4.531
AC-228	+	338.32		2.236E+00	1.070E+00	4.912E-01	2.026E-01	4.552
	+	911.20	*	2.162E+00	5.090E-01	3.242E-01	3.850E-02	6.670
	+	968.97		1.840E+00	6.839E-01	7.279E-01	1.769E-01	2.528
RA-228	+	338.32		2.236E+00	1.070E+00	4.912E-01	2.026E-01	4.552
	+	911.20	*	2.162E+00	5.090E-01	3.242E-01	3.850E-02	6.670
	+	968.97		1.840E+00	6.839E-01	7.279E-01	1.769E-01	2.528
TH-228	+	74.82		3.430E+00	8.439E-01	8.069E-01	7.237E-02	4.251
	+	77.11		2.525E+00	4.271E-01	4.573E-01	4.115E-02	5.522
	+	238.63	*	1.957E+00	2.004E-01	1.207E-01	8.753E-03	16.223
	+	300.09		2.061E+00	1.741E+00	1.719E+00	1.047E+00	1.199
TH-232	+	338.32		2.236E+00	5.584E-01	4.912E-01	2.901E-02	4.552
	+	911.20	*	2.162E+00	5.090E-01	3.242E-01	3.850E-02	6.670
	+	968.97		1.840E+00	6.839E-01	7.279E-01	1.769E-01	2.528
U-235	+	89.96		3.418E+00	1.636E+00	1.777E+00	4.422E-01	1.924

Sample ID : G248818009 Acquisition date : 23-MAR-2010 14:25:00

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	93.35		2.601E+00	1.131E+00	1.063E+00	2.461E-01	2.448
		143.76	*	4.261E-01	2.962E-01	4.887E-01	7.610E-02	0.872
		163.33		-1.506E-01	5.701E-01	9.167E-01	1.518E-01	-0.164
	+	185.72		1.376E-01	9.098E-02	8.557E-02	4.480E-03	1.608
		205.31		4.786E-01	6.899E-01	1.014E+00	1.708E-01	0.472
NP-237	+	86.48	*	1.161E+00	5.199E-01	5.199E-01	1.200E-01	2.233
		95.86		-7.810E-01	1.418E+00	1.986E+00	4.747E-01	-0.393
ANH-511	+	511.00	*	1.682E-01	9.837E-02	6.261E-02	3.637E-03	2.687

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	3.672E-01	4.579E-01	7.962E-01	5.408E-02	0.461
NA-22		1274.54	*	-2.480E-02	6.716E-02	1.052E-01	7.064E-03	-0.236
NA-24		1368.63	*	-1.102E+02	6.716E-02	Half-Life too short		
SC-46		889.28	*	-5.578E-02	5.999E-02	9.107E-02	8.137E-03	-0.613
		1120.55		2.685E-01	1.031E-01	1.820E-01	1.186E-02	1.475
V-48		944.13		-5.294E-01	1.689E+00	2.726E+00	2.375E-01	-0.194
		983.53	*	-4.595E-02	1.222E-01	1.947E-01	1.620E-02	-0.236
		1312.11		-7.157E-02	1.454E-01	2.222E-01	1.581E-02	-0.322
CR-51		320.08	*	-3.865E-02	5.464E-01	9.127E-01	5.975E-02	-0.042
MN-54		834.85	*	3.085E-02	5.715E-02	9.930E-02	7.863E-03	0.311
CO-56		846.77	*	-2.015E-02	5.413E-02	8.577E-02	6.978E-03	-0.235
		1037.84		-1.684E-01	4.714E-01	7.508E-01	6.147E-02	-0.224
		1238.28		1.185E-01	1.420E-01	2.470E-01	1.643E-02	0.480
		1771.35		-9.513E-02	3.417E-01	5.362E-01	3.317E-02	-0.177
CO-57		122.06	*	-1.466E-03	3.448E-02	5.660E-02	3.337E-03	-0.026
		136.47		2.475E-01	2.734E-01	4.643E-01	3.013E-02	0.533
CO-58		810.76	*	-9.284E-03	5.813E-02	9.604E-02	7.215E-03	-0.097
FE-59		1099.45	*	3.734E-02	1.433E-01	2.415E-01	1.860E-02	0.155
		1291.59		-8.094E-02	2.189E-01	3.428E-01	2.846E-02	-0.236
CO-60		1173.23		-3.654E-03	6.858E-02	1.118E-01	6.308E-03	-0.033
		1332.49	*	-5.665E-02	5.806E-02	8.189E-02	6.012E-03	-0.692
ZN-65		1115.54	*	2.470E-01	1.507E-01	2.552E-01	1.686E-02	0.968
SE-75		121.12		-9.237E-02	1.841E-01	2.963E-01	2.716E-02	-0.312
		136.00		2.762E-02	5.391E-02	9.020E-02	5.096E-03	0.306
		264.66	*	7.370E-02	6.388E-02	9.770E-02	5.689E-03	0.754
		279.54		-6.198E-02	1.517E-01	2.507E-01	1.579E-02	-0.247
		400.66		-2.585E-01	3.382E-01	5.313E-01	4.817E-02	-0.487
SR-85		514.00	*	4.686E-02	6.021E-02	9.210E-02	5.345E-03	0.509
Y-88		898.04		-5.296E-02	6.240E-02	9.553E-02	8.735E-03	-0.554
		1836.06	*	3.511E-02	4.479E-02	8.551E-02	5.035E-03	0.411
Y-91		1204.77	*	2.346E+00	3.563E+01	5.862E+01	3.496E+00	0.040
NB-94		702.65	*	5.472E-03	4.685E-02	7.635E-02	4.363E-03	0.072
		871.09		2.955E-02	4.835E-02	8.486E-02	7.288E-03	0.348
NB-95		765.81	*	3.604E-02	6.244E-02	1.052E-01	7.070E-03	0.343
NB-95M		235.69	*	7.492E-01	2.325E-01	3.750E-01	2.776E-02	1.998
ZR-95		724.19		3.219E-01	1.695E-01	2.806E-01	1.977E-02	1.147

Sample ID : G248818009 Acquisition date : 23-MAR-2010 14:25:00

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		756.73	*	5.144E-02	1.019E-01	1.716E-01	1.324E-02	0.300
MO-99		140.51		-1.568E+02	1.161E+02	1.696E+02	3.864E+01	-0.925
		181.07		-7.945E+01	9.830E+01	1.310E+02	2.291E+01	-0.606
		366.42		-3.292E+02	4.442E+02	6.879E+02	4.032E+01	-0.479
		739.50	*	1.797E-01	5.666E+01	9.117E+01	1.332E+01	0.002
		777.92		6.929E+01	1.778E+02	3.077E+02	2.130E+01	0.225
TC-99M		140.51	*	-7.350E+16	1.778E+02	Half-Life too short		
RU-103		497.08	*	-9.581E-03	6.145E-02	9.983E-02	1.242E-02	-0.096
		610.33		1.297E+01	2.752E+00	3.871E+00	5.775E-01	3.350
RH-106		621.93	*	-5.613E-01	4.415E-01	6.269E-01	7.155E-02	-0.895
		1050.41		-5.707E-01	3.477E+00	5.638E+00	4.242E-01	-0.101
RU-106		621.93	*	-5.613E-01	4.378E-01	6.269E-01	3.368E-02	-0.895
		1050.41		-5.707E-01	3.477E+00	5.638E+00	4.242E-01	-0.101
AG-108M		433.94	*	6.752E-03	3.983E-02	6.665E-02	4.166E-03	0.101
		614.28		-9.405E-03	5.960E-02	8.219E-02	4.814E-03	-0.114
		722.91		2.669E-02	6.048E-02	8.851E-02	5.680E-03	0.302
AG-110M		657.76	*	1.457E-02	5.105E-02	8.459E-02	4.701E-03	0.172
		677.62		-2.033E-02	4.579E-01	7.375E-01	4.227E-02	-0.028
		706.68		1.974E-01	3.024E-01	5.144E-01	3.159E-02	0.384
		763.94		-2.240E-01	2.369E-01	3.463E-01	2.421E-02	-0.647
		884.68		4.430E-03	7.468E-02	1.251E-01	1.140E-02	0.035
		937.49		-7.189E-02	1.659E-01	2.646E-01	2.402E-02	-0.272
		1384.29		7.290E-02	1.982E-01	3.394E-01	2.570E-02	0.215
		1505.03		6.814E-02	4.118E-01	6.802E-01	4.830E-02	0.100
SN-113		391.69	*	-4.453E-02	6.577E-02	1.048E-01	6.456E-03	-0.425
CD-115		260.90		-1.030E-03	6.577E-02	Half-Life too short		
		492.35		-1.444E-05	6.577E-02	Half-Life too short		
		527.90	*	-5.061E-06	6.577E-02	Half-Life too short		
SN-117M		156.02		3.104E+00	3.873E+00	6.527E+00	3.415E-01	0.476
		158.56	*	3.154E-03	9.417E-02	1.538E-01	7.990E-03	0.021
TE-123M		159.00	*	1.560E-02	3.880E-02	6.435E-02	3.396E-03	0.242
SB-124		602.73		6.548E-03	6.485E-02	9.219E-02	5.054E-03	0.071
		645.85		-2.813E-02	7.803E-01	1.261E+00	7.572E-02	-0.022
		722.78		2.189E-01	6.387E-01	9.245E-01	5.829E-02	0.237
		1690.97	*	-1.137E-02	9.099E-02	1.469E-01	1.028E-02	-0.077
SB-125		427.87	*	7.259E-02	1.219E-01	2.096E-01	1.274E-02	0.346
	+	463.37		9.474E-01	6.385E-01	7.661E-01	5.193E-02	1.237
		600.60		6.309E-02	2.569E-01	4.150E-01	2.676E-02	0.152
		635.95		-7.958E-02	3.929E-01	6.265E-01	3.987E-02	-0.127
TE-125M		109.28	*	-7.360E+00	1.392E+01	2.246E+01	2.047E+00	-0.328
I-126		388.63		1.626E-02	3.100E-01	5.171E-01	2.991E-02	0.031
		666.33	*	3.199E-01	4.233E-01	7.252E-01	3.753E-02	0.441
		753.82		3.106E-01	3.208E+00	5.202E+00	3.393E-01	0.060
SB-126		414.70		2.376E-02	1.356E-01	2.273E-01	1.323E-02	0.105
		666.50		6.584E-02	1.502E-01	2.512E-01	1.301E-02	0.262
		695.00		-4.785E-02	1.500E-01	2.355E-01	1.318E-02	-0.203
		697.00		-2.141E-01	5.163E-01	8.037E-01	4.524E-02	-0.266
		720.70	*	4.850E-02	3.002E-01	4.257E-01	2.551E-02	0.114
		856.80		1.029E+00	9.726E-01	1.578E+00	1.313E-01	0.652

Sample ID : G248818009 Acquisition date : 23-MAR-2010 14:25:00

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-127		252.40		8.880E-01	1.463E+01	2.350E+01	9.751E+00	0.038
		473.00		-4.522E+00	5.510E+00	8.481E+00	1.078E+00	-0.533
		685.70	*	-3.345E+00	4.486E+00	6.714E+00	7.454E-01	-0.498
		783.70		1.083E+01	1.186E+01	2.119E+01	2.731E+00	0.511
I-131		80.19		-1.441E+01	1.619E+01	1.582E+01	1.466E+00	-0.911
		284.31		5.570E-01	3.043E+00	5.175E+00	3.377E-01	0.108
		364.49	*	-1.677E-01	2.319E-01	3.603E-01	2.372E-02	-0.465
		636.99		4.274E-01	3.478E+00	5.699E+00	3.483E-01	0.075
TE-132		49.72		-7.644E+01	9.862E+01	1.600E+02	1.979E+01	-0.478
		111.76		4.779E+01	1.324E+02	2.212E+02	2.492E+01	0.216
		116.30		-3.983E+00	1.166E+02	1.918E+02	2.121E+01	-0.021
		228.16	*	4.551E-01	2.997E+00	4.855E+00	7.561E-01	0.094
BA-133		81.00		-1.809E-01	2.174E-01	2.123E-01	3.368E-02	-0.852
		276.40		3.683E-01	5.088E-01	8.141E-01	1.025E-01	0.452
		302.85		1.020E-01	2.014E-01	3.059E-01	3.502E-02	0.334
		356.01	*	-2.770E-02	6.523E-02	8.943E-02	1.012E-02	-0.310
		383.85		-1.726E-01	4.205E-01	6.822E-01	7.275E-02	-0.253
I-133		529.87	*	-1.511E-01	4.205E-01	Half-Life too short		
		875.33		-1.148E+01	4.205E-01	Half-Life too short		
		1298.22		-3.800E+00	4.205E-01	Half-Life too short		
CS-134		563.25		7.679E-01	4.922E-01	8.950E-01	5.177E-02	0.858
		569.33		-7.422E-02	2.659E-01	4.240E-01	2.465E-02	-0.175
		604.72		2.453E-02	5.392E-02	7.950E-02	4.376E-03	0.309
		795.86	*	7.345E-02	6.439E-02	1.171E-01	8.551E-03	0.627
		801.95		-2.220E-01	5.707E-01	9.192E-01	6.794E-02	-0.242
		1365.19		1.566E-01	1.844E+00	3.025E+00	2.354E-01	0.052
CS-135		268.22	*	2.684E-01	2.403E-01	3.622E-01	2.767E-02	0.741
I-135		546.56		5.349E+14	2.403E-01	Half-Life too short		
		836.80		3.729E+15	2.403E-01	Half-Life too short		
		1038.76		-2.633E+15	2.403E-01	Half-Life too short		
		1131.51		2.111E+15	2.403E-01	Half-Life too short		
		1260.41	*	-6.649E+14	2.403E-01	Half-Life too short		
		1457.56		5.262E+17	2.403E-01	Half-Life too short		
		1678.03		3.025E+15	2.403E-01	Half-Life too short		
		1791.20		3.403E+15	2.403E-01	Half-Life too short		
CS-136		153.25		2.013E-01	1.492E+00	2.450E+00	1.882E-01	0.082
		176.60		3.502E-01	8.841E-01	1.460E+00	9.570E-02	0.240
		273.65		-1.638E+00	1.113E+00	1.360E+00	9.312E-02	-1.204
		340.55		3.348E-01	2.877E-01	4.533E-01	2.892E-02	0.739
		818.51		1.049E-01	1.343E-01	2.393E-01	1.828E-02	0.438
		1048.07	*	8.426E-02	1.882E-01	3.244E-01	2.586E-02	0.260
		1235.36		1.808E+00	1.140E+00	2.069E+00	2.108E-01	0.874
BA-137M		661.66	*	1.800E-03	5.563E-02	9.027E-02	4.612E-03	0.020
CS-137		661.66	*	1.901E-03	5.877E-02	9.537E-02	4.898E-03	0.020
CE-139		165.86	*	1.692E-03	4.145E-02	6.641E-02	3.386E-03	0.025
BA-140		162.66		3.535E-01	1.367E+00	2.252E+00	1.365E-01	0.157
		304.85		7.462E-01	2.451E+00	3.819E+00	1.092E+00	0.195
		423.72		-1.308E-01	3.374E+00	5.573E+00	1.799E+00	-0.023
		537.26	*	-2.854E-01	4.961E-01	7.603E-01	2.532E-01	-0.375

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LA-140		328.76		2.542E-01	5.336E-01	9.151E-01	6.046E-02	0.278
		487.02		1.507E-01	2.452E-01	4.210E-01	2.781E-02	0.358
		815.77		-8.498E-02	6.012E-01	9.943E-01	8.660E-02	-0.085
		1596.21	*	-1.675E-01	1.550E-01	2.118E-01	1.453E-02	-0.791
CE-141		145.44	*	-5.314E-02	9.776E-02	1.563E-01	8.818E-03	-0.340
CE-143		57.36		-6.355E-03	9.776E-02	Half-Life too short		
	+	293.27	*	1.787E-02	9.776E-02	Half-Life too short		
		664.57		1.861E-02	9.776E-02	Half-Life too short		
		721.93		6.015E-04	9.776E-02	Half-Life too short		
CE-144		80.12		-5.085E+00	5.764E+00	5.639E+00	5.169E-01	-0.902
		133.52	*	-8.660E-02	2.729E-01	4.254E-01	5.876E-02	-0.204
PM-144		476.78		1.083E-02	8.686E-02	1.444E-01	9.968E-03	0.075
		618.01		2.541E-02	4.567E-02	7.749E-02	4.476E-03	0.328
		696.49	*	-1.849E-02	4.997E-02	7.807E-02	4.394E-03	-0.237
PR-144		696.51	*	-1.341E+00	3.753E+00	5.871E+00	3.300E-01	-0.228
		1489.16		-3.106E-02	1.675E+01	2.699E+01	1.926E+00	-0.001
PM-146		453.88	*	1.617E-02	5.846E-02	9.829E-02	8.351E-03	0.165
		633.25		-1.383E+00	2.164E+00	3.222E+00	1.211E+00	-0.429
		735.93		-4.957E-02	1.969E-01	3.082E-01	8.439E-02	-0.161
		747.24		-5.456E-02	1.317E-01	2.025E-01	2.714E-02	-0.269
ND-147	+	91.11		1.516E+00	6.381E-01	1.027E+00	1.011E-01	1.476
		319.41		-2.324E-01	6.059E+00	1.014E+01	5.993E-01	-0.023
		531.02	*	-2.714E-01	1.126E+00	1.811E+00	2.446E-01	-0.150
PM-149		285.90	*	1.735E-04	1.126E+00	Half-Life too short		
EU-152		121.78		-1.323E-02	9.768E-02	1.597E-01	1.223E-02	-0.083
		244.70		-1.687E-01	5.013E-01	6.832E-01	3.865E-02	-0.247
		344.28	*	6.583E-02	1.529E-01	2.184E-01	1.446E-02	0.301
		778.90		1.676E-02	3.708E-01	6.245E-01	4.334E-02	0.027
		964.08		1.084E+00	4.753E-01	8.339E-01	7.106E-02	1.300
		1085.87		2.784E-02	5.485E-01	9.076E-01	6.385E-02	0.031
		1112.07		-1.414E-01	5.132E-01	6.953E-01	4.621E-02	-0.203
		1408.01		-3.780E-02	2.560E-01	4.057E-01	2.950E-02	-0.093
GD-153		69.67		-5.538E-01	2.886E+00	4.203E+00	3.672E-01	-0.132
		97.43	*	6.404E-02	1.298E-01	1.936E-01	1.582E-02	0.331
		103.18		-3.241E-02	1.518E-01	2.488E-01	1.860E-02	-0.130
EU-154		123.07		2.965E-02	7.124E-02	1.152E-01	1.086E-02	0.257
		723.31		2.764E-01	2.824E-01	4.361E-01	3.152E-02	0.634
		873.19		1.925E-01	3.972E-01	6.898E-01	8.209E-02	0.279
		996.26		-6.594E-02	5.325E-01	8.712E-01	1.503E-01	-0.076
		1004.73		-2.771E-01	3.030E-01	4.528E-01	5.092E-02	-0.612
		1274.44	*	-7.573E-02	1.893E-01	2.953E-01	2.955E-02	-0.256
EU-155	+	86.55		4.726E-01	1.871E-01	2.556E-01	2.485E-02	1.849
		105.31	*	6.297E-02	1.408E-01	2.365E-01	1.743E-02	0.266
TB-160	+	86.79		1.313E+00	5.195E-01	7.070E-01	6.831E-02	1.857
		197.04		1.254E-02	7.668E-01	1.227E+00	6.529E-02	0.010
		215.65		4.507E-01	1.097E+00	1.743E+00	9.523E-02	0.259
	+	298.57		3.045E-01	1.792E-01	2.883E-01	1.694E-02	1.056
		879.36	*	-7.527E-02	2.090E-01	3.369E-01	2.946E-02	-0.223
		962.29		1.162E+00	9.161E-01	1.490E+00	1.273E-01	0.779

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		966.15		1.560E+00	4.828E-01	8.401E-01	7.141E-02	1.857
		1177.93		-5.806E-01	5.739E-01	8.477E-01	4.823E-02	-0.685
		1271.85		-9.927E-01	1.100E+00	1.607E+00	1.073E-01	-0.618
HO-166M		80.57		-5.151E-01	6.186E-01	6.081E-01	5.592E-02	-0.847
	+	184.41		1.093E-01	7.228E-02	8.941E-02	4.673E-03	1.223
		280.46		-1.883E-01	1.160E-01	1.790E-01	1.042E-02	-1.052
		410.95		6.583E-02	3.418E-01	5.735E-01	3.334E-02	0.115
		711.68	*	1.027E-02	8.368E-02	1.364E-01	7.983E-03	0.075
		752.31		-1.772E-02	3.849E-01	6.157E-01	4.001E-02	-0.029
		810.29		7.752E-02	7.818E-02	1.418E-01	1.060E-02	0.547
TA-182		67.75		1.046E-01	1.938E-01	2.923E-01	2.545E-02	0.358
		100.11		2.398E-01	2.652E-01	4.229E-01	3.310E-02	0.567
		152.43		3.197E-01	4.844E-01	8.119E-01	4.291E-02	0.394
		222.11		-5.514E-02	4.824E-01	7.721E-01	4.255E-02	-0.071
		1121.30		5.332E-01	2.758E-01	4.665E-01	3.034E-02	1.143
		1189.05		9.912E-02	4.806E-01	8.013E-01	4.649E-02	0.124
		1221.41	*	-1.377E-02	3.186E-01	5.187E-01	3.184E-02	-0.027
		1231.02		-4.315E-01	7.474E-01	1.158E+00	7.223E-02	-0.373
IR-192	+	295.96		1.268E+00	2.671E-01	3.824E-01	2.280E-02	3.315
		308.46		-2.235E-01	1.350E-01	2.047E-01	1.220E-02	-1.092
		316.51	*	-2.187E-02	4.965E-02	8.130E-02	4.823E-03	-0.269
		468.07		1.198E-02	1.066E-01	1.540E-01	1.039E-02	0.078
HG-203		70.83		1.037E+00	2.328E+00	3.485E+00	5.623E-01	0.298
		72.87		5.076E+00	1.539E+00	2.439E+00	3.816E-01	2.082
		279.20	*	1.461E-02	5.560E-02	9.491E-02	5.829E-03	0.154
BI-207		72.81		1.016E+00	2.950E-01	5.173E-01	4.562E-02	1.964
	+	74.97		9.888E-01	2.430E-01	3.559E-01	3.167E-02	2.778
		569.70		1.236E-02	4.140E-02	6.915E-02	3.896E-03	0.179
		1063.66	*	-1.769E-02	7.922E-02	1.278E-01	9.391E-03	-0.138
		1770.23		-1.343E+00	8.056E-01	9.428E-01	5.837E-02	-1.424
PB-210		46.54	*	3.961E-01	6.850E+00	1.141E+01	8.818E-01	0.035
PB-211		404.85	*	-4.673E-01	1.019E+00	1.603E+00	7.688E-01	-0.292
		427.09		1.404E+00	2.098E+00	3.462E+00	1.587E+00	0.406
		832.01		8.163E-01	1.565E+00	2.623E+00	1.357E+00	0.311
BI-212	+	727.33	*	1.812E+00	1.111E+00	1.531E+00	1.664E-01	1.183
		785.37		1.978E+00	4.228E+00	7.359E+00	5.188E-01	0.269
		1620.50		6.644E-01	3.221E+00	5.541E+00	3.758E-01	0.120
BI-214	+	609.32	*	1.381E+00	2.211E-01	3.589E-01	2.721E-02	3.847
		1120.29		1.533E+00	5.943E-01	1.034E+00	9.672E-02	1.482
		1764.49		1.519E+00	5.206E-01	1.044E+00	6.494E-02	1.454
RN-219	+	271.23		8.148E-01	3.957E-01	5.700E-01	4.573E-02	1.430
		401.81	*	-4.201E-01	5.250E-01	8.193E-01	1.101E-01	-0.513
RA-223		81.07		-4.194E-01	4.888E-01	4.791E-01	4.421E-02	-0.875
		83.79		2.006E-01	1.719E-01	2.949E-01	2.778E-02	0.680
		94.87		8.578E-01	7.129E-01	1.092E+00	9.322E-02	0.785
		144.24		1.042E+00	9.625E-01	1.602E+00	1.105E-01	0.651
		154.21		-9.859E-02	5.356E-01	8.674E-01	5.658E-02	-0.114
	+	269.46		6.331E-01	3.057E-01	4.354E-01	2.627E-02	1.454
		323.87	*	-6.562E-01	8.953E-01	1.403E+00	2.267E-01	-0.468

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		8.873E+00	2.339E+00	3.133E+00	3.231E-01	2.832
RA-226	+	609.32	*	1.381E+00	2.211E-01	3.589E-01	2.721E-02	3.847
		1120.29		1.533E+00	5.943E-01	1.034E+00	9.672E-02	1.482
		1764.49		1.519E+00	5.206E-01	1.044E+00	6.494E-02	1.454
AC-227		79.69		-2.296E+00	2.876E+00	2.817E+00	4.929E-01	-0.815
		235.96		1.711E+00	3.175E-01	5.163E-01	4.132E-02	3.314
		256.23	*	3.488E-01	3.495E-01	5.869E-01	5.974E-02	0.594
	+	299.98		2.268E+00	1.351E+00	2.186E+00	2.412E-01	1.037
		304.50		9.873E-01	2.323E+00	3.507E+00	5.359E-01	0.282
		334.37		1.188E+00	2.487E+00	3.755E+00	5.357E-01	0.316
TH-227		79.80		-3.059E+00	3.809E+00	3.705E+00	8.149E-01	-0.826
		235.96		1.711E+00	3.121E-01	5.163E-01	3.734E-02	3.314
		256.23	*	3.488E-01	3.502E-01	5.869E-01	7.031E-02	0.594
	+	299.98		2.268E+00	1.351E+00	2.186E+00	2.412E-01	1.037
		304.50		9.873E-01	2.323E+00	3.507E+00	5.359E-01	0.282
		334.37		1.188E+00	2.487E+00	3.755E+00	5.357E-01	0.316
TH-229		85.43		8.957E-01	3.109E-01	5.414E-01	5.170E-02	1.654
	+	88.47		5.997E-01	2.374E-01	3.427E-01	3.314E-02	1.750
		193.51	*	-4.454E-01	6.751E-01	1.056E+00	5.594E-02	-0.422
		210.85		1.826E+00	1.379E+00	2.098E+00	1.139E-01	0.870
TH-230	+	609.32	*	1.381E+00	2.088E-01	3.588E-01	1.954E-02	3.847
		1120.29		1.533E+00	5.853E-01	1.034E+00	6.743E-02	1.482
		1764.49		1.519E+00	5.205E-01	1.044E+00	6.494E-02	1.454
PA-231		283.69	*	-3.225E-01	1.945E+00	3.250E+00	4.268E-01	-0.099
		301.36		9.143E-01	8.630E-01	1.349E+00	1.401E-01	0.678
TH-231		81.07		-4.194E-01	4.888E-01	4.791E-01	4.421E-02	-0.875
		83.79		2.006E-01	1.719E-01	2.949E-01	2.778E-02	0.680
		94.87		8.578E-01	7.129E-01	1.092E+00	9.322E-02	0.785
		144.24		1.042E+00	9.625E-01	1.602E+00	1.105E-01	0.651
		154.21		-9.859E-02	5.356E-01	8.674E-01	5.658E-02	-0.114
	+	269.46		6.331E-01	3.057E-01	4.354E-01	2.627E-02	1.454
		323.87	*	-6.562E-01	8.953E-01	1.403E+00	2.267E-01	-0.468
	+	338.28		8.873E+00	2.339E+00	3.133E+00	3.231E-01	2.832
PA-233	+	300.13		1.026E+00	6.164E-01	9.904E-01	1.329E-01	1.036
		311.90	*	8.257E-02	8.525E-02	1.502E-01	9.392E-03	0.550
		340.48		1.330E+00	1.002E+00	1.526E+00	3.547E-01	0.871
PA-234		94.67		3.337E-01	2.414E-01	4.121E-01	5.096E-02	0.810
		98.44		5.517E-02	1.447E-01	2.098E-01	1.169E-01	0.263
		111.00		-1.249E-01	2.473E-01	3.989E-01	4.315E-02	-0.313
		131.20		-6.137E-02	1.534E-01	2.153E-01	1.217E-02	-0.285
		569.50		-4.340E-02	3.694E-01	5.971E-01	3.364E-02	-0.073
		733.00		-2.394E-01	5.805E-01	7.985E-01	1.706E-01	-0.300
		880.51		2.033E-01	4.052E-01	7.042E-01	6.173E-02	0.289
		883.24		1.522E-01	4.249E-01	7.095E-01	4.771E-01	0.214
		926.50		-1.269E-01	2.433E-01	3.800E-01	9.640E-02	-0.334
		946.00	*	1.162E-01	4.588E-01	7.774E-01	1.461E-01	0.149
		949.00		6.246E-01	7.083E-01	1.255E+00	1.088E-01	0.498
PA-234M		766.42		9.108E+00	1.678E+01	2.715E+01	1.370E+01	0.335
		1001.03	*	2.637E+00	6.566E+00	1.141E+01	1.089E+00	0.231

Sample ID : G248818009 Acquisition date : 23-MAR-2010 14:25:00

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	8.359E-01	2.170E+00	3.628E+00	6.674E-01	0.230
	+	92.59		3.443E+00	1.479E+00	1.815E+00	4.027E-01	1.898
U-238		63.29	*	8.359E-01	2.170E+00	3.628E+00	6.674E-01	0.230
	+	92.59		3.443E+00	1.303E+00	1.815E+00	1.615E-01	1.898
NP-239		99.53		1.943E-01	2.493E-01	3.770E-01	2.977E-02	0.515
		103.37		5.912E-02	1.335E-01	2.244E-01	1.672E-02	0.263
		106.12		1.226E-01	1.115E-01	1.916E-01	1.373E-02	0.640
		117.23	*	-1.646E-01	5.512E-01	8.967E-01	5.581E-02	-0.184
		228.18		4.635E-02	3.016E-01	4.887E-01	2.713E-02	0.095
		277.60		2.322E-01	2.428E-01	4.072E-01	2.368E-02	0.570
AM-241		59.54	*	-1.469E-01	2.587E-01	4.243E-01	3.948E-02	-0.346
CM-247		278.00		1.112E+00	9.703E-01	1.721E+00	1.001E-01	0.646
		287.50		-3.580E-01	1.854E+00	2.811E+00	1.644E-01	-0.127
		402.40	*	-2.426E-02	4.806E-02	7.707E-02	4.467E-03	-0.315
CF-249		252.80		2.003E-01	1.328E+00	2.143E+00	1.222E-01	0.093
		333.37		7.969E-02	2.715E-01	4.000E-01	2.363E-02	0.199
		388.16	*	1.104E-02	5.644E-02	9.493E-02	5.492E-03	0.116
CF-251		177.52	*	-8.295E-02	1.806E-01	2.872E-01	1.486E-02	-0.289
		227.38		1.986E-01	4.784E-01	7.855E-01	4.357E-02	0.253
		285.41		1.764E+00	2.961E+00	5.129E+00	2.996E-01	0.344

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818009       *
* Acquisition date : 23-MAR-2010 14:25:00 Detector SN#    :                 *
* Detector ID       : GAM23                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.69      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  3-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248818009           Analyst initials: MXR1           *
* Batch Number      : 962631               Sample Quantity : 1.0258E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.500E+01	3.520E+00	8.711E-01	0.000E+00
CD-109	4.010E+00	1.555E+00	1.763E+00	0.000E+00
SN-126	3.890E-01	1.509E-01	1.721E-01	0.000E+00
TL-208	6.247E-01	1.188E-01	7.968E-02	0.000E+00
BI-211	4.294E+00	6.077E-01	4.472E-01	0.000E+00
PB-212	1.957E+00	1.964E-01	1.205E-01	0.000E+00
PB-214	1.558E+00	2.361E-01	1.595E-01	0.000E+00
RA-224	5.860E+00	1.615E+00	1.292E+00	0.000E+00
AC-228	2.162E+00	4.988E-01	3.222E-01	0.000E+00
RA-228	2.162E+00	4.988E-01	3.222E-01	0.000E+00
TH-228	1.957E+00	1.964E-01	1.205E-01	0.000E+00
TH-232	2.162E+00	4.988E-01	3.222E-01	0.000E+00
U-235	4.261E-01	2.903E-01	4.892E-01	0.000E+00
NP-237	1.161E+00	5.095E-01	5.214E-01	0.000E+00
ANH-511	1.682E-01	9.640E-02	6.237E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	3.672E-01	4.487E-01	7.933E-01	0.000E+00	NOT IDENT.
NA-22	-2.480E-02	6.582E-02	1.044E-01	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.727E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-5.578E-02	5.879E-02	9.053E-02	0.000E+00	NOT IDENT.
V-48	-4.595E-02	1.197E-01	1.934E-01	0.000E+00	NOT IDENT.
CR-51	-3.865E-02	5.354E-01	9.108E-01	0.000E+00	NOT IDENT.
MN-54	3.085E-02	5.601E-02	9.873E-02	0.000E+00	NOT IDENT.
CO-56	-2.015E-02	5.305E-02	8.528E-02	0.000E+00	NOT IDENT.
CO-57	-1.466E-03	3.379E-02	5.669E-02	0.000E+00	NOT IDENT.
CO-58	-9.284E-03	5.697E-02	9.550E-02	0.000E+00	NOT IDENT.
FE-59	3.734E-02	1.404E-01	2.399E-01	0.000E+00	NOT IDENT.
CO-60	-5.665E-02	5.690E-02	8.127E-02	0.000E+00	NOT IDENT.

ZN-65	2.470E-01	1.477E-01	2.535E-01	0.000E+00	NOT IDENT.
SE-75	7.370E-02	6.261E-02	9.757E-02	0.000E+00	NOT IDENT.
SR-85	4.686E-02	5.900E-02	9.174E-02	0.000E+00	NOT IDENT.
Y-88	3.511E-02	4.389E-02	8.476E-02	0.000E+00	NOT IDENT.
Y-91	2.346E+00	3.492E+01	5.820E+01	0.000E+00	NOT IDENT.
NB-94	5.472E-03	4.591E-02	7.596E-02	0.000E+00	NOT IDENT.
NB-95	3.604E-02	6.119E-02	1.046E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.279E-01	3.746E-01	0.000E+00	NOT IDENT.
ZR-95	5.144E-02	9.987E-02	1.707E-01	0.000E+00	NOT IDENT.
MO-99	1.797E-01	5.553E+01	9.069E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.745E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-9.581E-03	6.022E-02	9.945E-02	0.000E+00	NOT IDENT.
RH-106	-5.613E-01	4.326E-01	6.240E-01	0.000E+00	NOT IDENT.
RU-106	-5.613E-01	4.291E-01	6.240E-01	0.000E+00	NOT IDENT.
AG-108M	6.752E-03	3.904E-02	6.644E-02	0.000E+00	NOT IDENT.
AG-110M	1.457E-02	5.003E-02	8.418E-02	0.000E+00	NOT IDENT.
SN-113	-4.453E-02	6.446E-02	1.045E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	7.741E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	3.154E-03	9.228E-02	1.538E-01	0.000E+00	NOT IDENT.
TE-123M	1.560E-02	3.803E-02	6.439E-02	0.000E+00	NOT IDENT.
SB-124	-1.137E-02	8.917E-02	1.456E-01	0.000E+00	NOT IDENT.
SB-125	7.259E-02	1.195E-01	2.090E-01	0.000E+00	FAIL ABUN
TE-125M	-7.360E+00	1.364E+01	2.251E+01	0.000E+00	NOT IDENT.
I-126	3.199E-01	4.148E-01	7.217E-01	0.000E+00	NOT IDENT.
SB-126	4.850E-02	2.942E-01	4.235E-01	0.000E+00	NOT IDENT.
SB-127	-3.345E+00	4.396E+00	6.681E+00	0.000E+00	NOT IDENT.
I-131	-1.677E-01	2.273E-01	3.593E-01	0.000E+00	NOT IDENT.
TE-132	4.551E-01	2.937E+00	4.851E+00	0.000E+00	NOT IDENT.
BA-133	-2.770E-02	6.393E-02	8.921E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.538E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.345E-02	6.310E-02	1.164E-01	0.000E+00	NOT IDENT.
CS-135	2.684E-01	2.355E-01	3.616E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.261E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	8.426E-02	1.845E-01	3.223E-01	0.000E+00	NOT IDENT.
BA-137M	1.800E-03	5.452E-02	8.984E-02	0.000E+00	NOT IDENT.
CS-137	1.901E-03	5.759E-02	9.490E-02	0.000E+00	NOT IDENT.
CE-139	1.692E-03	4.062E-02	6.644E-02	0.000E+00	NOT IDENT.
BA-140	-2.854E-01	4.861E-01	7.572E-01	0.000E+00	NOT IDENT.
LA-140	-1.675E-01	1.519E-01	2.100E-01	0.000E+00	NOT IDENT.
CE-141	-5.314E-02	9.580E-02	1.565E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.377E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-8.660E-02	2.674E-01	4.259E-01	0.000E+00	NOT IDENT.
PM-144	-1.849E-02	4.897E-02	7.767E-02	0.000E+00	NOT IDENT.
PR-144	-1.341E+00	3.678E+00	5.841E+00	0.000E+00	NOT IDENT.
PM-146	1.617E-02	5.729E-02	9.795E-02	0.000E+00	NOT IDENT.
ND-147	-2.714E-01	1.104E+00	1.804E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	5.761E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	6.583E-02	1.499E-01	2.179E-01	0.000E+00	NOT IDENT.
GD-153	6.404E-02	1.272E-01	1.941E-01	0.000E+00	NOT IDENT.
EU-154	-7.573E-02	1.856E-01	2.932E-01	0.000E+00	NOT IDENT.
EU-155	6.297E-02	1.380E-01	2.370E-01	0.000E+00	FAIL ABUN
TB-160	-7.527E-02	2.048E-01	3.349E-01	0.000E+00	FAIL ABUN
HO-166M	1.027E-02	8.201E-02	1.357E-01	0.000E+00	FAIL ABUN
TA-182	-1.377E-02	3.122E-01	5.150E-01	0.000E+00	NOT IDENT.
IR-192	-2.187E-02	4.865E-02	8.113E-02	0.000E+00	FAIL ABUN
HG-203	1.461E-02	5.449E-02	9.476E-02	0.000E+00	NOT IDENT.
BI-207	-1.769E-02	7.764E-02	1.270E-01	0.000E+00	FAIL ABUN
PB-210	3.961E-01	6.713E+00	1.147E+01	0.000E+00	NOT IDENT.
PB-211	-4.673E-01	9.990E-01	1.598E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.089E+00	1.523E+00	0.000E+00	FAIL ABUN
BI-214	0.000E+00	2.167E-01	3.572E-01	0.000E+00	FAIL ABUN
RN-219	-4.201E-01	5.145E-01	8.169E-01	0.000E+00	FAIL ABUN
RA-223	-6.562E-01	8.774E-01	1.400E+00	0.000E+00	FAIL ABUN
RA-226	0.000E+00	2.167E-01	3.572E-01	0.000E+00	FAIL ABUN
AC-227	3.488E-01	3.425E-01	5.861E-01	0.000E+00	FAIL ABUN
TH-227	3.488E-01	3.432E-01	5.861E-01	0.000E+00	FAIL ABUN
TH-229	-4.454E-01	6.616E-01	1.056E+00	0.000E+00	FAIL ABUN
TH-230	0.000E+00	2.046E-01	3.572E-01	0.000E+00	FAIL ABUN
PA-231	-3.225E-01	1.906E+00	3.245E+00	0.000E+00	NOT IDENT.
TH-231	-6.562E-01	8.774E-01	1.400E+00	0.000E+00	FAIL ABUN
PA-233	8.257E-02	8.354E-02	1.499E-01	0.000E+00	FAIL ABUN
PA-234	1.162E-01	4.497E-01	7.726E-01	0.000E+00	NOT IDENT.
PA-234M	2.637E+00	6.434E+00	1.134E+01	0.000E+00	NOT IDENT.
TH-234	8.359E-01	2.127E+00	3.643E+00	0.000E+00	FAIL ABUN
U-238	8.359E-01	2.127E+00	3.643E+00	0.000E+00	FAIL ABUN
NP-239	-1.646E-01	5.402E-01	8.982E-01	0.000E+00	NOT IDENT.
AM-241	-1.469E-01	2.535E-01	4.262E-01	0.000E+00	NOT IDENT.
CM-247	-2.426E-02	4.710E-02	7.684E-02	0.000E+00	NOT IDENT.

CF-249	1.104E-02	5.531E-02	9.466E-02	0.000E+00	NOT IDENT.
CF-251	-8.295E-02	1.769E-01	2.872E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:25:30.94

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818009.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 14:25:00
Sample ID         : G248818009           Sample quantity  : 1.02580E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.69  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1017	10.66*	9.974E-01	3.500E+01	3.500E+01	10.26
CD-109	88.03	205	3.70*	5.224E+00	3.890E+00	4.010E+00	39.58
SN-126	64.28	------	9.60	2.723E+00	------ Line Not Found		------
	86.94	205	8.90	5.224E+00	1.617E+00	1.617E+00	56.59
	87.57	205	37.00*	5.224E+00	3.890E-01	3.890E-01	39.58
TL-208	277.37	------	6.60	4.139E+00	------ Line Not Found		------
	583.19	331	85.00*	2.279E+00	6.247E-01	6.247E-01	19.40
	860.56	43	12.50	1.609E+00	7.809E-01	7.809E-01	87.17
BI-211	72.87	------	1.23	3.829E+00	------ Line Not Found		------
	351.06	522	12.92*	3.442E+00	4.294E+00	4.294E+00	14.44
PB-212	74.82	387	10.28	4.021E+00	3.430E+00	3.430E+00	26.43
	77.11	507	17.10	4.297E+00	2.525E+00	2.525E+00	16.91
	238.63	1082	43.60*	4.638E+00	1.957E+00	1.957E+00	10.24
	300.09	73	3.30	3.902E+00	2.061E+00	2.061E+00	59.16
PB-214	74.82	387	5.80	4.021E+00	6.079E+00	6.079E+00	25.83
	77.11	507	9.70	4.297E+00	4.452E+00	4.452E+00	18.82
	242.00	302	7.25	4.596E+00	3.314E+00	3.314E+00	28.72
	295.22	325	18.42	3.950E+00	1.636E+00	1.636E+00	22.03
	351.93	522	35.60*	3.442E+00	1.558E+00	1.558E+00	15.46
RA-224	240.99	302	4.10*	4.596E+00	5.860E+00	5.860E+00	28.13
AC-228	338.32	245	11.27	3.551E+00	2.236E+00	2.236E+00	47.85
	911.20	233	25.80*	1.527E+00	2.162E+00	2.162E+00	23.54
	968.97	115	15.80	1.442E+00	1.840E+00	1.840E+00	37.17
RA-228	338.32	245	11.27	3.551E+00	2.236E+00	2.236E+00	47.85
	911.20	233	25.80*	1.527E+00	2.162E+00	2.162E+00	23.54
	968.97	115	15.80	1.442E+00	1.840E+00	1.840E+00	37.17
TH-228	74.82	387	10.28	4.021E+00	3.430E+00	3.430E+00	24.61
	77.11	507	17.10	4.297E+00	2.525E+00	2.525E+00	16.91
	238.63	1082	43.60*	4.638E+00	1.957E+00	1.957E+00	10.24
	300.09	73	3.30	3.902E+00	2.061E+00	2.061E+00	84.47
TH-232	338.32	245	11.27	3.551E+00	2.236E+00	2.236E+00	24.97
	911.20	233	25.80*	1.527E+00	2.162E+00	2.162E+00	23.54

Sample ID : G248818009 Acquisition date : 23-MAR-2010 14:25:00

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	115	15.80	1.442E+00	1.840E+00	1.840E+00	37.17
U-235	89.96	175	3.47	5.412E+00	3.418E+00	3.418E+00	47.86
	93.35	223	5.60	5.592E+00	2.601E+00	2.601E+00	43.49
	143.76	------	10.96*	6.189E+00	------	Line Not Found	------
	163.33	------	5.08	5.887E+00	------	Line Not Found	------
	185.72	118	57.20	5.494E+00	1.376E-01	1.376E-01	66.12
	205.31	------	5.01	5.150E+00	------	Line Not Found	------
NP-237	86.48	205	12.40*	5.224E+00	1.161E+00	1.161E+00	44.79
	95.86	------	2.68	5.757E+00	------	Line Not Found	------
ANH-511	511.00	117	100.00*	2.546E+00	1.682E-01	1.682E-01	58.47

Flag: "*" = Keyline

Sample ID : G248818009 Acquisition date : 23-MAR-2010 14:25:00

Total number of lines in spectrum 26
Number of unidentified lines 4
Number of lines tentatively identified by NID 22 84.62%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.500E+01	3.500E+01	0.359E+01	10.26	
CD-109	461.40D	1.03	3.890E+00	4.010E+00	1.587E+00	39.58	
SN-126	2.30E+05Y	1.00	3.890E-01	3.890E-01	1.540E-01	39.58	
TL-208	1.41E+10Y	1.00	6.247E-01	6.247E-01	1.212E-01	19.40	
BI-211	7.04E+08Y	1.00	4.294E+00	4.294E+00	0.620E+00	14.44	
PB-212	1.41E+10Y	1.00	1.957E+00	1.957E+00	0.200E+00	10.24	
PB-214	1600.00Y	1.00	1.558E+00	1.558E+00	0.241E+00	15.46	
RA-224	1.41E+10Y	1.00	5.860E+00	5.860E+00	1.648E+00	28.13	
AC-228	1.41E+10Y	1.00	2.162E+00	2.162E+00	0.509E+00	23.54	
RA-228	1.41E+10Y	1.00	2.162E+00	2.162E+00	0.509E+00	23.54	
TH-228	1.41E+10Y	1.00	1.957E+00	1.957E+00	0.200E+00	10.24	
TH-232	1.41E+10Y	1.00	2.162E+00	2.162E+00	0.509E+00	23.54	
U-235	7.04E+08Y	1.00	1.376E-01	1.376E-01	0.910E-01	66.12	K
NP-237	2.14E+06Y	1.00	1.161E+00	1.161E+00	0.520E+00	44.79	
ANH-511	1.00E+09Y	1.00	1.682E-01	1.682E-01	0.984E-01	58.47	
		Total Activity :	6.349E+01	6.361E+01			

Grand Total Activity : 6.349E+01 6.361E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248818009 Acquisition date : 23-MAR-2010 14:25:00

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.63	79	190	0.68	257.25	254	6	1.09E-02	59.9	6.33E+00	
0	208.90	120	243	1.51	417.81	414	10	1.67E-02	51.7	5.09E+00	
0	269.78	102	141	1.16	539.57	535	10	1.41E-02	47.9	4.23E+00	T
0	463.16	74	125	1.14	926.33	919	13	1.03E-02	67.0	2.76E+00	T
0	608.63	377	75	1.51	1217.26	1211	13	5.23E-02	14.1	2.19E+00	T
0	726.54	62	72	1.55	1453.08	1447	12	8.61E-03	60.3	1.88E+00	T
0	1118.71	105	48	2.52	2237.43	2228	16	1.46E-02	35.4	1.26E+00	
0	1762.80	74	7	3.79	3525.59	3518	15	1.02E-02	28.3	8.74E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:25:34.85

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248818009.CNF;1  *
* Acquisition date : 23-MAR-2010 14:25:00  Detector SN#    :                *
* Detector ID      : GAM23                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.69         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248818009            Analyst initials: MXR1           *
* Batch Number     : 962631                Sample Quantity : 1.02580E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-JUN-2009 11:17:00.62MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.500E+01	3.591E+00	8.780E-01	6.568E-02	39.868
CD-109	4.010E+00	1.587E+00	1.759E+00	1.717E-01	2.280
SN-126	3.890E-01	1.540E-01	1.716E-01	1.670E-02	2.266
TL-208	6.247E-01	1.212E-01	8.003E-02	5.183E-03	7.806
BI-211	4.294E+00	6.201E-01	4.482E-01	2.921E-02	9.580
PB-212	1.957E+00	2.004E-01	1.207E-01	8.753E-03	16.223
PB-214	1.558E+00	2.409E-01	1.599E-01	1.365E-02	9.749
RA-224	5.860E+00	1.648E+00	1.293E+00	7.288E-02	4.531
AC-228	2.162E+00	5.090E-01	3.242E-01	3.850E-02	6.670
RA-228	2.162E+00	5.090E-01	3.242E-01	3.850E-02	6.670
TH-228	1.957E+00	2.004E-01	1.207E-01	8.753E-03	16.223
TH-232	2.162E+00	5.090E-01	3.242E-01	3.850E-02	6.670
U-235	1.376E-01	9.098E-02	4.887E-01	7.610E-02	0.282
NP-237	1.161E+00	5.199E-01	5.199E-01	1.200E-01	2.233
ANH-511	1.682E-01	9.837E-02	6.261E-02	3.637E-03	2.687

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	3.672E-01		4.579E-01	7.962E-01	5.408E-02	0.461

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	-2.480E-02		6.716E-02	1.052E-01	7.064E-03	-0.236
NA-24	-1.102E+02		1.392E+02	Half-Life too short		
SC-46	-5.578E-02		5.999E-02	9.107E-02	8.137E-03	-0.613
V-48	-4.595E-02		1.222E-01	1.947E-01	1.620E-02	-0.236
CR-51	-3.865E-02		5.464E-01	9.127E-01	5.975E-02	-0.042
MN-54	3.085E-02		5.715E-02	9.930E-02	7.863E-03	0.311
CO-56	-2.015E-02		5.413E-02	8.577E-02	6.978E-03	-0.235
CO-57	-1.466E-03		3.448E-02	5.660E-02	3.337E-03	-0.026
CO-58	-9.284E-03		5.813E-02	9.604E-02	7.215E-03	-0.097
FE-59	3.734E-02		1.433E-01	2.415E-01	1.860E-02	0.155
CO-60	-5.665E-02		5.806E-02	8.189E-02	6.012E-03	-0.692
ZN-65	2.470E-01		1.507E-01	2.552E-01	1.686E-02	0.968
SE-75	7.370E-02		6.388E-02	9.770E-02	5.689E-03	0.754
SR-85	4.686E-02		6.021E-02	9.210E-02	5.345E-03	0.509
Y-88	3.511E-02		4.479E-02	8.551E-02	5.035E-03	0.411
Y-91	2.346E+00		3.563E+01	5.862E+01	3.496E+00	0.040
NB-94	5.472E-03		4.685E-02	7.635E-02	4.363E-03	0.072
NB-95	3.604E-02		6.244E-02	1.052E-01	7.070E-03	0.343
NB-95M	7.492E-01		2.325E-01	3.750E-01	2.776E-02	1.998
ZR-95	5.144E-02		1.019E-01	1.716E-01	1.324E-02	0.300
MO-99	1.797E-01		5.666E+01	9.117E+01	1.332E+01	0.002
TC-99M	-7.350E+16		2.931E+16	Half-Life too short		
RU-103	-9.581E-03		6.145E-02	9.983E-02	1.242E-02	-0.096
RH-106	-5.613E-01		4.415E-01	6.269E-01	7.155E-02	-0.895
RU-106	-5.613E-01		4.378E-01	6.269E-01	3.368E-02	-0.895
AG-108M	6.752E-03		3.983E-02	6.665E-02	4.166E-03	0.101
AG-110M	1.457E-02		5.105E-02	8.459E-02	4.701E-03	0.172
SN-113	-4.453E-02		6.577E-02	1.048E-01	6.456E-03	-0.425
CD-115	-5.061E-06		3.950E-05	Half-Life too short		
SN-117M	3.154E-03		9.417E-02	1.538E-01	7.990E-03	0.021
TE-123M	1.560E-02		3.880E-02	6.435E-02	3.396E-03	0.242
SB-124	-1.137E-02		9.099E-02	1.469E-01	1.028E-02	-0.077
SB-125	7.259E-02		1.219E-01	2.096E-01	1.274E-02	0.346
TE-125M	-7.360E+00		1.392E+01	2.246E+01	2.047E+00	-0.328
I-126	3.199E-01		4.233E-01	7.252E-01	3.753E-02	0.441
SB-126	4.850E-02		3.002E-01	4.257E-01	2.551E-02	0.114
SB-127	-3.345E+00		4.486E+00	6.714E+00	7.454E-01	-0.498
I-131	-1.677E-01		2.319E-01	3.603E-01	2.372E-02	-0.465
TE-132	4.551E-01		2.997E+00	4.855E+00	7.561E-01	0.094
BA-133	-2.770E-02		6.523E-02	8.943E-02	1.012E-02	-0.310
I-133	-1.511E-01		2.315E-01	Half-Life too short		
CS-134	7.345E-02		6.439E-02	1.171E-01	8.551E-03	0.627
CS-135	2.684E-01		2.403E-01	3.622E-01	2.767E-02	0.741
I-135	-6.649E+14		1.664E+15	Half-Life too short		
CS-136	8.426E-02		1.882E-01	3.244E-01	2.586E-02	0.260
BA-137M	1.800E-03		5.563E-02	9.027E-02	4.612E-03	0.020
CS-137	1.901E-03		5.877E-02	9.537E-02	4.898E-03	0.020
CE-139	1.692E-03		4.145E-02	6.641E-02	3.386E-03	0.025

Sample ID : G248818009 Acquisition date : 23-MAR-2010 14:25:00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-140	-2.854E-01		4.961E-01	7.603E-01	2.532E-01	-0.375
LA-140	-1.675E-01		1.550E-01	2.118E-01	1.453E-02	-0.791
CE-141	-5.314E-02		9.776E-02	1.563E-01	8.818E-03	-0.340
CE-143	1.787E-02	+	2.743E-03	Half-Life too short		
CE-144	-8.660E-02		2.729E-01	4.254E-01	5.876E-02	-0.204
PM-144	-1.849E-02		4.997E-02	7.807E-02	4.394E-03	-0.237
PR-144	-1.341E+00		3.753E+00	5.871E+00	3.300E-01	-0.228
PM-146	1.617E-02		5.846E-02	9.829E-02	8.351E-03	0.165
ND-147	-2.714E-01		1.126E+00	1.811E+00	2.446E-01	-0.150
PM-149	1.735E-04		2.939E-04	Half-Life too short		
EU-152	6.583E-02		1.529E-01	2.184E-01	1.446E-02	0.301
GD-153	6.404E-02		1.298E-01	1.936E-01	1.582E-02	0.331
EU-154	-7.573E-02		1.893E-01	2.953E-01	2.955E-02	-0.256
EU-155	6.297E-02		1.408E-01	2.365E-01	1.743E-02	0.266
TB-160	-7.527E-02		2.090E-01	3.369E-01	2.946E-02	-0.223
HO-166M	1.027E-02		8.368E-02	1.364E-01	7.983E-03	0.075
TA-182	-1.377E-02		3.186E-01	5.187E-01	3.184E-02	-0.027
IR-192	-2.187E-02		4.965E-02	8.130E-02	4.823E-03	-0.269
HG-203	1.461E-02		5.560E-02	9.491E-02	5.829E-03	0.154
BI-207	-1.769E-02		7.922E-02	1.278E-01	9.391E-03	-0.138
PB-210	3.961E-01		6.850E+00	1.141E+01	8.818E-01	0.035
PB-211	-4.673E-01		1.019E+00	1.603E+00	7.688E-01	-0.292
BI-212	1.812E+00	+	1.111E+00	1.531E+00	1.664E-01	1.183
BI-214	1.381E+00	+	2.211E-01	3.589E-01	2.721E-02	3.847
RN-219	-4.201E-01		5.250E-01	8.193E-01	1.101E-01	-0.513
RA-223	-6.562E-01		8.953E-01	1.403E+00	2.267E-01	-0.468
RA-226	1.381E+00	+	2.211E-01	3.589E-01	2.721E-02	3.847
AC-227	3.488E-01		3.495E-01	5.869E-01	5.974E-02	0.594
TH-227	3.488E-01		3.502E-01	5.869E-01	7.031E-02	0.594
TH-229	-4.454E-01		6.751E-01	1.056E+00	5.594E-02	-0.422
TH-230	1.381E+00	+	2.088E-01	3.588E-01	1.954E-02	3.847
PA-231	-3.225E-01		1.945E+00	3.250E+00	4.268E-01	-0.099
TH-231	-6.562E-01		8.953E-01	1.403E+00	2.267E-01	-0.468
PA-233	8.257E-02		8.525E-02	1.502E-01	9.392E-03	0.550
PA-234	1.162E-01		4.588E-01	7.774E-01	1.461E-01	0.149
PA-234M	2.637E+00		6.566E+00	1.141E+01	1.089E+00	0.231
TH-234	8.359E-01		2.170E+00	3.628E+00	6.674E-01	0.230
U-238	8.359E-01		2.170E+00	3.628E+00	6.674E-01	0.230
NP-239	-1.646E-01		5.512E-01	8.967E-01	5.581E-02	-0.184
AM-241	-1.469E-01		2.587E-01	4.243E-01	3.948E-02	-0.346
CM-247	-2.426E-02		4.806E-02	7.707E-02	4.467E-03	-0.315
CF-249	1.104E-02		5.644E-02	9.493E-02	5.492E-03	0.116
CF-251	-8.295E-02		1.806E-01	2.872E-01	1.486E-02	-0.289

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248818009            *
* Acquisition date : 23-MAR-2010 14:25:00 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.69     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248818009           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.0258E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.500E+01	3.520E+00	4.358E-01	1.796E+00
CD-109	4.010E+00	1.555E+00	8.822E-01	7.935E-01
SN-126	3.890E-01	1.509E-01	8.612E-02	7.698E-02
TL-208	6.247E-01	1.188E-01	3.986E-02	6.061E-02
BI-211	4.294E+00	6.077E-01	2.237E-01	3.101E-01
PB-212	1.957E+00	1.964E-01	6.031E-02	1.002E-01
PB-214	1.558E+00	2.361E-01	7.978E-02	1.205E-01
RA-224	5.860E+00	1.615E+00	6.464E-01	8.242E-01
AC-228	2.162E+00	4.988E-01	1.612E-01	2.545E-01
RA-228	2.162E+00	4.988E-01	1.612E-01	2.545E-01
TH-228	1.957E+00	1.964E-01	6.031E-02	1.002E-01
TH-232	2.162E+00	4.988E-01	1.612E-01	2.545E-01
U-235	4.261E-01	2.903E-01	2.447E-01	1.481E-01
NP-237	1.161E+00	5.095E-01	2.609E-01	2.599E-01
ANH-511	1.682E-01	9.640E-02	3.120E-02	4.918E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	3.672E-01	4.487E-01	3.969E-01	2.289E-01	NOT IDENT.
NA-22	-2.480E-02	6.582E-02	5.224E-02	3.358E-02	NOT IDENT.
NA-24	-1.102E+08	2.727E+08	0.000E+00	1.392E+08	SHORT HLIF
SC-46	-5.578E-02	5.879E-02	4.529E-02	2.999E-02	NOT IDENT.
V-48	-4.595E-02	1.197E-01	9.678E-02	6.110E-02	NOT IDENT.
CR-51	-3.865E-02	5.354E-01	4.556E-01	2.732E-01	NOT IDENT.
MN-54	3.085E-02	5.601E-02	4.939E-02	2.858E-02	NOT IDENT.
CO-56	-2.015E-02	5.305E-02	4.266E-02	2.707E-02	NOT IDENT.
CO-57	-1.466E-03	3.379E-02	2.836E-02	1.724E-02	NOT IDENT.
CO-58	-9.284E-03	5.697E-02	4.778E-02	2.907E-02	NOT IDENT.
FE-59	3.734E-02	1.404E-01	1.200E-01	7.165E-02	NOT IDENT.
CO-60	-5.665E-02	5.690E-02	4.066E-02	2.903E-02	NOT IDENT.

ZN-65	2.470E-01	1.477E-01	1.268E-01	7.535E-02	NOT IDENT.
SE-75	7.370E-02	6.261E-02	4.881E-02	3.194E-02	NOT IDENT.
SR-85	4.686E-02	5.900E-02	4.590E-02	3.010E-02	NOT IDENT.
Y-88	3.511E-02	4.389E-02	4.241E-02	2.239E-02	NOT IDENT.
Y-91	2.346E+00	3.492E+01	2.912E+01	1.782E+01	NOT IDENT.
NB-94	5.472E-03	4.591E-02	3.800E-02	2.343E-02	NOT IDENT.
NB-95	3.604E-02	6.119E-02	5.235E-02	3.122E-02	NOT IDENT.
NB-95M	7.492E-01	2.279E-01	1.874E-01	1.163E-01	NOT IDENT.
ZR-95	5.144E-02	9.987E-02	8.539E-02	5.096E-02	NOT IDENT.
MO-99	1.797E-01	5.553E+01	4.537E+01	2.833E+01	NOT IDENT.
TC-99M	-7.350E+22	5.745E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-9.581E-03	6.022E-02	4.976E-02	3.072E-02	NOT IDENT.
RH-106	-5.613E-01	4.326E-01	3.122E-01	2.207E-01	NOT IDENT.
RU-106	-5.613E-01	4.291E-01	3.122E-01	2.189E-01	NOT IDENT.
AG-108M	6.752E-03	3.904E-02	3.324E-02	1.992E-02	NOT IDENT.
AG-110M	1.457E-02	5.003E-02	4.212E-02	2.552E-02	NOT IDENT.
SN-113	-4.453E-02	6.446E-02	5.229E-02	3.289E-02	NOT IDENT.
CD-115	-5.061E+00	7.741E+01	0.000E+00	3.950E+01	SHORT HLIF
SN-117M	3.154E-03	9.228E-02	7.697E-02	4.708E-02	NOT IDENT.
TE-123M	1.560E-02	3.803E-02	3.221E-02	1.940E-02	NOT IDENT.
SB-124	-1.137E-02	8.917E-02	7.285E-02	4.550E-02	NOT IDENT.
SB-125	7.259E-02	1.195E-01	1.045E-01	6.095E-02	FAIL ABUN
TE-125M	-7.360E+00	1.364E+01	1.126E+01	6.961E+00	NOT IDENT.
I-126	3.199E-01	4.148E-01	3.611E-01	2.116E-01	NOT IDENT.
SB-126	4.850E-02	2.942E-01	2.119E-01	1.501E-01	NOT IDENT.
SB-127	-3.345E+00	4.396E+00	3.342E+00	2.243E+00	NOT IDENT.
I-131	-1.677E-01	2.273E-01	1.798E-01	1.160E-01	NOT IDENT.
TE-132	4.551E-01	2.937E+00	2.427E+00	1.498E+00	NOT IDENT.
BA-133	-2.770E-02	6.393E-02	4.463E-02	3.262E-02	NOT IDENT.
I-133	-1.511E+05	4.538E+05	0.000E+00	2.315E+05	SHORT HLIF
CS-134	7.345E-02	6.310E-02	5.825E-02	3.219E-02	NOT IDENT.
CS-135	2.684E-01	2.355E-01	1.809E-01	1.202E-01	NOT IDENT.
I-135	-6.649E+20	3.261E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	8.426E-02	1.845E-01	1.612E-01	9.412E-02	NOT IDENT.
BA-137M	1.800E-03	5.452E-02	4.494E-02	2.782E-02	NOT IDENT.
CS-137	1.901E-03	5.759E-02	4.748E-02	2.938E-02	NOT IDENT.
CE-139	1.692E-03	4.062E-02	3.324E-02	2.072E-02	NOT IDENT.
BA-140	-2.854E-01	4.861E-01	3.788E-01	2.480E-01	NOT IDENT.
LA-140	-1.675E-01	1.519E-01	1.051E-01	7.748E-02	NOT IDENT.
CE-141	-5.314E-02	9.580E-02	7.828E-02	4.888E-02	NOT IDENT.
CE-143	1.787E+04	5.377E+03	0.000E+00	2.743E+03	SHORT HLIF
CE-144	-8.660E-02	2.674E-01	2.131E-01	1.364E-01	NOT IDENT.
PM-144	-1.849E-02	4.897E-02	3.886E-02	2.498E-02	NOT IDENT.
PR-144	-1.341E+00	3.678E+00	2.922E+00	1.876E+00	NOT IDENT.
PM-146	1.617E-02	5.729E-02	4.900E-02	2.923E-02	NOT IDENT.
ND-147	-2.714E-01	1.104E+00	9.024E-01	5.631E-01	FAIL ABUN
PM-149	1.735E+02	5.761E+02	0.000E+00	2.939E+02	SHORT HLIF
EU-152	6.583E-02	1.499E-01	1.090E-01	7.646E-02	NOT IDENT.
GD-153	6.404E-02	1.272E-01	9.711E-02	6.488E-02	NOT IDENT.
EU-154	-7.573E-02	1.856E-01	1.467E-01	9.467E-02	NOT IDENT.
EU-155	6.297E-02	1.380E-01	1.186E-01	7.039E-02	FAIL ABUN
TB-160	-7.527E-02	2.048E-01	1.675E-01	1.045E-01	FAIL ABUN
HO-166M	1.027E-02	8.201E-02	6.789E-02	4.184E-02	FAIL ABUN
TA-182	-1.377E-02	3.122E-01	2.576E-01	1.593E-01	NOT IDENT.
IR-192	-2.187E-02	4.865E-02	4.059E-02	2.482E-02	FAIL ABUN
HG-203	1.461E-02	5.449E-02	4.741E-02	2.780E-02	NOT IDENT.
BI-207	-1.769E-02	7.764E-02	6.353E-02	3.961E-02	FAIL ABUN
PB-210	3.961E-01	6.713E+00	5.740E+00	3.425E+00	NOT IDENT.
PB-211	-4.673E-01	9.990E-01	7.994E-01	5.097E-01	NOT IDENT.
BI-212	1.812E+00	1.089E+00	7.619E-01	5.554E-01	FAIL ABUN
BI-214	1.381E+00	2.167E-01	1.787E-01	1.106E-01	FAIL ABUN
RN-219	-4.201E-01	5.145E-01	4.087E-01	2.625E-01	FAIL ABUN
RA-223	-6.562E-01	8.774E-01	7.004E-01	4.476E-01	FAIL ABUN
RA-226	1.381E+00	2.167E-01	1.787E-01	1.106E-01	FAIL ABUN
AC-227	3.488E-01	3.425E-01	2.932E-01	1.747E-01	FAIL ABUN
TH-227	3.488E-01	3.432E-01	2.932E-01	1.751E-01	FAIL ABUN
TH-229	-4.454E-01	6.616E-01	5.283E-01	3.375E-01	FAIL ABUN
TH-230	1.381E+00	2.046E-01	1.787E-01	1.044E-01	FAIL ABUN
PA-231	-3.225E-01	1.906E+00	1.623E+00	9.725E-01	NOT IDENT.
TH-231	-6.562E-01	8.774E-01	7.004E-01	4.476E-01	FAIL ABUN
PA-233	8.257E-02	8.354E-02	7.499E-02	4.262E-02	FAIL ABUN
PA-234	1.162E-01	4.497E-01	3.865E-01	2.294E-01	NOT IDENT.
PA-234M	2.637E+00	6.434E+00	5.674E+00	3.283E+00	NOT IDENT.
TH-234	8.359E-01	2.127E+00	1.823E+00	1.085E+00	FAIL ABUN
U-238	8.359E-01	2.127E+00	1.823E+00	1.085E+00	FAIL ABUN
NP-239	-1.646E-01	5.402E-01	4.494E-01	2.756E-01	NOT IDENT.
AM-241	-1.469E-01	2.535E-01	2.132E-01	1.293E-01	NOT IDENT.
CM-247	-2.426E-02	4.710E-02	3.844E-02	2.403E-02	NOT IDENT.

CF-249	1.104E-02	5.531E-02	4.736E-02	2.822E-02	NOT IDENT.
CF-251	-8.295E-02	1.769E-01	1.437E-01	9.028E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	268.3383
49.72	288.0431
57.36	0.0000
59.54	376.8347
63.29	378.1022
63.29	378.1022
64.28	377.7397
67.75	365.1005
69.67	387.1275
70.83	374.2416
72.81	389.9838
72.87	390.0170
72.87	390.0170
74.82	391.0735
74.82	391.0735
74.82	391.0735
74.97	391.1541
77.11	392.2975
77.11	392.2975
77.11	392.2975
79.69	475.4276
79.80	475.4963
80.12	475.6985
80.19	475.7423
80.57	475.9808
81.00	476.2497
81.07	476.2936
81.07	476.2936
83.79	382.3837
83.79	382.3837
85.43	383.1848
86.48	383.6945
86.55	383.7296
86.79	383.8440
86.94	383.9172
87.57	384.2209
88.03	384.4421
88.47	384.6527
89.96	385.3622
91.11	385.9070
92.59	386.6013
92.59	386.6013
93.35	386.9568
94.67	387.5687
94.87	358.1995
94.87	358.1995
95.86	357.0685
97.43	301.7372
98.44	316.1083
99.53	293.1212
100.11	291.2371
103.18	320.9644
103.37	292.6492
105.31	294.2688
106.12	275.8805
109.28	327.0886
111.00	322.7663
111.76	306.2371
116.30	316.6538
117.23	320.9374
121.12	309.2633
121.78	295.4953
122.06	295.5800
123.07	279.8900
131.20	286.9989
133.52	292.0305
136.00	273.3453

136.47	258.2762
140.51	363.9816
140.51	0.0000
143.76	274.3196
144.24	278.5216
144.24	278.5216
145.44	345.2153
152.43	282.6433
153.25	294.1607
154.21	317.0563
154.21	317.0563
156.02	264.9783
158.56	276.9312
159.00	264.6309
162.66	251.9824
163.33	271.8386
165.86	263.0623
176.60	263.2999
177.52	292.8891
181.07	299.8274
184.41	251.6412
185.72	249.3636
193.51	243.4261
197.04	228.0885
205.31	202.4682
210.85	234.2929
215.65	224.7261
222.11	220.3214
227.38	209.1416
228.16	227.7805
228.18	227.7837
235.69	231.3529
235.96	233.1478
235.96	233.1478
238.63	205.2460
238.63	205.2460
240.99	205.5670
242.00	190.0837
244.70	208.0513
252.40	190.4831
252.80	189.4239
256.23	167.6349
256.23	167.6349
260.90	0.0000
264.66	121.4255
268.22	159.2733
269.46	136.1116
269.46	136.1116
271.23	163.1535
273.65	237.0103
276.40	170.8585
277.37	165.3346
277.60	166.4819
278.00	159.3216
279.20	182.8561
279.54	197.3085
280.46	222.6558
283.69	180.6348
284.31	169.8586
285.41	168.1606
285.90	0.0000
287.50	184.9195
293.27	0.0000
295.22	136.3916
295.96	136.4502
298.57	156.3923
299.98	162.5964
299.98	162.5964
300.09	168.6860
300.09	168.6860
300.13	168.6906
301.36	161.2040
302.85	141.5529
304.50	137.1149
304.50	137.1149
304.85	142.3668
308.46	184.1437
311.90	132.1770

316.51	164.7206
319.41	147.4707
320.08	143.8373
323.87	168.1567
323.87	168.1567
328.76	158.4088
333.37	134.6542
334.37	130.0793
334.37	130.0793
338.28	133.1426
338.28	133.1426
338.32	133.1443
338.32	133.1443
338.32	133.1443
340.48	141.3747
340.55	141.3803
344.28	125.1539
351.06	137.4642
351.93	132.2116
356.01	134.6794
364.49	121.7311
366.42	118.0695
383.85	144.8045
388.16	130.7838
388.63	134.6333
391.69	147.2606
400.66	120.0378
401.81	120.1019
402.40	116.2912
404.85	134.7039
410.95	125.4360
414.70	112.1201
423.72	105.7867
427.09	91.3666
427.87	96.2603
433.94	101.3962
453.88	101.2988
463.37	85.5802
468.07	92.3467
473.00	109.0627
476.78	89.3727
477.60	80.4631
487.02	82.7700
492.35	0.0000
497.08	99.1305
511.00	87.5995
514.00	87.3676
527.90	0.0000
529.87	0.0000
531.02	99.4499
537.26	94.6007
546.56	0.0000
563.25	61.6318
569.33	83.3889
569.50	83.3948
569.70	77.2229
583.19	82.7754
600.60	83.2910
602.73	83.3535
604.72	83.4102
609.32	95.7286
609.32	95.7286
609.32	95.7286
610.33	85.3154
614.28	94.1506
618.01	72.2765
621.93	89.1566
621.93	89.1566
633.25	90.5541
635.95	80.0987
636.99	75.9094
645.85	83.5383
657.76	75.3768
661.66	93.5451
661.66	93.5451
664.57	0.0000
666.33	73.4607
666.50	80.9170

677.62	75.8674
685.70	76.0650
695.00	83.8138
696.49	82.7788
696.51	82.7788
697.00	84.9424
702.65	72.1673
706.68	64.7095
711.68	65.8922
720.70	63.1883
721.93	0.0000
722.78	66.8412
722.91	66.8442
723.31	65.0464
724.19	63.2566
727.33	74.1724
733.00	69.8997
735.93	62.0334
739.50	55.5634
747.24	63.3384
752.31	64.5284
753.82	59.0876
756.73	52.5680
763.94	84.5082
765.81	64.7891
766.42	69.1939
777.92	62.4495
778.90	68.8980
783.70	56.1152
785.37	58.9036
795.86	54.4662
801.95	67.5093
810.29	44.4951
810.76	64.8973
815.77	62.2046
818.51	50.1735
832.01	68.0855
834.85	71.8726
836.80	0.0000
846.77	47.7606
856.80	46.6850
860.56	54.7899
871.09	49.9635
873.19	50.9348
875.33	0.0000
879.36	61.4123
880.51	52.9261
883.24	53.9095
884.68	61.4995
889.28	70.1007
898.04	69.3138
911.20	56.2152
911.20	56.2152
911.20	56.2152
926.50	56.4384
937.49	65.2303
944.13	67.2628
946.00	59.6046
949.00	57.7258
962.29	54.6091
964.08	44.6999
966.15	79.5084
968.97	94.7581
968.97	94.7581
968.97	94.7581
983.53	53.3730
996.26	59.3804
1001.03	46.7803
1004.73	62.4297
1037.84	57.0277
1038.76	0.0000
1048.07	41.3950
1050.41	47.3359
1050.41	47.3359
1063.66	59.3530
1085.87	48.7209
1099.45	50.8651
1112.07	56.5829

1115.54	41.1830
1120.29	51.5353
1120.29	51.5353
1120.29	51.5353
1120.55	51.5374
1121.30	56.7003
1131.51	0.0000
1173.23	62.8552
1177.93	73.0664
1189.05	60.0179
1204.77	67.3616
1221.41	72.7189
1231.02	76.9714
1235.36	54.4427
1238.28	65.7813
1260.41	0.0000
1271.85	54.8525
1274.44	53.8451
1274.54	53.8472
1291.59	57.1484
1298.22	0.0000
1312.11	42.7767
1332.49	42.9502
1365.19	29.5187
1368.63	0.0000
1384.29	19.0459
1408.01	28.6974
1457.56	0.0000
1460.82	30.0531
1489.16	17.2617
1505.03	22.7201
1596.21	27.3251
1620.50	17.0307
1678.03	0.0000
1690.97	9.5728
1764.49	11.8659
1764.49	11.8659
1764.49	11.8659
1770.23	32.9636
1771.35	15.5151
1791.20	0.0000
1836.06	6.8564

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248818009

Total Uranium Activity	2.6839E+00	ug/g
Total Uranium Counting Unc.	6.3295E+00	ug/g
Total Uranium Tpu	3.2293E-06	ug/g
Total Uranium Mda	5.4233E+00	ug/g

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*                                                                           *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962631                    SAMPLE ID  : G248818009       *
*   ANALYST       : MXR1                      DETECTOR   : GAM23            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 14:25:00.58    SAMPLE ALQT:  102.580 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.060E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.463E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.681E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.790E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:27:04.00

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824001.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 14:25:27
Sample ID         : G248824001           Sample quantity  : 1.03870E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:58.14  0.8%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.32*	108	515	1.11	126.87	123	8	1.50E-02	38.9	
2	2	74.68*	509	715	1.62	149.56	142	18	7.07E-02	11.6	1.20E+01
3	2	77.13*	832	604	1.50	154.46	142	18	1.16E-01	6.7	
4	0	86.35*	365	741	1.22	172.87	166	12	5.07E-02	15.9	
5	0	90.30	84	422	0.98	180.77	177	6	1.16E-02	40.6	
6	0	92.86*	285	569	1.52	185.88	183	11	3.97E-02	18.1	
7	0	185.67*	138	388	1.22	371.29	367	10	1.92E-02	29.3	
8	0	209.27	112	372	0.81	418.42	414	11	1.56E-02	34.5	
9	4	238.52*	1405	201	1.15	476.86	468	20	1.95E-01	3.3	2.51E+00
10	4	241.46	329	277	1.74	482.74	468	20	4.57E-02	12.4	
11	0	277.01	74	240	0.92	553.77	549	11	1.03E-02	41.9	
12	0	295.06	435	193	1.24	589.82	585	10	6.04E-02	7.7	
13	0	299.51	59	216	1.12	598.72	596	10	8.22E-03	48.0	
14	0	327.80	52	197	0.85	655.24	650	10	7.18E-03	52.7	
15	0	338.21	284	175	1.01	676.05	671	10	3.95E-02	10.5	
16	0	351.87	718	231	1.18	703.35	697	13	9.97E-02	5.7	
17	0	463.22	90	106	0.75	925.85	922	10	1.25E-02	24.0	
18	0	510.58*	171	189	1.87	1020.52	1013	18	2.38E-02	22.6	
19	0	583.16*	401	166	1.61	1165.58	1157	18	5.57E-02	9.2	
20	0	609.16*	548	113	1.34	1217.56	1210	16	7.61E-02	6.2	
21	0	727.21	88	79	1.58	1453.56	1449	9	1.22E-02	21.1	
22	0	768.37*	84	103	0.93	1535.84	1529	18	1.17E-02	31.1	
23	0	795.24	68	74	1.08	1589.57	1582	13	9.46E-03	28.8	
24	0	911.21*	299	84	1.63	1821.46	1816	15	4.16E-02	9.0	
25	0	969.55*	157	153	1.69	1938.14	1930	17	2.19E-02	20.7	
26	0	1120.98	120	90	1.54	2241.03	2232	17	1.67E-02	20.5	
27	0	1242.46	81	208	9.58	2484.05	2466	37	1.12E-02	59.0	
28	0	1378.00*	35	17	1.88	2755.28	2747	13	4.89E-03	30.3	
29	0	1460.73*	1411	21	1.85	2920.83	2912	15	1.96E-01	2.8	
30	0	1661.06	17	2	1.55	3321.83	3318	8	2.35E-03	28.4	
31	0	1729.60	30	15	2.82	3459.04	3453	12	4.14E-03	31.8	
32	0	1764.17*	83	11	2.01	3528.27	3519	17	1.16E-02	15.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 16:27:06

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 14:25:27
Sample ID : G248824001 Sample quantity : 103.87 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAM29 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:58.14 0.8%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.952E+01	4.827E+00	7.755E-01	8.435E-02	50.952
SN-126	+	64.28		1.196E+00	9.480E-01	1.141E+00	1.692E-01	1.048
	+	86.94		2.546E+00	1.332E+00	7.180E-01	2.981E-01	3.545
	+	87.57	*	6.123E-01	2.034E-01	1.716E-01	1.613E-02	3.568
TL-208	+	277.37		9.007E-01	7.629E-01	8.392E-01	1.079E-01	1.073
	+	583.19	*	6.442E-01	1.327E-01	6.843E-02	6.412E-03	9.413
		860.56		6.276E-01	4.099E-01	7.360E-01	9.439E-02	0.853
BI-211		72.87		1.936E+01	5.117E+00	8.784E+00	7.259E-01	2.204
	+	351.06	*	5.221E+00	7.804E-01	4.402E-01	4.214E-02	11.862
PB-212	+	74.82		3.705E+00	9.792E-01	8.148E-01	1.046E-01	4.547
	+	77.11		3.461E+00	5.479E-01	4.682E-01	3.987E-02	7.394
	+	238.63	*	2.334E+00	2.791E-01	1.229E-01	1.226E-02	18.986
	+	300.09		1.509E+00	1.457E+00	1.667E+00	1.831E-01	0.905
BI-214	+	609.32	*	1.704E+00	2.713E-01	1.546E-01	1.562E-02	11.018
	+	1120.29		1.943E+00	8.265E-01	5.953E-01	6.950E-02	3.263
	+	1764.49		1.820E+00	5.995E-01	2.707E-01	2.458E-02	6.726
PB-214	+	74.82		6.567E+00	1.696E+00	1.444E+00	1.665E-01	4.547
	+	77.11		6.102E+00	1.089E+00	8.253E-01	9.784E-02	7.394
	+	242.00		3.315E+00	8.944E-01	7.193E-01	7.626E-02	4.608
	+	295.22		1.966E+00	3.734E-01	2.997E-01	3.367E-02	6.559
	+	351.93	*	1.895E+00	3.019E-01	1.601E-01	1.768E-02	11.839
RA-224	+	240.99	*	5.861E+00	1.545E+00	1.316E+00	1.168E-01	4.453
RA-226	+	609.32	*	1.704E+00	2.713E-01	1.546E-01	1.562E-02	11.018
	+	1120.29		1.943E+00	8.265E-01	5.953E-01	6.950E-02	3.263
	+	1764.49		1.820E+00	5.995E-01	2.707E-01	2.458E-02	6.726
AC-228	+	338.32		2.304E+00	1.080E+00	5.057E-01	2.116E-01	4.557
	+	911.20	*	2.321E+00	5.457E-01	3.022E-01	4.604E-02	7.679
	+	968.97		2.105E+00	1.029E+00	6.631E-01	1.718E-01	3.175
RA-228	+	338.32		2.304E+00	1.080E+00	5.057E-01	2.116E-01	4.557
	+	911.20	*	2.321E+00	5.457E-01	3.022E-01	4.604E-02	7.679
	+	968.97		2.105E+00	1.029E+00	6.631E-01	1.718E-01	3.175
TH-228	+	74.82		3.705E+00	9.115E-01	8.148E-01	6.887E-02	4.547
	+	77.11		3.461E+00	5.479E-01	4.682E-01	3.987E-02	7.394
	+	238.63	*	2.334E+00	2.791E-01	1.229E-01	1.226E-02	18.986

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	300.09		1.509E+00	1.718E+00	1.667E+00	1.022E+00	0.905
TH-230	+	609.32	*	1.704E+00	2.560E-01	1.546E-01	1.332E-02	11.018
	+	1120.29		1.943E+00	8.161E-01	5.953E-01	5.690E-02	3.263
	+	1764.49		1.820E+00	5.995E-01	2.707E-01	2.458E-02	6.726
TH-232	+	338.32		2.304E+00	5.297E-01	5.057E-01	4.644E-02	4.557
	+	911.20	*	2.321E+00	5.457E-01	3.022E-01	4.604E-02	7.679
	+	968.97		2.105E+00	1.029E+00	6.631E-01	1.718E-01	3.175
TH-234	+	63.29	*	3.103E+00	2.481E+00	3.042E+00	5.496E-01	1.020
	+	92.59		3.946E+00	1.679E+00	1.452E+00	3.238E-01	2.718
U-235	+	89.96		1.439E+00	1.221E+00	2.470E+00	6.141E-01	0.582
	+	93.35		2.981E+00	1.284E+00	1.007E+00	2.345E-01	2.960
		143.76	*	1.482E-01	2.942E-01	4.753E-01	8.033E-02	0.312
		163.33		5.062E-02	6.216E-01	9.891E-01	1.756E-01	0.051
	+	185.72		1.509E-01	8.944E-02	9.130E-02	7.624E-03	1.652
		205.31		4.199E-01	7.453E-01	1.120E+00	2.029E-01	0.375
NP-237	+	86.48	*	1.827E+00	7.177E-01	5.337E-01	1.224E-01	3.424
		95.86		-1.512E+00	1.562E+00	2.069E+00	4.994E-01	-0.731
U-238	+	63.29	*	3.103E+00	2.481E+00	3.042E+00	5.496E-01	1.020
	+	92.59		3.946E+00	1.475E+00	1.452E+00	1.331E-01	2.718
ANH-511	+	511.00	*	2.108E-01	9.727E-02	6.327E-02	5.728E-03	3.331

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.560E-01	4.676E-01	7.429E-01	7.232E-02	-0.210
NA-22		1274.54	*	-3.604E-02	5.981E-02	9.463E-02	9.446E-03	-0.381
NA-24		1368.63	*	-8.221E+01	5.981E-02	Half-Life too short		
SC-46		889.28	*	-2.399E-02	5.004E-02	7.847E-02	1.025E-02	-0.306
	+	1120.55		3.425E-01	1.439E-01	1.819E-01	1.737E-02	1.883
V-48		944.13		-1.518E+00	1.604E+00	2.405E+00	3.054E-01	-0.631
		983.53	*	2.292E-02	1.133E-01	1.888E-01	2.290E-02	0.121
		1312.11		-2.759E-02	1.411E-01	2.315E-01	2.457E-02	-0.119
CR-51		320.08	*	-4.801E-02	6.166E-01	9.898E-01	9.517E-02	-0.049
MN-54		834.85	*	-2.967E-03	5.398E-02	8.883E-02	1.047E-02	-0.033
CO-56		846.77	*	2.191E-02	5.824E-02	9.875E-02	1.191E-02	0.222
		1037.84		-9.812E-02	4.491E-01	7.180E-01	8.307E-02	-0.137
		1238.28		2.922E-01	1.439E-01	2.603E-01	2.499E-02	1.123
		1771.35		-1.291E+00	4.759E-01	4.542E-01	4.102E-02	-2.842
CO-57		122.06	*	3.771E-02	3.683E-02	6.174E-02	5.578E-03	0.611
		136.47		1.134E-01	2.952E-01	4.837E-01	4.493E-02	0.235
CO-58		810.76	*	9.001E-03	5.412E-02	9.070E-02	1.021E-02	0.099
FE-59		1099.45	*	-1.566E-01	1.405E-01	2.038E-01	2.163E-02	-0.769
		1291.59		5.601E-02	1.756E-01	3.019E-01	3.399E-02	0.186
CO-60		1173.23		9.217E-02	6.846E-02	1.213E-01	1.008E-02	0.760
		1332.49	*	-1.653E-02	5.515E-02	8.928E-02	9.792E-03	-0.185
ZN-65		1115.54	*	-6.169E-02	1.453E-01	1.907E-01	1.844E-02	-0.323
SE-75		121.12		2.041E-01	1.958E-01	3.277E-01	3.733E-02	0.623
		136.00		5.796E-03	5.815E-02	9.428E-02	8.229E-03	0.061

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		264.66	*	-5.023E-02	6.433E-02	1.033E-01	9.369E-03	-0.486
		279.54		1.908E-01	1.769E-01	2.718E-01	2.558E-02	0.702
		400.66		1.050E-01	3.576E-01	5.955E-01	6.791E-02	0.176
SR-85		514.00	*	1.349E-01	6.760E-02	1.077E-01	9.746E-03	1.252
Y-88		898.04		-2.218E-03	5.611E-02	9.199E-02	1.223E-02	-0.024
		1836.06	*	1.645E-02	3.905E-02	6.904E-02	5.904E-03	0.238
Y-91		1204.77	*	-2.140E+01	3.425E+01	5.247E+01	4.628E+00	-0.408
NB-94		702.65	*	1.995E-02	4.695E-02	8.035E-02	7.217E-03	0.248
		871.09		-3.219E-02	4.647E-02	7.178E-02	9.062E-03	-0.448
NB-95		765.81	*	1.062E-01	7.518E-02	1.198E-01	1.230E-02	0.886
NB-95M		235.69	*	1.086E+00	2.516E-01	4.005E-01	4.033E-02	2.711
ZR-95		724.19		2.101E-01	1.543E-01	2.468E-01	2.488E-02	0.851
		756.73	*	-2.481E-02	1.024E-01	1.671E-01	1.815E-02	-0.149
MO-99		140.51		-9.643E+01	1.138E+02	1.739E+02	4.127E+01	-0.554
		181.07		-2.732E+01	1.013E+02	1.389E+02	2.589E+01	-0.197
		366.42		1.426E+02	4.466E+02	7.482E+02	6.820E+01	0.191
		739.50	*	-2.221E+00	5.864E+01	9.726E+01	1.594E+01	-0.023
		777.92		-1.513E+02	1.766E+02	2.357E+02	2.482E+01	-0.642
TC-99M		140.51	*	-4.526E+16	1.766E+02	Half-Life too short		
RU-103		497.08	*	5.669E-03	5.412E-02	8.845E-02	1.261E-02	0.064
	+	610.33		1.920E+01	3.929E+00	4.069E+00	6.649E-01	4.719
RH-106		621.93	*	-4.949E-02	4.177E-01	6.953E-01	9.174E-02	-0.071
		1050.41		-2.681E+00	3.672E+00	5.580E+00	6.131E-01	-0.480
RU-106		621.93	*	-4.949E-02	4.177E-01	6.953E-01	5.927E-02	-0.071
		1050.41		-2.681E+00	3.672E+00	5.580E+00	6.131E-01	-0.480
AG-108M		433.94	*	-4.201E-02	4.021E-02	6.094E-02	5.702E-03	-0.689
		614.28		2.891E-02	5.326E-02	8.095E-02	7.174E-03	0.357
		722.91		-3.284E-02	5.945E-02	7.995E-02	7.708E-03	-0.411
CD-109		88.03	*	6.270E+00	1.938E+00	2.344E+00	2.213E-01	2.675
AG-110M		657.76	*	1.796E-02	4.575E-02	7.856E-02	6.679E-03	0.229
		677.62		-6.008E-02	4.079E-01	6.743E-01	5.900E-02	-0.089
		706.68		-1.458E-01	2.887E-01	4.640E-01	4.314E-02	-0.314
		763.94		3.529E-02	2.524E-01	3.658E-01	3.815E-02	0.096
		884.68		2.118E-02	6.523E-02	1.103E-01	1.448E-02	0.192
		937.49		-5.782E-02	1.620E-01	2.580E-01	3.353E-02	-0.224
		1384.29		1.957E-01	2.225E-01	3.629E-01	4.015E-02	0.539
		1505.03		-3.637E-01	3.617E-01	5.125E-01	5.393E-02	-0.710
SN-113		391.69	*	-3.368E-02	6.219E-02	9.869E-02	9.128E-03	-0.341
CD-115		260.90		-6.546E-04	6.219E-02	Half-Life too short		
		492.35		-1.195E-04	6.219E-02	Half-Life too short		
		527.90	*	-4.103E-05	6.219E-02	Half-Life too short		
SN-117M		156.02		2.251E+00	4.211E+00	6.905E+00	5.735E-01	0.326
		158.56	*	-4.001E-03	1.008E-01	1.617E-01	1.336E-02	-0.025
TE-123M		159.00	*	-6.678E-03	4.169E-02	6.655E-02	5.532E-03	-0.100
SB-124		602.73		1.014E-03	6.584E-02	9.117E-02	7.892E-03	0.011
		645.85		3.136E-01	6.713E-01	1.159E+00	1.026E-01	0.270
		722.78		-3.662E-01	6.315E-01	8.465E-01	8.097E-02	-0.433
		1690.97	*	-7.132E-03	9.713E-02	1.574E-01	1.559E-02	-0.045
SB-125		427.87	*	8.965E-02	1.199E-01	2.044E-01	1.888E-02	0.439

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	463.37		9.874E-01	4.834E-01	7.240E-01	7.042E-02	1.364
		600.60		2.265E-01	2.671E-01	4.293E-01	3.994E-02	0.528
		635.95		3.664E-02	3.484E-01	5.883E-01	5.372E-02	0.062
TE-125M		109.28	*	-5.953E+00	1.493E+01	2.391E+01	2.555E+00	-0.249
I-126		388.63		4.088E-01	2.955E-01	5.182E-01	4.670E-02	0.789
		666.33	*	2.709E-01	3.933E-01	6.853E-01	5.677E-02	0.395
		753.82		-3.740E-02	3.082E+00	5.115E+00	5.125E-01	-0.007
SB-126		414.70		-2.052E-02	1.348E-01	2.186E-01	1.980E-02	-0.094
		666.50		1.426E-01	1.344E-01	2.391E-01	1.982E-02	0.596
		695.00		-4.507E-02	1.360E-01	2.217E-01	1.958E-02	-0.203
		697.00		-4.851E-02	4.932E-01	8.175E-01	7.253E-02	-0.059
		720.70	*	-2.124E-02	2.770E-01	4.106E-01	3.836E-02	-0.052
		856.80		-7.151E-01	8.844E-01	1.361E+00	1.672E-01	-0.526
SB-127		252.40		-7.496E+00	1.503E+01	2.403E+01	1.010E+01	-0.312
		473.00		6.111E+00	5.579E+00	9.573E+00	1.388E+00	0.638
		685.70	*	1.590E+00	4.117E+00	7.056E+00	9.155E-01	0.225
		783.70		8.644E+00	1.150E+01	1.996E+01	3.029E+00	0.433
I-131		80.19		6.747E+00	1.503E+01	1.610E+01	1.422E+00	0.419
		284.31		-3.189E+00	3.214E+00	4.919E+00	4.709E-01	-0.648
		364.49	*	-1.846E-01	2.305E-01	3.602E-01	3.458E-02	-0.513
		636.99		2.830E-01	3.223E+00	5.433E+00	4.866E-01	0.052
TE-132		49.72		-1.279E+02	8.233E+01	1.238E+02	1.554E+01	-1.033
		111.76		-6.542E+01	1.370E+02	2.182E+02	2.771E+01	-0.300
		116.30		-2.769E+01	1.197E+02	1.924E+02	2.450E+01	-0.144
		228.16	*	7.252E-01	2.866E+00	4.851E+00	8.242E-01	0.149
BA-133		81.00		1.216E-01	1.955E-01	2.115E-01	3.304E-02	0.575
	+	276.40		8.333E-01	7.078E-01	8.704E-01	1.254E-01	0.957
		302.85		-3.802E-02	2.141E-01	3.044E-01	4.090E-02	-0.125
		356.01	*	3.021E-02	6.599E-02	9.729E-02	1.295E-02	0.311
		383.85		-4.267E-01	4.037E-01	6.162E-01	7.837E-02	-0.692
I-133		529.87	*	2.239E-01	4.037E-01	Half-Life too short		
		875.33		1.673E+00	4.037E-01	Half-Life too short		
		1298.22		2.379E+00	4.037E-01	Half-Life too short		
CS-134		563.25		2.006E-01	5.005E-01	8.284E-01	7.418E-02	0.242
		569.33		-5.599E-03	2.666E-01	4.287E-01	3.841E-02	-0.013
		604.72		-6.483E-03	5.347E-02	7.300E-02	6.325E-03	-0.089
	+	795.86	*	1.598E-01	9.373E-02	1.268E-01	1.390E-02	1.260
		801.95		-5.324E-01	5.961E-01	7.961E-01	8.828E-02	-0.669
		1365.19		9.245E-01	1.569E+00	2.781E+00	3.125E-01	0.332
CS-135		268.22	*	1.535E-01	2.233E-01	3.818E-01	3.947E-02	0.402
I-135		546.56		-5.887E+15	2.233E-01	Half-Life too short		
		836.80		6.654E+15	2.233E-01	Half-Life too short		
		1038.76		-1.595E+15	2.233E-01	Half-Life too short		
		1131.51		-1.008E+13	2.233E-01	Half-Life too short		
		1260.41	*	1.550E+15	2.233E-01	Half-Life too short		
		1457.56		3.694E+17	2.233E-01	Half-Life too short		
		1678.03		-2.398E+15	2.233E-01	Half-Life too short		
		1791.20		-6.970E+14	2.233E-01	Half-Life too short		
CS-136		153.25		-2.324E-01	1.578E+00	2.523E+00	2.535E-01	-0.092

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		176.60		-4.324E-01	9.367E-01	1.469E+00	1.349E-01	-0.294
		273.65		-2.339E+00	1.167E+00	1.451E+00	1.418E-01	-1.612
		340.55		1.069E+00	3.451E-01	5.509E-01	5.230E-02	1.940
		818.51		9.367E-03	1.133E-01	1.887E-01	2.157E-02	0.050
		1048.07	*	1.163E-02	1.910E-01	3.130E-01	3.544E-02	0.037
		1235.36		1.806E+00	1.294E+00	2.011E+00	2.472E-01	0.898
BA-137M		661.66	*	-3.303E-02	4.799E-02	7.644E-02	6.266E-03	-0.432
CS-137		661.66	*	-3.490E-02	5.070E-02	8.075E-02	6.634E-03	-0.432
CE-139		165.86	*	2.796E-02	4.313E-02	7.095E-02	5.783E-03	0.394
BA-140		162.66		-3.185E-01	1.527E+00	2.401E+00	2.114E-01	-0.133
		304.85		4.737E-01	2.741E+00	3.987E+00	1.174E+00	0.119
		423.72		2.677E-01	3.303E+00	5.425E+00	1.791E+00	0.049
		537.26	*	2.118E-01	4.847E-01	7.980E-01	2.714E-01	0.265
LA-140	+	328.76		6.807E-01	7.209E-01	9.687E-01	9.352E-02	0.703
		487.02		-3.021E-03	2.254E-01	3.657E-01	3.511E-02	-0.008
		815.77		-1.676E-01	5.303E-01	8.524E-01	1.035E-01	-0.197
		1596.21	*	1.100E-01	1.357E-01	2.480E-01	2.509E-02	0.444
CE-141		145.44	*	4.440E-02	9.961E-02	1.632E-01	1.411E-02	0.272
CE-143		57.36		-6.957E-03	9.961E-02	Half-Life too short		
		293.27	*	1.644E-02	9.961E-02	Half-Life too short		
		664.57		1.483E-02	9.961E-02	Half-Life too short		
		721.93		-1.144E-02	9.961E-02	Half-Life too short		
CE-144		80.12		4.701E+00	5.218E+00	5.770E+00	5.039E-01	0.815
		133.52	*	-3.202E-01	2.954E-01	4.507E-01	6.916E-02	-0.710
PM-144		476.78		-6.598E-02	9.131E-02	1.410E-01	1.384E-02	-0.468
		618.01		2.732E-02	4.529E-02	7.569E-02	6.658E-03	0.361
		696.49	*	-2.234E-02	4.828E-02	7.803E-02	6.919E-03	-0.286
PR-144		696.51	*	-1.540E+00	3.616E+00	5.859E+00	5.193E-01	-0.263
		1489.16		-8.909E+00	1.568E+01	2.377E+01	2.515E+00	-0.375
PM-146		453.88	*	4.033E-03	5.787E-02	9.469E-02	1.041E-02	0.043
		633.25		5.966E-01	1.827E+00	3.108E+00	1.186E+00	0.192
		735.93		-1.140E-01	2.017E-01	3.174E-01	9.000E-02	-0.359
		747.24		-2.789E-02	1.291E-01	2.111E-01	3.243E-02	-0.132
ND-147	+	91.11		6.381E-01	5.218E-01	1.050E+00	1.041E-01	0.608
		319.41		-3.256E-02	6.542E+00	1.083E+01	9.953E-01	-0.003
		531.02	*	-9.714E-02	9.787E-01	1.570E+00	2.382E-01	-0.062
PM-149		285.90	*	4.753E-04	9.787E-01	Half-Life too short		
EU-152		121.78		1.138E-01	1.049E-01	1.758E-01	1.804E-02	0.647
		244.70		1.261E-01	4.979E-01	7.355E-01	6.546E-02	0.171
		344.28	*	1.204E-01	1.494E-01	2.154E-01	2.080E-02	0.559
		778.90		-2.290E-01	3.286E-01	4.828E-01	5.093E-02	-0.474
		964.08		6.235E-01	4.986E-01	7.844E-01	9.742E-02	0.795
		1085.87		-3.387E-01	5.283E-01	8.059E-01	8.294E-02	-0.420
		1112.07		3.466E-02	4.804E-01	6.738E-01	6.562E-02	0.051
		1408.01		1.586E-01	2.628E-01	4.456E-01	4.824E-02	0.356
GD-153		69.67		-2.135E-04	2.876E+00	4.153E+00	3.373E-01	0.000
		97.43	*	5.381E-02	1.389E-01	1.997E-01	1.794E-02	0.269
		103.18		-2.216E-01	1.650E-01	2.538E-01	2.252E-02	-0.873
EU-154		123.07		1.687E-02	7.386E-02	1.207E-01	1.405E-02	0.140

---- Non-Identified Nuclides ----

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		723.31		-1.419E-03	2.591E-01	3.695E-01	3.770E-02	-0.004
		873.19		-2.258E-02	3.863E-01	6.334E-01	9.560E-02	-0.036
		996.26		1.196E-01	4.523E-01	7.565E-01	1.462E-01	0.158
		1004.73		2.221E-01	2.788E-01	4.844E-01	6.853E-02	0.459
		1274.44	*	-9.878E-02	1.695E-01	2.684E-01	3.337E-02	-0.368
EU-155	+	86.55		7.440E-01	2.473E-01	2.702E-01	2.535E-02	2.753
		105.31	*	9.616E-02	1.530E-01	2.542E-01	2.276E-02	0.378
TB-160	+	86.79		2.066E+00	6.864E-01	7.424E-01	6.921E-02	2.783
		197.04		2.687E-01	8.241E-01	1.378E+00	1.167E-01	0.195
		215.65		-4.009E-01	1.195E+00	1.800E+00	1.558E-01	-0.223
	+	298.57		2.229E-01	2.148E-01	2.973E-01	2.723E-02	0.750
		879.36	*	-3.870E-02	2.083E-01	3.379E-01	4.331E-02	-0.115
		962.29		7.078E-01	9.213E-01	1.398E+00	1.740E-01	0.506
		966.15		1.660E+00	4.863E-01	7.944E-01	9.843E-02	2.090
		1177.93		-4.663E-01	5.866E-01	8.871E-01	7.441E-02	-0.526
		1271.85		5.703E-01	9.650E-01	1.696E+00	1.683E-01	0.336
HO-166M		80.57		2.196E-01	5.740E-01	6.119E-01	5.366E-02	0.359
	+	184.41		1.199E-01	7.106E-02	9.546E-02	7.958E-03	1.256
		280.46		4.401E-02	1.276E-01	1.887E-01	1.717E-02	0.233
		410.95		2.810E-01	3.323E-01	5.682E-01	5.142E-02	0.495
		711.68	*	-6.192E-02	8.514E-02	1.252E-01	1.147E-02	-0.495
		752.31		4.899E-02	3.563E-01	5.980E-01	5.973E-02	0.082
		810.29		1.707E-02	7.748E-02	1.304E-01	1.465E-02	0.131
TA-182		67.75		6.713E-02	2.592E-01	2.756E-01	2.220E-02	0.244
		100.11		2.942E-01	2.786E-01	4.375E-01	3.902E-02	0.672
		152.43		-7.854E-02	5.074E-01	8.113E-01	6.786E-02	-0.097
		222.11		1.078E-01	4.854E-01	8.220E-01	7.164E-02	0.131
	+	1121.30		9.383E-01	3.942E-01	4.966E-01	4.735E-02	1.889
		1189.05		-5.794E-02	4.965E-01	7.957E-01	6.815E-02	-0.073
		1221.41	*	-8.762E-02	2.922E-01	4.601E-01	4.182E-02	-0.190
		1231.02		-2.454E-01	8.285E-01	1.102E+00	1.019E-01	-0.223
IR-192	+	295.96		1.523E+00	2.722E-01	4.034E-01	3.717E-02	3.776
		308.46		-7.473E-02	1.356E-01	2.183E-01	2.013E-02	-0.342
		316.51	*	2.936E-02	4.974E-02	8.464E-02	7.793E-03	0.347
		468.07		-3.220E-02	1.121E-01	1.533E-01	1.487E-02	-0.210
HG-203		70.83		1.348E+00	2.356E+00	3.465E+00	5.483E-01	0.389
		72.87		5.192E+00	1.527E+00	2.355E+00	3.613E-01	2.204
		279.20	*	1.018E-01	6.512E-02	1.023E-01	9.524E-03	0.995
BI-207		72.81		1.025E+00	2.904E-01	4.991E-01	4.123E-02	2.055
	+	74.97		1.068E+00	2.625E-01	3.591E-01	3.009E-02	2.974
		569.70		-8.328E-04	4.183E-02	6.728E-02	5.949E-03	-0.012
		1063.66	*	1.161E-03	7.351E-02	1.199E-01	1.287E-02	0.010
		1770.23		-2.709E-01	6.460E-01	7.927E-01	7.165E-02	-0.342
PB-210		46.54	*	-1.765E+00	5.088E+00	8.452E+00	8.065E-01	-0.209
PB-211		404.85	*	-8.065E-01	1.063E+00	1.542E+00	7.475E-01	-0.523
		427.09		9.192E-01	2.028E+00	3.333E+00	1.545E+00	0.276
		832.01		3.214E-01	1.334E+00	2.227E+00	1.168E+00	0.144
BI-212	+	727.33	*	2.165E+00	9.550E-01	1.585E+00	2.070E-01	1.366
		785.37		4.704E+00	4.371E+00	7.610E+00	8.134E-01	0.618

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		1620.50		1.939E+00	2.491E+00	4.614E+00	4.608E-01	0.420
RN-219		271.23		7.741E-01	3.798E-01	6.024E-01	6.403E-02	1.285
		401.81	*	1.092E-02	5.492E-01	9.010E-01	1.362E-01	0.012
RA-223		81.07		2.635E-01	4.408E-01	4.775E-01	4.206E-02	0.552
		83.79		7.159E-02	2.024E-01	2.932E-01	2.651E-02	0.244
		94.87		1.723E+00	7.567E-01	1.164E+00	1.056E-01	1.480
		144.24		4.087E-01	9.869E-01	1.593E+00	1.517E-01	0.257
		154.21		3.725E-01	5.493E-01	9.054E-01	8.316E-02	0.411
		269.46		5.404E-01	2.643E-01	4.683E-01	4.315E-02	1.154
		323.87	*	3.961E-01	1.026E+00	1.508E+00	2.658E-01	0.263
	+	338.28		9.145E+00	2.240E+00	3.179E+00	3.968E-01	2.876
AC-227		79.69		3.800E+00	2.679E+00	2.990E+00	5.166E-01	1.271
		235.96		2.122E+00	3.621E-01	5.358E-01	5.637E-02	3.960
		256.23	*	3.801E-01	3.626E-01	6.265E-01	7.711E-02	0.607
	+	299.98		1.660E+00	1.607E+00	2.134E+00	2.792E-01	0.778
		304.50		6.512E-01	2.527E+00	3.699E+00	6.224E-01	0.176
		334.37		4.635E-01	2.905E+00	3.692E+00	5.874E-01	0.126
TH-227		79.80		4.509E+00	3.552E+00	3.894E+00	8.494E-01	1.158
		235.96		2.122E+00	3.547E-01	5.358E-01	5.330E-02	3.960
		256.23	*	3.801E-01	3.634E-01	6.265E-01	8.667E-02	0.607
	+	299.98		1.660E+00	1.607E+00	2.134E+00	2.792E-01	0.778
		304.50		6.512E-01	2.527E+00	3.699E+00	6.224E-01	0.176
		334.37		4.635E-01	2.905E+00	3.692E+00	5.874E-01	0.126
TH-229	+	85.43		1.541E+00	5.120E-01	5.587E-01	5.135E-02	2.759
		88.47		9.665E-01	2.902E-01	3.516E-01	3.309E-02	2.749
		193.51	*	-1.636E-01	7.672E-01	1.213E+00	1.023E-01	-0.135
		210.85		2.725E+00	1.436E+00	2.271E+00	1.955E-01	1.200
PA-231		283.69	*	-2.707E+00	2.276E+00	3.142E+00	4.677E-01	-0.861
		301.36		1.070E+00	9.251E-01	1.413E+00	1.773E-01	0.757
TH-231		81.07		2.635E-01	4.408E-01	4.775E-01	4.206E-02	0.552
		83.79		7.159E-02	2.024E-01	2.932E-01	2.651E-02	0.244
		94.87		1.723E+00	7.567E-01	1.164E+00	1.056E-01	1.480
		144.24		4.087E-01	9.869E-01	1.593E+00	1.517E-01	0.257
		154.21		3.725E-01	5.493E-01	9.054E-01	8.316E-02	0.411
		269.46		5.404E-01	2.643E-01	4.683E-01	4.315E-02	1.154
		323.87	*	3.961E-01	1.026E+00	1.508E+00	2.658E-01	0.263
	+	338.28		9.145E+00	2.240E+00	3.179E+00	3.968E-01	2.876
PA-233	+	300.13		7.511E-01	7.293E-01	9.647E-01	1.462E-01	0.779
		311.90	*	-3.476E-02	8.417E-02	1.363E-01	1.284E-02	-0.255
		340.48		3.800E+00	1.436E+00	1.852E+00	4.496E-01	2.052
PA-234		94.67		8.003E-01	2.917E-01	4.386E-01	5.581E-02	1.824
		98.44		1.996E-01	1.852E-01	2.225E-01	1.243E-01	0.897
		111.00		-1.134E-01	2.594E-01	4.142E-01	5.078E-02	-0.274
		131.20		1.154E-01	1.511E-01	2.508E-01	2.201E-02	0.460
		569.50		-3.173E-02	3.697E-01	5.917E-01	5.232E-02	-0.054
		733.00		2.983E-01	5.689E-01	8.544E-01	1.930E-01	0.349
		880.51		-3.187E-02	3.961E-01	6.481E-01	8.327E-02	-0.049
		883.24		2.882E-01	4.288E-01	6.671E-01	4.530E-01	0.432
		926.50		-2.271E-01	2.306E-01	3.294E-01	8.912E-02	-0.689

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	2.026E-01	4.267E-01	7.230E-01	1.514E-01	0.280
		949.00		6.256E-01	6.328E-01	1.110E+00	1.402E-01	0.564
PA-234M		766.42		2.161E+01	2.240E+01	3.052E+01	1.558E+01	0.708
		1001.03	*	-4.286E+00	6.047E+00	9.319E+00	1.199E+00	-0.460
NP-239		99.53		2.101E-01	2.685E-01	3.927E-01	3.506E-02	0.535
		103.37		-8.453E-02	1.453E-01	2.315E-01	2.053E-02	-0.365
		106.12		1.156E-01	1.219E-01	2.044E-01	1.809E-02	0.565
		117.23	*	-3.742E-01	5.714E-01	9.023E-01	8.059E-02	-0.415
		228.18		7.424E-02	2.883E-01	4.884E-01	4.283E-02	0.152
	+	277.60		4.117E-01	3.467E-01	4.306E-01	3.915E-02	0.956
AM-241		59.54	*	7.572E-02	2.435E-01	3.580E-01	3.090E-02	0.211
CM-247	+	278.00		1.748E+00	1.472E+00	1.838E+00	1.671E-01	0.951
		287.50		8.499E-01	1.716E+00	2.844E+00	2.597E-01	0.299
		402.40	*	-2.206E-02	5.063E-02	8.079E-02	7.293E-03	-0.273
CF-249		252.80		-5.260E-01	1.334E+00	2.191E+00	1.962E-01	-0.240
		333.37		9.161E-02	4.028E-01	3.985E-01	3.661E-02	0.230
		388.16	*	6.348E-02	5.438E-02	9.449E-02	8.517E-03	0.672
CF-251		177.52	*	-1.366E-01	1.882E-01	2.914E-01	2.408E-02	-0.469
		227.38		1.775E-01	4.728E-01	8.046E-01	7.050E-02	0.221
		285.41		-1.452E+00	2.983E+00	4.843E+00	4.418E-01	-0.300

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824001       *
* Acquisition date : 23-MAR-2010 14:25:27 Detector SN#    :                 *
* Detector ID      : GAM29                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:58.14     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248824001           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.0387E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.952E+01	4.731E+00	7.697E-01	0.000E+00
SN-126	6.123E-01	1.993E-01	1.725E-01	0.000E+00
TL-208	6.442E-01	1.301E-01	6.820E-02	0.000E+00
BI-211	5.221E+00	7.648E-01	4.397E-01	0.000E+00
PB-212	2.334E+00	2.735E-01	1.230E-01	0.000E+00
BI-214	1.704E+00	2.659E-01	1.541E-01	0.000E+00
PB-214	1.895E+00	2.959E-01	1.599E-01	0.000E+00
RA-224	5.861E+00	1.514E+00	1.317E+00	0.000E+00
RA-226	1.704E+00	2.659E-01	1.541E-01	0.000E+00
AC-228	2.321E+00	5.348E-01	3.006E-01	0.000E+00
RA-228	2.321E+00	5.348E-01	3.006E-01	0.000E+00
TH-228	2.334E+00	2.735E-01	1.230E-01	0.000E+00
TH-230	1.704E+00	2.509E-01	1.541E-01	0.000E+00
TH-232	2.321E+00	5.348E-01	3.006E-01	0.000E+00
TH-234	3.103E+00	2.431E+00	3.061E+00	0.000E+00
U-235	1.482E-01	2.883E-01	4.766E-01	0.000E+00
NP-237	1.827E+00	7.034E-01	5.364E-01	0.000E+00
U-238	3.103E+00	2.431E+00	3.061E+00	0.000E+00
ANH-511	2.108E-01	9.532E-02	6.309E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-1.560E-01		4.583E-01	7.410E-01	0.000E+00	NOT IDENT.
NA-22	-3.604E-02		5.862E-02	9.398E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		2.475E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.399E-02		4.903E-02	7.806E-02	0.000E+00	FAIL ABUN
V-48	2.292E-02		1.111E-01	1.877E-01	0.000E+00	NOT IDENT.
CR-51	-4.801E-02		6.043E-01	9.890E-01	0.000E+00	NOT IDENT.
MN-54	-2.967E-03		5.290E-02	8.839E-02	0.000E+00	NOT IDENT.
CO-56	2.191E-02		5.708E-02	9.825E-02	0.000E+00	NOT IDENT.

CO-57	3.771E-02	3.609E-02	6.195E-02	0.000E+00	NOT IDENT.
CO-58	9.001E-03	5.303E-02	9.026E-02	0.000E+00	NOT IDENT.
FE-59	-1.566E-01	1.377E-01	2.025E-01	0.000E+00	NOT IDENT.
CO-60	-1.653E-02	5.405E-02	8.865E-02	0.000E+00	NOT IDENT.
ZN-65	-6.169E-02	1.424E-01	1.895E-01	0.000E+00	NOT IDENT.
SE-75	-5.023E-02	6.304E-02	1.033E-01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	6.625E-02	1.074E-01	0.000E+00	NOT IDENT.
Y-88	1.645E-02	3.827E-02	6.845E-02	0.000E+00	NOT IDENT.
Y-91	-2.140E+01	3.356E+01	5.213E+01	0.000E+00	NOT IDENT.
NB-94	1.995E-02	4.601E-02	8.001E-02	0.000E+00	NOT IDENT.
NB-95	1.062E-01	7.368E-02	1.192E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.465E-01	4.008E-01	0.000E+00	NOT IDENT.
ZR-95	-2.481E-02	1.004E-01	1.663E-01	0.000E+00	NOT IDENT.
MO-99	-2.221E+00	5.747E+01	9.682E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.400E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	5.669E-03	5.304E-02	8.821E-02	0.000E+00	FAIL ABUN
RH-106	-4.949E-02	4.094E-01	6.928E-01	0.000E+00	NOT IDENT.
RU-106	-4.949E-02	4.093E-01	6.928E-01	0.000E+00	NOT IDENT.
AG-108M	-4.201E-02	3.940E-02	6.081E-02	0.000E+00	NOT IDENT.
CD-109	0.000E+00	1.900E+00	2.355E+00	0.000E+00	NOT IDENT.
AG-110M	1.796E-02	4.484E-02	7.825E-02	0.000E+00	NOT IDENT.
SN-113	-3.368E-02	6.094E-02	9.852E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	6.751E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-4.001E-03	9.877E-02	1.621E-01	0.000E+00	NOT IDENT.
TE-123M	-6.678E-03	4.086E-02	6.670E-02	0.000E+00	NOT IDENT.
SB-124	-7.132E-03	9.518E-02	1.562E-01	0.000E+00	NOT IDENT.
SB-125	8.965E-02	1.175E-01	2.040E-01	0.000E+00	FAIL ABUN
TE-125M	-5.953E+00	1.463E+01	2.400E+01	0.000E+00	NOT IDENT.
I-126	2.709E-01	3.854E-01	6.826E-01	0.000E+00	NOT IDENT.
SB-126	-2.124E-02	2.715E-01	4.088E-01	0.000E+00	NOT IDENT.
SB-127	1.590E+00	4.035E+00	7.027E+00	0.000E+00	NOT IDENT.
I-131	-1.846E-01	2.259E-01	3.597E-01	0.000E+00	NOT IDENT.
TE-132	7.252E-01	2.808E+00	4.855E+00	0.000E+00	NOT IDENT.
BA-133	3.021E-02	6.467E-02	9.717E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	3.945E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.185E-02	1.262E-01	0.000E+00	FAIL ABUN
CS-135	1.535E-01	2.189E-01	3.818E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.674E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.163E-02	1.872E-01	3.112E-01	0.000E+00	NOT IDENT.
BA-137M	-3.303E-02	4.703E-02	7.614E-02	0.000E+00	NOT IDENT.
CS-137	-3.490E-02	4.969E-02	8.043E-02	0.000E+00	NOT IDENT.
CE-139	2.796E-02	4.227E-02	7.110E-02	0.000E+00	NOT IDENT.
BA-140	2.118E-01	4.750E-01	7.955E-01	0.000E+00	NOT IDENT.
LA-140	1.100E-01	1.330E-01	2.460E-01	0.000E+00	FAIL ABUN
CE-141	4.440E-02	9.761E-02	1.636E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.857E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.202E-01	2.895E-01	4.521E-01	0.000E+00	NOT IDENT.
PM-144	-2.234E-02	4.731E-02	7.770E-02	0.000E+00	NOT IDENT.
PR-144	-1.540E+00	3.543E+00	5.835E+00	0.000E+00	NOT IDENT.
PM-146	4.033E-03	5.671E-02	9.447E-02	0.000E+00	NOT IDENT.
ND-147	-9.714E-02	9.591E-01	1.565E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	5.867E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	1.204E-01	1.464E-01	2.152E-01	0.000E+00	NOT IDENT.
GD-153	5.381E-02	1.361E-01	2.006E-01	0.000E+00	NOT IDENT.
EU-154	-9.878E-02	1.661E-01	2.665E-01	0.000E+00	NOT IDENT.
EU-155	9.616E-02	1.499E-01	2.553E-01	0.000E+00	FAIL ABUN
TB-160	-3.870E-02	2.041E-01	3.361E-01	0.000E+00	FAIL ABUN
HO-166M	-6.192E-02	8.343E-02	1.247E-01	0.000E+00	FAIL ABUN
TA-182	-8.762E-02	2.864E-01	4.570E-01	0.000E+00	FAIL ABUN
IR-192	2.936E-02	4.875E-02	8.458E-02	0.000E+00	FAIL ABUN
HG-203	1.018E-01	6.382E-02	1.023E-01	0.000E+00	NOT IDENT.
BI-207	1.161E-03	7.204E-02	1.191E-01	0.000E+00	FAIL ABUN
PB-210	-1.765E+00	4.986E+00	8.517E+00	0.000E+00	NOT IDENT.
PB-211	-8.065E-01	1.041E+00	1.539E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	9.359E-01	1.578E+00	0.000E+00	FAIL ABUN
RN-219	1.092E-02	5.382E-01	8.994E-01	0.000E+00	NOT IDENT.
RA-223	3.961E-01	1.005E+00	1.507E+00	0.000E+00	FAIL ABUN
AC-227	3.801E-01	3.554E-01	6.266E-01	0.000E+00	FAIL ABUN
TH-227	3.801E-01	3.562E-01	6.266E-01	0.000E+00	FAIL ABUN
TH-229	-1.636E-01	7.519E-01	1.214E+00	0.000E+00	FAIL ABUN
PA-231	-2.707E+00	2.231E+00	3.142E+00	0.000E+00	NOT IDENT.
TH-231	3.961E-01	1.005E+00	1.507E+00	0.000E+00	FAIL ABUN
PA-233	-3.476E-02	8.248E-02	1.363E-01	0.000E+00	FAIL ABUN
PA-234	2.026E-01	4.181E-01	7.190E-01	0.000E+00	NOT IDENT.
PA-234M	-4.286E+00	5.926E+00	9.265E+00	0.000E+00	NOT IDENT.
NP-239	-3.742E-01	5.599E-01	9.056E-01	0.000E+00	FAIL ABUN
AM-241	7.572E-02	2.386E-01	3.604E-01	0.000E+00	NOT IDENT.
CM-247	-2.206E-02	4.962E-02	8.065E-02	0.000E+00	FAIL ABUN

CF-249	6.348E-02	5.329E-02	9.434E-02	0.000E+00	NOT IDENT.
CF-251	-1.366E-01	1.844E-01	2.919E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:27:04.87

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824001.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 14:25:27
Sample ID         : G248824001           Sample quantity  : 1.03870E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:58.14  0.8%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1411	10.66*	1.210E+00	3.952E+01	3.952E+01	12.22
SN-126	64.28	108	9.60	3.404E+00	1.196E+00	1.196E+00	79.28
	86.94	365	8.90	5.822E+00	2.546E+00	2.546E+00	52.34
	87.57	365	37.00*	5.822E+00	6.123E-01	6.123E-01	33.22
TL-208	277.37	74	6.60	4.528E+00	9.007E-01	9.007E-01	84.70
	583.19	401	85.00*	2.646E+00	6.442E-01	6.442E-01	20.60
	860.56	------	12.50	1.902E+00	------	Line Not Found	------
BI-211	72.87	------	1.23	4.632E+00	------	Line Not Found	------
	351.06	718	12.92*	3.847E+00	5.221E+00	5.221E+00	14.95
PB-212	74.82	509	10.28	4.830E+00	3.705E+00	3.705E+00	26.43
	77.11	832	17.10	5.079E+00	3.461E+00	3.461E+00	15.83
	238.63	1405	43.60*	4.992E+00	2.334E+00	2.334E+00	11.96
	300.09	59	3.30	4.297E+00	1.509E+00	1.509E+00	96.54
BI-214	609.32	548	45.49*	2.555E+00	1.704E+00	1.704E+00	15.93
	1120.29	120	14.92	1.502E+00	1.943E+00	1.943E+00	42.54
	1764.49	83	15.30	1.081E+00	1.820E+00	1.820E+00	32.93
PB-214	74.82	509	5.80	4.830E+00	6.566E+00	6.567E+00	25.82
	77.11	832	9.70	5.079E+00	6.102E+00	6.102E+00	17.85
	242.00	329	7.25	4.953E+00	3.315E+00	3.315E+00	26.98
	295.22	435	18.42	4.341E+00	1.966E+00	1.966E+00	18.99
	351.93	718	35.60*	3.847E+00	1.895E+00	1.895E+00	15.93
RA-224	240.99	329	4.10*	4.953E+00	5.861E+00	5.861E+00	26.35
RA-226	609.32	548	45.49*	2.555E+00	1.704E+00	1.704E+00	15.93
	1120.29	120	14.92	1.502E+00	1.943E+00	1.943E+00	42.54
	1764.49	83	15.30	1.081E+00	1.820E+00	1.820E+00	32.93
AC-228	338.32	284	11.27	3.954E+00	2.304E+00	2.304E+00	46.84
	911.20	299	25.80*	1.808E+00	2.321E+00	2.321E+00	23.52
	968.97	157	15.80	1.710E+00	2.105E+00	2.105E+00	48.87
RA-228	338.32	284	11.27	3.954E+00	2.304E+00	2.304E+00	46.84
	911.20	299	25.80*	1.808E+00	2.321E+00	2.321E+00	23.52
	968.97	157	15.80	1.710E+00	2.105E+00	2.105E+00	48.87
TH-228	74.82	509	10.28	4.830E+00	3.705E+00	3.705E+00	24.60

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	832	17.10	5.079E+00	3.461E+00	3.461E+00	15.83
	238.63	1405	43.60*	4.992E+00	2.334E+00	2.334E+00	11.96
	300.09	59	3.30	4.297E+00	1.509E+00	1.509E+00	113.82
TH-230	609.32	548	45.49*	2.555E+00	1.704E+00	1.704E+00	15.03
	1120.29	120	14.92	1.502E+00	1.943E+00	1.943E+00	42.01
	1764.49	83	15.30	1.081E+00	1.820E+00	1.820E+00	32.93
TH-232	338.32	284	11.27	3.954E+00	2.304E+00	2.304E+00	22.99
	911.20	299	25.80*	1.808E+00	2.321E+00	2.321E+00	23.52
	968.97	157	15.80	1.710E+00	2.105E+00	2.105E+00	48.87
TH-234	63.29	108	3.70*	3.404E+00	3.103E+00	3.103E+00	79.95
	92.59	285	4.23	6.181E+00	3.946E+00	3.946E+00	42.55
U-235	89.96	84	3.47	6.055E+00	1.439E+00	1.439E+00	84.88
	93.35	285	5.60	6.181E+00	2.981E+00	2.981E+00	43.08
	143.76	------	10.96*	6.480E+00	------	Line Not Found	------
	163.33	------	5.08	6.173E+00	------	Line Not Found	------
	185.72	138	57.20	5.793E+00	1.509E-01	1.509E-01	59.29
	205.31	------	5.01	5.473E+00	------	Line Not Found	------
NP-237	86.48	365	12.40*	5.822E+00	1.827E+00	1.827E+00	39.28
	95.86	------	2.68	6.306E+00	------	Line Not Found	------
U-238	63.29	108	3.70*	3.404E+00	3.103E+00	3.103E+00	79.95
	92.59	285	4.23	6.181E+00	3.946E+00	3.946E+00	37.38
ANH-511	511.00	171	100.00*	2.935E+00	2.108E-01	2.108E-01	46.15

Flag: "*" = Keyline

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

Total number of lines in spectrum 32
Number of unidentified lines 6
Number of lines tentatively identified by NID 26 81.25%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.952E+01	3.952E+01	0.483E+01	12.22	
SN-126	2.30E+05Y	1.00	6.123E-01	6.123E-01	2.034E-01	33.22	
TL-208	1.41E+10Y	1.00	6.442E-01	6.442E-01	1.327E-01	20.60	
BI-211	7.04E+08Y	1.00	5.221E+00	5.221E+00	0.780E+00	14.95	
PB-212	1.41E+10Y	1.00	2.334E+00	2.334E+00	0.279E+00	11.96	
BI-214	1600.00Y	1.00	1.704E+00	1.704E+00	0.271E+00	15.93	
PB-214	1600.00Y	1.00	1.895E+00	1.895E+00	0.302E+00	15.93	
RA-224	1.41E+10Y	1.00	5.861E+00	5.861E+00	1.545E+00	26.35	
RA-226	1600.00Y	1.00	1.704E+00	1.704E+00	0.271E+00	15.93	
AC-228	1.41E+10Y	1.00	2.321E+00	2.321E+00	0.546E+00	23.52	
RA-228	1.41E+10Y	1.00	2.321E+00	2.321E+00	0.546E+00	23.52	
TH-228	1.41E+10Y	1.00	2.334E+00	2.334E+00	0.279E+00	11.96	
TH-230	7.54E+04Y	1.00	1.704E+00	1.704E+00	0.256E+00	15.03	
TH-232	1.41E+10Y	1.00	2.321E+00	2.321E+00	0.546E+00	23.52	
TH-234	4.47E+09Y	1.00	3.103E+00	3.103E+00	2.481E+00	79.95	
U-235	7.04E+08Y	1.00	1.509E-01	1.509E-01	0.894E-01	59.29	K
NP-237	2.14E+06Y	1.00	1.827E+00	1.827E+00	0.718E+00	39.28	
U-238	4.47E+09Y	1.00	3.103E+00	3.103E+00	2.481E+00	79.95	
ANH-511	1.00E+09Y	1.00	2.108E-01	2.108E-01	0.973E-01	46.15	
			---	---			
	Total Activity :		7.888E+01	7.888E+01			

Grand Total Activity : 7.888E+01 7.888E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.27	112	372	0.81	418.42	414	11	1.56E-02	69.0	5.41E+00	
0	327.80	52	197	0.85	655.24	650	10	7.18E-03	****	4.04E+00	T
0	463.22	90	106	0.75	925.85	922	10	1.25E-02	48.0	3.16E+00	T
0	727.21	88	79	1.58	1453.56	1449	9	1.22E-02	42.1	2.20E+00	T
0	768.37	84	103	0.93	1535.84	1529	18	1.17E-02	62.3	2.10E+00	
0	795.24	68	74	1.08	1589.57	1582	13	9.46E-03	57.6	2.04E+00	T
0	1242.46	81	208	9.58	2484.05	2466	37	1.12E-02	****	1.37E+00	
0	1378.00	35	17	1.88	2755.28	2747	13	4.89E-03	60.6	1.26E+00	
0	1661.06	17	2	1.55	3321.83	3318	8	2.35E-03	56.8	1.11E+00	
0	1729.60	30	15	2.82	3459.04	3453	12	4.14E-03	63.6	1.09E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:27:08.54

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248824001.CNF;1  *
* Acquisition date : 23-MAR-2010 14:25:27  Detector SN#    :                *
* Detector ID      : GAM29                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:58.14         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248824001            Analyst initials: MXR1           *
* Batch Number     : 962631                Sample Quantity : 1.03870E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.952E+01	4.827E+00	7.755E-01	8.435E-02	50.952
SN-126	6.123E-01	2.034E-01	1.716E-01	1.613E-02	3.568
TL-208	6.442E-01	1.327E-01	6.843E-02	6.412E-03	9.413
BI-211	5.221E+00	7.804E-01	4.402E-01	4.214E-02	11.862
PB-212	2.334E+00	2.791E-01	1.229E-01	1.226E-02	18.986
BI-214	1.704E+00	2.713E-01	1.546E-01	1.562E-02	11.018
PB-214	1.895E+00	3.019E-01	1.601E-01	1.768E-02	11.839
RA-224	5.861E+00	1.545E+00	1.316E+00	1.168E-01	4.453
RA-226	1.704E+00	2.713E-01	1.546E-01	1.562E-02	11.018
AC-228	2.321E+00	5.457E-01	3.022E-01	4.604E-02	7.679
RA-228	2.321E+00	5.457E-01	3.022E-01	4.604E-02	7.679
TH-228	2.334E+00	2.791E-01	1.229E-01	1.226E-02	18.986
TH-230	1.704E+00	2.560E-01	1.546E-01	1.332E-02	11.018
TH-232	2.321E+00	5.457E-01	3.022E-01	4.604E-02	7.679
TH-234	3.103E+00	2.481E+00	3.042E+00	5.496E-01	1.020
U-235	1.509E-01	8.944E-02	4.753E-01	8.033E-02	0.317
NP-237	1.827E+00	7.177E-01	5.337E-01	1.224E-01	3.424
U-238	3.103E+00	2.481E+00	3.042E+00	5.496E-01	1.020

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	2.108E-01	9.727E-02	6.327E-02	5.728E-03	3.331

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.560E-01		4.676E-01	7.429E-01	7.232E-02	-0.210
NA-22	-3.604E-02		5.981E-02	9.463E-02	9.446E-03	-0.381
NA-24	-8.221E+01		1.263E+02	Half-Life too short		
SC-46	-2.399E-02		5.004E-02	7.847E-02	1.025E-02	-0.306
V-48	2.292E-02		1.133E-01	1.888E-01	2.290E-02	0.121
CR-51	-4.801E-02		6.166E-01	9.898E-01	9.517E-02	-0.049
MN-54	-2.967E-03		5.398E-02	8.883E-02	1.047E-02	-0.033
CO-56	2.191E-02		5.824E-02	9.875E-02	1.191E-02	0.222
CO-57	3.771E-02		3.683E-02	6.174E-02	5.578E-03	0.611
CO-58	9.001E-03		5.412E-02	9.070E-02	1.021E-02	0.099
FE-59	-1.566E-01		1.405E-01	2.038E-01	2.163E-02	-0.769
CO-60	-1.653E-02		5.515E-02	8.928E-02	9.792E-03	-0.185
ZN-65	-6.169E-02		1.453E-01	1.907E-01	1.844E-02	-0.323
SE-75	-5.023E-02		6.433E-02	1.033E-01	9.369E-03	-0.486
SR-85	1.349E-01		6.760E-02	1.077E-01	9.746E-03	1.252
Y-88	1.645E-02		3.905E-02	6.904E-02	5.904E-03	0.238
Y-91	-2.140E+01		3.425E+01	5.247E+01	4.628E+00	-0.408
NB-94	1.995E-02		4.695E-02	8.035E-02	7.217E-03	0.248
NB-95	1.062E-01		7.518E-02	1.198E-01	1.230E-02	0.886
NB-95M	1.086E+00		2.516E-01	4.005E-01	4.033E-02	2.711
ZR-95	-2.481E-02		1.024E-01	1.671E-01	1.815E-02	-0.149
MO-99	-2.221E+00		5.864E+01	9.726E+01	1.594E+01	-0.023
TC-99M	-4.526E+16		2.755E+16	Half-Life too short		
RU-103	5.669E-03		5.412E-02	8.845E-02	1.261E-02	0.064
RH-106	-4.949E-02		4.177E-01	6.953E-01	9.174E-02	-0.071
RU-106	-4.949E-02		4.177E-01	6.953E-01	5.927E-02	-0.071
AG-108M	-4.201E-02		4.021E-02	6.094E-02	5.702E-03	-0.689
CD-109	6.270E+00		1.938E+00	2.344E+00	2.213E-01	2.675
AG-110M	1.796E-02		4.575E-02	7.856E-02	6.679E-03	0.229
SN-113	-3.368E-02		6.219E-02	9.869E-02	9.128E-03	-0.341
CD-115	-4.103E-05		3.444E-05	Half-Life too short		
SN-117M	-4.001E-03		1.008E-01	1.617E-01	1.336E-02	-0.025
TE-123M	-6.678E-03		4.169E-02	6.655E-02	5.532E-03	-0.100
SB-124	-7.132E-03		9.713E-02	1.574E-01	1.559E-02	-0.045
SB-125	8.965E-02		1.199E-01	2.044E-01	1.888E-02	0.439
TE-125M	-5.953E+00		1.493E+01	2.391E+01	2.555E+00	-0.249
I-126	2.709E-01		3.933E-01	6.853E-01	5.677E-02	0.395
SB-126	-2.124E-02		2.770E-01	4.106E-01	3.836E-02	-0.052
SB-127	1.590E+00		4.117E+00	7.056E+00	9.155E-01	0.225
I-131	-1.846E-01		2.305E-01	3.602E-01	3.458E-02	-0.513
TE-132	7.252E-01		2.866E+00	4.851E+00	8.242E-01	0.149
BA-133	3.021E-02		6.599E-02	9.729E-02	1.295E-02	0.311

Sample ID : G248824001 Acquisition date : 23-MAR-2010 14:25:27

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	2.239E-01		2.013E-01	Half-Life too short		
CS-134	1.598E-01	+	9.373E-02	1.268E-01	1.390E-02	1.260
CS-135	1.535E-01		2.233E-01	3.818E-01	3.947E-02	0.402
I-135	1.550E+15		1.364E+15	Half-Life too short		
CS-136	1.163E-02		1.910E-01	3.130E-01	3.544E-02	0.037
BA-137M	-3.303E-02		4.799E-02	7.644E-02	6.266E-03	-0.432
CS-137	-3.490E-02		5.070E-02	8.075E-02	6.634E-03	-0.432
CE-139	2.796E-02		4.313E-02	7.095E-02	5.783E-03	0.394
BA-140	2.118E-01		4.847E-01	7.980E-01	2.714E-01	0.265
LA-140	1.100E-01		1.357E-01	2.480E-01	2.509E-02	0.444
CE-141	4.440E-02		9.961E-02	1.632E-01	1.411E-02	0.272
CE-143	1.644E-02		2.478E-03	Half-Life too short		
CE-144	-3.202E-01		2.954E-01	4.507E-01	6.916E-02	-0.710
PM-144	-2.234E-02		4.828E-02	7.803E-02	6.919E-03	-0.286
PR-144	-1.540E+00		3.616E+00	5.859E+00	5.193E-01	-0.263
PM-146	4.033E-03		5.787E-02	9.469E-02	1.041E-02	0.043
ND-147	-9.714E-02		9.787E-01	1.570E+00	2.382E-01	-0.062
PM-149	4.753E-04		2.993E-04	Half-Life too short		
EU-152	1.204E-01		1.494E-01	2.154E-01	2.080E-02	0.559
GD-153	5.381E-02		1.389E-01	1.997E-01	1.794E-02	0.269
EU-154	-9.878E-02		1.695E-01	2.684E-01	3.337E-02	-0.368
EU-155	9.616E-02		1.530E-01	2.542E-01	2.276E-02	0.378
TB-160	-3.870E-02		2.083E-01	3.379E-01	4.331E-02	-0.115
HO-166M	-6.192E-02		8.514E-02	1.252E-01	1.147E-02	-0.495
TA-182	-8.762E-02		2.922E-01	4.601E-01	4.182E-02	-0.190
IR-192	2.936E-02		4.974E-02	8.464E-02	7.793E-03	0.347
HG-203	1.018E-01		6.512E-02	1.023E-01	9.524E-03	0.995
BI-207	1.161E-03		7.351E-02	1.199E-01	1.287E-02	0.010
PB-210	-1.765E+00		5.088E+00	8.452E+00	8.065E-01	-0.209
PB-211	-8.065E-01		1.063E+00	1.542E+00	7.475E-01	-0.523
BI-212	2.165E+00	+	9.550E-01	1.585E+00	2.070E-01	1.366
RN-219	1.092E-02		5.492E-01	9.010E-01	1.362E-01	0.012
RA-223	3.961E-01		1.026E+00	1.508E+00	2.658E-01	0.263
AC-227	3.801E-01		3.626E-01	6.265E-01	7.711E-02	0.607
TH-227	3.801E-01		3.634E-01	6.265E-01	8.667E-02	0.607
TH-229	-1.636E-01		7.672E-01	1.213E+00	1.023E-01	-0.135
PA-231	-2.707E+00		2.276E+00	3.142E+00	4.677E-01	-0.861
TH-231	3.961E-01		1.026E+00	1.508E+00	2.658E-01	0.263
PA-233	-3.476E-02		8.417E-02	1.363E-01	1.284E-02	-0.255
PA-234	2.026E-01		4.267E-01	7.230E-01	1.514E-01	0.280
PA-234M	-4.286E+00		6.047E+00	9.319E+00	1.199E+00	-0.460
NP-239	-3.742E-01		5.714E-01	9.023E-01	8.059E-02	-0.415
AM-241	7.572E-02		2.435E-01	3.580E-01	3.090E-02	0.211
CM-247	-2.206E-02		5.063E-02	8.079E-02	7.293E-03	-0.273
CF-249	6.348E-02		5.438E-02	9.449E-02	8.517E-03	0.672
CF-251	-1.366E-01		1.882E-01	2.914E-01	2.408E-02	-0.469

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248824001            *
* Acquisition date : 23-MAR-2010 14:25:27 Detector SN#    :                 *
* Detector ID      : GAM29                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:58.14     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248824001           Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.0387E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.952E+01	4.731E+00	3.851E-01	2.414E+00
SN-126	6.123E-01	1.993E-01	8.629E-02	1.017E-01
TL-208	6.442E-01	1.301E-01	3.412E-02	6.636E-02
BI-211	5.221E+00	7.648E-01	2.200E-01	3.902E-01
PB-212	2.334E+00	2.735E-01	6.153E-02	1.395E-01
BI-214	1.704E+00	2.659E-01	7.709E-02	1.357E-01
PB-214	1.895E+00	2.959E-01	7.998E-02	1.510E-01
RA-224	5.861E+00	1.514E+00	6.589E-01	7.723E-01
RA-226	1.704E+00	2.659E-01	7.709E-02	1.357E-01
AC-228	2.321E+00	5.348E-01	1.504E-01	2.729E-01
RA-228	2.321E+00	5.348E-01	1.504E-01	2.729E-01
TH-228	2.334E+00	2.735E-01	6.153E-02	1.395E-01
TH-230	1.704E+00	2.509E-01	7.709E-02	1.280E-01
TH-232	2.321E+00	5.348E-01	1.504E-01	2.729E-01
TH-234	3.103E+00	2.431E+00	1.531E+00	1.240E+00
U-235	1.482E-01	2.883E-01	2.385E-01	1.471E-01
NP-237	1.827E+00	7.034E-01	2.683E-01	3.589E-01
U-238	3.103E+00	2.431E+00	1.531E+00	1.240E+00
ANH-511	2.108E-01	9.532E-02	3.156E-02	4.863E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.560E-01	4.583E-01	3.707E-01	2.338E-01	NOT IDENT.
NA-22	-3.604E-02	5.862E-02	4.702E-02	2.991E-02	NOT IDENT.
NA-24	-8.221E+07	2.475E+08	0.000E+00	1.263E+08	SHORT HLIF
SC-46	-2.399E-02	4.903E-02	3.905E-02	2.502E-02	FAIL ABUN
V-48	2.292E-02	1.111E-01	9.391E-02	5.666E-02	NOT IDENT.
CR-51	-4.801E-02	6.043E-01	4.948E-01	3.083E-01	NOT IDENT.
MN-54	-2.967E-03	5.290E-02	4.422E-02	2.699E-02	NOT IDENT.
CO-56	2.191E-02	5.708E-02	4.915E-02	2.912E-02	NOT IDENT.

CO-57	3.771E-02	3.609E-02	3.099E-02	1.841E-02	NOT IDENT.
CO-58	9.001E-03	5.303E-02	4.516E-02	2.706E-02	NOT IDENT.
FE-59	-1.566E-01	1.377E-01	1.013E-01	7.027E-02	NOT IDENT.
CO-60	-1.653E-02	5.405E-02	4.435E-02	2.757E-02	NOT IDENT.
ZN-65	-6.169E-02	1.424E-01	9.482E-02	7.265E-02	NOT IDENT.
SE-75	-5.023E-02	6.304E-02	5.170E-02	3.216E-02	NOT IDENT.
SR-85	1.349E-01	6.625E-02	5.375E-02	3.380E-02	NOT IDENT.
Y-88	1.645E-02	3.827E-02	3.425E-02	1.952E-02	NOT IDENT.
Y-91	-2.140E+01	3.356E+01	2.608E+01	1.712E+01	NOT IDENT.
NB-94	1.995E-02	4.601E-02	4.003E-02	2.348E-02	NOT IDENT.
NB-95	1.062E-01	7.368E-02	5.964E-02	3.759E-02	NOT IDENT.
NB-95M	1.086E+00	2.465E-01	2.005E-01	1.258E-01	NOT IDENT.
ZR-95	-2.481E-02	1.004E-01	8.320E-02	5.122E-02	NOT IDENT.
MO-99	-2.221E+00	5.747E+01	4.844E+01	2.932E+01	NOT IDENT.
TC-99M	-4.526E+22	5.400E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	5.669E-03	5.304E-02	4.413E-02	2.706E-02	FAIL ABUN
RH-106	-4.949E-02	4.094E-01	3.466E-01	2.089E-01	NOT IDENT.
RU-106	-4.949E-02	4.093E-01	3.466E-01	2.088E-01	NOT IDENT.
AG-108M	-4.201E-02	3.940E-02	3.042E-02	2.010E-02	NOT IDENT.
CD-109	6.270E+00	1.900E+00	1.178E+00	9.692E-01	NOT IDENT.
AG-110M	1.796E-02	4.484E-02	3.915E-02	2.288E-02	NOT IDENT.
SN-113	-3.368E-02	6.094E-02	4.929E-02	3.109E-02	NOT IDENT.
CD-115	-4.103E+01	6.751E+01	0.000E+00	3.444E+01	SHORT HLIF
SN-117M	-4.001E-03	9.877E-02	8.108E-02	5.039E-02	NOT IDENT.
TE-123M	-6.678E-03	4.086E-02	3.337E-02	2.085E-02	NOT IDENT.
SB-124	-7.132E-03	9.518E-02	7.813E-02	4.856E-02	NOT IDENT.
SB-125	8.965E-02	1.175E-01	1.021E-01	5.995E-02	FAIL ABUN
TE-125M	-5.953E+00	1.463E+01	1.201E+01	7.465E+00	NOT IDENT.
I-126	2.709E-01	3.854E-01	3.415E-01	1.966E-01	NOT IDENT.
SB-126	-2.124E-02	2.715E-01	2.045E-01	1.385E-01	NOT IDENT.
SB-127	1.590E+00	4.035E+00	3.516E+00	2.059E+00	NOT IDENT.
I-131	-1.846E-01	2.259E-01	1.799E-01	1.153E-01	NOT IDENT.
TE-132	7.252E-01	2.808E+00	2.429E+00	1.433E+00	NOT IDENT.
BA-133	3.021E-02	6.467E-02	4.861E-02	3.299E-02	FAIL ABUN
I-133	2.239E+05	3.945E+05	0.000E+00	2.013E+05	SHORT HLIF
CS-134	1.598E-01	9.185E-02	6.313E-02	4.686E-02	FAIL ABUN
CS-135	1.535E-01	2.189E-01	1.910E-01	1.117E-01	NOT IDENT.
I-135	1.550E+21	2.674E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.163E-02	1.872E-01	1.557E-01	9.552E-02	NOT IDENT.
BA-137M	-3.303E-02	4.703E-02	3.809E-02	2.400E-02	NOT IDENT.
CS-137	-3.490E-02	4.969E-02	4.024E-02	2.535E-02	NOT IDENT.
CE-139	2.796E-02	4.227E-02	3.557E-02	2.157E-02	NOT IDENT.
BA-140	2.118E-01	4.750E-01	3.980E-01	2.423E-01	NOT IDENT.
LA-140	1.100E-01	1.330E-01	1.231E-01	6.785E-02	FAIL ABUN
CE-141	4.440E-02	9.761E-02	8.185E-02	4.980E-02	NOT IDENT.
CE-143	1.644E+04	4.857E+03	0.000E+00	2.478E+03	SHORT HLIF
CE-144	-3.202E-01	2.895E-01	2.262E-01	1.477E-01	NOT IDENT.
PM-144	-2.234E-02	4.731E-02	3.887E-02	2.414E-02	NOT IDENT.
PR-144	-1.540E+00	3.543E+00	2.919E+00	1.808E+00	NOT IDENT.
PM-146	4.033E-03	5.671E-02	4.726E-02	2.893E-02	NOT IDENT.
ND-147	-9.714E-02	9.591E-01	7.831E-01	4.894E-01	FAIL ABUN
PM-149	4.753E+02	5.867E+02	0.000E+00	2.993E+02	SHORT HLIF
EU-152	1.204E-01	1.464E-01	1.077E-01	7.471E-02	NOT IDENT.
GD-153	5.381E-02	1.361E-01	1.004E-01	6.944E-02	NOT IDENT.
EU-154	-9.878E-02	1.661E-01	1.334E-01	8.473E-02	NOT IDENT.
EU-155	9.616E-02	1.499E-01	1.277E-01	7.650E-02	FAIL ABUN
TB-160	-3.870E-02	2.041E-01	1.681E-01	1.041E-01	FAIL ABUN
HO-166M	-6.192E-02	8.343E-02	6.236E-02	4.257E-02	FAIL ABUN
TA-182	-8.762E-02	2.864E-01	2.287E-01	1.461E-01	FAIL ABUN
IR-192	2.936E-02	4.875E-02	4.232E-02	2.487E-02	FAIL ABUN
HG-203	1.018E-01	6.382E-02	5.119E-02	3.256E-02	NOT IDENT.
BI-207	1.161E-03	7.204E-02	5.961E-02	3.675E-02	FAIL ABUN
PB-210	-1.765E+00	4.986E+00	4.261E+00	2.544E+00	NOT IDENT.
PB-211	-8.065E-01	1.041E+00	7.702E-01	5.313E-01	NOT IDENT.
BI-212	2.165E+00	9.359E-01	7.894E-01	4.775E-01	FAIL ABUN
RN-219	1.092E-02	5.382E-01	4.500E-01	2.746E-01	NOT IDENT.
RA-223	3.961E-01	1.005E+00	7.539E-01	5.128E-01	FAIL ABUN
AC-227	3.801E-01	3.554E-01	3.135E-01	1.813E-01	FAIL ABUN
TH-227	3.801E-01	3.562E-01	3.135E-01	1.817E-01	FAIL ABUN
TH-229	-1.636E-01	7.519E-01	6.076E-01	3.836E-01	FAIL ABUN
PA-231	-2.707E+00	2.231E+00	1.572E+00	1.138E+00	NOT IDENT.
TH-231	3.961E-01	1.005E+00	7.539E-01	5.128E-01	FAIL ABUN
PA-233	-3.476E-02	8.248E-02	6.817E-02	4.208E-02	FAIL ABUN
PA-234	2.026E-01	4.181E-01	3.597E-01	2.133E-01	NOT IDENT.
PA-234M	-4.286E+00	5.926E+00	4.635E+00	3.024E+00	NOT IDENT.
NP-239	-3.742E-01	5.599E-01	4.531E-01	2.857E-01	FAIL ABUN
AM-241	7.572E-02	2.386E-01	1.803E-01	1.217E-01	NOT IDENT.
CM-247	-2.206E-02	4.962E-02	4.035E-02	2.531E-02	FAIL ABUN

CF-249	6.348E-02	5.329E-02	4.720E-02	2.719E-02	NOT IDENT.
CF-251	-1.366E-01	1.844E-01	1.460E-01	9.409E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                    GAMMA SPECTROSCOPY BACKGROUND REPORT                   *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	420.2925
49.72	489.1980
57.36	0.0000
59.54	454.8640
63.29	518.5618
63.29	518.5618
64.28	532.3501
67.75	547.7212
69.67	576.2681
70.83	569.2237
72.81	581.5626
72.87	581.6093
72.87	581.6093
74.82	583.1412
74.82	583.1412
74.82	583.1412
74.97	583.2589
77.11	584.9150
77.11	584.9150
77.11	584.9150
79.69	475.9594
79.80	476.0260
80.12	476.2223
80.19	512.5908
80.57	512.8389
81.00	476.7588
81.07	476.8002
81.07	476.8002
83.79	546.5575
83.79	546.5575
85.43	526.5455
86.48	527.2258
86.55	527.2712
86.79	496.4962
86.94	496.5893
87.57	496.9709
88.03	497.2483
88.47	497.5126
89.96	947.7888
91.11	507.2712
92.59	508.1586
92.59	508.1586
93.35	433.1411
94.67	440.3810
94.87	440.4825
94.87	440.4825
95.86	503.5142
97.43	395.6250
98.44	366.3732
99.53	383.3480
100.11	373.4024
103.18	464.5447
103.37	432.4905
105.31	395.9918
106.12	388.0185
109.28	421.6923
111.00	398.4103
111.76	393.4952
116.30	377.4742
117.23	392.5675
121.12	340.2223
121.78	339.3886
122.06	341.5980
123.07	363.1121
131.20	363.8475
133.52	411.6943
136.00	361.2018

136.47	347.4190
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140.51	0.0000
143.76	359.4475
144.24	363.9221
144.24	363.9221
145.44	363.2292
152.43	362.1990
153.25	366.8094
154.21	339.8765
154.21	339.8765
156.02	352.4040
158.56	348.7894
159.00	350.0122
162.66	340.1126
163.33	327.1288
165.86	315.7083
176.60	348.3989
177.52	355.3125
181.07	342.0446
184.41	337.5652
185.72	324.0486
193.51	336.0670
197.04	311.9258
205.31	302.3091
210.85	301.9778
215.65	321.0432
222.11	276.1947
227.38	263.3630
228.16	264.4222
228.18	264.4257
235.69	270.0587
235.96	270.1068
235.96	270.1068
238.63	253.2581
238.63	253.2581
240.99	253.6447
242.00	235.5255
244.70	253.0062
252.40	264.8427
252.80	263.0362
256.23	237.3303
256.23	237.3303
260.90	0.0000
264.66	260.2425
268.22	251.3525
269.46	223.1715
269.46	223.1715
271.23	209.8365
273.65	342.8593
276.40	226.3061
277.37	222.3171
277.60	224.8824
278.00	224.9344
279.20	198.1456
279.54	209.2820
280.46	203.0495
283.69	257.4657
284.31	238.4796
285.41	229.0840
285.90	0.0000
287.50	202.8131
293.27	0.0000
295.22	203.1711
295.96	249.6692
298.57	250.0342
299.98	197.2975
299.98	197.2975
300.09	197.3075
300.09	197.3075
300.13	197.3125
301.36	223.1319
302.85	207.2498
304.50	201.0066
304.50	201.0066
304.85	201.0447
308.46	202.0886
311.90	186.0000

316.51	180.6348
319.41	210.0964
320.08	212.9811
323.87	194.9951
323.87	194.9951
328.76	192.2373
333.37	176.3701
334.37	174.0115
334.37	174.0115
338.28	179.7653
338.28	179.7653
338.32	179.7676
338.32	179.7676
338.32	179.7676
340.48	180.2942
340.55	177.0227
344.28	141.8871
351.06	170.0579
351.93	170.1313
356.01	166.8436
364.49	160.2414
366.42	140.4682
383.85	177.8103
388.16	135.8932
388.63	129.8818
391.69	164.3490
400.66	150.8552
401.81	152.9612
402.40	162.1211
404.85	175.4898
410.95	140.3719
414.70	148.7589
423.72	128.8962
427.09	121.9154
427.87	118.8830
433.94	153.1069
453.88	133.6879
463.37	148.7849
468.07	138.9974
473.00	111.7701
476.78	143.3282
477.60	130.8182
487.02	101.9009
492.35	0.0000
497.08	98.0893
511.00	121.9559
514.00	125.6360
527.90	0.0000
529.87	0.0000
531.02	98.3138
537.26	106.0407
546.56	0.0000
563.25	108.1396
569.33	108.3765
569.50	111.6353
569.70	111.6428
583.19	83.8634
600.60	105.4685
602.73	116.9688
604.72	118.8757
609.32	114.3010
609.32	114.3010
609.32	114.3010
610.33	114.3416
614.28	102.2267
618.01	97.0041
621.93	102.0978
621.93	102.0978
633.25	86.7901
635.95	89.6409
636.99	97.9905
645.85	85.2973
657.76	89.3535
661.66	114.6268
661.66	114.6268
664.57	0.0000
666.33	97.0662
666.50	87.7387

677.62	91.7972
685.70	80.7615
695.00	103.6017
696.49	116.8403
696.51	115.8981
697.00	111.2060
702.65	104.7919
706.68	106.8111
711.68	94.6696
720.70	91.1328
721.93	0.0000
722.78	105.8449
722.91	105.8494
723.31	91.2051
724.19	87.9704
727.33	92.2656
733.00	80.0369
735.93	100.1337
739.50	90.6938
747.24	88.9888
752.31	81.4549
753.82	84.3674
756.73	92.1152
763.94	92.3105
765.81	95.6599
766.42	95.6761
777.92	82.5463
778.90	76.4849
783.70	77.3649
785.37	75.9934
795.86	69.8687
801.95	87.4860
810.29	73.0759
810.76	74.0595
815.77	69.2839
818.51	57.6172
832.01	77.4361
834.85	99.0767
836.80	0.0000
846.77	79.7146
856.80	98.6796
860.56	67.1699
871.09	81.2259
873.19	75.3243
875.33	0.0000
879.36	82.3955
880.51	79.4401
883.24	60.6165
884.68	62.6283
889.28	63.6979
898.04	68.8315
911.20	70.3515
911.20	70.3515
911.20	70.3515
926.50	72.3486
937.49	85.6485
944.13	91.8461
946.00	69.6738
949.00	63.6627
962.29	81.6861
964.08	86.9385
966.15	97.4219
968.97	113.7363
968.97	113.7363
968.97	113.7363
983.53	58.0889
996.26	56.2230
1001.03	66.5208
1004.73	54.2886
1037.84	71.2292
1038.76	0.0000
1048.07	66.2240
1050.41	80.7549
1050.41	80.7549
1063.66	69.5763
1085.87	72.0154
1099.45	85.8438
1112.07	66.5876

1115.54	79.2467
1120.29	63.1030
1120.29	63.1030
1120.29	63.1030
1120.55	63.1079
1121.30	63.1177
1131.51	0.0000
1173.23	70.2109
1177.93	103.2914
1189.05	97.1318
1204.77	98.5212
1221.41	91.3397
1231.02	94.1344
1235.36	83.1320
1238.28	72.2453
1260.41	0.0000
1271.85	49.3178
1274.44	68.8950
1274.54	68.8950
1291.59	50.4461
1298.22	0.0000
1312.11	59.0911
1332.49	52.7324
1365.19	29.3739
1368.63	0.0000
1384.29	24.9628
1408.01	32.4762
1457.56	0.0000
1460.82	35.4426
1489.16	28.1099
1505.03	36.9371
1596.21	17.7727
1620.50	11.8966
1678.03	0.0000
1690.97	16.0458
1764.49	7.1021
1764.49	7.1021
1764.49	7.1021
1770.23	17.7710
1771.35	63.9866
1791.20	0.0000
1836.06	10.2577

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248824001

Total Uranium Activity	9.2993E+00	ug/g
Total Uranium Counting Unc.	7.2333E+00	ug/g
Total Uranium Tpu	3.6904E-06	ug/g
Total Uranium Mda	4.5575E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962631                    SAMPLE ID  : G248824001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM29            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 14:25:27.95    SAMPLE ALQT:  103.870 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.263E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.969E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 5.103E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.488E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:41:02.38

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065185.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 23-MAR-2010 14:39:21
Sample ID         : G1202065185          Sample quantity  : 1.33700E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.47  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962631                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	240.08*	51	101	4.13	479.56	473	18	7.11E-03	50.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 16:41:05

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065185.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 9-MAR-2010 00:00:00  Acquisition date : 23-MAR-2010 14:39:21
Sample ID         : G1202065185          Sample quantity  : 133.70 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA6               Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.47   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	+	240.99	*	8.401E-01	8.581E-01	6.175E-01	5.678E-02	1.360

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-5.824E-02	1.788E-01	2.882E-01	2.692E-02	-0.202
NA-22		1274.54	*	6.768E-04	2.068E-02	3.418E-02	3.003E-03	0.020
NA-24		1368.63	*	-2.933E-02	2.068E-02	Half-Life too short		
K-40		1460.82	*	-3.089E-01	2.679E-01	3.822E-01	3.603E-02	-0.808
SC-46		889.28	*	-8.074E-03	2.189E-02	3.234E-02	2.989E-03	-0.250
		1120.55		2.229E-02	2.724E-02	5.161E-02	4.370E-03	0.432
V-48		944.13		2.163E-01	4.755E-01	8.629E-01	7.939E-02	0.251
		983.53	*	4.050E-02	3.815E-02	7.560E-02	6.879E-03	0.536
		1312.11		2.680E-02	4.688E-02	8.604E-02	7.759E-03	0.311
CR-51		320.08	*	1.195E-02	2.253E-01	3.715E-01	3.576E-02	0.032
MN-54		834.85	*	-3.960E-03	2.279E-02	3.577E-02	3.224E-03	-0.111
CO-56		846.77	*	-4.125E-02	2.353E-02	2.123E-02	1.924E-03	-1.943
		1037.84		-6.422E-02	1.943E-01	3.043E-01	2.841E-02	-0.211
		1238.28		1.755E-02	4.724E-02	8.281E-02	7.282E-03	0.212
		1771.35		1.998E-02	1.767E-01	3.014E-01	2.591E-02	0.066
CO-57		122.06	*	-5.494E-03	1.440E-02	2.238E-02	1.884E-03	-0.246
		136.47		4.219E-02	1.139E-01	1.883E-01	1.691E-02	0.224
CO-58		810.76	*	-5.484E-03	2.142E-02	3.293E-02	2.937E-03	-0.167
FE-59		1099.45	*	-3.661E-02	5.618E-02	8.138E-02	7.565E-03	-0.450
		1291.59		2.229E-02	7.292E-02	1.270E-01	1.273E-02	0.175
CO-60		1173.23		7.766E-03	2.171E-02	3.859E-02	3.129E-03	0.201
		1332.49	*	-7.372E-03	2.264E-02	3.447E-02	3.153E-03	-0.214
ZN-65		1115.54	*	-4.155E-02	4.802E-02	6.426E-02	5.468E-03	-0.647
SE-75		121.12		-2.759E-02	7.457E-02	1.160E-01	1.270E-02	-0.238
		136.00		1.407E-02	2.202E-02	3.717E-02	3.117E-03	0.378
		264.66	*	1.644E-02	2.981E-02	5.168E-02	4.823E-03	0.318
		279.54		-4.146E-02	7.160E-02	1.119E-01	1.076E-02	-0.371
		400.66		6.772E-02	1.534E-01	2.614E-01	2.873E-02	0.259

Sample ID : G1202065185 Acquisition date : 23-MAR-2010 14:39:21

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SR-85		514.00	*	-6.996E-02	3.825E-02	5.444E-02	4.723E-03	-1.285
Y-88		898.04		9.272E-03	2.247E-02	3.928E-02	3.659E-03	0.236
		1836.06	*	1.022E-04	1.528E-02	2.529E-02	2.114E-03	0.004
Y-91		1204.77	*	9.722E+00	1.102E+01	2.120E+01	1.764E+00	0.458
NB-94		702.65	*	-2.175E-02	2.213E-02	3.074E-02	2.561E-03	-0.708
		871.09		2.198E-02	2.274E-02	4.241E-02	3.888E-03	0.518
NB-95		765.81	*	1.609E-02	2.271E-02	4.139E-02	3.591E-03	0.389
NB-95M		235.69	*	7.476E-02	8.494E-02	1.360E-01	1.409E-02	0.550
ZR-95		724.19		-2.943E-02	4.910E-02	7.138E-02	6.563E-03	-0.412
		756.73	*	2.257E-02	3.578E-02	6.540E-02	6.234E-03	0.345
MO-99		140.51		3.977E-01	1.073E+01	1.719E+01	4.064E+00	0.023
		181.07		1.093E+00	8.764E+00	1.498E+01	2.815E+00	0.073
		366.42		-4.548E+00	6.081E+01	9.799E+01	8.618E+00	-0.046
		739.50	*	-1.092E+00	6.568E+00	1.043E+01	1.639E+00	-0.105
		777.92		1.936E-01	1.869E+01	3.048E+01	2.664E+00	0.006
TC-99M		140.51	*	1.919E+08	1.869E+01	Half-Life too short		
RU-103		497.08	*	-1.279E-03	2.804E-02	4.410E-02	6.177E-03	-0.029
		610.33		-2.521E-01	5.544E-01	8.587E-01	1.394E-01	-0.294
RH-106		621.93	*	-4.742E-02	1.967E-01	3.142E-01	4.108E-02	-0.151
		1050.41		-4.692E-01	1.468E+00	2.287E+00	2.023E-01	-0.205
RU-106		621.93	*	-4.742E-02	1.966E-01	3.142E-01	2.620E-02	-0.151
		1050.41		-4.692E-01	1.468E+00	2.287E+00	2.023E-01	-0.205
AG-108M		433.94	*	-3.045E-03	2.008E-02	3.163E-02	2.810E-03	-0.096
		614.28		-1.153E-02	2.123E-02	3.237E-02	2.806E-03	-0.356
		722.91		-5.433E-03	1.967E-02	3.056E-02	2.668E-03	-0.178
CD-109		88.03	*	-6.473E-02	3.739E-01	5.864E-01	6.524E-02	-0.110
AG-110M		657.76	*	-1.736E-02	2.197E-02	3.172E-02	2.662E-03	-0.547
		677.62		7.156E-02	1.791E-01	3.133E-01	2.647E-02	0.228
		706.68		6.052E-06	1.262E-01	2.071E-01	1.783E-02	0.000
		763.94		3.220E-02	8.897E-02	1.541E-01	1.372E-02	0.209
		884.68		1.768E-02	3.164E-02	5.599E-02	5.309E-03	0.316
		937.49		-9.736E-03	6.106E-02	9.944E-02	9.453E-03	-0.098
		1384.29		5.458E-02	9.400E-02	1.748E-01	1.644E-02	0.312
		1505.03		7.165E-02	1.630E-01	2.967E-01	2.722E-02	0.241
SN-113		391.69	*	-6.644E-03	2.906E-02	4.569E-02	3.985E-03	-0.145
CD-115		260.90		-1.503E+01	7.479E+01	1.218E+02	1.131E+01	-0.123
		492.35		-2.332E+01	2.059E+01	2.933E+01	2.547E+00	-0.795
		527.90	*	-7.018E+00	7.236E+00	9.285E+00	8.041E-01	-0.756
SN-117M		156.02		-2.219E-01	1.217E+00	1.898E+00	1.592E-01	-0.117
		158.56	*	2.781E-02	2.929E-02	5.048E-02	4.243E-03	0.551
TE-123M		159.00	*	1.090E-02	1.564E-02	2.641E-02	2.234E-03	0.413
SB-124		602.73		9.786E-03	2.716E-02	4.691E-02	3.957E-03	0.209
		645.85		1.678E-02	3.029E-01	5.043E-01	4.396E-02	0.033
		722.78		-5.425E-02	1.965E-01	3.052E-01	2.640E-02	-0.178
		1690.97	*	-6.903E-03	4.279E-02	6.669E-02	6.136E-03	-0.104
SB-125		427.87	*	3.118E-03	6.034E-02	9.762E-02	8.544E-03	0.032
		463.37		1.158E-02	1.843E-01	2.968E-01	2.764E-02	0.039
		600.60		3.828E-02	1.226E-01	2.109E-01	1.918E-02	0.181
		635.95		8.872E-02	1.644E-01	2.928E-01	2.632E-02	0.303

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-125M		109.28	*	8.147E-01	5.684E+00	8.963E+00	9.648E-01	0.091
I-126		388.63		3.795E-02	1.039E-01	1.753E-01	1.490E-02	0.216
		666.33	*	-2.282E-02	1.460E-01	2.354E-01	1.912E-02	-0.097
		753.82		4.300E-01	9.536E-01	1.682E+00	1.449E-01	0.256
SB-126		414.70		6.788E-03	4.697E-02	7.704E-02	6.585E-03	0.088
		666.50		-8.965E-03	4.989E-02	8.019E-02	6.512E-03	-0.112
		695.00		1.771E-02	5.115E-02	8.789E-02	7.286E-03	0.202
		697.00		1.551E-01	1.859E-01	3.362E-01	2.790E-02	0.461
		720.70	*	2.865E-02	7.188E-02	1.262E-01	1.065E-02	0.227
		856.80		2.386E-02	3.141E-01	5.138E-01	4.680E-02	0.046
SN-126		64.28		-8.076E-02	2.934E-01	4.556E-01	7.053E-02	-0.177
		86.94		-1.478E-01	1.699E-01	2.320E-01	9.724E-02	-0.637
		87.57	*	-4.021E-02	3.884E-02	5.614E-02	6.218E-03	-0.716
SB-127		252.40		-1.709E-01	2.435E+00	4.021E+00	1.674E+00	-0.042
		473.00		2.286E-01	9.826E-01	1.617E+00	2.050E-01	0.141
		685.70	*	3.401E-01	6.511E-01	1.163E+00	1.272E-01	0.292
		783.70		1.350E+00	1.792E+00	3.283E+00	4.047E-01	0.411
I-131		80.19		-1.755E+00	1.903E+00	2.846E+00	2.925E-01	-0.617
		284.31		-6.809E-01	9.241E-01	1.412E+00	1.373E-01	-0.482
		364.49	*	-3.778E-03	7.608E-02	1.230E-01	1.140E-02	-0.031
		636.99		1.711E-01	9.021E-01	1.534E+00	1.344E-01	0.112
TE-132		49.72		2.943E+00	1.098E+01	1.873E+01	2.166E+00	0.157
		111.76		-1.308E+01	1.865E+01	2.697E+01	2.976E+00	-0.485
		116.30		-5.631E-02	1.384E+01	2.232E+01	2.425E+00	-0.003
		228.16	*	-1.671E-01	4.067E-01	6.558E-01	1.049E-01	-0.255
BA-133		81.00		-1.475E-02	3.801E-02	5.991E-02	9.897E-03	-0.246
		276.40		3.123E-01	2.209E-01	4.033E-01	5.866E-02	0.774
		302.85		6.041E-02	8.579E-02	1.503E-01	2.030E-02	0.402
		356.01	*	-2.918E-02	2.694E-02	3.763E-02	4.948E-03	-0.775
		383.85		4.983E-03	1.822E-01	2.960E-01	3.667E-02	0.017
I-133		529.87	*	-1.417E-03	1.822E-01	Half-Life too short		
		875.33		-3.673E-02	1.822E-01	Half-Life too short		
		1298.22		-3.587E-03	1.822E-01	Half-Life too short		
CS-134		563.25		-5.534E-02	2.538E-01	4.123E-01	3.573E-02	-0.134
		569.33		-5.352E-02	1.464E-01	2.250E-01	1.953E-02	-0.238
		604.72		-3.258E-03	2.482E-02	4.058E-02	3.428E-03	-0.080
		795.86	*	-7.150E-03	2.265E-02	3.426E-02	3.046E-03	-0.209
		801.95		5.637E-02	2.712E-01	4.184E-01	3.726E-02	0.135
		1365.19		3.672E-01	6.710E-01	1.256E+00	1.199E-01	0.292
CS-135		268.22	*	3.577E-04	9.760E-02	1.618E-01	1.708E-02	0.002
I-135		546.56		5.900E+08	9.760E-02	Half-Life too short		
		836.80		8.401E+08	9.760E-02	Half-Life too short		
		1038.76		-3.855E+08	9.760E-02	Half-Life too short		
		1131.51		7.639E+08	9.760E-02	Half-Life too short		
		1260.41	*	-2.989E+07	9.760E-02	Half-Life too short		
		1457.56		6.081E+08	9.760E-02	Half-Life too short		
		1678.03		-2.909E+08	9.760E-02	Half-Life too short		
		1791.20		1.170E+09	9.760E-02	Half-Life too short		
CS-136		153.25		5.848E-01	4.302E-01	7.660E-01	7.706E-02	0.763

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		176.60		-7.393E-02	2.755E-01	4.574E-01	4.333E-02	-0.162
		273.65		-1.649E-01	3.105E-01	4.878E-01	4.873E-02	-0.338
		340.55		5.207E-02	8.914E-02	1.538E-01	1.441E-02	0.338
		818.51		-1.035E-02	3.720E-02	5.652E-02	5.055E-03	-0.183
		1048.07	*	-4.921E-02	6.097E-02	8.429E-02	7.762E-03	-0.584
		1235.36		2.819E-02	2.828E-01	4.735E-01	5.537E-02	0.060
BA-137M		661.66	*	1.440E-04	2.340E-02	3.862E-02	3.125E-03	0.004
CS-137		661.66	*	1.521E-04	2.472E-02	4.079E-02	3.308E-03	0.004
CE-139		165.86	*	-2.763E-03	1.824E-02	2.847E-02	2.408E-03	-0.097
BA-140		162.66		-3.313E-02	4.797E-01	7.554E-01	6.817E-02	-0.044
		304.85		-4.795E-01	8.593E-01	1.314E+00	3.873E-01	-0.365
		423.72		1.718E-01	1.329E+00	2.168E+00	7.130E-01	0.079
		537.26	*	-2.771E-02	1.775E-01	2.911E-01	9.874E-02	-0.095
LA-140		328.76		-6.750E-02	1.891E-01	2.979E-01	2.865E-02	-0.227
		487.02		2.793E-02	8.272E-02	1.449E-01	1.335E-02	0.193
		815.77		-9.560E-02	1.600E-01	2.220E-01	2.198E-02	-0.431
		1596.21	*	1.018E-02	5.232E-02	9.177E-02	8.316E-03	0.111
CE-141		145.44	*	-1.530E-02	3.826E-02	5.475E-02	4.654E-03	-0.279
CE-143		57.36		-1.415E-04	3.826E-02	Half-Life too short		
		293.27	*	3.603E-05	3.826E-02	Half-Life too short		
		664.57		2.918E-04	3.826E-02	Half-Life too short		
		721.93		3.065E-04	3.826E-02	Half-Life too short		
CE-144		80.12		-9.579E-01	1.076E+00	1.616E+00	1.653E-01	-0.593
		133.52	*	5.440E-03	1.046E-01	1.684E-01	2.547E-02	0.032
PM-144		476.78		1.331E-02	3.519E-02	6.228E-02	5.866E-03	0.214
		618.01		1.316E-02	1.920E-02	3.481E-02	2.996E-03	0.378
		696.49	*	6.284E-03	2.506E-02	4.244E-02	3.523E-03	0.148
PR-144		696.51	*	4.701E-01	1.875E+00	3.175E+00	2.635E-01	0.148
		1489.16		4.202E+00	8.021E+00	1.486E+01	1.365E+00	0.283
PM-146		453.88	*	-4.800E-03	2.748E-02	4.293E-02	4.557E-03	-0.112
		633.25		-1.306E-01	8.225E-01	1.323E+00	5.045E-01	-0.099
		735.93		-8.443E-02	9.161E-02	1.196E-01	3.349E-02	-0.706
		747.24		-3.988E-02	5.604E-02	7.861E-02	1.145E-02	-0.507
ND-147		91.11		5.746E-02	1.291E-01	2.173E-01	2.439E-02	0.264
		319.41		-1.699E-01	2.038E+00	3.311E+00	3.049E-01	-0.051
		531.02	*	-1.984E-03	3.272E-01	5.475E-01	8.196E-02	-0.004
PM-149		285.90	*	-6.221E+00	5.080E+01	8.286E+01	1.320E+01	-0.075
EU-152		121.78		-1.056E-02	4.039E-02	6.344E-02	6.175E-03	-0.166
		244.70		9.850E-02	1.855E-01	2.920E-01	2.691E-02	0.337
		344.28	*	3.140E-02	6.253E-02	1.073E-01	1.021E-02	0.292
		778.90		-4.207E-02	1.502E-01	2.318E-01	2.027E-02	-0.182
		964.08		-2.138E-02	1.662E-01	2.819E-01	2.580E-02	-0.076
		1085.87		2.415E-02	2.453E-01	4.142E-01	3.591E-02	0.058
		1112.07		4.740E-02	1.470E-01	2.607E-01	2.222E-02	0.182
		1408.01		-2.457E-03	1.216E-01	1.965E-01	1.808E-02	-0.013
GD-153		69.67		7.086E-02	8.234E-01	1.368E+00	1.287E-01	0.052
		97.43	*	2.749E-02	4.047E-02	6.967E-02	6.875E-03	0.395
		103.18		-1.969E-02	5.575E-02	8.746E-02	8.190E-03	-0.225
EU-154		123.07		-1.912E-02	2.947E-02	4.453E-02	4.981E-03	-0.429

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		723.31		-5.177E-02	9.301E-02	1.366E-01	1.276E-02	-0.379
		873.19		-4.357E-02	1.779E-01	2.733E-01	3.363E-02	-0.159
		996.26		-1.934E-01	2.629E-01	3.856E-01	6.822E-02	-0.501
		1004.73		-1.888E-01	1.482E-01	1.899E-01	2.268E-02	-0.994
		1274.44	*	-2.984E-03	6.139E-02	9.930E-02	1.142E-02	-0.030
EU-155		86.55		-3.079E-02	4.742E-02	7.143E-02	7.869E-03	-0.431
		105.31	*	1.272E-02	5.196E-02	8.607E-02	8.010E-03	0.148
TB-160		86.79		-1.013E-01	1.235E-01	1.826E-01	2.004E-02	-0.555
		197.04		1.643E-01	3.870E-01	6.183E-01	5.450E-02	0.266
		215.65		-2.438E-02	4.516E-01	7.545E-01	6.793E-02	-0.032
		298.57		-6.017E-02	6.636E-02	9.835E-02	9.138E-03	-0.612
		879.36	*	-3.225E-02	8.310E-02	1.231E-01	1.133E-02	-0.262
		962.29		-7.580E-02	2.957E-01	4.922E-01	4.507E-02	-0.154
		966.15		-1.262E-02	1.172E-01	1.914E-01	1.751E-02	-0.066
		1177.93		-1.552E-02	1.437E-01	2.297E-01	1.870E-02	-0.068
		1271.85		3.905E-02	3.651E-01	6.135E-01	5.374E-02	0.064
HO-166M		80.57		-1.070E-01	1.142E-01	1.702E-01	1.748E-02	-0.629
		184.41		-2.640E-02	2.317E-02	3.549E-02	3.077E-03	-0.744
		280.46		-1.178E-03	5.389E-02	8.887E-02	8.277E-03	-0.013
		410.95		-6.140E-02	1.575E-01	2.294E-01	1.957E-02	-0.268
		711.68	*	3.110E-03	3.914E-02	6.492E-02	5.444E-03	0.048
		752.31		3.033E-02	1.471E-01	2.494E-01	2.147E-02	0.122
		810.29		-2.773E-04	3.138E-02	5.084E-02	4.524E-03	-0.005
TA-182		67.75		-4.364E-02	5.919E-02	8.779E-02	8.164E-03	-0.497
		100.11		1.953E-03	8.887E-02	1.447E-01	1.391E-02	0.014
		152.43		7.591E-02	1.837E-01	3.036E-01	2.540E-02	0.250
		222.11		-1.177E-01	2.031E-01	3.226E-01	2.923E-02	-0.365
		1121.30		8.492E-02	7.467E-02	1.480E-01	1.252E-02	0.574
		1189.05		3.482E-02	1.266E-01	2.233E-01	1.834E-02	0.156
		1221.41	*	3.787E-02	8.774E-02	1.583E-01	1.334E-02	0.239
		1231.02		-1.210E-01	2.395E-01	3.493E-01	2.966E-02	-0.347
IR-192		295.96		-1.962E-02	6.860E-02	1.025E-01	9.591E-03	-0.191
		308.46		-1.756E-02	6.531E-02	1.045E-01	9.715E-03	-0.168
		316.51	*	-9.933E-03	2.206E-02	3.440E-02	3.179E-03	-0.289
		468.07		-1.701E-02	4.206E-02	6.316E-02	5.870E-03	-0.269
HG-203		70.83		2.417E-01	6.290E-01	1.067E+00	1.764E-01	0.227
		72.87		-1.127E-01	3.675E-01	5.900E-01	9.503E-02	-0.191
		279.20	*	-2.166E-02	2.544E-02	3.862E-02	3.676E-03	-0.561
BI-207		72.81		-2.588E-02	8.566E-02	1.377E-01	1.323E-02	-0.188
		74.97		-9.019E-04	5.261E-02	8.226E-02	8.034E-03	-0.011
		569.70		-1.051E-02	2.278E-02	3.456E-02	2.959E-03	-0.304
		1063.66	*	5.400E-03	3.217E-02	5.507E-02	4.837E-03	0.098
		1770.23		-3.716E-01	5.032E-01	6.114E-01	5.258E-02	-0.608
TL-208		277.37		1.179E-01	2.492E-01	4.284E-01	5.575E-02	0.275
		583.19	*	7.678E-04	2.623E-02	4.381E-02	4.000E-03	0.018
		860.56		8.099E-03	1.892E-01	3.078E-01	2.993E-02	0.026
PB-210		46.54	*	-2.399E+00	2.618E+00	3.864E+00	3.718E-01	-0.621
BI-211		72.87		-4.561E-01	1.486E+00	2.388E+00	2.295E-01	-0.191
		351.06	*	3.037E-02	1.489E-01	2.378E-01	2.231E-02	0.128

Sample ID : G1202065185 Acquisition date : 23-MAR-2010 14:39:21

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PB-211		404.85	*	-1.737E-01	4.310E-01	6.436E-01	3.113E-01	-0.270
		427.09		1.162E-01	1.003E+00	1.634E+00	7.557E-01	0.071
		832.01		-1.101E-01	5.888E-01	9.156E-01	4.754E-01	-0.120
BI-212		727.33	*	-1.348E-01	3.011E-01	4.549E-01	5.621E-02	-0.296
		785.37		-6.601E-01	1.696E+00	2.544E+00	2.233E-01	-0.259
		1620.50		-1.936E-01	1.404E+00	2.243E+00	2.022E-01	-0.086
PB-212		74.82		-1.098E-01	1.912E-01	2.862E-01	3.943E-02	-0.384
		77.11		5.051E-02	9.410E-02	1.609E-01	1.601E-02	0.314
	+	238.63	*	7.900E-02	8.077E-02	6.912E-02	7.094E-03	1.143
		300.09		7.445E-02	4.574E-01	7.653E-01	8.487E-02	0.097
BI-214		609.32	*	-1.596E-02	5.431E-02	8.601E-02	8.534E-03	-0.186
		1120.29		1.157E-01	1.585E-01	2.968E-01	3.206E-02	0.390
		1764.49		9.559E-02	1.661E-01	3.132E-01	2.700E-02	0.305
PB-214		74.82		-1.945E-01	3.386E-01	5.073E-01	6.378E-02	-0.384
		77.11		8.904E-02	1.661E-01	2.837E-01	3.666E-02	0.314
		242.00		4.157E-02	2.139E-01	3.622E-01	3.939E-02	0.115
		295.22		8.118E-03	9.385E-02	1.461E-01	1.659E-02	0.056
		351.93	*	1.022E-02	5.505E-02	8.783E-02	9.555E-03	0.116
RN-219		271.23		-9.986E-02	1.469E-01	2.271E-01	2.461E-02	-0.440
		401.81	*	-1.260E-01	2.539E-01	3.821E-01	5.656E-02	-0.330
RA-223		81.07		-2.951E-02	8.632E-02	1.369E-01	1.413E-02	-0.216
		83.79		5.426E-02	5.561E-02	9.780E-02	1.038E-02	0.555
		94.87		-4.443E-01	2.476E-01	3.374E-01	3.424E-02	-1.317
		144.24		2.913E-02	4.071E-01	6.096E-01	5.711E-02	0.048
		154.21		-6.110E-02	2.136E-01	3.300E-01	3.044E-02	-0.185
		269.46		1.003E-01	1.084E-01	1.939E-01	1.835E-02	0.517
		323.87	*	5.661E-02	4.052E-01	6.731E-01	1.186E-01	0.084
		338.28		-1.718E-01	6.845E-01	1.024E+00	1.270E-01	-0.168
RA-226		609.32	*	-1.596E-02	5.431E-02	8.601E-02	8.534E-03	-0.186
		1120.29		1.157E-01	1.585E-01	2.968E-01	3.206E-02	0.390
		1764.49		9.559E-02	1.661E-01	3.132E-01	2.700E-02	0.305
AC-227		79.69		-5.971E-01	5.571E-01	8.093E-01	1.462E-01	-0.738
		235.96		9.941E-02	1.004E-01	1.626E-01	1.756E-02	0.612
		256.23	*	-1.136E-02	1.525E-01	2.516E-01	3.151E-02	-0.045
		299.98		-1.622E-01	5.268E-01	8.392E-01	1.105E-01	-0.193
		304.50		-4.118E-01	1.050E+00	1.655E+00	2.793E-01	-0.249
		334.37		4.537E-02	1.117E+00	1.834E+00	2.909E-01	0.025
TH-227		79.80		-7.666E-01	7.420E-01	1.072E+00	2.407E-01	-0.715
		235.96		9.941E-02	1.004E-01	1.626E-01	1.665E-02	0.612
		256.23	*	-1.136E-02	1.525E-01	2.516E-01	3.529E-02	-0.045
		299.98		-1.622E-01	5.268E-01	8.392E-01	1.105E-01	-0.193
		304.50		-4.118E-01	1.050E+00	1.655E+00	2.793E-01	-0.249
		334.37		4.537E-02	1.117E+00	1.834E+00	2.909E-01	0.025
AC-228		338.32		-4.329E-02	1.734E-01	2.581E-01	1.079E-01	-0.168
		911.20	*	1.830E-02	9.475E-02	1.572E-01	1.899E-02	0.116
		968.97		-7.063E-02	1.534E-01	2.313E-01	5.679E-02	-0.305
RA-228		338.32		-4.329E-02	1.734E-01	2.581E-01	1.079E-01	-0.168
		911.20	*	1.830E-02	9.475E-02	1.572E-01	1.899E-02	0.116
		968.97		-7.063E-02	1.534E-01	2.313E-01	5.679E-02	-0.305

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228		74.82		-1.098E-01	1.909E-01	2.862E-01	2.812E-02	-0.384
		77.11		5.051E-02	9.410E-02	1.609E-01	1.601E-02	0.314
	+	238.63	*	7.900E-02	8.077E-02	6.912E-02	7.094E-03	1.143
		300.09		7.445E-02	4.596E-01	7.653E-01	4.693E-01	0.097
TH-229		85.43		1.596E-02	9.200E-02	1.527E-01	1.650E-02	0.105
		88.47		1.417E-02	5.694E-02	9.256E-02	1.023E-02	0.153
		193.51	*	-4.037E-01	3.381E-01	4.906E-01	4.306E-02	-0.823
		210.85		1.480E-01	4.814E-01	8.289E-01	7.426E-02	0.179
TH-230		609.32	*	-1.596E-02	5.430E-02	8.601E-02	7.228E-03	-0.186
		1120.29		1.157E-01	1.583E-01	2.968E-01	2.514E-02	0.390
		1764.49		9.559E-02	1.661E-01	3.132E-01	2.700E-02	0.305
PA-231		283.69	*	-5.987E-01	9.228E-01	1.419E+00	2.129E-01	-0.422
		301.36		1.734E-01	3.410E-01	5.876E-01	7.423E-02	0.295
TH-231		81.07		-2.951E-02	8.632E-02	1.369E-01	1.413E-02	-0.216
		83.79		5.426E-02	5.561E-02	9.780E-02	1.038E-02	0.555
		94.87		-4.443E-01	2.476E-01	3.374E-01	3.424E-02	-1.317
		144.24		2.913E-02	4.071E-01	6.096E-01	5.711E-02	0.048
		154.21		-6.110E-02	2.136E-01	3.300E-01	3.044E-02	-0.185
		269.46		1.003E-01	1.084E-01	1.939E-01	1.835E-02	0.517
		323.87	*	5.661E-02	4.052E-01	6.731E-01	1.186E-01	0.084
		338.28		-1.718E-01	6.845E-01	1.024E+00	1.270E-01	-0.168
TH-232		338.32		-4.329E-02	1.725E-01	2.581E-01	2.343E-02	-0.168
		911.20	*	1.830E-02	9.475E-02	1.572E-01	1.899E-02	0.116
		968.97		-7.063E-02	1.534E-01	2.313E-01	5.679E-02	-0.305
PA-233		300.13		3.994E-02	2.280E-01	3.820E-01	5.816E-02	0.105
		311.90	*	3.413E-02	4.183E-02	7.397E-02	7.009E-03	0.461
		340.48		1.880E-01	3.968E-01	6.742E-01	1.633E-01	0.279
PA-234		94.67		-1.497E-01	9.144E-02	1.257E-01	1.700E-02	-1.191
		98.44		3.251E-02	4.782E-02	7.658E-02	4.287E-02	0.425
		111.00		8.082E-02	1.023E-01	1.752E-01	2.150E-02	0.461
		131.20		-1.984E-02	5.158E-02	7.939E-02	6.617E-03	-0.250
		569.50		-8.180E-02	2.010E-01	3.069E-01	2.628E-02	-0.267
		733.00		1.153E-01	2.241E-01	3.945E-01	8.738E-02	0.292
		880.51		4.752E-02	1.761E-01	2.981E-01	2.744E-02	0.159
		883.24		4.452E-02	1.881E-01	3.123E-01	2.102E-01	0.143
		926.50		-3.570E-02	8.723E-02	1.242E-01	3.166E-02	-0.287
		946.00	*	0.000E+00	1.558E-01	2.614E-01	4.975E-02	0.000
		949.00		-1.020E-01	2.173E-01	3.259E-01	2.994E-02	-0.313
PA-234M		766.42		7.557E-01	6.011E+00	9.998E+00	5.074E+00	0.076
		1001.03	*	8.694E-02	3.439E+00	5.819E+00	6.013E-01	0.015
TH-234		63.29	*	5.619E-02	7.825E-01	1.247E+00	2.318E-01	0.045
		92.59		-2.156E-02	3.874E-01	6.422E-01	1.467E-01	-0.034
U-235		89.96		-7.989E-01	4.803E-01	6.097E-01	1.553E-01	-1.310
		93.35		-2.714E-02	2.866E-01	4.741E-01	1.128E-01	-0.057
		143.76	*	-4.243E-02	1.232E-01	1.773E-01	2.980E-02	-0.239
		163.33		9.586E-02	2.631E-01	4.294E-01	7.671E-02	0.223
		185.72		3.683E-03	2.999E-02	5.025E-02	4.365E-03	0.073
		205.31		-1.312E-01	2.749E-01	4.427E-01	8.094E-02	-0.296
NP-237		86.48	*	-6.231E-02	1.171E-01	1.772E-01	4.190E-02	-0.352

Sample ID : G1202065185 Acquisition date : 23-MAR-2010 14:39:21

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		95.86		-1.105E+00	5.704E-01	6.633E-01	1.627E-01	-1.666
U-238		63.29	*	5.619E-02	7.825E-01	1.247E+00	2.318E-01	0.045
		92.59		-2.156E-02	3.873E-01	6.422E-01	6.698E-02	-0.034
NP-239		99.53		1.054E-03	8.328E-02	1.355E-01	1.310E-02	0.008
		103.37		-1.876E-02	5.070E-02	7.940E-02	7.424E-03	-0.236
		106.12		-6.885E-03	4.298E-02	6.862E-02	6.284E-03	-0.100
		117.23	*	-1.887E-02	2.212E-01	3.539E-01	3.039E-02	-0.053
		228.18		-8.350E-02	1.365E-01	2.165E-01	1.972E-02	-0.386
		277.60		2.298E-02	1.155E-01	1.943E-01	1.810E-02	0.118
AM-241		59.54	*	-1.988E-02	8.385E-02	1.298E-01	1.232E-02	-0.153
CM-247		278.00		-1.324E-01	4.898E-01	7.902E-01	7.359E-02	-0.168
		287.50		9.617E-01	7.709E-01	1.412E+00	1.314E-01	0.681
		402.40	*	-1.463E-02	2.327E-02	3.439E-02	2.923E-03	-0.425
CF-249		252.80		2.254E-01	5.735E-01	9.873E-01	9.137E-02	0.228
		333.37		1.100E-02	1.170E-01	1.930E-01	1.760E-02	0.057
		388.16	*	2.261E-03	2.720E-02	4.443E-02	3.778E-03	0.051
CF-251		177.52	*	4.509E-02	7.548E-02	1.333E-01	1.145E-02	0.338
		227.38		6.218E-02	2.130E-01	3.648E-01	3.321E-02	0.170
		285.41		-2.052E-01	1.419E+00	2.311E+00	2.152E-01	-0.089
ANH-511		511.00	*	-4.133E-03	3.722E-02	7.118E-02	6.177E-03	-0.058

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065185      *
* Acquisition date : 23-MAR-2010 14:39:21 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.47     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065185          Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.3370E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
RA-224	8.401E-01	8.409E-01	6.389E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-5.824E-02		1.752E-01	2.946E-01	0.000E+00	NOT IDENT.
NA-22	6.768E-04		2.027E-02	3.432E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		2.554E+05	0.000E+00	0.000E+00	SHORT HLIF
K-40	-3.089E-01		2.625E-01	3.828E-01	0.000E+00	NOT IDENT.
SC-46	-8.074E-03		2.145E-02	3.269E-02	0.000E+00	NOT IDENT.
V-48	4.050E-02		3.739E-02	7.629E-02	0.000E+00	NOT IDENT.
CR-51	1.195E-02		2.208E-01	3.824E-01	0.000E+00	NOT IDENT.
MN-54	-3.960E-03		2.234E-02	3.620E-02	0.000E+00	NOT IDENT.
CO-56	-4.125E-02		2.306E-02	2.148E-02	0.000E+00	NOT IDENT.
CO-57	-5.494E-03		1.411E-02	2.342E-02	0.000E+00	NOT IDENT.
CO-58	-5.484E-03		2.099E-02	3.334E-02	0.000E+00	NOT IDENT.
FE-59	-3.661E-02		5.506E-02	8.195E-02	0.000E+00	NOT IDENT.
CO-60	-7.372E-03		2.219E-02	3.459E-02	0.000E+00	NOT IDENT.
ZN-65	-4.155E-02		4.706E-02	6.470E-02	0.000E+00	NOT IDENT.
SE-75	1.644E-02		2.922E-02	5.338E-02	0.000E+00	NOT IDENT.
SR-85	-6.996E-02		3.748E-02	5.558E-02	0.000E+00	NOT IDENT.
Y-88	1.022E-04		1.498E-02	2.523E-02	0.000E+00	NOT IDENT.
Y-91	9.722E+00		1.080E+01	2.132E+01	0.000E+00	NOT IDENT.
NB-94	-2.175E-02		2.169E-02	3.121E-02	0.000E+00	NOT IDENT.
NB-95	1.609E-02		2.226E-02	4.195E-02	0.000E+00	NOT IDENT.
NB-95M	7.476E-02		8.324E-02	1.408E-01	0.000E+00	NOT IDENT.
ZR-95	2.257E-02		3.506E-02	6.631E-02	0.000E+00	NOT IDENT.
MO-99	-1.092E+00		6.437E+00	1.058E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00		5.075E+15	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.279E-03		2.748E-02	4.505E-02	0.000E+00	NOT IDENT.
RH-106	-4.742E-02		1.928E-01	3.197E-01	0.000E+00	NOT IDENT.

RU-106	-4.742E-02	1.927E-01	3.197E-01	0.000E+00	NOT IDENT.
AG-108M	-3.045E-03	1.968E-02	3.239E-02	0.000E+00	NOT IDENT.
CD-109	-6.473E-02	3.665E-01	6.171E-01	0.000E+00	NOT IDENT.
AG-110M	-1.736E-02	2.153E-02	3.224E-02	0.000E+00	NOT IDENT.
SN-113	-6.644E-03	2.848E-02	4.687E-02	0.000E+00	NOT IDENT.
CD-115	-7.018E+00	7.092E+00	9.475E+00	0.000E+00	NOT IDENT.
SN-117M	2.781E-02	2.870E-02	5.260E-02	0.000E+00	NOT IDENT.
TE-123M	1.090E-02	1.533E-02	2.752E-02	0.000E+00	NOT IDENT.
SB-124	-6.903E-03	4.193E-02	6.663E-02	0.000E+00	NOT IDENT.
SB-125	3.118E-03	5.913E-02	9.999E-02	0.000E+00	NOT IDENT.
TE-125M	8.147E-01	5.570E+00	9.398E+00	0.000E+00	NOT IDENT.
I-126	-2.282E-02	1.431E-01	2.392E-01	0.000E+00	NOT IDENT.
SB-126	2.865E-02	7.044E-02	1.281E-01	0.000E+00	NOT IDENT.
SN-126	-4.021E-02	3.806E-02	5.908E-02	0.000E+00	NOT IDENT.
SB-127	3.401E-01	6.380E-01	1.182E+00	0.000E+00	NOT IDENT.
I-131	-3.778E-03	7.456E-02	1.263E-01	0.000E+00	NOT IDENT.
TE-132	-1.671E-01	3.986E-01	6.791E-01	0.000E+00	NOT IDENT.
BA-133	-2.918E-02	2.640E-02	3.867E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.417E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-7.150E-03	2.219E-02	3.471E-02	0.000E+00	NOT IDENT.
CS-135	3.577E-04	9.565E-02	1.671E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.860E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.921E-02	5.975E-02	8.495E-02	0.000E+00	NOT IDENT.
BA-137M	1.440E-04	2.294E-02	3.925E-02	0.000E+00	NOT IDENT.
CS-137	1.521E-04	2.423E-02	4.146E-02	0.000E+00	NOT IDENT.
CE-139	-2.763E-03	1.788E-02	2.965E-02	0.000E+00	NOT IDENT.
BA-140	-2.771E-02	1.740E-01	2.969E-01	0.000E+00	NOT IDENT.
LA-140	1.018E-02	5.127E-02	9.179E-02	0.000E+00	NOT IDENT.
CE-141	-1.530E-02	3.749E-02	5.714E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.959E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	5.440E-03	1.026E-01	1.760E-01	0.000E+00	NOT IDENT.
PM-144	6.284E-03	2.456E-02	4.309E-02	0.000E+00	NOT IDENT.
PR-144	4.701E-01	1.838E+00	3.224E+00	0.000E+00	NOT IDENT.
PM-146	-4.800E-03	2.693E-02	4.392E-02	0.000E+00	NOT IDENT.
ND-147	-1.984E-03	3.206E-01	5.586E-01	0.000E+00	NOT IDENT.
PM-149	-6.221E+00	4.978E+01	8.547E+01	0.000E+00	NOT IDENT.
EU-152	3.140E-02	6.128E-02	1.104E-01	0.000E+00	NOT IDENT.
GD-153	2.749E-02	3.966E-02	7.320E-02	0.000E+00	NOT IDENT.
EU-154	-2.984E-03	6.016E-02	9.973E-02	0.000E+00	NOT IDENT.
EU-155	1.272E-02	5.092E-02	9.031E-02	0.000E+00	NOT IDENT.
TB-160	-3.225E-02	8.144E-02	1.245E-01	0.000E+00	NOT IDENT.
HO-166M	3.110E-03	3.835E-02	6.590E-02	0.000E+00	NOT IDENT.
TA-182	3.787E-02	8.598E-02	1.591E-01	0.000E+00	NOT IDENT.
IR-192	-9.933E-03	2.162E-02	3.543E-02	0.000E+00	NOT IDENT.
HG-203	-2.166E-02	2.493E-02	3.985E-02	0.000E+00	NOT IDENT.
BI-207	5.400E-03	3.152E-02	5.549E-02	0.000E+00	NOT IDENT.
TL-208	7.678E-04	2.571E-02	4.463E-02	0.000E+00	NOT IDENT.
PB-210	-2.399E+00	2.565E+00	4.110E+00	0.000E+00	NOT IDENT.
BI-211	3.037E-02	1.459E-01	2.444E-01	0.000E+00	NOT IDENT.
PB-211	-1.737E-01	4.224E-01	6.598E-01	0.000E+00	NOT IDENT.
BI-212	-1.348E-01	2.951E-01	4.616E-01	0.000E+00	NOT IDENT.
PB-212	0.000E+00	7.916E-02	7.152E-02	0.000E+00	FAIL ABUN
BI-214	-1.596E-02	5.322E-02	8.755E-02	0.000E+00	NOT IDENT.
PB-214	1.022E-02	5.394E-02	9.026E-02	0.000E+00	NOT IDENT.
RN-219	-1.260E-01	2.488E-01	3.918E-01	0.000E+00	NOT IDENT.
RA-223	5.661E-02	3.971E-01	6.928E-01	0.000E+00	NOT IDENT.
RA-226	-1.596E-02	5.322E-02	8.755E-02	0.000E+00	NOT IDENT.
AC-227	-1.136E-02	1.494E-01	2.600E-01	0.000E+00	NOT IDENT.
TH-227	-1.136E-02	1.494E-01	2.600E-01	0.000E+00	NOT IDENT.
AC-228	1.830E-02	9.286E-02	1.589E-01	0.000E+00	NOT IDENT.
RA-228	1.830E-02	9.286E-02	1.589E-01	0.000E+00	NOT IDENT.
TH-228	0.000E+00	7.916E-02	7.152E-02	0.000E+00	FAIL ABUN
TH-229	-4.037E-01	3.313E-01	5.095E-01	0.000E+00	NOT IDENT.
TH-230	-1.596E-02	5.322E-02	8.755E-02	0.000E+00	NOT IDENT.
PA-231	-5.987E-01	9.044E-01	1.464E+00	0.000E+00	NOT IDENT.
TH-231	5.661E-02	3.971E-01	6.928E-01	0.000E+00	NOT IDENT.
TH-232	1.830E-02	9.286E-02	1.589E-01	0.000E+00	NOT IDENT.
PA-233	3.413E-02	4.099E-02	7.618E-02	0.000E+00	NOT IDENT.
PA-234	0.000E+00	1.527E-01	2.639E-01	0.000E+00	NOT IDENT.
PA-234M	8.694E-02	3.370E+00	5.870E+00	0.000E+00	NOT IDENT.
TH-234	5.619E-02	7.669E-01	1.319E+00	0.000E+00	NOT IDENT.
U-235	-4.243E-02	1.207E-01	1.851E-01	0.000E+00	NOT IDENT.
NP-237	-6.231E-02	1.147E-01	1.865E-01	0.000E+00	NOT IDENT.
U-238	5.619E-02	7.669E-01	1.319E+00	0.000E+00	NOT IDENT.
NP-239	-1.887E-02	2.167E-01	3.706E-01	0.000E+00	NOT IDENT.
AM-241	-1.988E-02	8.218E-02	1.375E-01	0.000E+00	NOT IDENT.
CM-247	-1.463E-02	2.281E-02	3.526E-02	0.000E+00	NOT IDENT.
CF-249	2.261E-03	2.665E-02	4.558E-02	0.000E+00	NOT IDENT.

CF-251	4.509E-02	7.397E-02	1.386E-01	0.000E+00	NOT IDENT.
ANH-511	-4.133E-03	3.648E-02	7.268E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:41:03.29

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065185.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 23-MAR-2010 14:39:21
Sample ID         : G1202065185          Sample quantity  : 1.33700E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.47  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-224	240.99	51	4.10*	4.174E+00	8.401E-01	8.401E-01	102.14

Flag: "*" = Keyline

Sample ID : G1202065185 Acquisition date : 23-MAR-2010 14:39:21

Total number of lines in spectrum	1	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	1	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
RA-224	1.41E+10Y	1.00	8.401E-01	8.401E-01	8.581E-01	102.14	
		Total Activity :	8.401E-01	8.401E-01			
		Grand Total Activity :	8.401E-01	8.401E-01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065185
Acquisition date : 23-MAR-2010 14:39:21

None

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:41:07.78

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065185.CNF;1 *
* Acquisition date : 23-MAR-2010 14:39:21  Detector SN#    :               *
* Detector ID      : GAM06                 Sensitivity     : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:00.47         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 9-MAR-2010 00:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G1202065185           Analyst initials: MXR1           *
* Batch Number     : 962631                Sample Quantity : 1.33700E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04.7MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	8.401E-01	8.581E-01	6.175E-01	5.678E-02	1.360

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-5.824E-02		1.788E-01	2.882E-01	2.692E-02	-0.202
NA-22	6.768E-04		2.068E-02	3.418E-02	3.003E-03	0.020
NA-24	-2.933E-02		1.303E-01	Half-Life too short		
K-40	-3.089E-01		2.679E-01	3.822E-01	3.603E-02	-0.808
SC-46	-8.074E-03		2.189E-02	3.234E-02	2.989E-03	-0.250
V-48	4.050E-02		3.815E-02	7.560E-02	6.879E-03	0.536
CR-51	1.195E-02		2.253E-01	3.715E-01	3.576E-02	0.032
MN-54	-3.960E-03		2.279E-02	3.577E-02	3.224E-03	-0.111
CO-56	-4.125E-02		2.353E-02	2.123E-02	1.924E-03	-1.943
CO-57	-5.494E-03		1.440E-02	2.238E-02	1.884E-03	-0.246
CO-58	-5.484E-03		2.142E-02	3.293E-02	2.937E-03	-0.167

Sample ID : G1202065185 Acquisition date : 23-MAR-2010 14:39:21

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
FE-59	-3.661E-02		5.618E-02	8.138E-02	7.565E-03	-0.450
CO-60	-7.372E-03		2.264E-02	3.447E-02	3.153E-03	-0.214
ZN-65	-4.155E-02		4.802E-02	6.426E-02	5.468E-03	-0.647
SE-75	1.644E-02		2.981E-02	5.168E-02	4.823E-03	0.318
SR-85	-6.996E-02		3.825E-02	5.444E-02	4.723E-03	-1.285
Y-88	1.022E-04		1.528E-02	2.529E-02	2.114E-03	0.004
Y-91	9.722E+00		1.102E+01	2.120E+01	1.764E+00	0.458
NB-94	-2.175E-02		2.213E-02	3.074E-02	2.561E-03	-0.708
NB-95	1.609E-02		2.271E-02	4.139E-02	3.591E-03	0.389
NB-95M	7.476E-02		8.494E-02	1.360E-01	1.409E-02	0.550
ZR-95	2.257E-02		3.578E-02	6.540E-02	6.234E-03	0.345
MO-99	-1.092E+00		6.568E+00	1.043E+01	1.639E+00	-0.105
TC-99M	1.919E+08		2.589E+09	Half-Life too short		
RU-103	-1.279E-03		2.804E-02	4.410E-02	6.177E-03	-0.029
RH-106	-4.742E-02		1.967E-01	3.142E-01	4.108E-02	-0.151
RU-106	-4.742E-02		1.966E-01	3.142E-01	2.620E-02	-0.151
AG-108M	-3.045E-03		2.008E-02	3.163E-02	2.810E-03	-0.096
CD-109	-6.473E-02		3.739E-01	5.864E-01	6.524E-02	-0.110
AG-110M	-1.736E-02		2.197E-02	3.172E-02	2.662E-03	-0.547
SN-113	-6.644E-03		2.906E-02	4.569E-02	3.985E-03	-0.145
CD-115	-7.018E+00		7.236E+00	9.285E+00	8.041E-01	-0.756
SN-117M	2.781E-02		2.929E-02	5.048E-02	4.243E-03	0.551
TE-123M	1.090E-02		1.564E-02	2.641E-02	2.234E-03	0.413
SB-124	-6.903E-03		4.279E-02	6.669E-02	6.136E-03	-0.104
SB-125	3.118E-03		6.034E-02	9.762E-02	8.544E-03	0.032
TE-125M	8.147E-01		5.684E+00	8.963E+00	9.648E-01	0.091
I-126	-2.282E-02		1.460E-01	2.354E-01	1.912E-02	-0.097
SB-126	2.865E-02		7.188E-02	1.262E-01	1.065E-02	0.227
SN-126	-4.021E-02		3.884E-02	5.614E-02	6.218E-03	-0.716
SB-127	3.401E-01		6.511E-01	1.163E+00	1.272E-01	0.292
I-131	-3.778E-03		7.608E-02	1.230E-01	1.140E-02	-0.031
TE-132	-1.671E-01		4.067E-01	6.558E-01	1.049E-01	-0.255
BA-133	-2.918E-02		2.694E-02	3.763E-02	4.948E-03	-0.775
I-133	-1.417E-03		1.233E-03	Half-Life too short		
CS-134	-7.150E-03		2.265E-02	3.426E-02	3.046E-03	-0.209
CS-135	3.577E-04		9.760E-02	1.618E-01	1.708E-02	0.002
I-135	-2.989E+07		4.520E+08	Half-Life too short		
CS-136	-4.921E-02		6.097E-02	8.429E-02	7.762E-03	-0.584
BA-137M	1.440E-04		2.340E-02	3.862E-02	3.125E-03	0.004
CS-137	1.521E-04		2.472E-02	4.079E-02	3.308E-03	0.004
CE-139	-2.763E-03		1.824E-02	2.847E-02	2.408E-03	-0.097
BA-140	-2.771E-02		1.775E-01	2.911E-01	9.874E-02	-0.095
LA-140	1.018E-02		5.232E-02	9.177E-02	8.316E-03	0.111
CE-141	-1.530E-02		3.826E-02	5.475E-02	4.654E-03	-0.279
CE-143	3.603E-05		3.040E-05	Half-Life too short		
CE-144	5.440E-03		1.046E-01	1.684E-01	2.547E-02	0.032
PM-144	6.284E-03		2.506E-02	4.244E-02	3.523E-03	0.148
PR-144	4.701E-01		1.875E+00	3.175E+00	2.635E-01	0.148

Sample ID : G1202065185 Acquisition date : 23-MAR-2010 14:39:21

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	-4.800E-03		2.748E-02	4.293E-02	4.557E-03	-0.112
ND-147	-1.984E-03		3.272E-01	5.475E-01	8.196E-02	-0.004
PM-149	-6.221E+00		5.080E+01	8.286E+01	1.320E+01	-0.075
EU-152	3.140E-02		6.253E-02	1.073E-01	1.021E-02	0.292
GD-153	2.749E-02		4.047E-02	6.967E-02	6.875E-03	0.395
EU-154	-2.984E-03		6.139E-02	9.930E-02	1.142E-02	-0.030
EU-155	1.272E-02		5.196E-02	8.607E-02	8.010E-03	0.148
TB-160	-3.225E-02		8.310E-02	1.231E-01	1.133E-02	-0.262
HO-166M	3.110E-03		3.914E-02	6.492E-02	5.444E-03	0.048
TA-182	3.787E-02		8.774E-02	1.583E-01	1.334E-02	0.239
IR-192	-9.933E-03		2.206E-02	3.440E-02	3.179E-03	-0.289
HG-203	-2.166E-02		2.544E-02	3.862E-02	3.676E-03	-0.561
BI-207	5.400E-03		3.217E-02	5.507E-02	4.837E-03	0.098
TL-208	7.678E-04		2.623E-02	4.381E-02	4.000E-03	0.018
PB-210	-2.399E+00		2.618E+00	3.864E+00	3.718E-01	-0.621
BI-211	3.037E-02		1.489E-01	2.378E-01	2.231E-02	0.128
PB-211	-1.737E-01		4.310E-01	6.436E-01	3.113E-01	-0.270
BI-212	-1.348E-01		3.011E-01	4.549E-01	5.621E-02	-0.296
PB-212	7.900E-02	+	8.077E-02	6.912E-02	7.094E-03	1.143
BI-214	-1.596E-02		5.431E-02	8.601E-02	8.534E-03	-0.186
PB-214	1.022E-02		5.505E-02	8.783E-02	9.555E-03	0.116
RN-219	-1.260E-01		2.539E-01	3.821E-01	5.656E-02	-0.330
RA-223	5.661E-02		4.052E-01	6.731E-01	1.186E-01	0.084
RA-226	-1.596E-02		5.431E-02	8.601E-02	8.534E-03	-0.186
AC-227	-1.136E-02		1.525E-01	2.516E-01	3.151E-02	-0.045
TH-227	-1.136E-02		1.525E-01	2.516E-01	3.529E-02	-0.045
AC-228	1.830E-02		9.475E-02	1.572E-01	1.899E-02	0.116
RA-228	1.830E-02		9.475E-02	1.572E-01	1.899E-02	0.116
TH-228	7.900E-02	+	8.077E-02	6.912E-02	7.094E-03	1.143
TH-229	-4.037E-01		3.381E-01	4.906E-01	4.306E-02	-0.823
TH-230	-1.596E-02		5.430E-02	8.601E-02	7.228E-03	-0.186
PA-231	-5.987E-01		9.228E-01	1.419E+00	2.129E-01	-0.422
TH-231	5.661E-02		4.052E-01	6.731E-01	1.186E-01	0.084
TH-232	1.830E-02		9.475E-02	1.572E-01	1.899E-02	0.116
PA-233	3.413E-02		4.183E-02	7.397E-02	7.009E-03	0.461
PA-234	0.000E+00		1.558E-01	2.614E-01	4.975E-02	0.000
PA-234M	8.694E-02		3.439E+00	5.819E+00	6.013E-01	0.015
TH-234	5.619E-02		7.825E-01	1.247E+00	2.318E-01	0.045
U-235	-4.243E-02		1.232E-01	1.773E-01	2.980E-02	-0.239
NP-237	-6.231E-02		1.171E-01	1.772E-01	4.190E-02	-0.352
U-238	5.619E-02		7.825E-01	1.247E+00	2.318E-01	0.045
NP-239	-1.887E-02		2.212E-01	3.539E-01	3.039E-02	-0.053
AM-241	-1.988E-02		8.385E-02	1.298E-01	1.232E-02	-0.153
CM-247	-1.463E-02		2.327E-02	3.439E-02	2.923E-03	-0.425
CF-249	2.261E-03		2.720E-02	4.443E-02	3.778E-03	0.051
CF-251	4.509E-02		7.548E-02	1.333E-01	1.145E-02	0.338
ANH-511	-4.133E-03		3.722E-02	7.118E-02	6.177E-03	-0.058

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065185           *
* Acquisition date : 23-MAR-2010 14:39:21 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.47     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065185          Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.3370E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
RA-224	8.401E-01	8.409E-01	3.196E-01	4.291E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-5.824E-02	1.752E-01	1.474E-01	8.941E-02	NOT IDENT.
NA-22	6.768E-04	2.027E-02	1.717E-02	1.034E-02	NOT IDENT.
NA-24	-2.933E+04	2.554E+05	0.000E+00	1.303E+05	SHORT HLIF
K-40	-3.089E-01	2.625E-01	1.915E-01	1.339E-01	NOT IDENT.
SC-46	-8.074E-03	2.145E-02	1.636E-02	1.095E-02	NOT IDENT.
V-48	4.050E-02	3.739E-02	3.817E-02	1.908E-02	NOT IDENT.
CR-51	1.195E-02	2.208E-01	1.913E-01	1.127E-01	NOT IDENT.
MN-54	-3.960E-03	2.234E-02	1.811E-02	1.140E-02	NOT IDENT.
CO-56	-4.125E-02	2.306E-02	1.075E-02	1.177E-02	NOT IDENT.
CO-57	-5.494E-03	1.411E-02	1.172E-02	7.199E-03	NOT IDENT.
CO-58	-5.484E-03	2.099E-02	1.668E-02	1.071E-02	NOT IDENT.
FE-59	-3.661E-02	5.506E-02	4.100E-02	2.809E-02	NOT IDENT.
CO-60	-7.372E-03	2.219E-02	1.731E-02	1.132E-02	NOT IDENT.
ZN-65	-4.155E-02	4.706E-02	3.237E-02	2.401E-02	NOT IDENT.
SE-75	1.644E-02	2.922E-02	2.671E-02	1.491E-02	NOT IDENT.
SR-85	-6.996E-02	3.748E-02	2.781E-02	1.912E-02	NOT IDENT.
Y-88	1.022E-04	1.498E-02	1.262E-02	7.642E-03	NOT IDENT.
Y-91	9.722E+00	1.080E+01	1.067E+01	5.512E+00	NOT IDENT.
NB-94	-2.175E-02	2.169E-02	1.561E-02	1.107E-02	NOT IDENT.
NB-95	1.609E-02	2.226E-02	2.099E-02	1.136E-02	NOT IDENT.
NB-95M	7.476E-02	8.324E-02	7.042E-02	4.247E-02	NOT IDENT.
ZR-95	2.257E-02	3.506E-02	3.318E-02	1.789E-02	NOT IDENT.
MO-99	-1.092E+00	6.437E+00	5.293E+00	3.284E+00	NOT IDENT.
TC-99M	1.919E+14	5.075E+15	0.000E+00	2.589E+15	SHORT HLIF
RU-103	-1.279E-03	2.748E-02	2.254E-02	1.402E-02	NOT IDENT.
RH-106	-4.742E-02	1.928E-01	1.599E-01	9.835E-02	NOT IDENT.

RU-106	-4.742E-02	1.927E-01	1.599E-01	9.832E-02	NOT IDENT.
AG-108M	-3.045E-03	1.968E-02	1.620E-02	1.004E-02	NOT IDENT.
CD-109	-6.473E-02	3.665E-01	3.087E-01	1.870E-01	NOT IDENT.
AG-110M	-1.736E-02	2.153E-02	1.613E-02	1.098E-02	NOT IDENT.
SN-113	-6.644E-03	2.848E-02	2.345E-02	1.453E-02	NOT IDENT.
CD-115	-7.018E+00	7.092E+00	4.740E+00	3.618E+00	NOT IDENT.
SN-117M	2.781E-02	2.870E-02	2.632E-02	1.464E-02	NOT IDENT.
TE-123M	1.090E-02	1.533E-02	1.377E-02	7.819E-03	NOT IDENT.
SB-124	-6.903E-03	4.193E-02	3.334E-02	2.139E-02	NOT IDENT.
SB-125	3.118E-03	5.913E-02	5.002E-02	3.017E-02	NOT IDENT.
TE-125M	8.147E-01	5.570E+00	4.702E+00	2.842E+00	NOT IDENT.
I-126	-2.282E-02	1.431E-01	1.197E-01	7.299E-02	NOT IDENT.
SB-126	2.865E-02	7.044E-02	6.408E-02	3.594E-02	NOT IDENT.
SN-126	-4.021E-02	3.806E-02	2.956E-02	1.942E-02	NOT IDENT.
SB-127	3.401E-01	6.380E-01	5.912E-01	3.255E-01	NOT IDENT.
I-131	-3.778E-03	7.456E-02	6.319E-02	3.804E-02	NOT IDENT.
TE-132	-1.671E-01	3.986E-01	3.398E-01	2.034E-01	NOT IDENT.
BA-133	-2.918E-02	2.640E-02	1.934E-02	1.347E-02	NOT IDENT.
I-133	-1.417E+03	2.417E+03	0.000E+00	1.233E+03	SHORT HLIF
CS-134	-7.150E-03	2.219E-02	1.736E-02	1.132E-02	NOT IDENT.
CS-135	3.577E-04	9.565E-02	8.358E-02	4.880E-02	NOT IDENT.
I-135	-2.989E+13	8.860E+14	0.000E+00	4.520E+14	SHORT HLIF
CS-136	-4.921E-02	5.975E-02	4.250E-02	3.048E-02	NOT IDENT.
BA-137M	1.440E-04	2.294E-02	1.963E-02	1.170E-02	NOT IDENT.
CS-137	1.521E-04	2.423E-02	2.074E-02	1.236E-02	NOT IDENT.
CE-139	-2.763E-03	1.788E-02	1.483E-02	9.121E-03	NOT IDENT.
BA-140	-2.771E-02	1.740E-01	1.486E-01	8.876E-02	NOT IDENT.
LA-140	1.018E-02	5.127E-02	4.592E-02	2.616E-02	NOT IDENT.
CE-141	-1.530E-02	3.749E-02	2.858E-02	1.913E-02	NOT IDENT.
CE-143	3.603E+01	5.959E+01	0.000E+00	3.040E+01	SHORT HLIF
CE-144	5.440E-03	1.026E-01	8.806E-02	5.232E-02	NOT IDENT.
PM-144	6.284E-03	2.456E-02	2.156E-02	1.253E-02	NOT IDENT.
PR-144	4.701E-01	1.838E+00	1.613E+00	9.375E-01	NOT IDENT.
PM-146	-4.800E-03	2.693E-02	2.198E-02	1.374E-02	NOT IDENT.
ND-147	-1.984E-03	3.206E-01	2.795E-01	1.636E-01	NOT IDENT.
PM-149	-6.221E+00	4.978E+01	4.276E+01	2.540E+01	NOT IDENT.
EU-152	3.140E-02	6.128E-02	5.522E-02	3.127E-02	NOT IDENT.
GD-153	2.749E-02	3.966E-02	3.662E-02	2.024E-02	NOT IDENT.
EU-154	-2.984E-03	6.016E-02	4.990E-02	3.069E-02	NOT IDENT.
EU-155	1.272E-02	5.092E-02	4.518E-02	2.598E-02	NOT IDENT.
TB-160	-3.225E-02	8.144E-02	6.229E-02	4.155E-02	NOT IDENT.
HO-166M	3.110E-03	3.835E-02	3.297E-02	1.957E-02	NOT IDENT.
TA-182	3.787E-02	8.598E-02	7.959E-02	4.387E-02	NOT IDENT.
IR-192	-9.933E-03	2.162E-02	1.772E-02	1.103E-02	NOT IDENT.
HG-203	-2.166E-02	2.493E-02	1.994E-02	1.272E-02	NOT IDENT.
BI-207	5.400E-03	3.152E-02	2.776E-02	1.608E-02	NOT IDENT.
TL-208	7.678E-04	2.571E-02	2.233E-02	1.312E-02	NOT IDENT.
PB-210	-2.399E+00	2.565E+00	2.056E+00	1.309E+00	NOT IDENT.
BI-211	3.037E-02	1.459E-01	1.223E-01	7.444E-02	NOT IDENT.
PB-211	-1.737E-01	4.224E-01	3.301E-01	2.155E-01	NOT IDENT.
BI-212	-1.348E-01	2.951E-01	2.309E-01	1.505E-01	NOT IDENT.
PB-212	7.900E-02	7.916E-02	3.578E-02	4.039E-02	FAIL ABUN
BI-214	-1.596E-02	5.322E-02	4.380E-02	2.716E-02	NOT IDENT.
PB-214	1.022E-02	5.394E-02	4.516E-02	2.752E-02	NOT IDENT.
RN-219	-1.260E-01	2.488E-01	1.960E-01	1.269E-01	NOT IDENT.
RA-223	5.661E-02	3.971E-01	3.466E-01	2.026E-01	NOT IDENT.
RA-226	-1.596E-02	5.322E-02	4.380E-02	2.716E-02	NOT IDENT.
AC-227	-1.136E-02	1.494E-01	1.301E-01	7.625E-02	NOT IDENT.
TH-227	-1.136E-02	1.494E-01	1.301E-01	7.625E-02	NOT IDENT.
AC-228	1.830E-02	9.286E-02	7.949E-02	4.738E-02	NOT IDENT.
RA-228	1.830E-02	9.286E-02	7.949E-02	4.738E-02	NOT IDENT.
TH-228	7.900E-02	7.916E-02	3.578E-02	4.039E-02	FAIL ABUN
TH-229	-4.037E-01	3.313E-01	2.549E-01	1.690E-01	NOT IDENT.
TH-230	-1.596E-02	5.322E-02	4.380E-02	2.715E-02	NOT IDENT.
PA-231	-5.987E-01	9.044E-01	7.324E-01	4.614E-01	NOT IDENT.
TH-231	5.661E-02	3.971E-01	3.466E-01	2.026E-01	NOT IDENT.
TH-232	1.830E-02	9.286E-02	7.949E-02	4.738E-02	NOT IDENT.
PA-233	3.413E-02	4.099E-02	3.812E-02	2.091E-02	NOT IDENT.
PA-234	0.000E+00	1.527E-01	1.320E-01	0.000E+00	NOT IDENT.
PA-234M	8.694E-02	3.370E+00	2.937E+00	1.719E+00	NOT IDENT.
TH-234	5.619E-02	7.669E-01	6.601E-01	3.913E-01	NOT IDENT.
U-235	-4.243E-02	1.207E-01	9.259E-02	6.161E-02	NOT IDENT.
NP-237	-6.231E-02	1.147E-01	9.331E-02	5.854E-02	NOT IDENT.
U-238	5.619E-02	7.669E-01	6.601E-01	3.913E-01	NOT IDENT.
NP-239	-1.887E-02	2.167E-01	1.854E-01	1.106E-01	NOT IDENT.
AM-241	-1.988E-02	8.218E-02	6.880E-02	4.193E-02	NOT IDENT.
CM-247	-1.463E-02	2.281E-02	1.764E-02	1.164E-02	NOT IDENT.
CF-249	2.261E-03	2.665E-02	2.281E-02	1.360E-02	NOT IDENT.

CF-251	4.509E-02	7.397E-02	6.936E-02	3.774E-02	NOT IDENT.
ANH-511	-4.133E-03	3.648E-02	3.636E-02	1.861E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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```

ENERGY	MDA COUNTS
46.54	75.0736
49.72	67.3621
57.36	0.0000
59.54	60.5413
63.29	69.8479
63.29	69.8479
64.28	78.7704
67.75	77.4695
69.67	71.9091
70.83	70.1261
72.81	85.3251
72.87	85.3369
72.87	85.3369
74.82	93.6821
74.82	93.6821
74.82	93.6821
74.97	77.7620
77.11	71.1159
77.11	71.1159
77.11	71.1159
79.69	82.5902
79.80	82.6093
80.12	77.6251
80.19	77.6364
80.57	74.6715
81.00	62.6193
81.07	62.6285
81.07	62.6285
83.79	59.9354
83.79	59.9354
85.43	71.3480
86.48	81.7135
86.55	83.7684
86.79	83.8084
86.94	83.8339
87.57	89.0576
88.03	69.6719
88.47	66.6563
89.96	127.5332
91.11	86.5874
92.59	63.0586
92.59	63.0586
93.35	60.0447
94.67	117.2773
94.87	117.3215
94.87	117.3215
95.86	117.5405
97.43	55.2911
98.44	55.3943
99.53	69.1196
100.11	67.0960
103.18	70.6307
103.37	70.6545
105.31	60.3158
106.12	69.9387
109.28	71.3879
111.00	68.3916
111.76	83.4594
116.30	70.0771
117.23	74.5029
121.12	79.3184
121.78	75.0511
122.06	80.5254
123.07	83.9242
131.20	61.8066
133.52	64.2375
136.00	63.3619

136.47	65.6308
140.51	71.6120
140.51	0.0000
143.76	70.8212
144.24	62.9949
144.24	62.9949
145.44	70.9891
152.43	58.0251
153.25	44.4213
154.21	70.7105
154.21	70.7105
156.02	68.5956
158.56	52.7682
159.00	56.2420
162.66	78.4251
163.33	71.5670
165.86	78.7488
176.60	75.7067
177.52	67.8597
181.07	71.6926
184.41	84.4202
185.72	71.2006
193.51	89.8109
197.04	65.8260
205.31	73.7159
210.85	59.5123
215.65	71.7819
222.11	68.5631
227.38	61.4832
228.16	73.6520
228.18	78.3148
235.69	63.1266
235.96	58.6333
235.96	58.6333
238.63	65.0060
238.63	65.0060
240.99	65.1565
242.00	65.2208
244.70	37.9083
252.40	58.2365
252.80	49.6633
256.23	54.6138
256.23	54.6138
260.90	59.6623
264.66	56.9717
268.22	58.1241
269.46	43.6418
269.46	43.6418
271.23	66.0524
273.65	64.2487
276.40	39.0332
277.37	55.6702
277.60	60.5658
278.00	65.4736
279.20	71.4116
279.54	66.5401
280.46	55.8215
283.69	59.9063
284.31	62.8867
285.41	57.0451
285.90	56.0850
287.50	37.4416
293.27	0.0000
295.22	47.6052
295.96	50.6125
298.57	57.6849
299.98	52.7736
299.98	52.7736
300.09	43.8160
300.09	43.8160
300.13	43.8174
301.36	44.8592
302.85	40.9218
304.50	55.9692
304.50	55.9692
304.85	57.9850
308.46	57.1531
311.90	40.2197

316.51	50.4608
319.41	45.5191
320.08	42.5069
323.87	44.6647
323.87	44.6647
328.76	55.0250
333.37	48.0621
334.37	49.1228
334.37	49.1228
338.28	51.3222
338.28	51.3222
338.32	51.3237
338.32	51.3237
338.32	51.3237
340.48	45.2387
340.55	43.1843
344.28	39.1811
351.06	34.1979
351.93	36.2935
356.01	50.9634
364.49	44.9979
366.42	47.1561
383.85	35.0061
388.16	41.4934
388.63	34.0566
391.69	40.5269
400.66	28.9693
401.81	38.6554
402.40	39.7450
404.85	34.4297
410.95	31.3276
414.70	33.5699
423.72	39.2113
427.09	33.8381
427.87	34.9468
433.94	37.2731
453.88	33.2945
463.37	35.7173
468.07	32.4595
473.00	29.1861
476.78	20.7006
477.60	27.0135
487.02	26.2554
492.35	38.1409
497.08	28.2273
511.00	29.3652
514.00	113.0581
527.90	28.7106
529.87	0.0000
531.02	25.0482
537.26	33.5083
546.56	0.0000
563.25	35.8523
569.33	33.1244
569.50	33.1278
569.70	34.0770
583.19	23.8257
600.60	29.7981
602.73	31.7536
604.72	40.4527
609.32	27.0279
609.32	27.0279
609.32	27.0279
610.33	28.0067
614.28	28.0598
618.01	17.4476
621.93	25.2491
621.93	25.2491
633.25	20.5022
635.95	17.5953
636.99	19.5596
645.85	21.6036
657.76	28.6325
661.66	25.7156
661.66	25.7156
664.57	0.0000
666.33	28.7430
666.50	28.7458

677.62	15.9383
685.70	12.9959
695.00	24.0896
696.49	29.1271
696.51	29.1274
697.00	23.1061
702.65	32.2258
706.68	20.1758
711.68	22.2406
720.70	12.1775
721.93	0.0000
722.78	17.2669
722.91	17.2677
723.31	20.3184
724.19	20.3257
727.33	22.3878
733.00	15.3003
735.93	24.5104
739.50	19.4328
747.24	20.5205
752.31	13.3659
753.82	12.3451
756.73	9.2698
763.94	14.4618
765.81	12.4052
766.42	15.5101
777.92	16.6199
778.90	17.6657
783.70	11.4522
785.37	16.6688
795.86	13.5989
801.95	13.6310
810.29	12.6229
810.76	14.7294
815.77	13.7033
818.51	12.6624
832.01	16.9695
834.85	19.1109
836.80	0.0000
846.77	24.5279
856.80	20.3369
860.56	19.2929
871.09	11.8352
873.19	17.2277
875.33	0.0000
879.36	16.1869
880.51	14.0344
883.24	15.1286
884.68	12.9741
889.28	14.0785
898.04	9.7767
911.20	10.9131
911.20	10.9131
911.20	10.9131
926.50	10.9709
937.49	13.7653
944.13	10.1174
946.00	11.0439
949.00	11.9764
962.29	11.1045
964.08	12.0370
966.15	13.8983
968.97	14.8385
968.97	14.8385
968.97	14.8385
983.53	6.5231
996.26	26.2004
1001.03	15.9320
1004.73	27.2099
1037.84	17.0669
1038.76	0.0000
1048.07	17.1218
1050.41	14.2786
1050.41	14.2786
1063.66	13.3808
1085.87	14.4336
1099.45	18.3568
1112.07	7.7581

1115.54	16.5033
1120.29	8.7491
1120.29	8.7491
1120.29	8.7491
1120.55	8.7499
1121.30	6.8069
1131.51	0.0000
1173.23	7.8965
1177.93	6.9185
1189.05	5.9487
1204.77	6.9704
1221.41	7.0026
1231.02	14.0416
1235.36	12.0498
1238.28	12.0591
1260.41	0.0000
1271.85	8.1120
1274.44	8.1175
1274.54	7.1028
1291.59	9.1732
1298.22	0.0000
1312.11	7.1726
1332.49	6.1802
1365.19	4.1541
1368.63	0.0000
1384.29	5.2173
1408.01	9.4453
1457.56	0.0000
1460.82	8.5026
1489.16	4.2795
1505.03	4.2951
1596.21	5.6359
1620.50	5.6656
1678.03	0.0000
1690.97	3.8337
1764.49	4.8645
1764.49	4.8645
1764.49	4.8645
1770.23	6.8181
1771.35	5.8456
1791.20	0.0000
1836.06	1.9734

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065185

Total Uranium Activity	1.4754E-01	ug/g
Total Uranium Counting Unc.	2.2822E+00	ug/g
Total Uranium Tpu	1.1644E-06	ug/g
Total Uranium Mda	1.9643E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962631                    SAMPLE ID  : G1202065185      *
*   ANALYST       : MXR1                      DETECTOR   : GAM06            *
*   SAMPLE DATE   :  9-MAR-2010 00:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 14:39:21.19    SAMPLE ALQT:  133.700 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 3.444E-02
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.752E-02
        GROSS GAMMA MDA     (pCi/GRAM  )  : 2.892E-02
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.356E-02
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:41:59.59

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065186.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 14:39:49
Sample ID         : G1202065186          Sample quantity  : 1.05550E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.31  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.18*	113	345	1.37	125.28	121	9	1.57E-02	31.9	
2	3	74.90*	339	465	1.58	148.72	141	19	4.71E-02	13.1	9.41E-01
3	3	77.28*	486	396	1.27	153.49	141	19	6.75E-02	8.9	
4	0	87.26	127	418	1.59	173.44	171	7	1.76E-02	28.0	
5	0	93.33*	179	461	1.78	185.59	182	11	2.49E-02	25.9	
6	0	186.06*	170	423	1.11	371.02	365	12	2.36E-02	26.2	
7	0	209.34	81	327	1.42	417.59	413	10	1.13E-02	43.1	
8	2	238.75*	1165	198	1.31	476.41	470	18	1.62E-01	3.7	1.17E+00
9	2	241.73*	293	227	1.85	482.36	470	18	4.07E-02	14.8	
10	0	271.14	129	377	2.11	541.18	533	19	1.79E-02	37.6	
11	0	277.87	83	147	1.18	554.64	551	10	1.15E-02	29.5	
12	1	295.21*	363	174	1.46	589.32	583	23	5.04E-02	8.6	6.86E-01
13	0	338.46	247	198	1.41	675.83	670	13	3.43E-02	13.4	
14	0	352.06*	656	193	1.52	703.02	696	16	9.11E-02	6.3	
15	0	464.57	77	188	4.68	928.05	918	18	1.06E-02	43.6	
16	0	510.95*	126	131	2.21	1020.81	1013	15	1.76E-02	24.8	
17	0	583.12*	394	125	1.67	1165.15	1156	18	5.47E-02	8.6	
18	0	609.37*	426	121	1.43	1217.66	1211	14	5.92E-02	7.5	
19	0	727.54*	59	105	1.45	1454.01	1447	14	8.19E-03	39.9	
20	0	772.09	80	170	4.38	1543.12	1527	32	1.12E-02	50.7	
21	0	795.62	81	37	2.30	1590.20	1583	16	1.13E-02	21.1	
22	0	910.88*	227	55	1.48	1820.75	1814	13	3.15E-02	9.7	
23	3	964.42	51	34	1.84	1927.85	1924	20	7.02E-03	23.0	2.04E+00
24	3	968.89	147	53	2.21	1936.79	1924	20	2.04E-02	13.5	
25	0	1120.31	108	70	1.82	2239.70	2234	16	1.50E-02	20.0	
26	0	1237.58	69	52	2.13	2474.28	2467	16	9.64E-03	26.1	
27	0	1408.16	35	17	1.91	2815.54	2807	17	4.86E-03	31.8	
28	0	1460.34*	1149	15	2.07	2919.93	2910	18	1.60E-01	3.1	
29	0	1763.83	66	10	2.56	3527.15	3519	14	9.16E-03	16.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 16:42:04

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065186.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 14:39:49
Sample ID : G1202065186 Sample quantity : 105.55 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.31 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.967E+01	4.596E+00	5.856E-01	5.754E-02	67.739
CD-109	+	88.03	*	2.833E+00	1.627E+00	2.410E+00	2.992E-01	1.175
SN-126	+	64.28		2.319E+00	1.532E+00	1.706E+00	2.888E-01	1.360
	+	86.94		1.143E+00	8.025E-01	9.988E-01	4.223E-01	1.144
	+	87.57	*	2.748E-01	1.578E-01	2.381E-01	2.947E-02	1.154
HG-203		70.83		1.277E+00	3.062E+00	4.510E+00	7.993E-01	0.283
		72.87		4.967E+00	1.830E+00	2.912E+00	5.029E-01	1.706
	+	279.20	*	1.319E-01	7.917E-02	1.017E-01	1.118E-02	1.296
TL-208	+	277.37		1.207E+00	7.328E-01	7.179E-01	1.015E-01	1.682
	+	583.19	*	7.518E-01	1.464E-01	9.162E-02	8.380E-03	8.206
		860.56		9.267E-01	4.816E-01	8.791E-01	8.595E-02	1.054
BI-211		72.87		1.852E+01	6.390E+00	1.086E+01	1.244E+00	1.706
	+	351.06	*	5.748E+00	9.191E-01	4.941E-01	4.921E-02	11.634
PB-212	+	74.82		3.625E+00	1.096E+00	9.917E-01	1.494E-01	3.655
	+	77.11		2.887E+00	6.126E-01	5.531E-01	6.412E-02	5.219
	+	238.63	*	2.309E+00	3.254E-01	1.434E-01	1.714E-02	16.103
		300.09		1.564E+00	1.345E+00	2.284E+00	2.781E-01	0.685
BI-214	+	609.32	*	1.574E+00	2.825E-01	1.779E-01	1.773E-02	8.844
	+	1120.29		2.094E+00	8.693E-01	6.815E-01	7.380E-02	3.073
	+	1764.49		1.792E+00	5.980E-01	4.726E-01	4.143E-02	3.791
PB-214	+	74.82		6.425E+00	1.908E+00	1.758E+00	2.456E-01	3.655
	+	77.11		5.089E+00	1.159E+00	9.751E-01	1.387E-01	5.219
	+	242.00		3.524E+00	1.130E+00	8.719E-01	1.086E-01	4.042
	+	295.22		1.974E+00	4.183E-01	3.451E-01	4.302E-02	5.721
	+	351.93	*	2.086E+00	3.529E-01	1.797E-01	2.042E-02	11.612
RA-224	+	240.99	*	6.231E+00	1.965E+00	1.537E+00	1.695E-01	4.055
RA-226	+	609.32	*	1.574E+00	2.825E-01	1.779E-01	1.773E-02	8.844
	+	1120.29		2.094E+00	8.693E-01	6.815E-01	7.380E-02	3.073
	+	1764.49		1.792E+00	5.980E-01	4.726E-01	4.143E-02	3.791
AC-228	+	338.32		2.416E+00	1.203E+00	5.719E-01	2.401E-01	4.225
	+	911.20	*	2.093E+00	4.804E-01	3.529E-01	4.275E-02	5.930
	+	968.97		2.351E+00	8.584E-01	5.850E-01	1.437E-01	4.018
RA-228	+	338.32		2.416E+00	1.203E+00	5.719E-01	2.401E-01	4.225
	+	911.20	*	2.093E+00	4.804E-01	3.529E-01	4.275E-02	5.930

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		2.351E+00	8.584E-01	5.850E-01	1.437E-01	4.018
TH-228	+	74.82		3.625E+00	1.039E+00	9.917E-01	1.147E-01	3.655
	+	77.11		2.887E+00	6.126E-01	5.531E-01	6.412E-02	5.219
	+	238.63	*	2.309E+00	3.254E-01	1.434E-01	1.714E-02	16.103
		300.09		1.564E+00	1.643E+00	2.284E+00	1.405E+00	0.685
TH-230	+	609.32	*	1.574E+00	2.700E-01	1.779E-01	1.504E-02	8.844
	+	1120.29		2.094E+00	8.578E-01	6.815E-01	5.797E-02	3.073
	+	1764.49		1.792E+00	5.980E-01	4.726E-01	4.143E-02	3.791
TH-232	+	338.32		2.416E+00	6.881E-01	5.719E-01	5.638E-02	4.225
	+	911.20	*	2.093E+00	4.804E-01	3.529E-01	4.275E-02	5.930
	+	968.97		2.351E+00	8.584E-01	5.850E-01	1.437E-01	4.018
TH-234	+	63.29	*	6.017E+00	4.023E+00	4.609E+00	9.138E-01	1.306
	+	92.59		3.095E+00	1.761E+00	1.907E+00	4.467E-01	1.623
NP-237	+	86.48	*	8.200E-01	5.013E-01	6.470E-01	1.572E-01	1.267
		95.86		3.801E-01	1.644E+00	2.381E+00	5.961E-01	0.160
U-238	+	63.29	*	6.017E+00	4.023E+00	4.609E+00	9.138E-01	1.306
	+	92.59		3.095E+00	1.645E+00	1.907E+00	2.217E-01	1.623
ANH-511	+	511.00	*	1.859E-01	9.355E-02	7.568E-02	6.539E-03	2.457

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	8.309E-02	4.884E-01	8.061E-01	7.492E-02	0.103
NA-22		1274.54	*	-6.097E-02	7.000E-02	1.022E-01	9.285E-03	-0.597
NA-24		1368.63	*	-3.373E+02	7.000E-02	Half-Life too short		
SC-46		889.28	*	-2.742E-02	6.322E-02	1.004E-01	9.329E-03	-0.273
	+	1120.55		3.691E-01	1.512E-01	2.007E-01	1.707E-02	1.839
V-48		944.13		-1.251E+00	1.594E+00	2.417E+00	2.234E-01	-0.518
		983.53	*	7.575E-03	1.276E-01	2.107E-01	1.926E-02	0.036
		1312.11		6.446E-02	1.380E-01	2.354E-01	2.218E-02	0.274
CR-51		320.08	*	-1.772E-01	6.398E-01	1.046E+00	1.110E-01	-0.169
MN-54		834.85	*	5.296E-02	5.726E-02	1.012E-01	9.182E-03	0.523
CO-56		846.77	*	1.529E-02	6.345E-02	1.071E-01	9.774E-03	0.143
		1037.84		1.791E-03	4.974E-01	8.145E-01	7.637E-02	0.002
	+	1238.28		3.962E-01	2.101E-01	2.700E-01	2.427E-02	1.467
		1771.35		-1.161E+00	4.762E-01	4.243E-01	3.707E-02	-2.737
CO-57		122.06	*	-2.128E-03	4.042E-02	6.466E-02	6.513E-03	-0.033
		136.47		-7.430E-02	3.347E-01	5.371E-01	5.707E-02	-0.138
CO-58		810.76	*	-5.470E-02	5.987E-02	9.108E-02	8.188E-03	-0.601
FE-59		1099.45	*	-4.429E-02	1.495E-01	2.368E-01	2.209E-02	-0.187
		1291.59		1.170E-01	2.034E-01	3.482E-01	3.597E-02	0.336
CO-60		1173.23		3.052E-02	7.640E-02	1.281E-01	1.043E-02	0.238
		1332.49	*	-1.923E-02	5.880E-02	9.068E-02	8.718E-03	-0.212
ZN-65		1115.54	*	1.083E-01	1.488E-01	2.280E-01	1.949E-02	0.475
SE-75		121.12		-1.800E-02	2.107E-01	3.364E-01	4.120E-02	-0.054
		136.00		-3.404E-03	6.548E-02	1.058E-01	1.071E-02	-0.032
		264.66	*	7.829E-03	7.960E-02	1.166E-01	1.278E-02	0.067
		279.54		1.120E-01	1.914E-01	2.886E-01	3.195E-02	0.388

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.66		1.852E-03	4.002E-01	6.582E-01	7.211E-02	0.003
SR-85		514.00	*	1.665E-01	7.759E-02	1.257E-01	1.086E-02	1.324
Y-88		898.04		-8.852E-02	6.828E-02	9.903E-02	9.273E-03	-0.894
		1836.06	*	4.223E-02	5.421E-02	1.005E-01	8.463E-03	0.420
Y-91		1204.77	*	2.332E+01	4.029E+01	6.821E+01	5.750E+00	0.342
NB-94		702.65	*	2.050E-02	4.867E-02	8.382E-02	7.076E-03	0.245
		871.09		1.723E-02	5.298E-02	8.763E-02	8.082E-03	0.197
NB-95		765.81	*	6.269E-02	7.838E-02	1.213E-01	1.062E-02	0.517
NB-95M		235.69	*	6.092E-01	2.506E-01	3.964E-01	4.776E-02	1.537
ZR-95		724.19		2.475E-01	1.589E-01	2.630E-01	2.443E-02	0.941
		756.73	*	-3.315E-02	1.082E-01	1.758E-01	1.689E-02	-0.189
MO-99		140.51		-6.629E+01	1.273E+02	1.961E+02	4.770E+01	-0.338
		181.07		-2.480E+01	1.168E+02	1.612E+02	3.203E+01	-0.154
		366.42		2.439E+02	5.516E+02	9.322E+02	8.542E+01	0.262
		739.50	*	-4.363E+01	6.572E+01	1.034E+02	1.630E+01	-0.422
		777.92		-1.302E+02	2.104E+02	2.775E+02	2.447E+01	-0.469
TC-99M		140.51	*	-3.188E+16	2.104E+02	Half-Life too short		
RU-103		497.08	*	-7.209E-03	6.167E-02	9.944E-02	1.390E-02	-0.072
	+	610.33		1.774E+01	3.916E+00	4.490E+00	7.299E-01	3.951
RH-106		621.93	*	3.283E-01	4.529E-01	7.694E-01	1.009E-01	0.427
		1050.41		-2.035E+00	3.888E+00	6.027E+00	5.355E-01	-0.338
RU-106		621.93	*	3.283E-01	4.517E-01	7.694E-01	6.466E-02	0.427
		1050.41		-2.035E+00	3.888E+00	6.027E+00	5.355E-01	-0.338
AG-108M		433.94	*	3.982E-02	4.342E-02	7.518E-02	6.644E-03	0.530
		614.28		2.329E-02	6.036E-02	8.724E-02	7.609E-03	0.267
		722.91		1.347E-02	5.942E-02	8.776E-02	7.747E-03	0.153
AG-110M		657.76	*	1.586E-02	4.975E-02	8.543E-02	7.270E-03	0.186
		677.62		1.166E-01	4.307E-01	7.369E-01	6.312E-02	0.158
		706.68		-1.633E-01	3.192E-01	5.134E-01	4.475E-02	-0.318
		763.94		1.050E-01	2.558E-01	3.845E-01	3.455E-02	0.273
		884.68		1.409E-02	7.158E-02	1.204E-01	1.148E-02	0.117
		937.49		6.539E-02	1.807E-01	2.933E-01	2.801E-02	0.223
		1384.29		-1.224E-01	2.264E-01	3.515E-01	3.459E-02	-0.348
		1505.03		-7.175E-01	4.293E-01	5.233E-01	5.001E-02	-1.371
SN-113		391.69	*	1.325E-02	7.226E-02	1.202E-01	1.044E-02	0.110
CD-115		260.90		-3.255E-04	7.226E-02	Half-Life too short		
		492.35		-1.183E-04	7.226E-02	Half-Life too short		
		527.90	*	-5.711E-05	7.226E-02	Half-Life too short		
SN-117M		156.02		-1.727E+00	4.800E+00	7.621E+00	7.943E-01	-0.227
		158.56	*	1.044E-01	1.127E-01	1.876E-01	1.967E-02	0.557
TE-123M		159.00	*	4.273E-02	4.669E-02	7.771E-02	8.189E-03	0.550
SB-124		602.73		3.961E-02	7.017E-02	1.032E-01	8.748E-03	0.384
		645.85		-1.607E-01	7.188E-01	1.130E+00	9.957E-02	-0.142
		722.78		1.138E-01	6.301E-01	9.260E-01	8.100E-02	0.123
		1690.97	*	2.407E-03	1.136E-01	1.880E-01	1.771E-02	0.013
SB-125		427.87	*	6.972E-02	1.390E-01	2.349E-01	2.044E-02	0.297
	+	463.37		1.009E+00	8.853E-01	8.116E-01	7.519E-02	1.243
		600.60		1.213E-03	2.843E-01	4.457E-01	4.068E-02	0.003
		635.95		1.823E-01	3.932E-01	6.561E-01	5.948E-02	0.278

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-125M		109.28	*	-7.058E+00	1.684E+01	2.698E+01	3.208E+00	-0.262
I-126		388.63		2.919E-01	3.431E-01	5.908E-01	5.027E-02	0.494
		666.33	*	5.825E-02	4.147E-01	7.026E-01	5.794E-02	0.083
		753.82		1.347E+00	3.280E+00	5.644E+00	4.912E-01	0.239
SB-126		414.70		-8.242E-02	1.573E-01	2.496E-01	2.122E-02	-0.330
		666.50		2.025E-02	1.441E-01	2.442E-01	2.014E-02	0.083
		695.00		6.366E-02	1.487E-01	2.565E-01	2.155E-02	0.248
		697.00		-1.091E-01	5.228E-01	8.618E-01	7.250E-02	-0.127
		720.70	*	7.011E-02	3.031E-01	4.482E-01	3.826E-02	0.156
		856.80		-1.199E+00	9.825E-01	1.451E+00	1.330E-01	-0.826
SB-127		252.40		-2.170E+00	1.564E+01	2.599E+01	1.105E+01	-0.084
		473.00		1.918E+00	6.172E+00	1.001E+01	1.422E+00	0.192
		685.70	*	3.051E+00	4.783E+00	8.353E+00	1.067E+00	0.365
		783.70		1.759E+01	1.355E+01	2.260E+01	3.157E+00	0.778
I-131		80.19		-8.528E+00	1.356E+01	1.890E+01	2.236E+00	-0.451
		284.31		1.277E-01	3.830E+00	5.825E+00	6.493E-01	0.022
		364.49	*	-8.183E-02	2.800E-01	4.543E-01	4.402E-02	-0.180
		636.99		3.421E+00	3.490E+00	6.045E+00	5.375E-01	0.566
TE-132		49.72		-2.945E+01	1.962E+02	3.241E+02	5.302E+01	-0.091
		111.76		1.218E+01	1.560E+02	2.550E+02	3.484E+01	0.048
		116.30		6.570E+00	1.309E+02	2.135E+02	2.902E+01	0.031
		228.16	*	-1.053E+00	3.388E+00	5.617E+00	1.026E+00	-0.187
BA-133		81.00		-3.940E-01	1.987E-01	2.410E-01	4.216E-02	-1.635
	+	276.40		1.117E+00	6.818E-01	9.372E-01	1.459E-01	1.192
		302.85		1.423E-01	2.492E-01	3.734E-01	5.373E-02	0.381
		356.01	*	1.460E-02	7.134E-02	1.039E-01	1.405E-02	0.140
		383.85		3.146E-02	4.477E-01	7.406E-01	9.221E-02	0.042
I-133		529.87	*	2.455E-01	4.477E-01	Half-Life too short		
		875.33		-1.664E+00	4.477E-01	Half-Life too short		
		1298.22		-1.349E+01	4.477E-01	Half-Life too short		
CS-134		563.25		-1.718E-02	5.400E-01	8.710E-01	7.545E-02	-0.020
		569.33		1.413E-01	3.209E-01	5.340E-01	4.638E-02	0.265
		604.72		1.771E-02	5.818E-02	8.335E-02	7.076E-03	0.213
	+	795.86	*	2.265E-01	9.759E-02	1.294E-01	1.160E-02	1.749
		801.95		-3.912E-01	6.384E-01	8.599E-01	7.720E-02	-0.455
		1365.19		5.687E-01	1.776E+00	3.084E+00	3.080E-01	0.184
CS-135		268.22	*	2.230E-01	2.863E-01	4.347E-01	5.216E-02	0.513
I-135		546.56		-2.311E+15	2.863E-01	Half-Life too short		
		836.80		1.814E+16	2.863E-01	Half-Life too short		
		1038.76		1.299E+14	2.863E-01	Half-Life too short		
		1131.51		2.034E+15	2.863E-01	Half-Life too short		
		1260.41	*	-1.365E+15	2.863E-01	Half-Life too short		
		1457.56		4.652E+17	2.863E-01	Half-Life too short		
		1678.03		-4.987E+15	2.863E-01	Half-Life too short		
		1791.20		-2.741E+15	2.863E-01	Half-Life too short		
CS-136		153.25		1.251E+00	1.782E+00	2.944E+00	3.465E-01	0.425
		176.60		4.276E-01	1.036E+00	1.691E+00	1.942E-01	0.253
		273.65		7.281E-01	1.138E+00	1.720E+00	1.970E-01	0.423
		340.55		1.243E+00	3.906E-01	6.309E-01	6.373E-02	1.970

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		818.51		9.536E-04	1.343E-01	2.231E-01	2.011E-02	0.004
		1048.07	*	-5.844E-02	2.133E-01	3.397E-01	3.143E-02	-0.172
		1235.36		1.760E+00	1.389E+00	2.178E+00	2.578E-01	0.808
BA-137M		661.66	*	2.248E-02	5.190E-02	8.967E-02	7.372E-03	0.251
CS-137		661.66	*	2.374E-02	5.483E-02	9.473E-02	7.804E-03	0.251
CE-139		165.86	*	1.751E-03	4.993E-02	7.812E-02	8.339E-03	0.022
BA-140		162.66		-1.263E+00	1.694E+00	2.631E+00	2.912E-01	-0.480
		304.85		2.048E+00	3.061E+00	4.552E+00	1.360E+00	0.450
		423.72		2.793E-01	3.882E+00	6.394E+00	2.102E+00	0.044
		537.26	*	-2.680E-01	5.062E-01	7.719E-01	2.618E-01	-0.347
LA-140		328.76		7.906E-01	6.398E-01	1.114E+00	1.168E-01	0.710
		487.02		3.111E-01	2.658E-01	4.661E-01	4.273E-02	0.667
		815.77		4.886E-01	5.966E-01	1.057E+00	1.053E-01	0.462
		1596.21	*	-8.249E-02	1.638E-01	2.566E-01	2.406E-02	-0.321
CE-141		145.44	*	1.107E-01	1.117E-01	1.865E-01	1.928E-02	0.593
CE-143		57.36		-5.340E-03	1.117E-01	Half-Life too short		
		293.27	*	1.527E-02	1.117E-01	Half-Life too short		
		664.57		2.219E-03	1.117E-01	Half-Life too short		
		721.93		1.100E-02	1.117E-01	Half-Life too short		
CE-144		80.12		-2.298E+00	4.843E+00	6.814E+00	8.008E-01	-0.337
		133.52	*	-9.310E-02	3.404E-01	5.327E-01	8.596E-02	-0.175
PM-144		476.78		-2.400E-02	9.648E-02	1.545E-01	1.448E-02	-0.155
		618.01		-8.047E-04	5.024E-02	7.848E-02	6.803E-03	-0.010
		696.49	*	2.594E-02	5.041E-02	8.737E-02	7.353E-03	0.297
PR-144		696.51	*	1.652E+00	3.800E+00	6.551E+00	5.509E-01	0.252
		1489.16		-4.950E+00	1.841E+01	2.939E+01	2.815E+00	-0.168
PM-146		453.88	*	4.682E-03	6.290E-02	1.033E-01	1.093E-02	0.045
		633.25		5.977E-01	2.055E+00	3.364E+00	1.283E+00	0.178
		735.93		6.706E-02	2.289E-01	3.727E-01	1.044E-01	0.180
		747.24		-7.339E-02	1.451E-01	2.316E-01	3.385E-02	-0.317
ND-147		91.11		9.984E-01	1.021E+00	1.125E+00	1.393E-01	0.887
		319.41		-3.954E+00	7.055E+00	1.134E+01	1.162E+00	-0.349
		531.02	*	4.518E-01	1.108E+00	1.850E+00	2.767E-01	0.244
PM-149		285.90	*	1.051E-04	1.108E+00	Half-Life too short		
EU-152		121.78		-1.810E-02	1.147E-01	1.826E-01	2.043E-02	-0.099
		244.70		6.435E-01	5.536E-01	8.605E-01	9.485E-02	0.748
		344.28	*	-6.564E-02	1.948E-01	2.354E-01	2.396E-02	-0.279
		778.90		-2.607E-01	4.455E-01	5.921E-01	5.225E-02	-0.440
	+	964.08		8.696E-01	4.075E-01	8.583E-01	7.894E-02	1.013
		1085.87		-5.088E-02	5.637E-01	9.118E-01	7.940E-02	-0.056
		1112.07		-7.901E-02	4.960E-01	7.571E-01	6.478E-02	-0.104
	+	1408.01		5.952E-01	3.834E-01	5.545E-01	5.343E-02	1.073
GD-153		69.67		-1.458E+00	3.916E+00	5.564E+00	6.352E-01	-0.262
		97.43	*	-1.282E-01	1.540E-01	2.096E-01	2.313E-02	-0.612
		103.18		-2.973E-01	1.838E-01	2.767E-01	2.925E-02	-1.074
EU-154		123.07		8.575E-03	8.099E-02	1.321E-01	1.649E-02	0.065
		723.31		1.218E-01	2.713E-01	4.099E-01	3.865E-02	0.297
		873.19		2.209E-01	4.067E-01	7.034E-01	8.683E-02	0.314
		996.26		-7.764E-01	5.768E-01	7.978E-01	1.413E-01	-0.973

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1004.73		-7.073E-02	3.142E-01	5.040E-01	6.035E-02	-0.140
		1274.44	*	-1.998E-01	1.999E-01	2.863E-01	3.357E-02	-0.698
EU-155	+	86.55		3.339E-01	1.918E-01	3.086E-01	3.806E-02	1.082
		105.31	*	1.908E-01	1.680E-01	2.841E-01	2.993E-02	0.671
TB-160	+	86.79		9.275E-01	5.326E-01	8.475E-01	1.042E-01	1.094
		197.04		2.366E-01	9.581E-01	1.548E+00	1.688E-01	0.153
		215.65		-1.943E-01	1.269E+00	2.007E+00	2.208E-01	-0.097
		298.57		3.972E-01	1.967E-01	3.482E-01	3.684E-02	1.141
		879.36	*	-3.299E-02	2.118E-01	3.451E-01	3.194E-02	-0.096
		962.29		1.228E+00	1.014E+00	1.609E+00	1.480E-01	0.763
		966.15		1.860E+00	4.495E-01	8.489E-01	7.803E-02	2.191
		1177.93		-7.450E-02	6.450E-01	1.037E+00	8.489E-02	-0.072
		1271.85		1.161E-01	1.117E+00	1.825E+00	1.652E-01	0.064
HO-166M		80.57		-1.037E+00	5.466E-01	6.954E-01	8.193E-02	-1.491
		184.41		1.762E-01	6.956E-02	1.059E-01	1.145E-02	1.664
		280.46		1.674E-03	1.449E-01	2.104E-01	2.273E-02	0.008
		410.95		5.135E-01	3.931E-01	6.886E-01	5.845E-02	0.746
		711.68	*	3.977E-02	8.280E-02	1.435E-01	1.218E-02	0.277
		752.31		1.546E-01	3.913E-01	6.722E-01	5.845E-02	0.230
		810.29		-6.984E-02	8.594E-02	1.322E-01	1.185E-02	-0.528
TA-182		67.75		-4.623E-02	3.169E-01	3.828E-01	4.368E-02	-0.121
		100.11		2.203E-01	3.054E-01	4.764E-01	5.142E-02	0.462
		152.43		3.627E-01	5.748E-01	9.488E-01	9.812E-02	0.382
		222.11		4.740E-01	5.706E-01	9.877E-01	1.088E-01	0.480
	+	1121.30		1.011E+00	4.143E-01	5.506E-01	4.680E-02	1.837
		1189.05		9.163E-02	5.109E-01	8.422E-01	6.977E-02	0.109
		1221.41	*	2.101E-01	3.266E-01	5.568E-01	4.779E-02	0.377
		1231.02		1.702E-01	8.397E-01	1.194E+00	1.036E-01	0.143
IR-192	+	295.96		1.530E+00	3.089E-01	4.594E-01	4.900E-02	3.331
		308.46		4.483E-02	1.573E-01	2.651E-01	2.775E-02	0.169
		316.51	*	1.606E-02	5.525E-02	9.314E-02	9.603E-03	0.172
		468.07		-5.368E-02	1.303E-01	1.766E-01	1.633E-02	-0.304
BI-207		72.81		1.008E+00	3.645E-01	6.205E-01	7.106E-02	1.625
	+	74.97		1.045E+00	2.991E-01	4.280E-01	4.926E-02	2.441
		569.70		3.150E-02	5.004E-02	8.424E-02	7.216E-03	0.374
		1063.66	*	-1.919E-03	8.442E-02	1.377E-01	1.215E-02	-0.014
		1770.23		-3.209E+00	1.061E+00	8.511E-01	7.440E-02	-3.771
PB-210		46.54	*	-1.110E+01	1.511E+01	2.391E+01	2.944E+00	-0.464
PB-211		404.85	*	-1.165E+00	1.249E+00	1.715E+00	8.296E-01	-0.679
		427.09		8.501E-01	2.385E+00	3.943E+00	1.824E+00	0.216
		832.01		-1.286E+00	1.638E+00	2.302E+00	1.195E+00	-0.559
BI-212	+	727.33	*	1.718E+00	1.388E+00	1.661E+00	2.064E-01	1.034
		785.37		2.418E+00	4.710E+00	7.979E+00	7.065E-01	0.303
		1620.50		5.256E+00	3.933E+00	7.537E+00	7.015E-01	0.697
RN-219	+	271.23		1.125E+00	8.563E-01	7.128E-01	8.711E-02	1.578
		401.81	*	-4.119E-01	6.073E-01	9.502E-01	1.404E-01	-0.433
RA-223		81.07		-8.799E-01	4.345E-01	5.464E-01	6.456E-02	-1.610
		83.79		2.039E-01	2.806E-01	3.493E-01	4.199E-02	0.584
		94.87		2.603E+00	8.598E-01	1.335E+00	1.511E-01	1.949

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		144.24		-2.138E-01	1.109E+00	1.754E+00	1.937E-01	-0.122
		154.21		3.140E-01	6.238E-01	1.025E+00	1.135E-01	0.306
		269.46		6.778E-01	3.383E-01	5.390E-01	5.947E-02	1.258
		323.87	*	-9.625E-01	1.049E+00	1.635E+00	2.967E-01	-0.589
	+	338.28		9.588E+00	2.848E+00	3.583E+00	4.653E-01	2.676
AC-227		79.69		3.067E+00	2.495E+00	3.702E+00	7.027E-01	0.828
		235.96		1.225E+00	3.290E-01	5.103E-01	6.341E-02	2.400
		256.23	*	1.816E-02	3.885E-01	6.521E-01	9.024E-02	0.028
		299.98		1.757E+00	1.487E+00	2.518E+00	3.548E-01	0.698
		304.50		1.842E+00	2.772E+00	4.175E+00	7.339E-01	0.441
		334.37		-1.146E+00	3.053E+00	4.256E+00	6.961E-01	-0.269
TH-227		79.80		6.993E-01	3.226E+00	4.694E+00	1.088E+00	0.149
		235.96		1.225E+00	3.263E-01	5.103E-01	6.095E-02	2.400
		256.23	*	1.816E-02	3.885E-01	6.521E-01	9.919E-02	0.028
		299.98		1.757E+00	1.487E+00	2.518E+00	3.548E-01	0.698
		304.50		1.842E+00	2.772E+00	4.175E+00	7.339E-01	0.441
		334.37		-1.146E+00	3.053E+00	4.256E+00	6.961E-01	-0.269
TH-229		85.43		1.023E+00	4.102E-01	6.272E-01	7.630E-02	1.630
	+	88.47		4.237E-01	2.433E-01	3.876E-01	4.778E-02	1.093
		193.51	*	-2.538E-02	8.496E-01	1.357E+00	1.477E-01	-0.019
		210.85		2.511E+00	1.607E+00	2.518E+00	2.765E-01	0.997
PA-231		283.69	*	4.233E-01	2.503E+00	3.673E+00	5.857E-01	0.115
		301.36		1.222E+00	1.057E+00	1.613E+00	2.191E-01	0.758
TH-231		81.07		-8.799E-01	4.345E-01	5.464E-01	6.456E-02	-1.610
		83.79		2.039E-01	2.806E-01	3.493E-01	4.199E-02	0.584
		94.87		2.603E+00	8.598E-01	1.335E+00	1.511E-01	1.949
		144.24		-2.138E-01	1.109E+00	1.754E+00	1.937E-01	-0.122
		154.21		3.140E-01	6.238E-01	1.025E+00	1.135E-01	0.306
		269.46		6.778E-01	3.383E-01	5.390E-01	5.947E-02	1.258
		323.87	*	-9.625E-01	1.049E+00	1.635E+00	2.967E-01	-0.589
	+	338.28		9.588E+00	2.848E+00	3.583E+00	4.653E-01	2.676
PA-233		300.13		7.723E-01	6.741E-01	1.136E+00	1.822E-01	0.680
		311.90	*	2.660E-03	9.897E-02	1.647E-01	1.743E-02	0.016
		340.48		4.330E+00	1.620E+00	2.102E+00	5.154E-01	2.060
PA-234	+	94.67		8.338E-01	4.493E-01	4.987E-01	7.196E-02	1.672
		98.44		1.117E-01	1.677E-01	2.317E-01	1.302E-01	0.482
		111.00		7.648E-02	2.917E-01	4.799E-01	6.371E-02	0.159
		131.20		4.890E-02	1.762E-01	2.885E-01	2.896E-02	0.169
		569.50		2.787E-01	4.419E-01	7.441E-01	6.374E-02	0.375
		733.00		6.362E-01	6.330E-01	9.883E-01	2.193E-01	0.644
		880.51		1.039E-01	3.989E-01	6.748E-01	6.249E-02	0.154
		883.24		4.085E-01	5.011E-01	7.506E-01	5.052E-01	0.544
		926.50		-1.612E-01	2.369E-01	3.565E-01	9.095E-02	-0.452
		946.00	*	1.450E-01	4.169E-01	7.077E-01	1.349E-01	0.205
		949.00		3.621E-01	6.115E-01	1.062E+00	9.808E-02	0.341
PA-234M		766.42		2.093E+01	2.246E+01	3.136E+01	1.592E+01	0.667
		1001.03	*	2.196E+00	7.256E+00	1.215E+01	1.260E+00	0.181
U-235		89.96		6.775E-01	2.295E+00	2.422E+00	6.301E-01	0.280
	+	93.35		2.338E+00	1.339E+00	1.534E+00	3.731E-01	1.524

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		143.76	*	-7.759E-02	3.305E-01	5.216E-01	9.281E-02	-0.149
		163.33		-4.494E-01	7.129E-01	1.076E+00	2.042E-01	-0.418
	+	185.72		2.176E-01	1.164E-01	1.388E-01	1.502E-02	1.568
		205.31		-7.598E-01	9.446E-01	1.223E+00	2.368E-01	-0.621
NP-239		99.53		2.337E-01	2.886E-01	4.299E-01	4.661E-02	0.544
		103.37		-2.444E-01	1.639E-01	2.487E-01	2.626E-02	-0.983
		106.12		1.157E-01	1.348E-01	2.262E-01	2.355E-02	0.512
		117.23	*	-1.015E-01	6.155E-01	9.946E-01	1.004E-01	-0.102
		228.18		-1.099E-01	3.397E-01	5.634E-01	6.215E-02	-0.195
	+	277.60		5.519E-01	3.312E-01	4.597E-01	4.978E-02	1.200
AM-241		59.54	*	3.026E-01	3.875E-01	5.864E-01	6.883E-02	0.516
CM-247	+	278.00		2.344E+00	1.406E+00	1.978E+00	2.141E-01	1.185
		287.50		2.248E-01	1.984E+00	3.144E+00	3.371E-01	0.071
		402.40	*	-1.378E-02	5.525E-02	8.936E-02	7.557E-03	-0.154
CF-249		252.80		-4.190E-01	1.421E+00	2.346E+00	2.580E-01	-0.179
		333.37		-1.120E-01	3.299E-01	4.623E-01	4.607E-02	-0.242
		388.16	*	6.316E-02	6.235E-02	1.082E-01	9.223E-03	0.584
CF-251		177.52	*	3.845E-03	2.108E-01	3.386E-01	3.643E-02	0.011
		227.38		8.918E-02	5.590E-01	9.461E-01	1.044E-01	0.094
		285.41		-7.675E-01	3.407E+00	5.467E+00	5.875E-01	-0.140

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065186      *
* Acquisition date : 23-MAR-2010 14:39:49 Detector SN#    :                 *
* Detector ID      : GAM15                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.31     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065186          Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.0555E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.967E+01	4.504E+00	5.815E-01	0.000E+00
CD-109	2.833E+00	1.594E+00	2.429E+00	0.000E+00
SN-126	2.748E-01	1.547E-01	2.400E-01	0.000E+00
HG-203	1.319E-01	7.759E-02	1.019E-01	0.000E+00
TL-208	7.518E-01	1.435E-01	9.142E-02	0.000E+00
BI-211	5.748E+00	9.007E-01	4.943E-01	0.000E+00
PB-212	2.309E+00	3.189E-01	1.438E-01	0.000E+00
BI-214	1.574E+00	2.769E-01	1.775E-01	0.000E+00
PB-214	2.086E+00	3.458E-01	1.797E-01	0.000E+00
RA-224	6.231E+00	1.926E+00	1.540E+00	0.000E+00
RA-226	1.574E+00	2.769E-01	1.775E-01	0.000E+00
AC-228	2.093E+00	4.708E-01	3.513E-01	0.000E+00
RA-228	2.093E+00	4.708E-01	3.513E-01	0.000E+00
TH-228	2.309E+00	3.189E-01	1.438E-01	0.000E+00
TH-230	1.574E+00	2.646E-01	1.775E-01	0.000E+00
TH-232	2.093E+00	4.708E-01	3.513E-01	0.000E+00
TH-234	6.017E+00	3.942E+00	4.652E+00	0.000E+00
NP-237	8.200E-01	4.913E-01	6.520E-01	0.000E+00
U-238	6.017E+00	3.942E+00	4.652E+00	0.000E+00
ANH-511	1.859E-01	9.168E-02	7.557E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	8.309E-02	4.786E-01	8.052E-01	0.000E+00	NOT IDENT.
NA-22	-6.097E-02	6.860E-02	1.016E-01	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.710E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.742E-02	6.196E-02	9.995E-02	0.000E+00	FAIL ABUN
V-48	7.575E-03	1.250E-01	2.097E-01	0.000E+00	NOT IDENT.
CR-51	-1.772E-01	6.270E-01	1.047E+00	0.000E+00	NOT IDENT.
MN-54	5.296E-02	5.611E-02	1.008E-01	0.000E+00	NOT IDENT.

CO-56	1.529E-02	6.218E-02	1.067E-01	0.000E+00	FAIL ABUN
CO-57	-2.128E-03	3.961E-02	6.504E-02	0.000E+00	NOT IDENT.
CO-58	-5.470E-02	5.867E-02	9.072E-02	0.000E+00	NOT IDENT.
FE-59	-4.429E-02	1.465E-01	2.355E-01	0.000E+00	NOT IDENT.
CO-60	-1.923E-02	5.762E-02	9.010E-02	0.000E+00	NOT IDENT.
ZN-65	1.083E-01	1.458E-01	2.268E-01	0.000E+00	NOT IDENT.
SE-75	7.829E-03	7.800E-02	1.168E-01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	7.604E-02	1.255E-01	0.000E+00	NOT IDENT.
Y-88	4.223E-02	5.313E-02	9.967E-02	0.000E+00	NOT IDENT.
Y-91	2.332E+01	3.948E+01	6.780E+01	0.000E+00	NOT IDENT.
NB-94	2.050E-02	4.770E-02	8.355E-02	0.000E+00	NOT IDENT.
NB-95	6.269E-02	7.681E-02	1.208E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.456E-01	3.974E-01	0.000E+00	NOT IDENT.
ZR-95	-3.315E-02	1.061E-01	1.751E-01	0.000E+00	NOT IDENT.
MO-99	-4.363E+01	6.441E+01	1.031E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.070E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-7.209E-03	6.044E-02	9.931E-02	0.000E+00	FAIL ABUN
RH-106	3.283E-01	4.439E-01	7.675E-01	0.000E+00	NOT IDENT.
RU-106	3.283E-01	4.427E-01	7.675E-01	0.000E+00	NOT IDENT.
AG-108M	3.982E-02	4.255E-02	7.513E-02	0.000E+00	NOT IDENT.
AG-110M	1.586E-02	4.876E-02	8.519E-02	0.000E+00	NOT IDENT.
SN-113	1.325E-02	7.081E-02	1.202E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	7.978E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	1.044E-01	1.104E-01	1.884E-01	0.000E+00	NOT IDENT.
TE-123M	4.273E-02	4.576E-02	7.806E-02	0.000E+00	NOT IDENT.
SB-124	2.407E-03	1.113E-01	1.866E-01	0.000E+00	NOT IDENT.
SB-125	6.972E-02	1.362E-01	2.347E-01	0.000E+00	FAIL ABUN
TE-125M	-7.058E+00	1.650E+01	2.716E+01	0.000E+00	NOT IDENT.
I-126	5.825E-02	4.064E-01	7.006E-01	0.000E+00	NOT IDENT.
SB-126	7.011E-02	2.970E-01	4.467E-01	0.000E+00	NOT IDENT.
SB-127	3.051E+00	4.688E+00	8.328E+00	0.000E+00	NOT IDENT.
I-131	-8.183E-02	2.744E-01	4.544E-01	0.000E+00	NOT IDENT.
TE-132	-1.053E+00	3.320E+00	5.632E+00	0.000E+00	NOT IDENT.
BA-133	1.460E-02	6.991E-02	1.040E-01	0.000E+00	FAIL ABUN
I-133	0.000E+00	4.622E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.564E-02	1.290E-01	0.000E+00	FAIL ABUN
CS-135	2.230E-01	2.805E-01	4.355E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.116E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.844E-02	2.090E-01	3.379E-01	0.000E+00	NOT IDENT.
BA-137M	2.248E-02	5.086E-02	8.942E-02	0.000E+00	NOT IDENT.
CS-137	2.374E-02	5.373E-02	9.446E-02	0.000E+00	NOT IDENT.
CE-139	1.751E-03	4.893E-02	7.846E-02	0.000E+00	NOT IDENT.
BA-140	-2.680E-01	4.961E-01	7.706E-01	0.000E+00	NOT IDENT.
LA-140	-8.249E-02	1.605E-01	2.547E-01	0.000E+00	NOT IDENT.
CE-141	1.107E-01	1.094E-01	1.874E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.882E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-9.310E-02	3.336E-01	5.356E-01	0.000E+00	NOT IDENT.
PM-144	2.594E-02	4.940E-02	8.710E-02	0.000E+00	NOT IDENT.
PR-144	1.652E+00	3.724E+00	6.531E+00	0.000E+00	NOT IDENT.
PM-146	4.682E-03	6.164E-02	1.032E-01	0.000E+00	NOT IDENT.
ND-147	4.518E-01	1.086E+00	1.847E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	6.477E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-6.564E-02	1.909E-01	2.356E-01	0.000E+00	FAIL ABUN
GD-153	-1.282E-01	1.510E-01	2.110E-01	0.000E+00	NOT IDENT.
EU-154	-1.998E-01	1.959E-01	2.845E-01	0.000E+00	NOT IDENT.
EU-155	1.908E-01	1.647E-01	2.861E-01	0.000E+00	FAIL ABUN
TB-160	-3.299E-02	2.076E-01	3.436E-01	0.000E+00	FAIL ABUN
HO-166M	3.977E-02	8.115E-02	1.431E-01	0.000E+00	NOT IDENT.
TA-182	2.101E-01	3.201E-01	5.534E-01	0.000E+00	FAIL ABUN
IR-192	1.606E-02	5.415E-02	9.323E-02	0.000E+00	FAIL ABUN
BI-207	-1.919E-03	8.274E-02	1.370E-01	0.000E+00	FAIL ABUN
PB-210	-1.110E+01	1.481E+01	2.417E+01	0.000E+00	NOT IDENT.
PB-211	-1.165E+00	1.224E+00	1.715E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.361E+00	1.656E+00	0.000E+00	FAIL ABUN
RN-219	-4.119E-01	5.952E-01	9.500E-01	0.000E+00	FAIL ABUN
RA-223	-9.625E-01	1.028E+00	1.636E+00	0.000E+00	FAIL ABUN
AC-227	1.816E-02	3.808E-01	6.534E-01	0.000E+00	NOT IDENT.
TH-227	1.816E-02	3.808E-01	6.534E-01	0.000E+00	NOT IDENT.
TH-229	-2.538E-02	8.326E-01	1.362E+00	0.000E+00	FAIL ABUN
PA-231	4.233E-01	2.453E+00	3.679E+00	0.000E+00	NOT IDENT.
TH-231	-9.625E-01	1.028E+00	1.636E+00	0.000E+00	FAIL ABUN
PA-233	2.660E-03	9.699E-02	1.649E-01	0.000E+00	NOT IDENT.
PA-234	1.450E-01	4.085E-01	7.044E-01	0.000E+00	FAIL ABUN
PA-234M	2.196E+00	7.111E+00	1.209E+01	0.000E+00	NOT IDENT.
U-235	-7.759E-02	3.239E-01	5.243E-01	0.000E+00	FAIL ABUN
NP-239	-1.015E-01	6.032E-01	1.001E+00	0.000E+00	FAIL ABUN
AM-241	3.026E-01	3.798E-01	5.921E-01	0.000E+00	NOT IDENT.
CM-247	-1.378E-02	5.414E-02	8.934E-02	0.000E+00	FAIL ABUN

CF-249	6.316E-02	6.110E-02	1.082E-01	0.000E+00 NOT IDENT.
CF-251	3.845E-03	2.066E-01	3.400E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:42:01.87

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065186.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 14:39:49
Sample ID         : G1202065186          Sample quantity  : 1.05550E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.31  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1149	10.66*	9.664E-01	3.967E+01	3.967E+01	11.59
CD-109	88.03	127	3.70*	4.441E+00	2.748E+00	2.833E+00	57.43
SN-126	64.28	113	9.60	1.805E+00	2.319E+00	2.319E+00	66.05
	86.94	127	8.90	4.441E+00	1.143E+00	1.143E+00	70.24
	87.57	127	37.00*	4.441E+00	2.748E-01	2.748E-01	57.43
HG-203	70.83	------	3.69	2.755E+00	------	Line Not Found	------
	72.87	------	6.19	3.001E+00	------	Line Not Found	------
	279.20	83	81.56*	3.700E+00	9.770E-02	1.319E-01	60.04
TL-208	277.37	83	6.60	3.700E+00	1.207E+00	1.207E+00	60.69
	583.19	394	85.00*	2.191E+00	7.518E-01	7.518E-01	19.47
	860.56	------	12.50	1.576E+00	------	Line Not Found	------
BI-211	72.87	------	1.23	3.001E+00	------	Line Not Found	------
	351.06	656	12.92*	3.140E+00	5.748E+00	5.748E+00	15.99
PB-212	74.82	339	10.28	3.237E+00	3.625E+00	3.625E+00	30.23
	77.11	486	17.10	3.504E+00	2.887E+00	2.887E+00	21.22
	238.63	1165	43.60*	4.114E+00	2.309E+00	2.309E+00	14.09
	300.09	------	3.30	3.507E+00	------	Line Not Found	------
BI-214	609.32	426	45.49*	2.117E+00	1.574E+00	1.574E+00	17.95
	1120.29	108	14.92	1.226E+00	2.094E+00	2.094E+00	41.51
	1764.49	66	15.30	8.555E-01	1.792E+00	1.792E+00	33.38
PB-214	74.82	339	5.80	3.237E+00	6.425E+00	6.425E+00	29.71
	77.11	486	9.70	3.504E+00	5.089E+00	5.089E+00	22.77
	242.00	293	7.25	4.079E+00	3.524E+00	3.524E+00	32.07
	295.22	363	18.42	3.547E+00	1.974E+00	1.974E+00	21.19
	351.93	656	35.60*	3.140E+00	2.086E+00	2.086E+00	16.91
RA-224	240.99	293	4.10*	4.079E+00	6.231E+00	6.231E+00	31.54
RA-226	609.32	426	45.49*	2.117E+00	1.574E+00	1.574E+00	17.95
	1120.29	108	14.92	1.226E+00	2.094E+00	2.094E+00	41.51
	1764.49	66	15.30	8.555E-01	1.792E+00	1.792E+00	33.38
AC-228	338.32	247	11.27	3.227E+00	2.416E+00	2.416E+00	49.77
	911.20	227	25.80*	1.495E+00	2.093E+00	2.093E+00	22.96
	968.97	147	15.80	1.410E+00	2.351E+00	2.351E+00	36.52

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	247	11.27	3.227E+00	2.416E+00	2.416E+00	49.77
	911.20	227	25.80*	1.495E+00	2.093E+00	2.093E+00	22.96
	968.97	147	15.80	1.410E+00	2.351E+00	2.351E+00	36.52
TH-228	74.82	339	10.28	3.237E+00	3.625E+00	3.625E+00	28.65
	77.11	486	17.10	3.504E+00	2.887E+00	2.887E+00	21.22
	238.63	1165	43.60*	4.114E+00	2.309E+00	2.309E+00	14.09
	300.09	------	3.30	3.507E+00	------ Line Not Found		------
TH-230	609.32	426	45.49*	2.117E+00	1.574E+00	1.574E+00	17.16
	1120.29	108	14.92	1.226E+00	2.094E+00	2.094E+00	40.97
	1764.49	66	15.30	8.555E-01	1.792E+00	1.792E+00	33.38
TH-232	338.32	247	11.27	3.227E+00	2.416E+00	2.416E+00	28.48
	911.20	227	25.80*	1.495E+00	2.093E+00	2.093E+00	22.96
	968.97	147	15.80	1.410E+00	2.351E+00	2.351E+00	36.52
TH-234	63.29	113	3.70*	1.805E+00	6.017E+00	6.017E+00	66.85
	92.59	179	4.23	4.861E+00	3.095E+00	3.095E+00	56.89
NP-237	86.48	127	12.40*	4.441E+00	8.200E-01	8.200E-01	61.13
	95.86	------	2.68	5.004E+00	------ Line Not Found		------
U-238	63.29	113	3.70*	1.805E+00	6.017E+00	6.017E+00	66.85
	92.59	179	4.23	4.861E+00	3.095E+00	3.095E+00	53.14
ANH-511	511.00	126	100.00*	2.419E+00	1.859E-01	1.859E-01	50.32

Flag: "*" = Keyline

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

Total number of lines in spectrum 29
Number of unidentified lines 2
Number of lines tentatively identified by NID 27 93.10%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.967E+01	3.967E+01	0.460E+01	11.59	
CD-109	461.40D	1.03	2.748E+00	2.833E+00	1.627E+00	57.43	
SN-126	2.30E+05Y	1.00	2.748E-01	2.748E-01	1.578E-01	57.43	
HG-203	46.59D	1.35	9.770E-02	1.319E-01	0.792E-01	60.04	
TL-208	1.41E+10Y	1.00	7.518E-01	7.518E-01	1.464E-01	19.47	
BI-211	7.04E+08Y	1.00	5.748E+00	5.748E+00	0.919E+00	15.99	
PB-212	1.41E+10Y	1.00	2.309E+00	2.309E+00	0.325E+00	14.09	
BI-214	1600.00Y	1.00	1.574E+00	1.574E+00	0.283E+00	17.95	
PB-214	1600.00Y	1.00	2.086E+00	2.086E+00	0.353E+00	16.91	
RA-224	1.41E+10Y	1.00	6.231E+00	6.231E+00	1.965E+00	31.54	
RA-226	1600.00Y	1.00	1.574E+00	1.574E+00	0.283E+00	17.95	
AC-228	1.41E+10Y	1.00	2.093E+00	2.093E+00	0.480E+00	22.96	
RA-228	1.41E+10Y	1.00	2.093E+00	2.093E+00	0.480E+00	22.96	
TH-228	1.41E+10Y	1.00	2.309E+00	2.309E+00	0.325E+00	14.09	
TH-230	7.54E+04Y	1.00	1.574E+00	1.574E+00	0.270E+00	17.16	
TH-232	1.41E+10Y	1.00	2.093E+00	2.093E+00	0.480E+00	22.96	
TH-234	4.47E+09Y	1.00	6.017E+00	6.017E+00	4.023E+00	66.85	
NP-237	2.14E+06Y	1.00	8.200E-01	8.200E-01	5.013E-01	61.13	
U-238	4.47E+09Y	1.00	6.017E+00	6.017E+00	4.023E+00	66.85	
ANH-511	1.00E+09Y	1.00	1.859E-01	1.859E-01	0.935E-01	50.32	
	Total Activity :		8.626E+01	8.638E+01			
	Grand Total Activity :		8.626E+01	8.638E+01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	186.06	170	423	1.11	371.02	365	12	2.36E-02	52.4	4.86E+00	T
0	209.34	81	327	1.42	417.59	413	10	1.13E-02	86.2	4.50E+00	
0	271.14	129	377	2.11	541.18	533	19	1.79E-02	75.1	3.76E+00	T
0	464.57	77	188	4.68	928.05	918	18	1.06E-02	87.3	2.59E+00	T
0	727.54	59	105	1.45	1454.01	1447	14	8.19E-03	79.9	1.83E+00	T
0	772.09	80	170	4.38	1543.12	1527	32	1.12E-02	****	1.74E+00	
0	795.62	81	37	2.30	1590.20	1583	16	1.13E-02	42.1	1.69E+00	T
3	964.42	51	34	1.84	1927.85	1924	20	7.02E-03	46.0	1.42E+00	T
0	1237.58	69	52	2.13	2474.28	2467	16	9.64E-03	52.3	1.12E+00	T
0	1408.16	35	17	1.91	2815.54	2807	17	4.86E-03	63.7	9.95E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 16:42:07.83

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065186.CNF;1 *
* Acquisition date : 23-MAR-2010 14:39:49  Detector SN#    :                *
* Detector ID      : GAM15                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.31         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G1202065186           Analyst initials: MXR1           *
* Batch Number     : 962631                Sample Quantity : 1.05550E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.967E+01	4.596E+00	5.856E-01	5.754E-02	67.739
CD-109	2.833E+00	1.627E+00	2.410E+00	2.992E-01	1.175
SN-126	2.748E-01	1.578E-01	2.381E-01	2.947E-02	1.154
HG-203	1.319E-01	7.917E-02	1.017E-01	1.118E-02	1.296
TL-208	7.518E-01	1.464E-01	9.162E-02	8.380E-03	8.206
BI-211	5.748E+00	9.191E-01	4.941E-01	4.921E-02	11.634
PB-212	2.309E+00	3.254E-01	1.434E-01	1.714E-02	16.103
BI-214	1.574E+00	2.825E-01	1.779E-01	1.773E-02	8.844
PB-214	2.086E+00	3.529E-01	1.797E-01	2.042E-02	11.612
RA-224	6.231E+00	1.965E+00	1.537E+00	1.695E-01	4.055
RA-226	1.574E+00	2.825E-01	1.779E-01	1.773E-02	8.844
AC-228	2.093E+00	4.804E-01	3.529E-01	4.275E-02	5.930
RA-228	2.093E+00	4.804E-01	3.529E-01	4.275E-02	5.930
TH-228	2.309E+00	3.254E-01	1.434E-01	1.714E-02	16.103
TH-230	1.574E+00	2.700E-01	1.779E-01	1.504E-02	8.844
TH-232	2.093E+00	4.804E-01	3.529E-01	4.275E-02	5.930
TH-234	6.017E+00	4.023E+00	4.609E+00	9.138E-01	1.306
NP-237	8.200E-01	5.013E-01	6.470E-01	1.572E-01	1.267

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-238	6.017E+00	4.023E+00	4.609E+00	9.138E-01	1.306
ANH-511	1.859E-01	9.355E-02	7.568E-02	6.539E-03	2.457

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	8.309E-02		4.884E-01	8.061E-01	7.492E-02	0.103
NA-22	-6.097E-02		7.000E-02	1.022E-01	9.285E-03	-0.597
NA-24	-3.373E+02		1.383E+02	Half-Life too short		
SC-46	-2.742E-02		6.322E-02	1.004E-01	9.329E-03	-0.273
V-48	7.575E-03		1.276E-01	2.107E-01	1.926E-02	0.036
CR-51	-1.772E-01		6.398E-01	1.046E+00	1.110E-01	-0.169
MN-54	5.296E-02		5.726E-02	1.012E-01	9.182E-03	0.523
CO-56	1.529E-02		6.345E-02	1.071E-01	9.774E-03	0.143
CO-57	-2.128E-03		4.042E-02	6.466E-02	6.513E-03	-0.033
CO-58	-5.470E-02		5.987E-02	9.108E-02	8.188E-03	-0.601
FE-59	-4.429E-02		1.495E-01	2.368E-01	2.209E-02	-0.187
CO-60	-1.923E-02		5.880E-02	9.068E-02	8.718E-03	-0.212
ZN-65	1.083E-01		1.488E-01	2.280E-01	1.949E-02	0.475
SE-75	7.829E-03		7.960E-02	1.166E-01	1.278E-02	0.067
SR-85	1.665E-01		7.759E-02	1.257E-01	1.086E-02	1.324
Y-88	4.223E-02		5.421E-02	1.005E-01	8.463E-03	0.420
Y-91	2.332E+01		4.029E+01	6.821E+01	5.750E+00	0.342
NB-94	2.050E-02		4.867E-02	8.382E-02	7.076E-03	0.245
NB-95	6.269E-02		7.838E-02	1.213E-01	1.062E-02	0.517
NB-95M	6.092E-01		2.506E-01	3.964E-01	4.776E-02	1.537
ZR-95	-3.315E-02		1.082E-01	1.758E-01	1.689E-02	-0.189
MO-99	-4.363E+01		6.572E+01	1.034E+02	1.630E+01	-0.422
TC-99M	-3.188E+16		3.097E+16	Half-Life too short		
RU-103	-7.209E-03		6.167E-02	9.944E-02	1.390E-02	-0.072
RH-106	3.283E-01		4.529E-01	7.694E-01	1.009E-01	0.427
RU-106	3.283E-01		4.517E-01	7.694E-01	6.466E-02	0.427
AG-108M	3.982E-02		4.342E-02	7.518E-02	6.644E-03	0.530
AG-110M	1.586E-02		4.975E-02	8.543E-02	7.270E-03	0.186
SN-113	1.325E-02		7.226E-02	1.202E-01	1.044E-02	0.110
CD-115	-5.711E-05		4.070E-05	Half-Life too short		
SN-117M	1.044E-01		1.127E-01	1.876E-01	1.967E-02	0.557
TE-123M	4.273E-02		4.669E-02	7.771E-02	8.189E-03	0.550
SB-124	2.407E-03		1.136E-01	1.880E-01	1.771E-02	0.013
SB-125	6.972E-02		1.390E-01	2.349E-01	2.044E-02	0.297
TE-125M	-7.058E+00		1.684E+01	2.698E+01	3.208E+00	-0.262
I-126	5.825E-02		4.147E-01	7.026E-01	5.794E-02	0.083
SB-126	7.011E-02		3.031E-01	4.482E-01	3.826E-02	0.156
SB-127	3.051E+00		4.783E+00	8.353E+00	1.067E+00	0.365
I-131	-8.183E-02		2.800E-01	4.543E-01	4.402E-02	-0.180
TE-132	-1.053E+00		3.388E+00	5.617E+00	1.026E+00	-0.187
BA-133	1.460E-02		7.134E-02	1.039E-01	1.405E-02	0.140

Sample ID : G1202065186 Acquisition date : 23-MAR-2010 14:39:49

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	2.455E-01		2.358E-01	Half-Life too short		
CS-134	2.265E-01	+	9.759E-02	1.294E-01	1.160E-02	1.749
CS-135	2.230E-01		2.863E-01	4.347E-01	5.216E-02	0.513
I-135	-1.365E+15		1.590E+15	Half-Life too short		
CS-136	-5.844E-02		2.133E-01	3.397E-01	3.143E-02	-0.172
BA-137M	2.248E-02		5.190E-02	8.967E-02	7.372E-03	0.251
CS-137	2.374E-02		5.483E-02	9.473E-02	7.804E-03	0.251
CE-139	1.751E-03		4.993E-02	7.812E-02	8.339E-03	0.022
BA-140	-2.680E-01		5.062E-01	7.719E-01	2.618E-01	-0.347
LA-140	-8.249E-02		1.638E-01	2.566E-01	2.406E-02	-0.321
CE-141	1.107E-01		1.117E-01	1.865E-01	1.928E-02	0.593
CE-143	1.527E-02		2.491E-03	Half-Life too short		
CE-144	-9.310E-02		3.404E-01	5.327E-01	8.596E-02	-0.175
PM-144	2.594E-02		5.041E-02	8.737E-02	7.353E-03	0.297
PR-144	1.652E+00		3.800E+00	6.551E+00	5.509E-01	0.252
PM-146	4.682E-03		6.290E-02	1.033E-01	1.093E-02	0.045
ND-147	4.518E-01		1.108E+00	1.850E+00	2.767E-01	0.244
PM-149	1.051E-04		3.305E-04	Half-Life too short		
EU-152	-6.564E-02		1.948E-01	2.354E-01	2.396E-02	-0.279
GD-153	-1.282E-01		1.540E-01	2.096E-01	2.313E-02	-0.612
EU-154	-1.998E-01		1.999E-01	2.863E-01	3.357E-02	-0.698
EU-155	1.908E-01		1.680E-01	2.841E-01	2.993E-02	0.671
TB-160	-3.299E-02		2.118E-01	3.451E-01	3.194E-02	-0.096
HO-166M	3.977E-02		8.280E-02	1.435E-01	1.218E-02	0.277
TA-182	2.101E-01		3.266E-01	5.568E-01	4.779E-02	0.377
IR-192	1.606E-02		5.525E-02	9.314E-02	9.603E-03	0.172
BI-207	-1.919E-03		8.442E-02	1.377E-01	1.215E-02	-0.014
PB-210	-1.110E+01		1.511E+01	2.391E+01	2.944E+00	-0.464
PB-211	-1.165E+00		1.249E+00	1.715E+00	8.296E-01	-0.679
BI-212	1.718E+00	+	1.388E+00	1.661E+00	2.064E-01	1.034
RN-219	-4.119E-01		6.073E-01	9.502E-01	1.404E-01	-0.433
RA-223	-9.625E-01		1.049E+00	1.635E+00	2.967E-01	-0.589
AC-227	1.816E-02		3.885E-01	6.521E-01	9.024E-02	0.028
TH-227	1.816E-02		3.885E-01	6.521E-01	9.919E-02	0.028
TH-229	-2.538E-02		8.496E-01	1.357E+00	1.477E-01	-0.019
PA-231	4.233E-01		2.503E+00	3.673E+00	5.857E-01	0.115
TH-231	-9.625E-01		1.049E+00	1.635E+00	2.967E-01	-0.589
PA-233	2.660E-03		9.897E-02	1.647E-01	1.743E-02	0.016
PA-234	1.450E-01		4.169E-01	7.077E-01	1.349E-01	0.205
PA-234M	2.196E+00		7.256E+00	1.215E+01	1.260E+00	0.181
U-235	-7.759E-02		3.305E-01	5.216E-01	9.281E-02	-0.149
NP-239	-1.015E-01		6.155E-01	9.946E-01	1.004E-01	-0.102
AM-241	3.026E-01		3.875E-01	5.864E-01	6.883E-02	0.516
CM-247	-1.378E-02		5.525E-02	8.936E-02	7.557E-03	-0.154
CF-249	6.316E-02		6.235E-02	1.082E-01	9.223E-03	0.584
CF-251	3.845E-03		2.108E-01	3.386E-01	3.643E-02	0.011

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065186           *
* Acquisition date : 23-MAR-2010 14:39:49 Detector SN#    :                 *
* Detector ID      : GAM15                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.31     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065186          Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.0555E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.967E+01	4.504E+00	2.909E-01	2.298E+00
CD-109	2.833E+00	1.594E+00	1.215E+00	8.134E-01
SN-126	2.748E-01	1.547E-01	1.201E-01	7.891E-02
HG-203	1.319E-01	7.759E-02	5.099E-02	3.959E-02
TL-208	7.518E-01	1.435E-01	4.574E-02	7.319E-02
BI-211	5.748E+00	9.007E-01	2.473E-01	4.596E-01
PB-212	2.309E+00	3.189E-01	7.193E-02	1.627E-01
BI-214	1.574E+00	2.769E-01	8.881E-02	1.413E-01
PB-214	2.086E+00	3.458E-01	8.993E-02	1.764E-01
RA-224	6.231E+00	1.926E+00	7.707E-01	9.826E-01
RA-226	1.574E+00	2.769E-01	8.881E-02	1.413E-01
AC-228	2.093E+00	4.708E-01	1.758E-01	2.402E-01
RA-228	2.093E+00	4.708E-01	1.758E-01	2.402E-01
TH-228	2.309E+00	3.189E-01	7.193E-02	1.627E-01
TH-230	1.574E+00	2.646E-01	8.881E-02	1.350E-01
TH-232	2.093E+00	4.708E-01	1.758E-01	2.402E-01
TH-234	6.017E+00	3.942E+00	2.327E+00	2.011E+00
NP-237	8.200E-01	4.913E-01	3.262E-01	2.507E-01
U-238	6.017E+00	3.942E+00	2.327E+00	2.011E+00
ANH-511	1.859E-01	9.168E-02	3.781E-02	4.677E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	8.309E-02	4.786E-01	4.028E-01	2.442E-01	NOT IDENT.
NA-22	-6.097E-02	6.860E-02	5.082E-02	3.500E-02	NOT IDENT.
NA-24	-3.373E+08	2.710E+08	0.000E+00	1.383E+08	SHORT HLIF
SC-46	-2.742E-02	6.196E-02	5.001E-02	3.161E-02	FAIL ABUN
V-48	7.575E-03	1.250E-01	1.049E-01	6.379E-02	NOT IDENT.
CR-51	-1.772E-01	6.270E-01	5.238E-01	3.199E-01	NOT IDENT.
MN-54	5.296E-02	5.611E-02	5.042E-02	2.863E-02	NOT IDENT.

CO-56	1.529E-02	6.218E-02	5.337E-02	3.172E-02	FAIL ABUN
CO-57	-2.128E-03	3.961E-02	3.254E-02	2.021E-02	NOT IDENT.
CO-58	-5.470E-02	5.867E-02	4.539E-02	2.993E-02	NOT IDENT.
FE-59	-4.429E-02	1.465E-01	1.178E-01	7.475E-02	NOT IDENT.
CO-60	-1.923E-02	5.762E-02	4.508E-02	2.940E-02	NOT IDENT.
ZN-65	1.083E-01	1.458E-01	1.135E-01	7.439E-02	NOT IDENT.
SE-75	7.829E-03	7.800E-02	5.844E-02	3.980E-02	NOT IDENT.
SR-85	1.665E-01	7.604E-02	6.281E-02	3.880E-02	NOT IDENT.
Y-88	4.223E-02	5.313E-02	4.987E-02	2.711E-02	NOT IDENT.
Y-91	2.332E+01	3.948E+01	3.392E+01	2.015E+01	NOT IDENT.
NB-94	2.050E-02	4.770E-02	4.180E-02	2.433E-02	NOT IDENT.
NB-95	6.269E-02	7.681E-02	6.045E-02	3.919E-02	NOT IDENT.
NB-95M	6.092E-01	2.456E-01	1.988E-01	1.253E-01	NOT IDENT.
ZR-95	-3.315E-02	1.061E-01	8.763E-02	5.411E-02	NOT IDENT.
MO-99	-4.363E+01	6.441E+01	5.156E+01	3.286E+01	NOT IDENT.
TC-99M	-3.188E+22	6.070E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-7.209E-03	6.044E-02	4.968E-02	3.084E-02	FAIL ABUN
RH-106	3.283E-01	4.439E-01	3.840E-01	2.265E-01	NOT IDENT.
RU-106	3.283E-01	4.427E-01	3.840E-01	2.259E-01	NOT IDENT.
AG-108M	3.982E-02	4.255E-02	3.759E-02	2.171E-02	NOT IDENT.
AG-110M	1.586E-02	4.876E-02	4.262E-02	2.488E-02	NOT IDENT.
SN-113	1.325E-02	7.081E-02	6.011E-02	3.613E-02	NOT IDENT.
CD-115	-5.711E+01	7.978E+01	0.000E+00	4.070E+01	SHORT HLIF
SN-117M	1.044E-01	1.104E-01	9.427E-02	5.633E-02	NOT IDENT.
TE-123M	4.273E-02	4.576E-02	3.905E-02	2.334E-02	NOT IDENT.
SB-124	2.407E-03	1.113E-01	9.334E-02	5.678E-02	NOT IDENT.
SB-125	6.972E-02	1.362E-01	1.174E-01	6.951E-02	FAIL ABUN
TE-125M	-7.058E+00	1.650E+01	1.359E+01	8.419E+00	NOT IDENT.
I-126	5.825E-02	4.064E-01	3.505E-01	2.073E-01	NOT IDENT.
SB-126	7.011E-02	2.970E-01	2.235E-01	1.515E-01	NOT IDENT.
SB-127	3.051E+00	4.688E+00	4.167E+00	2.392E+00	NOT IDENT.
I-131	-8.183E-02	2.744E-01	2.273E-01	1.400E-01	NOT IDENT.
TE-132	-1.053E+00	3.320E+00	2.818E+00	1.694E+00	NOT IDENT.
BA-133	1.460E-02	6.991E-02	5.203E-02	3.567E-02	FAIL ABUN
I-133	2.455E+05	4.622E+05	0.000E+00	2.358E+05	SHORT HLIF
CS-134	2.265E-01	9.564E-02	6.452E-02	4.879E-02	FAIL ABUN
CS-135	2.230E-01	2.805E-01	2.179E-01	1.431E-01	NOT IDENT.
I-135	-1.365E+21	3.116E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.844E-02	2.090E-01	1.691E-01	1.066E-01	NOT IDENT.
BA-137M	2.248E-02	5.086E-02	4.474E-02	2.595E-02	NOT IDENT.
CS-137	2.374E-02	5.373E-02	4.726E-02	2.741E-02	NOT IDENT.
CE-139	1.751E-03	4.893E-02	3.925E-02	2.497E-02	NOT IDENT.
BA-140	-2.680E-01	4.961E-01	3.855E-01	2.531E-01	NOT IDENT.
LA-140	-8.249E-02	1.605E-01	1.274E-01	8.188E-02	NOT IDENT.
CE-141	1.107E-01	1.094E-01	9.376E-02	5.583E-02	NOT IDENT.
CE-143	1.527E+04	4.882E+03	0.000E+00	2.491E+03	SHORT HLIF
CE-144	-9.310E-02	3.336E-01	2.680E-01	1.702E-01	NOT IDENT.
PM-144	2.594E-02	4.940E-02	4.358E-02	2.521E-02	NOT IDENT.
PR-144	1.652E+00	3.724E+00	3.267E+00	1.900E+00	NOT IDENT.
PM-146	4.682E-03	6.164E-02	5.165E-02	3.145E-02	NOT IDENT.
ND-147	4.518E-01	1.086E+00	9.241E-01	5.540E-01	NOT IDENT.
PM-149	1.051E+02	6.477E+02	0.000E+00	3.305E+02	SHORT HLIF
EU-152	-6.564E-02	1.909E-01	1.179E-01	9.740E-02	FAIL ABUN
GD-153	-1.282E-01	1.510E-01	1.056E-01	7.702E-02	NOT IDENT.
EU-154	-1.998E-01	1.959E-01	1.423E-01	9.996E-02	NOT IDENT.
EU-155	1.908E-01	1.647E-01	1.431E-01	8.402E-02	FAIL ABUN
TB-160	-3.299E-02	2.076E-01	1.719E-01	1.059E-01	FAIL ABUN
HO-166M	3.977E-02	8.115E-02	7.157E-02	4.140E-02	NOT IDENT.
TA-182	2.101E-01	3.201E-01	2.769E-01	1.633E-01	FAIL ABUN
IR-192	1.606E-02	5.415E-02	4.664E-02	2.763E-02	FAIL ABUN
BI-207	-1.919E-03	8.274E-02	6.853E-02	4.221E-02	FAIL ABUN
PB-210	-1.110E+01	1.481E+01	1.209E+01	7.556E+00	NOT IDENT.
PB-211	-1.165E+00	1.224E+00	8.580E-01	6.247E-01	NOT IDENT.
BI-212	1.718E+00	1.361E+00	8.285E-01	6.941E-01	FAIL ABUN
RN-219	-4.119E-01	5.952E-01	4.753E-01	3.037E-01	FAIL ABUN
RA-223	-9.625E-01	1.028E+00	8.187E-01	5.246E-01	FAIL ABUN
AC-227	1.816E-02	3.808E-01	3.269E-01	1.943E-01	NOT IDENT.
TH-227	1.816E-02	3.808E-01	3.269E-01	1.943E-01	NOT IDENT.
TH-229	-2.538E-02	8.326E-01	6.816E-01	4.248E-01	FAIL ABUN
PA-231	4.233E-01	2.453E+00	1.840E+00	1.252E+00	NOT IDENT.
TH-231	-9.625E-01	1.028E+00	8.187E-01	5.246E-01	FAIL ABUN
PA-233	2.660E-03	9.699E-02	8.249E-02	4.949E-02	NOT IDENT.
PA-234	1.450E-01	4.085E-01	3.524E-01	2.084E-01	FAIL ABUN
PA-234M	2.196E+00	7.111E+00	6.048E+00	3.628E+00	NOT IDENT.
U-235	-7.759E-02	3.239E-01	2.623E-01	1.653E-01	FAIL ABUN
NP-239	-1.015E-01	6.032E-01	5.006E-01	3.078E-01	FAIL ABUN
AM-241	3.026E-01	3.798E-01	2.962E-01	1.938E-01	NOT IDENT.
CM-247	-1.378E-02	5.414E-02	4.470E-02	2.762E-02	FAIL ABUN

CF-249	6.316E-02	6.110E-02	5.413E-02	3.117E-02	NOT IDENT.
CF-251	3.845E-03	2.066E-01	1.701E-01	1.054E-01	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	290.1278
49.72	287.8856
57.36	0.0000
59.54	262.6911
63.29	351.6878
63.29	351.6878
64.28	369.4115
67.75	401.1254
69.67	427.4337
70.83	394.9371
72.81	395.0061
72.87	395.0373
72.87	395.0373
74.82	396.0624
74.82	396.0624
74.82	396.0624
74.97	396.1416
77.11	397.2496
77.11	397.2496
77.11	397.2496
79.69	407.5564
79.80	442.7807
80.12	442.9599
80.19	442.9988
80.57	508.8136
81.00	517.0938
81.07	517.1391
81.07	517.1391
83.79	404.2979
83.79	404.2979
85.43	391.1597
86.48	451.2932
86.55	451.3325
86.79	522.0014
86.94	563.4226
87.57	566.0106
88.03	554.4045
88.47	525.0762
89.96	526.0045
91.11	526.7166
92.59	551.9771
92.59	551.9771
93.35	448.8759
94.67	449.5588
94.87	310.8973
94.87	310.8973
95.86	358.5057
97.43	360.7747
98.44	292.5422
99.53	307.6239
100.11	309.7315
103.18	402.5019
103.37	397.4507
105.31	314.9217
106.12	332.7050
109.28	382.3938
111.00	343.7365
111.76	352.2968
116.30	321.6632
117.23	323.0069
121.12	303.3371
121.78	316.0941
122.06	315.1346
123.07	325.9246
131.20	384.4422
133.52	373.6297
136.00	346.9011

136.47	350.2348
140.51	355.7771
140.51	0.0000
143.76	351.4677
144.24	350.5470
144.24	350.5470
145.44	324.1706
152.43	326.1379
153.25	325.2873
154.21	332.0202
154.21	332.0202
156.02	364.9168
158.56	297.5313
159.00	297.6383
162.66	338.7054
163.33	329.1154
165.86	309.1104
176.60	293.0905
177.52	311.9727
181.07	331.3316
184.41	332.1739
185.72	300.6667
193.51	295.7371
197.04	300.9567
205.31	324.7174
210.85	276.1497
215.65	275.5574
222.11	254.9855
227.38	266.8081
228.16	274.2344
228.18	274.2381
235.69	251.7784
235.96	251.8221
235.96	251.8221
238.63	242.1633
238.63	242.1633
240.99	242.5274
242.00	242.6837
244.70	199.5121
252.40	202.6298
252.80	208.2321
256.23	213.3080
256.23	213.3080
260.90	0.0000
264.66	195.7522
268.22	216.4070
269.46	193.1950
269.46	193.1950
271.23	193.3968
273.65	193.6718
276.40	112.6348
277.37	112.6978
277.60	112.7139
278.00	181.6347
279.20	188.0298
279.54	178.6631
280.46	188.1665
283.69	182.2294
284.31	188.5815
285.41	192.8920
285.90	0.0000
287.50	184.2003
293.27	0.0000
295.22	185.9464
295.96	186.0229
298.57	186.2933
299.98	186.4369
299.98	186.4369
300.09	186.4488
300.09	186.4488
300.13	186.4536
301.36	179.2799
302.85	181.0149
304.50	158.9274
304.50	158.9274
304.85	158.9579
308.46	172.9664
311.90	170.4146

316.51	159.3170
319.41	178.7866
320.08	171.1555
323.87	208.1083
323.87	208.1083
328.76	176.7630
333.37	192.0289
334.37	182.4410
334.37	182.4410
338.28	158.2147
338.28	158.2147
338.32	158.2186
338.32	158.2186
338.32	158.2186
340.48	153.8570
340.55	153.8618
344.28	160.6414
351.06	147.5089
351.93	147.5715
356.01	138.7285
364.49	155.3634
366.42	145.6658
383.85	136.9488
388.16	126.2853
388.63	131.2846
391.69	142.4257
400.66	136.0100
401.81	140.0820
402.40	132.1128
404.85	160.3145
410.95	127.5969
414.70	146.9303
423.72	124.2747
427.09	121.4209
427.87	115.3888
433.94	97.4238
453.88	110.5286
463.37	105.8252
468.07	133.8213
473.00	103.1458
476.78	107.4353
477.60	94.0359
487.02	81.9432
492.35	0.0000
497.08	92.6808
511.00	122.4965
514.00	113.5523
527.90	0.0000
529.87	0.0000
531.02	82.2847
537.26	93.0488
546.56	0.0000
563.25	94.9992
569.33	104.8332
569.50	102.7008
569.70	103.7777
583.19	106.4202
600.60	102.1365
602.73	88.3818
604.72	95.6614
609.32	107.3797
609.32	107.3797
609.32	107.3797
610.33	113.9286
614.28	86.9180
618.01	88.2361
621.93	67.5340
621.93	67.5340
633.25	72.1617
635.95	70.0359
636.99	63.4927
645.85	71.3619
657.76	76.2286
661.66	81.8405
661.66	81.8405
664.57	0.0000
666.33	83.8036
666.50	83.8092

677.62	68.3919
685.70	74.1243
695.00	78.9837
696.49	79.0200
696.51	80.8793
697.00	91.1193
702.65	80.1001
706.68	94.1882
711.68	65.3772
720.70	69.0352
721.93	0.0000
722.78	72.2900
722.91	72.2932
723.31	70.6959
724.19	62.6786
727.33	83.5154
733.00	62.8432
735.93	75.6384
739.50	88.5266
747.24	84.0079
752.31	67.1172
753.82	63.3632
756.73	74.7761
763.94	65.0405
765.81	81.3442
766.42	79.7310
777.92	75.0949
778.90	80.0146
783.70	54.3699
785.37	69.7510
795.86	50.7280
801.95	62.4564
810.29	75.9173
810.76	76.8880
815.77	50.0460
818.51	58.7525
832.01	84.1025
834.85	66.7525
836.80	0.0000
846.77	68.9084
856.80	92.4487
860.56	53.5755
871.09	58.6084
873.19	52.7761
875.33	0.0000
879.36	60.6932
880.51	53.8564
883.24	48.9950
884.68	54.8949
889.28	71.6455
898.04	86.5605
911.20	67.6772
911.20	67.6772
911.20	67.6772
926.50	54.4920
937.49	57.6224
944.13	64.6826
946.00	47.7871
949.00	44.8343
962.29	68.5407
964.08	77.1429
966.15	62.0303
968.97	62.0732
968.97	62.0732
968.97	62.0732
983.53	53.2491
996.26	79.6124
1001.03	56.4979
1004.73	59.5762
1037.84	59.0195
1038.76	0.0000
1048.07	61.1987
1050.41	62.2535
1050.41	62.2535
1063.66	64.4868
1085.87	52.4651
1099.45	60.8774
1112.07	63.3242

1115.54	47.9280
1120.29	56.8616
1120.29	56.8616
1120.29	56.8616
1120.55	58.0508
1121.30	58.0599
1131.51	0.0000
1173.23	71.2871
1177.93	78.7048
1189.05	67.3177
1204.77	78.0890
1221.41	66.7094
1231.02	61.8385
1235.36	65.5338
1238.28	61.6250
1260.41	0.0000
1271.85	45.9954
1274.44	64.2114
1274.54	62.0734
1291.59	39.7310
1298.22	0.0000
1312.11	30.1875
1332.49	37.8825
1365.19	27.0712
1368.63	0.0000
1384.29	33.7249
1408.01	22.5820
1457.56	0.0000
1460.82	13.2993
1489.16	23.8682
1505.03	39.2526
1596.21	23.3371
1620.50	16.5968
1678.03	0.0000
1690.97	13.8247
1764.49	13.9854
1764.49	13.9854
1764.49	13.9854
1770.23	61.9892
1771.35	15.5556
1791.20	0.0000
1836.06	11.1086

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065186

Total Uranium Activity	1.7865E+01	ug/g
Total Uranium Counting Unc.	1.1729E+01	ug/g
Total Uranium Tpu	5.9842E-06	ug/g
Total Uranium Mda	6.9244E+00	ug/g

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*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 962631                    SAMPLE ID  : G1202065186        *
*   ANALYST       : MXR1                      DETECTOR   : GAM15              *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 23-MAR-2010 14:39:49.66    SAMPLE ALQT:  105.550 GRAM      *
*                                                                             *
*******************************************************************************
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GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.265E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 2.047E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 4.938E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 2.401E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:41:00.47

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065187.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 23-MAR-2010 14:40:28
Sample ID         : G1202065187          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:02.28  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962631                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	57.89	114	718	1.21	116.04	113	12	3.17E-02	33.7	1.20E+00
2	3	59.58	3608	618	0.98	119.42	113	12	1.00E+00	2.0	
3	2	74.88	240	523	1.14	149.98	146	14	6.65E-02	17.0	1.93E+00
4	2	77.24*	387	474	1.23	154.70	146	14	1.08E-01	11.0	
5	3	88.01	1940	430	1.19	176.21	171	19	5.39E-01	2.9	5.46E+00
6	3	90.20	88	358	1.09	180.60	171	19	2.45E-02	49.7	
7	0	122.13	341	540	1.14	244.40	239	12	9.47E-02	14.7	
8	0	185.85*	84	351	1.60	371.72	369	8	2.33E-02	41.5	
9	0	209.69	140	416	1.18	419.34	415	10	3.89E-02	28.6	
10	4	238.72*	928	308	1.28	477.36	472	22	2.58E-01	4.7	7.94E-01
11	4	241.83	192	430	2.07	483.56	472	22	5.32E-02	27.5	
12	0	295.31*	256	302	1.63	590.45	586	10	7.11E-02	14.2	
13	0	338.41*	201	240	1.34	676.57	672	10	5.59E-02	16.2	
14	0	351.84*	479	335	1.56	703.41	695	14	1.33E-01	9.4	
15	0	462.86	64	257	1.56	925.30	921	10	1.77E-02	48.7	
16	0	583.15*	266	208	1.73	1165.72	1159	13	7.38E-02	12.9	
17	0	609.26*	251	165	1.66	1217.89	1213	12	6.96E-02	12.3	
18	0	661.69	3699	233	1.84	1322.70	1315	16	1.03E+00	1.9	
19	0	911.53*	242	252	1.94	1822.19	1814	18	6.72E-02	16.9	
20	0	970.01*	91	226	1.57	1939.10	1931	13	2.54E-02	36.3	
21	0	1000.99*	44	73	1.69	2001.04	1997	9	1.23E-02	39.1	
22	0	1173.33	3088	128	2.37	2345.67	2334	25	8.58E-01	2.1	
23	0	1332.51	2721	59	2.50	2664.03	2651	23	7.56E-01	2.0	
24	0	1731.09	22	20	1.92	3461.36	3452	13	6.12E-03	46.6	
25	0	1764.47*	89	11	2.95	3528.13	3515	22	2.47E-02	15.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 15:41:03

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065187.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 9-MAR-2010 00:00:00 Acquisition date : 23-MAR-2010 14:40:28
Sample ID : G1202065187 Sample quantity : 151.73 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:02.28 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	+	122.06	*	2.391E-01	7.284E-02	5.832E-02	4.809E-03	4.100
		136.47		3.689E-01	2.988E-01	5.227E-01	4.844E-02	0.706
CO-60	+	1173.23		6.814E+00	6.156E-01	9.392E-02	7.553E-03	72.549
	+	1332.49	*	6.634E+00	6.511E-01	8.060E-02	7.187E-03	82.313
CD-109	+	88.03	*	3.516E+01	3.902E+00	1.816E+00	1.724E-01	19.360
SN-126		64.28		-1.808E-01	7.411E-01	1.113E+00	1.617E-01	-0.162
	+	86.94		1.430E+01	5.998E+00	7.459E-01	3.097E-01	19.171
	+	87.57	*	3.440E+00	3.817E-01	1.784E-01	1.684E-02	19.282
BA-137M	+	661.66	*	5.677E+00	6.358E-01	8.764E-02	9.241E-03	64.783
CS-137	+	661.66	*	5.998E+00	6.724E-01	9.258E-02	9.775E-03	64.783
TL-208		277.37		8.934E-01	6.293E-01	1.040E+00	1.730E-01	0.859
	+	583.19	*	3.935E-01	1.101E-01	9.675E-02	1.048E-02	4.067
		860.56		3.197E-01	5.362E-01	9.153E-01	1.066E-01	0.349
BI-211		72.87		1.841E+00	4.766E+00	7.113E+00	5.693E-01	0.259
	+	351.06	*	3.397E+00	7.485E-01	5.352E-01	6.245E-02	6.348
PB-212	+	74.82		1.867E+00	6.785E-01	7.850E-01	9.969E-02	2.378
	+	77.11		1.731E+00	4.081E-01	4.521E-01	3.781E-02	3.828
	+	238.63	*	1.570E+00	2.551E-01	1.466E-01	1.943E-02	10.710
		300.09		1.533E+00	1.440E+00	2.202E+00	3.229E-01	0.696
BI-214	+	609.32	*	7.152E-01	1.948E-01	1.881E-01	2.195E-02	3.802
		1120.29		1.085E+00	5.683E-01	9.981E-01	1.108E-01	1.087
	+	1764.49		1.673E+00	5.239E-01	3.876E-01	3.229E-02	4.317
PB-214	+	74.82		3.309E+00	1.188E+00	1.391E+00	1.584E-01	2.378
	+	77.11		3.051E+00	7.622E-01	7.970E-01	9.361E-02	3.828
	+	242.00		1.962E+00	1.112E+00	8.905E-01	1.231E-01	2.204
	+	295.22		1.151E+00	3.701E-01	3.747E-01	5.622E-02	3.072
	+	351.93	*	1.233E+00	2.800E-01	1.946E-01	2.505E-02	6.336
RA-224	+	240.99	*	3.470E+00	1.956E+00	1.570E+00	1.965E-01	2.210
RA-226	+	609.32	*	7.152E-01	1.948E-01	1.881E-01	2.195E-02	3.802
		1120.29		1.085E+00	5.683E-01	9.981E-01	1.108E-01	1.087
	+	1764.49		1.673E+00	5.239E-01	3.876E-01	3.229E-02	4.317
AC-228	+	338.32		1.601E+00	8.563E-01	6.001E-01	2.551E-01	2.667
	+	911.20	*	1.664E+00	6.057E-01	4.606E-01	6.240E-02	3.613
	+	968.97		1.082E+00	8.307E-01	8.032E-01	2.019E-01	1.347

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	+	338.32		1.601E+00	8.563E-01	6.001E-01	2.551E-01	2.667
	+	911.20	*	1.664E+00	6.057E-01	4.606E-01	6.240E-02	3.613
	+	968.97		1.082E+00	8.307E-01	8.032E-01	2.019E-01	1.347
TH-228	+	74.82		1.867E+00	6.541E-01	7.850E-01	6.473E-02	2.378
	+	77.11		1.731E+00	4.081E-01	4.521E-01	3.781E-02	3.828
	+	238.63	*	1.570E+00	2.551E-01	1.466E-01	1.943E-02	10.710
		300.09		1.533E+00	1.711E+00	2.202E+00	1.366E+00	0.696
TH-230	+	609.32	*	7.151E-01	1.912E-01	1.881E-01	1.958E-02	3.802
		1120.29		1.085E+00	5.636E-01	9.981E-01	8.827E-02	1.087
	+	1764.49		1.673E+00	5.239E-01	3.876E-01	3.229E-02	4.317
TH-232	+	338.32		1.601E+00	5.536E-01	6.001E-01	7.136E-02	2.667
	+	911.20	*	1.664E+00	6.057E-01	4.606E-01	6.240E-02	3.613
	+	968.97		1.082E+00	8.307E-01	8.032E-01	2.019E-01	1.347
AM-241	+	59.54	*	1.363E+01	1.198E+00	4.375E-01	3.420E-02	31.159

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.348E-01	5.697E-01	9.097E-01	9.492E-02	-0.148
NA-22		1274.54	*	-6.664E-02	4.787E-02	6.710E-02	5.782E-03	-0.993
NA-24		1368.63	*	-3.645E-01	4.787E-02	Half-Life too short		
K-40		1460.82	*	2.601E-01	5.381E-01	9.602E-01	8.797E-02	0.271
SC-46		889.28	*	9.258E-03	7.597E-02	1.268E-01	1.419E-02	0.073
		1120.55		1.779E-01	9.489E-02	1.678E-01	1.483E-02	1.060
V-48		944.13		-7.992E-01	1.826E+00	2.946E+00	3.195E-01	-0.271
		983.53	*	-1.237E-01	1.386E-01	2.158E-01	2.264E-02	-0.573
		1312.11		7.982E-03	9.627E-02	1.601E-01	1.411E-02	0.050
CR-51		320.08	*	-2.685E-01	5.718E-01	9.362E-01	1.212E-01	-0.287
MN-54		834.85	*	-2.402E-02	6.535E-02	1.070E-01	1.188E-02	-0.225
CO-56		846.77	*	8.165E-03	7.362E-02	1.233E-01	1.373E-02	0.066
		1037.84		3.690E-01	5.709E-01	9.647E-01	9.940E-02	0.383
		1238.28		1.415E-01	9.100E-02	1.674E-01	1.451E-02	0.845
		1771.35		-1.100E-01	3.667E-01	4.782E-01	3.973E-02	-0.230
CO-58		810.76	*	-2.736E-02	6.718E-02	1.099E-01	1.217E-02	-0.249
FE-59		1099.45	*	-1.054E-01	1.668E-01	2.603E-01	2.550E-02	-0.405
		1291.59		3.062E-02	1.201E-01	2.041E-01	2.011E-02	0.150
ZN-65		1115.54	*	-1.503E-01	1.725E-01	2.657E-01	2.370E-02	-0.566
SE-75	+	121.12		1.247E+00	3.899E-01	4.210E-01	4.545E-02	2.963
		136.00		6.337E-02	5.775E-02	1.008E-01	8.747E-03	0.629
		264.66	*	-7.144E-02	7.296E-02	1.111E-01	1.496E-02	-0.643
		279.54		3.672E-02	1.786E-01	2.881E-01	4.090E-02	0.127
		400.66		1.835E-01	4.342E-01	7.249E-01	8.466E-02	0.253
SR-85		514.00	*	-4.662E-03	7.228E-02	1.157E-01	1.161E-02	-0.040
Y-88		898.04		1.090E-02	7.911E-02	1.320E-01	1.483E-02	0.083
		1836.06	*	2.860E-02	4.735E-02	8.388E-02	6.782E-03	0.341
Y-91		1204.77	*	-3.586E+00	2.484E+01	4.086E+01	3.359E+00	-0.088
NB-94		702.65	*	5.604E-03	5.040E-02	8.281E-02	8.874E-03	0.068
		871.09		8.534E-03	6.654E-02	1.113E-01	1.243E-02	0.077

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	3.458E-02	6.781E-02	1.127E-01	1.233E-02	0.307
NB-95M		235.69	*	2.881E-01	2.183E-01	3.265E-01	4.320E-02	0.882
ZR-95		724.19		-2.772E-02	1.452E-01	2.337E-01	2.661E-02	-0.119
		756.73	*	2.071E-02	1.144E-01	1.874E-01	2.181E-02	0.111
MO-99		140.51		-1.264E+01	2.810E+01	4.643E+01	1.105E+01	-0.272
		181.07		-2.924E+01	2.549E+01	3.607E+01	7.078E+00	-0.811
		366.42		-3.780E+01	1.417E+02	2.316E+02	2.457E+01	-0.163
		739.50	*	3.164E+00	1.720E+01	2.824E+01	4.823E+00	0.112
		777.92		-2.882E+01	5.469E+01	8.553E+01	9.383E+00	-0.337
TC-99M		140.51	*	-5.811E+09	5.469E+01	Half-Life too short		
RU-103		497.08	*	2.152E-02	6.629E-02	1.084E-01	1.607E-02	0.199
	+	610.33		7.313E+00	2.203E+00	2.841E+00	4.931E-01	2.574
RH-106		621.93	*	1.129E-01	5.320E-01	8.875E-01	1.288E-01	0.127
		1050.41		3.936E-01	4.701E+00	7.708E+00	7.524E-01	0.051
RU-106		621.93	*	1.129E-01	5.319E-01	8.875E-01	9.270E-02	0.127
		1050.41		3.936E-01	4.701E+00	7.708E+00	7.524E-01	0.051
AG-108M		433.94	*	3.888E-03	5.247E-02	8.582E-02	8.446E-03	0.045
		614.28		9.682E-03	6.418E-02	9.224E-02	9.831E-03	0.105
		722.91		-1.176E-01	6.276E-02	8.884E-02	9.785E-03	-1.324
AG-110M		657.76	*	6.450E-01	1.169E-01	1.760E-01	1.891E-02	3.666
		677.62		-5.653E-02	4.894E-01	7.963E-01	8.613E-02	-0.071
		706.68		-6.460E-03	3.236E-01	5.274E-01	5.765E-02	-0.012
		763.94		8.424E-02	2.623E-01	4.322E-01	4.804E-02	0.195
		884.68		4.092E-02	9.650E-02	1.633E-01	1.862E-02	0.251
		937.49		5.545E-02	2.244E-01	3.745E-01	4.176E-02	0.148
		1384.29		5.972E-02	1.964E-01	3.326E-01	3.047E-02	0.180
		1505.03		-5.711E-02	3.477E-01	5.544E-01	4.930E-02	-0.103
SN-113		391.69	*	1.181E-02	7.651E-02	1.267E-01	1.210E-02	0.093
CD-115		260.90		7.508E+01	1.955E+02	3.193E+02	4.242E+01	0.235
		492.35		9.656E-01	5.660E+01	9.128E+01	9.060E+00	0.011
		527.90	*	8.967E+00	1.586E+01	2.723E+01	2.750E+00	0.329
SN-117M		156.02		-5.731E-01	3.154E+00	5.248E+00	4.920E-01	-0.109
		158.56	*	1.276E-02	7.660E-02	1.289E-01	1.222E-02	0.099
TE-123M		159.00	*	5.687E-03	4.016E-02	6.751E-02	6.447E-03	0.084
SB-124		602.73		9.368E-02	6.942E-02	1.075E-01	1.117E-02	0.871
		645.85		1.316E-01	8.289E-01	1.375E+00	1.501E-01	0.096
		722.78		-1.191E+00	6.260E-01	8.837E-01	9.677E-02	-1.348
		1690.97	*	9.565E-02	1.054E-01	1.934E-01	1.725E-02	0.494
SB-125		427.87	*	-1.364E-01	1.644E-01	2.576E-01	2.498E-02	-0.530
	+	463.37		6.591E-01	6.456E-01	8.886E-01	9.193E-02	0.742
		600.60		1.259E-01	2.852E-01	4.822E-01	5.263E-02	0.261
		635.95		-3.329E-01	4.565E-01	7.206E-01	7.975E-02	-0.462
TE-125M		109.28	*	-1.708E+01	1.427E+01	2.141E+01	2.201E+00	-0.798
I-126		388.63		4.454E-01	2.852E-01	4.943E-01	4.680E-02	0.901
		666.33	*	3.979E-01	4.208E-01	6.305E-01	6.662E-02	0.631
		753.82		5.865E-01	2.817E+00	4.624E+00	5.039E-01	0.127
SB-126		414.70		-8.754E-02	1.309E-01	2.076E-01	1.964E-02	-0.422
		666.50		4.147E-02	1.393E-01	2.006E-01	2.119E-02	0.207
		695.00		2.436E-02	1.161E-01	1.920E-01	2.052E-02	0.127

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		697.00		-6.569E-04	3.965E-01	6.477E-01	6.926E-02	-0.001
		720.70	*	-2.361E-01	2.253E-01	3.419E-01	3.687E-02	-0.690
		856.80		-2.028E-01	8.396E-01	1.380E+00	1.539E-01	-0.147
SB-127		252.40		-9.111E-01	6.448E+00	1.033E+01	4.399E+00	-0.088
		473.00		-8.423E-01	2.727E+00	4.343E+00	5.855E-01	-0.194
		685.70	*	1.122E-01	1.908E+00	3.133E+00	4.023E-01	0.036
		783.70		2.548E+00	5.590E+00	9.236E+00	1.292E+00	0.276
I-131		80.19		-2.260E+00	6.677E+00	9.582E+00	8.339E-01	-0.236
		284.31		8.802E-01	2.327E+00	3.774E+00	5.332E-01	0.233
		364.49	*	-3.416E-02	1.809E-01	2.968E-01	3.288E-02	-0.115
		636.99		2.027E-01	2.465E+00	4.079E+00	4.443E-01	0.050
TE-132		49.72		1.777E+01	2.854E+01	4.865E+01	5.050E+00	0.365
		111.76		4.963E+01	4.355E+01	7.217E+01	7.673E+00	0.688
		116.30		-8.765E+00	4.071E+01	6.093E+01	6.449E+00	-0.144
		228.16	*	1.264E+00	1.093E+00	1.816E+00	3.236E-01	0.696
BA-133		81.00		-1.363E-01	1.503E-01	2.079E-01	3.238E-02	-0.656
		276.40		4.786E-01	5.749E-01	9.432E-01	1.681E-01	0.507
		302.85		5.340E-03	2.258E-01	3.799E-01	6.268E-02	0.014
		356.01	*	2.407E-02	7.825E-02	1.146E-01	1.688E-02	0.210
		383.85		-3.970E-01	4.975E-01	7.864E-01	1.039E-01	-0.505
I-133		529.87	*	-1.087E-03	4.975E-01	Half-Life too short		
		875.33		-1.718E-01	4.975E-01	Half-Life too short		
		1298.22		-8.533E-02	4.975E-01	Half-Life too short		
CS-134		563.25		3.191E-01	5.653E-01	9.666E-01	9.973E-02	0.330
		569.33		-1.275E-01	3.155E-01	5.136E-01	5.326E-02	-0.248
		604.72		4.246E-02	6.160E-02	9.177E-02	9.555E-03	0.463
		795.86	*	5.304E-02	7.984E-02	1.332E-01	1.474E-02	0.398
		801.95		-5.015E-01	7.126E-01	1.098E+00	1.216E-01	-0.457
		1365.19		8.051E-02	1.417E+00	2.344E+00	2.184E-01	0.034
CS-135		268.22	*	8.156E-02	2.519E-01	4.096E-01	5.924E-02	0.199
I-135		546.56		3.315E+08	2.519E-01	Half-Life too short		
		836.80		3.835E+09	2.519E-01	Half-Life too short		
		1038.76		4.685E+09	2.519E-01	Half-Life too short		
		1131.51		-6.257E+08	2.519E-01	Half-Life too short		
		1260.41	*	-3.437E+08	2.519E-01	Half-Life too short		
		1457.56		1.380E+10	2.519E-01	Half-Life too short		
		1678.03		-2.759E+08	2.519E-01	Half-Life too short		
		1791.20		-1.138E+09	2.519E-01	Half-Life too short		
CS-136		153.25		1.063E+00	1.182E+00	2.035E+00	2.199E-01	0.523
		176.60		6.116E-01	7.259E-01	1.236E+00	1.351E-01	0.495
		273.65		-1.441E+00	8.581E-01	1.237E+00	1.763E-01	-1.165
		340.55		5.764E-01	2.651E-01	4.149E-01	4.994E-02	1.389
		818.51		1.336E-02	1.246E-01	2.095E-01	2.321E-02	0.064
		1048.07	*	-7.911E-02	1.953E-01	3.111E-01	3.145E-02	-0.254
		1235.36		3.107E-01	5.753E-01	9.949E-01	1.154E-01	0.312
CE-139		165.86	*	-8.723E-03	4.312E-02	7.136E-02	6.999E-03	-0.122
BA-140		162.66		4.542E-01	1.135E+00	1.922E+00	1.957E-01	0.236
		304.85		-2.325E+00	2.234E+00	3.402E+00	1.052E+00	-0.683
		423.72		2.009E+00	3.432E+00	5.641E+00	1.870E+00	0.356

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		537.26	*	-2.025E-01	4.062E-01	6.524E-01	2.240E-01	-0.310
LA-140		328.76		5.182E-01	4.636E-01	7.994E-01	1.010E-01	0.648
		487.02		-5.817E-02	2.376E-01	3.784E-01	3.923E-02	-0.154
		815.77		2.139E-02	5.383E-01	9.020E-01	1.071E-01	0.024
		1596.21	*	-1.275E-01	1.103E-01	1.557E-01	1.365E-02	-0.819
CE-141		145.44	*	-3.693E-02	8.801E-02	1.459E-01	1.328E-02	-0.253
CE-143	+	57.36		2.299E-03	8.801E-02	Half-Life too short		
		293.27	*	3.463E-04	8.801E-02	Half-Life too short		
		664.57		8.370E-02	8.801E-02	Half-Life too short		
		721.93		-2.968E-03	8.801E-02	Half-Life too short		
CE-144		80.12		-1.167E+00	3.776E+00	5.427E+00	4.691E-01	-0.215
		133.52	*	-3.702E-01	2.867E-01	4.540E-01	6.919E-02	-0.815
PM-144		476.78		-2.177E-02	1.147E-01	1.836E-01	1.928E-02	-0.119
		618.01		1.704E-02	5.444E-02	8.942E-02	9.508E-03	0.191
		696.49	*	9.684E-03	5.280E-02	8.716E-02	9.321E-03	0.111
PR-144		696.51	*	7.645E-01	3.953E+00	6.528E+00	6.980E-01	0.117
		1489.16		-7.836E+00	1.527E+01	2.311E+01	2.058E+00	-0.339
PM-146		453.88	*	-3.763E-03	7.873E-02	1.275E-01	1.467E-02	-0.030
		633.25		-2.967E-01	2.368E+00	3.873E+00	1.497E+00	-0.077
		735.93		5.205E-02	2.297E-01	3.776E-01	1.087E-01	0.138
		747.24		-6.486E-02	1.571E-01	2.479E-01	3.972E-02	-0.262
ND-147	+	91.11		5.114E-01	5.113E-01	5.904E-01	5.836E-02	0.866
		319.41		-3.741E+00	5.160E+00	8.341E+00	1.056E+00	-0.448
		531.02	*	1.030E-01	8.703E-01	1.466E+00	2.324E-01	0.070
PM-149		285.90	*	-1.615E+01	1.304E+02	2.069E+02	3.915E+01	-0.078
EU-152	+	121.78		6.891E-01	2.126E-01	2.366E-01	2.265E-02	2.913
		244.70		5.430E-01	5.910E-01	8.727E-01	1.105E-01	0.622
		344.28	*	1.315E-01	2.143E-01	2.577E-01	3.097E-02	0.510
		778.90		-3.357E-02	4.485E-01	7.217E-01	7.919E-02	-0.047
		964.08		1.632E-01	6.552E-01	9.350E-01	9.977E-02	0.175
		1085.87		-6.374E-02	7.441E-01	1.204E+00	1.122E-01	-0.053
		1112.07		-5.067E-01	5.741E-01	8.808E-01	7.893E-02	-0.575
		1408.01		2.899E-01	2.312E-01	4.238E-01	3.790E-02	0.684
GD-153		69.67		3.960E-01	2.493E+00	3.938E+00	3.057E-01	0.101
		97.43	*	-2.757E-02	1.251E-01	1.898E-01	1.669E-02	-0.145
		103.18		-4.288E-03	1.603E-01	2.570E-01	2.196E-02	-0.017
EU-154	+	123.07		4.872E-01	1.527E-01	1.654E-01	1.833E-02	2.946
		723.31		-4.131E-01	2.805E-01	4.111E-01	4.729E-02	-1.005
		873.19		-2.795E-01	5.544E-01	8.960E-01	1.242E-01	-0.312
		996.26		-3.856E-01	7.862E-01	1.050E+00	1.930E-01	-0.367
		1004.73		2.002E-01	4.610E-01	6.657E-01	8.594E-02	0.301
		1274.44	*	-1.902E-01	1.363E-01	1.896E-01	2.156E-02	-1.003
EU-155	+	86.55		4.170E+00	4.656E-01	4.055E-01	3.814E-02	10.283
		105.31	*	1.105E-01	1.524E-01	2.509E-01	2.153E-02	0.440
TB-160	+	86.79		1.101E+01	1.222E+00	1.159E+00	1.084E-01	9.499
		197.04		-1.090E+00	8.779E-01	1.367E+00	1.487E-01	-0.797
		215.65		4.851E-01	1.323E+00	2.031E+00	2.348E-01	0.239
		298.57		1.234E-01	2.031E-01	3.061E-01	4.103E-02	0.403
		879.36	*	1.169E-01	2.689E-01	4.523E-01	5.058E-02	0.258

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		962.29		-1.207E+00	1.245E+00	1.625E+00	1.737E-01	-0.743
		966.15		1.205E+00	4.753E-01	7.479E-01	7.967E-02	1.612
		1177.93		1.202E+01	1.421E+00	2.244E+00	1.811E-01	5.357
		1271.85		-4.574E-01	7.821E-01	1.218E+00	1.047E-01	-0.375
HO-166M		80.57		-1.302E-01	4.115E-01	5.909E-01	5.134E-02	-0.220
	+	184.41		7.574E-02	6.341E-02	9.133E-02	9.522E-03	0.829
		280.46		-3.357E-02	1.376E-01	2.175E-01	3.037E-02	-0.154
		410.95		2.025E-01	4.310E-01	7.191E-01	6.788E-02	0.282
		711.68	*	-8.677E-02	9.527E-02	1.461E-01	1.570E-02	-0.594
		752.31		6.216E-02	4.367E-01	7.143E-01	7.781E-02	0.087
		810.29		-5.243E-02	1.026E-01	1.667E-01	1.843E-02	-0.314
TA-182		67.75		4.388E-02	1.515E-01	2.528E-01	1.928E-02	0.174
		100.11		1.203E-01	2.476E-01	4.057E-01	3.515E-02	0.297
		152.43		1.574E-01	4.894E-01	8.302E-01	7.660E-02	0.190
		222.11		1.508E-01	5.705E-01	9.391E-01	1.108E-01	0.161
		1121.30		3.659E-01	2.618E-01	4.556E-01	4.023E-02	0.803
		1189.05		2.295E-01	3.987E-01	6.902E-01	5.613E-02	0.332
		1221.41	*	1.330E-01	2.113E-01	3.686E-01	3.065E-02	0.361
		1231.02		-6.985E-01	5.133E-01	7.458E-01	6.242E-02	-0.937
IR-192	+	295.96		8.471E-01	2.668E-01	3.589E-01	4.855E-02	2.360
		308.46		6.358E-02	1.516E-01	2.582E-01	3.381E-02	0.246
		316.51	*	5.225E-02	5.425E-02	9.369E-02	1.197E-02	0.558
		468.07		8.811E-02	1.447E-01	2.095E-01	2.168E-02	0.421
HG-203		70.83		3.626E-01	1.995E+00	2.959E+00	4.633E-01	0.123
		72.87		4.549E-01	1.179E+00	1.757E+00	2.671E-01	0.259
		279.20	*	2.032E-02	6.277E-02	1.017E-01	1.438E-02	0.200
BI-207		72.81		8.760E-02	2.739E-01	4.078E-01	3.262E-02	0.215
	+	74.97		5.381E-01	1.884E-01	2.769E-01	2.264E-02	1.943
		569.70		-4.804E-03	4.889E-02	8.091E-02	8.311E-03	-0.059
		1063.66	*	5.816E-02	1.006E-01	1.690E-01	1.622E-02	0.344
		1770.23		4.118E-01	8.163E-01	1.238E+00	1.029E-01	0.333
PB-210		46.54	*	-9.533E-02	5.509E+00	9.272E+00	8.539E-01	-0.010
PB-211		404.85	*	-9.115E-02	1.265E+00	2.067E+00	1.003E+00	-0.044
		427.09		-2.354E+00	2.998E+00	4.388E+00	2.038E+00	-0.537
		832.01		1.055E+00	1.794E+00	2.938E+00	1.537E+00	0.359
BI-212		727.33	*	1.228E+00	8.684E-01	1.491E+00	2.096E-01	0.824
		785.37		1.823E+00	5.475E+00	9.000E+00	9.892E-01	0.203
		1620.50		2.939E+00	3.109E+00	5.692E+00	4.962E-01	0.516
RN-219		271.23		3.471E-01	3.850E-01	6.351E-01	9.383E-02	0.547
		401.81	*	-1.248E-01	7.128E-01	1.161E+00	1.779E-01	-0.108
RA-223		81.07		-3.035E-01	3.382E-01	4.714E-01	4.119E-02	-0.644
		83.79		-2.524E-02	2.046E-01	2.957E-01	2.667E-02	-0.085
		94.87		9.346E-01	6.689E-01	1.023E+00	9.151E-02	0.913
		144.24		-3.486E-01	9.669E-01	1.602E+00	1.583E-01	-0.218
		154.21		4.572E-02	5.514E-01	9.271E-01	9.335E-02	0.049
		269.46		4.977E-01	2.991E-01	5.003E-01	6.869E-02	0.995
		323.87	*	-2.520E-01	1.036E+00	1.712E+00	3.346E-01	-0.147
	+	338.28		6.351E+00	2.262E+00	3.086E+00	4.502E-01	2.058
AC-227		79.69		7.854E-03	1.834E+00	2.676E+00	4.610E-01	0.003

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		235.96		6.138E-01	2.880E-01	4.334E-01	5.889E-02	1.416
		256.23	*	7.149E-02	4.241E-01	6.880E-01	1.072E-01	0.104
		299.98		1.299E+00	1.598E+00	2.421E+00	3.944E-01	0.537
		304.50		-2.644E+00	2.671E+00	4.232E+00	8.176E-01	-0.625
		334.37		-5.788E-01	3.057E+00	4.377E+00	7.757E-01	-0.132
TH-227		79.80		1.406E-01	2.422E+00	3.542E+00	7.712E-01	0.040
		235.96		6.138E-01	2.872E-01	4.334E-01	5.698E-02	1.416
		256.23	*	7.149E-02	4.241E-01	6.880E-01	1.157E-01	0.104
		299.98		1.299E+00	1.598E+00	2.421E+00	3.944E-01	0.537
		304.50		-2.644E+00	2.671E+00	4.232E+00	8.176E-01	-0.625
		334.37		-5.788E-01	3.057E+00	4.377E+00	7.757E-01	-0.132
TH-229		85.43		2.358E-01	3.408E-01	5.078E-01	4.671E-02	0.464
	+	88.47		5.303E+00	5.885E-01	6.051E-01	5.715E-02	8.764
		193.51	*	4.681E-01	8.318E-01	1.396E+00	1.500E-01	0.335
	+	210.85		3.446E+00	2.008E+00	2.450E+00	2.788E-01	1.407
PA-231		283.69	*	7.296E-01	2.363E+00	3.821E+00	6.949E-01	0.191
		301.36		1.240E+00	9.837E-01	1.566E+00	2.479E-01	0.792
TH-231		81.07		-3.035E-01	3.382E-01	4.714E-01	4.119E-02	-0.644
		83.79		-2.524E-02	2.046E-01	2.957E-01	2.667E-02	-0.085
		94.87		9.346E-01	6.689E-01	1.023E+00	9.151E-02	0.913
		144.24		-3.486E-01	9.669E-01	1.602E+00	1.583E-01	-0.218
		154.21		4.572E-02	5.514E-01	9.271E-01	9.335E-02	0.049
		269.46		4.977E-01	2.991E-01	5.003E-01	6.869E-02	0.995
		323.87	*	-2.520E-01	1.036E+00	1.712E+00	3.346E-01	-0.147
	+	338.28		6.351E+00	2.262E+00	3.086E+00	4.502E-01	2.058
PA-233		300.13		6.912E-01	7.231E-01	1.097E+00	1.973E-01	0.630
		311.90	*	-2.290E-02	1.019E-01	1.692E-01	2.217E-02	-0.135
		340.48		2.783E+00	1.329E+00	1.843E+00	4.677E-01	1.510
PA-234		94.67		4.261E-01	2.494E-01	3.812E-01	4.817E-02	1.118
		98.44		4.934E-02	1.323E-01	2.116E-01	1.181E-01	0.233
		111.00		7.085E-02	2.722E-01	4.373E-01	5.201E-02	0.162
		131.20		9.864E-04	1.451E-01	2.460E-01	2.083E-02	0.004
		569.50		-1.157E-01	4.347E-01	7.131E-01	7.324E-02	-0.162
		733.00		-1.004E+00	6.808E-01	9.459E-01	2.189E-01	-1.061
		880.51		2.138E-01	5.518E-01	9.262E-01	1.036E-01	0.231
		883.24		1.352E-01	5.688E-01	9.429E-01	6.374E-01	0.143
		926.50		-1.131E-01	3.384E-01	5.472E-01	1.433E-01	-0.207
		946.00	*	2.814E-01	6.346E-01	1.064E+00	2.115E-01	0.264
		949.00		6.896E-01	9.320E-01	1.585E+00	1.712E-01	0.435
PA-234M		766.42		1.724E+01	2.001E+01	3.062E+01	1.567E+01	0.563
	+	1001.03	*	1.013E+01	8.014E+00	1.401E+01	1.605E+00	0.723
TH-234		63.29	*	-7.001E-01	1.965E+00	2.938E+00	5.228E-01	-0.238
		92.59		4.668E-02	9.785E-01	1.623E+00	3.615E-01	0.029
U-235	+	89.96		1.633E+00	1.674E+00	2.571E+00	6.392E-01	0.635
		93.35		9.168E-01	7.841E-01	1.190E+00	2.767E-01	0.771
		143.76	*	-8.175E-02	2.876E-01	4.775E-01	8.162E-02	-0.171
		163.33		1.550E-01	6.270E-01	1.055E+00	1.951E-01	0.147
	+	185.72		9.534E-02	7.982E-02	1.168E-01	1.223E-02	0.816
		205.31		4.425E-02	8.507E-01	1.227E+00	2.392E-01	0.036

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237		86.48	*	5.005E+00	1.263E+00	9.665E-01	2.218E-01	5.179
		95.86		-1.553E+00	1.463E+00	1.913E+00	4.607E-01	-0.812
U-238		63.29	*	-7.001E-01	1.965E+00	2.938E+00	5.228E-01	-0.238
		92.59		4.668E-02	9.784E-01	1.623E+00	1.476E-01	0.029
NP-239		99.53		1.941E-01	2.306E-01	3.826E-01	3.325E-02	0.507
		103.37		-8.273E-04	1.457E-01	2.338E-01	1.996E-02	-0.004
		106.12		6.427E-02	1.183E-01	1.936E-01	1.637E-02	0.332
		117.23	*	-1.199E-01	6.736E-01	9.422E-01	7.786E-02	-0.127
		228.18		4.206E-01	3.586E-01	6.031E-01	7.255E-02	0.697
		277.60		3.517E-01	2.857E-01	4.746E-01	6.615E-02	0.741
CM-247		278.00		1.401E+00	1.209E+00	2.006E+00	2.799E-01	0.699
		287.50		1.657E+00	2.050E+00	3.367E+00	4.632E-01	0.492
		402.40	*	-1.938E-02	6.462E-02	1.046E-01	9.813E-03	-0.185
CF-249		252.80		-5.025E-01	1.595E+00	2.537E+00	3.291E-01	-0.198
		333.37		-2.065E-01	3.317E-01	4.618E-01	5.588E-02	-0.447
		388.16	*	1.449E-01	7.014E-02	1.229E-01	1.167E-02	1.178
CF-251		177.52	*	1.522E-01	1.939E-01	3.298E-01	3.361E-02	0.461
		227.38		6.028E-01	5.856E-01	9.822E-01	1.179E-01	0.614
		285.41		3.807E-01	3.579E+00	5.741E+00	7.934E-01	0.066
ANH-511		511.00	*	6.464E-02	6.117E-02	1.100E-01	1.102E-02	0.588

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065187    *
* Acquisition date : 23-MAR-2010 14:40:28 Detector SN#     :               *
* Detector ID      : GAM22                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:02.28     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065187          Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-57	2.391E-01	7.139E-02	6.251E-02	0.000E+00
CO-60	6.634E+00	6.381E-01	8.139E-02	0.000E+00
CD-109	3.516E+01	3.824E+00	1.962E+00	0.000E+00
SN-126	3.440E+00	3.741E-01	1.927E-01	0.000E+00
BA-137M	5.677E+00	6.231E-01	9.013E-02	0.000E+00
CS-137	5.998E+00	6.590E-01	9.521E-02	0.000E+00
TL-208	3.935E-01	1.079E-01	9.982E-02	0.000E+00
BI-211	3.397E+00	7.335E-01	5.592E-01	0.000E+00
PB-212	1.570E+00	2.500E-01	1.547E-01	0.000E+00
BI-214	7.152E-01	1.910E-01	1.938E-01	0.000E+00
PB-214	1.233E+00	2.744E-01	2.033E-01	0.000E+00
RA-224	3.470E+00	1.917E+00	1.656E+00	0.000E+00
RA-226	7.152E-01	1.910E-01	1.938E-01	0.000E+00
AC-228	1.664E+00	5.936E-01	4.698E-01	0.000E+00
RA-228	1.664E+00	5.936E-01	4.698E-01	0.000E+00
TH-228	1.570E+00	2.500E-01	1.547E-01	0.000E+00
TH-230	7.151E-01	1.873E-01	1.938E-01	0.000E+00
TH-232	1.664E+00	5.936E-01	4.698E-01	0.000E+00
AM-241	1.363E+01	1.174E+00	4.769E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-1.348E-01	5.583E-01	9.433E-01	0.000E+00	NOT IDENT.
NA-22	-6.664E-02	4.691E-02	6.784E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	4.517E+05	0.000E+00	0.000E+00	SHORT HLIF
K-40	2.601E-01	5.273E-01	9.673E-01	0.000E+00	NOT IDENT.
SC-46	9.258E-03	7.445E-02	1.294E-01	0.000E+00	NOT IDENT.
V-48	-1.237E-01	1.358E-01	2.197E-01	0.000E+00	NOT IDENT.
CR-51	-2.685E-01	5.604E-01	9.805E-01	0.000E+00	NOT IDENT.
MN-54	-2.402E-02	6.404E-02	1.093E-01	0.000E+00	NOT IDENT.

CO-56	8.165E-03	7.214E-02	1.260E-01	0.000E+00	NOT IDENT.
CO-58	-2.736E-02	6.583E-02	1.124E-01	0.000E+00	NOT IDENT.
FE-59	-1.054E-01	1.635E-01	2.642E-01	0.000E+00	NOT IDENT.
ZN-65	-1.503E-01	1.691E-01	2.696E-01	0.000E+00	NOT IDENT.
SE-75	-7.144E-02	7.150E-02	1.169E-01	0.000E+00	FAIL ABUN
SR-85	-4.662E-03	7.083E-02	1.197E-01	0.000E+00	NOT IDENT.
Y-88	2.860E-02	4.640E-02	8.399E-02	0.000E+00	NOT IDENT.
Y-91	-3.586E+00	2.434E+01	4.137E+01	0.000E+00	NOT IDENT.
NB-94	5.604E-03	4.940E-02	8.503E-02	0.000E+00	NOT IDENT.
NB-95	3.458E-02	6.645E-02	1.155E-01	0.000E+00	NOT IDENT.
NB-95M	2.881E-01	2.139E-01	3.445E-01	0.000E+00	NOT IDENT.
ZR-95	2.071E-02	1.121E-01	1.921E-01	0.000E+00	NOT IDENT.
MO-99	3.164E+00	1.686E+01	2.896E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.269E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.152E-02	6.496E-02	1.123E-01	0.000E+00	FAIL ABUN
RH-106	1.129E-01	5.214E-01	9.141E-01	0.000E+00	NOT IDENT.
RU-106	1.129E-01	5.213E-01	9.141E-01	0.000E+00	NOT IDENT.
AG-108M	3.888E-03	5.142E-02	8.920E-02	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	1.145E-01	1.810E-01	0.000E+00	NOT IDENT.
SN-113	1.181E-02	7.498E-02	1.320E-01	0.000E+00	NOT IDENT.
CD-115	8.967E+00	1.554E+01	2.817E+01	0.000E+00	NOT IDENT.
SN-117M	1.276E-02	7.506E-02	1.373E-01	0.000E+00	NOT IDENT.
TE-123M	5.687E-03	3.935E-02	7.192E-02	0.000E+00	NOT IDENT.
SB-124	9.565E-02	1.033E-01	1.941E-01	0.000E+00	NOT IDENT.
SB-125	-1.364E-01	1.611E-01	2.678E-01	0.000E+00	FAIL ABUN
TE-125M	-1.708E+01	1.399E+01	2.301E+01	0.000E+00	NOT IDENT.
I-126	3.979E-01	4.123E-01	6.483E-01	0.000E+00	NOT IDENT.
SB-126	-2.361E-01	2.208E-01	3.508E-01	0.000E+00	NOT IDENT.
SB-127	1.122E-01	1.870E+00	3.219E+00	0.000E+00	NOT IDENT.
I-131	-3.416E-02	1.773E-01	3.099E-01	0.000E+00	NOT IDENT.
TE-132	1.264E+00	1.071E+00	1.918E+00	0.000E+00	NOT IDENT.
BA-133	2.407E-02	7.669E-02	1.197E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.134E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.304E-02	7.825E-02	1.363E-01	0.000E+00	NOT IDENT.
CS-135	8.156E-02	2.469E-01	4.308E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.926E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-7.911E-02	1.914E-01	3.161E-01	0.000E+00	NOT IDENT.
CE-139	-8.723E-03	4.226E-02	7.594E-02	0.000E+00	NOT IDENT.
BA-140	-2.025E-01	3.981E-01	6.745E-01	0.000E+00	NOT IDENT.
LA-140	-1.275E-01	1.081E-01	1.565E-01	0.000E+00	NOT IDENT.
CE-141	-3.693E-02	8.625E-02	1.557E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.989E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.702E-01	2.810E-01	4.856E-01	0.000E+00	NOT IDENT.
PM-144	9.684E-03	5.175E-02	8.951E-02	0.000E+00	NOT IDENT.
PR-144	7.645E-01	3.874E+00	6.705E+00	0.000E+00	NOT IDENT.
PM-146	-3.763E-03	7.716E-02	1.324E-01	0.000E+00	NOT IDENT.
ND-147	1.030E-01	8.529E-01	1.516E+00	0.000E+00	FAIL ABUN
PM-149	-1.615E+01	1.278E+02	2.173E+02	0.000E+00	NOT IDENT.
EU-152	1.315E-01	2.100E-01	2.694E-01	0.000E+00	FAIL ABUN
GD-153	-2.757E-02	1.226E-01	2.046E-01	0.000E+00	NOT IDENT.
EU-154	-1.902E-01	1.335E-01	1.917E-01	0.000E+00	FAIL ABUN
EU-155	1.105E-01	1.494E-01	2.699E-01	0.000E+00	FAIL ABUN
TB-160	1.169E-01	2.635E-01	4.618E-01	0.000E+00	FAIL ABUN
HO-166M	-8.677E-02	9.337E-02	1.499E-01	0.000E+00	FAIL ABUN
TA-182	1.330E-01	2.070E-01	3.730E-01	0.000E+00	NOT IDENT.
IR-192	5.225E-02	5.316E-02	9.815E-02	0.000E+00	FAIL ABUN
HG-203	2.032E-02	6.151E-02	1.069E-01	0.000E+00	NOT IDENT.
BI-207	5.816E-02	9.862E-02	1.717E-01	0.000E+00	FAIL ABUN
PB-210	-9.533E-02	5.398E+00	1.016E+01	0.000E+00	NOT IDENT.
PB-211	-9.115E-02	1.240E+00	2.153E+00	0.000E+00	NOT IDENT.
BI-212	1.228E+00	8.510E-01	1.529E+00	0.000E+00	NOT IDENT.
RN-219	-1.248E-01	6.986E-01	1.209E+00	0.000E+00	NOT IDENT.
RA-223	-2.520E-01	1.015E+00	1.793E+00	0.000E+00	FAIL ABUN
AC-227	7.149E-02	4.156E-01	7.245E-01	0.000E+00	NOT IDENT.
TH-227	7.149E-02	4.156E-01	7.245E-01	0.000E+00	NOT IDENT.
TH-229	4.681E-01	8.152E-01	1.480E+00	0.000E+00	FAIL ABUN
PA-231	7.296E-01	2.315E+00	4.013E+00	0.000E+00	NOT IDENT.
TH-231	-2.520E-01	1.015E+00	1.793E+00	0.000E+00	FAIL ABUN
PA-233	-2.290E-02	9.983E-02	1.773E-01	0.000E+00	NOT IDENT.
PA-234	2.814E-01	6.219E-01	1.084E+00	0.000E+00	NOT IDENT.
PA-234M	1.013E+01	7.854E+00	1.425E+01	0.000E+00	FAIL ABUN
TH-234	-7.001E-01	1.925E+00	3.198E+00	0.000E+00	NOT IDENT.
U-235	-8.175E-02	2.819E-01	5.099E-01	0.000E+00	FAIL ABUN
NP-237	0.000E+00	1.237E+00	1.044E+00	0.000E+00	NOT IDENT.
U-238	-7.001E-01	1.925E+00	3.198E+00	0.000E+00	NOT IDENT.
NP-239	-1.199E-01	6.601E-01	1.011E+00	0.000E+00	NOT IDENT.
CM-247	-1.938E-02	6.333E-02	1.090E-01	0.000E+00	NOT IDENT.
CF-249	0.000E+00	6.873E-02	1.281E-01	0.000E+00	NOT IDENT.

CF-251	1.522E-01	1.900E-01	3.504E-01	0.000E+00 NOT IDENT.
ANH-511	6.464E-02	5.995E-02	1.139E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:41:01.57

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065187.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 23-MAR-2010 14:40:28
Sample ID         : G1202065187          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:02.28  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962631               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	341	85.60*	8.558E+00	2.303E-01	2.391E-01	30.47
	136.47	------	10.68	8.461E+00	------	Line Not Found	------
CO-60	1173.23	3088	99.85	2.258E+00	6.778E+00	6.814E+00	9.03
	1332.49	2721	99.98*	2.041E+00	6.599E+00	6.634E+00	9.81
CD-109	88.03	1940	3.70*	7.541E+00	3.440E+01	3.516E+01	11.10
SN-126	64.28	------	9.60	4.512E+00	------	Line Not Found	------
	86.94	1940	8.90	7.541E+00	1.430E+01	1.430E+01	41.94
	87.57	1940	37.00*	7.541E+00	3.440E+00	3.440E+00	11.10
BA-137M	661.66	3699	89.90*	3.590E+00	5.672E+00	5.677E+00	11.20
CS-137	661.66	3699	85.10*	3.590E+00	5.992E+00	5.998E+00	11.21
TL-208	277.37	------	6.60	6.182E+00	------	Line Not Found	------
	583.19	266	85.00*	3.931E+00	3.935E-01	3.935E-01	27.99
	860.56	------	12.50	2.923E+00	------	Line Not Found	------
BI-211	72.87	------	1.23	5.897E+00	------	Line Not Found	------
	351.06	479	12.92*	5.402E+00	3.397E+00	3.397E+00	22.03
PB-212	74.82	240	10.28	6.174E+00	1.867E+00	1.867E+00	36.34
	77.11	387	17.10	6.477E+00	1.731E+00	1.731E+00	23.58
	238.63	928	43.60*	6.709E+00	1.570E+00	1.570E+00	16.25
	300.09	------	3.30	5.916E+00	------	Line Not Found	------
BI-214	609.32	251	45.49*	3.811E+00	7.151E-01	7.152E-01	27.25
	1120.29	------	14.92	2.346E+00	------	Line Not Found	------
	1764.49	89	15.30	1.716E+00	1.673E+00	1.673E+00	31.31
PB-214	74.82	240	5.80	6.174E+00	3.309E+00	3.309E+00	35.90
	77.11	387	9.70	6.477E+00	3.051E+00	3.051E+00	24.98
	242.00	192	7.25	6.662E+00	1.962E+00	1.962E+00	56.68
	295.22	256	18.42	5.969E+00	1.151E+00	1.151E+00	32.15
	351.93	479	35.60*	5.402E+00	1.233E+00	1.233E+00	22.71
RA-224	240.99	192	4.10*	6.662E+00	3.470E+00	3.470E+00	56.39
RA-226	609.32	251	45.49*	3.811E+00	7.151E-01	7.152E-01	27.25
	1120.29	------	14.92	2.346E+00	------	Line Not Found	------
	1764.49	89	15.30	1.716E+00	1.673E+00	1.673E+00	31.31
AC-228	338.32	201	11.27	5.525E+00	1.601E+00	1.601E+00	53.50

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	242	25.80*	2.787E+00	1.664E+00	1.664E+00	36.40
	968.97	91	15.80	2.647E+00	1.082E+00	1.082E+00	76.77
RA-228	338.32	201	11.27	5.525E+00	1.601E+00	1.601E+00	53.50
	911.20	242	25.80*	2.787E+00	1.664E+00	1.664E+00	36.40
	968.97	91	15.80	2.647E+00	1.082E+00	1.082E+00	76.77
TH-228	74.82	240	10.28	6.174E+00	1.867E+00	1.867E+00	35.04
	77.11	387	17.10	6.477E+00	1.731E+00	1.731E+00	23.58
	238.63	928	43.60*	6.709E+00	1.570E+00	1.570E+00	16.25
	300.09	------	3.30	5.916E+00	------ Line Not Found		------
TH-230	609.32	251	45.49*	3.811E+00	7.151E-01	7.151E-01	26.73
	1120.29	------	14.92	2.346E+00	------ Line Not Found		------
	1764.49	89	15.30	1.716E+00	1.673E+00	1.673E+00	31.31
TH-232	338.32	201	11.27	5.525E+00	1.601E+00	1.601E+00	34.59
	911.20	242	25.80*	2.787E+00	1.664E+00	1.664E+00	36.40
	968.97	91	15.80	2.647E+00	1.082E+00	1.082E+00	76.77
AM-241	59.54	3608	35.90*	3.647E+00	1.363E+01	1.363E+01	8.79

Flag: "*" = Keyline

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

Total number of lines in spectrum 25
Number of unidentified lines 1
Number of lines tentatively identified by NID 24 96.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	271.74D	1.04	2.303E-01	2.391E-01	0.728E-01	30.47	
CO-60	5.27Y	1.01	6.599E+00	6.634E+00	0.651E+00	9.81	
CD-109	461.40D	1.02	3.440E+01	3.516E+01	0.390E+01	11.10	
SN-126	2.30E+05Y	1.00	3.440E+00	3.440E+00	0.382E+00	11.10	
BA-137M	30.08Y	1.00	5.672E+00	5.677E+00	0.636E+00	11.20	
CS-137	30.08Y	1.00	5.992E+00	5.998E+00	0.672E+00	11.21	
TL-208	1.41E+10Y	1.00	3.935E-01	3.935E-01	1.101E-01	27.99	
BI-211	7.04E+08Y	1.00	3.397E+00	3.397E+00	0.748E+00	22.03	
PB-212	1.41E+10Y	1.00	1.570E+00	1.570E+00	0.255E+00	16.25	
BI-214	1600.00Y	1.00	7.151E-01	7.152E-01	1.948E-01	27.25	
PB-214	1600.00Y	1.00	1.233E+00	1.233E+00	0.280E+00	22.71	
RA-224	1.41E+10Y	1.00	3.470E+00	3.470E+00	1.956E+00	56.39	
RA-226	1600.00Y	1.00	7.151E-01	7.152E-01	1.948E-01	27.25	
AC-228	1.41E+10Y	1.00	1.664E+00	1.664E+00	0.606E+00	36.40	
RA-228	1.41E+10Y	1.00	1.664E+00	1.664E+00	0.606E+00	36.40	
TH-228	1.41E+10Y	1.00	1.570E+00	1.570E+00	0.255E+00	16.25	
TH-230	7.54E+04Y	1.00	7.151E-01	7.151E-01	1.912E-01	26.73	
TH-232	1.41E+10Y	1.00	1.664E+00	1.664E+00	0.606E+00	36.40	
AM-241	432.60Y	1.00	1.363E+01	1.363E+01	0.120E+01	8.79	
			---	---			
	Total Activity :		8.874E+01	8.956E+01			

Grand Total Activity : 8.874E+01 8.956E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	57.89	114	718	1.21	116.04	113	12	3.17E-02	67.4	3.33E+00	T
3	90.20	88	358	1.09	180.60	171	19	2.45E-02	99.5	7.70E+00	T
0	185.85	84	351	1.60	371.72	369	8	2.33E-02	83.1	7.61E+00	T
0	209.69	140	416	1.18	419.34	415	10	3.89E-02	57.2	7.18E+00	T
0	462.86	64	257	1.56	925.30	921	10	1.77E-02	97.4	4.58E+00	T
0	1000.99	44	73	1.69	2001.04	1997	9	1.23E-02	78.3	2.58E+00	T
0	1731.09	22	20	1.92	3461.36	3452	13	6.12E-03	93.1	1.73E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 15:41:05.77

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065187.CNF;1  *
* Acquisition date : 23-MAR-2010 14:40:28  Detector SN#    :                *
* Detector ID      : GAM22                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 01:00:02.28         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 9-MAR-2010 00:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G1202065187           Analyst initials: MXR1           *
* Batch Number     : 962631                Sample Quantity : 1.51730E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	2.391E-01	7.284E-02	5.832E-02	4.809E-03	4.100
CO-60	6.634E+00	6.511E-01	8.060E-02	7.187E-03	82.313
CD-109	3.516E+01	3.902E+00	1.816E+00	1.724E-01	19.360
SN-126	3.440E+00	3.817E-01	1.784E-01	1.684E-02	19.282
BA-137M	5.677E+00	6.358E-01	8.764E-02	9.241E-03	64.783
CS-137	5.998E+00	6.724E-01	9.258E-02	9.775E-03	64.783
TL-208	3.935E-01	1.101E-01	9.675E-02	1.048E-02	4.067
BI-211	3.397E+00	7.485E-01	5.352E-01	6.245E-02	6.348
PB-212	1.570E+00	2.551E-01	1.466E-01	1.943E-02	10.710
BI-214	7.152E-01	1.948E-01	1.881E-01	2.195E-02	3.802
PB-214	1.233E+00	2.800E-01	1.946E-01	2.505E-02	6.336
RA-224	3.470E+00	1.956E+00	1.570E+00	1.965E-01	2.210
RA-226	7.152E-01	1.948E-01	1.881E-01	2.195E-02	3.802
AC-228	1.664E+00	6.057E-01	4.606E-01	6.240E-02	3.613
RA-228	1.664E+00	6.057E-01	4.606E-01	6.240E-02	3.613
TH-228	1.570E+00	2.551E-01	1.466E-01	1.943E-02	10.710
TH-230	7.151E-01	1.912E-01	1.881E-01	1.958E-02	3.802
TH-232	1.664E+00	6.057E-01	4.606E-01	6.240E-02	3.613

Sample ID : G1202065187 Acquisition date : 23-MAR-2010 14:40:28

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-241	1.363E+01	1.198E+00	4.375E-01	3.420E-02	31.159

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.348E-01		5.697E-01	9.097E-01	9.492E-02	-0.148
NA-22	-6.664E-02		4.787E-02	6.710E-02	5.782E-03	-0.993
NA-24	-3.645E-01		2.304E-01	Half-Life too short		
K-40	2.601E-01		5.381E-01	9.602E-01	8.797E-02	0.271
SC-46	9.258E-03		7.597E-02	1.268E-01	1.419E-02	0.073
V-48	-1.237E-01		1.386E-01	2.158E-01	2.264E-02	-0.573
CR-51	-2.685E-01		5.718E-01	9.362E-01	1.212E-01	-0.287
MN-54	-2.402E-02		6.535E-02	1.070E-01	1.188E-02	-0.225
CO-56	8.165E-03		7.362E-02	1.233E-01	1.373E-02	0.066
CO-58	-2.736E-02		6.718E-02	1.099E-01	1.217E-02	-0.249
FE-59	-1.054E-01		1.668E-01	2.603E-01	2.550E-02	-0.405
ZN-65	-1.503E-01		1.725E-01	2.657E-01	2.370E-02	-0.566
SE-75	-7.144E-02		7.296E-02	1.111E-01	1.496E-02	-0.643
SR-85	-4.662E-03		7.228E-02	1.157E-01	1.161E-02	-0.040
Y-88	2.860E-02		4.735E-02	8.388E-02	6.782E-03	0.341
Y-91	-3.586E+00		2.484E+01	4.086E+01	3.359E+00	-0.088
NB-94	5.604E-03		5.040E-02	8.281E-02	8.874E-03	0.068
NB-95	3.458E-02		6.781E-02	1.127E-01	1.233E-02	0.307
NB-95M	2.881E-01		2.183E-01	3.265E-01	4.320E-02	0.882
ZR-95	2.071E-02		1.144E-01	1.874E-01	2.181E-02	0.111
MO-99	3.164E+00		1.720E+01	2.824E+01	4.823E+00	0.112
TC-99M	-5.811E+09		6.475E+09	Half-Life too short		
RU-103	2.152E-02		6.629E-02	1.084E-01	1.607E-02	0.199
RH-106	1.129E-01		5.320E-01	8.875E-01	1.288E-01	0.127
RU-106	1.129E-01		5.319E-01	8.875E-01	9.270E-02	0.127
AG-108M	3.888E-03		5.247E-02	8.582E-02	8.446E-03	0.045
AG-110M	6.450E-01		1.169E-01	1.760E-01	1.891E-02	3.666
SN-113	1.181E-02		7.651E-02	1.267E-01	1.210E-02	0.093
CD-115	8.967E+00		1.586E+01	2.723E+01	2.750E+00	0.329
SN-117M	1.276E-02		7.660E-02	1.289E-01	1.222E-02	0.099
TE-123M	5.687E-03		4.016E-02	6.751E-02	6.447E-03	0.084
SB-124	9.565E-02		1.054E-01	1.934E-01	1.725E-02	0.494
SB-125	-1.364E-01		1.644E-01	2.576E-01	2.498E-02	-0.530
TE-125M	-1.708E+01		1.427E+01	2.141E+01	2.201E+00	-0.798
I-126	3.979E-01		4.208E-01	6.305E-01	6.662E-02	0.631
SB-126	-2.361E-01		2.253E-01	3.419E-01	3.687E-02	-0.690
SB-127	1.122E-01		1.908E+00	3.133E+00	4.023E-01	0.036
I-131	-3.416E-02		1.809E-01	2.968E-01	3.288E-02	-0.115
TE-132	1.264E+00		1.093E+00	1.816E+00	3.236E-01	0.696
BA-133	2.407E-02		7.825E-02	1.146E-01	1.688E-02	0.210
I-133	-1.087E-03		3.129E-03	Half-Life too short		
CS-134	5.304E-02		7.984E-02	1.332E-01	1.474E-02	0.398

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-135	8.156E-02		2.519E-01	4.096E-01	5.924E-02	0.199
I-135	-3.437E+08		9.828E+08	Half-Life too short		
CS-136	-7.911E-02		1.953E-01	3.111E-01	3.145E-02	-0.254
CE-139	-8.723E-03		4.312E-02	7.136E-02	6.999E-03	-0.122
BA-140	-2.025E-01		4.062E-01	6.524E-01	2.240E-01	-0.310
LA-140	-1.275E-01		1.103E-01	1.557E-01	1.365E-02	-0.819
CE-141	-3.693E-02		8.801E-02	1.459E-01	1.328E-02	-0.253
CE-143	3.463E-04		1.015E-04	Half-Life too short		
CE-144	-3.702E-01		2.867E-01	4.540E-01	6.919E-02	-0.815
PM-144	9.684E-03		5.280E-02	8.716E-02	9.321E-03	0.111
PR-144	7.645E-01		3.953E+00	6.528E+00	6.980E-01	0.117
PM-146	-3.763E-03		7.873E-02	1.275E-01	1.467E-02	-0.030
ND-147	1.030E-01		8.703E-01	1.466E+00	2.324E-01	0.070
PM-149	-1.615E+01		1.304E+02	2.069E+02	3.915E+01	-0.078
EU-152	1.315E-01		2.143E-01	2.577E-01	3.097E-02	0.510
GD-153	-2.757E-02		1.251E-01	1.898E-01	1.669E-02	-0.145
EU-154	-1.902E-01		1.363E-01	1.896E-01	2.156E-02	-1.003
EU-155	1.105E-01		1.524E-01	2.509E-01	2.153E-02	0.440
TB-160	1.169E-01		2.689E-01	4.523E-01	5.058E-02	0.258
HO-166M	-8.677E-02		9.527E-02	1.461E-01	1.570E-02	-0.594
TA-182	1.330E-01		2.113E-01	3.686E-01	3.065E-02	0.361
IR-192	5.225E-02		5.425E-02	9.369E-02	1.197E-02	0.558
HG-203	2.032E-02		6.277E-02	1.017E-01	1.438E-02	0.200
BI-207	5.816E-02		1.006E-01	1.690E-01	1.622E-02	0.344
PB-210	-9.533E-02		5.509E+00	9.272E+00	8.539E-01	-0.010
PB-211	-9.115E-02		1.265E+00	2.067E+00	1.003E+00	-0.044
BI-212	1.228E+00		8.684E-01	1.491E+00	2.096E-01	0.824
RN-219	-1.248E-01		7.128E-01	1.161E+00	1.779E-01	-0.108
RA-223	-2.520E-01		1.036E+00	1.712E+00	3.346E-01	-0.147
AC-227	7.149E-02		4.241E-01	6.880E-01	1.072E-01	0.104
TH-227	7.149E-02		4.241E-01	6.880E-01	1.157E-01	0.104
TH-229	4.681E-01		8.318E-01	1.396E+00	1.500E-01	0.335
PA-231	7.296E-01		2.363E+00	3.821E+00	6.949E-01	0.191
TH-231	-2.520E-01		1.036E+00	1.712E+00	3.346E-01	-0.147
PA-233	-2.290E-02		1.019E-01	1.692E-01	2.217E-02	-0.135
PA-234	2.814E-01		6.346E-01	1.064E+00	2.115E-01	0.264
PA-234M	1.013E+01	+	8.014E+00	1.401E+01	1.605E+00	0.723
TH-234	-7.001E-01		1.965E+00	2.938E+00	5.228E-01	-0.238
U-235	-8.175E-02		2.876E-01	4.775E-01	8.162E-02	-0.171
NP-237	5.005E+00		1.263E+00	9.665E-01	2.218E-01	5.179
U-238	-7.001E-01		1.965E+00	2.938E+00	5.228E-01	-0.238
NP-239	-1.199E-01		6.736E-01	9.422E-01	7.786E-02	-0.127
CM-247	-1.938E-02		6.462E-02	1.046E-01	9.813E-03	-0.185
CF-249	1.449E-01		7.014E-02	1.229E-01	1.167E-02	1.178
CF-251	1.522E-01		1.939E-01	3.298E-01	3.361E-02	0.461
ANH-511	6.464E-02		6.117E-02	1.100E-01	1.102E-02	0.588

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065187           *
* Acquisition date : 23-MAR-2010 14:40:28 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:02.28     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065187          Analyst initials: MXR1            *
* Batch Number     : 962631               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
CO-57	2.391E-01	7.139E-02	3.127E-02	3.642E-02
CO-60	6.634E+00	6.381E-01	4.072E-02	3.256E-01
CD-109	3.516E+01	3.824E+00	9.815E-01	1.951E+00
SN-126	3.440E+00	3.741E-01	9.641E-02	1.909E-01
BA-137M	5.677E+00	6.231E-01	4.509E-02	3.179E-01
CS-137	5.998E+00	6.590E-01	4.763E-02	3.362E-01
TL-208	3.935E-01	1.079E-01	4.994E-02	5.505E-02
BI-211	3.397E+00	7.335E-01	2.798E-01	3.742E-01
PB-212	1.570E+00	2.500E-01	7.738E-02	1.276E-01
BI-214	7.152E-01	1.910E-01	9.698E-02	9.742E-02
PB-214	1.233E+00	2.744E-01	1.017E-01	1.400E-01
RA-224	3.470E+00	1.917E+00	8.284E-01	9.782E-01
RA-226	7.152E-01	1.910E-01	9.698E-02	9.742E-02
AC-228	1.664E+00	5.936E-01	2.351E-01	3.029E-01
RA-228	1.664E+00	5.936E-01	2.351E-01	3.029E-01
TH-228	1.570E+00	2.500E-01	7.738E-02	1.276E-01
TH-230	7.151E-01	1.873E-01	9.698E-02	9.558E-02
TH-232	1.664E+00	5.936E-01	2.351E-01	3.029E-01
AM-241	1.363E+01	1.174E+00	2.386E-01	5.991E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.348E-01	5.583E-01	4.719E-01	2.848E-01	NOT IDENT.
NA-22	-6.664E-02	4.691E-02	3.394E-02	2.393E-02	NOT IDENT.
NA-24	-3.645E+05	4.517E+05	0.000E+00	2.304E+05	SHORT HLIF
K-40	2.601E-01	5.273E-01	4.839E-01	2.690E-01	NOT IDENT.
SC-46	9.258E-03	7.445E-02	6.473E-02	3.799E-02	NOT IDENT.
V-48	-1.237E-01	1.358E-01	1.099E-01	6.930E-02	NOT IDENT.
CR-51	-2.685E-01	5.604E-01	4.906E-01	2.859E-01	NOT IDENT.
MN-54	-2.402E-02	6.404E-02	5.471E-02	3.268E-02	NOT IDENT.

CO-56	8.165E-03	7.214E-02	6.305E-02	3.681E-02	NOT IDENT.
CO-58	-2.736E-02	6.583E-02	5.624E-02	3.359E-02	NOT IDENT.
FE-59	-1.054E-01	1.635E-01	1.322E-01	8.340E-02	NOT IDENT.
ZN-65	-1.503E-01	1.691E-01	1.349E-01	8.625E-02	NOT IDENT.
SE-75	-7.144E-02	7.150E-02	5.850E-02	3.648E-02	FAIL ABUN
SR-85	-4.662E-03	7.083E-02	5.989E-02	3.614E-02	NOT IDENT.
Y-88	2.860E-02	4.640E-02	4.202E-02	2.368E-02	NOT IDENT.
Y-91	-3.586E+00	2.434E+01	2.070E+01	1.242E+01	NOT IDENT.
NB-94	5.604E-03	4.940E-02	4.254E-02	2.520E-02	NOT IDENT.
NB-95	3.458E-02	6.645E-02	5.779E-02	3.390E-02	NOT IDENT.
NB-95M	2.881E-01	2.139E-01	1.724E-01	1.092E-01	NOT IDENT.
ZR-95	2.071E-02	1.121E-01	9.611E-02	5.721E-02	NOT IDENT.
MO-99	3.164E+00	1.686E+01	1.449E+01	8.601E+00	NOT IDENT.
TC-99M	-5.811E+15	1.269E+16	0.000E+00	6.475E+15	SHORT HLIF
RU-103	2.152E-02	6.496E-02	5.618E-02	3.315E-02	FAIL ABUN
RH-106	1.129E-01	5.214E-01	4.573E-01	2.660E-01	NOT IDENT.
RU-106	1.129E-01	5.213E-01	4.573E-01	2.660E-01	NOT IDENT.
AG-108M	3.888E-03	5.142E-02	4.463E-02	2.624E-02	NOT IDENT.
AG-110M	6.450E-01	1.145E-01	9.054E-02	5.843E-02	NOT IDENT.
SN-113	1.181E-02	7.498E-02	6.603E-02	3.825E-02	NOT IDENT.
CD-115	8.967E+00	1.554E+01	1.409E+01	7.929E+00	NOT IDENT.
SN-117M	1.276E-02	7.506E-02	6.870E-02	3.830E-02	NOT IDENT.
TE-123M	5.687E-03	3.935E-02	3.598E-02	2.008E-02	NOT IDENT.
SB-124	9.565E-02	1.033E-01	9.711E-02	5.268E-02	NOT IDENT.
SB-125	-1.364E-01	1.611E-01	1.340E-01	8.222E-02	FAIL ABUN
TE-125M	-1.708E+01	1.399E+01	1.151E+01	7.137E+00	NOT IDENT.
I-126	3.979E-01	4.123E-01	3.244E-01	2.104E-01	NOT IDENT.
SB-126	-2.361E-01	2.208E-01	1.755E-01	1.127E-01	NOT IDENT.
SB-127	1.122E-01	1.870E+00	1.610E+00	9.541E-01	NOT IDENT.
I-131	-3.416E-02	1.773E-01	1.550E-01	9.044E-02	NOT IDENT.
TE-132	1.264E+00	1.071E+00	9.595E-01	5.463E-01	NOT IDENT.
BA-133	2.407E-02	7.669E-02	5.990E-02	3.913E-02	NOT IDENT.
I-133	-1.087E+03	6.134E+03	0.000E+00	3.129E+03	SHORT HLIF
CS-134	5.304E-02	7.825E-02	6.820E-02	3.992E-02	NOT IDENT.
CS-135	8.156E-02	2.469E-01	2.155E-01	1.260E-01	NOT IDENT.
I-135	-3.437E+14	1.926E+15	0.000E+00	9.828E+14	SHORT HLIF
CS-136	-7.911E-02	1.914E-01	1.582E-01	9.765E-02	NOT IDENT.
CE-139	-8.723E-03	4.226E-02	3.799E-02	2.156E-02	NOT IDENT.
BA-140	-2.025E-01	3.981E-01	3.374E-01	2.031E-01	NOT IDENT.
LA-140	-1.275E-01	1.081E-01	7.829E-02	5.514E-02	NOT IDENT.
CE-141	-3.693E-02	8.625E-02	7.790E-02	4.401E-02	NOT IDENT.
CE-143	3.463E+02	1.989E+02	0.000E+00	1.015E+02	SHORT HLIF
CE-144	-3.702E-01	2.810E-01	2.429E-01	1.434E-01	NOT IDENT.
PM-144	9.684E-03	5.175E-02	4.478E-02	2.640E-02	NOT IDENT.
PR-144	7.645E-01	3.874E+00	3.354E+00	1.976E+00	NOT IDENT.
PM-146	-3.763E-03	7.716E-02	6.625E-02	3.937E-02	NOT IDENT.
ND-147	1.030E-01	8.529E-01	7.583E-01	4.351E-01	FAIL ABUN
PM-149	-1.615E+01	1.278E+02	1.087E+02	6.519E+01	NOT IDENT.
EU-152	1.315E-01	2.100E-01	1.348E-01	1.071E-01	FAIL ABUN
GD-153	-2.757E-02	1.226E-01	1.023E-01	6.254E-02	NOT IDENT.
EU-154	-1.902E-01	1.335E-01	9.592E-02	6.813E-02	FAIL ABUN
EU-155	1.105E-01	1.494E-01	1.350E-01	7.621E-02	FAIL ABUN
TB-160	1.169E-01	2.635E-01	2.310E-01	1.344E-01	FAIL ABUN
HO-166M	-8.677E-02	9.337E-02	7.501E-02	4.764E-02	FAIL ABUN
TA-182	1.330E-01	2.070E-01	1.866E-01	1.056E-01	NOT IDENT.
IR-192	5.225E-02	5.316E-02	4.910E-02	2.712E-02	FAIL ABUN
HG-203	2.032E-02	6.151E-02	5.347E-02	3.138E-02	NOT IDENT.
BI-207	5.816E-02	9.862E-02	8.588E-02	5.032E-02	FAIL ABUN
PB-210	-9.533E-02	5.398E+00	5.084E+00	2.754E+00	NOT IDENT.
PB-211	-9.115E-02	1.240E+00	1.077E+00	6.326E-01	NOT IDENT.
BI-212	1.228E+00	8.510E-01	7.650E-01	4.342E-01	NOT IDENT.
RN-219	-1.248E-01	6.986E-01	6.048E-01	3.564E-01	NOT IDENT.
RA-223	-2.520E-01	1.015E+00	8.968E-01	5.178E-01	FAIL ABUN
AC-227	7.149E-02	4.156E-01	3.625E-01	2.121E-01	NOT IDENT.
TH-227	7.149E-02	4.156E-01	3.625E-01	2.121E-01	NOT IDENT.
TH-229	4.681E-01	8.152E-01	7.405E-01	4.159E-01	FAIL ABUN
PA-231	7.296E-01	2.315E+00	2.008E+00	1.181E+00	NOT IDENT.
TH-231	-2.520E-01	1.015E+00	8.968E-01	5.178E-01	FAIL ABUN
PA-233	-2.290E-02	9.983E-02	8.869E-02	5.094E-02	NOT IDENT.
PA-234	2.814E-01	6.219E-01	5.425E-01	3.173E-01	NOT IDENT.
PA-234M	1.013E+01	7.854E+00	7.130E+00	4.007E+00	FAIL ABUN
TH-234	-7.001E-01	1.925E+00	1.600E+00	9.823E-01	NOT IDENT.
U-235	-8.175E-02	2.819E-01	2.551E-01	1.438E-01	FAIL ABUN
NP-237	5.005E+00	1.237E+00	5.225E-01	6.313E-01	NOT IDENT.
U-238	-7.001E-01	1.925E+00	1.600E+00	9.823E-01	NOT IDENT.
NP-239	-1.199E-01	6.601E-01	5.058E-01	3.368E-01	NOT IDENT.
CM-247	-1.938E-02	6.333E-02	5.451E-02	3.231E-02	NOT IDENT.
CF-249	1.449E-01	6.873E-02	6.411E-02	3.507E-02	NOT IDENT.

CF-251	1.522E-01	1.900E-01	1.753E-01	9.694E-02	NOT IDENT.
ANH-511	6.464E-02	5.995E-02	5.697E-02	3.058E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	484.1933
49.72	547.3168
57.36	0.0000
59.54	617.4109
63.29	395.6656
63.29	395.6656
64.28	408.8275
67.75	411.1249
69.67	452.6741
70.83	444.0544
72.81	475.7069
72.87	475.8058
72.87	475.8058
74.82	467.8417
74.82	467.8417
74.82	467.8417
74.97	468.0772
77.11	471.4048
77.11	471.4048
77.11	471.4048
79.69	431.2109
79.80	431.3626
80.12	465.7300
80.19	465.8337
80.57	466.3959
81.00	514.9722
81.07	515.0865
81.07	515.0865
83.79	522.5915
83.79	522.5915
85.43	507.9705
86.48	563.0568
86.55	563.1743
86.79	462.8271
86.94	463.0379
87.57	463.9082
88.03	464.5430
88.47	465.1486
89.96	467.1864
91.11	468.7487
92.59	470.7427
92.59	470.7427
93.35	365.8555
94.67	322.1237
94.87	322.3038
94.87	322.3038
95.86	387.8339
97.43	358.3570
98.44	341.7707
99.53	318.8414
100.11	323.6987
103.18	354.9175
103.37	352.8962
105.31	328.1641
106.12	316.6703
109.28	379.4944
111.00	344.1352
111.76	317.8295
116.30	359.7371
117.23	349.9508
121.12	319.2812
121.78	319.7690
122.06	319.9754
123.07	320.7192
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133.52	389.6326
136.00	336.5034

136.47	326.1447
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140.51	0.0000
143.76	369.0932
144.24	373.0732
144.24	373.0732
145.44	371.2554
152.43	337.7485
153.25	326.3005
154.21	349.9892
154.21	349.9892
156.02	356.7607
158.56	338.9228
159.00	329.8818
162.66	334.9408
163.33	337.2308
165.86	349.1672
176.60	329.8763
177.52	329.4338
181.07	392.7997
184.41	314.9617
185.72	376.5890
193.51	367.9301
197.04	398.8401
205.31	372.3437
210.85	404.7192
215.65	383.3164
222.11	365.5703
227.38	342.2933
228.16	337.4596
228.18	337.4695
235.69	328.3508
235.96	348.6859
235.96	348.6859
238.63	347.6222
238.63	347.6222
240.99	348.7242
242.00	349.1935
244.70	308.4778
252.40	324.9279
252.80	338.0114
256.23	327.6023
256.23	327.6023
260.90	308.8743
264.66	324.5265
268.22	305.0975
269.46	272.5858
269.46	272.5858
271.23	300.7099
273.65	388.8618
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277.37	266.3159
277.60	275.2650
278.00	275.3975
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279.54	302.6008
280.46	302.9287
283.69	281.7197
284.31	280.8047
285.41	289.0060
285.90	304.8628
287.50	273.9862
293.27	0.0000
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295.96	364.3193
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299.98	302.1843
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300.09	288.5563
300.13	294.6430
301.36	282.8788
302.85	314.4207
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304.50	332.3940
304.85	335.2706
308.46	266.7030
311.90	278.7749

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319.41	290.3253
320.08	275.6283
323.87	294.4935
323.87	294.4935
328.76	265.9240
333.37	300.5437
334.37	275.6449
334.37	275.6449
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338.32	263.7844
338.32	263.7844
338.32	263.7844
340.48	247.2380
340.55	250.4270
344.28	225.9052
351.06	264.2545
351.93	264.4794
356.01	257.4805
364.49	256.0044
366.42	260.3739
383.85	281.4450
388.16	224.8385
388.63	241.8520
391.69	268.4615
400.66	256.5097
401.81	284.9622
402.40	281.0775
404.85	288.7441
410.95	275.0392
414.70	294.2459
423.72	256.4728
427.09	301.4302
427.87	291.3290
433.94	255.5389
453.88	278.5703
463.37	281.6931
468.07	263.9360
473.00	263.5049
476.78	241.7913
477.60	245.1519
487.02	235.0206
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529.87	0.0000
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546.56	0.0000
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569.70	185.4706
583.19	197.3563
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609.32	200.8575
609.32	200.8575
610.33	183.9791
614.28	179.3907
618.01	182.8489
621.93	187.6542
621.93	187.6542
633.25	182.9826
635.95	195.1643
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657.76	197.7806
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661.66	150.8209
664.57	0.0000
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666.50	172.8376

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696.49	153.7567
696.51	153.7598
697.00	153.7994
702.65	148.0986
706.68	151.5100
711.68	168.4486
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722.78	211.0205
722.91	211.0329
723.31	200.6804
724.19	172.6836
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733.00	203.7836
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747.24	156.8544
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753.82	145.7603
756.73	143.8608
763.94	160.3054
765.81	160.4559
766.42	150.9357
777.92	176.3834
778.90	167.9145
783.70	170.4514
785.37	170.5905
795.86	161.7554
801.95	177.3697
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810.76	174.0831
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832.01	159.8375
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836.80	0.0000
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860.56	187.6523
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873.19	206.9146
875.33	0.0000
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884.68	183.8955
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898.04	184.9680
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911.20	207.4432
911.20	207.4432
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949.00	198.8864
962.29	264.6409
964.08	236.9541
966.15	193.5590
968.97	213.4813
968.97	213.4813
968.97	213.4813
983.53	203.6974
996.26	174.7244
1001.03	172.7803
1004.73	157.5996
1037.84	146.5610
1038.76	0.0000
1048.07	168.7361
1050.41	155.4976
1050.41	155.4976
1063.66	158.3362
1085.87	169.0287
1099.45	169.8649
1112.07	185.3856

1115.54	208.8143
1120.29	141.5571
1120.29	141.5571
1120.29	141.5571
1120.55	142.6277
1121.30	152.1763
1131.51	0.0000
1173.23	83.7960
1177.93	70.4147
1189.05	83.3003
1204.77	77.0795
1221.41	60.2814
1231.02	86.3855
1235.36	62.4788
1238.28	45.2200
1260.41	0.0000
1271.85	58.3521
1274.44	65.2130
1274.54	65.2150
1291.59	36.2085
1298.22	0.0000
1312.11	54.1658
1332.49	50.5409
1365.19	36.0286
1368.63	0.0000
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1457.56	0.0000
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1489.16	34.2155
1505.03	37.4886
1596.21	44.5687
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1678.03	0.0000
1690.97	21.3638
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1764.49	19.5696
1764.49	19.5696
1770.23	30.2846
1771.35	28.5109
1791.20	0.0000
1836.06	22.1068

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065187

Total Uranium Activity	-2.1207E+00	ug/g
Total Uranium Counting Unc.	5.7292E+00	ug/g
Total Uranium Tpu	2.9231E-06	ug/g
Total Uranium Mda	4.7606E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 962631                    SAMPLE ID  : G1202065187        *
*   ANALYST       : MXR1                      DETECTOR   : GAM22              *
*   SAMPLE DATE   :  9-MAR-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00  *
*   ANALYSIS DATE: 23-MAR-2010 14:40:28.19    SAMPLE ALQT:  151.730 GRAM     *
*                                                                             *
*******************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.909E+01
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 2.739E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 3.285E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 1.599E+00
```

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.294900 through 0.361886

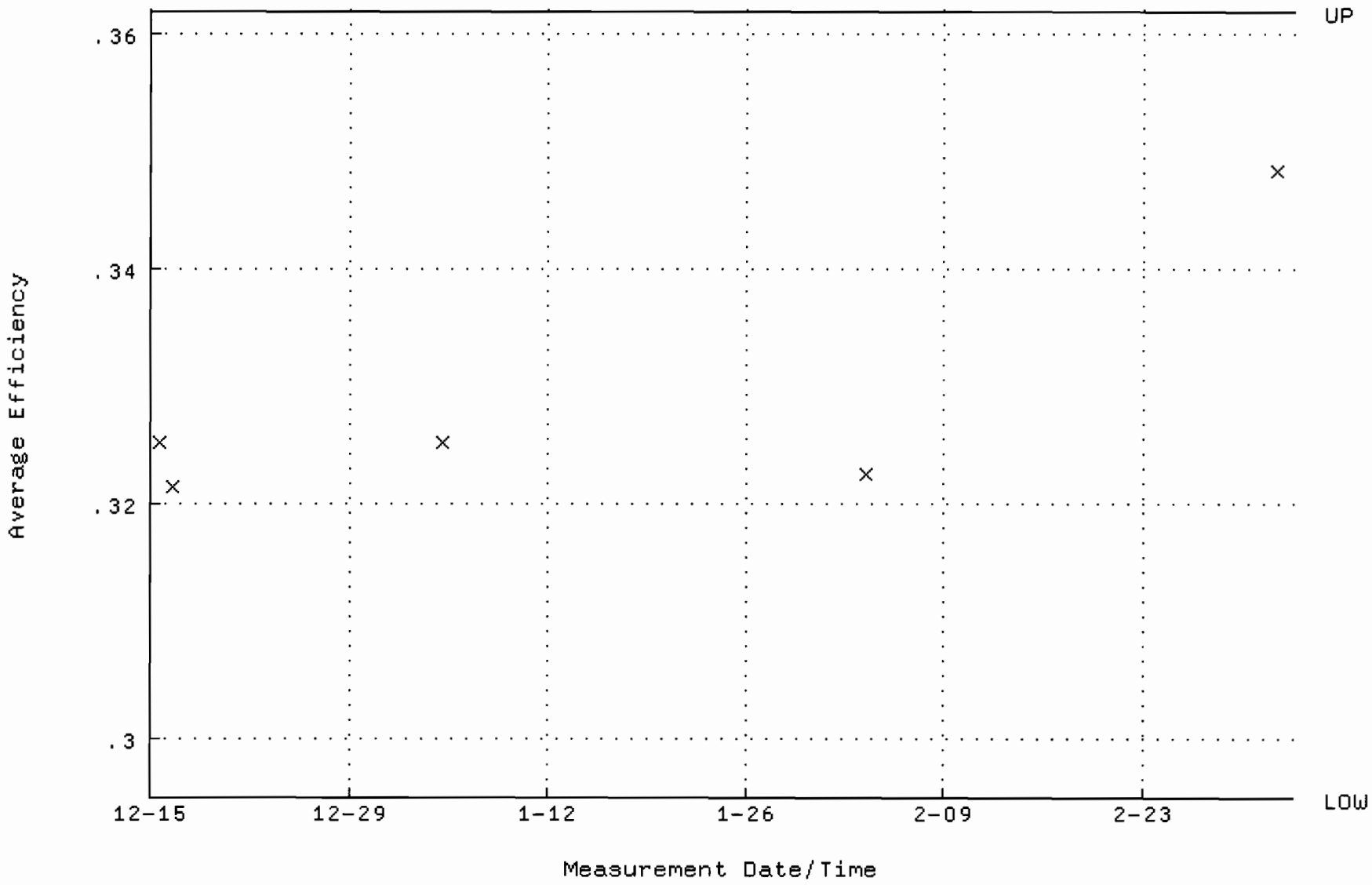

QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 82.3264 through 98.7414

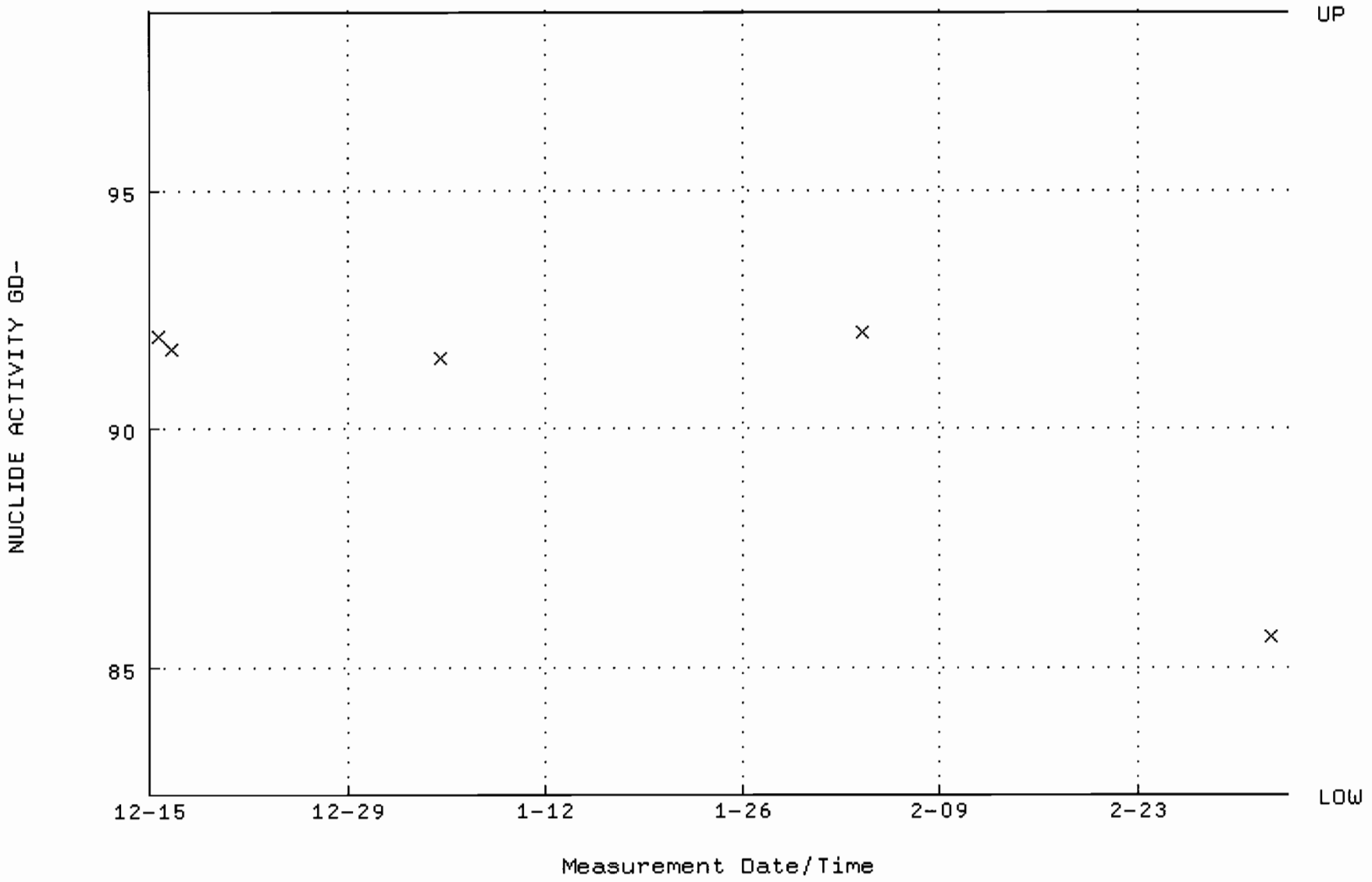

QA filename : DKA100:[ENV_ALPHA.QA.B]B001.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

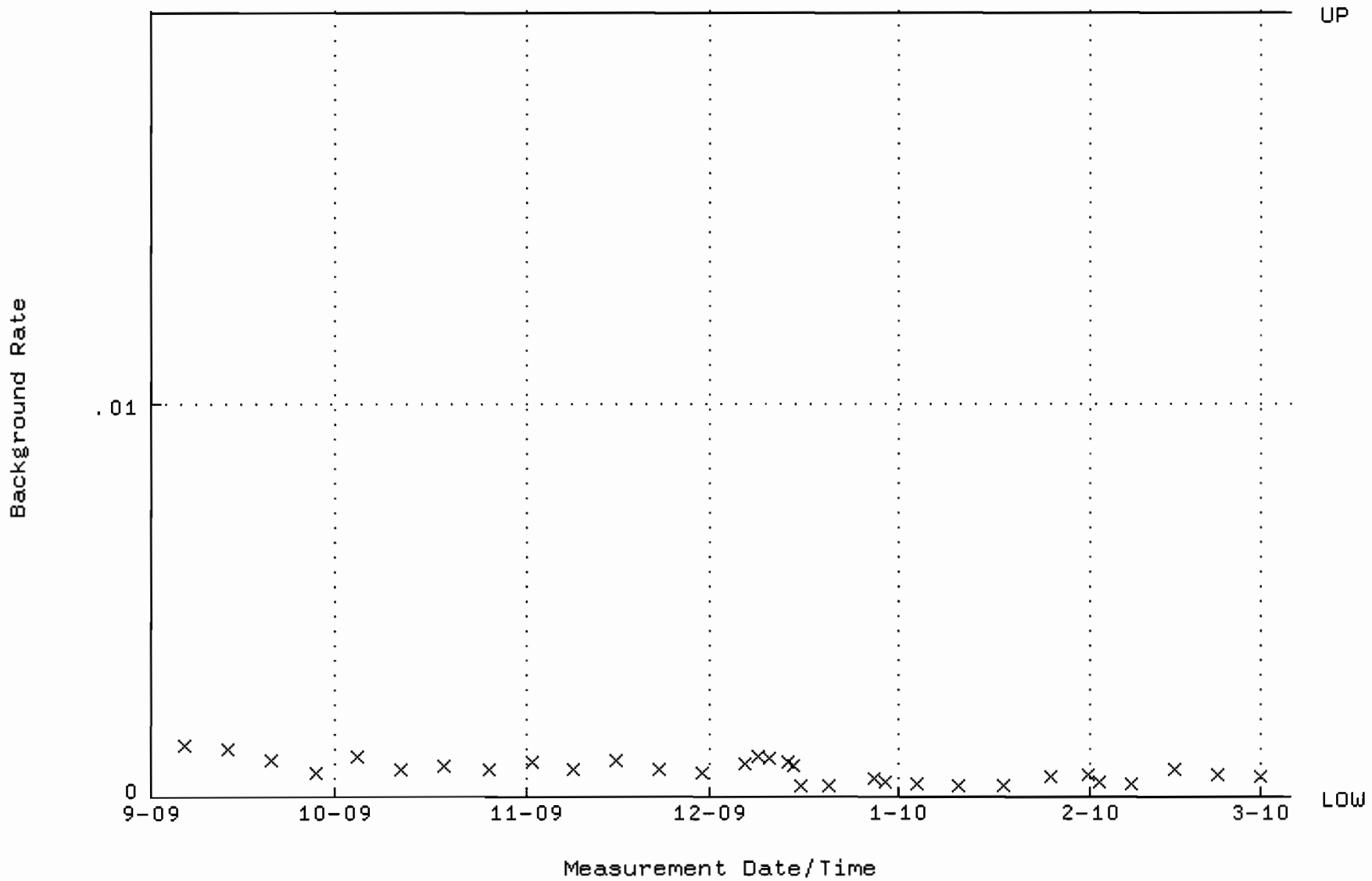

QA filename : DKA100:[ENV_ALPHA.QA.W]W006.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.288996 through 0.330714

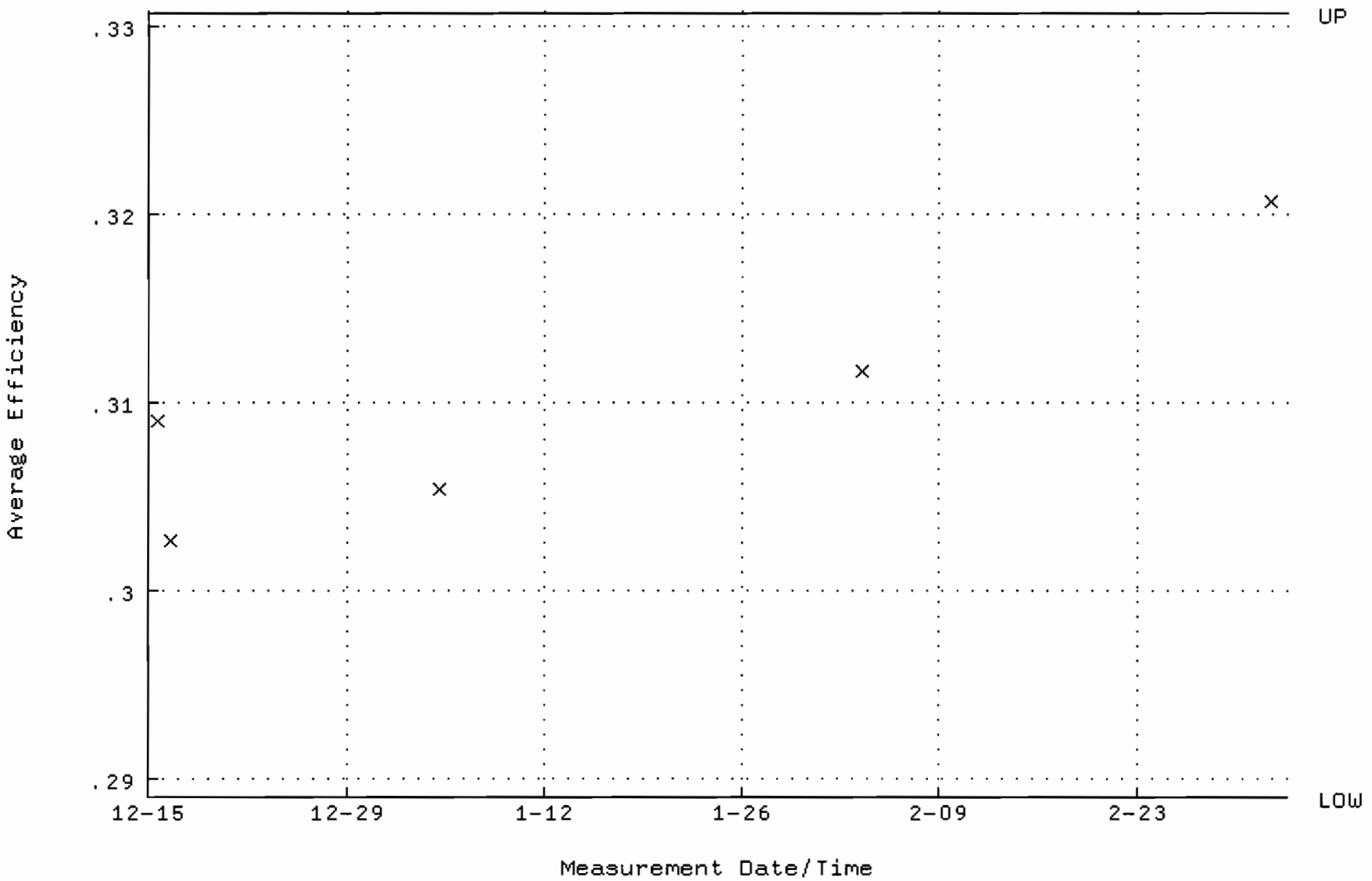

QA filename : DKA100:[ENV_ALPHA.QA.W]W006.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5567 through 97.8515

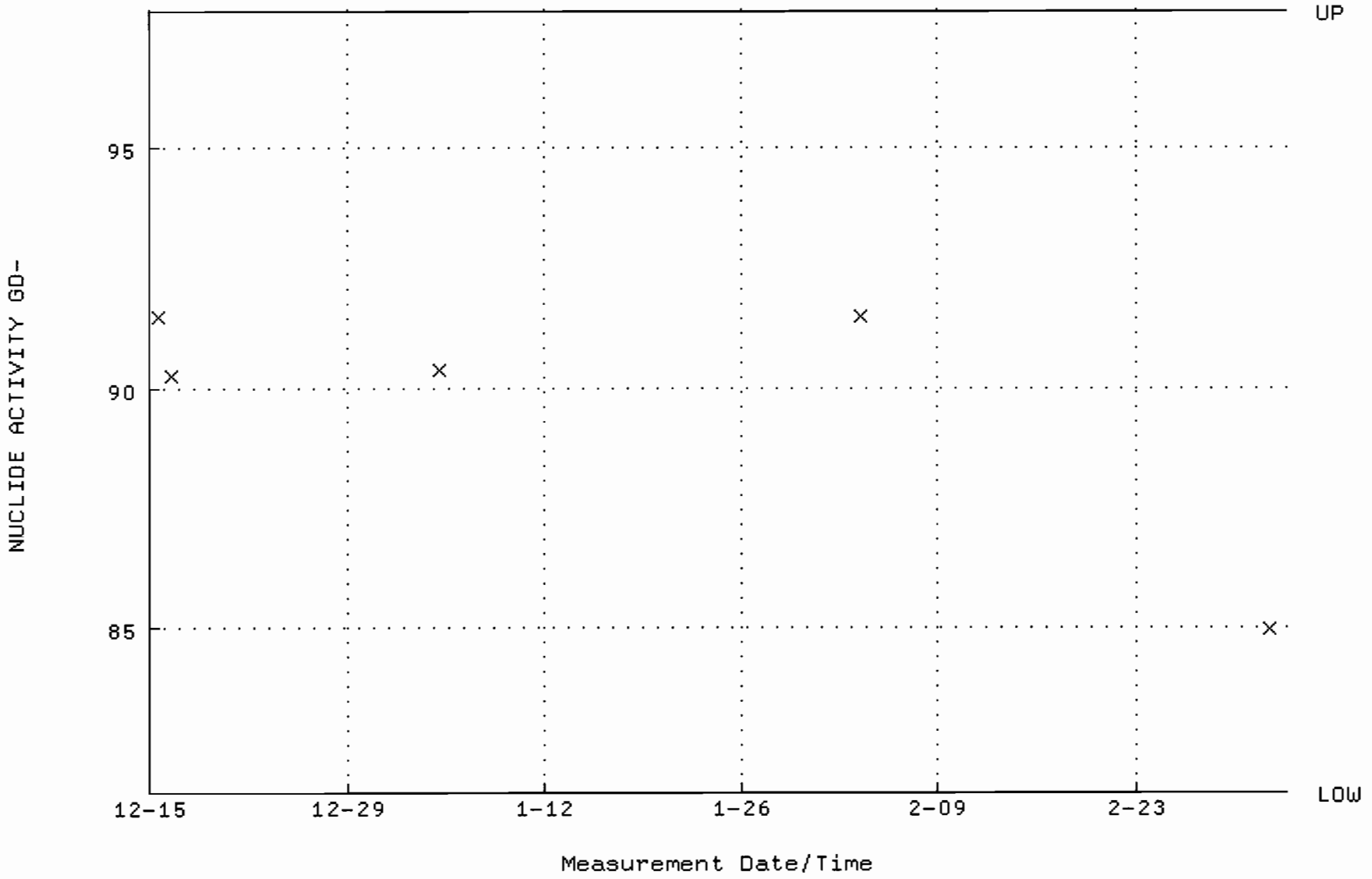

QA filename : DKA100:[ENV_ALPHA.QA.B]B006.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

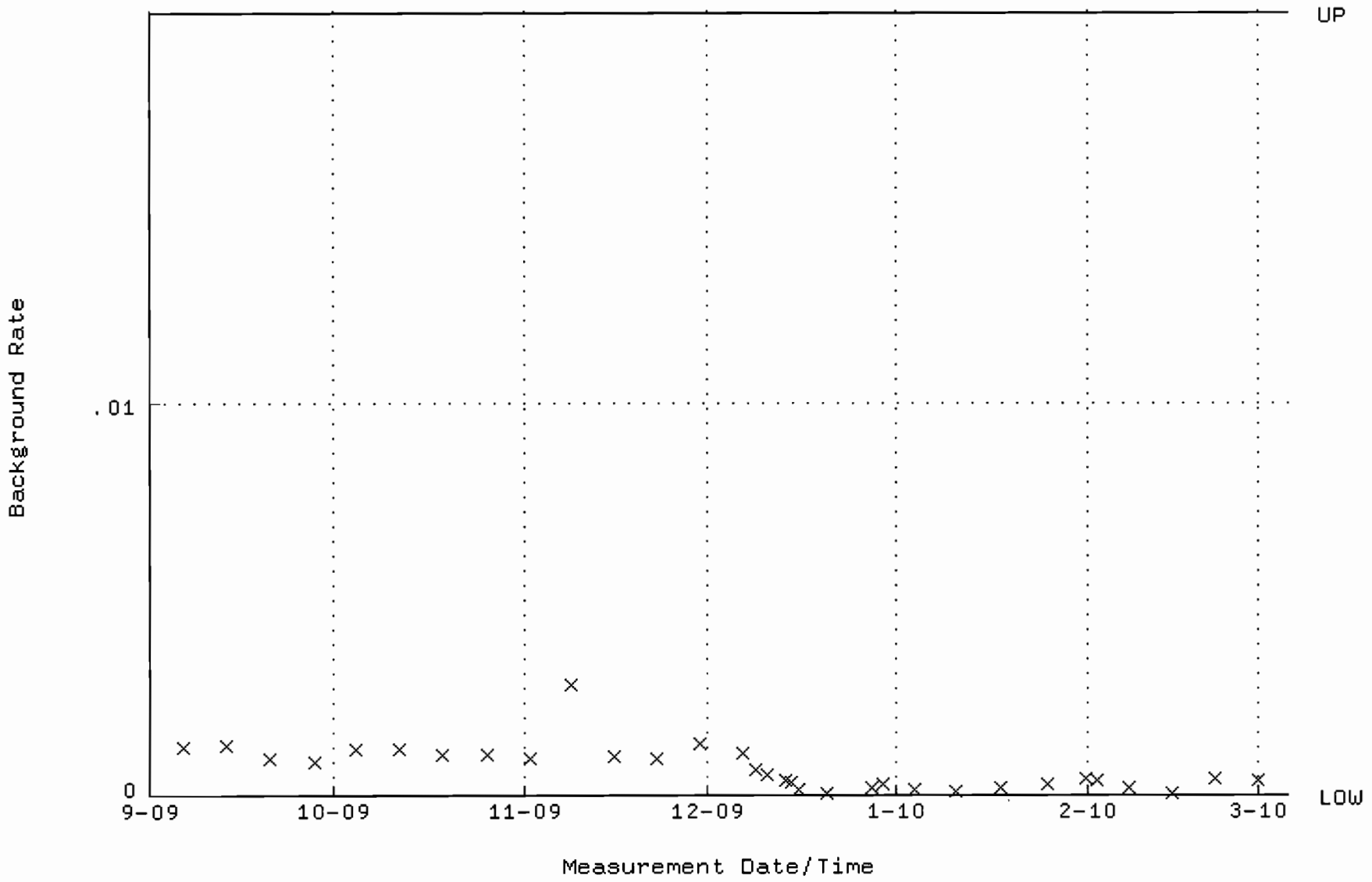

QA filename : DKA100:[ENV_ALPHA.QA.W]W007.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:40 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.290108 through 0.310108

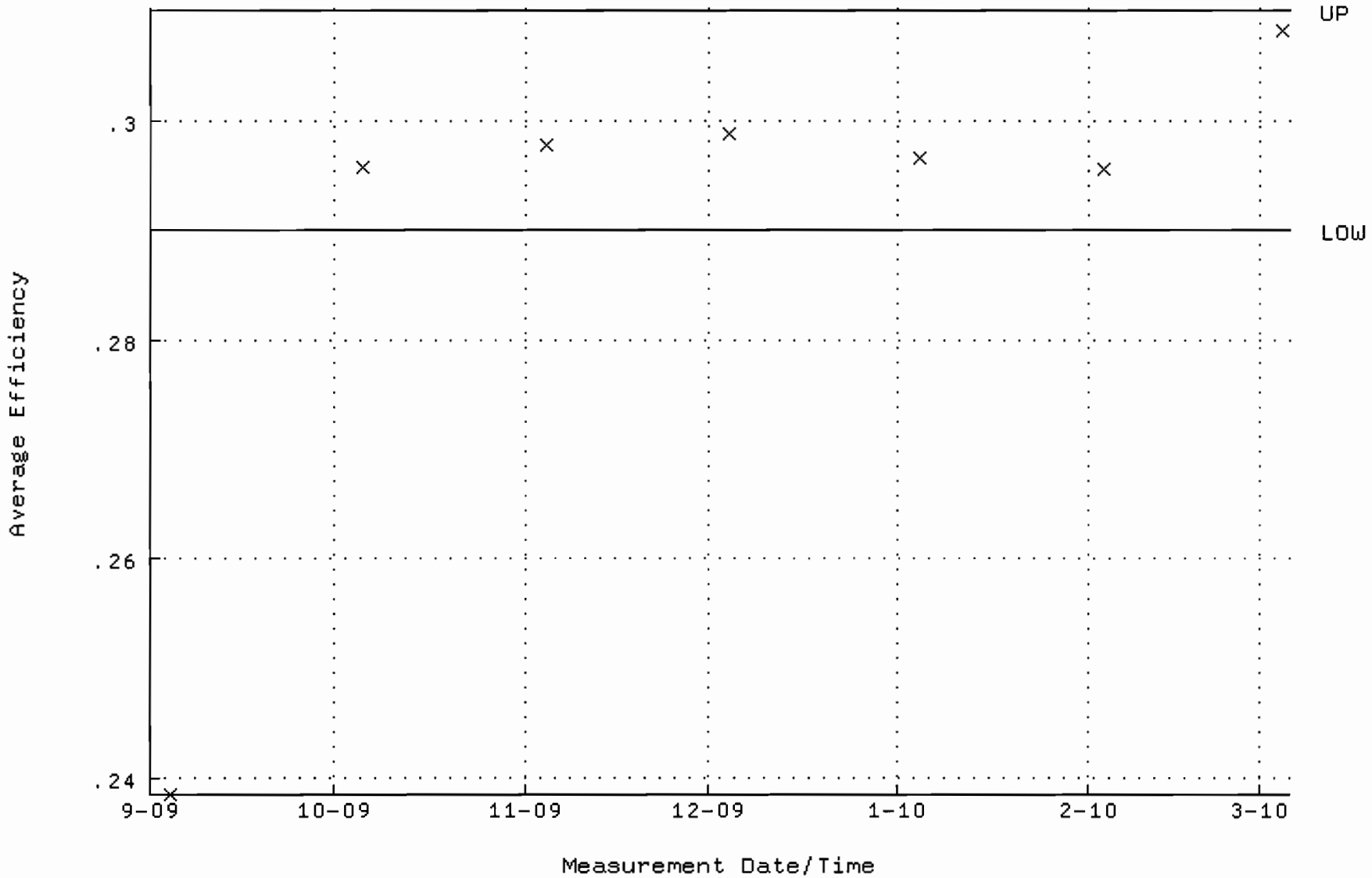

QA filename : DKA100:[ENV_ALPHA.QA.W]W007.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:40 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 87.0687 through 96.2339

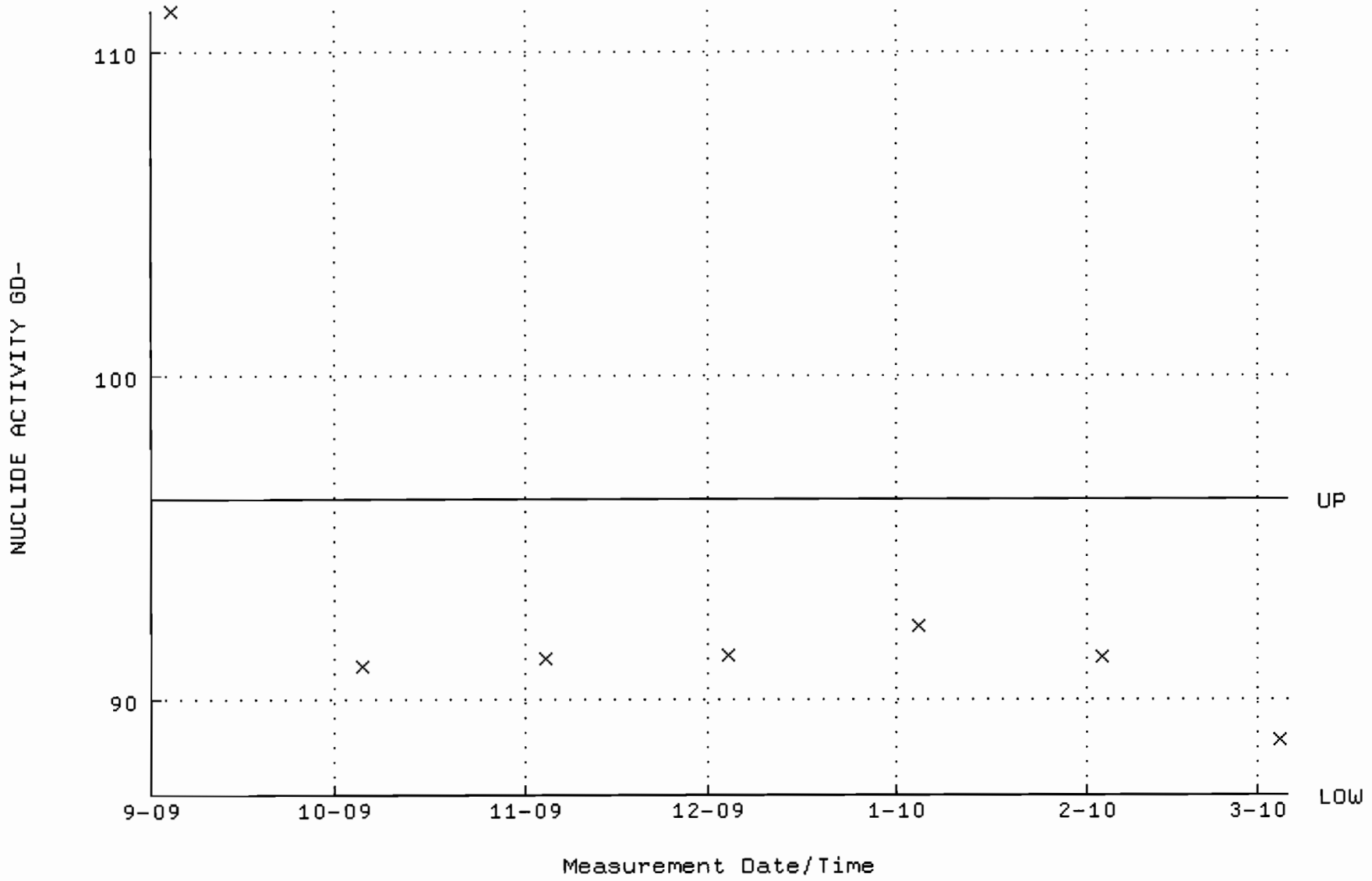

QA filename : DKA100:[ENV_ALPHA.QA.B]B007.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:01 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

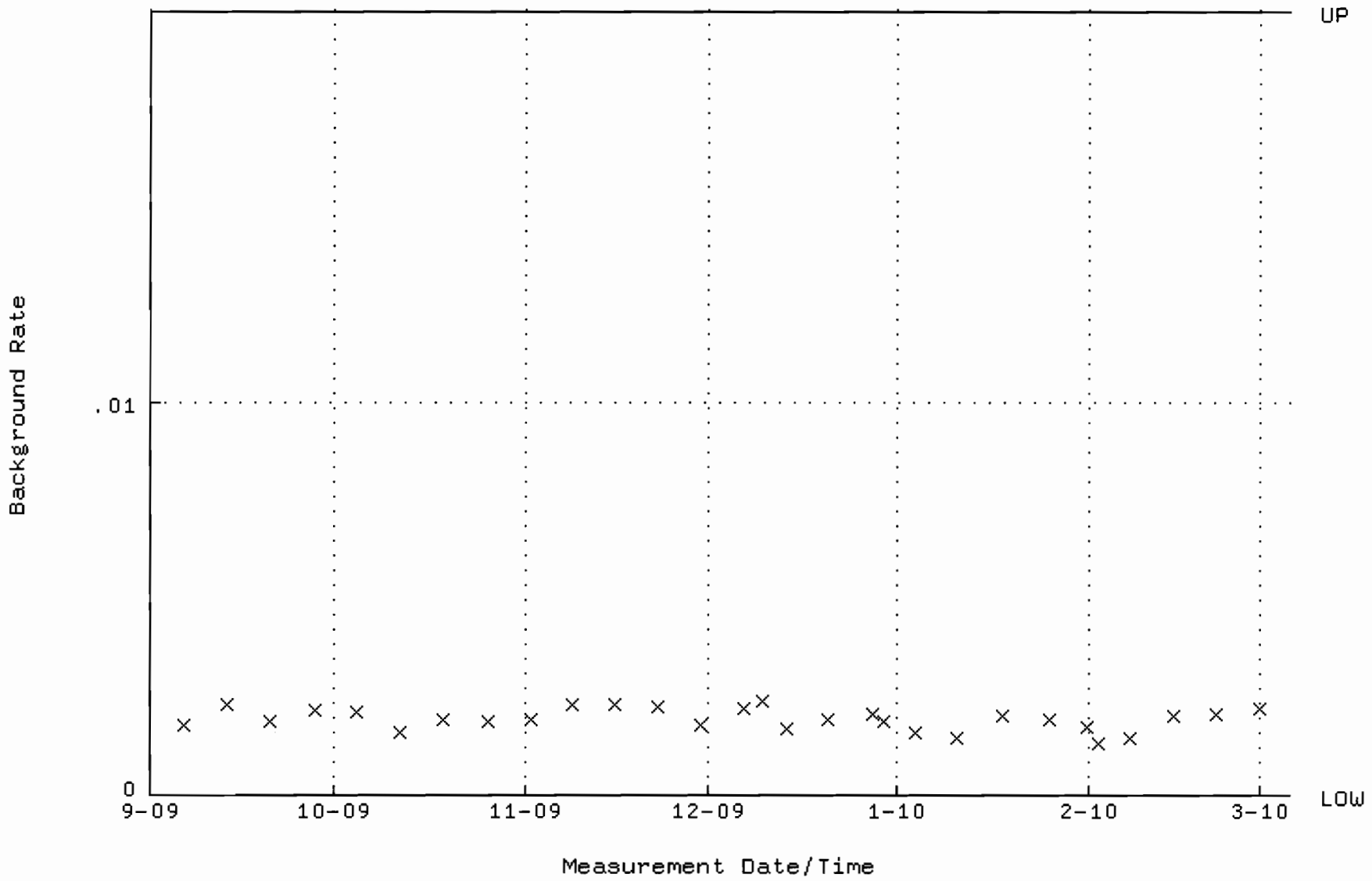

QA filename : DKA100:[ENV_ALPHA.QA.W]W008.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:40 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.307754 through 0.335576

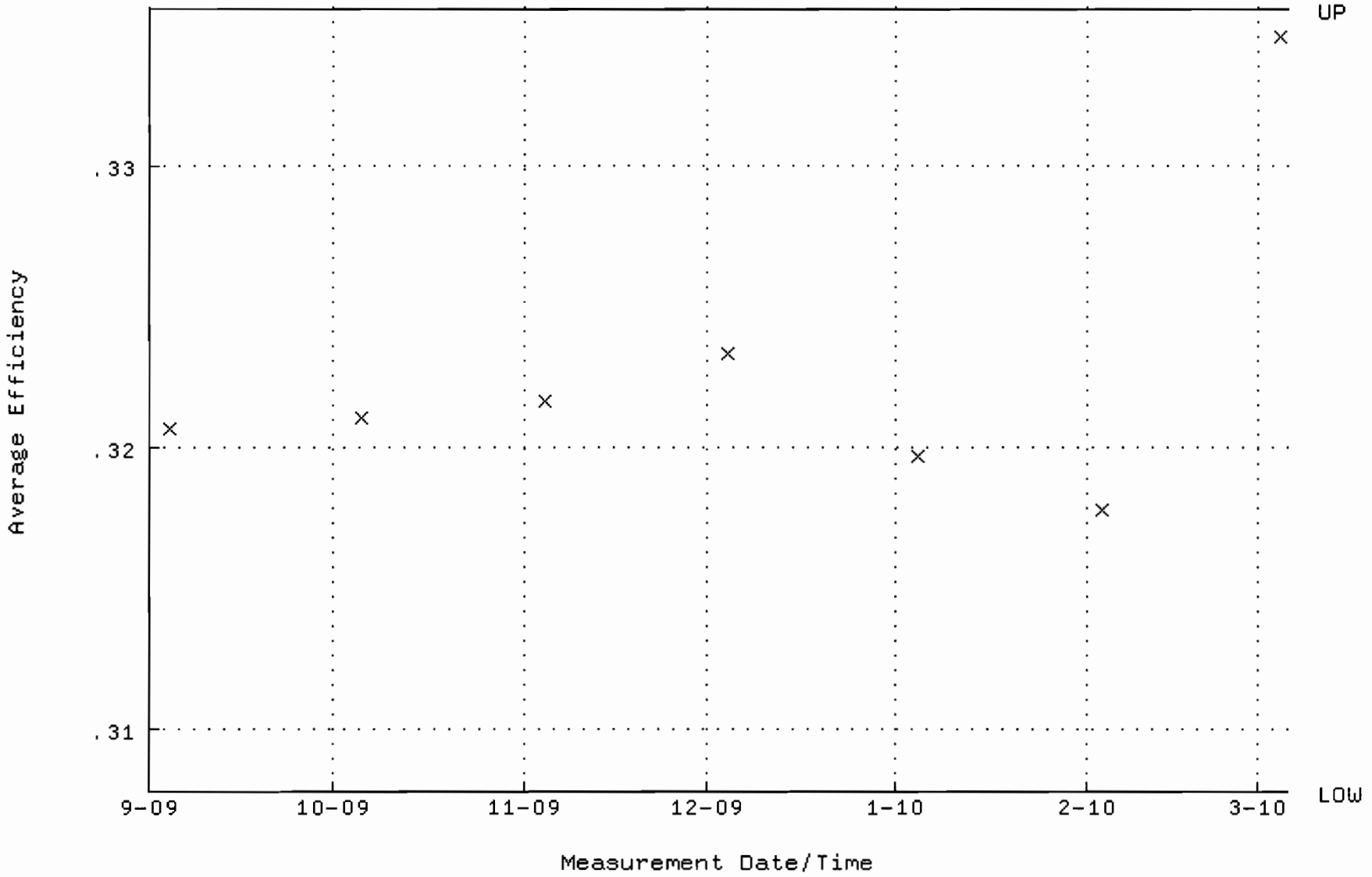

QA filename : DKA100:[ENV_ALPHA.QA.W]W008.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:40 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 89.1115 through 95.5851

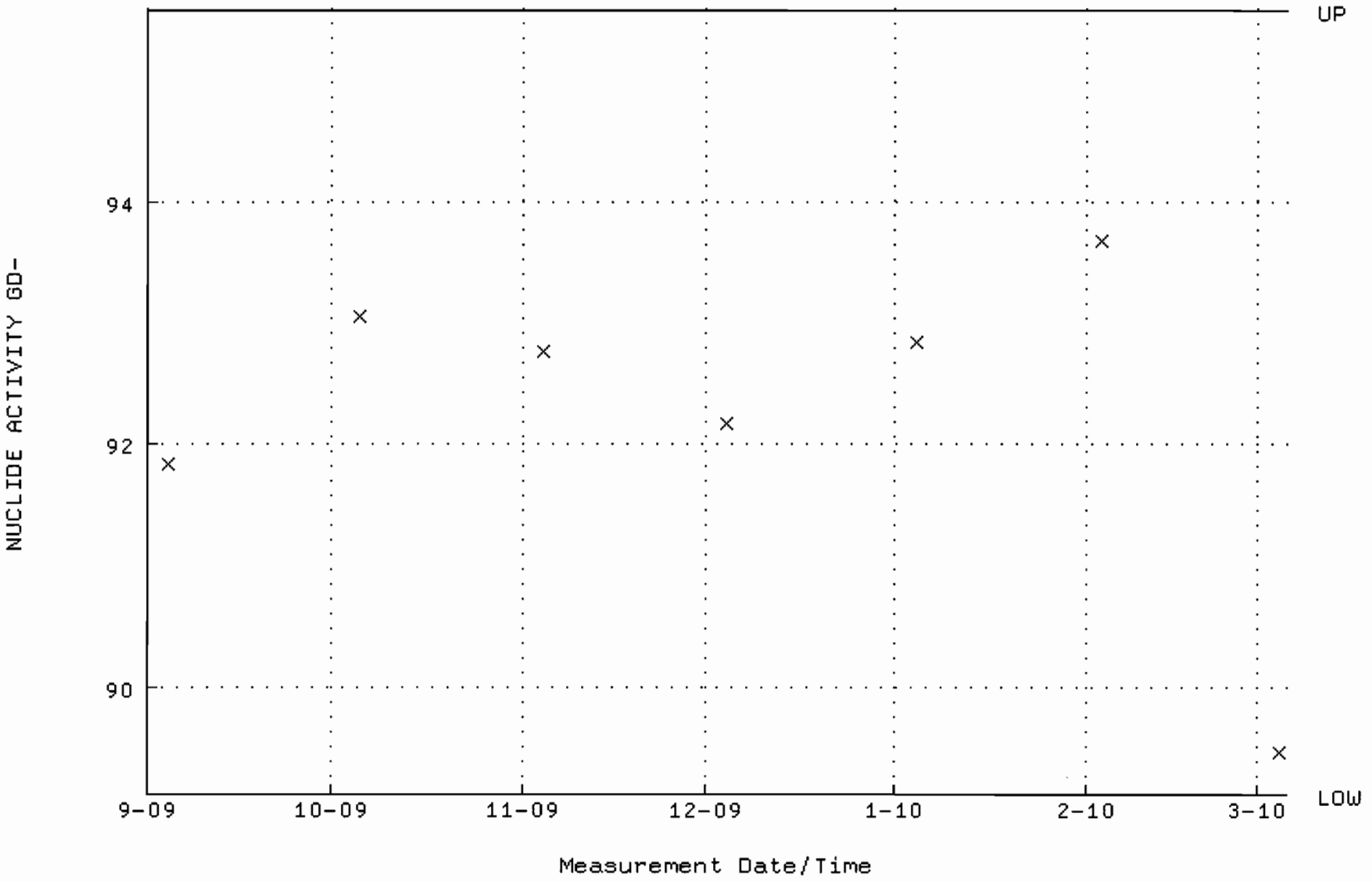

QA filename : DKA100:[ENV_ALPHA.QA.B]B008.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:01 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

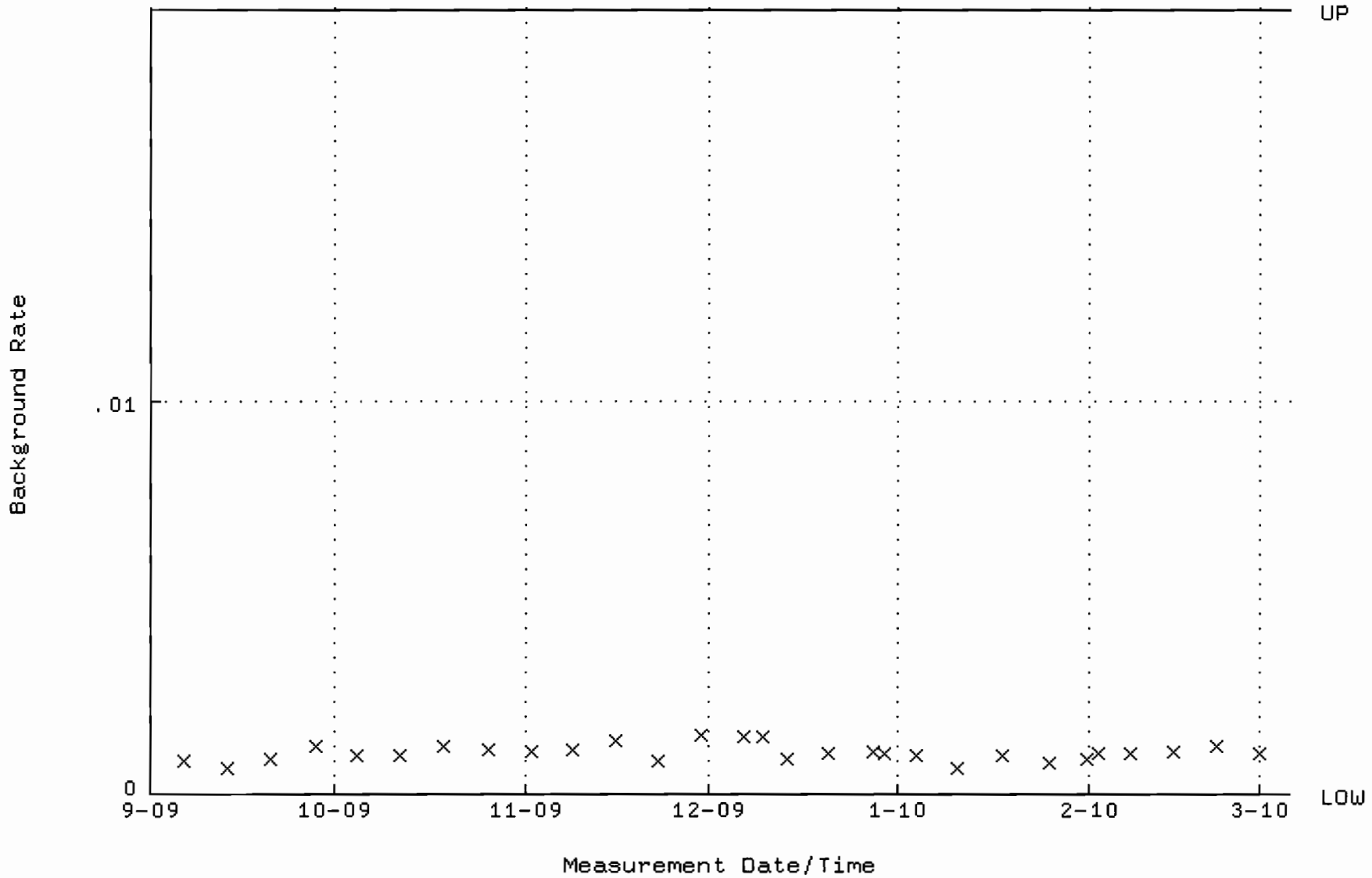

QA filename : DKA100:[ENV_ALPHA.QA.W]W009.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:40 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.328261 through 0.348261

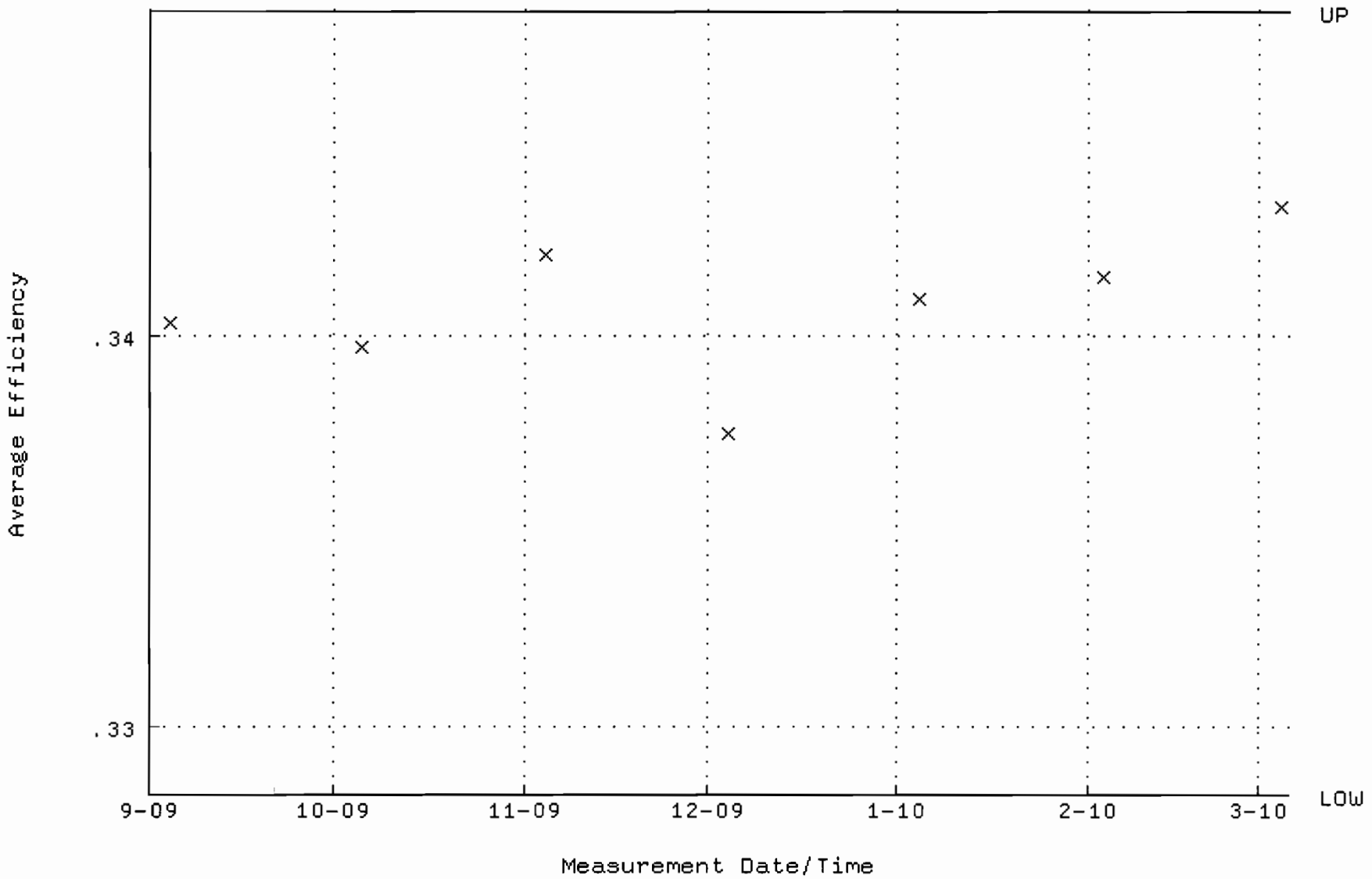

QA filename : DKA100:[ENV_ALPHA.QA.W]W009.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:40 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 86.4475 through 95.5473

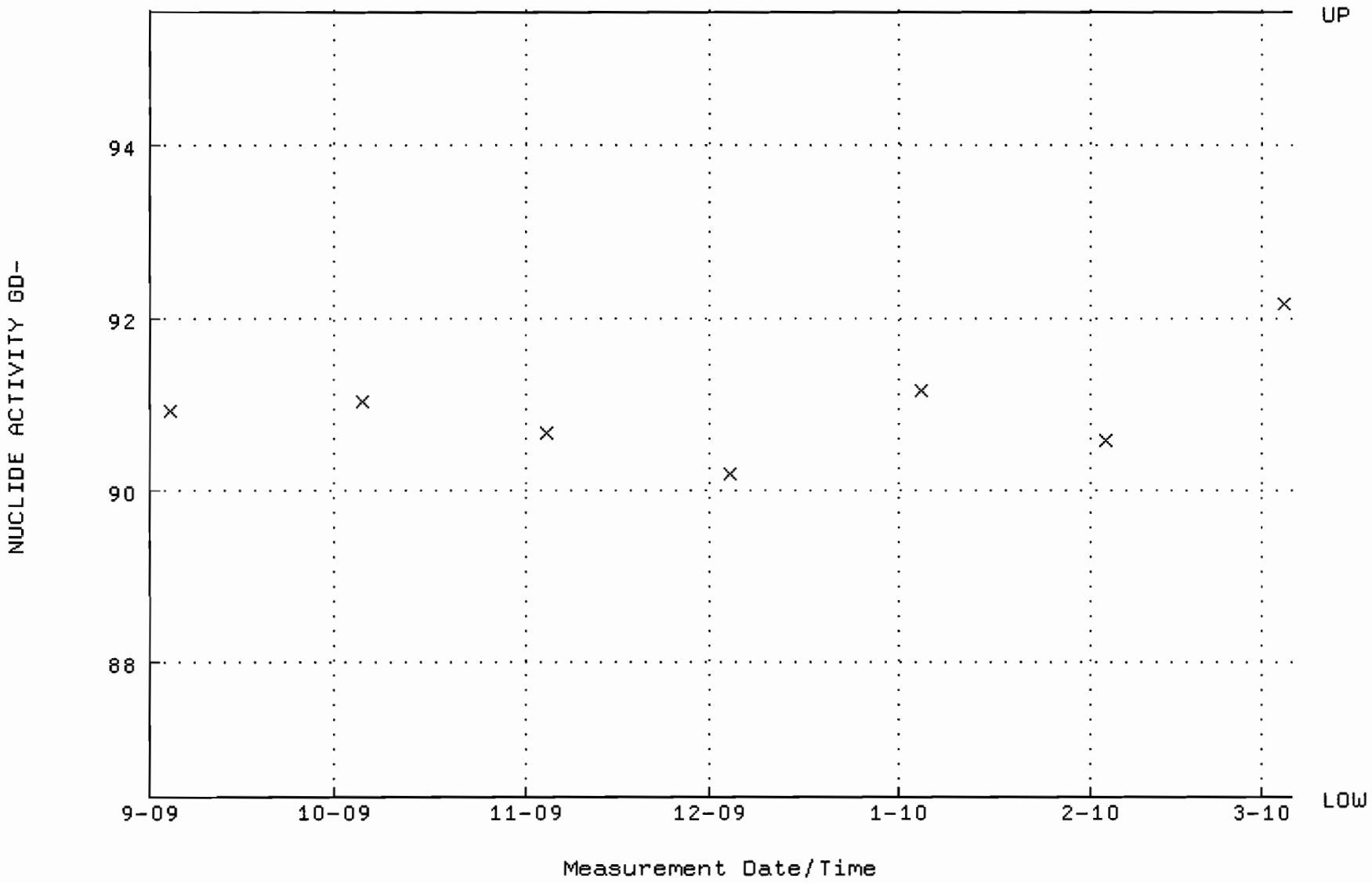

QA filename : DKA100:[ENV_ALPHA.QA.B]B009.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:01 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

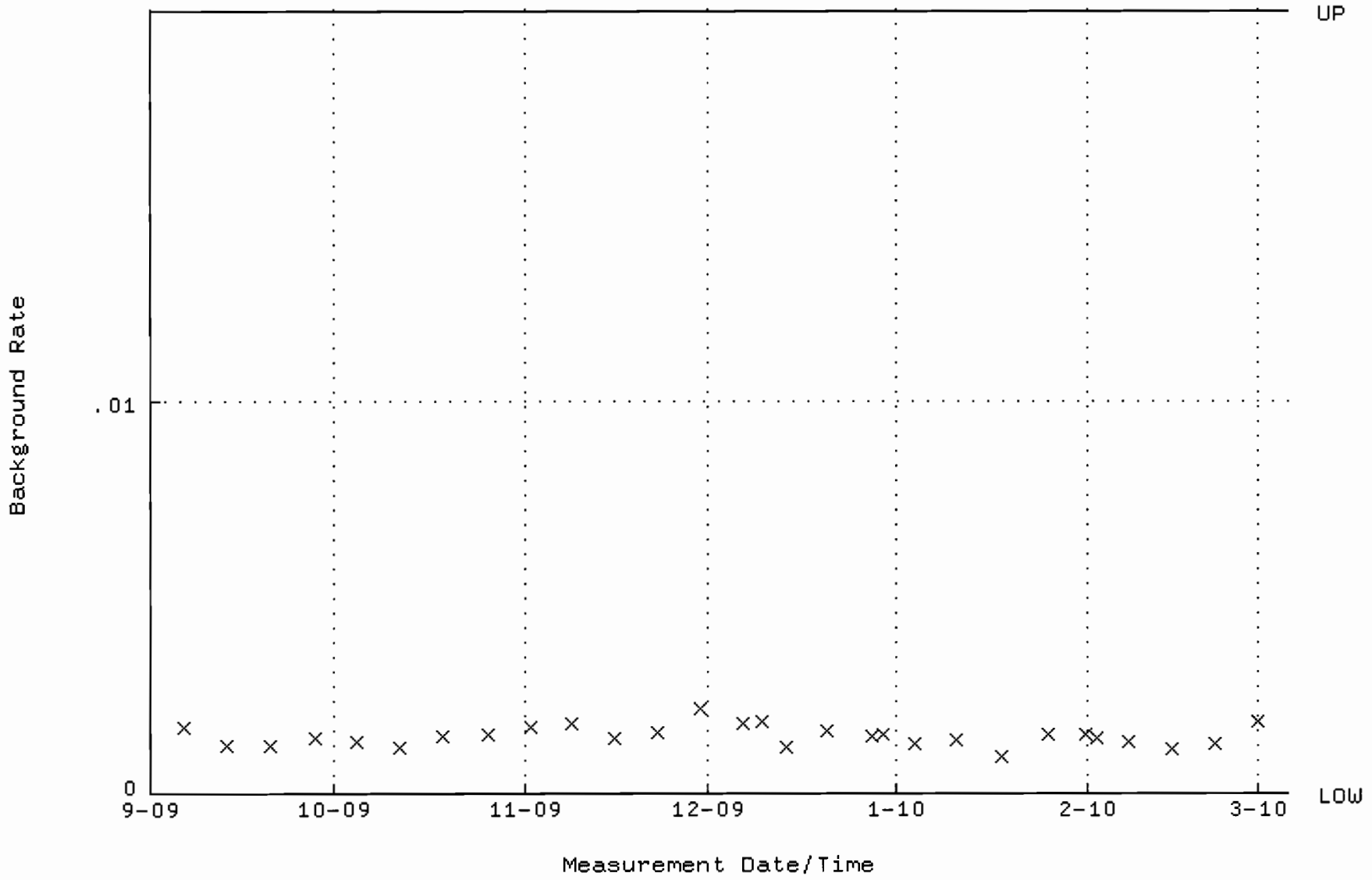

QA filename : DKA100:[ENV_ALPHA.QA.W]W010.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:40 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.303169 through 0.323169

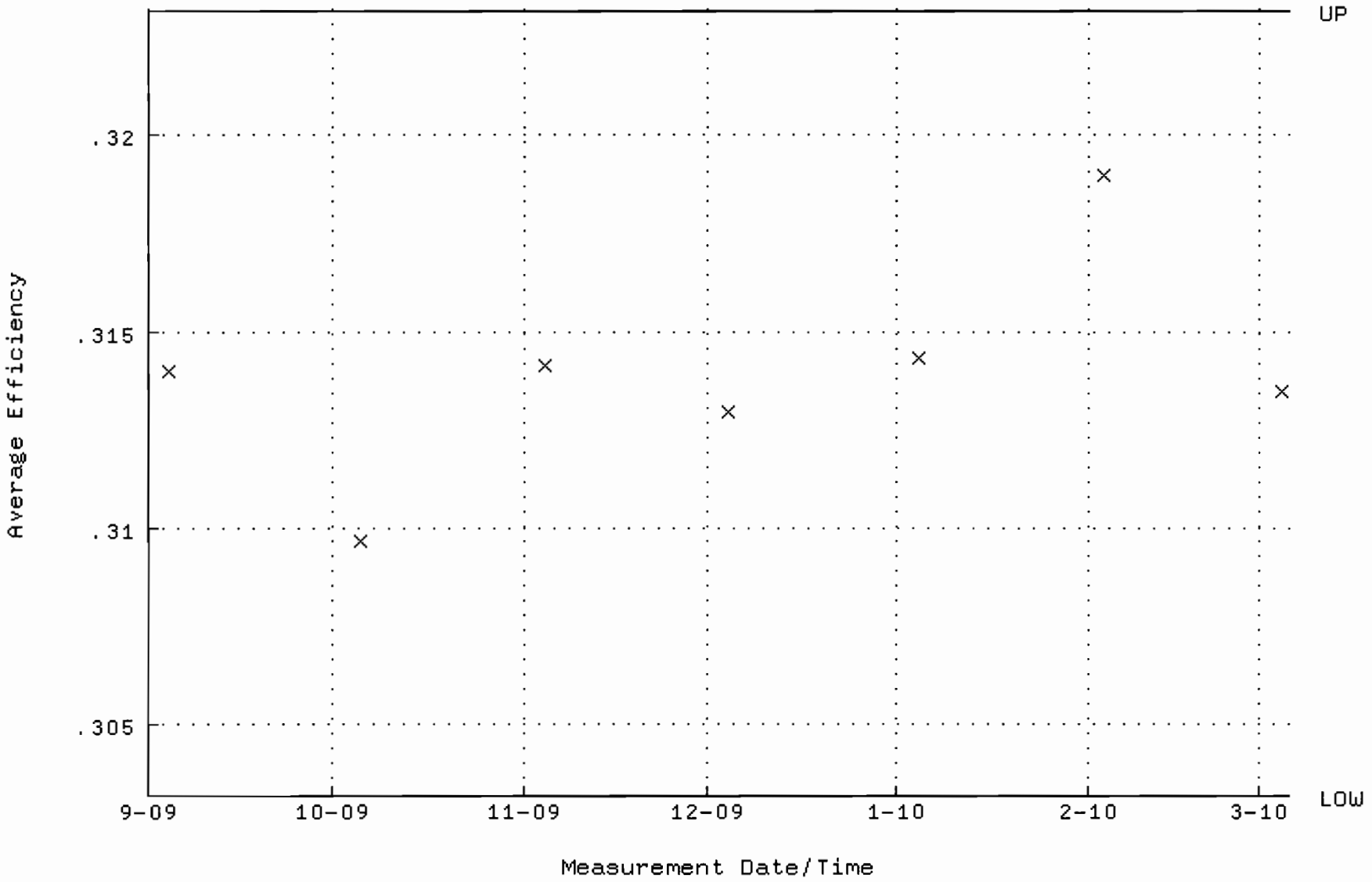

QA filename : DKA100:[ENV_ALPHA.QA.W]W010.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:40 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 85.3273 through 94.3091

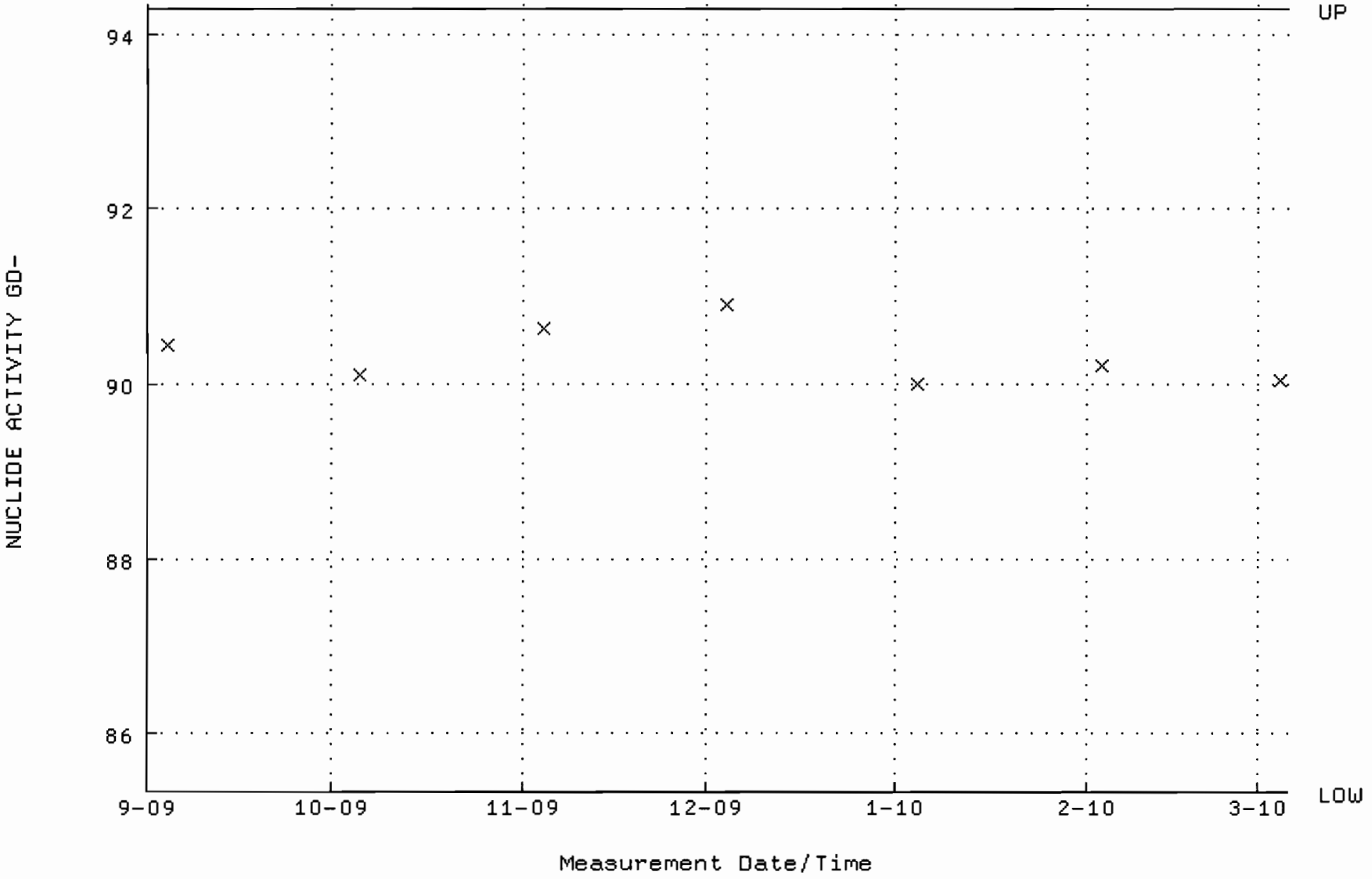

QA filename : DKA100:[ENV_ALPHA.QA.B]B010.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:01 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

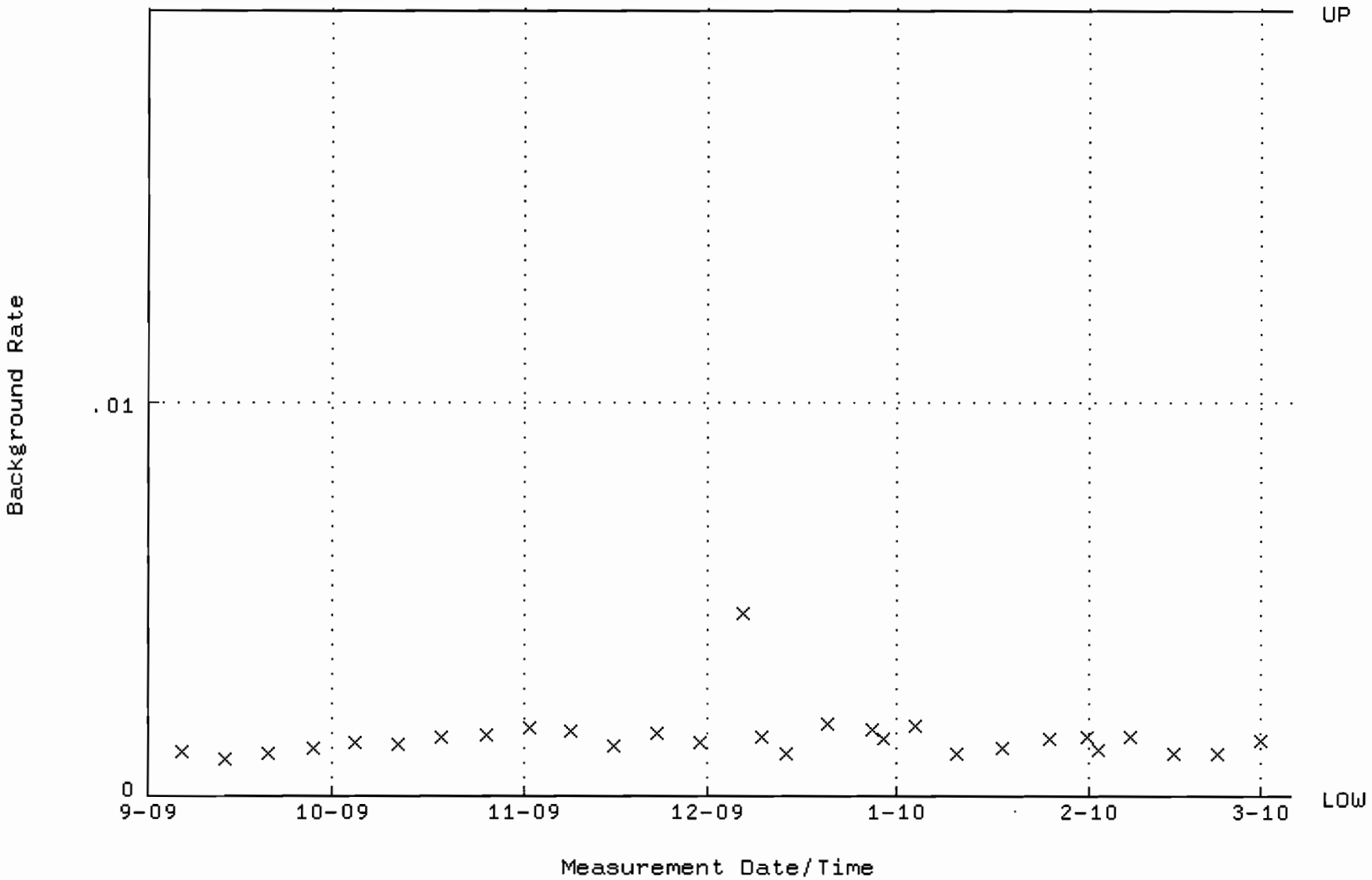

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:40 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.279805 through 0.315875

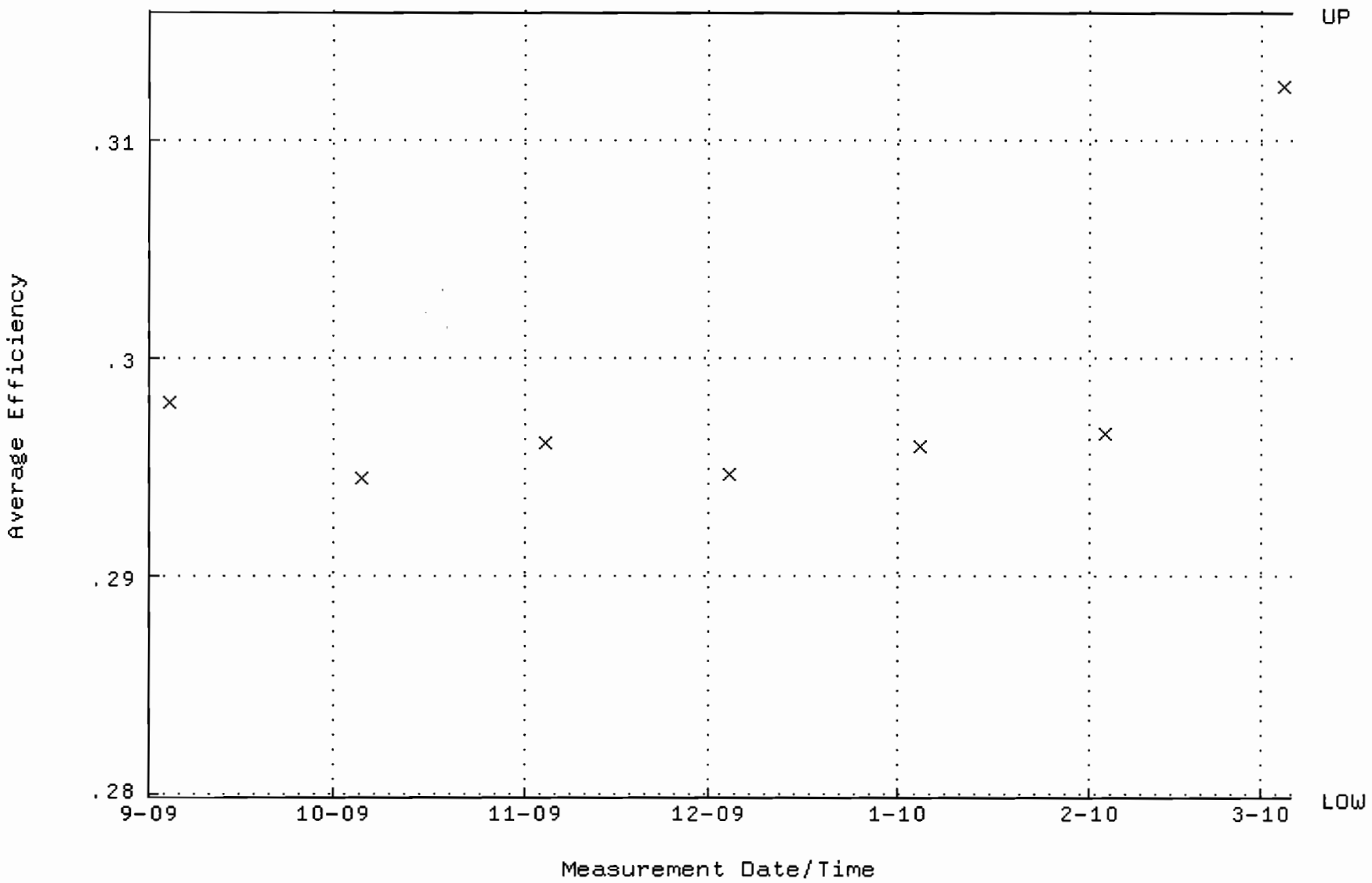

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:40 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 88.5390 through 101.289

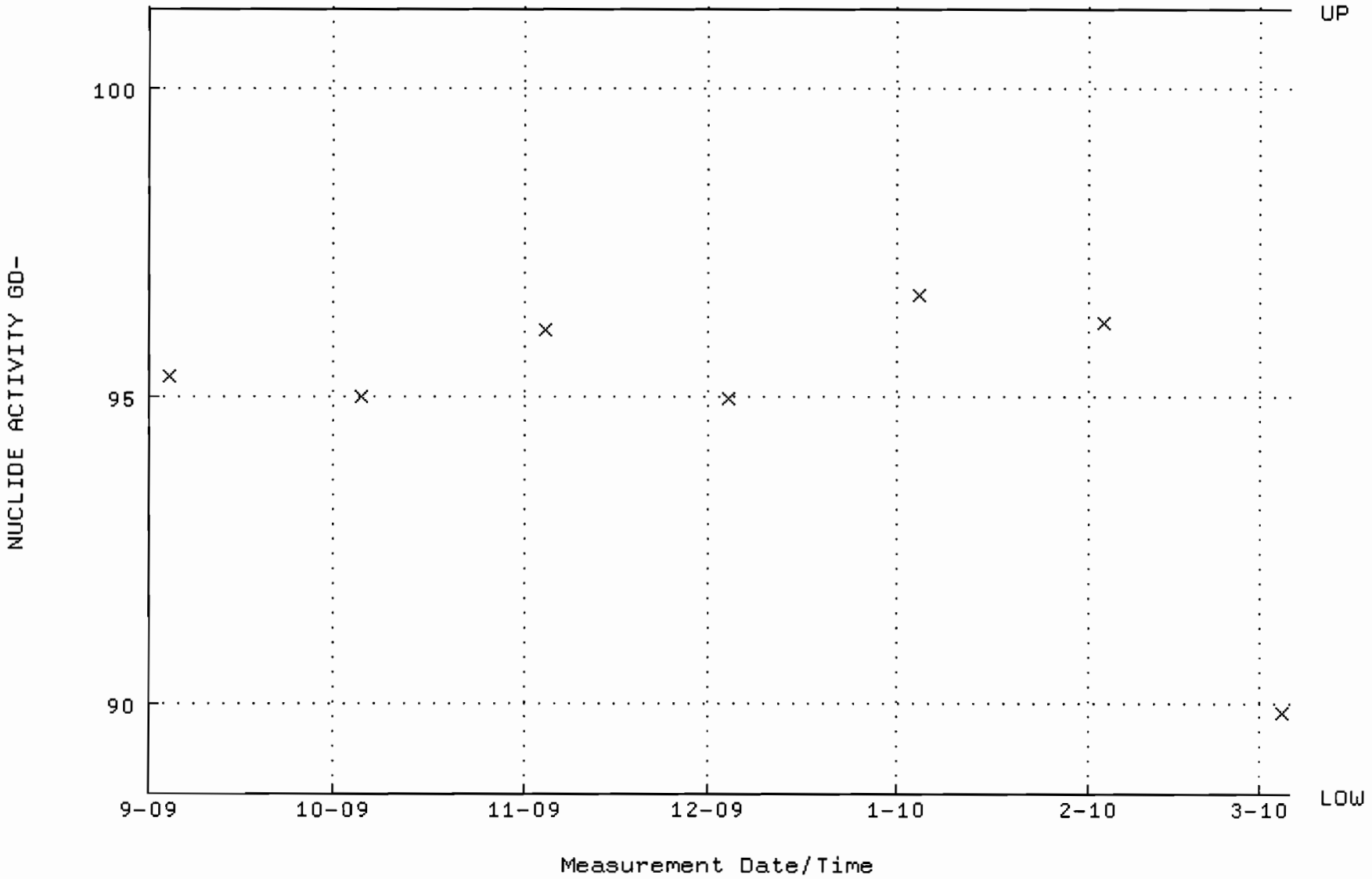

QA filename : DKA100:[ENV_ALPHA.QA.B]B011.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:01 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

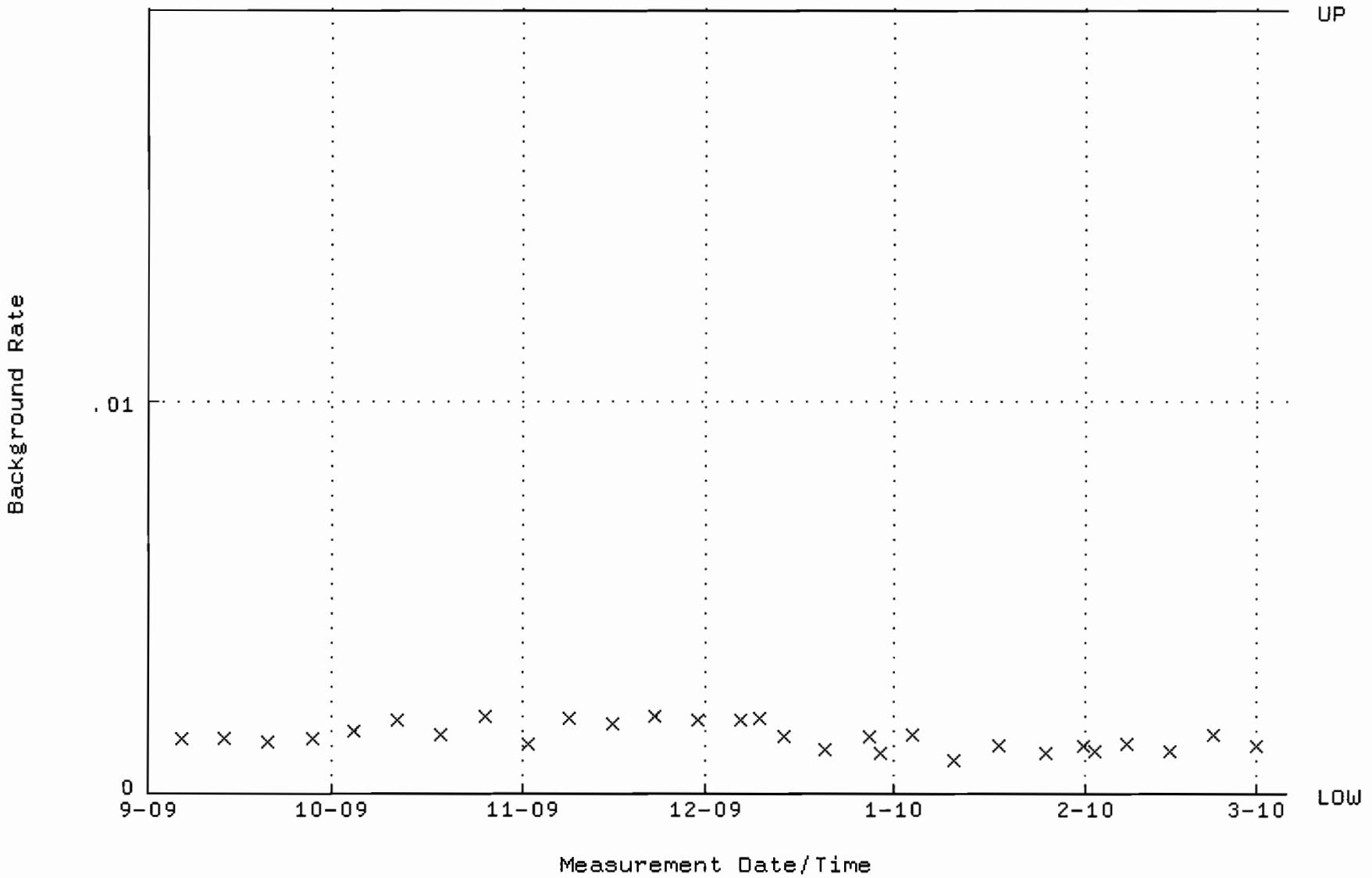

QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.295501 through 0.342091

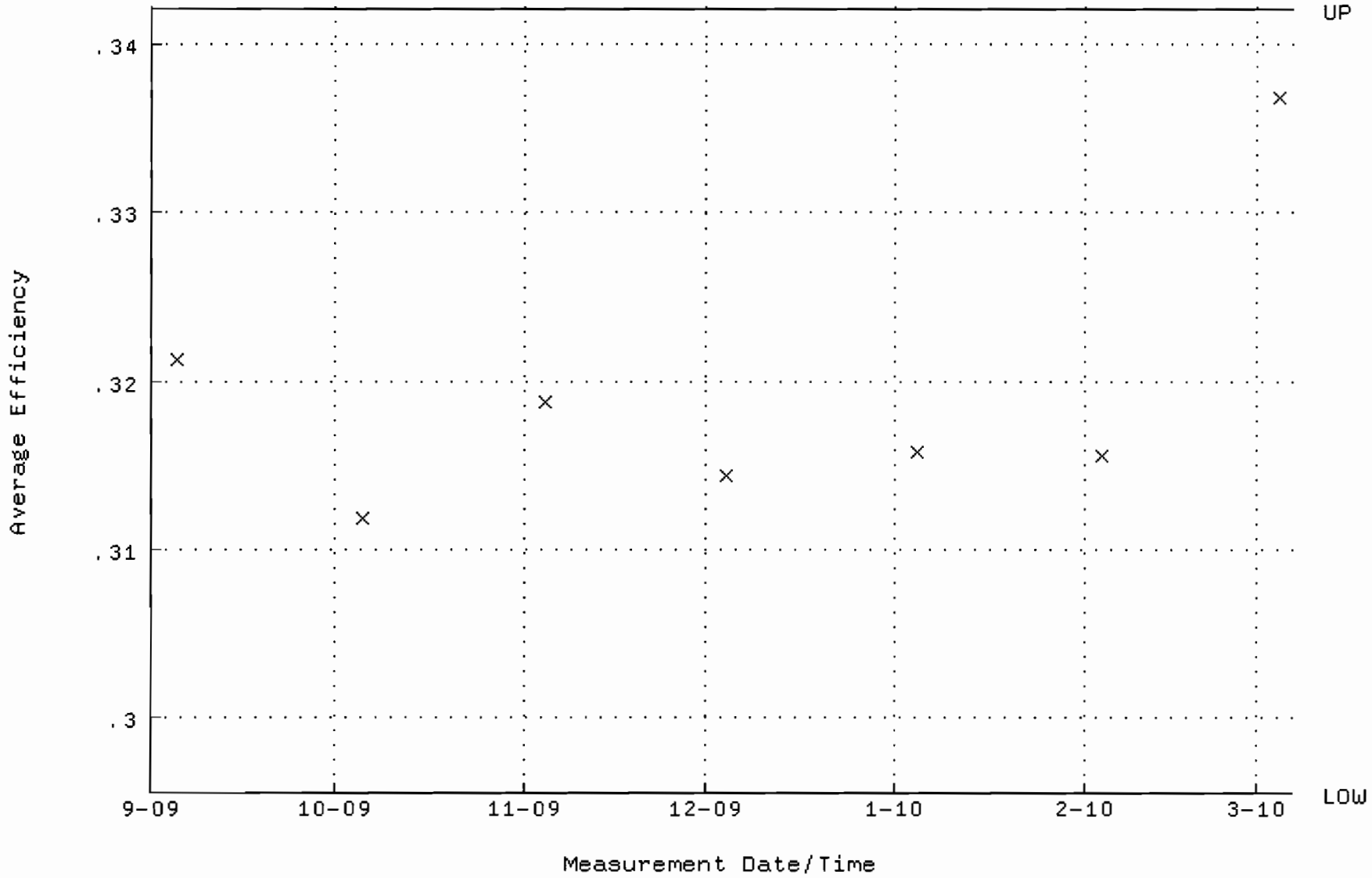

QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 87.7241 through 91.4271

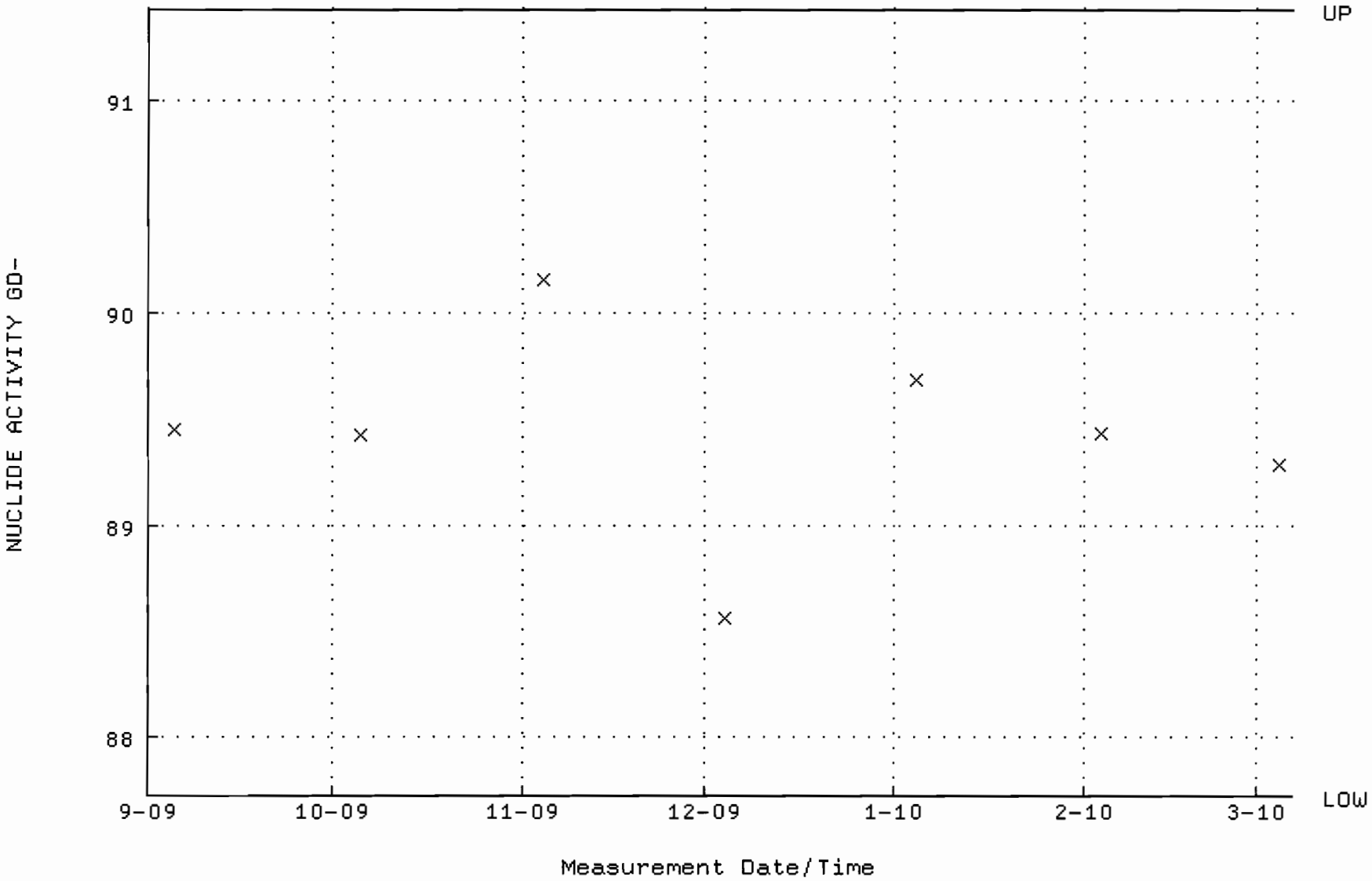

QA filename : DKA100:[ENV_ALPHA.QA.B]B026.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

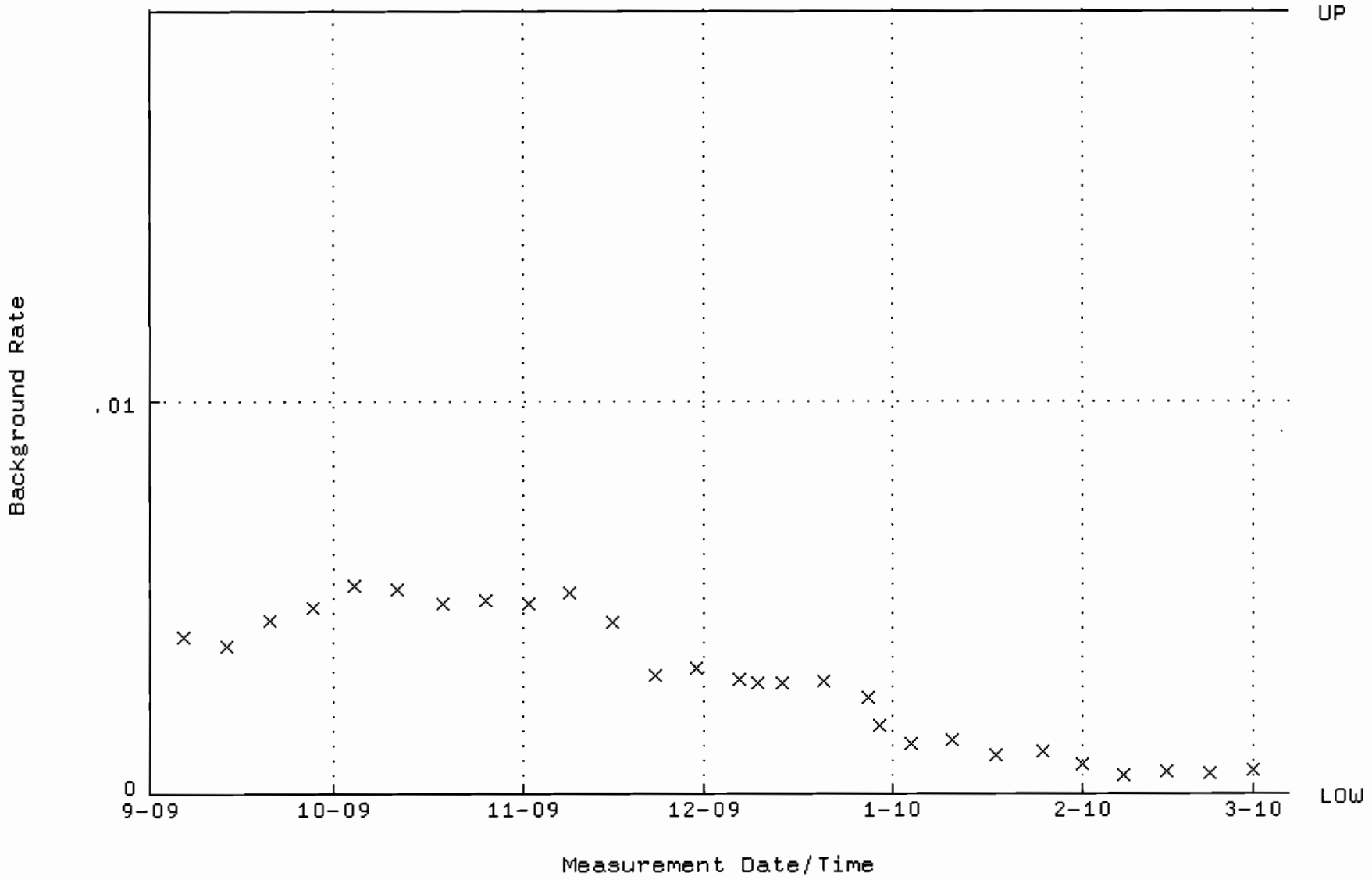

QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.324980 through 0.344980

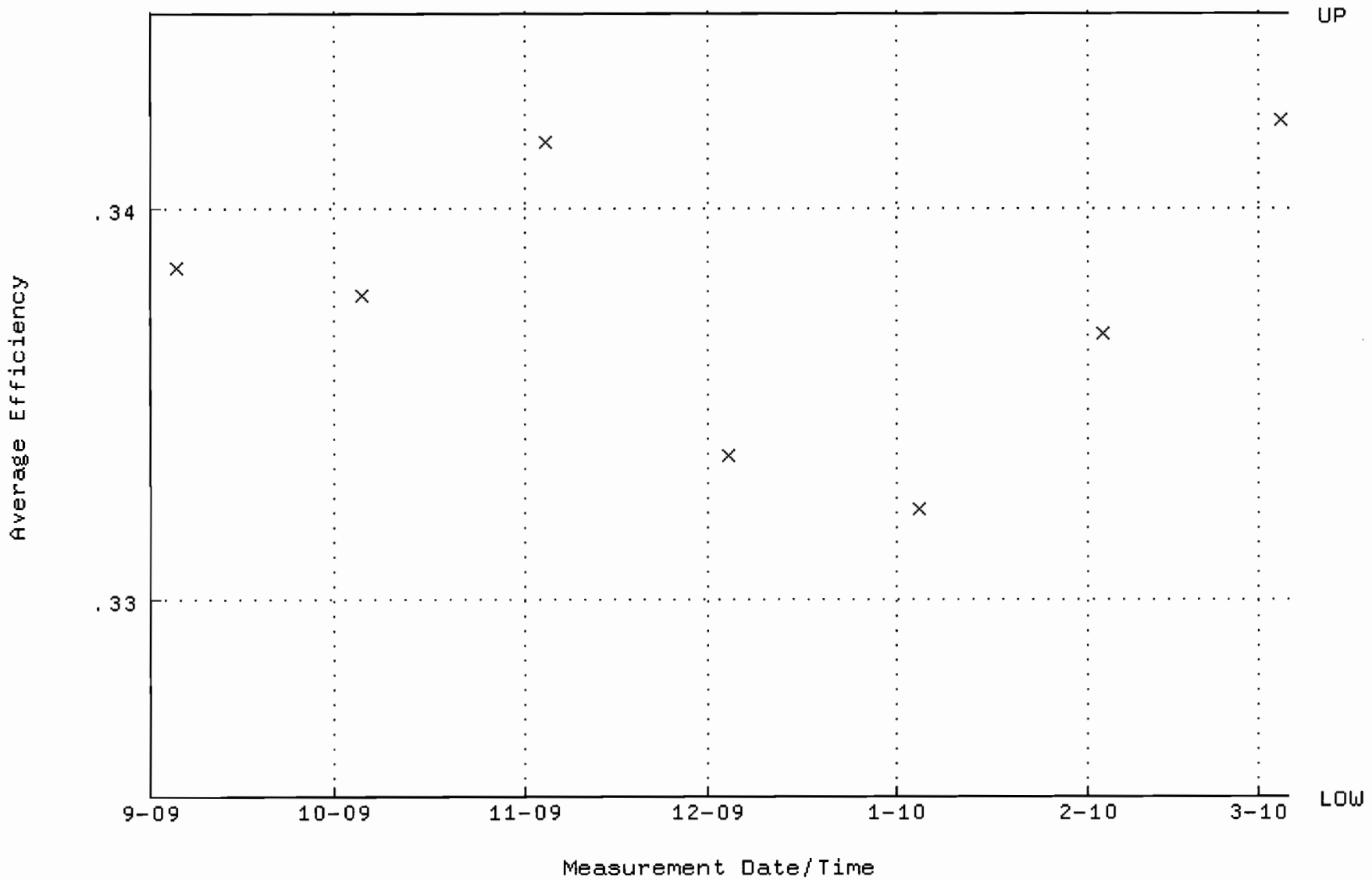

QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 81.2030 through 89.7506

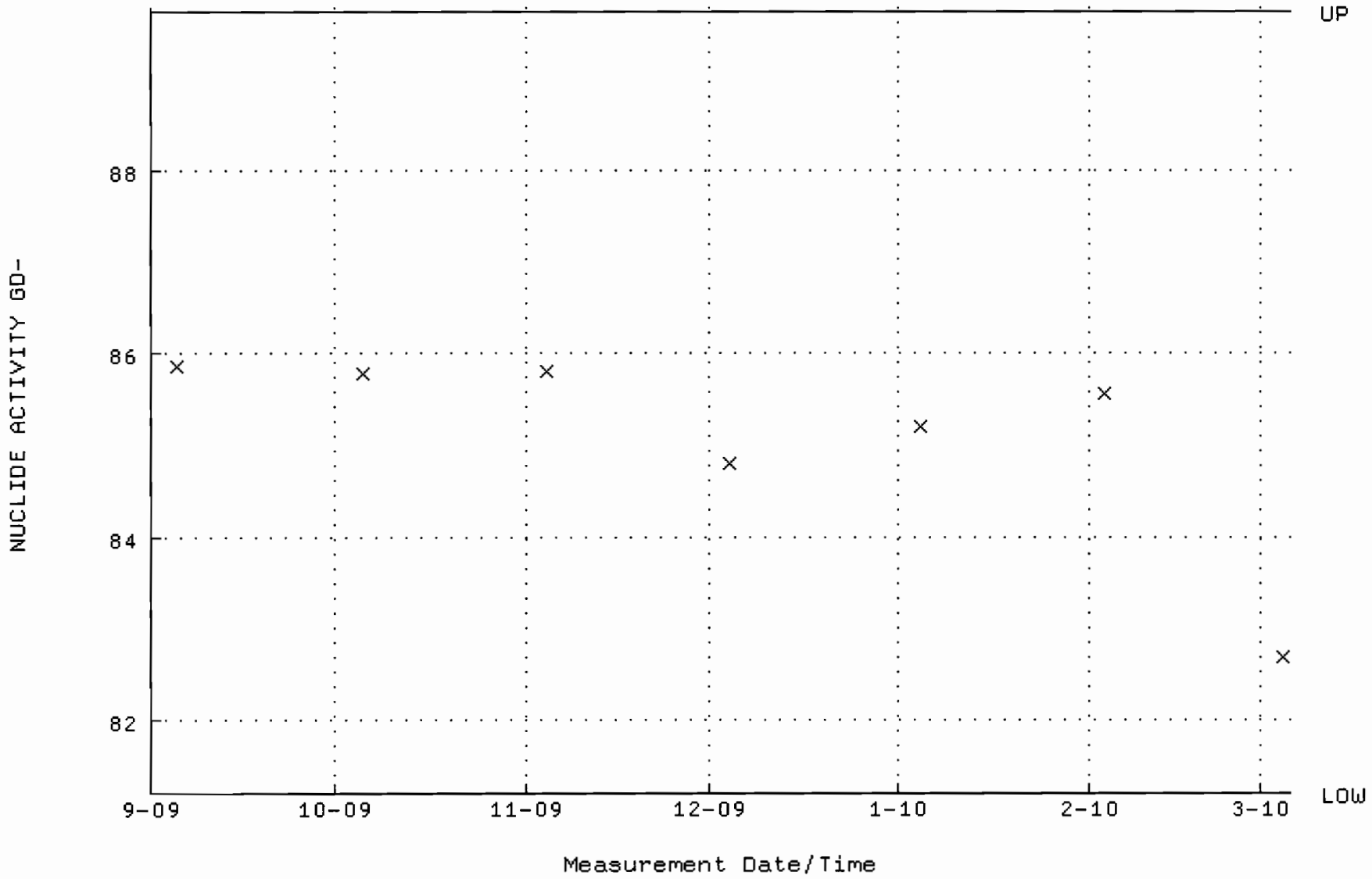

QA filename : DKA100:[ENV_ALPHA.QA.B]B027.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

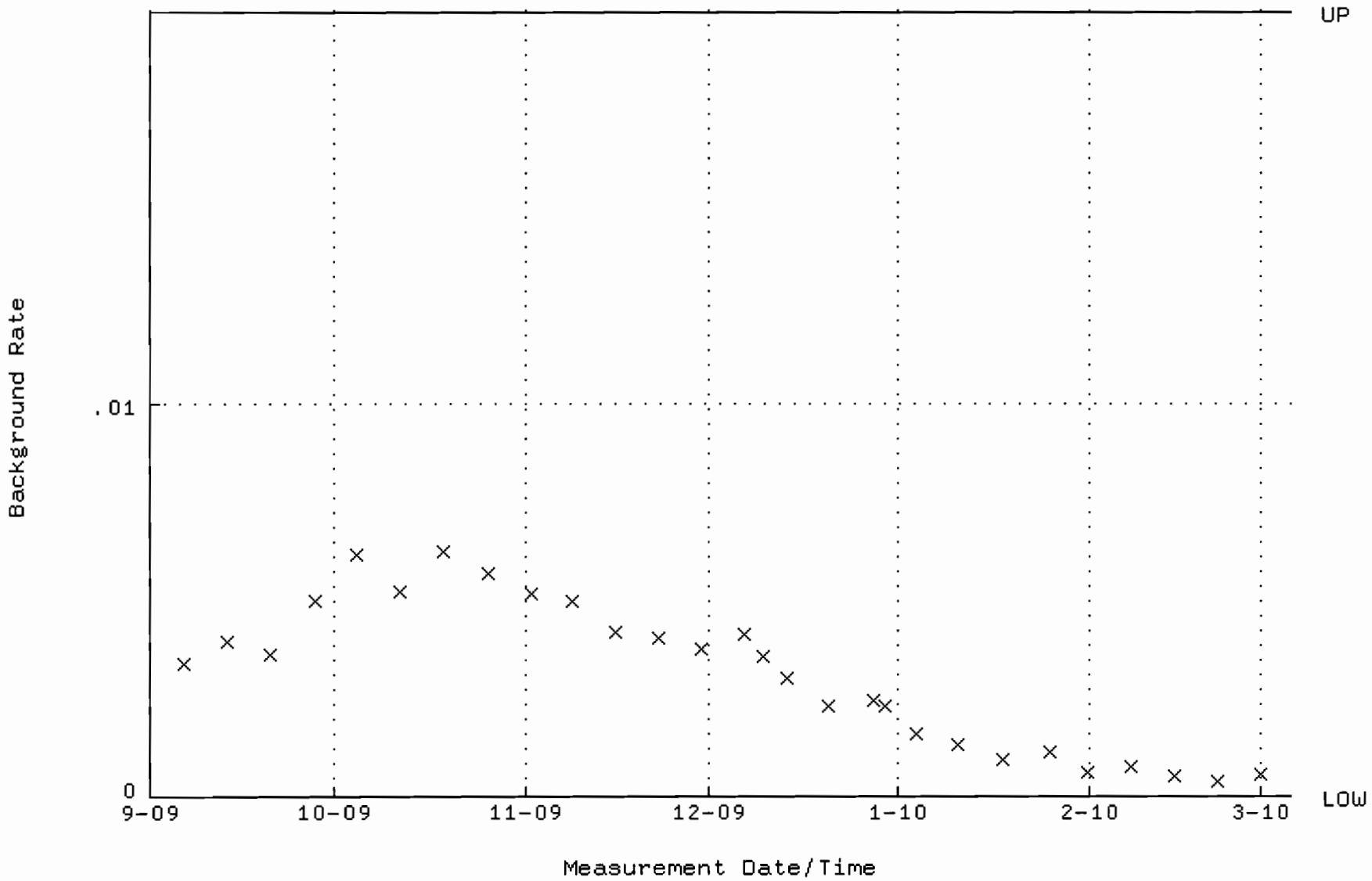

QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.294270 through 0.317026

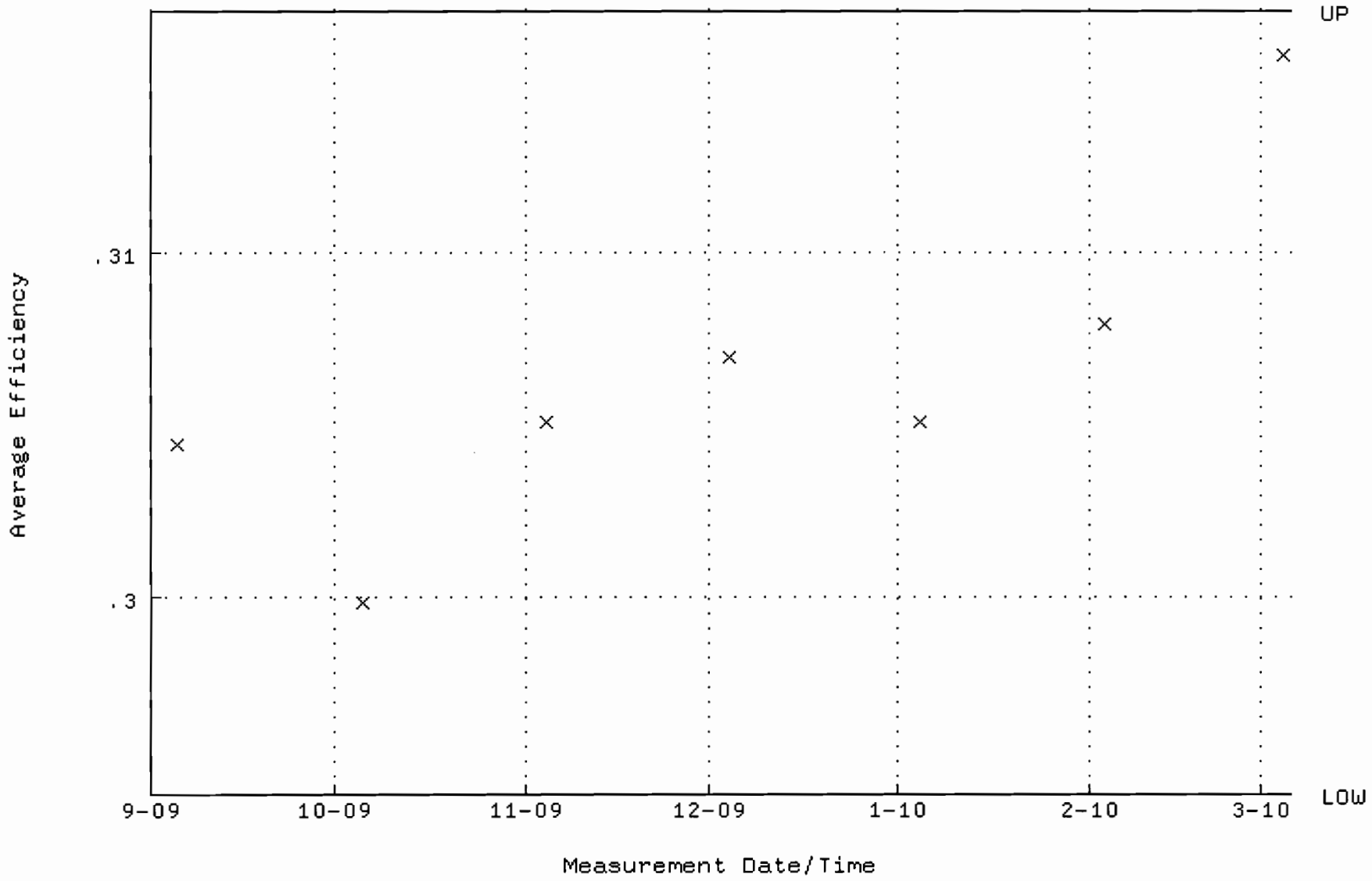

QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 86.3036 through 92.4168

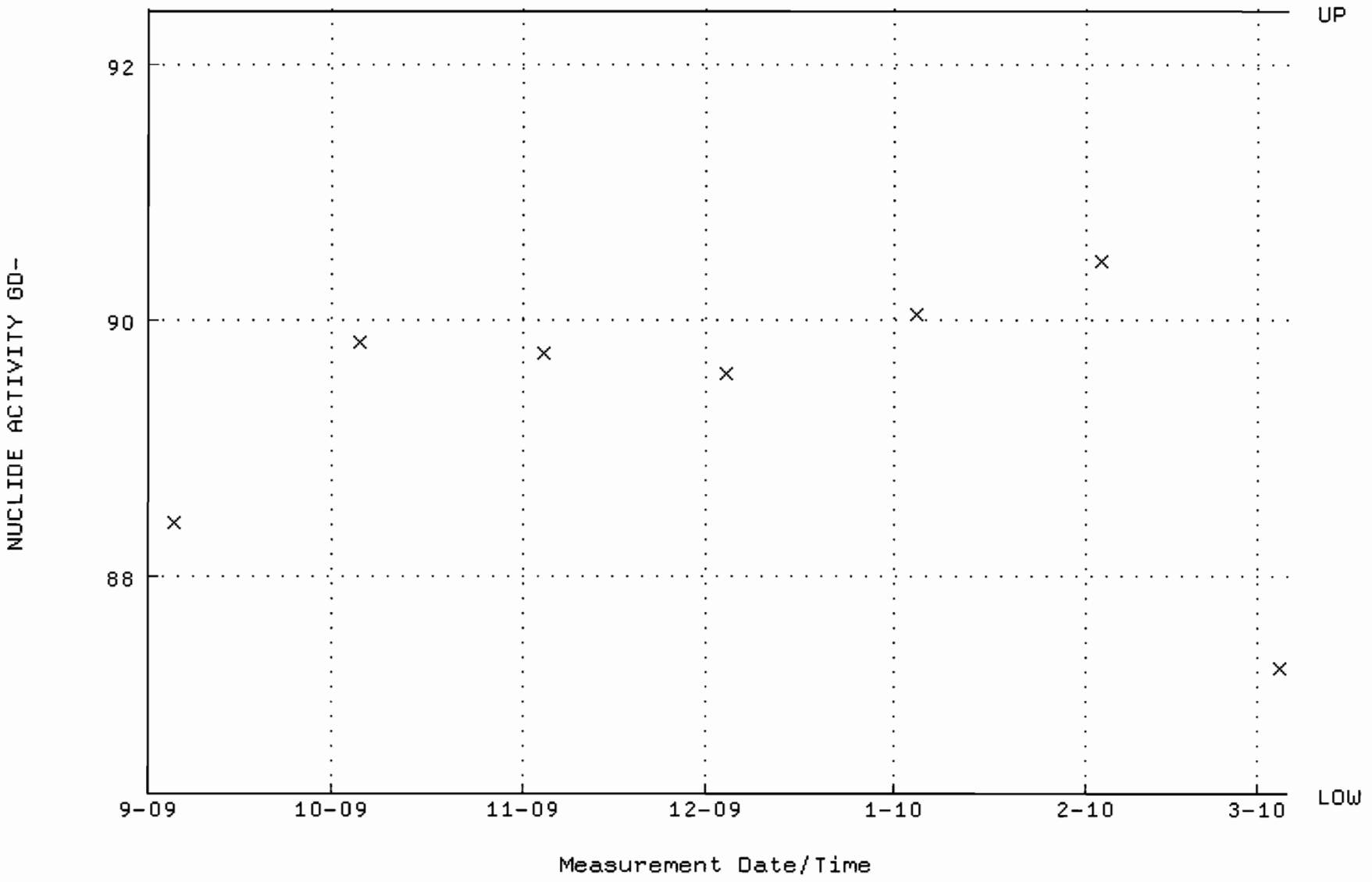

QA filename : DKA100:[ENV_ALPHA.QA.B]B028.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

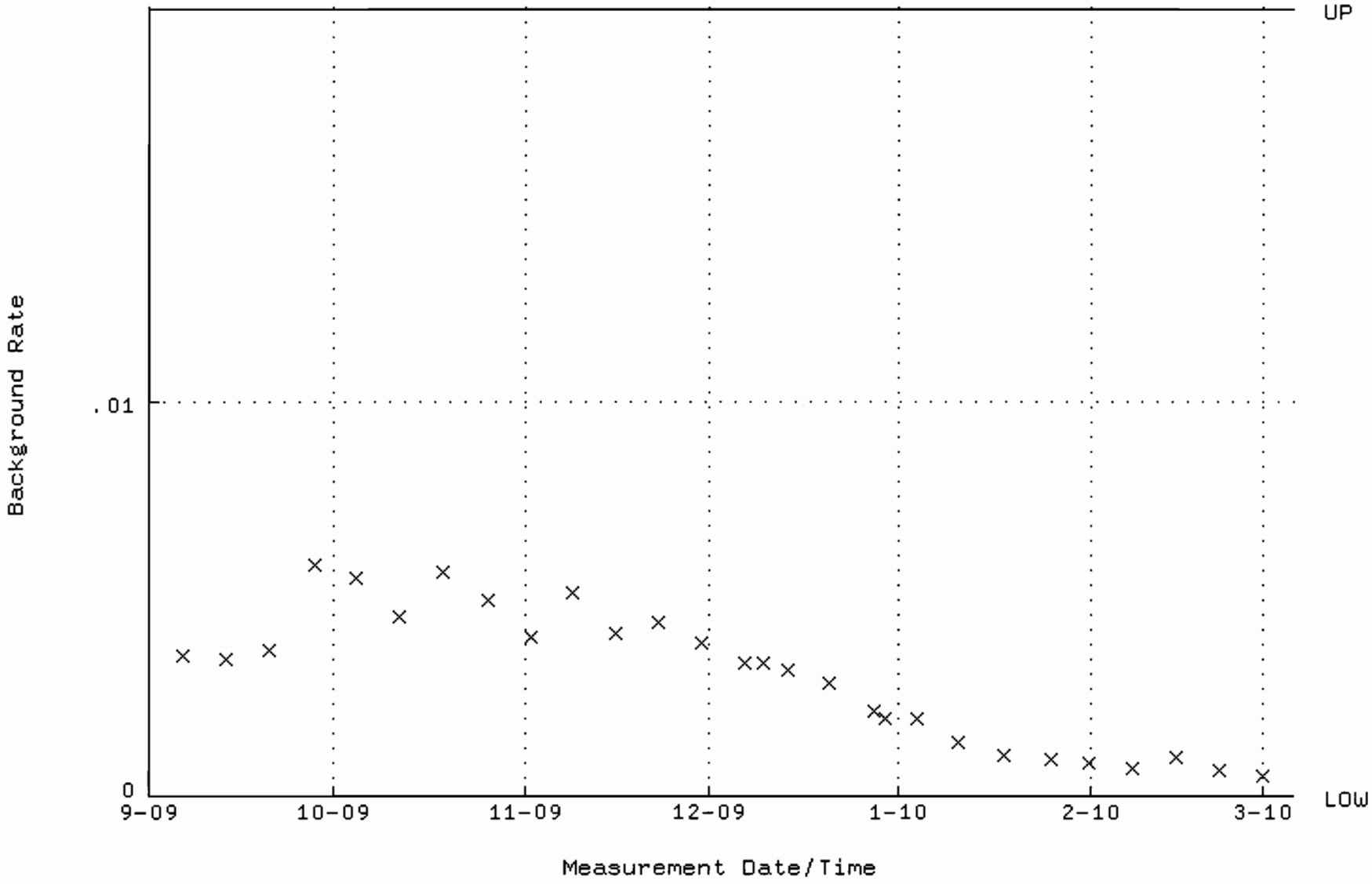

QA filename : DKA100:[ENV_ALPHA.QA.W]W029.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

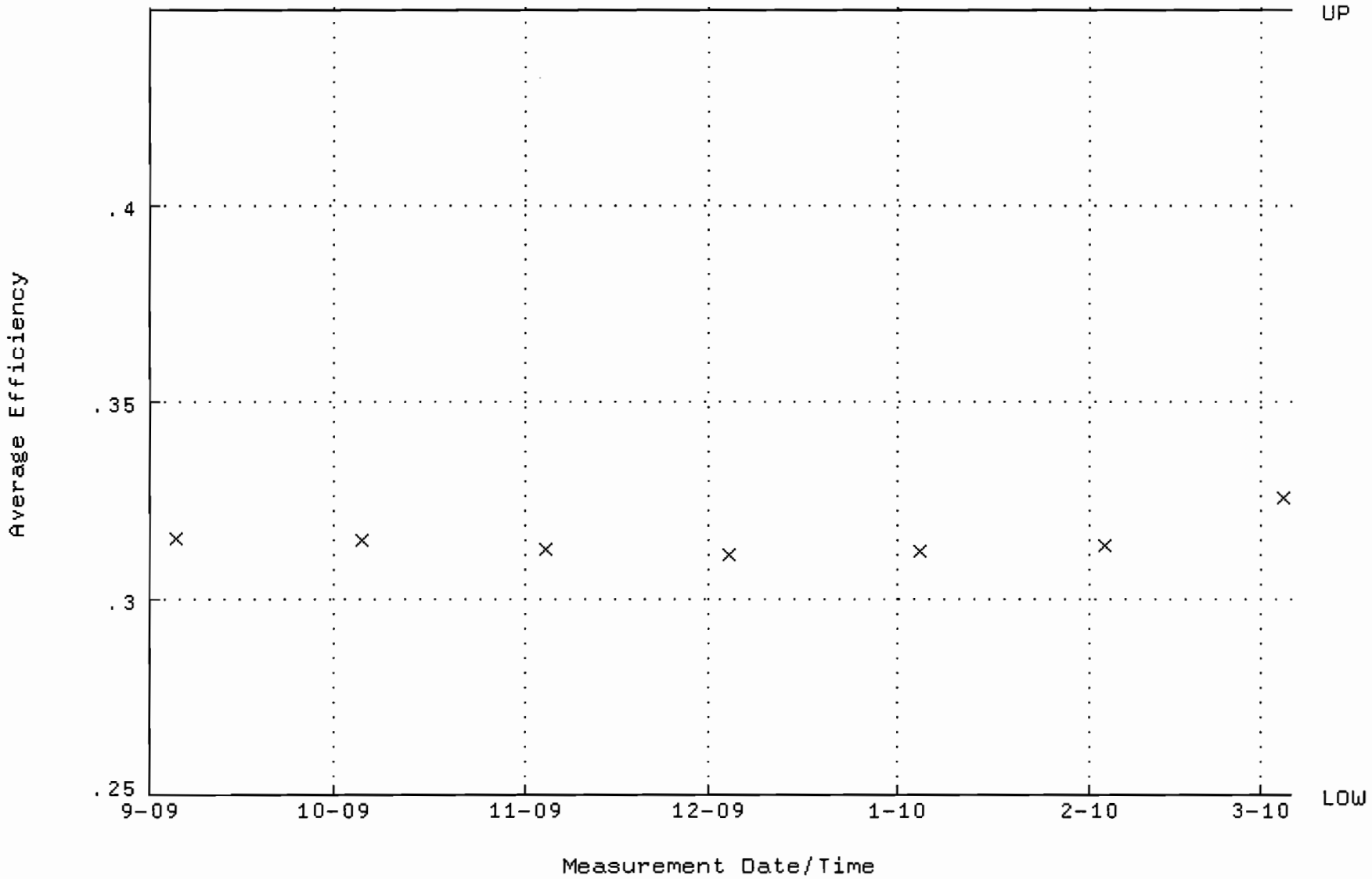

QA filename : DKA100:[ENV_ALPHA.QA.W]W029.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

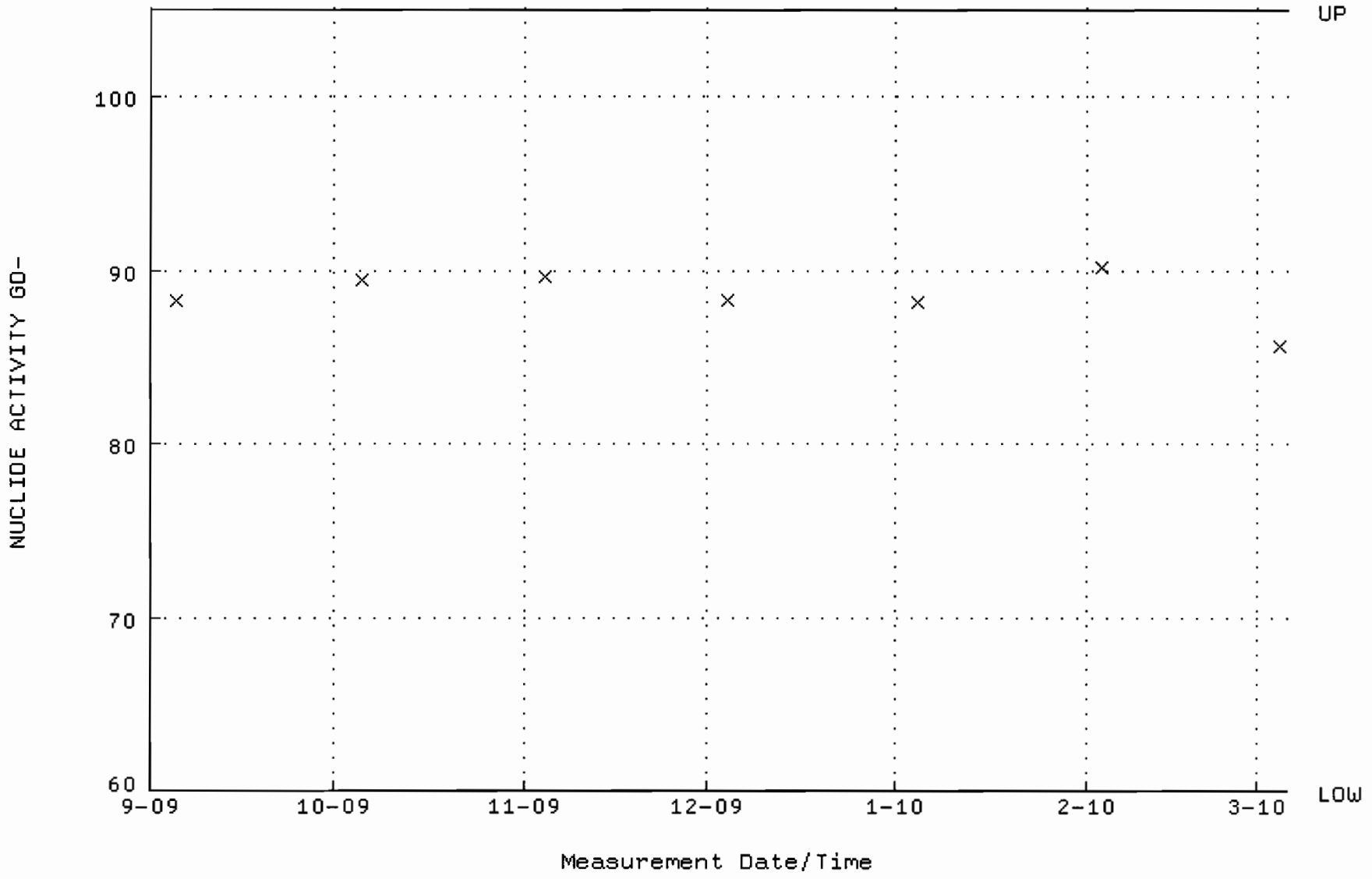

QA filename : DKA100:[ENV_ALPHA.QA.B]B029.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

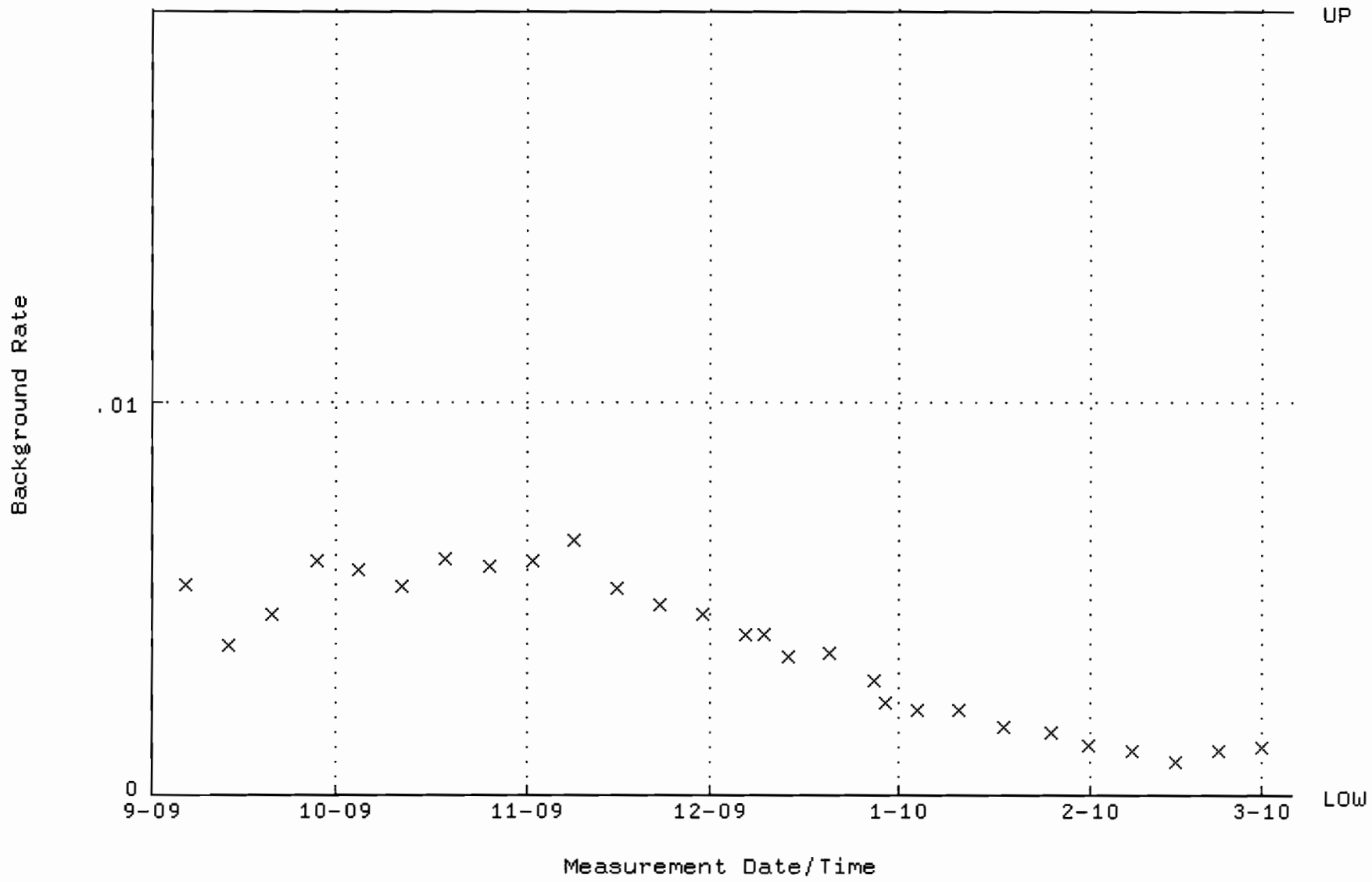

QA filename : DKA100:[ENV_ALPHA.QA.W]W030.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

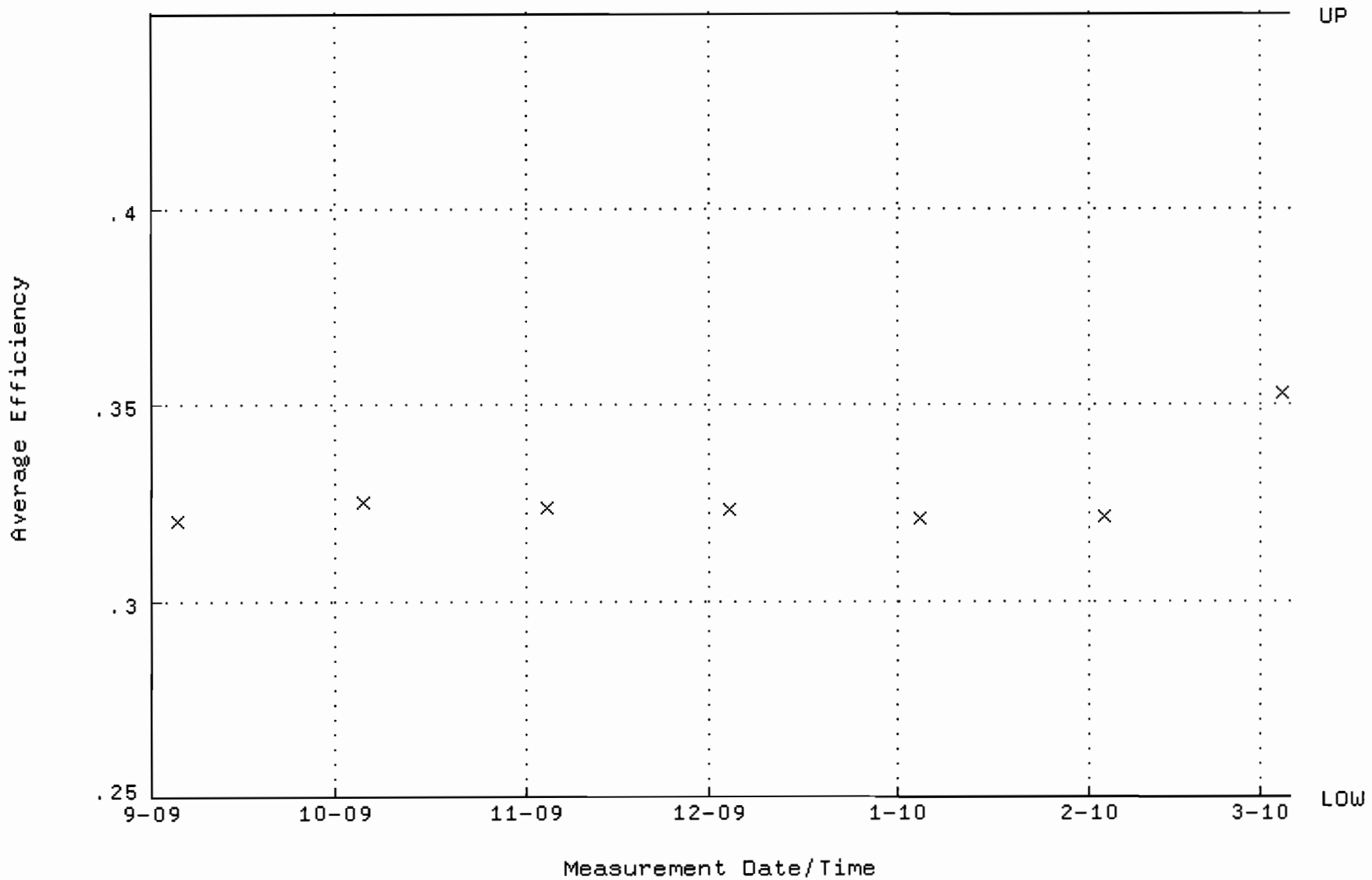

QA filename : DKA100:[ENV_ALPHA.QA.W]W030.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

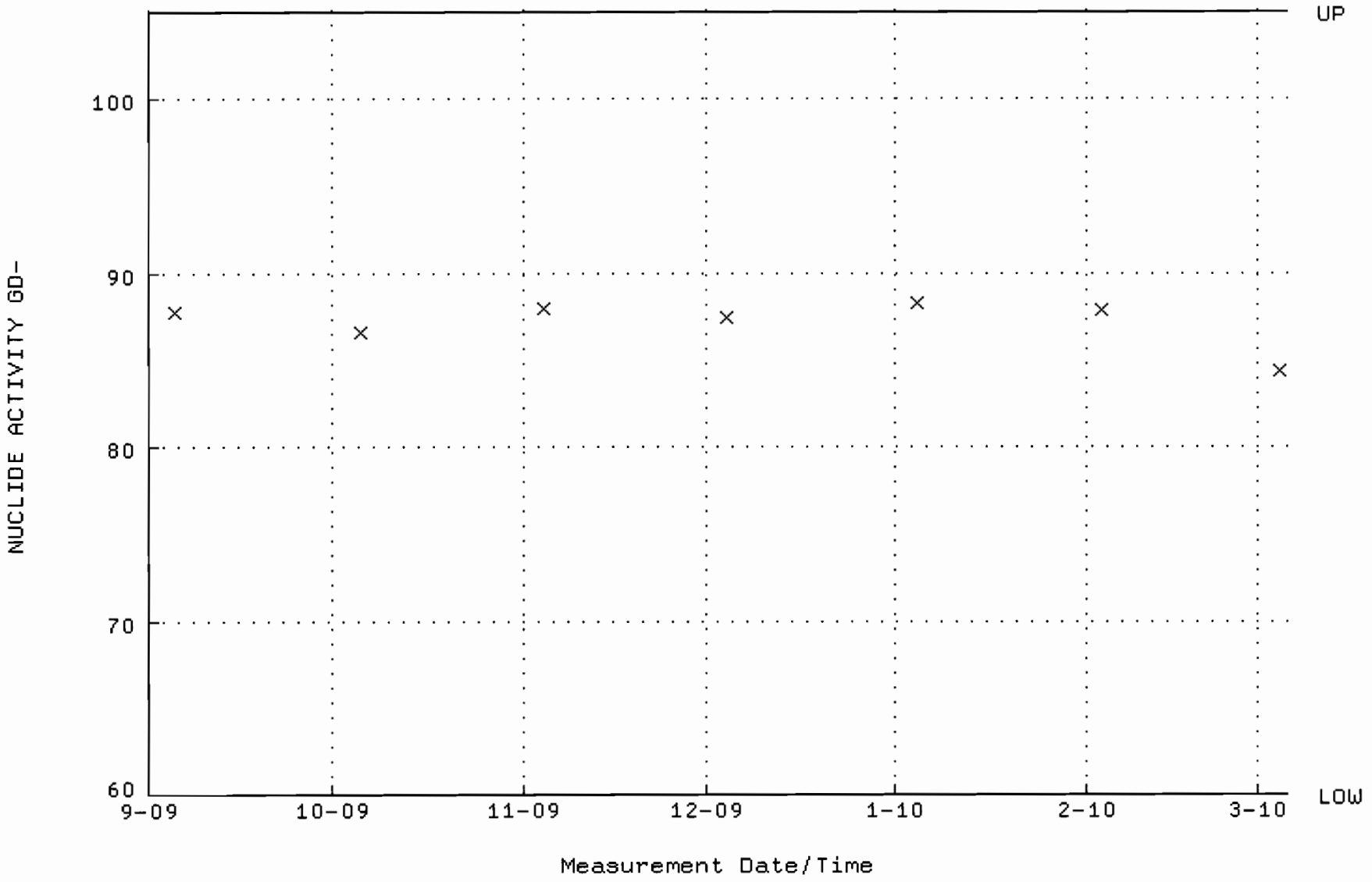

QA filename : DKA100:[ENV_ALPHA.QA.B]B030.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

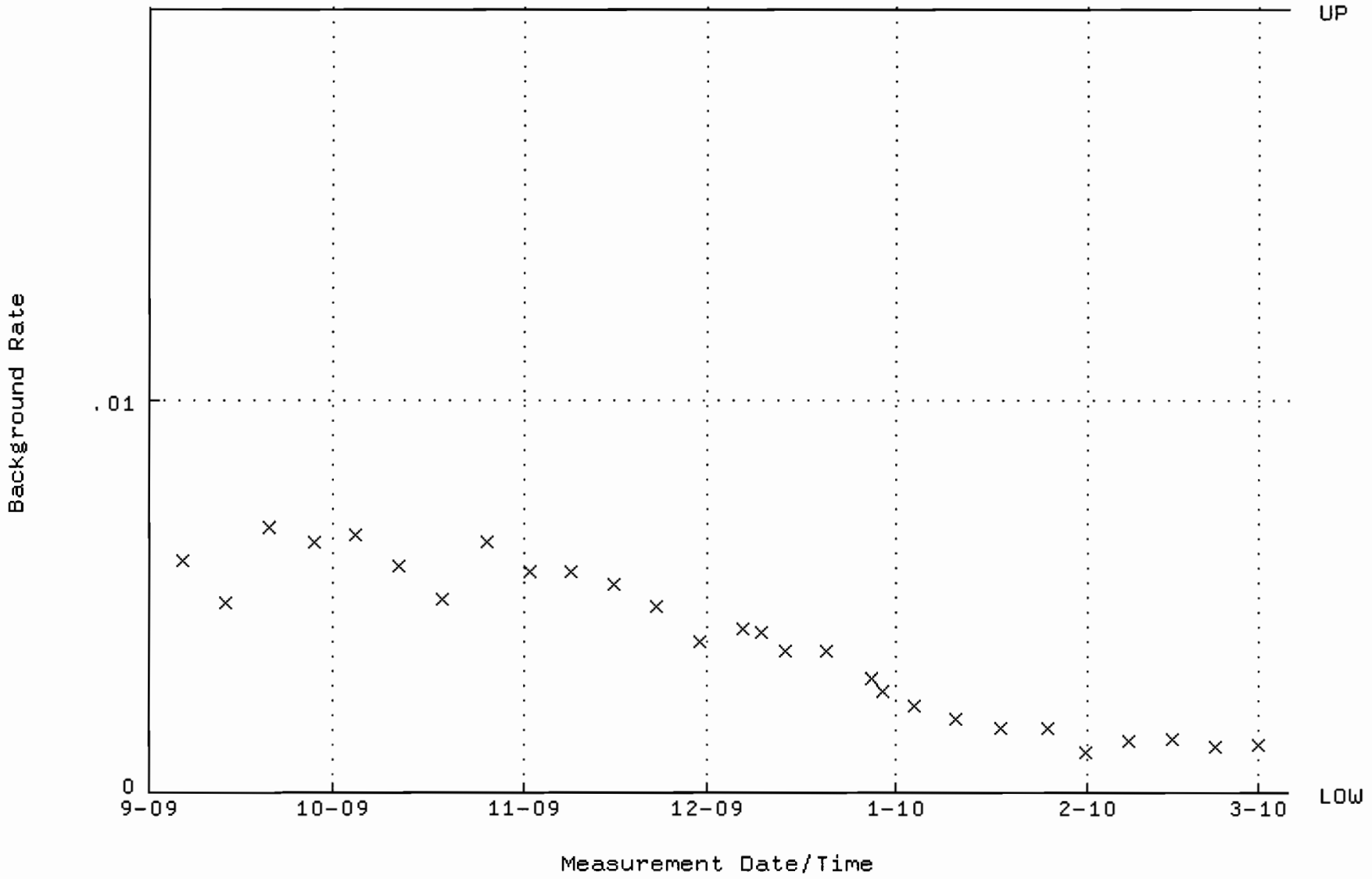

QA filename : DKA100:[ENV_ALPHA.QA.W]W037.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:11 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

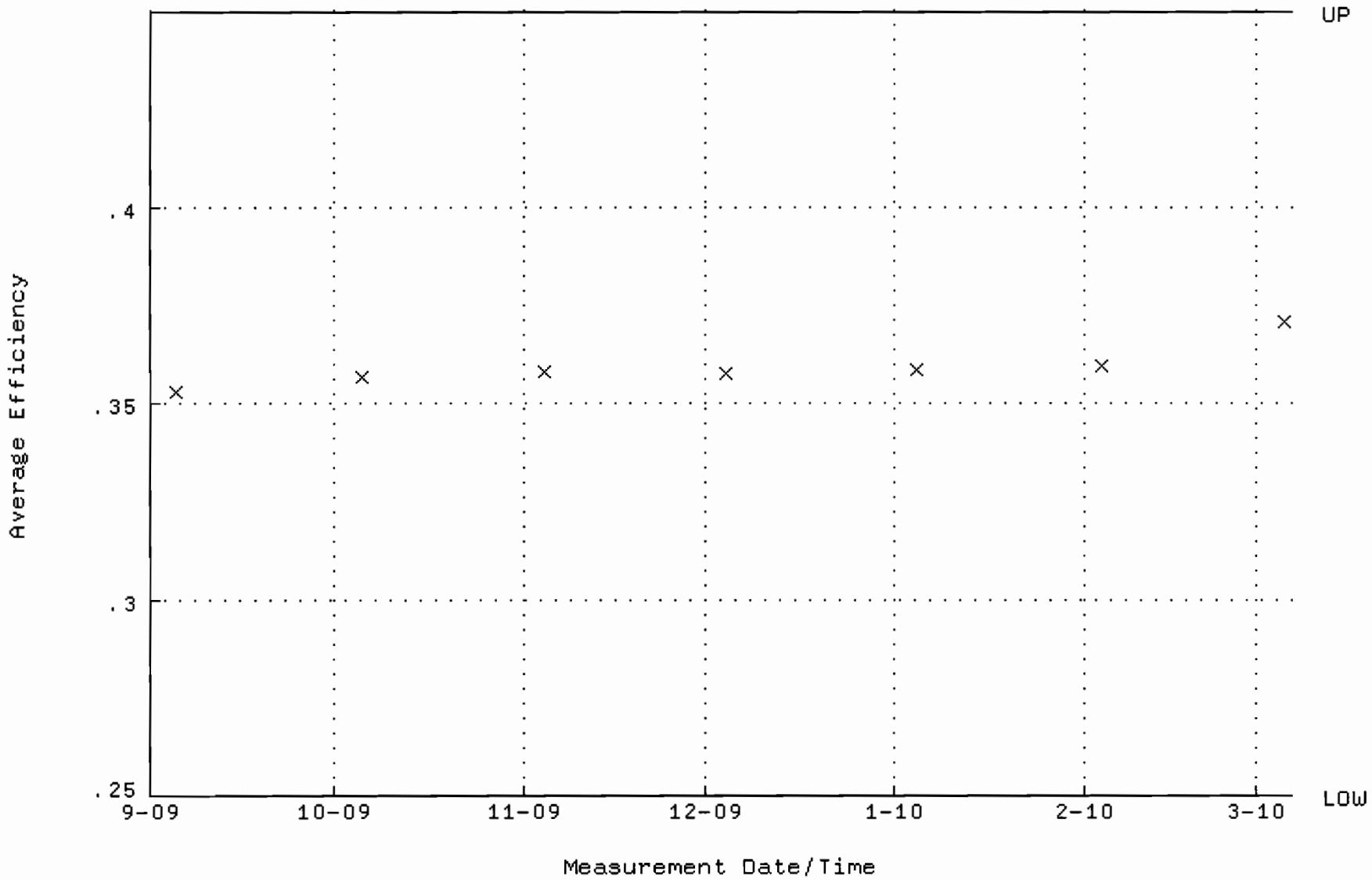

QA filename : DKA100:[ENV_ALPHA.QA.W]W037.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:11 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

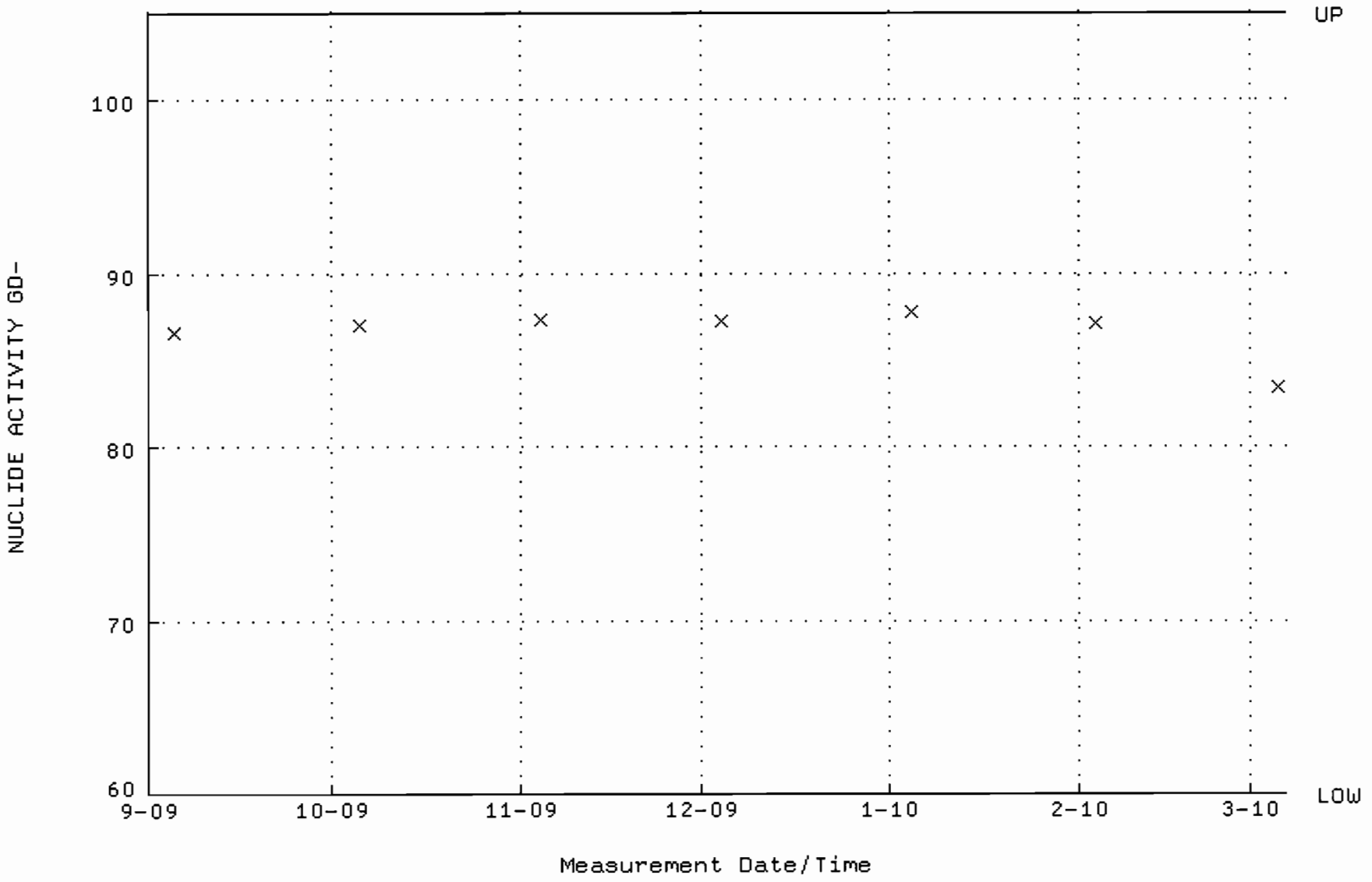

QA filename : DKA100:[ENV_ALPHA.QA.B]B037.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:05 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

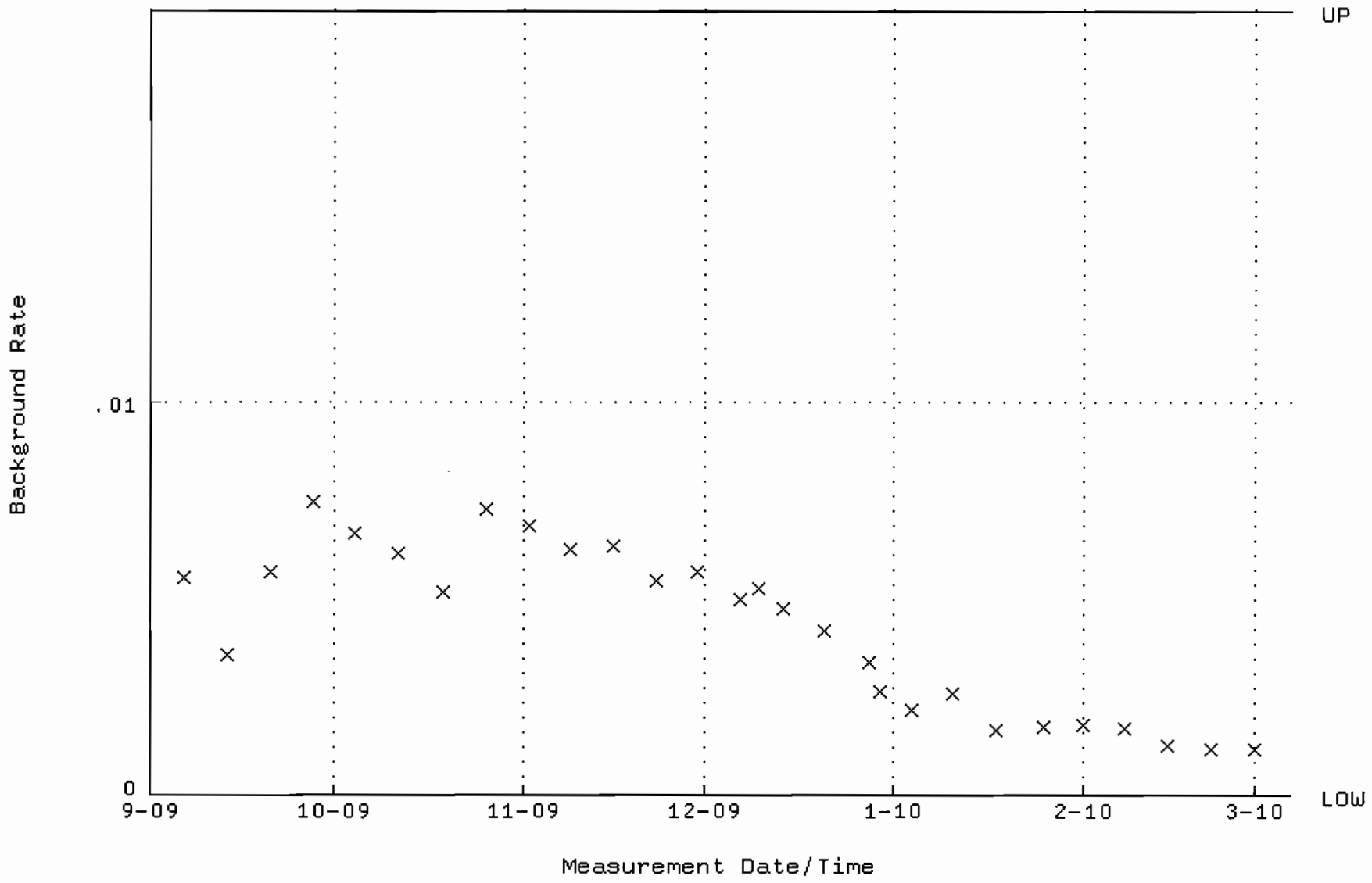

QA filename : DKA100:[ENV_ALPHA.QA.W]W038.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:11 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.322581 through 0.360953

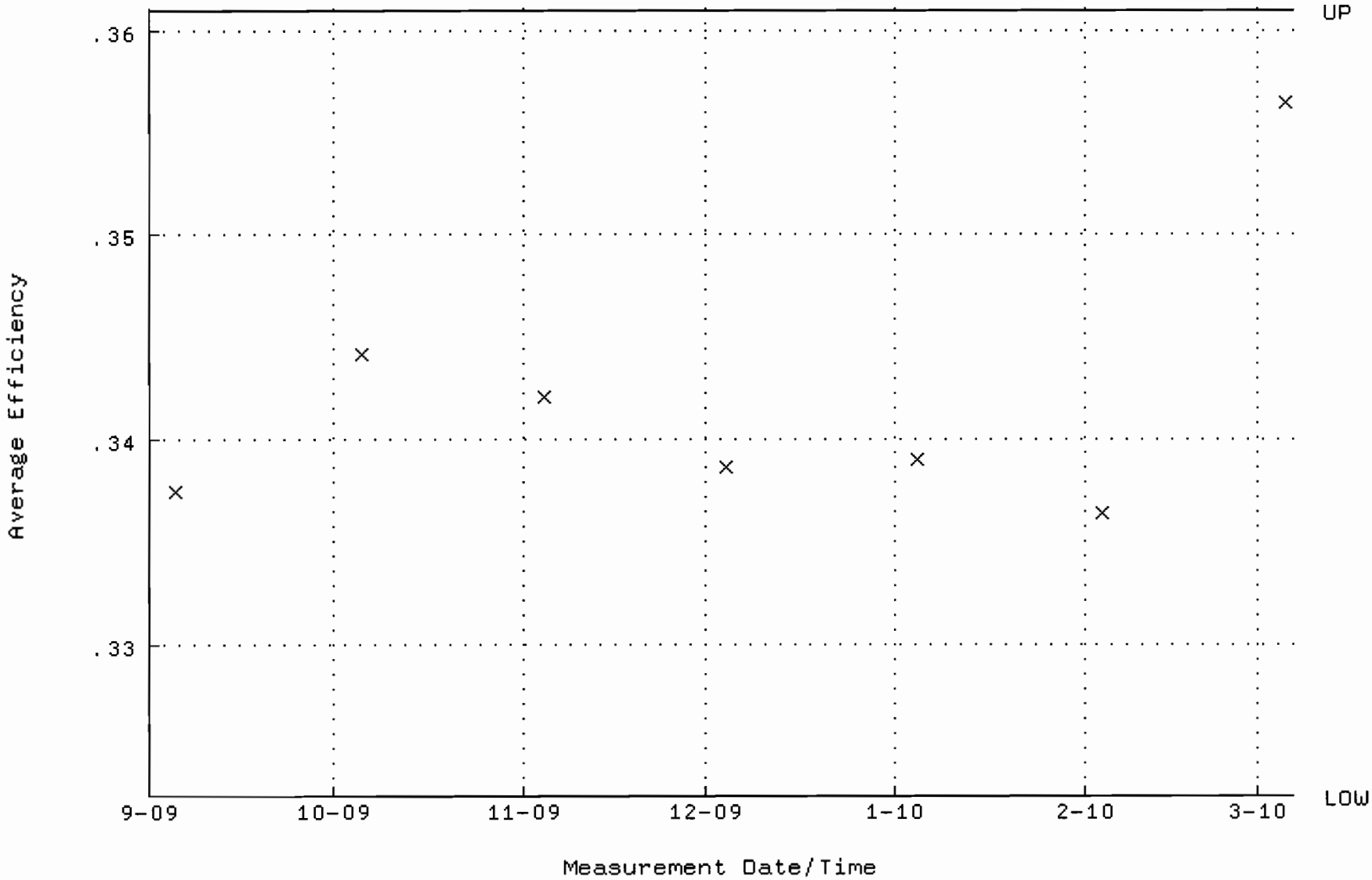

QA filename : DKA100:[ENV_ALPHA.QA.W]W038.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:11 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 83.3449 through 93.8345

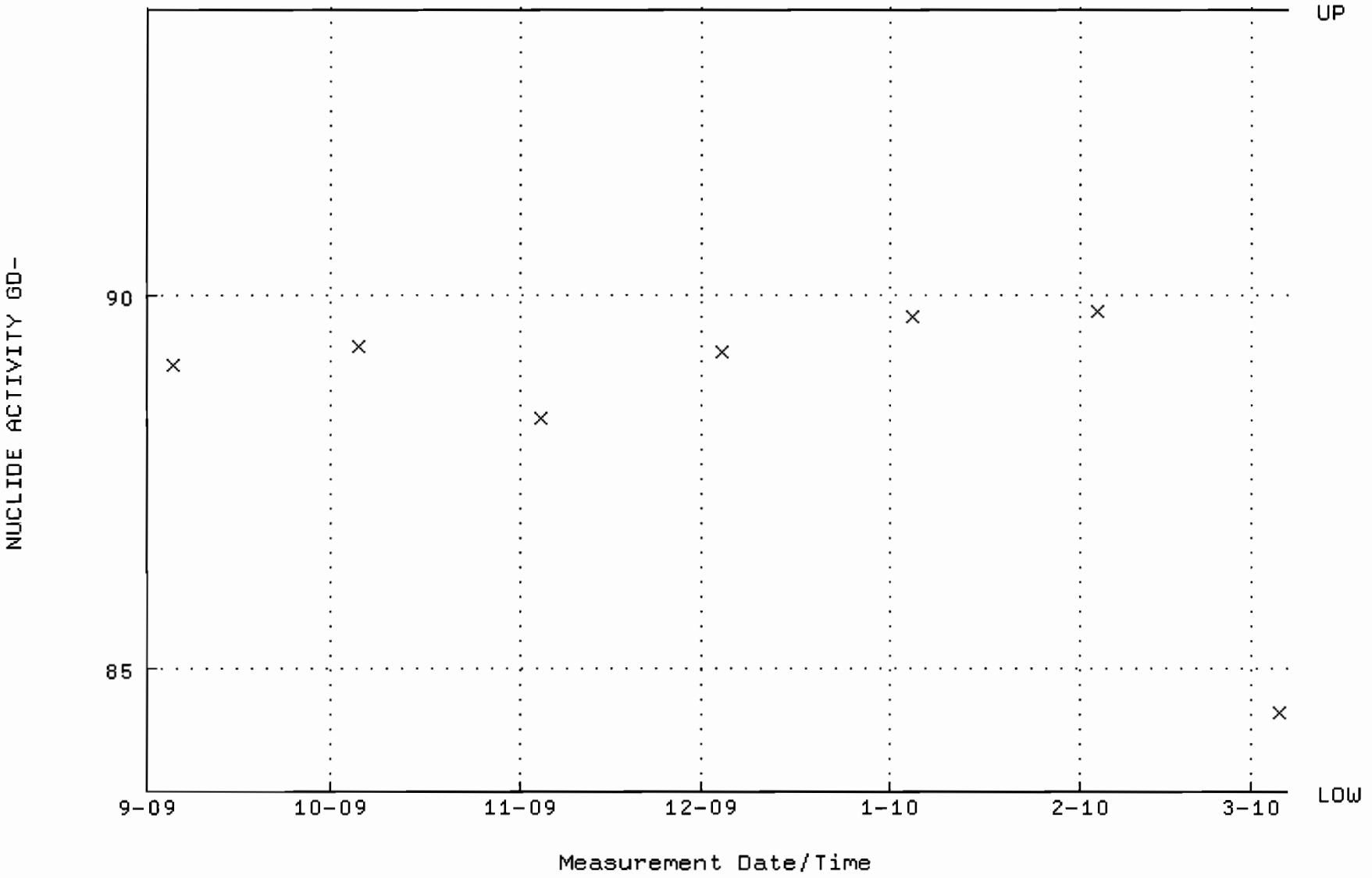

QA filename : DKA100:[ENV_ALPHA.QA.B]B038.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:05 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

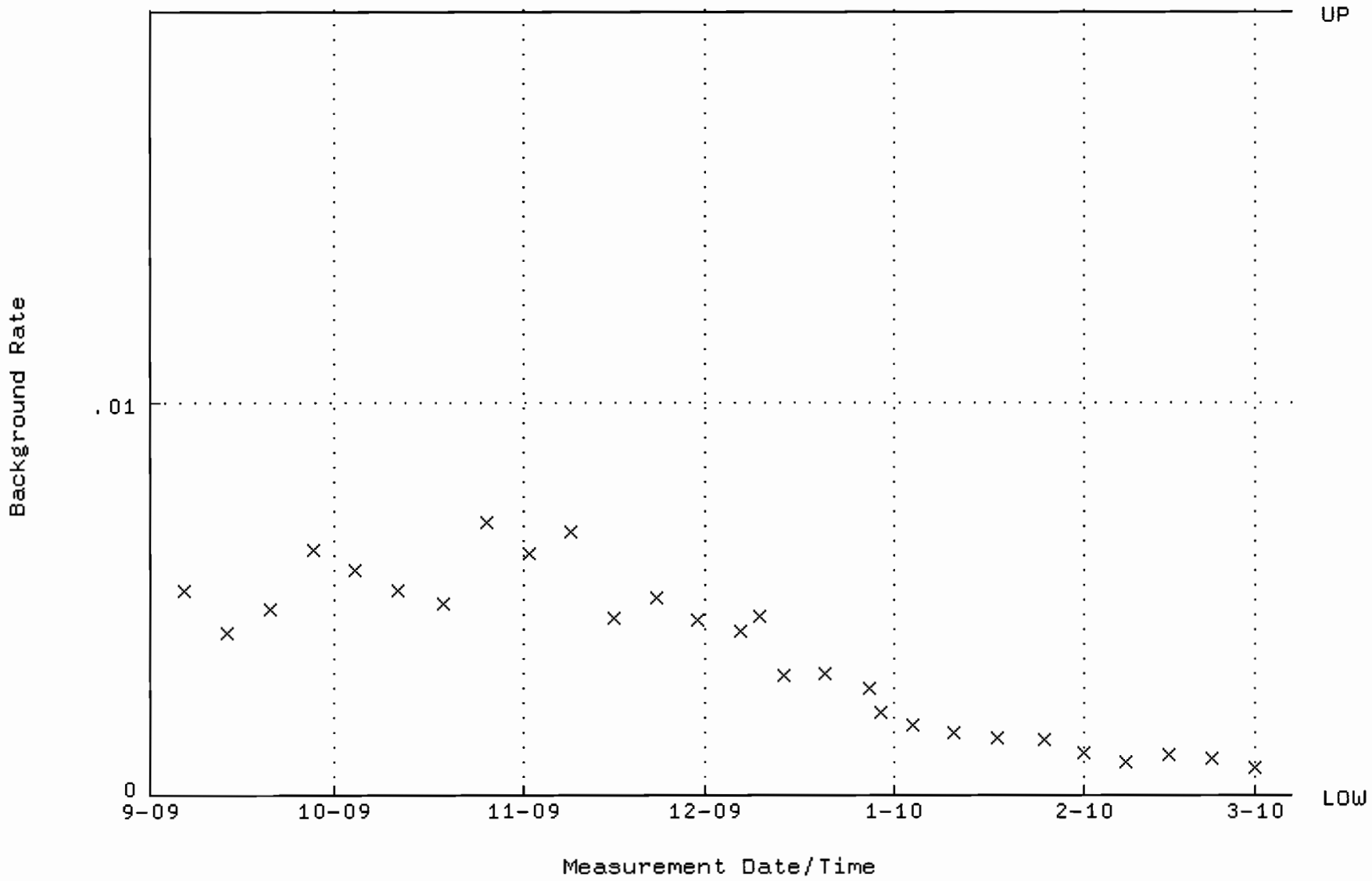

QA filename : DKA100:[ENV_ALPHA.QA.W]W040.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:11 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.306790 through 0.340520

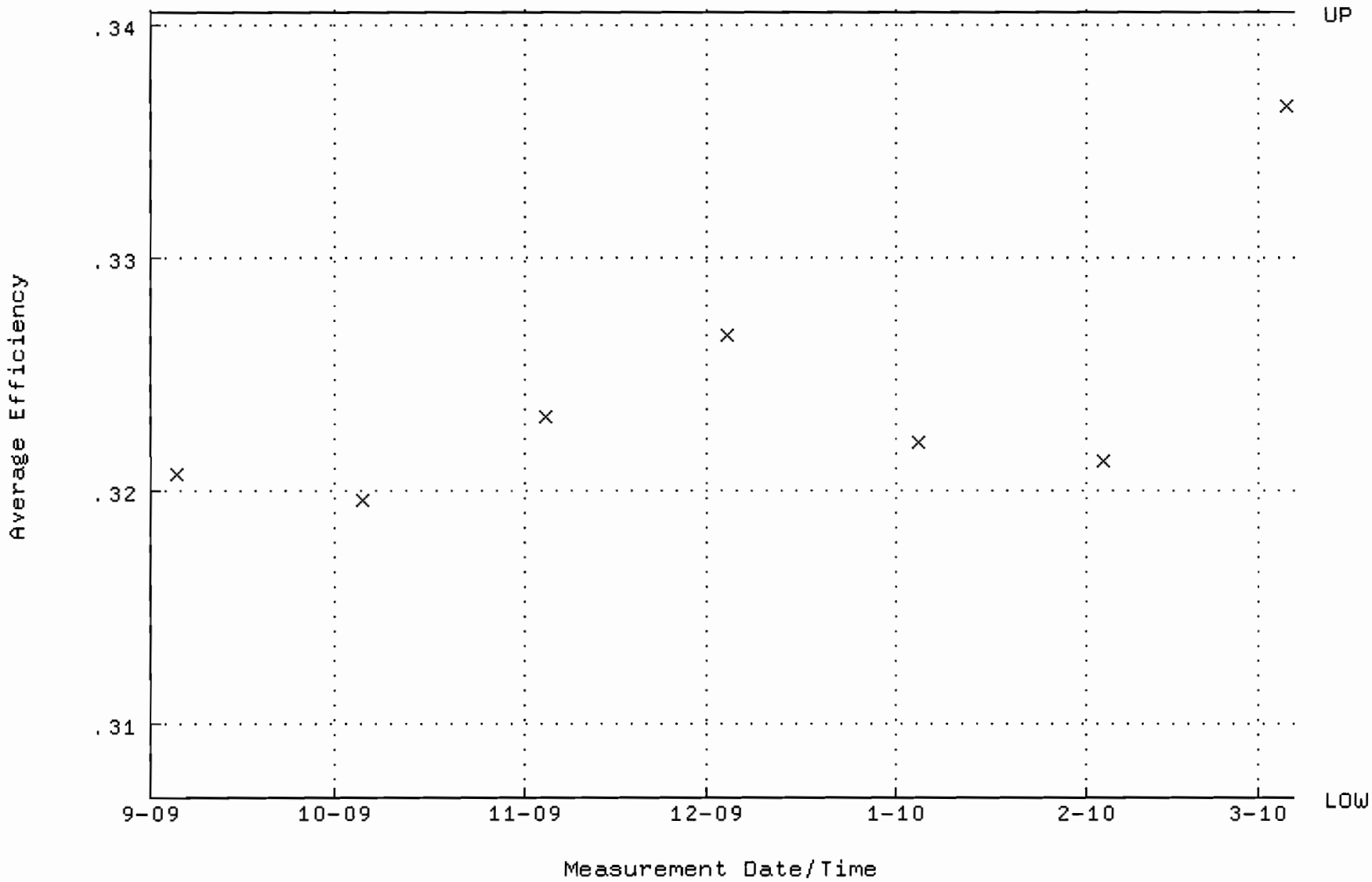

QA filename : DKA100:[ENV_ALPHA.QA.W]W040.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:11 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 83.5423 through 90.9959

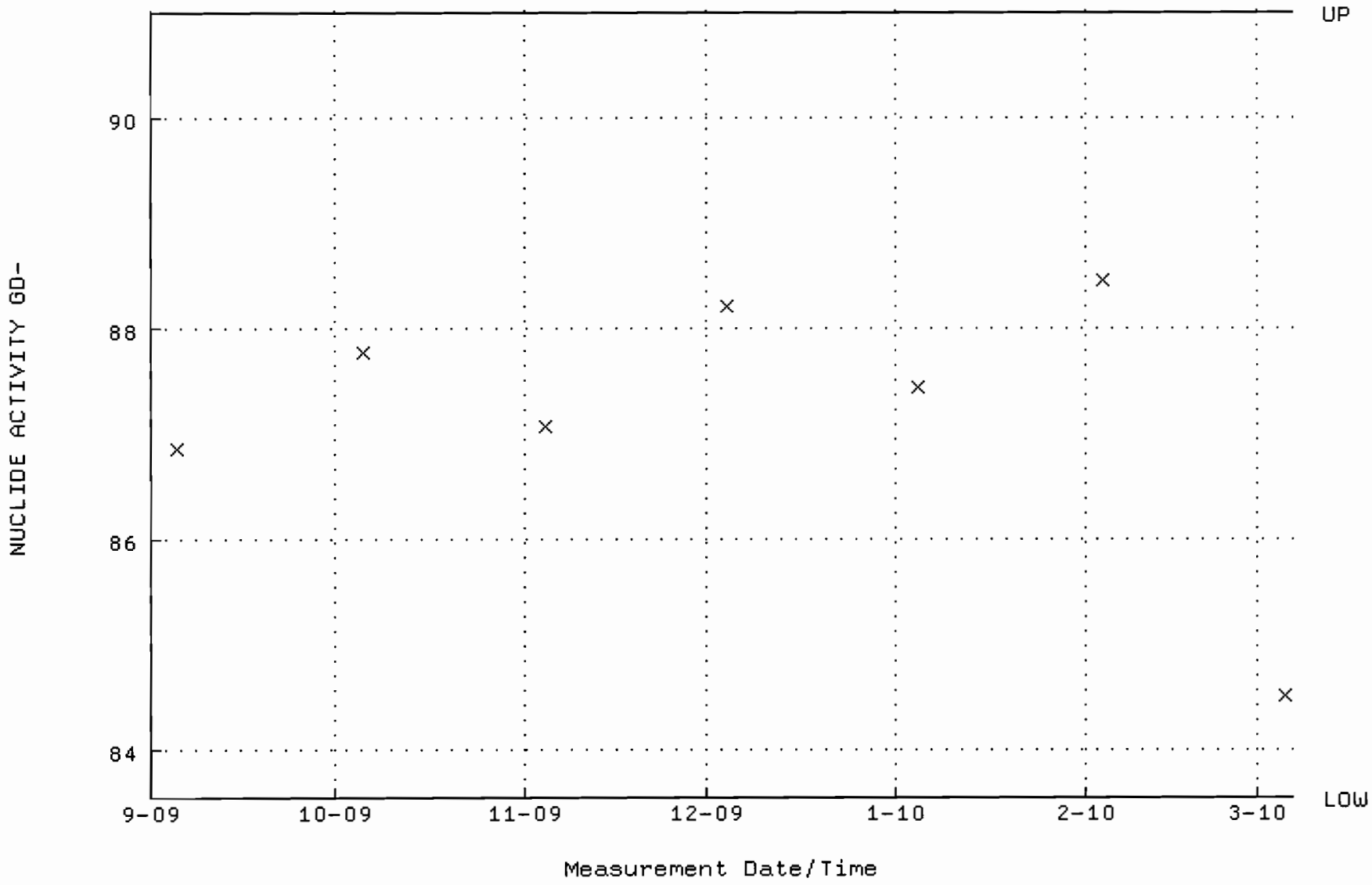

QA filename : DKA100:[ENV_ALPHA.QA.B]B040.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:05 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

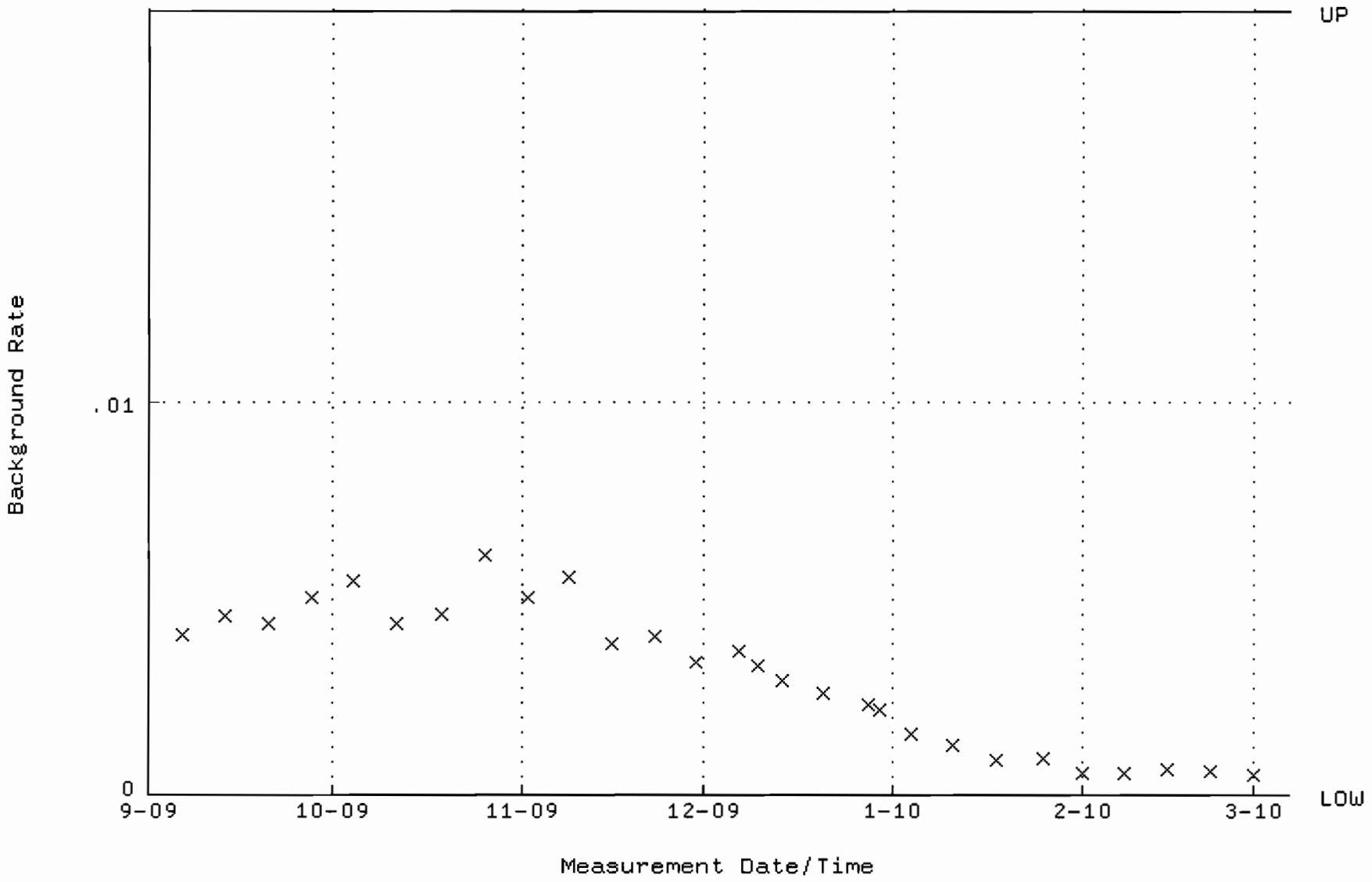

QA filename : DKA100:[ENV_ALPHA.QA.W]W098.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.346488 through 0.366488

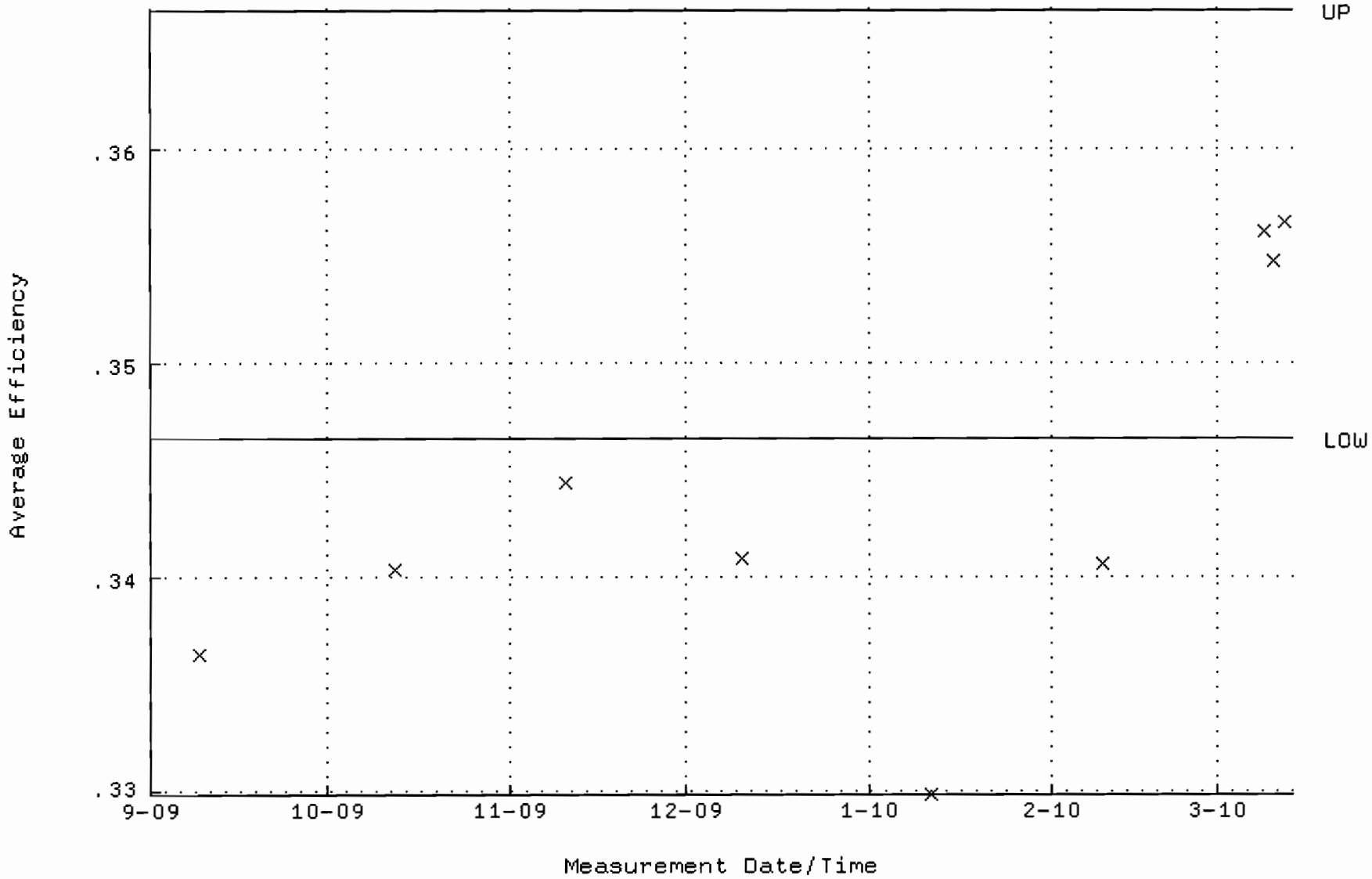

QA filename : DKA100:[ENV_ALPHA.QA.W]W098.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 62.6847 through 69.2831

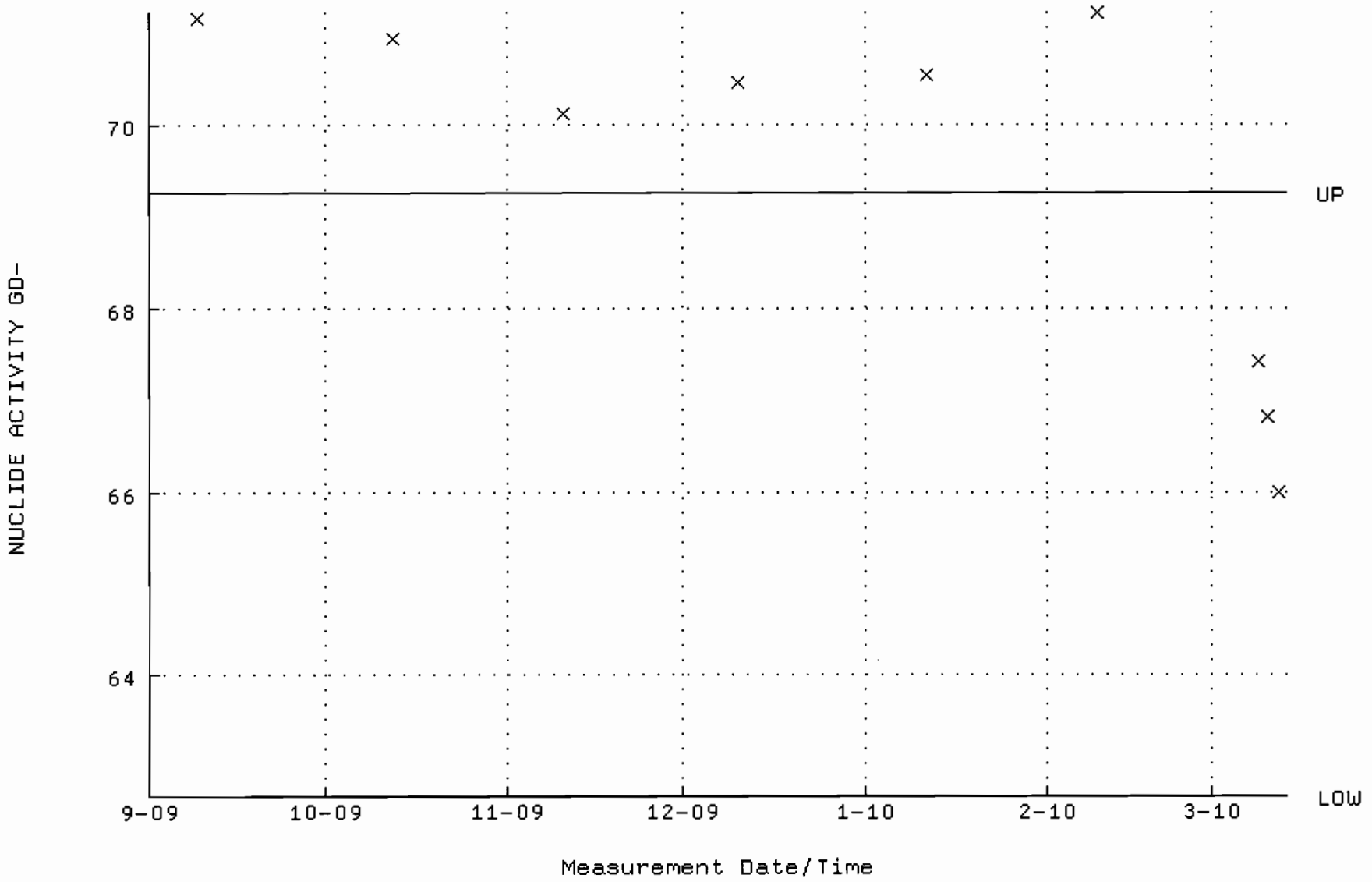

QA filename : DKA100:[ENV_ALPHA.QA.B]B098.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

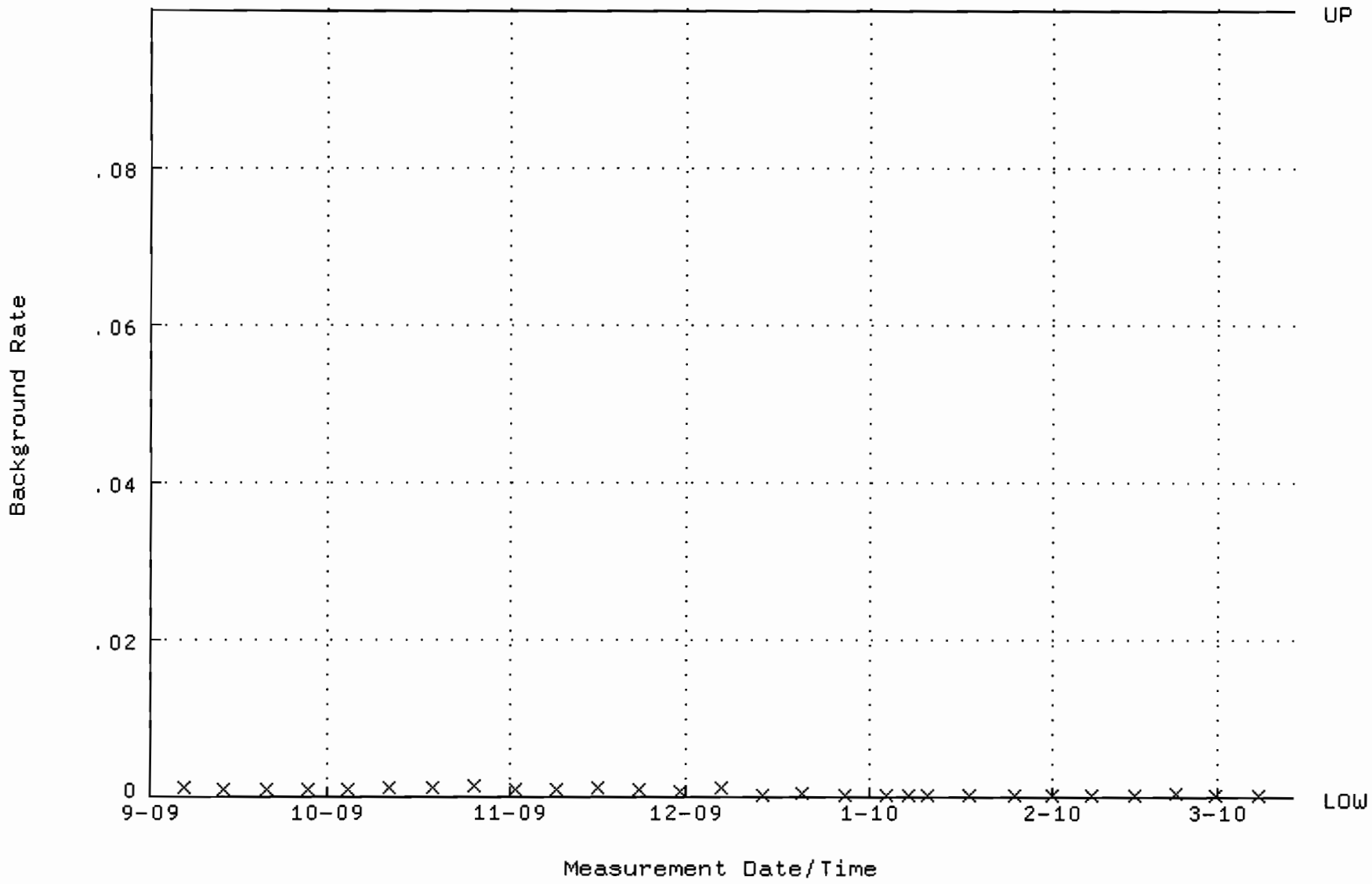

QA filename : DKA100:[ENV_ALPHA.QA.W]W099.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.331877 through 0.354429

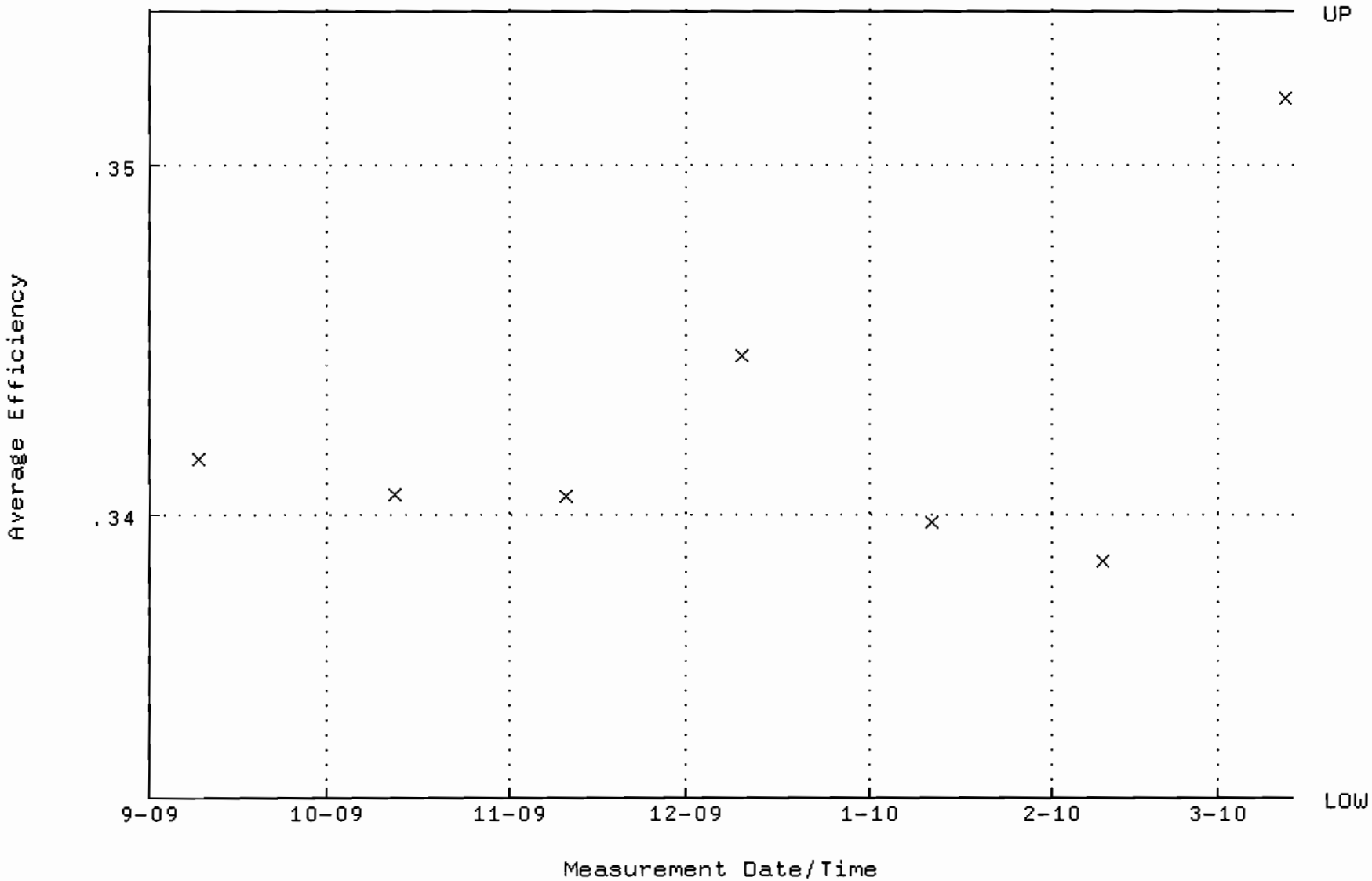

QA filename : DKA100:[ENV_ALPHA.QA.W]W099.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 68.7313 through 73.6359

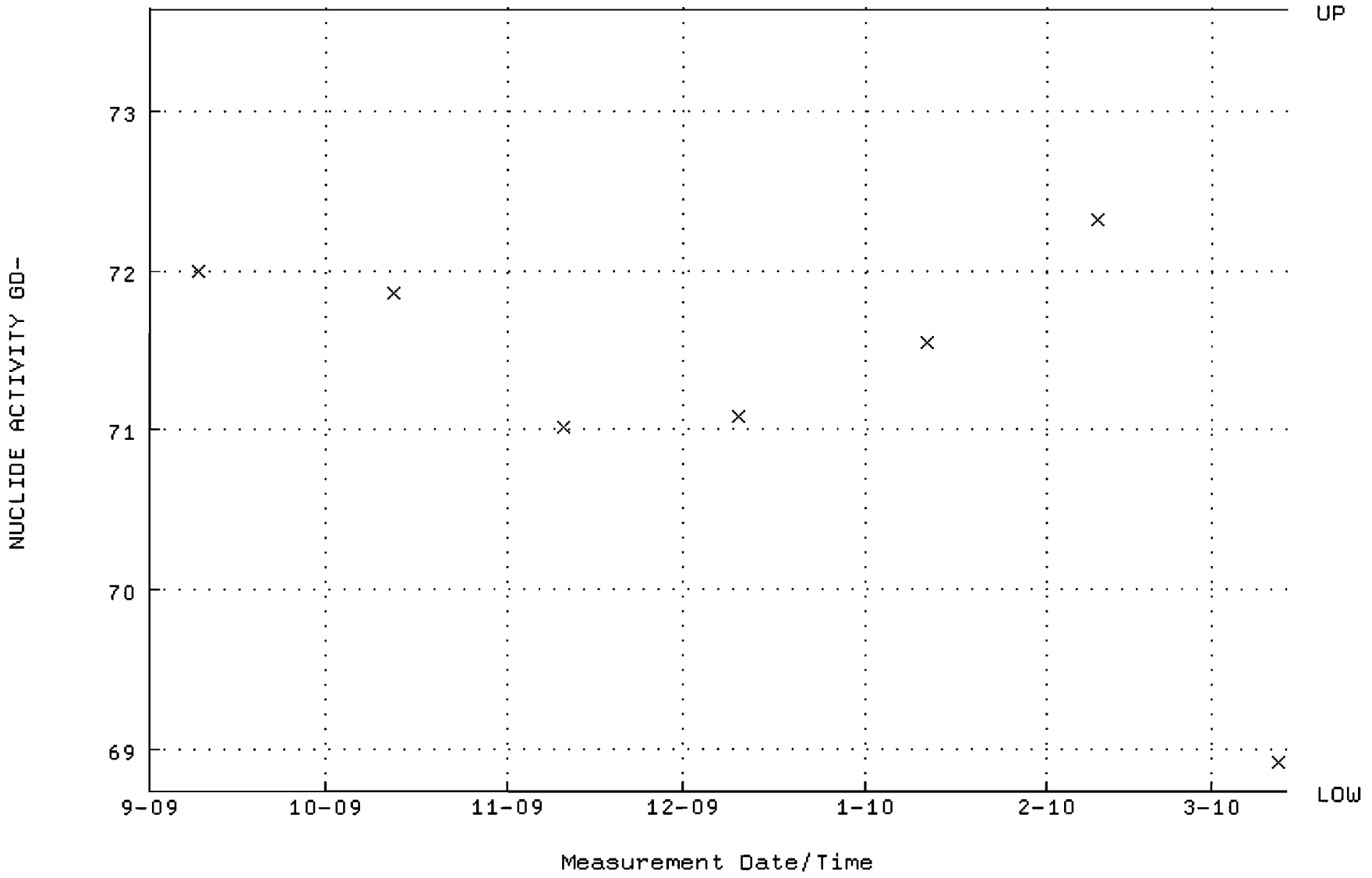

QA filename : DKA100:[ENV_ALPHA.QA.B]B099.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

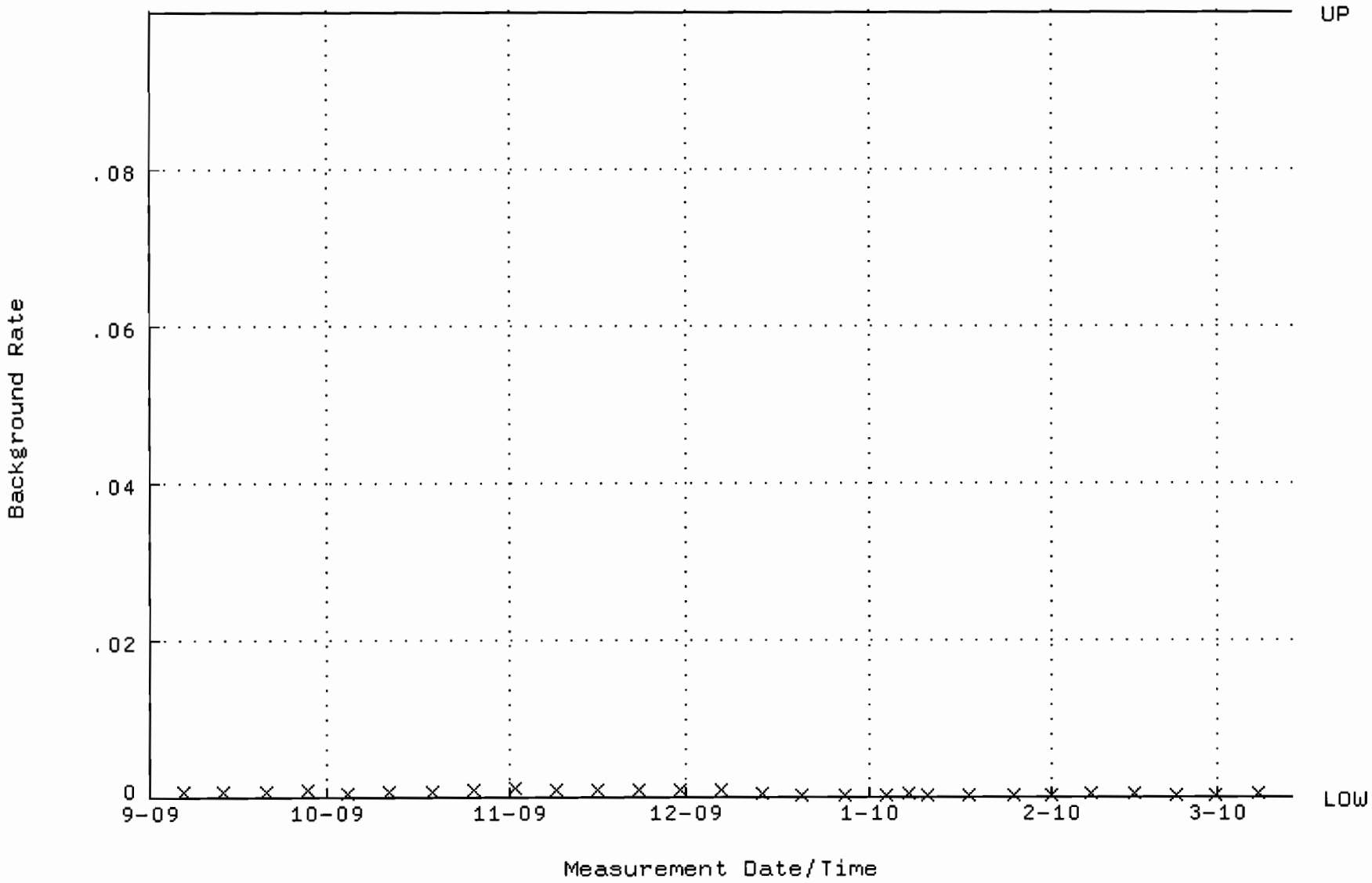

QA filename : DKA100:[ENV_ALPHA.QA.W]W100.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.328134 through 0.359116

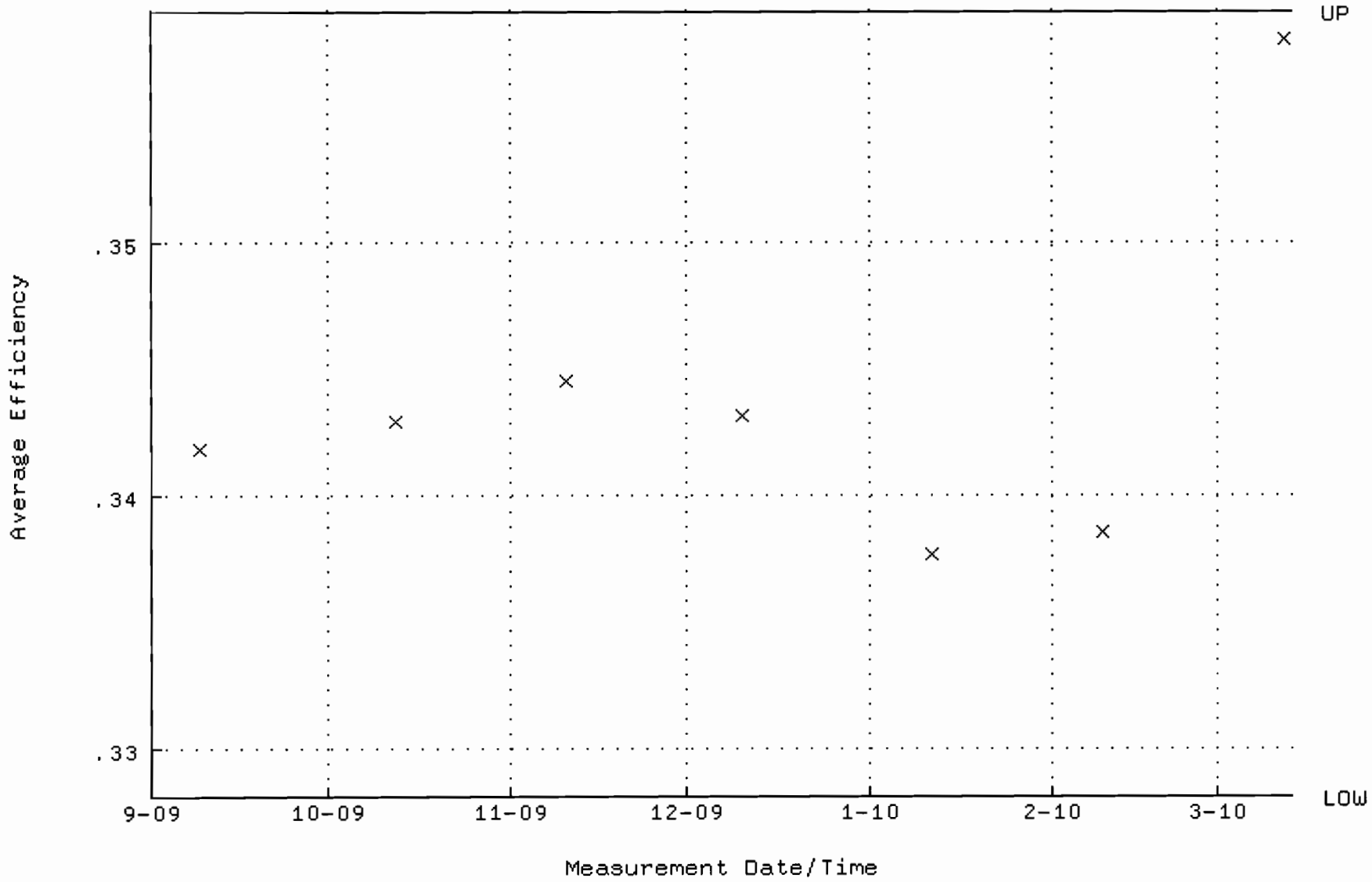

QA filename : DKA100:[ENV_ALPHA.QA.W]W100.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 65.9445 through 71.5395

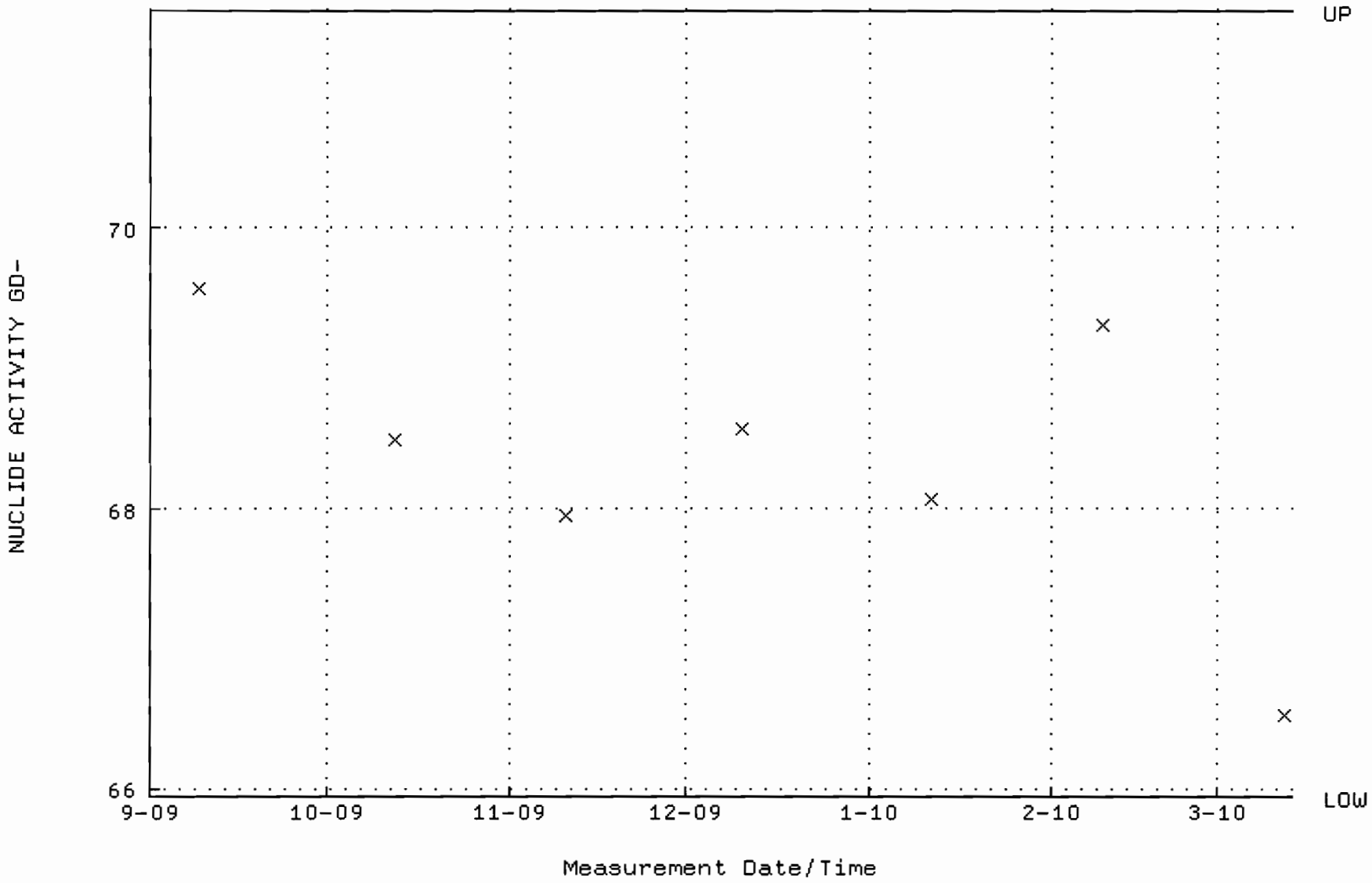

QA filename : DKA100:[ENV_ALPHA.QA.B]B100.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

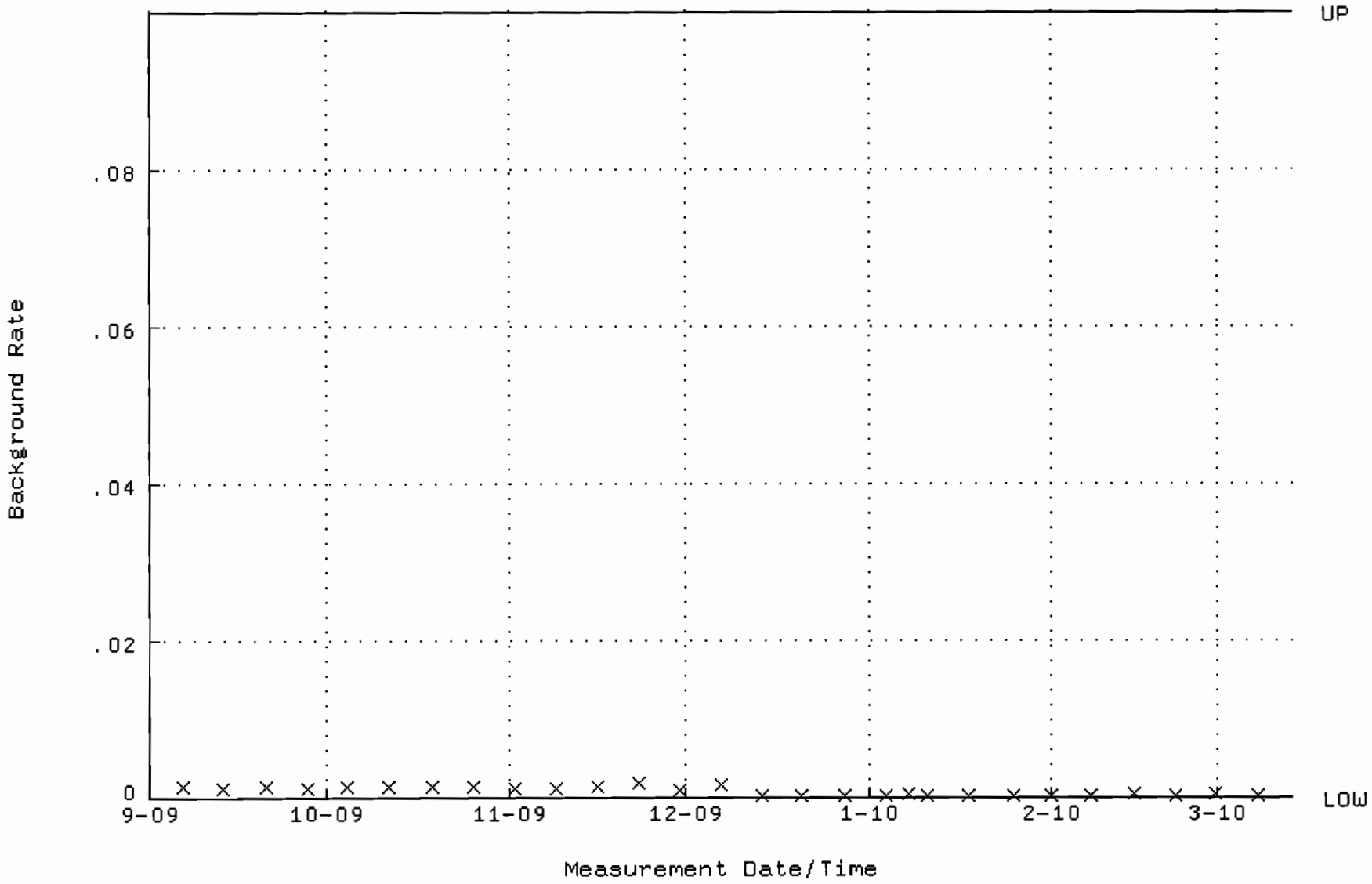

QA filename : DKA100:[ENV_ALPHA.QA.W]W107.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.288232 through 0.332218

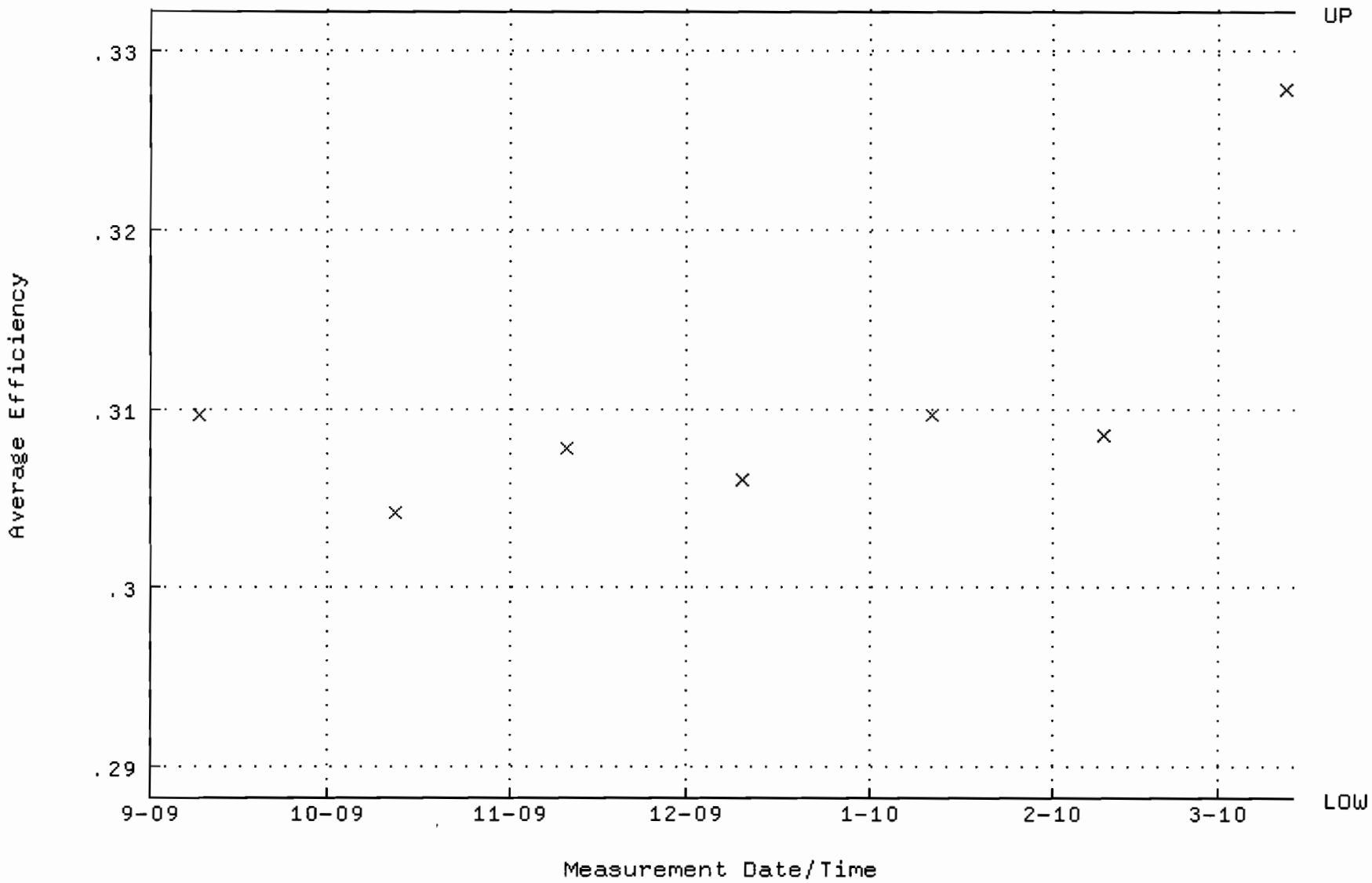

QA filename : DKA100:[ENV_ALPHA.QA.W]W107.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 63.9135 through 75.9257

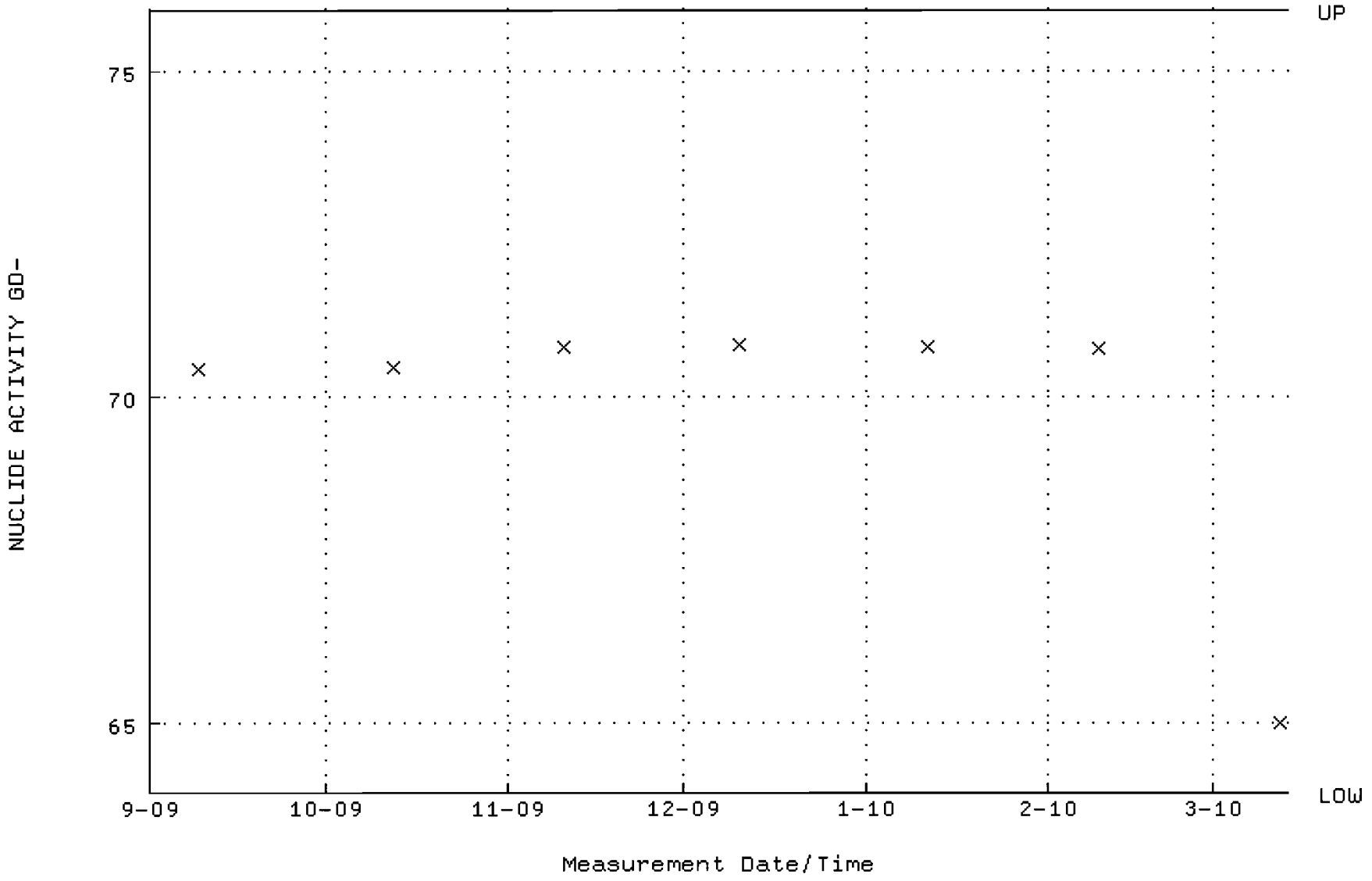

QA filename : DKA100:[ENV_ALPHA.QA.B]B107.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:12 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

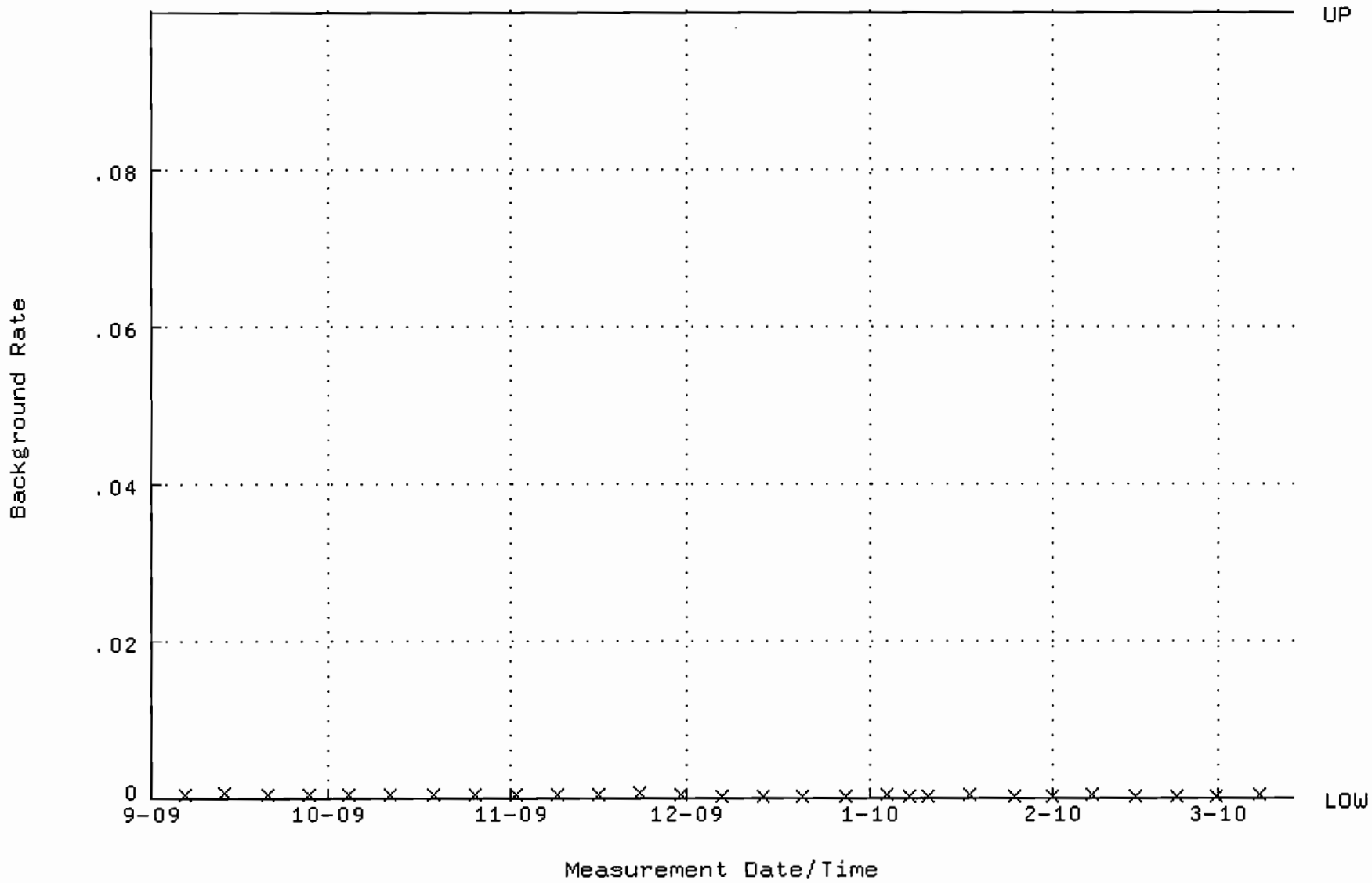

QA filename : DKA100:[ENV_ALPHA.QA.W]W108.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.329201 through 0.361417

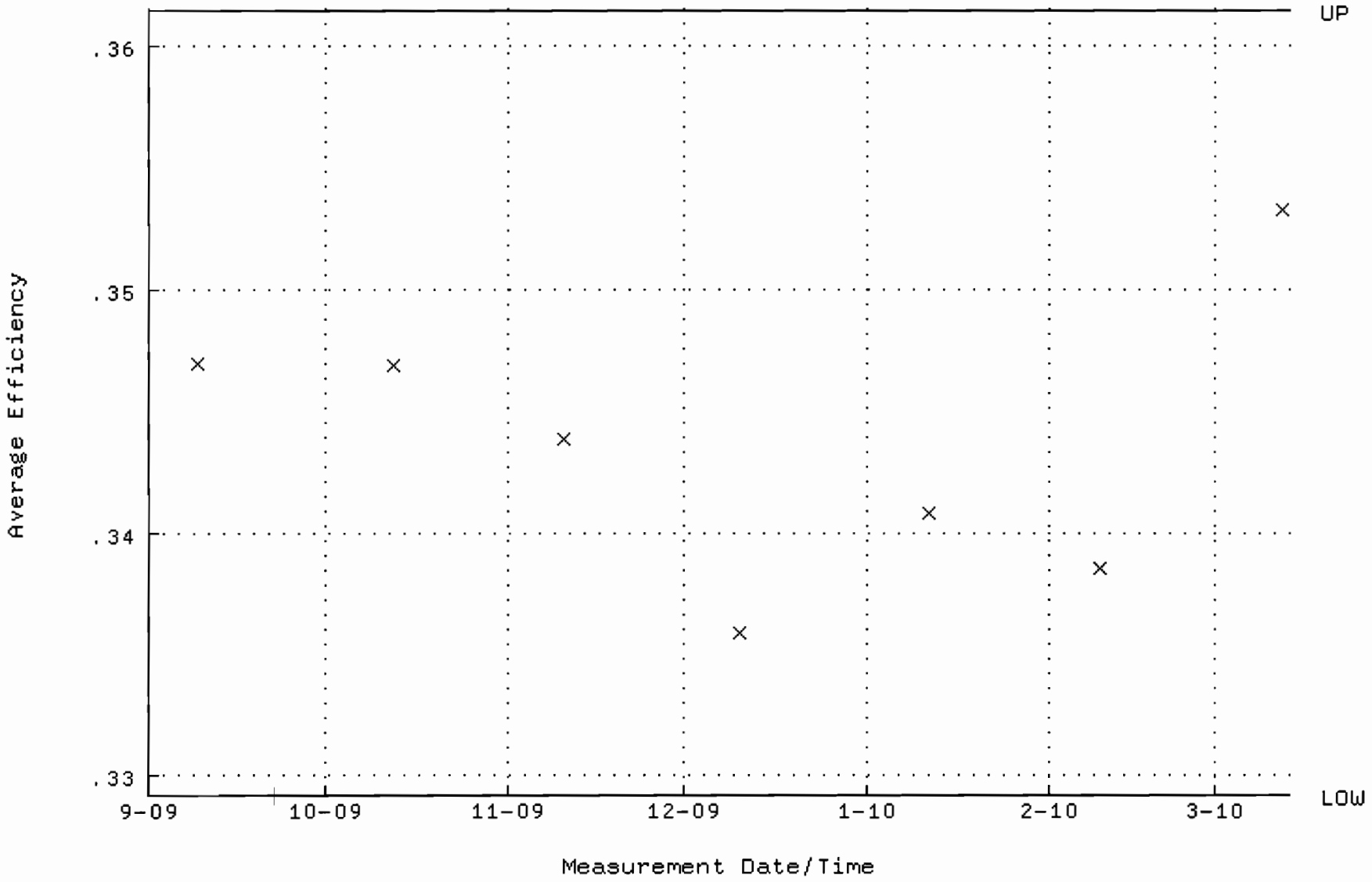

QA filename : DKA100:[ENV_ALPHA.QA.W]W108.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 67.0155 through 72.5031

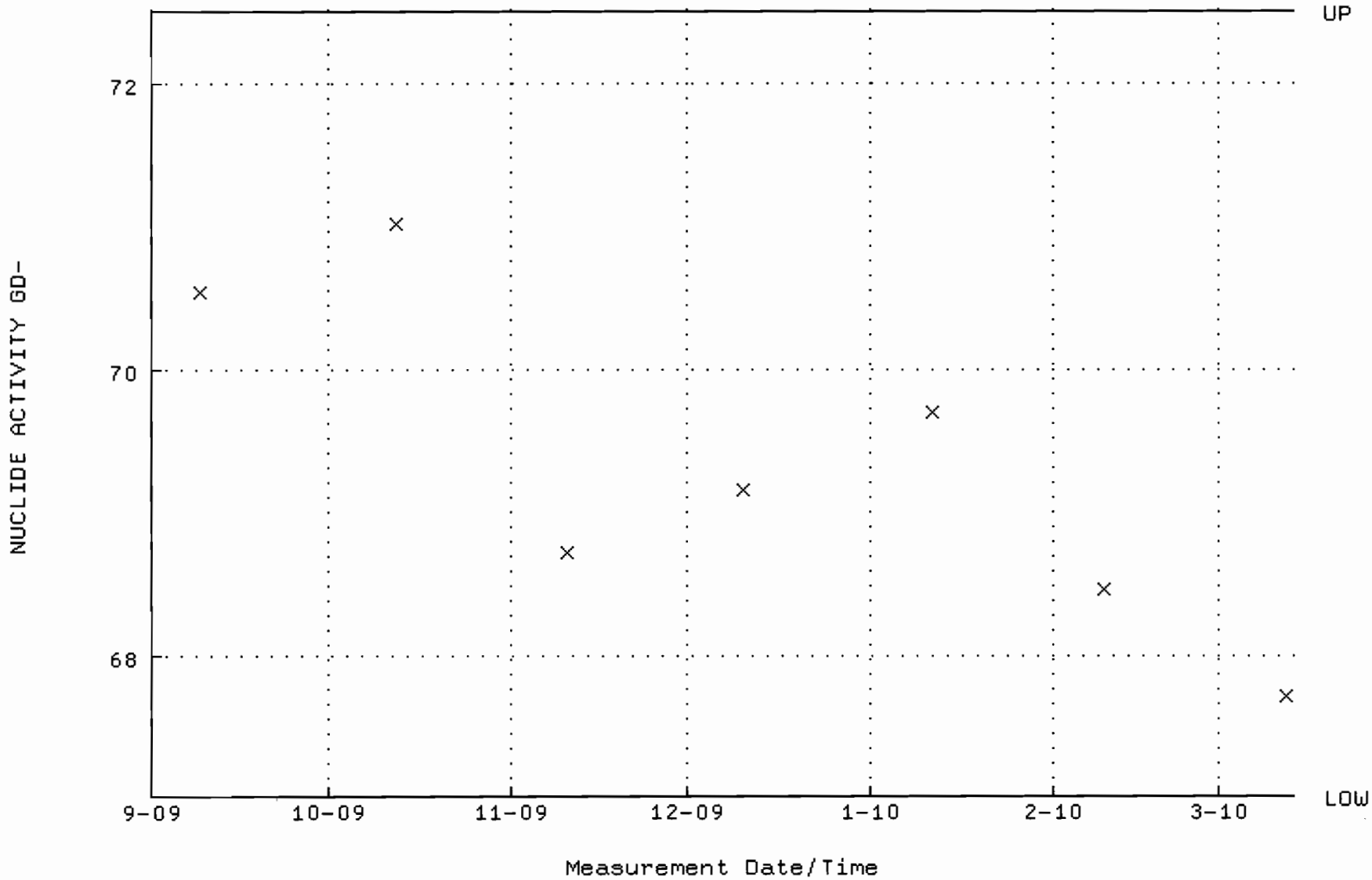

QA filename : DKA100:[ENV_ALPHA.QA.B]B108.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:12 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

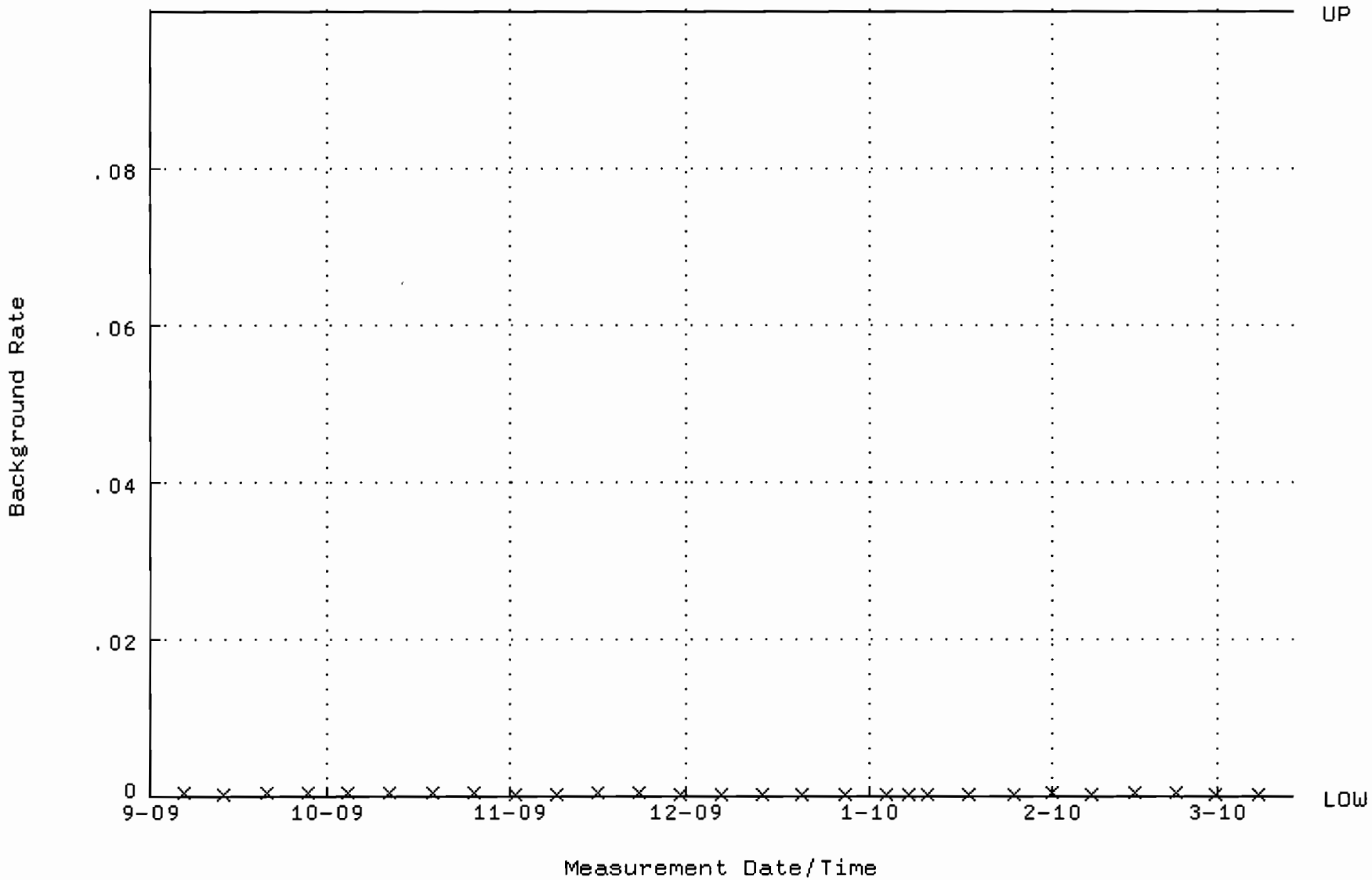

QA filename : DKA100:[ENV_ALPHA.QA.W]W113.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:22:34 through 30-MAR-2010 12:00:00
Lower/Upper Lmts: 0.248099 through 0.268099

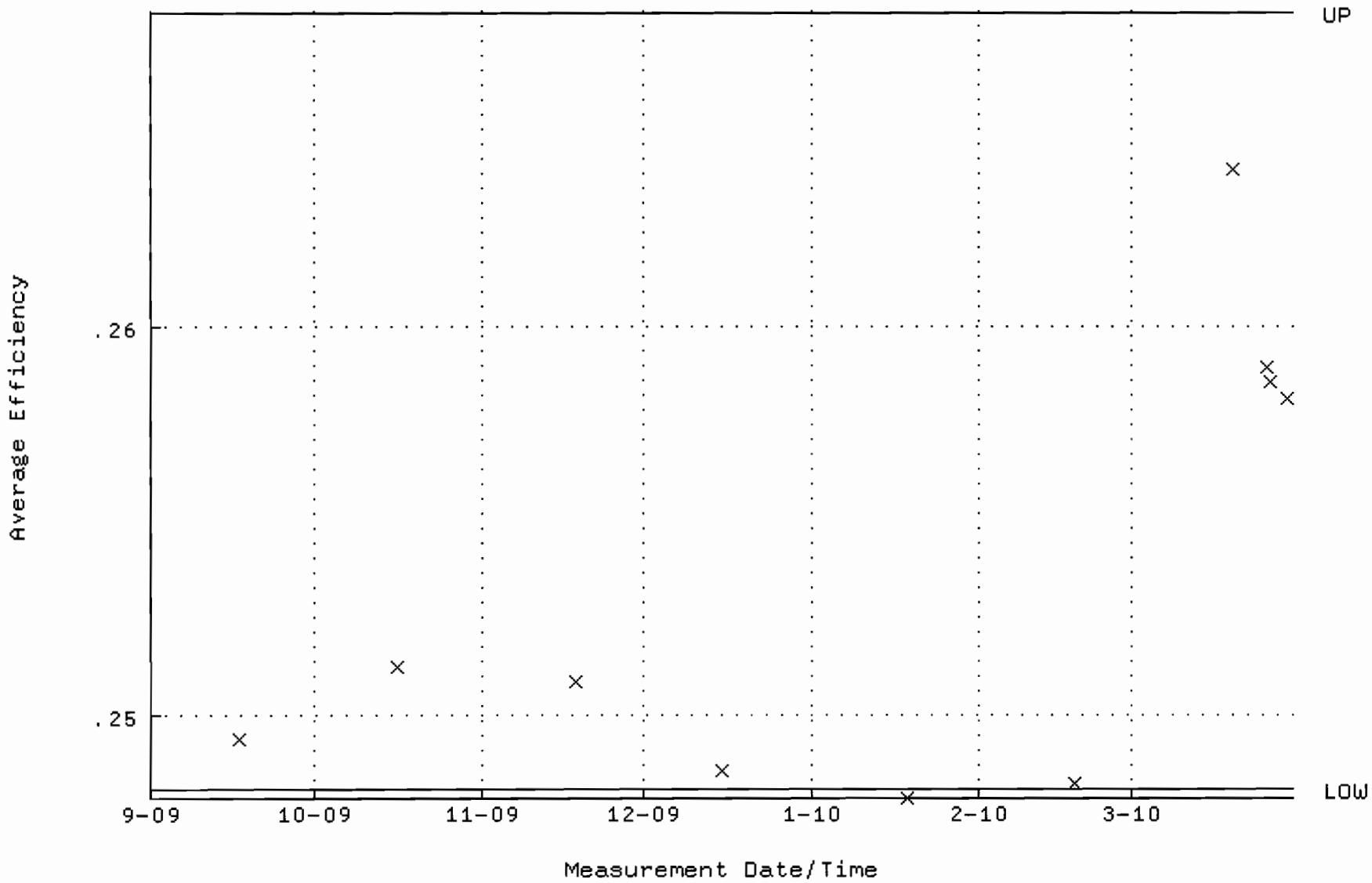

QA filename : DKA100:[ENV_ALPHA.QA.W]W113.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:22:34 through 30-MAR-2010 12:00:00
Lower/Upper Lmts: 81.8809 through 90.4999

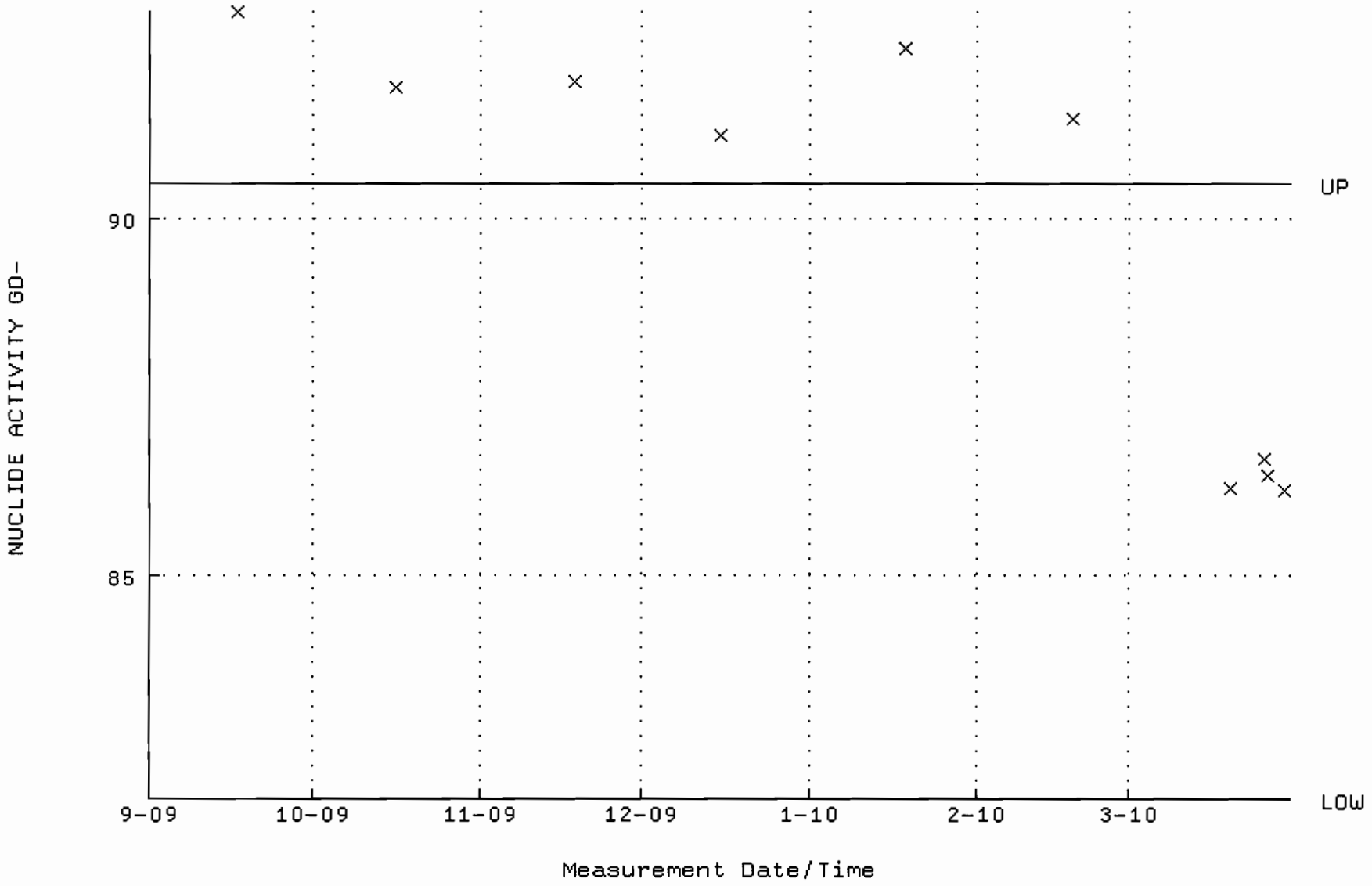

QA filename : DKA100:[ENV_ALPHA.QA.B]B113.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:08 through 30-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

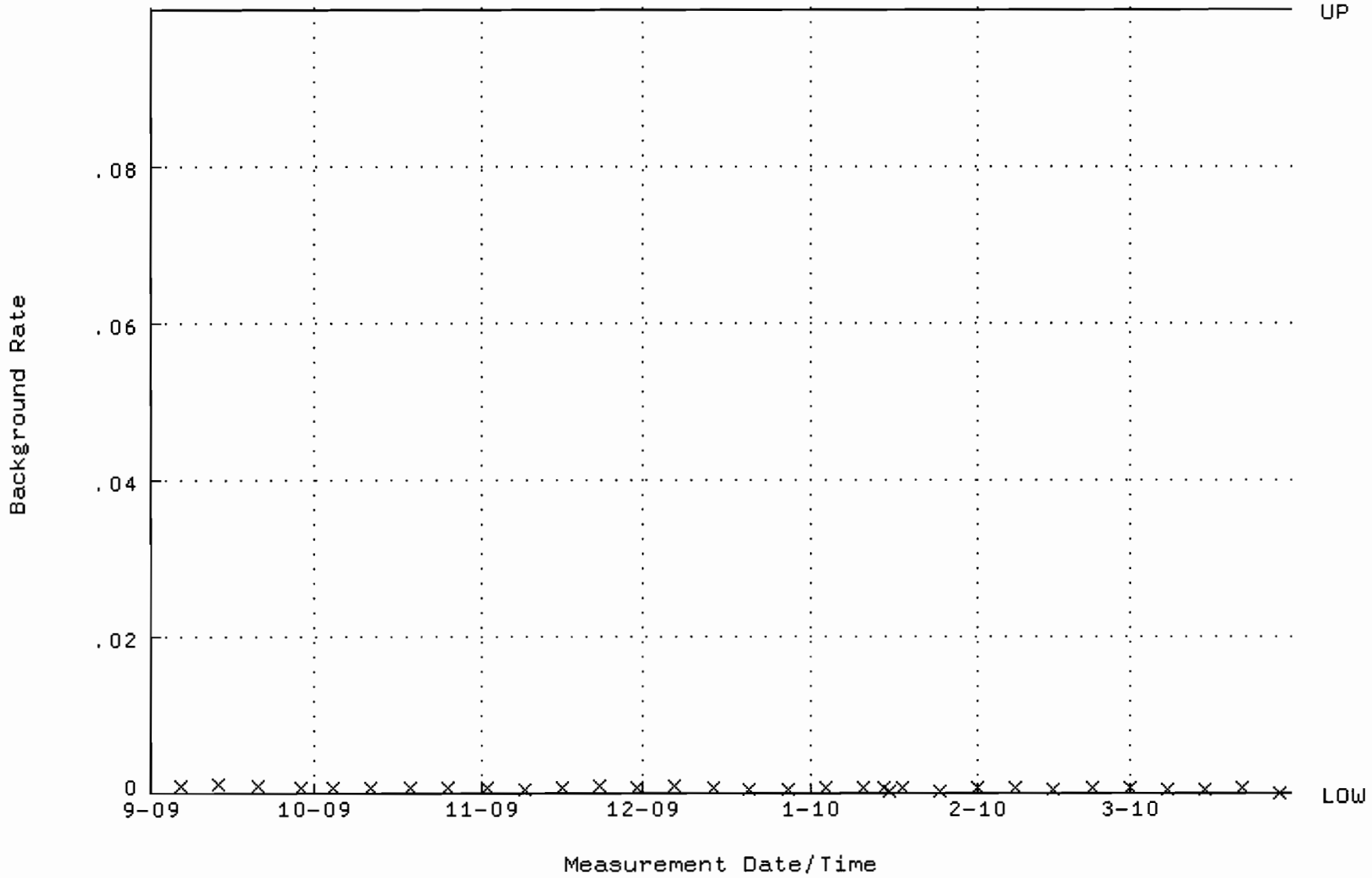

QA filename : DKA100:[ENV_ALPHA.QA.W]W114.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:22:42 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.249186 through 0.262190

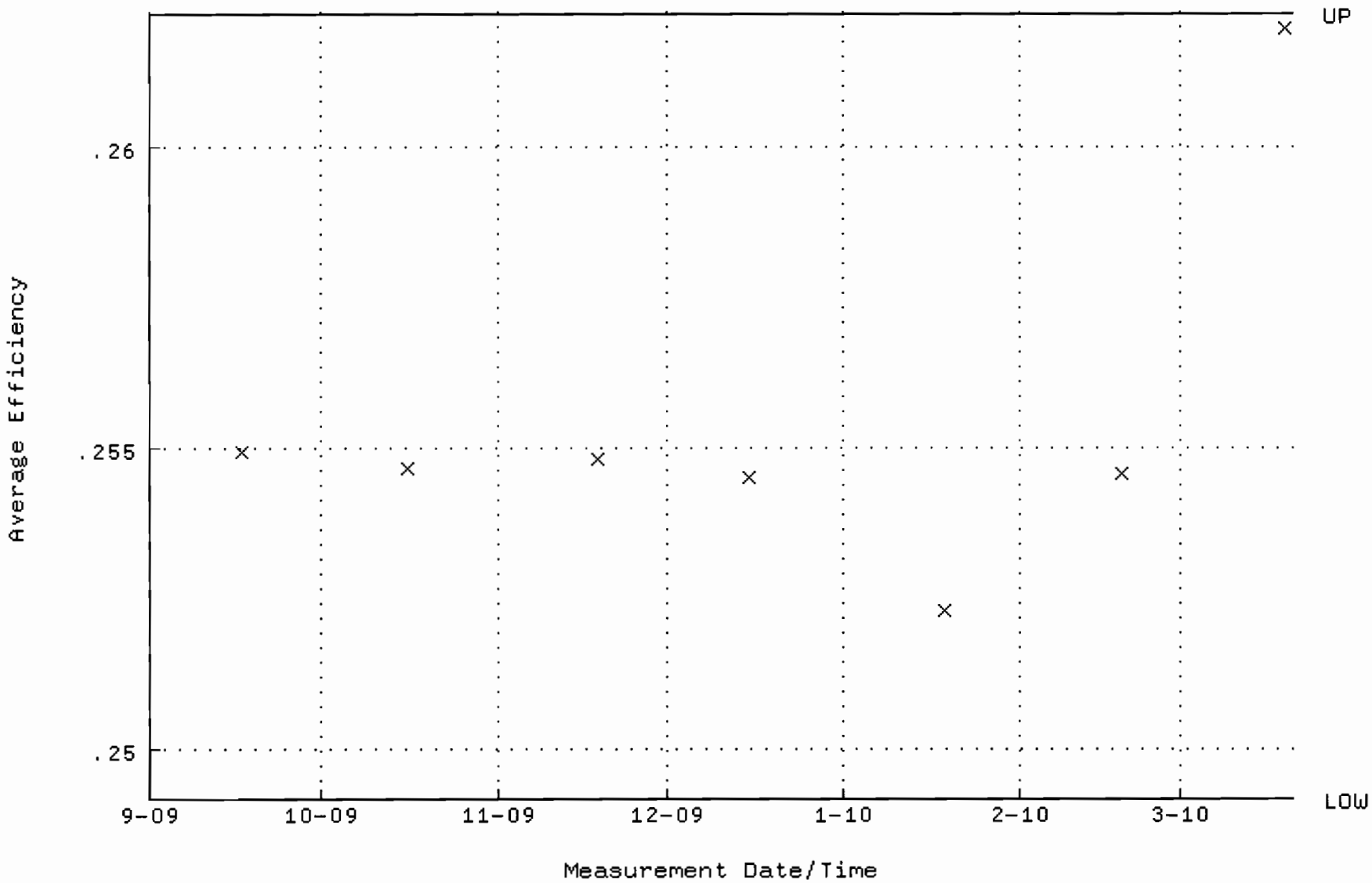

QA filename : DKA100:[ENV_ALPHA.QA.W]W114.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:22:42 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 89.4927 through 94.6315

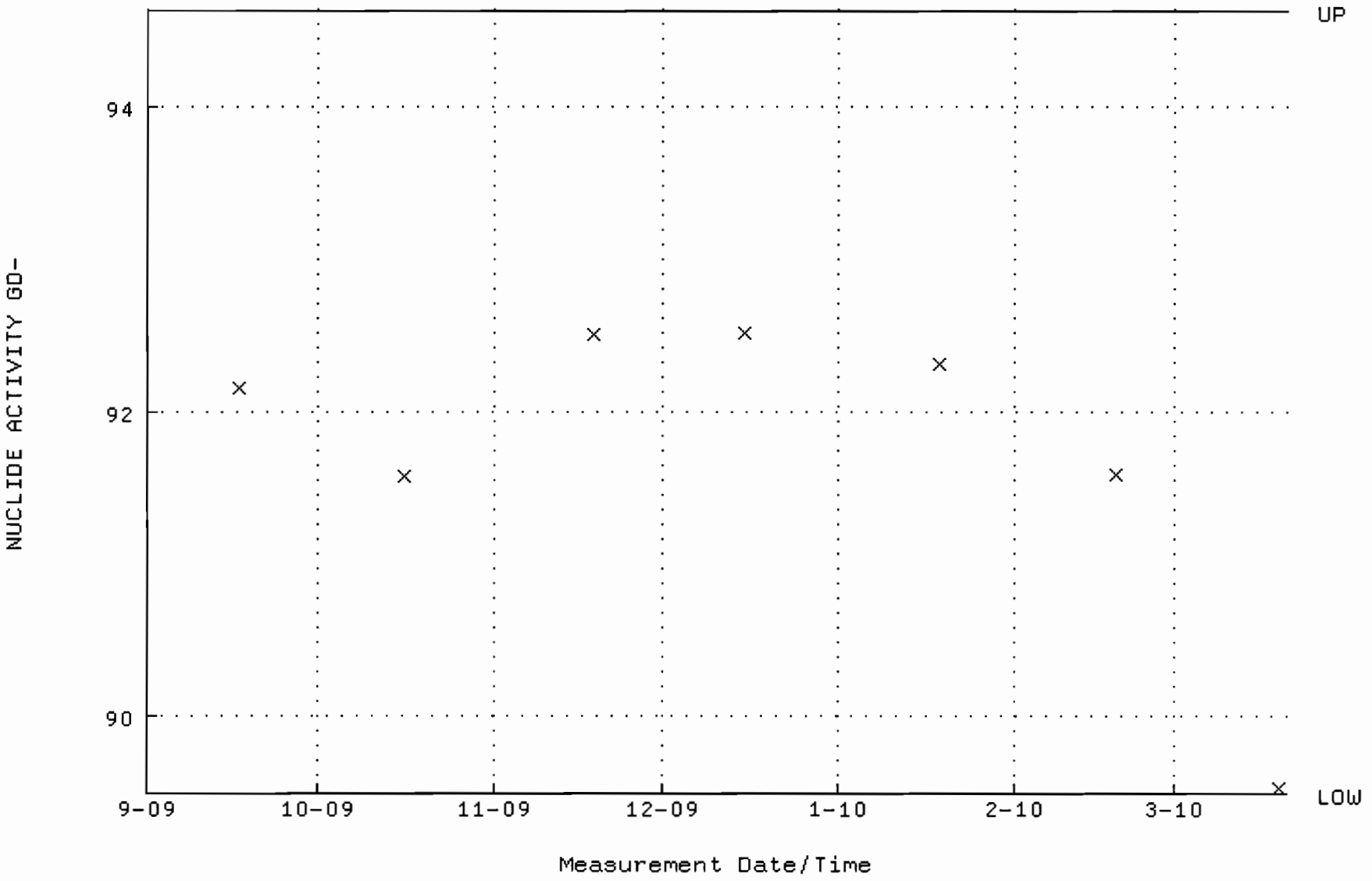

QA filename : DKA100:[ENV_ALPHA.QA.B]B114.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:13 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

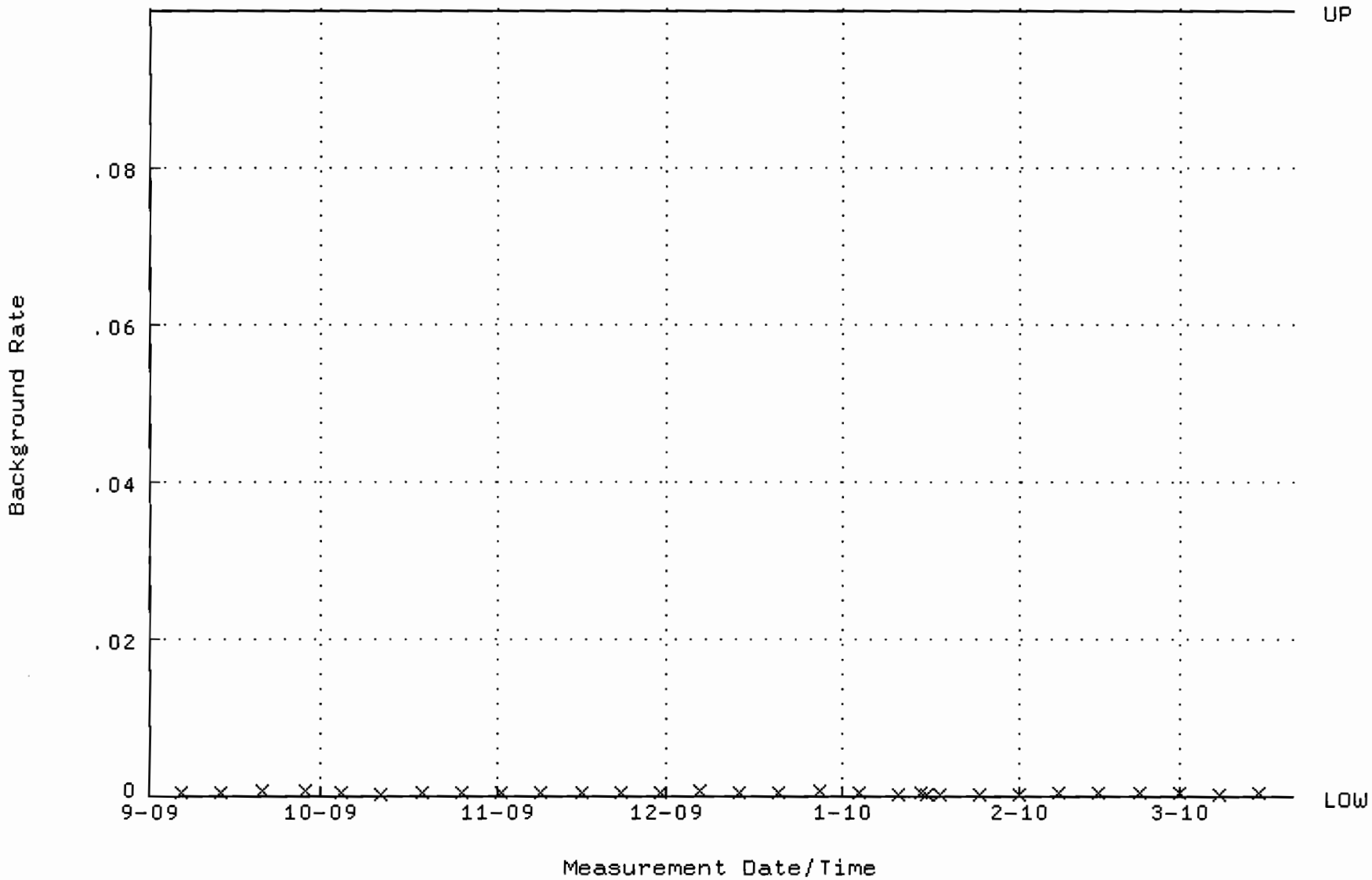

QA filename : DKA100:[ENV_ALPHA.QA.W]W119.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 06:21:52 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.251416 through 0.261570

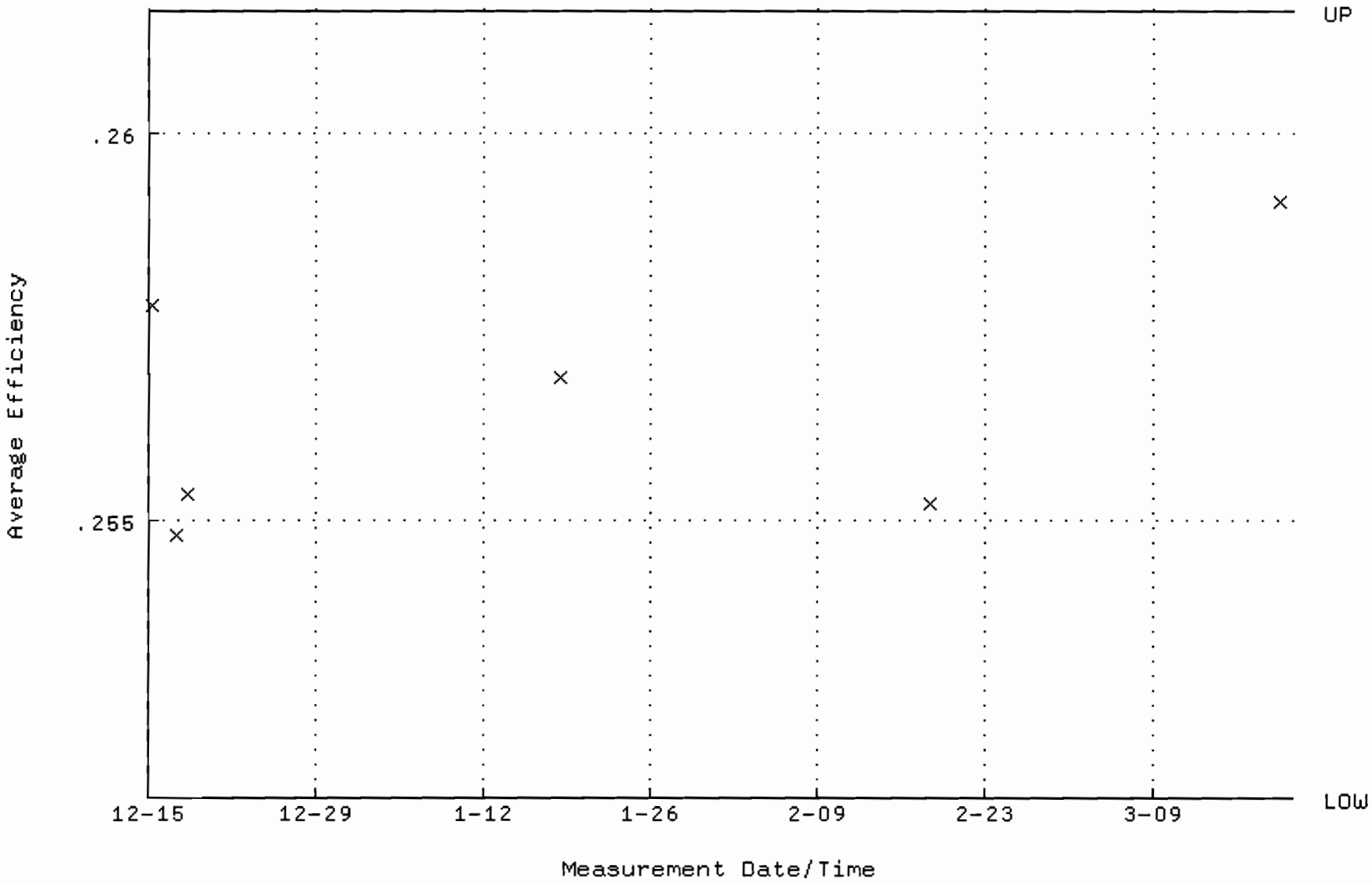

QA filename : DKA100:[ENV_ALPHA.QA.W]W119.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 06:21:52 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 90.4178 through 94.0134

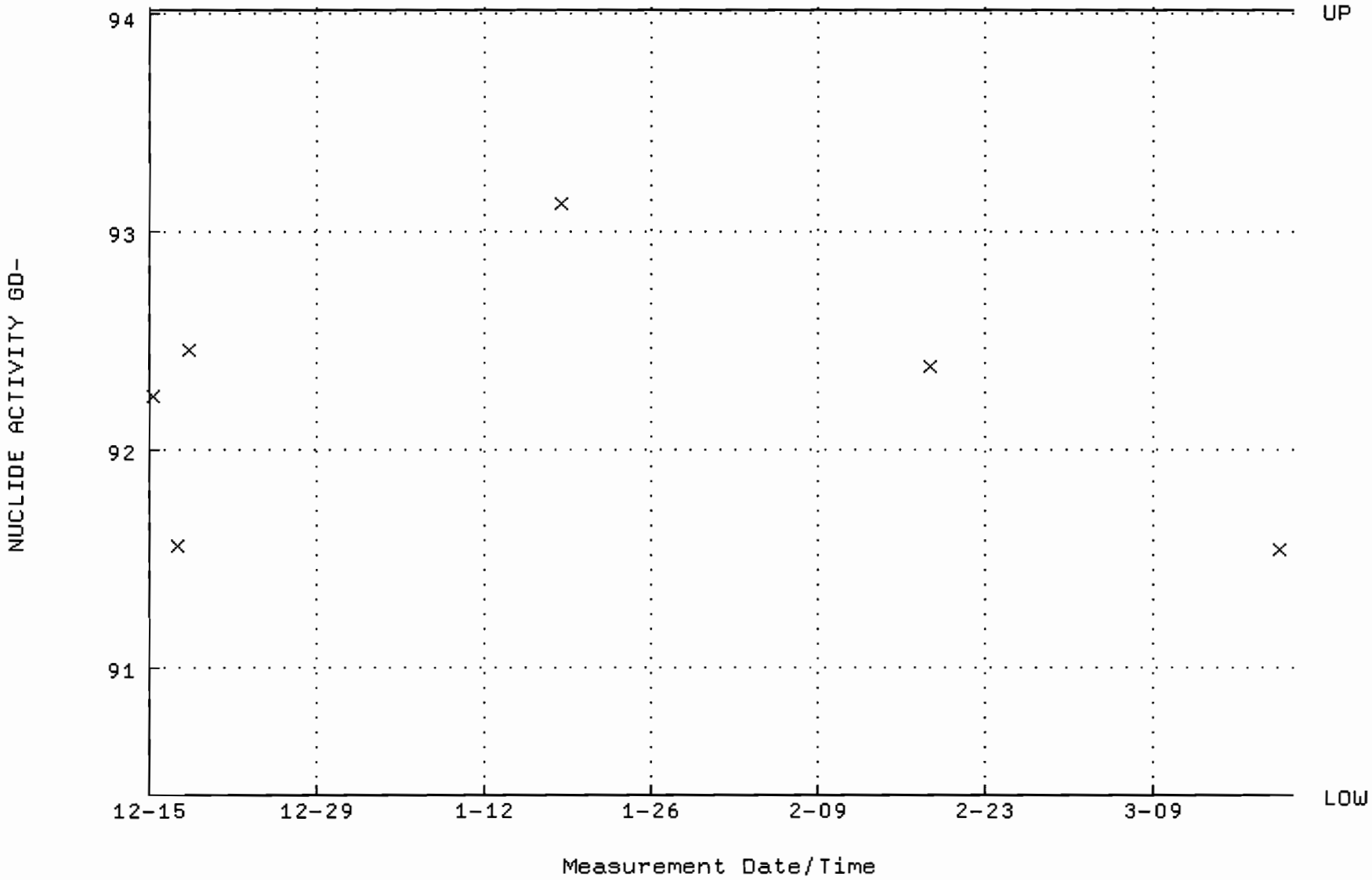

QA filename : DKA100:[ENV_ALPHA.QA.B]B119.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:34 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

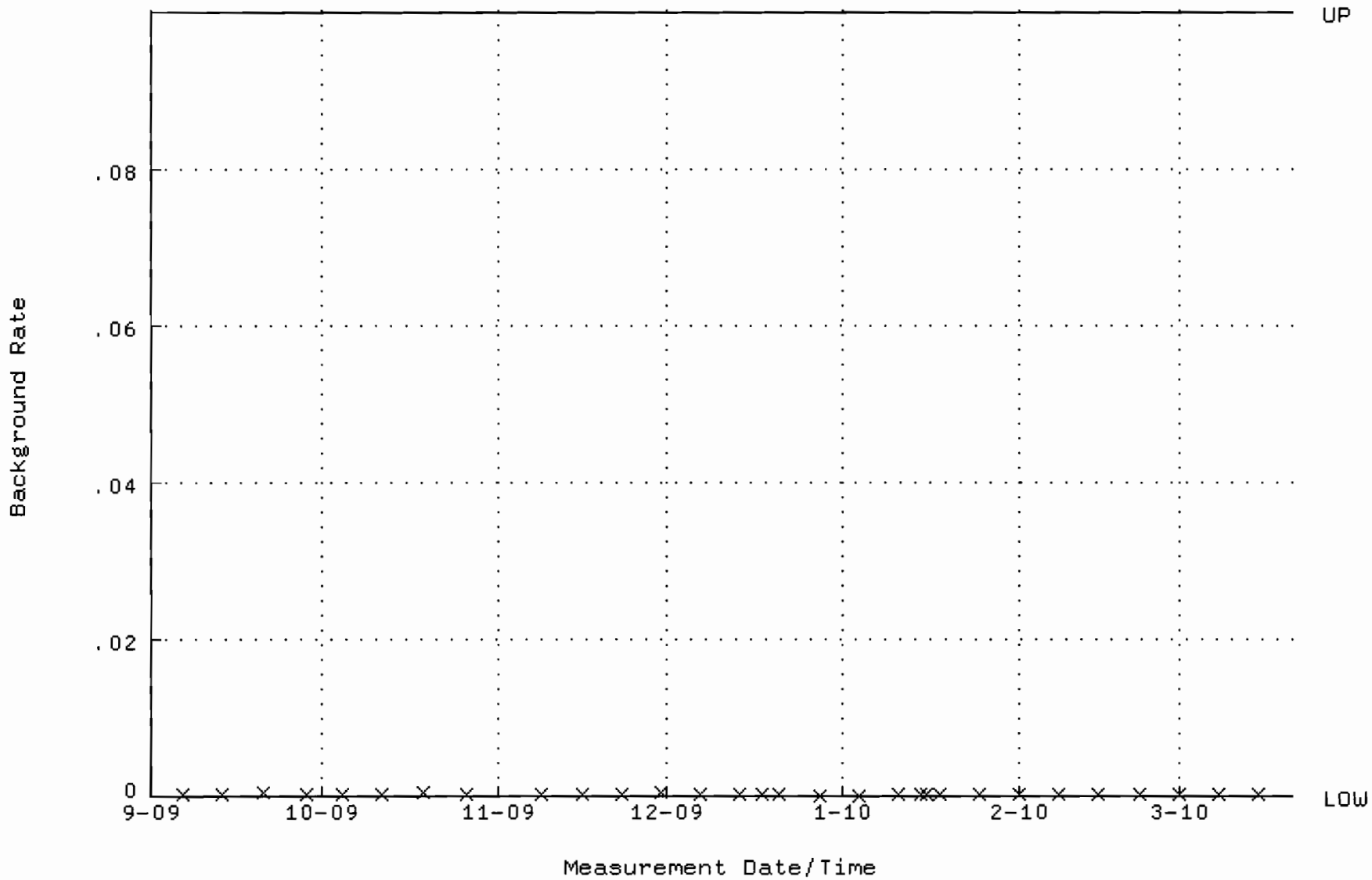

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:25 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.235120 through 0.263192

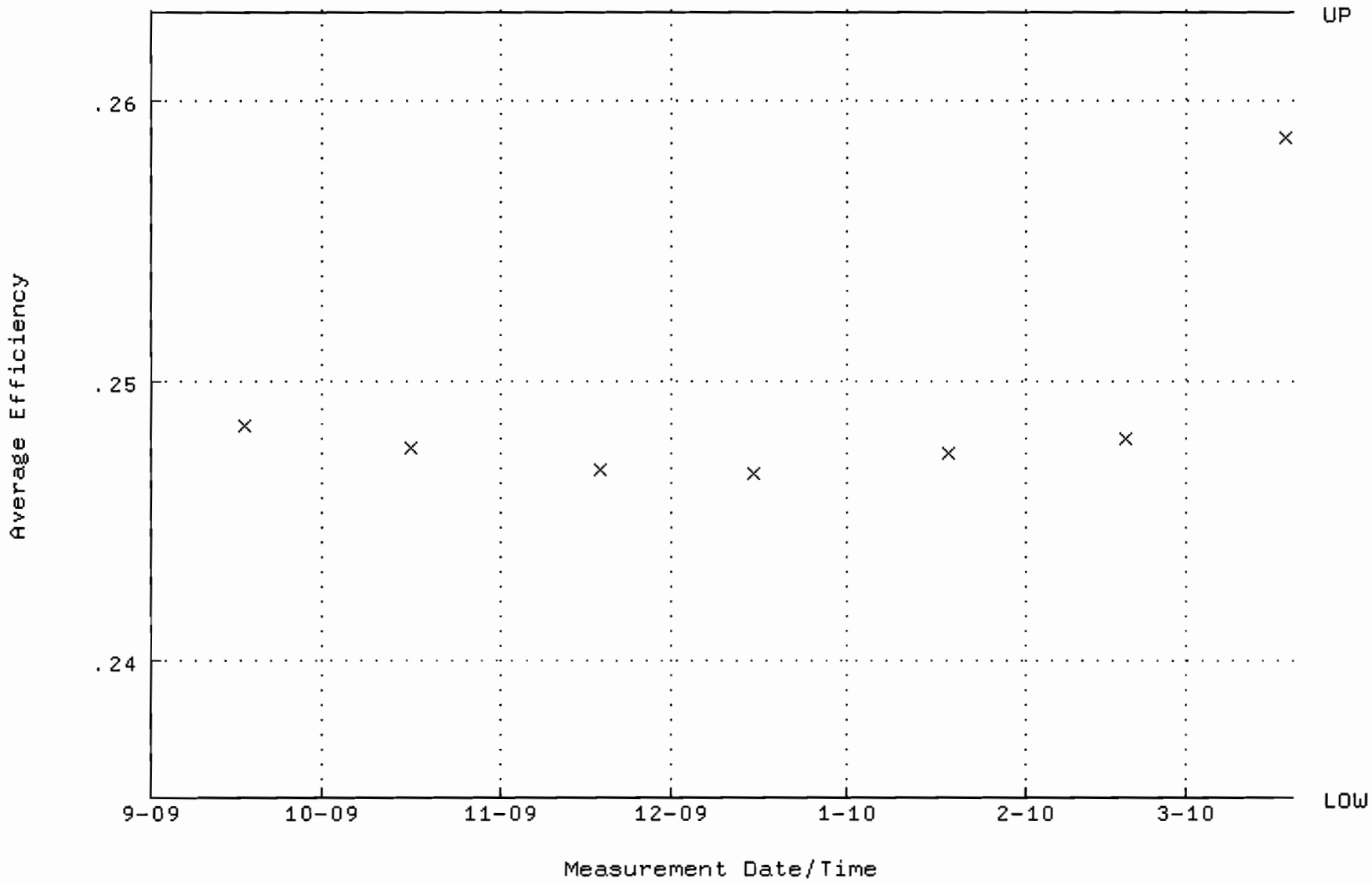

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:25 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 86.8592 through 96.7952

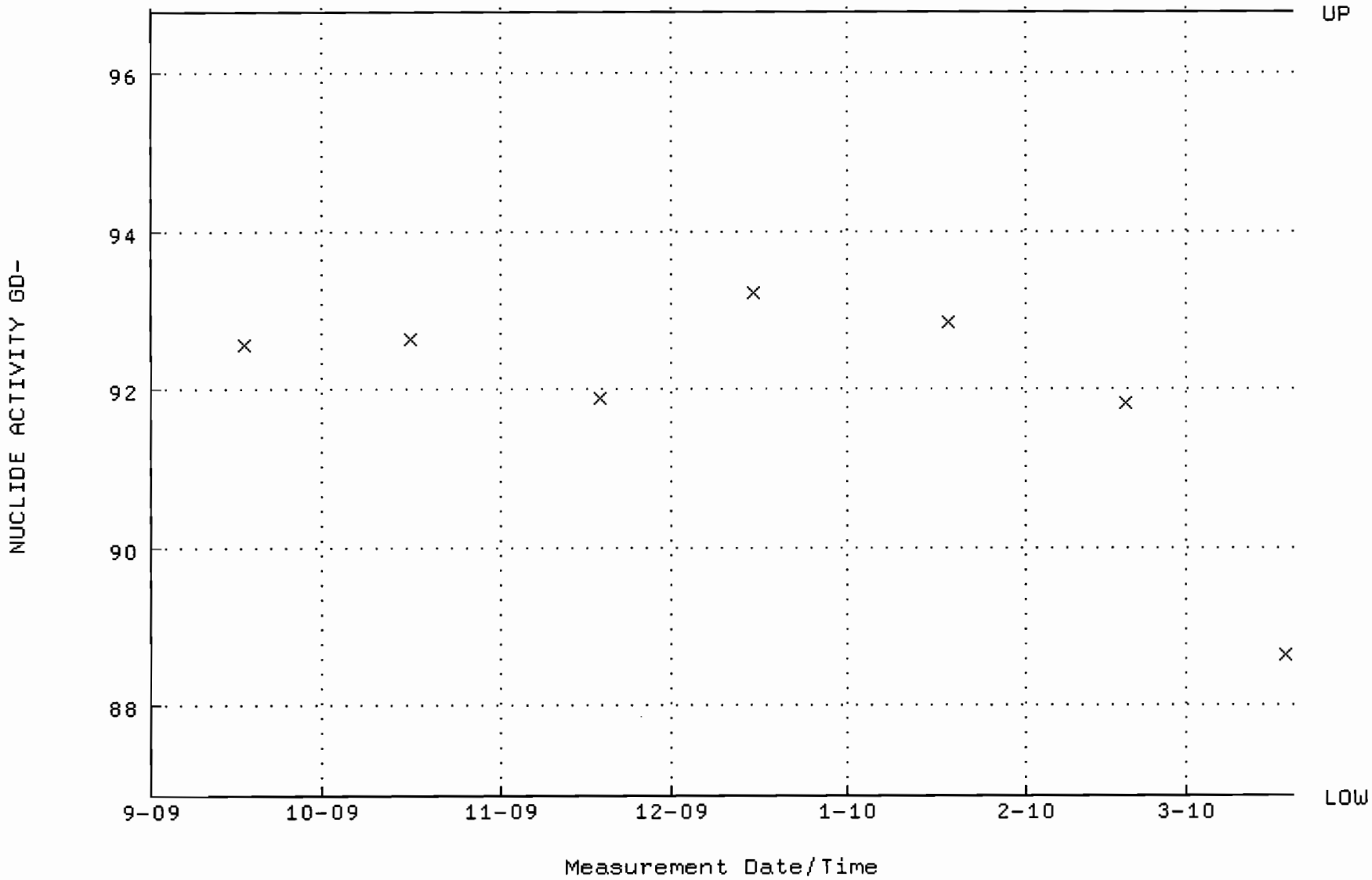

QA filename : DKA100:[ENV_ALPHA.QA.B]B130.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:24 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

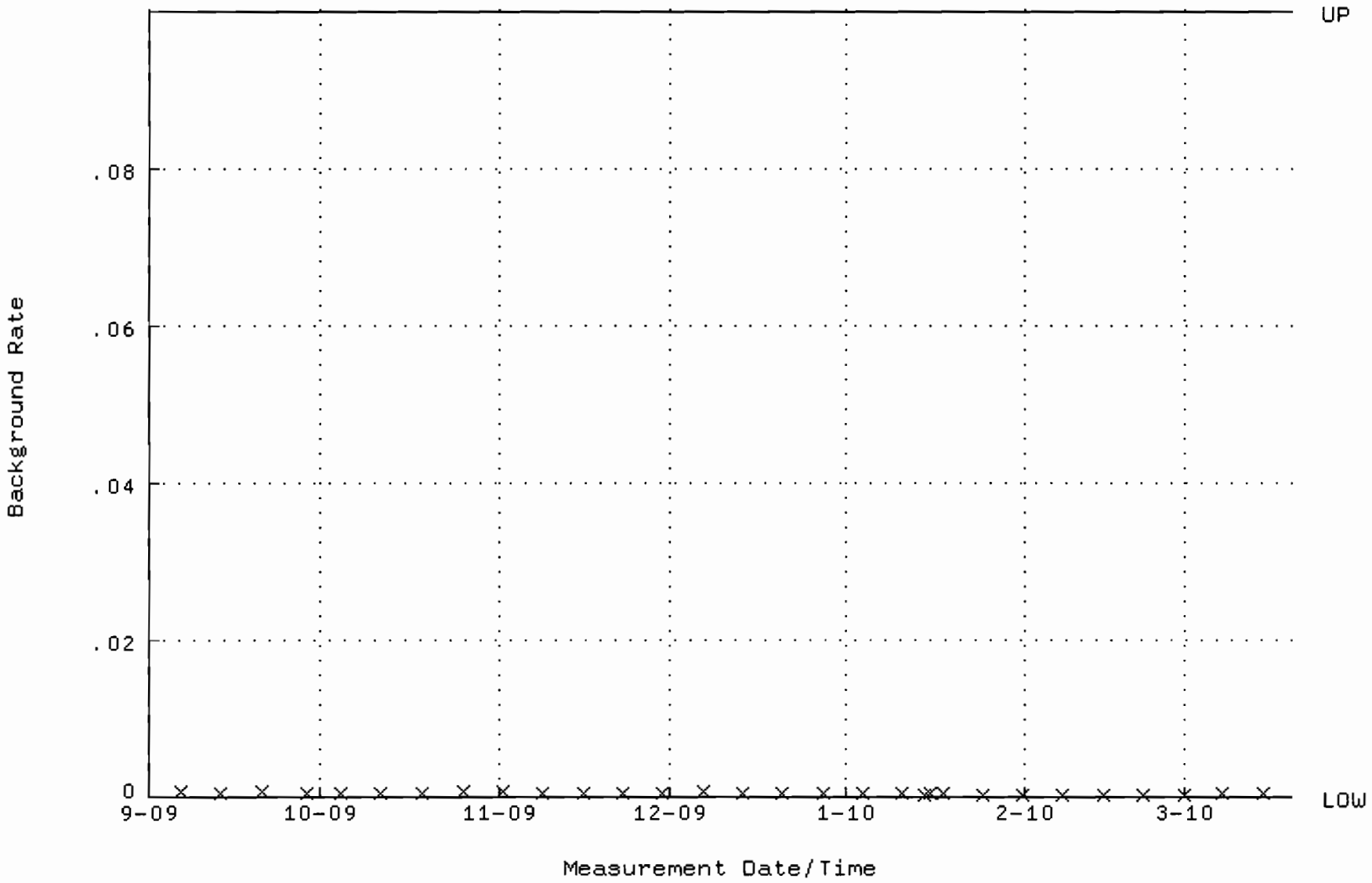

QA filename : DKA100:[ENV_ALPHA.QA.W]W131.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:30 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.251694 through 0.260714

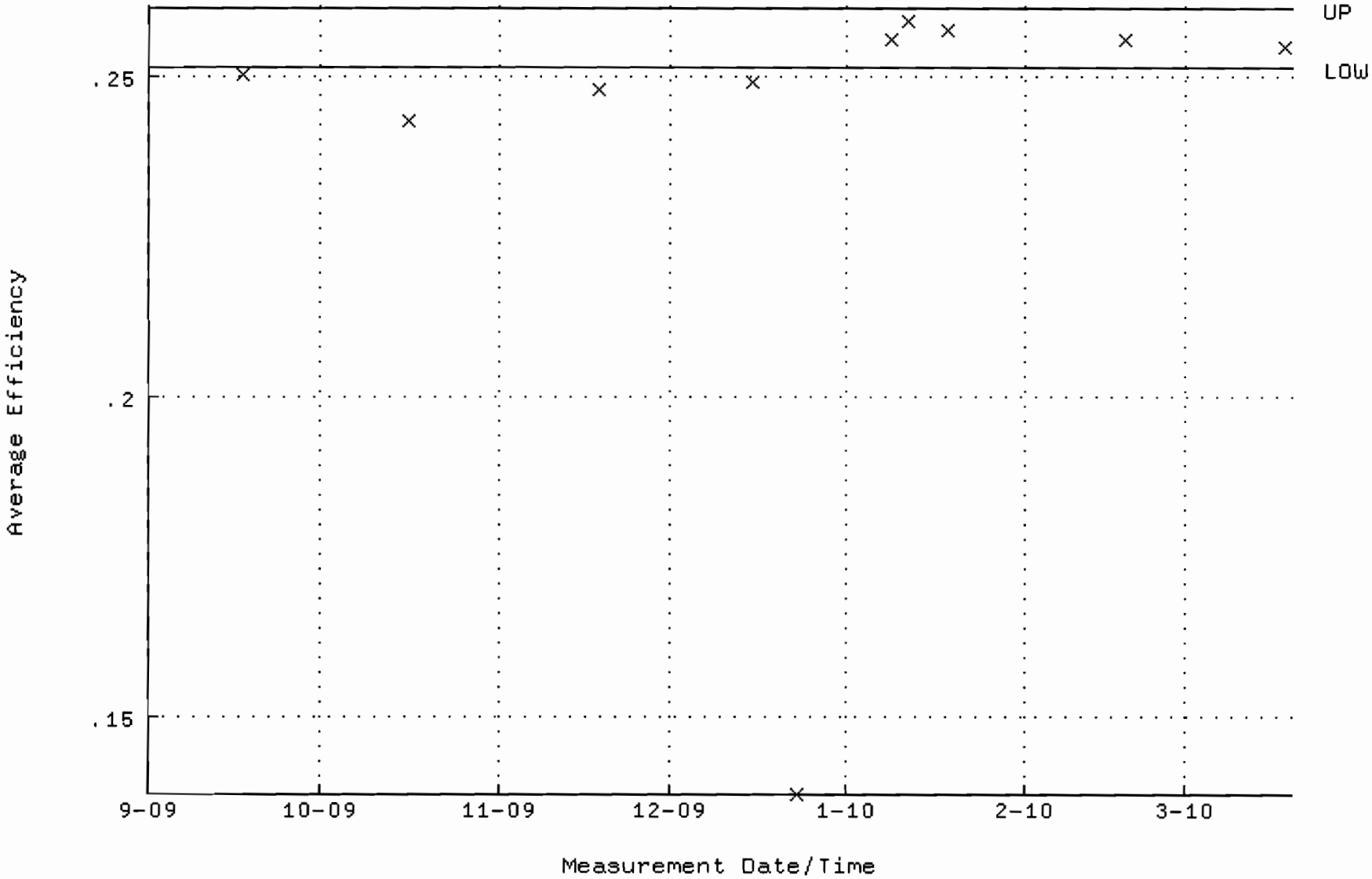

QA filename : DKA100:[ENV_ALPHA.QA.W]W131.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:30 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 88.4061 through 94.3891

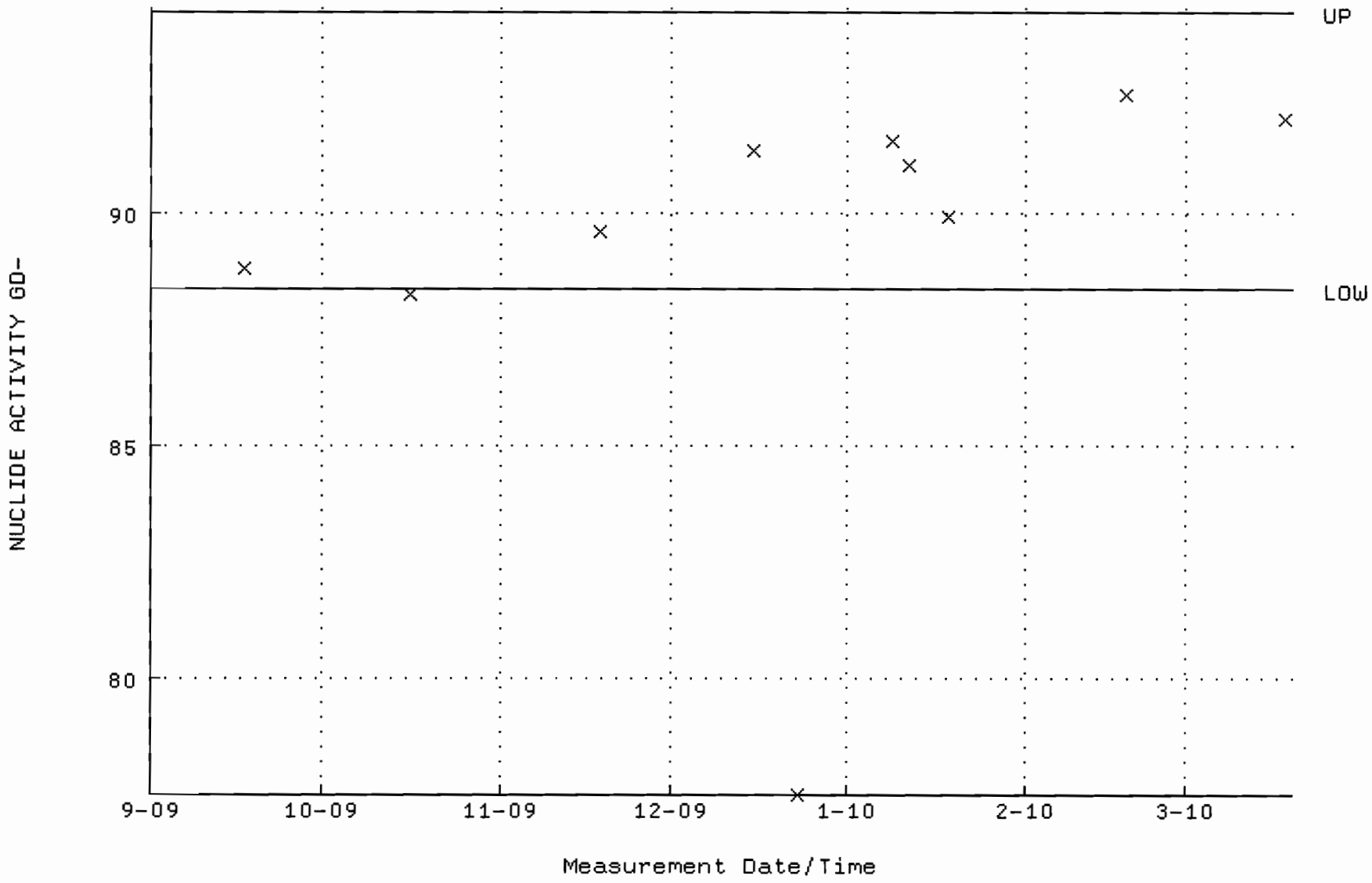

QA filename : DKA100:[ENV_ALPHA.QA.B]B131.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:28 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

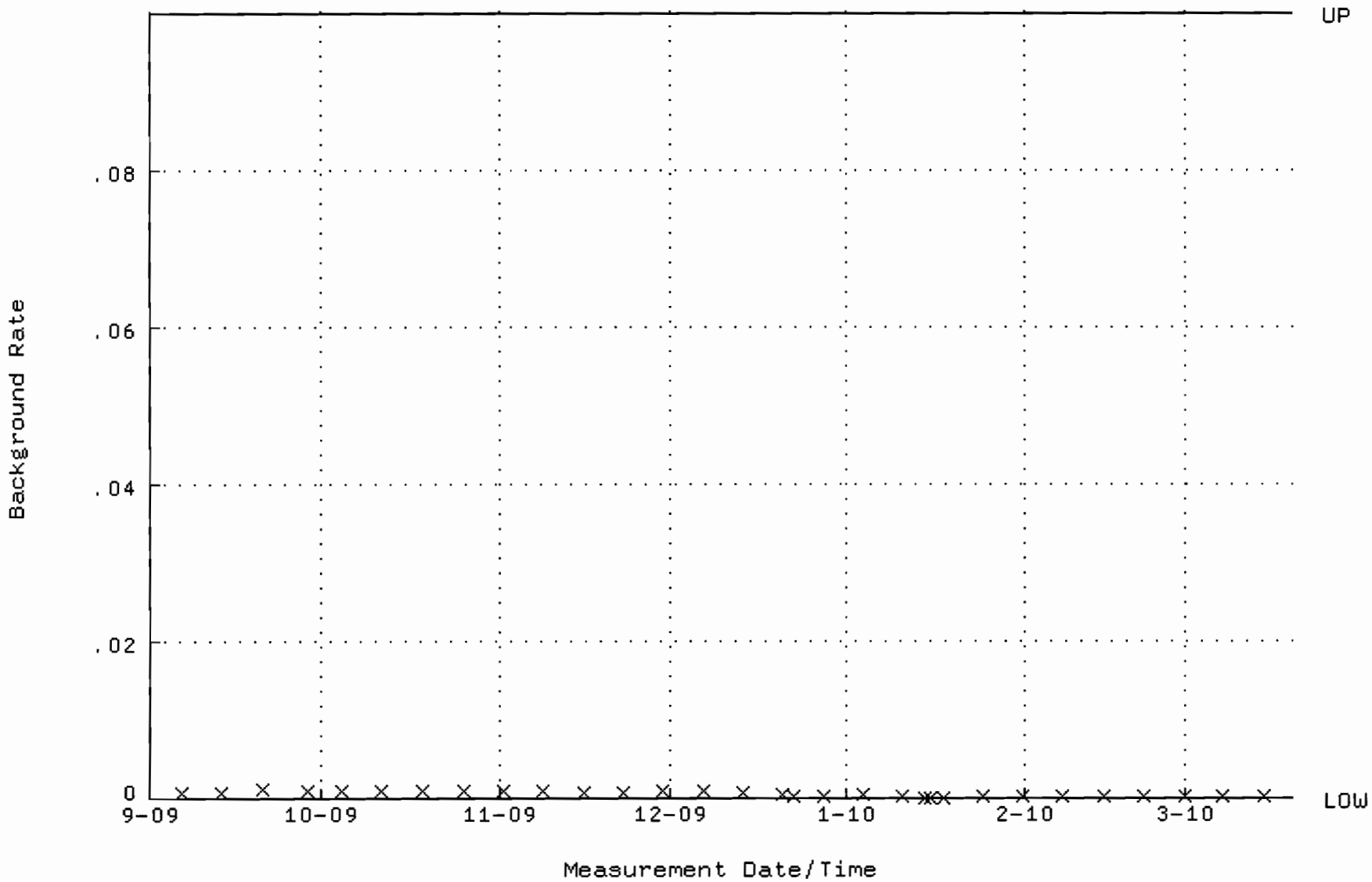

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:36 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.233719 through 0.270221

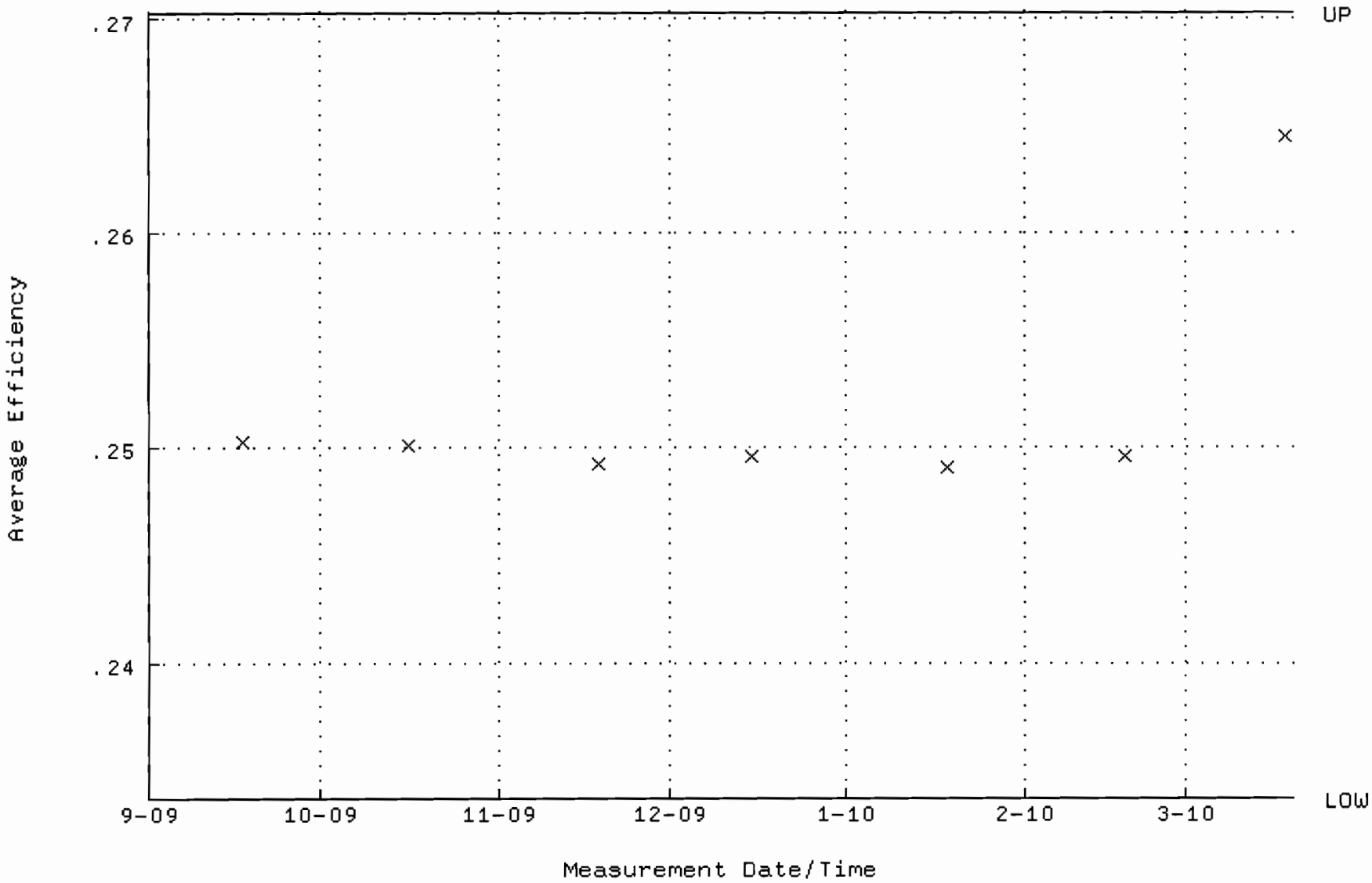

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:36 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 88.2311 through 95.5107

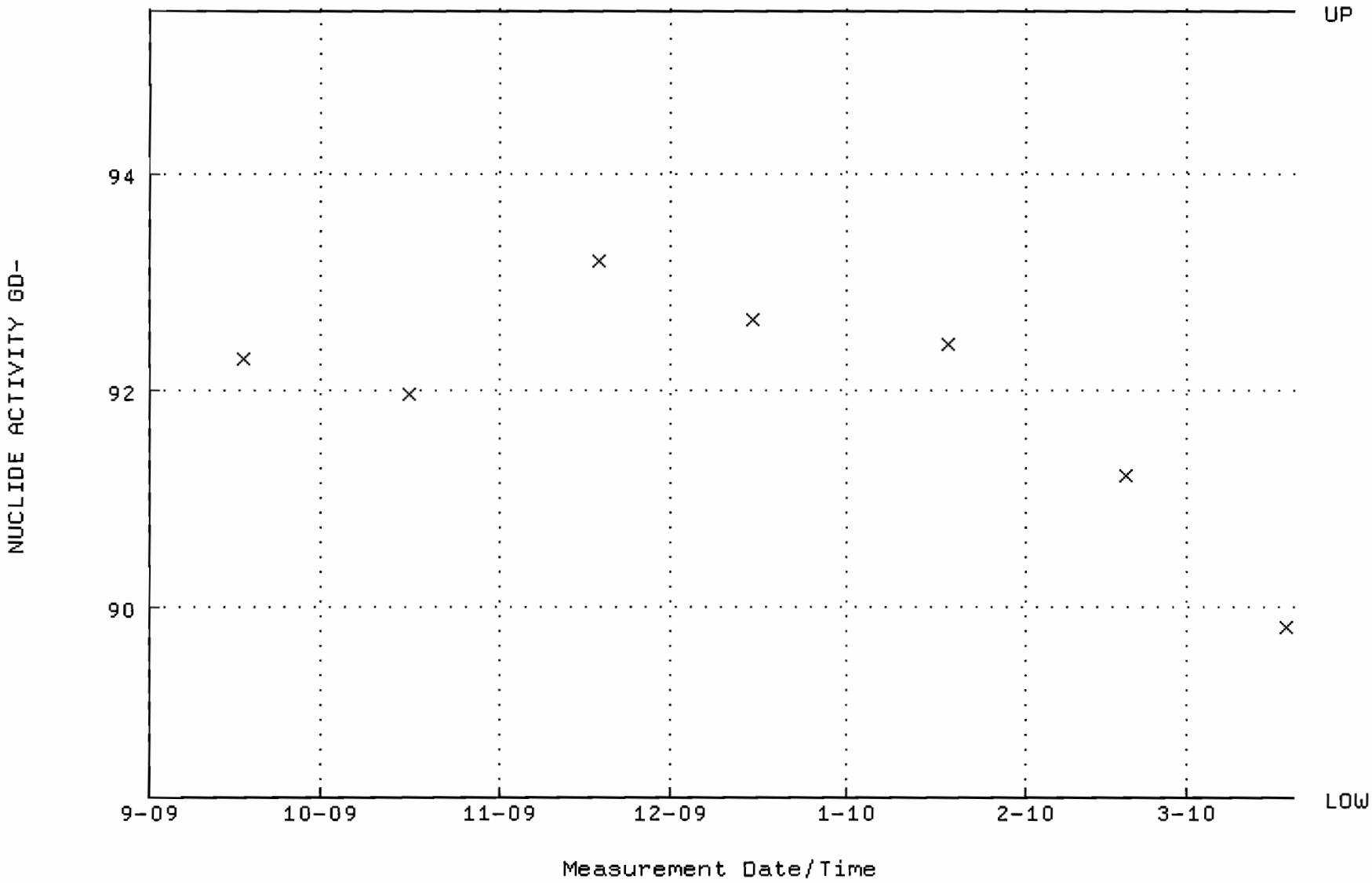

QA filename : DKA100:[ENV_ALPHA.QA.B]B132.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:32 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

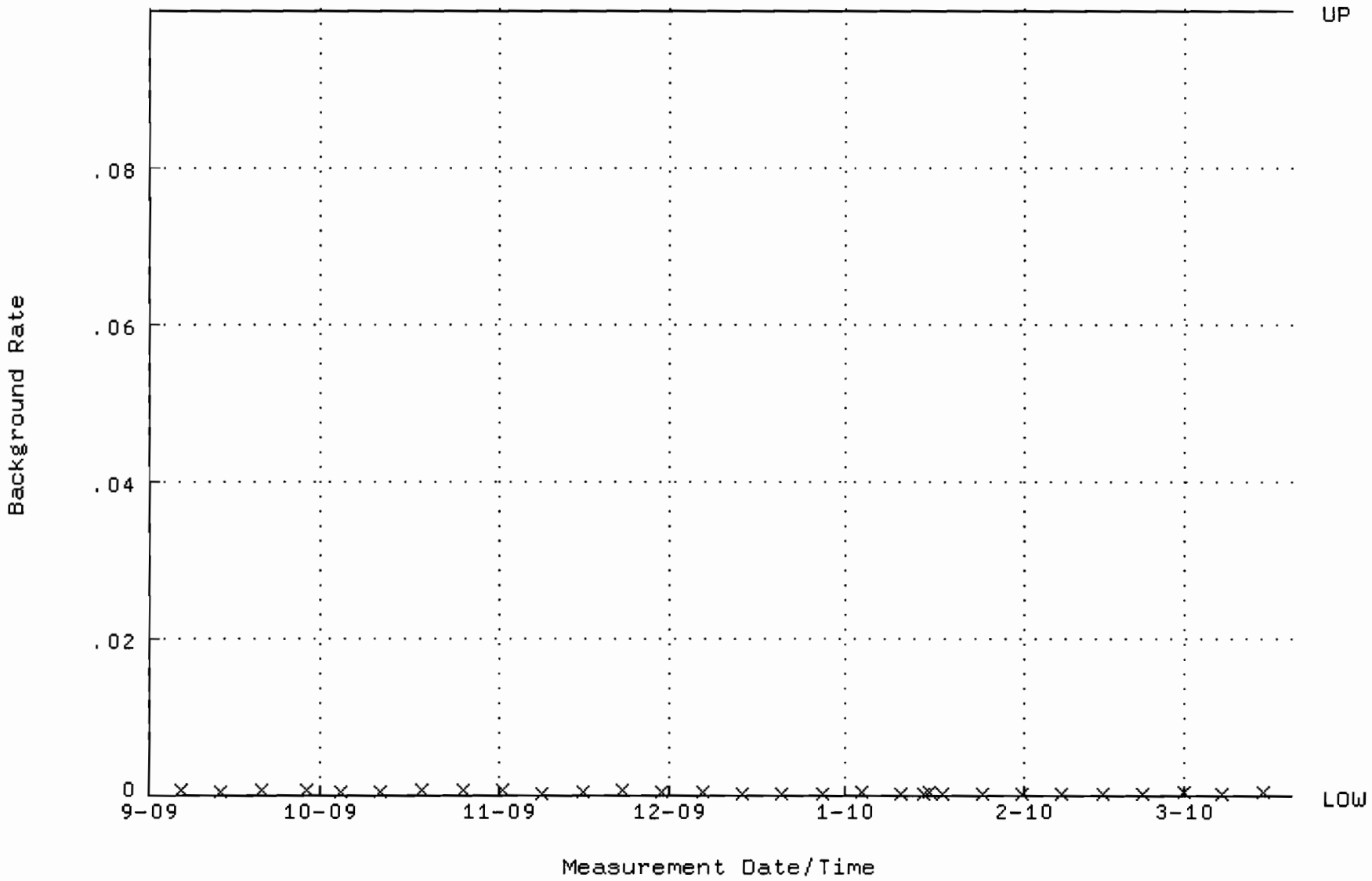

QA filename : DKA100:[ENV_ALPHA.QA.W]W197.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:32:04 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.246257 through 0.267697

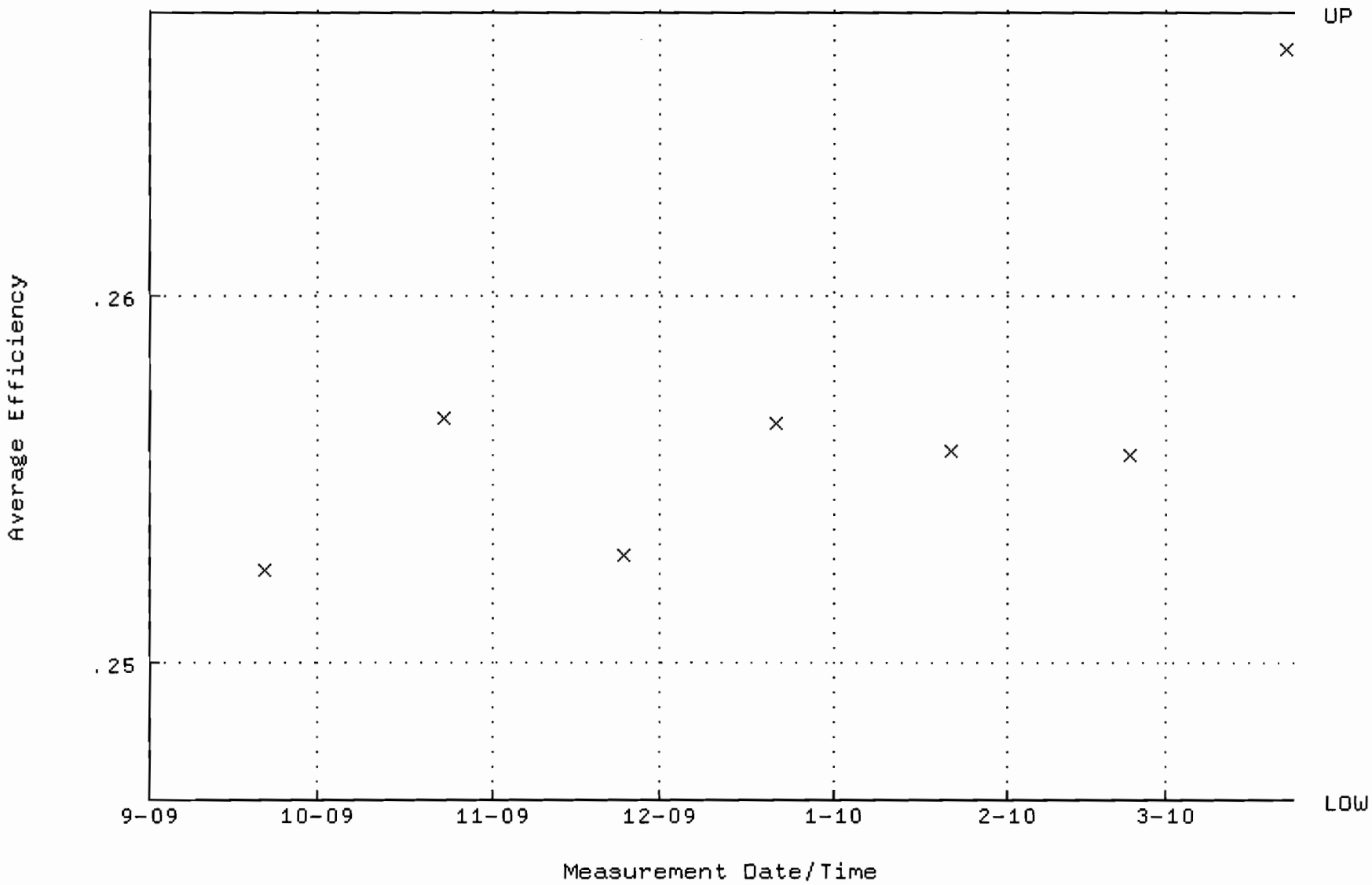

QA filename : DKA100:[ENV_ALPHA.QA.W]W197.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:32:04 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 84.1747 through 92.2435

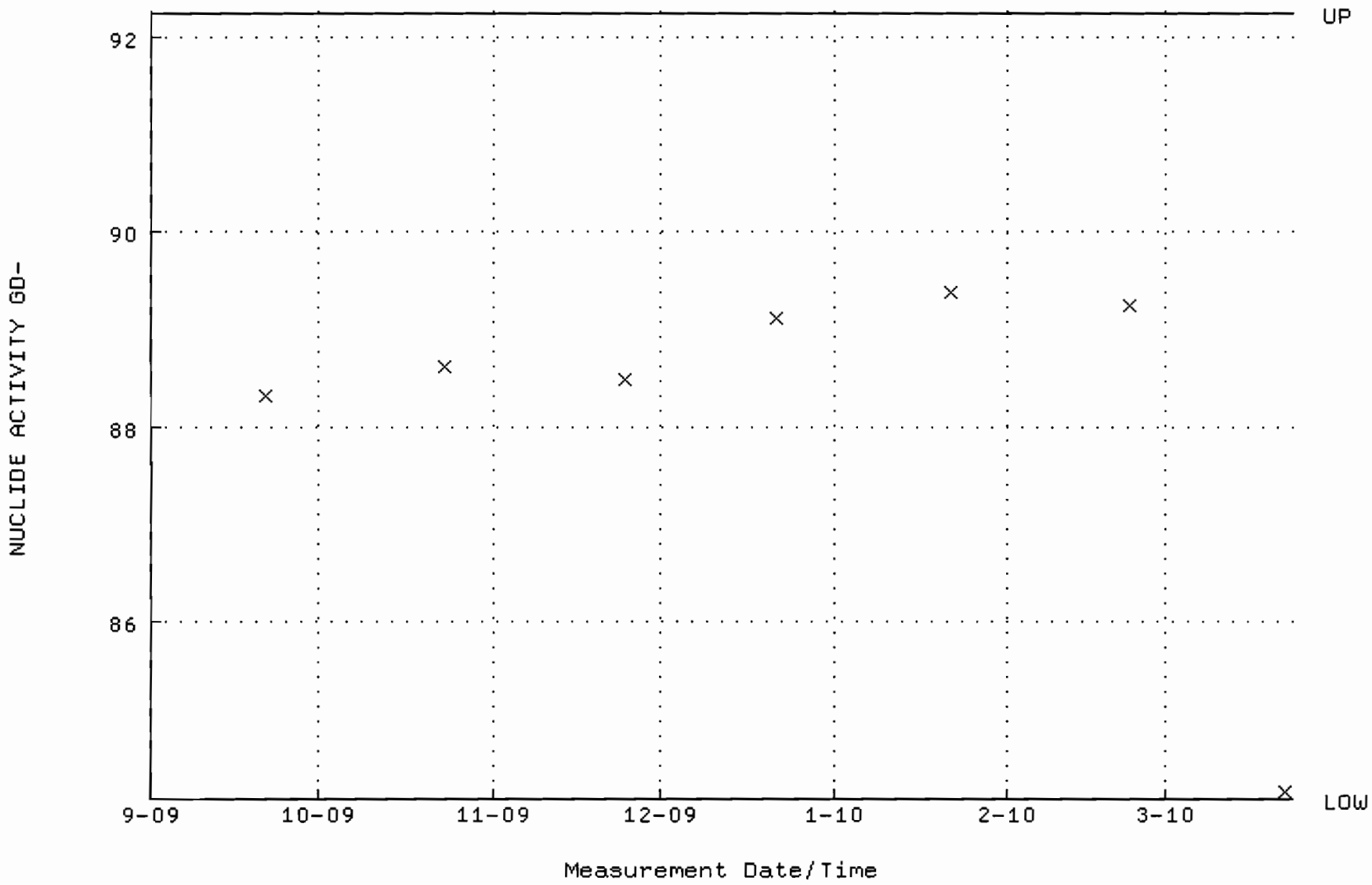

QA filename : DKA100:[ENV_ALPHA.QA.B]B197.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:53 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

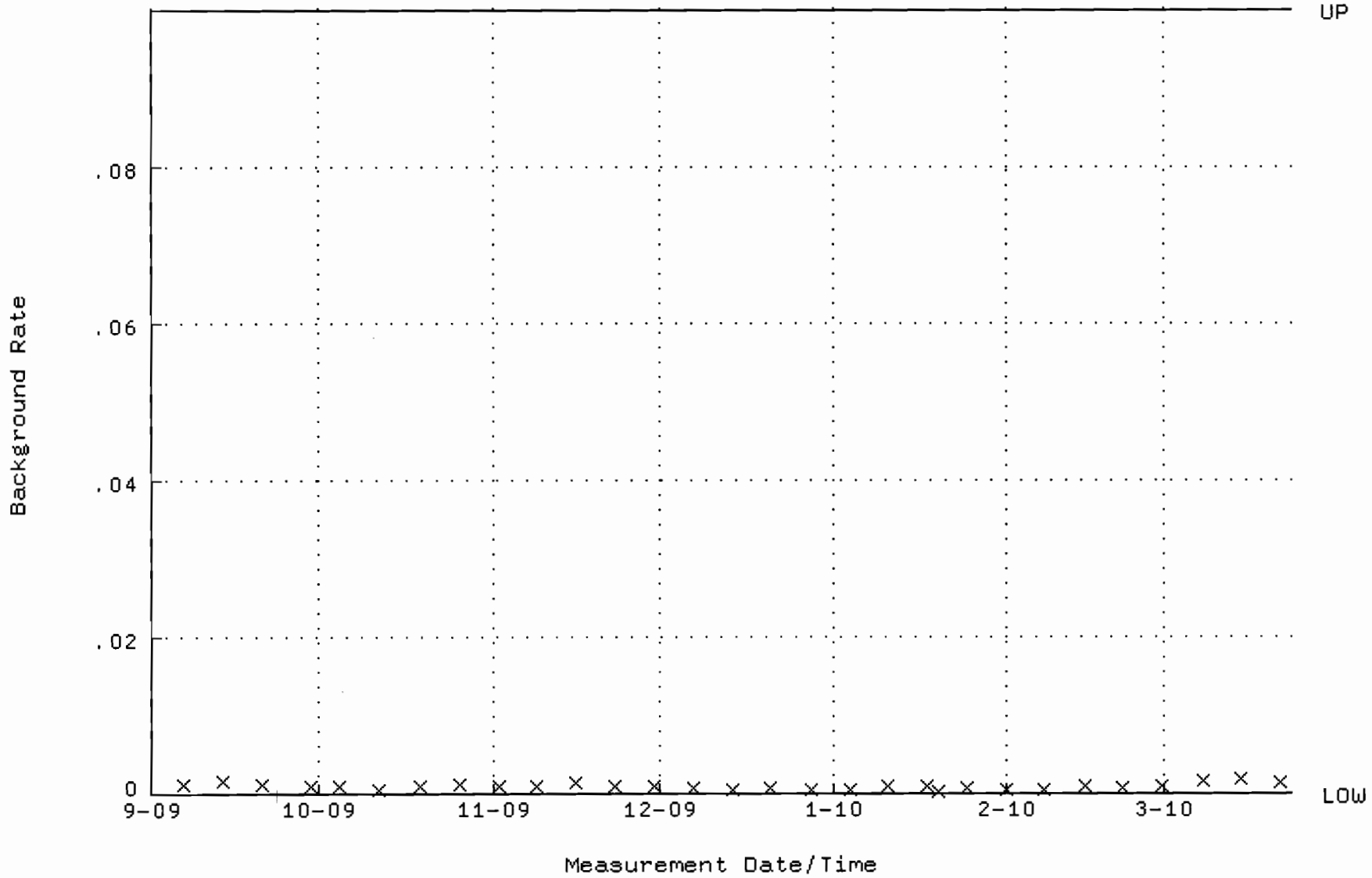

QA filename : DKA100:[ENV_ALPHA.QA.W]W198.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:32:10 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.237681 through 0.276491

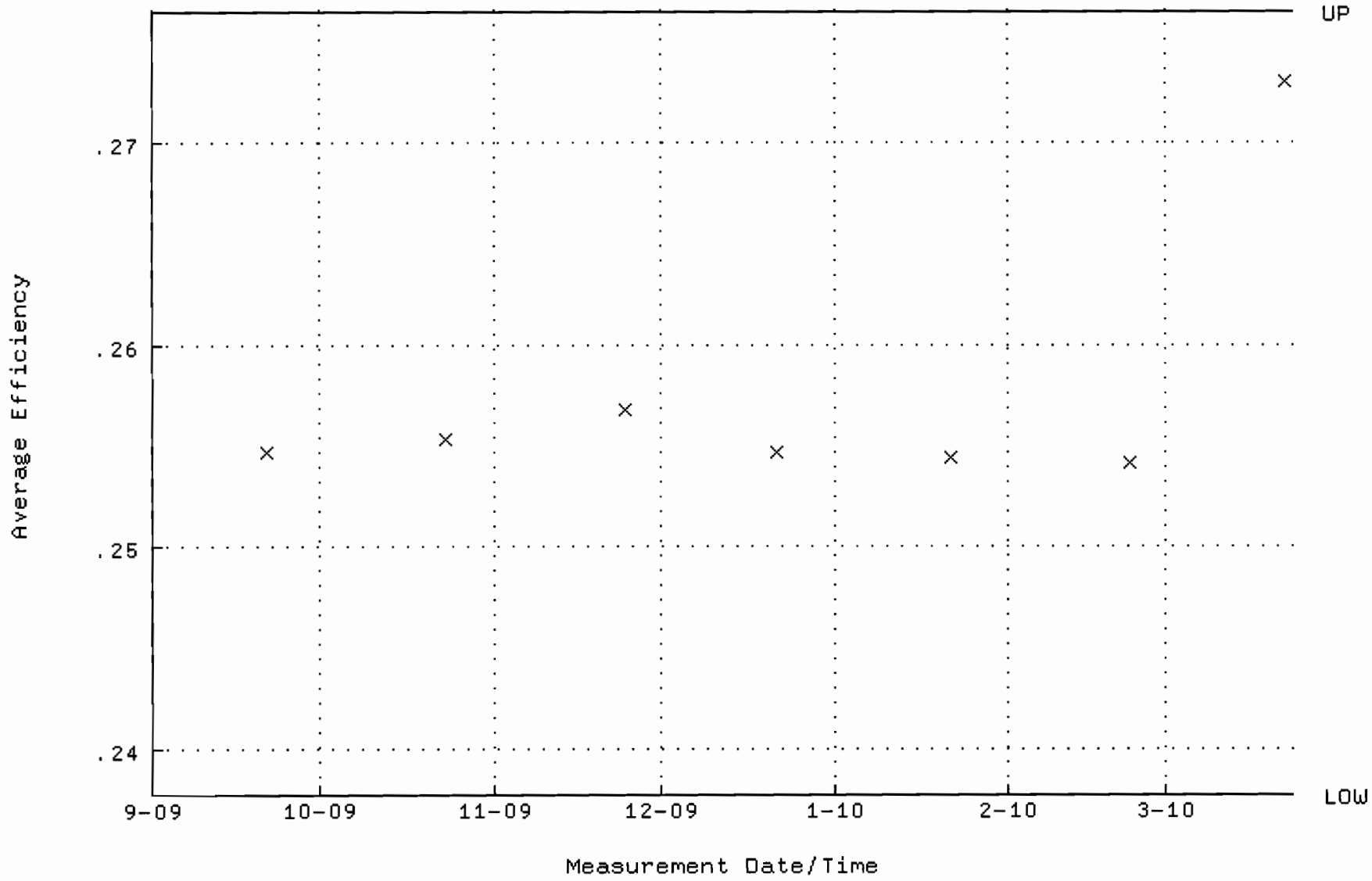

QA filename : DKA100:[ENV_ALPHA.QA.W]W198.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:32:10 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 82.2482 through 94.2700

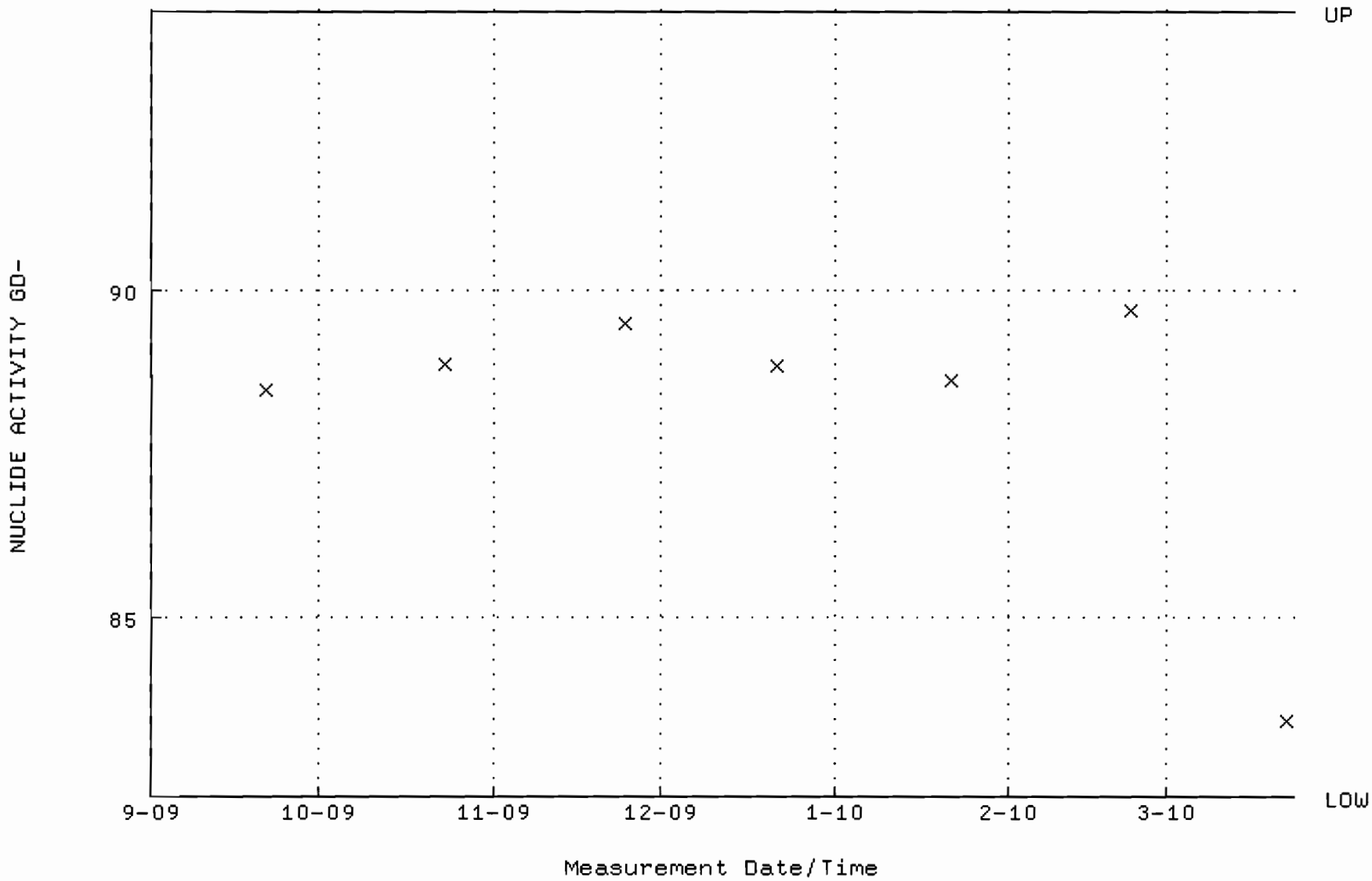

QA filename : DKA100:[ENV_ALPHA.QA.B]B198.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:57 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

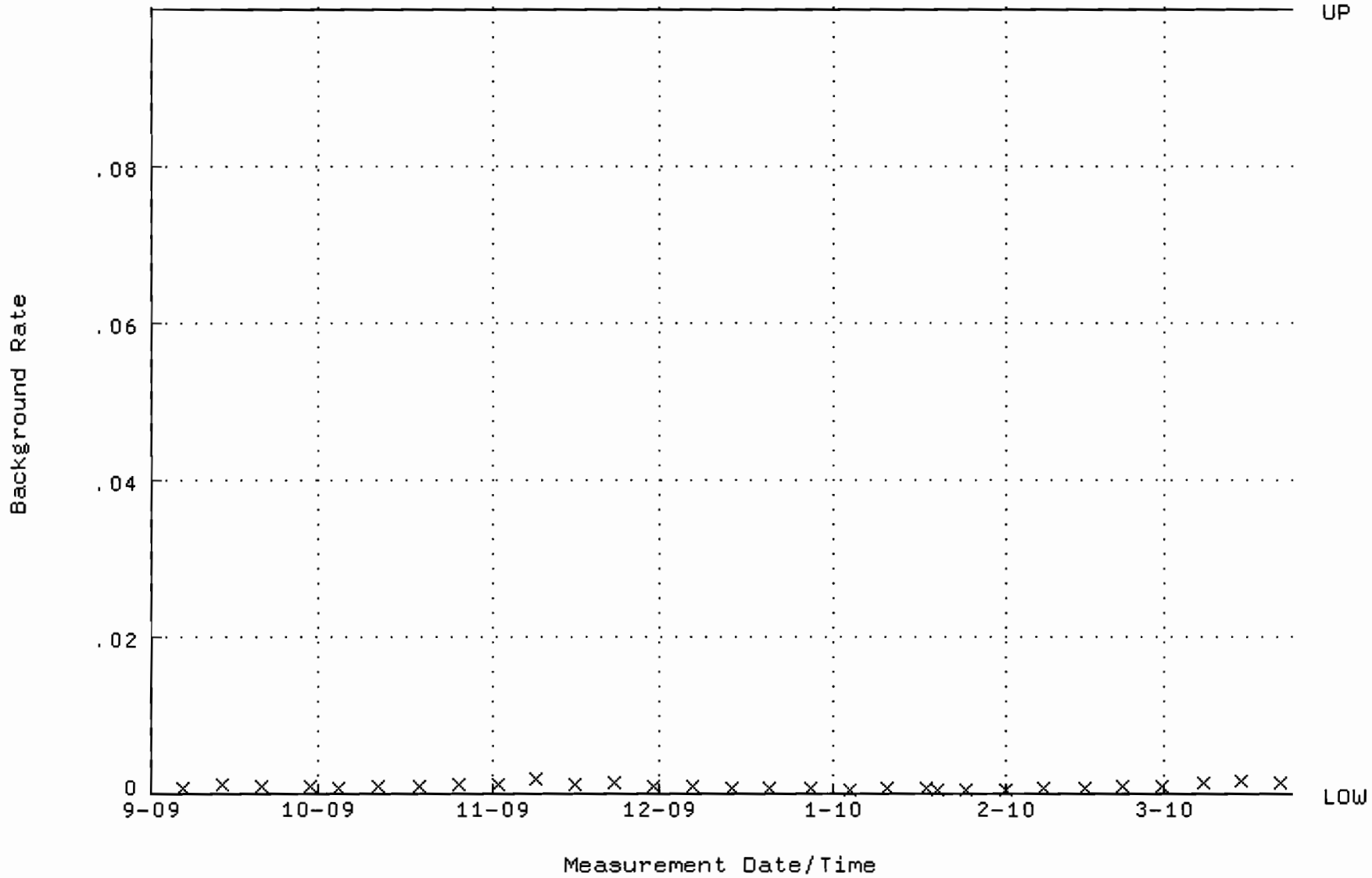

QA filename : DKA100:[ENV_ALPHA.QA.W]W199.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:32:15 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.238282 through 0.265056

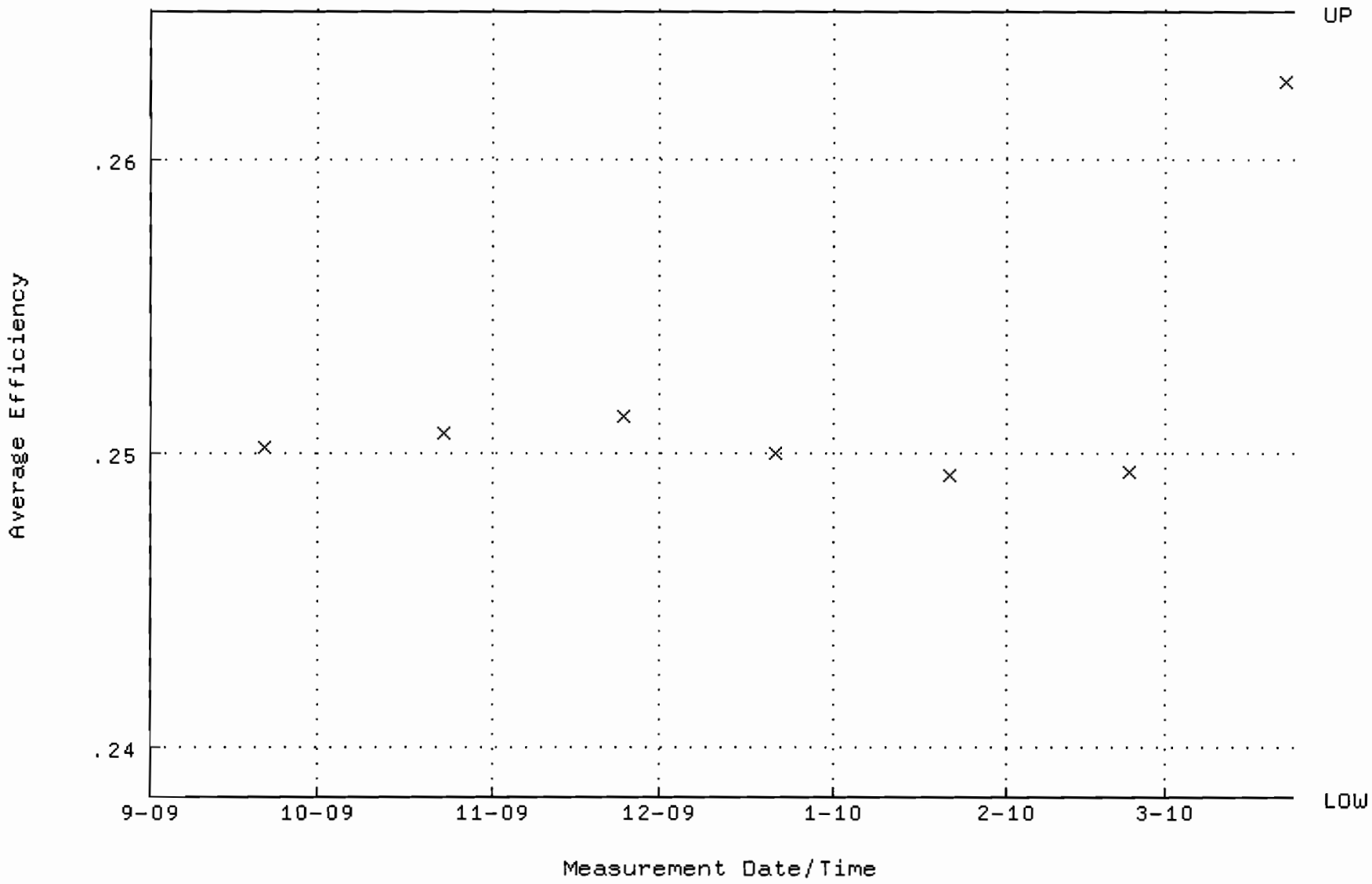

QA filename : DKA100:[ENV_ALPHA.QA.W]W199.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:32:15 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 84.8732 through 94.5466

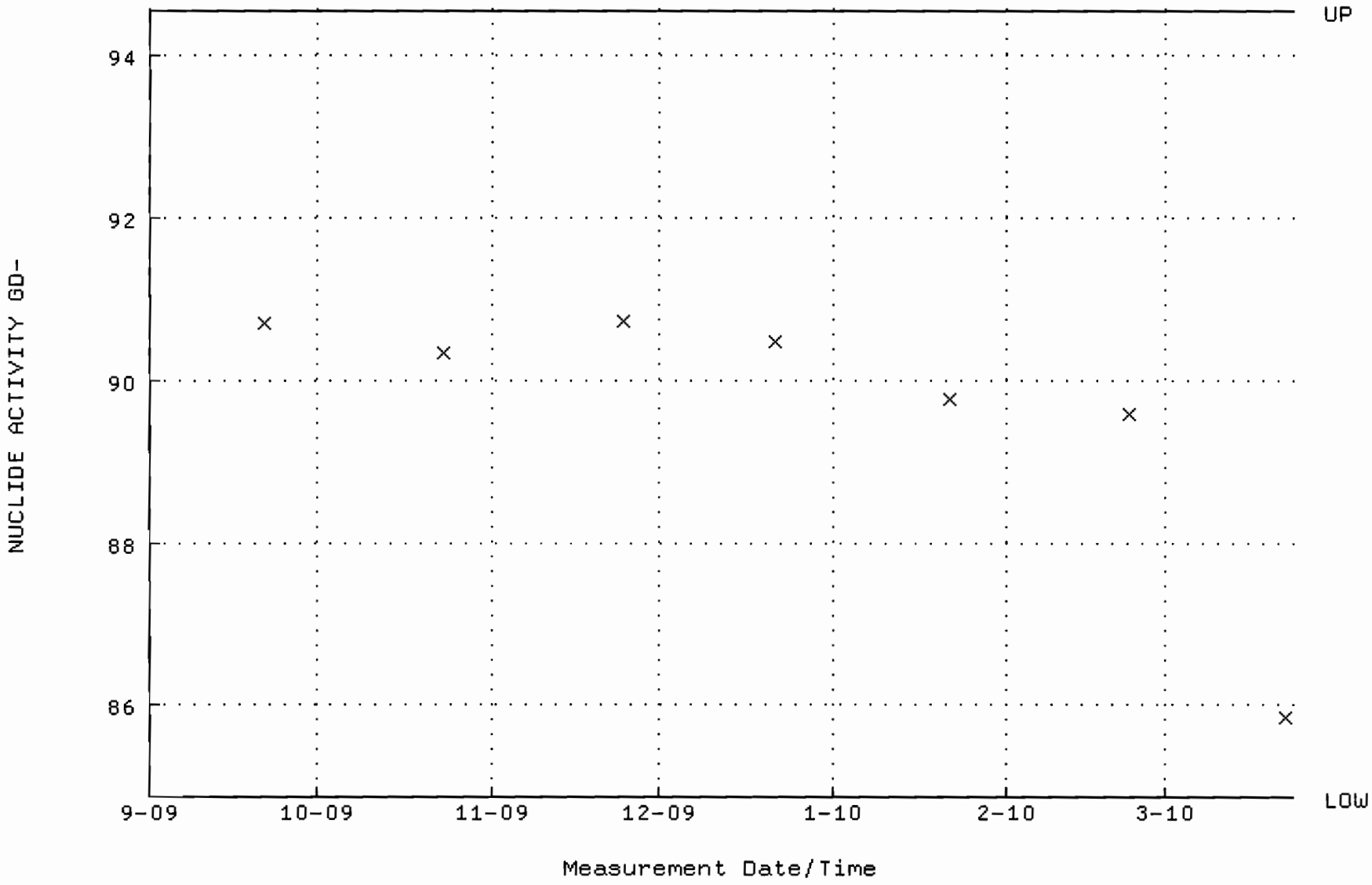

QA filename : DKA100:[ENV_ALPHA.QA.B]B199.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:47:01 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

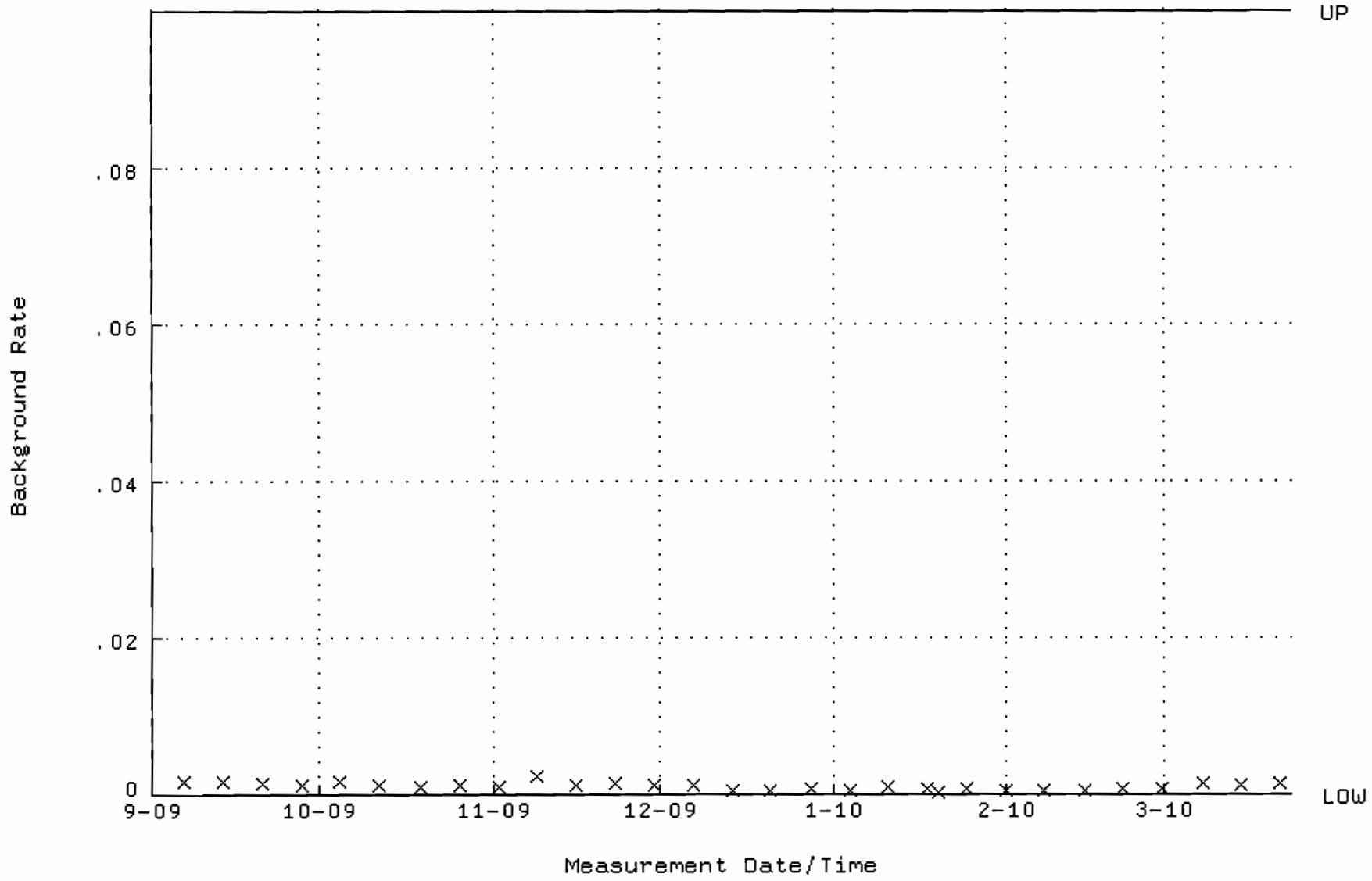

QA filename : DKA100:[ENV_ALPHA.QA.W]W200.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:32:21 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.256586 through 0.276586

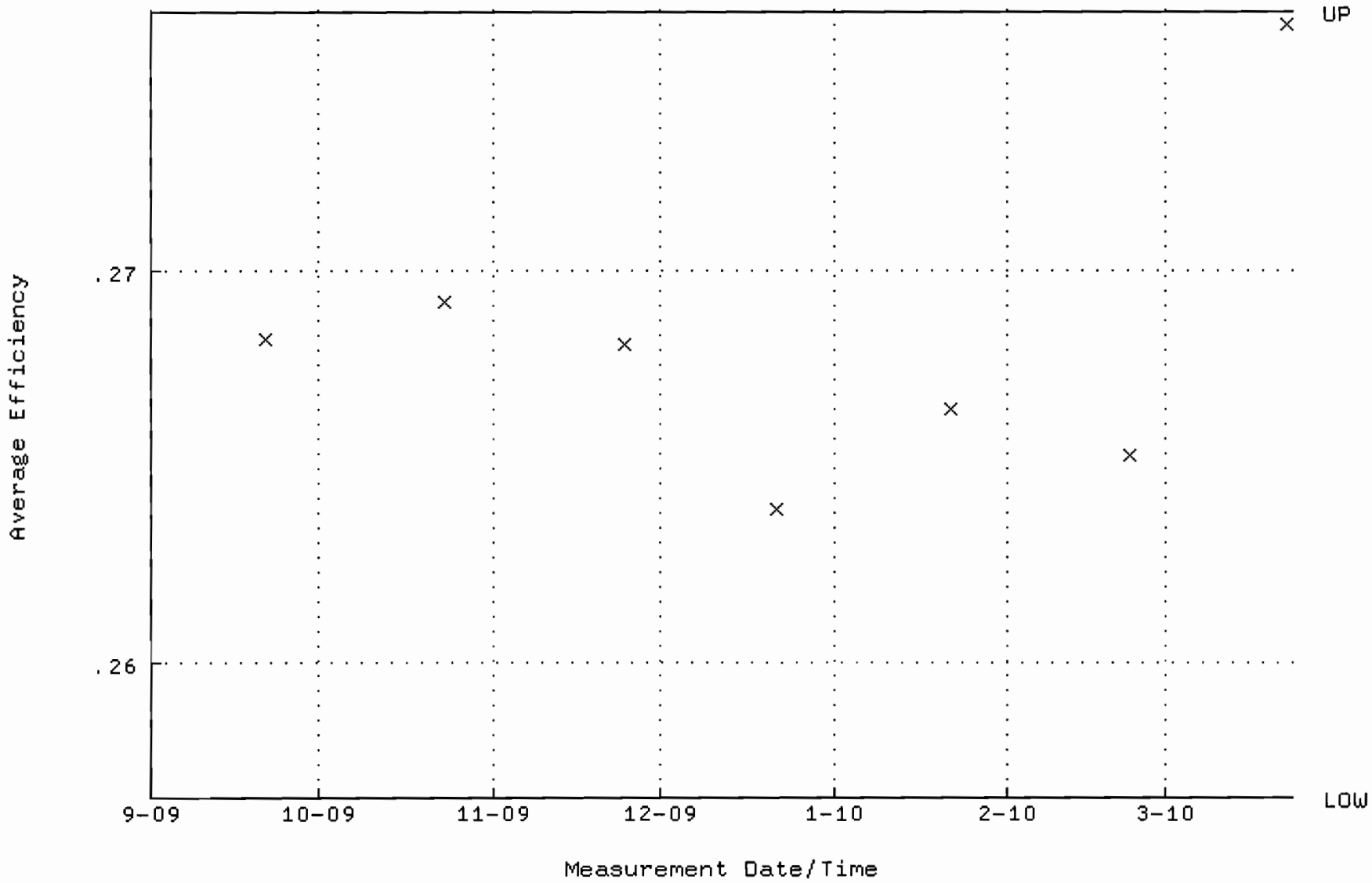

QA filename : DKA100:[ENV_ALPHA.QA.W]W200.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:32:21 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 83.8028 through 92.6242

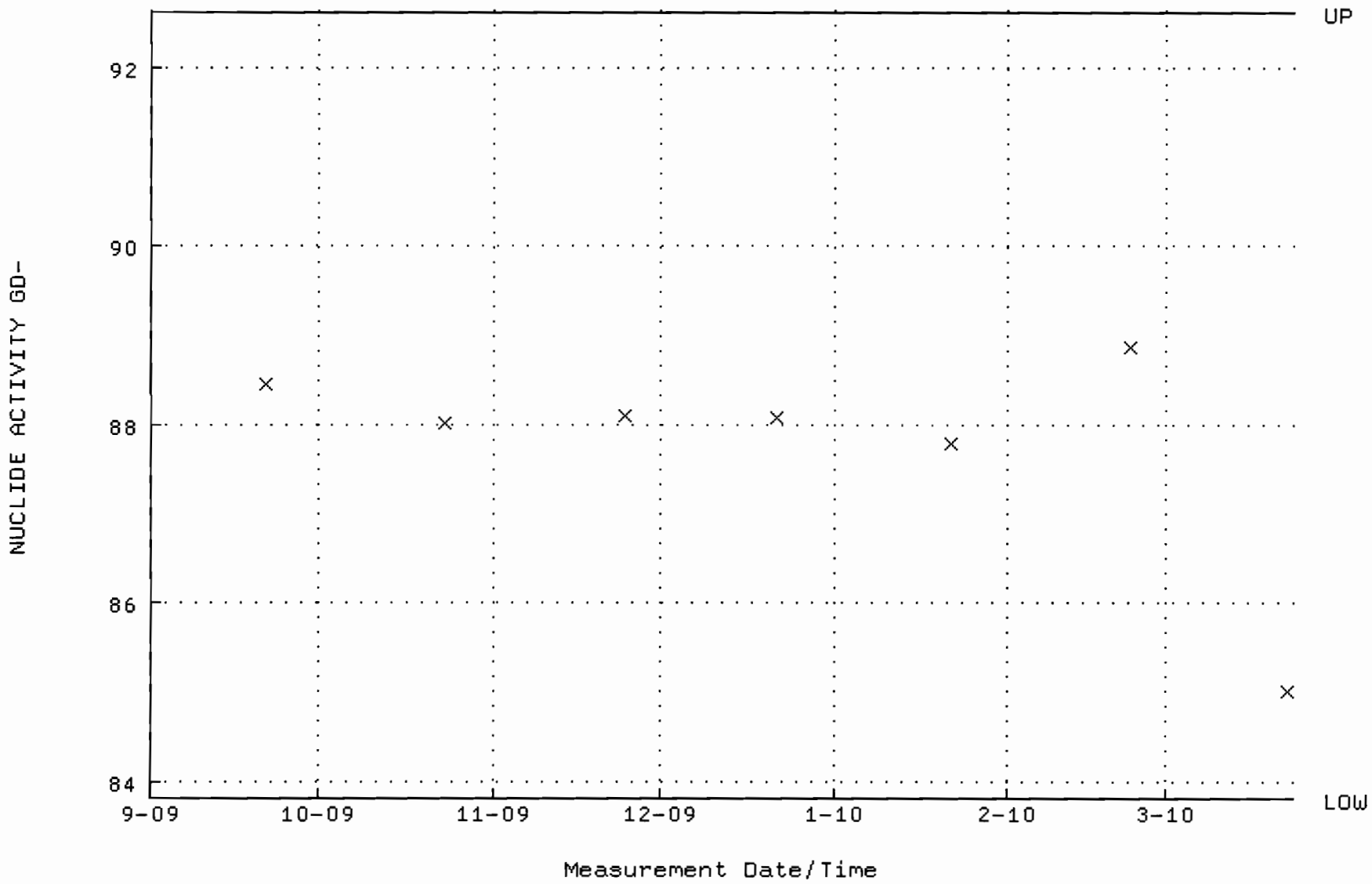

QA filename : DKA100:[ENV_ALPHA.QA.B]B200.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:47:05 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

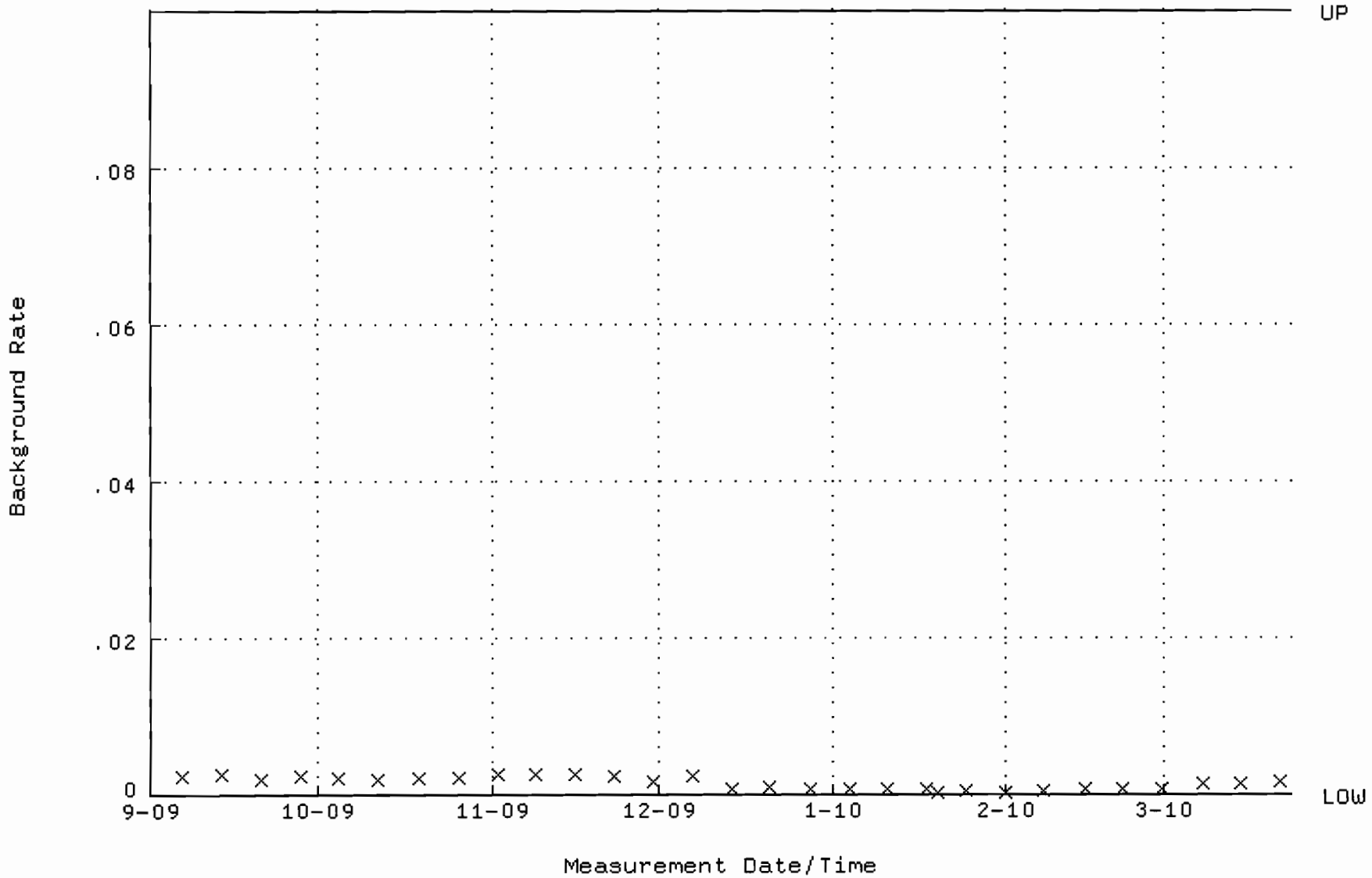

QA filename : DKA100:[ENV_ALPHA.QA.W]W201.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:32:27 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.249568 through 0.269568

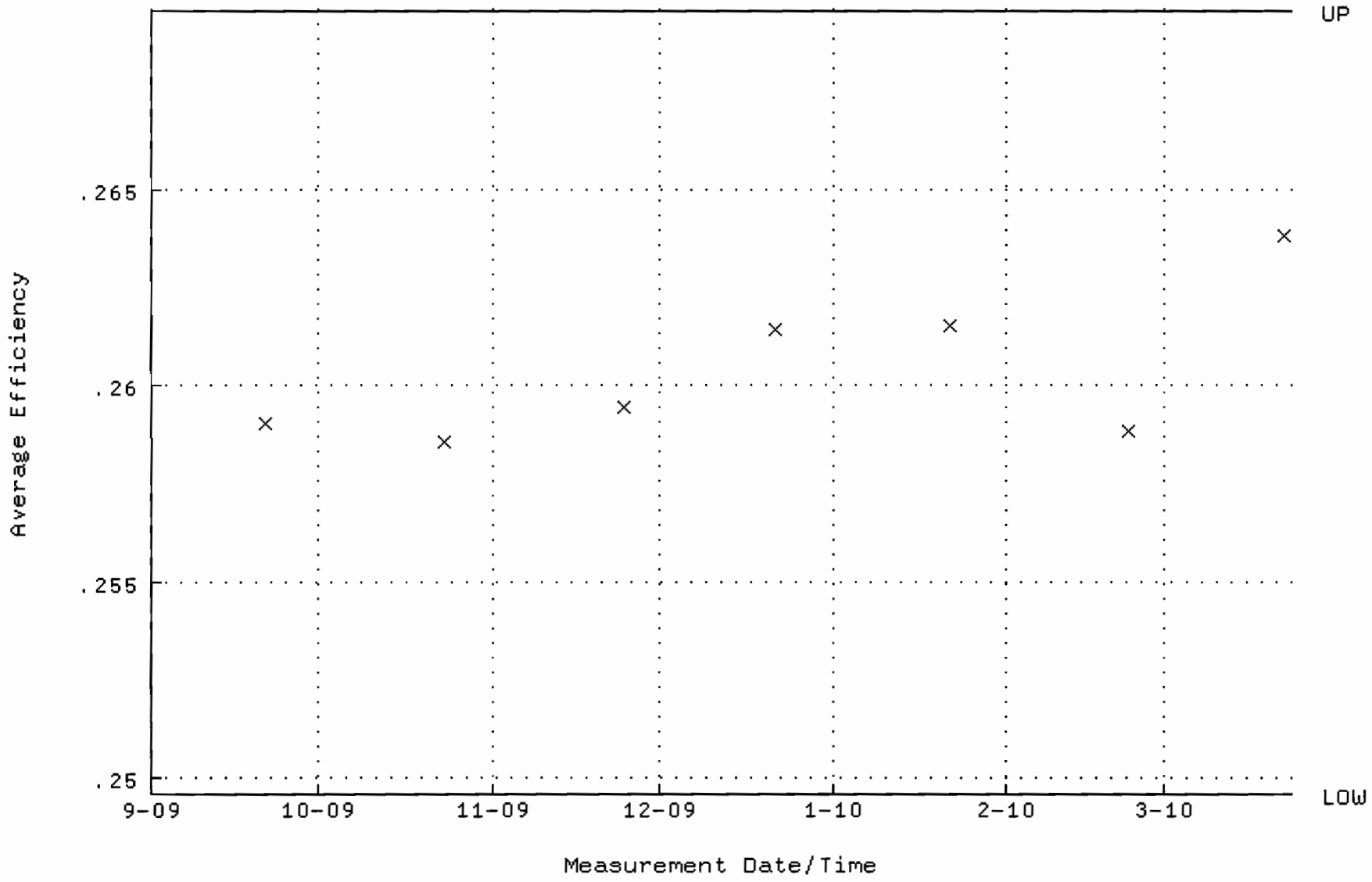

QA filename : DKA100:[ENV_ALPHA.QA.W]W201.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:32:27 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 81.1299 through 89.6699

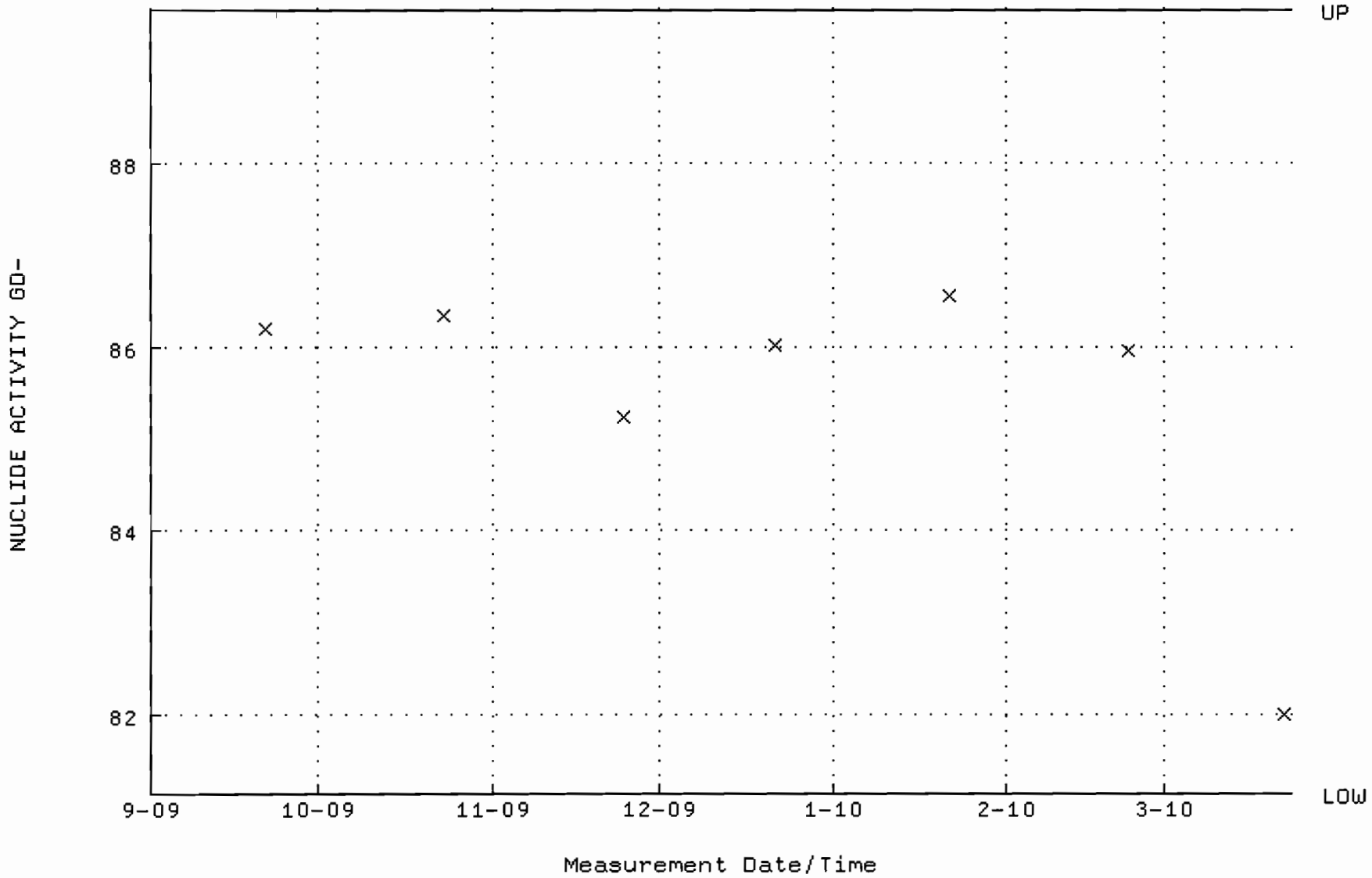

QA filename : DKA100:[ENV_ALPHA.QA.B]B201.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:47:09 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

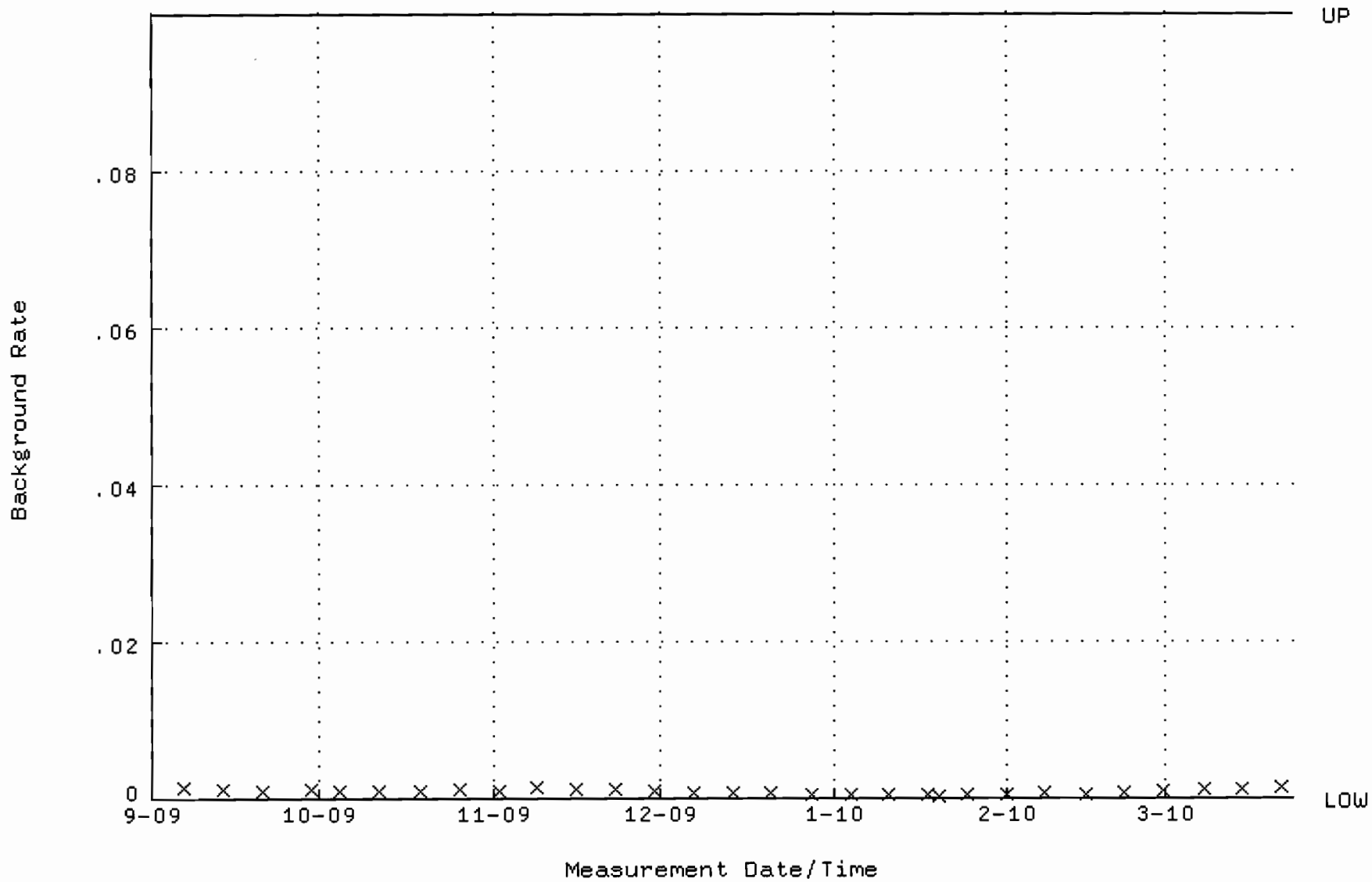

QA filename : DKA100:[ENV_ALPHA.QA.W]W202.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:32:32 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.255511 through 0.275511

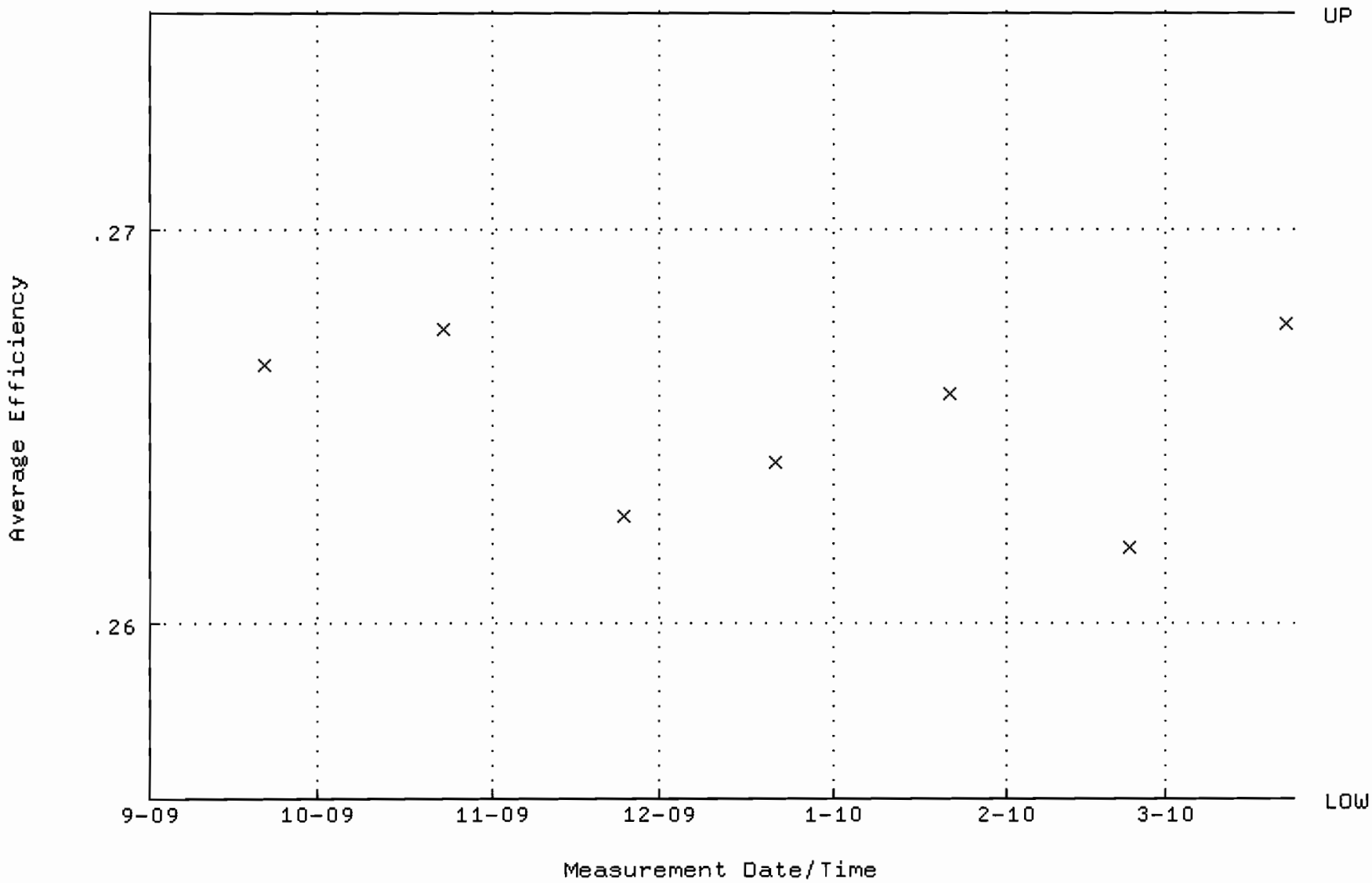

QA filename : DKA100:[ENV_ALPHA.QA.W]W202.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:32:32 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 80.8649 through 89.3769

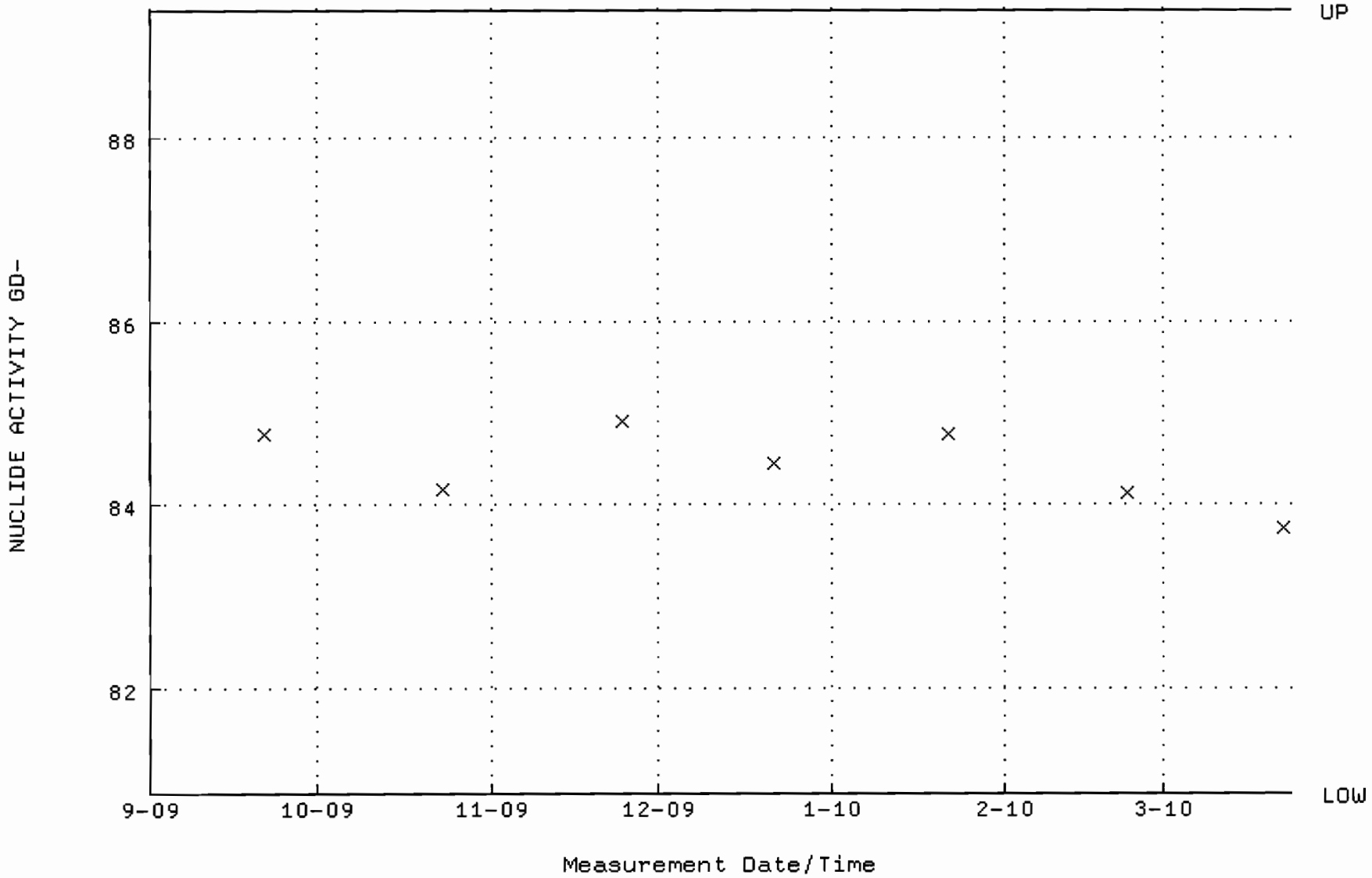

QA filename : DKA100:[ENV_ALPHA.QA.B]B202.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:47:14 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

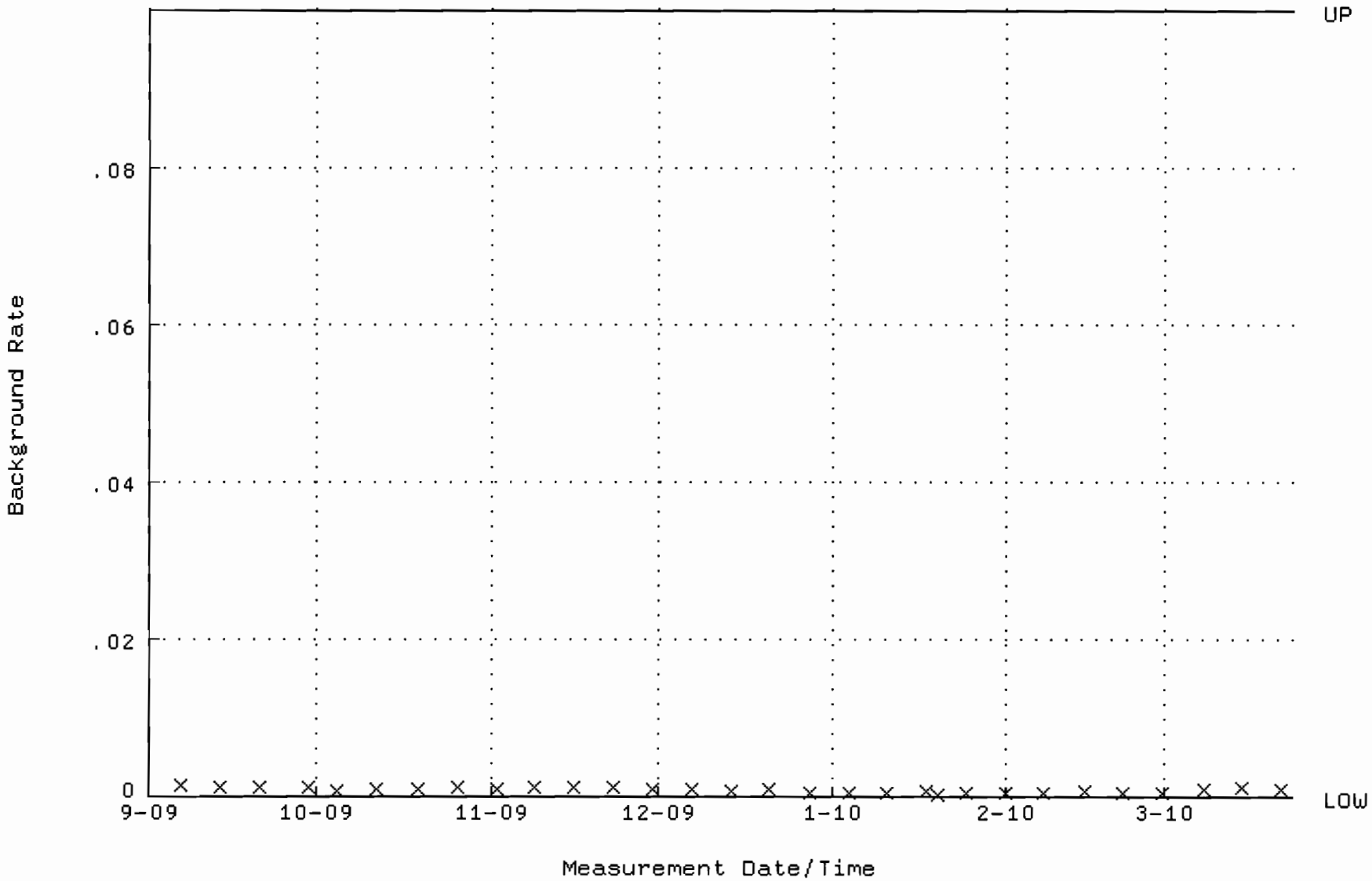

QA filename : DKA100:[ENV_ALPHA.QA.W]W203.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:32:39 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.252203 through 0.272203

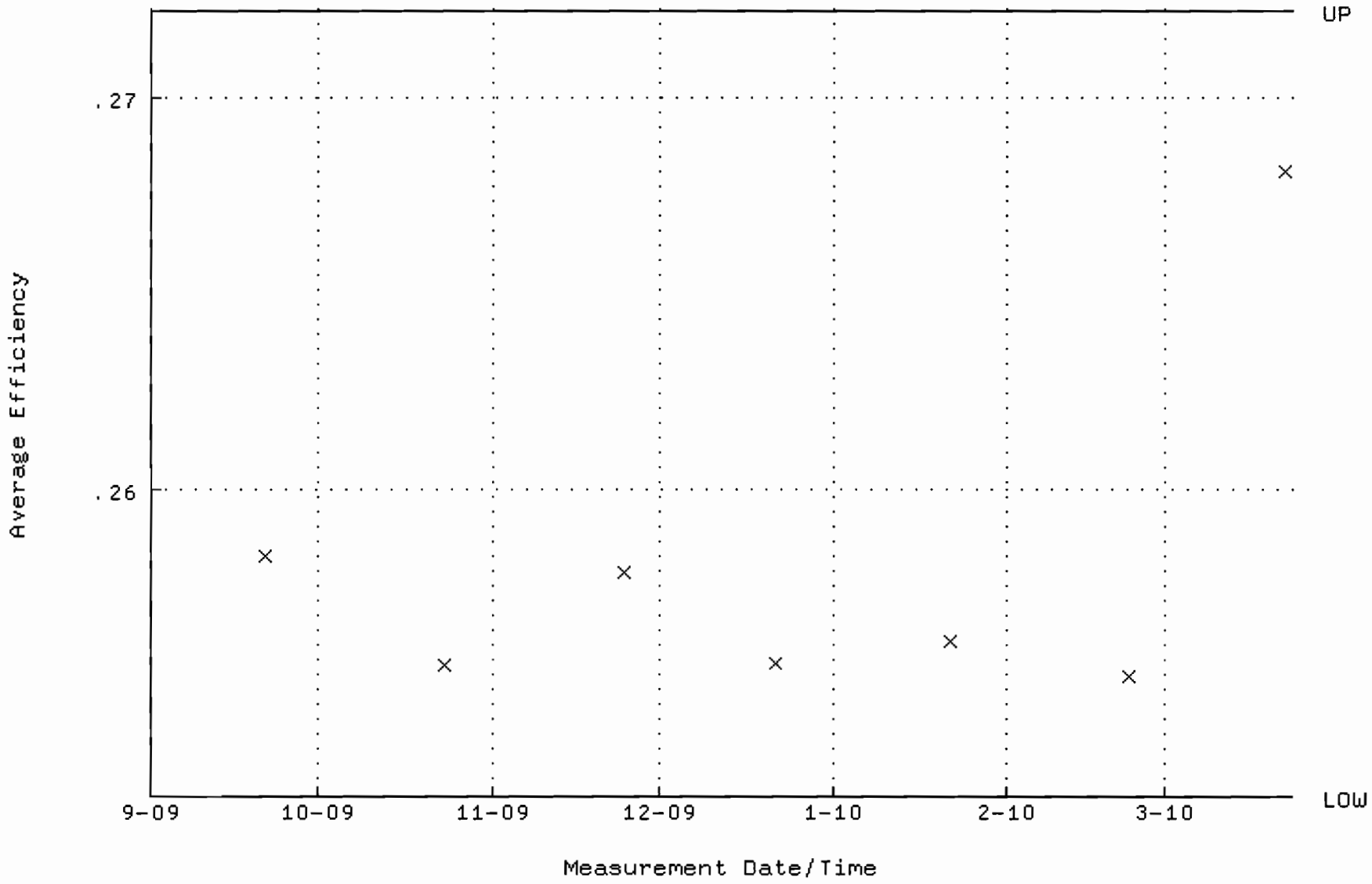

QA filename : DKA100:[ENV_ALPHA.QA.W]W203.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:32:39 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 83.7993 through 92.6203

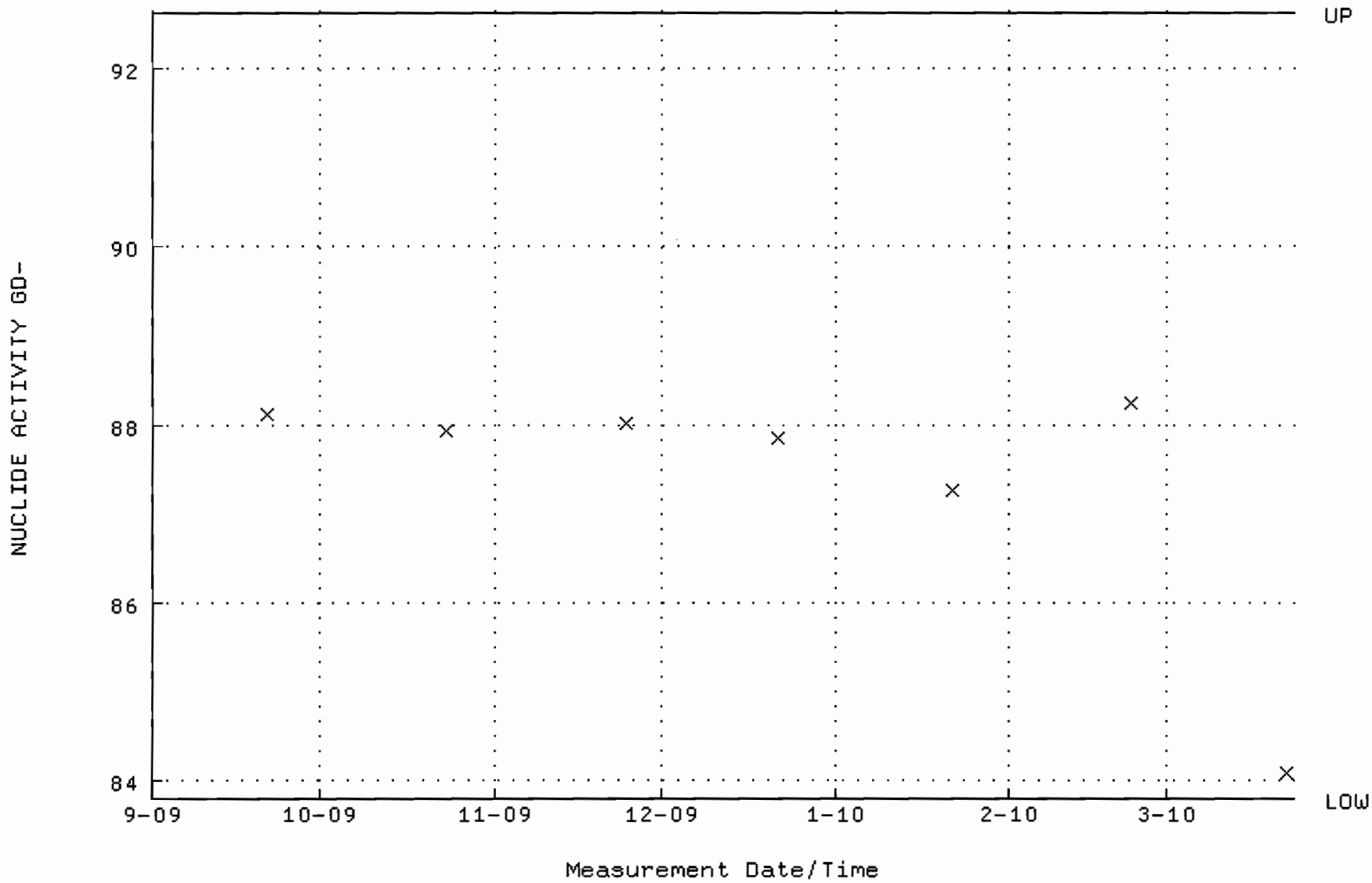

QA filename : DKA100:[ENV_ALPHA.QA.B]B203.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:47:18 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

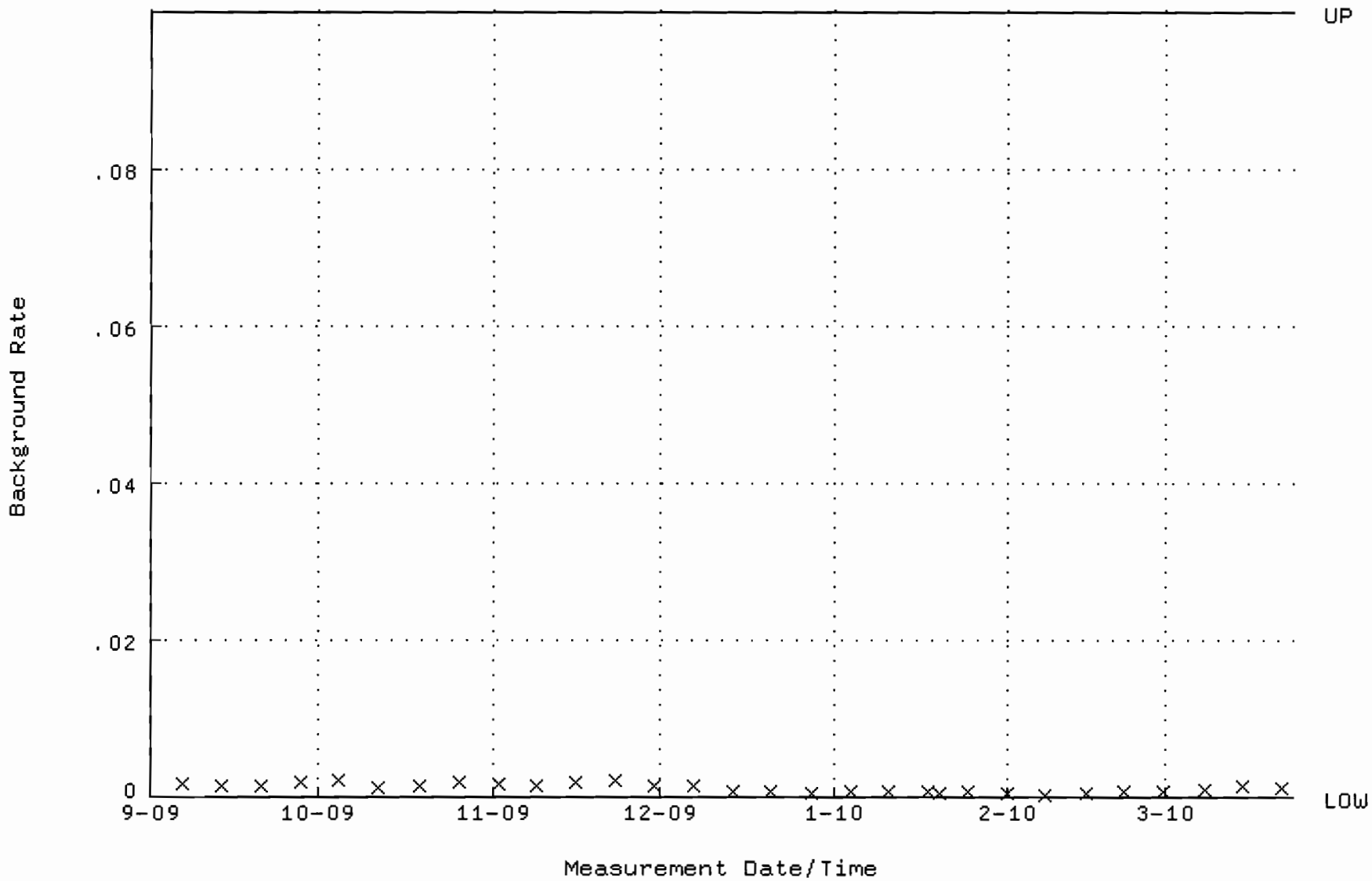

QA filename : DKA100:[ENV_ALPHA.QA.W]W204.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:32:45 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.242636 through 0.263250

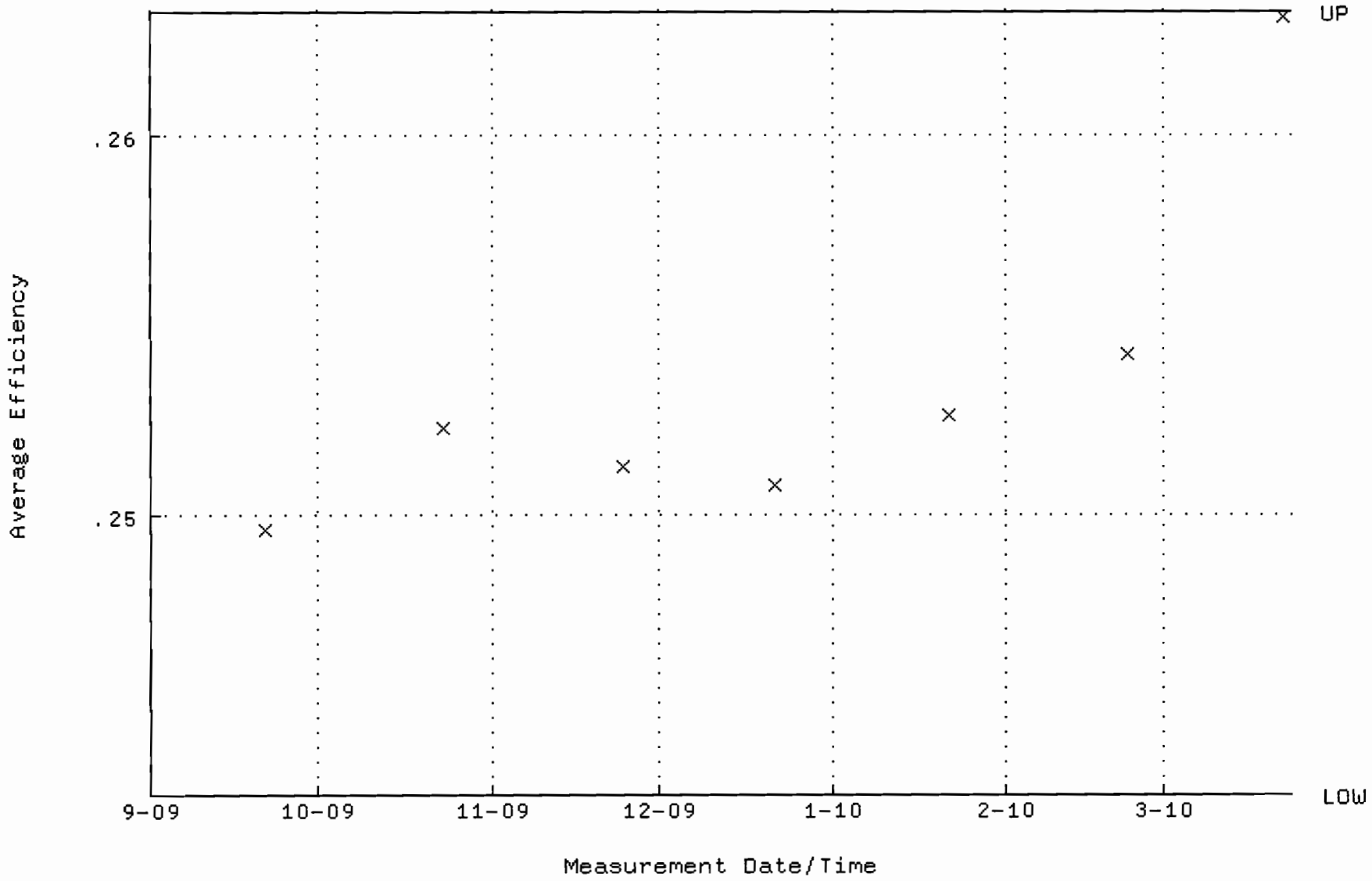

QA filename : DKA100:[ENV_ALPHA.QA.W]W204.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:32:45 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 83.3244 through 90.6220

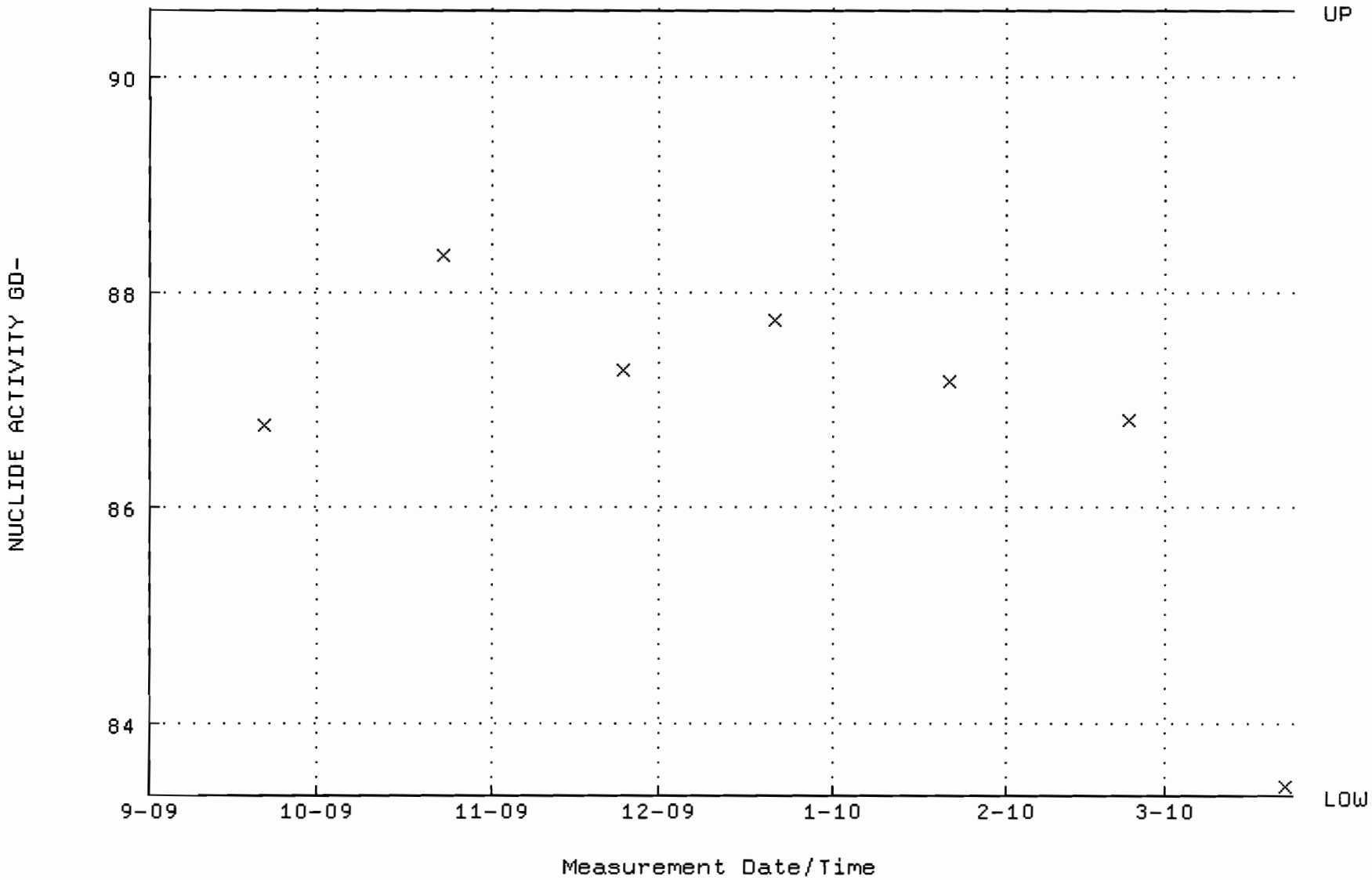

QA filename : DKA100:[ENV_ALPHA.QA.B]B204.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:47:22 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

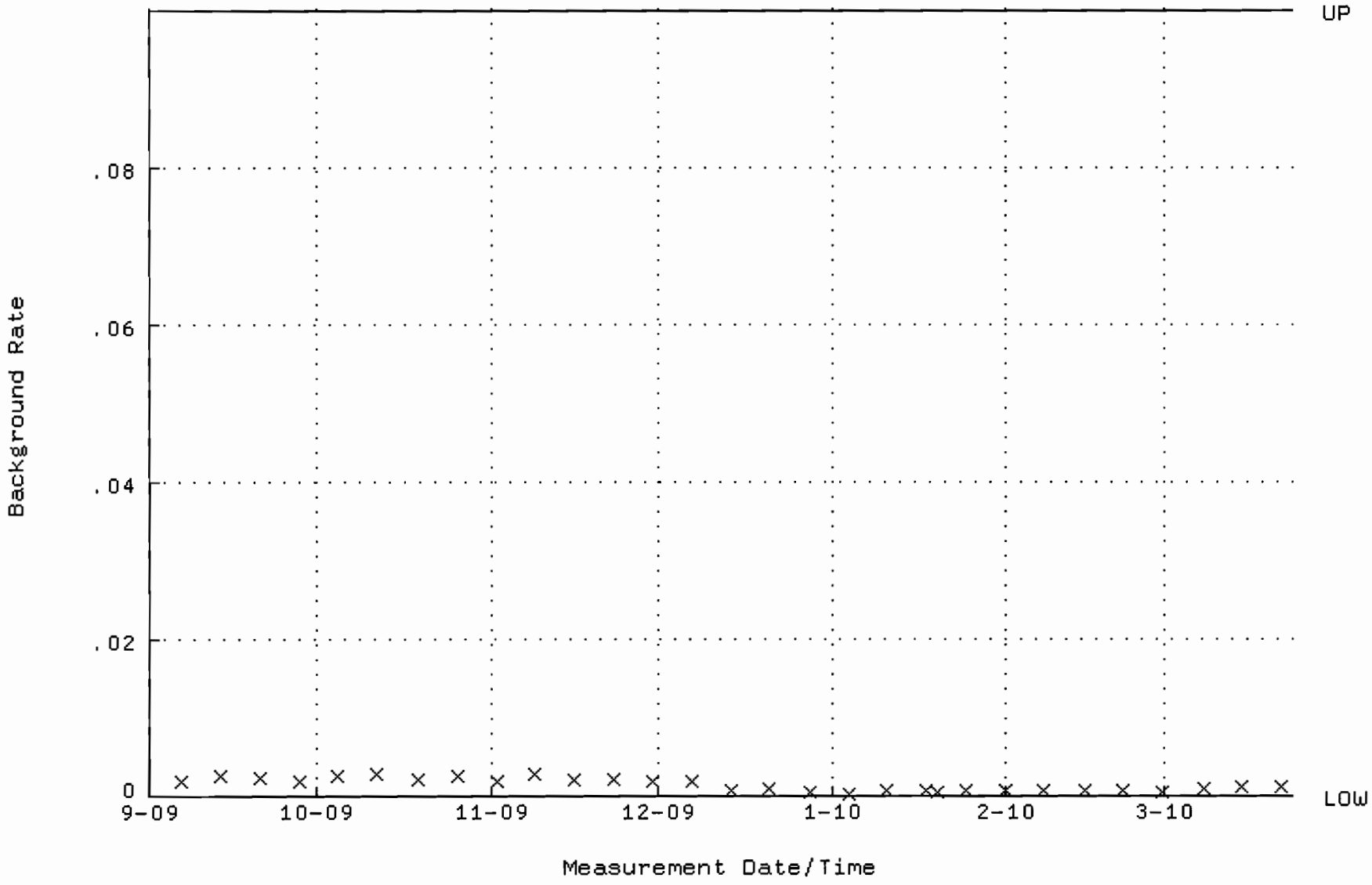

QA filename : DKA100:[ENV_ALPHA.QA.W]W205.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:32:51 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.240311 through 0.269247

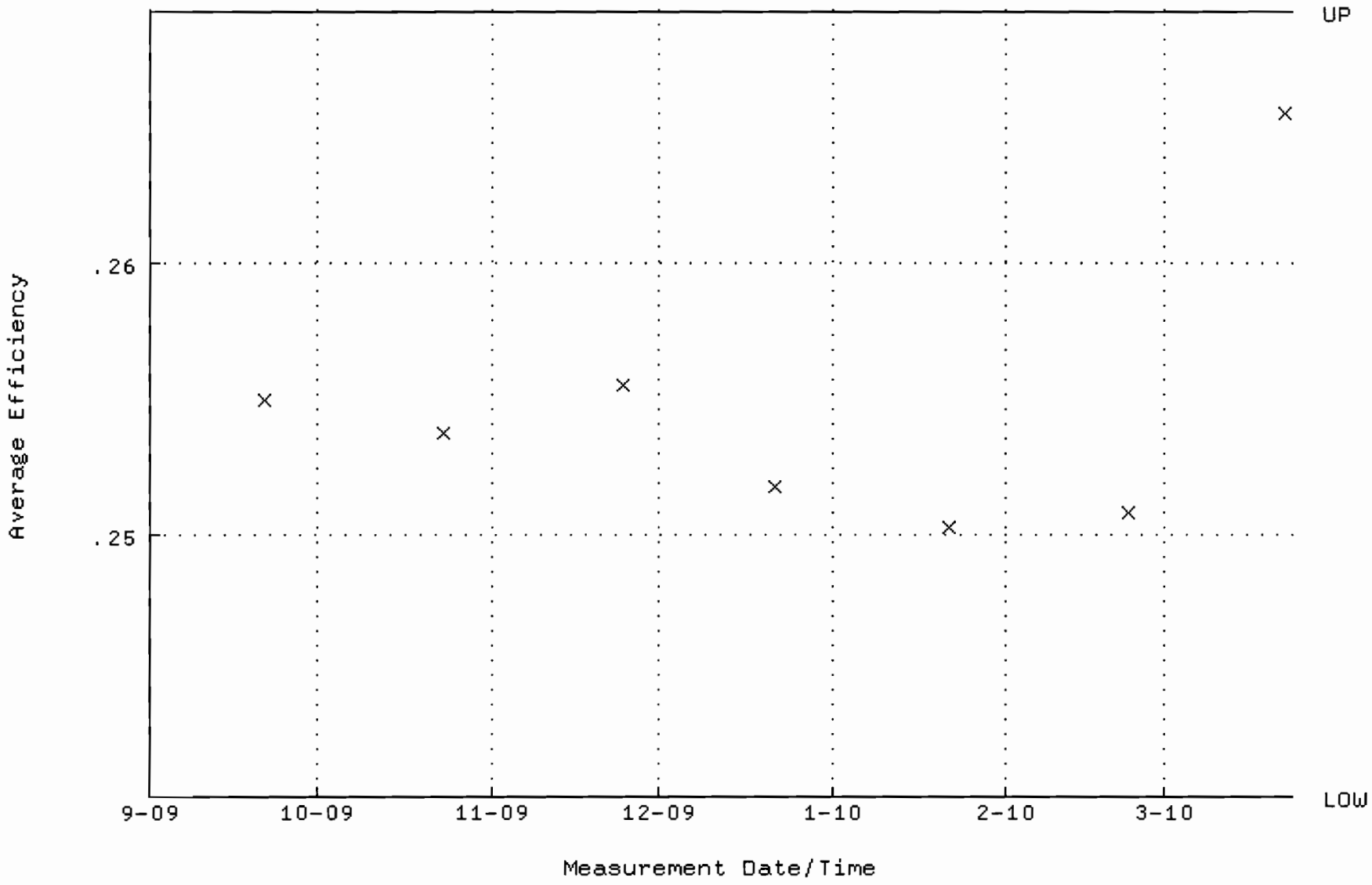

QA filename : DKA100:[ENV_ALPHA.QA.W]W205.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:32:51 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.3473 through 95.7109

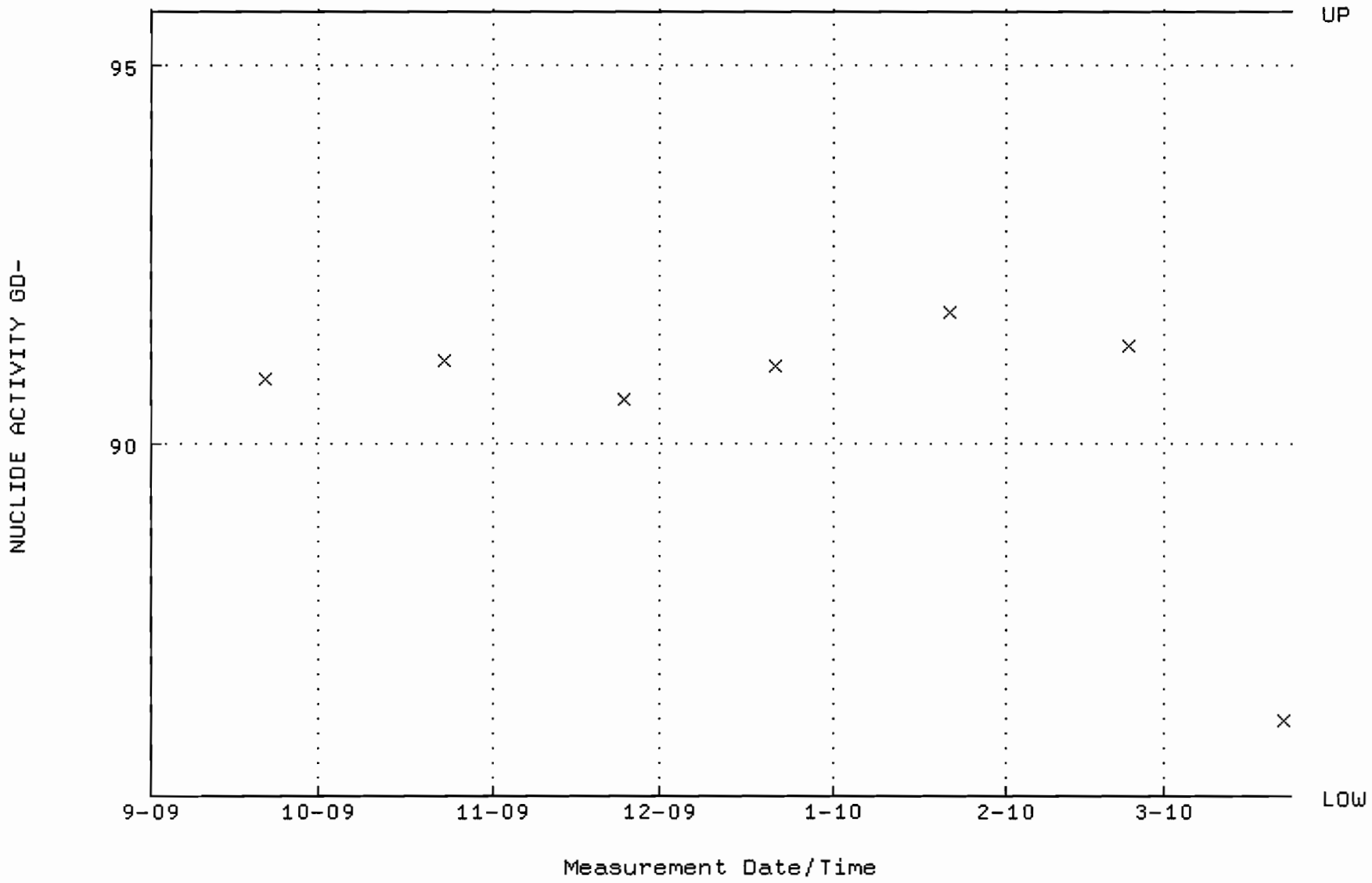

QA filename : DKA100:[ENV_ALPHA.QA.B]B205.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:47:26 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

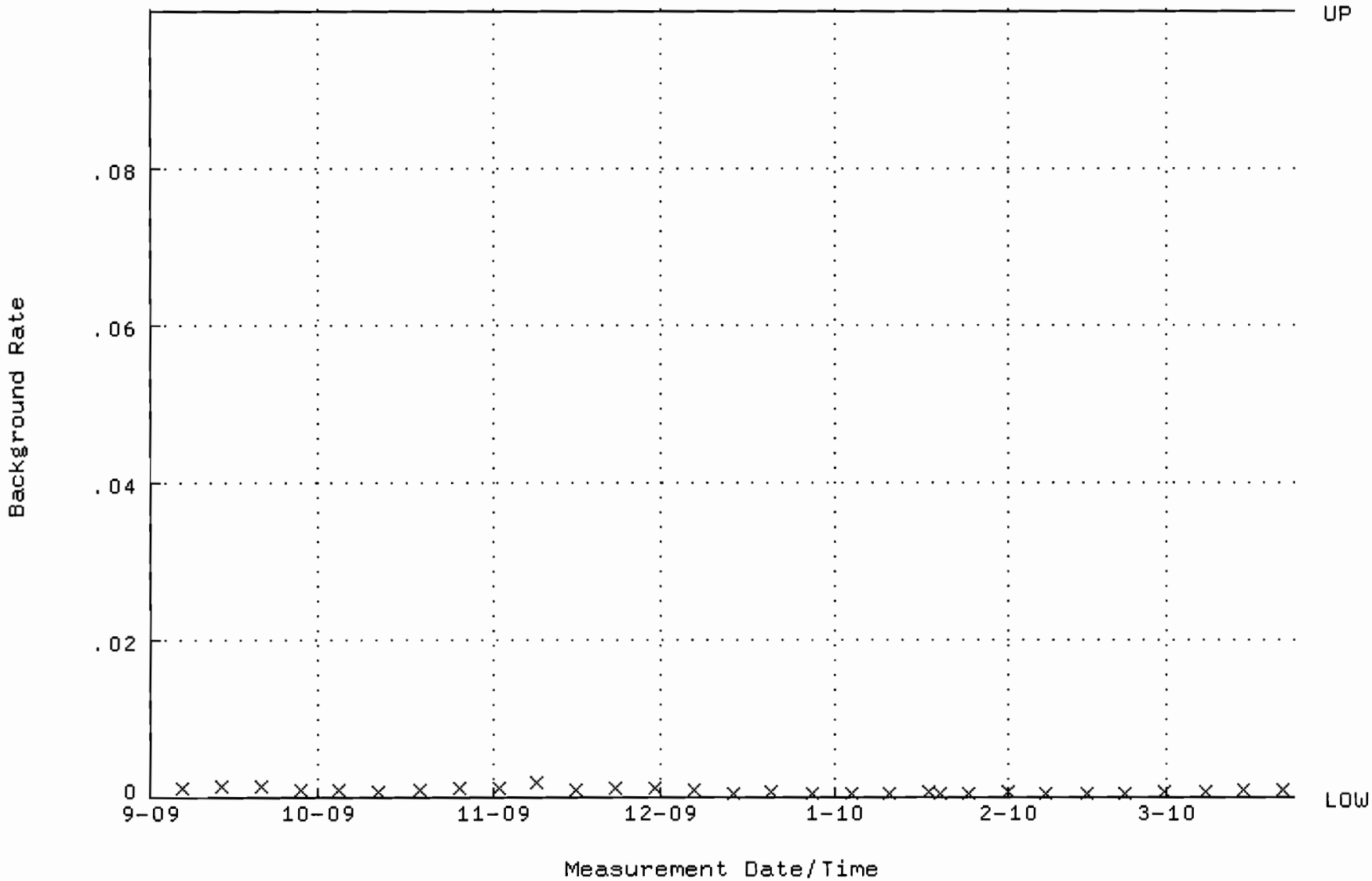

QA filename : DKA100:[ENV_ALPHA.QA.W]W206.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:32:57 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.246228 through 0.266228

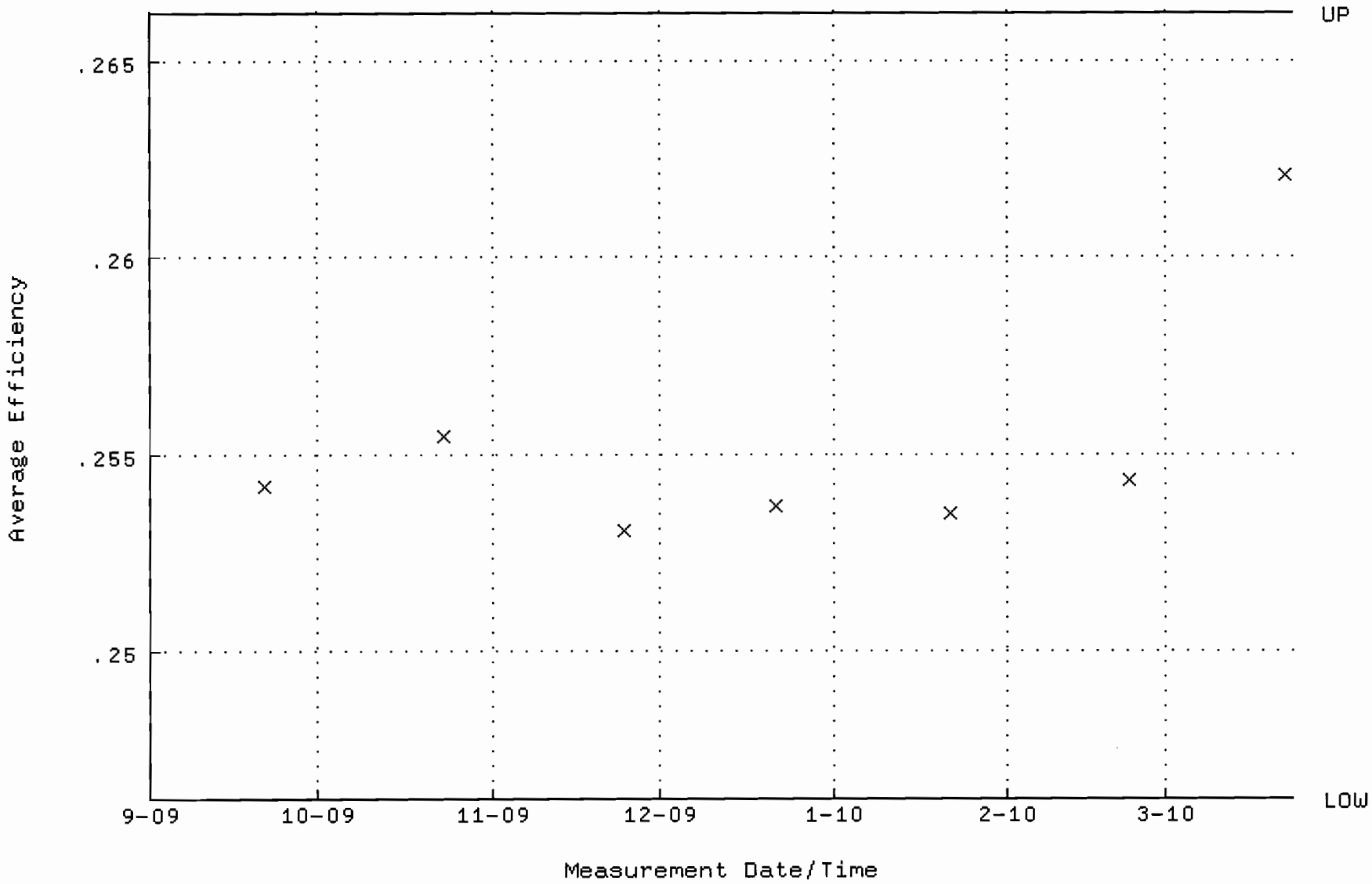

QA filename : DKA100:[ENV_ALPHA.QA.W]W206.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:32:57 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.1104 through 94.0694

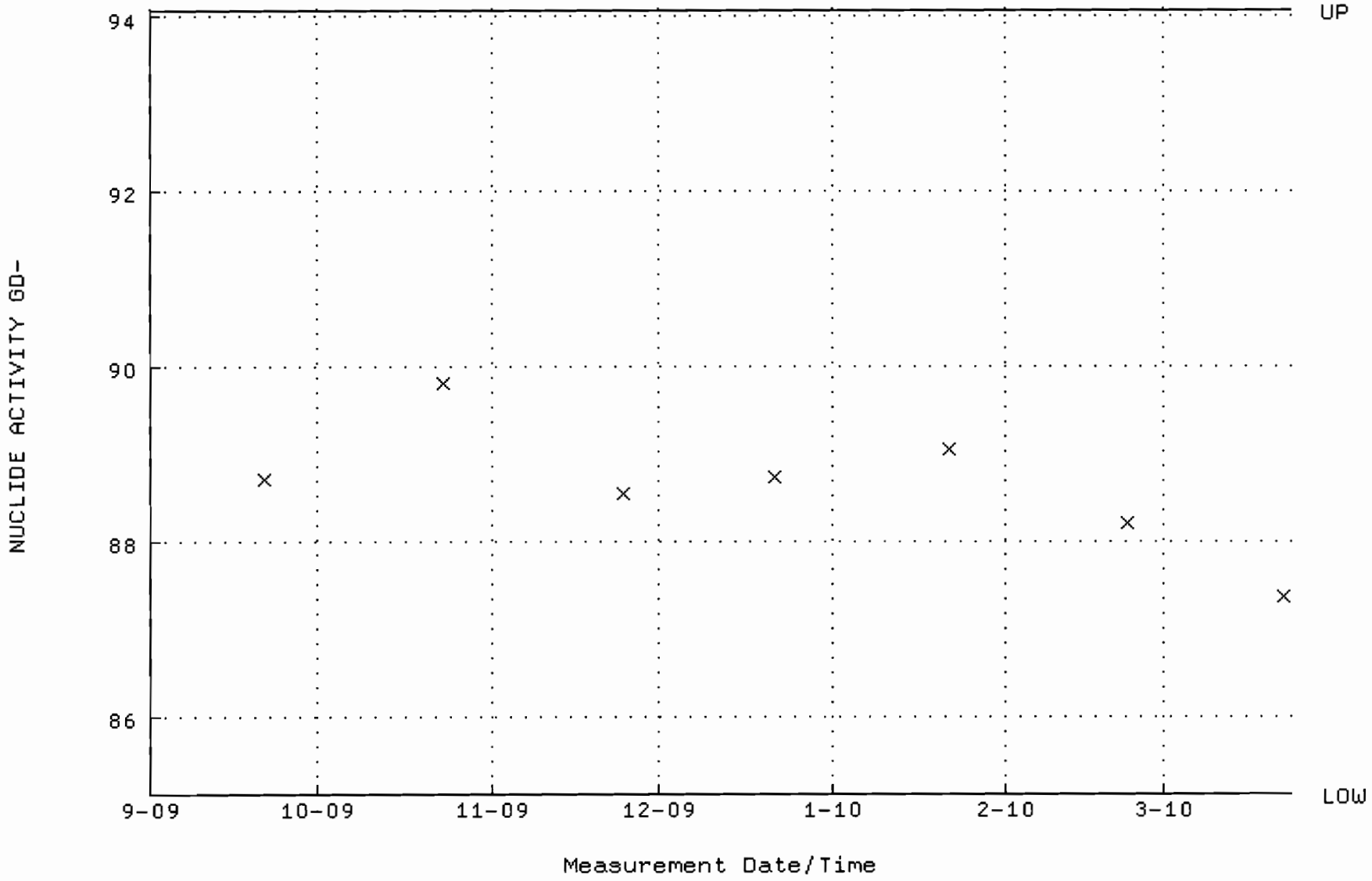

QA filename : DKA100:[ENV_ALPHA.QA.B]B206.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:47:30 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

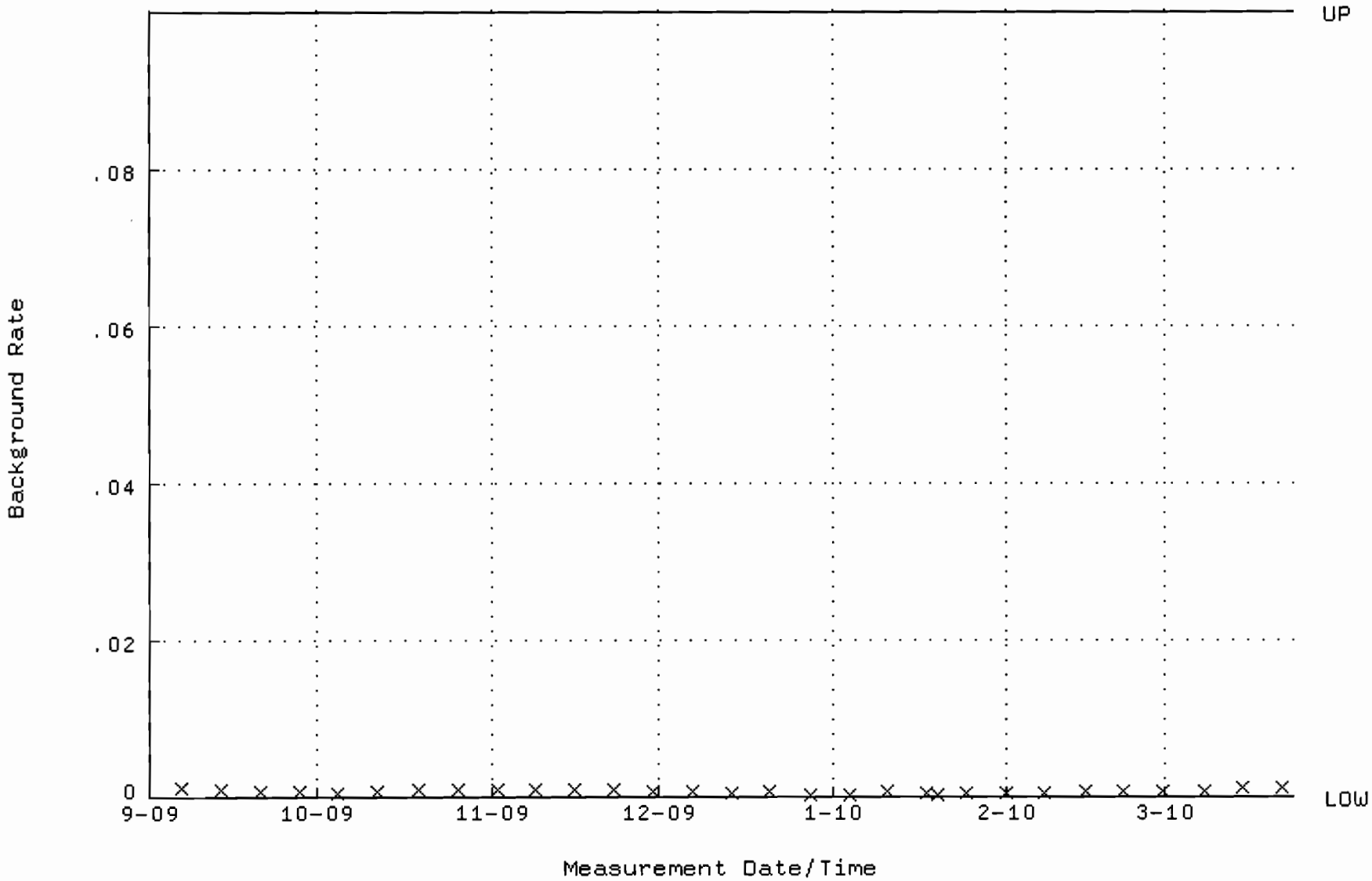

QA filename : DKA100:[ENV_ALPHA.QA.W]W207.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:33:03 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.240685 through 0.275033

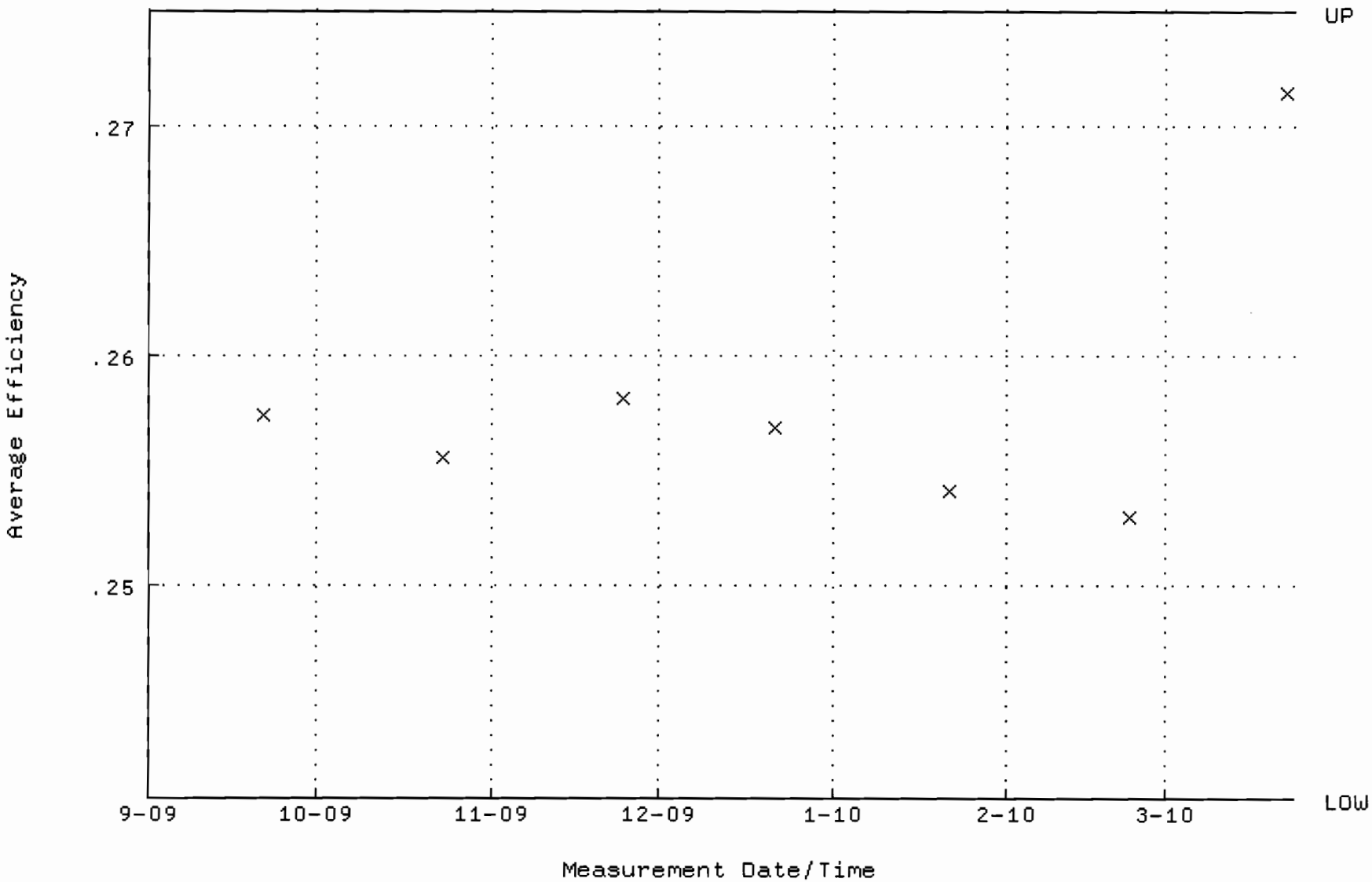

QA filename : DKA100:[ENV_ALPHA.QA.W]W207.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:33:03 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 77.5871 through 91.1937

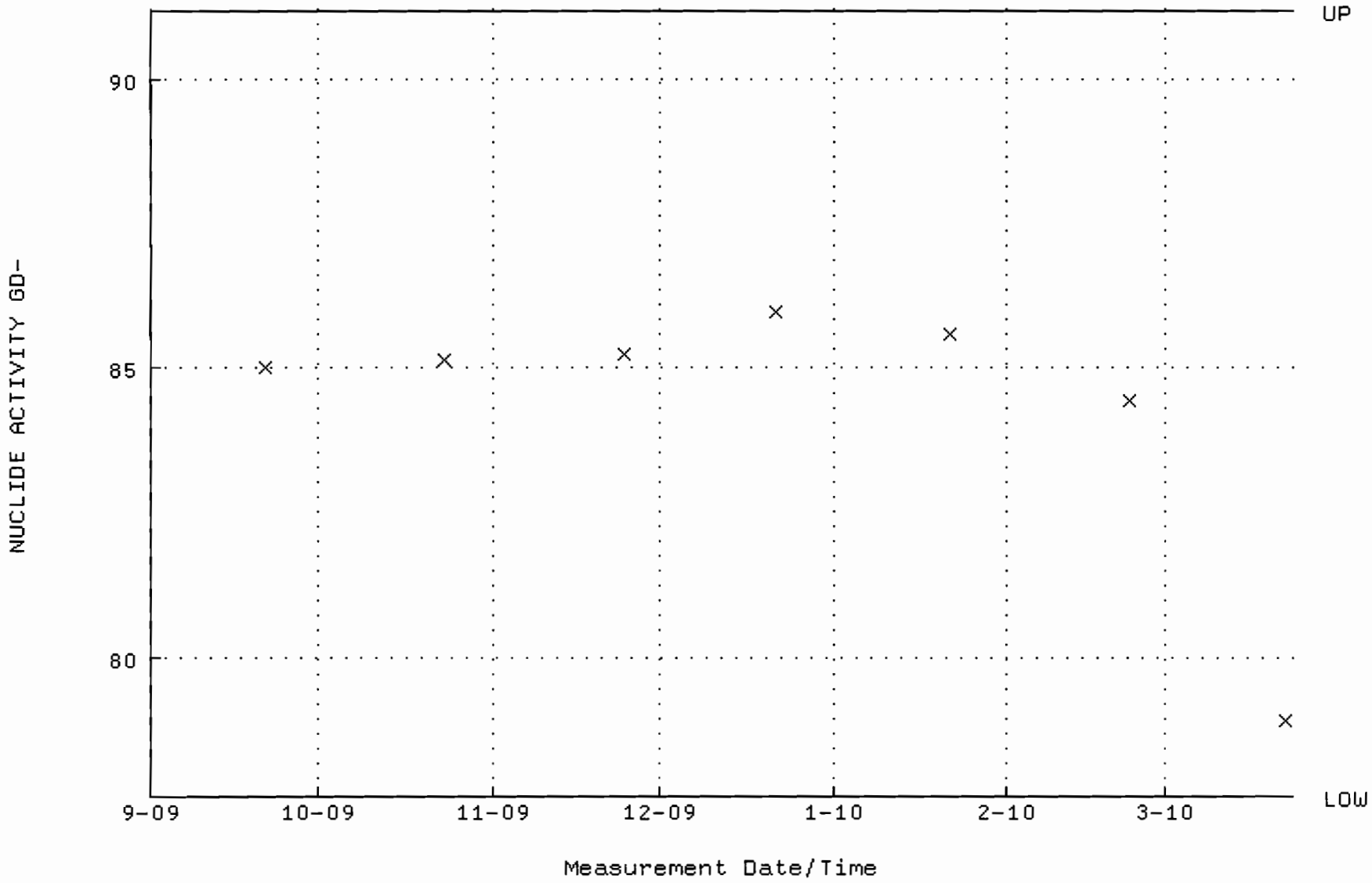

QA filename : DKA100:[ENV_ALPHA.QA.B]B207.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:47:34 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

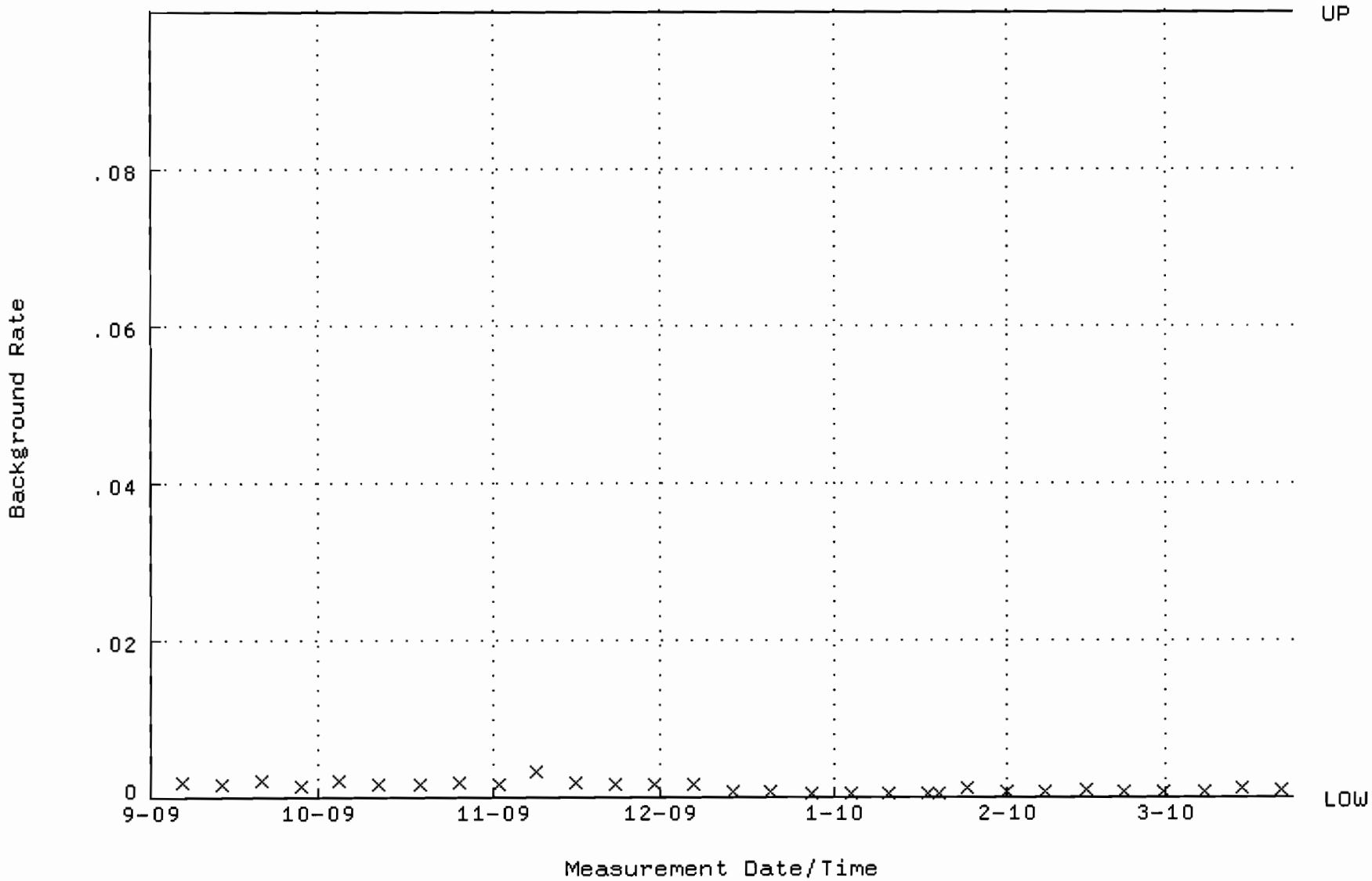

QA filename : DKA100:[ENV_ALPHA.QA.W]W208.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:33:08 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.235607 through 0.272591

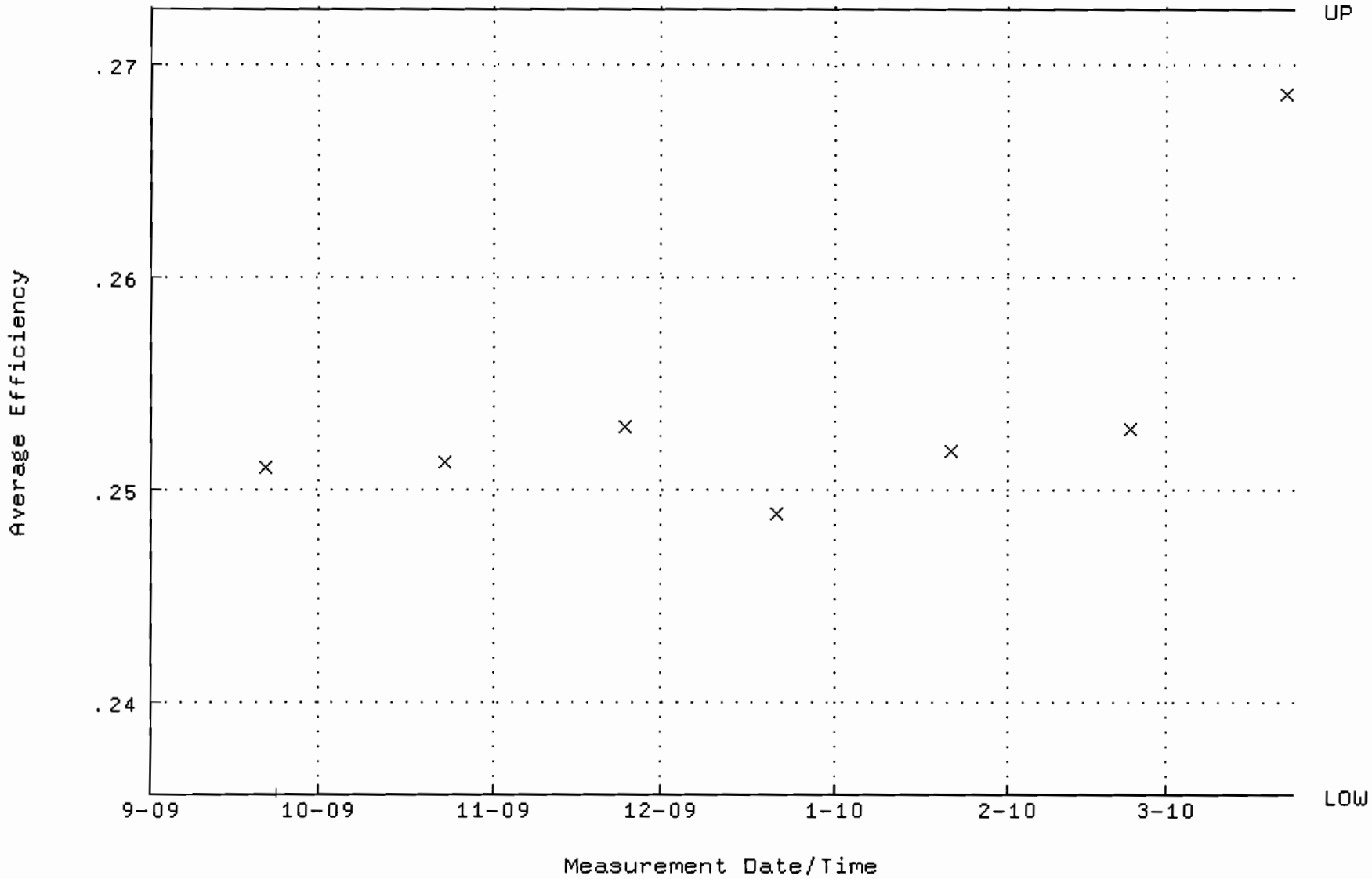

QA filename : DKA100:[ENV_ALPHA.QA.W]W208.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:33:08 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 79.7206 through 91.5576

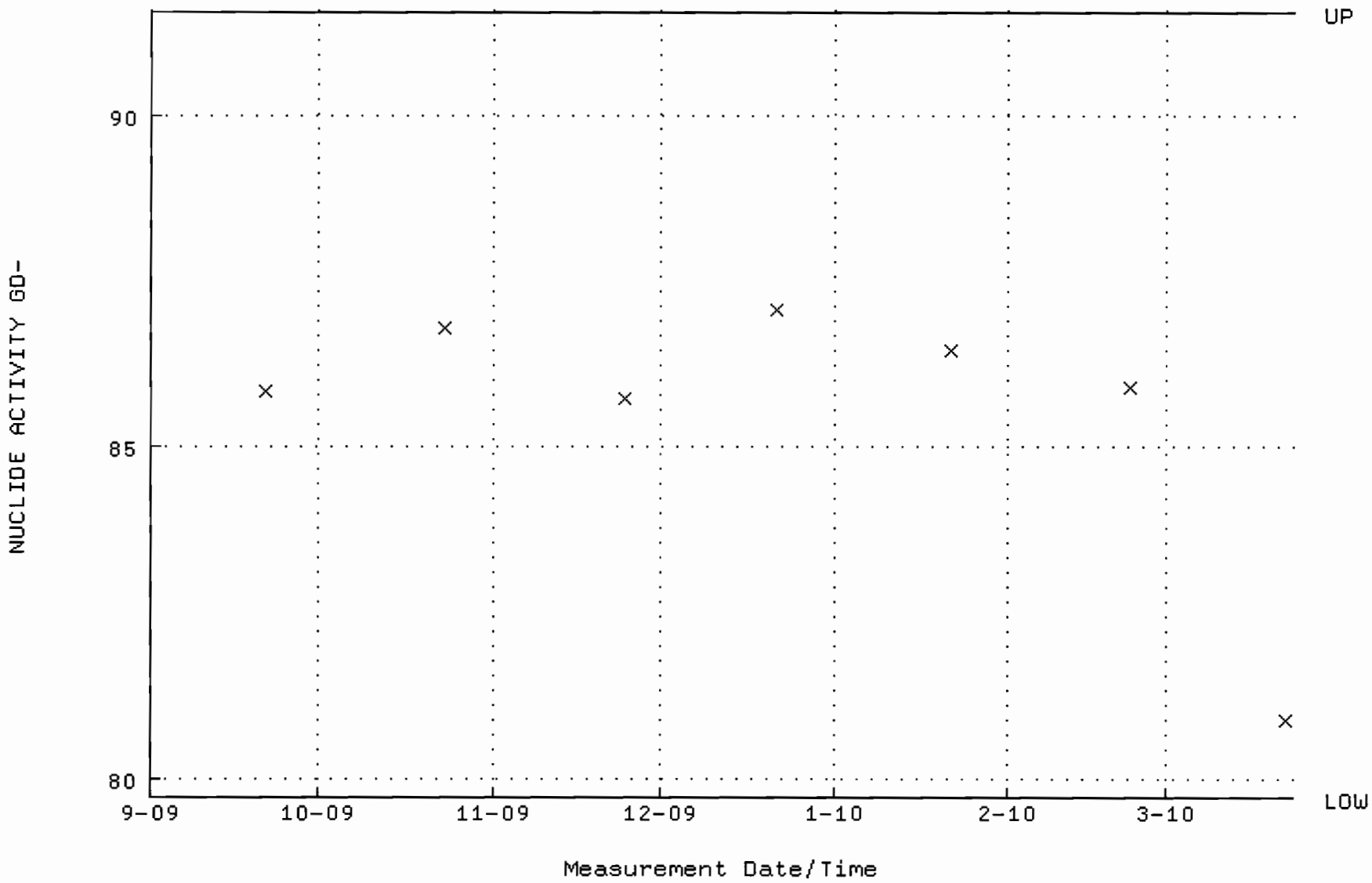

QA filename : DKA100:[ENV_ALPHA.QA.B]B208.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:47:38 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

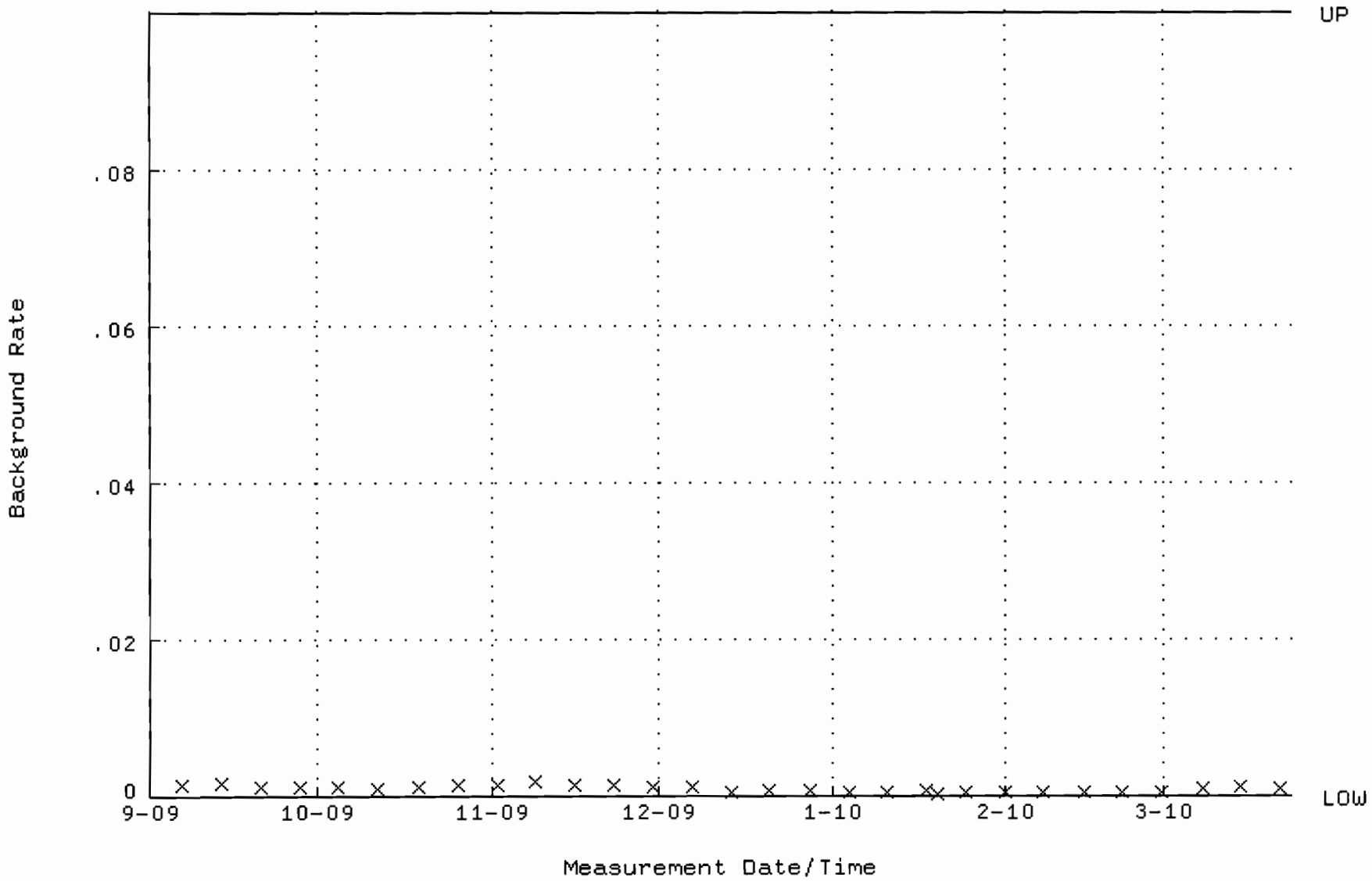

QA filename : DKA100:[ENV_ALPHA.QA.W]W220.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:37:25 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.362894 through 0.398402

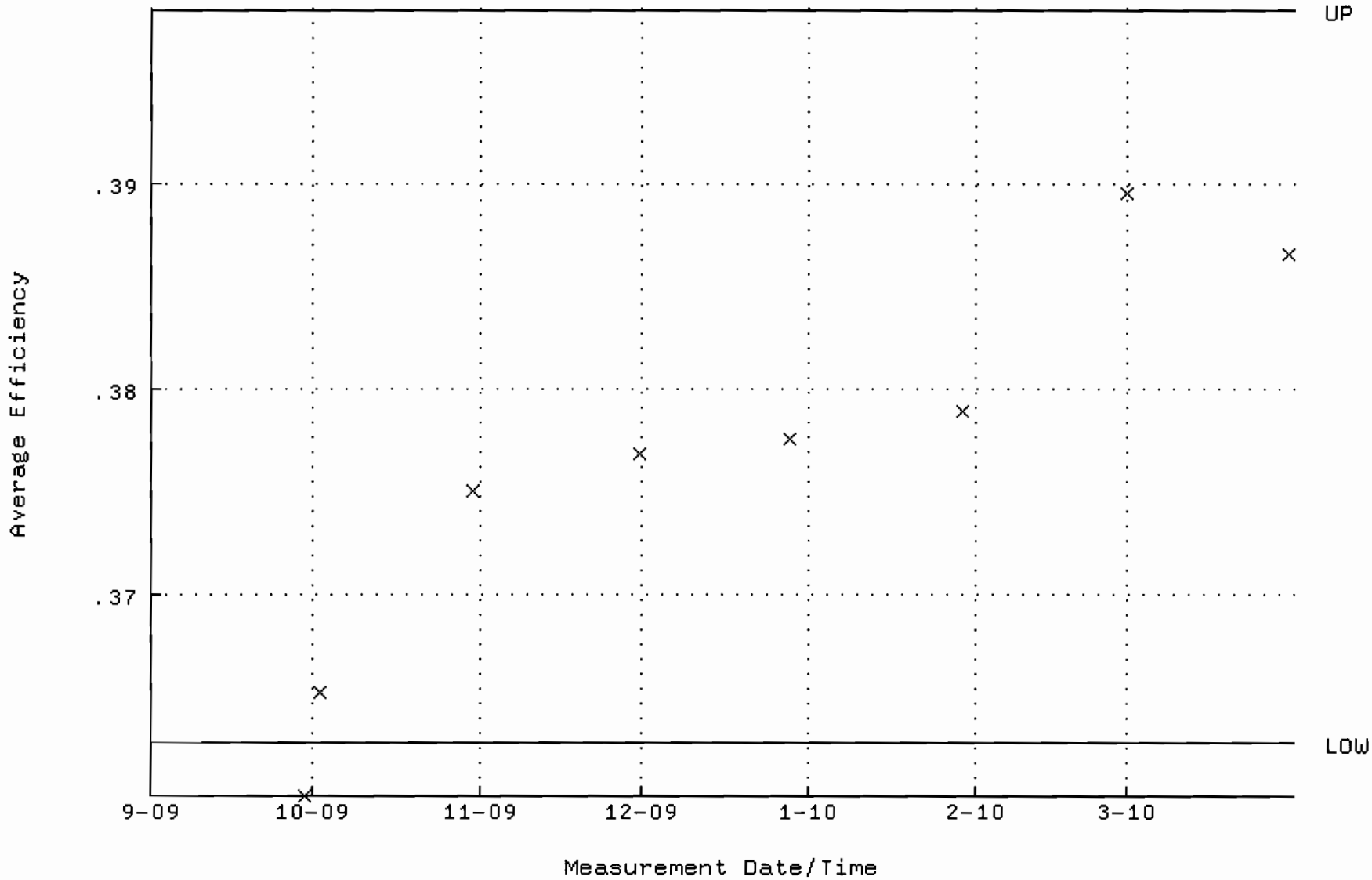

QA filename : DKA100:[ENV_ALPHA.QA.W]W220.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:37:25 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 87.1542 through 94.9022

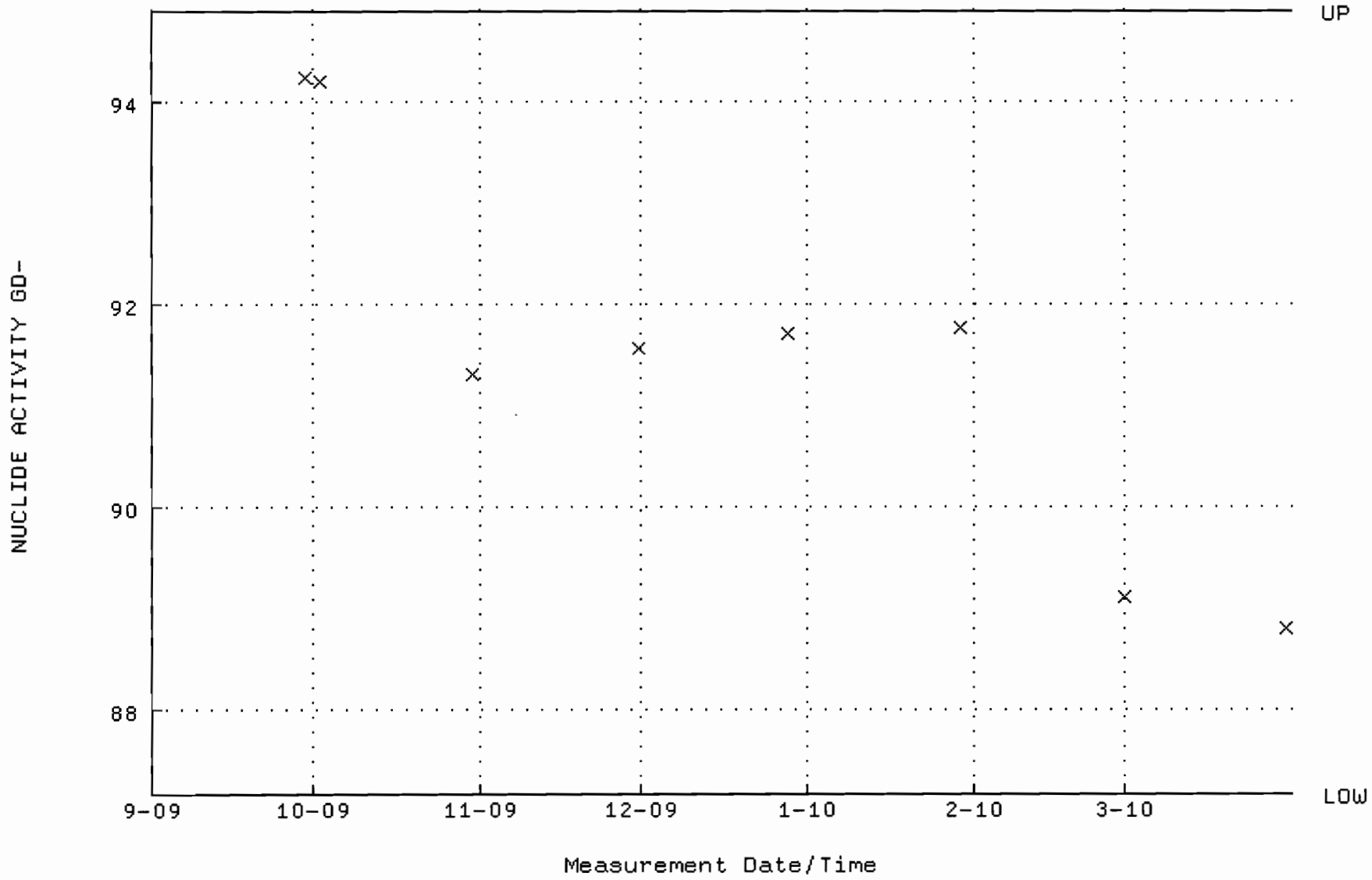

QA filename : DKA100:[ENV_ALPHA.QA.B]B220.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:49:11 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

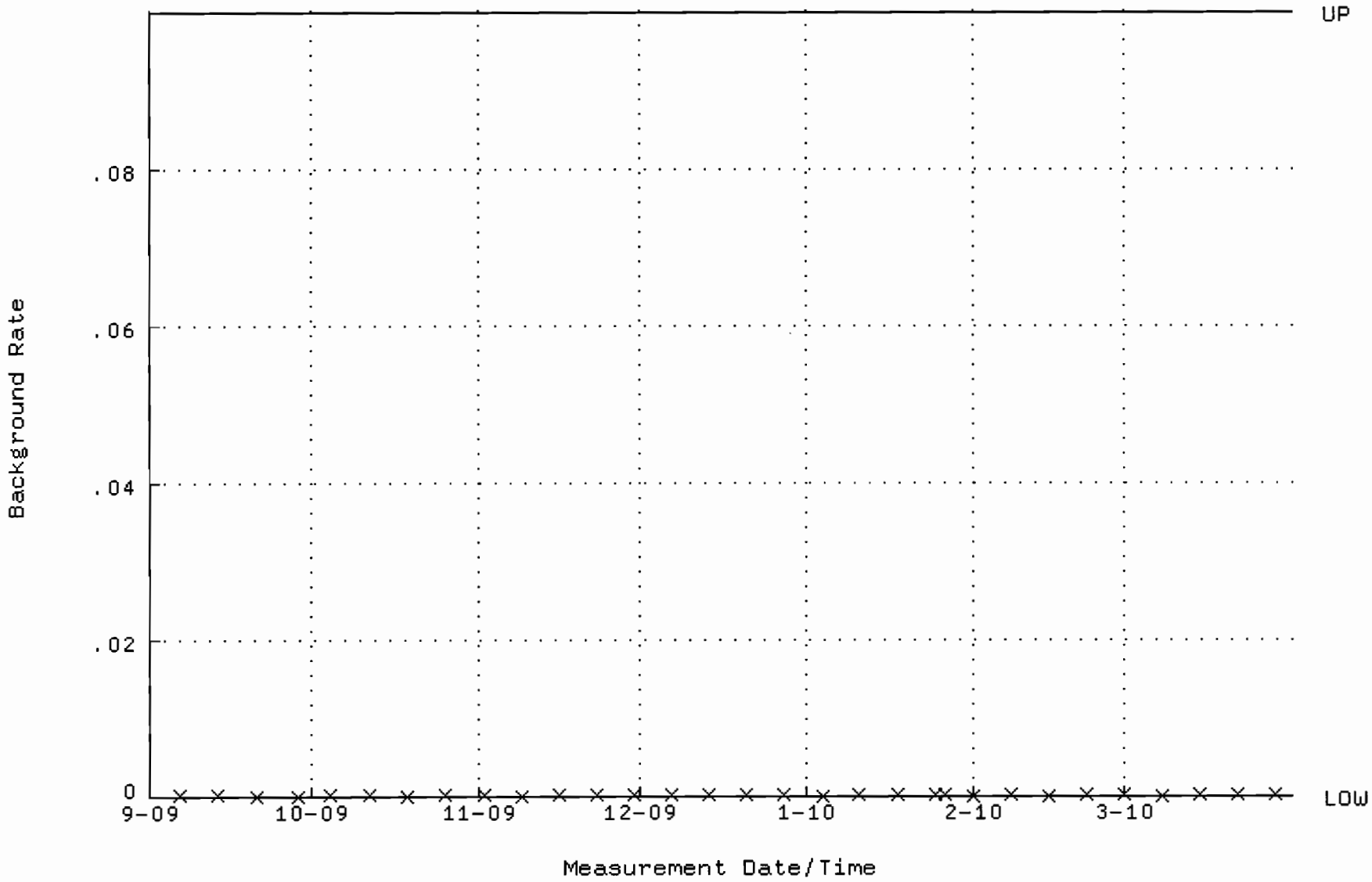

QA filename : DKA100:[ENV_ALPHA.QA.W]W221.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:37:31 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.354487 through 0.403989

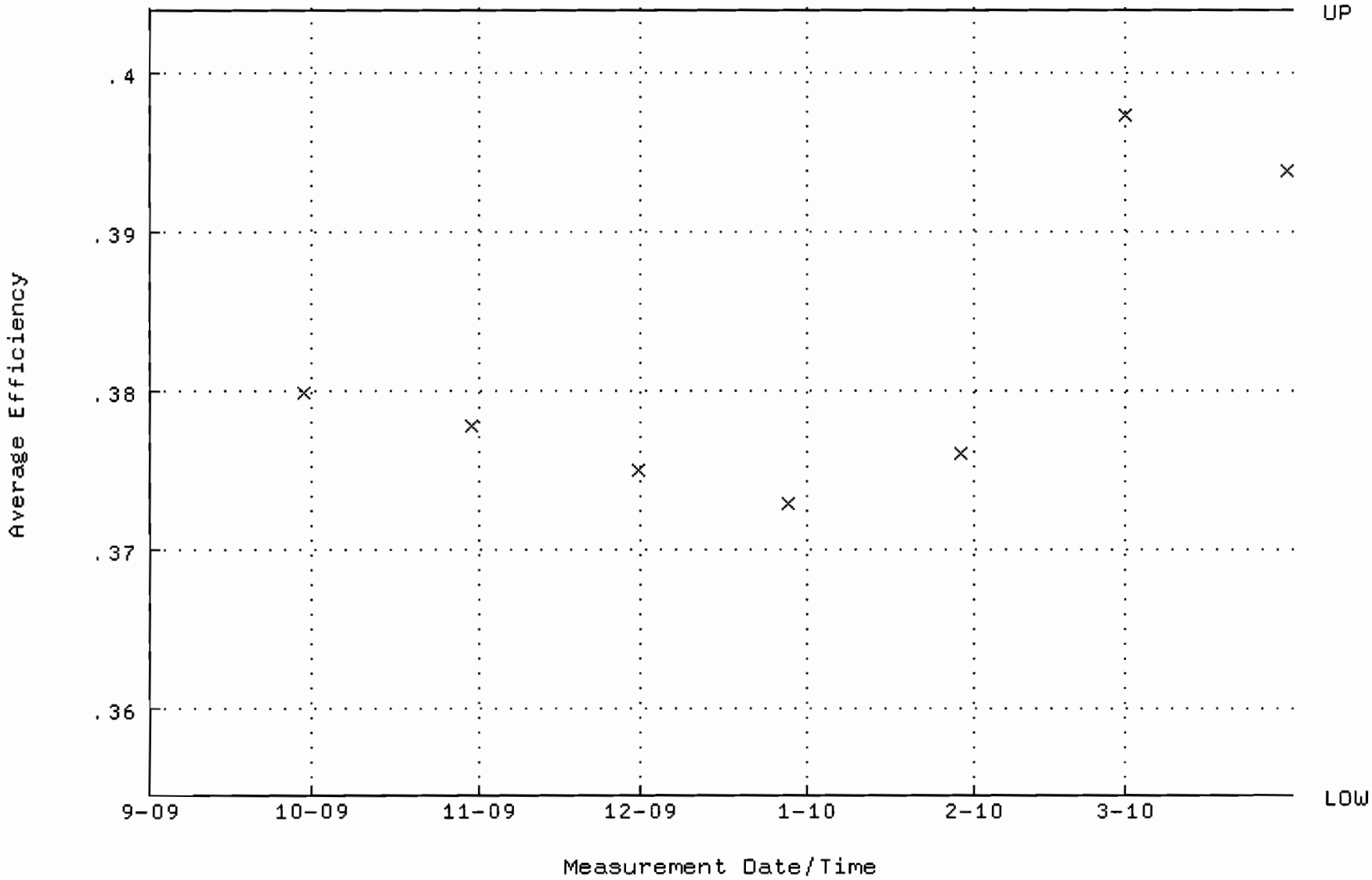

QA filename : DKA100:[ENV_ALPHA.QA.W]W221.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:37:31 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 85.0275 through 96.2669

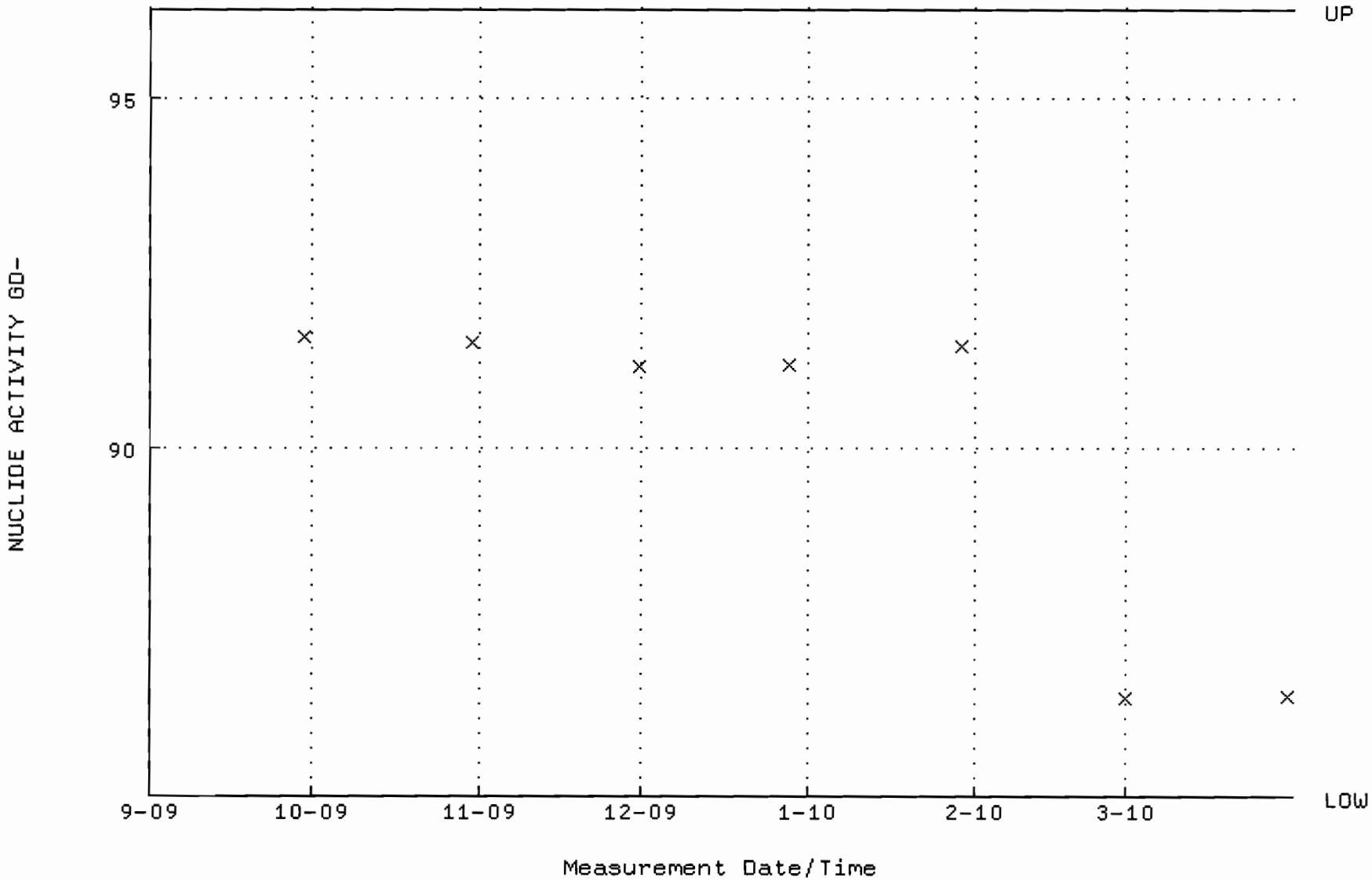

QA filename : DKA100:[ENV_ALPHA.QA.B]B221.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:49:16 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

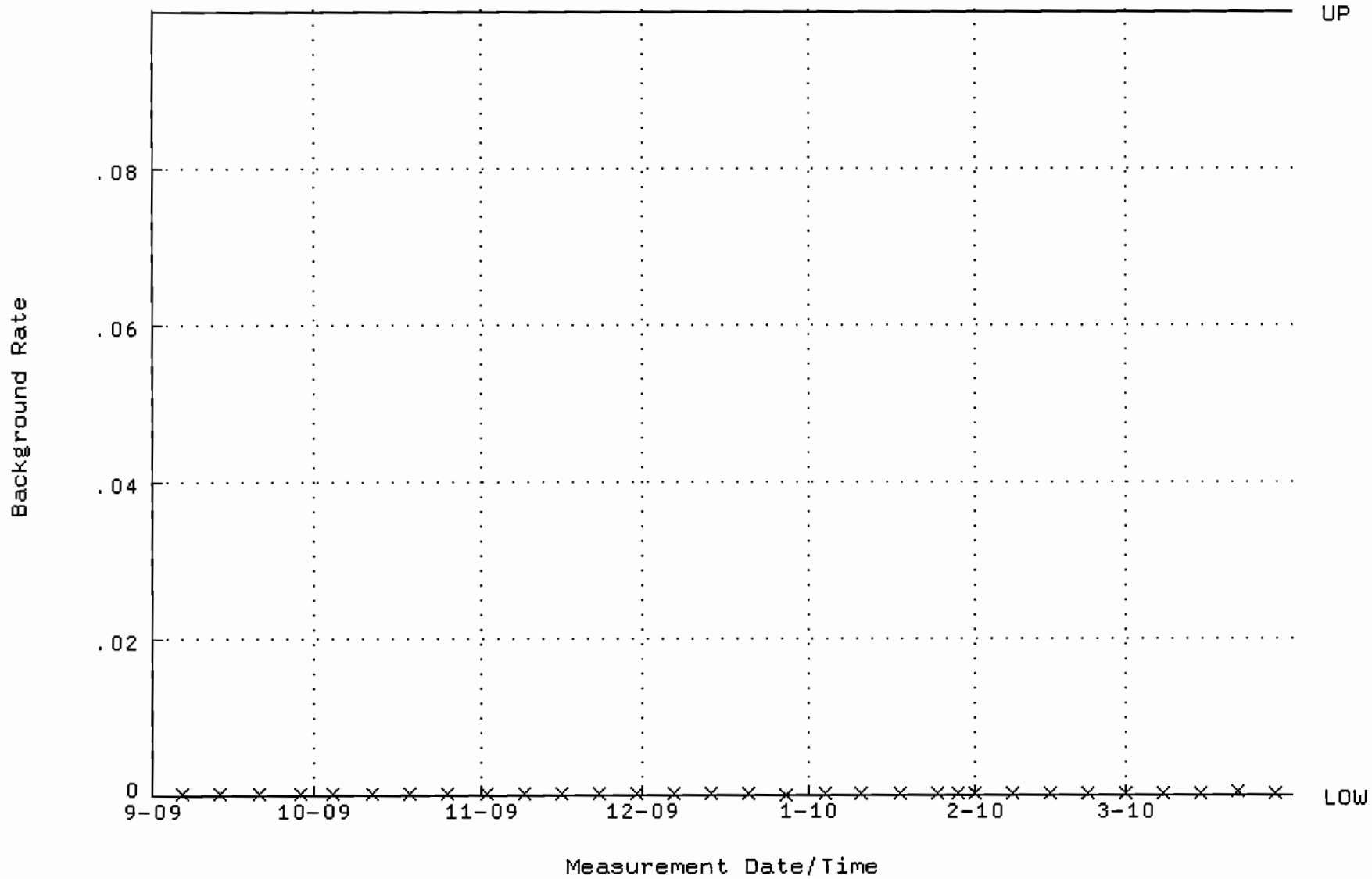

QA filename : DKA100:[ENV_ALPHA.QA.W]W222.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:37:37 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.325585 through 0.400497

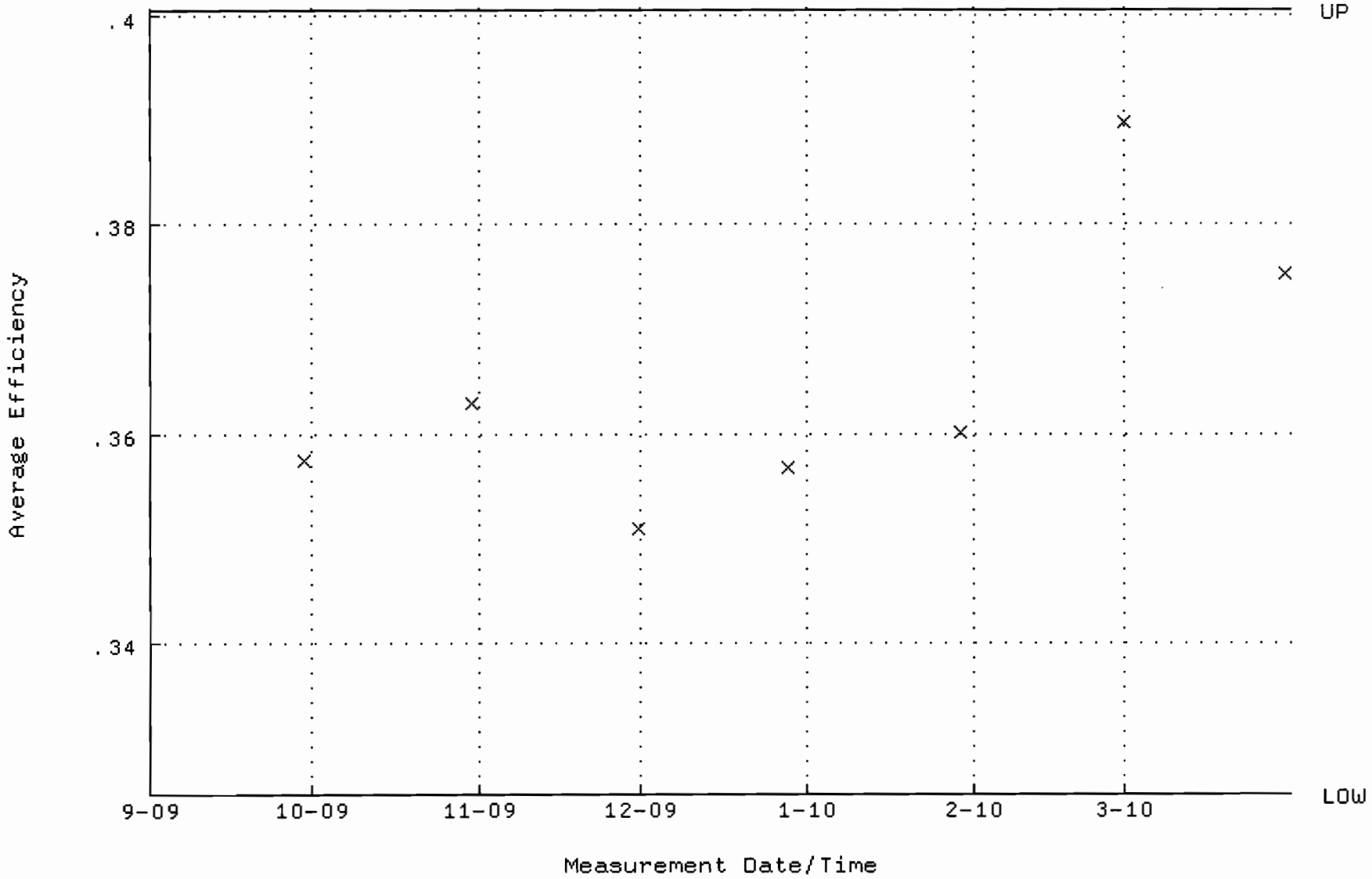

QA filename : DKA100:[ENV_ALPHA.QA.W]W222.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:37:37 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.6821 through 94.0551

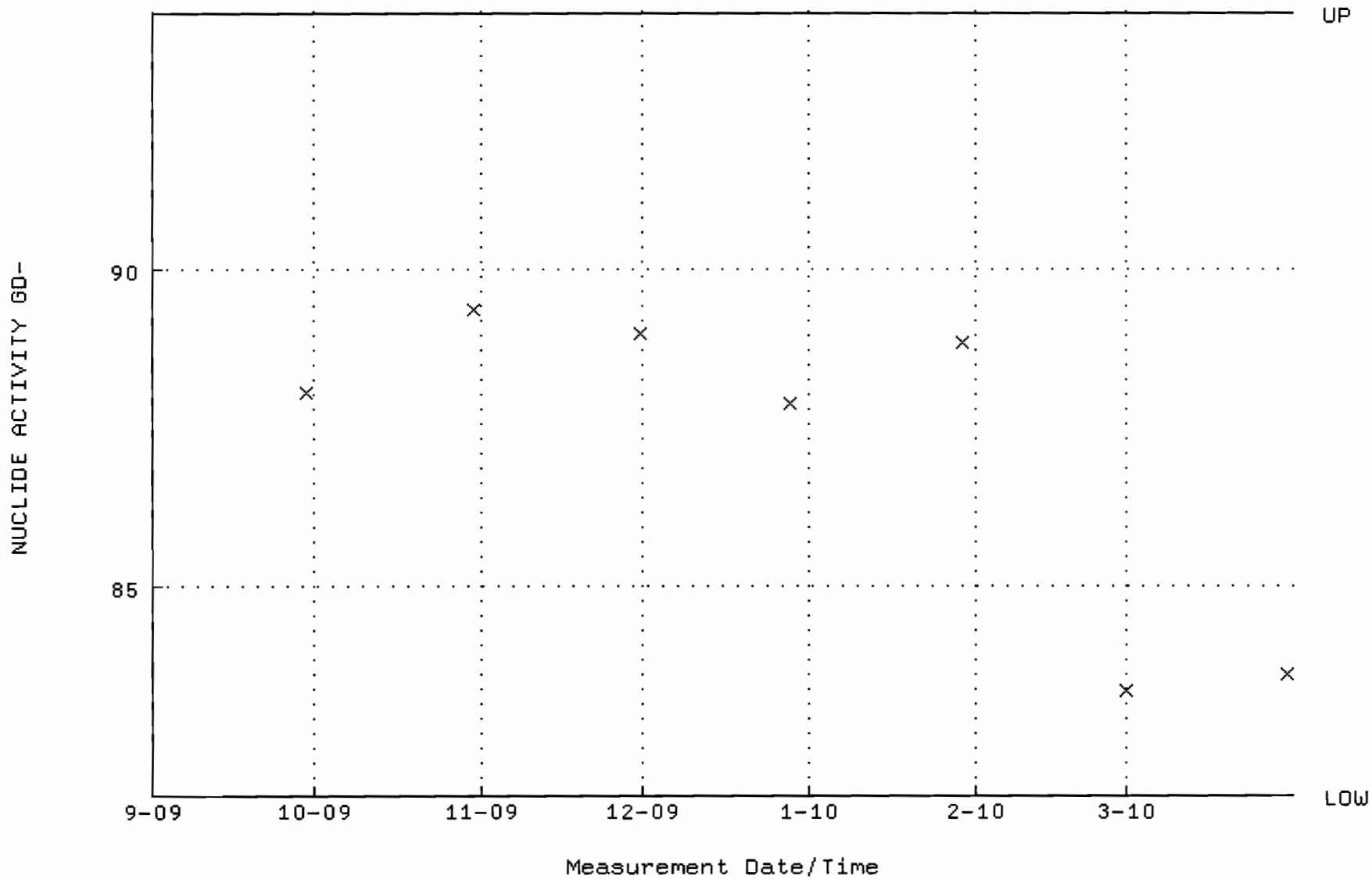

QA filename : DKA100:[ENV_ALPHA.QA.B]B222.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:49:20 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

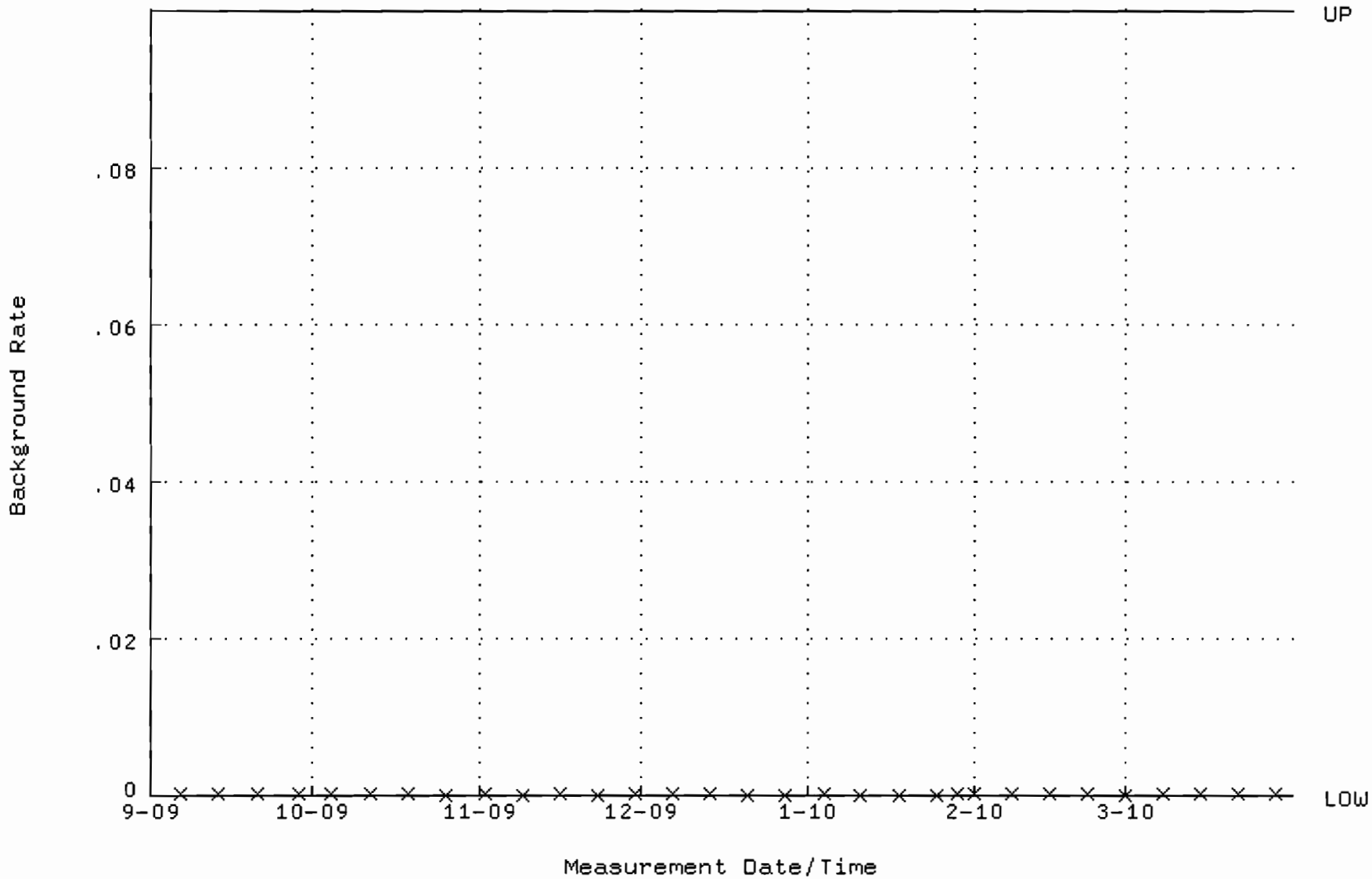

QA filename : DKA100:[ENV_ALPHA.QA.W]W223.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:37:43 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.344809 through 0.403131

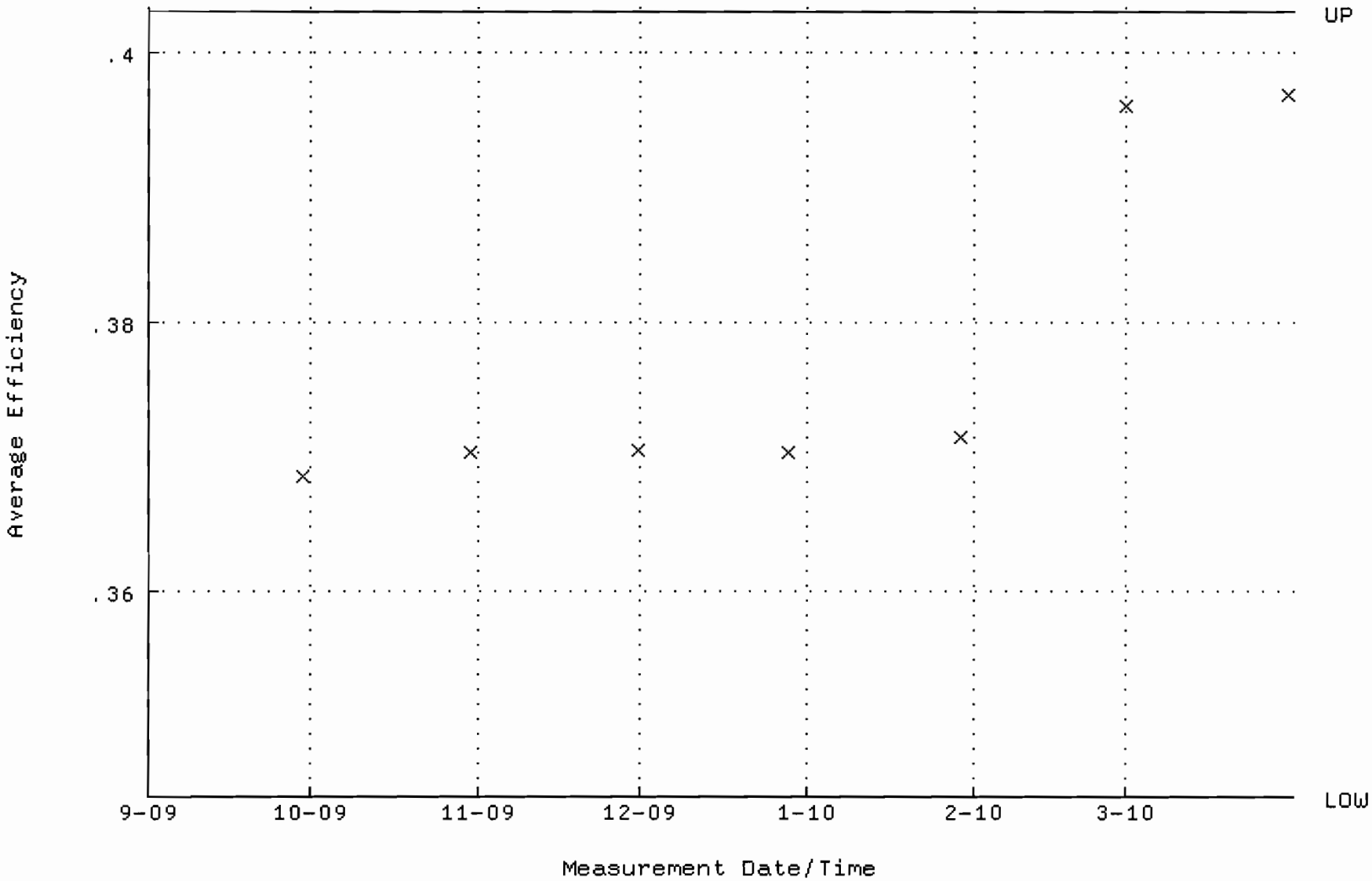

QA filename : DKA100:[ENV_ALPHA.QA.W]W223.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:37:43 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 85.7275 through 101.456

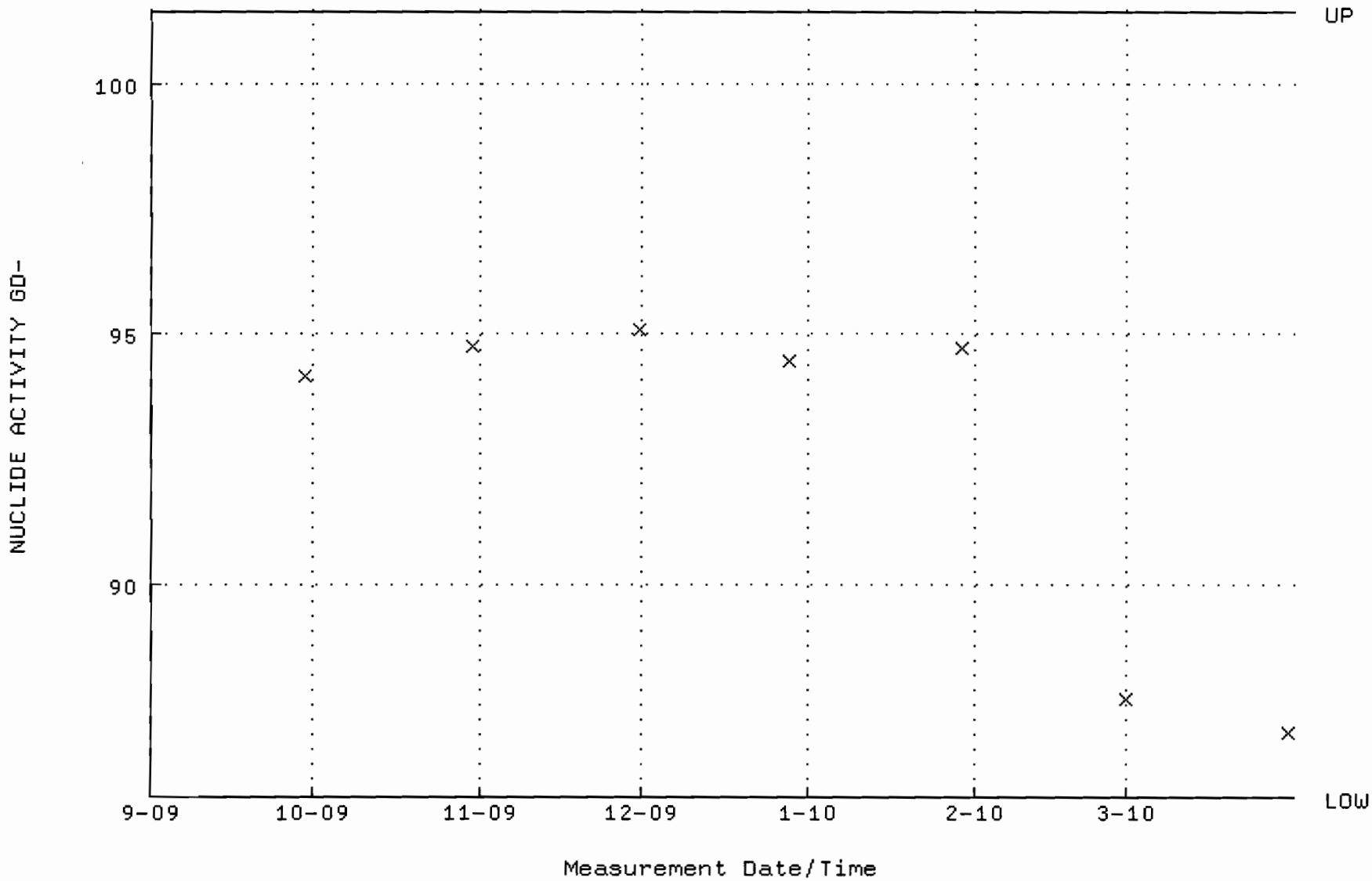

QA filename : DKA100:[ENV_ALPHA.QA.B]B223.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:49:25 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

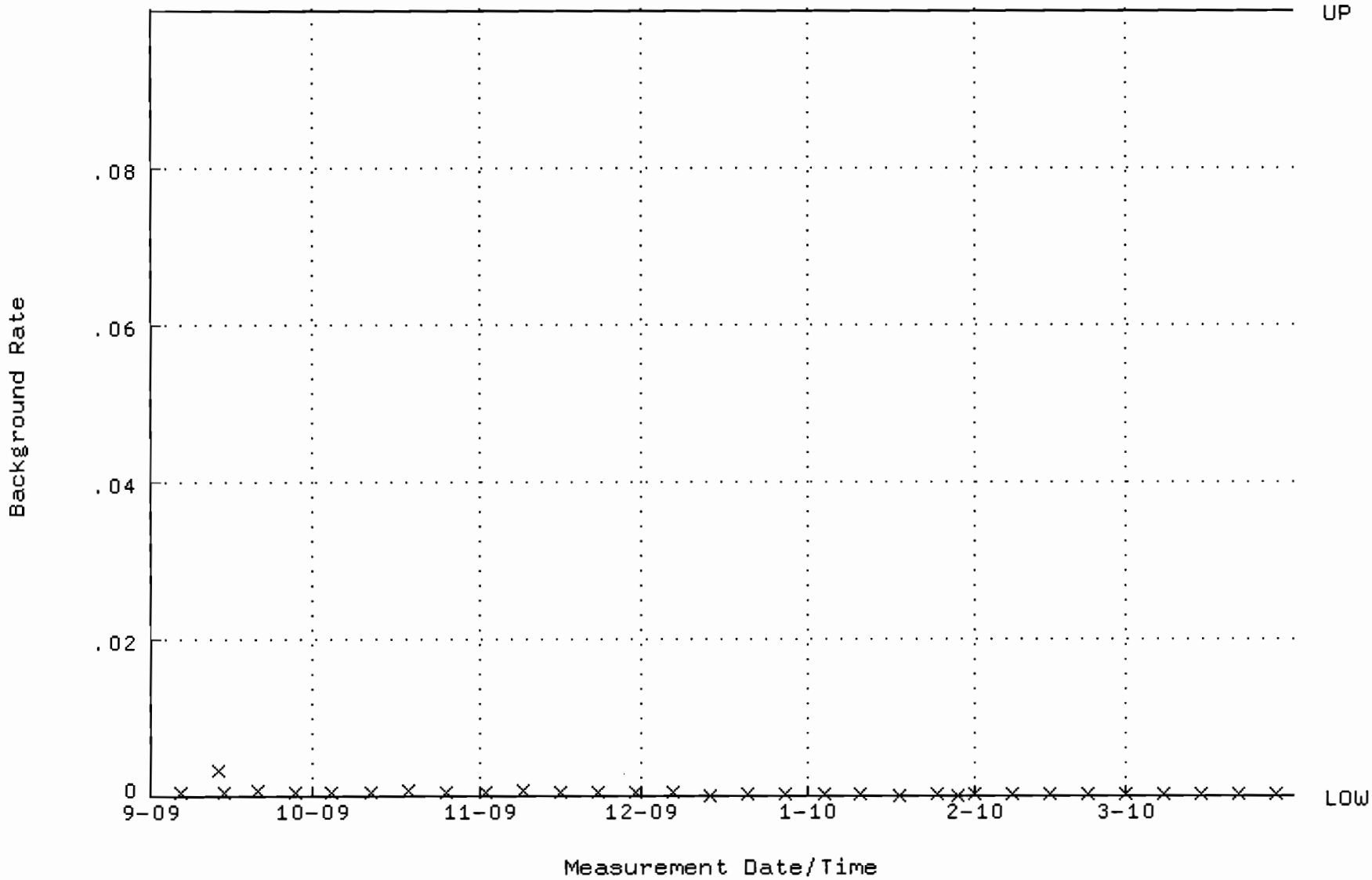

QA filename : DKA100:[ENV_ALPHA.QA.W]W224.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:37:48 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.370149 through 0.389511

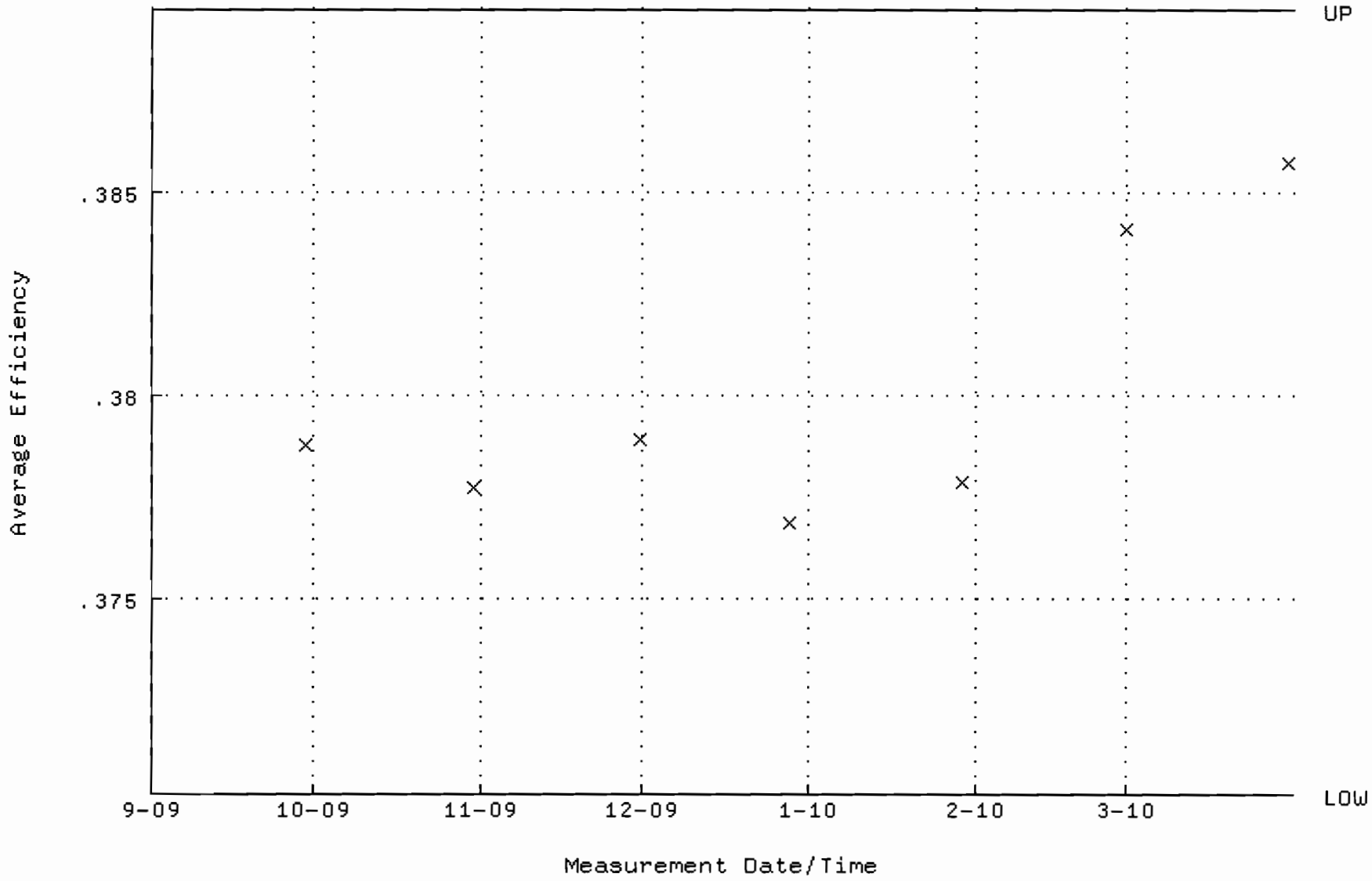

QA filename : DKA100:[ENV_ALPHA.QA.W]W224.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:37:48 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 85.5747 through 92.5537

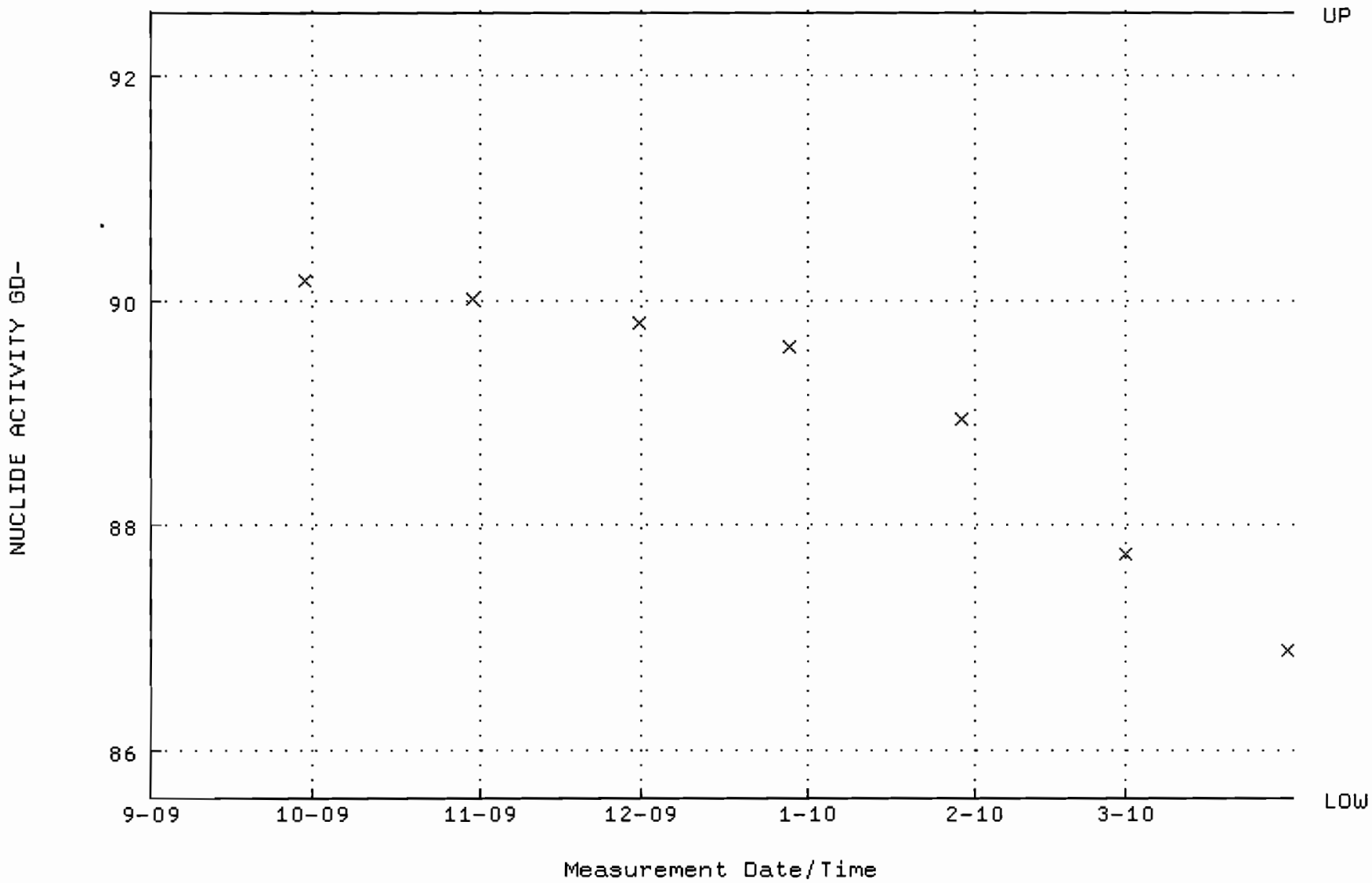

QA filename : DKA100:[ENV_ALPHA.QA.B]B224.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:49:30 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

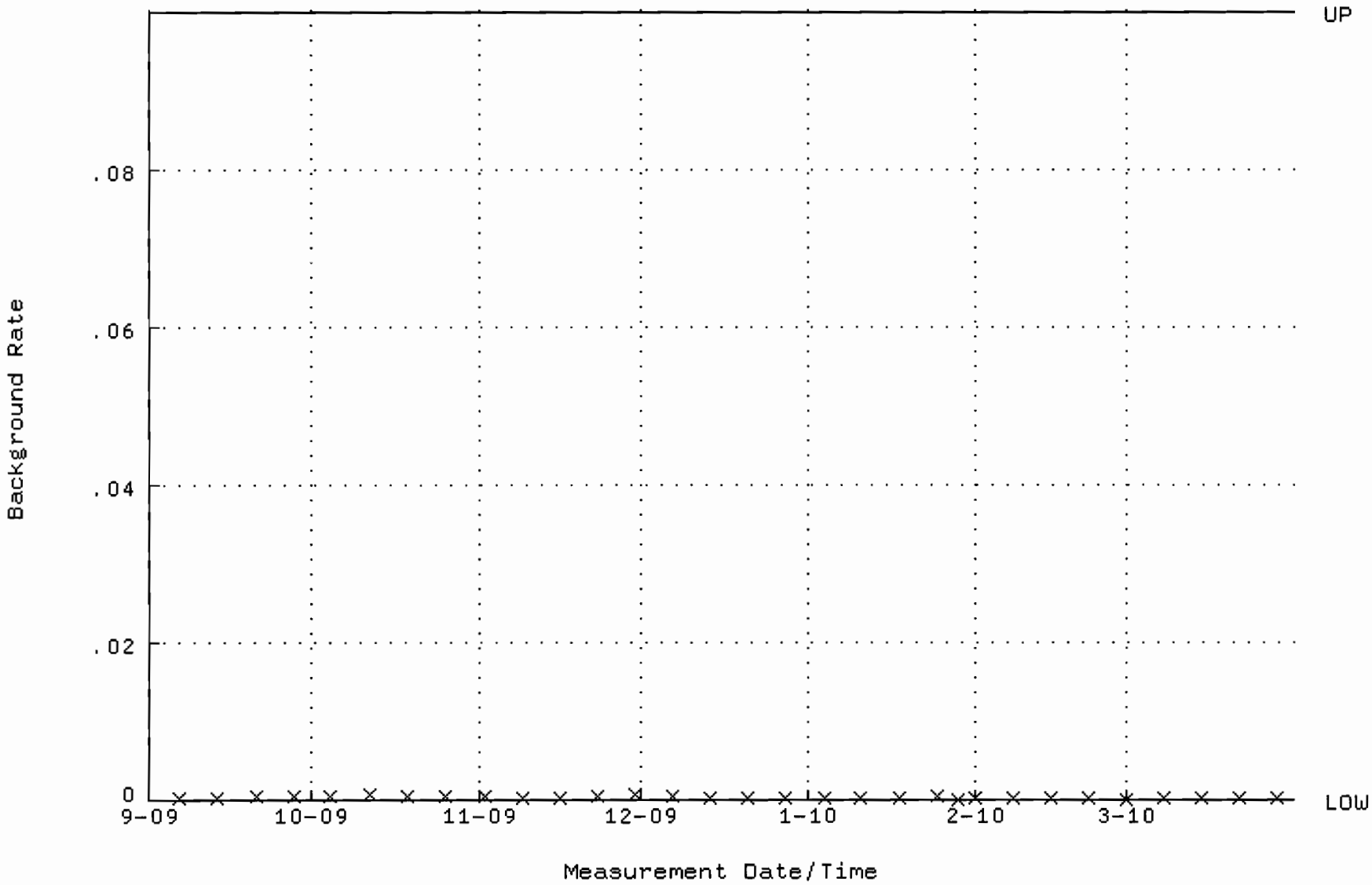

QA filename : DKA100:[ENV_ALPHA.QA.W]W225.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:37:53 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.382792 through 0.399070

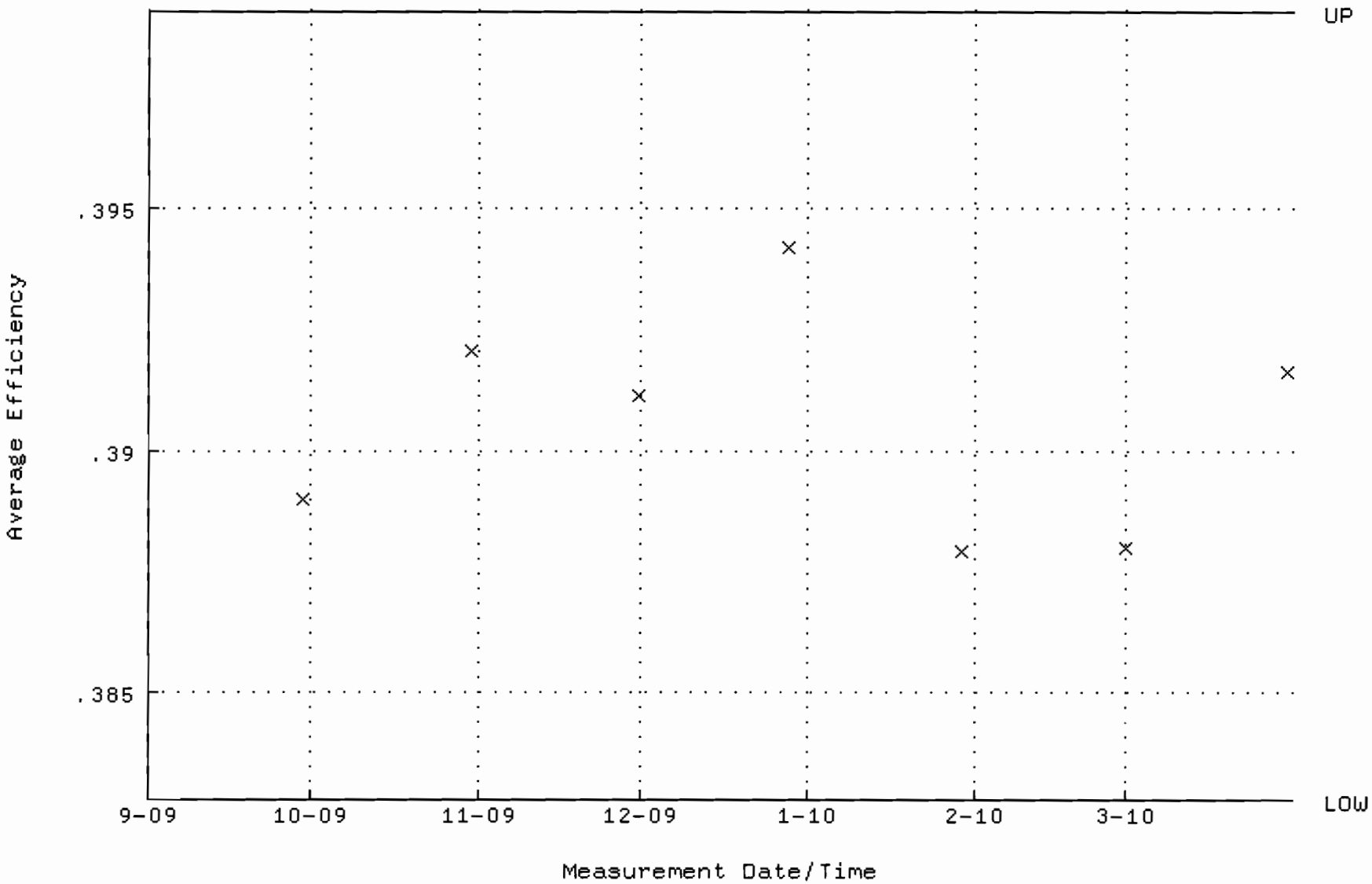

QA filename : DKA100:[ENV_ALPHA.QA.W]W225.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:37:53 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 87.8853 through 90.5875

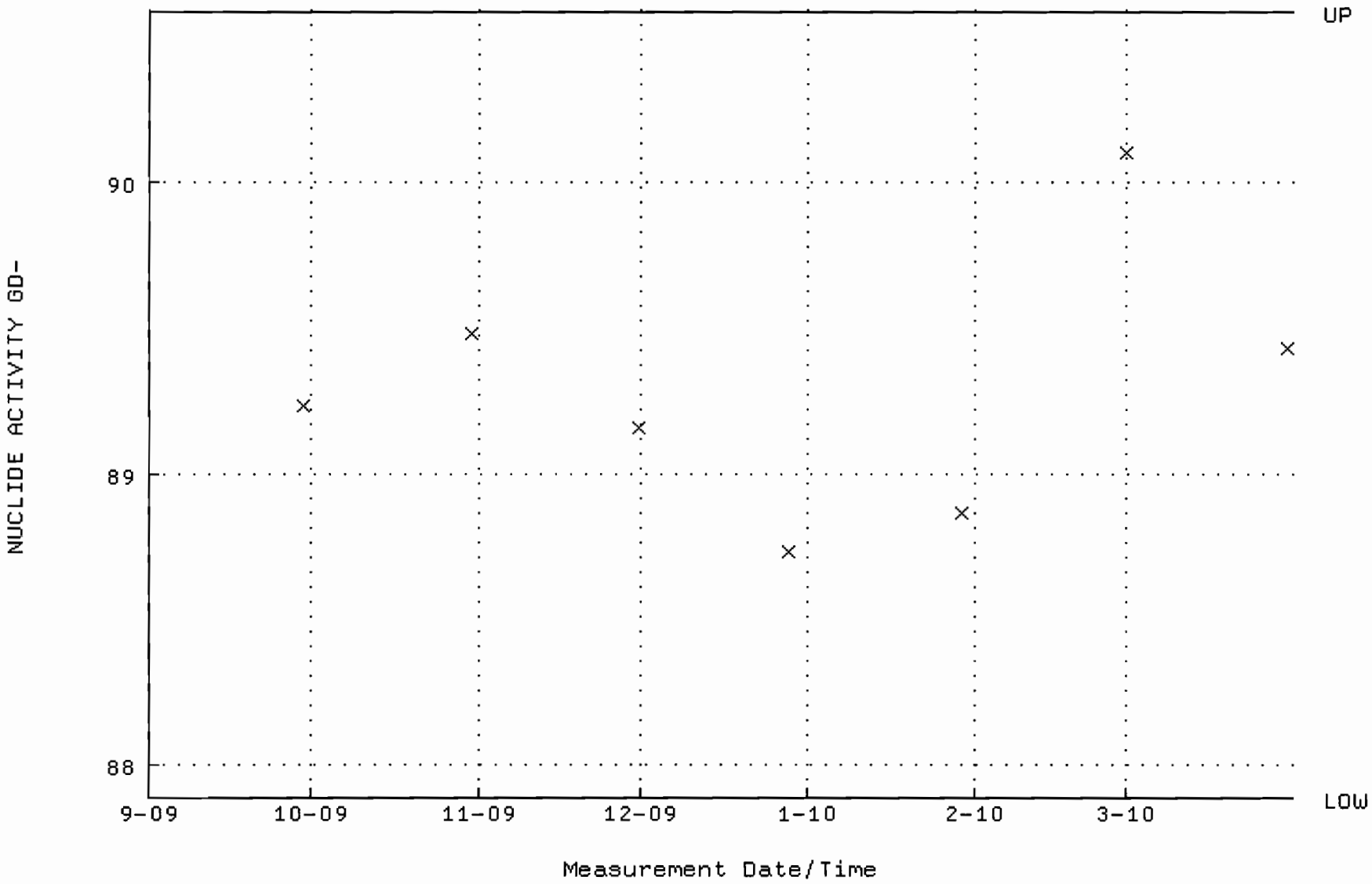

QA filename : DKA100:[ENV_ALPHA.QA.B]B225.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:49:35 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

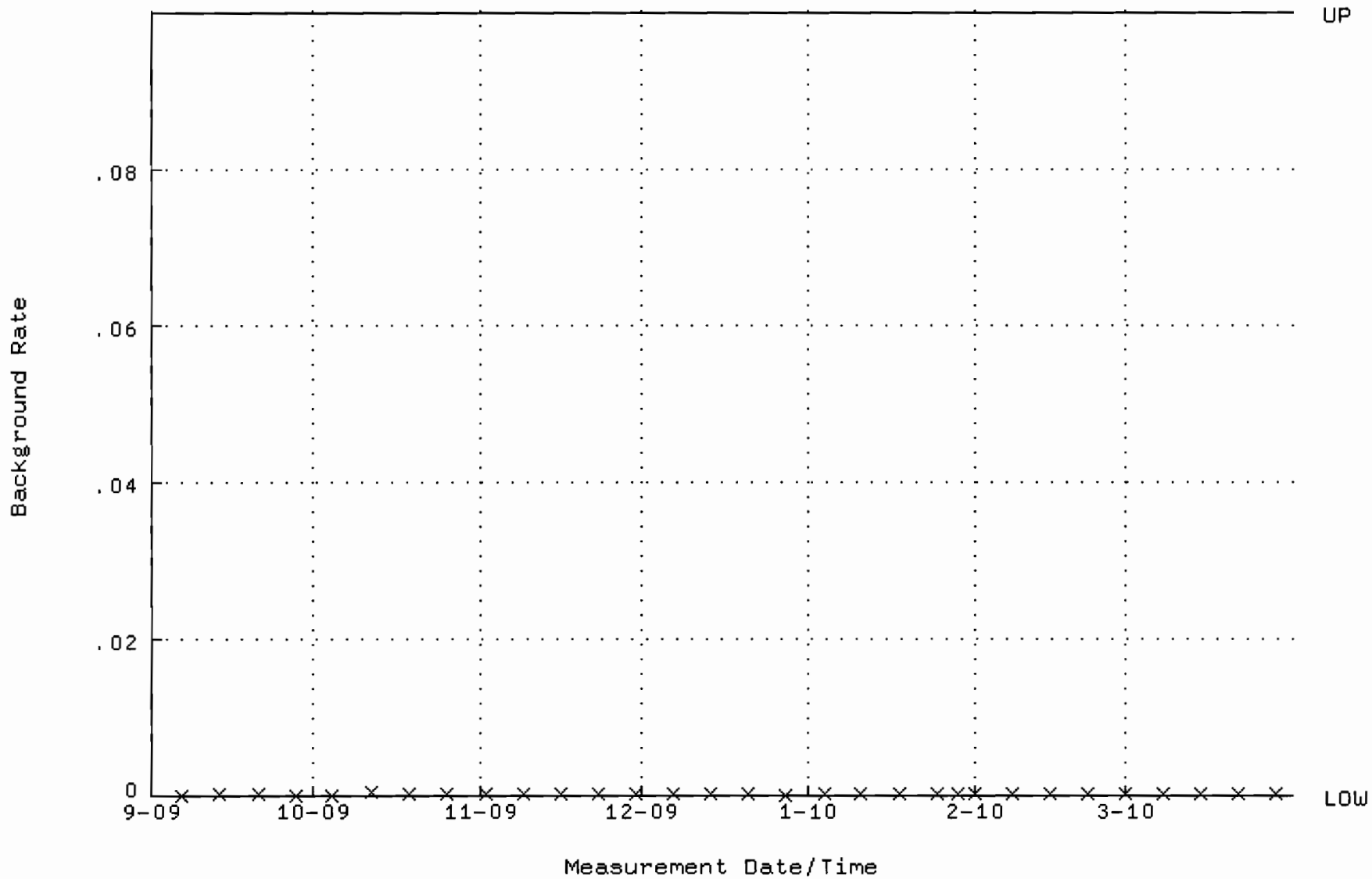

QA filename : DKA100:[ENV_ALPHA.QA.W]W226.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:37:58 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.357039 through 0.394215

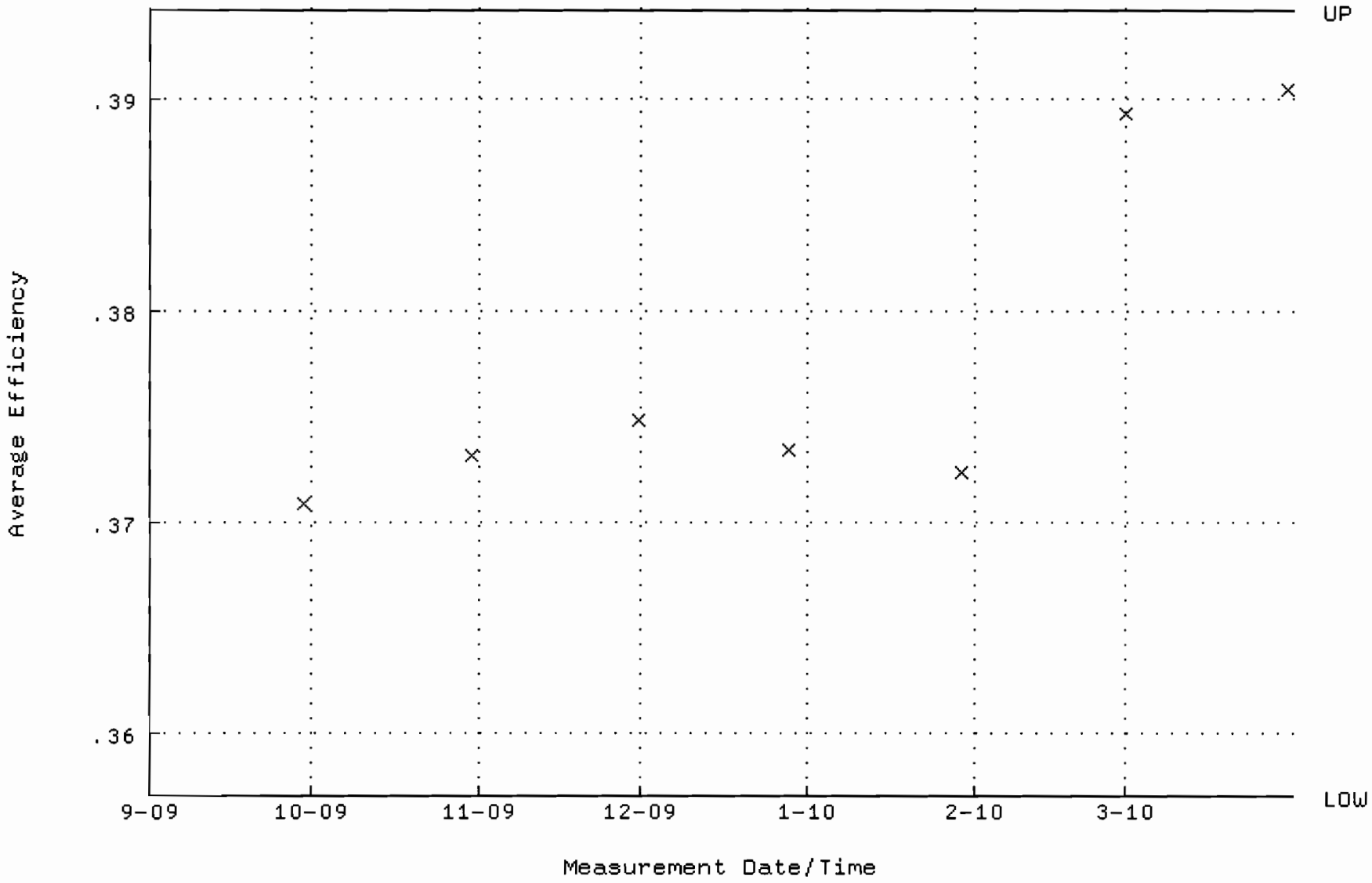

QA filename : DKA100:[ENV_ALPHA.QA.W]W226.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:37:58 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 86.7273 through 95.1093

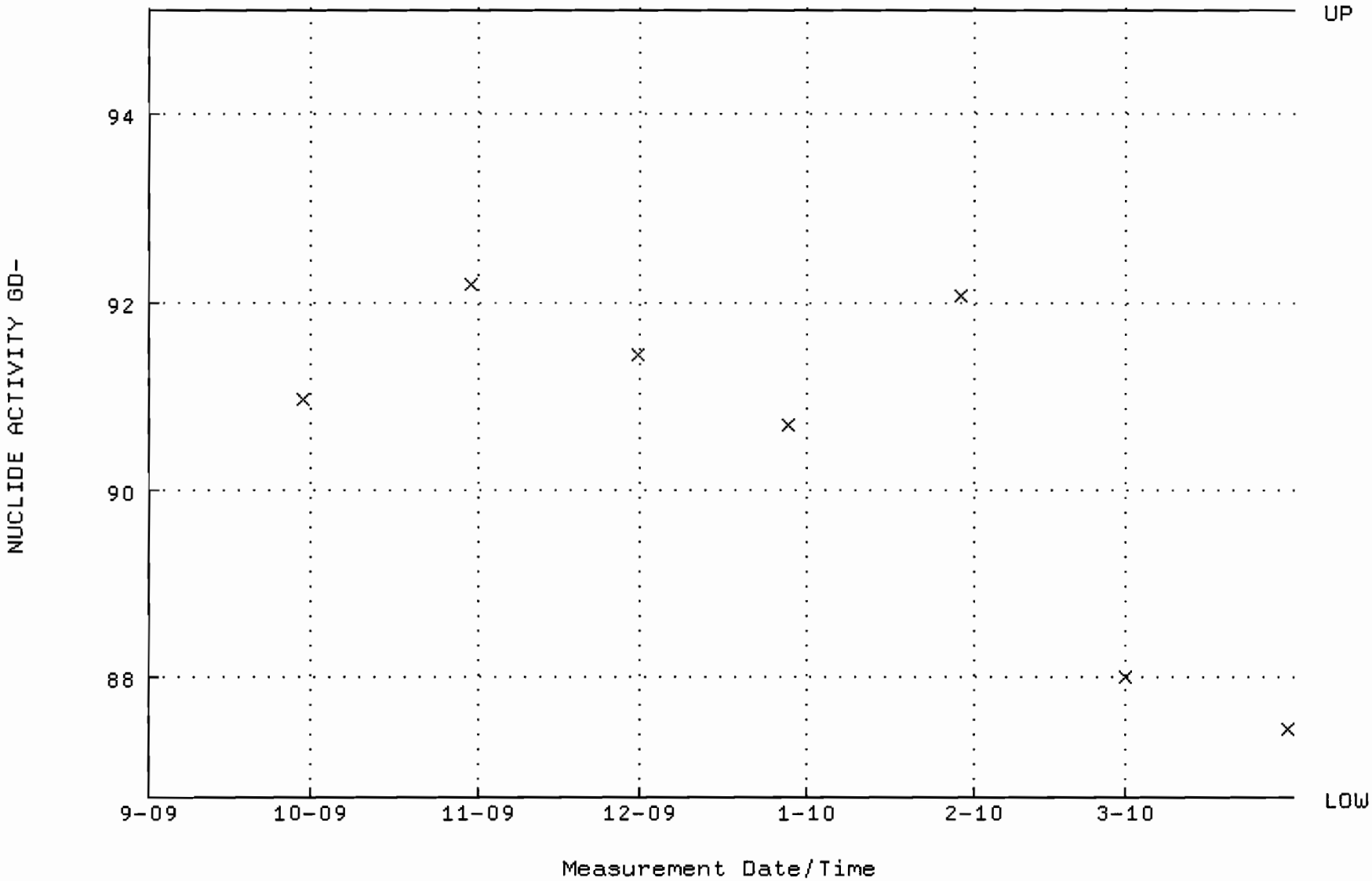

QA filename : DKA100:[ENV_ALPHA.QA.B]B226.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:49:39 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

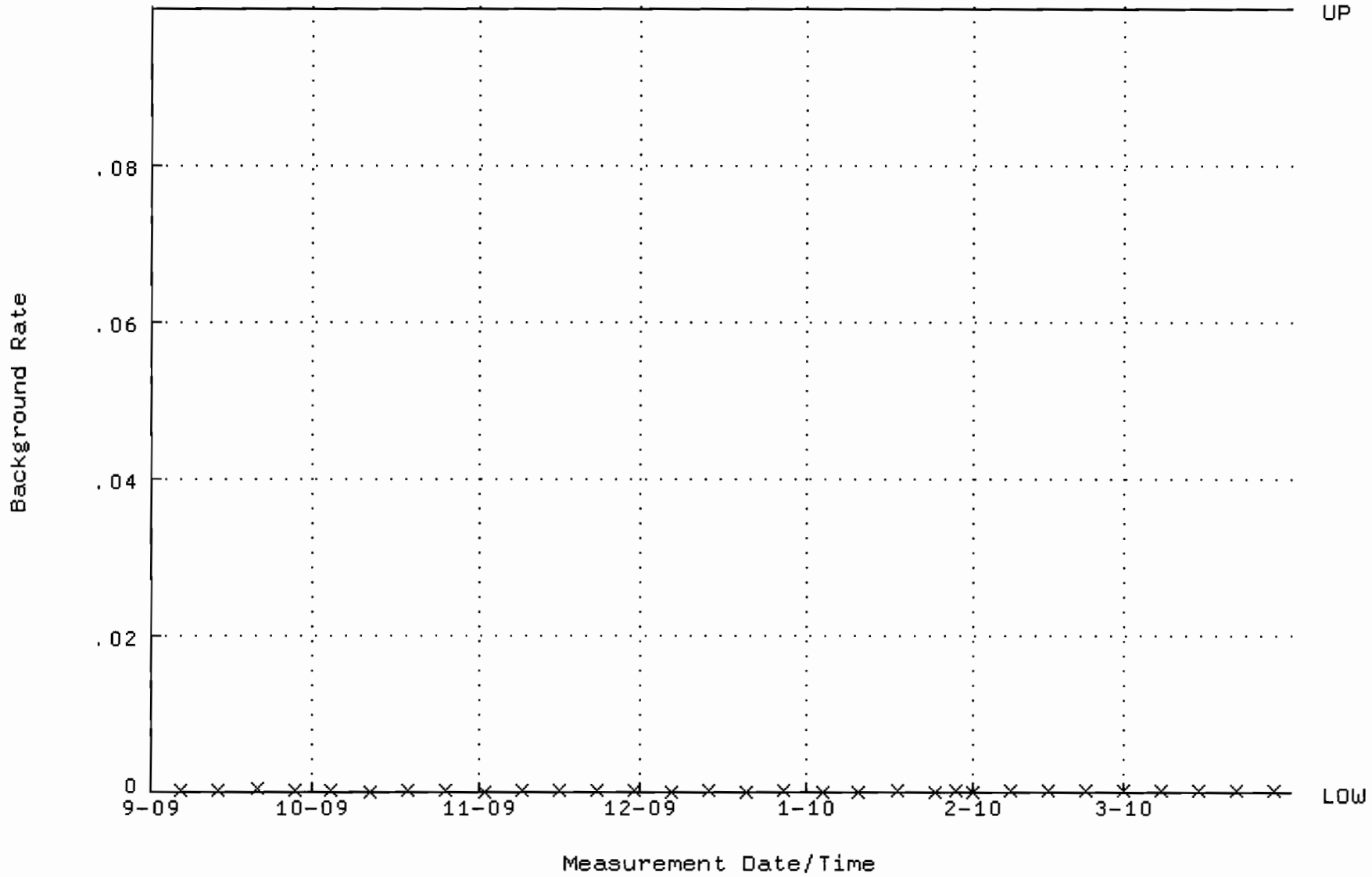

QA filename : DKA100:[ENV_ALPHA.QA.W]W227.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:04 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.379260 through 0.392050

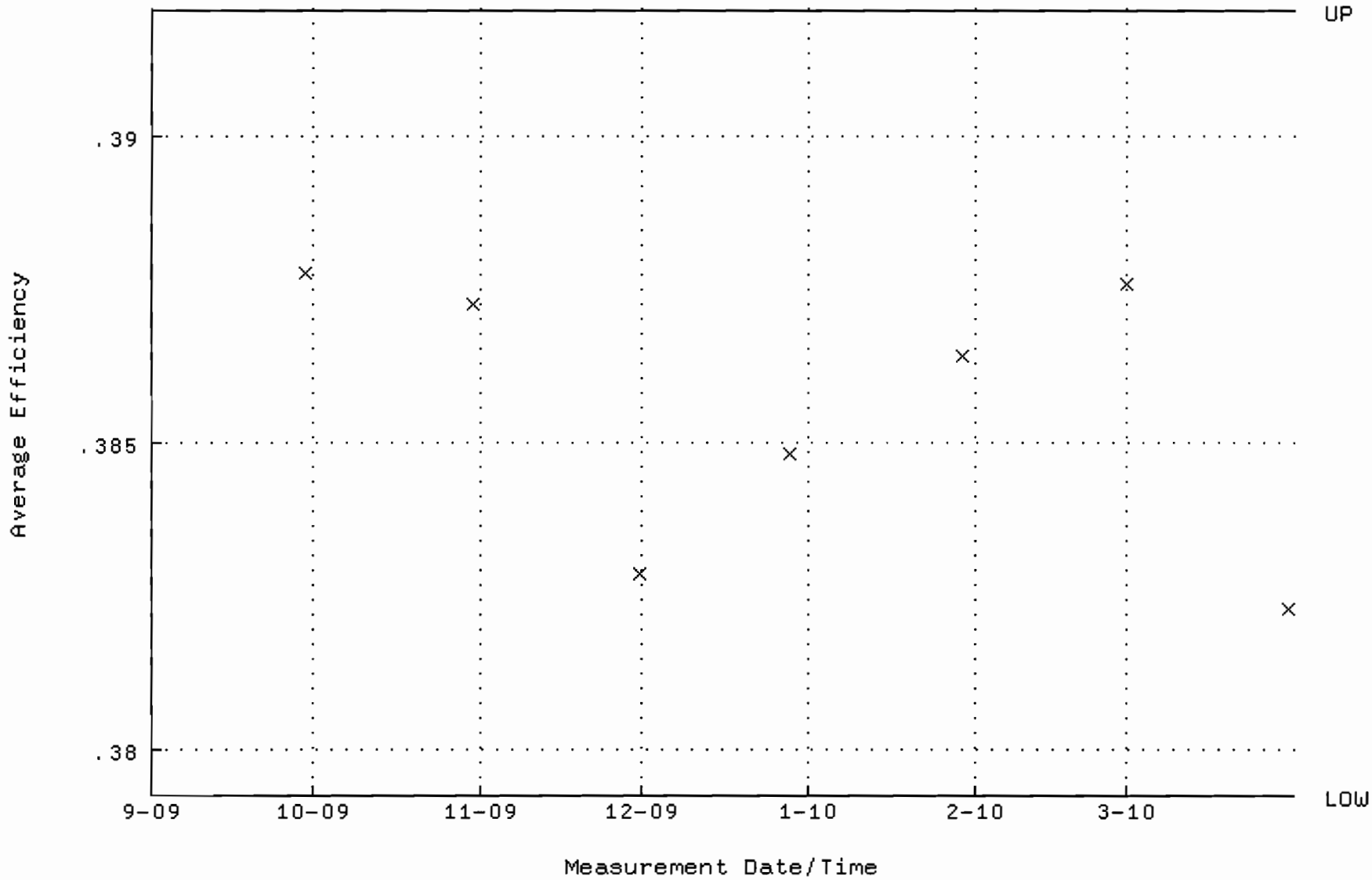

QA filename : DKA100:[ENV_ALPHA.QA.W]W227.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:04 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 88.9145 through 89.8637

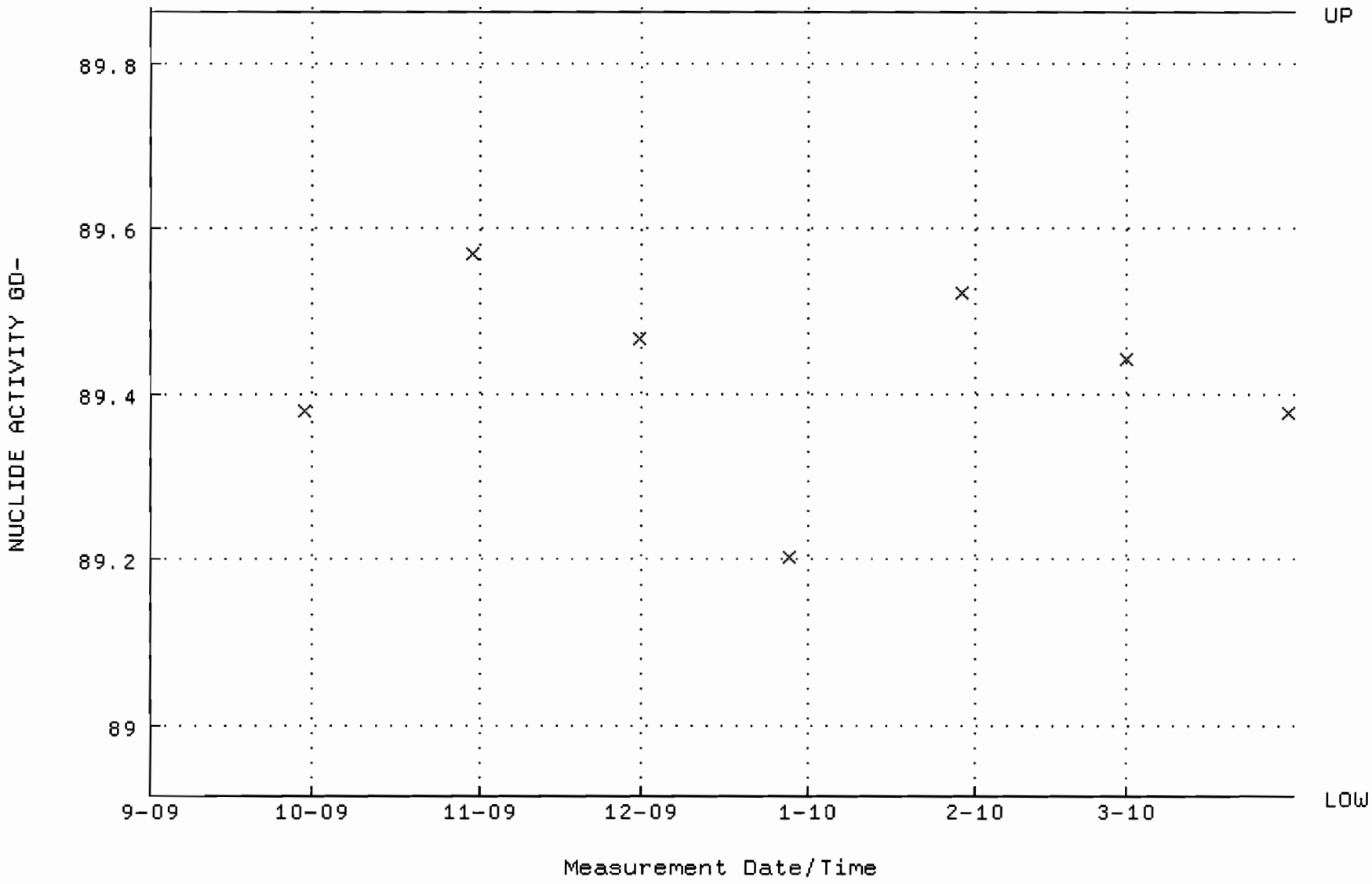

QA filename : DKA100:[ENV_ALPHA.QA.B]B227.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:49:45 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

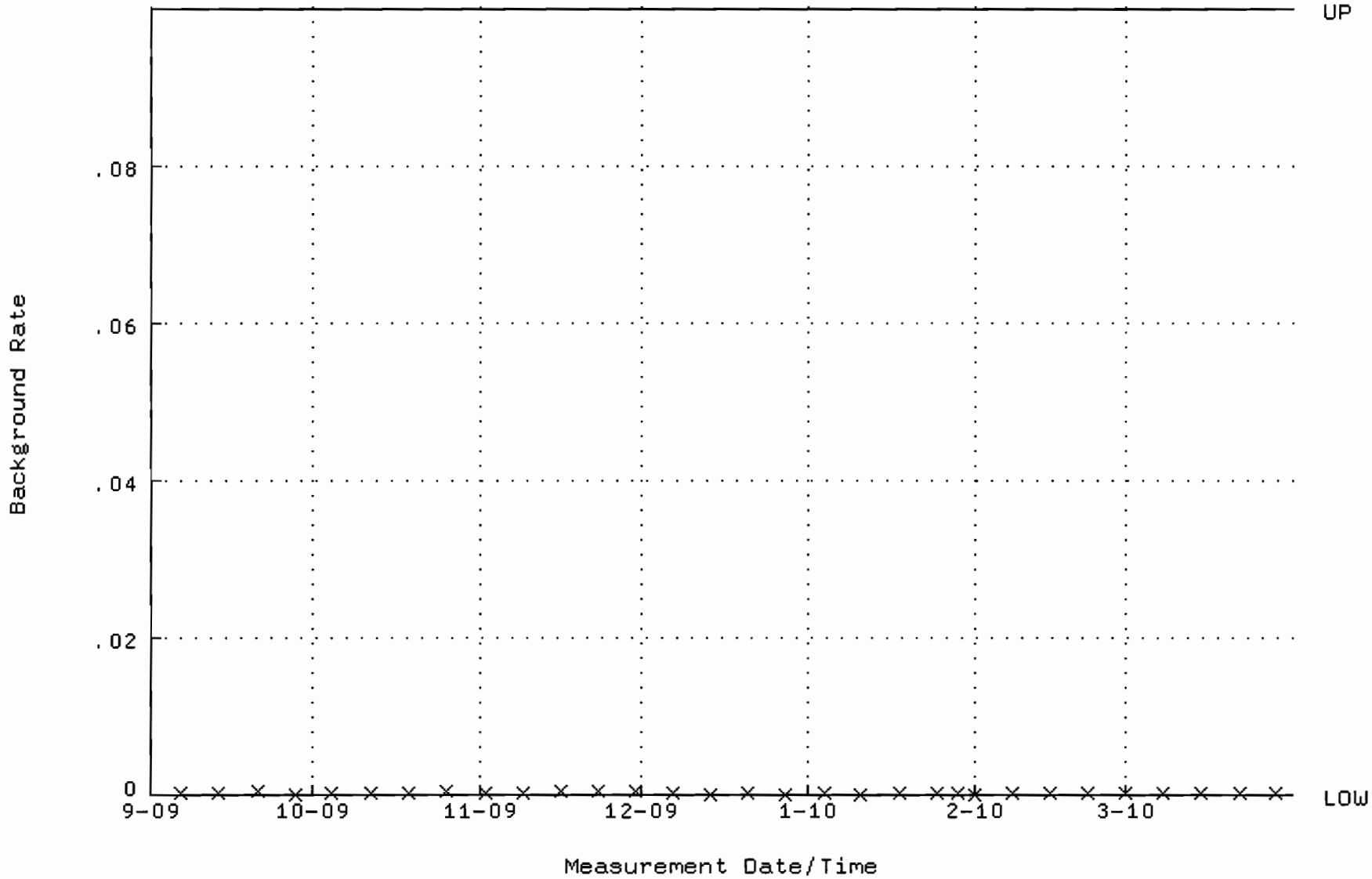

QA filename : DKA100:[ENV_ALPHA.QA.W]W228.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:09 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.359272 through 0.386096

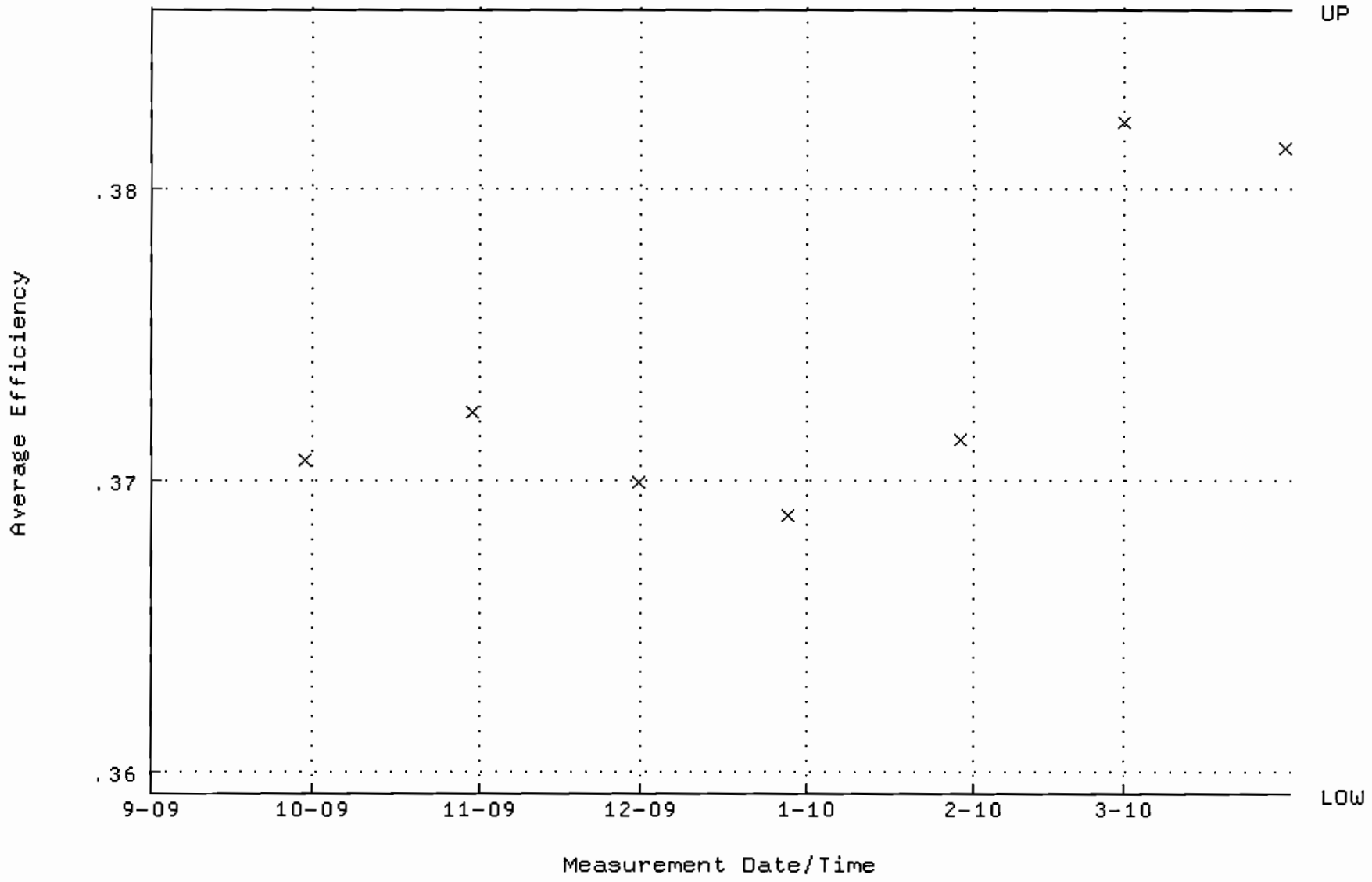

QA filename : DKA100:[ENV_ALPHA.QA.W]W228.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:09 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 87.8750 through 94.5380

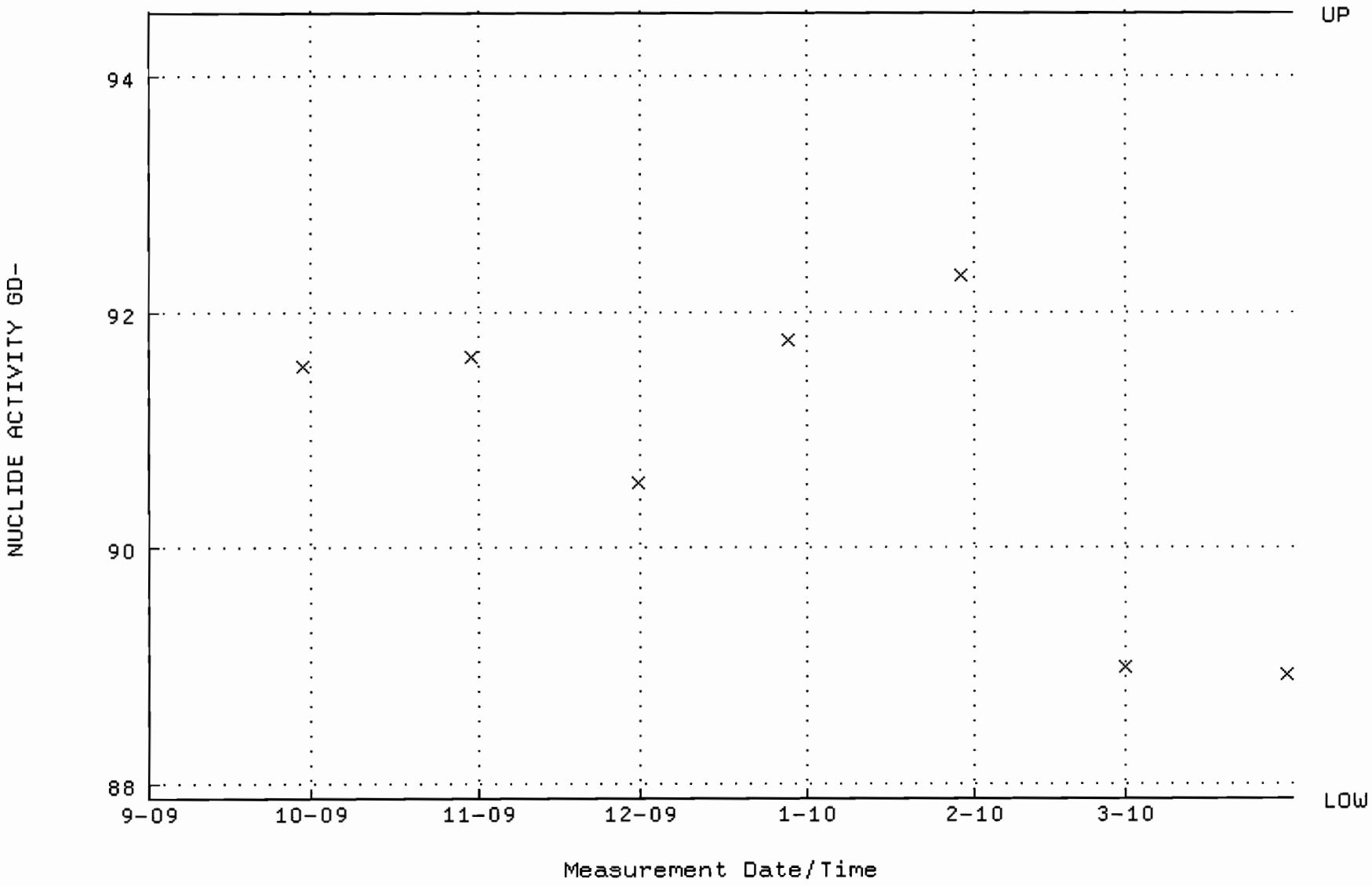

QA filename : DKA100:[ENV_ALPHA.QA.B]B228.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:49:49 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

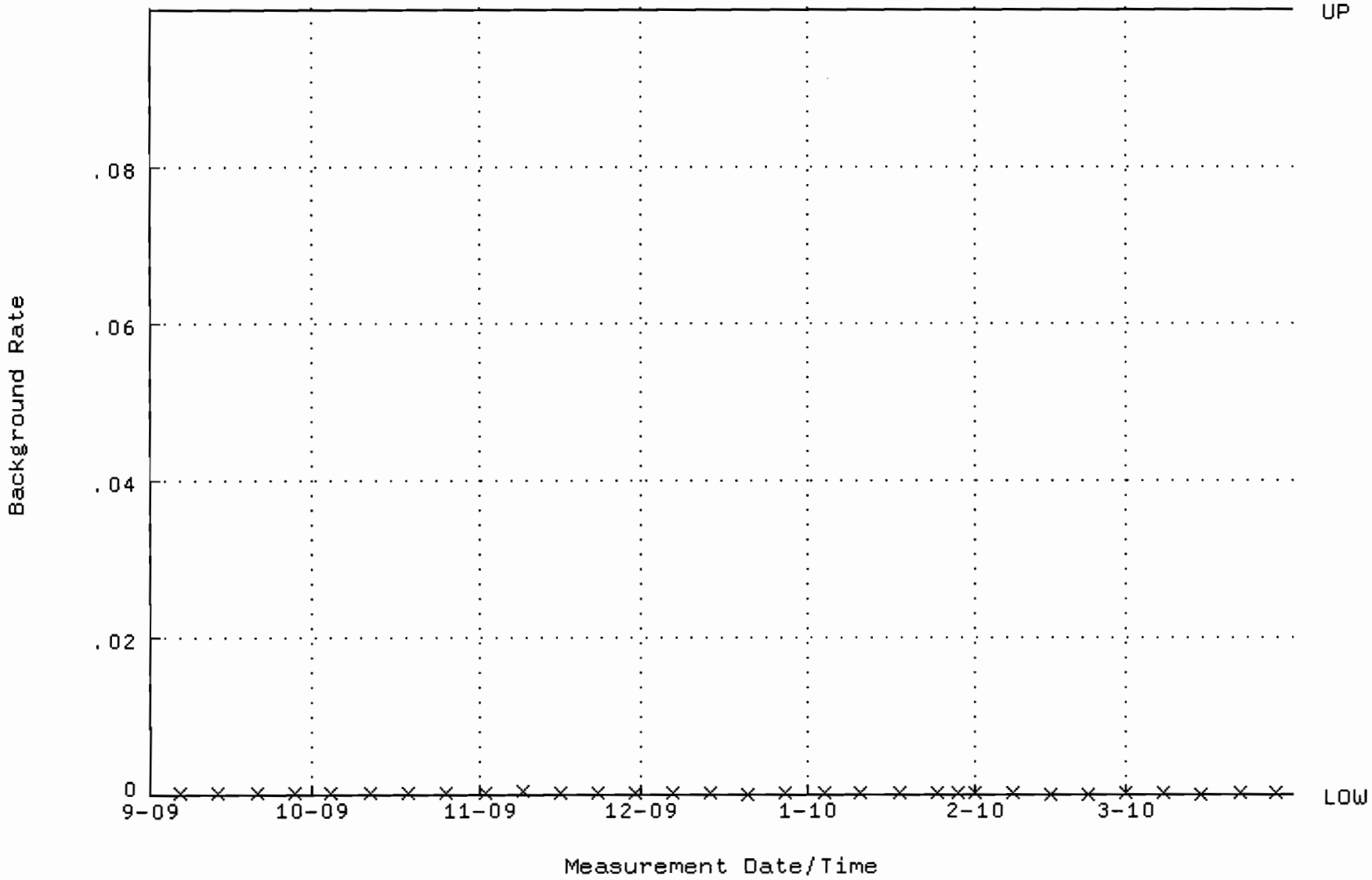

QA filename : DKA100:[ENV_ALPHA.QA.W]W229.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:15 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.360663 through 0.390815

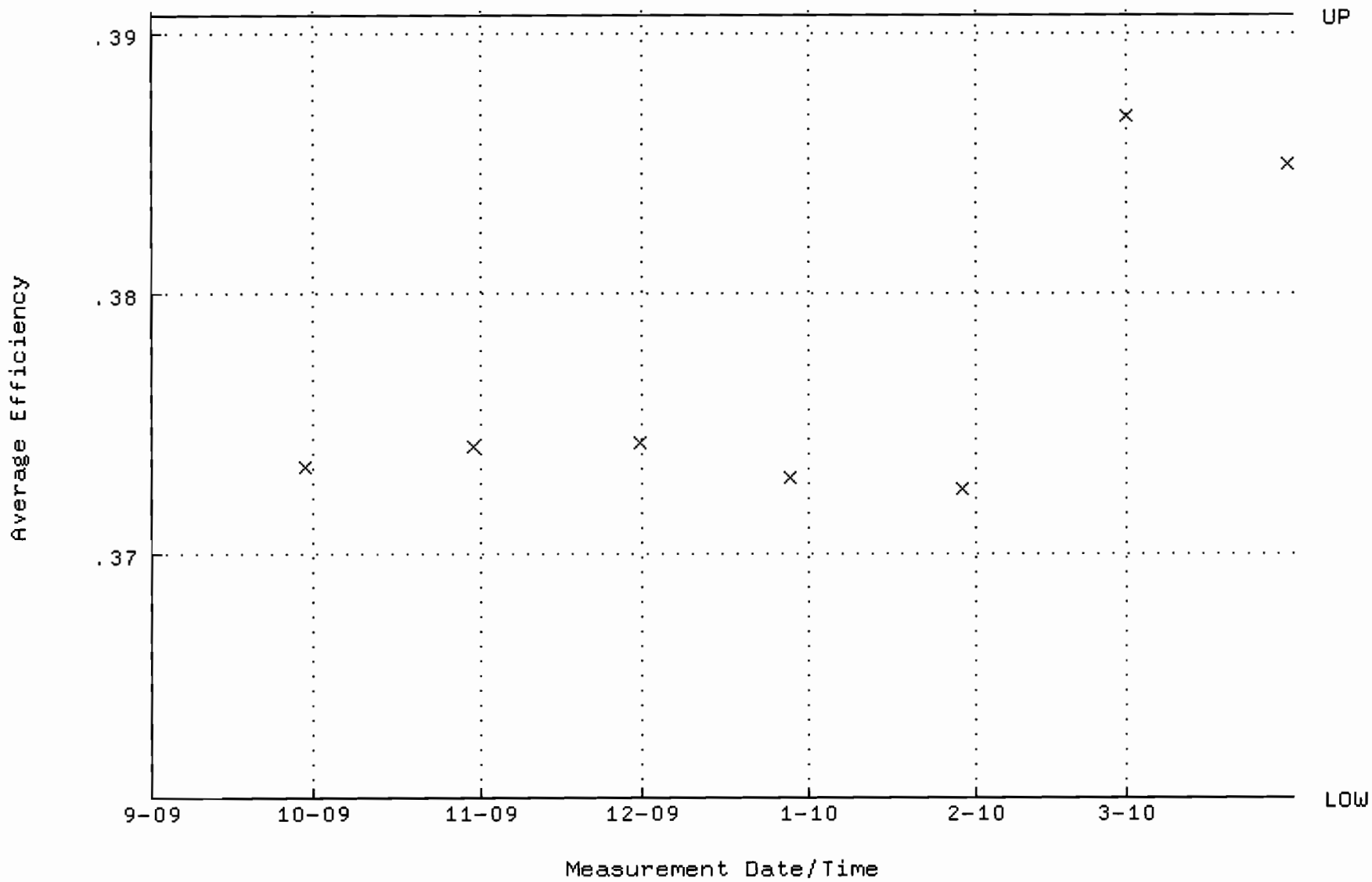

QA filename : DKA100:[ENV_ALPHA.QA.W]W229.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:15 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 87.5648 through 97.3078

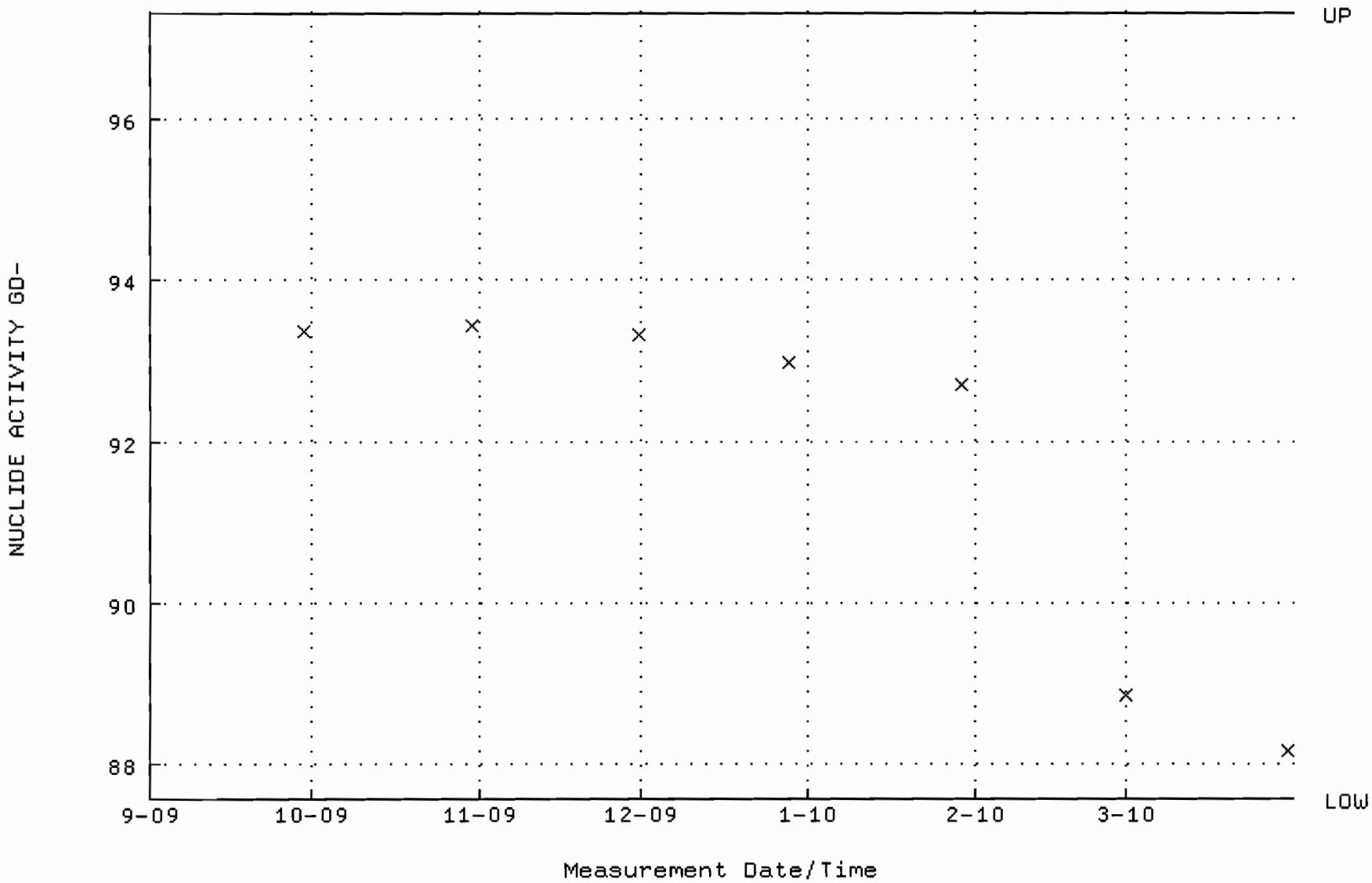

QA filename : DKA100:[ENV_ALPHA.QA.B]B229.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:49:53 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

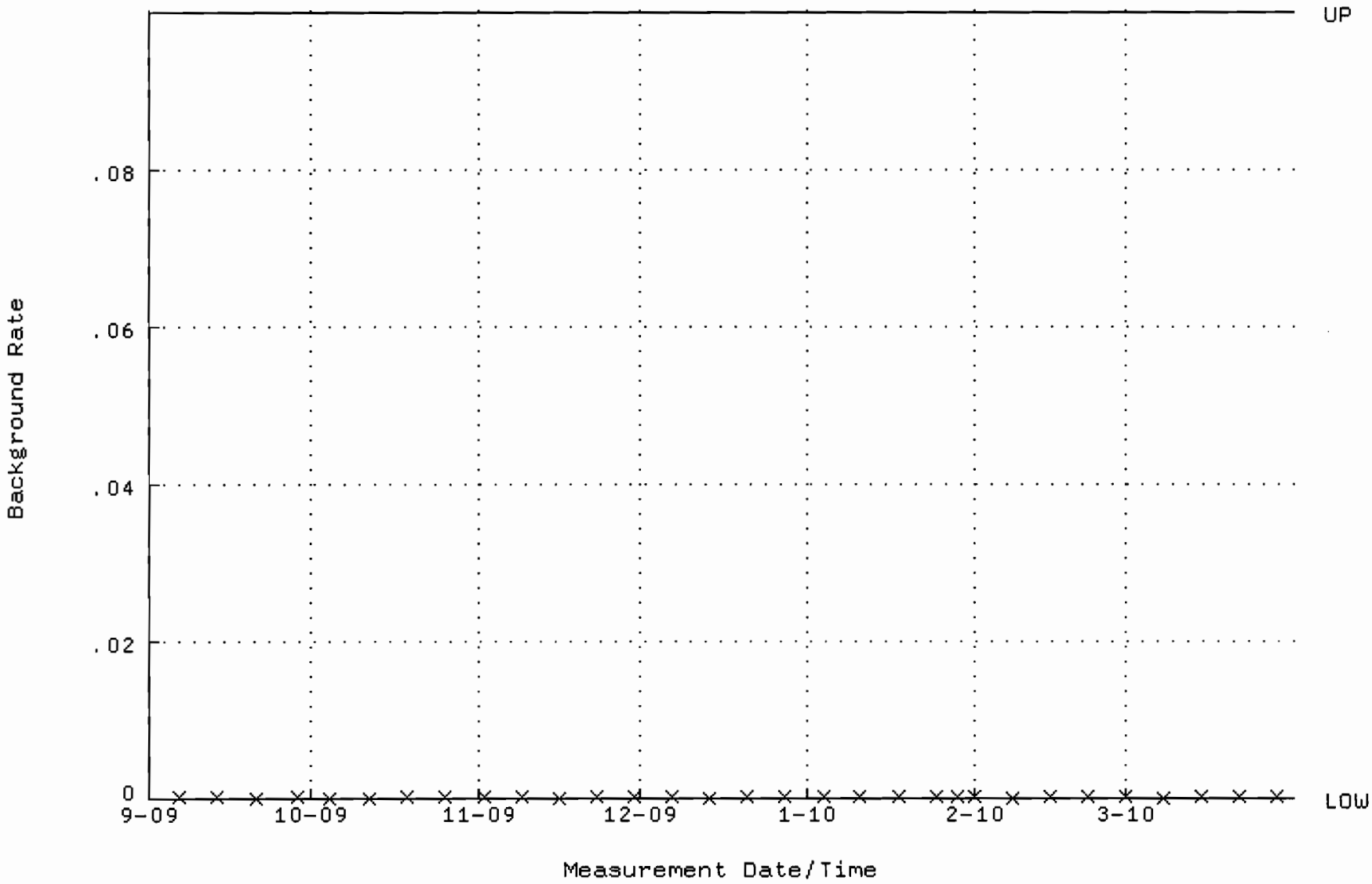

QA filename : DKA100:[ENV_ALPHA.QA.W]W247.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:55 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.352698 through 0.404942

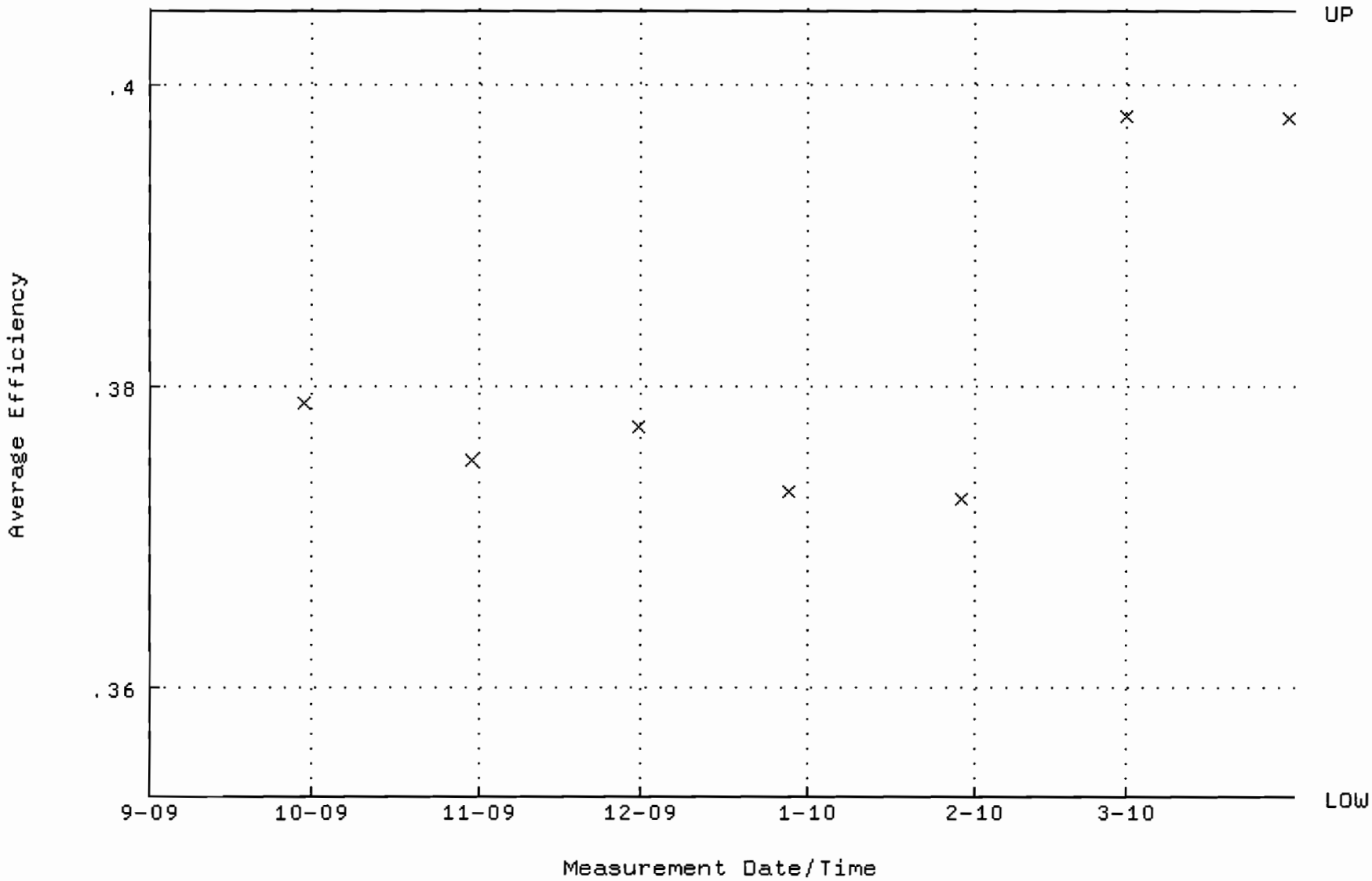

QA filename : DKA100:[ENV_ALPHA.QA.W]W247.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:55 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.8318 through 94.4164

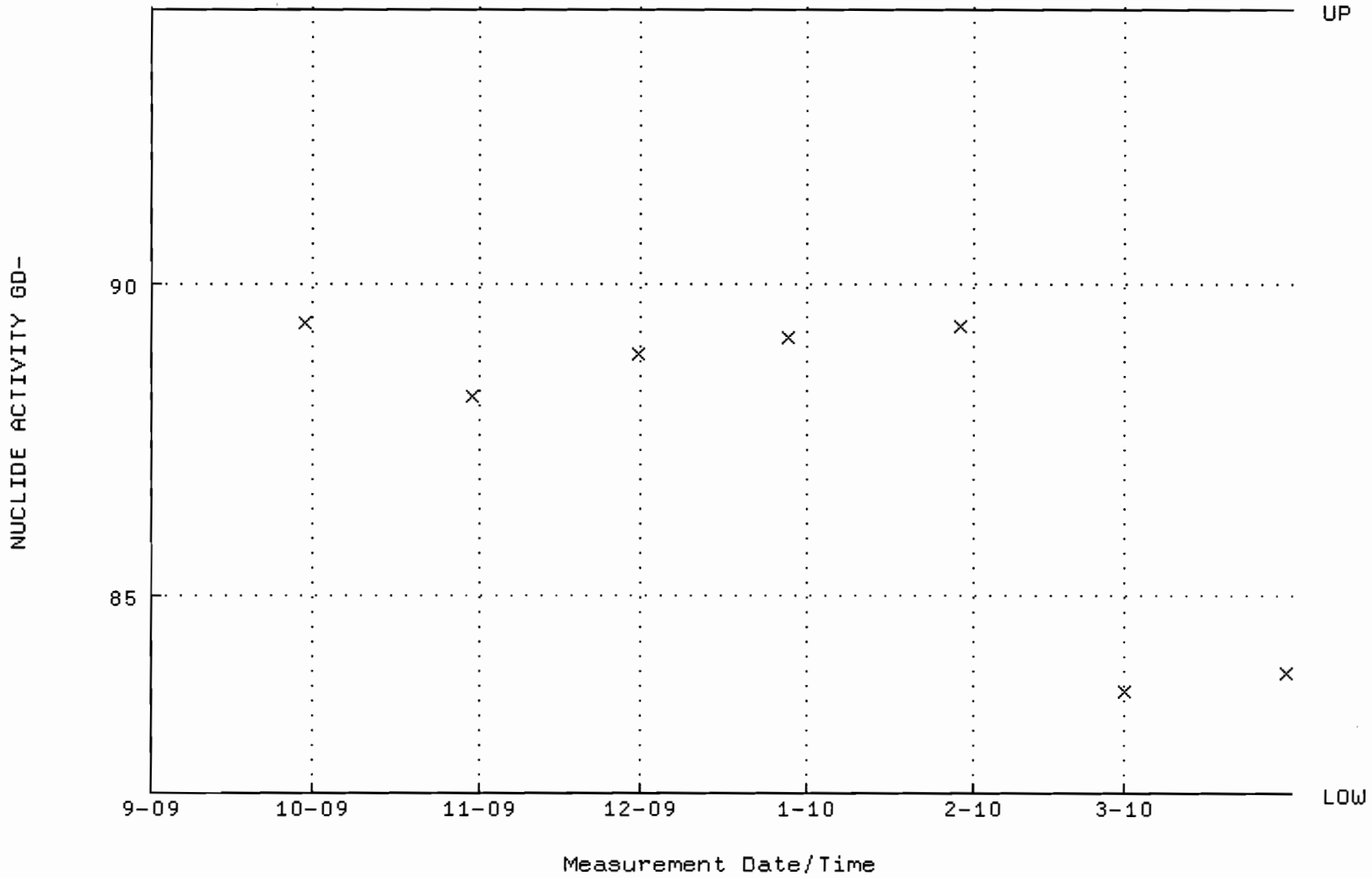

QA filename : DKA100:[ENV_ALPHA.QA.B]B247.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:16 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

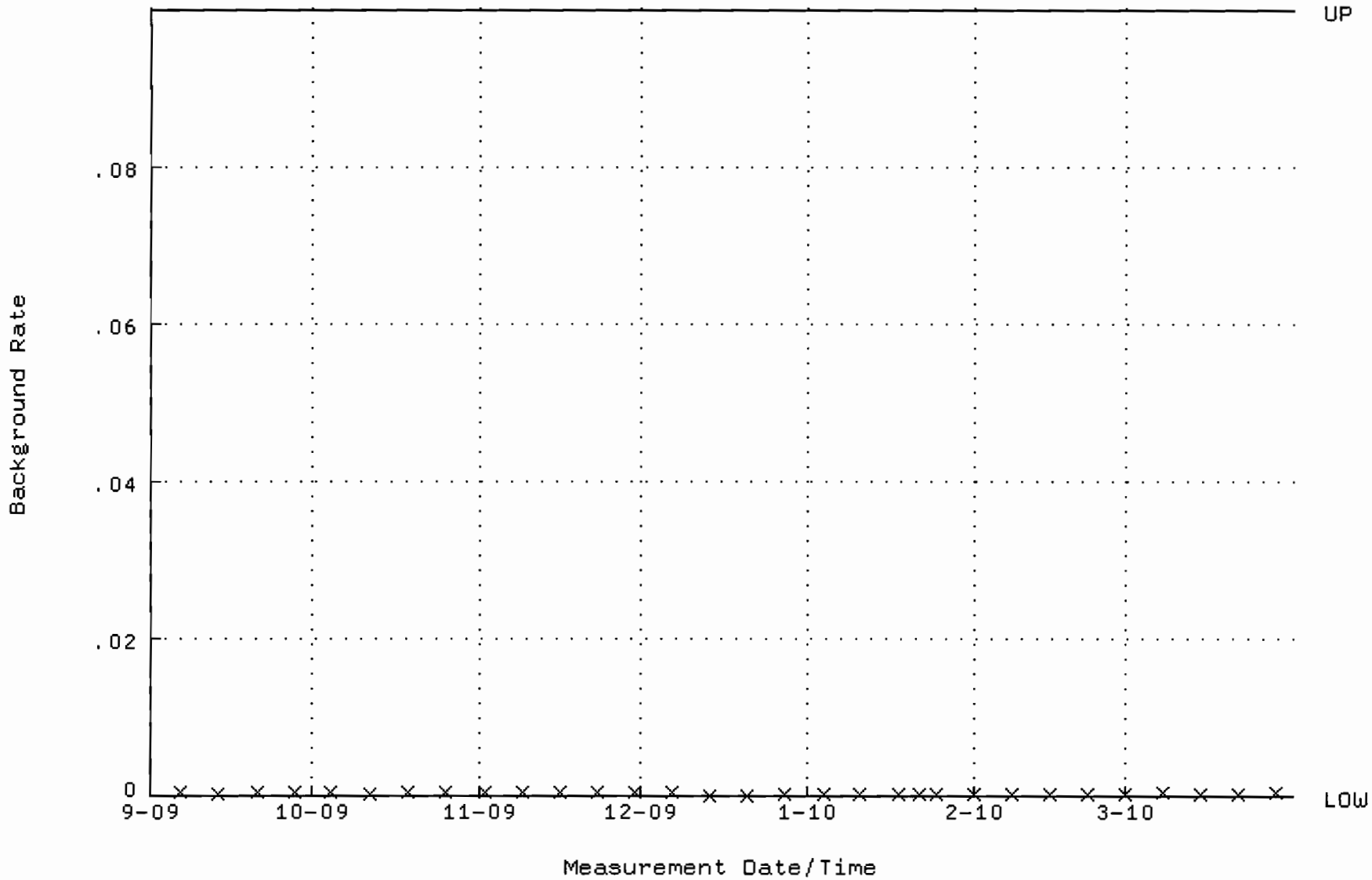

QA filename : DKA100:[ENV_ALPHA.QA.W]W248.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:40:01 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.376481 through 0.408807

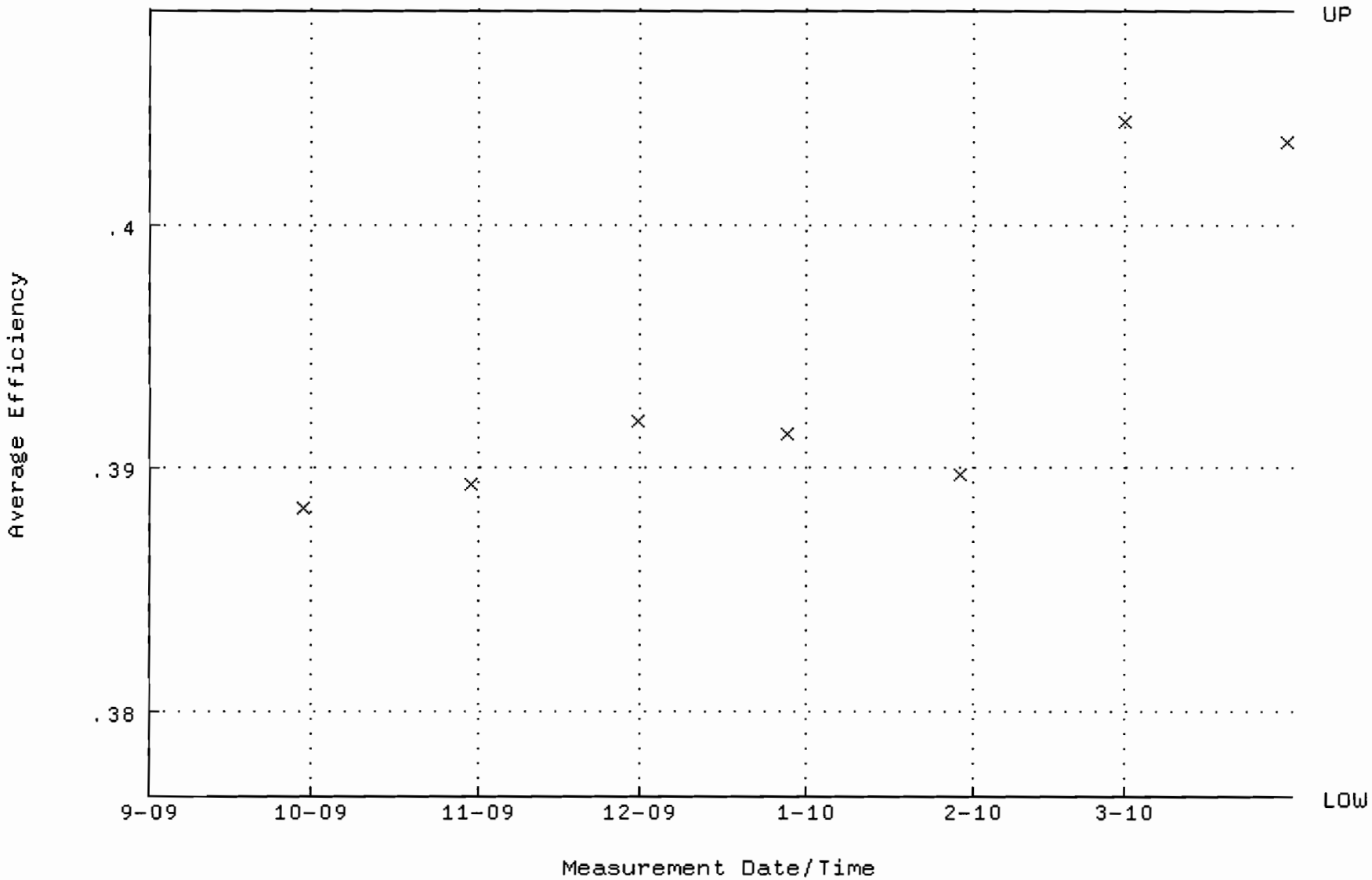

QA filename : DKA100:[ENV_ALPHA.QA.W]W248.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:40:01 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.4745 through 90.2275

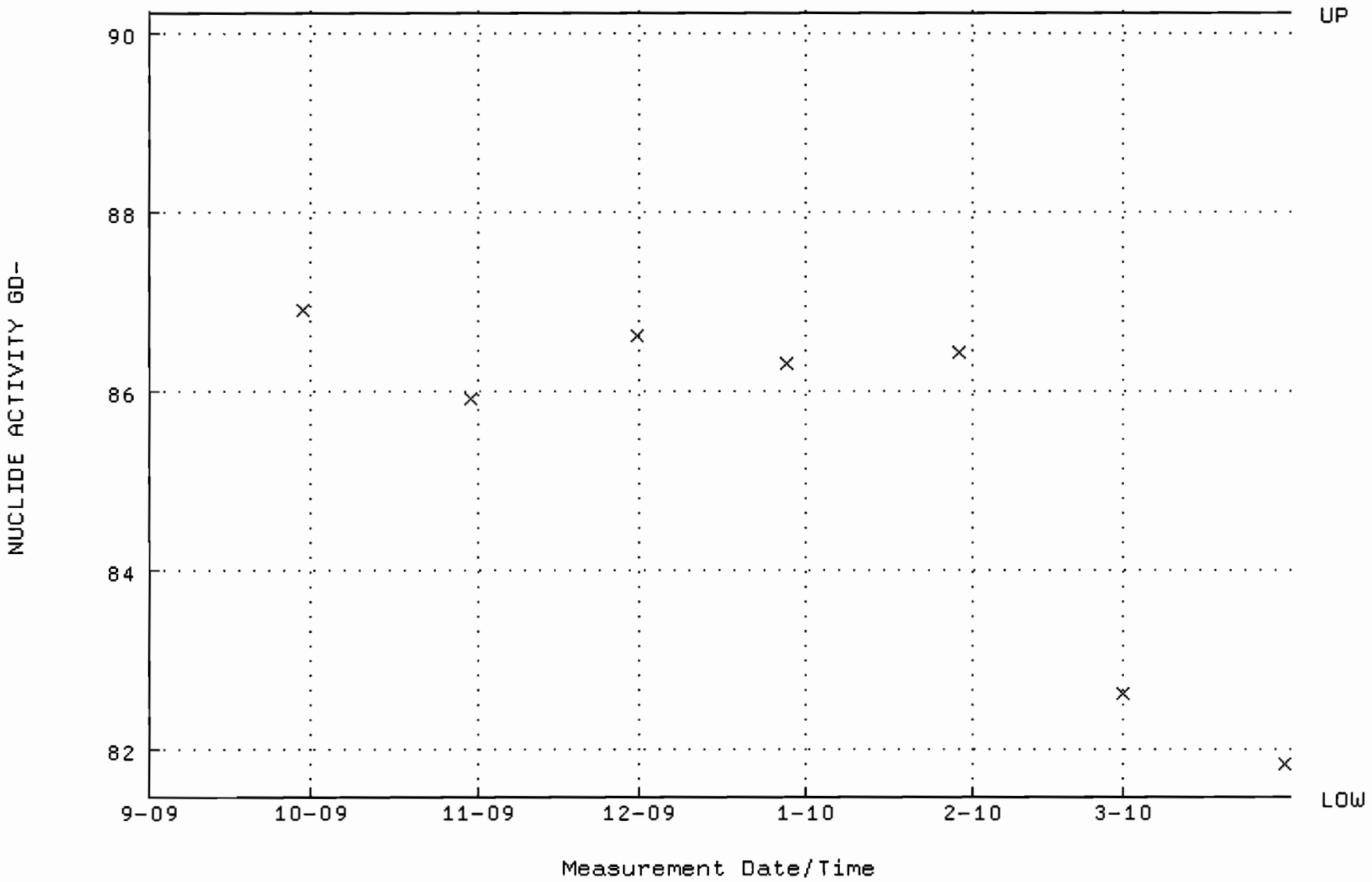

QA filename : DKA100:[ENV_ALPHA.QA.B]B248.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:21 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

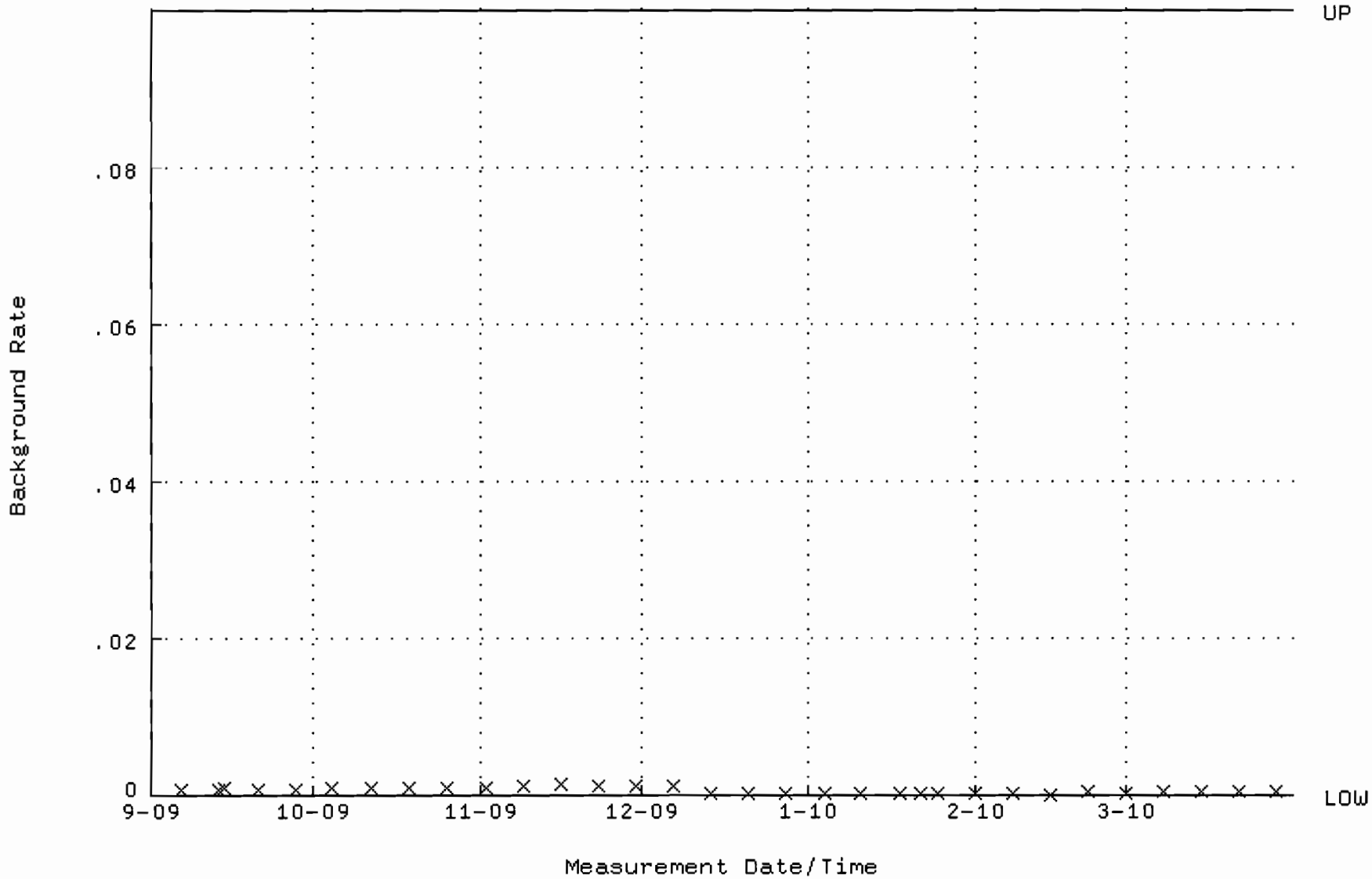

QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:40:43 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.355610 through 0.410626

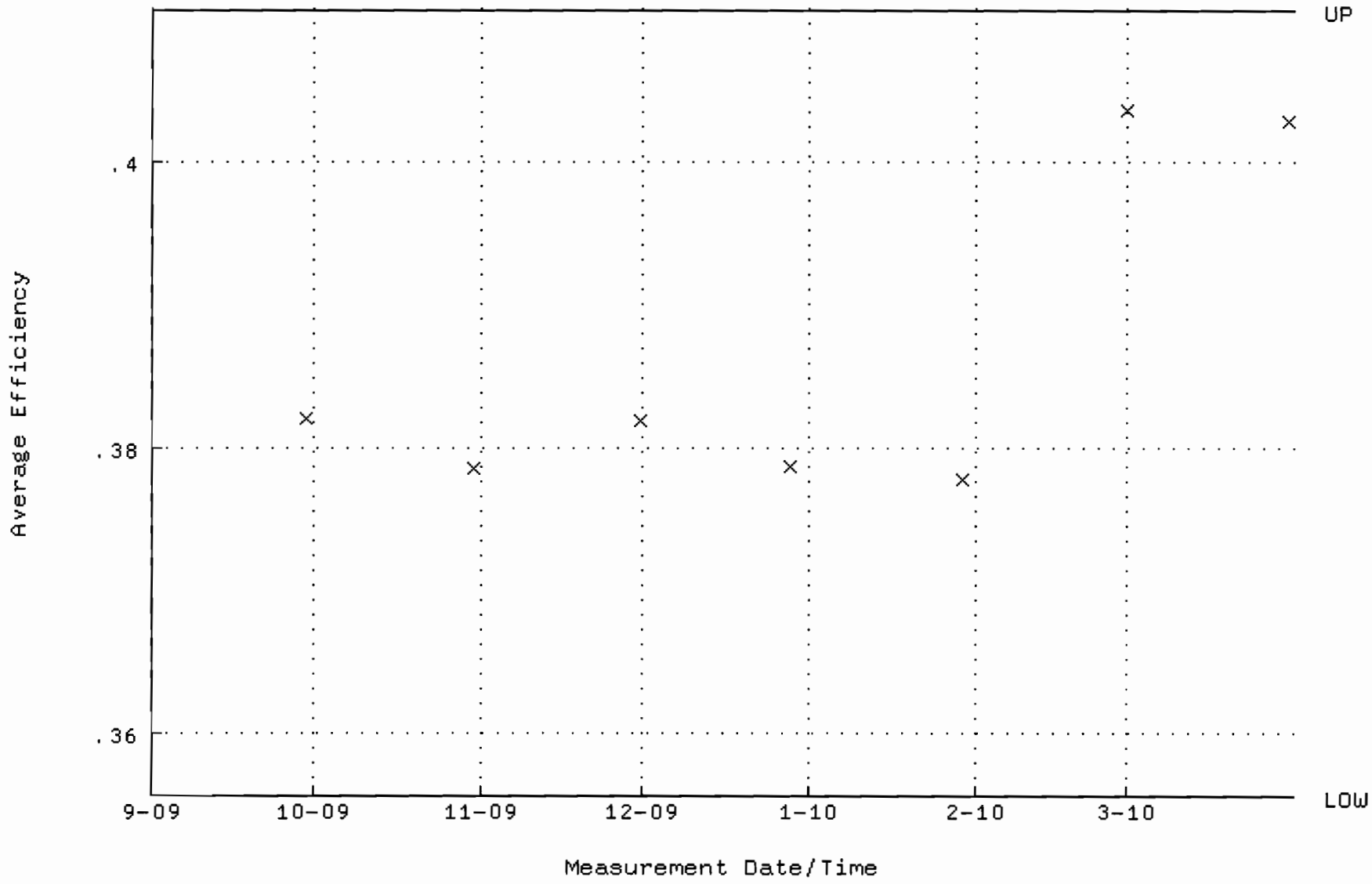

QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:40:43 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 78.3575 through 89.6335

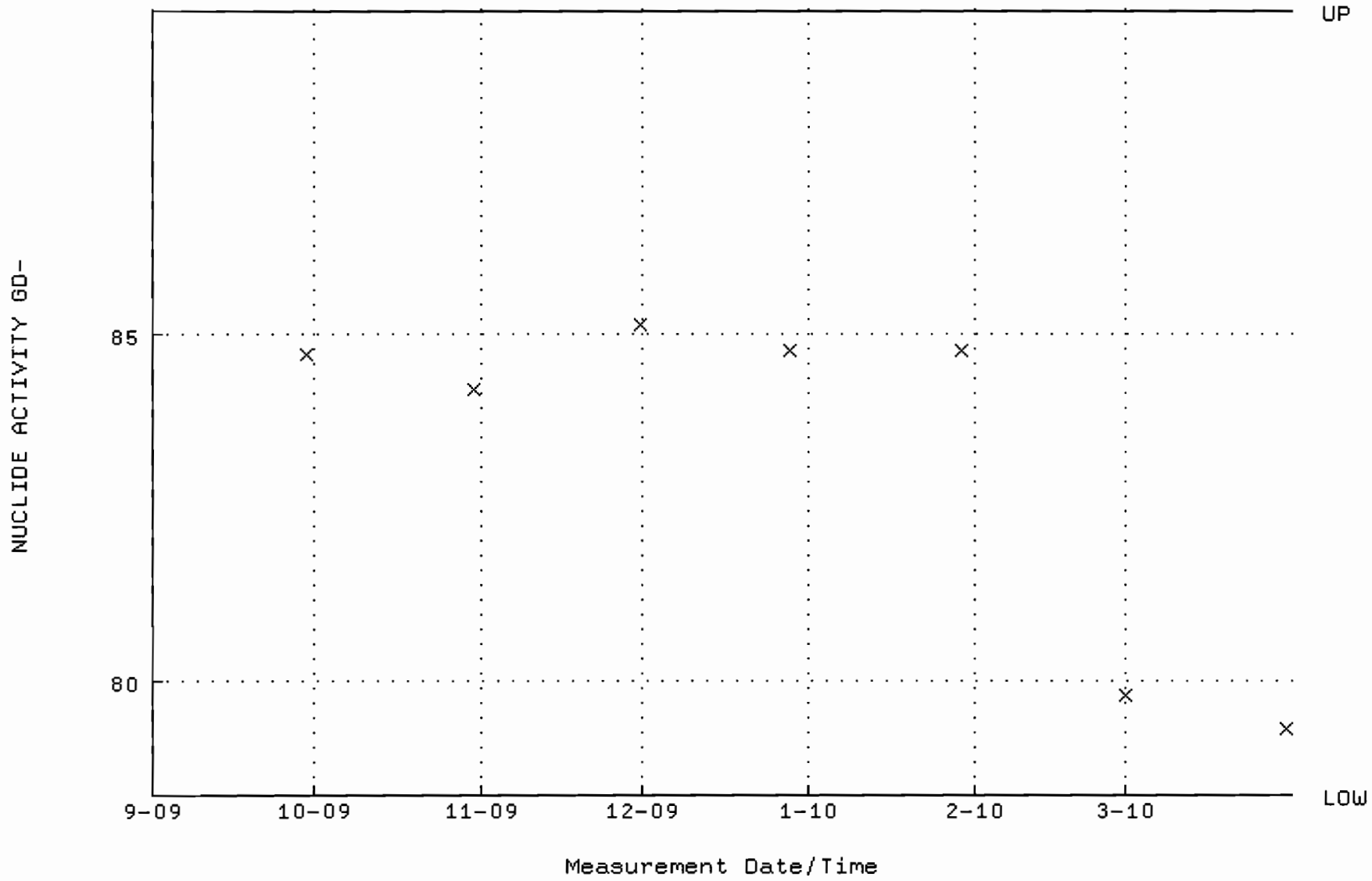

QA filename : DKA100:[ENV_ALPHA.QA.B]B256.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:59 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

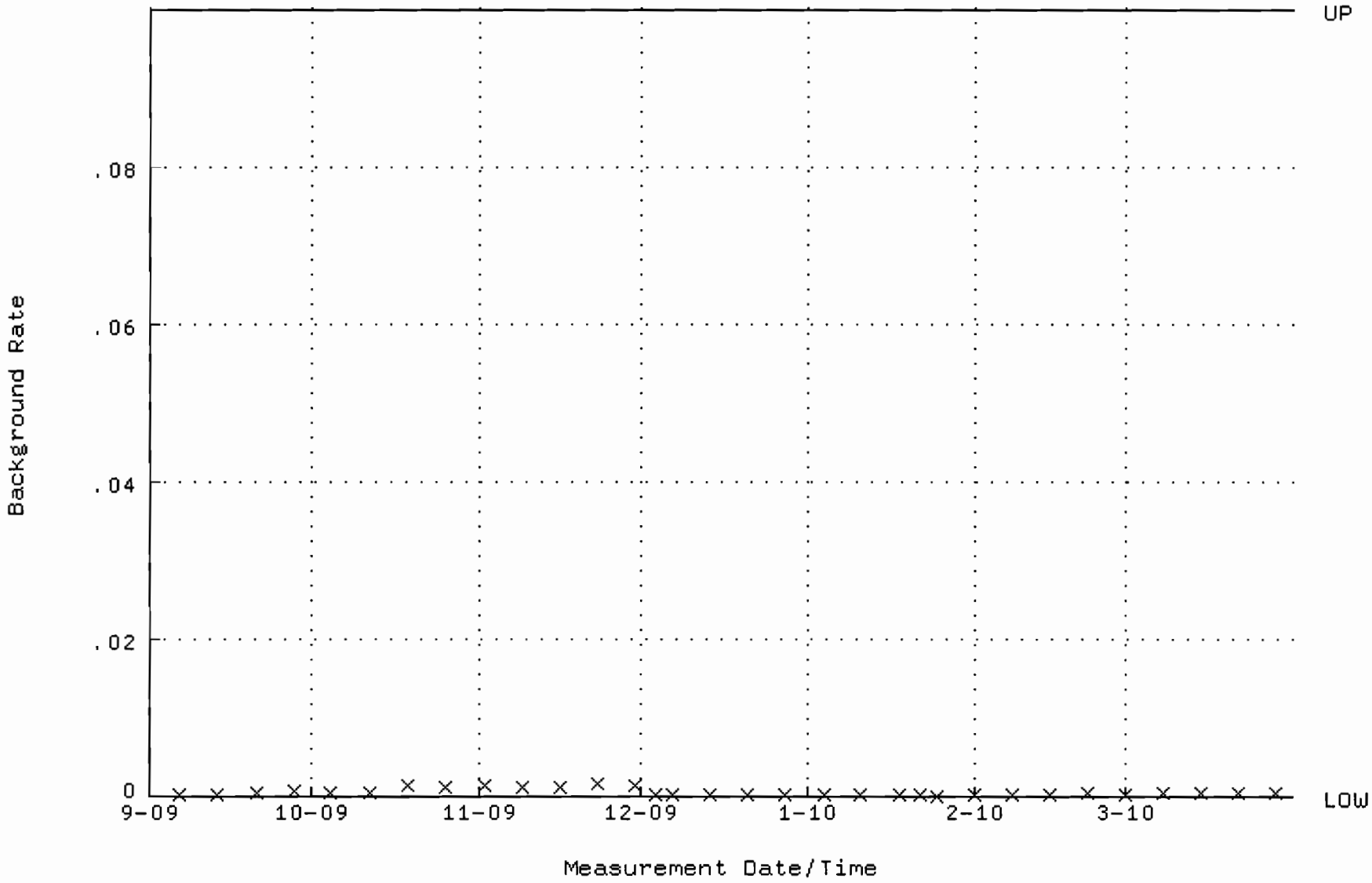

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:39:53 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

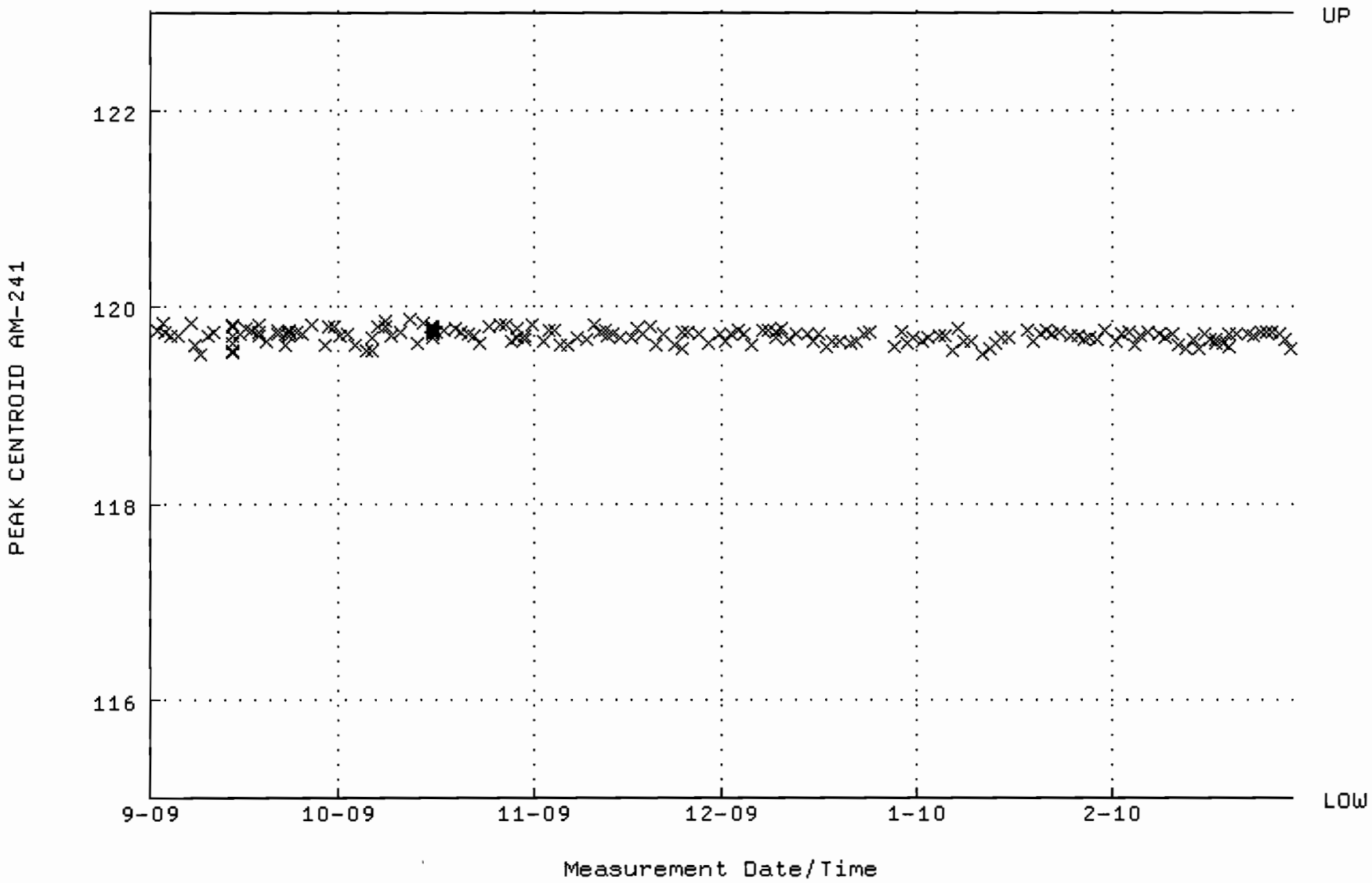

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM01.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:36:28 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.73723 +- 3.552524E-02 (2.04 %)

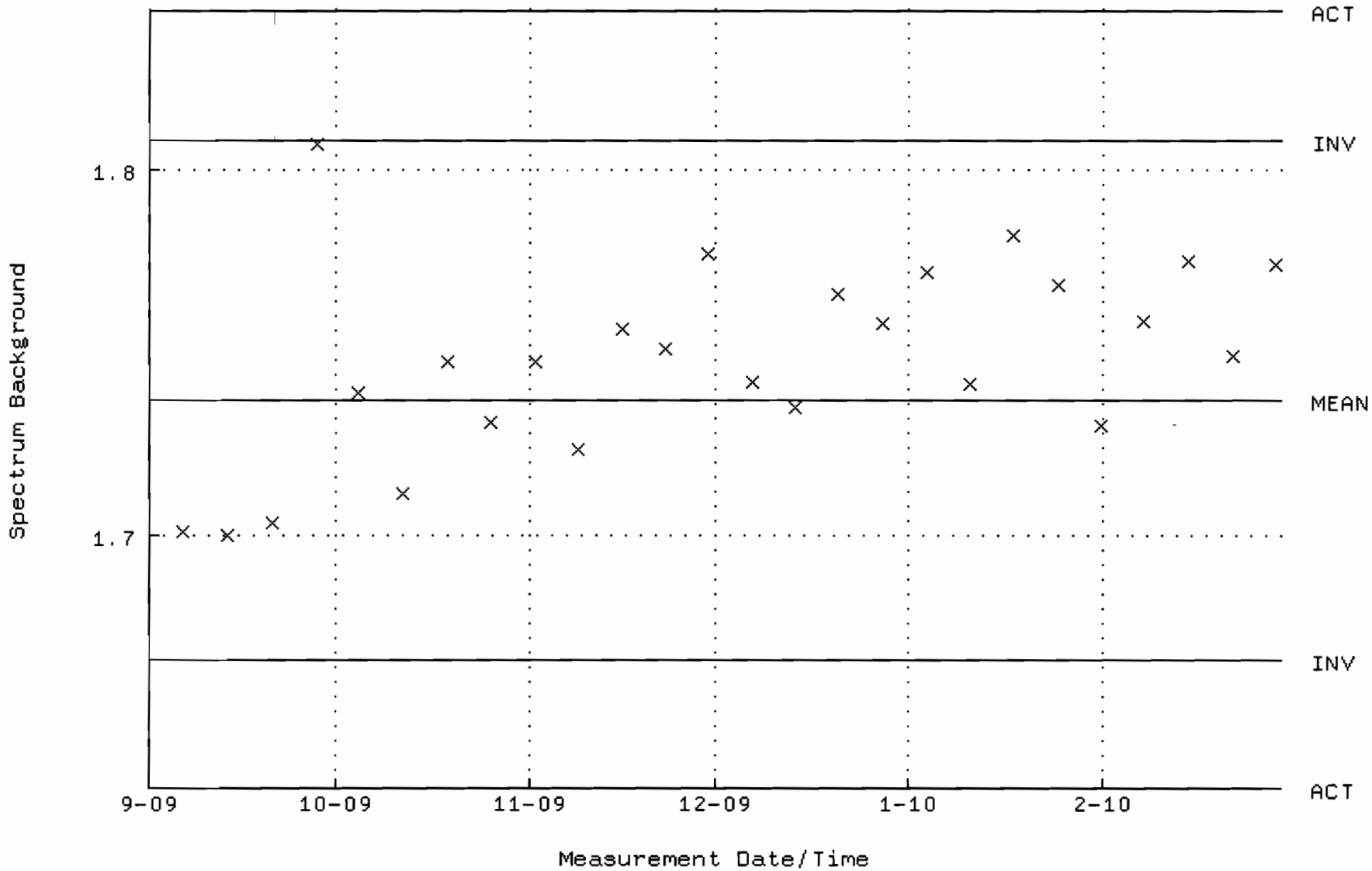

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM05_CAN.QAF;1
Parameter Name : PSCENTRO-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-SEP-2009 14:54:46 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

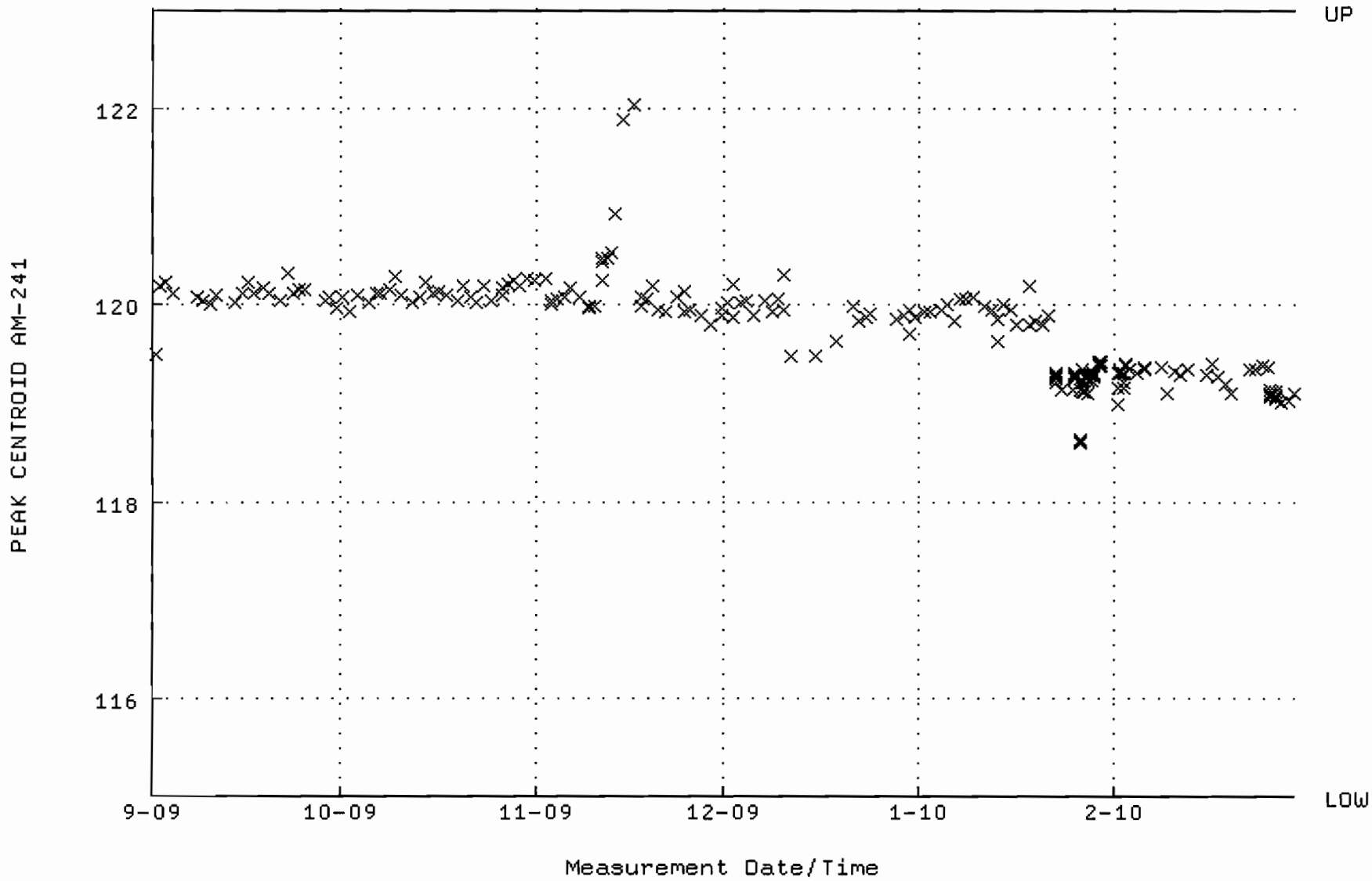

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM05.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:39:04 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.64719 +- 2.547087E-02 (1.55 %)

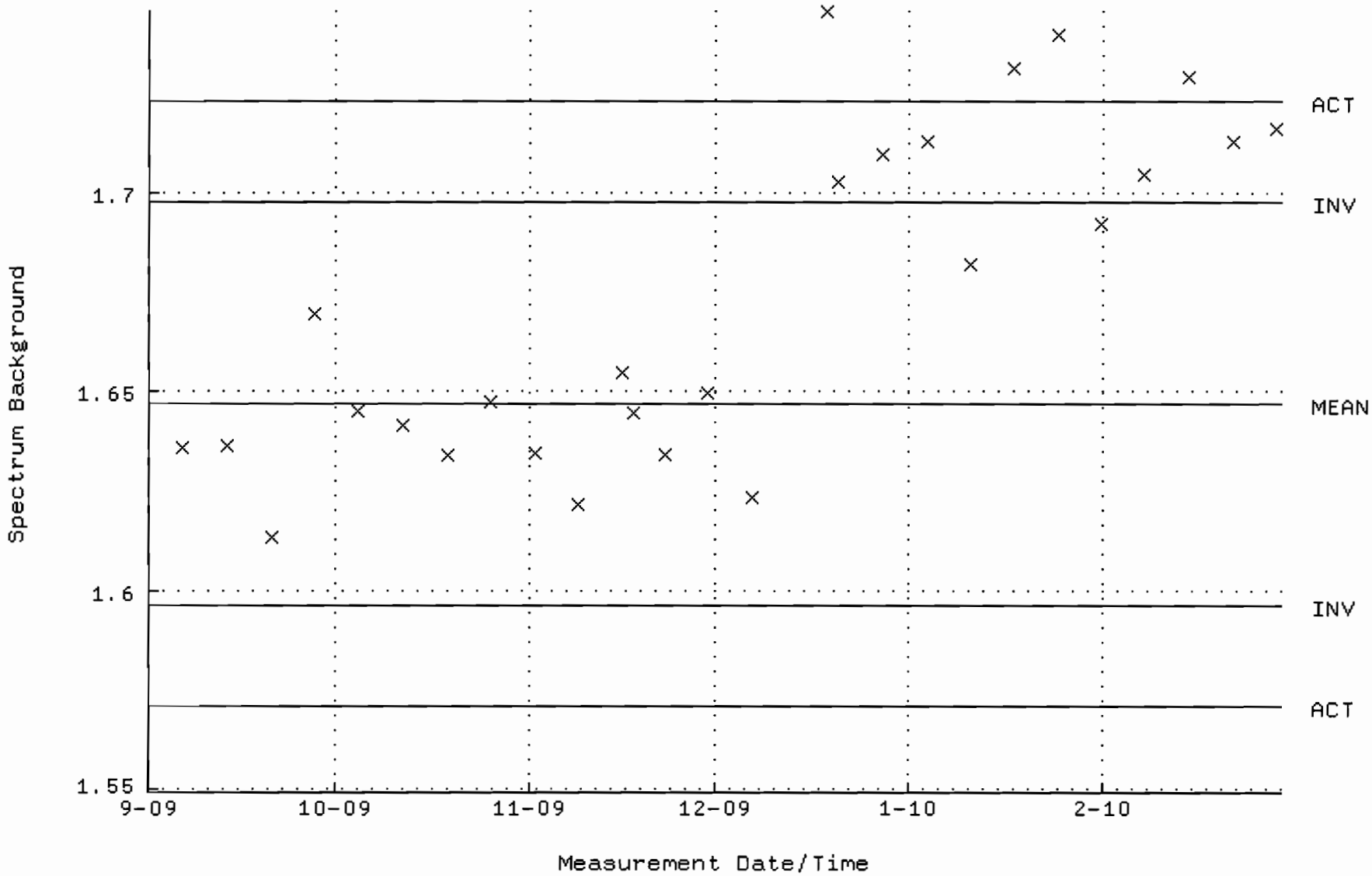

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM06_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:40:19 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

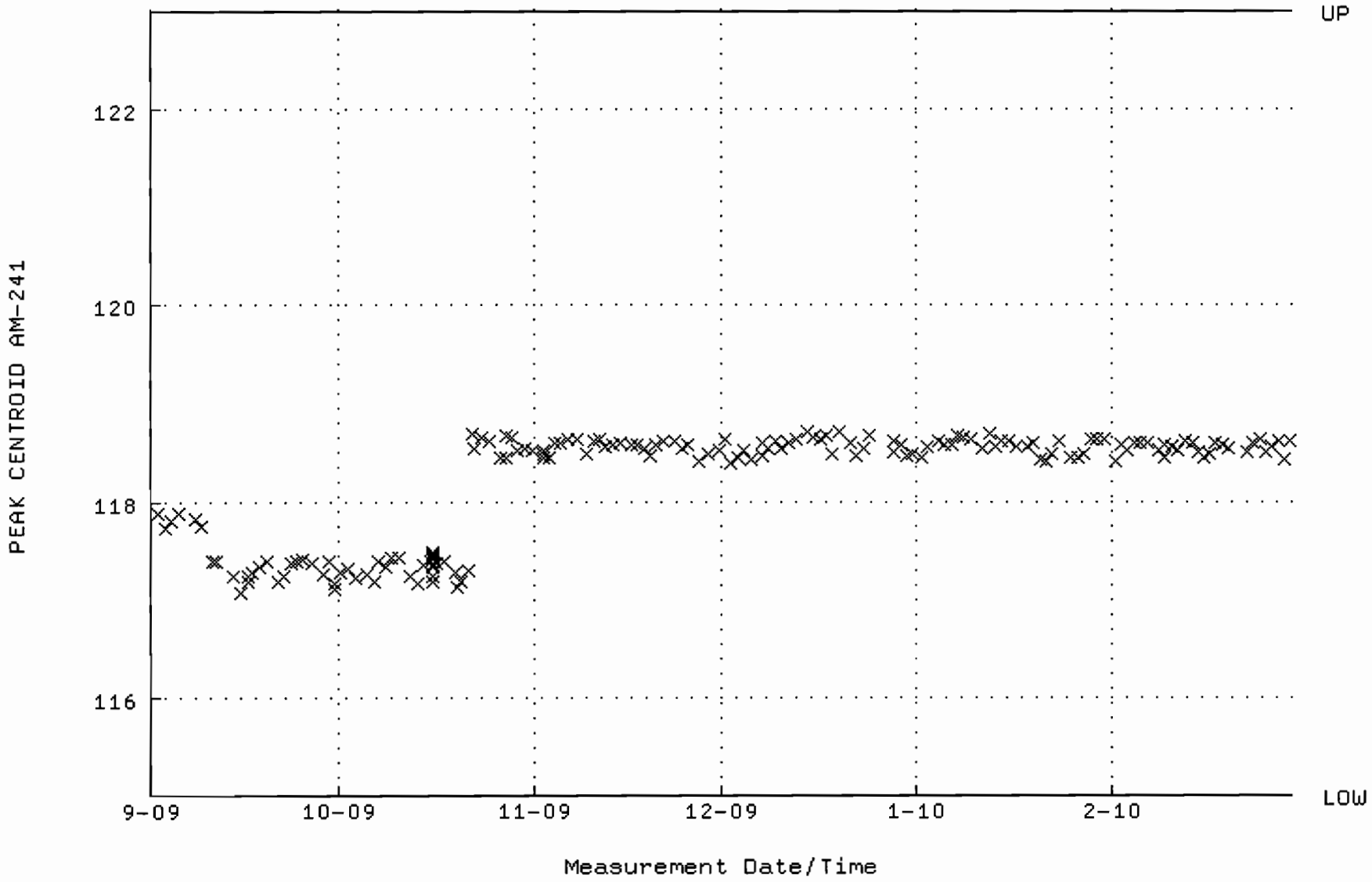

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM06.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:39:28 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.52603 +- 1.215987E-02 (0.80 %)

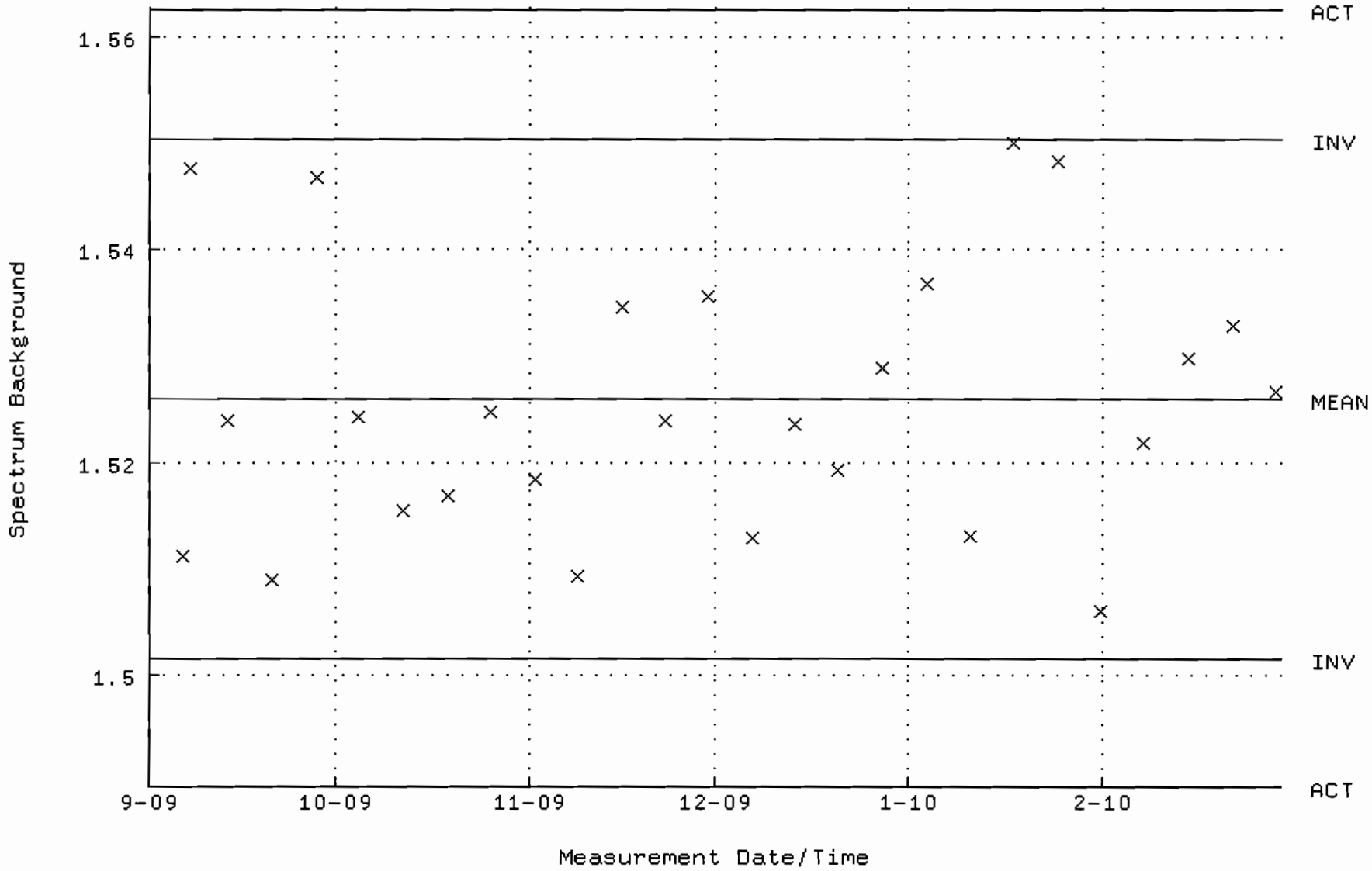

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM10_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 10:11:44 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

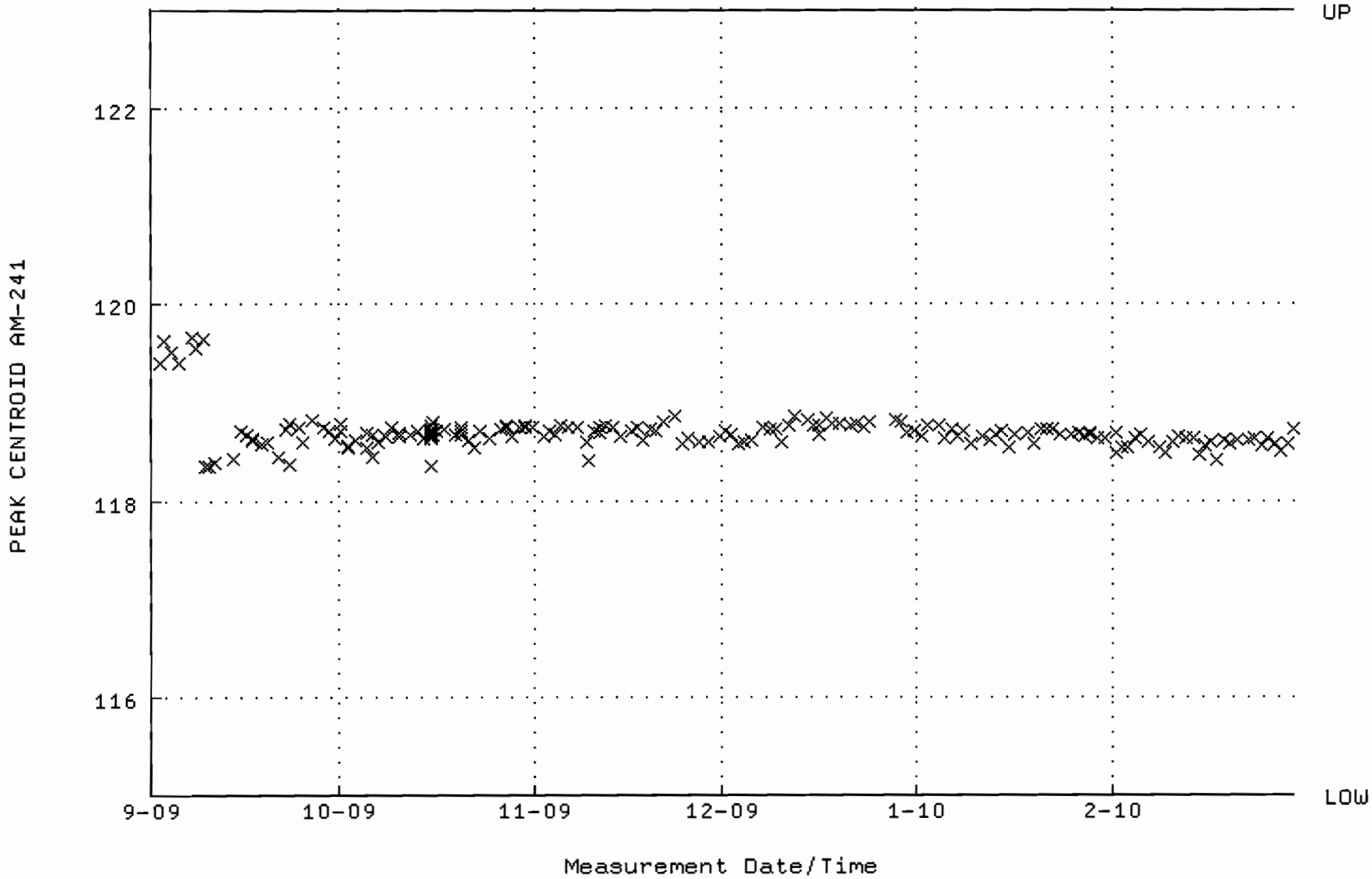

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM10.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:41:20 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.48000 +- 1.723892E-02 (1.16 %)

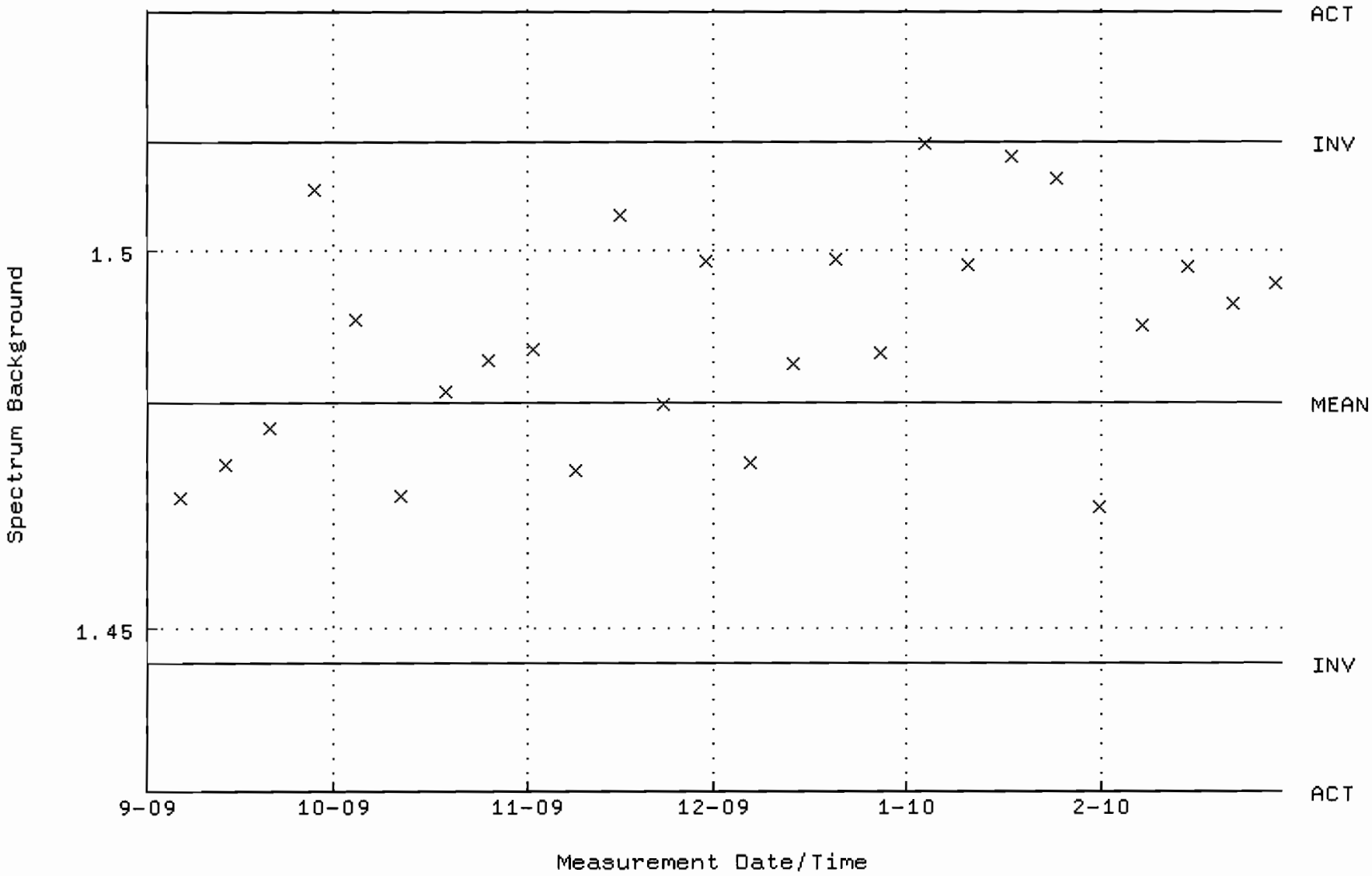

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:32:23 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

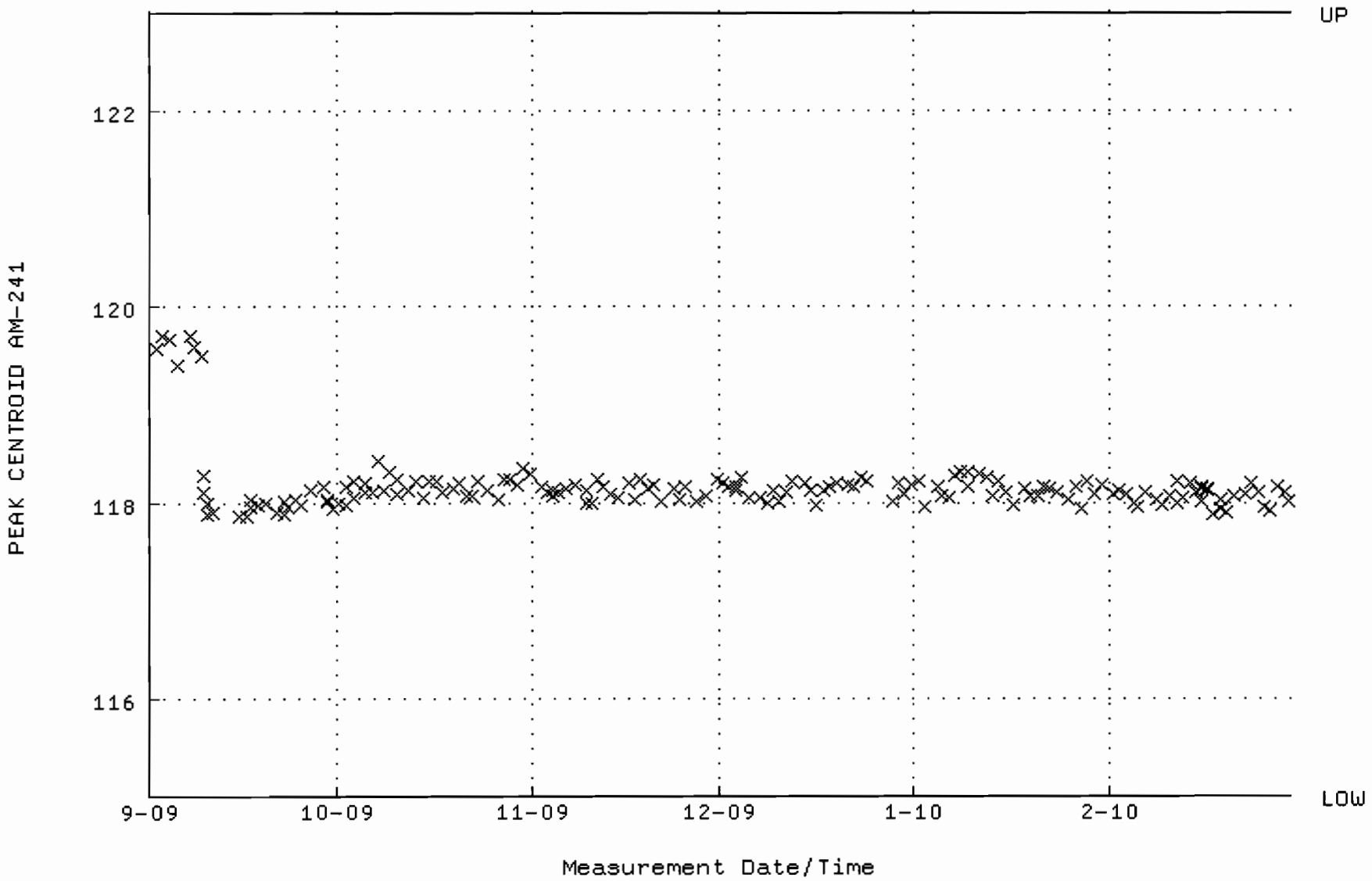

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:43:44 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)

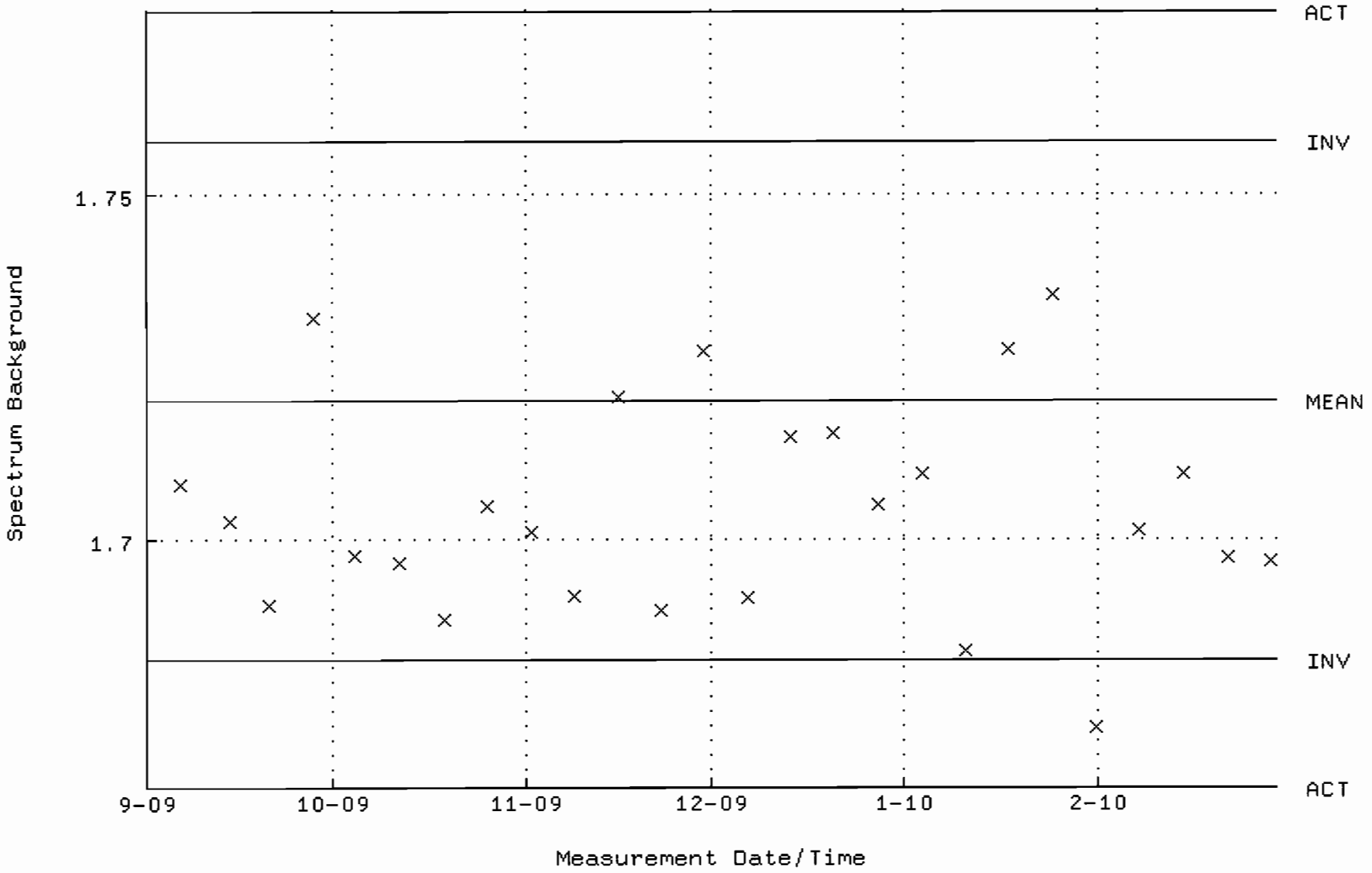

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM16_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:53:02 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

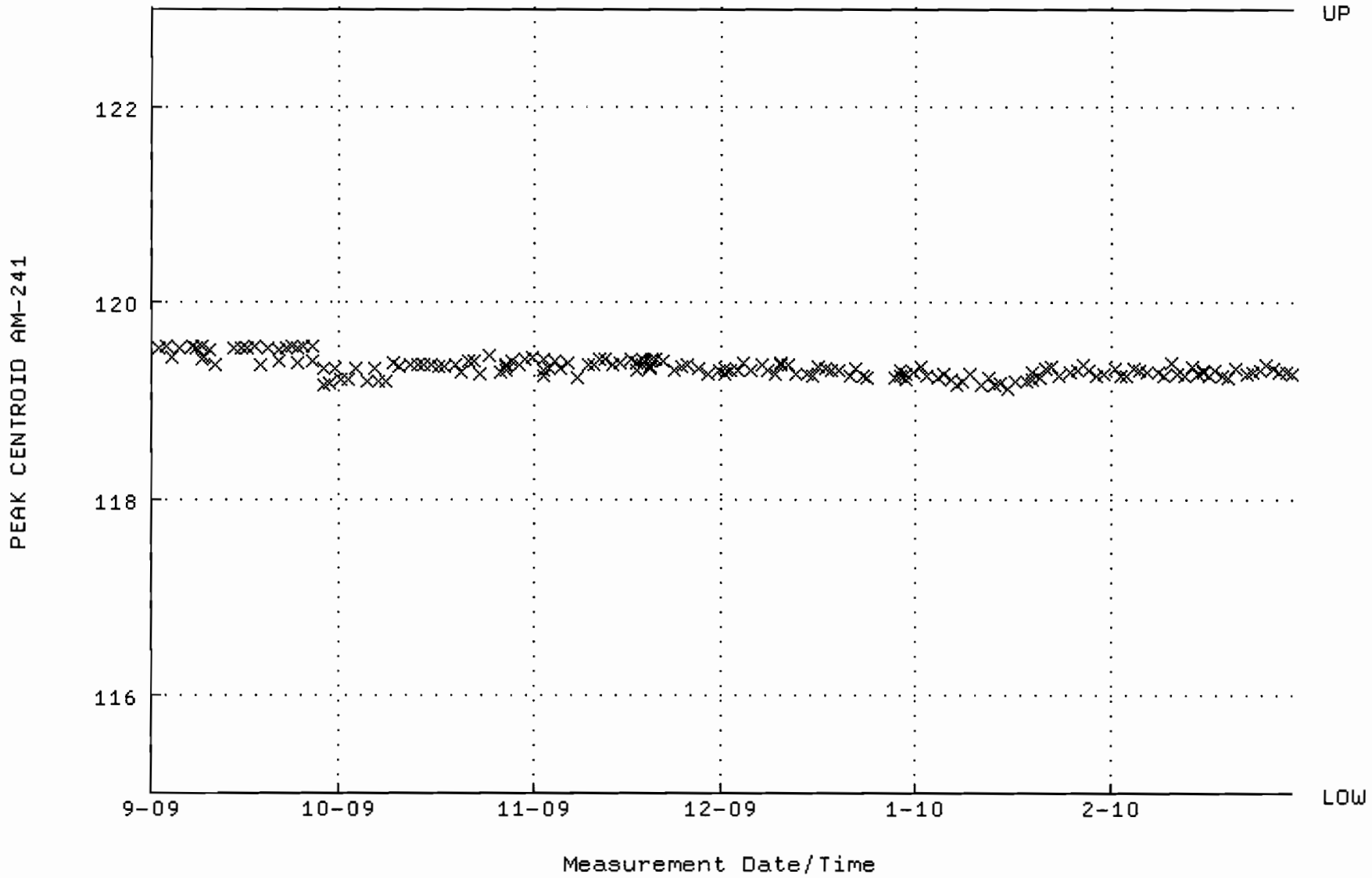

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM16.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:44:09 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.73980 +- 1.729897E-02 (0.99 %)

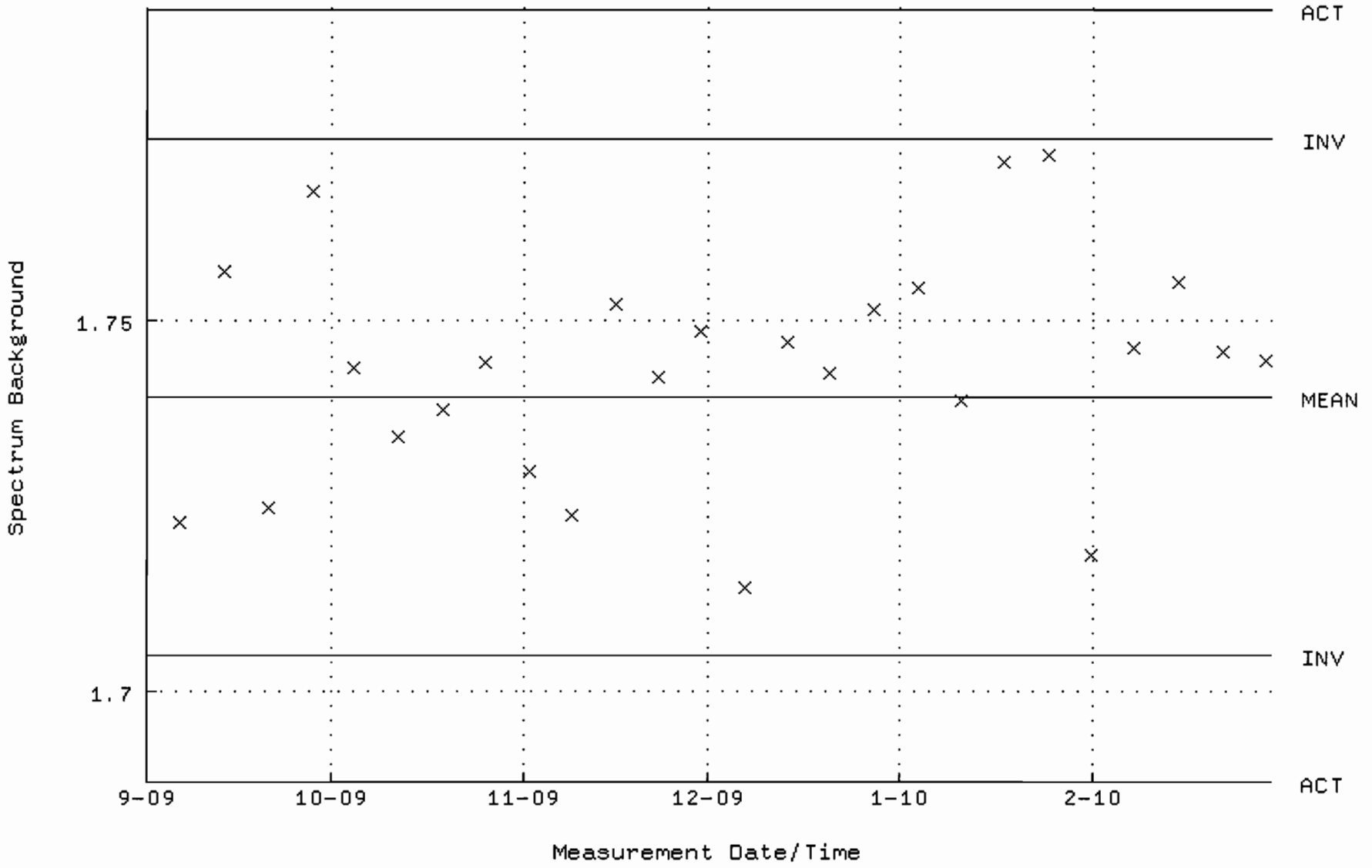

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM17_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 05:06:49 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

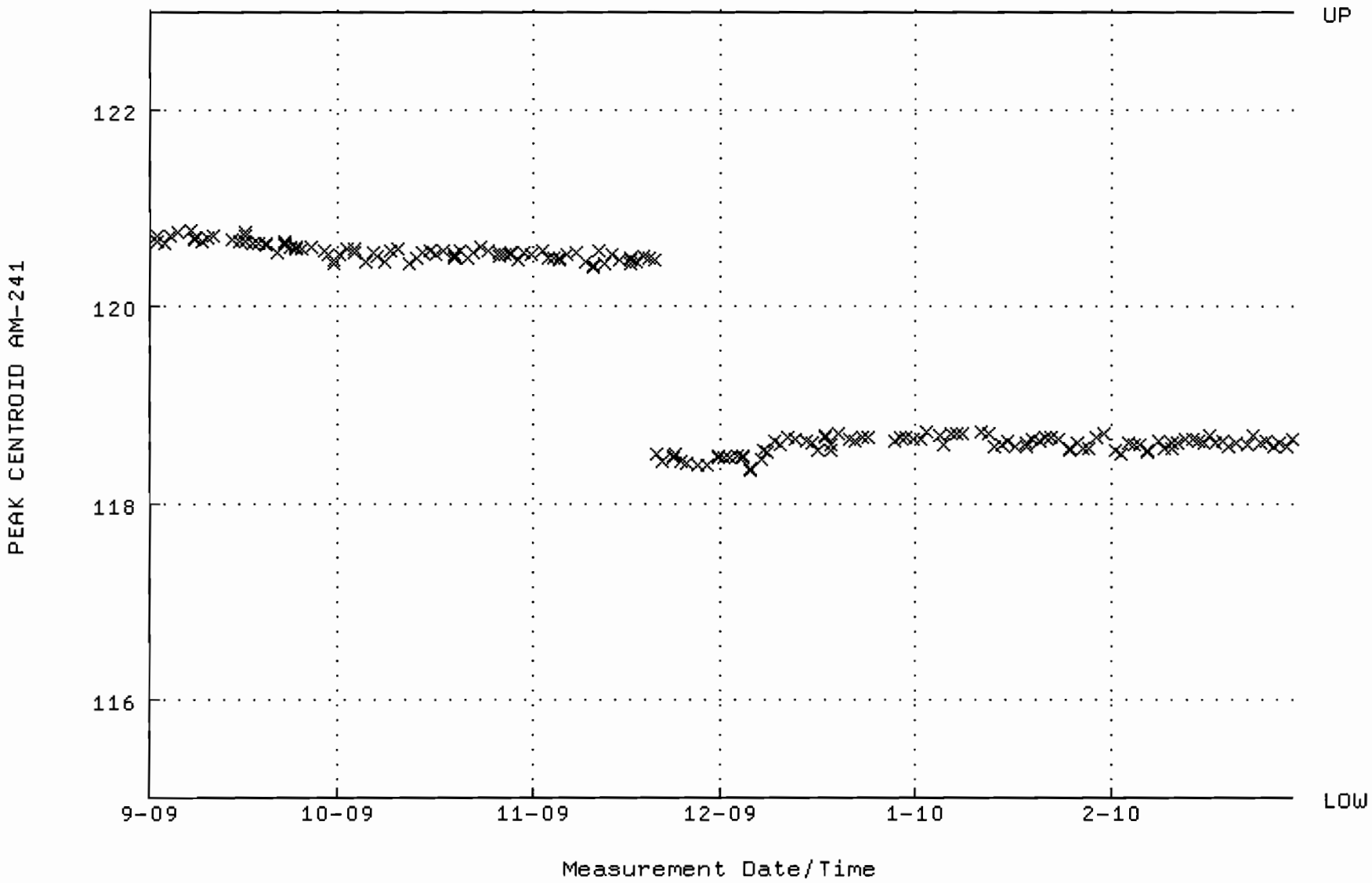

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM17.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:44:33 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.42766 +- 1.396974E-02 (0.98 %)

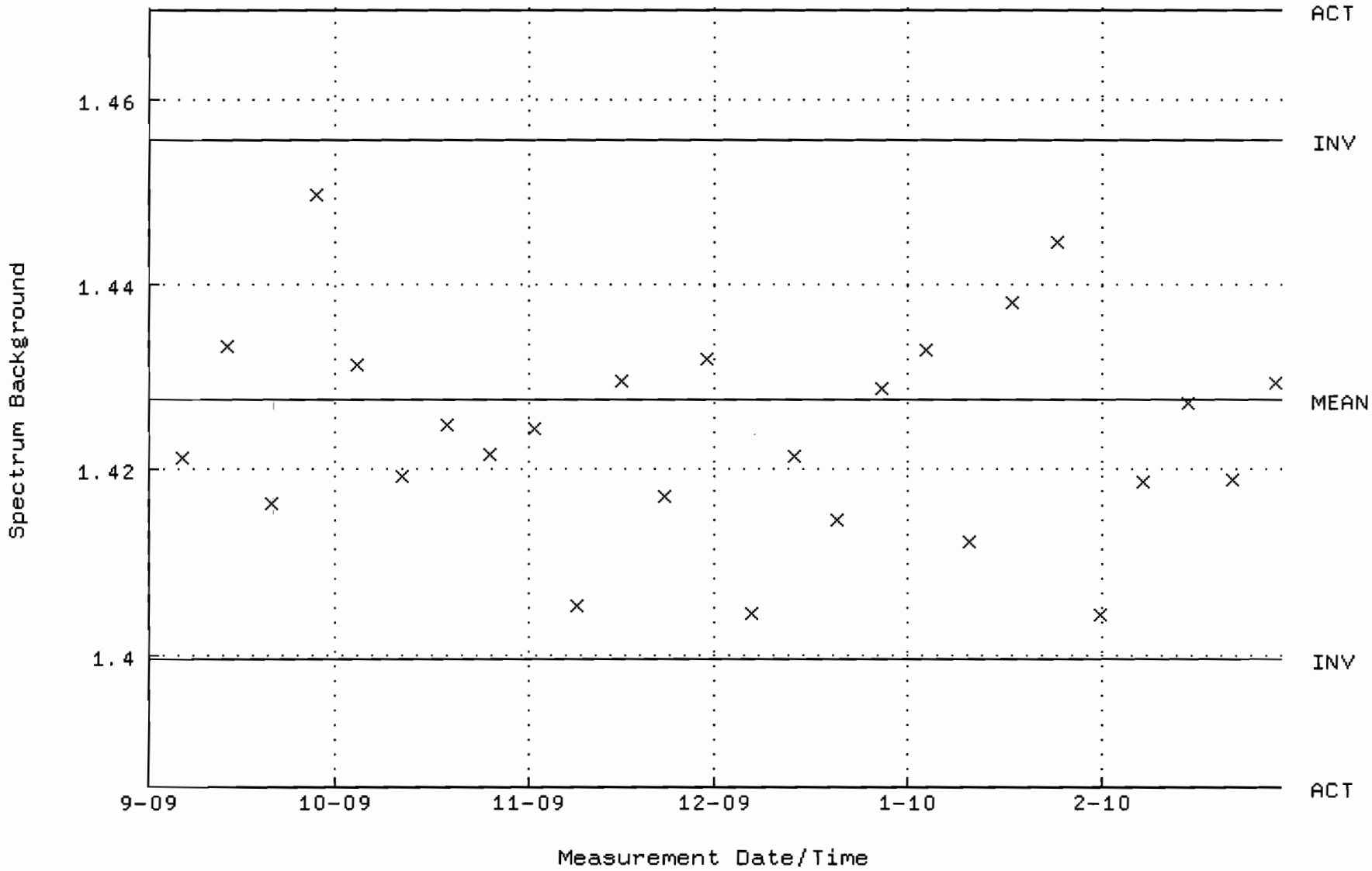

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:13:07 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

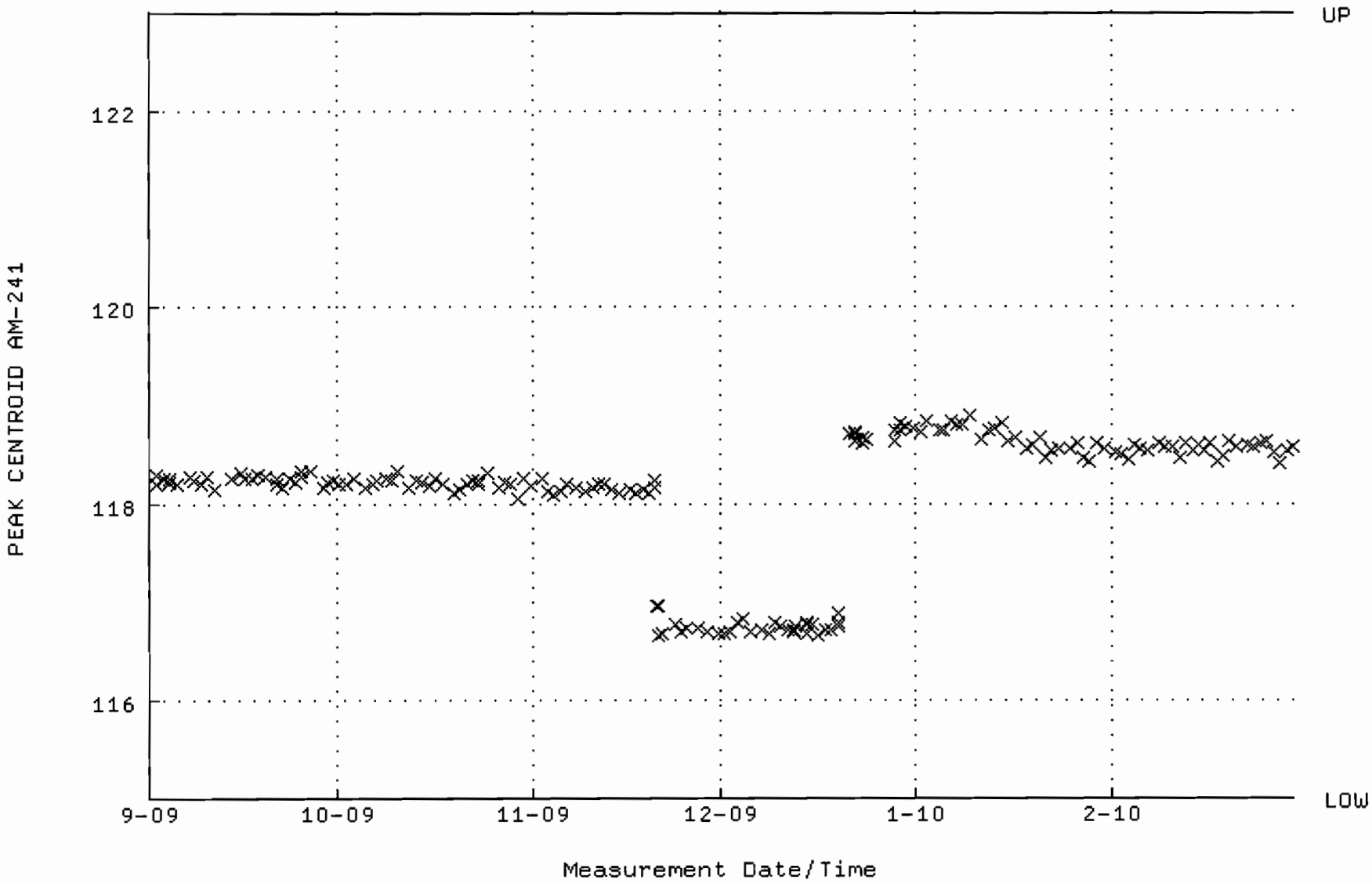

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM18.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:45:03 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)

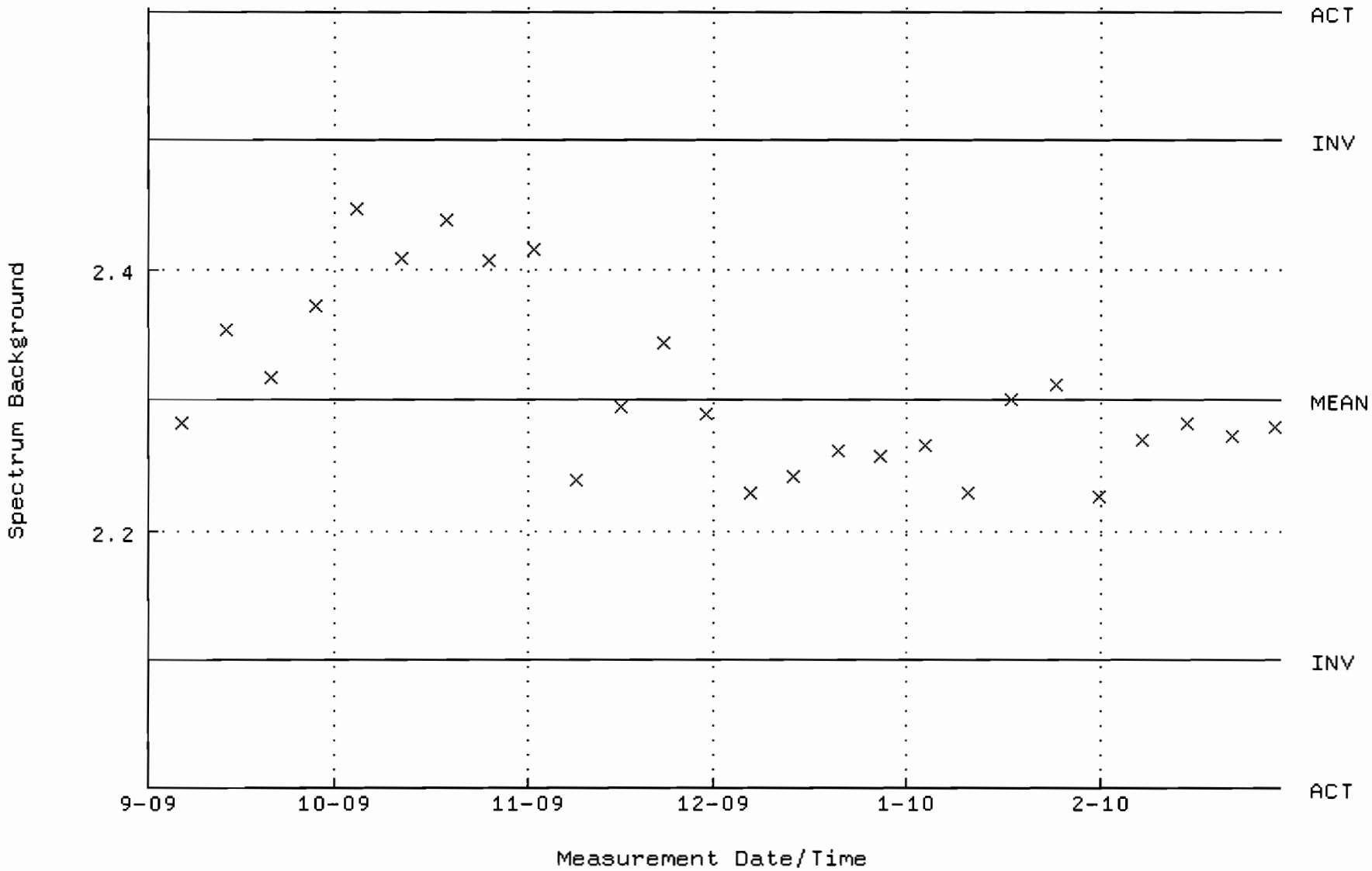

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM20_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:53:11 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

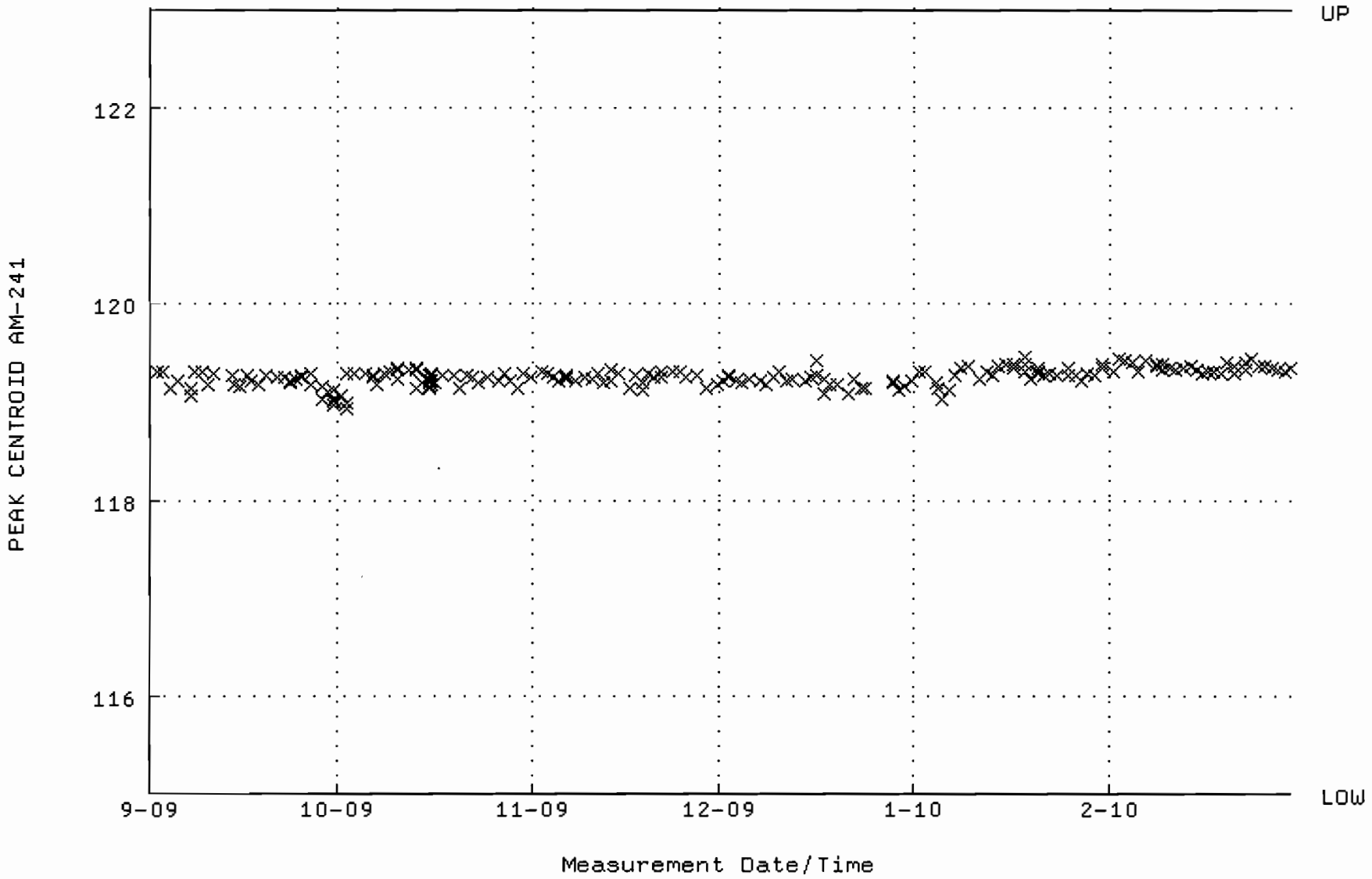

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM20.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:46:04 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.48527 +- 2.388665E-02 (1.61 %)

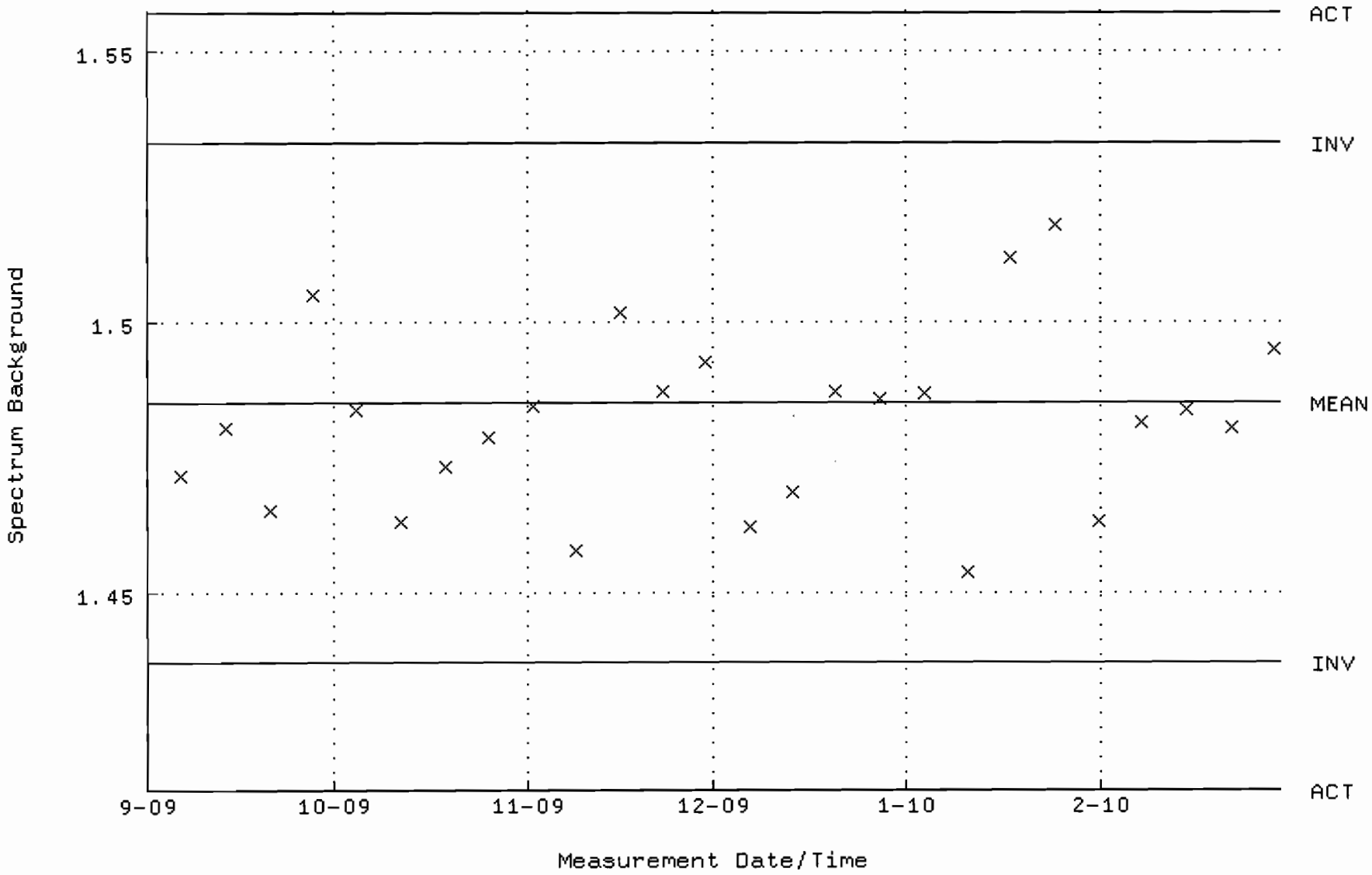

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM21_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-DEC-2009 13:07:42 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

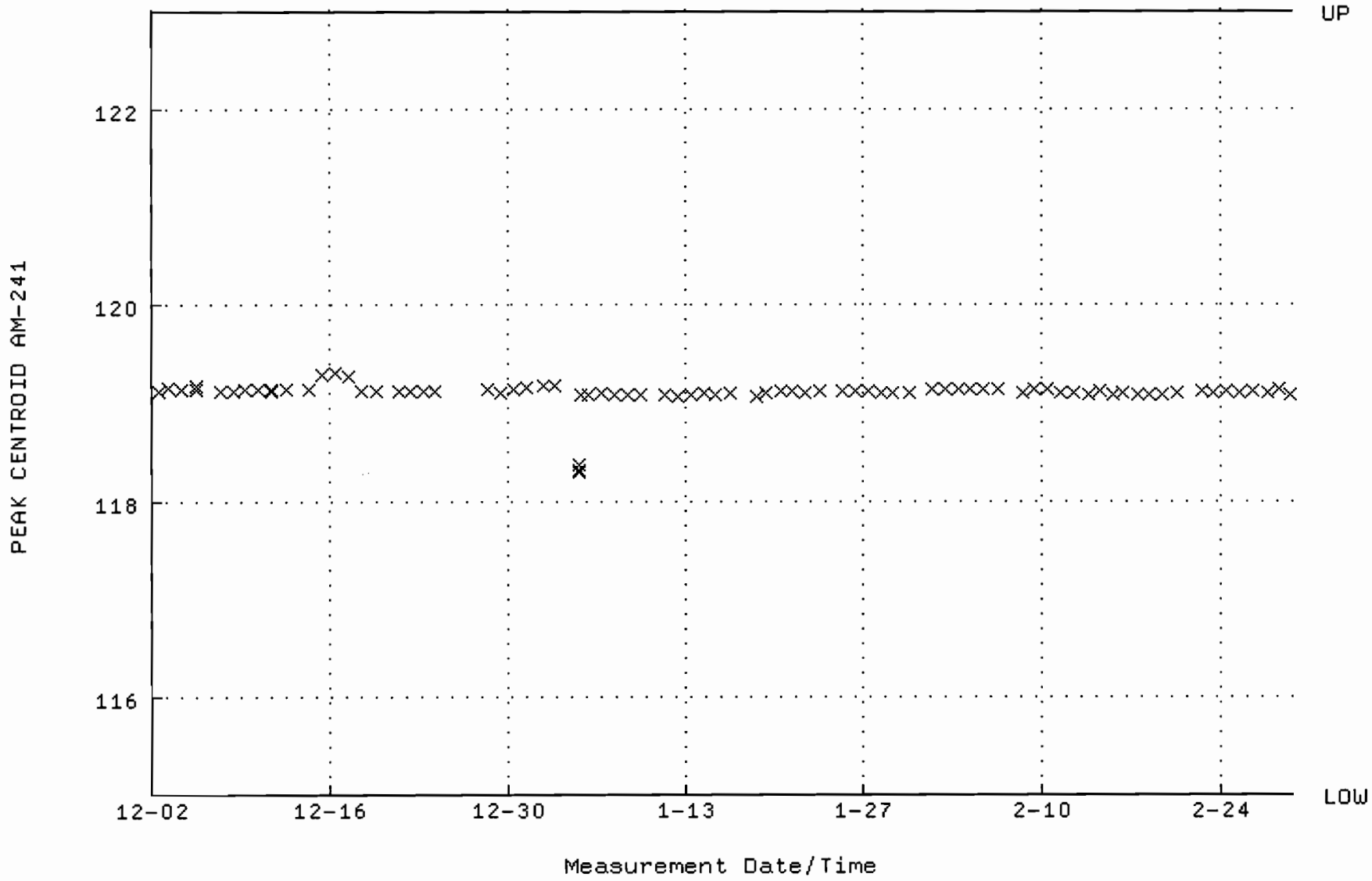

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM21.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-DEC-2009 15:25:38 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.04443 +- 1.452671E-02 (1.39 %)

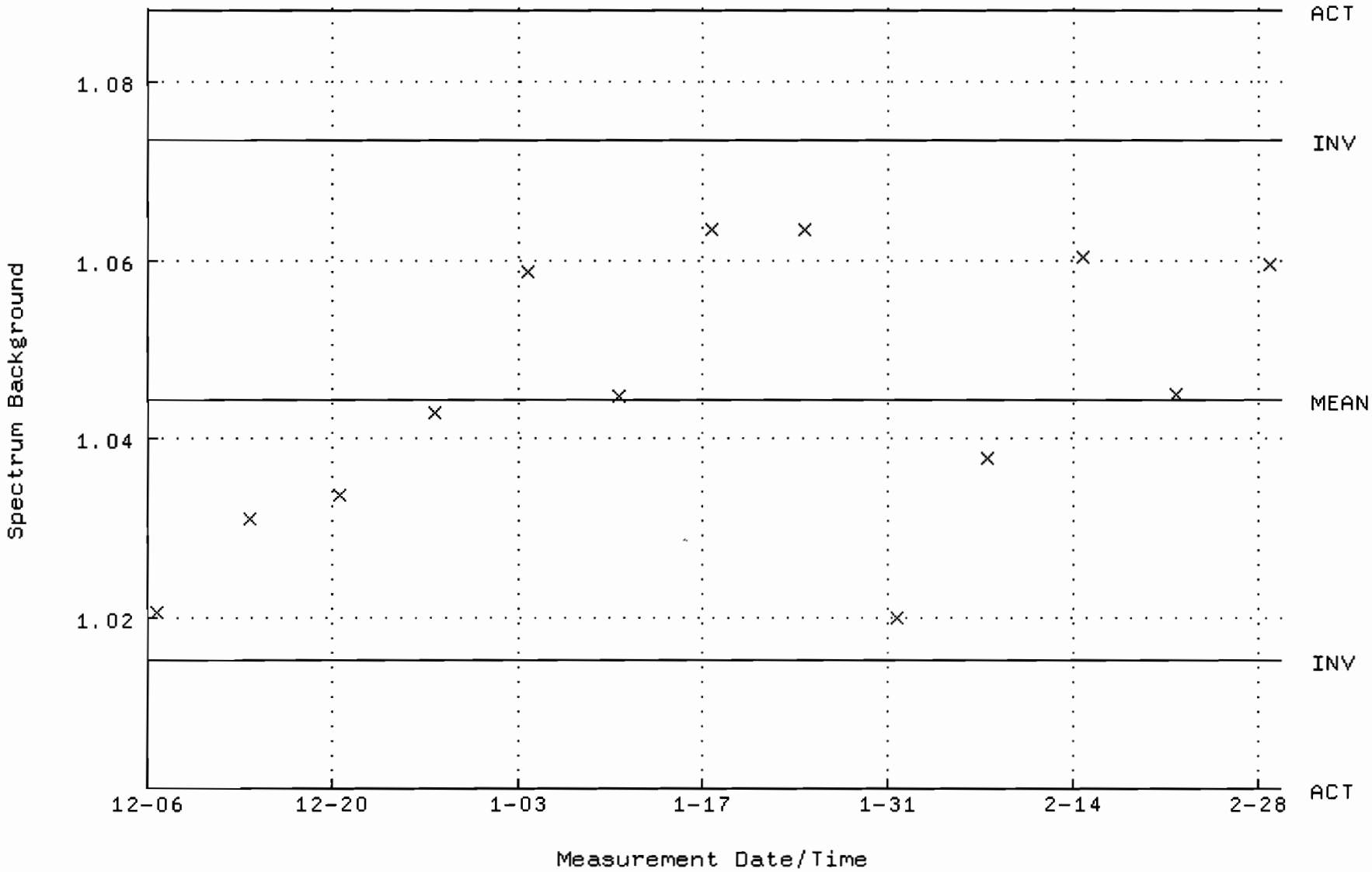

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

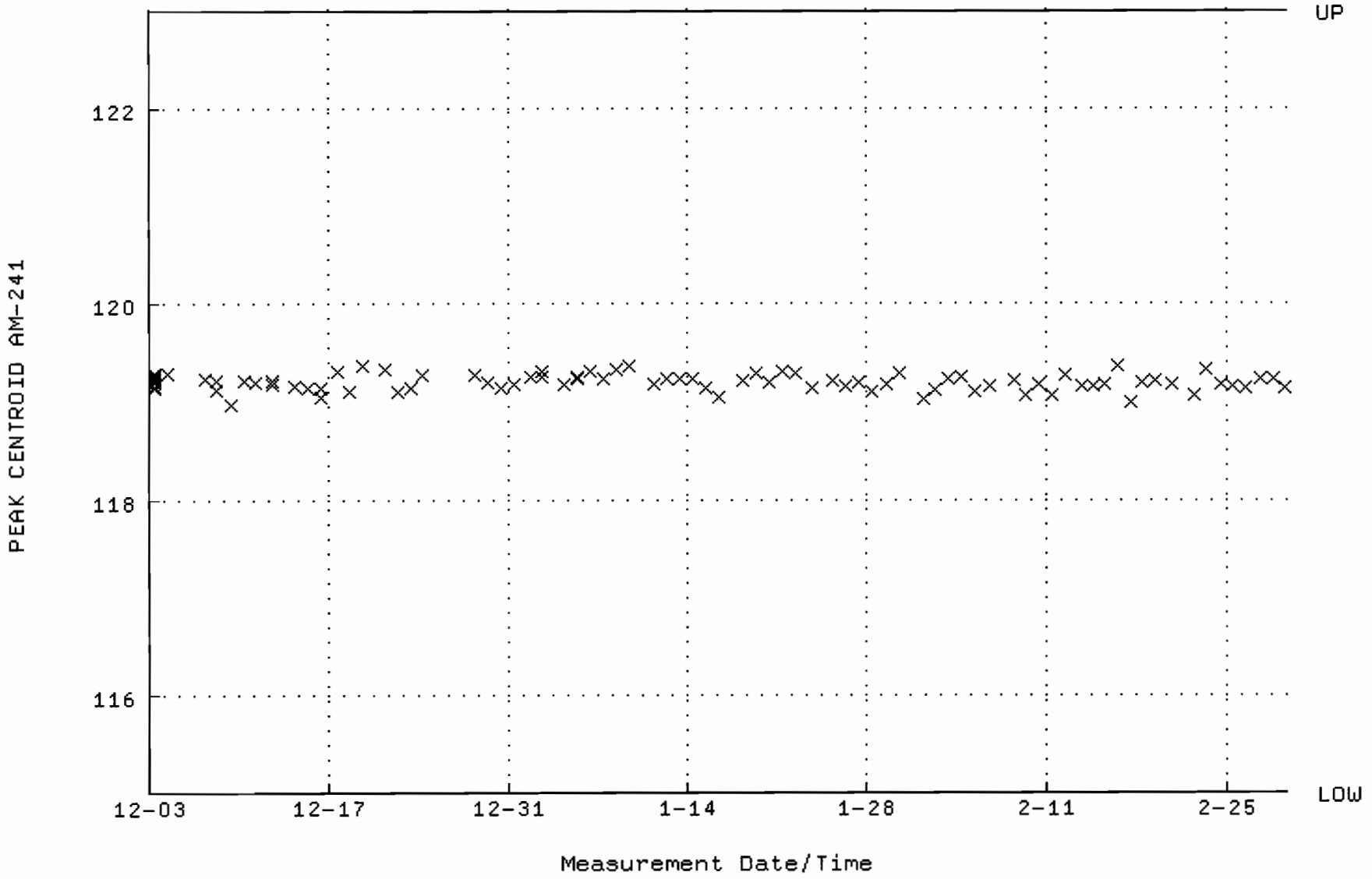

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

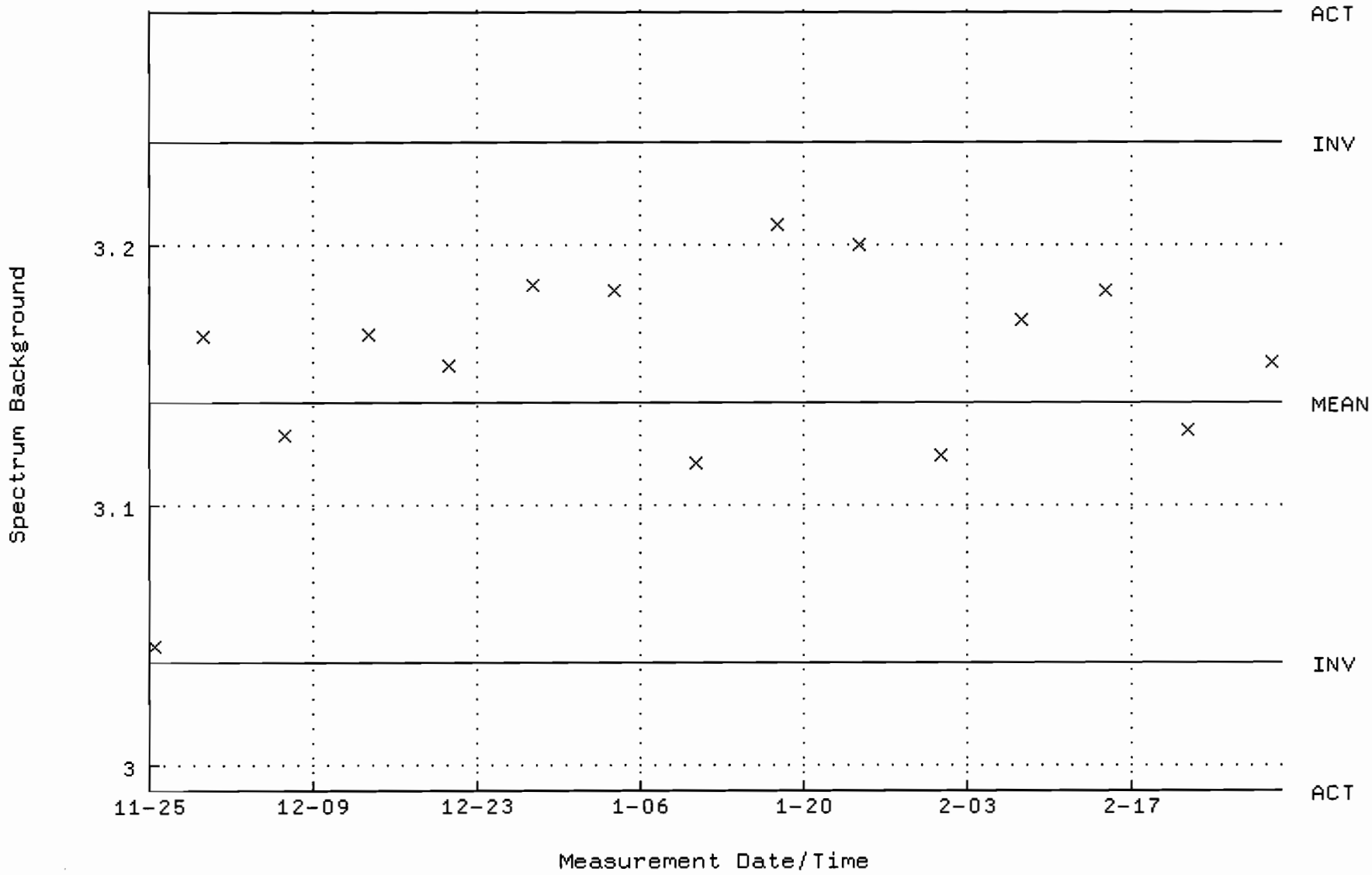

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 9-SEP-2009 16:19:12 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

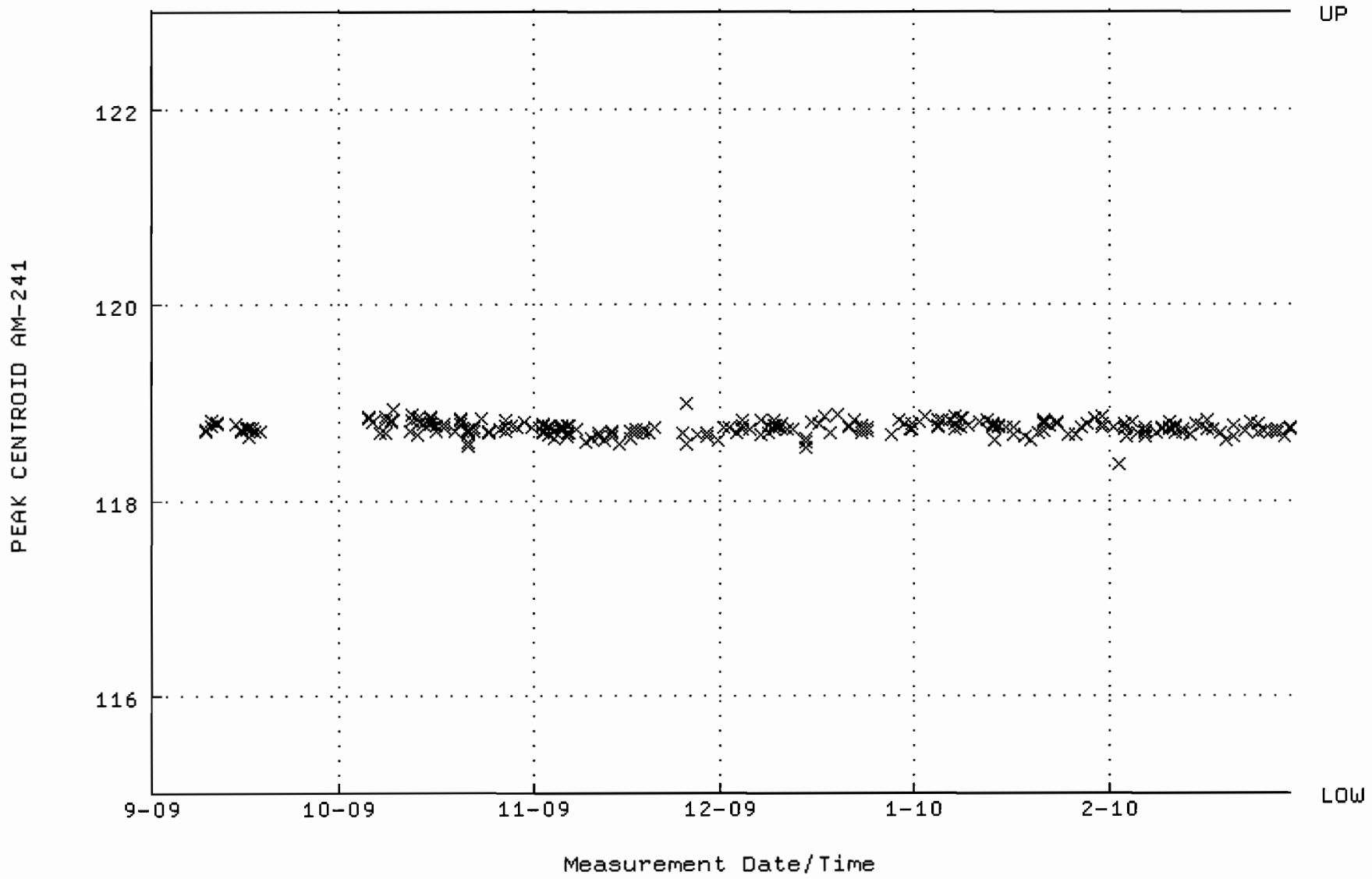

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM23.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-OCT-2009 15:13:53 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.61827 +- 0.119991 (7.41 %)

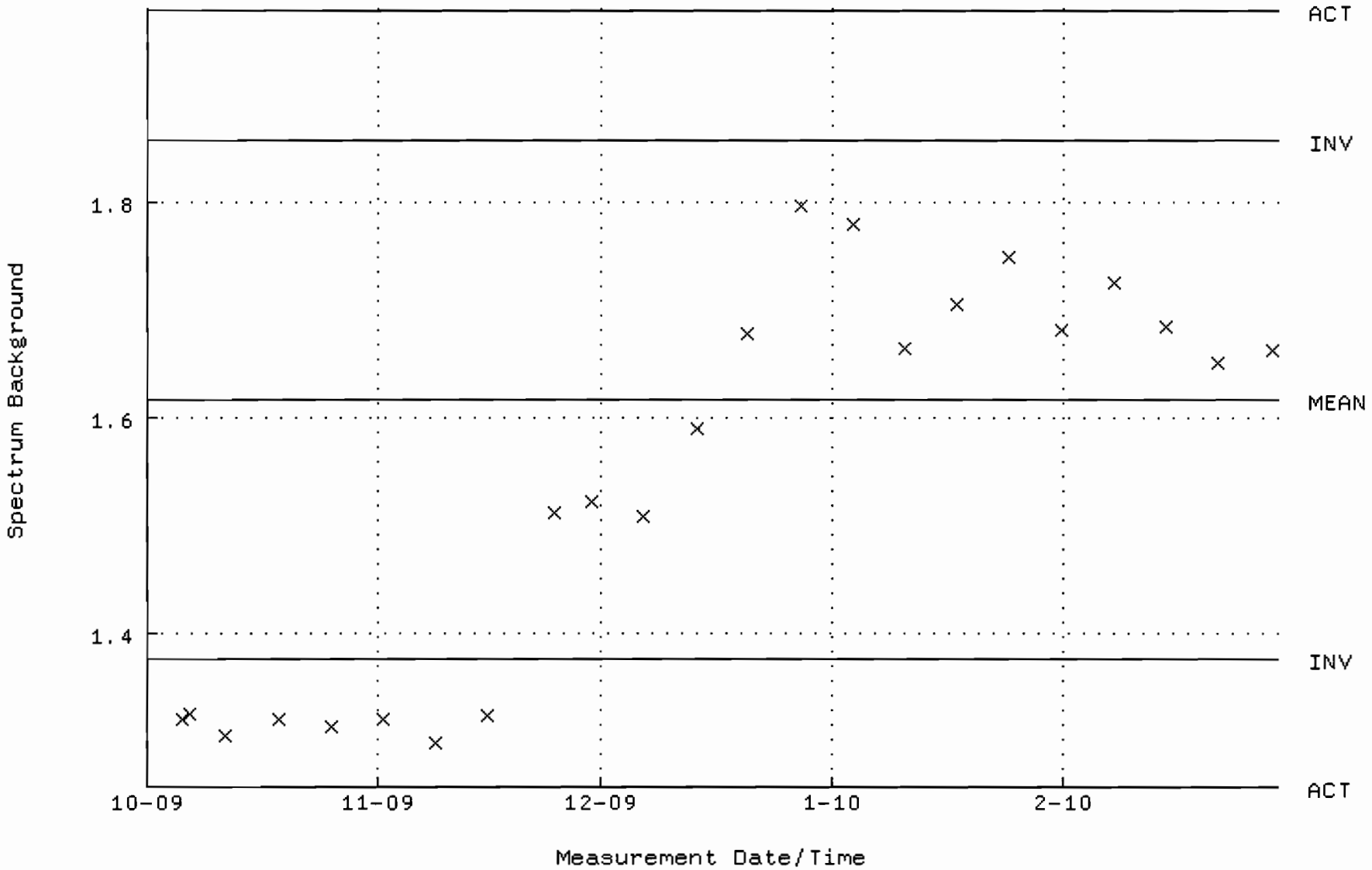

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM29_CAN.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 2-MAR-2010 08:30:43 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

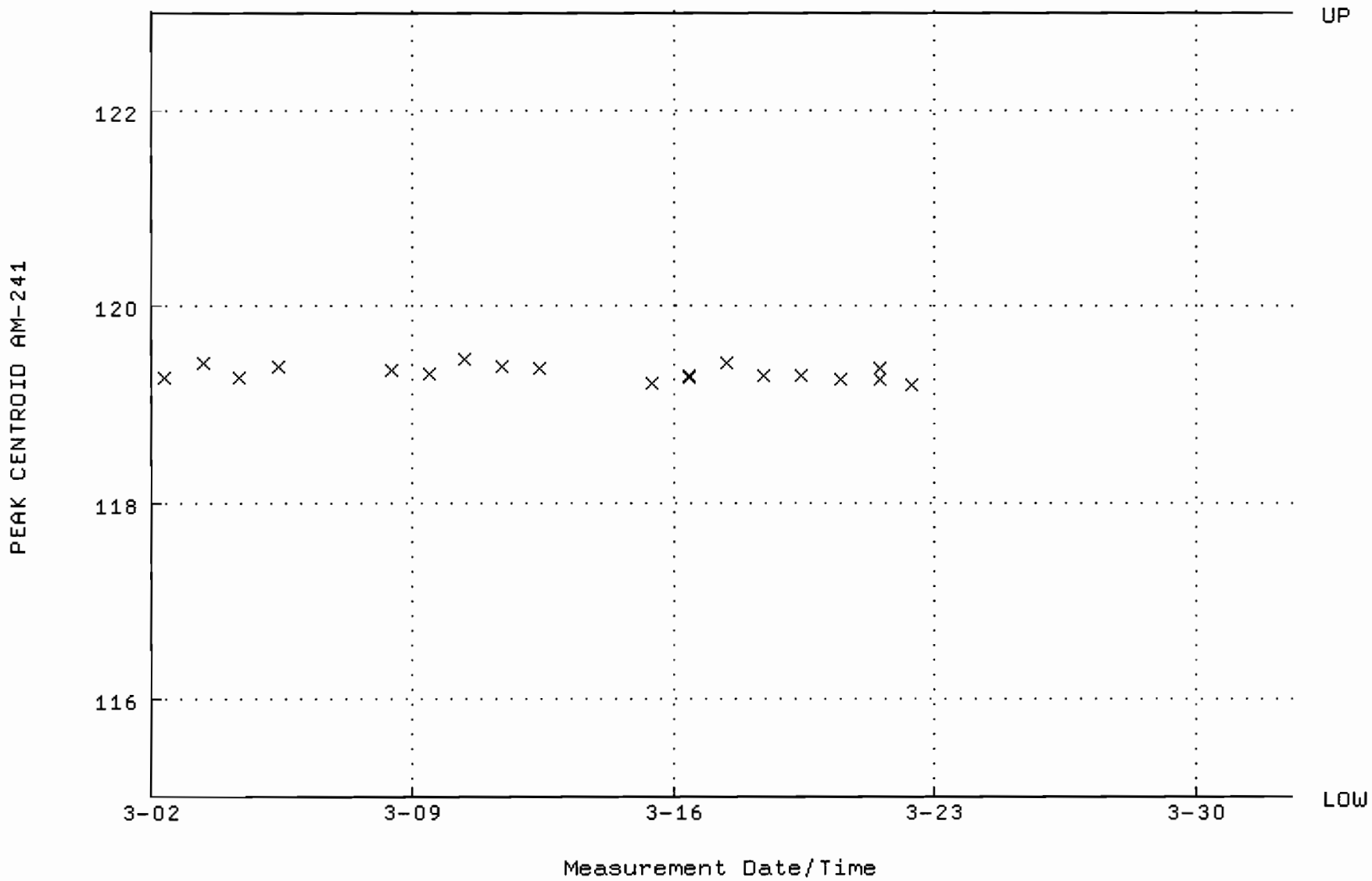

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM29.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 7-MAR-2010 16:47:12 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 1.94193 through 2.37347

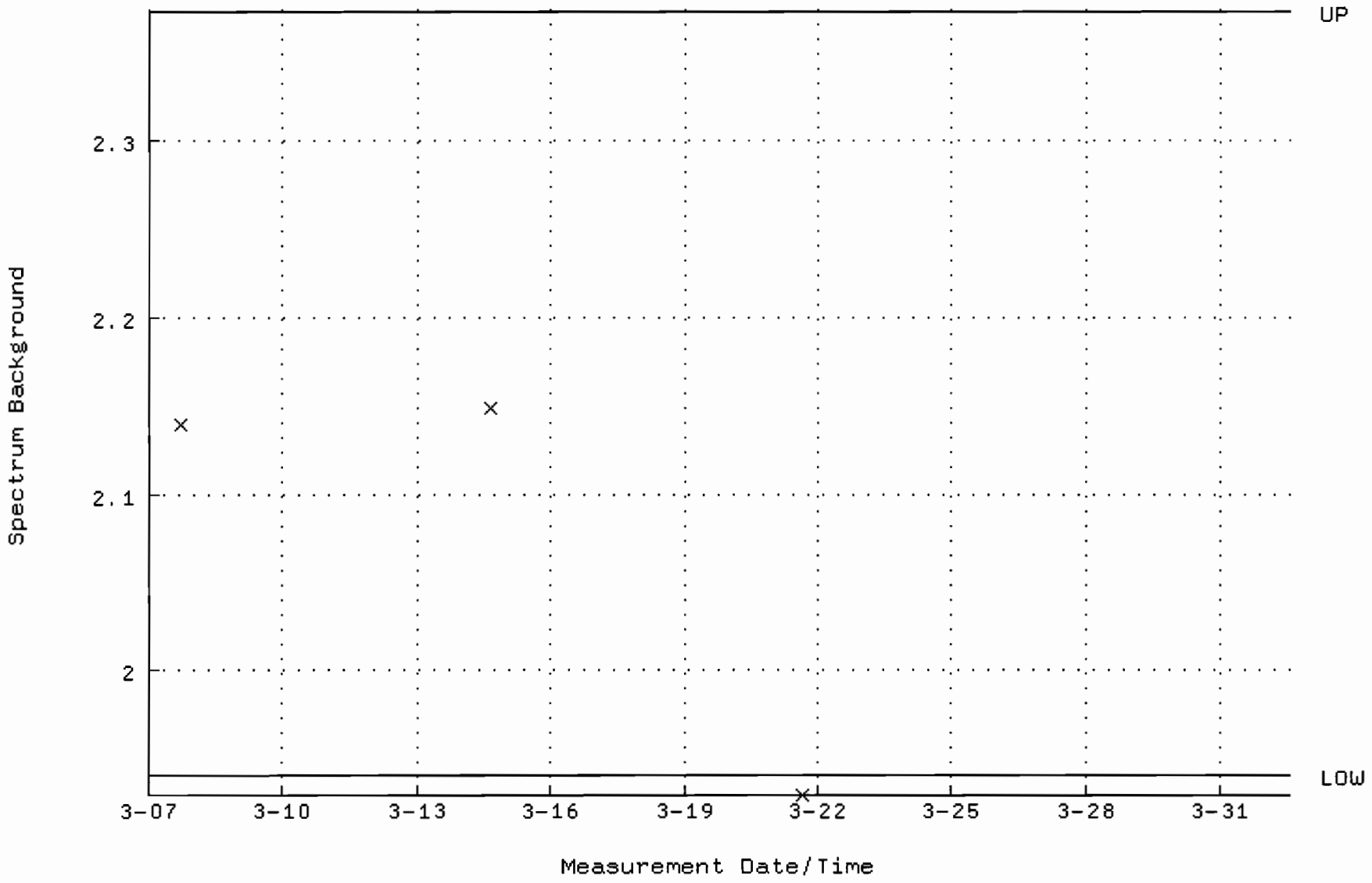

STANDARDS DATA

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

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24937 Avenue Tibbitts, Valencia, California 91355
Laboratory
1380 Seaboard Industrial Blvd., Atlanta, Georgia 30318

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ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER. JAR-1
	Mixed Gamma N2	2510	pCi/L	- VER. JAR-3
	Mixed Gamma N3	2413	pCi/L	- VER. JAR. 5

Mean Value (Counting) =	2485.67	**100.00**	**Pass**
Stdev =	64.065		**Rule 3 (Pass/Fail)**

Certificate Value =	2485.68018	pCi/L
Lower Limit =	2357.536524	pCi/L
Upper Limit =	2613.796809	pCi/L
Rule 1 (Pass/Fail)	**Pass**	
Two sigma =	128.1301422	
10 % of Mean =	248.56666667	
Rule 2 (Pass/Fail)	**Pass**	

M. Stamps 12/2/09 verification 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

	Isotope	Result		
Co-60 (1332.5)	Mixed Gamma N1	1572	pCi/L	- VER-JAR-5
	Mixed Gamma N2	1495	pCi/L	- VER-JAR-2
	Mixed Gamma N3	1501	pCi/L	- VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**	
Stdev =	42.829	**Rule 3 (Pass/Fail)**		
Certificate Value =	1545.8378	pCi/L		
Lower Limit =	1437.008431	pCi/L		
Upper Limit =	1608.324902	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	85.65823564			
10 % of Mean =	152.26666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATA 4/14/2000 [illegible] 12/1/04

Angela D. Johnson 12/3/04

TRM

Invoice:

5 boxes of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM–1	TRM–2	TRM–3	TRM–4
U–238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U–234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th–230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra–226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb–210	485 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 (SMO USE)
Carrier/Waybill No.: 726494
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 13
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking (SMO USE)
Date Entered (mm/dd/yy)
Entered by

QC Initials

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well interceptors and materials being sent to GEL on behalf of Hank Mintzer
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	[signature]	DP	Weston / 7577 / 845-0867

1. Relinquished by	[signature]	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
[illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped 11-16-99 SMO USE
Carrier/Waybill No. 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 13
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept. _____
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL on behalf of Hank Hinton
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date

QC Initials

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry SMO	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by	Org.	Date	Time		4. Received by	Org.	Date
2. Relinquished by	Org.	Date	Time		5. Relinquished by	Org.	Date
2. Received by	Org.	Date	Time		5. Received by	Org.	Date
3. Relinquished by	Org.	Date	Time		6. Relinquished by	Org.	Date
3. Received by	Org.	Date	Time		6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

0934

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

72858-278

Th-229 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Th-229
ACTIVITY (dps):	3.842 E3
HALF-LIFE:	7340 years
CALIBRATION DATE:	May 2, 2006 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	3.5%

Impurities: Th-228 5.7 dps
Th-230 24 dps
Th-232 1.5 dps

5.05657 grams 0.5M HNO_3 solution.

P O NUMBER 2724RD, Item 1

SOURCE PREPARED BY: M Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 05-02-2006

RECEIVED 5/5/06 MLH

RCS-041-110

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0934
Prepared By:	Daniel Roy
Carrier Conc:	0.05M HNO3
Reference Date:	05/02/2006
Ampoule Mass (g):	5.05657 g
Uncertainty:	+/- 3.5 %
LogBook No:	RC-S-041-110

A Solution Material Info	
Isotope:	Thorium-229
Prepared By:	Daniel Roy
Prep Date:	04/23/2008
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	0934-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8973 g
Density(g/mL):	1.0143
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8973 g) * (3842 dps) * (60 dpm/dps) / (5.05657 g * 100 mL) = 2232.5917 dpm/mL
(4.8973 g) * (3842 dps) * (60 dpm/dps) / (1.0143 g/mL)/ (5.05657 g * 100 mL) = 2201.0332 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
04/23/2008	Daniel Roy	2.5898	250	0934-B	22.8009 dpm/ml	04/23/2008	04/23/2009
09/25/2008	Daniel Roy	2.6237	250	0934-C	23.0994 dpm/ml	09/25/2008	09/25/2009
12/16/2008	Daniel Roy	2.6547	250	0934-D	23.3723 dpm/ml	12/16/2008	12/16/2009
01/09/2009	Daniel Roy	2.5399	250	0934-E	22.3616 dpm/ml	01/09/2009	01/09/2010
04/03/2009	Mary Aders	2.5434	250	0934-F	22.3924 dpm/ml	04/03/2009	04/03/2010
04/22/2009	Mary Aders	2.5138	250	0934-G	22.1318 dpm/ml	04/28/2009	04/28/2010
07/31/2009	Mary Aders	2.579	250	0934-H	22.7059 dpm/mL	07/31/2009	07/31/2010
09/16/2009	Mary Aders	2.5029	250	0934-I	22.0359 dpm/mL	09/16/2009	09/16/2010
10/21/2009	Mary Aders	2.4847	250	0934-J	21.8756 dpm/mL	10/21/2009	10/21/2010
12/02/2009	Ashley Drochter	5.0356	500	0934-K	22.167 dpm/mL	12/02/2009	12/02/2010
03/09/2010	Ashley Drochter	5.0236	500	0934-L	22.1142 dpm/mL	03/09/2010	03/09/2011

Verification for Th-229 Standard 0934-L

A.DROCHTER	Isotope	Value	Uncertainty
3/15/2010	0934-L	0.958	0.1630
	0934-L	1.020	0.2040
	0934-L	0.978	0.1550

Mean Value (Counting) =	0.985	98.95	**Pass**
Stdev =	0.031643851		**Rule 3 (Pass/Fail)**

Target =	0.996
Lower Limit =	0.92204563
Upper Limit =	1.048621036
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.063287703
10 % of Mean =	0.098533333
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard 0934-L using 0.1 mL for each source. Each standard was combined with 0.1 mL of Th-230 standard A2796-J and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Two mL of 49% HF was added to precipitate neodymium(and Thorium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Th-229 were calculated by comparison to Th-230 certified values.

3/18/10

3/18/10

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Kuen
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ 1. STANDARD WIPE TEST

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 2. SOAK TEST

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 3. SOAK TEST -- BERYLLIUM WINDOW

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 4. GAS SOURCE TEST (Radioactive Gas)

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ 5. OTHER LEAK TEST

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 6. LEAK TEST NOT APPLICABLE

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	03/09/2010
Expiration Date:	03/09/2011
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Tara Sides	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/14/2009	09/14/2010
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/09/2010	Ashley Drochter	.011	1000	445-96-2-VV	22.7878 dpm/mL	03/09/2010	03/09/2011
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
03/23/2010	Ashley Drochter	.0163	1000	445-96-2-WW	33.7674 dpm/mL	03/23/2010	03/23/2011
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-VV*

A.Drochter	Isotope	Value	Uncertainty
3/15/2010	445-96-2-VV #1	1.040	0.1630
	445-96-2-VV #2	0.964	0.1480
	445-96-2-VV #3	0.970	0.1550

Mean Value (Counting) =	0.991	96.72	**Pass**
Stdev =	0.042253205		**Rule 3 (Pass/Fail)**

Target =	1.025
Lower Limit =	0.906826923
Upper Limit =	1.075839743
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.08450641
10 % of Mean =	0.099133333
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-VV*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

3/15/10

3/16/10

1430

NATIONAL PHYSICAL LABORATORY

Teddington Middlesex UK TW11 0LW Telephone +44 20 8977 3222

Certificate of Calibration

UKAS CALIBRATION 0478

PLUTONIUM-236 SOLUTION
R37-02

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

FOR:	GEL Laboratories LLC 2040 Savage Road Charleston, SC 29407 USA
FOR THE ATTENTION OF:	Mr Tim Winters
NPL PRODUCT CODE:	R37-02
IDENTIFICATION:	A09881
DESCRIPTION:	An aqueous solution of ^{236}Pu also containing 2 mol dm^{-3} of nitric acid. The solution is contained in a flame sealed ampoule of type Q and nominal volume 5 ml (squat) as defined in BS 795:1983.
DATE(S) OF CALIBRATION:	26 June 2009 to 1 July 2009
INTENDED USE:	Calibration of instruments for response to ^{236}Pu
STORAGE:	The material may be stored at room temperature in a suitably sealed container. Flame-sealed glass ampoules are recommended for long-term storage. Regulatory conditions may apply to the manner in which this material is stored.

RECEIVED 11 2009 Ans.

MEASUREMENTS

The samples were prepared by gravimetric dilution of a ^{236}Pu solution, which had been previously standardised using liquid scintillation counting. The accuracy of the dilution factor was checked using liquid scintillation counting.

Reference: 2009100356

Date of Issue: 4 November 2009

Checked by:

Signed:

Name: Dr Arvic Harms

(Authorised Signatory)

for Managing Director

RESULTS

Principal radionuclide:	^{236}Pu
Reference time:	2009-07-01 12:00 UTC
Activity concentration of principal radionuclide:	170.8 Bq g^{-1}
Expanded uncertainty:	±0.6 Bq g^{-1} (±0.36 %)
Contaminants present:	^{226}Ra, ^{232}U, ^{228}Th, ^{237}Np
Activity concentration of ^{226}Ra:	11.0 mBq g^{-1}
Expanded uncertainty:	±4.0 mBq g^{-1} (±36 %)
Activity concentration of ^{232}U:	0.67 Bq g^{-1}
Expanded uncertainty:	±0.12 Bq g^{-1} (±18 %)
Activity concentration of ^{228}Th:	11.38 mBq g^{-1}
Expanded uncertainty:	±0.46 mBq g^{-1} (±4 %)
Activity concentration of ^{237}Np:	5.00 mBq g^{-1}
Expanded uncertainty:	±0.34 mBq g^{-1} (±8 %)
Sample Mass:	4.97 g ± 0.02 g

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

NOTES

[1]. The reported reference time is stated consistent with the format given in ISO 8601:2004. UTC is the abbreviation for Universal Time, Coordinated. The date is stated in the format YYYY-MM-DD such that 2008-09-01 represents 1 September 2008.

[2]. The recommended half life of ^{236}Pu is 1044 (6) days and is taken from the evaluations published in *Nuclear Data Sheets*.

[3]. The recommended half life of ^{226}Ra is 5.844 (50) $\times 10^5$ days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[4]. The recommended half life of ^{232}U is 25800 (800) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[5]. The recommended half life of ^{237}Np is 7.83 (6) $\times 10^8$ days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[6]. The recommended half life of ^{228}Th is 698.60 (46) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Checked by:

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1430
Prepared By:	Ashley Drochter
Carrier Conc:	2 M HNO3
Reference Date:	07/01/2009
Ampoule Mass (g):	4.97 g
Uncertainty:	+/- .36 %
LogBook No:	RC-S-051-149

A Solution Material Info	
Isotope:	Plutonium-236
Prepared By:	Ashley Drochter
Prep Date:	01/27/2010
Verification Date:	01/27/2010
Expiration Date:	01/27/2011
Primary Code:	1430-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8051 g
Density(g/mL):	1.0610
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (100 mL) = 492.4266 dpm/mL
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (1.0610 g/mL) / (100 mL) = 464.1156 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/27/2010	Bethany Fiem	33.0429	200	1430-B	76.6786262 dpm/mL	01/27/2010	01/27/2011
03/04/2010	Ashley Drochter	15.2331	200	1430-C	35.3496 dpm/mL	03/04/2010	03/04/2011
03/17/2010	Ashley Drochter	15.0683	200	1430-D	34.9672 dpm/mL	03/17/2010	03/17/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-236 Standard 1430-C

	Isotope	Value	Uncertainty
A. Drochter	1430-C	2.760	0.4480
3/4/2010	1430-C	2.770	0.4520
	1430-C	2.950	0.4850

Mean Value (Counting) =	2.827	104.54659	% of Known Value
Stdev =	0.106926766		
Target =	2.70		
Lower Limit =	2.612813134		
Upper Limit =	3.040520199		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.213853532		
10 % of Mean =	0.282666667		
Rule 2 (Pass/Fail)	**Pass**		

The analyst prepared three standard verification sources for standard 1430-B using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. After approximately ten minutes, two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-236 were calculated by comparison to Pu-239 certified values.

3/5/10

3/5/10

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: W. Mao, Radiochemist

QA Approved: D. M. Montgomery, QA Manager Date: 12-11-08

End of Certificate

RECEIVED 12/15/08
RC-S-OE

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

Fulcrton AMS 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 962631**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248702001	SAMPLE	MXR1	GAM05	23-MAR-10 08:52	DONE	CAN	11-JUN-09 00:00
248702002	SAMPLE	MXR1	GAM15	23-MAR-10 12:23	DONE	CAN	03-FEB-10 00:00
248818001	SAMPLE	MXR1	GAM10	23-MAR-10 12:59	DONE	CAN	13-MAR-10 00:00
248818002	SAMPLE	MXR1	GAM05	23-MAR-10 13:02	DONE	CAN	11-JUN-09 00:00
248818003	SAMPLE	MXR1	GAM18	23-MAR-10 13:05	DONE	CAN	23-APR-09 00:00
248818004	SAMPLE	MXR1	GAM01	23-MAR-10 13:33	DONE	CAN	12-JAN-10 00:00
248818005	SAMPLE	MXR1	GAM16	23-MAR-10 13:33	DONE	CAN	16-NOV-09 00:00
248818006	SAMPLE	MXR1	GAM20	23-MAR-10 13:34	DONE	CAN	26-AUG-09 00:00
248818007	SAMPLE	MXR1	GAM17	23-MAR-10 13:54	DONE	CAN	06-JAN-10 00:00
248818008	SAMPLE	MXR1	GAM21	23-MAR-10 14:24	DONE	CAN	28-JUL-09 00:00
248818009	SAMPLE	MXR1	GAM23	23-MAR-10 14:25	DONE	CAN	02-JUN-09 00:00
248824001	SAMPLE	MXR1	GAM29	23-MAR-10 14:25	DONE	CAN	23-FEB-10 00:00
248824002	SAMPLE	MXR1	GAM04	23-MAR-10 14:38	DONE	CAN	05-MAY-09 00:00
1202065185	MB	MXR1	GAM06	23-MAR-10 14:39	DONE	CAN	16-FEB-10 00:00
1202065186	DUP	MXR1	GAM15	23-MAR-10 14:39	DONE	CAN	03-FEB-10 00:00
1202065187	LCS	MXR1	GAM22	23-MAR-10 14:40	DONE	CAN	02-DEC-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965807**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248818001	SAMPLE	JXH2	1220	26-MAR-10 07:44	DONE		
248841003	SAMPLE	JXH2	1209	29-MAR-10 11:40	DONE		
248841004	SAMPLE	JXH2	1210	29-MAR-10 11:40	DONE		
248841005	SAMPLE	JXH2	1211	29-MAR-10 11:40	DONE		
248841006	SAMPLE	JXH2	1212	29-MAR-10 11:40	DONE		
248841007	SAMPLE	JXH2	1213	29-MAR-10 11:41	DONE		
248841008	SAMPLE	JXH2	1214	29-MAR-10 11:41	DONE		
248841009	SAMPLE	JXH2	1215	29-MAR-10 11:41	DONE		
248841010	SAMPLE	JXH2	1216	29-MAR-10 11:41	DONE		
248841011	SAMPLE	JXH2	1217	29-MAR-10 11:41	DONE		
248818002	SAMPLE	JXH2	1221	29-MAR-10 11:41	DONE		
248818003	SAMPLE	JXH2	1222	29-MAR-10 11:41	DONE		
248818004	SAMPLE	JXH2	1223	29-MAR-10 11:41	DONE		
248818005	SAMPLE	JXH2	1224	29-MAR-10 11:41	DONE		
248818006	SAMPLE	JXH2	1225	29-MAR-10 11:41	DONE		
248818007	SAMPLE	JXH2	1226	29-MAR-10 11:41	DONE		
248818008	SAMPLE	JXH2	1227	29-MAR-10 11:41	DONE		
248818009	SAMPLE	JXH2	1228	29-MAR-10 11:41	DONE		
248841001	SAMPLE	JXH2	1229	29-MAR-10 11:41	DONE		
248841002	SAMPLE	JXH2	1230	29-MAR-10 11:41	DONE		
1202072510	MB	JXH2	1247	30-MAR-10 19:03	DONE		
1202072511	DUP	JXH2	1248	30-MAR-10 19:03	DONE		
1202072512	LCS	JXH2	1256	30-MAR-10 19:03	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965808**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248818001	SAMPLE	JXH2	1025	27-MAR-10 13:40	DUSE		
248818002	SAMPLE	JXH2	1026	27-MAR-10 13:40	DONE		
248818003	SAMPLE	JXH2	1027	27-MAR-10 13:40	DONE		
248818004	SAMPLE	JXH2	1028	27-MAR-10 13:40	DONE		
248818005	SAMPLE	JXH2	1029	27-MAR-10 13:40	DONE		
248818006	SAMPLE	JXH2	1030	27-MAR-10 13:40	DONE		
248818007	SAMPLE	JXH2	1037	27-MAR-10 13:40	DONE		
248818008	SAMPLE	JXH2	1038	27-MAR-10 13:40	DONE		
248818009	SAMPLE	JXH2	1039	27-MAR-10 13:40	DUSE		
248841001	SAMPLE	JXH2	1040	27-MAR-10 13:40	DONE		
248841002	SAMPLE	JXH2	1041	27-MAR-10 13:40	DONE		
248841003	SAMPLE	JXH2	1042	27-MAR-10 13:40	DONE		
248841004	SAMPLE	JXH2	1089	27-MAR-10 13:40	DONE		
248841005	SAMPLE	JXH2	1090	27-MAR-10 13:40	DONE		
248841006	SAMPLE	JXH2	1091	27-MAR-10 13:40	DONE		
248841007	SAMPLE	JXH2	1093	27-MAR-10 13:40	DONE		
248841008	SAMPLE	JXH2	1094	27-MAR-10 13:40	DONE		
248841009	SAMPLE	JXH2	1095	27-MAR-10 13:40	DUSE		
248841010	SAMPLE	JXH2	1096	27-MAR-10 13:40	DONE		
248841011	SAMPLE	JXH2	1097	27-MAR-10 13:40	DONE		
1202072513	MB	JXH2	1098	27-MAR-10 13:40	DONE		
1202072514	DUP	JXH2	1099	27-MAR-10 13:40	DONE		
1202072515	LCS	JXH2	1100	27-MAR-10 13:40	DONE		
248818001	SAMPLE	JXH2	1107	30-MAR-10 08:02	DONE		
248818009	SAMPLE	JXH2	1108	30-MAR-10 08:02	DONE		
248841009	SAMPLE	JXH2	1109	30-MAR-10 08:02	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965809**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248818001	SAMPLE	JXH2	1185	26-MAR-10 15:40	DUSE		
248818002	SAMPLE	JXH2	1186	26-MAR-10 15:40	DUSE		
248818003	SAMPLE	JXH2	1187	26-MAR-10 15:40	DUSE		
248818004	SAMPLE	JXH2	1188	26-MAR-10 15:40	DUSE		
248818005	SAMPLE	JXH2	1189	26-MAR-10 15:40	DUSE		
248818006	SAMPLE	JXH2	1190	26-MAR-10 15:40	DUSE		
248818007	SAMPLE	JXH2	1191	26-MAR-10 15:40	DUSE		
248818008	SAMPLE	JXH2	1192	26-MAR-10 15:40	DUSE		
248818009	SAMPLE	JXH2	1193	26-MAR-10 15:40	DUSE		
1202072516	MB	JXH2	1194	26-MAR-10 15:40	DUSE		
1202072517	DUP	JXH2	1195	26-MAR-10 15:40	DUSE		
1202072518	LCS	JXH2	1196	26-MAR-10 15:40	DUSE		
248818001	SAMPLE	JXH2	1197	29-MAR-10 15:14	DONE		
248818002	SAMPLE	JXH2	1198	29-MAR-10 15:14	DONE		
248818003	SAMPLE	JXH2	1199	29-MAR-10 15:14	DONE		
248818004	SAMPLE	JXH2	1200	29-MAR-10 15:14	DONE		
248818005	SAMPLE	JXH2	1201	29-MAR-10 15:14	DONE		
248818006	SAMPLE	JXH2	1202	29-MAR-10 15:14	DONE		
248818007	SAMPLE	JXH2	1203	29-MAR-10 15:14	DONE		
248818008	SAMPLE	JXH2	1204	29-MAR-10 15:14	DONE		
248818009	SAMPLE	JXH2	1205	29-MAR-10 15:14	DONE		
1202072516	MB	JXH2	1206	29-MAR-10 15:14	DONE		
1202072517	DUP	JXH2	1207	29-MAR-10 15:14	DONE		
1202072518	LCS	JXH2	1208	29-MAR-10 15:14	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965810**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248818008	SAMPLE	JXH2	1113	30-MAR-10 16:43	DONE		
248818009	SAMPLE	JXH2	1114	30-MAR-10 16:43	DONE		
248841001	SAMPLE	JXH2	1119	30-MAR-10 16:43	DONE		
248841002	SAMPLE	JXH2	1120	30-MAR-10 16:43	DONE		
248841003	SAMPLE	JXH2	1121	30-MAR-10 16:43	DONE		
248841004	SAMPLE	JXH2	1122	30-MAR-10 16:43	DONE		
248841005	SAMPLE	JXH2	1123	30-MAR-10 16:44	DONE		
248841006	SAMPLE	JXH2	1124	30-MAR-10 16:44	DONE		
248841007	SAMPLE	JXH2	1125	30-MAR-10 16:44	DONE		
248841008	SAMPLE	JXH2	1126	30-MAR-10 16:44	DONE		
248841009	SAMPLE	JXH2	1127	30-MAR-10 16:44	DONE		
248841010	SAMPLE	JXH2	1128	30-MAR-10 16:44	DONE		
248841011	SAMPLE	JXH2	1129	30-MAR-10 16:44	DONE		
1202072519	MB	JXH2	1130	30-MAR-10 16:44	DONE		
1202072520	DUP	JXH2	1131	30-MAR-10 16:44	DONE		
1202072521	LCS	JXH2	1132	30-MAR-10 16:44	DONE		
248818001	SAMPLE	JXH2	1001	30-MAR-10 16:45	DONE		
248818002	SAMPLE	JXH2	1006	30-MAR-10 16:45	DONE		
248818003	SAMPLE	JXH2	1007	30-MAR-10 16:45	DONE		
248818004	SAMPLE	JXH2	1008	30-MAR-10 16:45	DONE		
248818005	SAMPLE	JXH2	1009	30-MAR-10 16:45	DONE		
248818006	SAMPLE	JXH2	1010	30-MAR-10 16:45	DONE		
248818007	SAMPLE	JXH2	1011	30-MAR-10 16:45	DONE		

Thursday, March 04, 2010

REQUEST NUMBER: 10-2303

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2303

Per Agreement Number:126310011

Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE46-10-13546	S	3/3/2010	Plus Cesium Metal
		1	RE46-10-13547	S	3/3/2010	Plus Cesium Metal
		1	RE46-10-13548	S	3/3/2010	Plus Cesium Metal
		1	RE46-10-13549	S	3/3/2010	Plus Cesium Metal
		1	RE46-10-13550	S	3/3/2010	Plus Cesium Metal
		1	RE46-10-13551	S	3/3/2010	Plus Cesium Metal

	1	RE46-10-13552	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13553	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13556	S	3/3/2010	Plus Cesium Metal
SW-846:6020	1	RE46-10-13546	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13547	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13548	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13549	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13550	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13551	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13552	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13553	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13556	S	3/3/2010	Plus Cesium Metal
SW-846:6850	1	RE46-10-13546	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13547	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13548	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13549	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13550	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13551	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13552	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13553	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13556	S	3/3/2010	Plus Cesium Metal
SW-846:7471A	1	RE46-10-13546	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13547	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13548	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13549	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13550	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13551	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13552	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13553	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13556	S	3/3/2010	Plus Cesium Metal
SW-846:9012A	1	RE46-10-13546	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13547	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13548	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13549	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13550	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13551	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13552	S	3/3/2010	Plus Cesium Metal

1	RE46-10-13553	S	3/3/2010	Plus Cesium Metal
1	RE46-10-13556	S	3/3/2010	Plus Cesium Metal

Final Page of REQUEST NUMBER 10-2303

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2303C

REQUEST NUMBER: 10-2303

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13553	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13549	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13551	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13550	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13548	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13546	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13552	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13547	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13556	1	POLY	Met+NO3+CL04+CN	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
[illegible]	3/4/10	1400			
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13546 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1100	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611622	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	8 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	9 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R JRT 3-3-10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
~~1~~ 2	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: tuff, Pinkish gray (7.5YR 6/3), solvent odor?

SAMPLE COMMENTS: Base of well

LOCATION DESC: 4c-1

FIELD SCREENING/MEASUREMENT RESULTS: PID: ~~NA~~ JRT 3-3-10 373 ppm Background: α: 12 β: 827 dpm Samples MDA

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13547 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1125	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611622	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	13 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	14 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	SR JRJ 3-3-10		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: ____ COMPOSITE TIME INTERVAL: ____ WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: ____ BOREHOLE DIRECTION: ____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 ~~2~~	UU 3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: tuff pinkish gray (7.5YR 6/3), solvent odor? moist

SAMPLE COMMENTS: 5ft below base of well

LOCATION DESC: 4C-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 421 ppm Background: α: 12 dpm β: 827 Samples < MDA

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13548 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QB + 3
TIME COLLECTED (HH:MM)		1140	SUB-MEDIA:	SOIL	O/C
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611622	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	18	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	19	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 ~~2~~	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: tuff, pinkish-gray (7.5YR 6/3), solvent odor? Sl. moist

SAMPLE COMMENTS: 10 ft below base of well

LOCATION DESC: 4c-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 433 ppm Background: α: 12 β: 807 dpm Sample's MDA

COLLECTED BY (PRINT) [signature] **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [signature]	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13549 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1205	SUB-MEDIA:	SOIL	Ok
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611622	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK SJS 3-3-10	FIELD PREP:	NA	
TOP DEPTH:	0	~~24~~ 23 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	24 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R SJS 3-3-10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ **COMPOSITE TIME INTERVAL:** _____ **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** _____ **BOREHOLE DIRECTION:** _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 ~~2~~	MW 3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: tuff, pinkish gray (7.5 YR 6/3) solvent odor, sl. moist

SAMPLE COMMENTS: 15 ft below base of well

LOCATION DESC: 4C-1

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples < MDA
PID = 390 ppm
α: 12
β: 827 dpm

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13550 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1335	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611623	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	8 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	9 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R JLJ 3-3-10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
~~1~~ 2	LW 3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: tuff, pinkish-gray (7.5YR 6/3), solvent odor, moist

SAMPLE COMMENTS: base of well

LOCATION DESC: 4C-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 265 ppm

Background: Samples < MDA
α: 12 dpm
β: 827 dpm

COLLECTED BY (PRINT) J. J[illegible] **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. J[illegible]	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13551 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT 3
TIME COLLECTED (HH:MM)			SUB-MEDIA:	SOIL	ok
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611623	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	13 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	14 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R	SLS 3-3-10	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 ~~2~~	~~4D~~ 3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: ~~tuff, pinkish-gray (7.5YR 6/3)~~ DT 3-3-10
Sand, brn (7.5YR 4/3), crse gr, sub angular - sub rounded wet, solvent odor

SAMPLE COMMENTS: 5 ft below base of well

LOCATION DESC: 4C-2

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples < MDA
PID = 373 ppm α: 12 β: 827 dpm

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13552 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1415	SUB-MEDIA:	SOIL	ok
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611623	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	18 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	19 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 2	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: fntt, Pinkish-gray (7.5YR 6/3), Solvent odor, moist

SAMPLE COMMENTS: 10 ft below base of well

LOCATION DESC: 4c-2

FIELD SCREENING/MEASUREMENT RESULTS: Background: α: 12 β: 827 dpm Samples < MDA
PID = 360 ppm

COLLECTED BY (PRINT) J. Jones **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jones	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature) J. Jones	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13553 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT 3
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611623	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	23 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	24 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING: YES / NO / NA**

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1-2	4U 3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: Tuff, Pinkish-gray (7.5YR 6/3), solvent odor, sl. moist

SAMPLE COMMENTS: 15 ft below base of well

LOCATION DESC: 4c-2

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples < MDA

PID = 323 ppm α: 12 β: 827 dpm

COLLECTED BY (PRINT) J. [illegible] **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [illegible]	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13555 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	NA	AIR
TIME COLLECTED (HH:MM)		1100	SUB-MEDIA:	OTHER	OK
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611622	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	8 ft	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	9 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 ~~2~~		8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

3/3/10

SAMPLE DESC: QC Sample of RE 46-10-13546

SAMPLE COMMENTS: NA

LOCATION DESC: 4C-1

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Andress **REVIEWED BY (PRINT)** J. Rennie

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [illegible]	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13556 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1415	SUB-MEDIA:	SOIL	ok
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	~~UNK~~ 46-611623		FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	18 ft	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	19 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

ft 13110

SAMPLE DESC: QC Sample of RE46-10-13552
tuff, Pinkish-gray (7.5YR 6/3), solvent odor, sl. moist

SAMPLE COMMENTS: NA

LOCATION DESC: 4C-2

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) J. J[illegible] **REVIEWED BY (PRINT)** J. POMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J[illegible]	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature) [illegible]	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2303 VALIDATION DATE: 6/11/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS/MSD %R calculations were performed incorrectly. The parent sample result was < the MDL and, thus, a result of 0 µg/kg should have been used to calculate the %Rs. The laboratory subtracted the parent sample concentration. The %Rs were within the acceptance limits when calculated correctly. No sample results were qualified as a result. It should be noted that the aqueous MS and MSD parent sample was from another LANL RN and the raw data for the parent sample were not included in the package. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/14/10

VALIDATOR'S SIGNATURE: DATE: 6/11/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☐	☒	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☐	☒	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13553

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814001

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.581	2.32	0.581	ug/kg	U	1	28-MAR-10 19:32	per0328041a
	Perchlorate Isotope Ratio						1	28-MAR-10 19:32	per0328041a
14797-73-0	Perchlorate-101	.581	2.32	0.581	ug/kg	U	1	28-MAR-10 19:32	per0328041a
	Perchlorate-O(18)			5.48	ug/kg		1	28-MAR-10 19:32	per0328041a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LMF
6/11/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13549

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814002

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.599	2.4	0.599	ug/kg	U	1	28-MAR-10 19:40	per0328042a
	Perchlorate Isotope Ratio						1	28-MAR-10 19:40	per0328042a
14797-73-0	Perchlorate-101	.599	2.4	0.599	ug/kg	U	1	28-MAR-10 19:40	per0328042a
	Perchlorate-O(18)			6.01	ug/kg		1	28-MAR-10 19:40	per0328042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LMF

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13551

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814003

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.631	2.52	0.631	ug/kg	U	1	28-MAR-10 19:49	per0328043a
	Perchlorate Isotope Ratio						1	28-MAR-10 19:49	per0328043a
14797-73-0	Perchlorate-101	.631	2.52	0.631	ug/kg	U	1	28-MAR-10 19:49	per0328043a
	Perchlorate-O(18)			6.42	ug/kg		1	28-MAR-10 19:49	per0328043a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LMF

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13550

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814004

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.613	2.45	0.613	ug/kg	U	1	28-MAR-10 19:57	per0328044a
	Perchlorate Isotope Ratio						1	28-MAR-10 19:57	per0328044a
14797-73-0	Perchlorate-101	.613	2.45	0.613	ug/kg	U	1	28-MAR-10 19:57	per0328044a
	Perchlorate-O(18)			5.92	ug/kg		1	28-MAR-10 19:57	per0328044a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LMF

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46–10–13548

Date Received: 05–MAR–10

GEL Job No (SDG): 10–2303

GEL Sample ID: 248814005

Date Filtered: 19–MAR–10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.604	2.41	0.604	ug/kg	U	1	28–MAR–10 20:06	per0328045a
	Perchlorate Isotope Ratio						1	28–MAR–10 20:06	per0328045a
14797–73–0	Perchlorate–101	.604	2.41	0.604	ug/kg	U	1	28–MAR–10 20:06	per0328045a
	Perchlorate–O(18)			5.90	ug/kg		1	28–MAR–10 20:06	per0328045a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LMF

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13546

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814006

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.606	2.43	0.606	ug/kg	U	1	28-MAR-10 20:14	per0328046a
	Perchlorate Isotope Ratio						1	28-MAR-10 20:14	per0328046a
14797-73-0	Perchlorate-101	.606	2.43	0.606	ug/kg	U	1	28-MAR-10 20:14	per0328046a
	Perchlorate-O(18)			5.92	ug/kg		1	28-MAR-10 20:14	per0328046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13552

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814007

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.573	2.29	0.573	ug/kg	U	1	28-MAR-10 20:23	per0328047a
	Perchlorate Isotope Ratio						1	28-MAR-10 20:23	per0328047a
14797-73-0	Perchlorate-101	.573	2.29	0.573	ug/kg	U	1	28-MAR-10 20:23	per0328047a
	Perchlorate-O(18)			5.72	ug/kg		1	28-MAR-10 20:23	per0328047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate--101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LMF

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13547

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814008

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.572	2.29	0.572	ug/kg	U	1	28-MAR-10 20:57	per0328051a
	Perchlorate Isotope Ratio						1	28-MAR-10 20:57	per0328051a
14797-73-0	Perchlorate-101	.572	2.29	0.572	ug/kg	U	1	28-MAR-10 20:57	per0328051a
	Perchlorate-O(18)			5.60	ug/kg		1	28-MAR-10 20:57	per0328051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LMF
6/11/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13556

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814009

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.576	2.3	0.576	ug/kg	U	1	28-MAR-10 21:06	per0328052a
	Perchlorate Isotope Ratio						1	28-MAR-10 21:06	per0328052a
14797-73-0	Perchlorate-101	.576	2.3	0.576	ug/kg	U	1	28-MAR-10 21:06	per0328052a
	Perchlorate-O(18)			5.67	ug/kg		1	28-MAR-10 21:06	per0328052a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LMF
6/11/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2303 VALIDATION DATE: 6/11/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the MB, Cr and K were detected. The associated results for Cr in samples RE46-10-13553, -13548, -13552, and -13547 were detects ≤5X the MB concentration and, thus, were qualified U,I4. The associated results for Cr in samples -13551, -13546, and 13556, and all results for K except in samples -13551 and -13550 were detects >5X but ≤50X the MB concentrations and, thus, were qualified J,I4a. All other associated sample results were detects >50X the MB concentrations and, thus, were not qualified based on professional judgment.
2. In the ICB/CCBs, Hg was detected. The associated sample results were detects >5X the greatest blank concentration and, thus, were not qualified.
3. The MS %Rs were > the laboratory UAL for Al, Fe, and Mn. However, the associated parent sample results were >4X the spike concentrations and, thus, no sample results were qualified, based on professional judgment.
4. It should be noted that the matrix QC parent samples were from other LANL RNs. No sample results were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/14/10

VALIDATOR'S SIGNATURE: DATE: 6/11/10

DATA VALIDATION COVER SHEET

5118-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2303 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248814001 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13553 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	414000	ug/kg		7430	21800	21800	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-36-0	Antimony	1090	ug/kg	U	360	1090	1090	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-38-2	Arsenic	550	ug/kg	J	202	1010	1010	2	MS	RMJ	05/06/10 13:20	100505-3	963991
7440-39-3	Barium	6010	ug/kg		109	546	546	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-41-7	Beryllium	130	ug/kg		20.2	101	101	2	MS	RMJ	05/08/10 03:56	100507-4	963991
7440-43-9	Cadmium	546	ug/kg	U	109	546	546	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-70-2	Calcium	122000	ug/kg		8740	27300	27300	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-46-2	Cesium	1610	ug/kg		21.4	107	107	2	MS	PRB	05/26/10 14:51	100526-5	983921
7440-47-3	Chromium U,I4	798	ug/kg		164	546	546	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-48-4	Cobalt	240	ug/kg	J	164	546	546	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-50-8	Copper	8390	ug/kg		328	1090	1090	1	P	HSC	03/31/10 22:31	033110B-1	963989
7439-89-6	Iron	4620000	ug/kg		8740	27300	27300	1	P	HSC	03/31/10 22:31	033110B-1	963989
7439-92-1	Lead	3620	ug/kg		273	1090	1090	1	P	HSC	03/31/10 22:31	033110B-1	963989
7439-95-4	Magnesium	157000	ug/kg		9280	32800	32800	1	P	HSC	03/31/10 22:31	033110B-1	963989
7439-96-5	Manganese	197000	ug/kg		218	1090	1090	1	P	HSC	03/31/10 22:31	033110B-1	963989
7439-97-6	Mercury	74.2	ug/kg		4.15	12.2	12.2	1	AV	JXL1	03/23/10 11:30	032310S1-6	967595
7440-02-0	Nickel	160	ug/kg	J	101	404	404	2	MS	RMJ	05/06/10 13:20	100505-3	963991
7440-09-7	Potassium J,I4a	261000	ug/kg		6990	27300	27300	1	P	HSC	03/31/10 22:31	033110B-1	963989
7782-49-2	Selenium	1010	ug/kg	U	505	1010	1010	2	MS	RMJ	05/06/10 13:20	100505-3	963991
7440-22-4	Silver	546	ug/kg	U	109	546	546	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-23-5	Sodium	173000	ug/kg		7640	27300	27300	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-28-0	Thallium	202	ug/kg	U	60.6	202	202	2	MS	RMJ	05/06/10 13:20	100505-3	963991
7440-62-2	Vanadium	1320	ug/kg		109	546	546	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-66-6	Zinc	16000	ug/kg		360	1090	1090	1	P	HSC	03/31/10 22:31	033110B-1	963989

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963989	963988	SW846 3050B	0.532	g	50	mL	03/24/10	BXA1
963991	963990	SW846 3050B	0.575	g	50	mL	03/24/10	BXA1
967595	967593	SW846 7471A Prep	0.571	g	30	mL	03/22/10	TXB3
983921	983920	SW846 3050B	0.543	g	50	mL	05/13/10	AXG2

LMF
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2303 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248814002 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13549 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	452000	ug/kg		7160	21100	21100	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-36-0	Antimony	1050	ug/kg	U	348	1050	1050	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-38-2	Arsenic	475	ug/kg	J	234	1170	1170	2	MS	RMJ	05/06/10 13:24	100505-3	963991
7440-39-3	Barium	4620	ug/kg		105	527	527	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-41-7	Beryllium	142	ug/kg		23.4	117	117	2	MS	RMJ	05/08/10 04:00	100507-4	963991
7440-43-9	Cadmium	177	ug/kg	J	105	527	527	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-70-2	Calcium	129000	ug/kg		8430	26300	26300	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-46-2	Cesium	2930	ug/kg		23.1	115	115	2	MS	PRB	05/26/10 14:54	100526-5	983921
7440-47-3	Chromium	10800	ug/kg		158	527	527	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-48-4	Cobalt	367	ug/kg	J	158	527	527	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-50-8	Copper	21100	ug/kg		316	1050	1050	1	P	HSC	03/31/10 22:33	033110B-1	963989
7439-89-6	Iron	5610000	ug/kg		8430	26300	26300	1	P	HSC	03/31/10 22:33	033110B-1	963989
7439-92-1	Lead	6830	ug/kg		263	1050	1050	1	P	HSC	03/31/10 22:33	033110B-1	963989
7439-95-4	Magnesium	137000	ug/kg		8950	31600	31600	1	P	HSC	03/31/10 22:33	033110B-1	963989
7439-96-5	Manganese	247000	ug/kg		211	1050	1050	1	P	HSC	03/31/10 22:33	033110B-1	963989
7439-97-6	Mercury	28400	ug/kg		440	1290	1290	100	AV	JXL1	03/23/10 12:29	032310S1-6	967595
7440-02-0	Nickel	775	ug/kg		117	467	467	2	MS	RMJ	05/06/10 13:24	100505-3	963991
7440-09-7	Potassium J,I4a	216000	ug/kg		6740	26300	26300	1	P	HSC	03/31/10 22:33	033110B-1	963989
7782-49-2	Selenium	1170	ug/kg	U	584	1170	1170	2	MS	RMJ	05/06/10 13:24	100505-3	963991
7440-22-4	Silver	16800	ug/kg		105	527	527	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-23-5	Sodium	134000	ug/kg		7370	26300	26300	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-28-0	Thallium	234	ug/kg	U	70.1	234	234	2	MS	RMJ	05/06/10 13:24	100505-3	963991
7440-62-2	Vanadium	1280	ug/kg		105	527	527	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-66-6	Zinc	23900	ug/kg		348	1050	1050	1	P	HSC	03/31/10 22:33	033110B-1	963989

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963989	963988	SW846 3050B	0.569	g	50	mL	03/24/10	BXA1
963991	963990	SW846 3050B	0.513	g	50	mL	03/24/10	BXA1
967595	967593	SW846 7471A Prep	0.556	g	30	mL	03/22/10	TXB3
983921	983920	SW846 3050B	0.519	g	50	mL	05/13/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2303 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248814003 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13551 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	630000	ug/kg		7320	21500	21500	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-36-0	Antimony	1080	ug/kg	U	355	1080	1080	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-38-2	Arsenic	355	ug/kg	J	224	1120	1120	2	MS	RMJ	05/06/10 13:29	100505-3	963991
7440-39-3	Barium	8030	ug/kg		108	538	538	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-41-7	Beryllium	65.2	ug/kg	J	22.4	112	112	2	MS	RMJ	05/08/10 04:04	100507-4	963991
7440-43-9	Cadmium	538	ug/kg	U	108	538	538	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-70-2	Calcium	156000	ug/kg		8610	26900	26900	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-46-2	Cesium	6610	ug/kg		24.3	122	122	2	MS	PRB	05/26/10 14:55	100526-5	983921
7440-47-3	Chromium J,l4a	4050	ug/kg		161	538	538	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-48-4	Cobalt	476	ug/kg	J	161	538	538	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-50-8	Copper	43400	ug/kg		323	1080	1080	1	P	HSC	03/31/10 22:40	033110B-1	963989
7439-89-6	Iron	5450000	ug/kg		8610	26900	26900	1	P	HSC	03/31/10 22:40	033110B-1	963989
7439-92-1	Lead	11900	ug/kg		269	1080	1080	1	P	HSC	03/31/10 22:40	033110B-1	963989
7439-95-4	Magnesium	166000	ug/kg		9150	32300	32300	1	P	HSC	03/31/10 22:40	033110B-1	963989
7439-96-5	Manganese	194000	ug/kg		215	1080	1080	1	P	HSC	03/31/10 22:40	033110B-1	963989
7439-97-6	Mercury	9250	ug/kg		257	757	757	50	AV	JXL1	03/23/10 12:31	032310S1-6	967595
7440-02-0	Nickel	736	ug/kg		112	448	448	2	MS	RMJ	05/06/10 13:29	100505-3	963991
7440-09-7	Potassium	374000	ug/kg		6890	26900	26900	1	P	HSC	03/31/10 22:40	033110B-1	963989
7782-49-2	Selenium	1120	ug/kg	U	560	1120	1120	2	MS	RMJ	05/06/10 13:29	100505-3	963991
7440-22-4	Silver	55100	ug/kg		108	538	538	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-23-5	Sodium	145000	ug/kg		7530	26900	26900	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-28-0	Thallium	224	ug/kg	U	67.2	224	224	2	MS	RMJ	05/06/10 13:29	100505-3	963991
7440-62-2	Vanadium	2230	ug/kg		108	538	538	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-66-6	Zinc	22200	ug/kg		355	1080	1080	1	P	HSC	03/31/10 22:40	033110B-1	963989

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963989	963988	SW846 3050B	0.586	g	50	mL	03/24/10	BXA1
963991	963990	SW846 3050B	0.563	g	50	mL	03/24/10	BXA1
967595	967593	SW846 7471A Prep	0.5	g	30	mL	03/22/10	TXB1
983921	983920	SW846 3050B	0.518	g	50	mL	05/13/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2303 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248814004 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13550 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	5320000	ug/kg		8320	24500	24500	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-36-0	Antimony	1220	ug/kg	U	404	1220	1220	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-38-2	Arsenic	1030	ug/kg	J	221	1110	1110	2	MS	RMJ	05/06/10 13:42	100505-3	963991
7440-39-3	Barium	41700	ug/kg		122	612	612	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-41-7	Beryllium	256	ug/kg		22.1	111	111	2	MS	RMJ	05/08/10 04:15	100507-4	963991
7440-43-9	Cadmium	398	ug/kg	J	122	612	612	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-70-2	Calcium	1010000	ug/kg		9790	30600	30600	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-46-2	Cesium	29900	ug/kg		57.7	289	289	5	MS	PRB	05/26/10 14:56	100526-5	983921
7440-47-3	Chromium	16700	ug/kg		184	612	612	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-48-4	Cobalt	1050	ug/kg		184	612	612	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-50-8	Copper	420000	ug/kg		367	1220	1220	1	P	HSC	03/31/10 22:42	033110B-1	963989
7439-89-6	Iron	9860000	ug/kg		9790	30600	30600	1	P	HSC	03/31/10 22:42	033110B-1	963989
7439-92-1	Lead	77700	ug/kg		306	1220	1220	1	P	HSC	03/31/10 22:42	033110B-1	963989
7439-95-4	Magnesium	890000	ug/kg		10400	36700	36700	1	P	HSC	03/31/10 22:42	033110B-1	963989
7439-96-5	Manganese	190000	ug/kg		245	1220	1220	1	P	HSC	03/31/10 22:42	033110B-1	963989
7439-97-6	Mercury	12600	ug/kg		240	706	706	50	AV	JXL1	03/23/10 12:33	032310S1-6	967595
7440-02-0	Nickel	2680	ug/kg		111	443	443	2	MS	RMJ	05/06/10 13:42	100505-3	963991
7440-09-7	Potassium	914000	ug/kg		7830	30600	30600	1	P	HSC	03/31/10 22:42	033110B-1	963989
7782-49-2	Selenium	1110	ug/kg	U	553	1110	1110	2	MS	RMJ	05/06/10 13:42	100505-3	963991
7440-22-4	Silver	9710	ug/kg		122	612	612	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-23-5	Sodium	285000	ug/kg		8560	30600	30600	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-28-0	Thallium	89	ug/kg	J	66.4	221	221	2	MS	RMJ	05/06/10 13:42	100505-3	963991
7440-62-2	Vanadium	9140	ug/kg		122	612	612	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-66-6	Zinc	100000	ug/kg		404	1220	1220	1	P	HSC	03/31/10 22:42	033110B-1	963989

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963989	963988	SW846 3050B	0.501	g	50	mL	03/24/10	BXA1
963991	963990	SW846 3050B	0.554	g	50	mL	03/24/10	BXA1
967595	967593	SW846 7471A Prep	0.521	g	30	mL	03/22/10	TXB3
983921	983920	SW846 3050B	0.531	g	50	mL	05/13/10	AXG2

LMF
6/11/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2303 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248814005 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13548 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	352000	ug/kg		7280	21400	21400	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-36-0	Antimony	1070	ug/kg	U	353	1070	1070	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-38-2	Arsenic	282	ug/kg	J	209	1040	1040	2	MS	RMJ	05/06/10 13:46	100505-3	963991
7440-39-3	Barium	1300	ug/kg		107	535	535	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-41-7	Beryllium	81.3	ug/kg	J	20.9	104	104	2	MS	RMJ	05/08/10 04:19	100507-4	963991
7440-43-9	Cadmium	535	ug/kg	U	107	535	535	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-70-2	Calcium	177000	ug/kg		8560	26800	26800	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-46-2	Cesium	572	ug/kg		22.4	112	112	2	MS	PRB	05/26/10 14:57	100526-5	983921
7440-47-3	Chromium U,I4	952	ug/kg		161	535	535	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-48-4	Cobalt	365	ug/kg	J	161	535	535	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-50-8	Copper	2650	ug/kg		321	1070	1070	1	P	HSC	03/31/10 22:45	033110B-1	963989
7439-89-6	Iron	6450000	ug/kg		8560	26800	26800	1	P	HSC	03/31/10 22:45	033110B-1	963989
7439-92-1	Lead	1490	ug/kg		268	1070	1070	1	P	HSC	03/31/10 22:45	033110B-1	963989
7439-95-4	Magnesium	110000	ug/kg		9100	32100	32100	1	P	HSC	03/31/10 22:45	033110B-1	963989
7439-96-5	Manganese	301000	ug/kg		214	1070	1070	1	P	HSC	03/31/10 22:45	033110B-1	963989
7439-97-6	Mercury	64300	ug/kg		457	1340	1340	100	AV	JXL1	03/23/10 12:35	032310S1-6	967595
7440-02-0	Nickel	278	ug/kg	J	104	418	418	2	MS	RMJ	05/06/10 13:46	100505-3	963991
7440-09-7	Potassium J,I4a	272000	ug/kg		6850	26800	26800	1	P	HSC	03/31/10 22:45	033110B-1	963989
7782-49-2	Selenium	1040	ug/kg	U	522	1040	1040	2	MS	RMJ	05/06/10 13:46	100505-3	963991
7440-22-4	Silver	3910	ug/kg		107	535	535	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-23-5	Sodium	203000	ug/kg		7490	26800	26800	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-28-0	Thallium	209	ug/kg	U	62.7	209	209	2	MS	RMJ	05/06/10 13:46	100505-3	963991
7440-62-2	Vanadium	1040	ug/kg		107	535	535	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-66-6	Zinc	21500	ug/kg		353	1070	1070	1	P	HSC	03/31/10 22:45	033110B-1	963989

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963989	963988	SW846 3050B	0.564	g	50	mL	03/24/10	BXA1
963991	963990	SW846 3050B	0.578	g	50	mL	03/24/10	BXA1
967595	967593	SW846 7471A Prep	0.539	g	30	mL	03/22/10	TXB3
983921	983920	SW846 3050B	0.538	g	50	mL	05/13/10	AXG2

LMF
6/11/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2303 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248814006 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13546 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	384000	ug/kg		7050	20700	20700	1	P	HSC	03/31/10 22:47	033110B-1	963989
7440-36-0	Antimony	784	ug/kg	J	342	1040	1040	1	P	HSC	03/31/10 22:47	033110B-1	963989
7440-38-2	Arsenic	1130	ug/kg	U	226	1130	1130	2	MS	RMJ	05/06/10 13:51	100505-3	963991
7440-39-3	Barium	1690	ug/kg		104	518	518	1	P	HSC	03/31/10 22:47	033110B-1	963989
7440-41-7	Beryllium	45	ug/kg	J	22.6	113	113	2	MS	RMJ	05/08/10 04:23	100507-4	963991
7440-43-9	Cadmium	518	ug/kg	U	104	518	518	1	P	HSC	03/31/10 22:47	033110B-1	963989
7440-70-2	Calcium	33900	ug/kg		8290	25900	25900	1	P	HSC	03/31/10 22:47	033110B-1	963989
7440-46-2	Cesium	647	ug/kg		22.9	114	114	2	MS	PRB	05/26/10 14:57	100526-5	983921
7440-47-3	Chromium J,l4a	1290	ug/kg		155	518	518	1	P	HSC	03/31/10 22:47	033110B-1	963989
7440-48-4	Cobalt	206	ug/kg	J	155	518	518	1	P	HSC	03/31/10 22:47	033110B-1	963989
7440-50-8	Copper	2510	ug/kg		311	1040	1040	1	P	HSC	03/31/10 22:47	033110B-1	963989
7439-89-6	Iron	6090000	ug/kg		8290	25900	25900	1	P	HSC	03/31/10 22:47	033110B-1	963989
7439-92-1	Lead	2150	ug/kg		259	1040	1040	1	P	HSC	03/31/10 22:47	033110B-1	963989
7439-95-4	Magnesium	46900	ug/kg		8810	31100	31100	1	P	HSC	03/31/10 22:47	033110B-1	963989
7439-96-5	Manganese	272000	ug/kg		207	1040	1040	1	P	HSC	03/31/10 22:47	033110B-1	963989
7439-97-6	Mercury	15000	ug/kg		212	624	624	50	AV	JXL1	03/23/10 12:36	032310S1-6	967595
7440-02-0	Nickel	278	ug/kg	J	113	452	452	2	MS	RMJ	05/06/10 13:51	100505-3	963991
7440-09-7	Potassium J,l4a	298000	ug/kg		6630	25900	25900	1	P	HSC	03/31/10 22:47	033110B-1	963989
7782-49-2	Selenium	1130	ug/kg	U	566	1130	1130	2	MS	RMJ	05/06/10 13:51	100505-3	963991
7440-22-4	Silver	114000	ug/kg		518	2590	2590	5	P	HSC	04/07/10 13:47	040710-2	963989
7440-23-5	Sodium	177000	ug/kg		7260	25900	25900	1	P	HSC	03/31/10 22:47	033110B-1	963989
7440-28-0	Thallium	226	ug/kg	U	67.9	226	226	2	MS	RMJ	05/06/10 13:51	100505-3	963991
7440-62-2	Vanadium	727	ug/kg		104	518	518	1	P	HSC	03/31/10 22:47	033110B-1	963989
7440-66-6	Zinc	18500	ug/kg		342	1040	1040	1	P	HSC	03/31/10 22:47	033110B-1	963989

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963989	963988	SW846 3050B	0.585	g	50	mL	03/24/10	BXA1
963991	963990	SW846 3050B	0.536	g	50	mL	03/24/10	BXA1
967595	967593	SW846 7471A Prep	0.583	g	30	mL	03/22/10	TXB3
983921	983920	SW846 3050B	0.53	g	50	mL	05/13/10	AXG2

LMF
6/11/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2303 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248814007 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13552 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	310000	ug/kg		6720	19800	19800	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-36-0	Antimony	989	ug/kg	U	326	989	989	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-38-2	Arsenic	301	ug/kg	J	215	1070	1070	2	MS	RMJ	05/06/10 13:55	100505-3	963991
7440-39-3	Barium	994	ug/kg		98.9	494	494	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-41-7	Beryllium	142	ug/kg		21.5	107	107	2	MS	RMJ	05/08/10 04:27	100507-4	963991
7440-43-9	Cadmium	494	ug/kg	U	98.9	494	494	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-70-2	Calcium	145000	ug/kg		7910	24700	24700	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-46-2	Cesium	910	ug/kg		22.6	113	113	2	MS	PRB	05/26/10 14:58	100526-5	983921
7440-47-3	Chromium U,I4	455	ug/kg	J	148	494	494	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-48-4	Cobalt	319	ug/kg	J	148	494	494	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-50-8	Copper	2420	ug/kg		297	989	989	1	P	HSC	03/31/10 22:49	033110B-1	963989
7439-89-6	Iron	5220000	ug/kg		7910	24700	24700	1	P	HSC	03/31/10 22:49	033110B-1	963989
7439-92-1	Lead	1010	ug/kg		247	989	989	1	P	HSC	03/31/10 22:49	033110B-1	963989
7439-95-4	Magnesium	57000	ug/kg		8410	29700	29700	1	P	HSC	03/31/10 22:49	033110B-1	963989
7439-96-5	Manganese	240000	ug/kg		198	989	989	1	P	HSC	03/31/10 22:49	033110B-1	963989
7439-97-6	Mercury	3210	ug/kg		82.7	243	243	20	AV	JXL1	03/23/10 12:38	032310S1-6	967595
7440-02-0	Nickel	430	ug/kg	U	107	430	430	2	MS	RMJ	05/06/10 13:55	100505-3	963991
7440-09-7	Potassium J,I4a	218000	ug/kg		6330	24700	24700	1	P	HSC	03/31/10 22:49	033110B-1	963989
7782-49-2	Selenium	1070	ug/kg	U	537	1070	1070	2	MS	RMJ	05/06/10 13:55	100505-3	963991
7440-22-4	Silver	750	ug/kg		98.9	494	494	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-23-5	Sodium	172000	ug/kg		6920	24700	24700	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-28-0	Thallium	215	ug/kg	U	64.5	215	215	2	MS	RMJ	05/06/10 13:55	100505-3	963991
7440-62-2	Vanadium	847	ug/kg		98.9	494	494	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-66-6	Zinc	16200	ug/kg		326	989	989	1	P	HSC	03/31/10 22:49	033110B-1	963989

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963989	963988	SW846 3050B	0.579	g	50	mL	03/24/10	BXA1
963991	963990	SW846 3050B	0.533	g	50	mL	03/24/10	BXA1
967595	967593	SW846 7471A Prep	0.565	g	30	mL	03/22/10	TXB3
983921	983920	SW846 3050B	0.506	g	50	mL	05/13/10	AXG2

LMF
6/11/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2303 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248814008 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13547 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	330000	ug/kg		6840	20100	20100	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-36-0	Antimony	1010	ug/kg	U	332	1010	1010	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-38-2	Arsenic	1010	ug/kg	U	203	1010	1010	2	MS	RMJ	05/06/10 13:59	100505-3	963991
7440-39-3	Barium	932	ug/kg		101	503	503	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-41-7	Beryllium	66.7	ug/kg	J	20.3	101	101	2	MS	RMJ	05/08/10 04:31	100507-4	963[illegible]
7440-43-9	Cadmium	503	ug/kg	U	101	503	503	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-70-2	Calcium	49300	ug/kg		8050	25200	25200	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-46-2	Cesium	393	ug/kg		21.3	107	107	2	MS	PRB	05/26/10 14:59	100526-5	983921
7440-47-3	Chromium U,I4	539	ug/kg		151	503	503	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-48-4	Cobalt	172	ug/kg	J	151	503	503	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-50-8	Copper	978	ug/kg	J	302	1010	1010	1	P	HSC	03/31/10 22:52	033110B-1	963989
7439-89-6	Iron	4590000	ug/kg		8050	25200	25200	1	P	HSC	03/31/10 22:52	033110B-1	963989
7439-92-1	Lead	1220	ug/kg		252	1010	1010	1	P	HSC	03/31/10 22:52	033110B-1	963989
7439-95-4	Magnesium	22800	ug/kg	J	8550	30200	30200	1	P	HSC	03/31/10 22:52	033110B-1	963989
7439-96-5	Manganese	211000	ug/kg		201	1010	1010	1	P	HSC	03/31/10 22:52	033110B-1	963989
7439-97-6	Mercury	2100	ug/kg		91.9	270	270	20	AV	JXL1	03/23/10 12:40	032310S1-6	967595
7440-02-0	Nickel	405	ug/kg	U	101	405	405	2	MS	RMJ	05/06/10 13:59	100505-3	963[illegible]
7440-09-7	Potassium J,I4a	245000	ug/kg		6440	25200	25200	1	P	HSC	03/31/10 22:52	033110B-1	963989
7782-49-2	Selenium	1010	ug/kg	U	507	1010	1010	2	MS	RMJ	05/06/10 13:59	100505-3	963991
7440-22-4	Silver	3780	ug/kg		101	503	503	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-23-5	Sodium	167000	ug/kg		7040	25200	25200	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-28-0	Thallium	203	ug/kg	U	60.8	203	203	2	MS	RMJ	05/06/10 13:59	100505-3	963991
7440-62-2	Vanadium	393	ug/kg	J	101	503	503	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-66-6	Zinc	12800	ug/kg		332	1010	1010	1	P	HSC	03/31/10 22:52	033110B-1	963989

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963989	963988	SW846 3050B	0.569	g	50	mL	03/24/10	BXA1
963991	963990	SW846 3050B	0.565	g	50	mL	03/24/10	BXA1
967595	967593	SW846 7471A Prep	0.508	g	30	mL	03/22/10	TXB3
983921	983920	SW846 3050B	0.537	g	50	mL	05/13/10	AXG2

LMF
6/11/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2303 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248814009 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13556 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	392000	ug/kg		7310	21500	21500	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-36-0	Antimony	1070	ug/kg	U	355	1070	1070	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-38-2	Arsenic	236	ug/kg	J	199	997	997	2	MS	RMJ	05/06/10 14:04	100505-3	963991
7440-39-3	Barium	2030	ug/kg		107	537	537	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-41-7	Beryllium	140	ug/kg		19.9	99.7	99.7	2	MS	RMJ	05/08/10 04:35	100507-4	963991
7440-43-9	Cadmium	537	ug/kg	U	107	537	537	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-70-2	Calcium	159000	ug/kg		8600	26900	26900	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-46-2	Cesium	1210	ug/kg		22.9	114	114	2	MS	PRB	05/26/10 15:00	100526-5	983921
7440-47-3	Chromium J,l4a	1160	ug/kg		161	537	537	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-48-4	Cobalt	296	ug/kg	J	161	537	537	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-50-8	Copper	4700	ug/kg		322	1070	1070	1	P	HSC	03/31/10 22:54	033110B-1	963989
7439-89-6	Iron	5220000	ug/kg		8600	26900	26900	1	P	HSC	03/31/10 22:54	033110B-1	963989
7439-92-1	Lead	1860	ug/kg		269	1070	1070	1	P	HSC	03/31/10 22:54	033110B-1	963989
7439-95-4	Magnesium	97000	ug/kg		9140	32200	32200	1	P	HSC	03/31/10 22:54	033110B-1	963989
7439-96-5	Manganese	238000	ug/kg		215	1070	1070	1	P	HSC	03/31/10 22:54	033110B-1	963989
7439-97-6	Mercury	3210	ug/kg		86.4	254	254	20	AV	JXL1	03/23/10 12:41	032310S1-6	967595
7440-02-0	Nickel	236	ug/kg	J	99.7	399	399	2	MS	RMJ	05/06/10 14:04	100505-3	963991
7440-09-7	Potassium J,l4a	250000	ug/kg		6880	26900	26900	1	P	HSC	03/31/10 22:54	033110B-1	963989
7782-49-2	Selenium	997	ug/kg	U	498	997	997	2	MS	RMJ	05/06/10 14:04	100505-3	963991
7440-22-4	Silver	3780	ug/kg		107	537	537	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-23-5	Sodium	173000	ug/kg		7520	26900	26900	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-28-0	Thallium	199	ug/kg	U	59.8	199	199	2	MS	RMJ	05/06/10 14:04	100505-3	963991
7440-62-2	Vanadium	923	ug/kg		107	537	537	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-66-6	Zinc	17500	ug/kg		355	1070	1070	1	P	HSC	03/31/10 22:54	033110B-1	963989

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963989	963988	SW846 3050B	0.536	g	50	mL	03/24/10	BXA1
963991	963990	SW846 3050B	0.578	g	50	mL	03/24/10	BXA1
967595	967593	SW846 7471A Prep	0.544	g	30	mL	03/22/10	TXB3
983921	983920	SW846 3050B	0.504	g	50	mL	05/13/10	AXG2

LMF
6/11/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2303 VALIDATION DATE: 6/11/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS %R was < the laboratory LAL but ≥10% for nitrate as N. The associated sample results were NDs and, thus, were qualified UJ,I6a.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/14/10

VALIDATOR'S SIGNATURE: DATE: 6/11/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2303

Client Sample ID:	RE46-10-13553	Project:	LANL01004
Sample ID:	248814001	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	13.9%		

ameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis											
)012A Cyanide, Total "Dry Weight Corrected"											
nide, Total	U	ND		79.0	291	ug/kg	1	AXC2 03/16/10	2044	962262	1
Chromatography											
' 300.0 Nitrate in Soil "Dry Weight Corrected"											
ate-N	U	ND	UJ,I6a	0.349	1.16	mg/kg	1	VH1 03/29/10	1940	968640	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

LMF
6/11/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2303

Client Sample ID:	RE46-10-13549	Project:	LANL01004
Sample ID:	248814002	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	16.6%		

ameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis											
)012A Cyanide, Total "Dry Weight Corrected"											
nide, Total	U	ND		72.8	268	ug/kg	1	AXC2 03/16/10	2048	962262	1
Chromatography											
: 300.0 Nitrate in Soil "Dry Weight Corrected"											
ate-N	U	ND	UJ,I6a	0.360	1.20	mg/kg	1	VH1 03/29/10	2128	968640	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2303

Client Sample ID:	RE46-10-13551	Project:	LANL01004
Sample ID:	248814003	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	20.7%		

ameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis											
)012A Cyanide, Total "Dry Weight Corrected"											
nide, Total	U	ND		80.9	297	ug/kg	1	AXC2 03/16/10	2055	962262	1
Chromatography											
: 300.0 Nitrate in Soil "Dry Weight Corrected"											
ate-N	U	ND	UJ,I6a	0.378	1.26	mg/kg	1	VH1 03/29/10	2155	968640	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

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6/11/10

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2303

Client Sample ID:	RE46-10-13550	Project:	LANL01004
Sample ID:	248814004	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	18.4%		

ameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis											
012A Cyanide, Total "Dry Weight Corrected"											
nide, Total	U	ND		81.7	300	ug/kg	1	AXC2 03/16/10	2056	962262	1
Chromatography											
300.0 Nitrate in Soil "Dry Weight Corrected"											
ate-N	U	ND	UJ,I6a	0.368	1.23	mg/kg	1	VH1 03/29/10	2222	968640	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

LMF
6/11/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2303

Client Sample ID:	RE46-10-13548	Project:	LANL01004
Sample ID:	248814005	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	17.2%		

ameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis											
)012A Cyanide, Total "Dry Weight Corrected"											
nide, Total	U	ND		76.0	279	ug/kg	1	AXC2 03/16/10	2057	962262	1
Chromatography											
' 300.0 Nitrate in Soil "Dry Weight Corrected"											
ate-N	U	ND	UJ,I6a	0.362	1.21	mg/kg	1	VH1 03/29/10	2249	968640	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

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6/11/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
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TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2303

Client Sample ID:	RE46-10-13546	Project:	LANL01004
Sample ID:	248814006	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	17.5%		

ameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis											
012A Cyanide, Total "Dry Weight Corrected"											
nide, Total	U	ND		79.3	292	ug/kg	1	AXC2 03/16/10	2058	962262	1
Chromatography											
300.0 Nitrate in Soil "Dry Weight Corrected"											
ate-N	U	ND	UJ,I6a	0.364	1.21	mg/kg	1	VH1 03/30/10	0009	968640	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

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6/11/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2303

Client Sample ID:	RE46-10-13552	Project:	LANL01004
Sample ID:	248814007	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	12.7%		

ameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis											
)012A Cyanide, Total "Dry Weight Corrected"											
nide, Total	U	ND		69.5	256	ug/kg	1	AXC2 03/16/10	2058	962262	1
Chromatography											
' 300.0 Nitrate in Soil "Dry Weight Corrected"											
ate-N	U	ND	UJ,I6a	0.344	1.15	mg/kg	1	VH1 03/30/10	0036	968640	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

LMF
6/11/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2303

Client Sample ID:	RE46-10-13547	Project:	LANL01004
Sample ID:	248814008	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	12.7%		

ameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis											
)012A Cyanide, Total "Dry Weight Corrected"											
nide, Total	U	ND		66.0	243	ug/kg	1	AXC2 03/16/10	2059	962262	1
Chromatography											
' 300.0 Nitrate in Soil "Dry Weight Corrected"											
ate-N	U	ND	UJ,I6a	0.343	1.14	mg/kg	1	VH1 03/30/10	0103	968640	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

LMF
6/11/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2303

Client Sample ID:	RE46-10-13556	Project:	LANL01004
Sample ID:	248814009	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	13.2%		

ameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis											
)012A Cyanide, Total "Dry Weight Corrected"											
nide, Total	U	ND		76.8	282	ug/kg	1	AXC2 03/16/10	2100	962262	1
Chromatography											
' 300.0 Nitrate in Soil "Dry Weight Corrected"											
ate-N	U	ND	UJ,I6a	0.346	1.15	mg/kg	1	VH1 03/30/10	0130	968640	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

LMF
6/11/10

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2303

REQUEST NUMBER: 10-2303

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248814 °/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13553	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13549	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13551	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13550	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13548	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13546	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13552	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13547	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13556	1	POLY	Met+NO3+CL04+CN	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	3/4/10	1400	Patricia Power-Dent / P. Power-Dent	3/5/10	10:20
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Thursday, March 04, 2010

REQUEST NUMBER: 10-2303

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2303

Per Agreement Number:126310011

Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE46-10-13546	S	3/3/2010	Plus Cesium Metal
		1	RE46-10-13547	S	3/3/2010	Plus Cesium Metal
		1	RE46-10-13548	S	3/3/2010	Plus Cesium Metal
		1	RE46-10-13549	S	3/3/2010	Plus Cesium Metal
		1	RE46-10-13550	S	3/3/2010	Plus Cesium Metal
		1	RE46-10-13551	S	3/3/2010	Plus Cesium Metal

	1	RE46-10-13552	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13553	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13556	S	3/3/2010	Plus Cesium Metal
SW-846:6020	1	RE46-10-13546	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13547	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13548	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13549	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13550	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13551	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13552	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13553	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13556	S	3/3/2010	Plus Cesium Metal
SW-846:6850	1	RE46-10-13546	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13547	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13548	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13549	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13550	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13551	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13552	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13553	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13556	S	3/3/2010	Plus Cesium Metal
SW-846:7471A	1	RE46-10-13546	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13547	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13548	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13549	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13550	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13551	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13552	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13553	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13556	S	3/3/2010	Plus Cesium Metal
SW-846:9012A	1	RE46-10-13546	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13547	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13548	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13549	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13550	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13551	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13552	S	3/3/2010	Plus Cesium Metal

1	RE46-10-13553	S	3/3/2010	Plus Cesium Metal
1	RE46-10-13556	S	3/3/2010	Plus Cesium Metal

Final Page of REQUEST NUMBER 10-2303

GEL Laboratories LLC

a member of The GEL Group Inc.

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

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www.gel.com

March 12, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 248814
SDG: 10-2303

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 05, 2010, and analyzed for General Chemistry, Metals and Perchlorates by LCMSMS. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2303
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 248814
SDG: 10-2303

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- Cyanide, Total.....610
- Ion Chromatography..... 626
- Miscellaneous..... 670

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 248814
SDG # : 10-2303

March 12, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 05, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
248814001	RE46-10-13553
248814002	RE46-10-13549
248814003	RE46-10-13551
248814004	RE46-10-13550
248814005	RE46-10-13548
248814006	RE46-10-13546
248814007	RE46-10-13552
248814008	RE46-10-13547
248814009	RE46-10-13556

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Perchlorates by LCMSMS.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 12 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2303C

REQUEST NUMBER: 10-2303

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248814°/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13553	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13549	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13551	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13550	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13548	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13546	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13552	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13547	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13556	1	POLY	Met+NO3+CL04+CN	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
[illegible]	3/4/10	1400	Patricia Dover-Dent	3/5/10	10:20
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Thursday, March 04, 2010

REQUEST NUMBER: 10-2303

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2303

Per Agreement Number:126310011

Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE46-10-13546	S	3/3/2010	Plus Cesium Metal
		1	RE46-10-13547	S	3/3/2010	Plus Cesium Metal
		1	RE46-10-13548	S	3/3/2010	Plus Cesium Metal
		1	RE46-10-13549	S	3/3/2010	Plus Cesium Metal
		1	RE46-10-13550	S	3/3/2010	Plus Cesium Metal
		1	RE46-10-13551	S	3/3/2010	Plus Cesium Metal

	1	RE46-10-13552	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13553	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13556	S	3/3/2010	Plus Cesium Metal
SW-846:6020	1	RE46-10-13546	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13547	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13548	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13549	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13550	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13551	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13552	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13553	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13556	S	3/3/2010	Plus Cesium Metal
SW-846:6850	1	RE46-10-13546	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13547	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13548	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13549	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13550	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13551	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13552	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13553	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13556	S	3/3/2010	Plus Cesium Metal
SW-846:7471A	1	RE46-10-13546	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13547	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13548	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13549	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13550	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13551	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13552	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13553	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13556	S	3/3/2010	Plus Cesium Metal
SW-846:9012A	1	RE46-10-13546	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13547	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13548	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13549	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13550	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13551	S	3/3/2010	Plus Cesium Metal
	1	RE46-10-13552	S	3/3/2010	Plus Cesium Metal

1	RE46-10-13553	S	3/3/2010	Plus Cesium Metal
1	RE46-10-13556	S	3/3/2010	Plus Cesium Metal

Final Page of REQUEST NUMBER 10-2303

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order:10-2303**
Received By:Patricia Dover-Dent	**Date Received: 3/5/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **1-5** **13,15**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers:

7209 7850 3587 1C **7209 7850 3668 4C**
7209 7850 3613 2C **7209 7850 3657 5C**
7209 7850 3598 2C **7209 7850 3565 13C**
7209 7850 3602 3C **7209 7850 3543 13C**
7209 7850 3635 3C **7209 7850 3554 15C**
7209 7850 3576 3C
7209 7850 3646 3C
7209 7850 3624 3C

PM (or PMA) review: Initials _____ Date 3/8/10

N ID: SAFA (505) 665-9968
NE VALDEZ
LAMOS NATL LAB.
BLDG 1237 DPU 03

LAMOS, NM 87545
ED STATES US

ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

LERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
) 556-8171
F: 6B010AMR3A0223KY10

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 44.0 LB MAN
CAD: 0014176/CAFE2450

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE24

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2450

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2040 SAVAGE RD

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

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GENERAL ENGINEERING LAB
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CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

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Part # 156148-434 NRTT V3.04.08

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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 66.0 LB MAN
CAD: 0014176/CAFE2450

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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YLENE VALDEZ
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SHIP DATE: 04MAR10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2450

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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REF: 6B010AMR1A015AGWM0

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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REF: 6B010AMR2A0515BYD0

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ORIGIN ID: SAFA (505)
LENE VALDEZ
ALAMOS NATL LAB
0 BLDG 1237 DPU 03

S ALAMOS, NM 87545
ITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
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PRIORITY OVERNIGHT

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SC-US
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

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3 of 3

MPS# 0263 7209 7850 3554

Mstr# 7209 7850 3532 0201

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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2303

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	964122
Prep Batch Number:	964121

Sample Analysis

Sample ID	Client ID
248814001	RE46-10-13553
248814002	RE46-10-13549
248814003	RE46-10-13551
248814004	RE46-10-13550
248814005	RE46-10-13548
248814006	RE46-10-13546
248814007	RE46-10-13552
248814008	RE46-10-13547
248814009	RE46-10-13556
1202068351	Interference Check Sample (ICS)
1202068347	Method Blank (MB)
1202068348	Laboratory Control Sample (LCS)
1202068349	248860001(RE46-10-13782) Matrix Spike (MS)
1202068350	248860001(RE46-10-13782) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

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Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 248860001 (RE46-10-13782) from SDG 10-2313 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

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Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

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Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M Maier **Date:** 04/01/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13553

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814001

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.581	2.32	0.581	ug/kg	U	1	28-MAR-10 19:32	per0328041a
	Perchlorate Isotope Ratio						1	28-MAR-10 19:32	per0328041a
14797-73-0	Perchlorate-101	.581	2.32	0.581	ug/kg	U	1	28-MAR-10 19:32	per0328041a
	Perchlorate-O(18)			5.48	ug/kg		1	28-MAR-10 19:32	per0328041a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13549

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814002

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.599	2.4	0.599	ug/kg	U	1	28-MAR-10 19:40	per0328042a
	Perchlorate Isotope Ratio						1	28-MAR-10 19:40	per0328042a
14797-73-0	Perchlorate-101	.599	2.4	0.599	ug/kg	U	1	28-MAR-10 19:40	per0328042a
	Perchlorate-O(18)			6.01	ug/kg		1	28-MAR-10 19:40	per0328042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13551

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814003

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.631	2.52	0.631	ug/kg	U	1	28-MAR-10 19:49	per0328043a
	Perchlorate Isotope Ratio						1	28-MAR-10 19:49	per0328043a
14797-73-0	Perchlorate-101	.631	2.52	0.631	ug/kg	U	1	28-MAR-10 19:49	per0328043a
	Perchlorate-O(18)			6.42	ug/kg		1	28-MAR-10 19:49	per0328043a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13550

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814004

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.613	2.45	0.613	ug/kg	U	1	28-MAR-10 19:57	per0328044a
	Perchlorate Isotope Ratio						1	28-MAR-10 19:57	per0328044a
14797-73-0	Perchlorate-101	.613	2.45	0.613	ug/kg	U	1	28-MAR-10 19:57	per0328044a
	Perchlorate-O(18)			5.92	ug/kg		1	28-MAR-10 19:57	per0328044a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13548

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814005

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.604	2.41	0.604	ug/kg	U	1	28-MAR-10 20:06	per0328045a
	Perchlorate Isotope Ratio						1	28-MAR-10 20:06	per0328045a
14797-73-0	Perchlorate-101	.604	2.41	0.604	ug/kg	U	1	28-MAR-10 20:06	per0328045a
	Perchlorate-O(18)			5.90	ug/kg		1	28-MAR-10 20:06	per0328045a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13546

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814006

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.606	2.43	0.606	ug/kg	U	1	28-MAR-10 20:14	per0328046a
	Perchlorate Isotope Ratio						1	28-MAR-10 20:14	per0328046a
14797-73-0	Perchlorate-101	.606	2.43	0.606	ug/kg	U	1	28-MAR-10 20:14	per0328046a
	Perchlorate-O(18)			5.92	ug/kg		1	28-MAR-10 20:14	per0328046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13552

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814007

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.573	2.29	0.573	ug/kg	U	1	28-MAR-10 20:23	per0328047a
	Perchlorate Isotope Ratio						1	28-MAR-10 20:23	per0328047a
14797-73-0	Perchlorate-101	.573	2.29	0.573	ug/kg	U	1	28-MAR-10 20:23	per0328047a
	Perchlorate-O(18)			5.72	ug/kg		1	28-MAR-10 20:23	per0328047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13547

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814008

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.572	2.29	0.572	ug/kg	U	1	28-MAR-10 20:57	per0328051a
	Perchlorate Isotope Ratio						1	28-MAR-10 20:57	per0328051a
14797-73-0	Perchlorate-101	.572	2.29	0.572	ug/kg	U	1	28-MAR-10 20:57	per0328051a
	Perchlorate-O(18)			5.60	ug/kg		1	28-MAR-10 20:57	per0328051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13556

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814009

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.576	2.3	0.576	ug/kg	U	1	28-MAR-10 21:06	per0328052a
	Perchlorate Isotope Ratio						1	28-MAR-10 21:06	per0328052a
14797-73-0	Perchlorate-101	.576	2.3	0.576	ug/kg	U	1	28-MAR-10 21:06	per0328052a
	Perchlorate-O(18)			5.67	ug/kg		1	28-MAR-10 21:06	per0328052a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2303

Extract Batch Code: 964121

Date Filtered: 19–MAR–10

Matrix: SOIL

Sample ID: 1202068348

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.92	ug/kg	95.9		70 – 130
Perchlorate Isotope Ratio		3.15				–
Perchlorate–101	2.00	1.95	ug/kg	97.4		70 – 130
Perchlorate–O(18)		5.04	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2303

Extract Batch Code: 964121

Date Filtered: 19–MAR–10

Matrix: SOIL

Sample ID: 1202068351

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.18	ug/kg	109		70 – 130
Perchlorate Isotope Ratio		3.34				
Perchlorate–101	2.00	2.09	ug/kg	105		70 – 130
Perchlorate–O(18)		5.22	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Tuesday, March 30, 2010 11:59:19 AM Eastern Standard Time
Printed: Tuesday, March 30, 2010 11:59:33 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032810a.mdb 29 Mar 2010 09:32:17
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032810a.cdb 29 Mar 2010 09:32:40

Name: per0328040a
Date: 28-Mar-2010
Time: 19:23:31
ID: 1202068351 | WAW | 964122 | SOLID | ICS | 1 |
Vial: 2:1,C

AW 03-30-10

Perchlorate

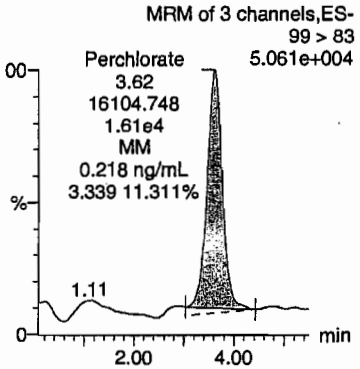

Perchlorate

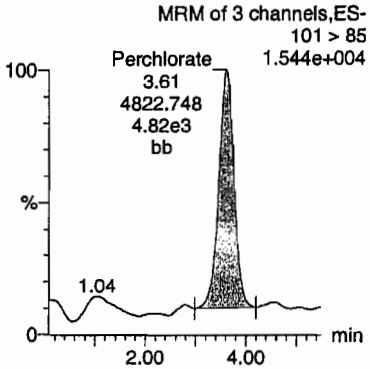

Perchlorate-101

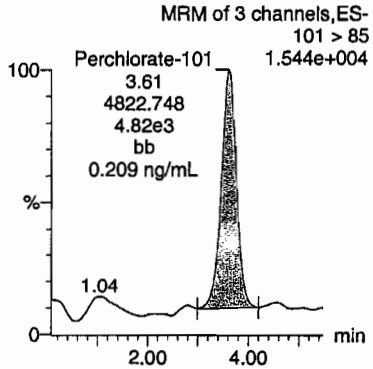

Perchlorate-O(18)

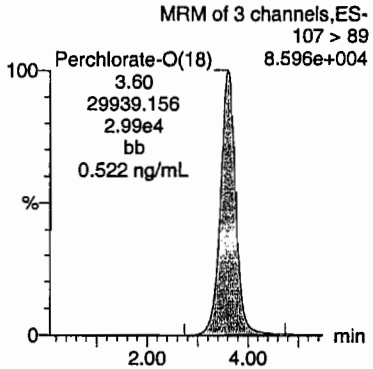

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202068351	Perchlorate	99 > 83	3.62	16104.748	16104.748	MM	30-Mar-10	11:59:19	0.2184	109.22	9.22	209.746	3.34
202068351	Perchlorate-101	101 > 85	3.61	4822.748	4822.748	bb			0.2094	104.69	4.69	73.048	
202068351	Perchlorate-O(18)	107 > 89	3.60	29939.156	29939.156	bb			0.5222	104.44	4.44	9311.9...	

MATT 3/30/10

$$\frac{16104.748}{4822.748} = 3.3393$$

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–2303

Extract Batch Code: 964121

Date Extracted: 19–MAR–10

GEL MS/PS ID: 1202068349

Client ID: RE46–10–13782

GEL MSD/PSD ID: 1202068350

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.32	0.0629	ug/kg	2.26	94.6	2.3	96.2	1.67	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.21		3.25		0		–
Perchlorate–101	2.32	0.00	ug/kg	2.25	96.9	2.26	97.4	.492	30	75 – 125
Perchlorate–O(18)	0	5.78	ug/kg	5.59		5.72		2.39		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2303

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	28–MAR–10	per0328001a	IPB001
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328001a	IPB001
Perchlorate	0.00	0	NA	28–MAR–10	per0328002a	IPB001
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328002a	IPB001

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ast Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
rinted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

lethod: C:\MassLynx\Perchlorate.PRO\MethDB\per032810a.mdb 29 Mar 2010 09:32:17
alibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032810a.cdb 29 Mar 2010 09:32:40

ame: per0328001a
ate: 28-Mar-2010
ime: 13:50:13
): IPB001
ial: 1:1,A

CWW 03-29-10

erchlorate

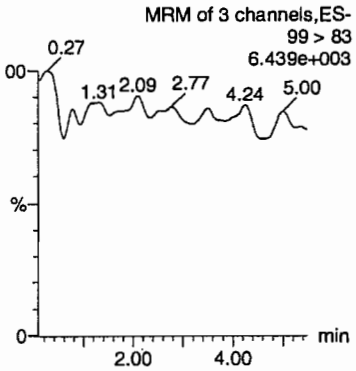

Perchlorate

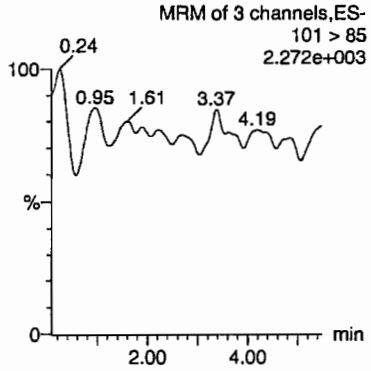

Perchlorate-101

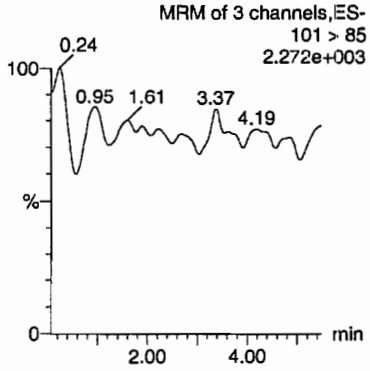

Perchlorate-O(18)

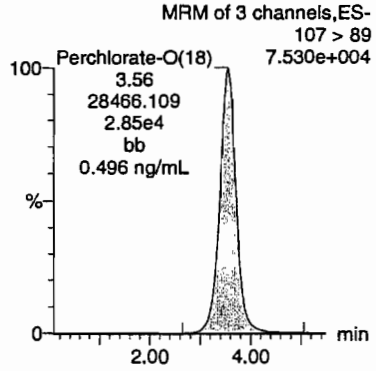

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'B001	Perchlorate	99 > 83											0.00
'B001	Perchlorate-101	101 > 85											
'B001	Perchlorate-O(18)	107 > 89	3.56	28466.109	28466.109	bb			0.4965	99.30	-0.70	8068.7...	

MTT 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ıst Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
rinted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

ame: per0328002a
ate: 28-Mar-2010
ime: 13:58:57
): IPB001
ial: 1:1,A

CWW 03-29-10

erchlorate

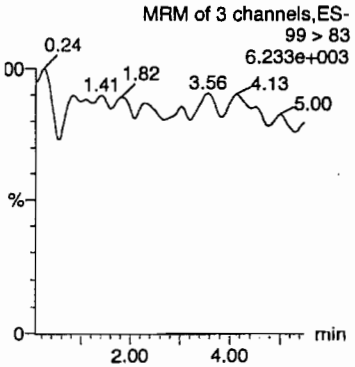

Perchlorate

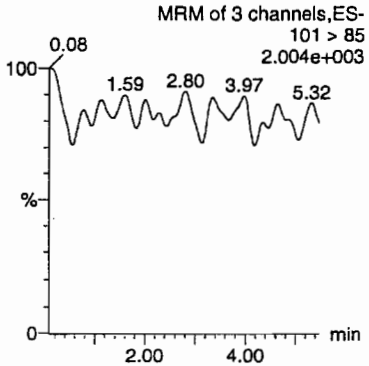

Perchlorate-101

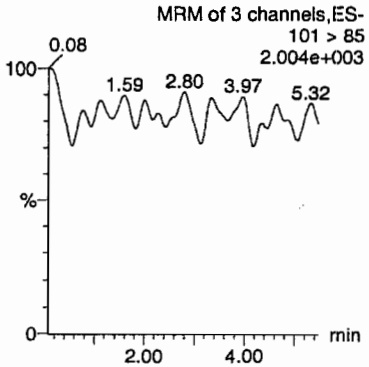

Perchlorate-O(18)

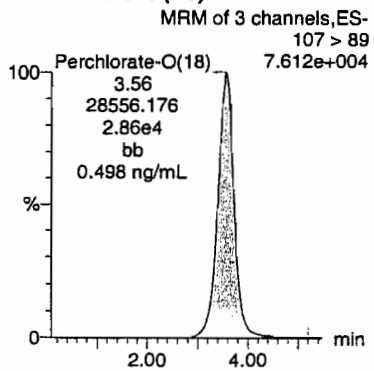

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'B001	Perchlorate	99 > 83											0.00
'B001	Perchlorate-101	101 > 85											
'B001	Perchlorate-O(18)	107 > 89	3.56	28556.176	28556.176	bb			0.4981	99.61	-0.39	617.780	

MM 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2303

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	28–MAR–10	per0328008a	IPB002
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328008a	IPB002
Perchlorate	0.00	0	NA	28–MAR–10	per0328010a	IPB003
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328010a	IPB003
Perchlorate	0.00	0	NA	28–MAR–10	per0328014a	IPB004
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328014a	IPB004
Perchlorate	0.00	0	NA	28–MAR–10	per0328023a	IPB005
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328023a	IPB005
Perchlorate	0.00	0	NA	28–MAR–10	per0328036a	IPB006
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328036a	IPB006
Perchlorate	0.00	0	NA	28–MAR–10	per0328049a	IPB007
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328049a	IPB007
Perchlorate	0.00	0	NA	28–MAR–10	per0328062a	IPB008

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2303

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328062a	IPB008

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328008a
Date: 28-Mar-2010
Time: 14:50:04
ID: IPB002
Vial: 1:1,A

CWJ 03-29-10

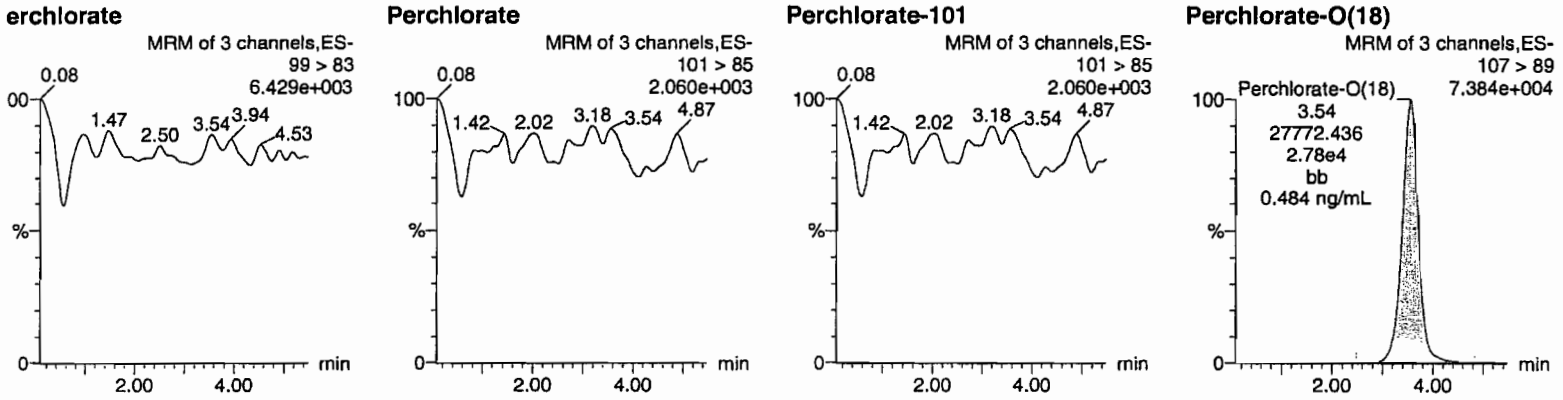

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B002	Perchlorate	99 > 83											0.00
B002	Perchlorate-101	101 > 85											
B002	Perchlorate-O(18)	107 > 89	3.54	27772.436	27772.436	bb			0.4844	96.88	-3.12	4963.3...	

MAT 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ıst Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
rinted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

ame: per0328010a
ate: 28-Mar-2010
me: 15:07:08
: IPB003
al: 1:1,A

CWO 03-29-10

erchlorate

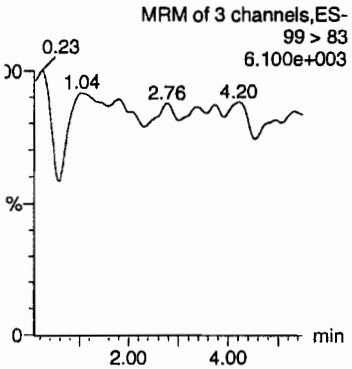

Perchlorate

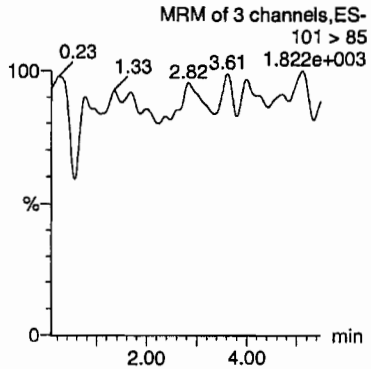

Perchlorate-101

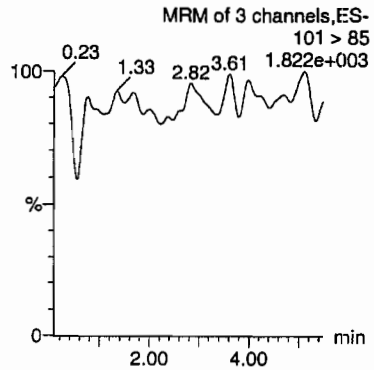

Perchlorate-O(18)

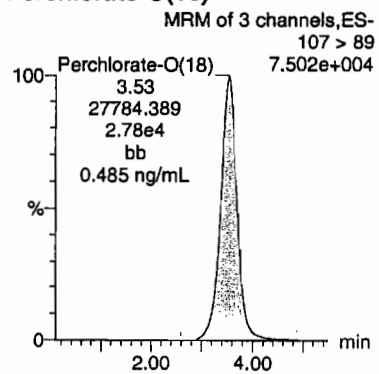

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B003	Perchlorate	99 > 83											0.00
B003	Perchlorate-101	101 > 85											
B003	Perchlorate-O(18)	107 > 89	3.53	27784.389	27784.389	bb			0.4846	96.92	-3.08	5153.3...	

MAT 3/30/10

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328014a
Date: 28-Mar-2010
Time: 15:41:19
ID: IPB004
Vial: 1:1,A

CWW
03-29-10

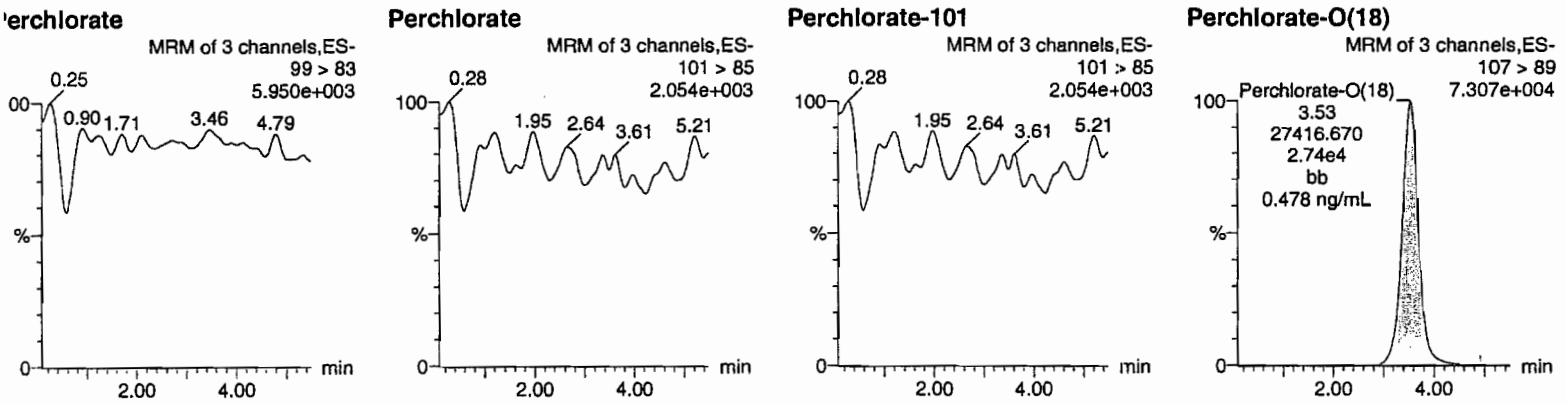

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB004	Perchlorate	99 > 83											0.00
PB004	Perchlorate-101	101 > 85											
PB004	Perchlorate-O(18)	107 > 89	3.53	27416.670	27416.670	bb			0.4782	95.64	-4.36	1369.3...	

MAT
3/30/10

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328023a
Date: 28-Mar-2010
Time: 16:58:12
ID: IPB005
Vial: 1:1,A

03-29-10

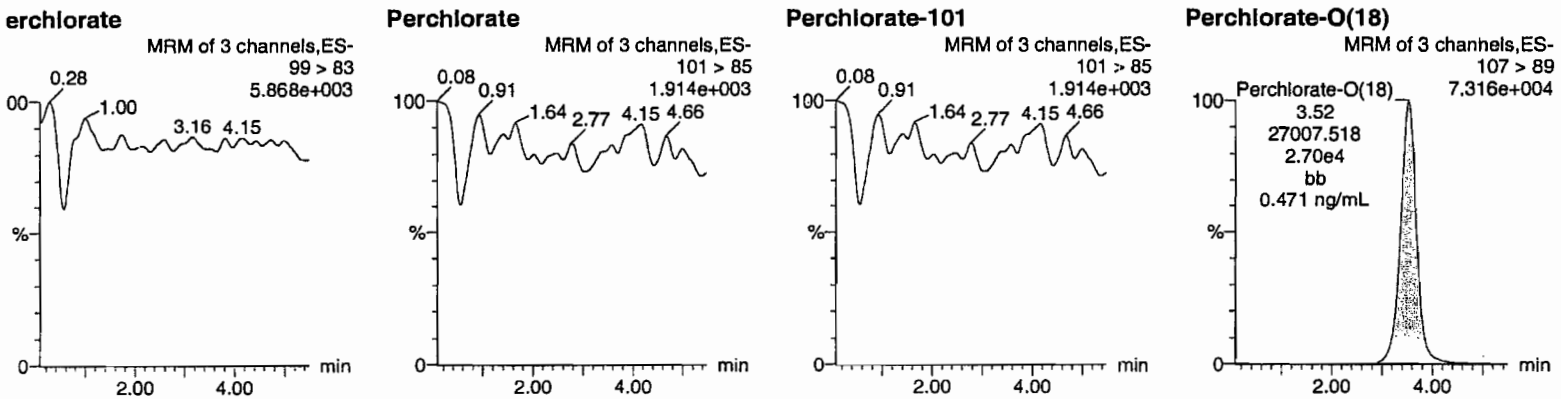

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	3.52	27007.518	27007.518	bb			0.4711	✓94.21	-5.79	913.616	

MMT 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328036a
Date: 28-Mar-2010
Time: 18:49:11
ID: IPB006
Vial: 1:1,A

CWD 03-29-10

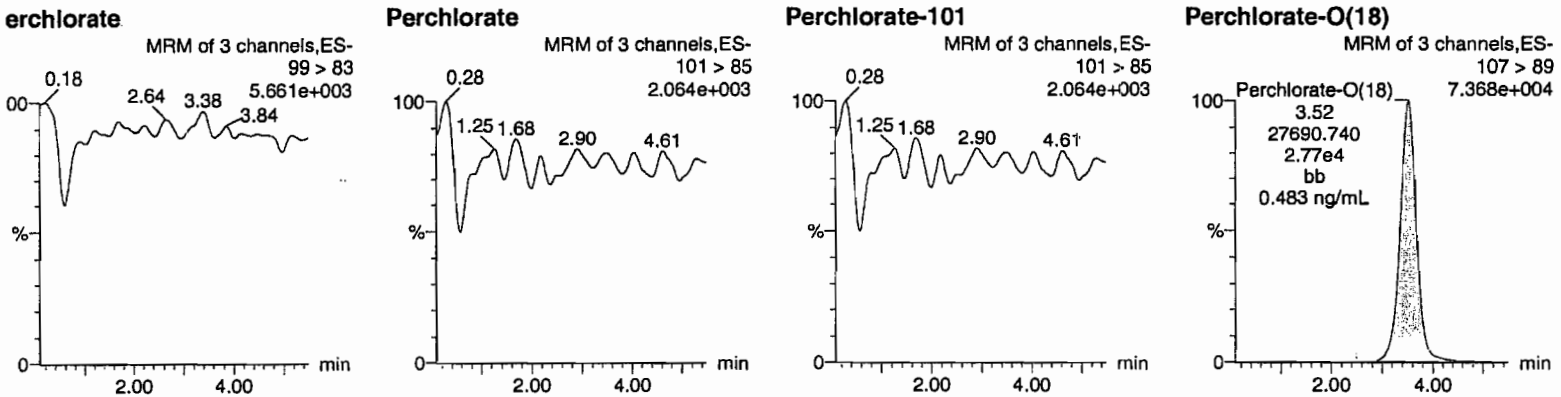

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B006	Perchlorate	99 > 83											0.00
B006	Perchlorate-101	101 > 85											
B006	Perchlorate-O(18)	107 > 89	3.52	27690.740	27690.740	bb			0.4830	96.59	-3.41	10009....	

MAP 3/30/10

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328049a
Date: 28-Mar-2010
Time: 20:40:31
ID: IPB007
Vial: 1:1,A

CWW 03-29-10

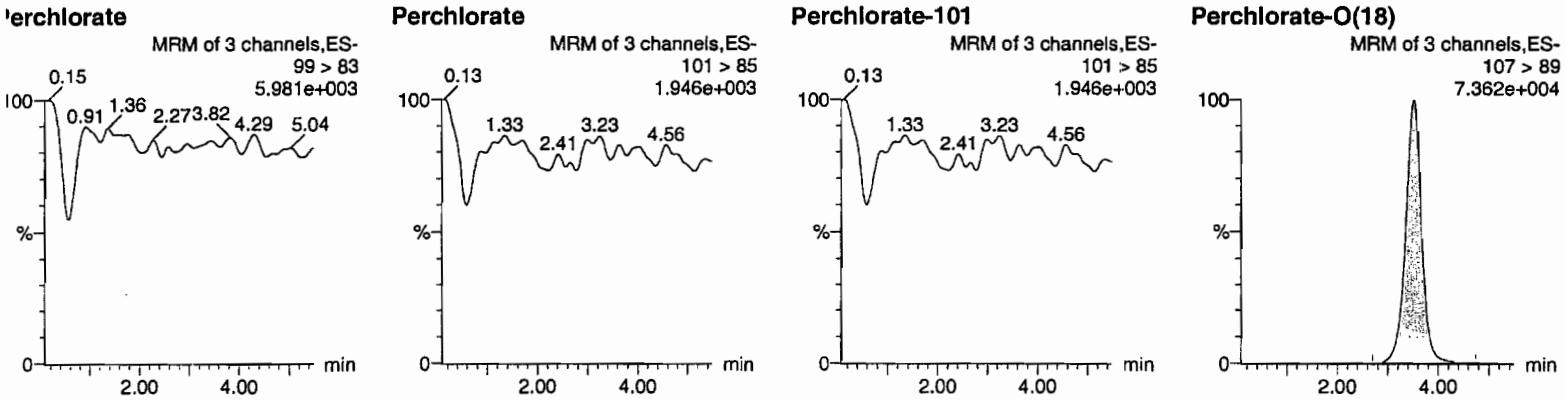

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB007	Perchlorate	99 > 83											0.00
PB007	Perchlorate-101	101 > 85											
PB007	Perchlorate-O(18)	107 > 89	3.51	27005.262	27005.262	bb			0.4710	94.20	-5.80	3330.6...	

MM 7/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

ast Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
rinted: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

ame: per0328062a
ate: 28-Mar-2010
ime: 22:31:51
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ial: 1:1,A

CWO
03-24-10

erchlorate

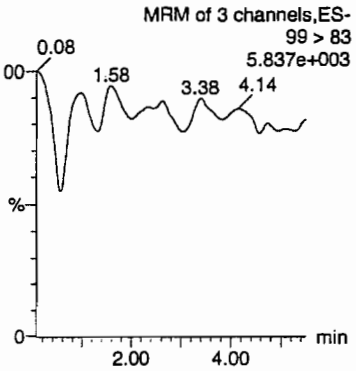

Perchlorate

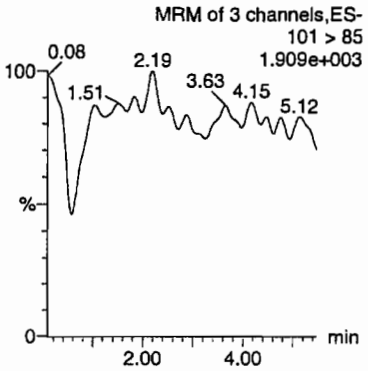

Perchlorate-101

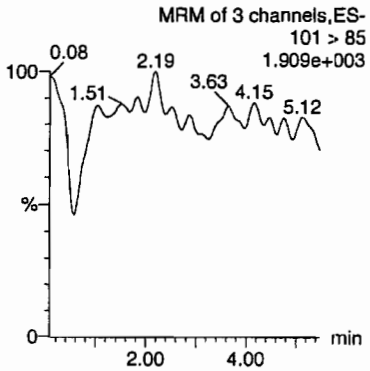

Perchlorate-O(18)

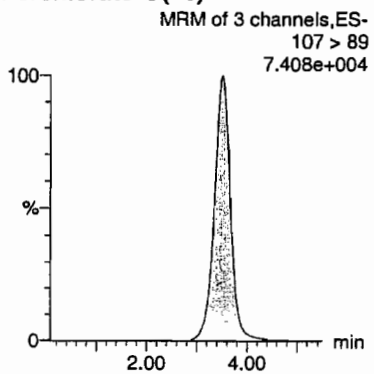

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'B008	Perchlorate	99 > 83											0.00
'B008	Perchlorate-101	101 > 85											
'B008	Perchlorate-O(18)	107 > 89	3.51	27596.814	27596.814	bb			0.4813	96.27	-3.73	4682.9...	

MMT 3/30/10

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Nairb.rcf

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWW 01-09-08

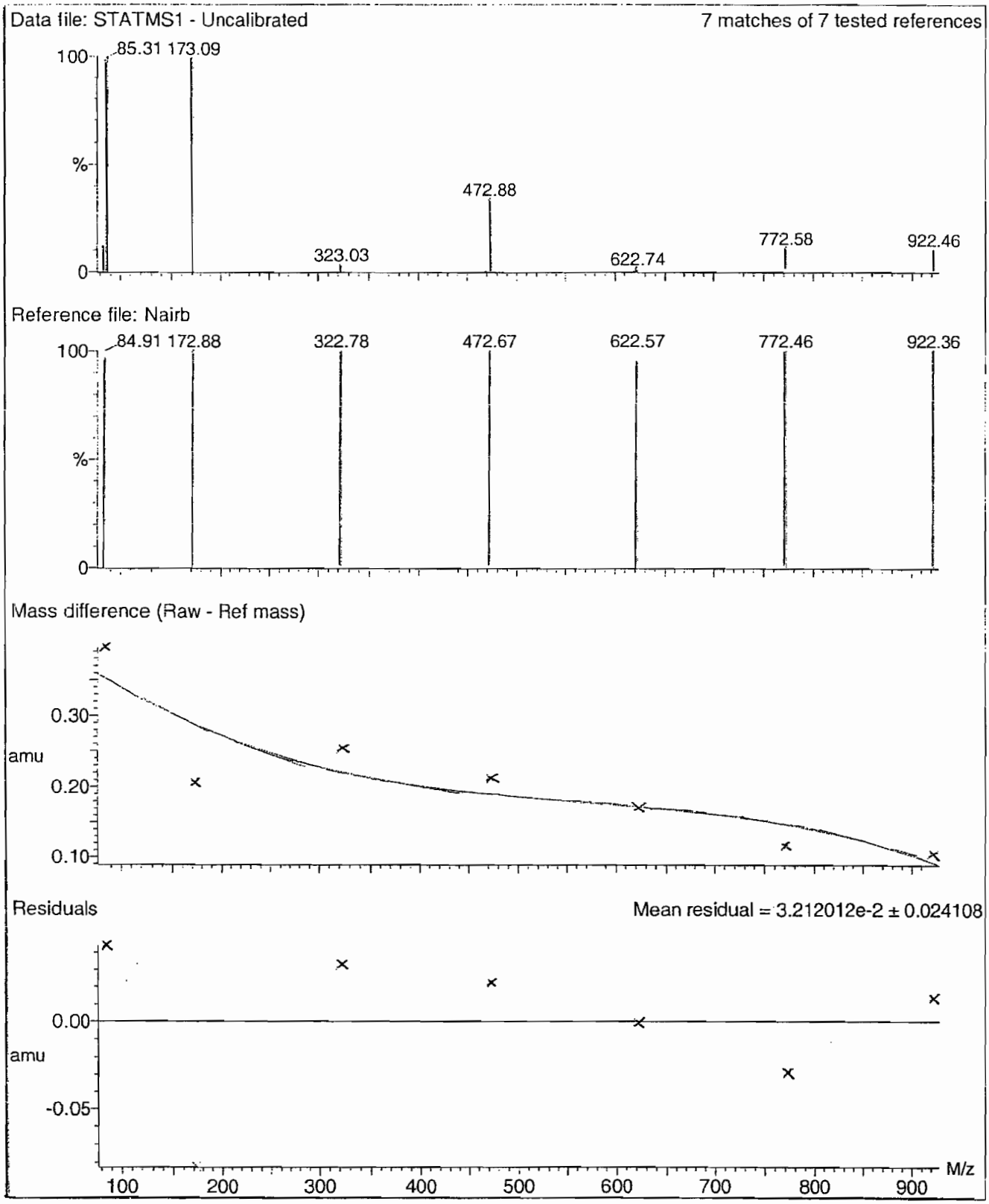

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Calibration Report - MS1 Scanning

Printed: **Tue Jan 08 12:20:09 2008**

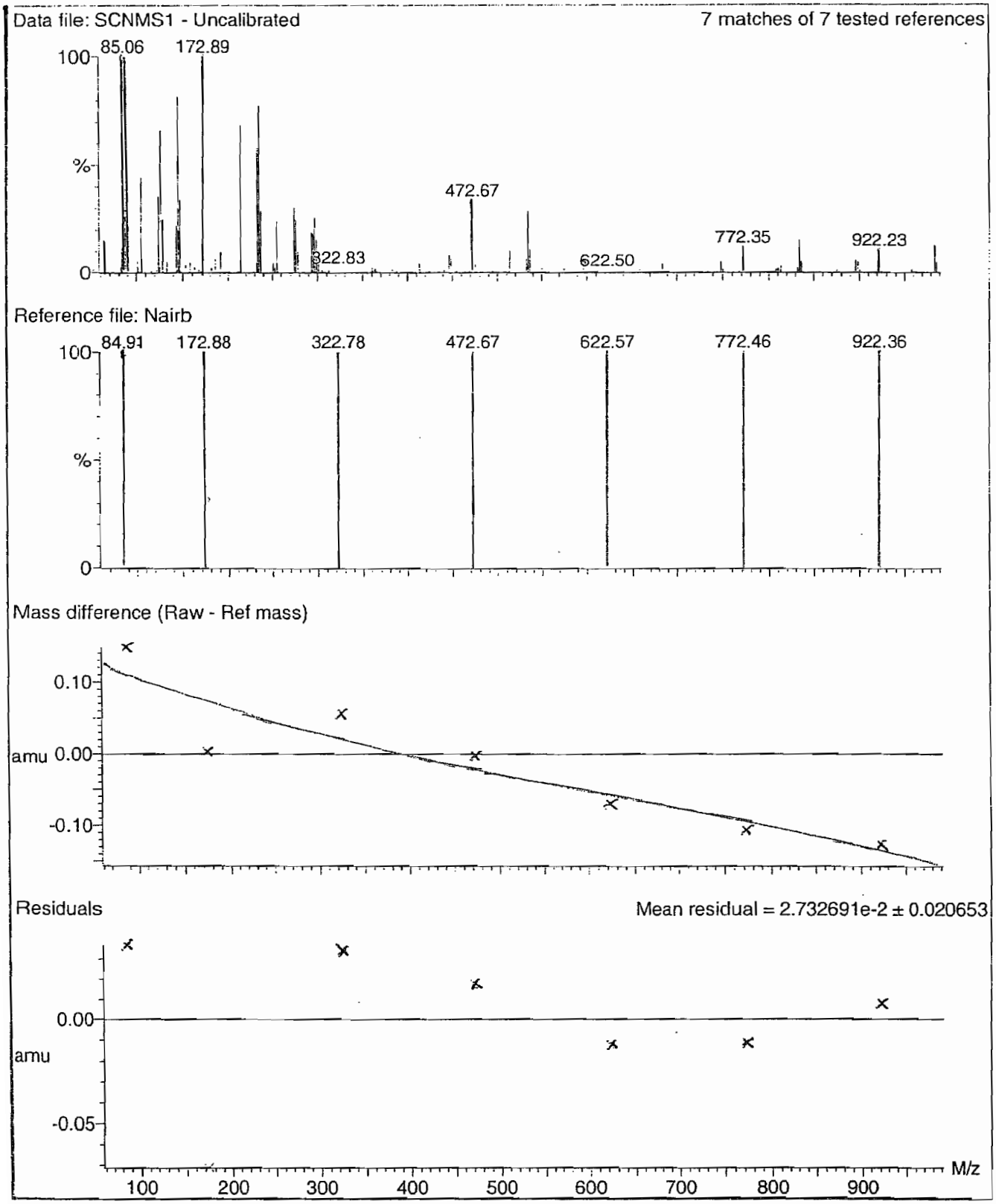

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Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

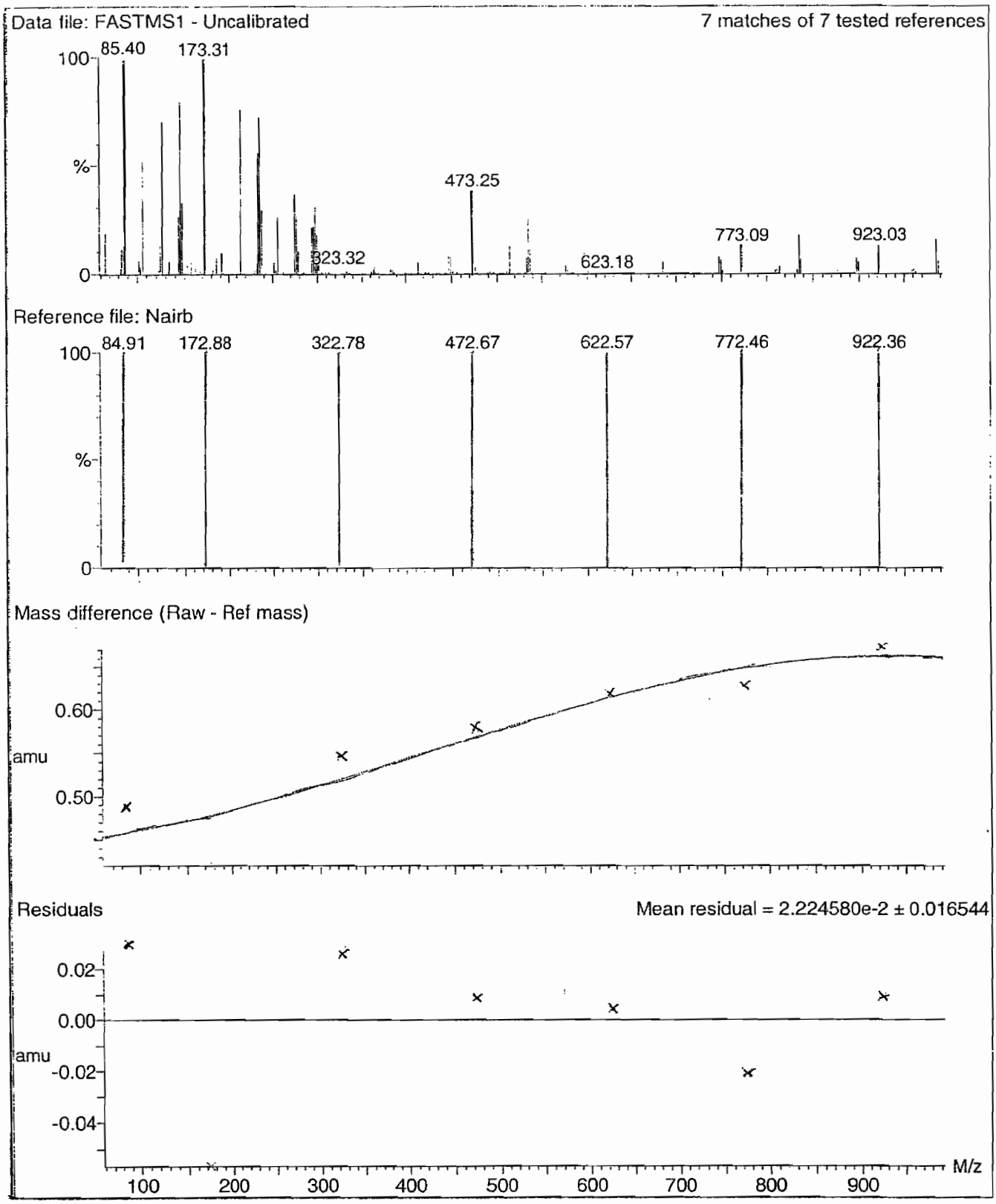

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

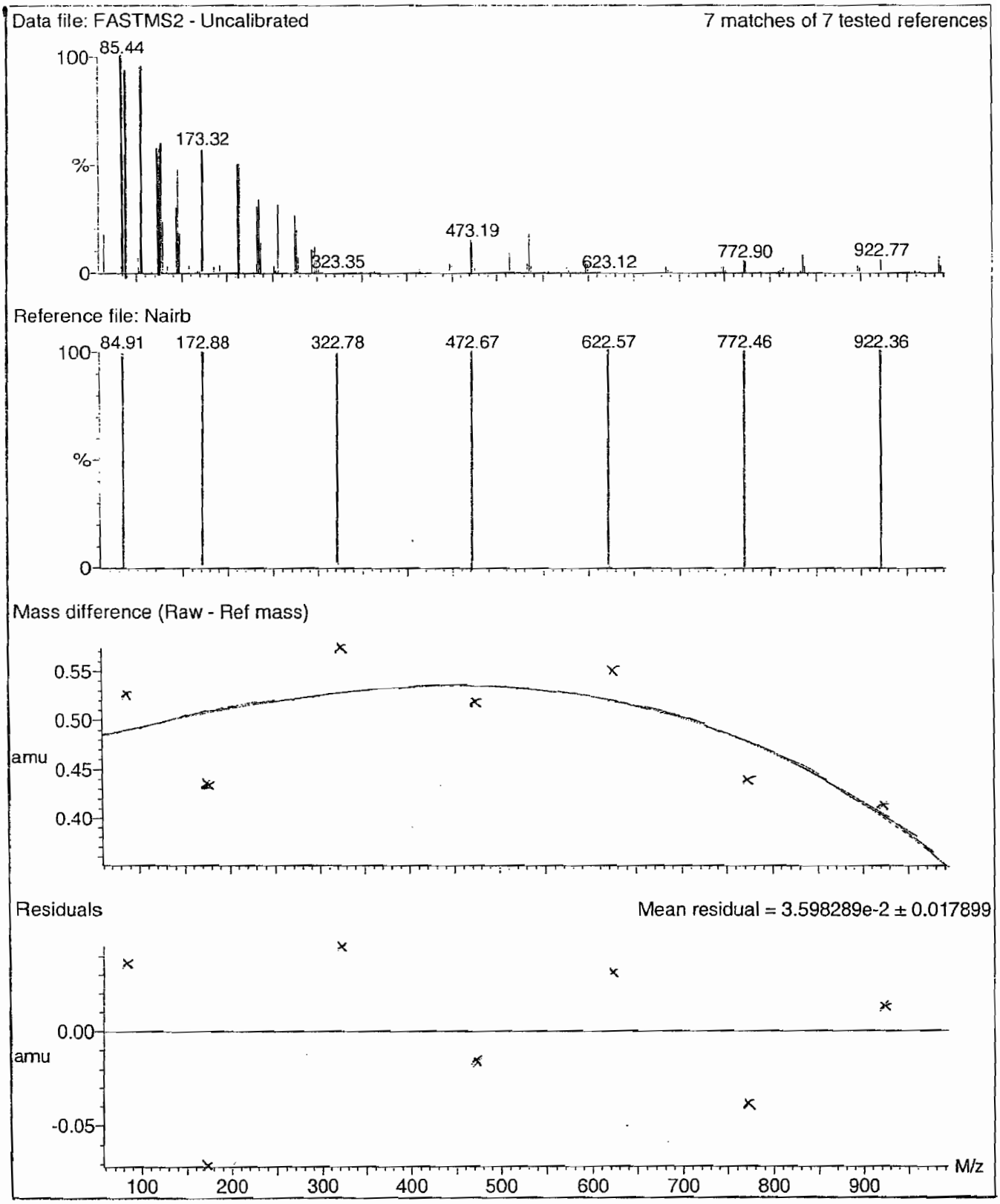

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

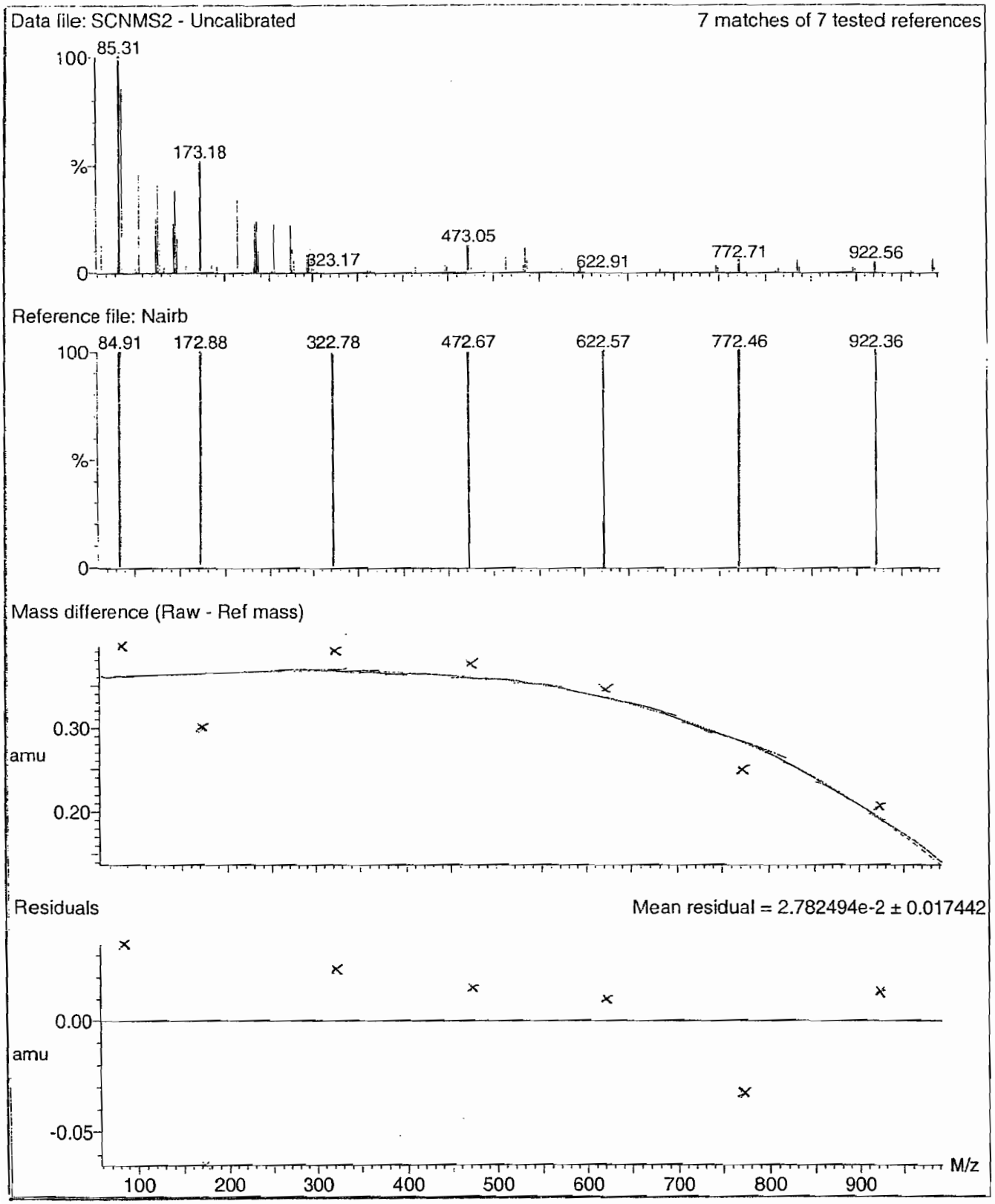

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Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

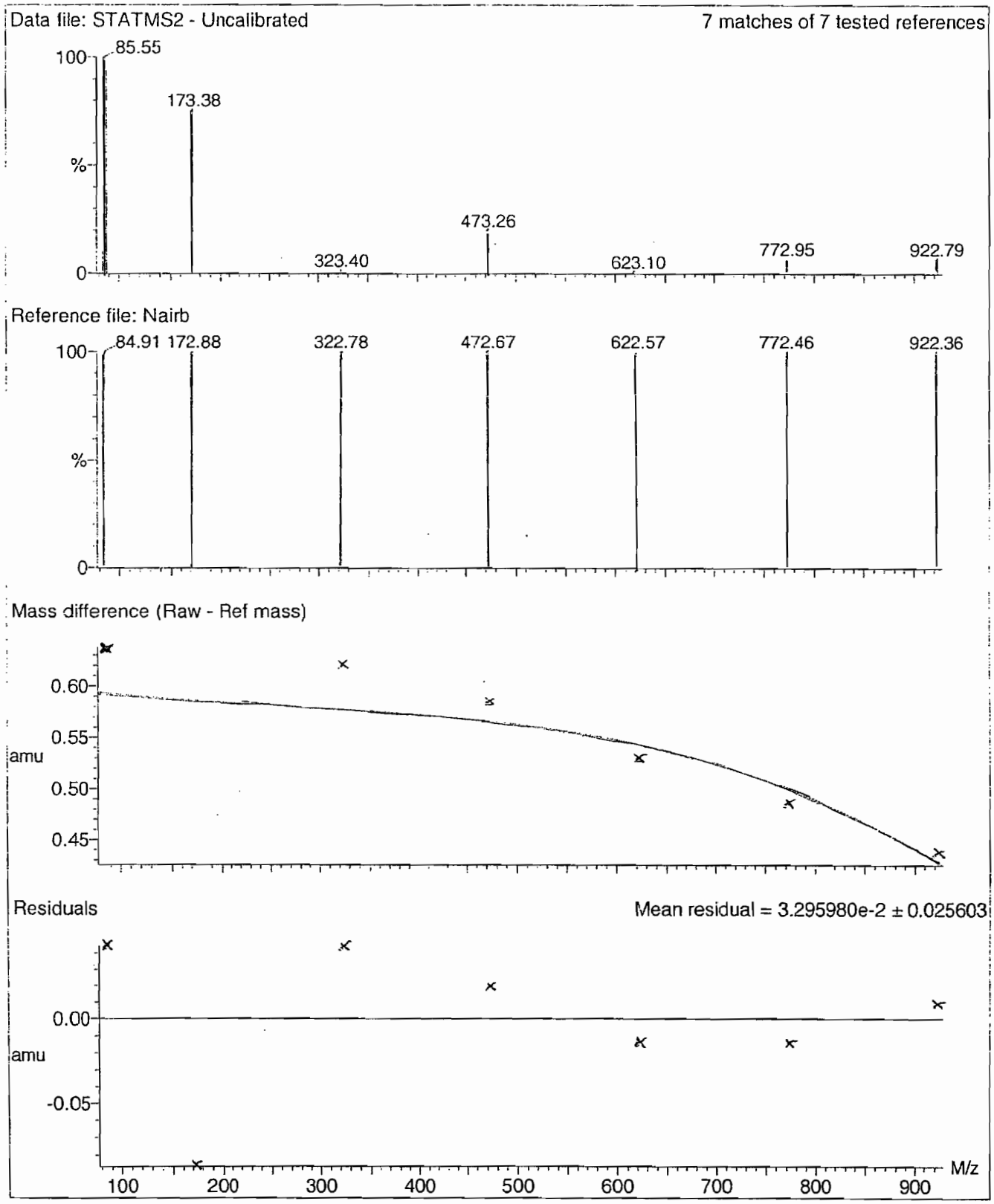

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Sunday, March 28, 2010 11:58:51 Eastern Standard Time

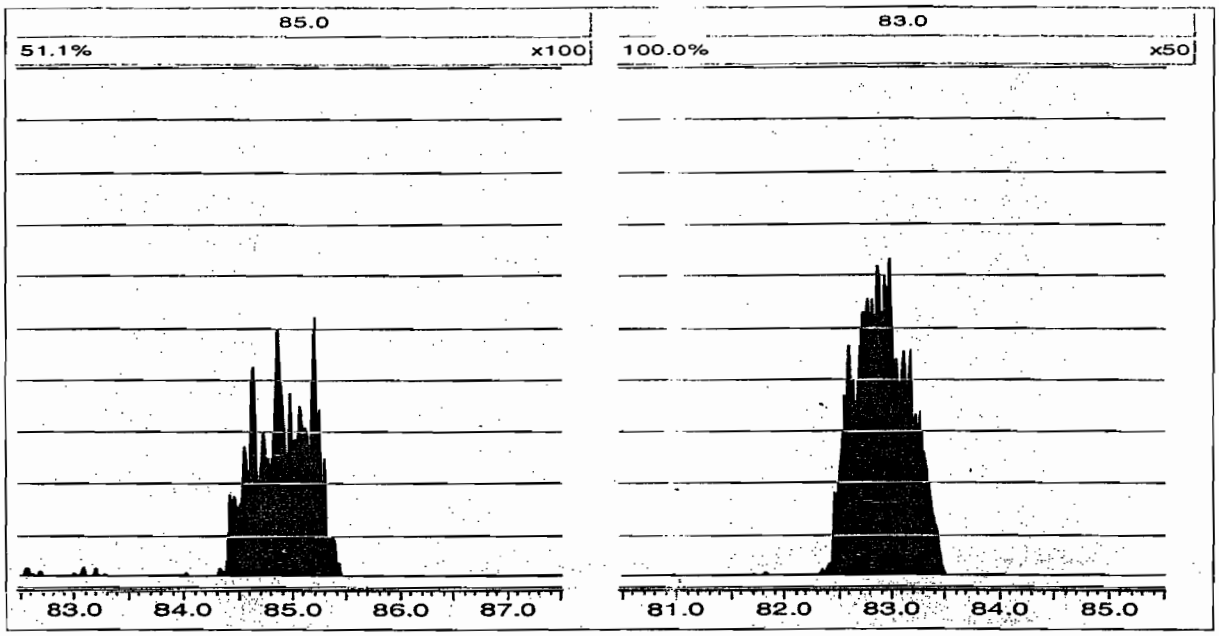

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2303

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0328006a**	**28–MAR–10**	**28421.6**				
Lower Area Limit			**14210.8**				
Upper Area Limit			**56843.2**				
1202068347	per0328038a	28–MAR–10 19:06	25332.3	3.51			
1202068348	per0328039a	28–MAR–10 19:15	28902.1	3.51	3.5201	1.003	
1202068351	per0328040a	28–MAR–10 19:23	29939.2	3.6	3.61957	1.005	
248814001	per0328041a	28–MAR–10 19:32	27051	3.51			
248814002	per0328042a	28–MAR–10 19:40	28745.2	3.52			
248814003	per0328043a	28–MAR–10 19:49	29180.1	3.52			
248814004	per0328044a	28–MAR–10 19:57	27664.8	3.51	3.52003	1.003	
248814005	per0328045a	28–MAR–10 20:06	28032.5	3.51	3.52012	1.003	

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Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2303

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0328006a**	**28–MAR–10**	**28421.6**				
Lower Area Limit			**14210.8**				
Upper Area Limit			**56843.2**				
248814006	per0328046a	28–MAR–10 20:14	27997.7	3.51			
248814007	per0328047a	28–MAR–10 20:23	28614.1	3.51	3.53252	1.006	
248814008	per0328051a	28–MAR–10 20:57	28028.8	3.51			
248814009	per0328052a	28–MAR–10 21:06	28223	3.51			

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13553

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814001

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.581	2.32	0.581	ug/kg	U	1	28-MAR-10 19:32	per0328041a
	Perchlorate Isotope Ratio						1	28-MAR-10 19:32	per0328041a
14797-73-0	Perchlorate-101	.581	2.32	0.581	ug/kg	U	1	28-MAR-10 19:32	per0328041a
	Perchlorate-O(18)			5.48	ug/kg		1	28-MAR-10 19:32	per0328041a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328041a
Date: 28-Mar-2010
Time: 19:32:03
ID: 248814001
Vial: 2:1,D

|LANL|964122|50120|1|

ano 03-29-10

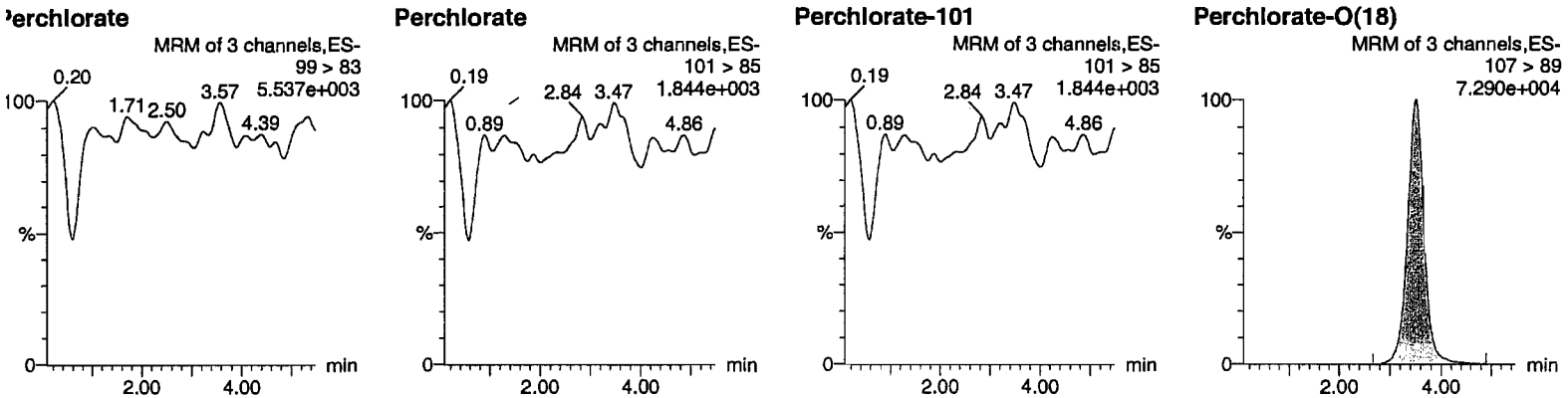

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248814001	Perchlorate	99 > 83											0.00
248814001	Perchlorate-101	101 > 85											
248814001	Perchlorate-O(18)	107 > 89	3.51	27051.002	27051.002	bb			0.4718	✓94.36 ✓	-5.64	3901.2...	

MAT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13549

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814002

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.599	2.4	0.599	ug/kg	U	1	28-MAR-10 19:40	per0328042a
	Perchlorate Isotope Ratio						1	28-MAR-10 19:40	per0328042a
14797-73-0	Perchlorate-101	.599	2.4	0.599	ug/kg	U	1	28-MAR-10 19:40	per0328042a
	Perchlorate-O(18)			6.01	ug/kg		1	28-MAR-10 19:40	per0328042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328042a
Date: 28-Mar-2010
Time: 19:40:35
ID: 248814002
Vial: 2:1,E

|LANL|964122|50120|1|

CWO 03-29-10

Perchlorate

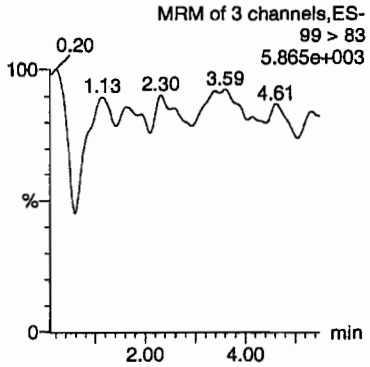

Perchlorate

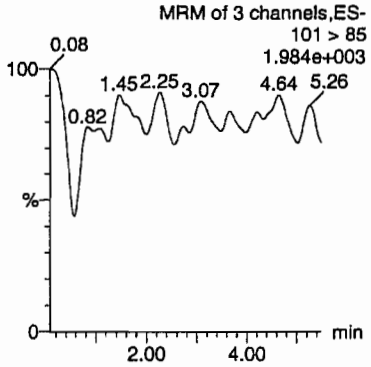

Perchlorate-101

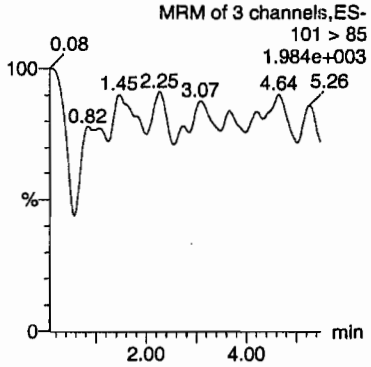

Perchlorate-O(18)

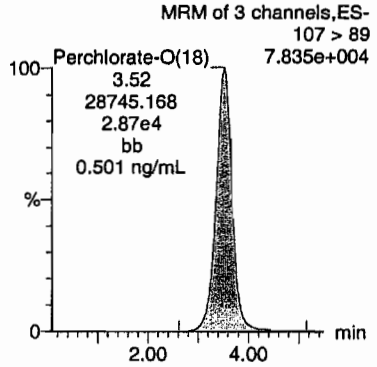

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248814002	Perchlorate	99 > 83											0.00
248814002	Perchlorate-101	101 > 85											
248814002	Perchlorate-O(18)	107 > 89	3.52	28745.168	28745.168	bb			0.5014	100.27	0.27	1654.4...	

MM 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13551

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814003

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.631	2.52	0.631	ug/kg	U	1	28-MAR-10 19:49	per0328043a
	Perchlorate Isotope Ratio						1	28-MAR-10 19:49	per0328043a
14797-73-0	Perchlorate-101	.631	2.52	0.631	ug/kg	U	1	28-MAR-10 19:49	per0328043a
	Perchlorate-O(18)			6.42	ug/kg		1	28-MAR-10 19:49	per0328043a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328043a
Date: 28-Mar-2010
Time: 19:49:06
ID: 248814003
Vial: 2:1,F

|LANL|964122|30120|11|

WO 03-29-10

Perchlorate

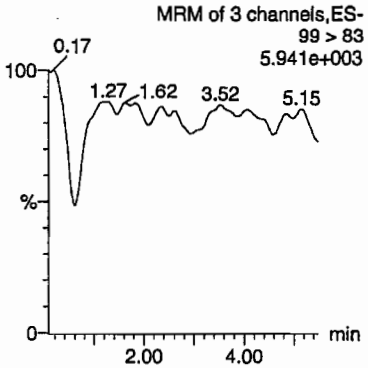

Perchlorate

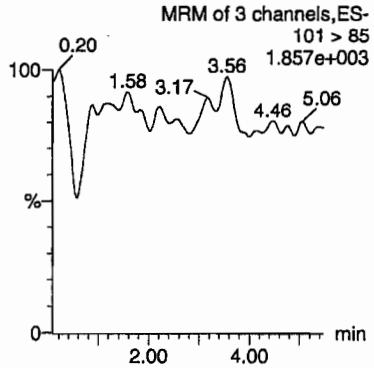

Perchlorate-101

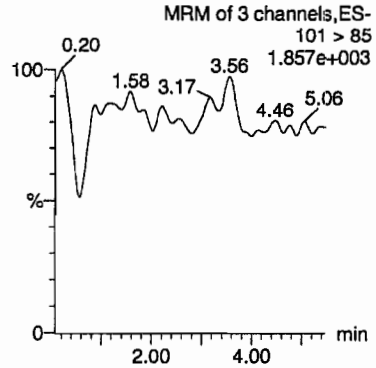

Perchlorate-O(18)

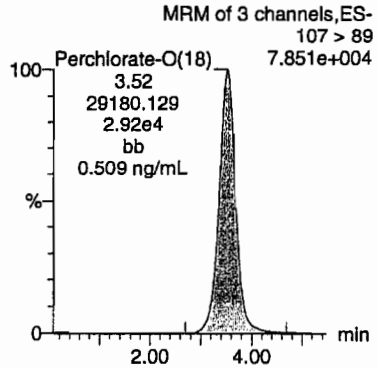

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248814003	Perchlorate	99 > 83											0.00
248814003	Perchlorate-101	101 > 85											
248814003	Perchlorate-O(18)	107 > 89	3.52	29180.129	29180.129	bb			0.5090	101.79	1.79	1823.6...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13550

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814004

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.613	2.45	0.613	ug/kg	U	1	28-MAR-10 19:57	per0328044a
	Perchlorate Isotope Ratio						1	28-MAR-10 19:57	per0328044a
14797-73-0	Perchlorate-101	.613	2.45	0.613	ug/kg	U	1	28-MAR-10 19:57	per0328044a
	Perchlorate-O(18)			5.92	ug/kg		1	28-MAR-10 19:57	per0328044a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328044a
Date: 28-Mar-2010
Time: 19:57:36
ID: 248814004
Vial: 2:2,A

|LANL|964122|50125|1|

CWO 03-24-10

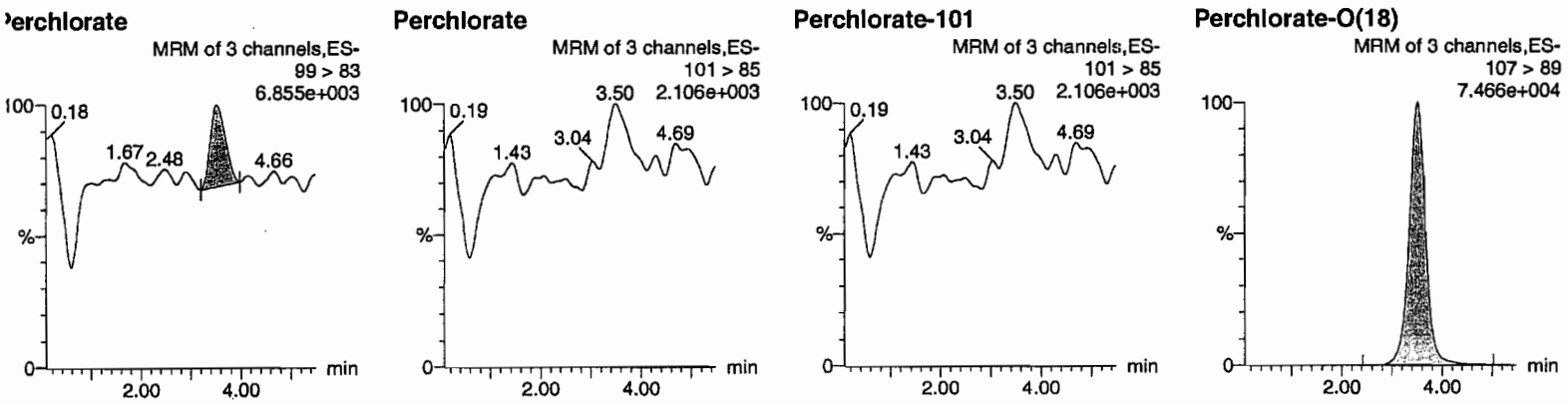

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248814004	Perchlorate	99 > 83	3.52	744.809	744.809	bb			0.0101			13.067	0.00
248814004	Perchlorate-101	101 > 85											
248814004	Perchlorate-O(18)	107 > 89	3.51	27664.777	27664.777	bb			0.4825	96.50	-3.50	6779.6...	

MJT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13548

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814005

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.604	2.41	0.604	ug/kg	U	1	28-MAR-10 20:06	per0328045a
	Perchlorate Isotope Ratio						1	28-MAR-10 20:06	per0328045a
14797-73-0	Perchlorate-101	.604	2.41	0.604	ug/kg	U	1	28-MAR-10 20:06	per0328045a
	Perchlorate-O(18)			5.90	ug/kg		1	28-MAR-10 20:06	per0328045a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328045a
Date: 28-Mar-2010
Time: 20:06:09
ID: 248814005
Vial: 2:2,B

LANL | 964122 | 50120 | 1 |

CWO
03-29-10

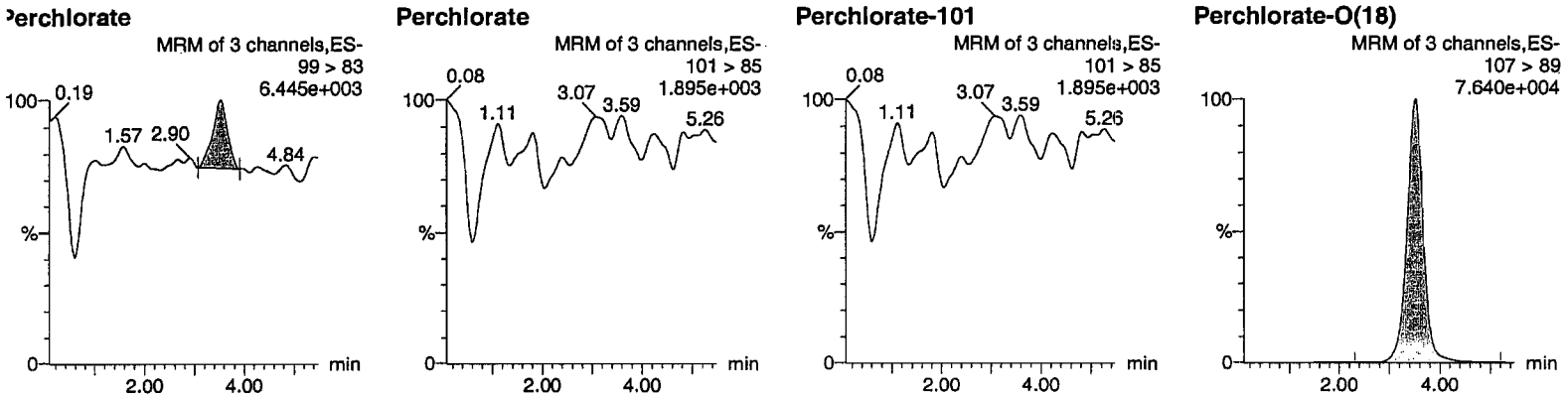

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248814005	Perchlorate	99 > 83	3.52	569.003	569.003	bb			0.0077			9.610	0.00
248814005	Perchlorate-101	101 > 85											
248814005	Perchlorate-O(18)	107 > 89	3.51	28032.486	28032.486	bb			0.4889	97.79	-2.21	2890.1...	

MAT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13546

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814006

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.606	2.43	0.606	ug/kg	U	1	28-MAR-10 20:14	per0328046a
	Perchlorate Isotope Ratio						1	28-MAR-10 20:14	per0328046a
14797-73-0	Perchlorate-101	.606	2.43	0.606	ug/kg	U	1	28-MAR-10 20:14	per0328046a
	Perchlorate-O(18)			5.92	ug/kg		1	28-MAR-10 20:14	per0328046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328046a
Date: 28-Mar-2010
Time: 20:14:42
ID: 248814006
Vial: 2:2,C

|LANL| 964122 | 50120 | 1 |

GWO
03-29-10

Perchlorate

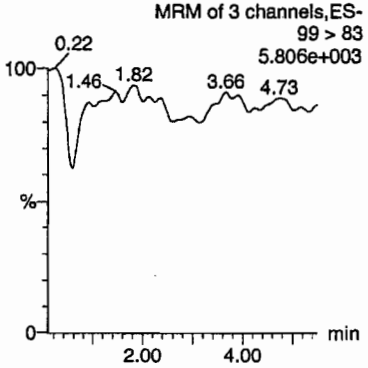

Perchlorate

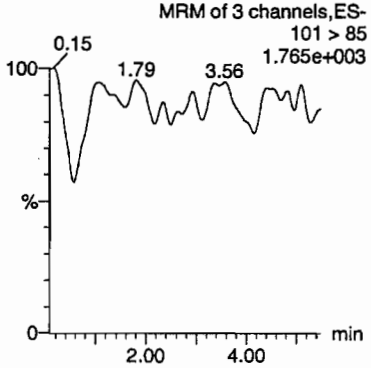

Perchlorate-101

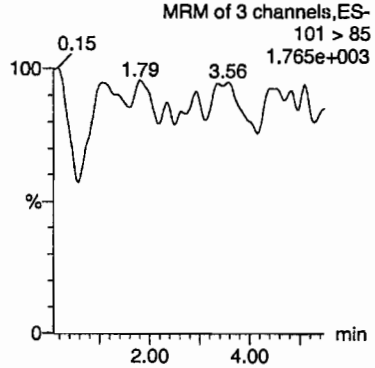

Perchlorate-O(18)

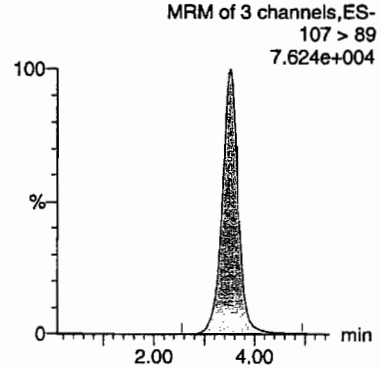

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N	Ion Ratio
248814006	Perchlorate	99 > 83											0.00
248814006	Perchlorate-101	101 > 85											
248814006	Perchlorate-O(18)	107 > 89	3.51	27997.682	27997.682	bb			0.4883	97.67	-2.33	4346.6...	

MMT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13552

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814007

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.573	2.29	0.573	ug/kg	U	1	28-MAR-10 20:23	per0328047a
	Perchlorate Isotope Ratio						1	28-MAR-10 20:23	per0328047a
14797-73-0	Perchlorate-101	.573	2.29	0.573	ug/kg	U	1	28-MAR-10 20:23	per0328047a
	Perchlorate-O(18)			5.72	ug/kg		1	28-MAR-10 20:23	per0328047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328047a
Date: 28-Mar-2010
Time: 20:23:13
ID: 248814007
Vial: 2:2,D

|LANL|964122|50120|11|

AW 03-29-10

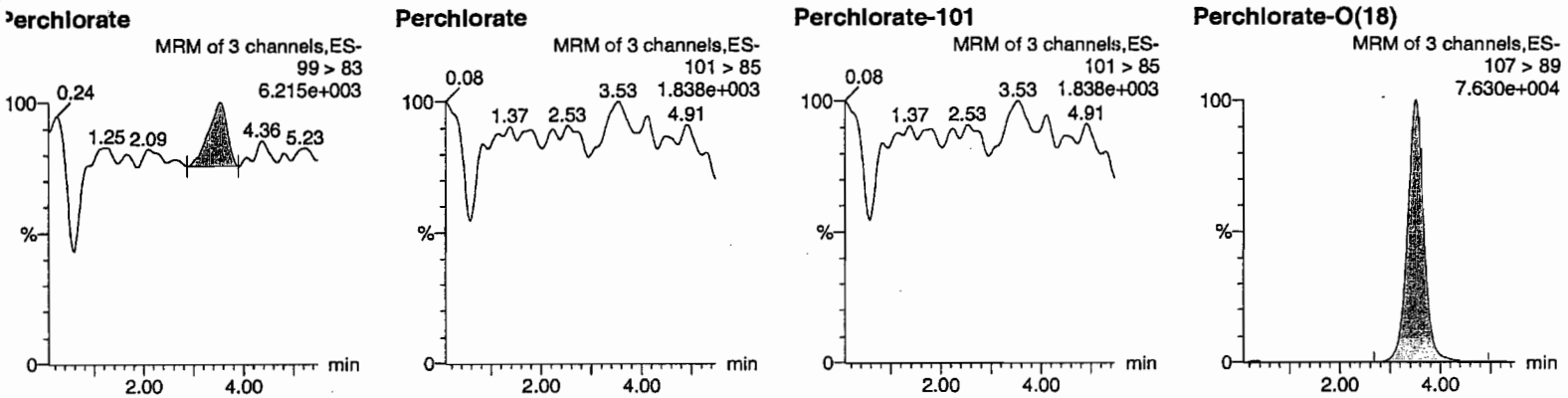

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248814007	Perchlorate	99 > 83	3.53	655.058	655.058	bb			0.0089			7.559	0.00
248814007	Perchlorate-101	101 > 85											
248814007	Perchlorate-O(18)	107 > 89	3.51	28614.109	28614.109	bb			0.4991	✓ 99.82	-0.18	5810.2...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13547

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814008

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.572	2.29	0.572	ug/kg	U	1	28-MAR-10 20:57	per0328051a
	Perchlorate Isotope Ratio						1	28-MAR-10 20:57	per0328051a
14797-73-0	Perchlorate-101	.572	2.29	0.572	ug/kg	U	1	28-MAR-10 20:57	per0328051a
	Perchlorate-O(18)			5.60	ug/kg		1	28-MAR-10 20:57	per0328051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328051a
Date: 28-Mar-2010
Time: 20:57:35
ID: 248814008
Vial: 2:2,E

ILAWL | 964122 | 50125 | 1 |

WW 03-29-10

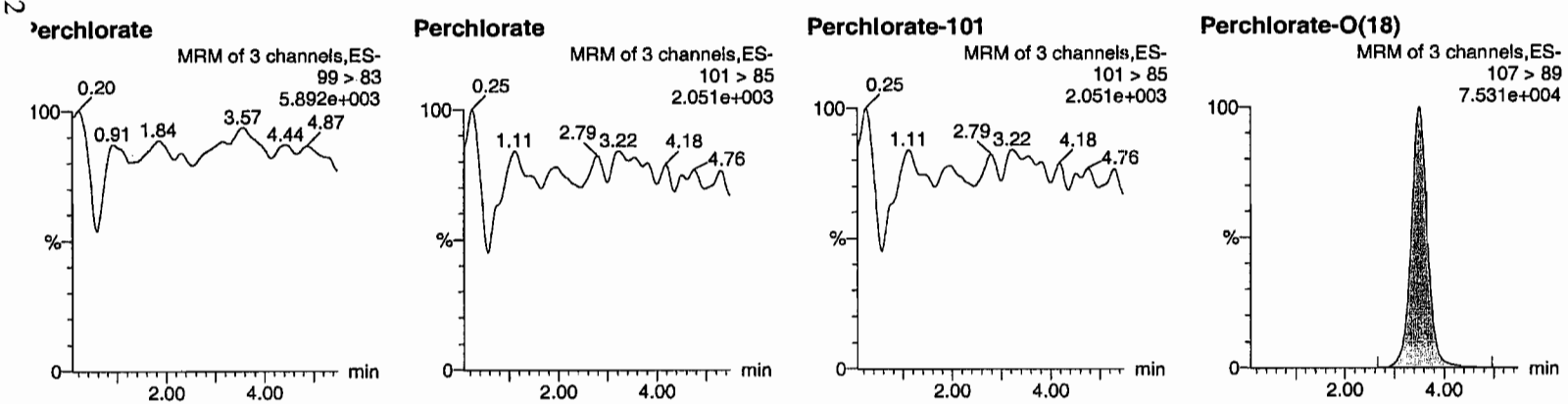

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248814008	Perchlorate	99 > 83											0.00
248814008	Perchlorate-101	101 > 85											
248814008	Perchlorate-O(18)	107 > 89	3.51	28028.848	28028.848	bb			0.4889	97.77	-2.23	2393.0...	

MM 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13556

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 248814009

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.576	2.3	0.576	ug/kg	U	1	28-MAR-10 21:06	per0328052a
	Perchlorate Isotope Ratio						1	28-MAR-10 21:06	per0328052a
14797-73-0	Perchlorate-101	.576	2.3	0.576	ug/kg	U	1	28-MAR-10 21:06	per0328052a
	Perchlorate-O(18)			5.67	ug/kg		1	28-MAR-10 21:06	per0328052a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328052a
Date: 28-Mar-2010
Time: 21:06:17
ID: 248814009
Vial: 2:2,F

LANL | 964122 | 50120 | 1 |

03-29-10

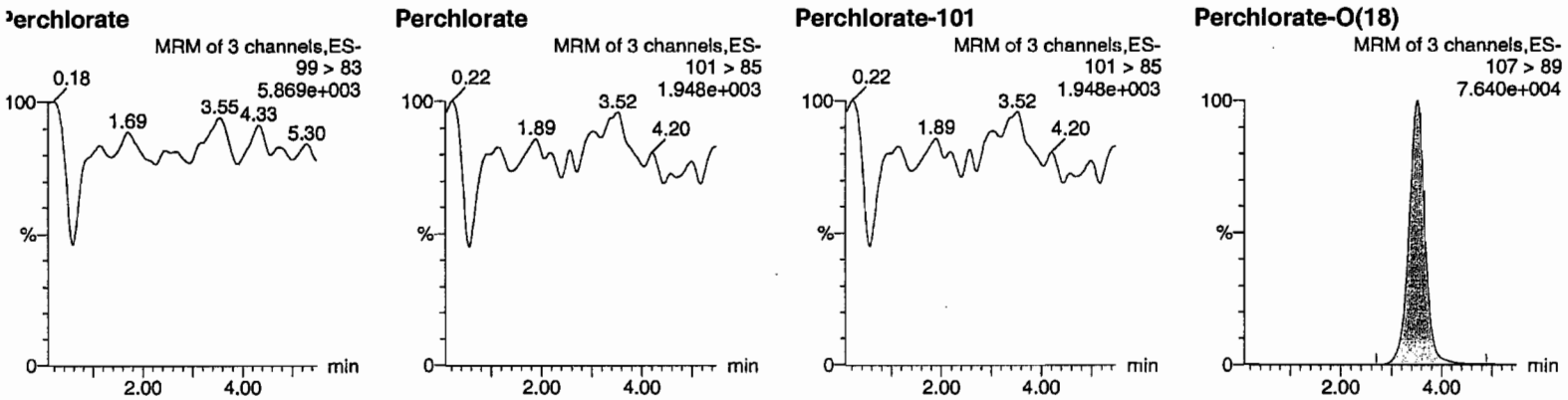

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248814009	Perchlorate	99 > 83											0.00
248814009	Perchlorate-101	101 > 85											
248814009	Perchlorate-O(18)	107 > 89	3.51	28222.973	28222.973	bb			0.4923	98.45	-1.55	5044.3...	

MMT 3/30/10

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2303

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 28–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 73726.48

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2303

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 28–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 23033

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032810a.mdb 29 Mar 2010 09:32:17
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032810a.cdb 29 Mar 2010 09:32:40

Compound name: Perchlorate
Response Factor: 73726.5
RRF SD: 1732.62, % Relative SD: 2.35006
Response type: External Std, Area
Curve type: RF

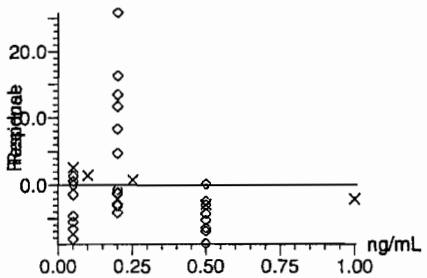

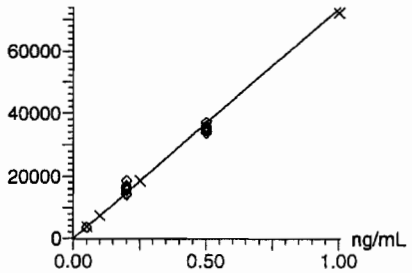

CWW
03-29-10

Compound name: Perchlorate-101
Response Factor: 23033
RRF SD: 903.383, % Relative SD: 3.92213
Response type: External Std, Area
Curve type: RF

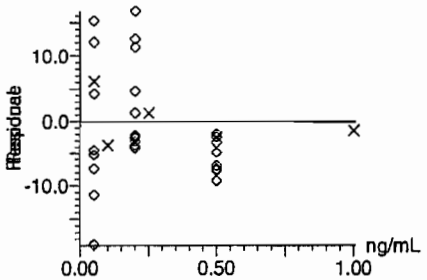

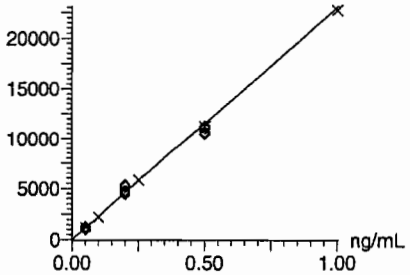

MRT
3/30/10

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 57333.8
RRF SD: 1178.71, % Relative SD: 2.05586
Response type: External Std, Area
Curve type: RF

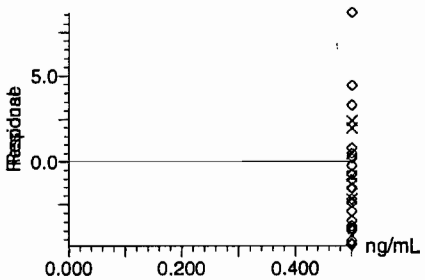

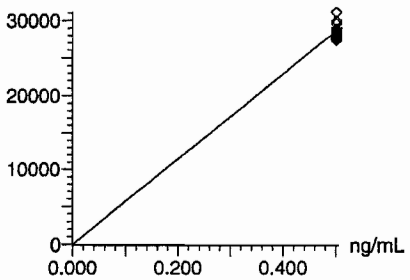

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Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2303

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	97.61	28–MAR–10 14:58	per0328009a
Perchlorate Isotope Ratio		3.19		28–MAR–10 14:58	per0328009a
Perchlorate–101	.5	.49	98.08	28–MAR–10 14:58	per0328009a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Pass

CWO 03-24-10

Name: per0328009a
Date: 28-Mar-2010
Time: 14:58:36
ID: WCL100326-06ICV
Vial: 1:2,A

Perchlorate

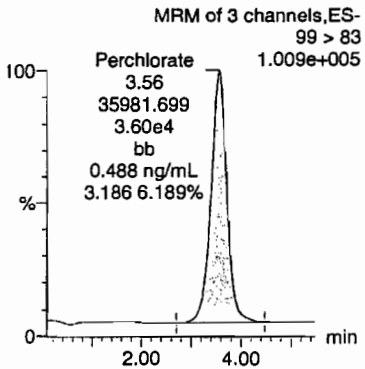

Perchlorate

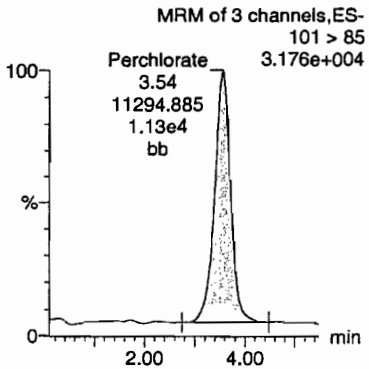

Perchlorate-101

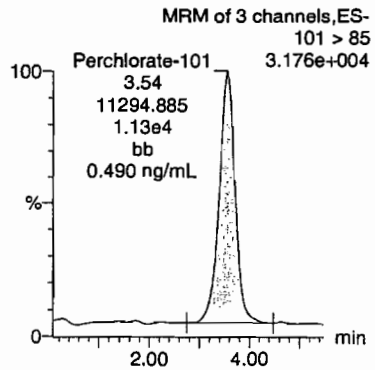

Perchlorate-O(18)

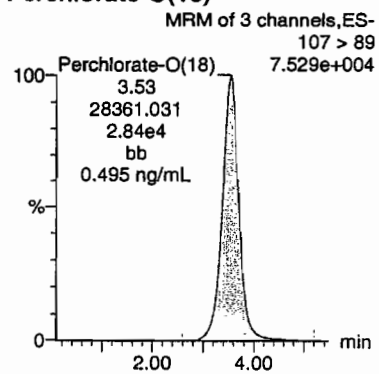

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06ICV	Perchlorate	99 > 83	3.56	35981.699	35981.699	bb			0.4880	97.61	-2.39	915.246	3.19
WCL100326-06ICV	Perchlorate-101	101 > 85	3.54	11294.885	11294.885	bb			0.4904	98.08	-1.92	276.628	
WCL100326-06ICV	Perchlorate-O(18)	107 > 89	3.53	28361.031	28361.031	bb			0.4947	98.93	-1.07	3706.3...	

MMT 3/30/10

$$\frac{35981.699}{73726.5} = 0.4880$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2303

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.47	94.8	28–MAR–10 16:49	per0328022a
Perchlorate Isotope Ratio		3.28		28–MAR–10 16:49	per0328022a
Perchlorate–101	.5	.46	92.59	28–MAR–10 16:49	per0328022a
Perchlorate	.5	.5	100.11	28–MAR–10 18:40	per0328035a
Perchlorate Isotope Ratio		3.31		28–MAR–10 18:40	per0328035a
Perchlorate–101	.5	.48	96.74	28–MAR–10 18:40	per0328035a
Perchlorate	.5	.46	91.16	28–MAR–10 20:31	per0328048a
Perchlorate Isotope Ratio		3.14		28–MAR–10 20:31	per0328048a
Perchlorate–101	.5	.47	93.06	28–MAR–10 20:31	per0328048a
Perchlorate	.5	.48	95.76	28–MAR–10 22:23	per0328061a
Perchlorate Isotope Ratio		3.32		28–MAR–10 22:23	per0328061a
Perchlorate–101	.5	.46	92.35	28–MAR–10 22:23	per0328061a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328022a
Date: 28-Mar-2010
Time: 16:49:40
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
03-29-10

Perchlorate

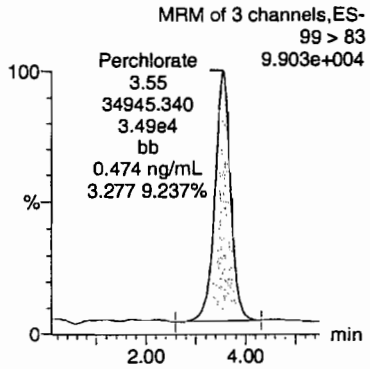

Perchlorate

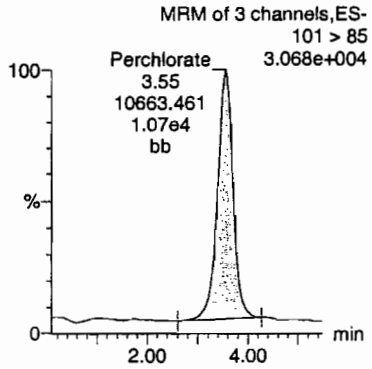

Perchlorate-101

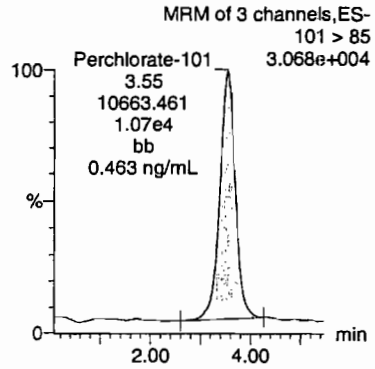

Perchlorate-O(18)

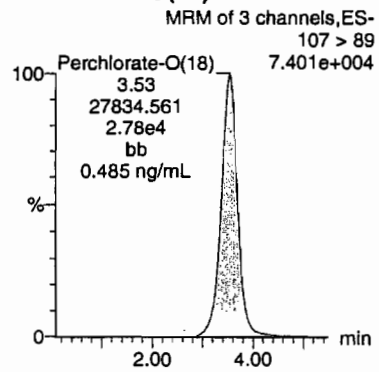

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.55	34945.340	34945.340	bb			0.4740	94.80	-5.20	432.965	3.28
WCL100326-06CCV	Perchlorate-101	101 > 85	3.55	10663.461	10663.461	bb			0.4630	92.59	-7.41	677.245	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.53	27834.561	27834.561	bb			0.4855	97.10	-2.90	5758.9...	

MM 7/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328035a
Date: 28-Mar-2010
Time: 18:40:39
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
03-29-10

Perchlorate

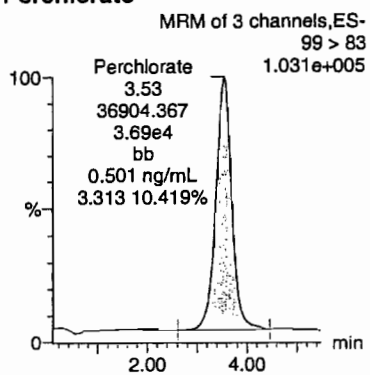

Perchlorate

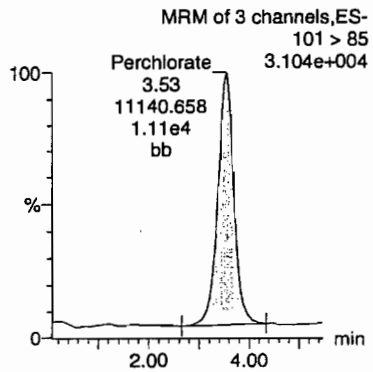

Perchlorate-101

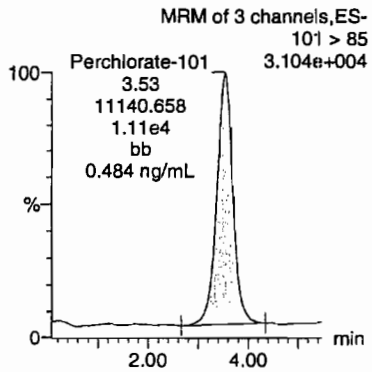

Perchlorate-O(18)

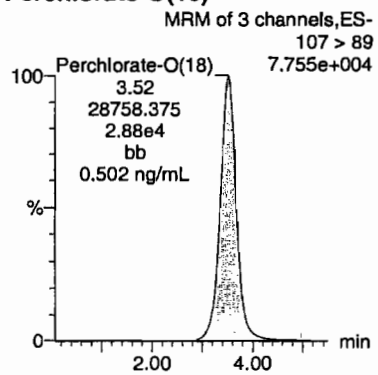

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.53	36904.367	36904.367	bb			0.5006	100.11	0.11	986.950	3.31
WCL100326-06CCV	Perchlorate-101	101 > 85	3.53	11140.658	11140.658	bb			0.4837	96.74	-3.26	547.613	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.52	28758.375	28758.375	bb			0.5016	100.32	0.32	150.701	

MMT 3/30/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328048a
Date: 28-Mar-2010
Time: 20:31:44
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
03-29-10

Perchlorate

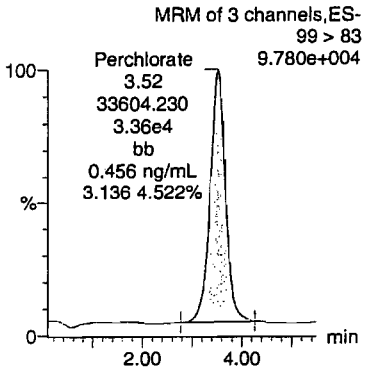

Perchlorate

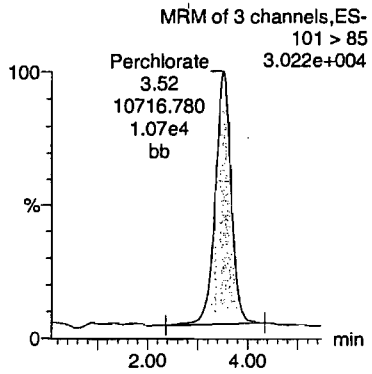

Perchlorate-101

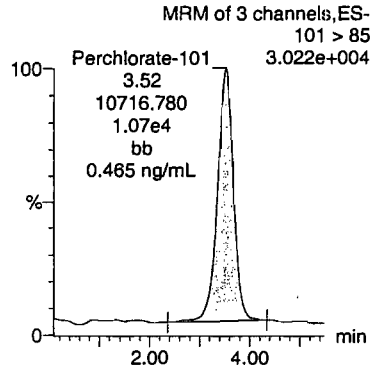

Perchlorate-O(18)

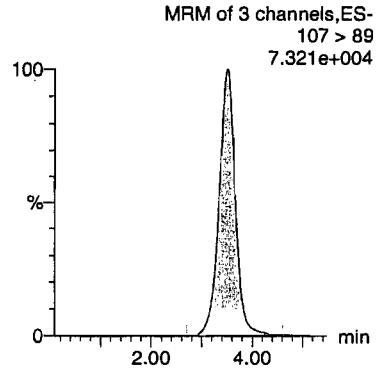

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.52	33604.230	33604.230	bb			0.4558	91.16	-8.84	365.785	3.14
WCL100326-06CCV	Perchlorate-101	101 > 85	3.52	10716.780	10716.780	bb			0.4653	93.06	-6.94	207.895	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.51	27310.855	27310.855	bb			0.4763	95.27	-4.73	3256.2...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328061a
Date: 28-Mar-2010
Time: 22:23:04
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
03-24-10

Perchlorate

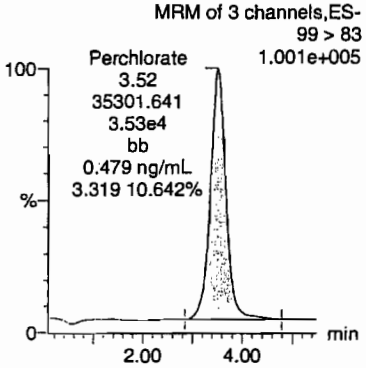

Perchlorate

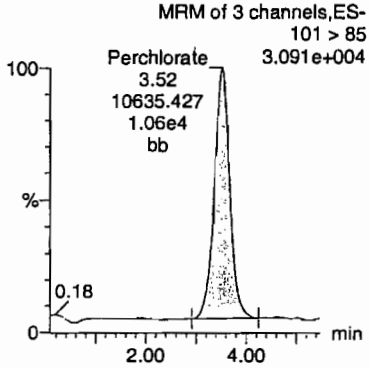

Perchlorate-101

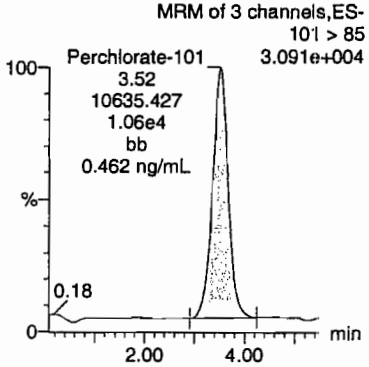

Perchlorate-O(18)

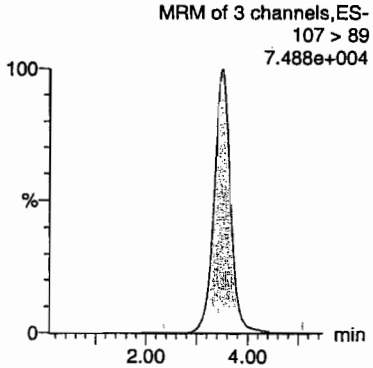

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.52	35301.641	35301.641	bb			0.4788	95.76	-4.24	982.679	3.32
WCL100326-06CCV	Perchlorate-101	101 > 85	3.52	10635.427	10635.427	bb			0.4617	92.35	-7.65	700.685	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.51	27977.967	27977.967	bb			0.4880	97.60	-2.40	6973.2...	

MAP 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2303

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	94.53	28–MAR–10 15:15	per0328011a
Perchlorate Isotope Ratio		2.7		28–MAR–10 15:15	per0328011a
Perchlorate–101	.05	.06	112.08	28–MAR–10 15:15	per0328011a
Perchlorate	.05	.05	98.65	28–MAR–10 17:06	per0328024a
Perchlorate Isotope Ratio		3.41		28–MAR–10 17:06	per0328024a
Perchlorate–101	.05	.05	92.66	28–MAR–10 17:06	per0328024a
Perchlorate	.05	.05	93.38	28–MAR–10 18:57	per0328037a
Perchlorate Isotope Ratio		3.15		28–MAR–10 18:57	per0328037a
Perchlorate–101	.05	.05	94.74	28–MAR–10 18:57	per0328037a
Perchlorate	.05	.05	100.05	28–MAR–10 20:49	per0328050a
Perchlorate Isotope Ratio		3.61		28–MAR–10 20:49	per0328050a

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2303

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate–101	.05	.04	88.67	28–MAR–10 20:49	per0328050a
Perchlorate	.05	.05	101.33	28–MAR–10 22:40	per0328063a
Perchlorate Isotope Ratio		3.11		28–MAR–10 22:40	per0328063a
Perchlorate–101	.05	.05	104.29	28–MAR–10 22:40	per0328063a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328011a
Date: 28-Mar-2010
Time: 15:15:40
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
03-29-10

Perchlorate

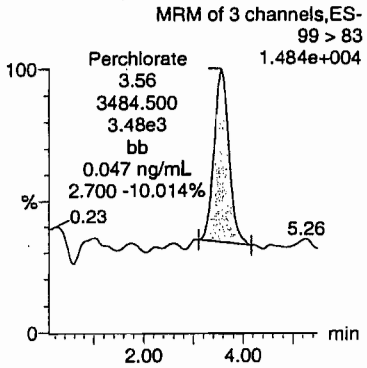

Perchlorate

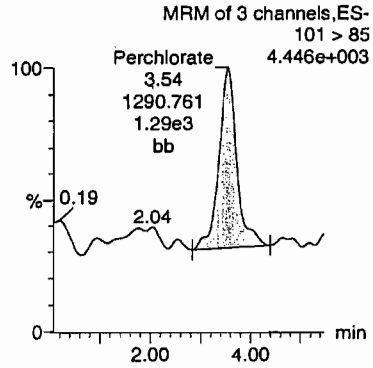

Perchlorate-101

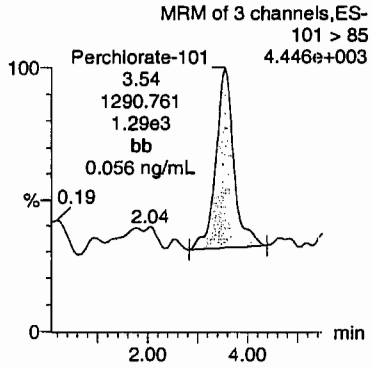

Perchlorate-O(18)

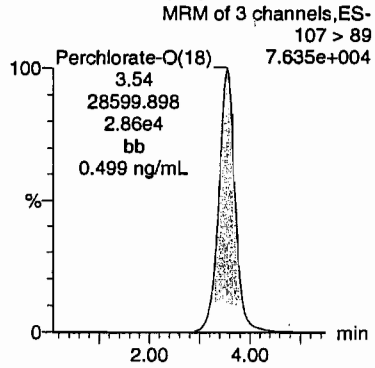

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.56	3484.500	3484.500	bb			0.0473	94.53	-5.47	43.366	2.70
WCL100326-07CRI	Perchlorate-101	101 > 85	3.54	1290.761	1290.761	bb			0.0560	112.08	12.08	18.604	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.54	28599.898	28599.898	bb			0.4988	99.77	-0.23	3124.1...	

MMT 3/30/10

$$\frac{3484.500}{1290.761} = 2.6996$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328024a
Date: 28-Mar-2010
Time: 17:06:44
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
aw
03-24-10

Perchlorate

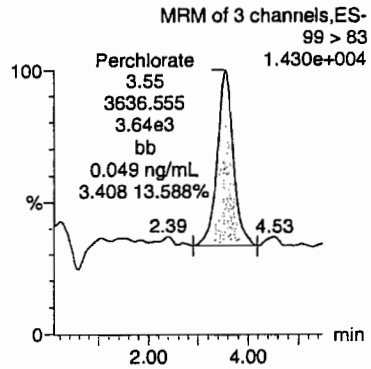

Perchlorate

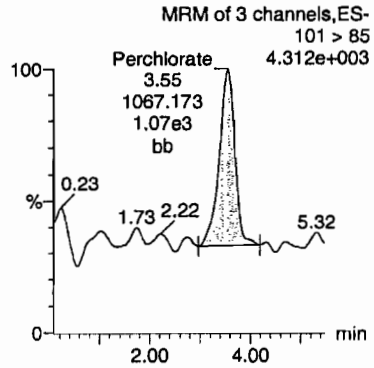

Perchlorate-101

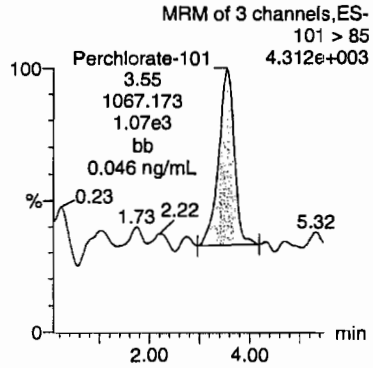

Perchlorate-O(18)

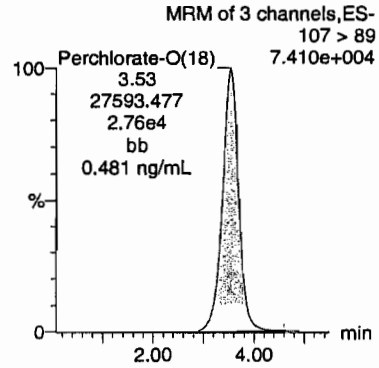

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.55	3636.555	3636.555	bb			0.0493	98.65	-1.35	51.357	3.41
WCL100326-07CRI	Perchlorate-101	101 > 85	3.55	1067.173	1067.173	bb			0.0463	92.66	-7.34	20.263	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.53	27593.477	27593.477	bb			0.4813	96.26	-3.74	1525.0...	

MMT
3/30/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328037a
Date: 28-Mar-2010
Time: 18:57:43
ID: WCL100326-07CRI
Vial: 1:2,B

Per 03-29-10

Perchlorate

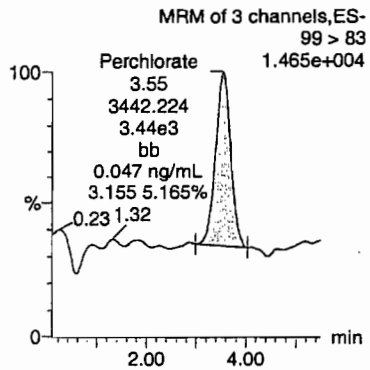

Perchlorate

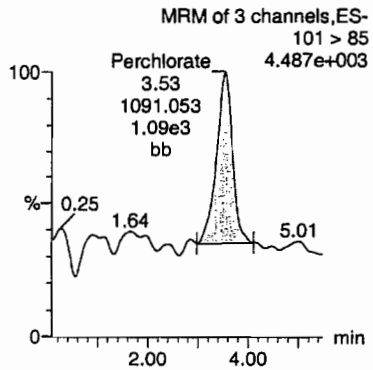

Perchlorate-101

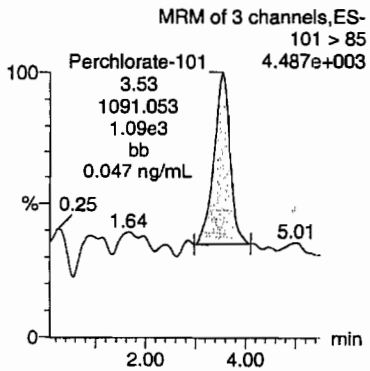

Perchlorate-O(18)

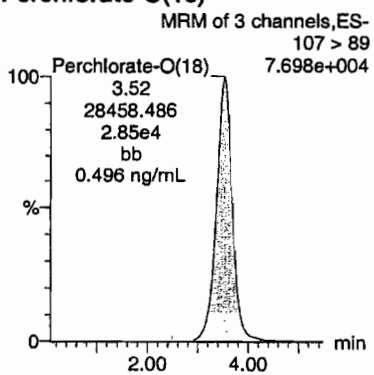

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.55	3442.224	3442.224	bb			0.0467	93.38	-6.62	71.164	3.15
WCL100326-07CRI	Perchlorate-101	101 > 85	3.53	1091.053	1091.053	bb			0.0474	94.74	-5.26	28.828	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.52	28458.486	28458.486	bb			0.4964	99.27	-0.73	6519.7...	

MTT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328050a
Date: 28-Mar-2010
Time: 20:49:03
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
ans
03-29-10

Perchlorate

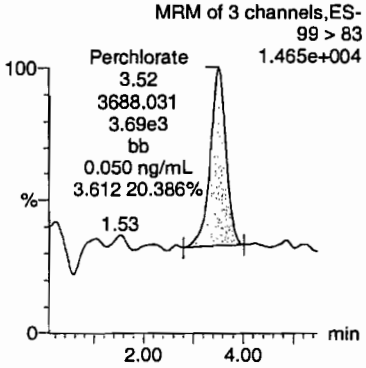

Perchlorate

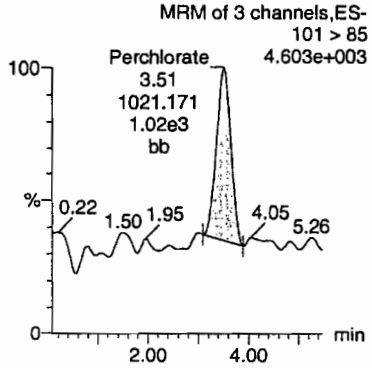

Perchlorate-101

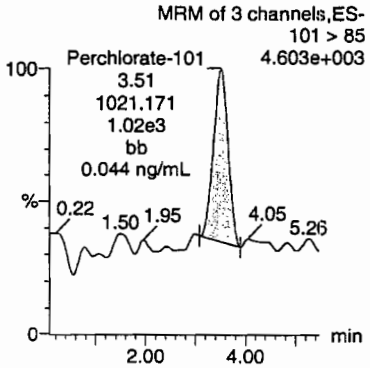

Perchlorate-O(18)

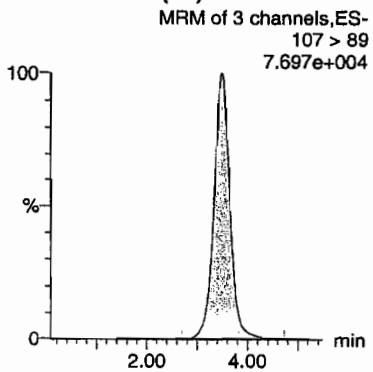

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.52	3688.031	3688.031	bb			0.0500	100.05	0.05	36.473	3.61
WCL100326-07CRI	Perchlorate-101	101 > 85	3.51	1021.171	1021.171	bb			0.0443	88.67	-11.33	22.935	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.50	28234.439	28234.439	bb			0.4925	98.49	-1.51	3832.6...	

MMT 3/30/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328063a
Date: 28-Mar-2010
Time: 22:40:24
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
ang
03-29-10

Perchlorate

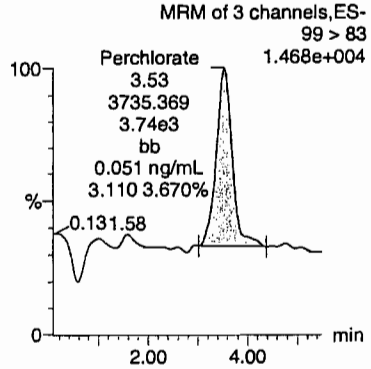

Perchlorate

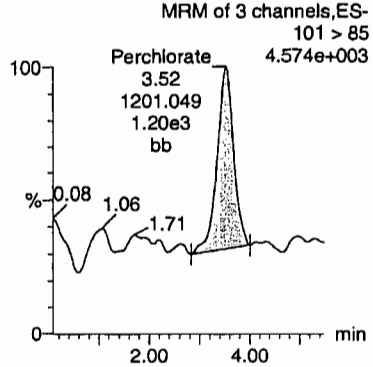

Perchlorate-101

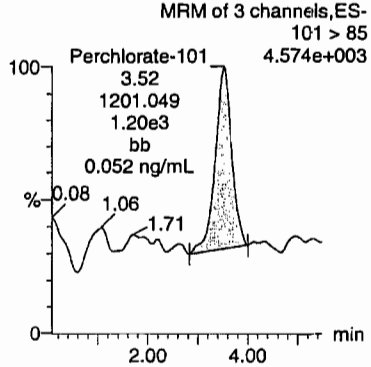

Perchlorate-O(18)

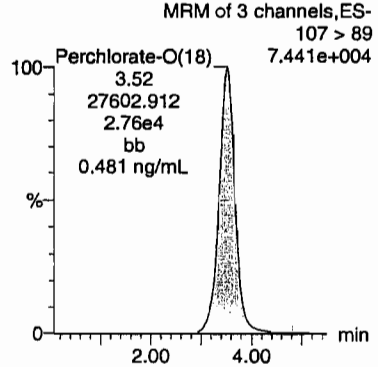

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.53	3735.369	3735.369	bb			0.0507	101.33	1.33	67.720	3.11
WCL100326-07CRI	Perchlorate-101	101 > 85	3.52	1201.049	1201.049	bb			0.0521	104.29	4.29	34.353	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.52	27602.912	27602.912	bb			0.4814	96.29	-3.71	3170.0...	

MM
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 19-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 1202068347

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	28-MAR-10 19:06	per0328038a
	Perchlorate Isotope Ratio						1	28-MAR-10 19:06	per0328038a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	28-MAR-10 19:06	per0328038a
	Perchlorate-O(18)			4.42	ug/kg		1	28-MAR-10 19:06	per0328038a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328038a
Date: 28-Mar-2010
Time: 19:06:17
ID: 1202068347
Vial: 2:1,A

|LANL|9641122|50120|MB|1|

CWJ 03-24-10

Perchlorate

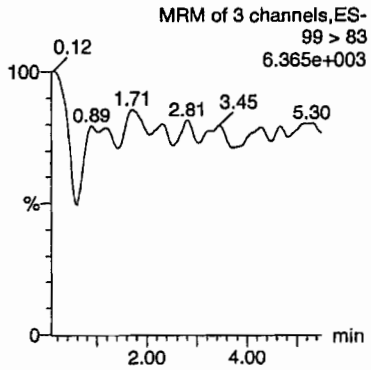

Perchlorate

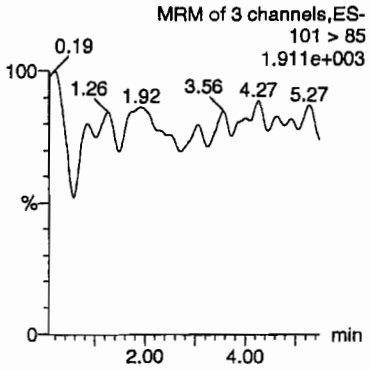

Perchlorate-101

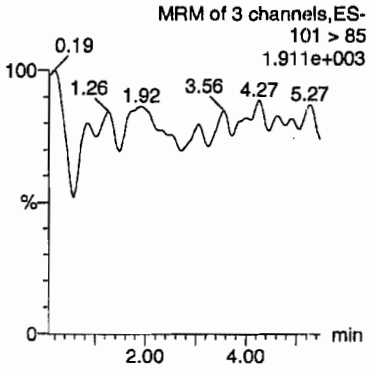

Perchlorate-O(18)

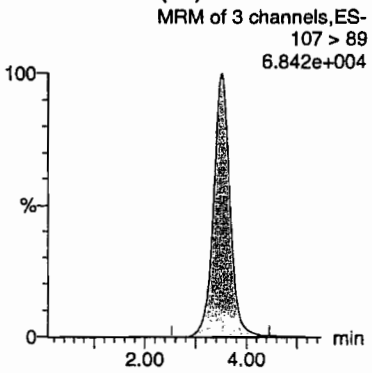

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068347	Perchlorate	99 > 83											0.00
1202068347	Perchlorate-101	101 > 85											
1202068347	Perchlorate-O(18)	107 > 89	3.51	25332.254	25332.254	bb			0.4418	88.37	-11.63	6325.9...	

MHT 3/30/10

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964121

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 19-MAR-10

GEL Job No (SDG): 10-2303

GEL Sample ID: 1202068348

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	1.92	ug/kg	J	1	28-MAR-10 19:15	per0328039a
	Perchlorate Isotope Ratio			3.15			1	28-MAR-10 19:15	per0328039a
14797-73-0	Perchlorate-101	.5	2	1.95	ug/kg	J	1	28-MAR-10 19:15	per0328039a
	Perchlorate-O(18)			5.04	ug/kg		1	28-MAR-10 19:15	per0328039a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328039a
Date: 28-Mar-2010
Time: 19:15:00
ID: 1202068348
Vial: 2:1,B

|LANL|964122|30620|LCS|1|

CWO 03-29-10

Perchlorate

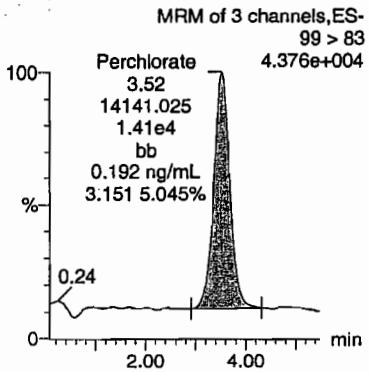

Perchlorate

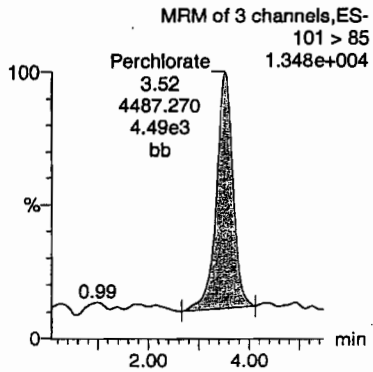

Perchlorate-101

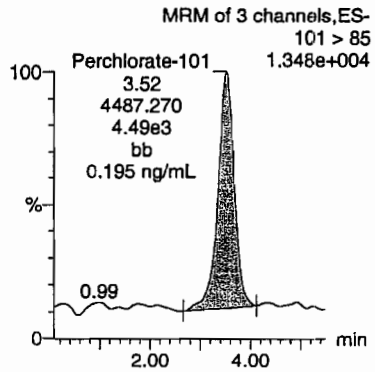

Perchlorate-O(18)

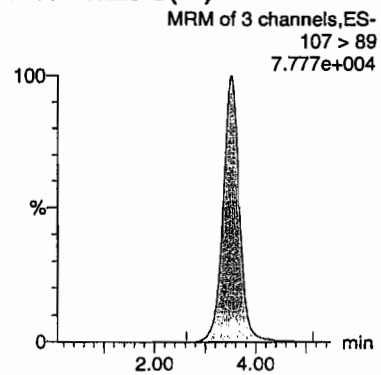

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068348	Perchlorate	99 > 83	3.52	14141.025	14141.025	bb			0.1918	95.90	-4.10	316.795	3.15
1202068348	Perchlorate-101	101 > 85	3.52	4487.270	4487.270	bb			0.1948	97.41	-2.59	159.868	
1202068348	Perchlorate-O(18)	107 > 89	3.51	28902.115	28902.115	bb			0.5041	100.82	0.82	2367.4...	

MMT 3/30/10

$$\frac{14141.025}{73726.5} = 0.1918$$

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 964121 **Verified by:** _____

Analyst: Kaylie Westmoreland

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202068347 MB	19-MAR-2010 14:09:00	2	20	10
1202068348 LCS	19-MAR-2010 14:09:00	2	20	10
248814001	19-MAR-2010 14:09:00	2	20	10
248814002	19-MAR-2010 14:09:00	2	20	10
248814003	19-MAR-2010 14:09:00	2	20	10
248814004	19-MAR-2010 14:09:00	2	20	10
248814005	19-MAR-2010 14:09:00	2	20	10
248814006	19-MAR-2010 14:09:00	2	20	10
248814007	19-MAR-2010 14:09:00	2	20	10
248814008	19-MAR-2010 14:09:00	2	20	10
248814009	19-MAR-2010 14:09:00	2	20	10
248860001	19-MAR-2010 14:09:00	2	20	10
1202068349 MS (248860001)	19-MAR-2010 14:09:00	2	20	10
1202068350 MSD (248860001)	19-MAR-2010 14:09:00	2	20	10
248860002	19-MAR-2010 14:09:00	2	20	10
248860003	19-MAR-2010 14:09:00	2	20	10
248860004	19-MAR-2010 14:09:00	2	20	10
248860005	19-MAR-2010 14:09:00	2	20	10
248860006	19-MAR-2010 14:09:00	2	20	10
248860007	19-MAR-2010 14:09:00	2	20	10
248860008	19-MAR-2010 14:09:00	2	20	10
248860009	19-MAR-2010 14:09:00	2	20	10
1202068351 ICS	19-MAR-2010 14:09:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202068351	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
LCS	1202068348	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
MS	1202068349	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
MSD	1202068350	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL

Comments:

Desalting Cartridges used: 100224-1-Ba & 100223-1-H

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/28/10
Extr. Injection Volume: 20uL
Sequence Number: per032810a
Initial Calibration Date: 03/28/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1284736
Standard-Samp Reagent Lot#:: 1284736

Reviewed BY: MAH
Date: 3/30/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100326-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0328001a	IPB001	CWW	3/28/2010 13:50			1		USE	B
per0328002a	IPB001	CWW	3/28/2010 13:58			1		USE	B
per0328003a	WCLICAL-01	CWW	3/28/2010 14:07			1		USE	I
per0328004a	WCLICAL-02	CWW	3/28/2010 14:16			1		USE	I
per0328005a	WCLICAL-03	CWW	3/28/2010 14:24			1		USE	I
per0328006a	WCLICAL-04	CWW	3/28/2010 14:33			1		USE	I
per0328007a	WCLICAL-05	CWW	3/28/2010 14:41			1		USE	I
per0328008a	IPB002	CWW	3/28/2010 14:50			1		USE	B
per0328009a	WCLICV	CWW	3/28/2010 14:58			1		USE	C
per0328010a	IPB003	CWW	3/28/2010 15:07			1		USE	B
per0328011a	WCLCRI	CWW	3/28/2010 15:15			1		USE	C
per0328012a	249376001	CWW	3/28/2010 15:24	966566	10-2446	1	LANL	USE	S
per0328013a	249376004	CWW	3/28/2010 15:32	966566	10-2446	1	LANL	USE	S
per0328014a	IPB004	CWW	3/28/2010 15:41			1		USE	B
per0328015a	1202069098	CWW	3/28/2010 15:49	964450	VARIOUS	1	LANL	USE	S
per0328016a	1202069099	CWW	3/28/2010 15:58	964450	VARIOUS	1	LANL	USE	S
per0328017a	1202069102	CWW	3/28/2010 16:06	964450	VARIOUS	1	LANL	USE	S
per0328018a	248863001	CWW	3/28/2010 16:15	964450	10-2315	1	LANL	USE	S
per0328019a	248863002	CWW	3/28/2010 16:24	964450	10-2315	1	LANL	USE	S
per0328020a	1202069100	CWW	3/28/2010 16:32	964450	10-2315	1	LANL	USE	S
per0328021a	1202069101	CWW	3/28/2010 16:41	964450	10-2315	1	LANL	USE	S
per0328022a	WCLCCV	CWW	3/28/2010 16:49			1		USE	C
per0328023a	IPB005	CWW	3/28/2010 16:58			1		USE	B
per0328024a	WCLCRI	CWW	3/28/2010 17:06			1		USE	C
per0328025a	248863003	CWW	3/28/2010 17:15	964450	10-2315	1	LANL	USE	S
per0328026a	248863004	CWW	3/28/2010 17:23	964450	10-2315	1	LANL	USE	S
per0328027a	248865001	CWW	3/28/2010 17:32	964450	10-2318	1	LANL	USE	S
per0328028a	248866001	CWW	3/28/2010 17:40	964450	10-2319	1	LANL	USE	S
per0328029a	248866002	CWW	3/28/2010 17:49	964450	10-2319	1	LANL	USE	S

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

per0328030a	248867001	CWW	3/28/2010 17:57	964450	10-2320	1	LANL	USE	S
per0328031a	248867002	CWW	3/28/2010 18:06	964450	10-2320	1	LANL	USE	S
per0328032a	248867003	CWW	3/28/2010 18:15	964450	10-2320	1	LANL	USE	S
per0328033a	248867004	CWW	3/28/2010 18:23	964450	10-2320	1	LANL	USE	S
per0328034a	249055001	CWW	3/28/2010 18:32	964450	10-2349	1	LANL	USE	S
per0328035a	WCLCCV	CWW	3/28/2010 18:40			1		USE	C
per0328036a	IPB006	CWW	3/28/2010 18:49			1		USE	B
per0328037a	WCLCRI	CWW	3/28/2010 18:57			1		USE	C
per0328038a	1202068347	CWW	3/28/2010 19:06	964122	VARIOUS	1	LANL	USE	S
per0328039a	1202068348	CWW	3/28/2010 19:15	964122	VARIOUS	1	LANL	USE	S
per0328040a	1202068351	CWW	3/28/2010 19:23	964122	VARIOUS	1	LANL	USE	S
per0328041a	248814001	CWW	3/28/2010 19:32	964122	10-2303	1	LANL	USE	S
per0328042a	248814002	CWW	3/28/2010 19:40	964122	10-2303	1	LANL	USE	S
per0328043a	248814003	CWW	3/28/2010 19:49	964122	10-2303	1	LANL	USE	S
per0328044a	248814004	CWW	3/28/2010 19:57	964122	10-2303	1	LANL	USE	S
per0328045a	248814005	CWW	3/28/2010 20:06	964122	10-2303	1	LANL	USE	S
per0328046a	248814006	CWW	3/28/2010 20:14	964122	10-2303	1	LANL	USE	S
per0328047a	248814007	CWW	3/28/2010 20:23	964122	10-2303	1	LANL	USE	S
per0328048a	WCLCCV	CWW	3/28/2010 20:31			1		USE	C
per0328049a	IPB007	CWW	3/28/2010 20:40			1		USE	B
per0328050a	WCLCRI	CWW	3/28/2010 20:49			1		USE	C
per0328051a	248814008	CWW	3/28/2010 20:57	964122	10-2303	1	LANL	USE	S
per0328052a	248814009	CWW	3/28/2010 21:06	964122	10-2303	1	LANL	USE	S
per0328053a	248860001	CWW	3/28/2010 21:14	964122	10-2313	1	LANL	USE	S
per0328054a	1202068349	CWW	3/28/2010 21:23	964122	10-2313	1	LANL	USE	S
per0328055a	1202068350	CWW	3/28/2010 21:31	964122	10-2313	1	LANL	USE	S
per0328056a	248860002	CWW	3/28/2010 21:40	964122	10-2313	1	LANL	USE	S
per0328057a	248860003	CWW	3/28/2010 21:48	964122	10-2313	1	LANL	USE	S
per0328058a	248860004	CWW	3/28/2010 21:57	964122	10-2313	1	LANL	USE	S
per0328059a	248860005	CWW	3/28/2010 22:05	964122	10-2313	1	LANL	USE	S
per0328060a	248860006	CWW	3/28/2010 22:14	964122	10-2313	1	LANL	USE	S
per0328061a	WCLCCV	CWW	3/28/2010 22:23			1		USE	C
per0328062a	IPB008	CWW	3/28/2010 22:31			1		USE	B
per0328063a	WCLCRI	CWW	3/28/2010 22:40			1		USE	C
per0328064a	248860007	CWW	3/28/2010 22:48	964122	10-2313	1	LANL	USE	S
per0328065a	248860008	CWW	3/28/2010 22:57	964122	10-2313	1	LANL	USE	S
per0328066a	248860009	CWW	3/28/2010 23:06	964122	10-2313	1	LANL	USE	S

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

per0328067a	IPB009	CWW	3/28/2010 23:14			1		USE	B
per0328068a	1202069103	CWW	3/28/2010 23:23	964453	10-2357	1	LANL	USE	S
per0328069a	1202069104	CWW	3/28/2010 23:32	964453	10-2357	1	LANL	USE	S
per0328070a	1202069107	CWW	3/28/2010 23:40	964453	10-2357	1	LANL	USE	S
per0328071a	249076003	CWW	3/28/2010 23:49	964453	10-2357	1	LANL	USE	S
per0328072a	1202069105	CWW	3/28/2010 23:57	964453	10-2357	1	LANL	USE	S
per0328073a	1202069106	CWW	3/29/2010 0:06	964453	10-2357	1	LANL	USE	S
per0328074a	WCLCCV	CWW	3/29/2010 0:15			1		USE	C
per0328075a	IPB010	CWW	3/29/2010 0:23			1		USE	B
per0328076a	WCLCRI	CWW	3/29/2010 0:32			1		USE	C
per0328077a	249076004	CWW	3/29/2010 0:41	964453	10-2357	1	LANL	USE	S
per0328078a	249076005	CWW	3/29/2010 0:50	964453	10-2357	1	LANL	USE	S
per0328079a	249076006	CWW	3/29/2010 0:58	964453	10-2357	1	LANL	USE	S
per0328080a	249076007	CWW	3/29/2010 1:07	964453	10-2357	1	LANL	USE	S
per0328081a	249076008	CWW	3/29/2010 1:15	964453	10-2357	1	LANL	USE	S
per0328082a	249076009	CWW	3/29/2010 1:24	964453	10-2357	1	LANL	USE	S
per0328083a	249076010	CWW	3/29/2010 1:32	964453	10-2357	1	LANL	USE	S
per0328084a	249076011	CWW	3/29/2010 1:41	964453	10-2357	1	LANL	USE	S
per0328085a	249076012	CWW	3/29/2010 1:49	964453	10-2357	1	LANL	USE	S
per0328086a	249076013	CWW	3/29/2010 1:58	964453	10-2357	1	LANL	USE	S
per0328087a	WCLCCV	CWW	3/29/2010 2:07			1		USE	C
per0328088a	IPB011	CWW	3/29/2010 2:15			1		USE	B
per0328089a	WCLCRI	CWW	3/29/2010 2:24			1		USE	C
per0328090a	249076014	CWW	3/29/2010 2:32	964453	10-2357	1	LANL	USE	S
per0328091a	249076015	CWW	3/29/2010 2:41	964453	10-2357	1	LANL	USE	S
per0328092a	249076016	CWW	3/29/2010 2:50	964453	10-2357	1	LANL	USE	S
per0328093a	249076017	CWW	3/29/2010 2:58	964453	10-2357	1	LANL	USE	S
per0328094a	249076018	CWW	3/29/2010 3:07	964453	10-2357	1	LANL	USE	S
per0328095a	249076019	CWW	3/29/2010 3:15	964453	10-2357	1	LANL	USE	S
per0328096a	249076020	CWW	3/29/2010 3:24	964453	10-2357	1	LANL	USE	S
per0328097a	WCLCCV	CWW	3/29/2010 3:33			1		USE	C
per0328098a	IPB012	CWW	3/29/2010 3:41			1		USE	B
per0328099a	WCLCRI	CWW	3/29/2010 3:50			1		USE	C

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328054a
Date: 28-Mar-2010
Time: 21:23:21
ID: 1202068349
Vial: 2:3,B

|LANL|964122|50120|MS|1|

WW 03-29-10

Perchlorate

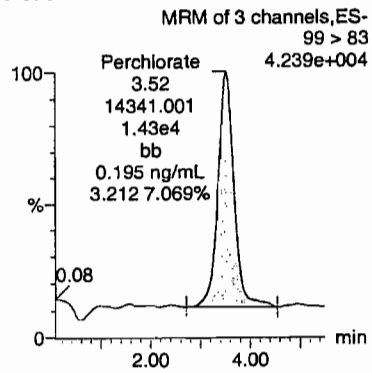

Perchlorate

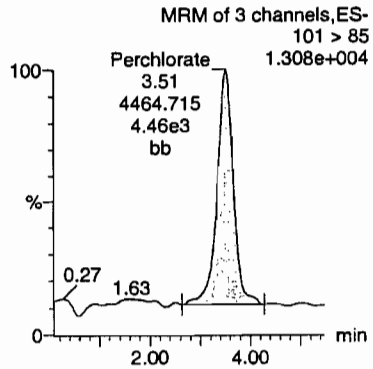

Perchlorate-101

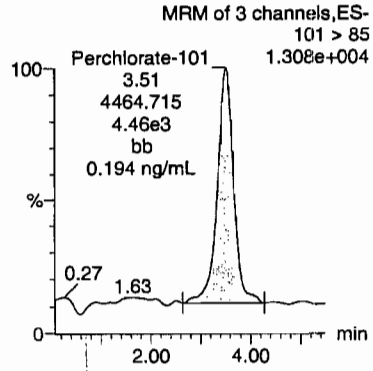

Perchlorate-O(18)

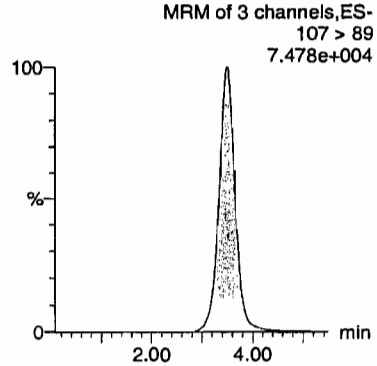

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068349	Perchlorate	99 > 83	3.52	14341.001	14341.001	bb			0.1945	97.26	-2.74	242.006	3.21
1202068349	Perchlorate-101	101 > 85	3.51	4464.715	4464.715	bb			0.1938	96.92	-3.08	265.315	
1202068349	Perchlorate-O(18)	107 > 89	3.51	27562.883	27562.883	bb			0.4807	96.15	-3.85	1840.8...	

MST 3/30/10

$$\frac{14341.001}{73726.5} \Big| 10 \Big| \frac{100}{86.1} = 2.26$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328055a
Date: 28-Mar-2010
Time: 21:31:53
ID: 1202068350
Vial: 2:3,C

|LANL|964122|50120|MSD|1|

03-29-10

Perchlorate

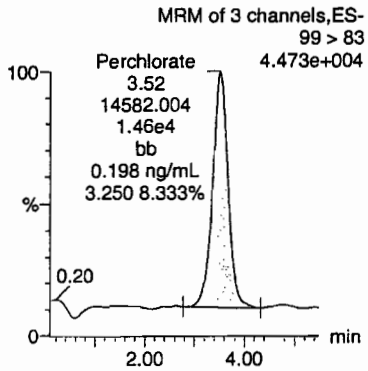

Perchlorate

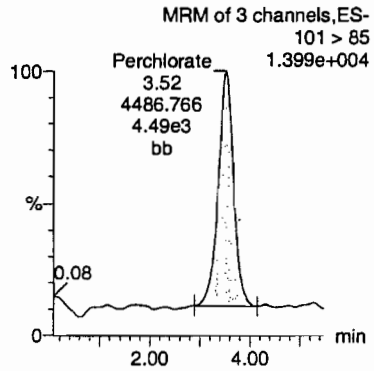

Perchlorate-101

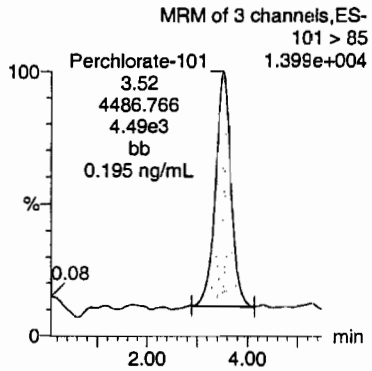

Perchlorate-O(18)

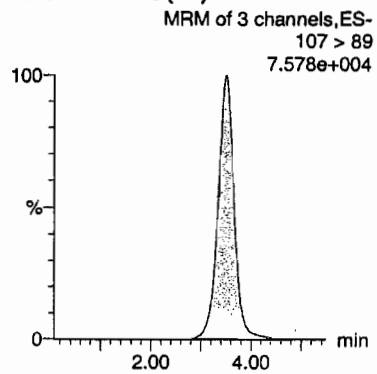

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068350	Perchlorate	99 > 83	3.52	14582.004	14582.004	bb			0.1978	98.89	-1.11	399.468	3.25
1202068350	Perchlorate-101	101 > 85	3.52	4486.766	4486.766	bb			0.1948	97.40	-2.60	89.237	
1202068350	Perchlorate-O(18)	107 > 89	3.50	28228.545	28228.545	bb			0.4924	98.47	-1.53	6115.1...	

MMT 3/30/10

$$\frac{14582.004}{4486.766} = 3.2500$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2303

Sample Analysis

Sample ID	Client ID
248814001	RE46-10-13553
248814002	RE46-10-13549
248814003	RE46-10-13551
248814004	RE46-10-13550
248814005	RE46-10-13548
248814006	RE46-10-13546
248814007	RE46-10-13552
248814008	RE46-10-13547
248814009	RE46-10-13556
1202068035	Method Blank (MB) **ICP**
1202068040	Laboratory Control Sample (LCS)
1202068037	248808001(CAPU-10-12592L) Serial Dilution (SD)
1202068036	248808001(CAPU-10-12592D) Sample Duplicate (DUP)
1202068038	248808001(CAPU-10-12592S) Matrix Spike (MS)
1202068039	248808001(CAPU-10-12592SD) Matrix Spike Duplicate (MSD)
1202068041	Method Blank (MB) **ICP-MS**
1202116473	Method Blank (MB) **ICP-MS**
1202068046	Laboratory Control Sample (LCS)
1202116474	Laboratory Control Sample (LCS)
1202068043	248808001(CAPU-10-12592L) Serial Dilution (SD)
1202068042	248808001(CAPU-10-12592D) Sample Duplicate (DUP)
1202068044	248808001(CAPU-10-12592S) Matrix Spike (MS)
1202068045	248808001(CAPU-10-12592SD) Matrix Spike Duplicate (MSD)
1202076806	Method Blank (MB) **CVAA**
1202076807	Laboratory Control Sample (LCS)
1202076810	248824001(RE46-10-11926L) Serial Dilution (SD)
1202076808	248824001(RE46-10-11926D) Sample Duplicate (DUP)
1202076809	248824001(RE46-10-11926S) Matrix Spike (MS)
1202076811	248824001(RE46-10-11926SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	963989, 963991, 983921 and 967595
Prep Batch :	963988, 963990, 983920 and 967593
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21, GL-MA-E-009 REV# 20 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System

(FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 248808001 (CAPU-10-12592)-ICP, ICP-MS and ICP-MS and 248824001 (RE46-10-11926)-CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable

analytes with the exceptions of magnesium and potassium as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exceptions of iron and manganese as indicated by the "*" qualifiers.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exception of manganese as indicated by the "*" qualifier.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The 248814006 on the ICP was diluted because silver was over the linear range. The samples in this SDG were diluted the standard 2x for solids on the ICPMS. Sample 248814004 required a 5x dilution for over ranged cesium. The CVAA samples required various dilutions in order to bring over ranged concentrations within the linear range of the instrument.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as

virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER ID 816332. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nick-Cole A. Elmore **Date:** 5.26.10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2303 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248814001 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13553 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	414000	ug/kg		7430	21800	21800	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-36-0	Antimony	1090	ug/kg	U	360	1090	1090	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-38-2	Arsenic	550	ug/kg	J	202	1010	1010	2	MS	RMJ	05/06/10 13:20	100505-3	963991
7440-39-3	Barium	6010	ug/kg		109	546	546	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-41-7	Beryllium	130	ug/kg		20.2	101	101	2	MS	RMJ	05/08/10 03:56	100507-4	963991
7440-43-9	Cadmium	546	ug/kg	U	109	546	546	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-70-2	Calcium	122000	ug/kg		8740	27300	27300	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-46-2	Cesium	1610	ug/kg		21.4	107	107	2	MS	PRB	05/26/10 14:51	100526-5	983921
7440-47-3	Chromium	798	ug/kg		164	546	546	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-48-4	Cobalt	240	ug/kg	J	164	546	546	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-50-8	Copper	8390	ug/kg		328	1090	1090	1	P	HSC	03/31/10 22:31	033110B-1	963989
7439-89-6	Iron	4620000	ug/kg		8740	27300	27300	1	P	HSC	03/31/10 22:31	033110B-1	963989
7439-92-1	Lead	3620	ug/kg		273	1090	1090	1	P	HSC	03/31/10 22:31	033110B-1	963989
7439-95-4	Magnesium	157000	ug/kg		9280	32800	32800	1	P	HSC	03/31/10 22:31	033110B-1	963989
7439-96-5	Manganese	197000	ug/kg		218	1090	1090	1	P	HSC	03/31/10 22:31	033110B-1	963989
7439-97-6	Mercury	74.2	ug/kg		4.15	12.2	12.2	1	AV	JXL1	03/23/10 11:30	032310S1-6	967595
7440-02-0	Nickel	160	ug/kg	J	101	404	404	2	MS	RMJ	05/06/10 13:20	100505-3	963991
7440-09-7	Potassium	261000	ug/kg		6990	27300	27300	1	P	HSC	03/31/10 22:31	033110B-1	963989
7782-49-2	Selenium	1010	ug/kg	U	505	1010	1010	2	MS	RMJ	05/06/10 13:20	100505-3	963991
7440-22-4	Silver	546	ug/kg	U	109	546	546	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-23-5	Sodium	173000	ug/kg		7640	27300	27300	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-28-0	Thallium	202	ug/kg	U	60.6	202	202	2	MS	RMJ	05/06/10 13:20	100505-3	963991
7440-62-2	Vanadium	1320	ug/kg		109	546	546	1	P	HSC	03/31/10 22:31	033110B-1	963989
7440-66-6	Zinc	16000	ug/kg		360	1090	1090	1	P	HSC	03/31/10 22:31	033110B-1	963989

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963989	963988	SW846 3050B	0.532	g	50	mL	03/24/10	BXA1
963991	963990	SW846 3050B	0.575	g	50	mL	03/24/10	BXA1
967595	967593	SW846 7471A Prep	0.571	g	30	mL	03/22/10	TXB3
983921	983920	SW846 3050B	0.543	g	50	mL	05/13/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2303 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248814002 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13549 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	452000	ug/kg		7160	21100	21100	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-36-0	Antimony	1050	ug/kg	U	348	1050	1050	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-38-2	Arsenic	475	ug/kg	J	234	1170	1170	2	MS	RMJ	05/06/10 13:24	100505-3	963991
7440-39-3	Barium	4620	ug/kg		105	527	527	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-41-7	Beryllium	142	ug/kg		23.4	117	117	2	MS	RMJ	05/08/10 04:00	100507-4	963991
7440-43-9	Cadmium	177	ug/kg	J	105	527	527	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-70-2	Calcium	129000	ug/kg		8430	26300	26300	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-46-2	Cesium	2930	ug/kg		23.1	115	115	2	MS	PRB	05/26/10 14:54	100526-5	983921
7440-47-3	Chromium	10800	ug/kg		158	527	527	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-48-4	Cobalt	367	ug/kg	J	158	527	527	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-50-8	Copper	21100	ug/kg		316	1050	1050	1	P	HSC	03/31/10 22:33	033110B-1	963989
7439-89-6	Iron	5610000	ug/kg		8430	26300	26300	1	P	HSC	03/31/10 22:33	033110B-1	963989
7439-92-1	Lead	6830	ug/kg		263	1050	1050	1	P	HSC	03/31/10 22:33	033110B-1	963989
7439-95-4	Magnesium	137000	ug/kg		8950	31600	31600	1	P	HSC	03/31/10 22:33	033110B-1	963989
7439-96-5	Manganese	247000	ug/kg		211	1050	1050	1	P	HSC	03/31/10 22:33	033110B-1	963989
7439-97-6	Mercury	28400	ug/kg		440	1290	1290	100	AV	JXL1	03/23/10 12:29	032310S1-6	967595
7440-02-0	Nickel	775	ug/kg		117	467	467	2	MS	RMJ	05/06/10 13:24	100505-3	963991
7440-09-7	Potassium	216000	ug/kg		6740	26300	26300	1	P	HSC	03/31/10 22:33	033110B-1	963989
7782-49-2	Selenium	1170	ug/kg	U	584	1170	1170	2	MS	RMJ	05/06/10 13:24	100505-3	963991
7440-22-4	Silver	16800	ug/kg		105	527	527	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-23-5	Sodium	134000	ug/kg		7370	26300	26300	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-28-0	Thallium	234	ug/kg	U	70.1	234	234	2	MS	RMJ	05/06/10 13:24	100505-3	963991
7440-62-2	Vanadium	1280	ug/kg		105	527	527	1	P	HSC	03/31/10 22:33	033110B-1	963989
7440-66-6	Zinc	23900	ug/kg		348	1050	1050	1	P	HSC	03/31/10 22:33	033110B-1	963989

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963989	963988	SW846 3050B	0.569	g	50	mL	03/24/10	BXA1
963991	963990	SW846 3050B	0.513	g	50	mL	03/24/10	BXA1
967595	967593	SW846 7471A Prep	0.556	g	30	mL	03/22/10	TXB3
983921	983920	SW846 3050B	0.519	g	50	mL	05/13/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2303 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248814003 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13551 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	630000	ug/kg		7320	21500	21500	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-36-0	Antimony	1080	ug/kg	U	355	1080	1080	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-38-2	Arsenic	355	ug/kg	J	224	1120	1120	2	MS	RMJ	05/06/10 13:29	100505-3	963991
7440-39-3	Barium	8030	ug/kg		108	538	538	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-41-7	Beryllium	65.2	ug/kg	J	22.4	112	112	2	MS	RMJ	05/08/10 04:04	100507-4	963991
7440-43-9	Cadmium	538	ug/kg	U	108	538	538	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-70-2	Calcium	156000	ug/kg		8610	26900	26900	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-46-2	Cesium	6610	ug/kg		24.3	122	122	2	MS	PRB	05/26/10 14:55	100526-5	983921
7440-47-3	Chromium	4050	ug/kg		161	538	538	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-48-4	Cobalt	476	ug/kg	J	161	538	538	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-50-8	Copper	43400	ug/kg		323	1080	1080	1	P	HSC	03/31/10 22:40	033110B-1	963989
7439-89-6	Iron	5450000	ug/kg		8610	26900	26900	1	P	HSC	03/31/10 22:40	033110B-1	963989
7439-92-1	Lead	11900	ug/kg		269	1080	1080	1	P	HSC	03/31/10 22:40	033110B-1	963989
7439-95-4	Magnesium	166000	ug/kg		9150	32300	32300	1	P	HSC	03/31/10 22:40	033110B-1	963989
7439-96-5	Manganese	194000	ug/kg		215	1080	1080	1	P	HSC	03/31/10 22:40	033110B-1	963989
7439-97-6	Mercury	9250	ug/kg		257	757	757	50	AV	JXL1	03/23/10 12:31	032310S1-6	967595
7440-02-0	Nickel	736	ug/kg		112	448	448	2	MS	RMJ	05/06/10 13:29	100505-3	963991
7440-09-7	Potassium	374000	ug/kg		6890	26900	26900	1	P	HSC	03/31/10 22:40	033110B-1	963989
7782-49-2	Selenium	1120	ug/kg	U	560	1120	1120	2	MS	RMJ	05/06/10 13:29	100505-3	963991
7440-22-4	Silver	55100	ug/kg		108	538	538	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-23-5	Sodium	145000	ug/kg		7530	26900	26900	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-28-0	Thallium	224	ug/kg	U	67.2	224	224	2	MS	RMJ	05/06/10 13:29	100505-3	963991
7440-62-2	Vanadium	2230	ug/kg		108	538	538	1	P	HSC	03/31/10 22:40	033110B-1	963989
7440-66-6	Zinc	22200	ug/kg		355	1080	1080	1	P	HSC	03/31/10 22:40	033110B-1	963989

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963989	963988	SW846 3050B	0.586	g	50	mL	03/24/10	BXA1
963991	963990	SW846 3050B	0.563	g	50	mL	03/24/10	BXA1
967595	967593	SW846 7471A Prep	0.5	g	30	mL	03/22/10	TXB3
983921	983920	SW846 3050B	0.518	g	50	mL	05/13/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2303 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248814004 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13550 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5320000	ug/kg		8320	24500	24500	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-36-0	Antimony	1220	ug/kg	U	404	1220	1220	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-38-2	Arsenic	1030	ug/kg	J	221	1110	1110	2	MS	RMJ	05/06/10 13:42	100505-3	963991
7440-39-3	Barium	41700	ug/kg		122	612	612	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-41-7	Beryllium	256	ug/kg		22.1	111	111	2	MS	RMJ	05/08/10 04:15	100507-4	963991
7440-43-9	Cadmium	398	ug/kg	J	122	612	612	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-70-2	Calcium	1010000	ug/kg		9790	30600	30600	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-46-2	Cesium	29900	ug/kg		57.7	289	289	5	MS	PRB	05/26/10 14:56	100526-5	983921
7440-47-3	Chromium	16700	ug/kg		184	612	612	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-48-4	Cobalt	1050	ug/kg		184	612	612	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-50-8	Copper	420000	ug/kg		367	1220	1220	1	P	HSC	03/31/10 22:42	033110B-1	963989
7439-89-6	Iron	9860000	ug/kg		9790	30600	30600	1	P	HSC	03/31/10 22:42	033110B-1	963989
7439-92-1	Lead	77700	ug/kg		306	1220	1220	1	P	HSC	03/31/10 22:42	033110B-1	963989
7439-95-4	Magnesium	890000	ug/kg		10400	36700	36700	1	P	HSC	03/31/10 22:42	033110B-1	963989
7439-96-5	Manganese	190000	ug/kg		245	1220	1220	1	P	HSC	03/31/10 22:42	033110B-1	963989
7439-97-6	Mercury	12600	ug/kg		240	706	706	50	AV	JXL1	03/23/10 12:33	032310S1-6	967595
7440-02-0	Nickel	2680	ug/kg		111	443	443	2	MS	RMJ	05/06/10 13:42	100505-3	963991
7440-09-7	Potassium	914000	ug/kg		7830	30600	30600	1	P	HSC	03/31/10 22:42	033110B-1	963989
7782-49-2	Selenium	1110	ug/kg	U	553	1110	1110	2	MS	RMJ	05/06/10 13:42	100505-3	963991
7440-22-4	Silver	9710	ug/kg		122	612	612	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-23-5	Sodium	285000	ug/kg		8560	30600	30600	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-28-0	Thallium	89	ug/kg	J	66.4	221	221	2	MS	RMJ	05/06/10 13:42	100505-3	963991
7440-62-2	Vanadium	9140	ug/kg		122	612	612	1	P	HSC	03/31/10 22:42	033110B-1	963989
7440-66-6	Zinc	100000	ug/kg		404	1220	1220	1	P	HSC	03/31/10 22:42	033110B-1	963989

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963989	963988	SW846 3050B	0.501	g	50	mL	03/24/10	BXA1
963991	963990	SW846 3050B	0.554	g	50	mL	03/24/10	BXA1
967595	967593	SW846 7471A Prep	0.521	g	30	mL	03/22/10	TXB3
983921	983920	SW846 3050B	0.531	g	50	mL	05/13/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2303 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248814005 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13548 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	352000	ug/kg		7280	21400	21400	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-36-0	Antimony	1070	ug/kg	U	353	1070	1070	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-38-2	Arsenic	282	ug/kg	J	209	1040	1040	2	MS	RMJ	05/06/10 13:46	100505-3	963991
7440-39-3	Barium	1300	ug/kg		107	535	535	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-41-7	Beryllium	81.3	ug/kg	J	20.9	104	104	2	MS	RMJ	05/08/10 04:19	100507-4	963991
7440-43-9	Cadmium	535	ug/kg	U	107	535	535	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-70-2	Calcium	177000	ug/kg		8560	26800	26800	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-46-2	Cesium	572	ug/kg		22.4	112	112	2	MS	PRB	05/26/10 14:57	100526-5	983921
7440-47-3	Chromium	952	ug/kg		161	535	535	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-48-4	Cobalt	365	ug/kg	J	161	535	535	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-50-8	Copper	2650	ug/kg		321	1070	1070	1	P	HSC	03/31/10 22:45	033110B-1	963989
7439-89-6	Iron	6450000	ug/kg		8560	26800	26800	1	P	HSC	03/31/10 22:45	033110B-1	963989
7439-92-1	Lead	1490	ug/kg		268	1070	1070	1	P	HSC	03/31/10 22:45	033110B-1	963989
7439-95-4	Magnesium	110000	ug/kg		9100	32100	32100	1	P	HSC	03/31/10 22:45	033110B-1	963989
7439-96-5	Manganese	301000	ug/kg		214	1070	1070	1	P	HSC	03/31/10 22:45	033110B-1	963989
7439-97-6	Mercury	64300	ug/kg		457	1340	1340	100	AV	JXL1	03/23/10 12:35	032310S1-6	967595
7440-02-0	Nickel	278	ug/kg	J	104	418	418	2	MS	RMJ	05/06/10 13:46	100505-3	963991
7440-09-7	Potassium	272000	ug/kg		6850	26800	26800	1	P	HSC	03/31/10 22:45	033110B-1	963989
7782-49-2	Selenium	1040	ug/kg	U	522	1040	1040	2	MS	RMJ	05/06/10 13:46	100505-3	963991
7440-22-4	Silver	3910	ug/kg		107	535	535	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-23-5	Sodium	203000	ug/kg		7490	26800	26800	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-28-0	Thallium	209	ug/kg	U	62.7	209	209	2	MS	RMJ	05/06/10 13:46	100505-3	963991
7440-62-2	Vanadium	1040	ug/kg		107	535	535	1	P	HSC	03/31/10 22:45	033110B-1	963989
7440-66-6	Zinc	21500	ug/kg		353	1070	1070	1	P	HSC	03/31/10 22:45	033110B-1	963989

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963989	963988	SW846 3050B	0.564	g	50	mL	03/24/10	BXA1
963991	963990	SW846 3050B	0.578	g	50	mL	03/24/10	BXA1
967595	967593	SW846 7471A Prep	0.539	g	30	mL	03/22/10	TXB3
983921	983920	SW846 3050B	0.538	g	50	mL	05/13/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2303 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248814006 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13546 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	384000	ug/kg		7050	20700	20700	1	P	HSC	03/31/10 22:47	033110B-1	963989
7440-36-0	Antimony	784	ug/kg	J	342	1040	1040	1	P	HSC	03/31/10 22:47	033110B-1	963989
7440-38-2	Arsenic	1130	ug/kg	U	226	1130	1130	2	MS	RMJ	05/06/10 13:51	100505-3	963991
7440-39-3	Barium	1690	ug/kg		104	518	518	1	P	HSC	03/31/10 22:47	033110B-1	963989
7440-41-7	Beryllium	45	ug/kg	J	22.6	113	113	2	MS	RMJ	05/08/10 04:23	100507-4	963991
7440-43-9	Cadmium	518	ug/kg	U	104	518	518	1	P	HSC	03/31/10 22:47	033110B-1	963989
7440-70-2	Calcium	33900	ug/kg		8290	25900	25900	1	P	HSC	03/31/10 22:47	033110B-1	963989
7440-46-2	Cesium	647	ug/kg		22.9	114	114	2	MS	PRB	05/26/10 14:57	100526-5	983921
7440-47-3	Chromium	1290	ug/kg		155	518	518	1	P	HSC	03/31/10 22:47	033110B-1	963989
7440-48-4	Cobalt	206	ug/kg	J	155	518	518	1	P	HSC	03/31/10 22:47	033110B-1	963989
7440-50-8	Copper	2510	ug/kg		311	1040	1040	1	P	HSC	03/31/10 22:47	033110B-1	963989
7439-89-6	Iron	6090000	ug/kg		8290	25900	25900	1	P	HSC	03/31/10 22:47	033110B-1	963989
7439-92-1	Lead	2150	ug/kg		259	1040	1040	1	P	HSC	03/31/10 22:47	033110B-1	963989
7439-95-4	Magnesium	46900	ug/kg		8810	31100	31100	1	P	HSC	03/31/10 22:47	033110B-1	963989
7439-96-5	Manganese	272000	ug/kg		207	1040	1040	1	P	HSC	03/31/10 22:47	033110B-1	963989
7439-97-6	Mercury	15000	ug/kg		212	624	624	50	AV	JXL1	03/23/10 12:36	032310S1-6	967595
7440-02-0	Nickel	278	ug/kg	J	113	452	452	2	MS	RMJ	05/06/10 13:51	100505-3	963991
7440-09-7	Potassium	298000	ug/kg		6630	25900	25900	1	P	HSC	03/31/10 22:47	033110B-1	963989
7782-49-2	Selenium	1130	ug/kg	U	566	1130	1130	2	MS	RMJ	05/06/10 13:51	100505-3	963991
7440-22-4	Silver	114000	ug/kg		518	2590	2590	5	P	HSC	04/07/10 13:47	040710-2	963989
7440-23-5	Sodium	177000	ug/kg		7260	25900	25900	1	P	HSC	03/31/10 22:47	033110B-1	963989
7440-28-0	Thallium	226	ug/kg	U	67.9	226	226	2	MS	RMJ	05/06/10 13:51	100505-3	963991
7440-62-2	Vanadium	727	ug/kg		104	518	518	1	P	HSC	03/31/10 22:47	033110B-1	963989
7440-66-6	Zinc	18500	ug/kg		342	1040	1040	1	P	HSC	03/31/10 22:47	033110B-1	963989

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963989	963988	SW846 3050B	0.585	g	50	mL	03/24/10	BXA1
963991	963990	SW846 3050B	0.536	g	50	mL	03/24/10	BXA1
967595	967593	SW846 7471A Prep	0.583	g	30	mL	03/22/10	TXB3
983921	983920	SW846 3050B	0.53	g	50	mL	05/13/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2303 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248814007 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13552 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	310000	ug/kg		6720	19800	19800	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-36-0	Antimony	989	ug/kg	U	326	989	989	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-38-2	Arsenic	301	ug/kg	J	215	1070	1070	2	MS	RMJ	05/06/10 13:55	100505-3	963991
7440-39-3	Barium	994	ug/kg		98.9	494	494	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-41-7	Beryllium	142	ug/kg		21.5	107	107	2	MS	RMJ	05/08/10 04:27	100507-4	963991
7440-43-9	Cadmium	494	ug/kg	U	98.9	494	494	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-70-2	Calcium	145000	ug/kg		7910	24700	24700	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-46-2	Cesium	910	ug/kg		22.6	113	113	2	MS	PRB	05/26/10 14:58	100526-5	983921
7440-47-3	Chromium	455	ug/kg	J	148	494	494	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-48-4	Cobalt	319	ug/kg	J	148	494	494	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-50-8	Copper	2420	ug/kg		297	989	989	1	P	HSC	03/31/10 22:49	033110B-1	963989
7439-89-6	Iron	5220000	ug/kg		7910	24700	24700	1	P	HSC	03/31/10 22:49	033110B-1	963989
7439-92-1	Lead	1010	ug/kg		247	989	989	1	P	HSC	03/31/10 22:49	033110B-1	963989
7439-95-4	Magnesium	57000	ug/kg		8410	29700	29700	1	P	HSC	03/31/10 22:49	033110B-1	963989
7439-96-5	Manganese	240000	ug/kg		198	989	989	1	P	HSC	03/31/10 22:49	033110B-1	963989
7439-97-6	Mercury	3210	ug/kg		82.7	243	243	20	AV	JXL1	03/23/10 12:38	032310S1-6	967595
7440-02-0	Nickel	430	ug/kg	U	107	430	430	2	MS	RMJ	05/06/10 13:55	100505-3	963991
7440-09-7	Potassium	218000	ug/kg		6330	24700	24700	1	P	HSC	03/31/10 22:49	033110B-1	963989
7782-49-2	Selenium	1070	ug/kg	U	537	1070	1070	2	MS	RMJ	05/06/10 13:55	100505-3	963991
7440-22-4	Silver	750	ug/kg		98.9	494	494	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-23-5	Sodium	172000	ug/kg		6920	24700	24700	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-28-0	Thallium	215	ug/kg	U	64.5	215	215	2	MS	RMJ	05/06/10 13:55	100505-3	963991
7440-62-2	Vanadium	847	ug/kg		98.9	494	494	1	P	HSC	03/31/10 22:49	033110B-1	963989
7440-66-6	Zinc	16200	ug/kg		326	989	989	1	P	HSC	03/31/10 22:49	033110B-1	963989

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963989	963988	SW846 3050B	0.579	g	50	mL	03/24/10	BXA1
963991	963990	SW846 3050B	0.533	g	50	mL	03/24/10	BXA1
967595	967593	SW846 7471A Prep	0.565	g	30	mL	03/22/10	TXB3
983921	983920	SW846 3050B	0.506	g	50	mL	05/13/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2303 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248814008 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13547 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	330000	ug/kg		6840	20100	20100	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-36-0	Antimony	1010	ug/kg	U	332	1010	1010	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-38-2	Arsenic	1010	ug/kg	U	203	1010	1010	2	MS	RMJ	05/06/10 13:59	100505-3	963991
7440-39-3	Barium	932	ug/kg		101	503	503	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-41-7	Beryllium	66.7	ug/kg	J	20.3	101	101	2	MS	RMJ	05/08/10 04:31	100507-4	963991
7440-43-9	Cadmium	503	ug/kg	U	101	503	503	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-70-2	Calcium	49300	ug/kg		8050	25200	25200	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-46-2	Cesium	393	ug/kg		21.3	107	107	2	MS	PRB	05/26/10 14:59	100526-5	983921
7440-47-3	Chromium	539	ug/kg		151	503	503	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-48-4	Cobalt	172	ug/kg	J	151	503	503	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-50-8	Copper	978	ug/kg	J	302	1010	1010	1	P	HSC	03/31/10 22:52	033110B-1	963989
7439-89-6	Iron	4590000	ug/kg		8050	25200	25200	1	P	HSC	03/31/10 22:52	033110B-1	963989
7439-92-1	Lead	1220	ug/kg		252	1010	1010	1	P	HSC	03/31/10 22:52	033110B-1	963989
7439-95-4	Magnesium	22800	ug/kg	J	8550	30200	30200	1	P	HSC	03/31/10 22:52	033110B-1	963989
7439-96-5	Manganese	211000	ug/kg		201	1010	1010	1	P	HSC	03/31/10 22:52	033110B-1	963989
7439-97-6	Mercury	2100	ug/kg		91.9	270	270	20	AV	JXL1	03/23/10 12:40	032310S1-6	967595
7440-02-0	Nickel	405	ug/kg	U	101	405	405	2	MS	RMJ	05/06/10 13:59	100505-3	963991
7440-09-7	Potassium	245000	ug/kg		6440	25200	25200	1	P	HSC	03/31/10 22:52	033110B-1	963989
7782-49-2	Selenium	1010	ug/kg	U	507	1010	1010	2	MS	RMJ	05/06/10 13:59	100505-3	963991
7440-22-4	Silver	3780	ug/kg		101	503	503	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-23-5	Sodium	167000	ug/kg		7040	25200	25200	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-28-0	Thallium	203	ug/kg	U	60.8	203	203	2	MS	RMJ	05/06/10 13:59	100505-3	963991
7440-62-2	Vanadium	393	ug/kg	J	101	503	503	1	P	HSC	03/31/10 22:52	033110B-1	963989
7440-66-6	Zinc	12800	ug/kg		332	1010	1010	1	P	HSC	03/31/10 22:52	033110B-1	963989

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963989	963988	SW846 3050B	0.569	g	50	mL	03/24/10	BXA1
963991	963990	SW846 3050B	0.565	g	50	mL	03/24/10	BXA1
967595	967593	SW846 7471A Prep	0.508	g	30	mL	03/22/10	TXB3
983921	983920	SW846 3050B	0.537	g	50	mL	05/13/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2303 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248814009 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13556 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	392000	ug/kg		7310	21500	21500	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-36-0	Antimony	1070	ug/kg	U	355	1070	1070	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-38-2	Arsenic	236	ug/kg	J	199	997	997	2	MS	RMJ	05/06/10 14:04	100505-3	963991
7440-39-3	Barium	2030	ug/kg		107	537	537	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-41-7	Beryllium	140	ug/kg		19.9	99.7	99.7	2	MS	RMJ	05/08/10 04:35	100507-4	963991
7440-43-9	Cadmium	537	ug/kg	U	107	537	537	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-70-2	Calcium	159000	ug/kg		8600	26900	26900	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-46-2	Cesium	1210	ug/kg		22.9	114	114	2	MS	PRB	05/26/10 15:00	100526-5	983921
7440-47-3	Chromium	1160	ug/kg		161	537	537	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-48-4	Cobalt	296	ug/kg	J	161	537	537	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-50-8	Copper	4700	ug/kg		322	1070	1070	1	P	HSC	03/31/10 22:54	033110B-1	963989
7439-89-6	Iron	5220000	ug/kg		8600	26900	26900	1	P	HSC	03/31/10 22:54	033110B-1	963989
7439-92-1	Lead	1860	ug/kg		269	1070	1070	1	P	HSC	03/31/10 22:54	033110B-1	963989
7439-95-4	Magnesium	97000	ug/kg		9140	32200	32200	1	P	HSC	03/31/10 22:54	033110B-1	963989
7439-96-5	Manganese	238000	ug/kg		215	1070	1070	1	P	HSC	03/31/10 22:54	033110B-1	963989
7439-97-6	Mercury	3210	ug/kg		86.4	254	254	20	AV	JXL1	03/23/10 12:41	032310S1-6	967595
7440-02-0	Nickel	236	ug/kg	J	99.7	399	399	2	MS	RMJ	05/06/10 14:04	100505-3	963991
7440-09-7	Potassium	250000	ug/kg		6880	26900	26900	1	P	HSC	03/31/10 22:54	033110B-1	963989
7782-49-2	Selenium	997	ug/kg	U	498	997	997	2	MS	RMJ	05/06/10 14:04	100505-3	963991
7440-22-4	Silver	3780	ug/kg		107	537	537	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-23-5	Sodium	173000	ug/kg		7520	26900	26900	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-28-0	Thallium	199	ug/kg	U	59.8	199	199	2	MS	RMJ	05/06/10 14:04	100505-3	963991
7440-62-2	Vanadium	923	ug/kg		107	537	537	1	P	HSC	03/31/10 22:54	033110B-1	963989
7440-66-6	Zinc	17500	ug/kg		355	1070	1070	1	P	HSC	03/31/10 22:54	033110B-1	963989

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963989	963988	SW846 3050B	0.536	g	50	mL	03/24/10	BXA1
963991	963990	SW846 3050B	0.578	g	50	mL	03/24/10	BXA1
967595	967593	SW846 7471A Prep	0.544	g	30	mL	03/22/10	TXB3
983921	983920	SW846 3050B	0.504	g	50	mL	05/13/10	AXG2

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2303

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.1	ug/L	5	ug/L	101.9	90.0 – 110.0	AV	23–MAR–10 09:00	032310S1–6
	Aluminum	5150	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Antimony	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Barium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Cadmium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Calcium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Chromium	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Cobalt	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Copper	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Lead	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Magnesium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Manganese	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Potassium	2520	ug/L	2500	ug/L	100.7	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Silver	258	ug/L	250	ug/L	103.3	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Sodium	2510	ug/L	2500	ug/L	100.5	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	31–MAR–10 18:47	033110B–1
	Silver	260	ug/L	250	ug/L	104.1	90.0 – 110.0	P	07–APR–10 12:57	040710–2
	Arsenic	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	06–MAY–10 11:43	100505–3
	Nickel	53.3	ug/L	50	ug/L	106.7	90.0 – 110.0	MS	06–MAY–10 11:43	100505–3
	Selenium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	06–MAY–10 11:43	100505–3
	Thallium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	06–MAY–10 11:43	100505–3
	Beryllium	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	08–MAY–10 02:35	100507–4
	Cesium	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	26–MAY–10 14:08	100526–5
CCV01										
	Mercury	5.09	ug/L	5	ug/L	101.8	80.0 – 120.0	AV	23–MAR–10 09:05	032310S1–6
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Antimony	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Barium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2303

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Magnesium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Manganese	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Potassium	5700	ug/L	5000	ug/L	113.9	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Vanadium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Silver	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	07–APR–10 13:19	040710–2
	Arsenic	52.7	ug/L	50	ug/L	105.4	90.0 – 110.0	MS	06–MAY–10 12:05	100505–3
	Nickel	54.1	ug/L	50	ug/L	108.2	90.0 – 110.0	MS	06–MAY–10 12:05	100505–3
	Selenium	52.9	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	06–MAY–10 12:05	100505–3
	Thallium	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	06–MAY–10 12:05	100505–3
	Beryllium	49.6	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	08–MAY–10 02:52	100507–4
	Cesium	50.7	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	26–MAY–10 14:13	100526–5
CCV02										
	Mercury	5.14	ug/L	5	ug/L	102.7	80.0 – 120.0	AV	23–MAR–10 09:25	032310S1–6
	Aluminum	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Antimony	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Barium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Cadmium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Calcium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Chromium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2303

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Iron	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Lead	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Magnesium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Potassium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Silver	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Zinc	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Silver	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	07–APR–10 13:49	040710–2
	Arsenic	52	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	06–MAY–10 12:49	100505–3
	Nickel	52.7	ug/L	50	ug/L	105.4	90.0 – 110.0	MS	06–MAY–10 12:49	100505–3
	Selenium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	06–MAY–10 12:49	100505–3
	Thallium	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	06–MAY–10 12:49	100505–3
	Beryllium	53.4	ug/L	50	ug/L	106.8	90.0 – 110.0	MS	08–MAY–10 03:30	100507–4
	Cesium	52.9	ug/L	50	ug/L	105.8	90.0 – 110.0	MS	26–MAY–10 14:21	100526–5
CCV03										
	Mercury	5.17	ug/L	5	ug/L	103.5	80.0 – 120.0	AV	23–MAR–10 09:45	032310S1–6
	Aluminum	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Antimony	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Barium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Cadmium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Chromium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Cobalt	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Iron	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Lead	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2303

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Potassium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Vanadium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Zinc	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Arsenic	52.7	ug/L	50	ug/L	105.4	90.0 – 110.0	MS	06–MAY–10 13:33	100505–3
	Nickel	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	06–MAY–10 13:33	100505–3
	Selenium	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	06–MAY–10 13:33	100505–3
	Thallium	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	06–MAY–10 13:33	100505–3
	Beryllium	55	ug/L	50	ug/L	110	90.0 – 110.0	MS	08–MAY–10 04:08	100507–4
	Cesium	54	ug/L	50	ug/L	108	90.0 – 110.0	MS	26–MAY–10 14:33	100526–5
CCV04										
	Mercury	5.21	ug/L	5	ug/L	104.1	80.0 – 120.0	AV	23–MAR–10 10:05	032310S1–6
	Aluminum	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Antimony	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Barium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Cadmium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Chromium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Copper	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Iron	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Magnesium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Potassium	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Silver	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Sodium	9730	ug/L	10000	ug/L	97.3	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Vanadium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2303

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Arsenic	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	06–MAY–10 14:08	100505–3
	Nickel	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	06–MAY–10 14:08	100505–3
	Selenium	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	06–MAY–10 14:08	100505–3
	Thallium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	06–MAY–10 14:08	100505–3
	Beryllium	53.4	ug/L	50	ug/L	106.8	90.0 – 110.0	MS	08–MAY–10 04:38	100507–4
	Cesium	53.5	ug/L	50	ug/L	107.1	90.0 – 110.0	MS	26–MAY–10 14:52	100526–5
CCV05										
	Mercury	4.9	ug/L	5	ug/L	98	80.0 – 120.0	AV	23–MAR–10 10:25	032310S1–6
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Antimony	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Barium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Cadmium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Calcium	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Chromium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Copper	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Iron	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Lead	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Magnesium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Manganese	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Potassium	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Silver	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Sodium	9760	ug/L	10000	ug/L	97.6	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Vanadium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Zinc	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Cesium	53.8	ug/L	50	ug/L	107.6	90.0 – 110.0	MS	26–MAY–10 15:01	100526–5
CCV06										
	Mercury	4.94	ug/L	5	ug/L	98.9	80.0 – 120.0	AV	23–MAR–10 10:45	032310S1–6
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2303

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Barium	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Cadmium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Calcium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Chromium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Copper	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Iron	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Lead	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Manganese	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Potassium	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Silver	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Sodium	9750	ug/L	10000	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Vanadium	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Zinc	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
CCV07										
	Mercury	5.01	ug/L	5	ug/L	100.1	80.0 – 120.0	AV	23–MAR–10 11:05	032310S1–6
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Antimony	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Barium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Cadmium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Calcium	4910	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Chromium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Copper	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Iron	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Manganese	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2303

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Silver	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Sodium	9770	ug/L	10000	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Vanadium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Zinc	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
CCV08										
	Mercury	4.99	ug/L	5	ug/L	99.8	80.0 – 120.0	AV	23–MAR–10 11:25	032310S1–6
	Aluminum	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Antimony	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Barium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Cadmium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Calcium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Chromium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Cobalt	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Copper	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Iron	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Manganese	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Potassium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Silver	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Sodium	9710	ug/L	10000	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Vanadium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Zinc	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
CCV09										
	Mercury	5.17	ug/L	5	ug/L	103.3	80.0 – 120.0	AV	23–MAR–10 11:46	032310S1–6
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Antimony	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Barium	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Cadmium	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2303

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Chromium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Cobalt	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Iron	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Lead	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Magnesium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Manganese	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Potassium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Silver	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Sodium	9660	ug/L	10000	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Vanadium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Zinc	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
CCV10										
	Mercury	5.02	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	23–MAR–10 11:59	032310S1–6
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Antimony	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Cadmium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Calcium	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Chromium	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Cobalt	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Copper	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Iron	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Lead	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Magnesium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Manganese	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Silver	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Sodium	9610	ug/L	10000	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2303

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Zinc	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
CCV11										
	Mercury	4.99	ug/L	5	ug/L	99.8	80.0 – 120.0	AV	23–MAR–10 12:43	032310S1–6
	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Antimony	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Barium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Cadmium	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Calcium	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Chromium	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Cobalt	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Copper	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Iron	4800	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Lead	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Magnesium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Manganese	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Potassium	4800	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Silver	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Sodium	9560	ug/L	10000	ug/L	95.6	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Vanadium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Zinc	472	ug/L	500	ug/L	94.5	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
CCV12										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Antimony	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Barium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Cadmium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Calcium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Chromium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Cobalt	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Copper	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2303

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Lead	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Magnesium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Manganese	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Silver	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Sodium	9590	ug/L	10000	ug/L	95.9	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Vanadium	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Zinc	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2303

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.17	ug/L	.2	ug/L	85	70.0 – 130.0	AV	23–MAR–10 09:03	032310S1–6
	Nickel	2.36	ug/L	2	ug/L	117.8	70.0 – 130.0	MS	06–MAY–10 11:52	100505–3
	Thallium	1.17	ug/L	1	ug/L	117.1	70.0 – 130.0	MS	06–MAY–10 11:52	100505–3
	Selenium	6.15	ug/L	5	ug/L	123.1	70.0 – 130.0	MS	06–MAY–10 11:52	100505–3
	Arsenic	5.6	ug/L	5	ug/L	112	70.0 – 130.0	MS	06–MAY–10 11:52	100505–3
	Beryllium	.592	ug/L	.5	ug/L	118.4	70.0 – 130.0	MS	08–MAY–10 02:42	100507–4
	Cesium	.494	ug/L	.5	ug/L	98.8	70.0 – 130.0	MS	26–MAY–10 14:10	100526–5
CRDL02										
	Mercury	.174	ug/L	.2	ug/L	87	70.0 – 130.0	AV	23–MAR–10 10:03	032310S1–6
PQL01										
	Aluminum	204	ug/L	200	ug/L	101.9	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Lead	11.2	ug/L	10	ug/L	112	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Manganese	10.3	ug/L	10	ug/L	103.1	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Silver	4.61	ug/L	5	ug/L	92.3	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Antimony	9.66	ug/L	10	ug/L	96.6	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Cadmium	5.05	ug/L	5	ug/L	101	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Cobalt	5.18	ug/L	5	ug/L	103.6	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Calcium	212	ug/L	200	ug/L	106.2	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Zinc	10.1	ug/L	10	ug/L	101	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Vanadium	4.74	ug/L	5	ug/L	94.8	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Copper	10	ug/L	10	ug/L	100	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Chromium	4.91	ug/L	5	ug/L	98.3	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Barium	4.99	ug/L	5	ug/L	99.9	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Sodium	280	ug/L	300	ug/L	93.3	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Potassium	150	ug/L	150	ug/L	99.9	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Magnesium	311	ug/L	300	ug/L	103.7	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Iron	102	ug/L	100	ug/L	102.4	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Silver	5.18	ug/L	5	ug/L	103.6	70.0 – 130.0	P	07–APR–10 13:02	040710–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2303

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 09:01	032310S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 18:48	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 18:48	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 18:48	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 18:48	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 18:48	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 18:48	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	07–APR–10 12:59	040710–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	06–MAY–10 11:48	100505–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	06–MAY–10 11:48	100505–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	06–MAY–10 11:48	100505–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	06–MAY–10 11:48	100505–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	08–MAY–10 02:38	100507–4
	Cesium	0.1	+/–.5	U	0.1	0.5	SOL	MS	26–MAY–10 14:09	100526–5
CCB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 09:06	032310S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:01	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2303

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:01	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:01	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:01	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Potassium	298.29	+/–250		64.0	250	SOL	P	31–MAR–10 19:01	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Sodium	140.13	+/–250	J	70.0	250	SOL	P	31–MAR–10 19:01	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	07–APR–10 13:21	040710–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	06–MAY–10 12:10	100505–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	06–MAY–10 12:10	100505–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	06–MAY–10 12:10	100505–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	06–MAY–10 12:10	100505–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	08–MAY–10 02:55	100507–4
	Cesium	0.1	+/–.5	U	0.1	0.5	SOL	MS	26–MAY–10 14:14	100526–5
CCB02										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 09:26	032310S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:08	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:08	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:08	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2303

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:08	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Potassium	98.66	+/–250	J	64.0	250	SOL	P	31–MAR–10 19:08	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 19:08	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	07–APR–10 13:51	040710–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	06–MAY–10 12:53	100505–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	06–MAY–10 12:53	100505–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	06–MAY–10 12:53	100505–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	06–MAY–10 12:53	100505–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	08–MAY–10 03:33	100507–4
	Cesium	0.1	+/–.5	U	0.1	0.5	SOL	MS	26–MAY–10 14:22	100526–5
CCB03										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 09:46	032310S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:29	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:29	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:29	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:29	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 19:29	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2303

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 19:29	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	06–MAY–10 13:37	100505–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	06–MAY–10 13:37	100505–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	06–MAY–10 13:37	100505–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	06–MAY–10 13:37	100505–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	08–MAY–10 04:12	100507–4
	Cesium	0.1	+/–.5	U	0.1	0.5	SOL	MS	26–MAY–10 14:34	100526–5
CCB04										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 10:06	032310S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:50	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:50	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	06–MAY–10 14:12	100505–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	06–MAY–10 14:12	100505–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	06–MAY–10 14:12	100505–3

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2303

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	06–MAY–10 14:12	100505–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	08–MAY–10 04:42	100507–4
	Cesium	0.1	+/–.5	U	0.1	0.5	SOL	MS	26–MAY–10 14:53	100526–5
CCB05										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 10:27	032310S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 20:21	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 20:21	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Silver	–1.07	+/–5	J	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Cesium	0.1	+/–.5	U	0.1	0.5	SOL	MS	26–MAY–10 15:02	100526–5
CCB06										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 10:47	032310S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 20:48	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:48	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2303

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 20:48	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:48	033110B–1
CCB07										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 11:07	032310S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 21:18	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:18	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:18	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 21:18	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 21:18	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 21:18	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:18	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2303

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB08										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 11:27	032310S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 21:41	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:41	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:41	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 21:41	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 21:41	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 21:41	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:41	033110B–1
CCB09										
	Mercury	0.173	+/–.2	J	0.068	0.2	SOL	AV	23–MAR–10 11:47	032310S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 21:57	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 21:57	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2303

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:57	033110B–1
CCB10										
	Mercury	0.087	+/–.2	J	0.068	0.2	SOL	AV	23–MAR–10 12:01	032310S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 22:14	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:14	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:14	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 22:14	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 22:14	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 22:14	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:14	033110B–1
CCB11										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	23–MAR–10 12:45	032310S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 22:37	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2303

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:37	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:37	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 22:37	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 22:37	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 22:37	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:37	033110B–1
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 22:58	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 22:58	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:58	033110B–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2303
Contract: LANL01004
Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202068035								
	Potassium	7240	ug/kg	+/–23500	J	P	6020	23500
	Silver	94	ug/kg	+/–470	U	P	94	470
	Sodium	6580	ug/kg	+/–23500	U	P	6580	23500
	Vanadium	94	ug/kg	+/–470	U	P	94	470
	Barium	94	ug/kg	+/–470	U	P	94	470
	Antimony	310	ug/kg	+/–940	U	P	310	940
	Aluminum	6390	ug/kg	+/–18800	U	P	6390	18800
	Zinc	310	ug/kg	+/–940	U	P	310	940
	Cadmium	94	ug/kg	+/–470	U	P	94	470
	Manganese	188	ug/kg	+/–940	U	P	188	940
	Magnesium	7990	ug/kg	+/–28200	U	P	7990	28200
	Lead	235	ug/kg	+/–940	U	P	235	940
	Iron	7520	ug/kg	+/–23500	U	P	7520	23500
	Copper	282	ug/kg	+/–940	U	P	282	940
	Cobalt	141	ug/kg	+/–470	U	P	141	470
	Chromium	204	ug/kg	+/–470	J	P	141	470
	Calcium	7520	ug/kg	+/–23500	U	P	7520	23500
1202068041								
	Arsenic	186	ug/kg	+/–929	U	MS	186	929
	Beryllium	18.6	ug/kg	+/–92.9	U	MS	18.6	92.9
	Nickel	92.9	ug/kg	+/–372	U	MS	92.9	372
	Selenium	465	ug/kg	+/–929	U	MS	465	929
	Thallium	55.8	ug/kg	+/–186	U	MS	55.8	186
1202076806								
	Mercury	3.4	ug/kg	+/–10	U	AV	3.4	10
1202116473								
	Cesium	19.3	ug/kg	+/–96.5	U	MS	19.3	96.5

METALS
–4–
Interference Check Sample

SDG No: 10–2303

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	502000	ug/L	500000	ug/L	100	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Antimony	0.296	ug/L					31–MAR–10 18:53	033110B–1
	Barium	0.205	ug/L					31–MAR–10 18:53	033110B–1
	Cadmium	–1.97	ug/L					31–MAR–10 18:53	033110B–1
	Calcium	480000	ug/L	500000	ug/L	96	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Chromium	1.07	ug/L					31–MAR–10 18:53	033110B–1
	Cobalt	–6.06	ug/L					31–MAR–10 18:53	033110B–1
	Copper	4.63	ug/L					31–MAR–10 18:53	033110B–1
	Iron	190000	ug/L	200000	ug/L	95	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Lead	–4.1	ug/L					31–MAR–10 18:53	033110B–1
	Magnesium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Manganese	3.58	ug/L					31–MAR–10 18:53	033110B–1
	Potassium	–119.0	ug/L					31–MAR–10 18:53	033110B–1
	Silver	–2.44	ug/L					31–MAR–10 18:53	033110B–1
	Sodium	38.8	ug/L					31–MAR–10 18:53	033110B–1
	Vanadium	–0.082	ug/L					31–MAR–10 18:53	033110B–1
	Zinc	8.58	ug/L					31–MAR–10 18:53	033110B–1
ICSAB01									
	Aluminum	507000	ug/L	500000	ug/L	101	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Antimony	504	ug/L	500	ug/L	101	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Barium	499	ug/L	500	ug/L	99.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Cadmium	476	ug/L	500	ug/L	95.3	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Calcium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Chromium	484	ug/L	500	ug/L	96.7	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Cobalt	442	ug/L	500	ug/L	88.5	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Copper	542	ug/L	500	ug/L	108	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Iron	192000	ug/L	200000	ug/L	96	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Lead	464	ug/L	500	ug/L	92.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Magnesium	485000	ug/L	500000	ug/L	97	80.0 – 120.0	31–MAR–10 18:55	033110B–1

METALS
–4–
Interference Check Sample

SDG No: 10–2303

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Manganese	486	ug/L	500	ug/L	97.2	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Potassium	5550	ug/L	5000	ug/L	111	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Silver	267	ug/L	250	ug/L	107	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Sodium	5330	ug/L	5000	ug/L	107	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Vanadium	513	ug/L	500	ug/L	103	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Zinc	494	ug/L	500	ug/L	98.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1

METALS
–4–
Interference Check Sample

SDG No: 10–2303

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Silver	–0.618	ug/L					07–APR–10 13:04	040710–2
ICSAB01									
	Silver	267	ug/L	250	ug/L	107	80.0 – 120.0	07–APR–10 13:07	040710–2

METALS
–4–
Interference Check Sample

SDG No: 10–2303

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.36	ug/L					06–MAY–10 11:57	100505–3
	Nickel	2.93	ug/L					06–MAY–10 11:57	100505–3
	Selenium	–1.84	ug/L					06–MAY–10 11:57	100505–3
	Thallium	0.015	ug/L					06–MAY–10 11:57	100505–3
ICSAB01									
	Arsenic	20.2	ug/L	20	ug/L	101	80.0 – 120.0	06–MAY–10 12:01	100505–3
	Nickel	21.7	ug/L	23.31	ug/L	93.1	80.0 – 120.0	06–MAY–10 12:01	100505–3
	Selenium	19.7	ug/L	20	ug/L	98.4	80.0 – 120.0	06–MAY–10 12:01	100505–3
	Thallium	18.1	ug/L	20	ug/L	90.4	80.0 – 120.0	06–MAY–10 12:01	100505–3

METALS
–4–
Interference Check Sample

SDG No: 10–2303

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.083	ug/L					08–MAY–10 02:45	100507–4
ICSAB01									
	Beryllium	18.8	ug/L	20	ug/L	93.7	80.0 – 120.0	08–MAY–10 02:48	100507–4

METALS
–4–
Interference Check Sample

SDG No: 10–2303

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS7

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Cesium	0.081	ug/L					26–MAY–10 14:11	100526–5
ICSAB01									
	Cesium	19.2	ug/L	20	ug/L	96.1	80.0 – 120.0	26–MAY–10 14:12	100526–5

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2303 **Client ID** CAPU–10–12592S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 79

Sample ID: 248808001 **Spike ID:** 1202068038

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Sodium	ug/kg	75–125	607000		70900		549000	97.6		P
Vanadium	ug/kg	75–125	55500		2350		54900	96.8		P
Zinc	ug/kg	75–125	88400		33300		54900	100		P
Aluminum	ug/kg		5180000		2850000		549000	426	N/A	P
Antimony	ug/kg	75–125	50300		404	U	54900	91.7		P
Barium	ug/kg	75–125	71700		16900		54900	99.9		P
Cadmium	ug/kg	75–125	52100		122	U	54900	94.9		P
Calcium	ug/kg	75–125	817000		273000		549000	99.2		P
Chromium	ug/kg	75–125	54300		1570		54900	96.1		P
Cobalt	ug/kg	75–125	52200		647		54900	94		P
Copper	ug/kg	75–125	58200		2130		54900	102		P
Iron	ug/kg		7610000		6250000		549000	247	N/A	P
Lead	ug/kg	75–125	55600		3710		54900	94.6		P
Magnesium	ug/kg	75–125	1000000		332000		549000	122		P
Manganese	ug/kg		397000		317000		54900	147	N/A	P
Potassium	ug/kg	75–125	954000		295000		549000	120		P
Silver	ug/kg	75–125	51700		122	U	54900	94.3		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO.	10–2303	**Client ID**	CAPU–10–12592SD
Contract:	LANL01004	**Level:**	Low
Matrix:	SOIL	**% Solids:**	79
Sample ID:	248808001	**Spike ID:**	1202068039

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		7100000		2850000		570000	745	N/A	P
Antimony	ug/kg	75–125	49800		404	U	57000	87.2		P
Barium	ug/kg	75–125	81900		16900		57000	114		P
Cadmium	ug/kg	75–125	53200		122	U	57000	93.3		P
Calcium	ug/kg	75–125	952000		273000		570000	119		P
Chromium	ug/kg	75–125	56000		1570		57000	95.5		P
Cobalt	ug/kg	75–125	53300		647		57000	92.3		P
Copper	ug/kg	75–125	60800		2130		57000	103		P
Iron	ug/kg		10600000		6250000		570000	760	N/A	P
Lead	ug/kg	75–125	57900		3710		57000	94.9		P
Magnesium	ug/kg	75–125	1210000		332000		570000	153	N	P
Manganese	ug/kg		559000		317000		57000	424	N/A	P
Potassium	ug/kg	75–125	1120000		295000		570000	145	N	P
Silver	ug/kg	75–125	52800		122	U	57000	92.6		P
Sodium	ug/kg	75–125	645000		70900		570000	101		P
Vanadium	ug/kg	75–125	58600		2350		57000	98.5		P
Zinc	ug/kg	75–125	104000		33300		57000	124		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2303 **Client ID** CAPU–10–12592S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 79

Sample ID: 248808001 **Spike ID:** 1202068044

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	8410		404	J	9680	82.7		MS
Beryllium	ug/kg	75–125	6500		787		6050	94.5		MS
Cesium	ug/kg	75–125	6200		540		5800	97.5		MS
Nickel	ug/kg	75–125	6680		1470		6050	86.1		MS
Selenium	ug/kg	75–125	1990		586	U	2420	75.9		MS
Thallium	ug/kg	75–125	9160		70.3	U	12100	75.3		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2303 **Client ID** CAPU–10–12592SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 79

Sample ID: 248808001 **Spike ID:** 1202068045

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	8640		404	J	9400	87.6		MS
Beryllium	ug/kg	75–125	6560		787		5870	98.3		MS
Cesium	ug/kg	75–125	6800		540		5960	105		MS
Nickel	ug/kg	75–125	6400		1470		5870	83.9		MS
Selenium	ug/kg	75–125	2110		586	U	2350	83.4		MS
Thallium	ug/kg	75–125	9770		70.3	U	11700	82.8		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2303 **Client ID** RE46–10–11926S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 98.2

Sample ID: 248824001 **Spike ID:** 1202076809

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	126		11.9		109	105		AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO.	10–2303	**Client ID**	RE46–10–11926SD
Contract:	LANL01004	**Level:**	Low
Matrix:	SOIL	**% Solids:**	98.2
Sample ID:	248824001	**Spike ID:**	1202076811

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	136		11.9		119	104		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2303

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** CAPU–10–12592D

Sample ID: 248808001 **Duplicate ID:** 1202068036 **Percent Solids for Dup:** 79

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	2850000		3020000		5.85		P
Antimony	ug/kg		404	U	363	U			P
Barium	ug/kg	+/–20%	16900		20100		17.3		P
Cadmium	ug/kg		122	U	110	U			P
Calcium	ug/kg	+/–20%	273000		302000		10.2		P
Chromium	ug/kg	+/–551	1570		1840		15.8		P
Cobalt	ug/kg	+/–551	647		719		10.5		P
Copper	ug/kg	+/–1100	2130		2400		11.9		P
Iron	ug/kg	+/–20%	6250000		7340000		16		P
Lead	ug/kg	+/–1100	3710		3360		9.99		P
Magnesium	ug/kg	+/–20%	332000		351000		5.66		P
Manganese	ug/kg	+/–20%	317000		397000		22.3	*	P
Potassium	ug/kg	+/–20%	295000		294000		.183		P
Silver	ug/kg		122	U	110	U			P
Sodium	ug/kg	+/–27500	70900		74400		4.75		P
Vanadium	ug/kg	+/–551	2350		2650		12.1		P
Zinc	ug/kg	+/–20%	33300		38100		13.4		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2303

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** CAPU–10–12592SD

Sample ID: 1202068038 **Duplicate ID:** 1202068039 **Percent Solids for Dup:** 79

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	5180000		7100000		31.2	*	P
Antimony	ug/kg	+/–20	50300		49800		1.09		P
Barium	ug/kg	+/–20	71700		81900		13.3		P
Cadmium	ug/kg	+/–20	52100		53200		2.16		P
Calcium	ug/kg	+/–20	817000		952000		15.3		P
Chromium	ug/kg	+/–20	54300		56000		3.14		P
Cobalt	ug/kg	+/–20	52200		53300		1.96		P
Copper	ug/kg	+/–20	58200		60800		4.3		P
Iron	ug/kg	+/–20	7610000		10600000		32.8	*	P
Lead	ug/kg	+/–20	55600		57900		3.97		P
Magnesium	ug/kg	+/–20	1000000		1210000		18.4		P
Manganese	ug/kg	+/–20	397000		559000		33.7	*	P
Potassium	ug/kg	+/–20	954000		1120000		16		P
Silver	ug/kg	+/–20	51700		52800		2.08		P
Sodium	ug/kg	+/–20	607000		645000		6.12		P
Vanadium	ug/kg	+/–20	55500		58600		5.38		P
Zinc	ug/kg	+/–20	88400		104000		16.1		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2303

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** CAPU–10–12592D

Sample ID: 248808001 **Duplicate ID:** 1202068042 **Percent Solids for Dup:** 79

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–1190	404	J	410	J	1.57		MS
Beryllium	ug/kg	+/–20%	787		702		11.5		MS
Cesium	ug/kg	+/–121	540		509		5.93		MS
Nickel	ug/kg	+/–474	1470		1170		22.5		MS
Selenium	ug/kg		586	U	593	U			MS
Thallium	ug/kg		70.3	U	71.1	U			MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2303

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** CAPU–10–12592SD

Sample ID: 1202068044 **Duplicate ID:** 1202068045 **Percent Solids for Dup:** 79

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	8410		8640		2.66		MS
Beryllium	ug/kg	+/–20	6500		6560		.833		MS
Cesium	ug/kg	+/–20	6200		6800		9.32		MS
Nickel	ug/kg	+/–20	6680		6400		4.28		MS
Selenium	ug/kg	+/–20	1990		2110		5.98		MS
Thallium	ug/kg	+/–20	9160		9770		6.49		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2303

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–11926D

Sample ID: 248824001 **Duplicate ID:** 1202076808 **Percent Solids for Dup:** 98.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–10.9	11.9		10.8	J	9.03		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2303

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–11926SD

Sample ID: 1202076809 **Duplicate ID:** 1202076811 **Percent Solids for Dup:** 98.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	126		136		7.97		AV

METALS
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Laboratory Control Sample Summary

SDG NO. 10–2303

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202068040								
	Silver	ug/kg	30100	29600		98.2	66–134	P
	Sodium	ug/kg	1020000	982000		96.3	74–127	P
	Vanadium	ug/kg	115000	121000		105	79–121	P
	Zinc	ug/kg	594000	592000		99.6	80–121	P
	Aluminum	ug/kg	10500000	9340000		88.9	56–144	P
	Antimony	ug/kg	173000	163000		94.1	71–130	P
	Barium	ug/kg	198000	190000		96	80–120	P
	Cadmium	ug/kg	60700	61600		101	81–120	P
	Calcium	ug/kg	9870000	10400000		106	83–117	P
	Chromium	ug/kg	236000	245000		104	80–120	P
	Cobalt	ug/kg	91200	94700		104	81–120	P
	Copper	ug/kg	174000	184000		106	81–118	P
	Iron	ug/kg	18000000	18200000		101	51–149	P
	Lead	ug/kg	86000	86300		100	79–121	P
	Magnesium	ug/kg	4000000	3770000		94.2	79–122	P
	Manganese	ug/kg	558000	548000		98.1	81–119	P
	Potassium	ug/kg	4300000	4110000		95.6	74–127	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2303

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202068046								
	Arsenic	ug/kg	104000	108000		104	78–123	MS
	Beryllium	ug/kg	77600	75900		97.8	84–116	MS
	Nickel	ug/kg	134000	149000		111	78–123	MS
	Selenium	ug/kg	286000	298000		104	77–123	MS
	Thallium	ug/kg	121000	126000		104	78–122	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2303

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202076807								
	Mercury	ug/kg	5150	5440		106	71.6–128.3	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2303

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** O2SI

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202116474								
	Cesium	ug/kg	4690	5160		110	75.2–125	MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2303 **Client ID** CAPU–10–12592L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248808001 **Serial Dilution ID:** 1202068037

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	23300		24200		3.86		10	P
Antimony	3.3	U	16.5	U				P
Barium	138		142		2.54		10	P
Cadmium	1	U	5	U				P
Calcium	2230		2360		5.61			P
Chromium	12.8		12.5	J	2.34			P
Cobalt	5.29		7.5	U	100			P
Copper	17.4		16.5	J	5.17			P
Iron	51100		52500		2.74		10	P
Lead	30.3		25.1	J	17.2			P
Magnesium	2710		2780		2.4			P
Manganese	2590		2680		3.28		10	P
Potassium	2410		2320		3.73			P
Silver	1	U	5	U				P
Sodium	579		460	J	20.6			P
Vanadium	19.2		19.2	J	.26			P
Zinc	272		280		2.76		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2303 **Client ID** CAPU–10–12592L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248808001 **Serial Dilution ID:** 1202068043

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	1.72	J	5	U	100			MS
Beryllium	3.36		3.4		1.04			MS
Cesium	2.2		2.26	J	2.5			MS
Nickel	6.28		6.7	J	6.69			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.3	U	1.5	U				MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2303 **Client ID** RE46–10–11926L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248824001 **Serial Dilution ID:** 1202076810

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.221		.585	J	165			AV

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10–2303 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 963988							
1202068035	MB for batch 963988	MB	S	24–MAR–10	.532g	50mL	
1202068040	LCS for batch 963988	LCS	S	24–MAR–10	.505g	50mL	
1202068038	CAPU–10–12592S	MS	S	24–MAR–10	.58g	50mL	
1202068039	CAPU–10–12592SD	MSD	S	24–MAR–10	.558g	50mL	
1202068036	CAPU–10–12592D	DUP	S	24–MAR–10	.578g	50mL	
248814001	RE46–10–13553	SAMPLE	S	24–MAR–10	.532g	50mL	
248814002	RE46–10–13549	SAMPLE	S	24–MAR–10	.569g	50mL	
248814003	RE46–10–13551	SAMPLE	S	24–MAR–10	.586g	50mL	
248814004	RE46–10–13550	SAMPLE	S	24–MAR–10	.501g	50mL	
248814005	RE46–10–13548	SAMPLE	S	24–MAR–10	.564g	50mL	
248814006	RE46–10–13546	SAMPLE	S	24–MAR–10	.585g	50mL	
248814007	RE46–10–13552	SAMPLE	S	24–MAR–10	.579g	50mL	
248814008	RE46–10–13547	SAMPLE	S	24–MAR–10	.569g	50mL	
248814009	RE46–10–13556	SAMPLE	S	24–MAR–10	.536g	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10–2303 **Method Type**: MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 963990							
1202068041	MB for batch 963990	MB	S	24–MAR–10	.538g	50mL	
1202068046	LCS for batch 963990	LCS	S	24–MAR–10	.508g	50mL	
1202068044	CAPU–10–12592S	MS	S	24–MAR–10	.526g	50mL	
1202068045	CAPU–10–12592SD	MSD	S	24–MAR–10	.542g	50mL	
1202068042	CAPU–10–12592D	DUP	S	24–MAR–10	.537g	50mL	
248814001	RE46–10–13553	SAMPLE	S	24–MAR–10	.575g	50mL	
248814002	RE46–10–13549	SAMPLE	S	24–MAR–10	.513g	50mL	
248814003	RE46–10–13551	SAMPLE	S	24–MAR–10	.563g	50mL	
248814004	RE46–10–13550	SAMPLE	S	24–MAR–10	.554g	50mL	
248814005	RE46–10–13548	SAMPLE	S	24–MAR–10	.578g	50mL	
248814006	RE46–10–13546	SAMPLE	S	24–MAR–10	.536g	50mL	
248814007	RE46–10–13552	SAMPLE	S	24–MAR–10	.533g	50mL	
248814008	RE46–10–13547	SAMPLE	S	24–MAR–10	.565g	50mL	
248814009	RE46–10–13556	SAMPLE	S	24–MAR–10	.578g	50mL	
Batch Number 983920							
1202116473	MB for batch 983920	MB	S	13–MAY–10	.518g	50mL	
1202116474	LCS for batch 983920	LCS	S	13–MAY–10	.533g	50mL	
1202068044	CAPU–10–12592S	MS	S	13–MAY–10	.549g	50mL	
1202068045	CAPU–10–12592SD	MSD	S	13–MAY–10	.534g	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-2303 **Method Type**: MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
1202068042	CAPU-10-12592D	DUP	S	13-MAY-10	.527g	50mL	
248814001	RE46-10-13553	SAMPLE	S	13-MAY-10	.543g	50mL	
248814002	RE46-10-13549	SAMPLE	S	13-MAY-10	.519g	50mL	
248814003	RE46-10-13551	SAMPLE	S	13-MAY-10	.518g	50mL	
248814004	RE46-10-13550	SAMPLE	S	13-MAY-10	.531g	50mL	
248814005	RE46-10-13548	SAMPLE	S	13-MAY-10	.538g	50mL	
248814006	RE46-10-13546	SAMPLE	S	13-MAY-10	.53g	50mL	
248814007	RE46-10-13552	SAMPLE	S	13-MAY-10	.506g	50mL	
248814008	RE46-10-13547	SAMPLE	S	13-MAY-10	.537g	50mL	
248814009	RE46-10-13556	SAMPLE	S	13-MAY-10	.504g	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10–2303 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	967593						
1202076806	MB for batch 967593	MB	S	22–MAR–10	.6g	30mL	
1202076807	LCS for batch 967593	LCS	S	22–MAR–10	.203g	30mL	
1202076809	RE46–10–11926S	MS	S	22–MAR–10	.562g	30mL	
1202076811	RE46–10–11926SD	MSD	S	22–MAR–10	.514g	30mL	
1202076808	RE46–10–11926D	DUP	S	22–MAR–10	.558g	30mL	
248814001	RE46–10–13553	SAMPLE	S	22–MAR–10	.571g	30mL	
248814002	RE46–10–13549	SAMPLE	S	22–MAR–10	.556g	30mL	
248814003	RE46–10–13551	SAMPLE	S	22–MAR–10	.5g	30mL	
248814004	RE46–10–13550	SAMPLE	S	22–MAR–10	.521g	30mL	
248814005	RE46–10–13548	SAMPLE	S	22–MAR–10	.539g	30mL	
248814006	RE46–10–13546	SAMPLE	S	22–MAR–10	.583g	30mL	
248814007	RE46–10–13552	SAMPLE	S	22–MAR–10	.565g	30mL	
248814008	RE46–10–13547	SAMPLE	S	22–MAR–10	.508g	30mL	
248814009	RE46–10–13556	SAMPLE	S	22–MAR–10	.544g	30mL	

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 06–MAY–10 **End Date:** 06–MAY–10

Client Sdg: 10–2303
Method MS
Data File: 100505–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	11:30:00			X														X		X			X		
S10	1	11:35:00			X														X		X			X		
S100	1	11:39:00			X														X		X			X		
ICV01	1	11:43:00			X														X		X			X		
ICB01	1	11:48:00			X														X		X			X		
CRDL01	1	11:52:00			X														X		X			X		
ICSA01	1	11:57:00			X														X		X			X		
ICSAB01	1	12:01:00			X														X		X			X		
CCV01	1	12:05:00			X														X		X			X		
CCB01	1	12:10:00			X														X		X			X		
1202068041	2	12:14:00			X														X		X			X		
1202068046	40	12:18:00			X														X		X			X		
ZZZZZZ	2	12:23:00																								
1202068042	2	12:27:00			X														X		X			X		
1202068044	2	12:32:00			X														X		X			X		
1202068045	2	12:36:00			X														X		X			X		
1202068043	10	12:40:00			X														X		X			X		
ZZZZZZ	2	12:45:00																								
CCV02	1	12:49:00			X														X		X			X		
CCB02	1	12:53:00			X														X		X			X		
ZZZZZZ	2	12:58:00																								
ZZZZZZ	2	13:02:00																								
ZZZZZZ	2	13:07:00																								
ZZZZZZ	2	13:11:00																								
ZZZZZZ	2	13:15:00																								
248814001	2	13:20:00			X														X		X			X		
248814002	2	13:24:00			X														X		X			X		
248814003	2	13:29:00			X														X		X			X		
CCV03	1	13:33:00			X														X		X			X		
CCB03	1	13:37:00			X														X		X			X		
248814004	2	13:42:00			X														X		X			X		
248814005	2	13:46:00			X														X		X			X		
248814006	2	13:51:00			X														X		X			X		
248814007	2	13:55:00			X														X		X			X		
248814008	2	13:59:00			X														X		X			X		
248814009	2	14:04:00			X														X		X			X		
CCV04	1	14:08:00			X														X		X			X		
CCB04	1	14:12:00			X														X		X			X		

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 08–MAY–10 **End Date:** 08–MAY–10

Client Sdg: 10–2303
Method MS
Data File: 100507–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	02:25:00					X																			
S10	1	02:28:00					X																			
S100	1	02:31:00					X																			
ICV01	1	02:35:00					X																			
ICB01	1	02:38:00					X																			
CRDL01	1	02:42:00					X																			
ICSA01	1	02:45:00					X																			
ICSAB01	1	02:48:00					X																			
CCV01	1	02:52:00					X																			
CCB01	1	02:55:00					X																			
1202068041	2	02:59:00					X																			
1202068046	40	03:03:00					X																			
ZZZZZZ	2	03:06:00																								
1202068042	2	03:10:00					X																			
1202068044	2	03:14:00					X																			
1202068045	2	03:18:00					X																			
1202068043	10	03:22:00					X																			
ZZZZZZ	2	03:26:00																								
CCV02	1	03:30:00					X																			
CCB02	1	03:33:00					X																			
ZZZZZZ	2	03:37:00																								
ZZZZZZ	2	03:41:00																								
ZZZZZZ	2	03:45:00																								
ZZZZZZ	2	03:49:00																								
ZZZZZZ	2	03:52:00																								
248814001	2	03:56:00					X																			
248814002	2	04:00:00					X																			
248814003	2	04:04:00					X																			
CCV03	1	04:08:00					X																			
CCB03	1	04:12:00					X																			
248814004	2	04:15:00					X																			
248814005	2	04:19:00					X																			
248814006	2	04:23:00					X																			
248814007	2	04:27:00					X																			
248814008	2	04:31:00					X																			
248814009	2	04:35:00					X																			
CCV04	1	04:38:00					X																			
CCB04	1	04:42:00					X																			

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 23–MAR–10 **End Date:** 23–MAR–10

Client Sdg: 10–2303
Method AV
Data File: 032310S1–6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	08:50:00																X								
S0.2	1	08:51:00																X								
S0.5	1	08:53:00																X								
S2.0	1	08:55:00																X								
S5.0	1	08:56:00																X								
S10.0	1	08:58:00																X								
ICV01	1	09:00:00																X								
ICB01	1	09:01:00																X								
CRDL01	1	09:03:00																X								
CCV01	1	09:05:00																X								
CCB01	1	09:06:00																X								
ZZZZZZ	1	09:08:00																								
ZZZZZZ	1	09:10:00																								
ZZZZZZ	1	09:11:00																								
ZZZZZZ	1	09:13:00																								
ZZZZZZ	1	09:15:00																								
ZZZZZZ	1	09:16:00																								
ZZZZZZ	1	09:18:00																								
ZZZZZZ	1	09:20:00																								
ZZZZZZ	1	09:21:00																								
ZZZZZZ	5	09:23:00																								
CCV02	1	09:25:00																X								
CCB02	1	09:26:00																X								
ZZZZZZ	1	09:28:00																								
ZZZZZZ	1	09:30:00																								
ZZZZZZ	1	09:31:00																								
ZZZZZZ	1	09:33:00																								
ZZZZZZ	1	09:35:00																								
ZZZZZZ	1	09:36:00																								
ZZZZZZ	1	09:38:00																								
ZZZZZZ	1	09:40:00																								
ZZZZZZ	1	09:41:00																								
ZZZZZZ	1	09:43:00																								
CCV03	1	09:45:00																X								
CCB03	1	09:46:00																X								
ZZZZZZ	1	09:48:00																								
ZZZZZZ	1	09:50:00																								
ZZZZZZ	1	09:51:00																								
ZZZZZZ	1	09:53:00																								
ZZZZZZ	1	09:55:00																								

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	09:57:00																							
ZZZZZZ	10	09:58:00																							
CRDL02	1	10:03:00															X								
CCV04	1	10:05:00															X								
CCB04	1	10:06:00															X								
ZZZZZZ	1	10:08:00																							
ZZZZZZ	1	10:10:00																							
ZZZZZZ	1	10:11:00																							
ZZZZZZ	1	10:13:00																							
ZZZZZZ	1	10:15:00																							
ZZZZZZ	1	10:16:00																							
ZZZZZZ	1	10:18:00																							
ZZZZZZ	1	10:20:00																							
ZZZZZZ	5	10:22:00																							
ZZZZZZ	1	10:23:00																							
CCV05	1	10:25:00															X								
CCB05	1	10:27:00															X								
ZZZZZZ	1	10:28:00																							
ZZZZZZ	10	10:30:00																							
ZZZZZZ	1	10:32:00																							
ZZZZZZ	1	10:33:00																							
ZZZZZZ	1	10:35:00																							
ZZZZZZ	1	10:37:00																							
ZZZZZZ	5	10:38:00																							
ZZZZZZ	1	10:40:00																							
ZZZZZZ	1	10:42:00																							
ZZZZZZ	1	10:43:00																							
CCV06	1	10:45:00															X								
CCB06	1	10:47:00															X								
ZZZZZZ	1	10:48:00																							
ZZZZZZ	1	10:50:00																							
ZZZZZZ	1	10:52:00																							
ZZZZZZ	1	10:53:00																							
ZZZZZZ	1	10:55:00																							
ZZZZZZ	1	10:57:00																							
ZZZZZZ	1	10:58:00																							
ZZZZZZ	1	11:00:00																							
ZZZZZZ	1	11:02:00																							
ZZZZZZ	1	11:04:00																							
CCV07	1	11:05:00															X								

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
CCB07	1	11:07:00																X								
ZZZZZZ	1	11:09:00																								
ZZZZZZ	1	11:10:00																								
1202076806	1	11:12:00																X								
1202076807	10	11:14:00																X								
ZZZZZZ	1	11:15:00																								
ZZZZZZ	1	11:17:00																								
ZZZZZZ	1	11:19:00																								
ZZZZZZ	1	11:20:00																								
ZZZZZZ	1	11:22:00																								
ZZZZZZ	1	11:24:00																								
CCV08	1	11:25:00																X								
CCB08	1	11:27:00																X								
ZZZZZZ	1	11:29:00																								
248814001	1	11:30:00																X								
ZZZZZZ	1	11:32:00																								
ZZZZZZ	1	11:34:00																								
ZZZZZZ	1	11:35:00																								
ZZZZZZ	1	11:37:00																								
ZZZZZZ	1	11:39:00																								
ZZZZZZ	1	11:41:00																								
ZZZZZZ	1	11:42:00																								
ZZZZZZ	1	11:44:00																								
CCV09	1	11:46:00																X								
CCB09	1	11:47:00																X								
ZZZZZZ	1	11:49:00																								
1202076808	1	11:51:00																X								
1202076809	1	11:52:00																X								
1202076811	1	11:54:00																X								
1202076810	5	11:56:00																X								
ZZZZZZ	1	11:57:00																								
CCV10	1	11:59:00																X								
CCB10	1	12:01:00																X								
ZZZZZZ	10	12:28:00																								
248814002	100	12:29:00																X								
248814003	50	12:31:00																X								
248814004	50	12:33:00																X								
248814005	100	12:35:00																X								
248814006	50	12:36:00																X								
248814007	20	12:38:00																X								

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																								
248814008	20	12:40:00																X								
248814009	20	12:41:00																X								
CCV11	1	12:43:00																X								
CCB11	1	12:45:00																X								

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 31–MAR–10 **End Date:** 31–MAR–10

Client Sdg: 10–2303
Method P
Data File: 033110B–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	18:36:30	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
S0.1	1	18:39:45		X		X		X			X	X	X		X		X			X		X			X	X
S0.5	1	18:41:56	X	X		X		X	X		X	X	X		X	X	X			X		X			X	X
SCAL	1	18:43:55	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
S10	1	18:45:59	X						X					X		X							X			
ICV01	1	18:47:03	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ICB01	1	18:48:09	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
PQL01	1	18:51:18	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ICSA01	1	18:53:20	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ICSAB01	1	18:55:20	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
LR01	1	18:56:26	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
LR02	1	18:57:44	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCV01	1	18:59:11	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB01	1	19:01:26	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCV02	1	19:06:03	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB02	1	19:08:04	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:11:15																								
ZZZZZZ	1	19:14:12																								
ZZZZZZ	1	19:16:26																								
ZZZZZZ	1	19:19:36																								
ZZZZZZ	1	19:22:32																								
ZZZZZZ	5	19:24:31																								
CCV03	1	19:27:41	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB03	1	19:29:42	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:32:54																								
ZZZZZZ	1	19:35:52																								
ZZZZZZ	1	19:38:50																								
ZZZZZZ	1	19:41:46																								
ZZZZZZ	1	19:44:56																								
CCV04	1	19:48:07	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB04	1	19:50:08	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:53:03																								
ZZZZZZ	1	19:56:16																								
ZZZZZZ	1	19:58:29																								
ZZZZZZ	1	20:01:35																								
ZZZZZZ	1	20:04:41																								
ZZZZZZ	1	20:06:41																								
ZZZZZZ	5	20:09:37																								
ZZZZZZ	1	20:12:33																								
ZZZZZZ	1	20:15:43																								

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																								
CCV05	1	20:18:48	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB05	1	20:21:03	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	20:23:58																								
ZZZZZZ	1	20:27:11																								
ZZZZZZ	1	20:29:10																								
ZZZZZZ	1	20:31:22																								
ZZZZZZ	1	20:33:33																								
ZZZZZZ	5	20:35:32																								
ZZZZZZ	1	20:37:44																								
ZZZZZZ	1	20:40:49																								
ZZZZZZ	1	20:43:41																								
CCV06	1	20:46:32	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB06	1	20:48:32	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	20:51:27																								
ZZZZZZ	1	20:54:35																								
ZZZZZZ	1	20:56:32																								
ZZZZZZ	1	20:59:23																								
ZZZZZZ	1	21:02:28																								
ZZZZZZ	1	21:04:25																								
ZZZZZZ	1	21:06:36																								
ZZZZZZ	1	21:08:29																								
ZZZZZZ	1	21:11:20																								
ZZZZZZ	1	21:13:18																								
CCV07	1	21:16:09	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB07	1	21:18:10	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	21:21:05																								
ZZZZZZ	1	21:24:03																								
ZZZZZZ	1	21:25:25																								
ZZZZZZ	1	21:27:23																								
ZZZZZZ	1	21:29:21																								
ZZZZZZ	1	21:31:35																								
ZZZZZZ	1	21:33:49																								
ZZZZZZ	5	21:36:00																								
ZZZZZZ	1	21:37:59																								
CCV08	1	21:39:57	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB08	1	21:41:59	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	21:45:10																								
ZZZZZZ	1	21:47:26																								
ZZZZZZ	1	21:49:39																								
ZZZZZZ	1	21:51:37																								

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	21:53:37																								
CCV09	1	21:55:36	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB09	1	21:57:52	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
1202068035	1	22:00:49	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
1202068040	1	22:03:08	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	22:04:17																								
1202068036	1	22:06:21	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
1202068038	1	22:08:25	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
1202068039	1	22:09:31	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
1202068037	5	22:10:38	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCV10	1	22:12:55	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB10	1	22:14:56	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	22:17:55																								
ZZZZZZ	1	22:20:16																								
ZZZZZZ	1	22:22:28																								
ZZZZZZ	1	22:24:31																								
ZZZZZZ	1	22:26:43																								
ZZZZZZ	1	22:28:56																								
248814001	1	22:31:00	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
248814002	1	22:33:18	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCV11	1	22:35:22	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB11	1	22:37:38	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
248814003	1	22:40:36	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
248814004	1	22:42:56	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
248814005	1	22:45:10	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
248814006	1	22:47:27	X	X		X		X	X		X	X	X	X	X	X	X			X			X		X	X
248814007	1	22:49:44	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
248814008	1	22:52:02	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
248814009	1	22:54:05	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCV12	1	22:56:09	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB12	1	22:58:10	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 07–APR–10 **End Date:** 07–APR–10

Client Sdg: 10–2303
Method P
Data File: 040710–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	12:46:56																				X				
S0.1	1	12:50:07																				X				
S0.5	1	12:52:18																				X				
SCAL	1	12:54:31																				X				
S10	1	12:56:50																								
ICV01	1	12:57:40																				X				
ICB01	1	12:59:39																				X				
PQL01	1	13:02:34																				X				
ICSA01	1	13:04:50																				X				
ICSAB01	1	13:07:04																				X				
LR01	1	13:08:24																				X				
LR02	1	13:09:29																				X				
ZZZZZZ	1	13:11:10																								
ZZZZZZ	1	13:13:11																								
CCV01	1	13:19:38																				X				
CCB01	1	13:21:38																				X				
ZZZZZZ	1	13:33:56																								
ZZZZZZ	1	13:37:08																								
ZZZZZZ	1	13:38:17																								
ZZZZZZ	1	13:40:15																								
ZZZZZZ	1	13:42:27																								
ZZZZZZ	1	13:43:32																								
ZZZZZZ	5	13:44:52																								
248814006	5	13:47:09																				X				
CCV02	1	13:49:11																				X				
CCB02	1	13:51:12																				X				

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS7
Start Date: 26–MAY–10 **End Date:** 26–MAY–10

Client Sdg: 10–2303
Method MS
Data File: 100526–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	14:05:39								X																
S10	1	14:06:36								X																
S100	1	14:07:32								X																
ICV01	1	14:08:27								X																
ICB01	1	14:09:25								X																
CRDL01	1	14:10:21								X																
ICSA01	1	14:11:18								X																
ICSAB01	1	14:12:14								X																
CCV01	1	14:13:10								X																
CCB01	1	14:14:08								X																
ZZZZZZ	2	14:15:24																								
ZZZZZZ	2	14:16:20																								
ZZZZZZ	2	14:17:16																								
ZZZZZZ	2	14:18:12																								
ZZZZZZ	2	14:19:08																								
ZZZZZZ	2	14:20:05																								
ZZZZZZ	10	14:21:02																								
CCV02	1	14:21:58								X																
CCB02	1	14:22:56								X																
ZZZZZZ	2	14:23:52																								
ZZZZZZ	2	14:24:48																								
ZZZZZZ	2	14:25:44																								
ZZZZZZ	2	14:26:41																								
ZZZZZZ	2	14:27:37																								
ZZZZZZ	2	14:28:33																								
ZZZZZZ	2	14:29:30																								
ZZZZZZ	2	14:30:27																								
ZZZZZZ	2	14:31:23																								
ZZZZZZ	2	14:32:19																								
CCV03	1	14:33:16								X																
CCB03	1	14:34:14								X																
ZZZZZZ	4	14:35:19																								
1202116473	2	14:44:49								X																
1202116474	2	14:45:45								X																
ZZZZZZ	2	14:46:41																								
1202068042	2	14:47:37								X																
1202068044	2	14:48:33								X																
1202068045	2	14:49:29								X																
1202068043	10	14:50:26								X																
248814001	2	14:51:22								X																

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
CCV04	1	14:52:19								X																
CCB04	1	14:53:17								X																
248814002	2	14:54:13								X																
248814003	2	14:55:09								X																
248814004	5	14:56:05								X																
248814005	2	14:57:01								X																
248814006	2	14:57:58								X																
248814007	2	14:58:55								X																
248814008	2	14:59:51								X																
248814009	2	15:00:47								X																
CCV05	1	15:01:44								X																
CCB05	1	15:02:42								X																

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2303

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Cesium		0.1	.5
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2303

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2303

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2303
Effective Dates: 22-MAR-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2303
Effective Dates: 22-MAR-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2303
Effective Dates: 22-MAR-10

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2303
Effective Dates: 22-MAR-10

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2303
Effective Dates: 22-MAR-10

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2303
Effective Dates: 22-MAR-10

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–2303

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Cesium	1000	100	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2303

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2303

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS7

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Cesium	1000	100	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

Raw Data

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Analysis Begun

Start Time: 3/31/2010 18:36:27 **Plasma On Time:** 3/29/2010 18:07:58
Logged In Analyst: optima4 **Technique:** ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 077C0022701 **Autosampler Model:** AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location:** 8
Sample ID: S0 **Date Collected:** 3/31/2010 18:36:30
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	146983.1	146983.1	101	%	18:37:03
1	Al 396.153Radial†	-46.6	-46.3	[0.00]	µg/L	18:37:23
1	Ca 317.933Radial†	562.9	558.9	[0.00]	µg/L	18:37:23
1	Fe 238.204 Radial†	148.8	147.8	[0.00]	µg/L	18:37:23
1	K 766.490 Radial†	1565.6	1554.3	[0.00]	µg/L	18:37:03
1	Mg 279.077 IEC†	207.4	205.9	[0.00]	µg/L	18:37:23
1	Na 589.592 Radial†	1216.0	1207.3	[0.00]	µg/L	18:37:03
1	Sr 421.552†	-110.9	-110.1	[0.00]	µg/L	18:37:03
1	Sc 361.383	1704607.6	1704607.6	99.208	%	18:38:25
1	Y 371.029	1018376.3	1018376.3	99.190	%	18:38:25
1	Ag 328.068†	3963.8	3995.4	[0.00]	µg/L	18:38:27
1	As 188.979†	-17.7	-17.9	[0.00]	µg/L	18:38:48
1	B 249.677†	3489.7	3517.5	[0.00]	µg/L	18:38:27
1	Ba 233.527†	-145.9	-147.0	[0.00]	µg/L	18:38:48
1	Be 313.107†	-965.4	-973.1	[0.00]	µg/L	18:38:27
1	Cd 226.502†	-106.0	-106.8	[0.00]	µg/L	18:38:48
1	Co 228.616†	-174.9	-176.3	[0.00]	µg/L	18:38:48
1	Cr 267.716†	129.8	130.8	[0.00]	µg/L	18:38:48
1	Cu 324.752†	2846.5	2869.3	[0.00]	µg/L	18:38:27
1	Mn 257.610†	253.9	255.9	[0.00]	µg/L	18:38:48
1	Mo 202.031†	-24.9	-25.1	[0.00]	µg/L	18:38:48
1	Ni 231.604†	-72.6	-73.1	[0.00]	µg/L	18:38:48
1	P 214.914†	-29.6	-29.8	[0.00]	µg/L	18:38:48
1	Pb 220.353†	106.5	107.4	[0.00]	µg/L	18:38:48
1	S 181.975 Axial†	102.6	103.4	[0.00]	µg/L	18:38:48
1	Sb 206.836†	81.9	82.6	[0.00]	µg/L	18:38:48
1	Se 196.026†	14.5	14.6	[0.00]	µg/L	18:38:48
1	SiO2†	1812.7	1827.1	[0.00]	µg/L	18:38:27
1	Si 251.611†	747.0	752.9	[0.00]	µg/L	18:38:27
1	Sn 189.927†	-6.9	-6.9	[0.00]	µg/L	18:38:48
1	Ti 334.940†	920.6	928.0	[0.00]	µg/L	18:38:27
1	Tl 190.801†	-108.2	-109.0	[0.00]	µg/L	18:38:48
1	U 409.014†	-161.2	-162.4	[0.00]	µg/L	18:38:27
1	V 292.402†	343.5	346.2	[0.00]	µg/L	18:38:27
1	Zn 213.857†	560.7	565.2	[0.00]	µg/L	18:38:48
2	Sc RADIAL	145077.9	145077.9	99.4	%	18:37:25
2	Al 396.153Radial†	-80.7	-81.2	[0.00]	µg/L	18:37:45
2	Ca 317.933Radial†	555.7	559.0	[0.00]	µg/L	18:37:45
2	Fe 238.204 Radial†	152.0	152.9	[0.00]	µg/L	18:37:45
2	K 766.490 Radial†	1581.8	1591.1	[0.00]	µg/L	18:37:25
2	Mg 279.077 IEC†	207.4	208.6	[0.00]	µg/L	18:37:45
2	Na 589.592 Radial†	1309.5	1317.2	[0.00]	µg/L	18:37:25
2	Sr 421.552†	-50.0	-50.3	[0.00]	µg/L	18:37:25
2	Sc 361.383	1730517.4	1730517.4	100.72	%	18:38:50
2	Y 371.029	1034150.1	1034150.1	100.73	%	18:38:50
2	Ag 328.068†	4314.8	4284.1	[0.00]	µg/L	18:38:52
2	As 188.979†	-23.3	-23.2	[0.00]	µg/L	18:39:12

2	B 249.677†	3487.4	3462.6	[0.00]	µg/L	18:38:52
2	Ba 233.527†	-138.3	-137.3	[0.00]	µg/L	18:39:12
2	Be 313.107†	-1181.9	-1173.5	[0.00]	µg/L	18:38:52
2	Cd 226.502†	-128.3	-127.3	[0.00]	µg/L	18:39:12
2	Co 228.616†	-207.1	-205.6	[0.00]	µg/L	18:39:12
2	Cr 267.716†	187.0	185.7	[0.00]	µg/L	18:39:12
2	Cu 324.752†	3037.7	3016.1	[0.00]	µg/L	18:38:52
2	Mn 257.610†	235.4	233.7	[0.00]	µg/L	18:39:12
2	Mo 202.031†	-14.8	-14.7	[0.00]	µg/L	18:39:12
2	Ni 231.604†	-77.5	-77.0	[0.00]	µg/L	18:39:12
2	P 214.914†	-7.1	-7.0	[0.00]	µg/L	18:39:12
2	Pb 220.353†	82.7	82.1	[0.00]	µg/L	18:39:12
2	S 181.975 Axial†	101.1	100.4	[0.00]	µg/L	18:39:12
2	Sb 206.836†	84.6	84.0	[0.00]	µg/L	18:39:12
2	Se 196.026†	9.6	9.5	[0.00]	µg/L	18:39:12
2	SiO2†	1764.6	1752.0	[0.00]	µg/L	18:38:52
2	Si 251.611†	909.0	902.5	[0.00]	µg/L	18:38:52
2	Sn 189.927†	4.1	4.0	[0.00]	µg/L	18:39:12
2	Ti 334.940†	1042.4	1035.0	[0.00]	µg/L	18:38:52
2	Tl 190.801†	-124.1	-123.3	[0.00]	µg/L	18:39:12
2	U 409.014†	-390.5	-387.7	[0.00]	µg/L	18:38:52
2	V 292.402†	355.1	352.6	[0.00]	µg/L	18:38:52
2	Zn 213.857†	564.8	560.8	[0.00]	µg/L	18:39:12
3	Sc RADIAL	145728.3	145728.3	99.9	%	18:37:47
3	Al 396.153Radial†	-62.0	-62.1	[0.00]	µg/L	18:38:07
3	Ca 317.933Radial†	563.1	563.9	[0.00]	µg/L	18:38:07
3	Fe 238.204 Radial†	143.5	143.7	[0.00]	µg/L	18:38:07
3	K 766.490 Radial†	1486.8	1488.8	[0.00]	µg/L	18:37:47
3	Mg 279.077 IEC†	157.4	157.6	[0.00]	µg/L	18:38:07
3	Na 589.592 Radial†	1346.0	1347.9	[0.00]	µg/L	18:37:47
3	Sr 421.552†	-245.1	-245.5	[0.00]	µg/L	18:37:47
3	Sc 361.383	1719527.8	1719527.8	100.08	%	18:39:14
3	Y 371.029	1027539.8	1027539.8	100.08	%	18:39:14
3	Ag 328.068†	3997.7	3994.6	[0.00]	µg/L	18:39:16
3	As 188.979†	-20.0	-20.0	[0.00]	µg/L	18:39:36
3	B 249.677†	3540.3	3537.6	[0.00]	µg/L	18:39:16
3	Ba 233.527†	-123.3	-123.2	[0.00]	µg/L	18:39:36
3	Be 313.107†	-1048.2	-1047.4	[0.00]	µg/L	18:39:16
3	Cd 226.502†	-120.5	-120.4	[0.00]	µg/L	18:39:36
3	Co 228.616†	-189.2	-189.0	[0.00]	µg/L	18:39:36
3	Cr 267.716†	219.3	219.2	[0.00]	µg/L	18:39:36
3	Cu 324.752†	3033.6	3031.3	[0.00]	µg/L	18:39:16
3	Mn 257.610†	222.3	222.2	[0.00]	µg/L	18:39:36
3	Mo 202.031†	-20.4	-20.4	[0.00]	µg/L	18:39:36
3	Ni 231.604†	-79.5	-79.4	[0.00]	µg/L	18:39:36
3	P 214.914†	-17.1	-17.1	[0.00]	µg/L	18:39:36
3	Pb 220.353†	69.7	69.7	[0.00]	µg/L	18:39:36
3	S 181.975 Axial†	111.4	111.3	[0.00]	µg/L	18:39:36
3	Sb 206.836†	76.0	76.0	[0.00]	µg/L	18:39:36
3	Se 196.026†	21.7	21.7	[0.00]	µg/L	18:39:36
3	SiO2†	1748.3	1747.0	[0.00]	µg/L	18:39:16
3	Si 251.611†	854.9	854.3	[0.00]	µg/L	18:39:16
3	Sn 189.927†	-0.5	-0.5	[0.00]	µg/L	18:39:36
3	Ti 334.940†	895.3	894.7	[0.00]	µg/L	18:39:16
3	Tl 190.801†	-117.8	-117.8	[0.00]	µg/L	18:39:36
3	U 409.014†	-259.7	-259.5	[0.00]	µg/L	18:39:16
3	V 292.402†	512.9	512.6	[0.00]	µg/L	18:39:16
3	Zn 213.857†	567.7	567.3	[0.00]	µg/L	18:39:36

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1718217.6	13004.50	0.76%	100.00	%
Sc RADIAL	145929.8	968.46	0.66%	100	%
Y 371.029	1026688.7	7921.26	0.77%	100.000	%
Ag 328.068†	4091.4	166.92	4.08%	[0.00]	µg/L
Al 396.153Radial†	-63.2	17.46	27.63%	[0.00]	µg/L
As 188.979†	-20.4	2.68	13.16%	[0.00]	µg/L
B 249.677†	3505.9	38.80	1.11%	[0.00]	µg/L
Ba 233.527†	-135.9	11.99	8.83%	[0.00]	µg/L

Be 313.107†	-1064.7	101.30	9.51%	[0.00] µg/L
Ca 317.933Radial†	560.6	2.89	0.52%	[0.00] µg/L
Cd 226.502†	-118.2	10.43	8.83%	[0.00] µg/L
Co 228.616†	-190.3	14.72	7.73%	[0.00] µg/L
Cr 267.716†	178.6	44.62	24.99%	[0.00] µg/L
Cu 324.752†	2972.2	89.48	3.01%	[0.00] µg/L
Fe 238.204 Radial†	148.1	4.61	3.11%	[0.00] µg/L
K 766.490 Radial†	1544.8	51.81	3.35%	[0.00] µg/L
Mg 279.077 IEC†	190.7	28.69	15.04%	[0.00] µg/L
Mn 257.610†	237.3	17.14	7.23%	[0.00] µg/L
Mo 202.031†	-20.1	5.18	25.80%	[0.00] µg/L
Na 589.592 Radial†	1290.8	73.89	5.72%	[0.00] µg/L
Ni 231.604†	-76.5	3.18	4.16%	[0.00] µg/L
P 214.914†	-18.0	11.42	63.61%	[0.00] µg/L
Pb 220.353†	86.4	19.23	22.27%	[0.00] µg/L
S 181.975 Axial†	105.1	5.63	5.36%	[0.00] µg/L
Sb 206.836†	80.8	4.27	5.29%	[0.00] µg/L
Se 196.026†	15.3	6.14	40.18%	[0.00] µg/L
SiO2†	1775.4	44.90	2.53%	[0.00] µg/L
Si 251.611†	836.6	76.33	9.12%	[0.00] µg/L
Sn 189.927†	-1.1	5.51	492.60%	[0.00] µg/L
Sr 421.552†	-135.3	99.98	73.90%	[0.00] µg/L
Ti 334.940†	952.5	73.33	7.70%	[0.00] µg/L
Tl 190.801†	-116.7	7.17	6.15%	[0.00] µg/L
U 409.014†	-269.9	113.01	41.87%	[0.00] µg/L
V 292.402†	403.8	94.24	23.34%	[0.00] µg/L
Zn 213.857†	564.4	3.32	0.59%	[0.00] µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/31/2010 18:39:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	144945.8	144945.8	99.3	%	18:40:16
1	K 766.490 Radial†	4177.9	2661.5	[1000]	µg/L	18:40:16
1	Sr 421.552†	48790.2	49256.8	[100]	µg/L	18:40:16
1	Sc 361.383	1738207.5	1738207.5	101.16	%	18:40:38
1	Y 371.029	1035658.2	1035658.2	100.87	%	18:40:38
1	Ag 328.068†	31505.9	27052.2	[100]	µg/L	18:40:40
1	As 188.979†	319.4	336.1	[100]	µg/L	18:41:00
1	B 249.677†	10182.7	6559.7	[100]	µg/L	18:40:40
1	Ba 233.527†	25238.0	25083.6	[100]	µg/L	18:40:40
1	Be 313.107†	372065.7	368851.5	[100]	µg/L	18:40:38
1	Cd 226.502†	16206.1	16137.9	[100]	µg/L	18:40:40
1	Co 228.616†	8180.0	8276.3	[100]	µg/L	18:41:00
1	Cr 267.716†	13182.1	12852.0	[100]	µg/L	18:40:40
1	Cu 324.752†	28766.5	25463.5	[100]	µg/L	18:40:40
1	Mn 257.610†	84629.1	83418.6	[100]	µg/L	18:40:40
1	Mo 202.031†	3388.6	3369.7	[100]	µg/L	18:41:00
1	Ni 231.604†	8784.7	8760.2	[100]	µg/L	18:40:40
1	P 214.914†	2330.2	2321.4	[500]	µg/L	18:41:00
1	Pb 220.353†	1931.7	1823.1	[100]	µg/L	18:41:00
1	S 181.975 Axial†	386.6	277.1	[200]	µg/L	18:41:00
1	Sb 206.836†	932.6	841.0	[100]	µg/L	18:41:00
1	Se 196.026†	288.8	270.2	[100]	µg/L	18:41:00
1	SiO2†	12629.3	10708.7	[1069.5]	µg/L	18:40:40
1	Si 251.611†	34601.6	33367.1	[500]	µg/L	18:40:40
1	Sn 189.927†	1637.3	1619.6	[100]	µg/L	18:41:00
1	Ti 334.940†	108213.7	106016.7	[100]	µg/L	18:40:40
1	Tl 190.801†	724.1	832.5	[100]	µg/L	18:41:00
1	U 409.014†	1714.9	1965.0	[100]	µg/L	18:40:40
1	V 292.402†	20866.1	20222.4	[100]	µg/L	18:40:40
1	Zn 213.857†	18689.8	17910.4	[100]	µg/L	18:40:40
2	Sc RADIAL	144384.1	144384.1	98.9	%	18:40:18
2	K 766.490 Radial†	4099.7	2598.8	[1000]	µg/L	18:40:18
2	Sr 421.552†	48913.4	49572.3	[100]	µg/L	18:40:18
2	Sc 361.383	1718136.8	1718136.8	99.995	%	18:41:02
2	Y 371.029	1023615.0	1023615.0	99.701	%	18:41:02
2	Ag 328.068†	31474.0	27384.1	[100]	µg/L	18:41:04
2	As 188.979†	316.2	336.6	[100]	µg/L	18:41:24
2	B 249.677†	10249.3	6743.9	[100]	µg/L	18:41:04
2	Ba 233.527†	25403.3	25540.3	[100]	µg/L	18:41:04
2	Be 313.107†	368011.0	369093.1	[100]	µg/L	18:41:02
2	Cd 226.502†	16403.0	16522.0	[100]	µg/L	18:41:04
2	Co 228.616†	8194.1	8384.8	[100]	µg/L	18:41:24
2	Cr 267.716†	13299.6	13121.6	[100]	µg/L	18:41:04
2	Cu 324.752†	29042.8	26072.0	[100]	µg/L	18:41:04
2	Mn 257.610†	85481.9	85248.7	[100]	µg/L	18:41:04
2	Mo 202.031†	3415.9	3436.2	[100]	µg/L	18:41:24
2	Ni 231.604†	9104.3	9181.2	[100]	µg/L	18:41:04
2	P 214.914†	2327.9	2346.0	[500]	µg/L	18:41:24
2	Pb 220.353†	1943.3	1857.0	[100]	µg/L	18:41:24
2	S 181.975 Axial†	382.9	277.8	[200]	µg/L	18:41:24
2	Sb 206.836†	933.1	852.4	[100]	µg/L	18:41:24
2	Se 196.026†	282.7	267.4	[100]	µg/L	18:41:24
2	SiO2†	12728.6	10953.9	[1069.5]	µg/L	18:41:04
2	Si 251.611†	35105.7	34270.8	[500]	µg/L	18:41:04
2	Sn 189.927†	1643.4	1644.6	[100]	µg/L	18:41:24
2	Ti 334.940†	109258.0	108310.6	[100]	µg/L	18:41:04
2	Tl 190.801†	742.2	858.9	[100]	µg/L	18:41:24
2	U 409.014†	1747.4	2017.4	[100]	µg/L	18:41:04
2	V 292.402†	20863.1	20460.2	[100]	µg/L	18:41:04

2	Zn 213.857†	18913.1	18349.6	[100]	µg/L	18:41:04
3	Sc RADIAL	144888.2	144888.2	99.3	%	18:40:20
3	K 766.490 Radial†	4194.1	2679.5	[1000]	µg/L	18:40:20
3	Sr 421.552†	48878.7	49365.4	[100]	µg/L	18:40:20
3	Sc 361.383	1720712.1	1720712.1	100.15	%	18:41:26
3	Y 371.029	1025149.2	1025149.2	99.850	%	18:41:26
3	Ag 328.068†	30653.6	26517.7	[100]	µg/L	18:41:28
3	As 188.979†	311.4	331.3	[100]	µg/L	18:41:48
3	B 249.677†	10032.3	6511.9	[100]	µg/L	18:41:28
3	Ba 233.527†	24571.6	24671.8	[100]	µg/L	18:41:28
3	Be 313.107†	369363.0	369892.2	[100]	µg/L	18:41:26
3	Cd 226.502†	15800.2	15895.5	[100]	µg/L	18:41:28
3	Co 228.616†	7941.4	8120.2	[100]	µg/L	18:41:48
3	Cr 267.716†	12878.6	12681.3	[100]	µg/L	18:41:28
3	Cu 324.752†	28237.0	25223.9	[100]	µg/L	18:41:28
3	Mn 257.610†	82709.3	82352.2	[100]	µg/L	18:41:28
3	Mo 202.031†	3317.5	3332.8	[100]	µg/L	18:41:48
3	Ni 231.604†	8579.1	8643.1	[100]	µg/L	18:41:28
3	P 214.914†	2246.6	2261.3	[500]	µg/L	18:41:48
3	Pb 220.353†	1888.8	1799.7	[100]	µg/L	18:41:48
3	S 181.975 Axial†	370.3	264.7	[200]	µg/L	18:41:48
3	Sb 206.836†	914.8	832.6	[100]	µg/L	18:41:48
3	Se 196.026†	294.0	278.3	[100]	µg/L	18:41:48
3	SiO2†	12365.6	10572.3	[1069.5]	µg/L	18:41:28
3	Si 251.611†	33612.6	32727.3	[500]	µg/L	18:41:28
3	Sn 189.927†	1589.9	1588.8	[100]	µg/L	18:41:48
3	Ti 334.940†	106005.7	104899.5	[100]	µg/L	18:41:28
3	Tl 190.801†	699.9	815.6	[100]	µg/L	18:41:48
3	U 409.014†	1493.0	1760.7	[100]	µg/L	18:41:28
3	V 292.402†	20303.9	19870.7	[100]	µg/L	18:41:28
3	Zn 213.857†	18249.8	17659.0	[100]	µg/L	18:41:28

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1725685.5	10920.55	0.63%	100.43	%
Sc RADIAL	144739.3	309.02	0.21%	99.2	%
Y 371.029	1028140.8	6555.30	0.64%	100.14	%
Ag 328.068†	26984.7	437.11	1.62%	[100]	µg/L
As 188.979†	334.7	2.93	0.88%	[100]	µg/L
B 249.677†	6605.2	122.52	1.85%	[100]	µg/L
Ba 233.527†	25098.6	434.45	1.73%	[100]	µg/L
Be 313.107†	369278.9	544.69	0.15%	[100]	µg/L
Cd 226.502†	16185.1	315.91	1.95%	[100]	µg/L
Co 228.616†	8260.4	133.02	1.61%	[100]	µg/L
Cr 267.716†	12885.0	222.00	1.72%	[100]	µg/L
Cu 324.752†	25586.4	437.23	1.71%	[100]	µg/L
K 766.490 Radial†	2646.6	42.33	1.60%	[1000]	µg/L
Mn 257.610†	83673.1	1464.94	1.75%	[100]	µg/L
Mo 202.031†	3379.6	52.39	1.55%	[100]	µg/L
Ni 231.604†	8861.5	282.97	3.19%	[100]	µg/L
P 214.914†	2309.6	43.55	1.89%	[500]	µg/L
Pb 220.353†	1826.6	28.83	1.58%	[100]	µg/L
S 181.975 Axial†	273.2	7.39	2.70%	[200]	µg/L
Sb 206.836†	842.0	9.91	1.18%	[100]	µg/L
Se 196.026†	272.0	5.61	2.06%	[100]	µg/L
SiO2†	10744.9	193.37	1.80%	[1069.5]	µg/L
Si 251.611†	33455.1	775.50	2.32%	[500]	µg/L
Sn 189.927†	1617.7	27.99	1.73%	[100]	µg/L
Sr 421.552†	49398.1	160.32	0.32%	[100]	µg/L
Ti 334.940†	106408.9	1739.07	1.63%	[100]	µg/L
Tl 190.801†	835.7	21.85	2.61%	[100]	µg/L
U 409.014†	1914.4	135.63	7.09%	[100]	µg/L
V 292.402†	20184.4	296.62	1.47%	[100]	µg/L
Zn 213.857†	17973.0	349.52	1.94%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/31/2010 18:41:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139976.0	139976.0	95.9	%	18:42:27
1	Al 396.153Radial†	25919.4	27085.0	[5000]	µg/L	18:42:27
1	Ca 317.933Radial†	87385.1	90541.3	[5000]	µg/L	18:42:27
1	K 766.490 Radial†	14430.7	13499.7	[5000]	µg/L	18:42:27
1	Mg 279.077 IEC†	13338.9	13715.6	[5000]	µg/L	18:42:27
1	Sr 421.552†	229015.2	238891.4	[500]	µg/L	18:42:25
1	Sc 361.383	1645400.7	1645400.7	95.762	%	18:42:40
1	Y 371.029	975342.9	975342.9	94.999	%	18:42:40
1	Ag 328.068†	131294.3	133013.3	[500]	µg/L	18:42:40
1	As 188.979†	1571.6	1661.5	[500]	µg/L	18:43:00
1	B 249.677†	35172.1	33222.7	[500]	µg/L	18:42:40
1	Ba 233.527†	117348.5	122677.6	[500]	µg/L	18:42:40
1	Be 313.107†	1744827.1	1823108.9	[500]	µg/L	18:42:40
1	Cd 226.502†	75312.3	78763.4	[500]	µg/L	18:42:40
1	Co 228.616†	38245.0	40127.8	[500]	µg/L	18:42:40
1	Cr 267.716†	60545.4	63046.3	[500]	µg/L	18:42:40
1	Cu 324.752†	123884.9	126395.2	[500]	µg/L	18:42:40
1	Mn 257.610†	385575.1	402401.4	[500]	µg/L	18:42:40
1	Mo 202.031†	16410.2	17156.5	[500]	µg/L	18:43:00
1	Ni 231.604†	41126.2	43022.7	[500]	µg/L	18:42:40
1	P 214.914†	11303.9	11822.1	[2500]	µg/L	18:43:00
1	Pb 220.353†	8787.6	9090.2	[500]	µg/L	18:43:00
1	S 181.975 Axial†	1381.6	1337.7	[1000]	µg/L	18:43:00
1	Sb 206.836†	4130.5	4232.5	[500]	µg/L	18:43:00
1	Se 196.026†	1340.7	1384.8	[500]	µg/L	18:43:00
1	SiO2†	54250.1	54875.6	[5347.5]	µg/L	18:42:40
1	Si 251.611†	163679.1	170086.1	[2500]	µg/L	18:42:40
1	Sn 189.927†	7746.5	8090.4	[500]	µg/L	18:43:00
1	Ti 334.940†	510093.6	531715.2	[500]	µg/L	18:42:40
1	Tl 190.801†	3808.0	4093.2	[500]	µg/L	18:43:00
1	U 409.014†	6985.6	7564.6	[500]	µg/L	18:42:40
1	V 292.402†	96986.0	100874.3	[500]	µg/L	18:42:40
1	Zn 213.857†	84527.8	87704.2	[500]	µg/L	18:42:40
2	Sc RADIAL	141210.3	141210.3	96.8	%	18:42:31
2	Al 396.153Radial†	26176.8	27114.9	[5000]	µg/L	18:42:31
2	Ca 317.933Radial†	88277.8	90667.6	[5000]	µg/L	18:42:31
2	K 766.490 Radial†	14658.6	13603.8	[5000]	µg/L	18:42:31
2	Mg 279.077 IEC†	13508.7	13769.5	[5000]	µg/L	18:42:31
2	Sr 421.552†	232944.0	240864.6	[500]	µg/L	18:42:29
2	Sc 361.383	1687203.1	1687203.1	98.195	%	18:43:03
2	Y 371.029	998510.1	998510.1	97.255	%	18:43:03
2	Ag 328.068†	134607.0	132990.0	[500]	µg/L	18:43:03
2	As 188.979†	1586.5	1636.0	[500]	µg/L	18:43:23
2	B 249.677†	36433.6	33597.5	[500]	µg/L	18:43:03
2	Ba 233.527†	121232.8	123597.1	[500]	µg/L	18:43:03
2	Be 313.107†	1799842.1	1833991.9	[500]	µg/L	18:43:03
2	Cd 226.502†	78158.8	79713.7	[500]	µg/L	18:43:03
2	Co 228.616†	39721.5	40642.0	[500]	µg/L	18:43:03
2	Cr 267.716†	62227.1	63192.4	[500]	µg/L	18:43:03
2	Cu 324.752†	127576.9	126949.9	[500]	µg/L	18:43:03
2	Mn 257.610†	397913.1	404990.4	[500]	µg/L	18:43:03
2	Mo 202.031†	16475.5	16798.5	[500]	µg/L	18:43:23
2	Ni 231.604†	42320.9	43175.4	[500]	µg/L	18:43:03
2	P 214.914†	11321.5	11547.6	[2500]	µg/L	18:43:23
2	Pb 220.353†	8841.9	8918.0	[500]	µg/L	18:43:23
2	S 181.975 Axial†	1404.5	1325.2	[1000]	µg/L	18:43:23
2	Sb 206.836†	4150.6	4146.1	[500]	µg/L	18:43:23
2	Se 196.026†	1352.6	1362.2	[500]	µg/L	18:43:23
2	SiO2†	55913.1	55165.5	[5347.5]	µg/L	18:43:03

2	Si 251.611†	169027.8	171298.3	[2500]	µg/L	18:43:03
2	Sn 189.927†	7793.7	7938.1	[500]	µg/L	18:43:23
2	Ti 334.940†	524282.8	532967.8	[500]	µg/L	18:43:03
2	Tl 190.801†	3829.1	4016.1	[500]	µg/L	18:43:23
2	U 409.014†	7204.4	7606.8	[500]	µg/L	18:43:03
2	V 292.402†	99476.3	100901.1	[500]	µg/L	18:43:03
2	Zn 213.857†	87574.3	88619.7	[500]	µg/L	18:43:03
3	Sc RADIAL	139845.9	139845.9	95.8	%	18:42:35
3	Al 396.153Radial†	25970.7	27163.8	[5000]	µg/L	18:42:35
3	Ca 317.933Radial†	87048.7	90275.0	[5000]	µg/L	18:42:35
3	K 766.490 Radial†	14322.7	13401.0	[5000]	µg/L	18:42:35
3	Mg 279.077 IEC†	13177.9	13560.5	[5000]	µg/L	18:42:35
3	Sr 421.552†	232490.3	242739.9	[500]	µg/L	18:42:33
3	Sc 361.383	1671427.9	1671427.9	97.277	%	18:43:26
3	Y 371.029	990579.4	990579.4	96.483	%	18:43:26
3	Ag 328.068†	132744.3	132368.9	[500]	µg/L	18:43:26
3	As 188.979†	1563.8	1627.9	[500]	µg/L	18:43:46
3	B 249.677†	35824.9	33321.9	[500]	µg/L	18:43:26
3	Ba 233.527†	119283.9	122759.0	[500]	µg/L	18:43:26
3	Be 313.107†	1775117.0	1825874.0	[500]	µg/L	18:43:26
3	Cd 226.502†	77044.3	79319.2	[500]	µg/L	18:43:26
3	Co 228.616†	39106.1	40391.2	[500]	µg/L	18:43:26
3	Cr 267.716†	61510.3	63053.6	[500]	µg/L	18:43:26
3	Cu 324.752†	125724.5	126271.8	[500]	µg/L	18:43:26
3	Mn 257.610†	391730.1	402458.9	[500]	µg/L	18:43:26
3	Mo 202.031†	16447.7	16928.2	[500]	µg/L	18:43:46
3	Ni 231.604†	41833.4	43081.0	[500]	µg/L	18:43:26
3	P 214.914†	11306.9	11641.3	[2500]	µg/L	18:43:46
3	Pb 220.353†	8817.9	8978.4	[500]	µg/L	18:43:46
3	S 181.975 Axial†	1403.6	1337.8	[1000]	µg/L	18:43:46
3	Sb 206.836†	4107.1	4141.3	[500]	µg/L	18:43:46
3	Se 196.026†	1356.4	1379.1	[500]	µg/L	18:43:46
3	SiO2†	55098.9	54865.9	[5347.5]	µg/L	18:43:26
3	Si 251.611†	166541.0	170366.5	[2500]	µg/L	18:43:26
3	Sn 189.927†	7776.3	7995.1	[500]	µg/L	18:43:46
3	Ti 334.940†	517688.6	531228.1	[500]	µg/L	18:43:26
3	Tl 190.801†	3841.1	4065.3	[500]	µg/L	18:43:46
3	U 409.014†	7259.9	7733.0	[500]	µg/L	18:43:26
3	V 292.402†	98243.7	100590.2	[500]	µg/L	18:43:26
3	Zn 213.857†	86383.4	88237.2	[500]	µg/L	18:43:26

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1668010.6	21109.69	1.27%	97.078	%
Sc RADIAL	140344.1	753.01	0.54%	96.2	%
Y 371.029	988144.1	11774.03	1.19%	96.246	%
Ag 328.068†	132790.8	365.49	0.28%	[500]	µg/L
Al 396.153Radial†	27121.2	39.74	0.15%	[5000]	µg/L
As 188.979†	1641.8	17.55	1.07%	[500]	µg/L
B 249.677†	33380.7	194.18	0.58%	[500]	µg/L
Ba 233.527†	123011.2	509.04	0.41%	[500]	µg/L
Be 313.107†	1827658.3	5656.67	0.31%	[500]	µg/L
Ca 317.933Radial†	90494.7	200.40	0.22%	[5000]	µg/L
Cd 226.502†	79265.5	477.42	0.60%	[500]	µg/L
Co 228.616†	40387.0	257.10	0.64%	[500]	µg/L
Cr 267.716†	63097.4	82.35	0.13%	[500]	µg/L
Cu 324.752†	126538.9	361.18	0.29%	[500]	µg/L
K 766.490 Radial†	13501.5	101.39	0.75%	[5000]	µg/L
Mg 279.077 IEC†	13681.9	108.49	0.79%	[5000]	µg/L
Mn 257.610†	403283.6	1478.44	0.37%	[500]	µg/L
Mo 202.031†	16961.0	181.25	1.07%	[500]	µg/L
Ni 231.604†	43093.0	77.04	0.18%	[500]	µg/L
P 214.914†	11670.4	139.54	1.20%	[2500]	µg/L
Pb 220.353†	8995.5	87.32	0.97%	[500]	µg/L
S 181.975 Axial†	1333.6	7.24	0.54%	[1000]	µg/L
Sb 206.836†	4173.3	51.32	1.23%	[500]	µg/L
Se 196.026†	1375.4	11.73	0.85%	[500]	µg/L
SiO2†	54969.0	170.25	0.31%	[5347.5]	µg/L
Si 251.611†	170583.6	634.61	0.37%	[2500]	µg/L

Sn 189.927†	8007.9	76.96	0.96%	[500] µg/L
Sr 421.552†	240832.0	1924.44	0.80%	[500] µg/L
Ti 334.940†	531970.4	897.45	0.17%	[500] µg/L
Tl 190.801†	4058.2	39.03	0.96%	[500] µg/L
U 409.014†	7634.8	87.65	1.15%	[500] µg/L
V 292.402†	100788.5	172.29	0.17%	[500] µg/L
Zn 213.857†	88187.0	459.83	0.52%	[500] µg/L

==========

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/31/2010 18:43:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	140246.3	140246.3	96.1	%	18:44:26
1	Al 396.153Radial†	52689.3	54887.7	[10000]	µg/L	18:44:26
1	Ca 317.933Radial†	176157.7	182735.9	[10000]	µg/L	18:44:26
1	Fe 238.204 Radial†	157034.9	163250.7	[10000]	µg/L	18:44:26
1	K 766.490 Radial†	27864.8	27449.2	[10000]	µg/L	18:44:26
1	Mg 279.077 IEC†	26628.7	27517.1	[10000]	µg/L	18:44:26
1	Na 589.592 Radial†	71367.5	72968.9	[10000]	µg/L	18:44:26
1	Sr 421.552†	465887.4	484902.9	[1000]	µg/L	18:44:24
1	Sc 361.383	1660058.9	1660058.9	96.615	%	18:44:39
1	Y 371.029	978012.9	978012.9	95.259	%	18:44:39
1	Ag 328.068†	268618.1	273937.5	[1000]	µg/L	18:44:41
1	As 188.979†	3193.8	3326.1	[1000]	µg/L	18:45:01
1	B 249.677†	69762.5	68700.7	[1000]	µg/L	18:44:41
1	Ba 233.527†	242316.3	250941.5	[1000]	µg/L	18:44:41
1	Be 313.107†	3555578.2	3681209.5	[1000]	µg/L	18:44:39
1	Cd 226.502†	156604.8	162209.5	[1000]	µg/L	18:44:41
1	Co 228.616†	78951.1	81907.4	[1000]	µg/L	18:44:41
1	Cr 267.716†	125005.7	129206.6	[1000]	µg/L	18:44:41
1	Cu 324.752†	255303.1	261275.2	[1000]	µg/L	18:44:41
1	Mn 257.610†	781879.7	809034.9	[1000]	µg/L	18:44:39
1	Mo 202.031†	33228.9	34413.1	[1000]	µg/L	18:44:41
1	Ni 231.604†	84765.4	87811.6	[1000]	µg/L	18:44:41
1	P 214.914†	22636.2	23447.2	[5000]	µg/L	18:45:01
1	Pb 220.353†	17407.6	17931.0	[1000]	µg/L	18:45:01
1	S 181.975 Axial†	2706.2	2696.0	[2000]	µg/L	18:45:01
1	Sb 206.836†	8264.7	8473.4	[1000]	µg/L	18:45:01
1	Se 196.026†	2709.4	2789.0	[1000]	µg/L	18:45:01
1	SiO2†	108329.2	110349.0	[10695]	µg/L	18:44:41
1	Si 251.611†	331285.5	342055.2	[5000]	µg/L	18:44:41
1	Sn 189.927†	15541.6	16087.2	[1000]	µg/L	18:45:01
1	Ti 334.940†	1037686.9	1073088.8	[1000]	µg/L	18:44:39
1	Tl 190.801†	7778.7	8167.9	[1000]	µg/L	18:45:01
1	U 409.014†	16858.3	17718.8	[1000]	µg/L	18:44:41
1	V 292.402†	201478.5	208133.3	[1000]	µg/L	18:44:41
1	Zn 213.857†	174510.7	180060.2	[1000]	µg/L	18:44:41
2	Sc RADIAL	138844.4	138844.4	95.1	%	18:44:30
2	Al 396.153Radial†	52161.3	54886.4	[10000]	µg/L	18:44:30
2	Ca 317.933Radial†	173493.6	181786.6	[10000]	µg/L	18:44:30
2	Fe 238.204 Radial†	154887.4	162643.3	[10000]	µg/L	18:44:30
2	K 766.490 Radial†	27455.0	27311.3	[10000]	µg/L	18:44:30
2	Mg 279.077 IEC†	26420.5	27578.1	[10000]	µg/L	18:44:30
2	Na 589.592 Radial†	70508.9	72816.3	[10000]	µg/L	18:44:30
2	Sr 421.552†	460810.9	484461.8	[1000]	µg/L	18:44:28
2	Sc 361.383	1689699.6	1689699.6	98.340	%	18:45:04
2	Y 371.029	993860.1	993860.1	96.802	%	18:45:04
2	Ag 328.068†	266910.5	267323.9	[1000]	µg/L	18:45:06
2	As 188.979†	3218.4	3293.1	[1000]	µg/L	18:45:26
2	B 249.677†	69508.7	67175.9	[1000]	µg/L	18:45:06
2	Ba 233.527†	241134.5	245340.1	[1000]	µg/L	18:45:06
2	Be 313.107†	3627090.7	3689371.8	[1000]	µg/L	18:45:04
2	Cd 226.502†	155509.2	158252.0	[1000]	µg/L	18:45:06
2	Co 228.616†	78490.7	80005.8	[1000]	µg/L	18:45:06
2	Cr 267.716†	124369.4	126289.8	[1000]	µg/L	18:45:06
2	Cu 324.752†	253180.3	254481.2	[1000]	µg/L	18:45:06
2	Mn 257.610†	797903.6	811133.0	[1000]	µg/L	18:45:04
2	Mo 202.031†	33052.4	33630.3	[1000]	µg/L	18:45:06
2	Ni 231.604†	84350.1	85850.2	[1000]	µg/L	18:45:06
2	P 214.914†	22849.9	23253.5	[5000]	µg/L	18:45:26
2	Pb 220.353†	17581.2	17791.6	[1000]	µg/L	18:45:26

2	S 181.975 Axial†	2749.5	2690.8	[2000]	µg/L	18:45:26
2	Sb 206.836†	8294.0	8353.2	[1000]	µg/L	18:45:26
2	Se 196.026†	2710.1	2740.6	[1000]	µg/L	18:45:26
2	SiO2†	107785.0	107828.8	[10695]	µg/L	18:45:06
2	Si 251.611†	329317.5	334039.0	[5000]	µg/L	18:45:06
2	Sn 189.927†	15680.3	15946.1	[1000]	µg/L	18:45:26
2	Ti 334.940†	1057357.1	1074250.2	[1000]	µg/L	18:45:04
2	Tl 190.801†	7829.0	8077.8	[1000]	µg/L	18:45:26
2	U 409.014†	16641.8	17192.5	[1000]	µg/L	18:45:06
2	V 292.402†	200063.6	203036.4	[1000]	µg/L	18:45:06
2	Zn 213.857†	173774.1	176142.5	[1000]	µg/L	18:45:06
3	Sc RADIAL	142431.7	142431.7	97.6	%	18:44:34
3	Al 396.153Radial†	53146.2	54514.7	[10000]	µg/L	18:44:34
3	Ca 317.933Radial†	178392.5	182213.1	[10000]	µg/L	18:44:34
3	Fe 238.204 Radial†	159216.9	162979.1	[10000]	µg/L	18:44:34
3	K 766.490 Radial†	28289.6	27439.6	[10000]	µg/L	18:44:34
3	Mg 279.077 IEC†	27285.4	27764.8	[10000]	µg/L	18:44:34
3	Na 589.592 Radial†	72542.7	73033.5	[10000]	µg/L	18:44:34
3	Sr 421.552†	461335.7	472801.1	[1000]	µg/L	18:44:32
3	Sc 361.383	1671450.9	1671450.9	97.278	%	18:45:29
3	Y 371.029	984698.6	984698.6	95.910	%	18:45:29
3	Ag 328.068†	268839.9	272270.6	[1000]	µg/L	18:45:31
3	As 188.979†	3207.1	3317.1	[1000]	µg/L	18:45:51
3	B 249.677†	69920.1	68370.5	[1000]	µg/L	18:45:31
3	Ba 233.527†	242785.5	249714.4	[1000]	µg/L	18:45:31
3	Be 313.107†	3559181.4	3659831.0	[1000]	µg/L	18:45:29
3	Cd 226.502†	156473.3	160969.5	[1000]	µg/L	18:45:31
3	Co 228.616†	79020.9	81422.2	[1000]	µg/L	18:45:31
3	Cr 267.716†	125294.1	128621.2	[1000]	µg/L	18:45:31
3	Cu 324.752†	255275.0	259445.3	[1000]	µg/L	18:45:31
3	Mn 257.610†	783171.7	804847.3	[1000]	µg/L	18:45:29
3	Mo 202.031†	33174.1	34122.4	[1000]	µg/L	18:45:31
3	Ni 231.604†	84877.1	87328.4	[1000]	µg/L	18:45:31
3	P 214.914†	22811.2	23467.5	[5000]	µg/L	18:45:51
3	Pb 220.353†	17557.7	17962.6	[1000]	µg/L	18:45:51
3	S 181.975 Axial†	2739.9	2711.5	[2000]	µg/L	18:45:51
3	Sb 206.836†	8307.3	8458.9	[1000]	µg/L	18:45:51
3	Se 196.026†	2720.6	2781.4	[1000]	µg/L	18:45:51
3	SiO2†	108495.7	109756.0	[10695]	µg/L	18:45:31
3	Si 251.611†	331529.5	339969.0	[5000]	µg/L	18:45:31
3	Sn 189.927†	15666.1	16105.6	[1000]	µg/L	18:45:51
3	Ti 334.940†	1040566.4	1068728.6	[1000]	µg/L	18:45:29
3	Tl 190.801†	7842.2	8178.3	[1000]	µg/L	18:45:51
3	U 409.014†	16964.7	17709.3	[1000]	µg/L	18:45:31
3	V 292.402†	201223.5	206449.9	[1000]	µg/L	18:45:31
3	Zn 213.857†	174624.2	178945.7	[1000]	µg/L	18:45:31

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1673736.5	14951.98	0.89%	97.411	%
Sc RADIAL	140507.5	1807.88	1.29%	96.3	%
Y 371.029	985523.8	7955.77	0.81%	95.991	%
Ag 328.068†	271177.3	3439.65	1.27%	[1000]	µg/L
Al 396.153Radial†	54762.9	214.99	0.39%	[10000]	µg/L
As 188.979†	3312.1	17.04	0.51%	[1000]	µg/L
B 249.677†	68082.4	802.18	1.18%	[1000]	µg/L
Ba 233.527†	248665.4	2944.35	1.18%	[1000]	µg/L
Be 313.107†	3676804.1	15255.21	0.41%	[1000]	µg/L
Ca 317.933Radial†	182245.2	475.46	0.26%	[10000]	µg/L
Cd 226.502†	160477.0	2024.24	1.26%	[1000]	µg/L
Co 228.616†	81111.8	988.08	1.22%	[1000]	µg/L
Cr 267.716†	128039.2	1543.01	1.21%	[1000]	µg/L
Cu 324.752†	258400.5	3515.45	1.36%	[1000]	µg/L
Fe 238.204 Radial†	162957.7	304.26	0.19%	[10000]	µg/L
K 766.490 Radial†	27400.1	77.00	0.28%	[10000]	µg/L
Mg 279.077 IEC†	27620.0	129.06	0.47%	[10000]	µg/L
Mn 257.610†	808338.4	3200.20	0.40%	[1000]	µg/L
Mo 202.031†	34055.3	395.69	1.16%	[1000]	µg/L
Na 589.592 Radial†	72939.6	111.55	0.15%	[10000]	µg/L

Ni 231.604†	86996.7	1021.87	1.17%	[1000]	µg/L
P 214.914†	23389.4	118.12	0.51%	[5000]	µg/L
Pb 220.353†	17895.1	91.02	0.51%	[1000]	µg/L
S 181.975 Axial†	2699.4	10.77	0.40%	[2000]	µg/L
Sb 206.836†	8428.5	65.64	0.78%	[1000]	µg/L
Se 196.026†	2770.3	26.05	0.94%	[1000]	µg/L
SiO2†	109311.3	1317.66	1.21%	[10695]	µg/L
Si 251.611†	338687.7	4158.85	1.23%	[5000]	µg/L
Sn 189.927†	16046.3	87.25	0.54%	[1000]	µg/L
Sr 421.552†	480721.9	6863.20	1.43%	[1000]	µg/L
Ti 334.940†	1072022.5	2911.16	0.27%	[1000]	µg/L
Tl 190.801†	8141.3	55.30	0.68%	[1000]	µg/L
U 409.014†	17540.2	301.14	1.72%	[1000]	µg/L
V 292.402†	205873.2	2596.95	1.26%	[1000]	µg/L
Zn 213.857†	178382.8	2018.56	1.13%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/31/2010 18:45:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139343.3	139343.3	95.5	%	18:46:28
1	Al 396.153Radial†	256543.2	268732.8	[50000]	µg/L	18:46:28
1	Ca 317.933Radial†	856588.9	896517.6	[50000]	µg/L	18:46:28
1	Fe 238.204 Radial†	309603.0	324089.2	[20000]	µg/L	18:46:28
1	Mg 279.077 IEC†	128261.6	134133.6	[50000]	µg/L	18:46:28
1	Na 589.592 Radial†	141053.4	146429.9	[20000]	µg/L	18:46:28
1	Sc 361.383	1636602.8	1636602.8	95.250	%	18:46:50
1	Y 371.029	965973.5	965973.5	94.086	%	18:46:50
2	Sc RADIAL	137624.0	137624.0	94.3	%	18:46:30
2	Al 396.153Radial†	254363.4	269777.6	[50000]	µg/L	18:46:30
2	Ca 317.933Radial†	846244.8	896755.8	[50000]	µg/L	18:46:30
2	Fe 238.204 Radial†	305781.9	324087.9	[20000]	µg/L	18:46:30
2	Mg 279.077 IEC†	126264.9	133694.4	[50000]	µg/L	18:46:30
2	Na 589.592 Radial†	139489.2	146616.7	[20000]	µg/L	18:46:30
2	Sc 361.383	1622381.6	1622381.6	94.422	%	18:46:53
2	Y 371.029	956849.7	956849.7	93.198	%	18:46:53
3	Sc RADIAL	137980.0	137980.0	94.6	%	18:46:32
3	Al 396.153Radial†	255245.7	270015.0	[50000]	µg/L	18:46:32
3	Ca 317.933Radial†	849307.2	897679.9	[50000]	µg/L	18:46:32
3	Fe 238.204 Radial†	306725.7	324249.8	[20000]	µg/L	18:46:32
3	Mg 279.077 IEC†	127087.0	134218.4	[50000]	µg/L	18:46:32
3	Na 589.592 Radial†	139780.8	146543.6	[20000]	µg/L	18:46:32
3	Sc 361.383	1649813.3	1649813.3	96.019	%	18:46:56
3	Y 371.029	972430.3	972430.3	94.715	%	18:46:56

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1636265.9	13718.97	0.84%	95.230	%
Sc RADIAL	138315.8	907.47	0.66%	94.8	%
Y 371.029	965084.5	7828.26	0.81%	94.000	%
Al 396.153Radial†	269508.5	682.17	0.25%	[50000]	µg/L
Ca 317.933Radial†	896984.4	613.95	0.07%	[50000]	µg/L
Fe 238.204 Radial†	324142.3	93.07	0.03%	[20000]	µg/L
Mg 279.077 IEC†	134015.5	281.29	0.21%	[50000]	µg/L
Na 589.592 Radial†	146530.1	94.09	0.06%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	270.1	0.00000	0.999966	
Al 396.153Radial	3	Lin Thru 0	0.0	5.394	0.00000	0.999995	
As 188.979	3	Lin Thru 0	0.0	3.307	0.00000	0.999994	
B 249.677	3	Lin Thru 0	0.0	67.80	0.00000	0.999967	
Ba 233.527	3	Lin Thru 0	0.0	248.2	0.00000	0.999990	
Be 313.107	3	Lin Thru 0	0.0	3673	0.00000	0.999997	
Ca 317.933Radial	3	Lin Thru 0	0.0	17.95	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	160.1	0.00000	0.999988	
Co 228.616	3	Lin Thru 0	0.0	81.06	0.00000	0.999997	
Cr 267.716	3	Lin Thru 0	0.0	127.7	0.00000	0.999983	
Cu 324.752	3	Lin Thru 0	0.0	257.3	0.00000	0.999966	
Fe 238.204 Radia	2	Lin Thru 0	0.0	16.22	0.00000	0.999998	
K 766.490 Radial	3	Lin Thru 0	0.0	2.731	0.00000	0.999979	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.684	0.00000	0.999981	
Mn 257.610	3	Lin Thru 0	0.0	808.2	0.00000	0.999995	
Mo 202.031	3	Lin Thru 0	0.0	34.03	0.00000	0.999999	
Na 589.592 Radia	2	Lin Thru 0	0.0	7.320	0.00000	0.999998	

Ni 231.604	3	Lin Thru 0	0.0	86.85	0.00000	0.999991
P 214.914	3	Lin Thru 0	0.0	4.675	0.00000	0.999999
Pb 220.353	3	Lin Thru 0	0.0	17.92	0.00000	0.999996
S 181.975 Axial	3	Lin Thru 0	0.0	1.347	0.00000	0.999988
Sb 206.836	3	Lin Thru 0	0.0	8.412	0.00000	0.999992
Se 196.026	3	Lin Thru 0	0.0	2.766	0.00000	0.999995
SiO2	3	Lin Thru 0	0.0	10.23	0.00000	0.999996
Si 251.611	3	Lin Thru 0	0.0	67.83	0.00000	0.999995
Sn 189.927	3	Lin Thru 0	0.0	16.04	0.00000	0.999999
Sr 421.552	3	Lin Thru 0	0.0	481.0	0.00000	0.999997
Ti 334.940	3	Lin Thru 0	0.0	1070	0.00000	0.999995
Tl 190.801	3	Lin Thru 0	0.0	8.138	0.00000	0.999996
U 409.014	3	Lin Thru 0	0.0	17.10	0.00000	0.998547
V 292.402	3	Lin Thru 0	0.0	205.0	0.00000	0.999964
Zn 213.857	3	Lin Thru 0	0.0	178.0	0.00000	0.999990

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/31/2010 18:47:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142728.0	142728.0	97.8	%			18:47:35
1	Al 396.153Radial†	27196.1	27869.4	5141.6	µg/L	5141.6	ppb	18:47:35
1	Ca 317.933Radial†	89393.1	90837.9	5060.0	µg/L	5060.0	ppb	18:47:35
1	Fe 238.204 Radial†	80412.9	82068.7	5058.2	µg/L	5058.2	ppb	18:47:35
1	K 766.490 Radial†	8352.4	6995.0	2558.1	µg/L	2558.1	ppb	18:47:35
1	Mg 279.077 IEC†	14148.2	14274.9	5327.6	µg/L	5327.6	ppb	18:47:35
1	Na 589.592 Radial†	19150.9	18289.7	2496.3	µg/L	2496.3	ppb	18:47:35
1	Sr 421.552†	250356.1	256107.6	532.39	µg/L	532.39	ppb	18:47:33
1	Sc 361.383	1677195.1	1677195.1	97.612	%			18:47:48
1	Y 371.029	995806.6	995806.6	96.992	%			18:47:48
1	Ag 328.068†	70215.3	67841.3	257.54	µg/L	257.54	ppb	18:47:48
1	As 188.979†	1526.8	1584.5	486.58	µg/L	486.58	ppb	18:47:50
1	B 249.677†	37075.8	34476.8	506.67	µg/L	506.67	ppb	18:47:48
1	Ba 233.527†	122696.8	125833.7	507.50	µg/L	507.50	ppb	18:47:48
1	Be 313.107†	933729.3	957632.1	260.88	µg/L	260.88	ppb	18:47:48
1	Cd 226.502†	77657.9	79675.5	497.37	µg/L	497.37	ppb	18:47:48
1	Co 228.616†	40998.4	42191.5	520.85	µg/L	520.85	ppb	18:47:50
1	Cr 267.716†	62225.7	63569.1	497.75	µg/L	497.75	ppb	18:47:50
1	Cu 324.752†	130541.7	130762.4	509.73	µg/L	509.73	ppb	18:47:48
1	Mn 257.610†	407677.2	417411.4	516.24	µg/L	516.24	ppb	18:47:48
1	Mo 202.031†	18097.1	18559.8	545.92	µg/L	545.92	ppb	18:47:50
1	Ni 231.604†	43663.1	44807.6	515.93	µg/L	515.93	ppb	18:47:50
1	P 214.914†	11760.6	12066.2	2571.9	µg/L	2571.9	ppb	18:47:50
1	Pb 220.353†	9089.2	9225.1	516.68	µg/L	516.68	ppb	18:47:50
1	S 181.975 Axial†	3477.6	3457.6	2572.2	µg/L	2572.2	ppb	18:47:50
1	Sb 206.836†	4253.6	4276.8	510.30	µg/L	510.30	ppb	18:47:50
1	Se 196.026†	6905.2	7058.8	2550	µg/L	2550	ppb	18:47:50
1	SiO2†	106599.4	107431.3	10477	µg/L	10477	ppb	18:47:48
1	Si 251.611†	325209.4	332327.1	4888.6	µg/L	4888.6	ppb	18:47:48
1	Sn 189.927†	8509.6	8718.8	545.19	µg/L	545.19	ppb	18:47:50
1	Ti 334.940†	517306.5	529006.8	493.58	µg/L	493.58	ppb	18:47:48
1	Tl 190.801†	4208.4	4428.0	551.50	µg/L	551.50	ppb	18:47:50
1	U 409.014†	7246.7	7693.8	480.75	µg/L	480.75	ppb	18:47:48
1	V 292.402†	101371.8	103447.4	511.74	µg/L	511.74	ppb	18:47:48
1	Zn 213.857†	89039.6	90653.0	505.19	µg/L	505.19	ppb	18:47:48
2	Sc RADIAL	141472.3	141472.3	96.9	%			18:47:39
2	Al 396.153Radial†	26888.4	27798.8	5129.2	µg/L	5129.2	ppb	18:47:39
2	Ca 317.933Radial†	88063.7	90277.8	5028.8	µg/L	5028.8	ppb	18:47:39
2	Fe 238.204 Radial†	79583.4	81942.8	5050.5	µg/L	5050.5	ppb	18:47:39
2	K 766.490 Radial†	8113.5	6824.4	2495.6	µg/L	2495.6	ppb	18:47:39
2	Mg 279.077 IEC†	13969.8	14219.3	5306.5	µg/L	5306.5	ppb	18:47:39
2	Na 589.592 Radial†	19176.1	18489.5	2523.7	µg/L	2523.7	ppb	18:47:39
2	Sr 421.552†	244831.9	252681.3	525.27	µg/L	525.27	ppb	18:47:37
2	Sc 361.383	1698788.6	1698788.6	98.869	%			18:47:53
2	Y 371.029	1007373.3	1007373.3	98.119	%			18:47:53
2	Ag 328.068†	71291.0	68014.9	258.16	µg/L	258.16	ppb	18:47:53
2	As 188.979†	1532.9	1570.8	482.29	µg/L	482.29	ppb	18:47:55
2	B 249.677†	37726.0	34651.6	509.29	µg/L	509.29	ppb	18:47:53
2	Ba 233.527†	124221.9	125778.5	507.27	µg/L	507.27	ppb	18:47:53
2	Be 313.107†	946768.4	958661.3	261.16	µg/L	261.16	ppb	18:47:53
2	Cd 226.502†	78878.8	79899.1	498.76	µg/L	498.76	ppb	18:47:53
2	Co 228.616†	40427.2	41079.9	507.13	µg/L	507.13	ppb	18:47:55
2	Cr 267.716†	61613.4	62139.5	486.55	µg/L	486.55	ppb	18:47:55
2	Cu 324.752†	131991.8	130529.2	508.81	µg/L	508.81	ppb	18:47:53
2	Mn 257.610†	413215.3	417704.0	516.60	µg/L	516.60	ppb	18:47:53
2	Mo 202.031†	17824.6	18048.5	530.89	µg/L	530.89	ppb	18:47:55
2	Ni 231.604†	43042.2	43611.0	502.15	µg/L	502.15	ppb	18:47:55
2	P 214.914†	11581.1	11731.5	2500.3	µg/L	2500.3	ppb	18:47:55
2	Pb 220.353†	8959.4	8975.5	502.70	µg/L	502.70	ppb	18:47:55

2	S 181.975 Axial†	3387.2	3320.9	2470.5 µg/L	2470.5 ppb	18:47:55
2	Sb 206.836†	4183.4	4150.4	495.20 µg/L	495.20 ppb	18:47:55
2	Se 196.026†	6756.5	6818.5	2470 µg/L	2470 ppb	18:47:55
2	SiO2†	108026.4	107486.5	10483 µg/L	10483 ppb	18:47:53
2	Si 251.611†	330001.8	332939.4	4897.9 µg/L	4897.9 ppb	18:47:53
2	Sn 189.927†	8332.5	8429.0	527.12 µg/L	527.12 ppb	18:47:55
2	Ti 334.940†	523598.9	528634.8	493.24 µg/L	493.24 ppb	18:47:53
2	Tl 190.801†	4130.1	4294.0	535.11 µg/L	535.11 ppb	18:47:55
2	U 409.014†	7323.1	7676.7	479.70 µg/L	479.70 ppb	18:47:53
2	V 292.402†	102428.7	103196.4	510.32 µg/L	510.32 ppb	18:47:53
2	Zn 213.857†	90500.4	90971.0	507.07 µg/L	507.07 ppb	18:47:53
3	Sc RADIAL	141074.5	141074.5	96.7 %		18:47:43
3	Al 396.153Radial†	27024.0	28017.2	5169.9 µg/L	5169.9 ppb	18:47:43
3	Ca 317.933Radial†	88402.3	90884.2	5062.6 µg/L	5062.6 ppb	18:47:43
3	Fe 238.204 Radial†	79763.1	82360.1	5076.2 µg/L	5076.2 ppb	18:47:43
3	K 766.490 Radial†	8103.8	6838.0	2500.5 µg/L	2500.5 ppb	18:47:43
3	Mg 279.077 IEC†	14069.6	14363.2	5360.0 µg/L	5360.0 ppb	18:47:43
3	Na 589.592 Radial†	19066.5	18431.9	2515.8 µg/L	2515.8 ppb	18:47:43
3	Sr 421.552†	247012.7	255649.2	531.44 µg/L	531.44 ppb	18:47:41
3	Sc 361.383	1692022.5	1692022.5	98.475 %		18:47:58
3	Y 371.029	1004104.0	1004104.0	97.800 %		18:47:58
3	Ag 328.068†	71156.1	68166.3	258.74 µg/L	258.74 ppb	18:47:58
3	As 188.979†	1530.4	1574.5	483.34 µg/L	483.34 ppb	18:48:00
3	B 249.677†	37553.2	34628.7	508.97 µg/L	508.97 ppb	18:47:58
3	Ba 233.527†	123711.5	125762.6	507.21 µg/L	507.21 ppb	18:47:58
3	Be 313.107†	941930.7	957578.0	260.87 µg/L	260.87 ppb	18:47:58
3	Cd 226.502†	78415.4	79747.6	497.81 µg/L	497.81 ppb	18:47:58
3	Co 228.616†	39781.6	40587.8	501.06 µg/L	501.06 ppb	18:48:00
3	Cr 267.716†	60612.6	61372.4	480.54 µg/L	480.54 ppb	18:48:00
3	Cu 324.752†	131599.2	130664.3	509.34 µg/L	509.34 ppb	18:47:58
3	Mn 257.610†	411605.2	417740.2	516.64 µg/L	516.64 ppb	18:47:58
3	Mo 202.031†	17622.4	17915.3	526.98 µg/L	526.98 ppb	18:48:00
3	Ni 231.604†	42378.9	43111.5	496.40 µg/L	496.40 ppb	18:48:00
3	P 214.914†	11404.8	11599.3	2472.0 µg/L	2472.0 ppb	18:48:00
3	Pb 220.353†	8867.2	8918.1	499.49 µg/L	499.49 ppb	18:48:00
3	S 181.975 Axial†	3288.2	3234.1	2406.0 µg/L	2406.0 ppb	18:48:00
3	Sb 206.836†	4104.8	4087.6	487.75 µg/L	487.75 ppb	18:48:00
3	Se 196.026†	6722.3	6811.1	2460 µg/L	2460 ppb	18:48:00
3	SiO2†	107577.1	107467.2	10482 µg/L	10482 ppb	18:47:58
3	Si 251.611†	328691.1	332943.1	4898.1 µg/L	4898.1 ppb	18:47:58
3	Sn 189.927†	8196.6	8324.7	520.62 µg/L	520.62 ppb	18:48:00
3	Ti 334.940†	522557.7	529695.2	494.23 µg/L	494.23 ppb	18:47:58
3	Tl 190.801†	3987.3	4165.7	519.39 µg/L	519.39 ppb	18:48:00
3	U 409.014†	7372.3	7756.3	484.40 µg/L	484.40 ppb	18:47:58
3	V 292.402†	102179.3	103357.4	511.03 µg/L	511.03 ppb	18:47:58
3	Zn 213.857†	89790.3	90616.0	505.12 µg/L	505.12 ppb	18:47:58

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1689335.4	98.319	%	0.6428				0.65%
Sc RADIAL	141758.3	97.1	%	0.59				0.61%
Y 371.029	1002428.0	97.637	%	0.5808				0.59%
Ag 328.068†	68007.5	258.15	µg/L	0.601	258.15	ppb	0.601	0.23%
QC value within limits for Ag 328.068 Recovery = 103.26%								
Al 396.153Radial†	27895.2	5146.9	µg/L	20.85	5146.9	ppb	20.85	0.41%
QC value within limits for Al 396.153Radial Recovery = 102.94%								
As 188.979†	1576.6	484.07	µg/L	2.239	484.07	ppb	2.239	0.46%
QC value within limits for As 188.979 Recovery = 96.81%								
B 249.677†	34585.7	508.31	µg/L	1.434	508.31	ppb	1.434	0.28%
QC value within limits for B 249.677 Recovery = 101.66%								
Ba 233.527†	125791.6	507.32	µg/L	0.154	507.32	ppb	0.154	0.03%
QC value within limits for Ba 233.527 Recovery = 101.46%								
Be 313.107†	957957.1	260.97	µg/L	0.166	260.97	ppb	0.166	0.06%
QC value within limits for Be 313.107 Recovery = 104.39%								
Ca 317.933Radial†	90666.6	5050.5	µg/L	18.80	5050.5	ppb	18.80	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.01%								
Cd 226.502†	79774.1	497.98	µg/L	0.711	497.98	ppb	0.711	0.14%
QC value within limits for Cd 226.502 Recovery = 99.60%								
Co 228.616†	41286.4	509.68	µg/L	10.138	509.68	ppb	10.138	1.99%

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   QC value within limits for Co 228.616  Recovery = 101.94%
Cr 267.716†            62360.3      488.28 µg/L         8.733      488.28 ppb          8.733   1.79%
   QC value within limits for Cr 267.716  Recovery = 97.66%
Cu 324.752†           130652.0      509.29 µg/L         0.460      509.29 ppb          0.460   0.09%
   QC value within limits for Cu 324.752  Recovery = 101.86%
Fe 238.204 Radial†     82123.9      5061.6 µg/L         13.19      5061.6 ppb          13.19   0.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.23%
K 766.490 Radial†       6885.8      2518.1 µg/L         34.72      2518.1 ppb          34.72   1.38%
   QC value within limits for K 766.490 Radial  Recovery = 100.72%
Mg 279.077 IEC†        14285.8      5331.4 µg/L         26.95      5331.4 ppb          26.95   0.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.63%
Mn 257.610†           417618.5      516.49 µg/L         0.223      516.49 ppb          0.223   0.04%
   QC value within limits for Mn 257.610  Recovery = 103.30%
Mo 202.031†            18174.5      534.59 µg/L         9.999      534.59 ppb          9.999   1.87%
   QC value within limits for Mo 202.031  Recovery = 106.92%
Na 589.592 Radial†     18403.7      2511.9 µg/L         14.08      2511.9 ppb          14.08   0.56%
   QC value within limits for Na 589.592 Radial  Recovery = 100.48%
Ni 231.604†            43843.4      504.82 µg/L        10.036      504.82 ppb         10.036   1.99%
   QC value within limits for Ni 231.604  Recovery = 100.96%
P 214.914†             11799.0      2514.8 µg/L         51.47      2514.8 ppb          51.47   2.05%
   QC value within limits for P 214.914  Recovery = 100.59%
Pb 220.353†             9039.6      506.29 µg/L         9.140      506.29 ppb          9.140   1.81%
   QC value within limits for Pb 220.353  Recovery = 101.26%
S 181.975 Axial†        3337.5      2482.9 µg/L         83.76      2482.9 ppb          83.76   3.37%
   QC value within limits for S 181.975 Axial  Recovery = 99.32%
Sb 206.836†             4171.6      497.75 µg/L        11.489      497.75 ppb         11.489   2.31%
   QC value within limits for Sb 206.836  Recovery = 99.55%
Se 196.026†             6896.1        2500 µg/L          50.9        2500 ppb           50.9   2.04%
   QC value within limits for Se 196.026  Recovery = 99.81%
SiO2†                 107461.7       10481 µg/L           3.1       10481 ppb            3.1   0.03%
   QC value within limits for SiO2  Recovery = 98.00%
Si 251.611†           332736.6      4894.9 µg/L          5.44      4894.9 ppb           5.44   0.11%
   QC value within limits for Si 251.611  Recovery = 97.90%
Sn 189.927†             8490.8      530.98 µg/L        12.731      530.98 ppb         12.731   2.40%
   QC value within limits for Sn 189.927  Recovery = 106.20%
Sr 421.552†           254812.7      529.70 µg/L         3.867      529.70 ppb          3.867   0.73%
   QC value within limits for Sr 421.552  Recovery = 105.94%
Ti 334.940†           529112.2      493.68 µg/L         0.501      493.68 ppb          0.501   0.10%
   QC value within limits for Ti 334.940  Recovery = 98.74%
Tl 190.801†             4295.9      535.33 µg/L        16.060      535.33 ppb         16.060   3.00%
   QC value within limits for Tl 190.801  Recovery = 107.07%
U 409.014†              7709.0      481.62 µg/L         2.468      481.62 ppb          2.468   0.51%
   QC value within limits for U 409.014  Recovery = 96.32%
V 292.402†            103333.7      511.03 µg/L         0.714      511.03 ppb          0.714   0.14%
   QC value within limits for V 292.402  Recovery = 102.21%
Zn 213.857†            90746.7      505.79 µg/L         1.109      505.79 ppb          1.109   0.22%
   QC value within limits for Zn 213.857  Recovery = 101.16%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/31/2010 18:48:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141820.7	141820.7	97.2	%			18:48:38
1	Al 396.153Radial†	-23.3	39.2	7.2759	µg/L	7.2759	ppb	18:48:58
1	Ca 317.933Radial†	601.1	58.0	3.2284	µg/L	3.2284	ppb	18:48:58
1	Fe 238.204 Radial†	172.3	29.2	1.7975	µg/L	1.7975	ppb	18:48:58
1	K 766.490 Radial†	1651.6	154.7	56.635	µg/L	56.635	ppb	18:48:38
1	Mg 279.077 IEC†	178.4	-7.1	-2.6584	µg/L	-2.6584	ppb	18:48:58
1	Na 589.592 Radial†	1421.8	172.2	23.470	µg/L	23.470	ppb	18:48:38
1	Sr 421.552†	-137.1	-5.8	-0.0120	µg/L	-0.0120	ppb	18:48:38
1	Sc 361.383	1683915.8	1683915.8	98.004	%			18:50:00
1	Y 371.029	1008438.2	1008438.2	98.222	%			18:50:00
1	Ag 328.068†	3988.4	-21.8	-0.0966	µg/L	-0.0966	ppb	18:50:02
1	As 188.979†	-16.6	3.4	1.0196	µg/L	1.0196	ppb	18:50:22
1	B 249.677†	3689.5	258.8	3.8157	µg/L	3.8157	ppb	18:50:02
1	Ba 233.527†	-144.6	-11.7	-0.0475	µg/L	-0.0475	ppb	18:50:22
1	Be 313.107†	-835.0	212.7	0.0556	µg/L	0.0556	ppb	18:50:02
1	Cd 226.502†	-86.3	30.1	0.1877	µg/L	0.1877	ppb	18:50:22
1	Co 228.616†	-156.6	30.5	0.3761	µg/L	0.3761	ppb	18:50:22
1	Cr 267.716†	188.6	13.8	0.1142	µg/L	0.1142	ppb	18:50:22
1	Cu 324.752†	2866.9	-46.9	-0.1882	µg/L	-0.1882	ppb	18:50:02
1	Mn 257.610†	237.6	5.2	0.0065	µg/L	0.0065	ppb	18:50:22
1	Mo 202.031†	-20.5	-0.8	-0.0238	µg/L	-0.0238	ppb	18:50:22
1	Ni 231.604†	-85.2	-10.4	-0.1202	µg/L	-0.1202	ppb	18:50:22
1	P 214.914†	-19.5	-2.0	-0.4133	µg/L	-0.4133	ppb	18:50:22
1	Pb 220.353†	104.1	19.8	1.1130	µg/L	1.1130	ppb	18:50:22
1	S 181.975 Axial†	94.9	-8.2	-6.0991	µg/L	-6.0991	ppb	18:50:22
1	Sb 206.836†	83.0	3.9	0.4581	µg/L	0.4581	ppb	18:50:22
1	Se 196.026†	16.9	2.0	0.709	µg/L	0.709	ppb	18:50:22
1	SiO2†	1750.1	10.4	1.0001	µg/L	1.0001	ppb	18:50:22
1	Si 251.611†	692.5	-130.0	-1.9216	µg/L	-1.9216	ppb	18:50:02
1	Sn 189.927†	12.8	14.2	0.8842	µg/L	0.8842	ppb	18:50:22
1	Ti 334.940†	967.2	34.4	0.0355	µg/L	0.0355	ppb	18:50:02
1	Tl 190.801†	-113.3	1.1	0.1286	µg/L	0.1286	ppb	18:50:22
1	U 409.014†	-392.4	-130.5	-7.6641	µg/L	-7.6641	ppb	18:50:02
1	V 292.402†	288.2	-109.7	-0.5404	µg/L	-0.5404	ppb	18:50:02
1	Zn 213.857†	580.6	28.0	0.1584	µg/L	0.1584	ppb	18:50:22
2	Sc RADIAL	141475.5	141475.5	96.9	%			18:49:00
2	Al 396.153Radial†	-59.5	1.9	0.3293	µg/L	0.3293	ppb	18:49:20
2	Ca 317.933Radial†	582.6	40.4	2.2485	µg/L	2.2485	ppb	18:49:20
2	Fe 238.204 Radial†	177.4	34.9	2.1506	µg/L	2.1506	ppb	18:49:20
2	K 766.490 Radial†	1678.4	186.4	68.259	µg/L	68.259	ppb	18:49:00
2	Mg 279.077 IEC†	195.6	11.1	4.1266	µg/L	4.1266	ppb	18:49:20
2	Na 589.592 Radial†	1313.4	64.0	8.6800	µg/L	8.6800	ppb	18:49:00
2	Sr 421.552†	-263.2	-136.2	-0.2832	µg/L	-0.2832	ppb	18:49:00
2	Sc 361.383	1681105.0	1681105.0	97.840	%			18:50:24
2	Y 371.029	1006809.9	1006809.9	98.064	%			18:50:24
2	Ag 328.068†	3899.5	-105.8	-0.4010	µg/L	-0.4010	ppb	18:50:26
2	As 188.979†	-14.2	5.9	1.7810	µg/L	1.7810	ppb	18:50:47
2	B 249.677†	3479.7	50.7	0.7461	µg/L	0.7461	ppb	18:50:26
2	Ba 233.527†	-126.1	7.0	0.0284	µg/L	0.0284	ppb	18:50:47
2	Be 313.107†	-932.6	111.6	0.0281	µg/L	0.0281	ppb	18:50:26
2	Cd 226.502†	-94.6	21.5	0.1342	µg/L	0.1342	ppb	18:50:47
2	Co 228.616†	-159.1	27.7	0.3416	µg/L	0.3416	ppb	18:50:47
2	Cr 267.716†	205.7	31.7	0.2541	µg/L	0.2541	ppb	18:50:47
2	Cu 324.752†	2760.4	-150.9	-0.5921	µg/L	-0.5921	ppb	18:50:26
2	Mn 257.610†	248.9	17.1	0.0210	µg/L	0.0210	ppb	18:50:47
2	Mo 202.031†	-6.8	13.1	0.3848	µg/L	0.3848	ppb	18:50:47
2	Ni 231.604†	-77.1	-2.3	-0.0264	µg/L	-0.0264	ppb	18:50:47
2	P 214.914†	-8.5	9.3	1.9937	µg/L	1.9937	ppb	18:50:47
2	Pb 220.353†	88.9	4.5	0.2582	µg/L	0.2582	ppb	18:50:47

2	S 181.975 Axial†	97.2	-5.7	-4.2111 µg/L	-4.2111 ppb	18:50:47
2	Sb 206.836†	84.7	5.7	0.6836 µg/L	0.6836 ppb	18:50:47
2	Se 196.026†	31.5	16.9	6.11 µg/L	6.11 ppb	18:50:47
2	SiO2†	1754.7	18.0	1.7515 µg/L	1.7515 ppb	18:50:47
2	Si 251.611†	708.6	-112.3	-1.6605 µg/L	-1.6605 ppb	18:50:26
2	Sn 189.927†	-0.8	0.3	0.0171 µg/L	0.0171 ppb	18:50:47
2	Ti 334.940†	917.4	-14.9	-0.0112 µg/L	-0.0112 ppb	18:50:26
2	Tl 190.801†	-109.7	4.5	0.5537 µg/L	0.5537 ppb	18:50:47
2	U 409.014†	-392.0	-130.8	-7.6468 µg/L	-7.6468 ppb	18:50:26
2	V 292.402†	396.5	1.4	0.0068 µg/L	0.0068 ppb	18:50:26
2	Zn 213.857†	557.8	5.7	0.0323 µg/L	0.0323 ppb	18:50:47
3	Sc RADIAL	140788.0	140788.0	96.5 %		18:49:22
3	Al 396.153Radial†	-53.3	8.0	1.4950 µg/L	1.4950 ppb	18:49:42
3	Ca 317.933Radial†	570.5	30.7	1.7106 µg/L	1.7106 ppb	18:49:42
3	Fe 238.204 Radial†	153.8	11.4	0.7002 µg/L	0.7002 ppb	18:49:42
3	K 766.490 Radial†	1509.3	19.7	7.1988 µg/L	7.1988 ppb	18:49:22
3	Mg 279.077 IEC†	187.5	3.6	1.3339 µg/L	1.3339 ppb	18:49:42
3	Na 589.592 Radial†	1241.2	-4.3	-0.5891 µg/L	-0.5891 ppb	18:49:22
3	Sr 421.552†	-62.3	70.7	0.1469 µg/L	0.1469 ppb	18:49:22
3	Sc 361.383	1702475.2	1702475.2	99.084 %		18:50:49
3	Y 371.029	1019278.2	1019278.2	99.278 %		18:50:49
3	Ag 328.068†	3893.2	-162.2	-0.6047 µg/L	-0.6047 ppb	18:50:51
3	As 188.979†	-11.0	9.3	2.8073 µg/L	2.8073 ppb	18:51:11
3	B 249.677†	3493.6	20.0	0.2957 µg/L	0.2957 ppb	18:50:51
3	Ba 233.527†	-155.1	-20.7	-0.0837 µg/L	-0.0837 ppb	18:51:11
3	Be 313.107†	-918.7	137.5	0.0367 µg/L	0.0367 ppb	18:50:51
3	Cd 226.502†	-90.2	27.2	0.1697 µg/L	0.1697 ppb	18:51:11
3	Co 228.616†	-191.5	-3.0	-0.0369 µg/L	-0.0369 ppb	18:51:11
3	Cr 267.716†	192.8	16.1	0.1277 µg/L	0.1277 ppb	18:51:11
3	Cu 324.752†	2902.8	-42.6	-0.1675 µg/L	-0.1675 ppb	18:50:51
3	Mn 257.610†	221.1	-14.1	-0.0175 µg/L	-0.0175 ppb	18:51:11
3	Mo 202.031†	-27.6	-7.7	-0.2274 µg/L	-0.2274 ppb	18:51:11
3	Ni 231.604†	-80.3	-4.5	-0.0519 µg/L	-0.0519 ppb	18:51:11
3	P 214.914†	-10.6	7.3	1.5639 µg/L	1.5639 ppb	18:51:11
3	Pb 220.353†	87.5	1.9	0.1068 µg/L	0.1068 ppb	18:51:11
3	S 181.975 Axial†	108.2	4.2	3.0845 µg/L	3.0845 ppb	18:51:11
3	Sb 206.836†	65.7	-14.5	-1.7326 µg/L	-1.7326 ppb	18:51:11
3	Se 196.026†	1.4	-13.8	-5.00 µg/L	-5.00 ppb	18:51:11
3	SiO2†	1771.9	13.0	1.2622 µg/L	1.2622 ppb	18:51:11
3	Si 251.611†	804.4	-24.7	-0.3658 µg/L	-0.3658 ppb	18:50:51
3	Sn 189.927†	10.9	12.2	0.7583 µg/L	0.7583 ppb	18:51:11
3	Ti 334.940†	1048.8	105.9	0.0999 µg/L	0.0999 ppb	18:50:51
3	Tl 190.801†	-119.3	-3.7	-0.4558 µg/L	-0.4558 ppb	18:51:11
3	U 409.014†	-309.5	-42.5	-2.4891 µg/L	-2.4891 ppb	18:50:51
3	V 292.402†	382.0	-18.2	-0.0926 µg/L	-0.0926 ppb	18:50:51
3	Zn 213.857†	566.8	7.7	0.0435 µg/L	0.0435 ppb	18:51:11

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1689165.4	98.309	%	0.6758				0.69%
Sc RADIAL	141361.4	96.9	%	0.36				0.37%
Y 371.029	1011508.8	98.521	%	0.6601				0.67%
Ag 328.068†	-96.6	-0.3674	µg/L	0.25571	-0.3674	ppb	0.25571	69.60%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	16.4	3.0334	µg/L	3.72004	3.0334	ppb	3.72004	122.63%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	1.8693	µg/L	0.89713	1.8693	ppb	0.89713	47.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	109.8	1.6192	µg/L	1.91554	1.6192	ppb	1.91554	118.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.5	-0.0343	µg/L	0.05718	-0.0343	ppb	0.05718	166.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	153.9	0.0401	µg/L	0.01409	0.0401	ppb	0.01409	35.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	43.0	2.3958	µg/L	0.76955	2.3958	ppb	0.76955	32.12%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	26.3	0.1639	µg/L	0.02723	0.1639	ppb	0.02723	16.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.4	0.2269	µg/L	0.22917	0.2269	ppb	0.22917	100.99%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              20.5      0.1654 µg/L       0.07718      0.1654 ppb        0.07718  46.67%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -80.1     -0.3159 µg/L       0.23936     -0.3159 ppb        0.23936  75.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       25.1      1.5494 µg/L       0.75637      1.5494 ppb        0.75637  48.82%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       120.3      44.031 µg/L       32.4227      44.031 ppb        32.4227  73.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.5      0.9341 µg/L       3.41013      0.9341 ppb        3.41013 365.09%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               2.7      0.0033 µg/L       0.01944      0.0033 ppb        0.01944 582.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.5      0.0446 µg/L       0.31176      0.0446 ppb        0.31176 699.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       77.3      10.520 µg/L       12.1345      10.520 ppb        12.1345 115.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -5.7     -0.0661 µg/L       0.04849     -0.0661 ppb        0.04849  73.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                4.9      1.0481 µg/L       1.28372      1.0481 ppb        1.28372 122.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               8.7      0.4927 µg/L       0.54252      0.4927 ppb        0.54252 110.12%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -3.2     -2.4085 µg/L       4.84991     -2.4085 ppb        4.84991 201.36%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.6     -0.1970 µg/L       1.33468     -0.1970 ppb        1.33468 677.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.7       0.603 µg/L        5.5558       0.603 ppb         5.5558 920.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    13.8      1.3380 µg/L       0.38138      1.3380 ppb        0.38138  28.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -89.0     -1.3160 µg/L       0.83316     -1.3160 ppb        0.83316  63.31%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.9      0.5532 µg/L       0.46851      0.5532 ppb        0.46851  84.69%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -23.8     -0.0494 µg/L       0.21749     -0.0494 ppb        0.21749 439.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              41.8      0.0414 µg/L       0.05575      0.0414 ppb        0.05575 134.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.6      0.0755 µg/L       0.50686      0.0755 ppb        0.50686 671.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -101.3     -5.9334 µg/L       2.98281     -5.9334 ppb        2.98281  50.27%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -42.2     -0.2088 µg/L       0.29151     -0.2088 ppb        0.29151 139.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              13.8      0.0780 µg/L       0.06978      0.0780 ppb        0.06978  89.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 3/31/2010 18:51:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140861.4	140861.4	96.5	%			18:51:48
1	Al 396.153Radial†	987.6	1086.3	200.96	µg/L	200.96	ppb	18:51:50
1	Ca 317.933Radial†	4191.0	3781.2	210.63	µg/L	210.63	ppb	18:51:50
1	Fe 238.204 Radial†	1792.5	1708.9	105.32	µg/L	105.32	ppb	18:51:50
1	K 766.490 Radial†	1849.3	371.1	135.70	µg/L	135.70	ppb	18:51:48
1	Mg 279.077 IEC†	1004.6	850.0	316.85	µg/L	316.85	ppb	18:51:50
1	Na 589.592 Radial†	3218.7	2043.7	279.07	µg/L	279.07	ppb	18:51:50
1	Sr 421.552†	2356.1	2576.2	5.3541	µg/L	5.3541	ppb	18:51:50
1	Sc 361.383	1696993.3	1696993.3	98.765	%			18:52:02
1	Y 371.029	1016566.5	1016566.5	99.014	%			18:52:02
1	Ag 328.068†	5094.4	1066.7	4.0516	µg/L	4.0516	ppb	18:52:04
1	As 188.979†	82.8	104.2	31.603	µg/L	31.603	ppb	18:52:24
1	B 249.677†	6532.0	3107.8	45.816	µg/L	45.816	ppb	18:52:04
1	Ba 233.527†	1080.9	1230.2	4.9619	µg/L	4.9619	ppb	18:52:24
1	Be 313.107†	16638.5	17911.3	4.8913	µg/L	4.8913	ppb	18:52:04
1	Cd 226.502†	682.8	809.6	5.0479	µg/L	5.0479	ppb	18:52:24
1	Co 228.616†	230.9	424.1	5.2325	µg/L	5.2325	ppb	18:52:24
1	Cr 267.716†	759.8	590.7	4.5885	µg/L	4.5885	ppb	18:52:24
1	Cu 324.752†	5375.4	2470.4	9.6665	µg/L	9.6665	ppb	18:52:04
1	Mn 257.610†	8461.3	8329.9	10.294	µg/L	10.294	ppb	18:52:04
1	Mo 202.031†	297.2	321.0	9.4457	µg/L	9.4457	ppb	18:52:24
1	Ni 231.604†	359.2	440.2	5.0686	µg/L	5.0686	ppb	18:52:24
1	P 214.914†	662.2	688.4	147.09	µg/L	147.09	ppb	18:52:24
1	Pb 220.353†	275.6	192.6	10.753	µg/L	10.753	ppb	18:52:24
1	S 181.975 Axial†	231.8	129.7	96.360	µg/L	96.360	ppb	18:52:24
1	Sb 206.836†	150.3	71.3	8.5656	µg/L	8.5656	ppb	18:52:24
1	Se 196.026†	92.5	78.4	28.4	µg/L	28.4	ppb	18:52:24
1	SiO2†	3882.7	2155.9	210.31	µg/L	210.31	ppb	18:52:04
1	Si 251.611†	7564.5	6822.6	100.39	µg/L	100.39	ppb	18:52:04
1	Sn 189.927†	162.8	165.9	10.360	µg/L	10.360	ppb	18:52:24
1	Ti 334.940†	6150.6	5275.0	4.8870	µg/L	4.8870	ppb	18:52:04
1	Tl 190.801†	46.5	163.8	20.204	µg/L	20.204	ppb	18:52:24
1	U 409.014†	536.3	812.9	47.827	µg/L	47.827	ppb	18:52:04
1	V 292.402†	1270.3	882.4	4.4384	µg/L	4.4384	ppb	18:52:04
1	Zn 213.857†	2321.2	1785.9	9.9841	µg/L	9.9841	ppb	18:52:24
2	Sc RADIAL	140936.7	140936.7	96.6	%			18:51:52
2	Al 396.153Radial†	972.6	1070.3	198.01	µg/L	198.01	ppb	18:51:54
2	Ca 317.933Radial†	4253.2	3843.3	214.09	µg/L	214.09	ppb	18:51:54
2	Fe 238.204 Radial†	1742.6	1656.2	102.08	µg/L	102.08	ppb	18:51:54
2	K 766.490 Radial†	1908.6	431.4	157.79	µg/L	157.79	ppb	18:51:52
2	Mg 279.077 IEC†	969.9	813.6	303.26	µg/L	303.26	ppb	18:51:54
2	Na 589.592 Radial†	3291.7	2117.5	289.13	µg/L	289.13	ppb	18:51:54
2	Sr 421.552†	2245.5	2460.3	5.1132	µg/L	5.1132	ppb	18:51:54
2	Sc 361.383	1687966.3	1687966.3	98.239	%			18:52:26
2	Y 371.029	1011019.5	1011019.5	98.474	%			18:52:26
2	Ag 328.068†	5292.9	1296.4	4.8998	µg/L	4.8998	ppb	18:52:28
2	As 188.979†	83.0	104.8	31.803	µg/L	31.803	ppb	18:52:48
2	B 249.677†	6698.9	3313.0	48.843	µg/L	48.843	ppb	18:52:28
2	Ba 233.527†	1087.4	1242.7	5.0120	µg/L	5.0120	ppb	18:52:48
2	Be 313.107†	16507.3	17867.9	4.8796	µg/L	4.8796	ppb	18:52:28
2	Cd 226.502†	680.2	810.6	5.0545	µg/L	5.0545	ppb	18:52:48
2	Co 228.616†	236.4	430.9	5.3167	µg/L	5.3167	ppb	18:52:48
2	Cr 267.716†	835.7	672.2	5.2260	µg/L	5.2260	ppb	18:52:48
2	Cu 324.752†	5528.6	2655.4	10.385	µg/L	10.385	ppb	18:52:28
2	Mn 257.610†	8398.7	8312.0	10.272	µg/L	10.272	ppb	18:52:28
2	Mo 202.031†	283.2	308.3	9.0728	µg/L	9.0728	ppb	18:52:48
2	Ni 231.604†	357.6	440.5	5.0722	µg/L	5.0722	ppb	18:52:48
2	P 214.914†	662.1	691.9	147.84	µg/L	147.84	ppb	18:52:48
2	Pb 220.353†	294.5	213.4	11.913	µg/L	11.913	ppb	18:52:48

2	S 181.975 Axial†	239.0	138.2	102.73 µg/L	102.73 ppb	18:52:48
2	Sb 206.836†	162.6	84.7	10.140 µg/L	10.140 ppb	18:52:48
2	Se 196.026†	98.4	84.9	30.8 µg/L	30.8 ppb	18:52:48
2	SiO2†	3912.9	2207.6	215.37 µg/L	215.37 ppb	18:52:28
2	Si 251.611†	7475.2	6772.6	99.658 µg/L	99.658 ppb	18:52:28
2	Sn 189.927†	165.0	169.0	10.554 µg/L	10.554 ppb	18:52:48
2	Ti 334.940†	5906.4	5059.7	4.6867 µg/L	4.6867 ppb	18:52:28
2	Tl 190.801†	41.0	158.5	19.548 µg/L	19.548 ppb	18:52:48
2	U 409.014†	539.0	818.5	48.142 µg/L	48.142 ppb	18:52:28
2	V 292.402†	1219.4	837.5	4.2189 µg/L	4.2189 ppb	18:52:28
2	Zn 213.857†	2338.9	1816.4	10.155 µg/L	10.155 ppb	18:52:48
3	Sc RADIAL	141853.7	141853.7	97.2 %		18:51:56
3	Al 396.153Radial†	1054.0	1147.5	212.32 µg/L	212.32 ppb	18:51:58
3	Ca 317.933Radial†	4255.4	3817.1	212.63 µg/L	212.63 ppb	18:51:58
3	Fe 238.204 Radial†	1716.2	1617.5	99.690 µg/L	99.690 ppb	18:51:58
3	K 766.490 Radial†	1916.0	426.3	155.92 µg/L	155.92 ppb	18:51:56
3	Mg 279.077 IEC†	1001.3	839.3	312.86 µg/L	312.86 ppb	18:51:58
3	Na 589.592 Radial†	3186.5	1987.3	271.34 µg/L	271.34 ppb	18:51:58
3	Sr 421.552†	2248.0	2447.8	5.0873 µg/L	5.0873 ppb	18:51:58
3	Sc 361.383	1703589.6	1703589.6	99.149 %		18:52:50
3	Y 371.029	1020076.1	1020076.1	99.356 %		18:52:50
3	Ag 328.068†	5329.5	1283.9	4.8863 µg/L	4.8863 ppb	18:52:52
3	As 188.979†	68.9	89.8	27.263 µg/L	27.263 ppb	18:53:13
3	B 249.677†	6826.1	3378.8	49.814 µg/L	49.814 ppb	18:52:52
3	Ba 233.527†	1095.4	1240.7	5.0047 µg/L	5.0047 ppb	18:53:13
3	Be 313.107†	16765.5	17974.2	4.9127 µg/L	4.9127 ppb	18:52:52
3	Cd 226.502†	685.3	809.4	5.0473 µg/L	5.0473 ppb	18:53:13
3	Co 228.616†	212.4	404.5	4.9910 µg/L	4.9910 ppb	18:53:13
3	Cr 267.716†	807.3	635.7	4.9297 µg/L	4.9297 ppb	18:53:13
3	Cu 324.752†	5461.8	2536.5	9.9340 µg/L	9.9340 ppb	18:52:52
3	Mn 257.610†	8558.8	8395.0	10.374 µg/L	10.374 ppb	18:52:52
3	Mo 202.031†	286.1	308.6	9.0804 µg/L	9.0804 ppb	18:53:13
3	Ni 231.604†	341.2	420.7	4.8437 µg/L	4.8437 ppb	18:53:13
3	P 214.914†	668.0	691.7	147.81 µg/L	147.81 ppb	18:53:13
3	Pb 220.353†	280.1	196.2	10.941 µg/L	10.941 ppb	18:53:13
3	S 181.975 Axial†	229.3	126.2	93.811 µg/L	93.811 ppb	18:53:13
3	Sb 206.836†	165.2	85.8	10.280 µg/L	10.280 ppb	18:53:13
3	Se 196.026†	109.6	95.3	34.5 µg/L	34.5 ppb	18:53:13
3	SiO2†	3891.1	2149.2	209.66 µg/L	209.66 ppb	18:52:52
3	Si 251.611†	7576.0	6804.5	100.13 µg/L	100.13 ppb	18:52:52
3	Sn 189.927†	163.2	165.7	10.345 µg/L	10.345 ppb	18:53:13
3	Ti 334.940†	6177.6	5278.1	4.8843 µg/L	4.8843 ppb	18:52:52
3	Tl 190.801†	27.8	144.7	17.868 µg/L	17.868 ppb	18:53:13
3	U 409.014†	779.2	1055.8	62.094 µg/L	62.094 ppb	18:52:52
3	V 292.402†	1501.4	1110.5	5.5591 µg/L	5.5591 ppb	18:52:52
3	Zn 213.857†	2359.0	1814.8	10.149 µg/L	10.149 ppb	18:53:13

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1696183.1	98.718	%	0.4565				0.46%
Sc RADIAL	141217.3	96.8	%	0.38				0.39%
Y 371.029	1015887.4	98.948	%	0.4448				0.45%
Ag 328.068†	1215.7	4.6126	µg/L	0.48588	4.6126	ppb	0.48588	10.53%
QC value within limits for Ag 328.068 Recovery = 92.25%								
Al 396.153Radial†	1101.4	203.76	µg/L	7.553	203.76	ppb	7.553	3.71%
QC value within limits for Al 396.153Radial Recovery = 101.88%								
As 188.979†	99.6	30.223	µg/L	2.5657	30.223	ppb	2.5657	8.49%
QC value within limits for As 188.979 Recovery = 100.74%								
B 249.677†	3266.5	48.158	µg/L	2.0851	48.158	ppb	2.0851	4.33%
QC value within limits for B 249.677 Recovery = 96.32%								
Ba 233.527†	1237.9	4.9928	µg/L	0.02706	4.9928	ppb	0.02706	0.54%
QC value within limits for Ba 233.527 Recovery = 99.86%								
Be 313.107†	17917.8	4.8945	µg/L	0.01680	4.8945	ppb	0.01680	0.34%
QC value within limits for Be 313.107 Recovery = 97.89%								
Ca 317.933Radial†	3813.9	212.45	µg/L	1.736	212.45	ppb	1.736	0.82%
QC value within limits for Ca 317.933Radial Recovery = 106.22%								
Cd 226.502†	809.8	5.0499	µg/L	0.00397	5.0499	ppb	0.00397	0.08%
QC value within limits for Cd 226.502 Recovery = 101.00%								
Co 228.616†	419.8	5.1801	µg/L	0.16905	5.1801	ppb	0.16905	3.26%

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   QC value within limits for Co 228.616  Recovery = 103.60%
Cr 267.716†              632.8      4.9147 µg/L       0.31903      4.9147 ppb        0.31903   6.49%
   QC value within limits for Cr 267.716  Recovery = 98.29%
Cu 324.752†             2554.1      9.9952 µg/L       0.36319      9.9952 ppb        0.36319   3.63%
   QC value within limits for Cu 324.752  Recovery = 99.95%
Fe 238.204 Radial†      1660.8      102.36 µg/L         2.828      102.36 ppb          2.828   2.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.36%
K 766.490 Radial†        409.6      149.80 µg/L        12.246      149.80 ppb         12.246   8.17%
   QC value within limits for K 766.490 Radial  Recovery = 99.87%
Mg 279.077 IEC†          834.3      310.99 µg/L         6.984      310.99 ppb          6.984   2.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.66%
Mn 257.610†             8345.6      10.313 µg/L        0.0539      10.313 ppb         0.0539   0.52%
   QC value within limits for Mn 257.610  Recovery = 103.13%
Mo 202.031†              312.7      9.1996 µg/L       0.21314      9.1996 ppb        0.21314   2.32%
   QC value within limits for Mo 202.031  Recovery = 92.00%
Na 589.592 Radial†      2049.5      279.85 µg/L         8.919      279.85 ppb          8.919   3.19%
   QC value within limits for Na 589.592 Radial  Recovery = 93.28%
Ni 231.604†              433.8      4.9948 µg/L       0.13089      4.9948 ppb        0.13089   2.62%
   QC value within limits for Ni 231.604  Recovery = 99.90%
P 214.914†               690.7      147.58 µg/L         0.423      147.58 ppb          0.423   0.29%
   QC value within limits for P 214.914  Recovery = 98.39%
Pb 220.353†              200.7      11.202 µg/L        0.6223      11.202 ppb         0.6223   5.56%
   QC value within limits for Pb 220.353  Recovery = 112.02%
S 181.975 Axial†         131.4      97.634 µg/L        4.5940      97.634 ppb         4.5940   4.71%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†               80.6      9.6618 µg/L       0.95194      9.6618 ppb        0.95194   9.85%
   QC value within limits for Sb 206.836  Recovery = 96.62%
Se 196.026†               86.2        31.2 µg/L          3.09        31.2 ppb           3.09   9.88%
   QC value within limits for Se 196.026  Recovery = 104.17%
SiO2†                   2170.9      211.78 µg/L         3.127      211.78 ppb          3.127   1.48%
   QC value within limits for SiO2  Recovery = 99.43%
Si 251.611†             6799.9      100.06 µg/L         0.371      100.06 ppb          0.371   0.37%
   QC value within limits for Si 251.611  Recovery = 100.06%
Sn 189.927†              166.9      10.420 µg/L        0.1167      10.420 ppb         0.1167   1.12%
   QC value within limits for Sn 189.927  Recovery = 104.20%
Sr 421.552†             2494.8      5.1849 µg/L       0.14714      5.1849 ppb        0.14714   2.84%
   QC value within limits for Sr 421.552  Recovery = 103.70%
Ti 334.940†             5204.3      4.8193 µg/L       0.11489      4.8193 ppb        0.11489   2.38%
   QC value within limits for Ti 334.940  Recovery = 96.39%
Tl 190.801†              155.6      19.207 µg/L        1.2048      19.207 ppb         1.2048   6.27%
   QC value within limits for Tl 190.801  Recovery = 96.03%
U 409.014†               895.8      52.688 µg/L        8.1477      52.688 ppb         8.1477  15.46%
   QC value within limits for U 409.014  Recovery = 105.38%
V 292.402†               943.5      4.7388 µg/L       0.71883      4.7388 ppb        0.71883  15.17%
   QC value within limits for V 292.402  Recovery = 94.78%
Zn 213.857†             1805.7      10.096 µg/L        0.0971      10.096 ppb         0.0971   0.96%
   QC value within limits for Zn 213.857  Recovery = 100.96%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 3/31/2010 18:53:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	132242.6	132242.6	90.6	%			18:53:53
1	Al 396.153Radial†	2422897.8	2673731.8	495710	µg/L	495710	ppb	18:53:51
1	Ca 317.933Radial†	7691621.4	8487146.3	472770	µg/L	472770	ppb	18:53:51
1	Fe 238.204 Radial†	2755313.8	3040341.6	187390	µg/L	187390	ppb	18:53:51
1	K 766.490 Radial†	1640.2	265.2	-138.93	µg/L	-138.93	ppb	18:53:53
1	Mg 279.077 IEC†	1160629.2	1280564.0	476960	µg/L	476960	ppb	18:53:51
1	Na 589.592 Radial†	1484.0	346.8	47.294	µg/L	47.294	ppb	18:53:53
1	Sr 421.552†	1473.7	1761.6	-0.0382	µg/L	-0.0382	ppb	18:53:53
1	Sc 361.383	1517022.4	1517022.4	88.290	%			18:54:06
1	Y 371.029	894868.4	894868.4	87.161	%			18:54:06
1	Ag 328.068†	6255.0	2993.2	-1.9729	µg/L	-1.9729	ppb	18:54:06
1	As 188.979†	-100.1	-93.0	13.877	µg/L	13.877	ppb	18:54:26
1	B 249.677†	3380.9	323.4	4.7554	µg/L	4.7554	ppb	18:54:06
1	Ba 233.527†	434.1	627.6	0.1345	µg/L	0.1345	ppb	18:54:26
1	Be 313.107†	-1147.6	-235.1	-0.0621	µg/L	-0.0621	ppb	18:54:06
1	Cd 226.502†	2412.4	2850.5	-1.8998	µg/L	-1.8998	ppb	18:54:26
1	Co 228.616†	123.8	330.6	-5.6944	µg/L	-5.6944	ppb	18:54:26
1	Cr 267.716†	198.7	46.5	1.0479	µg/L	1.0479	ppb	18:54:26
1	Cu 324.752†	-5619.3	-9336.8	3.9046	µg/L	3.9046	ppb	18:54:06
1	Mn 257.610†	16860.5	18859.4	3.9217	µg/L	3.9217	ppb	18:54:06
1	Mo 202.031†	-556.1	-609.8	-1.7911	µg/L	-1.7911	ppb	18:54:26
1	Ni 231.604†	185.4	286.5	3.2984	µg/L	3.2984	ppb	18:54:26
1	P 214.914†	178.3	219.9	29.959	µg/L	29.959	ppb	18:54:26
1	Pb 220.353†	-392.3	-530.7	-4.9340	µg/L	-4.9340	ppb	18:54:26
1	S 181.975 Axial†	184.5	103.9	77.024	µg/L	77.024	ppb	18:54:26
1	Sb 206.836†	109.1	42.8	-0.8364	µg/L	-0.8364	ppb	18:54:26
1	Se 196.026†	-143.5	-177.8	0.756	µg/L	0.756	ppb	18:54:26
1	SiO2†	1661.3	106.3	10.857	µg/L	10.857	ppb	18:54:26
1	Si 251.611†	457.4	-318.5	-4.4771	µg/L	-4.4771	ppb	18:54:26
1	Sn 189.927†	41.8	48.5	3.1002	µg/L	3.1002	ppb	18:54:26
1	Ti 334.940†	22402.5	24421.1	-3.7208	µg/L	-3.7208	ppb	18:54:06
1	Tl 190.801†	-159.3	-63.8	-7.4175	µg/L	-7.4175	ppb	18:54:26
1	U 409.014†	-141.4	109.7	-14.558	µg/L	-14.558	ppb	18:54:06
1	V 292.402†	4081.9	4219.5	0.6141	µg/L	0.6141	ppb	18:54:06
1	Zn 213.857†	4369.0	4384.0	8.5615	µg/L	8.5615	ppb	18:54:26
2	Sc RADIAL	132040.0	132040.0	90.5	%			18:53:58
2	Al 396.153Radial†	2444947.4	2702202.7	500990	µg/L	500990	ppb	18:53:56
2	Ca 317.933Radial†	7800125.3	8620085.6	480170	µg/L	480170	ppb	18:53:56
2	Fe 238.204 Radial†	2791790.4	3085319.9	190160	µg/L	190160	ppb	18:53:56
2	K 766.490 Radial†	1740.8	379.1	-100.42	µg/L	-100.42	ppb	18:53:58
2	Mg 279.077 IEC†	1178560.0	1302345.9	485070	µg/L	485070	ppb	18:53:56
2	Na 589.592 Radial†	1410.4	267.9	36.479	µg/L	36.479	ppb	18:53:58
2	Sr 421.552†	1434.5	1720.7	-0.1811	µg/L	-0.1811	ppb	18:53:58
2	Sc 361.383	1500109.7	1500109.7	87.306	%			18:54:29
2	Y 371.029	884042.0	884042.0	86.106	%			18:54:29
2	Ag 328.068†	6203.9	3014.6	-2.1211	µg/L	-2.1211	ppb	18:54:29
2	As 188.979†	-119.9	-117.0	7.2444	µg/L	7.2444	ppb	18:54:49
2	B 249.677†	3505.1	508.8	7.4908	µg/L	7.4908	ppb	18:54:29
2	Ba 233.527†	482.5	688.5	0.3435	µg/L	0.3435	ppb	18:54:49
2	Be 313.107†	-1215.4	-327.4	-0.0902	µg/L	-0.0902	ppb	18:54:29
2	Cd 226.502†	2441.6	2914.8	-1.7901	µg/L	-1.7901	ppb	18:54:49
2	Co 228.616†	105.8	311.5	-6.0736	µg/L	-6.0736	ppb	18:54:49
2	Cr 267.716†	217.8	70.9	1.2432	µg/L	1.2432	ppb	18:54:49
2	Cu 324.752†	-5483.5	-9253.0	4.8451	µg/L	4.8451	ppb	18:54:29
2	Mn 257.610†	16639.0	18821.0	3.5450	µg/L	3.5450	ppb	18:54:29
2	Mo 202.031†	-590.4	-656.1	-2.8945	µg/L	-2.8945	ppb	18:54:49
2	Ni 231.604†	122.0	216.3	2.4904	µg/L	2.4904	ppb	18:54:49
2	P 214.914†	170.4	213.2	27.815	µg/L	27.815	ppb	18:54:49
2	Pb 220.353†	-391.2	-534.5	-4.9028	µg/L	-4.9028	ppb	18:54:49

2	S 181.975 Axial†	176.5	97.2	71.982 µg/L	71.982 ppb	18:54:49
2	Sb 206.836†	116.0	52.0	0.1714 µg/L	0.1714 ppb	18:54:49
2	Se 196.026†	-172.4	-212.7	-10.9 µg/L	-10.9 ppb	18:54:49
2	SiO2†	1633.2	95.3	9.7946 µg/L	9.7946 ppb	18:54:49
2	Si 251.611†	508.3	-254.3	-3.5215 µg/L	-3.5215 ppb	18:54:49
2	Sn 189.927†	60.8	70.8	4.4873 µg/L	4.4873 ppb	18:54:49
2	Ti 334.940†	21754.3	23964.7	-4.6112 µg/L	-4.6112 ppb	18:54:29
2	Tl 190.801†	-183.8	-93.9	-11.124 µg/L	-11.124 ppb	18:54:49
2	U 409.014†	-286.0	-57.7	-24.699 µg/L	-24.699 ppb	18:54:29
2	V 292.402†	3918.7	4084.7	-0.3553 µg/L	-0.3553 ppb	18:54:29
2	Zn 213.857†	4368.9	4439.7	8.6032 µg/L	8.6032 ppb	18:54:49
3	Sc RADIAL	128528.5	128528.5	88.1 %		18:54:02
3	Al 396.153Radial†	2425420.2	2753857.9	510560 µg/L	510560 ppb	18:54:00
3	Ca 317.933Radial†	7690261.2	8730875.1	486340 µg/L	486340 ppb	18:54:00
3	Fe 238.204 Radial†	2749581.2	3121695.4	192400 µg/L	192400 ppb	18:54:00
3	K 766.490 Radial†	1659.5	339.4	-118.61 µg/L	-118.61 ppb	18:54:02
3	Mg 279.077 IEC†	1158065.5	1314663.8	489660 µg/L	489660 ppb	18:54:00
3	Na 589.592 Radial†	1347.0	238.6	32.485 µg/L	32.485 ppb	18:54:02
3	Sr 421.552†	1492.5	1829.9	-0.0025 µg/L	-0.0025 ppb	18:54:02
3	Sc 361.383	1514195.4	1514195.4	88.126 %		18:54:52
3	Y 371.029	891947.3	891947.3	86.876 %		18:54:52
3	Ag 328.068†	6032.7	2754.1	-3.2379 µg/L	-3.2379 ppb	18:54:52
3	As 188.979†	-108.0	-102.2	12.211 µg/L	12.211 ppb	18:55:12
3	B 249.677†	3436.5	393.7	5.7936 µg/L	5.7936 ppb	18:54:52
3	Ba 233.527†	448.2	644.5	0.1380 µg/L	0.1380 ppb	18:55:12
3	Be 313.107†	-1158.8	-250.2	-0.0644 µg/L	-0.0644 ppb	18:54:52
3	Cd 226.502†	2438.6	2885.4	-2.2095 µg/L	-2.2095 ppb	18:55:12
3	Co 228.616†	90.0	292.5	-6.4255 µg/L	-6.4255 ppb	18:55:12
3	Cr 267.716†	181.2	27.0	0.9095 µg/L	0.9095 ppb	18:55:12
3	Cu 324.752†	-5570.7	-9293.5	5.1506 µg/L	5.1506 ppb	18:54:52
3	Mn 257.610†	16733.6	18751.0	3.2706 µg/L	3.2706 ppb	18:54:52
3	Mo 202.031†	-556.7	-611.6	-1.4146 µg/L	-1.4146 ppb	18:55:12
3	Ni 231.604†	136.4	231.3	2.6634 µg/L	2.6634 ppb	18:55:12
3	P 214.914†	188.3	231.6	32.331 µg/L	32.331 ppb	18:55:12
3	Pb 220.353†	-364.7	-500.2	-2.4766 µg/L	-2.4766 ppb	18:55:12
3	S 181.975 Axial†	176.2	94.9	70.345 µg/L	70.345 ppb	18:55:12
3	Sb 206.836†	127.8	64.2	1.5521 µg/L	1.5521 ppb	18:55:12
3	Se 196.026†	-157.0	-193.4	-3.16 µg/L	-3.16 ppb	18:55:12
3	SiO2†	1710.0	165.0	16.582 µg/L	16.582 ppb	18:55:12
3	Si 251.611†	438.9	-338.5	-4.7759 µg/L	-4.7759 ppb	18:55:12
3	Sn 189.927†	52.5	60.6	3.8554 µg/L	3.8554 ppb	18:55:12
3	Ti 334.940†	21892.4	23889.7	-4.9005 µg/L	-4.9005 ppb	18:54:52
3	Tl 190.801†	-161.6	-66.7	-7.7840 µg/L	-7.7840 ppb	18:55:12
3	U 409.014†	-54.1	208.5	-9.3710 µg/L	-9.3710 ppb	18:54:52
3	V 292.402†	3967.3	4098.1	-0.5042 µg/L	-0.5042 ppb	18:54:52
3	Zn 213.857†	4428.1	4460.3	8.5816 µg/L	8.5816 ppb	18:55:12

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1510442.5	87.908	%	0.5273				0.60%
Sc RADIAL	130937.0	89.7	%	1.43				1.59%
Y 371.029	890285.9	86.714	%	0.5456				0.63%
Ag 328.068†	2920.6	-2.4440	µg/L	0.69159	-2.4440	ppb	0.69159	28.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2709930.8	502420	µg/L	7530.6	502420	ppb	7530.6	1.50%
QC value within limits for Al 396.153Radial Recovery = 100.48%								
As 188.979†	-104.0	11.111	µg/L	3.4505	11.111	ppb	3.4505	31.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	408.6	6.0133	µg/L	1.38084	6.0133	ppb	1.38084	22.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	653.5	0.2053	µg/L	0.11966	0.2053	ppb	0.11966	58.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-270.9	-0.0722	µg/L	0.01558	-0.0722	ppb	0.01558	21.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8612702.4	479760	µg/L	6797.7	479760	ppb	6797.7	1.42%
QC value within limits for Ca 317.933Radial Recovery = 95.95%								
Cd 226.502†	2883.6	-1.9665	µg/L	0.21751	-1.9665	ppb	0.21751	11.06%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	311.5	-6.0645	µg/L	0.36562	-6.0645	ppb	0.36562	6.03%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              48.1      1.0668 µg/L      0.16765      1.0668 ppb       0.16765  15.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -9294.4      4.6334 µg/L      0.64943      4.6334 ppb       0.64943  14.02%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   3082452.3      189980 µg/L       2511.7      189980 ppb        2511.7   1.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.99%
K 766.490 Radial†        327.9     -119.32 µg/L       19.263     -119.32 ppb        19.263  16.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1299191.2      483900 µg/L       6431.4      483900 ppb        6431.4   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.78%
Mn 257.610†           18810.4      3.5791 µg/L      0.32691      3.5791 ppb       0.32691   9.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -625.9     -2.0334 µg/L      0.76912     -2.0334 ppb       0.76912  37.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       284.5      38.753 µg/L       7.6619      38.753 ppb        7.6619  19.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              244.7      2.8174 µg/L      0.42544      2.8174 ppb       0.42544  15.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               221.6      30.035 µg/L       2.2592      30.035 ppb        2.2592   7.52%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -521.8     -4.1045 µg/L      1.40989     -4.1045 ppb       1.40989  34.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          98.7      73.117 µg/L       3.4814      73.117 ppb        3.4814   4.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               53.0      0.2957 µg/L      1.19909      0.2957 ppb       1.19909 405.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -194.6       -4.44 µg/L        5.948       -4.44 ppb         5.948 133.85%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    122.2      12.411 µg/L       3.6511      12.411 ppb        3.6511  29.42%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            -303.8     -4.2582 µg/L      0.65524     -4.2582 ppb       0.65524  15.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               60.0      3.8143 µg/L      0.69446      3.8143 ppb       0.69446  18.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            1770.7     -0.0740 µg/L      0.09453     -0.0740 ppb       0.09453 127.80%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           24091.8     -4.4108 µg/L      0.61484     -4.4108 ppb       0.61484  13.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -74.8     -8.7751 µg/L      2.04236     -8.7751 ppb       2.04236  23.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                86.8     -16.209 µg/L       7.7964     -16.209 ppb        7.7964  48.10%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             4134.1     -0.0818 µg/L      0.60724     -0.0818 ppb       0.60724 742.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            4428.0      8.5821 µg/L      0.02081      8.5821 ppb       0.02081   0.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 3/31/2010 18:55:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128923.7	128923.7	88.3	%			18:55:52
1	Al 396.153Radial†	2441585.6	2763714.4	512370	µg/L	512370	ppb	18:55:50
1	Ca 317.933Radial†	7758514.8	8781367.4	489160	µg/L	489160	ppb	18:55:50
1	Fe 238.204 Radial†	2782554.2	3149448.4	194110	µg/L	194110	ppb	18:55:50
1	K 766.490 Radial†	15194.3	15653.8	5486.8	µg/L	5486.8	ppb	18:55:52
1	Mg 279.077 IEC†	1148118.0	1299373.7	483970	µg/L	483970	ppb	18:55:52
1	Na 589.592 Radial†	35618.0	39025.6	5326.3	µg/L	5326.3	ppb	18:55:52
1	Sr 421.552†	218553.1	247517.3	510.75	µg/L	510.75	ppb	18:55:52
1	Sc 361.383	1501848.4	1501848.4	87.407	%			18:56:05
1	Y 371.029	885934.6	885934.6	86.290	%			18:56:05
1	Ag 328.068†	68208.1	73943.4	266.87	µg/L	266.87	ppb	18:56:05
1	As 188.979†	1287.3	1493.1	500.98	µg/L	500.98	ppb	18:56:07
1	B 249.677†	33851.7	35222.8	517.92	µg/L	517.92	ppb	18:56:05
1	Ba 233.527†	108371.1	124119.8	498.16	µg/L	498.16	ppb	18:56:05
1	Be 313.107†	784555.4	898650.0	244.84	µg/L	244.84	ppb	18:56:05
1	Cd 226.502†	69032.6	79096.3	473.84	µg/L	473.84	ppb	18:56:05
1	Co 228.616†	31520.5	36252.0	437.70	µg/L	437.70	ppb	18:56:07
1	Cr 267.716†	53782.3	61352.1	481.07	µg/L	481.07	ppb	18:56:07
1	Cu 324.752†	114717.9	128272.9	540.53	µg/L	540.53	ppb	18:56:05
1	Mn 257.610†	356699.6	407851.6	484.93	µg/L	484.93	ppb	18:56:05
1	Mo 202.031†	13953.9	15984.3	486.45	µg/L	486.45	ppb	18:56:07
1	Ni 231.604†	34191.5	39194.0	451.29	µg/L	451.29	ppb	18:56:07
1	P 214.914†	10448.2	11971.4	2535.7	µg/L	2535.7	ppb	18:56:07
1	Pb 220.353†	6755.9	7642.9	453.53	µg/L	453.53	ppb	18:56:07
1	S 181.975 Axial†	3250.1	3613.3	2687.1	µg/L	2687.1	ppb	18:56:07
1	Sb 206.836†	3785.3	4249.8	500.40	µg/L	500.40	ppb	18:56:07
1	Se 196.026†	5624.0	6419.0	2390	µg/L	2390	ppb	18:56:07
1	SiO2†	99846.0	112455.3	10971	µg/L	10971	ppb	18:56:05
1	Si 251.611†	306352.4	349651.7	5145.5	µg/L	5145.5	ppb	18:56:05
1	Sn 189.927†	6636.1	7593.3	475.14	µg/L	475.14	ppb	18:56:07
1	Ti 334.940†	496139.0	566664.5	502.37	µg/L	502.37	ppb	18:56:05
1	Tl 190.801†	3058.5	3615.8	452.56	µg/L	452.56	ppb	18:56:07
1	U 409.014†	7410.9	8748.5	521.43	µg/L	521.43	ppb	18:56:05
1	V 292.402†	94726.2	107969.5	513.01	µg/L	513.01	ppb	18:56:05
1	Zn 213.857†	80178.7	91165.5	492.35	µg/L	492.35	ppb	18:56:05
2	Sc RADIAL	130306.5	130306.5	89.3	%			18:55:57
2	Al 396.153Radial†	2425762.3	2716664.8	503640	µg/L	503640	ppb	18:55:54
2	Ca 317.933Radial†	7696197.0	8618379.7	480080	µg/L	480080	ppb	18:55:54
2	Fe 238.204 Radial†	2760250.1	3091044.9	190510	µg/L	190510	ppb	18:55:54
2	K 766.490 Radial†	15576.4	15899.2	5580.2	µg/L	5580.2	ppb	18:55:57
2	Mg 279.077 IEC†	1163916.5	1303274.7	485430	µg/L	485430	ppb	18:55:57
2	Na 589.592 Radial†	35962.5	38983.4	5320.4	µg/L	5320.4	ppb	18:55:57
2	Sr 421.552†	221063.2	247703.0	511.20	µg/L	511.20	ppb	18:55:57
2	Sc 361.383	1503774.7	1503774.7	87.519	%			18:56:10
2	Y 371.029	887039.9	887039.9	86.398	%			18:56:10
2	Ag 328.068†	68293.1	73940.5	267.10	µg/L	267.10	ppb	18:56:10
2	As 188.979†	1349.3	1562.1	521.08	µg/L	521.08	ppb	18:56:12
2	B 249.677†	33920.1	35251.3	518.32	µg/L	518.32	ppb	18:56:10
2	Ba 233.527†	108643.6	124272.4	498.82	µg/L	498.82	ppb	18:56:10
2	Be 313.107†	786963.6	900251.8	245.27	µg/L	245.27	ppb	18:56:10
2	Cd 226.502†	69426.5	79445.1	476.40	µg/L	476.40	ppb	18:56:10
2	Co 228.616†	32044.4	36804.3	444.70	µg/L	444.70	ppb	18:56:12
2	Cr 267.716†	54375.8	61951.4	485.63	µg/L	485.63	ppb	18:56:12
2	Cu 324.752†	115372.1	128852.4	542.29	µg/L	542.29	ppb	18:56:10
2	Mn 257.610†	357810.4	408598.0	485.80	µg/L	485.80	ppb	18:56:10
2	Mo 202.031†	14059.7	16084.7	489.29	µg/L	489.29	ppb	18:56:12
2	Ni 231.604†	34695.4	39719.6	457.34	µg/L	457.34	ppb	18:56:12
2	P 214.914†	10657.1	12194.8	2584.0	µg/L	2584.0	ppb	18:56:12
2	Pb 220.353†	7007.7	7920.6	468.62	µg/L	468.62	ppb	18:56:12

2	S 181.975 Axial†	3226.8	3581.8	2663.8 µg/L	2663.8 ppb	18:56:12
2	Sb 206.836†	3801.0	4262.2	501.96 µg/L	501.96 ppb	18:56:12
2	Se 196.026†	5730.0	6531.8	2430 µg/L	2430 ppb	18:56:12
2	SiO2†	100449.1	112998.1	11024 µg/L	11024 ppb	18:56:10
2	Si 251.611†	307929.3	351004.4	5165.3 µg/L	5165.3 ppb	18:56:10
2	Sn 189.927†	6796.2	7766.5	485.94 µg/L	485.94 ppb	18:56:12
2	Ti 334.940†	498020.9	568087.6	503.35 µg/L	503.35 ppb	18:56:10
2	Tl 190.801†	3159.1	3726.2	466.12 µg/L	466.12 ppb	18:56:12
2	U 409.014†	7207.8	8505.6	507.68 µg/L	507.68 ppb	18:56:10
2	V 292.402†	94912.3	108043.3	513.79 µg/L	513.79 ppb	18:56:10
2	Zn 213.857†	80541.8	91462.8	494.31 µg/L	494.31 ppb	18:56:10
3	Sc RADIAL	130048.3	130048.3	89.1 %		18:56:01
3	Al 396.153Radial†	2433855.1	2731140.9	506330 µg/L	506330 ppb	18:55:59
3	Ca 317.933Radial†	7718645.4	8660686.5	482430 µg/L	482430 ppb	18:55:59
3	Fe 238.204 Radial†	2766938.5	3104689.2	191350 µg/L	191350 ppb	18:55:59
3	K 766.490 Radial†	15537.1	15889.7	5575.7 µg/L	5575.7 ppb	18:56:01
3	Mg 279.077 IEC†	1162812.5	1304624.6	485930 µg/L	485930 ppb	18:56:01
3	Na 589.592 Radial†	36095.8	39213.0	5351.8 µg/L	5351.8 ppb	18:56:01
3	Sr 421.552†	220343.8	247387.5	510.53 µg/L	510.53 ppb	18:56:01
3	Sc 361.383	1505253.1	1505253.1	87.605 %		18:56:15
3	Y 371.029	887796.9	887796.9	86.472 %		18:56:15
3	Ag 328.068†	68315.0	73888.9	266.85 µg/L	266.85 ppb	18:56:15
3	As 188.979†	1427.8	1650.2	547.91 µg/L	547.91 ppb	18:56:17
3	B 249.677†	34091.4	35408.8	520.64 µg/L	520.64 ppb	18:56:15
3	Ba 233.527†	108923.3	124469.7	499.60 µg/L	499.60 ppb	18:56:15
3	Be 313.107†	788697.2	901347.5	245.57 µg/L	245.57 ppb	18:56:15
3	Cd 226.502†	69816.9	79812.9	478.61 µg/L	478.61 ppb	18:56:15
3	Co 228.616†	32104.8	36837.3	445.06 µg/L	445.06 ppb	18:56:17
3	Cr 267.716†	54241.6	61737.2	483.97 µg/L	483.97 ppb	18:56:17
3	Cu 324.752†	115315.5	128658.2	541.67 µg/L	541.67 ppb	18:56:15
3	Mn 257.610†	358650.2	409155.1	486.47 µg/L	486.47 ppb	18:56:15
3	Mo 202.031†	13985.2	15983.9	486.37 µg/L	486.37 ppb	18:56:17
3	Ni 231.604†	34565.9	39532.8	455.19 µg/L	455.19 ppb	18:56:17
3	P 214.914†	10680.3	12209.4	2587.2 µg/L	2587.2 ppb	18:56:17
3	Pb 220.353†	7037.5	7946.8	470.21 µg/L	470.21 ppb	18:56:17
3	S 181.975 Axial†	3275.8	3634.2	2702.6 µg/L	2702.6 ppb	18:56:17
3	Sb 206.836†	3858.4	4323.5	509.22 µg/L	509.22 ppb	18:56:17
3	Se 196.026†	5760.2	6559.9	2440 µg/L	2440 ppb	18:56:17
3	SiO2†	100355.9	112779.0	11003 µg/L	11003 ppb	18:56:15
3	Si 251.611†	307749.7	350453.9	5157.2 µg/L	5157.2 ppb	18:56:15
3	Sn 189.927†	6900.6	7878.0	492.90 µg/L	492.90 ppb	18:56:17
3	Ti 334.940†	498757.3	568369.4	503.63 µg/L	503.63 ppb	18:56:15
3	Tl 190.801†	3121.0	3679.2	460.34 µg/L	460.34 ppb	18:56:17
3	U 409.014†	7255.1	8551.4	510.28 µg/L	510.28 ppb	18:56:15
3	V 292.402†	95008.3	108046.4	513.68 µg/L	513.68 ppb	18:56:15
3	Zn 213.857†	80688.3	91539.7	494.68 µg/L	494.68 ppb	18:56:15

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1503625.4	87.511	%	0.0994				0.11%
Sc RADIAL	129759.5	88.9	%	0.50				0.57%
Y 371.029	886923.8	86.387	%	0.0912				0.11%
Ag 328.068†	73924.3	266.94	µg/L	0.141	266.94	ppb	0.141	0.05%
QC value within limits for Ag 328.068 Recovery = 106.78%								
Al 396.153Radial†	2737173.4	507450	µg/L	4467.8	507450	ppb	4467.8	0.88%
QC value within limits for Al 396.153Radial Recovery = 101.49%								
As 188.979†	1568.5	523.32	µg/L	23.543	523.32	ppb	23.543	4.50%
QC value within limits for As 188.979 Recovery = 104.66%								
B 249.677†	35294.3	518.96	µg/L	1.468	518.96	ppb	1.468	0.28%
QC value within limits for B 249.677 Recovery = 103.79%								
Ba 233.527†	124287.3	498.86	µg/L	0.724	498.86	ppb	0.724	0.15%
QC value within limits for Ba 233.527 Recovery = 99.77%								
Be 313.107†	900083.1	245.23	µg/L	0.367	245.23	ppb	0.367	0.15%
QC value within limits for Be 313.107 Recovery = 98.09%								
Ca 317.933Radial†	8686811.2	483890	µg/L	4711.2	483890	ppb	4711.2	0.97%
QC value within limits for Ca 317.933Radial Recovery = 96.78%								
Cd 226.502†	79451.4	476.29	µg/L	2.386	476.29	ppb	2.386	0.50%
QC value within limits for Cd 226.502 Recovery = 95.26%								
Co 228.616†	36631.2	442.49	µg/L	4.152	442.49	ppb	4.152	0.94%

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   QC value within limits for Co 228.616  Recovery = 88.50%
Cr 267.716†            61680.2      483.56 µg/L        2.310      483.56 ppb          2.310   0.48%
   QC value within limits for Cr 267.716  Recovery = 96.71%
Cu 324.752†           128594.5      541.50 µg/L        0.893      541.50 ppb          0.893   0.16%
   QC value within limits for Cu 324.752  Recovery = 108.30%
Fe 238.204 Radial†   3115060.8      191990 µg/L       1883.0      191990 ppb         1883.0   0.98%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.00%
K 766.490 Radial†      15814.2      5547.6 µg/L         52.66      5547.6 ppb          52.66   0.95%
   QC value within limits for K 766.490 Radial  Recovery = 110.95%
Mg 279.077 IEC†      1302424.3      485110 µg/L        1017.4      485110 ppb         1017.4   0.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.02%
Mn 257.610†           408534.9      485.73 µg/L        0.774      485.73 ppb          0.774   0.16%
   QC value within limits for Mn 257.610  Recovery = 97.15%
Mo 202.031†            16017.6      487.37 µg/L        1.662      487.37 ppb          1.662   0.34%
   QC value within limits for Mo 202.031  Recovery = 97.47%
Na 589.592 Radial†     39074.0      5332.8 µg/L        16.68      5332.8 ppb          16.68   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 106.66%
Ni 231.604†            39482.1      454.61 µg/L        3.068      454.61 ppb          3.068   0.67%
   QC value within limits for Ni 231.604  Recovery = 90.92%
P 214.914†             12125.2      2569.0 µg/L        28.88      2569.0 ppb          28.88   1.12%
   QC value within limits for P 214.914  Recovery = 102.76%
Pb 220.353†             7836.8      464.12 µg/L        9.210      464.12 ppb          9.210   1.98%
   QC value within limits for Pb 220.353  Recovery = 92.82%
S 181.975 Axial†        3609.8      2684.5 µg/L        19.56      2684.5 ppb          19.56   0.73%
   QC value within limits for S 181.975 Axial  Recovery = 107.38%
Sb 206.836†             4278.5      503.86 µg/L        4.707      503.86 ppb          4.707   0.93%
   QC value within limits for Sb 206.836  Recovery = 100.77%
Se 196.026†             6503.6        2420 µg/L         26.4        2420 ppb           26.4   1.09%
   QC value within limits for Se 196.026  Recovery = 96.73%
SiO2†                 112744.1       10999 µg/L         26.6       10999 ppb           26.6   0.24%
   QC value within limits for SiO2  Recovery = 102.85%
Si 251.611†           350370.0      5156.0 µg/L         9.97      5156.0 ppb          9.97   0.19%
   QC value within limits for Si 251.611  Recovery = 103.12%
Sn 189.927†             7745.9      484.66 µg/L        8.948      484.66 ppb          8.948   1.85%
   QC value within limits for Sn 189.927  Recovery = 96.93%
Sr 421.552†           247536.0      510.83 µg/L        0.344      510.83 ppb          0.344   0.07%
   QC value within limits for Sr 421.552  Recovery = 102.17%
Ti 334.940†           567707.2      503.12 µg/L        0.662      503.12 ppb          0.662   0.13%
   QC value within limits for Ti 334.940  Recovery = 100.62%
Tl 190.801†             3673.7      459.67 µg/L        6.804      459.67 ppb          6.804   1.48%
   QC value within limits for Tl 190.801  Recovery = 91.93%
U 409.014†              8601.8      513.13 µg/L        7.307      513.13 ppb          7.307   1.42%
   QC value within limits for U 409.014  Recovery = 102.63%
V 292.402†            108019.7      513.49 µg/L        0.422      513.49 ppb          0.422   0.08%
   QC value within limits for V 292.402  Recovery = 102.70%
Zn 213.857†            91389.3      493.78 µg/L        1.251      493.78 ppb          1.251   0.25%
   QC value within limits for Zn 213.857  Recovery = 98.76%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 3/31/2010 18:56:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128043.7	128043.7	87.7	%			18:56:58
1	Al 396.153Radial†	2381304.8	2714005.3	503180	µg/L	503180	ppb	18:56:56
1	Ca 317.933Radial†	7611014.0	8673613.0	483150	µg/L	483150	ppb	18:56:56
1	Fe 238.204 Radial†	6523125.5	7434173.2	458200	µg/L	458200	ppb	18:56:56
1	K 766.490 Radial†	2256.7	1027.2	53.040	µg/L	53.040	ppb	18:56:58
1	Mg 279.077 IEC†	1139739.5	1298755.6	483500	µg/L	483500	ppb	18:56:56
1	Na 589.592 Radial†	3271680.6	3727401.1	509210	µg/L	509210	ppb	18:56:56
1	Sr 421.552†	5079.9	5924.8	8.5355	µg/L	8.5355	ppb	18:56:58
1	Sc 361.383	1451583.4	1451583.4	84.482	%			18:57:26
1	Y 371.029	852879.4	852879.4	83.071	%			18:57:26
1	Ag 328.068†	2264.1	-1411.5	-0.2309	µg/L	-0.2309	ppb	18:57:26
1	As 188.979†	-305.1	-340.8	-0.3436	µg/L	-0.3436	ppb	18:57:28
1	B 249.677†	4415.2	1720.3	25.330	µg/L	25.330	ppb	18:57:26
1	Ba 233.527†	738.1	1009.5	-1.7895	µg/L	-1.7895	ppb	18:57:28
1	Be 313.107†	-15542.1	-17332.3	0.1527	µg/L	0.1527	ppb	18:57:26
1	Cd 226.502†	6136.8	7382.3	-2.0728	µg/L	-2.0728	ppb	18:57:28
1	Co 228.616†	663.9	976.1	-11.855	µg/L	-11.855	ppb	18:57:28
1	Cr 267.716†	326.4	207.8	-1.0531	µg/L	-1.0531	ppb	18:57:28
1	Cu 324.752†	-15976.1	-21882.9	8.0863	µg/L	8.0863	ppb	18:57:26
1	Mn 257.610†	18213.2	21321.4	5.9920	µg/L	5.9920	ppb	18:57:26
1	Mo 202.031†	-937.6	-1089.8	-5.0578	µg/L	-5.0578	ppb	18:57:26
1	Ni 231.604†	147.8	251.5	2.8954	µg/L	2.8954	ppb	18:57:28
1	P 214.914†	945.2	1136.8	44.272	µg/L	44.272	ppb	18:57:28
1	Pb 220.353†	-112.1	-219.1	-7.8626	µg/L	-7.8626	ppb	18:57:28
1	S 181.975 Axial†	176.1	103.3	76.471	µg/L	76.471	ppb	18:57:28
1	Sb 206.836†	186.9	140.4	7.1485	µg/L	7.1485	ppb	18:57:28
1	Se 196.026†	-404.8	-494.4	-4.21	µg/L	-4.21	ppb	18:57:28
1	SiO2†	1963.2	548.4	54.447	µg/L	54.447	ppb	18:57:28
1	Si 251.611†	-2032.7	-3242.6	-47.410	µg/L	-47.410	ppb	18:57:28
1	Sn 189.927†	64.2	77.1	4.9002	µg/L	4.9002	ppb	18:57:28
1	Ti 334.940†	26623.1	30560.8	-4.8606	µg/L	-4.8606	ppb	18:57:26
1	Tl 190.801†	-158.4	-70.8	-8.1165	µg/L	-8.1165	ppb	18:57:28
1	U 409.014†	232638.7	275640.9	16036	µg/L	16036	ppb	18:57:26
1	V 292.402†	7227.0	8150.7	1.9065	µg/L	1.9065	ppb	18:57:28
1	Zn 213.857†	8608.4	9625.2	9.4603	µg/L	9.4603	ppb	18:57:28
2	Sc RADIAL	127587.1	127587.1	87.4	%			18:57:03
2	Al 396.153Radial†	2344707.9	2681859.2	497220	µg/L	497220	ppb	18:57:01
2	Ca 317.933Radial†	7463583.8	8536029.3	475490	µg/L	475490	ppb	18:57:01
2	Fe 238.204 Radial†	6391908.1	7310696.0	450590	µg/L	450590	ppb	18:57:01
2	K 766.490 Radial†	2390.9	1189.8	117.32	µg/L	117.32	ppb	18:57:03
2	Mg 279.077 IEC†	1114206.6	1274200.4	474360	µg/L	474360	ppb	18:57:01
2	Na 589.592 Radial†	3209939.6	3670127.4	501380	µg/L	501380	ppb	18:57:01
2	Sr 421.552†	5135.8	6009.4	8.7715	µg/L	8.7715	ppb	18:57:03
2	Sc 361.383	1456448.3	1456448.3	84.765	%			18:57:30
2	Y 371.029	856251.9	856251.9	83.399	%			18:57:30
2	Ag 328.068†	2013.8	-1715.7	-1.0926	µg/L	-1.0926	ppb	18:57:30
2	As 188.979†	-237.9	-260.3	22.297	µg/L	22.297	ppb	18:57:32
2	B 249.677†	4229.1	1483.4	21.834	µg/L	21.834	ppb	18:57:30
2	Ba 233.527†	835.0	1121.0	-1.2428	µg/L	-1.2428	ppb	18:57:32
2	Be 313.107†	-15397.0	-17099.7	0.2214	µg/L	0.2214	ppb	18:57:30
2	Cd 226.502†	6036.4	7239.5	-2.1644	µg/L	-2.1644	ppb	18:57:32
2	Co 228.616†	696.8	1012.4	-11.010	µg/L	-11.010	ppb	18:57:32
2	Cr 267.716†	355.9	241.2	-0.9572	µg/L	-0.9572	ppb	18:57:32
2	Cu 324.752†	-16236.3	-22126.7	5.7984	µg/L	5.7984	ppb	18:57:30
2	Mn 257.610†	18248.7	21291.3	6.3374	µg/L	6.3374	ppb	18:57:30
2	Mo 202.031†	-933.0	-1080.6	-5.2559	µg/L	-5.2559	ppb	18:57:30
2	Ni 231.604†	134.2	234.9	2.7046	µg/L	2.7046	ppb	18:57:32
2	P 214.914†	1061.2	1269.9	76.619	µg/L	76.619	ppb	18:57:32
2	Pb 220.353†	-99.7	-204.1	-7.1629	µg/L	-7.1629	ppb	18:57:32

2	S 181.975 Axial†	67.9	-24.9	-18.790 µg/L	-18.790	ppb	18:57:32
2	Sb 206.836†	102.8	40.5	-4.5964 µg/L	-4.5964	ppb	18:57:32
2	Se 196.026†	-406.6	-495.0	-7.05 µg/L	-7.05	ppb	18:57:32
2	SiO2†	1830.8	384.5	38.395 µg/L	38.395	ppb	18:57:32
2	Si 251.611†	-1934.6	-3118.9	-45.598 µg/L	-45.598	ppb	18:57:32
2	Sn 189.927†	82.4	98.3	6.2185 µg/L	6.2185	ppb	18:57:32
2	Ti 334.940†	25364.2	28970.4	-5.8085 µg/L	-5.8085	ppb	18:57:30
2	Tl 190.801†	-211.8	-133.2	-15.794 µg/L	-15.794	ppb	18:57:32
2	U 409.014†	233675.5	275944.1	16055 µg/L	16055	ppb	18:57:30
2	V 292.402†	7224.5	8119.2	2.5727 µg/L	2.5727	ppb	18:57:32
2	Zn 213.857†	8699.2	9698.3	10.651 µg/L	10.651	ppb	18:57:32
3	Sc RADIAL	127845.5	127845.5	87.6 %			18:57:07
3	Al 396.153Radial†	2359012.1	2692767.9	499240 µg/L	499240	ppb	18:57:05
3	Ca 317.933Radial†	7510342.6	8572152.9	477500 µg/L	477500	ppb	18:57:05
3	Fe 238.204 Radial†	6434548.4	7344595.4	452680 µg/L	452680	ppb	18:57:05
3	K 766.490 Radial†	2440.5	1241.0	134.70 µg/L	134.70	ppb	18:57:07
3	Mg 279.077 IEC†	1121897.2	1280403.8	476670 µg/L	476670	ppb	18:57:05
3	Na 589.592 Radial†	3229732.0	3685301.0	503460 µg/L	503460	ppb	18:57:05
3	Sr 421.552†	4859.4	5682.0	8.0751 µg/L	8.0751	ppb	18:57:07
3	Sc 361.383	1472435.6	1472435.6	85.696 %			18:57:35
3	Y 371.029	865581.1	865581.1	84.308 %			18:57:35
3	Ag 328.068†	2006.5	-1749.9	-1.2878 µg/L	-1.2878	ppb	18:57:35
3	As 188.979†	-242.4	-262.5	22.088 µg/L	22.088	ppb	18:57:37
3	B 249.677†	4311.3	1525.1	22.443 µg/L	22.443	ppb	18:57:35
3	Ba 233.527†	597.3	832.8	-2.4315 µg/L	-2.4315	ppb	18:57:37
3	Be 313.107†	-15503.1	-17026.2	0.2432 µg/L	0.2432	ppb	18:57:35
3	Cd 226.502†	5998.3	7117.7	-3.1440 µg/L	-3.1440	ppb	18:57:37
3	Co 228.616†	825.0	1153.0	-9.3850 µg/L	-9.3850	ppb	18:57:37
3	Cr 267.716†	265.1	130.8	-1.7837 µg/L	-1.7837	ppb	18:57:37
3	Cu 324.752†	-16427.6	-22141.9	6.1120 µg/L	6.1120	ppb	18:57:35
3	Mn 257.610†	18616.4	21486.6	6.4820 µg/L	6.4820	ppb	18:57:35
3	Mo 202.031†	-951.0	-1089.6	-5.3968 µg/L	-5.3968	ppb	18:57:35
3	Ni 231.604†	238.5	354.9	4.0862 µg/L	4.0862	ppb	18:57:37
3	P 214.914†	1053.2	1246.9	70.775 µg/L	70.775	ppb	18:57:37
3	Pb 220.353†	-34.4	-126.5	-2.7794 µg/L	-2.7794	ppb	18:57:37
3	S 181.975 Axial†	188.2	114.6	84.800 µg/L	84.800	ppb	18:57:37
3	Sb 206.836†	165.1	111.8	3.8601 µg/L	3.8601	ppb	18:57:37
3	Se 196.026†	-442.3	-531.4	-19.5 µg/L	-19.5	ppb	18:57:37
3	SiO2†	1893.1	433.7	43.156 µg/L	43.156	ppb	18:57:37
3	Si 251.611†	-1908.7	-3063.9	-44.810 µg/L	-44.810	ppb	18:57:37
3	Sn 189.927†	139.3	163.7	10.296 µg/L	10.296	ppb	18:57:37
3	Ti 334.940†	26025.3	29416.9	-5.5292 µg/L	-5.5292	ppb	18:57:35
3	Tl 190.801†	-218.6	-138.4	-16.446 µg/L	-16.446	ppb	18:57:37
3	U 409.014†	236329.7	276048.2	16061 µg/L	16061	ppb	18:57:35
3	V 292.402†	7144.2	7933.0	1.4413 µg/L	1.4413	ppb	18:57:37
3	Zn 213.857†	8714.2	9604.4	9.9077 µg/L	9.9077	ppb	18:57:37

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1460155.8	84.981	%	0.6349				0.75%
Sc RADIAL	127825.4	87.6	%	0.16				0.18%
Y 371.029	858237.5	83.593	%	0.6409				0.77%
Ag 328.068†	-1625.7	-0.8704	µg/L	0.56237	-0.8704	ppb	0.56237	64.61%
Al 396.153Radial†	2696210.8	499880	µg/L	3030.8	499880	ppb	3030.8	0.61%
QC value within limits for Al 396.153Radial Recovery = 99.98%								
As 188.979†	-287.9	14.680	µg/L	13.0115	14.680	ppb	13.0115	88.63%
B 249.677†	1576.2	23.202	µg/L	1.8679	23.202	ppb	1.8679	8.05%
Ba 233.527†	987.8	-1.8213	µg/L	0.59497	-1.8213	ppb	0.59497	32.67%
Be 313.107†	-17152.7	0.2058	µg/L	0.04725	0.2058	ppb	0.04725	22.96%
Ca 317.933Radial†	8593931.8	478720	µg/L	3973.4	478720	ppb	3973.4	0.83%
QC value within limits for Ca 317.933Radial Recovery = 95.74%								
Cd 226.502†	7246.5	-2.4604	µg/L	0.59380	-2.4604	ppb	0.59380	24.13%
Co 228.616†	1047.2	-10.750	µg/L	1.2554	-10.750	ppb	1.2554	11.68%
Cr 267.716†	193.3	-1.2647	µg/L	0.45201	-1.2647	ppb	0.45201	35.74%
Cu 324.752†	-22050.5	6.6655	µg/L	1.24035	6.6655	ppb	1.24035	18.61%
Fe 238.204 Radial†	7363154.9	453820	µg/L	3932.0	453820	ppb	3932.0	0.87%
QC value within limits for Fe 238.204 Radial Recovery = 90.76%								
K 766.490 Radial†	1152.7	101.69	µg/L	43.017	101.69	ppb	43.017	42.30%
Mg 279.077 IEC†	1284453.2	478180	µg/L	4754.0	478180	ppb	4754.0	0.99%

QC value within limits for Mg 279.077 IEC Recovery = 95.64%

Mn 257.610†	21366.4	6.2705 µg/L	0.25177	6.2705 ppb	0.25177	4.02%
Mo 202.031†	-1086.7	-5.2368 µg/L	0.17026	-5.2368 ppb	0.17026	3.25%
Na 589.592 Radial†	3694276.5	504680 µg/L	4053.7	504680 ppb	4053.7	0.80%

QC value within limits for Na 589.592 Radial Recovery = 100.94%

Ni 231.604†	280.4	3.2287 µg/L	0.74869	3.2287 ppb	0.74869	23.19%
P 214.914†	1217.9	63.889 µg/L	17.2380	63.889 ppb	17.2380	26.98%
Pb 220.353†	-183.2	-5.9350 µg/L	2.75510	-5.9350 ppb	2.75510	46.42%
S 181.975 Axial†	64.3	47.494 µg/L	57.5543	47.494 ppb	57.5543	121.18%
Sb 206.836†	97.6	2.1374 µg/L	6.05903	2.1374 ppb	6.05903	283.48%
Se 196.026†	-506.9	-10.3 µg/L	8.13	-10.3 ppb	8.13	79.29%
SiO2†	455.6	45.333 µg/L	8.2442	45.333 ppb	8.2442	18.19%
Si 251.611†	-3141.8	-45.939 µg/L	1.3330	-45.939 ppb	1.3330	2.90%
Sn 189.927†	113.0	7.1383 µg/L	2.81321	7.1383 ppb	2.81321	39.41%
Sr 421.552†	5872.1	8.4607 µg/L	0.35414	8.4607 ppb	0.35414	4.19%
Ti 334.940†	29649.4	-5.3994 µg/L	0.48710	-5.3994 ppb	0.48710	9.02%
Tl 190.801†	-114.1	-13.452 µg/L	4.6323	-13.452 ppb	4.6323	34.44%
U 409.014†	275877.8	16051 µg/L	13.0	16051 ppb	13.0	0.08%

QC value within limits for U 409.014 Recovery = 107.00%

V 292.402†	8067.6	1.9735 µg/L	0.56868	1.9735 ppb	0.56868	28.82%
Zn 213.857†	9642.6	10.006 µg/L	0.6012	10.006 ppb	0.6012	6.01%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 3/31/2010 18:57:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138428.5	138428.5	94.9	%			18:58:18
1	Al 396.153Radial†	2589.6	2793.1	65.979	µg/L	65.979	ppb	18:58:20
1	Ca 317.933Radial†	2182.0	1739.6	96.903	µg/L	96.903	ppb	18:58:20
1	Fe 238.204 Radial†	-202.3	-361.4	-22.274	µg/L	-22.274	ppb	18:58:20
1	K 766.490 Radial†	763320.3	803139.1	294040	µg/L	294040	ppb	18:58:18
1	Mg 279.077 IEC†	-318.7	-526.7	41.787	µg/L	41.787	ppb	18:58:20
1	Na 589.592 Radial†	4722.3	3687.4	242.24	µg/L	242.24	ppb	18:58:18
1	Sr 421.552†	4464241.5	4706289.3	9784.1	µg/L	9784.1	ppb	18:58:15
1	Sc 361.383	1644054.1	1644054.1	95.684	%			18:58:42
1	Y 371.029	958940.9	958940.9	93.401	%			18:58:42
1	Ag 328.068†	-28181.7	-33544.4	-7.2060	µg/L	-7.2060	ppb	18:58:44
1	As 188.979†	32117.0	33586.2	10409	µg/L	10409	ppb	18:58:44
1	B 249.677†	322787.1	333842.2	4891.3	µg/L	4891.3	ppb	18:58:42
1	Ba 233.527†	3263599.9	3410957.3	13754	µg/L	13754	ppb	18:58:42
1	Be 313.107†	10059777.2	10514640.1	2862.8	µg/L	2862.8	ppb	18:58:38
1	Cd 226.502†	1463937.1	1530093.7	9561.7	µg/L	9561.7	ppb	18:58:42
1	Co 228.616†	720309.4	752993.0	9307.6	µg/L	9307.6	ppb	18:58:42
1	Cr 267.716†	2891693.7	3021959.9	23671	µg/L	23671	ppb	18:58:42
1	Cu 324.752†	4894436.4	5112253.1	19872	µg/L	19872	ppb	18:58:42
1	Mn 257.610†	7191165.6	7515323.1	9298.7	µg/L	9298.7	ppb	18:58:42
1	Mo 202.031†	316742.4	331050.8	9732.5	µg/L	9732.5	ppb	18:58:44
1	Ni 231.604†	799875.1	836034.2	9626.3	µg/L	9626.3	ppb	18:58:42
1	P 214.914†	68547.5	71657.7	15093	µg/L	15093	ppb	18:58:44
1	Pb 220.353†	401154.4	419164.2	23428	µg/L	23428	ppb	18:58:42
1	S 181.975 Axial†	67316.5	70248.1	52247	µg/L	52247	ppb	18:58:44
1	Sb 206.836†	80773.2	84336.1	9841.1	µg/L	9841.1	ppb	18:58:44
1	Se 196.026†	26033.9	27193.0	9830	µg/L	9830	ppb	18:58:44
1	SiO2†	974638.1	1016828.8	98967	µg/L	98967	ppb	18:58:42
1	Si 251.611†	3010622.9	3145596.0	46180	µg/L	46180	ppb	18:58:42
1	Sn 189.927†	151635.6	158477.0	9912.7	µg/L	9912.7	ppb	18:58:44
1	Ti 334.940†	10132846.9	10588988.8	9885.3	µg/L	9885.3	ppb	18:58:38
1	Tl 190.801†	74051.0	77508.1	9673.9	µg/L	9673.9	ppb	18:58:44
1	U 409.014†	-10469.2	-10671.6	-21.061	µg/L	-21.061	ppb	18:58:44
1	V 292.402†	1944343.2	2031649.1	10104	µg/L	10104	ppb	18:58:42
1	Zn 213.857†	2422227.0	2530929.6	14143	µg/L	14143	ppb	18:58:42
2	Sc RADIAL	138489.8	138489.8	94.9	%			18:58:24
2	Al 396.153Radial†	2632.4	2837.1	80.052	µg/L	80.052	ppb	18:58:26
2	Ca 317.933Radial†	2111.9	1664.8	92.734	µg/L	92.734	ppb	18:58:26
2	Fe 238.204 Radial†	-168.1	-325.2	-20.046	µg/L	-20.046	ppb	18:58:26
2	K 766.490 Radial†	768501.7	808242.3	295910	µg/L	295910	ppb	18:58:24
2	Mg 279.077 IEC†	-343.1	-552.3	29.128	µg/L	29.128	ppb	18:58:26
2	Na 589.592 Radial†	4657.2	3616.6	230.89	µg/L	230.89	ppb	18:58:24
2	Sr 421.552†	4443237.9	4682072.2	9733.8	µg/L	9733.8	ppb	18:58:22
2	Sc 361.383	1654174.4	1654174.4	96.273	%			18:58:52
2	Y 371.029	964160.7	964160.7	93.910	%			18:58:52
2	Ag 328.068†	-27980.3	-33155.0	-5.4230	µg/L	-5.4230	ppb	18:58:54
2	As 188.979†	31657.2	32903.2	10204	µg/L	10204	ppb	18:58:54
2	B 249.677†	326358.6	335488.1	4915.4	µg/L	4915.4	ppb	18:58:52
2	Ba 233.527†	3296633.7	3424402.5	13809	µg/L	13809	ppb	18:58:52
2	Be 313.107†	10113068.4	10505672.2	2860.3	µg/L	2860.3	ppb	18:58:48
2	Cd 226.502†	1483425.3	1540976.0	9629.7	µg/L	9629.7	ppb	18:58:52
2	Co 228.616†	729085.8	757503.5	9363.3	µg/L	9363.3	ppb	18:58:52
2	Cr 267.716†	2922280.8	3035241.6	23775	µg/L	23775	ppb	18:58:52
2	Cu 324.752†	4934401.1	5122469.9	19912	µg/L	19912	ppb	18:58:52
2	Mn 257.610†	7264987.1	7546022.1	9336.7	µg/L	9336.7	ppb	18:58:52
2	Mo 202.031†	314514.5	326711.4	9605.0	µg/L	9605.0	ppb	18:58:54
2	Ni 231.604†	809217.8	840624.1	9679.2	µg/L	9679.2	ppb	18:58:52
2	P 214.914†	67979.1	70628.9	14873	µg/L	14873	ppb	18:58:54
2	Pb 220.353†	406432.6	422081.8	23591	µg/L	23591	ppb	18:58:52

2	S 181.975 Axial†	66600.5	69074.0	51374	µg/L	51374 ppb	18:58:54
2	Sb 206.836†	80074.2	83093.5	9689.8	µg/L	9689.8 ppb	18:58:54
2	Se 196.026†	25686.7	26665.9	9640	µg/L	9640 ppb	18:58:54
2	SiO2†	986400.6	1022814.9	99557	µg/L	99557 ppb	18:58:52
2	Si 251.611†	3046941.6	3164070.8	46455	µg/L	46455 ppb	18:58:52
2	Sn 189.927†	150469.1	156295.8	9776.7	µg/L	9776.7 ppb	18:58:54
2	Ti 334.940†	10189195.0	10582728.8	9879.4	µg/L	9879.4 ppb	18:58:48
2	Tl 190.801†	73611.8	76578.5	9559.6	µg/L	9559.6 ppb	18:58:54
2	U 409.014†	-10364.3	-10495.7	-9.0352	µg/L	-9.0352 ppb	18:58:54
2	V 292.402†	1961854.5	2037406.1	10131	µg/L	10131 ppb	18:58:52
2	Zn 213.857†	2448683.7	2542922.9	14210	µg/L	14210 ppb	18:58:52
3	Sc RADIAL	137437.4	137437.4	94.2	%		18:58:31
3	Al 396.153Radial†	2618.6	2843.6	77.986	µg/L	77.986 ppb	18:58:33
3	Ca 317.933Radial†	2227.5	1804.6	100.52	µg/L	100.52 ppb	18:58:33
3	Fe 238.204 Radial†	-164.9	-323.2	-19.923	µg/L	-19.923 ppb	18:58:33
3	K 766.490 Radial†	765491.4	811247.2	297010	µg/L	297010 ppb	18:58:31
3	Mg 279.077 IEC†	-295.0	-503.9	48.881	µg/L	48.881 ppb	18:58:33
3	Na 589.592 Radial†	4456.0	3440.6	205.87	µg/L	205.87 ppb	18:58:31
3	Sr 421.552†	4441067.4	4715621.3	9803.5	µg/L	9803.5 ppb	18:58:29
3	Sc 361.383	1660837.4	1660837.4	96.660	%		18:59:01
3	Y 371.029	967825.2	967825.2	94.267	%		18:59:01
3	Ag 328.068†	-28451.9	-33526.3	-6.5821	µg/L	-6.5821 ppb	18:59:04
3	As 188.979†	32300.2	33436.5	10365	µg/L	10365 ppb	18:59:04
3	B 249.677†	328722.2	336573.4	4931.3	µg/L	4931.3 ppb	18:59:01
3	Ba 233.527†	3317615.9	3432372.0	13841	µg/L	13841 ppb	18:59:01
3	Be 313.107†	10133998.6	10485182.6	2854.7	µg/L	2854.7 ppb	18:58:58
3	Cd 226.502†	1494854.9	1546618.8	9664.9	µg/L	9664.9 ppb	18:59:01
3	Co 228.616†	734092.5	759645.0	9389.8	µg/L	9389.8 ppb	18:59:01
3	Cr 267.716†	2940364.9	3041773.0	23826	µg/L	23826 ppb	18:59:01
3	Cu 324.752†	4964197.6	5132733.3	19952	µg/L	19952 ppb	18:59:01
3	Mn 257.610†	7309991.3	7562306.7	9356.8	µg/L	9356.8 ppb	18:59:01
3	Mo 202.031†	318101.3	329111.4	9675.5	µg/L	9675.5 ppb	18:59:04
3	Ni 231.604†	815203.0	843443.9	9711.6	µg/L	9711.6 ppb	18:59:01
3	P 214.914†	69129.8	71536.1	15067	µg/L	15067 ppb	18:59:04
3	Pb 220.353†	409679.7	423747.3	23684	µg/L	23684 ppb	18:59:01
3	S 181.975 Axial†	67967.3	70210.4	52219	µg/L	52219 ppb	18:59:04
3	Sb 206.836†	81066.4	83786.4	9772.6	µg/L	9772.6 ppb	18:59:04
3	Se 196.026†	26138.8	27026.6	9770	µg/L	9770 ppb	18:59:04
3	SiO2†	993772.6	1026331.1	99898	µg/L	99898 ppb	18:59:01
3	Si 251.611†	3070650.4	3175901.7	46628	µg/L	46628 ppb	18:59:01
3	Sn 189.927†	152708.7	157985.7	9882.0	µg/L	9882.0 ppb	18:59:04
3	Ti 334.940†	10211863.8	10563720.7	9861.6	µg/L	9861.6 ppb	18:58:58
3	Tl 190.801†	74486.4	77176.5	9633.0	µg/L	9633.0 ppb	18:59:04
3	U 409.014†	-10678.1	-10777.2	-24.287	µg/L	-24.287 ppb	18:59:04
3	V 292.402†	1973672.0	2041456.5	10152	µg/L	10152 ppb	18:59:01
3	Zn 213.857†	2465384.0	2549996.1	14250	µg/L	14250 ppb	18:59:01

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1653021.9	96.206	%	0.4918				0.51%
Sc RADIAL	138118.6	94.6	%	0.40				0.43%
Y 371.029	963642.3	93.859	%	0.4349				0.46%
Ag 328.068†	-33408.6	-6.4037	µg/L	0.90480	-6.4037	ppb	0.90480	14.13%
Al 396.153Radial†	2824.6	74.672	µg/L	7.5994	74.672	ppb	7.5994	10.18%
As 188.979†	33308.6	10326	µg/L	108.5	10326	ppb	108.5	1.05%
QC value within limits for As 188.979 Recovery = 103.26%								
B 249.677†	335301.2	4912.7	µg/L	20.14	4912.7	ppb	20.14	0.41%
QC value within limits for B 249.677 Recovery = 98.25%								
Ba 233.527†	3422577.3	13801	µg/L	43.6	13801	ppb	43.6	0.32%
QC value within limits for Ba 233.527 Recovery = 92.01%								
Be 313.107†	10501831.6	2859.3	µg/L	4.11	2859.3	ppb	4.11	0.14%
QC value within limits for Be 313.107 Recovery = 95.31%								
Ca 317.933Radial†	1736.3	96.720	µg/L	3.8970	96.720	ppb	3.8970	4.03%
Cd 226.502†	1539229.5	9618.8	µg/L	52.49	9618.8	ppb	52.49	0.55%
QC value within limits for Cd 226.502 Recovery = 96.19%								
Co 228.616†	756713.8	9353.6	µg/L	41.95	9353.6	ppb	41.95	0.45%
QC value within limits for Co 228.616 Recovery = 93.54%								
Cr 267.716†	3032991.5	23758	µg/L	79.1	23758	ppb	79.1	0.33%
QC value within limits for Cr 267.716 Recovery = 95.03%								

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Cu 324.752†          5122485.4       19912 µg/L          39.8       19912 ppb          39.8   0.20%
   QC value within limits for Cu 324.752  Recovery = 99.56%
Fe 238.204 Radial†      -336.6     -20.748 µg/L        1.3234     -20.748 ppb        1.3234   6.38%
K 766.490 Radial†     807542.9      295650 µg/L        1500.7      295650 ppb        1500.7   0.51%
   QC value within limits for K 766.490 Radial  Recovery = 98.55%
Mg 279.077 IEC†         -527.6      39.932 µg/L       10.0061      39.932 ppb       10.0061  25.06%
Mn 257.610†          7541217.3      9330.7 µg/L         29.52      9330.7 ppb         29.52   0.32%
   QC value within limits for Mn 257.610  Recovery = 93.31%
Mo 202.031†           328957.9      9671.0 µg/L         63.88      9671.0 ppb         63.88   0.66%
   QC value within limits for Mo 202.031  Recovery = 96.71%
Na 589.592 Radial†      3581.5      226.33 µg/L        18.607      226.33 ppb        18.607   8.22%
Ni 231.604†           840034.1      9672.4 µg/L         43.06      9672.4 ppb         43.06   0.45%
   QC value within limits for Ni 231.604  Recovery = 96.72%
P 214.914†             71274.3       15011 µg/L         120.3       15011 ppb         120.3   0.80%
   QC value within limits for P 214.914  Recovery = 100.07%
Pb 220.353†           421664.4       23568 µg/L         129.3       23568 ppb         129.3   0.55%
   QC value within limits for Pb 220.353  Recovery = 94.27%
S 181.975 Axial†       69844.2       51947 µg/L         496.0       51947 ppb         496.0   0.95%
   QC value within limits for S 181.975 Axial  Recovery = 103.89%
Sb 206.836†            83738.7      9767.8 µg/L         75.75      9767.8 ppb         75.75   0.78%
   QC value within limits for Sb 206.836  Recovery = 97.68%
Se 196.026†            26961.8        9750 µg/L          97.4        9750 ppb          97.4   1.00%
   QC value within limits for Se 196.026  Recovery = 97.47%
SiO2†                1021991.6       99474 µg/L         471.0       99474 ppb         471.0   0.47%
   QC value within limits for SiO2  Recovery = 92.97%
Si 251.611†          3161856.2       46421 µg/L         225.8       46421 ppb         225.8   0.49%
   QC value within limits for Si 251.611  Recovery = 92.84%
Sn 189.927†           157586.2      9857.1 µg/L         71.32      9857.1 ppb         71.32   0.72%
   QC value within limits for Sn 189.927  Recovery = 98.57%
Sr 421.552†          4701327.6      9773.8 µg/L         36.00      9773.8 ppb         36.00   0.37%
   QC value within limits for Sr 421.552  Recovery = 97.74%
Ti 334.940†         10578479.4      9875.4 µg/L         12.32      9875.4 ppb         12.32   0.12%
   QC value within limits for Ti 334.940  Recovery = 98.75%
Tl 190.801†            77087.7      9622.1 µg/L         57.90      9622.1 ppb         57.90   0.60%
   QC value within limits for Tl 190.801  Recovery = 96.22%
U 409.014†            -10648.1     -18.128 µg/L        8.0380     -18.128 ppb        8.0380  44.34%
V 292.402†           2036837.3       10129 µg/L          24.0       10129 ppb          24.0   0.24%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†          2541282.9       14201 µg/L          53.8       14201 ppb          53.8   0.38%
   QC value within limits for Zn 213.857  Recovery = 94.68%
All analyte(s) passed QC.
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Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 18:59:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142139.5	142139.5	97.4	%			18:59:45
1	Al 396.153Radial†	26433.8	27201.9	5020.1	µg/L	5020.1	ppb	18:59:45
1	Ca 317.933Radial†	88689.7	90494.1	5040.9	µg/L	5040.9	ppb	18:59:45
1	Fe 238.204 Radial†	79307.5	81274.2	5009.2	µg/L	5009.2	ppb	18:59:45
1	K 766.490 Radial†	16771.4	15673.9	5734.3	µg/L	5734.3	ppb	18:59:45
1	Mg 279.077 IEC†	13660.1	13833.7	5162.1	µg/L	5162.1	ppb	18:59:45
1	Na 589.592 Radial†	73293.1	73956.7	10098	µg/L	10098	ppb	18:59:45
1	Sr 421.552†	230485.0	236766.3	492.18	µg/L	492.18	ppb	18:59:42
1	Sc 361.383	1685039.5	1685039.5	98.069	%			19:00:11
1	Y 371.029	998501.4	998501.4	97.255	%			19:00:11
1	Ag 328.068†	132676.3	131197.3	491.97	µg/L	491.97	ppb	19:00:11
1	As 188.979†	1601.0	1652.9	507.06	µg/L	507.06	ppb	19:00:31
1	B 249.677†	36255.7	33463.6	491.81	µg/L	491.81	ppb	19:00:11
1	Ba 233.527†	119950.7	122448.3	493.83	µg/L	493.83	ppb	19:00:11
1	Be 313.107†	1777442.6	1813504.8	493.92	µg/L	493.92	ppb	19:00:11
1	Cd 226.502†	77121.2	78757.9	491.64	µg/L	491.64	ppb	19:00:11
1	Co 228.616†	39140.7	40101.7	495.05	µg/L	495.05	ppb	19:00:11
1	Cr 267.716†	61794.1	62832.3	491.97	µg/L	491.97	ppb	19:00:11
1	Cu 324.752†	126997.2	126525.5	493.24	µg/L	493.24	ppb	19:00:11
1	Mn 257.610†	392842.9	400340.6	495.12	µg/L	495.12	ppb	19:00:11
1	Mo 202.031†	16539.5	16885.3	496.69	µg/L	496.69	ppb	19:00:31
1	Ni 231.604†	41890.8	42792.1	492.72	µg/L	492.72	ppb	19:00:11
1	P 214.914†	11336.8	11578.0	2467.8	µg/L	2467.8	ppb	19:00:31
1	Pb 220.353†	8936.3	9025.8	505.42	µg/L	505.42	ppb	19:00:31
1	S 181.975 Axial†	1440.2	1363.5	1016.7	µg/L	1016.7	ppb	19:00:31
1	Sb 206.836†	4150.3	4151.2	494.66	µg/L	494.66	ppb	19:00:31
1	Se 196.026†	1355.8	1367.2	496	µg/L	496	ppb	19:00:31
1	SiO2†	55729.4	55051.3	5359.5	µg/L	5359.5	ppb	19:00:11
1	Si 251.611†	167770.7	170237.6	2499.9	µg/L	2499.9	ppb	19:00:11
1	Sn 189.927†	7832.4	7987.8	499.62	µg/L	499.62	ppb	19:00:31
1	Ti 334.940†	519447.4	528722.7	493.33	µg/L	493.33	ppb	19:00:11
1	Tl 190.801†	3833.0	4025.2	501.97	µg/L	501.97	ppb	19:00:31
1	U 409.014†	7396.5	7812.0	486.67	µg/L	486.67	ppb	19:00:11
1	V 292.402†	98795.4	100336.9	496.05	µg/L	496.05	ppb	19:00:11
1	Zn 213.857†	87637.0	88798.1	494.94	µg/L	494.94	ppb	19:00:11
2	Sc RADIAL	141405.1	141405.1	96.9	%			18:59:49
2	Al 396.153Radial†	26316.7	27222.0	5023.9	µg/L	5023.9	ppb	18:59:49
2	Ca 317.933Radial†	88132.2	90391.6	5035.2	µg/L	5035.2	ppb	18:59:49
2	Fe 238.204 Radial†	78428.2	80789.6	4979.4	µg/L	4979.4	ppb	18:59:49
2	K 766.490 Radial†	16577.4	15563.0	5693.7	µg/L	5693.7	ppb	18:59:49
2	Mg 279.077 IEC†	13417.4	13656.1	5095.9	µg/L	5095.9	ppb	18:59:49
2	Na 589.592 Radial†	72730.8	73767.2	10072	µg/L	10072	ppb	18:59:49
2	Sr 421.552†	231214.8	238748.4	496.30	µg/L	496.30	ppb	18:59:47
2	Sc 361.383	1693366.2	1693366.2	98.554	%			19:00:35
2	Y 371.029	1002117.3	1002117.3	97.607	%			19:00:35
2	Ag 328.068†	134028.3	131903.9	494.57	µg/L	494.57	ppb	19:00:35
2	As 188.979†	1592.6	1636.4	502.08	µg/L	502.08	ppb	19:00:55
2	B 249.677†	36515.2	33545.2	493.02	µg/L	493.02	ppb	19:00:35
2	Ba 233.527†	120680.2	122587.1	494.39	µg/L	494.39	ppb	19:00:35
2	Be 313.107†	1789722.9	1817053.1	494.89	µg/L	494.89	ppb	19:00:35
2	Cd 226.502†	77769.6	79029.1	493.33	µg/L	493.33	ppb	19:00:35
2	Co 228.616†	39338.4	40106.1	495.11	µg/L	495.11	ppb	19:00:35
2	Cr 267.716†	62316.9	63052.8	493.70	µg/L	493.70	ppb	19:00:35
2	Cu 324.752†	127673.8	126575.3	493.42	µg/L	493.42	ppb	19:00:35
2	Mn 257.610†	395604.2	401172.7	496.16	µg/L	496.16	ppb	19:00:35
2	Mo 202.031†	16605.0	16868.7	496.20	µg/L	496.20	ppb	19:00:55
2	Ni 231.604†	42250.6	42947.2	494.51	µg/L	494.51	ppb	19:00:35
2	P 214.914†	11392.0	11577.2	2467.6	µg/L	2467.6	ppb	19:00:55
2	Pb 220.353†	8993.4	9039.0	506.15	µg/L	506.15	ppb	19:00:55

2	S 181.975 Axial†	1441.0	1357.1	1011.9 µg/L	1011.9 ppb	19:00:55
2	Sb 206.836†	4173.3	4153.7	494.93 µg/L	494.93 ppb	19:00:55
2	Se 196.026†	1369.6	1374.4	499 µg/L	499 ppb	19:00:55
2	SiO2†	55740.1	54782.8	5333.3 µg/L	5333.3 ppb	19:00:35
2	Si 251.611†	168764.7	170404.9	2502.4 µg/L	2502.4 ppb	19:00:35
2	Sn 189.927†	7855.7	7972.1	498.64 µg/L	498.64 ppb	19:00:55
2	Ti 334.940†	522510.2	529225.9	493.80 µg/L	493.80 ppb	19:00:35
2	Tl 190.801†	3874.1	4047.6	504.73 µg/L	504.73 ppb	19:00:55
2	U 409.014†	7341.8	7719.4	481.23 µg/L	481.23 ppb	19:00:35
2	V 292.402†	99158.5	100210.0	495.43 µg/L	495.43 ppb	19:00:35
2	Zn 213.857†	88086.4	88814.8	495.03 µg/L	495.03 ppb	19:00:35
3	Sc RADIAL	143105.8	143105.8	98.1 %		18:59:53
3	Al 396.153Radial†	26546.6	27133.7	5007.7 µg/L	5007.7 ppb	18:59:53
3	Ca 317.933Radial†	89145.0	90343.6	5032.5 µg/L	5032.5 ppb	18:59:53
3	Fe 238.204 Radial†	79321.5	80738.7	4976.2 µg/L	4976.2 ppb	18:59:53
3	K 766.490 Radial†	16684.6	15469.1	5659.4 µg/L	5659.4 ppb	18:59:53
3	Mg 279.077 IEC†	13656.7	13735.5	5125.4 µg/L	5125.4 ppb	18:59:53
3	Na 589.592 Radial†	73452.5	73611.2	10051 µg/L	10051 ppb	18:59:53
3	Sr 421.552†	233202.1	237939.3	494.62 µg/L	494.62 ppb	18:59:51
3	Sc 361.383	1698557.6	1698557.6	98.856 %		19:00:58
3	Y 371.029	1005300.2	1005300.2	97.917 %		19:00:58
3	Ag 328.068†	134027.1	131487.0	493.03 µg/L	493.03 ppb	19:00:58
3	As 188.979†	1600.3	1639.2	502.90 µg/L	502.90 ppb	19:01:18
3	B 249.677†	36626.1	33544.1	493.00 µg/L	493.00 ppb	19:00:58
3	Ba 233.527†	120865.6	122400.4	493.64 µg/L	493.64 ppb	19:00:58
3	Be 313.107†	1794818.7	1816657.7	494.78 µg/L	494.78 ppb	19:00:58
3	Cd 226.502†	77952.7	78973.1	492.98 µg/L	492.98 ppb	19:00:58
3	Co 228.616†	39410.3	40056.7	494.50 µg/L	494.50 ppb	19:00:58
3	Cr 267.716†	62267.5	62809.6	491.79 µg/L	491.79 ppb	19:00:58
3	Cu 324.752†	127710.6	126216.6	492.03 µg/L	492.03 ppb	19:00:58
3	Mn 257.610†	396581.9	400934.9	495.86 µg/L	495.86 ppb	19:00:58
3	Mo 202.031†	16557.8	16769.5	493.29 µg/L	493.29 ppb	19:01:18
3	Ni 231.604†	42318.2	42884.5	493.78 µg/L	493.78 ppb	19:00:58
3	P 214.914†	11368.7	11518.2	2455.0 µg/L	2455.0 ppb	19:01:18
3	Pb 220.353†	8920.7	8937.6	500.48 µg/L	500.48 ppb	19:01:18
3	S 181.975 Axial†	1449.3	1361.0	1014.8 µg/L	1014.8 ppb	19:01:18
3	Sb 206.836†	4163.9	4131.2	492.23 µg/L	492.23 ppb	19:01:18
3	Se 196.026†	1367.7	1368.2	497 µg/L	497 ppb	19:01:18
3	SiO2†	55966.4	54838.9	5338.9 µg/L	5338.9 ppb	19:00:58
3	Si 251.611†	169027.1	170146.9	2498.6 µg/L	2498.6 ppb	19:00:58
3	Sn 189.927†	7816.0	7907.6	494.62 µg/L	494.62 ppb	19:01:18
3	Ti 334.940†	523522.3	528629.3	493.24 µg/L	493.24 ppb	19:00:58
3	Tl 190.801†	3828.1	3989.1	497.54 µg/L	497.54 ppb	19:01:18
3	U 409.014†	7431.2	7787.1	485.18 µg/L	485.18 ppb	19:00:58
3	V 292.402†	99434.0	100181.1	495.25 µg/L	495.25 ppb	19:00:58
3	Zn 213.857†	87848.2	88300.5	492.15 µg/L	492.15 ppb	19:00:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1692321.1	98.493	%	0.3969				0.40%
Sc RADIAL	142216.8	97.5	%	0.58				0.60%
Y 371.029	1001973.0	97.593	%	0.3313				0.34%
Ag 328.068†	131529.4	493.19	µg/L	1.309	493.19	ppb	1.309	0.27%
QC value within limits for Ag 328.068 Recovery = 98.64%								
Al 396.153Radial†	27185.9	5017.2	µg/L	8.50	5017.2	ppb	8.50	0.17%
QC value within limits for Al 396.153Radial Recovery = 100.34%								
As 188.979†	1642.8	504.02	µg/L	2.669	504.02	ppb	2.669	0.53%
QC value within limits for As 188.979 Recovery = 100.80%								
B 249.677†	33517.6	492.61	µg/L	0.690	492.61	ppb	0.690	0.14%
QC value within limits for B 249.677 Recovery = 98.52%								
Ba 233.527†	122478.6	493.95	µg/L	0.391	493.95	ppb	0.391	0.08%
QC value within limits for Ba 233.527 Recovery = 98.79%								
Be 313.107†	1815738.5	494.53	µg/L	0.529	494.53	ppb	0.529	0.11%
QC value within limits for Be 313.107 Recovery = 98.91%								
Ca 317.933Radial†	90409.8	5036.2	µg/L	4.28	5036.2	ppb	4.28	0.09%
QC value within limits for Ca 317.933Radial Recovery = 100.72%								
Cd 226.502†	78920.1	492.65	µg/L	0.896	492.65	ppb	0.896	0.18%
QC value within limits for Cd 226.502 Recovery = 98.53%								
Co 228.616†	40088.2	494.89	µg/L	0.337	494.89	ppb	0.337	0.07%

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   QC value within limits for Co 228.616  Recovery = 98.98%
Cr 267.716†            62898.2      492.49 µg/L        1.054      492.49 ppb          1.054   0.21%
   QC value within limits for Cr 267.716  Recovery = 98.50%
Cu 324.752†           126439.1      492.90 µg/L        0.756      492.90 ppb          0.756   0.15%
   QC value within limits for Cu 324.752  Recovery = 98.58%
Fe 238.204 Radial†     80934.2      4988.3 µg/L        18.22      4988.3 ppb          18.22   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.77%
K 766.490 Radial†      15568.7      5695.8 µg/L        37.52      5695.8 ppb          37.52   0.66%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 113.92%
Mg 279.077 IEC†        13741.8      5127.8 µg/L        33.15      5127.8 ppb          33.15   0.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.56%
Mn 257.610†           400816.1      495.71 µg/L        0.532      495.71 ppb          0.532   0.11%
   QC value within limits for Mn 257.610  Recovery = 99.14%
Mo 202.031†            16841.2      495.39 µg/L        1.841      495.39 ppb          1.841   0.37%
   QC value within limits for Mo 202.031  Recovery = 99.08%
Na 589.592 Radial†     73778.4       10074 µg/L         23.6       10074 ppb           23.6   0.23%
   QC value within limits for Na 589.592 Radial  Recovery = 100.74%
Ni 231.604†            42874.6      493.67 µg/L        0.898      493.67 ppb          0.898   0.18%
   QC value within limits for Ni 231.604  Recovery = 98.73%
P 214.914†             11557.8      2463.5 µg/L        7.33       2463.5 ppb           7.33   0.30%
   QC value within limits for P 214.914  Recovery = 98.54%
Pb 220.353†             9000.8      504.02 µg/L        3.083      504.02 ppb          3.083   0.61%
   QC value within limits for Pb 220.353  Recovery = 100.80%
S 181.975 Axial†        1360.5      1014.5 µg/L        2.43       1014.5 ppb           2.43   0.24%
   QC value within limits for S 181.975 Axial  Recovery = 101.45%
Sb 206.836†             4145.4      493.94 µg/L        1.484      493.94 ppb          1.484   0.30%
   QC value within limits for Sb 206.836  Recovery = 98.79%
Se 196.026†             1370.0         497 µg/L         1.4          497 ppb            1.4   0.28%
   QC value within limits for Se 196.026  Recovery = 99.49%
SiO2†                  54891.0      5343.9 µg/L        13.80      5343.9 ppb          13.80   0.26%
   QC value within limits for SiO2  Recovery = 99.93%
Si 251.611†           170263.1      2500.3 µg/L        1.90       2500.3 ppb           1.90   0.08%
   QC value within limits for Si 251.611  Recovery = 100.01%
Sn 189.927†             7955.8      497.63 µg/L        2.649      497.63 ppb          2.649   0.53%
   QC value within limits for Sn 189.927  Recovery = 99.53%
Sr 421.552†           237818.0      494.37 µg/L        2.072      494.37 ppb          2.072   0.42%
   QC value within limits for Sr 421.552  Recovery = 98.87%
Ti 334.940†           528859.3      493.46 µg/L        0.302      493.46 ppb          0.302   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.69%
Tl 190.801†             4020.6      501.41 µg/L        3.629      501.41 ppb          3.629   0.72%
   QC value within limits for Tl 190.801  Recovery = 100.28%
U 409.014†              7772.9      484.36 µg/L        2.811      484.36 ppb          2.811   0.58%
   QC value within limits for U 409.014  Recovery = 96.87%
V 292.402†            100242.7      495.58 µg/L        0.417      495.58 ppb          0.417   0.08%
   QC value within limits for V 292.402  Recovery = 99.12%
Zn 213.857†            88637.8      494.04 µg/L        1.641      494.04 ppb          1.641   0.33%
   QC value within limits for Zn 213.857  Recovery = 98.81%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:01:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142576.4	142576.4	97.7	%			19:01:55
1	Al 396.153Radial†	57.6	122.1	22.616	µg/L	22.616	ppb	19:02:15
1	Ca 317.933Radial†	950.3	412.1	22.954	µg/L	22.954	ppb	19:02:15
1	Fe 238.204 Radial†	408.4	269.9	16.636	µg/L	16.636	ppb	19:02:15
1	K 766.490 Radial†	2351.3	861.8	315.49	µg/L	315.49	ppb	19:01:55
1	Mg 279.077 IEC†	256.3	71.6	26.675	µg/L	26.675	ppb	19:02:15
1	Na 589.592 Radial†	2324.7	1088.6	148.44	µg/L	148.44	ppb	19:01:55
1	Sr 421.552†	-47.4	86.8	0.1802	µg/L	0.1802	ppb	19:01:55
1	Sc 361.383	1712993.6	1712993.6	99.696	%			19:03:03
1	Y 371.029	1024574.5	1024574.5	99.794	%			19:03:03
1	Ag 328.068†	3862.6	-217.0	-0.8055	µg/L	-0.8055	ppb	19:03:05
1	As 188.979†	-11.7	8.6	2.6096	µg/L	2.6096	ppb	19:03:25
1	B 249.677†	3681.1	186.4	2.7486	µg/L	2.7486	ppb	19:03:05
1	Ba 233.527†	-102.8	32.7	0.1316	µg/L	0.1316	ppb	19:03:25
1	Be 313.107†	-845.8	216.4	0.0592	µg/L	0.0592	ppb	19:03:05
1	Cd 226.502†	-69.1	48.9	0.3038	µg/L	0.3038	ppb	19:03:25
1	Co 228.616†	-171.2	18.6	0.2289	µg/L	0.2289	ppb	19:03:25
1	Cr 267.716†	235.5	57.6	0.4508	µg/L	0.4508	ppb	19:03:25
1	Cu 324.752†	3139.9	177.3	0.6930	µg/L	0.6930	ppb	19:03:05
1	Mn 257.610†	387.8	151.7	0.1866	µg/L	0.1866	ppb	19:03:25
1	Mo 202.031†	-0.9	19.2	0.5643	µg/L	0.5643	ppb	19:03:25
1	Ni 231.604†	-84.9	-8.7	-0.0996	µg/L	-0.0996	ppb	19:03:25
1	P 214.914†	-24.3	-6.5	-1.3891	µg/L	-1.3891	ppb	19:03:25
1	Pb 220.353†	141.3	55.4	3.0911	µg/L	3.0911	ppb	19:03:25
1	S 181.975 Axial†	113.5	8.8	6.5060	µg/L	6.5060	ppb	19:03:25
1	Sb 206.836†	76.0	-4.6	-0.5451	µg/L	-0.5451	ppb	19:03:25
1	Se 196.026†	20.7	5.5	2.01	µg/L	2.01	ppb	19:03:25
1	SiO2†	1808.7	38.9	3.7615	µg/L	3.7615	ppb	19:03:25
1	Si 251.611†	1158.0	325.0	4.7734	µg/L	4.7734	ppb	19:03:05
1	Sn 189.927†	23.2	24.4	1.5199	µg/L	1.5199	ppb	19:03:25
1	Ti 334.940†	1109.4	160.3	0.1476	µg/L	0.1476	ppb	19:03:05
1	Tl 190.801†	-105.0	11.4	1.4002	µg/L	1.4002	ppb	19:03:25
1	U 409.014†	-251.8	17.3	0.9993	µg/L	0.9993	ppb	19:03:05
1	V 292.402†	359.4	-43.3	-0.2046	µg/L	-0.2046	ppb	19:03:05
1	Zn 213.857†	837.7	275.9	1.5483	µg/L	1.5483	ppb	19:03:25
2	Sc RADIAL	143802.6	143802.6	98.5	%			19:02:17
2	Al 396.153Radial†	-23.6	39.2	7.2646	µg/L	7.2646	ppb	19:02:37
2	Ca 317.933Radial†	724.5	174.6	9.7279	µg/L	9.7279	ppb	19:02:37
2	Fe 238.204 Radial†	241.4	96.9	5.9704	µg/L	5.9704	ppb	19:02:37
2	K 766.490 Radial†	2344.6	834.5	305.50	µg/L	305.50	ppb	19:02:17
2	Mg 279.077 IEC†	184.0	-4.0	-1.5026	µg/L	-1.5026	ppb	19:02:37
2	Na 589.592 Radial†	2222.6	964.7	131.52	µg/L	131.52	ppb	19:02:17
2	Sr 421.552†	-22.7	112.3	0.2333	µg/L	0.2333	ppb	19:02:17
2	Sc 361.383	1715539.4	1715539.4	99.844	%			19:03:27
2	Y 371.029	1025697.2	1025697.2	99.903	%			19:03:27
2	Ag 328.068†	4157.7	72.8	0.2757	µg/L	0.2757	ppb	19:03:30
2	As 188.979†	-16.7	3.7	1.1138	µg/L	1.1138	ppb	19:03:50
2	B 249.677†	3652.6	152.4	2.2465	µg/L	2.2465	ppb	19:03:30
2	Ba 233.527†	-103.8	31.9	0.1289	µg/L	0.1289	ppb	19:03:50
2	Be 313.107†	-800.4	263.0	0.0711	µg/L	0.0711	ppb	19:03:30
2	Cd 226.502†	-101.0	17.0	0.1059	µg/L	0.1059	ppb	19:03:50
2	Co 228.616†	-175.3	14.7	0.1813	µg/L	0.1813	ppb	19:03:50
2	Cr 267.716†	251.6	73.5	0.5772	µg/L	0.5772	ppb	19:03:50
2	Cu 324.752†	3073.4	105.9	0.4112	µg/L	0.4112	ppb	19:03:30
2	Mn 257.610†	351.3	114.6	0.1418	µg/L	0.1418	ppb	19:03:50
2	Mo 202.031†	-12.8	7.2	0.2126	µg/L	0.2126	ppb	19:03:50
2	Ni 231.604†	-67.1	9.3	0.1072	µg/L	0.1072	ppb	19:03:50
2	P 214.914†	-27.6	-9.7	-2.0622	µg/L	-2.0622	ppb	19:03:50
2	Pb 220.353†	95.6	9.4	0.5244	µg/L	0.5244	ppb	19:03:50

2	S 181.975 Axial†	105.7	0.8	0.6240 µg/L	0.6240 ppb		19:03:50
2	Sb 206.836†	85.0	4.3	0.5093 µg/L	0.5093 ppb		19:03:50
2	Se 196.026†	19.1	3.9	1.40 µg/L	1.40 ppb		19:03:50
2	SiO2†	1782.4	9.8	0.9335 µg/L	0.9335 ppb		19:03:50
2	Si 251.611†	944.9	109.8	1.6073 µg/L	1.6073 ppb		19:03:30
2	Sn 189.927†	21.6	22.8	1.4197 µg/L	1.4197 ppb		19:03:50
2	Ti 334.940†	960.9	9.8	0.0100 µg/L	0.0100 ppb		19:03:30
2	Tl 190.801†	-107.7	8.8	1.0828 µg/L	1.0828 ppb		19:03:50
2	U 409.014†	-298.4	-28.9	-1.6511 µg/L	-1.6511 ppb		19:03:30
2	V 292.402†	549.1	146.2	0.7161 µg/L	0.7161 ppb		19:03:30
2	Zn 213.857†	814.7	251.5	1.4114 µg/L	1.4114 ppb		19:03:50
3	Sc RADIAL	143637.2	143637.2	98.4 %			19:02:39
3	Al 396.153Radial†	-43.2	19.4	3.5840 µg/L	3.5840 ppb		19:03:00
3	Ca 317.933Radial†	715.6	166.4	9.2706 µg/L	9.2706 ppb		19:03:00
3	Fe 238.204 Radial†	242.5	98.3	6.0580 µg/L	6.0580 ppb		19:03:00
3	K 766.490 Radial†	2256.9	748.2	273.88 µg/L	273.88 ppb		19:02:39
3	Mg 279.077 IEC†	205.1	17.7	6.5824 µg/L	6.5824 ppb		19:03:00
3	Na 589.592 Radial†	2284.1	1029.7	140.43 µg/L	140.43 ppb		19:02:39
3	Sr 421.552†	11.7	147.2	0.3060 µg/L	0.3060 ppb		19:02:39
3	Sc 361.383	1722456.3	1722456.3	100.25 %			19:03:52
3	Y 371.029	1029533.6	1029533.6	100.28 %			19:03:52
3	Ag 328.068†	4007.1	-94.2	-0.3350 µg/L	-0.3350 ppb		19:03:54
3	As 188.979†	-18.8	1.6	0.4750 µg/L	0.4750 ppb		19:04:14
3	B 249.677†	3639.8	125.0	1.8421 µg/L	1.8421 ppb		19:03:54
3	Ba 233.527†	-117.1	19.1	0.0776 µg/L	0.0776 ppb		19:04:14
3	Be 313.107†	-721.4	345.0	0.0939 µg/L	0.0939 ppb		19:03:54
3	Cd 226.502†	-93.0	25.4	0.1581 µg/L	0.1581 ppb		19:04:14
3	Co 228.616†	-173.2	17.6	0.2167 µg/L	0.2167 ppb		19:04:14
3	Cr 267.716†	211.6	32.5	0.2552 µg/L	0.2552 ppb		19:04:14
3	Cu 324.752†	3092.5	112.7	0.4392 µg/L	0.4392 ppb		19:03:54
3	Mn 257.610†	342.1	104.0	0.1284 µg/L	0.1284 ppb		19:04:14
3	Mo 202.031†	-15.6	4.5	0.1336 µg/L	0.1336 ppb		19:04:14
3	Ni 231.604†	-90.2	-13.4	-0.1547 µg/L	-0.1547 ppb		19:04:14
3	P 214.914†	-22.3	-4.2	-0.9047 µg/L	-0.9047 ppb		19:04:14
3	Pb 220.353†	117.3	30.6	1.7079 µg/L	1.7079 ppb		19:04:14
3	S 181.975 Axial†	114.1	8.7	6.4890 µg/L	6.4890 ppb		19:04:14
3	Sb 206.836†	80.1	-1.0	-0.1107 µg/L	-0.1107 ppb		19:04:14
3	Se 196.026†	9.2	-6.1	-2.20 µg/L	-2.20 ppb		19:04:14
3	SiO2†	1811.5	31.7	3.0742 µg/L	3.0742 ppb		19:04:14
3	Si 251.611†	907.7	68.9	1.0043 µg/L	1.0043 ppb		19:03:54
3	Sn 189.927†	22.3	23.4	1.4577 µg/L	1.4577 ppb		19:04:14
3	Ti 334.940†	846.3	-108.3	-0.1015 µg/L	-0.1015 ppb		19:03:54
3	Tl 190.801†	-114.4	2.6	0.3215 µg/L	0.3215 ppb		19:04:14
3	U 409.014†	-270.6	-0.0	0.0667 µg/L	0.0667 ppb		19:03:54
3	V 292.402†	646.7	241.3	1.1790 µg/L	1.1790 ppb		19:03:54
3	Zn 213.857†	803.7	237.3	1.3332 µg/L	1.3332 ppb		19:04:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716996.5	99.929	%	0.2850				0.29%
Sc RADIAL	143338.8	98.2	%	0.46				0.46%
Y 371.029	1026601.8	99.992	%	0.2533				0.25%
Ag 328.068†	-79.5	-0.2883	µg/L	0.54213	-0.2883	ppb	0.54213	188.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	60.2	11.155	µg/L	10.0946	11.155	ppb	10.0946	90.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.6	1.3995	µg/L	1.09560	1.3995	ppb	1.09560	78.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	154.6	2.2791	µg/L	0.45415	2.2791	ppb	0.45415	19.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	27.9	0.1127	µg/L	0.03047	0.1127	ppb	0.03047	27.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	274.8	0.0748	µg/L	0.01765	0.0748	ppb	0.01765	23.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	251.0	13.984	µg/L	7.7715	13.984	ppb	7.7715	55.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	30.5	0.1893	µg/L	0.10254	0.1893	ppb	0.10254	54.18%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.0	0.2090	µg/L	0.02473	0.2090	ppb	0.02473	11.83%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              54.5      0.4277 µg/L      0.16226      0.4277 ppb        0.16226  37.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             132.0      0.5144 µg/L      0.15523      0.5144 ppb        0.15523  30.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      155.0      9.5549 µg/L      6.13280      9.5549 ppb        6.13280  64.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       814.8      298.29 µg/L       21.721      298.29 ppb         21.721   7.28%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          28.4      10.585 µg/L      14.5091      10.585 ppb        14.5091 137.07%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             123.4      0.1523 µg/L      0.03051      0.1523 ppb        0.03051  20.04%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.3      0.3035 µg/L      0.22930      0.3035 ppb        0.22930  75.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      1027.7      140.13 µg/L        8.461      140.13 ppb          8.461   6.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.3     -0.0490 µg/L      0.13810     -0.0490 ppb        0.13810 281.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -6.8     -1.4520 µg/L      0.58130     -1.4520 ppb        0.58130  40.03%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              31.8      1.7745 µg/L      1.28462      1.7745 ppb        1.28462  72.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.1      4.5397 µg/L      3.39110      4.5397 ppb        3.39110  74.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.4     -0.0489 µg/L      0.52991     -0.0489 ppb        0.52991 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.1       0.402 µg/L       2.2740       0.402 ppb         2.2740 564.97%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    26.8      2.5897 µg/L      1.47490      2.5897 ppb        1.47490  56.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             167.9      2.4617 µg/L      2.02458      2.4617 ppb        2.02458  82.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              23.5      1.4657 µg/L      0.05055      1.4657 ppb        0.05055   3.45%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             115.4      0.2398 µg/L      0.06313      0.2398 ppb        0.06313  26.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              20.6      0.0187 µg/L      0.12478      0.0187 ppb        0.12478 667.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.6      0.9348 µg/L      0.55437      0.9348 ppb        0.55437  59.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -3.9     -0.1950 µg/L      1.34448     -0.1950 ppb        1.34448 689.39%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              114.7      0.5635 µg/L      0.70433      0.5635 ppb        0.70433 125.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             254.9      1.4310 µg/L      0.10892      1.4310 ppb        0.10892   7.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

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Analysis Begun

Start Time: 3/31/2010 19:06:02 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 3/31/2010 18:15:19**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/31/2010 19:06:03**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142053.7	142053.7	97.3	%			19:06:36
1	Al 396.153Radial†	26187.8	26965.5	4976.4	µg/L	4976.4	ppb	19:06:36
1	Ca 317.933Radial†	87895.1	89732.8	4998.5	µg/L	4998.5	ppb	19:06:36
1	Fe 238.204 Radial†	78245.6	80232.5	4945.0	µg/L	4945.0	ppb	19:06:36

1	K 766.490 Radial†	15026.3	13891.5	5081.8 µg/L	5081.8 ppb	19:06:36
1	Mg 279.077 IEC†	13439.2	13615.2	5080.7 µg/L	5080.7 ppb	19:06:36
1	Na 589.592 Radial†	71676.4	72341.3	9878.2 µg/L	9878.2 ppb	19:06:36
1	Sr 421.552†	230855.8	237290.2	493.27 µg/L	493.27 ppb	19:06:34
1	Sc 361.383	1692635.7	1692635.7	98.511 %		19:06:49
1	Y 371.029	1002740.0	1002740.0	97.667 %		19:06:49
1	Ag 328.068†	133490.2	131416.3	492.76 µg/L	492.76 ppb	19:06:49
1	As 188.979†	1592.7	1637.1	502.26 µg/L	502.26 ppb	19:07:09
1	B 249.677†	36019.4	33057.9	485.83 µg/L	485.83 ppb	19:06:49
1	Ba 233.527†	119977.2	121926.4	491.73 µg/L	491.73 ppb	19:06:49
1	Be 313.107†	1788795.8	1816895.8	494.84 µg/L	494.84 ppb	19:06:49
1	Cd 226.502†	77305.4	78591.9	490.61 µg/L	490.61 ppb	19:06:49
1	Co 228.616†	39248.1	40031.6	494.19 µg/L	494.19 ppb	19:06:49
1	Cr 267.716†	61675.1	62428.6	488.81 µg/L	488.81 ppb	19:06:49
1	Cu 324.752†	126554.7	125495.2	489.22 µg/L	489.22 ppb	19:06:49
1	Mn 257.610†	394217.2	399938.0	494.63 µg/L	494.63 ppb	19:06:49
1	Mo 202.031†	16588.6	16859.4	495.93 µg/L	495.93 ppb	19:07:09
1	Ni 231.604†	41959.1	42669.8	491.31 µg/L	491.31 ppb	19:06:49
1	P 214.914†	11467.5	11658.8	2485.2 µg/L	2485.2 ppb	19:07:09
1	Pb 220.353†	8908.4	8956.6	501.56 µg/L	501.56 ppb	19:07:09
1	S 181.975 Axial†	1431.0	1347.6	1004.9 µg/L	1004.9 ppb	19:07:09
1	Sb 206.836†	4198.6	4181.2	498.27 µg/L	498.27 ppb	19:07:09
1	Se 196.026†	1378.4	1384.0	502 µg/L	502 ppb	19:07:09
1	SiO2†	55424.9	54487.2	5304.4 µg/L	5304.4 ppb	19:06:49
1	Si 251.611†	167452.8	169147.1	2483.8 µg/L	2483.8 ppb	19:06:49
1	Sn 189.927†	7877.5	7997.7	500.23 µg/L	500.23 ppb	19:07:09
1	Ti 334.940†	520670.2	527586.9	492.28 µg/L	492.28 ppb	19:06:49
1	Tl 190.801†	3872.9	4048.2	504.78 µg/L	504.78 ppb	19:07:09
1	U 409.014†	7291.5	7671.6	478.40 µg/L	478.40 ppb	19:06:49
1	V 292.402†	98968.4	100060.4	494.68 µg/L	494.68 ppb	19:06:49
1	Zn 213.857†	86928.5	87677.9	488.67 µg/L	488.67 ppb	19:06:49
2	Sc RADIAL	141682.9	141682.9	97.1 %		19:06:40
2	Al 396.153Radial†	26223.0	27072.3	4996.3 µg/L	4996.3 ppb	19:06:40
2	Ca 317.933Radial†	87546.1	89609.7	4991.6 µg/L	4991.6 ppb	19:06:40
2	Fe 238.204 Radial†	78166.5	80361.4	4953.0 µg/L	4953.0 ppb	19:06:40
2	K 766.490 Radial†	14890.1	13791.7	5045.3 µg/L	5045.3 ppb	19:06:40
2	Mg 279.077 IEC†	13407.1	13618.3	5081.7 µg/L	5081.7 ppb	19:06:40
2	Na 589.592 Radial†	71442.4	72293.1	9871.6 µg/L	9871.6 ppb	19:06:40
2	Sr 421.552†	234429.9	241592.0	502.22 µg/L	502.22 ppb	19:06:38
2	Sc 361.383	1693933.2	1693933.2	98.587 %		19:07:12
2	Y 371.029	1002754.3	1002754.3	97.669 %		19:07:12
2	Ag 328.068†	133887.2	131715.3	493.86 µg/L	493.86 ppb	19:07:12
2	As 188.979†	1584.7	1627.8	499.44 µg/L	499.44 ppb	19:07:32
2	B 249.677†	36086.4	33097.9	486.42 µg/L	486.42 ppb	19:07:12
2	Ba 233.527†	120244.1	122103.7	492.44 µg/L	492.44 ppb	19:07:12
2	Be 313.107†	1788194.1	1814894.6	494.30 µg/L	494.30 ppb	19:07:12
2	Cd 226.502†	77647.5	78878.9	492.40 µg/L	492.40 ppb	19:07:12
2	Co 228.616†	39316.5	40070.5	494.67 µg/L	494.67 ppb	19:07:12
2	Cr 267.716†	61922.8	62632.0	490.40 µg/L	490.40 ppb	19:07:12
2	Cu 324.752†	126725.3	125569.8	489.51 µg/L	489.51 ppb	19:07:12
2	Mn 257.610†	394218.9	399633.2	494.25 µg/L	494.25 ppb	19:07:12
2	Mo 202.031†	16463.2	16719.3	491.81 µg/L	491.81 ppb	19:07:32
2	Ni 231.604†	42154.2	42835.0	493.21 µg/L	493.21 ppb	19:07:12
2	P 214.914†	11314.3	11494.4	2450.0 µg/L	2450.0 ppb	19:07:32
2	Pb 220.353†	8825.1	8865.3	496.44 µg/L	496.44 ppb	19:07:32
2	S 181.975 Axial†	1411.2	1326.4	989.11 µg/L	989.11 ppb	19:07:32
2	Sb 206.836†	4167.4	4146.3	494.02 µg/L	494.02 ppb	19:07:32
2	Se 196.026†	1363.3	1367.5	497 µg/L	497 ppb	19:07:32
2	SiO2†	55444.1	54463.6	5302.3 µg/L	5302.3 ppb	19:07:12
2	Si 251.611†	167875.0	169445.1	2488.3 µg/L	2488.3 ppb	19:07:12
2	Sn 189.927†	7786.1	7898.8	494.07 µg/L	494.07 ppb	19:07:32
2	Ti 334.940†	520698.2	527210.5	491.92 µg/L	491.92 ppb	19:07:12
2	Tl 190.801†	3845.2	4017.0	500.93 µg/L	500.93 ppb	19:07:32
2	U 409.014†	7348.6	7723.9	481.39 µg/L	481.39 ppb	19:07:12
2	V 292.402†	98856.0	99869.4	493.71 µg/L	493.71 ppb	19:07:12
2	Zn 213.857†	87044.0	87727.5	488.93 µg/L	488.93 ppb	19:07:12
3	Sc RADIAL	140290.8	140290.8	96.1 %		19:06:44
3	Al 396.153Radial†	26121.4	27234.6	5026.5 µg/L	5026.5 ppb	19:06:44
3	Ca 317.933Radial†	86648.1	89570.3	4989.4 µg/L	4989.4 ppb	19:06:44
3	Fe 238.204 Radial†	77524.7	80492.7	4961.1 µg/L	4961.1 ppb	19:06:44
3	K 766.490 Radial†	14881.5	13934.9	5097.7 µg/L	5097.7 ppb	19:06:44

3	Mg 279.077 IEC†	13262.2	13604.5	5076.6 µg/L	5076.6 ppb	19:06:44
3	Na 589.592 Radial†	70817.9	72373.6	9882.6 µg/L	9882.6 ppb	19:06:44
3	Sr 421.552†	230738.3	240148.1	499.21 µg/L	499.21 ppb	19:06:42
3	Sc 361.383	1701566.9	1701566.9	99.031 %		19:07:35
3	Y 371.029	1007094.6	1007094.6	98.092 %		19:07:35
3	Ag 328.068†	134475.4	131699.9	493.82 µg/L	493.82 ppb	19:07:35
3	As 188.979†	1593.4	1629.4	499.91 µg/L	499.91 ppb	19:07:55
3	B 249.677†	36488.9	33340.1	489.99 µg/L	489.99 ppb	19:07:35
3	Ba 233.527†	120822.0	122140.2	492.59 µg/L	492.59 ppb	19:07:35
3	Be 313.107†	1801771.9	1820467.8	495.82 µg/L	495.82 ppb	19:07:35
3	Cd 226.502†	78139.4	79022.2	493.29 µg/L	493.29 ppb	19:07:35
3	Co 228.616†	39662.8	40241.2	496.77 µg/L	496.77 ppb	19:07:35
3	Cr 267.716†	62197.1	62627.2	490.36 µg/L	490.36 ppb	19:07:35
3	Cu 324.752†	127822.8	126101.4	491.58 µg/L	491.58 ppb	19:07:35
3	Mn 257.610†	397277.8	400928.1	495.85 µg/L	495.85 ppb	19:07:35
3	Mo 202.031†	16490.8	16672.2	490.43 µg/L	490.43 ppb	19:07:55
3	Ni 231.604†	42326.5	42817.2	493.01 µg/L	493.01 ppb	19:07:35
3	P 214.914†	11342.9	11471.9	2445.2 µg/L	2445.2 ppb	19:07:55
3	Pb 220.353†	8843.5	8843.7	495.23 µg/L	495.23 ppb	19:07:55
3	S 181.975 Axial†	1419.8	1328.6	990.72 µg/L	990.72 ppb	19:07:55
3	Sb 206.836†	4178.4	4138.4	493.07 µg/L	493.07 ppb	19:07:55
3	Se 196.026†	1363.2	1361.3	494 µg/L	494 ppb	19:07:55
3	SiO2†	56222.5	54997.3	5354.5 µg/L	5354.5 ppb	19:07:35
3	Si 251.611†	169502.3	170324.4	2501.3 µg/L	2501.3 ppb	19:07:35
3	Sn 189.927†	7808.9	7886.4	493.30 µg/L	493.30 ppb	19:07:55
3	Ti 334.940†	523661.8	527833.6	492.50 µg/L	492.50 ppb	19:07:35
3	Tl 190.801†	3856.9	4011.4	500.25 µg/L	500.25 ppb	19:07:55
3	U 409.014†	7413.7	7756.2	483.37 µg/L	483.37 ppb	19:07:35
3	V 292.402†	99576.3	100146.9	495.05 µg/L	495.05 ppb	19:07:35
3	Zn 213.857†	87808.2	88103.1	491.04 µg/L	491.04 ppb	19:07:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1696045.3	98.710	%	0.2809				0.28%
Sc RADIAL	141342.5	96.9	%	0.64				0.66%
Y 371.029	1004196.3	97.809	%	0.2445				0.25%
Ag 328.068†	131610.5	493.48	µg/L	0.624	493.48	ppb	0.624	0.13%
QC value within limits for Ag 328.068 Recovery = 98.70%								
Al 396.153Radial†	27090.8	4999.7	µg/L	25.24	4999.7	ppb	25.24	0.50%
QC value within limits for Al 396.153Radial Recovery = 99.99%								
As 188.979†	1631.4	500.54	µg/L	1.508	500.54	ppb	1.508	0.30%
QC value within limits for As 188.979 Recovery = 100.11%								
B 249.677†	33165.3	487.41	µg/L	2.247	487.41	ppb	2.247	0.46%
QC value within limits for B 249.677 Recovery = 97.48%								
Ba 233.527†	122056.8	492.25	µg/L	0.460	492.25	ppb	0.460	0.09%
QC value within limits for Ba 233.527 Recovery = 98.45%								
Be 313.107†	1817419.4	494.99	µg/L	0.769	494.99	ppb	0.769	0.16%
QC value within limits for Be 313.107 Recovery = 99.00%								
Ca 317.933Radial†	89637.6	4993.2	µg/L	4.72	4993.2	ppb	4.72	0.09%
QC value within limits for Ca 317.933Radial Recovery = 99.86%								
Cd 226.502†	78831.0	492.10	µg/L	1.368	492.10	ppb	1.368	0.28%
QC value within limits for Cd 226.502 Recovery = 98.42%								
Co 228.616†	40114.4	495.21	µg/L	1.376	495.21	ppb	1.376	0.28%
QC value within limits for Co 228.616 Recovery = 99.04%								
Cr 267.716†	62562.6	489.86	µg/L	0.907	489.86	ppb	0.907	0.19%
QC value within limits for Cr 267.716 Recovery = 97.97%								
Cu 324.752†	125722.1	490.10	µg/L	1.288	490.10	ppb	1.288	0.26%
QC value within limits for Cu 324.752 Recovery = 98.02%								
Fe 238.204 Radial†	80362.2	4953.0	µg/L	8.02	4953.0	ppb	8.02	0.16%
QC value within limits for Fe 238.204 Radial Recovery = 99.06%								
K 766.490 Radial†	13872.7	5074.9	µg/L	26.88	5074.9	ppb	26.88	0.53%
QC value within limits for K 766.490 Radial Recovery = 101.50%								
Mg 279.077 IEC†	13612.7	5079.7	µg/L	2.74	5079.7	ppb	2.74	0.05%
QC value within limits for Mg 279.077 IEC Recovery = 101.59%								
Mn 257.610†	400166.4	494.91	µg/L	0.838	494.91	ppb	0.838	0.17%
QC value within limits for Mn 257.610 Recovery = 98.98%								
Mo 202.031†	16750.3	492.72	µg/L	2.861	492.72	ppb	2.861	0.58%
QC value within limits for Mo 202.031 Recovery = 98.54%								
Na 589.592 Radial†	72336.0	9877.5	µg/L	5.51	9877.5	ppb	5.51	0.06%

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   QC value within limits for Na 589.592 Radial  Recovery = 98.77%
Ni 231.604†            42774.0      492.51 µg/L         1.044      492.51 ppb          1.044   0.21%
   QC value within limits for Ni 231.604  Recovery = 98.50%
P 214.914†             11541.7      2460.1 µg/L         21.83      2460.1 ppb          21.83   0.89%
   QC value within limits for P 214.914  Recovery = 98.40%
Pb 220.353†             8888.5      497.74 µg/L         3.356      497.74 ppb          3.356   0.67%
   QC value within limits for Pb 220.353  Recovery = 99.55%
S 181.975 Axial†        1334.2      994.90 µg/L         8.662      994.90 ppb          8.662   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 99.49%
Sb 206.836†             4155.3      495.12 µg/L         2.767      495.12 ppb          2.767   0.56%
   QC value within limits for Sb 206.836  Recovery = 99.02%
Se 196.026†             1370.9         498 µg/L           4.2         498 ppb            4.2   0.85%
   QC value within limits for Se 196.026  Recovery = 99.56%
SiO2†                  54649.4      5320.4 µg/L         29.56      5320.4 ppb          29.56   0.56%
   QC value within limits for SiO2  Recovery = 99.49%
Si 251.611†           169638.9      2491.1 µg/L          9.08      2491.1 ppb           9.08   0.36%
   QC value within limits for Si 251.611  Recovery = 99.65%
Sn 189.927†             7927.7      495.87 µg/L         3.802      495.87 ppb          3.802   0.77%
   QC value within limits for Sn 189.927  Recovery = 99.17%
Sr 421.552†           239676.8      498.23 µg/L         4.551      498.23 ppb          4.551   0.91%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           527543.7      492.23 µg/L         0.293      492.23 ppb          0.293   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.45%
Tl 190.801†             4025.5      501.99 µg/L         2.440      501.99 ppb          2.440   0.49%
   QC value within limits for Tl 190.801  Recovery = 100.40%
U 409.014†              7717.2      481.05 µg/L         2.502      481.05 ppb          2.502   0.52%
   QC value within limits for U 409.014  Recovery = 96.21%
V 292.402†            100025.5      494.48 µg/L         0.691      494.48 ppb          0.691   0.14%
   QC value within limits for V 292.402  Recovery = 98.90%
Zn 213.857†            87836.2      489.55 µg/L         1.301      489.55 ppb          1.301   0.27%
   QC value within limits for Zn 213.857  Recovery = 97.91%
All analyte(s) passed QC.
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Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/31/2010 19:08:04**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143606.3	143606.3	98.4	%			19:08:33
1	Al 396.153Radial†	-40.6	21.9	4.0709	µg/L	4.0709	ppb	19:08:53
1	Ca 317.933Radial†	593.8	42.8	2.3863	µg/L	2.3863	ppb	19:08:53
1	Fe 238.204 Radial†	181.2	36.0	2.2211	µg/L	2.2211	ppb	19:08:53
1	K 766.490 Radial†	1807.5	291.9	106.87	µg/L	106.87	ppb	19:08:33
1	Mg 279.077 IEC†	167.1	-20.9	-7.7799	µg/L	-7.7799	ppb	19:08:53
1	Na 589.592 Radial†	1829.3	568.1	77.508	µg/L	77.508	ppb	19:08:33
1	Sr 421.552†	-159.2	-26.5	-0.0550	µg/L	-0.0550	ppb	19:08:33
1	Sc 361.383	1699498.0	1699498.0	98.911	%			19:09:55
1	Y 371.029	1016806.2	1016806.2	99.037	%			19:09:55
1	Ag 328.068†	3769.0	-280.8	-1.0378	µg/L	-1.0378	ppb	19:09:57
1	As 188.979†	-4.4	15.9	4.8042	µg/L	4.8042	ppb	19:10:17
1	B 249.677†	3588.4	122.0	1.7978	µg/L	1.7978	ppb	19:09:57
1	Ba 233.527†	-115.2	19.4	0.0783	µg/L	0.0783	ppb	19:10:17
1	Be 313.107†	-954.3	99.8	0.0273	µg/L	0.0273	ppb	19:09:57
1	Cd 226.502†	-91.5	25.7	0.1602	µg/L	0.1602	ppb	19:10:17
1	Co 228.616†	-158.7	29.9	0.3690	µg/L	0.3690	ppb	19:10:17
1	Cr 267.716†	173.6	-3.0	-0.0236	µg/L	-0.0236	ppb	19:10:17
1	Cu 324.752†	3195.6	258.6	1.0054	µg/L	1.0054	ppb	19:09:57
1	Mn 257.610†	286.5	52.4	0.0651	µg/L	0.0651	ppb	19:10:17
1	Mo 202.031†	-26.1	-6.3	-0.1854	µg/L	-0.1854	ppb	19:10:17
1	Ni 231.604†	-117.6	-42.4	-0.4885	µg/L	-0.4885	ppb	19:10:17
1	P 214.914†	-30.3	-12.6	-2.7014	µg/L	-2.7014	ppb	19:10:17
1	Pb 220.353†	88.8	3.4	0.1879	µg/L	0.1879	ppb	19:10:17
1	S 181.975 Axial†	97.0	-6.9	-5.1546	µg/L	-5.1546	ppb	19:10:17
1	Sb 206.836†	72.1	-8.0	-0.9474	µg/L	-0.9474	ppb	19:10:17
1	Se 196.026†	15.9	0.8	0.281	µg/L	0.281	ppb	19:10:17
1	SiO2†	1782.8	27.1	2.6348	µg/L	2.6348	ppb	19:09:57
1	Si 251.611†	842.6	15.3	0.2204	µg/L	0.2204	ppb	19:09:57
1	Sn 189.927†	17.4	18.7	1.1657	µg/L	1.1657	ppb	19:10:17
1	Ti 334.940†	982.6	40.9	0.0388	µg/L	0.0388	ppb	19:09:57
1	Tl 190.801†	-115.4	-0.0	-0.0031	µg/L	-0.0031	ppb	19:10:17
1	U 409.014†	-263.1	3.9	0.2381	µg/L	0.2381	ppb	19:09:57
1	V 292.402†	432.1	33.1	0.1592	µg/L	0.1592	ppb	19:09:57
1	Zn 213.857†	662.7	105.6	0.5956	µg/L	0.5956	ppb	19:10:17
2	Sc RADIAL	143906.0	143906.0	98.6	%			19:08:55
2	Al 396.153Radial†	-30.9	31.9	5.9210	µg/L	5.9210	ppb	19:09:15
2	Ca 317.933Radial†	576.5	24.0	1.3374	µg/L	1.3374	ppb	19:09:15
2	Fe 238.204 Radial†	194.8	49.4	3.0451	µg/L	3.0451	ppb	19:09:15
2	K 766.490 Radial†	1821.8	302.6	110.79	µg/L	110.79	ppb	19:08:55
2	Mg 279.077 IEC†	181.6	-6.5	-2.4285	µg/L	-2.4285	ppb	19:09:15
2	Na 589.592 Radial†	1674.8	407.6	55.585	µg/L	55.585	ppb	19:08:55
2	Sr 421.552†	-76.3	57.9	0.1204	µg/L	0.1204	ppb	19:08:55
2	Sc 361.383	1701303.0	1701303.0	99.016	%			19:10:20
2	Y 371.029	1018421.2	1018421.2	99.195	%			19:10:20
2	Ag 328.068†	4174.8	124.9	0.4507	µg/L	0.4507	ppb	19:10:22
2	As 188.979†	-9.4	10.9	3.3020	µg/L	3.3020	ppb	19:10:42
2	B 249.677†	3516.0	45.1	0.6647	µg/L	0.6647	ppb	19:10:22
2	Ba 233.527†	-149.1	-14.7	-0.0595	µg/L	-0.0595	ppb	19:10:42
2	Be 313.107†	-839.9	216.4	0.0569	µg/L	0.0569	ppb	19:10:22
2	Cd 226.502†	-102.1	15.1	0.0939	µg/L	0.0939	ppb	19:10:42
2	Co 228.616†	-188.6	-0.1	-0.0019	µg/L	-0.0019	ppb	19:10:42
2	Cr 267.716†	211.4	34.9	0.2788	µg/L	0.2788	ppb	19:10:42
2	Cu 324.752†	2916.8	-26.4	-0.1080	µg/L	-0.1080	ppb	19:10:22
2	Mn 257.610†	284.4	50.0	0.0619	µg/L	0.0619	ppb	19:10:42
2	Mo 202.031†	-25.0	-5.2	-0.1530	µg/L	-0.1530	ppb	19:10:42
2	Ni 231.604†	-103.9	-28.5	-0.3278	µg/L	-0.3278	ppb	19:10:42
2	P 214.914†	-33.0	-15.3	-3.2711	µg/L	-3.2711	ppb	19:10:42
2	Pb 220.353†	114.7	29.5	1.6503	µg/L	1.6503	ppb	19:10:42

2	S 181.975 Axial†	99.7	-4.4	-3.2387 µg/L	-3.2387 ppb	19:10:42
2	Sb 206.836†	76.2	-3.9	-0.4635 µg/L	-0.4635 ppb	19:10:42
2	Se 196.026†	16.5	1.4	0.491 µg/L	0.491 ppb	19:10:42
2	SiO2†	1763.9	6.1	0.5919 µg/L	0.5919 ppb	19:10:22
2	Si 251.611†	911.5	84.0	1.2359 µg/L	1.2359 ppb	19:10:22
2	Sn 189.927†	8.3	9.5	0.5950 µg/L	0.5950 ppb	19:10:42
2	Ti 334.940†	886.7	-57.0	-0.0503 µg/L	-0.0503 ppb	19:10:22
2	Tl 190.801†	-114.1	1.5	0.1759 µg/L	0.1759 ppb	19:10:42
2	U 409.014†	-383.3	-117.2	-6.8703 µg/L	-6.8703 ppb	19:10:22
2	V 292.402†	344.9	-55.5	-0.2761 µg/L	-0.2761 ppb	19:10:22
2	Zn 213.857†	648.7	90.7	0.5114 µg/L	0.5114 ppb	19:10:42
3	Sc RADIAL	142315.2	142315.2	97.5 %		19:09:17
3	Al 396.153Radial†	-52.2	9.6	1.7667 µg/L	1.7667 ppb	19:09:37
3	Ca 317.933Radial†	577.3	31.3	1.7458 µg/L	1.7458 ppb	19:09:37
3	Fe 238.204 Radial†	193.7	50.5	3.1105 µg/L	3.1105 ppb	19:09:37
3	K 766.490 Radial†	1715.2	213.9	78.318 µg/L	78.318 ppb	19:09:17
3	Mg 279.077 IEC†	194.2	8.4	3.1563 µg/L	3.1563 ppb	19:09:37
3	Na 589.592 Radial†	1682.9	434.8	59.332 µg/L	59.332 ppb	19:09:17
3	Sr 421.552†	-204.0	-73.9	-0.1537 µg/L	-0.1537 ppb	19:09:17
3	Sc 361.383	1707432.2	1707432.2	99.372 %		19:10:44
3	Y 371.029	1021900.0	1021900.0	99.534 %		19:10:44
3	Ag 328.068†	4053.2	-12.6	-0.0528 µg/L	-0.0528 ppb	19:10:46
3	As 188.979†	-2.3	18.1	5.4690 µg/L	5.4690 ppb	19:11:06
3	B 249.677†	3514.8	31.1	0.4591 µg/L	0.4591 ppb	19:10:46
3	Ba 233.527†	-138.9	-3.9	-0.0159 µg/L	-0.0159 ppb	19:11:06
3	Be 313.107†	-1076.7	-18.8	-0.0056 µg/L	-0.0056 ppb	19:10:46
3	Cd 226.502†	-100.3	17.3	0.1074 µg/L	0.1074 ppb	19:11:06
3	Co 228.616†	-200.8	-11.7	-0.1450 µg/L	-0.1450 ppb	19:11:06
3	Cr 267.716†	180.7	3.3	0.0269 µg/L	0.0269 ppb	19:11:06
3	Cu 324.752†	3029.2	76.1	0.2948 µg/L	0.2948 ppb	19:10:46
3	Mn 257.610†	296.9	61.5	0.0760 µg/L	0.0760 ppb	19:11:06
3	Mo 202.031†	-3.7	16.3	0.4802 µg/L	0.4802 ppb	19:11:06
3	Ni 231.604†	-90.5	-14.6	-0.1676 µg/L	-0.1676 ppb	19:11:06
3	P 214.914†	-14.2	3.7	0.7799 µg/L	0.7799 ppb	19:11:06
3	Pb 220.353†	92.0	6.2	0.3485 µg/L	0.3485 ppb	19:11:06
3	S 181.975 Axial†	108.0	3.6	2.6796 µg/L	2.6796 ppb	19:11:06
3	Sb 206.836†	87.9	7.6	0.9107 µg/L	0.9107 ppb	19:11:06
3	Se 196.026†	15.0	-0.2	-0.060 µg/L	-0.060 ppb	19:11:06
3	SiO2†	1735.7	-28.7	-2.8190 µg/L	-2.8190 ppb	19:10:46
3	Si 251.611†	790.1	-41.5	-0.6182 µg/L	-0.6182 ppb	19:10:46
3	Sn 189.927†	-1.2	-0.1	-0.0053 µg/L	-0.0053 ppb	19:11:06
3	Ti 334.940†	766.5	-181.2	-0.1688 µg/L	-0.1688 ppb	19:10:46
3	Tl 190.801†	-101.0	15.0	1.8436 µg/L	1.8436 ppb	19:11:06
3	U 409.014†	-295.6	-27.6	-1.6324 µg/L	-1.6324 ppb	19:10:46
3	V 292.402†	332.8	-68.9	-0.3322 µg/L	-0.3322 ppb	19:10:46
3	Zn 213.857†	625.3	64.8	0.3648 µg/L	0.3648 ppb	19:11:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1702744.4	99.099	%	0.2420				0.24%
Sc RADIAL	143275.8	98.2	%	0.58				0.59%
Y 371.029	1019042.5	99.255	%	0.2535				0.26%
Ag 328.068†	-56.2	-0.2133	µg/L	0.75716	-0.2133	ppb	0.75716	354.96%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	21.2	3.9195	µg/L	2.08128	3.9195	ppb	2.08128	53.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	15.0	4.5251	µg/L	1.11017	4.5251	ppb	1.11017	24.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	66.0	0.9738	µg/L	0.72094	0.9738	ppb	0.72094	74.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.3	0.0009	µg/L	0.07043	0.0009	ppb	0.07043	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	99.2	0.0262	µg/L	0.03124	0.0262	ppb	0.03124	119.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	32.7	1.8232	µg/L	0.52869	1.8232	ppb	0.52869	29.00%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.4	0.1205	µg/L	0.03504	0.1205	ppb	0.03504	29.08%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.0	0.0740	µg/L	0.26530	0.0740	ppb	0.26530	358.50%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              11.7      0.0940 µg/L       0.16198      0.0940 ppb        0.16198 172.24%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             102.8      0.3974 µg/L       0.56376      0.3974 ppb        0.56376 141.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       45.3      2.7923 µg/L       0.49571      2.7923 ppb        0.49571  17.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       269.5      98.660 µg/L       17.7254      98.660 ppb        17.7254  17.97%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -6.3     -2.3507 µg/L       5.46855     -2.3507 ppb        5.46855 232.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              54.6      0.0677 µg/L       0.00738      0.0677 ppb        0.00738  10.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.6      0.0473 µg/L       0.37526      0.0473 ppb        0.37526 793.90%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      470.2      64.142 µg/L       11.7262      64.142 ppb        11.7262  18.28%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -28.5     -0.3280 µg/L       0.16046     -0.3280 ppb        0.16046  48.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.1     -1.7309 µg/L       2.19296     -1.7309 ppb        2.19296 126.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              13.0      0.7289 µg/L       0.80200      0.7289 ppb        0.80200 110.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.6     -1.9046 µg/L       4.08395     -1.9046 ppb        4.08395 214.43%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.4     -0.1667 µg/L       0.96394     -0.1667 ppb        0.96394 578.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.7      0.238 µg/L        0.2782       0.238 ppb         0.2782 117.02%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     1.5      0.1359 µg/L       2.75534      0.1359 ppb        2.75534 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              19.3      0.2794 µg/L       0.92845      0.2794 ppb        0.92845 332.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.4      0.5851 µg/L       0.58554      0.5851 ppb        0.58554 100.07%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -14.1     -0.0294 µg/L       0.13885     -0.0294 ppb        0.13885 471.87%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -65.8     -0.0601 µg/L       0.10414     -0.0601 ppb        0.10414 173.25%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.5      0.6721 µg/L       1.01847      0.6721 ppb        1.01847 151.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -47.0     -2.7549 µg/L       3.68475     -2.7549 ppb        3.68475 133.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -30.4     -0.1497 µg/L       0.26898     -0.1497 ppb        0.26898 179.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              87.0      0.4906 µg/L       0.11682      0.4906 ppb        0.11682  23.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 19:27:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144745.8	144745.8	99.2	%			19:28:15
1	Al 396.153Radial†	26764.4	27046.5	4991.6	µg/L	4991.6	ppb	19:28:15
1	Ca 317.933Radial†	89467.8	89639.1	4993.2	µg/L	4993.2	ppb	19:28:15
1	Fe 238.204 Radial†	79722.2	80226.2	4944.7	µg/L	4944.7	ppb	19:28:15
1	K 766.490 Radial†	14982.5	13560.3	4960.6	µg/L	4960.6	ppb	19:28:15
1	Mg 279.077 IEC†	13759.9	13681.8	5105.4	µg/L	5105.4	ppb	19:28:15
1	Na 589.592 Radial†	72591.2	71894.2	9817.2	µg/L	9817.2	ppb	19:28:15
1	Sr 421.552†	234529.9	236583.6	491.80	µg/L	491.80	ppb	19:28:12
1	Sc 361.383	1725305.4	1725305.4	100.41	%			19:28:27
1	Y 371.029	1020728.0	1020728.0	99.419	%			19:28:27
1	Ag 328.068†	136300.1	131648.8	493.59	µg/L	493.59	ppb	19:28:27
1	As 188.979†	1633.4	1647.0	505.23	µg/L	505.23	ppb	19:28:47
1	B 249.677†	36849.8	33192.5	487.82	µg/L	487.82	ppb	19:28:27
1	Ba 233.527†	122221.5	121855.2	491.44	µg/L	491.44	ppb	19:28:27
1	Be 313.107†	1820741.4	1814326.2	494.14	µg/L	494.14	ppb	19:28:27
1	Cd 226.502†	78844.9	78639.2	490.90	µg/L	490.90	ppb	19:28:27
1	Co 228.616†	39847.3	39874.0	492.24	µg/L	492.24	ppb	19:28:27
1	Cr 267.716†	62843.9	62407.1	488.65	µg/L	488.65	ppb	19:28:27
1	Cu 324.752†	129009.2	125507.0	489.26	µg/L	489.26	ppb	19:28:27
1	Mn 257.610†	401352.4	399466.3	494.04	µg/L	494.04	ppb	19:28:27
1	Mo 202.031†	16754.7	16705.9	491.42	µg/L	491.42	ppb	19:28:47
1	Ni 231.604†	42787.5	42688.2	491.52	µg/L	491.52	ppb	19:28:27
1	P 214.914†	11575.7	11546.1	2461.1	µg/L	2461.1	ppb	19:28:47
1	Pb 220.353†	8987.5	8864.2	496.39	µg/L	496.39	ppb	19:28:47
1	S 181.975 Axial†	1425.3	1314.4	980.21	µg/L	980.21	ppb	19:28:47
1	Sb 206.836†	4236.7	4138.5	493.11	µg/L	493.11	ppb	19:28:47
1	Se 196.026†	1383.3	1362.3	495	µg/L	495	ppb	19:28:47
1	SiO2†	56481.4	54474.0	5303.3	µg/L	5303.3	ppb	19:28:27
1	Si 251.611†	170572.5	169035.2	2482.3	µg/L	2482.3	ppb	19:28:27
1	Sn 189.927†	7932.0	7900.5	494.17	µg/L	494.17	ppb	19:28:47
1	Ti 334.940†	529379.1	526251.8	491.03	µg/L	491.03	ppb	19:28:27
1	Tl 190.801†	3920.2	4020.8	501.40	µg/L	501.40	ppb	19:28:47
1	U 409.014†	7328.3	7568.1	472.22	µg/L	472.22	ppb	19:28:27
1	V 292.402†	100463.2	99646.7	492.61	µg/L	492.61	ppb	19:28:27
1	Zn 213.857†	88617.6	87689.1	488.73	µg/L	488.73	ppb	19:28:27
2	Sc RADIAL	143128.0	143128.0	98.1	%			19:28:19
2	Al 396.153Radial†	26390.4	26970.3	4977.5	µg/L	4977.5	ppb	19:28:19
2	Ca 317.933Radial†	88547.9	89720.6	4997.8	µg/L	4997.8	ppb	19:28:19
2	Fe 238.204 Radial†	78967.6	80365.3	4953.2	µg/L	4953.2	ppb	19:28:19
2	K 766.490 Radial†	14857.2	13603.3	4976.3	µg/L	4976.3	ppb	19:28:19
2	Mg 279.077 IEC†	13593.0	13668.4	5100.4	µg/L	5100.4	ppb	19:28:19
2	Na 589.592 Radial†	71676.1	71788.4	9802.7	µg/L	9802.7	ppb	19:28:19
2	Sr 421.552†	234348.1	239070.9	496.98	µg/L	496.98	ppb	19:28:17
2	Sc 361.383	1734628.6	1734628.6	100.96	%			19:28:51
2	Y 371.029	1025716.4	1025716.4	99.905	%			19:28:51
2	Ag 328.068†	136816.4	131430.6	492.82	µg/L	492.82	ppb	19:28:51
2	As 188.979†	1631.9	1636.9	502.17	µg/L	502.17	ppb	19:29:11
2	B 249.677†	37069.7	33213.1	488.12	µg/L	488.12	ppb	19:28:51
2	Ba 233.527†	122992.1	121964.3	491.88	µg/L	491.88	ppb	19:28:51
2	Be 313.107†	1838526.2	1822196.9	496.29	µg/L	496.29	ppb	19:28:51
2	Cd 226.502†	79892.7	79255.0	494.75	µg/L	494.75	ppb	19:28:51
2	Co 228.616†	40292.1	40101.3	495.05	µg/L	495.05	ppb	19:28:51
2	Cr 267.716†	63389.6	62611.4	490.23	µg/L	490.23	ppb	19:28:51
2	Cu 324.752†	129959.6	125757.9	490.25	µg/L	490.25	ppb	19:28:51
2	Mn 257.610†	404701.1	400635.0	495.49	µg/L	495.49	ppb	19:28:51
2	Mo 202.031†	16826.1	16687.0	490.86	µg/L	490.86	ppb	19:29:11
2	Ni 231.604†	43211.3	42879.0	493.72	µg/L	493.72	ppb	19:28:51
2	P 214.914†	11647.2	11554.9	2462.9	µg/L	2462.9	ppb	19:29:11
2	Pb 220.353†	9025.0	8853.2	495.76	µg/L	495.76	ppb	19:29:11

2	S 181.975 Axial†	1448.9	1330.1	991.87 µg/L	991.87 ppb	19:29:11
2	Sb 206.836†	4260.0	4138.9	493.13 µg/L	493.13 ppb	19:29:11
2	Se 196.026†	1384.1	1355.7	492 µg/L	492 ppb	19:29:11
2	SiO2†	56922.3	54608.4	5316.4 µg/L	5316.4 ppb	19:28:51
2	Si 251.611†	172250.5	169784.3	2493.3 µg/L	2493.3 ppb	19:28:51
2	Sn 189.927†	7982.8	7908.4	494.67 µg/L	494.67 ppb	19:29:11
2	Ti 334.940†	533116.5	527120.2	491.83 µg/L	491.83 ppb	19:28:51
2	Tl 190.801†	3941.1	4020.5	501.37 µg/L	501.37 ppb	19:29:11
2	U 409.014†	7625.6	7823.4	487.25 µg/L	487.25 ppb	19:28:51
2	V 292.402†	101346.4	99983.8	494.26 µg/L	494.26 ppb	19:28:51
2	Zn 213.857†	89423.9	88013.5	490.54 µg/L	490.54 ppb	19:28:51
3	Sc RADIAL	145496.7	145496.7	99.7 %		19:28:23
3	Al 396.153Radial†	26858.9	27002.0	4983.3 µg/L	4983.3 ppb	19:28:23
3	Ca 317.933Radial†	90156.6	89864.4	5005.8 µg/L	5005.8 ppb	19:28:23
3	Fe 238.204 Radial†	80315.1	80406.1	4955.7 µg/L	4955.7 ppb	19:28:23
3	K 766.490 Radial†	15083.0	13583.2	4968.9 µg/L	4968.9 ppb	19:28:23
3	Mg 279.077 IEC†	13878.0	13728.6	5122.9 µg/L	5122.9 ppb	19:28:23
3	Na 589.592 Radial†	72879.8	71805.9	9805.1 µg/L	9805.1 ppb	19:28:23
3	Sr 421.552†	234221.7	235054.0	488.62 µg/L	488.62 ppb	19:28:21
3	Sc 361.383	1725210.5	1725210.5	100.41 %		19:29:14
3	Y 371.029	1019973.4	1019973.4	99.346 %		19:29:14
3	Ag 328.068†	135997.1	131354.5	492.51 µg/L	492.51 ppb	19:29:14
3	As 188.979†	1616.1	1629.9	500.07 µg/L	500.07 ppb	19:29:34
3	B 249.677†	36719.7	33065.0	485.94 µg/L	485.94 ppb	19:29:14
3	Ba 233.527†	122082.7	121723.7	490.91 µg/L	490.91 ppb	19:29:14
3	Be 313.107†	1823924.9	1817596.6	495.03 µg/L	495.03 ppb	19:29:14
3	Cd 226.502†	79138.6	78936.0	492.75 µg/L	492.75 ppb	19:29:14
3	Co 228.616†	39917.6	39946.1	493.13 µg/L	493.13 ppb	19:29:14
3	Cr 267.716†	63023.3	62589.2	490.08 µg/L	490.08 ppb	19:29:14
3	Cu 324.752†	129255.3	125759.2	490.24 µg/L	490.24 ppb	19:29:14
3	Mn 257.610†	401870.3	400004.1	494.71 µg/L	494.71 ppb	19:29:14
3	Mo 202.031†	16781.3	16733.4	492.23 µg/L	492.23 ppb	19:29:34
3	Ni 231.604†	42953.4	42855.8	493.45 µg/L	493.45 ppb	19:29:14
3	P 214.914†	11608.1	11579.0	2468.1 µg/L	2468.1 ppb	19:29:34
3	Pb 220.353†	9009.0	8886.1	497.61 µg/L	497.61 ppb	19:29:34
3	S 181.975 Axial†	1440.9	1330.0	991.78 µg/L	991.78 ppb	19:29:34
3	Sb 206.836†	4230.2	4132.2	492.36 µg/L	492.36 ppb	19:29:34
3	Se 196.026†	1386.3	1365.4	496 µg/L	496 ppb	19:29:34
3	SiO2†	56734.1	54728.8	5328.1 µg/L	5328.1 ppb	19:29:14
3	Si 251.611†	171053.5	169523.6	2489.4 µg/L	2489.4 ppb	19:29:14
3	Sn 189.927†	7957.3	7926.1	495.77 µg/L	495.77 ppb	19:29:34
3	Ti 334.940†	529976.9	526876.1	491.61 µg/L	491.61 ppb	19:29:14
3	Tl 190.801†	3905.9	4006.8	499.68 µg/L	499.68 ppb	19:29:34
3	U 409.014†	7243.0	7483.6	467.35 µg/L	467.35 ppb	19:29:14
3	V 292.402†	100691.8	99879.9	493.76 µg/L	493.76 ppb	19:29:14
3	Zn 213.857†	88689.8	87765.9	489.15 µg/L	489.15 ppb	19:29:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1728381.5	100.59	%	0.315				0.31%
Sc RADIAL	144456.8	99.0	%	0.83				0.84%
Y 371.029	1022139.3	99.557	%	0.3040				0.31%
Ag 328.068†	131478.0	492.97	µg/L	0.557	492.97	ppb	0.557	0.11%
QC value within limits for Ag 328.068 Recovery = 98.59%								
Al 396.153Radial†	27006.3	4984.1	µg/L	7.09	4984.1	ppb	7.09	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.68%								
As 188.979†	1637.9	502.49	µg/L	2.596	502.49	ppb	2.596	0.52%
QC value within limits for As 188.979 Recovery = 100.50%								
B 249.677†	33156.9	487.29	µg/L	1.181	487.29	ppb	1.181	0.24%
QC value within limits for B 249.677 Recovery = 97.46%								
Ba 233.527†	121847.7	491.41	µg/L	0.486	491.41	ppb	0.486	0.10%
QC value within limits for Ba 233.527 Recovery = 98.28%								
Be 313.107†	1818039.9	495.15	µg/L	1.079	495.15	ppb	1.079	0.22%
QC value within limits for Be 313.107 Recovery = 99.03%								
Ca 317.933Radial†	89741.4	4998.9	µg/L	6.35	4998.9	ppb	6.35	0.13%
QC value within limits for Ca 317.933Radial Recovery = 99.98%								
Cd 226.502†	78943.4	492.80	µg/L	1.924	492.80	ppb	1.924	0.39%
QC value within limits for Cd 226.502 Recovery = 98.56%								
Co 228.616†	39973.8	493.47	µg/L	1.433	493.47	ppb	1.433	0.29%

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   QC value within limits for Co 228.616  Recovery = 98.69%
Cr 267.716†            62535.9      489.65 µg/L        0.875      489.65 ppb          0.875   0.18%
   QC value within limits for Cr 267.716  Recovery = 97.93%
Cu 324.752†           125674.7      489.91 µg/L        0.568      489.91 ppb          0.568   0.12%
   QC value within limits for Cu 324.752  Recovery = 97.98%
Fe 238.204 Radial†     80332.5      4951.2 µg/L         5.81      4951.2 ppb           5.81   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.02%
K 766.490 Radial†      13582.3      4968.6 µg/L         7.88      4968.6 ppb           7.88   0.16%
   QC value within limits for K 766.490 Radial  Recovery = 99.37%
Mg 279.077 IEC†        13692.9      5109.5 µg/L        11.80      5109.5 ppb          11.80   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.19%
Mn 257.610†           400035.1      494.75 µg/L        0.724      494.75 ppb          0.724   0.15%
   QC value within limits for Mn 257.610  Recovery = 98.95%
Mo 202.031†            16708.8      491.50 µg/L        0.686      491.50 ppb          0.686   0.14%
   QC value within limits for Mo 202.031  Recovery = 98.30%
Na 589.592 Radial†     71829.5      9808.4 µg/L         7.75      9808.4 ppb           7.75   0.08%
   QC value within limits for Na 589.592 Radial  Recovery = 98.08%
Ni 231.604†            42807.7      492.90 µg/L        1.199      492.90 ppb          1.199   0.24%
   QC value within limits for Ni 231.604  Recovery = 98.58%
P 214.914†             11560.0      2464.0 µg/L         3.63      2464.0 ppb           3.63   0.15%
   QC value within limits for P 214.914  Recovery = 98.56%
Pb 220.353†             8867.8      496.59 µg/L        0.942      496.59 ppb          0.942   0.19%
   QC value within limits for Pb 220.353  Recovery = 99.32%
S 181.975 Axial†        1324.9      987.95 µg/L        6.702      987.95 ppb          6.702   0.68%
   QC value within limits for S 181.975 Axial  Recovery = 98.80%
Sb 206.836†             4136.5      492.87 µg/L        0.436      492.87 ppb          0.436   0.09%
   QC value within limits for Sb 206.836  Recovery = 98.57%
Se 196.026†             1361.2         494 µg/L          1.8         494 ppb            1.8   0.36%
   QC value within limits for Se 196.026  Recovery = 98.85%
SiO2†                  54603.7      5315.9 µg/L        12.44      5315.9 ppb          12.44   0.23%
   QC value within limits for SiO2  Recovery = 99.41%
Si 251.611†           169447.7      2488.3 µg/L         5.61      2488.3 ppb           5.61   0.23%
   QC value within limits for Si 251.611  Recovery = 99.53%
Sn 189.927†             7911.7      494.87 µg/L        0.819      494.87 ppb          0.819   0.17%
   QC value within limits for Sn 189.927  Recovery = 98.97%
Sr 421.552†           236902.8      492.47 µg/L        4.215      492.47 ppb          4.215   0.86%
   QC value within limits for Sr 421.552  Recovery = 98.49%
Ti 334.940†           526749.4      491.49 µg/L        0.416      491.49 ppb          0.416   0.08%
   QC value within limits for Ti 334.940  Recovery = 98.30%
Tl 190.801†             4016.0      500.82 µg/L        0.981      500.82 ppb          0.981   0.20%
   QC value within limits for Tl 190.801  Recovery = 100.16%
U 409.014†              7625.0      475.61 µg/L       10.374      475.61 ppb         10.374   2.18%
   QC value within limits for U 409.014  Recovery = 95.12%
V 292.402†             99836.8      493.54 µg/L        0.847      493.54 ppb          0.847   0.17%
   QC value within limits for V 292.402  Recovery = 98.71%
Zn 213.857†            87822.9      489.47 µg/L        0.946      489.47 ppb          0.946   0.19%
   QC value within limits for Zn 213.857  Recovery = 97.89%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:29:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145475.6	145475.6	99.7	%			19:30:11
1	Al 396.153Radial†	-75.1	-12.2	-2.2232	µg/L	-2.2232	ppb	19:30:31
1	Ca 317.933Radial†	587.7	29.0	1.6154	µg/L	1.6154	ppb	19:30:31
1	Fe 238.204 Radial†	164.7	17.2	1.0571	µg/L	1.0571	ppb	19:30:31
1	K 766.490 Radial†	1612.2	72.5	26.524	µg/L	26.524	ppb	19:30:11
1	Mg 279.077 IEC†	187.3	-2.8	-1.0689	µg/L	-1.0689	ppb	19:30:31
1	Na 589.592 Radial†	1489.8	203.6	27.794	µg/L	27.794	ppb	19:30:11
1	Sr 421.552†	-307.3	-173.0	-0.3597	µg/L	-0.3597	ppb	19:30:11
1	Sc 361.383	1698492.9	1698492.9	98.852	%			19:31:33
1	Y 371.029	1016683.6	1016683.6	99.025	%			19:31:33
1	Ag 328.068†	3801.1	-246.1	-0.8975	µg/L	-0.8975	ppb	19:31:35
1	As 188.979†	-17.7	2.5	0.7531	µg/L	0.7531	ppb	19:31:55
1	B 249.677†	3427.3	-38.8	-0.5719	µg/L	-0.5719	ppb	19:31:35
1	Ba 233.527†	-135.5	-1.2	-0.0047	µg/L	-0.0047	ppb	19:31:55
1	Be 313.107†	-787.7	267.8	0.0745	µg/L	0.0745	ppb	19:31:35
1	Cd 226.502†	-126.1	-9.3	-0.0586	µg/L	-0.0586	ppb	19:31:55
1	Co 228.616†	-187.3	0.8	0.0098	µg/L	0.0098	ppb	19:31:55
1	Cr 267.716†	185.7	9.3	0.0694	µg/L	0.0694	ppb	19:31:55
1	Cu 324.752†	2920.3	-18.0	-0.0655	µg/L	-0.0655	ppb	19:31:35
1	Mn 257.610†	272.9	38.8	0.0481	µg/L	0.0481	ppb	19:31:55
1	Mo 202.031†	-42.5	-22.9	-0.6735	µg/L	-0.6735	ppb	19:31:55
1	Ni 231.604†	-89.8	-14.3	-0.1646	µg/L	-0.1646	ppb	19:31:55
1	P 214.914†	-7.3	10.6	2.2741	µg/L	2.2741	ppb	19:31:55
1	Pb 220.353†	105.5	20.3	1.1296	µg/L	1.1296	ppb	19:31:55
1	S 181.975 Axial†	107.5	3.7	2.7631	µg/L	2.7631	ppb	19:31:55
1	Sb 206.836†	82.4	2.5	0.2868	µg/L	0.2868	ppb	19:31:55
1	Se 196.026†	15.9	0.8	0.284	µg/L	0.284	ppb	19:31:55
1	SiO2†	1750.8	-4.2	-0.4021	µg/L	-0.4021	ppb	19:31:55
1	Si 251.611†	831.1	4.2	0.0667	µg/L	0.0667	ppb	19:31:35
1	Sn 189.927†	9.7	11.0	0.6833	µg/L	0.6833	ppb	19:31:55
1	Ti 334.940†	1069.9	129.8	0.1193	µg/L	0.1193	ppb	19:31:35
1	Tl 190.801†	-107.7	7.8	0.9584	µg/L	0.9584	ppb	19:31:55
1	U 409.014†	-179.0	88.9	5.2323	µg/L	5.2323	ppb	19:31:35
1	V 292.402†	528.0	130.3	0.6323	µg/L	0.6323	ppb	19:31:35
1	Zn 213.857†	590.7	33.1	0.1869	µg/L	0.1869	ppb	19:31:55
2	Sc RADIAL	144319.0	144319.0	98.9	%			19:30:33
2	Al 396.153Radial†	-78.7	-16.4	-3.0556	µg/L	-3.0556	ppb	19:30:53
2	Ca 317.933Radial†	611.2	57.5	3.2020	µg/L	3.2020	ppb	19:30:53
2	Fe 238.204 Radial†	171.3	25.1	1.5453	µg/L	1.5453	ppb	19:30:53
2	K 766.490 Radial†	1571.9	44.7	16.347	µg/L	16.347	ppb	19:30:33
2	Mg 279.077 IEC†	180.9	-7.8	-2.8873	µg/L	-2.8873	ppb	19:30:53
2	Na 589.592 Radial†	1390.8	115.6	15.771	µg/L	15.771	ppb	19:30:33
2	Sr 421.552†	-219.7	-86.8	-0.1805	µg/L	-0.1805	ppb	19:30:33
2	Sc 361.383	1734133.7	1734133.7	100.93	%			19:31:58
2	Y 371.029	1037702.6	1037702.6	101.07	%			19:31:58
2	Ag 328.068†	3823.7	-302.8	-1.1204	µg/L	-1.1204	ppb	19:32:00
2	As 188.979†	-14.9	5.6	1.6918	µg/L	1.6918	ppb	19:32:20
2	B 249.677†	3536.1	-2.3	-0.0340	µg/L	-0.0340	ppb	19:32:00
2	Ba 233.527†	-136.5	0.6	0.0024	µg/L	0.0024	ppb	19:32:20
2	Be 313.107†	-795.6	276.4	0.0756	µg/L	0.0756	ppb	19:32:00
2	Cd 226.502†	-86.6	32.4	0.2024	µg/L	0.2024	ppb	19:32:20
2	Co 228.616†	-173.2	18.7	0.2305	µg/L	0.2305	ppb	19:32:20
2	Cr 267.716†	178.6	-1.6	-0.0131	µg/L	-0.0131	ppb	19:32:20
2	Cu 324.752†	2720.4	-276.8	-1.0746	µg/L	-1.0746	ppb	19:32:00
2	Mn 257.610†	233.8	-5.6	-0.0068	µg/L	-0.0068	ppb	19:32:20
2	Mo 202.031†	-11.0	9.2	0.2711	µg/L	0.2711	ppb	19:32:20
2	Ni 231.604†	-67.5	9.6	0.1106	µg/L	0.1106	ppb	19:32:20
2	P 214.914†	-23.6	-5.5	-1.1584	µg/L	-1.1584	ppb	19:32:20
2	Pb 220.353†	95.4	8.1	0.4532	µg/L	0.4532	ppb	19:32:20

2	S 181.975 Axial†	102.0	-4.0	-2.9595 µg/L	-2.9595 ppb	19:32:20
2	Sb 206.836†	80.5	-1.1	-0.1231 µg/L	-0.1231 ppb	19:32:20
2	Se 196.026†	11.1	-4.2	-1.53 µg/L	-1.53 ppb	19:32:20
2	SiO2†	1780.0	-11.7	-1.1573 µg/L	-1.1573 ppb	19:32:20
2	Si 251.611†	833.5	-10.8	-0.1648 µg/L	-0.1648 ppb	19:32:00
2	Sn 189.927†	4.9	6.0	0.3748 µg/L	0.3748 ppb	19:32:20
2	Ti 334.940†	959.8	-1.5	-0.0015 µg/L	-0.0015 ppb	19:32:00
2	Tl 190.801†	-121.4	-3.6	-0.4439 µg/L	-0.4439 ppb	19:32:20
2	U 409.014†	-253.2	19.1	1.1109 µg/L	1.1109 ppb	19:32:00
2	V 292.402†	396.6	-10.8	-0.0495 µg/L	-0.0495 ppb	19:32:00
2	Zn 213.857†	608.7	38.7	0.2171 µg/L	0.2171 ppb	19:32:20
3	Sc RADIAL	143412.5	143412.5	98.3 %		19:30:55
3	Al 396.153Radial†	-61.2	0.9	0.1676 µg/L	0.1676 ppb	19:31:15
3	Ca 317.933Radial†	592.5	42.3	2.3561 µg/L	2.3561 ppb	19:31:15
3	Fe 238.204 Radial†	168.4	23.2	1.4324 µg/L	1.4324 ppb	19:31:15
3	K 766.490 Radial†	1616.9	100.5	36.805 µg/L	36.805 ppb	19:30:55
3	Mg 279.077 IEC†	171.0	-16.7	-6.2040 µg/L	-6.2040 ppb	19:31:15
3	Na 589.592 Radial†	1303.8	35.9	4.8761 µg/L	4.8761 ppb	19:30:55
3	Sr 421.552†	-236.1	-105.0	-0.2183 µg/L	-0.2183 ppb	19:30:55
3	Sc 361.383	1715805.0	1715805.0	99.860 %		19:32:22
3	Y 371.029	1026242.1	1026242.1	99.956 %		19:32:22
3	Ag 328.068†	4010.0	-75.8	-0.2851 µg/L	-0.2851 ppb	19:32:24
3	As 188.979†	-13.5	6.8	2.0688 µg/L	2.0688 ppb	19:32:44
3	B 249.677†	3513.5	12.5	0.1850 µg/L	0.1850 ppb	19:32:24
3	Ba 233.527†	-128.9	6.8	0.0274 µg/L	0.0274 ppb	19:32:44
3	Be 313.107†	-697.9	365.9	0.0986 µg/L	0.0986 ppb	19:32:24
3	Cd 226.502†	-106.1	12.0	0.0747 µg/L	0.0747 ppb	19:32:44
3	Co 228.616†	-189.4	0.6	0.0078 µg/L	0.0078 ppb	19:32:44
3	Cr 267.716†	196.4	18.1	0.1446 µg/L	0.1446 ppb	19:32:44
3	Cu 324.752†	2902.2	-65.9	-0.2591 µg/L	-0.2591 ppb	19:32:24
3	Mn 257.610†	273.8	36.9	0.0459 µg/L	0.0459 ppb	19:32:44
3	Mo 202.031†	-16.2	3.9	0.1137 µg/L	0.1137 ppb	19:32:44
3	Ni 231.604†	-88.7	-12.3	-0.1412 µg/L	-0.1412 ppb	19:32:44
3	P 214.914†	-24.0	-6.1	-1.2988 µg/L	-1.2988 ppb	19:32:44
3	Pb 220.353†	103.9	17.7	0.9897 µg/L	0.9897 ppb	19:32:44
3	S 181.975 Axial†	107.4	2.5	1.8491 µg/L	1.8491 ppb	19:32:44
3	Sb 206.836†	83.4	2.7	0.3244 µg/L	0.3244 ppb	19:32:44
3	Se 196.026†	19.7	4.5	1.61 µg/L	1.61 ppb	19:32:44
3	SiO2†	1808.2	35.4	3.4538 µg/L	3.4538 ppb	19:32:44
3	Si 251.611†	977.1	141.9	2.0894 µg/L	2.0894 ppb	19:32:24
3	Sn 189.927†	2.2	3.3	0.2061 µg/L	0.2061 ppb	19:32:44
3	Ti 334.940†	999.8	48.7	0.0474 µg/L	0.0474 ppb	19:32:24
3	Tl 190.801†	-111.5	5.0	0.6198 µg/L	0.6198 ppb	19:32:44
3	U 409.014†	-328.9	-59.4	-3.4761 µg/L	-3.4761 ppb	19:32:24
3	V 292.402†	400.2	-3.0	-0.0153 µg/L	-0.0153 ppb	19:32:24
3	Zn 213.857†	599.5	35.9	0.2028 µg/L	0.2028 ppb	19:32:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716143.9	99.879	%	1.0373				1.04%
Sc RADIAL	144402.4	99.0	%	0.71				0.72%
Y 371.029	1026876.1	100.02	%	1.025				1.02%
Ag 328.068†	-208.2	-0.7677	µg/L	0.43252	-0.7677	ppb	0.43252	56.34%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.2	-1.7037	µg/L	1.67317	-1.7037	ppb	1.67317	98.21%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.0	1.5046	µg/L	0.67750	1.5046	ppb	0.67750	45.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-9.5	-0.1403	µg/L	0.38951	-0.1403	ppb	0.38951	277.57%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0084	µg/L	0.01681	0.0084	ppb	0.01681	200.54%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	303.4	0.0829	µg/L	0.01359	0.0829	ppb	0.01359	16.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	42.9	2.3912	µg/L	0.79388	2.3912	ppb	0.79388	33.20%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.7	0.0728	µg/L	0.13050	0.0728	ppb	0.13050	179.15%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.7	0.0827	µg/L	0.12800	0.0827	ppb	0.12800	154.81%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.6      0.0669 µg/L       0.07889      0.0669 ppb        0.07889 117.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -120.3     -0.4664 µg/L       0.53553     -0.4664 ppb        0.53553 114.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         21.8      1.3449 µg/L       0.25554      1.3449 ppb        0.25554  19.00%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          72.5      26.559 µg/L       10.2293      26.559 ppb        10.2293  38.52%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -9.1     -3.3867 µg/L       2.60377     -3.3867 ppb        2.60377  76.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                23.4      0.0291 µg/L       0.03107      0.0291 ppb        0.03107 106.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.3     -0.0962 µg/L       0.50606     -0.0962 ppb        0.50606 525.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        118.4      16.147 µg/L       11.4636      16.147 ppb        11.4636  70.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.7     -0.0651 µg/L       0.15260     -0.0651 ppb        0.15260 234.56%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.3     -0.0611 µg/L       2.02349     -0.0611 ppb        2.02349 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.4      0.8575 µg/L       0.35710      0.8575 ppb        0.35710  41.64%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.7      0.5509 µg/L       3.07426      0.5509 ppb        3.07426 558.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.4      0.1627 µg/L       0.24819      0.1627 ppb        0.24819 152.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.3       0.122 µg/L        1.5761       0.122 ppb         1.5761 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       6.5      0.6315 µg/L       2.47323      0.6315 ppb        2.47323 391.67%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                45.1      0.6638 µg/L       1.24006      0.6638 ppb        1.24006 186.82%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.8      0.4214 µg/L       0.24200      0.4214 ppb        0.24200  57.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -121.6     -0.2528 µg/L       0.09445     -0.2528 ppb        0.09445  37.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                59.0      0.0550 µg/L       0.06076      0.0550 ppb        0.06076 110.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.1      0.3781 µg/L       0.73174      0.3781 ppb        0.73174 193.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 16.2      0.9557 µg/L       4.35630      0.9557 ppb        4.35630 455.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 38.8      0.1892 µg/L       0.38415      0.1892 ppb        0.38415 203.07%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                35.9      0.2023 µg/L       0.01507      0.2023 ppb        0.01507   7.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 19:48:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142074.6	142074.6	97.4	%			19:48:41
1	Al 396.153Radial†	26307.3	27084.3	4998.9	µg/L	4998.9	ppb	19:48:41
1	Ca 317.933Radial†	86883.3	88680.2	4939.8	µg/L	4939.8	ppb	19:48:41
1	Fe 238.204 Radial†	77361.0	79312.1	4888.3	µg/L	4888.3	ppb	19:48:41
1	K 766.490 Radial†	14600.0	13451.4	4920.7	µg/L	4920.7	ppb	19:48:41
1	Mg 279.077 IEC†	13319.4	13490.1	5033.8	µg/L	5033.8	ppb	19:48:41
1	Na 589.592 Radial†	70751.2	71380.2	9747.0	µg/L	9747.0	ppb	19:48:41
1	Sr 421.552†	226373.4	232651.3	483.63	µg/L	483.63	ppb	19:48:39
1	Sc 361.383	1707292.7	1707292.7	99.364	%			19:48:54
1	Y 371.029	1010159.7	1010159.7	98.390	%			19:48:54
1	Ag 328.068†	133110.0	129870.3	486.98	µg/L	486.98	ppb	19:48:54
1	As 188.979†	1576.3	1606.7	492.97	µg/L	492.97	ppb	19:49:14
1	B 249.677†	35756.1	32479.0	477.32	µg/L	477.32	ppb	19:48:54
1	Ba 233.527†	119643.5	120545.0	486.15	µg/L	486.15	ppb	19:48:54
1	Be 313.107†	1782114.7	1794583.1	488.77	µg/L	488.77	ppb	19:48:54
1	Cd 226.502†	76871.1	77481.2	483.67	µg/L	483.67	ppb	19:48:54
1	Co 228.616†	39104.8	39545.3	488.18	µg/L	488.18	ppb	19:48:54
1	Cr 267.716†	61488.3	61703.2	483.11	µg/L	483.11	ppb	19:48:54
1	Cu 324.752†	126677.7	124516.1	485.41	µg/L	485.41	ppb	19:48:54
1	Mn 257.610†	392328.2	394601.4	488.03	µg/L	488.03	ppb	19:48:54
1	Mo 202.031†	16345.9	16470.5	484.49	µg/L	484.49	ppb	19:49:14
1	Ni 231.604†	41875.3	42219.8	486.13	µg/L	486.13	ppb	19:48:54
1	P 214.914†	11193.1	11282.7	2404.8	µg/L	2404.8	ppb	19:49:14
1	Pb 220.353†	8730.4	8699.9	487.18	µg/L	487.18	ppb	19:49:14
1	S 181.975 Axial†	1383.4	1287.2	959.96	µg/L	959.96	ppb	19:49:14
1	Sb 206.836†	4107.0	4052.4	482.84	µg/L	482.84	ppb	19:49:14
1	Se 196.026†	1342.1	1335.4	485	µg/L	485	ppb	19:49:14
1	SiO2†	55335.6	53914.4	5248.9	µg/L	5248.9	ppb	19:48:54
1	Si 251.611†	167076.9	167309.4	2457.0	µg/L	2457.0	ppb	19:48:54
1	Sn 189.927†	7693.0	7743.4	484.36	µg/L	484.36	ppb	19:49:14
1	Ti 334.940†	519233.7	521603.7	486.68	µg/L	486.68	ppb	19:48:54
1	Tl 190.801†	3814.7	3955.8	493.34	µg/L	493.34	ppb	19:49:14
1	U 409.014†	7610.9	7929.5	493.08	µg/L	493.08	ppb	19:48:54
1	V 292.402†	98525.0	98751.7	488.17	µg/L	488.17	ppb	19:48:54
1	Zn 213.857†	86407.4	86395.9	481.51	µg/L	481.51	ppb	19:48:54
2	Sc RADIAL	141314.4	141314.4	96.8	%			19:48:45
2	Al 396.153Radial†	26070.1	26984.8	4980.3	µg/L	4980.3	ppb	19:48:45
2	Ca 317.933Radial†	86198.1	88452.8	4927.2	µg/L	4927.2	ppb	19:48:45
2	Fe 238.204 Radial†	76905.6	79269.3	4885.7	µg/L	4885.7	ppb	19:48:45
2	K 766.490 Radial†	14469.9	13397.8	4901.1	µg/L	4901.1	ppb	19:48:45
2	Mg 279.077 IEC†	13056.5	13292.2	4960.2	µg/L	4960.2	ppb	19:48:45
2	Na 589.592 Radial†	70248.5	71252.1	9729.5	µg/L	9729.5	ppb	19:48:45
2	Sr 421.552†	230623.8	238291.3	495.36	µg/L	495.36	ppb	19:48:43
2	Sc 361.383	1705432.9	1705432.9	99.256	%			19:49:17
2	Y 371.029	1009468.8	1009468.8	98.323	%			19:49:17
2	Ag 328.068†	133787.0	130698.5	490.05	µg/L	490.05	ppb	19:49:17
2	As 188.979†	1570.4	1602.5	491.73	µg/L	491.73	ppb	19:49:37
2	B 249.677†	35970.0	32733.8	481.06	µg/L	481.06	ppb	19:49:17
2	Ba 233.527†	120220.9	121258.0	489.03	µg/L	489.03	ppb	19:49:17
2	Be 313.107†	1787251.2	1801714.0	490.71	µg/L	490.71	ppb	19:49:17
2	Cd 226.502†	77339.1	78037.0	487.14	µg/L	487.14	ppb	19:49:17
2	Co 228.616†	39270.6	39755.3	490.78	µg/L	490.78	ppb	19:49:17
2	Cr 267.716†	61757.1	62041.5	485.78	µg/L	485.78	ppb	19:49:17
2	Cu 324.752†	126820.0	124798.5	486.50	µg/L	486.50	ppb	19:49:17
2	Mn 257.610†	394508.1	397228.3	491.28	µg/L	491.28	ppb	19:49:17
2	Mo 202.031†	16426.8	16570.0	487.42	µg/L	487.42	ppb	19:49:37
2	Ni 231.604†	41982.9	42374.1	487.91	µg/L	487.91	ppb	19:49:17
2	P 214.914†	11261.9	11364.3	2422.2	µg/L	2422.2	ppb	19:49:37
2	Pb 220.353†	8823.1	8802.9	492.95	µg/L	492.95	ppb	19:49:37

2	S 181.975 Axial†	1396.0	1301.4	970.49 µg/L	970.49 ppb	19:49:37
2	Sb 206.836†	4148.9	4099.2	488.41 µg/L	488.41 ppb	19:49:37
2	Se 196.026†	1355.8	1350.7	490 µg/L	490 ppb	19:49:37
2	SiO2†	55442.9	54083.1	5265.3 µg/L	5265.3 ppb	19:49:17
2	Si 251.611†	167481.5	167900.5	2465.6 µg/L	2465.6 ppb	19:49:17
2	Sn 189.927†	7735.0	7794.1	487.53 µg/L	487.53 ppb	19:49:37
2	Ti 334.940†	520412.2	523360.9	488.34 µg/L	488.34 ppb	19:49:17
2	Tl 190.801†	3830.1	3975.4	495.78 µg/L	495.78 ppb	19:49:37
2	U 409.014†	7376.5	7701.7	479.90 µg/L	479.90 ppb	19:49:17
2	V 292.402†	98853.0	99190.2	490.34 µg/L	490.34 ppb	19:49:17
2	Zn 213.857†	86774.5	86860.6	484.11 µg/L	484.11 ppb	19:49:17
3	Sc RADIAL	143116.0	143116.0	98.1 %		19:48:49
3	Al 396.153Radial†	26236.6	26815.6	4949.0 µg/L	4949.0 ppb	19:48:49
3	Ca 317.933Radial†	87307.0	88462.9	4927.7 µg/L	4927.7 ppb	19:48:49
3	Fe 238.204 Radial†	77796.7	79178.1	4880.1 µg/L	4880.1 ppb	19:48:49
3	K 766.490 Radial†	14380.3	13118.2	4798.8 µg/L	4798.8 ppb	19:48:49
3	Mg 279.077 IEC†	13346.6	13418.3	5007.1 µg/L	5007.1 ppb	19:48:49
3	Na 589.592 Radial†	71057.8	71164.1	9717.6 µg/L	9717.6 ppb	19:48:49
3	Sr 421.552†	230412.2	235077.6	488.67 µg/L	488.67 ppb	19:48:47
3	Sc 361.383	1721387.2	1721387.2	100.18 %		19:49:40
3	Y 371.029	1018897.4	1018897.4	99.241 %		19:49:40
3	Ag 328.068†	134640.8	130301.5	488.57 µg/L	488.57 ppb	19:49:40
3	As 188.979†	1609.9	1627.2	499.20 µg/L	499.20 ppb	19:50:00
3	B 249.677†	36341.2	32768.4	481.57 µg/L	481.57 ppb	19:49:40
3	Ba 233.527†	121012.1	120925.1	487.69 µg/L	487.69 ppb	19:49:40
3	Be 313.107†	1805276.3	1803016.9	491.06 µg/L	491.06 ppb	19:49:40
3	Cd 226.502†	78051.9	78026.4	487.08 µg/L	487.08 ppb	19:49:40
3	Co 228.616†	39637.9	39755.2	490.78 µg/L	490.78 ppb	19:49:40
3	Cr 267.716†	62404.8	62111.3	486.33 µg/L	486.33 ppb	19:49:40
3	Cu 324.752†	128037.0	124829.0	486.61 µg/L	486.61 ppb	19:49:40
3	Mn 257.610†	397828.4	396858.6	490.82 µg/L	490.82 ppb	19:49:40
3	Mo 202.031†	16520.4	16510.1	485.66 µg/L	485.66 ppb	19:50:00
3	Ni 231.604†	42275.1	42273.8	486.75 µg/L	486.75 ppb	19:49:40
3	P 214.914†	11329.3	11326.4	2414.1 µg/L	2414.1 ppb	19:50:00
3	Pb 220.353†	8851.7	8749.0	489.94 µg/L	489.94 ppb	19:50:00
3	S 181.975 Axial†	1397.8	1290.2	962.16 µg/L	962.16 ppb	19:50:00
3	Sb 206.836†	4164.3	4075.8	485.60 µg/L	485.60 ppb	19:50:00
3	Se 196.026†	1362.5	1344.7	488 µg/L	488 ppb	19:50:00
3	SiO2†	55884.7	54006.4	5257.8 µg/L	5257.8 ppb	19:49:40
3	Si 251.611†	169043.3	167895.4	2465.6 µg/L	2465.6 ppb	19:49:40
3	Sn 189.927†	7803.9	7790.6	487.31 µg/L	487.31 ppb	19:50:00
3	Ti 334.940†	525263.4	523343.7	488.32 µg/L	488.32 ppb	19:49:40
3	Tl 190.801†	3853.4	3963.0	494.25 µg/L	494.25 ppb	19:50:00
3	U 409.014†	7327.8	7584.2	473.02 µg/L	473.02 ppb	19:49:40
3	V 292.402†	99734.3	99146.8	490.11 µg/L	490.11 ppb	19:49:40
3	Zn 213.857†	87677.5	86951.6	484.63 µg/L	484.63 ppb	19:49:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1711370.9	99.602	%	0.5077				0.51%
Sc RADIAL	142168.3	97.4	%	0.62				0.64%
Y 371.029	1012841.9	98.651	%	0.5119				0.52%
Ag 328.068†	130290.1	488.54	µg/L	1.538	488.54	ppb	1.538	0.31%
QC value within limits for Ag 328.068 Recovery = 97.71%								
Al 396.153Radial†	26961.6	4976.1	µg/L	25.20	4976.1	ppb	25.20	0.51%
QC value within limits for Al 396.153Radial Recovery = 99.52%								
As 188.979†	1612.2	494.63	µg/L	4.004	494.63	ppb	4.004	0.81%
QC value within limits for As 188.979 Recovery = 98.93%								
B 249.677†	32660.4	479.98	µg/L	2.326	479.98	ppb	2.326	0.48%
QC value within limits for B 249.677 Recovery = 96.00%								
Ba 233.527†	120909.3	487.62	µg/L	1.439	487.62	ppb	1.439	0.30%
QC value within limits for Ba 233.527 Recovery = 97.52%								
Be 313.107†	1799771.3	490.18	µg/L	1.233	490.18	ppb	1.233	0.25%
QC value within limits for Be 313.107 Recovery = 98.04%								
Ca 317.933Radial†	88532.0	4931.6	µg/L	7.16	4931.6	ppb	7.16	0.15%
QC value within limits for Ca 317.933Radial Recovery = 98.63%								
Cd 226.502†	77848.2	485.96	µg/L	1.986	485.96	ppb	1.986	0.41%
QC value within limits for Cd 226.502 Recovery = 97.19%								
Co 228.616†	39685.3	489.91	µg/L	1.497	489.91	ppb	1.497	0.31%

```
   QC value within limits for Co 228.616  Recovery = 97.98%
Cr 267.716†            61952.0      485.07 µg/L        1.718      485.07 ppb          1.718   0.35%
   QC value within limits for Cr 267.716  Recovery = 97.01%
Cu 324.752†           124714.6      486.17 µg/L        0.662      486.17 ppb          0.662   0.14%
   QC value within limits for Cu 324.752  Recovery = 97.23%
Fe 238.204 Radial†     79253.2      4884.7 µg/L         4.22      4884.7 ppb           4.22   0.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.69%
K 766.490 Radial†      13322.5      4873.5 µg/L        65.48      4873.5 ppb          65.48   1.34%
   QC value within limits for K 766.490 Radial  Recovery = 97.47%
Mg 279.077 IEC†        13400.2      5000.4 µg/L        37.28      5000.4 ppb          37.28   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.01%
Mn 257.610†           396229.4      490.04 µg/L        1.761      490.04 ppb          1.761   0.36%
   QC value within limits for Mn 257.610  Recovery = 98.01%
Mo 202.031†            16516.9      485.86 µg/L        1.472      485.86 ppb          1.472   0.30%
   QC value within limits for Mo 202.031  Recovery = 97.17%
Na 589.592 Radial†     71265.4      9731.4 µg/L        14.79      9731.4 ppb          14.79   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 97.31%
Ni 231.604†            42289.2      486.93 µg/L        0.902      486.93 ppb          0.902   0.19%
   QC value within limits for Ni 231.604  Recovery = 97.39%
P 214.914†             11324.5      2413.7 µg/L         8.72      2413.7 ppb           8.72   0.36%
   QC value within limits for P 214.914  Recovery = 96.55%
Pb 220.353†             8750.6      490.02 µg/L        2.885      490.02 ppb          2.885   0.59%
   QC value within limits for Pb 220.353  Recovery = 98.00%
S 181.975 Axial†        1292.9      964.20 µg/L        5.551      964.20 ppb          5.551   0.58%
   QC value within limits for S 181.975 Axial  Recovery = 96.42%
Sb 206.836†             4075.8      485.62 µg/L        2.784      485.62 ppb          2.784   0.57%
   QC value within limits for Sb 206.836  Recovery = 97.12%
Se 196.026†             1343.6         488 µg/L          2.8         488 ppb            2.8   0.57%
   QC value within limits for Se 196.026  Recovery = 97.58%
SiO2†                  54001.3      5257.4 µg/L         8.20      5257.4 ppb           8.20   0.16%
   QC value within limits for SiO2  Recovery = 98.31%
Si 251.611†           167701.8      2462.7 µg/L         4.98      2462.7 ppb           4.98   0.20%
   QC value within limits for Si 251.611  Recovery = 98.51%
Sn 189.927†             7776.0      486.40 µg/L        1.771      486.40 ppb          1.771   0.36%
   QC value within limits for Sn 189.927  Recovery = 97.28%
Sr 421.552†           235340.1      489.22 µg/L        5.882      489.22 ppb          5.882   1.20%
   QC value within limits for Sr 421.552  Recovery = 97.84%
Ti 334.940†           522769.4      487.78 µg/L        0.949      487.78 ppb          0.949   0.19%
   QC value within limits for Ti 334.940  Recovery = 97.56%
Tl 190.801†             3964.8      494.46 µg/L        1.233      494.46 ppb          1.233   0.25%
   QC value within limits for Tl 190.801  Recovery = 98.89%
U 409.014†              7738.5      482.00 µg/L       10.196      482.00 ppb         10.196   2.12%
   QC value within limits for U 409.014  Recovery = 96.40%
V 292.402†             99029.6      489.54 µg/L        1.192      489.54 ppb          1.192   0.24%
   QC value within limits for V 292.402  Recovery = 97.91%
Zn 213.857†            86736.0      483.41 µg/L        1.671      483.41 ppb          1.671   0.35%
   QC value within limits for Zn 213.857  Recovery = 96.68%
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:50:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143600.6	143600.6	98.4	%			19:50:37
1	Al 396.153Radial†	-51.1	11.3	2.1044	µg/L	2.1044	ppb	19:50:57
1	Ca 317.933Radial†	586.6	35.5	1.9797	µg/L	1.9797	ppb	19:50:57
1	Fe 238.204 Radial†	144.0	-1.8	-0.1088	µg/L	-0.1088	ppb	19:50:57
1	K 766.490 Radial†	1486.8	-33.9	-12.412	µg/L	-12.412	ppb	19:50:37
1	Mg 279.077 IEC†	173.5	-14.4	-5.3870	µg/L	-5.3870	ppb	19:50:57
1	Na 589.592 Radial†	1458.3	191.2	26.130	µg/L	26.130	ppb	19:50:37
1	Sr 421.552†	-289.3	-158.8	-0.3301	µg/L	-0.3301	ppb	19:50:37
1	Sc 361.383	1727301.6	1727301.6	100.53	%			19:51:45
1	Y 371.029	1033229.5	1033229.5	100.64	%			19:51:45
1	Ag 328.068†	3918.0	-194.0	-0.7232	µg/L	-0.7232	ppb	19:51:47
1	As 188.979†	-11.4	9.0	2.7325	µg/L	2.7325	ppb	19:52:07
1	B 249.677†	3507.2	-17.2	-0.2546	µg/L	-0.2546	ppb	19:52:07
1	Ba 233.527†	-159.6	-22.9	-0.0923	µg/L	-0.0923	ppb	19:52:07
1	Be 313.107†	-960.5	109.3	0.0290	µg/L	0.0290	ppb	19:51:47
1	Cd 226.502†	-87.8	30.8	0.1926	µg/L	0.1926	ppb	19:52:07
1	Co 228.616†	-159.6	31.5	0.3887	µg/L	0.3887	ppb	19:52:07
1	Cr 267.716†	221.5	41.8	0.3292	µg/L	0.3292	ppb	19:52:07
1	Cu 324.752†	2909.7	-77.8	-0.3046	µg/L	-0.3046	ppb	19:51:47
1	Mn 257.610†	275.7	37.0	0.0460	µg/L	0.0460	ppb	19:52:07
1	Mo 202.031†	-30.5	-10.3	-0.3033	µg/L	-0.3033	ppb	19:52:07
1	Ni 231.604†	-82.7	-5.8	-0.0664	µg/L	-0.0664	ppb	19:52:07
1	P 214.914†	-17.8	0.3	0.0611	µg/L	0.0611	ppb	19:52:07
1	Pb 220.353†	92.7	5.8	0.3254	µg/L	0.3254	ppb	19:52:07
1	S 181.975 Axial†	92.1	-13.5	-10.016	µg/L	-10.016	ppb	19:52:07
1	Sb 206.836†	70.2	-11.0	-1.3187	µg/L	-1.3187	ppb	19:52:07
1	Se 196.026†	23.8	8.4	3.03	µg/L	3.03	ppb	19:52:07
1	SiO2†	1746.0	-38.6	-3.7620	µg/L	-3.7620	ppb	19:52:07
1	Si 251.611†	804.0	-36.7	-0.5381	µg/L	-0.5381	ppb	19:51:47
1	Sn 189.927†	-0.2	0.9	0.0546	µg/L	0.0546	ppb	19:52:07
1	Ti 334.940†	954.9	-2.7	-0.0011	µg/L	-0.0011	ppb	19:51:47
1	Tl 190.801†	-118.5	-1.2	-0.1445	µg/L	-0.1445	ppb	19:52:07
1	U 409.014†	-315.9	-44.3	-2.6009	µg/L	-2.6009	ppb	19:51:47
1	V 292.402†	377.6	-28.1	-0.1408	µg/L	-0.1408	ppb	19:51:47
1	Zn 213.857†	598.1	30.5	0.1719	µg/L	0.1719	ppb	19:52:07
2	Sc RADIAL	143131.7	143131.7	98.1	%			19:50:59
2	Al 396.153Radial†	-32.2	30.3	5.6296	µg/L	5.6296	ppb	19:51:19
2	Ca 317.933Radial†	576.7	27.4	1.5269	µg/L	1.5269	ppb	19:51:19
2	Fe 238.204 Radial†	158.7	13.7	0.8423	µg/L	0.8423	ppb	19:51:19
2	K 766.490 Radial†	1675.4	163.4	59.819	µg/L	59.819	ppb	19:50:59
2	Mg 279.077 IEC†	212.3	25.7	9.5785	µg/L	9.5785	ppb	19:51:19
2	Na 589.592 Radial†	1429.9	167.0	22.764	µg/L	22.764	ppb	19:50:59
2	Sr 421.552†	-273.0	-143.1	-0.2975	µg/L	-0.2975	ppb	19:50:59
2	Sc 361.383	1718494.8	1718494.8	100.02	%			19:52:09
2	Y 371.029	1028699.8	1028699.8	100.20	%			19:52:09
2	Ag 328.068†	4047.8	-44.2	-0.1507	µg/L	-0.1507	ppb	19:52:11
2	As 188.979†	-18.3	2.1	0.6206	µg/L	0.6206	ppb	19:52:32
2	B 249.677†	3519.8	13.3	0.1962	µg/L	0.1962	ppb	19:52:32
2	Ba 233.527†	-147.0	-11.2	-0.0449	µg/L	-0.0449	ppb	19:52:32
2	Be 313.107†	-767.5	297.4	0.0836	µg/L	0.0836	ppb	19:52:11
2	Cd 226.502†	-96.5	21.7	0.1357	µg/L	0.1357	ppb	19:52:32
2	Co 228.616†	-176.2	14.1	0.1739	µg/L	0.1739	ppb	19:52:32
2	Cr 267.716†	180.3	1.7	0.0063	µg/L	0.0063	ppb	19:52:32
2	Cu 324.752†	2889.0	-83.7	-0.3176	µg/L	-0.3176	ppb	19:52:11
2	Mn 257.610†	264.9	27.6	0.0338	µg/L	0.0338	ppb	19:52:32
2	Mo 202.031†	-22.6	-2.5	-0.0728	µg/L	-0.0728	ppb	19:52:32
2	Ni 231.604†	-57.5	19.1	0.2195	µg/L	0.2195	ppb	19:52:32
2	P 214.914†	4.9	22.9	4.9039	µg/L	4.9039	ppb	19:52:32
2	Pb 220.353†	90.9	4.5	0.2430	µg/L	0.2430	ppb	19:52:32

2	S 181.975 Axial†	92.8	-12.3	-9.1413 µg/L	-9.1413 ppb	19:52:32
2	Sb 206.836†	91.0	10.1	1.2060 µg/L	1.2060 ppb	19:52:32
2	Se 196.026†	23.4	8.1	2.95 µg/L	2.95 ppb	19:52:32
2	SiO2†	1770.3	-5.4	-0.5347 µg/L	-0.5347 ppb	19:52:32
2	Si 251.611†	816.5	-20.2	-0.3025 µg/L	-0.3025 ppb	19:52:11
2	Sn 189.927†	13.1	14.3	0.8887 µg/L	0.8887 ppb	19:52:32
2	Ti 334.940†	824.8	-127.9	-0.1238 µg/L	-0.1238 ppb	19:52:11
2	Tl 190.801†	-110.8	5.9	0.7247 µg/L	0.7247 ppb	19:52:32
2	U 409.014†	-118.9	151.0	8.8426 µg/L	8.8426 ppb	19:52:11
2	V 292.402†	441.7	37.8	0.1896 µg/L	0.1896 ppb	19:52:11
2	Zn 213.857†	569.1	4.5	0.0243 µg/L	0.0243 ppb	19:52:32
3	Sc RADIAL	142404.0	142404.0	97.6 %		19:51:21
3	Al 396.153Radial†	-37.8	24.5	4.5543 µg/L	4.5543 ppb	19:51:41
3	Ca 317.933Radial†	603.4	57.8	3.2194 µg/L	3.2194 ppb	19:51:41
3	Fe 238.204 Radial†	154.3	10.0	0.6188 µg/L	0.6188 ppb	19:51:41
3	K 766.490 Radial†	1584.3	78.7	28.824 µg/L	28.824 ppb	19:51:21
3	Mg 279.077 IEC†	168.4	-18.1	-6.7588 µg/L	-6.7588 ppb	19:51:41
3	Na 589.592 Radial†	1217.4	-43.3	-5.9413 µg/L	-5.9413 ppb	19:51:21
3	Sr 421.552†	-213.0	-83.0	-0.1726 µg/L	-0.1726 ppb	19:51:21
3	Sc 361.383	1725113.7	1725113.7	100.40 %		19:52:34
3	Y 371.029	1032434.0	1032434.0	100.56 %		19:52:34
3	Ag 328.068†	4136.4	28.4	0.1103 µg/L	0.1103 ppb	19:52:36
3	As 188.979†	-21.2	-0.8	-0.2286 µg/L	-0.2286 ppb	19:52:56
3	B 249.677†	3487.8	-32.0	-0.4730 µg/L	-0.4730 ppb	19:52:56
3	Ba 233.527†	-148.1	-11.7	-0.0471 µg/L	-0.0471 ppb	19:52:56
3	Be 313.107†	-958.9	109.7	0.0307 µg/L	0.0307 ppb	19:52:36
3	Cd 226.502†	-100.1	18.5	0.1156 µg/L	0.1156 ppb	19:52:56
3	Co 228.616†	-181.7	9.3	0.1151 µg/L	0.1151 ppb	19:52:56
3	Cr 267.716†	179.3	-0.0	-0.0022 µg/L	-0.0022 ppb	19:52:56
3	Cu 324.752†	2944.1	-39.9	-0.1527 µg/L	-0.1527 ppb	19:52:36
3	Mn 257.610†	258.6	20.3	0.0254 µg/L	0.0254 ppb	19:52:56
3	Mo 202.031†	-33.3	-13.1	-0.3839 µg/L	-0.3839 ppb	19:52:56
3	Ni 231.604†	-89.6	-12.8	-0.1471 µg/L	-0.1471 ppb	19:52:56
3	P 214.914†	-5.5	12.5	2.6899 µg/L	2.6899 ppb	19:52:56
3	Pb 220.353†	86.1	-0.6	-0.0367 µg/L	-0.0367 ppb	19:52:56
3	S 181.975 Axial†	105.1	-0.4	-0.3195 µg/L	-0.3195 ppb	19:52:56
3	Sb 206.836†	78.4	-2.7	-0.3234 µg/L	-0.3234 ppb	19:52:56
3	Se 196.026†	32.5	17.1	6.18 µg/L	6.18 ppb	19:52:56
3	SiO2†	1714.4	-67.8	-6.6340 µg/L	-6.6340 ppb	19:52:56
3	Si 251.611†	948.1	107.7	1.5850 µg/L	1.5850 ppb	19:52:36
3	Sn 189.927†	18.5	19.5	1.2178 µg/L	1.2178 ppb	19:52:56
3	Ti 334.940†	1054.7	98.0	0.0910 µg/L	0.0910 ppb	19:52:36
3	Tl 190.801†	-105.2	11.9	1.4675 µg/L	1.4675 ppb	19:52:56
3	U 409.014†	-221.6	49.1	2.8801 µg/L	2.8801 ppb	19:52:36
3	V 292.402†	431.8	26.3	0.1262 µg/L	0.1262 ppb	19:52:36
3	Zn 213.857†	567.6	1.0	0.0065 µg/L	0.0065 ppb	19:52:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1723636.7	100.32	%	0.267				0.27%
Sc RADIAL	143045.4	98.0	%	0.41				0.42%
Y 371.029	1031454.4	100.46	%	0.236				0.23%
Ag 328.068†	-69.9	-0.2546	µg/L	0.42634	-0.2546	ppb	0.42634	167.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	22.0	4.0961	µg/L	1.80672	4.0961	ppb	1.80672	44.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.4	1.0415	µg/L	1.52480	1.0415	ppb	1.52480	146.41%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-12.0	-0.1771	µg/L	0.34126	-0.1771	ppb	0.34126	192.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-15.2	-0.0614	µg/L	0.02676	-0.0614	ppb	0.02676	43.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	172.1	0.0478	µg/L	0.03107	0.0478	ppb	0.03107	65.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	40.2	2.2420	µg/L	0.87622	2.2420	ppb	0.87622	39.08%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.7	0.1480	µg/L	0.03996	0.1480	ppb	0.03996	27.01%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.3	0.2259	µg/L	0.14405	0.2259	ppb	0.14405	63.76%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.5      0.1111 µg/L       0.18892      0.1111 ppb        0.18892 170.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -67.1     -0.2583 µg/L       0.09167     -0.2583 ppb        0.09167  35.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        7.3      0.4508 µg/L       0.49733      0.4508 ppb        0.49733 110.33%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        69.4      25.411 µg/L       36.2364      25.411 ppb        36.2364 142.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.3     -0.8557 µg/L       9.06232     -0.8557 ppb        9.06232 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              28.3      0.0350 µg/L       0.01036      0.0350 ppb        0.01036  29.56%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -8.6     -0.2533 µg/L       0.16143     -0.2533 ppb        0.16143  63.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      105.0      14.318 µg/L       17.6253      14.318 ppb        17.6253 123.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.2      0.0020 µg/L       0.19262      0.0020 ppb        0.19262 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               11.9      2.5516 µg/L       2.42435      2.5516 ppb        2.42435  95.01%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               3.2      0.1772 µg/L       0.18975      0.1772 ppb        0.18975 107.07%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -8.7     -6.4924 µg/L       5.36374     -6.4924 ppb        5.36374  82.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.2     -0.1454 µg/L       1.27176     -0.1454 ppb        1.27176 874.71%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              11.2        4.05 µg/L         1.843        4.05 ppb          1.843  45.47%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -37.2     -3.6436 µg/L       3.05138     -3.6436 ppb        3.05138  83.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              16.9      0.2481 µg/L       1.16372      0.2481 ppb        1.16372 469.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              11.6      0.7204 µg/L       0.59961      0.7204 ppb        0.59961  83.23%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -128.3     -0.2667 µg/L       0.08309     -0.2667 ppb        0.08309  31.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -10.9     -0.0113 µg/L       0.10776     -0.0113 ppb        0.10776 953.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.6      0.6826 µg/L       0.80682      0.6826 ppb        0.80682 118.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               51.9      3.0406 µg/L       5.72342      3.0406 ppb        5.72342 188.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               12.0      0.0584 µg/L       0.17533      0.0584 ppb        0.17533 300.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              12.0      0.0676 µg/L       0.09081      0.0676 ppb        0.09081 134.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 20:18:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143153.1	143153.1	98.1	%			20:19:22
1	Al 396.153Radial†	26168.1	26738.9	4934.8	µg/L	4934.8	ppb	20:19:22
1	Ca 317.933Radial†	87812.2	88954.8	4955.1	µg/L	4955.1	ppb	20:19:22
1	Fe 238.204 Radial†	78188.9	79557.4	4903.4	µg/L	4903.4	ppb	20:19:22
1	K 766.490 Radial†	14678.9	13418.9	4908.8	µg/L	4908.8	ppb	20:19:22
1	Mg 279.077 IEC†	13438.9	13508.9	5040.9	µg/L	5040.9	ppb	20:19:22
1	Na 589.592 Radial†	71303.4	71395.6	9749.1	µg/L	9749.1	ppb	20:19:22
1	Sr 421.552†	231815.5	236447.2	491.52	µg/L	491.52	ppb	20:19:20
1	Sc 361.383	1733210.9	1733210.9	100.87	%			20:19:49
1	Y 371.029	1024566.6	1024566.6	99.793	%			20:19:49
1	Ag 328.068†	135811.2	130544.9	489.48	µg/L	489.48	ppb	20:19:49
1	As 188.979†	1620.4	1626.8	499.06	µg/L	499.06	ppb	20:20:09
1	B 249.677†	36886.7	33061.7	485.90	µg/L	485.90	ppb	20:19:49
1	Ba 233.527†	122122.4	121201.8	488.80	µg/L	488.80	ppb	20:19:49
1	Be 313.107†	1820796.8	1806110.5	491.91	µg/L	491.91	ppb	20:19:49
1	Cd 226.502†	79174.4	78607.7	490.71	µg/L	490.71	ppb	20:19:49
1	Co 228.616†	39967.4	39811.9	491.48	µg/L	491.48	ppb	20:19:49
1	Cr 267.716†	62802.0	62080.2	486.08	µg/L	486.08	ppb	20:19:49
1	Cu 324.752†	129193.6	125103.8	487.69	µg/L	487.69	ppb	20:19:49
1	Mn 257.610†	400949.3	397243.5	491.30	µg/L	491.30	ppb	20:19:49
1	Mo 202.031†	16640.3	16516.4	485.85	µg/L	485.85	ppb	20:20:09
1	Ni 231.604†	42932.4	42637.5	490.94	µg/L	490.94	ppb	20:19:49
1	P 214.914†	11516.5	11434.8	2437.3	µg/L	2437.3	ppb	20:20:09
1	Pb 220.353†	8939.2	8775.5	491.41	µg/L	491.41	ppb	20:20:09
1	S 181.975 Axial†	1432.0	1314.6	980.26	µg/L	980.26	ppb	20:20:09
1	Sb 206.836†	4200.0	4082.8	486.45	µg/L	486.45	ppb	20:20:09
1	Se 196.026†	1380.3	1353.0	491	µg/L	491	ppb	20:20:09
1	SiO2†	56585.0	54320.2	5288.5	µg/L	5288.5	ppb	20:19:49
1	Si 251.611†	171480.3	169160.3	2484.2	µg/L	2484.2	ppb	20:19:49
1	Sn 189.927†	7899.9	7832.7	489.93	µg/L	489.93	ppb	20:20:09
1	Ti 334.940†	528670.3	523144.4	488.13	µg/L	488.13	ppb	20:19:49
1	Tl 190.801†	3879.4	3962.5	494.19	µg/L	494.19	ppb	20:20:09
1	U 409.014†	7456.1	7661.5	477.56	µg/L	477.56	ppb	20:19:49
1	V 292.402†	100505.8	99232.6	490.53	µg/L	490.53	ppb	20:19:49
1	Zn 213.857†	88711.3	87379.4	487.00	µg/L	487.00	ppb	20:19:49
2	Sc RADIAL	145636.2	145636.2	99.8	%			20:19:26
2	Al 396.153Radial†	26516.1	26632.7	4915.0	µg/L	4915.0	ppb	20:19:26
2	Ca 317.933Radial†	89356.1	88975.7	4956.3	µg/L	4956.3	ppb	20:19:26
2	Fe 238.204 Radial†	79820.2	79833.0	4920.4	µg/L	4920.4	ppb	20:19:26
2	K 766.490 Radial†	14884.7	13369.9	4890.9	µg/L	4890.9	ppb	20:19:26
2	Mg 279.077 IEC†	13655.2	13492.0	5034.7	µg/L	5034.7	ppb	20:19:26
2	Na 589.592 Radial†	72574.2	71429.7	9753.8	µg/L	9753.8	ppb	20:19:26
2	Sr 421.552†	229556.2	230154.3	478.44	µg/L	478.44	ppb	20:19:24
2	Sc 361.383	1728845.1	1728845.1	100.62	%			20:20:12
2	Y 371.029	1022537.6	1022537.6	99.596	%			20:20:12
2	Ag 328.068†	135255.7	130332.9	488.71	µg/L	488.71	ppb	20:20:12
2	As 188.979†	1619.6	1630.0	500.04	µg/L	500.04	ppb	20:20:32
2	B 249.677†	36772.6	33040.7	485.59	µg/L	485.59	ppb	20:20:12
2	Ba 233.527†	121898.2	121284.8	489.14	µg/L	489.14	ppb	20:20:12
2	Be 313.107†	1814391.8	1804303.2	491.42	µg/L	491.42	ppb	20:20:12
2	Cd 226.502†	79019.6	78652.0	490.98	µg/L	490.98	ppb	20:20:12
2	Co 228.616†	39865.2	39810.5	491.46	µg/L	491.46	ppb	20:20:12
2	Cr 267.716†	62636.0	62072.4	486.01	µg/L	486.01	ppb	20:20:12
2	Cu 324.752†	128465.8	124703.9	486.15	µg/L	486.15	ppb	20:20:12
2	Mn 257.610†	400168.4	397471.3	491.58	µg/L	491.58	ppb	20:20:12
2	Mo 202.031†	16701.4	16618.8	488.86	µg/L	488.86	ppb	20:20:32
2	Ni 231.604†	42806.4	42619.8	490.74	µg/L	490.74	ppb	20:20:12
2	P 214.914†	11559.5	11506.4	2452.7	µg/L	2452.7	ppb	20:20:32
2	Pb 220.353†	8967.3	8825.8	494.22	µg/L	494.22	ppb	20:20:32

2	S 181.975 Axial†	1438.1	1324.2	987.46 µg/L	987.46 ppb	20:20:32
2	Sb 206.836†	4222.2	4115.5	490.38 µg/L	490.38 ppb	20:20:32
2	Se 196.026†	1378.4	1354.7	492 µg/L	492 ppb	20:20:32
2	SiO2†	56546.5	54423.5	5298.4 µg/L	5298.4 ppb	20:20:12
2	Si 251.611†	170798.4	168911.9	2480.5 µg/L	2480.5 ppb	20:20:12
2	Sn 189.927†	7975.7	7927.8	495.86 µg/L	495.86 ppb	20:20:32
2	Ti 334.940†	527695.2	523498.9	488.46 µg/L	488.46 ppb	20:20:12
2	Tl 190.801†	3917.6	4010.2	500.05 µg/L	500.05 ppb	20:20:32
2	U 409.014†	7647.3	7870.2	489.74 µg/L	489.74 ppb	20:20:12
2	V 292.402†	100177.9	99158.3	490.21 µg/L	490.21 ppb	20:20:12
2	Zn 213.857†	88577.4	87468.5	487.50 µg/L	487.50 ppb	20:20:12
3	Sc RADIAL	145946.5	145946.5	100 %		20:19:30
3	Al 396.153Radial†	26926.1	26986.3	4980.6 µg/L	4980.6 ppb	20:19:30
3	Ca 317.933Radial†	89888.2	89317.4	4975.3 µg/L	4975.3 ppb	20:19:30
3	Fe 238.204 Radial†	79999.4	79842.2	4921.0 µg/L	4921.0 ppb	20:19:30
3	K 766.490 Radial†	15067.7	13521.2	4946.3 µg/L	4946.3 ppb	20:19:30
3	Mg 279.077 IEC†	13820.0	13627.7	5085.2 µg/L	5085.2 ppb	20:19:30
3	Na 589.592 Radial†	72903.4	71604.2	9777.6 µg/L	9777.6 ppb	20:19:30
3	Sr 421.552†	233932.9	234041.4	486.52 µg/L	486.52 ppb	20:19:28
3	Sc 361.383	1729036.7	1729036.7	100.63 %		20:20:35
3	Y 371.029	1022141.3	1022141.3	99.557 %		20:20:35
3	Ag 328.068†	135415.2	130476.4	489.24 µg/L	489.24 ppb	20:20:35
3	As 188.979†	1624.2	1634.3	501.36 µg/L	501.36 ppb	20:20:55
3	B 249.677†	36712.7	32977.1	484.65 µg/L	484.65 ppb	20:20:35
3	Ba 233.527†	121713.3	121087.6	488.34 µg/L	488.34 ppb	20:20:35
3	Be 313.107†	1816122.4	1805823.1	491.83 µg/L	491.83 ppb	20:20:35
3	Cd 226.502†	78922.7	78547.0	490.33 µg/L	490.33 ppb	20:20:35
3	Co 228.616†	39794.6	39735.9	490.54 µg/L	490.54 ppb	20:20:35
3	Cr 267.716†	62716.2	62145.2	486.58 µg/L	486.58 ppb	20:20:35
3	Cu 324.752†	128635.8	124858.6	486.75 µg/L	486.75 ppb	20:20:35
3	Mn 257.610†	399725.7	396987.2	490.98 µg/L	490.98 ppb	20:20:35
3	Mo 202.031†	16642.9	16558.8	487.09 µg/L	487.09 ppb	20:20:55
3	Ni 231.604†	42654.8	42464.4	488.95 µg/L	488.95 ppb	20:20:35
3	P 214.914†	11489.1	11435.1	2437.4 µg/L	2437.4 ppb	20:20:55
3	Pb 220.353†	8938.2	8795.9	492.55 µg/L	492.55 ppb	20:20:55
3	S 181.975 Axial†	1425.7	1311.7	978.16 µg/L	978.16 ppb	20:20:55
3	Sb 206.836†	4196.0	4088.9	487.18 µg/L	487.18 ppb	20:20:55
3	Se 196.026†	1380.4	1356.5	493 µg/L	493 ppb	20:20:55
3	SiO2†	56405.9	54277.6	5284.2 µg/L	5284.2 ppb	20:20:35
3	Si 251.611†	170675.9	168771.4	2478.4 µg/L	2478.4 ppb	20:20:35
3	Sn 189.927†	7906.9	7858.6	491.55 µg/L	491.55 ppb	20:20:55
3	Ti 334.940†	526963.4	522713.5	487.72 µg/L	487.72 ppb	20:20:35
3	Tl 190.801†	3898.2	3990.5	497.62 µg/L	497.62 ppb	20:20:55
3	U 409.014†	7622.6	7844.8	488.24 µg/L	488.24 ppb	20:20:35
3	V 292.402†	100122.2	99092.0	489.87 µg/L	489.87 ppb	20:20:35
3	Zn 213.857†	88619.8	87500.9	487.69 µg/L	487.69 ppb	20:20:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1730364.2	100.71	%	0.144				0.14%
Sc RADIAL	144911.9	99.3	%	1.05				1.06%
Y 371.029	1023081.8	99.649	%	0.1267				0.13%
Ag 328.068†	130451.4	489.14	µg/L	0.396	489.14	ppb	0.396	0.08%
QC value within limits for Ag 328.068 Recovery = 97.83%								
Al 396.153Radial†	26786.0	4943.5	µg/L	33.66	4943.5	ppb	33.66	0.68%
QC value within limits for Al 396.153Radial Recovery = 98.87%								
As 188.979†	1630.4	500.15	µg/L	1.155	500.15	ppb	1.155	0.23%
QC value within limits for As 188.979 Recovery = 100.03%								
B 249.677†	33026.5	485.38	µg/L	0.648	485.38	ppb	0.648	0.13%
QC value within limits for B 249.677 Recovery = 97.08%								
Ba 233.527†	121191.4	488.76	µg/L	0.399	488.76	ppb	0.399	0.08%
QC value within limits for Ba 233.527 Recovery = 97.75%								
Be 313.107†	1805412.3	491.72	µg/L	0.263	491.72	ppb	0.263	0.05%
QC value within limits for Be 313.107 Recovery = 98.34%								
Ca 317.933Radial†	89082.6	4962.3	µg/L	11.34	4962.3	ppb	11.34	0.23%
QC value within limits for Ca 317.933Radial Recovery = 99.25%								
Cd 226.502†	78602.2	490.67	µg/L	0.330	490.67	ppb	0.330	0.07%
QC value within limits for Cd 226.502 Recovery = 98.13%								
Co 228.616†	39786.1	491.16	µg/L	0.537	491.16	ppb	0.537	0.11%

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   QC value within limits for Co 228.616  Recovery = 98.23%
Cr 267.716†            62099.2      486.22 µg/L         0.311      486.22 ppb          0.311   0.06%
   QC value within limits for Cr 267.716  Recovery = 97.24%
Cu 324.752†           124888.8      486.86 µg/L         0.777      486.86 ppb          0.777   0.16%
   QC value within limits for Cu 324.752  Recovery = 97.37%
Fe 238.204 Radial†     79744.2      4914.9 µg/L          9.97      4914.9 ppb           9.97   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.30%
K 766.490 Radial†      13436.7      4915.3 µg/L         28.26      4915.3 ppb          28.26   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 98.31%
Mg 279.077 IEC†        13542.9      5053.6 µg/L         27.54      5053.6 ppb          27.54   0.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.07%
Mn 257.610†           397234.0      491.28 µg/L         0.301      491.28 ppb          0.301   0.06%
   QC value within limits for Mn 257.610  Recovery = 98.26%
Mo 202.031†            16564.7      487.26 µg/L         1.512      487.26 ppb          1.512   0.31%
   QC value within limits for Mo 202.031  Recovery = 97.45%
Na 589.592 Radial†     71476.5      9760.2 µg/L         15.27      9760.2 ppb          15.27   0.16%
   QC value within limits for Na 589.592 Radial  Recovery = 97.60%
Ni 231.604†            42573.9      490.21 µg/L         1.097      490.21 ppb          1.097   0.22%
   QC value within limits for Ni 231.604  Recovery = 98.04%
P 214.914†             11458.8      2442.5 µg/L          8.83      2442.5 ppb           8.83   0.36%
   QC value within limits for P 214.914  Recovery = 97.70%
Pb 220.353†             8799.1      492.73 µg/L         1.412      492.73 ppb          1.412   0.29%
   QC value within limits for Pb 220.353  Recovery = 98.55%
S 181.975 Axial†        1316.8      981.96 µg/L         4.877      981.96 ppb          4.877   0.50%
   QC value within limits for S 181.975 Axial  Recovery = 98.20%
Sb 206.836†             4095.7      488.00 µg/L         2.090      488.00 ppb          2.090   0.43%
   QC value within limits for Sb 206.836  Recovery = 97.60%
Se 196.026†             1354.7         492 µg/L           0.6         492 ppb            0.6   0.13%
   QC value within limits for Se 196.026  Recovery = 98.38%
SiO2†                  54340.4      5290.4 µg/L          7.26      5290.4 ppb           7.26   0.14%
   QC value within limits for SiO2  Recovery = 98.93%
Si 251.611†           168947.8      2481.0 µg/L          2.92      2481.0 ppb           2.92   0.12%
   QC value within limits for Si 251.611  Recovery = 99.24%
Sn 189.927†             7873.0      492.45 µg/L         3.064      492.45 ppb          3.064   0.62%
   QC value within limits for Sn 189.927  Recovery = 98.49%
Sr 421.552†           233547.6      485.49 µg/L         6.601      485.49 ppb          6.601   1.36%
   QC value within limits for Sr 421.552  Recovery = 97.10%
Ti 334.940†           523118.9      488.10 µg/L         0.369      488.10 ppb          0.369   0.08%
   QC value within limits for Ti 334.940  Recovery = 97.62%
Tl 190.801†             3987.7      497.29 µg/L         2.942      497.29 ppb          2.942   0.59%
   QC value within limits for Tl 190.801  Recovery = 99.46%
U 409.014†              7792.1      485.18 µg/L         6.641      485.18 ppb          6.641   1.37%
   QC value within limits for U 409.014  Recovery = 97.04%
V 292.402†             99160.9      490.20 µg/L         0.333      490.20 ppb          0.333   0.07%
   QC value within limits for V 292.402  Recovery = 98.04%
Zn 213.857†            87449.6      487.40 µg/L         0.359      487.40 ppb          0.359   0.07%
   QC value within limits for Zn 213.857  Recovery = 97.48%
All analyte(s) passed QC.
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Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 20:21:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146174.9	146174.9	100	%			20:21:32
1	Al 396.153Radial†	-79.4	-16.1	-2.9762	µg/L	-2.9762	ppb	20:21:52
1	Ca 317.933Radial†	607.9	46.3	2.5767	µg/L	2.5767	ppb	20:21:52
1	Fe 238.204 Radial†	175.5	27.1	1.6726	µg/L	1.6726	ppb	20:21:52
1	K 766.490 Radial†	1577.3	29.9	10.948	µg/L	10.948	ppb	20:21:32
1	Mg 279.077 IEC†	206.8	15.8	5.8733	µg/L	5.8733	ppb	20:21:52
1	Na 589.592 Radial†	1475.9	182.7	24.946	µg/L	24.946	ppb	20:21:32
1	Sr 421.552†	-270.2	-134.5	-0.2796	µg/L	-0.2796	ppb	20:21:32
1	Sc 361.383	1719316.1	1719316.1	100.06	%			20:22:40
1	Y 371.029	1027520.1	1027520.1	100.08	%			20:22:40
1	Ag 328.068†	3648.5	-445.2	-1.6556	µg/L	-1.6556	ppb	20:22:42
1	As 188.979†	-10.6	9.8	2.9605	µg/L	2.9605	ppb	20:23:02
1	B 249.677†	3416.1	-91.9	-1.3568	µg/L	-1.3568	ppb	20:22:42
1	Ba 233.527†	-134.2	1.8	0.0069	µg/L	0.0069	ppb	20:23:02
1	Be 313.107†	-785.4	279.8	0.0750	µg/L	0.0750	ppb	20:22:42
1	Cd 226.502†	-108.1	10.2	0.0635	µg/L	0.0635	ppb	20:23:02
1	Co 228.616†	-170.8	19.6	0.2418	µg/L	0.2418	ppb	20:23:02
1	Cr 267.716†	211.4	32.7	0.2593	µg/L	0.2593	ppb	20:23:02
1	Cu 324.752†	2952.3	-21.8	-0.0873	µg/L	-0.0873	ppb	20:22:42
1	Mn 257.610†	205.0	-32.4	-0.0403	µg/L	-0.0403	ppb	20:23:02
1	Mo 202.031†	-26.7	-6.6	-0.1949	µg/L	-0.1949	ppb	20:23:02
1	Ni 231.604†	-85.9	-9.3	-0.1075	µg/L	-0.1075	ppb	20:23:02
1	P 214.914†	-27.5	-9.5	-2.0307	µg/L	-2.0307	ppb	20:23:02
1	Pb 220.353†	49.6	-36.9	-2.0549	µg/L	-2.0549	ppb	20:23:02
1	S 181.975 Axial†	90.7	-14.4	-10.672	µg/L	-10.672	ppb	20:23:02
1	Sb 206.836†	90.3	9.4	1.1175	µg/L	1.1175	ppb	20:23:02
1	Se 196.026†	14.0	-1.3	-0.483	µg/L	-0.483	ppb	20:23:02
1	SiO2†	1815.4	38.8	3.7882	µg/L	3.7882	ppb	20:22:42
1	Si 251.611†	978.4	141.2	2.0787	µg/L	2.0787	ppb	20:22:42
1	Sn 189.927†	12.7	13.8	0.8612	µg/L	0.8612	ppb	20:23:02
1	Ti 334.940†	944.8	-8.3	-0.0067	µg/L	-0.0067	ppb	20:22:42
1	Tl 190.801†	-123.6	-6.9	-0.8478	µg/L	-0.8478	ppb	20:23:02
1	U 409.014†	-334.8	-64.7	-3.7948	µg/L	-3.7948	ppb	20:22:42
1	V 292.402†	364.6	-39.5	-0.1962	µg/L	-0.1962	ppb	20:22:42
1	Zn 213.857†	609.9	45.1	0.2536	µg/L	0.2536	ppb	20:23:02
2	Sc RADIAL	146261.6	146261.6	100	%			20:21:54
2	Al 396.153Radial†	-54.4	8.9	1.6620	µg/L	1.6620	ppb	20:22:14
2	Ca 317.933Radial†	618.8	56.9	3.1671	µg/L	3.1671	ppb	20:22:14
2	Fe 238.204 Radial†	170.1	21.6	1.3318	µg/L	1.3318	ppb	20:22:14
2	K 766.490 Radial†	1690.5	141.9	51.938	µg/L	51.938	ppb	20:21:54
2	Mg 279.077 IEC†	158.6	-32.4	-12.093	µg/L	-12.093	ppb	20:22:14
2	Na 589.592 Radial†	1436.5	142.5	19.415	µg/L	19.415	ppb	20:21:54
2	Sr 421.552†	-283.2	-147.2	-0.3061	µg/L	-0.3061	ppb	20:21:54
2	Sc 361.383	1736802.1	1736802.1	101.08	%			20:23:04
2	Y 371.029	1037454.3	1037454.3	101.05	%			20:23:04
2	Ag 328.068†	3948.2	-185.4	-0.6882	µg/L	-0.6882	ppb	20:23:06
2	As 188.979†	-24.7	-4.1	-1.2374	µg/L	-1.2374	ppb	20:23:27
2	B 249.677†	3576.8	32.6	0.4812	µg/L	0.4812	ppb	20:23:06
2	Ba 233.527†	-102.2	34.7	0.1396	µg/L	0.1396	ppb	20:23:27
2	Be 313.107†	-962.5	112.5	0.0317	µg/L	0.0317	ppb	20:23:06
2	Cd 226.502†	-108.2	11.1	0.0694	µg/L	0.0694	ppb	20:23:27
2	Co 228.616†	-196.2	-3.8	-0.0464	µg/L	-0.0464	ppb	20:23:27
2	Cr 267.716†	207.6	26.8	0.2073	µg/L	0.2073	ppb	20:23:27
2	Cu 324.752†	2974.7	-29.3	-0.1113	µg/L	-0.1113	ppb	20:23:06
2	Mn 257.610†	216.8	-22.8	-0.0277	µg/L	-0.0277	ppb	20:23:27
2	Mo 202.031†	-26.2	-5.9	-0.1726	µg/L	-0.1726	ppb	20:23:27
2	Ni 231.604†	-83.0	-5.6	-0.0648	µg/L	-0.0648	ppb	20:23:27
2	P 214.914†	-18.2	-0.1	-0.0033	µg/L	-0.0033	ppb	20:23:27
2	Pb 220.353†	96.9	9.5	0.5245	µg/L	0.5245	ppb	20:23:27

2	S 181.975 Axial†	101.1	-5.0	-3.7428 µg/L	-3.7428 ppb	20:23:27
2	Sb 206.836†	77.7	-4.0	-0.4743 µg/L	-0.4743 ppb	20:23:27
2	Se 196.026†	10.0	-5.3	-1.93 µg/L	-1.93 ppb	20:23:27
2	SiO2†	1822.3	27.5	2.6742 µg/L	2.6742 ppb	20:23:06
2	Si 251.611†	856.2	10.5	0.1497 µg/L	0.1497 ppb	20:23:06
2	Sn 189.927†	15.8	16.8	1.0464 µg/L	1.0464 ppb	20:23:27
2	Ti 334.940†	965.6	2.7	0.0021 µg/L	0.0021 ppb	20:23:06
2	Tl 190.801†	-105.1	12.7	1.5599 µg/L	1.5599 ppb	20:23:27
2	U 409.014†	-213.8	58.4	3.3839 µg/L	3.3839 ppb	20:23:06
2	V 292.402†	306.8	-100.3	-0.4881 µg/L	-0.4881 ppb	20:23:06
2	Zn 213.857†	601.0	30.1	0.1695 µg/L	0.1695 ppb	20:23:27
3	Sc RADIAL	145163.3	145163.3	99.5 %		20:22:16
3	Al 396.153Radial†	-66.5	-3.7	-0.6680 µg/L	-0.6680 ppb	20:22:36
3	Ca 317.933Radial†	599.5	42.1	2.3456 µg/L	2.3456 ppb	20:22:36
3	Fe 238.204 Radial†	160.3	13.1	0.8047 µg/L	0.8047 ppb	20:22:36
3	K 766.490 Radial†	1445.8	-91.3	-33.426 µg/L	-33.426 ppb	20:22:16
3	Mg 279.077 IEC†	163.3	-26.5	-9.9007 µg/L	-9.9007 ppb	20:22:36
3	Na 589.592 Radial†	1438.5	155.3	21.242 µg/L	21.242 ppb	20:22:16
3	Sr 421.552†	-217.7	-83.6	-0.1738 µg/L	-0.1738 ppb	20:22:16
3	Sc 361.383	1747018.8	1747018.8	101.68 %		20:23:29
3	Y 371.029	1043372.0	1043372.0	101.62 %		20:23:29
3	Ag 328.068†	3928.6	-227.6	-0.8550 µg/L	-0.8550 ppb	20:23:31
3	As 188.979†	-14.6	6.0	1.8114 µg/L	1.8114 ppb	20:23:51
3	B 249.677†	3628.2	62.5	0.9207 µg/L	0.9207 ppb	20:23:31
3	Ba 233.527†	-150.3	-11.9	-0.0482 µg/L	-0.0482 ppb	20:23:51
3	Be 313.107†	-1063.0	19.3	0.0023 µg/L	0.0023 ppb	20:23:31
3	Cd 226.502†	-104.1	15.8	0.0984 µg/L	0.0984 ppb	20:23:51
3	Co 228.616†	-183.5	9.9	0.1217 µg/L	0.1217 ppb	20:23:51
3	Cr 267.716†	179.0	-2.6	-0.0122 µg/L	-0.0122 ppb	20:23:51
3	Cu 324.752†	3108.9	85.4	0.3239 µg/L	0.3239 ppb	20:23:31
3	Mn 257.610†	215.7	-25.1	-0.0307 µg/L	-0.0307 ppb	20:23:51
3	Mo 202.031†	-32.3	-11.7	-0.3450 µg/L	-0.3450 ppb	20:23:51
3	Ni 231.604†	-84.7	-6.8	-0.0779 µg/L	-0.0779 ppb	20:23:51
3	P 214.914†	-27.0	-8.6	-1.8417 µg/L	-1.8417 ppb	20:23:51
3	Pb 220.353†	93.1	5.2	0.2966 µg/L	0.2966 ppb	20:23:51
3	S 181.975 Axial†	107.7	0.8	0.6238 µg/L	0.6238 ppb	20:23:51
3	Sb 206.836†	73.2	-8.8	-1.0551 µg/L	-1.0551 ppb	20:23:51
3	Se 196.026†	-3.4	-18.6	-6.74 µg/L	-6.74 ppb	20:23:51
3	SiO2†	1790.0	-14.9	-1.4424 µg/L	-1.4424 ppb	20:23:31
3	Si 251.611†	917.7	66.0	0.9787 µg/L	0.9787 ppb	20:23:31
3	Sn 189.927†	-2.4	-1.3	-0.0792 µg/L	-0.0792 ppb	20:23:51
3	Ti 334.940†	1230.7	257.8	0.2458 µg/L	0.2458 ppb	20:23:31
3	Tl 190.801†	-121.9	-3.2	-0.3892 µg/L	-0.3892 ppb	20:23:51
3	U 409.014†	-444.6	-167.4	-9.7866 µg/L	-9.7866 ppb	20:23:31
3	V 292.402†	407.2	-3.3	-0.0267 µg/L	-0.0267 ppb	20:23:31
3	Zn 213.857†	572.9	-1.0	-0.0054 µg/L	-0.0054 ppb	20:23:51

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1734379.0	100.94	%	0.815				0.81%
Sc RADIAL	145866.6	100.0	%	0.42				0.42%
Y 371.029	1036115.5	100.92	%	0.780				0.77%
Ag 328.068†	-286.1	-1.0663	µg/L	0.51712	-1.0663	ppb	0.51712	48.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.6	-0.6608	µg/L	2.31909	-0.6608	ppb	2.31909	350.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.9	1.1781	µg/L	2.16942	1.1781	ppb	2.16942	184.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1.0	0.0150	µg/L	1.20824	0.0150	ppb	1.20824	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.2	0.0328	µg/L	0.09650	0.0328	ppb	0.09650	294.60%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	137.2	0.0363	µg/L	0.03660	0.0363	ppb	0.03660	100.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	48.4	2.6965	µg/L	0.42361	2.6965	ppb	0.42361	15.71%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	12.4	0.0771	µg/L	0.01869	0.0771	ppb	0.01869	24.25%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.6	0.1057	µg/L	0.14474	0.1057	ppb	0.14474	136.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.0      0.1515 µg/L       0.14414      0.1515 ppb        0.14414  95.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              11.4      0.0418 µg/L       0.24463      0.0418 ppb        0.24463 585.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       20.6      1.2697 µg/L       0.43727      1.2697 ppb        0.43727  34.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        26.8      9.8201 µg/L      42.69298      9.8201 ppb       42.69298 434.75%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -14.4     -5.3735 µg/L       9.80148     -5.3735 ppb        9.80148 182.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -26.8     -0.0329 µg/L       0.00657     -0.0329 ppb        0.00657  19.97%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -8.1     -0.2375 µg/L       0.09374     -0.2375 ppb        0.09374  39.47%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      160.1      21.868 µg/L        2.8179      21.868 ppb         2.8179  12.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -7.2     -0.0834 µg/L       0.02187     -0.0834 ppb        0.02187  26.22%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -6.1     -1.2919 µg/L       1.11996     -1.2919 ppb        1.11996  86.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -7.4     -0.4112 µg/L       1.42800     -0.4112 ppb        1.42800 347.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -6.2     -4.5969 µg/L       5.69602     -4.5969 ppb        5.69602 123.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.1     -0.1373 µg/L       1.12485     -0.1373 ppb        1.12485 819.31%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -8.4      -3.05 µg/L         3.277       -3.05 ppb          3.277 107.40%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    17.1      1.6733 µg/L       2.75522      1.6733 ppb        2.75522 164.66%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              72.6      1.0690 µg/L       0.96766      1.0690 ppb        0.96766  90.52%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.8      0.6095 µg/L       0.60356      0.6095 ppb        0.60356  99.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -121.8     -0.2532 µg/L       0.06998     -0.2532 ppb        0.06998  27.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              84.1      0.0804 µg/L       0.14329      0.0804 ppb        0.14329 178.21%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.9      0.1076 µg/L       1.27840      0.1076 ppb        1.27840 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -57.9     -3.3992 µg/L       6.59417     -3.3992 ppb        6.59417 193.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -47.7     -0.2370 µg/L       0.23337     -0.2370 ppb        0.23337  98.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              24.7      0.1393 µg/L       0.13213      0.1393 ppb        0.13213  94.89%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 38
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 20:46:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142658.3	142658.3	97.8	%			20:47:06
1	Al 396.153Radial†	26173.0	26836.4	4953.1	µg/L	4953.1	ppb	20:47:06
1	Ca 317.933Radial†	86811.8	88242.0	4915.4	µg/L	4915.4	ppb	20:47:06
1	Fe 238.204 Radial†	77308.1	78932.9	4864.9	µg/L	4864.9	ppb	20:47:06
1	K 766.490 Radial†	14453.8	13240.4	4843.5	µg/L	4843.5	ppb	20:47:06
1	Mg 279.077 IEC†	13219.2	13331.7	4974.8	µg/L	4974.8	ppb	20:47:06
1	Na 589.592 Radial†	70981.3	71318.3	9738.6	µg/L	9738.6	ppb	20:47:06
1	Sr 421.552†	229479.6	234877.4	488.26	µg/L	488.26	ppb	20:47:04
1	Sc 361.383	1717986.8	1717986.8	99.987	%			20:47:18
1	Y 371.029	1016974.2	1016974.2	99.054	%			20:47:18
1	Ag 328.068†	133861.9	129788.4	486.66	µg/L	486.66	ppb	20:47:18
1	As 188.979†	1570.9	1591.4	488.31	µg/L	488.31	ppb	20:47:39
1	B 249.677†	35888.7	32387.7	475.97	µg/L	475.97	ppb	20:47:18
1	Ba 233.527†	120089.3	120241.3	484.93	µg/L	484.93	ppb	20:47:18
1	Be 313.107†	1788228.5	1789533.4	487.39	µg/L	487.39	ppb	20:47:18
1	Cd 226.502†	77187.6	77316.2	482.64	µg/L	482.64	ppb	20:47:18
1	Co 228.616†	39259.0	39454.6	487.07	µg/L	487.07	ppb	20:47:18
1	Cr 267.716†	61734.0	61563.8	482.03	µg/L	482.03	ppb	20:47:18
1	Cu 324.752†	127051.0	124095.8	483.76	µg/L	483.76	ppb	20:47:18
1	Mn 257.610†	394153.9	393969.6	487.25	µg/L	487.25	ppb	20:47:18
1	Mo 202.031†	16323.5	16345.7	480.82	µg/L	480.82	ppb	20:47:39
1	Ni 231.604†	42025.4	42107.6	484.84	µg/L	484.84	ppb	20:47:18
1	P 214.914†	11165.4	11184.8	2383.9	µg/L	2383.9	ppb	20:47:39
1	Pb 220.353†	8721.1	8635.9	483.61	µg/L	483.61	ppb	20:47:39
1	S 181.975 Axial†	1384.6	1279.7	954.32	µg/L	954.32	ppb	20:47:39
1	Sb 206.836†	4121.5	4041.3	481.48	µg/L	481.48	ppb	20:47:39
1	Se 196.026†	1330.1	1315.0	478	µg/L	478	ppb	20:47:39
1	SiO2†	55658.0	53890.1	5246.7	µg/L	5246.7	ppb	20:47:18
1	Si 251.611†	168475.5	167661.6	2462.2	µg/L	2462.2	ppb	20:47:18
1	Sn 189.927†	7694.7	7696.9	481.46	µg/L	481.46	ppb	20:47:39
1	Ti 334.940†	521521.0	520638.5	485.79	µg/L	485.79	ppb	20:47:18
1	Tl 190.801†	3795.7	3912.8	488.05	µg/L	488.05	ppb	20:47:39
1	U 409.014†	7470.6	7741.5	482.06	µg/L	482.06	ppb	20:47:18
1	V 292.402†	99032.8	98642.4	487.59	µg/L	487.59	ppb	20:47:18
1	Zn 213.857†	86847.2	86294.4	480.95	µg/L	480.95	ppb	20:47:18
2	Sc RADIAL	142003.0	142003.0	97.3	%			20:47:10
2	Al 396.153Radial†	25928.5	26708.7	4929.4	µg/L	4929.4	ppb	20:47:10
2	Ca 317.933Radial†	86471.0	88301.6	4918.7	µg/L	4918.7	ppb	20:47:10
2	Fe 238.204 Radial†	76877.1	78854.9	4860.1	µg/L	4860.1	ppb	20:47:10
2	K 766.490 Radial†	14481.3	13337.0	4878.8	µg/L	4878.8	ppb	20:47:10
2	Mg 279.077 IEC†	13250.2	13425.9	5009.9	µg/L	5009.9	ppb	20:47:10
2	Na 589.592 Radial†	70794.9	71461.8	9758.2	µg/L	9758.2	ppb	20:47:10
2	Sr 421.552†	230824.3	237342.5	493.38	µg/L	493.38	ppb	20:47:08
2	Sc 361.383	1705978.0	1705978.0	99.288	%			20:47:42
2	Y 371.029	1010151.3	1010151.3	98.389	%			20:47:42
2	Ag 328.068†	132428.5	129287.2	484.78	µg/L	484.78	ppb	20:47:42
2	As 188.979†	1571.4	1603.0	491.82	µg/L	491.82	ppb	20:48:02
2	B 249.677†	35678.8	32428.9	476.59	µg/L	476.59	ppb	20:47:42
2	Ba 233.527†	119061.0	120051.1	484.16	µg/L	484.16	ppb	20:47:42
2	Be 313.107†	1771852.0	1785628.8	486.33	µg/L	486.33	ppb	20:47:42
2	Cd 226.502†	76647.7	77315.8	482.64	µg/L	482.64	ppb	20:47:42
2	Co 228.616†	38849.5	39318.5	485.39	µg/L	485.39	ppb	20:47:42
2	Cr 267.716†	61408.7	61670.7	482.88	µg/L	482.88	ppb	20:47:42
2	Cu 324.752†	125575.7	123504.5	481.46	µg/L	481.46	ppb	20:47:42
2	Mn 257.610†	390410.2	392973.9	486.01	µg/L	486.01	ppb	20:47:42
2	Mo 202.031†	16220.6	16357.1	481.16	µg/L	481.16	ppb	20:48:02
2	Ni 231.604†	41645.6	42020.9	483.84	µg/L	483.84	ppb	20:47:42
2	P 214.914†	11149.7	11247.7	2397.4	µg/L	2397.4	ppb	20:48:02
2	Pb 220.353†	8713.0	8689.1	486.58	µg/L	486.58	ppb	20:48:02

2	S 181.975 Axial†	1386.6	1291.5	963.10 µg/L	963.10 ppb	20:48:02
2	Sb 206.836†	4077.2	4025.7	479.62 µg/L	479.62 ppb	20:48:02
2	Se 196.026†	1343.8	1338.2	486 µg/L	486 ppb	20:48:02
2	SiO2†	55264.2	53885.3	5246.2 µg/L	5246.2 ppb	20:47:42
2	Si 251.611†	166831.6	167191.9	2455.3 µg/L	2455.3 ppb	20:47:42
2	Sn 189.927†	7685.8	7742.0	484.27 µg/L	484.27 ppb	20:48:02
2	Ti 334.940†	517135.3	519893.0	485.10 µg/L	485.10 ppb	20:47:42
2	Tl 190.801†	3798.0	3941.9	491.62 µg/L	491.62 ppb	20:48:02
2	U 409.014†	7240.4	7562.3	471.53 µg/L	471.53 ppb	20:47:42
2	V 292.402†	98205.8	98506.6	486.93 µg/L	486.93 ppb	20:47:42
2	Zn 213.857†	85981.0	86033.4	479.49 µg/L	479.49 ppb	20:47:42
3	Sc RADIAL	143540.2	143540.2	98.4 %		20:47:14
3	Al 396.153Radial†	26297.7	26798.6	4945.9 µg/L	4945.9 ppb	20:47:14
3	Ca 317.933Radial†	87479.0	88374.7	4922.8 µg/L	4922.8 ppb	20:47:14
3	Fe 238.204 Radial†	77829.6	78977.1	4867.7 µg/L	4867.7 ppb	20:47:14
3	K 766.490 Radial†	14541.2	13238.5	4842.8 µg/L	4842.8 ppb	20:47:14
3	Mg 279.077 IEC†	13331.1	13362.3	4986.3 µg/L	4986.3 ppb	20:47:14
3	Na 589.592 Radial†	71517.8	71417.6	9752.2 µg/L	9752.2 ppb	20:47:14
3	Sr 421.552†	229529.4	233485.7	485.36 µg/L	485.36 ppb	20:47:12
3	Sc 361.383	1697774.9	1697774.9	98.810 %		20:48:05
3	Y 371.029	1005288.7	1005288.7	97.916 %		20:48:05
3	Ag 328.068†	132337.3	129839.4	486.83 µg/L	486.83 ppb	20:48:05
3	As 188.979†	1566.3	1605.5	492.60 µg/L	492.60 ppb	20:48:25
3	B 249.677†	35561.4	32483.7	477.39 µg/L	477.39 ppb	20:48:05
3	Ba 233.527†	118631.6	120195.8	484.75 µg/L	484.75 ppb	20:48:05
3	Be 313.107†	1768996.7	1791361.7	487.89 µg/L	487.89 ppb	20:48:05
3	Cd 226.502†	76298.6	77335.5	482.76 µg/L	482.76 ppb	20:48:05
3	Co 228.616†	38681.6	39337.6	485.62 µg/L	485.62 ppb	20:48:05
3	Cr 267.716†	61122.4	61679.8	482.95 µg/L	482.95 ppb	20:48:05
3	Cu 324.752†	125325.9	123862.7	482.85 µg/L	482.85 ppb	20:48:05
3	Mn 257.610†	389691.1	394146.1	487.47 µg/L	487.47 ppb	20:48:05
3	Mo 202.031†	16294.8	16511.0	485.68 µg/L	485.68 ppb	20:48:25
3	Ni 231.604†	41366.1	41940.7	482.92 µg/L	482.92 ppb	20:48:05
3	P 214.914†	11228.3	11381.4	2426.0 µg/L	2426.0 ppb	20:48:25
3	Pb 220.353†	8735.3	8754.1	490.22 µg/L	490.22 ppb	20:48:25
3	S 181.975 Axial†	1387.1	1298.7	968.51 µg/L	968.51 ppb	20:48:25
3	Sb 206.836†	4142.3	4111.4	489.88 µg/L	489.88 ppb	20:48:25
3	Se 196.026†	1325.9	1326.6	482 µg/L	482 ppb	20:48:25
3	SiO2†	55019.2	53906.4	5248.0 µg/L	5248.0 ppb	20:48:05
3	Si 251.611†	166054.7	167217.6	2455.6 µg/L	2455.6 ppb	20:48:05
3	Sn 189.927†	7713.9	7807.9	488.38 µg/L	488.38 ppb	20:48:25
3	Ti 334.940†	515323.4	520575.8	485.74 µg/L	485.74 ppb	20:48:05
3	Tl 190.801†	3789.8	3952.1	492.88 µg/L	492.88 ppb	20:48:25
3	U 409.014†	7240.2	7597.3	473.61 µg/L	473.61 ppb	20:48:05
3	V 292.402†	97793.8	98567.5	487.28 µg/L	487.28 ppb	20:48:05
3	Zn 213.857†	85880.1	86349.8	481.27 µg/L	481.27 ppb	20:48:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1707246.6	99.361	%	0.5916				0.60%
Sc RADIAL	142733.8	97.8	%	0.53				0.54%
Y 371.029	1010804.8	98.453	%	0.5717				0.58%
Ag 328.068†	129638.4	486.09	µg/L	1.137	486.09	ppb	1.137	0.23%
QC value within limits for Ag 328.068 Recovery = 97.22%								
Al 396.153Radial†	26781.2	4942.8	µg/L	12.14	4942.8	ppb	12.14	0.25%
QC value within limits for Al 396.153Radial Recovery = 98.86%								
As 188.979†	1600.0	490.91	µg/L	2.283	490.91	ppb	2.283	0.47%
QC value within limits for As 188.979 Recovery = 98.18%								
B 249.677†	32433.4	476.65	µg/L	0.713	476.65	ppb	0.713	0.15%
QC value within limits for B 249.677 Recovery = 95.33%								
Ba 233.527†	120162.7	484.61	µg/L	0.401	484.61	ppb	0.401	0.08%
QC value within limits for Ba 233.527 Recovery = 96.92%								
Be 313.107†	1788841.3	487.20	µg/L	0.798	487.20	ppb	0.798	0.16%
QC value within limits for Be 313.107 Recovery = 97.44%								
Ca 317.933Radial†	88306.1	4919.0	µg/L	3.70	4919.0	ppb	3.70	0.08%
QC value within limits for Ca 317.933Radial Recovery = 98.38%								
Cd 226.502†	77322.5	482.68	µg/L	0.070	482.68	ppb	0.070	0.01%
QC value within limits for Cd 226.502 Recovery = 96.54%								
Co 228.616†	39370.2	486.02	µg/L	0.909	486.02	ppb	0.909	0.19%

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   QC value within limits for Co 228.616  Recovery = 97.20%
Cr 267.716†            61638.1      482.62 µg/L         0.509      482.62 ppb          0.509   0.11%
   QC value within limits for Cr 267.716  Recovery = 96.52%
Cu 324.752†           123821.0      482.69 µg/L         1.162      482.69 ppb          1.162   0.24%
   QC value within limits for Cu 324.752  Recovery = 96.54%
Fe 238.204 Radial†     78921.6      4864.2 µg/L          3.82      4864.2 ppb           3.82   0.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.28%
K 766.490 Radial†      13272.0      4855.1 µg/L         20.61      4855.1 ppb          20.61   0.42%
   QC value within limits for K 766.490 Radial  Recovery = 97.10%
Mg 279.077 IEC†        13373.3      4990.3 µg/L         17.90      4990.3 ppb          17.90   0.36%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.81%
Mn 257.610†           393696.5      486.91 µg/L         0.783      486.91 ppb          0.783   0.16%
   QC value within limits for Mn 257.610  Recovery = 97.38%
Mo 202.031†            16404.6      482.56 µg/L         2.714      482.56 ppb          2.714   0.56%
   QC value within limits for Mo 202.031  Recovery = 96.51%
Na 589.592 Radial†     71399.2      9749.7 µg/L         10.02      9749.7 ppb          10.02   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 97.50%
Ni 231.604†            42023.1      483.87 µg/L         0.961      483.87 ppb          0.961   0.20%
   QC value within limits for Ni 231.604  Recovery = 96.77%
P 214.914†             11271.3      2402.4 µg/L         21.48      2402.4 ppb          21.48   0.89%
   QC value within limits for P 214.914  Recovery = 96.10%
Pb 220.353†             8693.1      486.80 µg/L         3.313      486.80 ppb          3.313   0.68%
   QC value within limits for Pb 220.353  Recovery = 97.36%
S 181.975 Axial†        1290.0      961.98 µg/L         7.160      961.98 ppb          7.160   0.74%
   QC value within limits for S 181.975 Axial  Recovery = 96.20%
Sb 206.836†             4059.4      483.66 µg/L         5.466      483.66 ppb          5.466   1.13%
   QC value within limits for Sb 206.836  Recovery = 96.73%
Se 196.026†             1326.6         482 µg/L           4.2         482 ppb            4.2   0.87%
   QC value within limits for Se 196.026  Recovery = 96.34%
SiO2†                  53893.9      5247.0 µg/L          0.96      5247.0 ppb           0.96   0.02%
   QC value within limits for SiO2  Recovery = 98.12%
Si 251.611†           167357.0      2457.7 µg/L          3.93      2457.7 ppb           3.93   0.16%
   QC value within limits for Si 251.611  Recovery = 98.31%
Sn 189.927†             7748.9      484.70 µg/L         3.480      484.70 ppb          3.480   0.72%
   QC value within limits for Sn 189.927  Recovery = 96.94%
Sr 421.552†           235235.2      489.00 µg/L         4.060      489.00 ppb          4.060   0.83%
   QC value within limits for Sr 421.552  Recovery = 97.80%
Ti 334.940†           520369.1      485.54 µg/L         0.386      485.54 ppb          0.386   0.08%
   QC value within limits for Ti 334.940  Recovery = 97.11%
Tl 190.801†             3935.6      490.85 µg/L         2.502      490.85 ppb          2.502   0.51%
   QC value within limits for Tl 190.801  Recovery = 98.17%
U 409.014†              7633.7      475.73 µg/L         5.576      475.73 ppb          5.576   1.17%
   QC value within limits for U 409.014  Recovery = 95.15%
V 292.402†             98572.2      487.27 µg/L         0.331      487.27 ppb          0.331   0.07%
   QC value within limits for V 292.402  Recovery = 97.45%
Zn 213.857†            86225.9      480.57 µg/L         0.949      480.57 ppb          0.949   0.20%
   QC value within limits for Zn 213.857  Recovery = 96.11%
All analyte(s) passed QC.
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Sequence No.: 39 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/31/2010 20:48:32**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143100.4	143100.4	98.1	%			20:49:01
1	Al 396.153Radial†	-68.2	-6.4	-1.1706	µg/L	-1.1706	ppb	20:49:21
1	Ca 317.933Radial†	633.3	85.2	4.7476	µg/L	4.7476	ppb	20:49:21
1	Fe 238.204 Radial†	162.0	17.1	1.0551	µg/L	1.0551	ppb	20:49:21
1	K 766.490 Radial†	1505.7	-9.3	-3.4148	µg/L	-3.4148	ppb	20:49:01
1	Mg 279.077 IEC†	188.6	1.6	0.6053	µg/L	0.6053	ppb	20:49:21
1	Na 589.592 Radial†	1635.8	377.3	51.550	µg/L	51.550	ppb	20:49:01
1	Sr 421.552†	-135.1	-2.5	-0.0052	µg/L	-0.0052	ppb	20:49:01
1	Sc 361.383	1714287.6	1714287.6	99.771	%			20:50:09
1	Y 371.029	1025603.7	1025603.7	99.894	%			20:50:09
1	Ag 328.068†	3929.0	-153.4	-0.5739	µg/L	-0.5739	ppb	20:50:11
1	As 188.979†	-14.7	5.7	1.7126	µg/L	1.7126	ppb	20:50:31
1	B 249.677†	3483.3	-14.6	-0.2161	µg/L	-0.2161	ppb	20:50:31
1	Ba 233.527†	-124.6	11.0	0.0445	µg/L	0.0445	ppb	20:50:31
1	Be 313.107†	-819.1	243.7	0.0640	µg/L	0.0640	ppb	20:50:11
1	Cd 226.502†	-96.3	21.7	0.1352	µg/L	0.1352	ppb	20:50:31
1	Co 228.616†	-181.4	8.5	0.1049	µg/L	0.1049	ppb	20:50:31
1	Cr 267.716†	159.9	-18.3	-0.1371	µg/L	-0.1371	ppb	20:50:31
1	Cu 324.752†	2837.6	-128.1	-0.5041	µg/L	-0.5041	ppb	20:50:11
1	Mn 257.610†	255.9	19.2	0.0238	µg/L	0.0238	ppb	20:50:31
1	Mo 202.031†	-30.3	-10.3	-0.3020	µg/L	-0.3020	ppb	20:50:31
1	Ni 231.604†	-89.5	-13.2	-0.1520	µg/L	-0.1520	ppb	20:50:31
1	P 214.914†	-14.0	3.9	0.8495	µg/L	0.8495	ppb	20:50:31
1	Pb 220.353†	127.8	41.7	2.3324	µg/L	2.3324	ppb	20:50:31
1	S 181.975 Axial†	105.4	0.6	0.4193	µg/L	0.4193	ppb	20:50:31
1	Sb 206.836†	61.7	-18.9	-2.2534	µg/L	-2.2534	ppb	20:50:31
1	Se 196.026†	16.8	1.6	0.564	µg/L	0.564	ppb	20:50:31
1	SiO2†	1750.1	-21.3	-2.0737	µg/L	-2.0737	ppb	20:50:31
1	Si 251.611†	904.3	69.8	1.0310	µg/L	1.0310	ppb	20:50:11
1	Sn 189.927†	3.7	4.9	0.3040	µg/L	0.3040	ppb	20:50:31
1	Ti 334.940†	1043.2	93.0	0.0902	µg/L	0.0902	ppb	20:50:11
1	Tl 190.801†	-125.6	-9.3	-1.1347	µg/L	-1.1347	ppb	20:50:31
1	U 409.014†	-400.9	-131.9	-7.6954	µg/L	-7.6954	ppb	20:50:11
1	V 292.402†	469.6	66.9	0.3171	µg/L	0.3171	ppb	20:50:11
1	Zn 213.857†	595.1	32.0	0.1811	µg/L	0.1811	ppb	20:50:31
2	Sc RADIAL	142884.5	142884.5	97.9	%			20:49:23
2	Al 396.153Radial†	-69.1	-7.4	-1.3818	µg/L	-1.3818	ppb	20:49:43
2	Ca 317.933Radial†	615.2	67.8	3.7747	µg/L	3.7747	ppb	20:49:43
2	Fe 238.204 Radial†	156.5	11.7	0.7231	µg/L	0.7231	ppb	20:49:43
2	K 766.490 Radial†	1609.8	99.3	36.354	µg/L	36.354	ppb	20:49:23
2	Mg 279.077 IEC†	180.2	-6.7	-2.4821	µg/L	-2.4821	ppb	20:49:43
2	Na 589.592 Radial†	1524.3	266.0	36.311	µg/L	36.311	ppb	20:49:23
2	Sr 421.552†	-167.8	-36.0	-0.0750	µg/L	-0.0750	ppb	20:49:23
2	Sc 361.383	1705708.0	1705708.0	99.272	%			20:50:33
2	Y 371.029	1021576.7	1021576.7	99.502	%			20:50:33
2	Ag 328.068†	3789.2	-274.4	-1.0230	µg/L	-1.0230	ppb	20:50:35
2	As 188.979†	-3.7	16.6	5.0206	µg/L	5.0206	ppb	20:50:56
2	B 249.677†	3504.5	24.3	0.3589	µg/L	0.3589	ppb	20:50:56
2	Ba 233.527†	-135.1	-0.3	-0.0007	µg/L	-0.0007	ppb	20:50:56
2	Be 313.107†	-1027.1	30.1	0.0056	µg/L	0.0056	ppb	20:50:35
2	Cd 226.502†	-117.9	-0.5	-0.0035	µg/L	-0.0035	ppb	20:50:56
2	Co 228.616†	-184.4	4.6	0.0565	µg/L	0.0565	ppb	20:50:56
2	Cr 267.716†	197.3	20.1	0.1648	µg/L	0.1648	ppb	20:50:56
2	Cu 324.752†	2986.4	36.0	0.1330	µg/L	0.1330	ppb	20:50:35
2	Mn 257.610†	208.3	-27.5	-0.0339	µg/L	-0.0339	ppb	20:50:56
2	Mo 202.031†	-10.1	9.9	0.2925	µg/L	0.2925	ppb	20:50:56
2	Ni 231.604†	-71.6	4.4	0.0504	µg/L	0.0504	ppb	20:50:56
2	P 214.914†	-25.7	-7.9	-1.7048	µg/L	-1.7048	ppb	20:50:56
2	Pb 220.353†	88.5	2.8	0.1610	µg/L	0.1610	ppb	20:50:56

2	S 181.975 Axial†	98.5	-5.8	-4.3120 µg/L	-4.3120 ppb	20:50:56
2	Sb 206.836†	86.1	5.9	0.7055 µg/L	0.7055 ppb	20:50:56
2	Se 196.026†	6.1	-9.2	-3.32 µg/L	-3.32 ppb	20:50:56
2	SiO2†	1800.3	38.1	3.7206 µg/L	3.7206 ppb	20:50:56
2	Si 251.611†	941.5	111.8	1.6453 µg/L	1.6453 ppb	20:50:35
2	Sn 189.927†	-2.9	-1.8	-0.1151 µg/L	-0.1151 ppb	20:50:56
2	Ti 334.940†	825.1	-121.4	-0.1096 µg/L	-0.1096 ppb	20:50:35
2	Tl 190.801†	-103.9	12.0	1.4793 µg/L	1.4793 ppb	20:50:56
2	U 409.014†	-414.7	-147.9	-8.6275 µg/L	-8.6275 ppb	20:50:35
2	V 292.402†	468.7	68.3	0.3311 µg/L	0.3311 ppb	20:50:35
2	Zn 213.857†	586.6	26.4	0.1479 µg/L	0.1479 ppb	20:50:56
3	Sc RADIAL	143556.4	143556.4	98.4 %		20:49:45
3	Al 396.153Radial†	-49.6	12.8	2.3684 µg/L	2.3684 ppb	20:50:05
3	Ca 317.933Radial†	619.9	69.5	3.8728 µg/L	3.8728 ppb	20:50:05
3	Fe 238.204 Radial†	160.9	15.5	0.9527 µg/L	0.9527 ppb	20:50:05
3	K 766.490 Radial†	1716.2	199.8	73.139 µg/L	73.139 ppb	20:49:45
3	Mg 279.077 IEC†	179.3	-8.5	-3.1618 µg/L	-3.1618 ppb	20:50:05
3	Na 589.592 Radial†	1571.2	306.3	41.786 µg/L	41.786 ppb	20:49:45
3	Sr 421.552†	-111.1	22.4	0.0465 µg/L	0.0465 ppb	20:49:45
3	Sc 361.383	1721625.0	1721625.0	100.20 %		20:50:58
3	Y 371.029	1030085.4	1030085.4	100.33 %		20:50:58
3	Ag 328.068†	3859.6	-239.4	-0.8861 µg/L	-0.8861 ppb	20:51:00
3	As 188.979†	-27.5	-7.1	-2.1453 µg/L	-2.1453 ppb	20:51:20
3	B 249.677†	3491.5	-21.3	-0.3158 µg/L	-0.3158 ppb	20:51:20
3	Ba 233.527†	-142.3	-6.2	-0.0248 µg/L	-0.0248 ppb	20:51:20
3	Be 313.107†	-950.3	116.3	0.0315 µg/L	0.0315 ppb	20:51:00
3	Cd 226.502†	-122.0	-3.6	-0.0224 µg/L	-0.0224 ppb	20:51:20
3	Co 228.616†	-167.0	23.7	0.2921 µg/L	0.2921 ppb	20:51:20
3	Cr 267.716†	146.9	-32.0	-0.2498 µg/L	-0.2498 ppb	20:51:20
3	Cu 324.752†	3019.8	41.6	0.1616 µg/L	0.1616 ppb	20:51:00
3	Mn 257.610†	238.8	1.0	0.0014 µg/L	0.0014 ppb	20:51:20
3	Mo 202.031†	-20.4	-0.3	-0.0095 µg/L	-0.0095 ppb	20:51:20
3	Ni 231.604†	-92.9	-16.2	-0.1861 µg/L	-0.1861 ppb	20:51:20
3	P 214.914†	-16.8	1.2	0.2638 µg/L	0.2638 ppb	20:51:20
3	Pb 220.353†	96.5	9.9	0.5545 µg/L	0.5545 ppb	20:51:20
3	S 181.975 Axial†	97.9	-7.4	-5.4692 µg/L	-5.4692 ppb	20:51:20
3	Sb 206.836†	70.1	-10.9	-1.2853 µg/L	-1.2853 ppb	20:51:20
3	Se 196.026†	24.0	8.7	3.13 µg/L	3.13 ppb	20:51:20
3	SiO2†	1761.3	-17.6	-1.7243 µg/L	-1.7243 ppb	20:51:20
3	Si 251.611†	890.7	52.3	0.7682 µg/L	0.7682 ppb	20:51:00
3	Sn 189.927†	7.5	8.6	0.5361 µg/L	0.5361 ppb	20:51:20
3	Ti 334.940†	901.9	-52.4	-0.0483 µg/L	-0.0483 ppb	20:51:00
3	Tl 190.801†	-111.0	5.9	0.7212 µg/L	0.7212 ppb	20:51:20
3	U 409.014†	-279.5	-9.1	-0.5238 µg/L	-0.5238 ppb	20:51:00
3	V 292.402†	424.3	19.7	0.0944 µg/L	0.0944 ppb	20:51:00
3	Zn 213.857†	577.4	11.9	0.0677 µg/L	0.0677 ppb	20:51:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1713873.5	99.747	%	0.4637				0.46%
Sc RADIAL	143180.4	98.1	%	0.24				0.24%
Y 371.029	1025755.3	99.909	%	0.4146				0.41%
Ag 328.068†	-222.4	-0.8276	µg/L	0.23017	-0.8276	ppb	0.23017	27.81%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.3	-0.0614	µg/L	2.10685	-0.0614	ppb	2.10685	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.1	1.5293	µg/L	3.58647	1.5293	ppb	3.58647	234.51%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-3.9	-0.0576	µg/L	0.36418	-0.0576	ppb	0.36418	631.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.5	0.0063	µg/L	0.03518	0.0063	ppb	0.03518	557.71%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	130.0	0.0337	µg/L	0.02929	0.0337	ppb	0.02929	86.91%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	74.2	4.1317	µg/L	0.53563	4.1317	ppb	0.53563	12.96%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.9	0.0364	µg/L	0.08602	0.0364	ppb	0.08602	236.18%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.3	0.1512	µg/L	0.12445	0.1512	ppb	0.12445	82.31%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -10.0     -0.0740 µg/L       0.21436     -0.0740 ppb        0.21436 289.62%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -16.8     -0.0698 µg/L       0.37636     -0.0698 ppb        0.37636 538.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        14.8      0.9103 µg/L       0.16999      0.9103 ppb        0.16999  18.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         96.6      35.359 µg/L       38.2865      35.359 ppb        38.2865 108.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -4.5     -1.6795 µg/L       2.00766     -1.6795 ppb        2.00766 119.54%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -2.4     -0.0029 µg/L       0.02906     -0.0029 ppb        0.02906 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.2     -0.0064 µg/L       0.29725     -0.0064 ppb        0.29725 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       316.6      43.216 µg/L        7.7194      43.216 ppb         7.7194  17.86%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -8.3     -0.0959 µg/L       0.12783     -0.0959 ppb        0.12783 133.28%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.9     -0.1972 µg/L       1.33806     -0.1972 ppb        1.33806 678.62%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               18.1      1.0159 µg/L       1.15693      1.0159 ppb        1.15693 113.88%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.2     -3.1206 µg/L       3.11977     -3.1206 ppb        3.11977  99.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -8.0     -0.9444 µg/L       1.50862     -0.9444 ppb        1.50862 159.74%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.4       0.124 µg/L        3.2508       0.124 ppb         3.2508 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -0.2     -0.0258 µg/L       3.24918     -0.0258 ppb        3.24918 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               78.0      1.1482 µg/L       0.45012      1.1482 ppb        0.45012  39.20%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.9      0.2417 µg/L       0.33003      0.2417 ppb        0.33003 136.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -5.4     -0.0112 µg/L       0.06093     -0.0112 ppb        0.06093 542.16%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -26.9     -0.0226 µg/L       0.10236     -0.0226 ppb        0.10236 453.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.9      0.3552 µg/L       1.34488      0.3552 ppb        1.34488 378.59%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -96.3     -5.6156 µg/L       4.43418     -5.6156 ppb        4.43418  78.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                51.6      0.2475 µg/L       0.13284      0.2475 ppb        0.13284  53.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               23.4      0.1323 µg/L       0.05829      0.1323 ppb        0.05829  44.08%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 50
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 21:16:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140518.4	140518.4	96.3	%			21:16:42
1	Al 396.153Radial†	25783.9	26840.0	4953.4	µg/L	4953.4	ppb	21:16:42
1	Ca 317.933Radial†	85524.3	88257.2	4916.3	µg/L	4916.3	ppb	21:16:42
1	Fe 238.204 Radial†	76323.1	79114.2	4876.1	µg/L	4876.1	ppb	21:16:42
1	K 766.490 Radial†	14404.9	13414.9	4907.4	µg/L	4907.4	ppb	21:16:42
1	Mg 279.077 IEC†	13081.5	13394.6	4998.4	µg/L	4998.4	ppb	21:16:42
1	Na 589.592 Radial†	70242.3	71656.5	9784.8	µg/L	9784.8	ppb	21:16:42
1	Sr 421.552†	226316.6	235167.3	488.86	µg/L	488.86	ppb	21:16:40
1	Sc 361.383	1669103.9	1669103.9	97.142	%			21:16:55
1	Y 371.029	989417.5	989417.5	96.370	%			21:16:55
1	Ag 328.068†	129569.0	129290.2	484.77	µg/L	484.77	ppb	21:16:55
1	As 188.979†	1551.4	1617.4	496.19	µg/L	496.19	ppb	21:17:15
1	B 249.677†	34680.4	32195.0	473.14	µg/L	473.14	ppb	21:16:55
1	Ba 233.527†	116237.8	119794.0	483.13	µg/L	483.13	ppb	21:16:55
1	Be 313.107†	1725182.2	1777010.7	483.98	µg/L	483.98	ppb	21:16:55
1	Cd 226.502†	74430.6	76738.9	479.03	µg/L	479.03	ppb	21:16:55
1	Co 228.616†	37838.5	39142.2	483.21	µg/L	483.21	ppb	21:16:55
1	Cr 267.716†	59798.9	61379.9	480.59	µg/L	480.59	ppb	21:16:55
1	Cu 324.752†	122989.1	123635.9	481.97	µg/L	481.97	ppb	21:16:55
1	Mn 257.610†	381507.5	392496.1	485.42	µg/L	485.42	ppb	21:16:55
1	Mo 202.031†	16149.2	16644.5	489.61	µg/L	489.61	ppb	21:17:15
1	Ni 231.604†	40427.6	41693.7	480.07	µg/L	480.07	ppb	21:16:55
1	P 214.914†	11040.4	11383.2	2426.3	µg/L	2426.3	ppb	21:17:15
1	Pb 220.353†	8616.0	8783.1	491.85	µg/L	491.85	ppb	21:17:15
1	S 181.975 Axial†	1370.2	1305.5	973.53	µg/L	973.53	ppb	21:17:15
1	Sb 206.836†	4075.4	4114.5	490.34	µg/L	490.34	ppb	21:17:15
1	Se 196.026†	1325.8	1349.6	490	µg/L	490	ppb	21:17:15
1	SiO2†	53789.9	53597.3	5217.7	µg/L	5217.7	ppb	21:16:55
1	Si 251.611†	162739.1	166691.2	2447.8	µg/L	2447.8	ppb	21:16:55
1	Sn 189.927†	7604.8	7829.7	489.73	µg/L	489.73	ppb	21:17:15
1	Ti 334.940†	504929.9	518835.1	484.11	µg/L	484.11	ppb	21:16:55
1	Tl 190.801†	3752.3	3979.4	496.21	µg/L	496.21	ppb	21:17:15
1	U 409.014†	7197.9	7679.6	478.26	µg/L	478.26	ppb	21:16:55
1	V 292.402†	95634.0	98044.3	484.76	µg/L	484.76	ppb	21:16:55
1	Zn 213.857†	83598.9	85494.4	476.49	µg/L	476.49	ppb	21:16:55
2	Sc RADIAL	141583.7	141583.7	97.0	%			21:16:47
2	Al 396.153Radial†	25881.7	26739.3	4934.9	µg/L	4934.9	ppb	21:16:47
2	Ca 317.933Radial†	85790.3	87863.1	4894.3	µg/L	4894.3	ppb	21:16:47
2	Fe 238.204 Radial†	76348.3	78543.7	4841.0	µg/L	4841.0	ppb	21:16:47
2	K 766.490 Radial†	14349.6	13245.3	4845.3	µg/L	4845.3	ppb	21:16:47
2	Mg 279.077 IEC†	13161.7	13375.0	4991.0	µg/L	4991.0	ppb	21:16:47
2	Na 589.592 Radial†	70371.9	71241.2	9728.1	µg/L	9728.1	ppb	21:16:47
2	Sr 421.552†	225549.9	232608.6	483.54	µg/L	483.54	ppb	21:16:44
2	Sc 361.383	1700896.9	1700896.9	98.992	%			21:17:18
2	Y 371.029	1006820.6	1006820.6	98.065	%			21:17:18
2	Ag 328.068†	132249.7	129505.0	485.59	µg/L	485.59	ppb	21:17:18
2	As 188.979†	1564.2	1600.5	491.07	µg/L	491.07	ppb	21:17:38
2	B 249.677†	35612.0	32468.8	477.17	µg/L	477.17	ppb	21:17:18
2	Ba 233.527†	119305.1	120655.9	486.60	µg/L	486.60	ppb	21:17:18
2	Be 313.107†	1771257.8	1790359.7	487.62	µg/L	487.62	ppb	21:17:18
2	Cd 226.502†	76605.7	77504.0	483.82	µg/L	483.82	ppb	21:17:18
2	Co 228.616†	38857.8	39443.8	486.94	µg/L	486.94	ppb	21:17:18
2	Cr 267.716†	61346.5	61792.6	483.83	µg/L	483.83	ppb	21:17:18
2	Cu 324.752†	126079.4	124391.1	484.90	µg/L	484.90	ppb	21:17:18
2	Mn 257.610†	390683.2	394424.4	487.81	µg/L	487.81	ppb	21:17:18
2	Mo 202.031†	16315.1	16501.3	485.39	µg/L	485.39	ppb	21:17:38
2	Ni 231.604†	41564.0	42063.8	484.33	µg/L	484.33	ppb	21:17:18
2	P 214.914†	11170.5	11302.2	2409.0	µg/L	2409.0	ppb	21:17:38
2	Pb 220.353†	8716.3	8718.6	488.24	µg/L	488.24	ppb	21:17:38

2	S 181.975 Axial†	1376.8	1285.7	958.84 µg/L	958.84 ppb	21:17:38
2	Sb 206.836†	4095.5	4056.4	483.32 µg/L	483.32 ppb	21:17:38
2	Se 196.026†	1341.9	1340.3	487 µg/L	487 ppb	21:17:38
2	SiO2†	55368.1	54156.5	5272.5 µg/L	5272.5 ppb	21:17:18
2	Si 251.611†	166631.9	167492.1	2459.6 µg/L	2459.6 ppb	21:17:18
2	Sn 189.927†	7705.9	7785.5	486.98 µg/L	486.98 ppb	21:17:38
2	Ti 334.940†	516370.1	520675.9	485.83 µg/L	485.83 ppb	21:17:18
2	Tl 190.801†	3799.4	3954.7	493.19 µg/L	493.19 ppb	21:17:38
2	U 409.014†	7223.0	7566.5	471.79 µg/L	471.79 ppb	21:17:18
2	V 292.402†	97908.7	98501.9	486.96 µg/L	486.96 ppb	21:17:18
2	Zn 213.857†	86115.5	86428.0	481.70 µg/L	481.70 ppb	21:17:18
3	Sc RADIAL	140610.0	140610.0	96.4 %		21:16:51
3	Al 396.153Radial†	25934.1	26978.5	4979.2 µg/L	4979.2 ppb	21:16:51
3	Ca 317.933Radial†	85400.8	88071.2	4905.9 µg/L	4905.9 ppb	21:16:51
3	Fe 238.204 Radial†	76011.3	78739.0	4853.0 µg/L	4853.0 ppb	21:16:51
3	K 766.490 Radial†	14473.0	13475.8	4929.7 µg/L	4929.7 ppb	21:16:51
3	Mg 279.077 IEC†	13077.3	13381.4	4993.4 µg/L	4993.4 ppb	21:16:51
3	Na 589.592 Radial†	70342.7	71713.3	9792.5 µg/L	9792.5 ppb	21:16:51
3	Sr 421.552†	223908.2	232514.8	483.35 µg/L	483.35 ppb	21:16:49
3	Sc 361.383	1690270.1	1690270.1	98.373 %		21:17:42
3	Y 371.029	1001275.7	1001275.7	97.525 %		21:17:42
3	Ag 328.068†	131972.5	130063.1	487.66 µg/L	487.66 ppb	21:17:42
3	As 188.979†	1560.3	1606.5	492.89 µg/L	492.89 ppb	21:18:02
3	B 249.677†	35493.5	32574.4	478.72 µg/L	478.72 ppb	21:17:42
3	Ba 233.527†	118281.0	120372.5	485.46 µg/L	485.46 ppb	21:17:42
3	Be 313.107†	1758207.7	1788343.2	487.07 µg/L	487.07 ppb	21:17:42
3	Cd 226.502†	76039.5	77415.0	483.26 µg/L	483.26 ppb	21:17:42
3	Co 228.616†	38697.3	39527.5	487.97 µg/L	487.97 ppb	21:17:42
3	Cr 267.716†	61022.9	61853.3	484.31 µg/L	484.31 ppb	21:17:42
3	Cu 324.752†	124975.7	124069.9	483.65 µg/L	483.65 ppb	21:17:42
3	Mn 257.610†	388217.6	394399.3	487.78 µg/L	487.78 ppb	21:17:42
3	Mo 202.031†	16264.5	16553.5	486.93 µg/L	486.93 ppb	21:18:02
3	Ni 231.604†	41303.6	42063.1	484.33 µg/L	484.33 ppb	21:17:42
3	P 214.914†	11171.7	11374.3	2424.5 µg/L	2424.5 ppb	21:18:02
3	Pb 220.353†	8697.8	8755.2	490.29 µg/L	490.29 ppb	21:18:02
3	S 181.975 Axial†	1394.3	1312.3	978.61 µg/L	978.61 ppb	21:18:02
3	Sb 206.836†	4104.7	4091.7	487.54 µg/L	487.54 ppb	21:18:02
3	Se 196.026†	1335.6	1342.4	487 µg/L	487 ppb	21:18:02
3	SiO2†	54853.9	53985.5	5255.7 µg/L	5255.7 ppb	21:17:42
3	Si 251.611†	165452.6	167351.7	2457.5 µg/L	2457.5 ppb	21:17:42
3	Sn 189.927†	7688.5	7816.7	488.93 µg/L	488.93 ppb	21:18:02
3	Ti 334.940†	512939.3	520467.8	485.64 µg/L	485.64 ppb	21:17:42
3	Tl 190.801†	3797.1	3976.5	495.87 µg/L	495.87 ppb	21:18:02
3	U 409.014†	7116.8	7504.3	468.21 µg/L	468.21 ppb	21:17:42
3	V 292.402†	97506.3	98714.7	488.01 µg/L	488.01 ppb	21:17:42
3	Zn 213.857†	85518.8	86368.4	481.37 µg/L	481.37 ppb	21:17:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1686757.0	98.169	%	0.9420				0.96%
Sc RADIAL	140904.0	96.6	%	0.40				0.42%
Y 371.029	999171.3	97.320	%	0.8659				0.89%
Ag 328.068†	129619.5	486.01	µg/L	1.489	486.01	ppb	1.489	0.31%
QC value within limits for Ag 328.068 Recovery = 97.20%								
Al 396.153Radial†	26852.6	4955.8	µg/L	22.23	4955.8	ppb	22.23	0.45%
QC value within limits for Al 396.153Radial Recovery = 99.12%								
As 188.979†	1608.1	493.38	µg/L	2.596	493.38	ppb	2.596	0.53%
QC value within limits for As 188.979 Recovery = 98.68%								
B 249.677†	32412.8	476.35	µg/L	2.879	476.35	ppb	2.879	0.60%
QC value within limits for B 249.677 Recovery = 95.27%								
Ba 233.527†	120274.1	485.06	µg/L	1.771	485.06	ppb	1.771	0.37%
QC value within limits for Ba 233.527 Recovery = 97.01%								
Be 313.107†	1785237.9	486.22	µg/L	1.958	486.22	ppb	1.958	0.40%
QC value within limits for Be 313.107 Recovery = 97.24%								
Ca 317.933Radial†	88063.9	4905.5	µg/L	10.98	4905.5	ppb	10.98	0.22%
QC value within limits for Ca 317.933Radial Recovery = 98.11%								
Cd 226.502†	77219.3	482.04	µg/L	2.617	482.04	ppb	2.617	0.54%
QC value within limits for Cd 226.502 Recovery = 96.41%								
Co 228.616†	39371.2	486.04	µg/L	2.502	486.04	ppb	2.502	0.51%

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   QC value within limits for Co 228.616  Recovery = 97.21%
Cr 267.716†            61675.3      482.91 µg/L        2.021      482.91 ppb          2.021   0.42%
   QC value within limits for Cr 267.716  Recovery = 96.58%
Cu 324.752†           124032.3      483.51 µg/L        1.468      483.51 ppb          1.468   0.30%
   QC value within limits for Cu 324.752  Recovery = 96.70%
Fe 238.204 Radial†     78799.0      4856.7 µg/L        17.87      4856.7 ppb          17.87   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.13%
K 766.490 Radial†      13378.7      4894.1 µg/L        43.71      4894.1 ppb          43.71   0.89%
   QC value within limits for K 766.490 Radial  Recovery = 97.88%
Mg 279.077 IEC†        13383.7      4994.3 µg/L         3.76      4994.3 ppb           3.76   0.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.89%
Mn 257.610†           393773.3      487.00 µg/L        1.369      487.00 ppb          1.369   0.28%
   QC value within limits for Mn 257.610  Recovery = 97.40%
Mo 202.031†            16566.4      487.31 µg/L        2.131      487.31 ppb          2.131   0.44%
   QC value within limits for Mo 202.031  Recovery = 97.46%
Na 589.592 Radial†     71537.0      9768.5 µg/L        35.17      9768.5 ppb          35.17   0.36%
   QC value within limits for Na 589.592 Radial  Recovery = 97.68%
Ni 231.604†            41940.2      482.91 µg/L        2.458      482.91 ppb          2.458   0.51%
   QC value within limits for Ni 231.604  Recovery = 96.58%
P 214.914†             11353.2      2419.9 µg/L         9.51      2419.9 ppb           9.51   0.39%
   QC value within limits for P 214.914  Recovery = 96.80%
Pb 220.353†             8752.3      490.13 µg/L        1.809      490.13 ppb          1.809   0.37%
   QC value within limits for Pb 220.353  Recovery = 98.03%
S 181.975 Axial†        1301.2      970.33 µg/L       10.267      970.33 ppb         10.267   1.06%
   QC value within limits for S 181.975 Axial  Recovery = 97.03%
Sb 206.836†             4087.6      487.07 µg/L        3.532      487.07 ppb          3.532   0.73%
   QC value within limits for Sb 206.836  Recovery = 97.41%
Se 196.026†             1344.1         488 µg/L          1.8         488 ppb            1.8   0.36%
   QC value within limits for Se 196.026  Recovery = 97.61%
SiO2†                  53913.1      5248.7 µg/L        28.09      5248.7 ppb          28.09   0.54%
   QC value within limits for SiO2  Recovery = 98.15%
Si 251.611†           167178.3      2455.0 µg/L         6.34      2455.0 ppb           6.34   0.26%
   QC value within limits for Si 251.611  Recovery = 98.20%
Sn 189.927†             7810.6      488.55 µg/L        1.414      488.55 ppb          1.414   0.29%
   QC value within limits for Sn 189.927  Recovery = 97.71%
Sr 421.552†           233430.2      485.25 µg/L        3.129      485.25 ppb          3.129   0.64%
   QC value within limits for Sr 421.552  Recovery = 97.05%
Ti 334.940†           519992.9      485.19 µg/L        0.943      485.19 ppb          0.943   0.19%
   QC value within limits for Ti 334.940  Recovery = 97.04%
Tl 190.801†             3970.2      495.09 µg/L        1.653      495.09 ppb          1.653   0.33%
   QC value within limits for Tl 190.801  Recovery = 99.02%
U 409.014†              7583.5      472.76 µg/L        5.091      472.76 ppb          5.091   1.08%
   QC value within limits for U 409.014  Recovery = 94.55%
V 292.402†             98420.3      486.58 µg/L        1.660      486.58 ppb          1.660   0.34%
   QC value within limits for V 292.402  Recovery = 97.32%
Zn 213.857†            86097.0      479.85 µg/L        2.921      479.85 ppb          2.921   0.61%
   QC value within limits for Zn 213.857  Recovery = 95.97%
All analyte(s) passed QC.
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Sequence No.: 51
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 21:18:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142340.5	142340.5	97.5	%			21:18:39
1	Al 396.153Radial†	-77.4	-16.2	-2.9808	µg/L	-2.9808	ppb	21:18:59
1	Ca 317.933Radial†	613.3	68.2	3.7996	µg/L	3.7996	ppb	21:18:59
1	Fe 238.204 Radial†	174.0	30.3	1.8673	µg/L	1.8673	ppb	21:18:59
1	K 766.490 Radial†	1617.0	113.0	41.366	µg/L	41.366	ppb	21:18:39
1	Mg 279.077 IEC†	173.7	-12.6	-4.7201	µg/L	-4.7201	ppb	21:18:59
1	Na 589.592 Radial†	1689.2	441.0	60.210	µg/L	60.210	ppb	21:18:39
1	Sr 421.552†	-87.4	45.7	0.0949	µg/L	0.0949	ppb	21:18:39
1	Sc 361.383	1691761.1	1691761.1	98.460	%			21:19:47
1	Y 371.029	1013835.9	1013835.9	98.748	%			21:19:47
1	Ag 328.068†	3999.1	-29.8	-0.1074	µg/L	-0.1074	ppb	21:19:49
1	As 188.979†	-10.2	10.0	3.0117	µg/L	3.0117	ppb	21:20:09
1	B 249.677†	3413.6	-39.0	-0.5756	µg/L	-0.5756	ppb	21:19:49
1	Ba 233.527†	-138.5	-4.8	-0.0197	µg/L	-0.0197	ppb	21:20:09
1	Be 313.107†	-974.4	75.0	0.0212	µg/L	0.0212	ppb	21:19:49
1	Cd 226.502†	-119.6	-3.3	-0.0208	µg/L	-0.0208	ppb	21:20:09
1	Co 228.616†	-162.5	25.3	0.3117	µg/L	0.3117	ppb	21:20:09
1	Cr 267.716†	206.6	31.2	0.2430	µg/L	0.2430	ppb	21:20:09
1	Cu 324.752†	2962.7	36.8	0.1452	µg/L	0.1452	ppb	21:19:49
1	Mn 257.610†	261.8	28.6	0.0356	µg/L	0.0356	ppb	21:20:09
1	Mo 202.031†	-32.6	-13.1	-0.3839	µg/L	-0.3839	ppb	21:20:09
1	Ni 231.604†	-104.8	-29.9	-0.3447	µg/L	-0.3447	ppb	21:20:09
1	P 214.914†	-11.4	6.4	1.3624	µg/L	1.3624	ppb	21:20:09
1	Pb 220.353†	75.5	-9.7	-0.5434	µg/L	-0.5434	ppb	21:20:09
1	S 181.975 Axial†	111.4	8.1	5.9955	µg/L	5.9955	ppb	21:20:09
1	Sb 206.836†	80.6	1.0	0.1122	µg/L	0.1122	ppb	21:20:09
1	Se 196.026†	3.3	-12.0	-4.33	µg/L	-4.33	ppb	21:20:09
1	SiO2†	1809.6	62.5	6.1130	µg/L	6.1130	ppb	21:20:09
1	Si 251.611†	946.2	124.4	1.8365	µg/L	1.8365	ppb	21:19:49
1	Sn 189.927†	4.9	6.1	0.3820	µg/L	0.3820	ppb	21:20:09
1	Ti 334.940†	770.9	-169.6	-0.1590	µg/L	-0.1590	ppb	21:19:49
1	Tl 190.801†	-120.5	-5.8	-0.7102	µg/L	-0.7102	ppb	21:20:09
1	U 409.014†	-225.3	41.0	2.4000	µg/L	2.4000	ppb	21:19:49
1	V 292.402†	398.1	0.6	0.0014	µg/L	0.0014	ppb	21:19:49
1	Zn 213.857†	596.3	41.2	0.2333	µg/L	0.2333	ppb	21:20:09
2	Sc RADIAL	140388.8	140388.8	96.2	%			21:19:01
2	Al 396.153Radial†	-40.1	21.6	4.0106	µg/L	4.0106	ppb	21:19:21
2	Ca 317.933Radial†	583.2	45.7	2.5430	µg/L	2.5430	ppb	21:19:21
2	Fe 238.204 Radial†	163.9	22.3	1.3738	µg/L	1.3738	ppb	21:19:21
2	K 766.490 Radial†	1756.0	280.5	102.70	µg/L	102.70	ppb	21:19:01
2	Mg 279.077 IEC†	185.4	2.0	0.7420	µg/L	0.7420	ppb	21:19:21
2	Na 589.592 Radial†	1757.4	535.9	73.122	µg/L	73.122	ppb	21:19:01
2	Sr 421.552†	-150.8	-21.5	-0.0447	µg/L	-0.0447	ppb	21:19:01
2	Sc 361.383	1725840.2	1725840.2	100.44	%			21:20:11
2	Y 371.029	1031661.1	1031661.1	100.48	%			21:20:11
2	Ag 328.068†	4128.5	18.9	0.0653	µg/L	0.0653	ppb	21:20:13
2	As 188.979†	-6.9	13.5	4.0841	µg/L	4.0841	ppb	21:20:34
2	B 249.677†	3476.1	-45.2	-0.6676	µg/L	-0.6676	ppb	21:20:13
2	Ba 233.527†	-122.5	13.9	0.0557	µg/L	0.0557	ppb	21:20:34
2	Be 313.107†	-1003.4	65.7	0.0171	µg/L	0.0171	ppb	21:20:13
2	Cd 226.502†	-100.9	17.7	0.1106	µg/L	0.1106	ppb	21:20:34
2	Co 228.616†	-165.4	25.6	0.3157	µg/L	0.3157	ppb	21:20:34
2	Cr 267.716†	175.4	-3.9	-0.0289	µg/L	-0.0289	ppb	21:20:34
2	Cu 324.752†	2951.3	-34.0	-0.1338	µg/L	-0.1338	ppb	21:20:13
2	Mn 257.610†	228.4	-9.9	-0.0123	µg/L	-0.0123	ppb	21:20:34
2	Mo 202.031†	-29.3	-9.0	-0.2659	µg/L	-0.2659	ppb	21:20:34
2	Ni 231.604†	-82.5	-5.6	-0.0645	µg/L	-0.0645	ppb	21:20:34
2	P 214.914†	-14.3	3.8	0.8123	µg/L	0.8123	ppb	21:20:34
2	Pb 220.353†	82.1	-4.7	-0.2595	µg/L	-0.2595	ppb	21:20:34

2	S 181.975 Axial†	91.3	-14.1	-10.498 µg/L	-10.498 ppb	21:20:34
2	Sb 206.836†	71.7	-9.4	-1.1204 µg/L	-1.1204 ppb	21:20:34
2	Se 196.026†	16.3	0.9	0.337 µg/L	0.337 ppb	21:20:34
2	SiO2†	1744.2	-38.9	-3.7990 µg/L	-3.7990 ppb	21:20:34
2	Si 251.611†	837.7	-2.5	-0.0368 µg/L	-0.0368 ppb	21:20:13
2	Sn 189.927†	6.2	7.3	0.4532 µg/L	0.4532 ppb	21:20:34
2	Ti 334.940†	756.2	-199.7	-0.1855 µg/L	-0.1855 ppb	21:20:13
2	Tl 190.801†	-123.1	-5.9	-0.7309 µg/L	-0.7309 ppb	21:20:34
2	U 409.014†	-314.2	-43.0	-2.5195 µg/L	-2.5195 ppb	21:20:13
2	V 292.402†	382.0	-23.5	-0.1192 µg/L	-0.1192 ppb	21:20:13
2	Zn 213.857†	586.1	19.1	0.1074 µg/L	0.1074 ppb	21:20:34
3	Sc RADIAL	142445.8	142445.8	97.6 %		21:19:23
3	Al 396.153Radial†	-90.2	-29.2	-5.4175 µg/L	-5.4175 ppb	21:19:43
3	Ca 317.933Radial†	593.8	47.8	2.6599 µg/L	2.6599 ppb	21:19:43
3	Fe 238.204 Radial†	167.0	23.0	1.4166 µg/L	1.4166 ppb	21:19:43
3	K 766.490 Radial†	1597.6	91.9	33.647 µg/L	33.647 ppb	21:19:23
3	Mg 279.077 IEC†	184.4	-1.8	-0.6658 µg/L	-0.6658 ppb	21:19:43
3	Na 589.592 Radial†	1758.3	510.5	69.717 µg/L	69.717 ppb	21:19:23
3	Sr 421.552†	-153.0	-21.4	-0.0445 µg/L	-0.0445 ppb	21:19:23
3	Sc 361.383	1713474.3	1713474.3	99.724 %		21:20:36
3	Y 371.029	1024068.4	1024068.4	99.745 %		21:20:36
3	Ag 328.068†	4150.2	70.3	0.2535 µg/L	0.2535 ppb	21:20:38
3	As 188.979†	-9.9	10.5	3.1681 µg/L	3.1681 ppb	21:20:58
3	B 249.677†	3600.1	104.2	1.5371 µg/L	1.5371 ppb	21:20:38
3	Ba 233.527†	-126.3	9.2	0.0373 µg/L	0.0373 ppb	21:20:58
3	Be 313.107†	-965.7	96.3	0.0240 µg/L	0.0240 ppb	21:20:38
3	Cd 226.502†	-105.6	12.3	0.0767 µg/L	0.0767 ppb	21:20:58
3	Co 228.616†	-193.8	-4.0	-0.0492 µg/L	-0.0492 ppb	21:20:58
3	Cr 267.716†	191.2	13.1	0.1087 µg/L	0.1087 ppb	21:20:58
3	Cu 324.752†	2975.4	11.4	0.0383 µg/L	0.0383 ppb	21:20:38
3	Mn 257.610†	236.4	-0.2	-0.0002 µg/L	-0.0002 ppb	21:20:58
3	Mo 202.031†	-19.1	0.9	0.0276 µg/L	0.0276 ppb	21:20:58
3	Ni 231.604†	-66.0	10.3	0.1188 µg/L	0.1188 ppb	21:20:58
3	P 214.914†	-5.2	12.7	2.7193 µg/L	2.7193 ppb	21:20:58
3	Pb 220.353†	57.4	-28.8	-1.6039 µg/L	-1.6039 ppb	21:20:58
3	S 181.975 Axial†	102.3	-2.4	-1.8005 µg/L	-1.8005 ppb	21:20:58
3	Sb 206.836†	78.7	-1.9	-0.2267 µg/L	-0.2267 ppb	21:20:58
3	Se 196.026†	18.0	2.8	0.995 µg/L	0.995 ppb	21:20:58
3	SiO2†	1745.8	-24.7	-2.4280 µg/L	-2.4280 ppb	21:20:58
3	Si 251.611†	1027.5	193.7	2.8516 µg/L	2.8516 ppb	21:20:38
3	Sn 189.927†	9.3	10.4	0.6506 µg/L	0.6506 ppb	21:20:58
3	Ti 334.940†	1090.0	140.5	0.1344 µg/L	0.1344 ppb	21:20:38
3	Tl 190.801†	-127.7	-11.4	-1.3953 µg/L	-1.3953 ppb	21:20:58
3	U 409.014†	-395.2	-126.4	-7.3813 µg/L	-7.3813 ppb	21:20:38
3	V 292.402†	441.4	38.8	0.1850 µg/L	0.1850 ppb	21:20:38
3	Zn 213.857†	582.7	19.9	0.1107 µg/L	0.1107 ppb	21:20:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1710358.5	99.543	%	1.0041				1.01%
Sc RADIAL	141725.0	97.1	%	0.79				0.82%
Y 371.029	1023188.4	99.659	%	0.8713				0.87%
Ag 328.068†	19.8	0.0705	µg/L	0.18052	0.0705	ppb	0.18052	256.19%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.9	-1.4626	µg/L	4.89399	-1.4626	ppb	4.89399	334.61%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.3	3.4213	µg/L	0.57932	3.4213	ppb	0.57932	16.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	6.7	0.0980	µg/L	1.24716	0.0980	ppb	1.24716	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.1	0.0244	µg/L	0.03927	0.0244	ppb	0.03927	160.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	79.0	0.0208	µg/L	0.00345	0.0208	ppb	0.00345	16.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	53.9	3.0008	µg/L	0.69420	3.0008	ppb	0.69420	23.13%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.9	0.0555	µg/L	0.06825	0.0555	ppb	0.06825	123.01%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	15.6	0.1927	µg/L	0.20954	0.1927	ppb	0.20954	108.73%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                13.5      0.1076 µg/L       0.13596      0.1076 ppb        0.13596 126.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 4.7      0.0166 µg/L       0.14075      0.0166 ppb        0.14075 850.04%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         25.2      1.5526 µg/L       0.27342      1.5526 ppb        0.27342  17.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         161.8     59.237 µg/L       37.8362     59.237 ppb        37.8362  63.87%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.1     -1.5480 µg/L       2.83593     -1.5480 ppb        2.83593 183.20%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 6.2      0.0077 µg/L       0.02490      0.0077 ppb        0.02490 322.21%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -7.1     -0.2074 µg/L       0.21190     -0.2074 ppb        0.21190 102.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        495.8     67.683 µg/L        6.6920     67.683 ppb         6.6920   9.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -8.4     -0.0968 µg/L       0.23339     -0.0968 ppb        0.23339 241.07%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  7.6      1.6313 µg/L       0.98157      1.6313 ppb        0.98157  60.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -14.4     -0.8023 µg/L       0.70858     -0.8023 ppb        0.70858  88.32%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.8     -2.1010 µg/L       8.25080     -2.1010 ppb        8.25080 392.71%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.4     -0.4117 µg/L       0.63677     -0.4117 ppb        0.63677 154.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.8      -0.998 µg/L        2.9005      -0.998 ppb         2.9005 290.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      -0.4     -0.0380 µg/L       5.37088     -0.0380 ppb        5.37088 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               105.2      1.5504 µg/L       1.46530      1.5504 ppb        1.46530  94.51%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.9      0.4953 µg/L       0.13914      0.4953 ppb        0.13914  28.09%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 0.9      0.0019 µg/L       0.08056      0.0019 ppb        0.08056 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -76.2     -0.0700 µg/L       0.17755     -0.0700 ppb        0.17755 253.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -7.7     -0.9455 µg/L       0.38970     -0.9455 ppb        0.38970  41.22%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -42.8     -2.5003 µg/L       4.89065     -2.5003 ppb        4.89065 195.61%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  5.3      0.0224 µg/L       0.15317      0.0224 ppb        0.15317 684.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                26.7      0.1505 µg/L       0.07173      0.1505 ppb        0.07173  47.67%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 61
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 21:39:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143665.7	143665.7	98.4	%			21:40:31
1	Al 396.153Radial†	26354.7	26833.2	4952.4	µg/L	4952.4	ppb	21:40:31
1	Ca 317.933Radial†	87317.1	88132.5	4909.3	µg/L	4909.3	ppb	21:40:31
1	Fe 238.204 Radial†	78178.3	79262.3	4885.2	µg/L	4885.2	ppb	21:40:31
1	K 766.490 Radial†	14683.9	13370.5	4891.1	µg/L	4891.1	ppb	21:40:31
1	Mg 279.077 IEC†	13397.8	13418.2	5007.1	µg/L	5007.1	ppb	21:40:31
1	Na 589.592 Radial†	71164.9	70995.6	9694.5	µg/L	9694.5	ppb	21:40:31
1	Sr 421.552†	233220.3	237030.9	492.73	µg/L	492.73	ppb	21:40:29
1	Sc 361.383	1721068.9	1721068.9	100.17	%			21:40:44
1	Y 371.029	1018507.5	1018507.5	99.203	%			21:40:44
1	Ag 328.068†	133737.4	129424.5	485.29	µg/L	485.29	ppb	21:40:44
1	As 188.979†	1607.1	1624.8	498.43	µg/L	498.43	ppb	21:41:04
1	B 249.677†	35997.3	32431.8	476.62	µg/L	476.62	ppb	21:40:44
1	Ba 233.527†	120429.2	120365.5	485.43	µg/L	485.43	ppb	21:40:44
1	Be 313.107†	1795349.9	1793440.3	488.46	µg/L	488.46	ppb	21:40:44
1	Cd 226.502†	77524.8	77514.6	483.88	µg/L	483.88	ppb	21:40:44
1	Co 228.616†	39299.3	39424.5	486.69	µg/L	486.69	ppb	21:40:44
1	Cr 267.716†	61864.3	61583.2	482.19	µg/L	482.19	ppb	21:40:44
1	Cu 324.752†	127127.0	123944.2	483.17	µg/L	483.17	ppb	21:40:44
1	Mn 257.610†	395346.6	394454.4	487.85	µg/L	487.85	ppb	21:40:44
1	Mo 202.031†	16480.7	16473.5	484.58	µg/L	484.58	ppb	21:41:04
1	Ni 231.604†	41947.7	41954.7	483.08	µg/L	483.08	ppb	21:40:44
1	P 214.914†	11320.1	11319.3	2412.7	µg/L	2412.7	ppb	21:41:04
1	Pb 220.353†	8845.0	8744.0	489.65	µg/L	489.65	ppb	21:41:04
1	S 181.975 Axial†	1407.4	1300.0	969.45	µg/L	969.45	ppb	21:41:04
1	Sb 206.836†	4164.4	4076.7	485.74	µg/L	485.74	ppb	21:41:04
1	Se 196.026†	1354.0	1336.4	485	µg/L	485	ppb	21:41:04
1	SiO2†	55679.1	53811.5	5238.8	µg/L	5238.8	ppb	21:40:44
1	Si 251.611†	168734.5	167618.4	2461.5	µg/L	2461.5	ppb	21:40:44
1	Sn 189.927†	7779.1	7767.4	485.85	µg/L	485.85	ppb	21:41:04
1	Ti 334.940†	522596.2	520777.9	485.92	µg/L	485.92	ppb	21:40:44
1	Tl 190.801†	3874.4	3984.7	496.88	µg/L	496.88	ppb	21:41:04
1	U 409.014†	7407.3	7664.9	477.49	µg/L	477.49	ppb	21:40:44
1	V 292.402†	98914.4	98346.8	486.18	µg/L	486.18	ppb	21:40:44
1	Zn 213.857†	87152.2	86443.4	481.80	µg/L	481.80	ppb	21:40:44
2	Sc RADIAL	145456.2	145456.2	99.7	%			21:40:35
2	Al 396.153Radial†	26834.6	26985.2	4980.5	µg/L	4980.5	ppb	21:40:35
2	Ca 317.933Radial†	88881.4	88610.2	4935.9	µg/L	4935.9	ppb	21:40:35
2	Fe 238.204 Radial†	79662.0	79773.3	4916.7	µg/L	4916.7	ppb	21:40:35
2	K 766.490 Radial†	14845.0	13348.6	4883.1	µg/L	4883.1	ppb	21:40:35
2	Mg 279.077 IEC†	13510.7	13364.0	4986.9	µg/L	4986.9	ppb	21:40:35
2	Na 589.592 Radial†	72176.6	71120.8	9711.6	µg/L	9711.6	ppb	21:40:35
2	Sr 421.552†	230930.1	231817.3	481.90	µg/L	481.90	ppb	21:40:33
2	Sc 361.383	1718468.2	1718468.2	100.01	%			21:41:07
2	Y 371.029	1016391.1	1016391.1	98.997	%			21:41:07
2	Ag 328.068†	133896.2	129785.3	486.62	µg/L	486.62	ppb	21:41:07
2	As 188.979†	1611.9	1632.1	500.64	µg/L	500.64	ppb	21:41:27
2	B 249.677†	36060.3	32549.2	478.36	µg/L	478.36	ppb	21:41:07
2	Ba 233.527†	120340.6	120458.9	485.81	µg/L	485.81	ppb	21:41:07
2	Be 313.107†	1792650.3	1793453.6	488.45	µg/L	488.45	ppb	21:41:07
2	Cd 226.502†	77583.4	77690.3	484.97	µg/L	484.97	ppb	21:41:07
2	Co 228.616†	39213.4	39398.0	486.37	µg/L	486.37	ppb	21:41:07
2	Cr 267.716†	61991.1	61803.5	483.93	µg/L	483.93	ppb	21:41:07
2	Cu 324.752†	127061.9	124071.2	483.66	µg/L	483.66	ppb	21:41:07
2	Mn 257.610†	395040.3	394745.5	488.21	µg/L	488.21	ppb	21:41:07
2	Mo 202.031†	16505.0	16522.7	486.03	µg/L	486.03	ppb	21:41:27
2	Ni 231.604†	42190.5	42260.9	486.60	µg/L	486.60	ppb	21:41:07
2	P 214.914†	11360.6	11376.9	2425.0	µg/L	2425.0	ppb	21:41:27
2	Pb 220.353†	8840.9	8753.2	490.18	µg/L	490.18	ppb	21:41:27

2	S 181.975 Axial†	1398.8	1293.6	964.68 µg/L	964.68 ppb	21:41:27
2	Sb 206.836†	4174.1	4092.7	487.64 µg/L	487.64 ppb	21:41:27
2	Se 196.026†	1355.3	1339.8	486 µg/L	486 ppb	21:41:27
2	SiO2†	55809.3	54025.8	5259.7 µg/L	5259.7 ppb	21:41:07
2	Si 251.611†	168475.9	167614.8	2461.4 µg/L	2461.4 ppb	21:41:07
2	Sn 189.927†	7806.2	7806.1	488.27 µg/L	488.27 ppb	21:41:27
2	Ti 334.940†	521521.1	520492.6	485.66 µg/L	485.66 ppb	21:41:07
2	Tl 190.801†	3825.2	3941.3	491.55 µg/L	491.55 ppb	21:41:27
2	U 409.014†	7087.5	7356.3	459.54 µg/L	459.54 ppb	21:41:07
2	V 292.402†	99089.1	98670.9	487.77 µg/L	487.77 ppb	21:41:07
2	Zn 213.857†	87415.4	86838.2	483.99 µg/L	483.99 ppb	21:41:07
3	Sc RADIAL	143191.9	143191.9	98.1 %		21:40:39
3	Al 396.153Radial†	26557.8	27128.8	5007.1 µg/L	5007.1 ppb	21:40:39
3	Ca 317.933Radial†	87348.5	88458.0	4927.5 µg/L	4927.5 ppb	21:40:39
3	Fe 238.204 Radial†	78236.9	79584.7	4905.1 µg/L	4905.1 ppb	21:40:39
3	K 766.490 Radial†	14659.9	13395.4	4900.3 µg/L	4900.3 ppb	21:40:39
3	Mg 279.077 IEC†	13262.5	13325.4	4972.5 µg/L	4972.5 ppb	21:40:39
3	Na 589.592 Radial†	71088.0	71156.4	9716.5 µg/L	9716.5 ppb	21:40:39
3	Sr 421.552†	229311.5	233831.2	486.08 µg/L	486.08 ppb	21:40:37
3	Sc 361.383	1712233.1	1712233.1	99.652 %		21:41:30
3	Y 371.029	1012145.6	1012145.6	98.583 %		21:41:30
3	Ag 328.068†	133864.3	130240.8	488.35 µg/L	488.35 ppb	21:41:30
3	As 188.979†	1597.0	1622.9	497.89 µg/L	497.89 ppb	21:41:50
3	B 249.677†	36087.2	32707.4	480.68 µg/L	480.68 ppb	21:41:30
3	Ba 233.527†	120029.4	120584.8	486.32 µg/L	486.32 ppb	21:41:30
3	Be 313.107†	1789689.6	1797009.6	489.43 µg/L	489.43 ppb	21:41:30
3	Cd 226.502†	77607.6	77997.0	486.89 µg/L	486.89 ppb	21:41:30
3	Co 228.616†	39237.2	39564.7	488.42 µg/L	488.42 ppb	21:41:30
3	Cr 267.716†	61895.9	61933.7	484.93 µg/L	484.93 ppb	21:41:30
3	Cu 324.752†	126699.8	124170.4	484.06 µg/L	484.06 ppb	21:41:30
3	Mn 257.610†	394236.6	395377.2	488.99 µg/L	488.99 ppb	21:41:30
3	Mo 202.031†	16435.8	16513.3	485.75 µg/L	485.75 ppb	21:41:50
3	Ni 231.604†	42100.7	42324.4	487.33 µg/L	487.33 ppb	21:41:30
3	P 214.914†	11331.6	11389.1	2427.6 µg/L	2427.6 ppb	21:41:50
3	Pb 220.353†	8803.4	8747.8	489.86 µg/L	489.86 ppb	21:41:50
3	S 181.975 Axial†	1399.9	1299.7	969.26 µg/L	969.26 ppb	21:41:50
3	Sb 206.836†	4147.7	4081.4	486.29 µg/L	486.29 ppb	21:41:50
3	Se 196.026†	1361.2	1350.7	490 µg/L	490 ppb	21:41:50
3	SiO2†	55566.3	53985.2	5255.7 µg/L	5255.7 ppb	21:41:30
3	Si 251.611†	168537.6	168290.1	2471.4 µg/L	2471.4 ppb	21:41:30
3	Sn 189.927†	7783.2	7811.5	488.60 µg/L	488.60 ppb	21:41:50
3	Ti 334.940†	520012.8	520877.8	486.02 µg/L	486.02 ppb	21:41:30
3	Tl 190.801†	3855.0	3985.2	496.95 µg/L	496.95 ppb	21:41:50
3	U 409.014†	7438.0	7733.9	481.69 µg/L	481.69 ppb	21:41:30
3	V 292.402†	98978.3	98920.4	489.01 µg/L	489.01 ppb	21:41:30
3	Zn 213.857†	86968.8	86708.3	483.25 µg/L	483.25 ppb	21:41:30

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1717256.7	99.944	%	0.2643				0.26%
Sc RADIAL	144104.6	98.7	%	0.82				0.83%
Y 371.029	1015681.4	98.928	%	0.3156				0.32%
Ag 328.068†	129816.8	486.75	µg/L	1.535	486.75	ppb	1.535	0.32%
QC value within limits for Ag 328.068 Recovery = 97.35%								
Al 396.153Radial†	26982.4	4980.0	µg/L	27.38	4980.0	ppb	27.38	0.55%
QC value within limits for Al 396.153Radial Recovery = 99.60%								
As 188.979†	1626.6	498.99	µg/L	1.460	498.99	ppb	1.460	0.29%
QC value within limits for As 188.979 Recovery = 99.80%								
B 249.677†	32562.8	478.55	µg/L	2.037	478.55	ppb	2.037	0.43%
QC value within limits for B 249.677 Recovery = 95.71%								
Ba 233.527†	120469.8	485.85	µg/L	0.444	485.85	ppb	0.444	0.09%
QC value within limits for Ba 233.527 Recovery = 97.17%								
Be 313.107†	1794634.5	488.78	µg/L	0.562	488.78	ppb	0.562	0.12%
QC value within limits for Be 313.107 Recovery = 97.76%								
Ca 317.933Radial†	88400.3	4924.2	µg/L	13.59	4924.2	ppb	13.59	0.28%
QC value within limits for Ca 317.933Radial Recovery = 98.48%								
Cd 226.502†	77734.0	485.25	µg/L	1.525	485.25	ppb	1.525	0.31%
QC value within limits for Cd 226.502 Recovery = 97.05%								
Co 228.616†	39462.4	487.16	µg/L	1.106	487.16	ppb	1.106	0.23%

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   QC value within limits for Co 228.616  Recovery = 97.43%
Cr 267.716†            61773.5      483.68 µg/L         1.389      483.68 ppb          1.389   0.29%
   QC value within limits for Cr 267.716  Recovery = 96.74%
Cu 324.752†           124061.9      483.63 µg/L         0.443      483.63 ppb          0.443   0.09%
   QC value within limits for Cu 324.752  Recovery = 96.73%
Fe 238.204 Radial†     79540.1      4902.4 µg/L         15.93      4902.4 ppb          15.93   0.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.05%
K 766.490 Radial†      13371.5      4891.5 µg/L          8.58      4891.5 ppb           8.58   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 97.83%
Mg 279.077 IEC†        13369.2      4988.8 µg/L         17.36      4988.8 ppb          17.36   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.78%
Mn 257.610†           394859.0      488.35 µg/L         0.584      488.35 ppb          0.584   0.12%
   QC value within limits for Mn 257.610  Recovery = 97.67%
Mo 202.031†            16503.2      485.45 µg/L         0.769      485.45 ppb          0.769   0.16%
   QC value within limits for Mo 202.031  Recovery = 97.09%
Na 589.592 Radial†     71090.9      9707.5 µg/L         11.54      9707.5 ppb          11.54   0.12%
   QC value within limits for Na 589.592 Radial  Recovery = 97.08%
Ni 231.604†            42180.0      485.67 µg/L         2.276      485.67 ppb          2.276   0.47%
   QC value within limits for Ni 231.604  Recovery = 97.13%
P 214.914†             11361.8      2421.7 µg/L          7.97      2421.7 ppb           7.97   0.33%
   QC value within limits for P 214.914  Recovery = 96.87%
Pb 220.353†             8748.3      489.90 µg/L         0.268      489.90 ppb          0.268   0.05%
   QC value within limits for Pb 220.353  Recovery = 97.98%
S 181.975 Axial†        1297.8      967.80 µg/L         2.698      967.80 ppb          2.698   0.28%
   QC value within limits for S 181.975 Axial  Recovery = 96.78%
Sb 206.836†             4083.6      486.56 µg/L         0.979      486.56 ppb          0.979   0.20%
   QC value within limits for Sb 206.836  Recovery = 97.31%
Se 196.026†             1342.3         487 µg/L           2.7         487 ppb            2.7   0.55%
   QC value within limits for Se 196.026  Recovery = 97.48%
SiO2†                  53940.8      5251.4 µg/L         11.08      5251.4 ppb          11.08   0.21%
   QC value within limits for SiO2  Recovery = 98.20%
Si 251.611†           167841.1      2464.8 µg/L          5.72      2464.8 ppb           5.72   0.23%
   QC value within limits for Si 251.611  Recovery = 98.59%
Sn 189.927†             7795.0      487.58 µg/L         1.501      487.58 ppb          1.501   0.31%
   QC value within limits for Sn 189.927  Recovery = 97.52%
Sr 421.552†           234226.5      486.90 µg/L         5.466      486.90 ppb          5.466   1.12%
   QC value within limits for Sr 421.552  Recovery = 97.38%
Ti 334.940†           520716.1      485.87 µg/L         0.182      485.87 ppb          0.182   0.04%
   QC value within limits for Ti 334.940  Recovery = 97.17%
Tl 190.801†             3970.4      495.13 µg/L         3.095      495.13 ppb          3.095   0.63%
   QC value within limits for Tl 190.801  Recovery = 99.03%
U 409.014†              7585.0      472.91 µg/L        11.768      472.91 ppb         11.768   2.49%
   QC value within limits for U 409.014  Recovery = 94.58%
V 292.402†             98646.0      487.65 µg/L         1.415      487.65 ppb          1.415   0.29%
   QC value within limits for V 292.402  Recovery = 97.53%
Zn 213.857†            86663.3      483.01 µg/L         1.115      483.01 ppb          1.115   0.23%
   QC value within limits for Zn 213.857  Recovery = 96.60%
All analyte(s) passed QC.
```

Sequence No.: 62 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/31/2010 21:41:59**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143435.3	143435.3	98.3	%			21:42:30
1	Al 396.153Radial†	-56.2	6.0	1.1301	µg/L	1.1301	ppb	21:42:50
1	Ca 317.933Radial†	581.9	31.5	1.7535	µg/L	1.7535	ppb	21:42:50
1	Fe 238.204 Radial†	220.1	75.9	4.6750	µg/L	4.6750	ppb	21:42:50
1	K 766.490 Radial†	1630.1	113.7	41.604	µg/L	41.604	ppb	21:42:30
1	Mg 279.077 IEC†	185.9	-1.6	-0.5986	µg/L	-0.5986	ppb	21:42:50
1	Na 589.592 Radial†	1456.5	191.1	26.064	µg/L	26.064	ppb	21:42:30
1	Sr 421.552†	-303.2	-173.2	-0.3600	µg/L	-0.3600	ppb	21:42:30
1	Sc 361.383	1716104.0	1716104.0	99.877	%			21:43:52
1	Y 371.029	1026337.9	1026337.9	99.966	%			21:43:52
1	Ag 328.068†	4103.4	17.0	0.0542	µg/L	0.0542	ppb	21:43:54
1	As 188.979†	-11.9	8.5	2.5574	µg/L	2.5574	ppb	21:44:14
1	B 249.677†	3527.0	25.5	0.3738	µg/L	0.3738	ppb	21:43:54
1	Ba 233.527†	-143.0	-7.3	-0.0298	µg/L	-0.0298	ppb	21:44:14
1	Be 313.107†	-770.0	293.7	0.0782	µg/L	0.0782	ppb	21:43:54
1	Cd 226.502†	-77.7	40.4	0.2520	µg/L	0.2520	ppb	21:44:14
1	Co 228.616†	-153.6	36.5	0.4505	µg/L	0.4505	ppb	21:44:14
1	Cr 267.716†	176.1	-2.3	-0.0133	µg/L	-0.0133	ppb	21:44:14
1	Cu 324.752†	3046.8	78.3	0.3006	µg/L	0.3006	ppb	21:43:54
1	Mn 257.610†	328.7	91.9	0.1137	µg/L	0.1137	ppb	21:44:14
1	Mo 202.031†	-27.4	-7.4	-0.2173	µg/L	-0.2173	ppb	21:44:14
1	Ni 231.604†	-77.8	-1.3	-0.0154	µg/L	-0.0154	ppb	21:44:14
1	P 214.914†	-3.8	14.1	3.0202	µg/L	3.0202	ppb	21:44:14
1	Pb 220.353†	91.6	5.4	0.3025	µg/L	0.3025	ppb	21:44:14
1	S 181.975 Axial†	84.3	-20.7	-15.370	µg/L	-15.370	ppb	21:44:14
1	Sb 206.836†	85.3	4.6	0.5436	µg/L	0.5436	ppb	21:44:14
1	Se 196.026†	18.7	3.4	1.24	µg/L	1.24	ppb	21:44:14
1	SiO2†	1789.6	16.4	1.6035	µg/L	1.6035	ppb	21:44:14
1	Si 251.611†	934.5	99.0	1.4600	µg/L	1.4600	ppb	21:43:54
1	Sn 189.927†	6.5	7.6	0.4757	µg/L	0.4757	ppb	21:44:14
1	Ti 334.940†	967.5	16.2	0.0175	µg/L	0.0175	ppb	21:43:54
1	Tl 190.801†	-127.3	-10.8	-1.3305	µg/L	-1.3305	ppb	21:44:14
1	U 409.014†	-367.5	-98.1	-5.7438	µg/L	-5.7438	ppb	21:43:54
1	V 292.402†	375.1	-28.2	-0.1442	µg/L	-0.1442	ppb	21:43:54
1	Zn 213.857†	580.1	16.4	0.0915	µg/L	0.0915	ppb	21:44:14
2	Sc RADIAL	141870.3	141870.3	97.2	%			21:42:52
2	Al 396.153Radial†	-65.2	-3.9	-0.6977	µg/L	-0.6977	ppb	21:43:12
2	Ca 317.933Radial†	617.6	74.7	4.1593	µg/L	4.1593	ppb	21:43:12
2	Fe 238.204 Radial†	216.5	74.5	4.5946	µg/L	4.5946	ppb	21:43:12
2	K 766.490 Radial†	1775.2	281.2	102.95	µg/L	102.95	ppb	21:42:52
2	Mg 279.077 IEC†	182.1	-3.4	-1.2877	µg/L	-1.2877	ppb	21:43:12
2	Na 589.592 Radial†	1482.8	234.5	31.940	µg/L	31.940	ppb	21:42:52
2	Sr 421.552†	-167.3	-36.8	-0.0764	µg/L	-0.0764	ppb	21:42:52
2	Sc 361.383	1723490.8	1723490.8	100.31	%			21:44:16
2	Y 371.029	1031447.1	1031447.1	100.46	%			21:44:16
2	Ag 328.068†	4201.6	97.3	0.3501	µg/L	0.3501	ppb	21:44:18
2	As 188.979†	-15.3	5.1	1.5573	µg/L	1.5573	ppb	21:44:38
2	B 249.677†	3665.3	148.2	2.1841	µg/L	2.1841	ppb	21:44:18
2	Ba 233.527†	-146.0	-9.7	-0.0400	µg/L	-0.0400	ppb	21:44:38
2	Be 313.107†	-1050.7	17.2	0.0045	µg/L	0.0045	ppb	21:44:18
2	Cd 226.502†	-111.8	6.7	0.0414	µg/L	0.0414	ppb	21:44:38
2	Co 228.616†	-164.6	26.2	0.3234	µg/L	0.3234	ppb	21:44:38
2	Cr 267.716†	226.4	47.1	0.3695	µg/L	0.3695	ppb	21:44:38
2	Cu 324.752†	2823.9	-156.9	-0.6096	µg/L	-0.6096	ppb	21:44:18
2	Mn 257.610†	284.0	45.8	0.0568	µg/L	0.0568	ppb	21:44:38
2	Mo 202.031†	-36.4	-16.2	-0.4763	µg/L	-0.4763	ppb	21:44:38
2	Ni 231.604†	-100.6	-23.8	-0.2736	µg/L	-0.2736	ppb	21:44:38
2	P 214.914†	-35.6	-17.5	-3.7362	µg/L	-3.7362	ppb	21:44:38
2	Pb 220.353†	84.0	-2.6	-0.1459	µg/L	-0.1459	ppb	21:44:38

2	S 181.975 Axial†	89.5	-15.8	-11.745 µg/L	-11.745 ppb		21:44:38
2	Sb 206.836†	89.4	8.3	0.9755 µg/L	0.9755 ppb		21:44:38
2	Se 196.026†	9.9	-5.4	-1.96 µg/L	-1.96 ppb		21:44:38
2	SiO2†	1777.4	-3.4	-0.3192 µg/L	-0.3192 ppb		21:44:38
2	Si 251.611†	834.3	-4.8	-0.0658 µg/L	-0.0658 ppb		21:44:18
2	Sn 189.927†	1.7	2.8	0.1770 µg/L	0.1770 ppb		21:44:38
2	Ti 334.940†	895.6	-59.6	-0.0554 µg/L	-0.0554 ppb		21:44:18
2	Tl 190.801†	-122.5	-5.4	-0.6750 µg/L	-0.6750 ppb		21:44:38
2	U 409.014†	-282.1	-11.3	-0.7096 µg/L	-0.7096 ppb		21:44:18
2	V 292.402†	242.6	-162.0	-0.7943 µg/L	-0.7943 ppb		21:44:18
2	Zn 213.857†	573.6	7.4	0.0434 µg/L	0.0434 ppb		21:44:38
3	Sc RADIAL	144958.5	144958.5	99.3 %			21:43:14
3	Al 396.153Radial†	-37.5	25.5	4.7369 µg/L	4.7369 ppb		21:43:34
3	Ca 317.933Radial†	583.6	27.0	1.5021 µg/L	1.5021 ppb		21:43:34
3	Fe 238.204 Radial†	192.7	45.8	2.8253 µg/L	2.8253 ppb		21:43:34
3	K 766.490 Radial†	1497.6	-37.2	-13.616 µg/L	-13.616 ppb		21:43:14
3	Mg 279.077 IEC†	178.6	-10.9	-4.0718 µg/L	-4.0718 ppb		21:43:34
3	Na 589.592 Radial†	1440.0	158.8	21.708 µg/L	21.708 ppb		21:43:14
3	Sr 421.552†	-197.6	-63.6	-0.1322 µg/L	-0.1322 ppb		21:43:14
3	Sc 361.383	1740188.5	1740188.5	101.28 %			21:44:40
3	Y 371.029	1039891.9	1039891.9	101.29 %			21:44:40
3	Ag 328.068†	3928.5	-212.5	-0.7881 µg/L	-0.7881 ppb		21:44:42
3	As 188.979†	-8.6	11.9	3.6004 µg/L	3.6004 ppb		21:45:02
3	B 249.677†	3552.8	2.1	0.0294 µg/L	0.0294 ppb		21:44:42
3	Ba 233.527†	-133.9	3.6	0.0140 µg/L	0.0140 ppb		21:45:02
3	Be 313.107†	-962.7	114.2	0.0329 µg/L	0.0329 ppb		21:44:42
3	Cd 226.502†	-89.8	29.5	0.1840 µg/L	0.1840 ppb		21:45:02
3	Co 228.616†	-162.5	29.8	0.3679 µg/L	0.3679 ppb		21:45:02
3	Cr 267.716†	179.3	-1.5	-0.0165 µg/L	-0.0165 ppb		21:45:02
3	Cu 324.752†	2942.1	-67.2	-0.2559 µg/L	-0.2559 ppb		21:44:42
3	Mn 257.610†	335.1	93.6	0.1159 µg/L	0.1159 ppb		21:45:02
3	Mo 202.031†	-28.8	-8.4	-0.2468 µg/L	-0.2468 ppb		21:45:02
3	Ni 231.604†	-82.6	-5.1	-0.0583 µg/L	-0.0583 ppb		21:45:02
3	P 214.914†	-27.4	-9.1	-1.9410 µg/L	-1.9410 ppb		21:45:02
3	Pb 220.353†	64.5	-22.7	-1.2712 µg/L	-1.2712 ppb		21:45:02
3	S 181.975 Axial†	101.1	-5.2	-3.8697 µg/L	-3.8697 ppb		21:45:02
3	Sb 206.836†	85.4	3.5	0.4065 µg/L	0.4065 ppb		21:45:02
3	Se 196.026†	13.5	-2.0	-0.710 µg/L	-0.710 ppb		21:45:02
3	SiO2†	1812.3	14.0	1.3744 µg/L	1.3744 ppb		21:45:02
3	Si 251.611†	970.3	121.4	1.7924 µg/L	1.7924 ppb		21:44:42
3	Sn 189.927†	1.9	3.0	0.1856 µg/L	0.1856 ppb		21:45:02
3	Ti 334.940†	941.7	-22.7	-0.0233 µg/L	-0.0233 ppb		21:44:42
3	Tl 190.801†	-117.2	1.0	0.1129 µg/L	0.1129 ppb		21:45:02
3	U 409.014†	-171.3	100.7	5.8492 µg/L	5.8492 ppb		21:44:42
3	V 292.402†	265.0	-142.2	-0.6925 µg/L	-0.6925 ppb		21:44:42
3	Zn 213.857†	580.1	8.4	0.0472 µg/L	0.0472 ppb		21:45:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726594.5	100.49	%	0.718				0.71%
Sc RADIAL	143421.3	98.3	%	1.06				1.08%
Y 371.029	1032559.0	100.57	%	0.667				0.66%
Ag 328.068†	-32.7	-0.1280	µg/L	0.59056	-0.1280	ppb	0.59056	461.54%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.2	1.7231	µg/L	2.76540	1.7231	ppb	2.76540	160.49%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.5	2.5717	µg/L	1.02165	2.5717	ppb	1.02165	39.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	58.6	0.8625	µg/L	1.15748	0.8625	ppb	1.15748	134.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.5	-0.0186	µg/L	0.02870	-0.0186	ppb	0.02870	154.38%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	141.7	0.0385	µg/L	0.03721	0.0385	ppb	0.03721	96.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	44.4	2.4716	µg/L	1.46699	2.4716	ppb	1.46699	59.35%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	25.6	0.1591	µg/L	0.10748	0.1591	ppb	0.10748	67.54%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	30.9	0.3806	µg/L	0.06452	0.3806	ppb	0.06452	16.95%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.5      0.1132 µg/L       0.22191      0.1132 ppb        0.22191 195.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -48.6     -0.1883 µg/L       0.45884     -0.1883 ppb        0.45884 243.64%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       65.4      4.0316 µg/L       1.04544      4.0316 ppb        1.04544  25.93%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       119.2      43.647 µg/L       58.3112      43.647 ppb        58.3112 133.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -5.3     -1.9860 µg/L       1.83888     -1.9860 ppb        1.83888  92.59%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              77.1      0.0955 µg/L       0.03352      0.0955 ppb        0.03352  35.12%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -10.7     -0.3135 µg/L       0.14177     -0.3135 ppb        0.14177  45.22%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      194.8      26.570 µg/L        5.1349      26.570 ppb         5.1349  19.33%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -10.1     -0.1158 µg/L       0.13833     -0.1158 ppb        0.13833 119.49%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.2     -0.8857 µg/L       3.49964     -0.8857 ppb        3.49964 395.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.6     -0.3715 µg/L       0.81072     -0.3715 ppb        0.81072 218.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -13.9     -10.328 µg/L        5.8795     -10.328 ppb         5.8795  56.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.5      0.6419 µg/L       0.29695      0.6419 ppb        0.29695  46.26%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.3      -0.475 µg/L        1.6120      -0.475 ppb         1.6120 339.40%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     9.0      0.8862 µg/L       1.05021      0.8862 ppb        1.05021 118.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              71.9      1.0622 µg/L       0.99095      1.0622 ppb        0.99095  93.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.5      0.2794 µg/L       0.17000      0.2794 ppb        0.17000  60.84%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -91.2     -0.1896 µg/L       0.15021     -0.1896 ppb        0.15021  79.25%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -22.1     -0.0204 µg/L       0.03654     -0.0204 ppb        0.03654 179.40%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -5.1     -0.6309 µg/L       0.72270     -0.6309 ppb        0.72270 114.55%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -2.9     -0.2014 µg/L       5.81317     -0.2014 ppb        5.81317 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -110.8     -0.5437 µg/L       0.34967     -0.5437 ppb        0.34967  64.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              10.7      0.0607 µg/L       0.02675      0.0607 ppb        0.02675  44.07%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 68
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 21:55:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142583.3	142583.3	97.7	%			21:56:11
1	Al 396.153Radial†	26125.5	26801.9	4946.6	µg/L	4946.6	ppb	21:56:11
1	Ca 317.933Radial†	86256.4	87720.3	4886.4	µg/L	4886.4	ppb	21:56:11
1	Fe 238.204 Radial†	77373.7	79041.6	4871.6	µg/L	4871.6	ppb	21:56:11
1	K 766.490 Radial†	14581.9	13379.4	4894.4	µg/L	4894.4	ppb	21:56:11
1	Mg 279.077 IEC†	13220.1	13339.7	4977.8	µg/L	4977.8	ppb	21:56:11
1	Na 589.592 Radial†	70221.6	70578.9	9637.6	µg/L	9637.6	ppb	21:56:11
1	Sr 421.552†	231094.9	236654.1	491.95	µg/L	491.95	ppb	21:56:08
1	Sc 361.383	1721792.2	1721792.2	100.21	%			21:56:38
1	Y 371.029	1018476.9	1018476.9	99.200	%			21:56:38
1	Ag 328.068†	132257.1	127891.1	479.55	µg/L	479.55	ppb	21:56:38
1	As 188.979†	1611.5	1628.5	499.47	µg/L	499.47	ppb	21:56:58
1	B 249.677†	35480.1	31900.5	468.81	µg/L	468.81	ppb	21:56:38
1	Ba 233.527†	119040.9	118929.6	479.64	µg/L	479.64	ppb	21:56:38
1	Be 313.107†	1767471.5	1764866.8	480.67	µg/L	480.67	ppb	21:56:38
1	Cd 226.502†	76426.9	76386.5	476.83	µg/L	476.83	ppb	21:56:38
1	Co 228.616†	38708.1	38818.0	479.20	µg/L	479.20	ppb	21:56:38
1	Cr 267.716†	61091.8	60786.4	475.95	µg/L	475.95	ppb	21:56:38
1	Cu 324.752†	125542.2	122309.4	476.81	µg/L	476.81	ppb	21:56:38
1	Mn 257.610†	389445.6	388399.8	480.36	µg/L	480.36	ppb	21:56:38
1	Mo 202.031†	16429.4	16415.4	482.87	µg/L	482.87	ppb	21:56:58
1	Ni 231.604†	41557.9	41548.1	478.40	µg/L	478.40	ppb	21:56:38
1	P 214.914†	11328.9	11323.4	2413.6	µg/L	2413.6	ppb	21:56:58
1	Pb 220.353†	8812.2	8707.5	487.61	µg/L	487.61	ppb	21:56:58
1	S 181.975 Axial†	1392.1	1284.2	957.66	µg/L	957.66	ppb	21:56:58
1	Sb 206.836†	4144.5	4055.1	483.24	µg/L	483.24	ppb	21:56:58
1	Se 196.026†	1364.7	1346.6	489	µg/L	489	ppb	21:56:58
1	SiO2†	55188.2	53298.2	5188.7	µg/L	5188.7	ppb	21:56:38
1	Si 251.611†	166961.4	165778.2	2434.4	µg/L	2434.4	ppb	21:56:38
1	Sn 189.927†	7776.6	7761.6	485.47	µg/L	485.47	ppb	21:56:58
1	Ti 334.940†	514606.5	512585.6	478.27	µg/L	478.27	ppb	21:56:38
1	Tl 190.801†	3826.9	3935.6	490.75	µg/L	490.75	ppb	21:56:58
1	U 409.014†	7289.4	7544.1	470.15	µg/L	470.15	ppb	21:56:38
1	V 292.402†	98070.8	97463.4	481.83	µg/L	481.83	ppb	21:56:38
1	Zn 213.857†	85920.7	85177.9	474.72	µg/L	474.72	ppb	21:56:38
2	Sc RADIAL	143543.2	143543.2	98.4	%			21:56:15
2	Al 396.153Radial†	26329.4	26830.4	4951.8	µg/L	4951.8	ppb	21:56:15
2	Ca 317.933Radial†	87214.1	88103.5	4907.7	µg/L	4907.7	ppb	21:56:15
2	Fe 238.204 Radial†	78175.0	79326.6	4889.2	µg/L	4889.2	ppb	21:56:15
2	K 766.490 Radial†	14759.5	13460.1	4923.9	µg/L	4923.9	ppb	21:56:15
2	Mg 279.077 IEC†	13306.4	13336.9	4976.8	µg/L	4976.8	ppb	21:56:15
2	Na 589.592 Radial†	70918.2	70806.4	9668.6	µg/L	9668.6	ppb	21:56:15
2	Sr 421.552†	232565.2	236567.1	491.77	µg/L	491.77	ppb	21:56:13
2	Sc 361.383	1725354.7	1725354.7	100.42	%			21:57:01
2	Y 371.029	1021259.3	1021259.3	99.471	%			21:57:01
2	Ag 328.068†	133310.0	128667.2	482.44	µg/L	482.44	ppb	21:57:01
2	As 188.979†	1621.3	1635.0	501.47	µg/L	501.47	ppb	21:57:21
2	B 249.677†	36007.3	32352.4	475.47	µg/L	475.47	ppb	21:57:01
2	Ba 233.527†	119720.2	119360.8	481.38	µg/L	481.38	ppb	21:57:01
2	Be 313.107†	1782951.5	1776640.9	483.88	µg/L	483.88	ppb	21:57:01
2	Cd 226.502†	77092.6	76891.9	479.99	µg/L	479.99	ppb	21:57:01
2	Co 228.616†	39093.6	39122.2	482.96	µg/L	482.96	ppb	21:57:01
2	Cr 267.716†	61575.2	61141.9	478.73	µg/L	478.73	ppb	21:57:01
2	Cu 324.752†	126592.7	123096.8	479.87	µg/L	479.87	ppb	21:57:01
2	Mn 257.610†	393017.2	391154.2	483.76	µg/L	483.76	ppb	21:57:01
2	Mo 202.031†	16523.6	16475.3	484.63	µg/L	484.63	ppb	21:57:21
2	Ni 231.604†	41848.9	41752.3	480.75	µg/L	480.75	ppb	21:57:01
2	P 214.914†	11396.2	11367.0	2422.9	µg/L	2422.9	ppb	21:57:21
2	Pb 220.353†	8867.2	8744.1	489.65	µg/L	489.65	ppb	21:57:21

2	S 181.975 Axial†	1408.6	1297.7	967.74 µg/L	967.74 ppb	21:57:21
2	Sb 206.836†	4160.8	4062.8	484.14 µg/L	484.14 ppb	21:57:21
2	Se 196.026†	1350.1	1329.2	483 µg/L	483 ppb	21:57:21
2	SiO2†	55415.3	53410.7	5199.6 µg/L	5199.6 ppb	21:57:01
2	Si 251.611†	167453.3	165924.1	2436.5 µg/L	2436.5 ppb	21:57:01
2	Sn 189.927†	7843.1	7811.7	488.60 µg/L	488.60 ppb	21:57:21
2	Ti 334.940†	518046.3	514950.8	480.48 µg/L	480.48 ppb	21:57:01
2	Tl 190.801†	3874.0	3974.7	495.58 µg/L	495.58 ppb	21:57:21
2	U 409.014†	7327.0	7566.6	471.56 µg/L	471.56 ppb	21:57:01
2	V 292.402†	98567.7	97756.1	483.29 µg/L	483.29 ppb	21:57:01
2	Zn 213.857†	86827.5	85903.9	478.78 µg/L	478.78 ppb	21:57:01
3	Sc RADIAL	146360.8	146360.8	100 %		21:56:19
3	Al 396.153Radial†	26877.7	26861.7	4957.8 µg/L	4957.8 ppb	21:56:19
3	Ca 317.933Radial†	89496.1	88672.0	4939.4 µg/L	4939.4 ppb	21:56:19
3	Fe 238.204 Radial†	80024.7	79640.9	4908.6 µg/L	4908.6 ppb	21:56:19
3	K 766.490 Radial†	15000.5	13411.5	4906.1 µg/L	4906.1 ppb	21:56:19
3	Mg 279.077 IEC†	13753.4	13522.1	5045.7 µg/L	5045.7 ppb	21:56:19
3	Na 589.592 Radial†	72413.6	70909.6	9682.7 µg/L	9682.7 ppb	21:56:19
3	Sr 421.552†	230747.3	230203.0	478.54 µg/L	478.54 ppb	21:56:17
3	Sc 361.383	1718966.4	1718966.4	100.04 %		21:57:24
3	Y 371.029	1017028.5	1017028.5	99.059 %		21:57:24
3	Ag 328.068†	132653.9	128504.7	481.80 µg/L	481.80 ppb	21:57:24
3	As 188.979†	1590.5	1610.2	493.94 µg/L	493.94 ppb	21:57:44
3	B 249.677†	35824.6	32303.1	474.74 µg/L	474.74 ppb	21:57:24
3	Ba 233.527†	119070.9	119154.9	480.55 µg/L	480.55 ppb	21:57:24
3	Be 313.107†	1772306.3	1772598.9	482.78 µg/L	482.78 ppb	21:57:24
3	Cd 226.502†	76616.2	76701.1	478.79 µg/L	478.79 ppb	21:57:24
3	Co 228.616†	38830.3	39003.7	481.49 µg/L	481.49 ppb	21:57:24
3	Cr 267.716†	61234.2	61029.0	477.86 µg/L	477.86 ppb	21:57:24
3	Cu 324.752†	125521.6	122494.7	477.53 µg/L	477.53 ppb	21:57:24
3	Mn 257.610†	389961.8	389554.7	481.78 µg/L	481.78 ppb	21:57:24
3	Mo 202.031†	16335.5	16348.5	480.91 µg/L	480.91 ppb	21:57:44
3	Ni 231.604†	41630.1	41688.5	480.01 µg/L	480.01 ppb	21:57:24
3	P 214.914†	11241.7	11254.8	2398.9 µg/L	2398.9 ppb	21:57:44
3	Pb 220.353†	8795.7	8705.5	487.50 µg/L	487.50 ppb	21:57:44
3	S 181.975 Axial†	1388.4	1282.7	956.57 µg/L	956.57 ppb	21:57:44
3	Sb 206.836†	4126.6	4043.9	481.85 µg/L	481.85 ppb	21:57:44
3	Se 196.026†	1345.6	1329.7	483 µg/L	483 ppb	21:57:44
3	SiO2†	54983.2	53183.9	5177.6 µg/L	5177.6 ppb	21:57:24
3	Si 251.611†	166469.4	165560.3	2431.2 µg/L	2431.2 ppb	21:57:24
3	Sn 189.927†	7725.1	7722.8	483.05 µg/L	483.05 ppb	21:57:44
3	Ti 334.940†	514909.1	513732.3	479.34 µg/L	479.34 ppb	21:57:24
3	Tl 190.801†	3822.2	3937.2	490.94 µg/L	490.94 ppb	21:57:44
3	U 409.014†	7179.0	7445.8	464.34 µg/L	464.34 ppb	21:57:24
3	V 292.402†	97706.1	97259.8	480.82 µg/L	480.82 ppb	21:57:24
3	Zn 213.857†	86111.6	85509.7	476.57 µg/L	476.57 ppb	21:57:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1722037.8	100.22	%	0.186				0.19%
Sc RADIAL	144162.4	98.8	%	1.35				1.36%
Y 371.029	1018921.6	99.243	%	0.2094				0.21%
Ag 328.068†	128354.3	481.26	µg/L	1.519	481.26	ppb	1.519	0.32%
QC value within limits for Ag 328.068 Recovery = 96.25%								
Al 396.153Radial†	26831.3	4952.1	µg/L	5.59	4952.1	ppb	5.59	0.11%
QC value within limits for Al 396.153Radial Recovery = 99.04%								
As 188.979†	1624.5	498.29	µg/L	3.898	498.29	ppb	3.898	0.78%
QC value within limits for As 188.979 Recovery = 99.66%								
B 249.677†	32185.3	473.01	µg/L	3.650	473.01	ppb	3.650	0.77%
QC value within limits for B 249.677 Recovery = 94.60%								
Ba 233.527†	119148.4	480.52	µg/L	0.870	480.52	ppb	0.870	0.18%
QC value within limits for Ba 233.527 Recovery = 96.10%								
Be 313.107†	1771368.9	482.44	µg/L	1.629	482.44	ppb	1.629	0.34%
QC value within limits for Be 313.107 Recovery = 96.49%								
Ca 317.933Radial†	88165.3	4911.2	µg/L	26.67	4911.2	ppb	26.67	0.54%
QC value within limits for Ca 317.933Radial Recovery = 98.22%								
Cd 226.502†	76659.8	478.54	µg/L	1.594	478.54	ppb	1.594	0.33%
QC value within limits for Cd 226.502 Recovery = 95.71%								
Co 228.616†	38981.3	481.22	µg/L	1.892	481.22	ppb	1.892	0.39%

```
   QC value within limits for Co 228.616  Recovery = 96.24%
Cr 267.716†            60985.7      477.51 µg/L         1.423      477.51 ppb          1.423   0.30%
   QC value within limits for Cr 267.716  Recovery = 95.50%
Cu 324.752†           122633.6      478.07 µg/L         1.603      478.07 ppb          1.603   0.34%
   QC value within limits for Cu 324.752  Recovery = 95.61%
Fe 238.204 Radial†     79336.4      4889.8 µg/L         18.48      4889.8 ppb          18.48   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.80%
K 766.490 Radial†      13417.0      4908.2 µg/L         14.87      4908.2 ppb          14.87   0.30%
   QC value within limits for K 766.490 Radial  Recovery = 98.16%
Mg 279.077 IEC†        13399.6      5000.1 µg/L         39.49      5000.1 ppb          39.49   0.79%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.00%
Mn 257.610†           389702.9      481.97 µg/L         1.712      481.97 ppb          1.712   0.36%
   QC value within limits for Mn 257.610  Recovery = 96.39%
Mo 202.031†            16413.1      482.80 µg/L         1.864      482.80 ppb          1.864   0.39%
   QC value within limits for Mo 202.031  Recovery = 96.56%
Na 589.592 Radial†     70765.0      9663.0 µg/L         23.10      9663.0 ppb          23.10   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 96.63%
Ni 231.604†            41663.0      479.72 µg/L         1.203      479.72 ppb          1.203   0.25%
   QC value within limits for Ni 231.604  Recovery = 95.94%
P 214.914†             11315.0      2411.8 µg/L         12.10      2411.8 ppb          12.10   0.50%
   QC value within limits for P 214.914  Recovery = 96.47%
Pb 220.353†             8719.0      488.25 µg/L         1.215      488.25 ppb          1.215   0.25%
   QC value within limits for Pb 220.353  Recovery = 97.65%
S 181.975 Axial†        1288.2      960.66 µg/L         6.158      960.66 ppb          6.158   0.64%
   QC value within limits for S 181.975 Axial  Recovery = 96.07%
Sb 206.836†             4053.9      483.08 µg/L         1.155      483.08 ppb          1.155   0.24%
   QC value within limits for Sb 206.836  Recovery = 96.62%
Se 196.026†             1335.2         485 µg/L           3.6         485 ppb            3.6   0.74%
   QC value within limits for Se 196.026  Recovery = 96.96%
SiO2†                  53297.6      5188.7 µg/L         10.99      5188.7 ppb          10.99   0.21%
   QC value within limits for SiO2  Recovery = 97.03%
Si 251.611†           165754.2      2434.1 µg/L          2.66      2434.1 ppb           2.66   0.11%
   QC value within limits for Si 251.611  Recovery = 97.36%
Sn 189.927†             7765.4      485.71 µg/L         2.782      485.71 ppb          2.782   0.57%
   QC value within limits for Sn 189.927  Recovery = 97.14%
Sr 421.552†           234474.7      487.42 µg/L         7.692      487.42 ppb          7.692   1.58%
   QC value within limits for Sr 421.552  Recovery = 97.48%
Ti 334.940†           513756.2      479.37 µg/L         1.105      479.37 ppb          1.105   0.23%
   QC value within limits for Ti 334.940  Recovery = 95.87%
Tl 190.801†             3949.2      492.42 µg/L         2.733      492.42 ppb          2.733   0.56%
   QC value within limits for Tl 190.801  Recovery = 98.48%
U 409.014†              7518.8      468.68 µg/L         3.825      468.68 ppb          3.825   0.82%
   QC value within limits for U 409.014  Recovery = 93.74%
V 292.402†             97493.1      481.98 µg/L         1.241      481.98 ppb          1.241   0.26%
   QC value within limits for V 292.402  Recovery = 96.40%
Zn 213.857†            85530.5      476.69 µg/L         2.032      476.69 ppb          2.032   0.43%
   QC value within limits for Zn 213.857  Recovery = 95.34%
All analyte(s) passed QC.
```

Sequence No.: 69
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 21:57:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143488.6	143488.6	98.3	%			21:58:23
1	Al 396.153Radial†	-31.2	31.5	5.8461	µg/L	5.8461	ppb	21:58:43
1	Ca 317.933Radial†	626.0	76.1	4.2401	µg/L	4.2401	ppb	21:58:43
1	Fe 238.204 Radial†	255.1	111.3	6.8602	µg/L	6.8602	ppb	21:58:43
1	K 766.490 Radial†	1658.0	141.4	51.764	µg/L	51.764	ppb	21:58:23
1	Mg 279.077 IEC†	183.2	-4.4	-1.6504	µg/L	-1.6504	ppb	21:58:43
1	Na 589.592 Radial†	1420.1	153.5	20.919	µg/L	20.919	ppb	21:58:23
1	Sr 421.552†	-123.6	9.6	0.0200	µg/L	0.0200	ppb	21:58:23
1	Sc 361.383	1741228.6	1741228.6	101.34	%			21:59:30
1	Y 371.029	1041005.9	1041005.9	101.39	%			21:59:30
1	Ag 328.068†	3951.0	-192.6	-0.7198	µg/L	-0.7198	ppb	21:59:33
1	As 188.979†	-17.3	3.3	0.9894	µg/L	0.9894	ppb	21:59:53
1	B 249.677†	3598.6	45.2	0.6651	µg/L	0.6651	ppb	21:59:33
1	Ba 233.527†	-97.3	39.9	0.1606	µg/L	0.1606	ppb	21:59:53
1	Be 313.107†	-658.8	414.6	0.1114	µg/L	0.1114	ppb	21:59:33
1	Cd 226.502†	-98.4	21.1	0.1311	µg/L	0.1311	ppb	21:59:53
1	Co 228.616†	-161.8	30.7	0.3780	µg/L	0.3780	ppb	21:59:53
1	Cr 267.716†	182.4	1.5	0.0155	µg/L	0.0155	ppb	21:59:53
1	Cu 324.752†	3144.1	130.4	0.5038	µg/L	0.5038	ppb	21:59:33
1	Mn 257.610†	336.5	94.8	0.1174	µg/L	0.1174	ppb	21:59:53
1	Mo 202.031†	-24.2	-3.8	-0.1104	µg/L	-0.1104	ppb	21:59:53
1	Ni 231.604†	-79.3	-1.7	-0.0200	µg/L	-0.0200	ppb	21:59:53
1	P 214.914†	-16.3	1.8	0.3858	µg/L	0.3858	ppb	21:59:53
1	Pb 220.353†	84.1	-3.4	-0.1849	µg/L	-0.1849	ppb	21:59:53
1	S 181.975 Axial†	105.7	-0.8	-0.5879	µg/L	-0.5879	ppb	21:59:53
1	Sb 206.836†	91.1	9.1	1.0753	µg/L	1.0753	ppb	21:59:53
1	Se 196.026†	16.7	1.2	0.419	µg/L	0.419	ppb	21:59:53
1	SiO2†	1811.1	11.8	1.1639	µg/L	1.1639	ppb	21:59:53
1	Si 251.611†	939.6	90.6	1.3388	µg/L	1.3388	ppb	21:59:33
1	Sn 189.927†	-4.7	-3.6	-0.2217	µg/L	-0.2217	ppb	21:59:53
1	Ti 334.940†	1178.8	210.6	0.1990	µg/L	0.1990	ppb	21:59:33
1	Tl 190.801†	-99.6	18.4	2.2591	µg/L	2.2591	ppb	21:59:53
1	U 409.014†	-357.9	-83.3	-4.8719	µg/L	-4.8719	ppb	21:59:33
1	V 292.402†	400.4	-8.7	-0.0477	µg/L	-0.0477	ppb	21:59:33
1	Zn 213.857†	586.5	14.3	0.0794	µg/L	0.0794	ppb	21:59:53
2	Sc RADIAL	142543.2	142543.2	97.7	%			21:58:45
2	Al 396.153Radial†	-54.4	7.5	1.4064	µg/L	1.4064	ppb	21:59:05
2	Ca 317.933Radial†	611.6	65.6	3.6535	µg/L	3.6535	ppb	21:59:05
2	Fe 238.204 Radial†	253.5	111.4	6.8653	µg/L	6.8653	ppb	21:59:05
2	K 766.490 Radial†	1678.4	173.5	63.518	µg/L	63.518	ppb	21:58:45
2	Mg 279.077 IEC†	176.5	-10.0	-3.7286	µg/L	-3.7286	ppb	21:59:05
2	Na 589.592 Radial†	1442.2	185.7	25.313	µg/L	25.313	ppb	21:58:45
2	Sr 421.552†	-245.0	-115.6	-0.2403	µg/L	-0.2403	ppb	21:58:45
2	Sc 361.383	1719454.2	1719454.2	100.07	%			21:59:55
2	Y 371.029	1027865.1	1027865.1	100.11	%			21:59:55
2	Ag 328.068†	4168.7	74.3	0.2835	µg/L	0.2835	ppb	21:59:57
2	As 188.979†	-13.3	7.1	2.1498	µg/L	2.1498	ppb	22:00:17
2	B 249.677†	3486.4	-22.0	-0.3249	µg/L	-0.3249	ppb	21:59:57
2	Ba 233.527†	-114.3	21.7	0.0871	µg/L	0.0871	ppb	22:00:17
2	Be 313.107†	-912.6	152.8	0.0438	µg/L	0.0438	ppb	21:59:57
2	Cd 226.502†	-107.0	11.3	0.0695	µg/L	0.0695	ppb	22:00:17
2	Co 228.616†	-180.3	10.1	0.1246	µg/L	0.1246	ppb	22:00:17
2	Cr 267.716†	201.1	22.4	0.1701	µg/L	0.1701	ppb	22:00:17
2	Cu 324.752†	3016.0	41.6	0.1688	µg/L	0.1688	ppb	21:59:57
2	Mn 257.610†	311.1	73.6	0.0912	µg/L	0.0912	ppb	22:00:17
2	Mo 202.031†	-34.1	-14.0	-0.4113	µg/L	-0.4113	ppb	22:00:17
2	Ni 231.604†	-98.0	-21.4	-0.2463	µg/L	-0.2463	ppb	22:00:17
2	P 214.914†	-36.4	-18.4	-3.9363	µg/L	-3.9363	ppb	22:00:17
2	Pb 220.353†	83.9	-2.5	-0.1482	µg/L	-0.1482	ppb	22:00:17

2	S 181.975 Axial†	99.2	-5.9	-4.3840 µg/L	-4.3840 ppb	22:00:17
2	Sb 206.836†	64.9	-16.0	-1.9121 µg/L	-1.9121 ppb	22:00:17
2	Se 196.026†	15.3	0.0	0.021 µg/L	0.021 ppb	22:00:17
2	SiO2†	1788.3	11.6	1.1476 µg/L	1.1476 ppb	22:00:17
2	Si 251.611†	930.7	93.5	1.3835 µg/L	1.3835 ppb	21:59:57
2	Sn 189.927†	-0.8	0.3	0.0189 µg/L	0.0189 ppb	22:00:17
2	Ti 334.940†	1073.2	119.9	0.1093 µg/L	0.1093 ppb	21:59:57
2	Tl 190.801†	-128.3	-11.5	-1.4187 µg/L	-1.4187 ppb	22:00:17
2	U 409.014†	-143.3	126.7	7.4052 µg/L	7.4052 ppb	21:59:57
2	V 292.402†	396.1	-8.0	-0.0385 µg/L	-0.0385 ppb	21:59:57
2	Zn 213.857†	572.5	7.7	0.0442 µg/L	0.0442 ppb	22:00:17
3	Sc RADIAL	144454.1	144454.1	99.0 %		21:59:07
3	Al 396.153Radial†	-50.8	11.9	2.2219 µg/L	2.2219 ppb	21:59:27
3	Ca 317.933Radial†	619.6	65.3	3.6394 µg/L	3.6394 ppb	21:59:27
3	Fe 238.204 Radial†	231.3	85.6	5.2750 µg/L	5.2750 ppb	21:59:27
3	K 766.490 Radial†	1512.1	-17.2	-6.3033 µg/L	-6.3033 ppb	21:59:07
3	Mg 279.077 IEC†	192.0	3.2	1.1976 µg/L	1.1976 ppb	21:59:27
3	Na 589.592 Radial†	1347.2	70.1	9.5868 µg/L	9.5868 ppb	21:59:07
3	Sr 421.552†	-129.4	4.5	0.0094 µg/L	0.0094 ppb	21:59:07
3	Sc 361.383	1726759.9	1726759.9	100.50 %		22:00:19
3	Y 371.029	1032580.6	1032580.6	100.57 %		22:00:19
3	Ag 328.068†	4194.8	82.6	0.3040 µg/L	0.3040 ppb	22:00:21
3	As 188.979†	-19.7	0.7	0.2129 µg/L	0.2129 ppb	22:00:41
3	B 249.677†	3651.6	127.6	1.8815 µg/L	1.8815 ppb	22:00:21
3	Ba 233.527†	-116.8	19.7	0.0794 µg/L	0.0794 ppb	22:00:41
3	Be 313.107†	-870.8	198.2	0.0524 µg/L	0.0524 ppb	22:00:21
3	Cd 226.502†	-85.6	33.0	0.2057 µg/L	0.2057 ppb	22:00:41
3	Co 228.616†	-171.1	20.1	0.2475 µg/L	0.2475 ppb	22:00:41
3	Cr 267.716†	156.8	-22.6	-0.1724 µg/L	-0.1724 ppb	22:00:41
3	Cu 324.752†	2930.7	-56.0	-0.2209 µg/L	-0.2209 ppb	22:00:21
3	Mn 257.610†	308.3	69.5	0.0859 µg/L	0.0859 ppb	22:00:41
3	Mo 202.031†	-28.4	-8.1	-0.2389 µg/L	-0.2389 ppb	22:00:41
3	Ni 231.604†	-67.6	9.2	0.1060 µg/L	0.1060 ppb	22:00:41
3	P 214.914†	-14.4	3.6	0.7813 µg/L	0.7813 ppb	22:00:41
3	Pb 220.353†	81.9	-4.8	-0.2670 µg/L	-0.2670 ppb	22:00:41
3	S 181.975 Axial†	100.0	-5.5	-4.1081 µg/L	-4.1081 ppb	22:00:41
3	Sb 206.836†	58.7	-22.4	-2.6589 µg/L	-2.6589 ppb	22:00:41
3	Se 196.026†	9.4	-5.9	-2.14 µg/L	-2.14 ppb	22:00:41
3	SiO2†	1781.8	-2.4	-0.2353 µg/L	-0.2353 ppb	22:00:41
3	Si 251.611†	974.4	133.0	1.9607 µg/L	1.9607 ppb	22:00:21
3	Sn 189.927†	6.8	7.8	0.4886 µg/L	0.4886 ppb	22:00:41
3	Ti 334.940†	1012.5	55.0	0.0535 µg/L	0.0535 ppb	22:00:21
3	Tl 190.801†	-115.8	1.4	0.1780 µg/L	0.1780 ppb	22:00:41
3	U 409.014†	-360.3	-88.6	-5.1619 µg/L	-5.1619 ppb	22:00:21
3	V 292.402†	483.1	77.0	0.3681 µg/L	0.3681 ppb	22:00:21
3	Zn 213.857†	572.8	5.5	0.0300 µg/L	0.0300 ppb	22:00:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729147.6	100.64	%	0.645				0.64%
Sc RADIAL	143495.3	98.3	%	0.65				0.67%
Y 371.029	1033817.2	100.69	%	0.648				0.64%
Ag 328.068†	-11.9	-0.0441	µg/L	0.58526	-0.0441	ppb	0.58526	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	17.0	3.1581	µg/L	2.36331	3.1581	ppb	2.36331	74.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.7	1.1173	µg/L	0.97478	1.1173	ppb	0.97478	87.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.3	0.7405	µg/L	1.10513	0.7405	ppb	1.10513	149.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	27.1	0.1090	µg/L	0.04480	0.1090	ppb	0.04480	41.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	255.2	0.0692	µg/L	0.03680	0.0692	ppb	0.03680	53.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	69.0	3.8443	µg/L	0.34280	3.8443	ppb	0.34280	8.92%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	21.8	0.1354	µg/L	0.06821	0.1354	ppb	0.06821	50.36%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.3	0.2500	µg/L	0.12669	0.2500	ppb	0.12669	50.67%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.4      0.0044 µg/L       0.17156      0.0044 ppb        0.17156 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               38.7      0.1505 µg/L       0.36269      0.1505 ppb        0.36269 240.92%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       102.8      6.3335 µg/L       0.91666      6.3335 ppb        0.91666  14.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         99.2      36.326 µg/L       37.3832      36.326 ppb        37.3832 102.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -3.7     -1.3938 µg/L       2.47310     -1.3938 ppb        2.47310 177.43%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               79.3      0.0982 µg/L       0.01685      0.0982 ppb        0.01685  17.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -8.6     -0.2535 µg/L       0.15099     -0.2535 ppb        0.15099  59.56%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       136.4      18.606 µg/L        8.1142      18.606 ppb         8.1142  43.61%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -4.6     -0.0534 µg/L       0.17854     -0.0534 ppb        0.17854 334.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.3     -0.9231 µg/L       2.61701     -0.9231 ppb        2.61701 283.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -3.6     -0.2000 µg/L       0.06080     -0.2000 ppb        0.06080  30.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.1     -3.0267 µg/L       2.11654     -3.0267 ppb        2.11654  69.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -9.8     -1.1652 µg/L       1.97594     -1.1652 ppb        1.97594 169.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -1.6      -0.566 µg/L        1.3761      -0.566 ppb         1.3761 243.25%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      7.0      0.6921 µg/L       0.80317      0.6921 ppb        0.80317 116.05%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              105.7      1.5610 µg/L       0.34690      1.5610 ppb        0.34690  22.22%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.5      0.0953 µg/L       0.36125      0.0953 ppb        0.36125 379.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -33.8     -0.0703 µg/L       0.14733     -0.0703 ppb        0.14733 209.53%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              128.5      0.1206 µg/L       0.07341      0.1206 ppb        0.07341  60.86%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.8      0.3394 µg/L       1.84422      0.3394 ppb        1.84422 543.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -15.1     -0.8762 µg/L       7.17337     -0.8762 ppb        7.17337 818.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                20.1      0.0940 µg/L       0.23744      0.0940 ppb        0.23744 252.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                9.2      0.0512 µg/L       0.02545      0.0512 ppb        0.02545  49.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 70
Sample ID: 1202068035|963989|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 206
Date Collected: 3/31/2010 22:00:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068035|963989|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138897.7	138897.7	95.2	%			22:01:22
1	Al 396.153Radial†	-36.6	24.7	4.6021	µg/L	4.6021	ppb	22:01:24
1	Ca 317.933Radial†	853.2	335.8	18.707	µg/L	18.707	ppb	22:01:24
1	Fe 238.204 Radial†	1331.8	1251.1	77.111	µg/L	77.111	ppb	22:01:24
1	K 766.490 Radial†	1702.6	244.0	89.332	µg/L	89.332	ppb	22:01:22
1	Mg 279.077 IEC†	183.2	1.7	0.5658	µg/L	0.5658	ppb	22:01:24
1	Na 589.592 Radial†	1708.7	504.4	68.830	µg/L	68.830	ppb	22:01:22
1	Sr 421.552†	-47.1	85.8	0.1782	µg/L	0.1782	ppb	22:01:24
1	Sc 361.383	1686188.9	1686188.9	98.136	%			22:01:49
1	Y 371.029	1004287.7	1004287.7	97.818	%			22:01:49
1	Ag 328.068†	3850.1	-168.1	-0.6325	µg/L	-0.6325	ppb	22:01:52
1	As 188.979†	-20.2	-0.2	-0.0259	µg/L	-0.0259	ppb	22:02:12
1	B 249.677†	3772.1	337.8	4.9812	µg/L	4.9812	ppb	22:01:52
1	Ba 233.527†	-28.5	106.8	0.4288	µg/L	0.4288	ppb	22:02:12
1	Be 313.107†	-1072.5	-28.2	-0.0083	µg/L	-0.0083	ppb	22:01:52
1	Cd 226.502†	-130.6	-14.9	-0.1007	µg/L	-0.1007	ppb	22:02:12
1	Co 228.616†	-162.7	24.5	0.2994	µg/L	0.2994	ppb	22:02:12
1	Cr 267.716†	450.4	280.4	2.1996	µg/L	2.1996	ppb	22:02:12
1	Cu 324.752†	2889.2	-28.1	-0.0996	µg/L	-0.0996	ppb	22:01:52
1	Mn 257.610†	1483.5	1274.4	1.5766	µg/L	1.5766	ppb	22:02:12
1	Mo 202.031†	-34.9	-15.5	-0.4516	µg/L	-0.4516	ppb	22:02:12
1	Ni 231.604†	17.0	93.9	1.0807	µg/L	1.0807	ppb	22:02:12
1	P 214.914†	-13.8	3.9	0.8072	µg/L	0.8072	ppb	22:02:12
1	Pb 220.353†	69.2	-15.9	-0.8901	µg/L	-0.8901	ppb	22:02:12
1	S 181.975 Axial†	117.0	14.2	10.545	µg/L	10.545	ppb	22:02:12
1	Sb 206.836†	82.6	3.3	0.3597	µg/L	0.3597	ppb	22:02:12
1	Se 196.026†	19.2	4.3	1.58	µg/L	1.58	ppb	22:02:12
1	SiO2†	2237.5	504.6	49.296	µg/L	49.296	ppb	22:01:52
1	Si 251.611†	2790.2	2006.6	29.570	µg/L	29.570	ppb	22:01:52
1	Sn 189.927†	44.9	46.9	2.9219	µg/L	2.9219	ppb	22:02:12
1	Ti 334.940†	1141.9	211.1	0.1977	µg/L	0.1977	ppb	22:01:52
1	Tl 190.801†	-115.4	-0.9	-0.1150	µg/L	-0.1150	ppb	22:02:12
1	U 409.014†	-297.6	-33.4	-1.9924	µg/L	-1.9924	ppb	22:01:52
1	V 292.402†	291.1	-107.2	-0.5277	µg/L	-0.5277	ppb	22:01:52
1	Zn 213.857†	958.6	412.4	2.3017	µg/L	2.3017	ppb	22:02:12
2	Sc RADIAL	142447.9	142447.9	97.6	%			22:01:26
2	Al 396.153Radial†	-55.7	6.1	1.1632	µg/L	1.1632	ppb	22:01:28
2	Ca 317.933Radial†	767.6	225.8	12.579	µg/L	12.579	ppb	22:01:28
2	Fe 238.204 Radial†	1378.5	1264.1	77.913	µg/L	77.913	ppb	22:01:28
2	K 766.490 Radial†	1674.2	170.3	62.341	µg/L	62.341	ppb	22:01:26
2	Mg 279.077 IEC†	124.5	-63.2	-23.630	µg/L	-23.630	ppb	22:01:28
2	Na 589.592 Radial†	1682.5	432.8	59.072	µg/L	59.072	ppb	22:01:26
2	Sr 421.552†	-28.5	106.1	0.2204	µg/L	0.2204	ppb	22:01:28
2	Sc 361.383	1692563.5	1692563.5	98.507	%			22:02:14
2	Y 371.029	1007943.4	1007943.4	98.174	%			22:02:14
2	Ag 328.068†	4152.8	124.3	0.4580	µg/L	0.4580	ppb	22:02:16
2	As 188.979†	-19.2	0.8	0.2830	µg/L	0.2830	ppb	22:02:36
2	B 249.677†	3646.9	196.3	2.8941	µg/L	2.8941	ppb	22:02:16
2	Ba 233.527†	-34.0	101.3	0.4074	µg/L	0.4074	ppb	22:02:36
2	Be 313.107†	-942.1	108.3	0.0280	µg/L	0.0280	ppb	22:02:16
2	Cd 226.502†	-106.6	10.0	0.0546	µg/L	0.0546	ppb	22:02:36
2	Co 228.616†	-173.6	14.1	0.1702	µg/L	0.1702	ppb	22:02:36
2	Cr 267.716†	440.2	268.3	2.1076	µg/L	2.1076	ppb	22:02:36
2	Cu 324.752†	2975.7	48.6	0.1956	µg/L	0.1956	ppb	22:02:16
2	Mn 257.610†	1488.3	1273.6	1.5765	µg/L	1.5765	ppb	22:02:36
2	Mo 202.031†	-42.4	-23.0	-0.6735	µg/L	-0.6735	ppb	22:02:36
2	Ni 231.604†	16.4	93.2	1.0727	µg/L	1.0727	ppb	22:02:36
2	P 214.914†	0.5	18.5	3.9383	µg/L	3.9383	ppb	22:02:36
2	Pb 220.353†	107.5	22.8	1.2704	µg/L	1.2704	ppb	22:02:36

2	S 181.975 Axial†	124.2	21.0	15.618 µg/L	15.618 ppb	22:02:36
2	Sb 206.836†	83.2	3.6	0.3956 µg/L	0.3956 ppb	22:02:36
2	Se 196.026†	18.3	3.3	1.21 µg/L	1.21 ppb	22:02:36
2	SiO2†	2356.7	617.0	60.277 µg/L	60.277 ppb	22:02:16
2	Si 251.611†	2548.0	1750.0	25.787 µg/L	25.787 ppb	22:02:16
2	Sn 189.927†	52.0	53.9	3.3613 µg/L	3.3613 ppb	22:02:36
2	Ti 334.940†	1072.2	135.9	0.1305 µg/L	0.1305 ppb	22:02:16
2	Tl 190.801†	-117.8	-2.9	-0.3545 µg/L	-0.3545 ppb	22:02:36
2	U 409.014†	-348.4	-83.8	-4.8871 µg/L	-4.8871 ppb	22:02:16
2	V 292.402†	479.3	82.8	0.3943 µg/L	0.3943 ppb	22:02:16
2	Zn 213.857†	934.2	383.9	2.1413 µg/L	2.1413 ppb	22:02:36
3	Sc RADIAL	139986.3	139986.3	95.9 %		22:01:30
3	Al 396.153Radial†	-123.4	-65.4	-12.105 µg/L	-12.105 ppb	22:01:32
3	Ca 317.933Radial†	898.4	376.0	20.943 µg/L	20.943 ppb	22:01:32
3	Fe 238.204 Radial†	1397.2	1308.4	80.640 µg/L	80.640 ppb	22:01:32
3	K 766.490 Radial†	1690.0	216.9	79.414 µg/L	79.414 ppb	22:01:30
3	Mg 279.077 IEC†	174.6	-8.7	-3.3258 µg/L	-3.3258 ppb	22:01:32
3	Na 589.592 Radial†	1585.6	362.1	49.398 µg/L	49.398 ppb	22:01:30
3	Sr 421.552†	10.9	146.6	0.3047 µg/L	0.3047 ppb	22:01:32
3	Sc 361.383	1691256.6	1691256.6	98.431 %		22:02:38
3	Y 371.029	1007243.0	1007243.0	98.106 %		22:02:38
3	Ag 328.068†	4096.0	69.9	0.2484 µg/L	0.2484 ppb	22:02:40
3	As 188.979†	-13.8	6.3	1.9409 µg/L	1.9409 ppb	22:03:00
3	B 249.677†	3614.5	166.2	2.4515 µg/L	2.4515 ppb	22:02:40
3	Ba 233.527†	-63.0	71.9	0.2881 µg/L	0.2881 ppb	22:03:00
3	Be 313.107†	-1068.4	-20.8	-0.0069 µg/L	-0.0069 ppb	22:02:40
3	Cd 226.502†	-110.9	5.5	0.0264 µg/L	0.0264 ppb	22:03:00
3	Co 228.616†	-182.0	5.4	0.0633 µg/L	0.0633 ppb	22:03:00
3	Cr 267.716†	451.9	280.5	2.2027 µg/L	2.2027 ppb	22:03:00
3	Cu 324.752†	2995.2	70.7	0.2829 µg/L	0.2829 ppb	22:02:40
3	Mn 257.610†	1485.0	1271.4	1.5731 µg/L	1.5731 ppb	22:03:00
3	Mo 202.031†	-40.1	-20.6	-0.6030 µg/L	-0.6030 ppb	22:03:00
3	Ni 231.604†	4.4	81.0	0.9328 µg/L	0.9328 ppb	22:03:00
3	P 214.914†	-5.5	12.4	2.6140 µg/L	2.6140 ppb	22:03:00
3	Pb 220.353†	81.7	-3.3	-0.1885 µg/L	-0.1885 ppb	22:03:00
3	S 181.975 Axial†	115.9	12.6	9.3881 µg/L	9.3881 ppb	22:03:00
3	Sb 206.836†	75.6	-4.0	-0.5135 µg/L	-0.5135 ppb	22:03:00
3	Se 196.026†	16.7	1.7	0.645 µg/L	0.645 ppb	22:03:00
3	SiO2†	2417.1	680.3	66.476 µg/L	66.476 ppb	22:02:40
3	Si 251.611†	2711.1	1917.8	28.267 µg/L	28.267 ppb	22:02:40
3	Sn 189.927†	34.0	35.6	2.2227 µg/L	2.2227 ppb	22:03:00
3	Ti 334.940†	1103.2	168.2	0.1590 µg/L	0.1590 ppb	22:02:40
3	Tl 190.801†	-121.9	-7.2	-0.8820 µg/L	-0.8820 ppb	22:03:00
3	U 409.014†	-337.0	-72.5	-4.2676 µg/L	-4.2676 ppb	22:02:40
3	V 292.402†	329.9	-68.6	-0.3430 µg/L	-0.3430 ppb	22:02:40
3	Zn 213.857†	913.7	363.9	2.0288 µg/L	2.0288 ppb	22:03:00

Mean Data: 1202068035|963989|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1690003.0	98.358	%	0.1960				0.20%
Sc RADIAL	140444.0	96.2	%	1.25				1.30%
Y 371.029	1006491.3	98.033	%	0.1890				0.19%
Ag 328.068†	8.7	0.0246	µg/L	0.57866	0.0246	ppb	0.57866	>999.9%
Al 396.153Radial†	-11.5	-2.1134	µg/L	8.82252	-2.1134	ppb	8.82252	417.46%
As 188.979†	2.3	0.7327	µg/L	1.05768	0.7327	ppb	1.05768	144.36%
B 249.677†	233.4	3.4423	µg/L	1.35102	3.4423	ppb	1.35102	39.25%
Ba 233.527†	93.3	0.3748	µg/L	0.07581	0.3748	ppb	0.07581	20.23%
Be 313.107†	19.8	0.0043	µg/L	0.02057	0.0043	ppb	0.02057	482.13%
Ca 317.933Radial†	312.5	17.410	µg/L	4.3305	17.410	ppb	4.3305	24.87%
Cd 226.502†	0.2	-0.0066	µg/L	0.08274	-0.0066	ppb	0.08274	>999.9%
Co 228.616†	14.7	0.1776	µg/L	0.11823	0.1776	ppb	0.11823	66.55%
Cr 267.716†	276.4	2.1700	µg/L	0.05402	2.1700	ppb	0.05402	2.49%
Cu 324.752†	30.4	0.1263	µg/L	0.20042	0.1263	ppb	0.20042	158.69%
Fe 238.204 Radial†	1274.5	78.555	µg/L	1.8500	78.555	ppb	1.8500	2.36%
K 766.490 Radial†	210.4	77.029	µg/L	13.6530	77.029	ppb	13.6530	17.72%
Mg 279.077 IEC†	-23.4	-8.7968	µg/L	12.99283	-8.7968	ppb	12.99283	147.70%
Mn 257.610†	1273.1	1.5754	µg/L	0.00200	1.5754	ppb	0.00200	0.13%
Mo 202.031†	-19.7	-0.5760	µg/L	0.11336	-0.5760	ppb	0.11336	19.68%
Na 589.592 Radial†	433.1	59.100	µg/L	9.7157	59.100	ppb	9.7157	16.44%

Ni 231.604†	89.3	1.0287	µg/L	0.08317	1.0287	ppb	0.08317 8.08%
P 214.914†	11.6	2.4532	µg/L	1.57170	2.4532	ppb	1.57170 64.07%
Pb 220.353†	1.2	0.0640	µg/L	1.10215	0.0640	ppb	1.10215 >999.9%
S 181.975 Axial†	16.0	11.850	µg/L	3.3137	11.850	ppb	3.3137 27.96%
Sb 206.836†	1.0	0.0806	µg/L	0.51480	0.0806	ppb	0.51480 638.46%
Se 196.026†	3.1	1.14	µg/L	0.469	1.14	ppb	0.469 41.07%
SiO2†	600.6	58.683	µg/L	8.7005	58.683	ppb	8.7005 14.83%
Si 251.611†	1891.5	27.875	µg/L	1.9216	27.875	ppb	1.9216 6.89%
Sn 189.927†	45.5	2.8353	µg/L	0.57420	2.8353	ppb	0.57420 20.25%
Sr 421.552†	112.8	0.2344	µg/L	0.06437	0.2344	ppb	0.06437 27.46%
Ti 334.940†	171.7	0.1624	µg/L	0.03373	0.1624	ppb	0.03373 20.77%
Tl 190.801†	-3.7	-0.4505	µg/L	0.39240	-0.4505	ppb	0.39240 87.10%
U 409.014†	-63.2	-3.7157	µg/L	1.52421	-3.7157	ppb	1.52421 41.02%
V 292.402†	-31.0	-0.1588	µg/L	0.48785	-0.1588	ppb	0.48785 307.24%
Zn 213.857†	386.7	2.1573	µg/L	0.13714	2.1573	ppb	0.13714 6.36%

Sequence No.: 71
Sample ID: 1202068040|963989|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 207
Date Collected: 3/31/2010 22:03:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068040|963989|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145746.4	145746.4	99.9	%			22:03:40
1	Al 396.153Radial†	506889.6	507590.6	94082	µg/L	94082	ppb	22:03:40
1	Ca 317.933Radial†	1907604.0	1909443.7	106360	µg/L	106360	ppb	22:03:38
1	Fe 238.204 Radial†	3015205.1	3018850.9	186060	µg/L	186060	ppb	22:03:38
1	K 766.490 Radial†	114547.0	113146.3	41379	µg/L	41379	ppb	22:03:40
1	Mg 279.077 IEC†	102352.2	102290.2	37965	µg/L	37965	ppb	22:03:40
1	Na 589.592 Radial†	73931.7	72734.0	9899.5	µg/L	9899.5	ppb	22:03:40
1	Sr 421.552†	1130011.1	1131568.2	2351.6	µg/L	2351.6	ppb	22:03:38
1	Sc 361.383	1722070.2	1722070.2	100.22	%			22:03:55
1	Y 371.029	1095247.4	1095247.4	106.68	%			22:03:55
1	Ag 328.068†	82684.2	78407.8	299.41	µg/L	299.41	ppb	22:03:55
1	As 188.979†	3397.7	3410.5	1098.1	µg/L	1098.1	ppb	22:03:57
1	B 249.677†	107467.9	103721.6	1526.4	µg/L	1526.4	ppb	22:03:55
1	Ba 233.527†	477865.6	476932.3	1920.4	µg/L	1920.4	ppb	22:03:55
1	Be 313.107†	2979194.5	2973594.2	809.57	µg/L	809.57	ppb	22:03:55
1	Cd 226.502†	102802.6	102690.8	622.53	µg/L	622.53	ppb	22:03:55
1	Co 228.616†	78284.1	78299.2	958.62	µg/L	958.62	ppb	22:03:55
1	Cr 267.716†	316432.6	315546.1	2476.8	µg/L	2476.8	ppb	22:03:55
1	Cu 324.752†	474817.9	470783.4	1858.0	µg/L	1858.0	ppb	22:03:55
1	Mn 257.610†	4483951.3	4473682.7	5533.3	µg/L	5533.3	ppb	22:03:55
1	Mo 202.031†	18067.1	18046.8	538.84	µg/L	538.84	ppb	22:03:57
1	Ni 231.604†	123796.6	123596.1	1423.1	µg/L	1423.1	ppb	22:03:55
1	P 214.914†	37136.7	37071.6	7806.5	µg/L	7806.5	ppb	22:03:57
1	Pb 220.353†	15449.5	15328.5	864.28	µg/L	864.28	ppb	22:03:57
1	S 181.975 Axial†	5539.2	5421.7	4030.5	µg/L	4030.5	ppb	22:03:57
1	Sb 206.836†	14015.0	13902.8	1623.9	µg/L	1623.9	ppb	22:03:57
1	Se 196.026†	7818.6	7785.8	2880	µg/L	2880	ppb	22:03:57
1	SiO2†	649135.4	645907.9	63102	µg/L	63102	ppb	22:03:55
1	Si 251.611†	2006212.9	2000888.1	29485	µg/L	29485	ppb	22:03:55
1	Sn 189.927†	16282.4	16247.1	1032.9	µg/L	1032.9	ppb	22:03:57
1	Ti 334.940†	6375657.8	6360441.9	5941.3	µg/L	5941.3	ppb	22:03:55
1	Tl 190.801†	9087.6	9184.0	1206.7	µg/L	1206.7	ppb	22:03:57
1	U 409.014†	-5069.9	-4788.7	-214.03	µg/L	-214.03	ppb	22:03:55
1	V 292.402†	252894.1	251924.5	1219.8	µg/L	1219.8	ppb	22:03:55
1	Zn 213.857†	1072305.3	1069341.9	5980.6	µg/L	5980.6	ppb	22:03:55
2	Sc RADIAL	145877.1	145877.1	100.0	%			22:03:44
2	Al 396.153Radial†	508258.0	508504.7	94251	µg/L	94251	ppb	22:03:44
2	Ca 317.933Radial†	1866534.8	1866648.1	103980	µg/L	103980	ppb	22:03:42
2	Fe 238.204 Radial†	2946438.8	2947354.4	181660	µg/L	181660	ppb	22:03:42
2	K 766.490 Radial†	115062.2	113558.9	41530	µg/L	41530	ppb	22:03:44
2	Mg 279.077 IEC†	102653.0	102499.4	38047	µg/L	38047	ppb	22:03:44
2	Na 589.592 Radial†	74126.7	72862.7	9917.0	µg/L	9917.0	ppb	22:03:44
2	Sr 421.552†	1111319.2	1111855.7	2310.7	µg/L	2310.7	ppb	22:03:42
2	Sc 361.383	1712405.0	1712405.0	99.662	%			22:04:01
2	Y 371.029	1088486.9	1088486.9	106.02	%			22:04:01
2	Ag 328.068†	81771.8	77957.9	297.83	µg/L	297.83	ppb	22:04:01
2	As 188.979†	3515.9	3548.2	1138.8	µg/L	1138.8	ppb	22:04:03
2	B 249.677†	106665.5	103521.6	1523.4	µg/L	1523.4	ppb	22:04:01
2	Ba 233.527†	475552.5	477302.6	1922.0	µg/L	1922.0	ppb	22:04:01
2	Be 313.107†	2958339.0	2969445.6	808.44	µg/L	808.44	ppb	22:04:01
2	Cd 226.502†	102183.3	102648.3	622.73	µg/L	622.73	ppb	22:04:01
2	Co 228.616†	77766.1	78220.4	957.88	µg/L	957.88	ppb	22:04:01
2	Cr 267.716†	314957.6	315848.2	2479.0	µg/L	2479.0	ppb	22:04:01
2	Cu 324.752†	471714.6	470343.6	1855.7	µg/L	1855.7	ppb	22:04:01
2	Mn 257.610†	4457792.7	4472687.1	5532.1	µg/L	5532.1	ppb	22:04:01
2	Mo 202.031†	18204.6	18286.5	545.71	µg/L	545.71	ppb	22:04:03
2	Ni 231.604†	123135.4	123629.9	1423.5	µg/L	1423.5	ppb	22:04:01
2	P 214.914†	37408.5	37553.4	7912.7	µg/L	7912.7	ppb	22:04:03
2	Pb 220.353†	15571.9	15538.3	876.15	µg/L	876.15	ppb	22:04:03

2	S 181.975 Axial†	5556.8	5470.6	4066.9	µg/L	4066.9 ppb	22:04:03
2	Sb 206.836†	14188.0	14155.4	1654.1	µg/L	1654.1 ppb	22:04:03
2	Se 196.026†	7854.4	7865.8	2910	µg/L	2910 ppb	22:04:03
2	SiO2†	645275.6	645690.6	63081	µg/L	63081 ppb	22:04:01
2	Si 251.611†	1994301.4	2000234.4	29475	µg/L	29475 ppb	22:04:01
2	Sn 189.927†	16482.8	16539.9	1051.1	µg/L	1051.1 ppb	22:04:03
2	Ti 334.940†	6334296.7	6354845.5	5936.0	µg/L	5936.0 ppb	22:04:01
2	Tl 190.801†	9171.3	9319.1	1223.2	µg/L	1223.2 ppb	22:04:03
2	U 409.014†	-4839.6	-4586.2	-201.36	µg/L	-201.36 ppb	22:04:01
2	V 292.402†	251231.1	251680.1	1219.1	µg/L	1219.1 ppb	22:04:01
2	Zn 213.857†	1066020.8	1069074.9	5979.6	µg/L	5979.6 ppb	22:04:01
3	Sc RADIAL	145473.1	145473.1	99.7	%		22:03:49
3	Al 396.153Radial†	508691.5	510351.5	94594	µg/L	94594 ppb	22:03:49
3	Ca 317.933Radial†	1897272.8	1902667.8	105990	µg/L	105990 ppb	22:03:47
3	Fe 238.204 Radial†	2994580.1	3003831.9	185140	µg/L	185140 ppb	22:03:47
3	K 766.490 Radial†	115069.8	113886.2	41650	µg/L	41650 ppb	22:03:49
3	Mg 279.077 IEC†	102546.8	102677.9	38111	µg/L	38111 ppb	22:03:49
3	Na 589.592 Radial†	74113.2	73055.0	9943.1	µg/L	9943.1 ppb	22:03:49
3	Sr 421.552†	1127907.9	1131583.7	2351.7	µg/L	2351.7 ppb	22:03:47
3	Sc 361.383	1708943.7	1708943.7	99.460	%		22:04:07
3	Y 371.029	1086509.3	1086509.3	105.83	%		22:04:07
3	Ag 328.068†	81720.5	78072.5	298.18	µg/L	298.18 ppb	22:04:07
3	As 188.979†	3441.6	3480.7	1119.1	µg/L	1119.1 ppb	22:04:09
3	B 249.677†	106533.8	103606.1	1524.7	µg/L	1524.7 ppb	22:04:07
3	Ba 233.527†	473677.8	476384.1	1918.2	µg/L	1918.2 ppb	22:04:07
3	Be 313.107†	2952654.4	2969742.3	808.52	µg/L	808.52 ppb	22:04:07
3	Cd 226.502†	101803.7	102474.4	621.28	µg/L	621.28 ppb	22:04:07
3	Co 228.616†	77284.9	77894.6	953.67	µg/L	953.67 ppb	22:04:07
3	Cr 267.716†	313806.5	315330.9	2475.1	µg/L	2475.1 ppb	22:04:07
3	Cu 324.752†	471337.9	470923.5	1858.4	µg/L	1858.4 ppb	22:04:07
3	Mn 257.610†	4444253.2	4468133.7	5526.4	µg/L	5526.4 ppb	22:04:07
3	Mo 202.031†	18181.5	18300.2	546.25	µg/L	546.25 ppb	22:04:09
3	Ni 231.604†	122468.9	123210.0	1418.7	µg/L	1418.7 ppb	22:04:07
3	P 214.914†	37353.8	37574.4	7914.8	µg/L	7914.8 ppb	22:04:09
3	Pb 220.353†	15524.7	15522.6	875.18	µg/L	875.18 ppb	22:04:09
3	S 181.975 Axial†	5611.8	5537.2	4116.3	µg/L	4116.3 ppb	22:04:09
3	Sb 206.836†	14146.6	14142.6	1652.6	µg/L	1652.6 ppb	22:04:09
3	Se 196.026†	7884.0	7911.5	2920	µg/L	2920 ppb	22:04:09
3	SiO2†	643532.5	645249.4	63038	µg/L	63038 ppb	22:04:07
3	Si 251.611†	1987909.1	1997860.4	29440	µg/L	29440 ppb	22:04:07
3	Sn 189.927†	16398.5	16488.6	1047.9	µg/L	1047.9 ppb	22:04:09
3	Ti 334.940†	6318729.8	6352067.2	5933.5	µg/L	5933.5 ppb	22:04:07
3	Tl 190.801†	9035.1	9200.8	1208.7	µg/L	1208.7 ppb	22:04:09
3	U 409.014†	-4864.1	-4620.6	-204.11	µg/L	-204.11 ppb	22:04:07
3	V 292.402†	250745.1	251702.0	1218.8	µg/L	1218.8 ppb	22:04:07
3	Zn 213.857†	1062746.9	1067949.7	5972.9	µg/L	5972.9 ppb	22:04:07

Mean Data: 1202068040|963989|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1714472.9	99.782	%	0.3959				0.40%
Sc RADIAL	145698.9	99.8	%	0.14				0.14%
Y 371.029	1090081.2	106.17	%	0.446				0.42%
Ag 328.068†	78146.1	298.47	µg/L	0.827	298.47	ppb	0.827	0.28%
Al 396.153Radial†	508815.6	94309	µg/L	260.6	94309	ppb	260.6	0.28%
As 188.979†	3479.8	1118.7	µg/L	20.36	1118.7	ppb	20.36	1.82%
B 249.677†	103616.4	1524.8	µg/L	1.48	1524.8	ppb	1.48	0.10%
Ba 233.527†	476873.0	1920.2	µg/L	1.88	1920.2	ppb	1.88	0.10%
Be 313.107†	2970927.4	808.85	µg/L	0.628	808.85	ppb	0.628	0.08%
Ca 317.933Radial†	1892919.8	105440	µg/L	1281.4	105440	ppb	1281.4	1.22%
Cd 226.502†	102604.5	622.18	µg/L	0.789	622.18	ppb	0.789	0.13%
Co 228.616†	78138.1	956.73	µg/L	2.668	956.73	ppb	2.668	0.28%
Cr 267.716†	315575.1	2476.9	µg/L	1.97	2476.9	ppb	1.97	0.08%
Cu 324.752†	470683.5	1857.4	µg/L	1.49	1857.4	ppb	1.49	0.08%
Fe 238.204 Radial†	2990012.4	184290	µg/L	2323.5	184290	ppb	2323.5	1.26%
K 766.490 Radial†	113530.5	41520	µg/L	135.7	41520	ppb	135.7	0.33%
Mg 279.077 IEC†	102489.2	38041	µg/L	72.9	38041	ppb	72.9	0.19%
Mn 257.610†	4471501.2	5530.6	µg/L	3.66	5530.6	ppb	3.66	0.07%
Mo 202.031†	18211.2	543.60	µg/L	4.133	543.60	ppb	4.133	0.76%
Na 589.592 Radial†	72883.9	9919.9	µg/L	21.95	9919.9	ppb	21.95	0.22%

Ni 231.604†	123478.7	1421.8	µg/L	2.69	1421.8	ppb	2.69	0.19%
P 214.914†	37399.8	7878.0	µg/L	61.94	7878.0	ppb	61.94	0.79%
Pb 220.353†	15463.1	871.87	µg/L	6.589	871.87	ppb	6.589	0.76%
S 181.975 Axial†	5476.5	4071.3	µg/L	43.07	4071.3	ppb	43.07	1.06%
Sb 206.836†	14066.9	1643.6	µg/L	17.00	1643.6	ppb	17.00	1.03%
Se 196.026†	7854.4	2900	µg/L	22.7	2900	ppb	22.7	0.78%
SiO2†	645615.9	63074	µg/L	33.0	63074	ppb	33.0	0.05%
Si 251.611†	1999660.9	29467	µg/L	23.6	29467	ppb	23.6	0.08%
Sn 189.927†	16425.2	1044.0	µg/L	9.73	1044.0	ppb	9.73	0.93%
Sr 421.552†	1125002.5	2338.0	µg/L	23.66	2338.0	ppb	23.66	1.01%
Ti 334.940†	6355784.9	5936.9	µg/L	4.00	5936.9	ppb	4.00	0.07%
Tl 190.801†	9234.6	1212.9	µg/L	9.03	1212.9	ppb	9.03	0.74%
U 409.014†	-4665.2	-206.50	µg/L	6.661	-206.50	ppb	6.661	3.23%
Concentration less than lower limit for U 409.014.								
V 292.402†	251768.9	1219.2	µg/L	0.46	1219.2	ppb	0.46	0.04%
Zn 213.857†	1068788.9	5977.7	µg/L	4.18	5977.7	ppb	4.18	0.07%

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Sequence No.: 73 **Autosampler Location: 209**
Sample ID: 1202068036|963989|1 **Date Collected: 3/31/2010 22:06:21**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202068036|963989|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144486.8	144486.8	99.0	%			22:06:51
1	Al 396.153Radial†	146197.7	147721.0	27387	µg/L	27387	ppb	22:06:51
1	Ca 317.933Radial†	49380.3	49312.8	2746.9	µg/L	2746.9	ppb	22:06:53
1	Fe 238.204 Radial†	1069148.7	1079677.9	66545	µg/L	66545	ppb	22:06:51
1	K 766.490 Radial†	8779.5	7322.4	2673.9	µg/L	2673.9	ppb	22:06:53
1	Mg 279.077 IEC†	8834.8	8732.3	3196.6	µg/L	3196.6	ppb	22:06:53
1	Na 589.592 Radial†	6142.5	4913.1	668.80	µg/L	668.80	ppb	22:06:53
1	Sr 421.552†	12042.9	12298.4	25.546	µg/L	25.546	ppb	22:06:53
1	Sc 361.383	1732490.3	1732490.3	100.83	%			22:07:05
1	Y 371.029	1387270.1	1387270.1	135.12	%			22:07:05
1	Ag 328.068†	3958.9	-165.1	-2.2367	µg/L	-2.2367	ppb	22:07:07
1	As 188.979†	29.1	49.2	29.956	µg/L	29.956	ppb	22:07:27
1	B 249.677†	3956.0	417.6	6.1245	µg/L	6.1245	ppb	22:07:07
1	Ba 233.527†	45324.3	45086.7	180.85	µg/L	180.85	ppb	22:07:07
1	Be 313.107†	31165.1	31973.0	8.5768	µg/L	8.5768	ppb	22:07:07
1	Cd 226.502†	938.6	1049.0	-0.4399	µg/L	-0.4399	ppb	22:07:07
1	Co 228.616†	599.0	784.4	6.3871	µg/L	6.3871	ppb	22:07:27
1	Cr 267.716†	2112.4	1916.5	16.728	µg/L	16.728	ppb	22:07:07
1	Cu 324.752†	6110.9	3088.3	21.435	µg/L	21.435	ppb	22:07:07
1	Mn 257.610†	2934441.3	2910029.3	3600.3	µg/L	3600.3	ppb	22:07:05
1	Mo 202.031†	158.3	177.1	7.9068	µg/L	7.9068	ppb	22:07:27
1	Ni 231.604†	932.8	1001.7	11.533	µg/L	11.533	ppb	22:07:27
1	P 214.914†	2915.3	2909.3	582.90	µg/L	582.90	ppb	22:07:27
1	Pb 220.353†	577.9	486.8	30.212	µg/L	30.212	ppb	22:07:27
1	S 181.975 Axial†	165.6	59.1	43.957	µg/L	43.957	ppb	22:07:27
1	Sb 206.836†	64.2	-17.1	-3.1455	µg/L	-3.1455	ppb	22:07:27
1	Se 196.026†	-49.6	-64.5	-0.639	µg/L	-0.639	ppb	22:07:27
1	SiO2†	430832.5	425507.9	41590	µg/L	41590	ppb	22:07:05
1	Si 251.611†	1328914.6	1317130.1	19418	µg/L	19418	ppb	22:07:05
1	Sn 189.927†	55.0	55.6	11.507	µg/L	11.507	ppb	22:07:27
1	Ti 334.940†	2573571.2	2551417.0	2383.7	µg/L	2383.7	ppb	22:07:05
1	Tl 190.801†	-442.8	-322.5	-6.1956	µg/L	-6.1956	ppb	22:07:27
1	U 409.014†	-7622.1	-7289.4	-415.98	µg/L	-415.98	ppb	22:07:05
1	V 292.402†	7344.2	6879.9	24.163	µg/L	24.163	ppb	22:07:07
1	Zn 213.857†	63231.5	62146.1	343.57	µg/L	343.57	ppb	22:07:07
2	Sc RADIAL	145326.0	145326.0	99.6	%			22:06:55
2	Al 396.153Radial†	147409.5	148085.1	27455	µg/L	27455	ppb	22:06:55
2	Ca 317.933Radial†	49466.2	49111.1	2735.7	µg/L	2735.7	ppb	22:06:57
2	Fe 238.204 Radial†	1079401.2	1083737.4	66795	µg/L	66795	ppb	22:06:55
2	K 766.490 Radial†	8910.2	7402.5	2703.2	µg/L	2703.2	ppb	22:06:57
2	Mg 279.077 IEC†	8857.2	8703.3	3185.6	µg/L	3185.6	ppb	22:06:57
2	Na 589.592 Radial†	6266.0	5001.2	680.81	µg/L	680.81	ppb	22:06:57
2	Sr 421.552†	12113.0	12298.7	25.547	µg/L	25.547	ppb	22:06:57
2	Sc 361.383	1744202.5	1744202.5	101.51	%			22:07:30
2	Y 371.029	1396543.5	1396543.5	136.02	%			22:07:30
2	Ag 328.068†	4256.9	102.1	-1.2289	µg/L	-1.2289	ppb	22:07:32
2	As 188.979†	24.3	44.3	28.545	µg/L	28.545	ppb	22:07:52
2	B 249.677†	4073.2	506.6	7.4371	µg/L	7.4371	ppb	22:07:32
2	Ba 233.527†	46184.2	45632.0	183.05	µg/L	183.05	ppb	22:07:32
2	Be 313.107†	32013.2	32601.0	8.7531	µg/L	8.7531	ppb	22:07:32
2	Cd 226.502†	1047.6	1150.2	0.1656	µg/L	0.1656	ppb	22:07:32
2	Co 228.616†	618.2	799.3	6.5603	µg/L	6.5603	ppb	22:07:52
2	Cr 267.716†	2162.1	1951.3	16.995	µg/L	16.995	ppb	22:07:32
2	Cu 324.752†	6427.4	3359.5	22.539	µg/L	22.539	ppb	22:07:32
2	Mn 257.610†	2956772.6	2912485.7	3603.3	µg/L	3603.3	ppb	22:07:30
2	Mo 202.031†	163.7	181.3	8.0406	µg/L	8.0406	ppb	22:07:52
2	Ni 231.604†	920.5	983.3	11.322	µg/L	11.322	ppb	22:07:52
2	P 214.914†	2896.7	2871.5	574.65	µg/L	574.65	ppb	22:07:52
2	Pb 220.353†	588.1	492.9	30.542	µg/L	30.542	ppb	22:07:52

2	S 181.975 Axial†	160.1	52.6	39.137	µg/L	39.137 ppb	22:07:52
2	Sb 206.836†	66.9	-14.9	-2.8914	µg/L	-2.8914 ppb	22:07:52
2	Se 196.026†	-58.0	-72.4	-3.40	µg/L	-3.40 ppb	22:07:52
2	SiO2†	434354.1	426107.8	41648	µg/L	41648 ppb	22:07:30
2	Si 251.611†	1340131.6	1319329.9	19451	µg/L	19451 ppb	22:07:30
2	Sn 189.927†	67.5	67.6	12.258	µg/L	12.258 ppb	22:07:52
2	Ti 334.940†	2593306.0	2553718.8	2385.8	µg/L	2385.8 ppb	22:07:30
2	Tl 190.801†	-441.4	-318.2	-5.6361	µg/L	-5.6361 ppb	22:07:52
2	U 409.014†	-7371.7	-6991.9	-398.63	µg/L	-398.63 ppb	22:07:30
2	V 292.402†	7376.1	6862.4	24.063	µg/L	24.063 ppb	22:07:32
2	Zn 213.857†	64336.7	62813.8	347.29	µg/L	347.29 ppb	22:07:32
3	Sc RADIAL	144332.8	144332.8	98.9	%		22:06:59
3	Al 396.153Radial†	145921.2	147599.0	27364	µg/L	27364 ppb	22:06:59
3	Ca 317.933Radial†	49210.5	49194.4	2740.3	µg/L	2740.3 ppb	22:07:01
3	Fe 238.204 Radial†	1068244.6	1079916.0	66559	µg/L	66559 ppb	22:06:59
3	K 766.490 Radial†	8682.9	7234.2	2641.6	µg/L	2641.6 ppb	22:07:01
3	Mg 279.077 IEC†	8765.4	8671.6	3174.0	µg/L	3174.0 ppb	22:07:01
3	Na 589.592 Radial†	6185.8	4963.4	675.71	µg/L	675.71 ppb	22:07:01
3	Sr 421.552†	12094.9	12364.0	25.683	µg/L	25.683 ppb	22:07:01
3	Sc 361.383	1749764.9	1749764.9	101.84	%		22:07:54
3	Y 371.029	1400240.8	1400240.8	136.38	%		22:07:54
3	Ag 328.068†	4061.9	-102.7	-1.9945	µg/L	-1.9945 ppb	22:07:56
3	As 188.979†	31.5	51.3	30.587	µg/L	30.587 ppb	22:08:16
3	B 249.677†	4020.0	441.6	6.4781	µg/L	6.4781 ppb	22:07:56
3	Ba 233.527†	46120.6	45424.9	182.22	µg/L	182.22 ppb	22:07:56
3	Be 313.107†	31765.8	32257.8	8.6576	µg/L	8.6576 ppb	22:07:56
3	Cd 226.502†	1049.3	1148.6	0.1802	µg/L	0.1802 ppb	22:07:56
3	Co 228.616†	626.1	805.2	6.6441	µg/L	6.6441 ppb	22:08:16
3	Cr 267.716†	2095.2	1878.9	16.427	µg/L	16.427 ppb	22:07:56
3	Cu 324.752†	6148.3	3065.2	21.355	µg/L	21.355 ppb	22:07:56
3	Mn 257.610†	2960249.2	2906640.3	3596.1	µg/L	3596.1 ppb	22:07:54
3	Mo 202.031†	151.7	169.0	7.6702	µg/L	7.6702 ppb	22:08:16
3	Ni 231.604†	937.5	997.1	11.481	µg/L	11.481 ppb	22:08:16
3	P 214.914†	2911.2	2876.7	575.92	µg/L	575.92 ppb	22:08:16
3	Pb 220.353†	594.5	497.4	30.790	µg/L	30.790 ppb	22:08:16
3	S 181.975 Axial†	159.2	51.3	38.116	µg/L	38.116 ppb	22:08:16
3	Sb 206.836†	71.0	-11.1	-2.4313	µg/L	-2.4313 ppb	22:08:16
3	Se 196.026†	-60.2	-74.4	-4.20	µg/L	-4.20 ppb	22:08:16
3	SiO2†	435210.4	425588.4	41598	µg/L	41598 ppb	22:07:54
3	Si 251.611†	1341365.0	1316344.4	19407	µg/L	19407 ppb	22:07:54
3	Sn 189.927†	70.9	70.7	12.429	µg/L	12.429 ppb	22:08:16
3	Ti 334.940†	2593592.3	2545878.7	2378.5	µg/L	2378.5 ppb	22:07:54
3	Tl 190.801†	-459.0	-334.1	-7.6848	µg/L	-7.6848 ppb	22:08:16
3	U 409.014†	-7513.1	-7107.7	-405.40	µg/L	-405.40 ppb	22:07:54
3	V 292.402†	7363.9	6827.3	23.913	µg/L	23.913 ppb	22:07:56
3	Zn 213.857†	64412.9	62687.2	346.60	µg/L	346.60 ppb	22:07:56

Mean Data: 1202068036|963989|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1742152.6	101.39	%	0.513				0.51%
Sc RADIAL	144715.2	99.2	%	0.37				0.37%
Y 371.029	1394684.8	135.84	%	0.651				0.48%
Ag 328.068†	-55.2	-1.8200	µg/L	0.52606	-1.8200	ppb	0.52606	28.90%
Al 396.153Radial†	147801.7	27402	µg/L	46.9	27402	ppb	46.9	0.17%
As 188.979†	48.2	29.696	µg/L	1.0452	29.696	ppb	1.0452	3.52%
B 249.677†	455.2	6.6799	µg/L	0.67915	6.6799	ppb	0.67915	10.17%
Ba 233.527†	45381.2	182.04	µg/L	1.108	182.04	ppb	1.108	0.61%
Be 313.107†	32277.3	8.6625	µg/L	0.08823	8.6625	ppb	0.08823	1.02%
Ca 317.933Radial†	49206.1	2741.0	µg/L	5.65	2741.0	ppb	5.65	0.21%
Cd 226.502†	1115.9	-0.0314	µg/L	0.35388	-0.0314	ppb	0.35388	>999.9%
Co 228.616†	796.3	6.5305	µg/L	0.13110	6.5305	ppb	0.13110	2.01%
Cr 267.716†	1915.6	16.717	µg/L	0.2844	16.717	ppb	0.2844	1.70%
Cu 324.752†	3171.0	21.776	µg/L	0.6617	21.776	ppb	0.6617	3.04%
Fe 238.204 Radial†	1081110.5	66633	µg/L	140.4	66633	ppb	140.4	0.21%
K 766.490 Radial†	7319.7	2672.9	µg/L	30.81	2672.9	ppb	30.81	1.15%
Mg 279.077 IEC†	8702.4	3185.4	µg/L	11.32	3185.4	ppb	11.32	0.36%
Mn 257.610†	2909718.4	3599.9	µg/L	3.63	3599.9	ppb	3.63	0.10%
Mo 202.031†	175.8	7.8725	µg/L	0.18756	7.8725	ppb	0.18756	2.38%
Na 589.592 Radial†	4959.2	675.11	µg/L	6.029	675.11	ppb	6.029	0.89%

Ni 231.604†	994.0	11.446	µg/L	0.1099	11.446	ppb	0.1099	0.96%
P 214.914†	2885.8	577.83	µg/L	4.441	577.83	ppb	4.441	0.77%
Pb 220.353†	492.4	30.515	µg/L	0.2900	30.515	ppb	0.2900	0.95%
S 181.975 Axial†	54.4	40.404	µg/L	3.1197	40.404	ppb	3.1197	7.72%
Sb 206.836†	-14.4	-2.8227	µg/L	0.36205	-2.8227	ppb	0.36205	12.83%
Se 196.026†	-70.4	-2.75	µg/L	1.867	-2.75	ppb	1.867	67.99%
SiO2†	425734.7	41612	µg/L	31.8	41612	ppb	31.8	0.08%
Si 251.611†	1317601.5	19425	µg/L	22.8	19425	ppb	22.8	0.12%
Sn 189.927†	64.6	12.065	µg/L	0.4907	12.065	ppb	0.4907	4.07%
Sr 421.552†	12320.4	25.592	µg/L	0.0786	25.592	ppb	0.0786	0.31%
Ti 334.940†	2550338.1	2382.7	µg/L	3.76	2382.7	ppb	3.76	0.16%
Tl 190.801†	-324.9	-6.5055	µg/L	1.05894	-6.5055	ppb	1.05894	16.28%
U 409.014†	-7129.7	-406.67	µg/L	8.744	-406.67	ppb	8.744	2.15%
Concentration less than lower limit for U 409.014.								
V 292.402†	6856.5	24.046	µg/L	0.1258	24.046	ppb	0.1258	0.52%
Zn 213.857†	62549.1	345.82	µg/L	1.983	345.82	ppb	1.983	0.57%

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Sequence No.: 74
Sample ID: 1202068038|963989|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 210
Date Collected: 3/31/2010 22:08:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068038|963989|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144533.6	144533.6	99.0	%			22:08:57
1	Al 396.153Radial†	251980.0	254477.2	47158	µg/L	47158	ppb	22:08:55
1	Ca 317.933Radial†	133004.4	133728.6	7449.2	µg/L	7449.2	ppb	22:08:57
1	Fe 238.204 Radial†	1115976.7	1126608.4	69437	µg/L	69437	ppb	22:08:55
1	K 766.490 Radial†	25080.5	23778.0	8692.0	µg/L	8692.0	ppb	22:08:57
1	Mg 279.077 IEC†	24622.3	24669.4	9143.3	µg/L	9143.3	ppb	22:08:57
1	Na 589.592 Radial†	41598.6	40709.6	5553.7	µg/L	5553.7	ppb	22:08:57
1	Sr 421.552†	237765.0	240196.9	499.30	µg/L	499.30	ppb	22:08:55
1	Sc 361.383	1737393.2	1737393.2	101.12	%			22:09:10
1	Y 371.029	1460472.0	1460472.0	142.25	%			22:09:10
1	Ag 328.068†	131664.3	126119.7	471.58	µg/L	471.58	ppb	22:09:10
1	As 188.979†	1670.0	1672.0	527.18	µg/L	527.18	ppb	22:09:12
1	B 249.677†	36793.9	32881.9	483.31	µg/L	483.31	ppb	22:09:10
1	Ba 233.527†	163983.9	162309.9	653.64	µg/L	653.64	ppb	22:09:10
1	Be 313.107†	1850648.5	1831287.6	498.65	µg/L	498.65	ppb	22:09:10
1	Cd 226.502†	78057.3	77314.0	475.84	µg/L	475.84	ppb	22:09:10
1	Co 228.616†	38672.3	38435.7	471.30	µg/L	471.30	ppb	22:09:12
1	Cr 267.716†	63305.4	62428.2	490.51	µg/L	490.51	ppb	22:09:12
1	Cu 324.752†	138469.7	133969.2	531.33	µg/L	531.33	ppb	22:09:10
1	Mn 257.610†	2962304.0	2929371.8	3624.0	µg/L	3624.0	ppb	22:09:10
1	Mo 202.031†	16075.1	15917.8	470.89	µg/L	470.89	ppb	22:09:12
1	Ni 231.604†	43008.5	42610.3	490.63	µg/L	490.63	ppb	22:09:12
1	P 214.914†	4752.3	4717.8	965.76	µg/L	965.76	ppb	22:09:12
1	Pb 220.353†	9028.3	8842.3	499.16	µg/L	499.16	ppb	22:09:12
1	S 181.975 Axial†	6726.7	6547.4	4866.0	µg/L	4866.0	ppb	22:09:12
1	Sb 206.836†	3979.3	3854.5	457.93	µg/L	457.93	ppb	22:09:12
1	Se 196.026†	1299.3	1269.7	483	µg/L	483	ppb	22:09:12
1	SiO2†	577364.7	569216.9	55616	µg/L	55616	ppb	22:09:10
1	Si 251.611†	1777663.7	1757207.1	25897	µg/L	25897	ppb	22:09:10
1	Sn 189.927†	7583.3	7500.7	477.52	µg/L	477.52	ppb	22:09:12
1	Ti 334.940†	3189056.3	3152906.2	2944.9	µg/L	2944.9	ppb	22:09:10
1	Tl 190.801†	3425.8	3504.7	470.96	µg/L	470.96	ppb	22:09:12
1	U 409.014†	1013.1	1271.8	111.13	µg/L	111.13	ppb	22:09:10
1	V 292.402†	105923.2	104350.4	505.99	µg/L	505.99	ppb	22:09:10
1	Zn 213.857†	147493.8	145301.5	807.43	µg/L	807.43	ppb	22:09:10
2	Sc RADIAL	145815.5	145815.5	99.9	%			22:09:01
2	Al 396.153Radial†	253633.2	253895.2	47050	µg/L	47050	ppb	22:08:59
2	Ca 317.933Radial†	134110.0	133654.5	7445.1	µg/L	7445.1	ppb	22:09:01
2	Fe 238.204 Radial†	1119208.6	1119937.6	69026	µg/L	69026	ppb	22:08:59
2	K 766.490 Radial†	25333.5	23808.6	8703.2	µg/L	8703.2	ppb	22:09:01
2	Mg 279.077 IEC†	24898.7	24727.5	9165.5	µg/L	9165.5	ppb	22:09:01
2	Na 589.592 Radial†	41635.2	40377.0	5508.2	µg/L	5508.2	ppb	22:09:01
2	Sr 421.552†	239211.7	239534.4	497.92	µg/L	497.92	ppb	22:08:59
2	Sc 361.383	1738259.6	1738259.6	101.17	%			22:09:15
2	Y 371.029	1460093.8	1460093.8	142.21	%			22:09:15
2	Ag 328.068†	131287.2	125682.1	469.94	µg/L	469.94	ppb	22:09:15
2	As 188.979†	1662.9	1664.1	524.79	µg/L	524.79	ppb	22:09:17
2	B 249.677†	36821.4	32891.0	483.41	µg/L	483.41	ppb	22:09:15
2	Ba 233.527†	163560.8	161810.8	651.63	µg/L	651.63	ppb	22:09:15
2	Be 313.107†	1847268.8	1827034.7	497.49	µg/L	497.49	ppb	22:09:15
2	Cd 226.502†	77674.2	76896.8	473.28	µg/L	473.28	ppb	22:09:15
2	Co 228.616†	39307.5	39044.6	478.83	µg/L	478.83	ppb	22:09:17
2	Cr 267.716†	64241.6	63322.3	497.51	µg/L	497.51	ppb	22:09:17
2	Cu 324.752†	138014.4	133450.9	529.26	µg/L	529.26	ppb	22:09:15
2	Mn 257.610†	2957188.2	2922854.9	3615.9	µg/L	3615.9	ppb	22:09:15
2	Mo 202.031†	16367.0	16198.4	479.12	µg/L	479.12	ppb	22:09:17
2	Ni 231.604†	43444.3	43019.9	495.34	µg/L	495.34	ppb	22:09:17
2	P 214.914†	4790.9	4753.6	973.68	µg/L	973.68	ppb	22:09:17
2	Pb 220.353†	9230.2	9037.4	510.07	µg/L	510.07	ppb	22:09:17

2	S 181.975 Axial†	6789.2	6605.8	4909.4	µg/L	4909.4 ppb	22:09:17
2	Sb 206.836†	4000.7	3873.7	460.24	µg/L	460.24 ppb	22:09:17
2	Se 196.026†	1296.3	1266.1	482	µg/L	482 ppb	22:09:17
2	SiO2†	576496.5	568074.2	55504	µg/L	55504 ppb	22:09:15
2	Si 251.611†	1774083.4	1752791.8	25832	µg/L	25832 ppb	22:09:15
2	Sn 189.927†	7726.2	7638.2	486.08	µg/L	486.08 ppb	22:09:17
2	Ti 334.940†	3185806.8	3148122.2	2940.4	µg/L	2940.4 ppb	22:09:15
2	Tl 190.801†	3536.6	3612.5	484.08	µg/L	484.08 ppb	22:09:17
2	U 409.014†	949.3	1208.3	107.33	µg/L	107.33 ppb	22:09:15
2	V 292.402†	105555.5	103934.7	504.12	µg/L	504.12 ppb	22:09:15
2	Zn 213.857†	146896.9	144638.8	803.72	µg/L	803.72 ppb	22:09:15
3	Sc RADIAL	145245.1	145245.1	99.5	%		22:09:06
3	Al 396.153Radial†	254975.3	256240.4	47485	µg/L	47485 ppb	22:09:04
3	Ca 317.933Radial†	133376.8	133444.9	7433.4	µg/L	7433.4 ppb	22:09:06
3	Fe 238.204 Radial†	1121757.1	1126896.6	69455	µg/L	69455 ppb	22:09:04
3	K 766.490 Radial†	25198.3	23772.3	8689.8	µg/L	8689.8 ppb	22:09:06
3	Mg 279.077 IEC†	24630.7	24556.1	9101.2	µg/L	9101.2 ppb	22:09:06
3	Na 589.592 Radial†	41529.5	40434.4	5516.1	µg/L	5516.1 ppb	22:09:06
3	Sr 421.552†	239543.1	240807.5	500.57	µg/L	500.57 ppb	22:09:04
3	Sc 361.383	1733805.7	1733805.7	100.91	%		22:09:20
3	Y 371.029	1457989.8	1457989.8	142.01	%		22:09:20
3	Ag 328.068†	131699.3	126423.8	472.72	µg/L	472.72 ppb	22:09:20
3	As 188.979†	1633.1	1638.8	517.21	µg/L	517.21 ppb	22:09:22
3	B 249.677†	36620.8	32785.6	481.86	µg/L	481.86 ppb	22:09:20
3	Ba 233.527†	163533.8	162199.4	653.19	µg/L	653.19 ppb	22:09:20
3	Be 313.107†	1847100.4	1831558.4	498.72	µg/L	498.72 ppb	22:09:20
3	Cd 226.502†	77602.2	77022.7	474.02	µg/L	474.02 ppb	22:09:20
3	Co 228.616†	39133.3	38971.8	477.91	µg/L	477.91 ppb	22:09:22
3	Cr 267.716†	63938.1	63184.7	496.44	µg/L	496.44 ppb	22:09:22
3	Cu 324.752†	138046.4	133833.1	530.81	µg/L	530.81 ppb	22:09:20
3	Mn 257.610†	2955919.4	2929106.5	3623.6	µg/L	3623.6 ppb	22:09:20
3	Mo 202.031†	16207.2	16081.5	475.70	µg/L	475.70 ppb	22:09:22
3	Ni 231.604†	43394.3	43080.6	496.04	µg/L	496.04 ppb	22:09:22
3	P 214.914†	4766.2	4741.3	970.85	µg/L	970.85 ppb	22:09:22
3	Pb 220.353†	9216.1	9046.9	510.61	µg/L	510.61 ppb	22:09:22
3	S 181.975 Axial†	6821.8	6655.4	4946.2	µg/L	4946.2 ppb	22:09:22
3	Sb 206.836†	3964.4	3848.0	457.13	µg/L	457.13 ppb	22:09:22
3	Se 196.026†	1320.0	1292.8	492	µg/L	492 ppb	22:09:22
3	SiO2†	575763.8	568811.9	55576	µg/L	55576 ppb	22:09:20
3	Si 251.611†	1773212.8	1756433.9	25885	µg/L	25885 ppb	22:09:20
3	Sn 189.927†	7633.1	7565.6	481.57	µg/L	481.57 ppb	22:09:22
3	Ti 334.940†	3184117.1	3154537.2	2946.4	µg/L	2946.4 ppb	22:09:20
3	Tl 190.801†	3494.6	3579.8	480.18	µg/L	480.18 ppb	22:09:22
3	U 409.014†	1025.6	1286.2	111.98	µg/L	111.98 ppb	22:09:20
3	V 292.402†	105805.7	104450.6	506.55	µg/L	506.55 ppb	22:09:20
3	Zn 213.857†	146871.6	144986.7	805.63	µg/L	805.63 ppb	22:09:20

Mean Data: 1202068038|963989|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1736486.2	101.06	%	0.137				0.14%
Sc RADIAL	145198.1	99.5	%	0.44				0.44%
Y 371.029	1459518.6	142.16	%	0.130				0.09%
Ag 328.068†	126075.2	471.41	µg/L	1.397	471.41	ppb	1.397	0.30%
Al 396.153Radial†	254871.0	47231	µg/L	226.4	47231	ppb	226.4	0.48%
As 188.979†	1658.3	523.06	µg/L	5.203	523.06	ppb	5.203	0.99%
B 249.677†	32852.9	482.86	µg/L	0.866	482.86	ppb	0.866	0.18%
Ba 233.527†	162106.7	652.82	µg/L	1.053	652.82	ppb	1.053	0.16%
Be 313.107†	1829960.2	498.29	µg/L	0.692	498.29	ppb	0.692	0.14%
Ca 317.933Radial†	133609.4	7442.6	µg/L	8.20	7442.6	ppb	8.20	0.11%
Cd 226.502†	77077.8	474.38	µg/L	1.317	474.38	ppb	1.317	0.28%
Co 228.616†	38817.4	476.01	µg/L	4.109	476.01	ppb	4.109	0.86%
Cr 267.716†	62978.4	494.82	µg/L	3.767	494.82	ppb	3.767	0.76%
Cu 324.752†	133751.1	530.47	µg/L	1.077	530.47	ppb	1.077	0.20%
Fe 238.204 Radial†	1124480.8	69306	µg/L	242.7	69306	ppb	242.7	0.35%
K 766.490 Radial†	23786.3	8695.0	µg/L	7.17	8695.0	ppb	7.17	0.08%
Mg 279.077 IEC†	24651.0	9136.7	µg/L	32.68	9136.7	ppb	32.68	0.36%
Mn 257.610†	2927111.1	3621.2	µg/L	4.56	3621.2	ppb	4.56	0.13%
Mo 202.031†	16065.9	475.24	µg/L	4.134	475.24	ppb	4.134	0.87%
Na 589.592 Radial†	40507.0	5526.0	µg/L	24.29	5526.0	ppb	24.29	0.44%

Ni 231.604†	42903.6	494.00 µg/L	2.946	494.00 ppb	2.946	0.60%
P 214.914†	4737.6	970.10 µg/L	4.017	970.10 ppb	4.017	0.41%
Pb 220.353†	8975.5	506.61 µg/L	6.462	506.61 ppb	6.462	1.28%
S 181.975 Axial†	6602.9	4907.2 µg/L	40.17	4907.2 ppb	40.17	0.82%
Sb 206.836†	3858.7	458.43 µg/L	1.614	458.43 ppb	1.614	0.35%
Se 196.026†	1276.2	485 µg/L	5.3	485 ppb	5.3	1.09%
SiO2†	568701.0	55566 µg/L	56.8	55566 ppb	56.8	0.10%
Si 251.611†	1755477.6	25871 µg/L	34.8	25871 ppb	34.8	0.13%
Sn 189.927†	7568.2	481.72 µg/L	4.279	481.72 ppb	4.279	0.89%
Sr 421.552†	240179.6	499.26 µg/L	1.324	499.26 ppb	1.324	0.27%
Ti 334.940†	3151855.2	2943.9 µg/L	3.12	2943.9 ppb	3.12	0.11%
Tl 190.801†	3565.6	478.41 µg/L	6.739	478.41 ppb	6.739	1.41%
U 409.014†	1255.4	110.14 µg/L	2.478	110.14 ppb	2.478	2.25%
V 292.402†	104245.2	505.55 µg/L	1.272	505.55 ppb	1.272	0.25%
Zn 213.857†	144975.7	805.59 µg/L	1.857	805.59 ppb	1.857	0.23%

Sequence No.: 75
Sample ID: 1202068039|963989|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 211
Date Collected: 3/31/2010 22:09:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068039|963989|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146658.5	146658.5	100	%			22:10:03
1	Al 396.153Radial†	337692.0	336077.2	62287	µg/L	62287	ppb	22:10:01
1	Ca 317.933Radial†	151227.0	149914.9	8350.8	µg/L	8350.8	ppb	22:10:03
1	Fe 238.204 Radial†	1517655.7	1509966.3	93065	µg/L	93065	ppb	22:10:01
1	K 766.490 Radial†	28502.1	26815.7	9800.5	µg/L	9800.5	ppb	22:10:03
1	Mg 279.077 IEC†	28892.2	28558.0	10572	µg/L	10572	ppb	22:10:03
1	Na 589.592 Radial†	42915.2	41411.1	5648.5	µg/L	5648.5	ppb	22:10:03
1	Sr 421.552†	245850.5	244764.2	508.78	µg/L	508.78	ppb	22:10:01
1	Sc 361.383	1742345.5	1742345.5	101.40	%			22:10:17
1	Y 371.029	1603825.6	1603825.6	156.21	%			22:10:17
1	Ag 328.068†	129691.3	123803.9	462.50	µg/L	462.50	ppb	22:10:17
1	As 188.979†	1600.2	1598.4	510.18	µg/L	510.18	ppb	22:10:19
1	B 249.677†	36599.3	32586.6	478.97	µg/L	478.97	ppb	22:10:17
1	Ba 233.527†	180673.7	178307.6	717.81	µg/L	717.81	ppb	22:10:17
1	Be 313.107†	1838045.5	1813657.0	493.82	µg/L	493.82	ppb	22:10:17
1	Cd 226.502†	76938.7	75991.5	465.09	µg/L	465.09	ppb	22:10:17
1	Co 228.616†	38187.7	37849.2	462.89	µg/L	462.89	ppb	22:10:19
1	Cr 267.716†	62960.5	61910.1	487.02	µg/L	487.02	ppb	22:10:19
1	Cu 324.752†	138254.6	133367.8	532.40	µg/L	532.40	ppb	22:10:17
1	Mn 257.610†	4013636.6	3957818.7	4896.3	µg/L	4896.3	ppb	22:10:17
1	Mo 202.031†	15983.2	15782.0	467.86	µg/L	467.86	ppb	22:10:19
1	Ni 231.604†	42420.6	41909.7	482.56	µg/L	482.56	ppb	22:10:19
1	P 214.914†	5451.7	5394.1	1097.8	µg/L	1097.8	ppb	22:10:19
1	Pb 220.353†	9086.2	8874.0	502.25	µg/L	502.25	ppb	22:10:19
1	S 181.975 Axial†	6464.1	6269.6	4659.6	µg/L	4659.6	ppb	22:10:19
1	Sb 206.836†	3698.1	3566.0	423.26	µg/L	423.26	ppb	22:10:19
1	Se 196.026†	1178.4	1146.8	447	µg/L	447	ppb	22:10:19
1	SiO2†	612533.6	602275.9	58848	µg/L	58848	ppb	22:10:17
1	Si 251.611†	1890642.4	1863624.3	27466	µg/L	27466	ppb	22:10:17
1	Sn 189.927†	7585.0	7481.1	479.05	µg/L	479.05	ppb	22:10:19
1	Ti 334.940†	4084803.3	4027284.7	3761.8	µg/L	3761.8	ppb	22:10:17
1	Tl 190.801†	3275.1	3346.5	463.12	µg/L	463.12	ppb	22:10:19
1	U 409.014†	-536.3	-259.0	25.153	µg/L	25.153	ppb	22:10:17
1	V 292.402†	108447.6	106542.1	513.31	µg/L	513.31	ppb	22:10:17
1	Zn 213.857†	166597.1	163725.7	909.12	µg/L	909.12	ppb	22:10:17
2	Sc RADIAL	144724.9	144724.9	99.2	%			22:10:08
2	Al 396.153Radial†	336631.7	339497.5	62921	µg/L	62921	ppb	22:10:05
2	Ca 317.933Radial†	148747.1	149424.9	8323.6	µg/L	8323.6	ppb	22:10:08
2	Fe 238.204 Radial†	1513205.3	1525655.3	94032	µg/L	94032	ppb	22:10:05
2	K 766.490 Radial†	28357.1	27048.4	9885.5	µg/L	9885.5	ppb	22:10:08
2	Mg 279.077 IEC†	28511.9	28558.6	10571	µg/L	10571	ppb	22:10:08
2	Na 589.592 Radial†	42328.1	41389.7	5645.5	µg/L	5645.5	ppb	22:10:08
2	Sr 421.552†	245554.6	247734.3	514.96	µg/L	514.96	ppb	22:10:05
2	Sc 361.383	1740643.7	1740643.7	101.31	%			22:10:23
2	Y 371.029	1602128.8	1602128.8	156.05	%			22:10:23
2	Ag 328.068†	130164.3	124395.9	464.68	µg/L	464.68	ppb	22:10:23
2	As 188.979†	1630.7	1630.0	520.07	µg/L	520.07	ppb	22:10:25
2	B 249.677†	36596.7	32619.3	479.42	µg/L	479.42	ppb	22:10:23
2	Ba 233.527†	180731.0	178538.4	718.73	µg/L	718.73	ppb	22:10:23
2	Be 313.107†	1838447.3	1815825.9	494.41	µg/L	494.41	ppb	22:10:23
2	Cd 226.502†	77197.8	76321.4	467.06	µg/L	467.06	ppb	22:10:23
2	Co 228.616†	38925.4	38614.2	472.28	µg/L	472.28	ppb	22:10:25
2	Cr 267.716†	64061.5	63057.6	496.04	µg/L	496.04	ppb	22:10:25
2	Cu 324.752†	138407.9	133652.5	533.65	µg/L	533.65	ppb	22:10:23
2	Mn 257.610†	4015338.9	3963368.9	4903.2	µg/L	4903.2	ppb	22:10:23
2	Mo 202.031†	16244.2	16054.9	475.92	µg/L	475.92	ppb	22:10:25
2	Ni 231.604†	43316.4	42834.8	493.21	µg/L	493.21	ppb	22:10:25
2	P 214.914†	5585.1	5531.1	1126.5	µg/L	1126.5	ppb	22:10:25
2	Pb 220.353†	9324.7	9118.1	515.91	µg/L	515.91	ppb	22:10:25

2	S 181.975 Axial†	6670.8	6479.8	4815.7 µg/L	4815.7 ppb	22:10:25
2	Sb 206.836†	3844.3	3713.9	440.81 µg/L	440.81 ppb	22:10:25
2	Se 196.026†	1238.9	1207.6	469 µg/L	469 ppb	22:10:25
2	SiO2†	612579.2	602911.5	58909 µg/L	58909 ppb	22:10:23
2	Si 251.611†	1892379.5	1867161.9	27518 µg/L	27518 ppb	22:10:23
2	Sn 189.927†	7640.7	7543.3	482.94 µg/L	482.94 ppb	22:10:25
2	Ti 334.940†	4083165.8	4029606.6	3763.9 µg/L	3763.9 ppb	22:10:23
2	Tl 190.801†	3286.3	3360.6	464.86 µg/L	464.86 ppb	22:10:25
2	U 409.014†	-552.2	-275.2	24.042 µg/L	24.042 ppb	22:10:23
2	V 292.402†	108427.5	106626.8	513.74 µg/L	513.74 ppb	22:10:23
2	Zn 213.857†	167069.9	164352.9	912.48 µg/L	912.48 ppb	22:10:23
3	Sc RADIAL	146744.0	146744.0	101 %		22:10:12
3	Al 396.153Radial†	333400.1	331613.4	61459 µg/L	61459 ppb	22:10:10
3	Ca 317.933Radial†	151565.5	150163.9	8364.7 µg/L	8364.7 ppb	22:10:12
3	Fe 238.204 Radial†	1490126.5	1481710.3	91324 µg/L	91324 ppb	22:10:10
3	K 766.490 Radial†	28479.0	26776.2	9786.2 µg/L	9786.2 ppb	22:10:12
3	Mg 279.077 IEC†	28908.6	28557.5	10573 µg/L	10573 ppb	22:10:12
3	Na 589.592 Radial†	43044.9	41515.3	5662.8 µg/L	5662.8 ppb	22:10:12
3	Sr 421.552†	243003.5	241790.4	502.60 µg/L	502.60 ppb	22:10:10
3	Sc 361.383	1747234.9	1747234.9	101.69 %		22:10:29
3	Y 371.029	1608292.6	1608292.6	156.65 %		22:10:29
3	Ag 328.068†	129907.6	123658.8	461.97 µg/L	461.97 ppb	22:10:29
3	As 188.979†	1639.0	1632.1	520.03 µg/L	520.03 ppb	22:10:31
3	B 249.677†	36511.0	32398.7	476.19 µg/L	476.19 ppb	22:10:29
3	Ba 233.527†	180845.8	177978.2	716.50 µg/L	716.50 ppb	22:10:29
3	Be 313.107†	1840376.5	1810877.0	493.07 µg/L	493.07 ppb	22:10:29
3	Cd 226.502†	77414.2	76246.7	466.87 µg/L	466.87 ppb	22:10:29
3	Co 228.616†	38534.8	38085.1	465.89 µg/L	465.89 ppb	22:10:31
3	Cr 267.716†	63628.0	62392.8	490.73 µg/L	490.73 ppb	22:10:31
3	Cu 324.752†	138700.4	133424.7	532.37 µg/L	532.37 ppb	22:10:29
3	Mn 257.610†	4019653.9	3952660.0	4890.0 µg/L	4890.0 ppb	22:10:29
3	Mo 202.031†	16051.8	15805.3	468.48 µg/L	468.48 ppb	22:10:31
3	Ni 231.604†	42983.9	42346.5	487.59 µg/L	487.59 ppb	22:10:31
3	P 214.914†	5616.4	5541.1	1130.2 µg/L	1130.2 ppb	22:10:31
3	Pb 220.353†	9130.4	8892.4	503.27 µg/L	503.27 ppb	22:10:31
3	S 181.975 Axial†	6645.0	6429.6	4778.4 µg/L	4778.4 ppb	22:10:31
3	Sb 206.836†	3891.7	3746.2	444.65 µg/L	444.65 ppb	22:10:31
3	Se 196.026†	1213.8	1178.3	458 µg/L	458 ppb	22:10:31
3	SiO2†	613332.2	601370.9	58759 µg/L	58759 ppb	22:10:29
3	Si 251.611†	1894467.6	1862168.6	27444 µg/L	27444 ppb	22:10:29
3	Sn 189.927†	7581.9	7457.1	477.55 µg/L	477.55 ppb	22:10:31
3	Ti 334.940†	4091256.1	4022357.7	3757.2 µg/L	3757.2 ppb	22:10:29
3	Tl 190.801†	3254.5	3317.1	459.43 µg/L	459.43 ppb	22:10:31
3	U 409.014†	-477.5	-199.6	28.926 µg/L	28.926 ppb	22:10:29
3	V 292.402†	108577.5	106370.5	512.69 µg/L	512.69 ppb	22:10:29
3	Zn 213.857†	167094.1	163754.6	909.42 µg/L	909.42 ppb	22:10:29

Mean Data: 1202068039|963989|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1743408.1	101.47	%	0.199				0.20%
Sc RADIAL	146042.5	100	%	0.8				0.78%
Y 371.029	1604749.0	156.30	%	0.310				0.20%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 156.3%								
Ag 328.068†	123952.9	463.05	µg/L	1.442	463.05	ppb	1.442	0.31%
Al 396.153Radial†	335729.3	62222	µg/L	732.8	62222	ppb	732.8	1.18%
As 188.979†	1620.2	516.76	µg/L	5.696	516.76	ppb	5.696	1.10%
B 249.677†	32534.9	478.20	µg/L	1.750	478.20	ppb	1.750	0.37%
Ba 233.527†	178274.7	717.68	µg/L	1.118	717.68	ppb	1.118	0.16%
Be 313.107†	1813453.3	493.77	µg/L	0.675	493.77	ppb	0.675	0.14%
Ca 317.933Radial†	149834.6	8346.4	µg/L	20.94	8346.4	ppb	20.94	0.25%
Cd 226.502†	76186.5	466.34	µg/L	1.085	466.34	ppb	1.085	0.23%
Co 228.616†	38182.8	467.02	µg/L	4.796	467.02	ppb	4.796	1.03%
Cr 267.716†	62453.5	491.26	µg/L	4.533	491.26	ppb	4.533	0.92%
Cu 324.752†	133481.7	532.80	µg/L	0.731	532.80	ppb	0.731	0.14%
Fe 238.204 Radial†	1505777.3	92807	µg/L	1372.6	92807	ppb	1372.6	1.48%
K 766.490 Radial†	26880.1	9824.0	µg/L	53.71	9824.0	ppb	53.71	0.55%
Mg 279.077 IEC†	28558.0	10572	µg/L	0.9	10572	ppb	0.9	0.01%
Mn 257.610†	3957949.2	4896.5	µg/L	6.62	4896.5	ppb	6.62	0.14%
Mo 202.031†	15880.7	470.75	µg/L	4.486	470.75	ppb	4.486	0.95%

Na 589.592 Radial†	41438.7	5652.3	µg/L	9.21	5652.3	ppb	9.21	0.16%
Ni 231.604†	42363.7	487.79	µg/L	5.329	487.79	ppb	5.329	1.09%
P 214.914†	5488.8	1118.1	µg/L	17.74	1118.1	ppb	17.74	1.59%
Pb 220.353†	8961.5	507.14	µg/L	7.608	507.14	ppb	7.608	1.50%
S 181.975 Axial†	6393.0	4751.3	µg/L	81.55	4751.3	ppb	81.55	1.72%
Sb 206.836†	3675.4	436.24	µg/L	11.405	436.24	ppb	11.405	2.61%
Se 196.026†	1177.6	458	µg/L	11.2	458	ppb	11.2	2.44%
SiO2†	602186.1	58839	µg/L	75.5	58839	ppb	75.5	0.13%
Si 251.611†	1864318.3	27476	µg/L	37.8	27476	ppb	37.8	0.14%
Sn 189.927†	7493.8	479.85	µg/L	2.784	479.85	ppb	2.784	0.58%
Sr 421.552†	244763.0	508.78	µg/L	6.179	508.78	ppb	6.179	1.21%
Ti 334.940†	4026416.4	3760.9	µg/L	3.46	3760.9	ppb	3.46	0.09%
Tl 190.801†	3341.4	462.47	µg/L	2.772	462.47	ppb	2.772	0.60%
U 409.014†	-244.6	26.040	µg/L	2.5598	26.040	ppb	2.5598	9.83%
V 292.402†	106513.1	513.25	µg/L	0.530	513.25	ppb	0.530	0.10%
Zn 213.857†	163944.4	910.34	µg/L	1.861	910.34	ppb	1.861	0.20%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 76
Sample ID: 1202068037|963989|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 212
Date Collected: 3/31/2010 22:10:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068037|963989|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	147438.7	147438.7	101	%			22:11:08
1	Al 396.153Radial†	26158.1	25953.6	4811.8	µg/L	4811.8	ppb	22:11:08
1	Ca 317.933Radial†	9089.7	8436.1	469.93	µg/L	469.93	ppb	22:11:10
1	Fe 238.204 Radial†	171267.7	169366.8	10439	µg/L	10439	ppb	22:11:08
1	K 766.490 Radial†	2815.9	1242.3	453.62	µg/L	453.62	ppb	22:11:08
1	Mg 279.077 IEC†	1729.9	1521.5	557.95	µg/L	557.95	ppb	22:11:10
1	Na 589.592 Radial†	1872.4	562.4	76.427	µg/L	76.427	ppb	22:11:10
1	Sr 421.552†	2244.1	2356.4	4.8952	µg/L	4.8952	ppb	22:11:10
1	Sc 361.383	1751969.0	1751969.0	101.96	%			22:11:36
1	Y 371.029	1102937.7	1102937.7	107.43	%			22:11:36
1	Ag 328.068†	4120.5	-50.3	-0.4280	µg/L	-0.4280	ppb	22:11:38
1	As 188.979†	-5.3	15.2	6.9580	µg/L	6.9580	ppb	22:11:58
1	B 249.677†	3548.0	-26.2	-0.3945	µg/L	-0.3945	ppb	22:11:38
1	Ba 233.527†	7061.0	7060.8	28.323	µg/L	28.323	ppb	22:11:58
1	Be 313.107†	3831.1	4822.0	1.2930	µg/L	1.2930	ppb	22:11:38
1	Cd 226.502†	89.9	206.4	0.1922	µg/L	0.1922	ppb	22:11:58
1	Co 228.616†	-17.2	173.4	1.6230	µg/L	1.6230	ppb	22:11:58
1	Cr 267.716†	466.9	279.3	2.4633	µg/L	2.4633	ppb	22:11:58
1	Cu 324.752†	3549.6	509.0	3.4604	µg/L	3.4604	ppb	22:11:38
1	Mn 257.610†	440711.5	431984.0	534.44	µg/L	534.44	ppb	22:11:36
1	Mo 202.031†	-9.4	10.8	0.7429	µg/L	0.7429	ppb	22:11:58
1	Ni 231.604†	103.9	178.5	2.0548	µg/L	2.0548	ppb	22:11:58
1	P 214.914†	380.4	391.1	77.594	µg/L	77.594	ppb	22:11:58
1	Pb 220.353†	157.8	68.3	4.3435	µg/L	4.3435	ppb	22:11:58
1	S 181.975 Axial†	116.8	9.5	7.0855	µg/L	7.0855	ppb	22:11:58
1	Sb 206.836†	78.0	-4.3	-0.6965	µg/L	-0.6965	ppb	22:11:58
1	Se 196.026†	21.3	5.7	5.60	µg/L	5.60	ppb	22:11:58
1	SiO2†	86768.3	83321.4	8144.0	µg/L	8144.0	ppb	22:11:38
1	Si 251.611†	261637.3	255760.4	3770.6	µg/L	3770.6	ppb	22:11:38
1	Sn 189.927†	13.0	13.9	2.1831	µg/L	2.1831	ppb	22:11:58
1	Ti 334.940†	427051.9	417872.3	390.40	µg/L	390.40	ppb	22:11:36
1	Tl 190.801†	-168.4	-48.5	-0.6316	µg/L	-0.6316	ppb	22:11:58
1	U 409.014†	-1423.6	-1126.3	-64.421	µg/L	-64.421	ppb	22:11:38
1	V 292.402†	1588.4	1154.0	4.1345	µg/L	4.1345	ppb	22:11:38
1	Zn 213.857†	10906.8	10132.3	56.067	µg/L	56.067	ppb	22:11:38
2	Sc RADIAL	145878.1	145878.1	100.0	%			22:11:12
2	Al 396.153Radial†	26138.6	26211.1	4859.5	µg/L	4859.5	ppb	22:11:12
2	Ca 317.933Radial†	9010.1	8452.7	470.85	µg/L	470.85	ppb	22:11:14
2	Fe 238.204 Radial†	170151.5	170063.7	10482	µg/L	10482	ppb	22:11:12
2	K 766.490 Radial†	2821.1	1277.3	466.42	µg/L	466.42	ppb	22:11:12
2	Mg 279.077 IEC†	1735.2	1545.1	566.70	µg/L	566.70	ppb	22:11:14
2	Na 589.592 Radial†	2026.3	736.2	100.16	µg/L	100.16	ppb	22:11:14
2	Sr 421.552†	2127.8	2263.9	4.7027	µg/L	4.7027	ppb	22:11:14
2	Sc 361.383	1777716.4	1777716.4	103.46	%			22:12:00
2	Y 371.029	1117946.6	1117946.6	108.89	%			22:12:00
2	Ag 328.068†	3996.2	-228.9	-1.0893	µg/L	-1.0893	ppb	22:12:03
2	As 188.979†	-12.7	8.1	4.8152	µg/L	4.8152	ppb	22:12:23
2	B 249.677†	3617.6	-9.4	-0.1446	µg/L	-0.1446	ppb	22:12:03
2	Ba 233.527†	7121.8	7019.3	28.154	µg/L	28.154	ppb	22:12:23
2	Be 313.107†	4223.7	5147.0	1.3832	µg/L	1.3832	ppb	22:12:03
2	Cd 226.502†	69.9	185.8	0.0591	µg/L	0.0591	ppb	22:12:23
2	Co 228.616†	-51.8	140.2	1.2116	µg/L	1.2116	ppb	22:12:23
2	Cr 267.716†	498.7	303.5	2.6494	µg/L	2.6494	ppb	22:12:23
2	Cu 324.752†	3508.5	418.8	3.1209	µg/L	3.1209	ppb	22:12:03
2	Mn 257.610†	446595.8	431411.3	533.73	µg/L	533.73	ppb	22:12:00
2	Mo 202.031†	-0.3	19.8	1.0091	µg/L	1.0091	ppb	22:12:23
2	Ni 231.604†	77.5	151.4	1.7432	µg/L	1.7432	ppb	22:12:23
2	P 214.914†	401.2	405.8	80.724	µg/L	80.724	ppb	22:12:23
2	Pb 220.353†	182.7	90.2	5.5617	µg/L	5.5617	ppb	22:12:23

2	S 181.975 Axial†	117.6	8.6	6.4197 µg/L	6.4197 ppb	22:12:23
2	Sb 206.836†	71.1	-12.1	-1.6205 µg/L	-1.6205 ppb	22:12:23
2	Se 196.026†	6.1	-9.4	0.181 µg/L	0.181 ppb	22:12:23
2	SiO2†	86697.3	82020.2	8016.8 µg/L	8016.8 ppb	22:12:03
2	Si 251.611†	262475.7	252854.3	3727.8 µg/L	3727.8 ppb	22:12:03
2	Sn 189.927†	20.5	20.9	2.6171 µg/L	2.6171 ppb	22:12:23
2	Ti 334.940†	432715.5	417280.3	389.84 µg/L	389.84 ppb	22:12:00
2	Tl 190.801†	-159.9	-37.9	0.6665 µg/L	0.6665 ppb	22:12:23
2	U 409.014†	-1346.5	-1031.5	-58.926 µg/L	-58.926 ppb	22:12:03
2	V 292.402†	1494.7	1040.8	3.5858 µg/L	3.5858 ppb	22:12:03
2	Zn 213.857†	10897.8	9968.7	55.146 µg/L	55.146 ppb	22:12:03
3	Sc RADIAL	148046.0	148046.0	101 %		22:11:16
3	Al 396.153Radial†	26387.9	26073.9	4834.0 µg/L	4834.0 ppb	22:11:16
3	Ca 317.933Radial†	9144.2	8452.9	470.86 µg/L	470.86 ppb	22:11:18
3	Fe 238.204 Radial†	173406.9	170780.1	10526 µg/L	10526 ppb	22:11:16
3	K 766.490 Radial†	2881.1	1295.1	472.95 µg/L	472.95 ppb	22:11:16
3	Mg 279.077 IEC†	1692.1	1477.2	541.39 µg/L	541.39 ppb	22:11:18
3	Na 589.592 Radial†	2049.5	729.4	99.224 µg/L	99.224 ppb	22:11:18
3	Sr 421.552†	2076.0	2181.6	4.5318 µg/L	4.5318 ppb	22:11:18
3	Sc 361.383	1761452.4	1761452.4	102.52 %		22:12:25
3	Y 371.029	1108464.5	1108464.5	107.97 %		22:12:25
3	Ag 328.068†	3946.1	-242.1	-1.1301 µg/L	-1.1301 ppb	22:12:27
3	As 188.979†	-11.0	9.6	5.2899 µg/L	5.2899 ppb	22:12:47
3	B 249.677†	3592.2	-1.9	-0.0338 µg/L	-0.0338 ppb	22:12:27
3	Ba 233.527†	7103.9	7065.4	28.340 µg/L	28.340 ppb	22:12:47
3	Be 313.107†	4060.2	5025.2	1.3517 µg/L	1.3517 ppb	22:12:27
3	Cd 226.502†	79.0	195.3	0.1139 µg/L	0.1139 ppb	22:12:47
3	Co 228.616†	-43.8	147.6	1.3003 µg/L	1.3003 ppb	22:12:47
3	Cr 267.716†	462.0	272.1	2.4006 µg/L	2.4006 ppb	22:12:47
3	Cu 324.752†	3528.2	469.4	3.3280 µg/L	3.3280 ppb	22:12:27
3	Mn 257.610†	444243.6	433102.4	535.83 µg/L	535.83 ppb	22:12:25
3	Mo 202.031†	13.6	33.3	1.4079 µg/L	1.4079 ppb	22:12:47
3	Ni 231.604†	93.8	168.1	1.9351 µg/L	1.9351 ppb	22:12:47
3	P 214.914†	376.5	385.2	76.288 µg/L	76.288 ppb	22:12:47
3	Pb 220.353†	173.4	82.8	5.1447 µg/L	5.1447 ppb	22:12:47
3	S 181.975 Axial†	115.3	7.4	5.5011 µg/L	5.5011 ppb	22:12:47
3	Sb 206.836†	87.1	4.2	0.3233 µg/L	0.3233 ppb	22:12:47
3	Se 196.026†	6.7	-8.8	0.427 µg/L	0.427 ppb	22:12:47
3	SiO2†	87375.2	83455.2	8157.0 µg/L	8157.0 ppb	22:12:27
3	Si 251.611†	264610.8	257279.4	3793.0 µg/L	3793.0 ppb	22:12:27
3	Sn 189.927†	19.4	20.1	2.5731 µg/L	2.5731 ppb	22:12:47
3	Ti 334.940†	430804.7	419278.1	391.71 µg/L	391.71 ppb	22:12:25
3	Tl 190.801†	-162.2	-41.6	0.2364 µg/L	0.2364 ppb	22:12:47
3	U 409.014†	-1236.0	-935.8	-53.316 µg/L	-53.316 ppb	22:12:27
3	V 292.402†	1520.4	1079.3	3.7740 µg/L	3.7740 ppb	22:12:27
3	Zn 213.857†	11017.9	10183.1	56.345 µg/L	56.345 ppb	22:12:27

Mean Data: 1202068037|963989|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1763712.6	102.65	%	0.758				0.74%
Sc RADIAL	147120.9	101	%	0.8				0.76%
Y 371.029	1109783.0	108.09	%	0.739				0.68%
Ag 328.068†	-173.8	-0.8825	µg/L	0.39413	-0.8825	ppb	0.39413	44.66%
Al 396.153Radial†	26079.5	4835.1	µg/L	23.88	4835.1	ppb	23.88	0.49%
As 188.979†	11.0	5.6877	µg/L	1.12541	5.6877	ppb	1.12541	19.79%
B 249.677†	-12.5	-0.1910	µg/L	0.18478	-0.1910	ppb	0.18478	96.75%
Ba 233.527†	7048.5	28.272	µg/L	0.1025	28.272	ppb	0.1025	0.36%
Be 313.107†	4998.1	1.3427	µg/L	0.04576	1.3427	ppb	0.04576	3.41%
Ca 317.933Radial†	8447.3	470.55	µg/L	0.537	470.55	ppb	0.537	0.11%
Cd 226.502†	195.8	0.1217	µg/L	0.06688	0.1217	ppb	0.06688	54.94%
Co 228.616†	153.7	1.3783	µg/L	0.21652	1.3783	ppb	0.21652	15.71%
Cr 267.716†	284.9	2.5044	µg/L	0.12937	2.5044	ppb	0.12937	5.17%
Cu 324.752†	465.7	3.3031	µg/L	0.17111	3.3031	ppb	0.17111	5.18%
Fe 238.204 Radial†	170070.2	10482	µg/L	43.6	10482	ppb	43.6	0.42%
K 766.490 Radial†	1271.6	464.33	µg/L	9.829	464.33	ppb	9.829	2.12%
Mg 279.077 IEC†	1514.6	555.35	µg/L	12.852	555.35	ppb	12.852	2.31%
Mn 257.610†	432165.9	534.67	µg/L	1.065	534.67	ppb	1.065	0.20%
Mo 202.031†	21.3	1.0533	µg/L	0.33468	1.0533	ppb	0.33468	31.77%
Na 589.592 Radial†	676.0	91.938	µg/L	13.4409	91.938	ppb	13.4409	14.62%

Ni 231.604†	166.0	1.9110	µg/L	0.15717	1.9110	ppb	0.15717	8.22%
P 214.914†	394.0	78.202	µg/L	2.2797	78.202	ppb	2.2797	2.92%
Pb 220.353†	80.5	5.0166	µg/L	0.61912	5.0166	ppb	0.61912	12.34%
S 181.975 Axial†	8.5	6.3354	µg/L	0.79551	6.3354	ppb	0.79551	12.56%
Sb 206.836†	-4.1	-0.6646	µg/L	0.97225	-0.6646	ppb	0.97225	146.30%
Se 196.026†	-4.2	2.07	µg/L	3.063	2.07	ppb	3.063	147.91%
SiO2†	82932.3	8105.9	µg/L	77.48	8105.9	ppb	77.48	0.96%
Si 251.611†	255298.0	3763.8	µg/L	33.15	3763.8	ppb	33.15	0.88%
Sn 189.927†	18.3	2.4578	µg/L	0.23885	2.4578	ppb	0.23885	9.72%
Sr 421.552†	2267.3	4.7099	µg/L	0.18182	4.7099	ppb	0.18182	3.86%
Ti 334.940†	418143.6	390.65	µg/L	0.958	390.65	ppb	0.958	0.25%
Tl 190.801†	-42.7	0.0904	µg/L	0.66124	0.0904	ppb	0.66124	731.23%
U 409.014†	-1031.2	-58.888	µg/L	5.5526	-58.888	ppb	5.5526	9.43%
Concentration less than lower limit for U 409.014.								
V 292.402†	1091.4	3.8315	µg/L	0.27881	3.8315	ppb	0.27881	7.28%
Zn 213.857†	10094.7	55.853	µg/L	0.6275	55.853	ppb	0.6275	1.12%

Sequence No.: 77
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 22:12:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144265.2	144265.2	98.9	%			22:13:29
1	Al 396.153Radial†	26382.4	26750.0	4937.0	µg/L	4937.0	ppb	22:13:29
1	Ca 317.933Radial†	86791.9	87232.7	4859.2	µg/L	4859.2	ppb	22:13:29
1	Fe 238.204 Radial†	77447.1	78192.6	4819.3	µg/L	4819.3	ppb	22:13:29
1	K 766.490 Radial†	14619.5	13243.4	4844.7	µg/L	4844.7	ppb	22:13:29
1	Mg 279.077 IEC†	13211.3	13173.0	4915.8	µg/L	4915.8	ppb	22:13:29
1	Na 589.592 Radial†	70822.8	70349.2	9606.2	µg/L	9606.2	ppb	22:13:29
1	Sr 421.552†	230249.1	233041.1	484.44	µg/L	484.44	ppb	22:13:27
1	Sc 361.383	1718218.3	1718218.3	100.00	%			22:13:42
1	Y 371.029	1017558.5	1017558.5	99.111	%			22:13:42
1	Ag 328.068†	131861.6	127770.2	479.08	µg/L	479.08	ppb	22:13:42
1	As 188.979†	1610.7	1631.1	500.23	µg/L	500.23	ppb	22:14:02
1	B 249.677†	35422.2	31916.3	469.05	µg/L	469.05	ppb	22:13:42
1	Ba 233.527†	118202.1	118337.9	477.26	µg/L	477.26	ppb	22:13:42
1	Be 313.107†	1762457.8	1763521.9	480.31	µg/L	480.31	ppb	22:13:42
1	Cd 226.502†	75826.8	75945.0	474.08	µg/L	474.08	ppb	22:13:42
1	Co 228.616†	38510.6	38700.9	477.76	µg/L	477.76	ppb	22:13:42
1	Cr 267.716†	60814.9	60636.3	474.77	µg/L	474.77	ppb	22:13:42
1	Cu 324.752†	125406.1	122433.9	477.29	µg/L	477.29	ppb	22:13:42
1	Mn 257.610†	388459.2	388221.8	480.14	µg/L	480.14	ppb	22:13:42
1	Mo 202.031†	16438.1	16458.2	484.12	µg/L	484.12	ppb	22:14:02
1	Ni 231.604†	41348.4	41424.9	476.98	µg/L	476.98	ppb	22:13:42
1	P 214.914†	11268.3	11286.3	2405.7	µg/L	2405.7	ppb	22:14:02
1	Pb 220.353†	8791.6	8705.2	487.48	µg/L	487.48	ppb	22:14:02
1	S 181.975 Axial†	1392.6	1287.6	960.21	µg/L	960.21	ppb	22:14:02
1	Sb 206.836†	4153.0	4072.2	485.30	µg/L	485.30	ppb	22:14:02
1	Se 196.026†	1350.2	1334.9	485	µg/L	485	ppb	22:14:02
1	SiO2†	54803.6	53028.2	5162.3	µg/L	5162.3	ppb	22:13:42
1	Si 251.611†	165311.8	164475.2	2415.2	µg/L	2415.2	ppb	22:13:42
1	Sn 189.927†	7742.7	7743.8	484.36	µg/L	484.36	ppb	22:14:02
1	Ti 334.940†	513691.3	512738.5	478.42	µg/L	478.42	ppb	22:13:42
1	Tl 190.801†	3841.3	3958.0	493.49	µg/L	493.49	ppb	22:14:02
1	U 409.014†	7369.5	7639.3	475.58	µg/L	475.58	ppb	22:13:42
1	V 292.402†	97334.2	96930.4	479.25	µg/L	479.25	ppb	22:13:42
1	Zn 213.857†	85434.2	84869.8	473.01	µg/L	473.01	ppb	22:13:42
2	Sc RADIAL	145847.8	145847.8	99.9	%			22:13:33
2	Al 396.153Radial†	26431.3	26509.4	4892.7	µg/L	4892.7	ppb	22:13:33
2	Ca 317.933Radial†	87616.4	87105.0	4852.1	µg/L	4852.1	ppb	22:13:33
2	Fe 238.204 Radial†	78290.7	78186.6	4818.9	µg/L	4818.9	ppb	22:13:33
2	K 766.490 Radial†	14711.5	13175.0	4819.6	µg/L	4819.6	ppb	22:13:33
2	Mg 279.077 IEC†	13383.0	13199.9	4925.6	µg/L	4925.6	ppb	22:13:33
2	Na 589.592 Radial†	71537.8	70287.2	9597.8	µg/L	9597.8	ppb	22:13:33
2	Sr 421.552†	230007.1	230271.7	478.68	µg/L	478.68	ppb	22:13:31
2	Sc 361.383	1739608.4	1739608.4	101.24	%			22:14:05
2	Y 371.029	1028848.9	1028848.9	100.21	%			22:14:05
2	Ag 328.068†	134324.7	128581.6	482.14	µg/L	482.14	ppb	22:14:05
2	As 188.979†	1606.6	1607.2	493.02	µg/L	493.02	ppb	22:14:25
2	B 249.677†	36291.4	32339.3	475.28	µg/L	475.28	ppb	22:14:05
2	Ba 233.527†	120672.3	119324.3	481.23	µg/L	481.23	ppb	22:14:05
2	Be 313.107†	1801555.4	1780467.6	484.92	µg/L	484.92	ppb	22:14:05
2	Cd 226.502†	77540.6	76705.4	478.83	µg/L	478.83	ppb	22:14:05
2	Co 228.616†	39324.4	39031.1	481.84	µg/L	481.84	ppb	22:14:05
2	Cr 267.716†	61962.6	61022.1	477.79	µg/L	477.79	ppb	22:14:05
2	Cu 324.752†	127723.3	123180.5	480.19	µg/L	480.19	ppb	22:14:05
2	Mn 257.610†	396691.5	391576.4	484.29	µg/L	484.29	ppb	22:14:05
2	Mo 202.031†	16408.8	16227.1	477.33	µg/L	477.33	ppb	22:14:25
2	Ni 231.604†	42066.6	41625.8	479.29	µg/L	479.29	ppb	22:14:05
2	P 214.914†	11256.1	11135.6	2373.5	µg/L	2373.5	ppb	22:14:25
2	Pb 220.353†	8760.6	8566.5	479.72	µg/L	479.72	ppb	22:14:25

2	S 181.975 Axial†	1379.1	1257.1	937.49 µg/L	937.49 ppb	22:14:25
2	Sb 206.836†	4126.7	3995.1	476.00 µg/L	476.00 ppb	22:14:25
2	Se 196.026†	1344.9	1313.1	477 µg/L	477 ppb	22:14:25
2	SiO2†	55878.0	53415.5	5200.4 µg/L	5200.4 ppb	22:14:05
2	Si 251.611†	168787.2	165875.2	2436.0 µg/L	2436.0 ppb	22:14:05
2	Sn 189.927†	7780.5	7685.9	480.76 µg/L	480.76 ppb	22:14:25
2	Ti 334.940†	523148.0	515762.7	481.24 µg/L	481.24 ppb	22:14:05
2	Tl 190.801†	3840.1	3909.5	487.59 µg/L	487.59 ppb	22:14:25
2	U 409.014†	7476.8	7654.7	476.77 µg/L	476.77 ppb	22:14:05
2	V 292.402†	99532.4	97904.8	483.95 µg/L	483.95 ppb	22:14:05
2	Zn 213.857†	87491.3	85851.1	478.50 µg/L	478.50 ppb	22:14:05
3	Sc RADIAL	145510.3	145510.3	99.7 %		22:13:37
3	Al 396.153Radial†	26649.3	26789.4	4944.6 µg/L	4944.6 ppb	22:13:37
3	Ca 317.933Radial†	87905.2	87598.0	4879.6 µg/L	4879.6 ppb	22:13:37
3	Fe 238.204 Radial†	78514.4	78592.6	4844.0 µg/L	4844.0 ppb	22:13:37
3	K 766.490 Radial†	14626.3	13123.7	4800.8 µg/L	4800.8 ppb	22:13:37
3	Mg 279.077 IEC†	13367.9	13215.7	4931.5 µg/L	4931.5 ppb	22:13:37
3	Na 589.592 Radial†	71662.6	70578.3	9637.6 µg/L	9637.6 ppb	22:13:37
3	Sr 421.552†	228923.8	229719.0	477.53 µg/L	477.53 ppb	22:13:35
3	Sc 361.383	1738267.6	1738267.6	101.17 %		22:14:28
3	Y 371.029	1027936.3	1027936.3	100.12 %		22:14:28
3	Ag 328.068†	134212.1	128572.7	482.09 µg/L	482.09 ppb	22:14:28
3	As 188.979†	1598.1	1600.0	490.84 µg/L	490.84 ppb	22:14:48
3	B 249.677†	36163.6	32240.6	473.82 µg/L	473.82 ppb	22:14:28
3	Ba 233.527†	120556.5	119301.7	481.14 µg/L	481.14 ppb	22:14:28
3	Be 313.107†	1796851.1	1777190.1	484.03 µg/L	484.03 ppb	22:14:28
3	Cd 226.502†	77464.7	76689.4	478.73 µg/L	478.73 ppb	22:14:28
3	Co 228.616†	39399.0	39134.9	483.12 µg/L	483.12 ppb	22:14:28
3	Cr 267.716†	61725.8	60835.3	476.33 µg/L	476.33 ppb	22:14:28
3	Cu 324.752†	127349.1	122907.9	479.13 µg/L	479.13 ppb	22:14:28
3	Mn 257.610†	395160.9	390365.7	482.79 µg/L	482.79 ppb	22:14:28
3	Mo 202.031†	16361.5	16192.8	476.33 µg/L	476.33 ppb	22:14:48
3	Ni 231.604†	41980.9	41573.2	478.68 µg/L	478.68 ppb	22:14:28
3	P 214.914†	11184.1	11073.0	2360.1 µg/L	2360.1 ppb	22:14:48
3	Pb 220.353†	8741.7	8554.5	479.05 µg/L	479.05 ppb	22:14:48
3	S 181.975 Axial†	1393.5	1272.4	948.88 µg/L	948.88 ppb	22:14:48
3	Sb 206.836†	4119.1	3990.8	475.48 µg/L	475.48 ppb	22:14:48
3	Se 196.026†	1344.8	1314.0	477 µg/L	477 ppb	22:14:48
3	SiO2†	55631.5	53214.4	5180.9 µg/L	5180.9 ppb	22:14:28
3	Si 251.611†	168426.4	165647.1	2432.6 µg/L	2432.6 ppb	22:14:28
3	Sn 189.927†	7707.1	7619.3	476.60 µg/L	476.60 ppb	22:14:48
3	Ti 334.940†	521295.0	514329.6	479.91 µg/L	479.91 ppb	22:14:28
3	Tl 190.801†	3816.8	3889.5	485.09 µg/L	485.09 ppb	22:14:48
3	U 409.014†	7397.3	7581.9	472.42 µg/L	472.42 ppb	22:14:28
3	V 292.402†	99170.7	97623.1	482.55 µg/L	482.55 ppb	22:14:28
3	Zn 213.857†	87280.4	85709.2	477.71 µg/L	477.71 ppb	22:14:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732031.4	100.80	%	0.697				0.69%
Sc RADIAL	145207.8	99.5	%	0.57				0.57%
Y 371.029	1024781.2	99.814	%	0.6109				0.61%
Ag 328.068†	128308.2	481.10	µg/L	1.752	481.10	ppb	1.752	0.36%
QC value within limits for Ag 328.068 Recovery = 96.22%								
Al 396.153Radial†	26682.9	4924.7	µg/L	28.05	4924.7	ppb	28.05	0.57%
QC value within limits for Al 396.153Radial Recovery = 98.49%								
As 188.979†	1612.8	494.70	µg/L	4.918	494.70	ppb	4.918	0.99%
QC value within limits for As 188.979 Recovery = 98.94%								
B 249.677†	32165.4	472.71	µg/L	3.255	472.71	ppb	3.255	0.69%
QC value within limits for B 249.677 Recovery = 94.54%								
Ba 233.527†	118988.0	479.88	µg/L	2.269	479.88	ppb	2.269	0.47%
QC value within limits for Ba 233.527 Recovery = 95.98%								
Be 313.107†	1773726.5	483.09	µg/L	2.447	483.09	ppb	2.447	0.51%
QC value within limits for Be 313.107 Recovery = 96.62%								
Ca 317.933Radial†	87311.9	4863.6	µg/L	14.25	4863.6	ppb	14.25	0.29%
QC value within limits for Ca 317.933Radial Recovery = 97.27%								
Cd 226.502†	76446.6	477.21	µg/L	2.714	477.21	ppb	2.714	0.57%
QC value within limits for Cd 226.502 Recovery = 95.44%								
Co 228.616†	38955.6	480.91	µg/L	2.798	480.91	ppb	2.798	0.58%

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   QC value within limits for Co 228.616  Recovery = 96.18%
Cr 267.716†            60831.2      476.30 µg/L        1.512      476.30 ppb          1.512   0.32%
   QC value within limits for Cr 267.716  Recovery = 95.26%
Cu 324.752†           122840.8      478.87 µg/L        1.470      478.87 ppb          1.470   0.31%
   QC value within limits for Cu 324.752  Recovery = 95.77%
Fe 238.204 Radial†     78324.0      4827.4 µg/L        14.34      4827.4 ppb          14.34   0.30%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.55%
K 766.490 Radial†      13180.7      4821.7 µg/L        21.99      4821.7 ppb          21.99   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 96.43%
Mg 279.077 IEC†        13196.2      4924.3 µg/L         7.93      4924.3 ppb           7.93   0.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.49%
Mn 257.610†           390054.6      482.41 µg/L        2.102      482.41 ppb          2.102   0.44%
   QC value within limits for Mn 257.610  Recovery = 96.48%
Mo 202.031†            16292.7      479.26 µg/L        4.241      479.26 ppb          4.241   0.88%
   QC value within limits for Mo 202.031  Recovery = 95.85%
Na 589.592 Radial†     70404.9      9613.9 µg/L        20.97      9613.9 ppb          20.97   0.22%
   QC value within limits for Na 589.592 Radial  Recovery = 96.14%
Ni 231.604†            41541.3      478.32 µg/L        1.200      478.32 ppb          1.200   0.25%
   QC value within limits for Ni 231.604  Recovery = 95.66%
P 214.914†             11165.0      2379.7 µg/L        23.45      2379.7 ppb          23.45   0.99%
   QC value within limits for P 214.914  Recovery = 95.19%
Pb 220.353†             8608.8      482.08 µg/L        4.685      482.08 ppb          4.685   0.97%
   QC value within limits for Pb 220.353  Recovery = 96.42%
S 181.975 Axial†        1272.4      948.86 µg/L       11.360      948.86 ppb         11.360   1.20%
   QC value within limits for S 181.975 Axial  Recovery = 94.89%
Sb 206.836†             4019.3      478.92 µg/L        5.524      478.92 ppb          5.524   1.15%
   QC value within limits for Sb 206.836  Recovery = 95.78%
Se 196.026†             1320.7         480 µg/L          4.5         480 ppb            4.5   0.93%
   QC value within limits for Se 196.026  Recovery = 95.91%
SiO2†                  53219.4      5181.2 µg/L        19.05      5181.2 ppb          19.05   0.37%
   QC value within limits for SiO2  Recovery = 96.89%
Si 251.611†           165332.5      2427.9 µg/L        11.15      2427.9 ppb          11.15   0.46%
   QC value within limits for Si 251.611  Recovery = 97.12%
Sn 189.927†             7683.0      480.57 µg/L        3.879      480.57 ppb          3.879   0.81%
   QC value within limits for Sn 189.927  Recovery = 96.11%
Sr 421.552†           231010.6      480.22 µg/L        3.701      480.22 ppb          3.701   0.77%
   QC value within limits for Sr 421.552  Recovery = 96.04%
Ti 334.940†           514276.9      479.86 µg/L        1.412      479.86 ppb          1.412   0.29%
   QC value within limits for Ti 334.940  Recovery = 95.97%
Tl 190.801†             3919.0      488.72 µg/L        4.311      488.72 ppb          4.311   0.88%
   QC value within limits for Tl 190.801  Recovery = 97.74%
U 409.014†              7625.3      474.92 µg/L        2.247      474.92 ppb          2.247   0.47%
   QC value within limits for U 409.014  Recovery = 94.98%
V 292.402†             97486.1      481.92 µg/L        2.411      481.92 ppb          2.411   0.50%
   QC value within limits for V 292.402  Recovery = 96.38%
Zn 213.857†            85476.7      476.40 µg/L        2.970      476.40 ppb          2.970   0.62%
   QC value within limits for Zn 213.857  Recovery = 95.28%
All analyte(s) passed QC.
```

Sequence No.: 78
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 22:14:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144616.5	144616.5	99.1	%			22:15:27
1	Al 396.153Radial†	-140.4	-78.5	-14.533	µg/L	-14.533	ppb	22:15:27
1	Ca 317.933Radial†	605.1	50.0	2.7853	µg/L	2.7853	ppb	22:15:47
1	Fe 238.204 Radial†	190.6	44.2	2.7255	µg/L	2.7255	ppb	22:15:47
1	K 766.490 Radial†	1690.5	161.1	58.992	µg/L	58.992	ppb	22:15:27
1	Mg 279.077 IEC†	189.8	0.8	0.2999	µg/L	0.2999	ppb	22:15:47
1	Na 589.592 Radial†	1316.3	37.4	5.0628	µg/L	5.0628	ppb	22:15:27
1	Sr 421.552†	-196.7	-63.2	-0.1315	µg/L	-0.1315	ppb	22:15:27
1	Sc 361.383	1731481.4	1731481.4	100.77	%			22:16:34
1	Y 371.029	1035707.2	1035707.2	100.88	%			22:16:34
1	Ag 328.068†	4207.6	84.0	0.3025	µg/L	0.3025	ppb	22:16:37
1	As 188.979†	-21.2	-0.7	-0.1971	µg/L	-0.1971	ppb	22:16:57
1	B 249.677†	3625.9	92.2	1.3590	µg/L	1.3590	ppb	22:16:37
1	Ba 233.527†	-157.7	-20.7	-0.0841	µg/L	-0.0841	ppb	22:16:57
1	Be 313.107†	-910.7	160.9	0.0444	µg/L	0.0444	ppb	22:16:37
1	Cd 226.502†	-114.4	4.7	0.0290	µg/L	0.0290	ppb	22:16:57
1	Co 228.616†	-176.3	15.4	0.1898	µg/L	0.1898	ppb	22:16:57
1	Cr 267.716†	195.1	15.0	0.1155	µg/L	0.1155	ppb	22:16:57
1	Cu 324.752†	2860.5	-133.6	-0.5170	µg/L	-0.5170	ppb	22:16:37
1	Mn 257.610†	321.7	82.0	0.1014	µg/L	0.1014	ppb	22:16:57
1	Mo 202.031†	-34.6	-14.3	-0.4198	µg/L	-0.4198	ppb	22:16:57
1	Ni 231.604†	-65.6	11.4	0.1312	µg/L	0.1312	ppb	22:16:57
1	P 214.914†	-28.4	-10.2	-2.1783	µg/L	-2.1783	ppb	22:16:57
1	Pb 220.353†	66.3	-20.6	-1.1536	µg/L	-1.1536	ppb	22:16:57
1	S 181.975 Axial†	101.3	-4.5	-3.3505	µg/L	-3.3505	ppb	22:16:57
1	Sb 206.836†	79.6	-1.9	-0.2288	µg/L	-0.2288	ppb	22:16:57
1	Se 196.026†	12.5	-2.8	-1.02	µg/L	-1.02	ppb	22:16:57
1	SiO2†	1786.4	-2.7	-0.2591	µg/L	-0.2591	ppb	22:16:57
1	Si 251.611†	1082.1	237.2	3.4988	µg/L	3.4988	ppb	22:16:37
1	Sn 189.927†	9.2	10.2	0.6390	µg/L	0.6390	ppb	22:16:57
1	Ti 334.940†	1075.1	114.3	0.1060	µg/L	0.1060	ppb	22:16:37
1	Tl 190.801†	-105.3	12.2	1.4953	µg/L	1.4953	ppb	22:16:57
1	U 409.014†	-238.6	33.2	1.8871	µg/L	1.8871	ppb	22:16:37
1	V 292.402†	220.7	-184.8	-0.9046	µg/L	-0.9046	ppb	22:16:37
1	Zn 213.857†	605.7	36.6	0.2048	µg/L	0.2048	ppb	22:16:57
2	Sc RADIAL	144344.2	144344.2	98.9	%			22:15:49
2	Al 396.153Radial†	-228.5	-167.8	-31.103	µg/L	-31.103	ppb	22:15:49
2	Ca 317.933Radial†	612.9	59.1	3.2922	µg/L	3.2922	ppb	22:16:09
2	Fe 238.204 Radial†	199.9	54.0	3.3254	µg/L	3.3254	ppb	22:16:09
2	K 766.490 Radial†	1458.2	-70.5	-25.815	µg/L	-25.815	ppb	22:15:49
2	Mg 279.077 IEC†	169.1	-19.8	-7.3659	µg/L	-7.3659	ppb	22:16:09
2	Na 589.592 Radial†	1297.4	20.8	2.8708	µg/L	2.8708	ppb	22:15:49
2	Sr 421.552†	-320.5	-188.8	-0.3925	µg/L	-0.3925	ppb	22:15:49
2	Sc 361.383	1722284.8	1722284.8	100.24	%			22:16:59
2	Y 371.029	1030621.8	1030621.8	100.38	%			22:16:59
2	Ag 328.068†	3896.9	-203.7	-0.7475	µg/L	-0.7475	ppb	22:17:01
2	As 188.979†	-7.9	12.5	3.7833	µg/L	3.7833	ppb	22:17:21
2	B 249.677†	3506.6	-7.6	-0.1120	µg/L	-0.1120	ppb	22:17:01
2	Ba 233.527†	-125.5	10.7	0.0428	µg/L	0.0428	ppb	22:17:21
2	Be 313.107†	-756.3	310.2	0.0866	µg/L	0.0866	ppb	22:17:01
2	Cd 226.502†	-110.8	7.7	0.0475	µg/L	0.0475	ppb	22:17:21
2	Co 228.616†	-191.9	-1.2	-0.0145	µg/L	-0.0145	ppb	22:17:21
2	Cr 267.716†	200.7	21.6	0.1639	µg/L	0.1639	ppb	22:17:21
2	Cu 324.752†	2989.4	10.2	0.0458	µg/L	0.0458	ppb	22:17:01
2	Mn 257.610†	314.3	76.3	0.0947	µg/L	0.0947	ppb	22:17:21
2	Mo 202.031†	-21.3	-1.1	-0.0337	µg/L	-0.0337	ppb	22:17:21
2	Ni 231.604†	-74.0	2.7	0.0313	µg/L	0.0313	ppb	22:17:21
2	P 214.914†	-16.7	1.3	0.2808	µg/L	0.2808	ppb	22:17:21
2	Pb 220.353†	91.3	4.7	0.2555	µg/L	0.2555	ppb	22:17:21

2	S 181.975 Axial†	95.8	-9.5	-7.0189 µg/L	-7.0189 ppb	22:17:21
2	Sb 206.836†	59.0	-22.0	-2.6184 µg/L	-2.6184 ppb	22:17:21
2	Se 196.026†	19.9	4.6	1.68 µg/L	1.68 ppb	22:17:21
2	SiO2†	1789.5	9.9	0.9655 µg/L	0.9655 ppb	22:17:21
2	Si 251.611†	1004.6	165.6	2.4397 µg/L	2.4397 ppb	22:17:01
2	Sn 189.927†	5.2	6.3	0.3919 µg/L	0.3919 ppb	22:17:21
2	Ti 334.940†	826.1	-128.4	-0.1222 µg/L	-0.1222 ppb	22:17:01
2	Tl 190.801†	-126.0	-9.1	-1.1150 µg/L	-1.1150 ppb	22:17:21
2	U 409.014†	-147.1	123.1	7.1898 µg/L	7.1898 ppb	22:17:01
2	V 292.402†	373.1	-31.5	-0.1489 µg/L	-0.1489 ppb	22:17:01
2	Zn 213.857†	593.5	27.6	0.1540 µg/L	0.1540 ppb	22:17:21
3	Sc RADIAL	145056.9	145056.9	99.4 %		22:16:11
3	Al 396.153Radial†	-231.1	-169.3	-31.367 µg/L	-31.367 ppb	22:16:11
3	Ca 317.933Radial†	599.6	42.6	2.3739 µg/L	2.3739 ppb	22:16:31
3	Fe 238.204 Radial†	195.6	48.6	2.9983 µg/L	2.9983 ppb	22:16:31
3	K 766.490 Radial†	1826.4	292.6	107.12 µg/L	107.12 ppb	22:16:11
3	Mg 279.077 IEC†	196.4	6.8	2.5372 µg/L	2.5372 ppb	22:16:31
3	Na 589.592 Radial†	1266.4	-16.8	-2.3909 µg/L	-2.3909 ppb	22:16:11
3	Sr 421.552†	-165.7	-31.4	-0.0654 µg/L	-0.0654 ppb	22:16:11
3	Sc 361.383	1742676.0	1742676.0	101.42 %		22:17:23
3	Y 371.029	1041139.7	1041139.7	101.41 %		22:17:23
3	Ag 328.068†	4264.5	113.3	0.4163 µg/L	0.4163 ppb	22:17:25
3	As 188.979†	-11.3	9.2	2.7834 µg/L	2.7834 ppb	22:17:45
3	B 249.677†	3554.8	-1.0	-0.0144 µg/L	-0.0144 ppb	22:17:25
3	Ba 233.527†	-135.5	2.2	0.0087 µg/L	0.0087 ppb	22:17:45
3	Be 313.107†	-714.6	360.1	0.0972 µg/L	0.0972 ppb	22:17:25
3	Cd 226.502†	-111.8	8.0	0.0493 µg/L	0.0493 ppb	22:17:45
3	Co 228.616†	-185.9	7.0	0.0867 µg/L	0.0867 ppb	22:17:45
3	Cr 267.716†	198.7	17.4	0.1382 µg/L	0.1382 ppb	22:17:45
3	Cu 324.752†	2855.8	-156.5	-0.6100 µg/L	-0.6100 ppb	22:17:25
3	Mn 257.610†	318.4	76.7	0.0948 µg/L	0.0948 ppb	22:17:45
3	Mo 202.031†	-37.1	-16.5	-0.4859 µg/L	-0.4859 ppb	22:17:45
3	Ni 231.604†	-94.7	-16.9	-0.1940 µg/L	-0.1940 ppb	22:17:45
3	P 214.914†	-18.0	0.2	0.0565 µg/L	0.0565 ppb	22:17:45
3	Pb 220.353†	70.5	-16.9	-0.9439 µg/L	-0.9439 ppb	22:17:45
3	S 181.975 Axial†	101.6	-4.9	-3.6429 µg/L	-3.6429 ppb	22:17:45
3	Sb 206.836†	72.7	-9.2	-1.0967 µg/L	-1.0967 ppb	22:17:45
3	Se 196.026†	9.5	-5.9	-2.14 µg/L	-2.14 ppb	22:17:45
3	SiO2†	1777.4	-22.9	-2.2297 µg/L	-2.2297 ppb	22:17:45
3	Si 251.611†	827.6	-20.5	-0.2986 µg/L	-0.2986 ppb	22:17:25
3	Sn 189.927†	4.4	5.4	0.3390 µg/L	0.3390 ppb	22:17:45
3	Ti 334.940†	1103.2	135.2	0.1273 µg/L	0.1273 ppb	22:17:25
3	Tl 190.801†	-112.8	5.5	0.6715 µg/L	0.6715 ppb	22:17:45
3	U 409.014†	-323.3	-48.8	-2.8536 µg/L	-2.8536 ppb	22:17:25
3	V 292.402†	418.1	8.4	0.0344 µg/L	0.0344 ppb	22:17:25
3	Zn 213.857†	602.9	30.0	0.1695 µg/L	0.1695 ppb	22:17:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732147.4	100.81	%	0.594				0.59%
Sc RADIAL	144672.5	99.1	%	0.25				0.25%
Y 371.029	1035822.9	100.89	%	0.512				0.51%
Ag 328.068†	-2.2	-0.0096	µg/L	0.64157	-0.0096	ppb	0.64157	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-138.5	-25.667	µg/L	9.6439	-25.667	ppb	9.6439	37.57%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	2.1232	µg/L	2.07069	2.1232	ppb	2.07069	97.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	27.9	0.4109	µg/L	0.82253	0.4109	ppb	0.82253	200.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.6	-0.0109	µg/L	0.06567	-0.0109	ppb	0.06567	605.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	277.1	0.0761	µg/L	0.02793	0.0761	ppb	0.02793	36.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	50.6	2.8171	µg/L	0.45995	2.8171	ppb	0.45995	16.33%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.8	0.0420	µg/L	0.01123	0.0420	ppb	0.01123	26.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.1	0.0873	µg/L	0.10216	0.0873	ppb	0.10216	116.98%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                18.0      0.1392 µg/L       0.02421      0.1392 ppb        0.02421  17.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -93.3     -0.3604 µg/L       0.35483     -0.3604 ppb        0.35483  98.44%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         48.9      3.0164 µg/L       0.30037      3.0164 ppb        0.30037   9.96%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         127.7      46.766 µg/L       67.3062      46.766 ppb        67.3062 143.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.0     -1.5096 µg/L       5.19362     -1.5096 ppb        5.19362 344.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                78.3      0.0969 µg/L       0.00386      0.0969 ppb        0.00386   3.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -10.7     -0.3132 µg/L       0.24424     -0.3132 ppb        0.24424  77.99%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         13.8      1.8476 µg/L       3.83078      1.8476 ppb        3.83078 207.34%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -0.9     -0.0105 µg/L       0.16660     -0.0105 ppb        0.16660 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.9     -0.6137 µg/L       1.35968     -0.6137 ppb        1.35968 221.57%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -10.9     -0.6140 µg/L       0.76029     -0.6140 ppb        0.76029 123.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -6.3     -4.6708 µg/L       2.03882     -4.6708 ppb        2.03882  43.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -11.0     -1.3147 µg/L       1.20959     -1.3147 ppb        1.20959  92.01%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.4      -0.495 µg/L        1.9625      -0.495 ppb         1.9625 396.16%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      -5.2     -0.5078 µg/L       1.61206     -0.5078 ppb        1.61206 317.46%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               127.4      1.8800 µg/L       1.95958      1.8800 ppb        1.95958 104.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.3      0.4566 µg/L       0.16011      0.4566 ppb        0.16011  35.06%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -94.5     -0.1965 µg/L       0.17296     -0.1965 ppb        0.17296  88.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                40.4      0.0370 µg/L       0.13834      0.0370 ppb        0.13834 373.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.9      0.3506 µg/L       1.33442      0.3506 ppb        1.33442 380.62%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 35.8      2.0744 µg/L       5.02435      2.0744 ppb        5.02435 242.20%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -69.3     -0.3397 µg/L       0.49772     -0.3397 ppb        0.49772 146.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                31.4      0.1761 µg/L       0.02602      0.1761 ppb        0.02602  14.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 85
Sample ID: 248814001|963989|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 219
Date Collected: 3/31/2010 22:31:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248814001|963989|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142134.6	142134.6	97.4	%			22:31:30
1	Al 396.153Radial†	19931.6	20527.0	3805.4	µg/L	3805.4	ppb	22:31:32
1	Ca 317.933Radial†	20182.6	20160.9	1123.0	µg/L	1123.0	ppb	22:31:32
1	Fe 238.204 Radial†	668404.7	686103.5	42287	µg/L	42287	ppb	22:31:30
1	K 766.490 Radial†	7945.7	6613.1	2419.7	µg/L	2419.7	ppb	22:31:32
1	Mg 279.077 IEC†	4071.0	3989.0	1450.1	µg/L	1450.1	ppb	22:31:32
1	Na 589.592 Radial†	12735.6	11784.8	1607.8	µg/L	1607.8	ppb	22:31:32
1	Sr 421.552†	1177.4	1344.1	2.7855	µg/L	2.7855	ppb	22:31:32
1	Sc 361.383	1732991.5	1732991.5	100.86	%			22:31:58
1	Y 371.029	1200450.0	1200450.0	116.92	%			22:31:58
1	Ag 328.068†	4124.6	-1.9	-0.8507	µg/L	-0.8507	ppb	22:32:00
1	As 188.979†	-10.2	10.2	12.664	µg/L	12.664	ppb	22:32:20
1	B 249.677†	3831.4	292.9	4.3044	µg/L	4.3044	ppb	22:32:00
1	Ba 233.527†	13732.2	13750.9	54.883	µg/L	54.883	ppb	22:32:00
1	Be 313.107†	6056.3	7069.4	1.8657	µg/L	1.8657	ppb	22:32:00
1	Cd 226.502†	578.1	691.4	-0.1265	µg/L	-0.1265	ppb	22:32:20
1	Co 228.616†	162.2	351.1	2.1816	µg/L	2.1816	ppb	22:32:20
1	Cr 267.716†	978.0	791.1	7.3540	µg/L	7.3540	ppb	22:32:00
1	Cu 324.752†	21466.4	18311.2	77.199	µg/L	77.199	ppb	22:32:00
1	Mn 257.610†	1471024.5	1458246.7	1804.1	µg/L	1804.1	ppb	22:31:58
1	Mo 202.031†	204.9	223.3	8.2665	µg/L	8.2665	ppb	22:32:20
1	Ni 231.604†	287.3	361.4	4.1613	µg/L	4.1613	ppb	22:32:20
1	P 214.914†	699.6	711.5	123.52	µg/L	123.52	ppb	22:32:20
1	Pb 220.353†	678.6	586.4	32.853	µg/L	32.853	ppb	22:32:20
1	S 181.975 Axial†	113.3	7.3	5.4746	µg/L	5.4746	ppb	22:32:20
1	Sb 206.836†	87.8	6.3	0.2336	µg/L	0.2336	ppb	22:32:20
1	Se 196.026†	-23.2	-38.3	0.628	µg/L	0.628	ppb	22:32:20
1	SiO2†	196293.9	192845.1	18849	µg/L	18849	ppb	22:32:00
1	Si 251.611†	604848.5	598855.6	8828.7	µg/L	8828.7	ppb	22:31:58
1	Sn 189.927†	163.8	163.5	13.023	µg/L	13.023	ppb	22:32:20
1	Ti 334.940†	907014.8	898329.8	839.27	µg/L	839.27	ppb	22:31:58
1	Tl 190.801†	-255.3	-136.5	-3.5802	µg/L	-3.5802	ppb	22:32:20
1	U 409.014†	-3650.9	-3349.9	-192.79	µg/L	-192.79	ppb	22:31:58
1	V 292.402†	3876.6	3439.8	11.504	µg/L	11.504	ppb	22:32:00
1	Zn 213.857†	27500.1	26701.2	145.86	µg/L	145.86	ppb	22:32:00
2	Sc RADIAL	142938.2	142938.2	97.9	%			22:31:34
2	Al 396.153Radial†	19654.9	20129.5	3731.7	µg/L	3731.7	ppb	22:31:36
2	Ca 317.933Radial†	19930.0	19786.5	1102.2	µg/L	1102.2	ppb	22:31:36
2	Fe 238.204 Radial†	673389.9	687335.5	42363	µg/L	42363	ppb	22:31:34
2	K 766.490 Radial†	7906.0	6526.7	2388.1	µg/L	2388.1	ppb	22:31:36
2	Mg 279.077 IEC†	4024.5	3918.0	1423.6	µg/L	1423.6	ppb	22:31:36
2	Na 589.592 Radial†	12597.1	11570.0	1578.5	µg/L	1578.5	ppb	22:31:36
2	Sr 421.552†	1042.1	1199.2	2.4844	µg/L	2.4844	ppb	22:31:36
2	Sc 361.383	1715604.5	1715604.5	99.848	%			22:32:23
2	Y 371.029	1188551.0	1188551.0	115.77	%			22:32:23
2	Ag 328.068†	4332.0	247.2	0.0757	µg/L	0.0757	ppb	22:32:25
2	As 188.979†	-7.3	13.1	13.536	µg/L	13.536	ppb	22:32:45
2	B 249.677†	3877.6	377.6	5.5543	µg/L	5.5543	ppb	22:32:25
2	Ba 233.527†	13495.3	13651.7	54.482	µg/L	54.482	ppb	22:32:25
2	Be 313.107†	5834.2	6907.8	1.8202	µg/L	1.8202	ppb	22:32:25
2	Cd 226.502†	601.0	720.1	0.0446	µg/L	0.0446	ppb	22:32:45
2	Co 228.616†	161.6	352.1	2.1898	µg/L	2.1898	ppb	22:32:45
2	Cr 267.716†	987.2	810.1	7.5099	µg/L	7.5099	ppb	22:32:25
2	Cu 324.752†	20949.5	18009.2	76.032	µg/L	76.032	ppb	22:32:25
2	Mn 257.610†	1456297.8	1458278.7	1804.2	µg/L	1804.2	ppb	22:32:23
2	Mo 202.031†	204.0	224.4	8.3013	µg/L	8.3013	ppb	22:32:45
2	Ni 231.604†	269.8	346.7	3.9923	µg/L	3.9923	ppb	22:32:45
2	P 214.914†	721.2	740.2	129.61	µg/L	129.61	ppb	22:32:45
2	Pb 220.353†	686.5	601.1	33.673	µg/L	33.673	ppb	22:32:45

2	S 181.975 Axial†	120.6	15.7	11.706 µg/L	11.706 ppb	22:32:45
2	Sb 206.836†	87.5	6.8	0.3001 µg/L	0.3001 ppb	22:32:45
2	Se 196.026†	-30.2	-45.6	-1.96 µg/L	-1.96 ppb	22:32:45
2	SiO2†	193644.9	192164.5	18782 µg/L	18782 ppb	22:32:25
2	Si 251.611†	599062.1	599138.0	8832.8 µg/L	8832.8 ppb	22:32:23
2	Sn 189.927†	189.4	190.8	14.727 µg/L	14.727 ppb	22:32:45
2	Ti 334.940†	899062.5	899479.3	840.35 µg/L	840.35 ppb	22:32:23
2	Tl 190.801†	-250.4	-134.1	-3.2720 µg/L	-3.2720 ppb	22:32:45
2	U 409.014†	-3696.1	-3431.9	-197.55 µg/L	-197.55 ppb	22:32:23
2	V 292.402†	4005.0	3607.3	12.309 µg/L	12.309 ppb	22:32:25
2	Zn 213.857†	27105.6	26582.5	145.19 µg/L	145.19 ppb	22:32:25
3	Sc RADIAL	142656.3	142656.3	97.8 %		22:31:38
3	Al 396.153Radial†	20202.2	20728.9	3842.8 µg/L	3842.8 ppb	22:31:40
3	Ca 317.933Radial†	20286.7	20191.6	1124.8 µg/L	1124.8 ppb	22:31:40
3	Fe 238.204 Radial†	670232.9	685464.4	42248 µg/L	42248 ppb	22:31:38
3	K 766.490 Radial†	7845.2	6480.5	2371.2 µg/L	2371.2 ppb	22:31:40
3	Mg 279.077 IEC†	4089.1	3992.3	1451.4 µg/L	1451.4 ppb	22:31:40
3	Na 589.592 Radial†	12578.6	11576.5	1579.4 µg/L	1579.4 ppb	22:31:40
3	Sr 421.552†	1101.0	1261.5	2.6138 µg/L	2.6138 ppb	22:31:40
3	Sc 361.383	1735627.4	1735627.4	101.01 %		22:32:47
3	Y 371.029	1203266.7	1203266.7	117.20 %		22:32:47
3	Ag 328.068†	4442.8	306.9	0.3097 µg/L	0.3097 ppb	22:32:49
3	As 188.979†	-6.2	14.2	13.841 µg/L	13.841 ppb	22:33:09
3	B 249.677†	3815.9	271.7	3.9926 µg/L	3.9926 ppb	22:32:49
3	Ba 233.527†	13947.7	13943.7	55.660 µg/L	55.660 ppb	22:32:49
3	Be 313.107†	6019.2	7023.5	1.8546 µg/L	1.8546 ppb	22:32:49
3	Cd 226.502†	598.8	711.0	0.0001 µg/L	0.0001 ppb	22:33:09
3	Co 228.616†	166.0	354.7	2.2281 µg/L	2.2281 ppb	22:33:09
3	Cr 267.716†	940.6	752.6	7.0475 µg/L	7.0475 ppb	22:32:49
3	Cu 324.752†	21502.3	18314.4	77.210 µg/L	77.210 ppb	22:32:49
3	Mn 257.610†	1473410.5	1458393.7	1804.3 µg/L	1804.3 ppb	22:32:47
3	Mo 202.031†	213.6	231.5	8.5068 µg/L	8.5068 ppb	22:33:09
3	Ni 231.604†	270.0	343.8	3.9588 µg/L	3.9588 ppb	22:33:09
3	P 214.914†	699.6	710.6	123.35 µg/L	123.35 ppb	22:33:09
3	Pb 220.353†	681.8	588.6	32.977 µg/L	32.977 ppb	22:33:09
3	S 181.975 Axial†	122.8	16.5	12.342 µg/L	12.342 ppb	22:33:09
3	Sb 206.836†	79.5	-2.2	-0.7566 µg/L	-0.7566 ppb	22:33:09
3	Se 196.026†	-29.3	-44.2	-1.52 µg/L	-1.52 ppb	22:33:09
3	SiO2†	199071.0	195298.8	19089 µg/L	19089 ppb	22:32:49
3	Si 251.611†	605413.1	598503.7	8823.5 µg/L	8823.5 ppb	22:32:47
3	Sn 189.927†	173.5	172.9	13.614 µg/L	13.614 ppb	22:33:09
3	Ti 334.940†	909789.5	899711.0	840.56 µg/L	840.56 ppb	22:32:47
3	Tl 190.801†	-246.2	-127.0	-2.4026 µg/L	-2.4026 ppb	22:33:09
3	U 409.014†	-3573.4	-3267.7	-187.92 µg/L	-187.92 ppb	22:32:47
3	V 292.402†	4072.7	3628.1	12.429 µg/L	12.429 ppb	22:32:49
3	Zn 213.857†	27977.3	27132.3	148.29 µg/L	148.29 ppb	22:32:49

Mean Data: 248814001|963989|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1728074.5	100.57	%	0.633				0.63%
Sc RADIAL	142576.4	97.7	%	0.28				0.29%
Y 371.029	1197422.5	116.63	%	0.761				0.65%
Ag 328.068†	184.0	-0.1551	µg/L	0.61365	-0.1551	ppb	0.61365	395.69%
Al 396.153Radial†	20461.8	3793.3	µg/L	56.54	3793.3	ppb	56.54	1.49%
As 188.979†	12.5	13.347	µg/L	0.6109	13.347	ppb	0.6109	4.58%
B 249.677†	314.1	4.6171	µg/L	0.82646	4.6171	ppb	0.82646	17.90%
Ba 233.527†	13782.1	55.008	µg/L	0.5991	55.008	ppb	0.5991	1.09%
Be 313.107†	7000.2	1.8468	µg/L	0.02371	1.8468	ppb	0.02371	1.28%
Ca 317.933Radial†	20046.3	1116.7	µg/L	12.56	1116.7	ppb	12.56	1.13%
Cd 226.502†	707.5	-0.0273	µg/L	0.08878	-0.0273	ppb	0.08878	325.79%
Co 228.616†	352.6	2.1998	µg/L	0.02481	2.1998	ppb	0.02481	1.13%
Cr 267.716†	784.6	7.3038	µg/L	0.23528	7.3038	ppb	0.23528	3.22%
Cu 324.752†	18211.6	76.814	µg/L	0.6771	76.814	ppb	0.6771	0.88%
Fe 238.204 Radial†	686301.2	42299	µg/L	58.6	42299	ppb	58.6	0.14%
K 766.490 Radial†	6540.1	2393.0	µg/L	24.64	2393.0	ppb	24.64	1.03%
Mg 279.077 IEC†	3966.4	1441.7	µg/L	15.68	1441.7	ppb	15.68	1.09%
Mn 257.610†	1458306.4	1804.2	µg/L	0.10	1804.2	ppb	0.10	0.01%
Mo 202.031†	226.4	8.3582	µg/L	0.12986	8.3582	ppb	0.12986	1.55%
Na 589.592 Radial†	11643.7	1588.5	µg/L	16.68	1588.5	ppb	16.68	1.05%

Ni 231.604†	350.6	4.0375	µg/L	0.10854	4.0375	ppb	0.10854	2.69%
P 214.914†	720.8	125.49	µg/L	3.569	125.49	ppb	3.569	2.84%
Pb 220.353†	592.0	33.168	µg/L	0.4418	33.168	ppb	0.4418	1.33%
S 181.975 Axial†	13.2	9.8410	µg/L	3.79482	9.8410	ppb	3.79482	38.56%
Sb 206.836†	3.6	-0.0743	µg/L	0.59182	-0.0743	ppb	0.59182	796.30%
Se 196.026†	-42.7	-0.952	µg/L	1.3860	-0.952	ppb	1.3860	145.62%
SiO2†	193436.1	18906	µg/L	161.1	18906	ppb	161.1	0.85%
Si 251.611†	598832.4	8828.4	µg/L	4.68	8828.4	ppb	4.68	0.05%
Sn 189.927†	175.7	13.788	µg/L	0.8650	13.788	ppb	0.8650	6.27%
Sr 421.552†	1268.3	2.6279	µg/L	0.15106	2.6279	ppb	0.15106	5.75%
Ti 334.940†	899173.4	840.06	µg/L	0.691	840.06	ppb	0.691	0.08%
Tl 190.801†	-132.5	-3.0849	µg/L	0.61068	-3.0849	ppb	0.61068	19.80%
U 409.014†	-3349.8	-192.75	µg/L	4.816	-192.75	ppb	4.816	2.50%
Concentration less than lower limit for U 409.014.								
V 292.402†	3558.4	12.081	µg/L	0.5035	12.081	ppb	0.5035	4.17%
Zn 213.857†	26805.3	146.45	µg/L	1.632	146.45	ppb	1.632	1.11%

Sequence No.: 86
Sample ID: 248814002|963989|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 220
Date Collected: 3/31/2010 22:33:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248814002|963989|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144172.8	144172.8	98.8	%			22:33:48
1	Al 396.153Radial†	22761.3	23101.9	4282.4	µg/L	4282.4	ppb	22:33:50
1	Ca 317.933Radial†	22256.1	21966.8	1223.6	µg/L	1223.6	ppb	22:33:50
1	Fe 238.204 Radial†	852334.9	862573.6	53164	µg/L	53164	ppb	22:33:48
1	K 766.490 Radial†	7137.5	5679.7	2077.9	µg/L	2077.9	ppb	22:33:50
1	Mg 279.077 IEC†	3784.6	3640.0	1310.9	µg/L	1310.9	ppb	22:33:50
1	Na 589.592 Radial†	10347.5	9182.8	1252.6	µg/L	1252.6	ppb	22:33:50
1	Sr 421.552†	1957.4	2116.5	4.3905	µg/L	4.3905	ppb	22:33:50
1	Sc 361.383	1734843.3	1734843.3	100.97	%			22:34:02
1	Y 371.029	1208905.6	1208905.6	117.75	%			22:34:02
1	Ag 328.068†	48077.8	43525.7	160.15	µg/L	160.15	ppb	22:34:05
1	As 188.979†	-3.8	16.5	17.934	µg/L	17.934	ppb	22:34:25
1	B 249.677†	4148.9	603.2	8.8749	µg/L	8.8749	ppb	22:34:05
1	Ba 233.527†	11094.7	11124.3	44.162	µg/L	44.162	ppb	22:34:05
1	Be 313.107†	7084.1	8080.9	2.1449	µg/L	2.1449	ppb	22:34:05
1	Cd 226.502†	1056.8	1164.9	1.6940	µg/L	1.6940	ppb	22:34:25
1	Co 228.616†	309.1	496.4	3.4140	µg/L	3.4140	ppb	22:34:25
1	Cr 267.716†	13275.3	12969.5	102.97	µg/L	102.97	ppb	22:34:05
1	Cu 324.752†	53499.4	50014.5	201.99	µg/L	201.99	ppb	22:34:05
1	Mn 257.610†	1909418.3	1890882.3	2339.4	µg/L	2339.4	ppb	22:34:02
1	Mo 202.031†	446.5	462.3	15.720	µg/L	15.720	ppb	22:34:25
1	Ni 231.604†	1517.2	1579.2	18.183	µg/L	18.183	ppb	22:34:25
1	P 214.914†	831.7	841.7	143.74	µg/L	143.74	ppb	22:34:25
1	Pb 220.353†	1259.4	1161.0	65.070	µg/L	65.070	ppb	22:34:25
1	S 181.975 Axial†	194.5	87.6	65.133	µg/L	65.133	ppb	22:34:25
1	Sb 206.836†	99.8	18.0	0.3930	µg/L	0.3930	ppb	22:34:25
1	Se 196.026†	-32.0	-47.0	1.28	µg/L	1.28	ppb	22:34:25
1	SiO2†	190533.1	186931.7	18269	µg/L	18269	ppb	22:34:05
1	Si 251.611†	579274.3	572886.3	8444.9	µg/L	8444.9	ppb	22:34:02
1	Sn 189.927†	2208.9	2188.9	140.56	µg/L	140.56	ppb	22:34:25
1	Ti 334.940†	1315778.7	1302216.5	1216.6	µg/L	1216.6	ppb	22:34:02
1	Tl 190.801†	-307.6	-188.0	-4.7339	µg/L	-4.7339	ppb	22:34:25
1	U 409.014†	-3438.4	-3135.5	-179.27	µg/L	-179.27	ppb	22:34:02
1	V 292.402†	4217.2	3772.9	12.123	µg/L	12.123	ppb	22:34:05
1	Zn 213.857†	42680.4	41706.9	229.01	µg/L	229.01	ppb	22:34:05
2	Sc RADIAL	144005.5	144005.5	98.7	%			22:33:52
2	Al 396.153Radial†	22805.6	23173.6	4295.7	µg/L	4295.7	ppb	22:33:54
2	Ca 317.933Radial†	22351.7	22089.8	1230.5	µg/L	1230.5	ppb	22:33:54
2	Fe 238.204 Radial†	856108.7	867400.3	53461	µg/L	53461	ppb	22:33:52
2	K 766.490 Radial†	7103.5	5653.7	2068.4	µg/L	2068.4	ppb	22:33:54
2	Mg 279.077 IEC†	3763.1	3622.7	1304.2	µg/L	1304.2	ppb	22:33:54
2	Na 589.592 Radial†	10569.7	9420.2	1285.1	µg/L	1285.1	ppb	22:33:54
2	Sr 421.552†	2045.1	2207.7	4.5801	µg/L	4.5801	ppb	22:33:54
2	Sc 361.383	1735244.7	1735244.7	100.99	%			22:34:27
2	Y 371.029	1209966.9	1209966.9	117.85	%			22:34:27
2	Ag 328.068†	47596.8	43038.3	158.34	µg/L	158.34	ppb	22:34:29
2	As 188.979†	-19.7	0.9	13.246	µg/L	13.246	ppb	22:34:49
2	B 249.677†	4017.0	471.7	6.9341	µg/L	6.9341	ppb	22:34:29
2	Ba 233.527†	10952.2	10980.6	43.579	µg/L	43.579	ppb	22:34:29
2	Be 313.107†	7302.5	8295.5	2.2025	µg/L	2.2025	ppb	22:34:29
2	Cd 226.502†	1046.6	1154.5	1.5977	µg/L	1.5977	ppb	22:34:49
2	Co 228.616†	337.5	524.5	3.7435	µg/L	3.7435	ppb	22:34:49
2	Cr 267.716†	13095.8	12788.8	101.57	µg/L	101.57	ppb	22:34:29
2	Cu 324.752†	52629.8	49141.1	198.64	µg/L	198.64	ppb	22:34:29
2	Mn 257.610†	1917061.3	1898012.8	2348.2	µg/L	2348.2	ppb	22:34:27
2	Mo 202.031†	441.3	457.1	15.578	µg/L	15.578	ppb	22:34:49
2	Ni 231.604†	1487.8	1549.7	17.844	µg/L	17.844	ppb	22:34:49
2	P 214.914†	849.1	858.7	147.22	µg/L	147.22	ppb	22:34:49
2	Pb 220.353†	1251.0	1152.4	64.591	µg/L	64.591	ppb	22:34:49

2	S 181.975 Axial†	183.2	76.3	56.789 µg/L	56.789 ppb	22:34:49
2	Sb 206.836†	101.9	20.1	0.6516 µg/L	0.6516 ppb	22:34:49
2	Se 196.026†	-23.0	-38.0	4.63 µg/L	4.63 ppb	22:34:49
2	SiO2†	188098.9	184477.8	18029 µg/L	18029 ppb	22:34:29
2	Si 251.611†	580687.4	574152.8	8463.6 µg/L	8463.6 ppb	22:34:27
2	Sn 189.927†	2224.1	2203.4	141.47 µg/L	141.47 ppb	22:34:49
2	Ti 334.940†	1321052.9	1307137.5	1221.2 µg/L	1221.2 ppb	22:34:27
2	Tl 190.801†	-288.1	-168.6	-2.2818 µg/L	-2.2818 ppb	22:34:49
2	U 409.014†	-3481.8	-3177.7	-181.73 µg/L	-181.73 ppb	22:34:27
2	V 292.402†	4274.4	3828.7	12.350 µg/L	12.350 ppb	22:34:29
2	Zn 213.857†	42008.0	41031.4	225.19 µg/L	225.19 ppb	22:34:29
3	Sc RADIAL	142725.0	142725.0	97.8 %		22:33:56
3	Al 396.153Radial†	22590.4	23160.9	4293.4 µg/L	4293.4 ppb	22:33:58
3	Ca 317.933Radial†	22007.4	21941.0	1222.2 µg/L	1222.2 ppb	22:33:58
3	Fe 238.204 Radial†	843090.9	861873.4	53121 µg/L	53121 ppb	22:33:56
3	K 766.490 Radial†	6873.0	5482.6	2005.8 µg/L	2005.8 ppb	22:33:58
3	Mg 279.077 IEC†	3705.6	3598.1	1295.4 µg/L	1295.4 ppb	22:33:58
3	Na 589.592 Radial†	10526.7	9472.3	1292.2 µg/L	1292.2 ppb	22:33:58
3	Sr 421.552†	1915.9	2094.2	4.3442 µg/L	4.3442 ppb	22:33:58
3	Sc 361.383	1723338.2	1723338.2	100.30 %		22:34:51
3	Y 371.029	1200893.5	1200893.5	116.97 %		22:34:51
3	Ag 328.068†	47756.4	43523.1	160.13 µg/L	160.13 ppb	22:34:54
3	As 188.979†	-9.9	10.4	16.069 µg/L	16.069 ppb	22:35:14
3	B 249.677†	3940.1	422.5	6.2103 µg/L	6.2103 ppb	22:34:54
3	Ba 233.527†	10951.4	11054.7	43.882 µg/L	43.882 ppb	22:34:54
3	Be 313.107†	7047.2	8090.9	2.1470 µg/L	2.1470 ppb	22:34:54
3	Cd 226.502†	1058.5	1173.5	1.7527 µg/L	1.7527 ppb	22:35:14
3	Co 228.616†	298.2	487.6	3.3071 µg/L	3.3071 ppb	22:35:14
3	Cr 267.716†	13034.9	12817.6	101.78 µg/L	101.78 ppb	22:34:54
3	Cu 324.752†	52477.4	49349.3	199.40 µg/L	199.40 ppb	22:34:54
3	Mn 257.610†	1899156.6	1893276.4	2342.4 µg/L	2342.4 ppb	22:34:51
3	Mo 202.031†	448.9	467.6	15.874 µg/L	15.874 ppb	22:35:14
3	Ni 231.604†	1509.9	1581.9	18.215 µg/L	18.215 ppb	22:35:14
3	P 214.914†	865.7	881.1	152.25 µg/L	152.25 ppb	22:35:14
3	Pb 220.353†	1248.0	1157.9	64.909 µg/L	64.909 ppb	22:35:14
3	S 181.975 Axial†	183.9	78.3	58.289 µg/L	58.289 ppb	22:35:14
3	Sb 206.836†	91.3	10.2	-0.5167 µg/L	-0.5167 ppb	22:35:14
3	Se 196.026†	-21.3	-36.5	5.06 µg/L	5.06 ppb	22:35:14
3	SiO2†	187629.7	185296.9	18109 µg/L	18109 ppb	22:34:54
3	Si 251.611†	575170.3	572624.8	8441.0 µg/L	8441.0 ppb	22:34:51
3	Sn 189.927†	2234.3	2228.8	143.05 µg/L	143.05 ppb	22:35:14
3	Ti 334.940†	1309278.5	1304435.8	1218.7 µg/L	1218.7 ppb	22:34:51
3	Tl 190.801†	-292.0	-174.5	-3.0523 µg/L	-3.0523 ppb	22:35:14
3	U 409.014†	-3448.0	-3167.9	-181.14 µg/L	-181.14 ppb	22:34:51
3	V 292.402†	4148.8	3732.7	11.924 µg/L	11.924 ppb	22:34:54
3	Zn 213.857†	41707.4	41019.0	225.15 µg/L	225.15 ppb	22:34:54

Mean Data: 248814002|963989|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1731142.0	100.75	%	0.394				0.39%
Sc RADIAL	143634.5	98.4	%	0.54				0.55%
Y 371.029	1206588.7	117.52	%	0.483				0.41%
Ag 328.068†	43362.4	159.54	µg/L	1.040	159.54	ppb	1.040	0.65%
Al 396.153Radial†	23145.4	4290.5	µg/L	7.09	4290.5	ppb	7.09	0.17%
As 188.979†	9.3	15.749	µg/L	2.3604	15.749	ppb	2.3604	14.99%
B 249.677†	499.1	7.3397	µg/L	1.37786	7.3397	ppb	1.37786	18.77%
Ba 233.527†	11053.2	43.874	µg/L	0.2913	43.874	ppb	0.2913	0.66%
Be 313.107†	8155.8	2.1648	µg/L	0.03270	2.1648	ppb	0.03270	1.51%
Ca 317.933Radial†	21999.2	1225.4	µg/L	4.43	1225.4	ppb	4.43	0.36%
Cd 226.502†	1164.3	1.6814	µg/L	0.07823	1.6814	ppb	0.07823	4.65%
Co 228.616†	502.8	3.4882	µg/L	0.22742	3.4882	ppb	0.22742	6.52%
Cr 267.716†	12858.6	102.11	µg/L	0.757	102.11	ppb	0.757	0.74%
Cu 324.752†	49501.6	200.01	µg/L	1.758	200.01	ppb	1.758	0.88%
Fe 238.204 Radial†	863949.1	53249	µg/L	185.5	53249	ppb	185.5	0.35%
K 766.490 Radial†	5605.3	2050.7	µg/L	39.21	2050.7	ppb	39.21	1.91%
Mg 279.077 IEC†	3620.2	1303.5	µg/L	7.81	1303.5	ppb	7.81	0.60%
Mn 257.610†	1894057.2	2343.3	µg/L	4.49	2343.3	ppb	4.49	0.19%
Mo 202.031†	462.3	15.724	µg/L	0.1481	15.724	ppb	0.1481	0.94%
Na 589.592 Radial†	9358.4	1276.6	µg/L	21.11	1276.6	ppb	21.11	1.65%

Ni 231.604†	1570.3	18.081	µg/L	0.2056	18.081	ppb	0.2056	1.14%
P 214.914†	860.5	147.74	µg/L	4.278	147.74	ppb	4.278	2.90%
Pb 220.353†	1157.1	64.857	µg/L	0.2439	64.857	ppb	0.2439	0.38%
S 181.975 Axial†	80.7	60.070	µg/L	4.4479	60.070	ppb	4.4479	7.40%
Sb 206.836†	16.1	0.1760	µg/L	0.61361	0.1760	ppb	0.61361	348.71%
Se 196.026†	-40.5	3.66	µg/L	2.071	3.66	ppb	2.071	56.63%
SiO2†	185568.8	18135	µg/L	122.1	18135	ppb	122.1	0.67%
Si 251.611†	573221.3	8449.8	µg/L	12.05	8449.8	ppb	12.05	0.14%
Sn 189.927†	2207.0	141.69	µg/L	1.261	141.69	ppb	1.261	0.89%
Sr 421.552†	2139.5	4.4383	µg/L	0.12500	4.4383	ppb	0.12500	2.82%
Ti 334.940†	1304596.6	1218.8	µg/L	2.30	1218.8	ppb	2.30	0.19%
Tl 190.801†	-177.0	-3.3560	µg/L	1.25396	-3.3560	ppb	1.25396	37.36%
U 409.014†	-3160.4	-180.71	µg/L	1.285	-180.71	ppb	1.285	0.71%
Concentration less than lower limit for U 409.014.								
V 292.402†	3778.1	12.132	µg/L	0.2129	12.132	ppb	0.2129	1.75%
Zn 213.857†	41252.4	226.45	µg/L	2.216	226.45	ppb	2.216	0.98%

Sequence No.: 87
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 22:35:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146768.4	146768.4	101	%			22:35:57
1	Al 396.153Radial†	26541.6	26453.2	4882.0	µg/L	4882.0	ppb	22:35:57
1	Ca 317.933Radial†	87649.0	86587.6	4823.3	µg/L	4823.3	ppb	22:35:57
1	Fe 238.204 Radial†	78561.3	77964.3	4805.2	µg/L	4805.2	ppb	22:35:57
1	K 766.490 Radial†	14622.8	12994.5	4753.5	µg/L	4753.5	ppb	22:35:57
1	Mg 279.077 IEC†	13408.4	13141.1	4903.8	µg/L	4903.8	ppb	22:35:57
1	Na 589.592 Radial†	71672.4	69972.1	9554.8	µg/L	9554.8	ppb	22:35:57
1	Sr 421.552†	232413.6	231220.9	480.66	µg/L	480.66	ppb	22:35:55
1	Sc 361.383	1722923.1	1722923.1	100.27	%			22:36:24
1	Y 371.029	1019811.3	1019811.3	99.330	%			22:36:24
1	Ag 328.068†	132254.4	127801.8	479.17	µg/L	479.17	ppb	22:36:24
1	As 188.979†	1604.2	1620.1	496.89	µg/L	496.89	ppb	22:36:44
1	B 249.677†	35283.6	31681.3	465.60	µg/L	465.60	ppb	22:36:24
1	Ba 233.527†	118323.2	118135.9	476.44	µg/L	476.44	ppb	22:36:24
1	Be 313.107†	1761219.9	1757474.5	478.66	µg/L	478.66	ppb	22:36:24
1	Cd 226.502†	75730.6	75642.0	472.19	µg/L	472.19	ppb	22:36:24
1	Co 228.616†	38400.5	38485.9	475.11	µg/L	475.11	ppb	22:36:24
1	Cr 267.716†	60661.3	60317.0	472.27	µg/L	472.27	ppb	22:36:24
1	Cu 324.752†	125755.4	122439.8	477.30	µg/L	477.30	ppb	22:36:24
1	Mn 257.610†	387911.3	386614.6	478.15	µg/L	478.15	ppb	22:36:24
1	Mo 202.031†	16408.6	16383.8	481.94	µg/L	481.94	ppb	22:36:44
1	Ni 231.604†	41320.9	41284.6	475.36	µg/L	475.36	ppb	22:36:24
1	P 214.914†	11214.8	11202.1	2387.7	µg/L	2387.7	ppb	22:36:44
1	Pb 220.353†	8739.6	8629.4	483.24	µg/L	483.24	ppb	22:36:44
1	S 181.975 Axial†	1375.5	1266.7	944.65	µg/L	944.65	ppb	22:36:44
1	Sb 206.836†	4120.0	4027.9	480.04	µg/L	480.04	ppb	22:36:44
1	Se 196.026†	1343.5	1324.5	481	µg/L	481	ppb	22:36:44
1	SiO2†	54771.8	52846.8	5144.7	µg/L	5144.7	ppb	22:36:24
1	Si 251.611†	165253.5	163965.6	2407.7	µg/L	2407.7	ppb	22:36:24
1	Sn 189.927†	7717.2	7697.3	481.45	µg/L	481.45	ppb	22:36:44
1	Ti 334.940†	514309.0	511951.9	477.69	µg/L	477.69	ppb	22:36:24
1	Tl 190.801†	3827.4	3933.6	490.49	µg/L	490.49	ppb	22:36:44
1	U 409.014†	7235.3	7485.4	466.50	µg/L	466.50	ppb	22:36:24
1	V 292.402†	97370.2	96700.5	478.09	µg/L	478.09	ppb	22:36:24
1	Zn 213.857†	85150.2	84353.3	470.11	µg/L	470.11	ppb	22:36:24
2	Sc RADIAL	145116.2	145116.2	99.4	%			22:36:01
2	Al 396.153Radial†	26297.2	26507.8	4892.7	µg/L	4892.7	ppb	22:36:01
2	Ca 317.933Radial†	86940.1	86866.9	4838.8	µg/L	4838.8	ppb	22:36:01
2	Fe 238.204 Radial†	77803.3	78091.3	4813.1	µg/L	4813.1	ppb	22:36:01
2	K 766.490 Radial†	14545.6	13082.4	4785.7	µg/L	4785.7	ppb	22:36:01
2	Mg 279.077 IEC†	13274.5	13158.2	4909.9	µg/L	4909.9	ppb	22:36:01
2	Na 589.592 Radial†	70981.1	70088.2	9570.6	µg/L	9570.6	ppb	22:36:01
2	Sr 421.552†	232627.8	234067.2	486.57	µg/L	486.57	ppb	22:35:59
2	Sc 361.383	1750269.1	1750269.1	101.87	%			22:36:47
2	Y 371.029	1035573.7	1035573.7	100.87	%			22:36:47
2	Ag 328.068†	134676.3	128118.7	480.37	µg/L	480.37	ppb	22:36:47
2	As 188.979†	1582.5	1573.9	482.89	µg/L	482.89	ppb	22:37:07
2	B 249.677†	35971.3	31806.7	467.44	µg/L	467.44	ppb	22:36:47
2	Ba 233.527†	120638.2	118564.9	478.17	µg/L	478.17	ppb	22:36:47
2	Be 313.107†	1795938.6	1764115.6	480.47	µg/L	480.47	ppb	22:36:47
2	Cd 226.502†	77211.3	75915.5	473.90	µg/L	473.90	ppb	22:36:47
2	Co 228.616†	39183.6	38656.4	477.21	µg/L	477.21	ppb	22:36:47
2	Cr 267.716†	61805.5	60495.1	473.67	µg/L	473.67	ppb	22:36:47
2	Cu 324.752†	127636.0	122326.5	476.86	µg/L	476.86	ppb	22:36:47
2	Mn 257.610†	395566.1	388085.1	479.97	µg/L	479.97	ppb	22:36:47
2	Mo 202.031†	16264.4	15986.6	470.26	µg/L	470.26	ppb	22:37:07
2	Ni 231.604†	42110.5	41415.9	476.87	µg/L	476.87	ppb	22:36:47
2	P 214.914†	11123.1	10937.4	2331.1	µg/L	2331.1	ppb	22:37:07
2	Pb 220.353†	8695.2	8449.6	473.18	µg/L	473.18	ppb	22:37:07

2	S 181.975 Axial†	1380.2	1249.8	932.06 µg/L	932.06 ppb	22:37:07
2	Sb 206.836†	4108.8	3952.7	470.89 µg/L	470.89 ppb	22:37:07
2	Se 196.026†	1336.5	1296.8	471 µg/L	471 ppb	22:37:07
2	SiO2†	55876.6	53078.0	5167.8 µg/L	5167.8 ppb	22:36:47
2	Si 251.611†	168292.8	164374.4	2414.0 µg/L	2414.0 ppb	22:36:47
2	Sn 189.927†	7640.8	7502.0	469.28 µg/L	469.28 ppb	22:37:07
2	Ti 334.940†	522795.1	512268.9	477.98 µg/L	477.98 ppb	22:36:47
2	Tl 190.801†	3793.4	3840.6	479.07 µg/L	479.07 ppb	22:37:07
2	U 409.014†	7388.2	7522.7	468.79 µg/L	468.79 ppb	22:36:47
2	V 292.402†	99257.8	97036.4	479.62 µg/L	479.62 ppb	22:36:47
2	Zn 213.857†	87026.0	84867.9	472.99 µg/L	472.99 ppb	22:36:47
3	Sc RADIAL	145049.2	145049.2	99.4 %		22:36:05
3	Al 396.153Radial†	26335.5	26558.6	4901.9 µg/L	4901.9 ppb	22:36:05
3	Ca 317.933Radial†	86672.0	86637.6	4826.1 µg/L	4826.1 ppb	22:36:05
3	Fe 238.204 Radial†	77423.0	77745.0	4791.7 µg/L	4791.7 ppb	22:36:05
3	K 766.490 Radial†	14708.1	13252.7	4848.1 µg/L	4848.1 ppb	22:36:05
3	Mg 279.077 IEC†	13164.0	13053.2	4870.9 µg/L	4870.9 ppb	22:36:05
3	Na 589.592 Radial†	70826.5	69965.7	9553.9 µg/L	9553.9 ppb	22:36:05
3	Sr 421.552†	229385.5	230913.4	480.02 µg/L	480.02 ppb	22:36:03
3	Sc 361.383	1736886.0	1736886.0	101.09 %		22:37:10
3	Y 371.029	1026663.5	1026663.5	99.998 %		22:37:10
3	Ag 328.068†	133353.0	127828.3	479.31 µg/L	479.31 ppb	22:37:10
3	As 188.979†	1594.0	1597.2	489.96 µg/L	489.96 ppb	22:37:30
3	B 249.677†	35849.9	31958.7	469.68 µg/L	469.68 ppb	22:37:10
3	Ba 233.527†	119879.0	118726.4	478.82 µg/L	478.82 ppb	22:37:10
3	Be 313.107†	1785527.0	1767400.4	481.37 µg/L	481.37 ppb	22:37:10
3	Cd 226.502†	76637.4	75931.9	474.00 µg/L	474.00 ppb	22:37:10
3	Co 228.616†	38956.3	38727.9	478.10 µg/L	478.10 ppb	22:37:10
3	Cr 267.716†	61487.6	60648.2	474.86 µg/L	474.86 ppb	22:37:10
3	Cu 324.752†	126940.5	122603.9	477.95 µg/L	477.95 ppb	22:37:10
3	Mn 257.610†	392870.7	388410.8	480.37 µg/L	480.37 ppb	22:37:10
3	Mo 202.031†	16306.3	16151.1	475.10 µg/L	475.10 ppb	22:37:30
3	Ni 231.604†	41574.5	41204.2	474.44 µg/L	474.44 ppb	22:37:10
3	P 214.914†	11178.5	11076.3	2360.8 µg/L	2360.8 ppb	22:37:30
3	Pb 220.353†	8729.7	8549.5	478.76 µg/L	478.76 ppb	22:37:30
3	S 181.975 Axial†	1377.2	1257.3	937.66 µg/L	937.66 ppb	22:37:30
3	Sb 206.836†	4126.4	4001.2	476.72 µg/L	476.72 ppb	22:37:30
3	Se 196.026†	1332.7	1303.1	473 µg/L	473 ppb	22:37:30
3	SiO2†	55324.3	52954.3	5155.5 µg/L	5155.5 ppb	22:37:10
3	Si 251.611†	167461.4	164825.0	2420.5 µg/L	2420.5 ppb	22:37:10
3	Sn 189.927†	7692.4	7610.8	476.07 µg/L	476.07 ppb	22:37:30
3	Ti 334.940†	518784.6	512256.1	477.97 µg/L	477.97 ppb	22:37:10
3	Tl 190.801†	3813.8	3889.5	485.08 µg/L	485.08 ppb	22:37:30
3	U 409.014†	7519.5	7708.6	479.68 µg/L	479.68 ppb	22:37:10
3	V 292.402†	98557.8	97094.7	479.97 µg/L	479.97 ppb	22:37:10
3	Zn 213.857†	86550.8	85056.1	474.07 µg/L	474.07 ppb	22:37:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1736692.7	101.08	%	0.796				0.79%
Sc RADIAL	145644.6	99.8	%	0.67				0.67%
Y 371.029	1027349.5	100.06	%	0.770				0.77%
Ag 328.068†	127916.2	479.62	µg/L	0.654	479.62	ppb	0.654	0.14%
QC value within limits for Ag 328.068 Recovery = 95.92%								
Al 396.153Radial†	26506.5	4892.2	µg/L	9.94	4892.2	ppb	9.94	0.20%
QC value within limits for Al 396.153Radial Recovery = 97.84%								
As 188.979†	1597.1	489.91	µg/L	7.000	489.91	ppb	7.000	1.43%
QC value within limits for As 188.979 Recovery = 97.98%								
B 249.677†	31815.6	467.57	µg/L	2.043	467.57	ppb	2.043	0.44%
QC value within limits for B 249.677 Recovery = 93.51%								
Ba 233.527†	118475.7	477.81	µg/L	1.229	477.81	ppb	1.229	0.26%
QC value within limits for Ba 233.527 Recovery = 95.56%								
Be 313.107†	1762996.8	480.17	µg/L	1.379	480.17	ppb	1.379	0.29%
QC value within limits for Be 313.107 Recovery = 96.03%								
Ca 317.933Radial†	86697.4	4829.4	µg/L	8.30	4829.4	ppb	8.30	0.17%
QC value within limits for Ca 317.933Radial Recovery = 96.59%								
Cd 226.502†	75829.8	473.36	µg/L	1.017	473.36	ppb	1.017	0.21%
QC value within limits for Cd 226.502 Recovery = 94.67%								
Co 228.616†	38623.4	476.81	µg/L	1.535	476.81	ppb	1.535	0.32%

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   QC value within limits for Co 228.616  Recovery = 95.36%
Cr 267.716†            60486.8      473.60 µg/L         1.293      473.60 ppb          1.293   0.27%
   QC value within limits for Cr 267.716  Recovery = 94.72%
Cu 324.752†           122456.7      477.37 µg/L         0.545      477.37 ppb          0.545   0.11%
   QC value within limits for Cu 324.752  Recovery = 95.47%
Fe 238.204 Radial†     77933.5      4803.3 µg/L         10.80      4803.3 ppb          10.80   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.07%
K 766.490 Radial†      13109.8      4795.8 µg/L         48.06      4795.8 ppb          48.06   1.00%
   QC value within limits for K 766.490 Radial  Recovery = 95.92%
Mg 279.077 IEC†        13117.5      4894.9 µg/L         20.99      4894.9 ppb          20.99   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.90%
Mn 257.610†           387703.5      479.50 µg/L         1.185      479.50 ppb          1.185   0.25%
   QC value within limits for Mn 257.610  Recovery = 95.90%
Mo 202.031†            16173.9      475.77 µg/L         5.865      475.77 ppb          5.865   1.23%
   QC value within limits for Mo 202.031  Recovery = 95.15%
Na 589.592 Radial†     70008.7      9559.8 µg/L          9.43      9559.8 ppb           9.43   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 95.60%
Ni 231.604†            41301.6      475.56 µg/L         1.231      475.56 ppb          1.231   0.26%
   QC value within limits for Ni 231.604  Recovery = 95.11%
P 214.914†             11071.9      2359.9 µg/L         28.31      2359.9 ppb          28.31   1.20%
   QC value within limits for P 214.914  Recovery = 94.39%
Pb 220.353†             8542.8      478.39 µg/L         5.044      478.39 ppb          5.044   1.05%
   QC value within limits for Pb 220.353  Recovery = 95.68%
S 181.975 Axial†        1257.9      938.13 µg/L         6.311      938.13 ppb          6.311   0.67%
   QC value within limits for S 181.975 Axial  Recovery = 93.81%
Sb 206.836†             3994.0      475.89 µg/L         4.631      475.89 ppb          4.631   0.97%
   QC value within limits for Sb 206.836  Recovery = 95.18%
Se 196.026†             1308.1         475 µg/L           5.3         475 ppb            5.3   1.11%
   QC value within limits for Se 196.026  Recovery = 95.00%
SiO2†                  52959.7      5156.0 µg/L         11.56      5156.0 ppb          11.56   0.22%
   QC value within limits for SiO2  Recovery = 96.42%
Si 251.611†           164388.3      2414.1 µg/L          6.40      2414.1 ppb           6.40   0.27%
   QC value within limits for Si 251.611  Recovery = 96.56%
Sn 189.927†             7603.3      475.60 µg/L         6.099      475.60 ppb          6.099   1.28%
   QC value within limits for Sn 189.927  Recovery = 95.12%
Sr 421.552†           232067.2      482.42 µg/L         3.615      482.42 ppb          3.615   0.75%
   QC value within limits for Sr 421.552  Recovery = 96.48%
Ti 334.940†           512159.0      477.88 µg/L         0.166      477.88 ppb          0.166   0.03%
   QC value within limits for Ti 334.940  Recovery = 95.58%
Tl 190.801†             3887.9      484.88 µg/L         5.710      484.88 ppb          5.710   1.18%
   QC value within limits for Tl 190.801  Recovery = 96.98%
U 409.014†              7572.3      471.66 µg/L         7.041      471.66 ppb          7.041   1.49%
   QC value within limits for U 409.014  Recovery = 94.33%
V 292.402†             96943.8      479.22 µg/L         0.996      479.22 ppb          0.996   0.21%
   QC value within limits for V 292.402  Recovery = 95.84%
Zn 213.857†            84759.1      472.39 µg/L         2.045      472.39 ppb          2.045   0.43%
   QC value within limits for Zn 213.857  Recovery = 94.48%
All analyte(s) passed QC.
```

Sequence No.: 88 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/31/2010 22:37:38**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146107.1	146107.1	100	%			22:38:09
1	Al 396.153Radial†	-28.6	34.6	6.4326	µg/L	6.4326	ppb	22:38:29
1	Ca 317.933Radial†	565.6	4.4	0.2431	µg/L	0.2431	ppb	22:38:29
1	Fe 238.204 Radial†	221.6	73.2	4.5130	µg/L	4.5130	ppb	22:38:29
1	K 766.490 Radial†	1670.7	123.9	45.355	µg/L	45.355	ppb	22:38:09
1	Mg 279.077 IEC†	188.3	-2.7	-1.0050	µg/L	-1.0050	ppb	22:38:29
1	Na 589.592 Radial†	1308.8	16.4	2.2067	µg/L	2.2067	ppb	22:38:09
1	Sr 421.552†	-138.0	-2.6	-0.0053	µg/L	-0.0053	ppb	22:38:09
1	Sc 361.383	1751605.7	1751605.7	101.94	%			22:39:16
1	Y 371.029	1046872.7	1046872.7	101.97	%			22:39:16
1	Ag 328.068†	3943.9	-222.7	-0.8222	µg/L	-0.8222	ppb	22:39:19
1	As 188.979†	-21.0	-0.2	-0.0602	µg/L	-0.0602	ppb	22:39:39
1	B 249.677†	3436.3	-135.1	-1.9931	µg/L	-1.9931	ppb	22:39:19
1	Ba 233.527†	-130.5	7.8	0.0313	µg/L	0.0313	ppb	22:39:39
1	Be 313.107†	-714.8	363.6	0.1002	µg/L	0.1002	ppb	22:39:19
1	Cd 226.502†	-97.0	23.1	0.1438	µg/L	0.1438	ppb	22:39:39
1	Co 228.616†	-170.5	23.0	0.2839	µg/L	0.2839	ppb	22:39:39
1	Cr 267.716†	208.7	26.1	0.2018	µg/L	0.2018	ppb	22:39:39
1	Cu 324.752†	2943.0	-85.3	-0.3274	µg/L	-0.3274	ppb	22:39:19
1	Mn 257.610†	329.7	86.2	0.1066	µg/L	0.1066	ppb	22:39:39
1	Mo 202.031†	-31.9	-11.2	-0.3304	µg/L	-0.3304	ppb	22:39:39
1	Ni 231.604†	-81.9	-3.9	-0.0443	µg/L	-0.0443	ppb	22:39:39
1	P 214.914†	-23.2	-4.8	-1.0060	µg/L	-1.0060	ppb	22:39:39
1	Pb 220.353†	102.8	14.4	0.8016	µg/L	0.8016	ppb	22:39:39
1	S 181.975 Axial†	97.2	-9.7	-7.2332	µg/L	-7.2332	ppb	22:39:39
1	Sb 206.836†	61.0	-21.0	-2.4992	µg/L	-2.4992	ppb	22:39:39
1	Se 196.026†	8.3	-7.1	-2.58	µg/L	-2.58	ppb	22:39:39
1	SiO2†	1795.0	-14.6	-1.4272	µg/L	-1.4272	ppb	22:39:39
1	Si 251.611†	1014.2	158.3	2.3344	µg/L	2.3344	ppb	22:39:19
1	Sn 189.927†	9.8	10.8	0.6712	µg/L	0.6712	ppb	22:39:39
1	Ti 334.940†	912.7	-57.2	-0.0550	µg/L	-0.0550	ppb	22:39:19
1	Tl 190.801†	-104.8	13.9	1.7060	µg/L	1.7060	ppb	22:39:39
1	U 409.014†	-207.3	66.5	3.8783	µg/L	3.8783	ppb	22:39:19
1	V 292.402†	371.1	-39.7	-0.1942	µg/L	-0.1942	ppb	22:39:19
1	Zn 213.857†	603.0	27.1	0.1525	µg/L	0.1525	ppb	22:39:39
2	Sc RADIAL	143516.2	143516.2	98.3	%			22:38:31
2	Al 396.153Radial†	-59.7	2.6	0.4739	µg/L	0.4739	ppb	22:38:51
2	Ca 317.933Radial†	574.3	23.4	1.3043	µg/L	1.3043	ppb	22:38:51
2	Fe 238.204 Radial†	211.6	67.1	4.1330	µg/L	4.1330	ppb	22:38:51
2	K 766.490 Radial†	1530.2	11.2	4.0876	µg/L	4.0876	ppb	22:38:31
2	Mg 279.077 IEC†	186.7	-0.9	-0.3295	µg/L	-0.3295	ppb	22:38:51
2	Na 589.592 Radial†	1309.3	40.6	5.5370	µg/L	5.5370	ppb	22:38:31
2	Sr 421.552†	-195.1	-63.1	-0.1312	µg/L	-0.1312	ppb	22:38:31
2	Sc 361.383	1725150.1	1725150.1	100.40	%			22:39:41
2	Y 371.029	1031944.0	1031944.0	100.51	%			22:39:41
2	Ag 328.068†	3865.7	-241.3	-0.8900	µg/L	-0.8900	ppb	22:39:43
2	As 188.979†	-15.4	5.0	1.5151	µg/L	1.5151	ppb	22:40:03
2	B 249.677†	3665.2	144.6	2.1317	µg/L	2.1317	ppb	22:39:43
2	Ba 233.527†	-135.5	0.9	0.0032	µg/L	0.0032	ppb	22:40:03
2	Be 313.107†	-881.3	187.0	0.0526	µg/L	0.0526	ppb	22:39:43
2	Cd 226.502†	-123.0	-4.3	-0.0274	µg/L	-0.0274	ppb	22:40:03
2	Co 228.616†	-162.8	28.2	0.3479	µg/L	0.3479	ppb	22:40:03
2	Cr 267.716†	195.8	16.5	0.1246	µg/L	0.1246	ppb	22:40:03
2	Cu 324.752†	2834.1	-149.5	-0.5757	µg/L	-0.5757	ppb	22:39:43
2	Mn 257.610†	312.2	73.7	0.0911	µg/L	0.0911	ppb	22:40:03
2	Mo 202.031†	-20.8	-0.7	-0.0196	µg/L	-0.0196	ppb	22:40:03
2	Ni 231.604†	-63.9	12.8	0.1478	µg/L	0.1478	ppb	22:40:03
2	P 214.914†	-29.3	-11.2	-2.4036	µg/L	-2.4036	ppb	22:40:03
2	Pb 220.353†	74.7	-12.0	-0.6719	µg/L	-0.6719	ppb	22:40:03

2	S 181.975 Axial†	114.1	8.6	6.4080 µg/L	6.4080 ppb	22:40:03
2	Sb 206.836†	83.7	2.5	0.2984 µg/L	0.2984 ppb	22:40:03
2	Se 196.026†	7.4	-7.9	-2.83 µg/L	-2.83 ppb	22:40:03
2	SiO2†	1757.4	-25.0	-2.4389 µg/L	-2.4389 ppb	22:40:03
2	Si 251.611†	1016.3	175.6	2.5912 µg/L	2.5912 ppb	22:39:43
2	Sn 189.927†	-5.9	-4.8	-0.2983 µg/L	-0.2983 ppb	22:40:03
2	Ti 334.940†	1008.8	52.2	0.0465 µg/L	0.0465 ppb	22:39:43
2	Tl 190.801†	-108.8	8.3	1.0191 µg/L	1.0191 ppb	22:40:03
2	U 409.014†	-175.4	95.2	5.5468 µg/L	5.5468 ppb	22:39:43
2	V 292.402†	347.2	-58.0	-0.2792 µg/L	-0.2792 ppb	22:39:43
2	Zn 213.857†	581.3	14.6	0.0808 µg/L	0.0808 ppb	22:40:03
3	Sc RADIAL	142981.4	142981.4	98.0 %		22:38:53
3	Al 396.153Radial†	-63.0	-1.1	-0.2113 µg/L	-0.2113 ppb	22:39:13
3	Ca 317.933Radial†	581.1	32.5	1.8108 µg/L	1.8108 ppb	22:39:13
3	Fe 238.204 Radial†	194.5	50.4	3.1050 µg/L	3.1050 ppb	22:39:13
3	K 766.490 Radial†	1679.9	169.7	62.139 µg/L	62.139 ppb	22:38:53
3	Mg 279.077 IEC†	195.7	9.0	3.3615 µg/L	3.3615 ppb	22:39:13
3	Na 589.592 Radial†	1209.6	-56.3	-7.7449 µg/L	-7.7449 ppb	22:38:53
3	Sr 421.552†	-420.0	-293.4	-0.6100 µg/L	-0.6100 ppb	22:38:53
3	Sc 361.383	1753013.9	1753013.9	102.03 %		22:40:05
3	Y 371.029	1047401.1	1047401.1	102.02 %		22:40:05
3	Ag 328.068†	4060.3	-111.6	-0.4113 µg/L	-0.4113 ppb	22:40:07
3	As 188.979†	-11.1	9.5	2.8753 µg/L	2.8753 ppb	22:40:27
3	B 249.677†	3619.9	42.1	0.6207 µg/L	0.6207 ppb	22:40:07
3	Ba 233.527†	-139.2	-0.6	-0.0023 µg/L	-0.0023 ppb	22:40:27
3	Be 313.107†	-869.8	212.1	0.0585 µg/L	0.0585 ppb	22:40:07
3	Cd 226.502†	-85.5	34.4	0.2145 µg/L	0.2145 ppb	22:40:27
3	Co 228.616†	-181.0	12.9	0.1588 µg/L	0.1588 ppb	22:40:27
3	Cr 267.716†	175.3	-6.8	-0.0550 µg/L	-0.0550 ppb	22:40:27
3	Cu 324.752†	3044.4	11.7	0.0483 µg/L	0.0483 ppb	22:40:07
3	Mn 257.610†	307.5	64.2	0.0793 µg/L	0.0793 ppb	22:40:27
3	Mo 202.031†	-12.0	8.3	0.2441 µg/L	0.2441 ppb	22:40:27
3	Ni 231.604†	-69.0	8.9	0.1028 µg/L	0.1028 ppb	22:40:27
3	P 214.914†	-27.3	-8.8	-1.8805 µg/L	-1.8805 ppb	22:40:27
3	Pb 220.353†	81.8	-6.2	-0.3453 µg/L	-0.3453 ppb	22:40:27
3	S 181.975 Axial†	99.7	-7.4	-5.4573 µg/L	-5.4573 ppb	22:40:27
3	Sb 206.836†	92.0	9.3	1.1113 µg/L	1.1113 ppb	22:40:27
3	Se 196.026†	22.0	6.3	2.27 µg/L	2.27 ppb	22:40:27
3	SiO2†	1796.0	-15.0	-1.4822 µg/L	-1.4822 ppb	22:40:27
3	Si 251.611†	1008.2	151.7	2.2299 µg/L	2.2299 ppb	22:40:07
3	Sn 189.927†	5.8	6.8	0.4238 µg/L	0.4238 ppb	22:40:27
3	Ti 334.940†	774.2	-193.7	-0.1822 µg/L	-0.1822 ppb	22:40:07
3	Tl 190.801†	-131.2	-12.0	-1.4719 µg/L	-1.4719 ppb	22:40:27
3	U 409.014†	-231.1	43.4	2.5310 µg/L	2.5310 ppb	22:40:07
3	V 292.402†	394.8	-16.8	-0.0781 µg/L	-0.0781 ppb	22:40:07
3	Zn 213.857†	584.2	8.2	0.0446 µg/L	0.0446 ppb	22:40:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1743256.5	101.46	%	0.914				0.90%
Sc RADIAL	144201.5	98.8	%	1.15				1.16%
Y 371.029	1042072.6	101.50	%	0.855				0.84%
Ag 328.068†	-191.9	-0.7079	µg/L	0.25904	-0.7079	ppb	0.25904	36.59%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.0	2.2317	µg/L	3.65416	2.2317	ppb	3.65416	163.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.8	1.4434	µg/L	1.46904	1.4434	ppb	1.46904	101.78%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	17.2	0.2531	µg/L	2.08681	0.2531	ppb	2.08681	824.51%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.7	0.0107	µg/L	0.01797	0.0107	ppb	0.01797	167.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	254.2	0.0704	µg/L	0.02593	0.0704	ppb	0.02593	36.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	20.1	1.1194	µg/L	0.80006	1.1194	ppb	0.80006	71.47%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.7	0.1103	µg/L	0.12437	0.1103	ppb	0.12437	112.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	21.4	0.2635	µg/L	0.09616	0.2635	ppb	0.09616	36.49%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              11.9      0.0905 µg/L       0.13175      0.0905 ppb        0.13175 145.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -74.4     -0.2849 µg/L       0.31418     -0.2849 ppb        0.31418 110.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       63.6      3.9170 µg/L       0.72840      3.9170 ppb        0.72840  18.60%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       101.6     37.194 µg/L       29.8738     37.194 ppb        29.8738  80.32%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.8      0.6757 µg/L       2.35038      0.6757 ppb        2.35038 347.86%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              74.7      0.0923 µg/L       0.01373      0.0923 ppb        0.01373  14.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -1.2     -0.0353 µg/L       0.28757     -0.0353 ppb        0.28757 814.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        0.2     -0.0004 µg/L       6.91054     -0.0004 ppb        6.91054 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               6.0      0.0687 µg/L       0.10050      0.0687 ppb        0.10050 146.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.3     -1.7634 µg/L       0.70616     -1.7634 ppb        0.70616  40.05%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -1.2     -0.0719 µg/L       0.77383     -0.0719 ppb        0.77383 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.8     -2.0942 µg/L       7.41644     -2.0942 ppb        7.41644 354.14%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.0     -0.3632 µg/L       1.89399     -0.3632 ppb        1.89399 521.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.9       -1.05 µg/L         2.877       -1.05 ppb          2.877 275.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -18.2     -1.7828 µg/L       0.56893     -1.7828 ppb        0.56893  31.91%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             161.9      2.3852 µg/L       0.18594      2.3852 ppb        0.18594   7.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.3      0.2656 µg/L       0.50378      0.2656 ppb        0.50378 189.70%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -119.7     -0.2488 µg/L       0.31901     -0.2488 ppb        0.31901 128.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -66.2     -0.0636 µg/L       0.11461     -0.0636 ppb        0.11461 180.26%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.4      0.4177 µg/L       1.67214      0.4177 ppb        1.67214 400.28%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               68.3      3.9854 µg/L       1.51076      3.9854 ppb        1.51076  37.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -38.2     -0.1839 µg/L       0.10096     -0.1839 ppb        0.10096  54.91%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              16.6      0.0927 µg/L       0.05489      0.0927 ppb        0.05489  59.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 89
Sample ID: 248814003|963989|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 221
Date Collected: 3/31/2010 22:40:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248814003|963989|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142049.8	142049.8	97.3	%			22:41:09
1	Al 396.153Radial†	30363.8	31256.3	5794.1	µg/L	5794.1	ppb	22:41:11
1	Ca 317.933Radial†	25788.4	25932.2	1444.5	µg/L	1444.5	ppb	22:41:11
1	Fe 238.204 Radial†	798595.1	820260.0	50556	µg/L	50556	ppb	22:41:09
1	K 766.490 Radial†	10563.8	9307.6	3405.7	µg/L	3405.7	ppb	22:41:11
1	Mg 279.077 IEC†	4284.1	4210.4	1525.8	µg/L	1525.8	ppb	22:41:11
1	Na 589.592 Radial†	10867.9	9873.9	1345.9	µg/L	1345.9	ppb	22:41:11
1	Sr 421.552†	4847.0	5114.7	10.622	µg/L	10.622	ppb	22:41:11
1	Sc 361.383	1708375.4	1708375.4	99.427	%			22:41:38
1	Y 371.029	1093237.2	1093237.2	106.48	%			22:41:38
1	Ag 328.068†	141145.1	137866.9	509.83	µg/L	509.83	ppb	22:41:40
1	As 188.979†	-12.6	7.7	14.051	µg/L	14.051	ppb	22:42:00
1	B 249.677†	4528.7	1048.9	15.445	µg/L	15.445	ppb	22:41:40
1	Ba 233.527†	18356.6	18598.2	74.319	µg/L	74.319	ppb	22:41:40
1	Be 313.107†	6096.2	7196.0	1.9265	µg/L	1.9265	ppb	22:41:40
1	Cd 226.502†	820.0	942.9	0.5792	µg/L	0.5792	ppb	22:42:00
1	Co 228.616†	364.8	557.2	4.3171	µg/L	4.3171	ppb	22:42:00
1	Cr 267.716†	4757.2	4606.0	37.455	µg/L	37.455	ppb	22:41:40
1	Cu 324.752†	103717.7	101343.0	401.15	µg/L	401.15	ppb	22:41:40
1	Mn 257.610†	1446903.4	1455001.9	1800.1	µg/L	1800.1	ppb	22:41:38
1	Mo 202.031†	528.7	551.8	18.253	µg/L	18.253	ppb	22:42:00
1	Ni 231.604†	1050.4	1132.9	13.045	µg/L	13.045	ppb	22:42:00
1	P 214.914†	1146.3	1170.8	214.63	µg/L	214.63	ppb	22:42:00
1	Pb 220.353†	2066.6	1992.1	111.68	µg/L	111.68	ppb	22:42:00
1	S 181.975 Axial†	211.6	107.8	80.166	µg/L	80.166	ppb	22:42:00
1	Sb 206.836†	87.7	7.4	0.3092	µg/L	0.3092	ppb	22:42:00
1	Se 196.026†	-26.2	-41.6	2.39	µg/L	2.39	ppb	22:42:00
1	SiO2†	209101.1	208530.4	20379	µg/L	20379	ppb	22:41:40
1	Si 251.611†	644484.7	647361.1	9542.4	µg/L	9542.4	ppb	22:41:38
1	Sn 189.927†	3286.0	3306.0	210.60	µg/L	210.60	ppb	22:42:00
1	Ti 334.940†	1424276.1	1431529.1	1337.4	µg/L	1337.4	ppb	22:41:38
1	Tl 190.801†	-285.2	-170.2	-2.6685	µg/L	-2.6685	ppb	22:42:00
1	U 409.014†	-2113.5	-1855.8	-106.79	µg/L	-106.79	ppb	22:41:40
1	V 292.402†	5821.1	5450.8	20.267	µg/L	20.267	ppb	22:41:40
1	Zn 213.857†	37900.2	37554.1	205.96	µg/L	205.96	ppb	22:41:40
2	Sc RADIAL	142283.9	142283.9	97.5	%			22:41:13
2	Al 396.153Radial†	30586.0	31432.9	5826.8	µg/L	5826.8	ppb	22:41:15
2	Ca 317.933Radial†	25906.5	26009.7	1448.8	µg/L	1448.8	ppb	22:41:15
2	Fe 238.204 Radial†	803267.5	823702.0	50768	µg/L	50768	ppb	22:41:13
2	K 766.490 Radial†	10784.8	9516.3	3482.2	µg/L	3482.2	ppb	22:41:15
2	Mg 279.077 IEC†	4312.0	4231.8	1533.6	µg/L	1533.6	ppb	22:41:15
2	Na 589.592 Radial†	10833.3	9820.1	1338.4	µg/L	1338.4	ppb	22:41:15
2	Sr 421.552†	4842.1	5101.4	10.594	µg/L	10.594	ppb	22:41:15
2	Sc 361.383	1703932.6	1703932.6	99.169	%			22:42:02
2	Y 371.029	1091712.4	1091712.4	106.33	%			22:42:02
2	Ag 328.068†	143947.2	141062.6	521.66	µg/L	521.66	ppb	22:42:04
2	As 188.979†	-16.7	3.5	12.838	µg/L	12.838	ppb	22:42:24
2	B 249.677†	4457.2	988.7	14.557	µg/L	14.557	ppb	22:42:04
2	Ba 233.527†	18746.8	19039.8	76.096	µg/L	76.096	ppb	22:42:04
2	Be 313.107†	6431.6	7550.2	2.0189	µg/L	2.0189	ppb	22:42:04
2	Cd 226.502†	829.4	954.6	0.6298	µg/L	0.6298	ppb	22:42:24
2	Co 228.616†	385.7	579.3	4.5805	µg/L	4.5805	ppb	22:42:24
2	Cr 267.716†	4787.0	4648.6	37.806	µg/L	37.806	ppb	22:42:04
2	Cu 324.752†	105776.3	103690.9	410.30	µg/L	410.30	ppb	22:42:04
2	Mn 257.610†	1447097.2	1458991.8	1805.0	µg/L	1805.0	ppb	22:42:02
2	Mo 202.031†	546.4	571.1	18.829	µg/L	18.829	ppb	22:42:24
2	Ni 231.604†	1043.8	1129.1	13.000	µg/L	13.000	ppb	22:42:24
2	P 214.914†	1160.4	1188.1	218.11	µg/L	218.11	ppb	22:42:24
2	Pb 220.353†	2065.2	1996.1	111.91	µg/L	111.91	ppb	22:42:24

2	S 181.975 Axial†	204.5	101.1	75.238 µg/L	75.238 ppb	22:42:24
2	Sb 206.836†	82.7	2.5	-0.2579 µg/L	-0.2579 ppb	22:42:24
2	Se 196.026†	-17.0	-32.4	5.78 µg/L	5.78 ppb	22:42:24
2	SiO2†	213794.4	213811.4	20895 µg/L	20895 ppb	22:42:04
2	Si 251.611†	645029.2	649600.3	9575.4 µg/L	9575.4 ppb	22:42:02
2	Sn 189.927†	3323.4	3352.3	213.51 µg/L	213.51 ppb	22:42:24
2	Ti 334.940†	1424902.0	1435895.2	1341.5 µg/L	1341.5 ppb	22:42:02
2	Tl 190.801†	-275.6	-161.2	-1.5056 µg/L	-1.5056 ppb	22:42:24
2	U 409.014†	-2339.4	-2089.2	-120.37 µg/L	-120.37 ppb	22:42:04
2	V 292.402†	6066.5	5713.6	21.521 µg/L	21.521 ppb	22:42:04
2	Zn 213.857†	38595.7	38354.9	210.43 µg/L	210.43 ppb	22:42:04
3	Sc RADIAL	141503.9	141503.9	97.0 %		22:41:17
3	Al 396.153Radial†	31013.7	32046.9	5940.7 µg/L	5940.7 ppb	22:41:19
3	Ca 317.933Radial†	26127.1	26383.7	1469.7 µg/L	1469.7 ppb	22:41:19
3	Fe 238.204 Radial†	798061.6	822874.5	50717 µg/L	50717 ppb	22:41:17
3	K 766.490 Radial†	10866.5	9661.6	3535.3 µg/L	3535.3 ppb	22:41:19
3	Mg 279.077 IEC†	4411.0	4358.3	1580.7 µg/L	1580.7 ppb	22:41:19
3	Na 589.592 Radial†	10887.1	9936.8	1354.3 µg/L	1354.3 ppb	22:41:19
3	Sr 421.552†	4946.4	5236.4	10.875 µg/L	10.875 ppb	22:41:19
3	Sc 361.383	1736437.7	1736437.7	101.06 %		22:42:27
3	Y 371.029	1111645.0	1111645.0	108.27 %		22:42:27
3	Ag 328.068†	142305.5	136720.9	505.59 µg/L	505.59 ppb	22:42:29
3	As 188.979†	-14.3	6.2	13.645 µg/L	13.645 ppb	22:42:49
3	B 249.677†	4409.9	857.8	12.627 µg/L	12.627 ppb	22:42:29
3	Ba 233.527†	18470.7	18412.7	73.569 µg/L	73.569 ppb	22:42:29
3	Be 313.107†	6289.0	7287.7	1.9512 µg/L	1.9512 ppb	22:42:29
3	Cd 226.502†	831.1	940.6	0.5478 µg/L	0.5478 ppb	22:42:49
3	Co 228.616†	375.5	561.9	4.3656 µg/L	4.3656 ppb	22:42:49
3	Cr 267.716†	4853.7	4624.2	37.602 µg/L	37.602 ppb	22:42:29
3	Cu 324.752†	104730.1	100659.0	398.52 µg/L	398.52 ppb	22:42:29
3	Mn 257.610†	1474620.0	1458909.9	1804.9 µg/L	1804.9 ppb	22:42:27
3	Mo 202.031†	541.8	556.2	18.390 µg/L	18.390 ppb	22:42:49
3	Ni 231.604†	1037.0	1102.7	12.696 µg/L	12.696 ppb	22:42:49
3	P 214.914†	1163.1	1168.8	214.14 µg/L	214.14 ppb	22:42:49
3	Pb 220.353†	2054.7	1946.7	109.16 µg/L	109.16 ppb	22:42:49
3	S 181.975 Axial†	218.9	111.6	82.983 µg/L	82.983 ppb	22:42:49
3	Sb 206.836†	93.1	11.3	0.7665 µg/L	0.7665 ppb	22:42:49
3	Se 196.026†	-40.4	-55.2	-2.47 µg/L	-2.47 ppb	22:42:49
3	SiO2†	211460.8	207466.6	20275 µg/L	20275 ppb	22:42:29
3	Si 251.611†	658012.0	650271.0	9585.3 µg/L	9585.3 ppb	22:42:27
3	Sn 189.927†	3320.8	3287.1	209.43 µg/L	209.43 ppb	22:42:49
3	Ti 334.940†	1450175.1	1434006.1	1339.7 µg/L	1339.7 ppb	22:42:27
3	Tl 190.801†	-293.0	-173.3	-3.0141 µg/L	-3.0141 ppb	22:42:49
3	U 409.014†	-2163.9	-1871.3	-107.69 µg/L	-107.69 ppb	22:42:29
3	V 292.402†	5968.6	5502.2	20.499 µg/L	20.499 ppb	22:42:29
3	Zn 213.857†	38149.5	37184.8	203.88 µg/L	203.88 ppb	22:42:29

Mean Data: 248814003|963989|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716248.6	99.885	%	1.0258				1.03%
Sc RADIAL	141945.9	97.3	%	0.27				0.28%
Y 371.029	1098864.9	107.03	%	1.081				1.01%
Ag 328.068†	138550.1	512.36	µg/L	8.330	512.36	ppb	8.330	1.63%
Al 396.153Radial†	31578.7	5853.9	µg/L	76.94	5853.9	ppb	76.94	1.31%
As 188.979†	5.8	13.511	µg/L	0.6172	13.511	ppb	0.6172	4.57%
B 249.677†	965.1	14.209	µg/L	1.4410	14.209	ppb	1.4410	10.14%
Ba 233.527†	18683.6	74.662	µg/L	1.2979	74.662	ppb	1.2979	1.74%
Be 313.107†	7344.6	1.9655	µg/L	0.04780	1.9655	ppb	0.04780	2.43%
Ca 317.933Radial†	26108.6	1454.3	µg/L	13.45	1454.3	ppb	13.45	0.92%
Cd 226.502†	946.0	0.5856	µg/L	0.04135	0.5856	ppb	0.04135	7.06%
Co 228.616†	566.1	4.4211	µg/L	0.14018	4.4211	ppb	0.14018	3.17%
Cr 267.716†	4626.2	37.621	µg/L	0.1761	37.621	ppb	0.1761	0.47%
Cu 324.752†	101897.6	403.32	µg/L	6.182	403.32	ppb	6.182	1.53%
Fe 238.204 Radial†	822278.8	50680	µg/L	110.7	50680	ppb	110.7	0.22%
K 766.490 Radial†	9495.2	3474.4	µg/L	65.13	3474.4	ppb	65.13	1.87%
Mg 279.077 IEC†	4266.8	1546.7	µg/L	29.74	1546.7	ppb	29.74	1.92%
Mn 257.610†	1457634.5	1803.3	µg/L	2.82	1803.3	ppb	2.82	0.16%
Mo 202.031†	559.7	18.491	µg/L	0.3013	18.491	ppb	0.3013	1.63%
Na 589.592 Radial†	9876.9	1346.2	µg/L	7.95	1346.2	ppb	7.95	0.59%

Ni 231.604†	1121.6	12.914	µg/L	0.1897	12.914	ppb	0.1897	1.47%
P 214.914†	1175.9	215.63	µg/L	2.163	215.63	ppb	2.163	1.00%
Pb 220.353†	1978.3	110.92	µg/L	1.528	110.92	ppb	1.528	1.38%
S 181.975 Axial†	106.8	79.462	µg/L	3.9200	79.462	ppb	3.9200	4.93%
Sb 206.836†	7.1	0.2726	µg/L	0.51318	0.2726	ppb	0.51318	188.24%
Se 196.026†	-43.1	1.90	µg/L	4.148	1.90	ppb	4.148	218.32%
SiO2†	209936.1	20516	µg/L	332.1	20516	ppb	332.1	1.62%
Si 251.611†	649077.5	9567.7	µg/L	22.46	9567.7	ppb	22.46	0.23%
Sn 189.927†	3315.1	211.18	µg/L	2.097	211.18	ppb	2.097	0.99%
Sr 421.552†	5150.8	10.697	µg/L	0.1545	10.697	ppb	0.1545	1.44%
Ti 334.940†	1433810.1	1339.5	µg/L	2.05	1339.5	ppb	2.05	0.15%
Tl 190.801†	-168.2	-2.3961	µg/L	0.79028	-2.3961	ppb	0.79028	32.98%
U 409.014†	-1938.8	-111.62	µg/L	7.599	-111.62	ppb	7.599	6.81%
Concentration less than lower limit for U 409.014.								
V 292.402†	5555.5	20.762	µg/L	0.6669	20.762	ppb	0.6669	3.21%
Zn 213.857†	37697.9	206.76	µg/L	3.350	206.76	ppb	3.350	1.62%

Sequence No.: 90
Sample ID: 248814004|963989|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 222
Date Collected: 3/31/2010 22:42:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248814004|963989|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144155.3	144155.3	98.8	%			22:43:28
1	Al 396.153Radial†	231224.1	234133.6	43406	µg/L	43406	ppb	22:43:26
1	Ca 317.933Radial†	147033.3	148282.7	8259.9	µg/L	8259.9	ppb	22:43:28
1	Fe 238.204 Radial†	1289873.8	1305603.2	80469	µg/L	80469	ppb	22:43:26
1	K 766.490 Radial†	21688.2	20410.4	7460.4	µg/L	7460.4	ppb	22:43:28
1	Mg 279.077 IEC†	19609.4	19660.1	7256.9	µg/L	7256.9	ppb	22:43:28
1	Na 589.592 Radial†	18071.1	17002.7	2316.1	µg/L	2316.1	ppb	22:43:28
1	Sr 421.552†	38373.5	38981.1	80.975	µg/L	80.975	ppb	22:43:28
1	Sc 361.383	1717550.9	1717550.9	99.961	%			22:43:55
1	Y 371.029	1225582.7	1225582.7	119.37	%			22:43:55
1	Ag 328.068†	25774.3	21693.0	79.643	µg/L	79.643	ppb	22:43:55
1	As 188.979†	29.1	49.5	34.401	µg/L	34.401	ppb	22:44:15
1	B 249.677†	5731.1	2227.4	32.806	µg/L	32.806	ppb	22:43:55
1	Ba 233.527†	84693.9	84862.6	341.00	µg/L	341.00	ppb	22:43:55
1	Be 313.107†	15706.3	16777.1	4.4351	µg/L	4.4351	ppb	22:43:55
1	Cd 226.502†	1749.4	1868.2	3.2291	µg/L	3.2291	ppb	22:44:15
1	Co 228.616†	841.8	1032.4	8.9002	µg/L	8.9002	ppb	22:44:15
1	Cr 267.716†	17401.6	17229.8	137.64	µg/L	137.64	ppb	22:44:15
1	Cu 324.752†	881883.0	879253.1	3428.5	µg/L	3428.5	ppb	22:43:55
1	Mn 257.610†	1255828.6	1256078.8	1553.6	µg/L	1553.6	ppb	22:43:55
1	Mo 202.031†	1172.1	1192.6	38.393	µg/L	38.393	ppb	22:44:15
1	Ni 231.604†	3904.8	3982.8	45.859	µg/L	45.859	ppb	22:44:15
1	P 214.914†	3155.5	3174.7	596.75	µg/L	596.75	ppb	22:44:15
1	Pb 220.353†	11539.0	11457.1	641.05	µg/L	641.05	ppb	22:44:15
1	S 181.975 Axial†	1692.4	1588.0	1179.5	µg/L	1179.5	ppb	22:44:15
1	Sb 206.836†	97.1	16.3	-0.6475	µg/L	-0.6475	ppb	22:44:15
1	Se 196.026†	-61.5	-76.8	-0.259	µg/L	-0.259	ppb	22:44:15
1	SiO2†	574157.8	572605.3	55966	µg/L	55966	ppb	22:43:55
1	Si 251.611†	1766439.2	1766288.3	26039	µg/L	26039	ppb	22:43:55
1	Sn 189.927†	1017.5	1019.0	69.101	µg/L	69.101	ppb	22:44:15
1	Ti 334.940†	1771002.0	1770736.9	1654.1	µg/L	1654.1	ppb	22:43:55
1	Tl 190.801†	-323.9	-207.3	-4.2908	µg/L	-4.2908	ppb	22:44:15
1	U 409.014†	-7793.8	-7526.9	-443.29	µg/L	-443.29	ppb	22:43:55
1	V 292.402†	17653.5	17256.6	74.806	µg/L	74.806	ppb	22:43:55
1	Zn 213.857†	148203.1	147696.2	819.73	µg/L	819.73	ppb	22:43:55
2	Sc RADIAL	143725.4	143725.4	98.5	%			22:43:32
2	Al 396.153Radial†	229573.4	233157.6	43226	µg/L	43226	ppb	22:43:30
2	Ca 317.933Radial†	146403.4	148088.2	8249.1	µg/L	8249.1	ppb	22:43:32
2	Fe 238.204 Radial†	1280601.0	1300093.6	80130	µg/L	80130	ppb	22:43:30
2	K 766.490 Radial†	21530.9	20316.4	7426.0	µg/L	7426.0	ppb	22:43:32
2	Mg 279.077 IEC†	19589.0	19698.7	7271.6	µg/L	7271.6	ppb	22:43:32
2	Na 589.592 Radial†	18091.5	17078.1	2326.5	µg/L	2326.5	ppb	22:43:32
2	Sr 421.552†	38333.1	39056.3	81.131	µg/L	81.131	ppb	22:43:32
2	Sc 361.383	1741932.7	1741932.7	101.38	%			22:44:18
2	Y 371.029	1241449.2	1241449.2	120.92	%			22:44:18
2	Ag 328.068†	25745.0	21303.1	78.196	µg/L	78.196	ppb	22:44:18
2	As 188.979†	44.0	63.8	38.619	µg/L	38.619	ppb	22:44:38
2	B 249.677†	5859.9	2274.3	33.500	µg/L	33.500	ppb	22:44:18
2	Ba 233.527†	85981.3	84946.6	341.34	µg/L	341.34	ppb	22:44:18
2	Be 313.107†	15902.2	16750.4	4.4270	µg/L	4.4270	ppb	22:44:18
2	Cd 226.502†	1787.8	1881.7	3.3483	µg/L	3.3483	ppb	22:44:38
2	Co 228.616†	793.7	973.2	8.1871	µg/L	8.1871	ppb	22:44:38
2	Cr 267.716†	17376.0	16960.9	135.52	µg/L	135.52	ppb	22:44:38
2	Cu 324.752†	895497.4	880333.6	3432.6	µg/L	3432.6	ppb	22:44:18
2	Mn 257.610†	1277137.2	1259512.7	1557.9	µg/L	1557.9	ppb	22:44:18
2	Mo 202.031†	1182.8	1186.8	38.209	µg/L	38.209	ppb	22:44:38
2	Ni 231.604†	3884.7	3908.3	45.001	µg/L	45.001	ppb	22:44:38
2	P 214.914†	3182.2	3156.8	593.05	µg/L	593.05	ppb	22:44:38
2	Pb 220.353†	11501.5	11258.6	629.97	µg/L	629.97	ppb	22:44:38

2	S 181.975 Axial†	1695.3	1567.1	1164.0	µg/L	1164.0 ppb	22:44:38
2	Sb 206.836†	104.6	22.3	0.1029	µg/L	0.1029 ppb	22:44:38
2	Se 196.026†	-60.6	-75.1	0.229	µg/L	0.229 ppb	22:44:38
2	SiO2†	584102.6	574375.2	56139	µg/L	56139 ppb	22:44:18
2	Si 251.611†	1796578.4	1771282.7	26113	µg/L	26113 ppb	22:44:18
2	Sn 189.927†	1006.7	994.1	67.555	µg/L	67.555 ppb	22:44:38
2	Ti 334.940†	1796580.9	1771169.3	1654.5	µg/L	1654.5 ppb	22:44:18
2	Tl 190.801†	-339.8	-218.5	-5.6463	µg/L	-5.6463 ppb	22:44:38
2	U 409.014†	-7950.2	-7572.1	-445.84	µg/L	-445.84 ppb	22:44:18
2	V 292.402†	17876.8	17229.7	74.698	µg/L	74.698 ppb	22:44:18
2	Zn 213.857†	150480.2	147867.1	820.73	µg/L	820.73 ppb	22:44:18
3	Sc RADIAL	144122.8	144122.8	98.8	%		22:43:36
3	Al 396.153Radial†	233301.6	236289.8	43806	µg/L	43806 ppb	22:43:34
3	Ca 317.933Radial†	147672.8	148963.7	8297.9	µg/L	8297.9 ppb	22:43:36
3	Fe 238.204 Radial†	1301347.0	1317514.6	81204	µg/L	81204 ppb	22:43:34
3	K 766.490 Radial†	21840.2	20569.2	7518.4	µg/L	7518.4 ppb	22:43:36
3	Mg 279.077 IEC†	19691.0	19747.2	7288.7	µg/L	7288.7 ppb	22:43:36
3	Na 589.592 Radial†	18199.2	17136.5	2334.4	µg/L	2334.4 ppb	22:43:36
3	Sr 421.552†	38373.0	38989.3	80.992	µg/L	80.992 ppb	22:43:36
3	Sc 361.383	1728956.3	1728956.3	100.62	%		22:44:41
3	Y 371.029	1232525.4	1232525.4	120.05	%		22:44:41
3	Ag 328.068†	26107.2	21853.6	80.217	µg/L	80.217 ppb	22:44:41
3	As 188.979†	41.1	61.2	38.099	µg/L	38.099 ppb	22:45:01
3	B 249.677†	5643.4	2102.5	30.965	µg/L	30.965 ppb	22:44:41
3	Ba 233.527†	85144.3	84751.4	340.54	µg/L	340.54 ppb	22:44:41
3	Be 313.107†	15822.1	16788.5	4.4343	µg/L	4.4343 ppb	22:44:41
3	Cd 226.502†	1765.6	1872.8	3.1800	µg/L	3.1800 ppb	22:45:01
3	Co 228.616†	825.8	1011.0	8.5970	µg/L	8.5970 ppb	22:45:01
3	Cr 267.716†	17343.5	17057.3	136.32	µg/L	136.32 ppb	22:45:01
3	Cu 324.752†	888909.0	880415.7	3433.1	µg/L	3433.1 ppb	22:44:41
3	Mn 257.610†	1263274.0	1255190.4	1552.5	µg/L	1552.5 ppb	22:44:41
3	Mo 202.031†	1190.7	1203.4	38.739	µg/L	38.739 ppb	22:45:01
3	Ni 231.604†	3852.0	3904.6	44.959	µg/L	44.959 ppb	22:45:01
3	P 214.914†	3146.5	3145.0	589.92	µg/L	589.92 ppb	22:45:01
3	Pb 220.353†	11472.6	11314.9	633.12	µg/L	633.12 ppb	22:45:01
3	S 181.975 Axial†	1681.8	1566.3	1163.4	µg/L	1163.4 ppb	22:45:01
3	Sb 206.836†	108.9	27.4	0.6902	µg/L	0.6902 ppb	22:45:01
3	Se 196.026†	-63.2	-78.1	-0.483	µg/L	-0.483 ppb	22:45:01
3	SiO2†	577840.1	572475.8	55953	µg/L	55953 ppb	22:44:41
3	Si 251.611†	1777695.5	1765817.5	26032	µg/L	26032 ppb	22:44:41
3	Sn 189.927†	1028.2	1023.0	69.353	µg/L	69.353 ppb	22:45:01
3	Ti 334.940†	1783430.1	1771400.5	1654.7	µg/L	1654.7 ppb	22:44:41
3	Tl 190.801†	-313.6	-195.0	-2.7745	µg/L	-2.7745 ppb	22:45:01
3	U 409.014†	-8063.6	-7743.6	-456.13	µg/L	-456.13 ppb	22:44:41
3	V 292.402†	17771.7	17257.5	74.722	µg/L	74.722 ppb	22:44:41
3	Zn 213.857†	148670.6	147182.8	816.78	µg/L	816.78 ppb	22:44:41

Mean Data: 248814004|963989|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729480.0	100.66	%	0.710				0.71%
Sc RADIAL	144001.2	98.7	%	0.16				0.17%
Y 371.029	1233185.8	120.11	%	0.775				0.64%
Ag 328.068†	21616.6	79.352	µg/L	1.0416	79.352	ppb	1.0416	1.31%
Al 396.153Radial†	234527.0	43479	µg/L	297.1	43479	ppb	297.1	0.68%
As 188.979†	58.2	37.040	µg/L	2.2996	37.040	ppb	2.2996	6.21%
B 249.677†	2201.4	32.424	µg/L	1.3100	32.424	ppb	1.3100	4.04%
Ba 233.527†	84853.5	340.96	µg/L	0.401	340.96	ppb	0.401	0.12%
Be 313.107†	16772.0	4.4321	µg/L	0.00447	4.4321	ppb	0.00447	0.10%
Ca 317.933Radial†	148444.8	8269.0	µg/L	25.61	8269.0	ppb	25.61	0.31%
Cd 226.502†	1874.2	3.2525	µg/L	0.08657	3.2525	ppb	0.08657	2.66%
Co 228.616†	1005.5	8.5615	µg/L	0.35789	8.5615	ppb	0.35789	4.18%
Cr 267.716†	17082.6	136.50	µg/L	1.069	136.50	ppb	1.069	0.78%
Cu 324.752†	880000.8	3431.4	µg/L	2.54	3431.4	ppb	2.54	0.07%
Fe 238.204 Radial†	1307737.1	80601	µg/L	548.8	80601	ppb	548.8	0.68%
K 766.490 Radial†	20432.0	7468.3	µg/L	46.72	7468.3	ppb	46.72	0.63%
Mg 279.077 IEC†	19702.0	7272.4	µg/L	15.93	7272.4	ppb	15.93	0.22%
Mn 257.610†	1256927.3	1554.7	µg/L	2.83	1554.7	ppb	2.83	0.18%
Mo 202.031†	1194.2	38.447	µg/L	0.2689	38.447	ppb	0.2689	0.70%
Na 589.592 Radial†	17072.5	2325.7	µg/L	9.14	2325.7	ppb	9.14	0.39%

Ni 231.604†	3931.9	45.273	µg/L	0.5080	45.273	ppb	0.5080	1.12%
P 214.914†	3158.8	593.24	µg/L	3.416	593.24	ppb	3.416	0.58%
Pb 220.353†	11343.5	634.71	µg/L	5.710	634.71	ppb	5.710	0.90%
S 181.975 Axial†	1573.8	1169.0	µg/L	9.12	1169.0	ppb	9.12	0.78%
Sb 206.836†	22.0	0.0485	µg/L	0.67048	0.0485	ppb	0.67048	>999.9%
Se 196.026†	-76.6	-0.171	µg/L	0.3637	-0.171	ppb	0.3637	212.55%
SiO2†	573152.1	56019	µg/L	103.7	56019	ppb	103.7	0.19%
Si 251.611†	1767796.2	26062	µg/L	44.7	26062	ppb	44.7	0.17%
Sn 189.927†	1012.0	68.670	µg/L	0.9738	68.670	ppb	0.9738	1.42%
Sr 421.552†	39008.9	81.033	µg/L	0.0858	81.033	ppb	0.0858	0.11%
Ti 334.940†	1771102.2	1654.4	µg/L	0.32	1654.4	ppb	0.32	0.02%
Tl 190.801†	-206.9	-4.2372	µg/L	1.43666	-4.2372	ppb	1.43666	33.91%
U 409.014†	-7614.2	-448.42	µg/L	6.799	-448.42	ppb	6.799	1.52%
Concentration less than lower limit for U 409.014.								
V 292.402†	17247.9	74.742	µg/L	0.0569	74.742	ppb	0.0569	0.08%
Zn 213.857†	147582.0	819.08	µg/L	2.053	819.08	ppb	2.053	0.25%

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Sequence No.: 91
Sample ID: 248814005|963989|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 223
Date Collected: 3/31/2010 22:45:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248814005|963989|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142935.5	142935.5	97.9	%			22:45:40
1	Al 396.153Radial†	17239.7	17664.1	3274.6	µg/L	3274.6	ppb	22:45:42
1	Ca 317.933Radial†	29551.7	29610.2	1649.4	µg/L	1649.4	ppb	22:45:42
1	Fe 238.204 Radial†	956459.8	976348.3	60176	µg/L	60176	ppb	22:45:40
1	K 766.490 Radial†	8380.6	7011.4	2565.5	µg/L	2565.5	ppb	22:45:42
1	Mg 279.077 IEC†	3031.7	2904.5	1030.7	µg/L	1030.7	ppb	22:45:42
1	Na 589.592 Radial†	14741.7	13759.8	1877.5	µg/L	1877.5	ppb	22:45:42
1	Sr 421.552†	1441.6	1607.1	3.3282	µg/L	3.3282	ppb	22:45:42
1	Sc 361.383	1715483.3	1715483.3	99.841	%			22:46:08
1	Y 371.029	1200274.3	1200274.3	116.91	%			22:46:08
1	Ag 328.068†	14168.2	10099.4	36.248	µg/L	36.248	ppb	22:46:10
1	As 188.979†	-18.9	1.4	14.026	µg/L	14.026	ppb	22:46:30
1	B 249.677†	3724.4	224.5	3.2879	µg/L	3.2879	ppb	22:46:10
1	Ba 233.527†	3067.0	3207.8	12.169	µg/L	12.169	ppb	22:46:30
1	Be 313.107†	8377.6	9455.7	2.5363	µg/L	2.5363	ppb	22:46:10
1	Cd 226.502†	878.0	997.6	-0.0950	µg/L	-0.0950	ppb	22:46:30
1	Co 228.616†	337.2	528.1	3.3900	µg/L	3.3900	ppb	22:46:30
1	Cr 267.716†	1184.1	1007.5	9.3665	µg/L	9.3665	ppb	22:46:10
1	Cu 324.752†	7263.2	4302.5	25.413	µg/L	25.413	ppb	22:46:10
1	Mn 257.610†	2275217.3	2278606.5	2819.1	µg/L	2819.1	ppb	22:46:08
1	Mo 202.031†	196.4	216.8	8.7758	µg/L	8.7758	ppb	22:46:30
1	Ni 231.604†	271.4	348.3	4.0106	µg/L	4.0106	ppb	22:46:30
1	P 214.914†	468.8	487.5	64.028	µg/L	64.028	ppb	22:46:30
1	Pb 220.353†	310.7	224.9	12.936	µg/L	12.936	ppb	22:46:30
1	S 181.975 Axial†	128.0	23.2	17.248	µg/L	17.248	ppb	22:46:30
1	Sb 206.836†	86.6	5.9	-0.0271	µg/L	-0.0271	ppb	22:46:30
1	Se 196.026†	-51.6	-67.0	-3.46	µg/L	-3.46	ppb	22:46:30
1	SiO2†	188263.9	186788.6	18257	µg/L	18257	ppb	22:46:10
1	Si 251.611†	578105.7	578190.5	8523.9	µg/L	8523.9	ppb	22:46:08
1	Sn 189.927†	382.8	384.5	29.102	µg/L	29.102	ppb	22:46:30
1	Ti 334.940†	1627486.1	1629127.6	1522.0	µg/L	1522.0	ppb	22:46:08
1	Tl 190.801†	-315.3	-199.1	-1.8038	µg/L	-1.8038	ppb	22:46:30
1	U 409.014†	-2433.8	-2167.8	-121.03	µg/L	-121.03	ppb	22:46:10
1	V 292.402†	4200.7	3803.6	10.810	µg/L	10.810	ppb	22:46:10
1	Zn 213.857†	37358.0	36853.2	201.36	µg/L	201.36	ppb	22:46:10
2	Sc RADIAL	143600.6	143600.6	98.4	%			22:45:44
2	Al 396.153Radial†	17228.7	17571.3	3257.4	µg/L	3257.4	ppb	22:45:46
2	Ca 317.933Radial†	29677.5	29598.3	1648.7	µg/L	1648.7	ppb	22:45:46
2	Fe 238.204 Radial†	965977.6	981497.1	60493	µg/L	60493	ppb	22:45:44
2	K 766.490 Radial†	8135.0	6722.2	2459.7	µg/L	2459.7	ppb	22:45:46
2	Mg 279.077 IEC†	3013.0	2871.2	1018.0	µg/L	1018.0	ppb	22:45:46
2	Na 589.592 Radial†	14941.2	13892.8	1895.7	µg/L	1895.7	ppb	22:45:46
2	Sr 421.552†	1537.0	1697.2	3.5156	µg/L	3.5156	ppb	22:45:46
2	Sc 361.383	1712331.8	1712331.8	99.657	%			22:46:33
2	Y 371.029	1197779.0	1197779.0	116.66	%			22:46:33
2	Ag 328.068†	14230.6	10188.1	36.544	µg/L	36.544	ppb	22:46:35
2	As 188.979†	-20.4	-0.1	13.623	µg/L	13.623	ppb	22:46:55
2	B 249.677†	3817.6	324.8	4.7681	µg/L	4.7681	ppb	22:46:35
2	Ba 233.527†	3079.7	3226.2	12.238	µg/L	12.238	ppb	22:46:55
2	Be 313.107†	8028.6	9120.9	2.4411	µg/L	2.4411	ppb	22:46:35
2	Cd 226.502†	863.4	984.6	-0.2095	µg/L	-0.2095	ppb	22:46:55
2	Co 228.616†	341.4	532.9	3.4333	µg/L	3.4333	ppb	22:46:55
2	Cr 267.716†	1146.6	972.0	9.1112	µg/L	9.1112	ppb	22:46:35
2	Cu 324.752†	7025.8	4077.8	24.574	µg/L	24.574	ppb	22:46:35
2	Mn 257.610†	2265904.2	2273455.6	2812.7	µg/L	2812.7	ppb	22:46:33
2	Mo 202.031†	190.2	210.9	8.6167	µg/L	8.6167	ppb	22:46:55
2	Ni 231.604†	291.6	369.1	4.2501	µg/L	4.2501	ppb	22:46:55
2	P 214.914†	474.4	494.0	65.210	µg/L	65.210	ppb	22:46:55
2	Pb 220.353†	324.0	238.8	13.708	µg/L	13.708	ppb	22:46:55

2	S 181.975 Axial†	123.3	18.6	13.884 µg/L	13.884 ppb	22:46:55
2	Sb 206.836†	72.8	-7.8	-1.6612 µg/L	-1.6612 ppb	22:46:55
2	Se 196.026†	-36.1	-51.5	2.23 µg/L	2.23 ppb	22:46:55
2	SiO2†	187619.6	186489.2	18227 µg/L	18227 ppb	22:46:35
2	Si 251.611†	575797.9	576940.5	8505.5 µg/L	8505.5 ppb	22:46:33
2	Sn 189.927†	386.9	389.4	29.397 µg/L	29.397 ppb	22:46:55
2	Ti 334.940†	1621779.5	1626401.5	1519.5 µg/L	1519.5 ppb	22:46:33
2	Tl 190.801†	-331.8	-216.3	-3.9629 µg/L	-3.9629 ppb	22:46:55
2	U 409.014†	-2659.0	-2398.2	-134.69 µg/L	-134.69 ppb	22:46:35
2	V 292.402†	3923.0	3532.7	9.4447 µg/L	9.4447 ppb	22:46:35
2	Zn 213.857†	37100.3	36663.4	200.25 µg/L	200.25 ppb	22:46:35
3	Sc RADIAL	142687.4	142687.4	97.8 %		22:45:48
3	Al 396.153Radial†	17457.6	17917.5	3321.6 µg/L	3321.6 ppb	22:45:50
3	Ca 317.933Radial†	29866.8	29984.9	1670.3 µg/L	1670.3 ppb	22:45:50
3	Fe 238.204 Radial†	954223.9	975758.8	60140 µg/L	60140 ppb	22:45:48
3	K 766.490 Radial†	8428.6	7075.3	2588.9 µg/L	2588.9 ppb	22:45:50
3	Mg 279.077 IEC†	3054.1	2932.8	1041.3 µg/L	1041.3 ppb	22:45:50
3	Na 589.592 Radial†	14956.5	14005.6	1911.0 µg/L	1911.0 ppb	22:45:50
3	Sr 421.552†	1647.9	1820.6	3.7718 µg/L	3.7718 ppb	22:45:50
3	Sc 361.383	1728229.2	1728229.2	100.58 %		22:46:57
3	Y 371.029	1208750.5	1208750.5	117.73 %		22:46:57
3	Ag 328.068†	14423.4	10248.4	36.765 µg/L	36.765 ppb	22:46:59
3	As 188.979†	-22.2	-1.8	13.043 µg/L	13.043 ppb	22:47:19
3	B 249.677†	3687.1	159.8	2.3347 µg/L	2.3347 ppb	22:46:59
3	Ba 233.527†	3040.3	3158.5	11.970 µg/L	11.970 ppb	22:47:19
3	Be 313.107†	8071.7	9089.6	2.4331 µg/L	2.4331 ppb	22:46:59
3	Cd 226.502†	892.0	1005.0	-0.0450 µg/L	-0.0450 ppb	22:47:19
3	Co 228.616†	340.3	528.6	3.3979 µg/L	3.3979 ppb	22:47:19
3	Cr 267.716†	1042.9	858.3	8.2066 µg/L	8.2066 ppb	22:46:59
3	Cu 324.752†	7039.9	4026.9	24.327 µg/L	24.327 ppb	22:46:59
3	Mn 257.610†	2286988.1	2273502.4	2812.8 µg/L	2812.8 ppb	22:46:57
3	Mo 202.031†	212.7	231.6	9.2092 µg/L	9.2092 ppb	22:47:19
3	Ni 231.604†	313.0	387.7	4.4642 µg/L	4.4642 ppb	22:47:19
3	P 214.914†	461.4	476.7	61.772 µg/L	61.772 ppb	22:47:19
3	Pb 220.353†	352.9	264.5	15.161 µg/L	15.161 ppb	22:47:19
3	S 181.975 Axial†	127.2	21.4	15.962 µg/L	15.962 ppb	22:47:19
3	Sb 206.836†	99.0	17.6	1.3861 µg/L	1.3861 ppb	22:47:19
3	Se 196.026†	-31.1	-46.2	4.04 µg/L	4.04 ppb	22:47:19
3	SiO2†	189271.3	186399.5	18218 µg/L	18218 ppb	22:46:59
3	Si 251.611†	581294.7	577090.7	8507.7 µg/L	8507.7 ppb	22:46:57
3	Sn 189.927†	387.3	386.2	29.202 µg/L	29.202 ppb	22:47:19
3	Ti 334.940†	1637293.7	1626856.4	1519.9 µg/L	1519.9 ppb	22:46:57
3	Tl 190.801†	-309.3	-190.8	-0.8326 µg/L	-0.8326 ppb	22:47:19
3	U 409.014†	-2652.6	-2367.4	-132.83 µg/L	-132.83 ppb	22:46:59
3	V 292.402†	3857.8	3431.6	8.9923 µg/L	8.9923 ppb	22:46:59
3	Zn 213.857†	37476.2	36694.7	200.47 µg/L	200.47 ppb	22:46:59

Mean Data: 248814005|963989|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1718681.4	100.03	%	0.490				0.49%
Sc RADIAL	143074.5	98.0	%	0.32				0.33%
Y 371.029	1202267.9	117.10	%	0.560				0.48%
Ag 328.068†	10178.6	36.519	µg/L	0.2595	36.519	ppb	0.2595	0.71%
Al 396.153Radial†	17717.6	3284.5	µg/L	33.20	3284.5	ppb	33.20	1.01%
As 188.979†	-0.2	13.564	µg/L	0.4943	13.564	ppb	0.4943	3.64%
B 249.677†	236.4	3.4636	µg/L	1.22613	3.4636	ppb	1.22613	35.40%
Ba 233.527†	3197.5	12.126	µg/L	0.1392	12.126	ppb	0.1392	1.15%
Be 313.107†	9222.1	2.4702	µg/L	0.05741	2.4702	ppb	0.05741	2.32%
Ca 317.933Radial†	29731.1	1656.1	µg/L	12.25	1656.1	ppb	12.25	0.74%
Cd 226.502†	995.7	-0.1165	µg/L	0.08435	-0.1165	ppb	0.08435	72.42%
Co 228.616†	529.9	3.4071	µg/L	0.02306	3.4071	ppb	0.02306	0.68%
Cr 267.716†	945.9	8.8948	µg/L	0.60945	8.8948	ppb	0.60945	6.85%
Cu 324.752†	4135.8	24.771	µg/L	0.5691	24.771	ppb	0.5691	2.30%
Fe 238.204 Radial†	977868.1	60270	µg/L	194.6	60270	ppb	194.6	0.32%
K 766.490 Radial†	6936.3	2538.0	µg/L	68.88	2538.0	ppb	68.88	2.71%
Mg 279.077 IEC†	2902.8	1030.0	µg/L	11.65	1030.0	ppb	11.65	1.13%
Mn 257.610†	2275188.2	2814.9	µg/L	3.66	2814.9	ppb	3.66	0.13%
Mo 202.031†	219.8	8.8672	µg/L	0.30663	8.8672	ppb	0.30663	3.46%
Na 589.592 Radial†	13886.0	1894.7	µg/L	16.80	1894.7	ppb	16.80	0.89%

Ni 231.604†	368.4	4.2416	µg/L	0.22692	4.2416	ppb	0.22692	5.35%
P 214.914†	486.0	63.670	µg/L	1.7467	63.670	ppb	1.7467	2.74%
Pb 220.353†	242.7	13.935	µg/L	1.1299	13.935	ppb	1.1299	8.11%
S 181.975 Axial†	21.1	15.698	µg/L	1.6974	15.698	ppb	1.6974	10.81%
Sb 206.836†	5.3	-0.1007	µg/L	1.52498	-0.1007	ppb	1.52498	>999.9%
Se 196.026†	-54.9	0.936	µg/L	3.9132	0.936	ppb	3.9132	417.87%
SiO2†	186559.1	18234	µg/L	19.9	18234	ppb	19.9	0.11%
Si 251.611†	577407.3	8512.4	µg/L	10.06	8512.4	ppb	10.06	0.12%
Sn 189.927†	386.7	29.234	µg/L	0.1499	29.234	ppb	0.1499	0.51%
Sr 421.552†	1708.3	3.5385	µg/L	0.22270	3.5385	ppb	0.22270	6.29%
Ti 334.940†	1627461.8	1520.5	µg/L	1.36	1520.5	ppb	1.36	0.09%
Tl 190.801†	-202.1	-2.1997	µg/L	1.60228	-2.1997	ppb	1.60228	72.84%
U 409.014†	-2311.1	-129.52	µg/L	7.410	-129.52	ppb	7.410	5.72%
Concentration less than lower limit for U 409.014.								
V 292.402†	3589.3	9.7489	µg/L	0.94609	9.7489	ppb	0.94609	9.70%
Zn 213.857†	36737.1	200.69	µg/L	0.584	200.69	ppb	0.584	0.29%

Sequence No.: 92
Sample ID: 248814006|963989|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 224
Date Collected: 3/31/2010 22:47:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248814006|963989|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142264.5	142264.5	97.5	%			22:47:57
1	Al 396.153Radial†	19709.3	20280.3	3759.6	µg/L	3759.6	ppb	22:47:59
1	Ca 317.933Radial†	6298.7	5900.4	328.68	µg/L	328.68	ppb	22:47:59
1	Fe 238.204 Radial†	928473.1	952246.1	58691	µg/L	58691	ppb	22:47:57
1	K 766.490 Radial†	9116.7	7806.8	2857.0	µg/L	2857.0	ppb	22:47:57
1	Mg 279.077 IEC†	1505.2	1353.3	454.07	µg/L	454.07	ppb	22:47:59
1	Na 589.592 Radial†	13377.0	12430.8	1695.7	µg/L	1695.7	ppb	22:47:57
1	Sr 421.552†	1122.3	1286.5	2.6719	µg/L	2.6719	ppb	22:47:59
1	Sc 361.383	1706799.3	1706799.3	99.335	%			22:48:25
1	Y 371.029	1056066.8	1056066.8	102.86	%			22:48:25
1	Ag 328.068†	293717.3	291590.9	1078.6	µg/L	1078.6	ppb	22:48:27
1	As 188.979†	-31.0	-10.8	10.019	µg/L	10.019	ppb	22:48:47
1	B 249.677†	3761.4	280.7	4.1219	µg/L	4.1219	ppb	22:48:27
1	Ba 233.527†	4120.8	4284.2	16.523	µg/L	16.523	ppb	22:48:47
1	Be 313.107†	3921.6	5012.6	1.3239	µg/L	1.3239	ppb	22:48:27
1	Cd 226.502†	812.4	936.0	-0.3229	µg/L	-0.3229	ppb	22:48:47
1	Co 228.616†	227.2	419.0	2.1266	µg/L	2.1266	ppb	22:48:47
1	Cr 267.716†	1517.7	1349.3	12.053	µg/L	12.053	ppb	22:48:27
1	Cu 324.752†	7067.3	4142.3	24.550	µg/L	24.550	ppb	22:48:27
1	Mn 257.610†	2107099.6	2120958.6	2624.1	µg/L	2624.1	ppb	22:48:25
1	Mo 202.031†	231.5	253.1	9.7726	µg/L	9.7726	ppb	22:48:47
1	Ni 231.604†	359.2	438.1	5.0441	µg/L	5.0441	ppb	22:48:47
1	P 214.914†	606.3	628.4	95.922	µg/L	95.922	ppb	22:48:47
1	Pb 220.353†	491.5	408.4	22.194	µg/L	22.194	ppb	22:48:47
1	S 181.975 Axial†	158.8	54.8	40.737	µg/L	40.737	ppb	22:48:47
1	Sb 206.836†	149.1	69.3	7.6245	µg/L	7.6245	ppb	22:48:47
1	Se 196.026†	-35.9	-51.5	1.63	µg/L	1.63	ppb	22:48:47
1	SiO2†	204696.9	204290.9	19966	µg/L	19966	ppb	22:48:27
1	Si 251.611†	614282.5	617555.4	9103.8	µg/L	9103.8	ppb	22:48:25
1	Sn 189.927†	1577.4	1589.0	101.47	µg/L	101.47	ppb	22:48:47
1	Ti 334.940†	761149.3	765288.8	715.00	µg/L	715.00	ppb	22:48:25
1	Tl 190.801†	-275.5	-160.7	-5.7076	µg/L	-5.7076	ppb	22:48:47
1	U 409.014†	-2569.1	-2316.4	-130.94	µg/L	-130.94	ppb	22:48:27
1	V 292.402†	3335.1	2953.6	7.5851	µg/L	7.5851	ppb	22:48:27
1	Zn 213.857†	33616.7	33277.1	180.99	µg/L	180.99	ppb	22:48:27
2	Sc RADIAL	143423.1	143423.1	98.3	%			22:48:01
2	Al 396.153Radial†	19418.9	19821.5	3674.6	µg/L	3674.6	ppb	22:48:03
2	Ca 317.933Radial†	6290.8	5840.1	325.32	µg/L	325.32	ppb	22:48:03
2	Fe 238.204 Radial†	939446.1	955717.3	58905	µg/L	58905	ppb	22:48:01
2	K 766.490 Radial†	9329.7	7948.0	2908.7	µg/L	2908.7	ppb	22:48:01
2	Mg 279.077 IEC†	1521.7	1357.6	455.46	µg/L	455.46	ppb	22:48:03
2	Na 589.592 Radial†	13579.0	12525.5	1708.5	µg/L	1708.5	ppb	22:48:01
2	Sr 421.552†	1117.8	1272.6	2.6432	µg/L	2.6432	ppb	22:48:03
2	Sc 361.383	1745573.7	1745573.7	101.59	%			22:48:50
2	Y 371.029	1078080.8	1078080.8	105.01	%			22:48:50
2	Ag 328.068†	292291.0	283618.9	1049.1	µg/L	1049.1	ppb	22:48:52
2	As 188.979†	-28.5	-7.7	11.007	µg/L	11.007	ppb	22:49:12
2	B 249.677†	3693.2	129.4	1.8916	µg/L	1.8916	ppb	22:48:52
2	Ba 233.527†	4136.5	4207.5	16.210	µg/L	16.210	ppb	22:49:12
2	Be 313.107†	3581.5	4590.0	1.2145	µg/L	1.2145	ppb	22:48:52
2	Cd 226.502†	810.2	915.7	-0.4727	µg/L	-0.4727	ppb	22:49:12
2	Co 228.616†	214.4	401.4	1.8975	µg/L	1.8975	ppb	22:49:12
2	Cr 267.716†	1614.3	1410.4	12.523	µg/L	12.523	ppb	22:48:52
2	Cu 324.752†	7086.7	4003.4	24.056	µg/L	24.056	ppb	22:48:52
2	Mn 257.610†	2156614.1	2122579.0	2626.1	µg/L	2626.1	ppb	22:48:50
2	Mo 202.031†	207.1	223.9	8.9228	µg/L	8.9228	ppb	22:49:12
2	Ni 231.604†	378.2	448.8	5.1675	µg/L	5.1675	ppb	22:49:12
2	P 214.914†	607.0	615.4	93.000	µg/L	93.000	ppb	22:49:12
2	Pb 220.353†	465.5	371.8	20.122	µg/L	20.122	ppb	22:49:12

2	S 181.975 Axial†	166.7	59.1	43.925 µg/L	43.925 ppb	22:49:12
2	Sb 206.836†	144.9	61.8	6.7090 µg/L	6.7090 ppb	22:49:12
2	Se 196.026†	-34.1	-48.9	2.65 µg/L	2.65 ppb	22:49:12
2	SiO2†	203819.9	198850.4	19434 µg/L	19434 ppb	22:48:52
2	Si 251.611†	630260.7	619546.9	9133.2 µg/L	9133.2 ppb	22:48:50
2	Sn 189.927†	1606.3	1582.3	101.05 µg/L	101.05 ppb	22:49:12
2	Ti 334.940†	778058.4	764912.3	714.64 µg/L	714.64 ppb	22:48:50
2	Tl 190.801†	-272.1	-151.2	-4.5482 µg/L	-4.5482 ppb	22:49:12
2	U 409.014†	-2304.0	-1998.0	-112.44 µg/L	-112.44 ppb	22:48:52
2	V 292.402†	3122.1	2669.4	6.1820 µg/L	6.1820 ppb	22:48:52
2	Zn 213.857†	33320.2	32233.6	175.11 µg/L	175.11 ppb	22:48:52
3	Sc RADIAL	145983.8	145983.8	100 %		22:48:05
3	Al 396.153Radial†	19871.2	19927.1	3694.1 µg/L	3694.1 ppb	22:48:07
3	Ca 317.933Radial†	6415.0	5852.1	325.98 µg/L	325.98 ppb	22:48:07
3	Fe 238.204 Radial†	953350.9	952850.2	58728 µg/L	58728 ppb	22:48:05
3	K 766.490 Radial†	9327.2	7778.9	2846.8 µg/L	2846.8 ppb	22:48:05
3	Mg 279.077 IEC†	1527.5	1336.2	447.65 µg/L	447.65 ppb	22:48:07
3	Na 589.592 Radial†	13874.2	12578.2	1715.8 µg/L	1715.8 ppb	22:48:05
3	Sr 421.552†	1047.5	1182.4	2.4557 µg/L	2.4557 ppb	22:48:07
3	Sc 361.383	1744435.4	1744435.4	101.53 %		22:49:14
3	Y 371.029	1076799.8	1076799.8	104.88 %		22:49:14
3	Ag 328.068†	295970.2	287430.5	1063.2 µg/L	1063.2 ppb	22:49:16
3	As 188.979†	-37.3	-16.4	8.3556 µg/L	8.3556 ppb	22:49:36
3	B 249.677†	3810.1	247.0	3.6254 µg/L	3.6254 ppb	22:49:16
3	Ba 233.527†	4144.3	4217.9	16.255 µg/L	16.255 ppb	22:49:36
3	Be 313.107†	3950.6	4956.0	1.3123 µg/L	1.3123 ppb	22:49:16
3	Cd 226.502†	834.4	940.1	-0.3015 µg/L	-0.3015 ppb	22:49:36
3	Co 228.616†	215.7	402.8	1.9244 µg/L	1.9244 ppb	22:49:36
3	Cr 267.716†	1635.7	1432.5	12.695 µg/L	12.695 ppb	22:49:16
3	Cu 324.752†	7097.1	4018.2	24.083 µg/L	24.083 ppb	22:49:16
3	Mn 257.610†	2154260.2	2121645.8	2624.9 µg/L	2624.9 ppb	22:49:14
3	Mo 202.031†	224.8	241.5	9.4339 µg/L	9.4339 ppb	22:49:36
3	Ni 231.604†	369.4	440.4	5.0704 µg/L	5.0704 ppb	22:49:36
3	P 214.914†	607.3	616.1	93.269 µg/L	93.269 ppb	22:49:36
3	Pb 220.353†	463.5	370.1	20.042 µg/L	20.042 ppb	22:49:36
3	S 181.975 Axial†	176.4	68.7	51.079 µg/L	51.079 ppb	22:49:36
3	Sb 206.836†	158.8	75.6	8.3543 µg/L	8.3543 ppb	22:49:36
3	Se 196.026†	-40.7	-55.4	0.244 µg/L	0.244 ppb	22:49:36
3	SiO2†	206551.7	201672.0	19710 µg/L	19710 ppb	22:49:16
3	Si 251.611†	629679.3	619379.1	9130.7 µg/L	9130.7 ppb	22:49:14
3	Sn 189.927†	1598.7	1575.8	100.64 µg/L	100.64 ppb	22:49:36
3	Ti 334.940†	776855.7	764227.5	714.01 µg/L	714.01 ppb	22:49:14
3	Tl 190.801†	-266.9	-146.2	-3.9423 µg/L	-3.9423 ppb	22:49:36
3	U 409.014†	-2404.9	-2098.9	-118.25 µg/L	-118.25 ppb	22:49:16
3	V 292.402†	3344.2	2890.2	7.2804 µg/L	7.2804 ppb	22:49:16
3	Zn 213.857†	33862.7	32789.4	178.25 µg/L	178.25 ppb	22:49:16

Mean Data: 248814006|963989|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732269.5	100.82	%	1.284				1.27%
Sc RADIAL	143890.4	98.6	%	1.30				1.32%
Y 371.029	1070315.8	104.25	%	1.204				1.15%
Ag 328.068†	287546.8	1063.7	µg/L	14.76	1063.7	ppb	14.76	1.39%
Concentration greater than upper limit for Ag 328.068.								
Al 396.153Radial†	20009.6	3709.4	µg/L	44.53	3709.4	ppb	44.53	1.20%
As 188.979†	-11.6	9.7940	µg/L	1.33996	9.7940	ppb	1.33996	13.68%
B 249.677†	219.0	3.2130	µg/L	1.17097	3.2130	ppb	1.17097	36.45%
Ba 233.527†	4236.5	16.330	µg/L	0.1692	16.330	ppb	0.1692	1.04%
Be 313.107†	4852.9	1.2836	µg/L	0.06011	1.2836	ppb	0.06011	4.68%
Ca 317.933Radial†	5864.2	326.66	µg/L	1.779	326.66	ppb	1.779	0.54%
Cd 226.502†	930.6	-0.3657	µg/L	0.09326	-0.3657	ppb	0.09326	25.50%
Co 228.616†	407.7	1.9828	µg/L	0.12520	1.9828	ppb	0.12520	6.31%
Cr 267.716†	1397.4	12.424	µg/L	0.3328	12.424	ppb	0.3328	2.68%
Cu 324.752†	4054.6	24.230	µg/L	0.2776	24.230	ppb	0.2776	1.15%
Fe 238.204 Radial†	953604.5	58774	µg/L	114.3	58774	ppb	114.3	0.19%
K 766.490 Radial†	7844.6	2870.8	µg/L	33.18	2870.8	ppb	33.18	1.16%
Mg 279.077 IEC†	1349.0	452.39	µg/L	4.164	452.39	ppb	4.164	0.92%
Mn 257.610†	2121727.8	2625.0	µg/L	1.01	2625.0	ppb	1.01	0.04%
Mo 202.031†	239.5	9.3764	µg/L	0.42782	9.3764	ppb	0.42782	4.56%

Na 589.592 Radial†	12511.5	1706.7	µg/L	10.20	1706.7	ppb	10.20	0.60%
Ni 231.604†	442.4	5.0940	µg/L	0.06498	5.0940	ppb	0.06498	1.28%
P 214.914†	620.0	94.064	µg/L	1.6151	94.064	ppb	1.6151	1.72%
Pb 220.353†	383.4	20.786	µg/L	1.2204	20.786	ppb	1.2204	5.87%
S 181.975 Axial†	60.9	45.247	µg/L	5.2965	45.247	ppb	5.2965	11.71%
Sb 206.836†	68.9	7.5626	µg/L	0.82441	7.5626	ppb	0.82441	10.90%
Se 196.026†	-51.9	1.51	µg/L	1.210	1.51	ppb	1.210	80.18%
SiO2†	201604.4	19704	µg/L	265.9	19704	ppb	265.9	1.35%
Si 251.611†	618827.1	9122.5	µg/L	16.29	9122.5	ppb	16.29	0.18%
Sn 189.927†	1582.4	101.05	µg/L	0.413	101.05	ppb	0.413	0.41%
Sr 421.552†	1247.2	2.5903	µg/L	0.11742	2.5903	ppb	0.11742	4.53%
Ti 334.940†	764809.5	714.55	µg/L	0.505	714.55	ppb	0.505	0.07%
Tl 190.801†	-152.7	-4.7327	µg/L	0.89700	-4.7327	ppb	0.89700	18.95%
U 409.014†	-2137.8	-120.55	µg/L	9.462	-120.55	ppb	9.462	7.85%
Concentration less than lower limit for U 409.014.								
V 292.402†	2837.7	7.0158	µg/L	0.73801	7.0158	ppb	0.73801	10.52%
Zn 213.857†	32766.7	178.11	µg/L	2.946	178.11	ppb	2.946	1.65%

Sequence No.: 93
Sample ID: 248814007|963989|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 225
Date Collected: 3/31/2010 22:49:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248814007|963989|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143092.8	143092.8	98.1	%			22:50:14
1	Al 396.153Radial†	16716.7	17111.4	3172.1	µg/L	3172.1	ppb	22:50:16
1	Ca 317.933Radial†	26768.6	26738.7	1489.5	µg/L	1489.5	ppb	22:50:16
1	Fe 238.204 Radial†	841318.7	857850.5	52873	µg/L	52873	ppb	22:50:14
1	K 766.490 Radial†	7383.1	5984.7	2189.7	µg/L	2189.7	ppb	22:50:16
1	Mg 279.077 IEC†	1846.3	1692.2	585.31	µg/L	585.31	ppb	22:50:16
1	Na 589.592 Radial†	13876.6	12860.9	1755.0	µg/L	1755.0	ppb	22:50:16
1	Sr 421.552†	1010.2	1165.5	2.4114	µg/L	2.4114	ppb	22:50:16
1	Sc 361.383	1727220.2	1727220.2	100.52	%			22:50:42
1	Y 371.029	1216746.1	1216746.1	118.51	%			22:50:42
1	Ag 328.068†	6585.9	2460.2	8.0123	µg/L	8.0123	ppb	22:50:44
1	As 188.979†	-14.1	6.3	13.807	µg/L	13.807	ppb	22:51:04
1	B 249.677†	3796.9	271.3	3.9796	µg/L	3.9796	ppb	22:50:44
1	Ba 233.527†	2540.6	2663.2	10.067	µg/L	10.067	ppb	22:51:04
1	Be 313.107†	8104.2	9126.7	2.4272	µg/L	2.4272	ppb	22:50:44
1	Cd 226.502†	765.0	879.3	-0.0670	µg/L	-0.0670	ppb	22:51:04
1	Co 228.616†	301.8	490.5	3.3043	µg/L	3.3043	ppb	22:51:04
1	Cr 267.716†	504.4	323.2	3.9090	µg/L	3.9090	ppb	22:50:44
1	Cu 324.752†	7450.3	4439.2	24.814	µg/L	24.814	ppb	22:50:44
1	Mn 257.610†	1965305.5	1954824.7	2418.5	µg/L	2418.5	ppb	22:50:42
1	Mo 202.031†	214.2	233.2	8.9611	µg/L	8.9611	ppb	22:51:04
1	Ni 231.604†	157.7	233.4	2.6875	µg/L	2.6875	ppb	22:51:04
1	P 214.914†	385.3	401.2	50.421	µg/L	50.421	ppb	22:51:04
1	Pb 220.353†	263.7	175.9	10.328	µg/L	10.328	ppb	22:51:04
1	S 181.975 Axial†	120.7	15.0	11.199	µg/L	11.199	ppb	22:51:04
1	Sb 206.836†	84.6	3.4	-0.1748	µg/L	-0.1748	ppb	22:51:04
1	Se 196.026†	-35.8	-50.9	-0.246	µg/L	-0.246	ppb	22:51:04
1	SiO2†	184534.7	181797.6	17769	µg/L	17769	ppb	22:50:44
1	Si 251.611†	563224.7	559452.5	8247.8	µg/L	8247.8	ppb	22:50:42
1	Sn 189.927†	216.0	216.0	18.203	µg/L	18.203	ppb	22:51:04
1	Ti 334.940†	1512859.4	1504021.6	1405.2	µg/L	1405.2	ppb	22:50:42
1	Tl 190.801†	-316.8	-198.5	-3.9477	µg/L	-3.9477	ppb	22:51:04
1	U 409.014†	-3560.3	-3271.8	-186.68	µg/L	-186.68	ppb	22:50:42
1	V 292.402†	3681.8	3258.8	8.9692	µg/L	8.9692	ppb	22:50:44
1	Zn 213.857†	30889.9	30164.5	164.52	µg/L	164.52	ppb	22:50:44
2	Sc RADIAL	144451.5	144451.5	99.0	%			22:50:18
2	Al 396.153Radial†	16613.5	16846.7	3123.0	µg/L	3123.0	ppb	22:50:20
2	Ca 317.933Radial†	26543.1	26254.2	1462.5	µg/L	1462.5	ppb	22:50:20
2	Fe 238.204 Radial†	847683.8	856210.7	52772	µg/L	52772	ppb	22:50:18
2	K 766.490 Radial†	7572.0	6104.7	2233.7	µg/L	2233.7	ppb	22:50:20
2	Mg 279.077 IEC†	1823.8	1651.8	570.35	µg/L	570.35	ppb	22:50:20
2	Na 589.592 Radial†	13664.4	12513.4	1707.5	µg/L	1707.5	ppb	22:50:20
2	Sr 421.552†	972.8	1118.1	2.3130	µg/L	2.3130	ppb	22:50:20
2	Sc 361.383	1740403.6	1740403.6	101.29	%			22:51:07
2	Y 371.029	1225880.9	1225880.9	119.40	%			22:51:07
2	Ag 328.068†	6365.3	2192.7	7.0047	µg/L	7.0047	ppb	22:51:09
2	As 188.979†	-14.3	6.3	13.791	µg/L	13.791	ppb	22:51:29
2	B 249.677†	3762.6	208.7	3.0574	µg/L	3.0574	ppb	22:51:09
2	Ba 233.527†	2537.8	2641.3	9.9792	µg/L	9.9792	ppb	22:51:29
2	Be 313.107†	7868.8	8833.2	2.3458	µg/L	2.3458	ppb	22:51:09
2	Cd 226.502†	757.9	866.5	-0.1361	µg/L	-0.1361	ppb	22:51:29
2	Co 228.616†	296.5	483.0	3.2170	µg/L	3.2170	ppb	22:51:29
2	Cr 267.716†	589.7	403.6	4.5364	µg/L	4.5364	ppb	22:51:09
2	Cu 324.752†	7264.4	4199.6	23.864	µg/L	23.864	ppb	22:51:09
2	Mn 257.610†	1989280.4	1963684.6	2429.5	µg/L	2429.5	ppb	22:51:07
2	Mo 202.031†	239.1	256.1	9.6294	µg/L	9.6294	ppb	22:51:29
2	Ni 231.604†	160.7	235.1	2.7075	µg/L	2.7075	ppb	22:51:29
2	P 214.914†	397.3	410.2	52.403	µg/L	52.403	ppb	22:51:29
2	Pb 220.353†	285.1	195.1	11.413	µg/L	11.413	ppb	22:51:29

2	S 181.975 Axial†	110.0	3.5	2.6851 µg/L	2.6851 ppb	22:51:29
2	Sb 206.836†	75.2	-6.5	-1.3521 µg/L	-1.3521 ppb	22:51:29
2	Se 196.026†	-44.1	-58.8	-3.12 µg/L	-3.12 ppb	22:51:29
2	SiO2†	182440.2	178339.1	17431 µg/L	17431 ppb	22:51:09
2	Si 251.611†	571477.1	563355.6	8305.3 µg/L	8305.3 ppb	22:51:07
2	Sn 189.927†	221.4	219.7	18.453 µg/L	18.453 ppb	22:51:29
2	Ti 334.940†	1531149.1	1510678.1	1411.4 µg/L	1411.4 ppb	22:51:07
2	Tl 190.801†	-324.0	-203.2	-4.4421 µg/L	-4.4421 ppb	22:51:29
2	U 409.014†	-3673.9	-3357.2	-191.62 µg/L	-191.62 ppb	22:51:07
2	V 292.402†	3548.1	3099.1	8.2013 µg/L	8.2013 ppb	22:51:09
2	Zn 213.857†	30650.5	29695.4	161.90 µg/L	161.90 ppb	22:51:09
3	Sc RADIAL	143398.2	143398.2	98.3 %		22:50:22
3	Al 396.153Radial†	16464.8	16818.7	3117.8 µg/L	3117.8 ppb	22:50:24
3	Ca 317.933Radial†	26271.2	26174.4	1458.0 µg/L	1458.0 ppb	22:50:24
3	Fe 238.204 Radial†	842514.9	857240.8	52835 µg/L	52835 ppb	22:50:22
3	K 766.490 Radial†	7407.0	5993.0	2192.8 µg/L	2192.8 ppb	22:50:24
3	Mg 279.077 IEC†	1821.3	1662.7	574.38 µg/L	574.38 ppb	22:50:24
3	Na 589.592 Radial†	13857.6	12811.5	1748.3 µg/L	1748.3 ppb	22:50:24
3	Sr 421.552†	959.8	1112.0	2.3004 µg/L	2.3004 ppb	22:50:24
3	Sc 361.383	1735245.9	1735245.9	100.99 %		22:51:31
3	Y 371.029	1222465.8	1222465.8	119.07 %		22:51:31
3	Ag 328.068†	6539.6	2384.0	7.7281 µg/L	7.7281 ppb	22:51:33
3	As 188.979†	-12.9	7.6	14.215 µg/L	14.215 ppb	22:51:53
3	B 249.677†	3808.2	264.9	3.8864 µg/L	3.8864 ppb	22:51:33
3	Ba 233.527†	2565.7	2676.4	10.120 µg/L	10.120 ppb	22:51:53
3	Be 313.107†	8094.6	9079.9	2.4156 µg/L	2.4156 ppb	22:51:33
3	Cd 226.502†	765.3	876.0	-0.0832 µg/L	-0.0832 ppb	22:51:53
3	Co 228.616†	290.8	478.2	3.1550 µg/L	3.1550 ppb	22:51:53
3	Cr 267.716†	695.9	510.5	5.3702 µg/L	5.3702 ppb	22:51:33
3	Cu 324.752†	7485.7	4440.0	24.815 µg/L	24.815 ppb	22:51:33
3	Mn 257.610†	1980973.6	1961296.7	2426.5 µg/L	2426.5 ppb	22:51:31
3	Mo 202.031†	230.5	248.3	9.4041 µg/L	9.4041 ppb	22:51:53
3	Ni 231.604†	175.7	250.5	2.8847 µg/L	2.8847 ppb	22:51:53
3	P 214.914†	407.9	421.9	54.850 µg/L	54.850 ppb	22:51:53
3	Pb 220.353†	239.7	150.9	8.9354 µg/L	8.9354 ppb	22:51:53
3	S 181.975 Axial†	116.3	10.1	7.5405 µg/L	7.5405 ppb	22:51:53
3	Sb 206.836†	58.0	-23.4	-3.3744 µg/L	-3.3744 ppb	22:51:53
3	Se 196.026†	-35.5	-50.4	-0.065 µg/L	-0.065 ppb	22:51:53
3	SiO2†	184462.4	180876.9	17679 µg/L	17679 ppb	22:51:33
3	Si 251.611†	566814.5	560415.7	8262.0 µg/L	8262.0 ppb	22:51:31
3	Sn 189.927†	214.2	213.2	18.044 µg/L	18.044 ppb	22:51:53
3	Ti 334.940†	1524192.1	1508282.4	1409.2 µg/L	1409.2 ppb	22:51:31
3	Tl 190.801†	-317.7	-197.9	-3.8172 µg/L	-3.8172 ppb	22:51:53
3	U 409.014†	-3512.1	-3207.7	-182.89 µg/L	-182.89 ppb	22:51:31
3	V 292.402†	3605.0	3165.8	8.5295 µg/L	8.5295 ppb	22:51:33
3	Zn 213.857†	30990.6	30122.0	164.29 µg/L	164.29 ppb	22:51:33

Mean Data: 248814007|963989|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1734289.9	100.94	%	0.387				0.38%
Sc RADIAL	143647.5	98.4	%	0.49				0.50%
Y 371.029	1221697.6	118.99	%	0.450				0.38%
Ag 328.068†	2345.6	7.5817	µg/L	0.51950	7.5817	ppb	0.51950	6.85%
Al 396.153Radial†	16925.6	3137.7	µg/L	29.96	3137.7	ppb	29.96	0.95%
As 188.979†	6.7	13.938	µg/L	0.2405	13.938	ppb	0.2405	1.73%
B 249.677†	248.3	3.6411	µg/L	0.50766	3.6411	ppb	0.50766	13.94%
Ba 233.527†	2660.3	10.055	µg/L	0.0711	10.055	ppb	0.0711	0.71%
Be 313.107†	9013.2	2.3962	µg/L	0.04404	2.3962	ppb	0.04404	1.84%
Ca 317.933Radial†	26389.1	1470.0	µg/L	17.01	1470.0	ppb	17.01	1.16%
Cd 226.502†	873.9	-0.0954	µg/L	0.03614	-0.0954	ppb	0.03614	37.88%
Co 228.616†	483.9	3.2254	µg/L	0.07499	3.2254	ppb	0.07499	2.32%
Cr 267.716†	412.4	4.6052	µg/L	0.73302	4.6052	ppb	0.73302	15.92%
Cu 324.752†	4359.6	24.497	µg/L	0.5490	24.497	ppb	0.5490	2.24%
Fe 238.204 Radial†	857100.7	52826	µg/L	51.1	52826	ppb	51.1	0.10%
K 766.490 Radial†	6027.5	2205.4	µg/L	24.55	2205.4	ppb	24.55	1.11%
Mg 279.077 IEC†	1668.9	576.68	µg/L	7.739	576.68	ppb	7.739	1.34%
Mn 257.610†	1959935.4	2424.9	µg/L	5.67	2424.9	ppb	5.67	0.23%
Mo 202.031†	245.9	9.3315	µg/L	0.33999	9.3315	ppb	0.33999	3.64%
Na 589.592 Radial†	12728.6	1736.9	µg/L	25.70	1736.9	ppb	25.70	1.48%

Ni 231.604†	239.7	2.7599	µg/L	0.10854	2.7599	ppb	0.10854	3.93%
P 214.914†	411.1	52.558	µg/L	2.2188	52.558	ppb	2.2188	4.22%
Pb 220.353†	174.0	10.225	µg/L	1.2418	10.225	ppb	1.2418	12.14%
S 181.975 Axial†	9.5	7.1417	µg/L	4.27114	7.1417	ppb	4.27114	59.81%
Sb 206.836†	-8.9	-1.6337	µg/L	1.61830	-1.6337	ppb	1.61830	99.05%
Se 196.026†	-53.4	-1.15	µg/L	1.716	-1.15	ppb	1.716	149.86%
SiO2†	180337.9	17626	µg/L	175.1	17626	ppb	175.1	0.99%
Si 251.611†	561074.6	8271.7	µg/L	29.97	8271.7	ppb	29.97	0.36%
Sn 189.927†	216.3	18.234	µg/L	0.2061	18.234	ppb	0.2061	1.13%
Sr 421.552†	1131.9	2.3416	µg/L	0.06078	2.3416	ppb	0.06078	2.60%
Ti 334.940†	1507660.7	1408.6	µg/L	3.15	1408.6	ppb	3.15	0.22%
Tl 190.801†	-199.9	-4.0690	µg/L	0.32964	-4.0690	ppb	0.32964	8.10%
U 409.014†	-3278.9	-187.06	µg/L	4.374	-187.06	ppb	4.374	2.34%
Concentration less than lower limit for U 409.014.								
V 292.402†	3174.6	8.5667	µg/L	0.38532	8.5667	ppb	0.38532	4.50%
Zn 213.857†	29994.0	163.57	µg/L	1.451	163.57	ppb	1.451	0.89%

Sequence No.: 94
Sample ID: 248814008|963989|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 226
Date Collected: 3/31/2010 22:52:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248814008|963989|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141793.9	141793.9	97.2	%			22:52:32
1	Al 396.153Radial†	16922.2	17479.0	3240.3	µg/L	3240.3	ppb	22:52:34
1	Ca 317.933Radial†	8942.0	8642.2	481.41	µg/L	481.41	ppb	22:52:34
1	Fe 238.204 Radial†	720098.1	740954.1	45668	µg/L	45668	ppb	22:52:32
1	K 766.490 Radial†	7995.4	6683.9	2446.0	µg/L	2446.0	ppb	22:52:32
1	Mg 279.077 IEC†	870.3	705.0	223.65	µg/L	223.65	ppb	22:52:34
1	Na 589.592 Radial†	13113.5	12205.2	1665.2	µg/L	1665.2	ppb	22:52:32
1	Sr 421.552†	633.4	787.2	1.6327	µg/L	1.6327	ppb	22:52:34
1	Sc 361.383	1722967.6	1722967.6	100.28	%			22:52:46
1	Y 371.029	1067468.4	1067468.4	103.97	%			22:52:46
1	Ag 328.068†	14550.9	10419.4	37.702	µg/L	37.702	ppb	22:52:48
1	As 188.979†	-20.3	0.1	10.346	µg/L	10.346	ppb	22:53:08
1	B 249.677†	3673.8	157.7	2.3128	µg/L	2.3128	ppb	22:52:48
1	Ba 233.527†	2300.0	2429.5	9.2128	µg/L	9.2128	ppb	22:53:08
1	Be 313.107†	3546.9	4601.8	1.2266	µg/L	1.2266	ppb	22:52:48
1	Cd 226.502†	611.9	728.4	-0.2518	µg/L	-0.2518	ppb	22:53:08
1	Co 228.616†	129.6	319.6	1.5707	µg/L	1.5707	ppb	22:53:08
1	Cr 267.716†	713.3	532.8	5.3000	µg/L	5.3000	ppb	22:52:48
1	Cu 324.752†	3802.1	819.4	9.7724	µg/L	9.7724	ppb	22:52:48
1	Mn 257.610†	1703400.4	1698467.0	2101.4	µg/L	2101.4	ppb	22:52:46
1	Mo 202.031†	172.1	191.7	7.4490	µg/L	7.4490	ppb	22:53:08
1	Ni 231.604†	120.5	196.7	2.2645	µg/L	2.2645	ppb	22:53:08
1	P 214.914†	308.5	325.6	39.501	µg/L	39.501	ppb	22:53:08
1	Pb 220.353†	299.3	212.1	11.681	µg/L	11.681	ppb	22:53:08
1	S 181.975 Axial†	114.6	9.2	6.9064	µg/L	6.9064	ppb	22:53:08
1	Sb 206.836†	78.9	-2.2	-0.7603	µg/L	-0.7603	ppb	22:53:08
1	Se 196.026†	-21.4	-36.6	2.54	µg/L	2.54	ppb	22:53:08
1	SiO2†	194774.0	192461.7	18811	µg/L	18811	ppb	22:52:48
1	Si 251.611†	598662.2	596175.1	8789.0	µg/L	8789.0	ppb	22:52:46
1	Sn 189.927†	522.5	522.2	35.184	µg/L	35.184	ppb	22:53:08
1	Ti 334.940†	839020.7	835755.1	780.85	µg/L	780.85	ppb	22:52:46
1	Tl 190.801†	-259.4	-142.0	-4.1293	µg/L	-4.1293	ppb	22:53:08
1	U 409.014†	-1766.4	-1491.6	-83.392	µg/L	-83.392	ppb	22:52:48
1	V 292.402†	2436.8	2026.3	4.3605	µg/L	4.3605	ppb	22:52:48
1	Zn 213.857†	23866.1	23235.9	126.05	µg/L	126.05	ppb	22:52:48
2	Sc RADIAL	141295.6	141295.6	96.8	%			22:52:36
2	Al 396.153Radial†	17308.6	17939.4	3325.7	µg/L	3325.7	ppb	22:52:38
2	Ca 317.933Radial†	9297.4	9041.8	503.66	µg/L	503.66	ppb	22:52:38
2	Fe 238.204 Radial†	716730.5	740089.5	45615	µg/L	45615	ppb	22:52:36
2	K 766.490 Radial†	7902.0	6616.4	2421.2	µg/L	2421.2	ppb	22:52:36
2	Mg 279.077 IEC†	842.3	679.2	214.07	µg/L	214.07	ppb	22:52:38
2	Na 589.592 Radial†	13051.4	12188.7	1663.0	µg/L	1663.0	ppb	22:52:36
2	Sr 421.552†	656.4	813.2	1.6868	µg/L	1.6868	ppb	22:52:38
2	Sc 361.383	1727122.4	1727122.4	100.52	%			22:53:11
2	Y 371.029	1070136.3	1070136.3	104.23	%			22:53:11
2	Ag 328.068†	14474.2	10308.2	37.270	µg/L	37.270	ppb	22:53:13
2	As 188.979†	-38.8	-18.3	4.7640	µg/L	4.7640	ppb	22:53:33
2	B 249.677†	3696.9	171.9	2.5215	µg/L	2.5215	ppb	22:53:13
2	Ba 233.527†	2343.7	2467.5	9.3662	µg/L	9.3662	ppb	22:53:33
2	Be 313.107†	3854.8	4899.6	1.3043	µg/L	1.3043	ppb	22:53:13
2	Cd 226.502†	605.9	721.0	-0.2925	µg/L	-0.2925	ppb	22:53:33
2	Co 228.616†	140.1	329.7	1.6985	µg/L	1.6985	ppb	22:53:33
2	Cr 267.716†	667.9	485.9	4.9393	µg/L	4.9393	ppb	22:53:13
2	Cu 324.752†	3724.2	732.8	9.4189	µg/L	9.4189	ppb	22:53:13
2	Mn 257.610†	1710068.6	1701014.4	2104.5	µg/L	2104.5	ppb	22:53:11
2	Mo 202.031†	162.3	181.6	7.1473	µg/L	7.1473	ppb	22:53:33
2	Ni 231.604†	127.0	202.9	2.3360	µg/L	2.3360	ppb	22:53:33
2	P 214.914†	311.3	327.7	39.996	µg/L	39.996	ppb	22:53:33
2	Pb 220.353†	321.9	233.9	12.910	µg/L	12.910	ppb	22:53:33

2	S 181.975 Axial†	114.7	9.1	6.7742 µg/L	6.7742 ppb	22:53:33
2	Sb 206.836†	85.8	4.6	0.0403 µg/L	0.0403 ppb	22:53:33
2	Se 196.026†	-35.1	-50.2	-2.41 µg/L	-2.41 ppb	22:53:33
2	SiO2†	196053.4	193267.2	18890 µg/L	18890 ppb	22:53:13
2	Si 251.611†	600753.4	596819.4	8798.6 µg/L	8798.6 ppb	22:53:11
2	Sn 189.927†	511.8	510.3	34.444 µg/L	34.444 ppb	22:53:33
2	Ti 334.940†	840999.4	835710.8	780.81 µg/L	780.81 ppb	22:53:11
2	Tl 190.801†	-254.9	-136.9	-3.4986 µg/L	-3.4986 ppb	22:53:33
2	U 409.014†	-1962.1	-1682.1	-94.522 µg/L	-94.522 ppb	22:53:13
2	V 292.402†	2359.8	1943.9	3.9519 µg/L	3.9519 ppb	22:53:13
2	Zn 213.857†	24135.4	23446.6	127.24 µg/L	127.24 ppb	22:53:13
3	Sc RADIAL	142239.9	142239.9	97.5 %		22:52:40
3	Al 396.153Radial†	17098.0	17604.8	3263.7 µg/L	3263.7 ppb	22:52:42
3	Ca 317.933Radial†	9033.8	8707.5	485.04 µg/L	485.04 ppb	22:52:42
3	Fe 238.204 Radial†	719402.9	737917.2	45481 µg/L	45481 ppb	22:52:40
3	K 766.490 Radial†	8015.8	6679.0	2444.2 µg/L	2444.2 ppb	22:52:40
3	Mg 279.077 IEC†	921.5	754.7	242.31 µg/L	242.31 ppb	22:52:42
3	Na 589.592 Radial†	13045.5	12093.1	1649.9 µg/L	1649.9 ppb	22:52:40
3	Sr 421.552†	529.2	678.2	1.4061 µg/L	1.4061 ppb	22:52:42
3	Sc 361.383	1721355.0	1721355.0	100.18 %		22:53:35
3	Y 371.029	1067183.2	1067183.2	103.94 %		22:53:35
3	Ag 328.068†	14555.2	10437.2	37.743 µg/L	37.743 ppb	22:53:37
3	As 188.979†	-19.4	0.9	10.549 µg/L	10.549 ppb	22:53:57
3	B 249.677†	3586.9	74.5	1.0842 µg/L	1.0842 ppb	22:53:37
3	Ba 233.527†	2299.9	2431.6	9.2228 µg/L	9.2228 ppb	22:53:57
3	Be 313.107†	4109.5	5166.7	1.3766 µg/L	1.3766 ppb	22:53:37
3	Cd 226.502†	622.7	739.7	-0.1613 µg/L	-0.1613 ppb	22:53:57
3	Co 228.616†	153.3	343.4	1.8740 µg/L	1.8740 ppb	22:53:57
3	Cr 267.716†	780.3	600.4	5.8334 µg/L	5.8334 ppb	22:53:37
3	Cu 324.752†	3858.1	878.9	9.9667 µg/L	9.9667 ppb	22:53:37
3	Mn 257.610†	1697876.3	1694544.4	2096.5 µg/L	2096.5 ppb	22:53:35
3	Mo 202.031†	159.2	179.0	7.0677 µg/L	7.0677 ppb	22:53:57
3	Ni 231.604†	133.5	209.8	2.4153 µg/L	2.4153 ppb	22:53:57
3	P 214.914†	326.8	344.2	43.609 µg/L	43.609 ppb	22:53:57
3	Pb 220.353†	300.7	213.7	11.783 µg/L	11.783 ppb	22:53:57
3	S 181.975 Axial†	115.0	9.8	7.2990 µg/L	7.2990 ppb	22:53:57
3	Sb 206.836†	93.8	12.8	1.0090 µg/L	1.0090 ppb	22:53:57
3	Se 196.026†	-22.2	-37.4	2.15 µg/L	2.15 ppb	22:53:57
3	SiO2†	196125.8	193992.9	18961 µg/L	18961 ppb	22:53:37
3	Si 251.611†	596862.9	594938.5	8770.8 µg/L	8770.8 ppb	22:53:35
3	Sn 189.927†	529.9	530.1	35.671 µg/L	35.671 ppb	22:53:57
3	Ti 334.940†	836249.3	833772.6	779.00 µg/L	779.00 ppb	22:53:35
3	Tl 190.801†	-272.5	-155.3	-5.8069 µg/L	-5.8069 ppb	22:53:57
3	U 409.014†	-1981.8	-1708.3	-96.105 µg/L	-96.105 ppb	22:53:37
3	V 292.402†	2237.6	1829.7	3.4129 µg/L	3.4129 ppb	22:53:37
3	Zn 213.857†	24190.9	23582.4	128.01 µg/L	128.01 ppb	22:53:37

Mean Data: 248814008|963989|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1723815.0	100.33	%	0.173				0.17%
Sc RADIAL	141776.4	97.2	%	0.32				0.33%
Y 371.029	1068262.6	104.05	%	0.159				0.15%
Ag 328.068†	10388.3	37.571	µg/L	0.2619	37.571	ppb	0.2619	0.70%
Al 396.153Radial†	17674.4	3276.6	µg/L	44.13	3276.6	ppb	44.13	1.35%
As 188.979†	-5.7	8.5529	µg/L	3.28286	8.5529	ppb	3.28286	38.38%
B 249.677†	134.7	1.9728	µg/L	0.77665	1.9728	ppb	0.77665	39.37%
Ba 233.527†	2442.8	9.2673	µg/L	0.08579	9.2673	ppb	0.08579	0.93%
Be 313.107†	4889.4	1.3025	µg/L	0.07502	1.3025	ppb	0.07502	5.76%
Ca 317.933Radial†	8797.2	490.04	µg/L	11.939	490.04	ppb	11.939	2.44%
Cd 226.502†	729.7	-0.2352	µg/L	0.06715	-0.2352	ppb	0.06715	28.55%
Co 228.616†	330.9	1.7144	µg/L	0.15227	1.7144	ppb	0.15227	8.88%
Cr 267.716†	539.7	5.3576	µg/L	0.44984	5.3576	ppb	0.44984	8.40%
Cu 324.752†	810.3	9.7194	µg/L	0.27771	9.7194	ppb	0.27771	2.86%
Fe 238.204 Radial†	739653.6	45588	µg/L	96.4	45588	ppb	96.4	0.21%
K 766.490 Radial†	6659.8	2437.1	µg/L	13.78	2437.1	ppb	13.78	0.57%
Mg 279.077 IEC†	713.0	226.68	µg/L	14.364	226.68	ppb	14.364	6.34%
Mn 257.610†	1698008.6	2100.8	µg/L	4.03	2100.8	ppb	4.03	0.19%
Mo 202.031†	184.1	7.2213	µg/L	0.20113	7.2213	ppb	0.20113	2.79%
Na 589.592 Radial†	12162.3	1659.4	µg/L	8.27	1659.4	ppb	8.27	0.50%

Ni 231.604†	203.1	2.3386	µg/L	0.07543	2.3386	ppb	0.07543	3.23%
P 214.914†	332.5	41.035	µg/L	2.2427	41.035	ppb	2.2427	5.47%
Pb 220.353†	219.9	12.125	µg/L	0.6823	12.125	ppb	0.6823	5.63%
S 181.975 Axial†	9.4	6.9932	µg/L	0.27295	6.9932	ppb	0.27295	3.90%
Sb 206.836†	5.1	0.0964	µg/L	0.88599	0.0964	ppb	0.88599	919.37%
Se 196.026†	-41.4	0.760	µg/L	2.7520	0.760	ppb	2.7520	362.20%
SiO2†	193240.6	18887	µg/L	74.9	18887	ppb	74.9	0.40%
Si 251.611†	595977.7	8786.1	µg/L	14.10	8786.1	ppb	14.10	0.16%
Sn 189.927†	520.8	35.099	µg/L	0.6178	35.099	ppb	0.6178	1.76%
Sr 421.552†	759.5	1.5752	µg/L	0.14891	1.5752	ppb	0.14891	9.45%
Ti 334.940†	835079.5	780.22	µg/L	1.057	780.22	ppb	1.057	0.14%
Tl 190.801†	-144.7	-4.4783	µg/L	1.19305	-4.4783	ppb	1.19305	26.64%
U 409.014†	-1627.3	-91.340	µg/L	6.9280	-91.340	ppb	6.9280	7.58%
Concentration less than lower limit for U 409.014.								
V 292.402†	1933.3	3.9084	µg/L	0.47531	3.9084	ppb	0.47531	12.16%
Zn 213.857†	23421.6	127.10	µg/L	0.990	127.10	ppb	0.990	0.78%

Sequence No.: 95
Sample ID: 248814009|963989|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 227
Date Collected: 3/31/2010 22:54:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248814009|963989|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142683.0	142683.0	97.8	%			22:54:35
1	Al 396.153Radial†	19183.6	19683.3	3648.9	µg/L	3648.9	ppb	22:54:37
1	Ca 317.933Radial†	26558.6	26602.4	1481.9	µg/L	1481.9	ppb	22:54:37
1	Fe 238.204 Radial†	770936.8	788331.5	48588	µg/L	48588	ppb	22:54:35
1	K 766.490 Radial†	7704.6	6335.1	2318.0	µg/L	2318.0	ppb	22:54:37
1	Mg 279.077 IEC†	2726.8	2598.2	926.55	µg/L	926.55	ppb	22:54:37
1	Na 589.592 Radial†	12913.5	11916.5	1625.9	µg/L	1625.9	ppb	22:54:37
1	Sr 421.552†	1725.0	1899.5	3.9374	µg/L	3.9374	ppb	22:54:37
1	Sc 361.383	1743946.6	1743946.6	101.50	%			22:54:49
1	Y 371.029	1191545.4	1191545.4	116.06	%			22:54:49
1	Ag 328.068†	14140.0	9840.0	35.471	µg/L	35.471	ppb	22:54:51
1	As 188.979†	-18.7	1.9	11.588	µg/L	11.588	ppb	22:55:11
1	B 249.677†	3780.1	218.4	3.2035	µg/L	3.2035	ppb	22:54:51
1	Ba 233.527†	4807.4	4872.3	19.023	µg/L	19.023	ppb	22:55:11
1	Be 313.107†	7263.7	8221.2	2.1966	µg/L	2.1966	ppb	22:54:51
1	Cd 226.502†	706.2	814.0	-0.0232	µg/L	-0.0232	ppb	22:55:11
1	Co 228.616†	229.8	416.7	2.6274	µg/L	2.6274	ppb	22:55:11
1	Cr 267.716†	1382.0	1183.0	10.499	µg/L	10.499	ppb	22:54:51
1	Cu 324.752†	12418.3	9262.9	42.988	µg/L	42.988	ppb	22:54:51
1	Mn 257.610†	1818376.6	1791312.2	2216.2	µg/L	2216.2	ppb	22:54:49
1	Mo 202.031†	229.1	245.8	9.1682	µg/L	9.1682	ppb	22:55:11
1	Ni 231.604†	293.0	365.2	4.2047	µg/L	4.2047	ppb	22:55:11
1	P 214.914†	406.1	418.1	56.928	µg/L	56.928	ppb	22:55:11
1	Pb 220.353†	386.9	294.8	16.804	µg/L	16.804	ppb	22:55:11
1	S 181.975 Axial†	147.1	39.9	29.653	µg/L	29.653	ppb	22:55:11
1	Sb 206.836†	95.2	13.0	0.9367	µg/L	0.9367	ppb	22:55:11
1	Se 196.026†	-15.6	-30.6	5.65	µg/L	5.65	ppb	22:55:11
1	SiO2†	194545.7	189900.1	18561	µg/L	18561	ppb	22:54:51
1	Si 251.611†	611109.0	601256.6	8864.0	µg/L	8864.0	ppb	22:54:49
1	Sn 189.927†	395.8	391.1	28.404	µg/L	28.404	ppb	22:55:11
1	Ti 334.940†	1297170.8	1277080.7	1193.1	µg/L	1193.1	ppb	22:54:49
1	Tl 190.801†	-307.8	-186.5	-5.1392	µg/L	-5.1392	ppb	22:55:11
1	U 409.014†	-2677.6	-2368.2	-134.27	µg/L	-134.27	ppb	22:54:51
1	V 292.402†	3416.8	2962.6	8.2416	µg/L	8.2416	ppb	22:54:51
1	Zn 213.857†	30169.5	29160.0	159.21	µg/L	159.21	ppb	22:54:51
2	Sc RADIAL	143700.2	143700.2	98.5	%			22:54:39
2	Al 396.153Radial†	19141.1	19501.3	3615.2	µg/L	3615.2	ppb	22:54:41
2	Ca 317.933Radial†	26466.1	26316.1	1465.9	µg/L	1465.9	ppb	22:54:41
2	Fe 238.204 Radial†	778679.5	790612.6	48729	µg/L	48729	ppb	22:54:39
2	K 766.490 Radial†	7706.0	6280.8	2298.1	µg/L	2298.1	ppb	22:54:41
2	Mg 279.077 IEC†	2702.6	2553.9	909.90	µg/L	909.90	ppb	22:54:41
2	Na 589.592 Radial†	12763.3	11670.5	1592.3	µg/L	1592.3	ppb	22:54:41
2	Sr 421.552†	1818.4	1981.9	4.1087	µg/L	4.1087	ppb	22:54:41
2	Sc 361.383	1734570.7	1734570.7	100.95	%			22:55:14
2	Y 371.029	1185228.6	1185228.6	115.44	%			22:55:14
2	Ag 328.068†	13773.3	9552.1	34.410	µg/L	34.410	ppb	22:55:16
2	As 188.979†	-19.3	1.3	11.431	µg/L	11.431	ppb	22:55:36
2	B 249.677†	4069.1	524.8	7.7219	µg/L	7.7219	ppb	22:55:16
2	Ba 233.527†	4739.7	4830.9	18.854	µg/L	18.854	ppb	22:55:36
2	Be 313.107†	7359.1	8354.4	2.2320	µg/L	2.2320	ppb	22:55:16
2	Cd 226.502†	690.2	801.9	-0.1137	µg/L	-0.1137	ppb	22:55:36
2	Co 228.616†	239.9	428.0	2.7588	µg/L	2.7588	ppb	22:55:36
2	Cr 267.716†	1437.4	1245.3	10.996	µg/L	10.996	ppb	22:55:16
2	Cu 324.752†	12753.7	9661.2	44.554	µg/L	44.554	ppb	22:55:16
2	Mn 257.610†	1805156.5	1787900.7	2212.0	µg/L	2212.0	ppb	22:55:14
2	Mo 202.031†	206.4	224.5	8.5471	µg/L	8.5471	ppb	22:55:36
2	Ni 231.604†	253.4	327.5	3.7711	µg/L	3.7711	ppb	22:55:36
2	P 214.914†	418.7	432.7	59.957	µg/L	59.957	ppb	22:55:36
2	Pb 220.353†	393.9	303.8	17.299	µg/L	17.299	ppb	22:55:36

2	S 181.975 Axial†	122.1	15.9	11.839 µg/L	11.839 ppb	22:55:36
2	Sb 206.836†	90.1	8.4	0.3824 µg/L	0.3824 ppb	22:55:36
2	Se 196.026†	-30.1	-45.1	0.470 µg/L	0.470 ppb	22:55:36
2	SiO2†	200384.2	196719.7	19227 µg/L	19227 ppb	22:55:16
2	Si 251.611†	607592.7	601027.9	8860.6 µg/L	8860.6 ppb	22:55:14
2	Sn 189.927†	399.2	396.6	28.738 µg/L	28.738 ppb	22:55:36
2	Ti 334.940†	1287421.2	1274331.2	1190.6 µg/L	1190.6 ppb	22:55:14
2	Tl 190.801†	-284.1	-164.7	-2.4924 µg/L	-2.4924 ppb	22:55:36
2	U 409.014†	-2714.3	-2418.9	-137.25 µg/L	-137.25 ppb	22:55:16
2	V 292.402†	3536.2	3099.0	8.8881 µg/L	8.8881 ppb	22:55:16
2	Zn 213.857†	31082.2	30224.7	165.17 µg/L	165.17 ppb	22:55:16
3	Sc RADIAL	142192.5	142192.5	97.4 %		22:54:43
3	Al 396.153Radial†	19214.3	19782.5	3667.3 µg/L	3667.3 ppb	22:54:45
3	Ca 317.933Radial†	26401.8	26535.1	1478.1 µg/L	1478.1 ppb	22:54:45
3	Fe 238.204 Radial†	765065.6	785025.7	48384 µg/L	48384 ppb	22:54:43
3	K 766.490 Radial†	7795.9	6456.0	2362.2 µg/L	2362.2 ppb	22:54:45
3	Mg 279.077 IEC†	2572.5	2449.4	871.29 µg/L	871.29 ppb	22:54:45
3	Na 589.592 Radial†	12805.4	11851.2	1616.9 µg/L	1616.9 ppb	22:54:45
3	Sr 421.552†	1878.0	2062.7	4.2766 µg/L	4.2766 ppb	22:54:45
3	Sc 361.383	1740357.2	1740357.2	101.29 %		22:55:38
3	Y 371.029	1188698.6	1188698.6	115.78 %		22:55:38
3	Ag 328.068†	14169.8	9898.2	35.702 µg/L	35.702 ppb	22:55:40
3	As 188.979†	-18.0	2.5	11.738 µg/L	11.738 ppb	22:56:00
3	B 249.677†	3786.7	232.6	3.4118 µg/L	3.4118 ppb	22:55:40
3	Ba 233.527†	4730.6	4806.3	18.759 µg/L	18.759 ppb	22:56:00
3	Be 313.107†	7262.5	8234.8	2.2033 µg/L	2.2033 ppb	22:55:40
3	Cd 226.502†	681.5	791.0	-0.1453 µg/L	-0.1453 ppb	22:56:00
3	Co 228.616†	249.4	436.6	2.8828 µg/L	2.8828 ppb	22:56:00
3	Cr 267.716†	1444.1	1247.2	10.985 µg/L	10.985 ppb	22:55:40
3	Cu 324.752†	12587.3	9454.9	43.711 µg/L	43.711 ppb	22:55:40
3	Mn 257.610†	1822994.2	1799566.2	2226.4 µg/L	2226.4 ppb	22:55:38
3	Mo 202.031†	230.9	248.0	9.2237 µg/L	9.2237 ppb	22:56:00
3	Ni 231.604†	269.0	342.1	3.9386 µg/L	3.9386 ppb	22:56:00
3	P 214.914†	410.6	423.3	58.185 µg/L	58.185 ppb	22:56:00
3	Pb 220.353†	404.7	313.1	17.836 µg/L	17.836 ppb	22:56:00
3	S 181.975 Axial†	132.2	25.4	18.939 µg/L	18.939 ppb	22:56:00
3	Sb 206.836†	89.7	7.7	0.3106 µg/L	0.3106 ppb	22:56:00
3	Se 196.026†	-35.2	-50.0	-1.41 µg/L	-1.41 ppb	22:56:00
3	SiO2†	199631.2	195316.3	19090 µg/L	19090 ppb	22:55:40
3	Si 251.611†	611776.1	603156.9	8892.0 µg/L	8892.0 ppb	22:55:38
3	Sn 189.927†	392.0	388.1	28.236 µg/L	28.236 ppb	22:56:00
3	Ti 334.940†	1300154.7	1282662.6	1198.4 µg/L	1198.4 ppb	22:55:38
3	Tl 190.801†	-295.5	-175.1	-3.6486 µg/L	-3.6486 ppb	22:56:00
3	U 409.014†	-2499.2	-2197.5	-124.15 µg/L	-124.15 ppb	22:55:40
3	V 292.402†	3485.1	3036.9	8.6302 µg/L	8.6302 ppb	22:55:40
3	Zn 213.857†	30867.9	29910.9	163.45 µg/L	163.45 ppb	22:55:40

Mean Data: 248814009|963989|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1739624.8	101.25	%	0.275				0.27%
Sc RADIAL	142858.6	97.9	%	0.53				0.54%
Y 371.029	1188490.9	115.76	%	0.308				0.27%
Ag 328.068†	9763.4	35.195	µg/L	0.6890	35.195	ppb	0.6890	1.96%
Al 396.153Radial†	19655.7	3643.8	µg/L	26.42	3643.8	ppb	26.42	0.73%
As 188.979†	1.9	11.586	µg/L	0.1537	11.586	ppb	0.1537	1.33%
B 249.677†	325.3	4.7791	µg/L	2.55073	4.7791	ppb	2.55073	53.37%
Ba 233.527†	4836.5	18.879	µg/L	0.1334	18.879	ppb	0.1334	0.71%
Be 313.107†	8270.1	2.2107	µg/L	0.01879	2.2107	ppb	0.01879	0.85%
Ca 317.933Radial†	26484.5	1475.3	µg/L	8.34	1475.3	ppb	8.34	0.57%
Cd 226.502†	802.3	-0.0941	µg/L	0.06336	-0.0941	ppb	0.06336	67.35%
Co 228.616†	427.1	2.7564	µg/L	0.12773	2.7564	ppb	0.12773	4.63%
Cr 267.716†	1225.2	10.827	µg/L	0.2836	10.827	ppb	0.2836	2.62%
Cu 324.752†	9459.7	43.751	µg/L	0.7835	43.751	ppb	0.7835	1.79%
Fe 238.204 Radial†	787989.9	48567	µg/L	173.1	48567	ppb	173.1	0.36%
K 766.490 Radial†	6357.3	2326.1	µg/L	32.83	2326.1	ppb	32.83	1.41%
Mg 279.077 IEC†	2533.8	902.58	µg/L	28.347	902.58	ppb	28.347	3.14%
Mn 257.610†	1792926.4	2218.2	µg/L	7.42	2218.2	ppb	7.42	0.33%
Mo 202.031†	239.4	8.9797	µg/L	0.37567	8.9797	ppb	0.37567	4.18%
Na 589.592 Radial†	11812.7	1611.7	µg/L	17.40	1611.7	ppb	17.40	1.08%

Ni 231.604†	344.9	3.9715	µg/L	0.21869	3.9715	ppb	0.21869	5.51%
P 214.914†	424.7	58.357	µg/L	1.5222	58.357	ppb	1.5222	2.61%
Pb 220.353†	303.9	17.313	µg/L	0.5164	17.313	ppb	0.5164	2.98%
S 181.975 Axial†	27.0	20.144	µg/L	8.9682	20.144	ppb	8.9682	44.52%
Sb 206.836†	9.7	0.5432	µg/L	0.34266	0.5432	ppb	0.34266	63.08%
Se 196.026†	-41.9	1.57	µg/L	3.658	1.57	ppb	3.658	232.98%
SiO2†	193978.7	18959	µg/L	352.0	18959	ppb	352.0	1.86%
Si 251.611†	601813.8	8872.2	µg/L	17.23	8872.2	ppb	17.23	0.19%
Sn 189.927†	391.9	28.459	µg/L	0.2553	28.459	ppb	0.2553	0.90%
Sr 421.552†	1981.4	4.1076	µg/L	0.16962	4.1076	ppb	0.16962	4.13%
Ti 334.940†	1278024.8	1194.0	µg/L	3.97	1194.0	ppb	3.97	0.33%
Tl 190.801†	-175.5	-3.7601	µg/L	1.32694	-3.7601	ppb	1.32694	35.29%
U 409.014†	-2328.2	-131.89	µg/L	6.865	-131.89	ppb	6.865	5.20%
Concentration less than lower limit for U 409.014.								
V 292.402†	3032.9	8.5866	µg/L	0.32544	8.5866	ppb	0.32544	3.79%
Zn 213.857†	29765.2	162.61	µg/L	3.071	162.61	ppb	3.071	1.89%

Sequence No.: 96 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 3/31/2010 22:56:09**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145631.0	145631.0	99.8	%			22:56:43
1	Al 396.153Radial†	26317.9	26435.1	4879.0	µg/L	4879.0	ppb	22:56:43
1	Ca 317.933Radial†	87097.4	86715.5	4830.4	µg/L	4830.4	ppb	22:56:43
1	Fe 238.204 Radial†	78015.7	78027.6	4809.1	µg/L	4809.1	ppb	22:56:43
1	K 766.490 Radial†	14649.7	13135.0	4805.0	µg/L	4805.0	ppb	22:56:43
1	Mg 279.077 IEC†	13278.4	13115.0	4893.9	µg/L	4893.9	ppb	22:56:43
1	Na 589.592 Radial†	71207.1	70062.4	9567.1	µg/L	9567.1	ppb	22:56:43
1	Sr 421.552†	231874.1	232485.1	483.29	µg/L	483.29	ppb	22:56:41
1	Sc 361.383	1757611.7	1757611.7	102.29	%			22:56:56
1	Y 371.029	1039190.8	1039190.8	101.22	%			22:56:56
1	Ag 328.068†	134897.1	127782.2	479.15	µg/L	479.15	ppb	22:56:56
1	As 188.979†	1621.9	1605.9	492.61	µg/L	492.61	ppb	22:57:16
1	B 249.677†	36392.3	32070.7	471.32	µg/L	471.32	ppb	22:56:56
1	Ba 233.527†	121741.3	119148.6	480.52	µg/L	480.52	ppb	22:56:56
1	Be 313.107†	1813624.8	1774040.0	483.17	µg/L	483.17	ppb	22:56:56
1	Cd 226.502†	78396.2	76757.2	479.15	µg/L	479.15	ppb	22:56:56
1	Co 228.616†	39678.3	38979.3	481.20	µg/L	481.20	ppb	22:56:56
1	Cr 267.716†	62522.7	60942.8	477.17	µg/L	477.17	ppb	22:56:56
1	Cu 324.752†	128539.8	122686.5	478.27	µg/L	478.27	ppb	22:56:56
1	Mn 257.610†	399485.0	390293.9	482.70	µg/L	482.70	ppb	22:56:56
1	Mo 202.031†	16513.7	16163.7	475.47	µg/L	475.47	ppb	22:57:16
1	Ni 231.604†	42651.4	41771.9	480.97	µg/L	480.97	ppb	22:56:56
1	P 214.914†	11360.0	11123.4	2370.9	µg/L	2370.9	ppb	22:57:16
1	Pb 220.353†	8842.6	8558.1	479.24	µg/L	479.24	ppb	22:57:16
1	S 181.975 Axial†	1375.6	1239.7	924.58	µg/L	924.58	ppb	22:57:16
1	Sb 206.836†	4166.7	3992.4	475.65	µg/L	475.65	ppb	22:57:16
1	Se 196.026†	1353.0	1307.4	475	µg/L	475	ppb	22:57:16
1	SiO2†	56776.4	53728.4	5231.1	µg/L	5231.1	ppb	22:56:56
1	Si 251.611†	171826.2	167138.4	2454.6	µg/L	2454.6	ppb	22:56:56
1	Sn 189.927†	7798.3	7624.6	476.93	µg/L	476.93	ppb	22:57:16
1	Ti 334.940†	526436.4	513684.7	479.31	µg/L	479.31	ppb	22:56:56
1	Tl 190.801†	3828.8	3859.7	481.43	µg/L	481.43	ppb	22:57:16
1	U 409.014†	7470.8	7573.2	471.86	µg/L	471.86	ppb	22:56:56
1	V 292.402†	100068.8	97422.2	481.57	µg/L	481.57	ppb	22:56:56
1	Zn 213.857†	87978.3	85442.0	476.19	µg/L	476.19	ppb	22:56:56
2	Sc RADIAL	144482.4	144482.4	99.0	%			22:56:47
2	Al 396.153Radial†	26344.0	26671.1	4922.7	µg/L	4922.7	ppb	22:56:47
2	Ca 317.933Radial†	86633.5	86940.8	4842.9	µg/L	4842.9	ppb	22:56:47
2	Fe 238.204 Radial†	77683.1	78313.2	4826.7	µg/L	4826.7	ppb	22:56:47
2	K 766.490 Radial†	14601.3	13202.8	4829.8	µg/L	4829.8	ppb	22:56:47
2	Mg 279.077 IEC†	13248.2	13190.2	4922.0	µg/L	4922.0	ppb	22:56:47
2	Na 589.592 Radial†	70771.3	70189.4	9584.4	µg/L	9584.4	ppb	22:56:47
2	Sr 421.552†	233206.6	235678.1	489.92	µg/L	489.92	ppb	22:56:45
2	Sc 361.383	1751539.4	1751539.4	101.94	%			22:57:19
2	Y 371.029	1035412.0	1035412.0	100.85	%			22:57:19
2	Ag 328.068†	134751.3	128096.4	480.32	µg/L	480.32	ppb	22:57:19
2	As 188.979†	1631.1	1620.5	497.03	µg/L	497.03	ppb	22:57:39
2	B 249.677†	36471.6	32271.9	474.29	µg/L	474.29	ppb	22:57:19
2	Ba 233.527†	121221.0	119050.7	480.13	µg/L	480.13	ppb	22:57:19
2	Be 313.107†	1805248.5	1771969.6	482.61	µg/L	482.61	ppb	22:57:19
2	Cd 226.502†	78107.8	76740.0	479.04	µg/L	479.04	ppb	22:57:19
2	Co 228.616†	39424.5	38864.8	479.79	µg/L	479.79	ppb	22:57:19
2	Cr 267.716†	62345.8	60981.1	477.48	µg/L	477.48	ppb	22:57:19
2	Cu 324.752†	127964.1	122557.5	477.76	µg/L	477.76	ppb	22:57:19
2	Mn 257.610†	398107.9	390296.9	482.71	µg/L	482.71	ppb	22:57:19
2	Mo 202.031†	16505.0	16211.0	476.86	µg/L	476.86	ppb	22:57:39
2	Ni 231.604†	42337.4	41608.5	479.09	µg/L	479.09	ppb	22:57:19
2	P 214.914†	11365.0	11166.7	2380.1	µg/L	2380.1	ppb	22:57:39
2	Pb 220.353†	8862.8	8607.8	482.03	µg/L	482.03	ppb	22:57:39

2	S 181.975 Axial†	1404.8	1273.1	949.37 µg/L	949.37 ppb	22:57:39
2	Sb 206.836†	4167.5	4007.4	477.45 µg/L	477.45 ppb	22:57:39
2	Se 196.026†	1357.3	1316.2	478 µg/L	478 ppb	22:57:39
2	SiO2†	56527.9	53677.1	5226.0 µg/L	5226.0 ppb	22:57:19
2	Si 251.611†	170943.4	166854.8	2450.4 µg/L	2450.4 ppb	22:57:19
2	Sn 189.927†	7812.4	7664.9	479.44 µg/L	479.44 ppb	22:57:39
2	Ti 334.940†	524724.5	513789.4	479.40 µg/L	479.40 ppb	22:57:19
2	Tl 190.801†	3882.8	3925.7	489.55 µg/L	489.55 ppb	22:57:39
2	U 409.014†	7388.4	7517.7	468.65 µg/L	468.65 ppb	22:57:19
2	V 292.402†	99869.4	97565.6	482.28 µg/L	482.28 ppb	22:57:19
2	Zn 213.857†	87691.1	85458.4	476.30 µg/L	476.30 ppb	22:57:19
3	Sc RADIAL	144138.2	144138.2	98.8 %		22:56:51
3	Al 396.153Radial†	26172.1	26560.6	4902.1 µg/L	4902.1 ppb	22:56:51
3	Ca 317.933Radial†	86609.0	87124.9	4853.2 µg/L	4853.2 ppb	22:56:51
3	Fe 238.204 Radial†	77490.8	78305.8	4826.3 µg/L	4826.3 ppb	22:56:51
3	K 766.490 Radial†	14542.9	13178.9	4821.0 µg/L	4821.0 ppb	22:56:51
3	Mg 279.077 IEC†	13135.4	13108.0	4891.4 µg/L	4891.4 ppb	22:56:51
3	Na 589.592 Radial†	70800.9	70390.1	9611.9 µg/L	9611.9 ppb	22:56:51
3	Sr 421.552†	232137.5	235158.2	488.84 µg/L	488.84 ppb	22:56:49
3	Sc 361.383	1748212.6	1748212.6	101.75 %		22:57:42
3	Y 371.029	1033770.3	1033770.3	100.69 %		22:57:42
3	Ag 328.068†	134805.9	128401.6	481.45 µg/L	481.45 ppb	22:57:42
3	As 188.979†	1610.5	1603.2	491.81 µg/L	491.81 ppb	22:58:02
3	B 249.677†	36492.0	32359.9	475.58 µg/L	475.58 ppb	22:57:42
3	Ba 233.527†	121511.9	119562.9	482.19 µg/L	482.19 ppb	22:57:42
3	Be 313.107†	1811861.4	1781839.1	485.29 µg/L	485.29 ppb	22:57:42
3	Cd 226.502†	78364.1	77137.8	481.53 µg/L	481.53 ppb	22:57:42
3	Co 228.616†	39460.6	38973.8	481.13 µg/L	481.13 ppb	22:57:42
3	Cr 267.716†	62297.9	61050.5	478.02 µg/L	478.02 ppb	22:57:42
3	Cu 324.752†	128147.5	122976.6	479.39 µg/L	479.39 ppb	22:57:42
3	Mn 257.610†	398765.2	391686.1	484.43 µg/L	484.43 ppb	22:57:42
3	Mo 202.031†	16552.7	16288.7	479.14 µg/L	479.14 ppb	22:58:02
3	Ni 231.604†	42492.4	41839.9	481.76 µg/L	481.76 ppb	22:57:42
3	P 214.914†	11389.8	11212.3	2389.9 µg/L	2389.9 ppb	22:58:02
3	Pb 220.353†	8877.9	8639.2	483.79 µg/L	483.79 ppb	22:58:02
3	S 181.975 Axial†	1392.1	1263.1	942.01 µg/L	942.01 ppb	22:58:02
3	Sb 206.836†	4168.0	4015.6	478.46 µg/L	478.46 ppb	22:58:02
3	Se 196.026†	1374.8	1335.9	485 µg/L	485 ppb	22:58:02
3	SiO2†	56586.5	53840.3	5241.9 µg/L	5241.9 ppb	22:57:42
3	Si 251.611†	171481.5	167702.7	2462.9 µg/L	2462.9 ppb	22:57:42
3	Sn 189.927†	7818.8	7685.8	480.75 µg/L	480.75 ppb	22:58:02
3	Ti 334.940†	524855.7	514897.9	480.44 µg/L	480.44 ppb	22:57:42
3	Tl 190.801†	3874.8	3925.0	489.48 µg/L	489.48 ppb	22:58:02
3	U 409.014†	7274.8	7419.8	462.99 µg/L	462.99 ppb	22:57:42
3	V 292.402†	99852.2	97735.2	483.13 µg/L	483.13 ppb	22:57:42
3	Zn 213.857†	87879.4	85807.2	478.24 µg/L	478.24 ppb	22:57:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1752454.6	101.99	%	0.277				0.27%
Sc RADIAL	144750.5	99.2	%	0.54				0.54%
Y 371.029	1036124.4	100.92	%	0.271				0.27%
Ag 328.068†	128093.4	480.30	µg/L	1.150	480.30	ppb	1.150	0.24%
QC value within limits for Ag 328.068 Recovery = 96.06%								
Al 396.153Radial†	26555.6	4901.2	µg/L	21.86	4901.2	ppb	21.86	0.45%
QC value within limits for Al 396.153Radial Recovery = 98.02%								
As 188.979†	1609.8	493.81	µg/L	2.810	493.81	ppb	2.810	0.57%
QC value within limits for As 188.979 Recovery = 98.76%								
B 249.677†	32234.2	473.73	µg/L	2.187	473.73	ppb	2.187	0.46%
QC value within limits for B 249.677 Recovery = 94.75%								
Ba 233.527†	119254.1	480.95	µg/L	1.096	480.95	ppb	1.096	0.23%
QC value within limits for Ba 233.527 Recovery = 96.19%								
Be 313.107†	1775949.6	483.69	µg/L	1.416	483.69	ppb	1.416	0.29%
QC value within limits for Be 313.107 Recovery = 96.74%								
Ca 317.933Radial†	86927.1	4842.2	µg/L	11.42	4842.2	ppb	11.42	0.24%
QC value within limits for Ca 317.933Radial Recovery = 96.84%								
Cd 226.502†	76878.3	479.91	µg/L	1.404	479.91	ppb	1.404	0.29%
QC value within limits for Cd 226.502 Recovery = 95.98%								
Co 228.616†	38939.3	480.71	µg/L	0.798	480.71	ppb	0.798	0.17%

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   QC value within limits for Co 228.616  Recovery = 96.14%
Cr 267.716†            60991.5      477.56 µg/L        0.432      477.56 ppb          0.432   0.09%
   QC value within limits for Cr 267.716  Recovery = 95.51%
Cu 324.752†           122740.2      478.47 µg/L        0.832      478.47 ppb          0.832   0.17%
   QC value within limits for Cu 324.752  Recovery = 95.69%
Fe 238.204 Radial†     78215.5      4820.7 µg/L        10.03      4820.7 ppb          10.03   0.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.41%
K 766.490 Radial†      13172.2      4818.6 µg/L        12.58      4818.6 ppb          12.58   0.26%
   QC value within limits for K 766.490 Radial  Recovery = 96.37%
Mg 279.077 IEC†        13137.7      4902.4 µg/L        16.98      4902.4 ppb          16.98   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.05%
Mn 257.610†           390759.0      483.28 µg/L        0.994      483.28 ppb          0.994   0.21%
   QC value within limits for Mn 257.610  Recovery = 96.66%
Mo 202.031†            16221.2      477.16 µg/L        1.856      477.16 ppb          1.856   0.39%
   QC value within limits for Mo 202.031  Recovery = 95.43%
Na 589.592 Radial†     70214.0      9587.8 µg/L        22.57      9587.8 ppb          22.57   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 95.88%
Ni 231.604†            41740.1      480.61 µg/L        1.369      480.61 ppb          1.369   0.28%
   QC value within limits for Ni 231.604  Recovery = 96.12%
P 214.914†             11167.5      2380.3 µg/L         9.50      2380.3 ppb           9.50   0.40%
   QC value within limits for P 214.914  Recovery = 95.21%
Pb 220.353†             8601.7      481.69 µg/L        2.292      481.69 ppb          2.292   0.48%
   QC value within limits for Pb 220.353  Recovery = 96.34%
S 181.975 Axial†        1258.6      938.65 µg/L       12.730      938.65 ppb         12.730   1.36%
   QC value within limits for S 181.975 Axial  Recovery = 93.87%
Sb 206.836†             4005.1      477.19 µg/L        1.420      477.19 ppb          1.420   0.30%
   QC value within limits for Sb 206.836  Recovery = 95.44%
Se 196.026†             1319.8         479 µg/L          5.3         479 ppb            5.3   1.10%
   QC value within limits for Se 196.026  Recovery = 95.85%
SiO2†                  53748.6      5233.0 µg/L         8.10      5233.0 ppb           8.10   0.15%
   QC value within limits for SiO2  Recovery = 97.86%
Si 251.611†           167232.0      2456.0 µg/L         6.34      2456.0 ppb           6.34   0.26%
   QC value within limits for Si 251.611  Recovery = 98.24%
Sn 189.927†             7658.4      479.04 µg/L        1.940      479.04 ppb          1.940   0.41%
   QC value within limits for Sn 189.927  Recovery = 95.81%
Sr 421.552†           234440.5      487.35 µg/L        3.562      487.35 ppb          3.562   0.73%
   QC value within limits for Sr 421.552  Recovery = 97.47%
Ti 334.940†           514124.0      479.72 µg/L        0.631      479.72 ppb          0.631   0.13%
   QC value within limits for Ti 334.940  Recovery = 95.94%
Tl 190.801†             3903.4      486.82 µg/L        4.666      486.82 ppb          4.666   0.96%
   QC value within limits for Tl 190.801  Recovery = 97.36%
U 409.014†              7503.6      467.83 µg/L        4.493      467.83 ppb          4.493   0.96%
   QC value within limits for U 409.014  Recovery = 93.57%
V 292.402†             97574.3      482.33 µg/L        0.781      482.33 ppb          0.781   0.16%
   QC value within limits for V 292.402  Recovery = 96.47%
Zn 213.857†            85569.2      476.91 µg/L        1.152      476.91 ppb          1.152   0.24%
   QC value within limits for Zn 213.857  Recovery = 95.38%
All analyte(s) passed QC.
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Sequence No.: 97
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 22:58:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141781.4	141781.4	97.2	%			22:58:41
1	Al 396.153Radial†	-65.9	-4.6	-0.8469	µg/L	-0.8469	ppb	22:59:01
1	Ca 317.933Radial†	606.5	63.7	3.5473	µg/L	3.5473	ppb	22:59:01
1	Fe 238.204 Radial†	221.5	79.9	4.9227	µg/L	4.9227	ppb	22:59:01
1	K 766.490 Radial†	1686.2	190.7	69.835	µg/L	69.835	ppb	22:58:41
1	Mg 279.077 IEC†	181.6	-3.8	-1.4362	µg/L	-1.4362	ppb	22:59:01
1	Na 589.592 Radial†	1287.3	34.2	4.6057	µg/L	4.6057	ppb	22:58:41
1	Sr 421.552†	-190.2	-60.5	-0.1257	µg/L	-0.1257	ppb	22:58:41
1	Sc 361.383	1743048.5	1743048.5	101.45	%			23:00:02
1	Y 371.029	1041073.0	1041073.0	101.40	%			23:00:02
1	Ag 328.068†	4154.9	4.3	0.0197	µg/L	0.0197	ppb	23:00:05
1	As 188.979†	-19.4	1.2	0.3644	µg/L	0.3644	ppb	23:00:25
1	B 249.677†	3572.5	15.7	0.2315	µg/L	0.2315	ppb	23:00:05
1	Ba 233.527†	-115.3	22.2	0.0893	µg/L	0.0893	ppb	23:00:25
1	Be 313.107†	-922.1	155.7	0.0428	µg/L	0.0428	ppb	23:00:05
1	Cd 226.502†	-111.2	8.6	0.0533	µg/L	0.0533	ppb	23:00:25
1	Co 228.616†	-179.8	13.1	0.1612	µg/L	0.1612	ppb	23:00:25
1	Cr 267.716†	180.6	-0.5	-0.0052	µg/L	-0.0052	ppb	23:00:25
1	Cu 324.752†	2865.9	-147.1	-0.5698	µg/L	-0.5698	ppb	23:00:05
1	Mn 257.610†	329.0	87.1	0.1078	µg/L	0.1078	ppb	23:00:25
1	Mo 202.031†	-23.8	-3.4	-0.1000	µg/L	-0.1000	ppb	23:00:25
1	Ni 231.604†	-90.2	-12.4	-0.1430	µg/L	-0.1430	ppb	23:00:25
1	P 214.914†	-18.9	-0.7	-0.1360	µg/L	-0.1360	ppb	23:00:25
1	Pb 220.353†	97.7	10.0	0.5542	µg/L	0.5542	ppb	23:00:25
1	S 181.975 Axial†	106.4	-0.2	-0.1288	µg/L	-0.1288	ppb	23:00:25
1	Sb 206.836†	101.1	18.9	2.2415	µg/L	2.2415	ppb	23:00:25
1	Se 196.026†	15.2	-0.3	-0.115	µg/L	-0.115	ppb	23:00:25
1	SiO2†	1920.2	117.5	11.486	µg/L	11.486	ppb	23:00:25
1	Si 251.611†	1352.7	496.8	7.3252	µg/L	7.3252	ppb	23:00:05
1	Sn 189.927†	0.5	1.6	0.0974	µg/L	0.0974	ppb	23:00:25
1	Ti 334.940†	839.4	-125.1	-0.1173	µg/L	-0.1173	ppb	23:00:05
1	Tl 190.801†	-111.8	6.4	0.7917	µg/L	0.7917	ppb	23:00:25
1	U 409.014†	-248.6	24.8	1.4614	µg/L	1.4614	ppb	23:00:05
1	V 292.402†	448.0	37.9	0.1842	µg/L	0.1842	ppb	23:00:05
1	Zn 213.857†	592.5	19.7	0.1113	µg/L	0.1113	ppb	23:00:25
2	Sc RADIAL	145003.3	145003.3	99.4	%			22:59:03
2	Al 396.153Radial†	-37.6	25.3	4.6756	µg/L	4.6756	ppb	22:59:23
2	Ca 317.933Radial†	575.8	18.9	1.0553	µg/L	1.0553	ppb	22:59:23
2	Fe 238.204 Radial†	212.8	66.1	4.0710	µg/L	4.0710	ppb	22:59:23
2	K 766.490 Radial†	1744.9	211.3	77.353	µg/L	77.353	ppb	22:59:03
2	Mg 279.077 IEC†	193.4	3.9	1.4593	µg/L	1.4593	ppb	22:59:23
2	Na 589.592 Radial†	1264.0	-18.7	-2.6277	µg/L	-2.6277	ppb	22:59:03
2	Sr 421.552†	-251.3	-117.6	-0.2446	µg/L	-0.2446	ppb	22:59:03
2	Sc 361.383	1760622.4	1760622.4	102.47	%			23:00:27
2	Y 371.029	1051993.8	1051993.8	102.46	%			23:00:27
2	Ag 328.068†	3995.9	-191.7	-0.7159	µg/L	-0.7159	ppb	23:00:29
2	As 188.979†	-7.1	13.4	4.0498	µg/L	4.0498	ppb	23:00:49
2	B 249.677†	3525.8	-65.0	-0.9588	µg/L	-0.9588	ppb	23:00:29
2	Ba 233.527†	-156.5	-16.9	-0.0684	µg/L	-0.0684	ppb	23:00:49
2	Be 313.107†	-952.5	135.1	0.0377	µg/L	0.0377	ppb	23:00:29
2	Cd 226.502†	-136.2	-14.7	-0.0924	µg/L	-0.0924	ppb	23:00:49
2	Co 228.616†	-206.8	-11.5	-0.1422	µg/L	-0.1422	ppb	23:00:49
2	Cr 267.716†	203.7	20.2	0.1559	µg/L	0.1559	ppb	23:00:49
2	Cu 324.752†	2945.2	-98.0	-0.3777	µg/L	-0.3777	ppb	23:00:29
2	Mn 257.610†	295.4	51.0	0.0631	µg/L	0.0631	ppb	23:00:49
2	Mo 202.031†	-5.0	15.2	0.4464	µg/L	0.4464	ppb	23:00:49
2	Ni 231.604†	-100.3	-21.4	-0.2461	µg/L	-0.2461	ppb	23:00:49
2	P 214.914†	-24.8	-6.2	-1.3412	µg/L	-1.3412	ppb	23:00:49
2	Pb 220.353†	104.7	15.8	0.8832	µg/L	0.8832	ppb	23:00:49

2	S 181.975 Axial†	95.9	-11.5	-8.5333 µg/L	-8.5333 ppb	23:00:49
2	Sb 206.836†	88.7	5.7	0.6835 µg/L	0.6835 ppb	23:00:49
2	Se 196.026†	21.7	5.9	2.15 µg/L	2.15 ppb	23:00:49
2	SiO2†	1898.9	77.8	7.5925 µg/L	7.5925 ppb	23:00:49
2	Si 251.611†	1381.8	512.0	7.5445 µg/L	7.5445 ppb	23:00:29
2	Sn 189.927†	-7.0	-5.7	-0.3531 µg/L	-0.3531 ppb	23:00:49
2	Ti 334.940†	1192.4	211.2	0.1959 µg/L	0.1959 ppb	23:00:29
2	Tl 190.801†	-124.7	-5.0	-0.6143 µg/L	-0.6143 ppb	23:00:49
2	U 409.014†	-223.7	51.6	2.9674 µg/L	2.9674 ppb	23:00:29
2	V 292.402†	244.3	-165.3	-0.7998 µg/L	-0.7998 ppb	23:00:29
2	Zn 213.857†	583.4	4.9	0.0292 µg/L	0.0292 ppb	23:00:49
3	Sc RADIAL	144406.4	144406.4	99.0 %		22:59:25
3	Al 396.153Radial†	-65.2	-2.7	-0.5137 µg/L	-0.5137 ppb	22:59:45
3	Ca 317.933Radial†	603.1	48.9	2.7231 µg/L	2.7231 ppb	22:59:45
3	Fe 238.204 Radial†	209.2	63.3	3.9000 µg/L	3.9000 ppb	22:59:45
3	K 766.490 Radial†	1469.9	-59.4	-21.748 µg/L	-21.748 ppb	22:59:25
3	Mg 279.077 IEC†	181.9	-6.9	-2.5712 µg/L	-2.5712 ppb	22:59:45
3	Na 589.592 Radial†	1182.1	-96.2	-13.128 µg/L	-13.128 ppb	22:59:25
3	Sr 421.552†	-255.8	-123.2	-0.2561 µg/L	-0.2561 ppb	22:59:25
3	Sc 361.383	1746264.7	1746264.7	101.63 %		23:00:51
3	Y 371.029	1044189.6	1044189.6	101.70 %		23:00:51
3	Ag 328.068†	4224.2	64.9	0.2383 µg/L	0.2383 ppb	23:00:53
3	As 188.979†	-13.6	7.0	2.1128 µg/L	2.1128 ppb	23:01:13
3	B 249.677†	3523.5	-39.0	-0.5757 µg/L	-0.5757 ppb	23:00:53
3	Ba 233.527†	-133.8	4.2	0.0170 µg/L	0.0170 ppb	23:01:13
3	Be 313.107†	-788.4	289.0	0.0783 µg/L	0.0783 ppb	23:00:53
3	Cd 226.502†	-90.0	29.6	0.1844 µg/L	0.1844 ppb	23:01:13
3	Co 228.616†	-170.7	22.4	0.2760 µg/L	0.2760 ppb	23:01:13
3	Cr 267.716†	211.8	29.8	0.2347 µg/L	0.2347 ppb	23:01:13
3	Cu 324.752†	2885.9	-132.7	-0.5161 µg/L	-0.5161 ppb	23:00:53
3	Mn 257.610†	381.2	137.9	0.1707 µg/L	0.1707 ppb	23:01:13
3	Mo 202.031†	-12.3	8.0	0.2345 µg/L	0.2345 ppb	23:01:13
3	Ni 231.604†	-88.3	-10.3	-0.1190 µg/L	-0.1190 ppb	23:01:13
3	P 214.914†	-16.7	1.5	0.3230 µg/L	0.3230 ppb	23:01:13
3	Pb 220.353†	101.8	13.8	0.7699 µg/L	0.7699 ppb	23:01:13
3	S 181.975 Axial†	95.5	-11.1	-8.2190 µg/L	-8.2190 ppb	23:01:13
3	Sb 206.836†	89.0	6.7	0.8032 µg/L	0.8032 ppb	23:01:13
3	Se 196.026†	12.4	-3.0	-1.09 µg/L	-1.09 ppb	23:01:13
3	SiO2†	1870.7	65.3	6.3610 µg/L	6.3610 ppb	23:01:13
3	Si 251.611†	1192.8	337.1	4.9610 µg/L	4.9610 ppb	23:00:53
3	Sn 189.927†	11.3	12.3	0.7657 µg/L	0.7657 ppb	23:01:13
3	Ti 334.940†	1019.6	50.7	0.0482 µg/L	0.0482 ppb	23:00:53
3	Tl 190.801†	-120.0	-1.4	-0.1679 µg/L	-0.1679 ppb	23:01:13
3	U 409.014†	-299.5	-24.8	-1.4500 µg/L	-1.4500 ppb	23:00:53
3	V 292.402†	406.4	-3.9	-0.0172 µg/L	-0.0172 ppb	23:00:53
3	Zn 213.857†	589.9	16.1	0.0909 µg/L	0.0909 ppb	23:01:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1749978.5	101.85	%	0.545				0.53%
Sc RADIAL	143730.4	98.5	%	1.17				1.19%
Y 371.029	1045752.1	101.86	%	0.548				0.54%
Ag 328.068†	-40.8	-0.1526	µg/L	0.49988	-0.1526	ppb	0.49988	327.49%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.0	1.1050	µg/L	3.09673	1.1050	ppb	3.09673	280.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.2	2.1757	µg/L	1.84349	2.1757	ppb	1.84349	84.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-29.4	-0.4343	µg/L	0.60762	-0.4343	ppb	0.60762	139.91%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.2	0.0126	µg/L	0.07891	0.0126	ppb	0.07891	623.91%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.3	0.0529	µg/L	0.02208	0.0529	ppb	0.02208	41.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	43.8	2.4419	µg/L	1.26955	2.4419	ppb	1.26955	51.99%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.8	0.0484	µg/L	0.13846	0.0484	ppb	0.13846	286.00%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.0	0.0983	µg/L	0.21607	0.0983	ppb	0.21607	219.74%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                16.5      0.1285 µg/L       0.12227      0.1285 ppb        0.12227  95.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -125.9     -0.4879 µg/L       0.09911     -0.4879 ppb        0.09911  20.31%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         69.7      4.2979 µg/L       0.54779      4.2979 ppb        0.54779  12.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         114.2     41.813 µg/L       55.1735     41.813 ppb        55.1735 131.95%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.3     -0.8494 µg/L       2.07835     -0.8494 ppb        2.07835 244.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                92.0      0.1138 µg/L       0.05404      0.1138 ppb        0.05404  47.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 6.6      0.1936 µg/L       0.27547      0.1936 ppb        0.27547 142.26%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -26.9     -3.7166 µg/L       8.91683     -3.7166 ppb        8.91683 239.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -14.7     -0.1693 µg/L       0.06752     -0.1693 ppb        0.06752  39.87%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.8     -0.3847 µg/L       0.85955     -0.3847 ppb        0.85955 223.42%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                13.2      0.7358 µg/L       0.16715      0.7358 ppb        0.16715  22.72%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -7.6     -5.6270 µg/L       4.76418     -5.6270 ppb        4.76418  84.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                10.4      1.2427 µg/L       0.86705      1.2427 ppb        0.86705  69.77%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.9       0.315 µg/L        1.6662       0.315 ppb         1.6662 528.34%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      86.8      8.4797 µg/L       2.67504      8.4797 ppb        2.67504  31.55%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               448.6      6.6103 µg/L       1.43246      6.6103 ppb        1.43246  21.67%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.7      0.1700 µg/L       0.56292      0.1700 ppb        0.56292 331.12%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -100.4     -0.2088 µg/L       0.07220     -0.2088 ppb        0.07220  34.57%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                45.6      0.0423 µg/L       0.15668      0.0423 ppb        0.15668 370.64%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.0      0.0032 µg/L       0.71841      0.0032 ppb        0.71841 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 17.2      0.9930 µg/L       2.24566      0.9930 ppb        2.24566 226.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -43.8     -0.2109 µg/L       0.51982     -0.2109 ppb        0.51982 246.42%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                13.5      0.0771 µg/L       0.04274      0.0771 ppb        0.04274  55.43%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/7/2010 12:46:53 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040710.sif
Batch ID:
Results Data Set: 040710
Results Library: C:\pe\optima4\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 4/7/2010 11:36:55**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 4/7/2010 12:46:56**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	128947.2	128947.2	100	%	12:47:26
1	Al 396.153Radial†	-75.9	-75.7	[0.00]	µg/L	12:47:46
1	Ca 317.933Radial†	480.3	478.6	[0.00]	µg/L	12:47:46
1	Fe 238.204 Radial†	127.6	127.1	[0.00]	µg/L	12:47:46

1	K 766.490 Radial†	1637.7	1632.1	[0.00]	µg/L	12:47:26
1	Mg 279.077 IEC†	166.5	165.9	[0.00]	µg/L	12:47:46
1	Na 589.592 Radial†	885.1	882.0	[0.00]	µg/L	12:47:26
1	Sr 421.552†	14.6	14.5	[0.00]	µg/L	12:47:26
1	Sc 361.383	1738893.0	1738893.0	101.04	%	12:48:48
1	Y 371.029	1005959.7	1005959.7	101.00	%	12:48:48
1	Ag 328.068†	4575.9	4528.6	[0.00]	µg/L	12:48:50
1	As 188.979†	-8.3	-8.2	[0.00]	µg/L	12:49:10
1	B 249.677†	3925.3	3884.8	[0.00]	µg/L	12:48:50
1	Ba 233.527†	-149.4	-147.9	[0.00]	µg/L	12:49:10
1	Be 313.107†	-1104.3	-1092.9	[0.00]	µg/L	12:48:50
1	Cd 226.502†	-88.9	-88.0	[0.00]	µg/L	12:49:10
1	Co 228.616†	-184.3	-182.4	[0.00]	µg/L	12:49:10
1	Cr 267.716†	283.3	280.3	[0.00]	µg/L	12:49:10
1	Cu 324.752†	3082.3	3050.5	[0.00]	µg/L	12:48:50
1	Mn 257.610†	149.3	147.7	[0.00]	µg/L	12:49:10
1	Mo 202.031†	-25.8	-25.6	[0.00]	µg/L	12:49:10
1	Ni 231.604†	-95.0	-94.1	[0.00]	µg/L	12:49:10
1	P 214.914†	9.4	9.3	[0.00]	µg/L	12:49:10
1	Pb 220.353†	104.1	103.0	[0.00]	µg/L	12:49:10
1	S 181.975 Axial†	324.9	321.5	[0.00]	µg/L	12:49:10
1	Sb 206.836†	84.6	83.8	[0.00]	µg/L	12:49:10
1	Se 196.026†	19.2	19.0	[0.00]	µg/L	12:49:10
1	SiO2†	1824.9	1806.1	[0.00]	µg/L	12:48:50
1	Si 251.611†	736.7	729.1	[0.00]	µg/L	12:48:50
1	Sn 189.927†	2.7	2.7	[0.00]	µg/L	12:49:10
1	Ti 334.940†	769.5	761.6	[0.00]	µg/L	12:48:50
1	Tl 190.801†	-109.3	-108.1	[0.00]	µg/L	12:49:10
1	U 409.014†	-439.0	-434.4	[0.00]	µg/L	12:48:50
1	V 292.402†	423.8	419.4	[0.00]	µg/L	12:48:50
1	Zn 213.857†	592.8	586.7	[0.00]	µg/L	12:49:10
2	Sc RADIAL	129958.7	129958.7	101	%	12:47:48
2	Al 396.153Radial†	-90.5	-89.5	[0.00]	µg/L	12:48:08
2	Ca 317.933Radial†	520.1	514.2	[0.00]	µg/L	12:48:08
2	Fe 238.204 Radial†	122.8	121.4	[0.00]	µg/L	12:48:08
2	K 766.490 Radial†	1455.3	1439.0	[0.00]	µg/L	12:47:48
2	Mg 279.077 IEC†	152.1	150.4	[0.00]	µg/L	12:48:08
2	Na 589.592 Radial†	1044.3	1032.6	[0.00]	µg/L	12:47:48
2	Sr 421.552†	-92.1	-91.0	[0.00]	µg/L	12:47:48
2	Sc 361.383	1711533.2	1711533.2	99.455	%	12:49:12
2	Y 371.029	990444.4	990444.4	99.446	%	12:49:12
2	Ag 328.068†	4597.1	4622.3	[0.00]	µg/L	12:49:14
2	As 188.979†	-0.2	-0.2	[0.00]	µg/L	12:49:34
2	B 249.677†	4041.9	4064.1	[0.00]	µg/L	12:49:14
2	Ba 233.527†	-139.4	-140.1	[0.00]	µg/L	12:49:34
2	Be 313.107†	-949.2	-954.4	[0.00]	µg/L	12:49:14
2	Cd 226.502†	-74.3	-74.7	[0.00]	µg/L	12:49:34
2	Co 228.616†	-213.3	-214.5	[0.00]	µg/L	12:49:34
2	Cr 267.716†	255.5	256.9	[0.00]	µg/L	12:49:34
2	Cu 324.752†	3273.6	3291.6	[0.00]	µg/L	12:49:14
2	Mn 257.610†	179.3	180.3	[0.00]	µg/L	12:49:34
2	Mo 202.031†	-13.2	-13.2	[0.00]	µg/L	12:49:34
2	Ni 231.604†	-107.2	-107.8	[0.00]	µg/L	12:49:34
2	P 214.914†	-15.9	-15.9	[0.00]	µg/L	12:49:34
2	Pb 220.353†	135.0	135.8	[0.00]	µg/L	12:49:34
2	S 181.975 Axial†	329.8	331.6	[0.00]	µg/L	12:49:34
2	Sb 206.836†	70.4	70.8	[0.00]	µg/L	12:49:34
2	Se 196.026†	18.3	18.4	[0.00]	µg/L	12:49:34
2	SiO2†	1757.9	1767.5	[0.00]	µg/L	12:49:14
2	Si 251.611†	644.9	648.4	[0.00]	µg/L	12:49:14
2	Sn 189.927†	2.0	2.0	[0.00]	µg/L	12:49:34
2	Ti 334.940†	726.0	730.0	[0.00]	µg/L	12:49:14
2	Tl 190.801†	-118.9	-119.6	[0.00]	µg/L	12:49:34
2	U 409.014†	-200.3	-201.4	[0.00]	µg/L	12:49:14
2	V 292.402†	192.5	193.6	[0.00]	µg/L	12:49:14
2	Zn 213.857†	615.2	618.6	[0.00]	µg/L	12:49:34
3	Sc RADIAL	126604.5	126604.5	98.5	%	12:48:10
3	Al 396.153Radial†	-90.4	-91.7	[0.00]	µg/L	12:48:30
3	Ca 317.933Radial†	518.9	526.7	[0.00]	µg/L	12:48:30
3	Fe 238.204 Radial†	113.9	115.6	[0.00]	µg/L	12:48:30
3	K 766.490 Radial†	1599.5	1623.5	[0.00]	µg/L	12:48:10

3	Mg 279.077 IEC†	170.4	172.9	[0.00]	µg/L	12:48:30
3	Na 589.592 Radial†	863.8	876.7	[0.00]	µg/L	12:48:10
3	Sr 421.552†	-236.8	-240.4	[0.00]	µg/L	12:48:10
3	Sc 361.383	1712332.8	1712332.8	99.501	%	12:49:36
3	Y 371.029	991471.9	991471.9	99.550	%	12:49:36
3	Ag 328.068†	4627.1	4650.3	[0.00]	µg/L	12:49:38
3	As 188.979†	-17.3	-17.4	[0.00]	µg/L	12:49:59
3	B 249.677†	4017.7	4037.8	[0.00]	µg/L	12:49:38
3	Ba 233.527†	-131.3	-131.9	[0.00]	µg/L	12:49:59
3	Be 313.107†	-978.6	-983.5	[0.00]	µg/L	12:49:38
3	Cd 226.502†	-100.6	-101.1	[0.00]	µg/L	12:49:59
3	Co 228.616†	-189.0	-190.0	[0.00]	µg/L	12:49:59
3	Cr 267.716†	248.2	249.5	[0.00]	µg/L	12:49:59
3	Cu 324.752†	3202.1	3218.2	[0.00]	µg/L	12:49:38
3	Mn 257.610†	192.9	193.9	[0.00]	µg/L	12:49:59
3	Mo 202.031†	-21.8	-21.9	[0.00]	µg/L	12:49:59
3	Ni 231.604†	-71.2	-71.5	[0.00]	µg/L	12:49:59
3	P 214.914†	-10.3	-10.3	[0.00]	µg/L	12:49:59
3	Pb 220.353†	100.5	101.0	[0.00]	µg/L	12:49:59
3	S 181.975 Axial†	323.3	325.0	[0.00]	µg/L	12:49:59
3	Sb 206.836†	86.0	86.4	[0.00]	µg/L	12:49:59
3	Se 196.026†	24.0	24.2	[0.00]	µg/L	12:49:59
3	SiO2†	1785.8	1794.8	[0.00]	µg/L	12:49:38
3	Si 251.611†	589.9	592.9	[0.00]	µg/L	12:49:38
3	Sn 189.927†	12.8	12.9	[0.00]	µg/L	12:49:59
3	Ti 334.940†	818.1	822.2	[0.00]	µg/L	12:49:38
3	Tl 190.801†	-119.8	-120.4	[0.00]	µg/L	12:49:59
3	U 409.014†	-236.9	-238.1	[0.00]	µg/L	12:49:38
3	V 292.402†	503.6	506.1	[0.00]	µg/L	12:49:38
3	Zn 213.857†	594.0	597.0	[0.00]	µg/L	12:49:59

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1720919.7	15570.51	0.90%	100.00	%
Sc RADIAL	128503.5	1720.57	1.34%	100	%
Y 371.029	995958.7	8676.33	0.87%	100.00	%
Ag 328.068†	4600.4	63.76	1.39%	[0.00]	µg/L
Al 396.153Radial†	-85.6	8.71	10.17%	[0.00]	µg/L
As 188.979†	-8.6	8.61	99.91%	[0.00]	µg/L
B 249.677†	3995.6	96.86	2.42%	[0.00]	µg/L
Ba 233.527†	-140.0	7.98	5.70%	[0.00]	µg/L
Be 313.107†	-1010.3	73.02	7.23%	[0.00]	µg/L
Ca 317.933Radial†	506.5	24.95	4.93%	[0.00]	µg/L
Cd 226.502†	-87.9	13.18	14.99%	[0.00]	µg/L
Co 228.616†	-195.6	16.79	8.58%	[0.00]	µg/L
Cr 267.716†	262.2	16.12	6.15%	[0.00]	µg/L
Cu 324.752†	3186.7	123.58	3.88%	[0.00]	µg/L
Fe 238.204 Radial†	121.4	5.76	4.75%	[0.00]	µg/L
K 766.490 Radial†	1564.8	109.08	6.97%	[0.00]	µg/L
Mg 279.077 IEC†	163.1	11.54	7.08%	[0.00]	µg/L
Mn 257.610†	174.0	23.74	13.64%	[0.00]	µg/L
Mo 202.031†	-20.2	6.33	31.26%	[0.00]	µg/L
Na 589.592 Radial†	930.5	88.53	9.51%	[0.00]	µg/L
Ni 231.604†	-91.1	18.28	20.07%	[0.00]	µg/L
P 214.914†	-5.7	13.25	234.04%	[0.00]	µg/L
Pb 220.353†	113.3	19.50	17.21%	[0.00]	µg/L
S 181.975 Axial†	326.0	5.13	1.57%	[0.00]	µg/L
Sb 206.836†	80.3	8.39	10.44%	[0.00]	µg/L
Se 196.026†	20.5	3.19	15.54%	[0.00]	µg/L
SiO2†	1789.5	19.81	1.11%	[0.00]	µg/L
Si 251.611†	656.8	68.49	10.43%	[0.00]	µg/L
Sn 189.927†	5.9	6.07	103.27%	[0.00]	µg/L
Sr 421.552†	-105.6	128.07	121.25%	[0.00]	µg/L
Ti 334.940†	771.3	46.84	6.07%	[0.00]	µg/L
Tl 190.801†	-116.0	6.87	5.92%	[0.00]	µg/L
U 409.014†	-291.3	125.28	43.00%	[0.00]	µg/L
V 292.402†	373.0	161.32	43.25%	[0.00]	µg/L
Zn 213.857†	600.7	16.29	2.71%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 4/7/2010 12:50:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	129551.9	129551.9	101	%	12:50:38
1	K 766.490 Radial†	4206.4	2607.5	[1000]	µg/L	12:50:38
1	Sr 421.552†	45572.7	45309.5	[100]	µg/L	12:50:38
1	Sc 361.383	1729881.5	1729881.5	100.52	%	12:51:00
1	Y 371.029	998168.2	998168.2	100.22	%	12:51:00
1	Ag 328.068†	30725.0	25965.4	[100]	µg/L	12:51:02
1	As 188.979†	278.8	286.0	[100]	µg/L	12:51:22
1	B 249.677†	10965.0	6912.6	[100]	µg/L	12:51:02
1	Ba 233.527†	24100.3	24115.4	[100]	µg/L	12:51:02
1	Be 313.107†	373479.3	372554.8	[100]	µg/L	12:51:00
1	Cd 226.502†	16208.2	16212.2	[100]	µg/L	12:51:02
1	Co 228.616†	8100.1	8253.7	[100]	µg/L	12:51:22
1	Cr 267.716†	12761.1	12432.7	[100]	µg/L	12:51:02
1	Cu 324.752†	28970.7	25633.8	[100]	µg/L	12:51:02
1	Mn 257.610†	83389.3	82783.4	[100]	µg/L	12:51:02
1	Mo 202.031†	3214.5	3218.1	[100]	µg/L	12:51:22
1	Ni 231.604†	8811.7	8857.1	[100]	µg/L	12:51:02
1	P 214.914†	2274.7	2268.6	[500]	µg/L	12:51:22
1	Pb 220.353†	1873.6	1750.6	[100]	µg/L	12:51:22
1	S 181.975 Axial†	360.9	33.0	[200]	µg/L	12:51:22
1	Sb 206.836†	903.3	818.3	[100]	µg/L	12:51:22
1	Se 196.026†	289.1	267.1	[100]	µg/L	12:51:22
1	SiO2†	12655.9	10800.9	[1069.5]	µg/L	12:51:02
1	Si 251.611†	34913.9	34076.2	[500]	µg/L	12:51:02
1	Sn 189.927†	1544.4	1530.5	[100]	µg/L	12:51:22
1	Ti 334.940†	103273.7	101967.5	[100]	µg/L	12:51:02
1	Tl 190.801†	685.3	797.8	[100]	µg/L	12:51:22
1	U 409.014†	1604.9	1887.9	[100]	µg/L	12:51:02
1	V 292.402†	21295.9	20812.6	[100]	µg/L	12:51:02
1	Zn 213.857†	19351.3	18650.3	[100]	µg/L	12:51:02
2	Sc RADIAL	128120.4	128120.4	99.7	%	12:50:40
2	K 766.490 Radial†	4210.8	2658.5	[1000]	µg/L	12:50:40
2	Sr 421.552†	45066.0	45306.4	[100]	µg/L	12:50:40
2	Sc 361.383	1716545.6	1716545.6	99.746	%	12:51:24
2	Y 371.029	990909.5	990909.5	99.493	%	12:51:24
2	Ag 328.068†	31165.7	26644.7	[100]	µg/L	12:51:26
2	As 188.979†	301.7	311.1	[100]	µg/L	12:51:46
2	B 249.677†	11059.1	7091.7	[100]	µg/L	12:51:26
2	Ba 233.527†	24239.2	24441.0	[100]	µg/L	12:51:26
2	Be 313.107†	371434.7	373391.4	[100]	µg/L	12:51:24
2	Cd 226.502†	16273.6	16403.0	[100]	µg/L	12:51:26
2	Co 228.616†	8181.8	8398.3	[100]	µg/L	12:51:46
2	Cr 267.716†	12898.3	12669.0	[100]	µg/L	12:51:26
2	Cu 324.752†	28893.4	25780.3	[100]	µg/L	12:51:26
2	Mn 257.610†	84137.1	84177.5	[100]	µg/L	12:51:26
2	Mo 202.031†	3231.1	3259.6	[100]	µg/L	12:51:46
2	Ni 231.604†	8862.8	8976.5	[100]	µg/L	12:51:26
2	P 214.914†	2318.1	2329.6	[500]	µg/L	12:51:46
2	Pb 220.353†	1873.8	1765.3	[100]	µg/L	12:51:46
2	S 181.975 Axial†	382.1	57.0	[200]	µg/L	12:51:46
2	Sb 206.836†	913.8	835.8	[100]	µg/L	12:51:46
2	Se 196.026†	287.5	267.7	[100]	µg/L	12:51:46
2	SiO2†	12612.7	10855.3	[1069.5]	µg/L	12:51:26
2	Si 251.611†	35065.1	34497.7	[500]	µg/L	12:51:26
2	Sn 189.927†	1552.5	1550.6	[100]	µg/L	12:51:46
2	Ti 334.940†	103839.6	103332.9	[100]	µg/L	12:51:26
2	Tl 190.801†	689.7	807.5	[100]	µg/L	12:51:46
2	U 409.014†	1651.3	1946.8	[100]	µg/L	12:51:26
2	V 292.402†	21246.8	20928.0	[100]	µg/L	12:51:26

2	Zn 213.857†	19530.2	18979.2	[100]	µg/L	12:51:26
3	Sc RADIAL	128681.2	128681.2	100	%	12:50:42
3	K 766.490 Radial†	4215.5	2644.8	[1000]	µg/L	12:50:42
3	Sr 421.552†	45229.4	45272.6	[100]	µg/L	12:50:42
3	Sc 361.383	1720351.8	1720351.8	99.967	%	12:51:48
3	Y 371.029	993057.2	993057.2	99.709	%	12:51:48
3	Ag 328.068†	31105.0	26514.9	[100]	µg/L	12:51:50
3	As 188.979†	300.4	309.1	[100]	µg/L	12:52:10
3	B 249.677†	11048.3	7056.4	[100]	µg/L	12:51:50
3	Ba 233.527†	24475.0	24623.1	[100]	µg/L	12:51:50
3	Be 313.107†	370103.5	371236.0	[100]	µg/L	12:51:48
3	Cd 226.502†	16396.5	16489.8	[100]	µg/L	12:51:50
3	Co 228.616†	8227.5	8425.8	[100]	µg/L	12:52:10
3	Cr 267.716†	13021.5	12763.6	[100]	µg/L	12:51:50
3	Cu 324.752†	29147.7	25970.5	[100]	µg/L	12:51:50
3	Mn 257.610†	84794.8	84648.8	[100]	µg/L	12:51:50
3	Mo 202.031†	3257.9	3279.3	[100]	µg/L	12:52:10
3	Ni 231.604†	8918.1	9012.1	[100]	µg/L	12:51:50
3	P 214.914†	2323.1	2329.5	[500]	µg/L	12:52:10
3	Pb 220.353†	1914.5	1801.9	[100]	µg/L	12:52:10
3	S 181.975 Axial†	374.9	49.0	[200]	µg/L	12:52:10
3	Sb 206.836†	912.6	832.6	[100]	µg/L	12:52:10
3	Se 196.026†	277.1	256.7	[100]	µg/L	12:52:10
3	SiO2†	12853.0	11067.8	[1069.5]	µg/L	12:51:50
3	Si 251.611†	35544.4	34899.3	[500]	µg/L	12:51:50
3	Sn 189.927†	1580.5	1575.1	[100]	µg/L	12:52:10
3	Ti 334.940†	104812.6	104076.0	[100]	µg/L	12:51:50
3	Tl 190.801†	697.7	814.0	[100]	µg/L	12:52:10
3	U 409.014†	1583.0	1874.9	[100]	µg/L	12:51:50
3	V 292.402†	21444.4	21078.4	[100]	µg/L	12:51:50
3	Zn 213.857†	19813.4	19219.2	[100]	µg/L	12:51:50

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1722259.6	6869.62	0.40%	100.08	%
Sc RADIAL	128784.5	721.35	0.56%	100	%
Y 371.029	994044.9	3728.79	0.38%	99.808	%
Ag 328.068†	26375.0	360.63	1.37%	[100]	µg/L
As 188.979†	302.1	13.98	4.63%	[100]	µg/L
B 249.677†	7020.2	94.89	1.35%	[100]	µg/L
Ba 233.527†	24393.2	257.19	1.05%	[100]	µg/L
Be 313.107†	372394.1	1086.68	0.29%	[100]	µg/L
Cd 226.502†	16368.3	142.01	0.87%	[100]	µg/L
Co 228.616†	8359.3	92.43	1.11%	[100]	µg/L
Cr 267.716†	12621.8	170.39	1.35%	[100]	µg/L
Cu 324.752†	25794.9	168.83	0.65%	[100]	µg/L
K 766.490 Radial†	2636.9	26.43	1.00%	[1000]	µg/L
Mn 257.610†	83869.9	970.02	1.16%	[100]	µg/L
Mo 202.031†	3252.3	31.22	0.96%	[100]	µg/L
Ni 231.604†	8948.6	81.18	0.91%	[100]	µg/L
P 214.914†	2309.2	35.23	1.53%	[500]	µg/L
Pb 220.353†	1772.6	26.39	1.49%	[100]	µg/L
S 181.975 Axial†	46.3	12.22	26.37%	[200]	µg/L
Sb 206.836†	828.9	9.30	1.12%	[100]	µg/L
Se 196.026†	263.8	6.18	2.34%	[100]	µg/L
SiO2†	10908.0	141.03	1.29%	[1069.5]	µg/L
Si 251.611†	34491.1	411.59	1.19%	[500]	µg/L
Sn 189.927†	1552.1	22.33	1.44%	[100]	µg/L
Sr 421.552†	45296.2	20.49	0.05%	[100]	µg/L
Ti 334.940†	103125.5	1069.45	1.04%	[100]	µg/L
Tl 190.801†	806.5	8.15	1.01%	[100]	µg/L
U 409.014†	1903.2	38.35	2.01%	[100]	µg/L
V 292.402†	20939.7	133.31	0.64%	[100]	µg/L
Zn 213.857†	18949.6	285.59	1.51%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 4/7/2010 12:52:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	131056.7	131056.7	102	%	12:52:49
1	Al 396.153Radial†	24477.0	24085.7	[5000]	µg/L	12:52:49
1	Ca 317.933Radial†	76360.2	74366.1	[5000]	µg/L	12:52:49
1	K 766.490 Radial†	14893.2	13038.2	[5000]	µg/L	12:52:49
1	Mg 279.077 IEC†	11586.3	11197.5	[5000]	µg/L	12:52:49
1	Sr 421.552†	220085.3	215903.2	[500]	µg/L	12:52:47
1	Sc 361.383	1712313.9	1712313.9	99.500	%	12:53:16
1	Y 371.029	980604.2	980604.2	98.458	%	12:53:16
1	Ag 328.068†	132520.5	128586.1	[500]	µg/L	12:53:16
1	As 188.979†	1526.0	1542.3	[500]	µg/L	12:53:36
1	B 249.677†	38574.3	34772.6	[500]	µg/L	12:53:16
1	Ba 233.527†	117718.8	118450.4	[500]	µg/L	12:53:16
1	Be 313.107†	1829843.1	1840049.9	[500]	µg/L	12:53:16
1	Cd 226.502†	79549.0	80036.7	[500]	µg/L	12:53:16
1	Co 228.616†	40418.0	40816.7	[500]	µg/L	12:53:16
1	Cr 267.716†	60872.4	60916.1	[500]	µg/L	12:53:16
1	Cu 324.752†	128590.4	126050.0	[500]	µg/L	12:53:16
1	Mn 257.610†	399482.2	401316.0	[500]	µg/L	12:53:16
1	Mo 202.031†	16260.8	16362.8	[500]	µg/L	12:53:36
1	Ni 231.604†	42483.8	42788.4	[500]	µg/L	12:53:16
1	P 214.914†	11725.1	11789.7	[2500]	µg/L	12:53:36
1	Pb 220.353†	8861.4	8792.6	[500]	µg/L	12:53:36
1	S 181.975 Axial†	1397.9	1078.9	[1000]	µg/L	12:53:36
1	Sb 206.836†	4264.3	4205.4	[500]	µg/L	12:53:36
1	Se 196.026†	1374.1	1360.5	[500]	µg/L	12:53:36
1	SiO2†	55597.0	54087.0	[5347.5]	µg/L	12:53:16
1	Si 251.611†	171199.5	171403.1	[2500]	µg/L	12:53:16
1	Sn 189.927†	7749.2	7782.2	[500]	µg/L	12:53:36
1	Ti 334.940†	509726.9	511517.5	[500]	µg/L	12:53:16
1	Tl 190.801†	3792.5	3927.6	[500]	µg/L	12:53:36
1	U 409.014†	7647.7	7977.5	[500]	µg/L	12:53:16
1	V 292.402†	102583.4	102725.9	[500]	µg/L	12:53:16
1	Zn 213.857†	90807.7	90663.3	[500]	µg/L	12:53:16
2	Sc RADIAL	129059.1	129059.1	100	%	12:52:53
2	Al 396.153Radial†	24213.1	24194.5	[5000]	µg/L	12:52:53
2	Ca 317.933Radial†	75337.6	74506.7	[5000]	µg/L	12:52:53
2	K 766.490 Radial†	14752.2	13123.8	[5000]	µg/L	12:52:53
2	Mg 279.077 IEC†	11359.7	11147.8	[5000]	µg/L	12:52:53
2	Sr 421.552†	221684.2	220835.3	[500]	µg/L	12:52:51
2	Sc 361.383	1715371.8	1715371.8	99.678	%	12:53:39
2	Y 371.029	982318.1	982318.1	98.630	%	12:53:39
2	Ag 328.068†	133154.8	128985.0	[500]	µg/L	12:53:39
2	As 188.979†	1513.1	1526.6	[500]	µg/L	12:53:59
2	B 249.677†	38661.3	34790.8	[500]	µg/L	12:53:39
2	Ba 233.527†	118169.8	118692.0	[500]	µg/L	12:53:39
2	Be 313.107†	1835076.1	1842021.4	[500]	µg/L	12:53:39
2	Cd 226.502†	80106.9	80453.9	[500]	µg/L	12:53:39
2	Co 228.616†	40648.7	40975.8	[500]	µg/L	12:53:39
2	Cr 267.716†	61220.9	61156.7	[500]	µg/L	12:53:39
2	Cu 324.752†	128842.6	126072.5	[500]	µg/L	12:53:39
2	Mn 257.610†	400789.4	401911.7	[500]	µg/L	12:53:39
2	Mo 202.031†	16206.2	16278.8	[500]	µg/L	12:53:59
2	Ni 231.604†	42804.0	43033.5	[500]	µg/L	12:53:39
2	P 214.914†	11697.6	11741.1	[2500]	µg/L	12:53:59
2	Pb 220.353†	8855.6	8771.0	[500]	µg/L	12:53:59
2	S 181.975 Axial†	1399.9	1078.4	[1000]	µg/L	12:53:59
2	Sb 206.836†	4266.2	4199.7	[500]	µg/L	12:53:59
2	Se 196.026†	1393.6	1377.6	[500]	µg/L	12:53:59
2	SiO2†	55850.8	54242.0	[5347.5]	µg/L	12:53:39

2	Si 251.611†	172018.6	171918.2	[2500]	µg/L	12:53:39
2	Sn 189.927†	7718.8	7737.9	[500]	µg/L	12:53:59
2	Ti 334.940†	511680.4	512564.1	[500]	µg/L	12:53:39
2	Tl 190.801†	3773.4	3901.6	[500]	µg/L	12:53:59
2	U 409.014†	7310.1	7625.1	[500]	µg/L	12:53:39
2	V 292.402†	103200.1	103160.8	[500]	µg/L	12:53:39
2	Zn 213.857†	91032.4	90726.1	[500]	µg/L	12:53:39
3	Sc RADIAL	130605.8	130605.8	102	%	12:52:57
3	Al 396.153Radial†	24299.0	23993.5	[5000]	µg/L	12:52:57
3	Ca 317.933Radial†	76104.0	74372.4	[5000]	µg/L	12:52:57
3	K 766.490 Radial†	15097.9	13290.0	[5000]	µg/L	12:52:57
3	Mg 279.077 IEC†	11617.8	11267.7	[5000]	µg/L	12:52:57
3	Sr 421.552†	220205.0	216766.0	[500]	µg/L	12:52:55
3	Sc 361.383	1719552.0	1719552.0	99.921	%	12:54:02
3	Y 371.029	985894.1	985894.1	98.989	%	12:54:02
3	Ag 328.068†	132754.7	128259.9	[500]	µg/L	12:54:02
3	As 188.979†	1499.6	1509.5	[500]	µg/L	12:54:22
3	B 249.677†	38748.9	34784.2	[500]	µg/L	12:54:02
3	Ba 233.527†	118158.6	118392.6	[500]	µg/L	12:54:02
3	Be 313.107†	1839405.3	1841878.6	[500]	µg/L	12:54:02
3	Cd 226.502†	79998.0	80149.6	[500]	µg/L	12:54:02
3	Co 228.616†	40686.2	40914.2	[500]	µg/L	12:54:02
3	Cr 267.716†	61311.2	61097.7	[500]	µg/L	12:54:02
3	Cu 324.752†	128932.4	125848.2	[500]	µg/L	12:54:02
3	Mn 257.610†	401218.0	401363.2	[500]	µg/L	12:54:02
3	Mo 202.031†	16064.0	16097.0	[500]	µg/L	12:54:22
3	Ni 231.604†	42825.4	42950.5	[500]	µg/L	12:54:02
3	P 214.914†	11530.9	11545.7	[2500]	µg/L	12:54:22
3	Pb 220.353†	8765.3	8659.0	[500]	µg/L	12:54:22
3	S 181.975 Axial†	1364.4	1039.4	[1000]	µg/L	12:54:22
3	Sb 206.836†	4225.8	4148.8	[500]	µg/L	12:54:22
3	Se 196.026†	1373.9	1354.5	[500]	µg/L	12:54:22
3	SiO2†	55876.4	54131.4	[5347.5]	µg/L	12:54:02
3	Si 251.611†	172274.6	171754.8	[2500]	µg/L	12:54:02
3	Sn 189.927†	7625.6	7625.8	[500]	µg/L	12:54:22
3	Ti 334.940†	512141.1	511777.2	[500]	µg/L	12:54:02
3	Tl 190.801†	3728.2	3847.2	[500]	µg/L	12:54:22
3	U 409.014†	7562.5	7859.8	[500]	µg/L	12:54:02
3	V 292.402†	103129.4	102838.4	[500]	µg/L	12:54:02
3	Zn 213.857†	91331.7	90803.6	[500]	µg/L	12:54:02

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1715745.9	3633.52	0.21%	99.699	%
Sc RADIAL	130240.6	1047.67	0.80%	101	%
Y 371.029	982938.8	2699.01	0.27%	98.693	%
Ag 328.068†	128610.3	363.18	0.28%	[500]	µg/L
Al 396.153Radial†	24091.3	100.61	0.42%	[5000]	µg/L
As 188.979†	1526.1	16.42	1.08%	[500]	µg/L
B 249.677†	34782.5	9.24	0.03%	[500]	µg/L
Ba 233.527†	118511.7	158.81	0.13%	[500]	µg/L
Be 313.107†	1841316.6	1099.38	0.06%	[500]	µg/L
Ca 317.933Radial†	74415.1	79.41	0.11%	[5000]	µg/L
Cd 226.502†	80213.4	215.79	0.27%	[500]	µg/L
Co 228.616†	40902.3	80.21	0.20%	[500]	µg/L
Cr 267.716†	61056.8	125.37	0.21%	[500]	µg/L
Cu 324.752†	125990.2	123.51	0.10%	[500]	µg/L
K 766.490 Radial†	13150.7	128.04	0.97%	[5000]	µg/L
Mg 279.077 IEC†	11204.4	60.28	0.54%	[5000]	µg/L
Mn 257.610†	401530.3	331.14	0.08%	[500]	µg/L
Mo 202.031†	16246.2	135.85	0.84%	[500]	µg/L
Ni 231.604†	42924.2	124.66	0.29%	[500]	µg/L
P 214.914†	11692.2	129.12	1.10%	[2500]	µg/L
Pb 220.353†	8740.9	71.72	0.82%	[500]	µg/L
S 181.975 Axial†	1065.6	22.66	2.13%	[1000]	µg/L
Sb 206.836†	4184.6	31.16	0.74%	[500]	µg/L
Se 196.026†	1364.2	12.02	0.88%	[500]	µg/L
SiO2†	54153.5	79.84	0.15%	[5347.5]	µg/L
Si 251.611†	171692.0	263.22	0.15%	[2500]	µg/L

Sn 189.927†	7715.3	80.61	1.04%	[500] µg/L
Sr 421.552†	217834.9	2634.04	1.21%	[500] µg/L
Ti 334.940†	511952.9	544.99	0.11%	[500] µg/L
Tl 190.801†	3892.1	41.01	1.05%	[500] µg/L
U 409.014†	7820.8	179.42	2.29%	[500] µg/L
V 292.402†	102908.4	225.73	0.22%	[500] µg/L
Zn 213.857†	90731.0	70.29	0.08%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 4/7/2010 12:54:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	129761.3	129761.3	101	%	12:55:02
1	Al 396.153Radial†	48331.4	47948.6	[10000]	µg/L	12:55:02
1	Ca 317.933Radial†	150306.4	148342.9	[10000]	µg/L	12:55:02
1	Fe 238.204 Radial†	137156.9	135706.0	[10000]	µg/L	12:55:02
1	K 766.490 Radial†	27950.1	26114.3	[10000]	µg/L	12:55:02
1	Mg 279.077 IEC†	22563.8	22182.0	[10000]	µg/L	12:55:02
1	Na 589.592 Radial†	69124.2	67523.7	[10000]	µg/L	12:55:02
1	Sr 421.552†	435184.5	431071.6	[1000]	µg/L	12:55:00
1	Sc 361.383	1722812.0	1722812.0	100.11	%	12:55:29
1	Y 371.029	981937.6	981937.6	98.592	%	12:55:29
1	Ag 328.068†	260646.6	255759.9	[1000]	µg/L	12:55:31
1	As 188.979†	3023.1	3028.4	[1000]	µg/L	12:55:51
1	B 249.677†	73057.4	68981.6	[1000]	µg/L	12:55:31
1	Ba 233.527†	233926.4	233809.5	[1000]	µg/L	12:55:31
1	Be 313.107†	3647398.3	3644402.3	[1000]	µg/L	12:55:29
1	Cd 226.502†	157901.7	157816.2	[1000]	µg/L	12:55:31
1	Co 228.616†	79953.5	80061.3	[1000]	µg/L	12:55:31
1	Cr 267.716†	121701.6	121305.7	[1000]	µg/L	12:55:31
1	Cu 324.752†	255112.5	251645.6	[1000]	µg/L	12:55:31
1	Mn 257.610†	794094.9	793048.7	[1000]	µg/L	12:55:29
1	Mo 202.031†	31805.4	31790.7	[1000]	µg/L	12:55:51
1	Ni 231.604†	84360.0	84358.5	[1000]	µg/L	12:55:31
1	P 214.914†	22938.8	22919.3	[5000]	µg/L	12:55:51
1	Pb 220.353†	17146.5	17014.4	[1000]	µg/L	12:55:51
1	S 181.975 Axial†	2611.9	2283.0	[2000]	µg/L	12:55:51
1	Sb 206.836†	8272.4	8183.0	[1000]	µg/L	12:55:51
1	Se 196.026†	2667.8	2644.3	[1000]	µg/L	12:55:51
1	SiO2†	108859.2	106950.2	[10695]	µg/L	12:55:31
1	Si 251.611†	338703.9	337675.0	[5000]	µg/L	12:55:31
1	Sn 189.927†	15125.2	15102.8	[1000]	µg/L	12:55:51
1	Ti 334.940†	1016493.9	1014606.1	[1000]	µg/L	12:55:29
1	Tl 190.801†	7508.9	7616.7	[1000]	µg/L	12:55:51
1	U 409.014†	17211.9	17484.3	[1000]	µg/L	12:55:31
1	V 292.402†	206156.4	205556.9	[1000]	µg/L	12:55:31
1	Zn 213.857†	178896.1	178098.9	[1000]	µg/L	12:55:31
2	Sc RADIAL	129384.6	129384.6	101	%	12:55:06
2	Al 396.153Radial†	48251.9	48008.9	[10000]	µg/L	12:55:06
2	Ca 317.933Radial†	149878.9	148351.7	[10000]	µg/L	12:55:06
2	Fe 238.204 Radial†	136669.0	135616.9	[10000]	µg/L	12:55:06
2	K 766.490 Radial†	27986.6	26231.1	[10000]	µg/L	12:55:06
2	Mg 279.077 IEC†	22429.2	22113.4	[10000]	µg/L	12:55:06
2	Na 589.592 Radial†	68833.3	67434.1	[10000]	µg/L	12:55:06
2	Sr 421.552†	435815.1	432952.8	[1000]	µg/L	12:55:04
2	Sc 361.383	1705641.2	1705641.2	99.112	%	12:55:54
2	Y 371.029	972269.4	972269.4	97.621	%	12:55:54
2	Ag 328.068†	262379.3	260129.2	[1000]	µg/L	12:55:56
2	As 188.979†	3011.8	3047.4	[1000]	µg/L	12:56:16
2	B 249.677†	73527.0	70190.1	[1000]	µg/L	12:55:56
2	Ba 233.527†	235631.6	237882.3	[1000]	µg/L	12:55:56
2	Be 313.107†	3623782.3	3657253.0	[1000]	µg/L	12:55:54
2	Cd 226.502†	158877.7	160388.8	[1000]	µg/L	12:55:56
2	Co 228.616†	80429.6	81345.6	[1000]	µg/L	12:55:56
2	Cr 267.716†	122317.9	123151.3	[1000]	µg/L	12:55:56
2	Cu 324.752†	256430.7	255541.0	[1000]	µg/L	12:55:56
2	Mn 257.610†	787245.4	794123.3	[1000]	µg/L	12:55:54
2	Mo 202.031†	31814.6	32119.8	[1000]	µg/L	12:56:16
2	Ni 231.604†	84878.5	85730.0	[1000]	µg/L	12:55:56
2	P 214.914†	22879.9	23090.5	[5000]	µg/L	12:56:16
2	Pb 220.353†	17130.8	17170.9	[1000]	µg/L	12:56:16

2	S 181.975 Axial†	2590.1	2287.3	[2000]	µg/L	12:56:16
2	Sb 206.836†	8291.2	8285.1	[1000]	µg/L	12:56:16
2	Se 196.026†	2686.3	2689.8	[1000]	µg/L	12:56:16
2	SiO2†	109762.2	108956.0	[10695]	µg/L	12:55:56
2	Si 251.611†	341112.0	343510.7	[5000]	µg/L	12:55:56
2	Sn 189.927†	15111.7	15241.2	[1000]	µg/L	12:56:16
2	Ti 334.940†	1008275.2	1016535.7	[1000]	µg/L	12:55:54
2	Tl 190.801†	7503.7	7686.9	[1000]	µg/L	12:56:16
2	U 409.014†	16898.6	17341.2	[1000]	µg/L	12:55:56
2	V 292.402†	207487.1	208972.7	[1000]	µg/L	12:55:56
2	Zn 213.857†	180126.7	181139.5	[1000]	µg/L	12:55:56
3	Sc RADIAL	128620.3	128620.3	100	%	12:55:11
3	Al 396.153Radial†	48136.3	48178.2	[10000]	µg/L	12:55:11
3	Ca 317.933Radial†	149086.9	148444.9	[10000]	µg/L	12:55:11
3	Fe 238.204 Radial†	135518.3	135273.8	[10000]	µg/L	12:55:11
3	K 766.490 Radial†	27672.7	26082.7	[10000]	µg/L	12:55:11
3	Mg 279.077 IEC†	22377.0	22193.6	[10000]	µg/L	12:55:11
3	Na 589.592 Radial†	68287.9	67295.3	[10000]	µg/L	12:55:11
3	Sr 421.552†	431594.6	431308.1	[1000]	µg/L	12:55:08
3	Sc 361.383	1705651.7	1705651.7	99.113	%	12:56:19
3	Y 371.029	972586.6	972586.6	97.653	%	12:56:19
3	Ag 328.068†	261054.7	258791.1	[1000]	µg/L	12:56:21
3	As 188.979†	3023.9	3059.6	[1000]	µg/L	12:56:41
3	B 249.677†	73147.3	69806.5	[1000]	µg/L	12:56:21
3	Ba 233.527†	234476.6	236715.5	[1000]	µg/L	12:56:21
3	Be 313.107†	3624999.5	3658458.6	[1000]	µg/L	12:56:19
3	Cd 226.502†	158015.6	159517.9	[1000]	µg/L	12:56:21
3	Co 228.616†	80162.5	81075.7	[1000]	µg/L	12:56:21
3	Cr 267.716†	121784.1	122612.0	[1000]	µg/L	12:56:21
3	Cu 324.752†	255212.9	254310.7	[1000]	µg/L	12:56:21
3	Mn 257.610†	787450.2	794325.1	[1000]	µg/L	12:56:19
3	Mo 202.031†	31891.9	32197.6	[1000]	µg/L	12:56:41
3	Ni 231.604†	84194.3	85039.1	[1000]	µg/L	12:56:21
3	P 214.914†	22977.8	23189.1	[5000]	µg/L	12:56:41
3	Pb 220.353†	17212.4	17253.2	[1000]	µg/L	12:56:41
3	S 181.975 Axial†	2598.8	2296.0	[2000]	µg/L	12:56:41
3	Sb 206.836†	8312.3	8306.4	[1000]	µg/L	12:56:41
3	Se 196.026†	2709.7	2713.5	[1000]	µg/L	12:56:41
3	SiO2†	108767.0	107951.2	[10695]	µg/L	12:56:21
3	Si 251.611†	338856.7	341233.2	[5000]	µg/L	12:56:21
3	Sn 189.927†	15152.5	15282.3	[1000]	µg/L	12:56:41
3	Ti 334.940†	1007852.0	1016102.4	[1000]	µg/L	12:56:19
3	Tl 190.801†	7508.7	7692.0	[1000]	µg/L	12:56:41
3	U 409.014†	17028.2	17472.0	[1000]	µg/L	12:56:21
3	V 292.402†	206256.7	207730.0	[1000]	µg/L	12:56:21
3	Zn 213.857†	178944.1	179945.1	[1000]	µg/L	12:56:21

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1711368.3	9910.55	0.58%	99.445	%
Sc RADIAL	129255.4	581.36	0.45%	101	%
Y 371.029	975597.9	5492.68	0.56%	97.956	%
Ag 328.068†	258226.7	2238.65	0.87%	[1000]	µg/L
Al 396.153Radial†	48045.2	119.05	0.25%	[10000]	µg/L
As 188.979†	3045.1	15.73	0.52%	[1000]	µg/L
B 249.677†	69659.4	617.54	0.89%	[1000]	µg/L
Ba 233.527†	236135.8	2097.38	0.89%	[1000]	µg/L
Be 313.107†	3653371.3	7790.77	0.21%	[1000]	µg/L
Ca 317.933Radial†	148379.8	56.53	0.04%	[10000]	µg/L
Cd 226.502†	159241.0	1308.49	0.82%	[1000]	µg/L
Co 228.616†	80827.6	677.15	0.84%	[1000]	µg/L
Cr 267.716†	122356.4	949.02	0.78%	[1000]	µg/L
Cu 324.752†	253832.4	1991.26	0.78%	[1000]	µg/L
Fe 238.204 Radial†	135532.2	228.17	0.17%	[10000]	µg/L
K 766.490 Radial†	26142.7	78.19	0.30%	[10000]	µg/L
Mg 279.077 IEC†	22163.0	43.35	0.20%	[10000]	µg/L
Mn 257.610†	793832.3	686.15	0.09%	[1000]	µg/L
Mo 202.031†	32036.1	215.99	0.67%	[1000]	µg/L
Na 589.592 Radial†	67417.7	115.04	0.17%	[10000]	µg/L

Ni 231.604†	85042.5	685.75	0.81%	[1000]	µg/L
P 214.914†	23066.3	136.53	0.59%	[5000]	µg/L
Pb 220.353†	17146.2	121.31	0.71%	[1000]	µg/L
S 181.975 Axial†	2288.8	6.66	0.29%	[2000]	µg/L
Sb 206.836†	8258.2	65.96	0.80%	[1000]	µg/L
Se 196.026†	2682.6	35.15	1.31%	[1000]	µg/L
SiO2†	107952.5	1002.89	0.93%	[10695]	µg/L
Si 251.611†	340806.3	2941.17	0.86%	[5000]	µg/L
Sn 189.927†	15208.8	94.07	0.62%	[1000]	µg/L
Sr 421.552†	431777.5	1024.67	0.24%	[1000]	µg/L
Ti 334.940†	1015748.1	1012.42	0.10%	[1000]	µg/L
Tl 190.801†	7665.2	42.07	0.55%	[1000]	µg/L
U 409.014†	17432.5	79.28	0.45%	[1000]	µg/L
V 292.402†	207419.9	1728.84	0.83%	[1000]	µg/L
Zn 213.857†	179727.8	1531.93	0.85%	[1000]	µg/L

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S10 **Date Collected: 4/7/2010 12:56:50**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S10

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	127734.9	127734.9	99.4	%	12:57:19
1	Al 396.153Radial†	234105.6	235599.8	[50000]	µg/L	12:57:19
1	Ca 317.933Radial†	725174.7	729031.5	[50000]	µg/L	12:57:19
1	Fe 238.204 Radial†	267688.2	269177.5	[20000]	µg/L	12:57:19
1	Mg 279.077 IEC†	107442.6	107926.0	[50000]	µg/L	12:57:19
1	Na 589.592 Radial†	135058.9	134941.1	[20000]	µg/L	12:57:19
1	Sc 361.383	1671976.2	1671976.2	97.156	%	12:57:27
1	Y 371.029	954012.2	954012.2	95.788	%	12:57:27
2	Sc RADIAL	127857.8	127857.8	99.5	%	12:57:21
2	Al 396.153Radial†	235019.2	236291.6	[50000]	µg/L	12:57:21
2	Ca 317.933Radial†	727442.7	730609.5	[50000]	µg/L	12:57:21
2	Fe 238.204 Radial†	268810.0	270046.0	[20000]	µg/L	12:57:21
2	Mg 279.077 IEC†	107849.2	108230.7	[50000]	µg/L	12:57:21
2	Na 589.592 Radial†	135462.0	135215.5	[20000]	µg/L	12:57:21
2	Sc 361.383	1670810.5	1670810.5	97.088	%	12:57:30
2	Y 371.029	953804.0	953804.0	95.767	%	12:57:30
3	Sc RADIAL	126764.5	126764.5	98.6	%	12:57:23
3	Al 396.153Radial†	232042.6	235311.3	[50000]	µg/L	12:57:23
3	Ca 317.933Radial†	715681.9	724993.0	[50000]	µg/L	12:57:23
3	Fe 238.204 Radial†	264498.0	268005.0	[20000]	µg/L	12:57:23
3	Mg 279.077 IEC†	105884.3	107173.7	[50000]	µg/L	12:57:23
3	Na 589.592 Radial†	133593.1	134495.2	[20000]	µg/L	12:57:23
3	Sc 361.383	1671727.2	1671727.2	97.142	%	12:57:32
3	Y 371.029	954746.3	954746.3	95.862	%	12:57:32

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1671504.6	613.87	0.04%	97.129	%
Sc RADIAL	127452.4	598.89	0.47%	99.2	%
Y 371.029	954187.5	495.01	0.05%	95.806	%
Al 396.153Radial†	235734.3	503.78	0.21%	[50000]	µg/L
Ca 317.933Radial†	728211.4	2896.68	0.40%	[50000]	µg/L
Fe 238.204 Radial†	269076.1	1024.30	0.38%	[20000]	µg/L
Mg 279.077 IEC†	107776.8	544.07	0.50%	[50000]	µg/L
Na 589.592 Radial†	134883.9	363.55	0.27%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	258.1	0.00000	0.999997	
Al 396.153Radial	3	Lin Thru 0	0.0	4.719	0.00000	0.999991	
As 188.979	3	Lin Thru 0	0.0	3.046	0.00000	0.999999	
B 249.677	3	Lin Thru 0	0.0	69.64	0.00000	1.000000	
Ba 233.527	3	Lin Thru 0	0.0	236.4	0.00000	0.999995	
Be 313.107	3	Lin Thru 0	0.0	3660	0.00000	0.999994	
Ca 317.933Radial	3	Lin Thru 0	0.0	14.58	0.00000	0.999991	
Cd 226.502	3	Lin Thru 0	0.0	159.5	0.00000	0.999993	
Co 228.616	3	Lin Thru 0	0.0	81.04	0.00000	0.999985	
Cr 267.716	3	Lin Thru 0	0.0	122.3	0.00000	0.999996	
Cu 324.752	3	Lin Thru 0	0.0	253.5	0.00000	0.999995	
Fe 238.204 Radia	2	Lin Thru 0	0.0	13.47	0.00000	0.999996	
K 766.490 Radial	3	Lin Thru 0	0.0	2.618	0.00000	0.999997	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.159	0.00000	0.999979	
Mn 257.610	3	Lin Thru 0	0.0	796.0	0.00000	0.999978	
Mo 202.031	3	Lin Thru 0	0.0	32.13	0.00000	0.999983	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.744	0.00000	1.000000	

Ni 231.604	3	Lin Thru 0	0.0	85.24	0.00000	0.999983
P 214.914	3	Lin Thru 0	0.0	4.626	0.00000	0.999985
Pb 220.353	3	Lin Thru 0	0.0	17.22	0.00000	0.999966
S 181.975 Axial	3	Lin Thru 0	0.0	1.121	0.00000	0.997102
Sb 206.836	3	Lin Thru 0	0.0	8.280	0.00000	0.999986
Se 196.026	3	Lin Thru 0	0.0	2.691	0.00000	0.999975
SiO2	3	Lin Thru 0	0.0	10.10	0.00000	0.999999
Si 251.611	3	Lin Thru 0	0.0	68.27	0.00000	0.999995
Sn 189.927	3	Lin Thru 0	0.0	15.26	0.00000	0.999982
Sr 421.552	3	Lin Thru 0	0.0	432.7	0.00000	0.999985
Ti 334.940	3	Lin Thru 0	0.0	1017	0.00000	0.999994
Tl 190.801	3	Lin Thru 0	0.0	7.692	0.00000	0.999972
U 409.014	3	Lin Thru 0	0.0	17.09	0.00000	0.999078
V 292.402	3	Lin Thru 0	0.0	207.1	0.00000	0.999995
Zn 213.857	3	Lin Thru 0	0.0	180.1	0.00000	0.999982

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 4/7/2010 12:57:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130353.4	130353.4	101	%			12:58:12
1	Al 396.153Radial†	24797.8	24531.5	5173.1	µg/L	5173.1	ppb	12:58:12
1	Ca 317.933Radial†	75121.8	73549.2	5045.3	µg/L	5045.3	ppb	12:58:12
1	Fe 238.204 Radial†	69191.3	68088.0	5053.4	µg/L	5053.4	ppb	12:58:12
1	K 766.490 Radial†	8178.0	6497.1	2479.1	µg/L	2479.1	ppb	12:58:12
1	Mg 279.077 IEC†	11987.2	11654.0	5407.7	µg/L	5407.7	ppb	12:58:12
1	Na 589.592 Radial†	18224.3	17035.2	2523.9	µg/L	2523.9	ppb	12:58:12
1	Sr 421.552†	231442.2	228263.3	527.47	µg/L	527.47	ppb	12:58:10
1	Sc 361.383	1725151.7	1725151.7	100.25	%			12:58:25
1	Y 371.029	990353.1	990353.1	99.437	%			12:58:25
1	Ag 328.068†	70462.9	65689.6	260.94	µg/L	260.94	ppb	12:58:25
1	As 188.979†	1433.8	1438.9	479.63	µg/L	479.63	ppb	12:58:45
1	B 249.677†	39971.3	35877.7	513.38	µg/L	513.38	ppb	12:58:25
1	Ba 233.527†	119674.9	119521.3	506.08	µg/L	506.08	ppb	12:58:25
1	Be 313.107†	973074.7	971697.9	265.64	µg/L	265.64	ppb	12:58:25
1	Cd 226.502†	79465.5	79358.4	497.22	µg/L	497.22	ppb	12:58:25
1	Co 228.616†	41099.7	41194.5	508.63	µg/L	508.63	ppb	12:58:25
1	Cr 267.716†	59829.6	59420.5	485.58	µg/L	485.58	ppb	12:58:25
1	Cu 324.752†	131759.0	128249.0	507.47	µg/L	507.47	ppb	12:58:25
1	Mn 257.610†	419095.4	417893.3	524.75	µg/L	524.75	ppb	12:58:25
1	Mo 202.031†	17520.7	17497.9	545.06	µg/L	545.06	ppb	12:58:45
1	Ni 231.604†	43513.7	43498.0	510.31	µg/L	510.31	ppb	12:58:25
1	P 214.914†	11600.4	11577.6	2494.0	µg/L	2494.0	ppb	12:58:45
1	Pb 220.353†	8749.9	8615.2	502.20	µg/L	502.20	ppb	12:58:45
1	S 181.975 Axial†	3324.1	2989.9	2670.6	µg/L	2670.6	ppb	12:58:45
1	Sb 206.836†	4290.9	4200.0	509.30	µg/L	509.30	ppb	12:58:45
1	Se 196.026†	6856.0	6818.7	2540	µg/L	2540	ppb	12:58:45
1	SiO2†	106764.8	104713.4	10343	µg/L	10343	ppb	12:58:25
1	Si 251.611†	332499.8	331027.3	4837.9	µg/L	4837.9	ppb	12:58:25
1	Sn 189.927†	8328.2	8301.9	545.90	µg/L	545.90	ppb	12:58:45
1	Ti 334.940†	514647.2	512613.5	503.15	µg/L	503.15	ppb	12:58:25
1	Tl 190.801†	4059.8	4165.9	549.22	µg/L	549.22	ppb	12:58:45
1	U 409.014†	7309.8	7583.2	475.06	µg/L	475.06	ppb	12:58:25
1	V 292.402†	106530.1	105895.7	518.30	µg/L	518.30	ppb	12:58:25
1	Zn 213.857†	94419.8	93587.5	515.44	µg/L	515.44	ppb	12:58:25
2	Sc RADIAL	131052.3	131052.3	102	%			12:58:16
2	Al 396.153Radial†	24892.1	24493.6	5165.2	µg/L	5165.2	ppb	12:58:16
2	Ca 317.933Radial†	75714.2	73735.1	5058.1	µg/L	5058.1	ppb	12:58:16
2	Fe 238.204 Radial†	69610.6	68135.4	5056.9	µg/L	5056.9	ppb	12:58:16
2	K 766.490 Radial†	8434.6	6705.7	2558.8	µg/L	2558.8	ppb	12:58:16
2	Mg 279.077 IEC†	12112.6	11713.9	5435.4	µg/L	5435.4	ppb	12:58:16
2	Na 589.592 Radial†	18513.2	17222.7	2551.6	µg/L	2551.6	ppb	12:58:16
2	Sr 421.552†	234256.8	229806.4	531.04	µg/L	531.04	ppb	12:58:14
2	Sc 361.383	1740362.3	1740362.3	101.13	%			12:58:48
2	Y 371.029	999237.5	999237.5	100.33	%			12:58:48
2	Ag 328.068†	70770.6	65379.5	259.75	µg/L	259.75	ppb	12:58:48
2	As 188.979†	1431.8	1424.4	474.89	µg/L	474.89	ppb	12:59:08
2	B 249.677†	40456.9	36009.4	515.28	µg/L	515.28	ppb	12:58:48
2	Ba 233.527†	120819.0	119609.3	506.45	µg/L	506.45	ppb	12:58:48
2	Be 313.107†	982769.1	972800.3	265.95	µg/L	265.95	ppb	12:58:48
2	Cd 226.502†	80342.6	79532.9	498.32	µg/L	498.32	ppb	12:58:48
2	Co 228.616†	41434.9	41167.7	508.29	µg/L	508.29	ppb	12:58:48
2	Cr 267.716†	60403.3	59466.2	485.94	µg/L	485.94	ppb	12:58:48
2	Cu 324.752†	132583.7	127915.8	506.16	µg/L	506.16	ppb	12:58:48
2	Mn 257.610†	422651.3	417755.6	524.58	µg/L	524.58	ppb	12:58:48
2	Mo 202.031†	17556.6	17380.7	541.41	µg/L	541.41	ppb	12:59:08
2	Ni 231.604†	44109.1	43707.5	512.77	µg/L	512.77	ppb	12:58:48
2	P 214.914†	11619.9	11495.8	2476.3	µg/L	2476.3	ppb	12:59:08
2	Pb 220.353†	8811.3	8599.6	501.28	µg/L	501.28	ppb	12:59:08

2	S 181.975 Axial†	3336.4	2973.1	2655.5 µg/L	2655.5 ppb	12:59:08
2	Sb 206.836†	4299.0	4170.6	505.69 µg/L	505.69 ppb	12:59:08
2	Se 196.026†	6847.6	6750.6	2510 µg/L	2510 ppb	12:59:08
2	SiO2†	107892.9	104898.1	10362 µg/L	10362 ppb	12:58:48
2	Si 251.611†	335787.0	331378.9	4843.2 µg/L	4843.2 ppb	12:58:48
2	Sn 189.927†	8343.4	8244.3	542.13 µg/L	542.13 ppb	12:59:08
2	Ti 334.940†	519602.1	513026.0	503.55 µg/L	503.55 ppb	12:58:48
2	Tl 190.801†	4060.6	4131.3	544.73 µg/L	544.73 ppb	12:59:08
2	U 409.014†	7499.5	7707.0	482.33 µg/L	482.33 ppb	12:58:48
2	V 292.402†	107554.2	105979.6	518.68 µg/L	518.68 ppb	12:58:48
2	Zn 213.857†	95530.7	93862.7	516.95 µg/L	516.95 ppb	12:58:48
3	Sc RADIAL	131288.7	131288.7	102 %		12:58:20
3	Al 396.153Radial†	24966.0	24522.0	5171.1 µg/L	5171.1 ppb	12:58:20
3	Ca 317.933Radial†	76132.9	74011.2	5077.0 µg/L	5077.0 ppb	12:58:20
3	Fe 238.204 Radial†	70069.4	68461.5	5081.1 µg/L	5081.1 ppb	12:58:20
3	K 766.490 Radial†	8425.6	6682.0	2549.8 µg/L	2549.8 ppb	12:58:20
3	Mg 279.077 IEC†	12251.6	11828.6	5488.6 µg/L	5488.6 ppb	12:58:20
3	Na 589.592 Radial†	18652.0	17325.9	2566.9 µg/L	2566.9 ppb	12:58:20
3	Sr 421.552†	233030.0	228192.0	527.31 µg/L	527.31 ppb	12:58:18
3	Sc 361.383	1734680.9	1734680.9	100.80 %		12:59:11
3	Y 371.029	995612.9	995612.9	99.965 %		12:59:11
3	Ag 328.068†	70630.9	65470.1	260.11 µg/L	260.11 ppb	12:59:11
3	As 188.979†	1443.3	1440.4	480.16 µg/L	480.16 ppb	12:59:31
3	B 249.677†	40323.8	36008.3	515.26 µg/L	515.26 ppb	12:59:11
3	Ba 233.527†	120552.5	119736.2	506.99 µg/L	506.99 ppb	12:59:11
3	Be 313.107†	980299.7	973533.3	266.15 µg/L	266.15 ppb	12:59:11
3	Cd 226.502†	80260.6	79711.9	499.44 µg/L	499.44 ppb	12:59:11
3	Co 228.616†	41418.4	41285.5	509.75 µg/L	509.75 ppb	12:59:11
3	Cr 267.716†	60334.1	59593.3	486.98 µg/L	486.98 ppb	12:59:11
3	Cu 324.752†	132076.2	127841.7	505.88 µg/L	505.88 ppb	12:59:11
3	Mn 257.610†	421787.5	418267.5	525.22 µg/L	525.22 ppb	12:59:11
3	Mo 202.031†	17614.4	17494.9	544.97 µg/L	544.97 ppb	12:59:31
3	Ni 231.604†	44127.8	43868.9	514.67 µg/L	514.67 ppb	12:59:11
3	P 214.914†	11738.8	11651.4	2509.9 µg/L	2509.9 ppb	12:59:31
3	Pb 220.353†	8808.1	8625.0	502.76 µg/L	502.76 ppb	12:59:31
3	S 181.975 Axial†	3357.9	3005.2	2684.2 µg/L	2684.2 ppb	12:59:31
3	Sb 206.836†	4352.8	4237.9	513.86 µg/L	513.86 ppb	12:59:31
3	Se 196.026†	6898.7	6823.4	2540 µg/L	2540 ppb	12:59:31
3	SiO2†	107809.2	105164.5	10388 µg/L	10388 ppb	12:59:11
3	Si 251.611†	335166.3	331850.6	4850.0 µg/L	4850.0 ppb	12:59:11
3	Sn 189.927†	8394.5	8322.0	547.22 µg/L	547.22 ppb	12:59:31
3	Ti 334.940†	517632.5	512754.8	503.28 µg/L	503.28 ppb	12:59:11
3	Tl 190.801†	4084.9	4168.5	549.57 µg/L	549.57 ppb	12:59:31
3	U 409.014†	7465.8	7697.9	481.84 µg/L	481.84 ppb	12:59:11
3	V 292.402†	107361.9	106137.2	519.48 µg/L	519.48 ppb	12:59:11
3	Zn 213.857†	95632.5	94273.1	519.21 µg/L	519.21 ppb	12:59:11

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733398.3	100.73	%	0.447				0.44%
Sc RADIAL	130898.1	102	%	0.4				0.37%
Y 371.029	995067.8	99.911	%	0.4485				0.45%
Ag 328.068†	65513.1	260.26	µg/L	0.610	260.26	ppb	0.610	0.23%
QC value within limits for Ag 328.068 Recovery = 104.11%								
Al 396.153Radial†	24515.7	5169.8	µg/L	4.09	5169.8	ppb	4.09	0.08%
QC value within limits for Al 396.153Radial Recovery = 103.40%								
As 188.979†	1434.6	478.23	µg/L	2.905	478.23	ppb	2.905	0.61%
QC value within limits for As 188.979 Recovery = 95.65%								
B 249.677†	35965.2	514.64	µg/L	1.086	514.64	ppb	1.086	0.21%
QC value within limits for B 249.677 Recovery = 102.93%								
Ba 233.527†	119622.3	506.51	µg/L	0.457	506.51	ppb	0.457	0.09%
QC value within limits for Ba 233.527 Recovery = 101.30%								
Be 313.107†	972677.2	265.91	µg/L	0.254	265.91	ppb	0.254	0.10%
QC value within limits for Be 313.107 Recovery = 106.37%								
Ca 317.933Radial†	73765.2	5060.1	µg/L	15.95	5060.1	ppb	15.95	0.32%
QC value within limits for Ca 317.933Radial Recovery = 101.20%								
Cd 226.502†	79534.4	498.33	µg/L	1.107	498.33	ppb	1.107	0.22%
QC value within limits for Cd 226.502 Recovery = 99.67%								
Co 228.616†	41215.9	508.89	µg/L	0.761	508.89	ppb	0.761	0.15%

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   QC value within limits for Co 228.616  Recovery = 101.78%
Cr 267.716†            59493.3      486.17 µg/L         0.730      486.17 ppb          0.730   0.15%
   QC value within limits for Cr 267.716  Recovery = 97.23%
Cu 324.752†           128002.1      506.50 µg/L         0.850      506.50 ppb          0.850   0.17%
   QC value within limits for Cu 324.752  Recovery = 101.30%
Fe 238.204 Radial†     68228.3      5063.8 µg/L         15.09      5063.8 ppb          15.09   0.30%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.28%
K 766.490 Radial†       6628.3      2529.3 µg/L         43.63      2529.3 ppb          43.63   1.72%
   QC value within limits for K 766.490 Radial  Recovery = 101.17%
Mg 279.077 IEC†        11732.2      5443.9 µg/L         41.10      5443.9 ppb          41.10   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.88%
Mn 257.610†           417972.1      524.85 µg/L         0.331      524.85 ppb          0.331   0.06%
   QC value within limits for Mn 257.610  Recovery = 104.97%
Mo 202.031†            17457.8      543.82 µg/L         2.080      543.82 ppb          2.080   0.38%
   QC value within limits for Mo 202.031  Recovery = 108.76%
Na 589.592 Radial†     17194.6      2547.5 µg/L         21.81      2547.5 ppb          21.81   0.86%
   QC value within limits for Na 589.592 Radial  Recovery = 101.90%
Ni 231.604†            43691.5      512.58 µg/L         2.182      512.58 ppb          2.182   0.43%
   QC value within limits for Ni 231.604  Recovery = 102.52%
P 214.914†             11574.9      2493.4 µg/L         16.82      2493.4 ppb          16.82   0.67%
   QC value within limits for P 214.914  Recovery = 99.74%
Pb 220.353†             8613.3      502.08 µg/L         0.749      502.08 ppb          0.749   0.15%
   QC value within limits for Pb 220.353  Recovery = 100.42%
S 181.975 Axial†        2989.4      2670.1 µg/L         14.36      2670.1 ppb          14.36   0.54%
   QC value within limits for S 181.975 Axial  Recovery = 106.80%
Sb 206.836†             4202.9      509.62 µg/L         4.095      509.62 ppb          4.095   0.80%
   QC value within limits for Sb 206.836  Recovery = 101.92%
Se 196.026†             6797.6       2530 µg/L          15.1        2530 ppb           15.1   0.60%
   QC value within limits for Se 196.026  Recovery = 101.12%
SiO2†                 104925.3      10364 µg/L          22.4       10364 ppb           22.4   0.22%
   QC value within limits for SiO2  Recovery = 96.91%
Si 251.611†           331419.0      4843.7 µg/L          6.04      4843.7 ppb           6.04   0.12%
   QC value within limits for Si 251.611  Recovery = 96.87%
Sn 189.927†             8289.4      545.08 µg/L         2.642      545.08 ppb          2.642   0.48%
   QC value within limits for Sn 189.927  Recovery = 109.02%
Sr 421.552†           228753.9      528.60 µg/L         2.108      528.60 ppb          2.108   0.40%
   QC value within limits for Sr 421.552  Recovery = 105.72%
Ti 334.940†           512798.1      503.33 µg/L         0.204      503.33 ppb          0.204   0.04%
   QC value within limits for Ti 334.940  Recovery = 100.67%
Tl 190.801†             4155.2      547.84 µg/L         2.699      547.84 ppb          2.699   0.49%
   QC value within limits for Tl 190.801  Recovery = 109.57%
U 409.014†              7662.7      479.74 µg/L         4.061      479.74 ppb          4.061   0.85%
   QC value within limits for U 409.014  Recovery = 95.95%
V 292.402†            106004.2      518.82 µg/L         0.599      518.82 ppb          0.599   0.12%
   QC value within limits for V 292.402  Recovery = 103.76%
Zn 213.857†            93907.8      517.20 µg/L         1.900      517.20 ppb          1.900   0.37%
   QC value within limits for Zn 213.857  Recovery = 103.44%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 4/7/2010 12:59:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130289.0	130289.0	101	%			13:00:08
1	Al 396.153Radial†	-95.4	-8.5	-1.8150	µg/L	-1.8150	ppb	13:00:28
1	Ca 317.933Radial†	510.6	-2.9	-0.2003	µg/L	-0.2003	ppb	13:00:28
1	Fe 238.204 Radial†	129.4	6.3	0.4651	µg/L	0.4651	ppb	13:00:28
1	K 766.490 Radial†	1627.3	40.2	15.341	µg/L	15.341	ppb	13:00:08
1	Mg 279.077 IEC†	178.2	12.7	5.8899	µg/L	5.8899	ppb	13:00:28
1	Na 589.592 Radial†	963.6	19.9	2.9440	µg/L	2.9440	ppb	13:00:08
1	Sr 421.552†	-118.5	-11.2	-0.0259	µg/L	-0.0259	ppb	13:00:08
1	Sc 361.383	1732499.4	1732499.4	100.67	%			13:01:16
1	Y 371.029	1002175.0	1002175.0	100.62	%			13:01:16
1	Ag 328.068†	4379.0	-250.7	-0.9554	µg/L	-0.9554	ppb	13:01:18
1	As 188.979†	-10.9	-2.2	-0.7345	µg/L	-0.7345	ppb	13:01:38
1	B 249.677†	4298.6	274.3	3.9382	µg/L	3.9382	ppb	13:01:18
1	Ba 233.527†	-75.6	64.9	0.2752	µg/L	0.2752	ppb	13:01:38
1	Be 313.107†	-531.1	482.7	0.1327	µg/L	0.1327	ppb	13:01:18
1	Cd 226.502†	-23.6	64.5	0.4044	µg/L	0.4044	ppb	13:01:38
1	Co 228.616†	-196.5	0.4	0.0054	µg/L	0.0054	ppb	13:01:38
1	Cr 267.716†	246.6	-17.3	-0.1432	µg/L	-0.1432	ppb	13:01:38
1	Cu 324.752†	3320.8	111.9	0.4439	µg/L	0.4439	ppb	13:01:18
1	Mn 257.610†	321.7	145.6	0.1826	µg/L	0.1826	ppb	13:01:38
1	Mo 202.031†	-7.6	12.7	0.3961	µg/L	0.3961	ppb	13:01:38
1	Ni 231.604†	-72.9	18.7	0.2196	µg/L	0.2196	ppb	13:01:38
1	P 214.914†	-5.2	0.5	0.0918	µg/L	0.0918	ppb	13:01:38
1	Pb 220.353†	121.2	7.1	0.4120	µg/L	0.4120	ppb	13:01:38
1	S 181.975 Axial†	122.7	-204.1	-182.01	µg/L	-182.01	ppb	13:01:38
1	Sb 206.836†	86.1	5.2	0.6427	µg/L	0.6427	ppb	13:01:38
1	Se 196.026†	28.1	7.4	2.75	µg/L	2.75	ppb	13:01:38
1	SiO2†	1780.4	-20.9	-2.0859	µg/L	-2.0859	ppb	13:01:18
1	Si 251.611†	853.0	190.5	2.7829	µg/L	2.7829	ppb	13:01:18
1	Sn 189.927†	10.4	4.5	0.2930	µg/L	0.2930	ppb	13:01:38
1	Ti 334.940†	1085.4	306.9	0.3000	µg/L	0.3000	ppb	13:01:18
1	Tl 190.801†	-106.6	10.1	1.3285	µg/L	1.3285	ppb	13:01:38
1	U 409.014†	-245.9	47.1	2.8149	µg/L	2.8149	ppb	13:01:18
1	V 292.402†	594.4	217.4	1.0547	µg/L	1.0547	ppb	13:01:18
1	Zn 213.857†	635.3	30.3	0.1666	µg/L	0.1666	ppb	13:01:38
2	Sc RADIAL	129267.7	129267.7	101	%			13:00:30
2	Al 396.153Radial†	-59.8	26.2	5.5286	µg/L	5.5286	ppb	13:00:50
2	Ca 317.933Radial†	480.4	-29.0	-1.9897	µg/L	-1.9897	ppb	13:00:50
2	Fe 238.204 Radial†	127.6	5.4	0.4029	µg/L	0.4029	ppb	13:00:50
2	K 766.490 Radial†	1555.9	-18.1	-6.9341	µg/L	-6.9341	ppb	13:00:30
2	Mg 279.077 IEC†	160.3	-3.7	-1.7039	µg/L	-1.7039	ppb	13:00:50
2	Na 589.592 Radial†	1117.2	180.2	26.722	µg/L	26.722	ppb	13:00:30
2	Sr 421.552†	-77.7	28.3	0.0655	µg/L	0.0655	ppb	13:00:30
2	Sc 361.383	1731079.9	1731079.9	100.59	%			13:01:40
2	Y 371.029	1001314.9	1001314.9	100.54	%			13:01:40
2	Ag 328.068†	4275.6	-350.0	-1.3433	µg/L	-1.3433	ppb	13:01:42
2	As 188.979†	-12.1	-3.4	-1.1090	µg/L	-1.1090	ppb	13:02:03
2	B 249.677†	4087.9	68.4	0.9830	µg/L	0.9830	ppb	13:01:42
2	Ba 233.527†	-152.4	-11.5	-0.0487	µg/L	-0.0487	ppb	13:02:03
2	Be 313.107†	-1001.0	15.1	0.0078	µg/L	0.0078	ppb	13:01:42
2	Cd 226.502†	-43.9	44.3	0.2774	µg/L	0.2774	ppb	13:02:03
2	Co 228.616†	-227.1	-30.1	-0.3717	µg/L	-0.3717	ppb	13:02:03
2	Cr 267.716†	272.2	8.3	0.0586	µg/L	0.0586	ppb	13:02:03
2	Cu 324.752†	3076.9	-127.9	-0.4949	µg/L	-0.4949	ppb	13:01:42
2	Mn 257.610†	182.7	7.6	0.0097	µg/L	0.0097	ppb	13:02:03
2	Mo 202.031†	-8.0	12.3	0.3825	µg/L	0.3825	ppb	13:02:03
2	Ni 231.604†	-119.0	-27.2	-0.3189	µg/L	-0.3189	ppb	13:02:03
2	P 214.914†	-29.8	-23.9	-5.1700	µg/L	-5.1700	ppb	13:02:03
2	Pb 220.353†	95.9	-17.9	-1.0472	µg/L	-1.0472	ppb	13:02:03

2	S 181.975 Axial†	121.6	-205.1	-182.92 µg/L	-182.92 ppb		13:02:03
2	Sb 206.836†	91.9	11.0	1.3388 µg/L	1.3388 ppb		13:02:03
2	Se 196.026†	30.0	9.3	3.46 µg/L	3.46 ppb		13:02:03
2	SiO2†	1772.1	-27.7	-2.7660 µg/L	-2.7660 ppb		13:01:42
2	Si 251.611†	718.4	57.4	0.8317 µg/L	0.8317 ppb		13:01:42
2	Sn 189.927†	14.3	8.4	0.5474 µg/L	0.5474 ppb		13:02:03
2	Ti 334.940†	712.7	-62.7	-0.0665 µg/L	-0.0665 ppb		13:01:42
2	Tl 190.801†	-113.5	3.2	0.4152 µg/L	0.4152 ppb		13:02:03
2	U 409.014†	-86.1	205.7	12.029 µg/L	12.029 ppb		13:01:42
2	V 292.402†	339.4	-35.6	-0.1595 µg/L	-0.1595 ppb		13:01:42
2	Zn 213.857†	587.5	-16.7	-0.0901 µg/L	-0.0901 ppb		13:02:03
3	Sc RADIAL	130192.9	130192.9	101 %			13:00:52
3	Al 396.153Radial†	-87.4	-0.6	-0.1836 µg/L	-0.1836 ppb		13:01:12
3	Ca 317.933Radial†	486.1	-26.7	-1.8347 µg/L	-1.8347 ppb		13:01:12
3	Fe 238.204 Radial†	117.6	-5.3	-0.3929 µg/L	-0.3929 ppb		13:01:12
3	K 766.490 Radial†	1648.4	62.1	23.727 µg/L	23.727 ppb		13:00:52
3	Mg 279.077 IEC†	176.7	11.3	5.2710 µg/L	5.2710 ppb		13:01:12
3	Na 589.592 Radial†	1089.0	144.4	21.393 µg/L	21.393 ppb		13:00:52
3	Sr 421.552†	-53.5	52.8	0.1221 µg/L	0.1221 ppb		13:00:52
3	Sc 361.383	1718692.1	1718692.1	99.871 %			13:02:05
3	Y 371.029	994450.4	994450.4	99.849 %			13:02:05
3	Ag 328.068†	4647.4	53.0	0.2128 µg/L	0.2128 ppb		13:02:07
3	As 188.979†	-3.3	5.4	1.7621 µg/L	1.7621 ppb		13:02:27
3	B 249.677†	4120.4	130.1	1.8688 µg/L	1.8688 ppb		13:02:07
3	Ba 233.527†	-117.5	22.3	0.0950 µg/L	0.0950 ppb		13:02:27
3	Be 313.107†	-864.8	144.4	0.0402 µg/L	0.0402 ppb		13:02:07
3	Cd 226.502†	-68.9	18.9	0.1190 µg/L	0.1190 ppb		13:02:27
3	Co 228.616†	-199.9	-4.5	-0.0559 µg/L	-0.0559 ppb		13:02:27
3	Cr 267.716†	242.3	-19.7	-0.1627 µg/L	-0.1627 ppb		13:02:27
3	Cu 324.752†	2893.1	-289.9	-1.1413 µg/L	-1.1413 ppb		13:02:07
3	Mn 257.610†	182.4	8.6	0.0106 µg/L	0.0106 ppb		13:02:27
3	Mo 202.031†	14.7	35.0	1.0900 µg/L	1.0900 ppb		13:02:27
3	Ni 231.604†	-55.6	35.5	0.4162 µg/L	0.4162 ppb		13:02:27
3	P 214.914†	-6.6	-0.9	-0.1874 µg/L	-0.1874 ppb		13:02:27
3	Pb 220.353†	127.7	14.6	0.8498 µg/L	0.8498 ppb		13:02:27
3	S 181.975 Axial†	120.3	-205.6	-183.34 µg/L	-183.34 ppb		13:02:27
3	Sb 206.836†	84.3	4.1	0.5166 µg/L	0.5166 ppb		13:02:27
3	Se 196.026†	29.9	9.5	3.52 µg/L	3.52 ppb		13:02:27
3	SiO2†	1793.6	6.5	0.5940 µg/L	0.5940 ppb		13:02:07
3	Si 251.611†	687.5	31.6	0.4415 µg/L	0.4415 ppb		13:02:07
3	Sn 189.927†	21.5	15.7	1.0301 µg/L	1.0301 ppb		13:02:27
3	Ti 334.940†	1002.6	232.6	0.2272 µg/L	0.2272 ppb		13:02:07
3	Tl 190.801†	-117.1	-1.2	-0.1504 µg/L	-0.1504 ppb		13:02:27
3	U 409.014†	-247.4	43.6	2.5709 µg/L	2.5709 ppb		13:02:07
3	V 292.402†	444.6	72.2	0.3606 µg/L	0.3606 ppb		13:02:07
3	Zn 213.857†	588.7	-11.3	-0.0642 µg/L	-0.0642 ppb		13:02:27

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1727423.8	100.38	%	0.441				0.44%
Sc RADIAL	129916.6	101	%	0.4				0.43%
Y 371.029	999313.4	100.34	%	0.425				0.42%
Ag 328.068†	-182.5	-0.6953	µg/L	0.80998	-0.6953	ppb	0.80998	116.49%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.7	1.1767	µg/L	3.85613	1.1767	ppb	3.85613	327.71%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.0271	µg/L	1.56080	-0.0271	ppb	1.56080	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	157.6	2.2633	µg/L	1.51656	2.2633	ppb	1.51656	67.01%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	25.2	0.1072	µg/L	0.16229	0.1072	ppb	0.16229	151.45%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	214.1	0.0602	µg/L	0.06484	0.0602	ppb	0.06484	107.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-19.6	-1.3415	µg/L	0.99139	-1.3415	ppb	0.99139	73.90%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	42.6	0.2669	µg/L	0.14299	0.2669	ppb	0.14299	53.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-11.4	-0.1407	µg/L	0.20234	-0.1407	ppb	0.20234	143.79%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -9.5     -0.0824 µg/L       0.12249     -0.0824 ppb        0.12249 148.58%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -102.0     -0.3974 µg/L       0.79707     -0.3974 ppb        0.79707 200.56%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        2.1      0.1584 µg/L       0.47841      0.1584 ppb        0.47841 302.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        28.0      10.711 µg/L       15.8464      10.711 ppb        15.8464 147.94%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           6.8      3.1524 µg/L       4.21697      3.1524 ppb        4.21697 133.77%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              53.9      0.0676 µg/L       0.09960      0.0676 ppb        0.09960 147.24%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              20.0      0.6229 µg/L       0.40460      0.6229 ppb        0.40460  64.96%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      114.8      17.020 µg/L       12.4777      17.020 ppb        12.4777  73.31%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               9.0      0.1057 µg/L       0.38056      0.1057 ppb        0.38056 360.17%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.1     -1.7552 µg/L       2.96062     -1.7552 ppb        2.96062 168.68%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               1.3      0.0715 µg/L       0.99331      0.0715 ppb        0.99331 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -205.0     -182.76 µg/L         0.683     -182.76 ppb          0.683   0.37%
   QC value less than the lower limit for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.8      0.8327 µg/L       0.44279      0.8327 ppb        0.44279  53.18%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               8.7        3.24 µg/L         0.428        3.24 ppb          0.428  13.18%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -14.1     -1.4193 µg/L       1.77642     -1.4193 ppb        1.77642 125.16%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              93.2      1.3520 µg/L       1.25441      1.3520 ppb        1.25441  92.78%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.5      0.6235 µg/L       0.37439      0.6235 ppb        0.37439  60.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              23.3      0.0539 µg/L       0.07471      0.0539 ppb        0.07471 138.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             158.9      0.1536 µg/L       0.19404      0.1536 ppb        0.19404 126.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               4.0      0.5311 µg/L       0.74622      0.5311 ppb        0.74622 140.51%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               98.8      5.8049 µg/L       5.39155      5.8049 ppb        5.39155  92.88%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               84.7      0.4186 µg/L       0.60920      0.4186 ppb        0.60920 145.54%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               0.8      0.0041 µg/L       0.14134      0.0041 ppb        0.14134 >999.9%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 4/7/2010 13:02:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128552.9	128552.9	100	%			13:03:04
1	Al 396.153Radial†	943.5	1028.8	217.59	µg/L	217.59	ppb	13:03:06
1	Ca 317.933Radial†	3643.9	3136.0	215.12	µg/L	215.12	ppb	13:03:06
1	Fe 238.204 Radial†	1497.8	1375.8	102.11	µg/L	102.11	ppb	13:03:06
1	K 766.490 Radial†	1938.7	373.1	142.39	µg/L	142.39	ppb	13:03:04
1	Mg 279.077 IEC†	851.6	688.2	318.93	µg/L	318.93	ppb	13:03:06
1	Na 589.592 Radial†	2959.8	2028.2	300.62	µg/L	300.62	ppb	13:03:06
1	Sr 421.552†	2113.2	2218.0	5.1241	µg/L	5.1241	ppb	13:03:06
1	Sc 361.383	1743724.4	1743724.4	101.33	%			13:03:32
1	Y 371.029	1008527.5	1008527.5	101.26	%			13:03:32
1	Ag 328.068†	5813.0	1136.5	4.5247	µg/L	4.5247	ppb	13:03:34
1	As 188.979†	73.8	81.4	26.828	µg/L	26.828	ppb	13:03:54
1	B 249.677†	7573.1	3478.5	49.930	µg/L	49.930	ppb	13:03:34
1	Ba 233.527†	1031.8	1158.3	4.9045	µg/L	4.9045	ppb	13:03:54
1	Be 313.107†	16794.3	17584.9	4.8240	µg/L	4.8240	ppb	13:03:34
1	Cd 226.502†	715.0	793.6	4.9667	µg/L	4.9667	ppb	13:03:54
1	Co 228.616†	182.4	375.7	4.6357	µg/L	4.6357	ppb	13:03:54
1	Cr 267.716†	875.1	601.4	4.8655	µg/L	4.8655	ppb	13:03:54
1	Cu 324.752†	5784.8	2522.4	10.029	µg/L	10.029	ppb	13:03:34
1	Mn 257.610†	8335.1	8052.1	10.103	µg/L	10.103	ppb	13:03:34
1	Mo 202.031†	272.6	289.3	9.0155	µg/L	9.0155	ppb	13:03:54
1	Ni 231.604†	331.7	418.5	4.9093	µg/L	4.9093	ppb	13:03:54
1	P 214.914†	678.2	675.0	145.77	µg/L	145.77	ppb	13:03:54
1	Pb 220.353†	275.8	158.9	9.2219	µg/L	9.2219	ppb	13:03:54
1	S 181.975 Axial†	220.6	-108.3	-96.502	µg/L	-96.502	ppb	13:03:54
1	Sb 206.836†	160.6	78.1	9.5112	µg/L	9.5112	ppb	13:03:54
1	Se 196.026†	91.3	69.6	26.0	µg/L	26.0	ppb	13:03:54
1	SiO2†	4000.7	2159.0	213.34	µg/L	213.34	ppb	13:03:34
1	Si 251.611†	7874.8	7115.0	104.04	µg/L	104.04	ppb	13:03:34
1	Sn 189.927†	148.8	141.0	9.2568	µg/L	9.2568	ppb	13:03:54
1	Ti 334.940†	5899.7	5051.3	4.9167	µg/L	4.9167	ppb	13:03:34
1	Tl 190.801†	46.3	161.7	21.111	µg/L	21.111	ppb	13:03:54
1	U 409.014†	795.6	1076.5	63.288	µg/L	63.288	ppb	13:03:34
1	V 292.402†	1284.3	894.4	4.4598	µg/L	4.4598	ppb	13:03:34
1	Zn 213.857†	2394.5	1762.4	9.7355	µg/L	9.7355	ppb	13:03:54
2	Sc RADIAL	128778.8	128778.8	100	%			13:03:08
2	Al 396.153Radial†	928.8	1012.5	214.12	µg/L	214.12	ppb	13:03:10
2	Ca 317.933Radial†	3537.2	3023.1	207.38	µg/L	207.38	ppb	13:03:10
2	Fe 238.204 Radial†	1465.9	1341.4	99.555	µg/L	99.555	ppb	13:03:10
2	K 766.490 Radial†	2001.6	432.5	165.07	µg/L	165.07	ppb	13:03:08
2	Mg 279.077 IEC†	800.1	635.4	294.48	µg/L	294.48	ppb	13:03:10
2	Na 589.592 Radial†	2928.6	1991.9	295.22	µg/L	295.22	ppb	13:03:10
2	Sr 421.552†	2166.1	2267.1	5.2375	µg/L	5.2375	ppb	13:03:10
2	Sc 361.383	1724473.4	1724473.4	100.21	%			13:03:56
2	Y 371.029	998170.6	998170.6	100.22	%			13:03:56
2	Ag 328.068†	5962.7	1349.9	5.3278	µg/L	5.3278	ppb	13:03:58
2	As 188.979†	75.1	83.5	27.523	µg/L	27.523	ppb	13:04:19
2	B 249.677†	7612.7	3601.5	51.696	µg/L	51.696	ppb	13:03:58
2	Ba 233.527†	1065.9	1203.7	5.0971	µg/L	5.0971	ppb	13:04:19
2	Be 313.107†	16754.5	17730.3	4.8567	µg/L	4.8567	ppb	13:03:58
2	Cd 226.502†	720.2	806.6	5.0491	µg/L	5.0491	ppb	13:04:19
2	Co 228.616†	173.5	368.7	4.5505	µg/L	4.5505	ppb	13:04:19
2	Cr 267.716†	923.9	659.7	5.3609	µg/L	5.3609	ppb	13:04:19
2	Cu 324.752†	5408.8	2210.9	8.7796	µg/L	8.7796	ppb	13:03:58
2	Mn 257.610†	8388.2	8196.9	10.285	µg/L	10.285	ppb	13:03:58
2	Mo 202.031†	279.9	299.5	9.3334	µg/L	9.3334	ppb	13:04:19
2	Ni 231.604†	359.9	450.3	5.2825	µg/L	5.2825	ppb	13:04:19
2	P 214.914†	649.4	653.7	141.19	µg/L	141.19	ppb	13:04:19
2	Pb 220.353†	284.1	170.2	9.8951	µg/L	9.8951	ppb	13:04:19

2	S 181.975 Axial†	207.4	-119.1	-106.08 µg/L	-106.08 ppb	13:04:19
2	Sb 206.836†	149.8	69.2	8.4268 µg/L	8.4268 ppb	13:04:19
2	Se 196.026†	115.4	94.7	35.3 µg/L	35.3 ppb	13:04:19
2	SiO2†	3989.6	2191.9	216.58 µg/L	216.58 ppb	13:03:58
2	Si 251.611†	8019.3	7346.0	107.41 µg/L	107.41 ppb	13:03:58
2	Sn 189.927†	170.1	163.8	10.756 µg/L	10.756 ppb	13:04:19
2	Ti 334.940†	5720.8	4937.7	4.8162 µg/L	4.8162 ppb	13:03:58
2	Tl 190.801†	52.2	168.1	21.944 µg/L	21.944 ppb	13:04:19
2	U 409.014†	390.0	680.5	40.136 µg/L	40.136 ppb	13:03:58
2	V 292.402†	1348.4	972.6	4.8273 µg/L	4.8273 ppb	13:03:58
2	Zn 213.857†	2391.7	1786.0	9.8653 µg/L	9.8653 ppb	13:04:19
3	Sc RADIAL	128809.4	128809.4	100 %		13:03:12
3	Al 396.153Radial†	955.5	1038.9	219.68 µg/L	219.68 ppb	13:03:14
3	Ca 317.933Radial†	3594.2	3079.1	211.22 µg/L	211.22 ppb	13:03:14
3	Fe 238.204 Radial†	1571.3	1446.2	107.33 µg/L	107.33 ppb	13:03:14
3	K 766.490 Radial†	1976.5	407.0	155.31 µg/L	155.31 ppb	13:03:12
3	Mg 279.077 IEC†	865.1	699.9	324.40 µg/L	324.40 ppb	13:03:14
3	Na 589.592 Radial†	3010.2	2072.6	307.20 µg/L	307.20 ppb	13:03:14
3	Sr 421.552†	2230.8	2331.2	5.3856 µg/L	5.3856 ppb	13:03:14
3	Sc 361.383	1722331.2	1722331.2	100.08 %		13:04:21
3	Y 371.029	996524.8	996524.8	100.06 %		13:04:21
3	Ag 328.068†	6038.9	1433.5	5.6857 µg/L	5.6857 ppb	13:04:23
3	As 188.979†	78.9	87.4	28.800 µg/L	28.800 ppb	13:04:43
3	B 249.677†	7480.2	3478.6	49.931 µg/L	49.931 ppb	13:04:23
3	Ba 233.527†	1047.3	1186.4	5.0242 µg/L	5.0242 ppb	13:04:43
3	Be 313.107†	17052.8	18049.1	4.9515 µg/L	4.9515 ppb	13:04:23
3	Cd 226.502†	734.7	822.0	5.1441 µg/L	5.1441 ppb	13:04:43
3	Co 228.616†	182.7	378.2	4.6670 µg/L	4.6670 ppb	13:04:43
3	Cr 267.716†	860.9	597.9	4.8359 µg/L	4.8359 ppb	13:04:43
3	Cu 324.752†	5683.2	2491.8	9.9106 µg/L	9.9106 ppb	13:04:23
3	Mn 257.610†	8588.7	8407.7	10.549 µg/L	10.549 ppb	13:04:23
3	Mo 202.031†	295.1	315.2	9.8203 µg/L	9.8203 ppb	13:04:43
3	Ni 231.604†	318.6	409.5	4.8043 µg/L	4.8043 ppb	13:04:43
3	P 214.914†	686.9	692.0	149.45 µg/L	149.45 ppb	13:04:43
3	Pb 220.353†	276.9	163.4	9.4811 µg/L	9.4811 ppb	13:04:43
3	S 181.975 Axial†	223.4	-102.8	-91.578 µg/L	-91.578 ppb	13:04:43
3	Sb 206.836†	153.4	72.9	8.8964 µg/L	8.8964 ppb	13:04:43
3	Se 196.026†	100.7	80.1	29.9 µg/L	29.9 ppb	13:04:43
3	SiO2†	4099.2	2306.4	227.90 µg/L	227.90 ppb	13:04:23
3	Si 251.611†	8074.2	7410.8	108.35 µg/L	108.35 ppb	13:04:23
3	Sn 189.927†	164.4	158.4	10.398 µg/L	10.398 ppb	13:04:43
3	Ti 334.940†	5907.5	5131.4	4.9940 µg/L	4.9940 ppb	13:04:23
3	Tl 190.801†	43.8	159.8	20.872 µg/L	20.872 ppb	13:04:43
3	U 409.014†	821.0	1111.6	65.377 µg/L	65.377 ppb	13:04:23
3	V 292.402†	1401.7	1027.5	5.1111 µg/L	5.1111 ppb	13:04:23
3	Zn 213.857†	2392.0	1789.3	9.8850 µg/L	9.8850 ppb	13:04:43

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1730176.3	100.54	%	0.685				0.68%
Sc RADIAL	128713.7	100	%	0.1				0.11%
Y 371.029	1001074.3	100.51	%	0.653				0.65%
Ag 328.068†	1306.7	5.1794	µg/L	0.59454	5.1794	ppb	0.59454	11.48%
QC value within limits for Ag 328.068 Recovery = 103.59%								
Al 396.153Radial†	1026.7	217.13	µg/L	2.811	217.13	ppb	2.811	1.29%
QC value within limits for Al 396.153Radial Recovery = 108.57%								
As 188.979†	84.1	27.717	µg/L	1.0004	27.717	ppb	1.0004	3.61%
QC value within limits for As 188.979 Recovery = 92.39%								
B 249.677†	3519.5	50.519	µg/L	1.0196	50.519	ppb	1.0196	2.02%
QC value within limits for B 249.677 Recovery = 101.04%								
Ba 233.527†	1182.8	5.0086	µg/L	0.09727	5.0086	ppb	0.09727	1.94%
QC value within limits for Ba 233.527 Recovery = 100.17%								
Be 313.107†	17788.1	4.8774	µg/L	0.06620	4.8774	ppb	0.06620	1.36%
QC value within limits for Be 313.107 Recovery = 97.55%								
Ca 317.933Radial†	3079.4	211.24	µg/L	3.871	211.24	ppb	3.871	1.83%
QC value within limits for Ca 317.933Radial Recovery = 105.62%								
Cd 226.502†	807.4	5.0533	µg/L	0.08879	5.0533	ppb	0.08879	1.76%
QC value within limits for Cd 226.502 Recovery = 101.07%								
Co 228.616†	374.2	4.6177	µg/L	0.06025	4.6177	ppb	0.06025	1.30%

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   QC value within limits for Co 228.616  Recovery = 92.35%
Cr 267.716†              619.7      5.0208 µg/L       0.29493      5.0208 ppb        0.29493   5.87%
   QC value within limits for Cr 267.716  Recovery = 100.42%
Cu 324.752†             2408.3      9.5729 µg/L       0.68958      9.5729 ppb        0.68958   7.20%
   QC value within limits for Cu 324.752  Recovery = 95.73%
Fe 238.204 Radial†      1387.8      103.00 µg/L         3.963      103.00 ppb          3.963   3.85%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.00%
K 766.490 Radial†        404.2      154.26 µg/L        11.376      154.26 ppb         11.376   7.37%
   QC value within limits for K 766.490 Radial  Recovery = 102.84%
Mg 279.077 IEC†          674.5      312.60 µg/L        15.932      312.60 ppb         15.932   5.10%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.20%
Mn 257.610†             8218.9      10.312 µg/L        0.2245      10.312 ppb         0.2245   2.18%
   QC value within limits for Mn 257.610  Recovery = 103.12%
Mo 202.031†              301.3      9.3897 µg/L       0.40538      9.3897 ppb        0.40538   4.32%
   QC value within limits for Mo 202.031  Recovery = 93.90%
Na 589.592 Radial†      2030.9      301.01 µg/L         5.997      301.01 ppb          5.997   1.99%
   QC value within limits for Na 589.592 Radial  Recovery = 100.34%
Ni 231.604†              426.1      4.9987 µg/L       0.25135      4.9987 ppb        0.25135   5.03%
   QC value within limits for Ni 231.604  Recovery = 99.97%
P 214.914†               673.6      145.47 µg/L         4.138      145.47 ppb          4.138   2.84%
   QC value within limits for P 214.914  Recovery = 96.98%
Pb 220.353†              164.2      9.5327 µg/L       0.33957      9.5327 ppb        0.33957   3.56%
   QC value within limits for Pb 220.353  Recovery = 95.33%
S 181.975 Axial†        -110.1     -98.053 µg/L        7.3740     -98.053 ppb         7.3740   7.52%
   QC value less than the lower limit for S 181.975 Axial  Recovery = -98.05%
Sb 206.836†               73.4      8.9448 µg/L       0.54382      8.9448 ppb        0.54382   6.08%
   QC value within limits for Sb 206.836  Recovery = 89.45%
Se 196.026†               81.5        30.4 µg/L          4.67        30.4 ppb           4.67  15.38%
   QC value within limits for Se 196.026  Recovery = 101.18%
SiO2†                   2219.1      219.27 µg/L         7.643      219.27 ppb          7.643   3.49%
   QC value within limits for SiO2  Recovery = 102.94%
Si 251.611†             7290.6      106.60 µg/L         2.268      106.60 ppb          2.268   2.13%
   QC value within limits for Si 251.611  Recovery = 106.60%
Sn 189.927†              154.4      10.137 µg/L        0.7829      10.137 ppb         0.7829   7.72%
   QC value within limits for Sn 189.927  Recovery = 101.37%
Sr 421.552†             2272.1      5.2491 µg/L       0.13115      5.2491 ppb        0.13115   2.50%
   QC value within limits for Sr 421.552  Recovery = 104.98%
Ti 334.940†             5040.1      4.9090 µg/L       0.08916      4.9090 ppb        0.08916   1.82%
   QC value within limits for Ti 334.940  Recovery = 98.18%
Tl 190.801†              163.2      21.309 µg/L        0.5625      21.309 ppb         0.5625   2.64%
   QC value within limits for Tl 190.801  Recovery = 106.54%
U 409.014†               956.2      56.267 µg/L       14.0089      56.267 ppb        14.0089  24.90%
   QC value within limits for U 409.014  Recovery = 112.53%
V 292.402†               964.8      4.7994 µg/L       0.32655      4.7994 ppb        0.32655   6.80%
   QC value within limits for V 292.402  Recovery = 95.99%
Zn 213.857†             1779.3      9.8286 µg/L       0.08121      9.8286 ppb        0.08121   0.83%
   QC value within limits for Zn 213.857  Recovery = 98.29%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 4/7/2010 13:04:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	119640.6	119640.6	93.1	%			13:05:23
1	Al 396.153Radial†	2250031.9	2416798.5	512130	µg/L	512130	ppb	13:05:21
1	Ca 317.933Radial†	6726755.4	7224562.7	495590	µg/L	495590	ppb	13:05:21
1	Fe 238.204 Radial†	2438309.8	2618816.9	194370	µg/L	194370	ppb	13:05:21
1	K 766.490 Radial†	1685.7	245.7	-151.59	µg/L	-151.59	ppb	13:05:23
1	Mg 279.077 IEC†	997330.8	1071049.4	496000	µg/L	496000	ppb	13:05:21
1	Na 589.592 Radial†	1617.5	806.9	119.57	µg/L	119.57	ppb	13:05:23
1	Sr 421.552†	4920.4	5390.6	8.5784	µg/L	8.5784	ppb	13:05:23
1	Sc 361.383	1524382.6	1524382.6	88.580	%			13:05:50
1	Y 371.029	869034.7	869034.7	87.256	%			13:05:50
1	Ag 328.068†	7424.8	3781.7	1.0101	µg/L	1.0101	ppb	13:05:50
1	As 188.979†	-107.3	-112.5	6.6284	µg/L	6.6284	ppb	13:06:10
1	B 249.677†	4222.0	770.8	11.054	µg/L	11.054	ppb	13:05:50
1	Ba 233.527†	407.3	599.8	0.0553	µg/L	0.0553	ppb	13:06:10
1	Be 313.107†	-408.1	549.5	0.1552	µg/L	0.1552	ppb	13:05:50
1	Cd 226.502†	2441.5	2844.2	-2.6075	µg/L	-2.6075	ppb	13:06:10
1	Co 228.616†	97.4	305.6	-6.3658	µg/L	-6.3658	ppb	13:06:10
1	Cr 267.716†	178.4	-60.9	0.1892	µg/L	0.1892	ppb	13:06:10
1	Cu 324.752†	-5865.5	-9808.5	3.0350	µg/L	3.0350	ppb	13:05:50
1	Mn 257.610†	16117.3	18021.3	2.4527	µg/L	2.4527	ppb	13:05:50
1	Mo 202.031†	-537.0	-586.0	-1.4818	µg/L	-1.4818	ppb	13:06:10
1	Ni 231.604†	114.2	220.1	2.5821	µg/L	2.5821	ppb	13:06:10
1	P 214.914†	117.4	138.2	11.718	µg/L	11.718	ppb	13:06:10
1	Pb 220.353†	-327.4	-482.8	-2.5690	µg/L	-2.5690	ppb	13:06:10
1	S 181.975 Axial†	177.6	-125.5	-112.05	µg/L	-112.05	ppb	13:06:10
1	Sb 206.836†	124.0	59.7	1.1045	µg/L	1.1045	ppb	13:06:10
1	Se 196.026†	-156.6	-197.3	-5.85	µg/L	-5.85	ppb	13:06:10
1	SiO2†	1694.3	123.3	12.674	µg/L	12.674	ppb	13:06:10
1	Si 251.611†	510.5	-80.4	-0.9576	µg/L	-0.9576	ppb	13:06:10
1	Sn 189.927†	51.9	52.7	3.5385	µg/L	3.5385	ppb	13:06:10
1	Ti 334.940†	22928.2	25113.1	-2.8154	µg/L	-2.8154	ppb	13:05:50
1	Tl 190.801†	-150.4	-53.7	-6.5237	µg/L	-6.5237	ppb	13:06:10
1	U 409.014†	-3.8	287.0	-4.6495	µg/L	-4.6495	ppb	13:05:50
1	V 292.402†	4554.9	4769.1	2.3183	µg/L	2.3183	ppb	13:05:50
1	Zn 213.857†	4422.1	4391.5	7.6332	µg/L	7.6332	ppb	13:06:10
2	Sc RADIAL	119003.9	119003.9	92.6	%			13:05:28
2	Al 396.153Radial†	2247032.3	2426489.1	514190	µg/L	514190	ppb	13:05:26
2	Ca 317.933Radial†	6682736.2	7215684.5	494980	µg/L	494980	ppb	13:05:26
2	Fe 238.204 Radial†	2421284.7	2614444.3	194040	µg/L	194040	ppb	13:05:26
2	K 766.490 Radial†	1486.3	40.0	-230.36	µg/L	-230.36	ppb	13:05:28
2	Mg 279.077 IEC†	988195.8	1066916.3	494080	µg/L	494080	ppb	13:05:26
2	Na 589.592 Radial†	1458.8	644.8	95.600	µg/L	95.600	ppb	13:05:28
2	Sr 421.552†	4703.0	5184.0	8.1058	µg/L	8.1058	ppb	13:05:28
2	Sc 361.383	1532473.1	1532473.1	89.050	%			13:06:13
2	Y 371.029	872925.8	872925.8	87.647	%			13:06:13
2	Ag 328.068†	7070.7	3339.8	-0.7111	µg/L	-0.7111	ppb	13:06:13
2	As 188.979†	-90.6	-93.1	12.920	µg/L	12.920	ppb	13:06:33
2	B 249.677†	4263.2	791.9	11.358	µg/L	11.358	ppb	13:06:13
2	Ba 233.527†	451.7	647.2	0.2595	µg/L	0.2595	ppb	13:06:33
2	Be 313.107†	-180.4	807.7	0.2226	µg/L	0.2226	ppb	13:06:13
2	Cd 226.502†	2450.7	2840.0	-2.5999	µg/L	-2.5999	ppb	13:06:33
2	Co 228.616†	83.3	289.1	-6.5519	µg/L	-6.5519	ppb	13:06:33
2	Cr 267.716†	200.5	-37.1	0.4034	µg/L	0.4034	ppb	13:06:33
2	Cu 324.752†	-5767.0	-9662.9	3.5016	µg/L	3.5016	ppb	13:06:13
2	Mn 257.610†	16249.0	18073.2	2.5946	µg/L	2.5946	ppb	13:06:13
2	Mo 202.031†	-527.2	-571.8	-1.0903	µg/L	-1.0903	ppb	13:06:33
2	Ni 231.604†	117.5	223.1	2.6170	µg/L	2.6170	ppb	13:06:33
2	P 214.914†	123.3	144.2	13.662	µg/L	13.662	ppb	13:06:33
2	Pb 220.353†	-338.6	-493.5	-3.0398	µg/L	-3.0398	ppb	13:06:33

2	S 181.975 Axial†	150.2	-157.3	-140.44 µg/L	-140.44 ppb	13:06:33
2	Sb 206.836†	115.4	49.3	-0.1586 µg/L	-0.1586 ppb	13:06:33
2	Se 196.026†	-159.8	-200.0	-6.97 µg/L	-6.97 ppb	13:06:33
2	SiO2†	1693.8	112.6	11.614 µg/L	11.614 ppb	13:06:33
2	Si 251.611†	470.1	-128.9	-1.6676 µg/L	-1.6676 ppb	13:06:33
2	Sn 189.927†	40.5	39.6	2.6796 µg/L	2.6796 ppb	13:06:33
2	Ti 334.940†	22857.6	24897.1	-2.8834 µg/L	-2.8834 ppb	13:06:13
2	Tl 190.801†	-178.9	-84.9	-10.586 µg/L	-10.586 ppb	13:06:33
2	U 409.014†	-163.2	108.1	-15.135 µg/L	-15.135 ppb	13:06:13
2	V 292.402†	4367.5	4531.5	1.2040 µg/L	1.2040 ppb	13:06:13
2	Zn 213.857†	4474.3	4423.8	7.8861 µg/L	7.8861 ppb	13:06:33
3	Sc RADIAL	117977.5	117977.5	91.8 %		13:05:32
3	Al 396.153Radial†	2245111.7	2445507.1	518220 µg/L	518220 ppb	13:05:30
3	Ca 317.933Radial†	6691999.2	7288555.5	499980 µg/L	499980 ppb	13:05:30
3	Fe 238.204 Radial†	2424695.7	2640906.6	196000 µg/L	196000 ppb	13:05:30
3	K 766.490 Radial†	1745.0	335.8	-119.62 µg/L	-119.62 ppb	13:05:32
3	Mg 279.077 IEC†	989981.8	1078145.2	499280 µg/L	499280 ppb	13:05:30
3	Na 589.592 Radial†	1592.8	804.4	119.17 µg/L	119.17 ppb	13:05:32
3	Sr 421.552†	4732.0	5259.9	8.2420 µg/L	8.2420 ppb	13:05:32
3	Sc 361.383	1518993.8	1518993.8	88.266 %		13:06:36
3	Y 371.029	865744.6	865744.6	86.926 %		13:06:36
3	Ag 328.068†	6709.8	3001.3	-2.1519 µg/L	-2.1519 ppb	13:06:36
3	As 188.979†	-85.6	-88.4	14.907 µg/L	14.907 ppb	13:06:56
3	B 249.677†	4065.4	610.3	8.7503 µg/L	8.7503 ppb	13:06:36
3	Ba 233.527†	486.6	691.3	0.4206 µg/L	0.4206 ppb	13:06:56
3	Be 313.107†	-458.6	490.7	0.1374 µg/L	0.1374 ppb	13:06:36
3	Cd 226.502†	2486.6	2905.1	-2.3980 µg/L	-2.3980 ppb	13:06:56
3	Co 228.616†	79.4	285.5	-6.6984 µg/L	-6.6984 ppb	13:06:56
3	Cr 267.716†	227.9	-4.1	0.6744 µg/L	0.6744 ppb	13:06:56
3	Cu 324.752†	-5773.4	-9727.7	3.6765 µg/L	3.6765 ppb	13:06:36
3	Mn 257.610†	16209.6	18190.4	2.5305 µg/L	2.5305 ppb	13:06:36
3	Mo 202.031†	-543.0	-594.9	-1.6361 µg/L	-1.6361 ppb	13:06:56
3	Ni 231.604†	115.1	221.5	2.5990 µg/L	2.5990 ppb	13:06:56
3	P 214.914†	158.9	185.7	22.209 µg/L	22.209 ppb	13:06:56
3	Pb 220.353†	-325.9	-482.5	-2.2204 µg/L	-2.2204 ppb	13:06:56
3	S 181.975 Axial†	184.8	-116.7	-104.20 µg/L	-104.20 ppb	13:06:56
3	Sb 206.836†	114.5	49.4	-0.2180 µg/L	-0.2180 ppb	13:06:56
3	Se 196.026†	-157.5	-199.0	-5.92 µg/L	-5.92 ppb	13:06:56
3	SiO2†	1662.4	94.0	9.7893 µg/L	9.7893 ppb	13:06:56
3	Si 251.611†	560.7	-21.6	-0.0860 µg/L	-0.0860 ppb	13:06:56
3	Sn 189.927†	40.5	40.0	2.7051 µg/L	2.7051 ppb	13:06:56
3	Ti 334.940†	22883.9	25154.7	-2.9255 µg/L	-2.9255 ppb	13:06:36
3	Tl 190.801†	-176.2	-83.6	-10.411 µg/L	-10.411 ppb	13:06:56
3	U 409.014†	-93.4	185.5	-10.812 µg/L	-10.812 ppb	13:06:36
3	V 292.402†	4417.6	4631.8	1.4774 µg/L	1.4774 ppb	13:06:36
3	Zn 213.857†	4467.4	4460.6	7.9021 µg/L	7.9021 ppb	13:06:56

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1525283.2	88.632	%	0.3942				0.44%
Sc RADIAL	118874.0	92.5	%	0.65				0.71%
Y 371.029	869235.0	87.276	%	0.3609				0.41%
Ag 328.068†	3374.3	-0.6176	µg/L	1.58308	-0.6176	ppb	1.58308	256.31%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2429598.2	514850	µg/L	3094.8	514850	ppb	3094.8	0.60%
QC value within limits for Al 396.153Radial Recovery = 102.97%								
As 188.979†	-98.0	11.485	µg/L	4.3219	11.485	ppb	4.3219	37.63%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	724.3	10.387	µg/L	1.4258	10.387	ppb	1.4258	13.73%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	646.1	0.2451	µg/L	0.18305	0.2451	ppb	0.18305	74.67%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	616.0	0.1717	µg/L	0.04495	0.1717	ppb	0.04495	26.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7242934.2	496850	µg/L	2727.3	496850	ppb	2727.3	0.55%
QC value within limits for Ca 317.933Radial Recovery = 99.37%								
Cd 226.502†	2863.1	-2.5351	µg/L	0.11882	-2.5351	ppb	0.11882	4.69%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	293.4	-6.5387	µg/L	0.16673	-6.5387	ppb	0.16673	2.55%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -34.0      0.4223 µg/L       0.24319      0.4223 ppb        0.24319  57.58%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -9733.0      3.4044 µg/L       0.33164      3.4044 ppb        0.33164   9.74%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2624722.6      194800 µg/L        1052.8      194800 ppb         1052.8   0.54%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.40%
K 766.490 Radial†        207.2     -167.19 µg/L        56.997     -167.19 ppb         56.997  34.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1072037.0      496450 µg/L        2630.0      496450 ppb         2630.0   0.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.29%
Mn 257.610†            18095.0      2.5259 µg/L       0.07110      2.5259 ppb        0.07110   2.81%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -584.2     -1.4027 µg/L       0.28133     -1.4027 ppb        0.28133  20.06%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       752.0      111.44 µg/L        13.724      111.44 ppb         13.724  12.31%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              221.6      2.5994 µg/L       0.01747      2.5994 ppb        0.01747   0.67%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               156.0      15.863 µg/L        5.5808      15.863 ppb         5.5808  35.18%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -486.3     -2.6098 µg/L       0.41122     -2.6098 ppb        0.41122  15.76%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -133.2     -118.90 µg/L        19.063     -118.90 ppb         19.063  16.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               52.8      0.2426 µg/L       0.74696      0.2426 ppb        0.74696 307.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -198.7       -6.25 µg/L         0.624       -6.25 ppb          0.624   9.99%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    109.9      11.359 µg/L        1.4593      11.359 ppb         1.4593  12.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -77.0     -0.9037 µg/L       0.79216     -0.9037 ppb        0.79216  87.65%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               44.1      2.9744 µg/L       0.48867      2.9744 ppb        0.48867  16.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             5278.1      8.3087 µg/L       0.24327      8.3087 ppb        0.24327   2.93%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            25055.0     -2.8748 µg/L       0.05556     -2.8748 ppb        0.05556   1.93%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -74.1     -9.1738 µg/L       2.29669     -9.1738 ppb        2.29669  25.04%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               193.5     -10.199 µg/L        5.2696     -10.199 ppb         5.2696  51.67%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              4644.1      1.6666 µg/L       0.58074      1.6666 ppb        0.58074  34.85%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             4425.3      7.8071 µg/L       0.15085      7.8071 ppb        0.15085   1.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 4/7/2010 13:07:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120215.6	120215.6	93.6	%			13:07:36
1	Al 396.153Radial†	2239458.0	2393934.9	507260	µg/L	507260	ppb	13:07:34
1	Ca 317.933Radial†	6588218.8	7041912.9	483060	µg/L	483060	ppb	13:07:34
1	Fe 238.204 Radial†	2413601.0	2579876.5	191480	µg/L	191480	ppb	13:07:34
1	K 766.490 Radial†	15549.3	15056.4	5509.6	µg/L	5509.6	ppb	13:07:36
1	Mg 279.077 IEC†	990657.5	1058791.6	490330	µg/L	490330	ppb	13:07:36
1	Na 589.592 Radial†	35109.8	36599.8	5422.1	µg/L	5422.1	ppb	13:07:36
1	Sr 421.552†	208016.8	222463.4	510.33	µg/L	510.33	ppb	13:07:36
1	Sc 361.383	1530444.1	1530444.1	88.932	%			13:08:04
1	Y 371.029	873398.8	873398.8	87.694	%			13:08:04
1	Ag 328.068†	67009.7	70749.1	267.33	µg/L	267.33	ppb	13:08:04
1	As 188.979†	1292.1	1461.6	528.76	µg/L	528.76	ppb	13:08:06
1	B 249.677†	35821.6	36284.4	519.39	µg/L	519.39	ppb	13:08:04
1	Ba 233.527†	104559.1	117712.3	496.03	µg/L	496.03	ppb	13:08:04
1	Be 313.107†	790756.8	890183.0	243.38	µg/L	243.38	ppb	13:08:04
1	Cd 226.502†	69782.8	78555.7	472.57	µg/L	472.57	ppb	13:08:04
1	Co 228.616†	32931.4	37225.6	449.92	µg/L	449.92	ppb	13:08:06
1	Cr 267.716†	53460.0	59851.3	489.63	µg/L	489.63	ppb	13:08:06
1	Cu 324.752†	114121.0	125137.5	535.46	µg/L	535.46	ppb	13:08:04
1	Mn 257.610†	355857.6	399972.9	482.51	µg/L	482.51	ppb	13:08:04
1	Mo 202.031†	13794.1	15531.1	500.08	µg/L	500.08	ppb	13:08:06
1	Ni 231.604†	35112.6	39573.8	464.28	µg/L	464.28	ppb	13:08:06
1	P 214.914†	10908.8	12272.2	2628.8	µg/L	2628.8	ppb	13:08:06
1	Pb 220.353†	6893.8	7638.5	470.44	µg/L	470.44	ppb	13:08:06
1	S 181.975 Axial†	3206.2	3279.2	2928.0	µg/L	2928.0	ppb	13:08:06
1	Sb 206.836†	3860.5	4260.6	509.90	µg/L	509.90	ppb	13:08:06
1	Se 196.026†	5749.8	6444.9	2460	µg/L	2460	ppb	13:08:06
1	SiO2†	100016.1	110674.4	10936	µg/L	10936	ppb	13:08:04
1	Si 251.611†	311761.9	349906.3	5115.6	µg/L	5115.6	ppb	13:08:04
1	Sn 189.927†	6681.1	7506.8	493.86	µg/L	493.86	ppb	13:08:06
1	Ti 334.940†	479603.1	538522.1	501.55	µg/L	501.55	ppb	13:08:04
1	Tl 190.801†	3001.3	3490.9	462.02	µg/L	462.02	ppb	13:08:06
1	U 409.014†	7063.8	8234.3	491.94	µg/L	491.94	ppb	13:08:04
1	V 292.402†	97042.0	108746.6	511.79	µg/L	511.79	ppb	13:08:04
1	Zn 213.857†	82289.9	91930.8	490.65	µg/L	490.65	ppb	13:08:04
2	Sc RADIAL	119725.2	119725.2	93.2	%			13:07:41
2	Al 396.153Radial†	2264154.3	2430248.8	514960	µg/L	514960	ppb	13:07:39
2	Ca 317.933Radial†	6706063.1	7197248.1	493720	µg/L	493720	ppb	13:07:39
2	Fe 238.204 Radial†	2458900.6	2639066.9	195870	µg/L	195870	ppb	13:07:39
2	K 766.490 Radial†	15394.6	14958.4	5468.5	µg/L	5468.5	ppb	13:07:41
2	Mg 279.077 IEC†	982845.6	1054745.3	488450	µg/L	488450	ppb	13:07:41
2	Na 589.592 Radial†	34831.2	36454.5	5400.6	µg/L	5400.6	ppb	13:07:41
2	Sr 421.552†	206620.8	221875.9	508.89	µg/L	508.89	ppb	13:07:41
2	Sc 361.383	1535664.7	1535664.7	89.235	%			13:08:09
2	Y 371.029	876446.5	876446.5	88.000	%			13:08:09
2	Ag 328.068†	67238.0	70748.8	267.04	µg/L	267.04	ppb	13:08:09
2	As 188.979†	1325.0	1493.4	540.24	µg/L	540.24	ppb	13:08:11
2	B 249.677†	35953.9	36295.7	519.54	µg/L	519.54	ppb	13:08:09
2	Ba 233.527†	105267.7	118106.6	497.64	µg/L	497.64	ppb	13:08:09
2	Be 313.107†	796460.2	893551.5	244.31	µg/L	244.31	ppb	13:08:09
2	Cd 226.502†	70365.0	78941.4	474.52	µg/L	474.52	ppb	13:08:09
2	Co 228.616†	33289.7	37501.2	453.09	µg/L	453.09	ppb	13:08:11
2	Cr 267.716†	53875.6	60112.7	491.93	µg/L	491.93	ppb	13:08:11
2	Cu 324.752†	115117.6	125818.1	538.75	µg/L	538.75	ppb	13:08:09
2	Mn 257.610†	358430.7	401496.1	484.49	µg/L	484.49	ppb	13:08:09
2	Mo 202.031†	13946.5	15649.2	503.90	µg/L	503.90	ppb	13:08:11
2	Ni 231.604†	35509.5	39884.3	467.92	µg/L	467.92	ppb	13:08:11
2	P 214.914†	10884.0	12202.6	2612.5	µg/L	2612.5	ppb	13:08:11
2	Pb 220.353†	6917.4	7638.6	470.77	µg/L	470.77	ppb	13:08:11

2	S 181.975 Axial†	3187.0	3245.5	2898.0	µg/L	2898.0 ppb	13:08:11
2	Sb 206.836†	3874.9	4262.0	509.99	µg/L	509.99 ppb	13:08:11
2	Se 196.026†	5871.9	6559.7	2510	µg/L	2510 ppb	13:08:11
2	SiO2†	100480.1	110812.1	10949	µg/L	10949 ppb	13:08:09
2	Si 251.611†	313604.6	350779.5	5128.3	µg/L	5128.3 ppb	13:08:09
2	Sn 189.927†	6768.5	7579.2	498.61	µg/L	498.61 ppb	13:08:11
2	Ti 334.940†	481242.5	538525.9	501.97	µg/L	501.97 ppb	13:08:09
2	Tl 190.801†	3114.3	3606.0	476.96	µg/L	476.96 ppb	13:08:11
2	U 409.014†	7407.8	8592.7	512.34	µg/L	512.34 ppb	13:08:09
2	V 292.402†	97243.6	108601.6	510.68	µg/L	510.68 ppb	13:08:09
2	Zn 213.857†	83175.8	92609.0	493.95	µg/L	493.95 ppb	13:08:09
3	Sc RADIAL	120508.9	120508.9	93.8	%		13:07:45
3	Al 396.153Radial†	2242803.9	2391677.4	506790	µg/L	506790 ppb	13:07:43
3	Ca 317.933Radial†	6603032.5	7040571.8	482970	µg/L	482970 ppb	13:07:43
3	Fe 238.204 Radial†	2421570.6	2582096.5	191640	µg/L	191640 ppb	13:07:43
3	K 766.490 Radial†	15696.0	15172.4	5554.0	µg/L	5554.0 ppb	13:07:45
3	Mg 279.077 IEC†	994183.4	1059974.6	490880	µg/L	490880 ppb	13:07:45
3	Na 589.592 Radial†	35145.1	36546.1	5414.1	µg/L	5414.1 ppb	13:07:45
3	Sr 421.552†	208074.2	221983.5	509.22	µg/L	509.22 ppb	13:07:45
3	Sc 361.383	1556427.3	1556427.3	90.442	%		13:08:14
3	Y 371.029	887696.2	887696.2	89.130	%		13:08:14
3	Ag 328.068†	68312.3	70931.5	268.08	µg/L	268.08 ppb	13:08:14
3	As 188.979†	1294.2	1439.6	521.43	µg/L	521.43 ppb	13:08:16
3	B 249.677†	36406.1	36258.1	519.05	µg/L	519.05 ppb	13:08:14
3	Ba 233.527†	106624.7	118033.4	497.38	µg/L	497.38 ppb	13:08:14
3	Be 313.107†	807945.7	894344.4	244.53	µg/L	244.53 ppb	13:08:14
3	Cd 226.502†	71640.8	79300.2	477.21	µg/L	477.21 ppb	13:08:14
3	Co 228.616†	32708.1	36360.5	439.24	µg/L	439.24 ppb	13:08:16
3	Cr 267.716†	52899.7	58228.3	476.34	µg/L	476.34 ppb	13:08:16
3	Cu 324.752†	116431.1	125549.4	537.13	µg/L	537.13 ppb	13:08:14
3	Mn 257.610†	363568.0	401818.0	484.81	µg/L	484.81 ppb	13:08:14
3	Mo 202.031†	13725.7	15196.5	489.69	µg/L	489.69 ppb	13:08:16
3	Ni 231.604†	34738.2	38500.7	451.69	µg/L	451.69 ppb	13:08:16
3	P 214.914†	10795.4	11941.9	2557.2	µg/L	2557.2 ppb	13:08:16
3	Pb 220.353†	6979.0	7603.3	468.31	µg/L	468.31 ppb	13:08:16
3	S 181.975 Axial†	3167.8	3176.5	2836.4	µg/L	2836.4 ppb	13:08:16
3	Sb 206.836†	3774.4	4093.0	489.70	µg/L	489.70 ppb	13:08:16
3	Se 196.026†	5703.5	6285.7	2400	µg/L	2400 ppb	13:08:16
3	SiO2†	102071.1	111069.1	10975	µg/L	10975 ppb	13:08:14
3	Si 251.611†	318591.8	351605.6	5140.7	µg/L	5140.7 ppb	13:08:14
3	Sn 189.927†	6635.5	7330.9	482.34	µg/L	482.34 ppb	13:08:16
3	Ti 334.940†	489408.1	540360.4	503.30	µg/L	503.30 ppb	13:08:14
3	Tl 190.801†	2989.7	3421.7	453.10	µg/L	453.10 ppb	13:08:16
3	U 409.014†	7599.9	8694.4	518.92	µg/L	518.92 ppb	13:08:14
3	V 292.402†	98916.4	108997.5	512.83	µg/L	512.83 ppb	13:08:14
3	Zn 213.857†	84400.7	92720.0	495.09	µg/L	495.09 ppb	13:08:14

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1540845.4	89.536	%	0.7987				0.89%
Sc RADIAL	120149.9	93.5	%	0.31				0.33%
Y 371.029	879180.5	88.275	%	0.7561				0.86%
Ag 328.068†	70809.8	267.48	µg/L	0.537	267.48	ppb	0.537	0.20%
QC value within limits for Ag 328.068 Recovery = 106.99%								
Al 396.153Radial†	2405287.0	509670	µg/L	4586.9	509670	ppb	4586.9	0.90%
QC value within limits for Al 396.153Radial Recovery = 101.93%								
As 188.979†	1464.9	530.14	µg/L	9.476	530.14	ppb	9.476	1.79%
QC value within limits for As 188.979 Recovery = 106.03%								
B 249.677†	36279.4	519.33	µg/L	0.251	519.33	ppb	0.251	0.05%
QC value within limits for B 249.677 Recovery = 103.87%								
Ba 233.527†	117950.8	497.02	µg/L	0.866	497.02	ppb	0.866	0.17%
QC value within limits for Ba 233.527 Recovery = 99.40%								
Be 313.107†	892693.0	244.07	µg/L	0.608	244.07	ppb	0.608	0.25%
QC value within limits for Be 313.107 Recovery = 97.63%								
Ca 317.933Radial†	7093244.3	486580	µg/L	6178.8	486580	ppb	6178.8	1.27%
QC value within limits for Ca 317.933Radial Recovery = 97.32%								
Cd 226.502†	78932.5	474.77	µg/L	2.331	474.77	ppb	2.331	0.49%
QC value within limits for Cd 226.502 Recovery = 94.95%								
Co 228.616†	37029.1	447.42	µg/L	7.260	447.42	ppb	7.260	1.62%

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   QC value within limits for Co 228.616  Recovery = 89.48%
Cr 267.716†            59397.4      485.97 µg/L         8.413      485.97 ppb          8.413   1.73%
   QC value within limits for Cr 267.716  Recovery = 97.19%
Cu 324.752†           125501.7      537.11 µg/L         1.647      537.11 ppb          1.647   0.31%
   QC value within limits for Cu 324.752  Recovery = 107.42%
Fe 238.204 Radial†   2600346.6      192990 µg/L        2490.1      192990 ppb         2490.1   1.29%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.50%
K 766.490 Radial†      15062.4      5510.7 µg/L         42.72      5510.7 ppb          42.72   0.78%
   QC value within limits for K 766.490 Radial  Recovery = 110.21%
Mg 279.077 IEC†      1057837.1      489890 µg/L        1272.2      489890 ppb         1272.2   0.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.98%
Mn 257.610†           401095.7      483.94 µg/L         1.244      483.94 ppb          1.244   0.26%
   QC value within limits for Mn 257.610  Recovery = 96.79%
Mo 202.031†            15458.9      497.89 µg/L         7.355      497.89 ppb          7.355   1.48%
   QC value within limits for Mo 202.031  Recovery = 99.58%
Na 589.592 Radial†     36533.5      5412.3 µg/L         10.87      5412.3 ppb          10.87   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 108.25%
Ni 231.604†            39319.6      461.29 µg/L         8.517      461.29 ppb          8.517   1.85%
   QC value within limits for Ni 231.604  Recovery = 92.26%
P 214.914†             12138.9      2599.5 µg/L         37.53      2599.5 ppb          37.53   1.44%
   QC value within limits for P 214.914  Recovery = 103.98%
Pb 220.353†             7626.8      469.84 µg/L         1.336      469.84 ppb          1.336   0.28%
   QC value within limits for Pb 220.353  Recovery = 93.97%
S 181.975 Axial†        3233.7      2887.5 µg/L         46.71      2887.5 ppb          46.71   1.62%
   QC value within limits for S 181.975 Axial  Recovery = 115.50%
Sb 206.836†             4205.2      503.20 µg/L        11.690      503.20 ppb         11.690   2.32%
   QC value within limits for Sb 206.836  Recovery = 100.64%
Se 196.026†             6430.1        2460 µg/L          51.8        2460 ppb           51.8   2.11%
   QC value within limits for Se 196.026  Recovery = 98.27%
SiO2†                  110851.9       10953 µg/L          20.1       10953 ppb          20.1   0.18%
   QC value within limits for SiO2  Recovery = 102.42%
Si 251.611†            350763.8      5128.2 µg/L         12.55      5128.2 ppb          12.55   0.24%
   QC value within limits for Si 251.611  Recovery = 102.56%
Sn 189.927†             7472.3      491.61 µg/L         8.366      491.61 ppb          8.366   1.70%
   QC value within limits for Sn 189.927  Recovery = 98.32%
Sr 421.552†            222107.6      509.48 µg/L         0.755      509.48 ppb          0.755   0.15%
   QC value within limits for Sr 421.552  Recovery = 101.90%
Ti 334.940†            539136.2      502.28 µg/L         0.915      502.28 ppb          0.915   0.18%
   QC value within limits for Ti 334.940  Recovery = 100.46%
Tl 190.801†             3506.2      464.02 µg/L        12.055      464.02 ppb         12.055   2.60%
   QC value within limits for Tl 190.801  Recovery = 92.80%
U 409.014†              8507.1      507.73 µg/L        14.069      507.73 ppb         14.069   2.77%
   QC value within limits for U 409.014  Recovery = 101.55%
V 292.402†             108781.9      511.77 µg/L         1.074      511.77 ppb          1.074   0.21%
   QC value within limits for V 292.402  Recovery = 102.35%
Zn 213.857†             92419.9      493.23 µg/L         2.306      493.23 ppb          2.306   0.47%
   QC value within limits for Zn 213.857  Recovery = 98.65%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 4/7/2010 13:08:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	117489.3	117489.3	91.4	%			13:08:56
1	Al 396.153Radial†	2204243.6	2410968.9	510900	µg/L	510900	ppb	13:08:54
1	Ca 317.933Radial†	6564397.8	7179279.4	492480	µg/L	492480	ppb	13:08:54
1	Fe 238.204 Radial†	5760144.2	6300015.2	467580	µg/L	467580	ppb	13:08:54
1	K 766.490 Radial†	1979.0	599.6	-99.829	µg/L	-99.829	ppb	13:08:56
1	Mg 279.077 IEC†	973622.9	1064733.4	492840	µg/L	492840	ppb	13:08:54
1	Na 589.592 Radial†	3203770.2	3503181.4	519470	µg/L	519470	ppb	13:08:54
1	Sr 421.552†	4944.5	5513.6	8.8872	µg/L	8.8872	ppb	13:08:56
1	Sc 361.383	1495530.6	1495530.6	86.903	%			13:09:09
1	Y 371.029	851410.8	851410.8	85.487	%			13:09:09
1	Ag 328.068†	3355.1	-739.7	1.6847	µg/L	1.6847	ppb	13:09:09
1	As 188.979†	-240.6	-268.2	16.801	µg/L	16.801	ppb	13:09:11
1	B 249.677†	4925.7	1672.5	23.977	µg/L	23.977	ppb	13:09:09
1	Ba 233.527†	810.9	1073.1	-1.4341	µg/L	-1.4341	ppb	13:09:11
1	Be 313.107†	-15564.3	-16899.7	0.2011	µg/L	0.2011	ppb	13:09:09
1	Cd 226.502†	6136.4	7149.1	-4.3498	µg/L	-4.3498	ppb	13:09:11
1	Co 228.616†	602.3	888.7	-13.421	µg/L	-13.421	ppb	13:09:11
1	Cr 267.716†	636.8	470.5	1.5174	µg/L	1.5174	ppb	13:09:11
1	Cu 324.752†	-16910.6	-22645.9	5.2655	µg/L	5.2655	ppb	13:09:09
1	Mn 257.610†	18055.8	20603.0	5.0985	µg/L	5.0985	ppb	13:09:09
1	Mo 202.031†	-904.6	-1020.7	-4.2540	µg/L	-4.2540	ppb	13:09:11
1	Ni 231.604†	208.9	331.6	3.8897	µg/L	3.8897	ppb	13:09:11
1	P 214.914†	915.5	1059.1	25.467	µg/L	25.467	ppb	13:09:11
1	Pb 220.353†	46.6	-59.6	1.2067	µg/L	1.2067	ppb	13:09:11
1	S 181.975 Axial†	219.5	-73.5	-65.796	µg/L	-65.796	ppb	13:09:11
1	Sb 206.836†	130.2	69.5	-1.3488	µg/L	-1.3488	ppb	13:09:11
1	Se 196.026†	-328.8	-398.8	29.4	µg/L	29.4	ppb	13:09:11
1	SiO2†	1829.8	316.1	32.117	µg/L	32.117	ppb	13:09:11
1	Si 251.611†	-2098.6	-3071.6	-44.604	µg/L	-44.604	ppb	13:09:11
1	Sn 189.927†	75.9	81.5	5.4308	µg/L	5.4308	ppb	13:09:11
1	Ti 334.940†	24393.5	27298.6	-7.0296	µg/L	-7.0296	ppb	13:09:09
1	Tl 190.801†	-166.6	-75.7	-9.2255	µg/L	-9.2255	ppb	13:09:11
1	U 409.014†	236502.1	272436.3	15859	µg/L	15859	ppb	13:09:09
1	V 292.402†	8534.4	9447.6	6.6653	µg/L	6.6653	ppb	13:09:11
1	Zn 213.857†	8761.5	9481.2	7.0576	µg/L	7.0576	ppb	13:09:11
2	Sc RADIAL	119794.0	119794.0	93.2	%			13:09:01
2	Al 396.153Radial†	2223432.4	2385170.5	505430	µg/L	505430	ppb	13:08:59
2	Ca 317.933Radial†	6578344.4	7056109.9	484030	µg/L	484030	ppb	13:08:59
2	Fe 238.204 Radial†	5764771.7	6183772.4	458950	µg/L	458950	ppb	13:08:59
2	K 766.490 Radial†	1895.8	468.8	-144.65	µg/L	-144.65	ppb	13:09:01
2	Mg 279.077 IEC†	973303.1	1043903.1	483190	µg/L	483190	ppb	13:08:59
2	Na 589.592 Radial†	3205123.8	3437218.7	509690	µg/L	509690	ppb	13:08:59
2	Sr 421.552†	4892.9	5354.3	8.5851	µg/L	8.5851	ppb	13:09:01
2	Sc 361.383	1508171.2	1508171.2	87.638	%			13:09:14
2	Y 371.029	858298.1	858298.1	86.178	%			13:09:14
2	Ag 328.068†	3406.8	-713.0	2.0690	µg/L	2.0690	ppb	13:09:14
2	As 188.979†	-293.5	-326.2	-4.1807	µg/L	-4.1807	ppb	13:09:16
2	B 249.677†	4724.4	1395.3	19.993	µg/L	19.993	ppb	13:09:14
2	Ba 233.527†	620.6	848.1	-2.2743	µg/L	-2.2743	ppb	13:09:16
2	Be 313.107†	-15630.5	-16825.1	0.2244	µg/L	0.2244	ppb	13:09:14
2	Cd 226.502†	6242.5	7211.0	-3.0546	µg/L	-3.0546	ppb	13:09:16
2	Co 228.616†	670.0	960.1	-12.090	µg/L	-12.090	ppb	13:09:16
2	Cr 267.716†	522.7	334.2	0.2142	µg/L	0.2142	ppb	13:09:16
2	Cu 324.752†	-17008.2	-22594.1	3.9613	µg/L	3.9613	ppb	13:09:14
2	Mn 257.610†	18430.6	20856.5	5.8223	µg/L	5.8223	ppb	13:09:14
2	Mo 202.031†	-812.1	-906.4	-1.2147	µg/L	-1.2147	ppb	13:09:16
2	Ni 231.604†	264.0	392.4	4.6035	µg/L	4.6035	ppb	13:09:16
2	P 214.914†	1016.7	1165.7	53.160	µg/L	53.160	ppb	13:09:16
2	Pb 220.353†	2.6	-110.2	-1.7873	µg/L	-1.7873	ppb	13:09:16

2	S 181.975 Axial†	157.5	-146.3	-130.71	µg/L	-130.71 ppb	13:09:16
2	Sb 206.836†	214.2	164.1	10.302	µg/L	10.302 ppb	13:09:16
2	Se 196.026†	-370.8	-443.7	9.78	µg/L	9.78 ppb	13:09:16
2	SiO2†	2013.3	507.8	50.951	µg/L	50.951 ppb	13:09:16
2	Si 251.611†	-1854.0	-2772.3	-40.288	µg/L	-40.288 ppb	13:09:16
2	Sn 189.927†	119.4	130.3	8.6412	µg/L	8.6412 ppb	13:09:16
2	Ti 334.940†	26702.7	29698.2	-4.1092	µg/L	-4.1092 ppb	13:09:14
2	Tl 190.801†	-239.1	-156.8	-19.745	µg/L	-19.745 ppb	13:09:16
2	U 409.014†	238647.0	272602.8	15870	µg/L	15870 ppb	13:09:14
2	V 292.402†	8569.9	9405.8	7.4102	µg/L	7.4102 ppb	13:09:16
2	Zn 213.857†	8896.7	9550.9	8.3432	µg/L	8.3432 ppb	13:09:16
3	Sc RADIAL	119198.7	119198.7	92.8	%		13:09:05
3	Al 396.153Radial†	2185064.1	2355718.5	499190	µg/L	499190 ppb	13:09:03
3	Ca 317.933Radial†	6475644.1	6980634.3	478860	µg/L	478860 ppb	13:09:03
3	Fe 238.204 Radial†	5678665.7	6121827.9	454350	µg/L	454350 ppb	13:09:03
3	K 766.490 Radial†	2202.1	809.1	-11.222	µg/L	-11.222 ppb	13:09:05
3	Mg 279.077 IEC†	957986.7	1032605.3	477960	µg/L	477960 ppb	13:09:03
3	Na 589.592 Radial†	3163319.4	3409321.5	505560	µg/L	505560 ppb	13:09:03
3	Sr 421.552†	4648.6	5117.2	8.0775	µg/L	8.0775 ppb	13:09:05
3	Sc 361.383	1505014.3	1505014.3	87.454	%		13:09:19
3	Y 371.029	856854.0	856854.0	86.033	%		13:09:19
3	Ag 328.068†	3175.4	-969.5	1.2576	µg/L	1.2576 ppb	13:09:19
3	As 188.979†	-248.4	-275.4	11.438	µg/L	11.438 ppb	13:09:21
3	B 249.677†	4677.7	1353.2	19.386	µg/L	19.386 ppb	13:09:19
3	Ba 233.527†	697.0	937.0	-1.8410	µg/L	-1.8410 ppb	13:09:21
3	Be 313.107†	-15538.2	-16756.9	0.2499	µg/L	0.2499 ppb	13:09:19
3	Cd 226.502†	6306.0	7298.6	-2.0218	µg/L	-2.0218 ppb	13:09:21
3	Co 228.616†	721.2	1020.2	-11.109	µg/L	-11.109 ppb	13:09:21
3	Cr 267.716†	271.5	48.2	-2.2375	µg/L	-2.2375 ppb	13:09:21
3	Cu 324.752†	-16882.6	-22491.3	3.5751	µg/L	3.5751 ppb	13:09:19
3	Mn 257.610†	18420.9	20889.5	6.0834	µg/L	6.0834 ppb	13:09:19
3	Mo 202.031†	-902.6	-1011.8	-4.7729	µg/L	-4.7729 ppb	13:09:21
3	Ni 231.604†	282.7	414.3	4.8611	µg/L	4.8611 ppb	13:09:21
3	P 214.914†	1075.6	1235.5	70.018	µg/L	70.018 ppb	13:09:21
3	Pb 220.353†	6.3	-106.0	-1.8048	µg/L	-1.8048 ppb	13:09:21
3	S 181.975 Axial†	159.4	-143.8	-128.50	µg/L	-128.50 ppb	13:09:21
3	Sb 206.836†	148.9	89.9	1.4230	µg/L	1.4230 ppb	13:09:21
3	Se 196.026†	-423.5	-504.8	-14.5	µg/L	-14.5 ppb	13:09:21
3	SiO2†	1721.8	179.3	18.533	µg/L	18.533 ppb	13:09:21
3	Si 251.611†	-2067.2	-3020.6	-43.876	µg/L	-43.876 ppb	13:09:21
3	Sn 189.927†	108.9	118.7	7.8819	µg/L	7.8819 ppb	13:09:21
3	Ti 334.940†	27771.0	30983.7	-2.5630	µg/L	-2.5630 ppb	13:09:19
3	Tl 190.801†	-174.8	-83.8	-10.259	µg/L	-10.259 ppb	13:09:21
3	U 409.014†	238487.0	272991.0	15894	µg/L	15894 ppb	13:09:19
3	V 292.402†	8443.5	9281.7	7.2663	µg/L	7.2663 ppb	13:09:21
3	Zn 213.857†	8970.1	9656.2	9.3575	µg/L	9.3575 ppb	13:09:21

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1502905.4	87.332	%	0.3823				0.44%
Sc RADIAL	118827.3	92.5	%	0.93				1.01%
Y 371.029	855521.0	85.899	%	0.3647				0.42%
Ag 328.068†	-807.4	1.6704	µg/L	0.40592	1.6704	ppb	0.40592	24.30%
Al 396.153Radial†	2383952.7	505170	µg/L	5858.2	505170	ppb	5858.2	1.16%
QC value within limits for Al 396.153Radial Recovery = 101.03%								
As 188.979†	-290.0	8.0194	µg/L	10.90055	8.0194	ppb	10.90055	135.93%
B 249.677†	1473.7	21.119	µg/L	2.4940	21.119	ppb	2.4940	11.81%
Ba 233.527†	952.7	-1.8498	µg/L	0.42015	-1.8498	ppb	0.42015	22.71%
Be 313.107†	-16827.3	0.2252	µg/L	0.02442	0.2252	ppb	0.02442	10.84%
Ca 317.933Radial†	7072007.9	485130	µg/L	6878.5	485130	ppb	6878.5	1.42%
QC value within limits for Ca 317.933Radial Recovery = 97.03%								
Cd 226.502†	7219.6	-3.1421	µg/L	1.16645	-3.1421	ppb	1.16645	37.12%
Co 228.616†	956.3	-12.206	µg/L	1.1605	-12.206	ppb	1.1605	9.51%
Cr 267.716†	284.3	-0.1686	µg/L	1.90651	-0.1686	ppb	1.90651	>999.9%
Cu 324.752†	-22577.1	4.2673	µg/L	0.88577	4.2673	ppb	0.88577	20.76%
Fe 238.204 Radial†	6201871.8	460290	µg/L	6714.0	460290	ppb	6714.0	1.46%
QC value within limits for Fe 238.204 Radial Recovery = 92.06%								
K 766.490 Radial†	625.9	-85.235	µg/L	67.9025	-85.235	ppb	67.9025	79.67%
Mg 279.077 IEC†	1047080.6	484660	µg/L	7544.3	484660	ppb	7544.3	1.56%

QC value within limits for Mg 279.077 IEC Recovery = 96.93%

Mn 257.610†	20783.0	5.6681 µg/L	0.51022	5.6681 ppb	0.51022	9.00%
Mo 202.031†	-979.6	-3.4139 µg/L	1.92216	-3.4139 ppb	1.92216	56.30%
Na 589.592 Radial†	3449907.2	511570 µg/L	7147.3	511570 ppb	7147.3	1.40%

QC value within limits for Na 589.592 Radial Recovery = 102.31%

Ni 231.604†	379.4	4.4514 µg/L	0.50321	4.4514 ppb	0.50321	11.30%
P 214.914†	1153.5	49.548 µg/L	22.4942	49.548 ppb	22.4942	45.40%
Pb 220.353†	-92.0	-0.7952 µg/L	1.73366	-0.7952 ppb	1.73366	218.02%
S 181.975 Axial†	-121.2	-108.33 µg/L	36.855	-108.33 ppb	36.855	34.02%
Sb 206.836†	107.8	3.4586 µg/L	6.08606	3.4586 ppb	6.08606	175.97%
Se 196.026†	-449.1	8.23 µg/L	22.002	8.23 ppb	22.002	267.24%
SiO2†	334.4	33.867 µg/L	16.2798	33.867 ppb	16.2798	48.07%
Si 251.611†	-2954.9	-42.923 µg/L	2.3102	-42.923 ppb	2.3102	5.38%
Sn 189.927†	110.2	7.3180 µg/L	1.67786	7.3180 ppb	1.67786	22.93%
Sr 421.552†	5328.4	8.5166 µg/L	0.40913	8.5166 ppb	0.40913	4.80%
Ti 334.940†	29326.9	-4.5673 µg/L	2.26825	-4.5673 ppb	2.26825	49.66%
Tl 190.801†	-105.4	-13.077 µg/L	5.7980	-13.077 ppb	5.7980	44.34%
U 409.014†	272676.7	15874 µg/L	17.8	15874 ppb	17.8	0.11%

QC value within limits for U 409.014 Recovery = 105.83%

V 292.402†	9378.4	7.1139 µg/L	0.39512	7.1139 ppb	0.39512	5.55%
Zn 213.857†	9562.8	8.2528 µg/L	1.15260	8.2528 ppb	1.15260	13.97%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 4/7/2010 13:09:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128076.8	128076.8	99.7	%			13:10:03
1	Al 396.153Radial†	2942.7	3038.1	191.07	µg/L	191.07	ppb	13:10:05
1	Ca 317.933Radial†	3341.9	2846.5	195.27	µg/L	195.27	ppb	13:10:05
1	Fe 238.204 Radial†	776.3	657.5	48.801	µg/L	48.801	ppb	13:10:05
1	K 766.490 Radial†	776314.7	777336.1	296970	µg/L	296970	ppb	13:10:03
1	Mg 279.077 IEC†	-73.9	-237.2	128.53	µg/L	128.53	ppb	13:10:05
1	Na 589.592 Radial†	3504.2	2585.4	119.27	µg/L	119.27	ppb	13:10:05
1	Sr 421.552†	4212524.2	4226663.8	9767.7	µg/L	9767.7	ppb	13:10:01
1	Sc 361.383	1672860.1	1672860.1	97.207	%			13:10:41
1	Y 371.029	944279.1	944279.1	94.811	%			13:10:41
1	Ag 328.068†	-24458.3	-29761.4	2.4646	µg/L	2.4646	ppb	13:10:43
1	As 188.979†	29970.5	30840.2	10378	µg/L	10378	ppb	13:10:43
1	B 249.677†	339369.7	345123.9	4922.8	µg/L	4922.8	ppb	13:10:41
1	Ba 233.527†	3085881.9	3174676.1	13440	µg/L	13440	ppb	13:10:41
1	Be 313.107†	10269395.2	10565434.7	2886.8	µg/L	2886.8	ppb	13:10:37
1	Cd 226.502†	1495086.0	1538126.2	9647.4	µg/L	9647.4	ppb	13:10:41
1	Co 228.616†	739365.6	760802.4	9405.2	µg/L	9405.2	ppb	13:10:41
1	Cr 267.716†	2839216.2	2920521.8	23875	µg/L	23875	ppb	13:10:41
1	Cu 324.752†	4929271.5	5067697.6	19996	µg/L	19996	ppb	13:10:41
1	Mn 257.610†	7249115.7	7457201.4	9368.1	µg/L	9368.1	ppb	13:10:41
1	Mo 202.031†	304430.2	313196.4	9751.0	µg/L	9751.0	ppb	13:10:43
1	Ni 231.604†	806431.6	829690.7	9733.9	µg/L	9733.9	ppb	13:10:41
1	P 214.914†	68804.8	70787.2	15068	µg/L	15068	ppb	13:10:43
1	Pb 220.353†	395233.1	406474.4	23642	µg/L	23642	ppb	13:10:41
1	S 181.975 Axial†	64173.7	65691.3	58657	µg/L	58657	ppb	13:10:43
1	Sb 206.836†	80714.7	82953.3	9830.9	µg/L	9830.9	ppb	13:10:43
1	Se 196.026†	25963.6	26689.0	9920	µg/L	9920	ppb	13:10:43
1	SiO2†	988902.1	1015522.8	100110	µg/L	100110	ppb	13:10:41
1	Si 251.611†	3111283.4	3200010.6	46677	µg/L	46677	ppb	13:10:41
1	Sn 189.927†	147065.5	151284.7	9950.7	µg/L	9950.7	ppb	13:10:43
1	Ti 334.940†	9923003.3	10207309.8	10024	µg/L	10024	ppb	13:10:37
1	Tl 190.801†	71165.3	73325.9	9684.0	µg/L	9684.0	ppb	13:10:43
1	U 409.014†	-8490.7	-8443.3	112.09	µg/L	112.09	ppb	13:10:43
1	V 292.402†	2006363.3	2063631.0	10157	µg/L	10157	ppb	13:10:41
1	Zn 213.857†	2514836.9	2586484.9	14281	µg/L	14281	ppb	13:10:41
2	Sc RADIAL	128751.2	128751.2	100	%			13:10:09
2	Al 396.153Radial†	2277.3	2358.6	49.708	µg/L	49.708	ppb	13:10:11
2	Ca 317.933Radial†	1461.7	952.4	65.332	µg/L	65.332	ppb	13:10:11
2	Fe 238.204 Radial†	-382.0	-502.7	-37.308	µg/L	-37.308	ppb	13:10:11
2	K 766.490 Radial†	784164.7	781091.0	298400	µg/L	298400	ppb	13:10:09
2	Mg 279.077 IEC†	-376.9	-539.3	-12.723	µg/L	-12.723	ppb	13:10:11
2	Na 589.592 Radial†	3040.8	2104.5	46.684	µg/L	46.684	ppb	13:10:11
2	Sr 421.552†	4187514.1	4179562.4	9658.9	µg/L	9658.9	ppb	13:10:07
2	Sc 361.383	1678933.3	1678933.3	97.560	%			13:10:51
2	Y 371.029	948060.2	948060.2	95.191	%			13:10:51
2	Ag 328.068†	-24421.6	-29632.8	2.9782	µg/L	2.9782	ppb	13:10:53
2	As 188.979†	29767.7	30520.7	10273	µg/L	10273	ppb	13:10:53
2	B 249.677†	341512.7	346057.7	4936.2	µg/L	4936.2	ppb	13:10:51
2	Ba 233.527†	3100706.9	3178388.7	13456	µg/L	13456	ppb	13:10:51
2	Be 313.107†	10304141.9	10562836.1	2886.1	µg/L	2886.1	ppb	13:10:47
2	Cd 226.502†	1503285.1	1540966.9	9665.3	µg/L	9665.3	ppb	13:10:51
2	Co 228.616†	743185.2	761966.3	9419.6	µg/L	9419.6	ppb	13:10:51
2	Cr 267.716†	2852413.3	2923483.6	23899	µg/L	23899	ppb	13:10:51
2	Cu 324.752†	4945342.9	5065828.3	19989	µg/L	19989	ppb	13:10:51
2	Mn 257.610†	7281276.1	7463190.8	9375.6	µg/L	9375.6	ppb	13:10:51
2	Mo 202.031†	303759.8	311376.5	9694.4	µg/L	9694.4	ppb	13:10:53
2	Ni 231.604†	811621.7	832009.7	9761.1	µg/L	9761.1	ppb	13:10:51
2	P 214.914†	68629.2	70351.1	14974	µg/L	14974	ppb	13:10:53
2	Pb 220.353†	397774.7	407608.9	23708	µg/L	23708	ppb	13:10:51

2	S 181.975 Axial†	63921.2	65193.7	58213	µg/L	58213 ppb	13:10:53
2	Sb 206.836†	80635.8	82572.0	9783.7	µg/L	9783.7 ppb	13:10:53
2	Se 196.026†	25789.6	26414.0	9810	µg/L	9810 ppb	13:10:53
2	SiO2†	995415.6	1018519.3	100410	µg/L	100410 ppb	13:10:51
2	Si 251.611†	3129887.7	3207502.5	46788	µg/L	46788 ppb	13:10:51
2	Sn 189.927†	147022.2	150693.0	9911.9	µg/L	9911.9 ppb	13:10:53
2	Ti 334.940†	9940883.5	10188711.9	10006	µg/L	10006 ppb	13:10:47
2	Tl 190.801†	71029.9	72922.2	9631.3	µg/L	9631.3 ppb	13:10:53
2	U 409.014†	-8669.7	-8595.2	103.35	µg/L	103.35 ppb	13:10:53
2	V 292.402†	2014062.5	2064056.7	10159	µg/L	10159 ppb	13:10:51
2	Zn 213.857†	2526872.5	2589463.3	14297	µg/L	14297 ppb	13:10:51
3	Sc RADIAL	128614.7	128614.7	100	%		13:10:16
3	Al 396.153Radial†	2270.8	2354.5	43.298	µg/L	43.298 ppb	13:10:18
3	Ca 317.933Radial†	1112.3	604.8	41.488	µg/L	41.488 ppb	13:10:18
3	Fe 238.204 Radial†	-619.2	-740.0	-54.924	µg/L	-54.924 ppb	13:10:18
3	K 766.490 Radial†	781816.2	779575.4	297820	µg/L	297820 ppb	13:10:16
3	Mg 279.077 IEC†	-375.9	-538.6	-9.4894	µg/L	-9.4894 ppb	13:10:18
3	Na 589.592 Radial†	2860.5	1927.5	20.952	µg/L	20.952 ppb	13:10:18
3	Sr 421.552†	4212106.7	4208570.4	9725.9	µg/L	9725.9 ppb	13:10:14
3	Sc 361.383	1674505.4	1674505.4	97.303	%		13:11:00
3	Y 371.029	944919.4	944919.4	94.875	%		13:11:00
3	Ag 328.068†	-24689.1	-29973.8	1.5712	µg/L	1.5712 ppb	13:11:02
3	As 188.979†	30158.6	31003.2	10432	µg/L	10432 ppb	13:11:02
3	B 249.677†	340239.1	345674.3	4930.7	µg/L	4930.7 ppb	13:11:00
3	Ba 233.527†	3088700.5	3174453.8	13439	µg/L	13439 ppb	13:11:00
3	Be 313.107†	10312246.4	10599093.7	2896.0	µg/L	2896.0 ppb	13:10:57
3	Cd 226.502†	1499051.7	1540690.7	9663.5	µg/L	9663.5 ppb	13:11:00
3	Co 228.616†	740211.9	760924.9	9406.7	µg/L	9406.7 ppb	13:11:00
3	Cr 267.716†	2842554.9	2921083.2	23880	µg/L	23880 ppb	13:11:00
3	Cu 324.752†	4926595.6	5059965.3	19966	µg/L	19966 ppb	13:11:00
3	Mn 257.610†	7254322.2	7455225.0	9365.6	µg/L	9365.6 ppb	13:11:00
3	Mo 202.031†	306689.2	315210.3	9813.7	µg/L	9813.7 ppb	13:11:02
3	Ni 231.604†	808675.1	831181.2	9751.3	µg/L	9751.3 ppb	13:11:00
3	P 214.914†	69339.0	71266.6	15172	µg/L	15172 ppb	13:11:02
3	Pb 220.353†	396497.1	407374.1	23695	µg/L	23695 ppb	13:11:00
3	S 181.975 Axial†	64567.2	66030.9	58960	µg/L	58960 ppb	13:11:02
3	Sb 206.836†	81394.9	83570.7	9906.4	µg/L	9906.4 ppb	13:11:02
3	Se 196.026†	26109.4	26812.6	9960	µg/L	9960 ppb	13:11:02
3	SiO2†	992430.1	1018149.0	100370	µg/L	100370 ppb	13:11:00
3	Si 251.611†	3121474.0	3207338.9	46783	µg/L	46783 ppb	13:11:00
3	Sn 189.927†	148159.4	152260.2	10015	µg/L	10015 ppb	13:11:02
3	Ti 334.940†	9958822.4	10234091.8	10050	µg/L	10050 ppb	13:10:57
3	Tl 190.801†	71488.7	73586.3	9718.0	µg/L	9718.0 ppb	13:11:02
3	U 409.014†	-8483.3	-8427.1	112.65	µg/L	112.65 ppb	13:11:02
3	V 292.402†	2007005.4	2062263.0	10151	µg/L	10151 ppb	13:11:00
3	Zn 213.857†	2517901.7	2587092.6	14284	µg/L	14284 ppb	13:11:00

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1675432.9	97.357	%	0.1825				0.19%
Sc RADIAL	128480.9	100.0	%	0.28				0.28%
Y 371.029	945752.9	94.959	%	0.2032				0.21%
Ag 328.068†	-29789.3	2.3380	µg/L	0.71199	2.3380	ppb	0.71199	30.45%
Al 396.153Radial†	2583.7	94.693	µg/L	83.5300	94.693	ppb	83.5300	88.21%
As 188.979†	30788.0	10361	µg/L	80.6	10361	ppb	80.6	0.78%
QC value within limits for As 188.979 Recovery = 103.61%								
B 249.677†	345618.6	4929.9	µg/L	6.72	4929.9	ppb	6.72	0.14%
QC value within limits for B 249.677 Recovery = 98.60%								
Ba 233.527†	3175839.5	13445	µg/L	9.3	13445	ppb	9.3	0.07%
QC value less than the lower limit for Ba 233.527 Recovery = 89.63%								
Be 313.107†	10575788.2	2889.6	µg/L	5.53	2889.6	ppb	5.53	0.19%
QC value within limits for Be 313.107 Recovery = 96.32%								
Ca 317.933Radial†	1467.9	100.70	µg/L	82.764	100.70	ppb	82.764	82.19%
Cd 226.502†	1539927.9	9658.7	µg/L	9.83	9658.7	ppb	9.83	0.10%
QC value within limits for Cd 226.502 Recovery = 96.59%								
Co 228.616†	761231.2	9410.5	µg/L	7.90	9410.5	ppb	7.90	0.08%
QC value within limits for Co 228.616 Recovery = 94.10%								
Cr 267.716†	2921696.2	23885	µg/L	12.9	23885	ppb	12.9	0.05%
QC value within limits for Cr 267.716 Recovery = 95.54%								

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Cu 324.752†          5064497.1       19984 µg/L          15.9       19984 ppb          15.9   0.08%
   QC value within limits for Cu 324.752  Recovery = 99.92%
Fe 238.204 Radial†      -195.1     -14.477 µg/L       55.5038     -14.477 ppb       55.5038 383.39%
K 766.490 Radial†     779334.2      297730 µg/L         721.7      297730 ppb         721.7   0.24%
   QC value within limits for K 766.490 Radial  Recovery = 99.24%
Mg 279.077 IEC†         -438.4      35.440 µg/L       80.6370      35.440 ppb       80.6370 227.53%
Mn 257.610†          7458539.1      9369.8 µg/L          5.21      9369.8 ppb          5.21   0.06%
   QC value within limits for Mn 257.610  Recovery = 93.70%
Mo 202.031†           313261.0      9753.0 µg/L         59.68      9753.0 ppb         59.68   0.61%
   QC value within limits for Mo 202.031  Recovery = 97.53%
Na 589.592 Radial†      2205.8      62.301 µg/L       50.9844      62.301 ppb       50.9844  81.84%
Ni 231.604†           830960.5      9748.7 µg/L         13.79      9748.7 ppb         13.79   0.14%
   QC value within limits for Ni 231.604  Recovery = 97.49%
P 214.914†             70801.6       15072 µg/L          98.9       15072 ppb          98.9   0.66%
   QC value within limits for P 214.914  Recovery = 100.48%
Pb 220.353†           407152.5       23682 µg/L          34.8       23682 ppb          34.8   0.15%
   QC value within limits for Pb 220.353  Recovery = 94.73%
S 181.975 Axial†       65638.6       58610 µg/L         375.9       58610 ppb         375.9   0.64%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = 117.22%
Sb 206.836†            83032.0      9840.3 µg/L         61.91      9840.3 ppb         61.91   0.63%
   QC value within limits for Sb 206.836  Recovery = 98.40%
Se 196.026†            26638.5        9900 µg/L          75.8        9900 ppb          75.8   0.77%
   QC value within limits for Se 196.026  Recovery = 98.98%
SiO2†                1017397.0      100300 µg/L         161.9      100300 ppb         161.9   0.16%
   QC value within limits for SiO2  Recovery = 93.74%
Si 251.611†          3204950.7       46750 µg/L          62.6       46750 ppb          62.6   0.13%
   QC value within limits for Si 251.611  Recovery = 93.50%
Sn 189.927†           151412.6      9959.1 µg/L         51.95      9959.1 ppb         51.95   0.52%
   QC value within limits for Sn 189.927  Recovery = 99.59%
Sr 421.552†          4204932.2      9717.5 µg/L         54.91      9717.5 ppb         54.91   0.57%
   QC value within limits for Sr 421.552  Recovery = 97.17%
Ti 334.940†         10210037.8       10027 µg/L          22.4       10027 ppb          22.4   0.22%
   QC value within limits for Ti 334.940  Recovery = 100.27%
Tl 190.801†            73278.2      9677.8 µg/L         43.71      9677.8 ppb         43.71   0.45%
   QC value within limits for Tl 190.801  Recovery = 96.78%
U 409.014†             -8488.5      109.37 µg/L         5.213      109.37 ppb         5.213   4.77%
V 292.402†           2063316.9       10156 µg/L           4.0       10156 ppb           4.0   0.04%
   QC value within limits for V 292.402  Recovery = 101.56%
Zn 213.857†          2587680.3       14288 µg/L           8.6       14288 ppb           8.6   0.06%
   QC value within limits for Zn 213.857  Recovery = 95.25%
QC Failed.  Continue with analysis.
```

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Analysis Begun

Start Time: 4/7/2010 13:19:36 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040710.sif
Batch ID:
Results Data Set: 040710
Results Library: C:\pe\optima4\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 4/7/2010 12:50:00**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/7/2010 13:19:38**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	129281.3	129281.3	101	%			13:20:10
1	Al 396.153Radial†	24128.7	24069.1	5077.0	µg/L	5077.0	ppb	13:20:10
1	Ca 317.933Radial†	75246.8	74287.5	5096.0	µg/L	5096.0	ppb	13:20:10
1	Fe 238.204 Radial†	68581.9	68047.8	5050.4	µg/L	5050.4	ppb	13:20:10

1	K 766.490 Radial†	14994.7	13339.7	5092.0 µg/L	5092.0 ppb	13:20:10
1	Mg 279.077 IEC†	11262.4	11031.5	5118.3 µg/L	5118.3 ppb	13:20:10
1	Na 589.592 Radial†	69257.0	67909.9	10066 µg/L	10066 ppb	13:20:10
1	Sr 421.552†	216851.8	215652.7	498.33 µg/L	498.33 ppb	13:20:08
1	Sc 361.383	1698187.0	1698187.0	98.679 %		13:20:23
1	Y 371.029	972484.7	972484.7	97.643 %		13:20:23
1	Ag 328.068†	129690.3	126826.0	497.62 µg/L	497.62 ppb	13:20:23
1	As 188.979†	1475.4	1503.8	500.91 µg/L	500.91 ppb	13:20:43
1	B 249.677†	37814.5	34325.1	491.12 µg/L	491.12 ppb	13:20:23
1	Ba 233.527†	115872.4	117563.5	497.77 µg/L	497.77 ppb	13:20:23
1	Be 313.107†	1799261.4	1824357.4	498.63 µg/L	498.63 ppb	13:20:23
1	Cd 226.502†	78169.1	79303.4	496.87 µg/L	496.87 ppb	13:20:23
1	Co 228.616†	39847.0	40576.0	500.99 µg/L	500.99 ppb	13:20:23
1	Cr 267.716†	60073.0	60614.9	495.33 µg/L	495.33 ppb	13:20:23
1	Cu 324.752†	127160.1	125675.5	497.31 µg/L	497.31 ppb	13:20:23
1	Mn 257.610†	393443.8	398536.7	500.45 µg/L	500.45 ppb	13:20:23
1	Mo 202.031†	15925.4	16158.9	503.37 µg/L	503.37 ppb	13:20:43
1	Ni 231.604†	41903.2	42555.3	499.25 µg/L	499.25 ppb	13:20:23
1	P 214.914†	11495.8	11655.3	2511.0 µg/L	2511.0 ppb	13:20:43
1	Pb 220.353†	8730.3	8733.9	508.96 µg/L	508.96 ppb	13:20:43
1	S 181.975 Axial†	1356.7	1048.8	939.42 µg/L	939.42 ppb	13:20:43
1	Sb 206.836†	4185.1	4160.8	503.73 µg/L	503.73 ppb	13:20:43
1	Se 196.026†	1362.1	1359.9	507 µg/L	507 ppb	13:20:43
1	SiO2†	54174.3	53110.1	5236.2 µg/L	5236.2 ppb	13:20:23
1	Si 251.611†	166313.3	167882.9	2449.1 µg/L	2449.1 ppb	13:20:23
1	Sn 189.927†	7595.0	7690.8	505.82 µg/L	505.82 ppb	13:20:43
1	Ti 334.940†	500483.1	506411.6	497.07 µg/L	497.07 ppb	13:20:23
1	Tl 190.801†	3727.3	3893.2	513.55 µg/L	513.55 ppb	13:20:43
1	U 409.014†	7302.9	7692.0	480.18 µg/L	480.18 ppb	13:20:23
1	V 292.402†	101011.9	101991.0	499.07 µg/L	499.07 ppb	13:20:23
1	Zn 213.857†	89019.5	89610.4	493.44 µg/L	493.44 ppb	13:20:23
2	Sc RADIAL	129116.4	129116.4	100 %		13:20:14
2	Al 396.153Radial†	23951.9	23923.8	5046.3 µg/L	5046.3 ppb	13:20:14
2	Ca 317.933Radial†	74863.2	74001.3	5076.3 µg/L	5076.3 ppb	13:20:14
2	Fe 238.204 Radial†	68240.7	67795.4	5031.7 µg/L	5031.7 ppb	13:20:14
2	K 766.490 Radial†	14814.1	13178.9	5030.6 µg/L	5030.6 ppb	13:20:14
2	Mg 279.077 IEC†	11328.8	11111.9	5155.6 µg/L	5155.6 ppb	13:20:14
2	Na 589.592 Radial†	68839.7	67582.5	10017 µg/L	10017 ppb	13:20:14
2	Sr 421.552†	214531.4	213618.6	493.63 µg/L	493.63 ppb	13:20:12
2	Sc 361.383	1705374.4	1705374.4	99.097 %		13:20:46
2	Y 371.029	976761.7	976761.7	98.073 %		13:20:46
2	Ag 328.068†	130724.3	127315.4	499.53 µg/L	499.53 ppb	13:20:46
2	As 188.979†	1490.6	1512.8	503.89 µg/L	503.89 ppb	13:21:06
2	B 249.677†	38277.9	34631.3	495.51 µg/L	495.51 ppb	13:20:46
2	Ba 233.527†	116858.8	118064.0	499.89 µg/L	499.89 ppb	13:20:46
2	Be 313.107†	1810511.9	1828025.8	499.63 µg/L	499.63 ppb	13:20:46
2	Cd 226.502†	79223.9	80034.0	501.46 µg/L	501.46 ppb	13:20:46
2	Co 228.616†	40075.2	40636.1	501.73 µg/L	501.73 ppb	13:20:46
2	Cr 267.716†	60635.8	60926.3	497.88 µg/L	497.88 ppb	13:20:46
2	Cu 324.752†	127596.5	125572.9	496.90 µg/L	496.90 ppb	13:20:46
2	Mn 257.610†	396172.1	399609.4	501.79 µg/L	501.79 ppb	13:20:46
2	Mo 202.031†	15948.4	16114.0	501.98 µg/L	501.98 ppb	13:21:06
2	Ni 231.604†	42301.4	42778.1	501.87 µg/L	501.87 ppb	13:20:46
2	P 214.914†	11537.6	11648.5	2509.5 µg/L	2509.5 ppb	13:21:06
2	Pb 220.353†	8753.3	8719.9	508.15 µg/L	508.15 ppb	13:21:06
2	S 181.975 Axial†	1347.8	1034.1	926.27 µg/L	926.27 ppb	13:21:06
2	Sb 206.836†	4203.5	4161.5	503.76 µg/L	503.76 ppb	13:21:06
2	Se 196.026†	1355.9	1347.8	503 µg/L	503 ppb	13:21:06
2	SiO2†	54609.8	53318.1	5256.9 µg/L	5256.9 ppb	13:20:46
2	Si 251.611†	167887.9	168761.5	2462.0 µg/L	2462.0 ppb	13:20:46
2	Sn 189.927†	7618.1	7681.6	505.22 µg/L	505.22 ppb	13:21:06
2	Ti 334.940†	503181.1	506996.6	497.65 µg/L	497.65 ppb	13:20:46
2	Tl 190.801†	3738.6	3888.7	512.98 µg/L	512.98 ppb	13:21:06
2	U 409.014†	7228.1	7585.3	474.04 µg/L	474.04 ppb	13:20:46
2	V 292.402†	101798.2	102353.1	500.81 µg/L	500.81 ppb	13:20:46
2	Zn 213.857†	89879.6	90098.1	496.13 µg/L	496.13 ppb	13:20:46
3	Sc RADIAL	128539.4	128539.4	100 %		13:20:19
3	Al 396.153Radial†	23844.7	23923.6	5046.4 µg/L	5046.4 ppb	13:20:19
3	Ca 317.933Radial†	74359.0	73831.7	5064.7 µg/L	5064.7 ppb	13:20:19
3	Fe 238.204 Radial†	67648.4	67508.1	5010.4 µg/L	5010.4 ppb	13:20:19
3	K 766.490 Radial†	14713.2	13144.2	5017.4 µg/L	5017.4 ppb	13:20:19

3	Mg 279.077 IEC†	11298.0	11131.8	5164.7 µg/L	5164.7 ppb	13:20:19
3	Na 589.592 Radial†	68321.2	67371.7	9985.8 µg/L	9985.8 ppb	13:20:19
3	Sr 421.552†	217124.9	217169.9	501.83 µg/L	501.83 ppb	13:20:17
3	Sc 361.383	1719482.9	1719482.9	99.917 %		13:21:09
3	Y 371.029	984126.6	984126.6	98.812 %		13:21:09
3	Ag 328.068†	131481.1	126990.5	498.28 µg/L	498.28 ppb	13:21:09
3	As 188.979†	1487.1	1497.0	498.66 µg/L	498.66 ppb	13:21:30
3	B 249.677†	38495.0	34531.7	494.07 µg/L	494.07 ppb	13:21:09
3	Ba 233.527†	117406.2	117644.3	498.11 µg/L	498.11 ppb	13:21:09
3	Be 313.107†	1826304.1	1828840.4	499.86 µg/L	499.86 ppb	13:21:09
3	Cd 226.502†	79610.9	79765.4	499.78 µg/L	499.78 ppb	13:21:09
3	Co 228.616†	40535.9	40765.4	503.33 µg/L	503.33 ppb	13:21:09
3	Cr 267.716†	60974.3	60763.0	496.54 µg/L	496.54 ppb	13:21:09
3	Cu 324.752†	128613.3	125534.0	496.75 µg/L	496.75 ppb	13:21:09
3	Mn 257.610†	398920.3	399079.7	501.13 µg/L	501.13 ppb	13:21:09
3	Mo 202.031†	15962.8	15996.4	498.32 µg/L	498.32 ppb	13:21:30
3	Ni 231.604†	42556.8	42683.5	500.76 µg/L	500.76 ppb	13:21:09
3	P 214.914†	11549.3	11564.6	2491.4 µg/L	2491.4 ppb	13:21:30
3	Pb 220.353†	8792.6	8686.6	506.20 µg/L	506.20 ppb	13:21:30
3	S 181.975 Axial†	1385.3	1060.4	949.72 µg/L	949.72 ppb	13:21:30
3	Sb 206.836†	4218.1	4141.3	501.29 µg/L	501.29 ppb	13:21:30
3	Se 196.026†	1376.8	1357.5	507 µg/L	507 ppb	13:21:30
3	SiO2†	55045.9	53302.5	5255.4 µg/L	5255.4 ppb	13:21:09
3	Si 251.611†	169177.2	168661.7	2460.6 µg/L	2460.6 ppb	13:21:09
3	Sn 189.927†	7641.3	7641.8	502.61 µg/L	502.61 ppb	13:21:30
3	Ti 334.940†	507058.3	506710.7	497.36 µg/L	497.36 ppb	13:21:09
3	Tl 190.801†	3736.3	3855.5	508.64 µg/L	508.64 ppb	13:21:30
3	U 409.014†	7445.2	7742.7	483.26 µg/L	483.26 ppb	13:21:09
3	V 292.402†	102656.3	102369.1	500.86 µg/L	500.86 ppb	13:21:09
3	Zn 213.857†	90577.3	90052.2	495.88 µg/L	495.88 ppb	13:21:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1707681.4	99.231	%	0.6295				0.63%
Sc RADIAL	128979.0	100	%	0.3				0.30%
Y 371.029	977791.0	98.176	%	0.5913				0.60%
Ag 328.068†	127044.0	498.48	µg/L	0.970	498.48	ppb	0.970	0.19%
QC value within limits for Ag 328.068 Recovery = 99.70%								
Al 396.153Radial†	23972.2	5056.6	µg/L	17.71	5056.6	ppb	17.71	0.35%
QC value within limits for Al 396.153Radial Recovery = 101.13%								
As 188.979†	1504.5	501.15	µg/L	2.625	501.15	ppb	2.625	0.52%
QC value within limits for As 188.979 Recovery = 100.23%								
B 249.677†	34496.0	493.57	µg/L	2.240	493.57	ppb	2.240	0.45%
QC value within limits for B 249.677 Recovery = 98.71%								
Ba 233.527†	117757.3	498.59	µg/L	1.137	498.59	ppb	1.137	0.23%
QC value within limits for Ba 233.527 Recovery = 99.72%								
Be 313.107†	1827074.5	499.37	µg/L	0.652	499.37	ppb	0.652	0.13%
QC value within limits for Be 313.107 Recovery = 99.87%								
Ca 317.933Radial†	74040.2	5079.0	µg/L	15.80	5079.0	ppb	15.80	0.31%
QC value within limits for Ca 317.933Radial Recovery = 101.58%								
Cd 226.502†	79700.9	499.37	µg/L	2.318	499.37	ppb	2.318	0.46%
QC value within limits for Cd 226.502 Recovery = 99.87%								
Co 228.616†	40659.2	502.02	µg/L	1.196	502.02	ppb	1.196	0.24%
QC value within limits for Co 228.616 Recovery = 100.40%								
Cr 267.716†	60768.1	496.59	µg/L	1.275	496.59	ppb	1.275	0.26%
QC value within limits for Cr 267.716 Recovery = 99.32%								
Cu 324.752†	125594.1	496.99	µg/L	0.290	496.99	ppb	0.290	0.06%
QC value within limits for Cu 324.752 Recovery = 99.40%								
Fe 238.204 Radial†	67783.8	5030.8	µg/L	20.04	5030.8	ppb	20.04	0.40%
QC value within limits for Fe 238.204 Radial Recovery = 100.62%								
K 766.490 Radial†	13220.9	5046.7	µg/L	39.82	5046.7	ppb	39.82	0.79%
QC value within limits for K 766.490 Radial Recovery = 100.93%								
Mg 279.077 IEC†	11091.7	5146.2	µg/L	24.55	5146.2	ppb	24.55	0.48%
QC value within limits for Mg 279.077 IEC Recovery = 102.92%								
Mn 257.610†	399075.2	501.12	µg/L	0.673	501.12	ppb	0.673	0.13%
QC value within limits for Mn 257.610 Recovery = 100.22%								
Mo 202.031†	16089.8	501.22	µg/L	2.611	501.22	ppb	2.611	0.52%
QC value within limits for Mo 202.031 Recovery = 100.24%								
Na 589.592 Radial†	67621.3	10023	µg/L	40.2	10023	ppb	40.2	0.40%

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   QC value within limits for Na 589.592 Radial  Recovery = 100.23%
Ni 231.604†            42672.3      500.63 µg/L         1.312      500.63 ppb          1.312   0.26%
   QC value within limits for Ni 231.604  Recovery = 100.13%
P 214.914†             11622.8      2504.0 µg/L         10.89      2504.0 ppb          10.89   0.43%
   QC value within limits for P 214.914  Recovery = 100.16%
Pb 220.353†             8713.5      507.77 µg/L         1.418      507.77 ppb          1.418   0.28%
   QC value within limits for Pb 220.353  Recovery = 101.55%
S 181.975 Axial†        1047.8      938.47 µg/L        11.750      938.47 ppb         11.750   1.25%
   QC value within limits for S 181.975 Axial  Recovery = 93.85%
Sb 206.836†             4154.6      502.93 µg/L         1.419      502.93 ppb          1.419   0.28%
   QC value within limits for Sb 206.836  Recovery = 100.59%
Se 196.026†             1355.0         506 µg/L           2.4         506 ppb            2.4   0.47%
   QC value within limits for Se 196.026  Recovery = 101.13%
SiO2†                  53243.6      5249.5 µg/L         11.54      5249.5 ppb          11.54   0.22%
   QC value within limits for SiO2  Recovery = 98.17%
Si 251.611†           168435.4      2457.2 µg/L          7.08      2457.2 ppb           7.08   0.29%
   QC value within limits for Si 251.611  Recovery = 98.29%
Sn 189.927†             7671.4      504.55 µg/L         1.707      504.55 ppb          1.707   0.34%
   QC value within limits for Sn 189.927  Recovery = 100.91%
Sr 421.552†           215480.4      497.93 µg/L         4.118      497.93 ppb          4.118   0.83%
   QC value within limits for Sr 421.552  Recovery = 99.59%
Ti 334.940†           506706.3      497.36 µg/L         0.287      497.36 ppb          0.287   0.06%
   QC value within limits for Ti 334.940  Recovery = 99.47%
Tl 190.801†             3879.1      511.72 µg/L         2.684      511.72 ppb          2.684   0.52%
   QC value within limits for Tl 190.801  Recovery = 102.34%
U 409.014†              7673.3      479.16 µg/L         4.693      479.16 ppb          4.693   0.98%
   QC value within limits for U 409.014  Recovery = 95.83%
V 292.402†            102237.7      500.25 µg/L         1.018      500.25 ppb          1.018   0.20%
   QC value within limits for V 292.402  Recovery = 100.05%
Zn 213.857†            89920.2      495.15 µg/L         1.489      495.15 ppb          1.489   0.30%
   QC value within limits for Zn 213.857  Recovery = 99.03%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/7/2010 13:21:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	129500.5	129500.5	101	%			13:22:07
1	Al 396.153Radial†	-91.2	-4.9	-1.0492	µg/L	-1.0492	ppb	13:22:27
1	Ca 317.933Radial†	549.5	38.7	2.6566	µg/L	2.6566	ppb	13:22:27
1	Fe 238.204 Radial†	141.0	18.6	1.3775	µg/L	1.3775	ppb	13:22:27
1	K 766.490 Radial†	1890.5	311.1	118.83	µg/L	118.83	ppb	13:22:07
1	Mg 279.077 IEC†	195.4	30.8	14.286	µg/L	14.286	ppb	13:22:27
1	Na 589.592 Radial†	1323.8	383.1	56.708	µg/L	56.708	ppb	13:22:07
1	Sr 421.552†	-14.5	91.3	0.2109	µg/L	0.2109	ppb	13:22:07
1	Sc 361.383	1721905.3	1721905.3	100.06	%			13:23:29
1	Y 371.029	996423.8	996423.8	100.05	%			13:23:29
1	Ag 328.068†	4735.2	132.0	0.5321	µg/L	0.5321	ppb	13:23:31
1	As 188.979†	-17.9	-9.2	-3.0327	µg/L	-3.0327	ppb	13:23:51
1	B 249.677†	4155.2	157.3	2.2584	µg/L	2.2584	ppb	13:23:31
1	Ba 233.527†	-127.8	12.3	0.0525	µg/L	0.0525	ppb	13:23:51
1	Be 313.107†	-1047.2	-36.3	-0.0072	µg/L	-0.0072	ppb	13:23:31
1	Cd 226.502†	-17.8	70.2	0.4399	µg/L	0.4399	ppb	13:23:51
1	Co 228.616†	-196.1	-0.4	-0.0046	µg/L	-0.0046	ppb	13:23:51
1	Cr 267.716†	252.1	-10.3	-0.0913	µg/L	-0.0913	ppb	13:23:51
1	Cu 324.752†	3227.4	38.9	0.1613	µg/L	0.1613	ppb	13:23:31
1	Mn 257.610†	250.6	76.5	0.0955	µg/L	0.0955	ppb	13:23:51
1	Mo 202.031†	-8.8	11.5	0.3578	µg/L	0.3578	ppb	13:23:51
1	Ni 231.604†	-66.1	25.1	0.2940	µg/L	0.2940	ppb	13:23:51
1	P 214.914†	-13.0	-7.3	-1.5809	µg/L	-1.5809	ppb	13:23:51
1	Pb 220.353†	103.4	-10.0	-0.5838	µg/L	-0.5838	ppb	13:23:51
1	S 181.975 Axial†	271.3	-54.9	-48.945	µg/L	-48.945	ppb	13:23:51
1	Sb 206.836†	76.5	-3.9	-0.4581	µg/L	-0.4581	ppb	13:23:51
1	Se 196.026†	16.5	-4.1	-1.50	µg/L	-1.50	ppb	13:23:51
1	SiO2†	1685.1	-105.3	-10.441	µg/L	-10.441	ppb	13:23:31
1	Si 251.611†	810.8	153.5	2.2419	µg/L	2.2419	ppb	13:23:31
1	Sn 189.927†	9.7	3.9	0.2528	µg/L	0.2528	ppb	13:23:51
1	Ti 334.940†	857.5	85.8	0.0796	µg/L	0.0796	ppb	13:23:31
1	Tl 190.801†	-106.9	9.2	1.1987	µg/L	1.1987	ppb	13:23:51
1	U 409.014†	-137.1	154.3	9.0724	µg/L	9.0724	ppb	13:23:31
1	V 292.402†	538.7	165.3	0.8075	µg/L	0.8075	ppb	13:23:31
1	Zn 213.857†	716.5	115.4	0.6383	µg/L	0.6383	ppb	13:23:51
2	Sc RADIAL	129217.1	129217.1	101	%			13:22:29
2	Al 396.153Radial†	-33.4	52.4	11.077	µg/L	11.077	ppb	13:22:49
2	Ca 317.933Radial†	611.0	101.1	6.9345	µg/L	6.9345	ppb	13:22:49
2	Fe 238.204 Radial†	199.5	77.0	5.7127	µg/L	5.7127	ppb	13:22:49
2	K 766.490 Radial†	1967.3	391.6	149.57	µg/L	149.57	ppb	13:22:29
2	Mg 279.077 IEC†	179.9	15.8	7.3325	µg/L	7.3325	ppb	13:22:49
2	Na 589.592 Radial†	1415.9	477.6	70.693	µg/L	70.693	ppb	13:22:29
2	Sr 421.552†	-49.9	56.0	0.1294	µg/L	0.1294	ppb	13:22:29
2	Sc 361.383	1738399.8	1738399.8	101.02	%			13:23:53
2	Y 371.029	1006412.3	1006412.3	101.05	%			13:23:53
2	Ag 328.068†	4819.3	170.4	0.6651	µg/L	0.6651	ppb	13:23:55
2	As 188.979†	-17.8	-9.0	-2.9572	µg/L	-2.9572	ppb	13:24:16
2	B 249.677†	3995.1	-40.7	-0.5832	µg/L	-0.5832	ppb	13:23:55
2	Ba 233.527†	-169.9	-28.2	-0.1191	µg/L	-0.1191	ppb	13:24:16
2	Be 313.107†	-781.9	236.2	0.0650	µg/L	0.0650	ppb	13:23:55
2	Cd 226.502†	-24.8	63.4	0.3971	µg/L	0.3971	ppb	13:24:16
2	Co 228.616†	-213.9	-16.2	-0.2000	µg/L	-0.2000	ppb	13:24:16
2	Cr 267.716†	262.5	-2.4	-0.0207	µg/L	-0.0207	ppb	13:24:16
2	Cu 324.752†	3369.4	148.7	0.5890	µg/L	0.5890	ppb	13:23:55
2	Mn 257.610†	214.4	38.3	0.0478	µg/L	0.0478	ppb	13:24:16
2	Mo 202.031†	0.3	20.6	0.6406	µg/L	0.6406	ppb	13:24:16
2	Ni 231.604†	-76.6	15.3	0.1790	µg/L	0.1790	ppb	13:24:16
2	P 214.914†	-4.5	1.3	0.2630	µg/L	0.2630	ppb	13:24:16
2	Pb 220.353†	133.0	18.4	1.0705	µg/L	1.0705	ppb	13:24:16

2	S 181.975 Axial†	257.9	-70.8	-63.096 µg/L	-63.096 ppb	13:24:16
2	Sb 206.836†	76.8	-4.3	-0.5115 µg/L	-0.5115 ppb	13:24:16
2	Se 196.026†	12.0	-8.6	-3.20 µg/L	-3.20 ppb	13:24:16
2	SiO2†	1711.3	-95.4	-9.4718 µg/L	-9.4718 ppb	13:23:55
2	Si 251.611†	614.1	-48.8	-0.7288 µg/L	-0.7288 ppb	13:23:55
2	Sn 189.927†	17.1	11.0	0.7232 µg/L	0.7232 ppb	13:24:16
2	Ti 334.940†	612.4	-165.0	-0.1633 µg/L	-0.1633 ppb	13:23:55
2	Tl 190.801†	-115.8	1.4	0.1877 µg/L	0.1877 ppb	13:24:16
2	U 409.014†	-265.6	28.4	1.6728 µg/L	1.6728 ppb	13:23:55
2	V 292.402†	426.2	48.9	0.2432 µg/L	0.2432 ppb	13:23:55
2	Zn 213.857†	666.3	58.8	0.3243 µg/L	0.3243 ppb	13:24:16
3	Sc RADIAL	128063.0	128063.0	99.7 %		13:22:51
3	Al 396.153Radial†	-62.4	23.0	4.8355 µg/L	4.8355 ppb	13:23:11
3	Ca 317.933Radial†	526.3	21.6	1.4812 µg/L	1.4812 ppb	13:23:11
3	Fe 238.204 Radial†	151.6	30.7	2.2784 µg/L	2.2784 ppb	13:23:11
3	K 766.490 Radial†	1825.6	267.0	102.00 µg/L	102.00 ppb	13:22:51
3	Mg 279.077 IEC†	192.1	29.7	13.791 µg/L	13.791 ppb	13:23:11
3	Na 589.592 Radial†	1476.5	551.1	81.629 µg/L	81.629 ppb	13:22:51
3	Sr 421.552†	-179.9	-74.9	-0.1732 µg/L	-0.1732 ppb	13:22:51
3	Sc 361.383	1739393.1	1739393.1	101.07 %		13:24:18
3	Y 371.029	1006715.8	1006715.8	101.08 %		13:24:18
3	Ag 328.068†	4618.2	-31.3	-0.1233 µg/L	-0.1233 ppb	13:24:20
3	As 188.979†	-10.6	-1.8	-0.6077 µg/L	-0.6077 ppb	13:24:40
3	B 249.677†	4073.8	35.0	0.5029 µg/L	0.5029 ppb	13:24:20
3	Ba 233.527†	-147.0	-5.5	-0.0232 µg/L	-0.0232 ppb	13:24:40
3	Be 313.107†	-666.3	351.1	0.0972 µg/L	0.0972 ppb	13:24:20
3	Cd 226.502†	-27.6	60.6	0.3796 µg/L	0.3796 ppb	13:24:40
3	Co 228.616†	-218.7	-20.7	-0.2559 µg/L	-0.2559 ppb	13:24:40
3	Cr 267.716†	207.4	-57.0	-0.4697 µg/L	-0.4697 ppb	13:24:40
3	Cu 324.752†	3204.1	-16.6	-0.0618 µg/L	-0.0618 ppb	13:24:20
3	Mn 257.610†	235.6	59.1	0.0737 µg/L	0.0737 ppb	13:24:40
3	Mo 202.031†	7.6	27.8	0.8654 µg/L	0.8654 ppb	13:24:40
3	Ni 231.604†	-72.4	19.4	0.2281 µg/L	0.2281 ppb	13:24:40
3	P 214.914†	-3.7	2.0	0.4315 µg/L	0.4315 ppb	13:24:40
3	Pb 220.353†	89.4	-24.8	-1.4430 µg/L	-1.4430 ppb	13:24:40
3	S 181.975 Axial†	269.3	-59.6	-53.122 µg/L	-53.122 ppb	13:24:40
3	Sb 206.836†	88.7	7.4	0.9195 µg/L	0.9195 ppb	13:24:40
3	Se 196.026†	26.3	5.5	2.04 µg/L	2.04 ppb	13:24:40
3	SiO2†	1688.1	-119.3	-11.853 µg/L	-11.853 ppb	13:24:20
3	Si 251.611†	658.7	-5.1	-0.0936 µg/L	-0.0936 ppb	13:24:20
3	Sn 189.927†	24.1	18.0	1.1781 µg/L	1.1781 ppb	13:24:40
3	Ti 334.940†	787.7	8.1	0.0054 µg/L	0.0054 ppb	13:24:20
3	Tl 190.801†	-124.7	-7.4	-0.9615 µg/L	-0.9615 ppb	13:24:40
3	U 409.014†	-224.7	69.0	4.0030 µg/L	4.0030 ppb	13:24:20
3	V 292.402†	255.4	-120.4	-0.5719 µg/L	-0.5719 ppb	13:24:20
3	Zn 213.857†	671.7	63.8	0.3527 µg/L	0.3527 ppb	13:24:40

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733232.7	100.72	%	0.571				0.57%
Sc RADIAL	128926.9	100	%	0.6				0.59%
Y 371.029	1003184.0	100.73	%	0.588				0.58%
Ag 328.068†	90.4	0.3580	µg/L	0.42204	0.3580	ppb	0.42204	117.90%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	23.5	4.9545	µg/L	6.06414	4.9545	ppb	6.06414	122.40%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.7	-2.1992	µg/L	1.37879	-2.1992	ppb	1.37879	62.70%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.5	0.7260	µg/L	1.43391	0.7260	ppb	1.43391	197.50%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.1	-0.0299	µg/L	0.08598	-0.0299	ppb	0.08598	287.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	183.7	0.0517	µg/L	0.05345	0.0517	ppb	0.05345	103.44%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	53.8	3.6908	µg/L	2.86994	3.6908	ppb	2.86994	77.76%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	64.7	0.4055	µg/L	0.03100	0.4055	ppb	0.03100	7.64%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-12.4	-0.1535	µg/L	0.13190	-0.1535	ppb	0.13190	85.93%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -23.3     -0.1939 µg/L       0.24144     -0.1939 ppb        0.24144 124.52%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               57.0      0.2295 µg/L       0.33071      0.2295 ppb        0.33071 144.08%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        42.1      3.1229 µg/L       2.28765      3.1229 ppb        2.28765  73.26%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        323.2      123.47 µg/L        24.121      123.47 ppb         24.121  19.54%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           25.5      11.803 µg/L        3.8794      11.803 ppb         3.8794  32.87%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               57.9      0.0723 µg/L       0.02387      0.0723 ppb        0.02387  33.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               19.9      0.6213 µg/L       0.25434      0.6213 ppb        0.25434  40.94%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       470.6      69.677 µg/L       12.4916      69.677 ppb        12.4916  17.93%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               19.9      0.2337 µg/L       0.05769      0.2337 ppb        0.05769  24.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -1.3     -0.2955 µg/L       1.11640     -0.2955 ppb        1.11640 377.79%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -5.5     -0.3187 µg/L       1.27756     -0.3187 ppb        1.27756 400.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -61.7     -55.054 µg/L        7.2706     -55.054 ppb         7.2706  13.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.2     -0.0167 µg/L       0.81123     -0.0167 ppb        0.81123 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.4      -0.889 µg/L        2.6729      -0.889 ppb         2.6729 300.61%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -106.7     -10.589 µg/L        1.1976     -10.589 ppb         1.1976  11.31%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               33.2      0.4732 µg/L       1.56437      0.4732 ppb        1.56437 330.61%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               11.0      0.7180 µg/L       0.46268      0.7180 ppb        0.46268  64.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               24.1      0.0557 µg/L       0.20237      0.0557 ppb        0.20237 363.29%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -23.7     -0.0261 µg/L       0.12443     -0.0261 ppb        0.12443 476.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                1.1      0.1416 µg/L       1.08084      0.1416 ppb        1.08084 763.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                83.9      4.9161 µg/L       3.78337      4.9161 ppb        3.78337  76.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                31.3      0.1596 µg/L       0.69346      0.1596 ppb        0.69346 434.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               79.3      0.4384 µg/L       0.17362      0.4384 ppb        0.17362  39.60%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: 248814006|963989|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 308
Date Collected: 4/7/2010 13:47:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248814006|963989|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	132372.4	132372.4	103	%			13:47:39
1	Al 396.153Radial†	6335.8	6236.3	1321.4	µg/L	1321.4	ppb	13:47:41
1	Ca 317.933Radial†	1875.3	1313.9	90.133	µg/L	90.133	ppb	13:47:41
1	Fe 238.204 Radial†	173651.9	168455.1	12503	µg/L	12503	ppb	13:47:39
1	K 766.490 Radial†	4181.5	2494.5	952.54	µg/L	952.54	ppb	13:47:39
1	Mg 279.077 IEC†	417.8	242.5	101.63	µg/L	101.63	ppb	13:47:41
1	Na 589.592 Radial†	5560.2	4467.3	661.58	µg/L	661.58	ppb	13:47:39
1	Sr 421.552†	269.8	367.5	0.8487	µg/L	0.8487	ppb	13:47:41
1	Sc 361.383	1743266.6	1743266.6	101.30	%			13:47:53
1	Y 371.029	1012319.9	1012319.9	101.64	%			13:47:53
1	Ag 328.068†	62278.8	56880.0	220.17	µg/L	220.17	ppb	13:47:55
1	As 188.979†	-14.4	-5.6	0.9989	µg/L	0.9989	ppb	13:48:15
1	B 249.677†	4189.8	140.5	2.0144	µg/L	2.0144	ppb	13:47:55
1	Ba 233.527†	913.0	1041.3	4.2480	µg/L	4.2480	ppb	13:48:15
1	Be 313.107†	489.8	1493.8	0.3972	µg/L	0.3972	ppb	13:47:55
1	Cd 226.502†	115.1	201.5	-0.0509	µg/L	-0.0509	ppb	13:48:15
1	Co 228.616†	-124.9	72.3	0.2444	µg/L	0.2444	ppb	13:48:15
1	Cr 267.716†	507.0	238.3	2.2711	µg/L	2.2711	ppb	13:48:15
1	Cu 324.752†	3827.5	591.6	4.1282	µg/L	4.1282	ppb	13:47:55
1	Mn 257.610†	448530.4	442606.7	555.99	µg/L	555.99	ppb	13:47:53
1	Mo 202.031†	12.1	32.1	1.4984	µg/L	1.4984	ppb	13:48:15
1	Ni 231.604†	17.1	108.0	1.2676	µg/L	1.2676	ppb	13:48:15
1	P 214.914†	123.3	127.4	19.480	µg/L	19.480	ppb	13:48:15
1	Pb 220.353†	180.2	64.6	3.6563	µg/L	3.6563	ppb	13:48:15
1	S 181.975 Axial†	133.7	-194.1	-173.03	µg/L	-173.03	ppb	13:48:15
1	Sb 206.836†	89.4	8.0	0.8284	µg/L	0.8284	ppb	13:48:15
1	Se 196.026†	5.7	-14.9	-1.23	µg/L	-1.23	ppb	13:48:15
1	SiO2†	75704.8	72944.9	7221.1	µg/L	7221.1	ppb	13:47:55
1	Si 251.611†	232582.8	228944.5	3353.4	µg/L	3353.4	ppb	13:47:55
1	Sn 189.927†	337.8	327.6	21.978	µg/L	21.978	ppb	13:48:15
1	Ti 334.940†	155071.7	152312.6	149.70	µg/L	149.70	ppb	13:47:55
1	Tl 190.801†	-140.6	-22.8	0.0025	µg/L	0.0025	ppb	13:48:15
1	U 409.014†	-925.8	-622.6	-35.429	µg/L	-35.429	ppb	13:47:55
1	V 292.402†	1257.0	867.9	2.7266	µg/L	2.7266	ppb	13:47:55
1	Zn 213.857†	7721.4	7021.7	37.714	µg/L	37.714	ppb	13:48:15
2	Sc RADIAL	132056.9	132056.9	103	%			13:47:43
2	Al 396.153Radial†	6374.7	6288.8	1332.6	µg/L	1332.6	ppb	13:47:45
2	Ca 317.933Radial†	1763.1	1209.1	82.945	µg/L	82.945	ppb	13:47:45
2	Fe 238.204 Radial†	173606.3	168813.5	12529	µg/L	12529	ppb	13:47:43
2	K 766.490 Radial†	4297.9	2617.4	999.51	µg/L	999.51	ppb	13:47:43
2	Mg 279.077 IEC†	425.7	251.2	105.63	µg/L	105.63	ppb	13:47:45
2	Na 589.592 Radial†	5577.5	4497.0	665.95	µg/L	665.95	ppb	13:47:43
2	Sr 421.552†	238.7	337.9	0.7802	µg/L	0.7802	ppb	13:47:45
2	Sc 361.383	1751501.9	1751501.9	101.78	%			13:48:17
2	Y 371.029	1016943.3	1016943.3	102.11	%			13:48:17
2	Ag 328.068†	62130.0	56444.8	218.50	µg/L	218.50	ppb	13:48:19
2	As 188.979†	-4.3	4.4	4.2827	µg/L	4.2827	ppb	13:48:39
2	B 249.677†	4162.6	94.4	1.3518	µg/L	1.3518	ppb	13:48:19
2	Ba 233.527†	922.5	1046.4	4.2686	µg/L	4.2686	ppb	13:48:39
2	Be 313.107†	21.8	1031.8	0.2758	µg/L	0.2758	ppb	13:48:19
2	Cd 226.502†	113.1	199.1	-0.0688	µg/L	-0.0688	ppb	13:48:39
2	Co 228.616†	-113.6	84.0	0.3879	µg/L	0.3879	ppb	13:48:39
2	Cr 267.716†	528.9	257.4	2.4153	µg/L	2.4153	ppb	13:48:39
2	Cu 324.752†	3863.4	609.2	4.2149	µg/L	4.2149	ppb	13:48:19
2	Mn 257.610†	450340.3	442303.2	555.61	µg/L	555.61	ppb	13:48:17
2	Mo 202.031†	16.1	36.1	1.6222	µg/L	1.6222	ppb	13:48:39
2	Ni 231.604†	33.3	123.8	1.4530	µg/L	1.4530	ppb	13:48:39
2	P 214.914†	112.1	115.8	16.956	µg/L	16.956	ppb	13:48:39
2	Pb 220.353†	186.5	70.0	3.9559	µg/L	3.9559	ppb	13:48:39

2	S 181.975 Axial†	132.3	-196.1	-174.82 µg/L	-174.82 ppb	13:48:39
2	Sb 206.836†	77.1	-4.5	-0.6875 µg/L	-0.6875 ppb	13:48:39
2	Se 196.026†	13.1	-7.6	1.51 µg/L	1.51 ppb	13:48:39
2	SiO2†	75990.1	72873.8	7214.1 µg/L	7214.1 ppb	13:48:19
2	Si 251.611†	233735.3	228997.4	3354.1 µg/L	3354.1 ppb	13:48:19
2	Sn 189.927†	326.9	315.3	21.172 µg/L	21.172 ppb	13:48:39
2	Ti 334.940†	155305.2	151822.2	149.21 µg/L	149.21 ppb	13:48:19
2	Tl 190.801†	-143.8	-25.2	-0.3241 µg/L	-0.3241 ppb	13:48:39
2	U 409.014†	-649.9	-347.2	-19.367 µg/L	-19.367 ppb	13:48:19
2	V 292.402†	1093.0	700.8	1.9306 µg/L	1.9306 ppb	13:48:19
2	Zn 213.857†	7726.8	6991.2	37.540 µg/L	37.540 ppb	13:48:39
3	Sc RADIAL	130808.6	130808.6	102 %		13:47:47
3	Al 396.153Radial†	6245.5	6221.1	1318.2 µg/L	1318.2 ppb	13:47:49
3	Ca 317.933Radial†	1861.1	1321.8	90.670 µg/L	90.670 ppb	13:47:49
3	Fe 238.204 Radial†	172009.5	168856.9	12532 µg/L	12532 ppb	13:47:47
3	K 766.490 Radial†	4179.9	2541.4	970.47 µg/L	970.47 ppb	13:47:47
3	Mg 279.077 IEC†	480.9	309.4	132.59 µg/L	132.59 ppb	13:47:49
3	Na 589.592 Radial†	5526.0	4498.1	666.14 µg/L	666.14 ppb	13:47:47
3	Sr 421.552†	177.5	280.0	0.6463 µg/L	0.6463 ppb	13:47:49
3	Sc 361.383	1741901.8	1741901.8	101.22 %		13:48:42
3	Y 371.029	1011723.4	1011723.4	101.58 %		13:48:42
3	Ag 328.068†	63071.5	57711.3	223.41 µg/L	223.41 ppb	13:48:44
3	As 188.979†	-18.1	-9.2	-0.1939 µg/L	-0.1939 ppb	13:49:04
3	B 249.677†	4150.3	104.7	1.5006 µg/L	1.5006 ppb	13:48:44
3	Ba 233.527†	889.1	1018.4	4.1504 µg/L	4.1504 ppb	13:49:04
3	Be 313.107†	321.9	1328.3	0.3592 µg/L	0.3592 ppb	13:48:44
3	Cd 226.502†	133.4	219.7	0.0601 µg/L	0.0601 ppb	13:49:04
3	Co 228.616†	-118.2	78.8	0.3235 µg/L	0.3235 ppb	13:49:04
3	Cr 267.716†	543.2	274.4	2.5477 µg/L	2.5477 ppb	13:49:04
3	Cu 324.752†	4032.0	796.7	4.9623 µg/L	4.9623 ppb	13:48:44
3	Mn 257.610†	448192.1	442619.5	556.00 µg/L	556.00 ppb	13:48:42
3	Mo 202.031†	15.6	35.7	1.6091 µg/L	1.6091 ppb	13:49:04
3	Ni 231.604†	30.5	121.3	1.4230 µg/L	1.4230 ppb	13:49:04
3	P 214.914†	116.6	120.9	18.025 µg/L	18.025 ppb	13:49:04
3	Pb 220.353†	209.0	93.3	5.3054 µg/L	5.3054 ppb	13:49:04
3	S 181.975 Axial†	138.4	-189.3	-168.76 µg/L	-168.76 ppb	13:49:04
3	Sb 206.836†	99.4	17.9	2.0206 µg/L	2.0206 ppb	13:49:04
3	Se 196.026†	9.1	-11.5	0.056 µg/L	0.056 ppb	13:49:04
3	SiO2†	76976.5	74259.8	7351.3 µg/L	7351.3 ppb	13:48:44
3	Si 251.611†	236347.0	232843.3	3410.5 µg/L	3410.5 ppb	13:48:44
3	Sn 189.927†	313.0	303.3	20.395 µg/L	20.395 ppb	13:49:04
3	Ti 334.940†	156780.7	154121.0	151.47 µg/L	151.47 ppb	13:48:44
3	Tl 190.801†	-159.5	-41.5	-2.4217 µg/L	-2.4217 ppb	13:49:04
3	U 409.014†	-508.1	-210.7	-11.379 µg/L	-11.379 ppb	13:48:44
3	V 292.402†	1074.3	688.3	1.8737 µg/L	1.8737 ppb	13:48:44
3	Zn 213.857†	7747.5	7053.5	37.886 µg/L	37.886 ppb	13:49:04

Mean Data: 248814006|963989|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1745556.8	101.43	%	0.302				0.30%
Sc RADIAL	131746.0	103	%	0.6				0.63%
Y 371.029	1013662.2	101.78	%	0.287				0.28%
Ag 328.068†	57012.0	220.69	µg/L	2.499	220.69	ppb	2.499	1.13%
Al 396.153Radial†	6248.7	1324.1	µg/L	7.53	1324.1	ppb	7.53	0.57%
As 188.979†	-3.5	1.6959	µg/L	2.31825	1.6959	ppb	2.31825	136.70%
B 249.677†	113.2	1.6223	µg/L	0.34766	1.6223	ppb	0.34766	21.43%
Ba 233.527†	1035.4	4.2223	µg/L	0.06316	4.2223	ppb	0.06316	1.50%
Be 313.107†	1284.6	0.3441	µg/L	0.06210	0.3441	ppb	0.06210	18.05%
Ca 317.933Radial†	1281.6	87.916	µg/L	4.3133	87.916	ppb	4.3133	4.91%
Cd 226.502†	206.8	-0.0198	µg/L	0.06982	-0.0198	ppb	0.06982	351.82%
Co 228.616†	78.4	0.3186	µg/L	0.07186	0.3186	ppb	0.07186	22.56%
Cr 267.716†	256.7	2.4113	µg/L	0.13834	2.4113	ppb	0.13834	5.74%
Cu 324.752†	665.9	4.4352	µg/L	0.45857	4.4352	ppb	0.45857	10.34%
Fe 238.204 Radial†	168708.5	12521	µg/L	16.4	12521	ppb	16.4	0.13%
K 766.490 Radial†	2551.1	974.17	µg/L	23.706	974.17	ppb	23.706	2.43%
Mg 279.077 IEC†	267.7	113.28	µg/L	16.837	113.28	ppb	16.837	14.86%
Mn 257.610†	442509.8	555.87	µg/L	0.225	555.87	ppb	0.225	0.04%
Mo 202.031†	34.6	1.5766	µg/L	0.06799	1.5766	ppb	0.06799	4.31%
Na 589.592 Radial†	4487.4	664.56	µg/L	2.578	664.56	ppb	2.578	0.39%

Ni 231.604†	117.7	1.3812	µg/L	0.09951	1.3812	ppb	0.09951	7.20%
P 214.914†	121.4	18.154	µg/L	1.2667	18.154	ppb	1.2667	6.98%
Pb 220.353†	75.9	4.3059	µg/L	0.87852	4.3059	ppb	0.87852	20.40%
S 181.975 Axial†	-193.1	-172.20	µg/L	3.111	-172.20	ppb	3.111	1.81%
Concentration less than lower limit for S 181.975 Axial.								
Sb 206.836†	7.1	0.7205	µg/L	1.35731	0.7205	ppb	1.35731	188.38%
Se 196.026†	-11.3	0.110	µg/L	1.3695	0.110	ppb	1.3695	>999.9%
SiO2†	73359.5	7262.2	µg/L	77.28	7262.2	ppb	77.28	1.06%
Si 251.611†	230261.7	3372.7	µg/L	32.75	3372.7	ppb	32.75	0.97%
Sn 189.927†	315.4	21.182	µg/L	0.7916	21.182	ppb	0.7916	3.74%
Sr 421.552†	328.5	0.7584	µg/L	0.10294	0.7584	ppb	0.10294	13.57%
Ti 334.940†	152751.9	150.13	µg/L	1.186	150.13	ppb	1.186	0.79%
Tl 190.801†	-29.8	-0.9144	µg/L	1.31555	-0.9144	ppb	1.31555	143.86%
U 409.014†	-393.5	-22.058	µg/L	12.2486	-22.058	ppb	12.2486	55.53%
V 292.402†	752.4	2.1770	µg/L	0.47687	2.1770	ppb	0.47687	21.91%
Zn 213.857†	7022.1	37.713	µg/L	0.1729	37.713	ppb	0.1729	0.46%

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/7/2010 13:49:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130988.5	130988.5	102	%			13:49:45
1	Al 396.153Radial†	24311.4	23935.8	5048.8	µg/L	5048.8	ppb	13:49:45
1	Ca 317.933Radial†	76169.7	74218.1	5091.2	µg/L	5091.2	ppb	13:49:45
1	Fe 238.204 Radial†	69399.5	67961.5	5044.0	µg/L	5044.0	ppb	13:49:45
1	K 766.490 Radial†	15087.6	13236.5	5052.6	µg/L	5052.6	ppb	13:49:45
1	Mg 279.077 IEC†	11553.6	11171.3	5183.1	µg/L	5183.1	ppb	13:49:45
1	Na 589.592 Radial†	70086.7	67826.6	10053	µg/L	10053	ppb	13:49:45
1	Sr 421.552†	220715.3	216633.6	500.59	µg/L	500.59	ppb	13:49:43
1	Sc 361.383	1711704.2	1711704.2	99.465	%			13:49:58
1	Y 371.029	980674.9	980674.9	98.465	%			13:49:58
1	Ag 328.068†	131441.4	127548.6	500.45	µg/L	500.45	ppb	13:49:58
1	As 188.979†	1504.9	1521.6	506.78	µg/L	506.78	ppb	13:50:18
1	B 249.677†	38039.3	34248.5	490.01	µg/L	490.01	ppb	13:49:58
1	Ba 233.527†	117257.0	118028.3	499.74	µg/L	499.74	ppb	13:49:58
1	Be 313.107†	1818217.6	1829016.8	499.91	µg/L	499.91	ppb	13:49:58
1	Cd 226.502†	79048.5	79562.0	498.50	µg/L	498.50	ppb	13:49:58
1	Co 228.616†	40292.7	40705.2	502.58	µg/L	502.58	ppb	13:49:58
1	Cr 267.716†	60853.0	60918.4	497.81	µg/L	497.81	ppb	13:49:58
1	Cu 324.752†	128048.9	125551.5	496.83	µg/L	496.83	ppb	13:49:58
1	Mn 257.610†	398032.8	400001.8	502.28	µg/L	502.28	ppb	13:49:58
1	Mo 202.031†	16037.9	16144.5	502.93	µg/L	502.93	ppb	13:50:18
1	Ni 231.604†	42260.2	42578.9	499.53	µg/L	499.53	ppb	13:49:58
1	P 214.914†	11538.3	11606.1	2500.3	µg/L	2500.3	ppb	13:50:18
1	Pb 220.353†	8796.9	8731.0	508.79	µg/L	508.79	ppb	13:50:18
1	S 181.975 Axial†	1352.9	1034.1	926.34	µg/L	926.34	ppb	13:50:18
1	Sb 206.836†	4222.1	4164.5	504.14	µg/L	504.14	ppb	13:50:18
1	Se 196.026†	1357.1	1343.9	502	µg/L	502	ppb	13:50:18
1	SiO2†	55049.1	53556.0	5280.4	µg/L	5280.4	ppb	13:49:58
1	Si 251.611†	169319.6	169574.4	2473.9	µg/L	2473.9	ppb	13:49:58
1	Sn 189.927†	7629.9	7665.1	504.14	µg/L	504.14	ppb	13:50:18
1	Ti 334.940†	506799.3	508756.6	499.37	µg/L	499.37	ppb	13:49:58
1	Tl 190.801†	3732.8	3868.9	510.42	µg/L	510.42	ppb	13:50:18
1	U 409.014†	7479.6	7811.2	487.26	µg/L	487.26	ppb	13:49:58
1	V 292.402†	102187.3	102364.4	500.88	µg/L	500.88	ppb	13:49:58
1	Zn 213.857†	89846.3	89729.2	494.10	µg/L	494.10	ppb	13:49:58
2	Sc RADIAL	129850.7	129850.7	101	%			13:49:49
2	Al 396.153Radial†	24275.4	24109.1	5085.3	µg/L	5085.3	ppb	13:49:49
2	Ca 317.933Radial†	75608.6	74317.5	5098.0	µg/L	5098.0	ppb	13:49:49
2	Fe 238.204 Radial†	69287.7	68447.4	5080.1	µg/L	5080.1	ppb	13:49:49
2	K 766.490 Radial†	14853.9	13135.0	5013.8	µg/L	5013.8	ppb	13:49:49
2	Mg 279.077 IEC†	11493.5	11211.1	5201.6	µg/L	5201.6	ppb	13:49:49
2	Na 589.592 Radial†	69470.4	67819.2	10052	µg/L	10052	ppb	13:49:49
2	Sr 421.552†	218799.3	216634.7	500.60	µg/L	500.60	ppb	13:49:47
2	Sc 361.383	1715920.8	1715920.8	99.710	%			13:50:21
2	Y 371.029	982922.2	982922.2	98.691	%			13:50:21
2	Ag 328.068†	132035.7	127819.9	501.52	µg/L	501.52	ppb	13:50:21
2	As 188.979†	1515.7	1528.7	509.13	µg/L	509.13	ppb	13:50:41
2	B 249.677†	38239.3	34355.2	491.54	µg/L	491.54	ppb	13:50:21
2	Ba 233.527†	117487.8	117970.1	499.50	µg/L	499.50	ppb	13:50:21
2	Be 313.107†	1826676.2	1833008.0	501.00	µg/L	501.00	ppb	13:50:21
2	Cd 226.502†	79538.1	79857.7	500.35	µg/L	500.35	ppb	13:50:21
2	Co 228.616†	40458.7	40772.2	503.41	µg/L	503.41	ppb	13:50:21
2	Cr 267.716†	60839.2	60754.2	496.47	µg/L	496.47	ppb	13:50:21
2	Cu 324.752†	128535.2	125723.0	497.51	µg/L	497.51	ppb	13:50:21
2	Mn 257.610†	399094.9	400083.6	502.39	µg/L	502.39	ppb	13:50:21
2	Mo 202.031†	16218.8	16286.3	507.34	µg/L	507.34	ppb	13:50:41
2	Ni 231.604†	42543.4	42758.5	501.64	µg/L	501.64	ppb	13:50:21
2	P 214.914†	11724.7	11764.6	2534.6	µg/L	2534.6	ppb	13:50:41
2	Pb 220.353†	8902.7	8815.4	513.70	µg/L	513.70	ppb	13:50:41

2	S 181.975 Axial†	1377.4	1055.4	945.31 µg/L	945.31 ppb	13:50:41
2	Sb 206.836†	4296.0	4228.2	511.92 µg/L	511.92 ppb	13:50:41
2	Se 196.026†	1382.5	1366.0	510 µg/L	510 ppb	13:50:41
2	SiO2†	55259.5	53631.1	5287.6 µg/L	5287.6 ppb	13:50:21
2	Si 251.611†	170028.3	169866.8	2478.0 µg/L	2478.0 ppb	13:50:21
2	Sn 189.927†	7732.6	7749.2	509.66 µg/L	509.66 ppb	13:50:41
2	Ti 334.940†	507539.3	508246.6	498.87 µg/L	498.87 ppb	13:50:21
2	Tl 190.801†	3788.7	3915.8	516.52 µg/L	516.52 ppb	13:50:41
2	U 409.014†	7512.6	7825.8	488.20 µg/L	488.20 ppb	13:50:21
2	V 292.402†	102750.8	102677.1	502.43 µg/L	502.43 ppb	13:50:21
2	Zn 213.857†	90345.2	90007.7	495.62 µg/L	495.62 ppb	13:50:21
3	Sc RADIAL	129487.0	129487.0	101 %		13:49:53
3	Al 396.153Radial†	24337.3	24238.1	5113.0 µg/L	5113.0 ppb	13:49:53
3	Ca 317.933Radial†	75366.9	74287.9	5096.0 µg/L	5096.0 ppb	13:49:53
3	Fe 238.204 Radial†	68864.8	68220.4	5063.2 µg/L	5063.2 ppb	13:49:53
3	K 766.490 Radial†	14824.5	13147.0	5018.4 µg/L	5018.4 ppb	13:49:53
3	Mg 279.077 IEC†	11412.0	11162.2	5178.8 µg/L	5178.8 ppb	13:49:53
3	Na 589.592 Radial†	69312.5	67855.5	10058 µg/L	10058 ppb	13:49:53
3	Sr 421.552†	219205.7	217646.2	502.94 µg/L	502.94 ppb	13:49:51
3	Sc 361.383	1717511.1	1717511.1	99.802 %		13:50:44
3	Y 371.029	983952.2	983952.2	98.794 %		13:50:44
3	Ag 328.068†	132321.5	127983.7	502.14 µg/L	502.14 ppb	13:50:44
3	As 188.979†	1488.7	1500.3	499.80 µg/L	499.80 ppb	13:51:04
3	B 249.677†	38513.4	34594.3	494.97 µg/L	494.97 ppb	13:50:44
3	Ba 233.527†	117796.9	118170.7	500.34 µg/L	500.34 ppb	13:50:44
3	Be 313.107†	1830746.2	1835389.8	501.64 µg/L	501.64 ppb	13:50:44
3	Cd 226.502†	79742.4	79988.5	501.17 µg/L	501.17 ppb	13:50:44
3	Co 228.616†	40604.3	40880.5	504.75 µg/L	504.75 ppb	13:50:44
3	Cr 267.716†	61338.1	61197.6	500.10 µg/L	500.10 ppb	13:50:44
3	Cu 324.752†	128918.9	125988.0	498.55 µg/L	498.55 ppb	13:50:44
3	Mn 257.610†	400073.2	400693.3	503.15 µg/L	503.15 ppb	13:50:44
3	Mo 202.031†	15993.7	16045.7	499.85 µg/L	499.85 ppb	13:51:04
3	Ni 231.604†	42717.5	42893.4	503.22 µg/L	503.22 ppb	13:50:44
3	P 214.914†	11522.0	11550.5	2488.3 µg/L	2488.3 ppb	13:51:04
3	Pb 220.353†	8769.1	8673.3	505.43 µg/L	505.43 ppb	13:51:04
3	S 181.975 Axial†	1360.9	1037.6	929.41 µg/L	929.41 ppb	13:51:04
3	Sb 206.836†	4213.6	4141.7	501.30 µg/L	501.30 ppb	13:51:04
3	Se 196.026†	1382.3	1364.5	509 µg/L	509 ppb	13:51:04
3	SiO2†	55498.5	53819.1	5306.6 µg/L	5306.6 ppb	13:50:44
3	Si 251.611†	170609.7	170291.5	2484.4 µg/L	2484.4 ppb	13:50:44
3	Sn 189.927†	7610.2	7619.4	501.15 µg/L	501.15 ppb	13:51:04
3	Ti 334.940†	508548.4	508786.4	499.40 µg/L	499.40 ppb	13:50:44
3	Tl 190.801†	3712.8	3836.2	506.17 µg/L	506.17 ppb	13:51:04
3	U 409.014†	7403.1	7709.1	481.33 µg/L	481.33 ppb	13:50:44
3	V 292.402†	102681.4	102512.1	501.57 µg/L	501.57 ppb	13:50:44
3	Zn 213.857†	90688.6	90267.9	497.06 µg/L	497.06 ppb	13:50:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1715045.4	99.659	%	0.1744				0.17%
Sc RADIAL	130108.8	101	%	0.6				0.60%
Y 371.029	982516.4	98.650	%	0.1683				0.17%
Ag 328.068†	127784.1	501.37	µg/L	0.853	501.37	ppb	0.853	0.17%
QC value within limits for Ag 328.068 Recovery = 100.27%								
Al 396.153Radial†	24094.3	5082.4	µg/L	32.20	5082.4	ppb	32.20	0.63%
QC value within limits for Al 396.153Radial Recovery = 101.65%								
As 188.979†	1516.9	505.23	µg/L	4.853	505.23	ppb	4.853	0.96%
QC value within limits for As 188.979 Recovery = 101.05%								
B 249.677†	34399.3	492.17	µg/L	2.539	492.17	ppb	2.539	0.52%
QC value within limits for B 249.677 Recovery = 98.43%								
Ba 233.527†	118056.4	499.86	µg/L	0.435	499.86	ppb	0.435	0.09%
QC value within limits for Ba 233.527 Recovery = 99.97%								
Be 313.107†	1832471.5	500.85	µg/L	0.879	500.85	ppb	0.879	0.18%
QC value within limits for Be 313.107 Recovery = 100.17%								
Ca 317.933Radial†	74274.5	5095.1	µg/L	3.50	5095.1	ppb	3.50	0.07%
QC value within limits for Ca 317.933Radial Recovery = 101.90%								
Cd 226.502†	79802.8	500.01	µg/L	1.369	500.01	ppb	1.369	0.27%
QC value within limits for Cd 226.502 Recovery = 100.00%								
Co 228.616†	40786.0	503.58	µg/L	1.092	503.58	ppb	1.092	0.22%

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   QC value within limits for Co 228.616  Recovery = 100.72%
Cr 267.716†            60956.7      498.12 µg/L         1.835      498.12 ppb          1.835   0.37%
   QC value within limits for Cr 267.716  Recovery = 99.62%
Cu 324.752†           125754.2      497.63 µg/L         0.867      497.63 ppb          0.867   0.17%
   QC value within limits for Cu 324.752  Recovery = 99.53%
Fe 238.204 Radial†     68209.8      5062.4 µg/L         18.04      5062.4 ppb          18.04   0.36%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.25%
K 766.490 Radial†      13172.8      5028.3 µg/L         21.19      5028.3 ppb          21.19   0.42%
   QC value within limits for K 766.490 Radial  Recovery = 100.57%
Mg 279.077 IEC†        11181.6      5187.8 µg/L         12.13      5187.8 ppb          12.13   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.76%
Mn 257.610†           400259.5      502.61 µg/L         0.475      502.61 ppb          0.475   0.09%
   QC value within limits for Mn 257.610  Recovery = 100.52%
Mo 202.031†            16158.8      503.38 µg/L         3.764      503.38 ppb          3.764   0.75%
   QC value within limits for Mo 202.031  Recovery = 100.68%
Na 589.592 Radial†     67833.8       10054 µg/L           2.9       10054 ppb            2.9   0.03%
   QC value within limits for Na 589.592 Radial  Recovery = 100.54%
Ni 231.604†            42743.6      501.46 µg/L         1.851      501.46 ppb          1.851   0.37%
   QC value within limits for Ni 231.604  Recovery = 100.29%
P 214.914†             11640.4      2507.7 µg/L         24.00      2507.7 ppb          24.00   0.96%
   QC value within limits for P 214.914  Recovery = 100.31%
Pb 220.353†             8739.9      509.31 µg/L         4.159      509.31 ppb          4.159   0.82%
   QC value within limits for Pb 220.353  Recovery = 101.86%
S 181.975 Axial†        1042.4      933.69 µg/L        10.182      933.69 ppb         10.182   1.09%
   QC value within limits for S 181.975 Axial  Recovery = 93.37%
Sb 206.836†             4178.1      505.78 µg/L         5.501      505.78 ppb          5.501   1.09%
   QC value within limits for Sb 206.836  Recovery = 101.16%
Se 196.026†             1358.2         507 µg/L           4.6         507 ppb            4.6   0.91%
   QC value within limits for Se 196.026  Recovery = 101.37%
SiO2†                  53668.7      5291.5 µg/L         13.52      5291.5 ppb          13.52   0.26%
   QC value within limits for SiO2  Recovery = 98.95%
Si 251.611†           169910.9      2478.8 µg/L          5.32      2478.8 ppb           5.32   0.21%
   QC value within limits for Si 251.611  Recovery = 99.15%
Sn 189.927†             7677.9      504.98 µg/L         4.316      504.98 ppb          4.316   0.85%
   QC value within limits for Sn 189.927  Recovery = 101.00%
Sr 421.552†           216971.5      501.38 µg/L         1.350      501.38 ppb          1.350   0.27%
   QC value within limits for Sr 421.552  Recovery = 100.28%
Ti 334.940†           508596.5      499.21 µg/L         0.300      499.21 ppb          0.300   0.06%
   QC value within limits for Ti 334.940  Recovery = 99.84%
Tl 190.801†             3873.7      511.03 µg/L         5.204      511.03 ppb          5.204   1.02%
   QC value within limits for Tl 190.801  Recovery = 102.21%
U 409.014†              7782.0      485.60 µg/L         3.724      485.60 ppb          3.724   0.77%
   QC value within limits for U 409.014  Recovery = 97.12%
V 292.402†            102517.9      501.63 µg/L         0.775      501.63 ppb          0.775   0.15%
   QC value within limits for V 292.402  Recovery = 100.33%
Zn 213.857†            90001.6      495.59 µg/L         1.482      495.59 ppb          1.482   0.30%
   QC value within limits for Zn 213.857  Recovery = 99.12%
All analyte(s) passed QC.
```

Sequence No.: 10 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/7/2010 13:51:12**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130432.5	130432.5	102	%			13:51:41
1	Al 396.153Radial†	-69.4	17.3	3.6730	µg/L	3.6730	ppb	13:52:01
1	Ca 317.933Radial†	513.3	-0.9	-0.0585	µg/L	-0.0585	ppb	13:52:01
1	Fe 238.204 Radial†	154.4	30.7	2.2807	µg/L	2.2807	ppb	13:52:01
1	K 766.490 Radial†	1737.9	147.3	56.269	µg/L	56.269	ppb	13:51:41
1	Mg 279.077 IEC†	179.2	13.5	6.2453	µg/L	6.2453	ppb	13:52:01
1	Na 589.592 Radial†	1231.4	282.8	41.879	µg/L	41.879	ppb	13:51:41
1	Sr 421.552†	-130.6	-23.0	-0.0532	µg/L	-0.0532	ppb	13:51:41
1	Sc 361.383	1732207.3	1732207.3	100.66	%			13:53:03
1	Y 371.029	1002492.5	1002492.5	100.66	%			13:53:03
1	Ag 328.068†	4868.2	236.0	0.9256	µg/L	0.9256	ppb	13:53:05
1	As 188.979†	-10.0	-1.3	-0.4314	µg/L	-0.4314	ppb	13:53:26
1	B 249.677†	4080.5	58.4	0.8377	µg/L	0.8377	ppb	13:53:05
1	Ba 233.527†	-138.5	2.4	0.0105	µg/L	0.0105	ppb	13:53:26
1	Be 313.107†	-783.1	232.3	0.0636	µg/L	0.0636	ppb	13:53:05
1	Cd 226.502†	-48.4	39.8	0.2495	µg/L	0.2495	ppb	13:53:26
1	Co 228.616†	-193.6	3.3	0.0403	µg/L	0.0403	ppb	13:53:26
1	Cr 267.716†	290.8	26.7	0.2183	µg/L	0.2183	ppb	13:53:26
1	Cu 324.752†	3215.9	8.2	0.0332	µg/L	0.0332	ppb	13:53:05
1	Mn 257.610†	243.6	68.1	0.0853	µg/L	0.0853	ppb	13:53:26
1	Mo 202.031†	-26.3	-5.9	-0.1828	µg/L	-0.1828	ppb	13:53:26
1	Ni 231.604†	-93.9	-2.2	-0.0258	µg/L	-0.0258	ppb	13:53:26
1	P 214.914†	-10.7	-4.9	-1.0680	µg/L	-1.0680	ppb	13:53:26
1	Pb 220.353†	121.8	7.8	0.4507	µg/L	0.4507	ppb	13:53:26
1	S 181.975 Axial†	316.1	-12.0	-10.695	µg/L	-10.695	ppb	13:53:26
1	Sb 206.836†	71.6	-9.2	-1.1121	µg/L	-1.1121	ppb	13:53:26
1	Se 196.026†	16.2	-4.4	-1.64	µg/L	-1.64	ppb	13:53:26
1	SiO2†	1815.9	14.6	1.4536	µg/L	1.4536	ppb	13:53:05
1	Si 251.611†	829.4	167.2	2.4537	µg/L	2.4537	ppb	13:53:05
1	Sn 189.927†	1.3	-4.5	-0.2980	µg/L	-0.2980	ppb	13:53:26
1	Ti 334.940†	840.7	63.9	0.0621	µg/L	0.0621	ppb	13:53:05
1	Tl 190.801†	-113.7	3.1	0.4113	µg/L	0.4113	ppb	13:53:26
1	U 409.014†	-286.3	6.8	0.4509	µg/L	0.4509	ppb	13:53:05
1	V 292.402†	558.9	182.2	0.8788	µg/L	0.8788	ppb	13:53:05
1	Zn 213.857†	655.6	50.6	0.2807	µg/L	0.2807	ppb	13:53:26
2	Sc RADIAL	130857.8	130857.8	102	%			13:52:03
2	Al 396.153Radial†	-99.1	-11.6	-2.4667	µg/L	-2.4667	ppb	13:52:23
2	Ca 317.933Radial†	538.6	22.3	1.5321	µg/L	1.5321	ppb	13:52:23
2	Fe 238.204 Radial†	164.8	40.4	2.9994	µg/L	2.9994	ppb	13:52:23
2	K 766.490 Radial†	1607.1	13.3	5.0812	µg/L	5.0812	ppb	13:52:03
2	Mg 279.077 IEC†	162.5	-3.5	-1.6369	µg/L	-1.6369	ppb	13:52:23
2	Na 589.592 Radial†	1160.2	208.8	30.964	µg/L	30.964	ppb	13:52:03
2	Sr 421.552†	-17.4	88.5	0.2045	µg/L	0.2045	ppb	13:52:03
2	Sc 361.383	1717419.4	1717419.4	99.797	%			13:53:28
2	Y 371.029	993844.5	993844.5	99.788	%			13:53:28
2	Ag 328.068†	4668.6	77.7	0.3000	µg/L	0.3000	ppb	13:53:30
2	As 188.979†	-13.9	-5.3	-1.7516	µg/L	-1.7516	ppb	13:53:50
2	B 249.677†	4103.8	116.6	1.6742	µg/L	1.6742	ppb	13:53:30
2	Ba 233.527†	-164.2	-24.6	-0.1042	µg/L	-0.1042	ppb	13:53:50
2	Be 313.107†	-817.2	191.4	0.0533	µg/L	0.0533	ppb	13:53:30
2	Cd 226.502†	-41.3	46.5	0.2916	µg/L	0.2916	ppb	13:53:50
2	Co 228.616†	-197.4	-2.2	-0.0270	µg/L	-0.0270	ppb	13:53:50
2	Cr 267.716†	225.9	-35.9	-0.2958	µg/L	-0.2958	ppb	13:53:50
2	Cu 324.752†	3325.7	145.7	0.5778	µg/L	0.5778	ppb	13:53:30
2	Mn 257.610†	258.8	85.4	0.1073	µg/L	0.1073	ppb	13:53:50
2	Mo 202.031†	-21.5	-1.3	-0.0403	µg/L	-0.0403	ppb	13:53:50
2	Ni 231.604†	-64.5	26.5	0.3112	µg/L	0.3112	ppb	13:53:50
2	P 214.914†	-8.0	-2.4	-0.5161	µg/L	-0.5161	ppb	13:53:50
2	Pb 220.353†	106.4	-6.7	-0.3916	µg/L	-0.3916	ppb	13:53:50

2	S 181.975 Axial†	322.7	-2.7	-2.4321 µg/L	-2.4321 ppb	13:53:50
2	Sb 206.836†	95.5	15.3	1.8548 µg/L	1.8548 ppb	13:53:50
2	Se 196.026†	30.5	10.1	3.75 µg/L	3.75 ppb	13:53:50
2	SiO2†	1857.4	71.8	7.1036 µg/L	7.1036 ppb	13:53:30
2	Si 251.611†	778.6	123.4	1.8076 µg/L	1.8076 ppb	13:53:30
2	Sn 189.927†	6.6	0.8	0.0518 µg/L	0.0518 ppb	13:53:50
2	Ti 334.940†	786.5	16.8	0.0155 µg/L	0.0155 ppb	13:53:30
2	Tl 190.801†	-112.7	3.1	0.3983 µg/L	0.3983 ppb	13:53:50
2	U 409.014†	-235.7	55.1	3.2022 µg/L	3.2022 ppb	13:53:30
2	V 292.402†	285.8	-86.7	-0.4184 µg/L	-0.4184 ppb	13:53:30
2	Zn 213.857†	659.8	60.4	0.3324 µg/L	0.3324 ppb	13:53:50
3	Sc RADIAL	128046.0	128046.0	99.6 %		13:52:25
3	Al 396.153Radial†	-93.8	-8.5	-1.8424 µg/L	-1.8424 ppb	13:52:45
3	Ca 317.933Radial†	507.7	2.9	0.2011 µg/L	0.2011 ppb	13:52:45
3	Fe 238.204 Radial†	154.5	33.6	2.4959 µg/L	2.4959 ppb	13:52:45
3	K 766.490 Radial†	1679.7	120.9	46.182 µg/L	46.182 ppb	13:52:25
3	Mg 279.077 IEC†	171.0	8.6	3.9929 µg/L	3.9929 ppb	13:52:45
3	Na 589.592 Radial†	1174.7	248.4	36.792 µg/L	36.792 ppb	13:52:25
3	Sr 421.552†	-51.3	54.2	0.1251 µg/L	0.1251 ppb	13:52:25
3	Sc 361.383	1738640.5	1738640.5	101.03 %		13:53:52
3	Y 371.029	1004823.8	1004823.8	100.89 %		13:53:52
3	Ag 328.068†	4483.3	-162.8	-0.6214 µg/L	-0.6214 ppb	13:53:54
3	As 188.979†	-5.7	3.0	0.9919 µg/L	0.9919 ppb	13:54:14
3	B 249.677†	4112.9	75.5	1.0838 µg/L	1.0838 ppb	13:53:54
3	Ba 233.527†	-139.4	2.0	0.0090 µg/L	0.0090 ppb	13:54:14
3	Be 313.107†	-605.9	410.6	0.1136 µg/L	0.1136 ppb	13:53:54
3	Cd 226.502†	-47.1	41.3	0.2587 µg/L	0.2587 ppb	13:54:14
3	Co 228.616†	-209.3	-11.6	-0.1427 µg/L	-0.1427 ppb	13:54:14
3	Cr 267.716†	230.2	-34.4	-0.2851 µg/L	-0.2851 ppb	13:54:14
3	Cu 324.752†	3111.3	-107.2	-0.4185 µg/L	-0.4185 ppb	13:53:54
3	Mn 257.610†	283.0	106.2	0.1332 µg/L	0.1332 ppb	13:54:14
3	Mo 202.031†	4.2	24.4	0.7602 µg/L	0.7602 ppb	13:54:14
3	Ni 231.604†	-72.9	19.0	0.2228 µg/L	0.2228 ppb	13:54:14
3	P 214.914†	-0.9	4.8	1.0283 µg/L	1.0283 ppb	13:54:14
3	Pb 220.353†	98.1	-16.2	-0.9402 µg/L	-0.9402 ppb	13:54:14
3	S 181.975 Axial†	323.9	-5.4	-4.8325 µg/L	-4.8325 ppb	13:54:14
3	Sb 206.836†	90.5	9.3	1.1348 µg/L	1.1348 ppb	13:54:14
3	Se 196.026†	24.4	3.7	1.38 µg/L	1.38 ppb	13:54:14
3	SiO2†	1704.6	-102.3	-10.148 µg/L	-10.148 ppb	13:53:54
3	Si 251.611†	861.9	196.3	2.8641 µg/L	2.8641 ppb	13:53:54
3	Sn 189.927†	8.1	2.2	0.1436 µg/L	0.1436 ppb	13:54:14
3	Ti 334.940†	783.1	3.9	0.0016 µg/L	0.0016 ppb	13:53:54
3	Tl 190.801†	-111.4	5.8	0.7585 µg/L	0.7585 ppb	13:54:14
3	U 409.014†	-211.0	82.5	4.8466 µg/L	4.8466 ppb	13:53:54
3	V 292.402†	440.9	63.4	0.3155 µg/L	0.3155 ppb	13:53:54
3	Zn 213.857†	657.8	50.3	0.2781 µg/L	0.2781 ppb	13:54:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729422.4	100.49	%	0.632				0.63%
Sc RADIAL	129778.8	101	%	1.2				1.17%
Y 371.029	1000386.9	100.44	%	0.581				0.58%
Ag 328.068†	50.3	0.2014	µg/L	0.77818	0.2014	ppb	0.77818	386.41%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.0	-0.2120	µg/L	3.37899	-0.2120	ppb	3.37899	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.2	-0.3970	µg/L	1.37211	-0.3970	ppb	1.37211	345.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	83.5	1.1986	µg/L	0.42986	1.1986	ppb	0.42986	35.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.7	-0.0283	µg/L	0.06580	-0.0283	ppb	0.06580	232.75%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	278.1	0.0768	µg/L	0.03228	0.0768	ppb	0.03228	42.01%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.1	0.5582	µg/L	0.85335	0.5582	ppb	0.85335	152.87%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	42.6	0.2666	µg/L	0.02211	0.2666	ppb	0.02211	8.29%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.5	-0.0432	µg/L	0.09256	-0.0432	ppb	0.09256	214.42%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -14.5     -0.1208 µg/L       0.29378     -0.1208 ppb        0.29378 243.11%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               15.6      0.0642 µg/L       0.49885      0.0642 ppb        0.49885 777.44%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        34.9      2.5920 µg/L       0.36886      2.5920 ppb        0.36886  14.23%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         93.8     35.844 µg/L       27.1145     35.844 ppb        27.1145  75.65%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            6.2      2.8671 µg/L       4.05991      2.8671 ppb        4.05991 141.60%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               86.5      0.1086 µg/L       0.02399      0.1086 ppb        0.02399  22.10%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.7      0.1791 µg/L       0.50829      0.1791 ppb        0.50829 283.87%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       246.7     36.545 µg/L        5.4618     36.545 ppb         5.4618  14.95%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               14.4      0.1694 µg/L       0.17474      0.1694 ppb        0.17474 103.15%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.8     -0.1853 µg/L       1.08659     -0.1853 ppb        1.08659 586.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -5.0     -0.2937 µg/L       0.70062     -0.2937 ppb        0.70062 238.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -6.7     -5.9864 µg/L       4.25038     -5.9864 ppb        4.25038  71.00%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.1      0.6259 µg/L       1.54754      0.6259 ppb        1.54754 247.27%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.1         1.16 µg/L        2.704         1.16 ppb          2.704 232.56%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -5.3     -0.5301 µg/L       8.79497     -0.5301 ppb        8.79497 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              162.3      2.3752 µg/L       0.53259      2.3752 ppb        0.53259  22.42%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.5     -0.0342 µg/L       0.23300     -0.0342 ppb        0.23300 681.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               39.9      0.0922 µg/L       0.13196      0.0922 ppb        0.13196 143.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               28.2      0.0264 µg/L       0.03169      0.0264 ppb        0.03169 120.06%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.0      0.5227 µg/L       0.20429      0.5227 ppb        0.20429  39.08%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                48.2      2.8332 µg/L       2.22095      2.8332 ppb        2.22095  78.39%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                53.0      0.2586 µg/L       0.65048      0.2586 ppb        0.65048 251.52%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               53.8      0.2970 µg/L       0.03062      0.2970 ppb        0.03062  10.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, May 05, 2010 21:45:42
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100422\Sample.271
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1975.3	1975.337	63.909	3.2
	Mg	24.0	26309.2	26309.208	377.277	1.4
	Co	58.9	34468.7	34468.736	298.520	0.9
	Rh	102.9	75878.4	75878.392	669.093	0.9
	In	114.9	90116.6	90116.552	634.136	0.7
	Pb	208.0	78581.5	78581.536	241.317	0.3
⌈>	Ba	137.9	87309.7	87309.651	892.021	1.0
⌊	Ba++	69.0	1190.2	0.014	0.000	1.1
⌈>	Ce	139.9	108958.9	108958.948	430.511	0.4
⌊	CeO	155.9	1453.0	0.013	0.000	2.4
	Bkgd	220.0	11.7	11.700	2.950	25.2

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
8.75	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
45.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.3	3072.0
Co	59	17	8.3	33064.2
In	115	17	9.8	89891.6

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	587	2080	0.644
Be	9.0	9.0	2038	2080	0.668
Mg	24.0	24.0	5684	2120	0.619
Mg	25.0	24.9	5899	2080	0.666
Mg	26.0	26.0	6172	2120	0.692
Co	58.9	58.9	14162	2170	0.635
Rh	102.9	102.9	24852	2230	0.703
In	114.9	114.9	27789	2260	0.696
Ce	139.9	139.9	33853	2280	0.757
Pb	206.0	205.9	49936	2422	0.732
Pb	207.0	206.9	50137	2385	0.691
Pb	208.0	207.9	50451	2430	0.731
U	238.1	238.0	57733	2470	0.722

Report Date/Time: Wednesday, May 05, 2010 21:44:39

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, May 06, 2010 11:30:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\Blank.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		16	
>	Sc	45		ug/L		755553	
	Ni	60		ug/L		108	
>	Ge	74		ug/L		221242	
	As	75		ug/L		449	
	Se	77		ug/L		5274	
	Se	82		ug/L		-12	
	Kr	83		ug/L		74	
>	Lu	175		ug/L		205168	
	Tl	205		ug/L		236	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, May 06, 2010 11:35:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\Standard 1.192

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	4.859	3278	0.005
>	Sc	45		ug/L		682466	682465.665
	Ni	60	10.000	ug/L	1.581	6992	0.010
>	Ge	74		ug/L		203634	203633.569
	As	75	10.000	ug/L	4.161	5579	0.025
	Se	77		ug/L		3309	-0.008
	Se	82	10.000	ug/L	2.352	455	0.002
	Kr	83		ug/L		68	0.000
>	Lu	175		ug/L		207506	207505.944
	Tl	205	10.000	ug/L	0.782	76641	0.368

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, May 06, 2010 11:39:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\Standard 2.193

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**100.003**	**ug/L**	2.496	32185	0.048
>	Sc	45		**ug/L**		670469	670468.650
	Ni	60	**99.991**	**ug/L**	0.760	67246	0.100
>	Ge	74		**ug/L**		199312	199311.766
	As	75	**100.036**	**ug/L**	0.999	52867	0.263
	Se	77		**ug/L**		6875	0.011
	Se	82	**100.038**	**ug/L**	3.450	4728	0.024
	Kr	83		**ug/L**		82	0.000
>	Lu	175		**ug/L**		201298	201297.655
	Tl	205	**99.994**	**ug/L**	0.328	737088	3.661

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, May 06, 2010 11:43:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 1.194

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.724**	**ug/L**	1.378	17311	0.025
>	Sc	45		**ug/L**		683631	683630.878
	Ni	60	**53.342**	**ug/L**	1.349	36620	0.053
>	Ge	74		**ug/L**		204910	204909.904
	As	75	**52.522**	**ug/L**	0.821	28735	0.138
	Se	77		**ug/L**		5453	0.003
	Se	82	**52.108**	**ug/L**	4.871	2527	0.012
	Kr	83		**ug/L**		89	0.000
>	Lu	175		**ug/L**		205350	205350.115
	Tl	205	**51.001**	**ug/L**	0.390	383624	1.867

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	105.448				
>	Sc	45		90.5			
	Ni	60	106.684				
>	Ge	74		92.6			
	As	75	105.045				
	Se	77					
	Se	82	104.216				
	Kr	83					
>	Lu	175		100.1			
	Tl	205	102.003				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, May 06, 2010 11:48:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 2.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.014	ug/L	55.099	12	-0.000
>	Sc	45		ug/L		798875	798874.625
	Ni	60	0.005	ug/L	30.976	118	0.000
>	Ge	74		ug/L		232618	232617.808
	As	75	-0.691	ug/L	119.556	54	-0.002
	Se	77		ug/L		6640	0.005
	Se	82	-0.035	ug/L	1462.029	-14	-0.000
	Kr	83		ug/L		83	0.000
>	Lu	175		ug/L		209524	209523.892
	Tl	205	0.078	ug/L	6.163	841	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		105.7			
	Ni	60					
>	Ge	74		105.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, May 06, 2010 11:52:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 3.196

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.585**	**ug/L**	7.480	212	0.000
>	Sc	45		**ug/L**		701739	701739.046
	Ni	60	**2.356**	**ug/L**	3.038	1757	0.002
>	Ge	74		**ug/L**		210998	210997.554
	As	75	**5.602**	**ug/L**	6.598	3539	0.015
	Se	77		**ug/L**		3621	-0.007
	Se	82	**6.153**	**ug/L**	1.373	297	0.001
	Kr	83		**ug/L**		63	-0.000
>	Lu	175		**ug/L**		210231	210231.378
	Tl	205	**1.171**	**ug/L**	0.784	9253	0.043

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	117.040				
>	Sc	45		92.9			
	Ni	60	117.822				
>	Ge	74		95.4			
	As	75	112.034				
	Se	77					
	Se	82	123.068				
	Kr	83					
>	Lu	175		102.5			
	Tl	205	117.089				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, May 06, 2010 11:57:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 4.197

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.113**	**ug/L**	4.043	47	0.000
>	Sc	45		**ug/L**		620017	620017.290
	Ni	60	**2.934**	**ug/L**	3.686	1911	0.003
>	Ge	74		**ug/L**		182265	182265.237
	As	75	**-0.360**	**ug/L**	99.876	196	-0.001
	Se	77		**ug/L**		4868	0.003
	Se	82	**-1.835**	**ug/L**	34.577	-89	-0.000
	Kr	83		**ug/L**		150	0.000
>	Lu	175		**ug/L**		194751	194751.111
	Tl	205	**0.015**	**ug/L**	11.251	329	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		82.1			
	Ni	60	108.650				
>	Ge	74		82.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, May 06, 2010 12:01:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 5.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.406**	**ug/L**	2.208	5709	0.009
>	Sc	45		**ug/L**		611550	611549.600
	Ni	60	**21.692**	**ug/L**	0.417	13374	0.022
>	Ge	74		**ug/L**		179229	179228.762
	As	75	**20.188**	**ug/L**	1.936	9884	0.053
	Se	77		**ug/L**		5024	0.004
	Se	82	**19.684**	**ug/L**	4.153	829	0.005
	Kr	83		**ug/L**		134	0.000
>	Lu	175		**ug/L**		195651	195651.073
	Tl	205	**18.085**	**ug/L**	1.336	129741	0.662

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	97.030				
>	Sc	45		80.9			
	Ni	60	95.558				
>	Ge	74		81.0			
	As	75	100.940				
	Se	77					
	Se	82	98.420				
	Kr	83					
>	Lu	175		95.4			
	Tl	205	90.425				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 06, 2010 12:05:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 6.199

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.645**	**ug/L**	1.808	16981	0.025
>	Sc	45		**ug/L**		684610	684610.292
	Ni	60	**54.103**	**ug/L**	1.250	37197	0.054
>	Ge	74		**ug/L**		204851	204851.494
	As	75	**52.685**	**ug/L**	0.291	28813	0.139
	Se	77		**ug/L**		6248	0.007
	Se	82	**52.924**	**ug/L**	1.693	2565	0.013
	Kr	83		**ug/L**		63	-0.000
>	Lu	175		**ug/L**		203613	203613.193
	Tl	205	**51.355**	**ug/L**	0.711	383011	1.880

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	103.290				
>	Sc	45		90.6			
	Ni	60	108.206				
>	Ge	74		92.6			
	As	75	105.371				
	Se	77					
	Se	82	105.848				
	Kr	83					
>	Lu	175		99.2			
	Tl	205	102.711				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 06, 2010 12:10:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 7.200

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.005	ug/L	21.395	16	-0.000
>	Sc	45		ug/L		811382	811381.718
	Ni	60	0.010	ug/L	103.089	125	0.000
>	Ge	74		ug/L		235098	235098.124
	As	75	-0.536	ug/L	127.179	150	-0.001
	Se	77		ug/L		8230	0.011
	Se	82	0.232	ug/L	89.022	1	0.000
	Kr	83		ug/L		63	-0.000
>	Lu	175		ug/L		210615	210614.849
	Tl	205	0.082	ug/L	10.245	873	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		107.4			
	Ni	60					
>	Ge	74		106.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068041
Sample Date/Time: Thursday, May 06, 2010 12:14:34
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\1202068041.201

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.004	ug/L	328.493	12	-0.000
>	Sc	45		ug/L		608150	608150.256
	Ni	60	0.071	ug/L	7.331	130	0.000
>	Ge	74		ug/L		186462	186462.334
	As	75	-0.932	ug/L	59.689	-81	-0.002
	Se	77		ug/L		1198	-0.017
	Se	82	0.031	ug/L	267.498	-8	0.000
	Kr	83		ug/L		47	-0.000
>	Lu	175		ug/L		213451	213450.979
	Tl	205	0.066	ug/L	4.034	763	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		80.5			
	Ni	60					
>	Ge	74		84.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068046
Sample Date/Time: Thursday, May 06, 2010 12:18:57
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 963991|40|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\1202068046.202

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**20.503**	**ug/L**	3.078	6929	0.010
>	Sc	45		**ug/L**		702812	702812.455
	Ni	60	**37.886**	**ug/L**	1.217	26770	0.038
>	Ge	74		**ug/L**		207098	207098.424
	As	75	**27.355**	**ug/L**	3.184	15325	0.072
	Se	77		**ug/L**		6838	0.009
	Se	82	**75.686**	**ug/L**	2.045	3714	0.018
	Kr	83		**ug/L**		63	-0.000
>	Lu	175		**ug/L**		209651	209650.992
	Tl	205	**31.983**	**ug/L**	1.193	245695	1.171

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.0			
	Ni	60					
>	Ge	74		93.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068042
Sample Date/Time: Thursday, May 06, 2010 12:27:42
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\1202068042.204

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.648**	**ug/L**	3.427	918	0.001
>	Sc	45		**ug/L**		710585	710584.687
	Ni	60	**4.950**	**ug/L**	1.395	3625	0.005
>	Ge	74		**ug/L**		200271	200270.797
	As	75	**1.731**	**ug/L**	11.394	1318	0.005
	Se	77		**ug/L**		2074	-0.013
	Se	82	**0.584**	**ug/L**	45.682	17	0.000
	Kr	83		**ug/L**		96	0.000
>	Lu	175		**ug/L**		230849	230848.568
	Tl	205	**0.131**	**ug/L**	4.778	1376	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		94.0			
	Ni	60					
>	Ge	74		90.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		112.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068044
Sample Date/Time: Thursday, May 06, 2010 12:32:04
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\1202068044.205

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**23.975**	**ug/L**	2.752	8105	0.012
>	Sc	45		**ug/L**		703111	703110.729
	Ni	60	**27.603**	**ug/L**	0.827	19540	0.028
>	Ge	74		**ug/L**		194876	194875.851
	As	75	**34.741**	**ug/L**	1.401	18207	0.091
	Se	77		**ug/L**		2299	-0.012
	Se	82	**8.210**	**ug/L**	1.282	370	0.002
	Kr	83		**ug/L**		119	0.000
>	Lu	175		**ug/L**		236636	236636.144
	Tl	205	**37.841**	**ug/L**	1.727	328016	1.385

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.1			
	Ni	60					
>	Ge	74		88.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		115.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068045
Sample Date/Time: Thursday, May 06, 2010 12:36:27
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\1202068045.206

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**24.751**	**ug/L**	3.081	8256	0.012
>	Sc	45		**ug/L**		694002	694002.115
	Ni	60	**27.250**	**ug/L**	1.044	19041	0.027
>	Ge	74		**ug/L**		194750	194749.745
	As	75	**36.761**	**ug/L**	0.939	19233	0.097
	Se	77		**ug/L**		2182	-0.013
	Se	82	**8.981**	**ug/L**	4.867	405	0.002
	Kr	83		**ug/L**		105	0.000
>	Lu	175		**ug/L**		228729	228729.200
	Tl	205	**41.606**	**ug/L**	0.434	348641	1.523

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.9			
	Ni	60					
>	Ge	74		88.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		111.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068043
Sample Date/Time: Thursday, May 06, 2010 12:40:50
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 963991|10|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\1202068043.207

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.761**	**ug/L**	3.995	275	0.000
>	Sc	45		**ug/L**		710013	710012.544
	Ni	60	**1.338**	**ug/L**	2.704	1053	0.001
>	Ge	74		**ug/L**		206471	206471.148
	As	75	**-0.227**	**ug/L**	144.152	297	-0.001
	Se	77		**ug/L**		2769	-0.010
	Se	82	**0.065**	**ug/L**	308.662	-8	0.000
	Kr	83		**ug/L**		74	0.000
>	Lu	175		**ug/L**		214463	214463.009
	Tl	205	**0.077**	**ug/L**	5.695	849	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		94.0			
	Ni	60					
>	Ge	74		93.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 06, 2010 12:49:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 6.209

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.480**	**ug/L**	0.745	17744	0.026
>	Sc	45		**ug/L**		690812	690812.219
	Ni	60	**52.711**	**ug/L**	1.646	36569	0.053
>	Ge	74		**ug/L**		203341	203340.980
	As	75	**51.950**	**ug/L**	1.528	28207	0.137
	Se	77		**ug/L**		5311	0.002
	Se	82	**51.578**	**ug/L**	1.598	2482	0.012
	Kr	83		**ug/L**		70	0.000
>	Lu	175		**ug/L**		203494	203494.314
	Tl	205	**51.496**	**ug/L**	1.155	383804	1.885

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	106.961				
>	Sc	45		91.4			
	Ni	60	105.422				
>	Ge	74		91.9			
	As	75	103.901				
	Se	77					
	Se	82	103.156				
	Kr	83					
>	Lu	175		99.2			
	Tl	205	102.992				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 06, 2010 12:53:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 7.210

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.003	ug/L	227.780	16	-0.000
>	Sc	45		ug/L		800521	800520.727
	Ni	60	-0.003	ug/L	581.173	112	-0.000
>	Ge	74		ug/L		227465	227464.884
	As	75	-0.497	ug/L	105.067	165	-0.001
	Se	77		ug/L		6577	0.005
	Se	82	0.068	ug/L	348.673	-8	0.000
	Kr	83		ug/L		65	-0.000
>	Lu	175		ug/L		204256	204255.626
	Tl	205	0.071	ug/L	10.654	767	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		106.0			
	Ni	60					
>	Ge	74		102.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		99.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248814001
Sample Date/Time: Thursday, May 06, 2010 13:20:17
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\248814001.216

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.628**	**ug/L**	1.373	220	0.000
>	Sc	45		**ug/L**		680368	680368.206
	Ni	60	**0.793**	**ug/L**	4.010	638	0.001
>	Ge	74		**ug/L**		193779	193779.072
	As	75	**2.720**	**ug/L**	16.460	1782	0.007
	Se	77		**ug/L**		1797	-0.015
	Se	82	**0.333**	**ug/L**	0.517	5	0.000
	Kr	83		**ug/L**		97	0.000
>	Lu	175		**ug/L**		222277	222277.494
	Tl	205	**0.056**	**ug/L**	4.896	714	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.0			
	Ni	60					
>	Ge	74		87.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		108.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248814002
Sample Date/Time: Thursday, May 06, 2010 13:24:40
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\248814002.217

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.539**	**ug/L**	5.324	192	0.000
>	Sc	45		**ug/L**		684540	684540.024
	Ni	60	**3.317**	**ug/L**	1.113	2373	0.003
>	Ge	74		**ug/L**		193054	193054.029
	As	75	**2.034**	**ug/L**	6.963	1425	0.005
	Se	77		**ug/L**		1753	-0.015
	Se	82	**-0.051**	**ug/L**	545.129	-13	-0.000
	Kr	83		**ug/L**		97	0.000
>	Lu	175		**ug/L**		218253	218253.216
	Tl	205	**0.077**	**ug/L**	3.257	869	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.6			
	Ni	60					
>	Ge	74		87.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		106.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248814003
Sample Date/Time: Thursday, May 06, 2010 13:29:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\248814003.218

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.289**	**ug/L**	17.058	108	0.000
>	Sc	45		**ug/L**		674236	674235.610
	Ni	60	**3.285**	**ug/L**	3.243	2315	0.003
>	Ge	74		**ug/L**		193991	193990.554
	As	75	**1.583**	**ug/L**	6.584	1201	0.004
	Se	77		**ug/L**		1673	-0.015
	Se	82	**-0.220**	**ug/L**	172.009	-20	-0.000
	Kr	83		**ug/L**		85	0.000
>	Lu	175		**ug/L**		212701	212701.300
	Tl	205	**0.082**	**ug/L**	3.185	882	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		89.2			
	Ni	60					
>	Ge	74		87.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 06, 2010 13:33:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 6.219

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**55.798**	**ug/L**	1.082	18762	0.027
>	Sc	45		**ug/L**		700054	700054.104
	Ni	60	**52.209**	**ug/L**	1.019	36706	0.052
>	Ge	74		**ug/L**		200570	200570.453
	As	75	**52.709**	**ug/L**	0.362	28222	0.139
	Se	77		**ug/L**		4896	0.001
	Se	82	**51.813**	**ug/L**	0.765	2459	0.012
	Kr	83		**ug/L**		74	0.000
>	Lu	175		**ug/L**		202232	202232.104
	Tl	205	**51.471**	**ug/L**	0.620	381271	1.884

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	111.596				
>	Sc	45		92.7			
	Ni	60	104.417				
>	Ge	74		90.7			
	As	75	105.419				
	Se	77					
	Se	82	103.625				
	Kr	83					
>	Lu	175		98.6			
	Tl	205	102.942				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 06, 2010 13:37:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 7.220

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.006**	**ug/L**	308.440	20	0.000
>	Sc	45		**ug/L**		798179	798179.410
	Ni	60	**-0.018**	**ug/L**	57.096	100	-0.000
>	Ge	74		**ug/L**		223493	223492.899
	As	75	**-0.311**	**ug/L**	95.420	271	-0.001
	Se	77		**ug/L**		5778	0.002
	Se	82	**-0.129**	**ug/L**	205.098	-19	-0.000
	Kr	83		**ug/L**		73	-0.000
>	Lu	175		**ug/L**		202319	202319.309
	Tl	205	**0.059**	**ug/L**	9.270	667	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		105.6			
	Ni	60					
>	Ge	74		101.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248814004
Sample Date/Time: Thursday, May 06, 2010 13:42:12
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\248814004.221

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.127**	**ug/L**	11.193	400	0.001
>	Sc	45		**ug/L**		712228	712228.351
	Ni	60	**12.129**	**ug/L**	0.366	8755	0.012
>	Ge	74		**ug/L**		193445	193444.615
	As	75	**4.656**	**ug/L**	2.501	2762	0.012
	Se	77		**ug/L**		1779	-0.015
	Se	82	**-0.364**	**ug/L**	123.233	-27	-0.000
	Kr	83		**ug/L**		119	0.000
>	Lu	175		**ug/L**		220480	220479.939
	Tl	205	**0.402**	**ug/L**	2.044	3500	0.015

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		94.3			
	Ni	60					
>	Ge	74		87.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		107.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248814005
Sample Date/Time: Thursday, May 06, 2010 13:46:36
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\248814005.222

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.400**	**ug/L**	3.577	144	0.000
>	Sc	45		**ug/L**		676240	676239.768
	Ni	60	**1.332**	**ug/L**	2.487	999	0.001
>	Ge	74		**ug/L**		192721	192720.572
	As	75	**1.348**	**ug/L**	22.920	1074	0.004
	Se	77		**ug/L**		1712	-0.015
	Se	82	**0.066**	**ug/L**	359.794	-7	0.000
	Kr	83		**ug/L**		97	0.000
>	Lu	175		**ug/L**		216032	216032.000
	Tl	205	**0.069**	**ug/L**	6.525	796	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		89.5			
	Ni	60					
>	Ge	74		87.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		105.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248814006
Sample Date/Time: Thursday, May 06, 2010 13:51:00
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\248814006.223

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.204**	**ug/L**	10.839	81	0.000
>	Sc	45		**ug/L**		676400	676399.856
	Ni	60	**1.229**	**ug/L**	6.497	929	0.001
>	Ge	74		**ug/L**		192988	192987.720
	As	75	**0.093**	**ug/L**	367.989	439	0.000
	Se	77		**ug/L**		1676	-0.015
	Se	82	**0.385**	**ug/L**	102.719	7	0.000
	Kr	83		**ug/L**		59	-0.000
>	Lu	175		**ug/L**		209954	209953.653
	Tl	205	**0.082**	**ug/L**	1.419	869	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		89.5			
	Ni	60					
>	Ge	74		87.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248814007
Sample Date/Time: Thursday, May 06, 2010 13:55:23
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\248814007.224

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.612**	**ug/L**	11.991	212	0.000
>	Sc	45		**ug/L**		673098	673098.251
	Ni	60	**0.327**	**ug/L**	2.468	317	0.000
>	Ge	74		**ug/L**		190950	190949.984
	As	75	**1.399**	**ug/L**	24.985	1090	0.004
	Se	77		**ug/L**		1725	-0.015
	Se	82	**0.226**	**ug/L**	54.543	0	0.000
	Kr	83		**ug/L**		95	0.000
>	Lu	175		**ug/L**		218272	218272.166
	Tl	205	**0.076**	**ug/L**	5.654	861	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		89.1			
	Ni	60					
>	Ge	74		86.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		106.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248814008
Sample Date/Time: Thursday, May 06, 2010 13:59:47
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\248814008.225

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.280**	**ug/L**	15.585	105	0.000
>	Sc	45		**ug/L**		674213	674213.208
	Ni	60	**0.285**	**ug/L**	10.602	289	0.000
>	Ge	74		**ug/L**		192019	192018.820
	As	75	**0.700**	**ug/L**	35.951	743	0.002
	Se	77		**ug/L**		1694	-0.015
	Se	82	**-0.218**	**ug/L**	94.887	-20	-0.000
	Kr	83		**ug/L**		76	0.000
>	Lu	175		**ug/L**		208294	208294.429
	Tl	205	**0.104**	**ug/L**	0.881	1036	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		89.2			
	Ni	60					
>	Ge	74		86.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248814009
Sample Date/Time: Thursday, May 06, 2010 14:04:10
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\248814009.226

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.601**	**ug/L**	5.508	211	0.000
>	Sc	45		**ug/L**		680215	680215.083
	Ni	60	**1.186**	**ug/L**	3.890	905	0.001
>	Ge	74		**ug/L**		191279	191279.383
	As	75	**1.184**	**ug/L**	14.114	985	0.003
	Se	77		**ug/L**		1767	-0.015
	Se	82	**0.127**	**ug/L**	329.089	-4	0.000
	Kr	83		**ug/L**		103	0.000
>	Lu	175		**ug/L**		215215	215215.165
	Tl	205	**0.078**	**ug/L**	2.224	862	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.0			
	Ni	60					
>	Ge	74		86.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 06, 2010 14:08:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 6.227

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**55.549**	**ug/L**	3.262	18307	0.027
>	Sc	45		**ug/L**		686324	686324.052
	Ni	60	**52.018**	**ug/L**	1.730	35855	0.052
>	Ge	74		**ug/L**		196568	196568.482
	As	75	**52.400**	**ug/L**	0.916	27502	0.138
	Se	77		**ug/L**		4764	0.000
	Se	82	**51.894**	**ug/L**	2.425	2414	0.012
	Kr	83		**ug/L**		83	0.000
>	Lu	175		**ug/L**		199358	199357.631
	Tl	205	**51.699**	**ug/L**	1.247	377471	1.893

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	111.099				
>	Sc	45		90.8			
	Ni	60	104.037				
>	Ge	74		88.8			
	As	75	104.801				
	Se	77					
	Se	82	103.787				
	Kr	83					
>	Lu	175		97.2			
	Tl	205	103.398				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 06, 2010 14:12:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 7.228

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.000**	**ug/L**	3194.957	17	0.000
>	Sc	45		**ug/L**		794733	794732.689
	Ni	60	**-0.011**	**ug/L**	118.167	105	-0.000
>	Ge	74		**ug/L**		219561	219561.139
	As	75	**-0.606**	**ug/L**	6.766	96	-0.002
	Se	77		**ug/L**		5457	0.001
	Se	82	**0.005**	**ug/L**	6435.706	-11	0.000
	Kr	83		**ug/L**		73	-0.000
>	Lu	175		**ug/L**		198103	198103.441
	Tl	205	**0.061**	**ug/L**	4.173	672	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		105.2			
	Ni	60					
>	Ge	74		99.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, May 08, 2010 00:08:07
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100506\Sample.240
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2284.6	2284.583	48.965	2.1
	Mg	24.0	317292.5	317292.525	6701.235	2.1
	Co	58.9	27600.6	27600.647	584.552	2.1
	Rh	102.9	55924.1	55924.051	301.450	0.5
	In	114.9	65837.0	65836.970	636.520	1.0
	Pb	208.0	45715.8	45715.836	429.021	0.9
⌈>	Ba	137.9	78143.4	78143.376	1381.108	1.8
⌊	Ba++	69.0	827.6	0.011	0.000	2.6
⌈>	Ce	139.9	78074.6	78074.579	685.417	0.9
⌊	CeO	155.9	1034.2	0.013	0.000	2.3
	Bkgd	220.0	22.8	22.800	0.908	4.0

Current Optimization File Data

Current Value	Description
0.74	Nebulizer Gas Flow
9.00	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.5	2694.3
Co	59	17	8.0	25560.5
In	115	17	9.5	60337.8

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	576	2080	0.650
Be	9.0	9.1	2045	2080	0.682
Mg	24.0	24.0	5684	2120	0.640
Mg	25.0	25.0	5911	2080	0.669
Mg	26.0	26.0	6174	2120	0.672
Co	58.9	58.9	14162	2170	0.634
Rh	102.9	102.9	24858	2230	0.690
In	114.9	115.0	27785	2260	0.675
Ce	139.9	139.9	33847	2280	0.746
Pb	206.0	206.0	49948	2424	0.758
Pb	207.0	207.0	50125	2385	0.678
Pb	208.0	208.0	50463	2430	0.704
U	238.1	238.1	57733	2470	0.700

Report Date/Time: Friday, May 07, 2010 23:53:54

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, May 08, 2010 02:25:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\Blank.030

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9		ug/L		21	
Sc	45		ug/L		666437	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, May 08, 2010 02:28:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\Standard 1.031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	10.000	ug/L	1.076	3348	0.005
⌊>	Sc	45		ug/L		666338	666338.130

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, May 08, 2010 02:31:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\Standard 2.032

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	99.970	ug/L	2.396	31647	0.048
Sc	45		ug/L		652971	652970.555

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, May 08, 2010 02:35:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 1.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	52.012	ug/L	1.656	16491	0.025
⌊>	Sc	45		ug/L		653681	653681.190

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	104.024				
⌊>	Sc	45		98.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, May 08, 2010 02:38:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 2.034

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.016	ug/L	80.386	27	0.000
⌊>	Sc	45		ug/L		678778	678778.314

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		101.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, May 08, 2010 02:42:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 3.035

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.592**	**ug/L**	1.702	214	0.000
⌊>	Sc	45		**ug/L**		671454	671454.167

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	118.358				
⌊>	Sc	45		100.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, May 08, 2010 02:45:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 4.036

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.083	ug/L	17.686	43	0.000
⌊>	Sc	45		ug/L		596731	596730.865

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		89.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, May 08, 2010 02:48:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 5.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	18.748	ug/L	2.047	5428	0.009
⌊>	Sc	45		ug/L		595359	595359.122

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9	93.742				
⌊>	Sc	45		89.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 08, 2010 02:52:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 6.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**49.629**	**ug/L**	1.018	15209	0.024
⌊>	Sc	45		**ug/L**		631633	631632.996

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	99.259				
⌊>	Sc	45		94.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 08, 2010 02:55:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 7.039

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.006	ug/L	324.250	22	0.000
Sc	45		ug/L		633479	633478.564

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		95.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068041
Sample Date/Time: Saturday, May 08, 2010 02:59:07
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\1202068041.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.032	ug/L	73.743	29	0.000
⌊>	Sc	45		ug/L		607019	607019.446

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		91.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068046
Sample Date/Time: Saturday, May 08, 2010 03:03:01
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 963991|40|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\1202068046.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	19.272	ug/L	2.026	6329	0.009
⌊>	Sc	45		ug/L		675622	675622.171

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		101.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068042
Sample Date/Time: Saturday, May 08, 2010 03:10:51
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\1202068042.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	2.959	ug/L	3.718	989	0.001
⌊>	Sc	45		ug/L		674675	674674.851

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		101.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068044
Sample Date/Time: Saturday, May 08, 2010 03:14:46
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\1202068044.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	26.869	ug/L	0.818	9044	0.013
⌊>	Sc	45		ug/L		692974	692973.562

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		104.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068045
Sample Date/Time: Saturday, May 08, 2010 03:18:40
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\1202068045.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	27.918	ug/L	1.822	9293	0.014
⌊>	Sc	45		ug/L		685341	685340.884

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		102.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068043
Sample Date/Time: Saturday, May 08, 2010 03:22:35
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 963991|10|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\1202068043.046

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.679	ug/L	4.676	249	0.000
⌊>	Sc	45		ug/L		689425	689424.644

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		103.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 08, 2010 03:30:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 6.048

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	53.408	ug/L	1.384	17118	0.026
⌊>	Sc	45		ug/L		660787	660787.390

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	106.816				
⌊>	Sc	45		99.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 08, 2010 03:33:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 7.049

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.004	ug/L	983.350	22	0.000
⌊>	Sc	45		ug/L		661965	661965.167

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		99.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248814001
Sample Date/Time: Saturday, May 08, 2010 03:56:52
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\248814001.055

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.642	ug/L	8.973	232	0.000
⌊>	Sc	45		ug/L		677064	677064.067

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		101.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248814002
Sample Date/Time: Saturday, May 08, 2010 04:00:47
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\248814002.056

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.609	ug/L	2.142	219	0.000
⌊>	Sc	45		ug/L		668728	668728.280

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		100.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248814003
Sample Date/Time: Saturday, May 08, 2010 04:04:43
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\248814003.057

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.291	ug/L	4.222	115	0.000
⌊>	Sc	45		ug/L		663715	663715.442

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		99.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 08, 2010 04:08:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 6.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**54.987**	**ug/L**	0.305	17446	0.027
⌊>	Sc	45		**ug/L**		653996	653995.975

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	109.974				
⌊>	Sc	45		98.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 08, 2010 04:12:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 7.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.002	ug/L	882.770	22	0.000
⌊>	Sc	45		ug/L		661975	661975.435

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		99.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248814004
Sample Date/Time: Saturday, May 08, 2010 04:15:28
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\248814004.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	1.155	ug/L	7.832	414	0.001
⌊>	Sc	45		ug/L		699129	699129.456

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		104.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248814005
Sample Date/Time: Saturday, May 08, 2010 04:19:24
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\248814005.061

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.389	ug/L	12.677	149	0.000
⌊>	Sc	45		ug/L		674621	674620.959

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		101.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248814006
Sample Date/Time: Saturday, May 08, 2010 04:23:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\248814006.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.199	ug/L	23.136	87	0.000
⌊>	Sc	45		ug/L		676984	676984.444

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		101.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248814007
Sample Date/Time: Saturday, May 08, 2010 04:27:15
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\248814007.063

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.662**	**ug/L**	1.839	235	0.000
⌊>	Sc	45		**ug/L**		666864	666863.689

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		100.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248814008
Sample Date/Time: Saturday, May 08, 2010 04:31:11
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\248814008.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.329**	**ug/L**	14.198	128	0.000
⌊>	Sc	45		**ug/L**		669728	669728.215

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		100.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248814009
Sample Date/Time: Saturday, May 08, 2010 04:35:06
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963991|2|rmj
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\248814009.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.704	ug/L	11.962	250	0.000
⌊>	Sc	45		ug/L		670657	670656.889

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		100.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 08, 2010 04:38:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 6.066

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	53.392	ug/L	1.253	17240	0.026
Sc	45		ug/L		665634	665633.737

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9	106.784				
Sc	45		99.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 08, 2010 04:42:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 7.067

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.009	ug/L	174.611	24	0.000
Sc	45		ug/L		650423	650422.780

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		97.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #7 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, May 26, 2010 12:14:02
Sample Description:
Method File: C:\elandata\Method\daily2.mth
Dataset File: C:\elandata\Dataset\default\Sample.584
Tuning File: C:\elandata\Tuning\Default.tun
Optimization File: C:\elandata\Optimize\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 80
Current Dead Time (ns): 80

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	3223.2	3223.231	91.957	2.9
	Mg	24.0	32246.0	32245.991	577.869	1.8
	Co	58.9	92560.0	92560.016	1018.613	1.1
	Rh	102.9	138335.0	138335.018	887.105	0.6
	In	114.9	173789.4	173789.424	1484.893	0.9
	Pb	208.0	95946.1	95946.135	1214.667	1.3
⌈>	Ba	137.9	153380.5	153380.495	1581.724	1.0
⌊	Ba++	69.0	2223.2	0.014	0.000	1.8
⌈>	Ce	139.9	196554.2	196554.210	2468.716	1.3
⌊	CeO	155.9	3679.3	0.019	0.001	3.9
	Bkgd	220.0	10.3	10.300	2.414	23.4

Current Optimization File Data

Current Value	Description
0.95	Nebulizer Gas Flow
8.00	Lens Voltage
1000.00	ICP RF Power
-1525.00	Analog Stage Voltage
750.00	Pulse Stage Voltage
14.00	Discriminator Threshold
-3.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	25	8.0	3982.3
Co	59	25	9.5	94248.3
In	115	25	10.8	157231.2

Instrument #7 Tuning Report

File Name: 100526.tun
File Path: C:\Elandata\Tuning\100526.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	569	2064	0.657
Be	9.0	9.0	2015	2060	0.635
Mg	24.0	24.0	5666	2080	0.586
Mg	25.0	25.0	5894	2070	0.556
Mg	26.0	26.0	6178	2070	0.584
Co	58.9	58.9	14151	2040	0.661
Rh	102.9	102.9	24879	2030	0.648
In	114.9	114.9	27789	2033	0.634
Ce	139.9	140.0	33883	2020	0.642
Pb	206.0	206.0	49942	1980	0.694
Pb	207.0	207.0	50201	2000	0.641
Pb	208.0	208.0	50467	1990	0.663
U	238.1	238.0	57764	1980	0.722

ICPMS#7 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, May 26, 2010 14:05:39
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\Blank.918

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133		ug/L		22	
Lu	175		ug/L		194224	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, May 26, 2010 14:06:36
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\Standard 1.919

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	10.000	ug/L	1.746	94537	0.491
Lu	175		ug/L		192414	192413.782

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, May 26, 2010 14:07:32
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\Standard 2.920

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	99.998	ug/L	1.333	948923	4.906
Lu	175		ug/L		193441	193441.148

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, May 26, 2010 14:08:27
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 1.921

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	50.765	ug/L	1.552	478333	2.491
Lu	175		ug/L		192111	192111.443

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	101.530				
Lu	175		98.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, May 26, 2010 14:09:25
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 2.922

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	0.010	ug/L	3.008	118	0.000
⌊>	Lu	175		ug/L		194894	194893.945

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		100.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, May 26, 2010 14:10:21
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 3.923

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	0.494	ug/L	0.757	4767	0.024
Lu	175		ug/L		195905	195904.937

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	98.746				
Lu	175			100.9		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, May 26, 2010 14:11:18
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 4.924

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	0.081	ug/L	6.919	778	0.004
Lu	175		ug/L		191634	191633.601

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		98.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, May 26, 2010 14:12:14
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 5.925

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	19.227	ug/L	1.630	176064	0.943
Lu	175		ug/L		186663	186663.065

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	96.136				
Lu	175		96.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 26, 2010 14:13:10
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.926

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**50.735**	**ug/L**	2.023	455235	2.489
Lu	175		**ug/L**		182993	182992.764

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	101.469				
Lu	175		94.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 26, 2010 14:14:08
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.927

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	0.007	ug/L	8.737	87	0.000
Lu	175		ug/L		189783	189782.833

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		97.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 26, 2010 14:21:58
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.935

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	52.906	ug/L	2.386	493621	2.596
Lu	175		ug/L		190247	190247.306

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	105.812				
Lu	175		98.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 26, 2010 14:22:56
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.936

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	0.009	ug/L	15.811	105	0.000
⌊>	Lu	175		ug/L		196855	196855.298

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		101.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 26, 2010 14:33:16
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.947

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	54.010	ug/L	1.029	508179	2.650
Lu	175		ug/L		191830	191830.263

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	108.019				
Lu	175		98.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 26, 2010 14:34:14
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.948

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	0.007	ug/L	28.139	88	0.000
Lu	175		ug/L		193140	193139.751

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		99.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202116473
Sample Date/Time: Wednesday, May 26, 2010 14:44:49
Sample Type: Sample
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 983921|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202116473.950

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	0.001	ug/L	66.255	35	0.000
⌊>	Lu	175		ug/L		191798	191797.640

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		98.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202116474
Sample Date/Time: Wednesday, May 26, 2010 14:45:45
Sample Type: Sample
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 983921|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202116474.951

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	27.527	ug/L	0.604	251879	1.351
⌊>	Lu	175		ug/L		186508	186507.655

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		96.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068042
Sample Date/Time: Wednesday, May 26, 2010 14:47:37
Sample Type: Sample
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 983921|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202068042.953

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	2.105	ug/L	1.538	19889	0.103
⌊>	Lu	175		ug/L		192373	192372.755

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		99.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068044
Sample Date/Time: Wednesday, May 26, 2010 14:48:33
Sample Type: Sample
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 983921|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202068044.954

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	26.712	ug/L	0.524	264547	1.311
Lu	175		ug/L		201843	201842.697

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		103.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068045
Sample Date/Time: Wednesday, May 26, 2010 14:49:29
Sample Type: Sample
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 983921|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202068045.955

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	28.522	ug/L	1.167	274467	1.399
Lu	175		ug/L		196171	196170.845

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		101.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068043
Sample Date/Time: Wednesday, May 26, 2010 14:50:26
Sample Type: Sample
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 983921|10|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202068043.956

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	0.451	ug/L	3.799	4261	0.022
Lu	175		ug/L		191533	191533.346

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		98.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248814001
Sample Date/Time: Wednesday, May 26, 2010 14:51:22
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983921|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248814001.957

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	7.507	ug/L	0.518	67975	0.368
⌊>	Lu	175		ug/L		184518	184518.308

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		95.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 26, 2010 14:52:19
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.958

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	53.540	ug/L	1.732	476597	2.627
Lu	175		ug/L		181503	181502.851

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	107.080				
Lu	175		93.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 26, 2010 14:53:17
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.959

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	0.009	ug/L	16.019	101	0.000
Lu	175		ug/L		186610	186610.351

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		96.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248814002
Sample Date/Time: Wednesday, May 26, 2010 14:54:13
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983921|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248814002.960

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**12.678**	**ug/L**	0.067	113577	0.622
⌊>	Lu	175		**ug/L**		182557	182557.389

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		94.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248814003
Sample Date/Time: Wednesday, May 26, 2010 14:55:09
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983921|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248814003.961

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**27.140**	**ug/L**	0.575	236777	1.332
⌊>	Lu	175		**ug/L**		177815	177815.066

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		91.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248814004
Sample Date/Time: Wednesday, May 26, 2010 14:56:05
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983921|5|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248814004.962

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	51.819	ug/L	0.286	457210	2.542
⌊>	Lu	175		ug/L		179815	179814.803

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		92.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248814005
Sample Date/Time: Wednesday, May 26, 2010 14:57:01
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983921|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248814005.963

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**2.547**	**ug/L**	0.547	23172	0.125
⌊>	Lu	175		**ug/L**		185308	185308.143

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		95.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248814006
Sample Date/Time: Wednesday, May 26, 2010 14:57:58
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983921|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248814006.964

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	2.827	ug/L	1.892	24866	0.139
Lu	175		ug/L		179240	179239.699

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		92.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248814007
Sample Date/Time: Wednesday, May 26, 2010 14:58:55
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983921|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248814007.965

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**4.020**	**ug/L**	0.721	35639	0.197
Lu	175		**ug/L**		180592	180591.608

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		93.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248814008
Sample Date/Time: Wednesday, May 26, 2010 14:59:51
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983921|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248814008.966

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**1.844**	**ug/L**	1.927	16635	0.090
⌊>	Lu	175		**ug/L**		183766	183765.546

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		94.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248814009
Sample Date/Time: Wednesday, May 26, 2010 15:00:47
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983921|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248814009.967

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	5.311	ug/L	2.355	47230	0.261
Lu	175		ug/L		181253	181253.103

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175			93.3		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 26, 2010 15:01:44
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.968

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**53.797**	**ug/L**	2.136	460428	2.639
Lu	175		**ug/L**		174508	174507.868

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	107.593				
Lu	175			89.8		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 26, 2010 15:02:42
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.969

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**0.008**	**ug/L**	7.148	89	0.000
Lu	175		**ug/L**		170906	170905.911

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		88.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\032310S1.SIF
Batch ID:
Results Data Set: 032310S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 3/16/2010 09:36:57**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/23/2010 08:48:48**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0005	0.0030	0.0005	08:49:41	Yes
2		[0.00]	0.0005	0.0022	0.0005	08:50:11	Yes
Mean:		[0.00]	0.0005				
SD:		0.00	0.0000				
%RSD:		0.00	9.84				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/23/2010 08:50:29**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0029	0.0172	0.0034	08:51:20	Yes
2		[0.2]	0.0028	0.0155	0.0033	08:51:49	Yes
Mean:		[0.2]	0.0029				
SD:		0.0	0.0001				
%RSD:		0.0	2.74				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01426 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/23/2010 08:52:09**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0071	0.0362	0.0076	08:52:59	Yes
2		[0.5]	0.0071	0.0368	0.0075	08:53:29	Yes
Mean:		[0.5]	0.0071				
SD:		0.0	0.0000				
%RSD:		0.0	0.05				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999987 Slope: 0.01410 Intercept: 0.00001

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/23/2010 08:53:48**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0284	0.1413	0.0289	08:54:40	Yes
2		[2.0]	0.0280	0.1385	0.0285	08:55:10	Yes
Mean:		[2.0]	0.0282				
SD:		0.0	0.0003				
%RSD:		0.0	1.02				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999999 Slope: 0.01408 Intercept: 0.00002

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/23/2010 08:55:30**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0699	0.3467	0.0704	08:56:22	Yes
2		[5.0]	0.0698	0.3436	0.0703	08:56:52	Yes
Mean:		[5.0]	0.0699				
SD:		0.0	0.0001				
%RSD:		0.0	0.16				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999995 Slope: 0.01397 Intercept: 0.00007

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/23/2010 08:57:12**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1354	0.6726	0.1359	08:58:02	Yes
2		[10.0]	0.1357	0.6712	0.1362	08:58:32	Yes
Mean:		[10.0]	0.1355				
SD:		0.0	0.0002				
%RSD:		0.0	0.18				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999880 Slope: 0.01358 Intercept: 0.00051

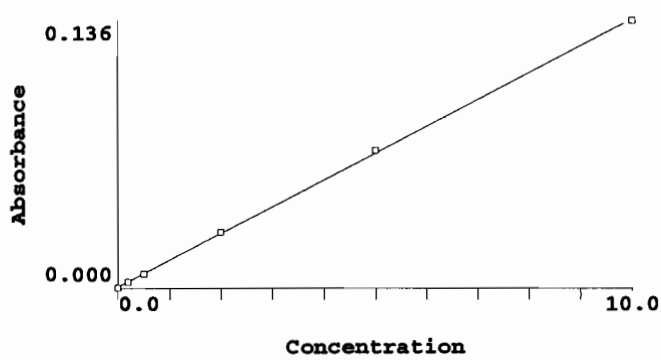

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.038	0.00	9.8
S0.2	0.0029	0.2	0.172	0.00	2.7
S0.5	0.0071	0.5	0.482	0.00	0.1
S2.0	0.0282	2.0	2.036	0.00	1.0

S5.0	0.0699	5.0	5.106	0.00	0.2
S10.0	0.1355	10.0	9.941	0.00	0.2

Correlation Coef.: 0.999880 Slope: 0.01358 Intercept: 0.00051

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/23/2010 08:58:51**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.117	5.117	0.0700	0.3487	0.0705	08:59:41	Yes
2	5.078	5.078	0.0695	0.3422	0.0700	09:00:11	Yes
Mean:	5.097	5.097	0.0697				
SD:	0.027	0.027	0.0004				
%RSD:	0.531	0.531	0.53				

QC value within limits for Hg 253.7 Recovery = 101.95%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/23/2010 09:00:31**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.040	-0.040	-0.0000	0.0010	0.0005	09:01:23	Yes
2	-0.043	-0.043	-0.0001	0.0009	0.0004	09:01:52	Yes
Mean:	-0.042	-0.042	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	4.646	4.646	49.05				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/23/2010 09:02:12**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.172	0.172	0.0028	0.0156	0.0033	09:03:04	Yes
2	0.168	0.168	0.0028	0.0153	0.0033	09:03:34	Yes
Mean:	0.170	0.170	0.0028				
SD:	0.003	0.003	0.0000				
%RSD:	1.682	1.682	1.38				

QC value within limits for Hg 253.7 Recovery = 84.82%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 09:03:54**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.085	5.085	0.0696	0.3468	0.0701	09:04:44	Yes
2	5.100	5.100	0.0698	0.3464	0.0703	09:05:14	Yes
Mean:	5.092	5.092	0.0697				
SD:	0.011	0.011	0.0002				
%RSD:	0.219	0.219	0.22				

QC value within limits for Hg 253.7 Recovery = 101.85%
All analyte(s) passed QC.

Sequence No.: 11 Autosampler Location: 8
Sample ID: CCB Date Collected: 3/23/2010 09:05:33
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.042	-0.042	-0.0001	0.0013	0.0004	09:06:24	Yes
2	-0.044	-0.044	-0.0001	0.0014	0.0004	09:06:54	Yes
Mean:	-0.043	-0.043	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	3.779	3.779	31.29				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 Autosampler Location: 12
Sample ID: 1202076787|967588|1 Date Collected: 3/23/2010 09:07:13
Analyst: JXL Data Type: Original

Replicate Data: 1202076787|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.037	-0.037	0.0000	0.0018	0.0005	09:08:05	Yes
2	-0.039	-0.039	-0.0000	0.0015	0.0005	09:08:35	Yes
Mean:	-0.038	-0.038	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.857	3.857	171.19				

Sequence No.: 13 Autosampler Location: 13
Sample ID: 1202076788|967588|1 Date Collected: 3/23/2010 09:08:55
Analyst: JXL Data Type: Original

Replicate Data: 1202076788|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.049	2.049	0.0283	0.1421	0.0288	09:09:46	Yes
2	2.045	2.045	0.0283	0.1417	0.0288	09:10:16	Yes
Mean:	2.047	2.047	0.0283				
SD:	0.003	0.003	0.0000				
%RSD:	0.124	0.124	0.12				

Sequence No.: 14 Autosampler Location: 14
Sample ID: 248483001|967588|1 Date Collected: 3/23/2010 09:10:37
Analyst: JXL Data Type: Original

Replicate Data: 248483001|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	0.0009	0.0059	0.0014	09:11:27	Yes
2	0.030	0.030	0.0009	0.0069	0.0014	09:11:57	Yes
Mean:	0.029	0.029	0.0009				
SD:	0.002	0.002	0.0000				
%RSD:	7.965	7.965	3.44				

Sequence No.: 15 Autosampler Location: 15
Sample ID: 248483002|967588|1 Date Collected: 3/23/2010 09:12:16
Analyst: JXL Data Type: Original

Replicate Data: 248483002|967588|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 1202076791|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.178	2.178	0.0301	0.1528	0.0306	09:21:24	Yes
2	2.161	2.161	0.0299	0.1510	0.0304	09:21:54	Yes
Mean:	2.169	2.169	0.0300				
SD:	0.012	0.012	0.0002				
%RSD:	0.561	0.561	0.55				

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 1202076792|967588|5 **Date Collected: 3/23/2010 09:22:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076792|967588|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	0.0005	0.0050	0.0010	09:23:04	Yes
2	-0.011	-0.011	0.0004	0.0046	0.0009	09:23:34	Yes
Mean:	-0.007	-0.007	0.0004				
SD:	0.006	0.006	0.0001				
%RSD:	83.40	83.40	19.79				

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 09:23:53**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.174	5.174	0.0708	0.3530	0.0713	09:24:43	Yes
2	5.099	5.099	0.0698	0.3475	0.0703	09:25:13	Yes
Mean:	5.136	5.136	0.0703				
SD:	0.053	0.053	0.0007				
%RSD:	1.034	1.034	1.03				

QC value within limits for Hg 253.7 Recovery = 102.73%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 09:25:32**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.029	-0.029	0.0001	0.0036	0.0006	09:26:23	Yes
2	-0.028	-0.028	0.0001	0.0031	0.0006	09:26:53	Yes
Mean:	-0.028	-0.028	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.927	2.927	9.13				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 248483005|967588|1 **Date Collected: 3/23/2010 09:27:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483005|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.049	0.049	0.0012	0.0088	0.0017	09:28:03	Yes
2	0.047	0.047	0.0011	0.0080	0.0016	09:28:33	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.090	0.090	0.0017	0.0111	0.0022	09:36:27	Yes
2	0.097	0.097	0.0018	0.0112	0.0023	09:36:57	Yes
Mean:	0.093	0.093	0.0018				
SD:	0.005	0.005	0.0001				
%RSD:	5.347	5.347	3.81				

==========

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 248483011|967588|1 **Date Collected: 3/23/2010 09:37:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483011|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.158	0.158	0.0027	0.0154	0.0032	09:38:07	Yes
2	0.167	0.167	0.0028	0.0165	0.0033	09:38:37	Yes
Mean:	0.162	0.162	0.0027				
SD:	0.006	0.006	0.0001				
%RSD:	3.724	3.724	3.02				

==========

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 248483012|967588|1 **Date Collected: 3/23/2010 09:38:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483012|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.162	0.162	0.0027	0.0179	0.0032	09:39:46	Yes
2	0.148	0.148	0.0025	0.0154	0.0030	09:40:16	Yes
Mean:	0.155	0.155	0.0026				
SD:	0.010	0.010	0.0001				
%RSD:	6.492	6.492	5.22				

==========

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 248483013|967588|1 **Date Collected: 3/23/2010 09:40:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483013|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.150	0.150	0.0026	0.0139	0.0031	09:41:26	Yes
2	0.152	0.152	0.0026	0.0147	0.0031	09:41:56	Yes
Mean:	0.151	0.151	0.0026				
SD:	0.001	0.001	0.0000				
%RSD:	0.691	0.691	0.55				

==========

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 248483014|967588|1 **Date Collected: 3/23/2010 09:42:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 248483014|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.087	0.087	0.0017	0.0101	0.0022	09:43:06	Yes
2	0.079	0.079	0.0016	0.0099	0.0021	09:43:36	Yes
Mean:	0.083	0.083	0.0016				
SD:	0.006	0.006	0.0001				
%RSD:	7.146	7.146	4.92				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 09:43:55**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.174	5.174	0.0708	0.3535	0.0713	09:44:45	Yes
2	5.173	5.173	0.0708	0.3542	0.0713	09:45:15	Yes
Mean:	5.174	5.174	0.0708				
SD:	0.001	0.001	0.0000				
%RSD:	0.014	0.014	0.01				

QC value within limits for Hg 253.7 Recovery = 103.48%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 3/23/2010 09:45:34
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.031	-0.031	0.0001	0.0023	0.0006	09:46:24	Yes
2	-0.031	-0.031	0.0001	0.0024	0.0006	09:46:54	Yes
Mean:	-0.031	-0.031	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.575	0.575	2.65				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 248483015|967588|1 Date Collected: 3/23/2010 09:47:14
Analyst: JXL Data Type: Original

Replicate Data: 248483015|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.254	0.254	0.0040	0.0221	0.0045	09:48:05	Yes
2	0.252	0.252	0.0039	0.0220	0.0044	09:48:35	Yes
Mean:	0.253	0.253	0.0039				
SD:	0.001	0.001	0.0000				
%RSD:	0.412	0.412	0.36				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 248483016|967588|1 Date Collected: 3/23/2010 09:48:54
Analyst: JXL Data Type: Original

Replicate Data: 248483016|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.131	0.131	0.0023	0.0135	0.0028	09:49:45	Yes
2	0.145	0.145	0.0025	0.0147	0.0030	09:50:15	Yes
Mean:	0.138	0.138	0.0024				
SD:	0.010	0.010	0.0001				
%RSD:	7.065	7.065	5.55				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 248483017|967588|1 Date Collected: 3/23/2010 09:50:34
Analyst: JXL Data Type: Original

Replicate Data: 248483017|967588|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.072	0.072	0.0015	0.0104	0.0020	09:51:25	Yes

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\032310S1.SIF
Batch ID:
Results Data Set: 032310S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 3/16/2010 09:36:57**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/23/2010 10:02:14**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.176	0.176	0.0029	0.0173	0.0034	10:03:06	Yes
2	0.172	0.172	0.0028	0.0167	0.0033	10:03:36	Yes
Mean:	0.174	0.174	0.0029				
SD:	0.003	0.003	0.0000				
%RSD:	1.725	1.725	1.42				

QC value within limits for Hg 253.7 Recovery = 87.10%
All analyte(s) passed QC.

==========

Sequence No.: 2 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 10:03:56**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.204	5.204	0.0712	0.3552	0.0717	10:04:46	Yes
2	5.206	5.206	0.0712	0.3552	0.0717	10:05:16	Yes
Mean:	5.205	5.205	0.0712				
SD:	0.001	0.001	0.0000				
%RSD:	0.021	0.021	0.02				

QC value within limits for Hg 253.7 Recovery = 104.10%
All analyte(s) passed QC.

==========

Sequence No.: 3 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 10:05:35**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.037	-0.037	0.0000	0.0021	0.0005	10:06:25	Yes
2	-0.036	-0.036	0.0000	0.0021	0.0005	10:06:55	Yes
Mean:	-0.036	-0.036	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	1.756	1.756	46.59				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 4 **Autosampler Location: 39**
Sample ID: 248673001|967582|1 **Date Collected: 3/23/2010 10:07:14**

2	0.392	0.392	0.0058	0.0316	0.0063	10:23:42	Yes
Mean:	0.391	0.391	0.0058				
SD:	0.000	0.000	0.0000				
%RSD:	0.021	0.021	0.02				

==========

Sequence No.: 14 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 10:24:02**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.939	4.939	0.0676	0.3393	0.0681	10:24:52	Yes
2	4.862	4.862	0.0665	0.3334	0.0670	10:25:22	Yes
Mean:	4.900	4.900	0.0671				
SD:	0.055	0.055	0.0007				
%RSD:	1.117	1.117	1.11				

QC value within limits for Hg 253.7 Recovery = 98.00%
All analyte(s) passed QC.

==========

Sequence No.: 15 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 10:25:41**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.041	-0.041	-0.0000	0.0022	0.0005	10:26:31	Yes
2	-0.044	-0.044	-0.0001	0.0017	0.0004	10:27:01	Yes
Mean:	-0.043	-0.043	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	4.782	4.782	40.46				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 16 **Autosampler Location: 49**
Sample ID: 1202076781|967585|1 **Date Collected: 3/23/2010 10:27:21**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076781|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.046	-0.046	-0.0001	0.0020	0.0004	10:28:12	Yes
2	-0.045	-0.045	-0.0001	0.0020	0.0004	10:28:42	Yes
Mean:	-0.045	-0.045	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.559	0.559	3.22				

==========

Sequence No.: 17 **Autosampler Location: 50**
Sample ID: 1202076782|967585|10 **Date Collected: 3/23/2010 10:29:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076782|967585|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.640	3.640	0.0499	0.2499	0.0504	10:29:54	Yes
2	3.612	3.612	0.0496	0.2477	0.0501	10:30:23	Yes
Mean:	3.626	3.626	0.0498				
SD:	0.020	0.020	0.0003				
%RSD:	0.544	0.544	0.54				

==========

Sequence No.: 18 **Autosampler Location: 51**

%RSD: 3.093 3.093 1.41

==========

Sequence No.: 23 **Autosampler Location: 56**
Sample ID: 248700002|967585|1 **Date Collected: 3/23/2010 10:39:07**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700002|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.111	0.111	0.0020	0.0126	0.0025	10:39:58	Yes
2	0.111	0.111	0.0020	0.0126	0.0025	10:40:28	Yes
Mean:	0.111	0.111	0.0020				
SD:	0.000	0.000	0.0000				
%RSD:	0.070	0.070	0.05				

==========

Sequence No.: 24 **Autosampler Location: 57**
Sample ID: 248700003|967585|1 **Date Collected: 3/23/2010 10:40:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700003|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.234	0.234	0.0037	0.0208	0.0042	10:41:39	Yes
2	0.232	0.232	0.0037	0.0205	0.0042	10:42:09	Yes
Mean:	0.233	0.233	0.0037				
SD:	0.002	0.002	0.0000				
%RSD:	0.715	0.715	0.62				

==========

Sequence No.: 25 **Autosampler Location: 58**
Sample ID: 248700004|967585|1 **Date Collected: 3/23/2010 10:42:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700004|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.168	0.168	0.0028	0.0163	0.0033	10:43:20	Yes
2	0.166	0.166	0.0028	0.0160	0.0033	10:43:49	Yes
Mean:	0.167	0.167	0.0028				
SD:	0.002	0.002	0.0000				
%RSD:	1.031	1.031	0.84				

==========

Sequence No.: 26 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 10:44:09**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.962	4.962	0.0679	0.3375	0.0684	10:44:59	Yes
2	4.926	4.926	0.0674	0.3330	0.0679	10:45:29	Yes
Mean:	4.944	4.944	0.0677				
SD:	0.025	0.025	0.0003				
%RSD:	0.513	0.513	0.51				

QC value within limits for Hg 253.7 Recovery = 98.88%
All analyte(s) passed QC.

==========

Sequence No.: 27 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 10:45:48**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.036	-0.036	0.0000	0.0024	0.0005	10:46:38	Yes
2	-0.035	-0.035	0.0000	0.0024	0.0005	10:47:08	Yes
Mean:	-0.036	-0.036	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	1.124	1.124	22.10				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 28 **Autosampler Location: 59**
Sample ID: 248700005|967585|1 **Date Collected: 3/23/2010 10:47:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700005|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.371	0.371	0.0056	0.0302	0.0060	10:48:19	Yes
2	0.369	0.369	0.0055	0.0299	0.0060	10:48:49	Yes
Mean:	0.370	0.370	0.0055				
SD:	0.001	0.001	0.0000				
%RSD:	0.318	0.318	0.29				

==========

Sequence No.: 29 **Autosampler Location: 60**
Sample ID: 248700006|967585|1 **Date Collected: 3/23/2010 10:49:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700006|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.168	0.168	0.0028	0.0162	0.0033	10:50:00	Yes
2	0.168	0.168	0.0028	0.0162	0.0033	10:50:30	Yes
Mean:	0.168	0.168	0.0028				
SD:	0.000	0.000	0.0000				
%RSD:	0.165	0.165	0.13				

==========

Sequence No.: 30 **Autosampler Location: 61**
Sample ID: 248700007|967585|1 **Date Collected: 3/23/2010 10:50:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700007|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.645	1.645	0.0229	0.1165	0.0234	10:51:42	Yes
2	1.645	1.645	0.0229	0.1156	0.0233	10:52:12	Yes
Mean:	1.645	1.645	0.0229				
SD:	0.000	0.000	0.0000				
%RSD:	0.010	0.010	0.01				

==========

Sequence No.: 31 **Autosampler Location: 62**
Sample ID: 248700008|967585|1 **Date Collected: 3/23/2010 10:52:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700008|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.183	0.183	0.0030	0.0169	0.0035	10:53:23	Yes
2	0.187	0.187	0.0031	0.0174	0.0036	10:53:53	Yes
Mean:	0.185	0.185	0.0030				
SD:	0.003	0.003	0.0000				
%RSD:	1.705	1.705	1.42				

==========

SD:	0.004	0.004	0.0000
%RSD:	1.017	1.017	0.92

==========

Sequence No.: 37 **Autosampler Location: 68**
Sample ID: 248700014|967585|1 **Date Collected: 3/23/2010 11:02:39**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700014|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.260	0.260	0.0040	0.0223	0.0045	11:03:30	Yes
2	0.257	0.257	0.0040	0.0220	0.0045	11:04:00	Yes
Mean:	0.259	0.259	0.0040				
SD:	0.002	0.002	0.0000				
%RSD:	0.857	0.857	0.75				

==========

Sequence No.: 38 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 11:04:20**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.024	5.024	0.0687	0.3448	0.0692	11:05:10	Yes
2	4.987	4.987	0.0682	0.3414	0.0687	11:05:40	Yes
Mean:	5.006	5.006	0.0685				
SD:	0.026	0.026	0.0003				
%RSD:	0.512	0.512	0.51				

QC value within limits for Hg 253.7 Recovery = 100.11%
All analyte(s) passed QC.

==========

Sequence No.: 39 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 11:05:59**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.033	-0.033	0.0001	0.0025	0.0006	11:06:50	Yes
2	-0.034	-0.034	0.0000	0.0022	0.0005	11:07:20	Yes
Mean:	-0.034	-0.034	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.019	3.019	25.01				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 40 **Autosampler Location: 69**
Sample ID: 248700015|967585|1 **Date Collected: 3/23/2010 11:07:39**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700015|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.263	0.263	0.0041	0.0221	0.0046	11:08:30	Yes
2	0.252	0.252	0.0039	0.0216	0.0044	11:09:00	Yes
Mean:	0.258	0.258	0.0040				
SD:	0.008	0.008	0.0001				
%RSD:	3.046	3.046	2.66				

==========

Sequence No.: 41 **Autosampler Location: 70**
Sample ID: 248700016|967585|1 **Date Collected: 3/23/2010 11:09:20**
Analyst: JXL **Data Type: Original**

Replicate Data: 248700016|967585|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.230	0.230	0.0036	0.0189	0.0041	11:10:11	Yes
2	0.230	0.230	0.0036	0.0195	0.0041	11:10:41	Yes
Mean:	0.230	0.230	0.0036				
SD:	0.000	0.000	0.0000				
%RSD:	0.079	0.079	0.07				

Sequence No.: 42 **Autosampler Location: 71**
Sample ID: 1202076806|967595|1 **Date Collected: 3/23/2010 11:11:01**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076806|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.038	-0.038	-0.0000	0.0012	0.0005	11:11:52	Yes
2	-0.041	-0.041	-0.0000	0.0015	0.0005	11:12:22	Yes
Mean:	-0.039	-0.039	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	4.748	4.748	110.70				

Sequence No.: 43 **Autosampler Location: 72**
Sample ID: 1202076807|967595|10 **Date Collected: 3/23/2010 11:12:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076807|967595|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.695	3.695	0.0507	0.2532	0.0512	11:13:33	Yes
2	3.672	3.672	0.0504	0.2505	0.0509	11:14:03	Yes
Mean:	3.684	3.684	0.0505				
SD:	0.016	0.016	0.0002				
%RSD:	0.442	0.442	0.44				

Sequence No.: 44 **Autosampler Location: 73**
Sample ID: 248808001|967595|1 **Date Collected: 3/23/2010 11:14:23**
Analyst: JXL **Data Type: Original**

Replicate Data: 248808001|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.052	0.052	0.0012	0.0076	0.0017	11:15:15	Yes
2	0.043	0.043	0.0011	0.0079	0.0016	11:15:45	Yes
Mean:	0.048	0.048	0.0012				
SD:	0.007	0.007	0.0001				
%RSD:	14.50	14.50	8.10				

Sequence No.: 45 **Autosampler Location: 74**
Sample ID: 248808002|967595|1 **Date Collected: 3/23/2010 11:16:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 248808002|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.530	0.530	0.0077	0.0409	0.0082	11:16:56	Yes
2	0.528	0.528	0.0077	0.0406	0.0082	11:17:26	Yes
Mean:	0.529	0.529	0.0077				
SD:	0.002	0.002	0.0000				
%RSD:	0.366	0.366	0.34				

Sequence No.: 46
Sample ID: 248808003|967595|1
Analyst: JXL
Autosampler Location: 75
Date Collected: 3/23/2010 11:17:46
Data Type: Original

Replicate Data: 248808003|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.038	5.038	0.0689	0.3465	0.0694	11:18:38	Yes
2	5.020	5.020	0.0687	0.3444	0.0692	11:19:08	Yes
Mean:	5.029	5.029	0.0688				
SD:	0.012	0.012	0.0002				
%RSD:	0.246	0.246	0.24				

Sequence No.: 47
Sample ID: 248808004|967595|1
Analyst: JXL
Autosampler Location: 76
Date Collected: 3/23/2010 11:19:28
Data Type: Original

Replicate Data: 248808004|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.439	3.439	0.0472	0.2404	0.0477	11:20:19	Yes
2	3.429	3.429	0.0471	0.2388	0.0476	11:20:49	Yes
Mean:	3.434	3.434	0.0472				
SD:	0.007	0.007	0.0001				
%RSD:	0.198	0.198	0.20				

Sequence No.: 48
Sample ID: 248808005|967595|1
Analyst: JXL
Autosampler Location: 77
Date Collected: 3/23/2010 11:21:09
Data Type: Original

Replicate Data: 248808005|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	15.97	15.97	0.2174	1.1118	0.2179	11:22:00	Yes
Sample concentration is greater than that of the highest standard.							
2	15.86	15.86	0.2159	1.0992	0.2164	11:22:30	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	15.92	15.92	0.2167				
SD:	0.076	0.076	0.0010				
%RSD:	0.477	0.477	0.48				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 49
Sample ID: 248808006|967595|1
Analyst: JXL
Autosampler Location: 78
Date Collected: 3/23/2010 11:22:50
Data Type: Original

Replicate Data: 248808006|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.550	5.550	0.0759	0.3803	0.0764	11:23:41	Yes
2	5.540	5.540	0.0757	0.3768	0.0762	11:24:11	Yes
Mean:	5.545	5.545	0.0758				
SD:	0.007	0.007	0.0001				
%RSD:	0.135	0.135	0.13				

Sequence No.: 50
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 3/23/2010 11:24:31
Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.000	5.000	0.0684	0.3423	0.0689	11:25:21	Yes
2	4.977	4.977	0.0681	0.3391	0.0686	11:25:51	Yes
Mean:	4.988	4.988	0.0683				
SD:	0.016	0.016	0.0002				
%RSD:	0.328	0.328	0.33				

QC value within limits for Hg 253.7 Recovery = 99.76%
All analyte(s) passed QC.

==========

Sequence No.: 51 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 11:26:10**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.027	-0.027	0.0001	0.0027	0.0006	11:27:01	Yes
2	-0.026	-0.026	0.0002	0.0032	0.0007	11:27:31	Yes
Mean:	-0.026	-0.026	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	2.821	2.821	6.59				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 52 **Autosampler Location: 79**
Sample ID: 248808007|967595|1 **Date Collected: 3/23/2010 11:27:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 248808007|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.512	5.512	0.0754	0.3759	0.0759	11:28:42	Yes
2	5.481	5.481	0.0750	0.3727	0.0754	11:29:11	Yes
Mean:	5.496	5.496	0.0752				
SD:	0.022	0.022	0.0003				
%RSD:	0.401	0.401	0.40				

==========

Sequence No.: 53 **Autosampler Location: 80**
Sample ID: 248814001|967595|1 **Date Collected: 3/23/2010 11:29:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 248814001|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.215	1.215	0.0170	0.0855	0.0175	11:30:22	Yes
2	1.218	1.218	0.0171	0.0861	0.0176	11:30:52	Yes
Mean:	1.216	1.216	0.0170				
SD:	0.002	0.002	0.0000				
%RSD:	0.202	0.202	0.20				

==========

Sequence No.: 54 **Autosampler Location: 81**
Sample ID: 248814002|967595|1 **Date Collected: 3/23/2010 11:31:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 248814002|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	96.77	96.77	1.3149	10.3895	1.3154	11:32:04	Yes
	Sample concentration is greater than that of the highest standard.						
2	92.75	92.75	1.2602	9.8389	1.2607	11:32:34	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	94.76	94.76	1.2875				
SD:	2.845	2.845	0.0386				

SD:	0.597	0.597	0.0081
%RSD:	0.697	0.697	0.70

Sample concentration is greater than that of the highest standard.

==========

Sequence No.: 59 **Autosampler Location: 86**
Sample ID: 248814007|967595|1 **Date Collected: 3/23/2010 11:39:45**
Analyst: JXL **Data Type: Original**

Replicate Data: 248814007|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	43.63	43.63	0.5931	3.0815	0.5936	11:40:37	Yes
	Sample concentration is greater than that of the highest standard.						
2	43.67	43.67	0.5936	3.0624	0.5941	11:41:07	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	43.65	43.65	0.5933				
SD:	0.027	0.027	0.0004				
%RSD:	0.062	0.062	0.06				

Sample concentration is greater than that of the highest standard.

==========

Sequence No.: 60 **Autosampler Location: 87**
Sample ID: 248814008|967595|1 **Date Collected: 3/23/2010 11:41:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 248814008|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	27.88	27.88	0.3792	1.8987	0.3797	11:42:19	Yes
	Sample concentration is greater than that of the highest standard.						
2	27.78	27.78	0.3778	1.8890	0.3782	11:42:48	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	27.83	27.83	0.3785				
SD:	0.074	0.074	0.0010				
%RSD:	0.268	0.268	0.27				

Sample concentration is greater than that of the highest standard.

==========

Sequence No.: 61 **Autosampler Location: 88**
Sample ID: 248814009|967595|1 **Date Collected: 3/23/2010 11:43:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 248814009|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	42.40	42.40	0.5764	2.9754	0.5769	11:44:00	Yes
	Sample concentration is greater than that of the highest standard.						
2	42.09	42.09	0.5722	2.9415	0.5727	11:44:30	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	42.25	42.25	0.5743				
SD:	0.218	0.218	0.0030				
%RSD:	0.517	0.517	0.52				

Sample concentration is greater than that of the highest standard.

==========

Sequence No.: 62 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 11:44:50**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.178	5.178	0.0708	0.3433	0.0713	11:45:40	Yes
2	5.154	5.154	0.0705	0.3412	0.0710	11:46:10	Yes
Mean:	5.166	5.166	0.0707				
SD:	0.017	0.017	0.0002				

%RSD: 0.327 0.327 0.32
QC value within limits for Hg 253.7 Recovery = 103.33%
All analyte(s) passed QC.

Sequence No.: 63 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 11:46:29**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.213	0.213	0.0034	0.0175	0.0039	11:47:20	Yes
2	0.134	0.134	0.0023	0.0036	0.0028	11:47:50	Yes
Mean:	0.173	0.173	0.0029				
SD:	0.056	0.056	0.0008				
%RSD:	32.48	32.48	26.69				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 64 **Autosampler Location: 89**
Sample ID: 248824001|967595|1 **Date Collected: 3/23/2010 11:48:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 248824001|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.226	0.226	0.0036	0.0189	0.0041	11:49:01	Yes
2	0.216	0.216	0.0034	0.0180	0.0039	11:49:31	Yes
Mean:	0.221	0.221	0.0035				
SD:	0.007	0.007	0.0001				
%RSD:	3.159	3.159	2.70				

Sequence No.: 65 **Autosampler Location: 90**
Sample ID: 1202076808|967595|1 **Date Collected: 3/23/2010 11:49:51**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076808|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.205	0.205	0.0033	0.0181	0.0038	11:50:42	Yes
2	0.192	0.192	0.0031	0.0169	0.0036	11:51:12	Yes
Mean:	0.198	0.198	0.0032				
SD:	0.009	0.009	0.0001				
%RSD:	4.644	4.644	3.90				

Sequence No.: 66 **Autosampler Location: 91**
Sample ID: 1202076809|967595|1 **Date Collected: 3/23/2010 11:51:33**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076809|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.317	2.317	0.0320	0.1564	0.0325	11:52:24	Yes
2	2.304	2.304	0.0318	0.1549	0.0323	11:52:54	Yes
Mean:	2.311	2.311	0.0319				
SD:	0.009	0.009	0.0001				
%RSD:	0.406	0.406	0.40				

Sequence No.: 67 **Autosampler Location: 92**
Sample ID: 1202076811|967595|1 **Date Collected: 3/23/2010 11:53:14**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076811|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.300	2.300	0.0317	0.1550	0.0322	11:54:06	Yes
2	2.278	2.278	0.0315	0.1528	0.0319	11:54:36	Yes
Mean:	2.289	2.289	0.0316				
SD:	0.015	0.015	0.0002				
%RSD:	0.671	0.671	0.66				

==========

Sequence No.: 68 **Autosampler Location: 93**
Sample ID: 1202076810|967595|5 **Date Collected: 3/23/2010 11:54:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076810|967595|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.121	0.121	0.0022	0.0128	0.0027	11:55:48	Yes
2	0.112	0.112	0.0020	0.0118	0.0025	11:56:18	Yes
Mean:	0.117	0.117	0.0021				
SD:	0.006	0.006	0.0001				
%RSD:	5.409	5.409	4.09				

==========

Sequence No.: 69 **Autosampler Location: 94**
Sample ID: 248824002|967595|1 **Date Collected: 3/23/2010 11:56:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 248824002|967595|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.115	0.115	0.0021	0.0121	0.0026	11:57:29	Yes
2	0.116	0.116	0.0021	0.0121	0.0026	11:57:59	Yes
Mean:	0.116	0.116	0.0021				
SD:	0.001	0.001	0.0000				
%RSD:	0.709	0.709	0.54				

==========

Sequence No.: 70 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 11:58:19**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.032	5.032	0.0689	0.3342	0.0694	11:59:09	Yes
2	5.001	5.001	0.0684	0.3325	0.0689	11:59:39	Yes
Mean:	5.017	5.017	0.0686				
SD:	0.022	0.022	0.0003				
%RSD:	0.432	0.432	0.43				

QC value within limits for Hg 253.7 Recovery = 100.34%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 11:59:58**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.088	0.088	0.0017	0.0106	0.0022	12:00:49	Yes
2	0.085	0.085	0.0017	0.0103	0.0022	12:01:19	Yes
Mean:	0.087	0.087	0.0017				
SD:	0.002	0.002	0.0000				
%RSD:	2.231	2.231	1.56				

==========

Analysis Begun

Logged In Analyst: Administrator
Technique: AA FIMS-MHS
Spectrometer Model: FIMS-100, S/N B050-9550
Autosampler Model: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\032310S1.SIF
Batch ID:
Results Data Set: 032310S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL
Method Last Saved: 3/23/2010 10:03:37
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1
Autosampler Location: 77
Sample ID: 248808005|967595|10
Date Collected: 3/23/2010 12:26:54
Analyst: JXL
Data Type: Original

Replicate Data: 248808005|967595|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.785	1.785	0.0247	0.1190	0.0252	12:27:46	Yes
2	1.802	1.802	0.0250	0.1217	0.0255	12:28:15	Yes
Mean:	1.793	1.793	0.0249				
SD:	0.012	0.012	0.0002				
%RSD:	0.670	0.670	0.66				

==========

Sequence No.: 2
Autosampler Location: 81
Sample ID: 248814002|967595|100
Date Collected: 3/23/2010 12:28:35
Analyst: JXL
Data Type: Original

Replicate Data: 248814002|967595|100

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.480	4.480	0.0614	0.2986	0.0619	12:29:27	Yes
2	4.300	4.300	0.0589	0.2854	0.0594	12:29:57	Yes
Mean:	4.390	4.390	0.0601				
SD:	0.127	0.127	0.0017				
%RSD:	2.900	2.900	2.87				

==========

Sequence No.: 3
Autosampler Location: 82
Sample ID: 248814003|967595|50
Date Collected: 3/23/2010 12:30:17
Analyst: JXL
Data Type: Original

Replicate Data: 248814003|967595|50

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.457	2.457	0.0339	0.1665	0.0344	12:31:08	Yes
2	2.433	2.433	0.0336	0.1642	0.0341	12:31:38	Yes
Mean:	2.445	2.445	0.0337				
SD:	0.017	0.017	0.0002				
%RSD:	0.692	0.692	0.68				

==========

Sequence No.: 4
Autosampler Location: 83
Sample ID: 248814004|967595|50
Date Collected: 3/23/2010 12:31:58
Analyst: JXL
Data Type: Original

Replicate Data: 248814004|967595|50

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	3.584	3.584	0.0492	0.2409	0.0497	12:32:49	Yes
2	3.564	3.564	0.0489	0.2394	0.0494	12:33:19	Yes
Mean:	3.574	3.574	0.0490				
SD:	0.014	0.014	0.0002				
%RSD:	0.391	0.391	0.39				

==========

Sequence No.: 5 **Autosampler Location: 84**
Sample ID: 248814005|967595|100 **Date Collected: 3/23/2010 12:33:39**
Analyst: JXL **Data Type: Original**

Replicate Data: 248814005|967595|100

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	9.567	9.567	0.1304	0.6390	0.1309	12:34:31	Yes
2	9.559	9.559	0.1303	0.6358	0.1308	12:35:01	Yes
Mean:	9.563	9.563	0.1304				
SD:	0.006	0.006	0.0001				
%RSD:	0.060	0.060	0.06				

==========

Sequence No.: 6 **Autosampler Location: 85**
Sample ID: 248814006|967595|50 **Date Collected: 3/23/2010 12:35:21**
Analyst: JXL **Data Type: Original**

Replicate Data: 248814006|967595|50

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.819	4.819	0.0660	0.3232	0.0665	12:36:13	Yes
2	4.820	4.820	0.0660	0.3217	0.0665	12:36:43	Yes
Mean:	4.820	4.820	0.0660				
SD:	0.001	0.001	0.0000				
%RSD:	0.014	0.014	0.01				

==========

Sequence No.: 7 **Autosampler Location: 86**
Sample ID: 248814007|967595|20 **Date Collected: 3/23/2010 12:37:03**
Analyst: JXL **Data Type: Original**

Replicate Data: 248814007|967595|20

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.631	2.631	0.0362	0.1786	0.0367	12:37:55	Yes
2	2.654	2.654	0.0365	0.1795	0.0370	12:38:24	Yes
Mean:	2.642	2.642	0.0364				
SD:	0.016	0.016	0.0002				
%RSD:	0.592	0.592	0.58				

==========

Sequence No.: 8 **Autosampler Location: 87**
Sample ID: 248814008|967595|20 **Date Collected: 3/23/2010 12:38:45**
Analyst: JXL **Data Type: Original**

Replicate Data: 248814008|967595|20

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.559	1.559	0.0217	0.1079	0.0222	12:39:36	Yes
2	1.543	1.543	0.0215	0.1066	0.0220	12:40:06	Yes
Mean:	1.551	1.551	0.0216				
SD:	0.011	0.011	0.0002				
%RSD:	0.713	0.713	0.70				

==========

Sequence No.: 9 **Autosampler Location: 88**
Sample ID: 248814009|967595|20 **Date Collected: 3/23/2010 12:40:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 248814009|967595|20

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.532	2.532	0.0349	0.1732	0.0354	12:41:18	Yes
2	2.523	2.523	0.0348	0.1716	0.0353	12:41:48	Yes
Mean:	2.527	2.527	0.0348				
SD:	0.006	0.006	0.0001				
%RSD:	0.251	0.251	0.25				

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/23/2010 12:42:08**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.980	4.980	0.0681	0.3366	0.0686	12:42:59	Yes
2	5.002	5.002	0.0684	0.3357	0.0689	12:43:28	Yes
Mean:	4.991	4.991	0.0683				
SD:	0.016	0.016	0.0002				
%RSD:	0.313	0.313	0.31				

QC value within limits for Hg 253.7 Recovery = 99.82%
All analyte(s) passed QC.

==========

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 12:43:47**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.034	0.034	0.0010	0.0071	0.0015	12:44:38	Yes
2	0.033	0.033	0.0010	0.0072	0.0015	12:45:08	Yes
Mean:	0.034	0.034	0.0010				
SD:	0.001	0.001	0.0000				
%RSD:	1.571	1.571	0.74				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 963990.0 **Verified by:** _____

Analyst: Barry Audain

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: Sartorius Balance B-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202068041 MB	24-MAR-2010 01:55:00	0.538	50	92.9368	
1202068046 LCS	24-MAR-2010 01:55:00	0.508	50	98.4252	
248808001	24-MAR-2010 01:55:00	0.543	50	92.08103	
1202068042 DUP (248808001)	24-MAR-2010 01:55:00	0.537	50	93.10987	
1202068043 SDILT (248808001)	24-MAR-2010 01:55:00	0.543	50	92.08103	
1202068044 MS (248808001)	24-MAR-2010 01:55:00	0.526	50	95.05703	
1202068045 MSD (248808001)	24-MAR-2010 01:55:00	0.542	50	92.25092	
248808002	24-MAR-2010 01:55:00	0.518	50	96.5251	
248808003	24-MAR-2010 01:55:00	0.512	50	97.65625	
248808004	24-MAR-2010 01:55:00	0.571	50	87.56567	
248808005	24-MAR-2010 01:55:00	0.528	50	94.69697	
248808006	24-MAR-2010 01:55:00	0.572	50	87.41259	
248808007	24-MAR-2010 01:55:00	0.532	50	93.98496	
248814001	24-MAR-2010 01:55:00	0.575	50	86.95652	
248814002	24-MAR-2010 01:55:00	0.513	50	97.46589	
248814003	24-MAR-2010 01:55:00	0.563	50	88.80995	
248814004	24-MAR-2010 01:55:00	0.554	50	90.25271	
248814005	24-MAR-2010 01:55:00	0.578	50	86.50519	
248814006	24-MAR-2010 01:55:00	0.536	50	93.28358	
248814007	24-MAR-2010 01:55:00	0.533	50	93.80863	
248814008	24-MAR-2010 01:55:00	0.565	50	88.49558	
248814009	24-MAR-2010 01:55:00	0.578	50	86.50519	

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202068046	Metals Soil LCS SRM ICPMS	UI062540-MS	.508	g
MS	1202068044	ICP-MS Spike for soil products.	UI1286780-A	.5	mL
MS	1202068044	ICP-MS Spike for Soil Products	UI1286784-B	.5	mL
MSD	1202068045	ICP-MS Spike for soil products.	UI1286780-A	.5	mL
MSD	1202068045	ICP-MS Spike for Soil Products	UI1286784-B	.5	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1277919	5	mL

Comments:

sample#248808001 is a wet, brown soil with rocks.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **963988.0** Verified by: _____

Analyst: Barry Audain

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202068040	Metals Soil LCS SRM ICP/Hg	UI062540-I	.505	g
MS	1202068038	Metals Spike Mix I	UI1268741-01	.25	mL
MS	1202068038	Metals Spike Mix II	UI1268744-06	.25	mL
MSD	1202068039	Metals Spike Mix I	UI1268741-01	.25	mL
MSD	1202068039	Metals Spike Mix II	UI1268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202068035 MB	24-MAR-2010 02:07:00	Soil	0.532	50	93.98496	
1202068040 LCS	24-MAR-2010 02:07:00	Soil	0.505	50	99.0099	
248808001	24-MAR-2010 02:07:00	Soil	0.52	50	96.15385	
1202068036 DUP (248808001)	24-MAR-2010 02:07:00	Soil	0.578	50	86.50519	
1202068037 SDILT (248808001)	24-MAR-2010 02:07:00	Soil	0.52	50	96.15385	
1202068038 MS (248808001)	24-MAR-2010 02:07:00	Soil	0.58	50	86.2069	
1202068039 MSD (248808001)	24-MAR-2010 02:07:00	Soil	0.558	50	89.60573	
248808002	24-MAR-2010 02:07:00	Soil	0.588	50	85.03401	
248808003	24-MAR-2010 02:07:00	Soil	0.521	50	95.96929	
248808004	24-MAR-2010 02:07:00	Soil	0.546	50	91.57509	
248808005	24-MAR-2010 02:07:00	Soil	0.555	50	90.09009	
248808006	24-MAR-2010 02:07:00	Soil	0.555	50	90.09009	
248808007	24-MAR-2010 02:07:00	Soil	0.553	50	90.41591	
248814001	24-MAR-2010 02:07:00	Soil	0.532	50	93.98496	
248814002	24-MAR-2010 02:07:00	Soil	0.569	50	87.87346	
248814003	24-MAR-2010 02:07:00	Soil	0.586	50	85.32423	
248814004	24-MAR-2010 02:07:00	Soil	0.501	50	99.8004	
248814005	24-MAR-2010 02:07:00	Soil	0.564	50	88.65248	
248814006	24-MAR-2010 02:07:00	Soil	0.585	50	85.47009	
248814007	24-MAR-2010 02:07:00	Soil	0.579	50	86.35579	
248814008	24-MAR-2010 02:07:00	Soil	0.569	50	87.87346	
248814009	24-MAR-2010 02:07:00	Soil	0.536	50	93.28358	

Reagent/Solvent Lot ID	Description	Amount

Prep Logbook

Batch ID: **963988.0** Verified by: _____

Analyst: Barry Audain

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202068040	Metals Soil LCS SRM ICP/Hg	U1062540-I	.505	g
MS	1202068038	Metals Spike Mix I	UI1268741-01	.25	mL
MS	1202068038	Metals Spike Mix II	UI1268744-06	.25	mL
MSD	1202068039	Metals Spike Mix I	UI1268741-01	.25	mL
MSD	1202068039	Metals Spike Mix II	UI1268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1

Reagent/Solvent Lot ID	Description	Amount
1277919	Nitric Acid CONC.	1.25 mL
1282564	HYDROCHLORIC ACID	10 mL

Comments:

sample#248808001 is a wet, brown soil with rocks.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 983920.0 **Verified by:** _____
Analyst: Anthony Green
Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20
Instrument: BAL-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202116473 MB	13-MAY-2010 06:30:00	0.518	50	96.5251	
1202116474 LCS	13-MAY-2010 06:30:00	0.533	50	93.80863	
248808001 - 2	13-MAY-2010 06:30:00	0.52	50	96.15385	
1202068042 - 2 DUP (248808001)	13-MAY-2010 06:30:00	0.527	50	94.87666	
1202068043 - 2 SDILT (248808001)	13-MAY-2010 06:30:00	0.52	50	96.15385	
1202068044 - 2 MS (248808001)	13-MAY-2010 06:30:00	0.549	50	91.07468	
1202068045 - 2 MSD (248808001)	13-MAY-2010 06:30:00	0.534	50	93.63296	
248814001 - 2	13-MAY-2010 06:30:00	0.543	50	92.08103	
248814002 - 2	13-MAY-2010 06:30:00	0.519	50	96.33911	
248814003 - 2	13-MAY-2010 06:30:00	0.518	50	96.5251	
248814004 - 2	13-MAY-2010 06:30:00	0.531	50	94.16196	
248814005 - 2	13-MAY-2010 06:30:00	0.538	50	92.9368	
248814006 - 2	13-MAY-2010 06:30:00	0.53	50	94.33962	
248814007 - 2	13-MAY-2010 06:30:00	0.506	50	98.81423	
248814008 - 2	13-MAY-2010 06:30:00	0.537	50	93.10987	
248814009 - 2	13-MAY-2010 06:30:00	0.504	50	99.20635	

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202116474	ICPMS Rare Earth elements LCS standard	UI1303474-05	.25	mL
MS	1202068044	ICPMS Rare Earth elements LCS standard	UI1303474-05	.25	mL
MSD	1202068045	ICPMS Rare Earth elements LCS standard	UI1303474-05	.25	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1335913	5	mL

Comments:

Sample 248808001 consist of dark, brown fine soil with rocks.

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **967593.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202076807	Metals LCS Soil SRM	UI031809A	.203	g
MS	1202076809	Mercury soil working intermediate standard for MS	WHG100322-14	.3	mL
MSD	1202076811	Mercury soil working intermediate standard for MS	WHG100322-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202076806 MB	22-MAR-2010 16:35:00	Soil	0.6	30	50	
1202076807 LCS	22-MAR-2010 16:35:00	Soil	0.203	30	147.78325	
248808001	22-MAR-2010 16:35:00	Soil	0.538	30	55.76208	
248808002	22-MAR-2010 16:35:00	Soil	0.571	30	52.5394	
248808003	22-MAR-2010 16:35:00	Soil	0.555	30	54.05405	
248808004	22-MAR-2010 16:35:00	Soil	0.561	30	53.47594	
248808005	22-MAR-2010 16:35:00	Soil	0.516	30	58.13953	
248808006	22-MAR-2010 16:35:00	Soil	0.506	30	59.28854	
248808007	22-MAR-2010 16:35:00	Soil	0.56	30	53.57143	
248814001	22-MAR-2010 16:35:00	Soil	0.571	30	52.5394	
248814002	22-MAR-2010 16:35:00	Soil	0.556	30	53.95683	
248814003	22-MAR-2010 16:35:00	Soil	0.5	30	60	
248814004	22-MAR-2010 16:35:00	Soil	0.521	30	57.58157	
248814005	22-MAR-2010 16:35:00	Soil	0.539	30	55.65863	
248814006	22-MAR-2010 16:35:00	Soil	0.583	30	51.45798	
248814007	22-MAR-2010 16:35:00	Soil	0.565	30	53.09735	
248814008	22-MAR-2010 16:35:00	Soil	0.508	30	59.05512	
248814009	22-MAR-2010 16:35:00	Soil	0.544	30	55.14706	
248824001	22-MAR-2010 16:35:00	Soil	0.569	30	52.72408	
1202076808 DUP (248824001)	22-MAR-2010 16:35:00	Soil	0.558	30	53.76344	
1202076809 MS (248824001)	22-MAR-2010 16:35:00	Soil	0.562	30	53.38078	
1202076811 MSD (248824001)	22-MAR-2010 16:35:00	Soil	0.514	30	58.36576	
1202076810 SDILT (248824001)	22-MAR-2010 16:35:00	Soil	0.569	30	52.72408	
248824002	22-MAR-2010 16:35:00	Soil	0.51	30	58.82353	

Reagent/Solvent Lot ID	Description	Amount

Comments:

Prep Logbook

Batch ID: **967593.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202076807	Metals LCS Soil SRM	UI031809A	.203	g
MS	1202076809	Mercury soil working intermediate standard for MS	WHG100322-14	.3	mL
MSD	1202076811	Mercury soil working intermediate standard for MS	WHG100322-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1

Reagent/Solvent Lot ID	Description	Amount
1255532-C	Hg reducing agent	2 mL
1274391-1	NITRIC ACID	.375 mL
1277235-A	Hydrochloric Acid Conc.	1.125 mL
1277238-C	5% KMnO4 solution	7.5 mL
WHG100322-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL
WHG100322-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL
WHG100322-09	Mercury Working 1st Source CAL S 2.0	300 uL
WHG100322-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL
WHG100322-11	Mercury Working 1st Source CAL S 10.0	1.5 mL
WHG100322-12	Mercury Working 2nd Source S 5.0/ICV	750 uL

Comments:

Sample 248824001 is a dry light brown soil.

Digestion Start Date: 22-MAR-10 16:35

Digestion End Date: 22-MAR-10 17:05

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
12-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
963989	See Below		

Potentially affected work order(s)(SDG): 248808(10-2297),248814(10-2303)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202068036DUP 2. Failed RPD for MS/MSD, or PS/PSD: QC 1202068039MSD 3. Failed Recovery for MSD/PSD: QC 1202068039MSD	1. The sample and sample duplicate % RPD failed outside the control limits for manganese due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for aluminum,iron and manganese due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike duplicate recovery failed outside of the control limits for magnesium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 12-APR-10

Data Validator/Group Leader:

Christopher Louviere 12-APR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Cesium	1.68 mg/kg	Chromium	236 mg/kg
Cobalt	91.2 mg/kg	Copper	174 mg/kg
Iron	18000 mg/kg	Lead	86 mg/kg
Lithium	10.6 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	755 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silver	30.1 mg/kg

Analyte	Concentration	Analyte	Concentration
Sodium	1020 mg/kg	Strontium	227 mg/kg
Thallium	121 mg/kg	Thorium	9.84 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Uranium	2.13 mg/kg	Uranium-235	.0153 mg/kg
Uranium-238	2.11 mg/kg	Vanadium	92.4 mg/kg
Zinc	594 mg/kg	Zirconium	10.6 mg/kg

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 22-APR-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID:	UI090701-09	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #1	**Received:**	01-JUL-09	**Catalog Number :**	160044-09-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016477
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Master Soln #1				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	30 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	30 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	100 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID:	UI090701-10	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #2	**Received:**	01-JUL-09	**Catalog Number :**	160044-08-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016476
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Soln #2				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	3 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	5 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID:	UI090701-40	**Opened:**	01-JUL-09	**Amount :**	500 mL
Name:	TRACE ICP Stock PQL Sta	**Received:**	30-JUN-09	**Catalog Number :**	160543-01-03
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016475
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3+TrHF
Supplier:	02si				
Description:	TRACE ICP Stock PQL Standard				
Comments:	None				

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L

Analyte	Concentration	Analyte	Concentration
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100310-49.13 **Opened:** 31-MAR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 01-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100310-49.18 **Opened:** 07-APR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 08-APR-10 **Lot Number :** 1019142
Employee: Louise Smith **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Standard Logbook

Serial ID: UI100317-06 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-MAR-10 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019161
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI100317-07 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-MAR-10 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019162
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI100317-08 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-MAR-10 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019163
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Zirconium	20 mg/L		

Serial ID: UI100325-41 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100329-40 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008325
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI100329-41 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008323
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI100329-42 **Opened:** 01-APR-10 **Amount :** 200 mL
Name: SILICON **Received:** 29-MAR-10 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 01-APR-11 **Lot Number :** 1004838
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100331-42 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 31-MAR-10 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 08-APR-11 **Lot Number :** 1019414
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100401-48 **Opened:** 02-APR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-APR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 16-APR-10 **Lot Number :** 1019463
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B

Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100405-40 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L

Analyte	Concentration	Analyte	Concentration
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100405-41 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100415-11 **Opened:** 15-APR-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 15-APR-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 15-APR-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100509-11 **Opened:** 09-MAY-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 09-MAY-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 09-MAY-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L

Analyte	Concentration	Analyte	Concentration
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI1268741-01 **Opened:** 11-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1268744-06 **Opened:** 11-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI1286780-A **Opened:** 16-MAR-10 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 16-MAR-10 **Lot Number :** 1017435
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI1286784-B **Opened:** 16-MAR-10 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 16-MAR-10 **Lot Number :** 1017435
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI1303474-05 **Opened:** 19-APR-10 **Amount :** 100 mL
Name: ICP-MS Rare Earth SPIKE **Received:** 19-APR-10 **Catalog Number :** 160203-01-01
Type: Source Material **Expires:** 19-APR-11 **Lot Number :** 1019528
Employee: Jamie Johnson **Solvent :** 2% HNO3
Supplier: O2SI
Description: ICPMS Rare Earth elements LCS standard
Comments: None

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Cerium	10 mg/L	Cesium	10 mg/L
Europium	10 mg/L	Lanthanum	10 mg/L
Neodymium	10 mg/L	Praseodymium	10 mg/L
Ruthenium	10 mg/L	Samarium	10 mg/L
Terbium	10 mg/L		

Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS100415-03 **Opened:** 15-APR-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100322-01 **Opened:** 22-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 22-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 23-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100322-02 **Opened:** 22-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 23-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100322-07 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100322-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Standard Logbook

Serial ID: WHG100322-08 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100322-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100322-09 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100322-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100322-10 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100322-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100322-11 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100322-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Standard Logbook

Serial ID: WHG100322-12 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100322-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100322-14 **Opened:** 22-MAR-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 22-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 29-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100331-42 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100331-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100331-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100331-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100331-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100331-43 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100331-44 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1293083
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100331-45 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100331-46 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1293083
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100331-47 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL &1%HNO3-1293083
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100407-42 **Opened:** 07-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 08-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100407-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100407-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100407-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100407-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100407-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100407-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100407-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100407-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100407-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100407-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100407-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100407-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100407-43 **Opened:** 07-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 08-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI100329-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI100329-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100331-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L

Serial ID: WI100407-44 **Opened:** 07-APR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 08-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1296961
Employee: Louise Smith
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI100329-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100331-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100407-45 **Opened:** 07-APR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 08-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100407-46 **Opened:** 07-APR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 08-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1296961
Employee: Louise Smith
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100329-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI100329-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100407-47 **Opened:** 07-APR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 08-APR-10 **Solvent :** 3%HCL &1%HNO3-1296961
Employee: Louise Smith
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100505-04 **Opened:** 05-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 05-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 06-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1333263
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100505-04AB **Opened:** 05-MAY-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 05-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 06-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100505-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100505-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100505-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100505-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100505-04B **Opened:** 05-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 05-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 06-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1333263
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100505-06B **Opened:** 05-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 05-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 06-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100505-07B **Opened:** 05-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 05-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 06-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1333263
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100505-08B **Opened:** 05-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 05-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 06-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100507-04 **Opened:** 07-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 07-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 08-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1333263
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100507-04AB **Opened:** 07-MAY-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 07-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 08-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100507-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100507-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100507-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100507-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100507-04B **Opened:** 07-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 07-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 08-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1333263
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100507-06B **Opened:** 07-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 07-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 08-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	3 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100507-07B **Opened:** 07-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 07-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 08-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1333263
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100507-08B **Opened:** 07-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 07-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 08-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100526-04 **Opened:** 26-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 26-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 27-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1342941
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Serial ID: WMS100526-04A **Opened:** 26-MAY-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 26-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 27-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100526-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100526-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100526-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Serial ID: WMS100526-05 **Opened:** 26-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 26-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 27-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1342941
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100526-06 **Opened:** 26-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 26-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 27-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1342941
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	30 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	200 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100526-07 **Opened:** 26-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 26-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 27-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1342941
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100526-08 **Opened:** 26-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 26-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 27-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1342941
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-08
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%

Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1277235-A **Opened:** 01-MAR-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 01-MAR-11
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Standard Logbook

Serial ID: 1277919 **Opened:** 02-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 02-MAR-10
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1282564 **Opened:** 09-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 09-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1293083 **Opened:** 29-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 29-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 04-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1296961 **Opened:** 05-APR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-APR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 11-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1302252 **Opened:** 15-APR-10 **Lot Number :** J 10027 L
Name: I-HNO3 **Received:** 15-APR-10
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1302255 **Opened:** 15-APR-10 **Lot Number :** J07033
Name: I-HCL **Received:** 15-APR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1333263 **Opened:** 03-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 03-MAY-10
Type: Reagent/Solvent **Expires:** 10-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1302255	I-HCL	36.5-38.0	80 mL	8 l	N/A

Serial ID: 1335913 **Opened:** 07-MAY-10 **Lot Number :** J10038 L
Name: I-HNO3 **Received:** 07-MAY-10
Type: Reagent/Solvent **Expires:** 07-MAY-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1338237 **Opened:** 13-MAY-10 **Lot Number :** J11034
Name: I-HCL **Received:** 13-MAY-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 13-MAY-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1342941 **Opened:** 24-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 24-MAY-10
Type: Reagent/Solvent **Expires:** 31-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1338237	I-HCL	36.5-38.0	80 mL	8 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2303

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	962262	**Method:**	SW9012A Cyanide and Total
Prep Batch :	962261	**Method:**	SSW846 9010B Prep

Sample Analysis
The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
248814001	RE46-10-13553
248814002	RE46-10-13549
248814003	RE46-10-13551
248814004	RE46-10-13550
248814005	RE46-10-13548
248814006	RE46-10-13546
248814007	RE46-10-13552
248814008	RE46-10-13547
248814009	RE46-10-13556
1202064149	Method Blank (MB)
1202064150	248814001(RE46-10-13553) Sample Duplicate (DUP)
1202064151	248814002(RE46-10-13549) Sample Duplicate (DUP)
1202064152	248814001(RE46-10-13553) Matrix Spike (MS)
1202064153	248814002(RE46-10-13549) Matrix Spike (MS)
1202064154	248814001(RE46-10-13553) Matrix Spike Duplicate (MSD)
1202064155	248814002(RE46-10-13549) Matrix Spike Duplicate (MSD)
1202064156	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information
The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 248814001 (RE46-10-13553) and 248814002 (RE46-10-13549).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the client specified acceptance limits due to matrix interference: 1202064153 (RE46-10-13549).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike recovery duplicate falls outside of the client specified acceptance limits due to matrix interference: 1202064155 (RE46-10-13549).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202064156 (LCS).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 808136 1202064153 (RE46-10-13549) and 1202064155 (RE46-10-13549).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Ion Chromatography**		
Analytical Batch:	968640	**Method:**	EPA 300.0 Nitrate in Soil
Prep Batch :	968639	**Method:**	EPA 300.0 PREP

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
248814001	RE46-10-13553
248814002	RE46-10-13549
248814003	RE46-10-13551
248814004	RE46-10-13550
248814005	RE46-10-13548
248814006	RE46-10-13546
248814007	RE46-10-13552
248814008	RE46-10-13547
248814009	RE46-10-13556
1202079398	Method Blank (MB)
1202079399	248814001(RE46-10-13553) Sample Duplicate (DUP)
1202079400	248865001(RE46-10-11924) Sample Duplicate (DUP)
1202079401	248814001(RE46-10-13553) Matrix Spike (MS)
1202079402	248865001(RE46-10-11924) Matrix Spike (MS)
1202079403	248814001(RE46-10-13553) Matrix Spike Duplicate (MSD)
1202079404	248865001(RE46-10-11924) Matrix Spike Duplicate (MSD)
1202079405	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 248814001 (RE46-10-13553) and 248865001 (RE46-10-11924).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the established acceptance limits due to matrix interference: 1202079401 (RE46-10-13553).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the established acceptance limits due to matrix interference: 1202079403 (RE46-10-13553).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 811593 1202079401 (RE46-10-13553) and 1202079403 (RE46-10-13553).

Manual Integrations
Manual integrations were not required for the samples in this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer:_____ **Date:** 04/01/10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2303 GEL Work Order: 248814

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2303

Client Sample ID:	RE46-10-13553	Project:	LANL01004
Sample ID:	248814001	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	13.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	79.0	291	ug/kg	1	AXC2	03/16/10	2044	962262	1
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	0.349	1.16	mg/kg	1	VH1	03/29/10	1940	968640	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 300.0	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2303

Client Sample ID:	RE46-I0-13549	Project:	LANL01004
Sample ID:	248814002	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	16.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	72.8	268	ug/kg	1	AXC2	03/16/10	2048	962262	1
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	0.360	1.20	mg/kg	1	VH1	03/29/10	2128	968640	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 300.0	

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2303

Client Sample ID:	RE46-10-13551	Project:	LANL01004
Sample ID:	248814003	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	20.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	80.9	297	ug/kg	1	AXC2	03/16/10	2055	962262	1
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	0.378	1.26	mg/kg	1	VH1	03/29/10	2155	968640	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 300.0	

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2303

Client Sample ID:	RE46-10-13550	Project:	LANL01004
Sample ID:	248814004	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	18.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	81.7	300	ug/kg	1	AXC2	03/16/10	2056	962262	1
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	0.368	1.23	mg/kg	1	VH1	03/29/10	2222	968640	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 300.0	

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Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2303

Client Sample ID:	RE46-10-13548	Project:	LANL01004
Sample ID:	248814005	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	17.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	76.0	279	ug/kg	1	AXC2	03/16/10	2057	962262	1
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	0.362	1.21	mg/kg	1	VH1	03/29/10	2249	968640	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 300.0	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2303

Client Sample ID:	RE46-10-13546	Project:	LANL01004
Sample ID:	248814006	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	17.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	79.3	292	ug/kg	1	AXC2	03/16/10	2058	962262	1
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	0.364	1.21	mg/kg	1	VH1	03/30/10	0009	968640	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 300.0	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2303

Client Sample ID:	RE46-10-13552	Project:	LANL01004
Sample ID:	248814007	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	12.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	69.5	256	ug/kg	1	AXC2	03/16/10	2058	962262	1
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	0.344	1.15	mg/kg	1	VH1	03/30/10	0036	968640	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 300.0	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2303

Client Sample ID:	RE46-10-13547	Project:	LANL01004
Sample ID:	248814008	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	12.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	66.0	243	ug/kg	1	AXC2	03/16/10	2059	962262	1
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	0.343	1.14	mg/kg	1	VH1	03/30/10	0103	968640	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 300.0	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2303

Client Sample ID:	RE46-10-13556	Project:	LANL01004
Sample ID:	248814009	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	13.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	76.8	282	ug/kg	1	AXC2	03/16/10	2100	962262	1
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	0.346	1.15	mg/kg	1	VH1	03/30/10	0130	968640	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 300.0	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: April 1, 2010

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 248814

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis											
Batch 962262											
QC1202064150 248814001 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			AXC2	03/16/10 20:45
QC1202064151 248814002 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A				03/16/10 20:49
QC1202064156 LCS											
Cyanide, Total	67900				53000	ug/kg		78.1	(32%-157%)		03/16/10 20:43
QC1202064149 MB											
Cyanide, Total				U	250	ug/kg					03/16/10 20:42
QC1202064152 248814001 MS											
Cyanide, Total	5700	U	ND		5300	ug/kg		93	(26%-158%)		03/16/10 20:46
QC1202064153 248814002 MS											
Cyanide, Total	5450	U	ND		3090	ug/kg		56.8	(26%-158%)		03/16/10 20:53
QC1202064154 248814001 MSD											
Cyanide, Total	5010	U	ND		4760	ug/kg	10.7	95	(0%-30%)		03/16/10 20:47
QC1202064155 248814002 MSD											
Cyanide, Total	5550	U	ND		3810	ug/kg	20.8	68.7	(0%-30%)		03/16/10 20:54
Ion Chromatography											
Batch 968640											
QC1202079399 248814001 DUP											
Nitrate-N		U	ND	U	ND	mg/kg	N/A			VH1	03/29/10 20:07
QC1202079400 248865001 DUP											
Nitrate-N			1.55		1.64	mg/kg	5.23 ^		(+/-1.21)		03/30/10 03:18
QC1202079405 LCS											
Nitrate-N	50.0				49.0	mg/kg		98	(90%-110%)		03/29/10 19:13
QC1202079398 MB											
Nitrate-N				U	1.00	mg/kg					03/29/10 18:47
QC1202079401 248814001 MS											
Nitrate-N	58.1	U	ND		43.7	mg/kg		75.3 *	(90%-110%)		03/29/10 20:34
QC1202079402 248865001 MS											
Nitrate-N	60.4		1.55		56.8	mg/kg		91.6	(90%-110%)		03/30/10 03:45
QC1202079403 248814001 MSD											
Nitrate-N	58.1	U	ND		43.5	mg/kg	0.562	74.9 *	(0%-20%)		03/29/10 21:01
QC1202079404 248865001 MSD											
Nitrate-N	60.4		1.55		56.9	mg/kg	0.0446	91.6	(0%-20%)		03/30/10 04:11

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

QC Summary

Workorder: 248814

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-APR-2010 11:23

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2303

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**16-MAR-2010 11:44:35**	**OM_3-16-2010_11-35-56**	**150**	**150**	**100**	**(90%-110%)**	**Yes**
CCV	16-MAR-2010 20:37:28	OM_3-16-2010_20-23-30	106	100	106	(90%-110%)	Yes
CCV	16-MAR-2010 20:50:00	OM_3-16-2010_20-23-30	107	100	107	(90%-110%)	Yes
CCV	16-MAR-2010 21:02:25	OM_3-16-2010_20-23-30	108	100	108	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**16-MAR-2010 11:46:25**	**OM_3-16-2010_11-35-56**	**-1.57**	**10**	**Yes**
CCB	16-MAR-2010 20:39:18	OM_3-16-2010_20-23-30	-1.61	10	Yes
CCB	16-MAR-2010 20:51:50	OM_3-16-2010_20-23-30	-2.4	10	Yes
CCB	16-MAR-2010 21:04:15	OM_3-16-2010_20-23-30	-1.85	10	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-APR-2010 11:23

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2303

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Nitrate-N

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**29-MAR-2010 17:53:00**	**100329**	**4.9061**	**5**	**98.1**	**(90%-110%)**	**Yes**
CCV	29-MAR-2010 23:15:00	100329	7.6315	7.5	102	(90%-110%)	Yes
CCV	30-MAR-2010 04:38:00	100329	4.9119	5	98.2	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**29-MAR-2010 18:20:00**	**100329**	**0**	**0.1**	**Yes**
CCB	29-MAR-2010 23:42:00	100329	0	0.1	Yes
CCB	30-MAR-2010 05:05:00	100329	0	0.1	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **962261.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064156	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202064152	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064153	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064154	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064155	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202064149 MB	15-MAR-2010 16:42:00	Soil	0.5	25	50	>12
1202064156 LCS	15-MAR-2010 16:42:00	Soil	0.25	25	100	>12
248814001	15-MAR-2010 16:42:00	Soil	0.5	25	50	>12
1202064150 DUP (248814001)	15-MAR-2010 16:42:00	Soil	0.51	25	49.01961	>12
1202064152 MS (248814001)	15-MAR-2010 16:42:00	Soil	0.51	25	49.01961	>12
1202064154 MSD (248814001)	15-MAR-2010 16:42:00	Soil	0.58	25	43.10345	>12
248814002	15-MAR-2010 16:42:00	Soil	0.56	25	44.64286	>12
1202064151 DUP (248814002)	15-MAR-2010 16:42:00	Soil	0.5	25	50	>12
1202064153 MS (248814002)	15-MAR-2010 16:42:00	Soil	0.55	25	45.45455	>12
1202064155 MSD (248814002)	15-MAR-2010 16:42:00	Soil	0.54	25	46.2963	>12
248814003	15-MAR-2010 16:42:00	Soil	0.53	25	47.16981	>12
248814004	15-MAR-2010 16:42:00	Soil	0.51	25	49.01961	>12
248814005	15-MAR-2010 16:42:00	Soil	0.54	25	46.2963	>12
248814006	15-MAR-2010 16:42:00	Soil	0.52	25	48.07692	>12
248814007	15-MAR-2010 16:42:00	Soil	0.56	25	44.64286	>12
248814008	15-MAR-2010 16:42:00	Soil	0.59	25	42.37288	>12
248814009	15-MAR-2010 16:42:00	Soil	0.51	25	49.01961	>12
248834001	15-MAR-2010 16:42:00	Soil	0.5	25	50	>12
248834002	15-MAR-2010 16:42:00	Soil	0.58	25	43.10345	>12
248834003	15-MAR-2010 16:42:00	Soil	0.52	25	48.07692	>12
248834004	15-MAR-2010 16:42:00	Soil	0.54	25	46.2963	>12

Prep Logbook

Batch ID: **962261.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064156	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202064152	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064153	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064154	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064155	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
248834005	15-MAR-2010 16:42:00	Soil	0.54	25	46.2963	>12
248834006	15-MAR-2010 16:42:00	Soil	0.56	25	44.64286	>12
248834007	15-MAR-2010 16:42:00	Soil	0.58	25	43.10345	>12
248834008	15-MAR-2010 16:42:00	Soil	0.55	25	45.45455	>12
248834009	15-MAR-2010 16:42:00	Soil	0.52	25	48.07692	>12
248834010	15-MAR-2010 16:42:00	Soil	0.51	25	49.01961	>12
248834011	15-MAR-2010 16:42:00	Soil	0.58	25	43.10345	>12

Reagent/Solvent Lot ID	Description	Amount
1260I89-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100315-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/16/2010 11:37:26	OM_3-16-2010_11-35-56
150 ppb		1	axc2	3/16/2010 11:38:18	OM_3-16-2010_11-35-56
100 ppb		1	axc2	3/16/2010 11:39:11	OM_3-16-2010_11-35-56
50 ppb		1	axc2	3/16/2010 11:40:04	OM_3-16-2010_11-35-56
10 ppb		1	axc2	3/16/2010 11:40:57	OM_3-16-2010_11-35-56
CRDL 5.0 ppb		1	axc2	3/16/2010 11:41:50	OM_3-16-2010_11-35-56
ICAL-00		1	axc2	3/16/2010 11:42:45	OM_3-16-2010_11-35-56
ICV		1	axc2	3/16/2010 11:44:35	OM_3-16-2010_11-35-56
ICB		1	axc2	3/16/2010 11:46:25	OM_3-16-2010_11-35-56
CRDL		1	axc2	3/16/2010 11:48:15	OM_3-16-2010_11-35-56
1202068586	964224	1	axc2	3/16/2010 11:50:05	OM_3-16-2010_11-35-56
1202068593	964224	25	axc2	3/16/2010 11:50:58	OM_3-16-2010_11-35-56
249057002	964224	1	axc2	3/16/2010 11:51:51	OM_3-16-2010_11-35-56
1202068588	964224	1	axc2	3/16/2010 11:52:44	OM_3-16-2010_11-35-56
1202068590	964224	1	axc2	3/16/2010 11:53:37	OM_3-16-2010_11-35-56
1202068592	964224	1	axc2	3/16/2010 11:54:29	OM_3-16-2010_11-35-56
249076003	964224	1	axc2	3/16/2010 11:55:22	OM_3-16-2010_11-35-56
249076004	964224	1	axc2	3/16/2010 11:56:15	OM_3-16-2010_11-35-56
249076005	964224	1	axc2	3/16/2010 11:57:07	OM_3-16-2010_11-35-56
249076006	964224	1	axc2	3/16/2010 11:58:00	OM_3-16-2010_11-35-56
CCV		1	axc2	3/16/2010 11:58:52	OM_3-16-2010_11-35-56
CCB		1	axc2	3/16/2010 12:00:42	OM_3-16-2010_11-35-56
1202068587	964224	1	axc2	3/16/2010 12:02:30	OM_3-16-2010_11-35-56
1202068589	964224	1	axc2	3/16/2010 12:03:22	OM_3-16-2010_11-35-56
1202068591	964224	1	axc2	3/16/2010 12:04:14	OM_3-16-2010_11-35-56
249076007	964224	1	axc2	3/16/2010 12:05:06	OM_3-16-2010_11-35-56
249076008	964224	1	axc2	3/16/2010 12:05:57	OM_3-16-2010_11-35-56
249076009	964224	1	axc2	3/16/2010 12:06:51	OM_3-16-2010_11-35-56
249076010	964224	1	axc2	3/16/2010 12:07:45	OM_3-16-2010_11-35-56
249076011	964224	1	axc2	3/16/2010 12:08:39	OM_3-16-2010_11-35-56
249076012*	964224	1	axc2	3/16/2010 12:09:32	OM_3-16-2010_11-35-56
249076013	964224	1	axc2	3/16/2010 12:10:25	OM_3-16-2010_11-35-56
CCV		1	axc2	3/16/2010 12:11:17	OM_3-16-2010_11-35-56
CCB		1	axc2	3/16/2010 12:13:08	OM_3-16-2010_11-35-56
249076012*	964224	1	axc2	3/16/2010 12:14:57	OM_3-16-2010_11-35-56
249076014*	964224	1	axc2	3/16/2010 12:15:50	OM_3-16-2010_11-35-56
249076015*	964224	1	axc2	3/16/2010 12:16:43	OM_3-16-2010_11-35-56
249076016*	964224	1	axc2	3/16/2010 12:17:36	OM_3-16-2010_11-35-56
249076017*	964224	1	axc2	3/16/2010 12:18:28	OM_3-16-2010_11-35-56
249076018*	964224	1	axc2	3/16/2010 12:19:21	OM_3-16-2010_11-35-56
249076019*	964224	1	axc2	3/16/2010 12:20:13	OM_3-16-2010_11-35-56
249076020*	964224	1	axc2	3/16/2010 12:21:06	OM_3-16-2010_11-35-56
249097002*	964224	1	axc2	3/16/2010 12:21:57	OM_3-16-2010_11-35-56
249076016*	964224	1	axc2	3/16/2010 12:22:50	OM_3-16-2010_11-35-56
CCV		1	axc2	3/16/2010 12:23:42	OM_3-16-2010_11-35-56
CCB		1	axc2	3/16/2010 12:25:32	OM_3-16-2010_11-35-56

Author: axc2 Date : 3/16/2010

Original Run Filename: OM_3-16-2010_11-35-56.OMN created 3/16/2010 11:35:56
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-16-2010_11-35-56.OMN last modified 3/16/2010 12:26:37
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100316-01	1	S1	200	9.76	3/16/2010@11:37:26			200 ppb
WCN100316-02	1	S2	150	7.51	3/16/2010@11:38:18			150 ppb
WCN100316-03	1	S3	100	4.94	3/16/2010@11:39:11			100 ppb
WCN100316-04	1	S4	50.0	2.64	3/16/2010@11:40:04			50 ppb
WCN100316-05	1	S5	10.0	0.638	3/16/2010@11:40:57			10 ppb
WCN100316-06	1	S6	5.00	0.357	3/16/2010@11:41:50			CRDL 5.0 ppb
WCN100316-08	1	S7	0.00	-0.00167	3/16/2010@11:42:45			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99976 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100316-07	1	S8	150	7.40	3/16/2010@11:44:35			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-0.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100316-08	1	S7	-1.57	0.0343	3/16/2010@11:46:25			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.57 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.57 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100316-06	1	S6	5.32	0.370	3/16/2010@11:48:15			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.32 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.32 > 2.50					
		Message	Pass					
		Action	None					
1202068586|964224|MB	1	1	-2.27	6.18e-4	3/16/2010@11:50:05			
1202068593||LCS	1	2	25.7	1.36	3/16/2010@11:50:58		25.00	
249057002	1	3	-0.148	0.104	3/16/2010@11:51:51			
1202068588||DUP	1	4	-1.32	0.0465	3/16/2010@11:52:44			
1202068590||MS	1	5	65.5	3.30	3/16/2010@11:53:37			
1202068592||MSD	1	6	50.1	2.55	3/16/2010@11:54:29			
249076003	1	7	-1.29	0.0482	3/16/2010@11:55:22			
249076004	1	8	-1.74	0.0261	3/16/2010@11:56:15			
249076005	1	9	-1.54	0.0360	3/16/2010@11:57:07			
249076006	1	10	-1.62	0.0319	3/16/2010@11:58:00			
WCN100316-03	1	S3	104	5.18	3/16/2010@11:58:52			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.0 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-0.661	0.0787	3/16/2010@12:00:42			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.661 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.661 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202068587||DUP	1	11	-1.57	0.0343	3/16/2010@12:02:30			
1202068589||MS	1	12	105	5.23	3/16/2010@12:03:22			
1202068591||MSD	1	13	102	5.06	3/16/2010@12:04:14			
249076007	1	14	-1.54	0.0360	3/16/2010@12:05:06			
249076008	1	15	-1.55	0.0353	3/16/2010@12:05:57			
249076009	1	16	-2.51	-0.0113	3/16/2010@12:06:51			
249076010	1	17	-2.28	-1.61e-4	3/16/2010@12:07:45			
249076011	1	18	-1.46	0.0401	3/16/2010@12:08:39			
249076012	1	19	-10.7	-0.410	3/16/2010@12:09:32			
249076013	1	20	1.99	0.208	3/16/2010@12:10:25			
WCN100316-03	1	S3	103	5.14	3/16/2010@12:11:17			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	4.21	0.316	3/16/2010@12:13:08			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	4.21 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	4.21 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249076012	1	19	-3.02	-0.0360	3/16/2010@12:14:57			
249076014	1	21	-1.62	0.0320	3/16/2010@12:15:50			
249076015	1	22	0.262	0.124	3/16/2010@12:16:43			
249076016	1	23	-5.77	-0.170	3/16/2010@12:17:36			
249076017	1	24	-1.58	0.0341	3/16/2010@12:18:28			
249076018	1	25	-2.16	0.00576	3/16/2010@12:19:21			
249076019	1	26	-4.94	-0.130	3/16/2010@12:20:13			
249076020	1	27	-2.28	-2.14e-4	3/16/2010@12:21:06			
249097002	1	28	-1.64	0.0313	3/16/2010@12:21:57			
249076016	1	23	-1.01	0.0618	3/16/2010@12:22:50			
WCN100316-03	1	S3	103	5.10	3/16/2010@12:23:42			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	9.14	0.556	3/16/2010@12:25:32			CCB
		Known Conc:	0.00					

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DQM Test: > + Concentration Limit						
Result:	9.14 > 5.00					
Message	CCB Failed					
Action	Stop Run					
DQM Test: < - Concentration Limit						
Result:	9.14 > -5.00					
Message	CCB Passed					
Action	Continue					

Analyte Properties Table for OM_3-16-2010_11-35-56.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

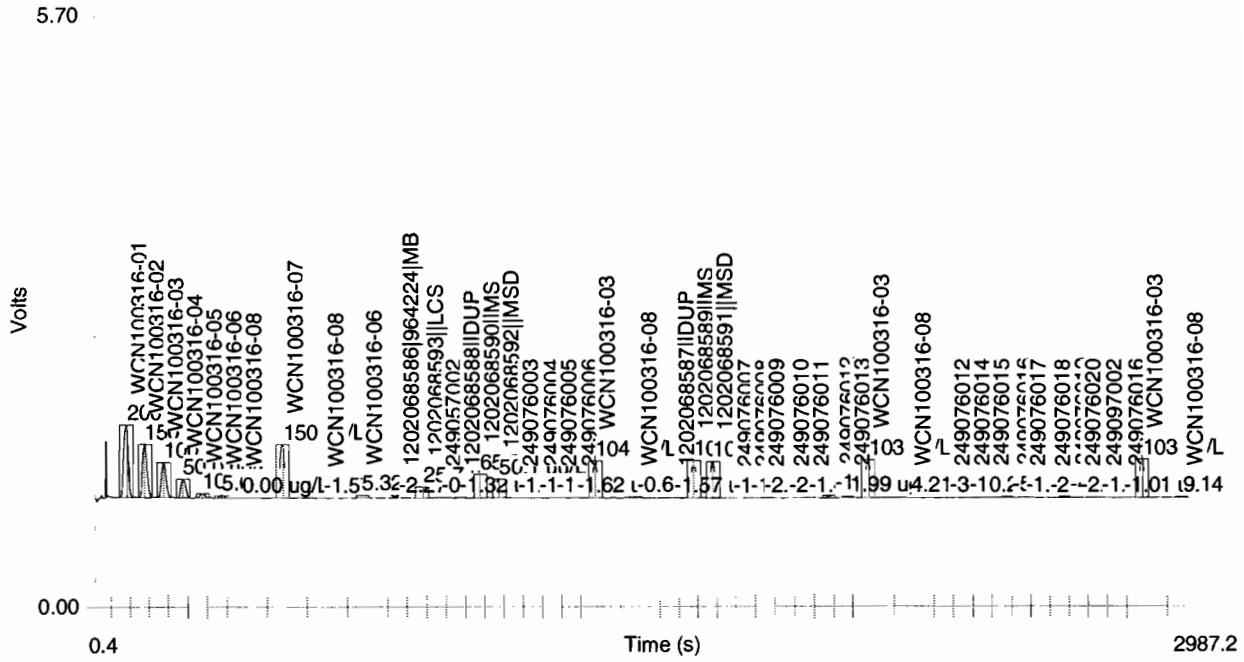

Author: axc2 Date : 3/16/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.76	0.694	0.8	3/16/2010	11:38:29
2	150	1	7.51	0.508	-1.4	3/16/2010	11:39:21
3	100	1	4.94	0.333	0.7	3/16/2010	11:40:14
4	50.0	1	2.64	0.177	-3.6	3/16/2010	11:41:07
5	10.0	1	0.638	0.0416	-6.6	3/16/2010	11:42:00
6	5.00	1	0.357	0.0229	-0.2	3/16/2010	11:42:53
7	0.00	1	-0.00167	-0.00189		3/16/2010	11:43:48

Figure 1: TCYANIDE

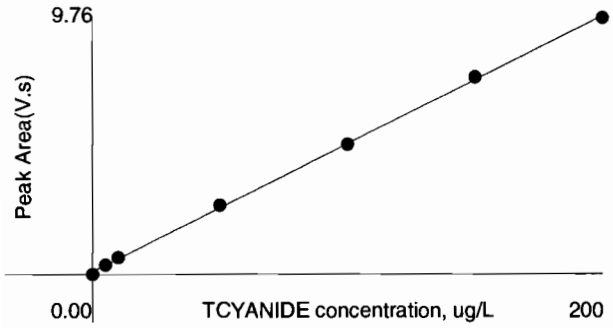

Area = 0.0487 * Conc + 0.113
Conc = 20.5 * Area - 2.28
Correlation Coefficient (r) = 0.99976

No Weighting

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	3/16/2010 20:25:01	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 20:26:51	OM_3-16-2010_20-23-30
249076012	964224	1	axc2	3/16/2010 20:28:41	OM_3-16-2010_20-23-30
249076014	964224	1	axc2	3/16/2010 20:29:34	OM_3-16-2010_20-23-30
249076015	964224	1	axc2	3/16/2010 20:30:27	OM_3-16-2010_20-23-30
249076016	964224	1	axc2	3/16/2010 20:31:20	OM_3-16-2010_20-23-30
249076017	964224	1	axc2	3/16/2010 20:32:13	OM_3-16-2010_20-23-30
249076018	964224	1	axc2	3/16/2010 20:33:05	OM_3-16-2010_20-23-30
249076019	964224	1	axc2	3/16/2010 20:33:57	OM_3-16-2010_20-23-30
249076020	964224	1	axc2	3/16/2010 20:34:49	OM_3-16-2010_20-23-30
249097002	964224	1	axc2	3/16/2010 20:35:42	OM_3-16-2010_20-23-30
1202064134*	962258	1	axc2	3/16/2010 20:36:36	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 20:37:28	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 20:39:18	OM_3-16-2010_20-23-30
1202064134	962258	1	axc2	3/16/2010 20:41:09	OM_3-16-2010_20-23-30
248798002	962258	1	axc2	3/16/2010 20:42:03	OM_3-16-2010_20-23-30
1202064149	962262	1	axc2	3/16/2010 20:42:54	OM_3-16-2010_20-23-30
1202064156	962262	25	axc2	3/16/2010 20:43:46	OM_3-16-2010_20-23-30
248814001	962262	1	axc2	3/16/2010 20:44:40	OM_3-16-2010_20-23-30
1202064150	962262	1	axc2	3/16/2010 20:45:34	OM_3-16-2010_20-23-30
1202064152	962262	1	axc2	3/16/2010 20:46:27	OM_3-16-2010_20-23-30
1202064154	962262	1	axc2	3/16/2010 20:47:21	OM_3-16-2010_20-23-30
248814002	962262	1	axc2	3/16/2010 20:48:14	OM_3-16-2010_20-23-30
1202064151	962262	1	axc2	3/16/2010 20:49:07	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 20:50:00	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 20:51:50	OM_3-16-2010_20-23-30
1202064153	962262	1	axc2	3/16/2010 20:53:39	OM_3-16-2010_20-23-30
1202064155	962262	1	axc2	3/16/2010 20:54:32	OM_3-16-2010_20-23-30
248814003	962262	1	axc2	3/16/2010 20:55:25	OM_3-16-2010_20-23-30
248814004	962262	1	axc2	3/16/2010 20:56:18	OM_3-16-2010_20-23-30
248814005	962262	1	axc2	3/16/2010 20:57:10	OM_3-16-2010_20-23-30
248814006	962262	1	axc2	3/16/2010 20:58:02	OM_3-16-2010_20-23-30
248814007	962262	1	axc2	3/16/2010 20:58:55	OM_3-16-2010_20-23-30
248814008	962262	1	axc2	3/16/2010 20:59:46	OM_3-16-2010_20-23-30
248814009	962262	1	axc2	3/16/2010 21:00:38	OM_3-16-2010_20-23-30
248834001	962262	1	axc2	3/16/2010 21:01:32	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 21:02:25	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 21:04:15	OM_3-16-2010_20-23-30
248834002	962262	1	axc2	3/16/2010 21:06:05	OM_3-16-2010_20-23-30
248834003	962262	1	axc2	3/16/2010 21:06:58	OM_3-16-2010_20-23-30
248834004	962262	1	axc2	3/16/2010 21:07:52	OM_3-16-2010_20-23-30
248834005	962262	1	axc2	3/16/2010 21:08:45	OM_3-16-2010_20-23-30
248834006	962262	1	axc2	3/16/2010 21:09:39	OM_3-16-2010_20-23-30
248834007	962262	1	axc2	3/16/2010 21:10:32	OM_3-16-2010_20-23-30
248834008	962262	1	axc2	3/16/2010 21:11:25	OM_3-16-2010_20-23-30
248834009	962262	1	axc2	3/16/2010 21:12:18	OM_3-16-2010_20-23-30
248834010	962262	1	axc2	3/16/2010 21:13:11	OM_3-16-2010_20-23-30
248834011	962262	1	axc2	3/16/2010 21:14:04	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 21:14:56	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 21:16:46	OM_3-16-2010_20-23-30
1202064141	962260	1	axc2	3/16/2010 21:18:34	OM_3-16-2010_20-23-30
248700001	962260	1	axc2	3/16/2010 21:19:26	OM_3-16-2010_20-23-30
1202064148*	962260	25	axc2	3/16/2010 21:20:18	OM_3-16-2010_20-23-30
1202064142	962260	1	axc2	3/16/2010 21:21:11	OM_3-16-2010_20-23-30
1202064144	962260	1	axc2	3/16/2010 21:22:04	OM_3-16-2010_20-23-30
1202064146	962260	1	axc2	3/16/2010 21:22:59	OM_3-16-2010_20-23-30
248700002	962260	1	axc2	3/16/2010 21:23:53	OM_3-16-2010_20-23-30
1202064143	962260	1	axc2	3/16/2010 21:24:47	OM_3-16-2010_20-23-30

1202064145	962260	1	axc2	3/16/2010	21:25:41	OM_3-16-2010_20-23-30
1202064147	962260	1	axc2	3/16/2010	21:26:35	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010	21:27:27	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010	21:29:17	OM_3-16-2010_20-23-30
1202064148	962260	25	axc2	3/16/2010	21:31:06	OM_3-16-2010_20-23-30
248700003	962260	1	axc2	3/16/2010	21:31:59	OM_3-16-2010_20-23-30
248700004	962260	1	axc2	3/16/2010	21:32:52	OM_3-16-2010_20-23-30
248700005	962260	1	axc2	3/16/2010	21:33:45	OM_3-16-2010_20-23-30
248700006	962260	1	axc2	3/16/2010	21:34:38	OM_3-16-2010_20-23-30
248700007	962260	1	axc2	3/16/2010	21:35:31	OM_3-16-2010_20-23-30
248700008	962260	1	axc2	3/16/2010	21:36:24	OM_3-16-2010_20-23-30
248700009	962260	1	axc2	3/16/2010	21:37:16	OM_3-16-2010_20-23-30
248700010	962260	1	axc2	3/16/2010	21:38:09	OM_3-16-2010_20-23-30
248700011	962260	1	axc2	3/16/2010	21:39:01	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010	21:39:53	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010	21:41:43	OM_3-16-2010_20-23-30
248700012*	962260	1	axc2	3/16/2010	21:43:35	OM_3-16-2010_20-23-30
248700013*	962260	1	axc2	3/16/2010	21:44:29	OM_3-16-2010_20-23-30
248700014*	962260	1	axc2	3/16/2010	21:45:23	OM_3-16-2010_20-23-30
248700015*	962260	1	axc2	3/16/2010	21:46:17	OM_3-16-2010_20-23-30
248700016*	962260	1	axc2	3/16/2010	21:47:11	OM_3-16-2010_20-23-30
1202068608*	964231	1	axc2	3/16/2010	21:48:04	OM_3-16-2010_20-23-30
1202068618*	964231	1	axc2	3/16/2010	21:48:58	OM_3-16-2010_20-23-30
249076001*	964231	1	axc2	3/16/2010	21:49:51	OM_3-16-2010_20-23-30
248634002*	964231	1	axc2	3/16/2010	21:50:45	OM_3-16-2010_20-23-30
248885002*	964231	1	axc2	3/16/2010	21:51:37	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010	21:52:30	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010	21:54:21	OM_3-16-2010_20-23-30
248952011*	964231	1	axc2	3/16/2010	21:56:10	OM_3-16-2010_20-23-30
1202068610*	964231	1	axc2	3/16/2010	21:57:03	OM_3-16-2010_20-23-30
1202068613*	964231	1	axc2	3/16/2010	21:57:57	OM_3-16-2010_20-23-30
1202068616*	964231	1	axc2	3/16/2010	21:58:49	OM_3-16-2010_20-23-30
248952012*	964231	1	axc2	3/16/2010	21:59:41	OM_3-16-2010_20-23-30
248952018*	964231	1	axc2	3/16/2010	22:00:33	OM_3-16-2010_20-23-30
248964002*	964231	1	axc2	3/16/2010	22:01:28	OM_3-16-2010_20-23-30
1202068611*	964231	1	axc2	3/16/2010	22:02:23	OM_3-16-2010_20-23-30
1202068614*	964231	1	axc2	3/16/2010	22:03:17	OM_3-16-2010_20-23-30
1202068617*	964231	1	axc2	3/16/2010	22:04:11	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010	22:05:03	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010	22:06:55	OM_3-16-2010_20-23-30
1202068608*	964231	1	axc2	3/16/2010	22:08:43	OM_3-16-2010_20-23-30
1202068618*	964231	1	axc2	3/16/2010	22:09:37	OM_3-16-2010_20-23-30
249076001*	964231	1	axc2	3/16/2010	22:10:30	OM_3-16-2010_20-23-30
248964003*	964231	1	axc2	3/16/2010	22:11:25	OM_3-16-2010_20-23-30
1202068608*	964231	1	axc2	3/16/2010	22:12:18	OM_3-16-2010_20-23-30
1202068618*	964231	1	axc2	3/16/2010	22:13:11	OM_3-16-2010_20-23-30

Author: axc2 Date : 3/30/2010

Original Run Filename: OM_3-16-2010_20-23-30.OMN created 3/16/2010 20:23:30
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-16-2010_20-23-30.OMN last modified 3/16/2010 22:15:07
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100316-03	1	S3	105	5.22	3/16/2010@20:25:01			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		5.0 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		5.0 < 10.0					
	Message		CCV Passed					
	Action		Continue					
	Calibration:		Table/Fig. 1					
WCN100316-08	1	S7	-1.78	0.0243	3/16/2010@20:26:51			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.78 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.78 > -5.00					
	Message		CCB Passed					
	Action		Continue					
249076012|964224|	1	19	-1.65	0.0306	3/16/2010@20:28:41			
249076014	1	21	-1.68	0.0291	3/16/2010@20:29:34			
249076015	1	22	-2.19	0.00410	3/16/2010@20:30:27			
249076016	1	23	0.0867	0.115	3/16/2010@20:31:20			
249076017	1	24	-1.82	0.0224	3/16/2010@20:32:13			
249076018	1	25	-1.50	0.0380	3/16/2010@20:33:05			
249076019	1	26	-1.82	0.0222	3/16/2010@20:33:57			
249076020	1	27	-2.06	0.0107	3/16/2010@20:34:49			
249097002	1	28	-1.44	0.0407	3/16/2010@20:35:42			
1202064134|962258|DUP	1	112	519	25.4	3/16/2010@20:36:36			
WCN100316-03	1	S3	106	5.29	3/16/2010@20:37:28			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		6.3 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		6.3 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100316-08	1	S7	-1.61	0.0325	3/16/2010@20:39:18			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.61 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.61 > -5.00					
	Message		CCB Passed					
	Action		Continue					
1202064134|962258|DUP	1	112	-2.01	0.0133	3/16/2010@20:41:09			
248798002	1	113	-2.12	0.00795	3/16/2010@20:42:03			
1202064149|962262|MB	1	29	-1.85	0.0208	3/16/2010@20:42:54			
1202064156||LCS	1	30	21.2	1.14	3/16/2010@20:43:46		25.00	
248814001	1	31	-1.92	0.0176	3/16/2010@20:44:40			

1202064150|DUP	1	32	-1.94	0.0167	3/16/2010@20:45:34			
1202064152|MS	1	33	93.0	4.64	3/16/2010@20:46:27			
1202064154|MSD	1	34	95.0	4.73	3/16/2010@20:47:21			
248814002	1	35	-1.81	0.0230	3/16/2010@20:48:14			
1202064151|DUP	1	36	-1.70	0.0279	3/16/2010@20:49:07			
WCN100316-03	1	S3	107	5.32	3/16/2010@20:50:00			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		7.0 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		7.0 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100316-08	1	S7	-2.40	-0.00592	3/16/2010@20:51:50			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-2.40 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-2.40 > -5.00					
	Message		CCB Passed					
	Action		Continue					
1202064153|MS	1	37	56.8	2.87	3/16/2010@20:53:39			
1202064155|MSD	1	38	68.7	3.45	3/16/2010@20:54:32			
248814003	1	39	-1.21	0.0520	3/16/2010@20:55:25			
248814004	1	40	-1.64	0.0311	3/16/2010@20:56:18			
248814005	1	41	-1.31	0.0473	3/16/2010@20:57:10			
248814006	1	42	-1.36	0.0446	3/16/2010@20:58:02			
248814007	1	43	-1.56	0.0349	3/16/2010@20:58:55			
248814008	1	44	-1.71	0.0279	3/16/2010@20:59:46			
248814009	1	45	-1.60	0.0332	3/16/2010@21:00:38			
248834001	1	46	-1.80	0.0231	3/16/2010@21:01:32			
WCN100316-03	1	S3	108	5.36	3/16/2010@21:02:25			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		7.8 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		7.8 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100316-08	1	S7	-1.85	0.0210	3/16/2010@21:04:15			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.85 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.85 > -5.00					
	Message		CCB Passed					
	Action		Continue					
248834002	1	47	1.43	0.181	3/16/2010@21:06:05			
248834003	1	48	-1.90	0.0185	3/16/2010@21:06:58			
248834004	1	49	-1.78	0.0243	3/16/2010@21:07:52			
248834005	1	50	-1.74	0.0262	3/16/2010@21:08:45			
248834006	1	51	-2.13	0.00738	3/16/2010@21:09:39			
248834007	1	52	-2.40	-0.00569	3/16/2010@21:10:32			
248834008	1	53	-2.10	0.00869	3/16/2010@21:11:25			
248834009	1	54	-1.82	0.0221	3/16/2010@21:12:18			
248834010	1	55	-1.46	0.0397	3/16/2010@21:13:11			
248834011	1	56	-1.79	0.0236	3/16/2010@21:14:04			
WCN100316-03	1	S3	109	5.40	3/16/2010@21:14:56			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								

		Result:	8.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	8.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-2.15	0.00636	3/16/2010@21:16:46			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.15 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.15 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064141|962260|MB	1	57	-1.27	0.0492	3/16/2010@21:18:34			
248700001	1	58	-1.98	0.0144	3/16/2010@21:19:26		25.00	
1202064148||LCS	1	59	711	34.7	3/16/2010@21:20:18			
1202064142||DUP	1	60	1.08	0.163	3/16/2010@21:21:11			
1202064144||MS	1	61	102	5.07	3/16/2010@21:22:04			
1202064146||MSD	1	62	99.0	4.93	3/16/2010@21:22:59			
248700002	1	63	-0.804	0.0718	3/16/2010@21:23:53			
1202064143||DUP	1	64	-2.28	-2.93e-4	3/16/2010@21:24:47			
1202064145||MS	1	65	103	5.13	3/16/2010@21:25:41			
1202064147||MSD	1	66	105	5.24	3/16/2010@21:26:35			
WCN100316-03	1	S3	105	5.22	3/16/2010@21:27:27			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-2.13	0.00714	3/16/2010@21:29:17			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.13 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.13 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064148||LCS	1	59	25.3	1.34	3/16/2010@21:31:06		25.00	
248700003	1	67	-0.850	0.0695	3/16/2010@21:31:59			
248700004	1	68	-0.511	0.0860	3/16/2010@21:32:52			
248700005	1	69	-0.731	0.0753	3/16/2010@21:33:45			
248700006	1	70	0.111	0.116	3/16/2010@21:34:38			
248700007	1	71	-1.12	0.0562	3/16/2010@21:35:31			
248700008	1	72	-1.75	0.0256	3/16/2010@21:36:24			
248700009	1	73	-0.966	0.0639	3/16/2010@21:37:16			
248700010	1	74	2.32	0.224	3/16/2010@21:38:09			
248700011	1	75	-0.512	0.0860	3/16/2010@21:39:01			
WCN100316-03	1	S3	103	5.13	3/16/2010@21:39:53			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-1.67	0.0295	3/16/2010@21:41:43			CCB

		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.67 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.67 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248700012	1	76	7.01	0.452	3/16/2010@21:43:35			
248700013	1	77	-57.1	-2.67	3/16/2010@21:44:29			
248700014	1	78	1.66	0.192	3/16/2010@21:45:23			
248700015	1	79	12.0	0.695	3/16/2010@21:46:17			
248700016	1	80	20.0	1.08	3/16/2010@21:47:11			
1202068608|964231|MB	1	81	9.84	0.590	3/16/2010@21:48:04			
1202068618||LCS	1	82	61.6	3.11	3/16/2010@21:48:58			
249076001	1	102	-10.7	-0.409	3/16/2010@21:49:51			
248634002	1	83	-1.11	0.0570	3/16/2010@21:50:45			
248885002	1	84	-0.520	0.0856	3/16/2010@21:51:37			
WCN100316-03	1	S3	103	5.13	3/16/2010@21:52:30			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-1.84	0.0211	3/16/2010@21:54:21			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.84 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.84 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248952011	1	85	-3.64	-0.0664	3/16/2010@21:56:10			
1202068610||DUP	1	86	-1.43	0.0415	3/16/2010@21:57:03			
1202068613||MS	1	87	102	5.09	3/16/2010@21:57:57			
1202068616||MSD	1	88	109	5.41	3/16/2010@21:58:49			
248952012	1	89	-1.36	0.0445	3/16/2010@21:59:41			
248952018	1	90	-1.18	0.0533	3/16/2010@22:00:33			
248964002	1	91	-1.61	0.0323	3/16/2010@22:01:28			
1202068611||DUP	1	92	0.111	0.116	3/16/2010@22:02:23			
1202068614||MS	1	93	121	5.99	3/16/2010@22:03:17			
1202068617||MSD	1	94	108	5.38	3/16/2010@22:04:11			
WCN100316-03	1	S3	105	5.23	3/16/2010@22:05:03			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-0.763	0.0738	3/16/2010@22:06:55			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.763 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.763 > -5.00					
		Message	CCB Passed					

Author: axc2 Date : 3/30/2010

			Action	Continue					
1202068608|964231|MB	1	81	13.0	0.742	3/16/2010@22:08:43				
1202068618||LCS	1	82	59.6	3.01	3/16/2010@22:09:37				
249076001	1	102	-0.852	0.0694	3/16/2010@22:10:30				
248964003	1	95	15.4	0.863	3/16/2010@22:11:25				
1202068608|964231|MB	1	81	-2.86	-0.0283	3/16/2010@22:12:18				
1202068618||LCS	1	82	68.5	3.45	3/16/2010@22:13:11				

Analyte Properties Table for OM_3-16-2010_20-23-30.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

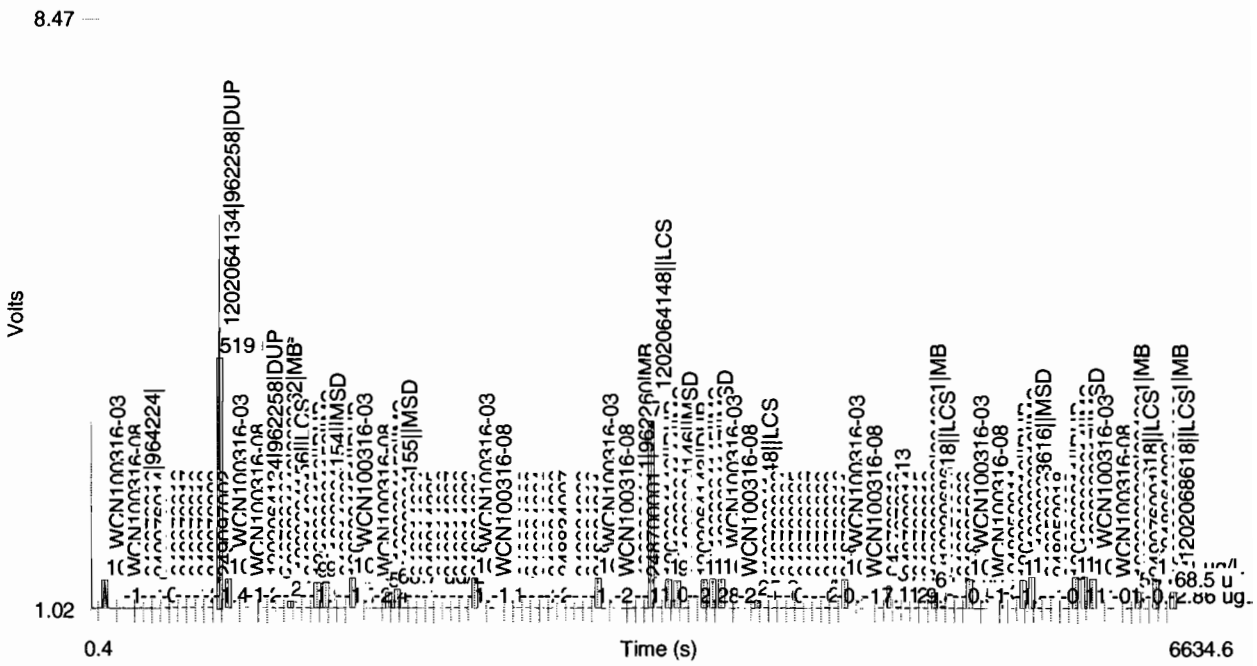

Author: axc2 Date : 3/30/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.76	0.694	0.8	3/16/2010	11:38:29
2	150	1	7.51	0.508	-1.4	3/16/2010	11:39:21
3	100	1	4.94	0.333	0.7	3/16/2010	11:40:14
4	50.0	1	2.64	0.177	-3.6	3/16/2010	11:41:07
5	10.0	1	0.638	0.0416	-6.6	3/16/2010	11:42:00
6	5.00	1	0.357	0.0229	-0.2	3/16/2010	11:42:53
7	0.00	1	-0.00167	-0.00189		3/16/2010	11:43:48

Figure 1: TCYANIDE

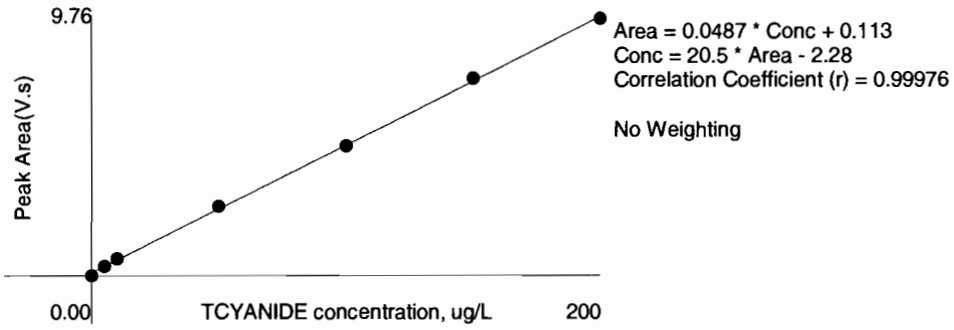

Ion Chromatography

Prep Logbook

Ion Chromatography (IC)

Batch ID: **968639.0** Verified by: _____

Analyst: Virginia Wininger

Method: EPA 300.0 PREP

Lab SOP: GL-GC-E-086 REV# 17

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202079405	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202079401	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202079402	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202079403	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202079404	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202079398 MB	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079405 LCS	29-MAR-2010 16:37:00	Soil	4	40	10	
248814001	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079399 DUP (248814001)	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079401 MS (248814001)	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079403 MSD (248814001)	29-MAR-2010 16:37:00	Soil	4	40	10	
248814002	29-MAR-2010 16:37:00	Soil	4	40	10	
248814003	29-MAR-2010 16:37:00	Soil	4	40	10	
248814004	29-MAR-2010 16:37:00	Soil	4	40	10	
248814005	29-MAR-2010 16:37:00	Soil	4	40	10	
248814006	29-MAR-2010 16:37:00	Soil	4	40	10	
248814007	29-MAR-2010 16:37:00	Soil	4	40	10	
248814008	29-MAR-2010 16:37:00	Soil	4	40	10	
248814009	29-MAR-2010 16:37:00	Soil	4	40	10	
248824001	29-MAR-2010 16:37:00	Soil	4	40	10	
248824002	29-MAR-2010 16:37:00	Soil	4	40	10	
248865001	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079400 DUP (248865001)	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079402 MS (248865001)	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079404 MSD (248865001)	29-MAR-2010 16:37:00	Soil	4	40	10	
248866001	29-MAR-2010 16:37:00	Soil	4	40	10	
248866002	29-MAR-2010 16:37:00	Soil	4	40	10	

Reagent/Solvent Lot ID	Description	Amount

Prep Logbook

Batch ID: **968639.0** Verified by:
Analyst: Virginia Wininger
Method: EPA 300.0 PREP
Lab SOP: GL-GC-E-086 REV# 17
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202079405	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202079401	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202079402	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202079403	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202079404	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1

Comments:

This is runlog for Sequence 100330.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	03/23/10 16:00		1	100330	MAR1
ICAL-06	03/23/10 16:27		1	100330	MAR1
ICAL-05	03/23/10 16:53		1	100330	MAR1
ICAL-04	03/23/10 17:20		1	100330	MAR1
ICAL-03	03/23/10 17:47		1	100330	MAR1
ICAL-02	03/23/10 18:14		1	100330	MAR1
ICAL-01	03/23/10 18:41		1	100330	MAR1

8 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	1.0
Vial Number:	46	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 16:00	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

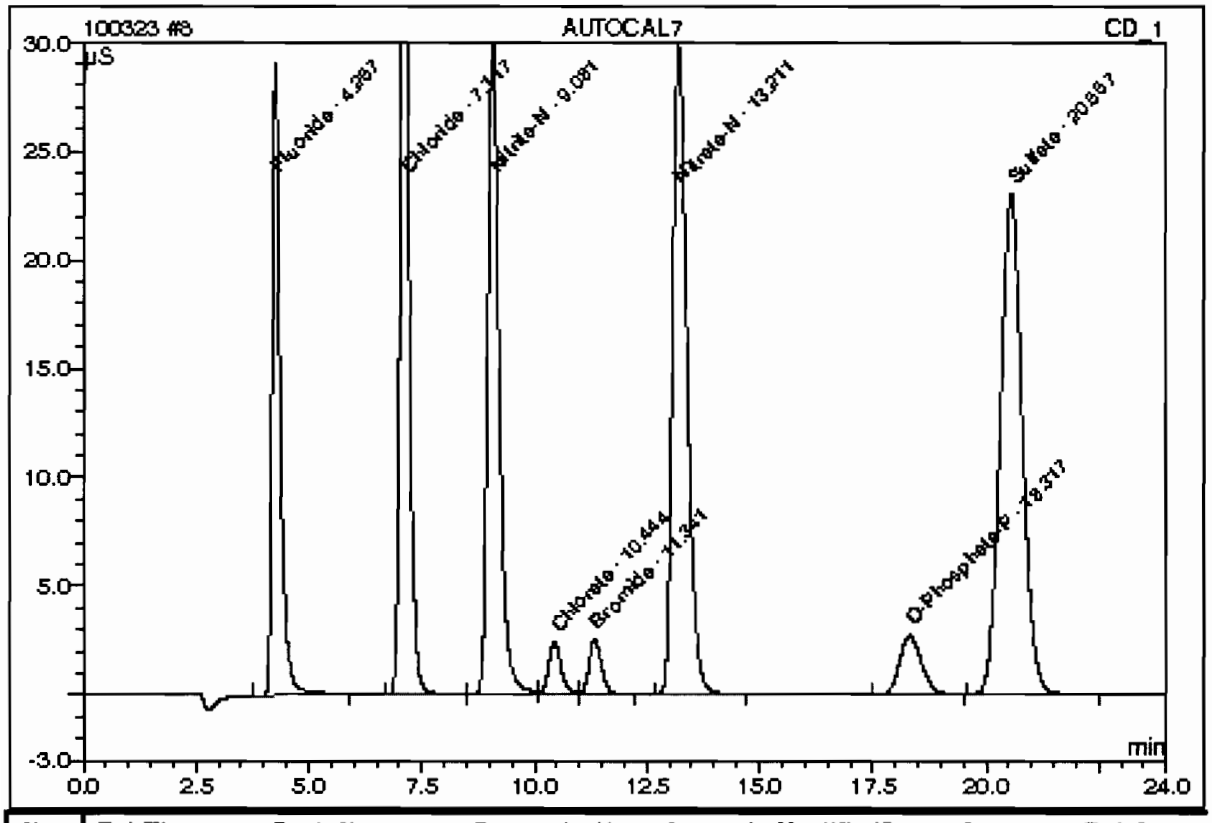

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	10.0000	10.0652		6.02041	11.75
2	7.12	Chloride	20.0000	20.3058		9.29780	18.14
3	9.08	Nitrite-N	10.0000	10.0773		8.89622	17.36
4	10.44	Chlorate	5.0000	5.0763		0.77530	1.51
5	11.34	Bromide	5.0000	5.0450		0.82220	1.60
6	13.21	Nitrate-N	10.0000	10.1395		11.02745	21.52
7	18.32	O-Phosphate-P	5.0000	5.1121		1.49471	2.92
8	20.56	Sulfate	40.0000	40.4690		12.91152	25.20
Total:				106.2901	0.000	51.246	100.00

9 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	1.0
Vial Number:	47	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 16:27	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

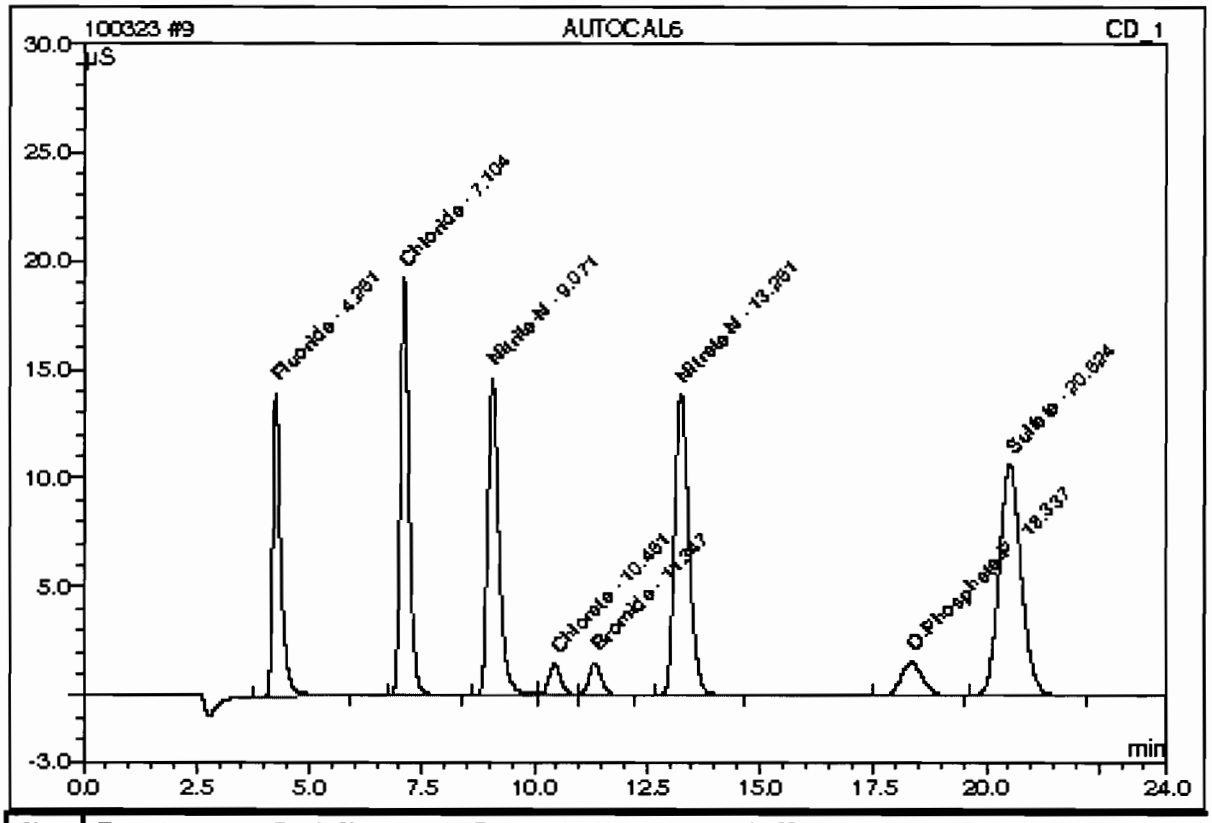

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	5.0000	4.8849		2.90201	11.92
2	7.10	Chloride	10.0000	9.4230		4.26930	17.53
3	9.07	Nitrite-N	5.0000	4.8599		4.25796	17.48
4	10.45	Chlorate	3.0000	2.9924		0.45332	1.86
5	11.35	Bromide	3.0000	3.0046		0.48728	2.00
6	13.25	Nitrate-N	5.0000	4.7372		5.09401	20.92
7	18.34	O-Phosphate-P	3.0000	2.9633		0.84358	3.46
8	20.52	Sulfate	20.0000	19.1180		6.04506	24.82
Total:				51.9833	0.000	24.353	100.00

10 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	1.0
Vial Number:	48	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 16:53	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

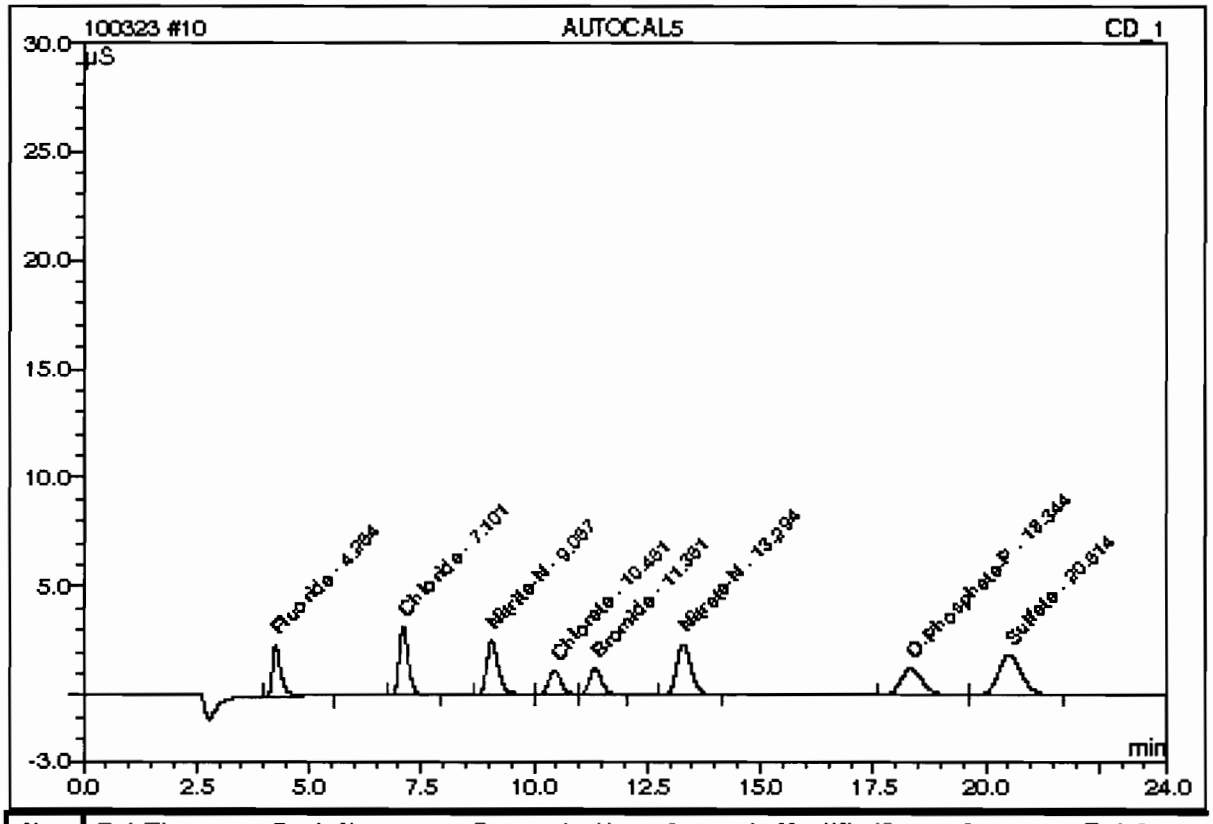

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	1.0000	0.9125		0.51078	9.53
2	7.10	Chloride	2.0000	1.7708		0.73350	13.68
3	9.07	Nitrite-N	1.0000	0.9189		0.75453	14.07
4	10.45	Chlorate	2.5000	2.3650		0.35638	6.65
5	11.35	Bromide	2.5000	2.4114		0.38991	7.27
6	13.29	Nitrate-N	1.0000	0.9005		0.88006	16.42
7	18.34	O-Phosphate-P	2.5000	2.3684		0.66331	12.37
8	20.51	Sulfate	4.0000	3.6570		1.07282	20.01
Total:				15.3047	0.000	5.361	100.00

11 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	1.0
Vial Number:	49	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 17:20	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

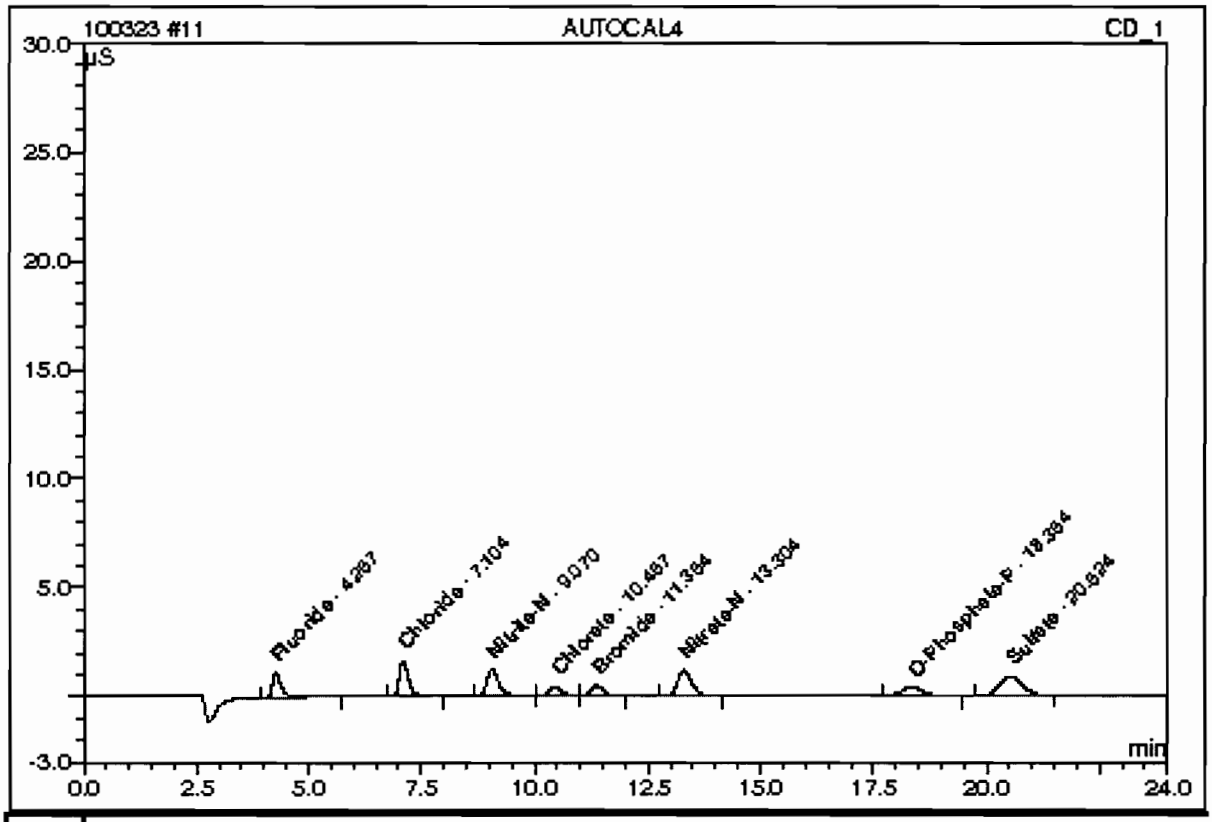

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.5000	0.5017		0.26350	10.50
2	7.10	Chloride	1.0000	1.0243		0.38857	15.49
3	9.07	Nitrite-N	0.5000	0.4901		0.37331	14.88
4	10.46	Chlorate	1.0000	0.9701		0.14085	5.61
5	11.35	Bromide	1.0000	0.9780		0.15461	6.16
6	13.30	Nitrate-N	0.5000	0.4967		0.43652	17.40
7	18.36	O-Phosphate-P	1.0000	0.8958		0.21705	8.65
8	20.52	Sulfate	2.0000	1.9836		0.53465	21.31
Total:				7.3402	0.000	2.509	100.00

12 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	1.0
Vial Number:	50	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 17:47	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

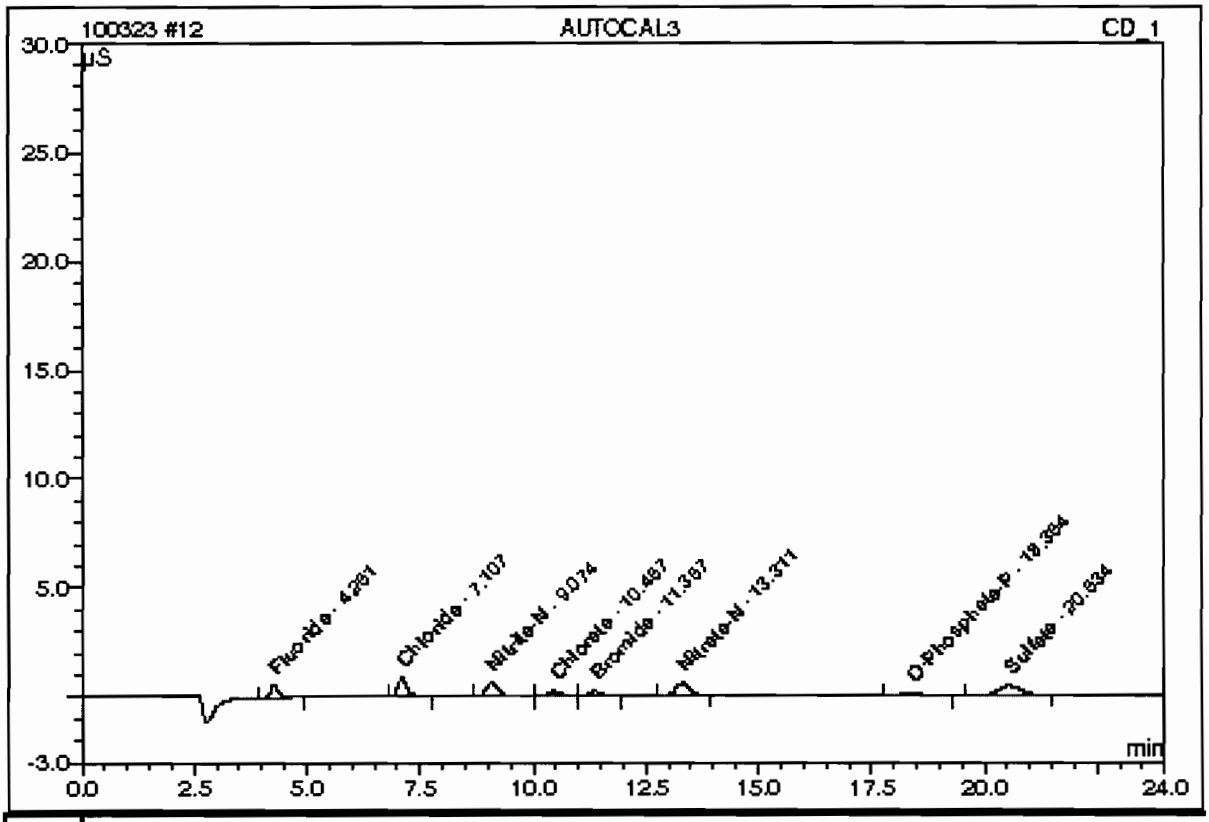

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.2500	0.2725		0.12551	10.22
2	7.11	Chloride	0.5000	0.6010		0.19297	15.72
3	9.07	Nitrite-N	0.2500	0.2827		0.18893	15.39
4	10.46	Chlorate	0.5000	0.5047		0.06895	5.62
5	11.36	Bromide	0.5000	0.4987		0.07594	6.19
6	13.31	Nitrate-N	0.2500	0.2965		0.21665	17.65
7	18.36	O-Phosphate-P	0.5000	0.4552		0.08354	6.81
8	20.53	Sulfate	1.0000	1.1764		0.27506	22.41
Total:				4.0878	0.000	1.228	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	1.0
Vial Number:	1	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:14	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

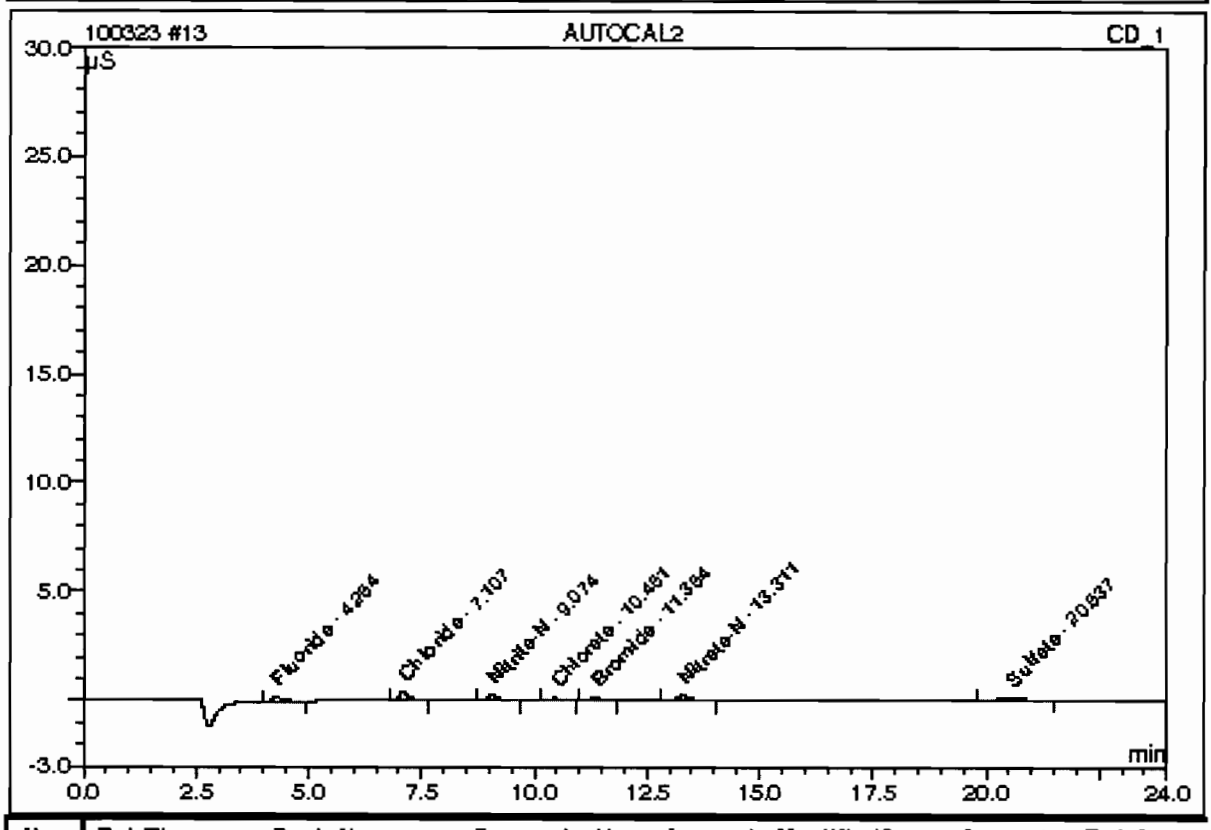

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.1000	0.1492		0.05126	10.67
2	7.11	Chloride	0.2000	0.3919		0.09636	20.06
3	9.07	Nitrite-N	0.1000	0.1509		0.07173	14.93
4	10.46	Chlorate	0.2000	0.2331		0.02698	5.62
5	11.35	Bromide	0.2000	0.2262		0.03122	6.50
6	13.31	Nitrate-N	0.1000	0.1803		0.08899	18.53
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	20.54	Sulfate	0.4000	0.6748		0.11374	23.68
Total:				2.0063	0.000	0.480	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	1.0
Vial Number:	1	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:14	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

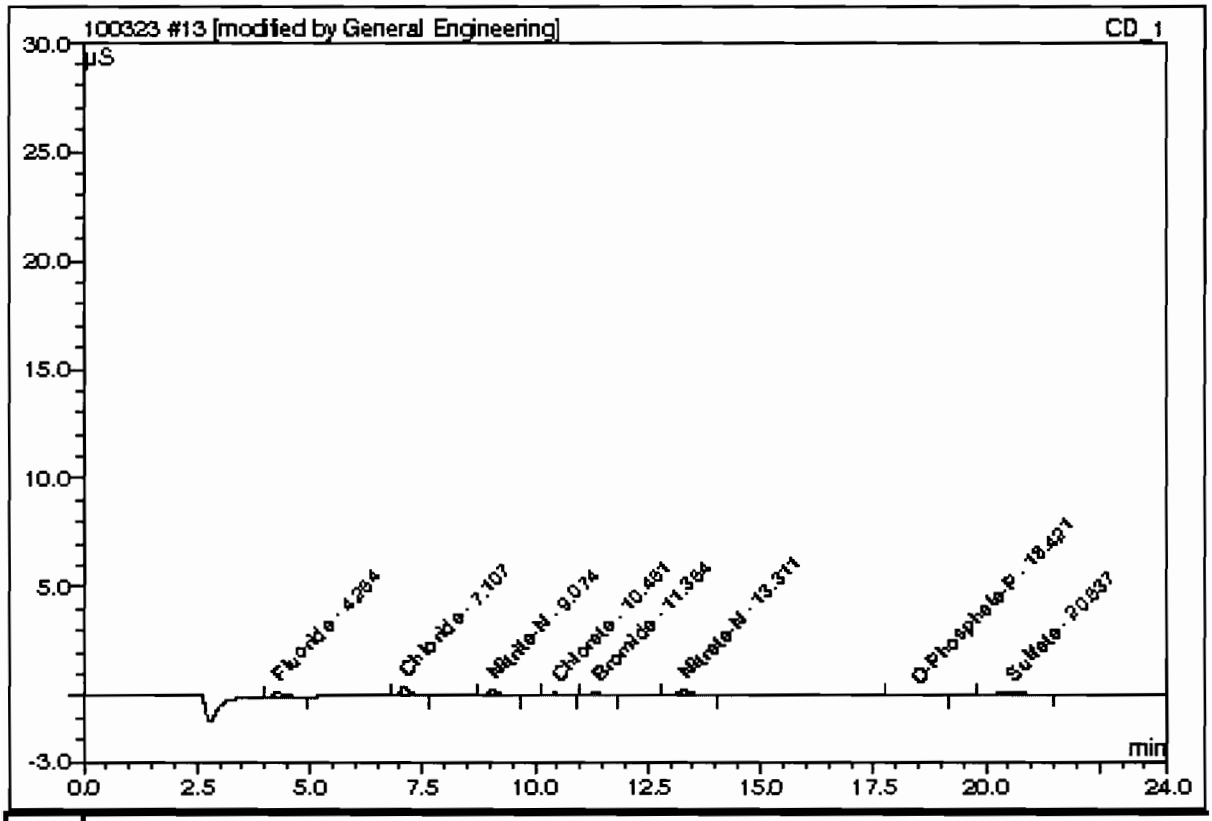

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.1000	0.1492		0.05126	10.37
2	7.11	Chloride	0.2000	0.3919		0.09636	19.50
3	9.07	Nitrite-N	0.1000	0.1509		0.07173	14.51
4	10.46	Chlorate	0.2000	0.2331		0.02698	5.46
5	11.35	Bromide	0.2000	0.2262		0.03122	6.32
6	13.31	Nitrate-N	0.1000	0.1803		0.08899	18.00
7	18.42	O-Phosphate-P	0.2000	0.2257		0.01399	2.83
8	20.54	Sulfate	0.4000	0.6748		0.11374	23.01
Total:				2.2320	0.000	0.494	100.00

14 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	1.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:41	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

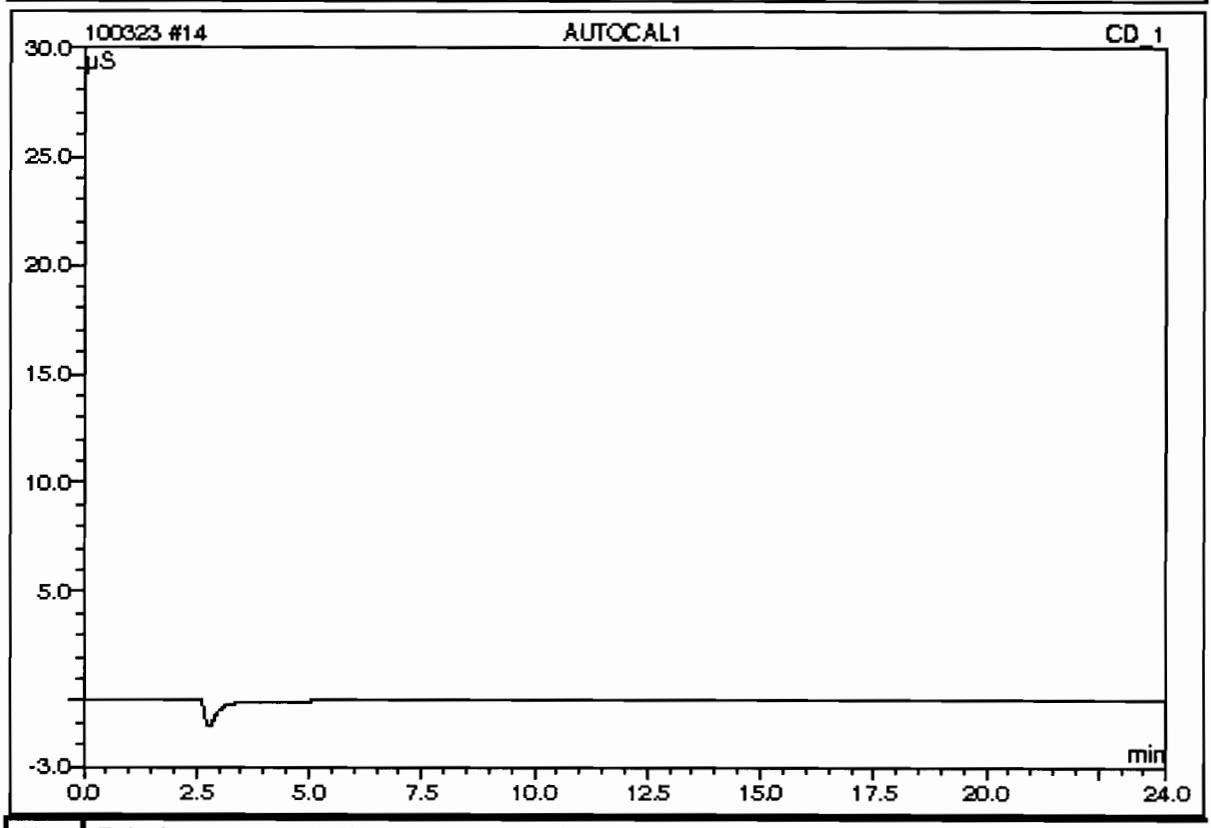

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

14 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	1.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:41	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-002712; GL GCE086;300;9056

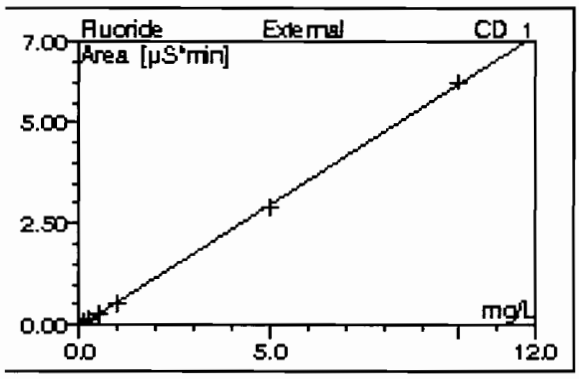

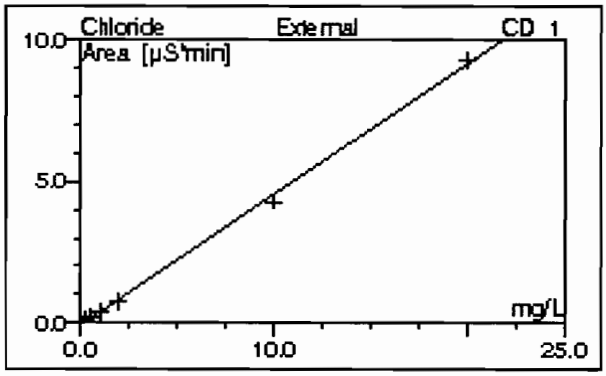

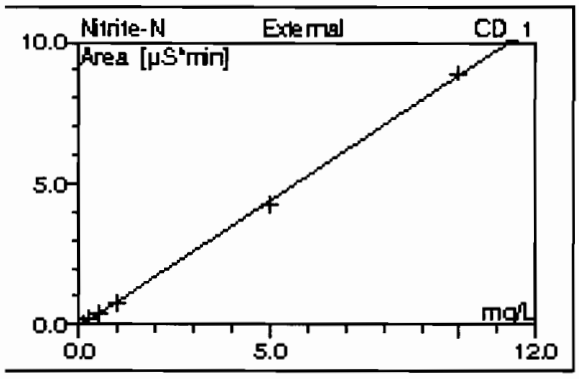

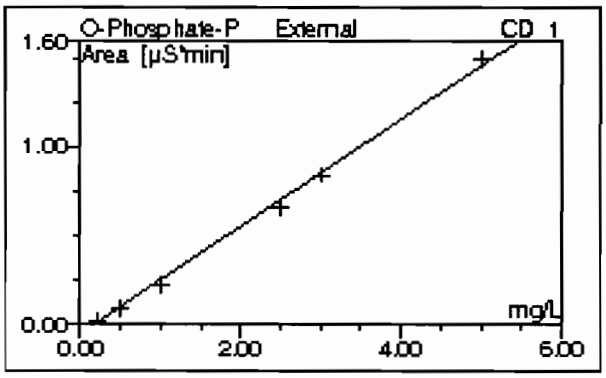

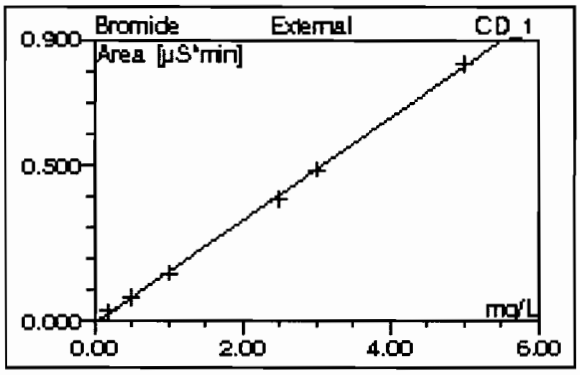

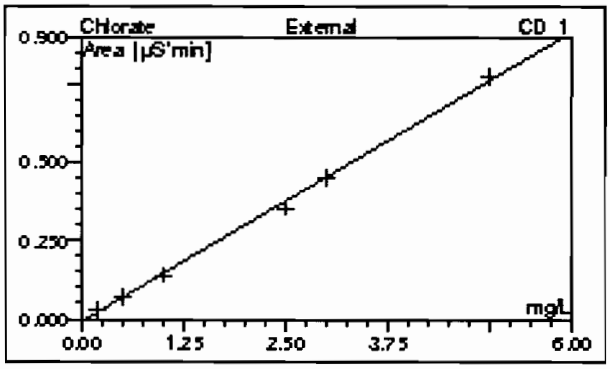

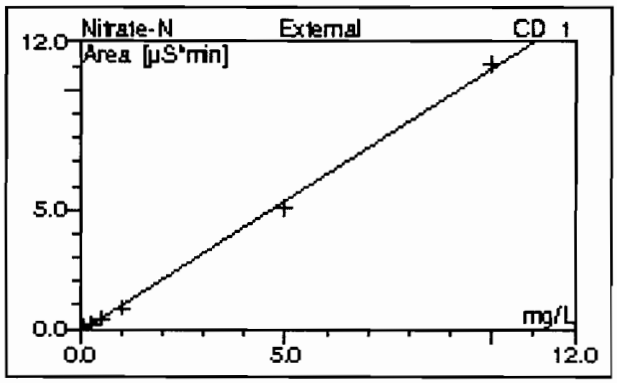

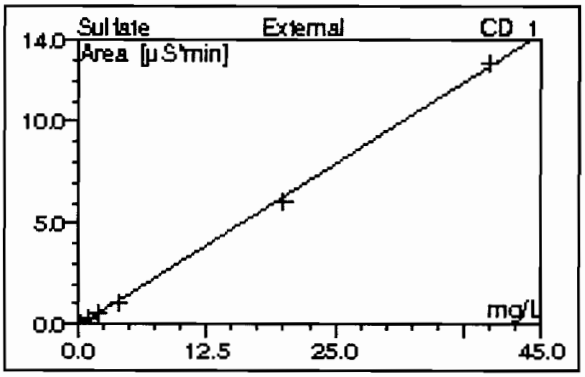

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	0LOff	99.9646	-0.0385	0.6020	0.0000
n.a.	n.a.	Chloride	0LOff	99.8347	-0.0847	0.4621	0.0000
n.a.	n.a.	Nitrite-N	0LOff	99.9547	-0.0624	0.8890	0.0000
n.a.	n.a.	Chlorate	0LOff	99.8463	-0.0090	0.1545	0.0000
n.a.	n.a.	Bromide	0LOff	99.9345	-0.0059	0.1641	0.0000
n.a.	n.a.	Nitrate-N	0LOff	99.8657	-0.1090	1.0983	0.0000
n.a.	n.a.	O-Phosphate-P	0LOff	99.7443	-0.0544	0.3030	0.0000
n.a.	n.a.	Sulfate	0LOff	99.9039	-0.1033	0.3216	0.0000
Average:				99.8811	-0.0584	0.4993	0.0000

This is runlog for Sequence 100323.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/23/10 15:33		1	100323	MAR1
ICAL-07	03/23/10 16:00		1	100323	MAR1
ICAL-06	03/23/10 16:27		1	100323	MAR1
ICAL-05	03/23/10 16:53		1	100323	MAR1
ICAL-04	03/23/10 17:20		1	100323	MAR1
ICAL-03	03/23/10 17:47		1	100323	MAR1
ICAL-02	03/23/10 18:14		1	100323	MAR1
ICAL-01	03/23/10 18:41		1	100323	MAR1
ICV	03/23/10 19:08		1	100323	MAR1
ICB	03/23/10 19:35		1	100323	MAR1
1202073661	03/23/10 20:02	966275	1	100323	MAR1
1202073665	03/23/10 20:29	966275	1	100323	MAR1
248534001	03/23/10 20:56	966275	1	100323	MAR1
1202073662	03/23/10 21:23	966275	1	100323	MAR1
1202073663	03/23/10 21:50	966275	1	100323	MAR1
1202073664	03/23/10 22:16	966275	1	100323	MAR1
248534002	03/23/10 22:43	966275	1	100323	MAR1
248534003	03/23/10 23:10	966275	1	100323	MAR1
248534004	03/23/10 23:37	966275	1	100323	MAR1

15 WIC100323-02ICV

Sample Name:	WIC100323-02ICV	*Injection Volume:*	1.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 19:08	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

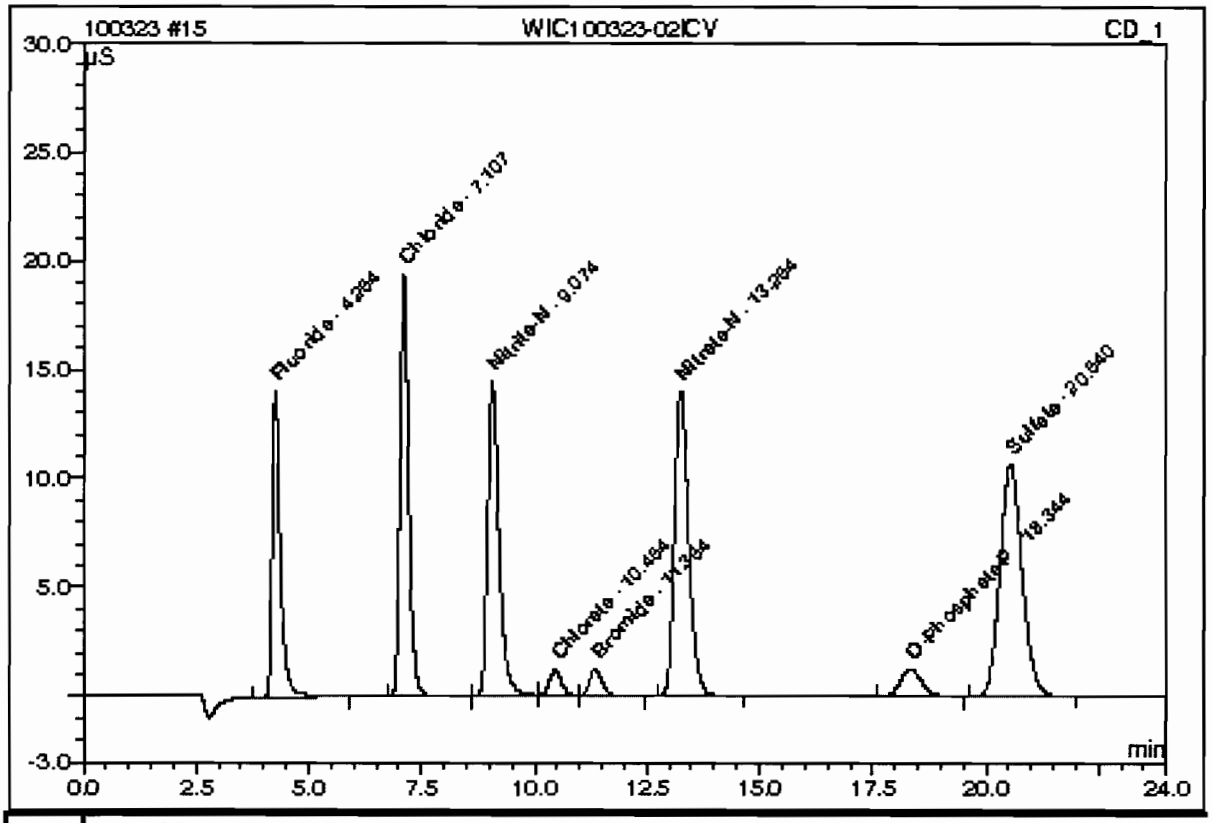

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.8960		2.90874	12.07
2	7.11	Chloride	n.a.	9.4929		4.30159	17.85
3	9.07	Nitrite-N	n.a.	4.8019		4.20641	17.46
4	10.45	Chlorate	n.a.	2.5622		0.38685	1.61
5	11.35	Bromide	n.a.	2.5972		0.42040	1.74
6	13.25	Nitrate-N	n.a.	4.7960		5.15850	21.41
7	18.34	O-Phosphate-P	n.a.	2.4576		0.69032	2.86
8	20.54	Sulfate	n.a.	19.0532		6.02422	25.00
Total:				50.6569	0.000	24.097	100.00

15 WIC100323-02ICV

Sample Name:	WIC100323-02ICV	*Injection Volume:*	1.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 19:08	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

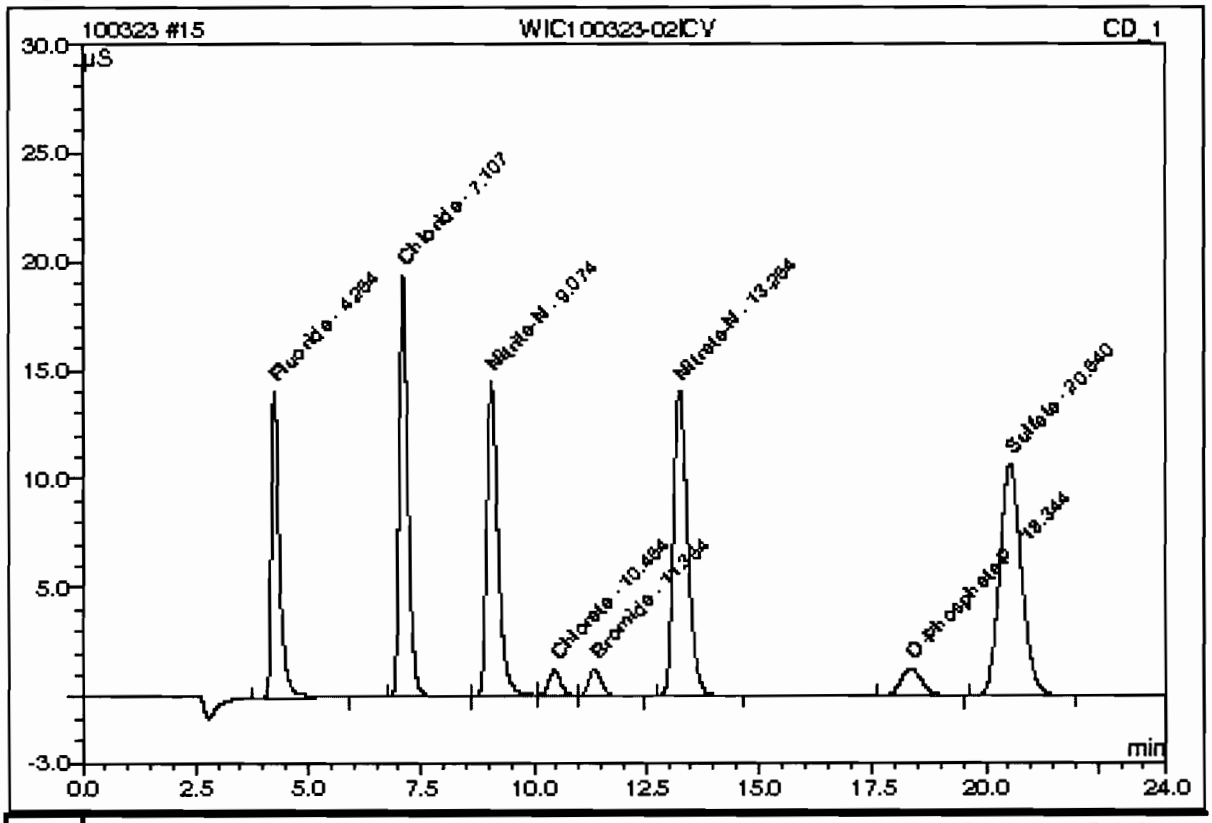

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.8960		2.90874	12.07
2	7.11	Chloride	n.a.	9.4929		4.30159	17.85
3	9.07	Nitrite-N	n.a.	4.8019		4.20641	17.46
4	10.45	Chlorate	n.a.	2.5622		0.38685	1.61
5	11.35	Bromide	n.a.	2.5972		0.42040	1.74
6	13.25	Nitrate-N	n.a.	4.7960		5.15850	21.41
7	18.34	O-Phosphate-P	n.a.	2.4576		0.69032	2.86
8	20.54	Sulfate	n.a.	19.0532		6.02422	25.00
Total:				50.6569	0.000	24.097	100.00

16 ICB

Sample Name:	ICB	*Injection Volume:*	1.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 19:35	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

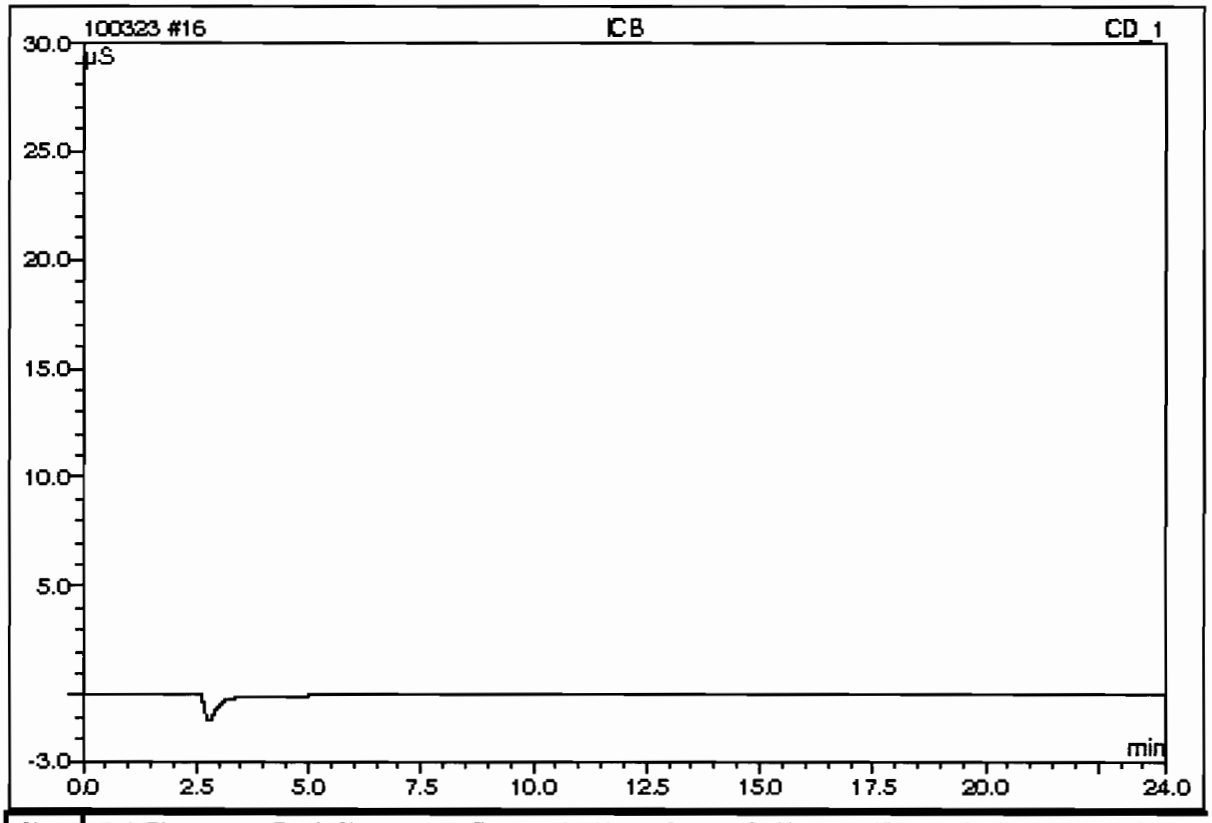

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100329.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/29/10 17:00		1	100329	VH1
BLK	03/29/10 17:26		1	100329	VH1
ICV	03/29/10 17:53		1	100329	VH1
ICB	03/29/10 18:20		1	100329	VH1
1202079398	03/29/10 18:47	968640	1	100329	VH1
1202079405	03/29/10 19:13	968640	1	100329	VH1
248814001	03/29/10 19:40	968640	1	100329	VH1
1202079399	03/29/10 20:07	968640	1	100329	VH1
1202079401	03/29/10 20:34	968640	1	100329	VH1
1202079403	03/29/10 21:01	968640	1	100329	VH1
248814002	03/29/10 21:28	968640	1	100329	VH1
248814003	03/29/10 21:55	968640	1	100329	VH1
248814004	03/29/10 22:22	968640	1	100329	VH1
248814005	03/29/10 22:49	968640	1	100329	VH1
CVH	03/29/10 23:15		1	100329	VH1
CCB	03/29/10 23:42		1	100329	VH1

16 WIC100329-02ICV

Sample Name:	WIC100329-02ICV	*Injection Volume:*	1.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 17:53	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

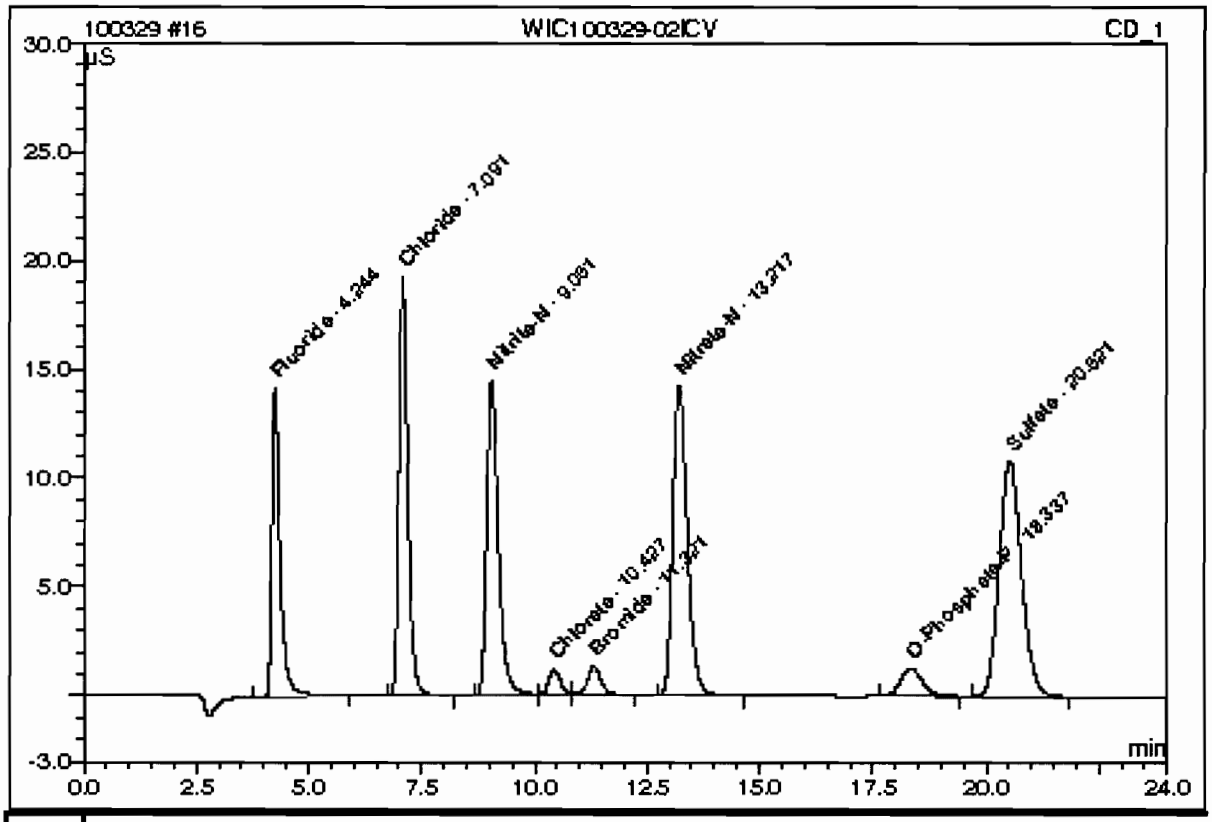

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	5.0909		3.02601	12.24
2	7.09	Chloride	n.a.	9.6162		4.35858	17.63
3	9.05	Nitrite-N	n.a.	4.8968		4.29077	17.35
4	10.43	Chlorate	n.a.	2.4223		0.36524	1.48
5	11.32	Bromide	n.a.	3.0172		0.48934	1.98
6	13.22	Nitrate-N	n.a.	4.9061		5.27947	21.35
7	18.34	O-Phosphate-P	n.a.	2.5597		0.72126	2.92
8	20.52	Sulfate	n.a.	19.5894		6.19667	25.06
Total:				52.0986	0.000	24.727	100.00

17 ICB

Sample Name:	ICB	*Injection Volume:*	1.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 18:20	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

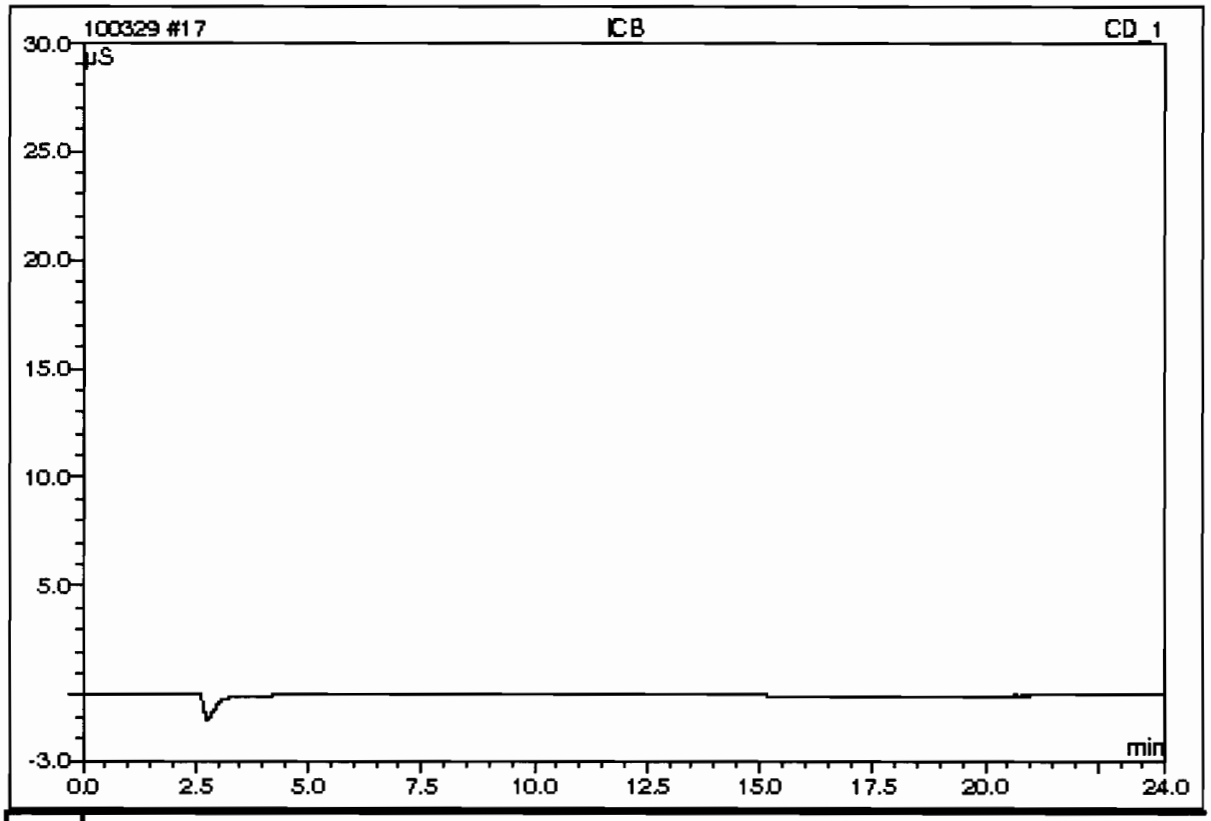

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

18 1202079398/968640/1/1/MB

Sample Name:	1202079398/968640/1/1/MB	*Injection Volume:*	1.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 18:47	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

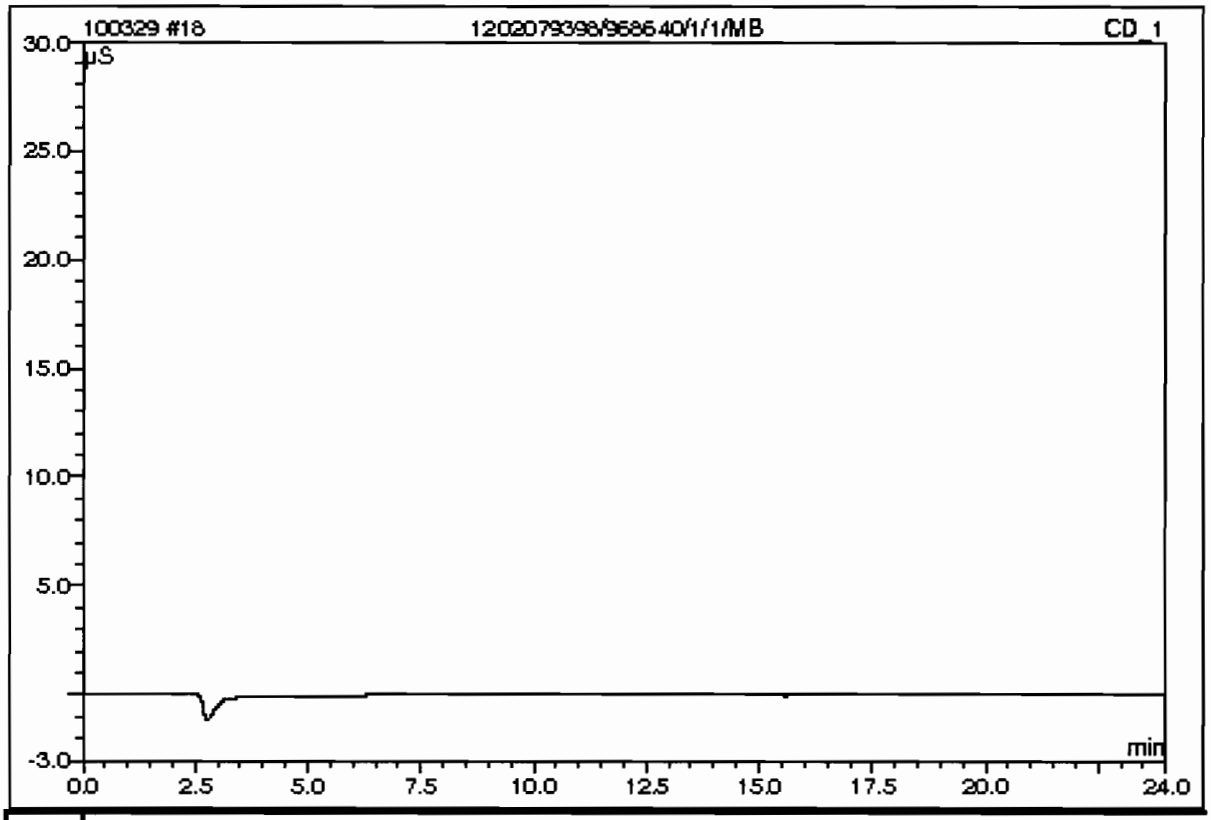

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

19 1202079405/968640/1/1/LCS

Sample Name:	1202079405/968640/1/1/LCS	*Injection Volume:*	1.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 19:13	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

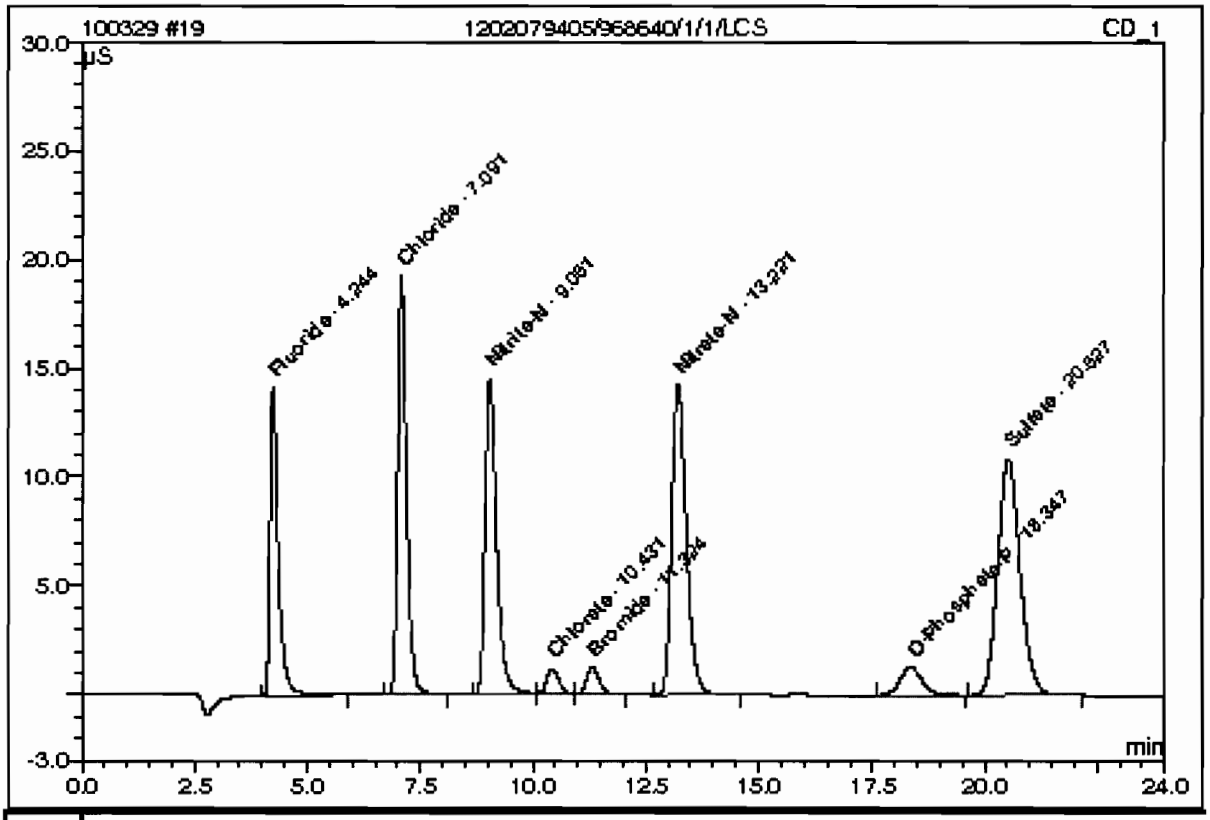

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	5.0300		2.98940	12.12
2	7.09	Chloride	n.a.	9.6004		4.35128	17.64
3	9.05	Nitrite-N	n.a.	4.9223		4.31350	17.49
4	10.43	Chlorate	n.a.	2.5905		0.39122	1.59
5	11.32	Bromide	n.a.	2.5475		0.41224	1.67
6	13.22	Nitrate-N	n.a.	4.9015		5.27443	21.38
7	18.35	O-Phosphate-P	n.a.	2.5426		0.71610	2.90
8	20.53	Sulfate	n.a.	19.6645		6.22082	25.22
Total:				51.7994	0.000	24.669	100.00

20 248814001/968640/1/1/

Sample Name:	248814001/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 19:40	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

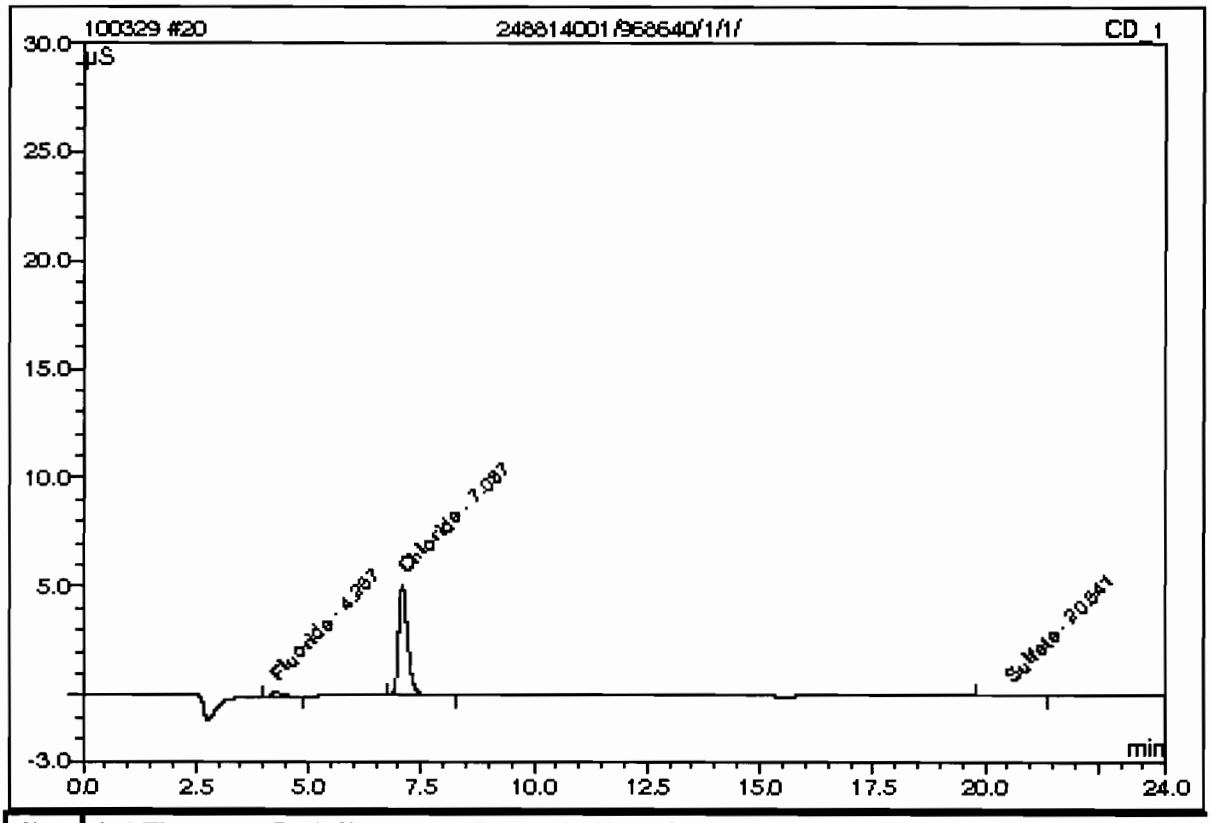

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1556		0.05514	4.22
2	7.09	Chloride	n.a.	2.7852		1.20222	92.04
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.54	Sulfate	n.a.	0.4730		0.04884	3.74
Total:				3.4138	0.000	1.306	100.00

21 1202079399/968640/1/1/DUP

Sample Name:	1202079399/968640/1/1/DUP	*Injection Volume:*	1.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 20:07	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

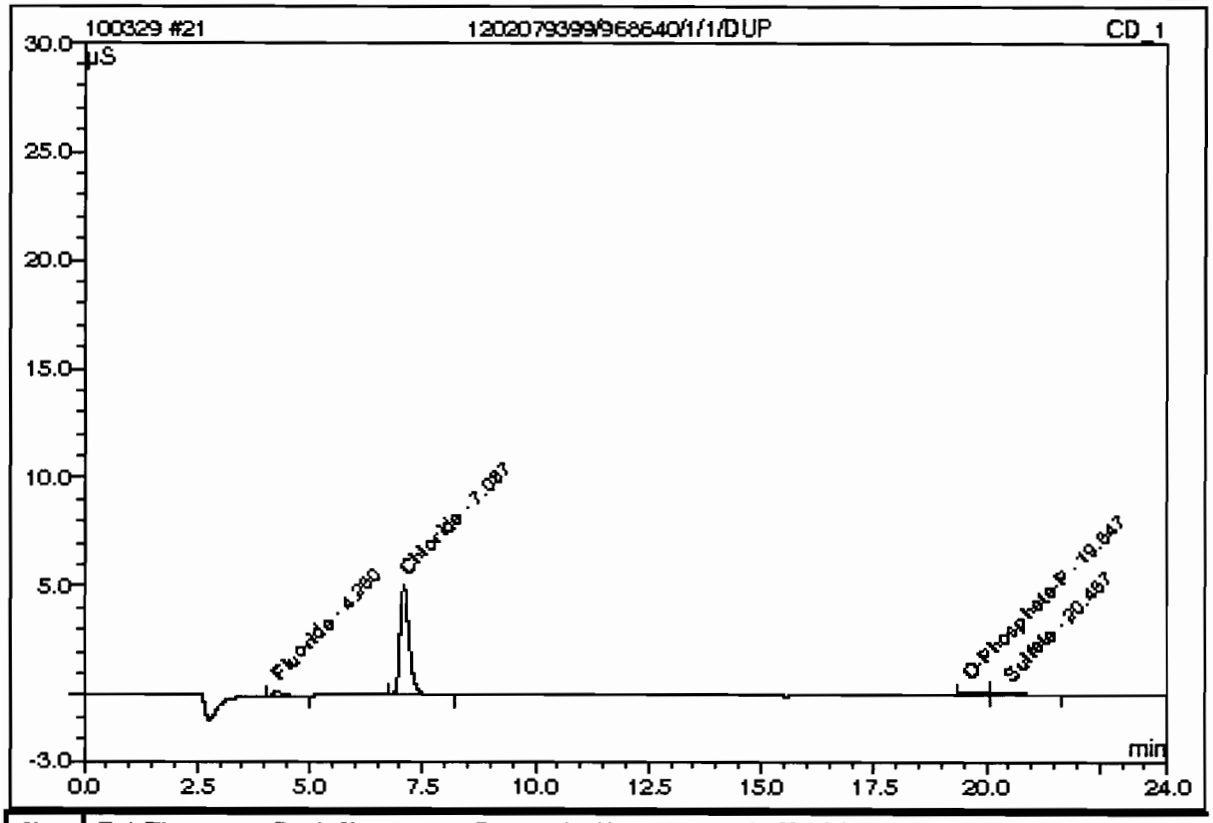

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1524		0.05323	3.63
2	7.09	Chloride	n.a.	2.7558		1.18863	80.99
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
3	19.55	O-Phosphate-P	n.a.	0.5604		0.11542	7.86
4	20.47	Sulfate	n.a.	0.6645		0.11043	7.52
Total:				4.1331	0.000	1.468	100.00

22 1202079401/968640/1/1/MS

Sample Name:	1202079401/968640/1/1/MS	*Injection Volume:*	1.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 20:34	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

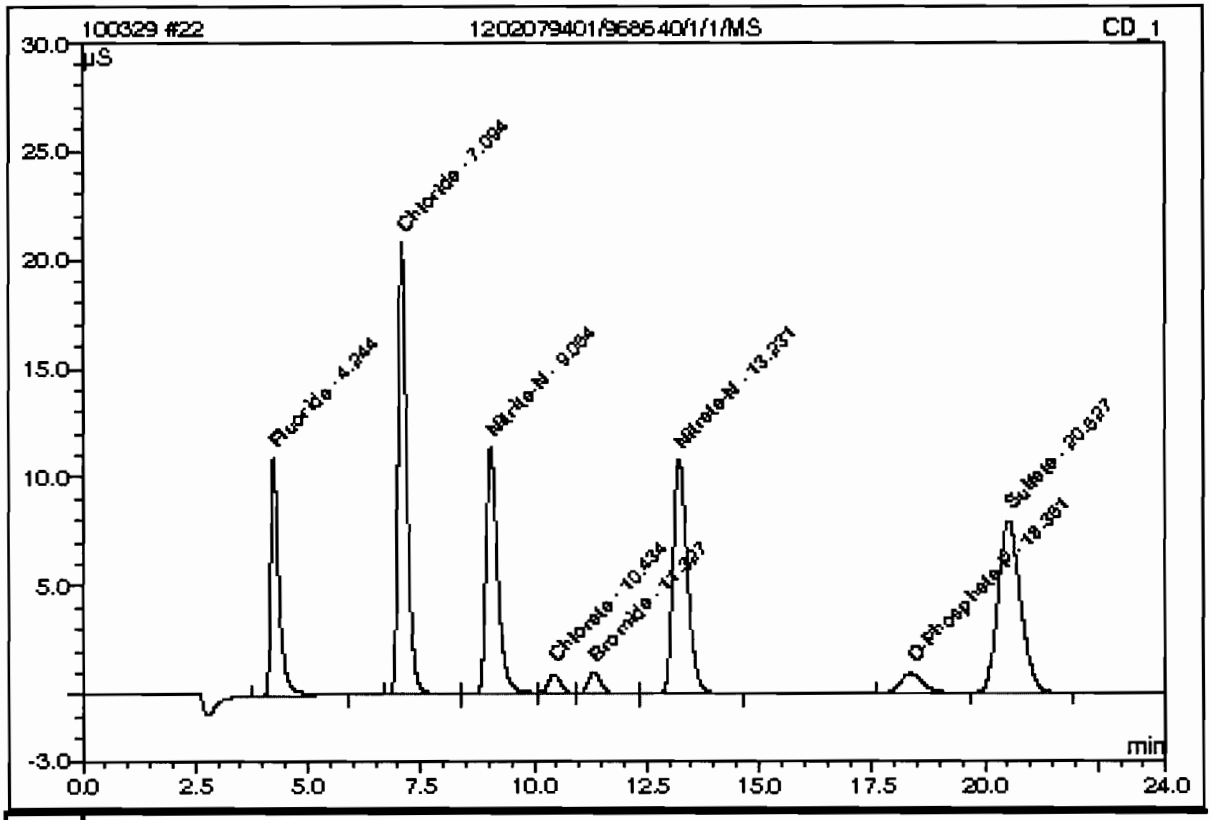

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	3.9468		2.33731	11.51
2	7.09	Chloride	n.a.	10.3461		4.69584	23.12
3	9.05	Nitrite-N	n.a.	3.8967		3.40172	16.75
4	10.43	Chlorate	n.a.	2.1056		0.31630	1.56
5	11.33	Bromide	n.a.	2.0992		0.33866	1.67
6	13.23	Nitrate-N	n.a.	3.7642		4.02533	19.82
7	18.36	O-Phosphate-P	n.a.	1.9965		0.55060	2.71
8	20.53	Sulfate	n.a.	14.7572		4.64263	22.86
Total:				42.9123	0.000	20.308	100.00

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23 1202079403/968640/1/1/MSD

Sample Name:	1202079403/968640/1/1/MSD	*Injection Volume:*	1.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 21:01	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

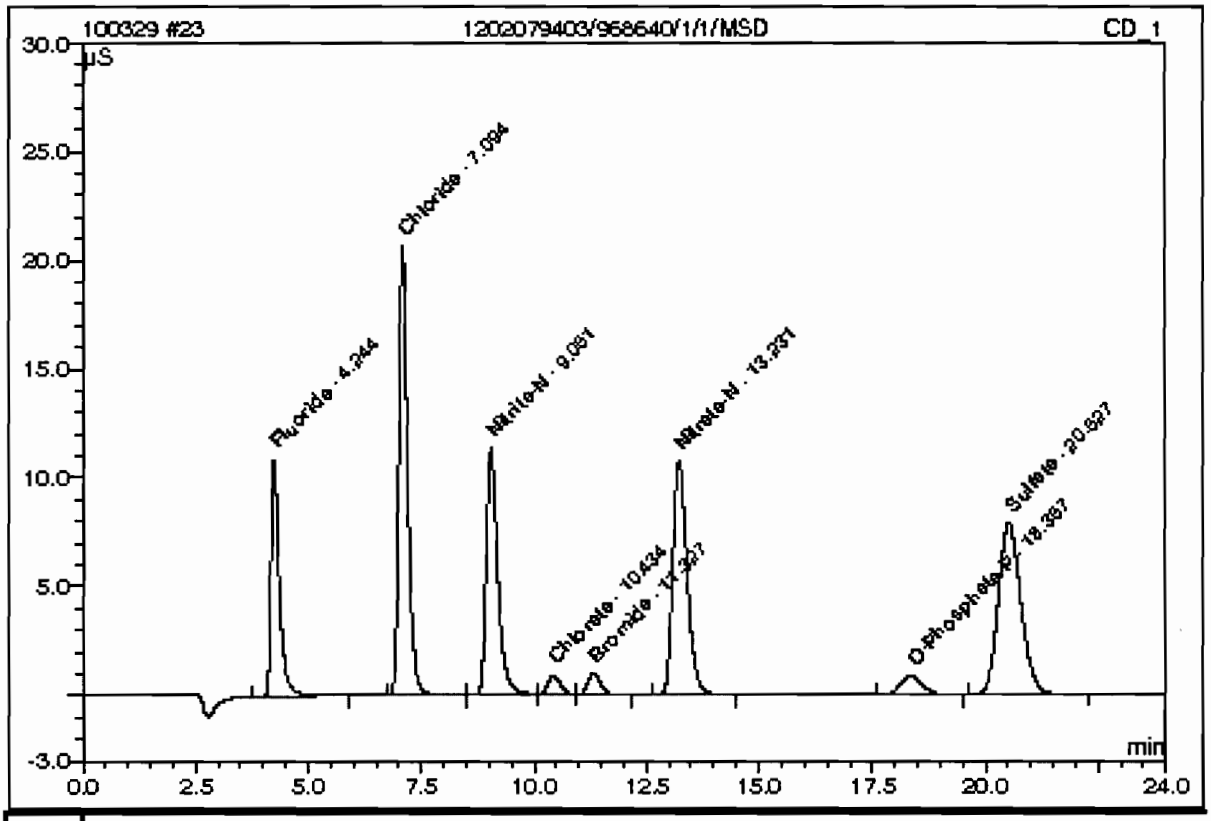

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	3.9227		2.32279	11.55
2	7.09	Chloride	n.a.	10.2975		4.67337	23.24
3	9.05	Nitrite-N	n.a.	3.8682		3.37635	16.79
4	10.43	Chlorate	n.a.	2.0549		0.30848	1.53
5	11.33	Bromide	n.a.	2.0620		0.33256	1.65
6	13.23	Nitrate-N	n.a.	3.7431		4.00210	19.90
7	18.36	O-Phosphate-P	n.a.	1.8390		0.50287	2.50
8	20.53	Sulfate	n.a.	14.6018		4.59266	22.84
Total:				42.3892	0.000	20.111	100.00

24 248814002/968640/1/1/

Sample Name:	248814002/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 21:28	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

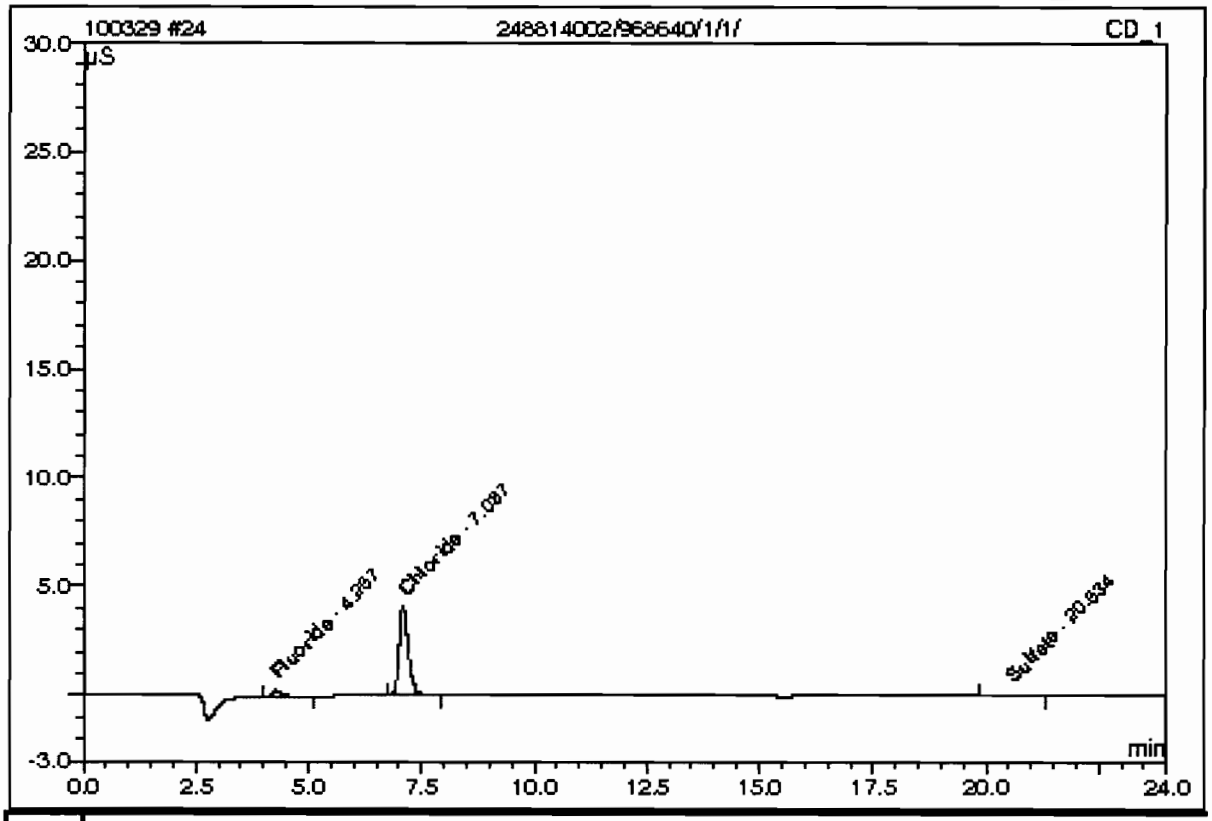

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1769		0.06793	6.25
2	7.09	Chloride	n.a.	2.2773		0.96756	89.09
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.53	Sulfate	n.a.	0.4783		0.05055	4.65
Total:				2.9325	0.000	1.086	100.00

25 248814003/968640/1/1/

Sample Name:	248814003/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	12	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 21:55	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

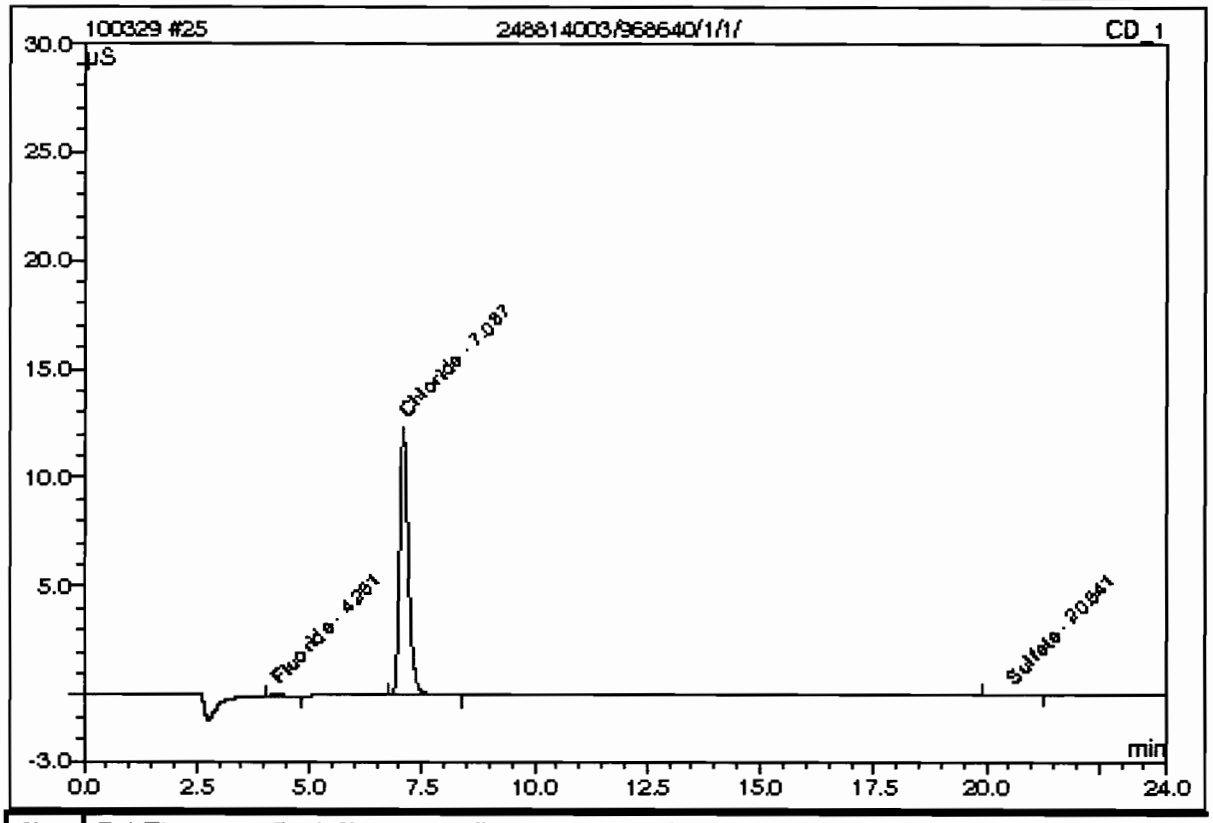

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.0927		0.01725	0.61
2	7.09	Chloride	n.a.	6.2529		2.80453	98.46
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.54	Sulfate	n.a.	0.4036		0.02652	0.93
Total:				6.7492	0.000	2.848	100.00

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26 248814004/968640/1/1/

Sample Name:	248814004/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	13	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 22:22	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

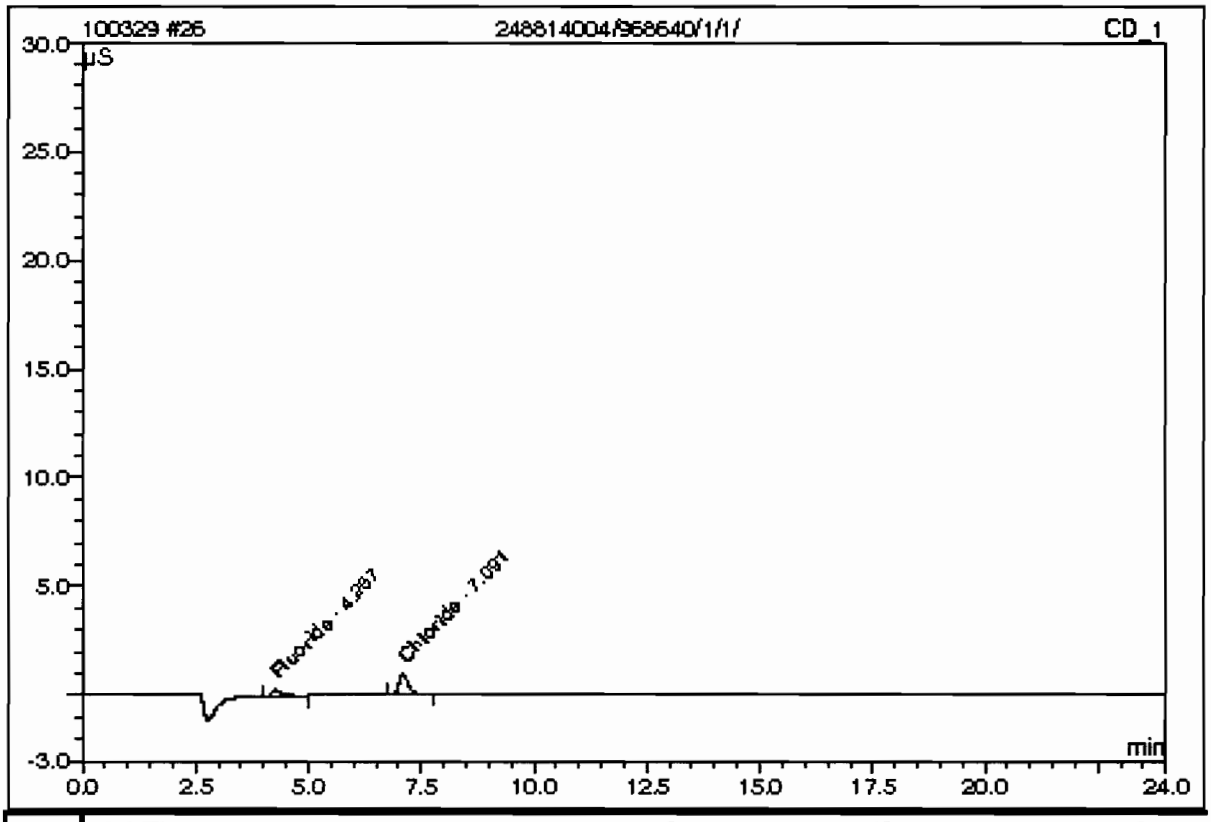

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1732		0.06573	22.34
2	7.09	Chloride	n.a.	0.6779		0.22853	77.66
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.8511	0.000	0.294	100.00

27 248814005/968640/1/1/

Sample Name:	248814005/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 22:49	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

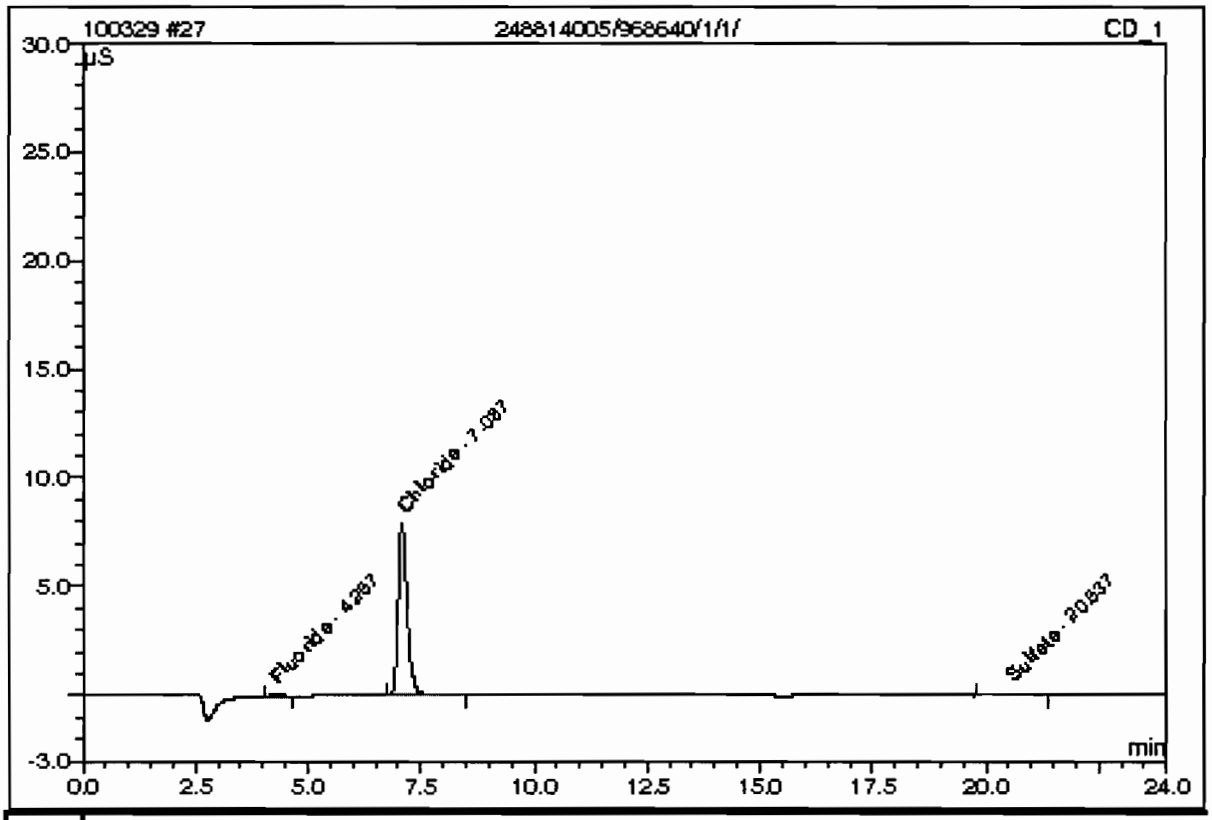

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.0990		0.02105	1.09
2	7.09	Chloride	n.a.	4.1904		1.85150	95.88
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.54	Sulfate	n.a.	0.5034		0.05860	3.03
Total:				4.7927	0.000	1.931	100.00

28 WIC100329-02CVH

Sample Name:	WIC100329-02CVH	*Injection Volume:*	1.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 23:15	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

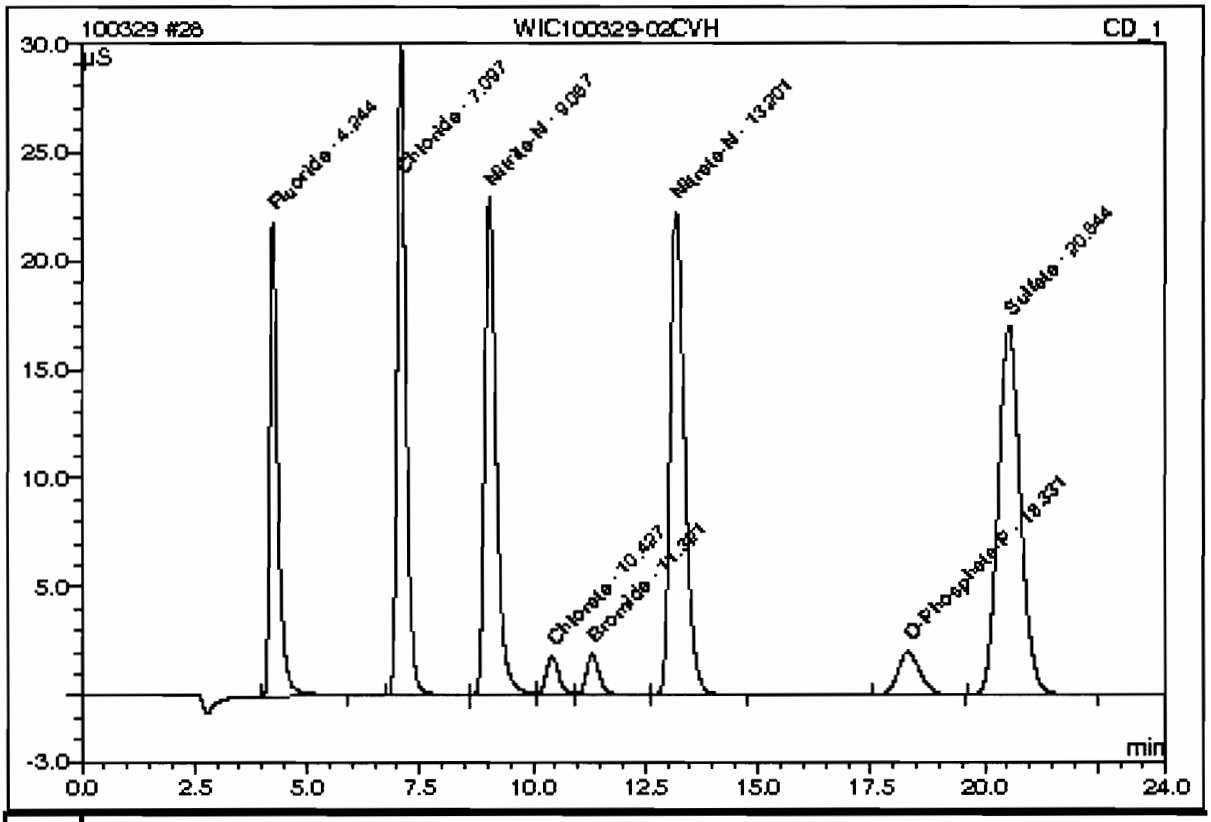

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	7.6885		4.58972	11.92
2	7.10	Chloride	n.a.	15.0164		6.85380	17.81
3	9.06	Nitrite-N	n.a.	7.6708		6.75687	17.55
4	10.43	Chlorate	n.a.	3.9182		0.59636	1.55
5	11.32	Bromide	n.a.	3.9191		0.63739	1.66
6	13.20	Nitrate-N	n.a.	7.6315		8.27283	21.49
7	18.33	O-Phosphate-P	n.a.	3.9213		1.13389	2.95
8	20.54	Sulfate	n.a.	30.3346		9.65232	25.08
Total:				80.1005	0.000	38.493	100.00

29 CCB

Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 23:42	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

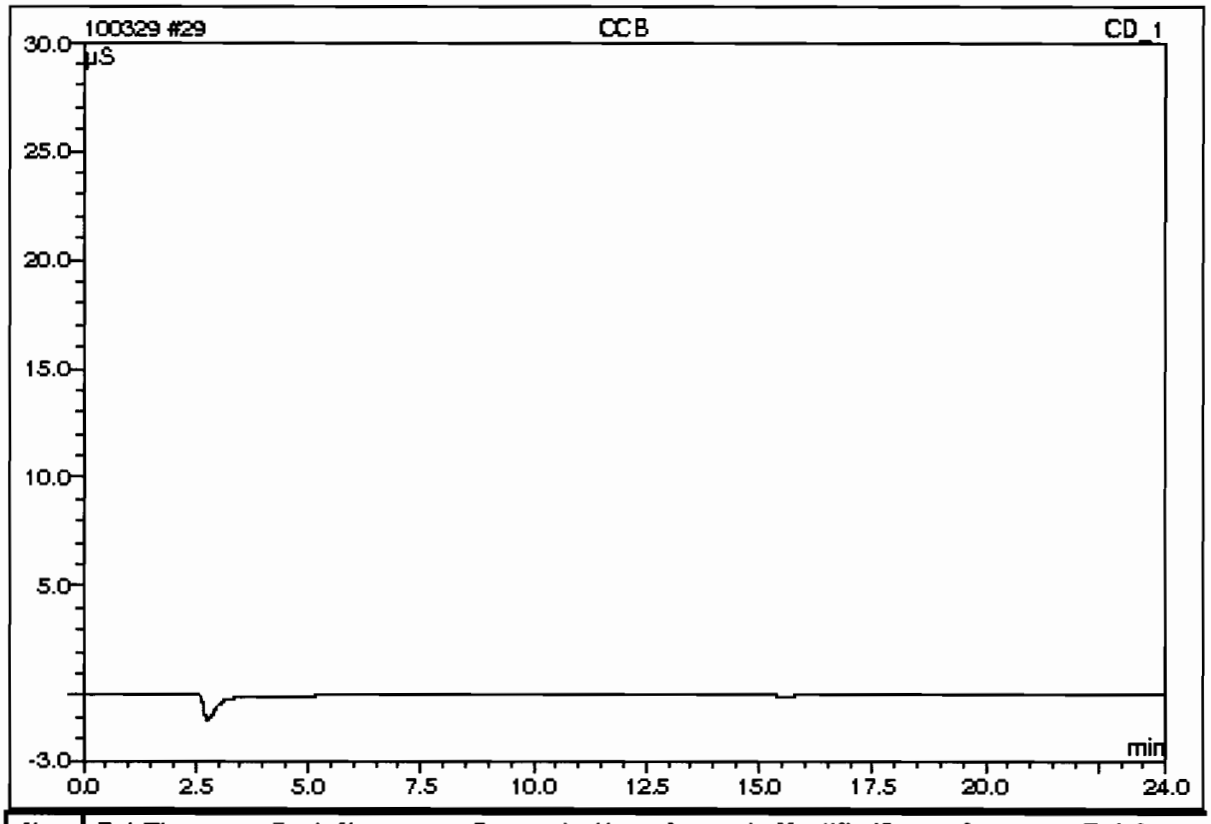

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100329.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
248814006	03/30/10 00:09	968640	1	100329	VH1
248814007	03/30/10 00:36	968640	1	100329	VH1
248814008	03/30/10 01:03	968640	1	100329	VH1
248814009	03/30/10 01:30	968640	1	100329	VH1
248824001	03/30/10 01:57	968640	1	100329	VH1
248824002	03/30/10 02:24	968640	1	100329	VH1
248865001	03/30/10 02:51	968640	1	100329	VH1
1202079400	03/30/10 03:18	968640	1	100329	VH1
1202079402	03/30/10 03:45	968640	1	100329	VH1
1202079404	03/30/10 04:11	968640	1	100329	VH1
CCV	03/30/10 04:38		1	100329	VH1
CCB	03/30/10 05:05		1	100329	VH1
248866001	03/30/10 05:32	968640	1	100329	VH1
248866002	03/30/10 05:59	968640	1	100329	VH1
CVH	03/30/10 06:26		1	100329	VH1
CCB	03/30/10 06:53		1	100329	VH1
1202083083	03/30/10 07:20	970116	1	100329	VH1
1202083086	03/30/10 07:47	970116	1	100329	VH1
248847001	03/30/10 08:14	970116	100	100329	VH1
248847003	03/30/10 08:41	970116	100	100329	VH1
248847005	03/30/10 09:07	970116	100	100329	VH1
1202083084	03/30/10 09:34	970116	100	100329	VH1
1202083085	03/30/10 10:01	970116	100	100329	VH1
248847007	03/30/10 10:28	970116	100	100329	VH1
248847009	03/30/10 10:55	970116	100	100329	VH1
CVH	03/30/10 11:22		1	100329	VH1
CCB	03/30/10 11:49		1	100329	VH1

30 248814006/968640/1/1/

Sample Name:	248814006/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	17	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 0:09	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

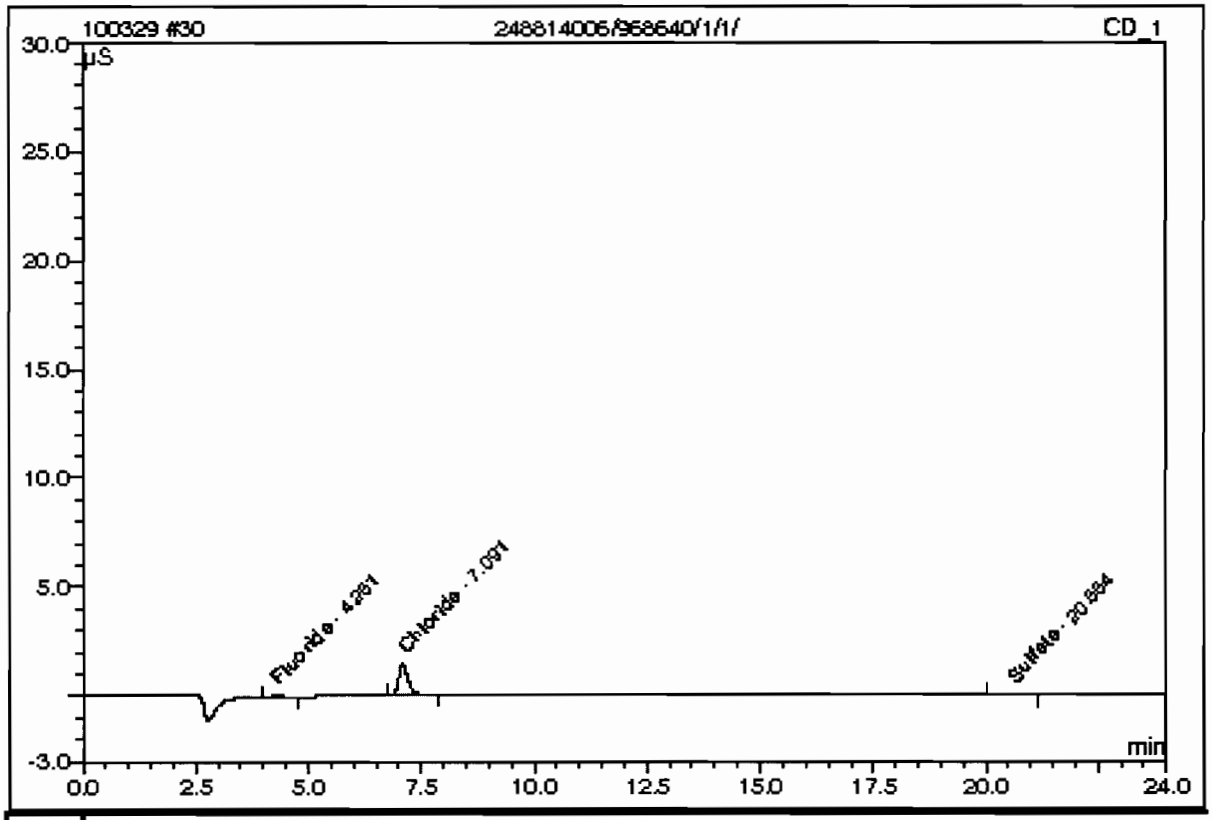

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.0911		0.01633	4.32
2	7.09	Chloride	n.a.	0.9246		0.34250	90.53
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.55	Sulfate	n.a.	0.3818		0.01950	5.16
Total:				1.3975	0.000	0.378	100.00

Chromeleon (c) Dionex 1996-2006
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31 248814007/968640/1/1/

Sample Name:	248814007/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	18	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 0:36	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

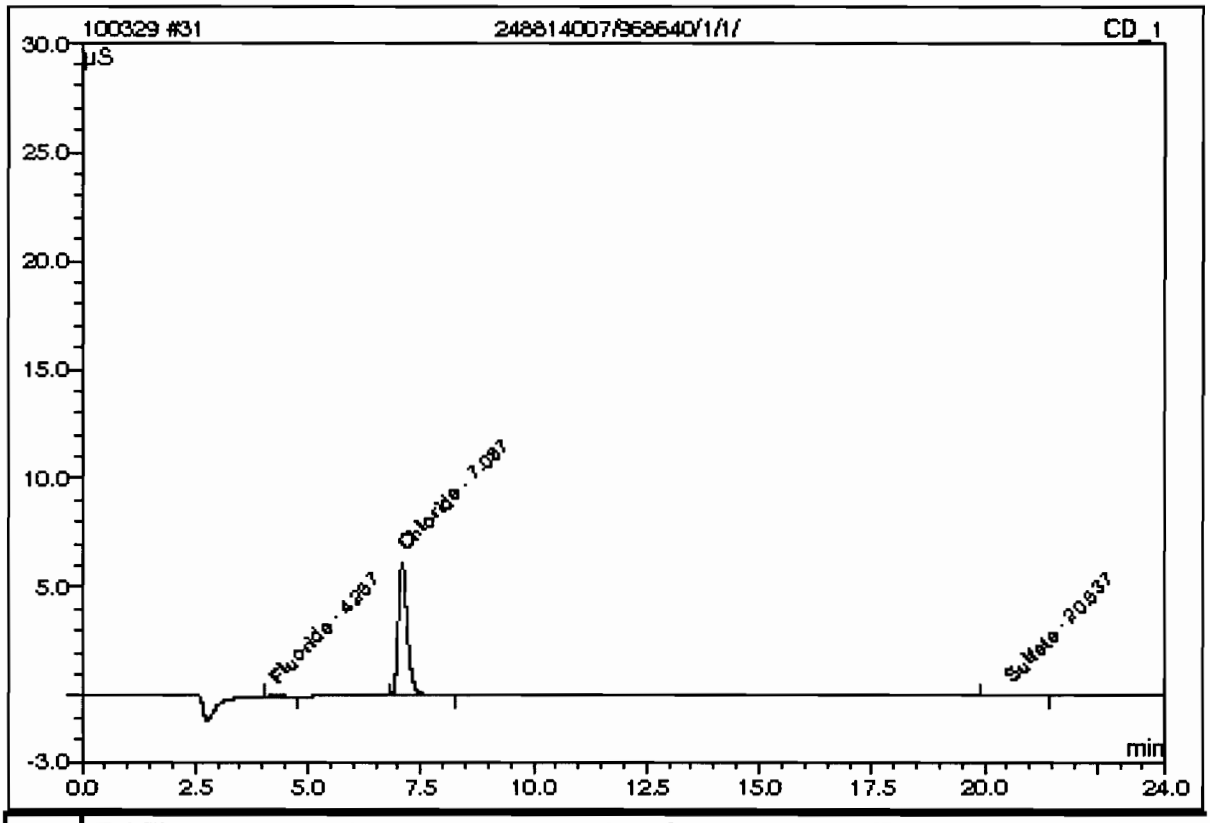

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1027		0.02329	1.54
2	7.09	Chloride	n.a.	3.2970		1.43870	95.24
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.54	Sulfate	n.a.	0.4722		0.04858	3.22
Total:				3.8719	0.000	1.511	100.00

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32 248814008/968640/1/1/

Sample Name:	248814008/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	19	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 1:03	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

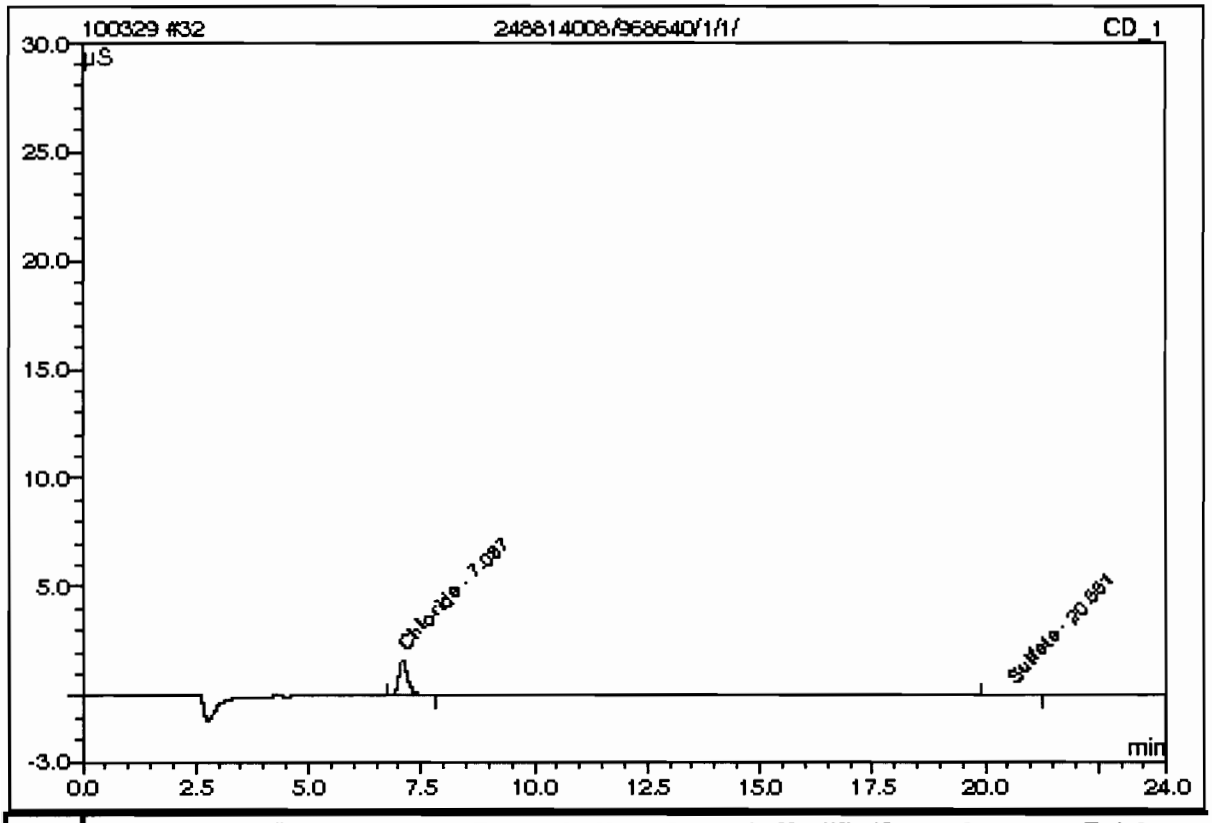

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.09	Chloride	n.a.	1.0188		0.38603	94.88
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
2	20.55	Sulfate	n.a.	0.3860		0.02085	5.12
Total:				1.4048	0.000	0.407	100.00

Chromeleon (c) Dionex 1996-2006
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33 248814009/968640/1/1/

Sample Name:	248814009/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	20	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 1:30	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

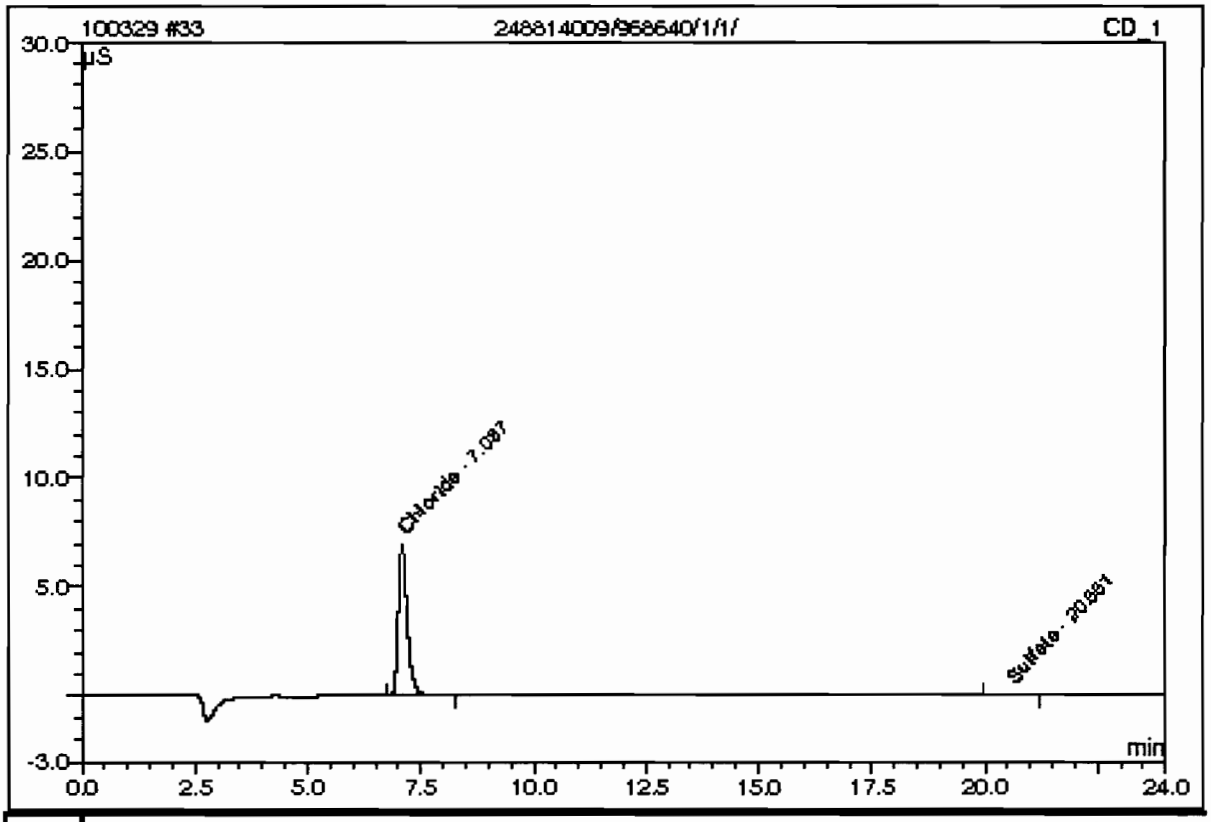

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.09	Chloride	n.a.	3.6744		1.61311	98.32
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
2	20.55	Sulfate	n.a.	0.4071		0.02765	1.68
Total:				4.0816	0.000	1.641	100.00

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36 248865001/968640/1/1/

Sample Name:	248865001/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	23	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 2:51	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

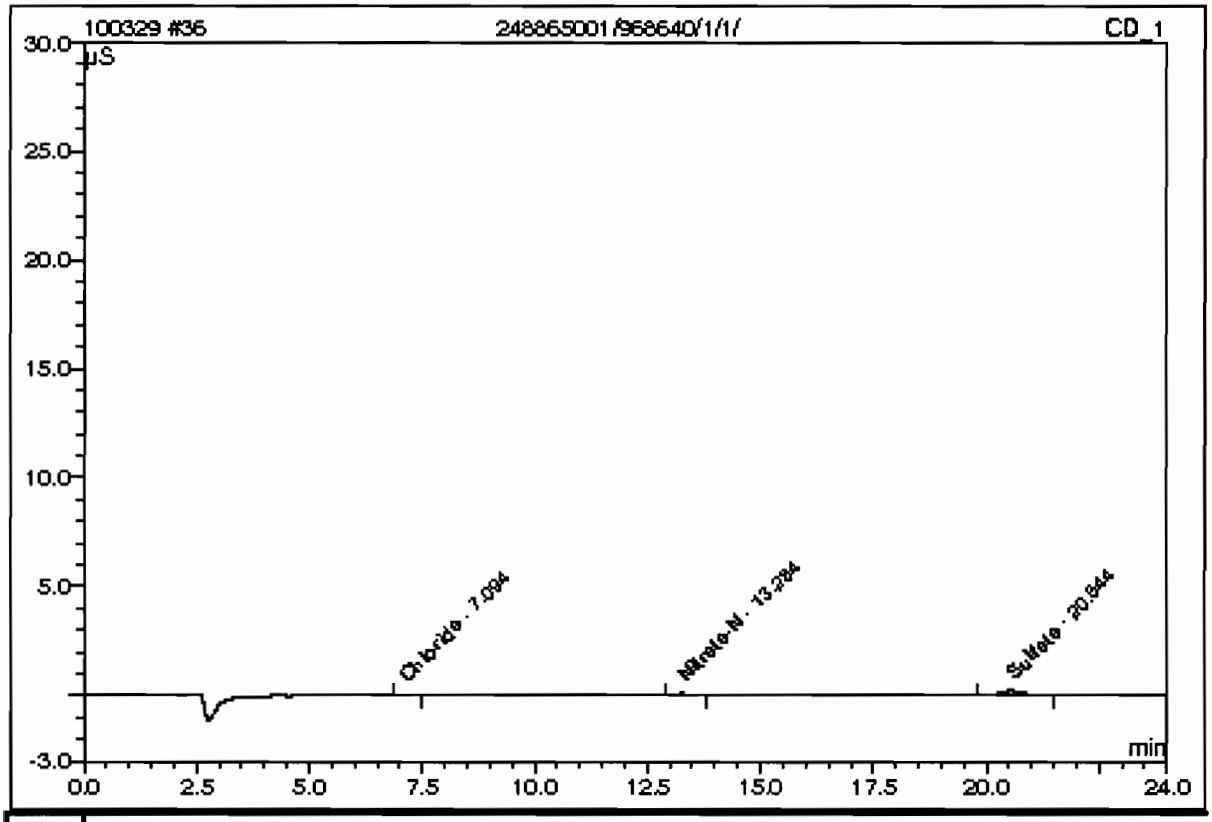

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.09	Chloride	n.a.	0.2180		0.01602	8.82
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
2	13.28	Nitrate-N	n.a.	0.1286		0.03219	17.73
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.54	Sulfate	n.a.	0.7360		0.13342	73.46
Total:				1.0826	0.000	0.182	100.00

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR7 Build 2528 (148369)

37 1202079400/968640/1/1/DUP

Sample Name:	1202079400/968640/1/1/DUP	*Injection Volume:*	1.0
Vial Number:	24	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 3:18	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

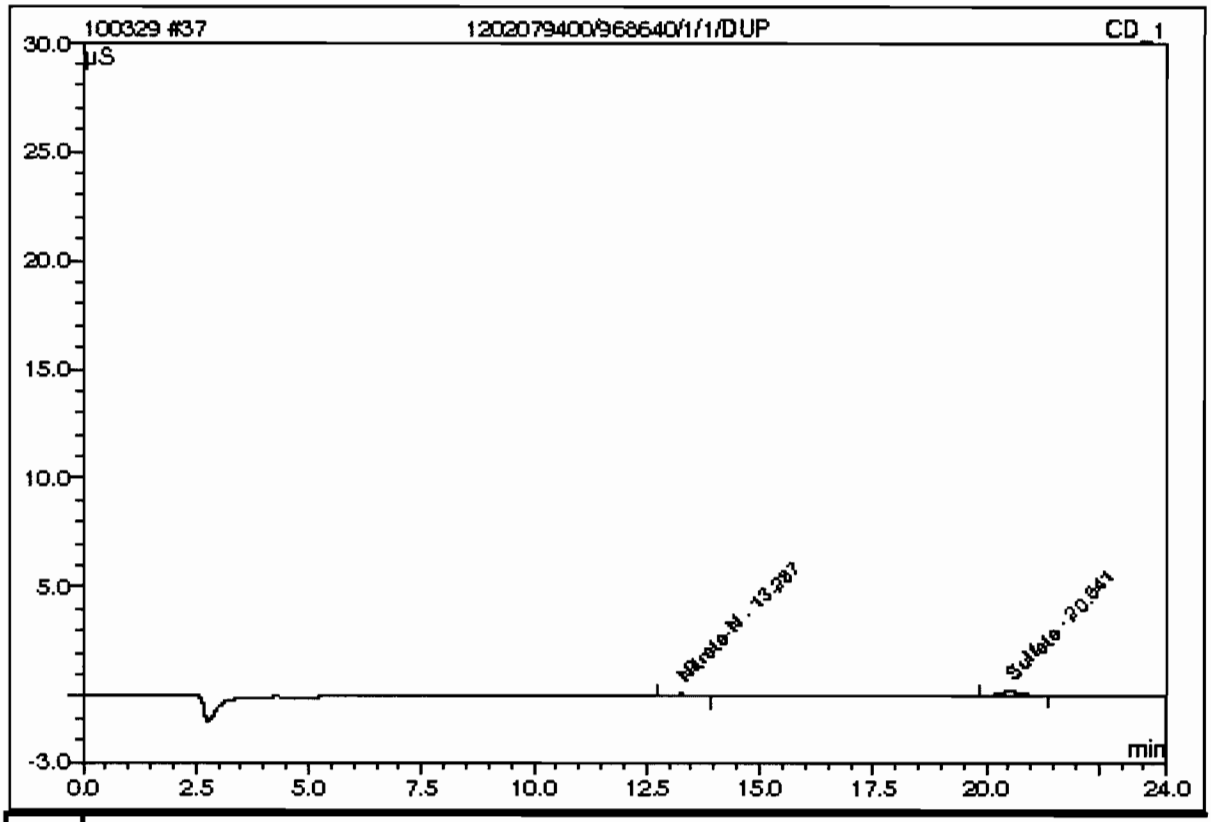

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
1	13.29	Nitrate-N	n.a.	0.1355		0.03982	23.47
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
2	20.54	Sulfate	n.a.	0.7248		0.12982	76.53
Total:				0.8603	0.000	0.170	100.00

38 1202079402/968640/1/1/MS

Sample Name:	1202079402/968640/1/1/MS	*Injection Volume:*	1.0
Vial Number:	25	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 3:45	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

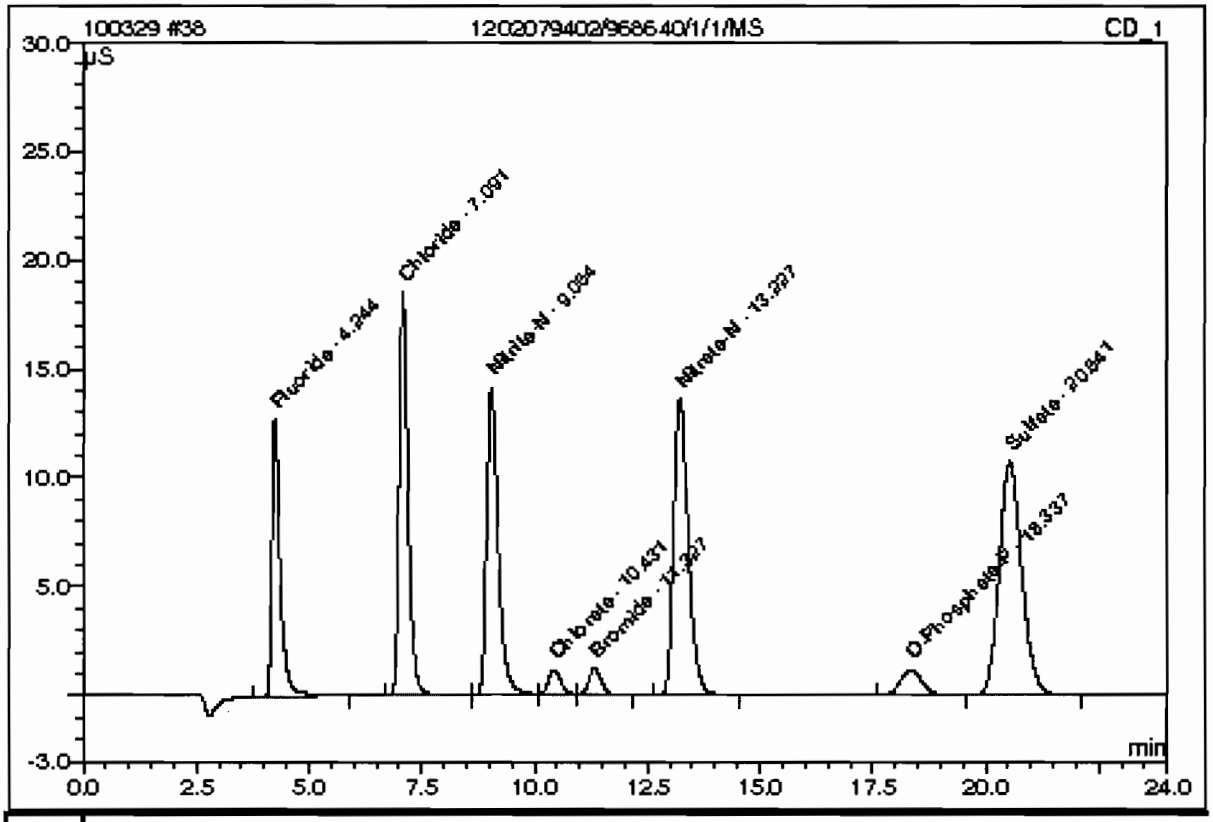

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	4.5439		2.69676	11.36
2	7.09	Chloride	n.a.	9.2811		4.20373	17.71
3	9.05	Nitrite-N	n.a.	4.7837		4.19022	17.66
4	10.43	Chlorate	n.a.	2.5201		0.38035	1.60
5	11.33	Bromide	n.a.	2.4931		0.40331	1.70
6	13.23	Nitrate-N	n.a.	4.7085		5.06242	21.33
7	18.34	O-Phosphate-P	n.a.	2.3203		0.64873	2.73
8	20.54	Sulfate	n.a.	19.4286		6.14494	25.89
Total:				50.0792	0.000	23.730	100.00

39 1202079404/968640/1/1/MSD

Sample Name:	1202079404/968640/1/1/MSD	*Injection Volume:*	1.0
Vial Number:	26	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 4:11	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

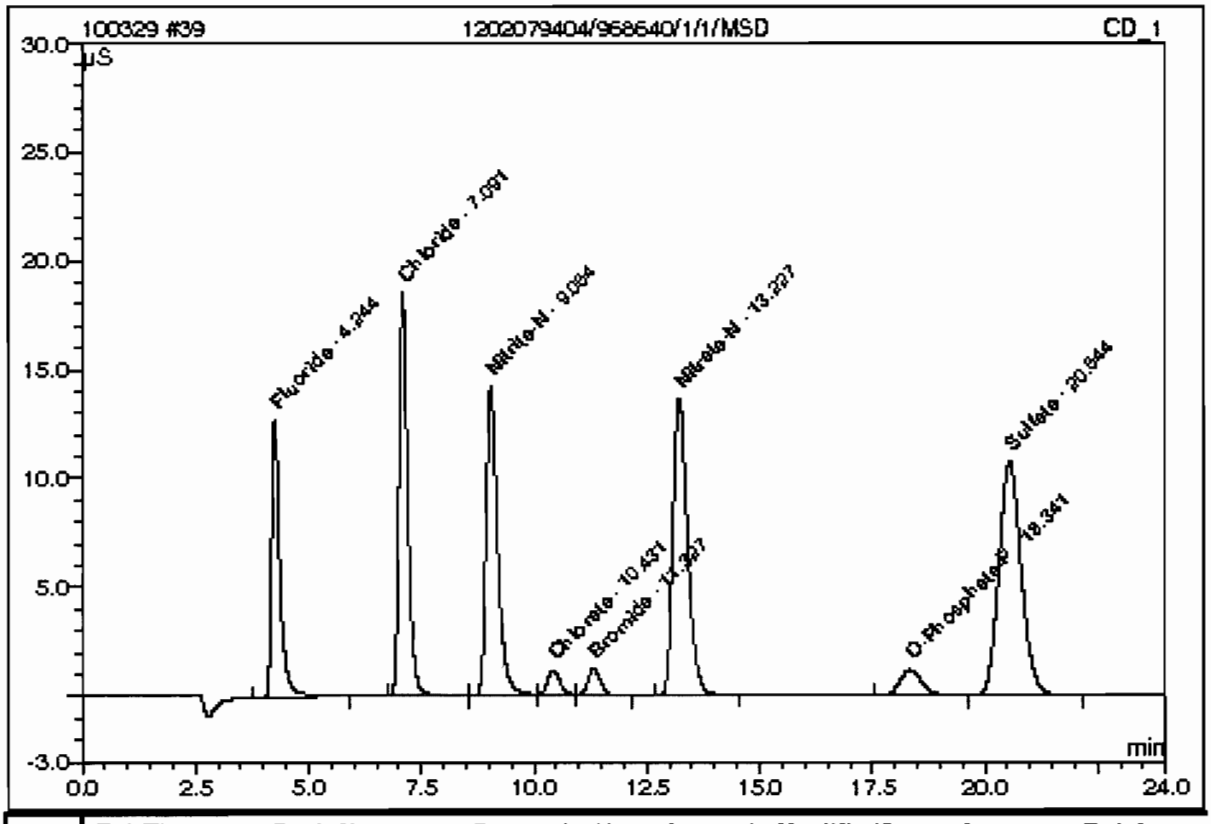

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	4.5453		2.69759	11.33
2	7.09	Chloride	n.a.	9.2944		4.20987	17.69
3	9.05	Nitrite-N	n.a.	4.8022		4.20673	17.67
4	10.43	Chlorate	n.a.	2.5162		0.37974	1.60
5	11.33	Bromide	n.a.	2.5045		0.40518	1.70
6	13.23	Nitrate-N	n.a.	4.7106		5.06479	21.28
7	18.34	O-Phosphate-P	n.a.	2.3793		0.66661	2.80
8	20.54	Sulfate	n.a.	19.5124		6.17190	25.93
Total:				50.2649	0.000	23.802	100.00

40 WIC100329-02CCV

Sample Name:	WIC100329-02CCV	*Injection Volume:*	1.0
Vial Number:	27	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 4:38	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

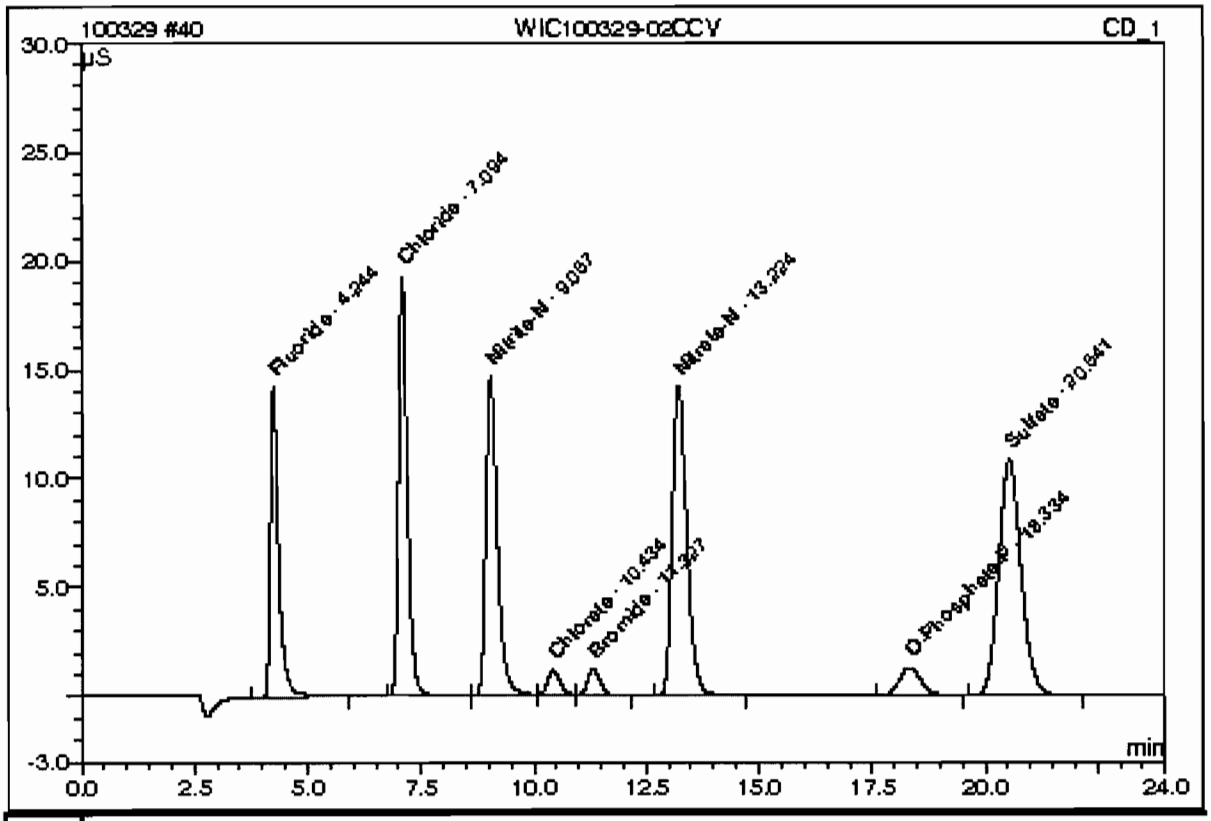

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	5.0481		3.00029	12.11
2	7.09	Chloride	n.a.	9.6466		4.37260	17.65
3	9.06	Nitrite-N	n.a.	4.9604		4.34732	17.55
4	10.43	Chlorate	n.a.	2.5856		0.39047	1.58
5	11.33	Bromide	n.a.	2.5695		0.41585	1.68
6	13.22	Nitrate-N	n.a.	4.9119		5.28580	21.34
7	18.33	O-Phosphate-P	n.a.	2.5842		0.72869	2.94
8	20.54	Sulfate	n.a.	19.6878		6.22832	25.15
Total:				51.9941	0.000	24.769	100.00

41 CCB

Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	28	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 5:05	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

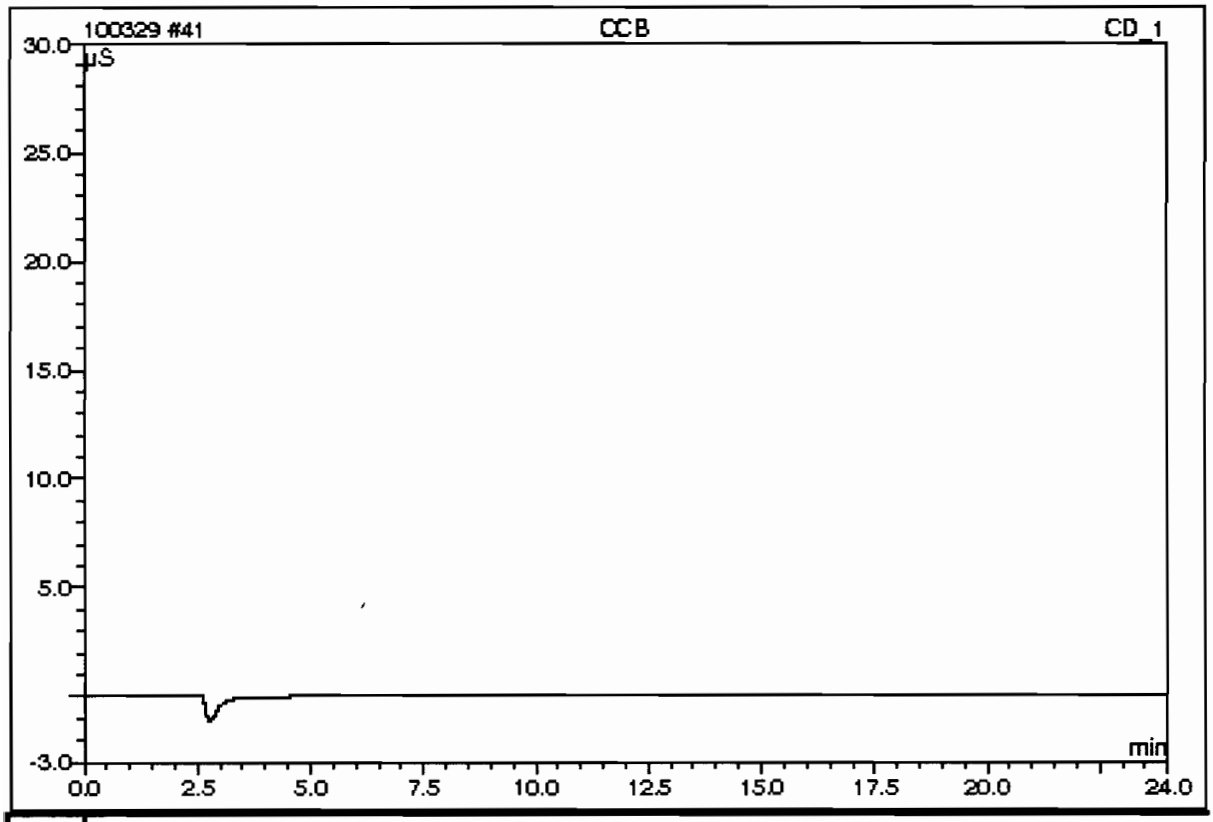

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

Chromeleon (c) Dionex 1996-2006
Version 6.80 SR7 Build 2528 (148369)

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
23-MAR-10			
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
	SW846 9012A	Solid	LANL
Batch ID:	**Sample Numbers:**		
962262	See Below		

Potentially affected work order(s)(SDG): 248814(10-2303),248834(10-2299)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed recovery for MS/MSD: QC 1202064153MS 1202064155MSD	1. The matrix spike falls outside of the client specified acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD.

Originator's Name:

Ashley Earl 23-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc 31-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
30-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
IC	EPA 300.0	Solid	LANL
Batch ID:	**Sample Numbers:**		
968640	See Below		

Potentially affected work order(s)(SDG): 248814(10-2303),248824(10-2305),248865(10-2318),248866(10-2319)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS, MSD/PSD: QC 1202079401MS, 1202079403MSD	1. . MS and MSD failed required acceptance limits for nitrate due to matrix interference. The MSD was performed with the QC to verify that matrix interference caused unacceptable recoveries in the spike QC.

Originator's Name:

Virginia Wininger 30-MAR-10

Data Validator/Group Leader:

Mary Sherwood 01-APR-10

Thursday, March 04, 2010

REQUEST NUMBER: 10-2302

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2302

Per Agreement Number:126310011

Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE46-10-13546	S	3/3/2010	
		1	RE46-10-13547	S	3/3/2010	
		1	RE46-10-13548	S	3/3/2010	
		1	RE46-10-13549	S	3/3/2010	
		1	RE46-10-13550	S	3/3/2010	
		1	RE46-10-13551	S	3/3/2010	

	1	RE46-10-13552	S	3/3/2010
	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010
SW-846:8260B	1	RE46-10-13546	S	3/3/2010
	1	RE46-10-13547	S	3/3/2010
	1	RE46-10-13548	S	3/3/2010
	1	RE46-10-13549	S	3/3/2010
	1	RE46-10-13550	S	3/3/2010
	1	RE46-10-13551	S	3/3/2010
	1	RE46-10-13552	S	3/3/2010
	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13555	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010
SW-846:8270C	1	RE46-10-13546	S	3/3/2010
	1	RE46-10-13547	S	3/3/2010
	1	RE46-10-13548	S	3/3/2010
	1	RE46-10-13549	S	3/3/2010
	1	RE46-10-13550	S	3/3/2010
	1	RE46-10-13551	S	3/3/2010
	1	RE46-10-13552	S	3/3/2010
	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010

Final Page of REQUEST NUMBER 10-2302

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2302C

REQUEST NUMBER: 10-2302

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13555	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13553	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13553	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13549	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13549	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13551	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13551	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13550	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13550	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13548	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13548	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13546	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13546	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13552	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13552	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13547	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13547	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13556	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13556	1	AMBER GLASS	8270C+8082	Ice	S

Relinquished By: **Date** **Time** **Received By:** **Date** **Time**

3/4/10 1400

Printed Name Signature Printed Name Signature

Printed Name Signature Printed Name Signature

Printed Name Signature Printed Name Signature

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13546 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1100	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611622	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	8 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	9 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~8~~ R JRT 3-3-10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1-2	~~Y Check 3-3-10~~	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: tuff, Pinkish gray (7.5YR 6/3), solvent odor?

SAMPLE COMMENTS: Base of well

LOCATION DESC: 4c-1

FIELD SCREENING/MEASUREMENT RESULTS: Background:

PID: ~~NA~~ JRT 3-3-10 373 ppm

α: 12 dpm

β: 827

Samples MDA

COLLECTED BY (PRINT) J. Jordan

REVIEWED BY (PRINT) J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13547 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1125	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611622	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	13 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	14 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	SR JRJ 3-3-10		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 ~~2~~	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: tuff, pinkish gray (7.5YR 6/3), solvent odor? moist

SAMPLE COMMENTS: 5ft below base of well

LOCATION DESC: 4C-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 421 ppm Background: α: 12 dpm β: 827 Samples < MDA

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan (Signature)	3-3-10 1715	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	3-3-10 1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13548 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QB + 3
TIME COLLECTED (HH:MM)		1140	SUB-MEDIA:	SOIL	O/C
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611622	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	18	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	19	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 ~~2~~ 3-3-10		ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice JJT 3-3-10	Y	Plus Cesium Metal

SAMPLE DESC: tuff, pinkish-gray (7.5YR ~~6~~ 6/3), solvent odor? Sl. moist

SAMPLE COMMENTS: 10 ft below base of well

LOCATION DESC: 4c-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 433 ppm Background: α: 12 β: 807 dpm Sample's MDA

COLLECTED BY (PRINT) J. [illegible] **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [illegible]	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature) [illegible]	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13549 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1205	SUB-MEDIA:	SOIL	Ok
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611622	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK JJS 3-3-10	FIELD PREP:	NA	↓
TOP DEPTH:	0	~~24~~ 23 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	24 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	SR	SR JJS 3-3-10	EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 ~~2~~	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: tuff, purkish gray (7.5 YR 6/3) solvent odor, sl. moist

SAMPLE COMMENTS: 15 ft below base of well

LOCATION DESC: 4C-1

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples < MDA

PID = 390 ppm α: 12 β: 827 dpm

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13550 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1335	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611623	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	8 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	9 ft	SCREEN/PORT DESC:		
FIELD MATRIX:	~~S~~ R JLJ 3-3-10		EXCAVATED: YES / NO / NA	NA	

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 ~~2~~	LW 3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: tuff, pinkish-gray (7.5YR 6/3), solvent odor, moist

SAMPLE COMMENTS: base of well

LOCATION DESC: 4C-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 265 ppm

Background: Samples < MDA
α: 12 dpm
β: 827 dpm

COLLECTED BY (PRINT) J. J[illegible] **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J[illegible] J[illegible]	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13551 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT 3
TIME COLLECTED (HH:MM)			SUB-MEDIA:	SOIL	ok
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611623	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	13 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	14 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~SR~~ SLS 3-3-10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 ~~2~~ 3-3-10		ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: ~~tuff, pinkish-gray (7.5YR 6/3)~~ JT 3-3-10
Sand, brn (7.5YR 4/3), crse gr, sub angular - sub rounded wet, solvent odor

SAMPLE COMMENTS: 5 ft below base of well

LOCATION DESC: 4c-2

FIELD SCREENING/MEASUREMENT RESULTS: Background: α: 12 β: 327 dpm Samples < MDA
PID = 373 ppm

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-3-10 1715	(Printed Name) Sherri Sherwood	3-3-10 1715
(Signature)		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13552 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1415	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611623	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	18 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	19 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 2	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: fntt, Pinkish-gray (7.5YR 6/3), Solvent odor, moist

SAMPLE COMMENTS: 10 ft below base of well

LOCATION DESC: 4c-2

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples < MDA
PID = 360 ppm
α: 12 dpm
β: 837

COLLECTED BY (PRINT) J. Jones **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jones	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13553 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611623	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	23 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	24 ft	SCREEN/PORT DESC:		
FIELD MATRIX:	~~S~~ R		EXCAVATED: YES / NO / NA	NA	

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 ~~2~~	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: Tuff, Pinkish-gray (7.5YR 6/3), solvent odor, sl. moist

SAMPLE COMMENTS: 15 ft below base of well

LOCATION DESC: 4c-2

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples < MDA

PID = 323 ppm α: 12 β: 827 dpm

COLLECTED BY (PRINT) J. [illegible] **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [illegible]	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13555 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	NA	All H
TIME COLLECTED (HH:MM)		1100	SUB-MEDIA:	OTHER	O/C
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611622	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	8 ft	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	9 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 ~~2~~		8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

A 3/10

SAMPLE DESC: QC Sample of RE 46-10-13546

SAMPLE COMMENTS: NA

LOCATION DESC: 4C-1

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Andress **REVIEWED BY (PRINT)** J. Lemm

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [signature]	3-3-10 1715	(Printed Name) Sherri Sherwood	3-3-10 1715
(Signature)		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13556 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1415	SUB-MEDIA:	SOIL	ok
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	~~UNK~~ 46-611623		FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	18 ft	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	19 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: QC Sample of RE46-10-13552
tuff, Pinkish-gray (7.5YR 6/3), solvent odor, sl. moist

SAMPLE COMMENTS: NA

LOCATION DESC: 4C-2

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) J. J[illegible] **REVIEWED BY (PRINT)** J. POWERS

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J[illegible]	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature) [illegible]	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2302 VALIDATION DATE: 04/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Monica Dymerski ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): GC/MS VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Samples RE46-10-13551, -13546, and -13547 were reanalyzed at a dilution due to the presence of target analytes at concentrations exceeding calibration range, and both sets of data were reported. The diluted re-analyses were distinguished from the original analyses by the laboratory with an -REDL suffix. The 1,1,1-trichloroethane results for samples -13551 and -13546, and the trichloroethylene and tetrachloroethylene results for samples -13551, -13546, and -13547 from the original analyses were detects that exceeded the calibration range and, thus, were qualified R,V7. All results from the re-analyses of these samples except the 1,1,1-trichloroethane results for samples -13551REDL and -13546REDL, and the trichloroethylene and tetrachloroethylene results for samples -13551REDL, -13546REDL, and -13547REDL that were detects were qualified J,V88. All re-analysis results that were NDs were qualified UJ,V88.
2. Acetone was detected in FTB sample -13555, associated with samples -13549, -13548, -13546, and -13547. The associated acetone sample results were detects >10X the FTB concentration and, thus, were not qualified.
3. Samples -13550, -13551REDL, -13546REDL, and -13547REDL, were analyzed past the method prescribed HT but within 2X the HT. The associated sample results that were detects were qualified J-,V9, and the associated sample results that were NDs were qualified UJ,V9.
4. The %Ds were >20% for trichlorofluoromethane; 2,2-dichloropropane; 1,1,1-trichloroethane; carbon tetrachloride; and bromodichloromethane for the CCV associated with samples -13555, -13553, -13549, -13551, -13546, and -13547. The %Ds were >20% for chloromethane; acetone; 2-butanone; 4-methyl-2-pentanone; and 2-hexanone for the CCV associated with samples -13548, -13556, and -13552. The %Ds were >20% for trichlorofluoromethane; acetone; 2-butanone; 2,2-dichloropropane; 1,1,1-trichloroethane; carbon tetrachloride; and 2-hexanone for the CCV associated with sample -13550, -13551REDL, -13546REDL, and -13547REDL. The acetone results for samples -13550, -13548, -13552, and -13556; the 1,1,1-trichloroethane results for samples -13549, -13551REDL, -13550,-

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

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Los Alamos NATIONAL LABORATORY EST. 1943

13546REDL, and -13547; and the carbon tetrachloride results for samples -13551 and -13546 were detects and, thus, were qualified J,V7c. The remaining associated sample results were NDs and, thus, were qualified UJ,V7c.

Reviewed by: ETM Level: 1 Date: 4/23/10

VALIDATOR'S SIGNATURE: [signature] DATE: 04/22/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☒	☐	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☐	☒	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☒	☐	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842007	**Date Received:**	03/05/2010 10:20	**%Moisture:**	17.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13546	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/16/2010 17:50	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 14:12	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c215.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.21	ug/kg	0.412	1.21	
74-87-3	Chloromethane	U	1.21	ug/kg	0.364	1.21	
75-01-4	Vinyl chloride	U	1.21	ug/kg	0.364	1.21	
74-83-9	Bromomethane	U	1.21	ug/kg	0.364	1.21	
75-00-3	Chloroethane	U	1.21	ug/kg	0.364	1.21	
75-69-4	Trichlorofluoromethane	U	1.21	ug/kg	0.364	1.21	UJ,V7c
67-64-1	Acetone		79.3	ug/kg	2.01	6.06	
75-35-4	1,1-Dichloroethylene		69.1	ug/kg	0.364	1.21	
74-88-4	Iodomethane	U	6.06	ug/kg	1.94	6.06	
75-09-2	Methylene chloride	U	6.06	ug/kg	2.43	6.06	
75-15-0	Carbon disulfide	U	6.06	ug/kg	1.52	6.06	
156-60-5	trans-1,2-Dichloroethylene	U	1.21	ug/kg	0.364	1.21	
75-34-3	1,1-Dichloroethane	U	1.21	ug/kg	0.364	1.21	
78-93-3	2-Butanone	U	6.06	ug/kg	1.82	6.06	
156-59-2	cis-1,2-Dichloroethylene	J	0.398	ug/kg	0.364	1.21	
594-20-7	2,2-Dichloropropane	U	1.21	ug/kg	0.364	1.21	UJ,V7c
67-66-3	Chloroform	U	1.21	ug/kg	0.364	1.21	
74-97-5	Bromochloromethane	U	1.21	ug/kg	0.400	1.21	
71-55-6	1,1,1-Trichloroethane	E	463	ug/kg	0.364	1.21	R,V7
563-58-6	1,1-Dichloropropene	U	1.21	ug/kg	0.364	1.21	
56-23-5	Carbon tetrachloride	J	0.985	ug/kg	0.364	1.21	J,V7c
107-06-2	1,2-Dichloroethane	U	1.21	ug/kg	0.364	1.21	
71-43-2	Benzene	J	0.456	ug/kg	0.364	1.21	
79-01-6	Trichloroethylene	E	5440	ug/kg	0.400	1.21	R,V7
78-87-5	1,2-Dichloropropane		5.92	ug/kg	0.364	1.21	
75-27-4	Bromodichloromethane	U	1.21	ug/kg	0.364	1.21	UJ,V7c
74-95-3	Dibromomethane	U	1.21	ug/kg	0.364	1.21	
108-10-1	4-Methyl-2-pentanone	U	6.06	ug/kg	1.52	6.06	
10061-01-5	cis-1,3-Dichloropropylene	U	1.21	ug/kg	0.364	1.21	
108-88-3	Toluene		11.5	ug/kg	0.364	1.21	
10061-02-6	trans-1,3-Dichloropropylene	U	1.21	ug/kg	0.364	1.21	
79-00-5	1,1,2-Trichloroethane	U	1.21	ug/kg	0.364	1.21	
591-78-6	2-Hexanone	U	6.06	ug/kg	1.82	6.06	
142-28-9	1,3-Dichloropropane	U	1.21	ug/kg	0.364	1.21	
127-18-4	Tetrachloroethylene	E	758	ug/kg	0.364	1.21	R,V7
124-48-1	Dibromochloromethane	U	1.21	ug/kg	0.364	1.21	
106-93-4	1,2-Dibromoethane	U	1.21	ug/kg	0.364	1.21	
108-90-7	Chlorobenzene	U	1.21	ug/kg	0.364	1.21	

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842007	**Date Received:**	03/05/2010 10:20	**%Moisture:**	17.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13546	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/16/2010 17:50	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 14:12	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c215.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		5.17	ug/kg	0.364	1.21
179601-23-1	m,p-Xylenes	U	2.43	ug/kg	0.364	2.43
95-47-6	o-Xylene		8.22	ug/kg	0.364	1.21
100-42-5	Styrene	U	1.21	ug/kg	0.364	1.21
75-25-2	Bromoform	U	1.21	ug/kg	0.364	1.21
79-34-5	1,1,2,2-Tetrachloroethane	U	1.21	ug/kg	0.364	1.21
96-18-4	1,2,3-Trichloropropane	U	1.21	ug/kg	0.364	1.21
108-86-1	Bromobenzene	U	1.21	ug/kg	0.364	1.21
103-65-1	n-Propylbenzene		23.9	ug/kg	0.364	1.21
95-49-8	2-Chlorotoluene	U	1.21	ug/kg	0.364	1.21
98-82-8	Isopropylbenzene		6.26	ug/kg	0.364	1.21
108-67-8	1,3,5-Trimethylbenzene		82.1	ug/kg	0.364	1.21
106-43-4	4-Chlorotoluene	U	1.21	ug/kg	0.364	1.21
98-06-6	tert-Butylbenzene	U	1.21	ug/kg	0.364	1.21
95-63-6	1,2,4-Trimethylbenzene	U	1.21	ug/kg	0.364	1.21
135-98-8	sec-Butylbenzene		49.6	ug/kg	0.364	1.21
99-87-6	4-Isopropyltoluene		73.8	ug/kg	0.364	1.21
541-73-1	1,3-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21
106-46-7	1,4-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21
104-51-8	n-Butylbenzene		114	ug/kg	0.364	1.21
96-12-8	1,2-Dibromo-3-chloropropane	U	1.21	ug/kg	0.364	1.21
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.06	ug/kg	1.94	6.06
630-20-6	1,1,1,2-Tetrachloroethane		4.89	ug/kg	0.364	1.21
95-50-1	1,2-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	16.49	95.7	ug/kg		J
	Unknown Hydrocarbon	16.74	41.3	ug/kg		J
	Unknown Hydrocarbon	17.66	218	ug/kg		J
	Unknown Hydrocarbon	18.03	718	ug/kg		J
	Unknown Hydrocarbon	18.83	397	ug/kg		J
	Unknown Hydrocarbon	19.96	45.5	ug/kg		J
	Unknown Hydrocarbon	20.06	41.9	ug/kg		J
	Unknown Hydrocarbon	20.25	72.7	ug/kg		J
	Unknown Hydrocarbon	20.8	8.21	ug/kg		J
	Unknown Hydrocarbon	20.92	20.1	ug/kg		J

MLD
04/22/

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248842007	Date Received:	03/05/2010 10:20	%Moisture:	17.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13546	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	965875	Inst:	VOA1.I	Dilution:	1
Run Date:	03/16/2010 17:50	Analyst:	GRB2	Purge Vol:	5 mL
Prep Date:	03/16/2010 14:12	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1c215.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	21.35	8.7	ug/kg		J
	Unknown Hydrocarbon	21.68	6.11	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842007	**Date Received:**	03/05/2010 10:20	**%Moisture:**	17.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13546REDL	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	100
Run Date:	03/18/2010 14:16	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 13:31	**Aliquot:**	5 g	**Final Volume:**	10 mL
Data File:	1c411.d	**Column:**	RTX-Volatiles	**Level:**	MED

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	HU	243	ug/kg	82.5	243	UJ,V88
74-87-3	Chloromethane	HU	243	ug/kg	72.8	243	
75-01-4	Vinyl chloride	HU	243	ug/kg	72.8	243	
74-83-9	Bromomethane	HU	243	ug/kg	72.8	243	
75-00-3	Chloroethane	HU	243	ug/kg	72.8	243	
75-69-4	Trichlorofluoromethane	HU	243	ug/kg	72.8	243	
67-64-1	Acetone	HU	1210	ug/kg	403	1210	
75-35-4	1,1-Dichloroethylene	HU	243	ug/kg	72.8	243	
74-88-4	Iodomethane	HU	1210	ug/kg	388	1210	
75-09-2	Methylene chloride	HU	1210	ug/kg	485	1210	
75-15-0	Carbon disulfide	HU	1210	ug/kg	303	1210	
156-60-5	trans-1,2-Dichloroethylene	HU	243	ug/kg	72.8	243	
75-34-3	1,1-Dichloroethane	HU	243	ug/kg	72.8	243	
78-93-3	2-Butanone	HU	1210	ug/kg	364	1210	
156-59-2	cis-1,2-Dichloroethylene	HU	243	ug/kg	72.8	243	
594-20-7	2,2-Dichloropropane	HU	243	ug/kg	72.8	243	
67-66-3	Chloroform	HU	243	ug/kg	72.8	243	
74-97-5	Bromochloromethane	HU	243	ug/kg	80.0	243	
71-55-6	1,1,1-Trichloroethane	H	414	ug/kg	72.8	243	J-,V9
563-58-6	1,1-Dichloropropene	HU	243	ug/kg	72.8	243	UJ,V88
56-23-5	Carbon tetrachloride	HU	243	ug/kg	72.8	243	
107-06-2	1,2-Dichloroethane	HU	243	ug/kg	72.8	243	
71-43-2	Benzene	HU	243	ug/kg	72.8	243	
79-01-6	Trichloroethylene	H	11900	ug/kg	80.0	243	J-,V9
78-87-5	1,2-Dichloropropane	HU	243	ug/kg	72.8	243	UJ,V88
75-27-4	Bromodichloromethane	HU	243	ug/kg	72.8	243	
74-95-3	Dibromomethane	HU	243	ug/kg	72.8	243	
108-10-1	4-Methyl-2-pentanone	HU	1210	ug/kg	303	1210	
10061-01-5	cis-1,3-Dichloropropylene	HU	243	ug/kg	72.8	243	
108-88-3	Toluene	HJ	73.2	ug/kg	72.8	243	J,V88
10061-02-6	trans-1,3-Dichloropropylene	HU	243	ug/kg	72.8	243	UJ,V88
79-00-5	1,1,2-Trichloroethane	HU	243	ug/kg	72.8	243	
591-78-6	2-Hexanone	HU	1210	ug/kg	364	1210	
142-28-9	1,3-Dichloropropane	HU	243	ug/kg	72.8	243	
127-18-4	Tetrachloroethylene	H	1390	ug/kg	72.8	243	J-,V9
124-48-1	Dibromochloromethane	HU	243	ug/kg	72.8	243	UJ,V88
106-93-4	1,2-Dibromoethane	HU	243	ug/kg	72.8	243	
108-90-7	Chlorobenzene	HU	243	ug/kg	72.8	243	

MLC
04/22/

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842007	**Date Received:**	03/05/2010 10:20	**%Moisture:**	17.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13546REDL	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	100
Run Date:	03/18/2010 14:16	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 13:31	**Aliquot:**	5 g	**Final Volume:**	10 mL
Data File:	1c411.d	**Column:**	RTX-Volatiles	**Level:**	MED

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	HU	243	ug/kg	72.8	243	UJ,V88
179601-23-1	m,p-Xylenes	HU	485	ug/kg	72.8	485	
95-47-6	o-Xylene	HU	243	ug/kg	72.8	243	
100-42-5	Styrene	HU	243	ug/kg	72.8	243	
75-25-2	Bromoform	HU	243	ug/kg	72.8	243	
79-34-5	1,1,2,2-Tetrachloroethane	HU	243	ug/kg	72.8	243	
96-18-4	1,2,3-Trichloropropane	HU	243	ug/kg	72.8	243	
108-86-1	Bromobenzene	HU	243	ug/kg	72.8	243	
103-65-1	n-Propylbenzene	HJ	93.1	ug/kg	72.8	243	J,V88
95-49-8	2-Chlorotoluene	HU	243	ug/kg	72.8	243	UJ,V88
98-82-8	Isopropylbenzene	HU	243	ug/kg	72.8	243	UJ,V88
108-67-8	1,3,5-Trimethylbenzene	H	429	ug/kg	72.8	243	J,V88
106-43-4	4-Chlorotoluene	HU	243	ug/kg	72.8	243	UJ,V88
98-06-6	tert-Butylbenzene	HU	243	ug/kg	72.8	243	
95-63-6	1,2,4-Trimethylbenzene	HU	243	ug/kg	72.8	243	
135-98-8	sec-Butylbenzene	H	368	ug/kg	72.8	243	J,V88
99-87-6	4-Isopropyltoluene	H	669	ug/kg	72.8	243	J,V88
541-73-1	1,3-Dichlorobenzene	HU	243	ug/kg	72.8	243	UJ,V88
106-46-7	1,4-Dichlorobenzene	HU	243	ug/kg	72.8	243	UJ,V88
104-51-8	n-Butylbenzene	H	1280	ug/kg	72.8	243	J,V88
96-12-8	1,2-Dibromo-3-chloropropane	HU	243	ug/kg	72.8	243	UJ,V88
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	HU	1210	ug/kg	388	1210	
630-20-6	1,1,1,2-Tetrachloroethane	HU	243	ug/kg	72.8	243	
95-50-1	1,2-Dichlorobenzene	HU	243	ug/kg	72.8	243	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	6.87	2070	ug/kg		J
	Unknown	16.51	16800	ug/kg		J
	Unknown Hydrocarbon	17.66	2160	ug/kg		J
	Unknown Hydrocarbon	18.03	8470	ug/kg		J
	Unknown Hydrocarbon	18.16	2580	ug/kg		J
	Unknown Hydrocarbon	18.82	34700	ug/kg		J
	Unknown Hydrocarbon	19.95	64100	ug/kg		J
	Unknown Hydrocarbon	20.8	6360	ug/kg		J
	Unknown Hydrocarbon	21.13	83800	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13547	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/16/2010 18:52	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 14:16	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c217.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.389	1.14	
74-87-3	Chloromethane	U	1.14	ug/kg	0.343	1.14	
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.343	1.14	
74-83-9	Bromomethane	U	1.14	ug/kg	0.343	1.14	
75-00-3	Chloroethane	U	1.14	ug/kg	0.343	1.14	
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.343	1.14	UJ,V7c
67-64-1	Acetone		68.2	ug/kg	1.90	5.72	
75-35-4	1,1-Dichloroethylene		12.6	ug/kg	0.343	1.14	
74-88-4	Iodomethane	U	5.72	ug/kg	1.83	5.72	
75-09-2	Methylene chloride	U	5.72	ug/kg	2.29	5.72	
75-15-0	Carbon disulfide	U	5.72	ug/kg	1.43	5.72	
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.343	1.14	
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.343	1.14	
78-93-3	2-Butanone	U	5.72	ug/kg	1.72	5.72	
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.343	1.14	
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.343	1.14	UJ,V7c
67-66-3	Chloroform	U	1.14	ug/kg	0.343	1.14	
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.378	1.14	
71-55-6	1,1,1-Trichloroethane		100	ug/kg	0.343	1.14	J,V7c
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.343	1.14	
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.343	1.14	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.343	1.14	
71-43-2	Benzene	U	1.14	ug/kg	0.343	1.14	
79-01-6	Trichloroethylene	E	2640	ug/kg	0.378	1.14	R,V7
78-87-5	1,2-Dichloropropane		2.98	ug/kg	0.343	1.14	
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.343	1.14	UJ,V7c
74-95-3	Dibromomethane	U	1.14	ug/kg	0.343	1.14	
108-10-1	4-Methyl-2-pentanone	U	5.72	ug/kg	1.43	5.72	
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.343	1.14	
108-88-3	Toluene		15.3	ug/kg	0.343	1.14	
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.343	1.14	
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.343	1.14	
591-78-6	2-Hexanone	U	5.72	ug/kg	1.72	5.72	
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.343	1.14	
127-18-4	Tetrachloroethylene	E	201	ug/kg	0.343	1.14	R,V7
124-48-1	Dibromochloromethane	J	0.353	ug/kg	0.343	1.14	
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.343	1.14	
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.343	1.14	

MLC
04/22/

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13547	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/16/2010 18:52	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 14:16	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c217.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		3.96	ug/kg	0.343	1.14
179601-23-1	m,p-Xylenes	J	0.500	ug/kg	0.343	2.29
95-47-6	o-Xylene		6.82	ug/kg	0.343	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.343	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.343	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.343	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.343	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.343	1.14
103-65-1	n-Propylbenzene		12.1	ug/kg	0.343	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.343	1.14
98-82-8	Isopropylbenzene		3.80	ug/kg	0.343	1.14
108-67-8	1,3,5-Trimethylbenzene		40.8	ug/kg	0.343	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.343	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.343	1.14
95-63-6	1,2,4-Trimethylbenzene		19.4	ug/kg	0.343	1.14
135-98-8	sec-Butylbenzene		19.8	ug/kg	0.343	1.14
99-87-6	4-Isopropyltoluene		26.8	ug/kg	0.343	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14
104-51-8	n-Butylbenzene		42.9	ug/kg	0.343	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.343	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.72	ug/kg	1.83	5.72
630-20-6	1,1,1,2-Tetrachloroethane		2.38	ug/kg	0.343	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	17.66	59.4	ug/kg		J
	Unknown Hydrocarbon	17.84	68.2	ug/kg		J
	Unknown Hydrocarbon	18.03	263	ug/kg		J
	Unknown Hydrocarbon	18.17	116	ug/kg		J
	Unknown Hydrocarbon	18.46	13.7	ug/kg		J
	Unknown Hydrocarbon	19.74	99.1	ug/kg		J
	Unknown Hydrocarbon	19.96	127	ug/kg		J
	Unknown Hydrocarbon	20.65	131	ug/kg		J
	Unknown Hydrocarbon	20.8	17.6	ug/kg		J
	Unknown Hydrocarbon	20.95	56.1	ug/kg		J

MLI
04/22

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13547	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/16/2010 18:52	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 14:16	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data Flle:	1c217.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	21.35	21.4	ug/kg		J
	Unknown Hydrocarbon	21.68	16	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13547REDL	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	50
Run Date:	03/18/2010 13:45	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 13:32	**Aliquot:**	5 g	**Final Volume:**	10 mL
Data File:	1c410.d	**Column:**	RTX-Volatiles	**Level:**	MED

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	HU	114	ug/kg	38.9	114	UJ,V88
74-87-3	Chloromethane	HU	114	ug/kg	34.3	114	
75-01-4	Vinyl chloride	HU	114	ug/kg	34.3	114	
74-83-9	Bromomethane	HU	114	ug/kg	34.3	114	
75-00-3	Chloroethane	HU	114	ug/kg	34.3	114	
75-69-4	Trichlorofluoromethane	HU	114	ug/kg	34.3	114	
67-64-1	Acetone	HU	572	ug/kg	190	572	
75-35-4	1,1-Dichloroethylene	HU	114	ug/kg	34.3	114	
74-88-4	Iodomethane	HU	572	ug/kg	183	572	
75-09-2	Methylene chloride	HU	572	ug/kg	229	572	
75-15-0	Carbon disulfide	HU	572	ug/kg	143	572	
156-60-5	trans-1,2-Dichloroethylene	HU	114	ug/kg	34.3	114	
75-34-3	1,1-Dichloroethane	HU	114	ug/kg	34.3	114	
78-93-3	2-Butanone	HJ	207	ug/kg	172	572	J,V88
156-59-2	cis-1,2-Dichloroethylene	HU	114	ug/kg	34.3	114	UJ,V88
594-20-7	2,2-Dichloropropane	HU	114	ug/kg	34.3	114	
67-66-3	Chloroform	HU	114	ug/kg	34.3	114	
74-97-5	Bromochloromethane	HU	114	ug/kg	37.8	114	
71-55-6	1,1,1-Trichloroethane	HJ	88.8	ug/kg	34.3	114	J,V88
563-58-6	1,1-Dichloropropene	HU	114	ug/kg	34.3	114	UJ,V88
56-23-5	Carbon tetrachloride	HU	114	ug/kg	34.3	114	
107-06-2	1,2-Dichloroethane	HU	114	ug/kg	34.3	114	
71-43-2	Benzene	HU	114	ug/kg	34.3	114	
79-01-6	Trichloroethylene	H	4510	ug/kg	37.8	114	J-,V9
78-87-5	1,2-Dichloropropane	HU	114	ug/kg	34.3	114	UJ,V88
75-27-4	Bromodichloromethane	HU	114	ug/kg	34.3	114	
74-95-3	Dibromomethane	HU	114	ug/kg	34.3	114	
108-10-1	4-Methyl-2-pentanone	HU	572	ug/kg	143	572	
10061-01-5	cis-1,3-Dichloropropylene	HU	114	ug/kg	34.3	114	
108-88-3	Toluene	HJ	84.4	ug/kg	34.3	114	J,V88
10061-02-6	trans-1,3-Dichloropropylene	HU	114	ug/kg	34.3	114	UJ,V88
79-00-5	1,1,2-Trichloroethane	HU	114	ug/kg	34.3	114	
591-78-6	2-Hexanone	HU	572	ug/kg	172	572	
142-28-9	1,3-Dichloropropane	HU	114	ug/kg	34.3	114	
127-18-4	Tetrachloroethylene	H	749	ug/kg	34.3	114	J-,V9
124-48-1	Dibromochloromethane	HU	114	ug/kg	34.3	114	UJ,V88
106-93-4	1,2-Dibromoethane	HU	114	ug/kg	34.3	114	
108-90-7	Chlorobenzene	HU	114	ug/kg	34.3	114	

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13547REDL	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	50
Run Date:	03/18/2010 13:45	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 13:32	**Aliquot:**	5 g	**Final Volume:**	10 mL
Data File:	1c410.d	**Column:**	RTX-Volatiles	**Level:**	MED

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	HU	114	ug/kg	34.3	114	UJ,V88
179601-23-1	m,p-Xylenes	HU	229	ug/kg	34.3	229	UJ,V88
95-47-6	o-Xylene	HJ	43.0	ug/kg	34.3	114	J,V88
100-42-5	Styrene	HU	114	ug/kg	34.3	114	UJ,V88
75-25-2	Bromoform	HU	114	ug/kg	34.3	114	
79-34-5	1,1,2,2-Tetrachloroethane	HU	114	ug/kg	34.3	114	
96-18-4	1,2,3-Trichloropropane	HU	114	ug/kg	34.3	114	
108-86-1	Bromobenzene	HU	114	ug/kg	34.3	114	
103-65-1	n-Propylbenzene	H	167	ug/kg	34.3	114	J,V88
95-49-8	2-Chlorotoluene	HU	114	ug/kg	34.3	114	UJ,V88
98-82-8	Isopropylbenzene	HJ	42.0	ug/kg	34.3	114	J,V88
108-67-8	1,3,5-Trimethylbenzene	H	653	ug/kg	34.3	114	J,V88
106-43-4	4-Chlorotoluene	HU	114	ug/kg	34.3	114	UJ,V88
98-06-6	tert-Butylbenzene	HU	114	ug/kg	34.3	114	UJ,V88
95-63-6	1,2,4-Trimethylbenzene	H	334	ug/kg	34.3	114	J,V88
135-98-8	sec-Butylbenzene	H	430	ug/kg	34.3	114	
99-87-6	4-Isopropyltoluene	H	671	ug/kg	34.3	114	
541-73-1	1,3-Dichlorobenzene	HU	114	ug/kg	34.3	114	UJ,V88
106-46-7	1,4-Dichlorobenzene	HU	114	ug/kg	34.3	114	UJ,V88
104-51-8	n-Butylbenzene	H	1280	ug/kg	34.3	114	J,V88
96-12-8	1,2-Dibromo-3-chloropropane	HU	114	ug/kg	34.3	114	UJ,V88
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	HU	572	ug/kg	183	572	
630-20-6	1,1,1,2-Tetrachloroethane	HU	114	ug/kg	34.3	114	
95-50-1	1,2-Dichlorobenzene	HU	114	ug/kg	34.3	114	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	16.5	8710	ug/kg		J
	Unknown Hydrocarbon	19.74	12300	ug/kg		J
	Unknown Hydrocarbon	19.95	7150	ug/kg		J
	Unknown Hydrocarbon	20.38	7430	ug/kg		J
	Unknown Hydrocarbon	20.64	6340	ug/kg		J
	Unknown Hydrocarbon	20.95	13500	ug/kg		J
	Unknown Hydrocarbon	21.13	8420	ug/kg		J
	Unknown Hydrocarbon	21.35	11200	ug/kg		J
	Unknown Hydrocarbon	21.78	7730	ug/kg		J
	Unknown Hydrocarbon	21.9	7210	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13547REDL	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	50
Run Date:	03/18/2010 13:45	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 13:32	**Aliquot:**	5 g	**Final Volume:**	10 mL
Data File:	1c410.d	**Column:**	RTX-Volatiles	**Level:**	MED

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	22.27	5520	ug/kg		J
	Unknown Hydrocarbon	22.42	12200	ug/kg		J

MLI
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842006	**Date Received:**	03/05/2010 10:20	**%Moisture:**	17.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13548	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/17/2010 15:00	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 13:17	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c309.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.21	ug/kg	0.411	1.21	
74-87-3	Chloromethane	U	1.21	ug/kg	0.362	1.21	UJ,V7c
75-01-4	Vinyl chloride	U	1.21	ug/kg	0.362	1.21	
74-83-9	Bromomethane	U	1.21	ug/kg	0.362	1.21	
75-00-3	Chloroethane	U	1.21	ug/kg	0.362	1.21	
75-69-4	Trichlorofluoromethane	U	1.21	ug/kg	0.362	1.21	
67-64-1	Acetone		69.8	ug/kg	2.00	6.04	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.21	ug/kg	0.362	1.21	
74-88-4	Iodomethane	U	6.04	ug/kg	1.93	6.04	
75-09-2	Methylene chloride	U	6.04	ug/kg	2.41	6.04	
75-15-0	Carbon disulfide	U	6.04	ug/kg	1.51	6.04	
156-60-5	trans-1,2-Dichloroethylene	U	1.21	ug/kg	0.362	1.21	
75-34-3	1,1-Dichloroethane	U	1.21	ug/kg	0.362	1.21	
78-93-3	2-Butanone	U	6.04	ug/kg	1.81	6.04	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	J	0.888	ug/kg	0.362	1.21	
594-20-7	2,2-Dichloropropane	U	1.21	ug/kg	0.362	1.21	
67-66-3	Chloroform	U	1.21	ug/kg	0.362	1.21	
74-97-5	Bromochloromethane	U	1.21	ug/kg	0.398	1.21	
71-55-6	1,1,1-Trichloroethane		1.82	ug/kg	0.362	1.21	
563-58-6	1,1-Dichloropropene	U	1.21	ug/kg	0.362	1.21	
56-23-5	Carbon tetrachloride	U	1.21	ug/kg	0.362	1.21	
107-06-2	1,2-Dichloroethane	U	1.21	ug/kg	0.362	1.21	
71-43-2	Benzene	J	0.684	ug/kg	0.362	1.21	
79-01-6	Trichloroethylene		10.5	ug/kg	0.398	1.21	
78-87-5	1,2-Dichloropropane	U	1.21	ug/kg	0.362	1.21	
75-27-4	Bromodichloromethane	U	1.21	ug/kg	0.362	1.21	
74-95-3	Dibromomethane	U	1.21	ug/kg	0.362	1.21	
108-10-1	4-Methyl-2-pentanone	U	6.04	ug/kg	1.51	6.04	UJ,V7c
10061-01-5	cis-1,3-Dichloropropylene	U	1.21	ug/kg	0.362	1.21	
108-88-3	Toluene	U	1.21	ug/kg	0.362	1.21	
10061-02-6	trans-1,3-Dichloropropylene	U	1.21	ug/kg	0.362	1.21	
79-00-5	1,1,2-Trichloroethane	U	1.21	ug/kg	0.362	1.21	
591-78-6	2-Hexanone	U	6.04	ug/kg	1.81	6.04	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.21	ug/kg	0.362	1.21	
127-18-4	Tetrachloroethylene	J	0.570	ug/kg	0.362	1.21	
124-48-1	Dibromochloromethane	U	1.21	ug/kg	0.362	1.21	
106-93-4	1,2-Dibromoethane	U	1.21	ug/kg	0.362	1.21	
108-90-7	Chlorobenzene	U	1.21	ug/kg	0.362	1.21	

MLD
04/22/

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842006	**Date Received:**	03/05/2010 10:20	**%Moisture:**	17.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13548	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/17/2010 15:00	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 13:17	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c309.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.21	ug/kg	0.362	1.21
179601-23-1	m,p-Xylenes	U	2.41	ug/kg	0.362	2.41
95-47-6	o-Xylene	U	1.21	ug/kg	0.362	1.21
100-42-5	Styrene	U	1.21	ug/kg	0.362	1.21
75-25-2	Bromoform	U	1.21	ug/kg	0.362	1.21
79-34-5	1,1,2,2-Tetrachloroethane	U	1.21	ug/kg	0.362	1.21
96-18-4	1,2,3-Trichloropropane	U	1.21	ug/kg	0.362	1.21
108-86-1	Bromobenzene	U	1.21	ug/kg	0.362	1.21
103-65-1	n-Propylbenzene	J	1.16	ug/kg	0.362	1.21
95-49-8	2-Chlorotoluene	U	1.21	ug/kg	0.362	1.21
98-82-8	Isopropylbenzene	U	1.21	ug/kg	0.362	1.21
108-67-8	1,3,5-Trimethylbenzene		6.66	ug/kg	0.362	1.21
106-43-4	4-Chlorotoluene	U	1.21	ug/kg	0.362	1.21
98-06-6	tert-Butylbenzene	U	1.21	ug/kg	0.362	1.21
95-63-6	1,2,4-Trimethylbenzene		2.92	ug/kg	0.362	1.21
135-98-8	sec-Butylbenzene		5.61	ug/kg	0.362	1.21
99-87-6	4-Isopropyltoluene		10.8	ug/kg	0.362	1.21
541-73-1	1,3-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21
106-46-7	1,4-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21
104-51-8	n-Butylbenzene		24.0	ug/kg	0.362	1.21
96-12-8	1,2-Dibromo-3-chloropropane	U	1.21	ug/kg	0.362	1.21
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.04	ug/kg	1.93	6.04
630-20-6	1,1,1,2-Tetrachloroethane	U	1.21	ug/kg	0.362	1.21
95-50-1	1,2-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.88	65.1	ug/kg		J
	Unknown	16.54	9.21	ug/kg		J
	Unknown Hydrocarbon	17.66	9.49	ug/kg		J
	Unknown Hydrocarbon	18.03	76.6	ug/kg		J
	Unknown Hydrocarbon	18.11	17.1	ug/kg		J
	Unknown Hydrocarbon	18.16	17.8	ug/kg		J
	Unknown Hydrocarbon	18.82	144	ug/kg		J
	Unknown Hydrocarbon	19.74	181	ug/kg		J

MLC
04/22/

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842003	**Date Received:**	03/05/2010 10:20	**%Moisture:**	16.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13549	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/16/2010 15:47	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 14:04	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c211.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.20	ug/kg	0.408	1.20	
74-87-3	Chloromethane	U	1.20	ug/kg	0.360	1.20	
75-01-4	Vinyl chloride	U	1.20	ug/kg	0.360	1.20	
74-83-9	Bromomethane	U	1.20	ug/kg	0.360	1.20	
75-00-3	Chloroethane	U	1.20	ug/kg	0.360	1.20	
75-69-4	Trichlorofluoromethane	U	1.20	ug/kg	0.360	1.20	UJ,V7c
67-64-1	Acetone		64.9	ug/kg	1.99	5.99	
75-35-4	1,1-Dichloroethylene	U	1.20	ug/kg	0.360	1.20	
74-88-4	Iodomethane	U	5.99	ug/kg	1.92	5.99	
75-09-2	Methylene chloride	U	5.99	ug/kg	2.40	5.99	
75-15-0	Carbon disulfide	U	5.99	ug/kg	1.50	5.99	
156-60-5	trans-1,2-Dichloroethylene	U	1.20	ug/kg	0.360	1.20	
75-34-3	1,1-Dichloroethane	U	1.20	ug/kg	0.360	1.20	
78-93-3	2-Butanone	U	5.99	ug/kg	1.80	5.99	
156-59-2	cis-1,2-Dichloroethylene	U	1.20	ug/kg	0.360	1.20	
594-20-7	2,2-Dichloropropane	U	1.20	ug/kg	0.360	1.20	UJ,V7c
67-66-3	Chloroform	U	1.20	ug/kg	0.360	1.20	
74-97-5	Bromochloromethane	U	1.20	ug/kg	0.396	1.20	
71-55-6	1,1,1-Trichloroethane	J	0.393	ug/kg	0.360	1.20	J,V7c
563-58-6	1,1-Dichloropropene	U	1.20	ug/kg	0.360	1.20	
56-23-5	Carbon tetrachloride	U	1.20	ug/kg	0.360	1.20	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.20	ug/kg	0.360	1.20	
71-43-2	Benzene	U	1.20	ug/kg	0.360	1.20	
79-01-6	Trichloroethylene		2.58	ug/kg	0.396	1.20	
78-87-5	1,2-Dichloropropane	U	1.20	ug/kg	0.360	1.20	
75-27-4	Bromodichloromethane	U	1.20	ug/kg	0.360	1.20	UJ,V7c
74-95-3	Dibromomethane	U	1.20	ug/kg	0.360	1.20	
108-10-1	4-Methyl-2-pentanone	U	5.99	ug/kg	1.50	5.99	
10061-01-5	cis-1,3-Dichloropropylene	U	1.20	ug/kg	0.360	1.20	
108-88-3	Toluene	U	1.20	ug/kg	0.360	1.20	
10061-02-6	trans-1,3-Dichloropropylene	U	1.20	ug/kg	0.360	1.20	
79-00-5	1,1,2-Trichloroethane	U	1.20	ug/kg	0.360	1.20	
591-78-6	2-Hexanone	U	5.99	ug/kg	1.80	5.99	
142-28-9	1,3-Dichloropropane	U	1.20	ug/kg	0.360	1.20	
127-18-4	Tetrachloroethylene	U	1.20	ug/kg	0.360	1.20	
124-48-1	Dibromochloromethane	U	1.20	ug/kg	0.360	1.20	
106-93-4	1,2-Dibromoethane	U	1.20	ug/kg	0.360	1.20	
108-90-7	Chlorobenzene	U	1.20	ug/kg	0.360	1.20	

MLE
04/22

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842003	**Date Received:**	03/05/2010 10:20	**%Moisture:**	16.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13549	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/16/2010 15:47	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 14:04	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c211.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.20	ug/kg	0.360	1.20
179601-23-1	m,p-Xylenes	U	2.40	ug/kg	0.360	2.40
95-47-6	o-Xylene	U	1.20	ug/kg	0.360	1.20
100-42-5	Styrene	U	1.20	ug/kg	0.360	1.20
75-25-2	Bromoform	U	1.20	ug/kg	0.360	1.20
79-34-5	1,1,2,2-Tetrachloroethane	U	1.20	ug/kg	0.360	1.20
96-18-4	1,2,3-Trichloropropane	U	1.20	ug/kg	0.360	1.20
108-86-1	Bromobenzene	U	1.20	ug/kg	0.360	1.20
103-65-1	n-Propylbenzene	U	1.20	ug/kg	0.360	1.20
95-49-8	2-Chlorotoluene	U	1.20	ug/kg	0.360	1.20
98-82-8	Isopropylbenzene	U	1.20	ug/kg	0.360	1.20
108-67-8	1,3,5-Trimethylbenzene	J	0.878	ug/kg	0.360	1.20
106-43-4	4-Chlorotoluene	U	1.20	ug/kg	0.360	1.20
98-06-6	tert-Butylbenzene	U	1.20	ug/kg	0.360	1.20
95-63-6	1,2,4-Trimethylbenzene		1.90	ug/kg	0.360	1.20
135-98-8	sec-Butylbenzene	U	1.20	ug/kg	0.360	1.20
99-87-6	4-Isopropyltoluene		2.06	ug/kg	0.360	1.20
541-73-1	1,3-Dichlorobenzene	U	1.20	ug/kg	0.360	1.20
106-46-7	1,4-Dichlorobenzene	U	1.20	ug/kg	0.360	1.20
104-51-8	n-Butylbenzene		4.58	ug/kg	0.360	1.20
96-12-8	1,2-Dibromo-3-chloropropane	U	1.20	ug/kg	0.360	1.20
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.99	ug/kg	1.92	5.99
630-20-6	1,1,1,2-Tetrachloroethane	U	1.20	ug/kg	0.360	1.20
95-50-1	1,2-Dichlorobenzene	U	1.20	ug/kg	0.360	1.20

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.88	39	ug/kg		J
	Unknown	16.51	82.4	ug/kg		J
	Unknown Siloxane	18.05	14.5	ug/kg		J
	Unknown Hydrocarbon	18.51	33.1	ug/kg		J
	Unknown Hydrocarbon	19.74	221	ug/kg		J
	Unknown Hydrocarbon	20.95	1180	ug/kg		J

MLI
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842005	**Date Received:**	03/05/2010 10:20	**%Moisture:**	18.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13550	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 16:20	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/18/2010 12:10	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c415.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	HUh	1.23	ug/kg	0.417	1.23	UJ,V9
74-87-3	Chloromethane	HUh	1.23	ug/kg	0.368	1.23	
75-01-4	Vinyl chloride	HUh	1.23	ug/kg	0.368	1.23	
74-83-9	Bromomethane	HUh	1.23	ug/kg	0.368	1.23	
75-00-3	Chloroethane	HUh	1.23	ug/kg	0.368	1.23	
75-69-4	Trichlorofluoromethane	HUh	1.23	ug/kg	0.368	1.23	
67-64-1	Acetone	Hh	114	ug/kg	2.04	6.13	J-,V9
75-35-4	1,1-Dichloroethylene	HUh	1.23	ug/kg	0.368	1.23	UJ,V9
74-88-4	Iodomethane	HUh	6.13	ug/kg	1.96	6.13	
75-09-2	Methylene chloride	HUh	6.13	ug/kg	2.45	6.13	
75-15-0	Carbon disulfide	HUh	6.13	ug/kg	1.53	6.13	
156-60-5	trans-1,2-Dichloroethylene	HUh	1.23	ug/kg	0.368	1.23	
75-34-3	1,1-Dichloroethane	HUh	1.23	ug/kg	0.368	1.23	
78-93-3	2-Butanone	HUh	6.13	ug/kg	1.84	6.13	
156-59-2	cis-1,2-Dichloroethylene	HJh	0.564	ug/kg	0.368	1.23	J-,V9
594-20-7	2,2-Dichloropropane	HUh	1.23	ug/kg	0.368	1.23	UJ,V9
67-66-3	Chloroform	HUh	1.23	ug/kg	0.368	1.23	
74-97-5	Bromochloromethane	HUh	1.23	ug/kg	0.405	1.23	
71-55-6	1,1,1-Trichloroethane	Hh	7.70	ug/kg	0.368	1.23	J-,V9
563-58-6	1,1-Dichloropropene	HUh	1.23	ug/kg	0.368	1.23	UJ,V9
56-23-5	Carbon tetrachloride	HUh	1.23	ug/kg	0.368	1.23	
107-06-2	1,2-Dichloroethane	HUh	1.23	ug/kg	0.368	1.23	
71-43-2	Benzene	HUh	1.23	ug/kg	0.368	1.23	
79-01-6	Trichloroethylene	Hh	43.0	ug/kg	0.405	1.23	J-,V9
78-87-5	1,2-Dichloropropane	HUh	1.23	ug/kg	0.368	1.23	UJ,V9
75-27-4	Bromodichloromethane	HUh	1.23	ug/kg	0.368	1.23	
74-95-3	Dibromomethane	HUh	1.23	ug/kg	0.368	1.23	
108-10-1	4-Methyl-2-pentanone	HUh	6.13	ug/kg	1.53	6.13	
10061-01-5	cis-1,3-Dichloropropylene	HUh	1.23	ug/kg	0.368	1.23	
108-88-3	Toluene	HUh	1.23	ug/kg	0.368	1.23	
10061-02-6	trans-1,3-Dichloropropylene	HUh	1.23	ug/kg	0.368	1.23	
79-00-5	1,1,2-Trichloroethane	HUh	1.23	ug/kg	0.368	1.23	
591-78-6	2-Hexanone	HUh	6.13	ug/kg	1.84	6.13	
142-28-9	1,3-Dichloropropane	HUh	1.23	ug/kg	0.368	1.23	
127-18-4	Tetrachloroethylene	Hh	2.39	ug/kg	0.368	1.23	J-,V9
124-48-1	Dibromochloromethane	HUh	1.23	ug/kg	0.368	1.23	UJ,V9
106-93-4	1,2-Dibromoethane	HUh	1.23	ug/kg	0.368	1.23	
108-90-7	Chlorobenzene	HUh	1.23	ug/kg	0.368	1.23	

MLI
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842005	**Date Received:**	03/05/2010 10:20	**%Moisture:**	18.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13550	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/18/2010 16:20	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/18/2010 12:10	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c415.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	HUh	1.23	ug/kg	0.368	1.23	UJ,V9
179601-23-1	m,p-Xylenes	HUh	2.45	ug/kg	0.368	2.45	
95-47-6	o-Xylene	HUh	1.23	ug/kg	0.368	1.23	
100-42-5	Styrene	HUh	1.23	ug/kg	0.368	1.23	
75-25-2	Bromoform	HUh	1.23	ug/kg	0.368	1.23	
79-34-5	1,1,2,2-Tetrachloroethane	HUh	1.23	ug/kg	0.368	1.23	
96-18-4	1,2,3-Trichloropropane	HUh	1.23	ug/kg	0.368	1.23	
108-86-1	Bromobenzene	HUh	1.23	ug/kg	0.368	1.23	
103-65-1	n-Propylbenzene	HUh	1.23	ug/kg	0.368	1.23	
95-49-8	2-Chlorotoluene	HUh	1.23	ug/kg	0.368	1.23	
98-82-8	Isopropylbenzene	HUh	1.23	ug/kg	0.368	1.23	
108-67-8	1,3,5-Trimethylbenzene	HUh	1.23	ug/kg	0.368	1.23	
106-43-4	4-Chlorotoluene	HUh	1.23	ug/kg	0.368	1.23	
98-06-6	tert-Butylbenzene	HUh	1.23	ug/kg	0.368	1.23	
95-63-6	1,2,4-Trimethylbenzene	HUh	1.23	ug/kg	0.368	1.23	
135-98-8	sec-Butylbenzene	HUh	1.23	ug/kg	0.368	1.23	
99-87-6	4-Isopropyltoluene	HUh	1.23	ug/kg	0.368	1.23	
541-73-1	1,3-Dichlorobenzene	HUh	1.23	ug/kg	0.368	1.23	
106-46-7	1,4-Dichlorobenzene	HUh	1.23	ug/kg	0.368	1.23	
104-51-8	n-Butylbenzene	HUh	1.23	ug/kg	0.368	1.23	
96-12-8	1,2-Dibromo-3-chloropropane	HUh	1.23	ug/kg	0.368	1.23	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	HUh	6.13	ug/kg	1.96	6.13	
630-20-6	1,1,1,2-Tetrachloroethane	HUh	1.23	ug/kg	0.368	1.23	
95-50-1	1,2-Dichlorobenzene	HUh	1.23	ug/kg	0.368	1.23	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	19.96	106	ug/kg		J

MLI
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248842004	Date Received:	03/05/2010 10:20	%Moisture:	20.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13551	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	965875	Inst:	VOA1.I	Dilution:	1
Run Date:	03/16/2010 16:18	Analyst:	GRB2	Purge Vol:	5 mL
Prep Date:	03/16/2010 14:06	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1c212.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.429	1.26	
74-87-3	Chloromethane	U	1.26	ug/kg	0.378	1.26	
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.378	1.26	
74-83-9	Bromomethane	U	1.26	ug/kg	0.378	1.26	
75-00-3	Chloroethane	U	1.26	ug/kg	0.378	1.26	
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.378	1.26	UJ,V7c
67-64-1	Acetone		37.3	ug/kg	2.09	6.31	
75-35-4	1,1-Dichloroethylene		38.8	ug/kg	0.378	1.26	
74-88-4	Iodomethane	U	6.31	ug/kg	2.02	6.31	
75-09-2	Methylene chloride	U	6.31	ug/kg	2.52	6.31	
75-15-0	Carbon disulfide	U	6.31	ug/kg	1.58	6.31	
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.378	1.26	
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.378	1.26	
78-93-3	2-Butanone	U	6.31	ug/kg	1.89	6.31	
156-59-2	cis-1,2-Dichloroethylene	J	0.410	ug/kg	0.378	1.26	
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.378	1.26	UJ,V7c
67-66-3	Chloroform	U	1.26	ug/kg	0.378	1.26	
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.416	1.26	
71-55-6	1,1,1-Trichloroethane	E	298	ug/kg	0.378	1.26	R,V7
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.378	1.26	
56-23-5	Carbon tetrachloride	J	0.606	ug/kg	0.378	1.26	J,V7c
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.378	1.26	
71-43-2	Benzene	J	0.407	ug/kg	0.378	1.26	
79-01-6	Trichloroethylene	E	4480	ug/kg	0.416	1.26	R,V7
78-87-5	1,2-Dichloropropane		4.47	ug/kg	0.378	1.26	
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.378	1.26	UJ,V7c
74-95-3	Dibromomethane	U	1.26	ug/kg	0.378	1.26	
108-10-1	4-Methyl-2-pentanone	U	6.31	ug/kg	1.58	6.31	
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.378	1.26	
108-88-3	Toluene		11.5	ug/kg	0.378	1.26	
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.378	1.26	
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.378	1.26	
591-78-6	2-Hexanone	U	6.31	ug/kg	1.89	6.31	
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.378	1.26	
127-18-4	Tetrachloroethylene	E	407	ug/kg	0.378	1.26	R,V7
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.378	1.26	
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.378	1.26	
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.378	1.26	

ML
04/0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842004	**Date Received:**	03/05/2010 10:20	**%Moisture:**	20.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13551	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/16/2010 16:18	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 14:06	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c212.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		3.90	ug/kg	0.378	1.26
179601-23-1	m,p-Xylenes	J	0.756	ug/kg	0.378	2.52
95-47-6	o-Xylene		7.22	ug/kg	0.378	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.378	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.378	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.378	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.378	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.378	1.26
103-65-1	n-Propylbenzene		22.1	ug/kg	0.378	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.378	1.26
98-82-8	Isopropylbenzene		5.62	ug/kg	0.378	1.26
108-67-8	1,3,5-Trimethylbenzene		79.7	ug/kg	0.378	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.378	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.378	1.26
95-63-6	1,2,4-Trimethylbenzene		49.7	ug/kg	0.378	1.26
135-98-8	sec-Butylbenzene		47.1	ug/kg	0.378	1.26
99-87-6	4-Isopropyltoluene		65.8	ug/kg	0.378	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26
104-51-8	n-Butylbenzene		103	ug/kg	0.378	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.378	1.26
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.31	ug/kg	2.02	6.31
630-20-6	1,1,1,2-Tetrachloroethane		3.37	ug/kg	0.378	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	16.48	63	ug/kg		J
	Unknown Hydrocarbon	16.6	24.2	ug/kg		J
	Unknown Hydrocarbon	16.74	36.3	ug/kg		J
	Unknown Hydrocarbon	17.66	156	ug/kg		J
	Unknown Hydrocarbon	18.03	526	ug/kg		J
	Unknown Hydrocarbon	19.74	77.2	ug/kg		J
	Unknown Hydrocarbon	19.96	57.8	ug/kg		J
	Unknown Hydrocarbon	20.06	64.9	ug/kg		J
	Unknown Hydrocarbon	20.25	102	ug/kg		J
	Unknown Hydrocarbon	20.8	12.7	ug/kg		J

MLC
04/22/

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842004	**Date Received:**	03/05/2010 10:20	**%Moisture:**	20.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13551	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/16/2010 16:18	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 14:06	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c212.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	20.95	33.9	ug/kg		J
	Unknown Hydrocarbon	21.35	24.1	ug/kg		J

MLD
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842004	**Date Received:**	03/05/2010 10:20	**%Moisture:**	20.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13551REDL	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	50
Run Date:	03/18/2010 13:14	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 13:30	**Aliquot:**	5 g	**Final Volume:**	10 mL
Data File:	1c409.d	**Column:**	RTX-Volatiles	**Level:**	MED

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	HU	126	ug/kg	42.9	126	UJ,V88
74-87-3	Chloromethane	HU	126	ug/kg	37.8	126	
75-01-4	Vinyl chloride	HU	126	ug/kg	37.8	126	
74-83-9	Bromomethane	HU	126	ug/kg	37.8	126	
75-00-3	Chloroethane	HU	126	ug/kg	37.8	126	
75-69-4	Trichlorofluoromethane	HU	126	ug/kg	37.8	126	
67-64-1	Acetone	HU	631	ug/kg	209	631	
75-35-4	1,1-Dichloroethylene	HU	126	ug/kg	37.8	126	
74-88-4	Iodomethane	HU	631	ug/kg	202	631	
75-09-2	Methylene chloride	HU	631	ug/kg	252	631	
75-15-0	Carbon disulfide	HU	631	ug/kg	158	631	
156-60-5	trans-1,2-Dichloroethylene	HU	126	ug/kg	37.8	126	
75-34-3	1,1-Dichloroethane	HU	126	ug/kg	37.8	126	
78-93-3	2-Butanone	HJ	218	ug/kg	189	631	J,V88
156-59-2	cis-1,2-Dichloroethylene	HU	126	ug/kg	37.8	126	UJ,V88
594-20-7	2,2-Dichloropropane	HU	126	ug/kg	37.8	126	
67-66-3	Chloroform	HU	126	ug/kg	37.8	126	
74-97-5	Bromochloromethane	HU	126	ug/kg	41.6	126	
71-55-6	1,1,1-Trichloroethane	HJ	101	ug/kg	37.8	126	J-,V9
563-58-6	1,1-Dichloropropene	HU	126	ug/kg	37.8	126	UJ,V88
56-23-5	Carbon tetrachloride	HU	126	ug/kg	37.8	126	
107-06-2	1,2-Dichloroethane	HU	126	ug/kg	37.8	126	
71-43-2	Benzene	HU	126	ug/kg	37.8	126	
79-01-6	Trichloroethylene	H	2770	ug/kg	41.6	126	J-,V9
78-87-5	1,2-Dichloropropane	HU	126	ug/kg	37.8	126	UJ,V88
75-27-4	Bromodichloromethane	HU	126	ug/kg	37.8	126	
74-95-3	Dibromomethane	HU	126	ug/kg	37.8	126	
108-10-1	4-Methyl-2-pentanone	HU	631	ug/kg	158	631	
10061-01-5	cis-1,3-Dichloropropylene	HU	126	ug/kg	37.8	126	
108-88-3	Toluene	HJ	63.8	ug/kg	37.8	126	J,V88
10061-02-6	trans-1,3-Dichloropropylene	HU	126	ug/kg	37.8	126	UJ,V88
79-00-5	1,1,2-Trichloroethane	HU	126	ug/kg	37.8	126	
591-78-6	2-Hexanone	HU	631	ug/kg	189	631	
142-28-9	1,3-Dichloropropane	HU	126	ug/kg	37.8	126	
127-18-4	Tetrachloroethylene	H	368	ug/kg	37.8	126	J-,V9
124-48-1	Dibromochloromethane	HU	126	ug/kg	37.8	126	UJ,V88
106-93-4	1,2-Dibromoethane	HU	126	ug/kg	37.8	126	
108-90-7	Chlorobenzene	HU	126	ug/kg	37.8	126	

MLI
04/22

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842004	**Date Received:**	03/05/2010 10:20	**%Moisture:**	20.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13551REDL	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	50
Run Date:	03/18/2010 13:14	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 13:30	**Aliquot:**	5 g	**Final Volume:**	10 mL
Data File:	1c409.d	**Column:**	RTX-Volatiles	**Level:**	MED

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	HU	126	ug/kg	37.8	126	UJ,V88
179601-23-1	m,p-Xylenes	HU	252	ug/kg	37.8	252	
95-47-6	o-Xylene	HU	126	ug/kg	37.8	126	
100-42-5	Styrene	HU	126	ug/kg	37.8	126	
75-25-2	Bromoform	HU	126	ug/kg	37.8	126	
79-34-5	1,1,2,2-Tetrachloroethane	HU	126	ug/kg	37.8	126	
96-18-4	1,2,3-Trichloropropane	HU	126	ug/kg	37.8	126	
108-86-1	Bromobenzene	HU	126	ug/kg	37.8	126	
103-65-1	n-Propylbenzene	HJ	42.6	ug/kg	37.8	126	J,V88
95-49-8	2-Chlorotoluene	HU	126	ug/kg	37.8	126	UJ,V88
98-82-8	Isopropylbenzene	HU	126	ug/kg	37.8	126	UJ,V88
108-67-8	1,3,5-Trimethylbenzene	H	190	ug/kg	37.8	126	J,V88
106-43-4	4-Chlorotoluene	HU	126	ug/kg	37.8	126	UJ,V88
98-06-6	tert-Butylbenzene	HU	126	ug/kg	37.8	126	UJ,V88
95-63-6	1,2,4-Trimethylbenzene	HJ	118	ug/kg	37.8	126	J,V88
135-98-8	sec-Butylbenzene	H	156	ug/kg	37.8	126	
99-87-6	4-Isopropyltoluene	H	265	ug/kg	37.8	126	
541-73-1	1,3-Dichlorobenzene	HU	126	ug/kg	37.8	126	UJ,V88
106-46-7	1,4-Dichlorobenzene	HU	126	ug/kg	37.8	126	UJ,V88
104-51-8	n-Butylbenzene	H	536	ug/kg	37.8	126	J,V88
96-12-8	1,2-Dibromo-3-chloropropane	HU	126	ug/kg	37.8	126	UJ,V88
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	HU	631	ug/kg	202	631	
630-20-6	1,1,1,2-Tetrachloroethane	HU	126	ug/kg	37.8	126	
95-50-1	1,2-Dichlorobenzene	HU	126	ug/kg	37.8	126	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	6.97	1940	ug/kg		J
	Unknown Hydrocarbon	17.66	663	ug/kg		J
	Unknown Siloxane	18.05	2950	ug/kg		J
	Unknown Hydrocarbon	19.74	2630	ug/kg		J
	Unknown Hydrocarbon	19.95	6160	ug/kg		J
	Unknown Hydrocarbon	20.64	11900	ug/kg		J
	Unknown Hydrocarbon	20.8	2490	ug/kg		J
	Unknown Hydrocarbon	20.95	7100	ug/kg		J
	Unknown Hydrocarbon	21.35	2680	ug/kg		J

MLI
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248842008	Date Received:	03/05/2010 10:20	%Moisture:	12.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13552	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	965875	Inst:	VOA1.I	Dilution:	1
Run Date:	03/17/2010 16:31	Analyst:	GRB2	Purge Vol:	5 mL
Prep Date:	03/17/2010 13:19	Aliquot:	5 g	Final Volume:	5 mL
Data File:	1c312.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.389	1.15	
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15	UJ,V7c
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15	
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15	
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15	
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15	
67-64-1	Acetone		62.9	ug/kg	1.90	5.73	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15	
74-88-4	Iodomethane	U	5.73	ug/kg	1.83	5.73	
75-09-2	Methylene chloride	U	5.73	ug/kg	2.29	5.73	
75-15-0	Carbon disulfide	U	5.73	ug/kg	1.43	5.73	
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15	
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15	
78-93-3	2-Butanone	U	5.73	ug/kg	1.72	5.73	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15	
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15	
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15	
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.378	1.15	
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15	
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15	
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15	
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15	
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15	
79-01-6	Trichloroethylene		10.9	ug/kg	0.378	1.15	
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15	
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15	
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15	
108-10-1	4-Methyl-2-pentanone	U	5.73	ug/kg	1.43	5.73	UJ,V7c
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15	
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15	
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15	
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15	
591-78-6	2-Hexanone	U	5.73	ug/kg	1.72	5.73	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15	
127-18-4	Tetrachloroethylene		3.36	ug/kg	0.344	1.15	
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15	
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15	
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15	

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842008	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13552	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/17/2010 16:31	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 13:19	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c312.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	J	0.404	ug/kg	0.344	1.15
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29
95-47-6	o-Xylene	J	0.908	ug/kg	0.344	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15
103-65-1	n-Propylbenzene		3.38	ug/kg	0.344	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-82-8	Isopropylbenzene	J	0.866	ug/kg	0.344	1.15
108-67-8	1,3,5-Trimethylbenzene		12.5	ug/kg	0.344	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15
95-63-6	1,2,4-Trimethylbenzene		9.83	ug/kg	0.344	1.15
135-98-8	sec-Butylbenzene		7.77	ug/kg	0.344	1.15
99-87-6	4-Isopropyltoluene		11.9	ug/kg	0.344	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
104-51-8	n-Butylbenzene		19.8	ug/kg	0.344	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.73	ug/kg	1.83	5.73
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.82	84.7	ug/kg		J
	Unknown Hydrocarbon	19.24	72.6	ug/kg		J
	Unknown Hydrocarbon	19.74	180	ug/kg		J
	Unknown Hydrocarbon	19.8	56.5	ug/kg		J
	Unknown Hydrocarbon	19.96	106	ug/kg		J
	Unknown Hydrocarbon	20.11	109	ug/kg		J
	Unknown Hydrocarbon	20.4	89.8	ug/kg		J
	Unknown Hydrocarbon	20.51	45.1	ug/kg		J
	Unknown Hydrocarbon	20.64	83.5	ug/kg		J
	Unknown Hydrocarbon	20.8	47.3	ug/kg		J

MLD
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842008	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13552	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/17/2010 16:31	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 13:19	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c312.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	20.95	140	ug/kg		J
	Unknown Hydrocarbon	21.13	76.1	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842002	**Date Received:**	03/05/2010 10:20	**%Moisture:**	13.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13553	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/16/2010 15:16	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 13:58	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c210.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.395	1.16	
74-87-3	Chloromethane	U	1.16	ug/kg	0.349	1.16	
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.349	1.16	
74-83-9	Bromomethane	U	1.16	ug/kg	0.349	1.16	
75-00-3	Chloroethane	U	1.16	ug/kg	0.349	1.16	
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.349	1.16	UJ,V7c
67-64-1	Acetone		71.3	ug/kg	1.93	5.81	
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.349	1.16	
74-88-4	Iodomethane	U	5.81	ug/kg	1.86	5.81	
75-09-2	Methylene chloride	U	5.81	ug/kg	2.32	5.81	
75-15-0	Carbon disulfide	U	5.81	ug/kg	1.45	5.81	
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16	
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.349	1.16	
78-93-3	2-Butanone	U	5.81	ug/kg	1.74	5.81	
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16	
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16	UJ,V7c
67-66-3	Chloroform	U	1.16	ug/kg	0.349	1.16	
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.383	1.16	
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.349	1.16	UJ,V7c
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.349	1.16	
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.349	1.16	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.349	1.16	
71-43-2	Benzene	U	1.16	ug/kg	0.349	1.16	
79-01-6	Trichloroethylene		1.54	ug/kg	0.383	1.16	
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16	
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.349	1.16	UJ,V7c
74-95-3	Dibromomethane	U	1.16	ug/kg	0.349	1.16	
108-10-1	4-Methyl-2-pentanone	U	5.81	ug/kg	1.45	5.81	
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16	
108-88-3	Toluene	U	1.16	ug/kg	0.349	1.16	
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16	
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.349	1.16	
591-78-6	2-Hexanone	U	5.81	ug/kg	1.74	5.81	
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.349	1.16	
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.349	1.16	
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.349	1.16	
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.349	1.16	
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.349	1.16	

MLD
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842002	**Date Received:**	03/05/2010 10:20	**%Moisture:**	13.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13553	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/16/2010 15:16	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 13:58	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c210.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.349	1.16
179601-23-1	m,p-Xylenes	U	2.32	ug/kg	0.349	2.32
95-47-6	o-Xylene	U	1.16	ug/kg	0.349	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.349	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.349	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.349	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.349	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.349	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.349	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.349	1.16
95-63-6	1,2,4-Trimethylbenzene		1.23	ug/kg	0.349	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.349	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.349	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
104-51-8	n-Butylbenzene		1.20	ug/kg	0.349	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.349	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.81	ug/kg	1.86	5.81
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.88	28.2	ug/kg		J
	Unknown Siloxane	18.05	7.8	ug/kg		J
	Unknown Hydrocarbon	18.51	17.2	ug/kg		J
	Unknown Hydrocarbon	18.82	23.1	ug/kg		J
	Unknown Hydrocarbon	19.31	58.3	ug/kg		J
	Unknown Hydrocarbon	19.42	20.8	ug/kg		J
	Unknown Hydrocarbon	19.73	107	ug/kg		J
	Unknown Hydrocarbon	20.95	620	ug/kg		J
	Unknown Hydrocarbon	22.27	208	ug/kg		J

MLC
04/22/

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842001	**Date Received:**	03/05/2010 10:20		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13555	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/16/2010 14:14	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 13:56	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c208.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00	
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00	UJ,V7c
67-64-1	Acetone	J	1.97	ug/kg	1.66	5.00	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00	
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00	
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	UJ,V7c
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00	UJ,V7c
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00	UJ,V7c
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00	
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00	

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842001	**Date Received:**	03/05/2010 10:20		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13555	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/16/2010 14:14	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 13:56	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c208.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

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Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842010	**Date Received:**	03/05/2010 10:20	**%Moisture:**	13.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13556	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/17/2010 16:01	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 14:21	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c311.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.392	1.15	
74-87-3	Chloromethane	U	1.15	ug/kg	0.346	1.15	UJ,V7c
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.346	1.15	
74-83-9	Bromomethane	U	1.15	ug/kg	0.346	1.15	
75-00-3	Chloroethane	U	1.15	ug/kg	0.346	1.15	
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.346	1.15	
67-64-1	Acetone		89.8	ug/kg	1.91	5.76	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.346	1.15	
74-88-4	Iodomethane	U	5.76	ug/kg	1.84	5.76	
75-09-2	Methylene chloride	U	5.76	ug/kg	2.30	5.76	
75-15-0	Carbon disulfide	U	5.76	ug/kg	1.44	5.76	
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.346	1.15	
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.346	1.15	
78-93-3	2-Butanone	U	5.76	ug/kg	1.73	5.76	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.346	1.15	
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.346	1.15	
67-66-3	Chloroform	U	1.15	ug/kg	0.346	1.15	
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.380	1.15	
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.346	1.15	
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.346	1.15	
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.346	1.15	
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.346	1.15	
71-43-2	Benzene	U	1.15	ug/kg	0.346	1.15	
79-01-6	Trichloroethylene		1.71	ug/kg	0.380	1.15	
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.346	1.15	
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.346	1.15	
74-95-3	Dibromomethane	U	1.15	ug/kg	0.346	1.15	
108-10-1	4-Methyl-2-pentanone	U	5.76	ug/kg	1.44	5.76	UJ,V7c
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.346	1.15	
108-88-3	Toluene	U	1.15	ug/kg	0.346	1.15	
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.346	1.15	
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.346	1.15	
591-78-6	2-Hexanone	U	5.76	ug/kg	1.73	5.76	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.346	1.15	
127-18-4	Tetrachloroethylene	J	0.561	ug/kg	0.346	1.15	
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.346	1.15	
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.346	1.15	
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.346	1.15	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842010	**Date Received:**	03/05/2010 10:20	**%Moisture:**	13.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13556	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/17/2010 16:01	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 14:21	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c311.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.346	1.15
179601-23-1	m,p-Xylenes	U	2.30	ug/kg	0.346	2.30
95-47-6	o-Xylene	J	0.361	ug/kg	0.346	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.346	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.346	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.346	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.346	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.346	1.15
103-65-1	n-Propylbenzene		1.37	ug/kg	0.346	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.346	1.15
98-82-8	Isopropylbenzene	J	0.354	ug/kg	0.346	1.15
108-67-8	1,3,5-Trimethylbenzene		6.02	ug/kg	0.346	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.346	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.346	1.15
95-63-6	1,2,4-Trimethylbenzene		4.89	ug/kg	0.346	1.15
135-98-8	sec-Butylbenzene		3.77	ug/kg	0.346	1.15
99-87-6	4-Isopropyltoluene		6.41	ug/kg	0.346	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15
104-51-8	n-Butylbenzene		11.4	ug/kg	0.346	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.346	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.76	ug/kg	1.84	5.76
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.346	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.88	57.2	ug/kg		J
	Unknown	16.52	83	ug/kg		J
	Unknown Hydrocarbon	17.66	7.95	ug/kg		J
	Unknown Hydrocarbon	18.03	53.8	ug/kg		J
	Unknown Hydrocarbon	19.74	117	ug/kg		J
	Unknown Hydrocarbon	19.96	296	ug/kg		J
	Unknown Hydrocarbon	20.95	213	ug/kg		J
	Unknown Hydrocarbon	21.35	240	ug/kg		J
	Unknown Hydrocarbon	22.42	114	ug/kg		J

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DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

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Section I.

REQUEST NUMBER: 10-2302 VALIDATION DATE: 04/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Monica Dymerski ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): GC/MS SVOC

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Sample RE46-10-13548 was re-extracted beyond the method prescribed HT but within 2X the HT due to low surrogate %Rs and both sets of data were reported. The original extraction/analysis was selected for validation based on professional judgment. The 2-methylnaphthalene and bis(2-ethylhexyl)phthalate results for sample -15348RE were detects and, thus, were qualified J,SV88. The remaining associated sample results were NDs and, thus, were qualified UJ,SV88.
2. The %Ds were >20% for pyridine; bis(2-chloroisopropyl)ether; benzyl alcohol; and 2-methyl-4,6-dinitrophenol for ICV and/or CCVs associated with all samples. The %Ds were also >20% for 2,4-dimethylphenol; benzoic acid; 3-nitroaniline; 2,4-dinitrophenol; and 4-nitroaniline for the CCV associated with samples -13553, -13549, -13550, and -13548. The %Ds were also >20% for aniline and bis(2-chloroethyl)ether for the CCV associated with samples -13551, -13546, -13552, -13547, and -13556. All associated sample results were NDs and, thus, were qualified UJ,SV7c.
3. The CCVs were not analyzed at the appropriate method frequency for all analytes except 3,3'-dichlorobenzidine. All associated sample results that were detects were qualified J,SV7d. All associated sample results that were NDs were qualified UJ,SV7d.
4. The phenol-d5 and nitrobenzene-d5 surrogate %Rs were < the laboratory LALs but ≥10% in sample -13550. Since only one surrogate %R failed to meet laboratory acceptance criteria from each fraction, no sample data were qualified. The nitrobenzene-d5 surrogate %R was < the laboratory LAL but ≥10% for sample -13548, and the 2,4,6-tribromophenol surrogate %R was < the laboratory LAL but ≥10% for sample -13552. Since there was only one surrogate outlier for each sample, and sample -13552 was analyzed at a dilution, no sample data were qualified as a result.

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5. The LCS %R was < the laboratory LAL but ≥10% for benzyl alcohol. The associated sample results were NDs and, thus, were qualified UJ,SV12a.
6. The MS and/or MSD %Rs did not meet laboratory acceptance criteria for 29 target analytes. The MS/MSD RPDs were > laboratory acceptance limits for most analytes. Since MS/MSD analyses are not a client requirement for this method, no sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 4/23/10

VALIDATOR'S SIGNATURE: Monica L Dumesh DATE: 04/22/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☒	☐	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☒	☐	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☒	☐	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248842007	Date Received:	03/05/2010 10:20	%Moisture:	17.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13546	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965425	Inst:	MSD6.I	Dilution:	10
Run Date:	03/23/2010 21:32	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	03/16/2010 12:02	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s6c2319.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	4030	ug/kg	806	4030	UJ,SV7d
108-95-2	Phenol	U	4030	ug/kg	806	4030	
95-57-8	2-Chlorophenol	U	4030	ug/kg	806	4030	
106-46-7	1,4-Dichlorobenzene	U	4030	ug/kg	806	4030	
621-64-7	N-Nitrosodipropylamine	U	4030	ug/kg	806	4030	
59-50-7	4-Chloro-3-methylphenol	U	4030	ug/kg	806	4030	
83-32-9	Acenaphthene	U	403	ug/kg	133	403	
121-14-2	2,4-Dinitrotoluene	U	4030	ug/kg	403	4030	
100-02-7	4-Nitrophenol	U	4030	ug/kg	1330	4030	
87-86-5	Pentachlorophenol	U	4030	ug/kg	1010	4030	
129-00-0	Pyrene	J	178	ug/kg	121	403	J,SV7d
110-86-1	Pyridine	U	4030	ug/kg	806	4030	UJ,SV7c
62-53-3	Aniline	U	4030	ug/kg	1210	4030	
111-44-4	bis(2-Chloroethyl) ether	U	4030	ug/kg	806	4030	
541-73-1	1,3-Dichlorobenzene	U	4030	ug/kg	806	4030	UJ,SV7d
100-51-6	Benzyl alcohol	U	4030	ug/kg	1210	4030	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	4030	ug/kg	806	4030	UJ,SV7d
108-60-1	bis(2-Chloroisopropyl)ether	U	4030	ug/kg	806	4030	UJ,SV7c
95-48-7	o-Cresol	U	4030	ug/kg	806	4030	UJ,SV7d
65794-96-9	m,p-Cresols	U	4030	ug/kg	1210	4030	
67-72-1	Hexachloroethane	U	4030	ug/kg	806	4030	
98-95-3	Nitrobenzene	U	4030	ug/kg	806	4030	
78-59-1	Isophorone	U	4030	ug/kg	806	4030	
88-75-5	2-Nitrophenol	U	4030	ug/kg	806	4030	
105-67-9	2,4-Dimethylphenol	U	4030	ug/kg	1410	4030	
111-91-1	bis(2-Chloroethoxy)methane	U	4030	ug/kg	806	4030	
120-83-2	2,4-Dichlorophenol	U	4030	ug/kg	806	4030	
65-85-0	Benzoic acid	U	8060	ug/kg	2020	8060	
91-20-3	Naphthalene	U	403	ug/kg	121	403	
106-47-8	4-Chloroaniline	U	4030	ug/kg	806	4030	
87-68-3	Hexachlorobutadiene	U	4030	ug/kg	806	4030	
91-57-6	2-Methylnaphthalene		753	ug/kg	80.6	403	J,SV7d
77-47-4	Hexachlorocyclopentadiene	U	4030	ug/kg	806	4030	UJ,SV7d
88-06-2	2,4,6-Trichlorophenol	U	4030	ug/kg	806	4030	
95-95-4	2,4,5-Trichlorophenol	U	4030	ug/kg	806	4030	
91-58-7	2-Chloronaphthalene	U	403	ug/kg	133	403	
88-74-4	2-Nitroaniline	U	4030	ug/kg	806	4030	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	4030	ug/kg	806	4030	

MLD
04/22/

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248842007	Date Received:	03/05/2010 10:20	%Moisture:	17.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13546	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965425	Inst:	MSD6.I	Dilution:	10
Run Date:	03/23/2010 21:32	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	03/16/2010 12:02	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s6c2319.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	4030	ug/kg	806	4030	UJ,SV7d
606-20-2	2,6-Dinitrotoluene	U	4030	ug/kg	403	4030	
208-96-8	Acenaphthylene	U	403	ug/kg	121	403	
51-28-5	2,4-Dinitrophenol	U	8060	ug/kg	1530	8060	
132-64-9	Dibenzofuran	U	4030	ug/kg	806	4030	
84-66-2	Diethylphthalate	U	4030	ug/kg	806	4030	
86-73-7	Fluorene	J	147	ug/kg	121	403	J,SV7d
7005-72-3	4-Chlorophenylphenylether	U	4030	ug/kg	806	4030	UJ,SV7d
534-52-1	2-Methyl-4,6-dinitrophenol	U	4030	ug/kg	806	4030	UJ,SV7c
100-01-6	4-Nitroaniline	U	4030	ug/kg	1210	4030	UJ,SV7d
	p-Nitroaniline						
122-39-4	Diphenylamine	U	4030	ug/kg	806	4030	
122-66-7	Azobenzene	U	4030	ug/kg	806	4030	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	4030	ug/kg	806	4030	
118-74-1	Hexachlorobenzene	U	4030	ug/kg	806	4030	
85-01-8	Phenanthrene	J	225	ug/kg	121	403	J,SV7d
120-12-7	Anthracene	U	403	ug/kg	80.6	403	UJ,SV7d
84-74-2	Di-n-butylphthalate	U	4030	ug/kg	806	4030	UJ,SV7d
206-44-0	Fluoranthene	J	242	ug/kg	121	403	J,SV7d
85-68-7	Butylbenzylphthalate	U	4030	ug/kg	806	4030	UJ,SV7d
56-55-3	Benzo(a)anthracene	U	403	ug/kg	121	403	UJ,SV7d
91-94-1	3,3'-Dichlorobenzidine	U	4030	ug/kg	1210	4030	
218-01-9	Chrysene	U	403	ug/kg	121	403	UJ,SV7d
117-81-7	bis(2-Ethylhexyl)phthalate		34200	ug/kg	806	4030	J,SV7d
117-84-0	Di-n-octylphthalate	U	4030	ug/kg	806	4030	UJ,SV7d
205-99-2	Benzo(b)fluoranthene	U	403	ug/kg	121	403	
207-08-9	Benzo(k)fluoranthene	U	403	ug/kg	121	403	
50-32-8	Benzo(a)pyrene	U	403	ug/kg	121	403	
193-39-5	Indeno(1,2,3-cd)pyrene	U	403	ug/kg	121	403	
53-70-3	Dibenzo(a,h)anthracene	U	403	ug/kg	121	403	
191-24-2	Benzo(ghi)perylene	U	403	ug/kg	121	403	
120-82-1	1,2,4-Trichlorobenzene	U	4030	ug/kg	806	4030	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.36	15200	ug/kg		J
	Unknown	4.98	6520	ug/kg		J

MLI
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842007	**Date Received:**	03/05/2010 10:20	**%Moisture:**	17.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13546	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	10
Run Date:	03/23/2010 21:32	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s6c2319.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	5.06	8060	ug/kg		J
41446-67-7	3-Tetradecene, (Z)-	5.17	7570	ug/kg	86	NJ
	Unknown	5.22	3850	ug/kg		J
	Unknown	5.24	3810	ug/kg		J
4453-90-1	1,4-Methanonaphthalene, 1,4-dihydro-	5.38	4480	ug/kg	83	NJ
	Unknown	5.43	5280	ug/kg		J
3891-98-3	Dodecane, 2,6,10-trimethyl-	5.48	14600	ug/kg	91	NJ
92-52-4	Biphenyl	5.64	53500	ug/kg	96	NJ
	Unknown	9.08	5890	ug/kg		J
	Unknown	9.22	5570	ug/kg		J
	Unknown	9.3	7230	ug/kg		J
	Unknown	9.43	5240	ug/kg		J
	Unknown	9.83	9830	ug/kg		J
	Unknown	9.9	7030	ug/kg		J
	Unknown	10.06	6570	ug/kg		J
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	10.13	9270	ug/kg	98	NJ
112-04-9	Silane, trichlorooctadecyl-	10.16	5440	ug/kg	90	NJ
55255-85-1	Cyclopentane, 1,1'-[3-(2-cyclopentylethy	10.26	8320	ug/kg	92	NJ
	Unknown	10.49	6930	ug/kg		J
	Unknown	10.54	6290	ug/kg		J
	Unknown	10.7	43500	ug/kg		J
1000130-78-5	11,12-Dibromo-tetradecan-1-ol acetate	10.86	5950	ug/kg	90	NJ
	Unknown	10.95	7190	ug/kg		J
81469-02-5	13,17,21-Trimethyltritriacontane	11.12	7140	ug/kg	90	NJ
	Unknown	11.46	6370	ug/kg		J
1000130-81-0	11,13-Dimethyl-12-tetradecen-1-ol acetat	11.76	5390	ug/kg	86	NJ
3390-61-2	Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p	13.29	40900	ug/kg	92	NJ

MLI
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13547	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	10
Run Date:	03/23/2010 22:19	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	s6c2321.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	3810	ug/kg	762	3810	UJ,SV7d
108-95-2	Phenol	U	3810	ug/kg	762	3810	
95-57-8	2-Chlorophenol	U	3810	ug/kg	762	3810	
106-46-7	1,4-Dichlorobenzene	U	3810	ug/kg	762	3810	
621-64-7	N-Nitrosodipropylamine	U	3810	ug/kg	762	3810	
59-50-7	4-Chloro-3-methylphenol	U	3810	ug/kg	762	3810	
83-32-9	Acenaphthene	U	381	ug/kg	126	381	
121-14-2	2,4-Dinitrotoluene	U	3810	ug/kg	381	3810	
100-02-7	4-Nitrophenol	U	3810	ug/kg	1260	3810	
87-86-5	Pentachlorophenol	U	3810	ug/kg	953	3810	
129-00-0	Pyrene	U	381	ug/kg	114	381	
110-86-1	Pyridine	U	3810	ug/kg	762	3810	UJ,SV7c
62-53-3	Aniline	U	3810	ug/kg	1140	3810	
111-44-4	bis(2-Chloroethyl) ether	U	3810	ug/kg	762	3810	
541-73-1	1,3-Dichlorobenzene	U	3810	ug/kg	762	3810	UJ,SV7d
100-51-6	Benzyl alcohol	U	3810	ug/kg	1140	3810	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	3810	ug/kg	762	3810	UJ,SV7d
108-60-1	bis(2-Chloroisopropyl)ether	U	3810	ug/kg	762	3810	UJ,SV7c
95-48-7	o-Cresol	U	3810	ug/kg	762	3810	UJ,SV7d
65794-96-9	m,p-Cresols	U	3810	ug/kg	1140	3810	
67-72-1	Hexachloroethane	U	3810	ug/kg	762	3810	
98-95-3	Nitrobenzene	U	3810	ug/kg	762	3810	
78-59-1	Isophorone	U	3810	ug/kg	762	3810	
88-75-5	2-Nitrophenol	U	3810	ug/kg	762	3810	
105-67-9	2,4-Dimethylphenol	U	3810	ug/kg	1330	3810	
111-91-1	bis(2-Chloroethoxy)methane	U	3810	ug/kg	762	3810	
120-83-2	2,4-Dichlorophenol	U	3810	ug/kg	762	3810	
65-85-0	Benzoic acid	U	7620	ug/kg	1910	7620	
91-20-3	Naphthalene		681	ug/kg	114	381	J,SV7d
106-47-8	4-Chloroaniline	U	3810	ug/kg	762	3810	UJ,SV7d
87-68-3	Hexachlorobutadiene	U	3810	ug/kg	762	3810	UJ,SV7d
91-57-6	2-Methylnaphthalene		1700	ug/kg	76.2	381	J,SV7d
77-47-4	Hexachlorocyclopentadiene	U	3810	ug/kg	762	3810	UJ,SV7d
88-06-2	2,4,6-Trichlorophenol	U	3810	ug/kg	762	3810	
95-95-4	2,4,5-Trichlorophenol	U	3810	ug/kg	762	3810	
91-58-7	2-Chloronaphthalene	U	381	ug/kg	126	381	
88-74-4	2-Nitroaniline	U	3810	ug/kg	762	3810	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	3810	ug/kg	762	3810	

MLC
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13547	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	10
Run Date:	03/23/2010 22:19	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	s6c2321.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	3810	ug/kg	762	3810	UJ,SV7d
606-20-2	2,6-Dinitrotoluene	U	3810	ug/kg	381	3810	
208-96-8	Acenaphthylene	U	381	ug/kg	114	381	
51-28-5	2,4-Dinitrophenol	U	7620	ug/kg	1450	7620	
132-64-9	Dibenzofuran	U	3810	ug/kg	762	3810	
84-66-2	Diethylphthalate	U	3810	ug/kg	762	3810	
86-73-7	Fluorene	U	381	ug/kg	114	381	
7005-72-3	4-Chlorophenylphenylether	U	3810	ug/kg	762	3810	
534-52-1	2-Methyl-4,6-dinitrophenol	U	3810	ug/kg	762	3810	UJ,SV7c
100-01-6	4-Nitroaniline	U	3810	ug/kg	1140	3810	UJ,SV7d
	p-Nitroaniline						
122-39-4	Diphenylamine	U	3810	ug/kg	762	3810	
122-66-7	Azobenzene	U	3810	ug/kg	762	3810	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	3810	ug/kg	762	3810	
118-74-1	Hexachlorobenzene	U	3810	ug/kg	762	3810	
85-01-8	Phenanthrene	U	381	ug/kg	114	381	
120-12-7	Anthracene	U	381	ug/kg	76.2	381	
84-74-2	Di-n-butylphthalate	U	3810	ug/kg	762	3810	
206-44-0	Fluoranthene	U	381	ug/kg	114	381	
85-68-7	Butylbenzylphthalate	U	3810	ug/kg	762	3810	
56-55-3	Benzo(a)anthracene	U	381	ug/kg	114	381	
91-94-1	3,3'-Dichlorobenzidine	U	3810	ug/kg	1140	3810	
218-01-9	Chrysene	U	381	ug/kg	114	381	UJ,SV7d
117-81-7	bis(2-Ethylhexyl)phthalate		18300	ug/kg	762	3810	J,SV7d
117-84-0	Di-n-octylphthalate	U	3810	ug/kg	762	3810	UJ,SV7d
205-99-2	Benzo(b)fluoranthene	U	381	ug/kg	114	381	
207-08-9	Benzo(k)fluoranthene	U	381	ug/kg	114	381	
50-32-8	Benzo(a)pyrene	U	381	ug/kg	114	381	
193-39-5	Indeno(1,2,3-cd)pyrene	U	381	ug/kg	114	381	
53-70-3	Dibenzo(a,h)anthracene	U	381	ug/kg	114	381	
191-24-2	Benzo(ghi)perylene	U	381	ug/kg	114	381	
120-82-1	1,2,4-Trichlorobenzene	U	3810	ug/kg	762	3810	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-40-3	Dodecane	4.75	10200	ug/kg	96	NJ
	Unknown	4.98	4500	ug/kg		J

ML
04/22

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248842009	Date Received:	03/05/2010 10:20	%Moisture:	12.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13547	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965425	Inst:	MSD6.I	Dilution:	10
Run Date:	03/23/2010 22:19	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	03/16/2010 12:02	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s6c2321.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	5.05	5500	ug/kg		J
629-50-5	Tridecane	5.17	13700	ug/kg	97	NJ
90-12-0	Naphthalene, 1-methyl-	5.38	4010	ug/kg	94	NJ
1560-96-9	Tridecane, 2-methyl-	5.43	4180	ug/kg	83	NJ
31295-56-4	Dodecane, 2,6,11-trimethyl-	5.48	6210	ug/kg	93	NJ
629-59-4	Tetradecane	5.59	11500	ug/kg	98	NJ
92-52-4	Biphenyl	5.65	69800	ug/kg	96	NJ
	Unknown	7.87	5310	ug/kg		J
	Unknown	9.12	3760	ug/kg		J
	Unknown	9.22	5380	ug/kg		J
	Unknown	9.3	5610	ug/kg		J
	Unknown	9.4	3800	ug/kg		J
	Unknown	9.43	3860	ug/kg		J
	Unknown	9.73	4910	ug/kg		J
	Unknown	9.83	7470	ug/kg		J
1000130-81-0	11,13-Dimethyl-12-tetradecen-1-ol acetat	9.9	3870	ug/kg	89	NJ
	Unknown	10.06	3830	ug/kg		J
	Unknown	10.16	5160	ug/kg		J
	Unknown	10.26	6020	ug/kg		J
	Unknown	10.49	6640	ug/kg		J
	Unknown	10.55	5000	ug/kg		J
	Unknown	10.69	16900	ug/kg		J
	Unknown	10.85	5340	ug/kg		J
	Unknown	10.95	5480	ug/kg		J
	Unknown	11.11	6530	ug/kg		J
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	11.46	5760	ug/kg	83	NJ
	Unknown	13.25	14600	ug/kg		J

MLD
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248842006	Date Received:	03/05/2010 10:20	%Moisture:	17.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13548	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965425	Inst:	MSD6.I	Dilution:	1
Run Date:	03/21/2010 00:39	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	03/16/2010 12:02	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s6c2027.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	401	ug/kg	80.3	401	UJ,SV7d
108-95-2	Phenol	U	401	ug/kg	80.3	401	
95-57-8	2-Chlorophenol	U	401	ug/kg	80.3	401	
106-46-7	1,4-Dichlorobenzene	U	401	ug/kg	80.3	401	
621-64-7	N-Nitrosodipropylamine	U	401	ug/kg	80.3	401	
59-50-7	4-Chloro-3-methylphenol	U	401	ug/kg	80.3	401	
83-32-9	Acenaphthene	U	40.1	ug/kg	13.2	40.1	
121-14-2	2,4-Dinitrotoluene	U	401	ug/kg	40.1	401	
100-02-7	4-Nitrophenol	U	401	ug/kg	132	401	
87-86-5	Pentachlorophenol	U	401	ug/kg	100	401	
129-00-0	Pyrene	U	40.1	ug/kg	12.0	40.1	
110-86-1	Pyridine	U	401	ug/kg	80.3	401	UJ,SV7c
62-53-3	Aniline	U	401	ug/kg	120	401	UJ,SV7d
111-44-4	bis(2-Chloroethyl) ether	U	401	ug/kg	80.3	401	
541-73-1	1,3-Dichlorobenzene	U	401	ug/kg	80.3	401	
100-51-6	Benzyl alcohol	U	401	ug/kg	120	401	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	401	ug/kg	80.3	401	UJ,SV7d
108-60-1	bis(2-Chloroisopropyl)ether	U	401	ug/kg	80.3	401	UJ,SV7c
95-48-7	o-Cresol	U	401	ug/kg	80.3	401	UJ,SV7d
65794-96-9	m,p-Cresols	U	401	ug/kg	120	401	
67-72-1	Hexachloroethane	U	401	ug/kg	80.3	401	
98-95-3	Nitrobenzene	U	401	ug/kg	80.3	401	
78-59-1	Isophorone	U	401	ug/kg	80.3	401	
88-75-5	2-Nitrophenol	U	401	ug/kg	80.3	401	
105-67-9	2,4-Dimethylphenol	U	401	ug/kg	140	401	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	401	ug/kg	80.3	401	UJ,SV7d
120-83-2	2,4-Dichlorophenol	U	401	ug/kg	80.3	401	UJ,SV7d
65-85-0	Benzoic acid	U	803	ug/kg	201	803	UJ,SV7c
91-20-3	Naphthalene	U	40.1	ug/kg	12.0	40.1	UJ,SV7d
106-47-8	4-Chloroaniline	U	401	ug/kg	80.3	401	
87-68-3	Hexachlorobutadiene	U	401	ug/kg	80.3	401	
91-57-6	2-Methylnaphthalene	U	40.1	ug/kg	8.03	40.1	
77-47-4	Hexachlorocyclopentadiene	U	401	ug/kg	80.3	401	
88-06-2	2,4,6-Trichlorophenol	U	401	ug/kg	80.3	401	
95-95-4	2,4,5-Trichlorophenol	U	401	ug/kg	80.3	401	
91-58-7	2-Chloronaphthalene	U	40.1	ug/kg	13.2	40.1	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	401	ug/kg	80.3	401	
99-09-2	3-Nitroaniline	U	401	ug/kg	80.3	401	UJ,SV7c

MLD
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842006	**Date Received:**	03/05/2010 10:20	**%Moisture:**	17.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13548	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/21/2010 00:39	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s6c2027.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	401	ug/kg	80.3	401	UJ,SV7d
606-20-2	2,6-Dinitrotoluene	U	401	ug/kg	40.1	401	
208-96-8	Acenaphthylene	U	40.1	ug/kg	12.0	40.1	
51-28-5	2,4-Dinitrophenol	U	803	ug/kg	152	803	UJ,SV7c
132-64-9	Dibenzofuran	U	401	ug/kg	80.3	401	UJ,SV7d
84-66-2	Diethylphthalate	U	401	ug/kg	80.3	401	
86-73-7	Fluorene	U	40.1	ug/kg	12.0	40.1	
7005-72-3	4-Chlorophenylphenylether	U	401	ug/kg	80.3	401	
534-52-1	2-Methyl-4,6-dinitrophenol	U	401	ug/kg	80.3	401	UJ,SV7c
100-01-6	4-Nitroaniline	U	401	ug/kg	120	401	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	401	ug/kg	80.3	401	UJ,SV7d
122-66-7	Azobenzene	U	401	ug/kg	80.3	401	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	401	ug/kg	80.3	401	
118-74-1	Hexachlorobenzene	U	401	ug/kg	80.3	401	
85-01-8	Phenanthrene	U	40.1	ug/kg	12.0	40.1	
120-12-7	Anthracene	U	40.1	ug/kg	8.03	40.1	
84-74-2	Di-n-butylphthalate	U	401	ug/kg	80.3	401	
206-44-0	Fluoranthene	U	40.1	ug/kg	12.0	40.1	
85-68-7	Butylbenzylphthalate	U	401	ug/kg	80.3	401	
56-55-3	Benzo(a)anthracene	U	40.1	ug/kg	12.0	40.1	
91-94-1	3,3'-Dichlorobenzidine	U	401	ug/kg	120	401	
218-01-9	Chrysene	U	40.1	ug/kg	12.0	40.1	UJ,SV7d
117-81-7	bis(2-Ethylhexyl)phthalate		530	ug/kg	80.3	401	J,SV7d
117-84-0	Di-n-octylphthalate	U	401	ug/kg	80.3	401	UJ,SV7d
205-99-2	Benzo(b)fluoranthene	U	40.1	ug/kg	12.0	40.1	
207-08-9	Benzo(k)fluoranthene	U	40.1	ug/kg	12.0	40.1	
50-32-8	Benzo(a)pyrene	U	40.1	ug/kg	12.0	40.1	
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.1	ug/kg	12.0	40.1	
53-70-3	Dibenzo(a,h)anthracene	U	40.1	ug/kg	12.0	40.1	
191-24-2	Benzo(ghi)perylene	U	40.1	ug/kg	12.0	40.1	
120-82-1	1,2,4-Trichlorobenzene	U	401	ug/kg	80.3	401	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	599	ug/kg		JA
57-10-3	n-Hexadecanoic acid	7.54	176	ug/kg	95	NJ

MLD
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842006	**Date Received:**	03/05/2010 10:20	**%Moisture:**	17.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13548	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/21/2010 00:39	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s6c2027.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	9.33	637	ug/kg		J
	Unknown	9.76	378	ug/kg		J
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	9.96	302	ug/kg	91	NJ
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	10.04	341	ug/kg	99	NJ
	Unknown	10.17	230	ug/kg		J
	Unknown	10.4	399	ug/kg		J
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	10.84	273	ug/kg	86	NJ
	Unknown	13.07	1180	ug/kg		J

MLD
04/22/

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842006	**Date Received:**	03/05/2010 10:20	**%Moisture:**	17.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13548RE	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	968549	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/24/2010 20:31	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/24/2010 10:49	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s6c2420.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	Uh	402	ug/kg	80.5	402	UJ,SV88
108-95-2	Phenol	Uh	402	ug/kg	80.5	402	
95-57-8	2-Chlorophenol	Uh	402	ug/kg	80.5	402	
106-46-7	1,4-Dichlorobenzene	Uh	402	ug/kg	80.5	402	
621-64-7	N-Nitrosodipropylamine	Uh	402	ug/kg	80.5	402	
59-50-7	4-Chloro-3-methylphenol	Uh	402	ug/kg	80.5	402	
83-32-9	Acenaphthene	Uh	40.2	ug/kg	13.3	40.2	
121-14-2	2,4-Dinitrotoluene	Uh	402	ug/kg	40.2	402	
100-02-7	4-Nitrophenol	Uh	402	ug/kg	133	402	
87-86-5	Pentachlorophenol	Uh	402	ug/kg	101	402	
129-00-0	Pyrene	Uh	40.2	ug/kg	12.1	40.2	
110-86-1	Pyridine	Uh	402	ug/kg	80.5	402	
62-53-3	Aniline	Uh	402	ug/kg	121	402	
111-44-4	bis(2-Chloroethyl) ether	Uh	402	ug/kg	80.5	402	
541-73-1	1,3-Dichlorobenzene	Uh	402	ug/kg	80.5	402	
100-51-6	Benzyl alcohol	Uh	402	ug/kg	121	402	
95-50-1	1,2-Dichlorobenzene	Uh	402	ug/kg	80.5	402	
108-60-1	bis(2-Chloroisopropyl)ether	Uh	402	ug/kg	80.5	402	
95-48-7	o-Cresol	Uh	402	ug/kg	80.5	402	
65794-96-9	m,p-Cresols	Uh	402	ug/kg	121	402	
67-72-1	Hexachloroethane	Uh	402	ug/kg	80.5	402	
98-95-3	Nitrobenzene	Uh	402	ug/kg	80.5	402	
78-59-1	Isophorone	Uh	402	ug/kg	80.5	402	
88-75-5	2-Nitrophenol	Uh	402	ug/kg	80.5	402	
105-67-9	2,4-Dimethylphenol	Uh	402	ug/kg	141	402	
111-91-1	bis(2-Chloroethoxy)methane	Uh	402	ug/kg	80.5	402	
120-83-2	2,4-Dichlorophenol	Uh	402	ug/kg	80.5	402	
65-85-0	Benzoic acid	Uh	805	ug/kg	201	805	
91-20-3	Naphthalene	Uh	40.2	ug/kg	12.1	40.2	
106-47-8	4-Chloroaniline	Uh	402	ug/kg	80.5	402	
87-68-3	Hexachlorobutadiene	Uh	402	ug/kg	80.5	402	
91-57-6	2-Methylnaphthalene	h	85.7	ug/kg	8.05	40.2	J,SV88
77-47-4	Hexachlorocyclopentadiene	Uh	402	ug/kg	80.5	402	UJ,SV88
88-06-2	2,4,6-Trichlorophenol	Uh	402	ug/kg	80.5	402	
95-95-4	2,4,5-Trichlorophenol	Uh	402	ug/kg	80.5	402	
91-58-7	2-Chloronaphthalene	Uh	40.2	ug/kg	13.3	40.2	
88-74-4	2-Nitroaniline	Uh	402	ug/kg	80.5	402	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	Uh	402	ug/kg	80.5	402	

MLD
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842006	**Date Received:**	03/05/2010 10:20	**%Moisture:**	17.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13548RE	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	968549	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/24/2010 20:31	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/24/2010 10:49	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s6c2420.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	Uh	402	ug/kg	80.5	402	UJ,SV88
606-20-2	2,6-Dinitrotoluene	Uh	402	ug/kg	40.2	402	
208-96-8	Acenaphthylene	Uh	40.2	ug/kg	12.1	40.2	
51-28-5	2,4-Dinitrophenol	Uh	805	ug/kg	153	805	
132-64-9	Dibenzofuran	Uh	402	ug/kg	80.5	402	
84-66-2	Diethylphthalate	Uh	402	ug/kg	80.5	402	
86-73-7	Fluorene	Uh	40.2	ug/kg	12.1	40.2	
7005-72-3	4-Chlorophenylphenylether	Uh	402	ug/kg	80.5	402	
534-52-1	2-Methyl-4,6-dinitrophenol	Uh	402	ug/kg	80.5	402	
100-01-6	4-Nitroaniline	Uh	402	ug/kg	121	402	
	p-Nitroaniline						
122-39-4	Diphenylamine	Uh	402	ug/kg	80.5	402	
122-66-7	Azobenzene	Uh	402	ug/kg	80.5	402	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	Uh	402	ug/kg	80.5	402	
118-74-1	Hexachlorobenzene	Uh	402	ug/kg	80.5	402	
85-01-8	Phenanthrene	Uh	40.2	ug/kg	12.1	40.2	
120-12-7	Anthracene	Uh	40.2	ug/kg	8.05	40.2	
84-74-2	Di-n-butylphthalate	Uh	402	ug/kg	80.5	402	
206-44-0	Fluoranthene	Uh	40.2	ug/kg	12.1	40.2	
85-68-7	Butylbenzylphthalate	Uh	402	ug/kg	80.5	402	
56-55-3	Benzo(a)anthracene	Uh	40.2	ug/kg	12.1	40.2	
91-94-1	3,3'-Dichlorobenzidine	Uh	402	ug/kg	121	402	
218-01-9	Chrysene	Uh	40.2	ug/kg	12.1	40.2	
117-81-7	bis(2-Ethylhexyl)phthalate	h	4300	ug/kg	80.5	402	J,SV88
117-84-0	Di-n-octylphthalate	Uh	402	ug/kg	80.5	402	UJ,SV88
205-99-2	Benzo(b)fluoranthene	Uh	40.2	ug/kg	12.1	40.2	
207-08-9	Benzo(k)fluoranthene	Uh	40.2	ug/kg	12.1	40.2	
50-32-8	Benzo(a)pyrene	Uh	40.2	ug/kg	12.1	40.2	
193-39-5	Indeno(1,2,3-cd)pyrene	Uh	40.2	ug/kg	12.1	40.2	
53-70-3	Dibenzo(a,h)anthracene	Uh	40.2	ug/kg	12.1	40.2	
191-24-2	Benzo(ghi)perylene	Uh	40.2	ug/kg	12.1	40.2	
120-82-1	1,2,4-Trichlorobenzene	Uh	402	ug/kg	80.5	402	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
629-50-5	Tridecane	5.12	1090	ug/kg	96	NJ
629-59-4	Tetradecane	5.53	1450	ug/kg	98	NJ

MLI
04/22

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842006	**Date Received:**	03/05/2010 10:20	**%Moisture:**	17.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13548RE	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	968549	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/24/2010 20:31	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/24/2010 10:49	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s6c2420.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
92-52-4	Biphenyl	5.59	7430	ug/kg	96	NJ
57-10-3	n-Hexadecanoic acid	7.59	5050	ug/kg	99	NJ
57-11-4	Octadecanoic acid	8.29	3920	ug/kg	99	NJ
	Unknown	8.85	893	ug/kg		J
	Unknown	9.03	601	ug/kg		J
	Unknown	9.36	658	ug/kg		J
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	10.08	1310	ug/kg	87	NJ
	Unknown	10.21	870	ug/kg		J
	Unknown	10.45	851	ug/kg		J
	Unknown	10.9	841	ug/kg		J
	Unknown	11.36	705	ug/kg		J
3390-61-2	Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p	13.2	5020	ug/kg	93	NJ

MLC
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842003	**Date Received:**	03/05/2010 10:20	**%Moisture:**	16.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13549	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/20/2010 23:30	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6c2024.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	400	ug/kg	79.9	400	UJ,SV7d
108-95-2	Phenol	U	400	ug/kg	79.9	400	
95-57-8	2-Chlorophenol	U	400	ug/kg	79.9	400	
106-46-7	1,4-Dichlorobenzene	U	400	ug/kg	79.9	400	
621-64-7	N-Nitrosodipropylamine	U	400	ug/kg	79.9	400	
59-50-7	4-Chloro-3-methylphenol	U	400	ug/kg	79.9	400	
83-32-9	Acenaphthene	U	40.0	ug/kg	13.2	40.0	
121-14-2	2,4-Dinitrotoluene	U	400	ug/kg	40.0	400	
100-02-7	4-Nitrophenol	U	400	ug/kg	132	400	
87-86-5	Pentachlorophenol	U	400	ug/kg	99.9	400	
129-00-0	Pyrene	U	40.0	ug/kg	12.0	40.0	
110-86-1	Pyridine	U	400	ug/kg	79.9	400	UJ,SV7c
62-53-3	Aniline	U	400	ug/kg	120	400	UJ,SV7d
111-44-4	bis(2-Chloroethyl) ether	U	400	ug/kg	79.9	400	
541-73-1	1,3-Dichlorobenzene	U	400	ug/kg	79.9	400	
100-51-6	Benzyl alcohol	U	400	ug/kg	120	400	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	400	ug/kg	79.9	400	UJ,SV7d
108-60-1	bis(2-Chloroisopropyl)ether	U	400	ug/kg	79.9	400	UJ,SV7c
95-48-7	o-Cresol	U	400	ug/kg	79.9	400	UJ,SV7d
65794-96-9	m,p-Cresols	U	400	ug/kg	120	400	
67-72-1	Hexachloroethane	U	400	ug/kg	79.9	400	
98-95-3	Nitrobenzene	U	400	ug/kg	79.9	400	
78-59-1	Isophorone	U	400	ug/kg	79.9	400	
88-75-5	2-Nitrophenol	U	400	ug/kg	79.9	400	
105-67-9	2,4-Dimethylphenol	U	400	ug/kg	140	400	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	400	ug/kg	79.9	400	UJ,SV7d
120-83-2	2,4-Dichlorophenol	U	400	ug/kg	79.9	400	UJ,SV7d
65-85-0	Benzoic acid	U	799	ug/kg	200	799	UJ,SV7c
91-20-3	Naphthalene	U	40.0	ug/kg	12.0	40.0	UJ,SV7d
106-47-8	4-Chloroaniline	U	400	ug/kg	79.9	400	
87-68-3	Hexachlorobutadiene	U	400	ug/kg	79.9	400	
91-57-6	2-Methylnaphthalene	J	9.13	ug/kg	7.99	40.0	J,SV7d
77-47-4	Hexachlorocyclopentadiene	U	400	ug/kg	79.9	400	UJ,SV7d
88-06-2	2,4,6-Trichlorophenol	U	400	ug/kg	79.9	400	
95-95-4	2,4,5-Trichlorophenol	U	400	ug/kg	79.9	400	
91-58-7	2-Chloronaphthalene	U	40.0	ug/kg	13.2	40.0	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	400	ug/kg	79.9	400	
99-09-2	3-Nitroaniline	U	400	ug/kg	79.9	400	UJ,SV7c

MLE
04/22/

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842003	**Date Received:**	03/05/2010 10:20	**%Moisture:**	16.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13549	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/20/2010 23:30	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6c2024.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	400	ug/kg	79.9	400	UJ,SV7d
606-20-2	2,6-Dinitrotoluene	U	400	ug/kg	40.0	400	
208-96-8	Acenaphthylene	U	40.0	ug/kg	12.0	40.0	
51-28-5	2,4-Dinitrophenol	U	799	ug/kg	152	799	UJ,SV7c
132-64-9	Dibenzofuran	U	400	ug/kg	79.9	400	UJ,SV7d
84-66-2	Diethylphthalate	U	400	ug/kg	79.9	400	
86-73-7	Fluorene	U	40.0	ug/kg	12.0	40.0	
7005-72-3	4-Chlorophenylphenylether	U	400	ug/kg	79.9	400	
534-52-1	2-Methyl-4,6-dinitrophenol	U	400	ug/kg	79.9	400	UJ,SV7c
100-01-6	4-Nitroaniline	U	400	ug/kg	120	400	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	400	ug/kg	79.9	400	UJ,SV7d
122-66-7	Azobenzene	U	400	ug/kg	79.9	400	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	400	ug/kg	79.9	400	
118-74-1	Hexachlorobenzene	U	400	ug/kg	79.9	400	
85-01-8	Phenanthrene	U	40.0	ug/kg	12.0	40.0	
120-12-7	Anthracene	U	40.0	ug/kg	7.99	40.0	
84-74-2	Di-n-butylphthalate	U	400	ug/kg	79.9	400	
206-44-0	Fluoranthene	U	40.0	ug/kg	12.0	40.0	
85-68-7	Butylbenzylphthalate	U	400	ug/kg	79.9	400	
56-55-3	Benzo(a)anthracene	U	40.0	ug/kg	12.0	40.0	
91-94-1	3,3'-Dichlorobenzidine	U	400	ug/kg	120	400	
218-01-9	Chrysene	U	40.0	ug/kg	12.0	40.0	UJ,SV7d
117-81-7	bis(2-Ethylhexyl)phthalate		840	ug/kg	79.9	400	J,SV7d
117-84-0	Di-n-octylphthalate	U	400	ug/kg	79.9	400	UJ,SV7d
205-99-2	Benzo(b)fluoranthene	U	40.0	ug/kg	12.0	40.0	
207-08-9	Benzo(k)fluoranthene	U	40.0	ug/kg	12.0	40.0	
50-32-8	Benzo(a)pyrene	U	40.0	ug/kg	12.0	40.0	
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.0	ug/kg	12.0	40.0	
53-70-3	Dibenzo(a,h)anthracene	U	40.0	ug/kg	12.0	40.0	
191-24-2	Benzo(ghi)perylene	U	40.0	ug/kg	12.0	40.0	
120-82-1	1,2,4-Trichlorobenzene	U	400	ug/kg	79.9	400	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.97	166	ug/kg		J
	Unknown Aldol Condensate	2.9	819	ug/kg		JA

MLD
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**16.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13549**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 23:30**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2024.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-40-3	Dodecane	4.67	175	ug/kg	93	NJ
629-50-5	Tridecane	5.1	255	ug/kg	97	NJ
629-62-9	Pentadecane	5.88	160	ug/kg	97	NJ
57-10-3	n-Hexadecanoic acid	7.55	572	ug/kg	97	NJ
57-11-4	Octadecanoic acid	8.25	171	ug/kg	93	NJ
112-71-0	Tetradecane, 1-bromo-	9.35	253	ug/kg	83	NJ
629-78-7	Heptadecane	9.66	175	ug/kg	93	NJ
	Unknown	9.76	237	ug/kg		J
1000130-81-0	11,13-Dimethyl-12-tetradecen-1-ol acetat	9.83	171	ug/kg	83	NJ
	Unknown	9.98	192	ug/kg		J
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	10.04	357	ug/kg	98	NJ
	Unknown	10.17	181	ug/kg		J
	Unknown	10.39	255	ug/kg		J
	Unknown	10.45	186	ug/kg		J
61639-11-0	1-Bromo-4-bromomethyldecane	10.72	335	ug/kg	80	NJ
	Unknown	10.85	191	ug/kg		J
	Unknown	13.08	2250	ug/kg		J

ML
04/2?

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842005	**Date Received:**	03/05/2010 10:20	**%Moisture:**	18.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13550	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/21/2010 00:16	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data Flle:	s6c2026.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	407	ug/kg	81.5	407	UJ,SV7d
108-95-2	Phenol	U	407	ug/kg	81.5	407	
95-57-8	2-Chlorophenol	U	407	ug/kg	81.5	407	
106-46-7	1,4-Dichlorobenzene	U	407	ug/kg	81.5	407	
621-64-7	N-Nitrosodipropylamine	U	407	ug/kg	81.5	407	
59-50-7	4-Chloro-3-methylphenol	U	407	ug/kg	81.5	407	
83-32-9	Acenaphthene	U	40.7	ug/kg	13.4	40.7	
121-14-2	2,4-Dinitrotoluene	U	407	ug/kg	40.7	407	
100-02-7	4-Nitrophenol	U	407	ug/kg	134	407	
87-86-5	Pentachlorophenol	U	407	ug/kg	102	407	
129-00-0	Pyrene	U	40.7	ug/kg	12.2	40.7	
110-86-1	Pyridine	U	407	ug/kg	81.5	407	UJ,SV7c
62-53-3	Aniline	U	407	ug/kg	122	407	UJ,SV7d
111-44-4	bis(2-Chloroethyl) ether	U	407	ug/kg	81.5	407	
541-73-1	1,3-Dichlorobenzene	U	407	ug/kg	81.5	407	
100-51-6	Benzyl alcohol	U	407	ug/kg	122	407	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	407	ug/kg	81.5	407	UJ,SV7d
108-60-1	bis(2-Chloroisopropyl)ether	U	407	ug/kg	81.5	407	UJ,SV7c
95-48-7	o-Cresol	U	407	ug/kg	81.5	407	UJ,SV7d
65794-96-9	m,p-Cresols	U	407	ug/kg	122	407	
67-72-1	Hexachloroethane	U	407	ug/kg	81.5	407	
98-95-3	Nitrobenzene	U	407	ug/kg	81.5	407	
78-59-1	Isophorone	U	407	ug/kg	81.5	407	
88-75-5	2-Nitrophenol	U	407	ug/kg	81.5	407	
105-67-9	2,4-Dimethylphenol	U	407	ug/kg	143	407	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	407	ug/kg	81.5	407	UJ,SV7d
120-83-2	2,4-Dichlorophenol	U	407	ug/kg	81.5	407	UJ,SV7d
65-85-0	Benzoic acid	U	815	ug/kg	204	815	UJ,SV7c
91-20-3	Naphthalene	U	40.7	ug/kg	12.2	40.7	UJ,SV7d
106-47-8	4-Chloroaniline	U	407	ug/kg	81.5	407	
87-68-3	Hexachlorobutadiene	U	407	ug/kg	81.5	407	
91-57-6	2-Methylnaphthalene	U	40.7	ug/kg	8.15	40.7	
77-47-4	Hexachlorocyclopentadiene	U	407	ug/kg	81.5	407	
88-06-2	2,4,6-Trichlorophenol	U	407	ug/kg	81.5	407	
95-95-4	2,4,5-Trichlorophenol	U	407	ug/kg	81.5	407	
91-58-7	2-Chloronaphthalene	U	40.7	ug/kg	13.4	40.7	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	407	ug/kg	81.5	407	
99-09-2	3-Nitroaniline	U	407	ug/kg	81.5	407	UJ,SV7c

ML
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842005	**Date Received:**	03/05/2010 10:20	**%Moisture:**	18.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13550	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/21/2010 00:16	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s6c2026.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	407	ug/kg	81.5	407	UJ,SV7d
606-20-2	2,6-Dinitrotoluene	U	407	ug/kg	40.7	407	
208-96-8	Acenaphthylene	U	40.7	ug/kg	12.2	40.7	
51-28-5	2,4-Dinitrophenol	U	815	ug/kg	155	815	UJ,SV7c
132-64-9	Dibenzofuran	U	407	ug/kg	81.5	407	UJ,SV7d
84-66-2	Diethylphthalate	U	407	ug/kg	81.5	407	
86-73-7	Fluorene	U	40.7	ug/kg	12.2	40.7	
7005-72-3	4-Chlorophenylphenylether	U	407	ug/kg	81.5	407	
534-52-1	2-Methyl-4,6-dinitrophenol	U	407	ug/kg	81.5	407	UJ,SV7c
100-01-6	4-Nitroaniline	U	407	ug/kg	122	407	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	407	ug/kg	81.5	407	UJ,SV7d
122-66-7	Azobenzene	U	407	ug/kg	81.5	407	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	407	ug/kg	81.5	407	
118-74-1	Hexachlorobenzene	U	407	ug/kg	81.5	407	
85-01-8	Phenanthrene	U	40.7	ug/kg	12.2	40.7	
120-12-7	Anthracene	U	40.7	ug/kg	8.15	40.7	
84-74-2	Di-n-butylphthalate	U	407	ug/kg	81.5	407	
206-44-0	Fluoranthene	U	40.7	ug/kg	12.2	40.7	
85-68-7	Butylbenzylphthalate	U	407	ug/kg	81.5	407	
56-55-3	Benzo(a)anthracene	U	40.7	ug/kg	12.2	40.7	
91-94-1	3,3'-Dichlorobenzidine	U	407	ug/kg	122	407	
218-01-9	Chrysene	U	40.7	ug/kg	12.2	40.7	UJ,SV7d
117-81-7	bis(2-Ethylhexyl)phthalate	U	407	ug/kg	81.5	407	
117-84-0	Di-n-octylphthalate	U	407	ug/kg	81.5	407	
205-99-2	Benzo(b)fluoranthene	U	40.7	ug/kg	12.2	40.7	
207-08-9	Benzo(k)fluoranthene	U	40.7	ug/kg	12.2	40.7	
50-32-8	Benzo(a)pyrene	U	40.7	ug/kg	12.2	40.7	
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.7	ug/kg	12.2	40.7	
53-70-3	Dibenzo(a,h)anthracene	U	40.7	ug/kg	12.2	40.7	
191-24-2	Benzo(ghi)perylene	U	40.7	ug/kg	12.2	40.7	
120-82-1	1,2,4-Trichlorobenzene	U	407	ug/kg	81.5	407	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.96	210	ug/kg		J
	Unknown Aldol Condensate	2.9	512	ug/kg		JA

MLI
04/22

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842005	**Date Received:**	03/05/2010 10:20	**%Moisture:**	18.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13550	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/21/2010 00:16	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s6c2026.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Quallfier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.73	381	ug/kg		J
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	10.04	214	ug/kg	99	NJ
	Unknown	10.58	400	ug/kg		J
	Unknown	11.62	171	ug/kg		J
	Unknown	13.07	1300	ug/kg		J

MLI
04/22/

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842004	**Date Received:**	03/05/2010 10:20	**%Moisture:**	20.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13551	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	10
Run Date:	03/23/2010 21:08	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s6c2318.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	4200	ug/kg	840	4200	UJ,SV7d
108-95-2	Phenol	U	4200	ug/kg	840	4200	
95-57-8	2-Chlorophenol	U	4200	ug/kg	840	4200	
106-46-7	1,4-Dichlorobenzene	U	4200	ug/kg	840	4200	
621-64-7	N-Nitrosodipropylamine	U	4200	ug/kg	840	4200	
59-50-7	4-Chloro-3-methylphenol	U	4200	ug/kg	840	4200	
83-32-9	Acenaphthene	U	420	ug/kg	139	420	
121-14-2	2,4-Dinitrotoluene	U	4200	ug/kg	420	4200	
100-02-7	4-Nitrophenol	U	4200	ug/kg	1390	4200	
87-86-5	Pentachlorophenol	U	4200	ug/kg	1050	4200	
129-00-0	Pyrene	U	420	ug/kg	126	420	
110-86-1	Pyridine	U	4200	ug/kg	840	4200	UJ,SV7c
62-53-3	Aniline	U	4200	ug/kg	1260	4200	
111-44-4	bis(2-Chloroethyl) ether	U	4200	ug/kg	840	4200	
541-73-1	1,3-Dichlorobenzene	U	4200	ug/kg	840	4200	UJ,SV7d
100-51-6	Benzyl alcohol	U	4200	ug/kg	1260	4200	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	4200	ug/kg	840	4200	UJ,SV7d
108-60-1	bis(2-Chloroisopropyl)ether	U	4200	ug/kg	840	4200	UJ,SV7c
95-48-7	o-Cresol	U	4200	ug/kg	840	4200	UJ,SV7d
65794-96-9	m,p-Cresols	U	4200	ug/kg	1260	4200	
67-72-1	Hexachloroethane	U	4200	ug/kg	840	4200	
98-95-3	Nitrobenzene	U	4200	ug/kg	840	4200	
78-59-1	Isophorone	U	4200	ug/kg	840	4200	
88-75-5	2-Nitrophenol	U	4200	ug/kg	840	4200	
105-67-9	2,4-Dimethylphenol	U	4200	ug/kg	1470	4200	
111-91-1	bis(2-Chloroethoxy)methane	U	4200	ug/kg	840	4200	
120-83-2	2,4-Dichlorophenol	U	4200	ug/kg	840	4200	
65-85-0	Benzoic acid	U	8400	ug/kg	2100	8400	
91-20-3	Naphthalene	U	420	ug/kg	126	420	
106-47-8	4-Chloroaniline	U	4200	ug/kg	840	4200	
87-68-3	Hexachlorobutadiene	U	4200	ug/kg	840	4200	
91-57-6	2-Methylnaphthalene		743	ug/kg	84.0	420	J,SV7d
77-47-4	Hexachlorocyclopentadiene	U	4200	ug/kg	840	4200	UJ,SV7d
88-06-2	2,4,6-Trichlorophenol	U	4200	ug/kg	840	4200	
95-95-4	2,4,5-Trichlorophenol	U	4200	ug/kg	840	4200	
91-58-7	2-Chloronaphthalene	U	420	ug/kg	139	420	
88-74-4	2-Nitroaniline	U	4200	ug/kg	840	4200	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	4200	ug/kg	840	4200	

ML
04/2

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248842004	Date Received:	03/05/2010 10:20	%Moisture:	20.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13551	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965425	Inst:	MSD6.I	Dilution:	10
Run Date:	03/23/2010 21:08	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	03/16/2010 12:02	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s6c2318.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	4200	ug/kg	840	4200	UJ,SV7d
606-20-2	2,6-Dinitrotoluene	U	4200	ug/kg	420	4200	
208-96-8	Acenaphthylene	U	420	ug/kg	126	420	
51-28-5	2,4-Dinitrophenol	U	8400	ug/kg	1600	8400	
132-64-9	Dibenzofuran	U	4200	ug/kg	840	4200	
84-66-2	Diethylphthalate	U	4200	ug/kg	840	4200	
86-73-7	Fluorene	U	420	ug/kg	126	420	
7005-72-3	4-Chlorophenylphenylether	U	4200	ug/kg	840	4200	
534-52-1	2-Methyl-4,6-dinitrophenol	U	4200	ug/kg	840	4200	UJ,SV7c
100-01-6	4-Nitroaniline	U	4200	ug/kg	1260	4200	UJ,SV7d
	p-Nitroaniline						
122-39-4	Diphenylamine	U	4200	ug/kg	840	4200	
122-66-7	Azobenzene	U	4200	ug/kg	840	4200	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	4200	ug/kg	840	4200	
118-74-1	Hexachlorobenzene	U	4200	ug/kg	840	4200	
85-01-8	Phenanthrene	U	420	ug/kg	126	420	
120-12-7	Anthracene	U	420	ug/kg	84.0	420	
84-74-2	Di-n-butylphthalate	U	4200	ug/kg	840	4200	
206-44-0	Fluoranthene	U	420	ug/kg	126	420	
85-68-7	Butylbenzylphthalate	U	4200	ug/kg	840	4200	
56-55-3	Benzo(a)anthracene	U	420	ug/kg	126	420	
91-94-1	3,3'-Dichlorobenzidine	U	4200	ug/kg	1260	4200	
218-01-9	Chrysene	U	420	ug/kg	126	420	UJ,SV7d
117-81-7	bis(2-Ethylhexyl)phthalate		12800	ug/kg	840	4200	J,SV7d
117-84-0	Di-n-octylphthalate	U	4200	ug/kg	840	4200	UJ,SV7d
205-99-2	Benzo(b)fluoranthene	U	420	ug/kg	126	420	
207-08-9	Benzo(k)fluoranthene	U	420	ug/kg	126	420	
50-32-8	Benzo(a)pyrene	U	420	ug/kg	126	420	
193-39-5	Indeno(1,2,3-cd)pyrene	U	420	ug/kg	126	420	
53-70-3	Dibenzo(a,h)anthracene	U	420	ug/kg	126	420	
191-24-2	Benzo(ghi)perylene	U	420	ug/kg	126	420	
120-82-1	1,2,4-Trichlorobenzene	U	4200	ug/kg	840	4200	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.53	2500	ug/kg		J
112-40-3	Dodecane	4.75	5650	ug/kg	96	NJ

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Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842004	**Date Received:**	03/05/2010 10:20	**%Moisture:**	20.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13551	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	10
Run Date:	03/23/2010 21:08	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s6c2318.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.98	3580	ug/kg		J
61141-72-8	Dodecane, 4,6-dimethyl-	5.05	4540	ug/kg	91	NJ
629-50-5	Tridecane	5.17	8040	ug/kg	95	NJ
90-12-0	Naphthalene, 1-methyl-	5.38	2330	ug/kg	92	NJ
1560-96-9	Tridecane, 2-methyl-	5.43	2530	ug/kg	83	NJ
3891-98-3	Dodecane, 2,6,10-trimethyl-	5.48	3040	ug/kg	91	NJ
581-42-0	Naphthalene, 2,6-dimethyl-	5.76	3270	ug/kg	95	NJ
	Unknown	9.83	3300	ug/kg		J
	Unknown	9.9	2600	ug/kg		J
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	10.12	5890	ug/kg	99	NJ
	Unknown	10.16	3090	ug/kg		J
	Unknown	10.26	3710	ug/kg		J
	Unknown	10.49	3640	ug/kg		J
	Unknown	10.55	2650	ug/kg		J
	Unknown	10.62	2200	ug/kg		J
	Unknown	10.73	2060	ug/kg		J
	Unknown	10.79	2100	ug/kg		J
	Unknown	10.82	2050	ug/kg		J
	Unknown	10.85	3550	ug/kg		J
	Unknown	10.95	3490	ug/kg		J
	Unknown	11.11	4110	ug/kg		J
	Unknown	11.24	2970	ug/kg		J
	Unknown	11.42	2150	ug/kg		J
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	11.46	3590	ug/kg	83	NJ
	Unknown	11.67	2760	ug/kg		J
	Unknown	12.15	2170	ug/kg		J
	Unknown	13.27	36500	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842008	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13552	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	10
Run Date:	03/23/2010 21:55	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s6c2320.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	3820	ug/kg	763	3820	UJ,SV7d
108-95-2	Phenol	U	3820	ug/kg	763	3820	
95-57-8	2-Chlorophenol	U	3820	ug/kg	763	3820	
106-46-7	1,4-Dichlorobenzene	U	3820	ug/kg	763	3820	
621-64-7	N-Nitrosodipropylamine	U	3820	ug/kg	763	3820	
59-50-7	4-Chloro-3-methylphenol	U	3820	ug/kg	763	3820	
83-32-9	Acenaphthene	U	382	ug/kg	126	382	
121-14-2	2,4-Dinitrotoluene	U	3820	ug/kg	382	3820	
100-02-7	4-Nitrophenol	U	3820	ug/kg	1260	3820	
87-86-5	Pentachlorophenol	U	3820	ug/kg	954	3820	
129-00-0	Pyrene	U	382	ug/kg	115	382	
110-86-1	Pyridine	U	3820	ug/kg	763	3820	UJ,SV7c
62-53-3	Aniline	U	3820	ug/kg	1150	3820	
111-44-4	bis(2-Chloroethyl) ether	U	3820	ug/kg	763	3820	
541-73-1	1,3-Dichlorobenzene	U	3820	ug/kg	763	3820	UJ,SV7d
100-51-6	Benzyl alcohol	U	3820	ug/kg	1150	3820	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	3820	ug/kg	763	3820	UJ,SV7d
108-60-1	bis(2-Chloroisopropyl)ether	U	3820	ug/kg	763	3820	UJ,SV7c
95-48-7	o-Cresol	U	3820	ug/kg	763	3820	UJ,SV7d
65794-96-9	m,p-Cresols	U	3820	ug/kg	1150	3820	
67-72-1	Hexachloroethane	U	3820	ug/kg	763	3820	
98-95-3	Nitrobenzene	U	3820	ug/kg	763	3820	
78-59-1	Isophorone	U	3820	ug/kg	763	3820	
88-75-5	2-Nitrophenol	U	3820	ug/kg	763	3820	
105-67-9	2,4-Dimethylphenol	U	3820	ug/kg	1340	3820	
111-91-1	bis(2-Chloroethoxy)methane	U	3820	ug/kg	763	3820	
120-83-2	2,4-Dichlorophenol	U	3820	ug/kg	763	3820	
65-85-0	Benzoic acid	U	7630	ug/kg	1910	7630	
91-20-3	Naphthalene	U	382	ug/kg	115	382	
106-47-8	4-Chloroaniline	U	3820	ug/kg	763	3820	
87-68-3	Hexachlorobutadiene	U	3820	ug/kg	763	3820	
91-57-6	2-Methylnaphthalene	U	382	ug/kg	76.3	382	
77-47-4	Hexachlorocyclopentadiene	U	3820	ug/kg	763	3820	
88-06-2	2,4,6-Trichlorophenol	U	3820	ug/kg	763	3820	
95-95-4	2,4,5-Trichlorophenol	U	3820	ug/kg	763	3820	
91-58-7	2-Chloronaphthalene	U	382	ug/kg	126	382	
88-74-4	2-Nitroaniline	U	3820	ug/kg	763	3820	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	3820	ug/kg	763	3820	

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Certificate of Analysis
Sample Summary

SDG Number:	10-2302	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248842008	Date Received:	03/05/2010 10:20	%Moisture:	12.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13552	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965425	Inst:	MSD6.I	Dilution:	10
Run Date:	03/23/2010 21:55	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	03/16/2010 12:02	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s6c2320.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	3820	ug/kg	763	3820	UJ,SV7d
606-20-2	2,6-Dinitrotoluene	U	3820	ug/kg	382	3820	
208-96-8	Acenaphthylene	U	382	ug/kg	115	382	
51-28-5	2,4-Dinitrophenol	U	7630	ug/kg	1450	7630	
132-64-9	Dibenzofuran	U	3820	ug/kg	763	3820	
84-66-2	Diethylphthalate	U	3820	ug/kg	763	3820	
86-73-7	Fluorene	U	382	ug/kg	115	382	
7005-72-3	4-Chlorophenylphenylether	U	3820	ug/kg	763	3820	
534-52-1	2-Methyl-4,6-dinitrophenol	U	3820	ug/kg	763	3820	UJ,SV7c
100-01-6	4-Nitroaniline	U	3820	ug/kg	1150	3820	UJ,SV7d
	p-Nitroaniline						
122-39-4	Diphenylamine	U	3820	ug/kg	763	3820	
122-66-7	Azobenzene	U	3820	ug/kg	763	3820	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	3820	ug/kg	763	3820	
118-74-1	Hexachlorobenzene	U	3820	ug/kg	763	3820	
85-01-8	Phenanthrene	U	382	ug/kg	115	382	
120-12-7	Anthracene	U	382	ug/kg	76.3	382	
84-74-2	Di-n-butylphthalate	U	3820	ug/kg	763	3820	
206-44-0	Fluoranthene	U	382	ug/kg	115	382	
85-68-7	Butylbenzylphthalate	U	3820	ug/kg	763	3820	
56-55-3	Benzo(a)anthracene	U	382	ug/kg	115	382	
91-94-1	3,3'-Dichlorobenzidine	U	3820	ug/kg	1150	3820	
218-01-9	Chrysene	U	382	ug/kg	115	382	UJ,SV7d
117-81-7	bis(2-Ethylhexyl)phthalate	J	1110	ug/kg	763	3820	J,SV7d
117-84-0	Di-n-octylphthalate	U	3820	ug/kg	763	3820	UJ,SV7d
205-99-2	Benzo(b)fluoranthene	U	382	ug/kg	115	382	
207-08-9	Benzo(k)fluoranthene	U	382	ug/kg	115	382	
50-32-8	Benzo(a)pyrene	U	382	ug/kg	115	382	
193-39-5	Indeno(1,2,3-cd)pyrene	U	382	ug/kg	115	382	
53-70-3	Dibenzo(a,h)anthracene	U	382	ug/kg	115	382	
191-24-2	Benzo(ghi)perylene	U	382	ug/kg	115	382	
120-82-1	1,2,4-Trichlorobenzene	U	3820	ug/kg	763	3820	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	10.68	3440	ug/kg		J
	Unknown	13.24	3330	ug/kg		J

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Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842002	**Date Received:**	03/05/2010 10:20	**%Moisture:**	13.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13553	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/20/2010 22:22	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	s6c2021.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Quallfier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	387	ug/kg	77.4	387	UJ,SV7d
108-95-2	Phenol	U	387	ug/kg	77.4	387	
95-57-8	2-Chlorophenol	U	387	ug/kg	77.4	387	
106-46-7	1,4-Dichlorobenzene	U	387	ug/kg	77.4	387	
621-64-7	N-Nitrosodipropylamine	U	387	ug/kg	77.4	387	
59-50-7	4-Chloro-3-methylphenol	U	387	ug/kg	77.4	387	
83-32-9	Acenaphthene	U	38.7	ug/kg	12.8	38.7	
121-14-2	2,4-Dinitrotoluene	U	387	ug/kg	38.7	387	
100-02-7	4-Nitrophenol	U	387	ug/kg	128	387	
87-86-5	Pentachlorophenol	U	387	ug/kg	96.7	387	
129-00-0	Pyrene	U	38.7	ug/kg	11.6	38.7	
110-86-1	Pyridine	U	387	ug/kg	77.4	387	UJ,SV7c
62-53-3	Aniline	U	387	ug/kg	116	387	UJ,SV7d
111-44-4	bis(2-Chloroethyl) ether	U	387	ug/kg	77.4	387	
541-73-1	1,3-Dichlorobenzene	U	387	ug/kg	77.4	387	
100-51-6	Benzyl alcohol	U	387	ug/kg	116	387	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	387	ug/kg	77.4	387	UJ,SV7d
108-60-1	bis(2-Chloroisopropyl)ether	U	387	ug/kg	77.4	387	UJ,SV7c
95-48-7	o-Cresol	U	387	ug/kg	77.4	387	UJ,SV7d
65794-96-9	m,p-Cresols	U	387	ug/kg	116	387	
67-72-1	Hexachloroethane	U	387	ug/kg	77.4	387	
98-95-3	Nitrobenzene	U	387	ug/kg	77.4	387	
78-59-1	Isophorone	U	387	ug/kg	77.4	387	
88-75-5	2-Nitrophenol	U	387	ug/kg	77.4	387	
105-67-9	2,4-Dimethylphenol	U	387	ug/kg	135	387	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	387	ug/kg	77.4	387	UJ,SV7d
120-83-2	2,4-Dichlorophenol	U	387	ug/kg	77.4	387	UJ,SV7d
65-85-0	Benzoic acid	U	774	ug/kg	193	774	UJ,SV7c
91-20-3	Naphthalene	U	38.7	ug/kg	11.6	38.7	UJ,SV7d
106-47-8	4-Chloroaniline	U	387	ug/kg	77.4	387	
87-68-3	Hexachlorobutadiene	U	387	ug/kg	77.4	387	
91-57-6	2-Methylnaphthalene	U	38.7	ug/kg	7.74	38.7	
77-47-4	Hexachlorocyclopentadiene	U	387	ug/kg	77.4	387	
88-06-2	2,4,6-Trichlorophenol	U	387	ug/kg	77.4	387	
95-95-4	2,4,5-Trichlorophenol	U	387	ug/kg	77.4	387	
91-58-7	2-Chloronaphthalene	U	38.7	ug/kg	12.8	38.7	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	387	ug/kg	77.4	387	
99-09-2	3-Nitroaniline	U	387	ug/kg	77.4	387	UJ,SV7c

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Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13553**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 22:22**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2021.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Quallfier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	387	ug/kg	77.4	387	UJ,SV7d
606-20-2	2,6-Dinitrotoluene	U	387	ug/kg	38.7	387	
208-96-8	Acenaphthylene	U	38.7	ug/kg	11.6	38.7	
51-28-5	2,4-Dinitrophenol	U	774	ug/kg	147	774	UJ,SV7c
132-64-9	Dibenzofuran	U	387	ug/kg	77.4	387	UJ,SV7d
84-66-2	Diethylphthalate	U	387	ug/kg	77.4	387	
86-73-7	Fluorene	U	38.7	ug/kg	11.6	38.7	
7005-72-3	4-Chlorophenylphenylether	U	387	ug/kg	77.4	387	
534-52-1	2-Methyl-4,6-dinitrophenol	U	387	ug/kg	77.4	387	UJ,SV7c
100-01-6	4-Nitroaniline	U	387	ug/kg	116	387	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	387	ug/kg	77.4	387	UJ,SV7d
122-66-7	Azobenzene	U	387	ug/kg	77.4	387	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	387	ug/kg	77.4	387	
118-74-1	Hexachlorobenzene	U	387	ug/kg	77.4	387	
85-01-8	Phenanthrene	U	38.7	ug/kg	11.6	38.7	
120-12-7	Anthracene	U	38.7	ug/kg	7.74	38.7	
84-74-2	Di-n-butylphthalate	U	387	ug/kg	77.4	387	
206-44-0	Fluoranthene	U	38.7	ug/kg	11.6	38.7	
85-68-7	Butylbenzylphthalate	U	387	ug/kg	77.4	387	
56-55-3	Benzo(a)anthracene	U	38.7	ug/kg	11.6	38.7	
91-94-1	3,3'-Dichlorobenzidine	U	387	ug/kg	116	387	
218-01-9	Chrysene	U	38.7	ug/kg	11.6	38.7	UJ,SV7d
117-81-7	bis(2-Ethylhexyl)phthalate	J	236	ug/kg	77.4	387	J,SV7d
117-84-0	Di-n-octylphthalate	U	387	ug/kg	77.4	387	UJ,SV7d
205-99-2	Benzo(b)fluoranthene	U	38.7	ug/kg	11.6	38.7	
207-08-9	Benzo(k)fluoranthene	U	38.7	ug/kg	11.6	38.7	
50-32-8	Benzo(a)pyrene	U	38.7	ug/kg	11.6	38.7	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.7	ug/kg	11.6	38.7	
53-70-3	Dibenzo(a,h)anthracene	U	38.7	ug/kg	11.6	38.7	
191-24-2	Benzo(ghi)perylene	U	38.7	ug/kg	11.6	38.7	
120-82-1	1,2,4-Trichlorobenzene	U	387	ug/kg	77.4	387	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.98	334	ug/kg		J
	Unknown Aldol Condensate	2.9	946	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842002	**Date Received:**	03/05/2010 10:20	**%Moisture:**	13.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13553	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/20/2010 22:22	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	s6c2021.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
629-59-4	Tetradecane	9.36	186	ug/kg	93	NJ
	Unknown	10.58	330	ug/kg		J
112-95-8	Eicosane	10.72	238	ug/kg	89	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842010	**Date Received:**	03/05/2010 10:20	**%Moisture:**	13.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13556	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	10
Run Date:	03/23/2010 22:42	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s6c2322.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	3830	ug/kg	766	3830	UJ,SV7d
108-95-2	Phenol	U	3830	ug/kg	766	3830	
95-57-8	2-Chlorophenol	U	3830	ug/kg	766	3830	
106-46-7	1,4-Dichlorobenzene	U	3830	ug/kg	766	3830	
621-64-7	N-Nitrosodipropylamine	U	3830	ug/kg	766	3830	
59-50-7	4-Chloro-3-methylphenol	U	3830	ug/kg	766	3830	
83-32-9	Acenaphthene	U	383	ug/kg	126	383	
121-14-2	2,4-Dinitrotoluene	U	3830	ug/kg	383	3830	
100-02-7	4-Nitrophenol	U	3830	ug/kg	1260	3830	
87-86-5	Pentachlorophenol	U	3830	ug/kg	957	3830	
129-00-0	Pyrene	U	383	ug/kg	115	383	
110-86-1	Pyridine	U	3830	ug/kg	766	3830	UJ,SV7c
62-53-3	Aniline	U	3830	ug/kg	1150	3830	
111-44-4	bis(2-Chloroethyl) ether	U	3830	ug/kg	766	3830	
541-73-1	1,3-Dichlorobenzene	U	3830	ug/kg	766	3830	UJ,SV7d
100-51-6	Benzyl alcohol	U	3830	ug/kg	1150	3830	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	3830	ug/kg	766	3830	UJ,SV7d
108-60-1	bis(2-Chloroisopropyl)ether	U	3830	ug/kg	766	3830	UJ,SV7c
95-48-7	o-Cresol	U	3830	ug/kg	766	3830	UJ,SV7d
65794-96-9	m,p-Cresols	U	3830	ug/kg	1150	3830	
67-72-1	Hexachloroethane	U	3830	ug/kg	766	3830	
98-95-3	Nitrobenzene	U	3830	ug/kg	766	3830	
78-59-1	Isophorone	U	3830	ug/kg	766	3830	
88-75-5	2-Nitrophenol	U	3830	ug/kg	766	3830	
105-67-9	2,4-Dimethylphenol	U	3830	ug/kg	1340	3830	
111-91-1	bis(2-Chloroethoxy)methane	U	3830	ug/kg	766	3830	
120-83-2	2,4-Dichlorophenol	U	3830	ug/kg	766	3830	
65-85-0	Benzoic acid	U	7660	ug/kg	1910	7660	
91-20-3	Naphthalene	U	383	ug/kg	115	383	
106-47-8	4-Chloroaniline	U	3830	ug/kg	766	3830	
87-68-3	Hexachlorobutadiene	U	3830	ug/kg	766	3830	
91-57-6	2-Methylnaphthalene	U	383	ug/kg	76.6	383	
77-47-4	Hexachlorocyclopentadiene	U	3830	ug/kg	766	3830	
88-06-2	2,4,6-Trichlorophenol	U	3830	ug/kg	766	3830	
95-95-4	2,4,5-Trichlorophenol	U	3830	ug/kg	766	3830	
91-58-7	2-Chloronaphthalene	U	383	ug/kg	126	383	
88-74-4	2-Nitroaniline	U	3830	ug/kg	766	3830	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	3830	ug/kg	766	3830	

MLI
04/22

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842010	**Date Received:**	03/05/2010 10:20	**%Moisture:**	13.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13556	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	10
Run Date:	03/23/2010 22:42	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s6c2322.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	3830	ug/kg	766	3830	UJ,SV7d
606-20-2	2,6-Dinitrotoluene	U	3830	ug/kg	383	3830	
208-96-8	Acenaphthylene	U	383	ug/kg	115	383	
51-28-5	2,4-Dinitrophenol	U	7660	ug/kg	1460	7660	
132-64-9	Dibenzofuran	U	3830	ug/kg	766	3830	
84-66-2	Diethylphthalate	U	3830	ug/kg	766	3830	
86-73-7	Fluorene	U	383	ug/kg	115	383	
7005-72-3	4-Chlorophenylphenylether	U	3830	ug/kg	766	3830	
534-52-1	2-Methyl-4,6-dinitrophenol	U	3830	ug/kg	766	3830	UJ,SV7c
100-01-6	4-Nitroaniline	U	3830	ug/kg	1150	3830	UJ,SV7d
	p-Nitroaniline						
122-39-4	Diphenylamine	U	3830	ug/kg	766	3830	
122-66-7	Azobenzene	U	3830	ug/kg	766	3830	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	3830	ug/kg	766	3830	
118-74-1	Hexachlorobenzene	U	3830	ug/kg	766	3830	
85-01-8	Phenanthrene	U	383	ug/kg	115	383	
120-12-7	Anthracene	U	383	ug/kg	76.6	383	
84-74-2	Di-n-butylphthalate	U	3830	ug/kg	766	3830	
206-44-0	Fluoranthene	U	383	ug/kg	115	383	
85-68-7	Butylbenzylphthalate	U	3830	ug/kg	766	3830	
56-55-3	Benzo(a)anthracene	U	383	ug/kg	115	383	
91-94-1	3,3'-Dichlorobenzidine	U	3830	ug/kg	1150	3830	
218-01-9	Chrysene	U	383	ug/kg	115	383	UJ,SV7d
117-81-7	bis(2-Ethylhexyl)phthalate	J	968	ug/kg	766	3830	J,SV7d
117-84-0	Di-n-octylphthalate	U	3830	ug/kg	766	3830	UJ,SV7d
205-99-2	Benzo(b)fluoranthene	U	383	ug/kg	115	383	
207-08-9	Benzo(k)fluoranthene	U	383	ug/kg	115	383	
50-32-8	Benzo(a)pyrene	U	383	ug/kg	115	383	
193-39-5	Indeno(1,2,3-cd)pyrene	U	383	ug/kg	115	383	
53-70-3	Dibenzo(a,h)anthracene	U	383	ug/kg	115	383	
191-24-2	Benzo(ghi)perylene	U	383	ug/kg	115	383	
120-82-1	1,2,4-Trichlorobenzene	U	3830	ug/kg	766	3830	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.43	1700	ug/kg		J
	Unknown	10.68	3380	ug/kg		J

MLI
04/22

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842010	**Date Received:**	03/05/2010 10:20	**%Moisture:**	13.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13556	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	10
Run Date:	03/23/2010 22:42	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data Flle:	s6c2322.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Quallfier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	13.24	2310	ug/kg		J

MLC
04/22/

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2302 VALIDATION DATE: 04/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Monica Dymerski ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MSD %R was > the laboratory UAL for Aroclor 1260. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN, and the parent sample raw data were not included in the data package. Since MS/MSD analyses are not a client requirement for this method, no sample data were qualified.

Reviewed by: ETM Level: 1 Date: 4/23/10

VALIDATOR'S SIGNATURE: Monica L Dymerski DATE: 04/22/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842007	**Date Received:**	03/05/2010 10:20	**%Moisture:**	17.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13546	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967396	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/22/2010 21:57	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 12:13	**Aliquot:**	30.15 g	**Final Volume:**	1 mL
Data File:	064f6401.d	**Column:**	1 CLP1	**Level:**	LOW
	064b6401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	20.1	ug/kg	6.70	20.1	1
11104-28-2	Aroclor-1221	U	20.1	ug/kg	6.70	20.1	1
11141-16-5	Aroclor-1232	U	20.1	ug/kg	6.70	20.1	1
53469-21-9	Aroclor-1242	U	20.1	ug/kg	6.70	20.1	1
12672-29-6	Aroclor-1248	U	20.1	ug/kg	6.70	20.1	1
11097-69-1	Aroclor-1254		359	ug/kg	6.70	20.1	2
11096-82-5	Aroclor-1260		197	ug/kg	6.70	20.1	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13547**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 22:26**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**066f6601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	066b6601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	19.0	ug/kg	6.34	19.0	1
11104–28–2	Aroclor–1221	U	19.0	ug/kg	6.34	19.0	1
11141–16–5	Aroclor–1232	U	19.0	ug/kg	6.34	19.0	1
53469–21–9	Aroclor–1242	U	19.0	ug/kg	6.34	19.0	1
12672–29–6	Aroclor–1248	U	19.0	ug/kg	6.34	19.0	1
11097–69–1	Aroclor–1254		23.7	ug/kg	6.34	19.0	2
11096–82–5	Aroclor–1260	J	16.1	ug/kg	6.34	19.0	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13548**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 21:45**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**063f6301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	063b6301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.01	ug/kg	1.34	4.01	1
11104-28-2	Aroclor-1221	U	4.01	ug/kg	1.34	4.01	1
11141-16-5	Aroclor-1232	U	4.01	ug/kg	1.34	4.01	1
53469-21-9	Aroclor-1242	U	4.01	ug/kg	1.34	4.01	1
12672-29-6	Aroclor-1248	U	4.01	ug/kg	1.34	4.01	1
11097-69-1	Aroclor-1254	P	64.5	ug/kg	1.34	4.01	2
11096-82-5	Aroclor-1260		47.2	ug/kg	1.34	4.01	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**16.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13549**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 21:08**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**060f6001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	060b6001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.98	ug/kg	1.32	3.98	1
11104–28–2	Aroclor–1221	U	3.98	ug/kg	1.32	3.98	1
11141–16–5	Aroclor–1232	U	3.98	ug/kg	1.32	3.98	1
53469–21–9	Aroclor–1242	U	3.98	ug/kg	1.32	3.98	1
12672–29–6	Aroclor–1248	U	3.98	ug/kg	1.32	3.98	1
11097–69–1	Aroclor–1254	P	23.7	ug/kg	1.32	3.98	2
11096–82–5	Aroclor–1260		17.8	ug/kg	1.32	3.98	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13550**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 21:32**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.16 g**	**Final Volume:**	**1 mL**
Data File:	**062f6201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	062b6201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.06	ug/kg	1.35	4.06	1
11104–28–2	Aroclor–1221	U	4.06	ug/kg	1.35	4.06	1
11141–16–5	Aroclor–1232	U	4.06	ug/kg	1.35	4.06	1
53469–21–9	Aroclor–1242	U	4.06	ug/kg	1.35	4.06	1
12672–29–6	Aroclor–1248	U	4.06	ug/kg	1.35	4.06	1
11097–69–1	Aroclor–1254		20.8	ug/kg	1.35	4.06	2
11096–82–5	Aroclor–1260		7.50	ug/kg	1.35	4.06	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13551**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 21:20**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**061f6101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	061b6101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	20.9	ug/kg	6.97	20.9	1
11104–28–2	Aroclor–1221	U	20.9	ug/kg	6.97	20.9	1
11141–16–5	Aroclor–1232	U	20.9	ug/kg	6.97	20.9	1
53469–21–9	Aroclor–1242	U	20.9	ug/kg	6.97	20.9	1
12672–29–6	Aroclor–1248	U	20.9	ug/kg	6.97	20.9	1
11097–69–1	Aroclor–1254		183	ug/kg	6.97	20.9	2
11096–82–5	Aroclor–1260		101	ug/kg	6.97	20.9	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13552**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 22:09**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**065f6501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	065b6501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.81	ug/kg	1.27	3.81	1
11104–28–2	Aroclor–1221	U	3.81	ug/kg	1.27	3.81	1
11141–16–5	Aroclor–1232	U	3.81	ug/kg	1.27	3.81	1
53469–21–9	Aroclor–1242	U	3.81	ug/kg	1.27	3.81	1
12672–29–6	Aroclor–1248	U	3.81	ug/kg	1.27	3.81	1
11097–69–1	Aroclor–1254		48.0	ug/kg	1.27	3.81	2
11096–82–5	Aroclor–1260		22.8	ug/kg	1.27	3.81	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842002	**Date Received:**	03/05/2010 10:20	**%Moisture:**	13.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13553	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967396	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	03/22/2010 20:55	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 12:13	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	059f5901.d	**Column:**	1 CLP1	**Level:**	LOW
	059b5901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.87	ug/kg	1.29	3.87	1
11104-28-2	Aroclor-1221	U	3.87	ug/kg	1.29	3.87	1
11141-16-5	Aroclor-1232	U	3.87	ug/kg	1.29	3.87	1
53469-21-9	Aroclor-1242		108	ug/kg	1.29	3.87	2
12672-29-6	Aroclor-1248	U	3.87	ug/kg	1.29	3.87	1
11097-69-1	Aroclor-1254		124	ug/kg	1.29	3.87	2
11096-82-5	Aroclor-1260		31.3	ug/kg	1.29	3.87	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13556**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 23:07**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**069f6901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	069b6901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.83	ug/kg	1.28	3.83	1
11104–28–2	Aroclor–1221	U	3.83	ug/kg	1.28	3.83	1
11141–16–5	Aroclor–1232	U	3.83	ug/kg	1.28	3.83	1
53469–21–9	Aroclor–1242	U	3.83	ug/kg	1.28	3.83	1
12672–29–6	Aroclor–1248	U	3.83	ug/kg	1.28	3.83	1
11097–69–1	Aroclor–1254		17.7	ug/kg	1.28	3.83	2
11096–82–5	Aroclor–1260		11.0	ug/kg	1.28	3.83	1

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2302

REQUEST NUMBER: 10-2302

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248842 °/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13555	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13553	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13553	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13549	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13549	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13551	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13551	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13550	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13550	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13548	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13548	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13546	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13546	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13552	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13552	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13547	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13547	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13556	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13556	1	AMBER GLASS	8270C+8082	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	3/4/10	1400	Patricia Dover-Dent / P.D.-Dent	3/5/10	10:20
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Thursday, March 04, 2010

REQUEST NUMBER: 10-2302

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2302

Per Agreement Number:126310011

Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE46-10-13546	S	3/3/2010	
		1	RE46-10-13547	S	3/3/2010	
		1	RE46-10-13548	S	3/3/2010	
		1	RE46-10-13549	S	3/3/2010	
		1	RE46-10-13550	S	3/3/2010	
		1	RE46-10-13551	S	3/3/2010	

	1	RE46-10-13552	S	3/3/2010
	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010
SW-846:8260B	1	RE46-10-13546	S	3/3/2010
	1	RE46-10-13547	S	3/3/2010
	1	RE46-10-13548	S	3/3/2010
	1	RE46-10-13549	S	3/3/2010
	1	RE46-10-13550	S	3/3/2010
	1	RE46-10-13551	S	3/3/2010
	1	RE46-10-13552	S	3/3/2010
	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13555	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010
SW-846:8270C	1	RE46-10-13546	S	3/3/2010
	1	RE46-10-13547	S	3/3/2010
	1	RE46-10-13548	S	3/3/2010
	1	RE46-10-13549	S	3/3/2010
	1	RE46-10-13550	S	3/3/2010
	1	RE46-10-13551	S	3/3/2010
	1	RE46-10-13552	S	3/3/2010
	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010

Final Page of REQUEST NUMBER 10-2302

GEL Laboratories LLC

a member of The GEL Group Inc

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

March 12, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 248842
SDG: 10-2302

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 05, 2010, and analyzed for GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2302
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 248842
SDG: 10-2302

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 248842
SDG # : 10-2302

March 12, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 05, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
248842001	RE46-10-13555
248842002	RE46-10-13553
248842003	RE46-10-13549
248842004	RE46-10-13551
248842005	RE46-10-13550
248842006	RE46-10-13548
248842007	RE46-10-13546
248842008	RE46-10-13552
248842009	RE46-10-13547
248842010	RE46-10-13556

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 12 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2302C

REQUEST NUMBER: 10-2302

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248842°/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13555	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13553	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13553	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13549	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13549	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13551	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13551	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13550	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13550	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13548	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13548	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13546	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13546	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13552	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13552	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13547	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13547	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13556	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13556	1	AMBER GLASS	8270C+8082	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	3/4/10	1400	Patricia Dover-Dent / P.D.-Dent	3/5/10	10:20
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: Date Time **Remarks:**

Printed Name Signature

Hard Copy Required

Thursday, March 04, 2010

REQUEST NUMBER: 10-2302

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2302

Per Agreement Number:126310011

Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNT/NR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE46-10-13546	S	3/3/2010	
		1	RE46-10-13547	S	3/3/2010	
		1	RE46-10-13548	S	3/3/2010	
		1	RE46-10-13549	S	3/3/2010	
		1	RE46-10-13550	S	3/3/2010	
		1	RE46-10-13551	S	3/3/2010	

	1	RE46-10-13552	S	3/3/2010
	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010
SW-846:8260B	1	RE46-10-13546	S	3/3/2010
	1	RE46-10-13547	S	3/3/2010
	1	RE46-10-13548	S	3/3/2010
	1	RE46-10-13549	S	3/3/2010
	1	RE46-10-13550	S	3/3/2010
	1	RE46-10-13551	S	3/3/2010
	1	RE46-10-13552	S	3/3/2010
	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13555	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010
SW-846:8270C	1	RE46-10-13546	S	3/3/2010
	1	RE46-10-13547	S	3/3/2010
	1	RE46-10-13548	S	3/3/2010
	1	RE46-10-13549	S	3/3/2010
	1	RE46-10-13550	S	3/3/2010
	1	RE46-10-13551	S	3/3/2010
	1	RE46-10-13552	S	3/3/2010
	1	RE46-10-13553	S	3/3/2010
	1	RE46-10-13556	S	3/3/2010

Final Page of REQUEST NUMBER 10-2302

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order:10-2302**
Received By:Patricia Dover-Dent	**Date Received: 3/5/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **1-5** **13,15**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers:

7209 7850 3587 1C **7209 7850 3668 4C**
7209 7850 3613 2C **7209 7850 3657 5C**
7209 7850 3598 2C **7209 7850 3565 13C**
7209 7850 3602 3C **7209 7850 3543 13C**
7209 7850 3635 3C **7209 7850 3554 15C**
7209 7850 3576 3C
7209 7850 3646 3C
7209 7850 3624 3C

PM (or PMA) review: Initials MS Date 3/8/10

ID: SAFA (505) 665-9966
E VALDEZ
AMOS NATL LAB.
LDG 1237 DPU 03

AMOS, NM 87545
STATES US

ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ERIE DAVIS
ERAL ENGINEERING LAB
0 SAVAGE RD

ARLESTON SC 29407
) 556-8171
: 6B010AMR3A0223KY10

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K# 7209 7850 3587
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JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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ORIGIN ID: SAFA (505) 665-9966
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE24

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 44.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843) 556-8171
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LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWMO

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

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UNITED STATES US

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ACTWGT: 66.0 LB MAN
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LOS ALAMOS, NM 87545
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IGIN ID: SAFA (505) 665-9968
YLENE VALDEZ
S ALAMOS NATL LAB.
00 BLDG 1237 DPU 03

S ALAMOS, NM 87545
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SHIP DATE: 04MAR10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2450

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
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ORIGIN ID: SAFA (505)
LENE VALDEZ
ALAMOS NATL LAB.
0 BLDG 1237 DPU 03

S ALAMOS, NM 87545
ITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 88.0 LB MAN
CAD: 0014176/CAFE2450

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

GC/MS Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-2302

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	965875
Prep Batch Number:	965874

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
248842001	RE46-10-13555
248842002	RE46-10-13553
248842003	RE46-10-13549
248842004	RE46-10-13551
248842005	RE46-10-13550
248842006	RE46-10-13548
248842007	RE46-10-13546
248842008	RE46-10-13552
248842009	RE46-10-13547
248842010	RE46-10-13556
1202082296	High Blank (HB)
1202072713	Method Blank (MB)
1202072716	Laboratory Control Sample (LCS)
1202072717	Laboratory Control Sample (LCS)
1202082289	Method Blank (MB)
1202082291	Laboratory Control Sample (LCS)
1202082292	Laboratory Control Sample (LCS)
1202082290	Method Blank (MB)
1202082293	Laboratory Control Sample (LCS)
1202082294	Laboratory Control Sample (LCS)
1202072714	248842002(RE46-10-13553) Post Spike (PS)
1202072715	248842002(RE46-10-13553) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
Samples 248842 002, 003, 004, 005, 006, 007, 008, 009 and 010 in this SDG were analyzed on an "dry weight" basis. Samples 248842 001 in this SDG were analyzed on a "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 19.1.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration

All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

QC Sample Designation

Sample 248842002 (RE46-10-13553) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

The following samples were not analyzed within holding because of a required dilution that occurred outside the holding time: 248842004 (RE46-10-13551), 248842007 (RE46-10-13546) and 248842009 (RE46-10-13547).

The following samples were analyzed outside the method specified holding time, but were analyzed within two times the recommended holding period. This satisfies the client requirements. The results are reported 248842004 (RE46-10-13551), 248842005 (RE46-10-13550), 248842007 (RE46-10-13546) and 248842009 (RE46-10-13547). See DER# 811338.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions / Methanol Dilutions
The following samples were diluted using the methanol extraction procedure because target analyte concentrations exceeded the calibration range: 248842004 (RE46-10-13551), 248842007 (RE46-10-13546) and 248842009 (RE46-10-13547).

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Package Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
The following DER was generated for this SDG: 811338.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA1.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	RTX-624	Restek, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2302 GEL Work Order: 248842

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

E Organics--Concentration of the target analyte exceeds the instrument calibration range

H Analytical holding time was exceeded

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

h Preparation or preservation holding time was exceeded

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 01 APR 2010 **Title: Data Validator**

Roadmap for LANL 10-2302 VOA

This roadmap was analyzed by alc01592 on 03-30-2010, 01:18.
This roadmap was packaged by lys00434 on 03-31-2010, 11:27.

Sample

exclude	manual	datafile	smpid	clientid	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA1.i/031610v1/1c208.d	248842001	RE46-10-13555	16-MAR-2010	14:14	10-2302.sub	1	965875	
☐	N	/chem/VOA1.i/031610v1/1c210.d	248842002	RE46-10-13553	16-MAR-2010	15:16	10-2302.sub	1	965875	
☐	N	/chem/VOA1.i/031610v1/1c211.d	248842003	RE46-10-13549	16-MAR-2010	15:47	10-2302.sub	1	965875	
☐	N	/chem/VOA1.i/031610v1/1c212.d	248842004	RE46-10-13551	16-MAR-2010	16:18	10-2302.sub	1	965875	
■	N	/chem/VOA1.i/031610v1/1c213.d	248842005	RE46-10-13550	16-MAR-2010	16:48	10-2302.sub	1	965875	
■	N	/chem/VOA1.i/031610v1/1c214.d	248842006	RE46-10-13548	16-MAR-2010	17:19	10-2302.sub	1	965875	
☐	N	/chem/VOA1.i/031610v1/1c215.d	248842007	RE46-10-13546	16-MAR-2010	17:50	10-2302.sub	1	965875	
■	N	/chem/VOA1.i/031610v1/1c216.d	248842008	RE46-10-13552	16-MAR-2010	18:21	10-2302.sub	1	965875	
☐	N	/chem/VOA1.i/031610v1/1c217.d	248842009	RE46-10-13547	16-MAR-2010	18:52	10-2302.sub	1	965875	
■	N	/chem/VOA1.i/031610v1/1c218.d	248842010	RE46-10-13556	16-MAR-2010	19:23	10-2302.sub	1	965875	
☐	N	/chem/VOA1.i/031710v1/1c309.d	248842006	RE46-10-13548	17-MAR-2010	15:00	10-2302.sub	1	965875	
■	N	/chem/VOA1.i/031710v1/1c310.d	248842005	RE46-10-13550	17-MAR-2010	15:30	10-2302.sub	1	965875	
☐	N	/chem/VOA1.i/031710v1/1c311.d	248842010	RE46-10-13556	17-MAR-2010	16:01	10-2302.sub	1	965875	
☐	N	/chem/VOA1.i/031710v1/1c312.d	248842008	RE46-10-13552	17-MAR-2010	16:31	10-2302.sub	1	965875	
■	N	/chem/VOA1.i/031710v1/1c314.d	248842004	RE46-10-13551	17-MAR-2010	17:32	10-2302.sub	2	965875	
■	N	/chem/VOA1.i/031710v1/1c315.d	248842009	RE46-10-13547	17-MAR-2010	18:03	10-2302.sub	2	965875	
■	N	/chem/VOA1.i/031710v1/1c318.d	248842007	RE46-10-13546	17-MAR-2010	19:34	10-2302.sub	10	965875	

☐	N	/chem/VOA1.i/031810v1/1c409.d	248842004	RE46-10-13551	18-MAR-2010	13:14	10-2302.sub	1	965875	
☐	N	/chem/VOA1.i/031810v1/1c410.d	248842009	RE46-10-13547	18-MAR-2010	13:45	10-2302.sub	1	965875	
☐	N	/chem/VOA1.i/031810v1/1c411.d	248842007	RE46-10-13546	18-MAR-2010	14:16	10-2302.sub	2	965875	
■	N	/chem/VOA1.i/031810v1/1c413.d	248842007	RE46-10-13546	18-MAR-2010	15:18	10-2302.sub	2	965875	
☐	N	/chem/VOA1.i/031810v1/1c415.d	248842005	RE46-10-13550	18-MAR-2010	16:20	10-2302.sub	1	965875	

QC Sample

exclude	manual	datafile	smpid	clientid	sampletype	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA1.i/031610v1/1c203LL.d	1202072716	LCS	lcs	16-MAR-2010	11:30	all.sub	1	965875	
☐	N	/chem/VOA1.i/031610v1/1c205LL.d	1202072717	SLCS	lcs	16-MAR-2010	12:32	all.sub	1	965875	
☐	N	/chem/VOA1.i/031610v1/1c206LL.d	1202072713	BLANK	mb	16-MAR-2010	13:03	all.sub	1	965875	
☐	N	/chem/VOA1.i/031610v1/1c223.d	1202072714	RE46-10-13553MS	ms	16-MAR-2010	21:55	10-2302.sub	1	965875	
☐	N	/chem/VOA1.i/031610v1/1c224.d	1202072715	RE46-10-13553MSD	msd	16-MAR-2010	22:26	10-2302.sub	1	965875	
☐	N	/chem/VOA1.i/031710v1/1c303LL.d	1202082291	LCS	lcs	17-MAR-2010	11:13	all.sub	1	965875	
☐	N	/chem/VOA1.i/031710v1/1c305LL.d	1202082292	SLCS	lcs	17-MAR-2010	12:14	all.sub	1	965875	
☐	N	/chem/VOA1.i/031710v1/1c307LL.d	1202082289	BLANK	mb	17-MAR-2010	13:16	all.sub	1	965875	
☐	N	/chem/VOA1.i/031710v1/1c308.d	1202082296	BLANK	hb	17-MAR-2010	14:29	all.sub	1	965875	
☐	N	/chem/VOA1.i/031810v1/1c404LL.d	1202082293	LCS	lcs	18-MAR-2010	10:41	all.sub	1	965875	
☐	N	/chem/VOA1.i/031810v1/1c406LL.d	1202082294	SLCS	lcs	18-MAR-2010	11:42	all.sub	1	965875	
☐	N	/chem/VOA1.i/031810v1/1c408LL.d	1202082290	BLANK	mb	18-MAR-2010	12:43	all.sub	1	965875	

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13546**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 17:50**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c215.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.21	ug/kg	0.412	1.21
74-87-3	Chloromethane	U	1.21	ug/kg	0.364	1.21
75-01-4	Vinyl chloride	U	1.21	ug/kg	0.364	1.21
74-83-9	Bromomethane	U	1.21	ug/kg	0.364	1.21
75-00-3	Chloroethane	U	1.21	ug/kg	0.364	1.21
75-69-4	Trichlorofluoromethane	U	1.21	ug/kg	0.364	1.21
67-64-1	Acetone		79.3	ug/kg	2.01	6.06
75-35-4	1,1-Dichloroethylene		69.1	ug/kg	0.364	1.21
74-88-4	Iodomethane	U	6.06	ug/kg	1.94	6.06
75-09-2	Methylene chloride	U	6.06	ug/kg	2.43	6.06
75-15-0	Carbon disulfide	U	6.06	ug/kg	1.52	6.06
156-60-5	trans-1,2-Dichloroethylene	U	1.21	ug/kg	0.364	1.21
75-34-3	1,1-Dichloroethane	U	1.21	ug/kg	0.364	1.21
78-93-3	2-Butanone	U	6.06	ug/kg	1.82	6.06
156-59-2	cis-1,2-Dichloroethylene	J	0.398	ug/kg	0.364	1.21
594-20-7	2,2-Dichloropropane	U	1.21	ug/kg	0.364	1.21
67-66-3	Chloroform	U	1.21	ug/kg	0.364	1.21
74-97-5	Bromochloromethane	U	1.21	ug/kg	0.400	1.21
71-55-6	1,1,1-Trichloroethane	E	463	ug/kg	0.364	1.21
563-58-6	1,1-Dichloropropene	U	1.21	ug/kg	0.364	1.21
56-23-5	Carbon tetrachloride	J	0.985	ug/kg	0.364	1.21
107-06-2	1,2-Dichloroethane	U	1.21	ug/kg	0.364	1.21
71-43-2	Benzene	J	0.456	ug/kg	0.364	1.21
79-01-6	Trichloroethylene	E	5440	ug/kg	0.400	1.21
78-87-5	1,2-Dichloropropane		5.92	ug/kg	0.364	1.21
75-27-4	Bromodichloromethane	U	1.21	ug/kg	0.364	1.21
74-95-3	Dibromomethane	U	1.21	ug/kg	0.364	1.21
108-10-1	4-Methyl-2-pentanone	U	6.06	ug/kg	1.52	6.06
10061-01-5	cis-1,3-Dichloropropylene	U	1.21	ug/kg	0.364	1.21
108-88-3	Toluene		11.5	ug/kg	0.364	1.21
10061-02-6	trans-1,3-Dichloropropylene	U	1.21	ug/kg	0.364	1.21
79-00-5	1,1,2-Trichloroethane	U	1.21	ug/kg	0.364	1.21
591-78-6	2-Hexanone	U	6.06	ug/kg	1.82	6.06
142-28-9	1,3-Dichloropropane	U	1.21	ug/kg	0.364	1.21
127-18-4	Tetrachloroethylene	E	758	ug/kg	0.364	1.21
124-48-1	Dibromochloromethane	U	1.21	ug/kg	0.364	1.21
106-93-4	1,2-Dibromoethane	U	1.21	ug/kg	0.364	1.21
108-90-7	Chlorobenzene	U	1.21	ug/kg	0.364	1.21

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13546**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 17:50**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c215.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		5.17	ug/kg	0.364	1.21
179601-23-1	m,p-Xylenes	U	2.43	ug/kg	0.364	2.43
95-47-6	o-Xylene		8.22	ug/kg	0.364	1.21
100-42-5	Styrene	U	1.21	ug/kg	0.364	1.21
75-25-2	Bromoform	U	1.21	ug/kg	0.364	1.21
79-34-5	1,1,2,2-Tetrachloroethane	U	1.21	ug/kg	0.364	1.21
96-18-4	1,2,3-Trichloropropane	U	1.21	ug/kg	0.364	1.21
108-86-1	Bromobenzene	U	1.21	ug/kg	0.364	1.21
103-65-1	n-Propylbenzene		23.9	ug/kg	0.364	1.21
95-49-8	2-Chlorotoluene	U	1.21	ug/kg	0.364	1.21
98-82-8	Isopropylbenzene		6.26	ug/kg	0.364	1.21
108-67-8	1,3,5-Trimethylbenzene		82.1	ug/kg	0.364	1.21
106-43-4	4-Chlorotoluene	U	1.21	ug/kg	0.364	1.21
98-06-6	tert-Butylbenzene	U	1.21	ug/kg	0.364	1.21
95-63-6	1,2,4-Trimethylbenzene	U	1.21	ug/kg	0.364	1.21
135-98-8	sec-Butylbenzene		49.6	ug/kg	0.364	1.21
99-87-6	4-Isopropyltoluene		73.8	ug/kg	0.364	1.21
541-73-1	1,3-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21
106-46-7	1,4-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21
104-51-8	n-Butylbenzene		114	ug/kg	0.364	1.21
96-12-8	1,2-Dibromo-3-chloropropane	U	1.21	ug/kg	0.364	1.21
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.06	ug/kg	1.94	6.06
630-20-6	1,1,1,2-Tetrachloroethane		4.89	ug/kg	0.364	1.21
95-50-1	1,2-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	16.49	95.7	ug/kg		J
	Unknown Hydrocarbon	16.74	41.3	ug/kg		J
	Unknown Hydrocarbon	17.66	218	ug/kg		J
	Unknown Hydrocarbon	18.03	718	ug/kg		J
	Unknown Hydrocarbon	18.83	397	ug/kg		J
	Unknown Hydrocarbon	19.96	45.5	ug/kg		J
	Unknown Hydrocarbon	20.06	41.9	ug/kg		J
	Unknown Hydrocarbon	20.25	72.7	ug/kg		J
	Unknown Hydrocarbon	20.8	8.21	ug/kg		J
	Unknown Hydrocarbon	20.92	20.1	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842007	**Date Received:**	03/05/2010 10:20	**%Moisture:**	17.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13546	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/16/2010 17:50	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 14:12	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c215.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	21.35	8.7	ug/kg		J
	Unknown Hydrocarbon	21.68	6.11	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13546REDL**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**100**
Run Date:	**03/18/2010 14:16**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:31**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**1c411.d**	**Column:**	**RTX-Volatiles**	**Level:**	**MED**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	HU	243	ug/kg	82.5	243
74-87-3	Chloromethane	HU	243	ug/kg	72.8	243
75-01-4	Vinyl chloride	HU	243	ug/kg	72.8	243
74-83-9	Bromomethane	HU	243	ug/kg	72.8	243
75-00-3	Chloroethane	HU	243	ug/kg	72.8	243
75-69-4	Trichlorofluoromethane	HU	243	ug/kg	72.8	243
67-64-1	Acetone	HU	1210	ug/kg	403	1210
75-35-4	1,1-Dichloroethylene	HU	243	ug/kg	72.8	243
74-88-4	Iodomethane	HU	1210	ug/kg	388	1210
75-09-2	Methylene chloride	HU	1210	ug/kg	485	1210
75-15-0	Carbon disulfide	HU	1210	ug/kg	303	1210
156-60-5	trans-1,2-Dichloroethylene	HU	243	ug/kg	72.8	243
75-34-3	1,1-Dichloroethane	HU	243	ug/kg	72.8	243
78-93-3	2-Butanone	HU	1210	ug/kg	364	1210
156-59-2	cis-1,2-Dichloroethylene	HU	243	ug/kg	72.8	243
594-20-7	2,2-Dichloropropane	HU	243	ug/kg	72.8	243
67-66-3	Chloroform	HU	243	ug/kg	72.8	243
74-97-5	Bromochloromethane	HU	243	ug/kg	80.0	243
71-55-6	1,1,1-Trichloroethane	H	414	ug/kg	72.8	243
563-58-6	1,1-Dichloropropene	HU	243	ug/kg	72.8	243
56-23-5	Carbon tetrachloride	HU	243	ug/kg	72.8	243
107-06-2	1,2-Dichloroethane	HU	243	ug/kg	72.8	243
71-43-2	Benzene	HU	243	ug/kg	72.8	243
79-01-6	Trichloroethylene	H	11900	ug/kg	80.0	243
78-87-5	1,2-Dichloropropane	HU	243	ug/kg	72.8	243
75-27-4	Bromodichloromethane	HU	243	ug/kg	72.8	243
74-95-3	Dibromomethane	HU	243	ug/kg	72.8	243
108-10-1	4-Methyl-2-pentanone	HU	1210	ug/kg	303	1210
10061-01-5	cis-1,3-Dichloropropylene	HU	243	ug/kg	72.8	243
108-88-3	Toluene	HJ	73.2	ug/kg	72.8	243
10061-02-6	trans-1,3-Dichloropropylene	HU	243	ug/kg	72.8	243
79-00-5	1,1,2-Trichloroethane	HU	243	ug/kg	72.8	243
591-78-6	2-Hexanone	HU	1210	ug/kg	364	1210
142-28-9	1,3-Dichloropropane	HU	243	ug/kg	72.8	243
127-18-4	Tetrachloroethylene	H	1390	ug/kg	72.8	243
124-48-1	Dibromochloromethane	HU	243	ug/kg	72.8	243
106-93-4	1,2-Dibromoethane	HU	243	ug/kg	72.8	243
108-90-7	Chlorobenzene	HU	243	ug/kg	72.8	243

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13546REDL**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**100**
Run Date:	**03/18/2010 14:16**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:31**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**1c411.d**	**Column:**	**RTX-Volatiles**	**Level:**	**MED**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	HU	243	ug/kg	72.8	243
179601-23-1	m,p-Xylenes	HU	485	ug/kg	72.8	485
95-47-6	o-Xylene	HU	243	ug/kg	72.8	243
100-42-5	Styrene	HU	243	ug/kg	72.8	243
75-25-2	Bromoform	HU	243	ug/kg	72.8	243
79-34-5	1,1,2,2-Tetrachloroethane	HU	243	ug/kg	72.8	243
96-18-4	1,2,3-Trichloropropane	HU	243	ug/kg	72.8	243
108-86-1	Bromobenzene	HU	243	ug/kg	72.8	243
103-65-1	n-Propylbenzene	HJ	93.1	ug/kg	72.8	243
95-49-8	2-Chlorotoluene	HU	243	ug/kg	72.8	243
98-82-8	Isopropylbenzene	HU	243	ug/kg	72.8	243
108-67-8	1,3,5-Trimethylbenzene	H	429	ug/kg	72.8	243
106-43-4	4-Chlorotoluene	HU	243	ug/kg	72.8	243
98-06-6	tert-Butylbenzene	HU	243	ug/kg	72.8	243
95-63-6	1,2,4-Trimethylbenzene	HU	243	ug/kg	72.8	243
135-98-8	sec-Butylbenzene	H	368	ug/kg	72.8	243
99-87-6	4-Isopropyltoluene	H	669	ug/kg	72.8	243
541-73-1	1,3-Dichlorobenzene	HU	243	ug/kg	72.8	243
106-46-7	1,4-Dichlorobenzene	HU	243	ug/kg	72.8	243
104-51-8	n-Butylbenzene	H	1280	ug/kg	72.8	243
96-12-8	1,2-Dibromo-3-chloropropane	HU	243	ug/kg	72.8	243
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	HU	1210	ug/kg	388	1210
630-20-6	1,1,1,2-Tetrachloroethane	HU	243	ug/kg	72.8	243
95-50-1	1,2-Dichlorobenzene	HU	243	ug/kg	72.8	243

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	6.87	2070	ug/kg		J
	Unknown	16.51	16800	ug/kg		J
	Unknown Hydrocarbon	17.66	2160	ug/kg		J
	Unknown Hydrocarbon	18.03	8470	ug/kg		J
	Unknown Hydrocarbon	18.16	2580	ug/kg		J
	Unknown Hydrocarbon	18.82	34700	ug/kg		J
	Unknown Hydrocarbon	19.95	64100	ug/kg		J
	Unknown Hydrocarbon	20.8	6360	ug/kg		J
	Unknown Hydrocarbon	21.13	83800	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13547**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 18:52**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c217.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.389	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.343	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.343	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.343	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.343	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.343	1.14
67-64-1	Acetone		68.2	ug/kg	1.90	5.72
75-35-4	1,1-Dichloroethylene		12.6	ug/kg	0.343	1.14
74-88-4	Iodomethane	U	5.72	ug/kg	1.83	5.72
75-09-2	Methylene chloride	U	5.72	ug/kg	2.29	5.72
75-15-0	Carbon disulfide	U	5.72	ug/kg	1.43	5.72
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.343	1.14
78-93-3	2-Butanone	U	5.72	ug/kg	1.72	5.72
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.343	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.343	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.378	1.14
71-55-6	1,1,1-Trichloroethane		100	ug/kg	0.343	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.343	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.343	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.343	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.343	1.14
79-01-6	Trichloroethylene	E	2640	ug/kg	0.378	1.14
78-87-5	1,2-Dichloropropane		2.98	ug/kg	0.343	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.343	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.343	1.14
108-10-1	4-Methyl-2-pentanone	U	5.72	ug/kg	1.43	5.72
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.343	1.14
108-88-3	Toluene		15.3	ug/kg	0.343	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.343	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.343	1.14
591-78-6	2-Hexanone	U	5.72	ug/kg	1.72	5.72
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.343	1.14
127-18-4	Tetrachloroethylene	E	201	ug/kg	0.343	1.14
124-48-1	Dibromochloromethane	J	0.353	ug/kg	0.343	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.343	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.343	1.14

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13547**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 18:52**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c217.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		3.96	ug/kg	0.343	1.14
179601-23-1	m,p-Xylenes	J	0.500	ug/kg	0.343	2.29
95-47-6	o-Xylene		6.82	ug/kg	0.343	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.343	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.343	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.343	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.343	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.343	1.14
103-65-1	n-Propylbenzene		12.1	ug/kg	0.343	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.343	1.14
98-82-8	Isopropylbenzene		3.80	ug/kg	0.343	1.14
108-67-8	1,3,5-Trimethylbenzene		40.8	ug/kg	0.343	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.343	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.343	1.14
95-63-6	1,2,4-Trimethylbenzene		19.4	ug/kg	0.343	1.14
135-98-8	sec-Butylbenzene		19.8	ug/kg	0.343	1.14
99-87-6	4-Isopropyltoluene		26.8	ug/kg	0.343	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14
104-51-8	n-Butylbenzene		42.9	ug/kg	0.343	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.343	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.72	ug/kg	1.83	5.72
630-20-6	1,1,1,2-Tetrachloroethane		2.38	ug/kg	0.343	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	17.66	59.4	ug/kg		J
	Unknown Hydrocarbon	17.84	68.2	ug/kg		J
	Unknown Hydrocarbon	18.03	263	ug/kg		J
	Unknown Hydrocarbon	18.17	116	ug/kg		J
	Unknown Hydrocarbon	18.46	13.7	ug/kg		J
	Unknown Hydrocarbon	19.74	99.1	ug/kg		J
	Unknown Hydrocarbon	19.96	127	ug/kg		J
	Unknown Hydrocarbon	20.65	131	ug/kg		J
	Unknown Hydrocarbon	20.8	17.6	ug/kg		J
	Unknown Hydrocarbon	20.95	56.1	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13547**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 18:52**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c217.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	21.35	21.4	ug/kg		J
	Unknown Hydrocarbon	21.68	16	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13547REDL**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**50**
Run Date:	**03/18/2010 13:45**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:32**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**1c410.d**	**Column:**	**RTX-Volatiles**	**Level:**	**MED**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	HU	114	ug/kg	38.9	114
74-87-3	Chloromethane	HU	114	ug/kg	34.3	114
75-01-4	Vinyl chloride	HU	114	ug/kg	34.3	114
74-83-9	Bromomethane	HU	114	ug/kg	34.3	114
75-00-3	Chloroethane	HU	114	ug/kg	34.3	114
75-69-4	Trichlorofluoromethane	HU	114	ug/kg	34.3	114
67-64-1	Acetone	HU	572	ug/kg	190	572
75-35-4	1,1-Dichloroethylene	HU	114	ug/kg	34.3	114
74-88-4	Iodomethane	HU	572	ug/kg	183	572
75-09-2	Methylene chloride	HU	572	ug/kg	229	572
75-15-0	Carbon disulfide	HU	572	ug/kg	143	572
156-60-5	trans-1,2-Dichloroethylene	HU	114	ug/kg	34.3	114
75-34-3	1,1-Dichloroethane	HU	114	ug/kg	34.3	114
78-93-3	2-Butanone	HJ	207	ug/kg	172	572
156-59-2	cis-1,2-Dichloroethylene	HU	114	ug/kg	34.3	114
594-20-7	2,2-Dichloropropane	HU	114	ug/kg	34.3	114
67-66-3	Chloroform	HU	114	ug/kg	34.3	114
74-97-5	Bromochloromethane	HU	114	ug/kg	37.8	114
71-55-6	1,1,1-Trichloroethane	HJ	88.8	ug/kg	34.3	114
563-58-6	1,1-Dichloropropene	HU	114	ug/kg	34.3	114
56-23-5	Carbon tetrachloride	HU	114	ug/kg	34.3	114
107-06-2	1,2-Dichloroethane	HU	114	ug/kg	34.3	114
71-43-2	Benzene	HU	114	ug/kg	34.3	114
79-01-6	Trichloroethylene	H	4510	ug/kg	37.8	114
78-87-5	1,2-Dichloropropane	HU	114	ug/kg	34.3	114
75-27-4	Bromodichloromethane	HU	114	ug/kg	34.3	114
74-95-3	Dibromomethane	HU	114	ug/kg	34.3	114
108-10-1	4-Methyl-2-pentanone	HU	572	ug/kg	143	572
10061-01-5	cis-1,3-Dichloropropylene	HU	114	ug/kg	34.3	114
108-88-3	Toluene	HJ	84.4	ug/kg	34.3	114
10061-02-6	trans-1,3-Dichloropropylene	HU	114	ug/kg	34.3	114
79-00-5	1,1,2-Trichloroethane	HU	114	ug/kg	34.3	114
591-78-6	2-Hexanone	HU	572	ug/kg	172	572
142-28-9	1,3-Dichloropropane	HU	114	ug/kg	34.3	114
127-18-4	Tetrachloroethylene	H	749	ug/kg	34.3	114
124-48-1	Dibromochloromethane	HU	114	ug/kg	34.3	114
106-93-4	1,2-Dibromoethane	HU	114	ug/kg	34.3	114
108-90-7	Chlorobenzene	HU	114	ug/kg	34.3	114

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13547REDL**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**50**
Run Date:	**03/18/2010 13:45**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:32**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**1c410.d**	**Column:**	**RTX-Volatiles**	**Level:**	**MED**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	HU	114	ug/kg	34.3	114
179601-23-1	m,p-Xylenes	HU	229	ug/kg	34.3	229
95-47-6	o-Xylene	HJ	43.0	ug/kg	34.3	114
100-42-5	Styrene	HU	114	ug/kg	34.3	114
75-25-2	Bromoform	HU	114	ug/kg	34.3	114
79-34-5	1,1,2,2-Tetrachloroethane	HU	114	ug/kg	34.3	114
96-18-4	1,2,3-Trichloropropane	HU	114	ug/kg	34.3	114
108-86-1	Bromobenzene	HU	114	ug/kg	34.3	114
103-65-1	n-Propylbenzene	H	167	ug/kg	34.3	114
95-49-8	2-Chlorotoluene	HU	114	ug/kg	34.3	114
98-82-8	Isopropylbenzene	HJ	42.0	ug/kg	34.3	114
108-67-8	1,3,5-Trimethylbenzene	H	653	ug/kg	34.3	114
106-43-4	4-Chlorotoluene	HU	114	ug/kg	34.3	114
98-06-6	tert-Butylbenzene	HU	114	ug/kg	34.3	114
95-63-6	1,2,4-Trimethylbenzene	H	334	ug/kg	34.3	114
135-98-8	sec-Butylbenzene	H	430	ug/kg	34.3	114
99-87-6	4-Isopropyltoluene	H	671	ug/kg	34.3	114
541-73-1	1,3-Dichlorobenzene	HU	114	ug/kg	34.3	114
106-46-7	1,4-Dichlorobenzene	HU	114	ug/kg	34.3	114
104-51-8	n-Butylbenzene	H	1280	ug/kg	34.3	114
96-12-8	1,2-Dibromo-3-chloropropane	HU	114	ug/kg	34.3	114
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	HU	572	ug/kg	183	572
630-20-6	1,1,1,2-Tetrachloroethane	HU	114	ug/kg	34.3	114
95-50-1	1,2-Dichlorobenzene	HU	114	ug/kg	34.3	114

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	16.5	8710	ug/kg		J
	Unknown Hydrocarbon	19.74	12300	ug/kg		J
	Unknown Hydrocarbon	19.95	7150	ug/kg		J
	Unknown Hydrocarbon	20.38	7430	ug/kg		J
	Unknown Hydrocarbon	20.64	6340	ug/kg		J
	Unknown Hydrocarbon	20.95	13500	ug/kg		J
	Unknown Hydrocarbon	21.13	8420	ug/kg		J
	Unknown Hydrocarbon	21.35	11200	ug/kg		J
	Unknown Hydrocarbon	21.78	7730	ug/kg		J
	Unknown Hydrocarbon	21.9	7210	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13547REDL	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	50
Run Date:	03/18/2010 13:45	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 13:32	**Aliquot:**	5 g	**Final Volume:**	10 mL
Data File:	1c410.d	**Column:**	RTX-Volatiles	**Level:**	MED

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	22.27	5520	ug/kg		J
	Unknown Hydrocarbon	22.42	12200	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13548**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 15:00**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:17**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c309.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.21	ug/kg	0.411	1.21
74-87-3	Chloromethane	U	1.21	ug/kg	0.362	1.21
75-01-4	Vinyl chloride	U	1.21	ug/kg	0.362	1.21
74-83-9	Bromomethane	U	1.21	ug/kg	0.362	1.21
75-00-3	Chloroethane	U	1.21	ug/kg	0.362	1.21
75-69-4	Trichlorofluoromethane	U	1.21	ug/kg	0.362	1.21
67-64-1	Acetone		69.8	ug/kg	2.00	6.04
75-35-4	1,1-Dichloroethylene	U	1.21	ug/kg	0.362	1.21
74-88-4	Iodomethane	U	6.04	ug/kg	1.93	6.04
75-09-2	Methylene chloride	U	6.04	ug/kg	2.41	6.04
75-15-0	Carbon disulfide	U	6.04	ug/kg	1.51	6.04
156-60-5	trans-1,2-Dichloroethylene	U	1.21	ug/kg	0.362	1.21
75-34-3	1,1-Dichloroethane	U	1.21	ug/kg	0.362	1.21
78-93-3	2-Butanone	U	6.04	ug/kg	1.81	6.04
156-59-2	cis-1,2-Dichloroethylene	J	0.888	ug/kg	0.362	1.21
594-20-7	2,2-Dichloropropane	U	1.21	ug/kg	0.362	1.21
67-66-3	Chloroform	U	1.21	ug/kg	0.362	1.21
74-97-5	Bromochloromethane	U	1.21	ug/kg	0.398	1.21
71-55-6	1,1,1-Trichloroethane		1.82	ug/kg	0.362	1.21
563-58-6	1,1-Dichloropropene	U	1.21	ug/kg	0.362	1.21
56-23-5	Carbon tetrachloride	U	1.21	ug/kg	0.362	1.21
107-06-2	1,2-Dichloroethane	U	1.21	ug/kg	0.362	1.21
71-43-2	Benzene	J	0.684	ug/kg	0.362	1.21
79-01-6	Trichloroethylene		10.5	ug/kg	0.398	1.21
78-87-5	1,2-Dichloropropane	U	1.21	ug/kg	0.362	1.21
75-27-4	Bromodichloromethane	U	1.21	ug/kg	0.362	1.21
74-95-3	Dibromomethane	U	1.21	ug/kg	0.362	1.21
108-10-1	4-Methyl-2-pentanone	U	6.04	ug/kg	1.51	6.04
10061-01-5	cis-1,3-Dichloropropylene	U	1.21	ug/kg	0.362	1.21
108-88-3	Toluene	U	1.21	ug/kg	0.362	1.21
10061-02-6	trans-1,3-Dichloropropylene	U	1.21	ug/kg	0.362	1.21
79-00-5	1,1,2-Trichloroethane	U	1.21	ug/kg	0.362	1.21
591-78-6	2-Hexanone	U	6.04	ug/kg	1.81	6.04
142-28-9	1,3-Dichloropropane	U	1.21	ug/kg	0.362	1.21
127-18-4	Tetrachloroethylene	J	0.570	ug/kg	0.362	1.21
124-48-1	Dibromochloromethane	U	1.21	ug/kg	0.362	1.21
106-93-4	1,2-Dibromoethane	U	1.21	ug/kg	0.362	1.21
108-90-7	Chlorobenzene	U	1.21	ug/kg	0.362	1.21

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13548**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 15:00**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:17**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c309.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.21	ug/kg	0.362	1.21
179601-23-1	m,p-Xylenes	U	2.41	ug/kg	0.362	2.41
95-47-6	o-Xylene	U	1.21	ug/kg	0.362	1.21
100-42-5	Styrene	U	1.21	ug/kg	0.362	1.21
75-25-2	Bromoform	U	1.21	ug/kg	0.362	1.21
79-34-5	1,1,2,2-Tetrachloroethane	U	1.21	ug/kg	0.362	1.21
96-18-4	1,2,3-Trichloropropane	U	1.21	ug/kg	0.362	1.21
108-86-1	Bromobenzene	U	1.21	ug/kg	0.362	1.21
103-65-1	n-Propylbenzene	J	1.16	ug/kg	0.362	1.21
95-49-8	2-Chlorotoluene	U	1.21	ug/kg	0.362	1.21
98-82-8	Isopropylbenzene	U	1.21	ug/kg	0.362	1.21
108-67-8	1,3,5-Trimethylbenzene		6.66	ug/kg	0.362	1.21
106-43-4	4-Chlorotoluene	U	1.21	ug/kg	0.362	1.21
98-06-6	tert-Butylbenzene	U	1.21	ug/kg	0.362	1.21
95-63-6	1,2,4-Trimethylbenzene		2.92	ug/kg	0.362	1.21
135-98-8	sec-Butylbenzene		5.61	ug/kg	0.362	1.21
99-87-6	4-Isopropyltoluene		10.8	ug/kg	0.362	1.21
541-73-1	1,3-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21
106-46-7	1,4-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21
104-51-8	n-Butylbenzene		24.0	ug/kg	0.362	1.21
96-12-8	1,2-Dibromo-3-chloropropane	U	1.21	ug/kg	0.362	1.21
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.04	ug/kg	1.93	6.04
630-20-6	1,1,1,2-Tetrachloroethane	U	1.21	ug/kg	0.362	1.21
95-50-1	1,2-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.88	65.1	ug/kg		J
	Unknown	16.54	9.21	ug/kg		J
	Unknown Hydrocarbon	17.66	9.49	ug/kg		J
	Unknown Hydrocarbon	18.03	76.6	ug/kg		J
	Unknown Hydrocarbon	18.11	17.1	ug/kg		J
	Unknown Hydrocarbon	18.16	17.8	ug/kg		J
	Unknown Hydrocarbon	18.82	144	ug/kg		J
	Unknown Hydrocarbon	19.74	181	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**16.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13549**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 15:47**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c211.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.20	ug/kg	0.408	1.20
74-87-3	Chloromethane	U	1.20	ug/kg	0.360	1.20
75-01-4	Vinyl chloride	U	1.20	ug/kg	0.360	1.20
74-83-9	Bromomethane	U	1.20	ug/kg	0.360	1.20
75-00-3	Chloroethane	U	1.20	ug/kg	0.360	1.20
75-69-4	Trichlorofluoromethane	U	1.20	ug/kg	0.360	1.20
67-64-1	Acetone		64.9	ug/kg	1.99	5.99
75-35-4	1,1-Dichloroethylene	U	1.20	ug/kg	0.360	1.20
74-88-4	Iodomethane	U	5.99	ug/kg	1.92	5.99
75-09-2	Methylene chloride	U	5.99	ug/kg	2.40	5.99
75-15-0	Carbon disulfide	U	5.99	ug/kg	1.50	5.99
156-60-5	trans-1,2-Dichloroethylene	U	1.20	ug/kg	0.360	1.20
75-34-3	1,1-Dichloroethane	U	1.20	ug/kg	0.360	1.20
78-93-3	2-Butanone	U	5.99	ug/kg	1.80	5.99
156-59-2	cis-1,2-Dichloroethylene	U	1.20	ug/kg	0.360	1.20
594-20-7	2,2-Dichloropropane	U	1.20	ug/kg	0.360	1.20
67-66-3	Chloroform	U	1.20	ug/kg	0.360	1.20
74-97-5	Bromochloromethane	U	1.20	ug/kg	0.396	1.20
71-55-6	1,1,1-Trichloroethane	J	0.393	ug/kg	0.360	1.20
563-58-6	1,1-Dichloropropene	U	1.20	ug/kg	0.360	1.20
56-23-5	Carbon tetrachloride	U	1.20	ug/kg	0.360	1.20
107-06-2	1,2-Dichloroethane	U	1.20	ug/kg	0.360	1.20
71-43-2	Benzene	U	1.20	ug/kg	0.360	1.20
79-01-6	Trichloroethylene		2.58	ug/kg	0.396	1.20
78-87-5	1,2-Dichloropropane	U	1.20	ug/kg	0.360	1.20
75-27-4	Bromodichloromethane	U	1.20	ug/kg	0.360	1.20
74-95-3	Dibromomethane	U	1.20	ug/kg	0.360	1.20
108-10-1	4-Methyl-2-pentanone	U	5.99	ug/kg	1.50	5.99
10061-01-5	cis-1,3-Dichloropropylene	U	1.20	ug/kg	0.360	1.20
108-88-3	Toluene	U	1.20	ug/kg	0.360	1.20
10061-02-6	trans-1,3-Dichloropropylene	U	1.20	ug/kg	0.360	1.20
79-00-5	1,1,2-Trichloroethane	U	1.20	ug/kg	0.360	1.20
591-78-6	2-Hexanone	U	5.99	ug/kg	1.80	5.99
142-28-9	1,3-Dichloropropane	U	1.20	ug/kg	0.360	1.20
127-18-4	Tetrachloroethylene	U	1.20	ug/kg	0.360	1.20
124-48-1	Dibromochloromethane	U	1.20	ug/kg	0.360	1.20
106-93-4	1,2-Dibromoethane	U	1.20	ug/kg	0.360	1.20
108-90-7	Chlorobenzene	U	1.20	ug/kg	0.360	1.20

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**16.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13549**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 15:47**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c211.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.20	ug/kg	0.360	1.20
179601-23-1	m,p-Xylenes	U	2.40	ug/kg	0.360	2.40
95-47-6	o-Xylene	U	1.20	ug/kg	0.360	1.20
100-42-5	Styrene	U	1.20	ug/kg	0.360	1.20
75-25-2	Bromoform	U	1.20	ug/kg	0.360	1.20
79-34-5	1,1,2,2-Tetrachloroethane	U	1.20	ug/kg	0.360	1.20
96-18-4	1,2,3-Trichloropropane	U	1.20	ug/kg	0.360	1.20
108-86-1	Bromobenzene	U	1.20	ug/kg	0.360	1.20
103-65-1	n-Propylbenzene	U	1.20	ug/kg	0.360	1.20
95-49-8	2-Chlorotoluene	U	1.20	ug/kg	0.360	1.20
98-82-8	Isopropylbenzene	U	1.20	ug/kg	0.360	1.20
108-67-8	1,3,5-Trimethylbenzene	J	0.878	ug/kg	0.360	1.20
106-43-4	4-Chlorotoluene	U	1.20	ug/kg	0.360	1.20
98-06-6	tert-Butylbenzene	U	1.20	ug/kg	0.360	1.20
95-63-6	1,2,4-Trimethylbenzene		1.90	ug/kg	0.360	1.20
135-98-8	sec-Butylbenzene	U	1.20	ug/kg	0.360	1.20
99-87-6	4-Isopropyltoluene		2.06	ug/kg	0.360	1.20
541-73-1	1,3-Dichlorobenzene	U	1.20	ug/kg	0.360	1.20
106-46-7	1,4-Dichlorobenzene	U	1.20	ug/kg	0.360	1.20
104-51-8	n-Butylbenzene		4.58	ug/kg	0.360	1.20
96-12-8	1,2-Dibromo-3-chloropropane	U	1.20	ug/kg	0.360	1.20
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.99	ug/kg	1.92	5.99
630-20-6	1,1,1,2-Tetrachloroethane	U	1.20	ug/kg	0.360	1.20
95-50-1	1,2-Dichlorobenzene	U	1.20	ug/kg	0.360	1.20

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.88	39	ug/kg		J
	Unknown	16.51	82.4	ug/kg		J
	Unknown Siloxane	18.05	14.5	ug/kg		J
	Unknown Hydrocarbon	18.51	33.1	ug/kg		J
	Unknown Hydrocarbon	19.74	221	ug/kg		J
	Unknown Hydrocarbon	20.95	1180	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13550**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 16:20**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 12:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c415.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	HUh	1.23	ug/kg	0.417	1.23
74-87-3	Chloromethane	HUh	1.23	ug/kg	0.368	1.23
75-01-4	Vinyl chloride	HUh	1.23	ug/kg	0.368	1.23
74-83-9	Bromomethane	HUh	1.23	ug/kg	0.368	1.23
75-00-3	Chloroethane	HUh	1.23	ug/kg	0.368	1.23
75-69-4	Trichlorofluoromethane	HUh	1.23	ug/kg	0.368	1.23
67-64-1	Acetone	Hh	114	ug/kg	2.04	6.13
75-35-4	1,1-Dichloroethylene	HUh	1.23	ug/kg	0.368	1.23
74-88-4	Iodomethane	HUh	6.13	ug/kg	1.96	6.13
75-09-2	Methylene chloride	HUh	6.13	ug/kg	2.45	6.13
75-15-0	Carbon disulfide	HUh	6.13	ug/kg	1.53	6.13
156-60-5	trans-1,2-Dichloroethylene	HUh	1.23	ug/kg	0.368	1.23
75-34-3	1,1-Dichloroethane	HUh	1.23	ug/kg	0.368	1.23
78-93-3	2-Butanone	HUh	6.13	ug/kg	1.84	6.13
156-59-2	cis-1,2-Dichloroethylene	HJh	0.564	ug/kg	0.368	1.23
594-20-7	2,2-Dichloropropane	HUh	1.23	ug/kg	0.368	1.23
67-66-3	Chloroform	HUh	1.23	ug/kg	0.368	1.23
74-97-5	Bromochloromethane	HUh	1.23	ug/kg	0.405	1.23
71-55-6	1,1,1-Trichloroethane	Hh	7.70	ug/kg	0.368	1.23
563-58-6	1,1-Dichloropropene	HUh	1.23	ug/kg	0.368	1.23
56-23-5	Carbon tetrachloride	HUh	1.23	ug/kg	0.368	1.23
107-06-2	1,2-Dichloroethane	HUh	1.23	ug/kg	0.368	1.23
71-43-2	Benzene	HUh	1.23	ug/kg	0.368	1.23
79-01-6	Trichloroethylene	Hh	43.0	ug/kg	0.405	1.23
78-87-5	1,2-Dichloropropane	HUh	1.23	ug/kg	0.368	1.23
75-27-4	Bromodichloromethane	HUh	1.23	ug/kg	0.368	1.23
74-95-3	Dibromomethane	HUh	1.23	ug/kg	0.368	1.23
108-10-1	4-Methyl-2-pentanone	HUh	6.13	ug/kg	1.53	6.13
10061-01-5	cis-1,3-Dichloropropylene	HUh	1.23	ug/kg	0.368	1.23
108-88-3	Toluene	HUh	1.23	ug/kg	0.368	1.23
10061-02-6	trans-1,3-Dichloropropylene	HUh	1.23	ug/kg	0.368	1.23
79-00-5	1,1,2-Trichloroethane	HUh	1.23	ug/kg	0.368	1.23
591-78-6	2-Hexanone	HUh	6.13	ug/kg	1.84	6.13
142-28-9	1,3-Dichloropropane	HUh	1.23	ug/kg	0.368	1.23
127-18-4	Tetrachloroethylene	Hh	2.39	ug/kg	0.368	1.23
124-48-1	Dibromochloromethane	HUh	1.23	ug/kg	0.368	1.23
106-93-4	1,2-Dibromoethane	HUh	1.23	ug/kg	0.368	1.23
108-90-7	Chlorobenzene	HUh	1.23	ug/kg	0.368	1.23

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13550**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 16:20**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 12:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c415.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	HUh	1.23	ug/kg	0.368	1.23
179601-23-1	m,p-Xylenes	HUh	2.45	ug/kg	0.368	2.45
95-47-6	o-Xylene	HUh	1.23	ug/kg	0.368	1.23
100-42-5	Styrene	HUh	1.23	ug/kg	0.368	1.23
75-25-2	Bromoform	HUh	1.23	ug/kg	0.368	1.23
79-34-5	1,1,2,2-Tetrachloroethane	HUh	1.23	ug/kg	0.368	1.23
96-18-4	1,2,3-Trichloropropane	HUh	1.23	ug/kg	0.368	1.23
108-86-1	Bromobenzene	HUh	1.23	ug/kg	0.368	1.23
103-65-1	n-Propylbenzene	HUh	1.23	ug/kg	0.368	1.23
95-49-8	2-Chlorotoluene	HUh	1.23	ug/kg	0.368	1.23
98-82-8	Isopropylbenzene	HUh	1.23	ug/kg	0.368	1.23
108-67-8	1,3,5-Trimethylbenzene	HUh	1.23	ug/kg	0.368	1.23
106-43-4	4-Chlorotoluene	HUh	1.23	ug/kg	0.368	1.23
98-06-6	tert-Butylbenzene	HUh	1.23	ug/kg	0.368	1.23
95-63-6	1,2,4-Trimethylbenzene	HUh	1.23	ug/kg	0.368	1.23
135-98-8	sec-Butylbenzene	HUh	1.23	ug/kg	0.368	1.23
99-87-6	4-Isopropyltoluene	HUh	1.23	ug/kg	0.368	1.23
541-73-1	1,3-Dichlorobenzene	HUh	1.23	ug/kg	0.368	1.23
106-46-7	1,4-Dichlorobenzene	HUh	1.23	ug/kg	0.368	1.23
104-51-8	n-Butylbenzene	HUh	1.23	ug/kg	0.368	1.23
96-12-8	1,2-Dibromo-3-chloropropane	HUh	1.23	ug/kg	0.368	1.23
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	HUh	6.13	ug/kg	1.96	6.13
630-20-6	1,1,1,2-Tetrachloroethane	HUh	1.23	ug/kg	0.368	1.23
95-50-1	1,2-Dichlorobenzene	HUh	1.23	ug/kg	0.368	1.23

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	19.96	106	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13551**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 16:18**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c212.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.429	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.378	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.378	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.378	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.378	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.378	1.26
67-64-1	Acetone		37.3	ug/kg	2.09	6.31
75-35-4	1,1-Dichloroethylene		38.8	ug/kg	0.378	1.26
74-88-4	Iodomethane	U	6.31	ug/kg	2.02	6.31
75-09-2	Methylene chloride	U	6.31	ug/kg	2.52	6.31
75-15-0	Carbon disulfide	U	6.31	ug/kg	1.58	6.31
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.378	1.26
78-93-3	2-Butanone	U	6.31	ug/kg	1.89	6.31
156-59-2	cis-1,2-Dichloroethylene	J	0.410	ug/kg	0.378	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.378	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.378	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.416	1.26
71-55-6	1,1,1-Trichloroethane	E	298	ug/kg	0.378	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.378	1.26
56-23-5	Carbon tetrachloride	J	0.606	ug/kg	0.378	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.378	1.26
71-43-2	Benzene	J	0.407	ug/kg	0.378	1.26
79-01-6	Trichloroethylene	E	4480	ug/kg	0.416	1.26
78-87-5	1,2-Dichloropropane		4.47	ug/kg	0.378	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.378	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.378	1.26
108-10-1	4-Methyl-2-pentanone	U	6.31	ug/kg	1.58	6.31
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.378	1.26
108-88-3	Toluene		11.5	ug/kg	0.378	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.378	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.378	1.26
591-78-6	2-Hexanone	U	6.31	ug/kg	1.89	6.31
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.378	1.26
127-18-4	Tetrachloroethylene	E	407	ug/kg	0.378	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.378	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.378	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.378	1.26

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13551**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 16:18**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c212.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		3.90	ug/kg	0.378	1.26
179601-23-1	m,p-Xylenes	J	0.756	ug/kg	0.378	2.52
95-47-6	o-Xylene		7.22	ug/kg	0.378	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.378	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.378	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.378	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.378	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.378	1.26
103-65-1	n-Propylbenzene		22.1	ug/kg	0.378	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.378	1.26
98-82-8	Isopropylbenzene		5.62	ug/kg	0.378	1.26
108-67-8	1,3,5-Trimethylbenzene		79.7	ug/kg	0.378	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.378	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.378	1.26
95-63-6	1,2,4-Trimethylbenzene		49.7	ug/kg	0.378	1.26
135-98-8	sec-Butylbenzene		47.1	ug/kg	0.378	1.26
99-87-6	4-Isopropyltoluene		65.8	ug/kg	0.378	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26
104-51-8	n-Butylbenzene		103	ug/kg	0.378	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.378	1.26
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.31	ug/kg	2.02	6.31
630-20-6	1,1,1,2-Tetrachloroethane		3.37	ug/kg	0.378	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	16.48	63	ug/kg		J
	Unknown Hydrocarbon	16.6	24.2	ug/kg		J
	Unknown Hydrocarbon	16.74	36.3	ug/kg		J
	Unknown Hydrocarbon	17.66	156	ug/kg		J
	Unknown Hydrocarbon	18.03	526	ug/kg		J
	Unknown Hydrocarbon	19.74	77.2	ug/kg		J
	Unknown Hydrocarbon	19.96	57.8	ug/kg		J
	Unknown Hydrocarbon	20.06	64.9	ug/kg		J
	Unknown Hydrocarbon	20.25	102	ug/kg		J
	Unknown Hydrocarbon	20.8	12.7	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13551**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 16:18**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c212.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	20.95	33.9	ug/kg		J
	Unknown Hydrocarbon	21.35	24.1	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13551REDL**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**50**
Run Date:	**03/18/2010 13:14**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:30**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**1c409.d**	**Column:**	**RTX-Volatiles**	**Level:**	**MED**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	HU	126	ug/kg	42.9	126
74-87-3	Chloromethane	HU	126	ug/kg	37.8	126
75-01-4	Vinyl chloride	HU	126	ug/kg	37.8	126
74-83-9	Bromomethane	HU	126	ug/kg	37.8	126
75-00-3	Chloroethane	HU	126	ug/kg	37.8	126
75-69-4	Trichlorofluoromethane	HU	126	ug/kg	37.8	126
67-64-1	Acetone	HU	631	ug/kg	209	631
75-35-4	1,1-Dichloroethylene	HU	126	ug/kg	37.8	126
74-88-4	Iodomethane	HU	631	ug/kg	202	631
75-09-2	Methylene chloride	HU	631	ug/kg	252	631
75-15-0	Carbon disulfide	HU	631	ug/kg	158	631
156-60-5	trans-1,2-Dichloroethylene	HU	126	ug/kg	37.8	126
75-34-3	1,1-Dichloroethane	HU	126	ug/kg	37.8	126
78-93-3	2-Butanone	HJ	218	ug/kg	189	631
156-59-2	cis-1,2-Dichloroethylene	HU	126	ug/kg	37.8	126
594-20-7	2,2-Dichloropropane	HU	126	ug/kg	37.8	126
67-66-3	Chloroform	HU	126	ug/kg	37.8	126
74-97-5	Bromochloromethane	HU	126	ug/kg	41.6	126
71-55-6	1,1,1-Trichloroethane	HJ	101	ug/kg	37.8	126
563-58-6	1,1-Dichloropropene	HU	126	ug/kg	37.8	126
56-23-5	Carbon tetrachloride	HU	126	ug/kg	37.8	126
107-06-2	1,2-Dichloroethane	HU	126	ug/kg	37.8	126
71-43-2	Benzene	HU	126	ug/kg	37.8	126
79-01-6	Trichloroethylene	H	2770	ug/kg	41.6	126
78-87-5	1,2-Dichloropropane	HU	126	ug/kg	37.8	126
75-27-4	Bromodichloromethane	HU	126	ug/kg	37.8	126
74-95-3	Dibromomethane	HU	126	ug/kg	37.8	126
108-10-1	4-Methyl-2-pentanone	HU	631	ug/kg	158	631
10061-01-5	cis-1,3-Dichloropropylene	HU	126	ug/kg	37.8	126
108-88-3	Toluene	HJ	63.8	ug/kg	37.8	126
10061-02-6	trans-1,3-Dichloropropylene	HU	126	ug/kg	37.8	126
79-00-5	1,1,2-Trichloroethane	HU	126	ug/kg	37.8	126
591-78-6	2-Hexanone	HU	631	ug/kg	189	631
142-28-9	1,3-Dichloropropane	HU	126	ug/kg	37.8	126
127-18-4	Tetrachloroethylene	H	368	ug/kg	37.8	126
124-48-1	Dibromochloromethane	HU	126	ug/kg	37.8	126
106-93-4	1,2-Dibromoethane	HU	126	ug/kg	37.8	126
108-90-7	Chlorobenzene	HU	126	ug/kg	37.8	126

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13551REDL**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**50**
Run Date:	**03/18/2010 13:14**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:30**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**1c409.d**	**Column:**	**RTX-Volatiles**	**Level:**	**MED**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	HU	126	ug/kg	37.8	126
179601-23-1	m,p-Xylenes	HU	252	ug/kg	37.8	252
95-47-6	o-Xylene	HU	126	ug/kg	37.8	126
100-42-5	Styrene	HU	126	ug/kg	37.8	126
75-25-2	Bromoform	HU	126	ug/kg	37.8	126
79-34-5	1,1,2,2-Tetrachloroethane	HU	126	ug/kg	37.8	126
96-18-4	1,2,3-Trichloropropane	HU	126	ug/kg	37.8	126
108-86-1	Bromobenzene	HU	126	ug/kg	37.8	126
103-65-1	n-Propylbenzene	HJ	42.6	ug/kg	37.8	126
95-49-8	2-Chlorotoluene	HU	126	ug/kg	37.8	126
98-82-8	Isopropylbenzene	HU	126	ug/kg	37.8	126
108-67-8	1,3,5-Trimethylbenzene	H	190	ug/kg	37.8	126
106-43-4	4-Chlorotoluene	HU	126	ug/kg	37.8	126
98-06-6	tert-Butylbenzene	HU	126	ug/kg	37.8	126
95-63-6	1,2,4-Trimethylbenzene	HJ	118	ug/kg	37.8	126
135-98-8	sec-Butylbenzene	H	156	ug/kg	37.8	126
99-87-6	4-Isopropyltoluene	H	265	ug/kg	37.8	126
541-73-1	1,3-Dichlorobenzene	HU	126	ug/kg	37.8	126
106-46-7	1,4-Dichlorobenzene	HU	126	ug/kg	37.8	126
104-51-8	n-Butylbenzene	H	536	ug/kg	37.8	126
96-12-8	1,2-Dibromo-3-chloropropane	HU	126	ug/kg	37.8	126
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	HU	631	ug/kg	202	631
630-20-6	1,1,1,2-Tetrachloroethane	HU	126	ug/kg	37.8	126
95-50-1	1,2-Dichlorobenzene	HU	126	ug/kg	37.8	126

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	6.97	1940	ug/kg		J
	Unknown Hydrocarbon	17.66	663	ug/kg		J
	Unknown Siloxane	18.05	2950	ug/kg		J
	Unknown Hydrocarbon	19.74	2630	ug/kg		J
	Unknown Hydrocarbon	19.95	6160	ug/kg		J
	Unknown Hydrocarbon	20.64	11900	ug/kg		J
	Unknown Hydrocarbon	20.8	2490	ug/kg		J
	Unknown Hydrocarbon	20.95	7100	ug/kg		J
	Unknown Hydrocarbon	21.35	2680	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13552**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 16:31**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:19**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c312.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.389	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15
67-64-1	Acetone		62.9	ug/kg	1.90	5.73
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.73	ug/kg	1.83	5.73
75-09-2	Methylene chloride	U	5.73	ug/kg	2.29	5.73
75-15-0	Carbon disulfide	U	5.73	ug/kg	1.43	5.73
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15
78-93-3	2-Butanone	U	5.73	ug/kg	1.72	5.73
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.378	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15
79-01-6	Trichloroethylene		10.9	ug/kg	0.378	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15
108-10-1	4-Methyl-2-pentanone	U	5.73	ug/kg	1.43	5.73
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15
591-78-6	2-Hexanone	U	5.73	ug/kg	1.72	5.73
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15
127-18-4	Tetrachloroethylene		3.36	ug/kg	0.344	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13552**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 16:31**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:19**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c312.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	J	0.404	ug/kg	0.344	1.15
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29
95-47-6	o-Xylene	J	0.908	ug/kg	0.344	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15
103-65-1	n-Propylbenzene		3.38	ug/kg	0.344	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-82-8	Isopropylbenzene	J	0.866	ug/kg	0.344	1.15
108-67-8	1,3,5-Trimethylbenzene		12.5	ug/kg	0.344	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15
95-63-6	1,2,4-Trimethylbenzene		9.83	ug/kg	0.344	1.15
135-98-8	sec-Butylbenzene		7.77	ug/kg	0.344	1.15
99-87-6	4-Isopropyltoluene		11.9	ug/kg	0.344	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
104-51-8	n-Butylbenzene		19.8	ug/kg	0.344	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.73	ug/kg	1.83	5.73
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.82	84.7	ug/kg		J
	Unknown Hydrocarbon	19.24	72.6	ug/kg		J
	Unknown Hydrocarbon	19.74	180	ug/kg		J
	Unknown Hydrocarbon	19.8	56.5	ug/kg		J
	Unknown Hydrocarbon	19.96	106	ug/kg		J
	Unknown Hydrocarbon	20.11	109	ug/kg		J
	Unknown Hydrocarbon	20.4	89.8	ug/kg		J
	Unknown Hydrocarbon	20.51	45.1	ug/kg		J
	Unknown Hydrocarbon	20.64	83.5	ug/kg		J
	Unknown Hydrocarbon	20.8	47.3	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842008	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13552	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.1	**Dilution:**	1
Run Date:	03/17/2010 16:31	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 13:19	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c312.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	20.95	140	ug/kg		J
	Unknown Hydrocarbon	21.13	76.1	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13553**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 15:16**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 13:58**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c210.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.395	1.16
74-87-3	Chloromethane	U	1.16	ug/kg	0.349	1.16
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.349	1.16
74-83-9	Bromomethane	U	1.16	ug/kg	0.349	1.16
75-00-3	Chloroethane	U	1.16	ug/kg	0.349	1.16
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.349	1.16
67-64-1	Acetone		71.3	ug/kg	1.93	5.81
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
74-88-4	Iodomethane	U	5.81	ug/kg	1.86	5.81
75-09-2	Methylene chloride	U	5.81	ug/kg	2.32	5.81
75-15-0	Carbon disulfide	U	5.81	ug/kg	1.45	5.81
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.349	1.16
78-93-3	2-Butanone	U	5.81	ug/kg	1.74	5.81
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16
67-66-3	Chloroform	U	1.16	ug/kg	0.349	1.16
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.383	1.16
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.349	1.16
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.349	1.16
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.349	1.16
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.349	1.16
71-43-2	Benzene	U	1.16	ug/kg	0.349	1.16
79-01-6	Trichloroethylene		1.54	ug/kg	0.383	1.16
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.349	1.16
74-95-3	Dibromomethane	U	1.16	ug/kg	0.349	1.16
108-10-1	4-Methyl-2-pentanone	U	5.81	ug/kg	1.45	5.81
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16
108-88-3	Toluene	U	1.16	ug/kg	0.349	1.16
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.349	1.16
591-78-6	2-Hexanone	U	5.81	ug/kg	1.74	5.81
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.349	1.16
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.349	1.16
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.349	1.16
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.349	1.16
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.349	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13553**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 15:16**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 13:58**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c210.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.349	1.16
179601-23-1	m,p-Xylenes	U	2.32	ug/kg	0.349	2.32
95-47-6	o-Xylene	U	1.16	ug/kg	0.349	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.349	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.349	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.349	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.349	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.349	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.349	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.349	1.16
95-63-6	1,2,4-Trimethylbenzene		1.23	ug/kg	0.349	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.349	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.349	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
104-51-8	n-Butylbenzene		1.20	ug/kg	0.349	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.349	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.81	ug/kg	1.86	5.81
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.88	28.2	ug/kg		J
	Unknown Siloxane	18.05	7.8	ug/kg		J
	Unknown Hydrocarbon	18.51	17.2	ug/kg		J
	Unknown Hydrocarbon	18.82	23.1	ug/kg		J
	Unknown Hydrocarbon	19.31	58.3	ug/kg		J
	Unknown Hydrocarbon	19.42	20.8	ug/kg		J
	Unknown Hydrocarbon	19.73	107	ug/kg		J
	Unknown Hydrocarbon	20.95	620	ug/kg		J
	Unknown Hydrocarbon	22.27	208	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842001**	**Date Received:**	**03/05/2010 10:20**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13555**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 14:14**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 13:56**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c208.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	1.97	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842001**	**Date Received:**	**03/05/2010 10:20**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13555**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 14:14**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 13:56**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c208.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13556**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 16:01**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 14:21**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c311.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.392	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.346	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.346	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.346	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.346	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.346	1.15
67-64-1	Acetone		89.8	ug/kg	1.91	5.76
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
74-88-4	Iodomethane	U	5.76	ug/kg	1.84	5.76
75-09-2	Methylene chloride	U	5.76	ug/kg	2.30	5.76
75-15-0	Carbon disulfide	U	5.76	ug/kg	1.44	5.76
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.346	1.15
78-93-3	2-Butanone	U	5.76	ug/kg	1.73	5.76
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.346	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.346	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.380	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.346	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.346	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.346	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.346	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.346	1.15
79-01-6	Trichloroethylene		1.71	ug/kg	0.380	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.346	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.346	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.346	1.15
108-10-1	4-Methyl-2-pentanone	U	5.76	ug/kg	1.44	5.76
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.346	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.346	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.346	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.346	1.15
591-78-6	2-Hexanone	U	5.76	ug/kg	1.73	5.76
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.346	1.15
127-18-4	Tetrachloroethylene	J	0.561	ug/kg	0.346	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.346	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.346	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.346	1.15

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13556**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 16:01**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 14:21**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c311.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.346	1.15
179601-23-1	m,p-Xylenes	U	2.30	ug/kg	0.346	2.30
95-47-6	o-Xylene	J	0.361	ug/kg	0.346	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.346	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.346	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.346	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.346	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.346	1.15
103-65-1	n-Propylbenzene		1.37	ug/kg	0.346	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.346	1.15
98-82-8	Isopropylbenzene	J	0.354	ug/kg	0.346	1.15
108-67-8	1,3,5-Trimethylbenzene		6.02	ug/kg	0.346	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.346	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.346	1.15
95-63-6	1,2,4-Trimethylbenzene		4.89	ug/kg	0.346	1.15
135-98-8	sec-Butylbenzene		3.77	ug/kg	0.346	1.15
99-87-6	4-Isopropyltoluene		6.41	ug/kg	0.346	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15
104-51-8	n-Butylbenzene		11.4	ug/kg	0.346	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.346	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.76	ug/kg	1.84	5.76
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.346	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.88	57.2	ug/kg		J
	Unknown	16.52	83	ug/kg		J
	Unknown Hydrocarbon	17.66	7.95	ug/kg		J
	Unknown Hydrocarbon	18.03	53.8	ug/kg		J
	Unknown Hydrocarbon	19.74	117	ug/kg		J
	Unknown Hydrocarbon	19.96	296	ug/kg		J
	Unknown Hydrocarbon	20.95	213	ug/kg		J
	Unknown Hydrocarbon	21.35	240	ug/kg		J
	Unknown Hydrocarbon	22.42	114	ug/kg		J

QC Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-2302

Matrix Type: SOLID

CAP Column (1) : RTX-Volatiles

Sample ID	Client ID	DCED4 %REC		TOL %REC		BFB %REC	
1202072716	LCS for batch 965874	127		101		103	
1202072717	LCS for batch 965874	113		102		103	
1202072713	MB for batch 965874	112		101		101	
248842001	RE46-10-13555	120		99		103	
248842002	RE46-10-13553	130		102		105	
248842003	RE46-10-13549	111		102		104	
248842004	RE46-10-13551	101		104		106	
248842007	RE46-10-13546	101		111		122	
248842009	RE46-10-13547	97		100		118	
1202072714	RE46-10-13553PS	103		99		101	
1202072715	RE46-10-13553PSD	105		102		103	
1202082291	LCS for batch 965874	107		103		102	
1202082292	LCS for batch 965874	95		100		102	
1202082289	MB for batch 965874	100		103		102	
1202082296	HB for batch 965874	93	D	97	D	97	D
248842006	RE46-10-13548	100		102		110	
248842010	RE46-10-13556	101		102		109	
248842008	RE46-10-13552	93		97		107	
1202082293	LCS for batch 965874	121		101		104	
1202082294	LCS for batch 965874	106		102		103	
1202082290	MB for batch 965874	110		103		104	
248842004	RE46-10-13551REDL	103	D	100	D	108	D
248842009	RE46-10-13547REDL	99	D	103	D	107	D
248842007	RE46-10-13546REDL	96	D	104	D	107	D

DCED4 = 1,2-Dichloroethane-d4 (66%-134%)
TOL = Toluene-d8 (71%-128%)
BFB = Bromofluorobenzene (65%-130%)

* Recovery outside Acceptance Limits
\# Column to be used to flag recovery values
D Sample Diluted

Volatile

Surrogate Recovery Report

SDG Number: 10-2302

Matrix Type: SOLID

CAP Column (1) : RTX-Volatiles

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
248842005	RE46-10-13550	101	106	109

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(66%-134%)
TOL	= Toluene-d8	(71%-128%)
BFB	= Bromofluorobenzene	(65%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: RE46-10-13553PS
Lab Sample ID: 1202072714
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 13.9
Analysis Date: 03/16/2010 21:55
Prep Batch ID: 965874
Batch ID: 965875
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	37.3	75	39-148
74-87-3	PS	Chloromethane	50.0	0.00	U	32.4	65	42-131
75-01-4	PS	Vinyl chloride	50.0	0.00	U	37.0	74	50-127
74-83-9	PS	Bromomethane	50.0	0.00	U	40.3	81	26-135
75-00-3	PS	Chloroethane	50.0	0.00	U	38.1	76	54-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	40.7	81	55-138
67-64-1	PS	Acetone	250	61.3		146	34	20-144
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	38.9	78	55-128
74-88-4	PS	Iodomethane	250	0.00	U	202	81	47-132
75-09-2	PS	Methylene chloride	50.0	0.00	U	42.3	85	56-123
75-15-0	PS	Carbon disulfide	250	0.00	U	209	84	53-133
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	41.7	83	57-119
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	40.0	80	62-125
78-93-3	PS	2-Butanone	250	0.00	U	101	41	30-150
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	41.6	83	60-124
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	39.4	79	56-129
67-66-3	PS	Chloroform	50.0	0.00	U	41.9	84	62-120
74-97-5	PS	Bromochloromethane	50.0	0.00	U	41.0	82	51-135
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	43.0	86	58-129
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	40.8	82	59-126
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	42.9	86	55-132
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	39.9	80	54-121

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: RE46-10-13553PS
Lab Sample ID: 1202072714
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 13.9
Analysis Date: 03/16/2010 21:55
Prep Batch ID 965874
Batch ID: 965875
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	40.7	81	58-120
79-01-6	PS	Trichloroethylene	50.0	1.32		43.3	84	54-130
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	39.5	79	59-121
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	44.2	88	57-130
74-95-3	PS	Dibromomethane	50.0	0.00	U	41.3	83	57-124
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	179	72	40-137
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	42.1	84	50-131
108-88-3	PS	Toluene	50.0	0.00	U	39.2	78	54-119
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	42.6	85	47-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	39.6	79	60-130
591-78-6	PS	2-Hexanone	250	0.00	U	117	47	30-139
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	39.5	79	59-125
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	36.8	74	50-126
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	42.8	86	54-131
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	40.9	82	55-127
108-90-7	PS	Chlorobenzene	50.0	0.00	U	40.0	80	50-130
100-41-4	PS	Ethylbenzene	50.0	0.00	U	39.7	79	50-121
179601-23-1	PS	m,p-Xylenes	100	0.00	U	78.3	78	47-125
95-47-6	PS	o-Xylene	50.0	0.00	U	39.7	79	51-127
100-42-5	PS	Styrene	50.0	0.00	U	42.3	85	41-136
75-25-2	PS	Bromoform	50.0	0.00	U	46.2	92	48-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	41.8	84	52-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: RE46-10-13553PS
Lab Sample ID: 1202072714
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 13.9
Analysis Date: 03/16/2010 21:55
Dilution: 1
Prep Batch ID: 965874
Batch ID: 965875

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	41.6	83	56-139
108-86-1	PS	Bromobenzene	50.0	0.00	U	39.8	80	54-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	38.4	77	46-127
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	39.2	78	47-130
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	39.6	79	42-126
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	39.3	79	44-132
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	38.8	78	46-127
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	37.8	76	48-136
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	1.06		38.9	76	42-132
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	36.3	73	47-130
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	37.0	74	36-142
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	36.0	72	41-130
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	36.4	73	41-126
104-51-8	PS	n-Butylbenzene	50.0	1.03		35.6	69	37-136
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	42.7	85	42-143
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	42.5	85	58-127
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	36.4	73	42-128

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: RE46-10-13553PSD
Lab Sample ID: 1202072715
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 13.9
Analysis Date: 03/16/2010 22:26
Dilution: 1
Prep Batch ID: 965874
Batch ID: 965875

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	35.5	71	39-148	5	0-19
74-87-3	PSD	Chloromethane	50.0	0.00	U	31.2	62	42-131	4	0-23
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	36.9	74	50-127	0	0-23
74-83-9	PSD	Bromomethane	50.0	0.00	U	38.8	78	26-135	4	0-22
75-00-3	PSD	Chloroethane	50.0	0.00	U	36.7	73	54-128	4	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	39.6	79	55-138	3	0-21
67-64-1	PSD	Acetone	250	61.3		134	29	20-144	8	0-22
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	38.2	76	55-128	2	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	196	79	47-132	3	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	41.4	83	56-123	2	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	206	82	53-133	2	0-22
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	40.8	82	57-119	2	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	38.4	77	62-125	4	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	99.7	40	30-150	2	0-21
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	41.0	82	60-124	1	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	38.5	77	56-129	3	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	40.3	81	62-120	4	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	39.8	80	51-135	3	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	41.5	83	58-129	4	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	40.4	81	59-126	1	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	41.9	84	55-132	2	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	38.1	76	54-121	5	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: RE46-10-13553PSD
Lab Sample ID: 1202072715
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 13.9
Analysis Date: 03/16/2010 22:26
Prep Batch ID: 965874
Batch ID: 965875
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	39.2	78	58-120	4	0-20
79-01-6	PSD	Trichloroethylene	50.0	1.32		41.1	79	54-130	5	0-23
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	38.5	77	59-121	3	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	42.7	85	57-130	3	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	40.4	81	57-124	2	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	176	70	40-137	2	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	41.2	82	50-131	2	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	39.0	78	54-119	1	0-23
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	41.6	83	47-133	2	0-24
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	39.0	78	60-130	2	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	114	45	30-139	3	0-21
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	38.6	77	59-125	2	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	36.3	73	50-126	1	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	42.5	85	54-131	1	0-23
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	40.0	80	55-127	2	0-23
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	38.9	78	50-130	3	0-24
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	38.5	77	50-121	3	0-24
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	76.1	76	47-125	3	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	38.6	77	51-127	3	0-24
100-42-5	PSD	Styrene	50.0	0.00	U	41.2	82	41-136	3	0-24
75-25-2	PSD	Bromoform	50.0	0.00	U	44.6	89	48-143	4	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	40.2	80	52-129	4	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: RE46-10-13553PSD
Lab Sample ID: 1202072715
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 13.9
Analysis Date: 03/16/2010 22:26
Dilution: 1
Prep Batch ID: 965874
Batch ID: 965875

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	40.6	81	56-139	2	0-34
108-86-1	PSD	Bromobenzene	50.0	0.00	U	38.3	77	54-125	4	0-22
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	35.5	71	46-127	8	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	37.1	74	47-130	5	0-24
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	37.3	75	42-126	6	0-22
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	36.2	72	44-132	8	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	37.6	75	46-127	3	0-26
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	33.6	67	48-136	12	0-24
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	1.06		36.4	71	42-132	7	0-26
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	31.7	63	47-130	14	0-27
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	31.9	64	36-142	15	0-27
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	34.4	69	41-130	5	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	35.1	70	41-126	4	0-25
104-51-8	PSD	n-Butylbenzene	50.0	1.03		29.9	58	37-136	17	0-29
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	41.3	83	42-143	3	0-21
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	41.0	82	58-127	4	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	35.1	70	42-128	4	0-24

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 965874 **Matrix:** SOIL

Lab Sample ID: 1202072716

Instrument: VOA1.I **Analysis Date:** 03/16/2010 11:30 **Dilution:** 1

Analyst: RXM4 **Prep Batch ID** 965874

Purge Vol: 5 mL **Batch ID:** 965875

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	53.9	108	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	39.5	79	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	45.3	91	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	47.8	96	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	44.6	89	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	60.2	120	73-143
67-64-1	LCS	Acetone	250	0.0	239	96	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	51.1	102	71-129
74-88-4	LCS	Iodomethane	250	0.0	241	96	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	48.5	97	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	250	100	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	48.3	97	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	50.2	100	73-120
78-93-3	LCS	2-Butanone	250	0.0	228	91	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	49.2	98	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	59.7	119	73-134
67-66-3	LCS	Chloroform	50.0	0.0	54.6	109	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	48.6	97	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	58.5	117	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	53.1	106	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	61.8	124	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	56.9	114	65-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: LCS for batch 965874
Lab Sample ID: 1202072716
Instrument: VOA1.I
Analyst: RXM4
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/16/2010 11:30
Dilution: 1
Prep Batch ID: 965874
Batch ID: 965875

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	47.4	95	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	50.9	102	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	47.3	95	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	58.1	116	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	52.6	105	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	242	97	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	54.5	109	78-127
108-88-3	LCS	Toluene	50.0	0.0	47.5	95	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	57.1	114	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	48.3	97	75-120
591-78-6	LCS	2-Hexanone	250	0.0	230	92	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	48.5	97	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	48.2	96	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	56.5	113	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	50.6	101	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	49.3	99	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	51.2	102	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	98.4	98	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	49.1	98	76-122
100-42-5	LCS	Styrene	50.0	0.0	52.1	104	75-125
75-25-2	LCS	Bromoform	50.0	0.0	57.4	115	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	47.4	95	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 965874 **Matrix:** SOIL

Lab Sample ID: 1202072716

Instrument: VOA1.I **Analysis Date:** 03/16/2010 11:30 **Dilution:** 1

Analyst: RXM4 **Prep Batch ID** 965874

Purge Vol: 5 mL **Batch ID:** 965875

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	51.5	103	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	47.7	95	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	49.2	98	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	49.6	99	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	50.1	100	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	51.5	103	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	50.1	100	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	49.8	100	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	50.4	101	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	49.3	99	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	50.3	101	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	46.2	92	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	46.5	93	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	50.1	100	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	53.7	107	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	54.2	108	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	46.9	94	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: LCS for batch 965874
Lab Sample ID: 1202072717
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/16/2010 12:32
Dilution: 1
Prep Batch ID: 965874
Batch ID: 965875

CAS No	Parmname		Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	260	104	67-140

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: LCS for batch 965874
Lab Sample ID: 1202082291
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/17/2010 11:13
Dilution: 1
Prep Batch ID: 965874
Batch ID: 965875

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	50.2	100	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	39.4	79	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	49.3	99	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	49.1	98	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	47.9	96	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	56.0	112	73-143
67-64-1	LCS	Acetone	250	0.0	122	49	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	49.3	99	71-129
74-88-4	LCS	Iodomethane	250	0.0	248	99	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	52.6	105	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	271	108	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	52.1	104	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	48.5	97	73-120
78-93-3	LCS	2-Butanone	250	0.0	136	54	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	51.5	103	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	54.8	110	73-134
67-66-3	LCS	Chloroform	50.0	0.0	50.8	102	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	49.5	99	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	54.0	108	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	53.3	107	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	55.4	111	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	46.7	93	65-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: LCS for batch 965874
Lab Sample ID: 1202082291
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/17/2010 11:13
Dilution: 1
Prep Batch ID: 965874
Batch ID: 965875

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	50.0	100	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	51.3	103	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	48.0	96	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	53.0	106	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	49.2	98	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	209	84	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	51.8	104	78-127
108-88-3	LCS	Toluene	50.0	0.0	50.3	101	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	52.2	104	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	47.0	94	75-120
591-78-6	LCS	2-Hexanone	250	0.0	145	58	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	46.7	93	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	49.9	100	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	51.2	102	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	48.4	97	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	49.8	100	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	51.2	102	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	102	102	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	51.4	103	76-122
100-42-5	LCS	Styrene	50.0	0.0	53.4	107	75-125
75-25-2	LCS	Bromoform	50.0	0.0	53.9	108	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	48.0	96	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: LCS for batch 965874
Lab Sample ID: 1202082291
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/17/2010 11:13
Dilution: 1
Prep Batch ID: 965874
Batch ID: 965875

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	47.3	95	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	48.2	96	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	51.4	103	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	50.0	100	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	52.1	104	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	52.2	104	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	50.5	101	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	51.3	103	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	51.1	102	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	51.2	102	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	51.4	103	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	47.4	95	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	48.3	97	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	51.5	103	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	52.0	104	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	50.8	102	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	47.1	94	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Sample Type: Laboratory Control Sample
Client ID: LCS for batch 965874
Matrix: SOIL
Lab Sample ID: 1202082292
Instrument: VOA1.I
Analysis Date: 03/17/2010 12:14
Dilution: 1
Analyst: GRB2
Prep Batch ID 965874
Purge Vol: 5 mL
Batch ID: 965875

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	238	95	67-140

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: LCS for batch 965874
Lab Sample ID: 1202082293
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/18/2010 10:41
Dilution: 1
Prep Batch ID: 965874
Batch ID: 965875

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	53.7	107	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	42.1	84	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	47.2	94	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	49.6	99	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	47.1	94	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	62.3	125	73-143
67-64-1	LCS	Acetone	250	0.0	205	82	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	53.1	106	71-129
74-88-4	LCS	Iodomethane	250	0.0	250	100	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	51.0	102	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	267	107	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	51.5	103	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	51.1	102	73-120
78-93-3	LCS	2-Butanone	250	0.0	196	78	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	51.0	102	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	61.3	123	73-134
67-66-3	LCS	Chloroform	50.0	0.0	56.0	112	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	49.9	100	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	61.3	123	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	56.4	113	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	63.3	127	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	56.3	113	65-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: LCS for batch 965874
Lab Sample ID: 1202082293
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/18/2010 10:41
Dilution: 1
Prep Batch ID: 965874
Batch ID: 965875

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	50.2	100	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	53.9	108	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	48.7	97	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	59.0	118	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	53.0	106	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	235	94	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	55.5	111	78-127
108-88-3	LCS	Toluene	50.0	0.0	50.0	100	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	57.4	115	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	49.0	98	75-120
591-78-6	LCS	2-Hexanone	250	0.0	204	82	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	49.0	98	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	51.1	102	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	55.9	112	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	50.7	101	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	50.6	101	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	53.2	106	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	104	104	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	51.4	103	76-122
100-42-5	LCS	Styrene	50.0	0.0	54.2	108	75-125
75-25-2	LCS	Bromoform	50.0	0.0	57.5	115	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	48.3	97	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: LCS for batch 965874
Lab Sample ID: 1202082293
Instrument: VOA1.I
Analyst: GRB2
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/18/2010 10:41
Dilution: 1
Prep Batch ID: 965874
Batch ID: 965875

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	51.7	103	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	49.7	99	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	52.7	105	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	52.5	105	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	53.4	107	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	54.2	108	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	52.6	105	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	52.8	106	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	53.1	106	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	52.5	105	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	53.1	106	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	48.5	97	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	48.5	97	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	53.7	107	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	53.1	106	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	54.8	110	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	48.3	97	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2302**
Client ID: **LCS for batch 965874**
Lab Sample ID: **1202082294**
Instrument: **VOA1.I**
Analyst: **GRB2**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **03/18/2010 11:42**
Dilution: **1**
Prep Batch ID: **965874**
Batch ID: **965875**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	221	88	67-140

Method Blank Summary

SDG Number:	10-2302	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965874	Instrument ID:	VOA1.I	Data File:	1c206LL.d
Lab Sample ID:	1202072713	Prep Date:	03/16/2010 10:00	Analyzed:	03/16/10 13:03
Column:	RTX-Volatiles	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 965874	1202072716	1c203LL.d	03/16/10	1130
02	LCS for batch 965874	1202072717	1c205LL.d	03/16/10	1232
03	RE46-10-13555	248842001	1c208.d	03/16/10	1414
04	RE46-10-13553	248842002	1c210.d	03/16/10	1516
05	RE46-10-13549	248842003	1c211.d	03/16/10	1547
06	RE46-10-13551	248842004	1c212.d	03/16/10	1618
07	RE46-10-13546	248842007	1c215.d	03/16/10	1750
08	RE46-10-13547	248842009	1c217.d	03/16/10	1852
09	RE46-10-13553PS	1202072714	1c223.d	03/16/10	2155
10	RE46-10-13553PSD	1202072715	1c224.d	03/16/10	2226

Method Blank Summary

SDG Number:	10-2302	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965874	Instrument ID:	VOA1.I	Data File:	1c307LL.d
Lab Sample ID:	1202082289	Prep Date:	03/17/2010 09:30	Analyzed:	03/17/10 13:16
Column:	RTX-Volatiles	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 965874	1202082291	1c303LL.d	03/17/10	1113
02 LCS for batch 965874	1202082292	1c305LL.d	03/17/10	1214
03 HB for batch 965874	1202082296	1c308.d	03/17/10	1429
04 RE46-10-13548	248842006	1c309.d	03/17/10	1500
05 RE46-10-13556	248842010	1c311.d	03/17/10	1601
06 RE46-10-13552	248842008	1c312.d	03/17/10	1631

Method Blank Summary

SDG Number:	10-2302	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965874	Instrument ID:	VOA1.I	Data File:	1c408LL.d
Lab Sample ID:	1202082290	Prep Date:	03/18/2010 08:30	Analyzed:	03/18/10 12:43
Column:	RTX-Volatiles	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 965874	1202082293	1c404LL.d	03/18/10	1041
02	LCS for batch 965874	1202082294	1c406LL.d	03/18/10	1142
03	RE46-10-13551REDL	248842004	1c409.d	03/18/10	1314
04	RE46-10-13547REDL	248842009	1c410.d	03/18/10	1345
05	RE46-10-13546REDL	248842007	1c411.d	03/18/10	1416
06	RE46-10-13550	248842005	1c415.d	03/18/10	1620

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2302

Instrument ID VOA1.I **Injection Date/Time:** 04-MAR-10 16:41

Column Description: RTX-Volatiles **Lab File ID** /030410v1/1a411.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	22.2
75	30.0 - 60.0% of mass 95	56.5
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.9
174	50.0 - 100.0% of mass 95	71.7
175	5.0 -9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	95.2
177	5.0 - 9.0% of mass 176	6.8

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD001	W1VM100304-06	1a412.d	04-MAR-10 17:28
VSTD002	W1VM100304-07	1a413.d	04-MAR-10 17:59
VSTD005	W1VM100304-08	1a414.d	04-MAR-10 18:29
VSTD010	W1VM100304-09	1a415.d	04-MAR-10 19:00
VSTD020	W1VM100304-10	1a416.d	04-MAR-10 19:31
VSTD050	W1VM100304-11	1a417.d	04-MAR-10 20:02
VSTD100	W1VM100304-12	1a418.d	04-MAR-10 20:32
VSTD0005	W1VM100304-13	1a420.d	04-MAR-10 21:35
VSTD005S	W1VM100304-16	1a423.d	04-MAR-10 23:06
VSTD010S	W1VM100304-17	1a424.d	04-MAR-10 23:37
VSTD025S	W1VM100304-18	1a425.d	05-MAR-10 00:08
VSTD050S	W1VM100304-19	1a426.d	05-MAR-10 00:39
VSTD100S	W1VM100304-20	1a427.d	05-MAR-10 01:10
VSTD250S	W1VM100304-21	1a428.d	05-MAR-10 01:41
VSTD500S	W1VM100304-22	1a429.d	05-MAR-10 02:12
SICV	W1VM100304-23	1a431.d	05-MAR-10 03:14

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2302

Instrument ID: VOA1.1 **Injection Date/Time:** 05-MAR-10 10:31

Column Description: RTX-Volatiles **Lab File ID** /030510v1/1a502BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	22.9
75	30.0 - 60.0% of mass 95	57.9
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	72.8
175	5.0 -9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	97
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
LICV	W1VM100305-01	1a502.d	05-MAR-10 10:31

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2302

Instrument ID: VOA1.I **Injection Date/Time:** 16-MAR-10 11:00

Column Description: RTX-Volatiles **Lab File ID** /031610v1/1c202BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	22.9
75	30.0 - 60.0% of mass 95	59
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	1.2
174	50.0 - 100.0% of mass 95	75.3
175	5.0 -9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	95.2
177	5.0 - 9.0% of mass 176	6.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W1VM100316-01	1c202.d	16-MAR-10 11:00
LCS	1202072716	1c203LL.d	16-MAR-10 11:30
VSTD250S	W1VM100316-03	1c204.d	16-MAR-10 12:01
SLCS	1202072717	1c205LL.d	16-MAR-10 12:32
BLANK	1202072713	1c206LL.d	16-MAR-10 13:03
RE46-10-13555	248842001	1c208.d	16-MAR-10 14:14
RE46-10-13553	248842002	1c210.d	16-MAR-10 15:16
RE46-10-13549	248842003	1c211.d	16-MAR-10 15:47
RE46-10-13551	248842004	1c212.d	16-MAR-10 16:18
RE46-10-13546	248842007	1c215.d	16-MAR-10 17:50
RE46-10-13547	248842009	1c217.d	16-MAR-10 18:52
RE46-10-13553MS	1202072714	1c223.d	16-MAR-10 21:55
RE46-10-13553MSD	1202072715	1c224.d	16-MAR-10 22:26

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2302

Instrument ID: VOA1.I **Injection Date/Time:** 17-MAR-10 10:43

Column Description: RTX-Volatiles **Lab File ID** /031710v1/1c302BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	19.6
75	30.0 - 60.0% of mass 95	53.9
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.9
174	50.0 - 100.0% of mass 95	71.5
175	5.0 -9.0% of mass 174	7.5
176	95.0 - 101.0% of mass 174	98.7
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W1VM100317-01	1c302.d	17-MAR-10 10:43
LCS	1202082291	1c303LL.d	17-MAR-10 11:13
VSTD250S	W1VM100317-03	1c304.d	17-MAR-10 11:44
SLCS	1202082292	1c305LL.d	17-MAR-10 12:14
BLANK	1202082289	1c307LL.d	17-MAR-10 13:16
HIGH BLANK	1202082296	1c308.d	17-MAR-10 14:29
RE46-10-13548	248842006	1c309.d	17-MAR-10 15:00
RE46-10-13556	248842010	1c311.d	17-MAR-10 16:01
RE46-10-13552	248842008	1c312.d	17-MAR-10 16:31

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2302

Instrument ID: VOA1.I **Injection Date/Time:** 18-MAR-10 10:11

Column Description: RTX-Volatiles **Lab File ID** /031810v1/1c403BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	22.5
75	30.0 - 60.0% of mass 95	59
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.7
174	50.0 - 100.0% of mass 95	69
175	5.0 -9.0% of mass 174	7.5
176	95.0 - 101.0% of mass 174	100.6
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W1VM100318-02	1c403.d	18-MAR-10 10:11
LCS	1202082293	1c404LL.d	18-MAR-10 10:41
VSTD250S	W1VM100318-03	1c405.d	18-MAR-10 11:12
SLCS	1202082294	1c406LL.d	18-MAR-10 11:42
BLANK	1202082290	1c408LL.d	18-MAR-10 12:43
RE46-10-13551	248842004	1c409.d	18-MAR-10 13:14
RE46-10-13547	248842009	1c410.d	18-MAR-10 13:45
RE46-10-13546	248842007	1c411.d	18-MAR-10 14:16
RE46-10-13550	248842005	1c415.d	18-MAR-10 16:20

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA1.1

GC Column: RTX-Volatiles

Client SDG: 10-2302

STD Analysis Time: 16-MAR-10 11:00

Data File: 1c202.d

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	881390		13.7	670899		17.2	375139		19.6
Upper Limit	1762780		14.2	1341798		17.7	750278		20.1
Lower Limit	440695		13.2	335450		16.7	187570		19.1
Sample ID									
BLK01LCS	915318		13.7	692050		17.2	396686		19.6
BLK01SLCS	934563		13.7	706710		17.2	404257		19.6
BLK01	934133		13.7	694259		17.2	393391		19.6
RE46-10-13555	856179		13.7	648479		17.1	365629		19.6
RE46-10-13553	795940		13.7	607473		17.2	350418		19.6
RE46-10-13549	974893		13.7	738561		17.2	408239		19.6
RE46-10-13551	1037454		13.7	745204		17.2	480536		19.6
RE46-10-13546	1036612		13.7	719562		17.2	484587		19.6
RE46-10-13547	1203943		13.7	889943		17.2	597871		19.6
RE46-10-13553MS	1144263		13.7	863924		17.2	468153		19.6
RE46-10-13553MSD	1149104		13.7	859150		17.2	470416		19.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA1.1

GC Column: RTX-Volatiles

Client SDG: 10-2302

STD Analysis Time: 17-MAR-10 10:43

Data File: 1c302.d

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT	Area	#	RT	Area	#	RT
12 Hour STD	1231532		13.7	911557		17.2	493872		19.6
Upper Limit	2463064		14.2	1823114		17.7	987744		20.1
Lower Limit	615766		13.2	455779		16.7	246936		19.1
Sample ID									
BLK02LCS	1131040		13.7	843145		17.2	465394		19.6
BLK02SLCS	1130046		13.7	842546		17.2	460942		19.6
BLK02	1073106		13.7	794349		17.2	437344		19.6
HBLK01	1126002		13.7	839520		17.1	460724		19.6
RE46-10-13548	1033266		13.7	764766		17.2	407191		19.6
RE46-10-13556	1091735		13.7	817430		17.2	440734		19.6
RE46-10-13552	1173634		13.7	877065		17.2	477705		19.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA1.1

GC Column: RTX-Volatiles

Client SDG: 10-2302

STD Analysis Time: 18-MAR-10 10:11

Data File: 1c403.d

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT	Area	#	RT	Area	#	RT
12 Hour STD	903803		13.7	681504		17.2	379554		19.6
Upper Limit	1807606		14.2	1363008		17.7	759108		20.1
Lower Limit	451902		13.2	340752		16.7	189777		19.1
Sample ID									
BLK03LCS	909393		13.7	688567		17.2	385940		19.6
BLK03SLCS	931041		13.7	696744		17.2	391200		19.6
BLK03	878701		13.7	644227		17.2	361439		19.6
RE46-10-13551REDL	879788		13.7	647981		17.2	365051		19.6
RE46-10-13547REDL	965295		13.7	728583		17.2	406895		19.6
RE46-10-13546REDL	1040366		13.7	766630		17.2	424821		19.6
RE46-10-13550	1028297		13.7	753228		17.2	398943		19.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13546**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 17:50**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c215.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.21	ug/kg	0.412	1.21
74-87-3	Chloromethane	U	1.21	ug/kg	0.364	1.21
75-01-4	Vinyl chloride	U	1.21	ug/kg	0.364	1.21
74-83-9	Bromomethane	U	1.21	ug/kg	0.364	1.21
75-00-3	Chloroethane	U	1.21	ug/kg	0.364	1.21
75-69-4	Trichlorofluoromethane	U	1.21	ug/kg	0.364	1.21
67-64-1	Acetone		79.3	ug/kg	2.01	6.06
75-35-4	1,1-Dichloroethylene		69.1	ug/kg	0.364	1.21
74-88-4	Iodomethane	U	6.06	ug/kg	1.94	6.06
75-09-2	Methylene chloride	U	6.06	ug/kg	2.43	6.06
75-15-0	Carbon disulfide	U	6.06	ug/kg	1.52	6.06
156-60-5	trans-1,2-Dichloroethylene	U	1.21	ug/kg	0.364	1.21
75-34-3	1,1-Dichloroethane	U	1.21	ug/kg	0.364	1.21
78-93-3	2-Butanone	U	6.06	ug/kg	1.82	6.06
156-59-2	cis-1,2-Dichloroethylene	J	0.398	ug/kg	0.364	1.21
594-20-7	2,2-Dichloropropane	U	1.21	ug/kg	0.364	1.21
67-66-3	Chloroform	U	1.21	ug/kg	0.364	1.21
74-97-5	Bromochloromethane	U	1.21	ug/kg	0.400	1.21
71-55-6	1,1,1-Trichloroethane	E	463	ug/kg	0.364	1.21
563-58-6	1,1-Dichloropropene	U	1.21	ug/kg	0.364	1.21
56-23-5	Carbon tetrachloride	J	0.985	ug/kg	0.364	1.21
107-06-2	1,2-Dichloroethane	U	1.21	ug/kg	0.364	1.21
71-43-2	Benzene	J	0.456	ug/kg	0.364	1.21
79-01-6	Trichloroethylene	E	5440	ug/kg	0.400	1.21
78-87-5	1,2-Dichloropropane		5.92	ug/kg	0.364	1.21
75-27-4	Bromodichloromethane	U	1.21	ug/kg	0.364	1.21
74-95-3	Dibromomethane	U	1.21	ug/kg	0.364	1.21
108-10-1	4-Methyl-2-pentanone	U	6.06	ug/kg	1.52	6.06
10061-01-5	cis-1,3-Dichloropropylene	U	1.21	ug/kg	0.364	1.21
108-88-3	Toluene		11.5	ug/kg	0.364	1.21
10061-02-6	trans-1,3-Dichloropropylene	U	1.21	ug/kg	0.364	1.21
79-00-5	1,1,2-Trichloroethane	U	1.21	ug/kg	0.364	1.21
591-78-6	2-Hexanone	U	6.06	ug/kg	1.82	6.06
142-28-9	1,3-Dichloropropane	U	1.21	ug/kg	0.364	1.21
127-18-4	Tetrachloroethylene	E	758	ug/kg	0.364	1.21
124-48-1	Dibromochloromethane	U	1.21	ug/kg	0.364	1.21
106-93-4	1,2-Dibromoethane	U	1.21	ug/kg	0.364	1.21
108-90-7	Chlorobenzene	U	1.21	ug/kg	0.364	1.21

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13546**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 17:50**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c215.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		5.17	ug/kg	0.364	1.21
179601-23-1	m,p-Xylenes	U	2.43	ug/kg	0.364	2.43
95-47-6	o-Xylene		8.22	ug/kg	0.364	1.21
100-42-5	Styrene	U	1.21	ug/kg	0.364	1.21
75-25-2	Bromoform	U	1.21	ug/kg	0.364	1.21
79-34-5	1,1,2,2-Tetrachloroethane	U	1.21	ug/kg	0.364	1.21
96-18-4	1,2,3-Trichloropropane	U	1.21	ug/kg	0.364	1.21
108-86-1	Bromobenzene	U	1.21	ug/kg	0.364	1.21
103-65-1	n-Propylbenzene		23.9	ug/kg	0.364	1.21
95-49-8	2-Chlorotoluene	U	1.21	ug/kg	0.364	1.21
98-82-8	Isopropylbenzene		6.26	ug/kg	0.364	1.21
108-67-8	1,3,5-Trimethylbenzene		82.1	ug/kg	0.364	1.21
106-43-4	4-Chlorotoluene	U	1.21	ug/kg	0.364	1.21
98-06-6	tert-Butylbenzene	U	1.21	ug/kg	0.364	1.21
95-63-6	1,2,4-Trimethylbenzene	U	1.21	ug/kg	0.364	1.21
135-98-8	sec-Butylbenzene		49.6	ug/kg	0.364	1.21
99-87-6	4-Isopropyltoluene		73.8	ug/kg	0.364	1.21
541-73-1	1,3-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21
106-46-7	1,4-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21
104-51-8	n-Butylbenzene		114	ug/kg	0.364	1.21
96-12-8	1,2-Dibromo-3-chloropropane	U	1.21	ug/kg	0.364	1.21
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.06	ug/kg	1.94	6.06
630-20-6	1,1,1,2-Tetrachloroethane		4.89	ug/kg	0.364	1.21
95-50-1	1,2-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	16.49	95.7	ug/kg		J
	Unknown Hydrocarbon	16.74	41.3	ug/kg		J
	Unknown Hydrocarbon	17.66	218	ug/kg		J
	Unknown Hydrocarbon	18.03	718	ug/kg		J
	Unknown Hydrocarbon	18.83	397	ug/kg		J
	Unknown Hydrocarbon	19.96	45.5	ug/kg		J
	Unknown Hydrocarbon	20.06	41.9	ug/kg		J
	Unknown Hydrocarbon	20.25	72.7	ug/kg		J
	Unknown Hydrocarbon	20.8	8.21	ug/kg		J
	Unknown Hydrocarbon	20.92	20.1	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13546**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 17:50**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c215.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	21.35	8.7	ug/kg		J
	Unknown Hydrocarbon	21.68	6.11	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c215.d
Lab Smp Id: 248842007 Client Smp ID: RE46-10-13546
Inj Date : 16-MAR-2010 17:50
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842007|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	17.53750	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	1036612	50.0000	
* 76 Chlorobenzene-d5	117	17.147	17.148	(1.000)	719562	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.596	(1.000)	484587	50.0000	(Q)
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	512595	50.6438	61.4
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1341189	55.4181	67.2
$ 87 Bromofluorobenzene	95	18.376	18.377	(0.938)	740012	60.9104	73.9
16 Acetone	43	9.239	9.239	(0.676)	401562	65.3917	79.3
15 1,1-Dichloroethylene	61	9.055	9.060	(0.662)	651223	57.0094	69.1
36 cis-1,2-Dichloroethylene	96	12.190	12.185	(0.892)	1973	0.32818	0.40(a)
43 1,1,1-Trichloroethane	97	12.834	12.834	(0.939)	3400607	381.828	463(A)
44 Carbon tetrachloride	117	13.014	13.014	(0.952)	6919	0.81222	0.98(a)
47 Benzene	78	13.318	13.318	(0.974)	8912	0.37563	0.46(aQ)
54 Trichloroethylene	95	14.109	14.105	(1.032)	27477831	4486.55	5440(A)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
57 1,2-Dichloropropane	63	14.445	14.450	(1.057)	31846	4.87857	5.9
66 Toluene	92	15.587	15.582	(0.909)	131425	9.46957	11.5
70 Tetrachloroethylene	164	16.181	16.181	(0.944)	2770770	625.033	758(A)
79 1,1,1,2-Tetrachloroethane	131	17.244	17.249	(1.006)	21399	4.03296	4.9
78 Ethylbenzene	91	17.207	17.207	(1.003)	118305	4.26672	5.2
81 o-Xylene	106	17.769	17.769	(1.036)	65399	6.77753	8.2
89 n-Propylbenzene	91	18.547	18.547	(0.946)	793065	19.6781	23.9
84 Isopropylbenzene	105	18.119	18.114	(0.924)	170109	5.16365	6.3
93 1,3,5-Trimethylbenzene	105	18.708	18.703	(0.954)	1946668	67.6898	82.1
99 sec-Butylbenzene	105	19.292	19.288	(0.984)	1498473	40.9309	49.6
100 4-Isopropyltoluene	119	19.412	19.408	(0.990)	1736136	60.8848	73.8
105 n-Butylbenzene	91	19.859	19.854	(1.013)	2893000	93.9586	114(Q)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

VOA REPORT

Data file: 1c215.d
Report Date: 03/17/2010 05:38
Lab. ID: 248842007 SampleType: SAMPLE
Injection Date: 16-MAR-2010 17:50
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248842007|965875|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
15 1,1-Dichloroethylene			CAS#: 75-35-4			
61	651223	9.06	9.06	80-120	100	( )
63	207688	9.06	9.07	2- 62	32	( )
96	313316	9.06	9.07	14- 74	48	( )
16 Acetone			CAS#: 67-64-1			
43	401562	9.24	9.24	80-120	100	( )
58	121638	9.24	9.24	0- 56	30	( )
36 cis-1,2-Dichloroethylene			CAS#: 156-59-2			
96	1973	12.19	12.19	80-120	100	( )
61	3992	12.19	12.19	162-222	202	( )
98	1551	12.20	12.19	35- 95	79	( )
41 Chloroform			CAS#: 67-66-3			
83	4292	12.83	12.60	80-120	100	(T)
85	2787	12.83	12.60	36- 96	65	(T)
43 1,1,1-Trichloroethane			CAS#: 71-55-6			
97	3400607	12.83	12.83	80-120	100	( )
99	2222311	12.83	12.83	35- 95	65	( )
61	1428941	12.83	12.83	13- 73	42	( )
44 Carbon tetrachloride			CAS#: 56-23-5			
117	6919	13.01	13.01	80-120	100	( )
119	6051	13.01	13.01	63-123	87	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	17475	13.68	13.43	80-120	100	(T)
64	2738	13.66	13.43	3- 63	16	(T)
47 Benzene			CAS#: 71-43-2			
78	8912	13.32	13.32	80-120	100	( )
77	2180	13.32	13.32	0- 54	24	( )
51	165692	13.33	13.32	8- 68	1859	(Q)
54 Trichloroethylene			CAS#: 79-01-6			
95	27477831	14.11	14.10	80-120	100	( )
97	21417762	14.11	14.10	36- 96	78	( )
130	24811658	14.11	14.10	51-111	90	( )
57 1,2-Dichloropropane			CAS#: 78-87-5			
63	31846	14.45	14.45	80-120	100	( )
62	23968	14.45	14.45	42-102	75	( )
60 Bromodichloromethane			CAS#: 75-27-4			
83	3038	14.51	14.74	80-120	100	(T)
85	2402	14.46	14.74	35- 95	79	(T)
63 cis-1,3-Dichloropropylene			CAS#: 10061-01-5			
75	15998	15.72	15.25	80-120	100	(T)
77	27531	15.71	15.24	1- 61	172	(QT)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	13660	15.51	15.34	80-120	100	(T)
43	14618	15.50	15.35	227-287	107	(QT)
100	824612	15.50	15.35	0- 60	6036	(QT)
66 Toluene			CAS#: 108-88-3			
92	131425	15.59	15.58	80-120	100	( )
91	228464	15.58	15.58	141-201	174	( )
68 trans-1,3-Dichloropropylene			CAS#: 10061-02-6			
75	7391	15.75	15.87	80-120	100	(T)
77	40037	15.71	15.87	1- 61	542	(QT)
69 1,1,2-Trichloroethane			CAS#: 79-00-5			
83	66909	16.18	16.09	80-120	100	(T)
97	47611	16.19	16.09	87-147	71	(QT)
85	12477	16.18	16.09	34- 94	19	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
72 1,3-Dichloropropane			CAS#: 142-28-9			
76	12879	16.51	16.30	80-120	100	(T)
78	24238	16.48	16.30	3- 63	188	(QT)
71 2-Hexanone			CAS#: 591-78-6			
43	205070	16.43	16.25	80-120	100	(T)
58	5506	16.54	16.25	23- 83	3	(QT)
70 Tetrachloroethylene			CAS#: 127-18-4			
164	2770770	16.18	16.18	80-120	100	( )
129	2644270	16.18	16.18	67-127	95	( )
131	2578709	16.18	16.18	62-122	93	( )
73 Dibromochloromethane			CAS#: 124-48-1			
129	2776	16.53	16.54	80-120	100	( )
127	4759	16.48	16.54	46-106	171	(Q)
77 Chlorobenzene			CAS#: 108-90-7			
112	95470	17.37	17.18	80-120	100	(T)
77	147309	17.29	17.18	62-122	154	(QT)
114	1612	17.37	17.18	1- 61	2	(T)
79 1,1,1,2-Tetrachloroethane			CAS#: 630-20-6			
131	21399	17.24	17.25	80-120	100	( )
133	20876	17.25	17.25	67-127	98	( )
119	13316	17.25	17.25	26- 86	62	( )
78 Ethylbenzene			CAS#: 100-41-4			
91	118305	17.21	17.21	80-120	100	( )
106	31496	17.21	17.21	0- 57	27	( )
81 o-Xylene			CAS#: 95-47-6			
106	65399	17.77	17.77	80-120	100	( )
91	165771	17.77	17.77	226-286	253	( )
80 m,p-Xylenes			CAS#:			
106	31496	17.21	17.32	80-120	100	(T)
91	118305	17.21	17.32	209-269	376	(QT)
82 Styrene			CAS#: 100-42-5			
104	5883	17.78	17.79	80-120	100	( )
78	16155	17.77	17.79	38- 98	275	(Q)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
83 Bromoform			CAS#: 75-25-2			
173	1523	18.05	18.09	80-120	100	( )
171	434	18.05	18.10	21- 81	29	( )
84 Isopropylbenzene			CAS#: 98-82-8			
105	170109	18.12	18.11	80-120	100	( )
120	37105	18.12	18.12	0- 52	22	( )
88 1,1,2,2-Tetrachloroethane			CAS#: 79-34-5			
83	1205550	18.47	18.50	80-120	100	( )
85	551874	18.58	18.50	35- 95	46	(T)
92 1,2,3-Trichloropropane			CAS#: 96-18-4			
110	702180	18.61	18.59	80-120	100	( )
75	16387	18.66	18.59	316-376	2	(QT)
77	1862038	18.71	18.58	769-829	265	(QT)
91 Bromobenzene			CAS#: 108-86-1			
156	6861	18.59	18.58	80-120	100	( )
77	2200806	18.71	18.58	217-277	32074	(QT)
158	320	18.58	18.58	70-130	5	(Q)
89 n-Propylbenzene			CAS#: 103-65-1			
91	1299881	18.55	18.55	80-120	100	( )
120	149480	18.55	18.55	0- 49	11	( )
94 2-Chlorotoluene			CAS#: 95-49-8			
91	1323231	18.55	18.73	80-120	100	(T)
126	157952	18.47	18.73	0- 52	12	(T)
93 1,3,5-Trimethylbenzene			CAS#: 108-67-8			
105	1946668	18.71	18.70	80-120	100	( )
120	799966	18.71	18.70	9- 69	41	( )
97 1,2,4-Trimethylbenzene			CAS#: 95-63-6			
105	1246964	18.96	19.12	80-120	100	(T)
120	323808	18.96	19.12	7- 67	26	(T)
95 4-Chlorotoluene			CAS#: 106-43-4			
91	315833	18.96	18.84	80-120	100	(T)
126	74605	18.93	18.84	0- 54	24	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
96 tert-Butylbenzene			CAS#: 98-06-6			
119	76864	19.07	19.06	80-120	100	( )
91	407007	18.96	19.06	58-118	530	(QT)
134	16212	19.07	19.06	0- 51	21	( )
99 sec-Butylbenzene			CAS#: 135-98-8			
105	1498473	19.29	19.29	80-120	100	( )
134	422314	19.29	19.29	0- 47	28	( )
100 4-Isopropyltoluene			CAS#: 99-87-6			
119	1716968	19.41	19.41	80-120	100	( )
134	408472	19.41	19.41	0- 53	24	( )
91	676792	19.35	19.41	1- 61	39	( )
101 1,3-Dichlorobenzene			CAS#: 541-73-1			
146	5000	19.63	19.53	80-120	100	(T)
148	3064	19.63	19.53	34- 94	61	(T)
111	2127726	19.60	19.53	18- 78	42546	(QT)
103 1,4-Dichlorobenzene			CAS#: 106-46-7			
146	5000	19.63	19.62	80-120	100	( )
111	1855345	19.60	19.62	17- 77	37100	(Q)
148	3064	19.63	19.62	35- 95	61	( )
105 n-Butylbenzene			CAS#: 104-51-8			
91	2893000	19.86	19.85	80-120	100	( )
92	1547622	19.86	19.85	24- 84	53	( )
134	2548073	19.80	19.85	0- 51	88	(Q)
106 1,2-Dichlorobenzene			CAS#: 95-50-1			
146	21908	20.07	20.07	80-120	100	( )
111	3396204	19.60	20.07	20- 80	15502	(QT)
148	14508	20.07	20.07	36- 96	66	( )
108 1,2-Dibromo-3-chloropropane			CAS#: 96-12-8			
157	7209	20.61	20.98	80-120	100	(T)
155	19961	20.57	20.99	49-109	277	(QT)
75	24525	20.64	20.99	102-162	340	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c215.d
Lab Smp Id: 248842007 Client Smp ID: RE46-10-13546
Inj Date : 16-MAR-2010 17:50
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842007|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	17.53750	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.147	10130503	50.000
* 102 1,4-Dichlorobenzene-d4	19.601	70217113	50.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon					CAS #:		
16.489	15986336	78.9019802	95.7	0		0	76

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon					CAS #:		
16.738	6892314	34.0176257	41.2	0		0	76
Unknown Hydrocarbon					CAS #:		
17.663	36356630	179.441372	218	0		0	76
Unknown Hydrocarbon					CAS #:		
18.031	1.199e+08	591.741530	718	0		0	76
Unknown Hydrocarbon					CAS #:		
18.828	4.598e+08	327.413610	397	0		0	102
Unknown Hydrocarbon					CAS #:		
19.955	52634508	37.4798292	45.4	0		0	102
Unknown Hydrocarbon					CAS #:		
20.057	48494929	34.5321293	41.9	0		0	102
Unknown Hydrocarbon					CAS #:		
20.250	84212687	59.9659279	72.7	0		0	102
Unknown Hydrocarbon					CAS #:		
20.798	9511273	6.77276007	8.2	0		0	102
Unknown Hydrocarbon					CAS #:		
20.917	23306467	16.5960022	20.1	0		0	102
Unknown Hydrocarbon					CAS #:		
21.350	10075797	7.17474467	8.7	0		0	102
Unknown Hydrocarbon					CAS #:		
21.677	7076183	5.03878809	6.1	0		0	102

Data File: /chem/VOA1.i/031610v1/1c215.d
Date : 16-MAR-2010 17:50
Client ID: RE46-10-13546
Sample Info: |2488420071965875|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2
Column diameter: 0.25

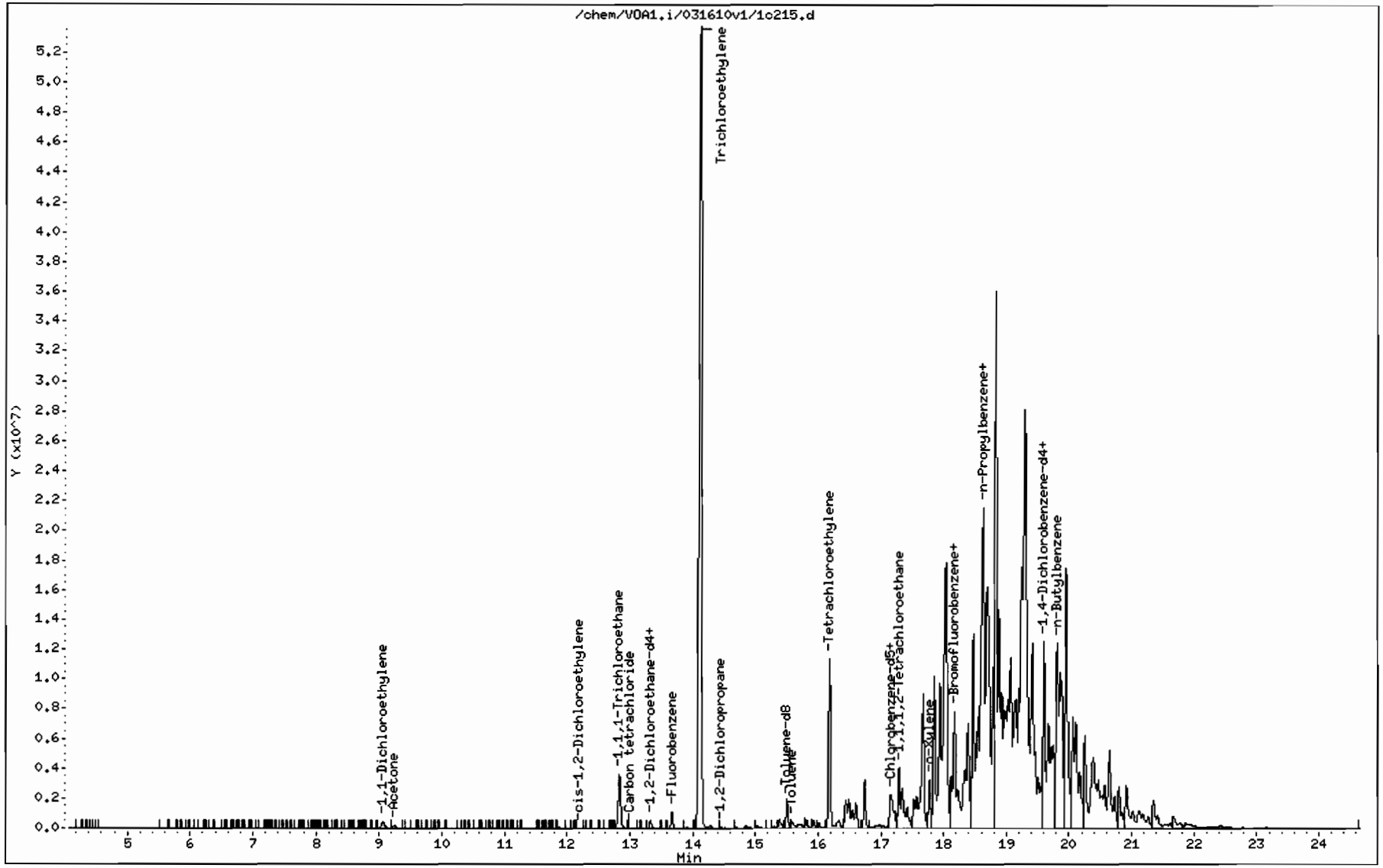

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 79.3 ug/Kg

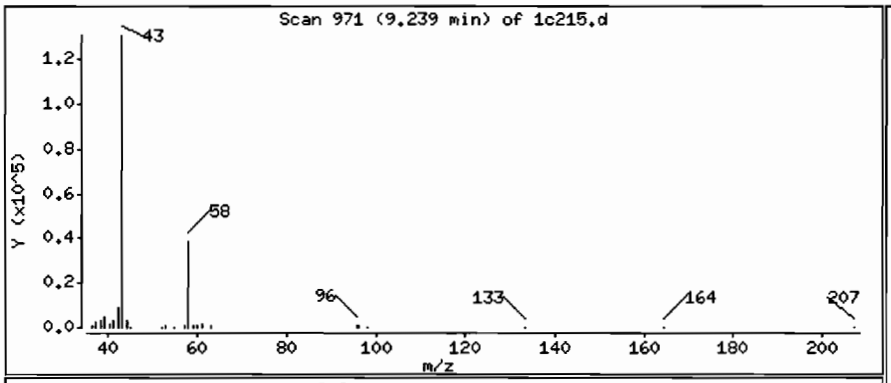

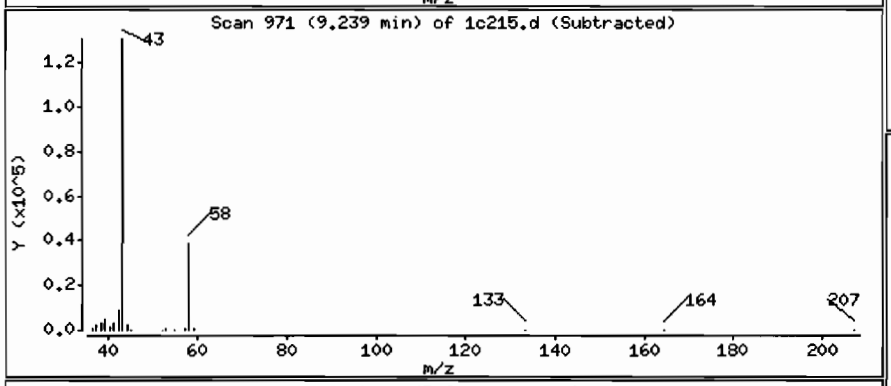

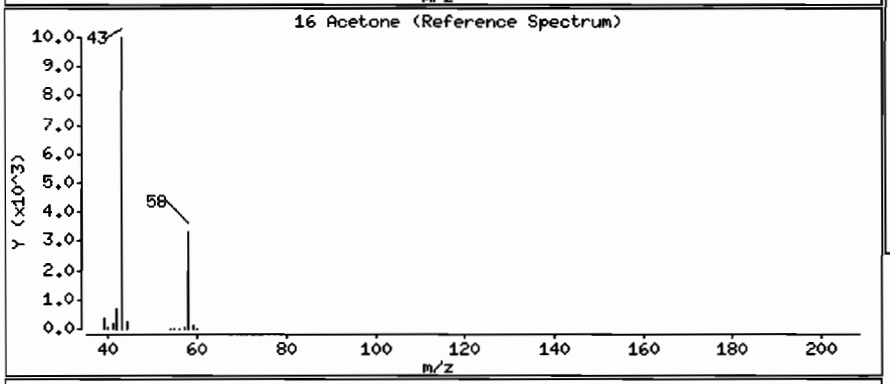

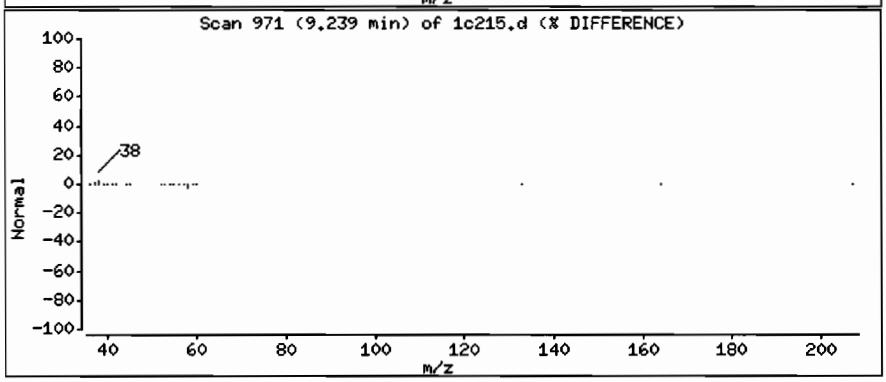

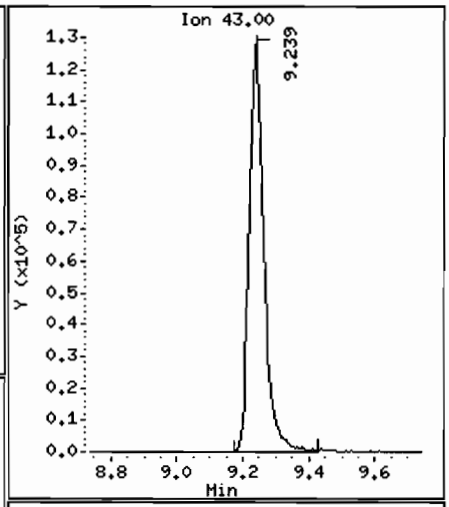

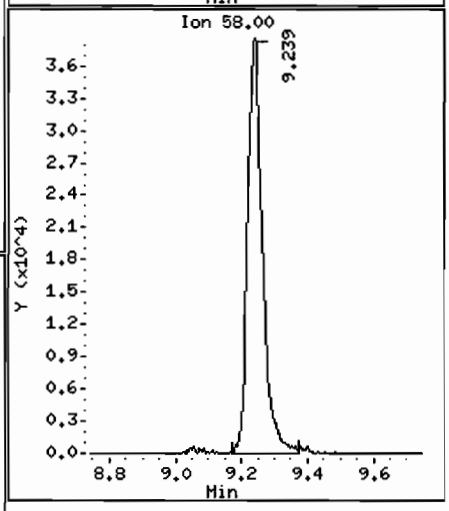

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

15 1,1-Dichloroethylene

Concentration: 69.1 ug/Kg

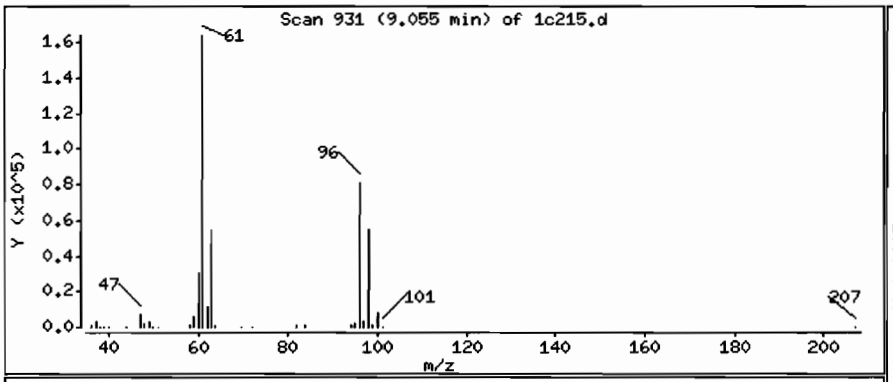

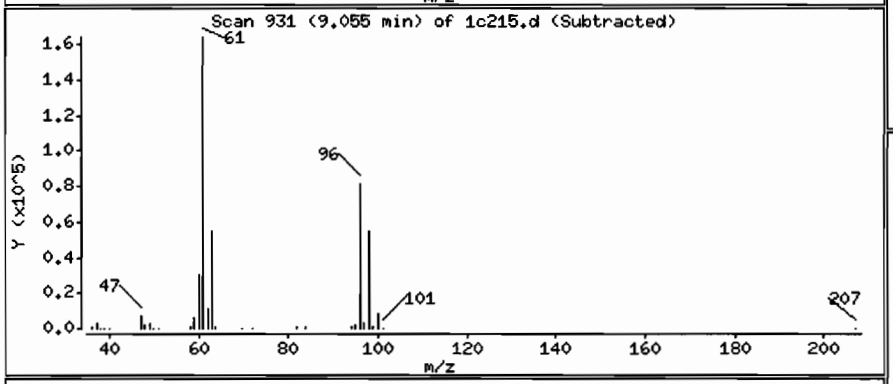

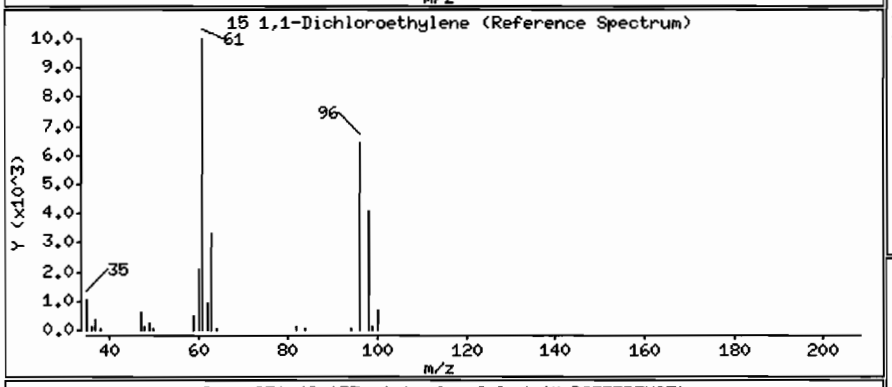

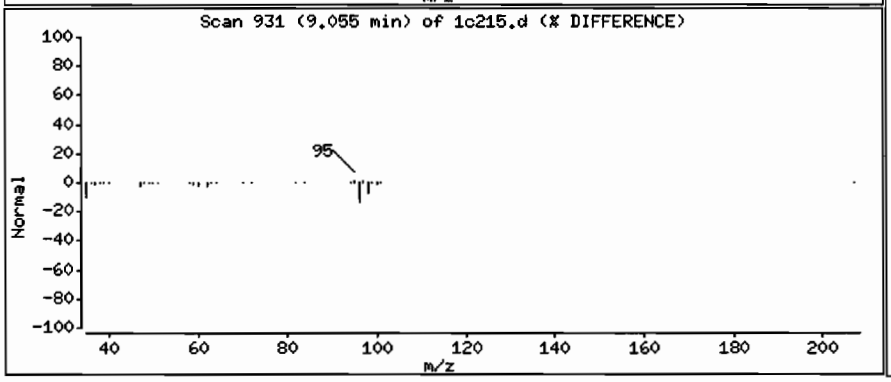

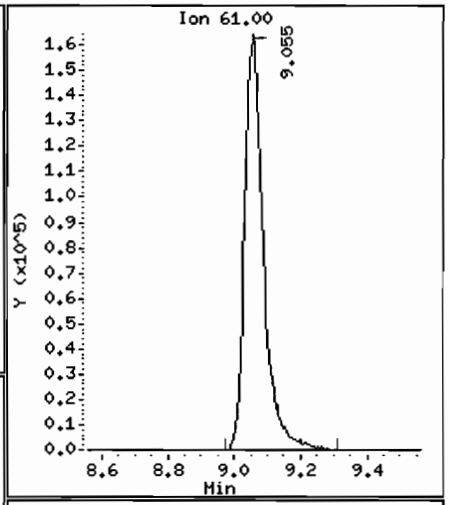

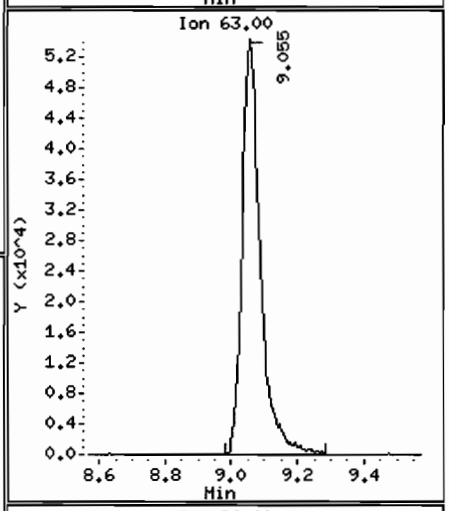

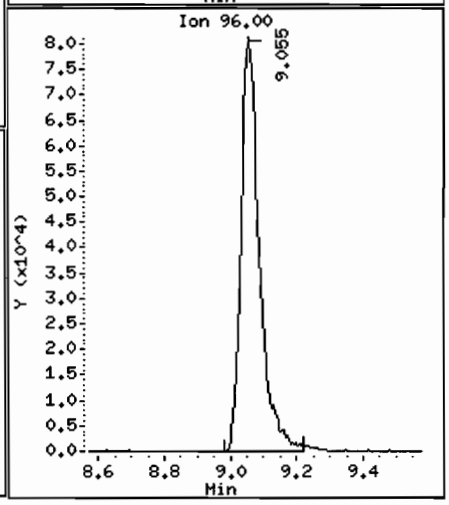

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

36 cis-1,2-Dichloroethylene

Concentration: 0.40 ug/Kg

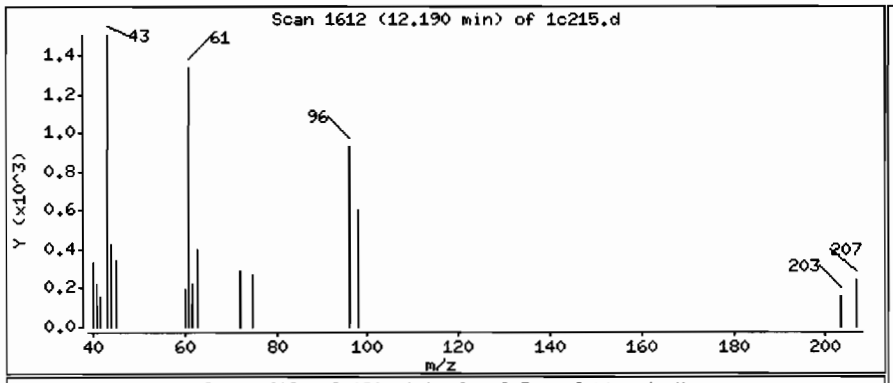

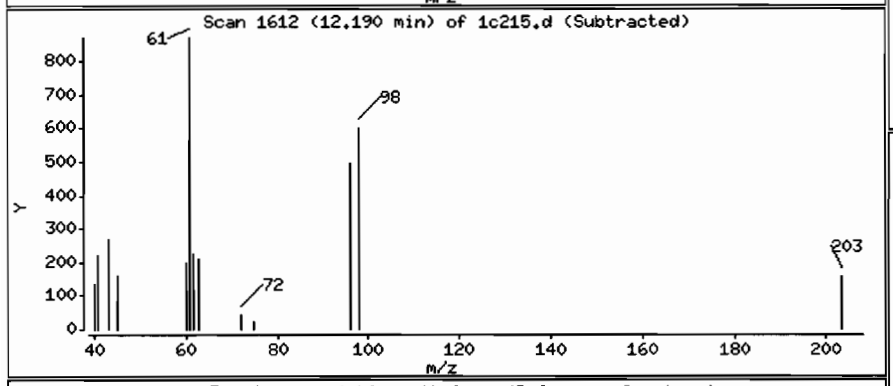

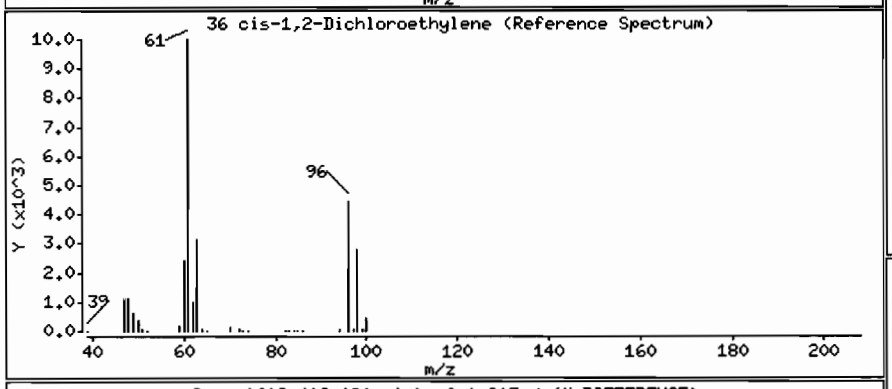

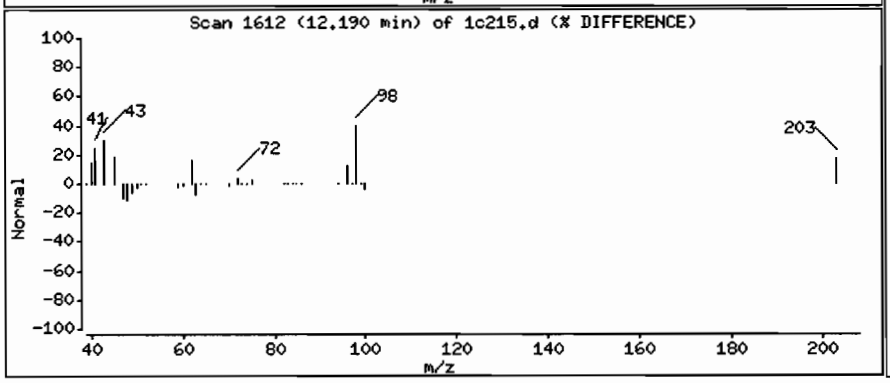

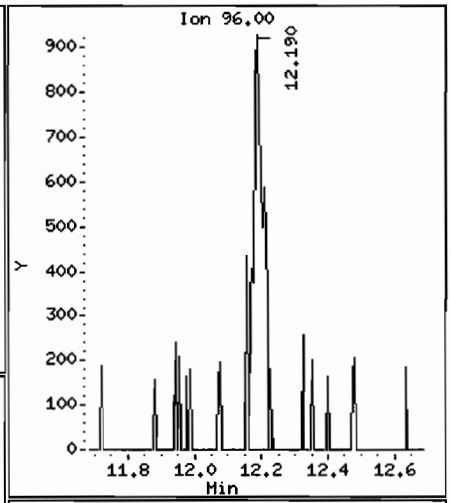

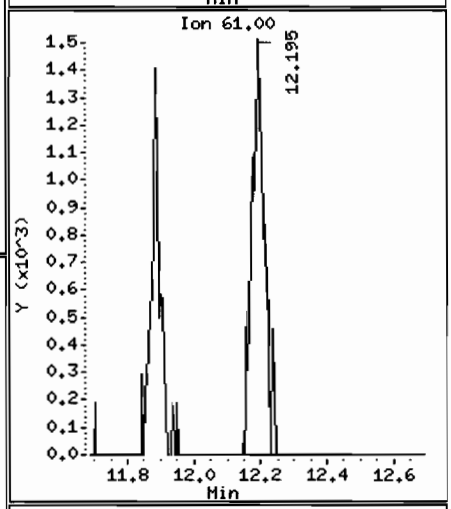

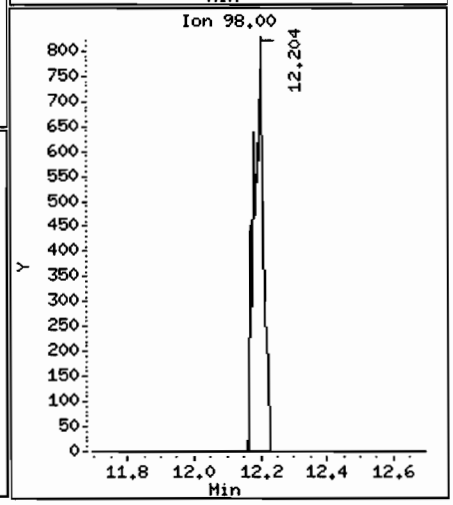

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

43 1,1,1-Trichloroethane

Concentration: 463 ug/Kg

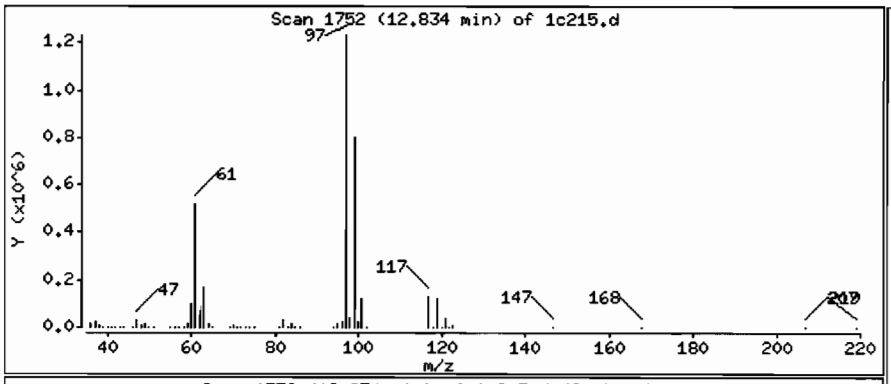

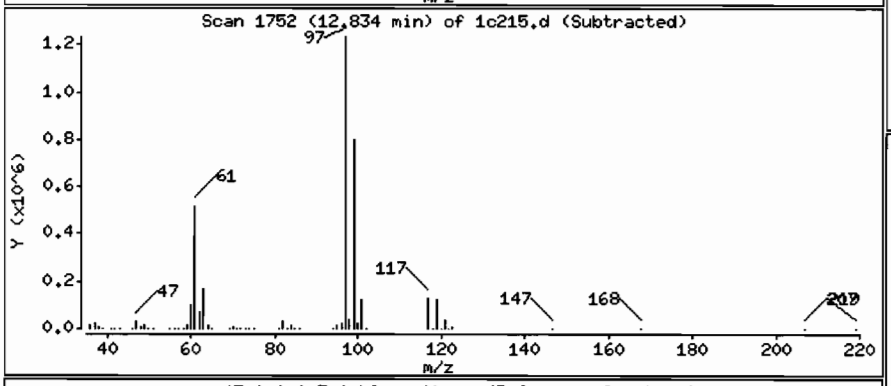

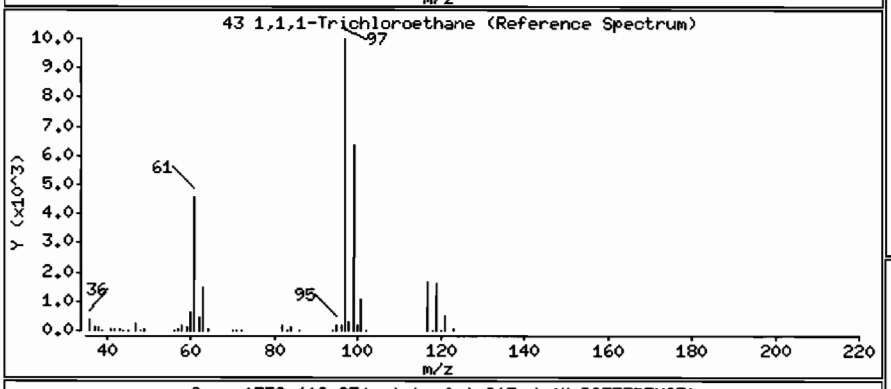

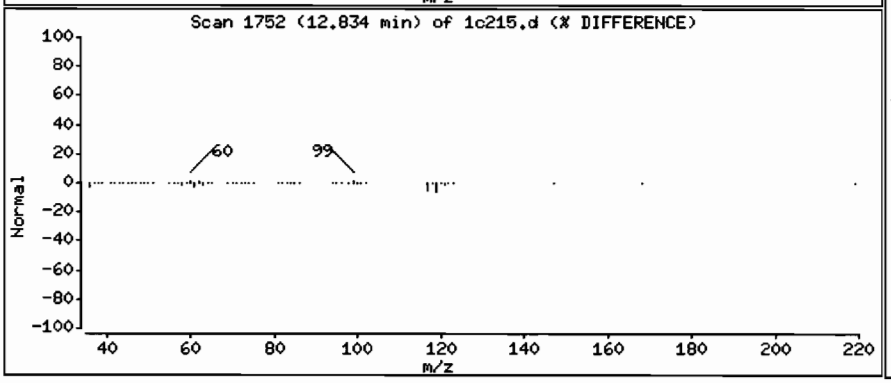

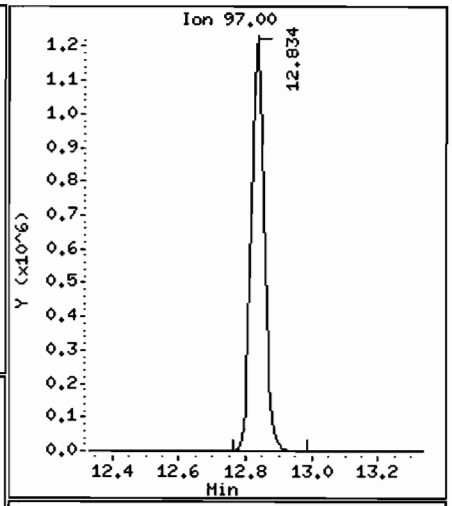

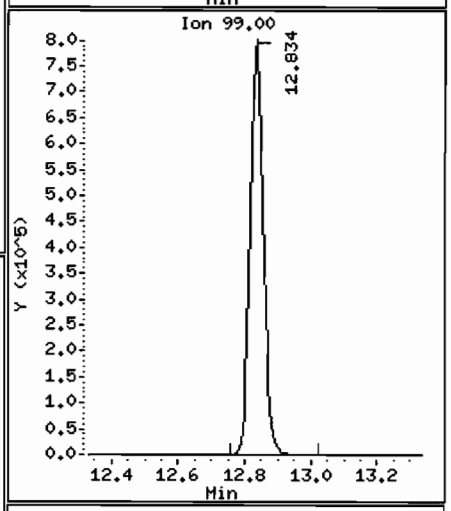

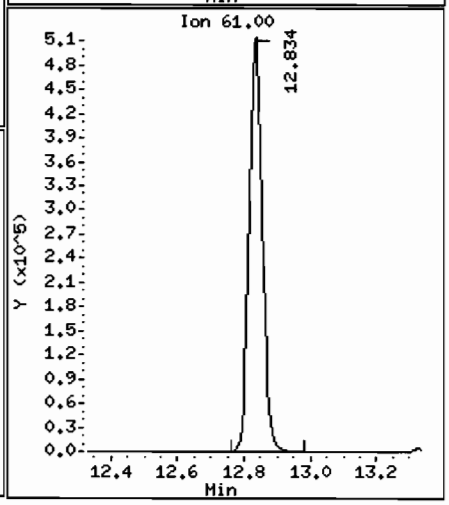

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

44 Carbon tetrachloride

Concentration: 0.98 ug/Kg

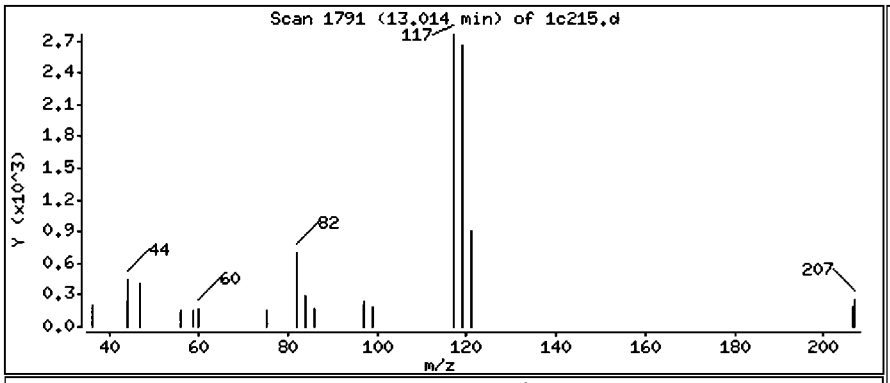

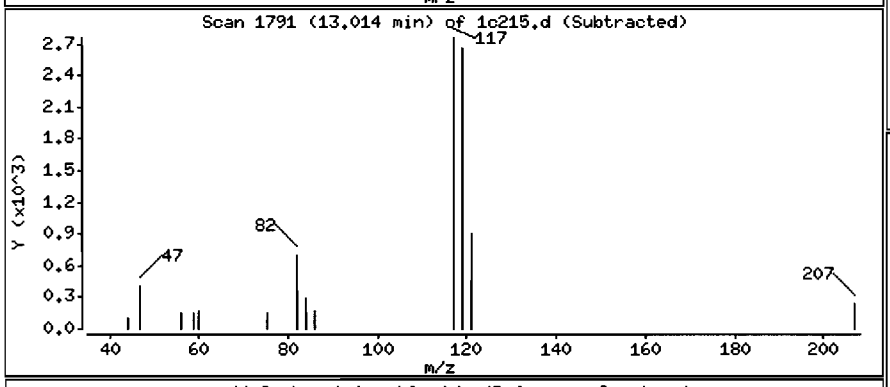

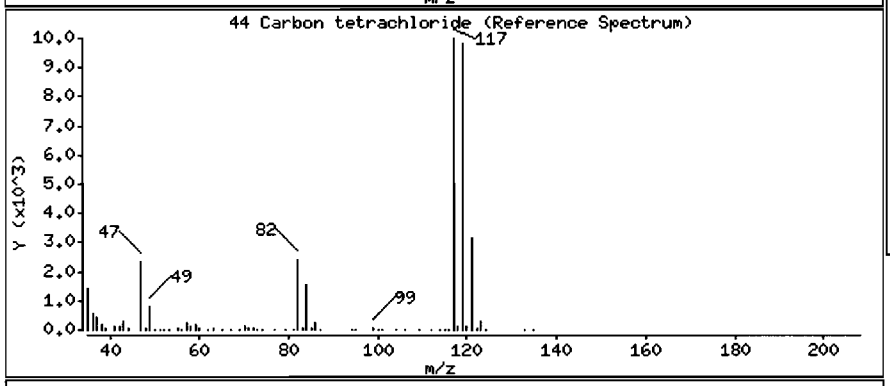

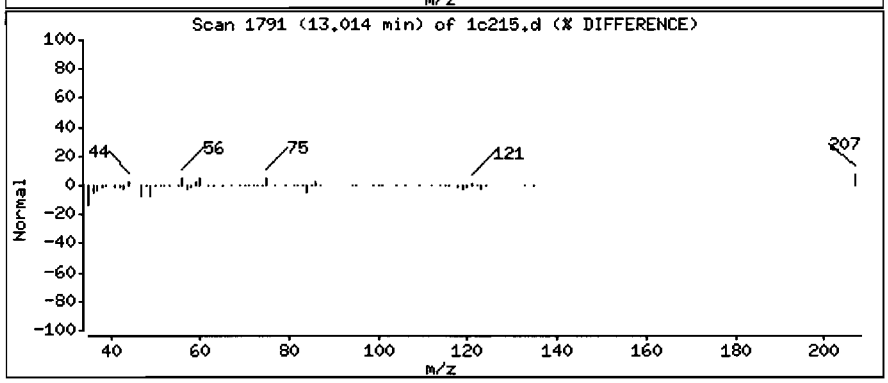

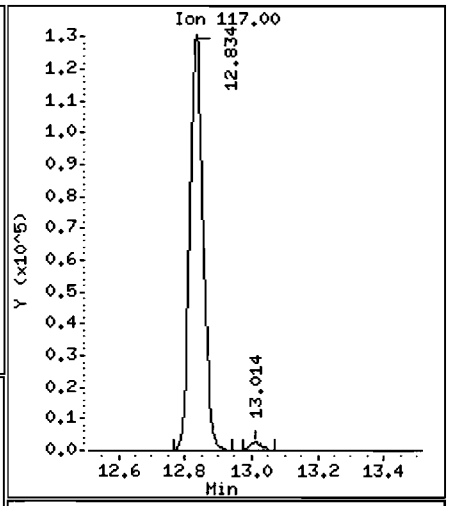

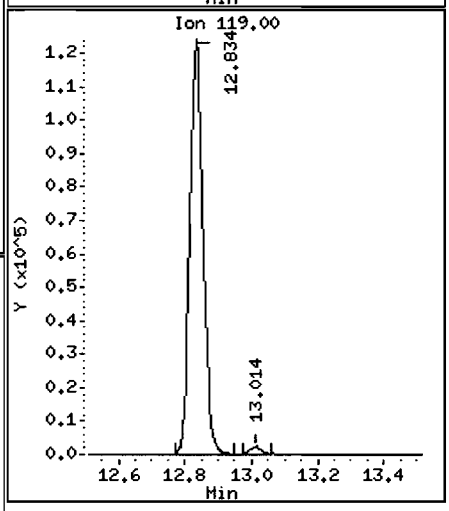

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

47 Benzene

Concentration: 0.46 ug/Kg

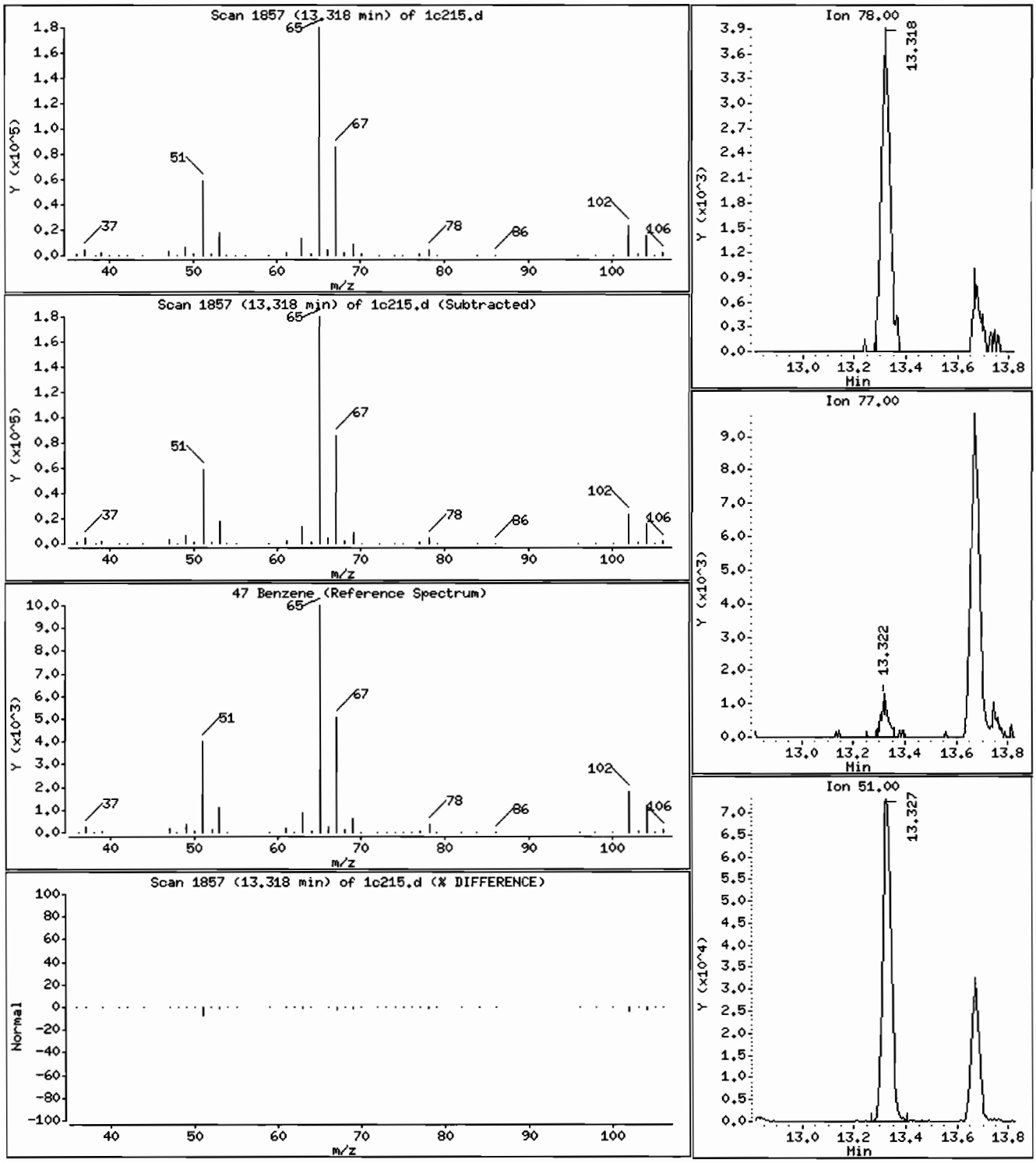

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

54 Trichloroethylene

Concentration: 5440 ug/Kg

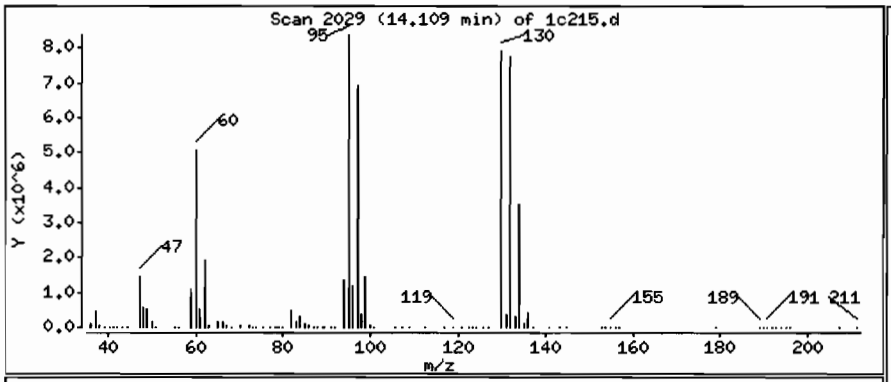

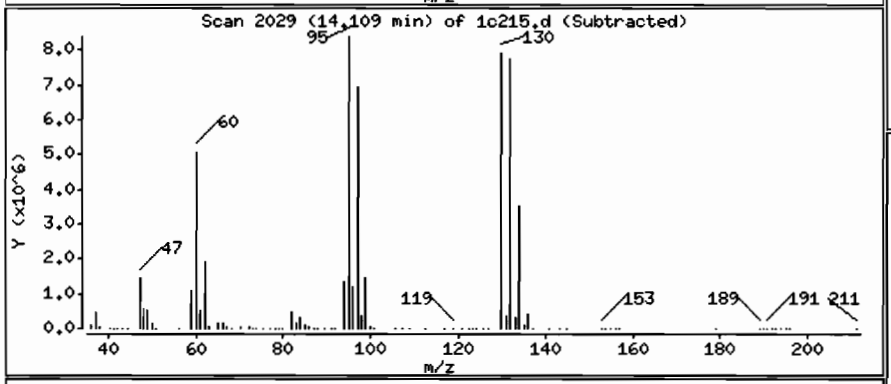

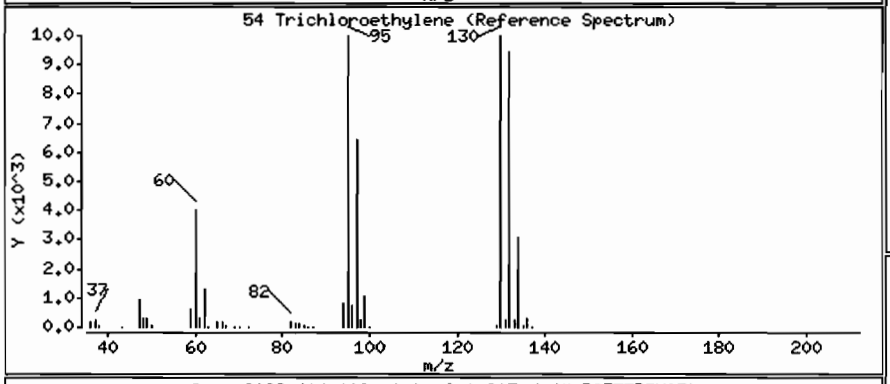

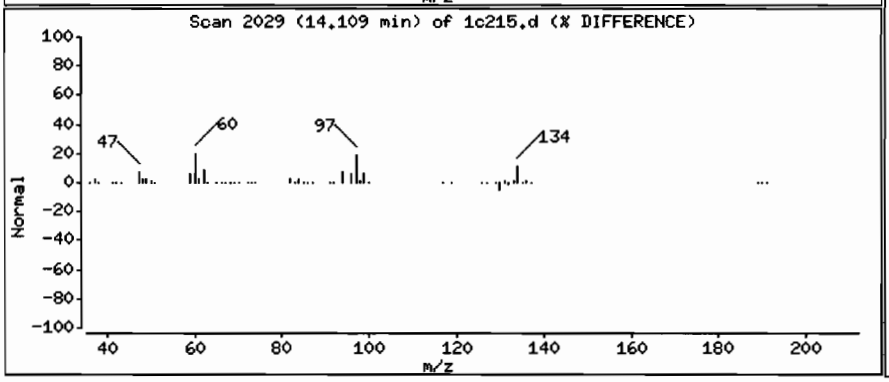

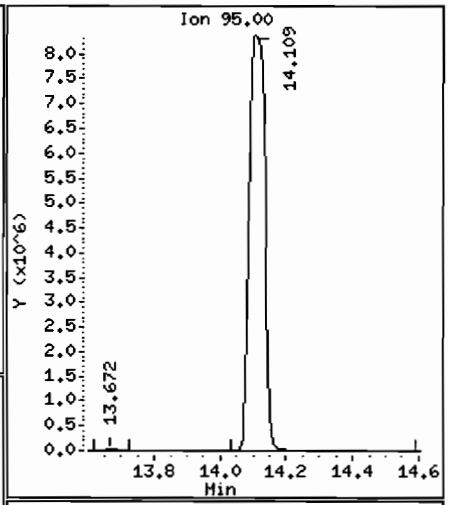

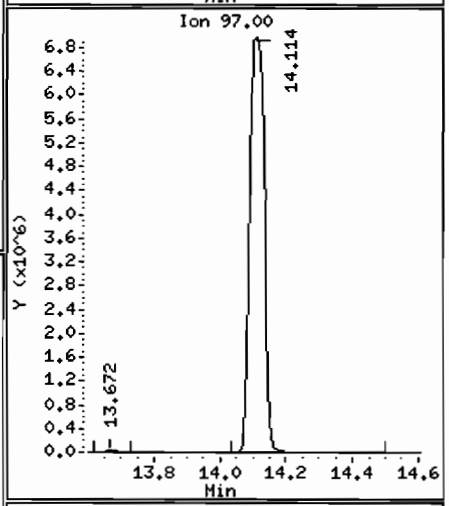

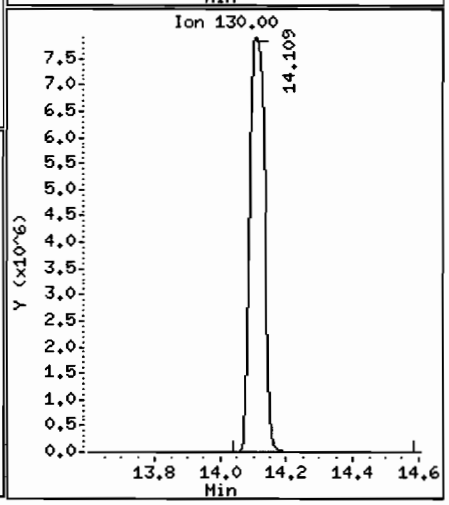

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

57 1,2-Dichloropropane

Concentration: 5.9 ug/Kg

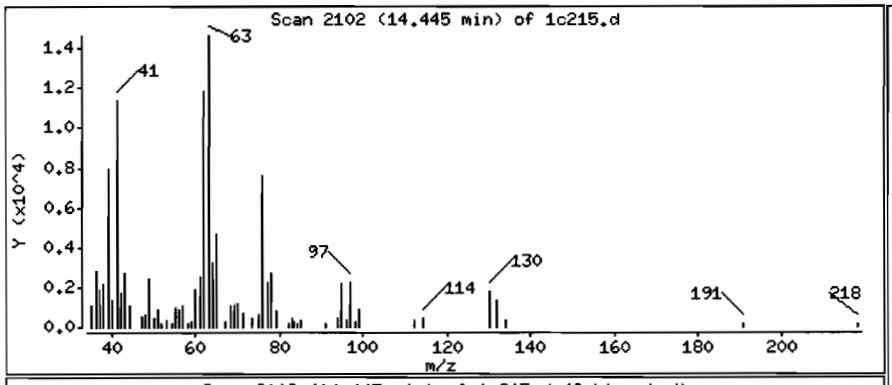

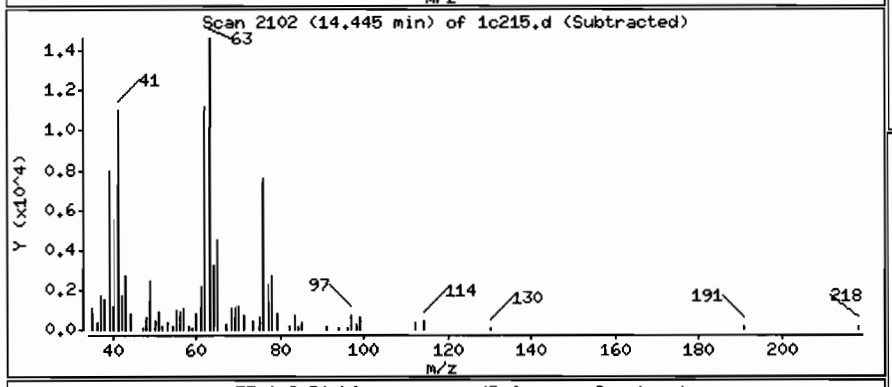

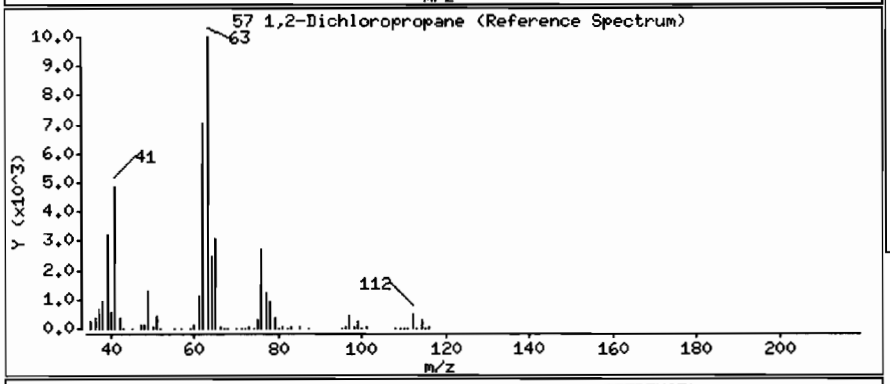

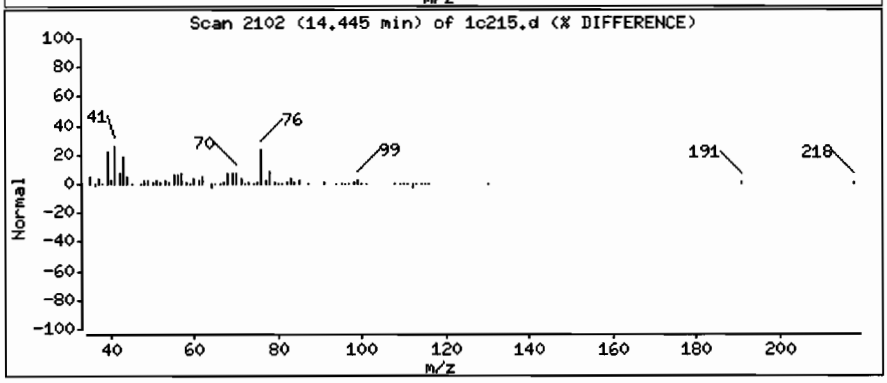

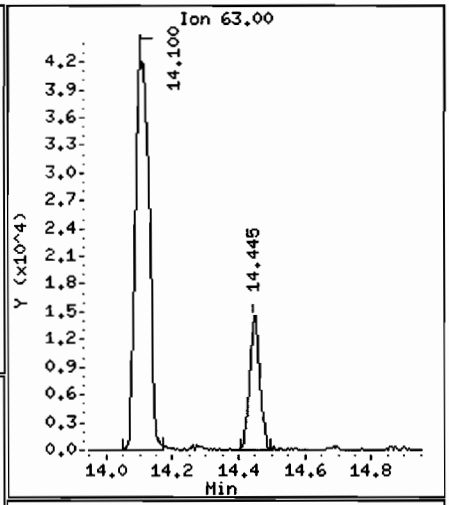

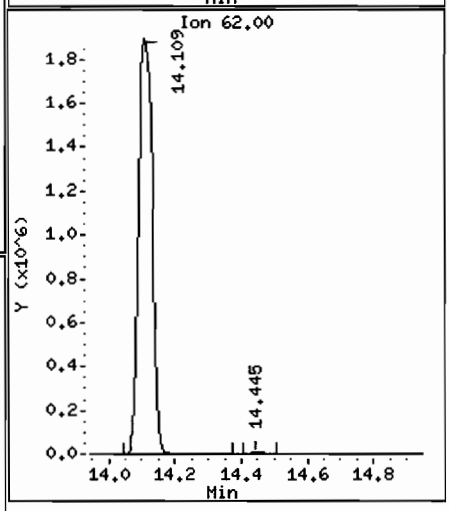

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

66 Toluene

Concentration: 11.5 ug/Kg

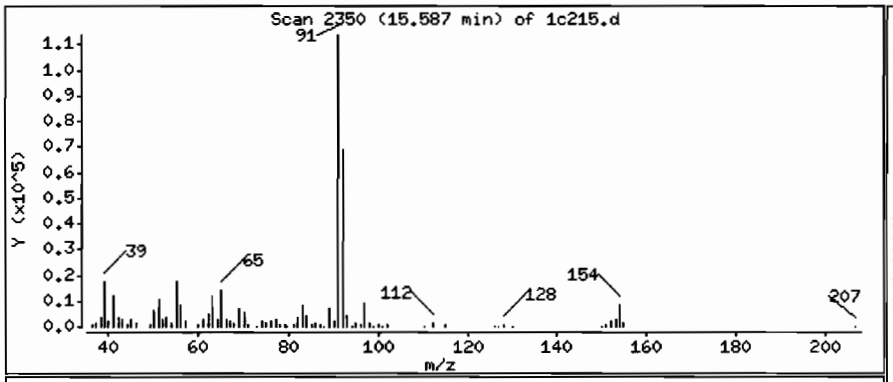

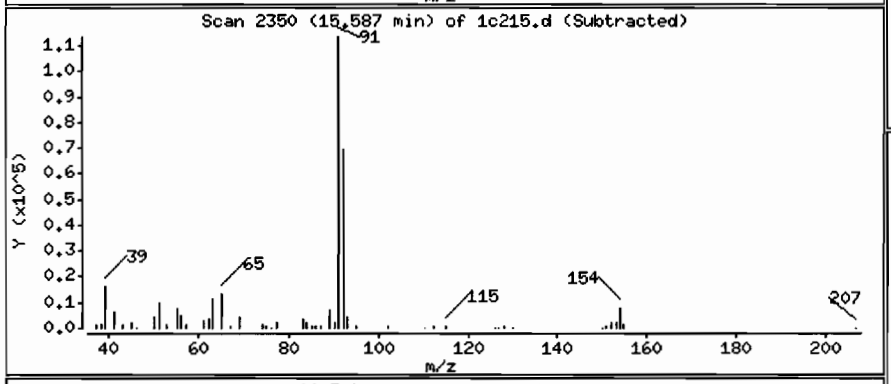

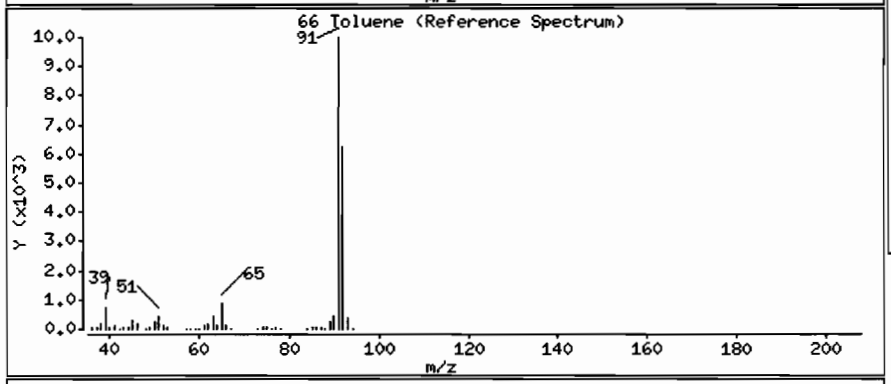

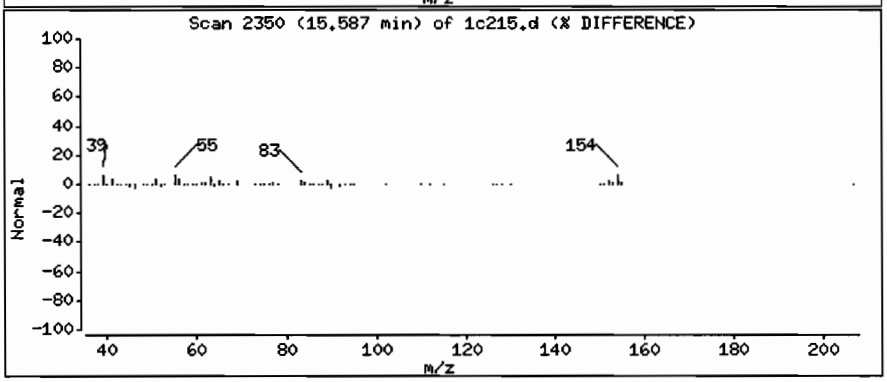

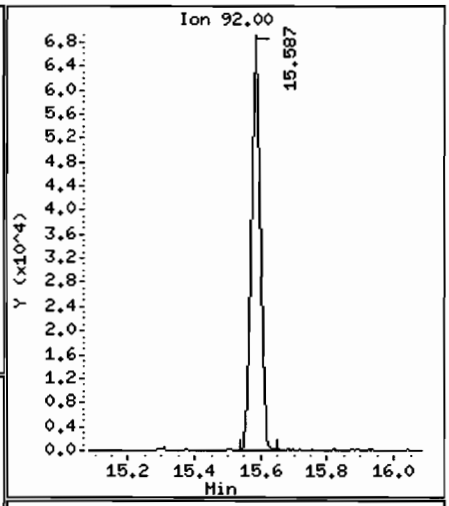

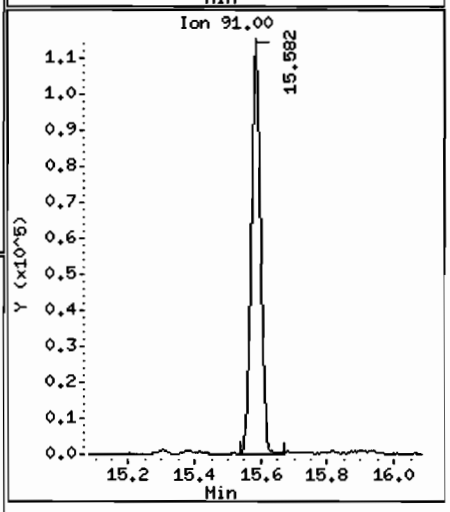

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

70 Tetrachloroethylene

Concentration: 758 ug/Kg

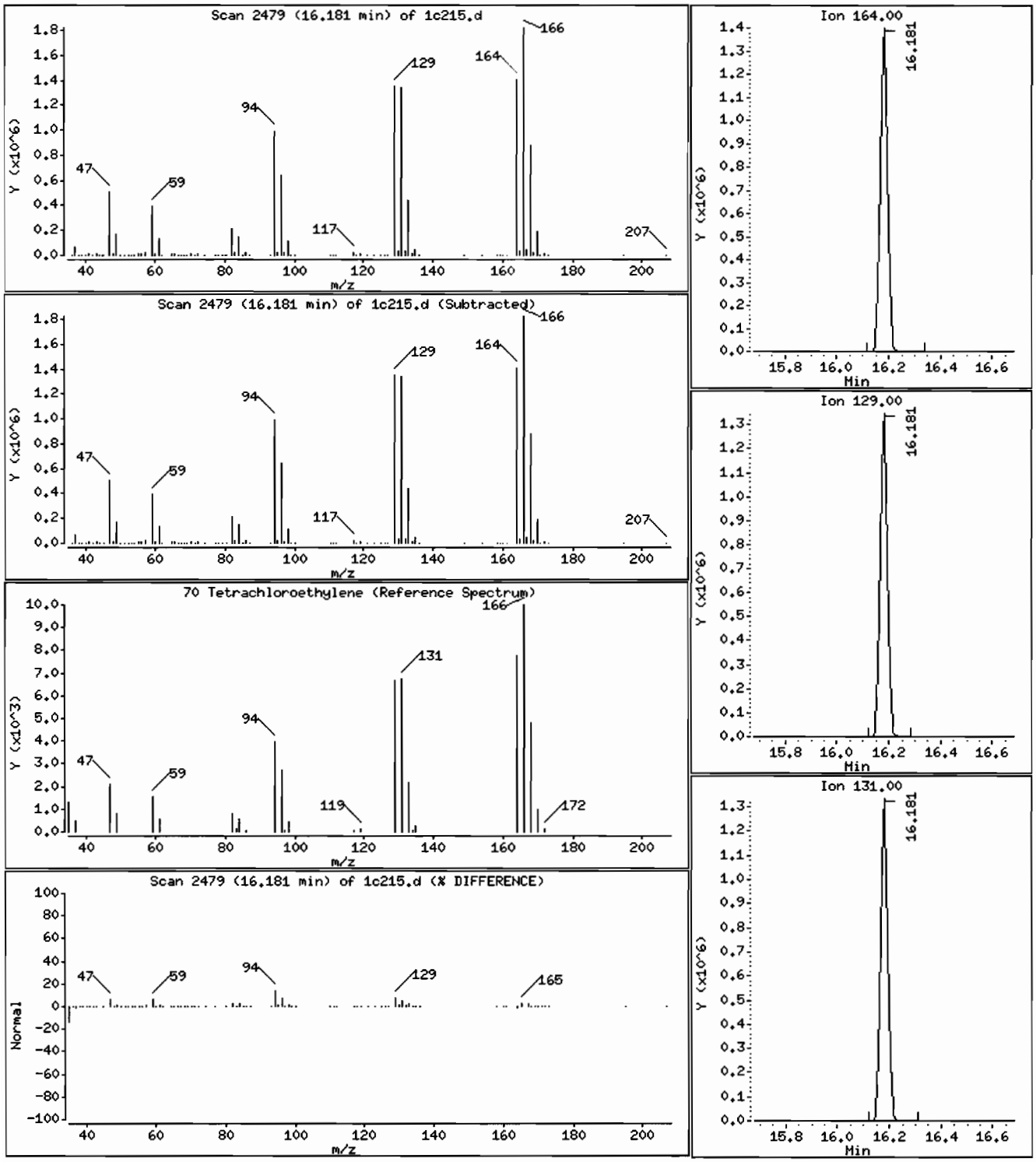

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

79 1,1,1,2-Tetrachloroethane

Concentration: 4.9 ug/Kg

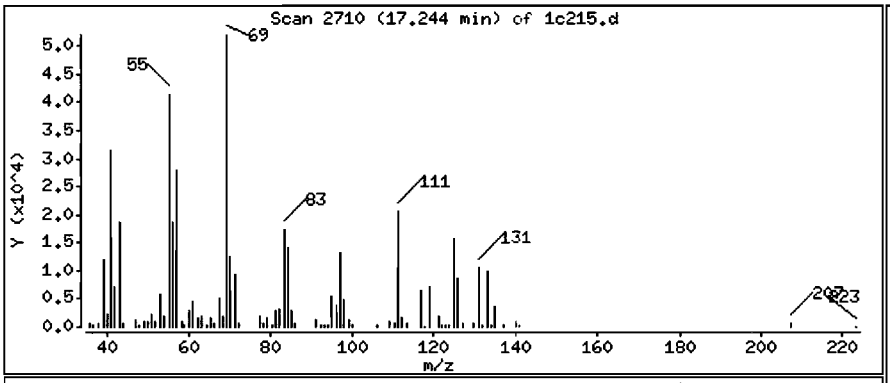

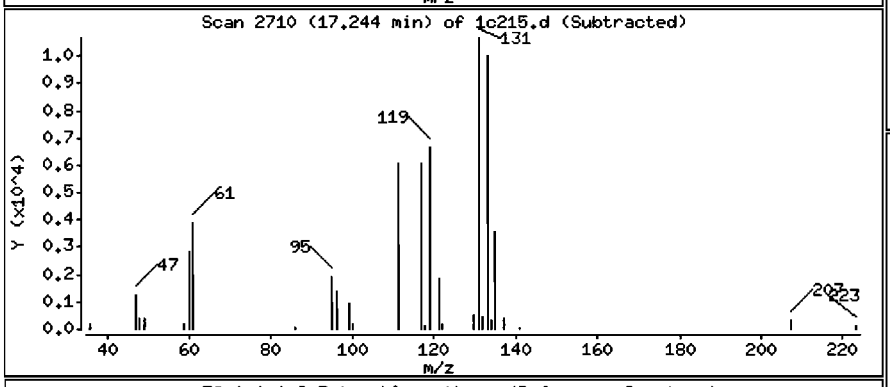

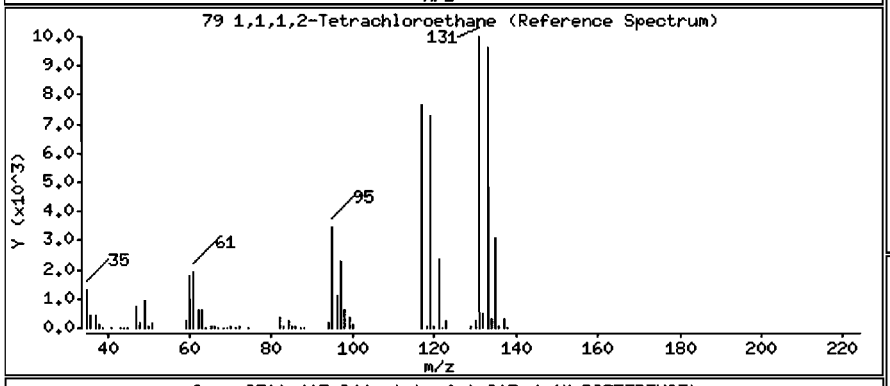

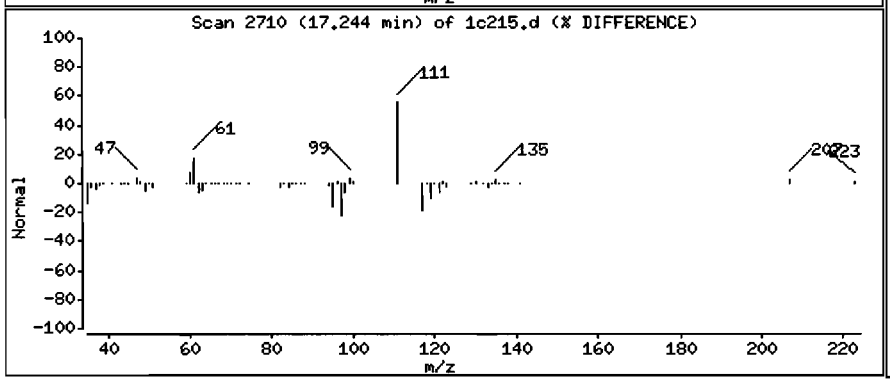

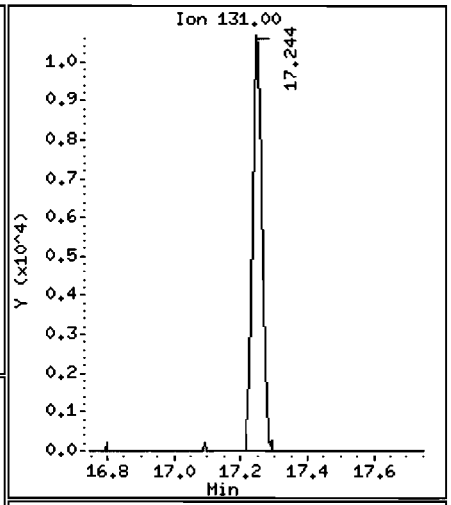

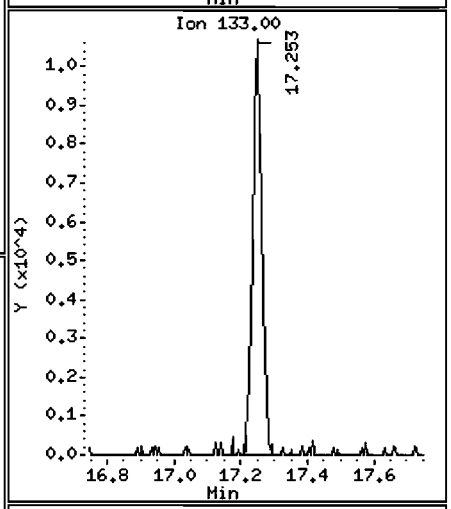

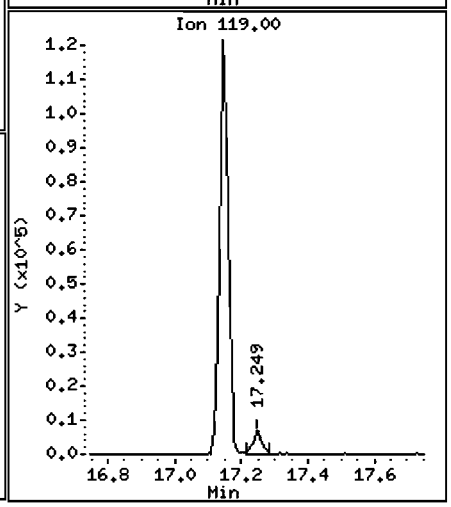

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

78 Ethylbenzene

Concentration: 5.2 ug/Kg

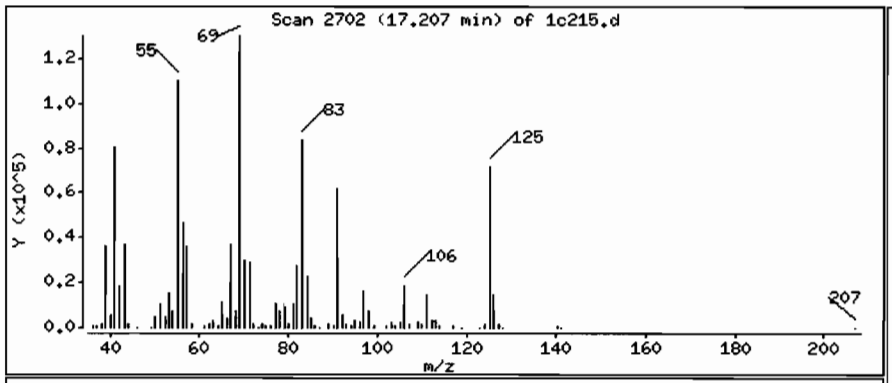

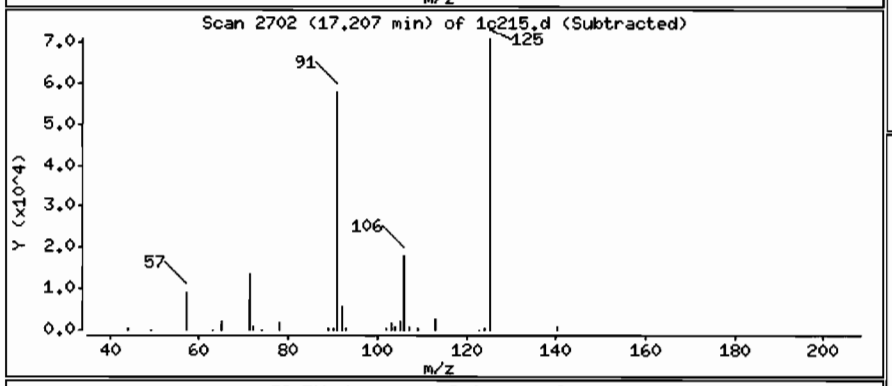

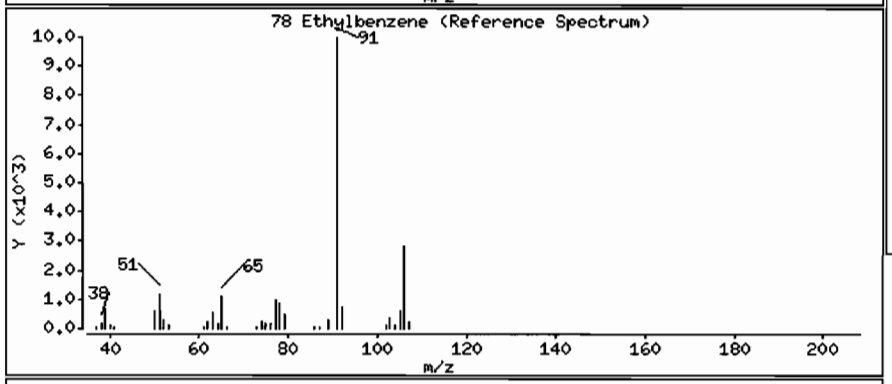

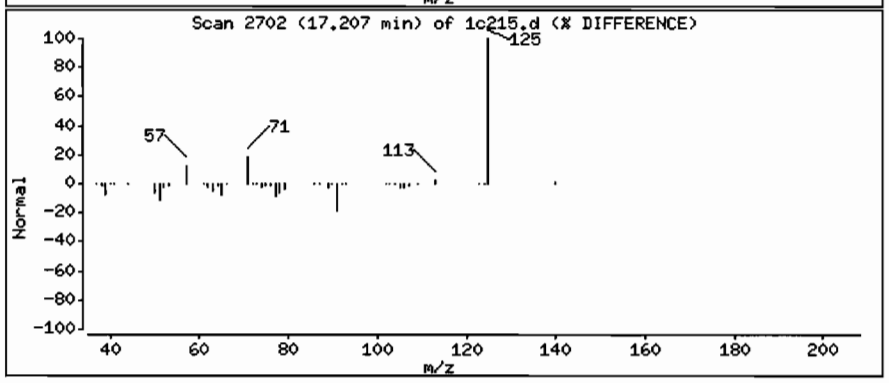

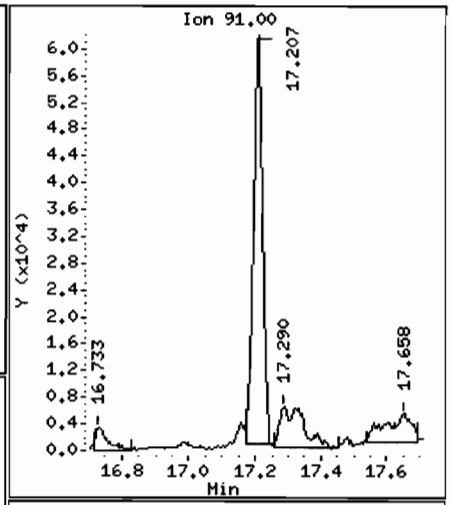

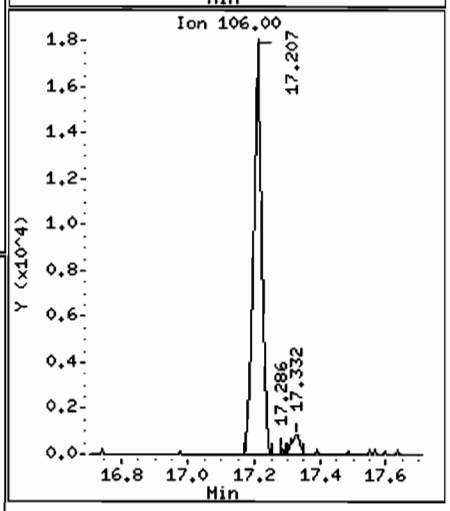

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

81 o-Xylene

Concentration: 8.2 ug/Kg

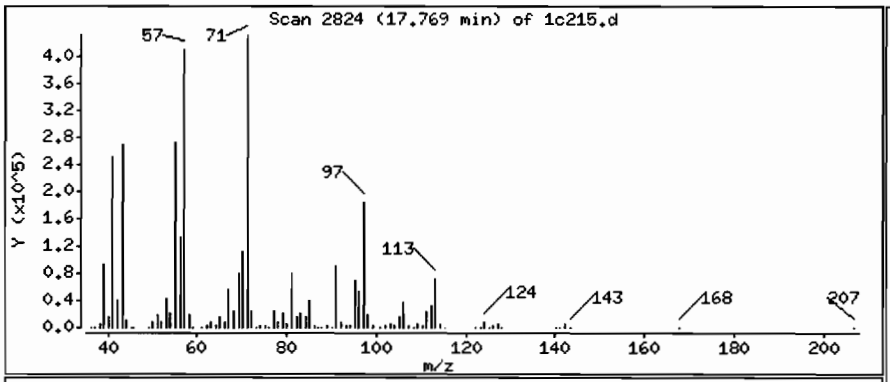

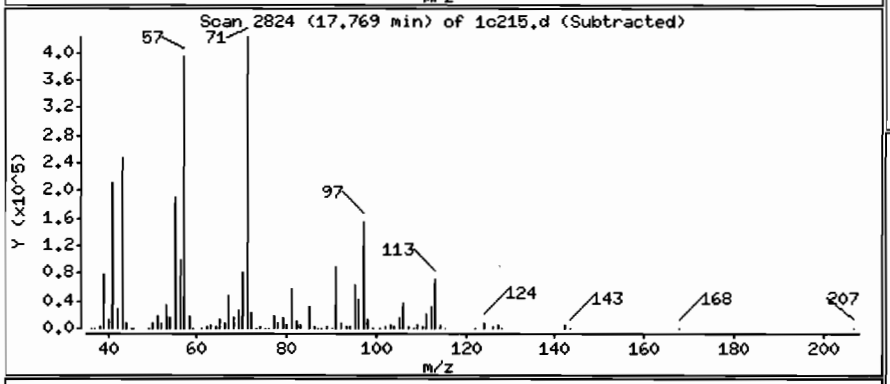

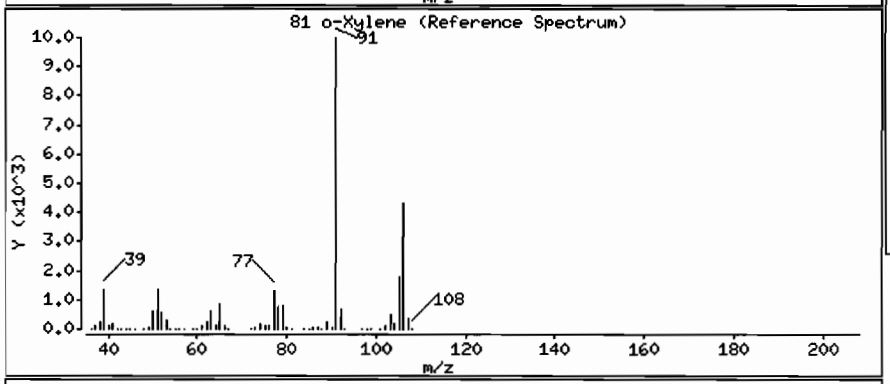

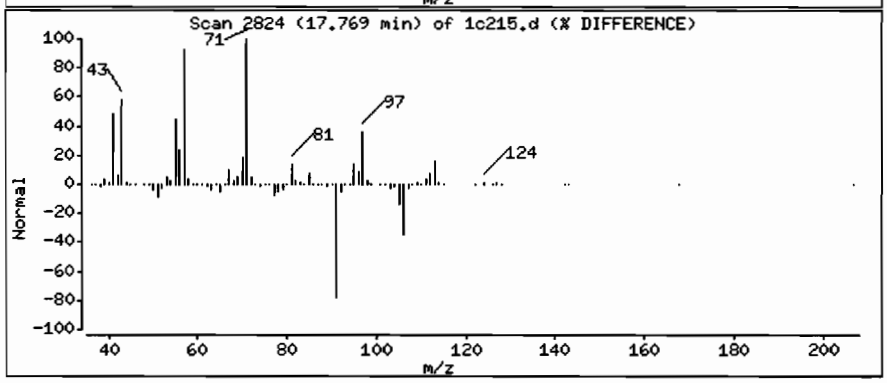

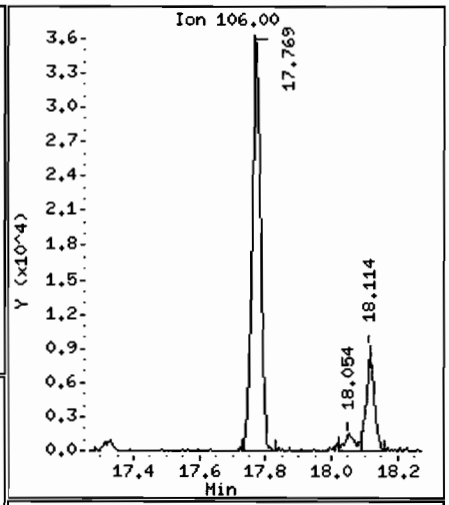

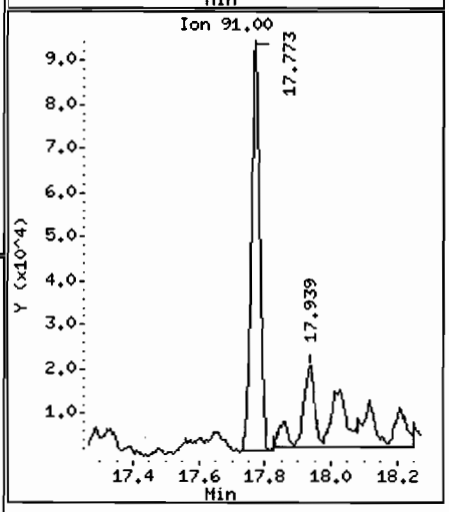

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: 1248842007|965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

89 n-Propylbenzene

Concentration: 23.9 ug/Kg

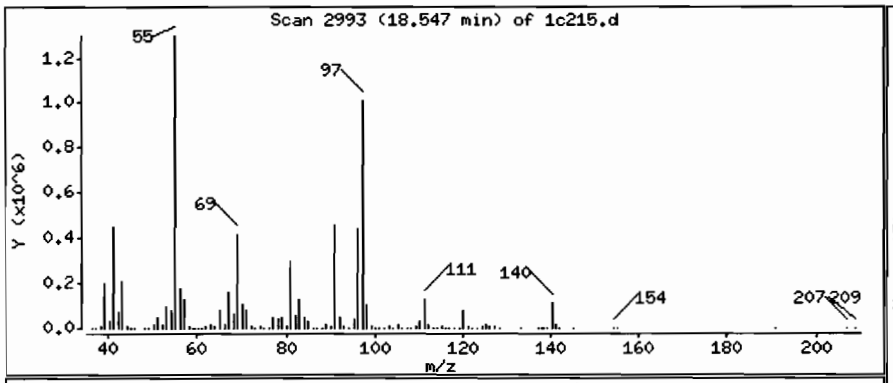

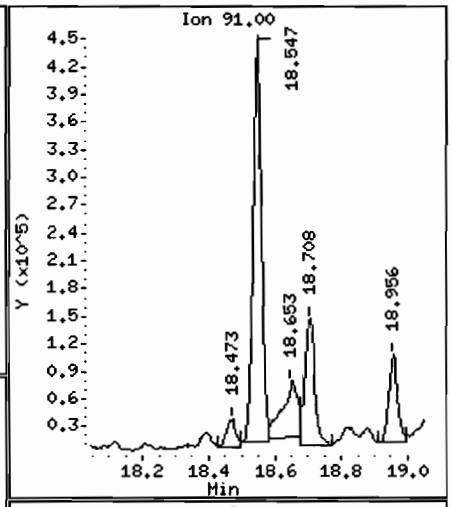

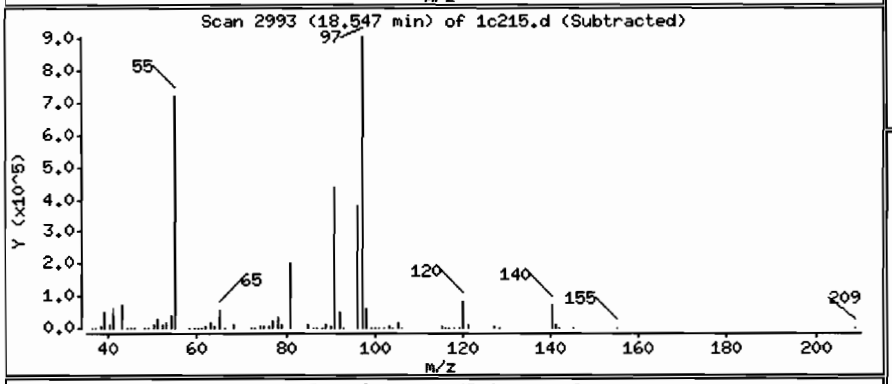

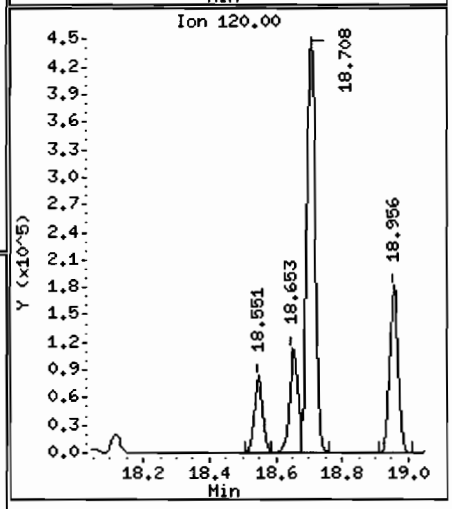

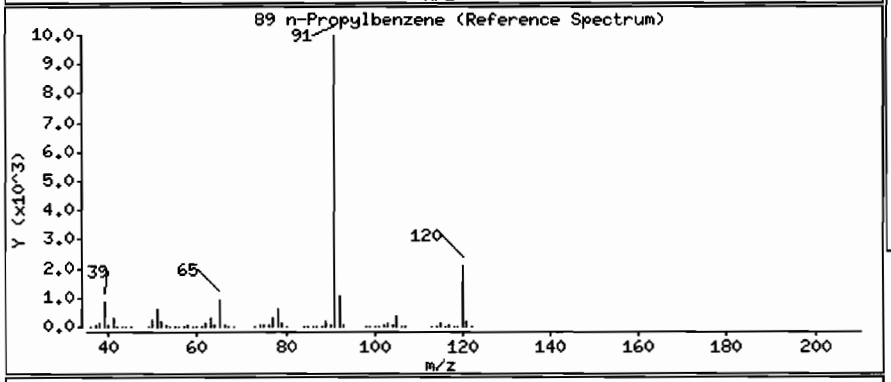

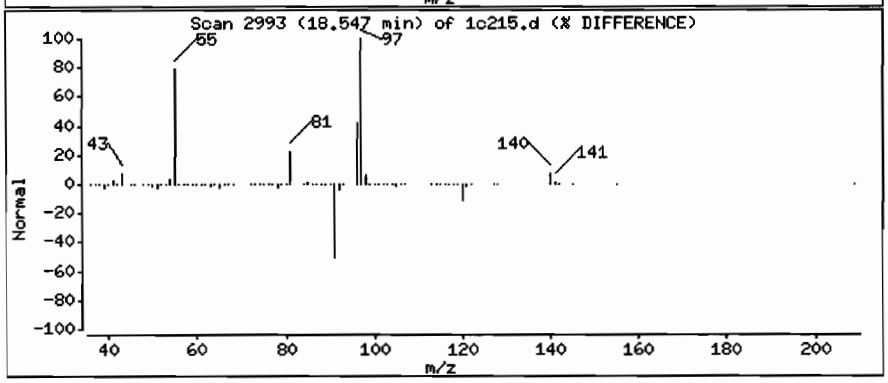

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

84 Isopropylbenzene

Concentration: 6.3 ug/Kg

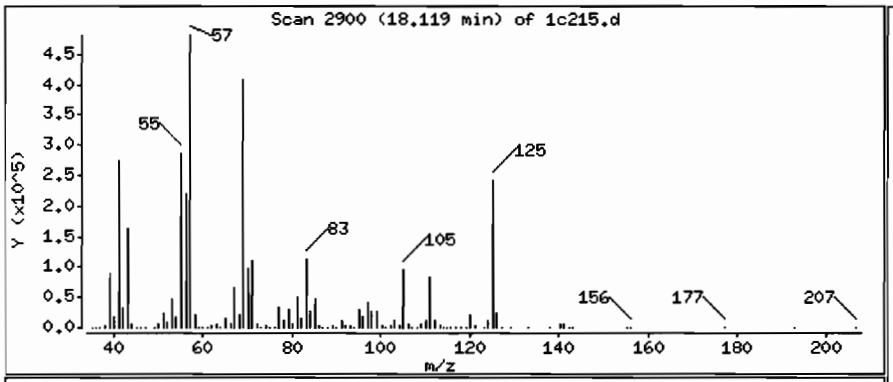

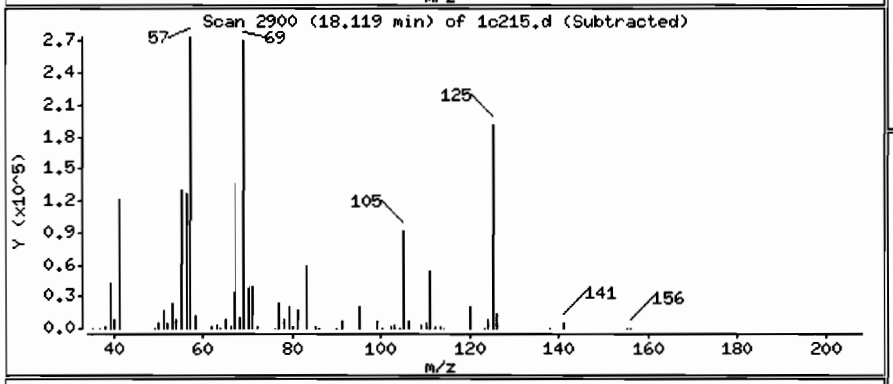

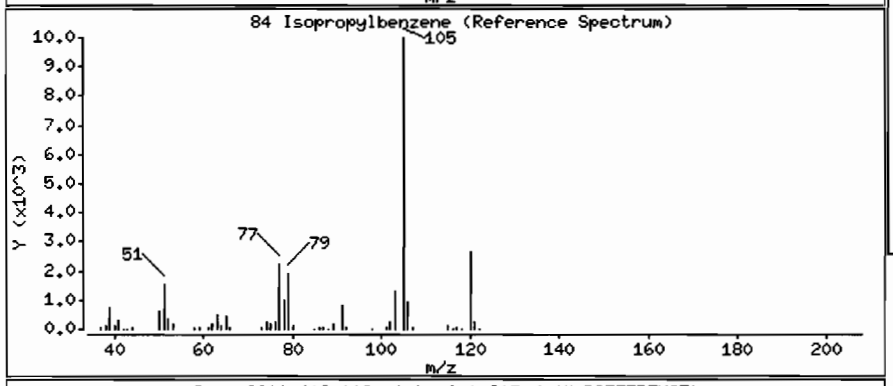

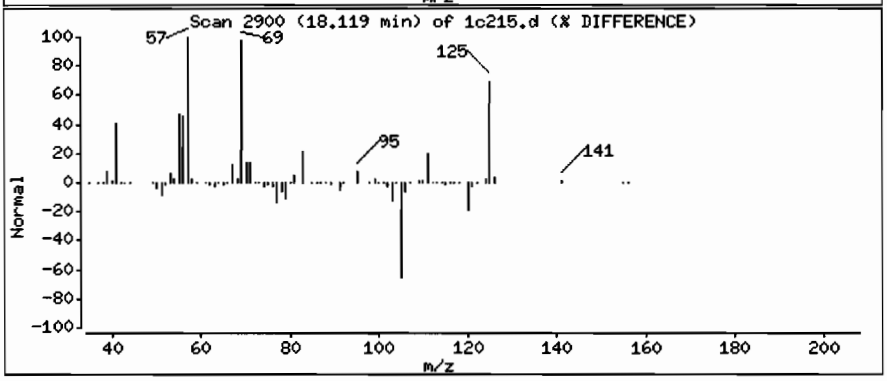

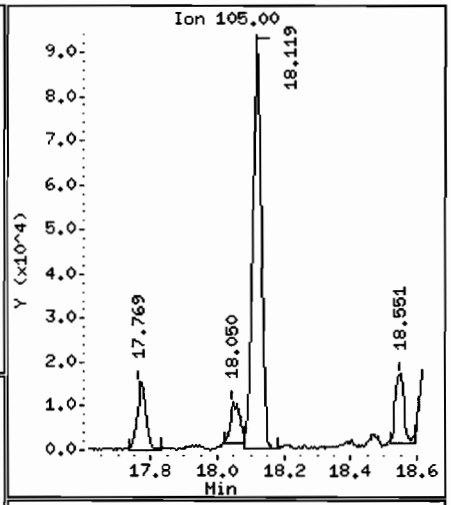

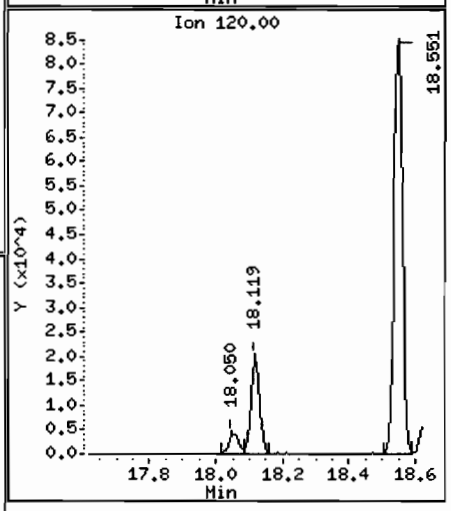

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

93 1,3,5-Trimethylbenzene

Concentration: 82.1 ug/Kg

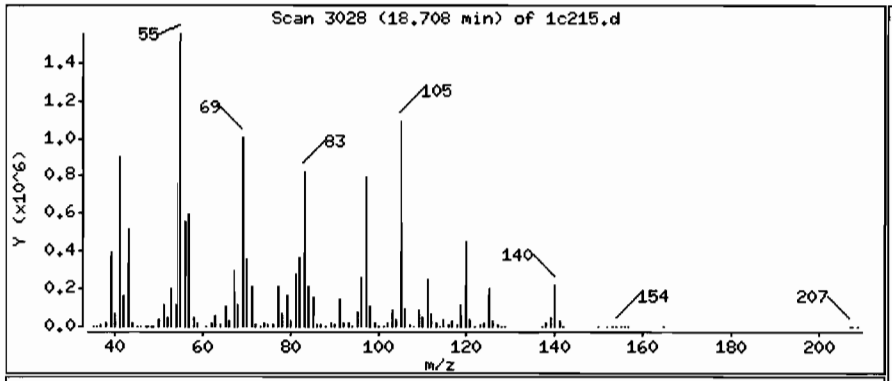

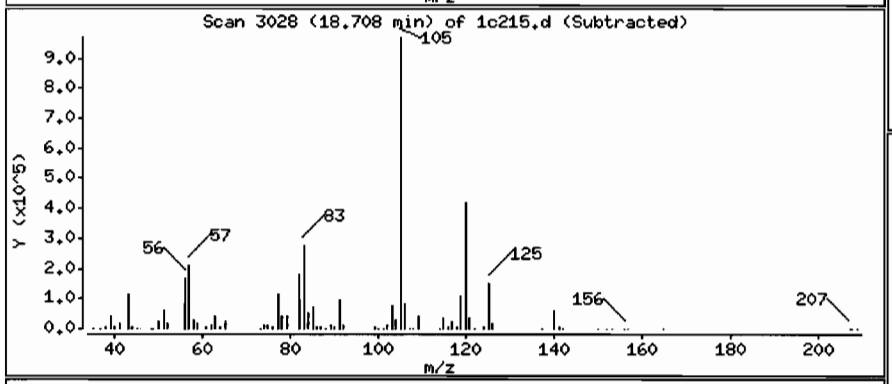

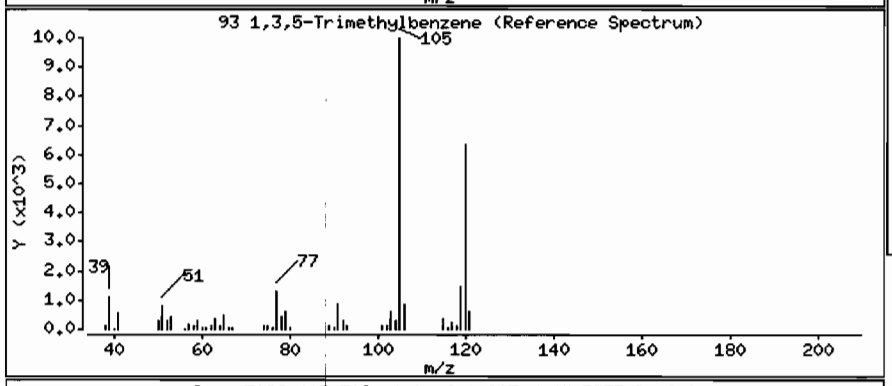

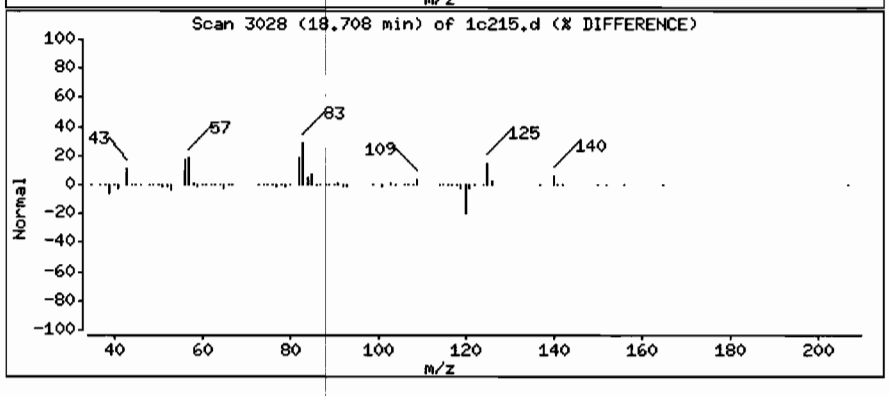

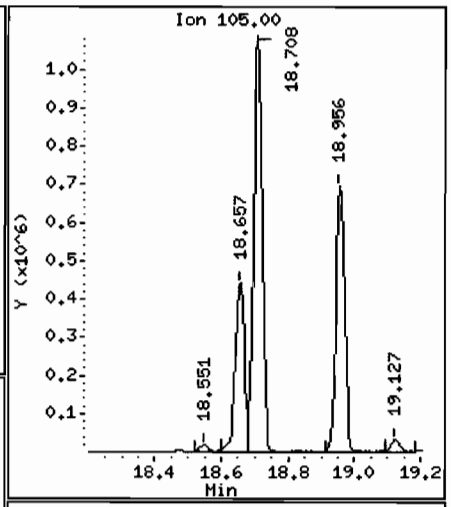

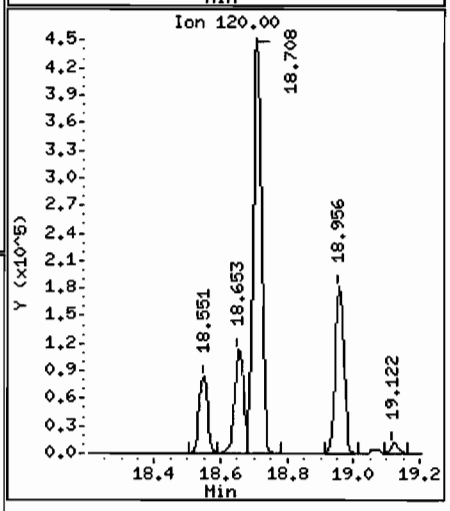

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

99 sec-Butylbenzene

Concentration: 49.6 ug/Kg

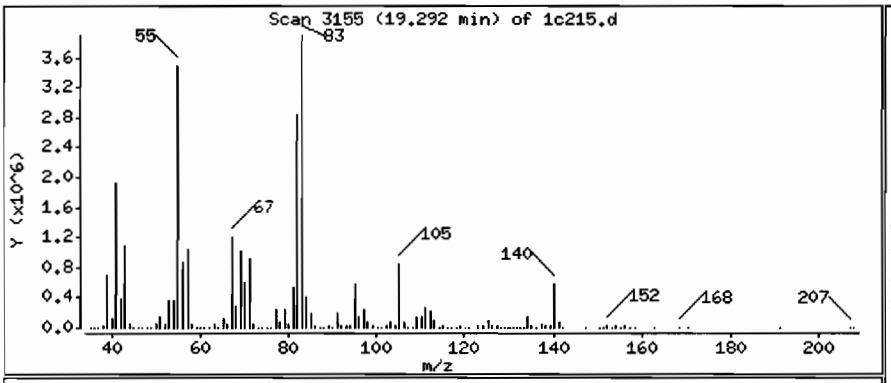

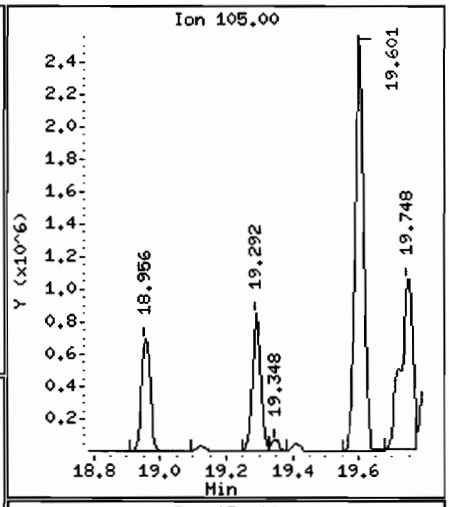

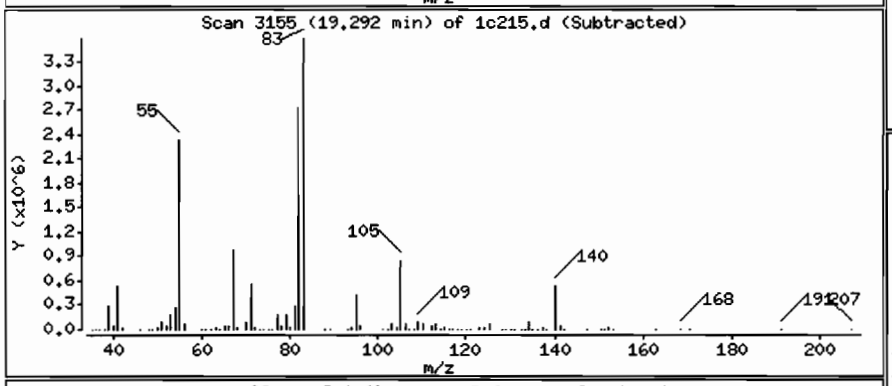

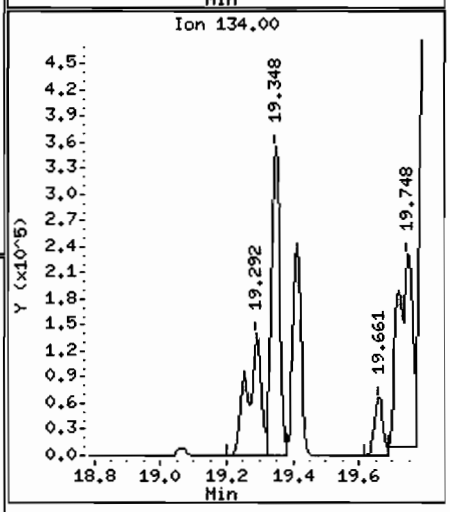

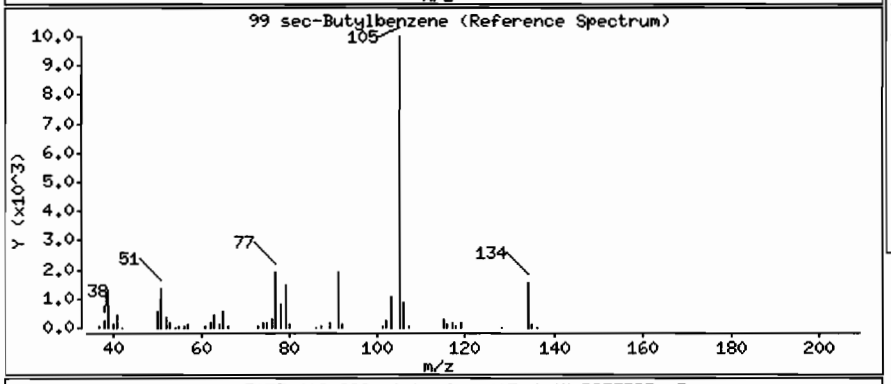

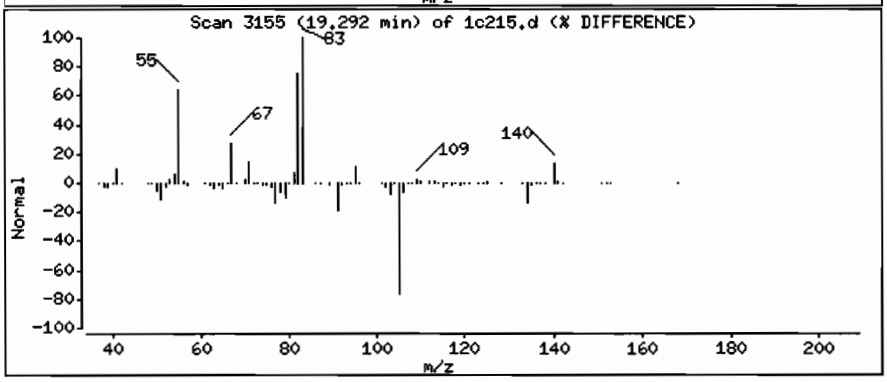

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

100 4-Isopropyltoluene

Concentration: 73.8 ug/Kg

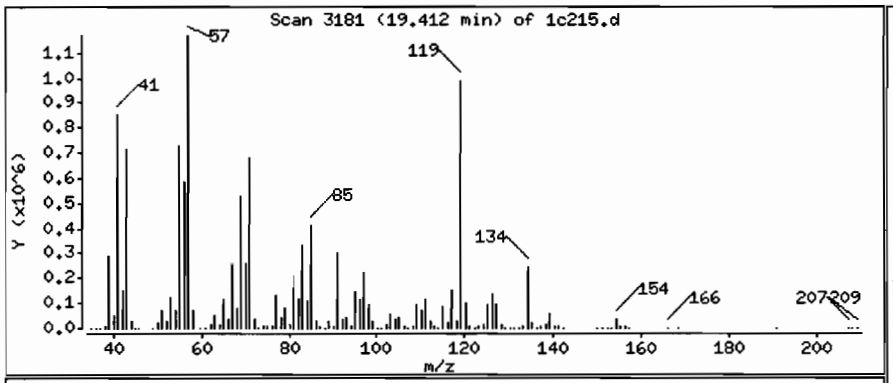

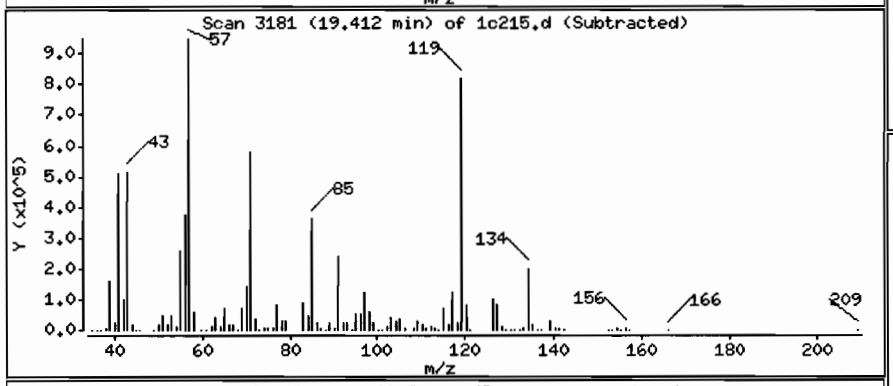

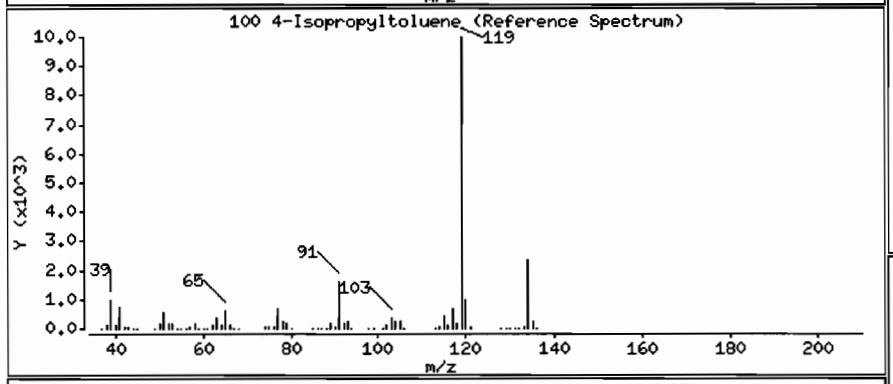

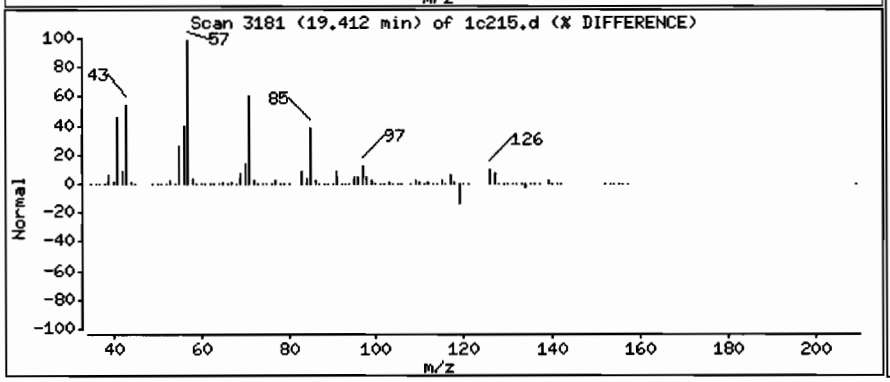

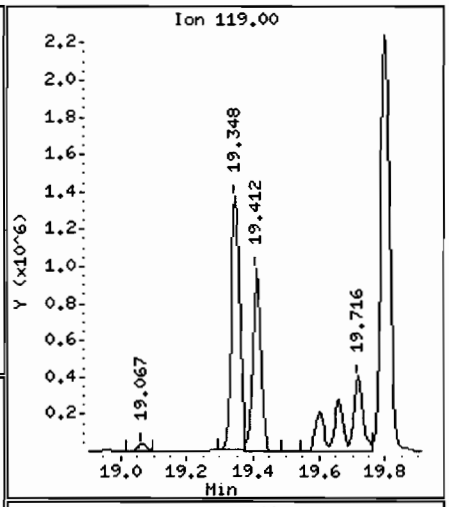

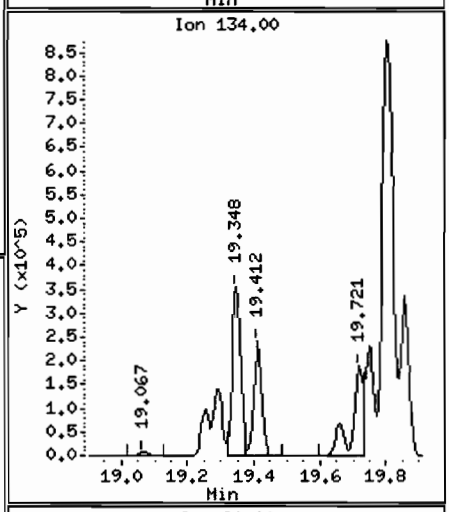

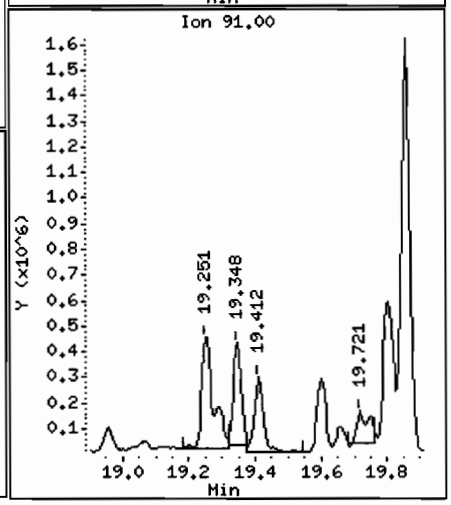

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

105 n-Butylbenzene

Concentration: 114 ug/Kg

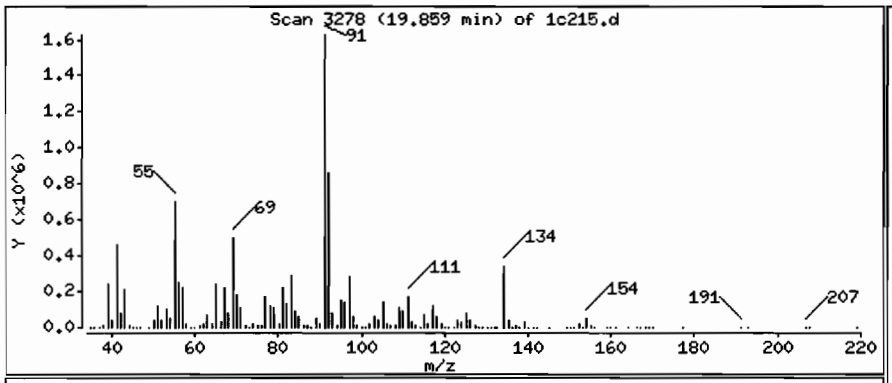

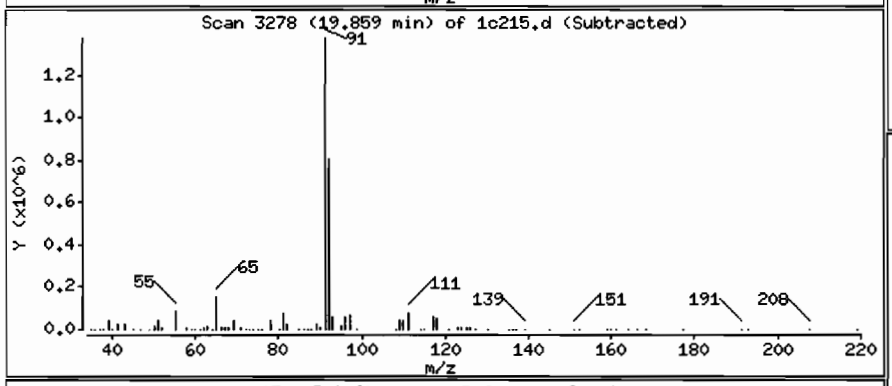

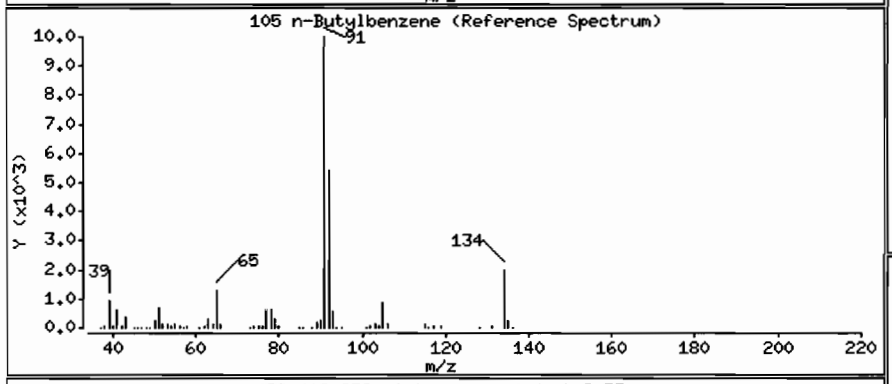

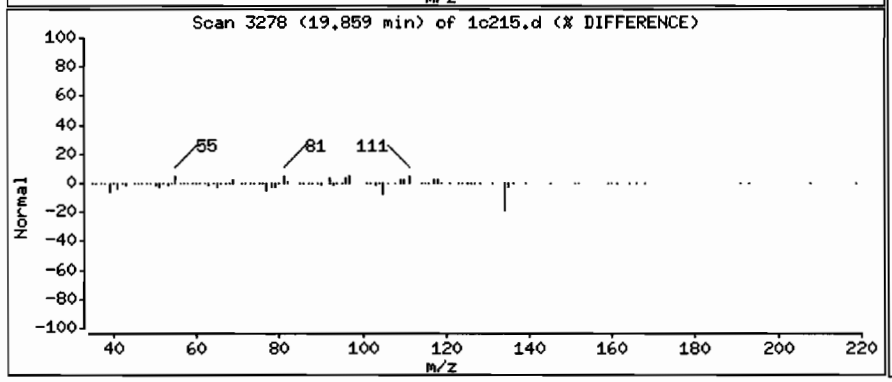

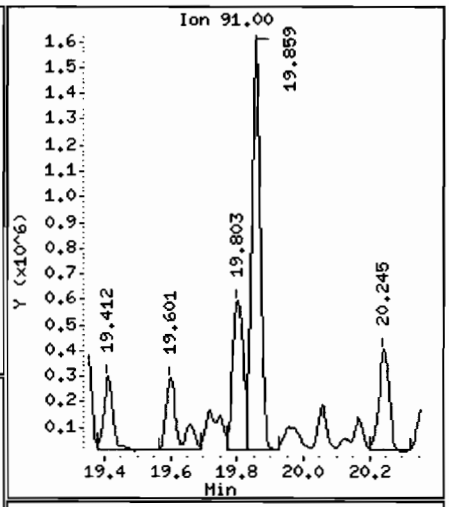

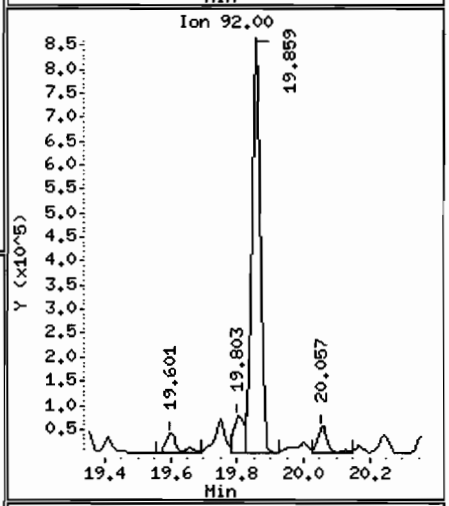

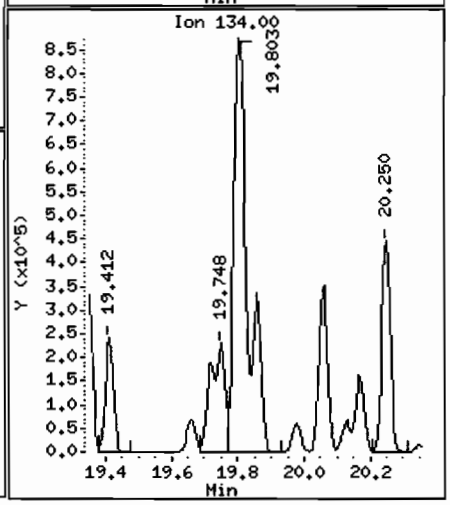

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Cyclohexane, 1,1,3-trimethyl-	3073-66-3	NIST05.L	11227	95	C9H18	126
Cyclohexane, 1,1,3-trimethyl-	3073-66-3	NIST05.L	11241	95	C9H18	126
Cyclohexane, 1,1,3-trimethyl-	3073-66-3	NIST05.L	11242	92	C9H18	126

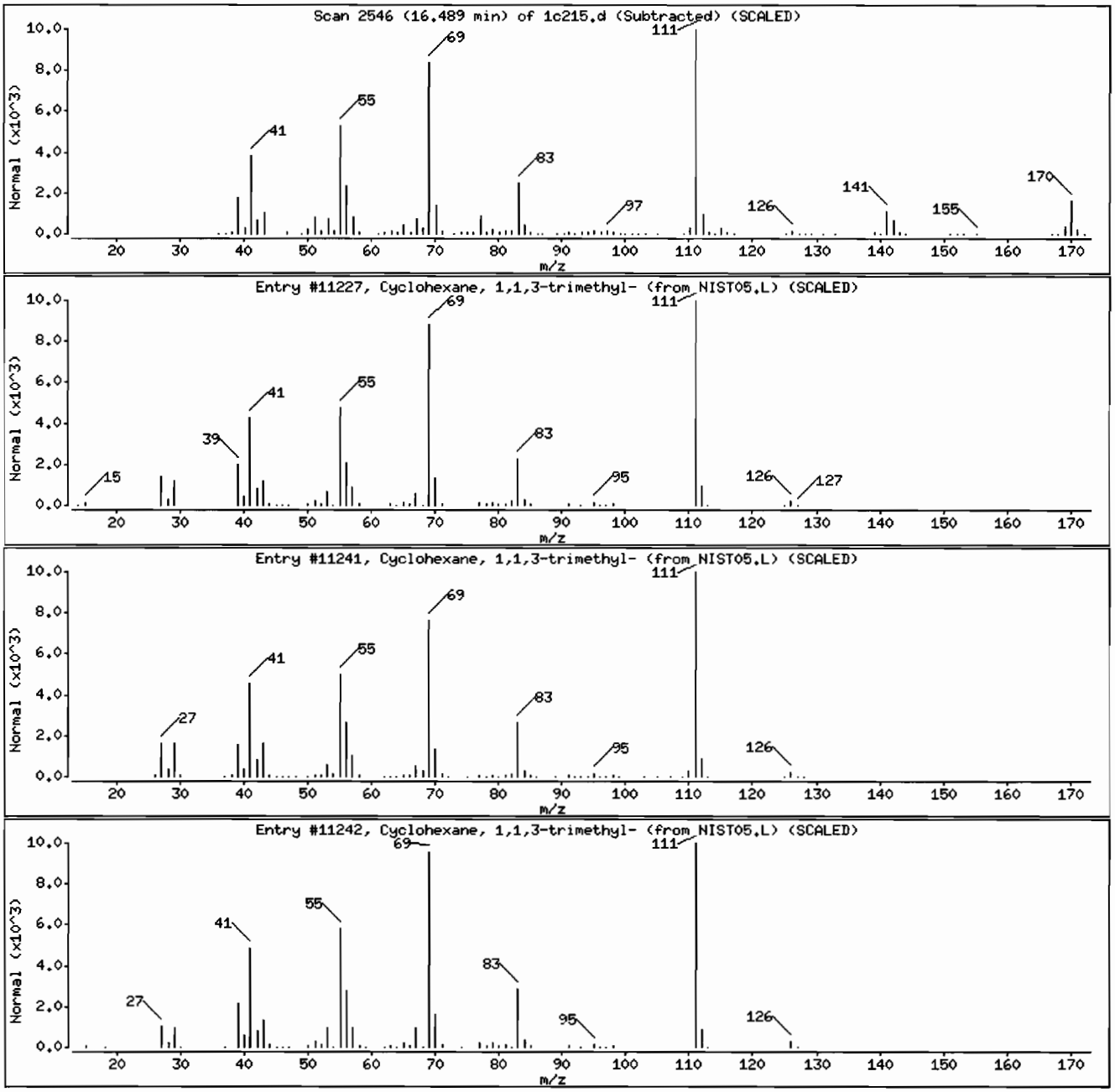

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Heptane, 3-ethyl-2-methyl-	14676-29-0	NIST05.L	18547	53	C10H22	142
Carbonic acid, heptyl isobutyl ester	1000314-60-5	NIST05.L	68374	50	C12H24O3	216
Octane, 3-methyl-	2216-33-3	NIST05.L	12283	38	C9H20	128

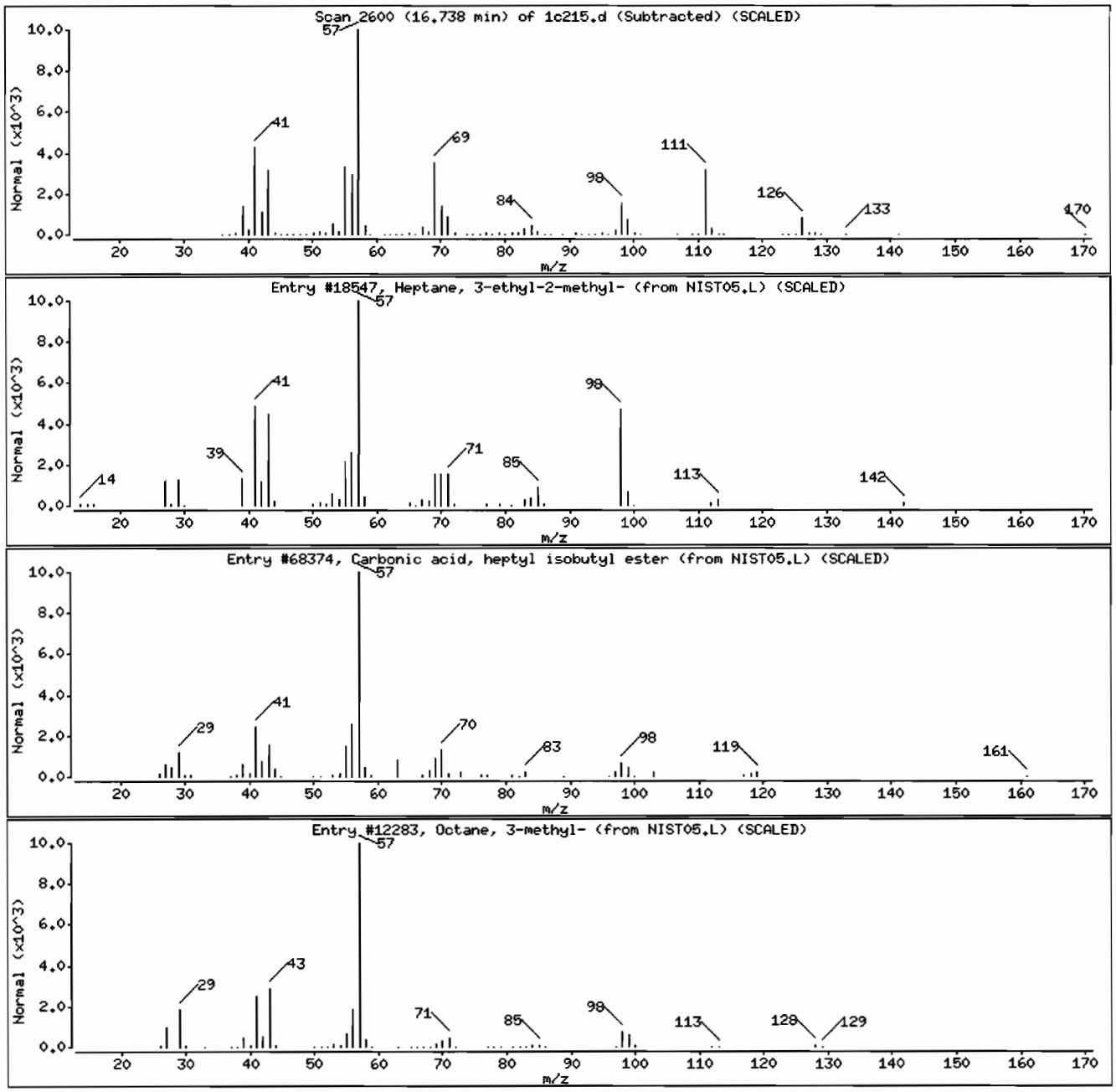

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Nonane, 3-methyl-	5911-04-6	NIST05.L	18496	86	C10H22	142
Octane, 2,6-dimethyl-	2051-30-1	NIST05.L	18510	76	C10H22	142
Octane, 2,6-dimethyl-	2051-30-1	NIST05.L	18524	70	C10H22	142

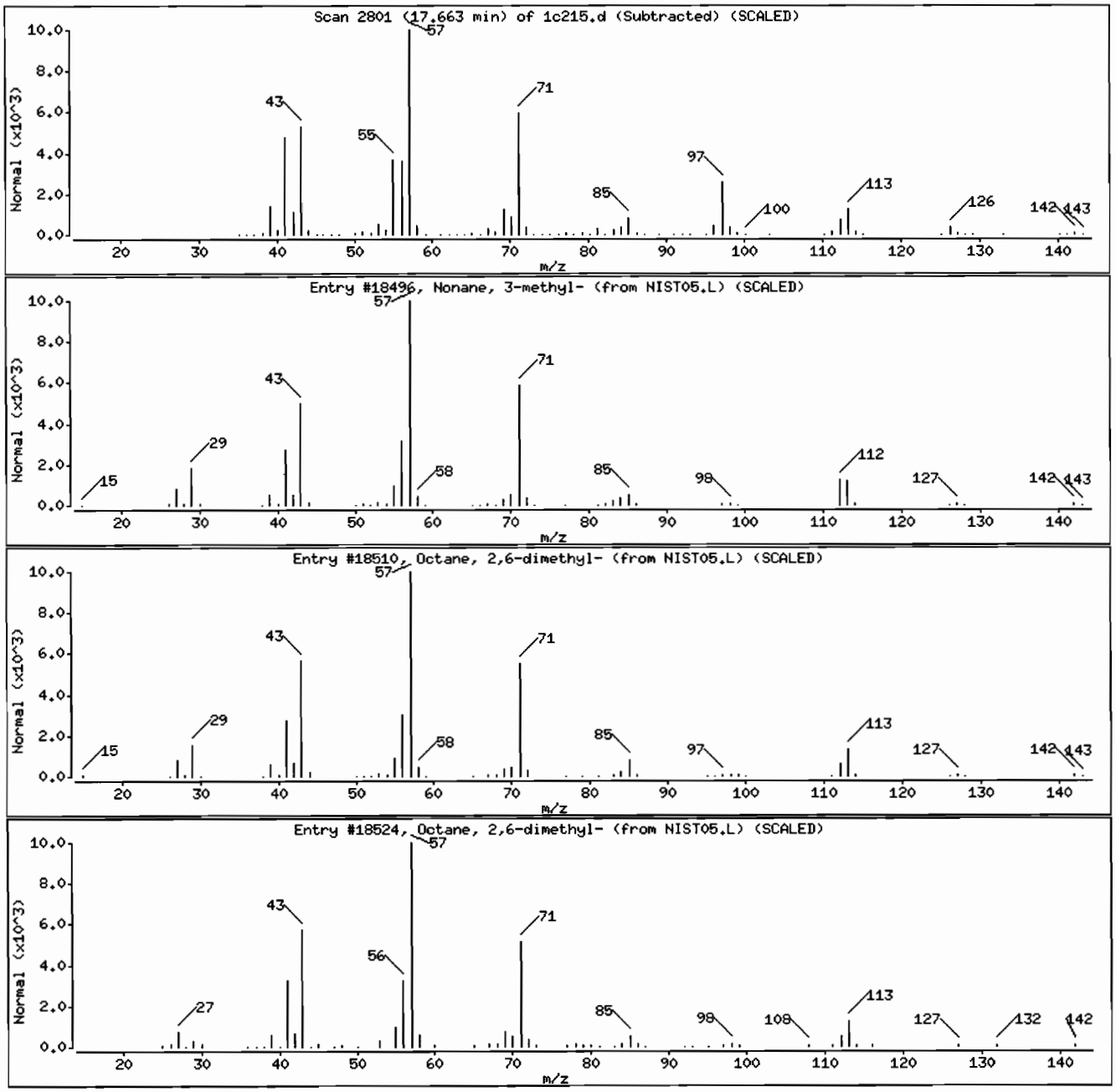

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Octane, 3,5-dimethyl-	15869-93-9	NIST05.L	18525	80	C10H22	142
Nonane, 4-methyl-	17301-94-9	NIST05.L	18502	52	C10H22	142
Octane, 3,5-dimethyl-	15869-93-9	NIST05.L	18511	52	C10H22	142

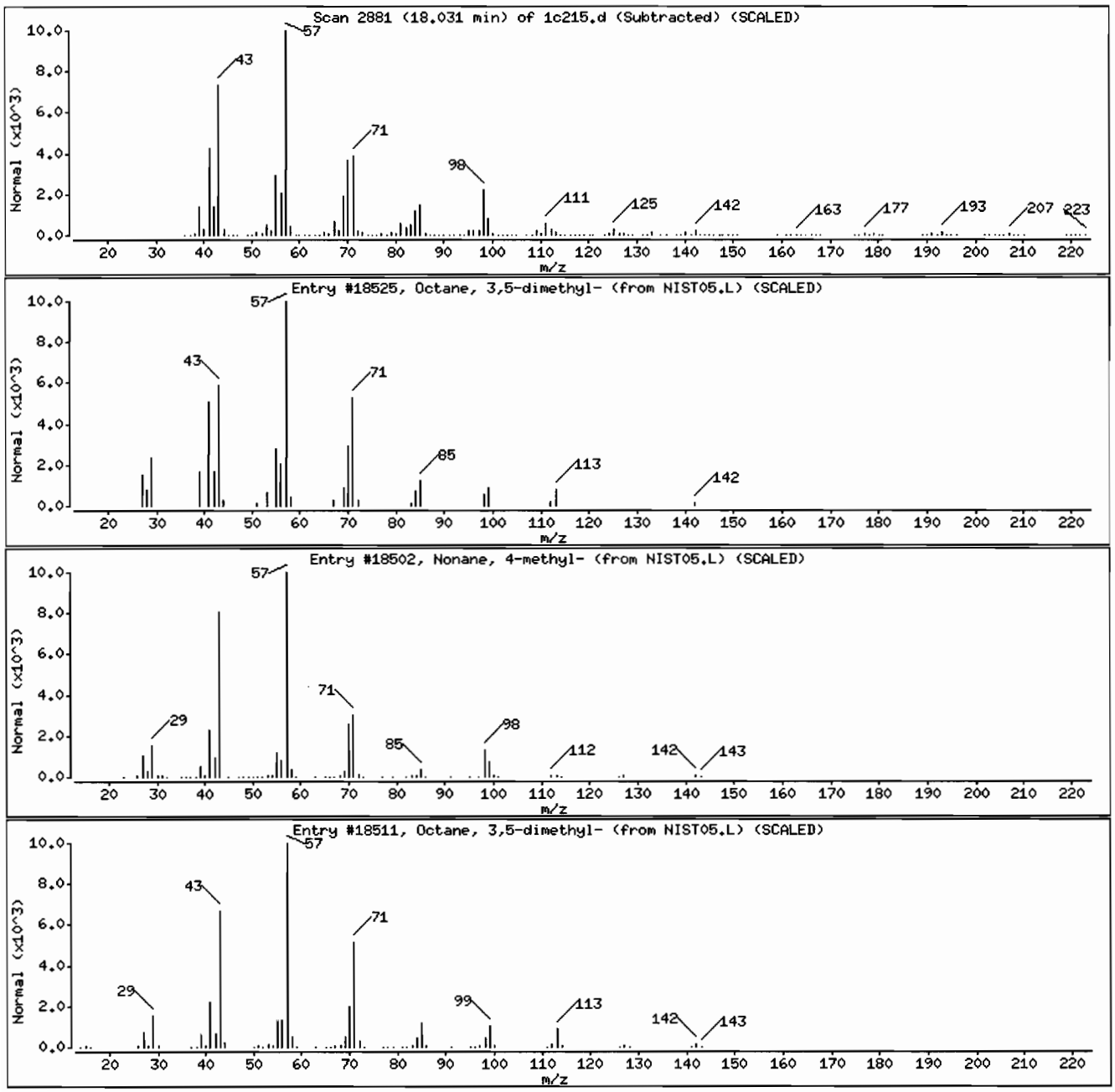

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Nonane, 2,6-dimethyl-	17302-28-2	NIST05.L	27252	91	C11H24	156
Decane, 4-methyl-	2847-72-5	NIST05.L	27248	83	C11H24	156
Heptane, 3,3,5-trimethyl-	7154-80-5	NIST05.L	18545	72	C10H22	142

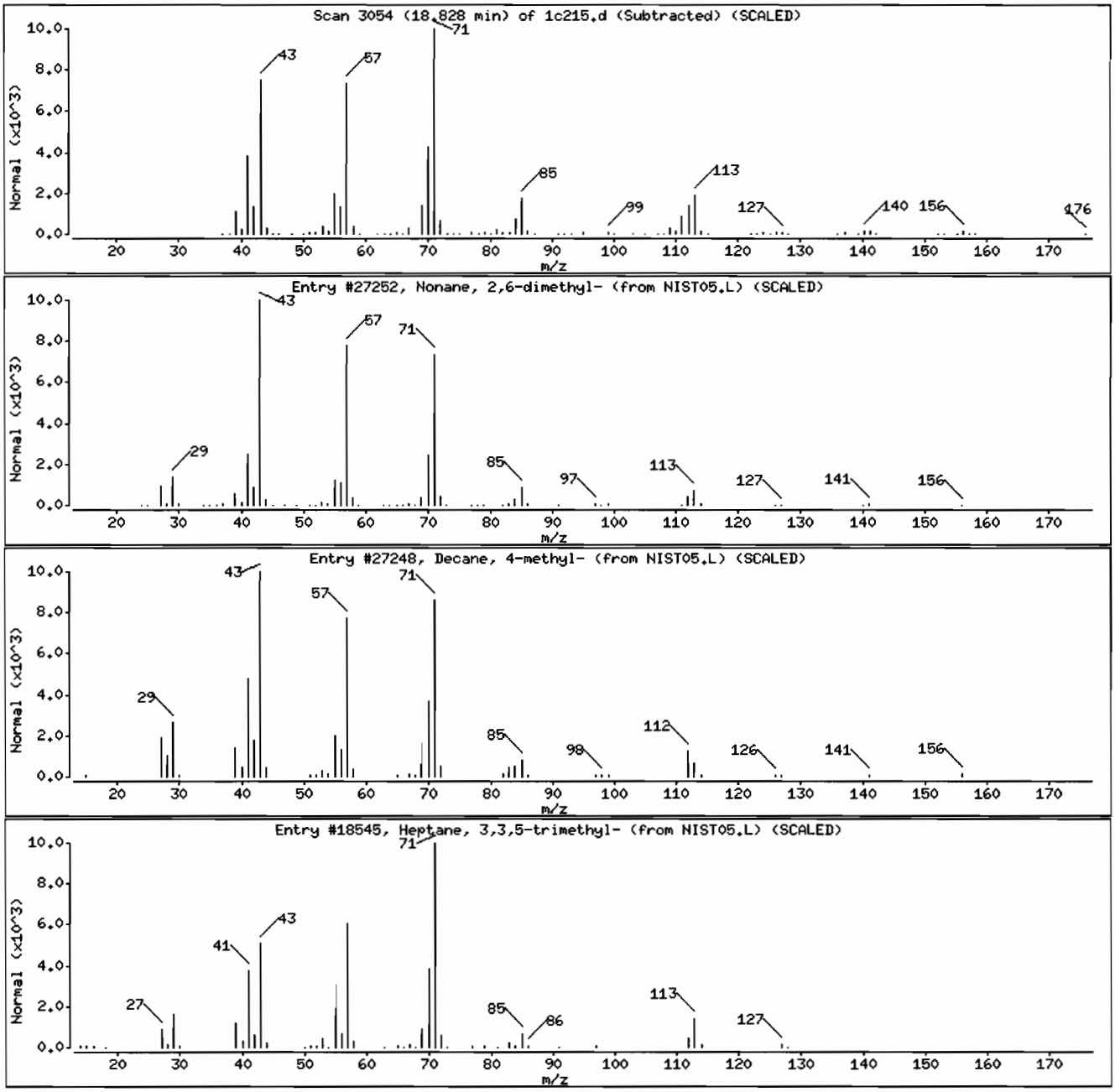

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16353	97	C10H18	138
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16354	96	C10H18	138
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16349	96	C10H18	138

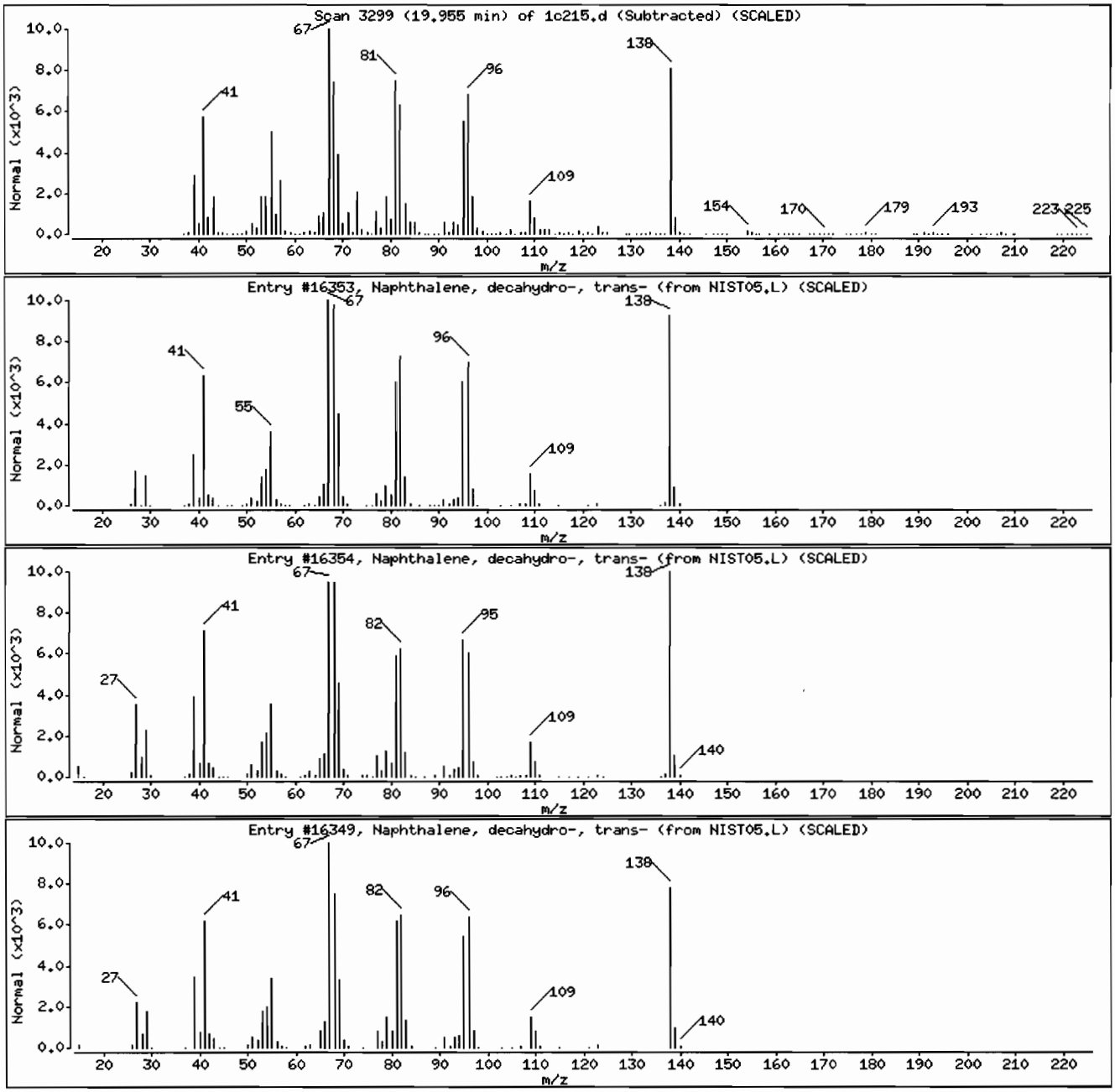

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 1-methyl-4-propyl-	1074-55-1	NIST05.L	14370	94	C10H14	134
Benzene, 1-methyl-4-propyl-	1074-55-1	NIST05.L	14373	91	C10H14	134
Benzene, 1-methyl-2-propyl-	1074-17-5	NIST05.L	14368	91	C10H14	134

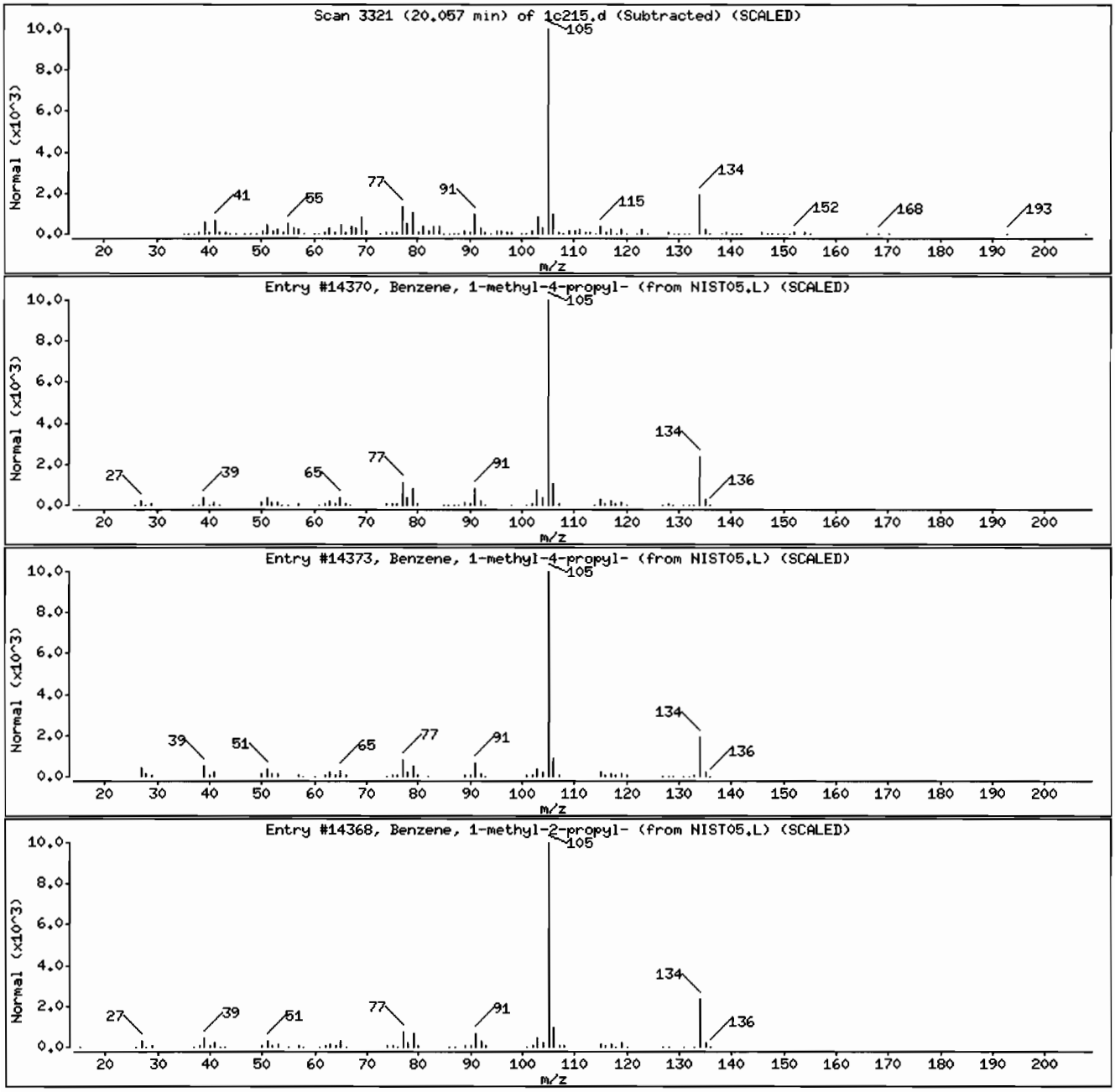

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 2-ethyl-1,4-dimethyl-	1758-88-9	NIST05.L	14403	96	C10H14	134
Benzene, 1-ethyl-2,3-dimethyl-	933-98-2	NIST05.L	14393	96	C10H14	134
Benzene, 4-ethyl-1,2-dimethyl-	934-80-5	NIST05.L	14401	96	C10H14	134

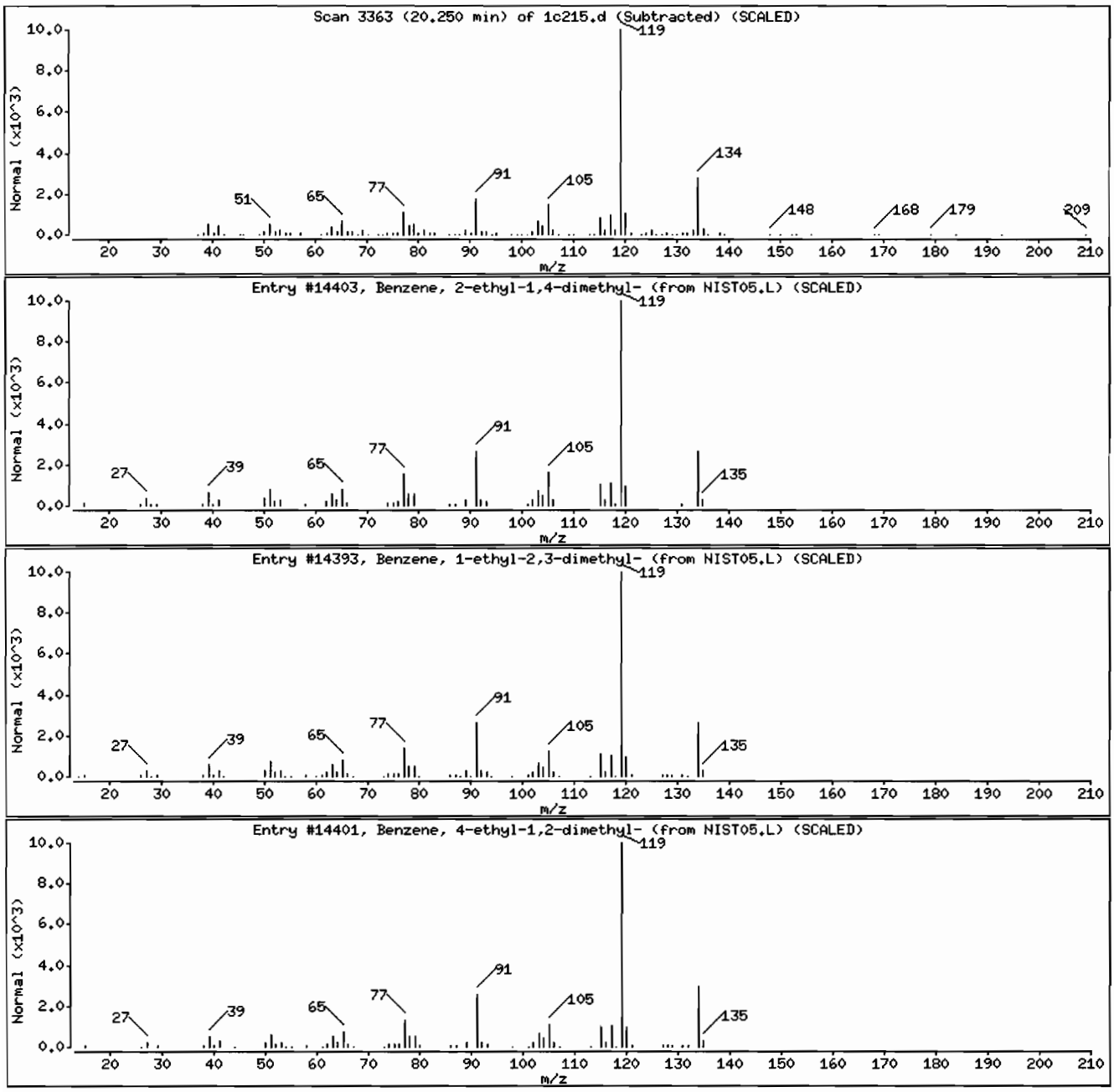

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 4-ethyl-1,2-dimethyl-	934-80-5	NIST05.L	14401	96	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST05.L	14425	94	C10H14	134
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST05.L	14429	94	C10H14	134

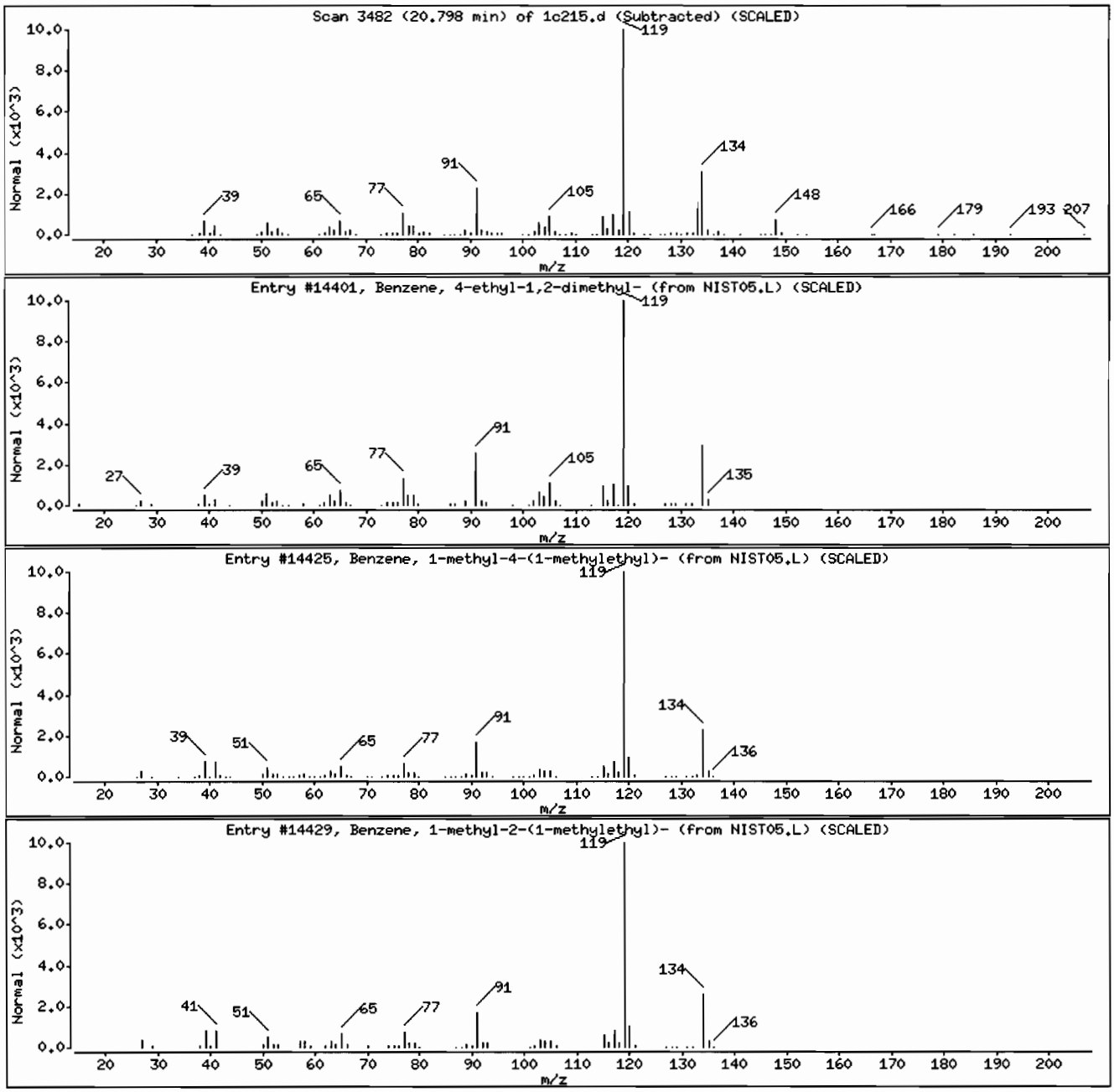

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: 1248842007196587511|VOAF1|1

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Naphthalene, decahydro-2-methyl-	2958-76-1	NIST05.L	24412	96	C11H20	152
1-Methyldecahydronaphthalene	2958-75-0	NIST05.L	24403	96	C11H20	152
Naphthalene, decahydro-2-methyl-	2958-76-1	NIST05.L	24413	96	C11H20	152

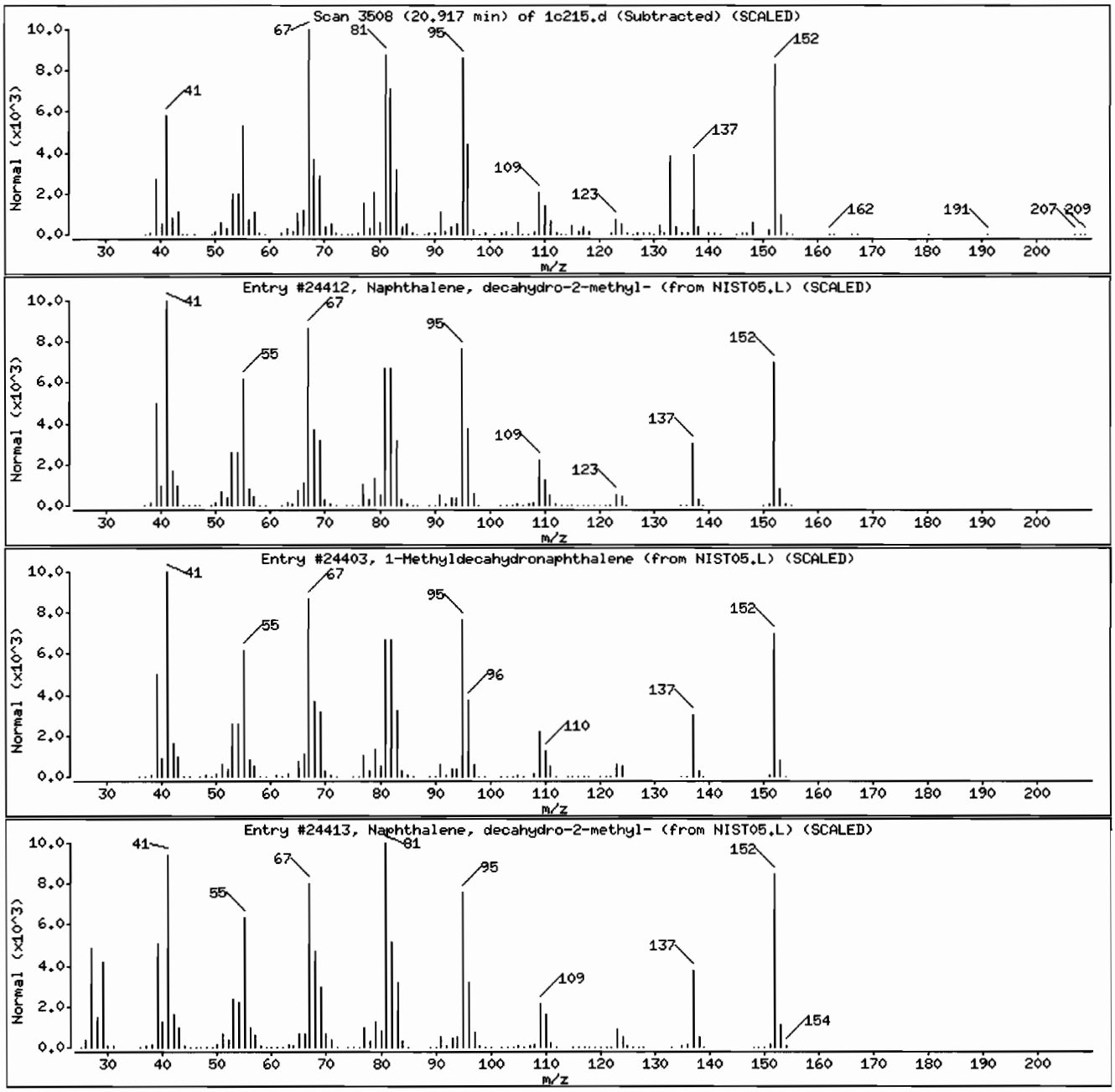

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST05.L	14429	95	C10H14	134
Benzene, 1-ethyl-2,3-dimethyl-	933-98-2	NIST05.L	14399	94	C10H14	134
Benzene, 2-ethyl-1,4-dimethyl-	1758-88-9	NIST05.L	14402	94	C10H14	134

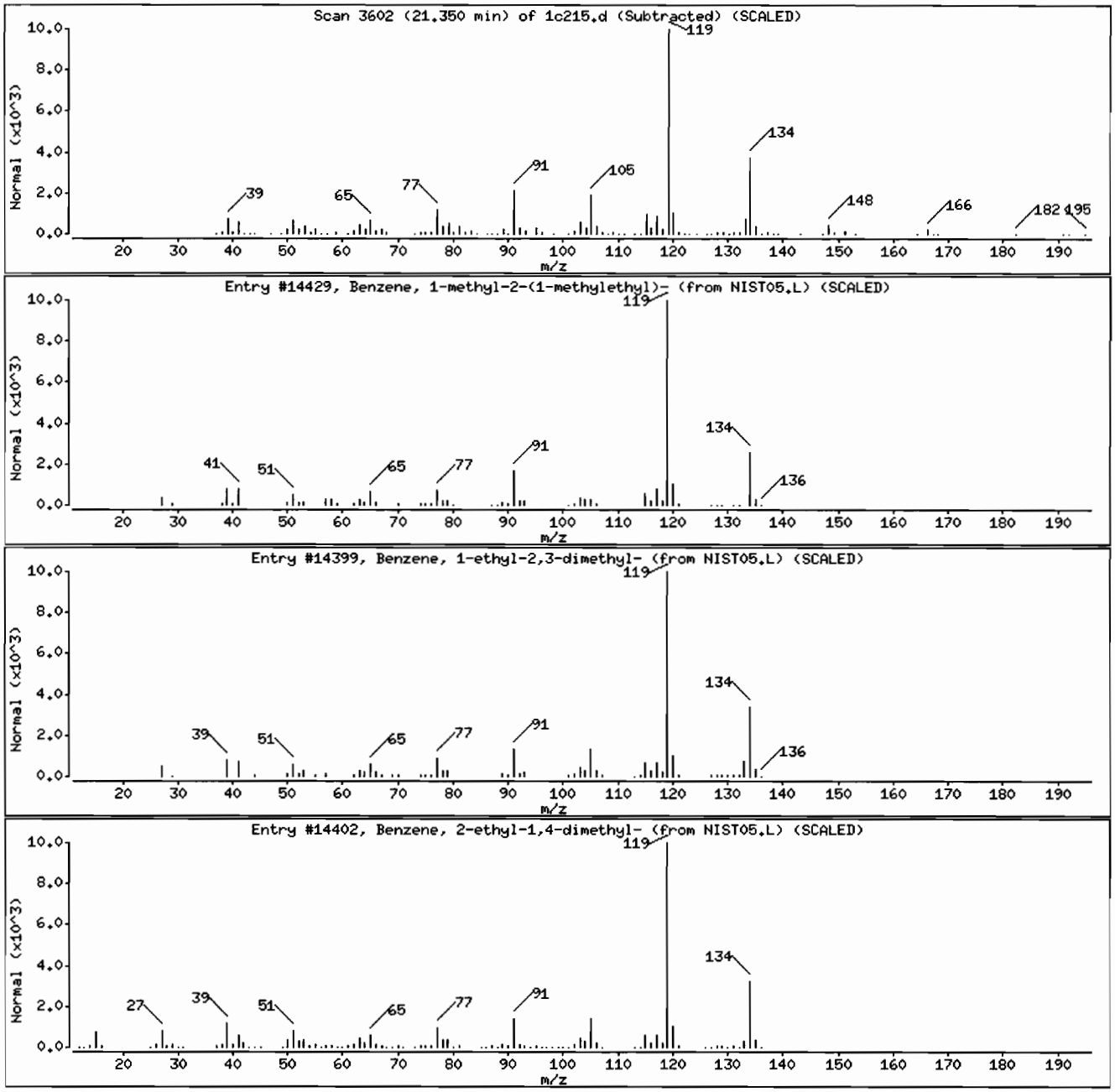

Data File: /chem/VOA1.i/031610v1/1c215.d

Date : 16-MAR-2010 17:50

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Naphthalene, 1,2,3,4-tetrahydro-	119-64-2	NIST05.L	13634	93	C10H12	132
Naphthalene, 1,2,3,4-tetrahydro-	119-64-2	NIST05.L	13632	93	C10H12	132
Naphthalene, 1,2,3,4-tetrahydro-	119-64-2	NIST05.L	13622	93	C10H12	132

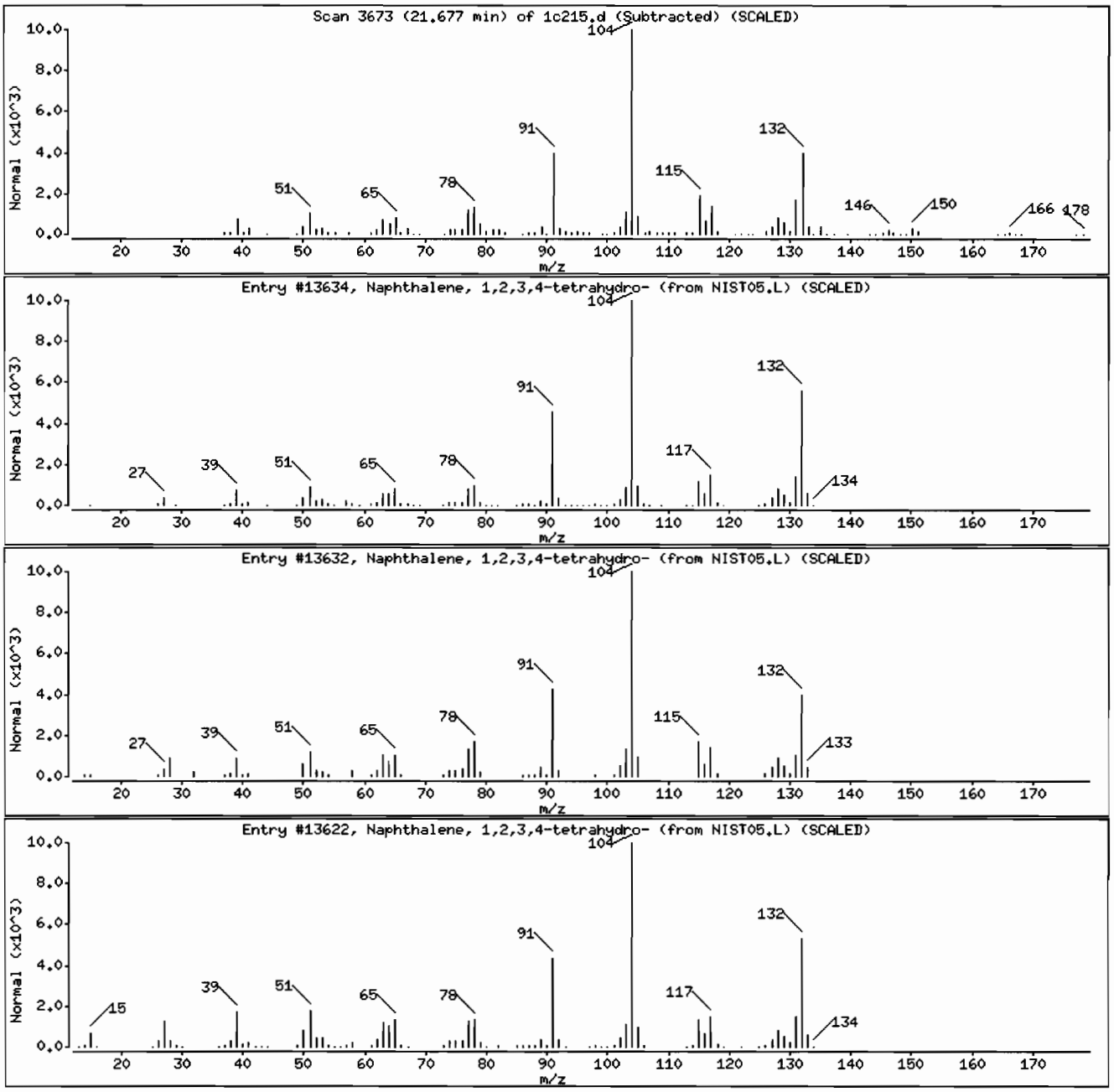

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13546REDL**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**100**
Run Date:	**03/18/2010 14:16**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:31**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**1c411.d**	**Column:**	**RTX-Volatiles**	**Level:**	**MED**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	HU	243	ug/kg	82.5	243
74-87-3	Chloromethane	HU	243	ug/kg	72.8	243
75-01-4	Vinyl chloride	HU	243	ug/kg	72.8	243
74-83-9	Bromomethane	HU	243	ug/kg	72.8	243
75-00-3	Chloroethane	HU	243	ug/kg	72.8	243
75-69-4	Trichlorofluoromethane	HU	243	ug/kg	72.8	243
67-64-1	Acetone	HU	1210	ug/kg	403	1210
75-35-4	1,1-Dichloroethylene	HU	243	ug/kg	72.8	243
74-88-4	Iodomethane	HU	1210	ug/kg	388	1210
75-09-2	Methylene chloride	HU	1210	ug/kg	485	1210
75-15-0	Carbon disulfide	HU	1210	ug/kg	303	1210
156-60-5	trans-1,2-Dichloroethylene	HU	243	ug/kg	72.8	243
75-34-3	1,1-Dichloroethane	HU	243	ug/kg	72.8	243
78-93-3	2-Butanone	HU	1210	ug/kg	364	1210
156-59-2	cis-1,2-Dichloroethylene	HU	243	ug/kg	72.8	243
594-20-7	2,2-Dichloropropane	HU	243	ug/kg	72.8	243
67-66-3	Chloroform	HU	243	ug/kg	72.8	243
74-97-5	Bromochloromethane	HU	243	ug/kg	80.0	243
71-55-6	1,1,1-Trichloroethane	H	414	ug/kg	72.8	243
563-58-6	1,1-Dichloropropene	HU	243	ug/kg	72.8	243
56-23-5	Carbon tetrachloride	HU	243	ug/kg	72.8	243
107-06-2	1,2-Dichloroethane	HU	243	ug/kg	72.8	243
71-43-2	Benzene	HU	243	ug/kg	72.8	243
79-01-6	Trichloroethylene	H	11900	ug/kg	80.0	243
78-87-5	1,2-Dichloropropane	HU	243	ug/kg	72.8	243
75-27-4	Bromodichloromethane	HU	243	ug/kg	72.8	243
74-95-3	Dibromomethane	HU	243	ug/kg	72.8	243
108-10-1	4-Methyl-2-pentanone	HU	1210	ug/kg	303	1210
10061-01-5	cis-1,3-Dichloropropylene	HU	243	ug/kg	72.8	243
108-88-3	Toluene	HJ	73.2	ug/kg	72.8	243
10061-02-6	trans-1,3-Dichloropropylene	HU	243	ug/kg	72.8	243
79-00-5	1,1,2-Trichloroethane	HU	243	ug/kg	72.8	243
591-78-6	2-Hexanone	HU	1210	ug/kg	364	1210
142-28-9	1,3-Dichloropropane	HU	243	ug/kg	72.8	243
127-18-4	Tetrachloroethylene	H	1390	ug/kg	72.8	243
124-48-1	Dibromochloromethane	HU	243	ug/kg	72.8	243
106-93-4	1,2-Dibromoethane	HU	243	ug/kg	72.8	243
108-90-7	Chlorobenzene	HU	243	ug/kg	72.8	243

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13546REDL**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**100**
Run Date:	**03/18/2010 14:16**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:31**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**1c411.d**	**Column:**	**RTX-Volatiles**	**Level:**	**MED**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	HU	243	ug/kg	72.8	243
179601-23-1	m,p-Xylenes	HU	485	ug/kg	72.8	485
95-47-6	o-Xylene	HU	243	ug/kg	72.8	243
100-42-5	Styrene	HU	243	ug/kg	72.8	243
75-25-2	Bromoform	HU	243	ug/kg	72.8	243
79-34-5	1,1,2,2-Tetrachloroethane	HU	243	ug/kg	72.8	243
96-18-4	1,2,3-Trichloropropane	HU	243	ug/kg	72.8	243
108-86-1	Bromobenzene	HU	243	ug/kg	72.8	243
103-65-1	n-Propylbenzene	HJ	93.1	ug/kg	72.8	243
95-49-8	2-Chlorotoluene	HU	243	ug/kg	72.8	243
98-82-8	Isopropylbenzene	HU	243	ug/kg	72.8	243
108-67-8	1,3,5-Trimethylbenzene	H	429	ug/kg	72.8	243
106-43-4	4-Chlorotoluene	HU	243	ug/kg	72.8	243
98-06-6	tert-Butylbenzene	HU	243	ug/kg	72.8	243
95-63-6	1,2,4-Trimethylbenzene	HU	243	ug/kg	72.8	243
135-98-8	sec-Butylbenzene	H	368	ug/kg	72.8	243
99-87-6	4-Isopropyltoluene	H	669	ug/kg	72.8	243
541-73-1	1,3-Dichlorobenzene	HU	243	ug/kg	72.8	243
106-46-7	1,4-Dichlorobenzene	HU	243	ug/kg	72.8	243
104-51-8	n-Butylbenzene	H	1280	ug/kg	72.8	243
96-12-8	1,2-Dibromo-3-chloropropane	HU	243	ug/kg	72.8	243
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	HU	1210	ug/kg	388	1210
630-20-6	1,1,1,2-Tetrachloroethane	HU	243	ug/kg	72.8	243
95-50-1	1,2-Dichlorobenzene	HU	243	ug/kg	72.8	243

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	6.87	2070	ug/kg		J
	Unknown	16.51	16800	ug/kg		J
	Unknown Hydrocarbon	17.66	2160	ug/kg		J
	Unknown Hydrocarbon	18.03	8470	ug/kg		J
	Unknown Hydrocarbon	18.16	2580	ug/kg		J
	Unknown Hydrocarbon	18.82	34700	ug/kg		J
	Unknown Hydrocarbon	19.95	64100	ug/kg		J
	Unknown Hydrocarbon	20.8	6360	ug/kg		J
	Unknown Hydrocarbon	21.13	83800	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031810v1/1c411.d
Lab Smp Id: 248842007 Client Smp ID: RE46-10-13546
Inj Date : 18-MAR-2010 14:16
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842007|965875|100|VOAF|2|
Misc Info : LANL 100uL N/A
Comment :
Method : /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 21:48 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: la428.d
Als bottle: 11
Dil Factor: 2.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vs/Ws)*(Vt/Va)*(Uf) * CpndVariable

Name	Value	Description
DF	2.00000	Dilution Factor
M	17.53750	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Vs	10000.00000	Soil Extract Volume (uL)
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.668	13.672	(1.000)	1040366	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	766630	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	424821	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	486527	47.8948	5810
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1337255	51.8631	6290
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	571353	53.6441	6500
43 1,1,1-Trichloroethane	97	12.835	12.835	(0.939)	15257	1.70697	414
54 Trichloroethylene	95	14.100	14.105	(1.032)	301663	49.0775	11900
66 Toluene	92	15.583	15.583	(0.909)	4462	0.30181	73.2(a)
70 Tetrachloroethylene	164	16.181	16.181	(0.944)	27120	5.74216	1390
89 n-Propylbenzene	91	18.547	18.547	(0.946)	13563	0.38388	93.1(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
93 1,3,5-Trimethylbenzene	105	18.703	18.703	(0.954)	44638	1.77053	429
99 sec-Butylbenzene	105	19.293	19.288	(0.984)	48703	1.51749	368
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	68928	2.75735	669
105 n-Butylbenzene	91	19.854	19.854	(1.013)	142763	5.28896	1280(Q)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

VOA REPORT

Data file: 1c411.d
Report Date: 03/18/2010 14:12
Lab. ID: 249057002 SampleType: SAMPLE
Injection Date: 18-MAR-2010 14:16
Operator: GRB2 Instrument: VOA1.i
Sample Info: |249057002|965875|50|VOAF|1|
Miscellaneous Info: LANL 100uL N/A
Comment:
Method used: /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2350
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
43 1,1,1-Trichloroethane				CAS#: 71-55-6		
97	15257	12.83	12.83	80-120	100	( )
99	9920	12.83	12.83	34- 94	65	( )
61	6147	12.83	12.83	13- 73	40	( )
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	17655	13.67	13.43	80-120	100	(T)
64	2929	13.67	13.43	2- 62	17	(T)
54 Trichloroethylene				CAS#: 79-01-6		
95	301663	14.10	14.10	80-120	100	( )
97	200439	14.10	14.10	35- 95	66	( )
130	254842	14.11	14.10	51-111	84	( )
63 cis-1,3-Dichloropropylene				CAS#: 10061-01-5		
75	25922	15.71	15.25	80-120	100	(T)
77	46689	15.71	15.25	1- 61	180	(QT)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	12085	15.50	15.35	80-120	100	(T)
43	8048	15.50	15.35	221-281	67	(QT)
100	843467	15.50	15.35	0- 60	6979	(QT)
66 Toluene				CAS#: 108-88-3		
92	4462	15.58	15.58	80-120	100	( )
91	8917	15.58	15.58	141-201	200	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
68 trans-1,3-Dichloropropylene				CAS#: 10061-02-6		
75	45462	15.71	15.87	80-120	100	(T)
77	75368	15.71	15.87	1- 61	166	(QT)
69 1,1,2-Trichloroethane				CAS#: 79-00-5		
83	12600	16.43	16.09	80-120	100	(T)
97	1947	16.42	16.09	88-148	15	(QT)
85	383	16.42	16.09	35- 95	3	(QT)
72 1,3-Dichloropropane				CAS#: 142-28-9		
76	17900	16.51	16.30	80-120	100	(T)
78	24718	16.51	16.30	3- 63	138	(QT)
70 Tetrachloroethylene				CAS#: 127-18-4		
164	27120	16.18	16.18	80-120	100	( )
129	26352	16.18	16.18	66-126	97	( )
131	24367	16.18	16.18	62-122	90	( )
73 Dibromochloromethane				CAS#: 124-48-1		
129	3015	16.47	16.54	80-120	100	(T)
127	3312	16.50	16.54	47-107	110	(Q)
88 1,1,2,2-Tetrachloroethane				CAS#: 79-34-5		
83	36309	18.46	18.50	80-120	100	( )
85	11911	18.58	18.50	36- 96	33	(QT)
92 1,2,3-Trichloropropane				CAS#: 96-18-4		
110	19532	18.62	18.59	80-120	100	( )
75	269	18.67	18.59	312-372	1	(QT)
77	11320	18.62	18.58	760-820	58	(Q)
91 Bromobenzene				CAS#: 108-86-1		
156	6297	18.83	18.58	80-120	100	(T)
77	12608	18.70	18.58	213-273	200	(QT)
158	155	18.59	18.58	67-127	2	(Q)
89 n-Propylbenzene				CAS#: 103-65-1		
91	26844	18.55	18.55	80-120	100	( )
120	2734	18.54	18.55	0- 49	10	( )
94 2-Chlorotoluene				CAS#: 95-49-8		
91	27435	18.55	18.73	80-120	100	(T)
126	10147	18.73	18.73	0- 52	37	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
93 1,3,5-Trimethylbenzene				CAS#: 108-67-8		
105	44638	18.70	18.70	80-120	100	( )
120	17727	18.71	18.70	9- 69	40	( )
97 1,2,4-Trimethylbenzene				CAS#: 95-63-6		
105	27486	18.96	19.12	80-120	100	(T)
120	7147	18.96	19.12	6- 66	26	(T)
95 4-Chlorotoluene				CAS#: 106-43-4		
91	10749	18.96	18.84	80-120	100	(T)
126	4617	18.92	18.84	0- 55	43	(T)
96 tert-Butylbenzene				CAS#: 98-06-6		
119	95631	19.34	19.06	80-120	100	(T)
91	28508	19.35	19.06	57-117	30	(QT)
134	24695	19.34	19.06	0- 51	26	(T)
99 sec-Butylbenzene				CAS#: 135-98-8		
105	48703	19.29	19.29	80-120	100	( )
134	8665	19.29	19.29	0- 47	18	( )
100 4-Isopropyltoluene				CAS#: 99-87-6		
119	68928	19.41	19.41	80-120	100	( )
134	16340	19.40	19.41	0- 53	24	( )
91	24389	19.40	19.41	1- 61	35	( )
105 n-Butylbenzene				CAS#: 104-51-8		
91	142763	19.85	19.85	80-120	100	( )
92	74613	19.85	19.85	24- 84	52	( )
134	160375	19.80	19.85	0- 51	112	(Q)
106 1,2-Dichlorobenzene				CAS#: 95-50-1		
146	4904	20.53	20.07	80-120	100	(T)
111	311572	19.60	20.07	19- 79	6352	(QT)
148	183014	20.36	20.06	35- 95	3731	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031810v1/1c411.d
Lab Smp Id: 248842007 Client Smp ID: RE46-10-13546
Inj Date : 18-MAR-2010 14:16
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842007|965875|100|VOAF|2|
Misc Info : LANL 100uL N/A
Comment :
Method : /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 21:48 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 11
Dil Factor: 2.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vs/Ws)*(Vt/Va)*(Uf) * CpndVarial

Name	Value	Description
DF	2.00000	Dilution Factor
M	17.53750	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Vs	10000.00000	Soil Extract Volume (uL)
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 52 Fluorobenzene	13.668	2361491	50.000
* 76 Chlorobenzene-d5	17.148	2692708	50.000
* 102 1,4-Dichlorobenzene-d4	19.596	4855046	50.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
6.869	402875	8.53009741	2070	0		0	52
Unknown				CAS #:			
16.508	3741460	69.4739034	16800	0		0	76
Unknown Hydrocarbon				CAS #:			
17.659	478526	8.88558148	2160	0		0	76
Unknown Hydrocarbon				CAS #:			
18.027	1881005	34.9277453	8470	0		0	76
Unknown Hydrocarbon				CAS #:			
18.165	572858	10.6372121	2580	0		0	76
Unknown Hydrocarbon				CAS #:			
18.819	13887252	143.018733	34700	0		0	102
Unknown Hydrocarbon				CAS #:			
19.951	25652897	264.187954	64100	0		0	102
Unknown Hydrocarbon				CAS #:			
20.798	2546041	26.2205571	6360	0		0	102
Unknown Hydrocarbon				CAS #:			
21.134	33560279	345.622618	83800	0		0	102

Data File: /chem/VOA1.i/031810v1/1c411.d
Date : 18-MAR-2010 14:16
Client ID: RE46-10-13546
Sample Info: |2488420071965875|100|VOAF|2|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2
Column diameter: 0.25

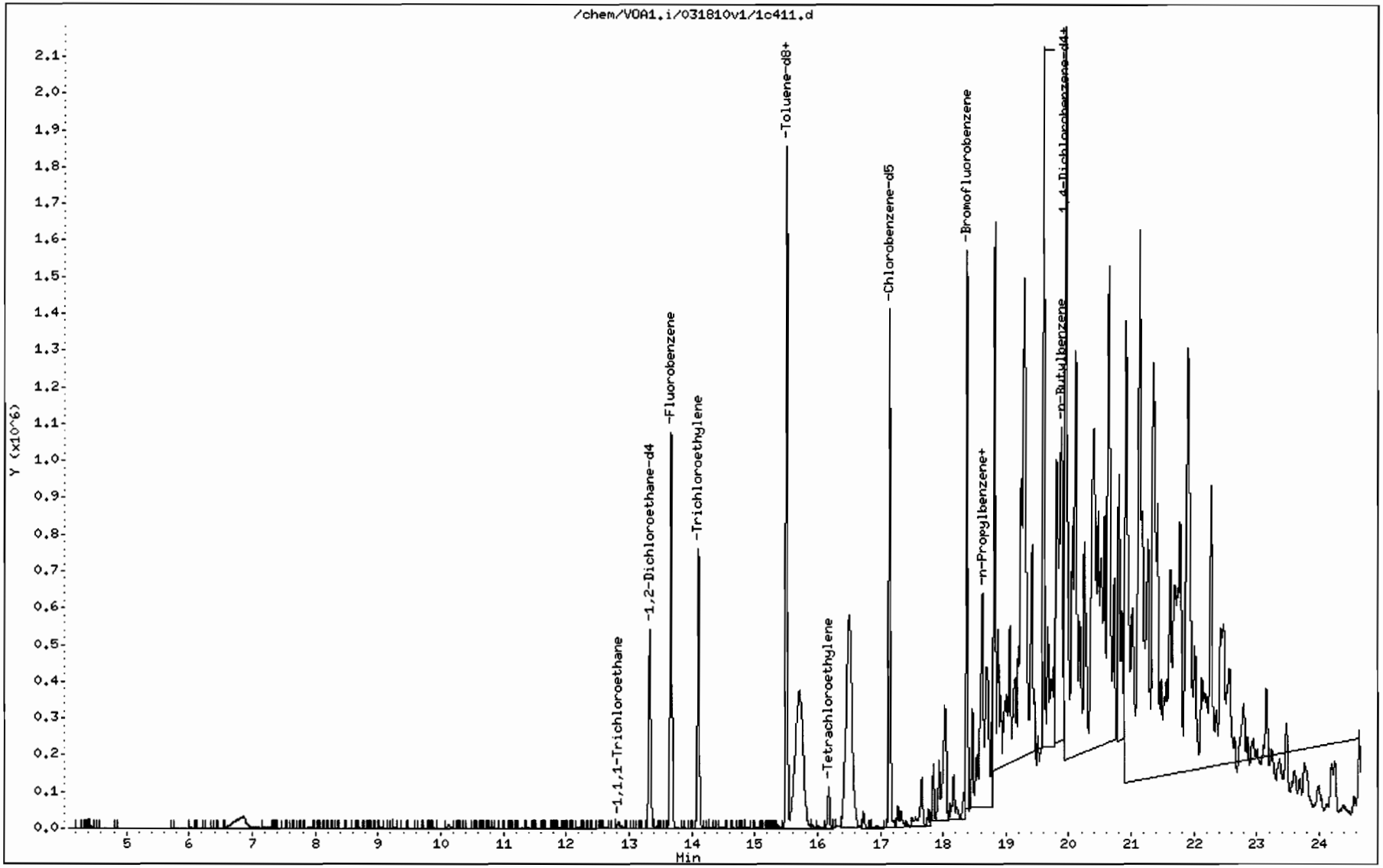

Data File: /chem/VOA1.i/031810v1/1c411.d

Date : 18-MAR-2010 14:16

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|100|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

43 1,1,1-Trichloroethane

Concentration: 414 ug/Kg

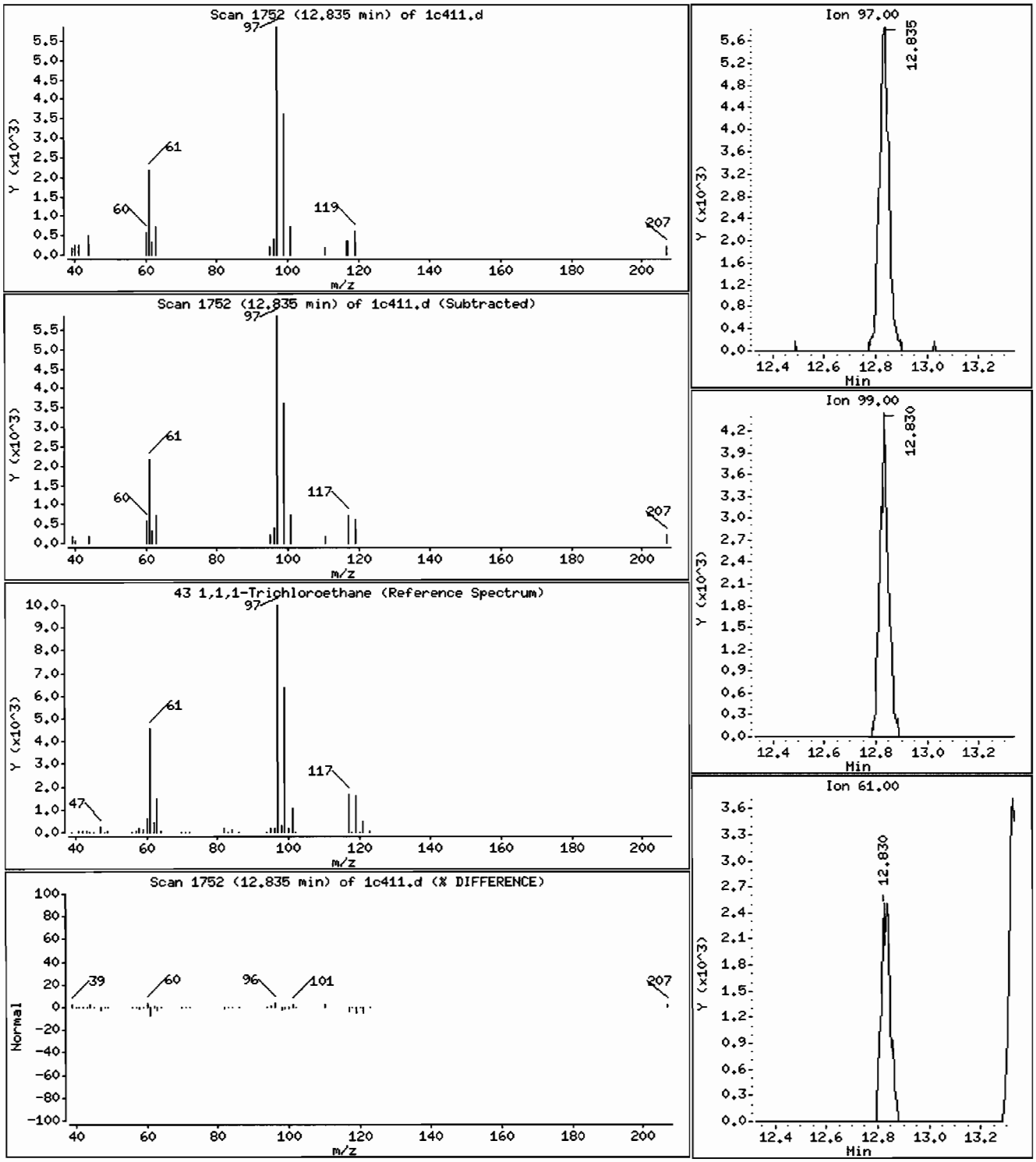

Data File: /chem/VOA1.i/031810v1/1c411.d

Date : 18-MAR-2010 14:16

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|100|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

54 Trichloroethylene

Concentration: 11900 ug/Kg

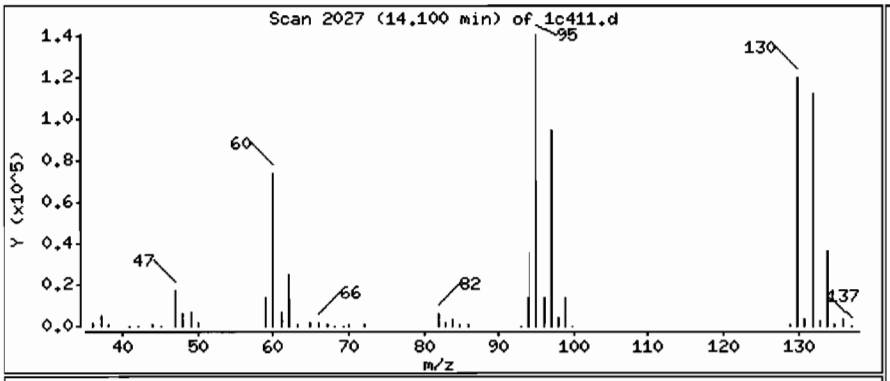

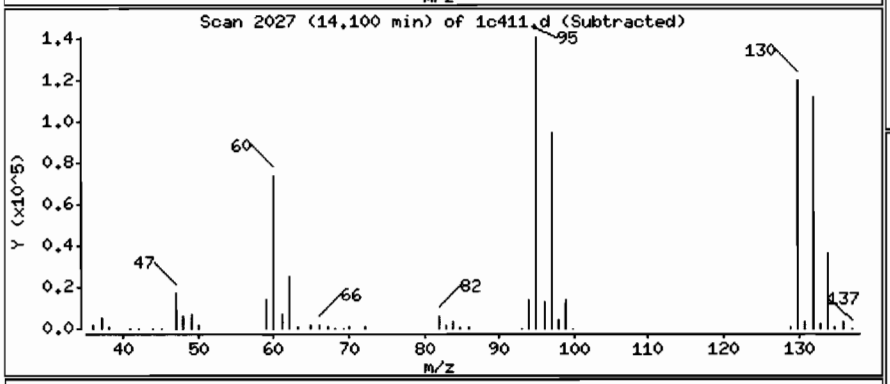

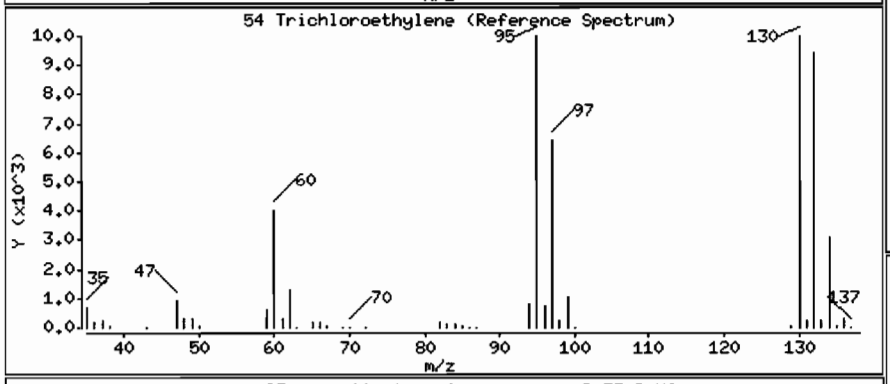

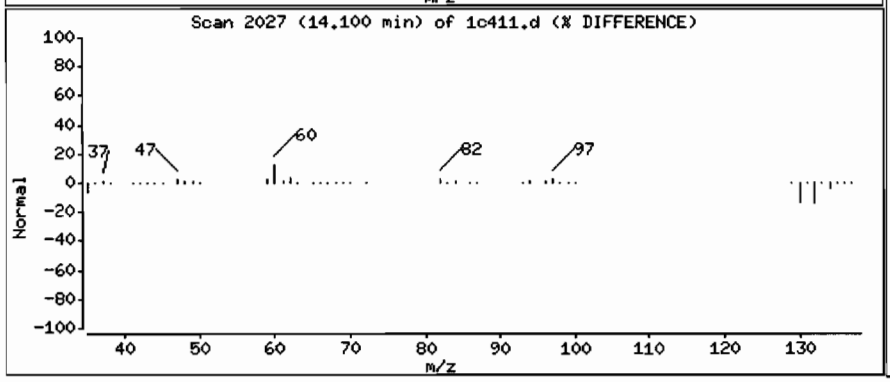

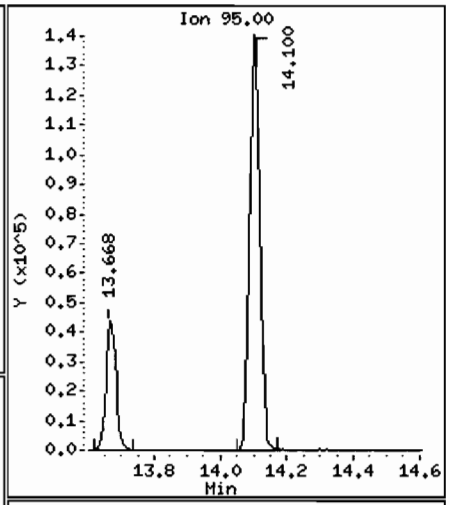

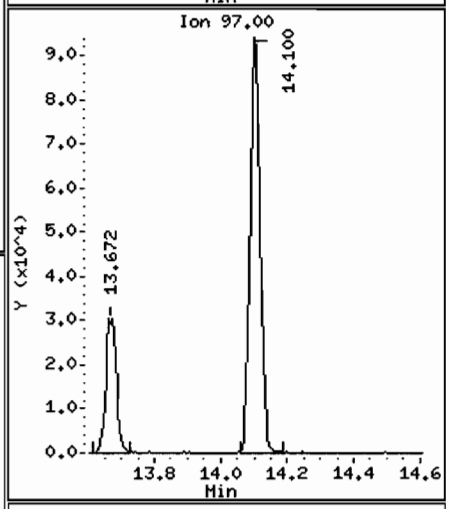

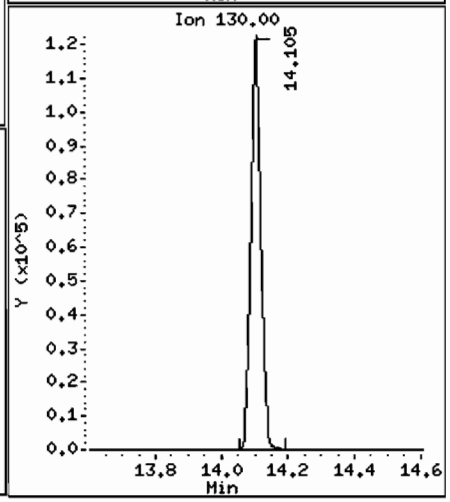

Data File: /chem/VOA1.i/031810v1/1c411.d

Date : 18-MAR-2010 14:16

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|100|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

66 Toluene

Concentration: 73.2 ug/Kg

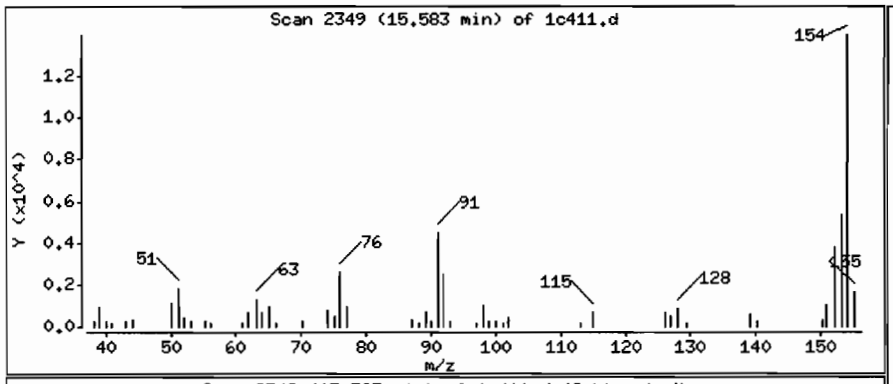

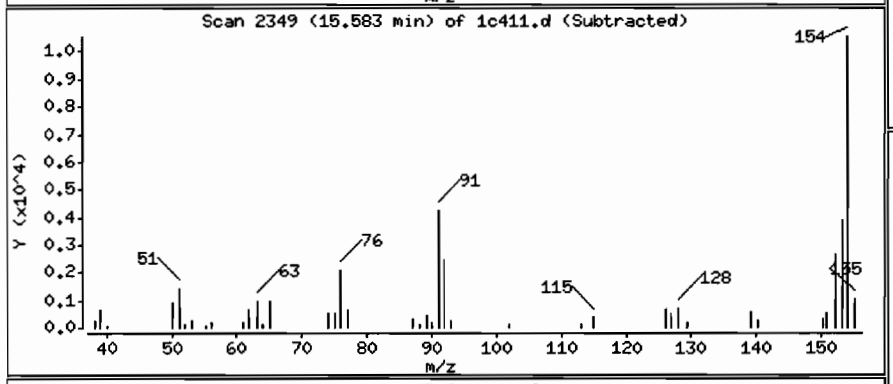

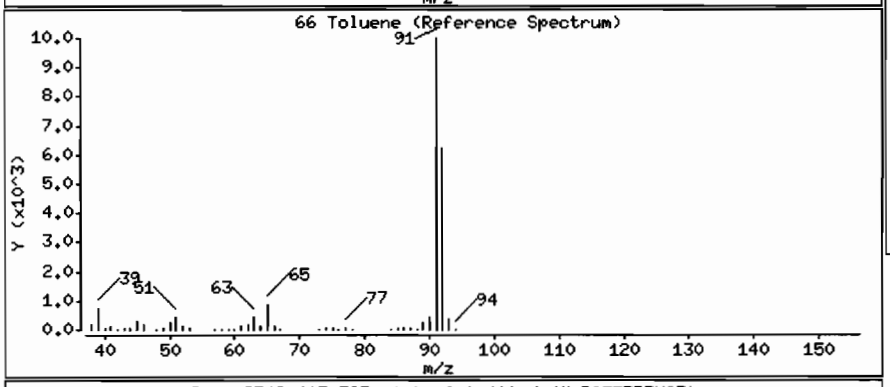

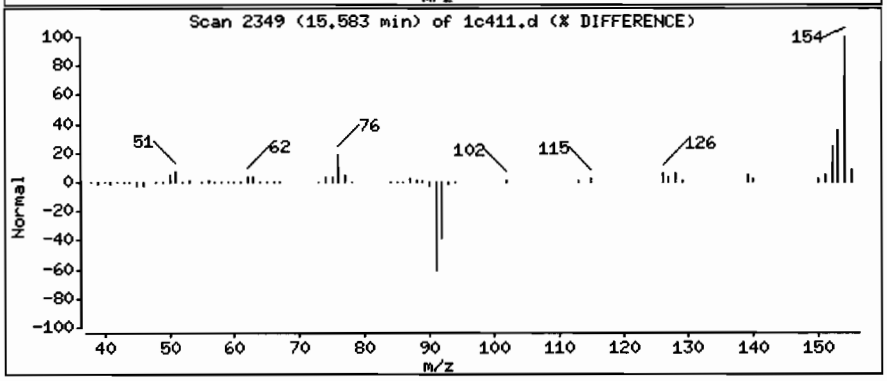

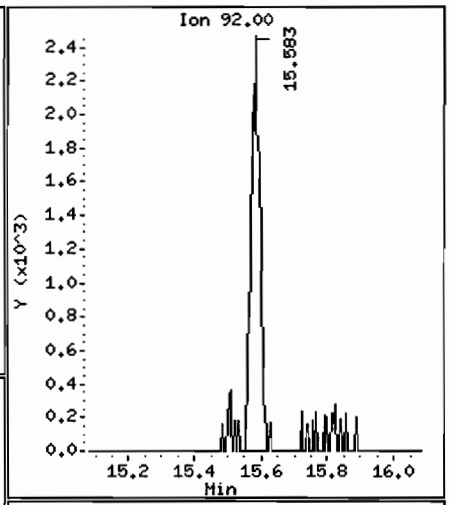

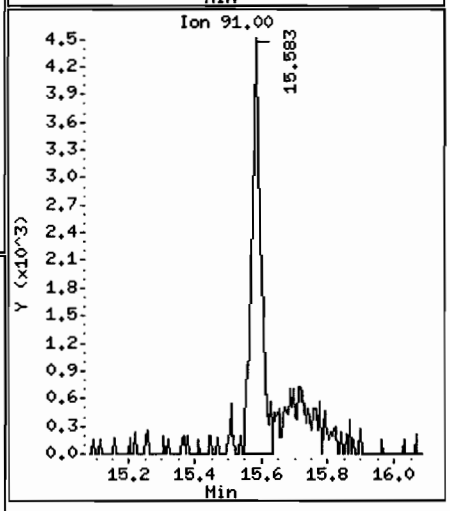

Data File: /chem/VOA1.i/031810v1/1c411.d

Date : 18-MAR-2010 14:16

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|100|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

70 Tetrachloroethylene

Concentration: 1390 ug/Kg

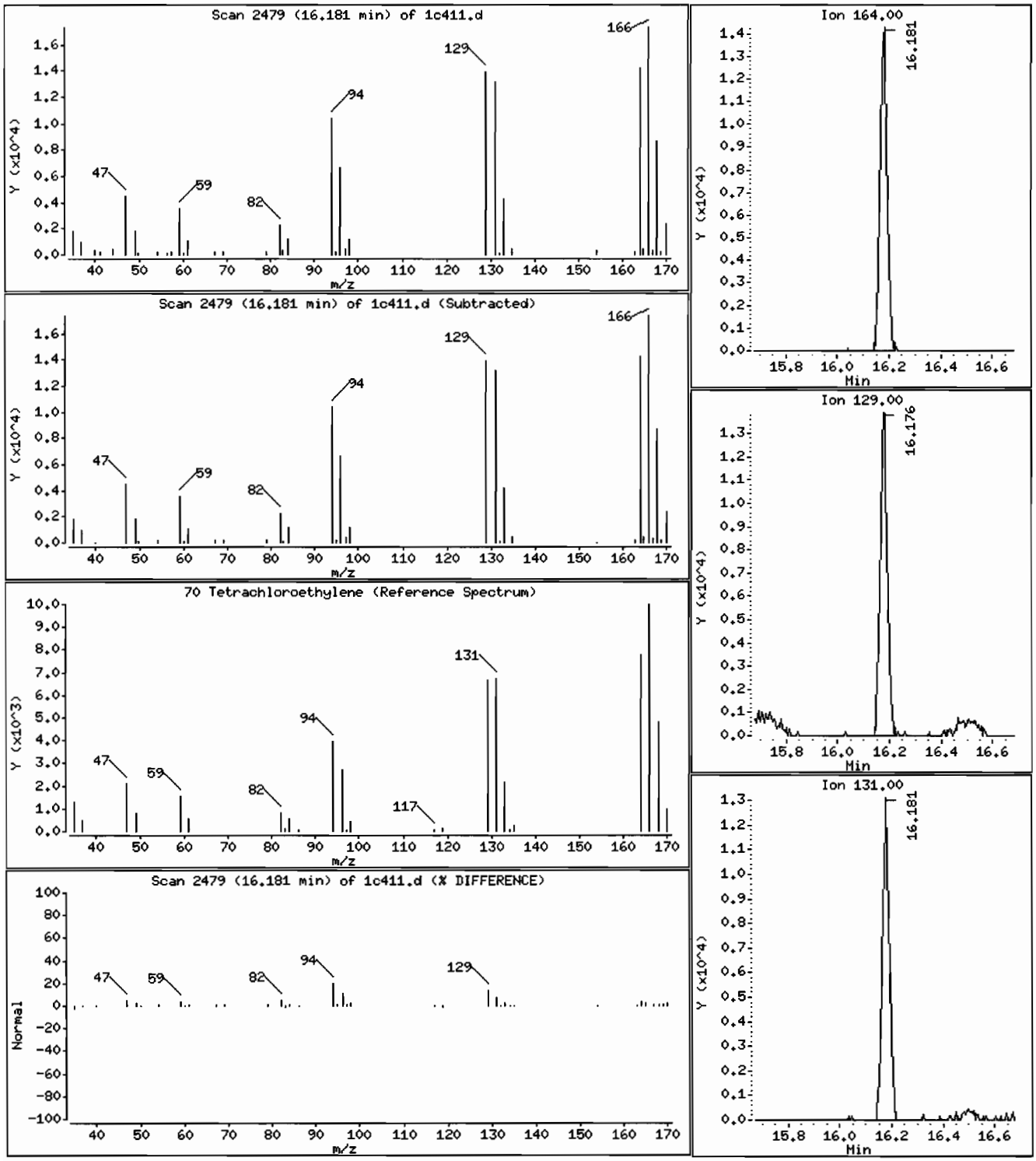

Data File: /chem/VOA1.i/031810v1/1c411.d

Date : 18-MAR-2010 14:16

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|100|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

89 n-Propylbenzene

Concentration: 93.1 ug/Kg

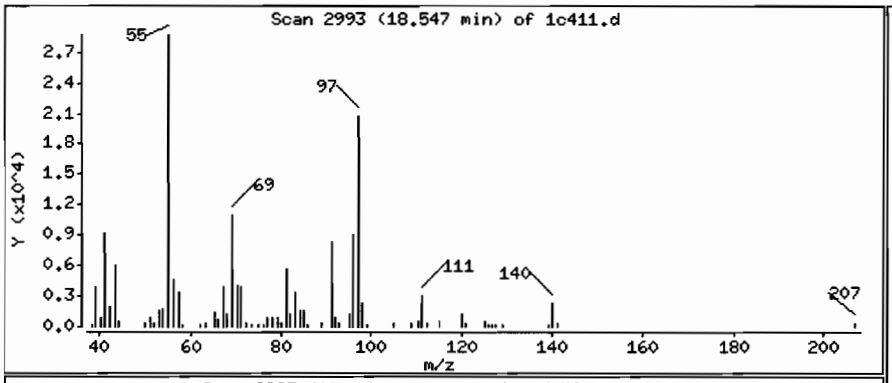

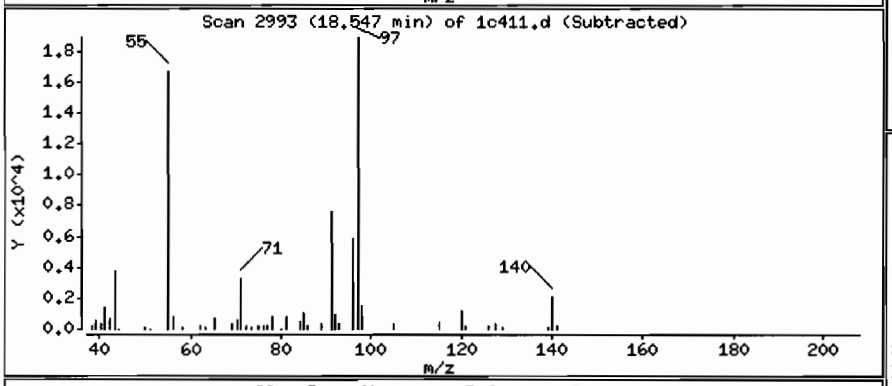

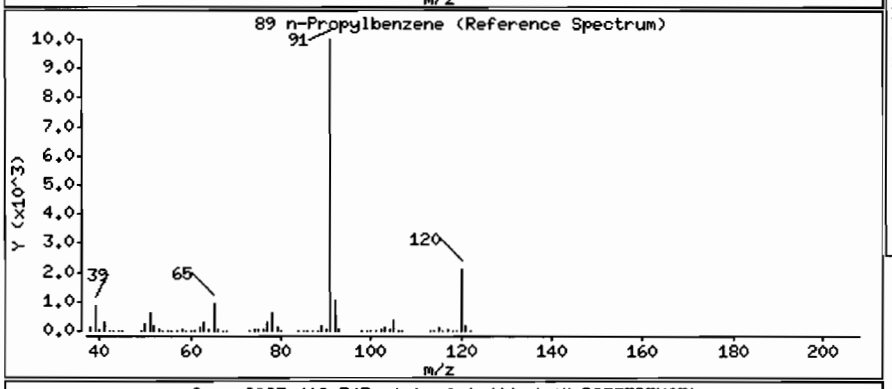

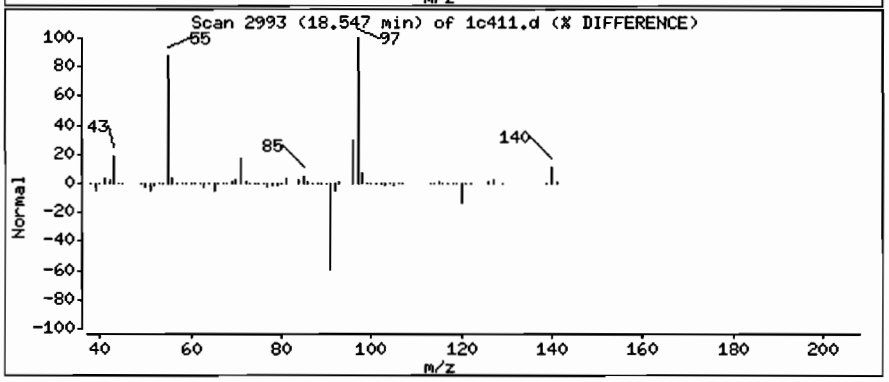

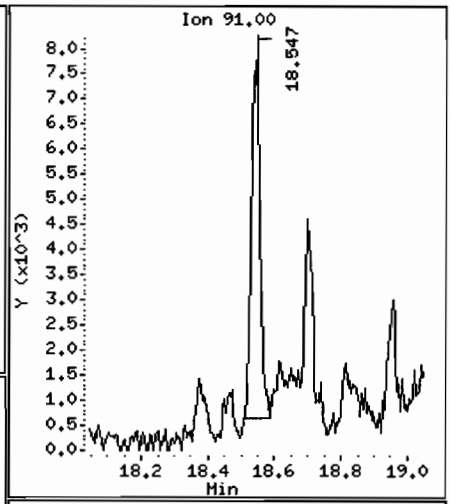

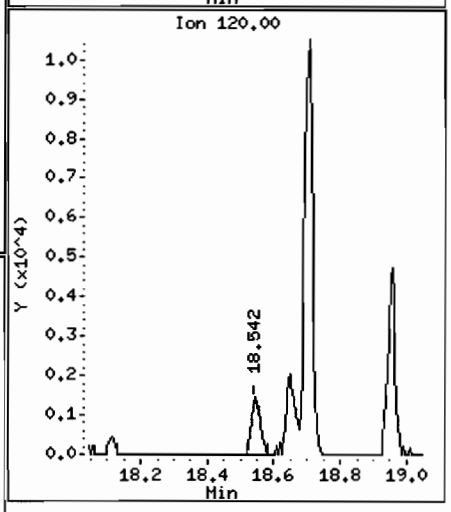

Data File: /chem/VOA1.i/031810v1/1c411.d

Date : 18-MAR-2010 14:16

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: 1248842007196587511001VOAF121

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

93 1,3,5-Trimethylbenzene

Concentration: 429 ug/Kg

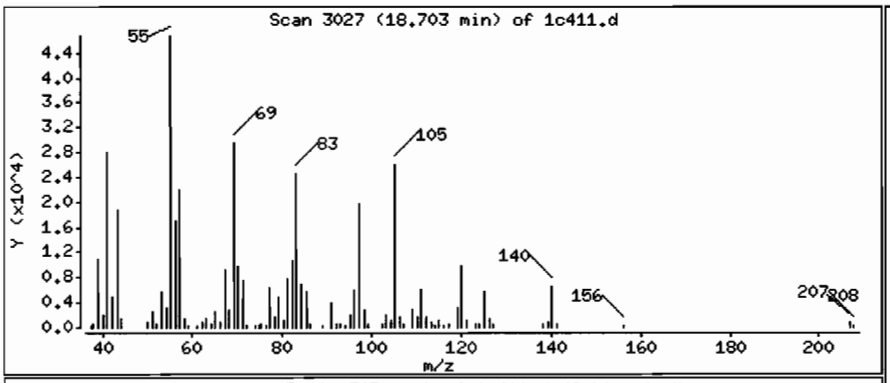

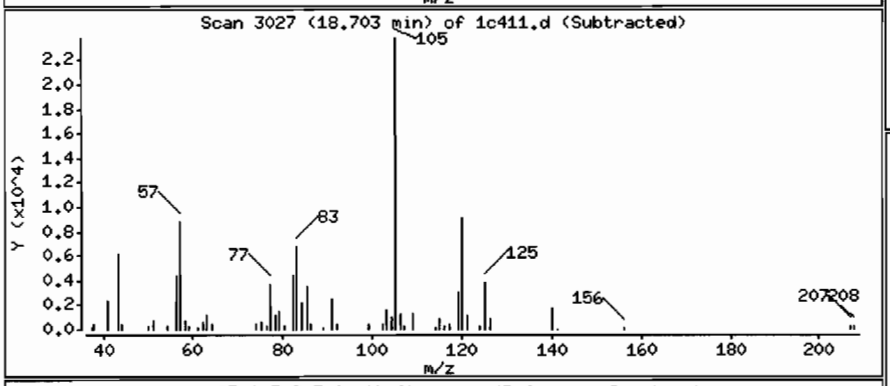

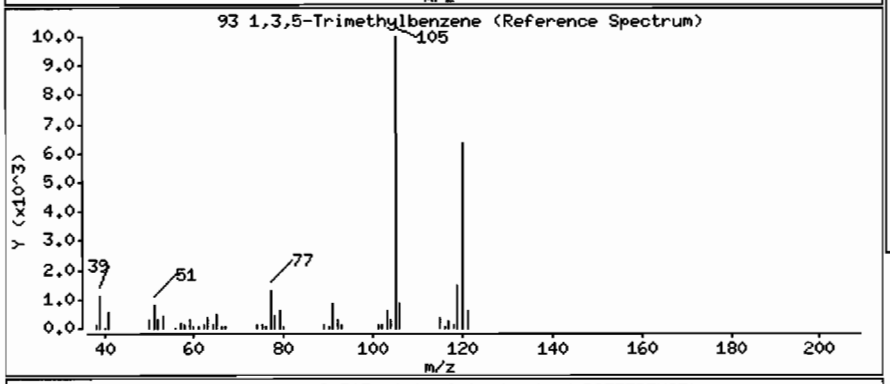

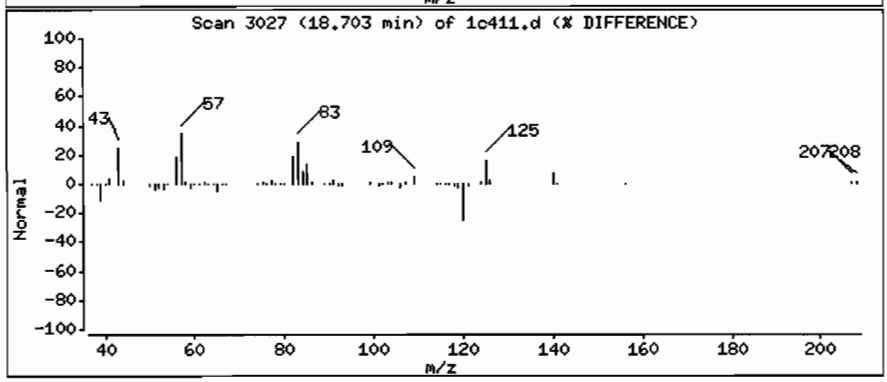

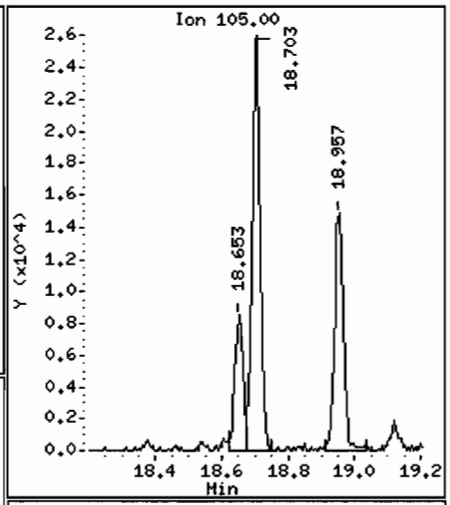

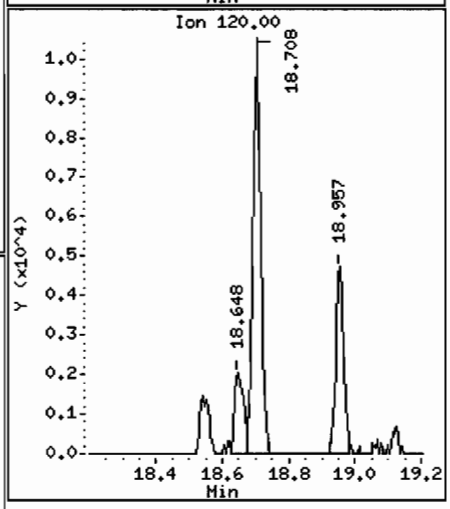

Data File: /chem/VOA1.i/031810v1/1c411.d

Date : 18-MAR-2010 14:16

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|100|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

99 sec-Butylbenzene

Concentration: 368 ug/Kg

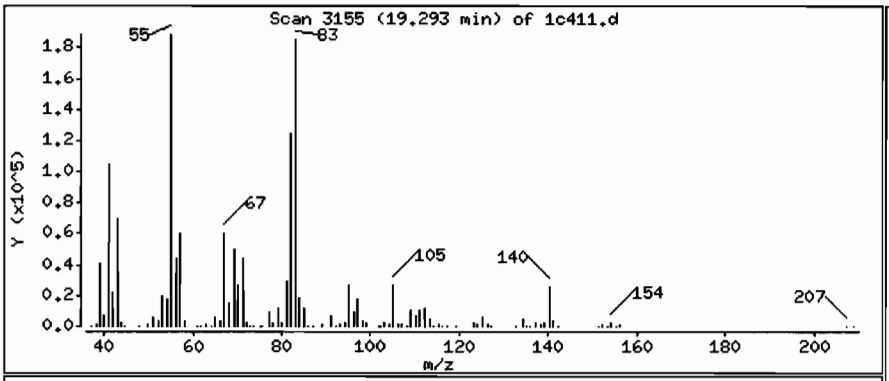

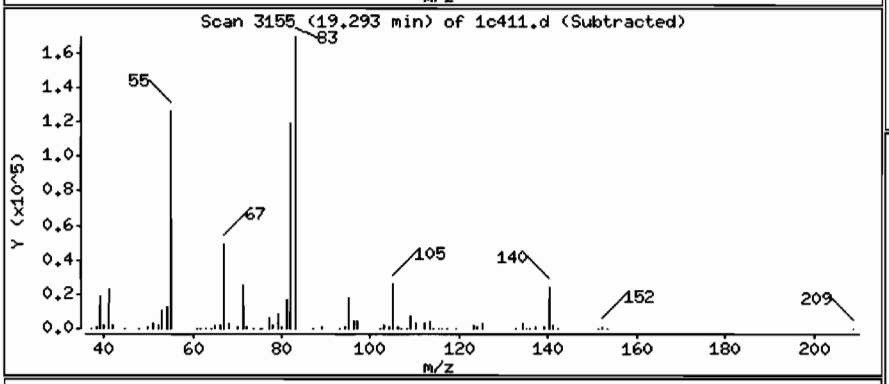

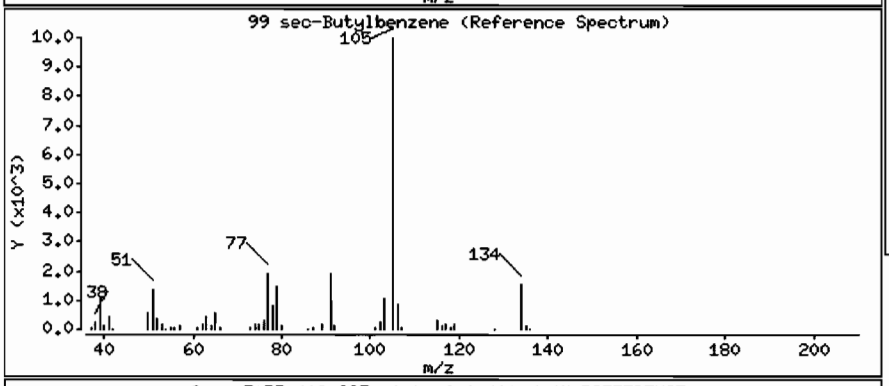

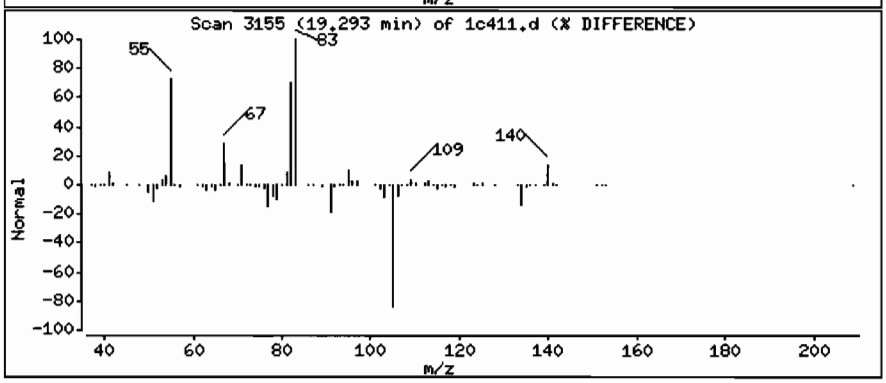

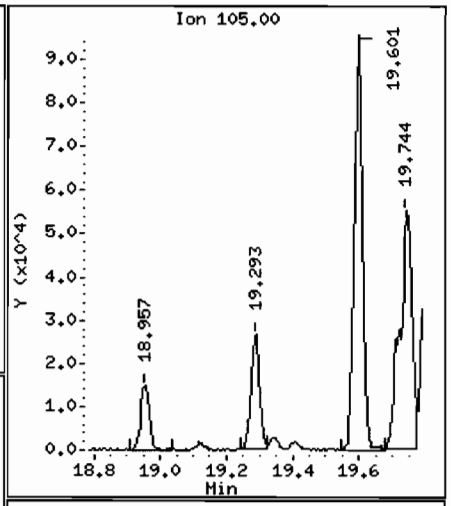

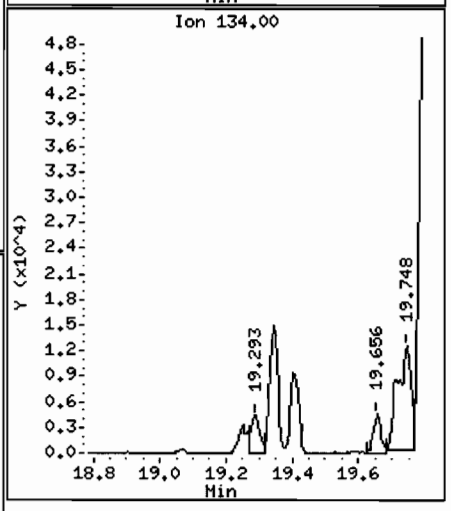

Data File: /chem/VOA1.i/031810v1/1c411.d

Date : 18-MAR-2010 14:16

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|100|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

100 4-Isopropyltoluene

Concentration: 669 ug/Kg

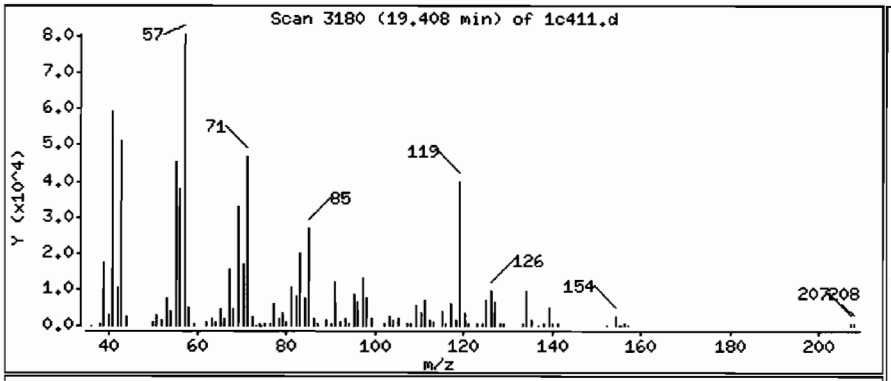

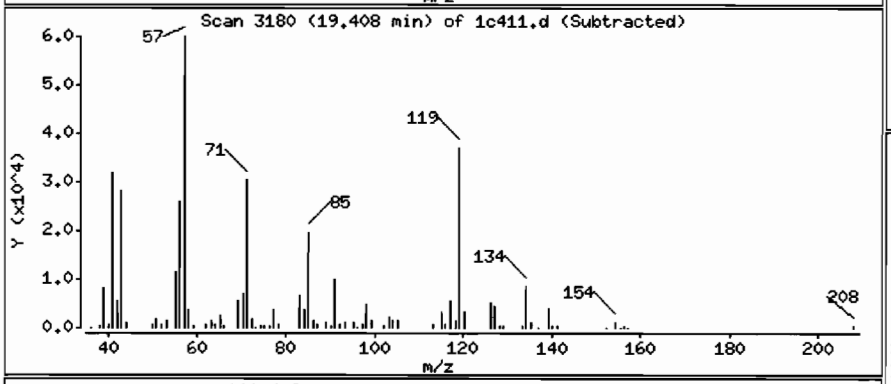

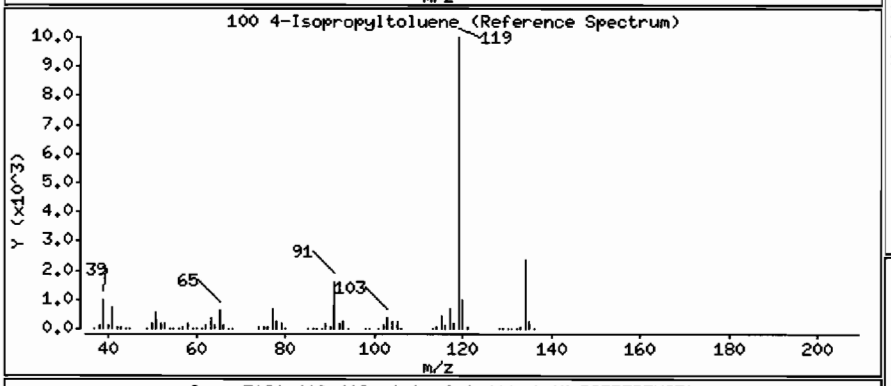

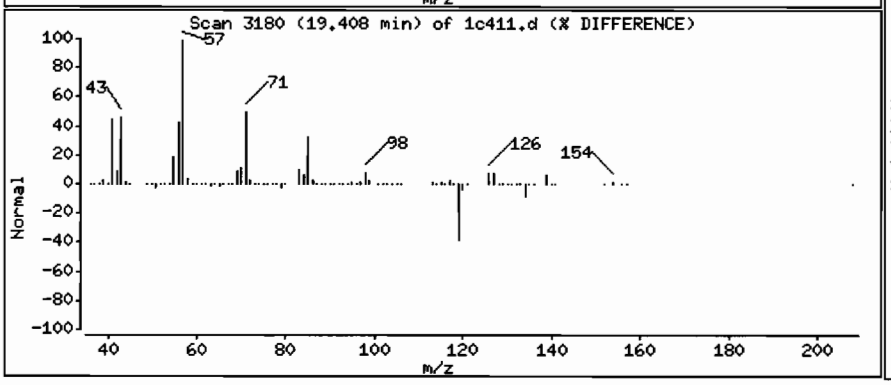

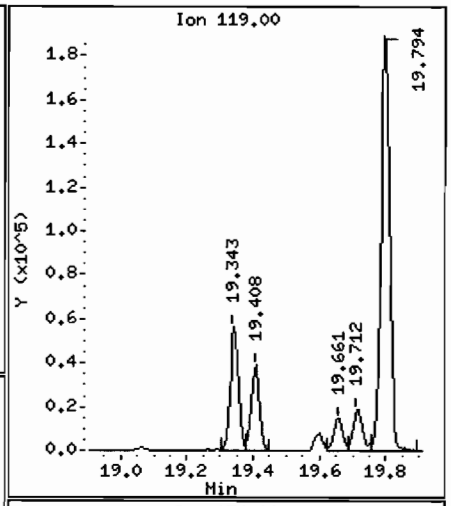

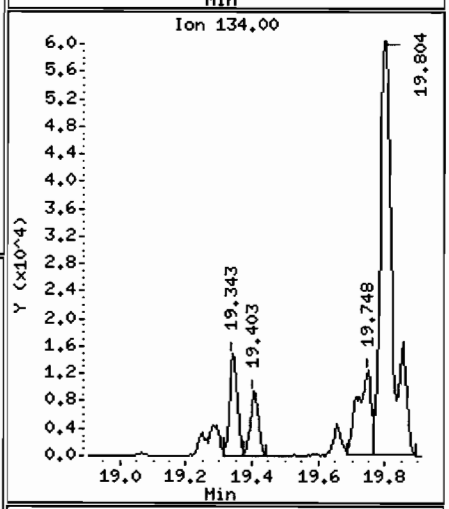

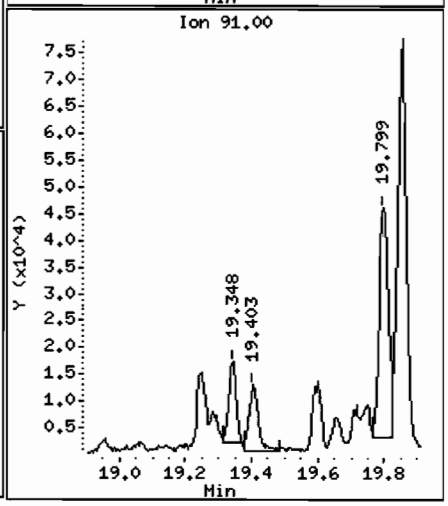

Data File: /chem/VOA1.i/031810v1/1c411.d

Date : 18-MAR-2010 14:16

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|100|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

105 n-Butylbenzene

Concentration: 1280 ug/Kg

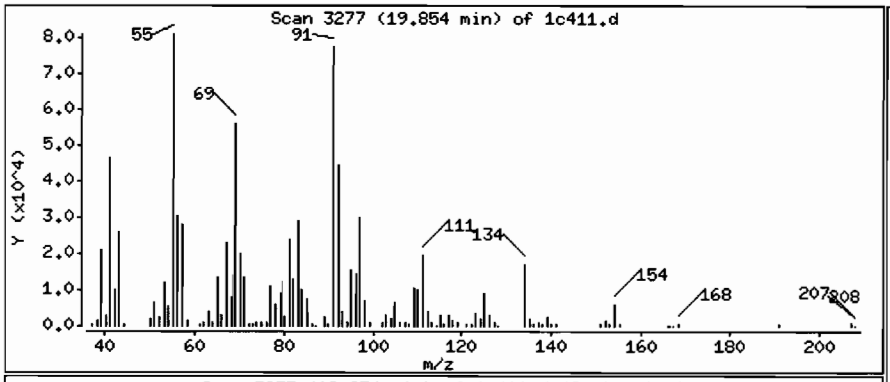

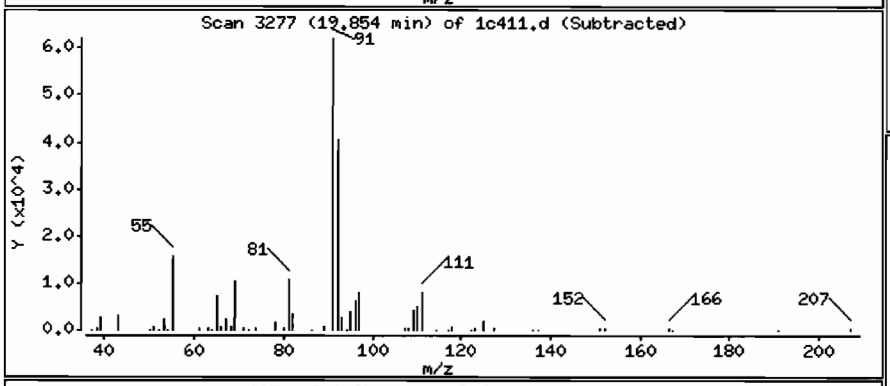

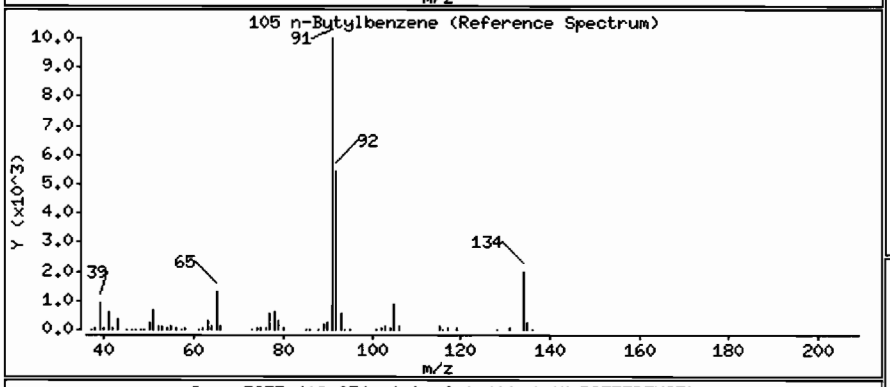

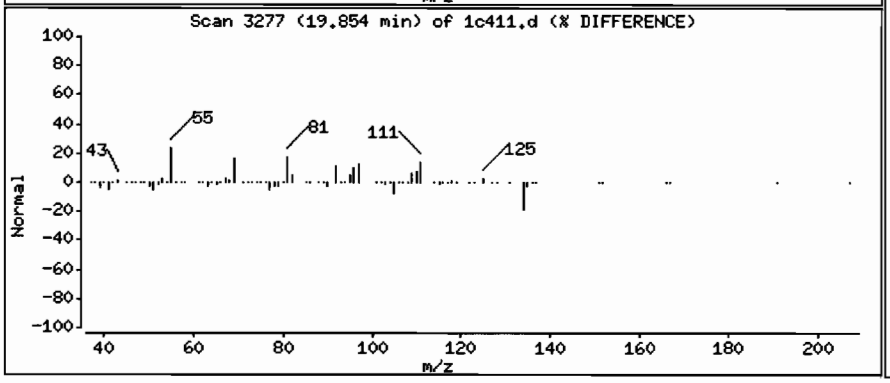

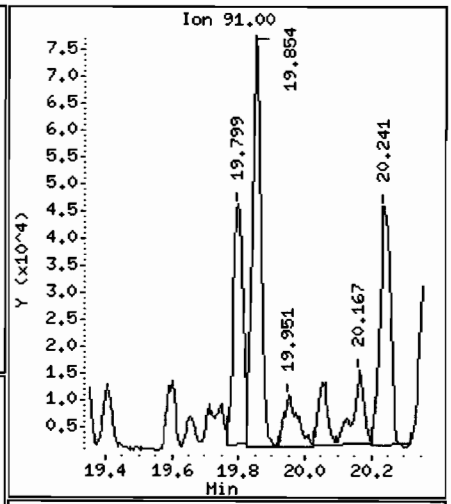

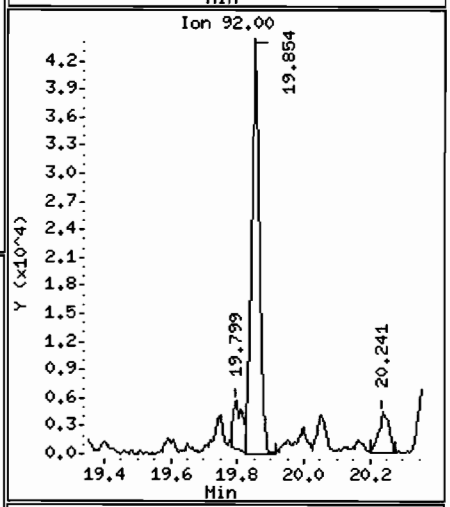

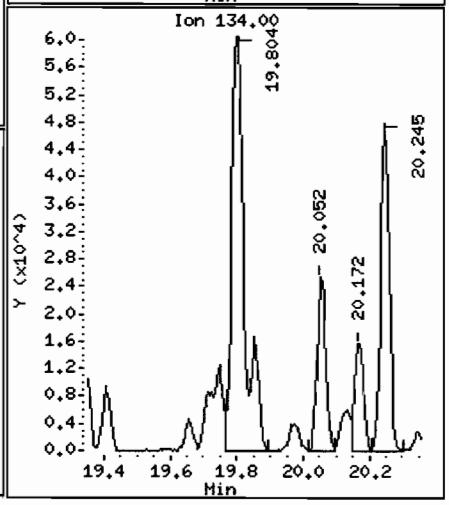

Data File: /chem/VOA1.i/031810v1/1c411.d

Date : 18-MAR-2010 14:16

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|100|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ethanol, 2-(2-chloroethoxy)-	628-89-7	NIST05.L	9975	28	C4H9ClO2	124
Ethanol, 2-(2-chloroethoxy)-	628-89-7	NIST05.L	9976	28	C4H9ClO2	124
Diethyl pyrocarbonate	1609-47-8	NIST05.L	31000	23	C6H10O5	162

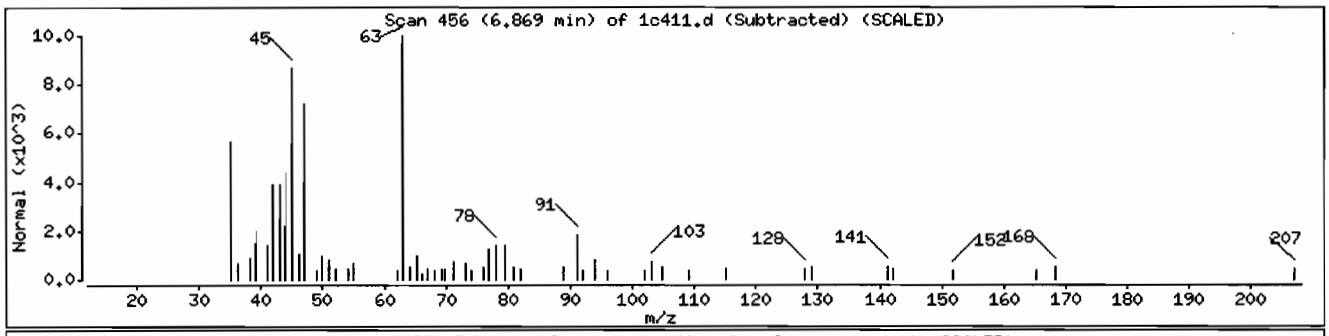

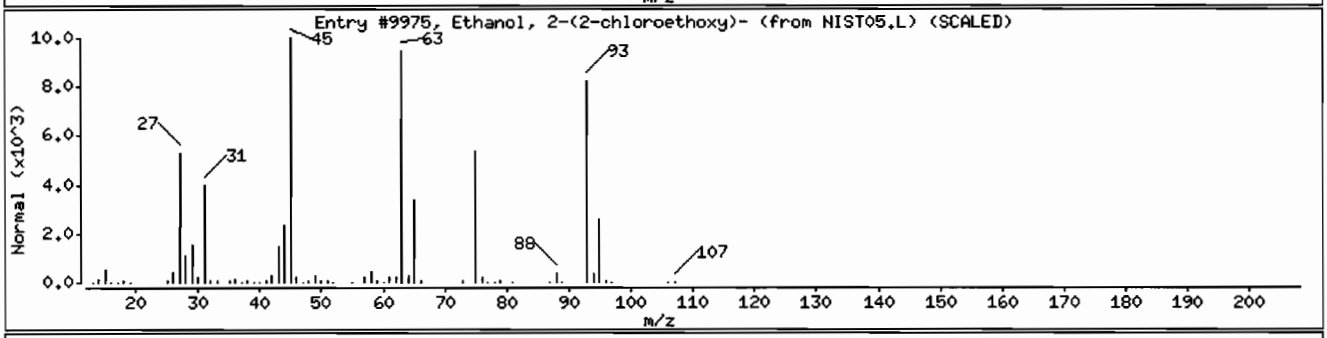

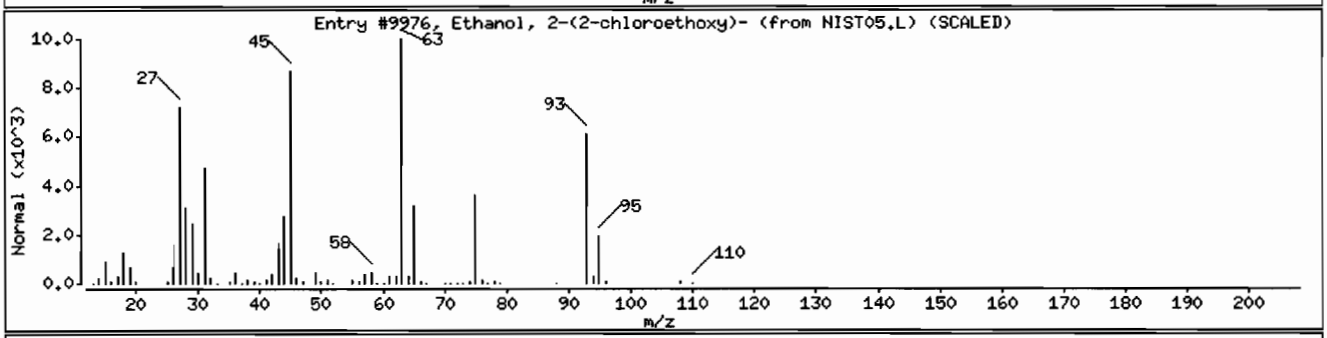

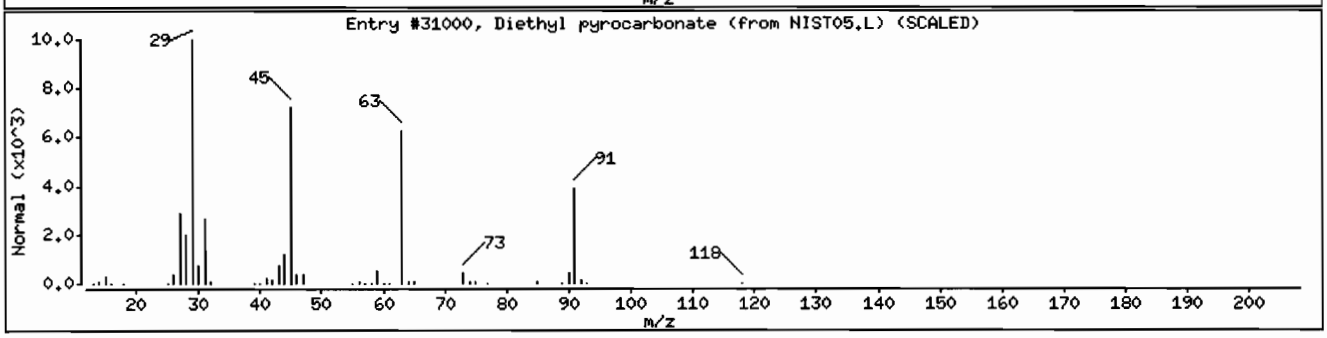

Data File: /chem/VOA1.i/031810v1/1c411.d

Date : 18-MAR-2010 14:16

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1001|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Diphenyl ether	101-84-8	NIST05.L	36400	87	C12H10O	170
Diphenyl ether	101-84-8	NIST05.L	36402	80	C12H10O	170
Diphenyl ether	101-84-8	NIST05.L	36401	62	C12H10O	170

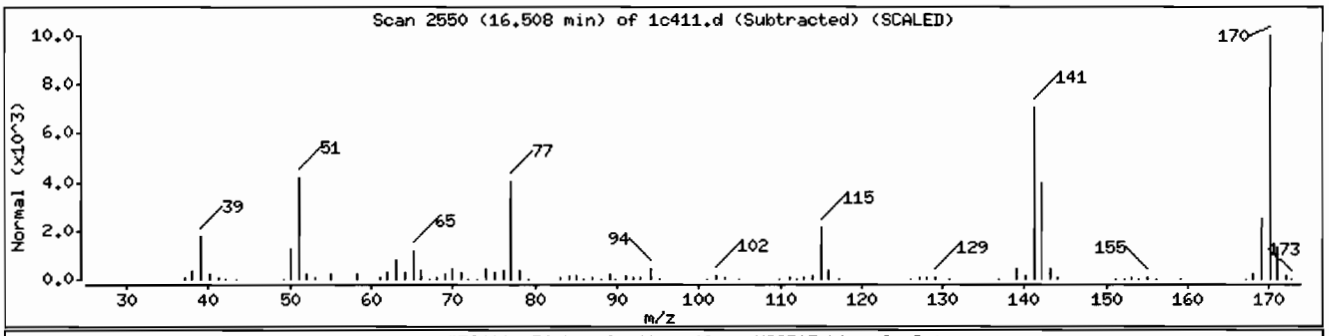

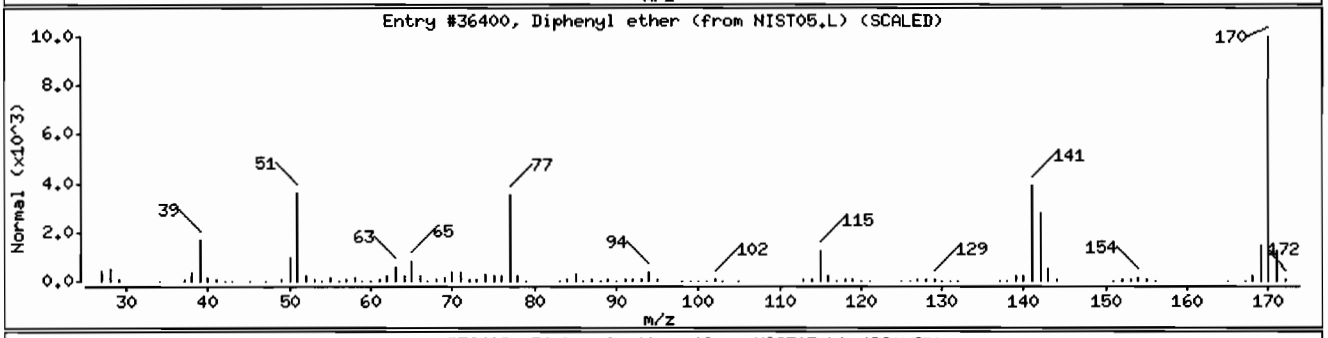

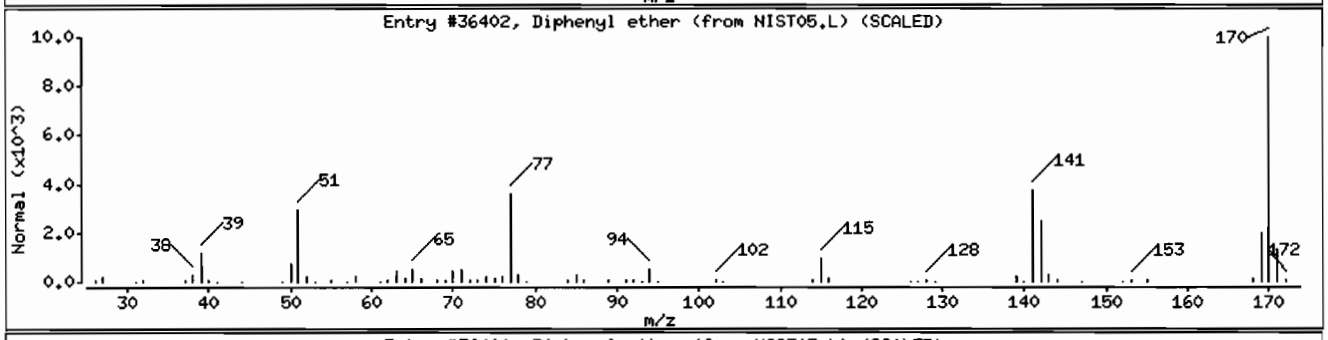

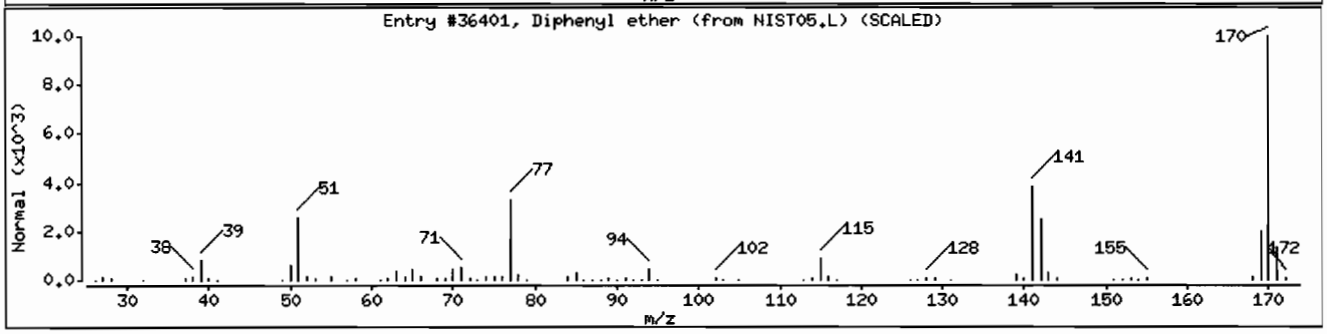

Data File: /chem/VOA1.i/031810v1/1c411.d

Date : 18-MAR-2010 14:16

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: 1248842007196587511001VOAF121

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Octane, 2,6-dimethyl-	2051-30-1	NIST05.L	18524	81	C10H22	142
Nonane, 3-methyl-	5911-04-6	NIST05.L	18496	76	C10H22	142
Nonane, 3-methyl-	5911-04-6	NIST05.L	18499	58	C10H22	142

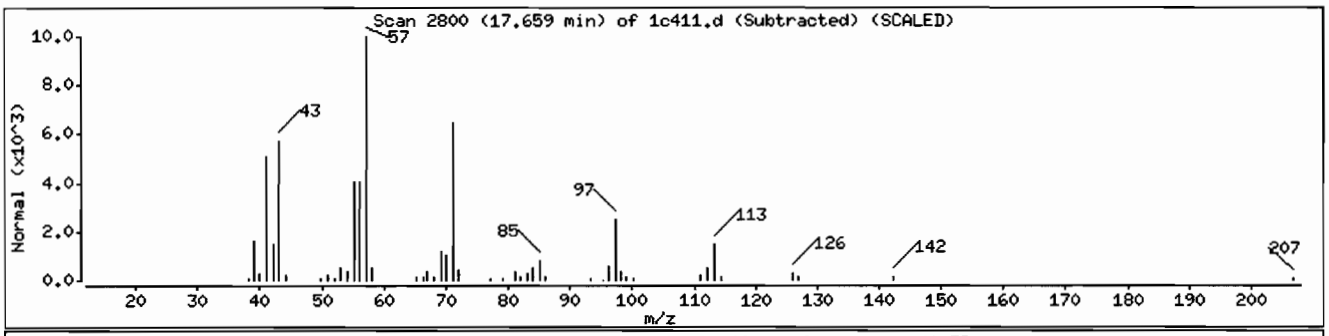

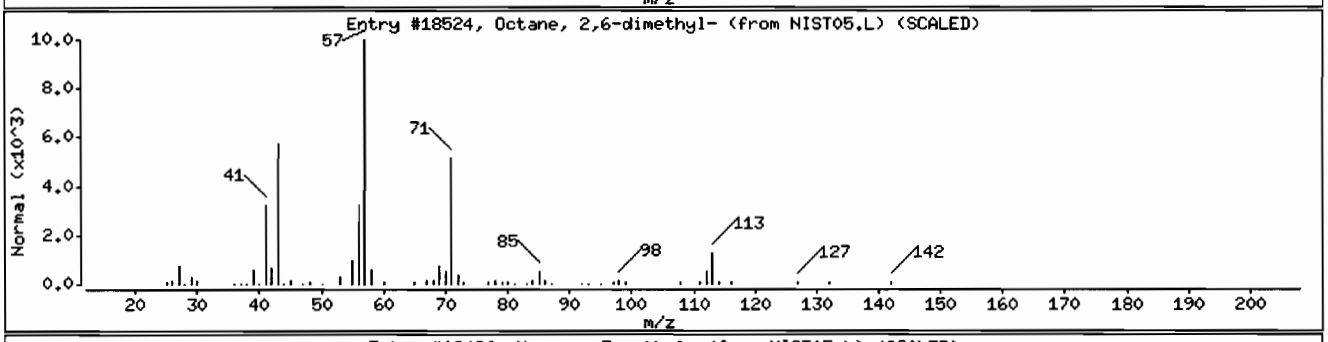

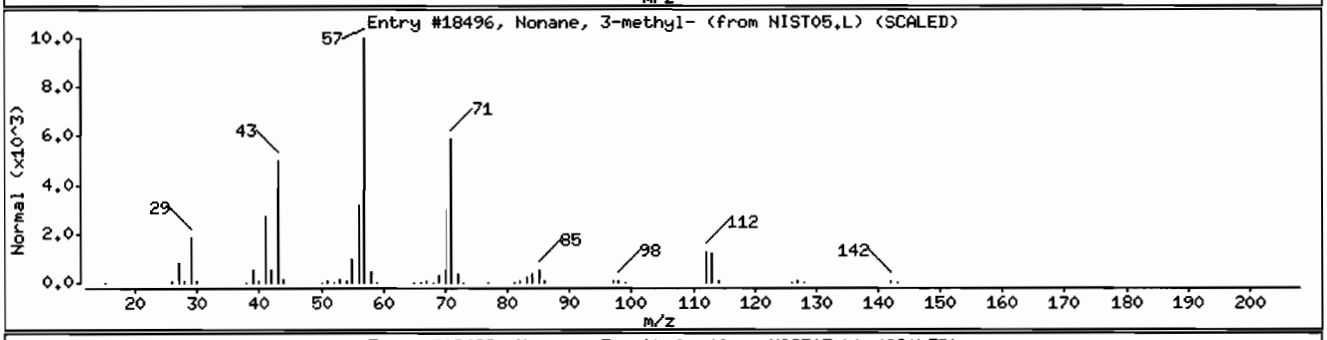

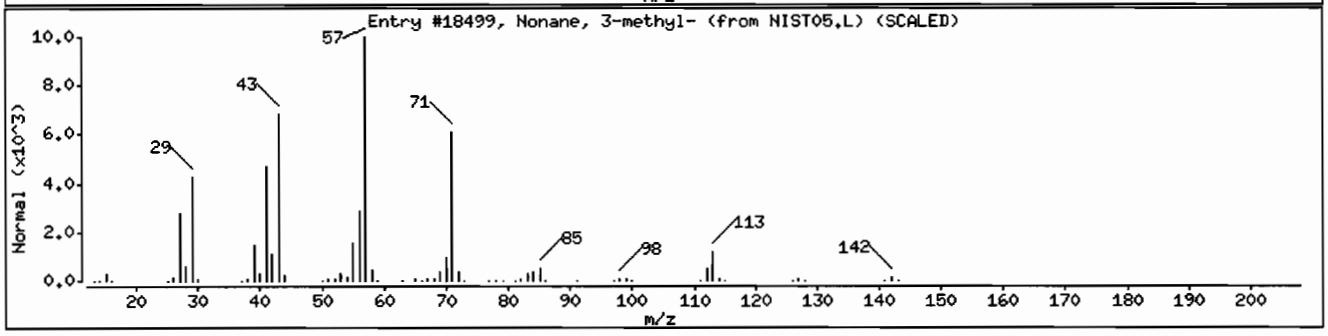

Data File: /chem/VOA1.i/031810v1/1c411.d

Date : 18-MAR-2010 14:16

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|100|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Nonane, 4-methyl-	17301-94-9	NIST05.L	18501	58	C10H22	142
Octane, 2,5-dimethyl-	15869-89-3	NIST05.L	18509	58	C10H22	142
Decane	124-18-5	NIST05.L	18486	52	C10H22	142

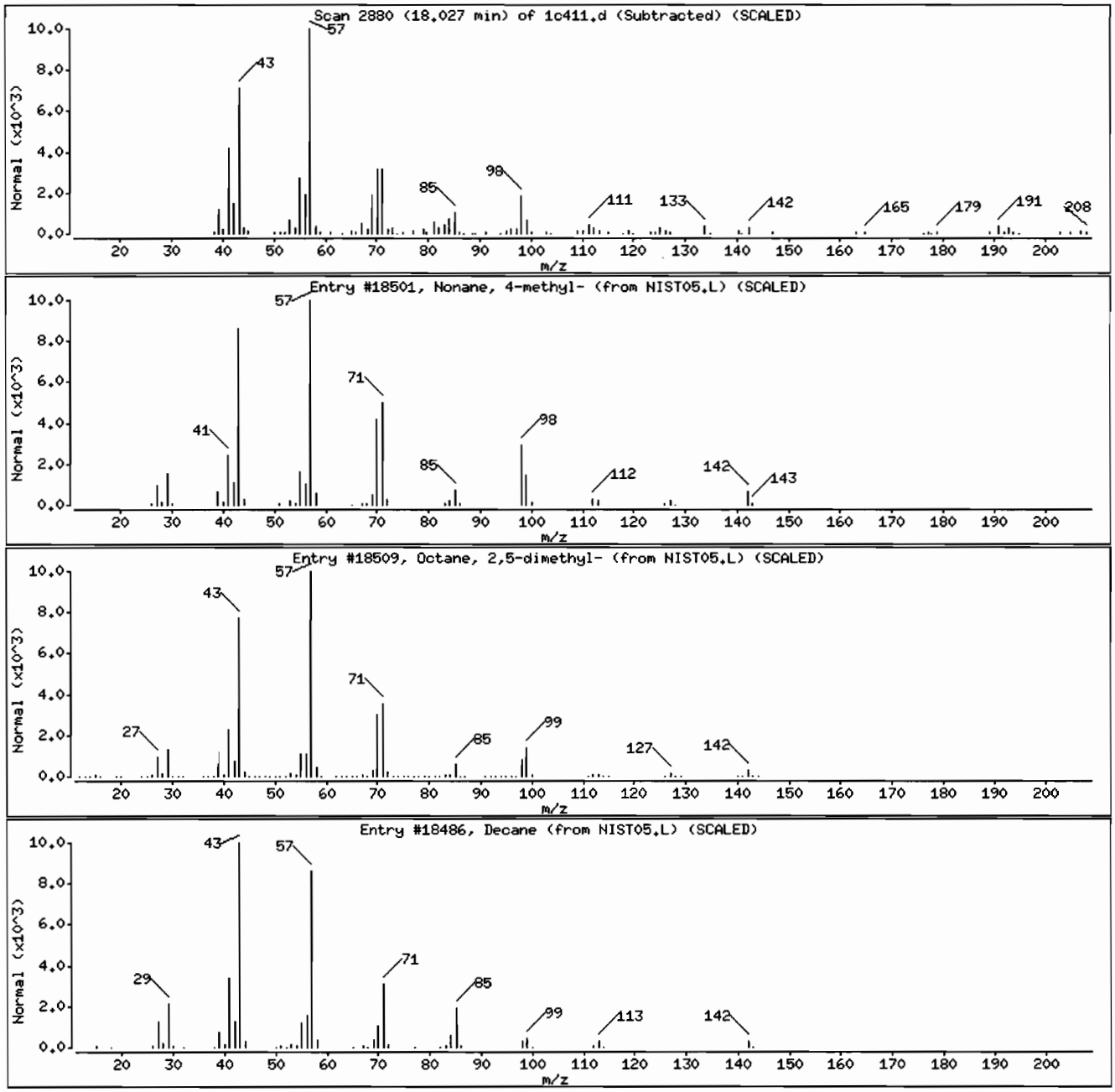

Data File: /chem/VOA1.i/031810v1/1c411.d

Date : 18-MAR-2010 14:16

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|100|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Nonane, 3-methyl-	5911-04-6	NIST05.L	18496	91	C10H22	142
Nonane, 3-methyl-	5911-04-6	NIST05.L	18500	87	C10H22	142
Octane, 3,6-dimethyl-	15869-94-0	NIST05.L	18514	87	C10H22	142

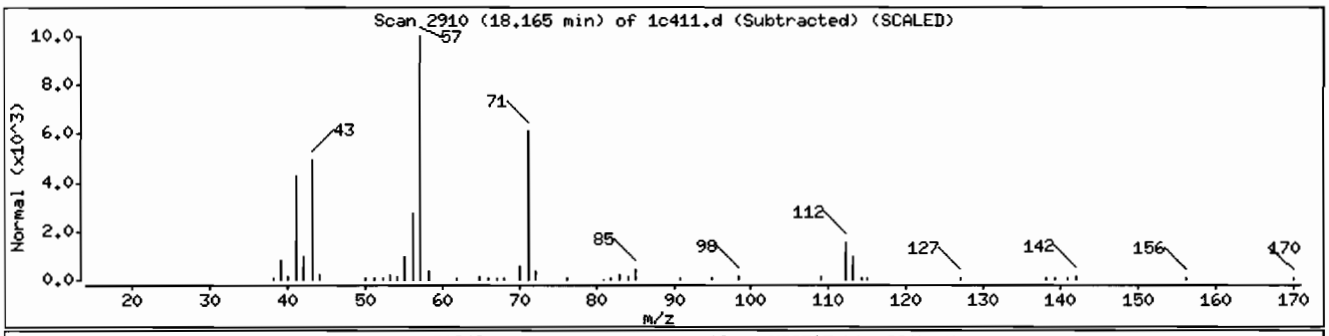

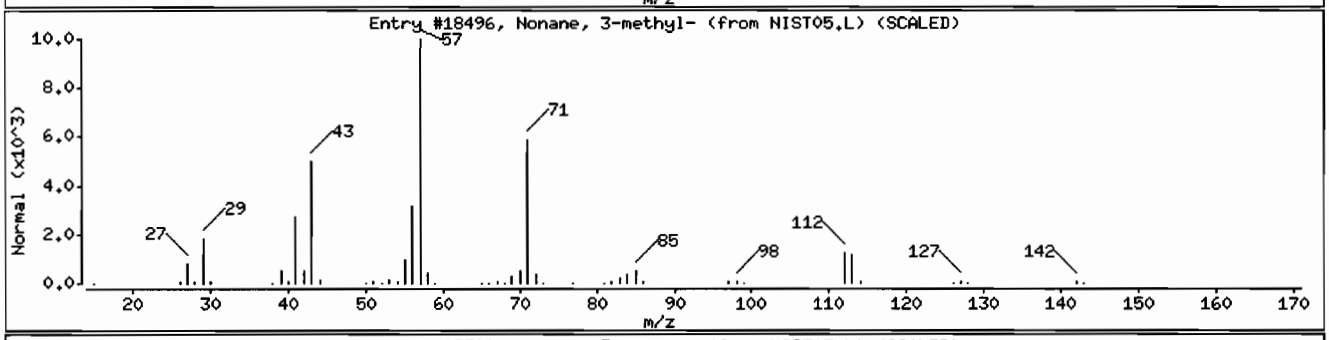

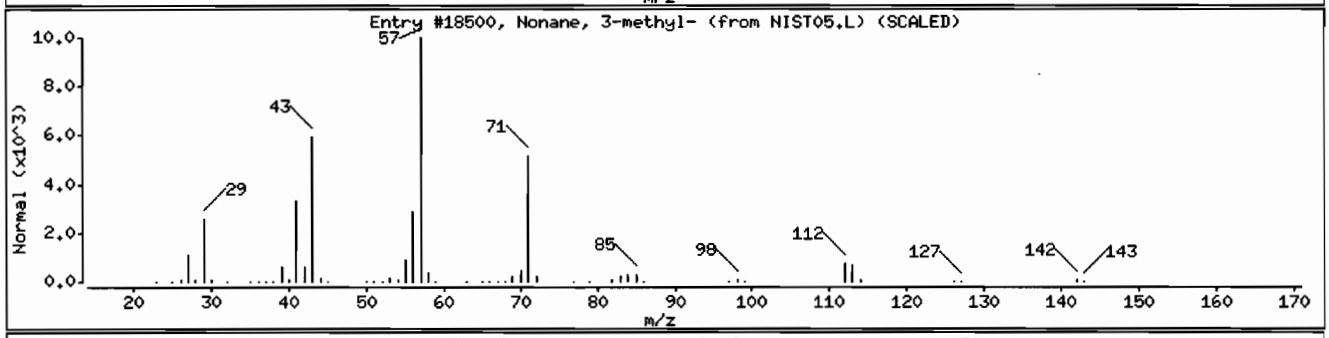

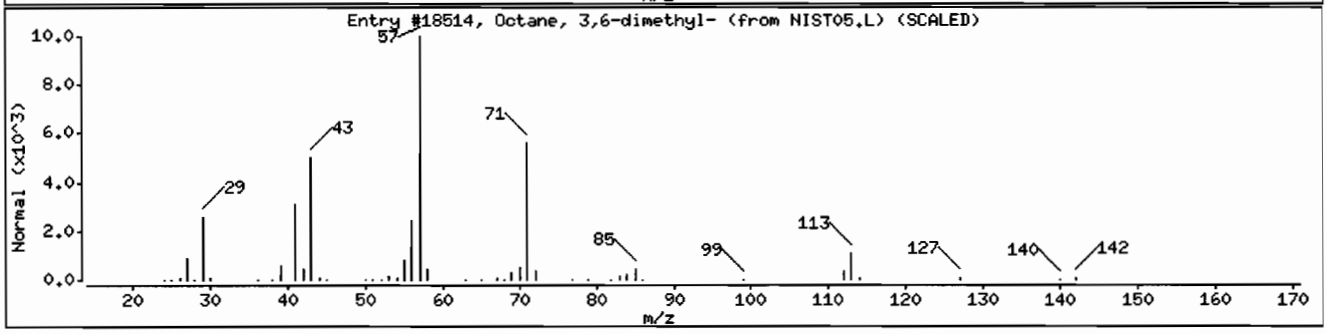

Data File: /chem/VOA1.i/031810v1/1c411.d

Date : 18-MAR-2010 14:16

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|100|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Decane, 4-methyl-	2847-72-5	NIST05.L	27242	90	C11H24	156
Decane, 4-methyl-	2847-72-5	NIST05.L	27248	90	C11H24	156
Nonane, 2,6-dimethyl-	17302-28-2	NIST05.L	27252	87	C11H24	156

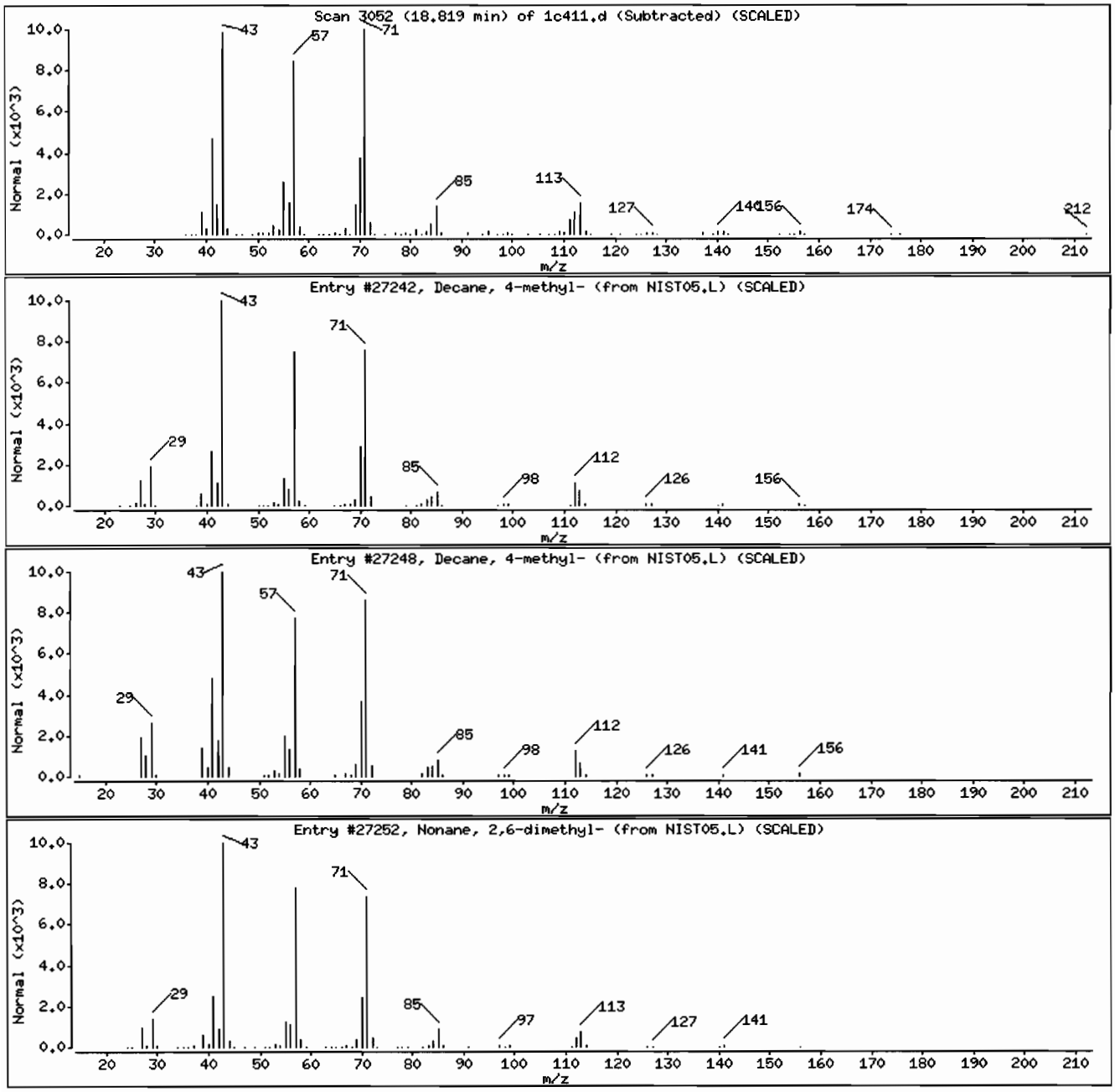

Data File: /chem/VOA1.i/031810v1/1c411.d

Date : 18-MAR-2010 14:16

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|1001|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16353	97	C10H18	138
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16354	96	C10H18	138
Naphthalene, decahydro-	91-17-8	NIST05.L	16321	95	C10H18	138

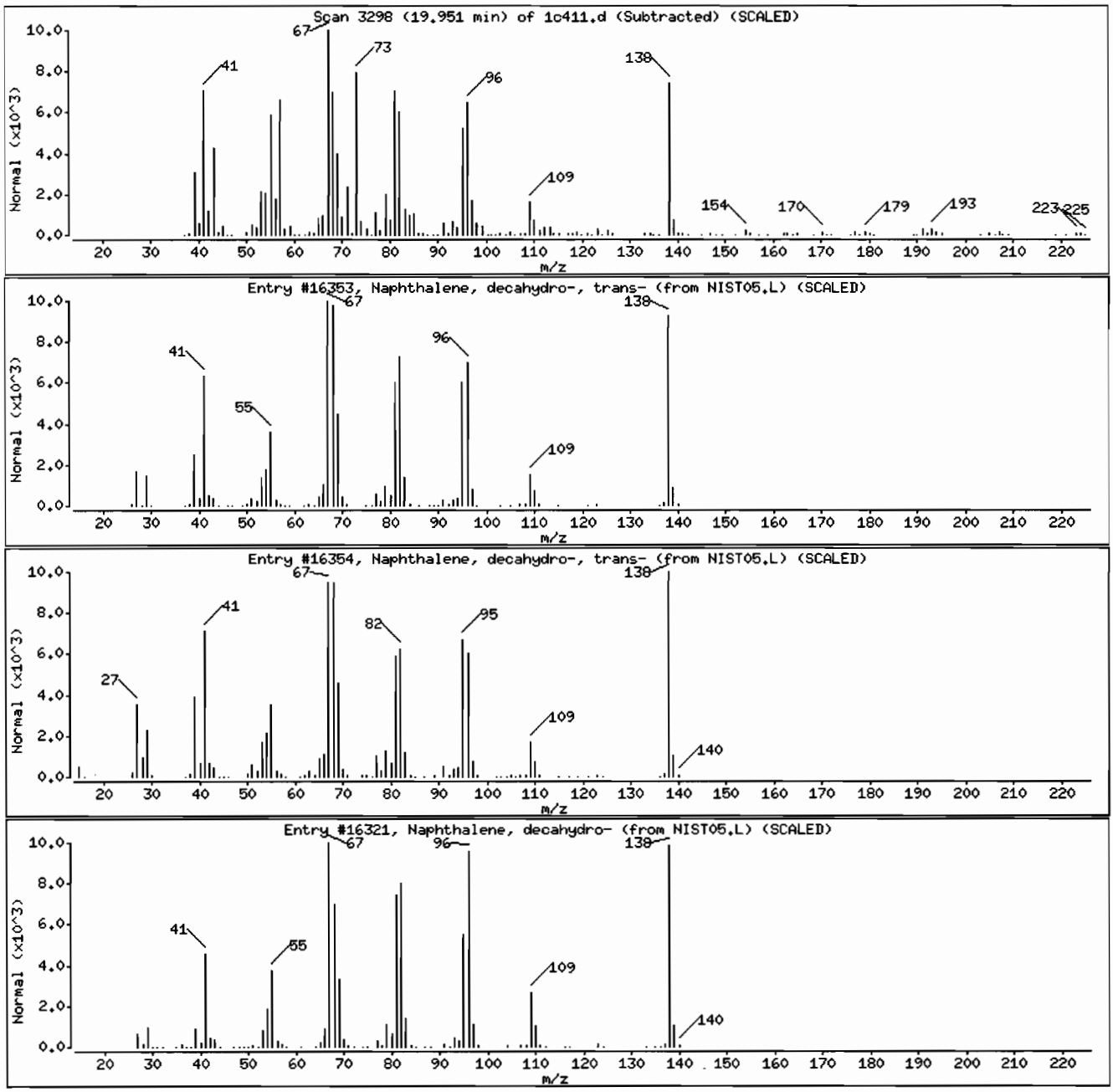

Data File: /chem/VOA1.i/031810v1/1c411.d

Date : 18-MAR-2010 14:16

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: 1248842007196587511001VOAF121

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 4-ethyl-1,2-dimethyl-	934-80-5	NIST05.L	14401	96	C10H14	134
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST05.L	14428	95	C10H14	134
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST05.L	14429	95	C10H14	134

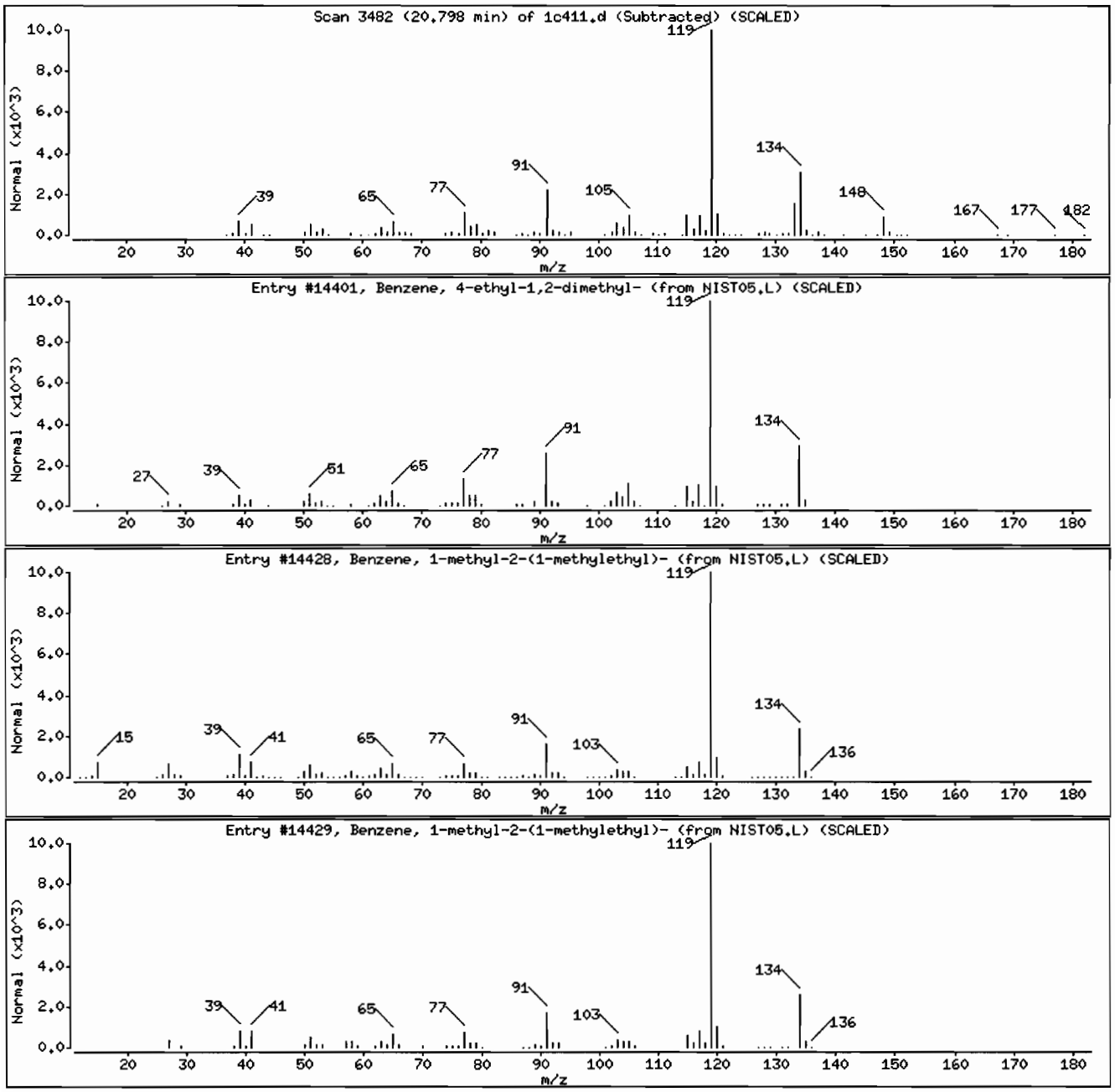

Data File: /chem/VOA1.i/031810v1/1c411.d

Date : 18-MAR-2010 14:16

Client ID: RE46-10-13546

Instrument: VOA1.i

Sample Info: |2488420071965875|100|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Undecane, 2,6-dimethyl-	17301-23-4	NIST05.L	46127	95	C13H28	184
Undecane, 2,6-dimethyl-	17301-23-4	NIST05.L	46136	95	C13H28	184
Dodecane, 6-methyl-	6044-71-9	NIST05.L	46099	91	C13H28	184

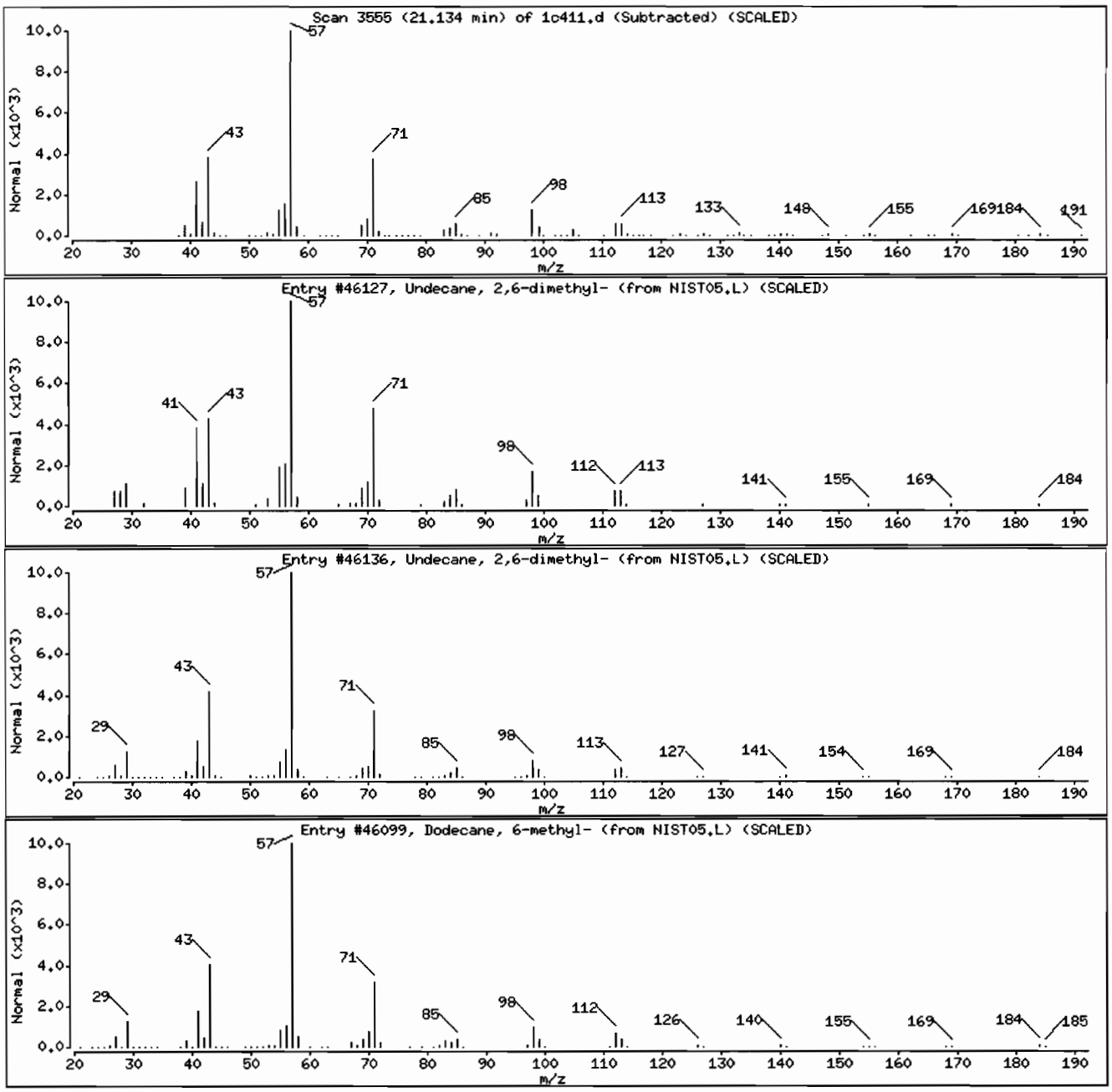

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13547**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 18:52**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c217.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.389	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.343	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.343	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.343	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.343	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.343	1.14
67-64-1	Acetone		68.2	ug/kg	1.90	5.72
75-35-4	1,1-Dichloroethylene		12.6	ug/kg	0.343	1.14
74-88-4	Iodomethane	U	5.72	ug/kg	1.83	5.72
75-09-2	Methylene chloride	U	5.72	ug/kg	2.29	5.72
75-15-0	Carbon disulfide	U	5.72	ug/kg	1.43	5.72
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.343	1.14
78-93-3	2-Butanone	U	5.72	ug/kg	1.72	5.72
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.343	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.343	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.343	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.378	1.14
71-55-6	1,1,1-Trichloroethane		100	ug/kg	0.343	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.343	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.343	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.343	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.343	1.14
79-01-6	Trichloroethylene	E	2640	ug/kg	0.378	1.14
78-87-5	1,2-Dichloropropane		2.98	ug/kg	0.343	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.343	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.343	1.14
108-10-1	4-Methyl-2-pentanone	U	5.72	ug/kg	1.43	5.72
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.343	1.14
108-88-3	Toluene		15.3	ug/kg	0.343	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.343	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.343	1.14
591-78-6	2-Hexanone	U	5.72	ug/kg	1.72	5.72
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.343	1.14
127-18-4	Tetrachloroethylene	E	201	ug/kg	0.343	1.14
124-48-1	Dibromochloromethane	J	0.353	ug/kg	0.343	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.343	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.343	1.14

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13547**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 18:52**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c217.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		3.96	ug/kg	0.343	1.14
179601-23-1	m,p-Xylenes	J	0.500	ug/kg	0.343	2.29
95-47-6	o-Xylene		6.82	ug/kg	0.343	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.343	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.343	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.343	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.343	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.343	1.14
103-65-1	n-Propylbenzene		12.1	ug/kg	0.343	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.343	1.14
98-82-8	Isopropylbenzene		3.80	ug/kg	0.343	1.14
108-67-8	1,3,5-Trimethylbenzene		40.8	ug/kg	0.343	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.343	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.343	1.14
95-63-6	1,2,4-Trimethylbenzene		19.4	ug/kg	0.343	1.14
135-98-8	sec-Butylbenzene		19.8	ug/kg	0.343	1.14
99-87-6	4-Isopropyltoluene		26.8	ug/kg	0.343	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14
104-51-8	n-Butylbenzene		42.9	ug/kg	0.343	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.343	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.72	ug/kg	1.83	5.72
630-20-6	1,1,1,2-Tetrachloroethane		2.38	ug/kg	0.343	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.343	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	17.66	59.4	ug/kg		J
	Unknown Hydrocarbon	17.84	68.2	ug/kg		J
	Unknown Hydrocarbon	18.03	263	ug/kg		J
	Unknown Hydrocarbon	18.17	116	ug/kg		J
	Unknown Hydrocarbon	18.46	13.7	ug/kg		J
	Unknown Hydrocarbon	19.74	99.1	ug/kg		J
	Unknown Hydrocarbon	19.96	127	ug/kg		J
	Unknown Hydrocarbon	20.65	131	ug/kg		J
	Unknown Hydrocarbon	20.8	17.6	ug/kg		J
	Unknown Hydrocarbon	20.95	56.1	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13547**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 18:52**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c217.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	21.35	21.4	ug/kg		J
	Unknown Hydrocarbon	21.68	16	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c217.d
Lab Smp Id: 248842009 Client Smp ID: RE46-10-13547
Inj Date : 16-MAR-2010 18:52
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842009|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	12.65350	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	1203943	50.0000	
* 76 Chlorobenzene-d5	117	17.147	17.148	(1.000)	889943	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	597871	50.0000	(Q)
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	568032	48.3209	55.3
$ 65 Toluene-d8	98	15.509	15.504	(0.904)	1490881	49.8093	57.0
$ 87 Bromofluorobenzene	95	18.376	18.377	(0.938)	883458	58.9391	67.5
16 Acetone	43	9.239	9.239	(0.676)	424808	59.5624	68.2
15 1,1-Dichloroethylene	61	9.055	9.060	(0.662)	146096	11.0120	12.6
43 1,1,1-Trichloroethane	97	12.834	12.834	(0.939)	907972	87.7797	100
54 Trichloroethylene	95	14.105	14.105	(1.032)	16411101	2307.16	2640(A)
57 1,2-Dichloropropane	63	14.441	14.450	(1.056)	19741	2.60395	3.0
66 Toluene	92	15.582	15.582	(0.909)	229153	13.3501	15.3
70 Tetrachloroethylene	164	16.181	16.181	(0.944)	964847	175.981	201(A)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
73 Dibromochloromethane	129	16.531	16.540	(0.964)	2166	0.30854	0.35(a)
79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	13624	2.07618	2.4
78 Ethylbenzene	91	17.207	17.207	(1.003)	118561	3.45732	4.0
80 m,p-Xylenes	106	17.322	17.322	(1.010)	5311	0.43687	0.50(a)
81 o-Xylene	106	17.773	17.769	(1.036)	71091	5.95689	6.8
89 n-Propylbenzene	91	18.547	18.547	(0.946)	527471	10.6081	12.1
84 Isopropylbenzene	105	18.114	18.114	(0.924)	134960	3.32048	3.8
93 1,3,5-Trimethylbenzene	105	18.708	18.703	(0.955)	1265762	35.6737	40.8
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	625213	16.9528	19.4
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	782829	17.3314	19.8
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	823729	23.4139	26.8
105 n-Butylbenzene	91	19.859	19.854	(1.013)	1424799	37.5065	42.9

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

VOA REPORT

Data file: 1c217.d
Report Date: 03/17/2010 05:38
Lab. ID: 248842009 SampleType: SAMPLE
Injection Date: 16-MAR-2010 18:52
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248842009|965875|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
15 1,1-Dichloroethylene				CAS#: 75-35-4		
61	146096	9.06	9.06	80-120	100	( )
63	46739	9.05	9.07	2- 62	32	( )
96	72261	9.06	9.07	14- 74	49	( )
16 Acetone				CAS#: 67-64-1		
43	424808	9.24	9.24	80-120	100	( )
58	126084	9.24	9.24	0- 56	30	( )
43 1,1,1-Trichloroethane				CAS#: 71-55-6		
97	907972	12.83	12.83	80-120	100	( )
99	596462	12.83	12.83	35- 95	66	( )
61	382079	12.83	12.83	13- 73	42	( )
44 Carbon tetrachloride				CAS#: 56-23-5		
117	99473	12.83	13.01	80-120	100	(T)
119	91216	12.84	13.01	63-123	92	(T)
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	20189	13.67	13.43	80-120	100	(T)
64	2926	13.67	13.43	3- 63	14	(T)
54 Trichloroethylene				CAS#: 79-01-6		
95	16411101	14.10	14.10	80-120	100	( )
97	11770370	14.11	14.10	36- 96	72	( )
130	14191697	14.11	14.10	51-111	86	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
57 1,2-Dichloropropane			CAS#: 78-87-5			
63	19741	14.44	14.45	80-120	100	( )
62	15082	14.45	14.45	42-102	76	( )
60 Bromodichloromethane			CAS#: 75-27-4			
83	3557	15.21	14.74	80-120	100	(T)
85	532	15.15	14.74	35- 95	15	(QT)
63 cis-1,3-Dichloropropylene			CAS#: 10061-01-5			
75	4840	15.59	15.25	80-120	100	(T)
77	3660	15.49	15.24	1- 61	76	(QT)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	14969	15.50	15.34	80-120	100	(T)
43	49284	15.50	15.35	227-287	329	(QT)
100	934996	15.50	15.35	0- 60	6246	(QT)
66 Toluene			CAS#: 108-88-3			
92	229153	15.58	15.58	80-120	100	( )
91	393970	15.58	15.58	141-201	172	( )
68 trans-1,3-Dichloropropylene			CAS#: 10061-02-6			
75	18407	15.67	15.87	80-120	100	(T)
77	41161	15.73	15.87	1- 61	224	(QT)
69 1,1,2-Trichloroethane			CAS#: 79-00-5			
83	25709	16.18	16.09	80-120	100	(T)
97	19019	16.18	16.09	87-147	74	(QT)
85	48703	16.01	16.09	34- 94	189	(QT)
72 1,3-Dichloropropane			CAS#: 142-28-9			
76	10609	16.49	16.30	80-120	100	(T)
78	18918	16.49	16.30	3- 63	178	(QT)
71 2-Hexanone			CAS#: 591-78-6			
43	61847	16.15	16.25	80-120	100	(T)
58	8083	16.15	16.25	23- 83	13	(QT)
70 Tetrachloroethylene			CAS#: 127-18-4			
164	964847	16.18	16.18	80-120	100	( )
129	901201	16.18	16.18	67-127	93	( )
131	882870	16.18	16.18	62-122	92	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
73 Dibromochloromethane			CAS#: 124-48-1			
129	2166	16.53	16.54	80-120	100	( )
127	1214	16.54	16.54	46-106	56	( )
77 Chlorobenzene			CAS#: 108-90-7			
112	14636	17.18	17.18	80-120	100	( )
77	35559	17.15	17.18	62-122	243	(Q)
114	1538	17.18	17.18	1- 61	11	( )
79 1,1,1,2-Tetrachloroethane			CAS#: 630-20-6			
131	13624	17.25	17.25	80-120	100	( )
133	13379	17.25	17.25	67-127	98	( )
119	8985	17.25	17.25	26- 86	66	( )
78 Ethylbenzene			CAS#: 100-41-4			
91	118561	17.21	17.21	80-120	100	( )
106	33024	17.21	17.21	0- 57	28	( )
81 o-Xylene			CAS#: 95-47-6			
106	71091	17.77	17.77	80-120	100	( )
91	181429	17.77	17.77	226-286	255	( )
80 m,p-Xylenes			CAS#:			
106	5311	17.32	17.32	80-120	100	( )
91	14063	17.32	17.32	209-269	265	( )
82 Styrene			CAS#: 100-42-5			
104	8916	18.05	17.79	80-120	100	(T)
78	5595	18.02	17.79	38- 98	63	(T)
84 Isopropylbenzene			CAS#: 98-82-8			
105	134960	18.11	18.11	80-120	100	( )
120	30531	18.12	18.12	0- 52	23	( )
88 1,1,2,2-Tetrachloroethane			CAS#: 79-34-5			
83	428053	18.47	18.50	80-120	100	( )
85	1555154	18.52	18.50	35- 95	363	(Q)
92 1,2,3-Trichloropropane			CAS#: 96-18-4			
110	187476	18.60	18.59	80-120	100	( )
75	7229	18.65	18.59	316-376	4	(Q)
77	450468	18.70	18.58	769-829	240	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
91 Bromobenzene			CAS#: 108-86-1			
156	3331	18.62	18.58	80-120	100	( )
77	766400	18.70	18.58	217-277	23007	(QT)
158	137	18.59	18.58	70-130	4	(Q)
89 n-Propylbenzene			CAS#: 103-65-1			
91	615816	18.55	18.55	80-120	100	( )
120	97980	18.55	18.55	0- 49	16	( )
94 2-Chlorotoluene			CAS#: 95-49-8			
91	134495	18.70	18.73	80-120	100	( )
126	38399	18.83	18.73	0- 52	29	(T)
93 1,3,5-Trimethylbenzene			CAS#: 108-67-8			
105	1265762	18.71	18.70	80-120	100	( )
120	517268	18.71	18.70	9- 69	41	( )
97 1,2,4-Trimethylbenzene			CAS#: 95-63-6			
105	625213	19.12	19.12	80-120	100	( )
120	237655	19.12	19.12	7- 67	38	( )
95 4-Chlorotoluene			CAS#: 106-43-4			
91	114569	18.96	18.84	80-120	100	(T)
126	41584	18.92	18.84	0- 54	36	(T)
96 tert-Butylbenzene			CAS#: 98-06-6			
119	43126	19.07	19.06	80-120	100	( )
91	142062	18.96	19.06	58-118	329	(QT)
134	9110	19.06	19.06	0- 51	21	( )
99 sec-Butylbenzene			CAS#: 135-98-8			
105	782829	19.29	19.29	80-120	100	( )
134	217676	19.29	19.29	0- 47	28	( )
100 4-Isopropyltoluene			CAS#: 99-87-6			
119	817622	19.41	19.41	80-120	100	( )
134	194869	19.41	19.41	0- 53	24	( )
91	540212	19.25	19.41	1- 61	66	(QT)
103 1,4-Dichlorobenzene			CAS#: 106-46-7			
146	13776	20.06	19.62	80-120	100	(T)
111	978332	19.60	19.62	17- 77	7102	(Q)
148	8802	20.06	19.62	35- 95	64	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
105	n-Butylbenzene		CAS#: 104-51-8			
91	1338268	19.86	19.85	80-120	100	( )
92	750910	19.85	19.85	24- 84	56	( )
134	1388924	19.80	19.85	0- 51	104	(Q)
106	1,2-Dichlorobenzene		CAS#: 95-50-1			
146	13776	20.06	20.07	80-120	100	( )
111	2232136	19.60	20.07	20- 80	16203	(QT)
148	8802	20.06	20.07	36- 96	64	( )
108	1,2-Dibromo-3-chloropropane		CAS#: 96-12-8			
157	2693	20.60	20.98	80-120	100	(T)
155	4404	20.61	20.99	49-109	164	(QT)
75	23142	20.65	20.99	102-162	859	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c217.d
Lab Smp Id: 248842009 Client Smp ID: RE46-10-13547
Inj Date : 16-MAR-2010 18:52
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842009|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	12.65350	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.147	6516374	50.000
* 102 1,4-Dichlorobenzene-d4	19.596	34758019	50.000

	CONCENTRATIONS			QUANT			
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon					CAS #:		
17.663	6759438	51.8650165	59.4	0		0	76

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon				CAS #:			
17.842	7768052	59.6040882	68.2	0		0	76
Unknown Hydrocarbon				CAS #:			
18.031	29969119	229.952380	263	0		0	76
Unknown Hydrocarbon				CAS #:			
18.169	13214718	101.396241	116	0		0	76
Unknown Hydrocarbon				CAS #:			
18.464	8292899	11.9294766	13.6	0		0	102
Unknown Hydrocarbon				CAS #:			
19.744	60178977	86.5684792	99.1	0		0	102
Unknown Hydrocarbon				CAS #:			
19.955	77365936	111.292211	127	0		0	102
Unknown Hydrocarbon				CAS #:			
20.646	79621559	114.536963	131	0		0	102
Unknown Hydrocarbon				CAS #:			
20.798	10661327	15.3365004	17.6	0		0	102
Unknown Hydrocarbon				CAS #:			
20.950	34044556	48.9736711	56.1	0		0	102
Unknown Hydrocarbon				CAS #:			
21.350	12991042	18.6878347	21.4	0		0	102
Unknown Hydrocarbon				CAS #:			
21.677	9740606	14.0120264	16.0	0		0	102

Data File: /chem/VOA1.i/031610v1/1c217.d
Date : 16-MAR-2010 18:52
Client ID: RE46-10-13547
Sample Info: 1248842009196587511|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

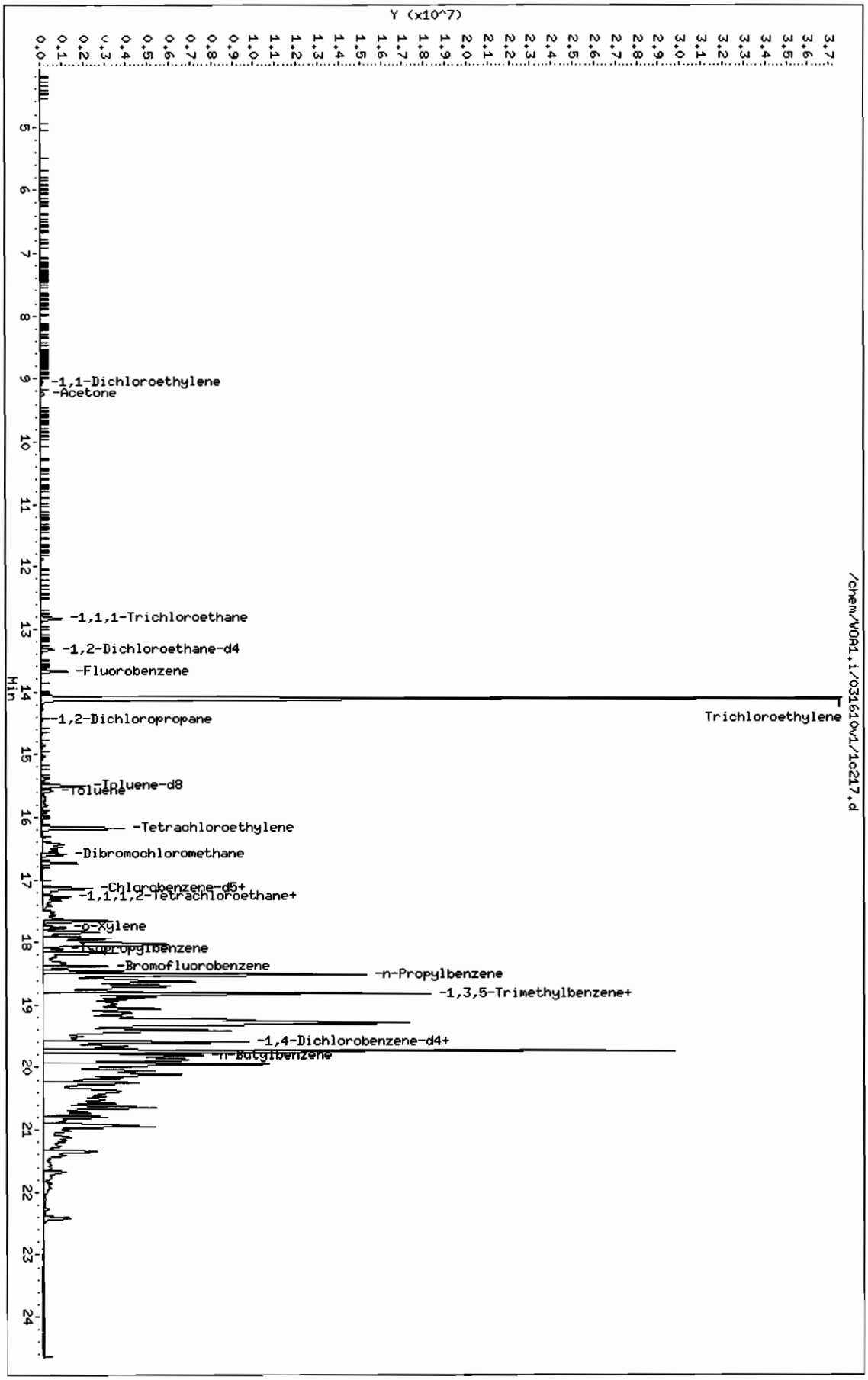

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 68.2 ug/Kg

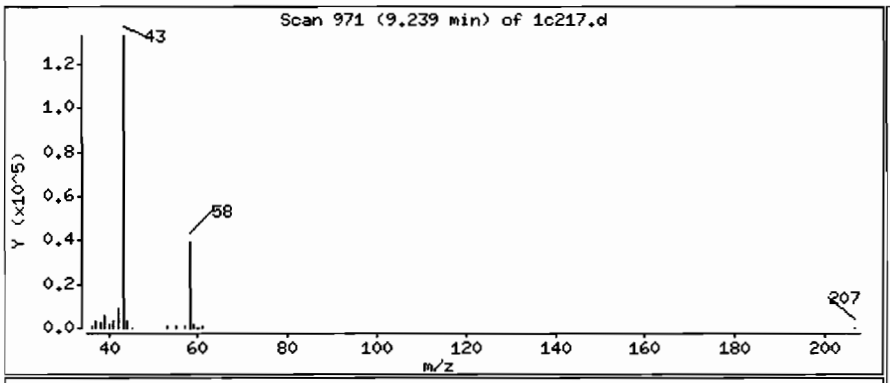

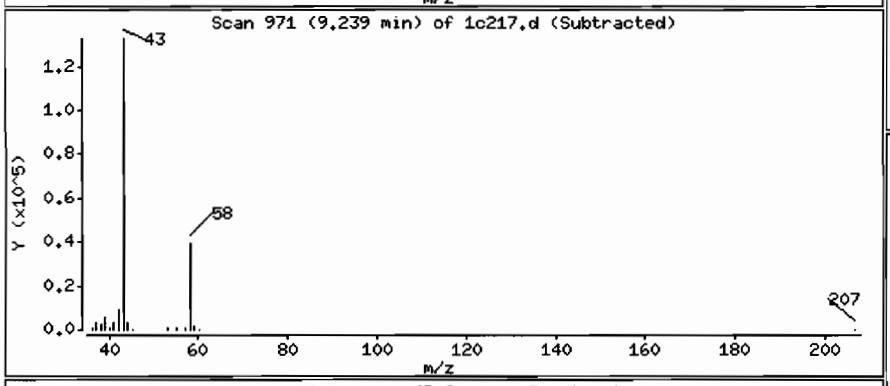

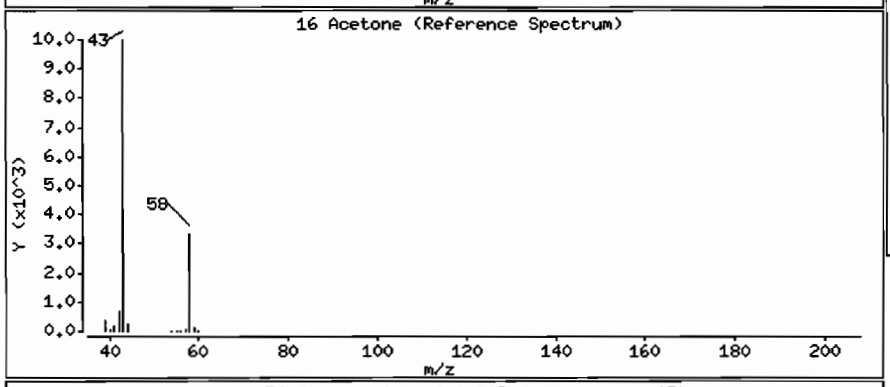

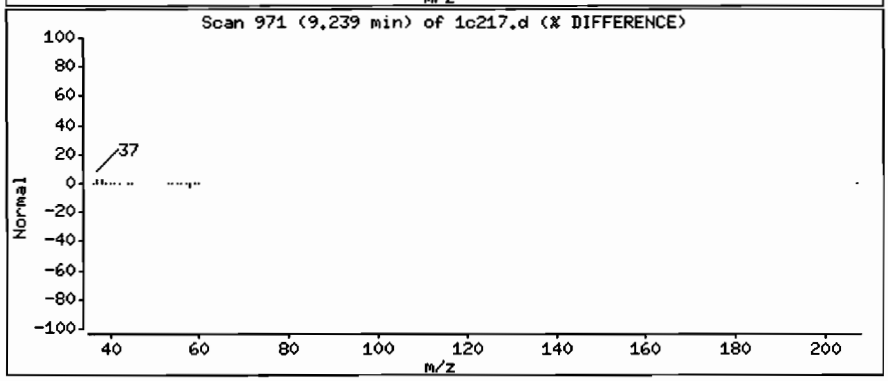

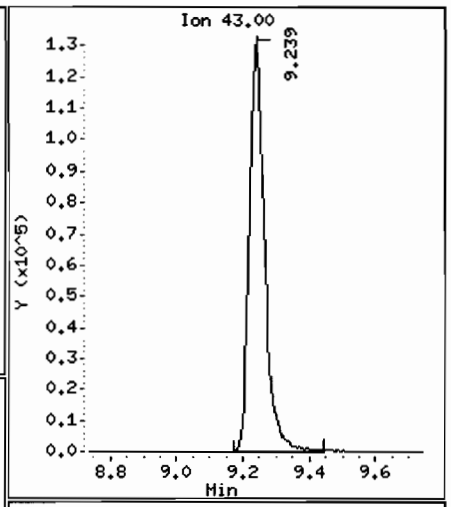

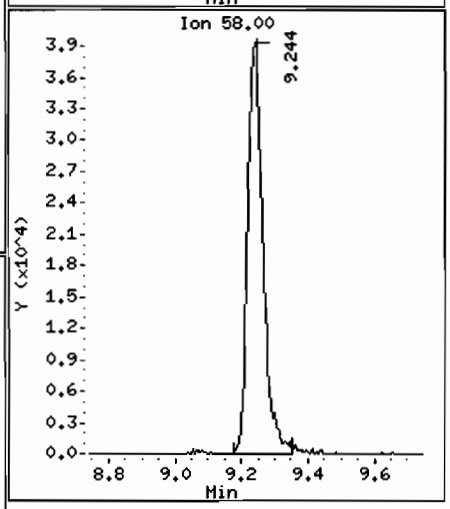

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

15 1,1-Dichloroethylene

Concentration: 12.6 ug/Kg

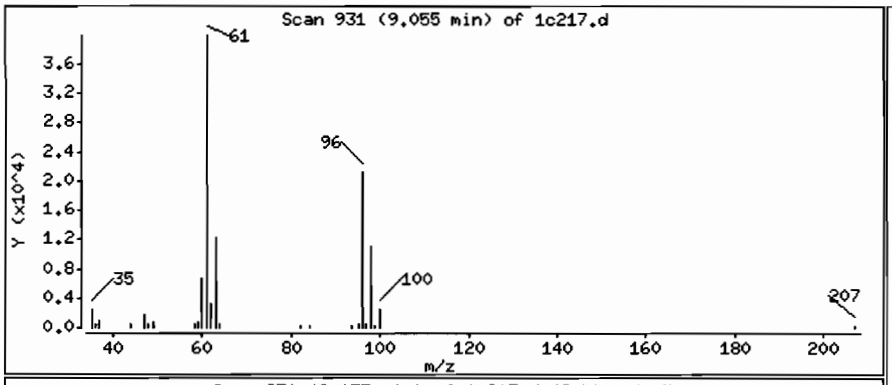

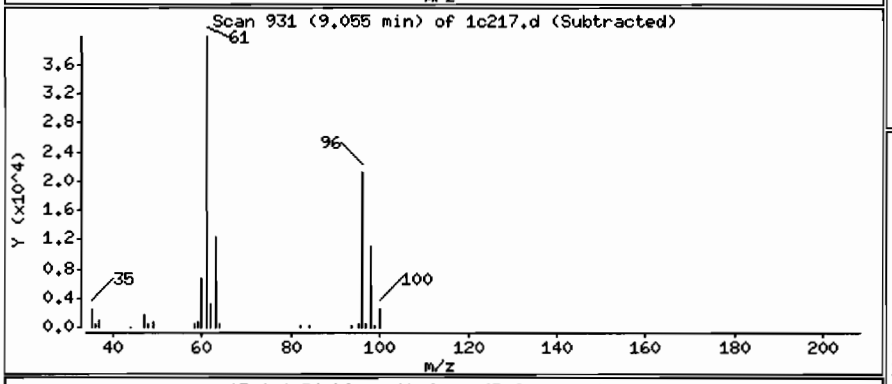

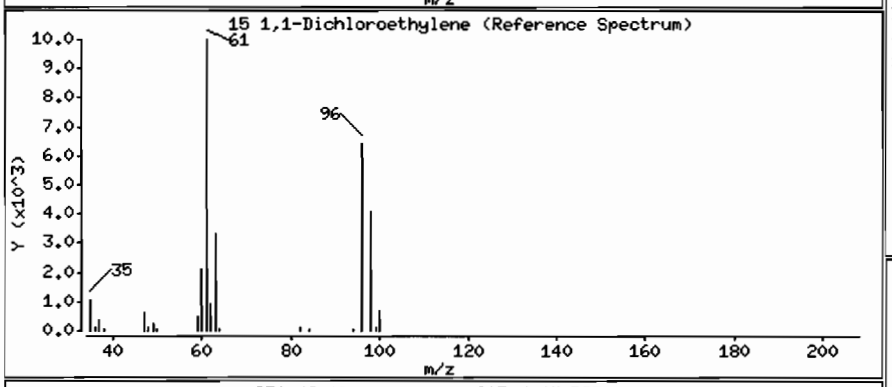

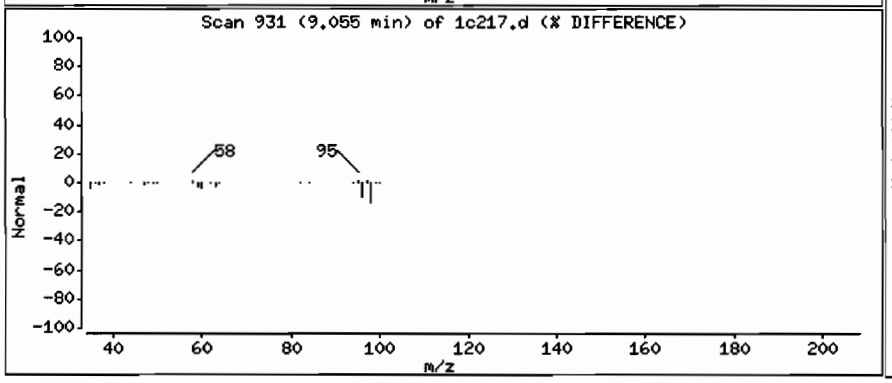

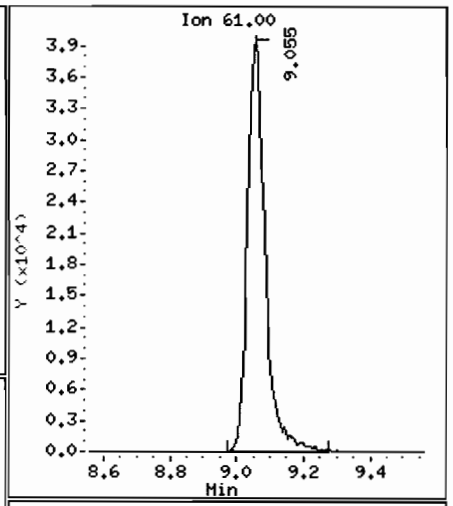

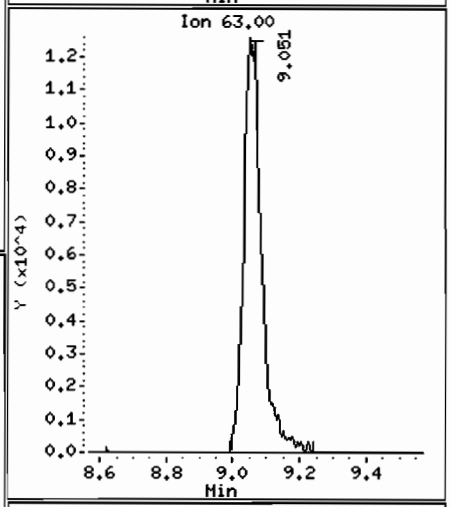

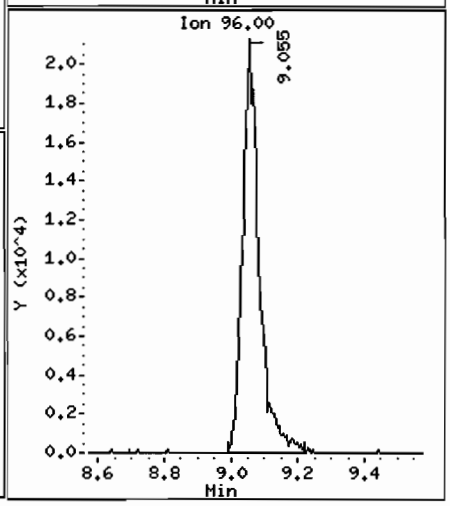

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

43 1,1,1-Trichloroethane

Concentration: 100 ug/Kg

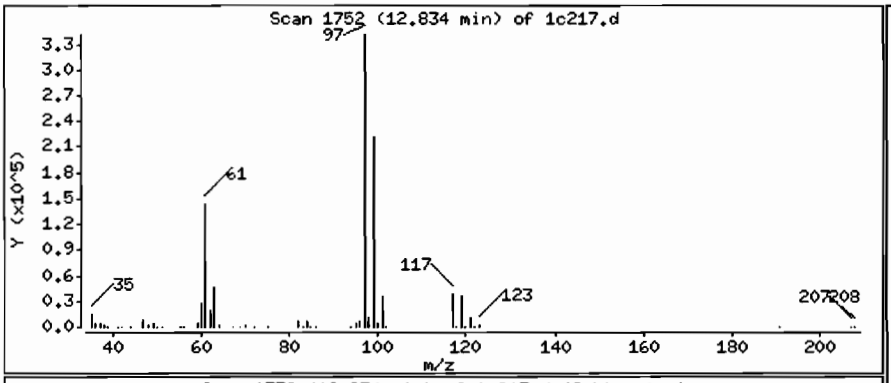

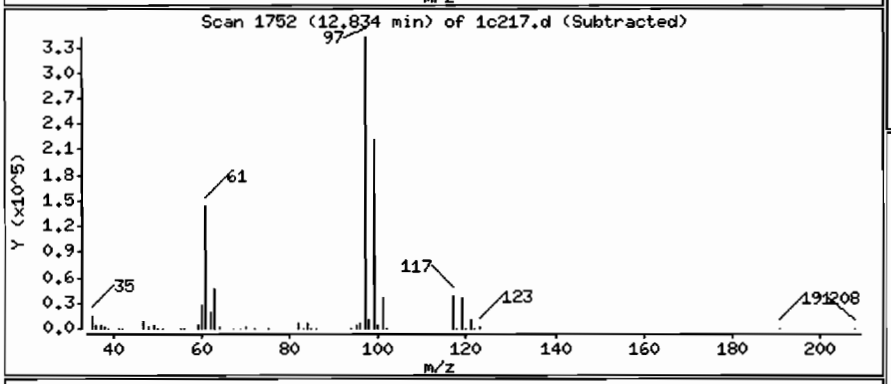

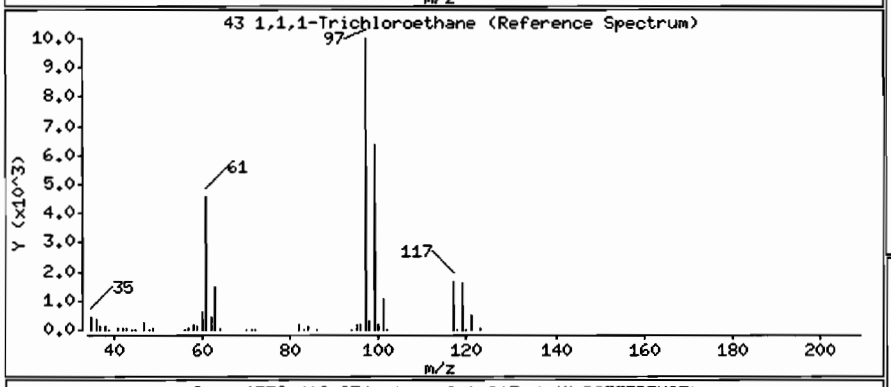

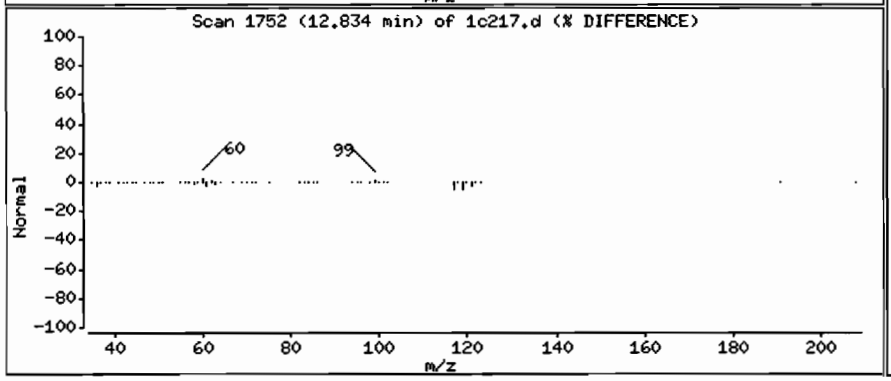

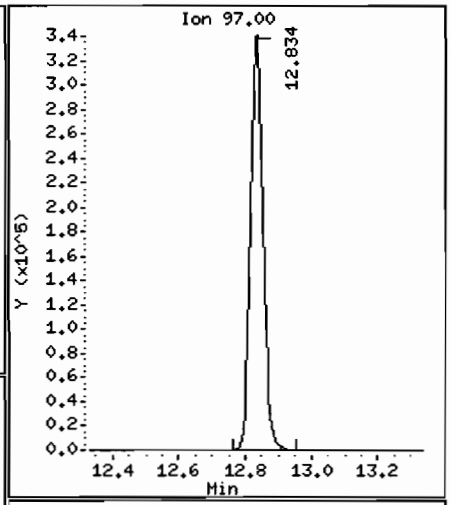

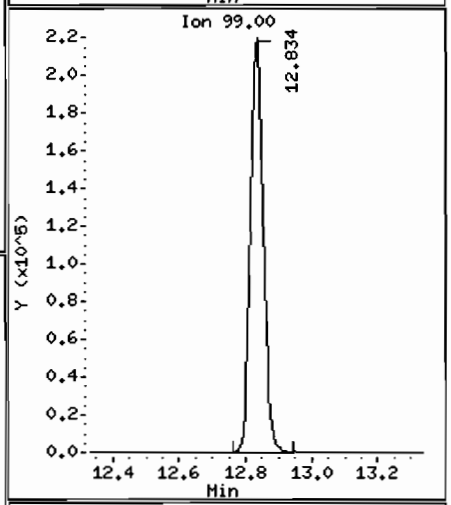

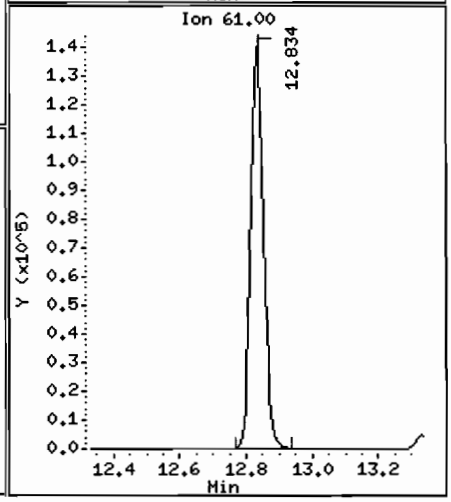

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

54 Trichloroethylene

Concentration: 2640 ug/Kg

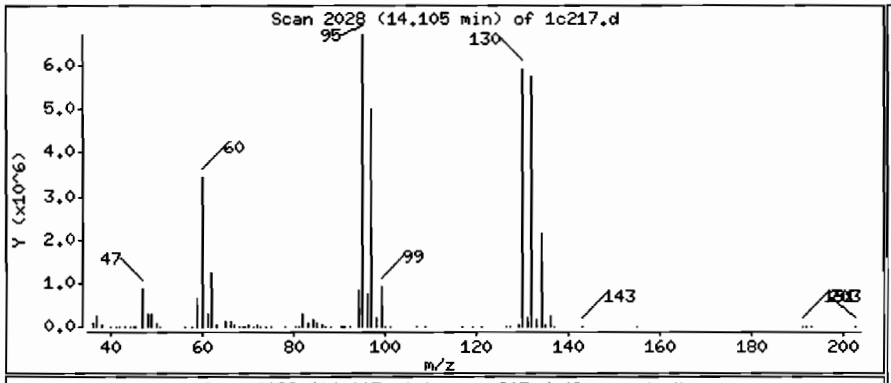

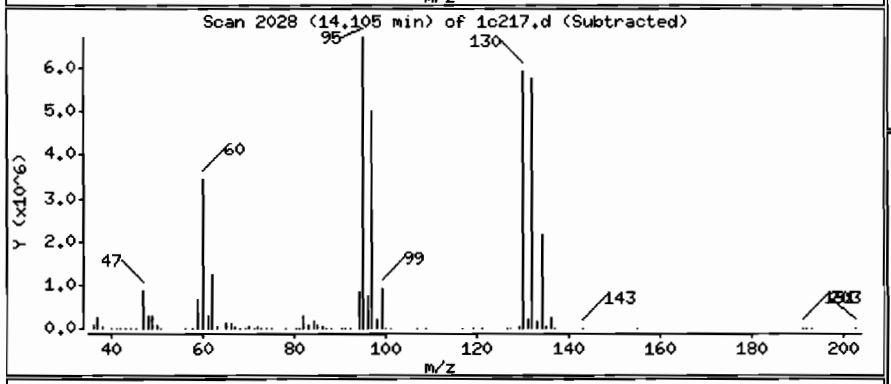

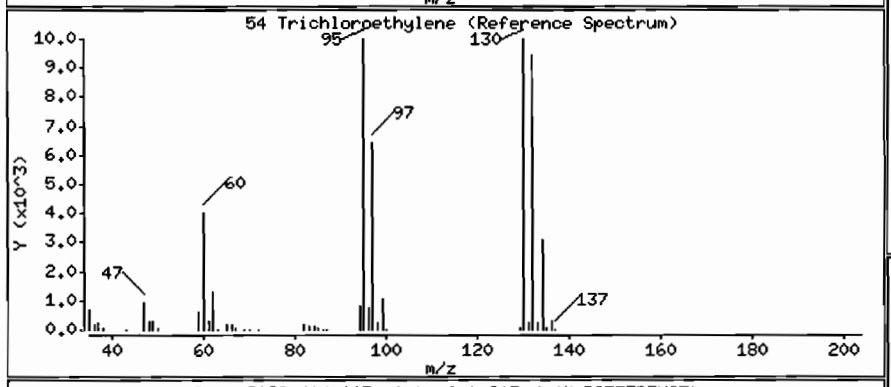

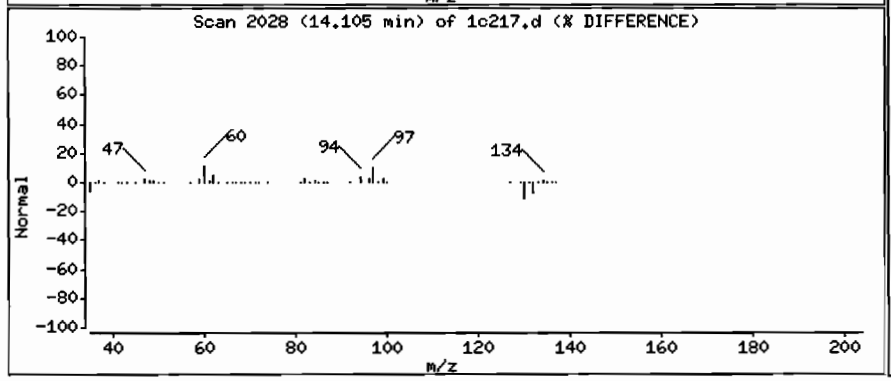

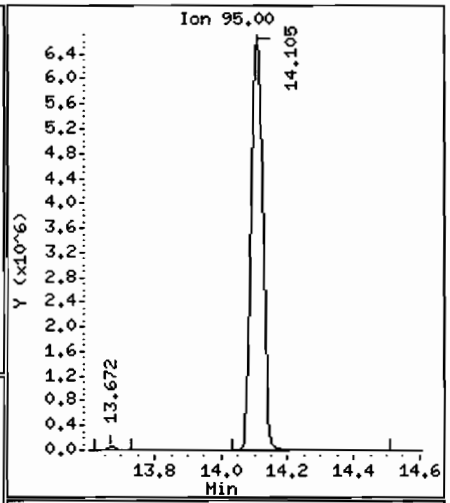

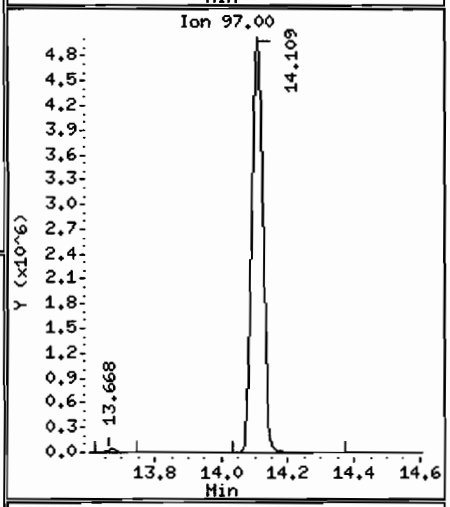

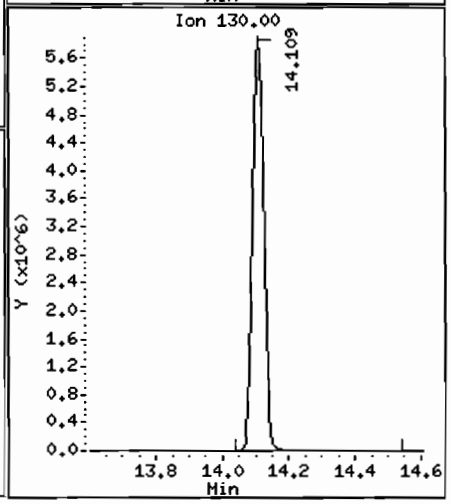

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

57 1,2-Dichloropropane

Concentration: 3.0 ug/Kg

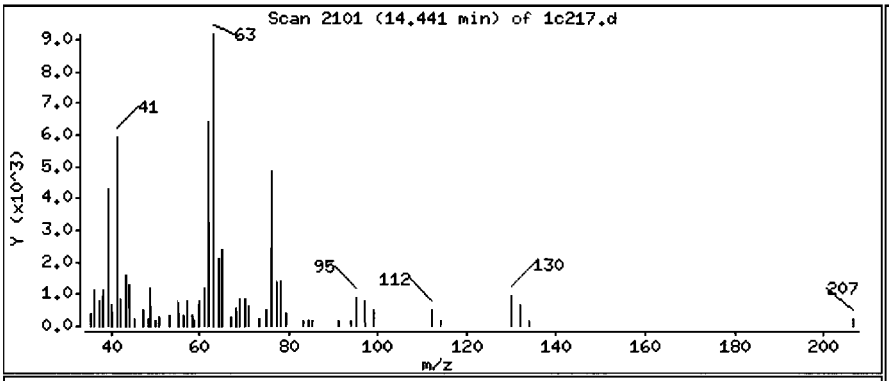

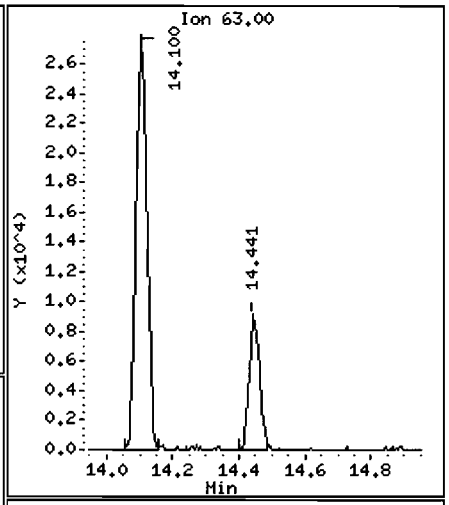

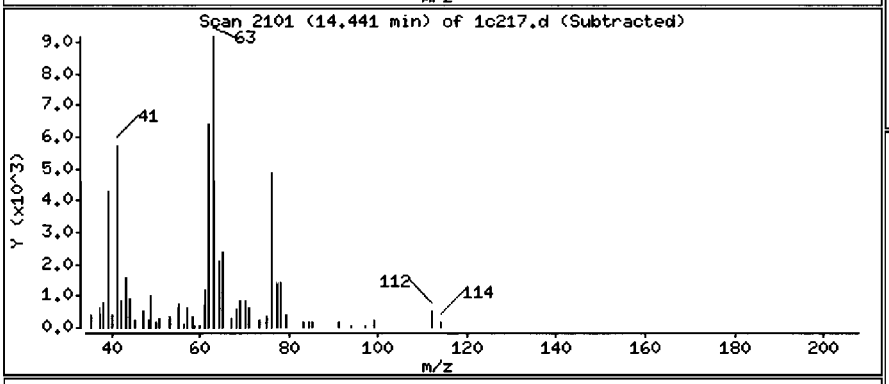

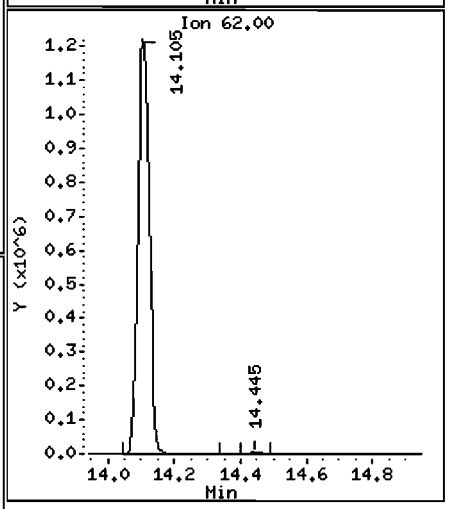

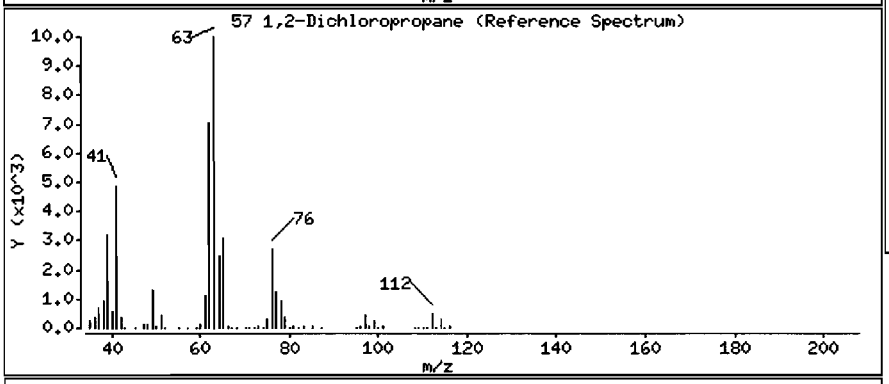

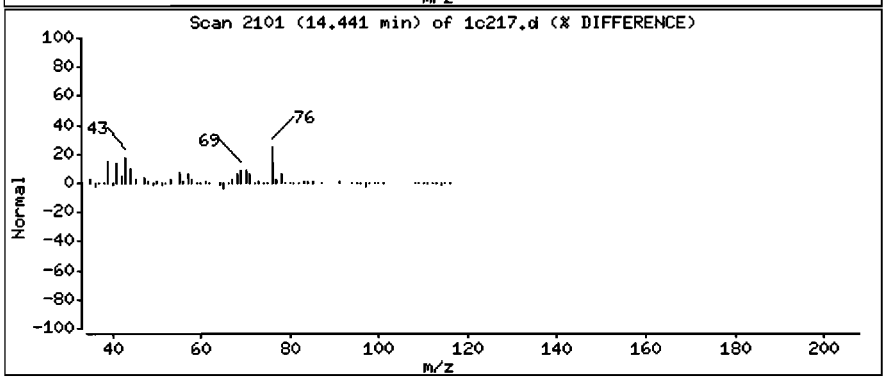

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

66 Toluene

Concentration: 15.3 ug/Kg

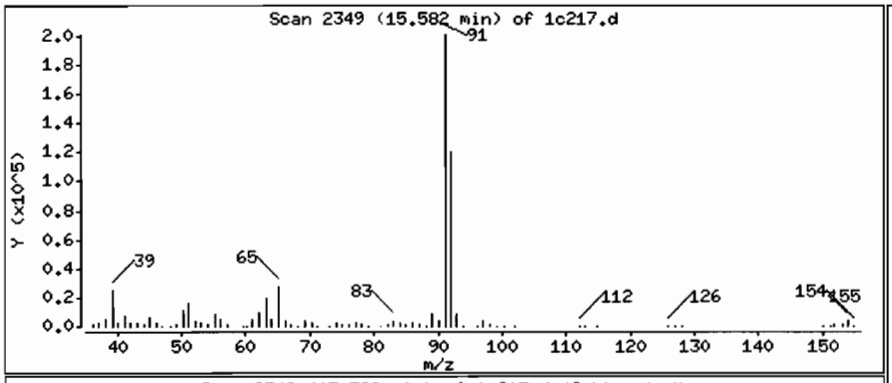

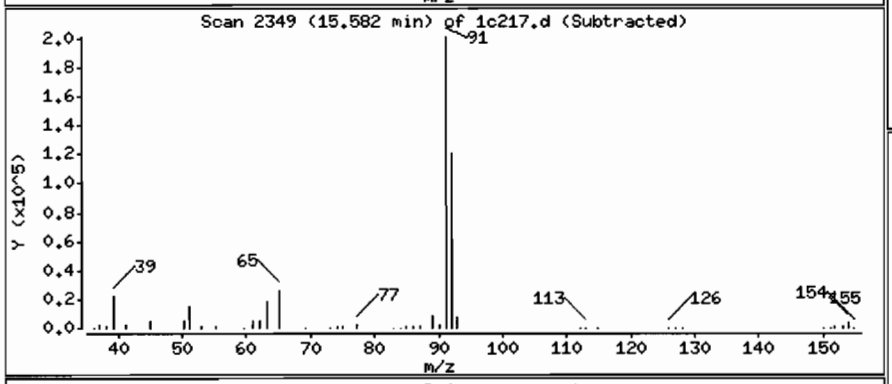

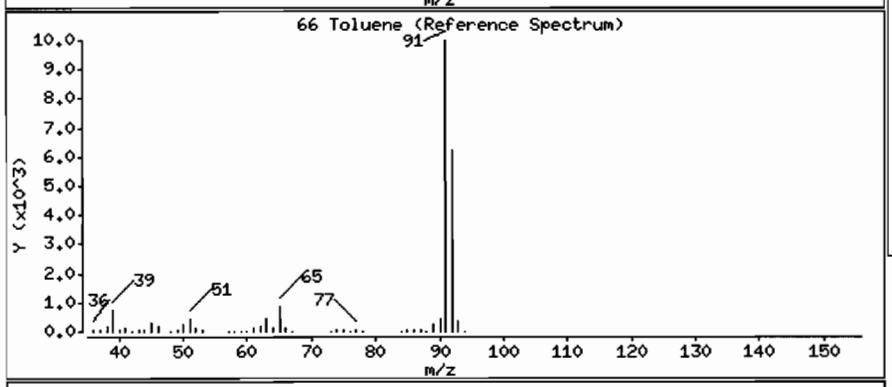

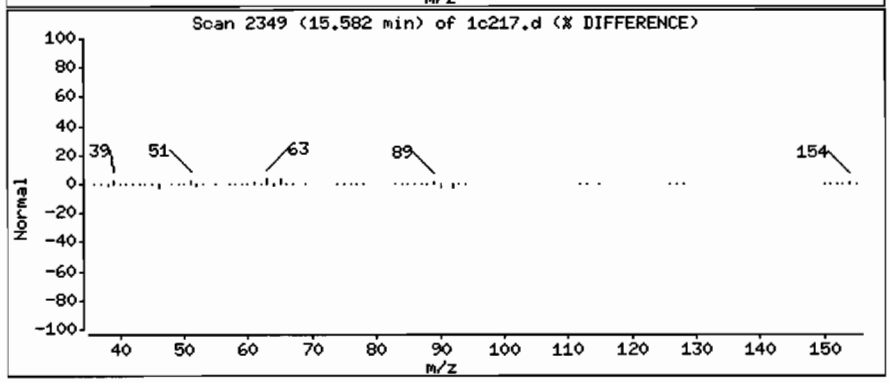

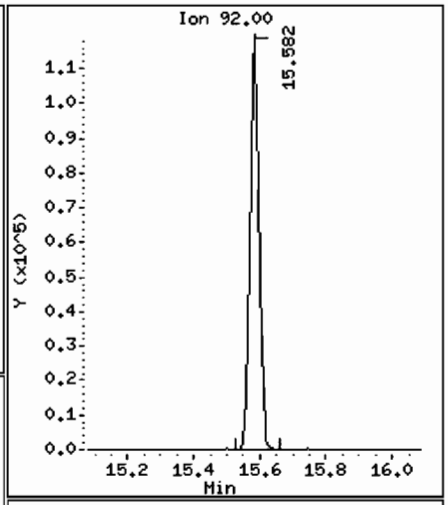

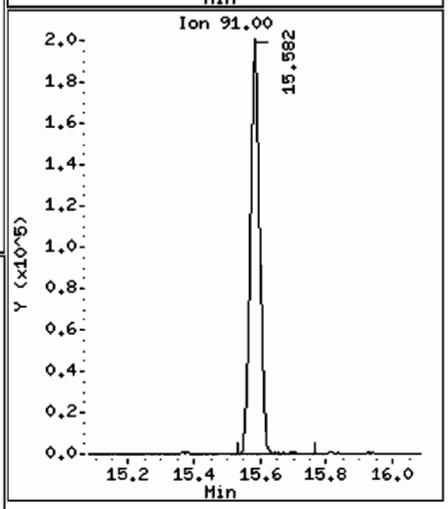

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

70 Tetrachloroethylene

Concentration: 201 ug/Kg

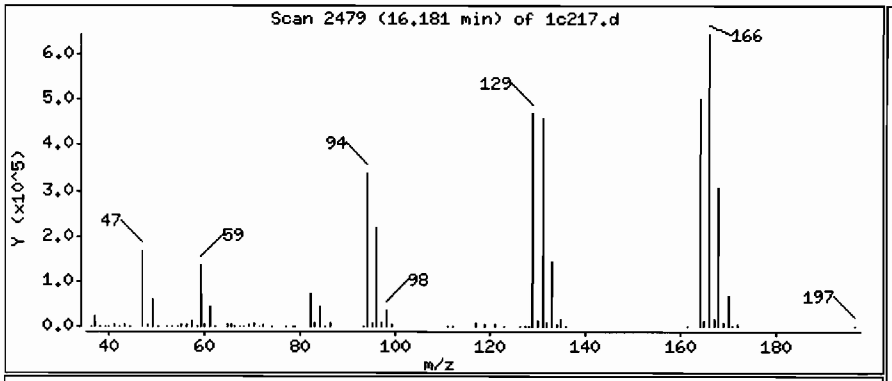

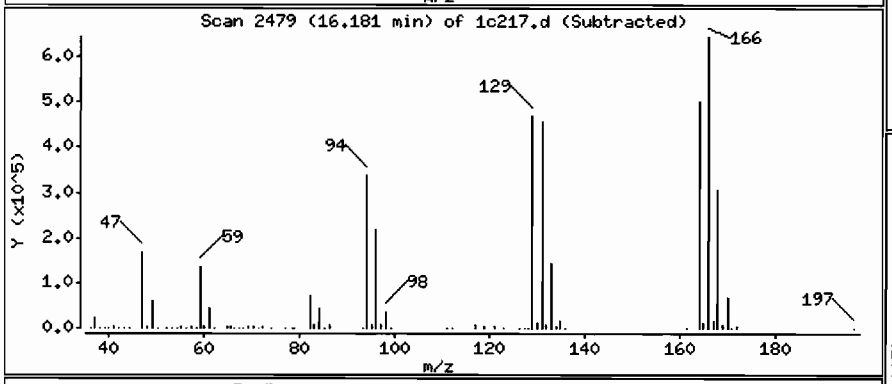

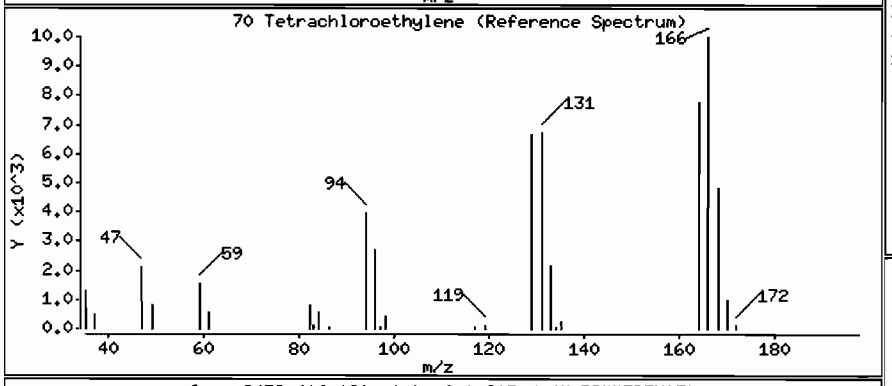

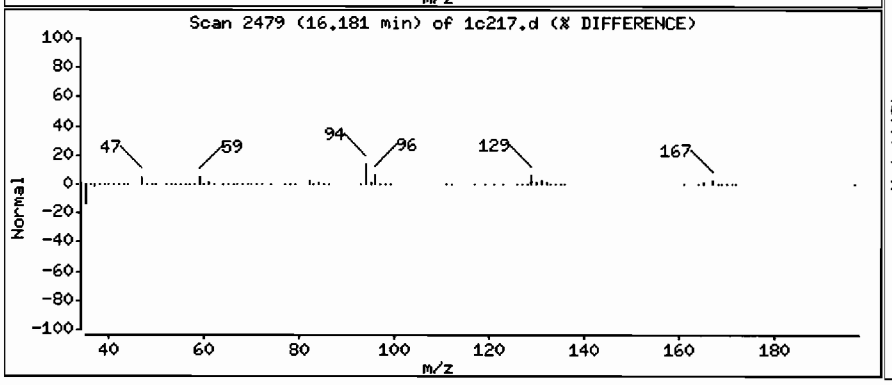

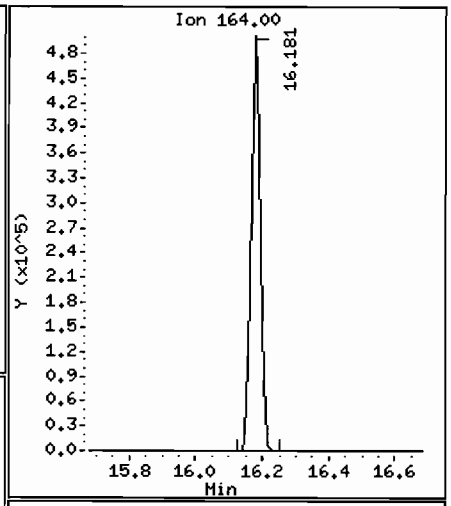

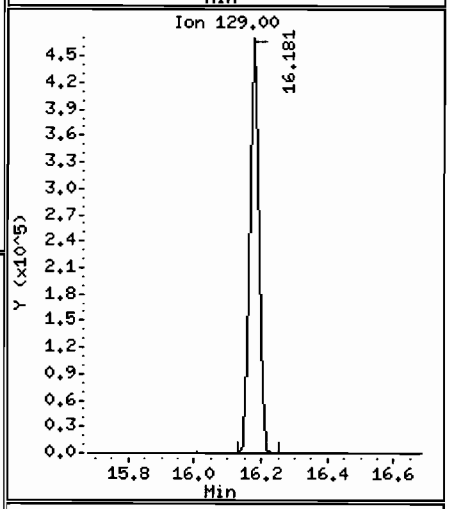

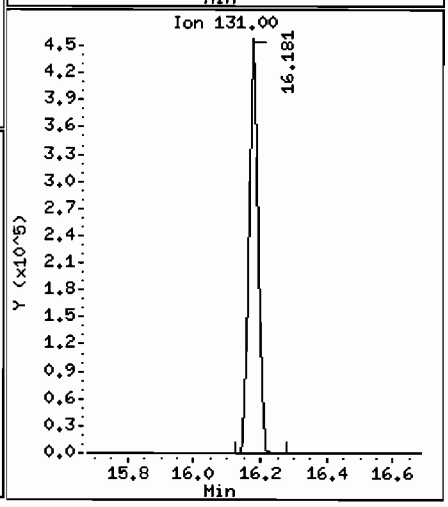

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: 1248842009196587511VOAF111

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

73 Dibromochloromethane

Concentration: 0.35 ug/Kg

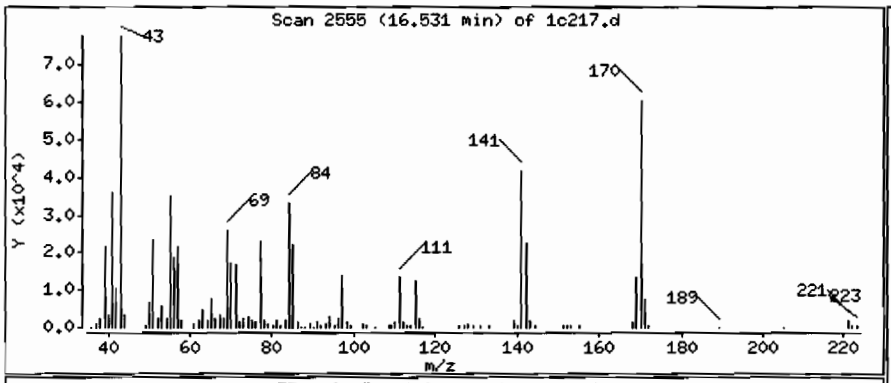

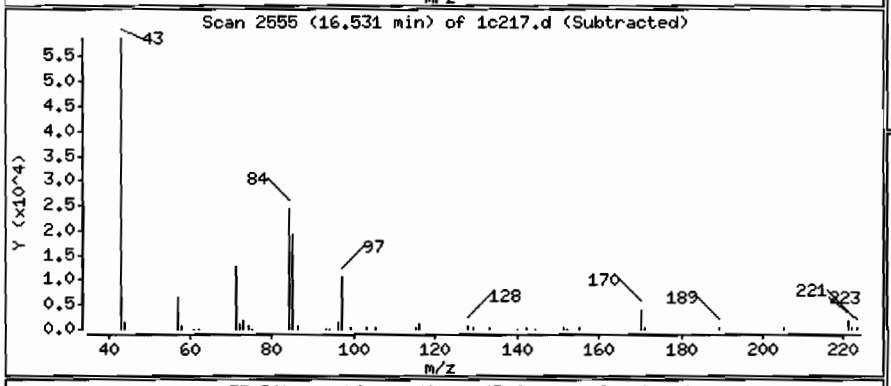

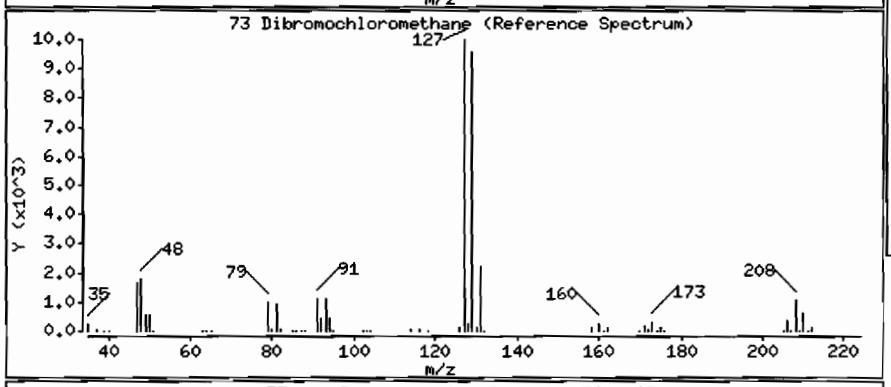

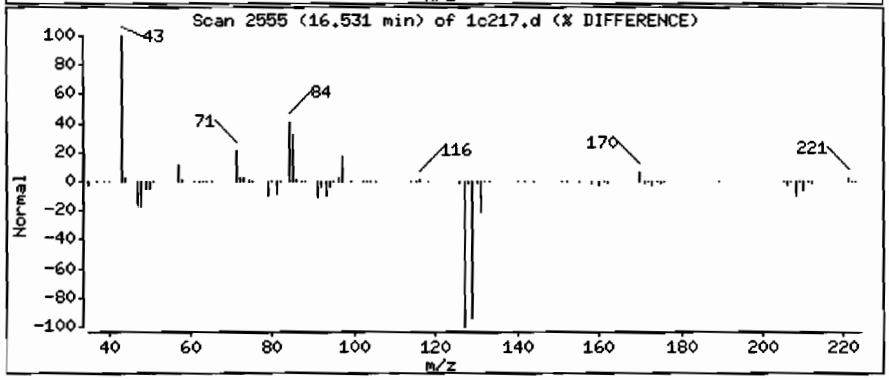

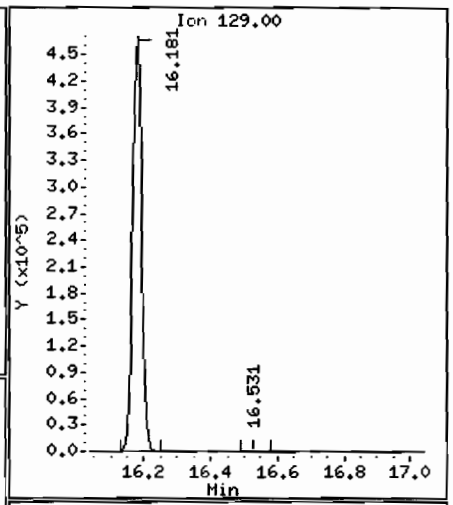

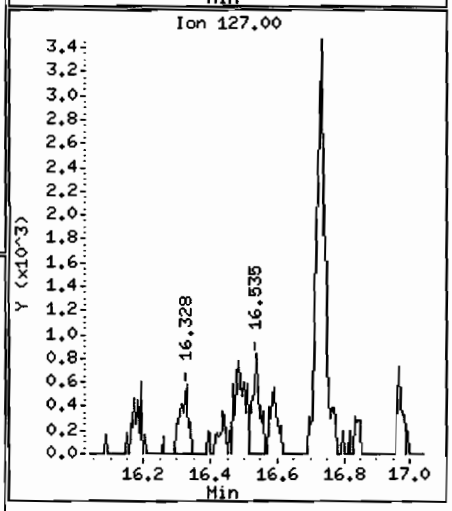

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

79 1,1,1,2-Tetrachloroethane

Concentration: 2.4 ug/Kg

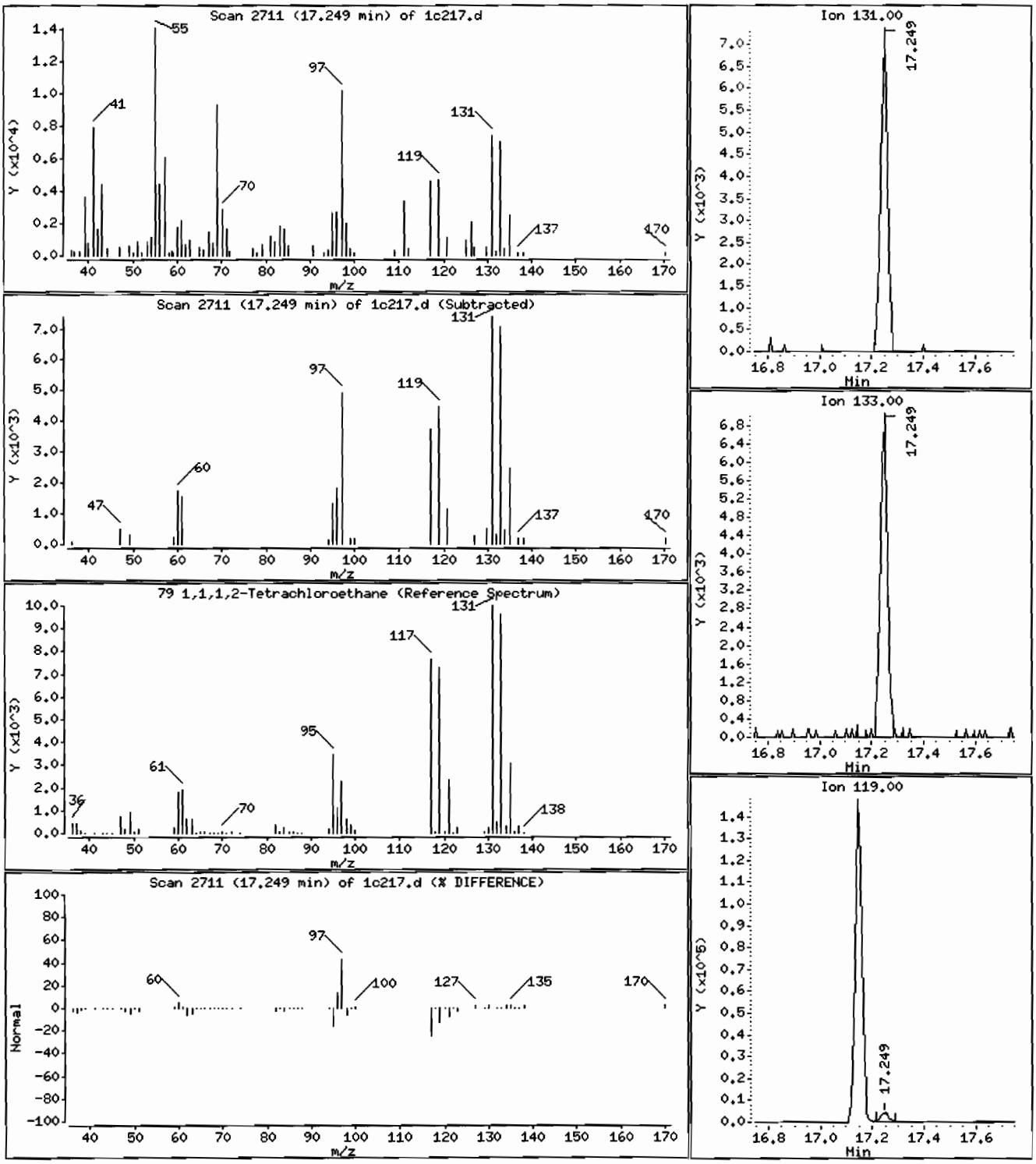

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

78 Ethylbenzene

Concentration: 4.0 ug/Kg

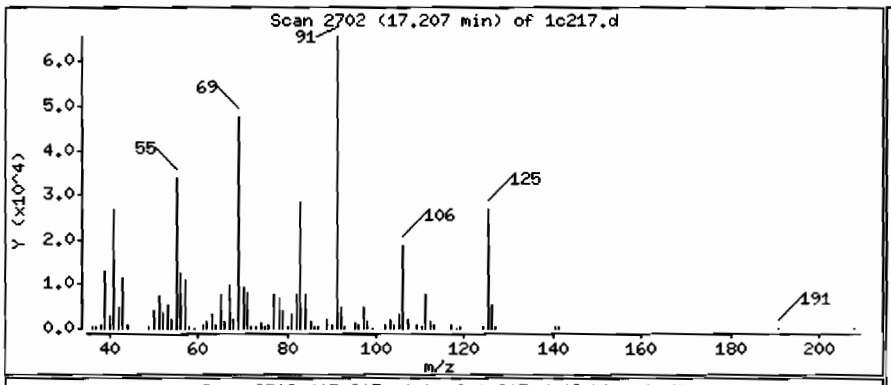

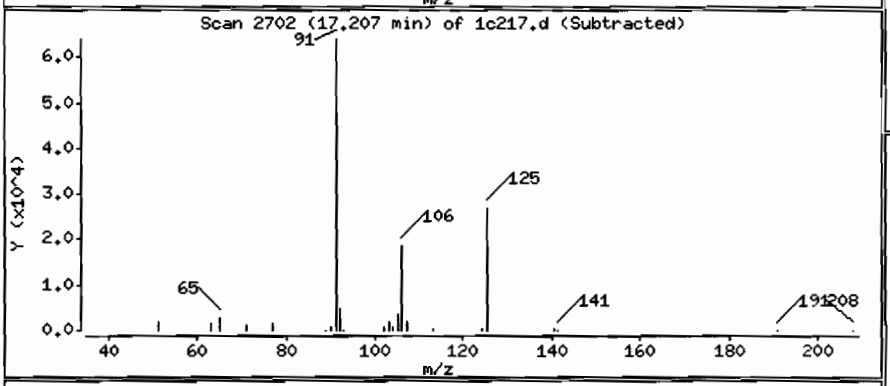

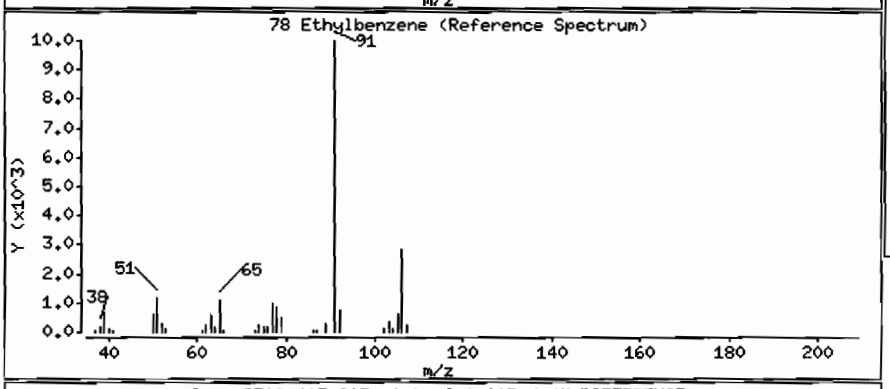

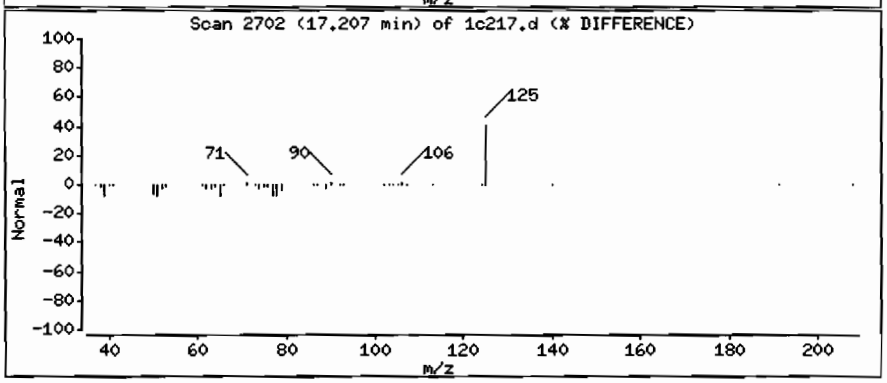

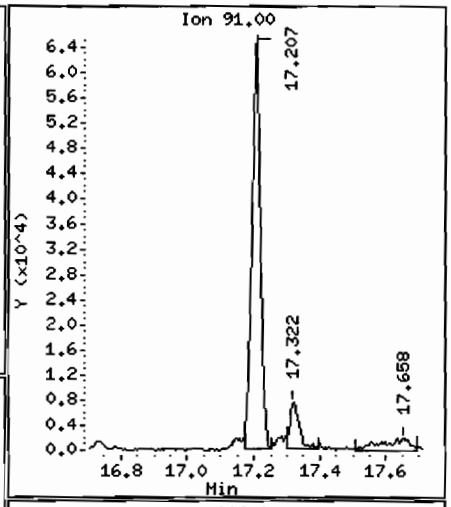

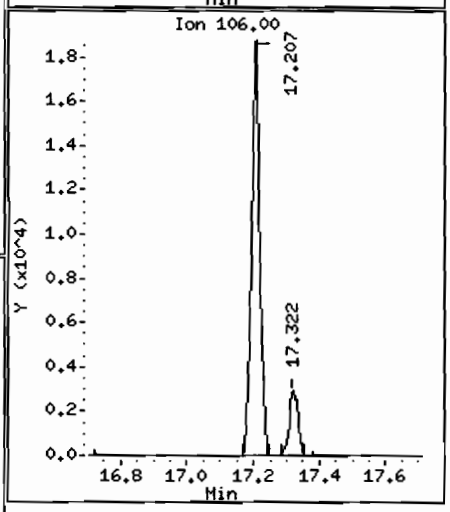

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

80 m,p-Xylenes

Concentration: 0.50 ug/Kg

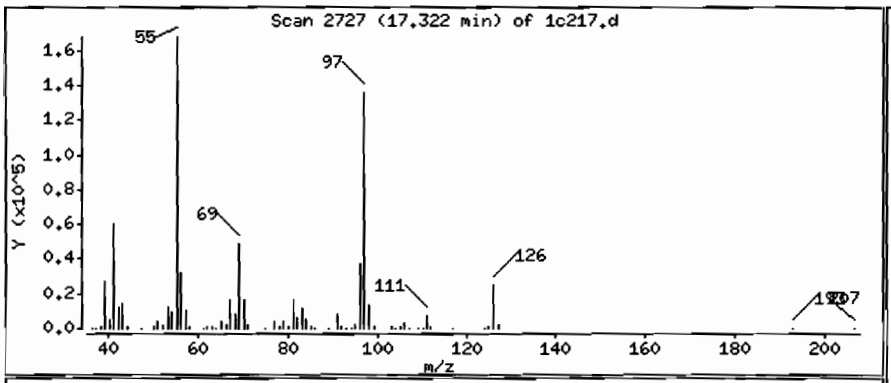

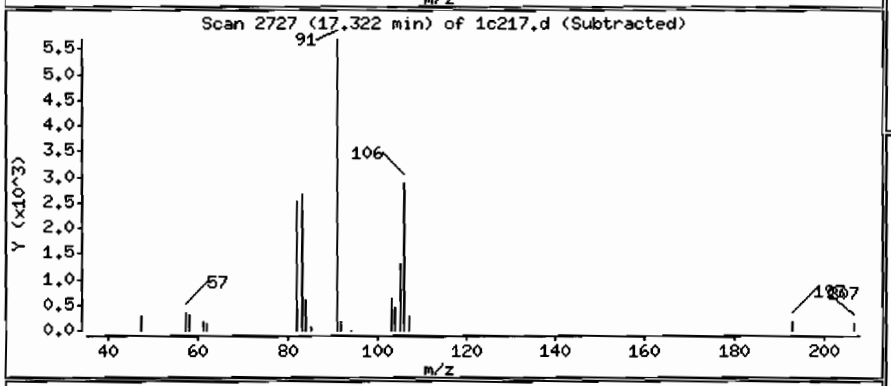

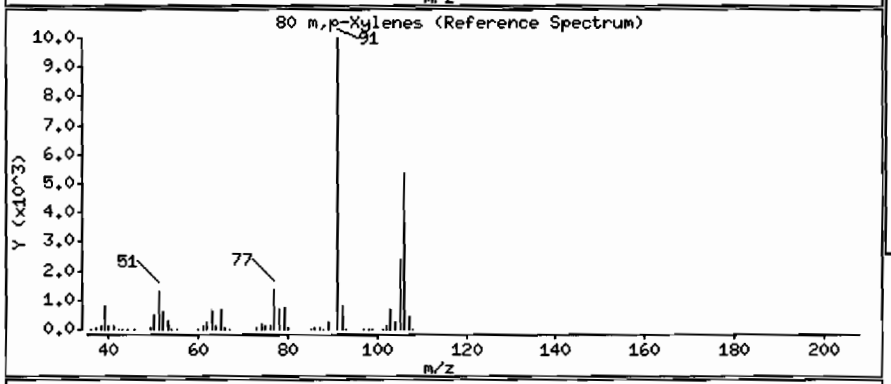

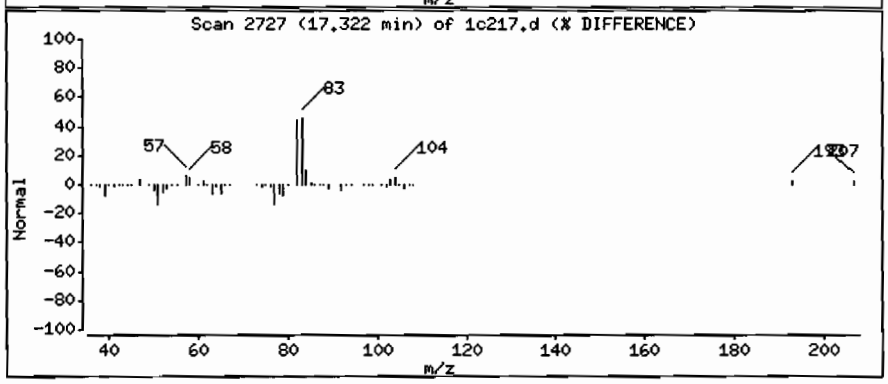

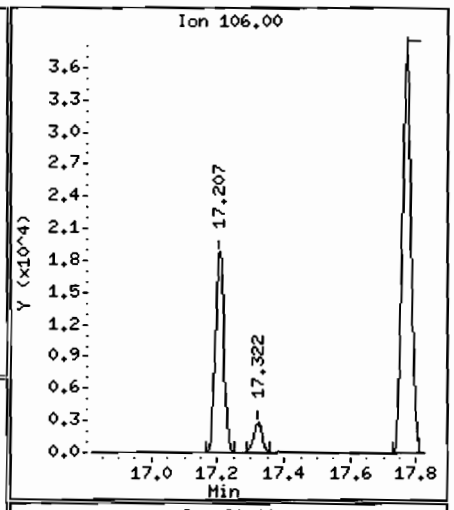

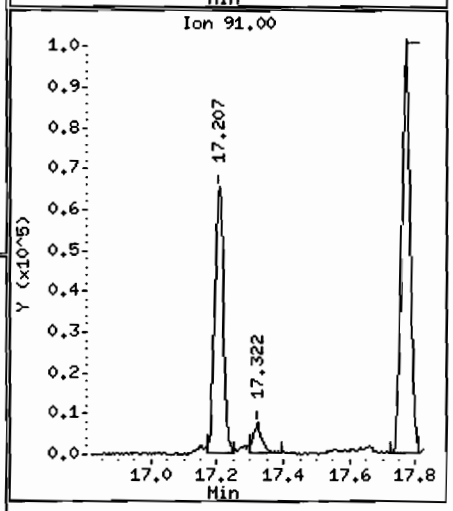

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

81 o-Xylene

Concentration: 6.8 ug/Kg

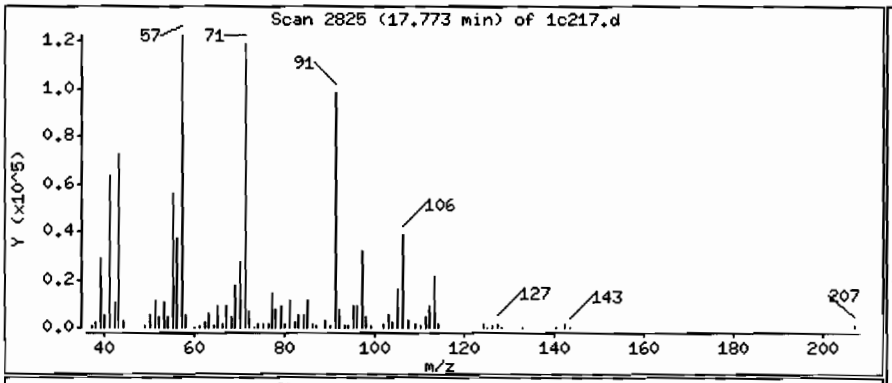

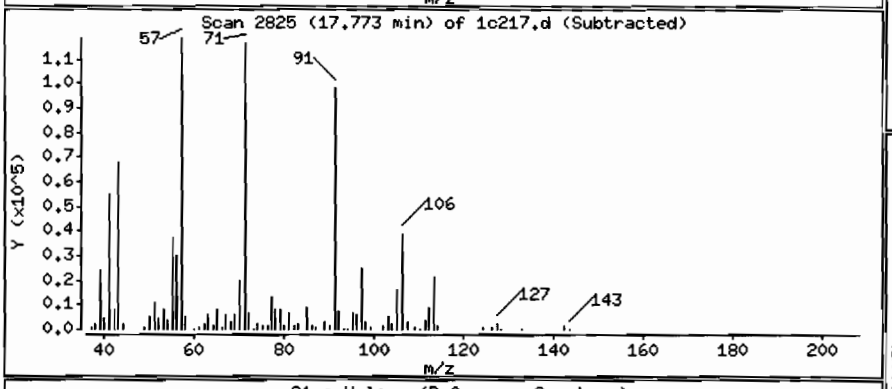

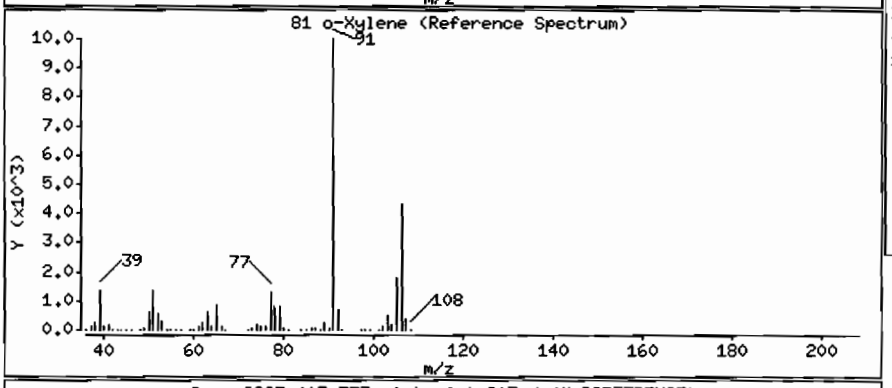

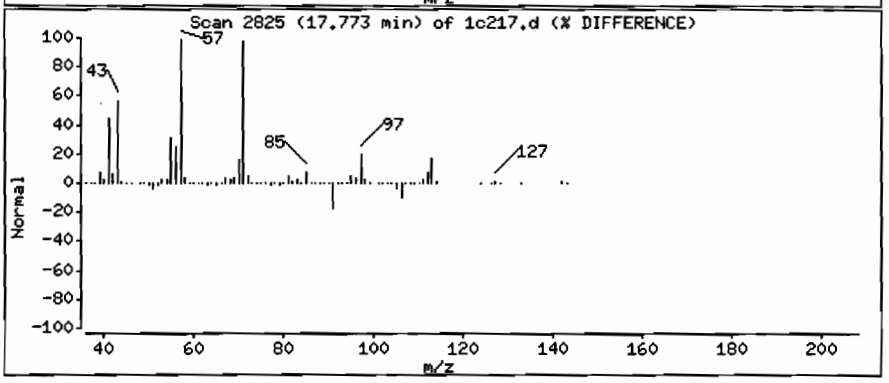

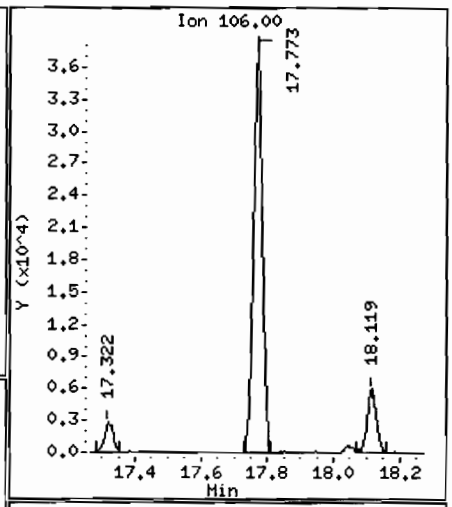

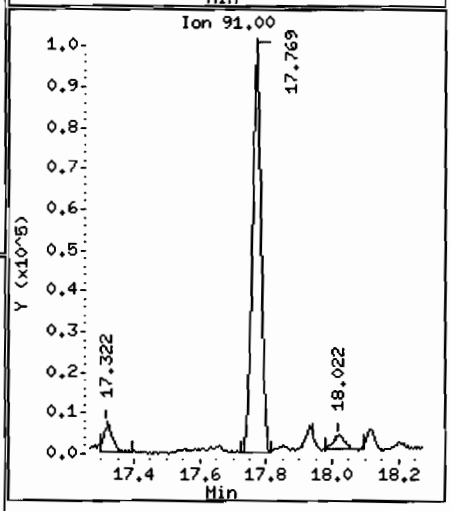

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

89 n-Propylbenzene

Concentration: 12.1 ug/Kg

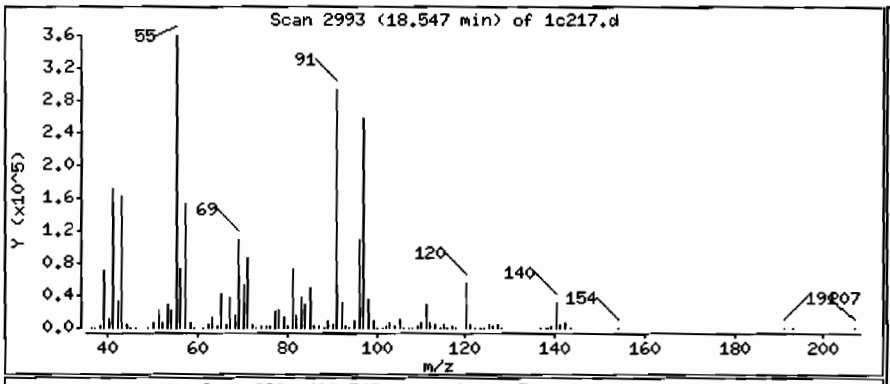

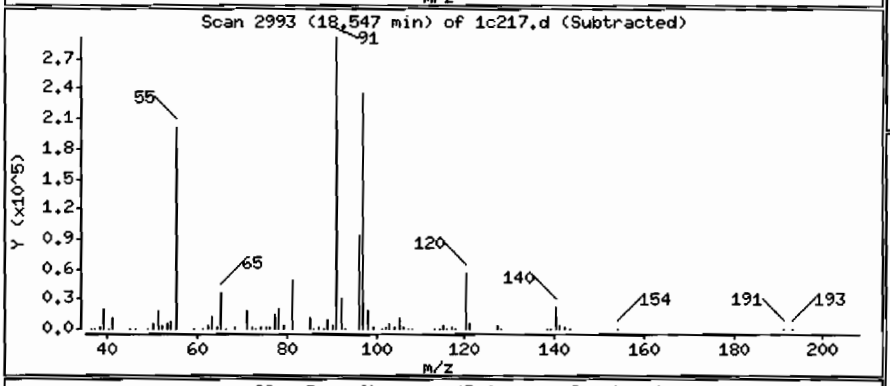

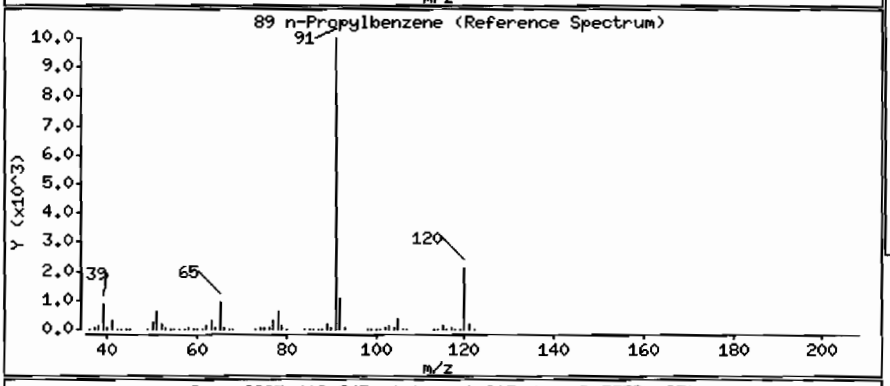

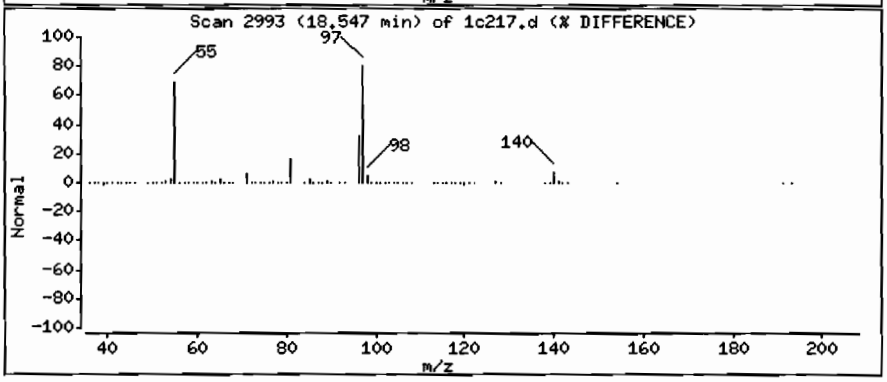

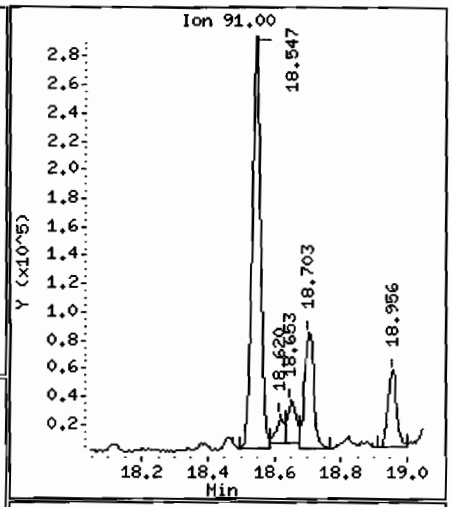

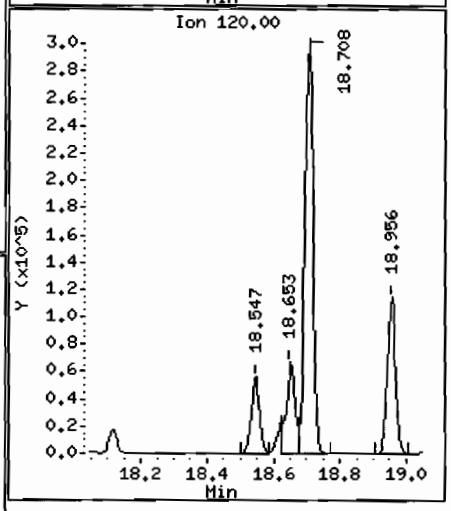

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

84 Isopropylbenzene

Concentration: 3.8 ug/Kg

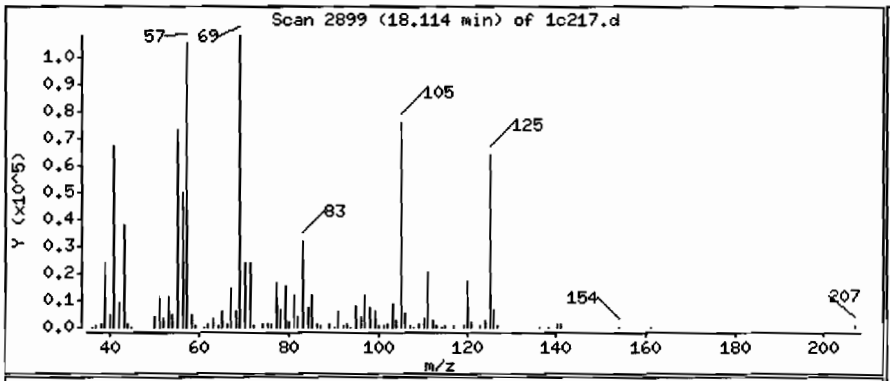

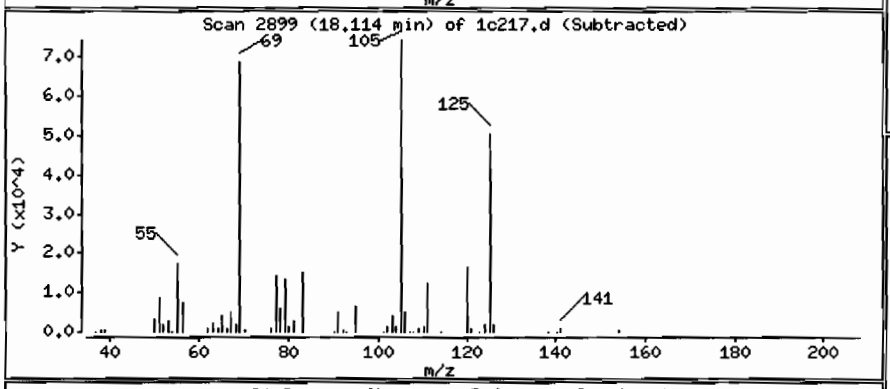

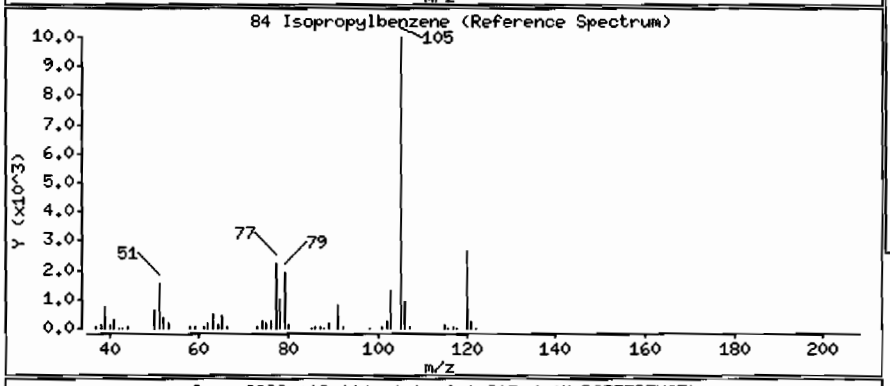

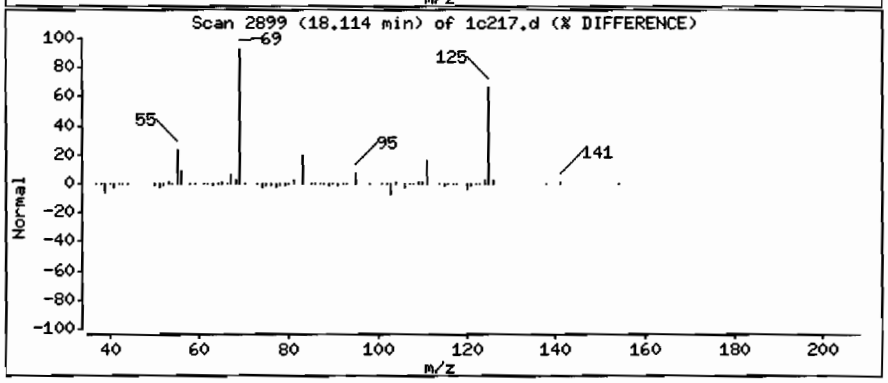

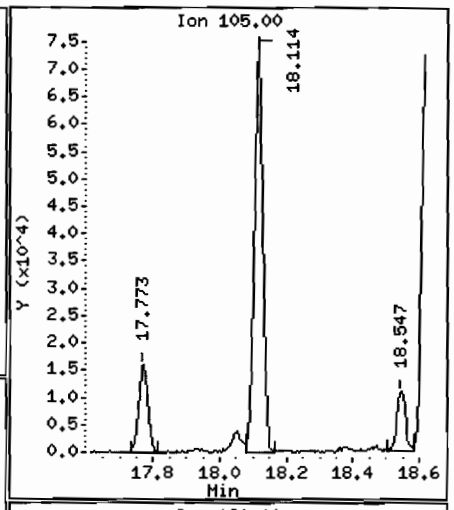

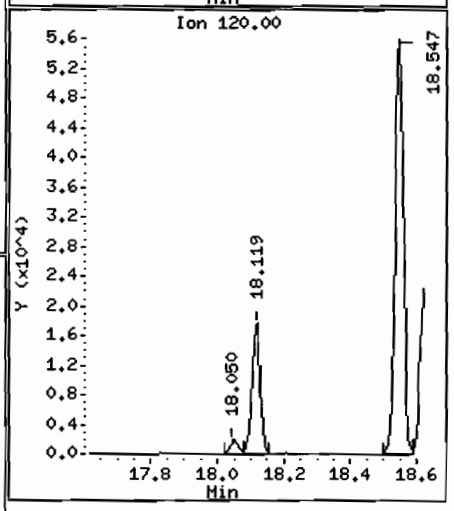

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

93 1,3,5-Trimethylbenzene

Concentration: 40.8 ug/Kg

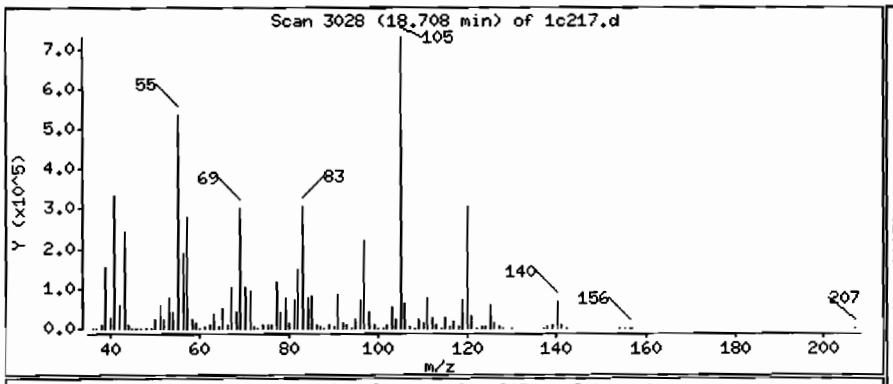

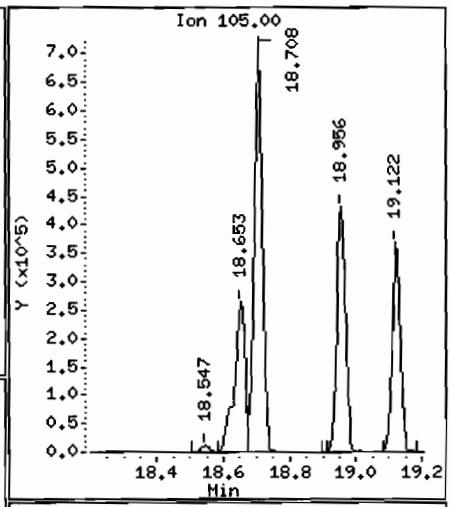

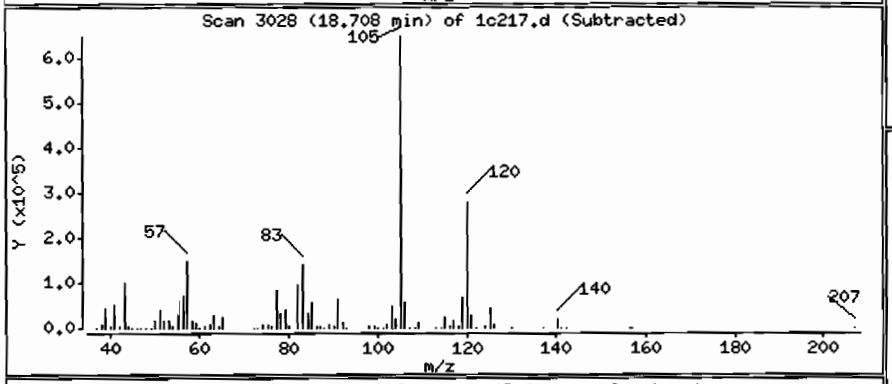

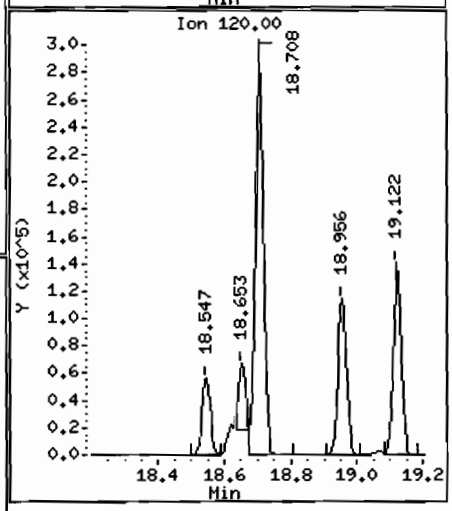

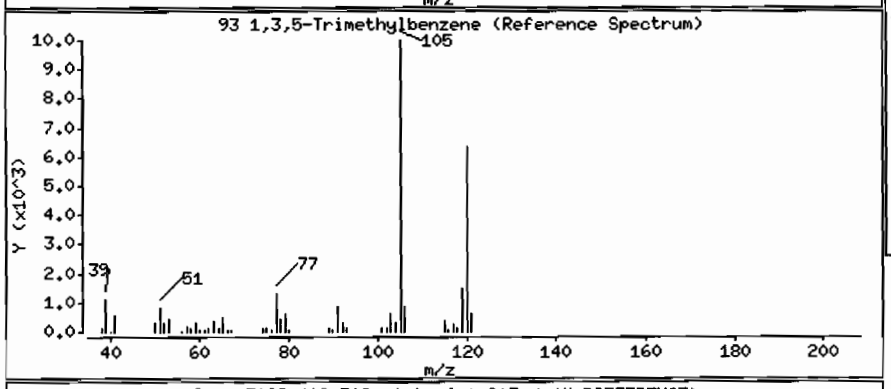

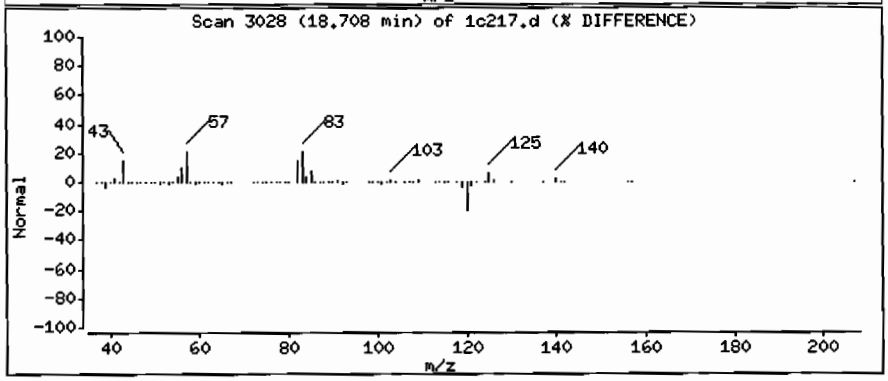

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

97 1,2,4-Trimethylbenzene

Concentration: 19.4 ug/Kg

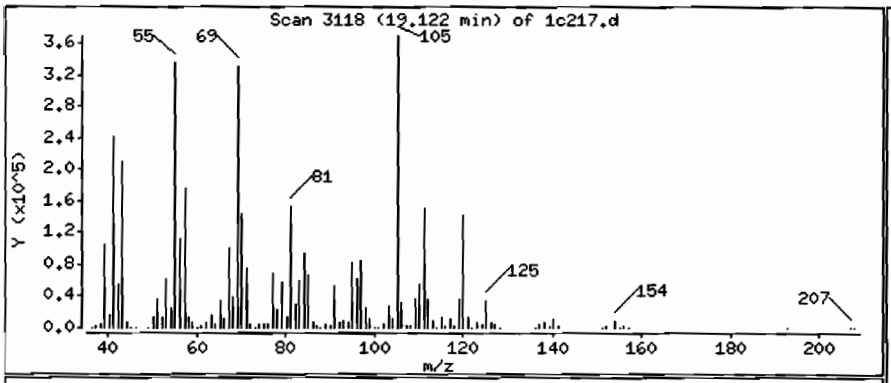

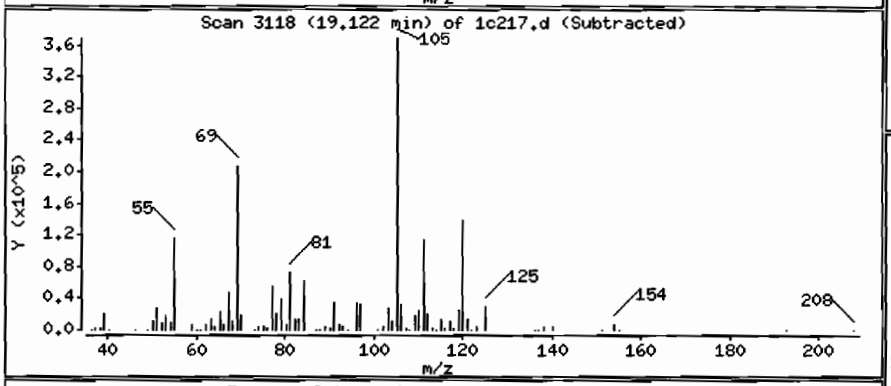

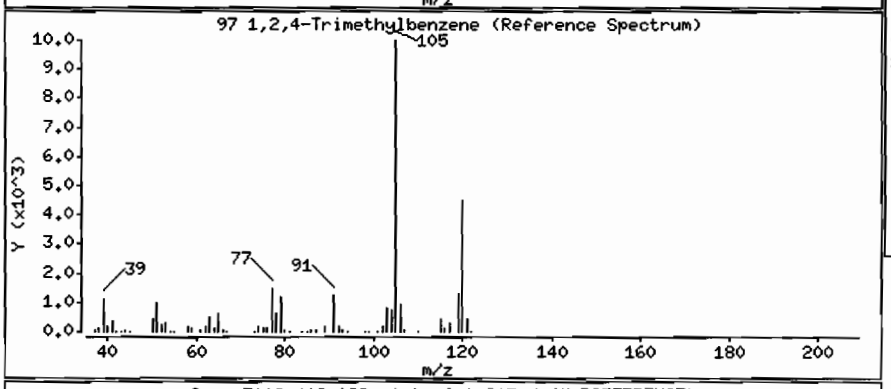

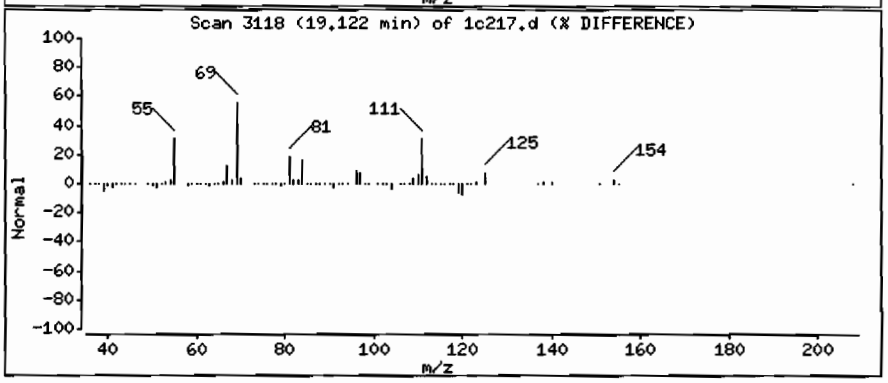

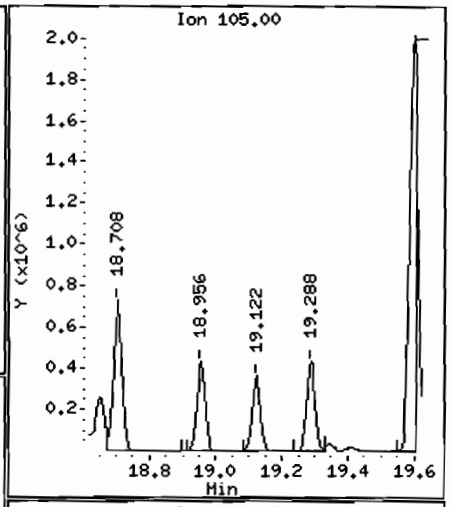

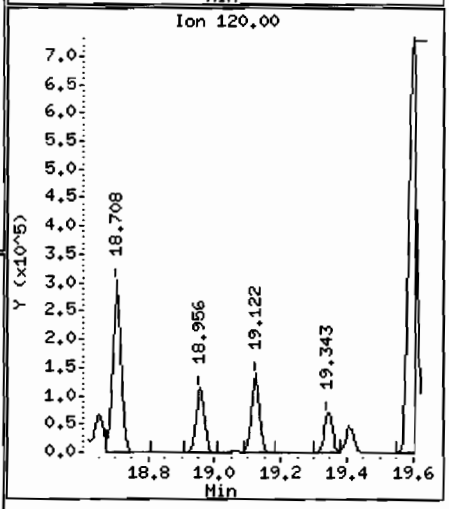

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

99 sec-Butylbenzene

Concentration: 19.8 ug/Kg

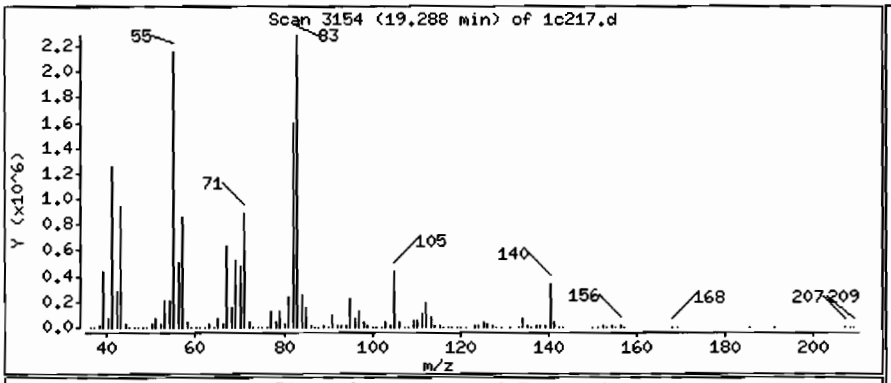

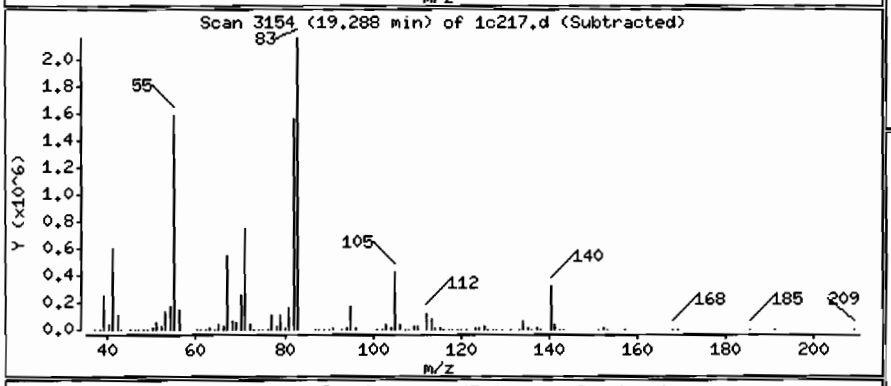

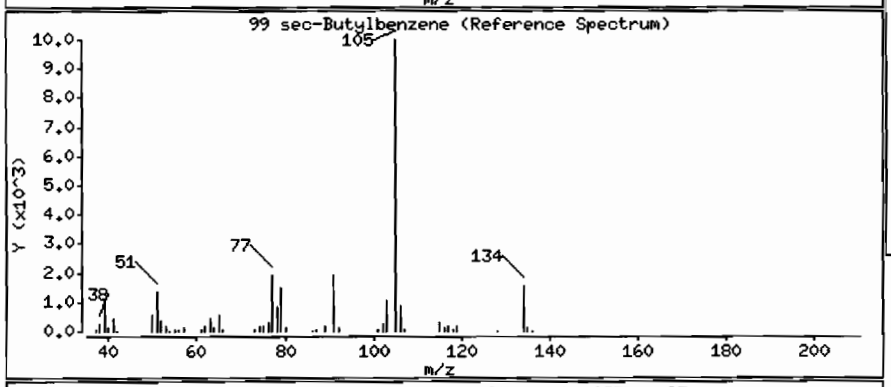

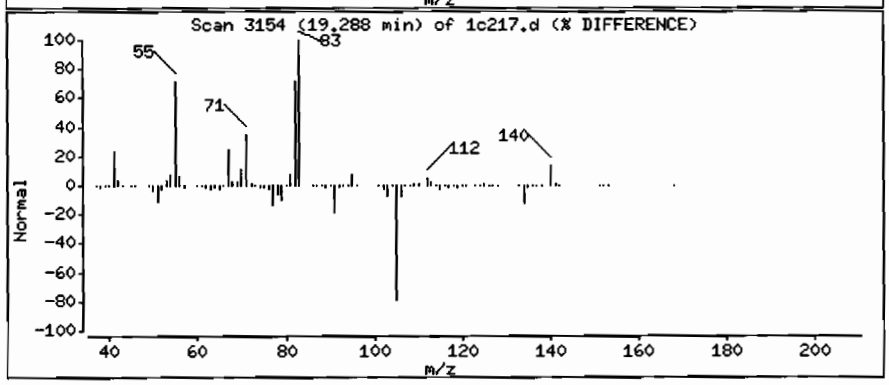

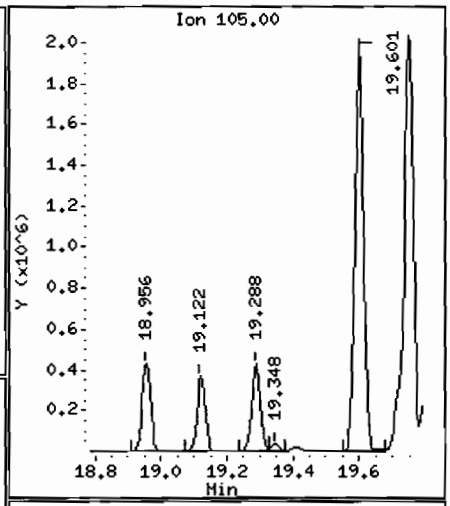

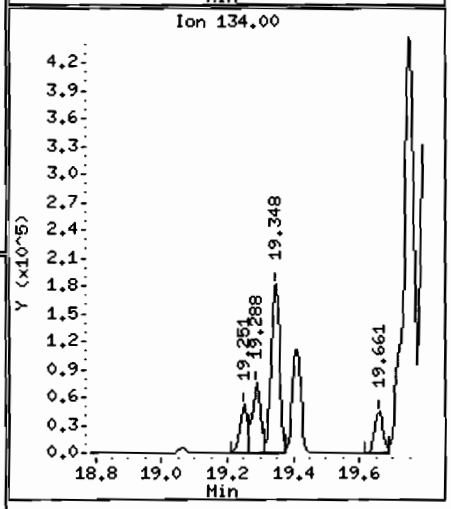

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

100 4-Isopropyltoluene

Concentration: 26.8 ug/Kg

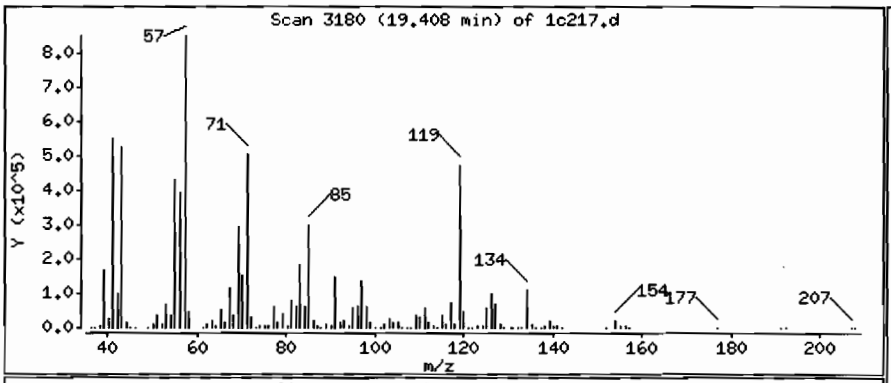

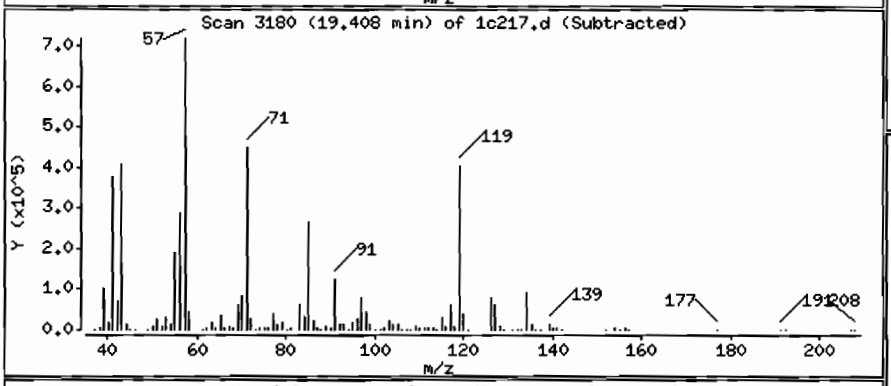

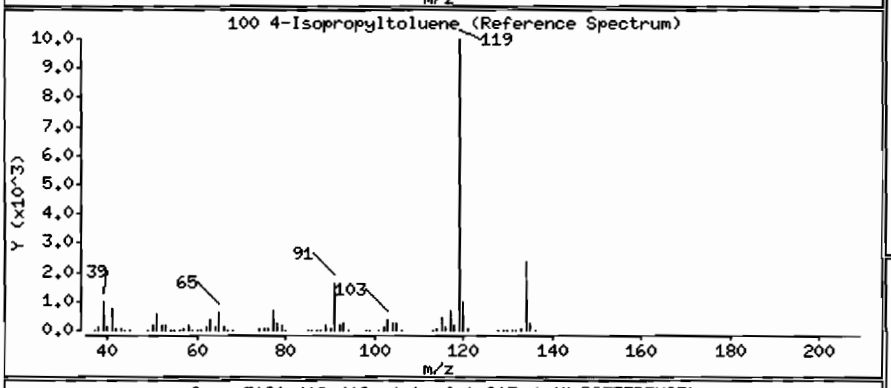

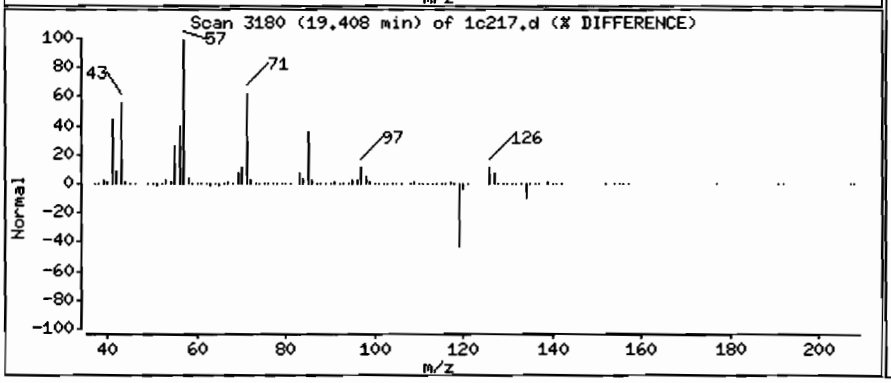

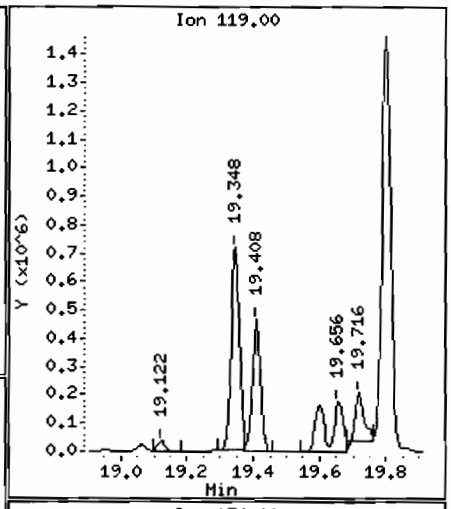

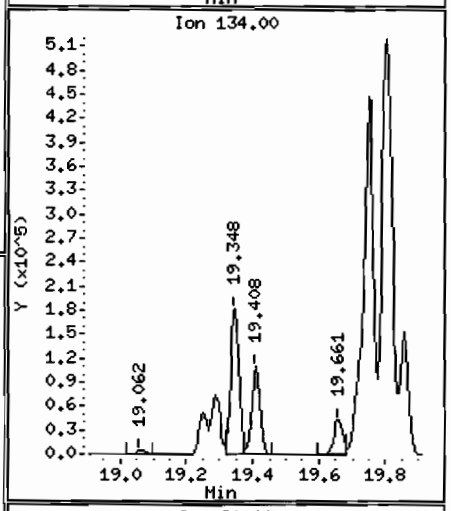

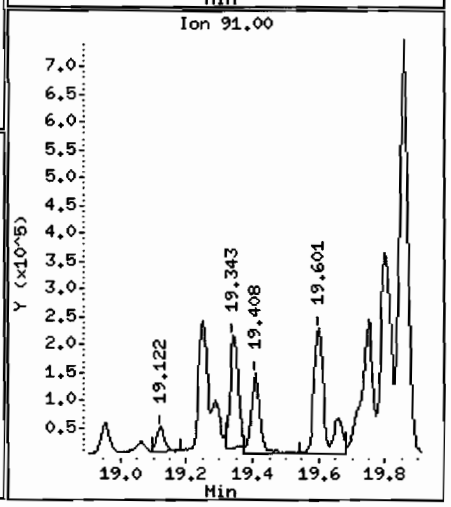

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

105 n-Butylbenzene

Concentration: 42.9 ug/Kg

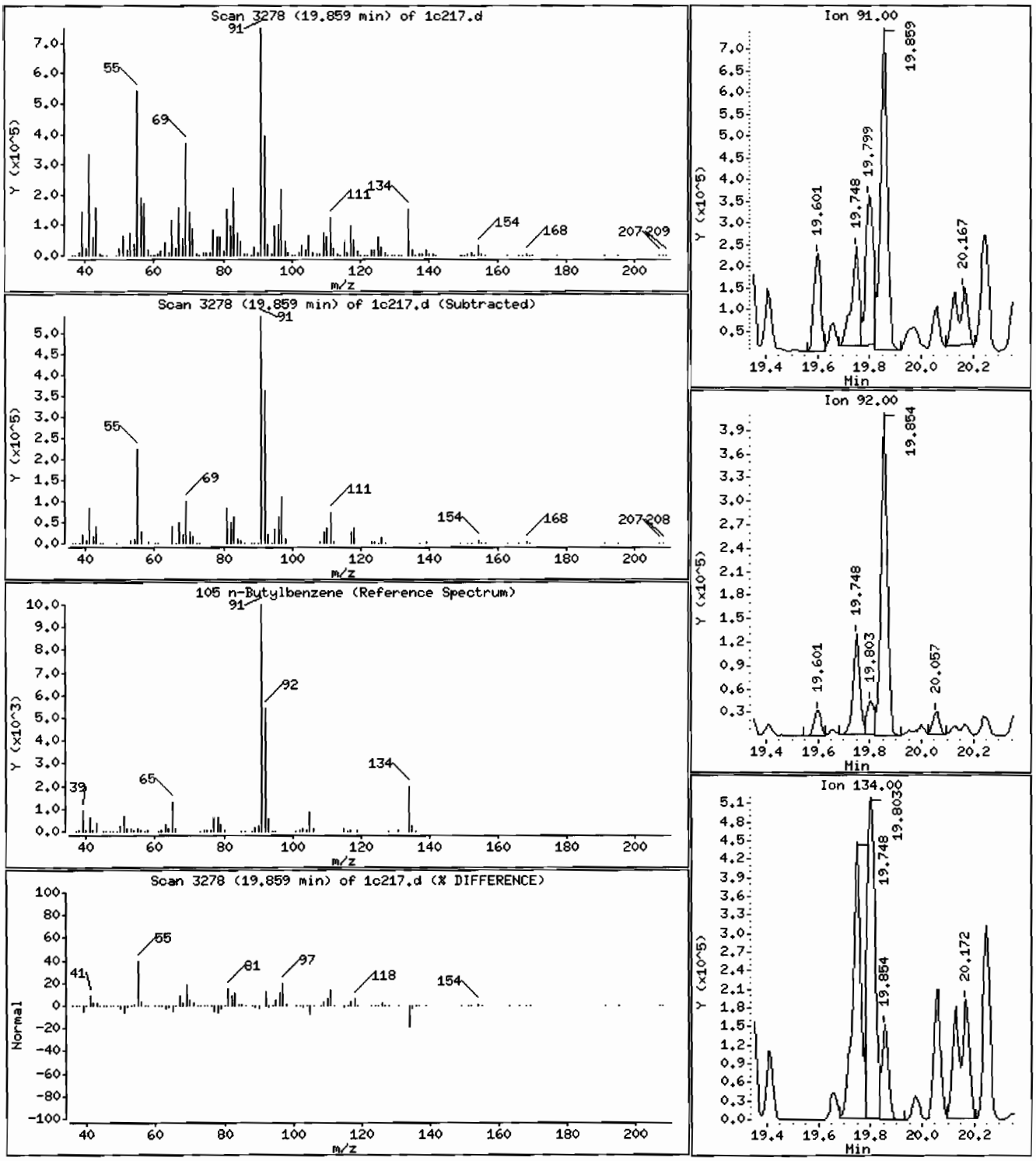

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: CRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Nonane, 3-methyl-	5911-04-6	NIST05.L	18496	93	C10H22	142
Octane, 2,6-dimethyl-	2051-30-1	NIST05.L	18510	91	C10H22	142
Octane, 2,6-dimethyl-	2051-30-1	NIST05.L	18522	91	C10H22	142

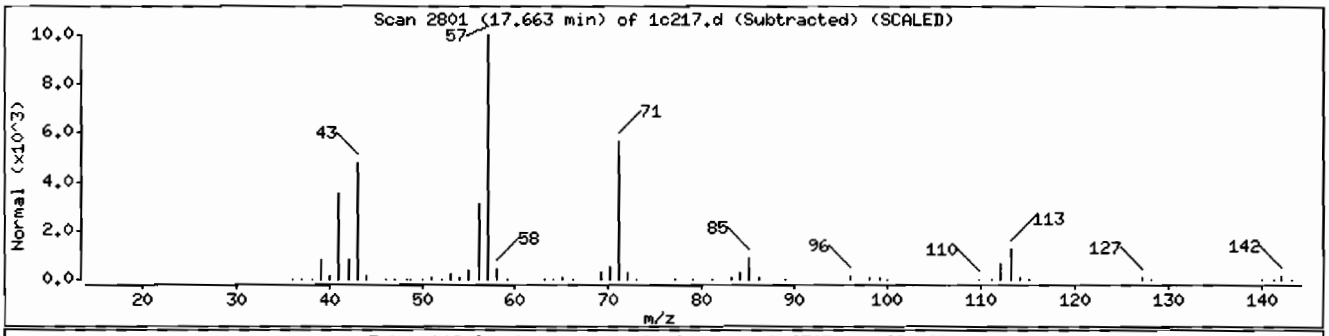

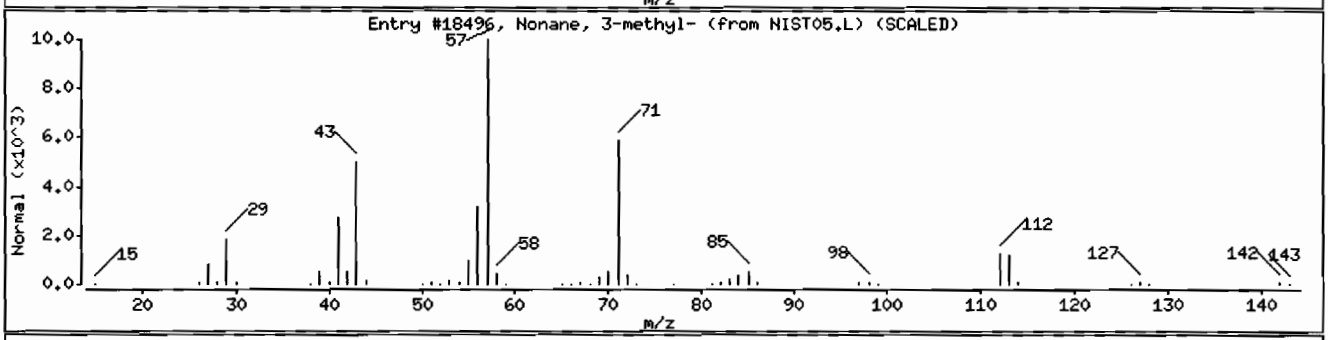

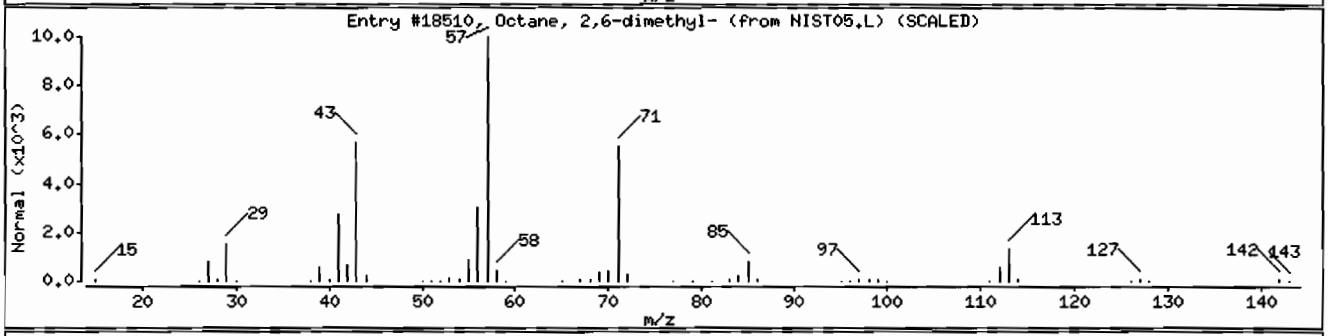

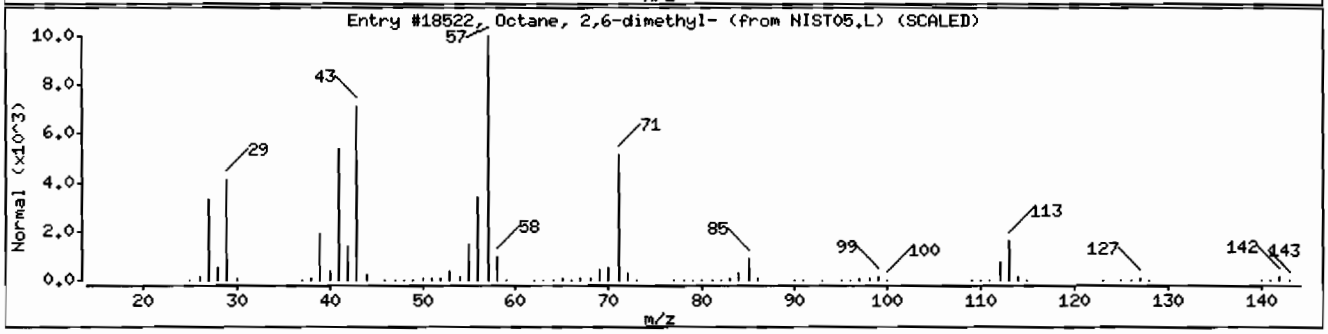

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Heptane, 3-ethyl-2-methyl-	14676-29-0	NIST05.L	18551	43	C10H22	142
Heptane, 3-ethyl-2-methyl-	14676-29-0	NIST05.L	18550	43	C10H22	142
Heptane, 3-ethyl-2-methyl-	14676-29-0	NIST05.L	18547	40	C10H22	142

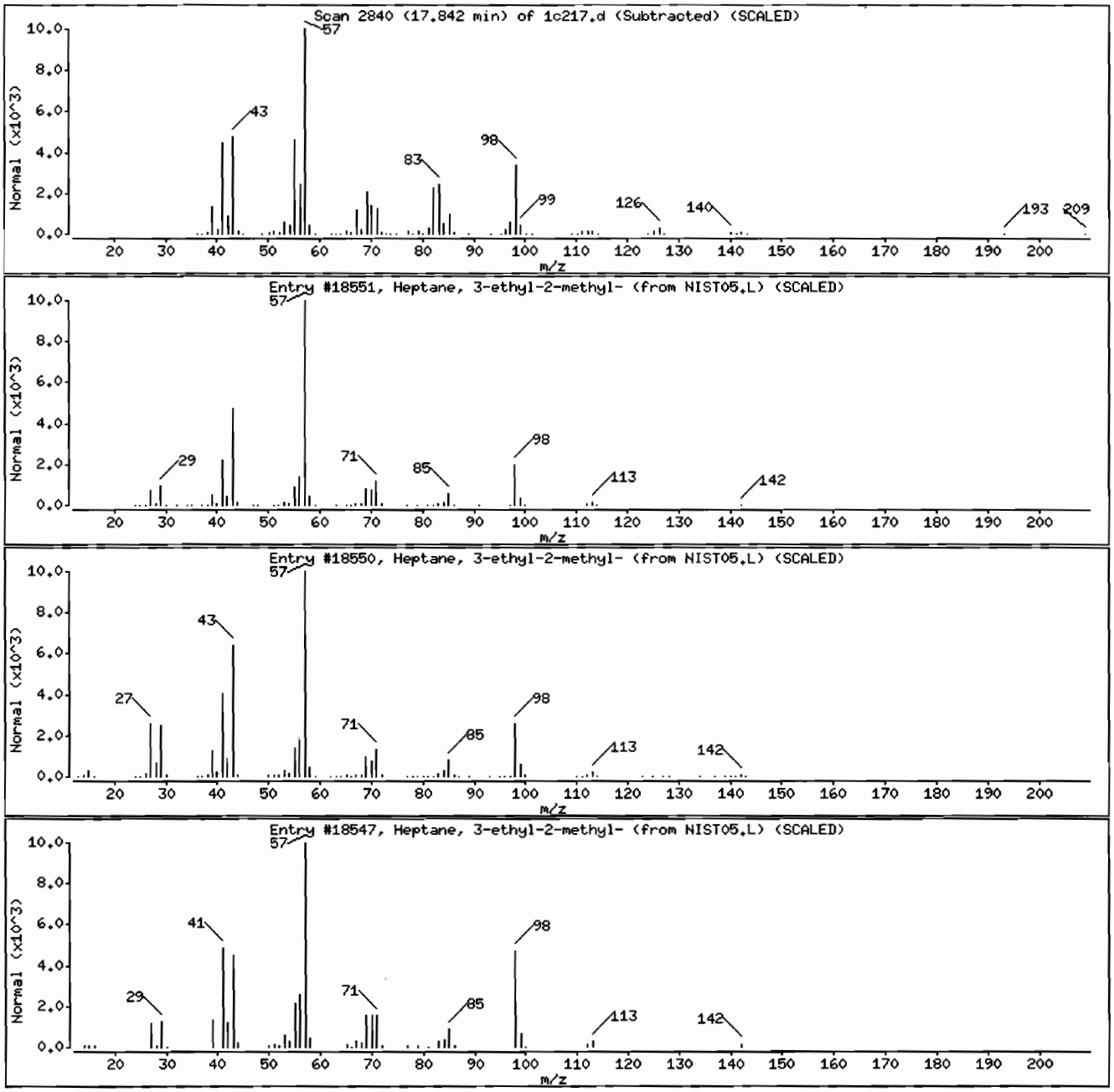

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Nonane, 4-methyl-	17301-94-9	NIST05.L	18502	81	C10H22	142
Nonane, 4-methyl-	17301-94-9	NIST05.L	18501	81	C10H22	142
Octane, 3,5-dimethyl-	15869-93-9	NIST05.L	18525	76	C10H22	142

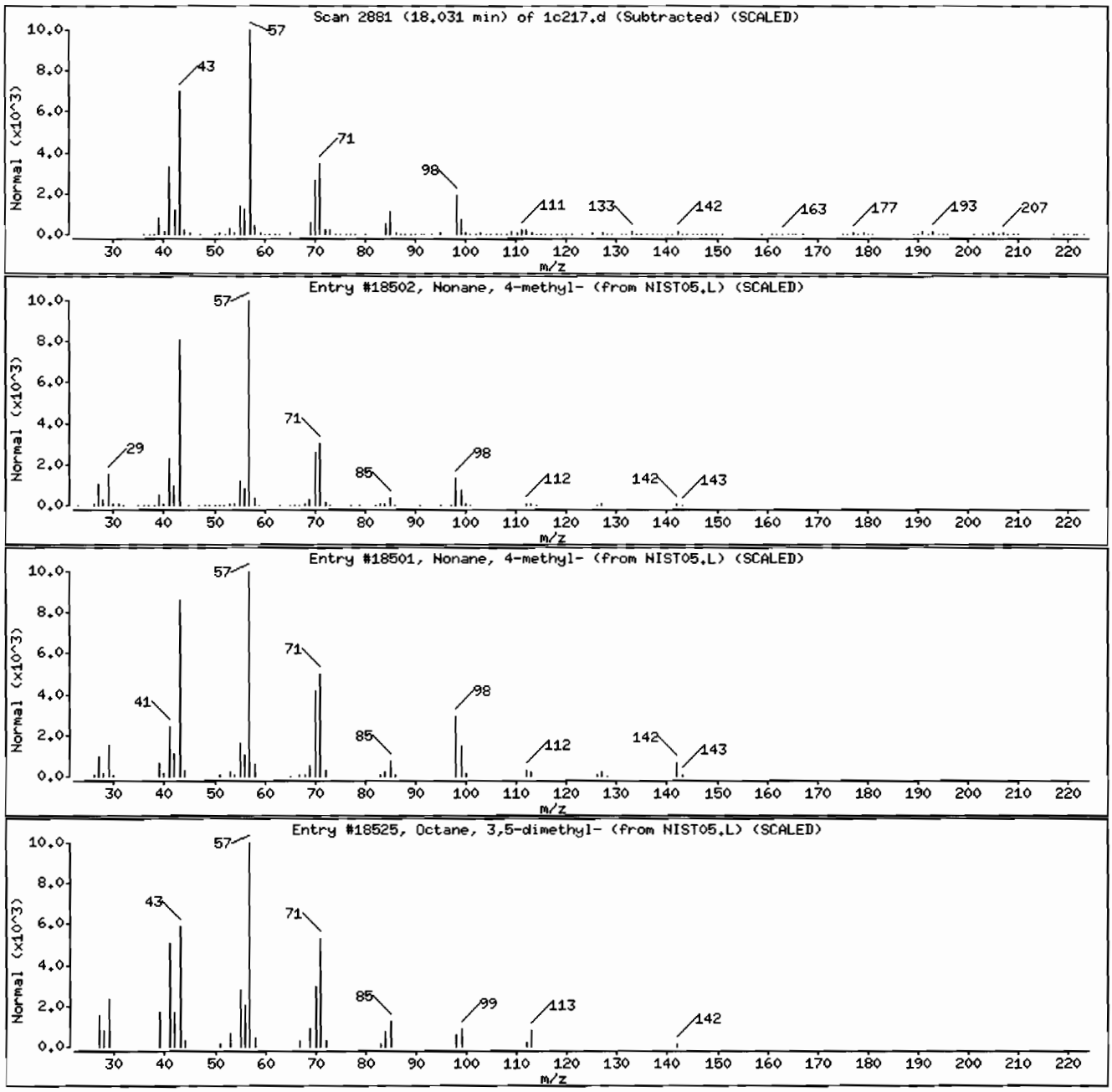

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Nonane, 3-methyl-	5911-04-6	NIST05.L	18496	91	C10H22	142
Nonane, 3-methyl-	5911-04-6	NIST05.L	18500	91	C10H22	142
Octane, 3,6-dimethyl-	15869-94-0	NIST05.L	18514	90	C10H22	142

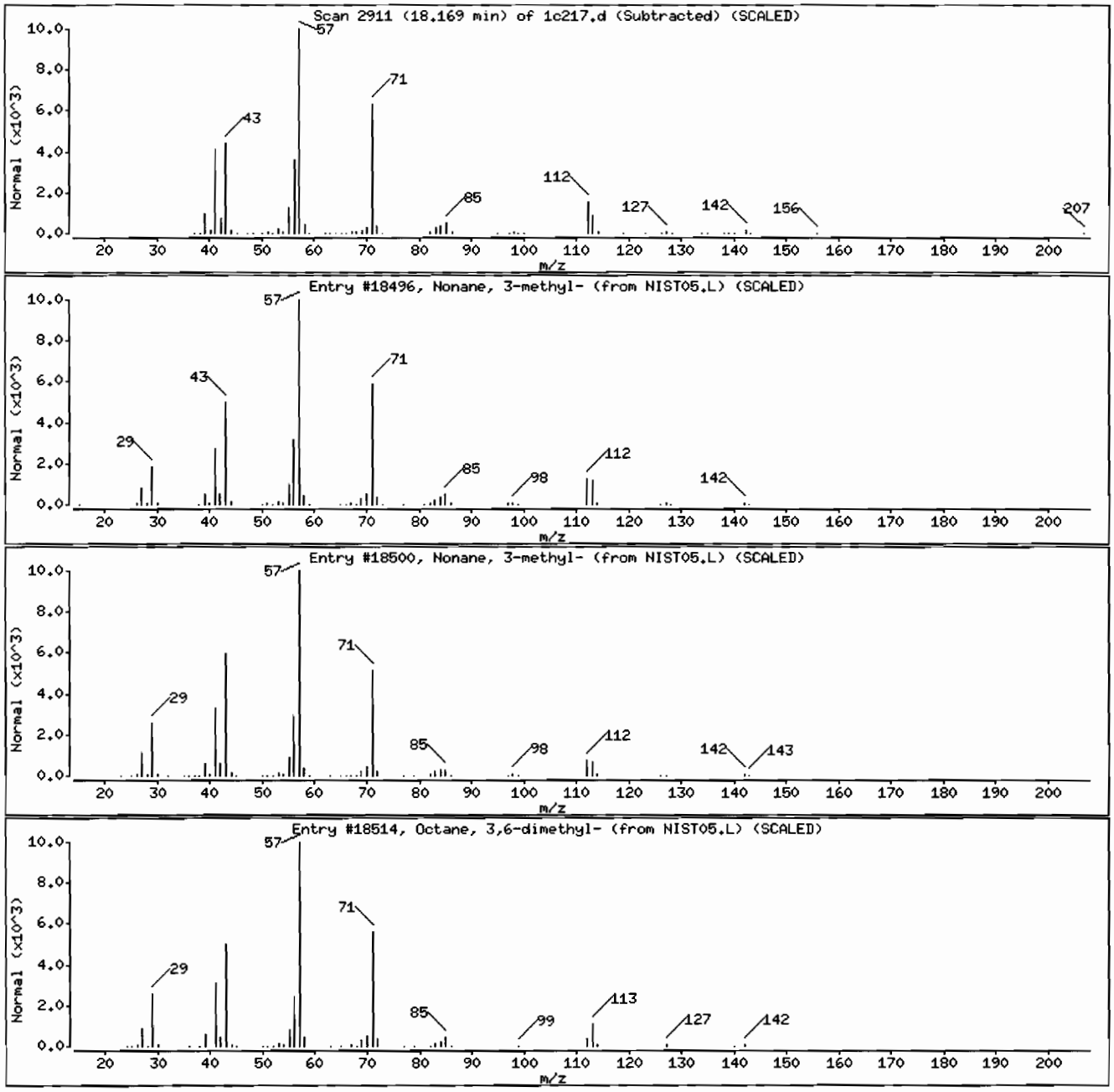

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Cyclohexane, 1,1,2,3-tetramethyl-	6783-92-2	NIST05.L	17428	81	C10H20	140
2-Octene, 2,6-dimethyl-	4057-42-5	NIST05.L	17385	62	C10H20	140
4-Nonene, 3-methyl-, (Z)-	63830-69-3	NIST05.L	17390	59	C10H20	140

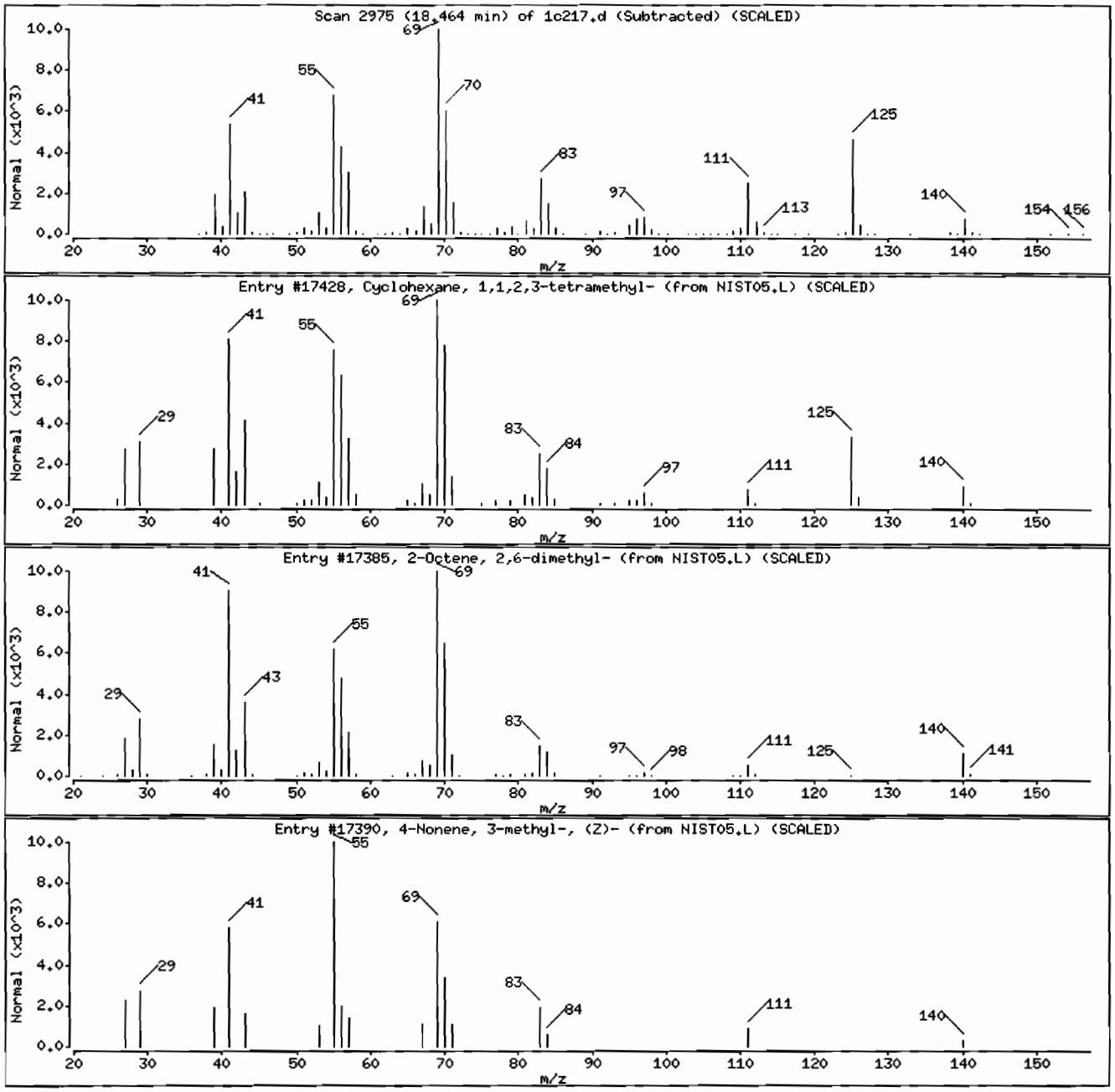

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Undecane	1120-21-4	NIST05.L	27239	94	C11H24	156
Undecane	1120-21-4	NIST05.L	27236	92	C11H24	156
Undecane	1120-21-4	NIST05.L	27238	91	C11H24	156

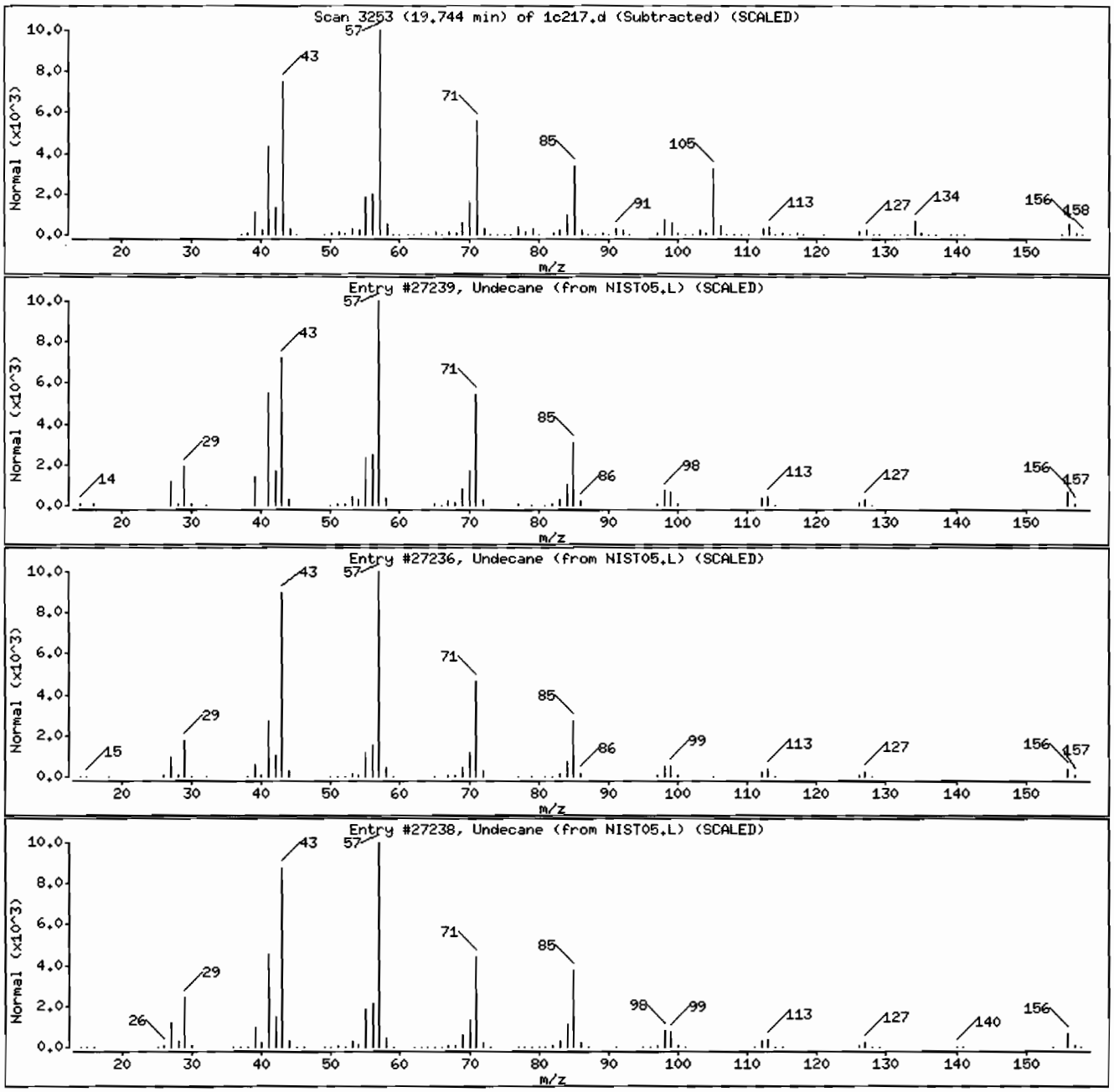

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16353	97	C10H18	138
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16354	96	C10H18	138
Naphthalene, decahydro-	91-17-8	NIST05.L	16322	95	C10H18	138

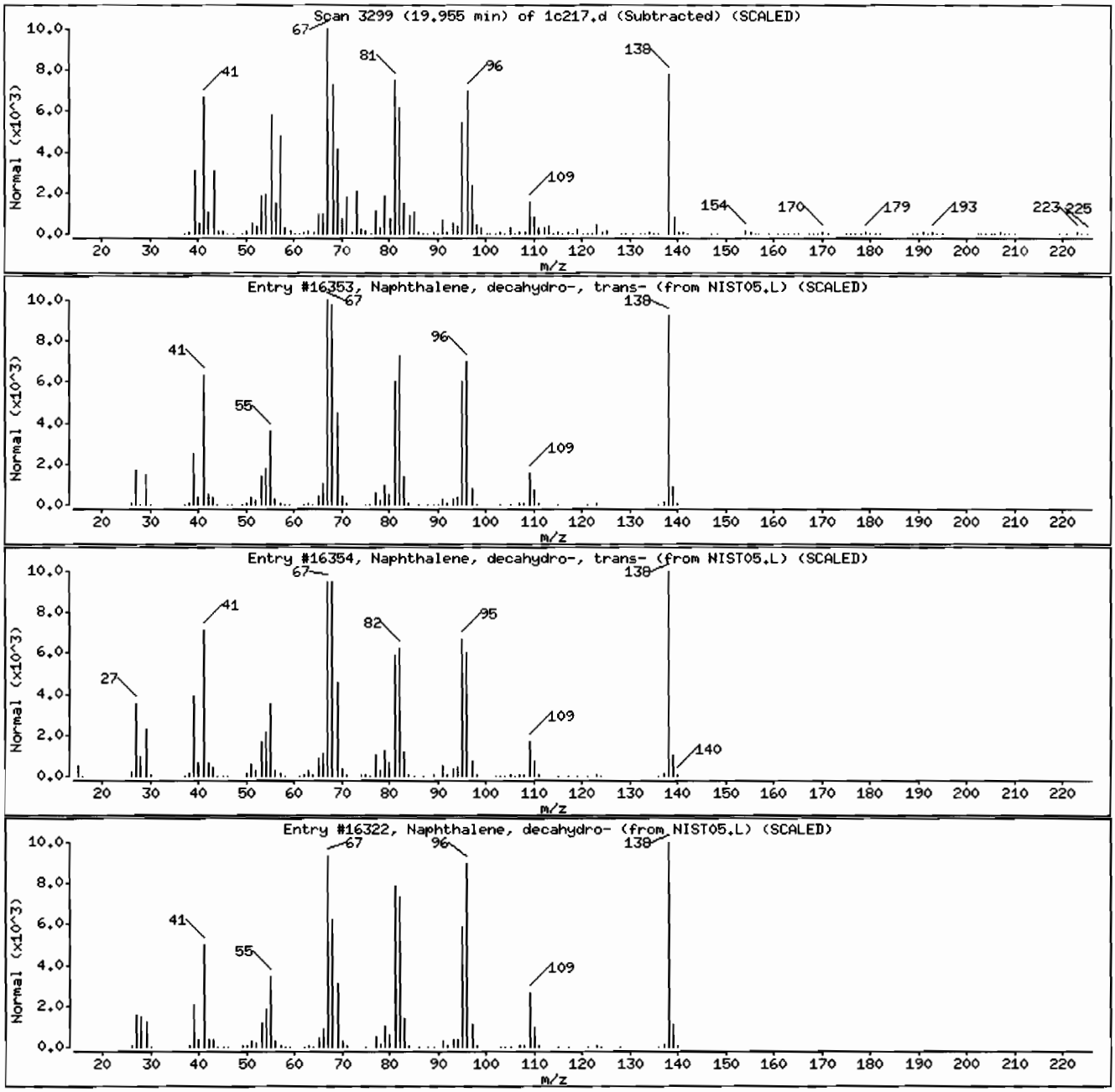

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Pulegone	89-82-7	NIST05.L	24025	86	C10H16O	152
Cyclohexanone, 5-methyl-2-(1-methylethyl	15932-80-6	NIST05.L	24247	86	C10H16O	152
Naphthalene, decahydro-2-methyl-	2958-76-1	NIST05.L	24413	76	C11H20	152

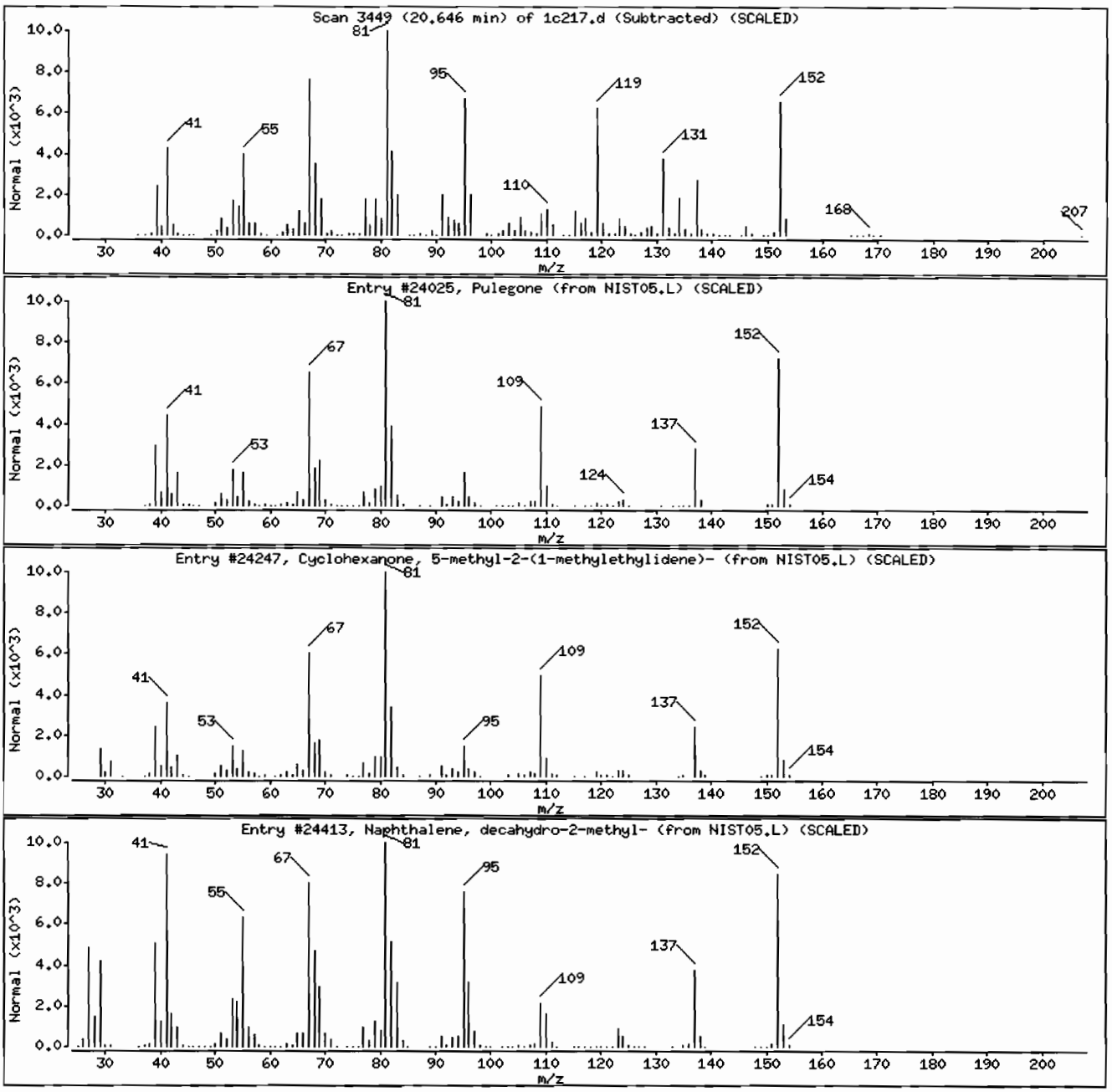

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST05.L	14429	95	C10H14	134
Benzene, 1-ethyl-2,4-dimethyl-	874-41-9	NIST05.L	14394	95	C10H14	134
Benzene, 1,2,3,5-tetramethyl-	527-53-7	NIST05.L	14380	95	C10H14	134

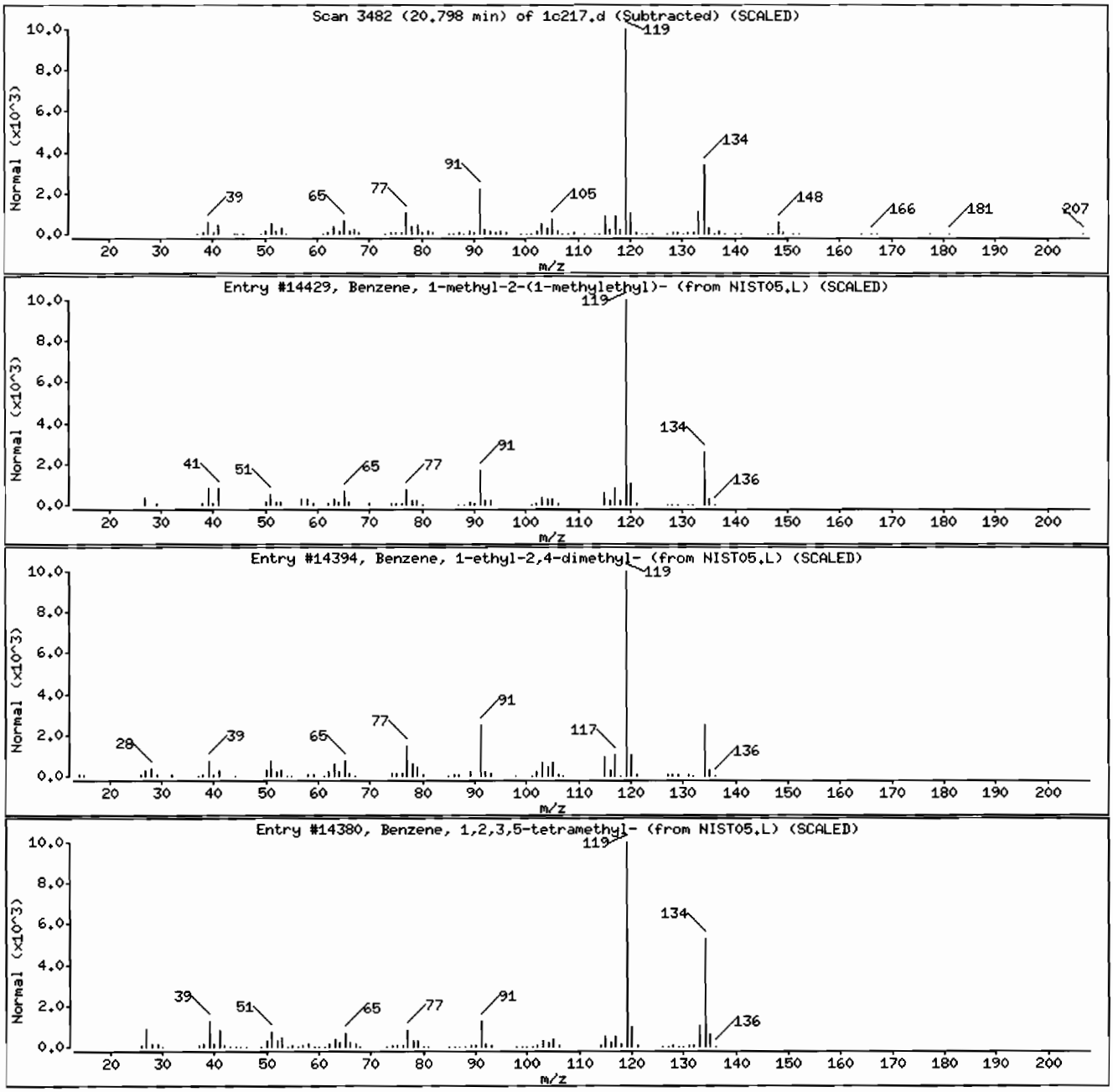

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: 1248842009196587511VOAF111

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Dodecane	112-40-3	NIST05.L	36431	96	C12H26	170
Eicosane	112-95-8	NIST05.L	113490	86	C20H42	282
Hexadecane	544-76-3	NIST05.L	76090	86	C16H34	226

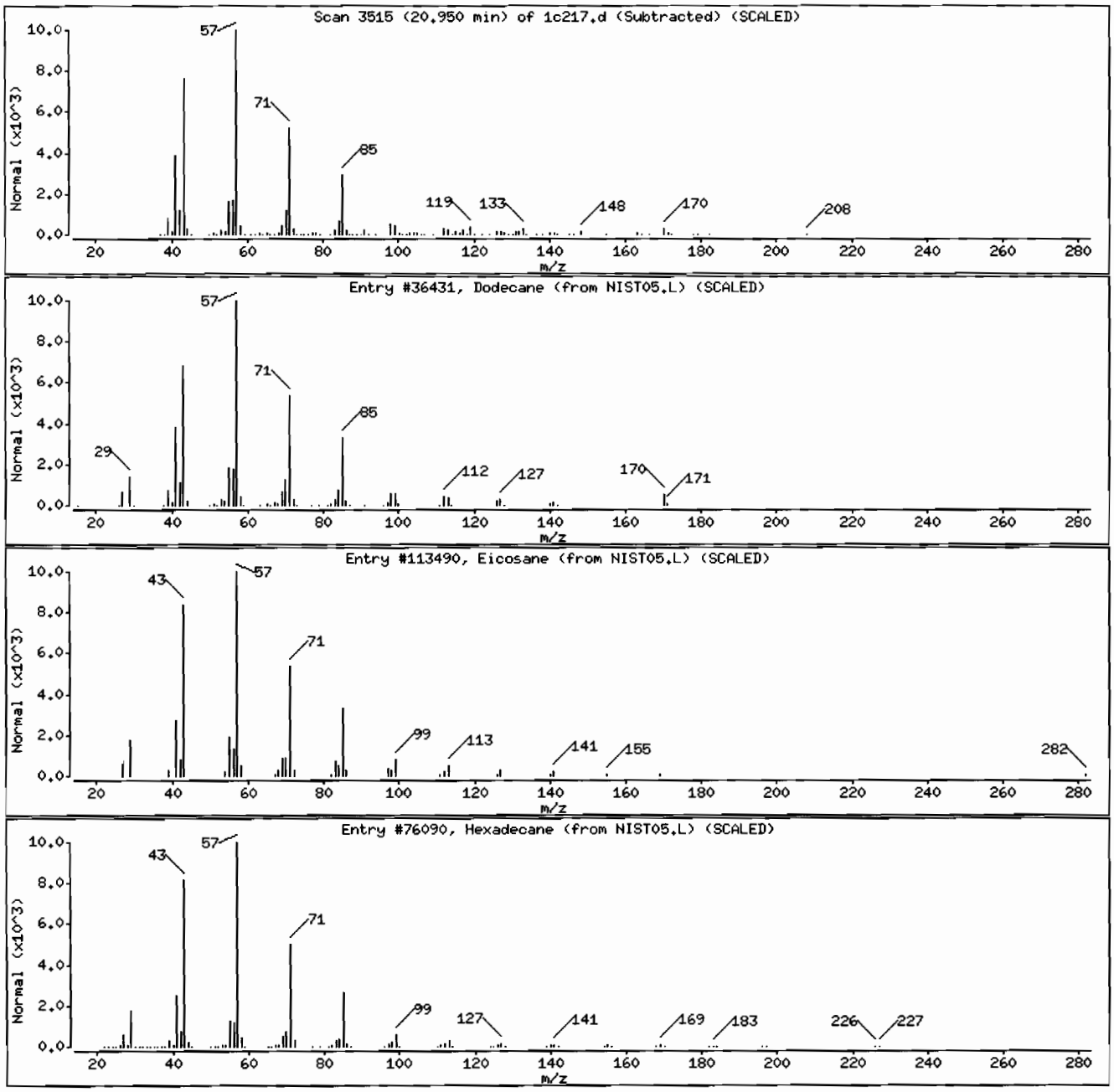

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 1-ethyl-3,5-dimethyl-	934-74-7	NIST05.L	14396	95	C10H14	134
Benzene, 1-ethyl-2,3-dimethyl-	933-98-2	NIST05.L	14399	95	C10H14	134
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST05.L	14430	95	C10H14	134

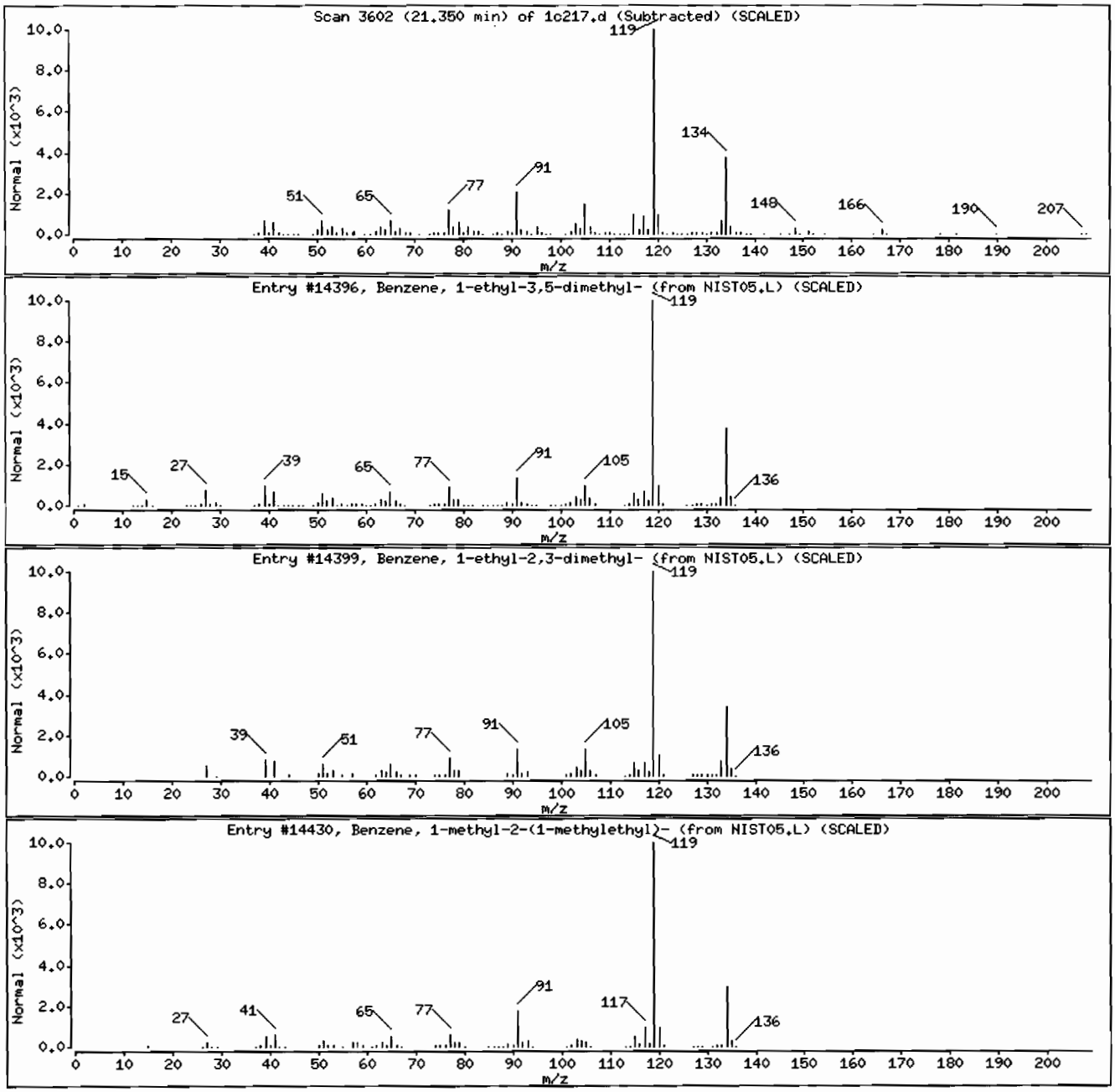

Data File: /chem/VOA1.i/031610v1/1c217.d

Date : 16-MAR-2010 18:52

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Naphthalene, 1,2,3,4-tetrahydro-	119-64-2	NIST05.L	13633	94	C10H12	132
Naphthalene, 1,2,3,4-tetrahydro-	119-64-2	NIST05.L	13632	94	C10H12	132
Naphthalene, 1,2,3,4-tetrahydro-	119-64-2	NIST05.L	13622	93	C10H12	132

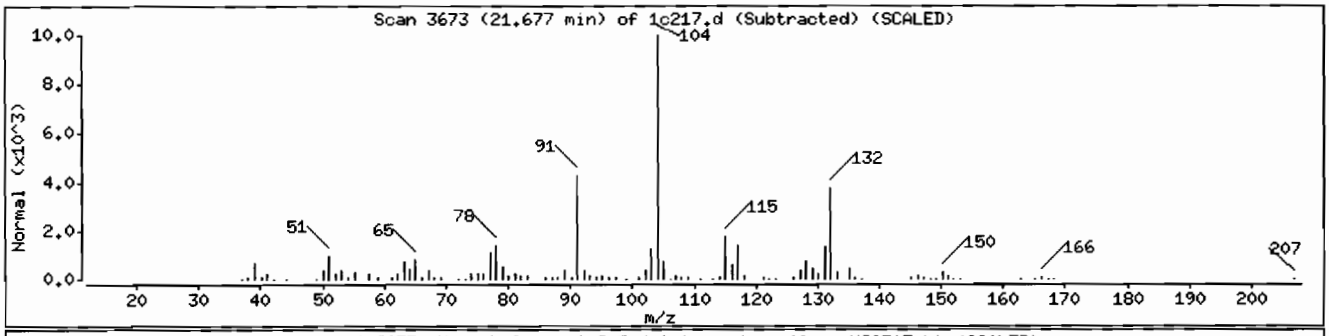

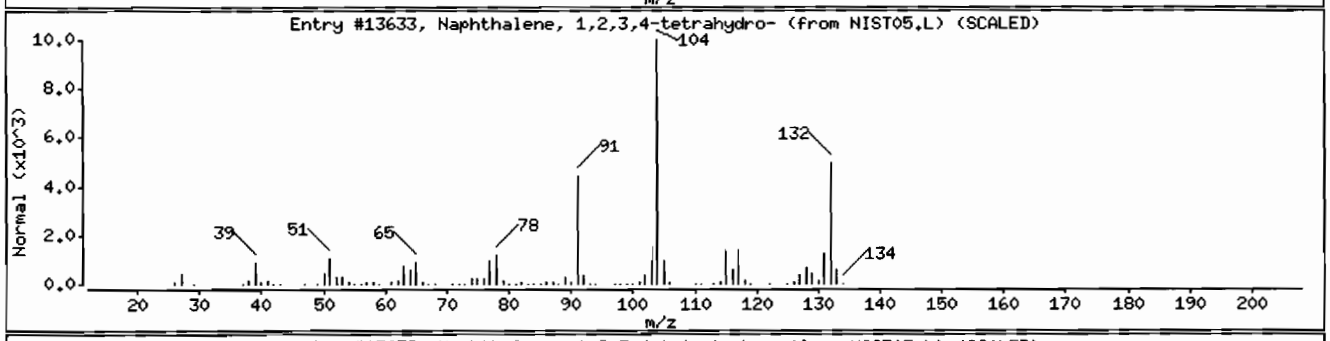

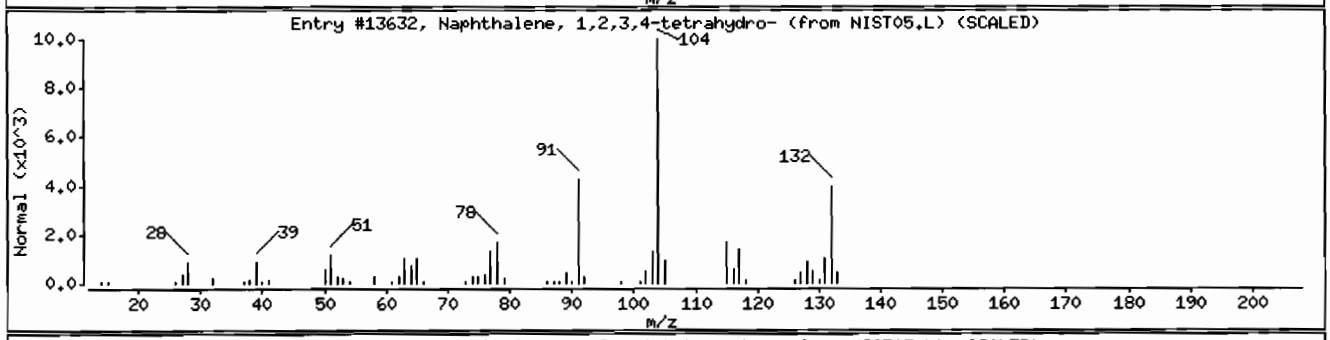

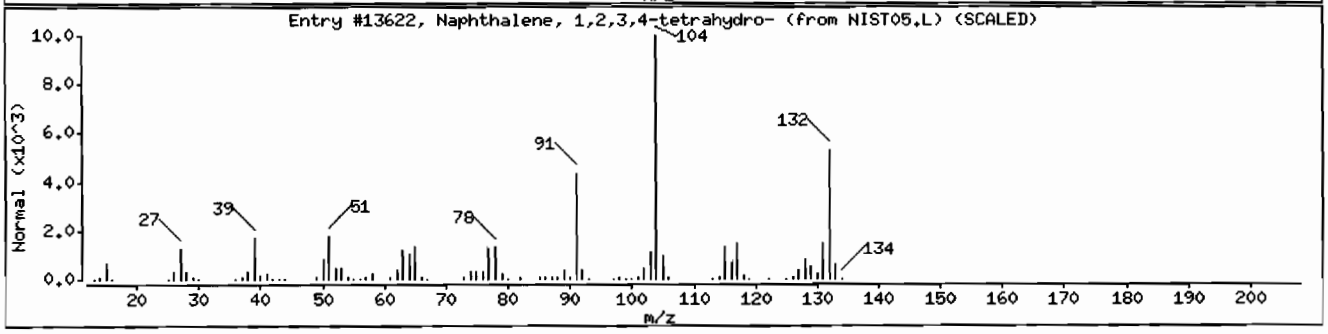

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842009**	**Date Received:**	**03/05/2010 10:20**	**% Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13547REDL**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**50**
Run Date:	**03/18/2010 13:45**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:32**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**1c410.d**	**Column:**	**RTX-Volatiles**	**Level:**	**MED**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	HU	114	ug/kg	38.9	114
74-87-3	Chloromethane	HU	114	ug/kg	34.3	114
75-01-4	Vinyl chloride	HU	114	ug/kg	34.3	114
74-83-9	Bromomethane	HU	114	ug/kg	34.3	114
75-00-3	Chloroethane	HU	114	ug/kg	34.3	114
75-69-4	Trichlorofluoromethane	HU	114	ug/kg	34.3	114
67-64-1	Acetone	HU	572	ug/kg	190	572
75-35-4	1,1-Dichloroethylene	HU	114	ug/kg	34.3	114
74-88-4	Iodomethane	HU	572	ug/kg	183	572
75-09-2	Methylene chloride	HU	572	ug/kg	229	572
75-15-0	Carbon disulfide	HU	572	ug/kg	143	572
156-60-5	trans-1,2-Dichloroethylene	HU	114	ug/kg	34.3	114
75-34-3	1,1-Dichloroethane	HU	114	ug/kg	34.3	114
78-93-3	2-Butanone	HJ	207	ug/kg	172	572
156-59-2	cis-1,2-Dichloroethylene	HU	114	ug/kg	34.3	114
594-20-7	2,2-Dichloropropane	HU	114	ug/kg	34.3	114
67-66-3	Chloroform	HU	114	ug/kg	34.3	114
74-97-5	Bromochloromethane	HU	114	ug/kg	37.8	114
71-55-6	1,1,1-Trichloroethane	HJ	88.8	ug/kg	34.3	114
563-58-6	1,1-Dichloropropene	HU	114	ug/kg	34.3	114
56-23-5	Carbon tetrachloride	HU	114	ug/kg	34.3	114
107-06-2	1,2-Dichloroethane	HU	114	ug/kg	34.3	114
71-43-2	Benzene	HU	114	ug/kg	34.3	114
79-01-6	Trichloroethylene	H	4510	ug/kg	37.8	114
78-87-5	1,2-Dichloropropane	HU	114	ug/kg	34.3	114
75-27-4	Bromodichloromethane	HU	114	ug/kg	34.3	114
74-95-3	Dibromomethane	HU	114	ug/kg	34.3	114
108-10-1	4-Methyl-2-pentanone	HU	572	ug/kg	143	572
10061-01-5	cis-1,3-Dichloropropylene	HU	114	ug/kg	34.3	114
108-88-3	Toluene	HJ	84.4	ug/kg	34.3	114
10061-02-6	trans-1,3-Dichloropropylene	HU	114	ug/kg	34.3	114
79-00-5	1,1,2-Trichloroethane	HU	114	ug/kg	34.3	114
591-78-6	2-Hexanone	HU	572	ug/kg	172	572
142-28-9	1,3-Dichloropropane	HU	114	ug/kg	34.3	114
127-18-4	Tetrachloroethylene	H	749	ug/kg	34.3	114
124-48-1	Dibromochloromethane	HU	114	ug/kg	34.3	114
106-93-4	1,2-Dibromoethane	HU	114	ug/kg	34.3	114
108-90-7	Chlorobenzene	HU	114	ug/kg	34.3	114

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13547REDL**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**50**
Run Date:	**03/18/2010 13:45**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:32**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**1c410.d**	**Column:**	**RTX-Volatiles**	**Level:**	**MED**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	HU	114	ug/kg	34.3	114
179601-23-1	m,p-Xylenes	HU	229	ug/kg	34.3	229
95-47-6	o-Xylene	HJ	43.0	ug/kg	34.3	114
100-42-5	Styrene	HU	114	ug/kg	34.3	114
75-25-2	Bromoform	HU	114	ug/kg	34.3	114
79-34-5	1,1,2,2-Tetrachloroethane	HU	114	ug/kg	34.3	114
96-18-4	1,2,3-Trichloropropane	HU	114	ug/kg	34.3	114
108-86-1	Bromobenzene	HU	114	ug/kg	34.3	114
103-65-1	n-Propylbenzene	H	167	ug/kg	34.3	114
95-49-8	2-Chlorotoluene	HU	114	ug/kg	34.3	114
98-82-8	Isopropylbenzene	HJ	42.0	ug/kg	34.3	114
108-67-8	1,3,5-Trimethylbenzene	H	653	ug/kg	34.3	114
106-43-4	4-Chlorotoluene	HU	114	ug/kg	34.3	114
98-06-6	tert-Butylbenzene	HU	114	ug/kg	34.3	114
95-63-6	1,2,4-Trimethylbenzene	H	334	ug/kg	34.3	114
135-98-8	sec-Butylbenzene	H	430	ug/kg	34.3	114
99-87-6	4-Isopropyltoluene	H	671	ug/kg	34.3	114
541-73-1	1,3-Dichlorobenzene	HU	114	ug/kg	34.3	114
106-46-7	1,4-Dichlorobenzene	HU	114	ug/kg	34.3	114
104-51-8	n-Butylbenzene	H	1280	ug/kg	34.3	114
96-12-8	1,2-Dibromo-3-chloropropane	HU	114	ug/kg	34.3	114
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	HU	572	ug/kg	183	572
630-20-6	1,1,1,2-Tetrachloroethane	HU	114	ug/kg	34.3	114
95-50-1	1,2-Dichlorobenzene	HU	114	ug/kg	34.3	114

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	16.5	8710	ug/kg		J
	Unknown Hydrocarbon	19.74	12300	ug/kg		J
	Unknown Hydrocarbon	19.95	7150	ug/kg		J
	Unknown Hydrocarbon	20.38	7430	ug/kg		J
	Unknown Hydrocarbon	20.64	6340	ug/kg		J
	Unknown Hydrocarbon	20.95	13500	ug/kg		J
	Unknown Hydrocarbon	21.13	8420	ug/kg		J
	Unknown Hydrocarbon	21.35	11200	ug/kg		J
	Unknown Hydrocarbon	21.78	7730	ug/kg		J
	Unknown Hydrocarbon	21.9	7210	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13547REDL	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	50
Run Date:	03/18/2010 13:45	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 13:32	**Aliquot:**	5 g	**Final Volume:**	10 mL
Data File:	1c410.d	**Column:**	RTX-Volatiles	**Level:**	MED

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	22.27	5520	ug/kg		J
	Unknown Hydrocarbon	22.42	12200	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031810v1/1c410.d
Lab Smp Id: 248842009 Client Smp ID: RE46-10-13547
Inj Date : 18-MAR-2010 13:45
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842009|965875|50|VOAF|2|
Misc Info : LANL 100uL N/A
Comment :
Method : /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 21:48 a1e01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vs/Ws)*(Vt/Va)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	12.65350	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Vs	10000.00000	Soil Extract Volume (uL)
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	965295	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	728583	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	406895	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	467559	49.6071	5680
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1266216	51.6724	5920
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	544089	53.3350	6110
35 2-Butanone	43	12.181	12.172	(0.891)	10972	1.81022	207(a)
43 1,1,1-Trichloroethane	97	12.830	12.835	(0.938)	6434	0.77587	88.8(a)
54 Trichloroethylene	95	14.105	14.105	(1.032)	224730	39.4047	4510
66 Toluene	92	15.583	15.583	(0.909)	10356	0.73699	84.4(a)
70 Tetrachloroethylene	164	16.181	16.181	(0.944)	29377	6.54500	749

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
81 o-Xylene	106	17.764	17.769	(1.036)	3670	0.37571	43.0(aQ)
89 n-Propylbenzene	91	18.547	18.547	(0.946)	49365	1.45877	167
84 Isopropylbenzene	105	18.119	18.114	(0.925)	10156	0.36717	42.0(a)
93 1,3,5-Trimethylbenzene	105	18.703	18.703	(0.954)	137784	5.70588	653
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	73276	2.91945	334
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	115547	3.75883	430
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	140322	5.86060	671
105 n-Butylbenzene	91	19.854	19.854	(1.013)	288553	11.1610	1280(Q)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

VOA REPORT

Data file: 1c410.d
Report Date: 03/18/2010 13:10
Lab. ID: 248842009 SampleType: SAMPLE
Injection Date: 18-MAR-2010 13:45
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248842009|965875|50|VOAF|1|
Miscellaneous Info: LANL 100uL N/A
Comment:
Method used: /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
35 2-Butanone			CAS#: 78-93-3			
43	10972	12.18	12.17	80-120	100	( )
72	2394	12.19	12.18	0- 52	22	( )
43 1,1,1-Trichloroethane			CAS#: 71-55-6			
97	6434	12.83	12.83	80-120	100	( )
99	4033	12.83	12.83	34- 94	63	( )
61	2104	12.83	12.83	13- 73	33	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	16979	13.67	13.43	80-120	100	(T)
64	2831	13.67	13.43	2- 62	17	(T)
54 Trichloroethylene			CAS#: 79-01-6			
95	224730	14.11	14.10	80-120	100	( )
97	145724	14.10	14.10	35- 95	65	( )
130	183485	14.11	14.10	51-111	82	( )
63 cis-1,3-Dichloropropylene			CAS#: 10061-01-5			
75	33926	15.67	15.25	80-120	100	(T)
77	68906	15.68	15.25	1- 61	203	(QT)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	12861	15.50	15.35	80-120	100	(T)
43	10450	15.50	15.35	221-281	81	(QT)
100	795822	15.50	15.35	0- 60	6188	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
66 Toluene		CAS#: 108-88-3				
92	10356	15.58	15.58	80-120	100	( )
91	19105	15.59	15.58	141-201	184	( )
68 trans-1,3-Dichloropropylene				CAS#: 10061-02-6		
75	52713	15.67	15.87	80-120	100	(T)
77	89173	15.68	15.87	1- 61	169	(QT)
69 1,1,2-Trichloroethane				CAS#: 79-00-5		
83	21453	16.43	16.09	80-120	100	(T)
97	3134	16.43	16.09	88-148	15	(QT)
85	9519	16.50	16.09	35- 95	44	(T)
72 1,3-Dichloropropane				CAS#: 142-28-9		
76	21813	16.50	16.30	80-120	100	(T)
78	24798	16.48	16.30	3- 63	114	(QT)
71 2-Hexanone			CAS#: 591-78-6			
43	22497	16.60	16.25	80-120	100	(T)
58	940	16.57	16.25	24- 84	4	(QT)
70 Tetrachloroethylene				CAS#: 127-18-4		
164	29377	16.18	16.18	80-120	100	( )
129	28866	16.18	16.18	66-126	98	( )
131	28229	16.18	16.18	62-122	96	( )
73 Dibromochloromethane				CAS#: 124-48-1		
129	4118	16.49	16.54	80-120	100	( )
127	2603	16.51	16.54	47-107	63	( )
81 o-Xylene			CAS#: 95-47-6			
106	3670	17.76	17.77	80-120	100	( )
91	10641	17.77	17.77	223-283	290	(Q)
80 m,p-Xylenes			CAS#:			
106	3670	17.76	17.32	80-120	100	(T)
91	10103	17.77	17.32	209-269	275	(QT)
84 Isopropylbenzene				CAS#: 98-82-8		
105	10156	18.12	18.11	80-120	100	( )
120	2251	18.12	18.12	0- 52	22	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
88 1,1,2,2-Tetrachloroethane				CAS#: 79-34-5		
83	36684	18.46	18.50	80-120	100	( )
85	105583	18.52	18.50	36- 96	288	(Q)
92 1,2,3-Trichloropropane				CAS#: 96-18-4		
110	18258	18.61	18.59	80-120	100	( )
75	930	18.55	18.59	312-372	5	(Q)
77	24573	18.65	18.58	760-820	135	(QT)
91 Bromobenzene				CAS#: 108-86-1		
156	5863	18.82	18.58	80-120	100	(T)
77	14246	18.70	18.58	213-273	243	(T)
158	207	18.58	18.58	67-127	4	(Q)
89 n-Propylbenzene				CAS#: 103-65-1		
91	49365	18.55	18.55	80-120	100	( )
120	9115	18.54	18.55	0- 49	18	( )
94 2-Chlorotoluene				CAS#: 95-49-8		
91	18837	18.70	18.73	80-120	100	( )
126	3753	18.82	18.73	0- 52	20	(T)
93 1,3,5-Trimethylbenzene				CAS#: 108-67-8		
105	137784	18.70	18.70	80-120	100	( )
120	54262	18.70	18.70	9- 69	39	( )
97 1,2,4-Trimethylbenzene				CAS#: 95-63-6		
105	73276	19.12	19.12	80-120	100	( )
120	26276	19.12	19.12	6- 66	36	( )
95 4-Chlorotoluene				CAS#: 106-43-4		
91	12726	18.95	18.84	80-120	100	(T)
126	3753	18.82	18.84	0- 55	29	( )
96 tert-Butylbenzene				CAS#: 98-06-6		
119	6996	19.13	19.06	80-120	100	(T)
91	88160	19.25	19.06	57-117	1260	(QT)
134	1545	19.05	19.06	0- 51	22	( )
99 sec-Butylbenzene				CAS#: 135-98-8		
105	115547	19.29	19.29	80-120	100	( )
134	19586	19.29	19.29	0- 47	17	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
100 4-Isopropyltoluene			CAS#: 99-87-6			
119	140322	19.41	19.41	80-120	100	( )
134	33071	19.41	19.41	0- 53	24	( )
91	56411	19.34	19.41	1- 61	40	(T)
105 n-Butylbenzene			CAS#: 104-51-8			
91	288553	19.85	19.85	80-120	100	( )
92	153849	19.85	19.85	24- 84	53	( )
134	309503	19.80	19.85	0- 51	107	(Q)
106 1,2-Dichlorobenzene			CAS#: 95-50-1			
146	7941	20.52	20.07	80-120	100	(T)
111	279615	19.60	20.07	19- 79	3521	(QT)
148	262528	20.37	20.06	35- 95	3306	(QT)
108 1,2-Dibromo-3-chloropropane			CAS#: 96-12-8			
157	485	20.61	20.99	80-120	100	(T)
155	4310	20.57	20.99	49-109	887	(QT)
75	6151	20.65	20.99	100-160	1266	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031810v1/1c410.d
Lab Smp Id: 248842009 Client Smp ID: RE46-10-13547
Inj Date : 18-MAR-2010 13:45
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842009|965875|50|VOAF|2|
Misc Info : LANL 100uL N/A
Comment :
Method : /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 21:48 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vs/Ws)*(Vt/Va)*(Uf) * CpndVarial

Name	Value	Description
DF	1.00000	Dilution Factor
M	12.65350	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Vs	10000.00000	Soil Extract Volume (uL)
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.148	2682123	50.000
* 102 1,4-Dichlorobenzene-d4	19.596	4654365	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
16.503	4081204	76.0815761	8710	0		0	76

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL (ug/l)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	========	======
Unknown Hydrocarbon					CAS #:		
19.739	10020685	107.648230	12300	0		0	102
Unknown Hydrocarbon					CAS #:		
19.951	5813762	62.4549351	7150	0		0	102
Unknown Hydrocarbon					CAS #:		
20.384	6044235	64.9308083	7430	0		0	102
Unknown Hydrocarbon					CAS #:		
20.641	5156455	55.3937495	6340	0		0	102
Unknown Hydrocarbon					CAS #:		
20.950	10967827	117.823003	13500	0		0	102
Unknown Hydrocarbon					CAS #:		
21.129	6844088	73.5233196	8420	0		0	102
Unknown Hydrocarbon					CAS #:		
21.350	9094832	97.7021650	11200	0		0	102
Unknown Hydrocarbon					CAS #:		
21.778	6288963	67.5598308	7730	0		0	102
Unknown Hydrocarbon					CAS #:		
21.903	5866278	63.0190937	7210	0		0	102
Unknown Hydrocarbon					CAS #:		
22.266	4489753	48.2316282	5520	0		0	102
Unknown Hydrocarbon					CAS #:		
22.418	9900265	106.354608	12200	0		0	102

Data File: /chem/VOA1.i/031810v1/1c410.d
Date : 18-MAR-2010 13:45
Client ID: RE46-10-13547
Sample Info: |2488420091965875|50|VOAF|2|

Instrument: VOA1.i
Operator: GRB2
Column phase: RTX-Volatiles
Column diameter: 0.25

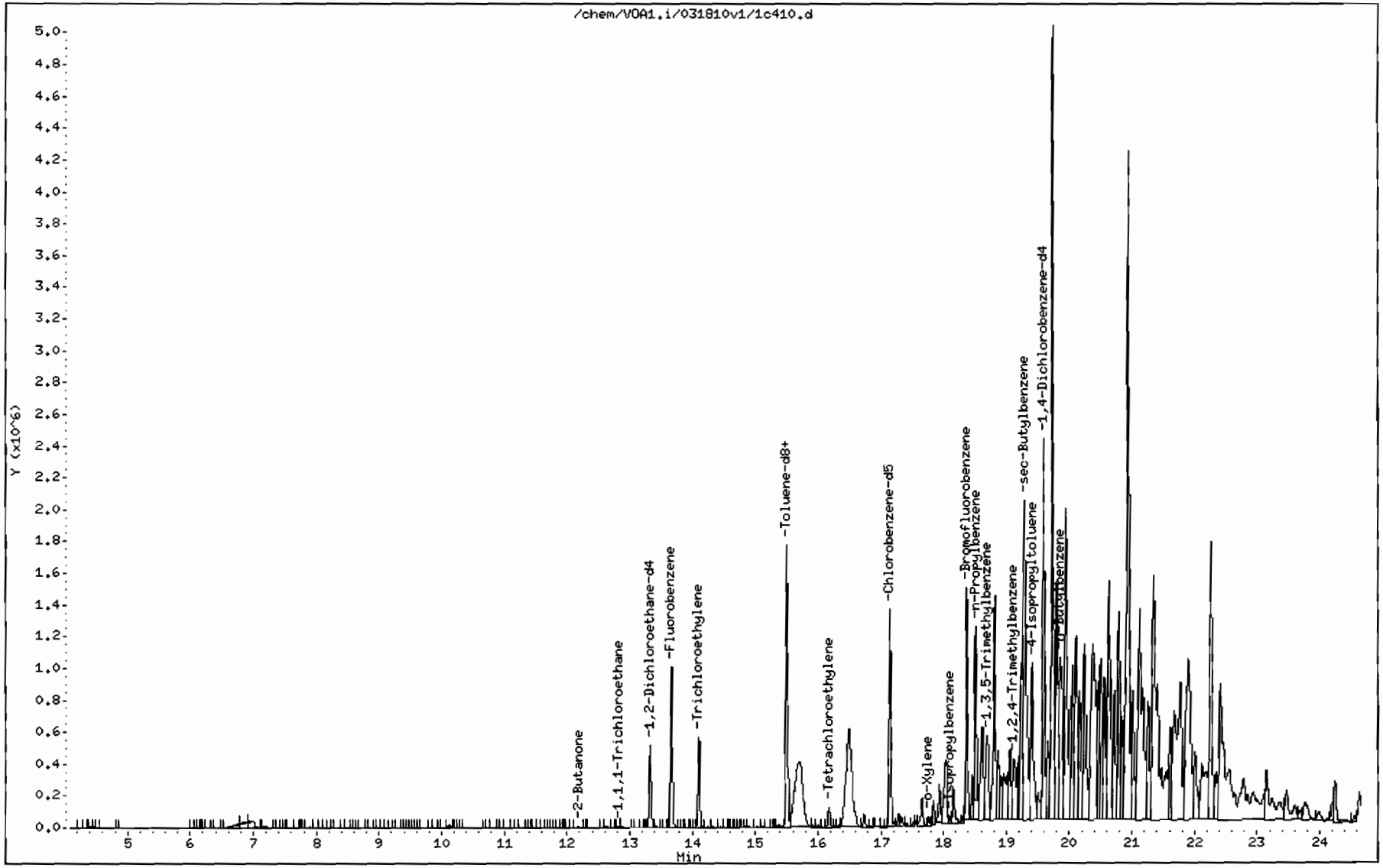

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: 1248842009196587515O1VOAF121

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

35 2-Butanone

Concentration: 207 ug/Kg

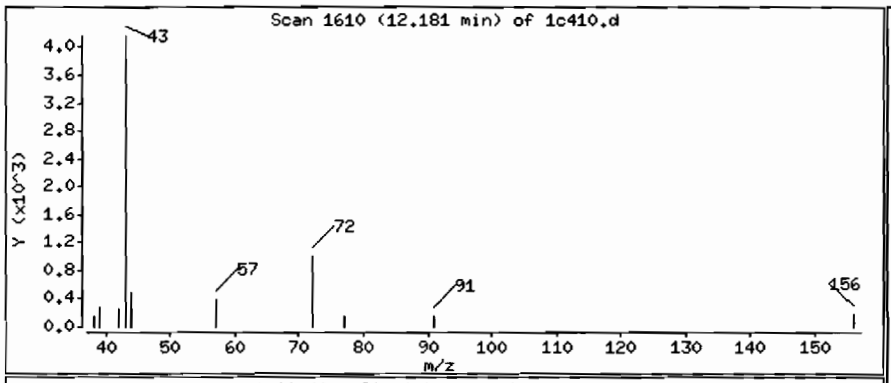

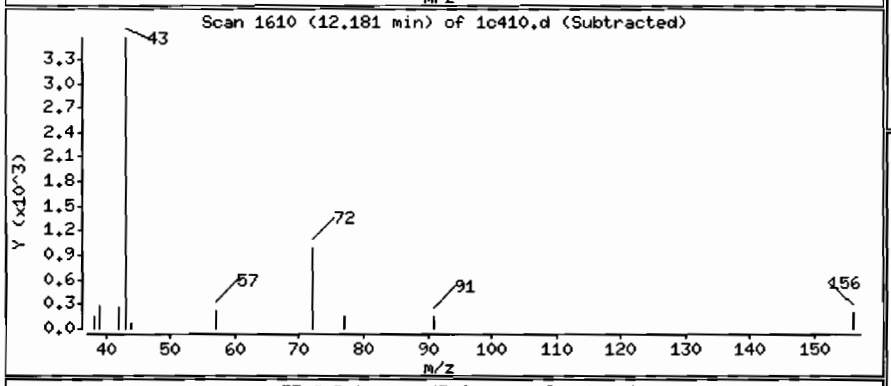

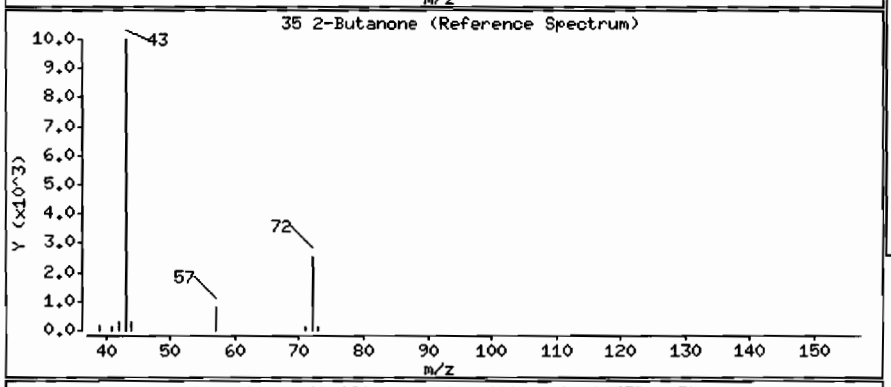

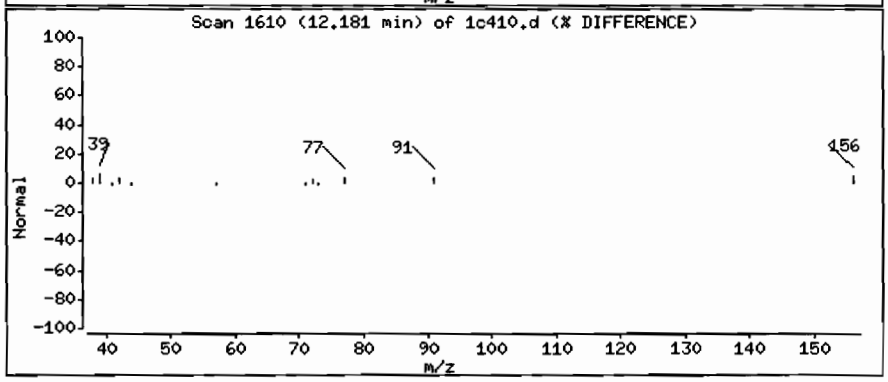

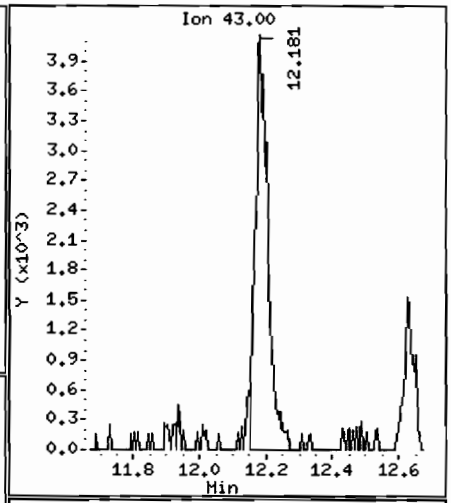

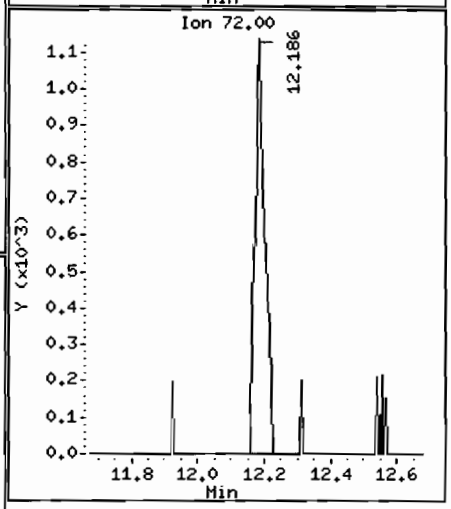

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: 1248842009|965875|50|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

43 1,1,1-Trichloroethane

Concentration: 88.8 ug/Kg

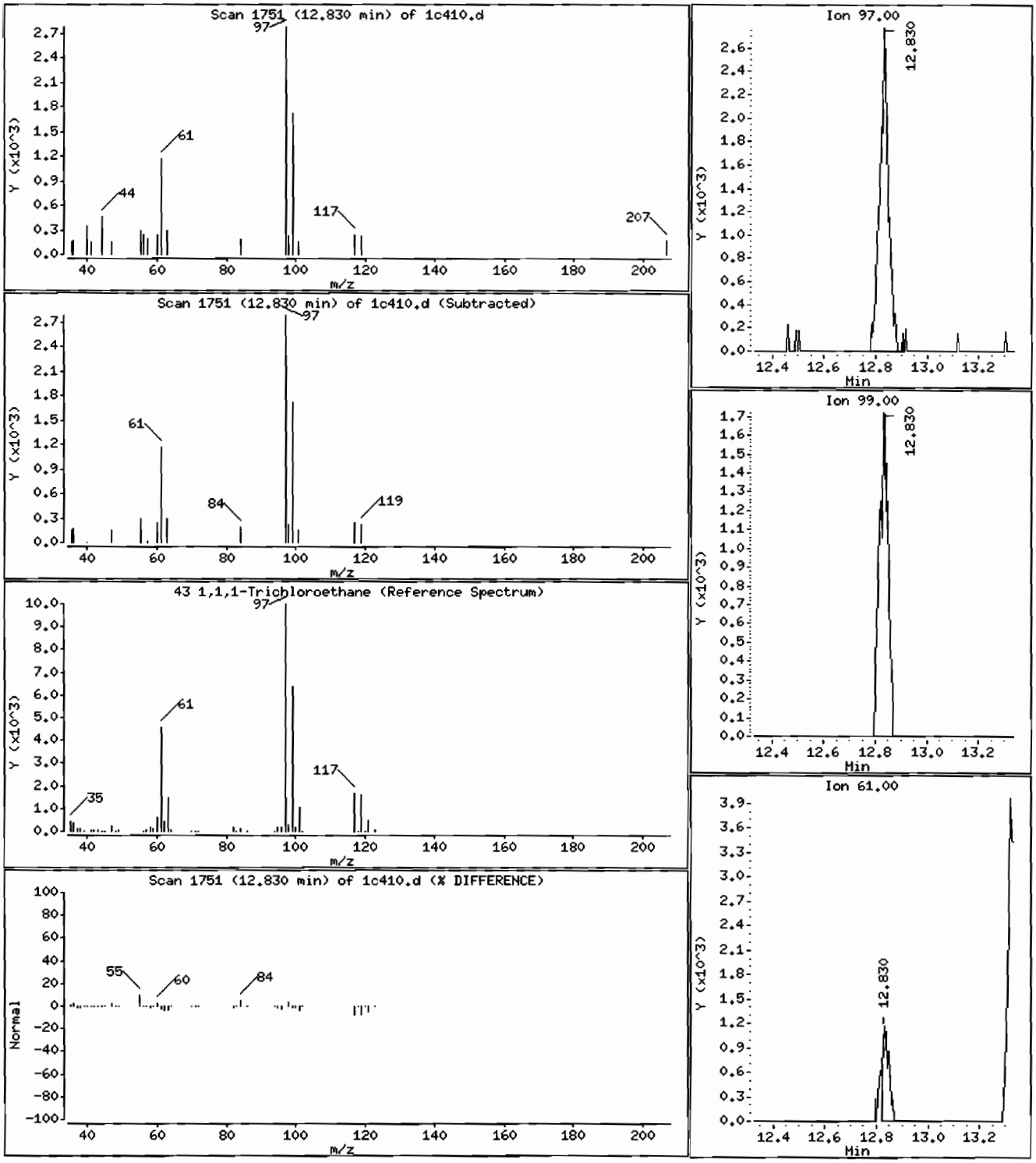

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|50|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

54 Trichloroethylene

Concentration: 4510 ug/Kg

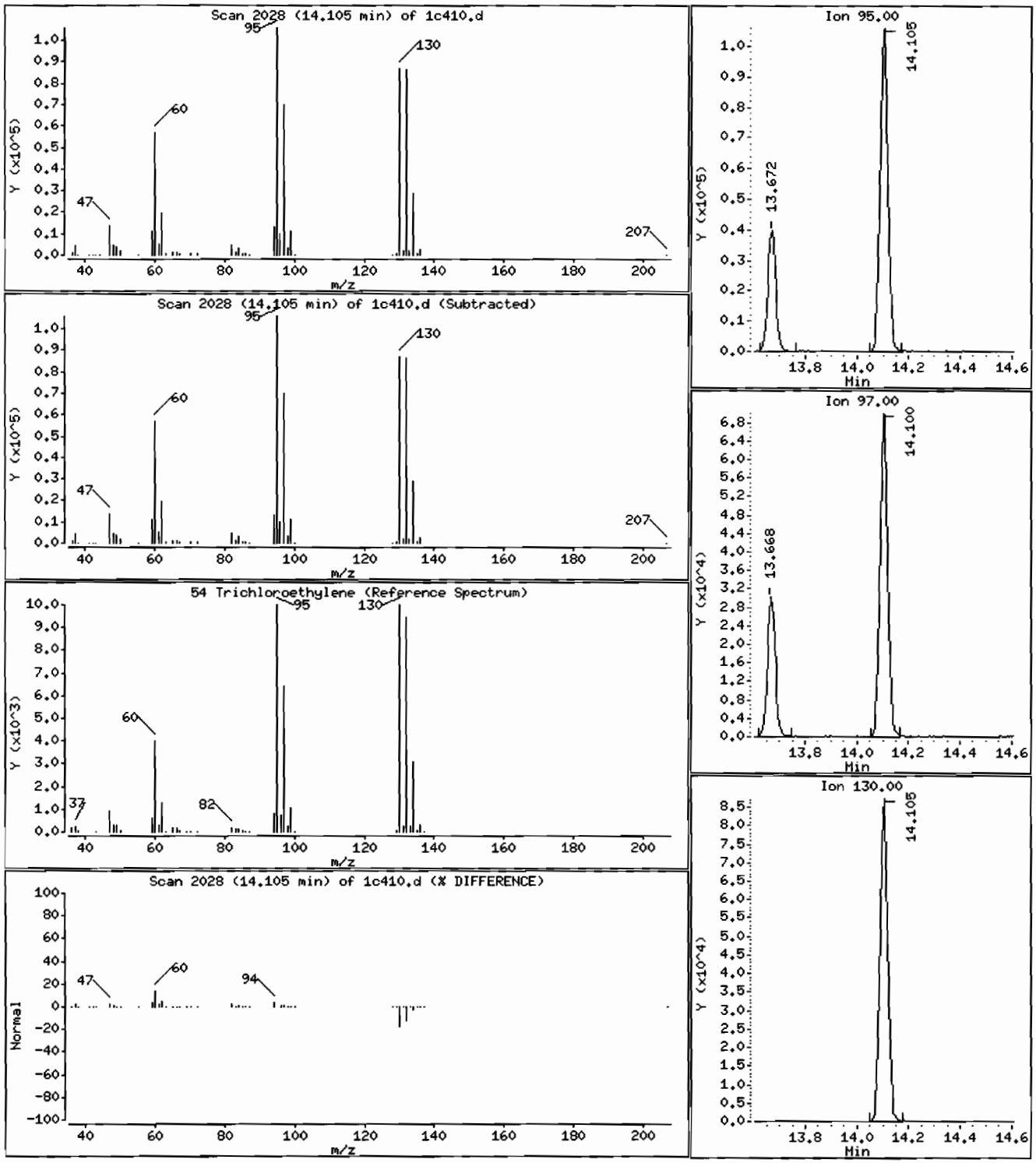

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: 1248842009|965875150|VOAF121

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

66 Toluene

Concentration: 84.4 ug/Kg

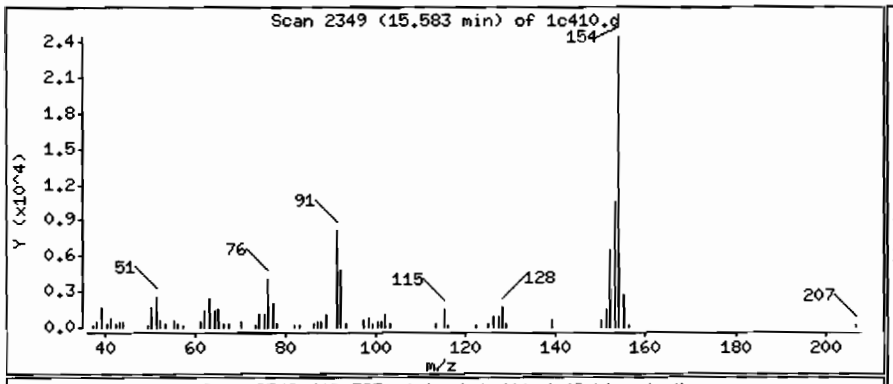

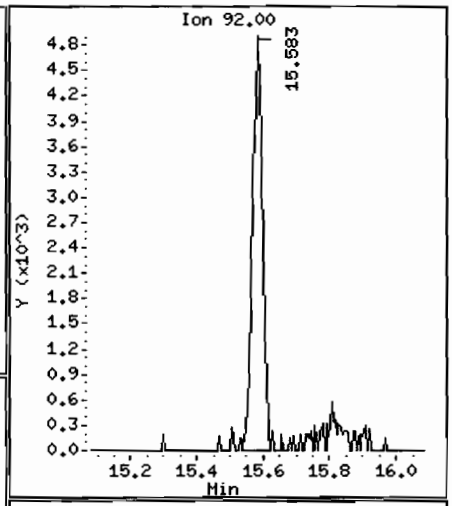

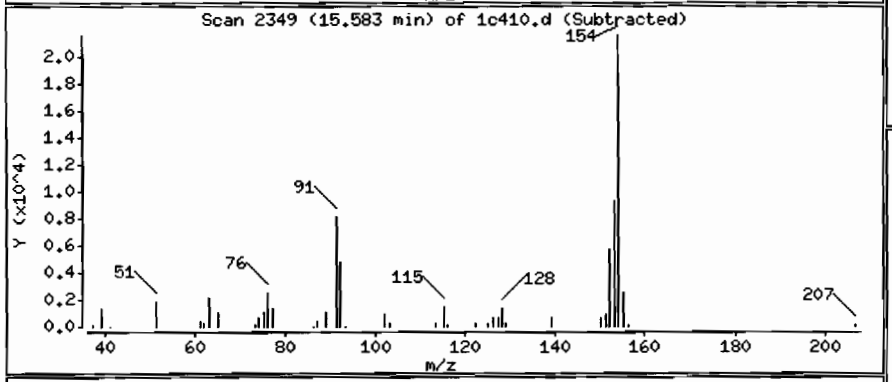

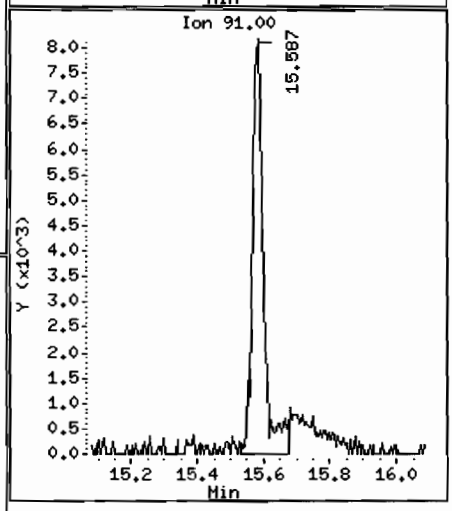

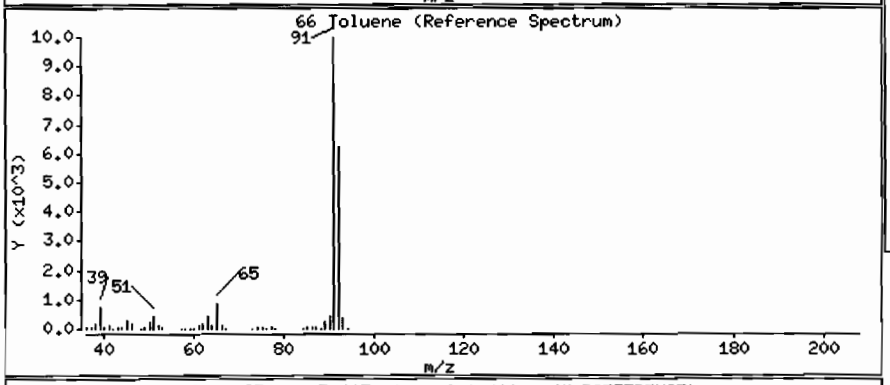

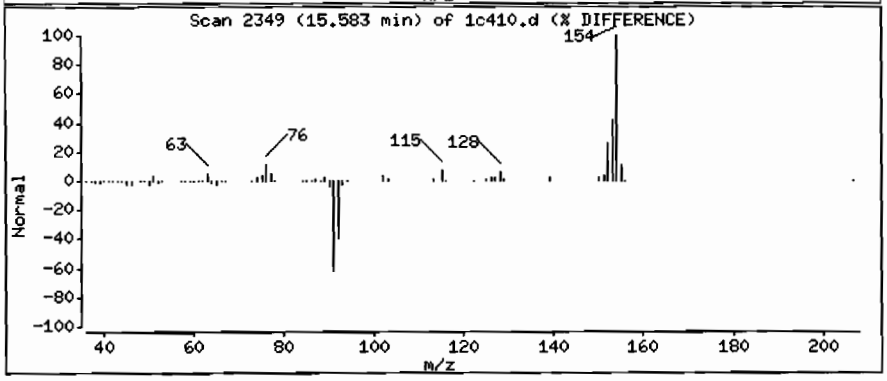

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: 1248842009196587515O1VOAF121

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

70 Tetrachloroethylene

Concentration: 749 ug/Kg

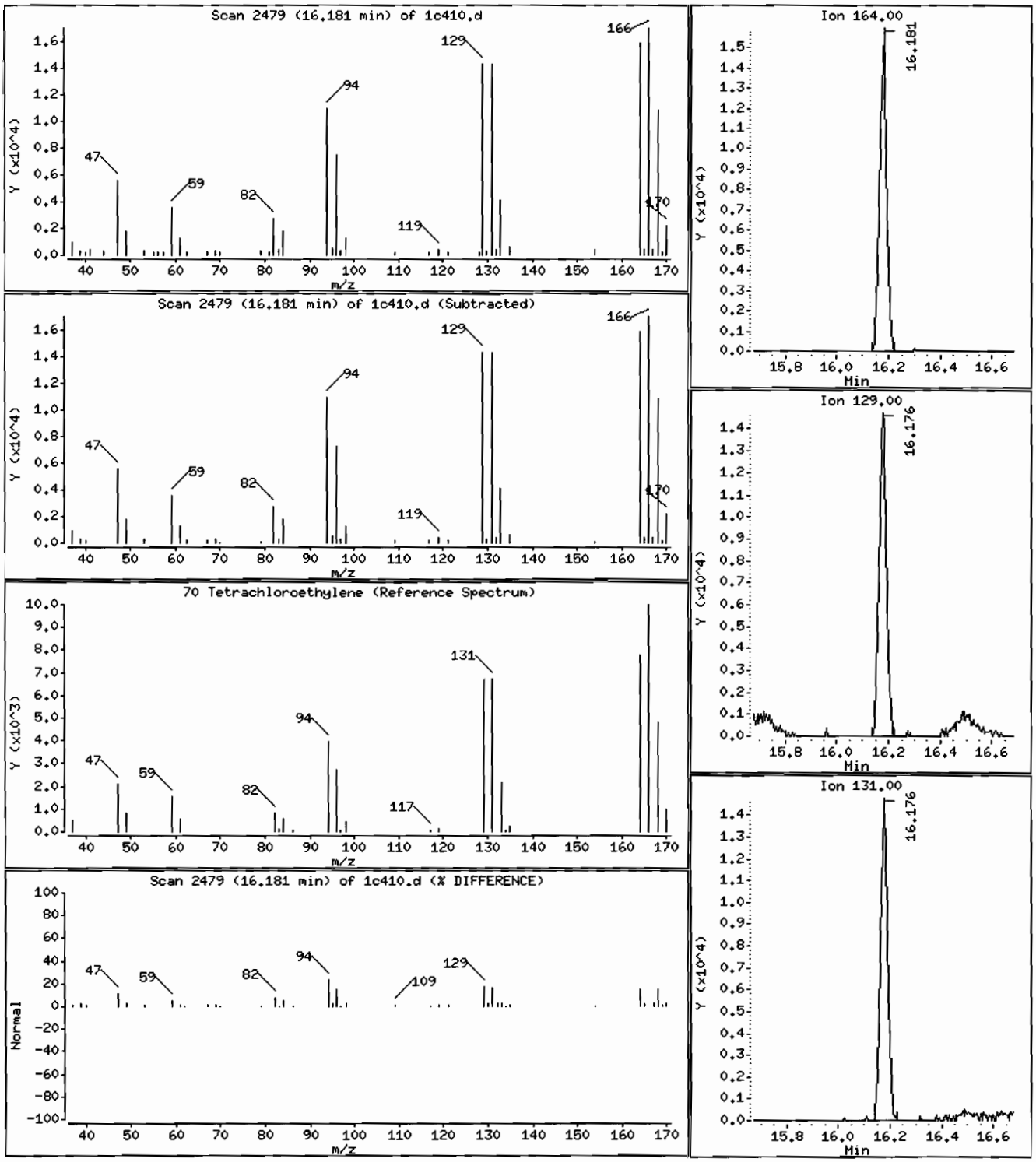

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|50|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

81 o-Xylene

Concentration: 43.0 ug/Kg

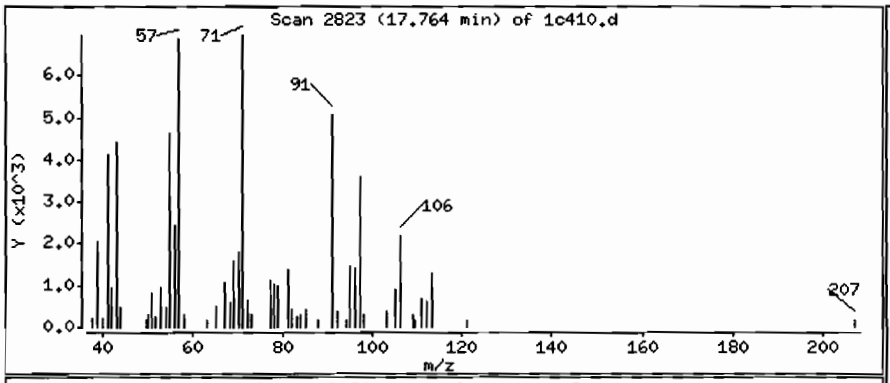

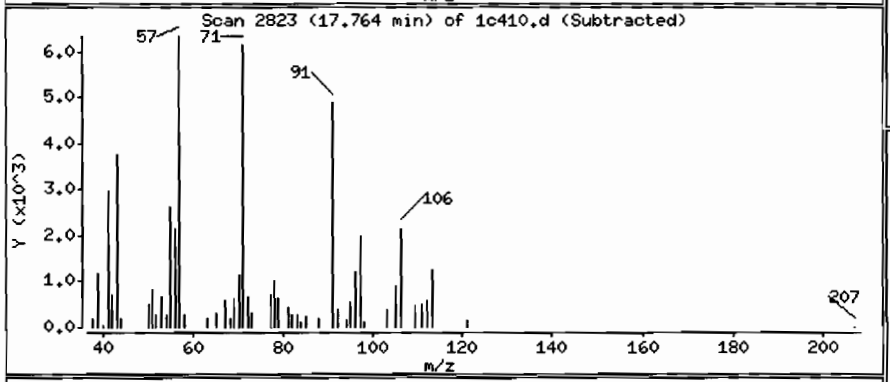

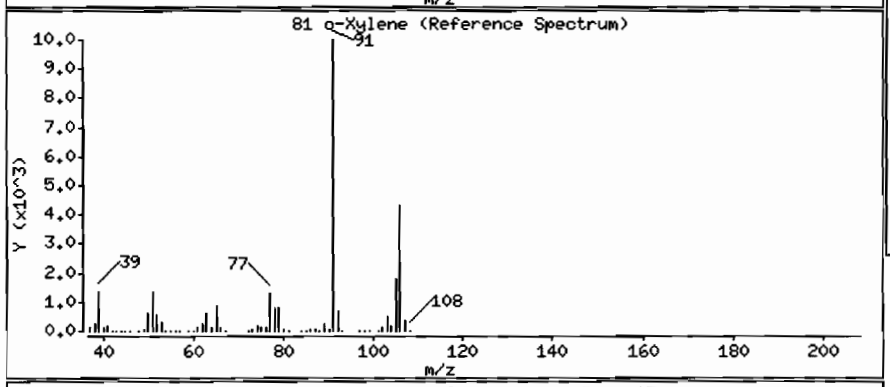

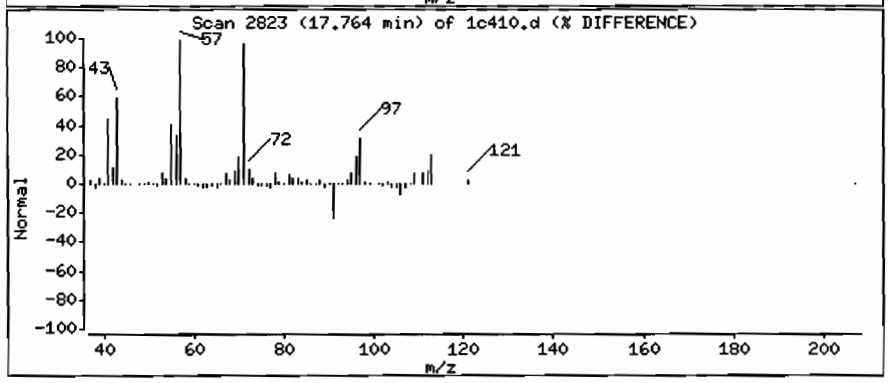

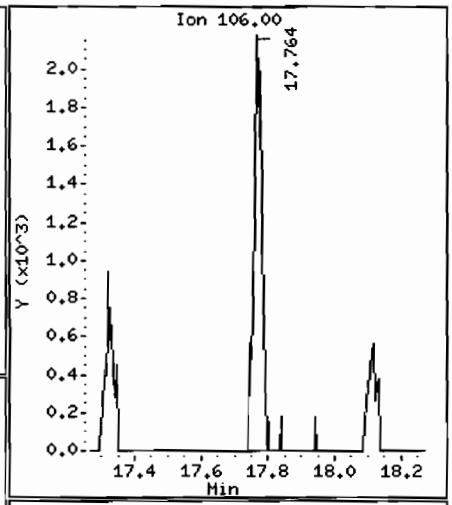

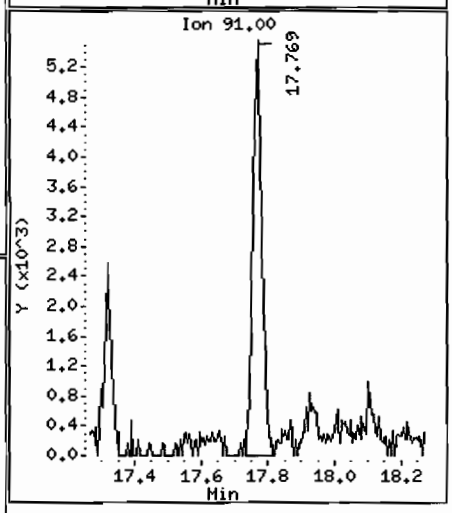

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875150|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

89 n-Propylbenzene

Concentration: 167 ug/Kg

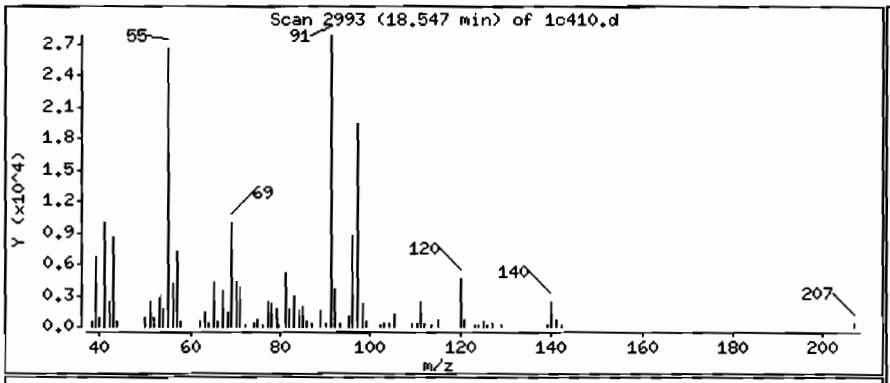

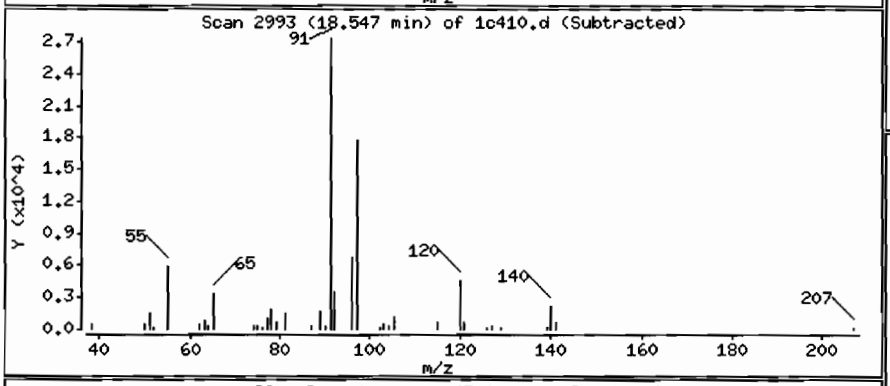

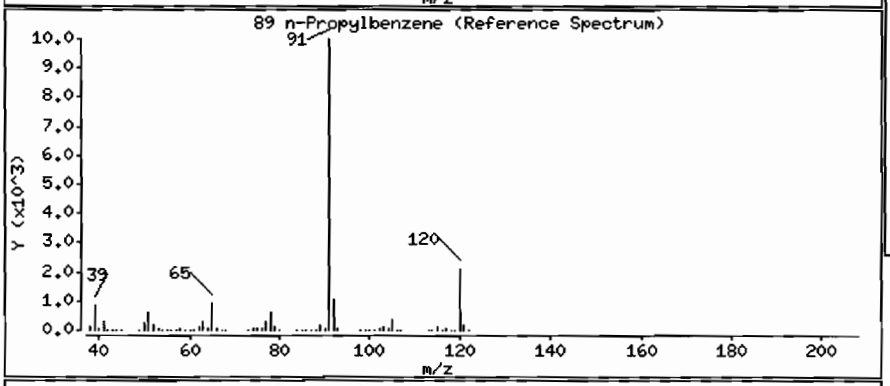

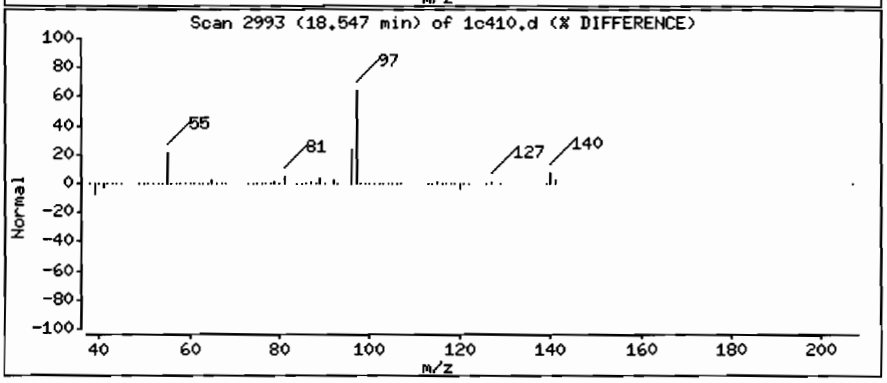

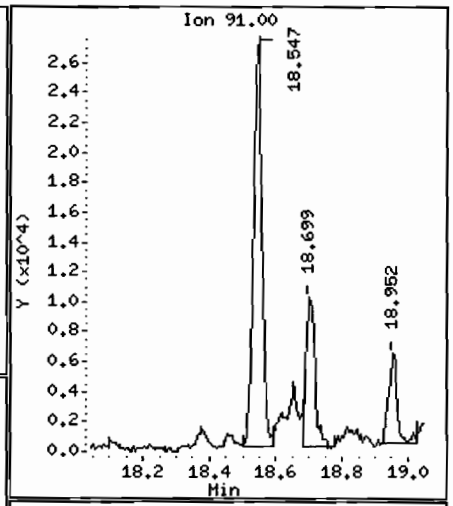

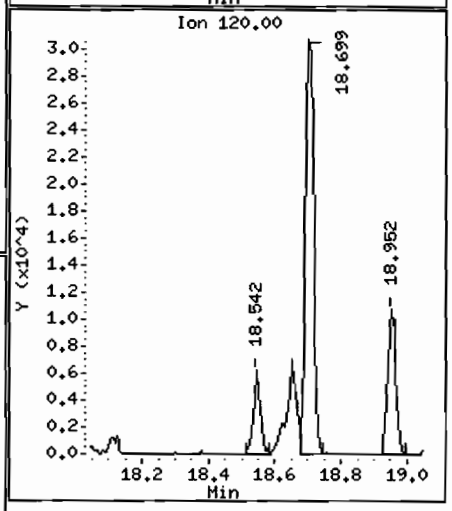

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875150|VOAF12|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

84 Isopropylbenzene

Concentration: 42.0 ug/Kg

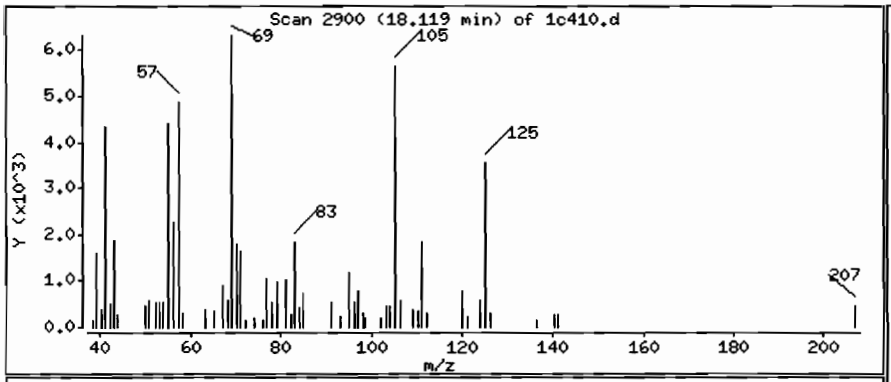

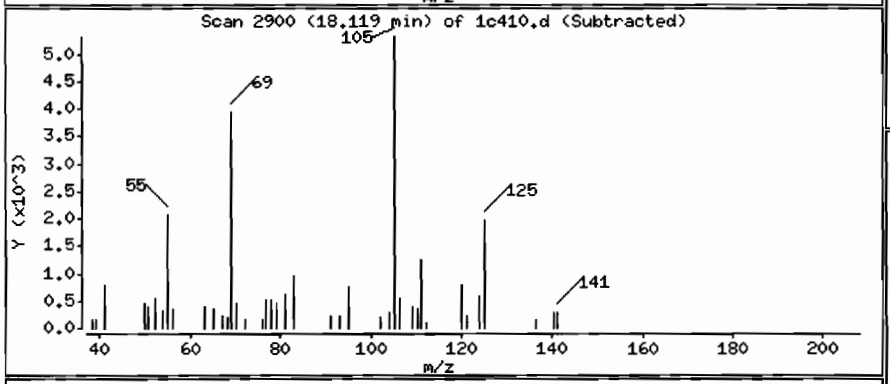

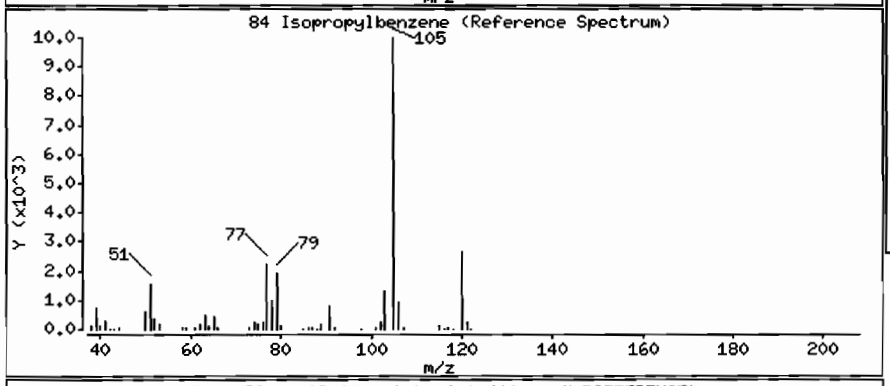

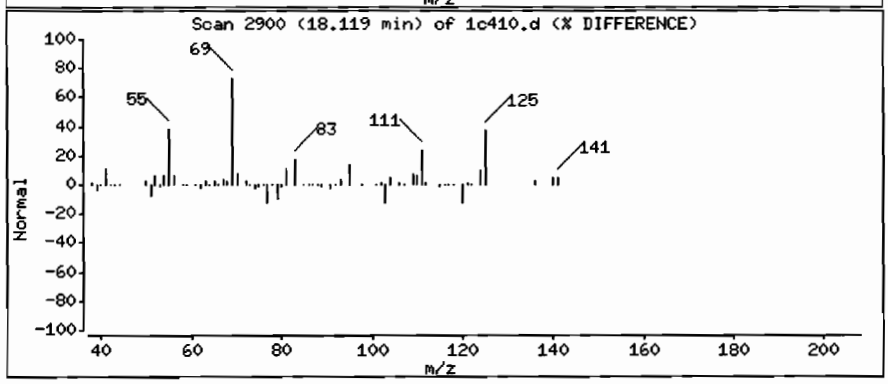

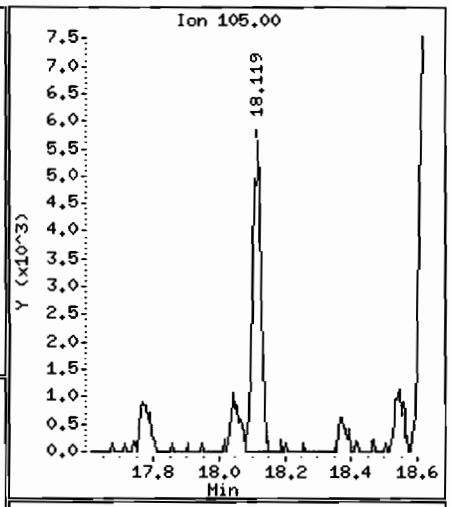

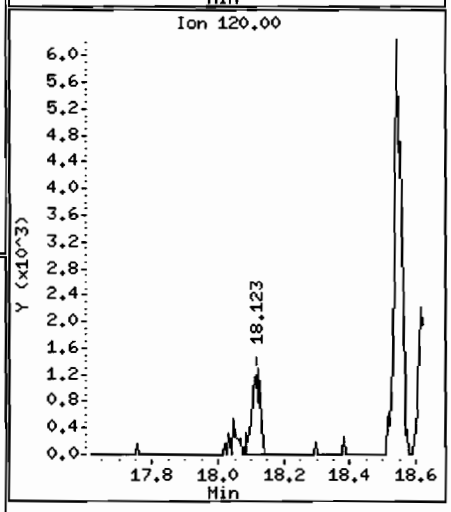

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875150|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

93 1,3,5-Trimethylbenzene

Concentration: 653 ug/Kg

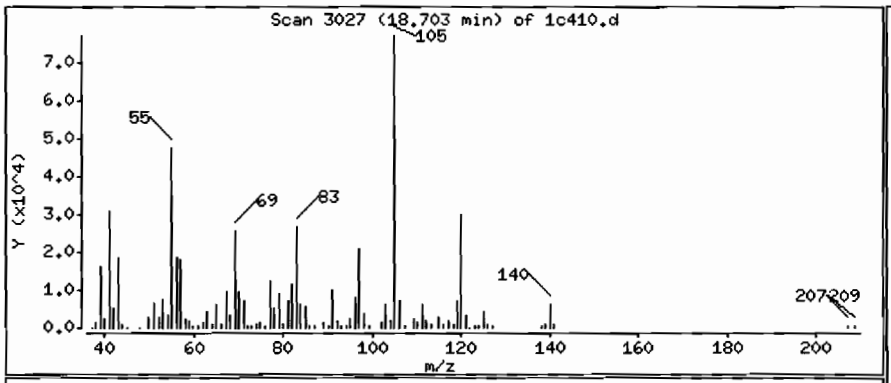

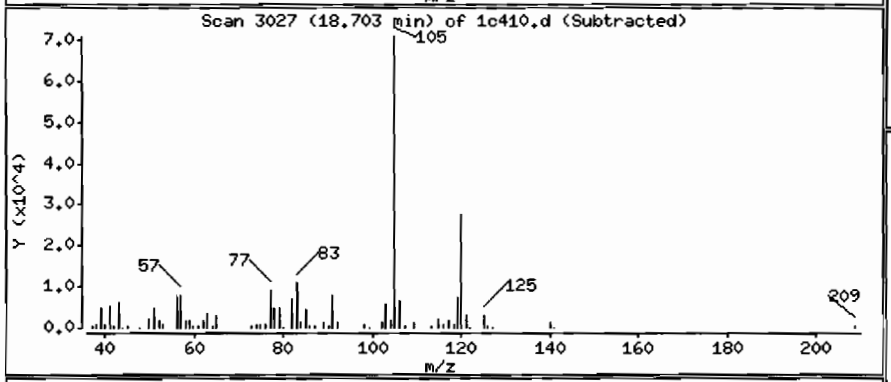

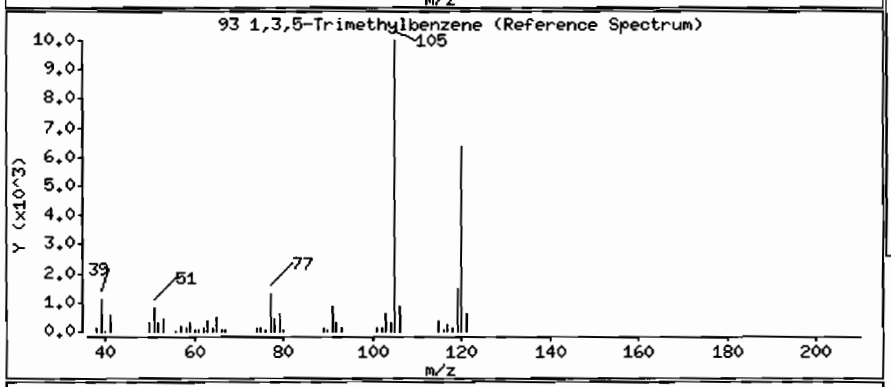

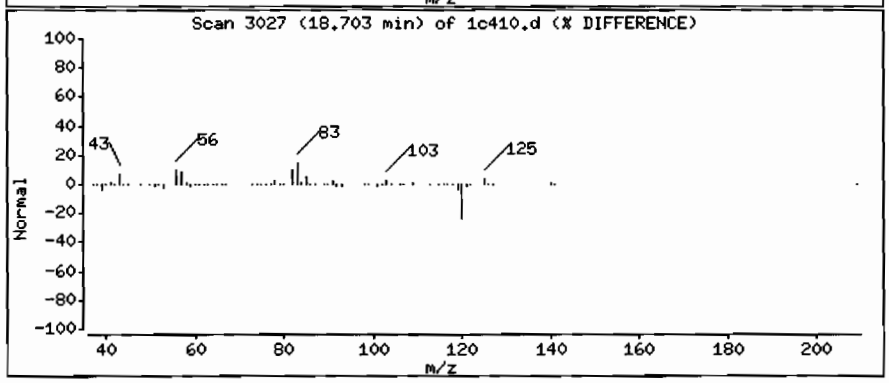

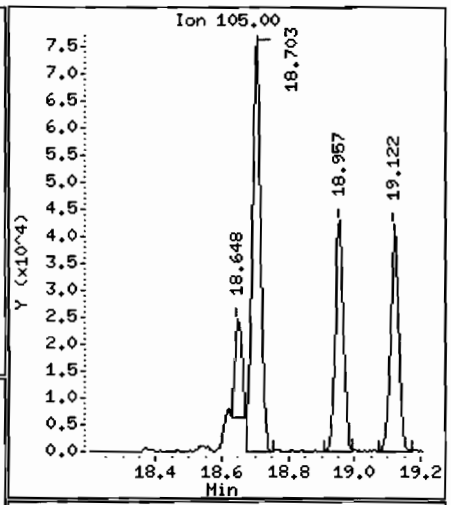

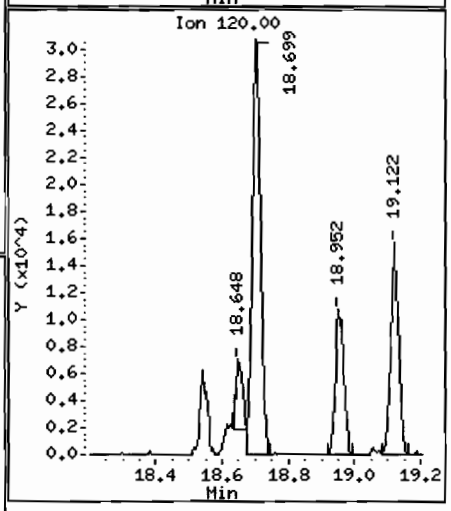

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: 1248842009|965875|50|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

97 1,2,4-Trimethylbenzene

Concentration: 334 ug/Kg

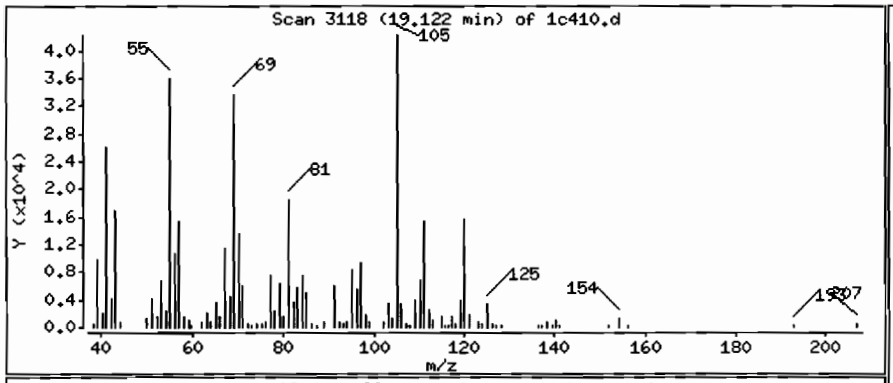

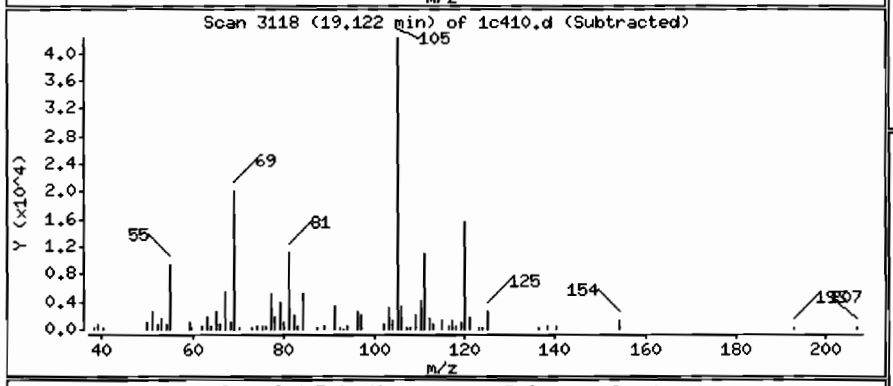

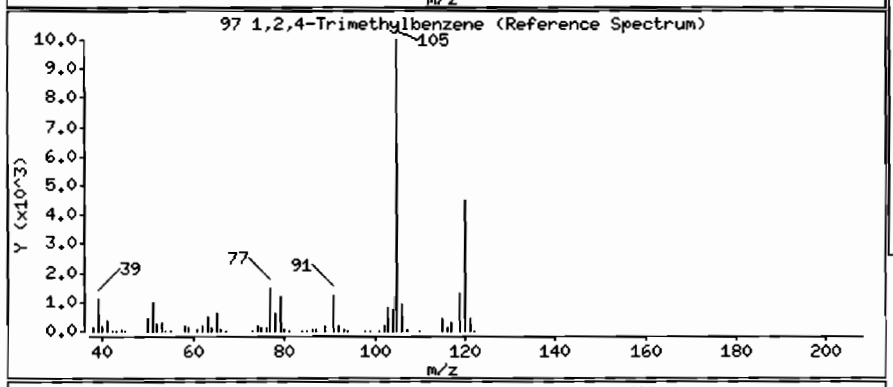

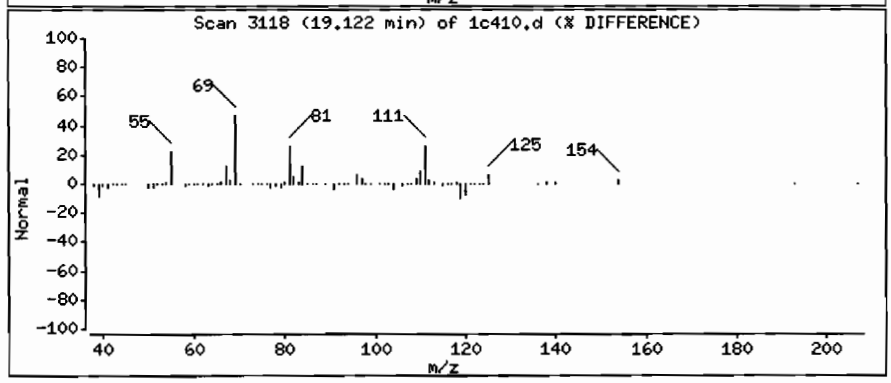

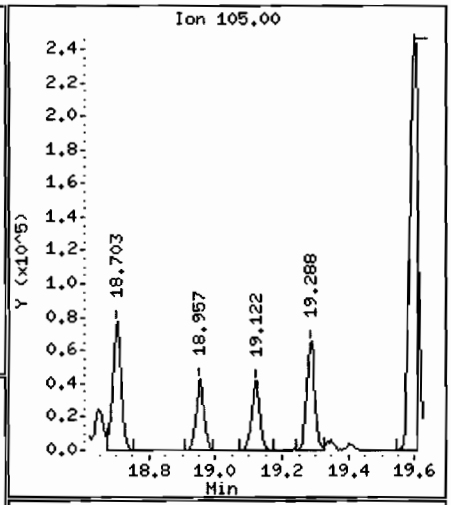

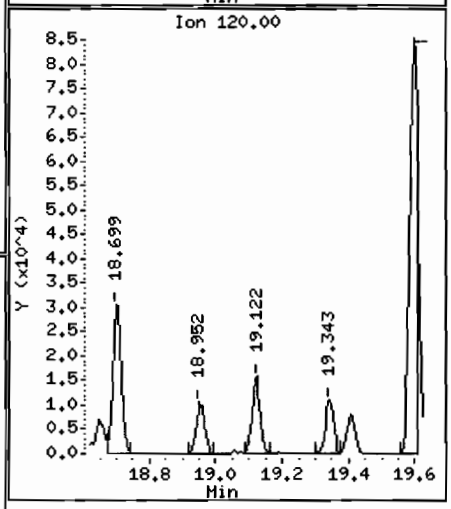

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: 1248842009196587515 0|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

99 sec-Butylbenzene

Concentration: 430 ug/Kg

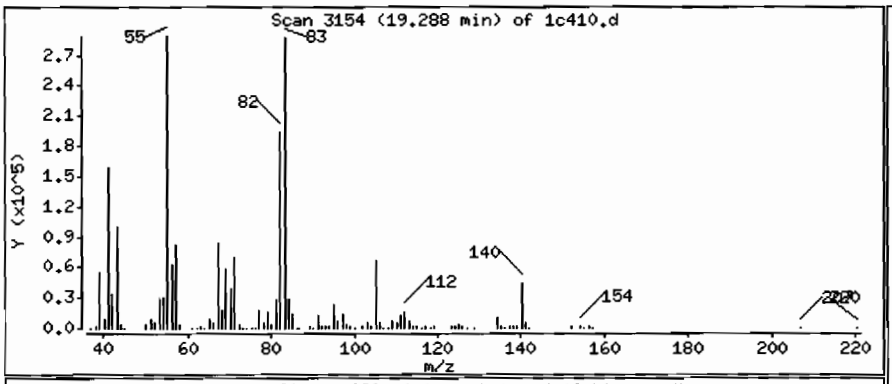

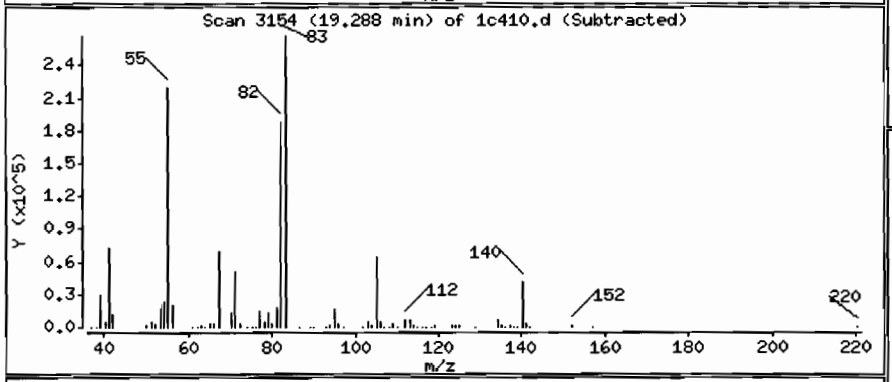

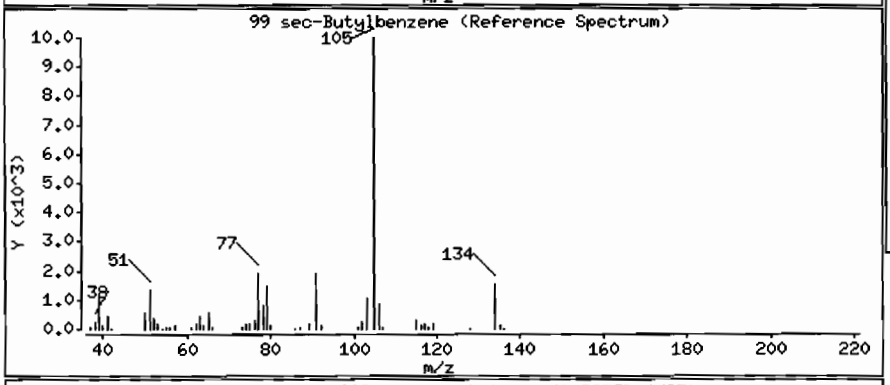

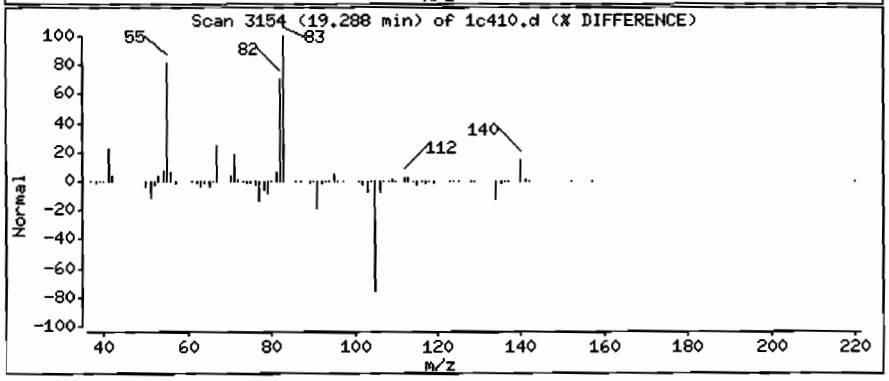

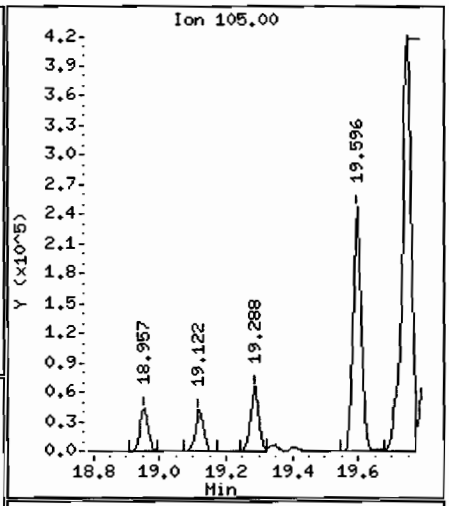

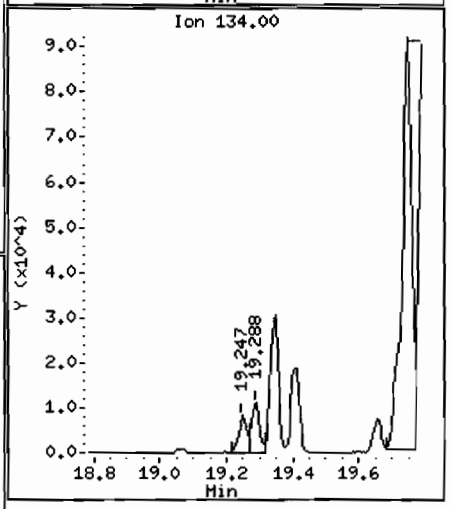

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: 1248842009196587515 0|VOAF12|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

100 4-Isopropyltoluene

Concentration: 671 ug/Kg

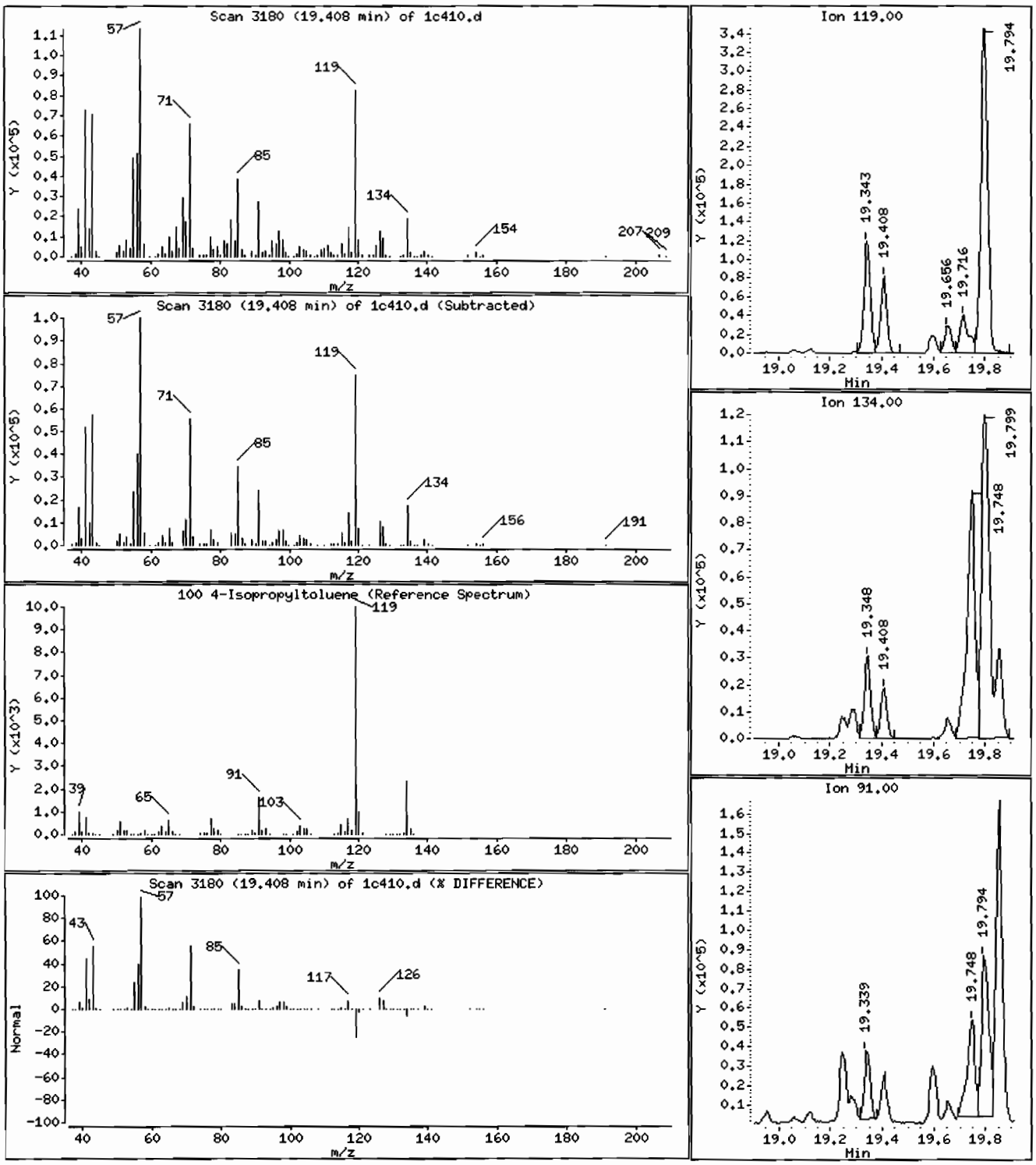

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875150|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

105 n-Butylbenzene

Concentration: 1280 ug/Kg

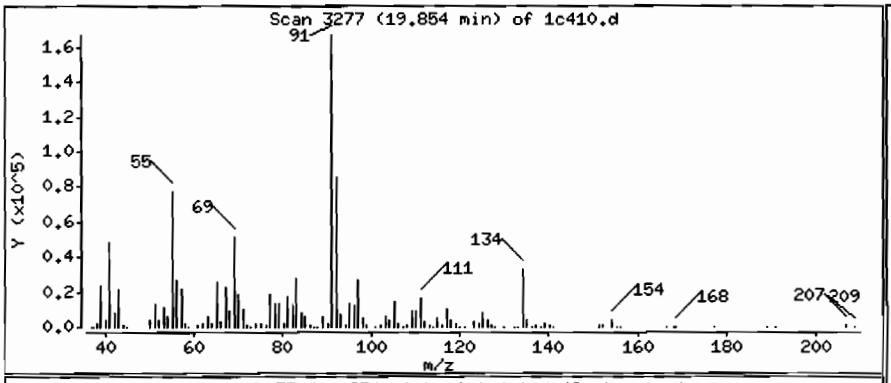

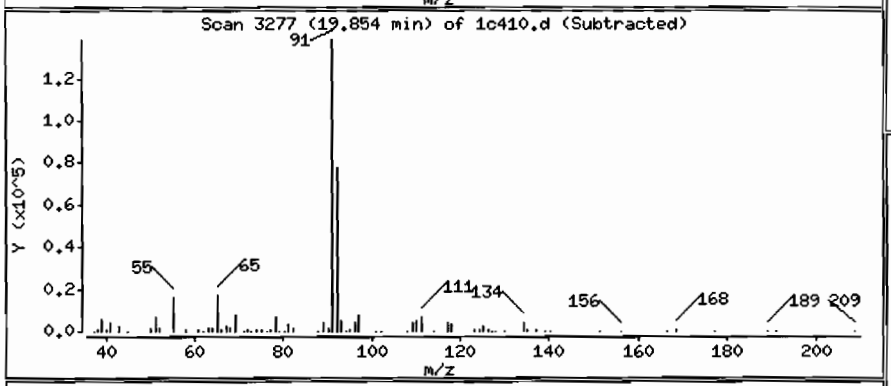

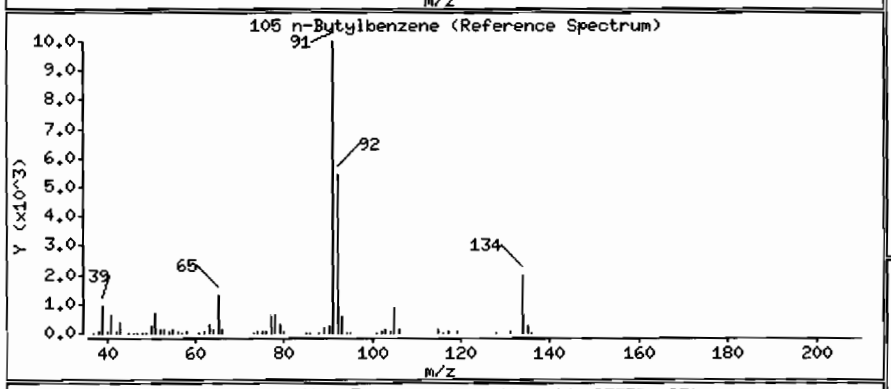

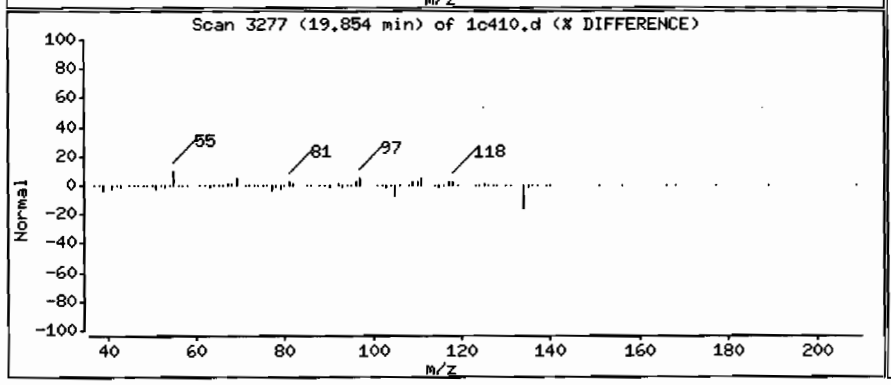

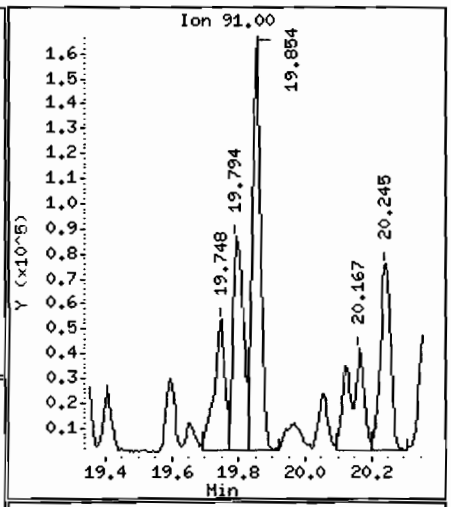

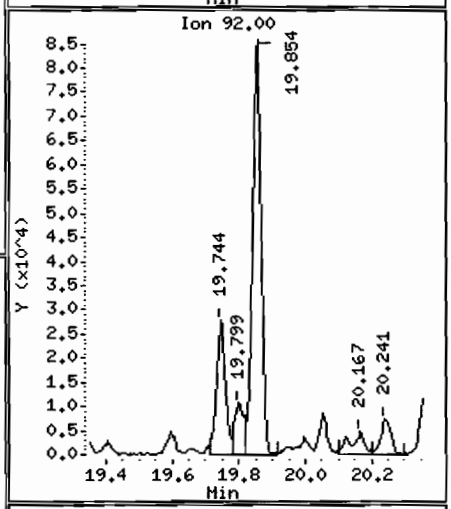

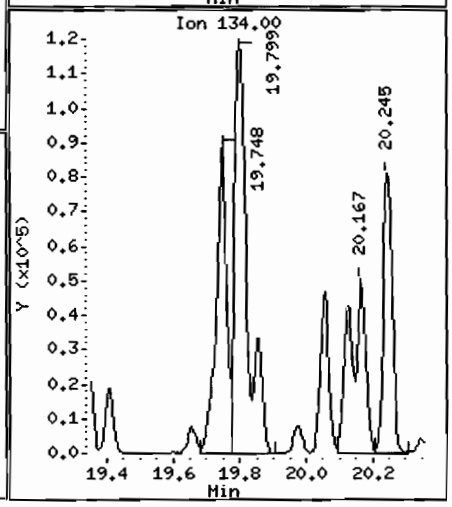

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875150|VOAF12|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Diphenyl ether	101-84-8	NIST05.L	36400	87	C12H10O	170
Diphenyl ether	101-84-8	NIST05.L	36402	81	C12H10O	170
Diphenyl ether	101-84-8	NIST05.L	36399	62	C12H10O	170

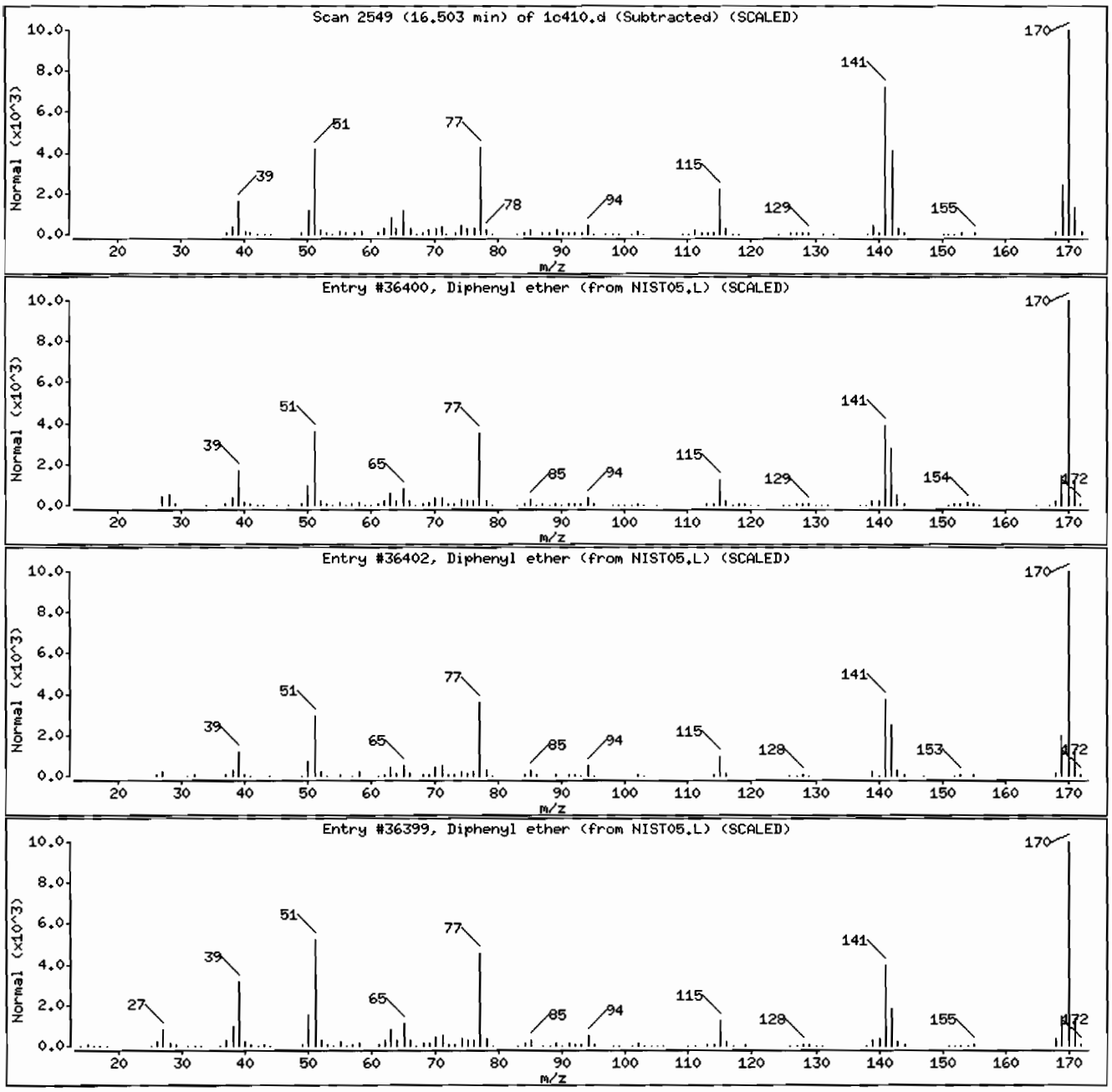

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875150|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Undecane	1120-21-4	NIST05.L	27236	94	C11H24	156
Undecane	1120-21-4	NIST05.L	27237	89	C11H24	156
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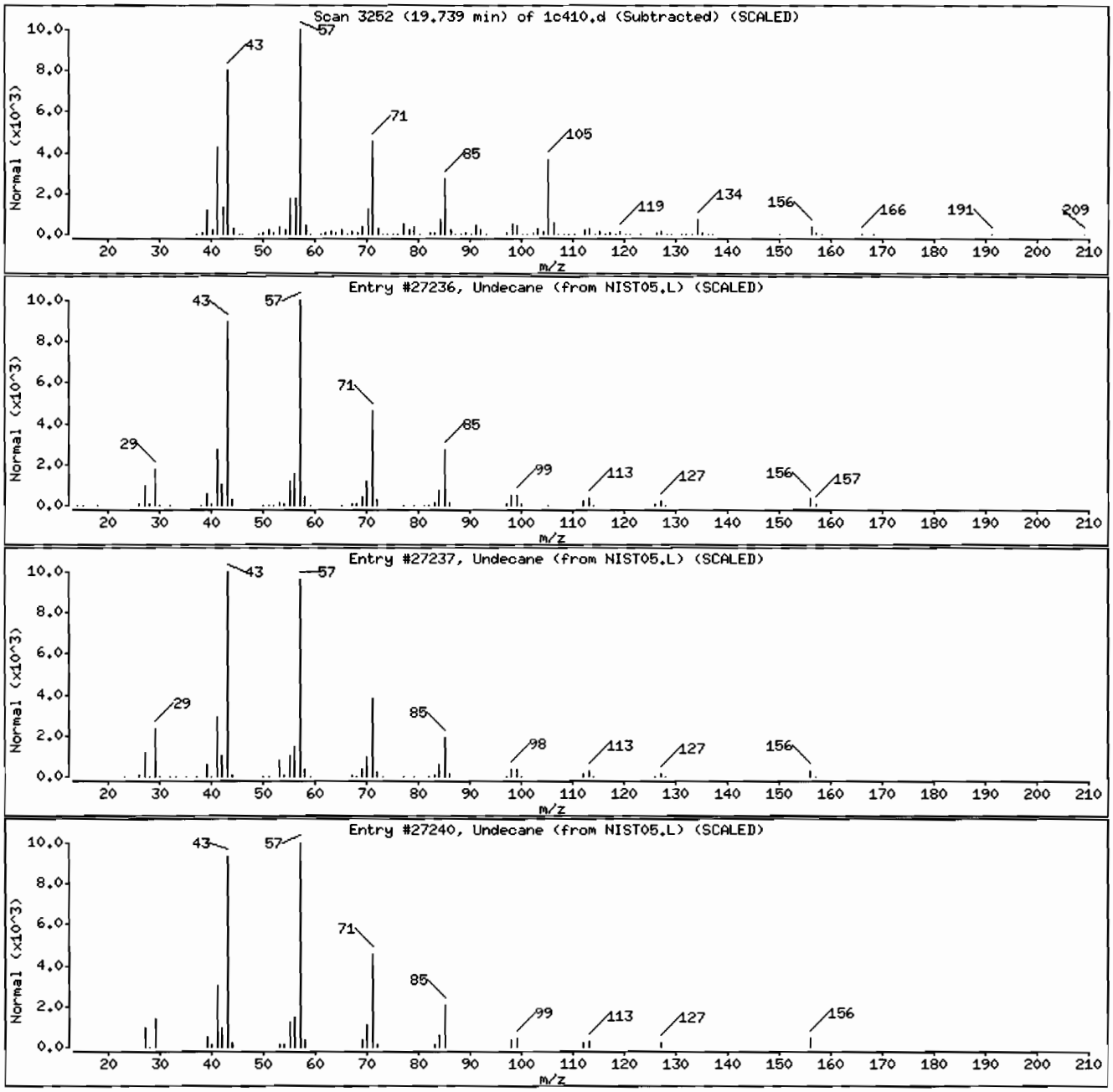

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|50|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16349	97	C10H18	138
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16353	97	C10H18	138
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16354	95	C10H18	138

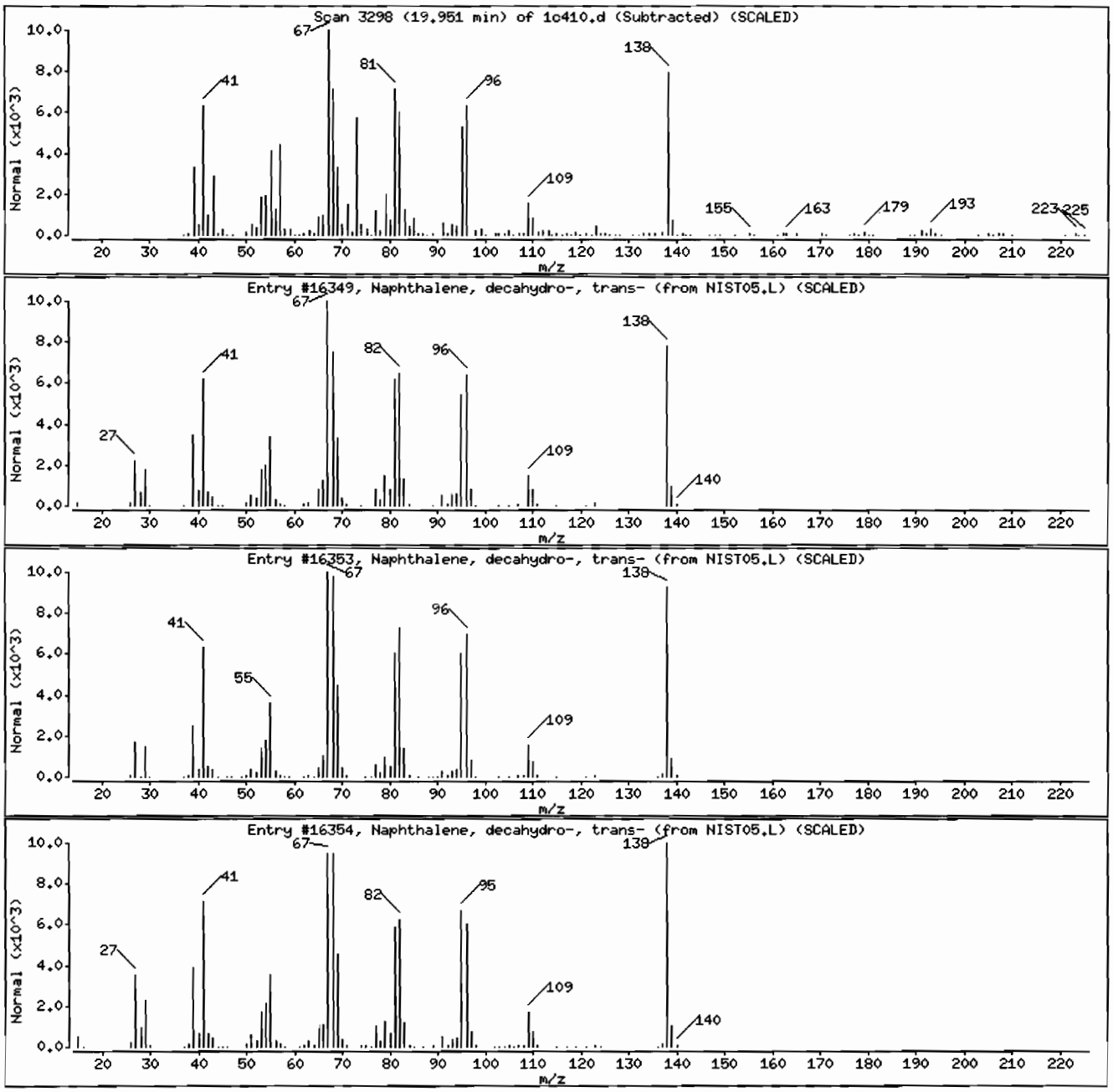

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|50|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 1-methyl-4-(1-methylpropyl)-	1595-16-0	NIST05.L	21930	70	C11H16	148
Benzene, (1,1-dimethylpropyl)-	2049-95-8	NIST05.L	21914	53	C11H16	148
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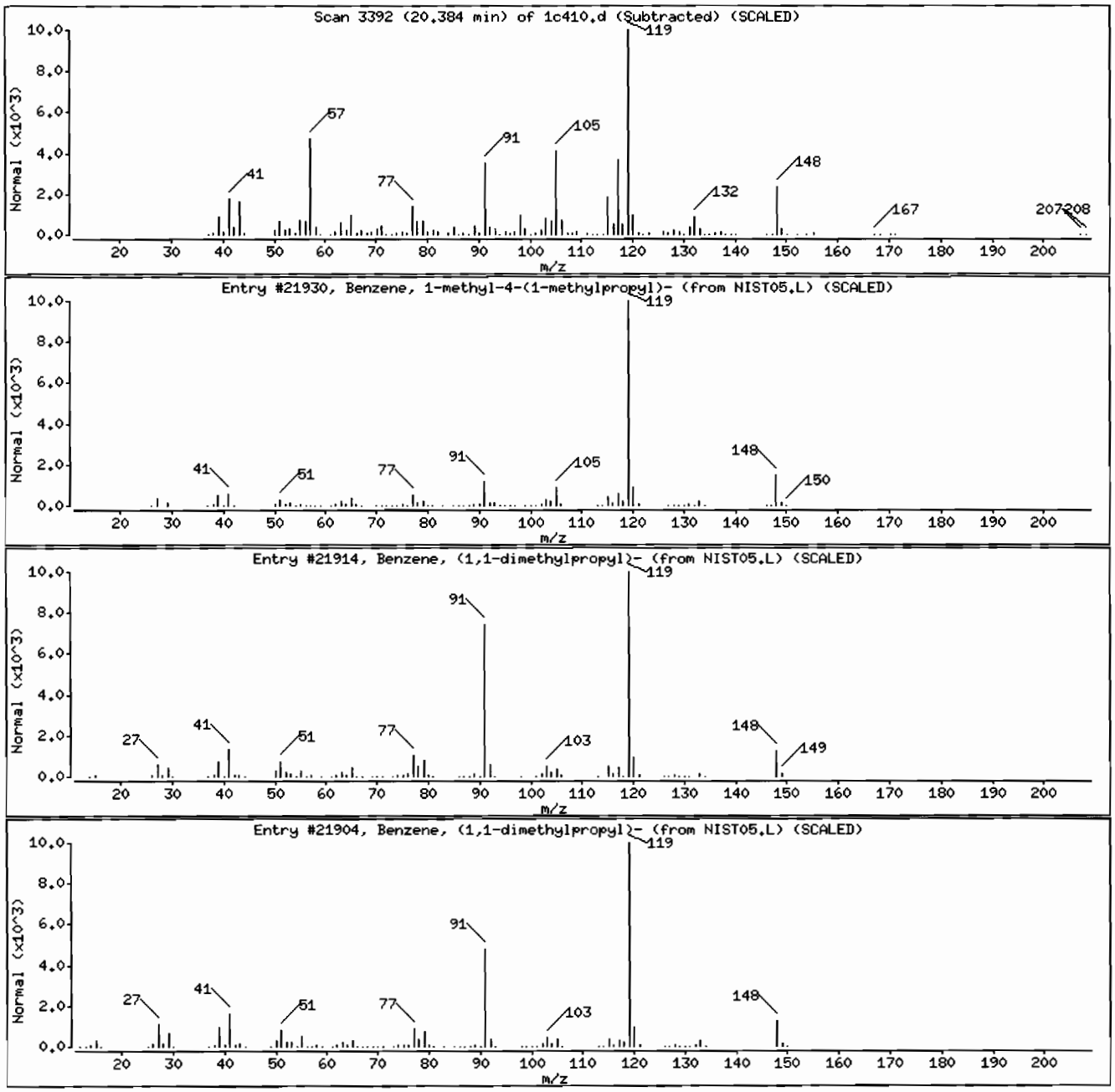

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|50|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 2-ethyl-1,4-dimethyl-	1758-88-9	NIST05.L	14402	35	C10H14	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST05.L	14421	35	C10H14	134
Benzene, 1-ethyl-2,3-dimethyl-	933-98-2	NIST05.L	14399	35	C10H14	134

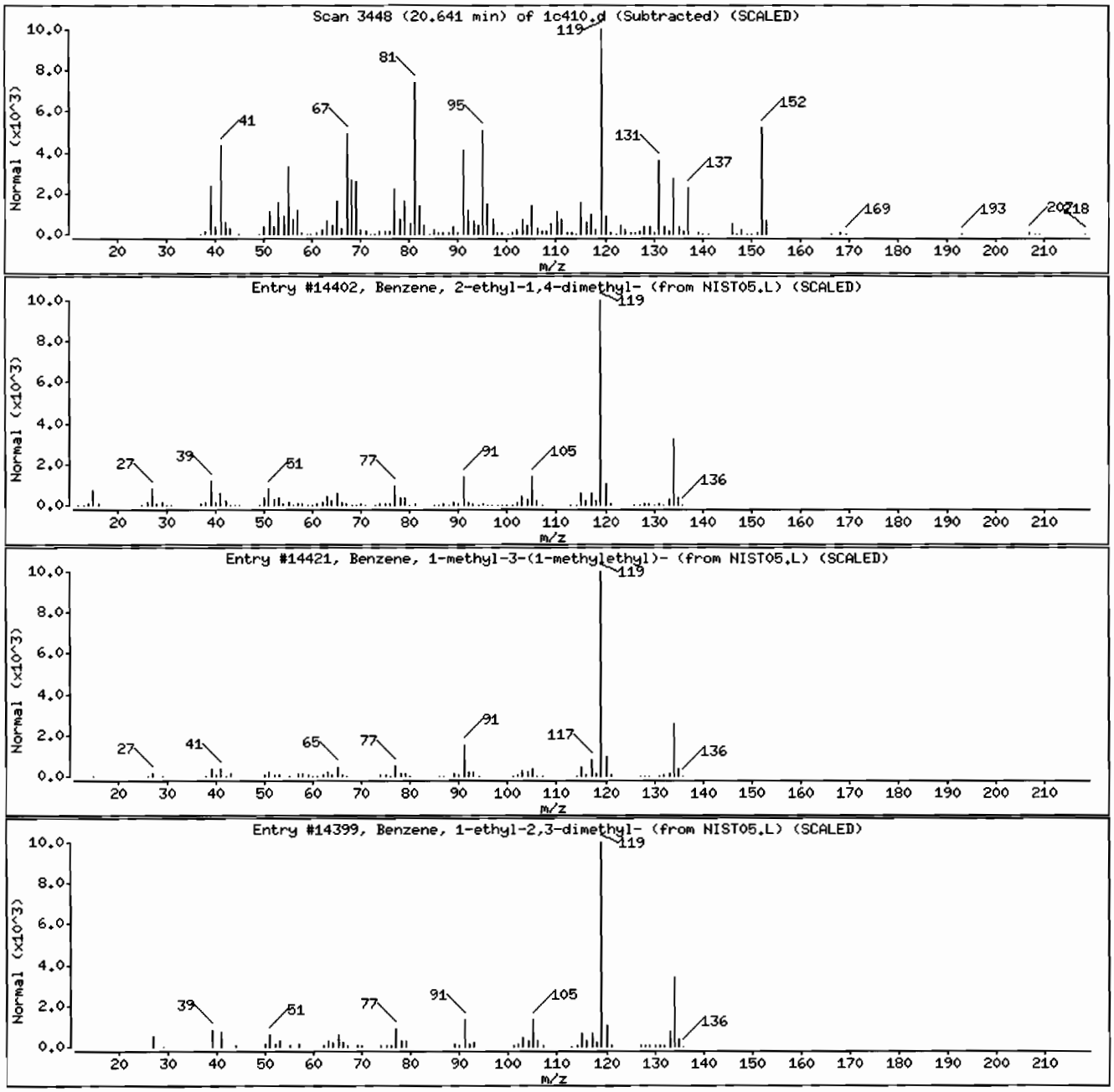

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875150|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Dodecane	112-40-3	NIST05.L	36431	95	C12H26	170
Hexadecane	544-76-3	NIST05.L	76090	90	C16H34	226
Dodecane	112-40-3	NIST05.L	36428	90	C12H26	170

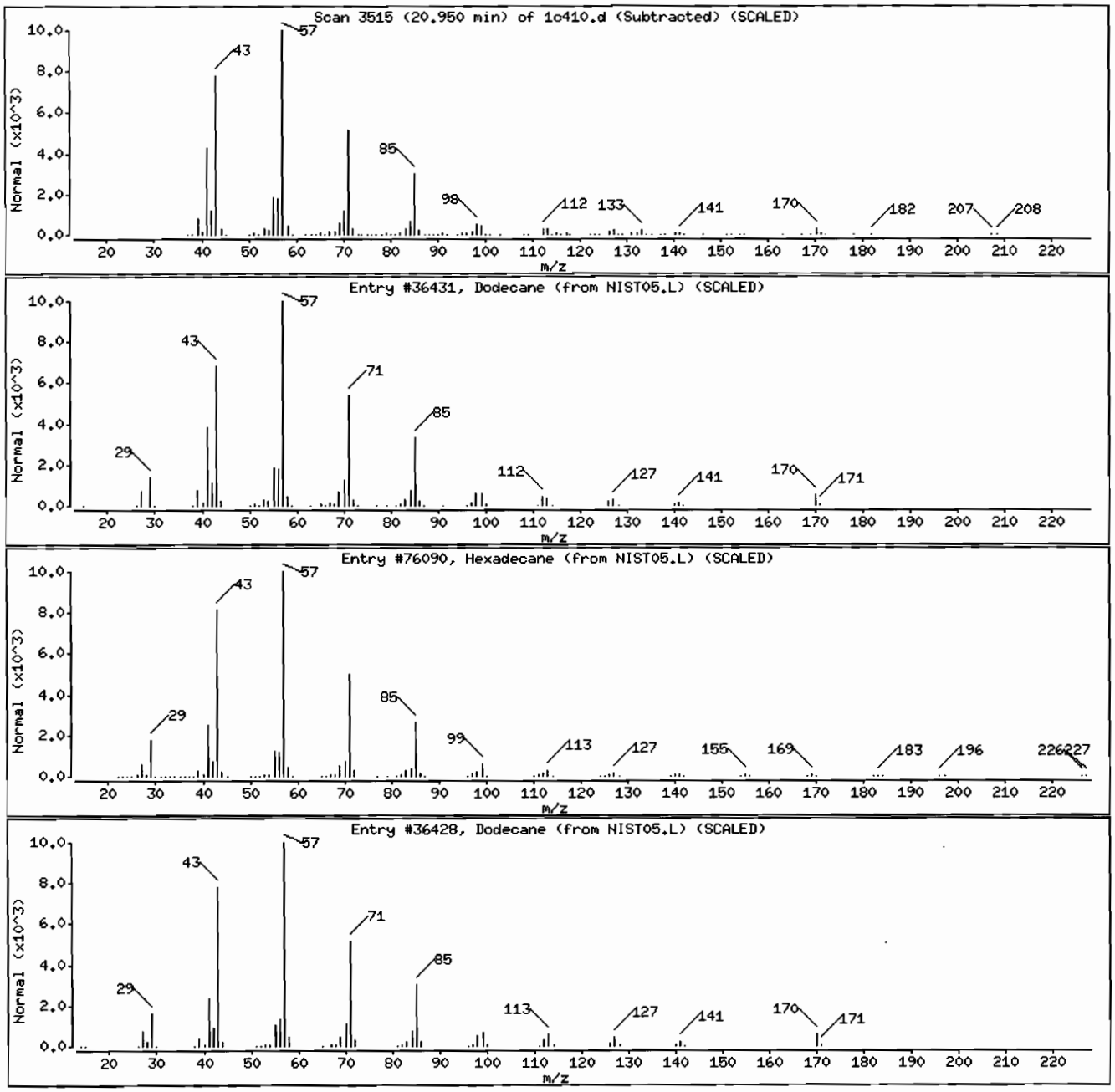

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875150|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Dodecane, 6-methyl-	6044-71-9	NIST05.L	46099	91	C13H28	184
Undecane, 2,6-dimethyl-	17301-23-4	NIST05.L	46136	60	C13H28	184
Undecane, 3,6-dimethyl-	17301-28-9	NIST05.L	46119	53	C13H28	184

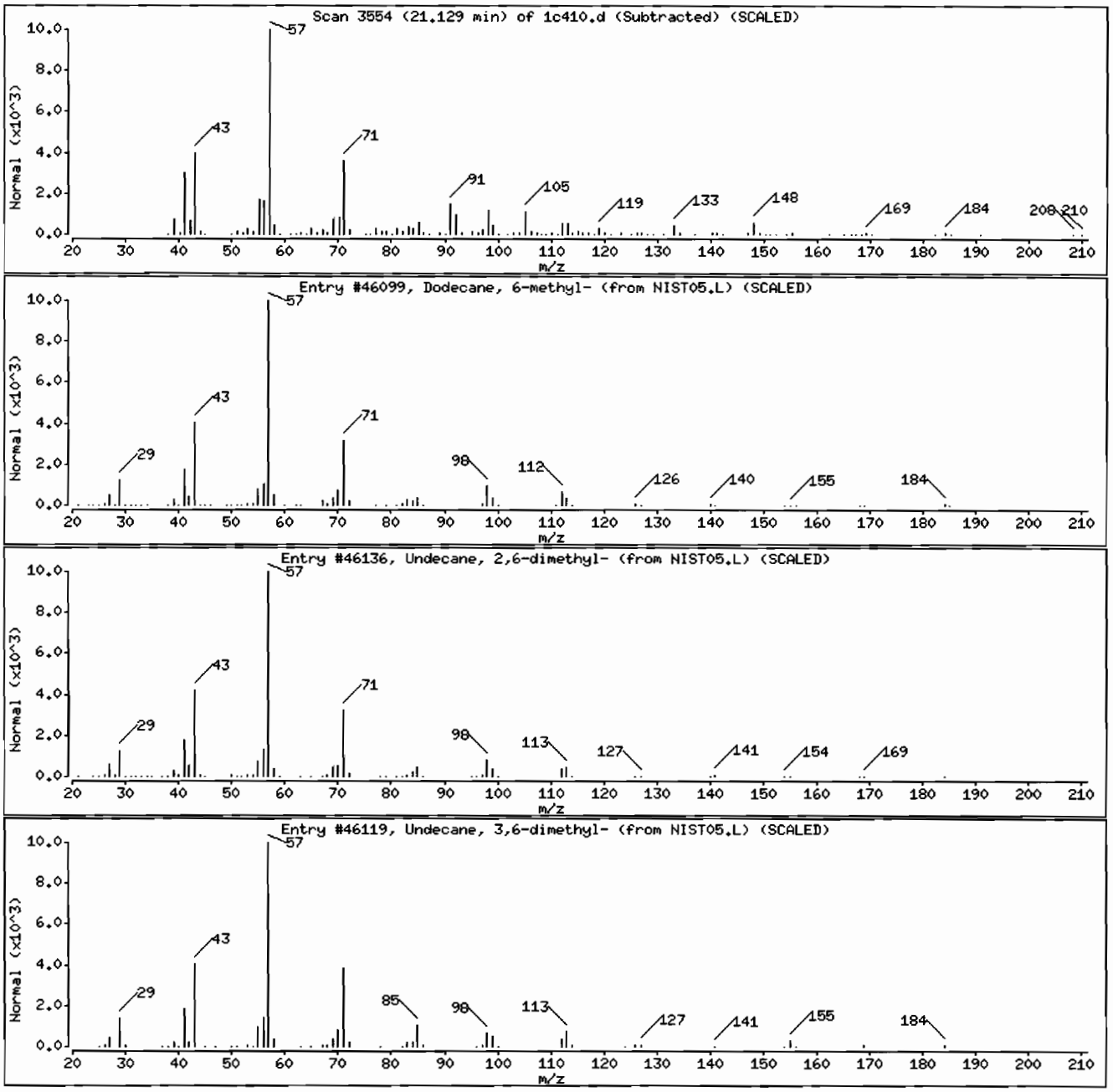

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: 1248842009196587515 0IVOAF121

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST05.L	14429	95	C10H14	134
Benzene, 2-ethyl-1,4-dimethyl-	1758-88-9	NIST05.L	14402	94	C10H14	134
Benzene, 1,2,3,5-tetramethyl-	527-53-7	NIST05.L	14380	94	C10H14	134

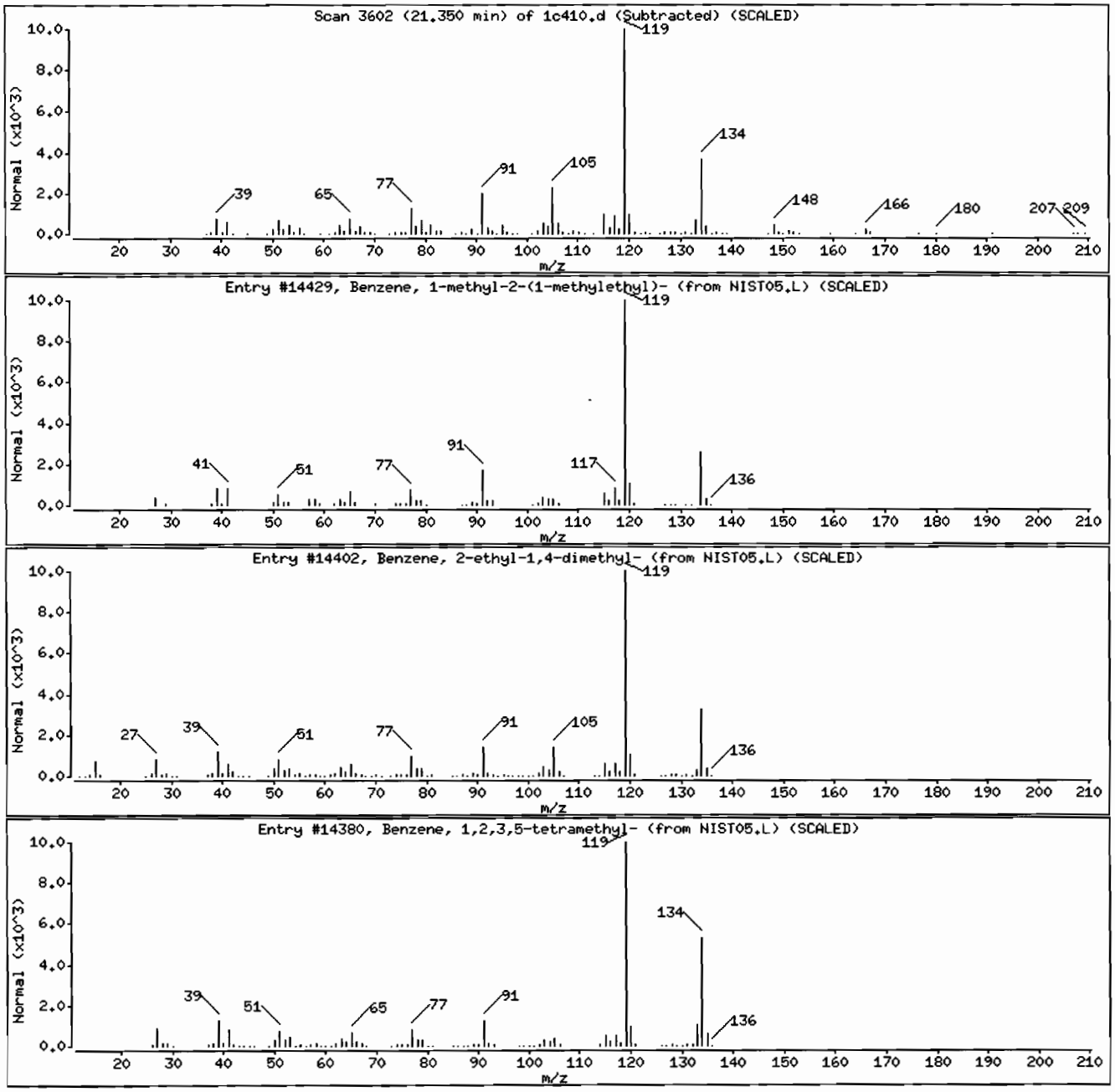

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875150|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, (1,1-dimethylpropyl)-	2049-95-8	NIST05.L	21914	30	C11H16	148
Benzene, 2-ethyl-1,4-dimethyl-	1758-88-9	NIST05.L	14403	25	C10H14	134
Benzene, 4-ethyl-1,2-dimethyl-	934-80-5	NIST05.L	14401	25	C10H14	134

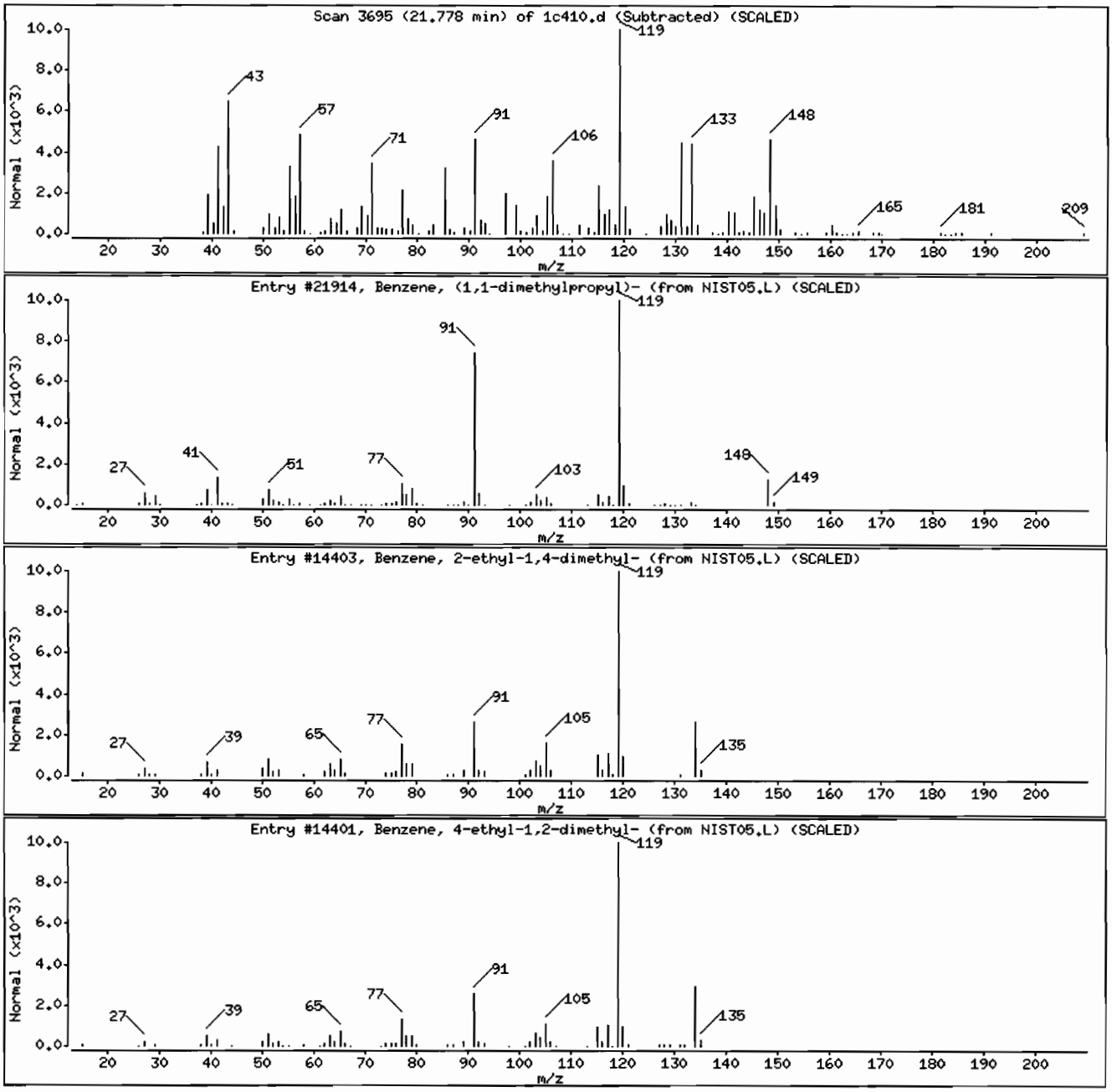

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875150|VOAF12|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Dodecane, 4,6-dimethyl-	61141-72-8	NIST05.L	55993	64	C14H30	198
Undecane, 4,6-dimethyl-	17312-82-2	NIST05.L	46121	60	C13H28	184
Heptane, 2,6-dimethyl-	1072-05-5	NIST05.L	12297	58	C9H20	128

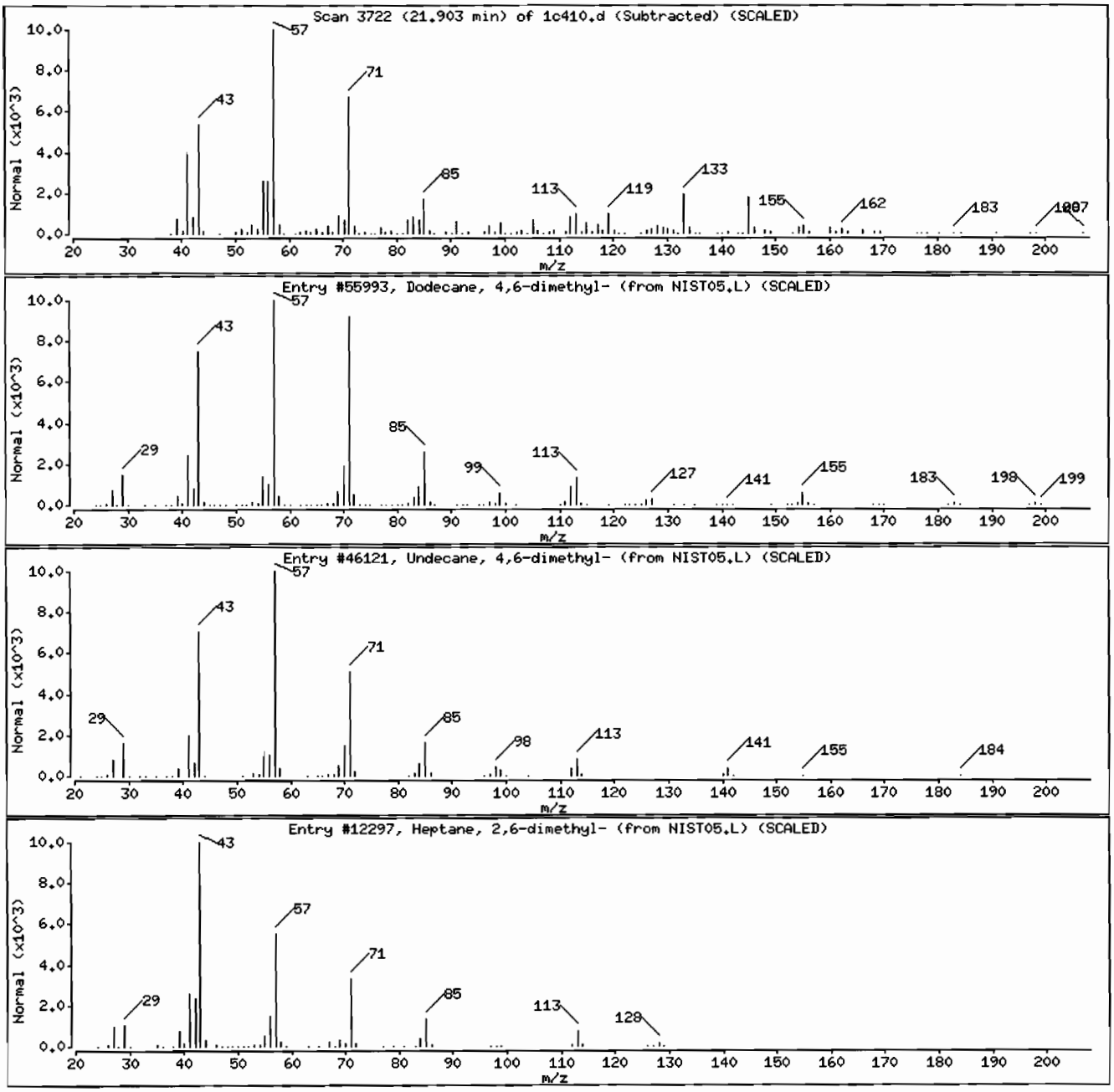

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|50|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Tridecane	629-50-5	NIST05.L	46087	94	C13H28	184
Tridecane	629-50-5	NIST05.L	46086	93	C13H28	184
Tridecane	629-50-5	NIST05.L	46083	90	C13H28	184

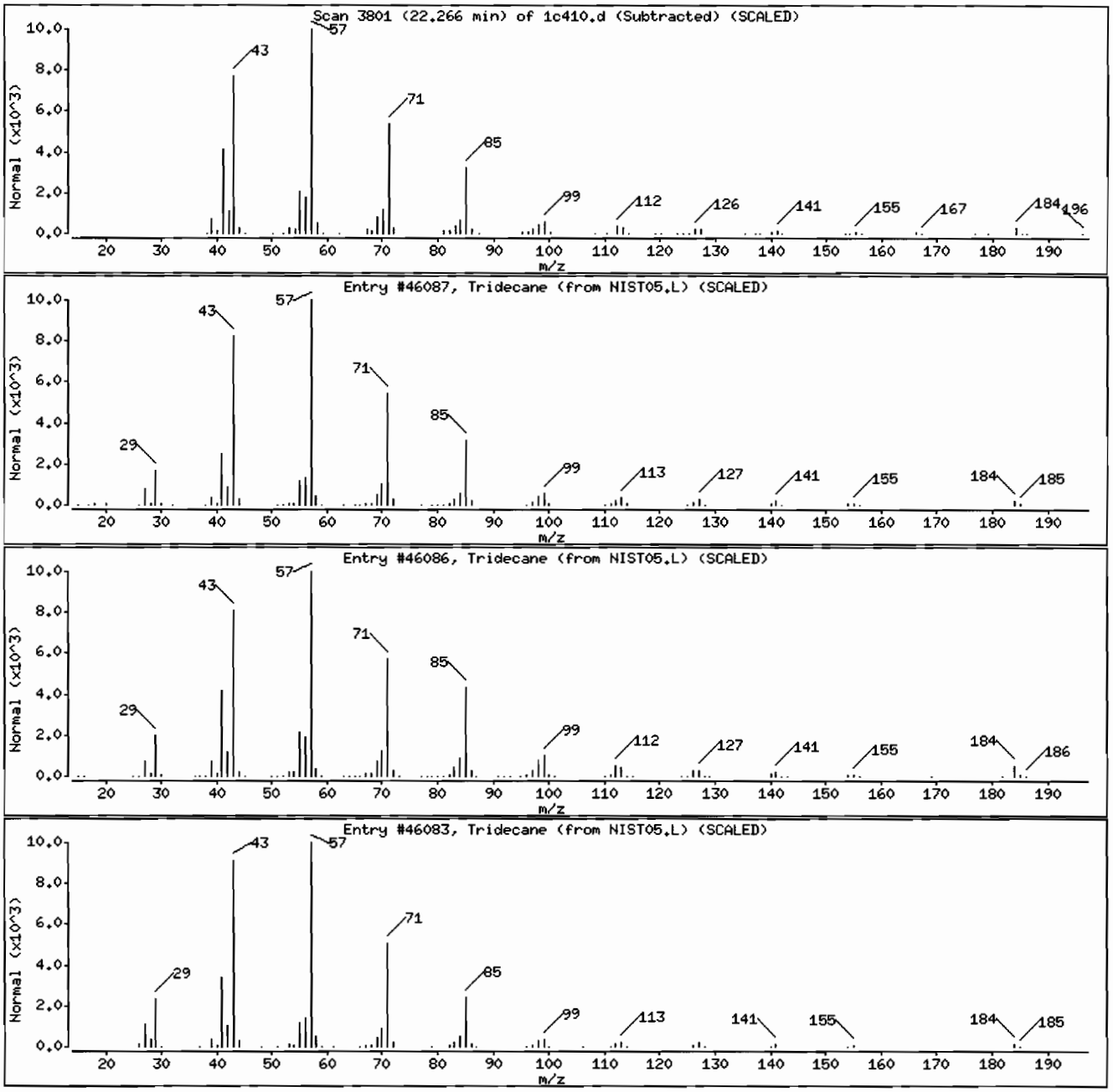

Data File: /chem/VOA1.i/031810v1/1c410.d

Date : 18-MAR-2010 13:45

Client ID: RE46-10-13547

Instrument: VOA1.i

Sample Info: |2488420091965875|50|VOAFI2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Azulene	275-51-4	NIST05.L	11574	96	C10H8	128
Naphthalene	91-20-3	NIST05.L	11578	95	C10H8	128
Naphthalene	91-20-3	NIST05.L	11576	94	C10H8	128

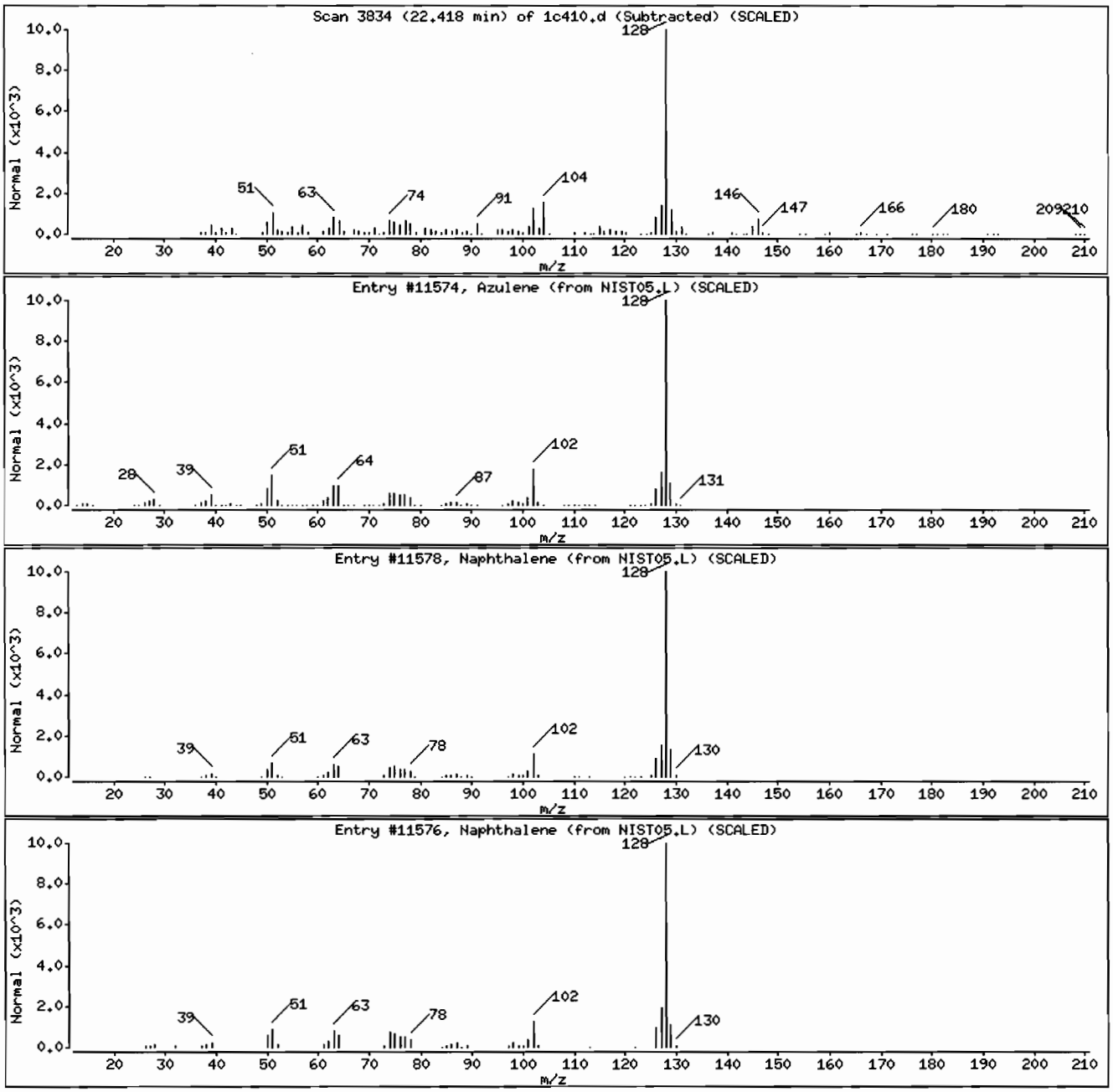

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13548**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOAI.I**	**Dilution:**	**I**
Run Date:	**03/17/2010 15:00**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:17**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c309.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.21	ug/kg	0.411	1.21
74-87-3	Chloromethane	U	1.21	ug/kg	0.362	1.21
75-01-4	Vinyl chloride	U	1.21	ug/kg	0.362	1.21
74-83-9	Bromomethane	U	1.21	ug/kg	0.362	1.21
75-00-3	Chloroethane	U	1.21	ug/kg	0.362	1.21
75-69-4	Trichlorofluoromethane	U	1.21	ug/kg	0.362	1.21
67-64-1	Acetone		69.8	ug/kg	2.00	6.04
75-35-4	1,1-Dichloroethylene	U	1.21	ug/kg	0.362	1.21
74-88-4	Iodomethane	U	6.04	ug/kg	1.93	6.04
75-09-2	Methylene chloride	U	6.04	ug/kg	2.41	6.04
75-15-0	Carbon disulfide	U	6.04	ug/kg	1.51	6.04
156-60-5	trans-1,2-Dichloroethylene	U	1.21	ug/kg	0.362	1.21
75-34-3	1,1-Dichloroethane	U	1.21	ug/kg	0.362	1.21
78-93-3	2-Butanone	U	6.04	ug/kg	1.81	6.04
156-59-2	cis-1,2-Dichloroethylene	J	0.888	ug/kg	0.362	1.21
594-20-7	2,2-Dichloropropane	U	1.21	ug/kg	0.362	1.21
67-66-3	Chloroform	U	1.21	ug/kg	0.362	1.21
74-97-5	Bromochloromethane	U	1.21	ug/kg	0.398	1.21
71-55-6	1,1,1-Trichloroethane		1.82	ug/kg	0.362	1.21
563-58-6	1,1-Dichloropropene	U	1.21	ug/kg	0.362	1.21
56-23-5	Carbon tetrachloride	U	1.21	ug/kg	0.362	1.21
107-06-2	1,2-Dichloroethane	U	1.21	ug/kg	0.362	1.21
71-43-2	Benzene	J	0.684	ug/kg	0.362	1.21
79-01-6	Trichloroethylene		10.5	ug/kg	0.398	1.21
78-87-5	1,2-Dichloropropane	U	1.21	ug/kg	0.362	1.21
75-27-4	Bromodichloromethane	U	1.21	ug/kg	0.362	1.21
74-95-3	Dibromomethane	U	1.21	ug/kg	0.362	1.21
108-10-1	4-Methyl-2-pentanone	U	6.04	ug/kg	1.51	6.04
10061-01-5	cis-1,3-Dichloropropylene	U	1.21	ug/kg	0.362	1.21
108-88-3	Toluene	U	1.21	ug/kg	0.362	1.21
10061-02-6	trans-1,3-Dichloropropylene	U	1.21	ug/kg	0.362	1.21
79-00-5	1,1,2-Trichloroethane	U	1.21	ug/kg	0.362	1.21
591-78-6	2-Hexanone	U	6.04	ug/kg	1.81	6.04
142-28-9	1,3-Dichloropropane	U	1.21	ug/kg	0.362	1.21
127-18-4	Tetrachloroethylene	J	0.570	ug/kg	0.362	1.21
124-48-1	Dibromochloromethane	U	1.21	ug/kg	0.362	1.21
106-93-4	1,2-Dibromoethane	U	1.21	ug/kg	0.362	1.21
108-90-7	Chlorobenzene	U	1.21	ug/kg	0.362	1.21

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13548**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 15:00**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:17**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c309.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.21	ug/kg	0.362	1.21
179601-23-1	m,p-Xylenes	U	2.41	ug/kg	0.362	2.41
95-47-6	o-Xylene	U	1.21	ug/kg	0.362	1.21
100-42-5	Styrene	U	1.21	ug/kg	0.362	1.21
75-25-2	Bromoform	U	1.21	ug/kg	0.362	1.21
79-34-5	1,1,2,2-Tetrachloroethane	U	1.21	ug/kg	0.362	1.21
96-18-4	1,2,3-Trichloropropane	U	1.21	ug/kg	0.362	1.21
108-86-1	Bromobenzene	U	1.21	ug/kg	0.362	1.21
103-65-1	n-Propylbenzene	J	1.16	ug/kg	0.362	1.21
95-49-8	2-Chlorotoluene	U	1.21	ug/kg	0.362	1.21
98-82-8	Isopropylbenzene	U	1.21	ug/kg	0.362	1.21
108-67-8	1,3,5-Trimethylbenzene		6.66	ug/kg	0.362	1.21
106-43-4	4-Chlorotoluene	U	1.21	ug/kg	0.362	1.21
98-06-6	tert-Butylbenzene	U	1.21	ug/kg	0.362	1.21
95-63-6	1,2,4-Trimethylbenzene		2.92	ug/kg	0.362	1.21
135-98-8	sec-Butylbenzene		5.61	ug/kg	0.362	1.21
99-87-6	4-Isopropyltoluene		10.8	ug/kg	0.362	1.21
541-73-1	1,3-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21
106-46-7	1,4-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21
104-51-8	n-Butylbenzene		24.0	ug/kg	0.362	1.21
96-12-8	1,2-Dibromo-3-chloropropane	U	1.21	ug/kg	0.362	1.21
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.04	ug/kg	1.93	6.04
630-20-6	1,1,1,2-Tetrachloroethane	U	1.21	ug/kg	0.362	1.21
95-50-1	1,2-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.88	65.1	ug/kg		J
	Unknown	16.54	9.21	ug/kg		J
	Unknown Hydrocarbon	17.66	9.49	ug/kg		J
	Unknown Hydrocarbon	18.03	76.6	ug/kg		J
	Unknown Hydrocarbon	18.11	17.1	ug/kg		J
	Unknown Hydrocarbon	18.16	17.8	ug/kg		J
	Unknown Hydrocarbon	18.82	144	ug/kg		J
	Unknown Hydrocarbon	19.74	181	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c309.d
Lab Smp Id: 248842006 Client Smp ID: RE46-10-13548
Inj Date : 17-MAR-2010 15:00
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842006|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 17:24 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	17.17990	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.668	13.672	(1.000)	1033266	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	764766	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	407191	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	505406	50.0953	60.5
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1313606	51.0700	61.7
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	561955	55.0463	66.5
16 Acetone	43	9.240	9.240	(0.676)	353721	57.7875	69.8
36 cis-1,2-Dichloroethylene	96	12.186	12.190	(0.892)	4410	0.73575	0.89(a)
43 1,1,1-Trichloroethane	97	12.835	12.830	(0.939)	13395	1.50893	1.8
47 Benzene	78	13.318	13.322	(0.974)	13389	0.56616	0.68(aQ)
54 Trichloroethylene	95	14.105	14.105	(1.032)	53313	8.73308	10.5
70 Tetrachloroethylene	164	16.181	16.181	(0.944)	2225	0.47229	0.57(a)
89 n-Propylbenzene	91	18.542	18.547	(0.946)	32559	0.96146	1.2(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
93 1,3,5-Trimethylbenzene	105	18.703	18.703	(0.954)	133229	5.51322	6.6
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	60699	2.41662	2.9
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	143035	4.64964	5.6
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	213759	8.92125	10.8
105 n-Butylbenzene	91	19.854	19.854	(1.013)	513579	19.8504	24.0(Q)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

VOA REPORT

Data file: 1c309.d
Report Date: 03/18/2010 05:11
Lab. ID: 248842006 SampleType: SAMPLE
Injection Date: 17-MAR-2010 15:00
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248842006|965875|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone		CAS#: 67-64-1				
43	353721	9.24	9.24	80-120	100	( )
58	101213	9.24	9.23	0- 60	29	( )
18 Iodomethane		CAS#: 74-88-4				
142	19724	9.51	9.46	80-120	100	( )
127	9611	9.49	9.46	16- 76	49	( )
141	288	9.50	9.46	0- 44	1	( )
35 2-Butanone		CAS#: 78-93-3				
43	47737	11.88	12.17	80-120	100	(T)
72	5130	11.88	12.17	0- 54	11	(T)
36 cis-1,2-Dichloroethylene		CAS#: 156-59-2				
96	4410	12.19	12.19	80-120	100	( )
61	8536	12.19	12.19	142-202	194	( )
98	2841	12.19	12.19	35- 95	64	( )
33 2,2-Dichloropropane		CAS#: 594-20-7				
77	58172	11.88	12.14	80-120	100	(T)
79	313	12.32	12.15	2- 62	1	(QT)
43 1,1,1-Trichloroethane		CAS#: 71-55-6				
97	13395	12.83	12.83	80-120	100	( )
99	8335	12.83	12.83	34- 94	62	( )
61	5779	12.83	12.83	12- 72	43	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	18236	13.67	13.43	80-120	100	(T)
64	1975	13.67	13.43	2- 62	11	(T)
47 Benzene			CAS#: 71-43-2			
78	13389	13.32	13.32	80-120	100	( )
77	3455	13.31	13.32	0- 53	26	( )
51	159481	13.33	13.32	2- 62	1191	(Q)
54 Trichloroethylene			CAS#: 79-01-6			
95	53313	14.11	14.10	80-120	100	( )
97	33253	14.11	14.10	35- 95	62	( )
130	43851	14.10	14.10	55-115	82	( )
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	12772	15.50	15.35	80-120	100	(T)
43	7237	15.50	15.35	208-268	57	(QT)
100	824550	15.50	15.35	1- 61	6456	(QT)
68 trans-1,3-Dichloropropylene			CAS#: 10061-02-6			
75	5580	15.67	15.87	80-120	100	(T)
77	1558	15.69	15.87	2- 62	28	(T)
69 1,1,2-Trichloroethane			CAS#: 79-00-5			
83	1403	16.45	16.09	80-120	100	(T)
97	190	16.08	16.09	87-147	14	(Q)
85	319	16.44	16.09	35- 95	23	(QT)
70 Tetrachloroethylene			CAS#: 127-18-4			
164	2225	16.18	16.18	80-120	100	( )
129	1928	16.18	16.18	64-124	87	( )
131	1802	16.17	16.18	62-122	81	( )
73 Dibromochloromethane			CAS#: 124-48-1			
129	1928	16.18	16.54	80-120	100	(T)
127	109	16.49	16.54	47-107	6	(Q)
88 1,1,2,2-Tetrachloroethane			CAS#: 79-34-5			
83	183443	18.58	18.50	80-120	100	(T)
85	149780	18.51	18.50	35- 95	82	( )
92 1,2,3-Trichloropropane			CAS#: 96-18-4			
110	35254	18.62	18.59	80-120	100	( )
75	1551	18.70	18.59	318-378	4	(QT)
77	75940	18.70	18.58	787-847	215	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
91 Bromobenzene			CAS#: 108-86-1			
156	3030	18.73	18.58	80-120	100	(T)
77	75940	18.70	18.58	203-263	2506	(QT)
158	102	18.82	18.58	68-128	3	(QT)
89 n-Propylbenzene			CAS#: 103-65-1			
91	44770	18.54	18.55	80-120	100	( )
120	5866	18.55	18.55	0- 50	13	( )
94 2-Chlorotoluene			CAS#: 95-49-8			
91	22891	18.70	18.73	80-120	100	( )
126	24755	18.82	18.73	0- 53	108	(QT)
93 1,3,5-Trimethylbenzene			CAS#: 108-67-8			
105	133229	18.70	18.70	80-120	100	( )
120	54198	18.71	18.70	11- 71	41	( )
97 1,2,4-Trimethylbenzene			CAS#: 95-63-6			
105	60699	19.12	19.12	80-120	100	( )
120	22076	19.12	19.12	9- 69	36	( )
95 4-Chlorotoluene			CAS#: 106-43-4			
91	12850	18.95	18.84	80-120	100	(T)
126	18490	19.06	18.84	0- 56	144	(QT)
96 tert-Butylbenzene			CAS#: 98-06-6			
119	7238	19.07	19.06	80-120	100	( )
91	13578	19.12	19.06	52-112	188	(Q)
134	1395	19.07	19.06	0- 52	19	( )
99 sec-Butylbenzene			CAS#: 135-98-8			
105	146128	19.29	19.29	80-120	100	( )
134	39104	19.28	19.29	0- 47	27	( )
100 4-Isopropyltoluene			CAS#: 99-87-6			
119	212849	19.41	19.41	80-120	100	( )
134	50672	19.41	19.41	0- 54	24	( )
91	85086	19.34	19.41	0- 59	40	(T)
105 n-Butylbenzene			CAS#: 104-51-8			
91	471189	19.85	19.85	80-120	100	( )
92	249363	19.85	19.85	25- 85	53	( )
134	558707	19.80	19.85	0- 52	119	(Q)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
106 1,2-Dichlorobenzene				CAS#: 95-50-1		
146	15452	20.53	20.07	80-120	100	(T)
111	1047669	19.60	20.07	17- 77	6780	(QT)
148	499858	20.37	20.07	34- 94	3235	(QT)
108 1,2-Dibromo-3-chloropropane				CAS#: 96-12-8		
157	1136	20.62	20.99	80-120	100	(T)
155	16684	20.57	20.98	50-110	1468	(QT)
75	11349	20.65	20.98	88-148	999	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c309.d
Lab Smp Id: 248842006 Client Smp ID: RE46-10-13548
Inj Date : 17-MAR-2010 15:00
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842006|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 17:24 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	17.17990	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 52 Fluorobenzene	13.668	2370376	50.000
* 76 Chlorobenzene-d5	17.148	2728502	50.000
* 102 1,4-Dichlorobenzene-d4	19.596	15174816	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
11.882	2557595	53.9491194	65.1	0		0	52

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
16.535	416246	7.62774581	9.2	0		0	76
Unknown Hydrocarbon					CAS #:		
17.659	428731	7.85652894	9.5	0		0	76
Unknown Hydrocarbon					CAS #:		
18.031	3461696	63.4358416	76.6	0		0	76
Unknown Hydrocarbon					CAS #:		
18.110	771983	14.1466380	17.1	0		0	76
Unknown Hydrocarbon					CAS #:		
18.165	805271	14.7566490	17.8	0		0	76
Unknown Hydrocarbon					CAS #:		
18.823	36106515	118.968540	144	0		0	102
Unknown Hydrocarbon					CAS #:		
19.739	45470528	149.822335	181	0		0	102

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Sample Info: |2488420061965875|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2

Column diameter: 0.25

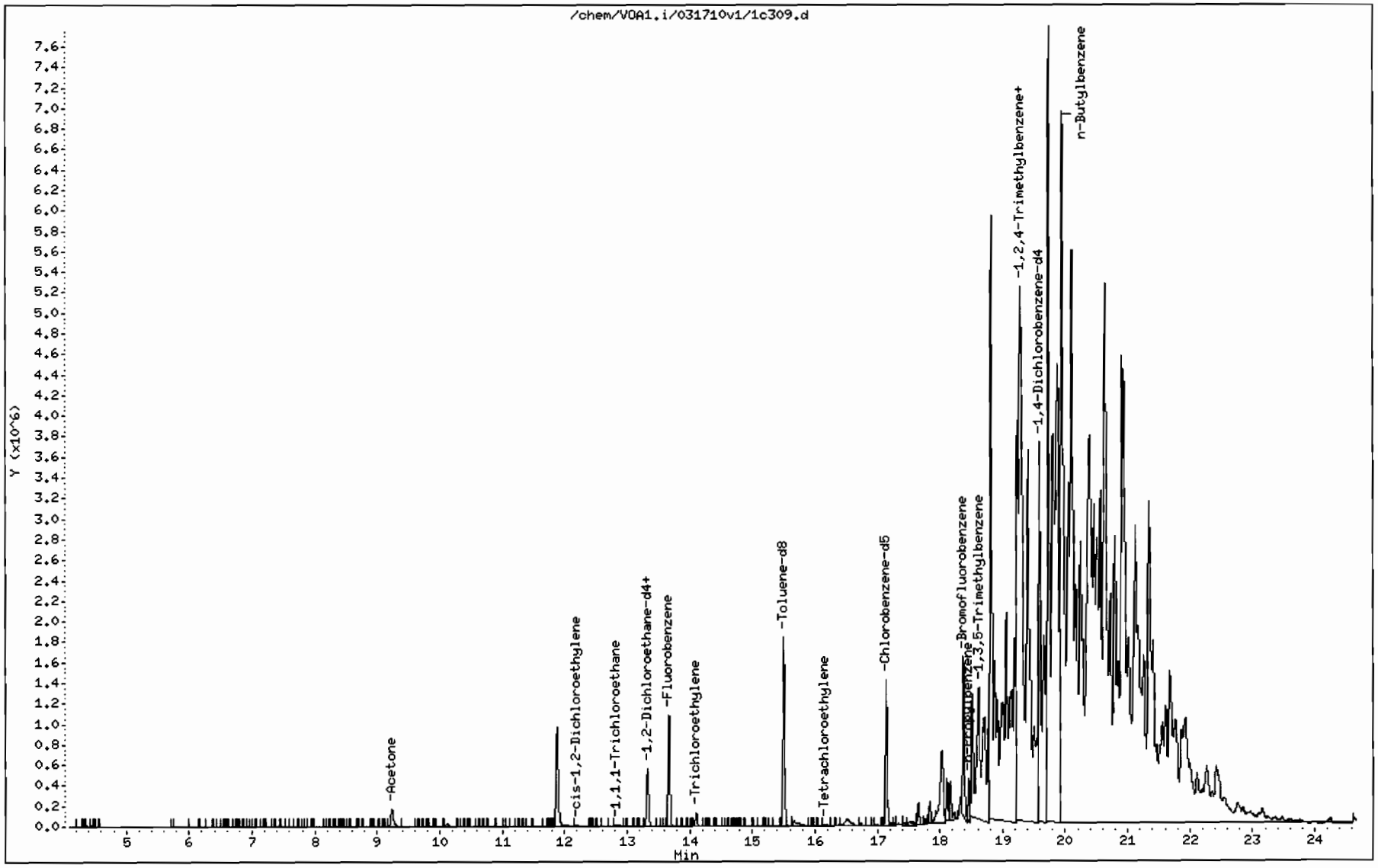

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: |2488420061965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 69.8 ug/Kg

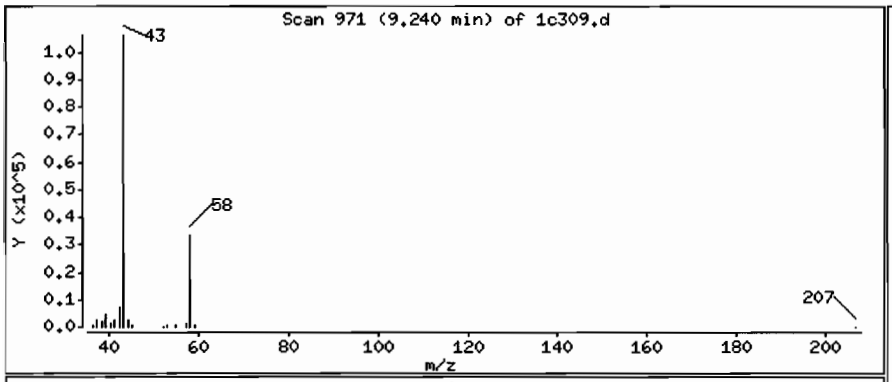

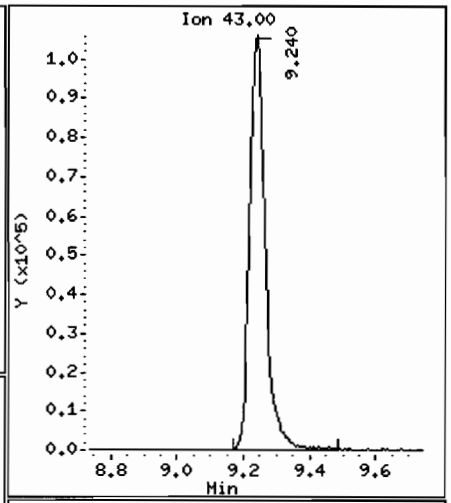

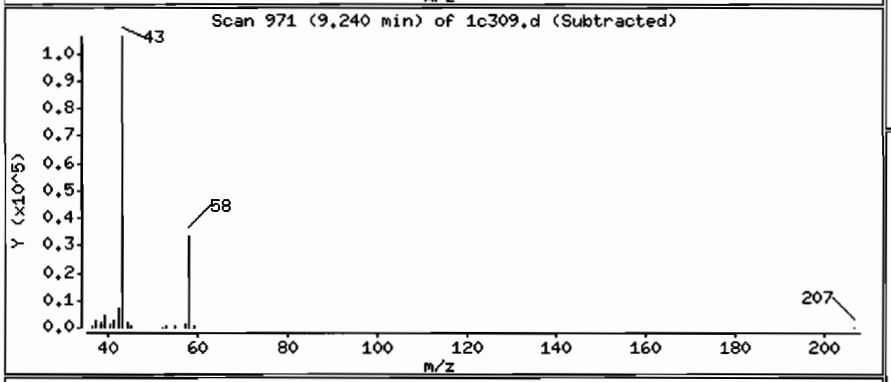

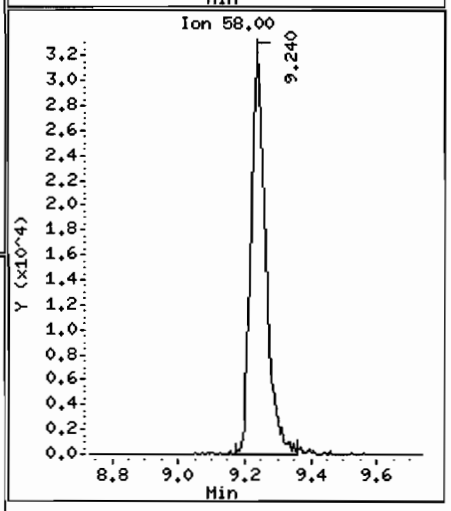

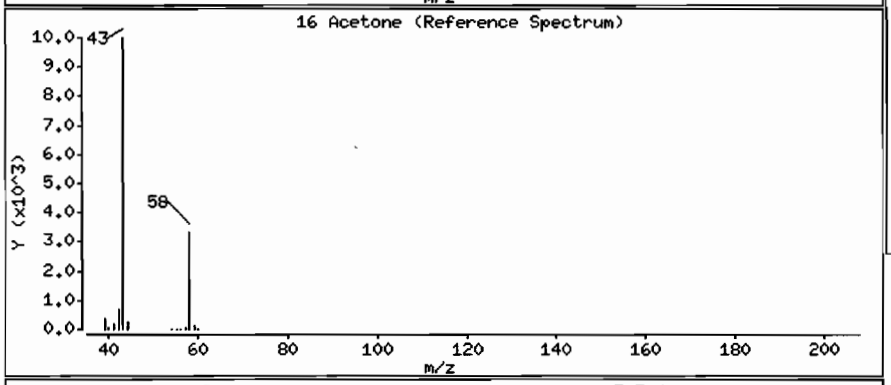

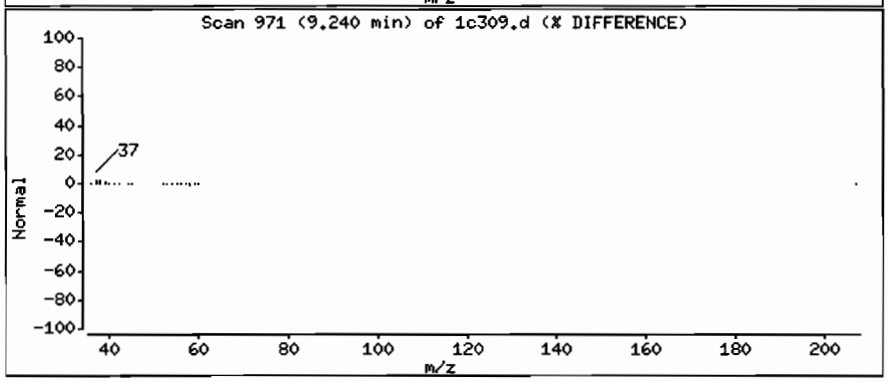

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: 1248842006|965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

36 cis-1,2-Dichloroethylene

Concentration: 0.89 ug/Kg

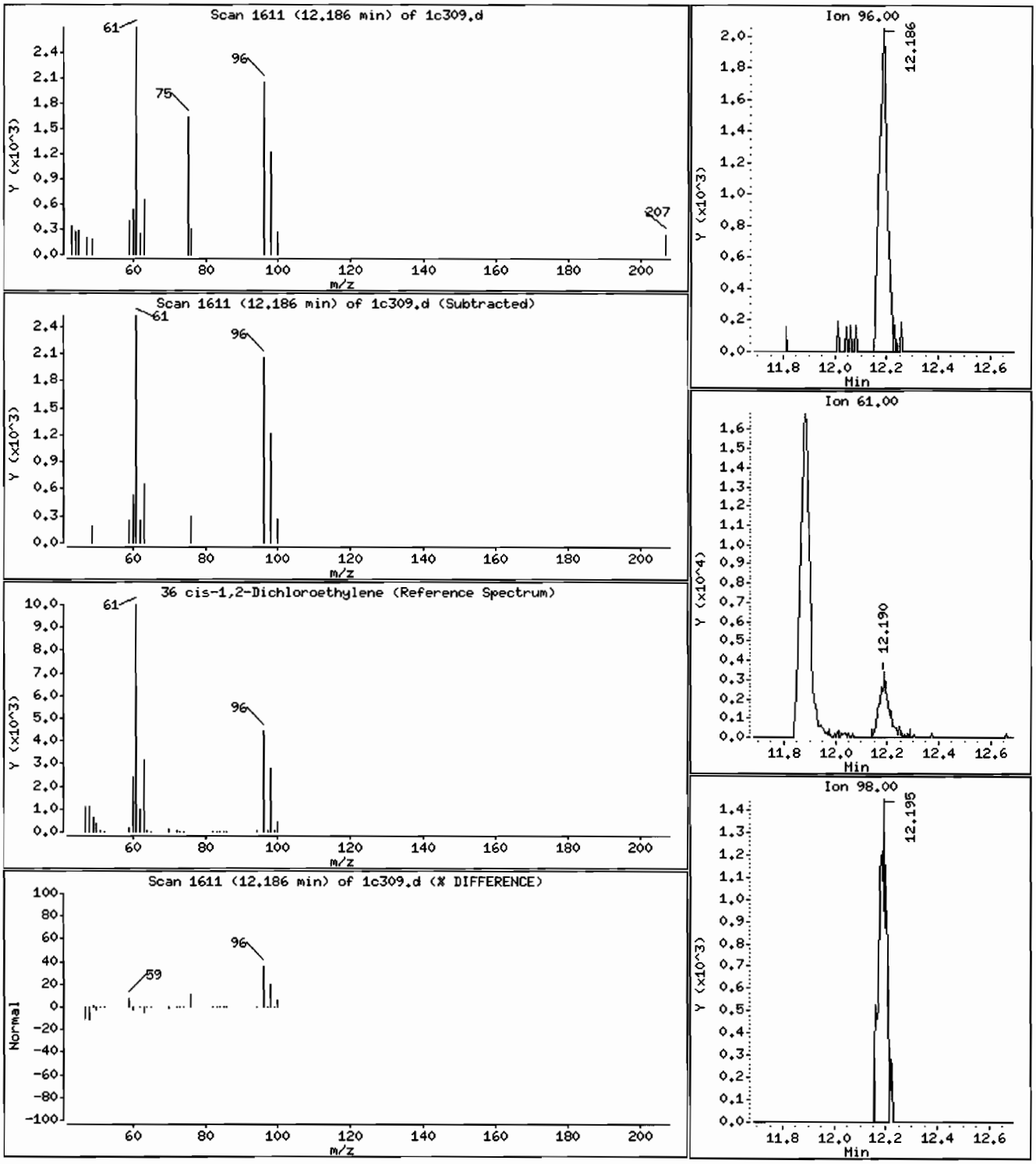

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: |2488420061965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

43 1,1,1-Trichloroethane

Concentration: 1.8 ug/Kg

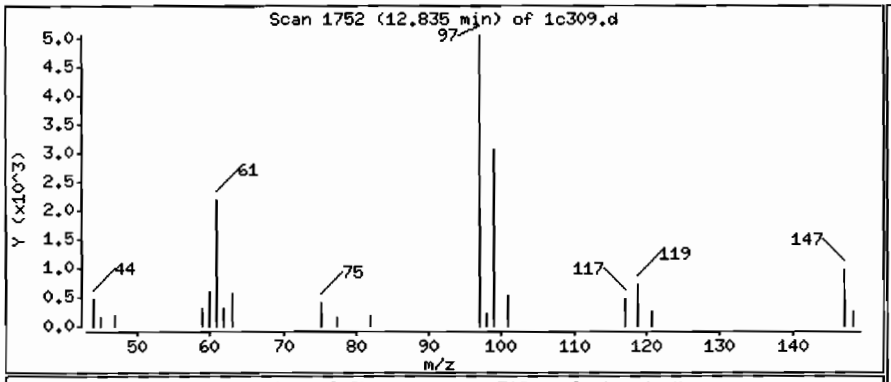

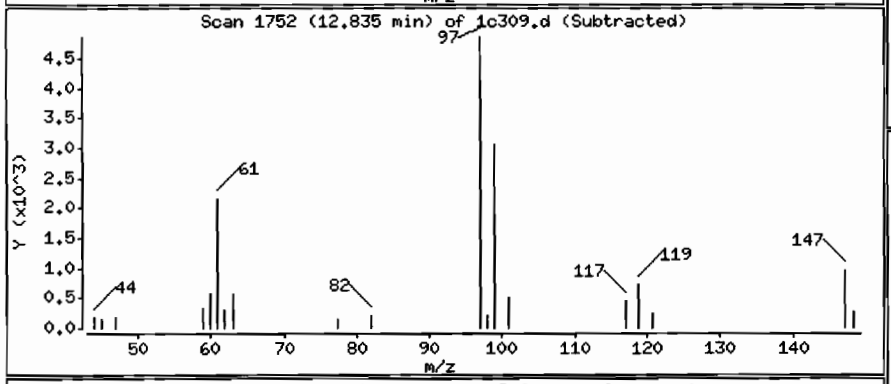

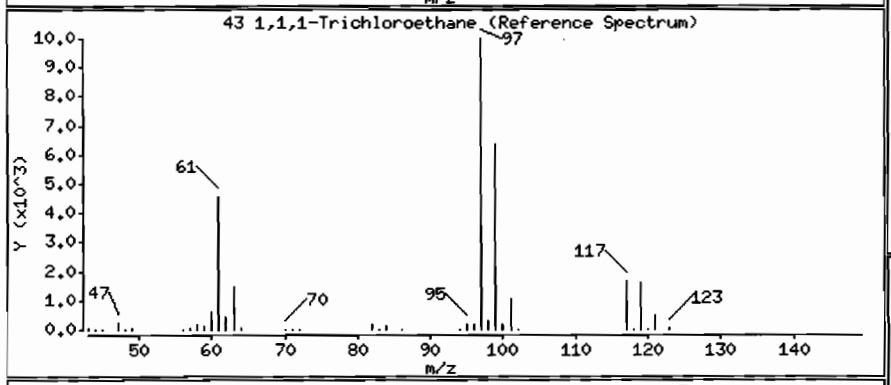

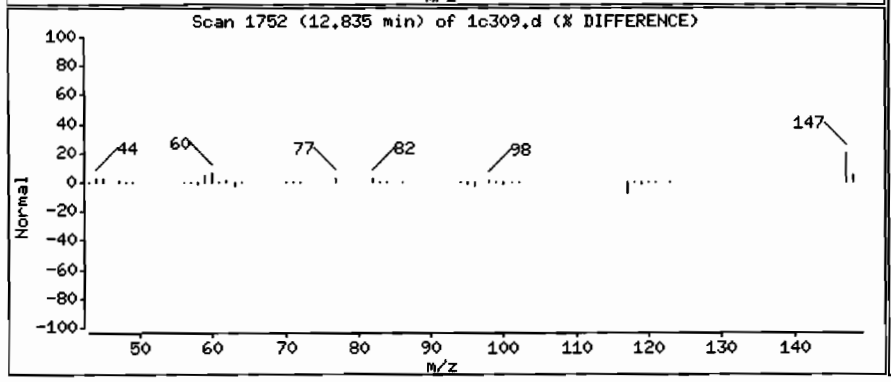

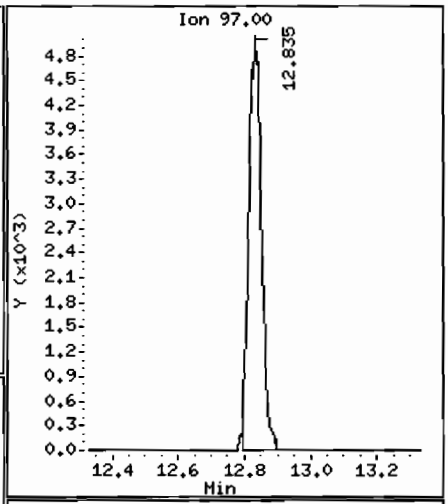

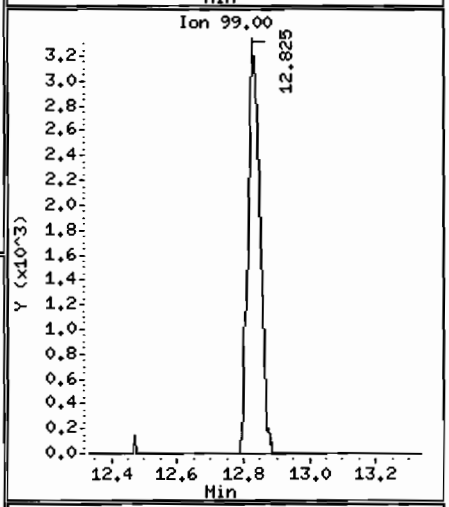

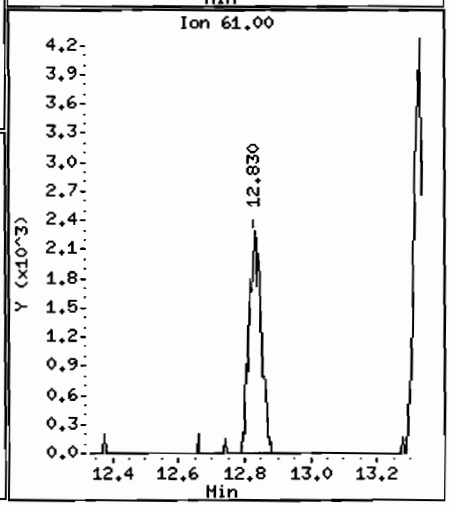

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: |2488420061965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

47 Benzene

Concentration: 0.68 ug/Kg

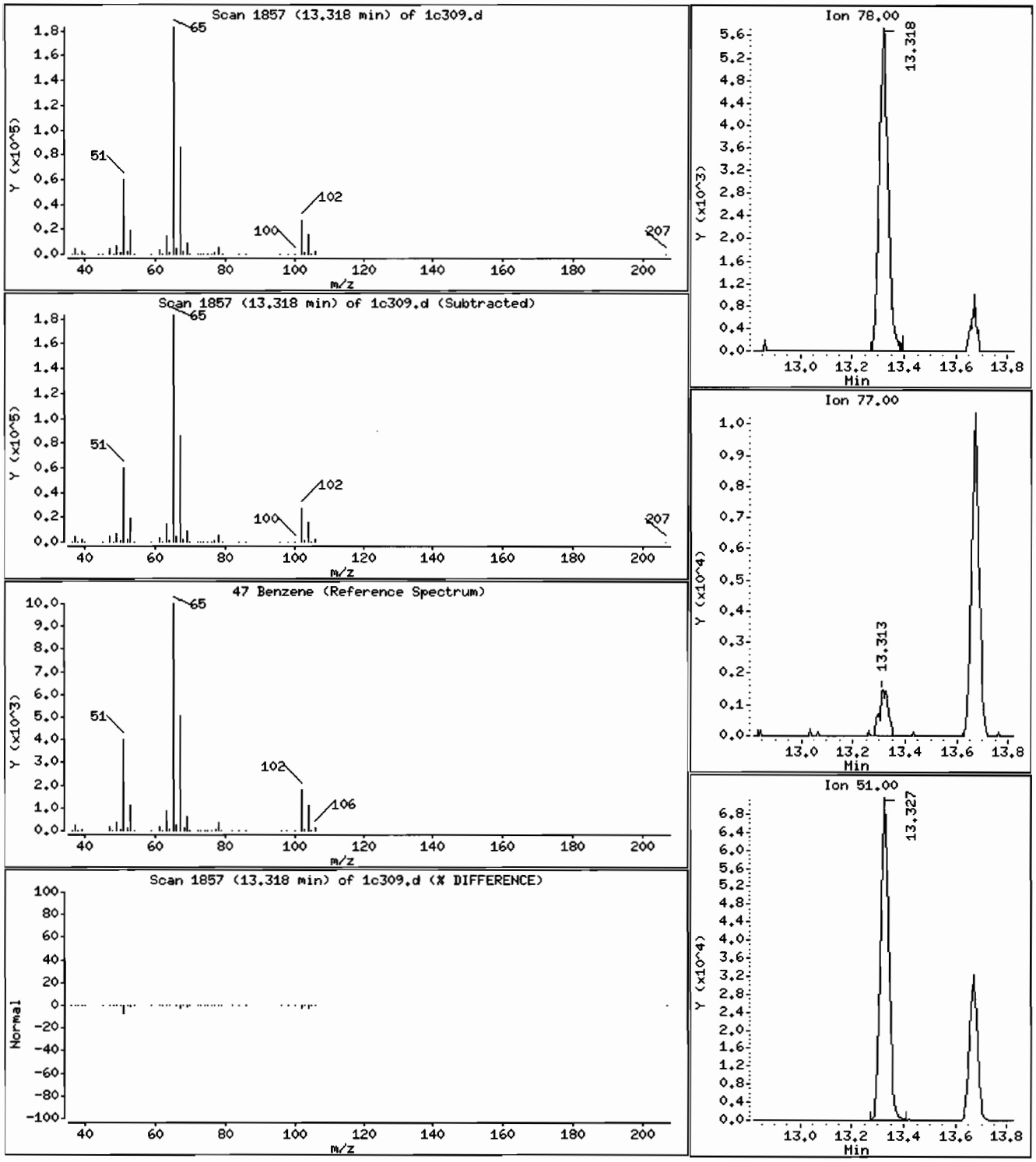

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: |2488420061965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

54 Trichloroethylene

Concentration: 10.5 ug/Kg

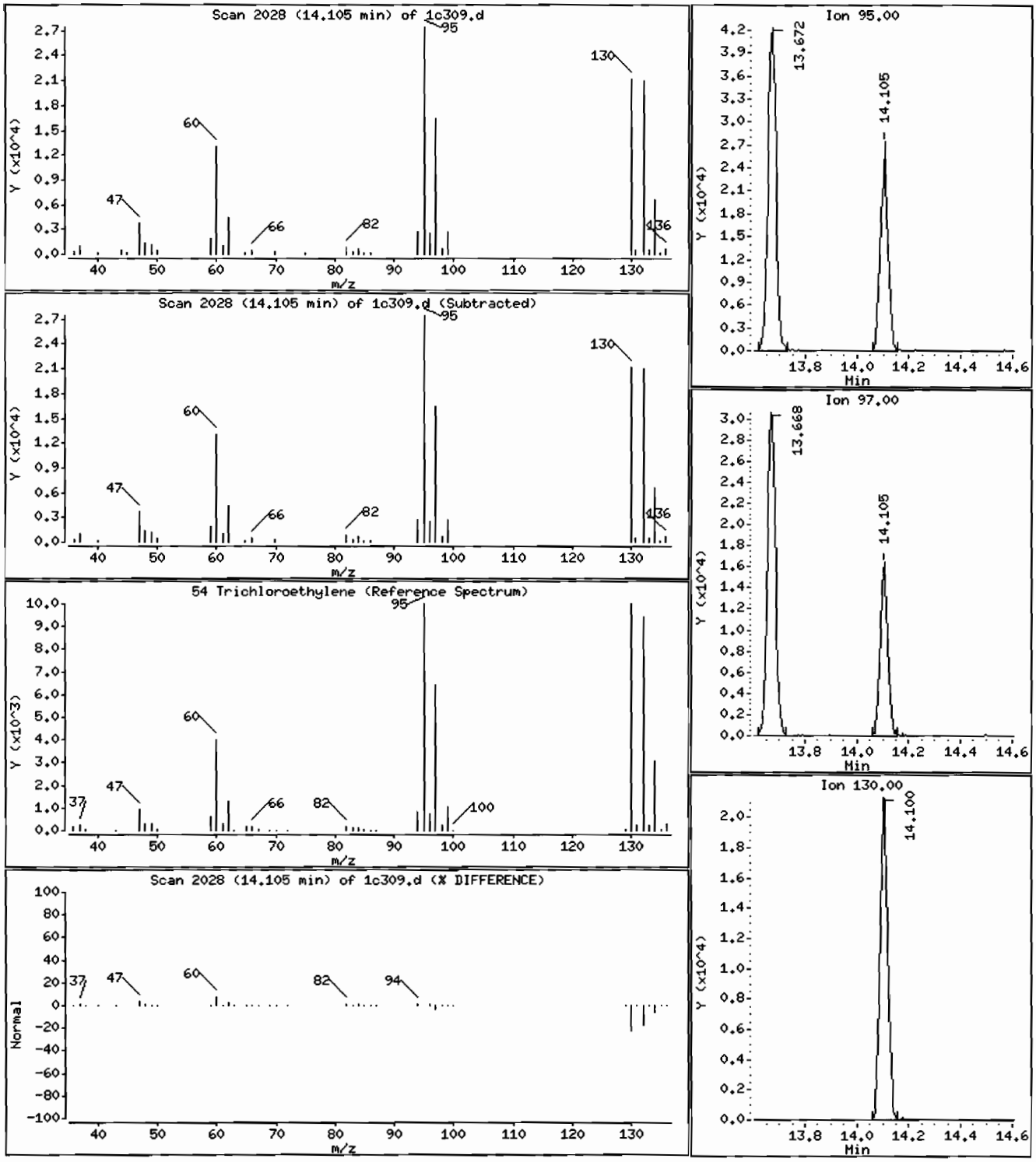

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: |2488420061965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

70 Tetrachloroethylene

Concentration: 0.57 ug/Kg

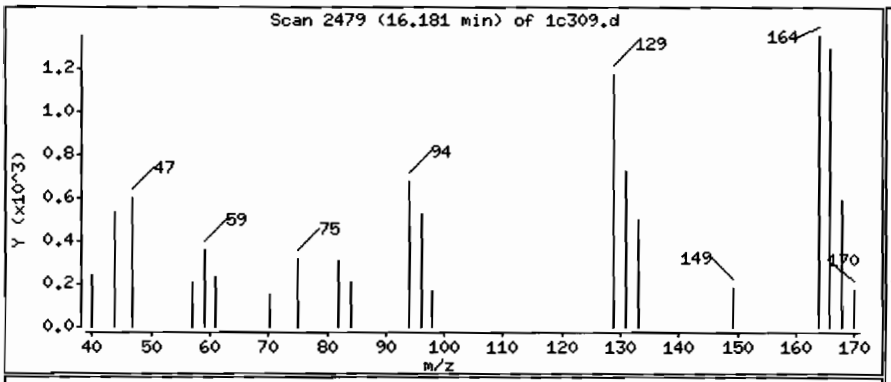

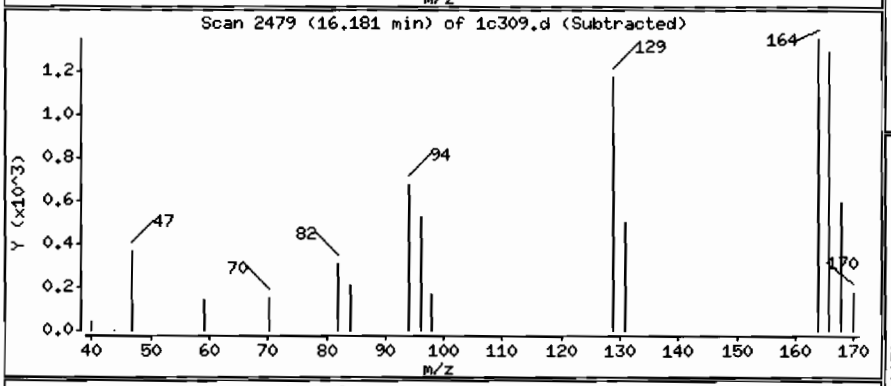

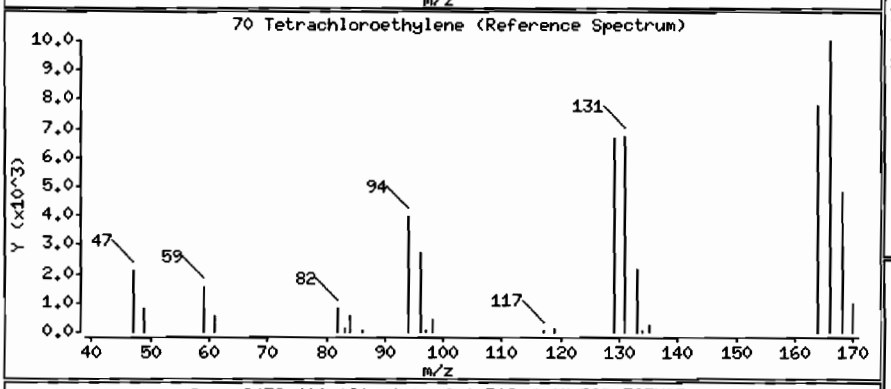

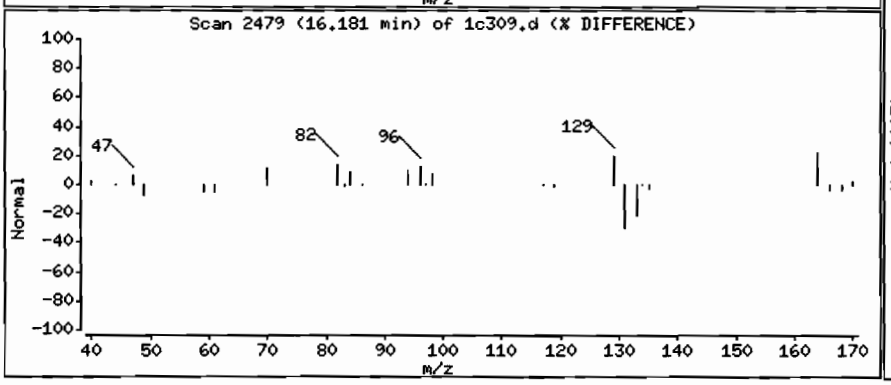

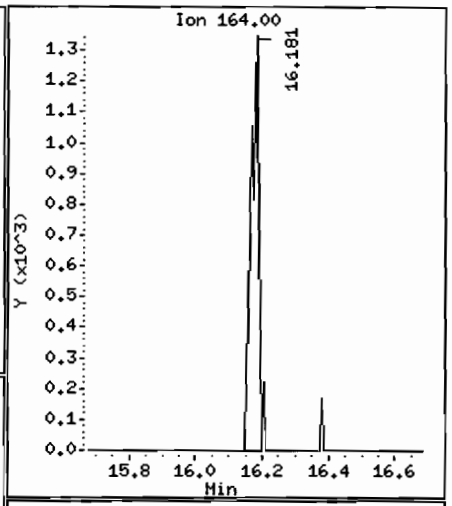

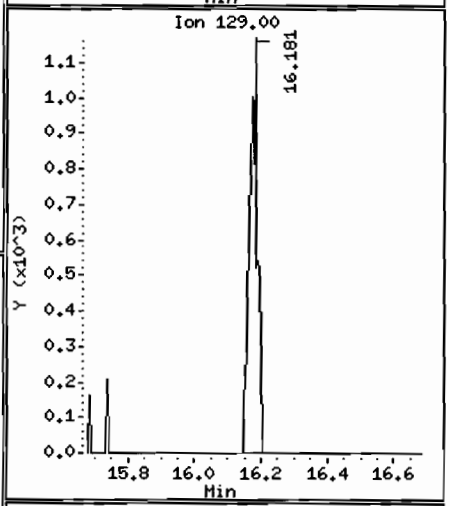

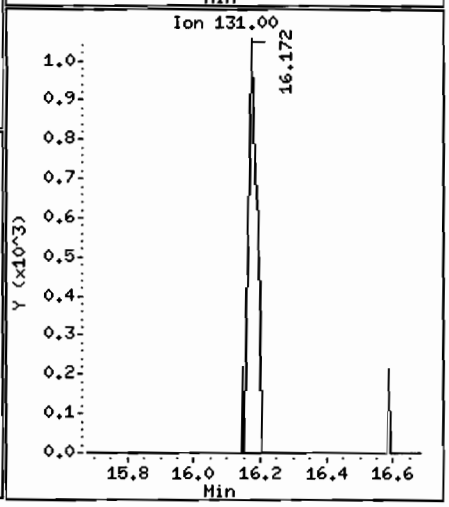

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: |2488420061965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

89 n-Propylbenzene

Concentration: 1.2 ug/Kg

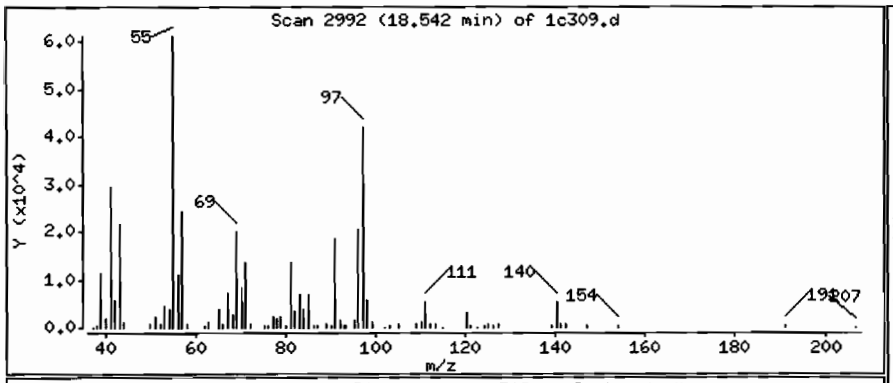

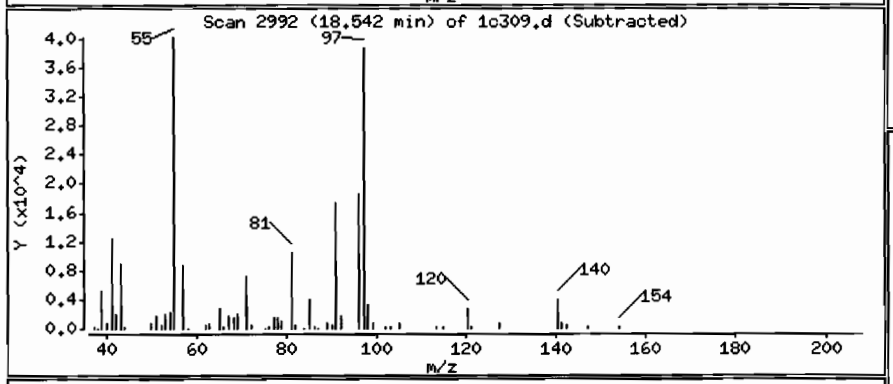

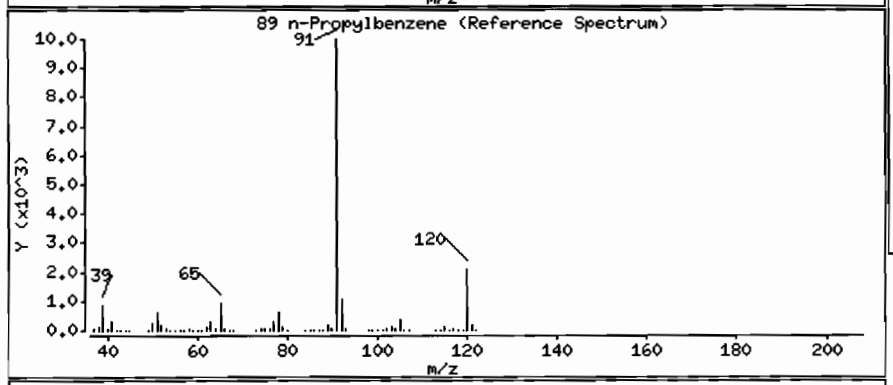

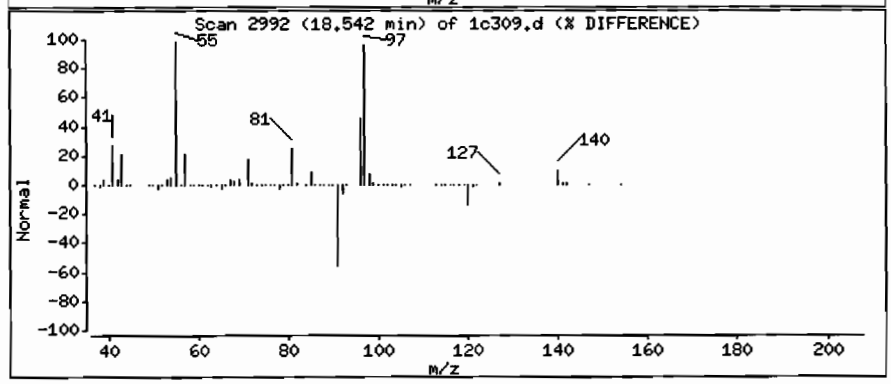

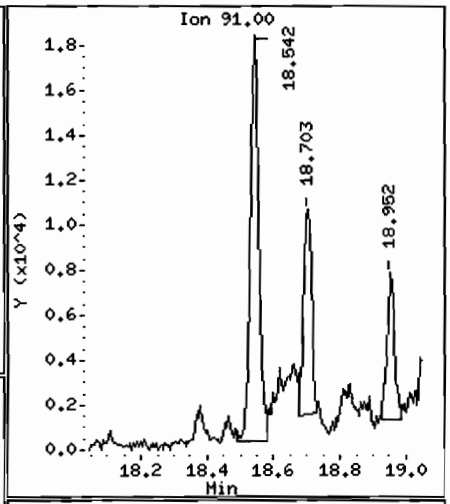

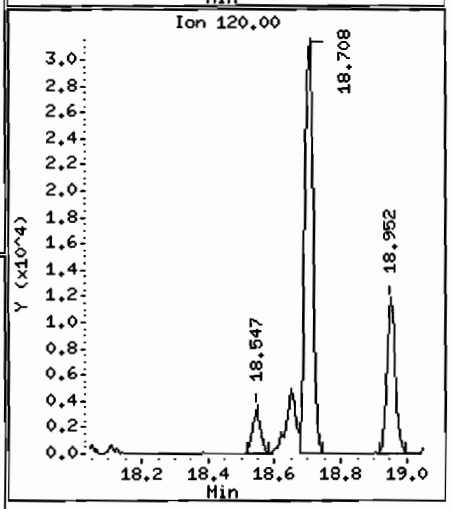

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: |2488420061965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

93 1,3,5-Trimethylbenzene

Concentration: 6.6 ug/Kg

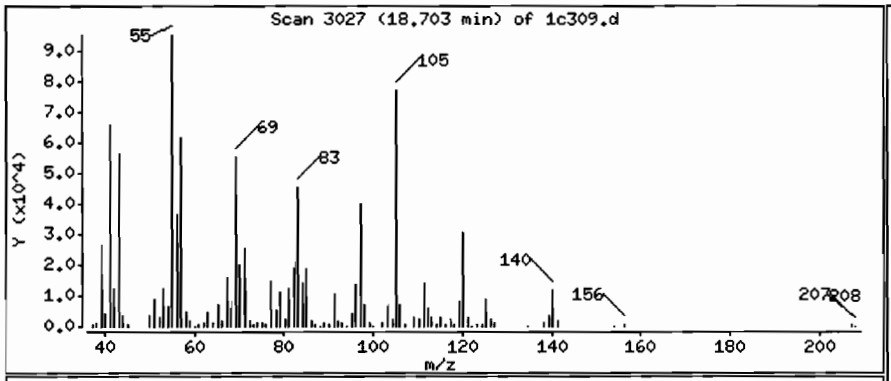

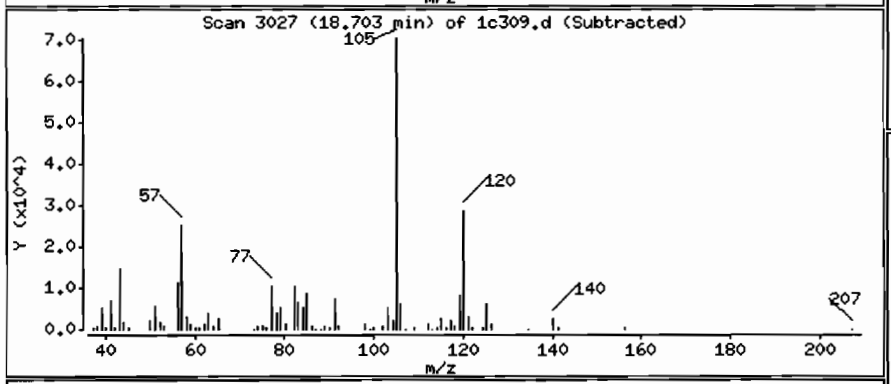

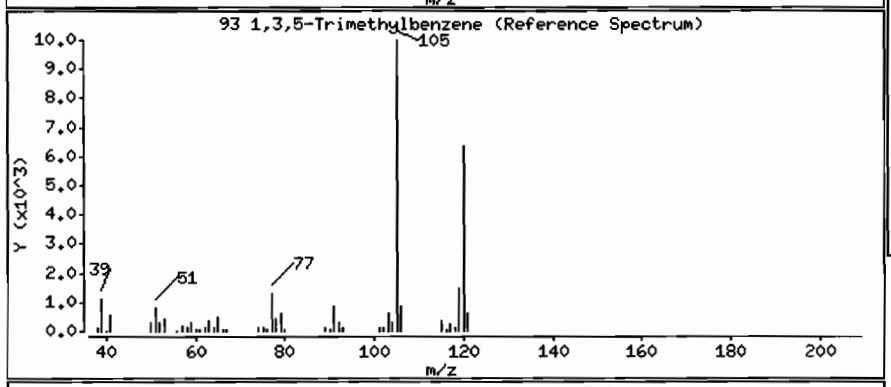

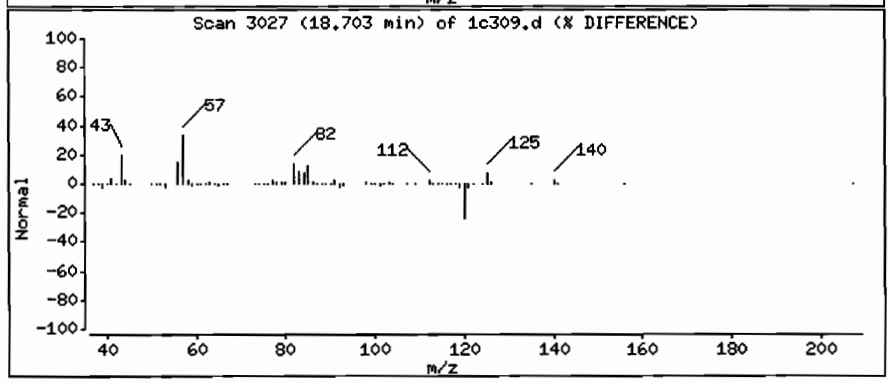

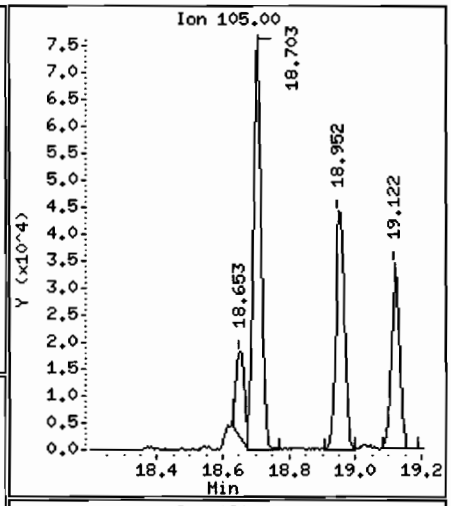

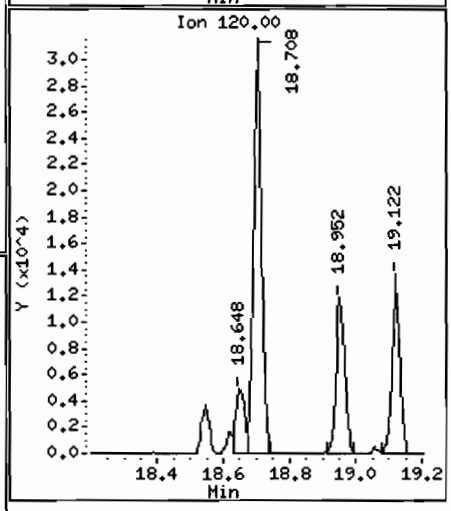

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: |2488420061965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

97 1,2,4-Trimethylbenzene

Concentration: 2.9 ug/Kg

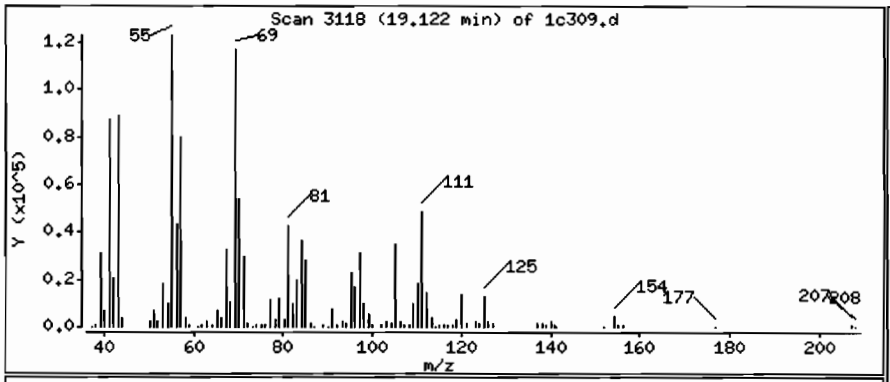

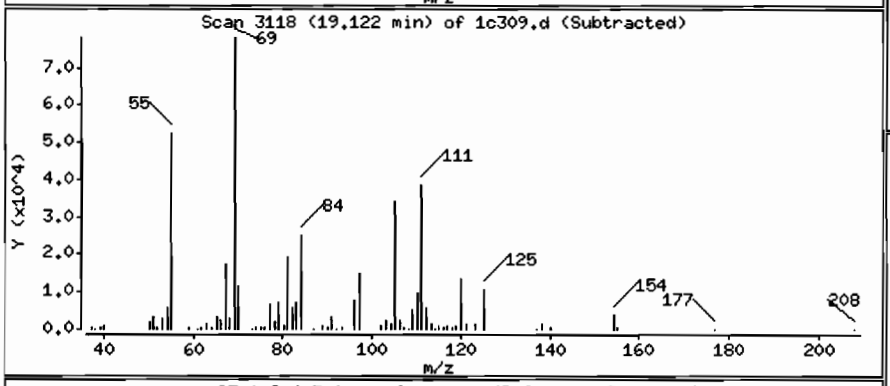

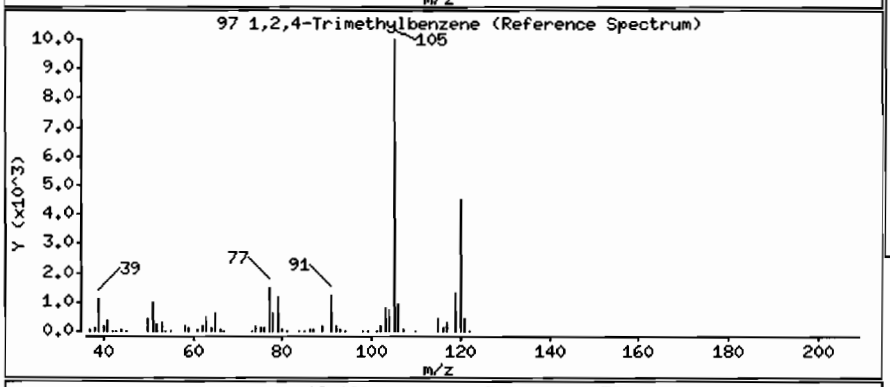

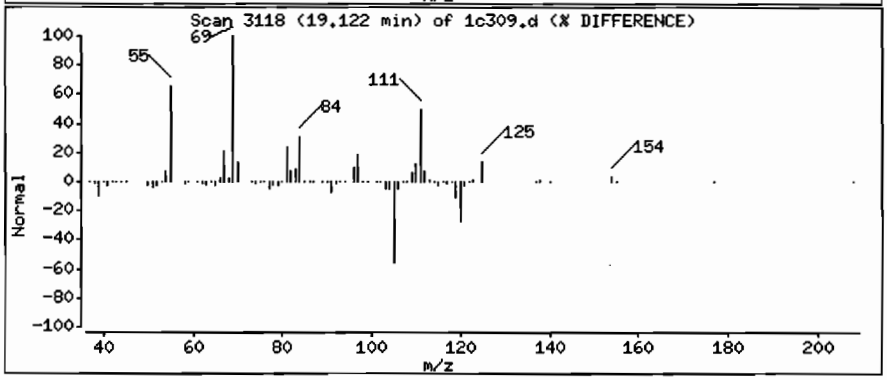

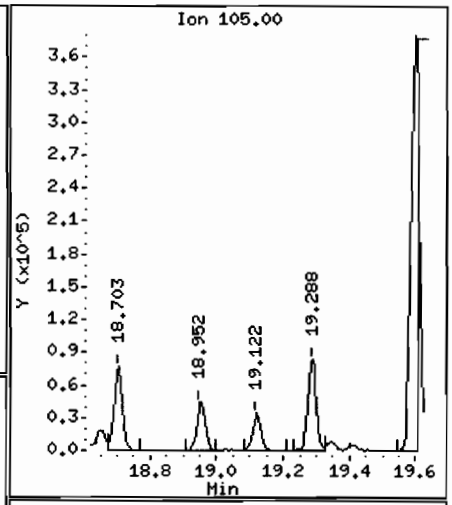

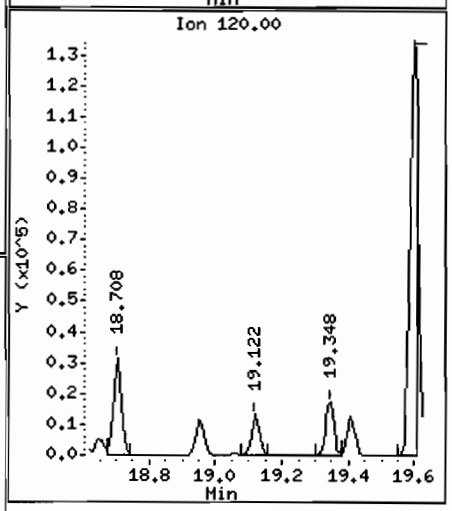

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: 1248842006196587511VOAF111

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

99 sec-Butylbenzene

Concentration: 5.6 ug/Kg

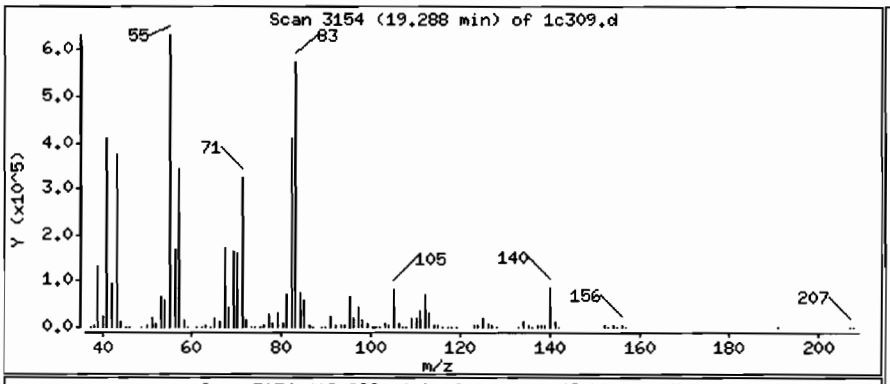

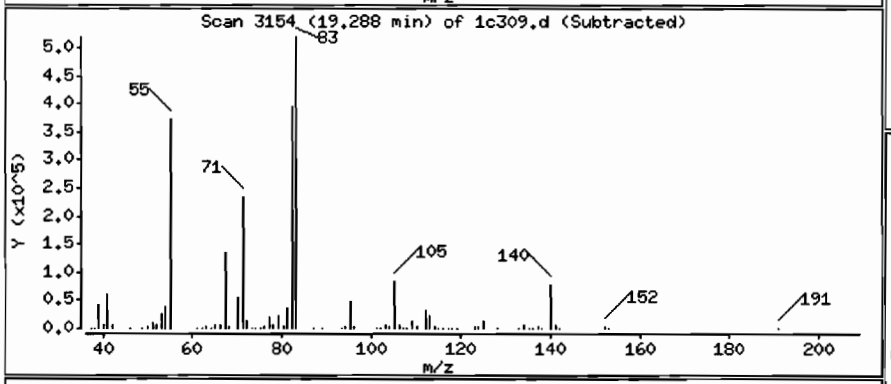

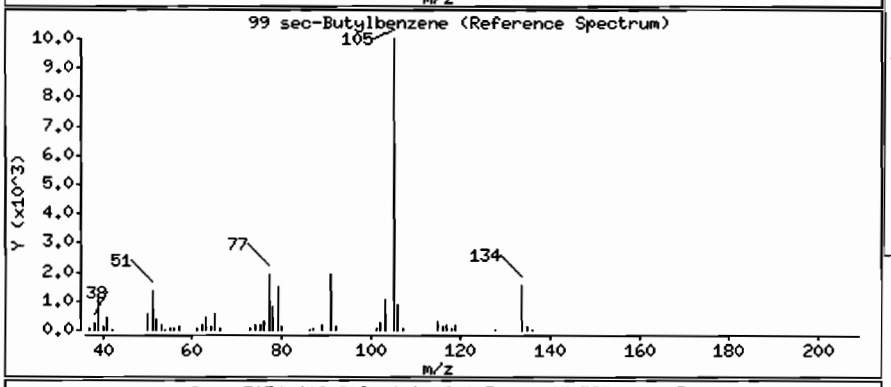

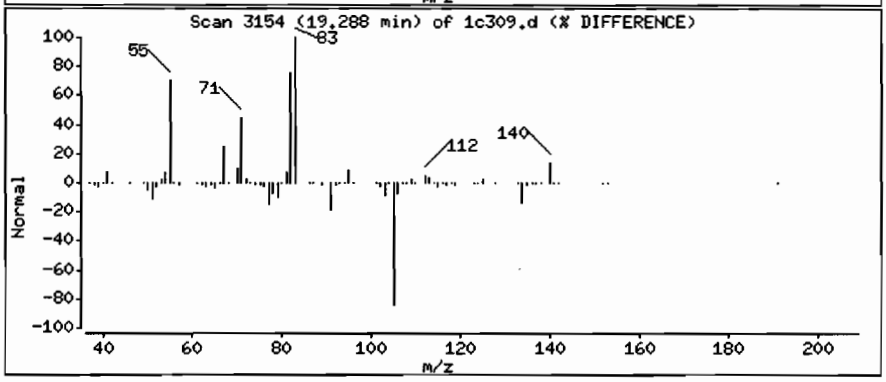

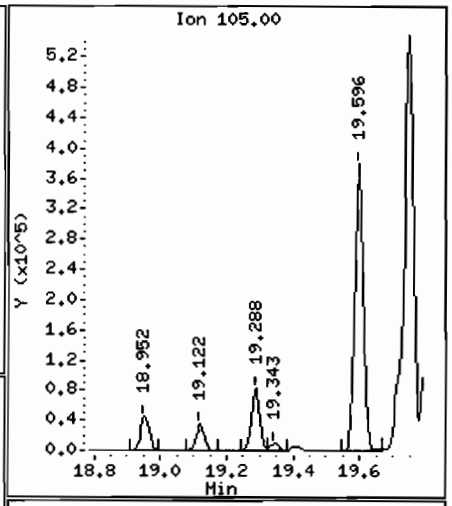

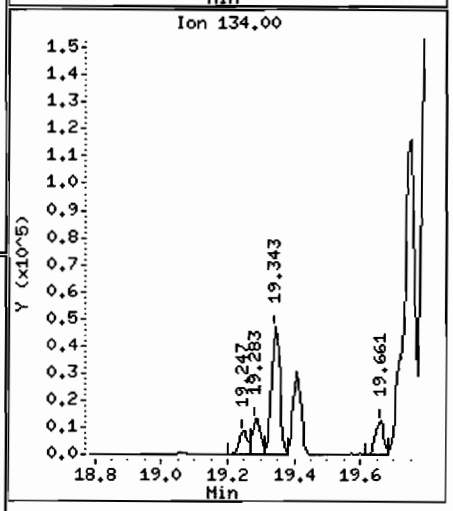

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: |2488420061965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

100 4-Isopropyltoluene

Concentration: 10.8 ug/Kg

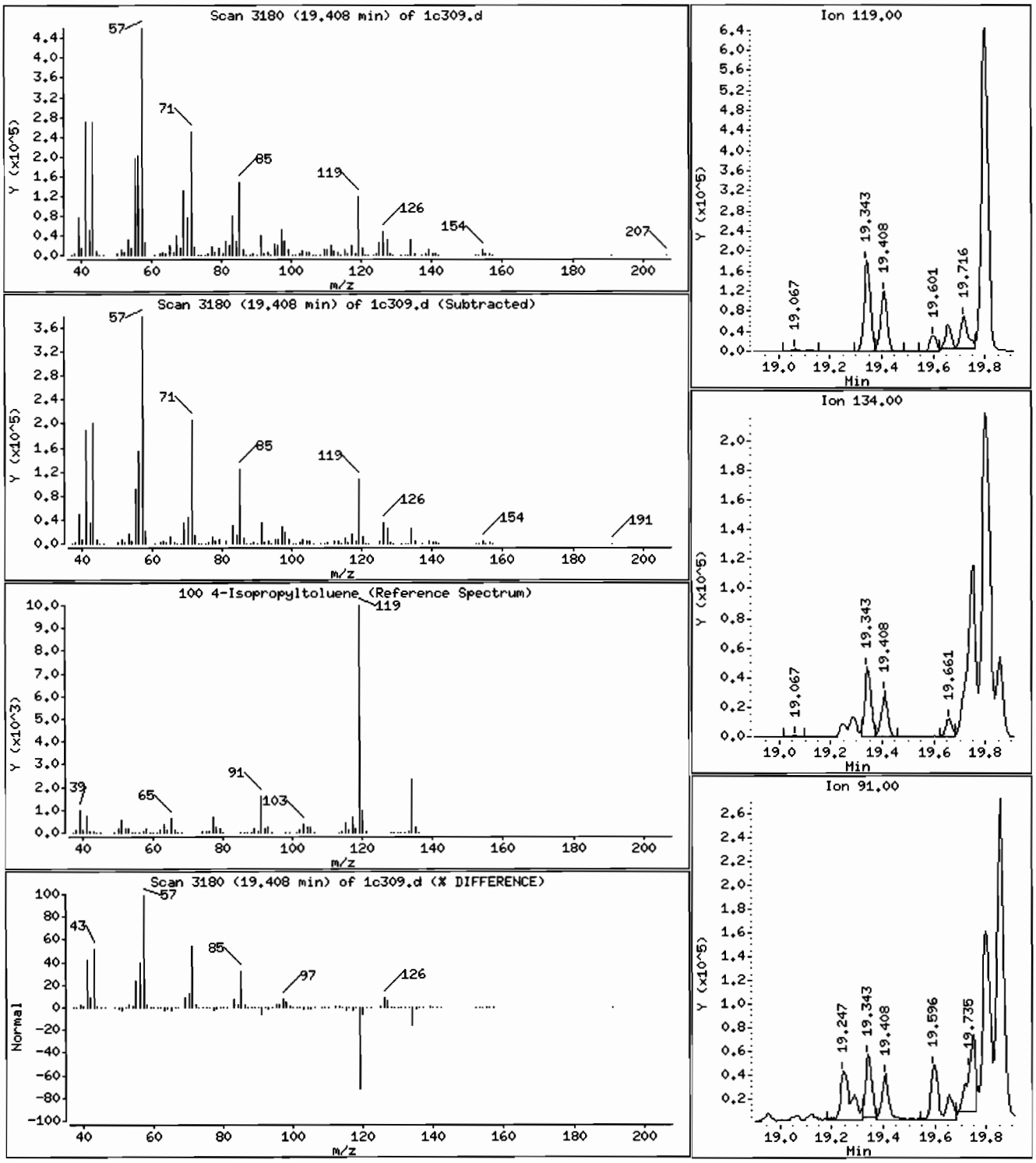

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: |2488420061965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

105 n-Butylbenzene

Concentration: 24.0 ug/Kg

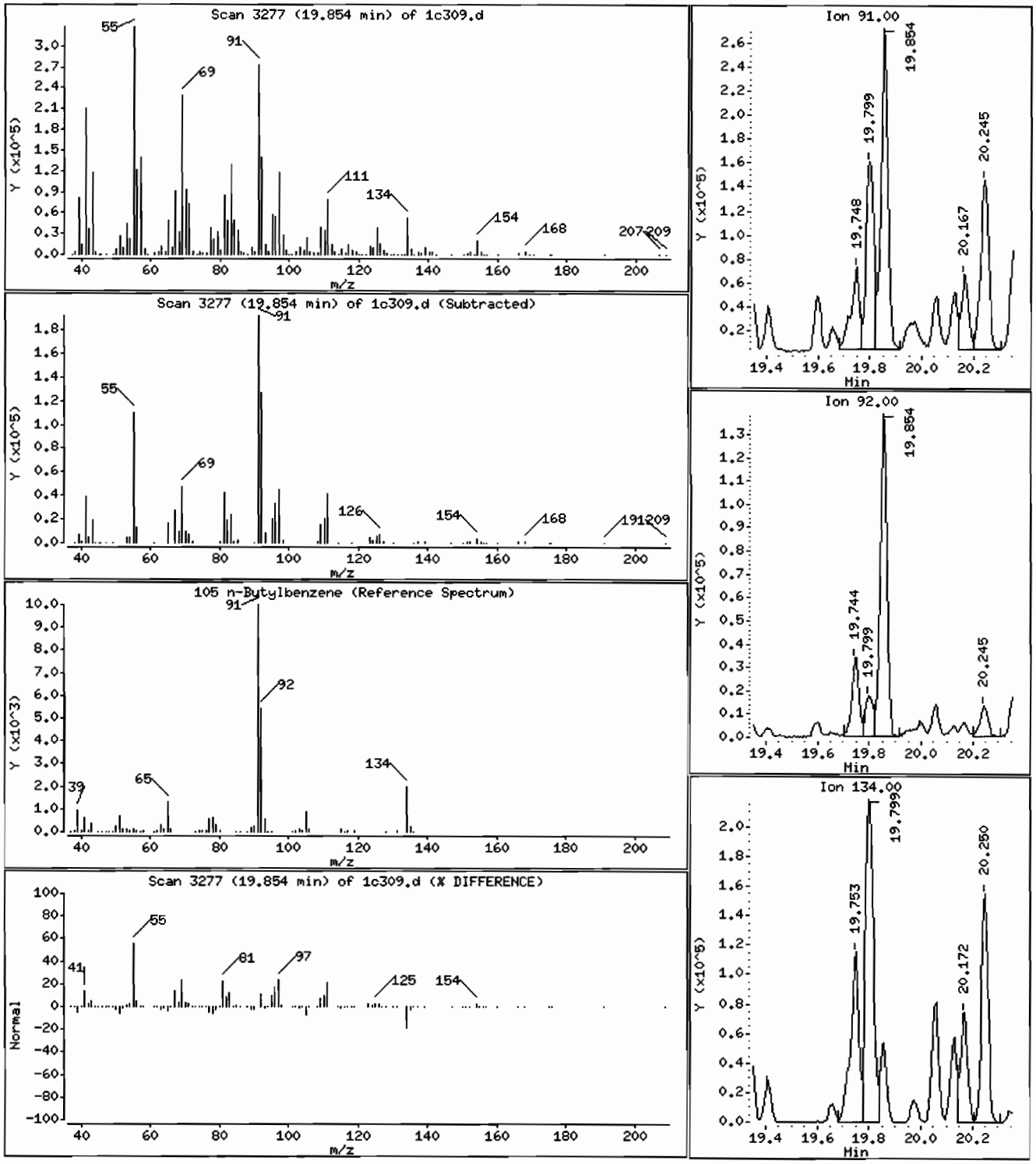

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: |2488420061965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
tert-Butyldimethylsilanol	18173-64-3	NIST05.L	13928	83	C6H16OSi	132
Silanol, trimethyl-	1066-40-6	NIST05.L	2200	64	C3H10OSi	90
Silanol, dimethyl(1,1,2-trimethylpropyl)	55644-10-5	NIST05.L	29982	64	C8H20OSi	160

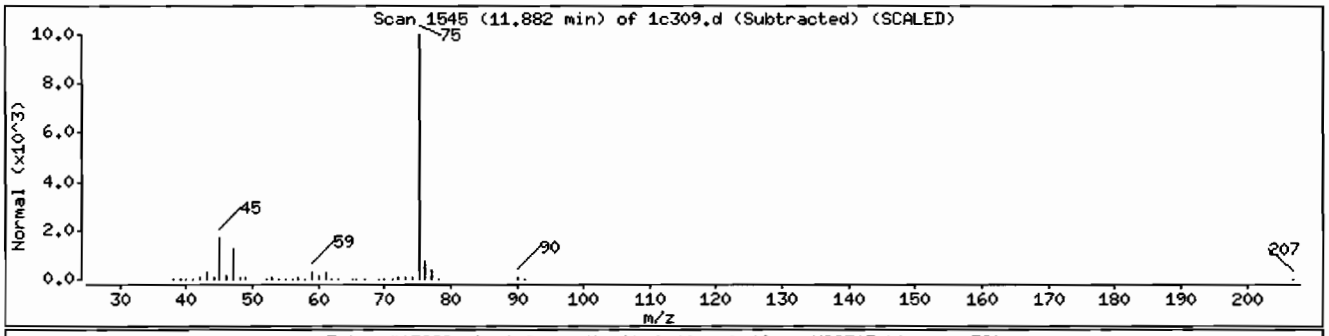

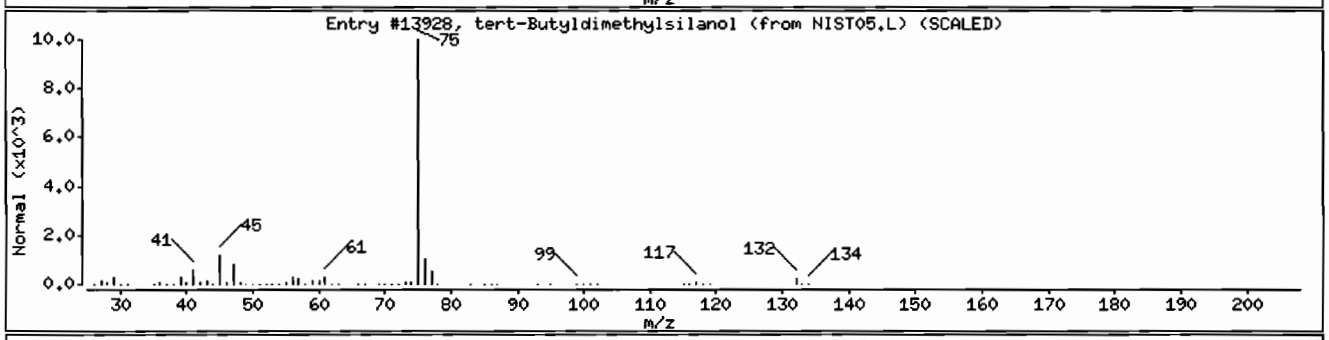

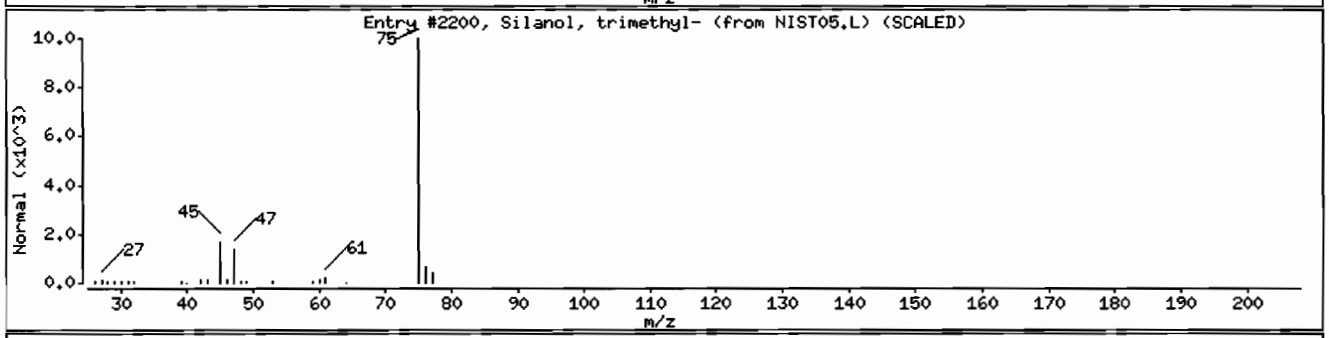

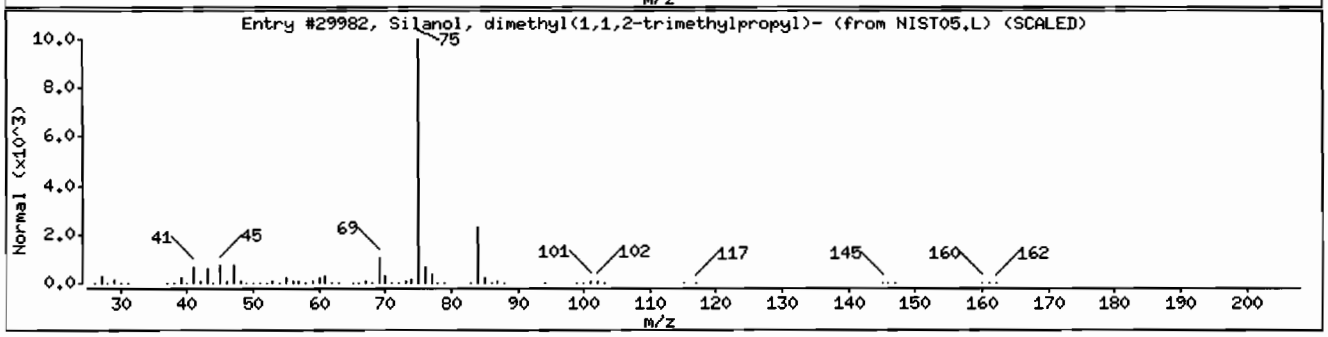

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: |2488420061965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Diphenyl ether	101-84-8	NIST05.L	36401	53	C12H10O	170
Diphenyl ether	101-84-8	NIST05.L	36402	52	C12H10O	170
Diphenyl ether	101-84-8	NIST05.L	36400	52	C12H10O	170

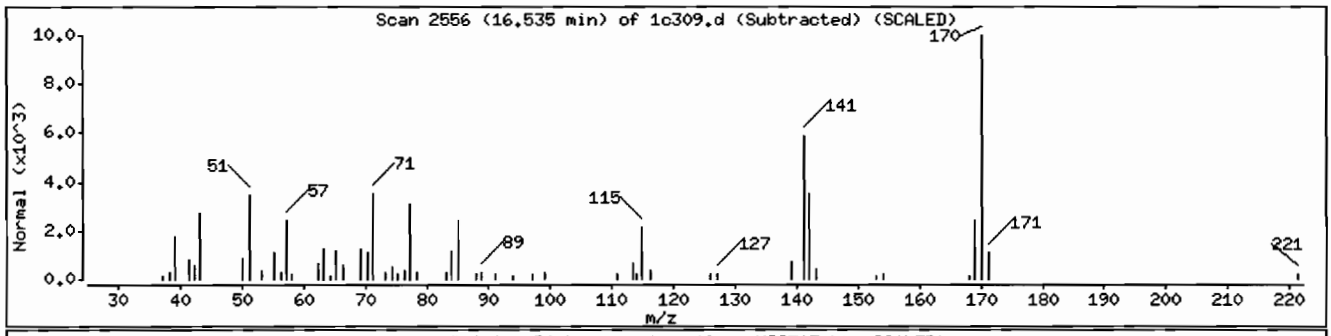

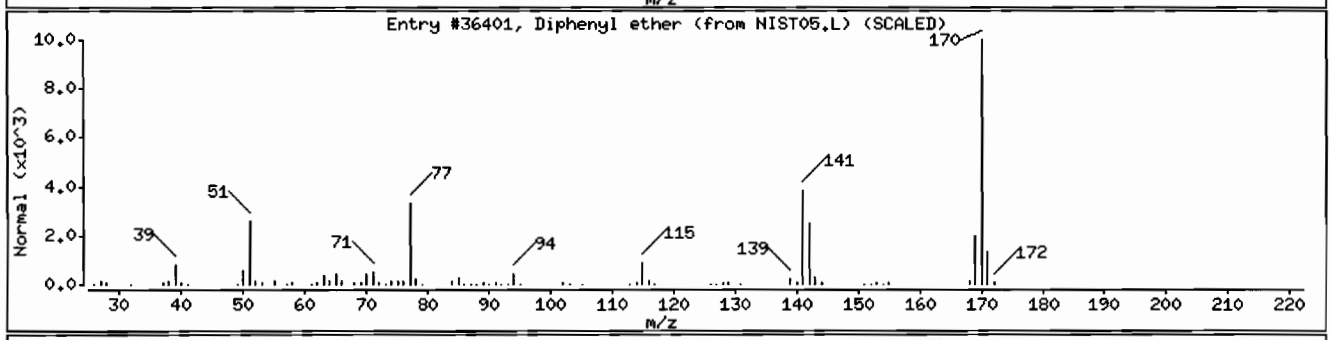

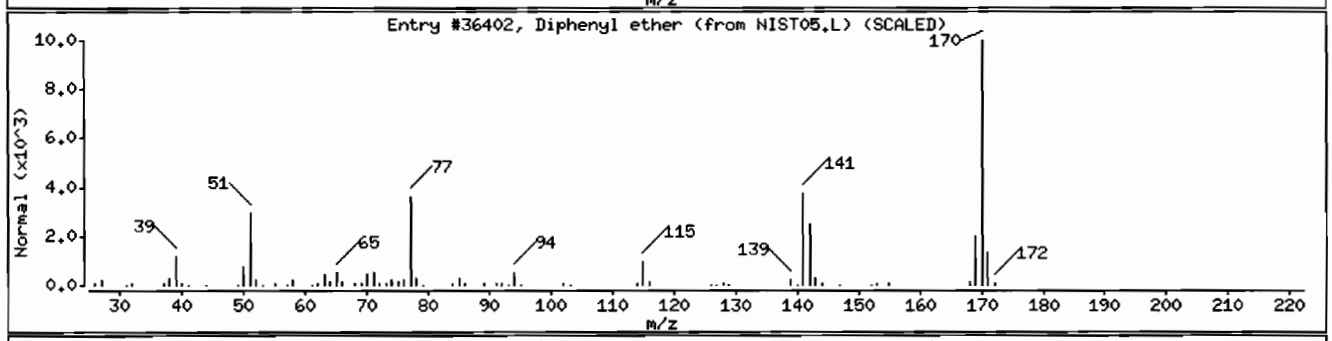

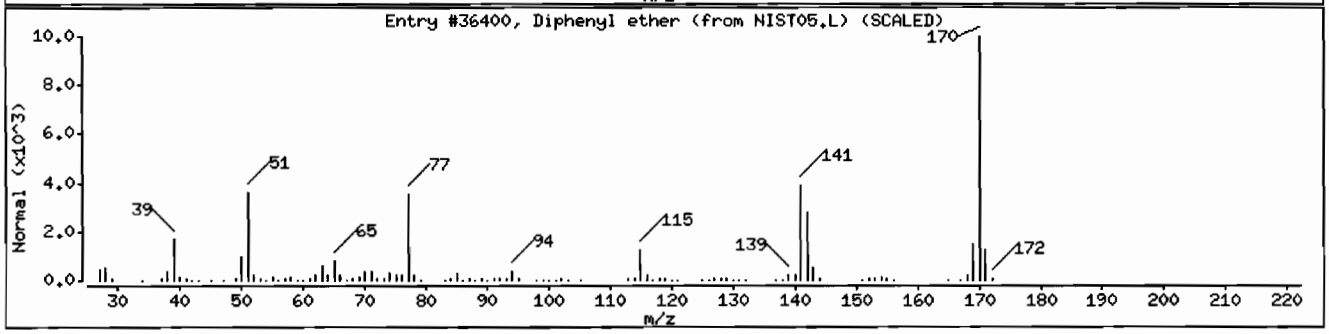

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: |2488420061965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Octane, 2,6-dimethyl-	2051-30-1	NIST05.L	18527	90	C10H22	142
Nonane, 3-methyl-	5911-04-6	NIST05.L	18499	90	C10H22	142
Octane, 3,6-dimethyl-	15869-94-0	NIST05.L	18514	90	C10H22	142

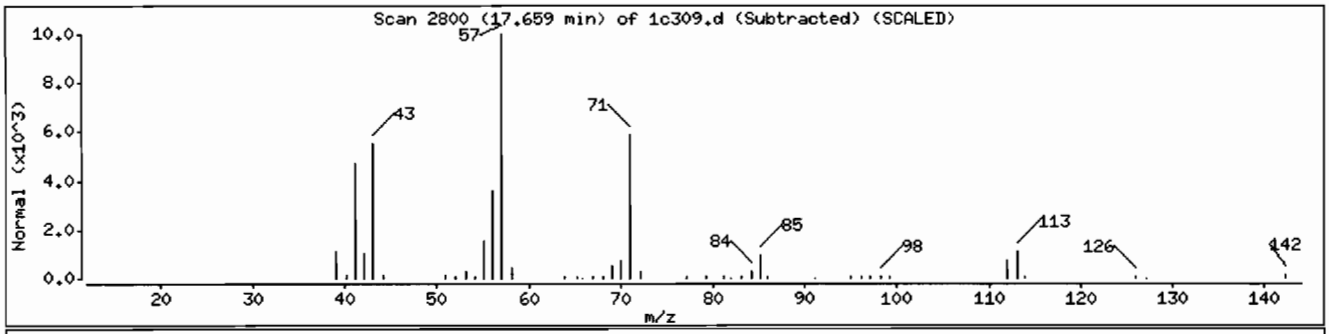

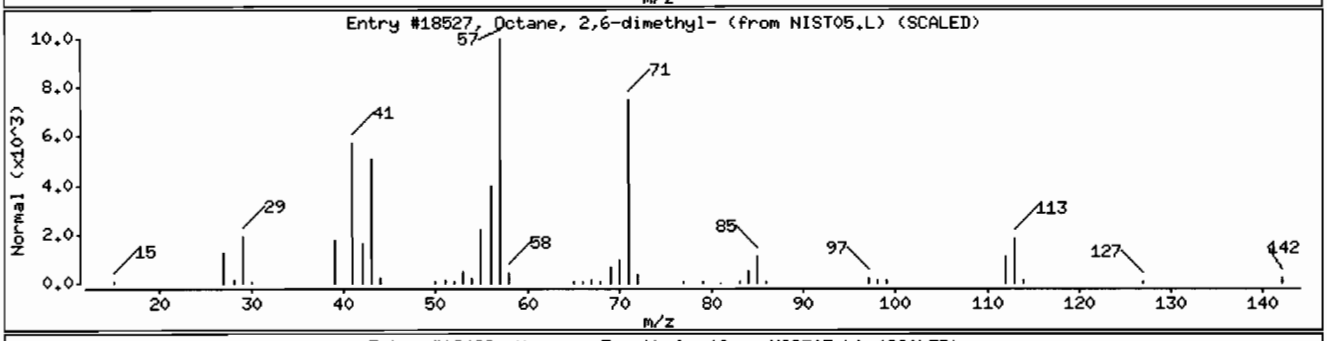

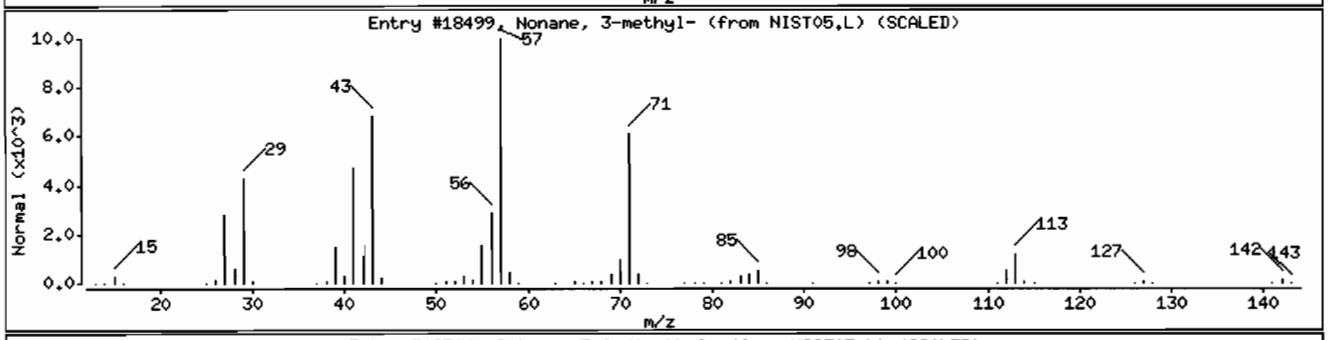

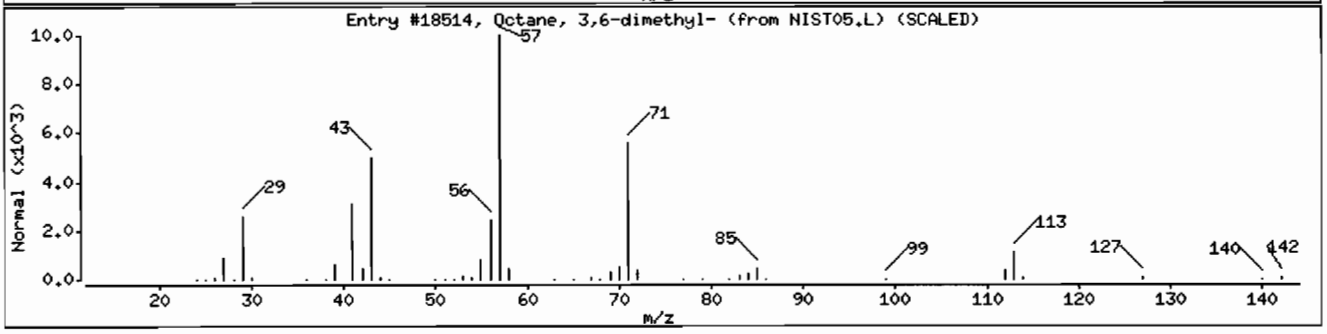

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: |2488420061965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Nonane, 4-methyl-	17301-94-9	NIST05.L	18502	64	C10H22	142
Octane, 2,5-dimethyl-	15869-89-3	NIST05.L	18509	50	C10H22	142
Heptane, 3-ethyl-	15869-80-4	NIST05.L	12273	50	C9H20	128

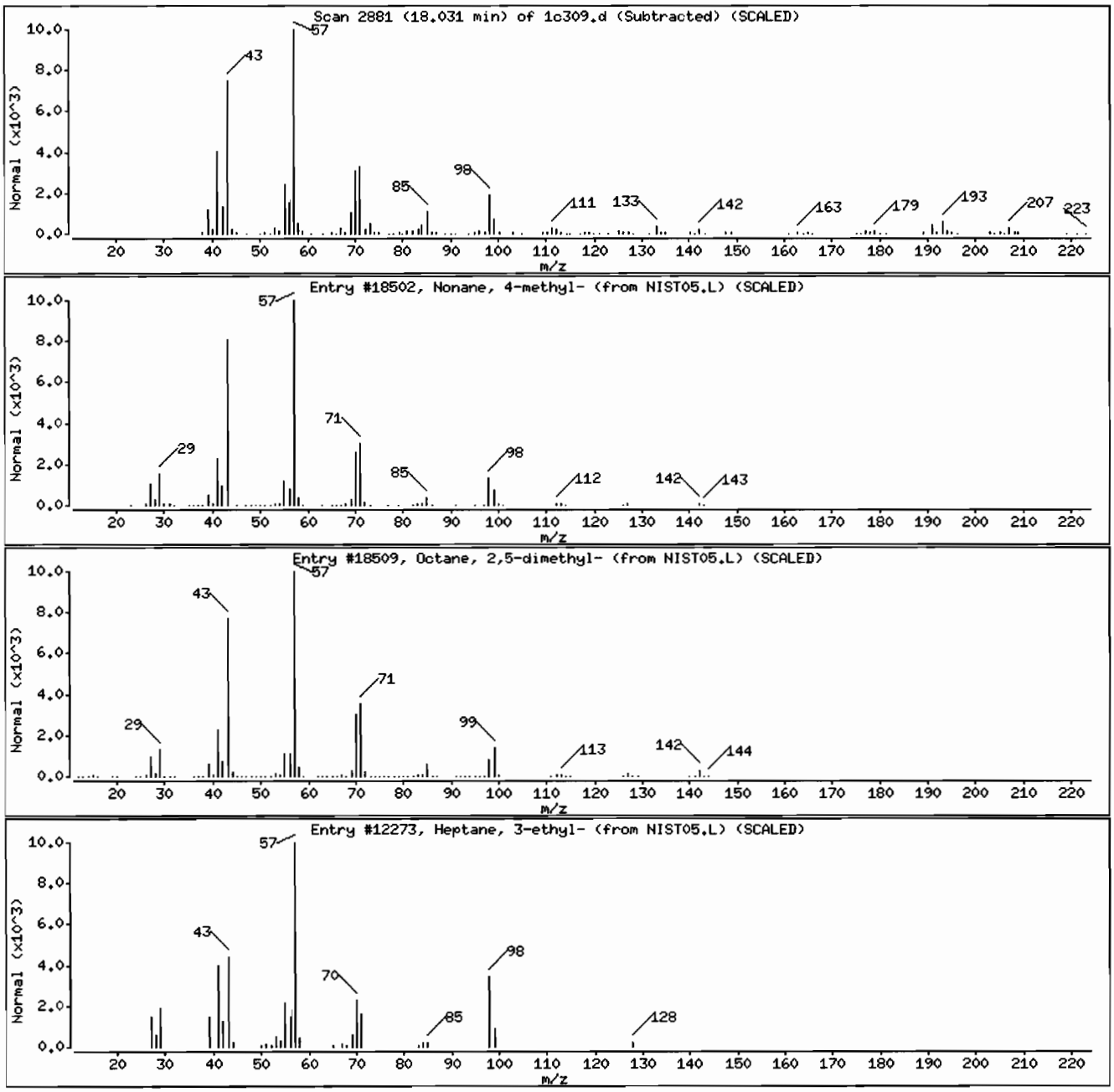

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: |2488420061965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Dodecane, 2,2,11,11-tetramethyl-	127204-12-0	NIST05.L	76118	64	C16H34	226
Hexane, 2,2,5-trimethyl-	3522-94-9	NIST05.L	12327	59	C9H20	128
Hexane, 2,2,5,5-tetramethyl-	1071-81-4	NIST05.L	18556	59	C10H22	142

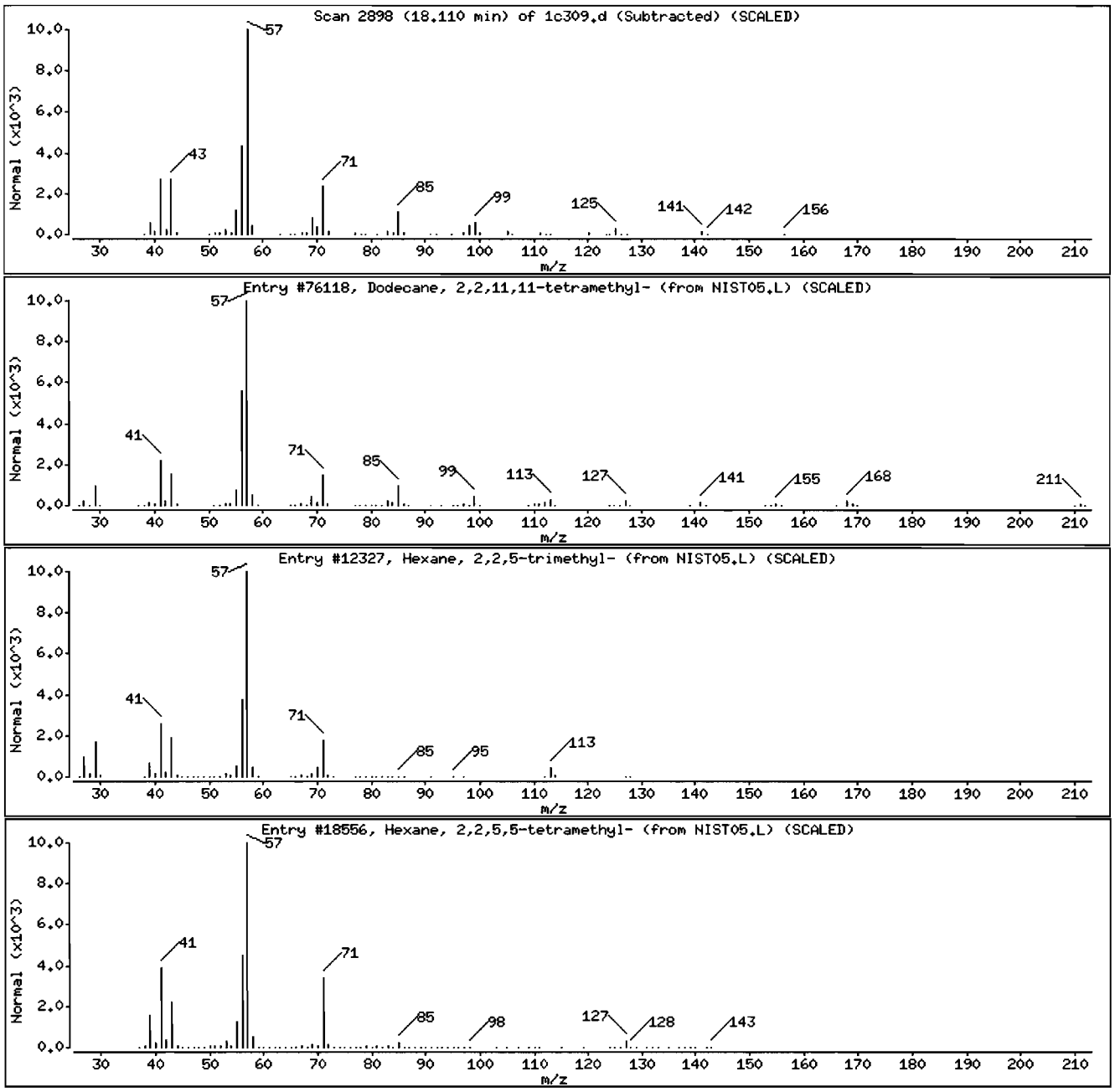

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: |2488420061965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Nonane, 3-methyl-	5911-04-6	NIST05.L	18500	83	C10H22	142
Nonane, 3-methyl-	5911-04-6	NIST05.L	18496	72	C10H22	142
Octane, 2,6-dimethyl-	2051-30-1	NIST05.L	18522	72	C10H22	142

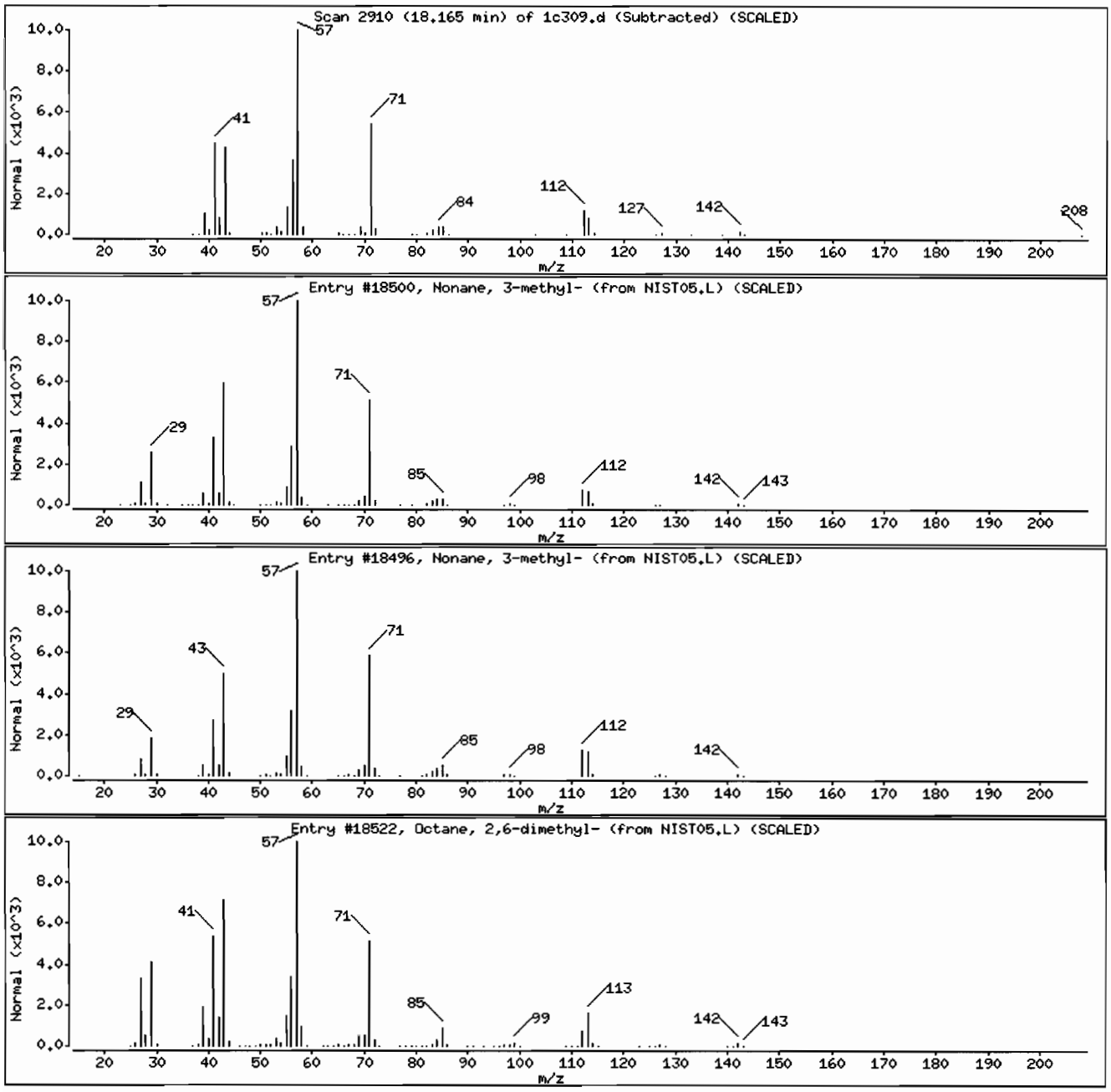

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: |2488420061965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Nonane, 2,6-dimethyl-	17302-28-2	NIST05.L	27252	91	C11H24	156
Decane, 4-methyl-	2847-72-5	NIST05.L	27242	90	C11H24	156
Decane, 4-methyl-	2847-72-5	NIST05.L	27248	90	C11H24	156

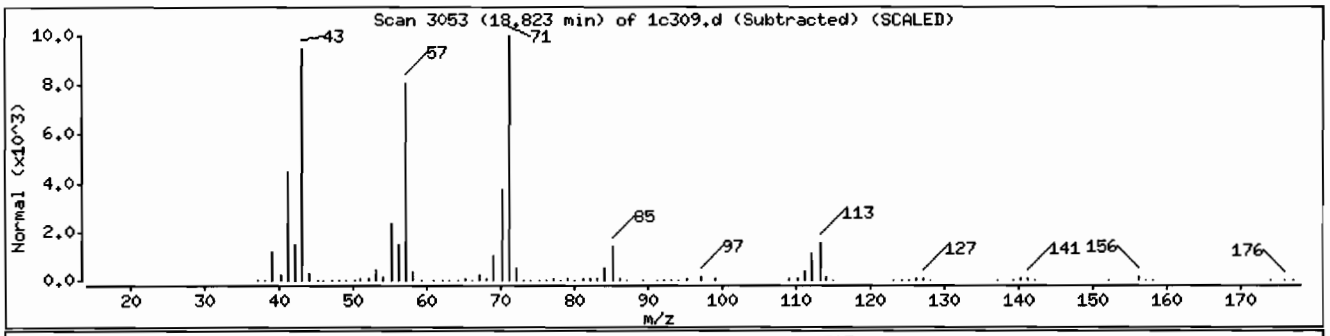

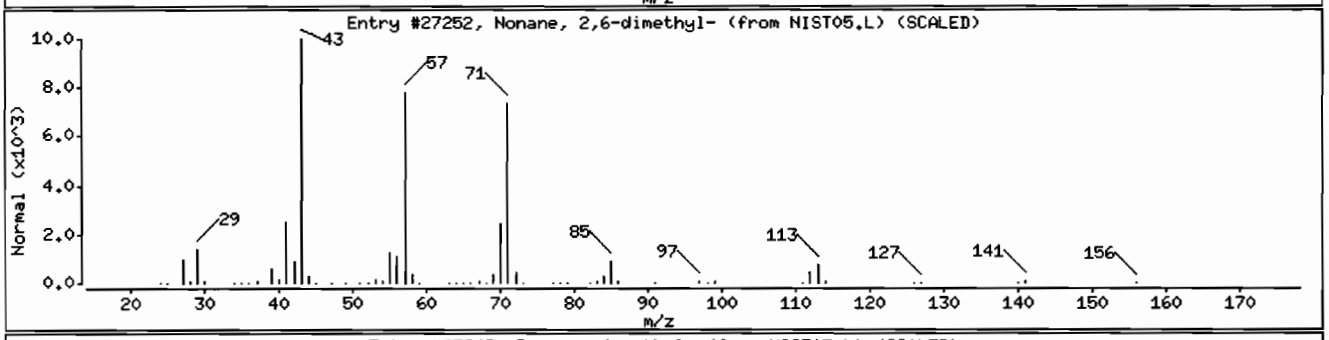

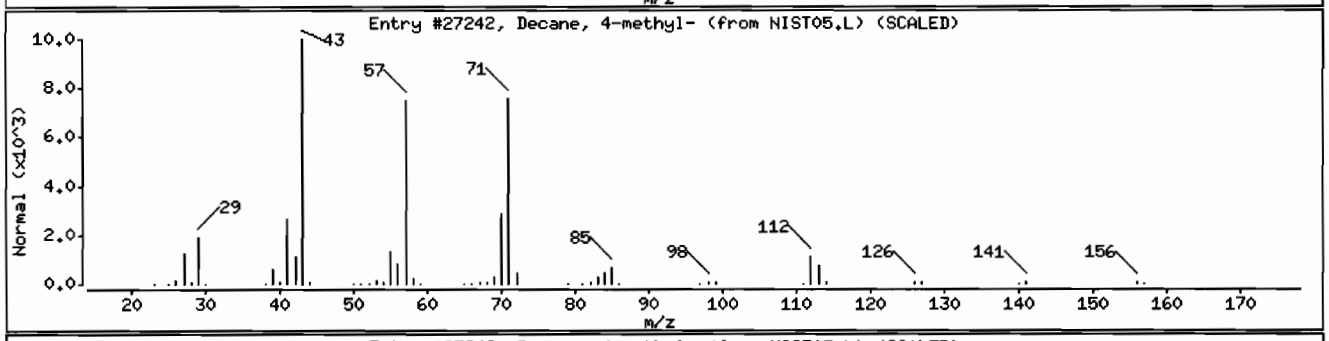

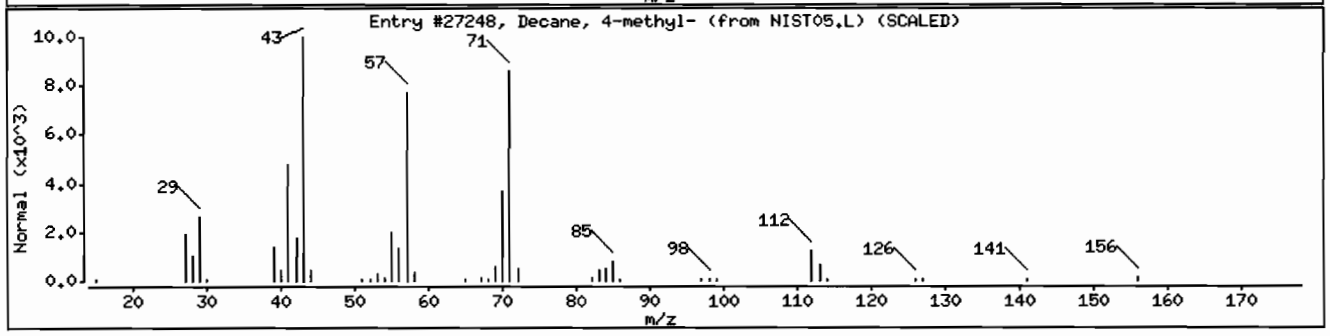

Data File: /chem/VOA1.i/031710v1/1c309.d

Date : 17-MAR-2010 15:00

Client ID: RE46-10-13548

Instrument: VOA1.i

Sample Info: |2488420061965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Undecane	1120-21-4	NIST05.L	27236	94	C11H24	156
Undecane	1120-21-4	NIST05.L	27237	76	C11H24	156
Undecane	1120-21-4	NIST05.L	27240	70	C11H24	156

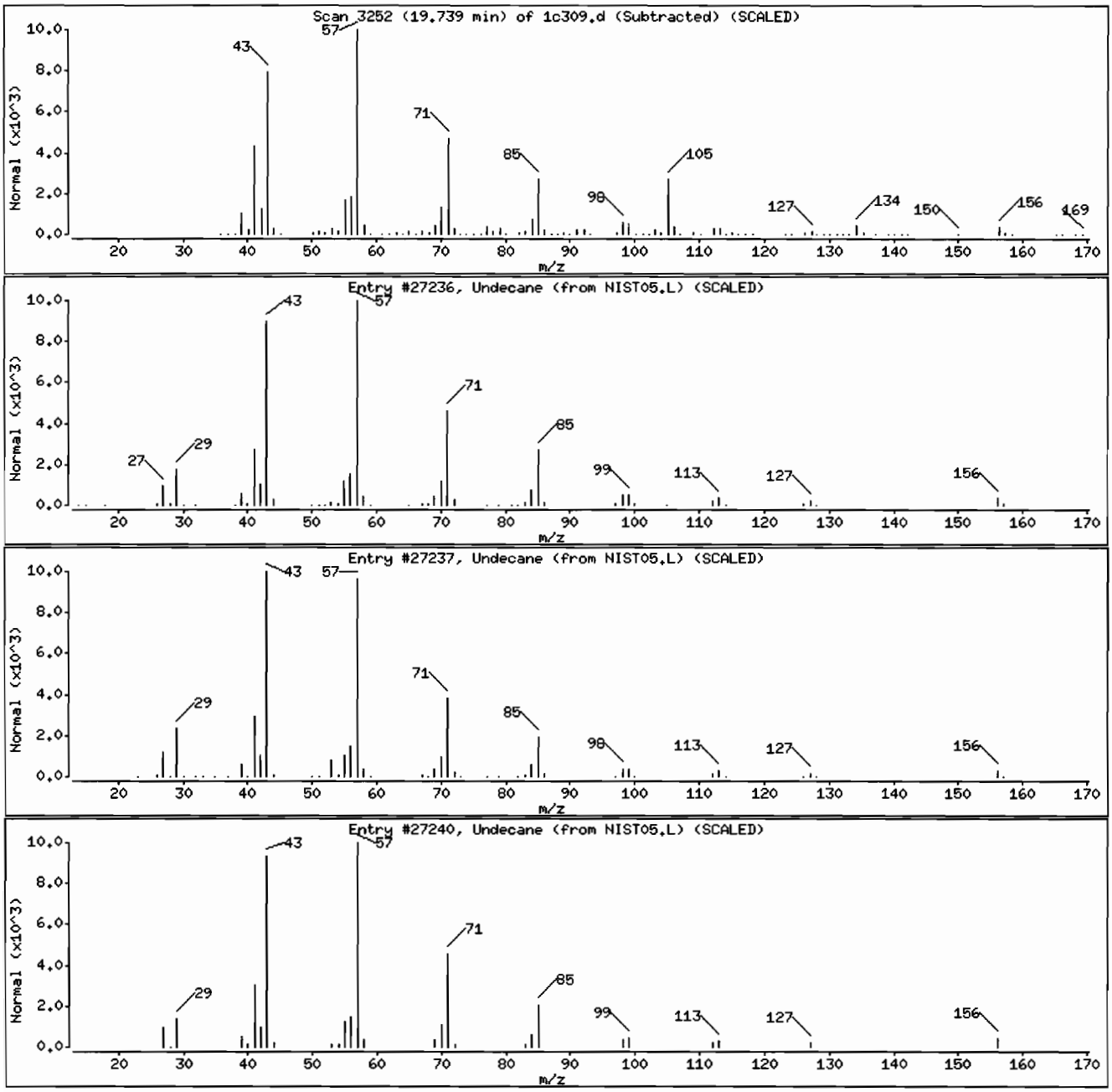

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**16.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13549**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 15:47**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c211.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.20	ug/kg	0.408	1.20
74-87-3	Chloromethane	U	1.20	ug/kg	0.360	1.20
75-01-4	Vinyl chloride	U	1.20	ug/kg	0.360	1.20
74-83-9	Bromomethane	U	1.20	ug/kg	0.360	1.20
75-00-3	Chloroethane	U	1.20	ug/kg	0.360	1.20
75-69-4	Trichlorofluoromethane	U	1.20	ug/kg	0.360	1.20
67-64-1	Acetone		64.9	ug/kg	1.99	5.99
75-35-4	1,1-Dichloroethylene	U	1.20	ug/kg	0.360	1.20
74-88-4	Iodomethane	U	5.99	ug/kg	1.92	5.99
75-09-2	Methylene chloride	U	5.99	ug/kg	2.40	5.99
75-15-0	Carbon disulfide	U	5.99	ug/kg	1.50	5.99
156-60-5	trans-1,2-Dichloroethylene	U	1.20	ug/kg	0.360	1.20
75-34-3	1,1-Dichloroethane	U	1.20	ug/kg	0.360	1.20
78-93-3	2-Butanone	U	5.99	ug/kg	1.80	5.99
156-59-2	cis-1,2-Dichloroethylene	U	1.20	ug/kg	0.360	1.20
594-20-7	2,2-Dichloropropane	U	1.20	ug/kg	0.360	1.20
67-66-3	Chloroform	U	1.20	ug/kg	0.360	1.20
74-97-5	Bromochloromethane	U	1.20	ug/kg	0.396	1.20
71-55-6	1,1,1-Trichloroethane	J	0.393	ug/kg	0.360	1.20
563-58-6	1,1-Dichloropropene	U	1.20	ug/kg	0.360	1.20
56-23-5	Carbon tetrachloride	U	1.20	ug/kg	0.360	1.20
107-06-2	1,2-Dichloroethane	U	1.20	ug/kg	0.360	1.20
71-43-2	Benzene	U	1.20	ug/kg	0.360	1.20
79-01-6	Trichloroethylene		2.58	ug/kg	0.396	1.20
78-87-5	1,2-Dichloropropane	U	1.20	ug/kg	0.360	1.20
75-27-4	Bromodichloromethane	U	1.20	ug/kg	0.360	1.20
74-95-3	Dibromomethane	U	1.20	ug/kg	0.360	1.20
108-10-1	4-Methyl-2-pentanone	U	5.99	ug/kg	1.50	5.99
10061-01-5	cis-1,3-Dichloropropylene	U	1.20	ug/kg	0.360	1.20
108-88-3	Toluene	U	1.20	ug/kg	0.360	1.20
10061-02-6	trans-1,3-Dichloropropylene	U	1.20	ug/kg	0.360	1.20
79-00-5	1,1,2-Trichloroethane	U	1.20	ug/kg	0.360	1.20
591-78-6	2-Hexanone	U	5.99	ug/kg	1.80	5.99
142-28-9	1,3-Dichloropropane	U	1.20	ug/kg	0.360	1.20
127-18-4	Tetrachloroethylene	U	1.20	ug/kg	0.360	1.20
124-48-1	Dibromochloromethane	U	1.20	ug/kg	0.360	1.20
106-93-4	1,2-Dibromoethane	U	1.20	ug/kg	0.360	1.20
108-90-7	Chlorobenzene	U	1.20	ug/kg	0.360	1.20

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**16.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13549**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 15:47**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c211.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.20	ug/kg	0.360	1.20
179601-23-1	m,p-Xylenes	U	2.40	ug/kg	0.360	2.40
95-47-6	o-Xylene	U	1.20	ug/kg	0.360	1.20
100-42-5	Styrene	U	1.20	ug/kg	0.360	1.20
75-25-2	Bromoform	U	1.20	ug/kg	0.360	1.20
79-34-5	1,1,2,2-Tetrachloroethane	U	1.20	ug/kg	0.360	1.20
96-18-4	1,2,3-Trichloropropane	U	1.20	ug/kg	0.360	1.20
108-86-1	Bromobenzene	U	1.20	ug/kg	0.360	1.20
103-65-1	n-Propylbenzene	U	1.20	ug/kg	0.360	1.20
95-49-8	2-Chlorotoluene	U	1.20	ug/kg	0.360	1.20
98-82-8	Isopropylbenzene	U	1.20	ug/kg	0.360	1.20
108-67-8	1,3,5-Trimethylbenzene	J	0.878	ug/kg	0.360	1.20
106-43-4	4-Chlorotoluene	U	1.20	ug/kg	0.360	1.20
98-06-6	tert-Butylbenzene	U	1.20	ug/kg	0.360	1.20
95-63-6	1,2,4-Trimethylbenzene		1.90	ug/kg	0.360	1.20
135-98-8	sec-Butylbenzene	U	1.20	ug/kg	0.360	1.20
99-87-6	4-Isopropyltoluene		2.06	ug/kg	0.360	1.20
541-73-1	1,3-Dichlorobenzene	U	1.20	ug/kg	0.360	1.20
106-46-7	1,4-Dichlorobenzene	U	1.20	ug/kg	0.360	1.20
104-51-8	n-Butylbenzene		4.58	ug/kg	0.360	1.20
96-12-8	1,2-Dibromo-3-chloropropane	U	1.20	ug/kg	0.360	1.20
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.99	ug/kg	1.92	5.99
630-20-6	1,1,1,2-Tetrachloroethane	U	1.20	ug/kg	0.360	1.20
95-50-1	1,2-Dichlorobenzene	U	1.20	ug/kg	0.360	1.20

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.88	39	ug/kg		J
	Unknown	16.51	82.4	ug/kg		J
	Unknown Siloxane	18.05	14.5	ug/kg		J
	Unknown Hydrocarbon	18.51	33.1	ug/kg		J
	Unknown Hydrocarbon	19.74	221	ug/kg		J
	Unknown Hydrocarbon	20.95	1180	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c211.d
Lab Smp Id: 248842003 Client Smp ID: RE46-10-13549
Inj Date : 16-MAR-2010 15:47
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842003|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	16.56910	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	974893	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	738561	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.596	(1.000)	408239	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.332	13.327	(0.975)	527126	55.3766	66.4
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1267210	51.0143	61.1
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	534448	52.2174	62.6
16 Acetone	43	9.235	9.239	(0.675)	312482	54.1071	64.8
43 1,1,1-Trichloroethane	97	12.830	12.834	(0.938)	2746	0.32791	0.39(a)
54 Trichloroethylene	95	14.100	14.105	(1.031)	12404	2.15363	2.6
93 1,3,5-Trimethylbenzene	105	18.703	18.703	(0.954)	17741	0.73227	0.88(a)
97 1,2,4-Trimethylbenzene	105	19.118	19.122	(0.975)	39990	1.58803	1.9
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	41279	1.71838	2.0
105 n-Butylbenzene	91	19.854	19.854	(1.013)	99170	3.82322	4.6(Q)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

VOA REPORT

Data file: 1c211.d
Report Date: 03/17/2010 05:37
Lab. ID: 248842003 SampleType: SAMPLE
Injection Date: 16-MAR-2010 15:47
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248842003|965875|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	312482	9.23	9.24	80-120	100	( )
58	87294	9.24	9.24	0- 56	28	( )
35 2-Butanone			CAS#: 78-93-3			
43	26634	11.88	12.17	80-120	100	(T)
72	2914	11.88	12.17	0- 51	11	(T)
33 2,2-Dichloropropane			CAS#: 594-20-7			
77	32972	11.88	12.15	80-120	100	(T)
79	267	12.33	12.15	3- 63	1	(QT)
43 1,1,1-Trichloroethane			CAS#: 71-55-6			
97	2746	12.83	12.83	80-120	100	( )
99	1532	12.83	12.83	35- 95	56	( )
61	1381	12.83	12.83	13- 73	50	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	17778	13.66	13.43	80-120	100	(T)
64	2836	13.67	13.43	3- 63	16	(T)
54 Trichloroethylene			CAS#: 79-01-6			
95	12404	14.10	14.10	80-120	100	( )
97	7872	14.10	14.10	36- 96	63	( )
130	9749	14.10	14.10	51-111	79	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
63 cis-1,3-Dichloropropylene				CAS#: 10061-01-5		
75	26338	15.72	15.25	80-120	100	(T)
77	42224	15.72	15.24	1- 61	160	(QT)
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	13175	15.50	15.34	80-120	100	(T)
43	7568	15.51	15.35	227-287	57	(QT)
100	790666	15.50	15.35	0- 60	6001	(QT)
68 trans-1,3-Dichloropropylene				CAS#: 10061-02-6		
75	45026	15.72	15.87	80-120	100	(T)
77	68386	15.72	15.87	1- 61	152	(QT)
72 1,3-Dichloropropane				CAS#: 142-28-9		
76	18541	16.50	16.30	80-120	100	(T)
78	23210	16.51	16.30	3- 63	125	(QT)
73 Dibromochloromethane				CAS#: 124-48-1		
129	1971	16.48	16.54	80-120	100	( )
127	1601	16.52	16.54	46-106	81	( )
88 1,1,2,2-Tetrachloroethane				CAS#: 79-34-5		
83	7196	18.51	18.50	80-120	100	( )
85	55211	18.51	18.50	35- 95	767	(Q)
92 1,2,3-Trichloropropane				CAS#: 96-18-4		
110	2434	18.60	18.59	80-120	100	( )
75	339	18.57	18.59	316-376	14	(Q)
77	4790	18.62	18.58	769-829	197	(Q)
91 Bromobenzene				CAS#: 108-86-1		
156	6424	18.82	18.58	80-120	100	(T)
77	2601	18.82	18.58	217-277	40	(QT)
158	162	18.57	18.58	70-130	3	(Q)
93 1,3,5-Trimethylbenzene				CAS#: 108-67-8		
105	17741	18.70	18.70	80-120	100	( )
120	7019	18.70	18.70	9- 69	40	( )
97 1,2,4-Trimethylbenzene				CAS#: 95-63-6		
105	39990	19.12	19.12	80-120	100	( )
120	14691	19.12	19.12	7- 67	37	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
95 4-Chlorotoluene			CAS#: 106-43-4			
91	14263	19.25	18.84	80-120	100	(T)
126	20842	19.19	18.84	0- 54	146	(QT)
96 tert-Butylbenzene			CAS#: 98-06-6			
119	54718	19.34	19.06	80-120	100	(T)
91	17787	19.34	19.06	58-118	33	(QT)
134	13397	19.34	19.06	0- 51	24	(T)
99 sec-Butylbenzene			CAS#: 135-98-8			
105	20536	19.28	19.29	80-120	100	( )
134	3807	19.28	19.29	0- 47	19	( )
100 4-Isopropyltoluene			CAS#: 99-87-6			
119	41279	19.41	19.41	80-120	100	( )
134	9457	19.41	19.41	0- 53	23	( )
91	16378	19.34	19.41	1- 61	40	(T)
105 n-Butylbenzene			CAS#: 104-51-8			
91	99170	19.85	19.85	80-120	100	( )
92	50666	19.85	19.85	24- 84	51	( )
134	137883	19.80	19.85	0- 51	139	(Q)
106 1,2-Dichlorobenzene			CAS#: 95-50-1			
146	5489	20.53	20.07	80-120	100	(T)
111	181542	19.60	20.07	20- 80	3307	(QT)
148	199801	20.37	20.07	36- 96	3640	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c211.d
Lab Smp Id: 248842003 Client Smp ID: RE46-10-13549
Inj Date : 16-MAR-2010 15:47
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842003|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	16.56910	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 52 Fluorobenzene	13.672	2294066	50.000
* 76 Chlorobenzene-d5	17.148	2624340	50.000
* 102 1,4-Dichlorobenzene-d4	19.601	4589486	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
11.882	1491362	32.5047605	39.0	0		0	52

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
16.508	3609981	68.7788274	82.4	0		0	76
Unknown Siloxane					CAS #:		
18.050	637080	12.1379062	14.5	0		0	76
Unknown Hydrocarbon					CAS #:		
18.515	2533687	27.6031709	33.1	0		0	102
Unknown Hydrocarbon					CAS #:		
19.739	16912759	184.255473	221	0		0	102
Unknown Hydrocarbon					CAS #:		
20.954	90290713	983.669090	1180	0		0	102

Data File: /chem/VOA1.i/031610v1/1c211.d
Date : 16-MAR-2010 15:47
Client ID: RE46-10-13549
Sample Info: |2488420031965875|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2
Column diameter: 0.25

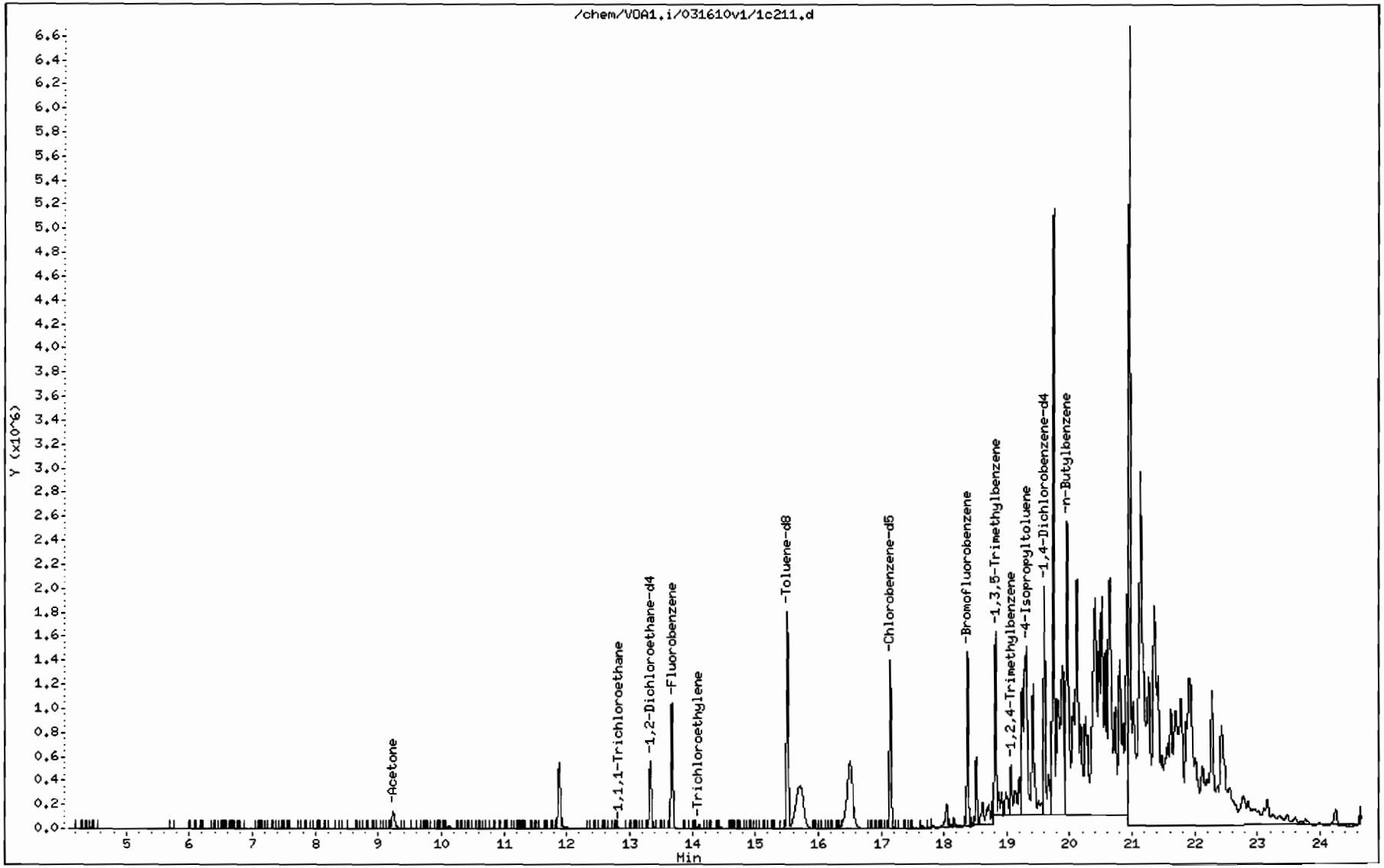

Data File: /chem/VOA1.i/031610v1/1c211.d

Date : 16-MAR-2010 15:47

Client ID: RE46-10-13549

Instrument: VOA1.i

Sample Info: |2488420031965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 64.8 ug/Kg

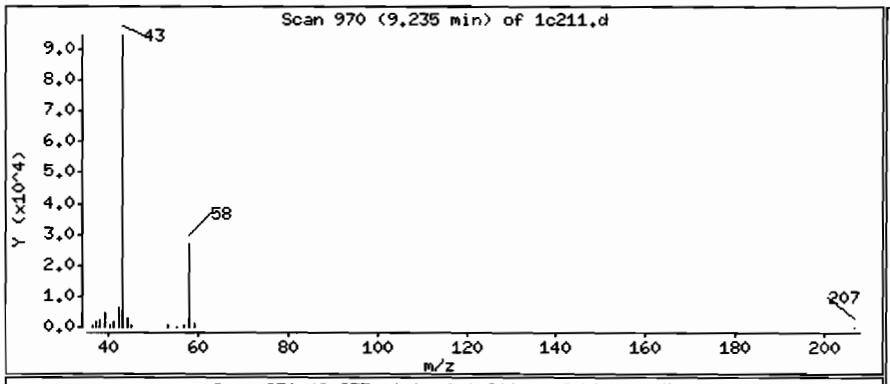

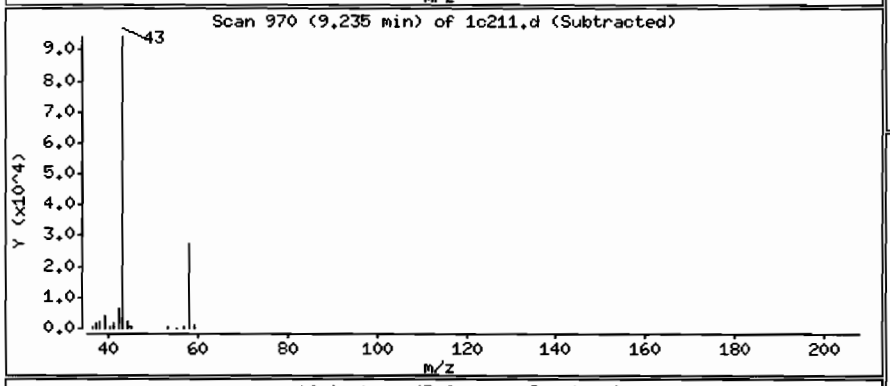

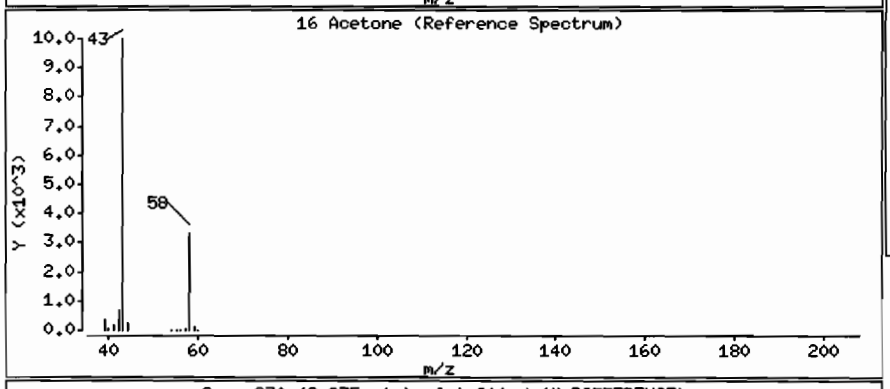

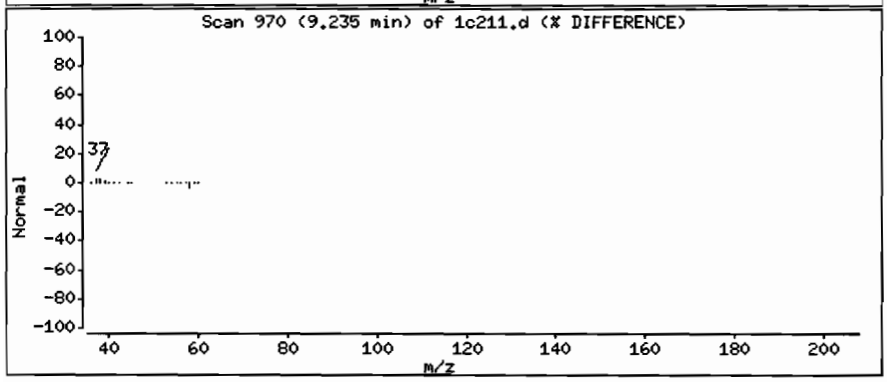

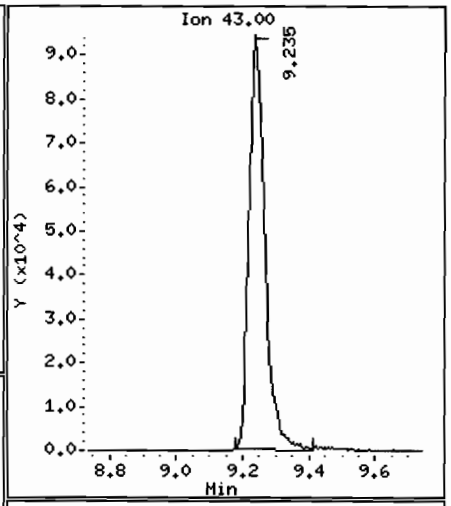

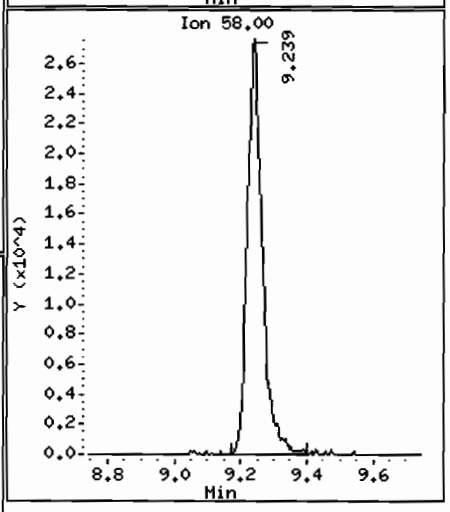

Data File: /chem/VOA1.i/031610v1/1c211.d

Date : 16-MAR-2010 15:47

Client ID: RE46-10-13549

Instrument: VOA1.i

Sample Info: |2488420031965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

43 1,1,1-Trichloroethane

Concentration: 0.39 ug/Kg

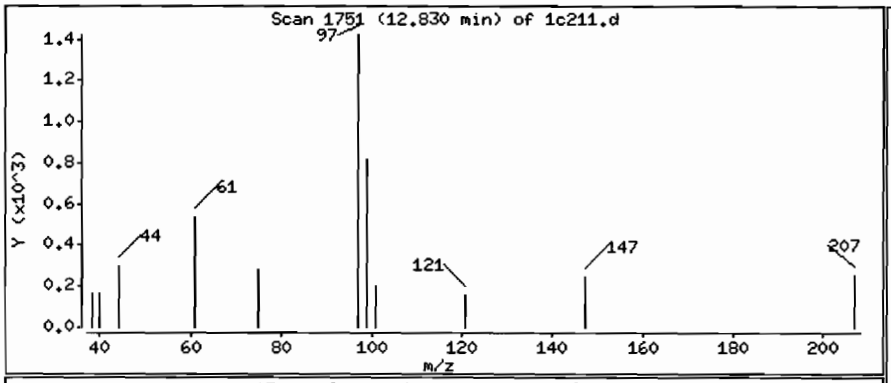

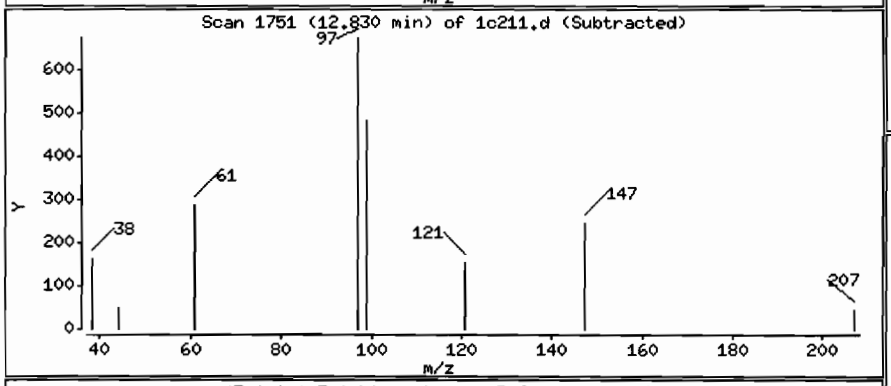

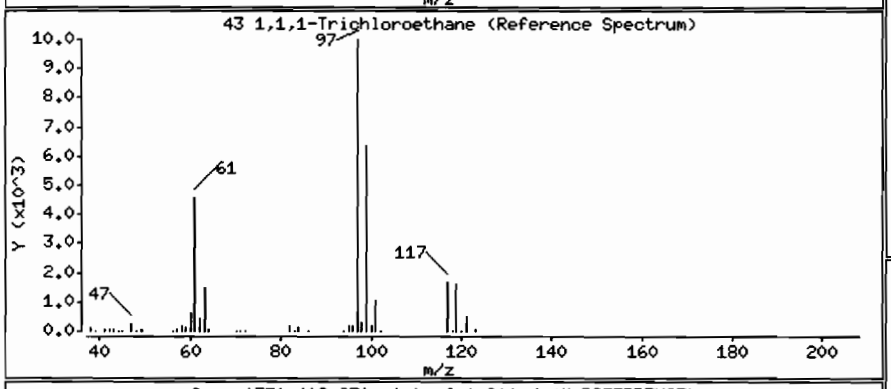

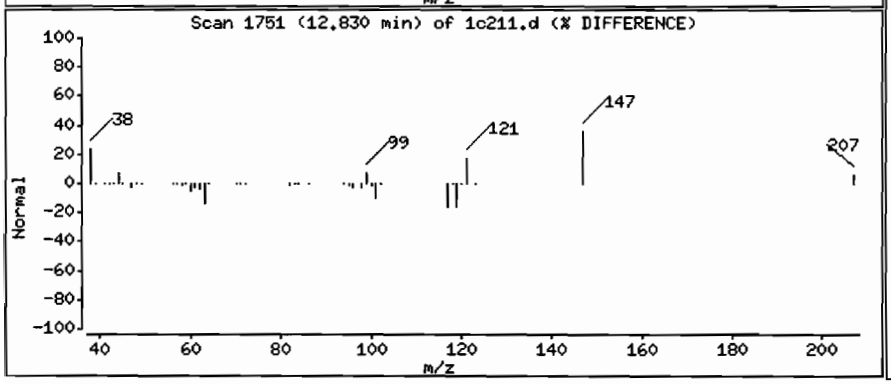

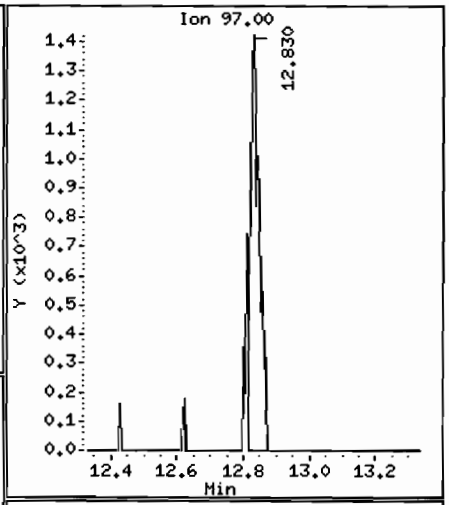

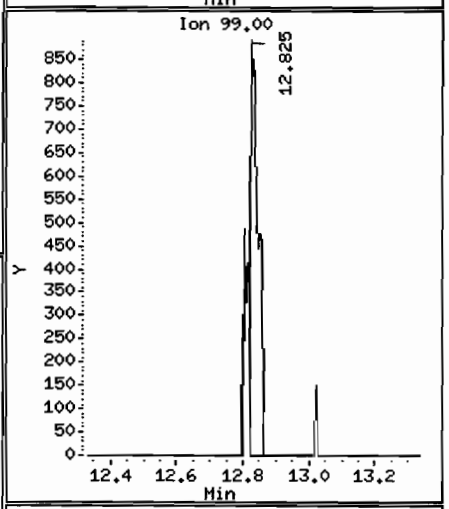

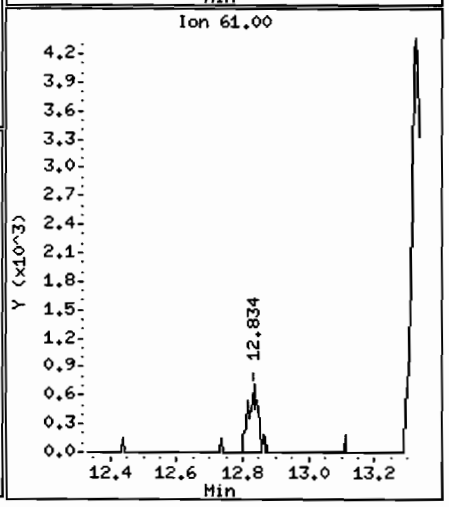

Data File: /chem/VOA1.i/031610v1/1c211.d

Date : 16-MAR-2010 15:47

Client ID: RE46-10-13549

Instrument: VOA1.i

Sample Info: |2488420031965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

54 Trichloroethylene

Concentration: 2.6 ug/Kg

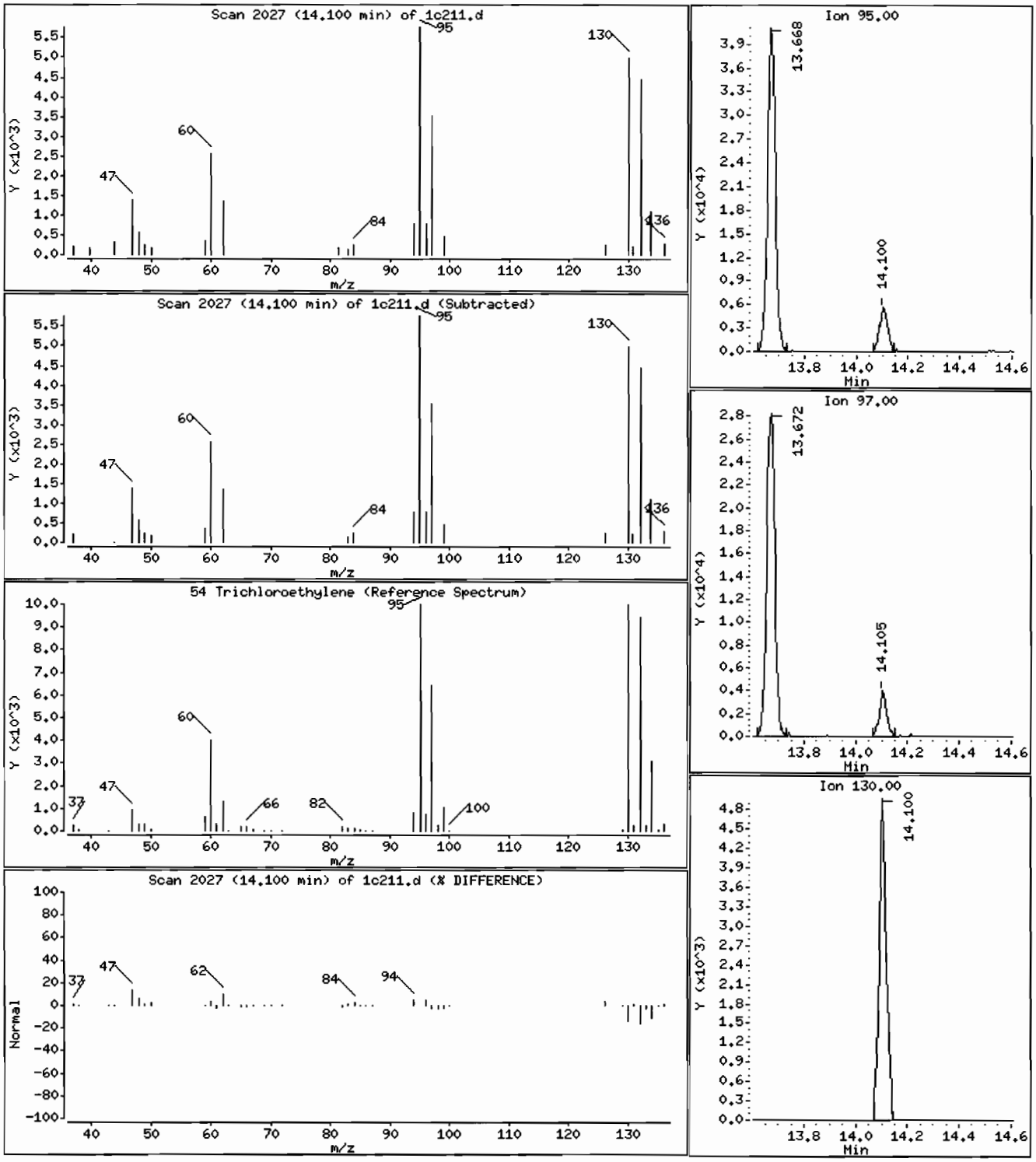

Data File: /chem/VOA1.i/031610v1/1c211.d

Date : 16-MAR-2010 15:47

Client ID: RE46-10-13549

Instrument: VOA1.i

Sample Info: |2488420031965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

93 1,3,5-Trimethylbenzene

Concentration: 0.88 ug/Kg

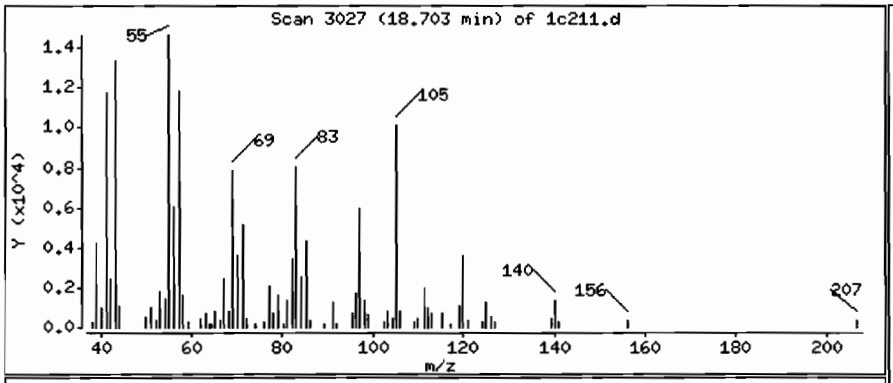

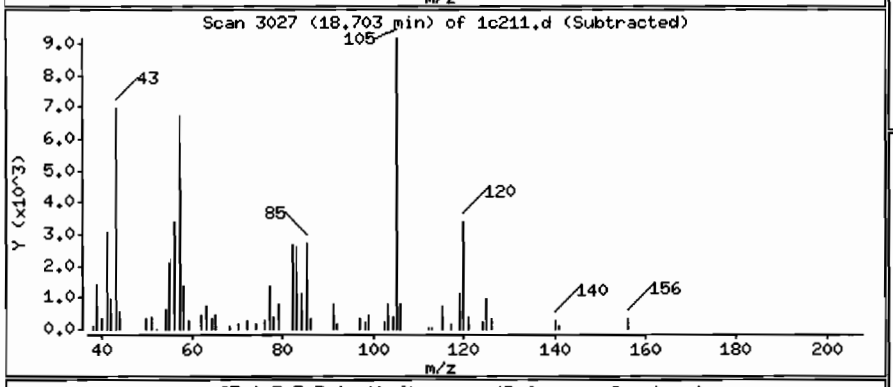

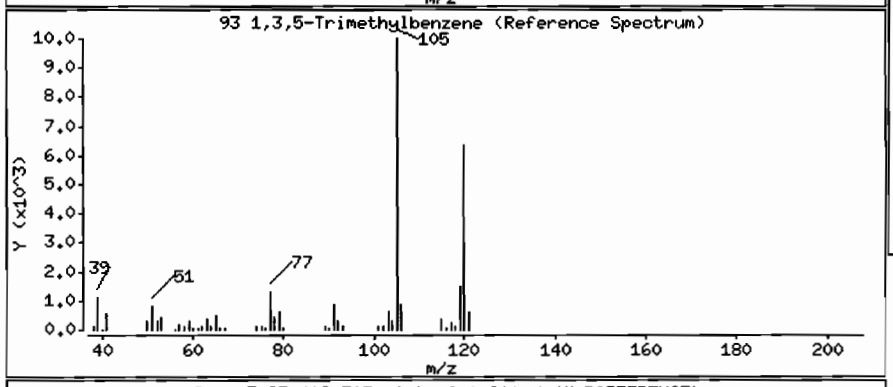

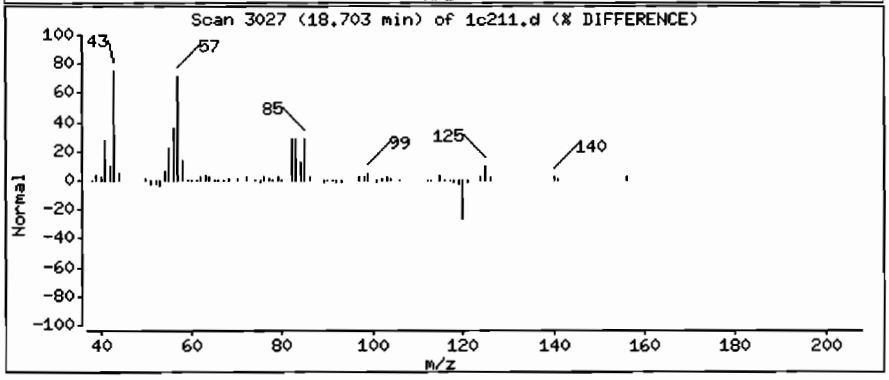

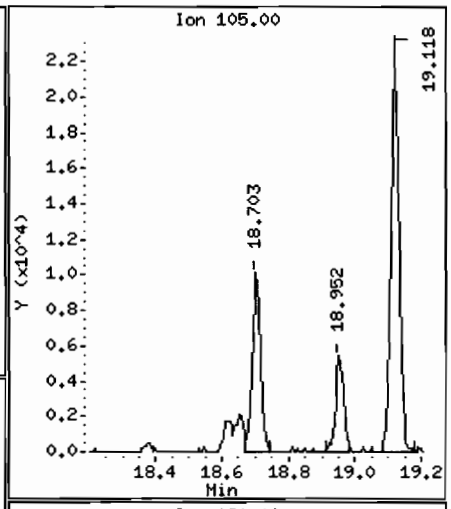

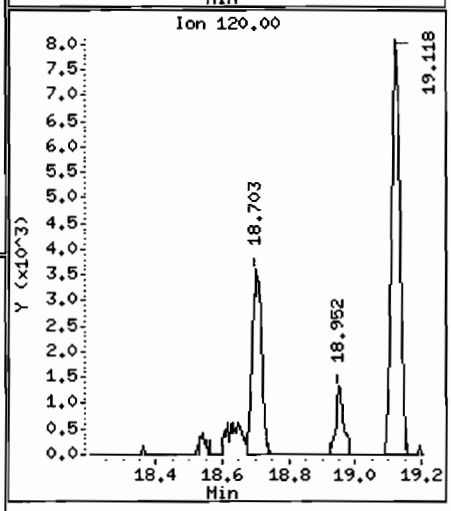

Data File: /chem/VOA1.i/031610v1/1c211.d

Date : 16-MAR-2010 15:47

Client ID: RE46-10-13549

Instrument: VOA1.i

Sample Info: |2488420031965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

97 1,2,4-Trimethylbenzene

Concentration: 1.9 ug/Kg

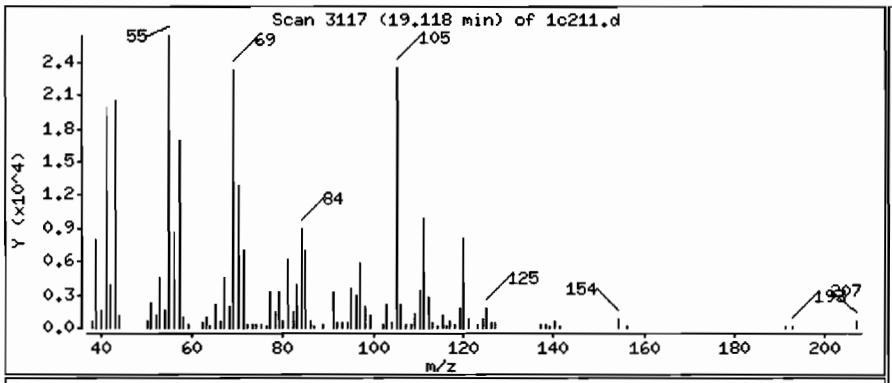

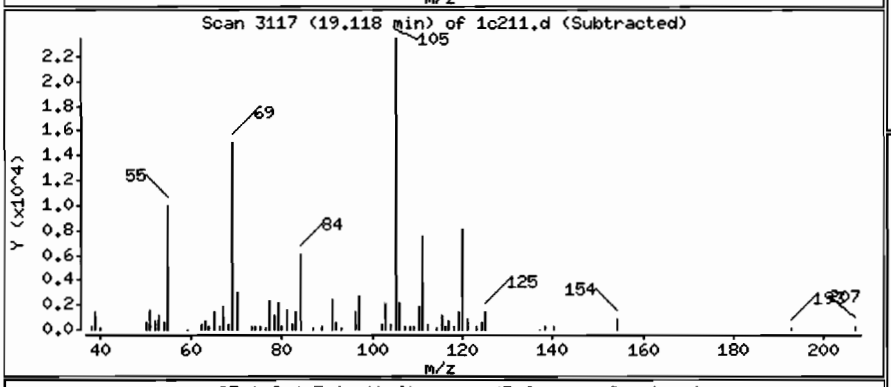

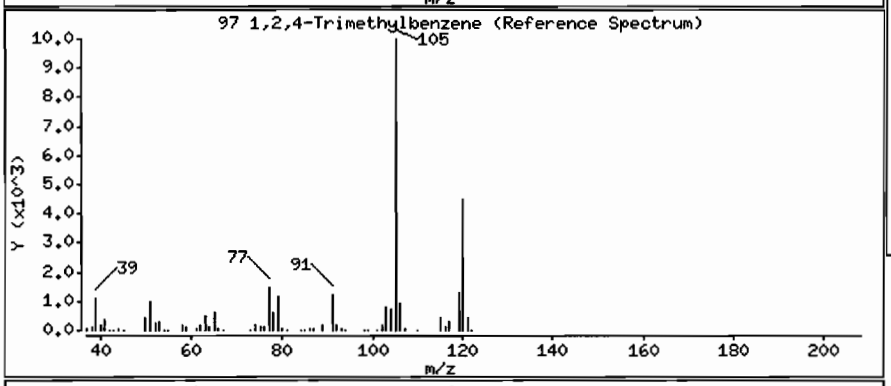

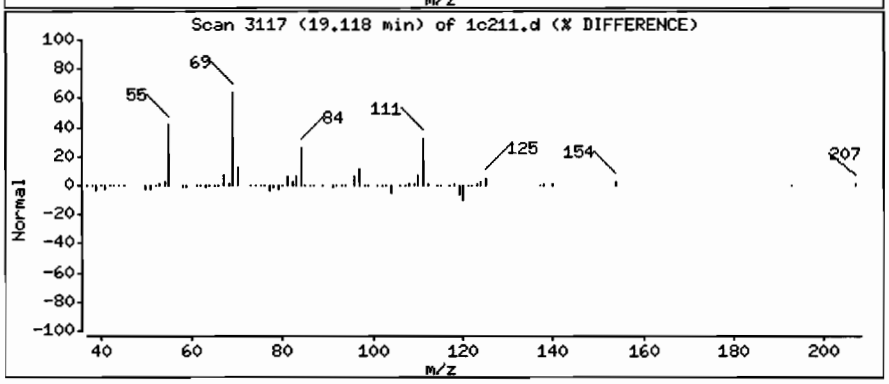

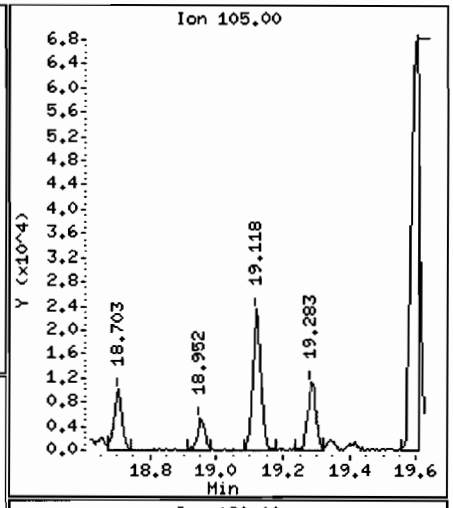

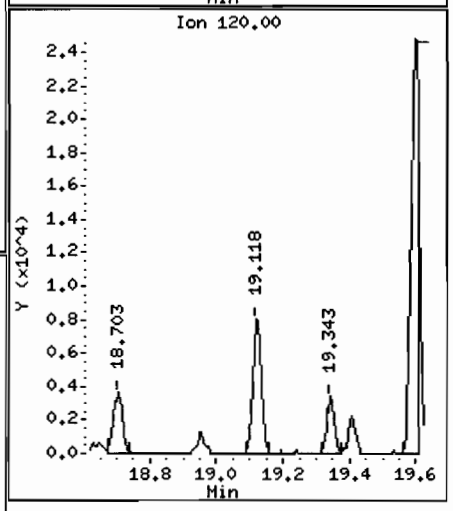

Data File: /chem/VOA1.i/031610v1/1c211.d

Date : 16-MAR-2010 15:47

Client ID: RE46-10-13549

Instrument: VOA1.i

Sample Info: |2488420031965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

100 4-Isopropyltoluene

Concentration: 2.0 ug/Kg

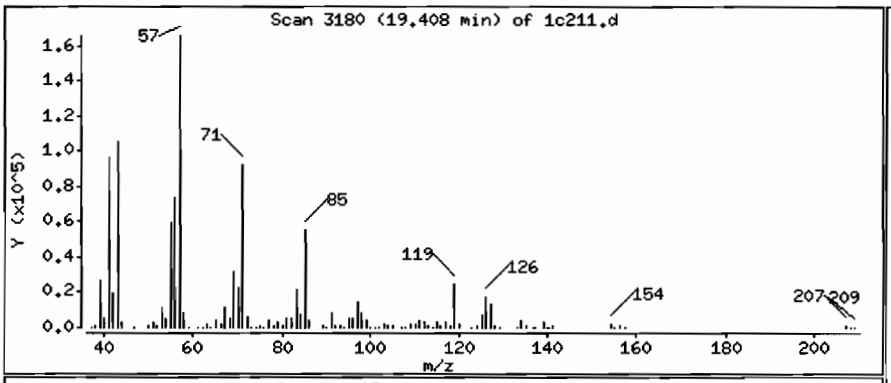

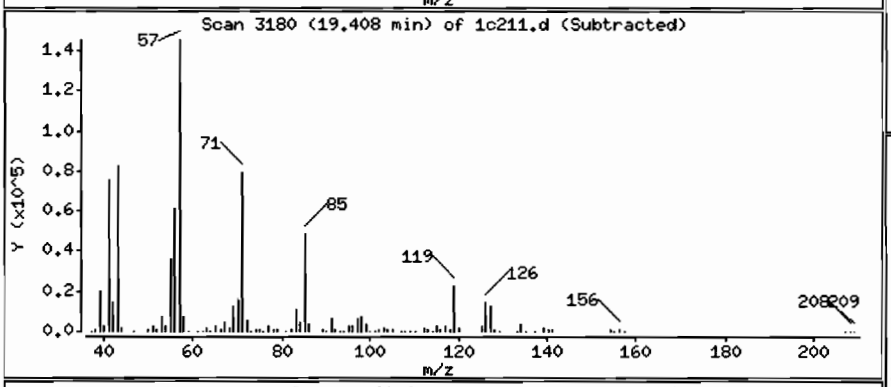

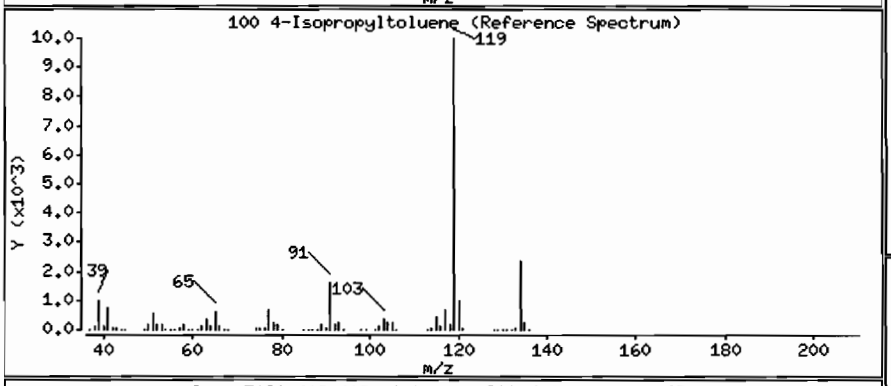

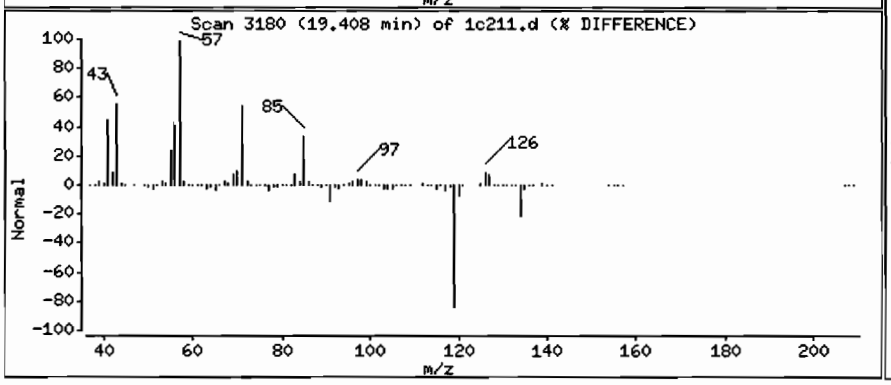

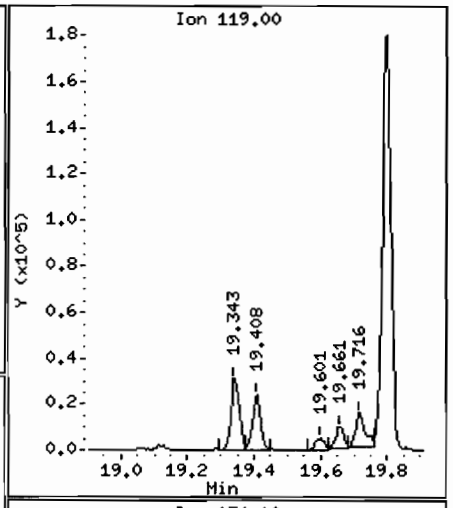

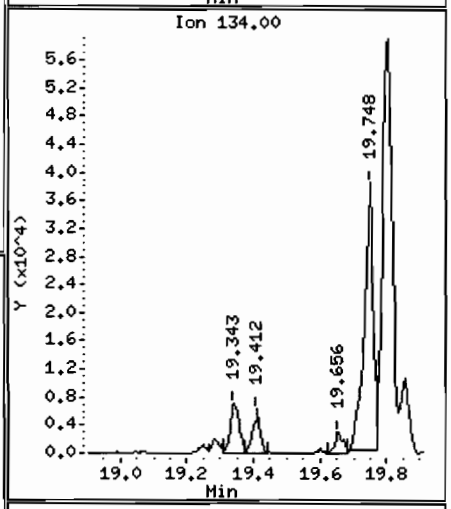

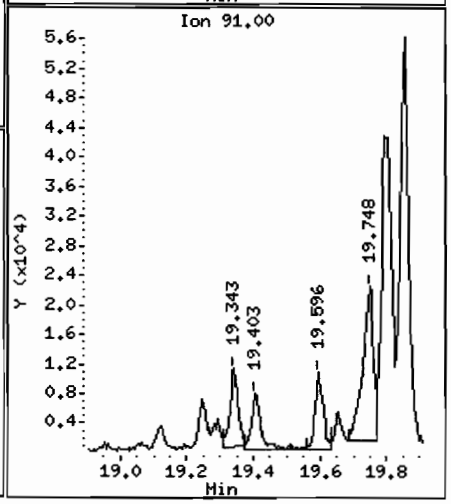

Data File: /chem/VOA1.i/031610v1/1c211.d

Date : 16-MAR-2010 15:47

Client ID: RE46-10-13549

Instrument: VOA1.i

Sample Info: |2488420031965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

105 n-Butylbenzene

Concentration: 4.6 ug/Kg

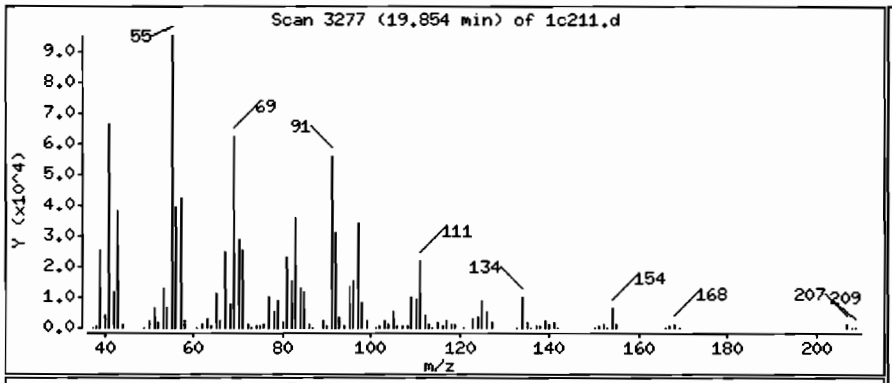

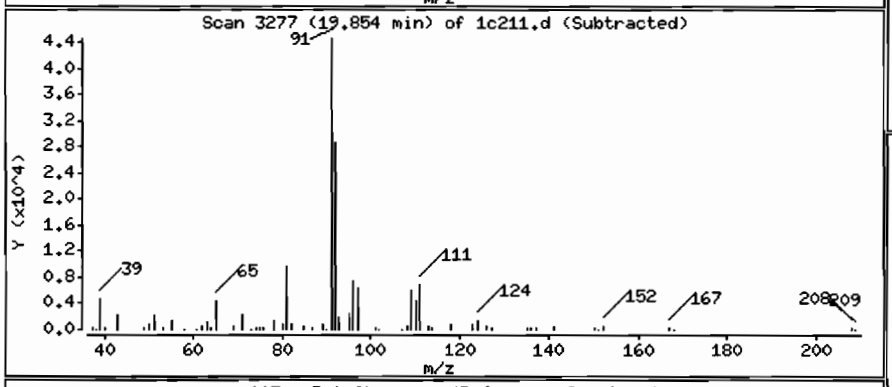

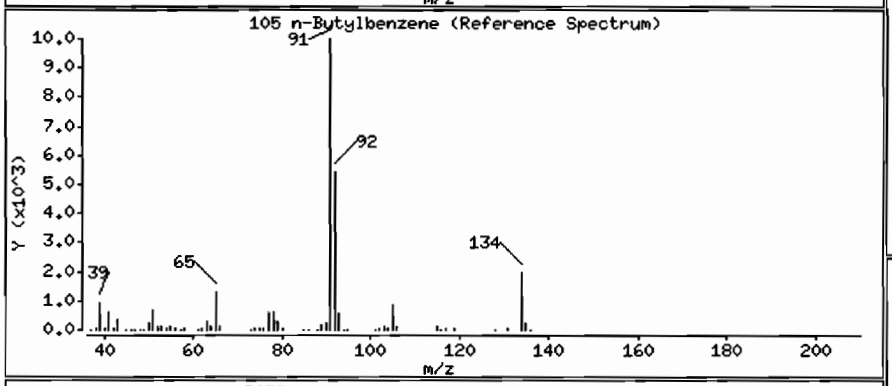

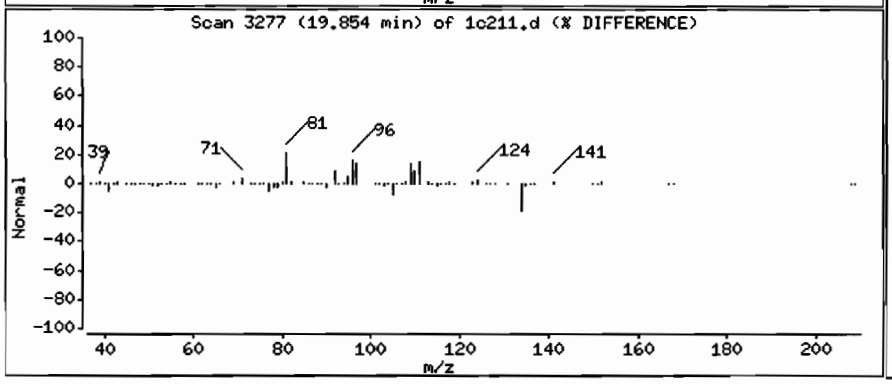

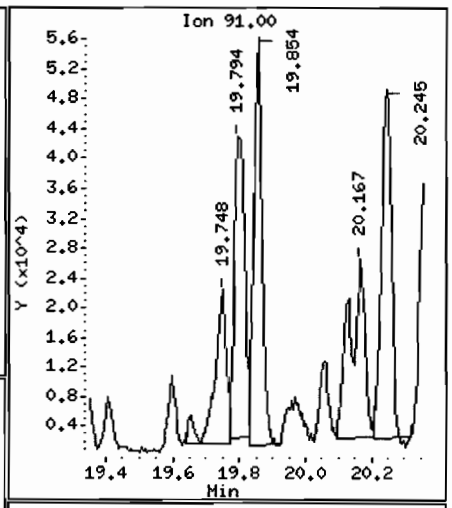

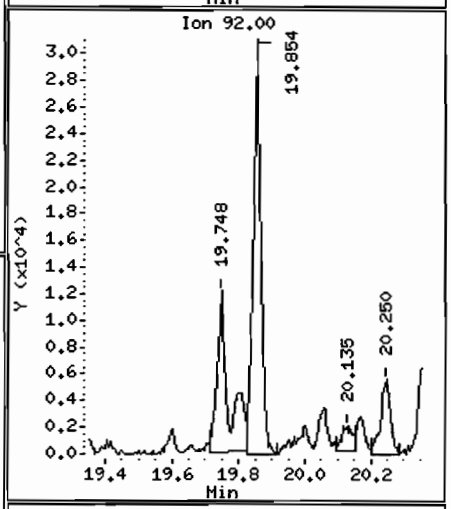

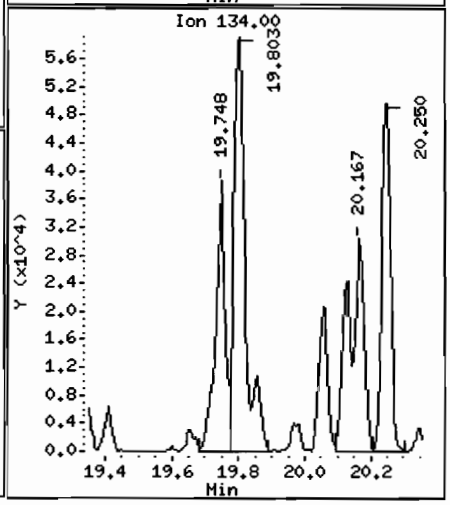

Data File: /chem/VOA1.i/031610v1/1c211.d

Date : 16-MAR-2010 15:47

Client ID: RE46-10-13549

Instrument: VOA1.i

Sample Info: |2488420031965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Silanol, trimethyl-	1066-40-6	NIST05.L	2199	91	C3H10OSi	90
tert-Butyldimethylsilanol	18173-64-3	NIST05.L	13928	83	C6H16OSi	132
Silanol, trimethyl-	1066-40-6	NIST05.L	2200	78	C3H10OSi	90

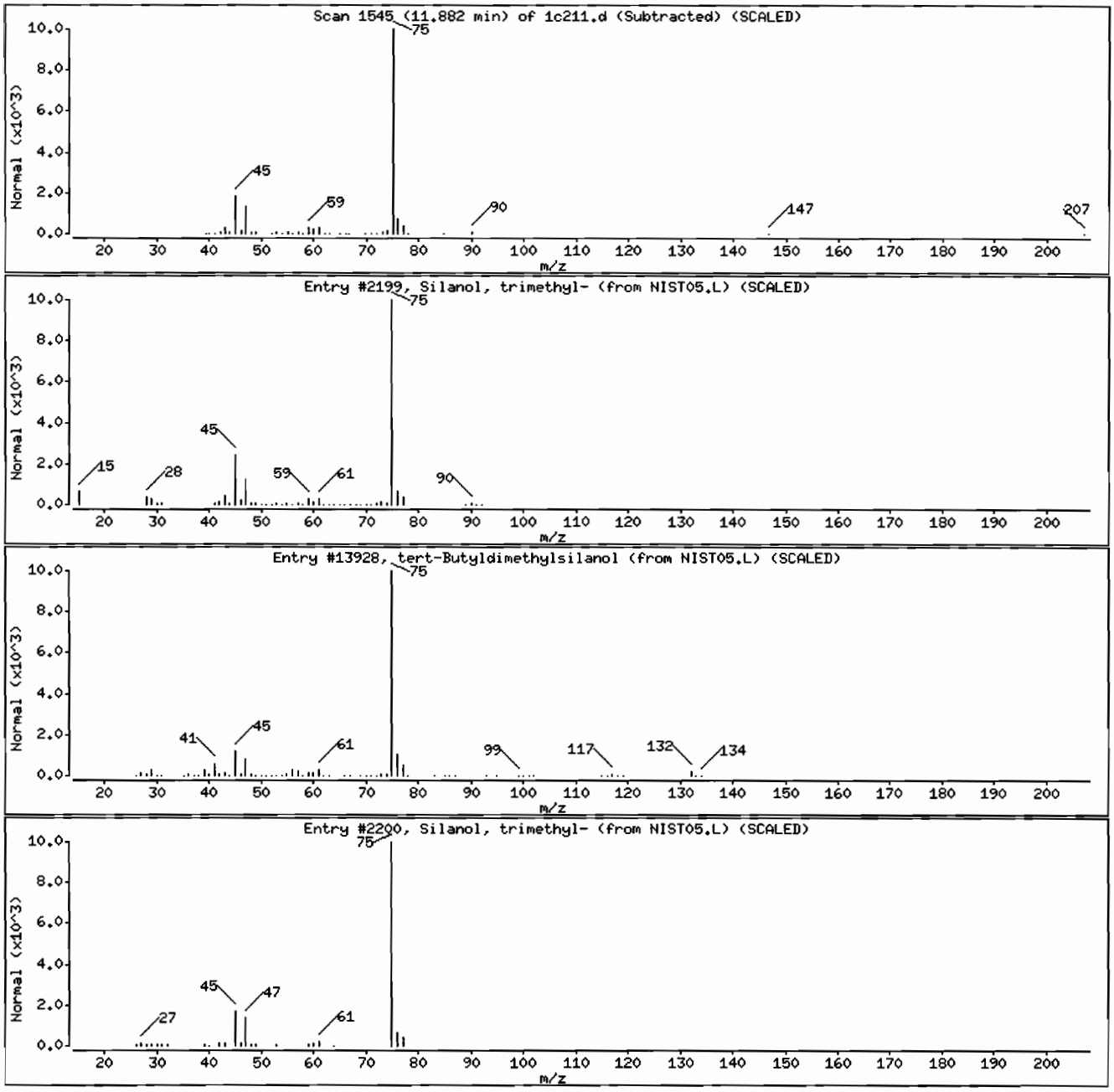

Data File: /chem/VOA1.i/031610v1/1c211.d

Date : 16-MAR-2010 15:47

Client ID: RE46-10-13549

Instrument: VOA1.i

Sample Info: |2488420031965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Diphenyl ether	101-84-8	NIST05.L	36401	87	C12H10O	170
Diphenyl ether	101-84-8	NIST05.L	36402	87	C12H10O	170
Spiro[cyclopropane-1,1'(4'H)-naphthalen]	33498-24-7	NIST05.L	36427	62	C12H10O	170

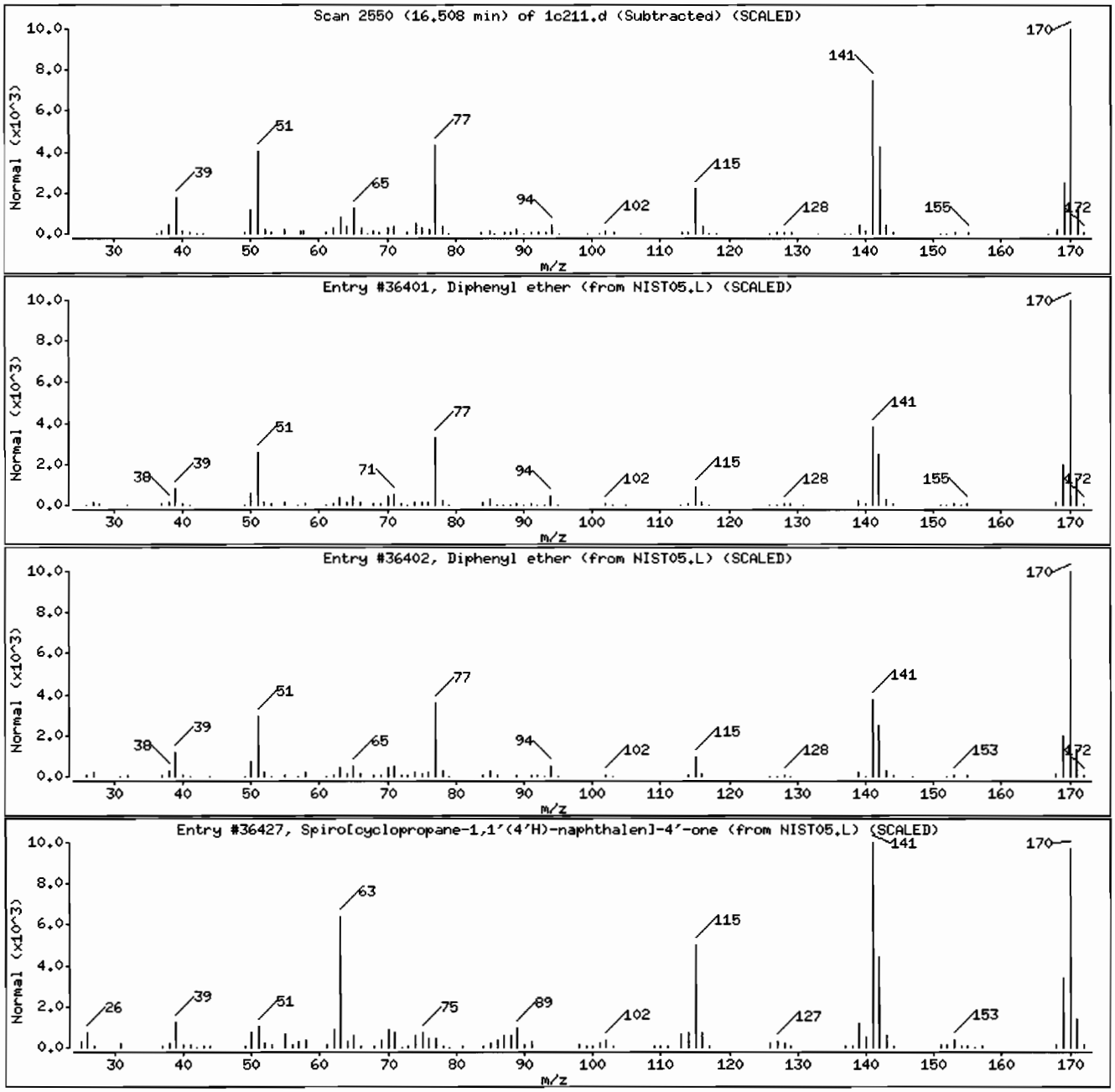

Data File: /chem/VOA1.i/031610v1/1c211.d

Date : 16-MAR-2010 15:47

Client ID: RE46-10-13549

Instrument: VOA1.i

Sample Info: |2488420031965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Anthracene, 9,10-dihydro-9,10-dimethyl-	22566-43-4	NIST05.L	63100	38	C16H16	208
Silane, (2-ethyl-3,3-dimethyl-4-methylen	95798-13-3	NIST05.L	62897	38	C13H24Si	208
1-Anthracenamine	610-49-1	NIST05.L	52055	30	C14H11N	193

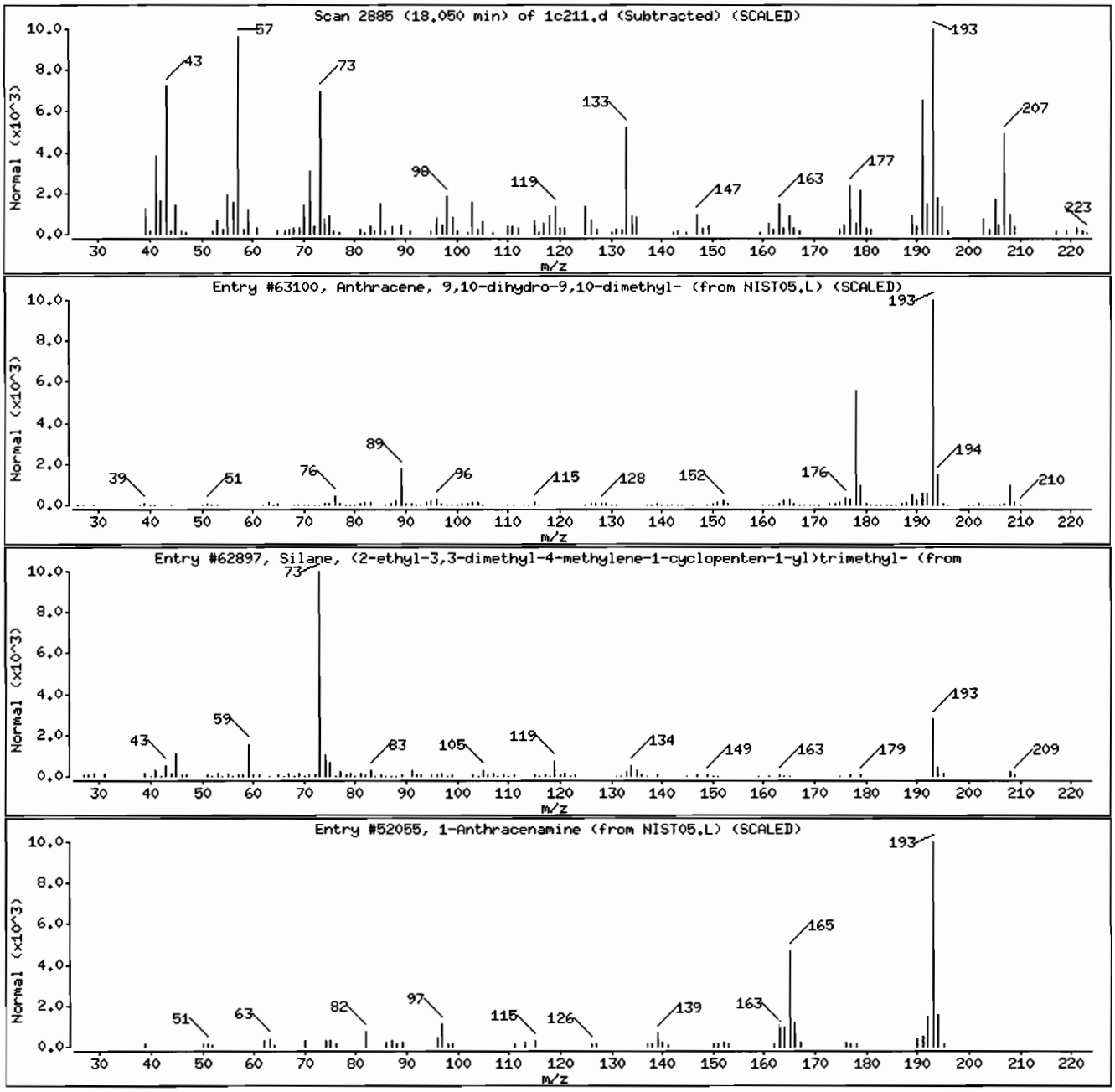

Data File: /chem/VOA1.i/031610v1/1c211.d

Date : 16-MAR-2010 15:47

Client ID: RE46-10-13549

Instrument: VOA1.i

Sample Info: |2488420031965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Decane	124-18-5	NIST05.L	18488	95	C10H22	142
Decane	124-18-5	NIST05.L	18486	93	C10H22	142
Nonane	111-84-2	NIST05.L	12267	90	C9H20	128

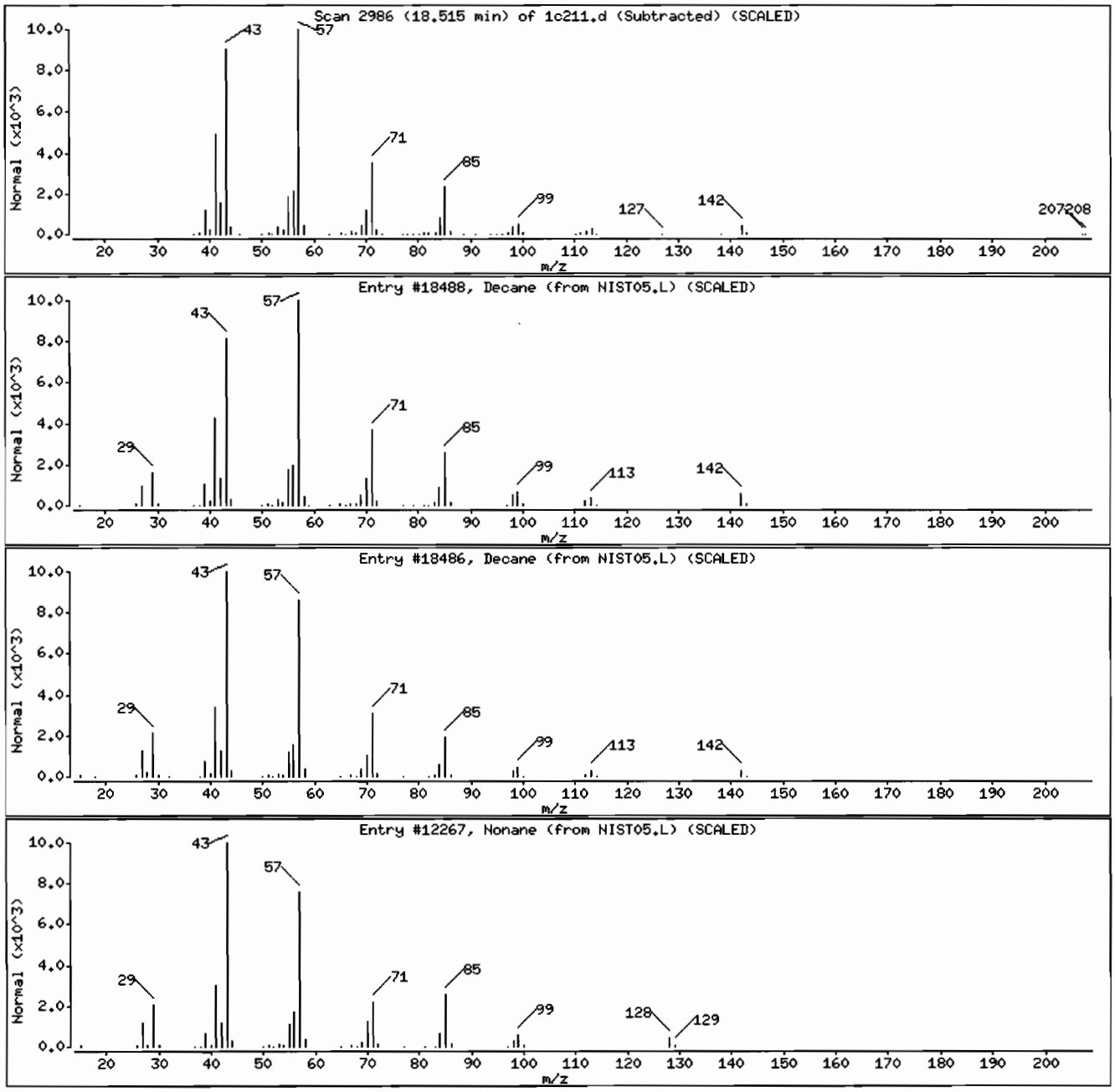

Data File: /chem/VOA1.i/031610v1/1c211.d

Date : 16-MAR-2010 15:47

Client ID: RE46-10-13549

Instrument: VOA1.i

Sample Info: |2488420031965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Undecane	1120-21-4	NIST05.L	27236	93	C11H24	156
Undecane	1120-21-4	NIST05.L	27237	90	C11H24	156
Decane, 2-methyl-	6975-98-0	NIST05.L	27241	72	C11H24	156

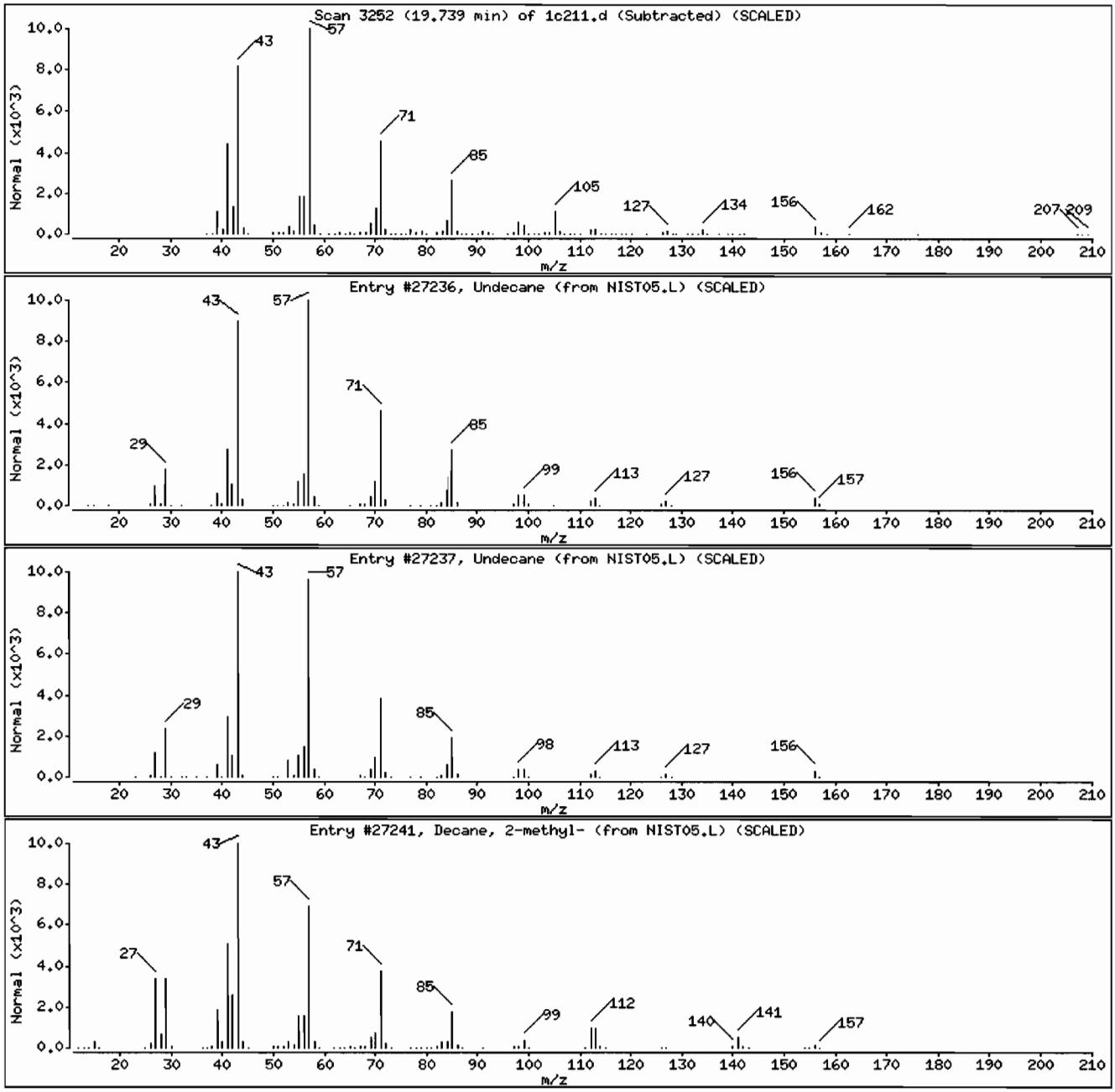

Data File: /chem/VOA1.i/031610v1/1c211.d

Date : 16-MAR-2010 15:47

Client ID: RE46-10-13549

Instrument: VOA1.i

Sample Info: |2488420031965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Dodecane	112-40-3	NIST05.L	36431	95	C12H26	170
Tetradecane	629-59-4	NIST05.L	55973	90	C14H30	198
Dodecane	112-40-3	NIST05.L	36428	90	C12H26	170

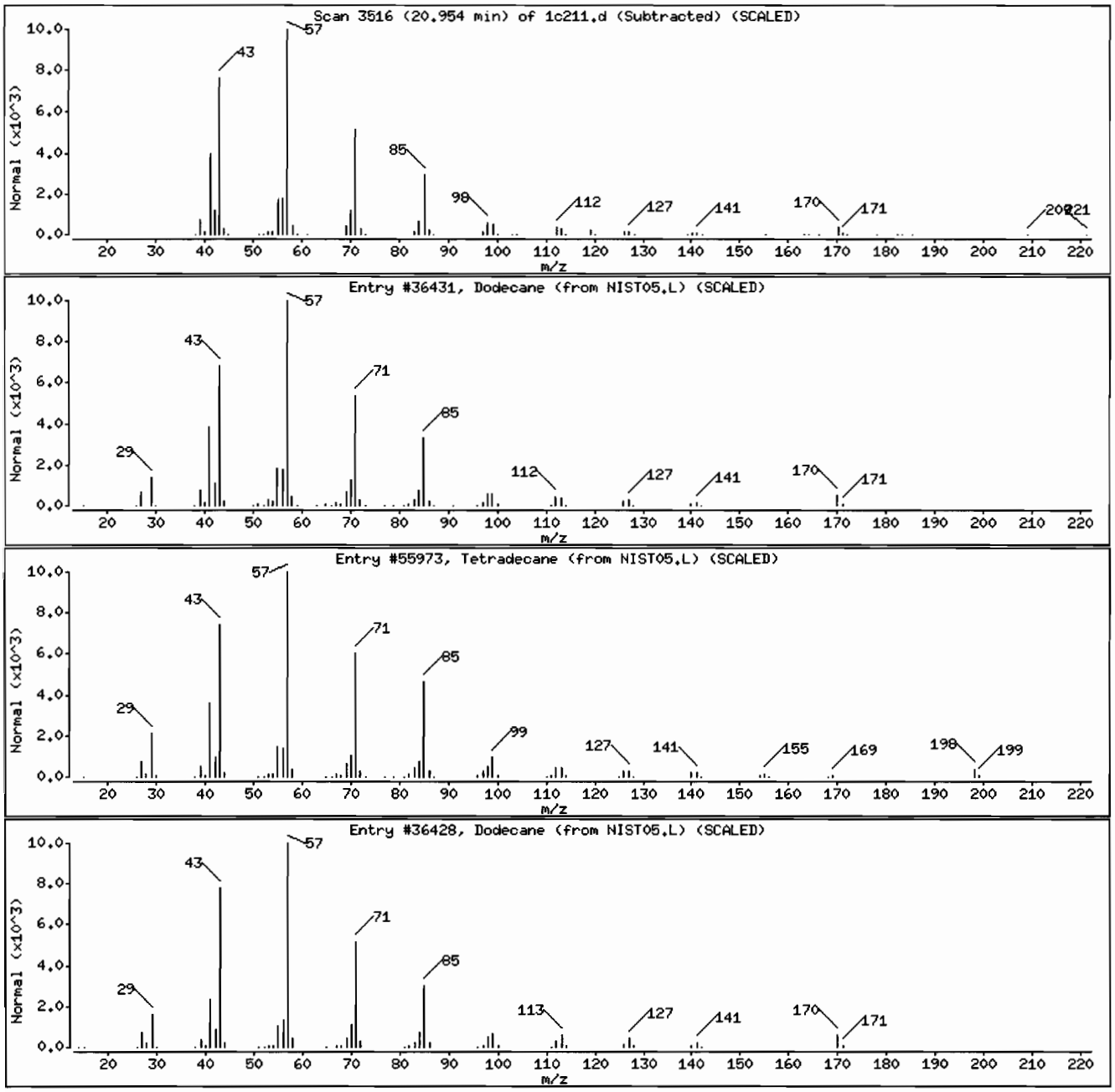

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13550**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 16:20**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 12:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c415.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	HUh	1.23	ug/kg	0.417	1.23
74-87-3	Chloromethane	HUh	1.23	ug/kg	0.368	1.23
75-01-4	Vinyl chloride	HUh	1.23	ug/kg	0.368	1.23
74-83-9	Bromomethane	HUh	1.23	ug/kg	0.368	1.23
75-00-3	Chloroethane	HUh	1.23	ug/kg	0.368	1.23
75-69-4	Trichlorofluoromethane	HUh	1.23	ug/kg	0.368	1.23
67-64-1	Acetone	Hh	114	ug/kg	2.04	6.13
75-35-4	1,1-Dichloroethylene	HUh	1.23	ug/kg	0.368	1.23
74-88-4	Iodomethane	HUh	6.13	ug/kg	1.96	6.13
75-09-2	Methylene chloride	HUh	6.13	ug/kg	2.45	6.13
75-15-0	Carbon disulfide	HUh	6.13	ug/kg	1.53	6.13
156-60-5	trans-1,2-Dichloroethylene	HUh	1.23	ug/kg	0.368	1.23
75-34-3	1,1-Dichloroethane	HUh	1.23	ug/kg	0.368	1.23
78-93-3	2-Butanone	HUh	6.13	ug/kg	1.84	6.13
156-59-2	cis-1,2-Dichloroethylene	HJh	0.564	ug/kg	0.368	1.23
594-20-7	2,2-Dichloropropane	HUh	1.23	ug/kg	0.368	1.23
67-66-3	Chloroform	HUh	1.23	ug/kg	0.368	1.23
74-97-5	Bromochloromethane	HUh	1.23	ug/kg	0.405	1.23
71-55-6	1,1,1-Trichloroethane	Hh	7.70	ug/kg	0.368	1.23
563-58-6	1,1-Dichloropropene	HUh	1.23	ug/kg	0.368	1.23
56-23-5	Carbon tetrachloride	HUh	1.23	ug/kg	0.368	1.23
107-06-2	1,2-Dichloroethane	HUh	1.23	ug/kg	0.368	1.23
71-43-2	Benzene	HUh	1.23	ug/kg	0.368	1.23
79-01-6	Trichloroethylene	Hh	43.0	ug/kg	0.405	1.23
78-87-5	1,2-Dichloropropane	HUh	1.23	ug/kg	0.368	1.23
75-27-4	Bromodichloromethane	HUh	1.23	ug/kg	0.368	1.23
74-95-3	Dibromomethane	HUh	1.23	ug/kg	0.368	1.23
108-10-1	4-Methyl-2-pentanone	HUh	6.13	ug/kg	1.53	6.13
10061-01-5	cis-1,3-Dichloropropylene	HUh	1.23	ug/kg	0.368	1.23
108-88-3	Toluene	HUh	1.23	ug/kg	0.368	1.23
10061-02-6	trans-1,3-Dichloropropylene	HUh	1.23	ug/kg	0.368	1.23
79-00-5	1,1,2-Trichloroethane	HUh	1.23	ug/kg	0.368	1.23
591-78-6	2-Hexanone	HUh	6.13	ug/kg	1.84	6.13
142-28-9	1,3-Dichloropropane	HUh	1.23	ug/kg	0.368	1.23
127-18-4	Tetrachloroethylene	Hh	2.39	ug/kg	0.368	1.23
124-48-1	Dibromochloromethane	HUh	1.23	ug/kg	0.368	1.23
106-93-4	1,2-Dibromoethane	HUh	1.23	ug/kg	0.368	1.23
108-90-7	Chlorobenzene	HUh	1.23	ug/kg	0.368	1.23

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13550**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 16:20**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 12:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c415.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	HUh	1.23	ug/kg	0.368	1.23
179601-23-1	m,p-Xylenes	HUh	2.45	ug/kg	0.368	2.45
95-47-6	o-Xylene	HUh	1.23	ug/kg	0.368	1.23
100-42-5	Styrene	HUh	1.23	ug/kg	0.368	1.23
75-25-2	Bromoform	HUh	1.23	ug/kg	0.368	1.23
79-34-5	1,1,2,2-Tetrachloroethane	HUh	1.23	ug/kg	0.368	1.23
96-18-4	1,2,3-Trichloropropane	HUh	1.23	ug/kg	0.368	1.23
108-86-1	Bromobenzene	HUh	1.23	ug/kg	0.368	1.23
103-65-1	n-Propylbenzene	HUh	1.23	ug/kg	0.368	1.23
95-49-8	2-Chlorotoluene	HUh	1.23	ug/kg	0.368	1.23
98-82-8	Isopropylbenzene	HUh	1.23	ug/kg	0.368	1.23
108-67-8	1,3,5-Trimethylbenzene	HUh	1.23	ug/kg	0.368	1.23
106-43-4	4-Chlorotoluene	HUh	1.23	ug/kg	0.368	1.23
98-06-6	tert-Butylbenzene	HUh	1.23	ug/kg	0.368	1.23
95-63-6	1,2,4-Trimethylbenzene	HUh	1.23	ug/kg	0.368	1.23
135-98-8	sec-Butylbenzene	HUh	1.23	ug/kg	0.368	1.23
99-87-6	4-Isopropyltoluene	HUh	1.23	ug/kg	0.368	1.23
541-73-1	1,3-Dichlorobenzene	HUh	1.23	ug/kg	0.368	1.23
106-46-7	1,4-Dichlorobenzene	HUh	1.23	ug/kg	0.368	1.23
104-51-8	n-Butylbenzene	HUh	1.23	ug/kg	0.368	1.23
96-12-8	1,2-Dibromo-3-chloropropane	HUh	1.23	ug/kg	0.368	1.23
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	HUh	6.13	ug/kg	1.96	6.13
630-20-6	1,1,1,2-Tetrachloroethane	HUh	1.23	ug/kg	0.368	1.23
95-50-1	1,2-Dichlorobenzene	HUh	1.23	ug/kg	0.368	1.23

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	19.96	106	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031810v1/1c415.d
Lab Smp Id: 248842005 Client Smp ID: RE46-10-13550
Inj Date : 18-MAR-2010 16:20
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842005|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 21:48 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	18.43150	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	1028297	50.0000	
* 76 Chlorobenzene-d5	117	17.147	17.148	(1.000)	753228	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	398943	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	507693	50.5651	62.0
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1348746	53.2395	65.3
$ 87 Bromofluorobenzene	95	18.376	18.377	(0.938)	545275	54.5166	66.8
16 Acetone	43	9.244	9.240	(0.676)	567159	93.1047	114
36 cis-1,2-Dichloroethylene	96	12.190	12.190	(0.892)	2746	0.46028	0.56(aQ)
43 1,1,1-Trichloroethane	97	12.834	12.835	(0.939)	55457	6.27719	7.7
54 Trichloroethylene	95	14.105	14.105	(1.032)	213025	35.0638	43.0
70 Tetrachloroethylene	164	16.181	16.181	(0.944)	9054	1.95112	2.4

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

VOA REPORT

Data file: 1c415.d
Report Date: 03/19/2010 05:45
Lab. ID: 248842005 SampleType: SAMPLE
Injection Date: 18-MAR-2010 16:20
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248842005|965875|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone		CAS#: 67-64-1				
43	567159	9.24	9.24	80-120	100	( )
58	169370	9.24	9.24	0- 57	30	( )
36 cis-1,2-Dichloroethylene				CAS#: 156-59-2		
96	2746	12.19	12.19	80-120	100	( )
61	3645	12.19	12.19	160-220	133	(Q)
98	1574	12.19	12.19	34- 94	57	( )
43 1,1,1-Trichloroethane				CAS#: 71-55-6		
97	55457	12.83	12.83	80-120	100	( )
99	35616	12.83	12.83	34- 94	64	( )
61	23616	12.83	12.83	13- 73	43	( )
44 Carbon tetrachloride				CAS#: 56-23-5		
117	5941	12.84	13.01	80-120	100	(T)
119	5648	12.84	13.01	64-124	95	(T)
51 1,2-Dichloroethane				CAS#: 107-06-2		
62	18235	13.67	13.43	80-120	100	(T)
64	2876	13.67	13.43	2- 62	16	(T)
54 Trichloroethylene				CAS#: 79-01-6		
95	213025	14.10	14.10	80-120	100	( )
97	139535	14.10	14.10	35- 95	66	( )
130	176551	14.10	14.10	51-111	83	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
64	4-Methyl-2-pentanone			CAS#: 108-10-1		
58	12604	15.50	15.35	80-120	100	(T)
43	7587	15.50	15.35	221-281	60	(QT)
100	850098	15.50	15.35	0- 60	6744	(QT)
70	Tetrachloroethylene			CAS#: 127-18-4		
164	9054	16.18	16.18	80-120	100	( )
129	8436	16.18	16.18	66-126	93	( )
131	8751	16.18	16.18	62-122	97	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031810v1/1c415.d
Lab Smp Id: 248842005 Client Smp ID: RE46-10-13550
Inj Date : 18-MAR-2010 16:20
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842005|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 21:48 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	18.43150	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 102 1,4-Dichlorobenzene-d4	19.596	2608031	50.000

	CONCENTRATIONS			QUANT			
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
19.955	4530094	86.8489096	106	0		0	102

Data File: /chem/VOA1.i/031810v1/1c415.d
Date : 18-MAR-2010 16:20
Client ID: RE46-10-13550
Sample Info: 1248842005|965875|1|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

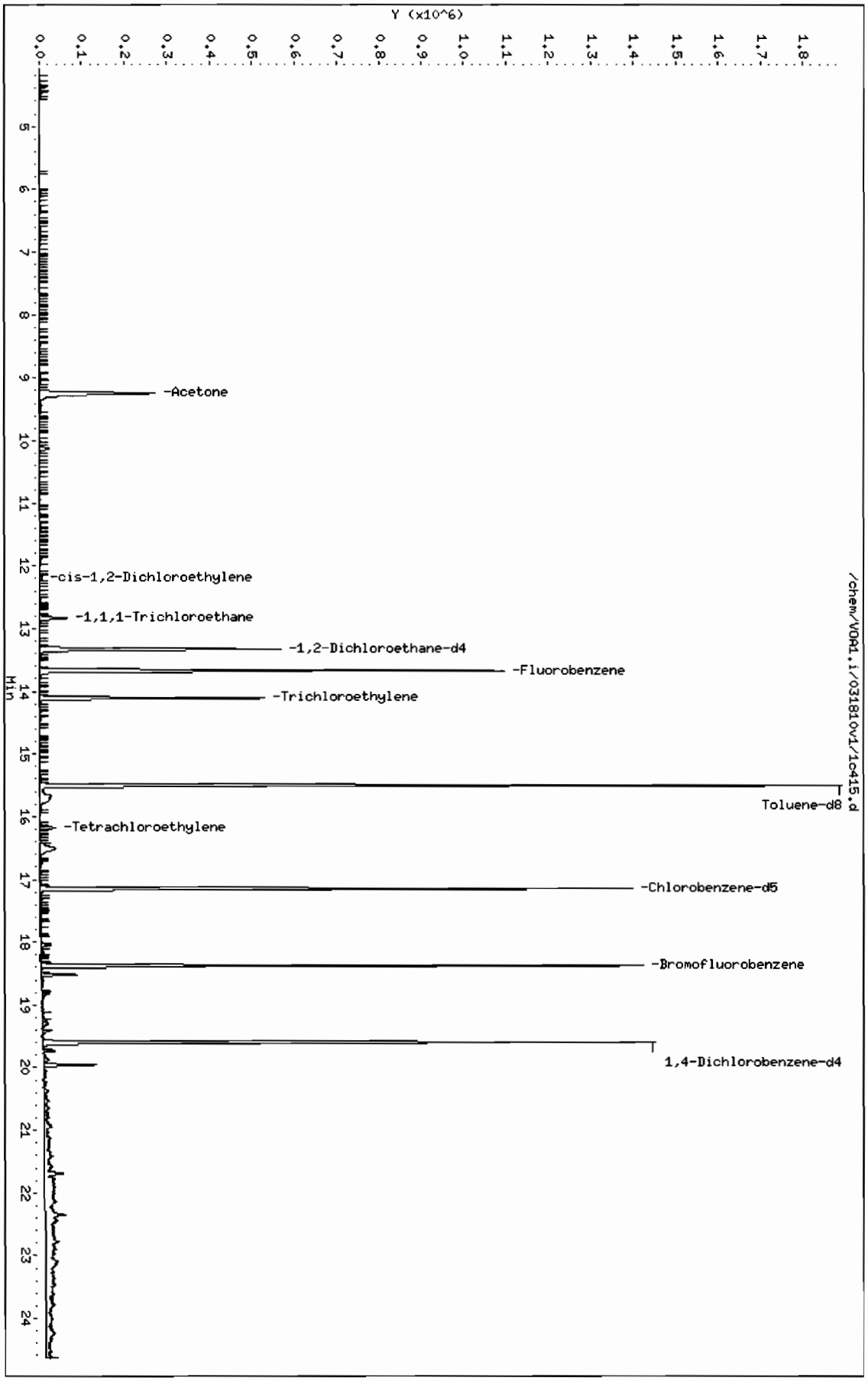

Data File: /chem/VOA1.i/031810v1/1c415.d

Date : 18-MAR-2010 16:20

Client ID: RE46-10-13550

Instrument: VOA1.i

Sample Info: |2488420051965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 114 ug/Kg

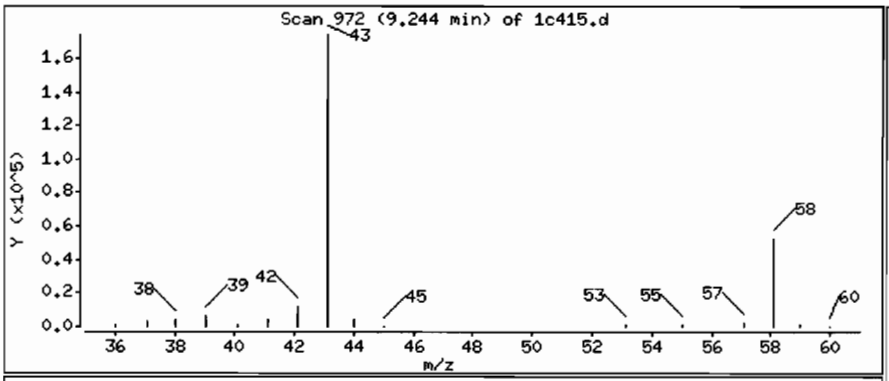

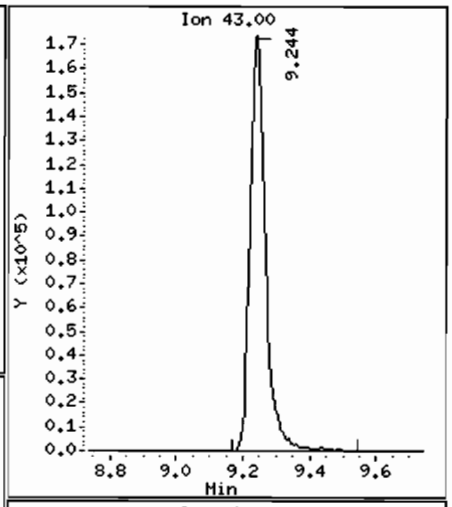

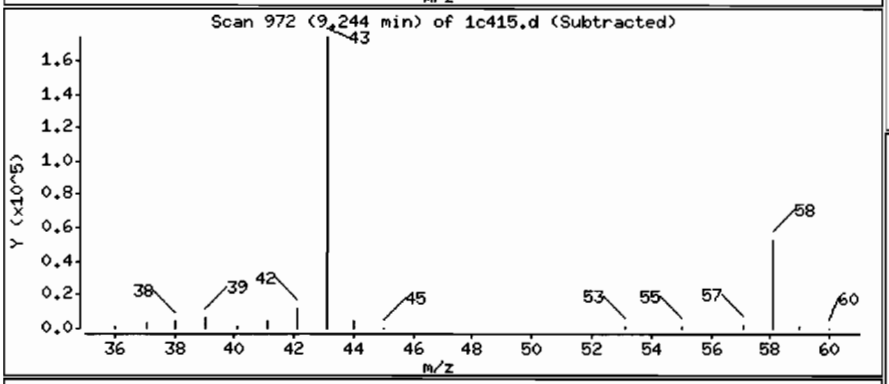

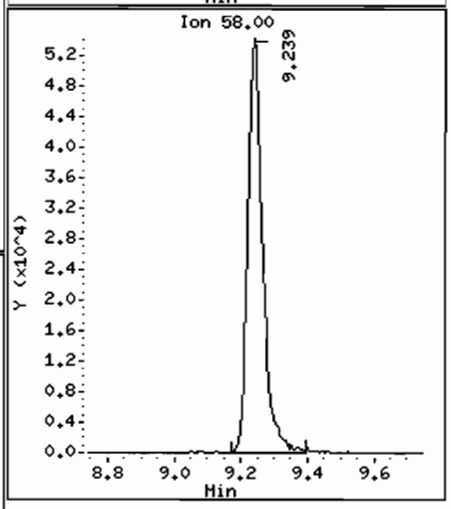

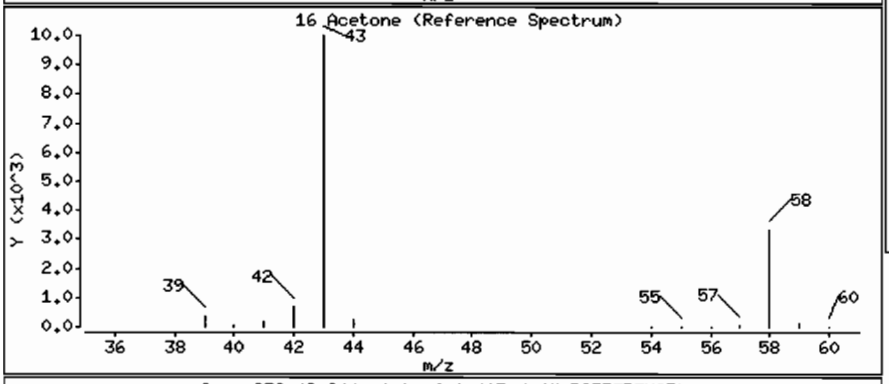

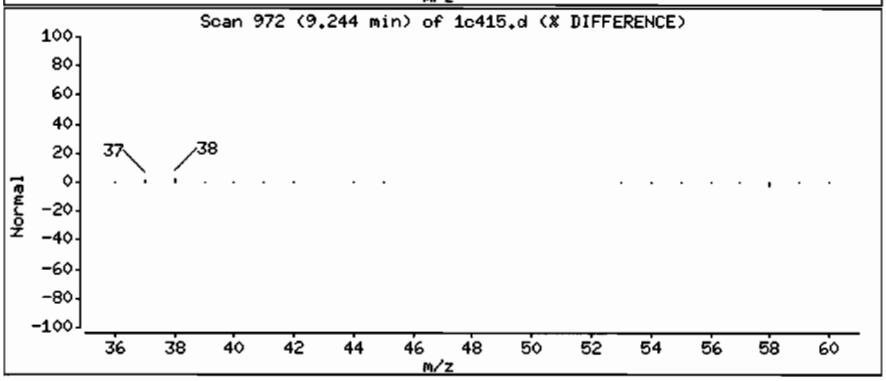

Data File: /chem/VOA1.i/031810v1/1c415.d

Date : 18-MAR-2010 16:20

Client ID: RE46-10-13550

Instrument: VOA1.i

Sample Info: |2488420051965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

36 cis-1,2-Dichloroethylene

Concentration: 0.56 ug/Kg

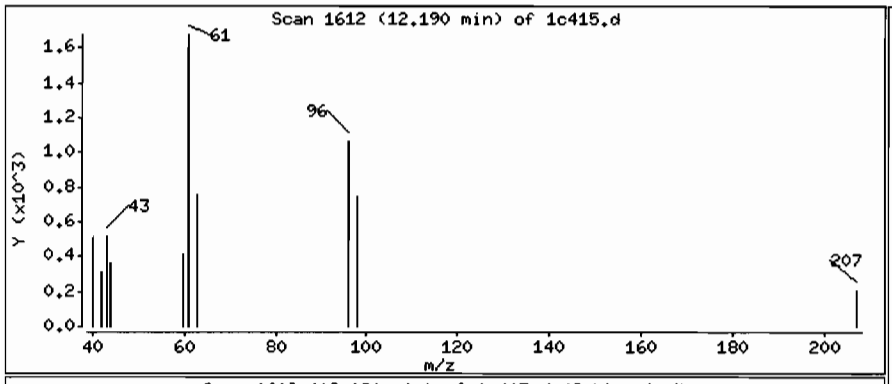

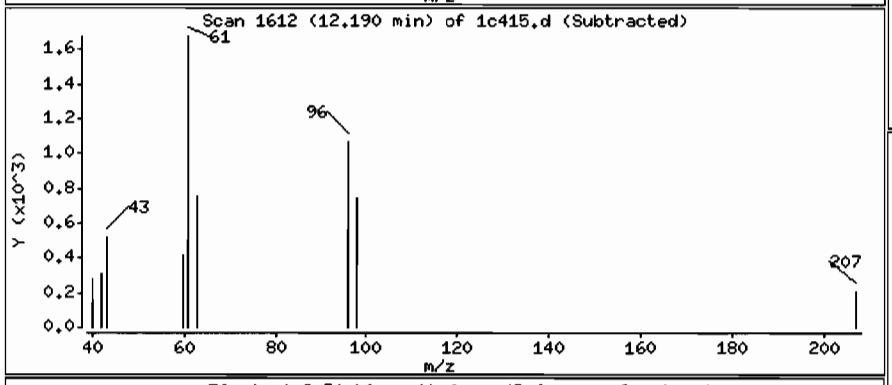

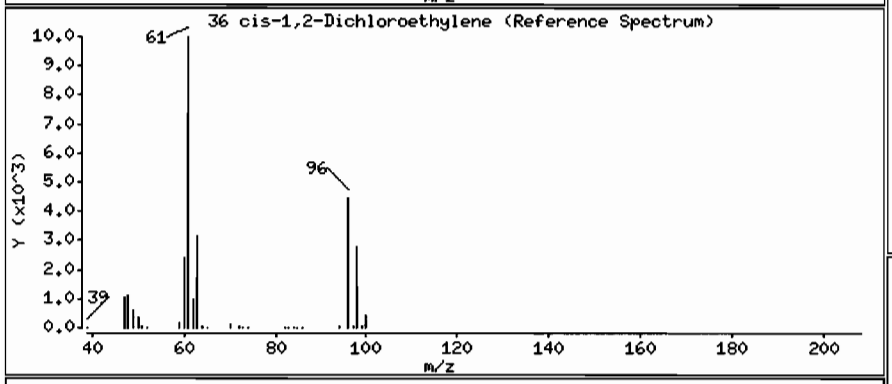

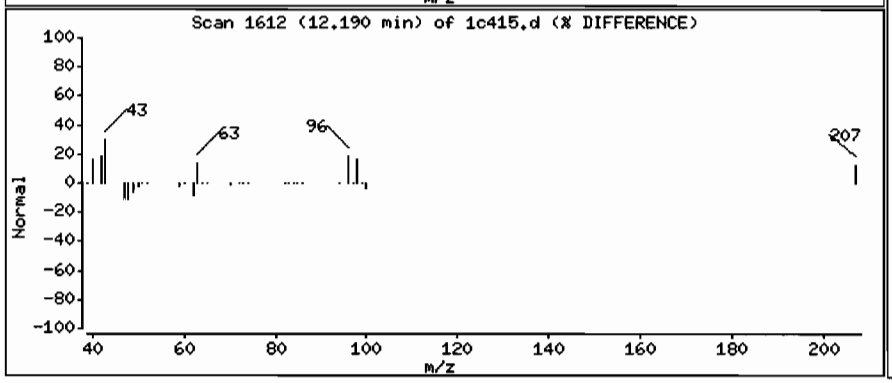

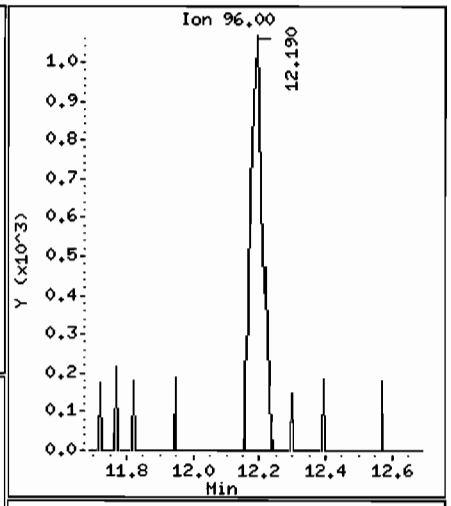

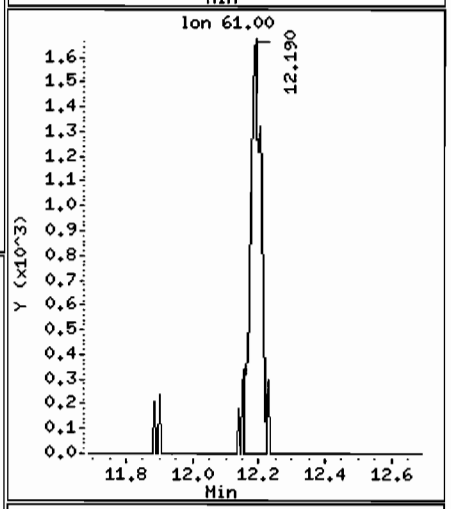

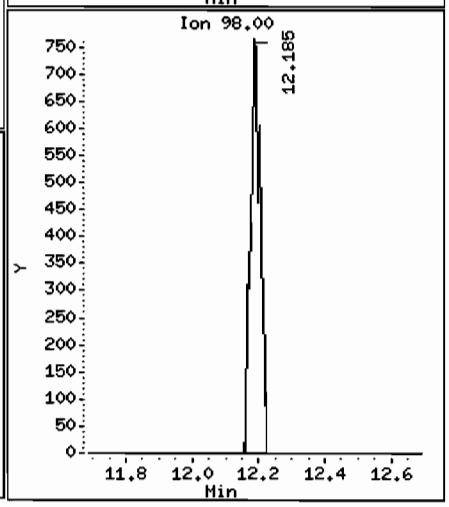

Data File: /chem/VOA1.i/031810v1/1c415.d

Date : 18-MAR-2010 16:20

Client ID: RE46-10-13550

Instrument: VOA1.i

Sample Info: |2488420051965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

43 1,1,1-Trichloroethane

Concentration: 7.7 ug/Kg

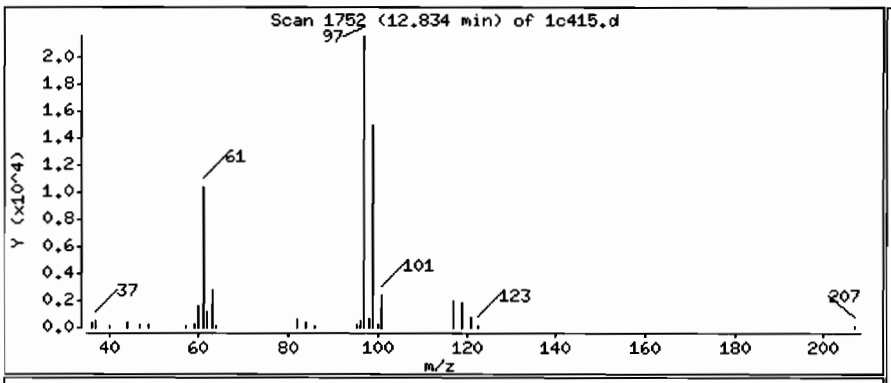

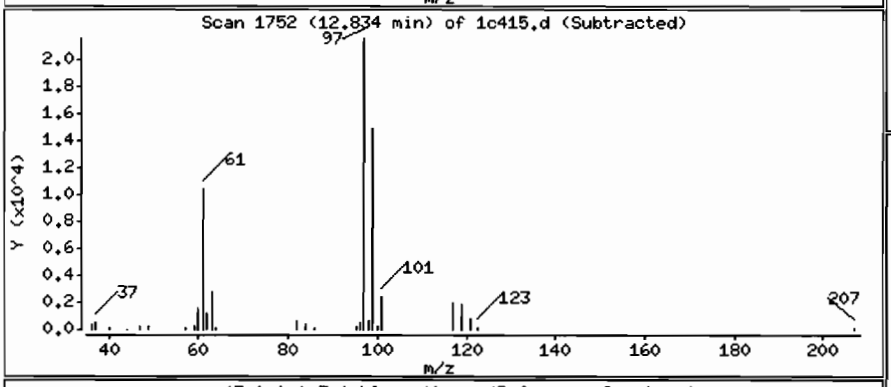

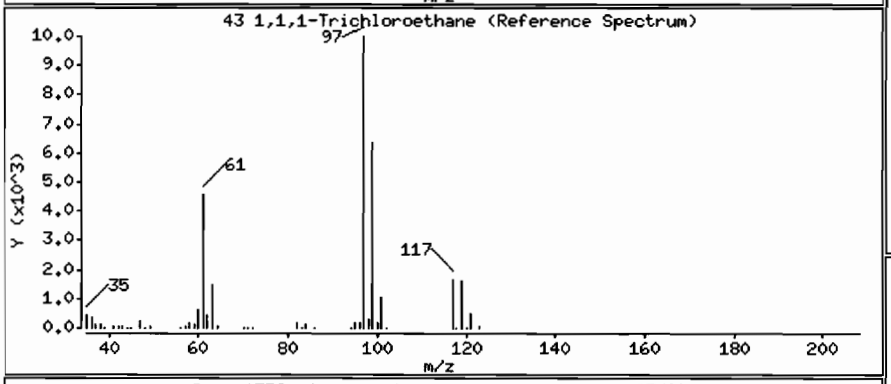

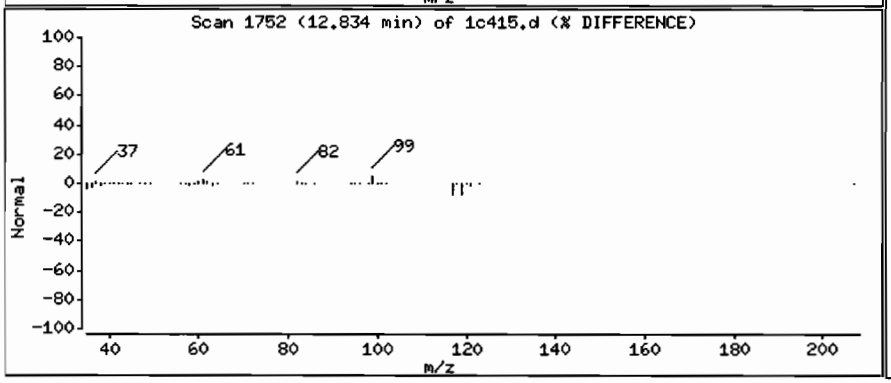

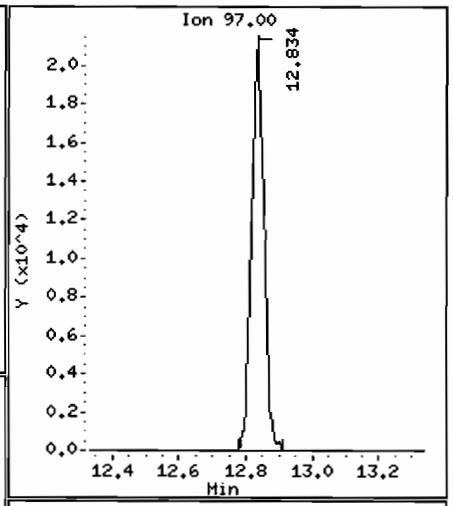

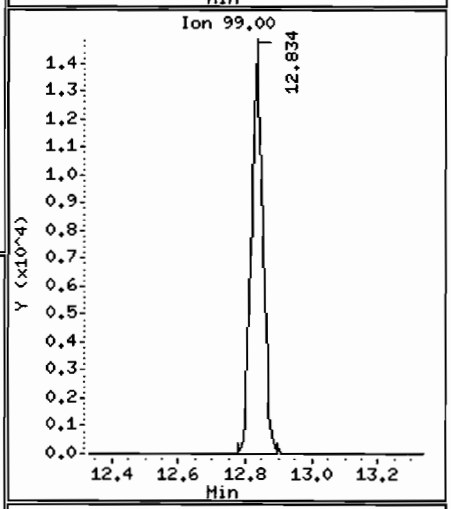

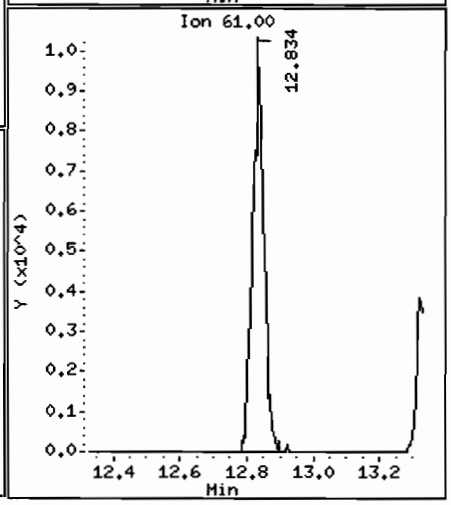

Data File: /chem/VOA1.i/031810v1/1c415.d

Date : 18-MAR-2010 16:20

Client ID: RE46-10-13550

Instrument: VOA1.i

Sample Info: |2488420051965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

54 Trichloroethylene

Concentration: 43.0 ug/Kg

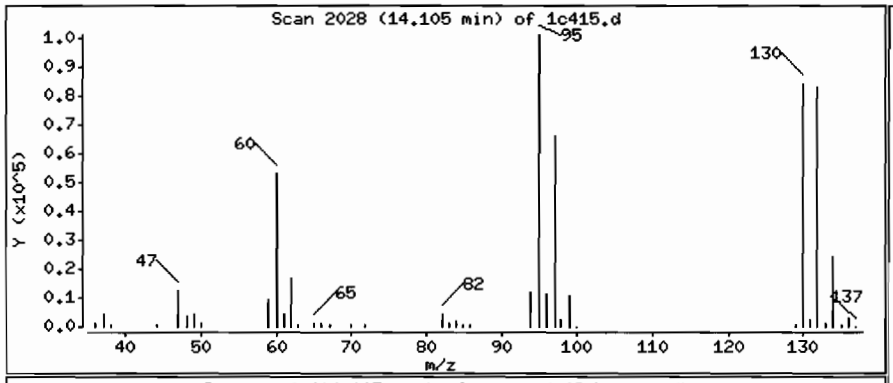

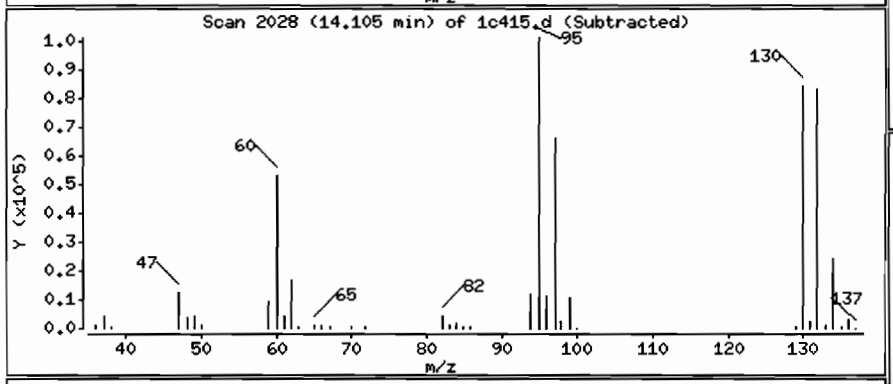

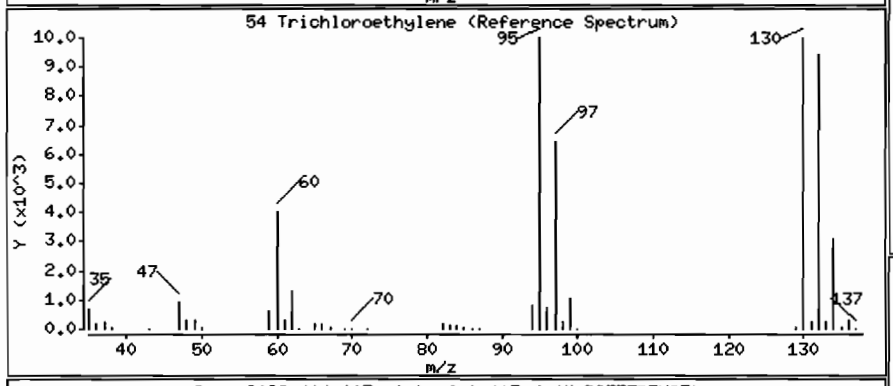

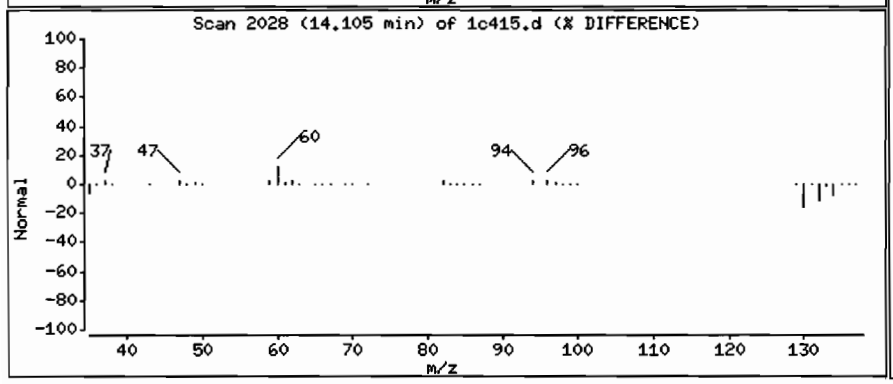

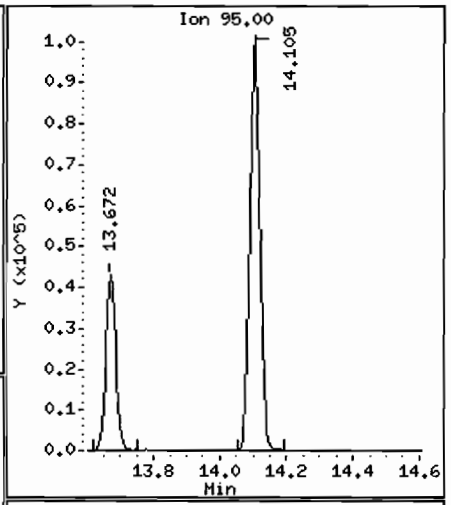

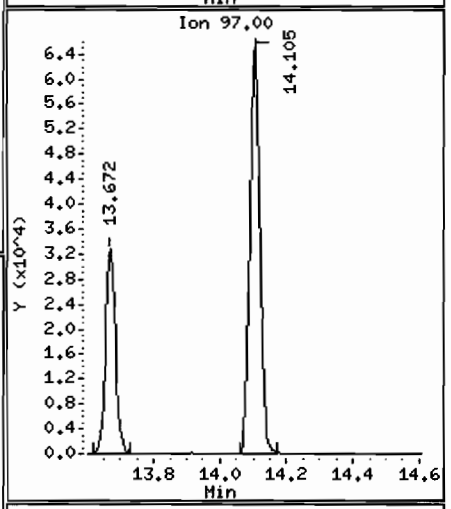

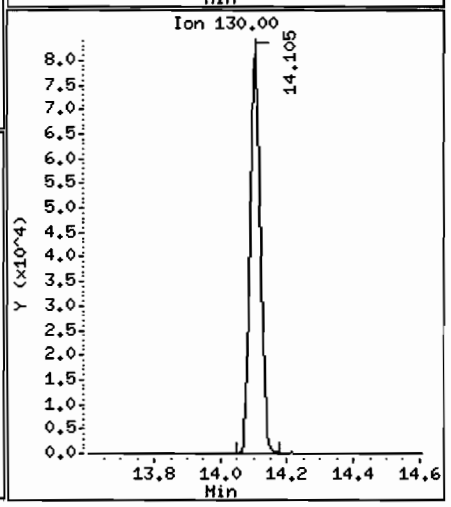

Data File: /chem/VOA1.i/031810v1/1c415.d

Date : 18-MAR-2010 16:20

Client ID: RE46-10-13550

Instrument: VOA1.i

Sample Info: |2488420051965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

70 Tetrachloroethylene

Concentration: 2.4 ug/Kg

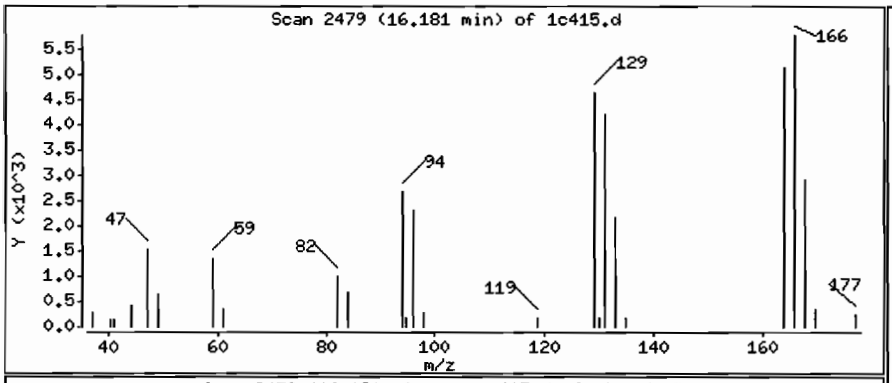

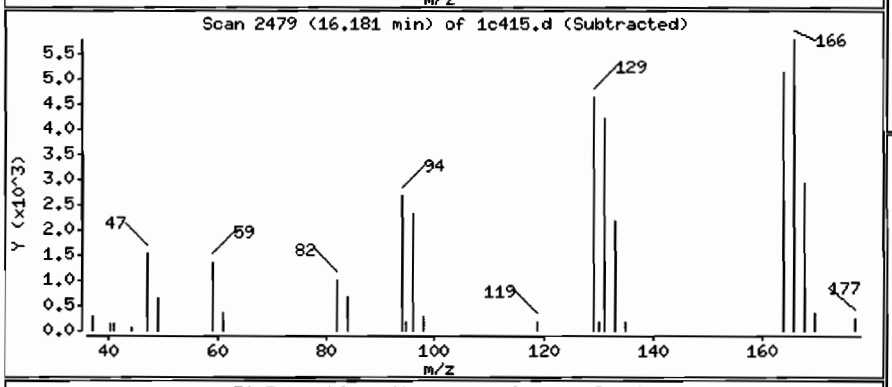

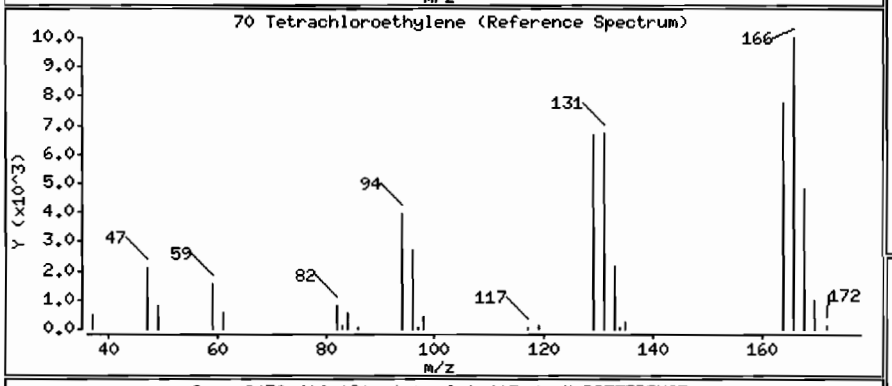

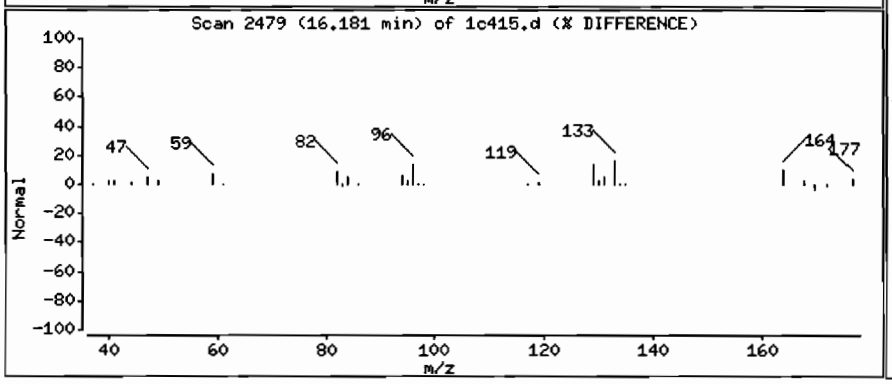

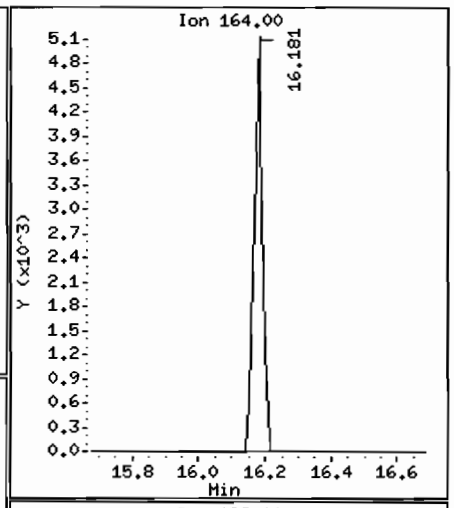

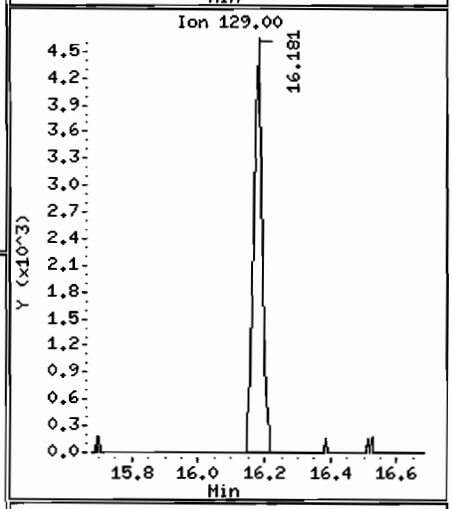

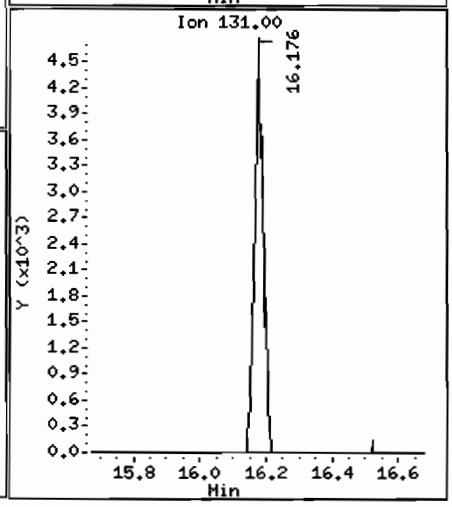

Data File: /chem/VOA1.i/031810v1/1c415.d

Date : 18-MAR-2010 16:20

Client ID: RE46-10-13550

Instrument: VOA1.i

Sample Info: |2488420051965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Silane, (2-ethyl-3,3-dimethyl-4-methylen	95798-13-3	NIST05.L	62897	38	C13H24Si	208
Bicyclo[3.3.0]octan-2-one, 7-trimethylsi	109613-14-1	NIST05.L	62770	36	C12H20OSi	208

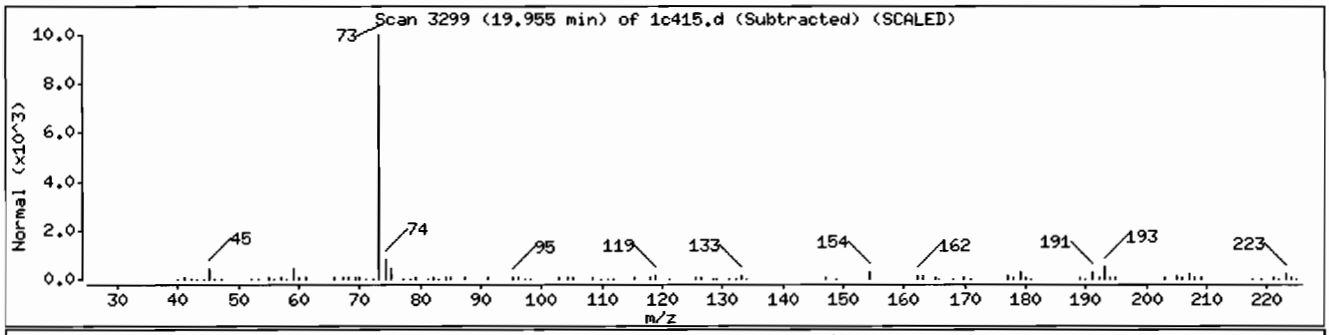

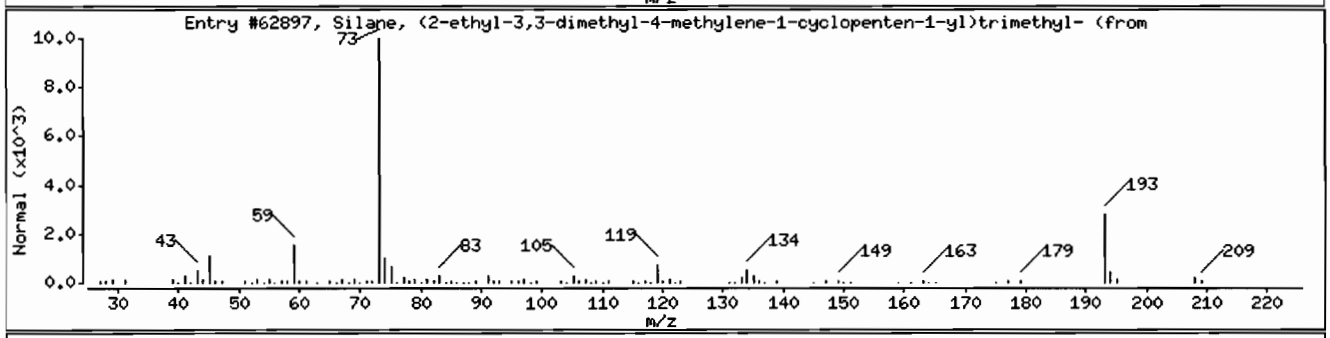

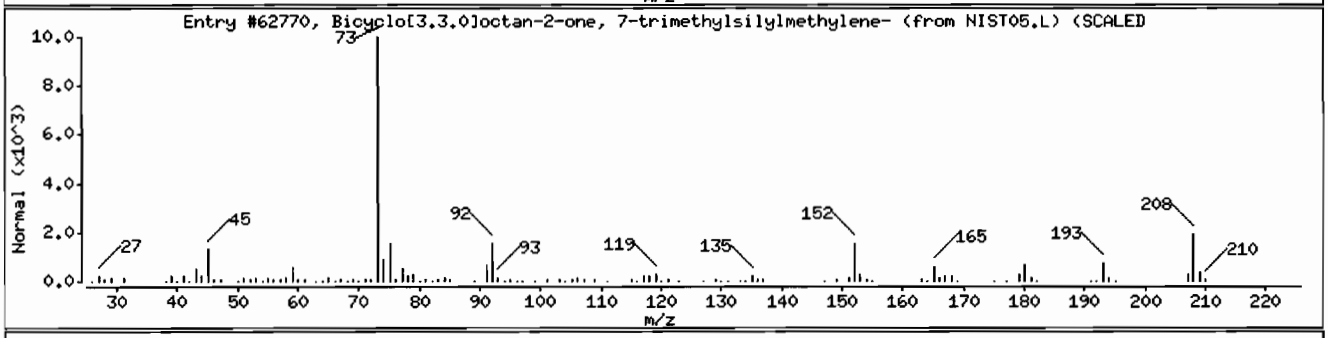

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13551**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 16:18**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c212.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.429	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.378	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.378	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.378	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.378	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.378	1.26
67-64-1	Acetone		37.3	ug/kg	2.09	6.31
75-35-4	1,1-Dichloroethylene		38.8	ug/kg	0.378	1.26
74-88-4	Iodomethane	U	6.31	ug/kg	2.02	6.31
75-09-2	Methylene chloride	U	6.31	ug/kg	2.52	6.31
75-15-0	Carbon disulfide	U	6.31	ug/kg	1.58	6.31
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.378	1.26
78-93-3	2-Butanone	U	6.31	ug/kg	1.89	6.31
156-59-2	cis-1,2-Dichloroethylene	J	0.410	ug/kg	0.378	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.378	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.378	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.416	1.26
71-55-6	1,1,1-Trichloroethane	E	298	ug/kg	0.378	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.378	1.26
56-23-5	Carbon tetrachloride	J	0.606	ug/kg	0.378	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.378	1.26
71-43-2	Benzene	J	0.407	ug/kg	0.378	1.26
79-01-6	Trichloroethylene	E	4480	ug/kg	0.416	1.26
78-87-5	1,2-Dichloropropane		4.47	ug/kg	0.378	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.378	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.378	1.26
108-10-1	4-Methyl-2-pentanone	U	6.31	ug/kg	1.58	6.31
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.378	1.26
108-88-3	Toluene		11.5	ug/kg	0.378	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.378	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.378	1.26
591-78-6	2-Hexanone	U	6.31	ug/kg	1.89	6.31
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.378	1.26
127-18-4	Tetrachloroethylene	E	407	ug/kg	0.378	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.378	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.378	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.378	1.26

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13551**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 16:18**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c212.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Uuits	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		3.90	ug/kg	0.378	1.26
179601-23-1	m,p-Xylenes	J	0.756	ug/kg	0.378	2.52
95-47-6	o-Xylene		7.22	ug/kg	0.378	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.378	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.378	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.378	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.378	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.378	1.26
103-65-1	n-Propylbenzene		22.1	ug/kg	0.378	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.378	1.26
98-82-8	Isopropylbenzene		5.62	ug/kg	0.378	1.26
108-67-8	1,3,5-Trimethylbenzene		79.7	ug/kg	0.378	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.378	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.378	1.26
95-63-6	1,2,4-Trimethylbenzene		49.7	ug/kg	0.378	1.26
135-98-8	sec-Butylbenzene		47.1	ug/kg	0.378	1.26
99-87-6	4-Isopropyltoluene		65.8	ug/kg	0.378	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26
104-51-8	n-Butylbenzene		103	ug/kg	0.378	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.378	1.26
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.31	ug/kg	2.02	6.31
630-20-6	1,1,1,2-Tetrachloroethane		3.37	ug/kg	0.378	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	16.48	63	ug/kg		J
	Unknown Hydrocarbon	16.6	24.2	ug/kg		J
	Unknown Hydrocarbon	16.74	36.3	ug/kg		J
	Unknown Hydrocarbon	17.66	156	ug/kg		J
	Unknown Hydrocarbon	18.03	526	ug/kg		J
	Unknown Hydrocarbon	19.74	77.2	ug/kg		J
	Unknown Hydrocarbon	19.96	57.8	ug/kg		J
	Unknown Hydrocarbon	20.06	64.9	ug/kg		J
	Unknown Hydrocarbon	20.25	102	ug/kg		J
	Unknown Hydrocarbon	20.8	12.7	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13551**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 16:18**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c212.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	20.95	33.9	ug/kg		J
	Unknown Hydrocarbon	21.35	24.1	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c212.d
Lab Smp Id: 248842004 Client Smp ID: RE46-10-13551
Inj Date : 16-MAR-2010 16:18
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842004|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	20.70090	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	1037454	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	745204	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.596	(1.000)	480536	50.0000	(Q)
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	512870	50.6298	63.8
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1300085	51.8712	65.4
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	640168	53.1364	67.0
16 Acetone	43	9.240	9.239	(0.676)	181810	29.5825	37.3
15 1,1-Dichloroethylene	61	9.055	9.060	(0.662)	351551	30.7505	38.8
36 cis-1,2-Dichloroethylene	96	12.190	12.185	(0.892)	1958	0.32530	0.41(a)
43 1,1,1-Trichloroethane	97	12.835	12.834	(0.939)	2108990	236.610	298(A)
44 Carbon tetrachloride	117	13.009	13.014	(0.952)	4097	0.48052	0.60(a)
47 Benzene	78	13.322	13.318	(0.974)	7671	0.32304	0.41(aQ)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
54 Trichloroethylene	95	14.110	14.105	(1.032)	21776716	3552.79	4480(A)
57 1,2-Dichloropropane	63	14.450	14.450	(1.057)	23162	3.54532	4.5
66 Toluene	92	15.583	15.582	(0.909)	130996	9.11384	11.5
70 Tetrachloroethylene	164	16.181	16.181	(0.944)	1482025	322.813	407(A)
79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	14685	2.67235	3.4
78 Ethylbenzene	91	17.207	17.207	(1.003)	88735	3.09013	3.9
80 m,p-Xylenes	106	17.318	17.322	(1.010)	6102	0.59939	0.76(aQ)
81 o-Xylene	106	17.774	17.769	(1.036)	57244	5.72825	7.2
89 n-Propylbenzene	91	18.547	18.547	(0.946)	699774	17.5096	22.1
84 Isopropylbenzene	105	18.119	18.114	(0.924)	145496	4.45376	5.6
93 1,3,5-Trimethylbenzene	105	18.708	18.703	(0.954)	1802743	63.2138	79.7
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	1167885	39.4000	49.7
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1356383	37.3621	47.1
100 4-Isopropyltoluene	119	19.412	19.408	(0.990)	1475878	52.1942	65.8
105 n-Butylbenzene	91	19.859	19.854	(1.013)	2498757	81.8386	103(Q)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

VOA REPORT

Data file: 1c212.d
Report Date: 03/17/2010 05:37
Lab. ID: 248842004 SampleType: SAMPLE
Injection Date: 16-MAR-2010 16:18
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248842004|965875|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
15 1,1-Dichloroethylene				CAS#: 75-35-4		
61	351551	9.06	9.06	80-120	100	( )
63	115480	9.06	9.07	2- 62	33	( )
96	168388	9.06	9.07	14- 74	48	( )
16 Acetone				CAS#: 67-64-1		
43	181810	9.24	9.24	80-120	100	( )
58	52784	9.24	9.24	0- 56	29	( )
36 cis-1,2-Dichloroethylene				CAS#: 156-59-2		
96	1958	12.19	12.19	80-120	100	( )
61	3369	12.19	12.19	162-222	172	( )
98	959	12.19	12.19	35- 95	49	( )
33 2,2-Dichloropropane				CAS#: 594-20-7		
77	5919	11.89	12.15	80-120	100	(T)
79	402	12.32	12.15	3- 63	7	(T)
43 1,1,1-Trichloroethane				CAS#: 71-55-6		
97	2108990	12.83	12.83	80-120	100	( )
99	1380041	12.83	12.83	35- 95	65	( )
61	898432	12.83	12.83	13- 73	43	( )
44 Carbon tetrachloride				CAS#: 56-23-5		
117	4097	13.01	13.01	80-120	100	( )
119	3716	13.01	13.01	63-123	91	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	19466	13.68	13.43	80-120	100	(T)
64	2871	13.67	13.43	3- 63	15	(T)
47 Benzene			CAS#: 71-43-2			
78	7671	13.32	13.32	80-120	100	( )
77	1545	13.32	13.32	0- 54	20	( )
51	161960	13.33	13.32	8- 68	2111	(Q)
54 Trichloroethylene			CAS#: 79-01-6			
95	21776716	14.11	14.10	80-120	100	( )
97	16356386	14.11	14.10	36- 96	75	( )
130	19186938	14.11	14.10	51-111	88	( )
57 1,2-Dichloropropane			CAS#: 78-87-5			
63	23162	14.45	14.45	80-120	100	( )
62	18868	14.45	14.45	42-102	81	( )
60 Bromodichloromethane			CAS#: 75-27-4			
83	45668	14.27	14.74	80-120	100	(T)
85	1431	14.46	14.74	35- 95	3	(QT)
63 cis-1,3-Dichloropropylene			CAS#: 10061-01-5			
75	27293	15.68	15.25	80-120	100	(T)
77	37419	15.70	15.24	1- 61	137	(QT)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	14022	15.51	15.34	80-120	100	(T)
43	44884	15.50	15.35	227-287	320	(QT)
100	810197	15.50	15.35	0- 60	5778	(QT)
66 Toluene			CAS#: 108-88-3			
92	130996	15.58	15.58	80-120	100	( )
91	230121	15.59	15.58	141-201	176	( )
68 trans-1,3-Dichloropropylene			CAS#: 10061-02-6			
75	36662	15.68	15.87	80-120	100	(T)
77	56512	15.70	15.87	1- 61	154	(QT)
69 1,1,2-Trichloroethane			CAS#: 79-00-5			
83	35765	16.17	16.09	80-120	100	(T)
97	27167	16.18	16.09	87-147	76	(QT)
85	6602	16.18	16.09	34- 94	18	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
72 1,3-Dichloropropane			CAS#: 142-28-9			
76	16597	16.49	16.30	80-120	100	(T)
78	25906	16.48	16.30	3- 63	156	(QT)
71 2-Hexanone			CAS#: 591-78-6			
43	73983	16.15	16.25	80-120	100	(T)
58	9005	16.14	16.25	23- 83	12	(QT)
70 Tetrachloroethylene			CAS#: 127-18-4			
164	1482025	16.18	16.18	80-120	100	( )
129	1420140	16.18	16.18	67-127	96	( )
131	1370249	16.18	16.18	62-122	92	( )
73 Dibromochloromethane			CAS#: 124-48-1			
129	2729	16.52	16.54	80-120	100	( )
127	1369	16.55	16.54	46-106	50	( )
77 Chlorobenzene			CAS#: 108-90-7			
112	21828	17.16	17.18	80-120	100	( )
77	36180	17.15	17.18	62-122	166	(Q)
114	1584	17.18	17.18	1- 61	7	( )
79 1,1,1,2-Tetrachloroethane			CAS#: 630-20-6			
131	14685	17.25	17.25	80-120	100	( )
133	14260	17.25	17.25	67-127	97	( )
119	8359	17.25	17.25	26- 86	57	( )
78 Ethylbenzene			CAS#: 100-41-4			
91	88735	17.21	17.21	80-120	100	( )
106	23322	17.21	17.21	0- 57	26	( )
81 o-Xylene			CAS#: 95-47-6			
106	57244	17.77	17.77	80-120	100	( )
91	143704	17.77	17.77	226-286	251	( )
80 m,p-Xylenes			CAS#:			
106	6102	17.32	17.32	80-120	100	( )
91	25658	17.33	17.32	209-269	420	(Q)
82 Styrene			CAS#: 100-42-5			
104	12433	18.05	17.79	80-120	100	(T)
78	13868	18.01	17.79	38- 98	112	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
84 Isopropylbenzene			CAS#: 98-82-8			
105	145496	18.12	18.11	80-120	100	( )
120	31290	18.11	18.12	0- 52	22	( )
88 1,1,2,2-Tetrachloroethane			CAS#: 79-34-5			
83	793489	18.47	18.50	80-120	100	( )
85	2357206	18.52	18.50	35- 95	297	(Q)
92 1,2,3-Trichloropropane			CAS#: 96-18-4			
110	401080	18.62	18.59	80-120	100	( )
75	11833	18.65	18.59	316-376	3	(Q)
77	1046980	18.71	18.58	769-829	261	(QT)
91 Bromobenzene			CAS#: 108-86-1			
156	7925	18.72	18.58	80-120	100	(T)
77	1368206	18.71	18.58	217-277	17263	(QT)
158	888	18.83	18.58	70-130	11	(QT)
89 n-Propylbenzene			CAS#: 103-65-1			
91	1140774	18.55	18.55	80-120	100	( )
120	133320	18.55	18.55	0- 49	12	( )
94 2-Chlorotoluene			CAS#: 95-49-8			
91	1152437	18.55	18.73	80-120	100	(T)
126	140964	18.47	18.73	0- 52	12	(T)
93 1,3,5-Trimethylbenzene			CAS#: 108-67-8			
105	1802743	18.71	18.70	80-120	100	( )
120	736802	18.71	18.70	9- 69	41	( )
97 1,2,4-Trimethylbenzene			CAS#: 95-63-6			
105	1167885	19.12	19.12	80-120	100	( )
120	442409	19.12	19.12	7- 67	38	( )
95 4-Chlorotoluene			CAS#: 106-43-4			
91	208724	18.96	18.84	80-120	100	(T)
126	56299	18.83	18.84	0- 54	27	( )
96 tert-Butylbenzene			CAS#: 98-06-6			
119	70996	19.07	19.06	80-120	100	( )
91	241852	18.96	19.06	58-118	341	(QT)
134	14488	19.06	19.06	0- 51	20	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
99 sec-Butylbenzene			CAS#: 135-98-8			
105	1447274	19.29	19.29	80-120	100	( )
134	374545	19.29	19.29	0- 47	26	( )
100 4-Isopropyltoluene			CAS#: 99-87-6			
119	1460846	19.41	19.41	80-120	100	( )
134	343334	19.41	19.41	0- 53	24	( )
91	581426	19.35	19.41	1- 61	40	( )
103 1,4-Dichlorobenzene			CAS#: 106-46-7			
146	18739	20.07	19.62	80-120	100	(T)
111	1725841	19.60	19.62	17- 77	9210	(Q)
148	11730	20.07	19.62	35- 95	63	(T)
105 n-Butylbenzene			CAS#: 104-51-8			
91	2498757	19.86	19.85	80-120	100	( )
92	1344435	19.86	19.85	24- 84	54	( )
134	2240175	19.80	19.85	0- 51	90	(Q)
106 1,2-Dichlorobenzene			CAS#: 95-50-1			
146	18739	20.07	20.07	80-120	100	( )
111	2799751	19.60	20.07	20- 80	14941	(QT)
148	11730	20.07	20.07	36- 96	63	( )
108 1,2-Dibromo-3-chloropropane			CAS#: 96-12-8			
157	3965	20.61	20.98	80-120	100	(T)
155	19312	20.57	20.99	49-109	487	(QT)
75	16949	20.64	20.99	102-162	427	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c212.d
Lab Smp Id: 248842004 Client Smp ID: RE46-10-13551
Inj Date : 16-MAR-2010 16:18
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842004|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	20.70090	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 76 Chlorobenzene-d5	17.148	7846408	50.000
* 102 1,4-Dichlorobenzene-d4	19.601	45496144	50.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon					CAS #:		
16.485	7837180	49.9411936	63.0	0		0	76

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon				CAS #:			
16.600	3007104	19.1622960	24.2	0		0	76
Unknown Hydrocarbon				CAS #:			
16.738	4515491	28.7742521	36.3	0		0	76
Unknown Hydrocarbon				CAS #:			
17.663	19365592	123.404179	156	0		0	76
Unknown Hydrocarbon				CAS #:			
18.031	65515588	417.487752	526	0		0	76
Unknown Hydrocarbon				CAS #:			
19.744	55676485	61.1881358	77.2	0		0	102
Unknown Hydrocarbon				CAS #:			
19.955	41709206	45.8381765	57.8	0		0	102
Unknown Hydrocarbon				CAS #:			
20.057	46805786	51.4392891	64.9	0		0	102
Unknown Hydrocarbon				CAS #:			
20.250	73809936	81.1166932	102	0		0	102
Unknown Hydrocarbon				CAS #:			
20.798	9197959	10.1085036	12.7	0		0	102
Unknown Hydrocarbon				CAS #:			
20.950	24433442	26.8522120	33.9	0		0	102
Unknown Hydrocarbon				CAS #:			
21.350	17401340	19.1239724	24.1	0		0	102

Data File: /chem/VOA1.i/031610v1/1c212.d
Date : 16-MAR-2010 16:18
Client ID: RE46-10-13551
Sample Info: |2488420041965875|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2
Column diameter: 0.25

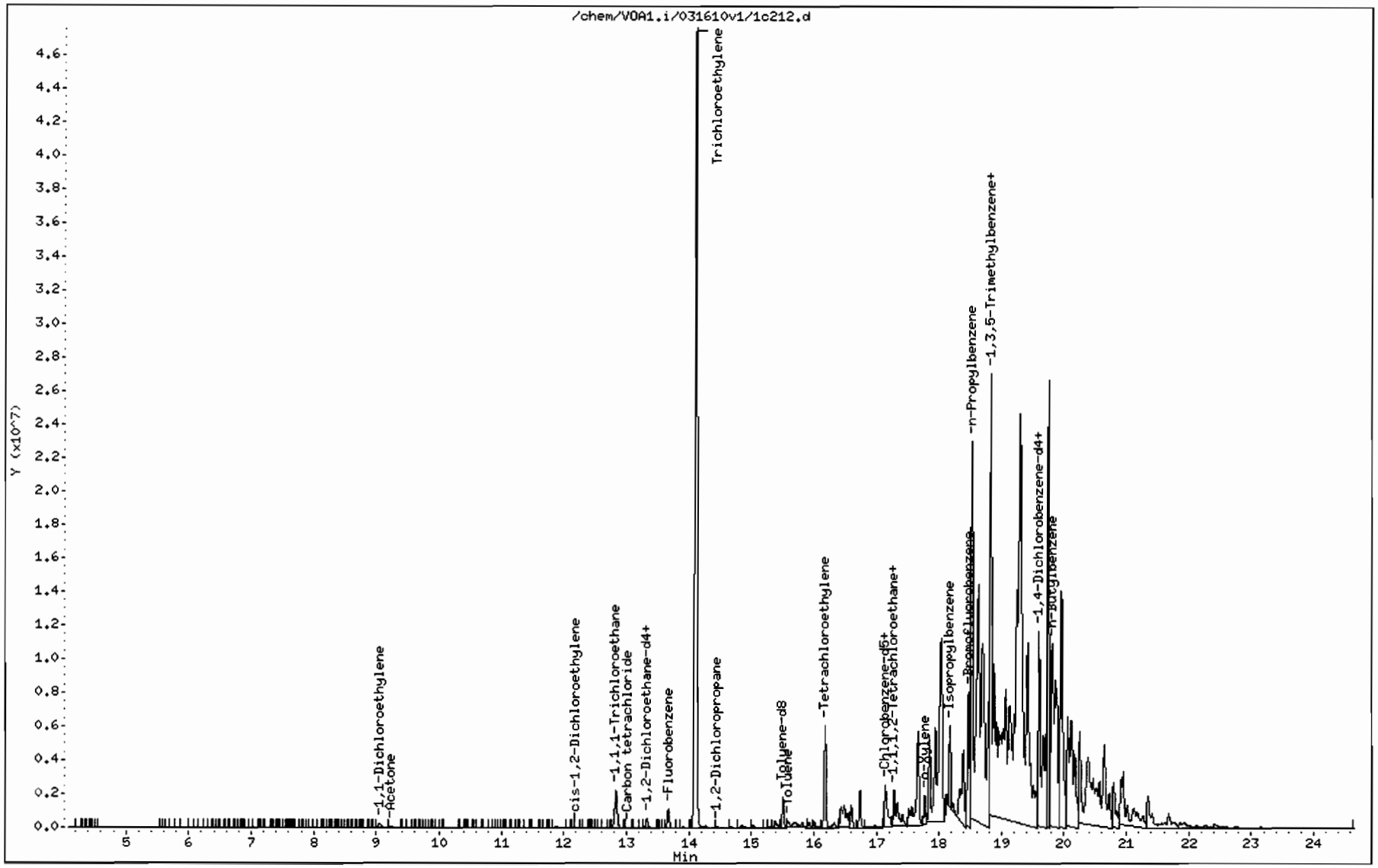

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAFI1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 37.3 ug/Kg

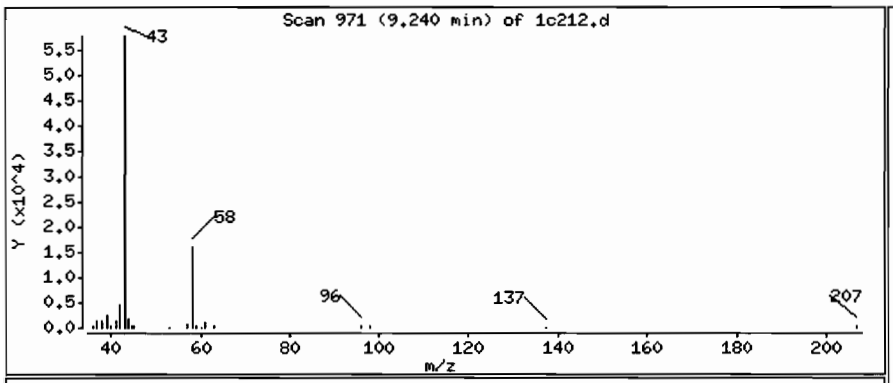

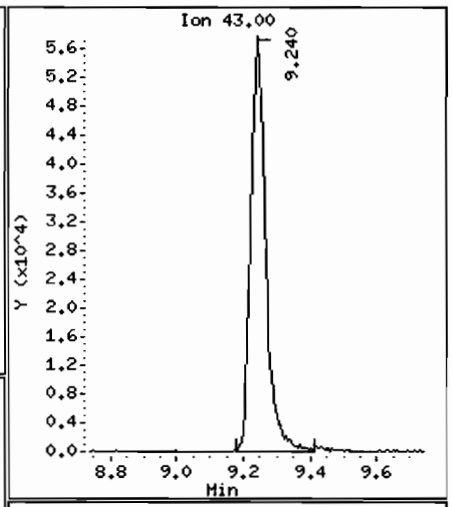

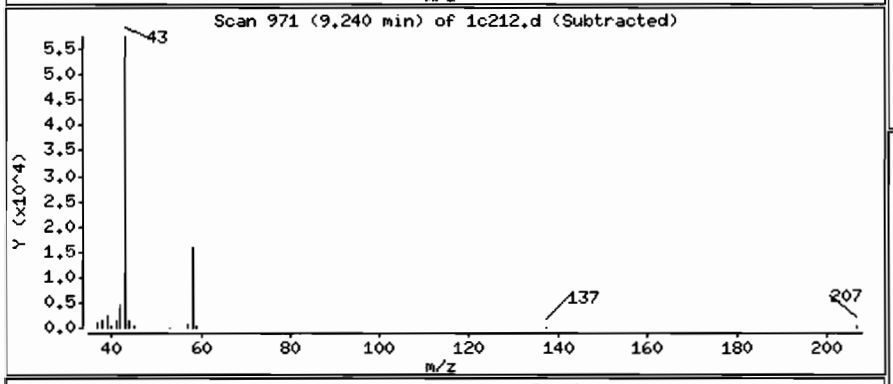

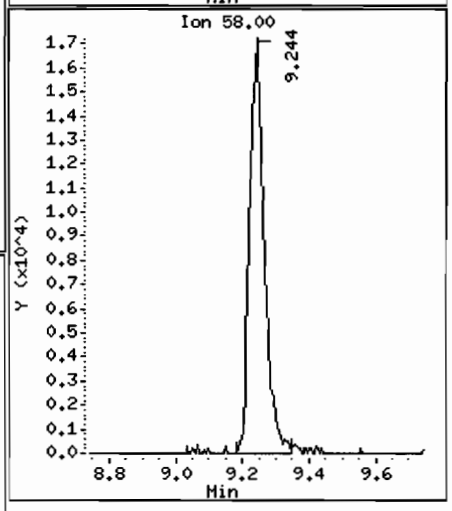

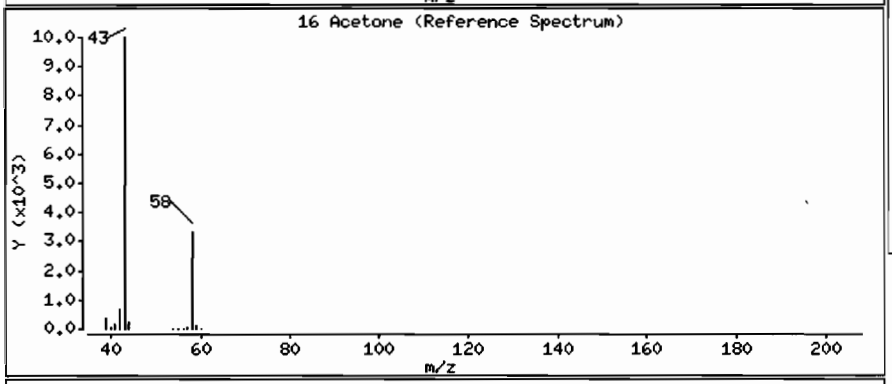

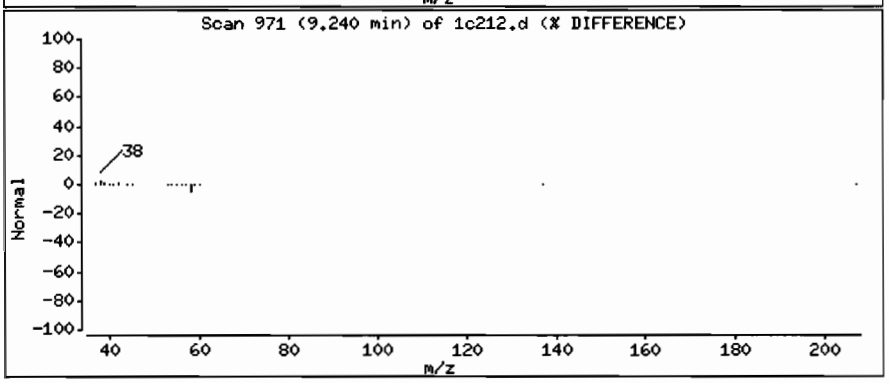

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

15 1,1-Dichloroethylene

Concentration: 38.8 ug/Kg

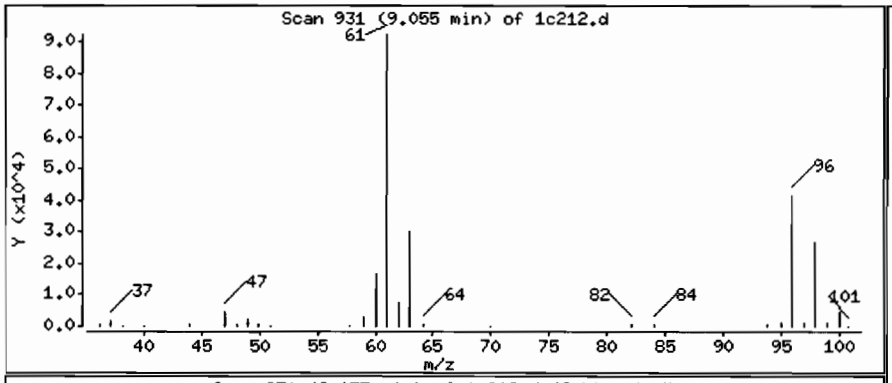

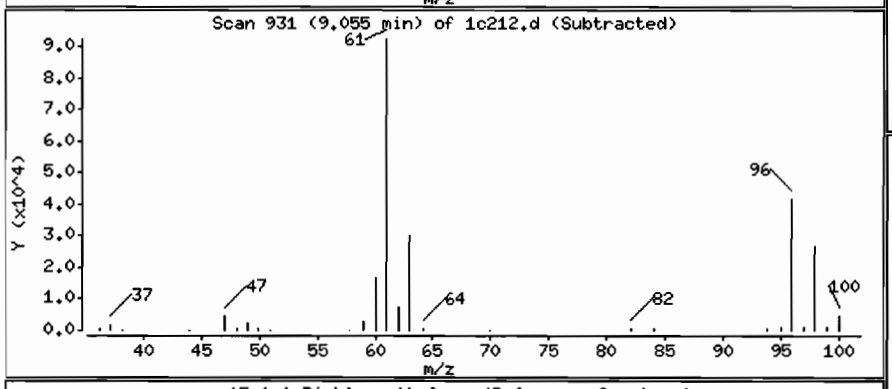

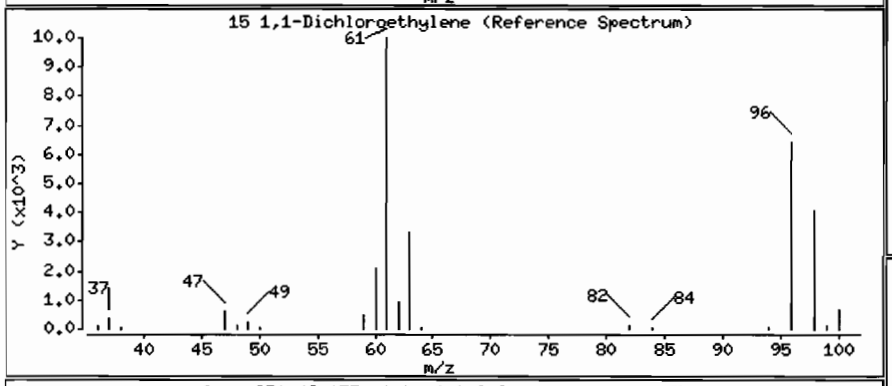

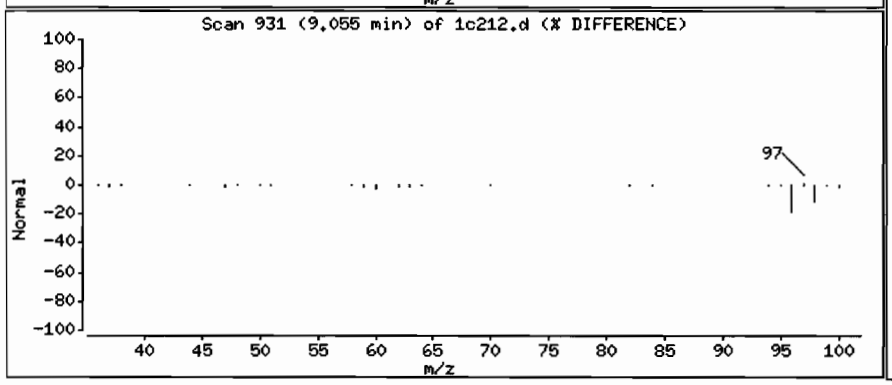

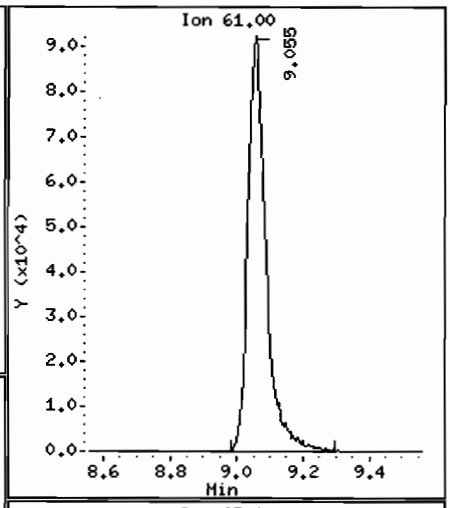

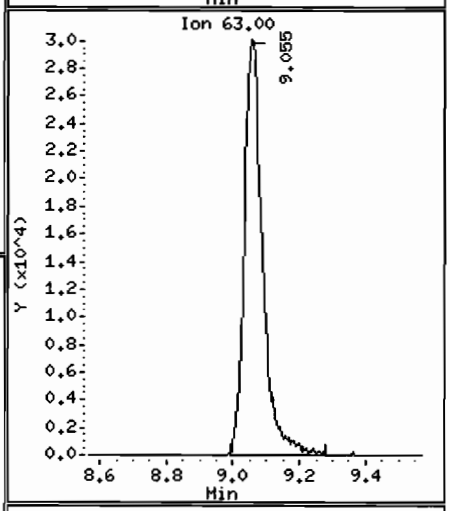

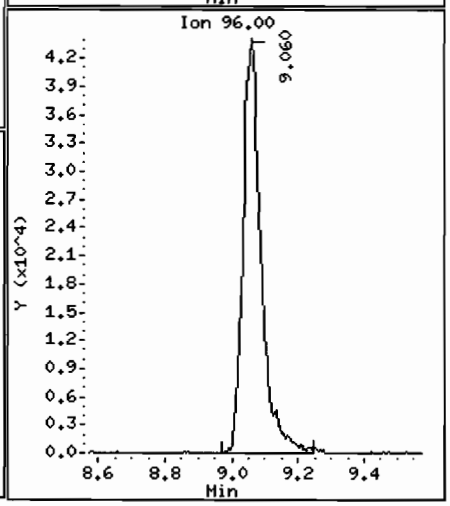

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

36 cis-1,2-Dichloroethylene

Concentration: 0.41 ug/Kg

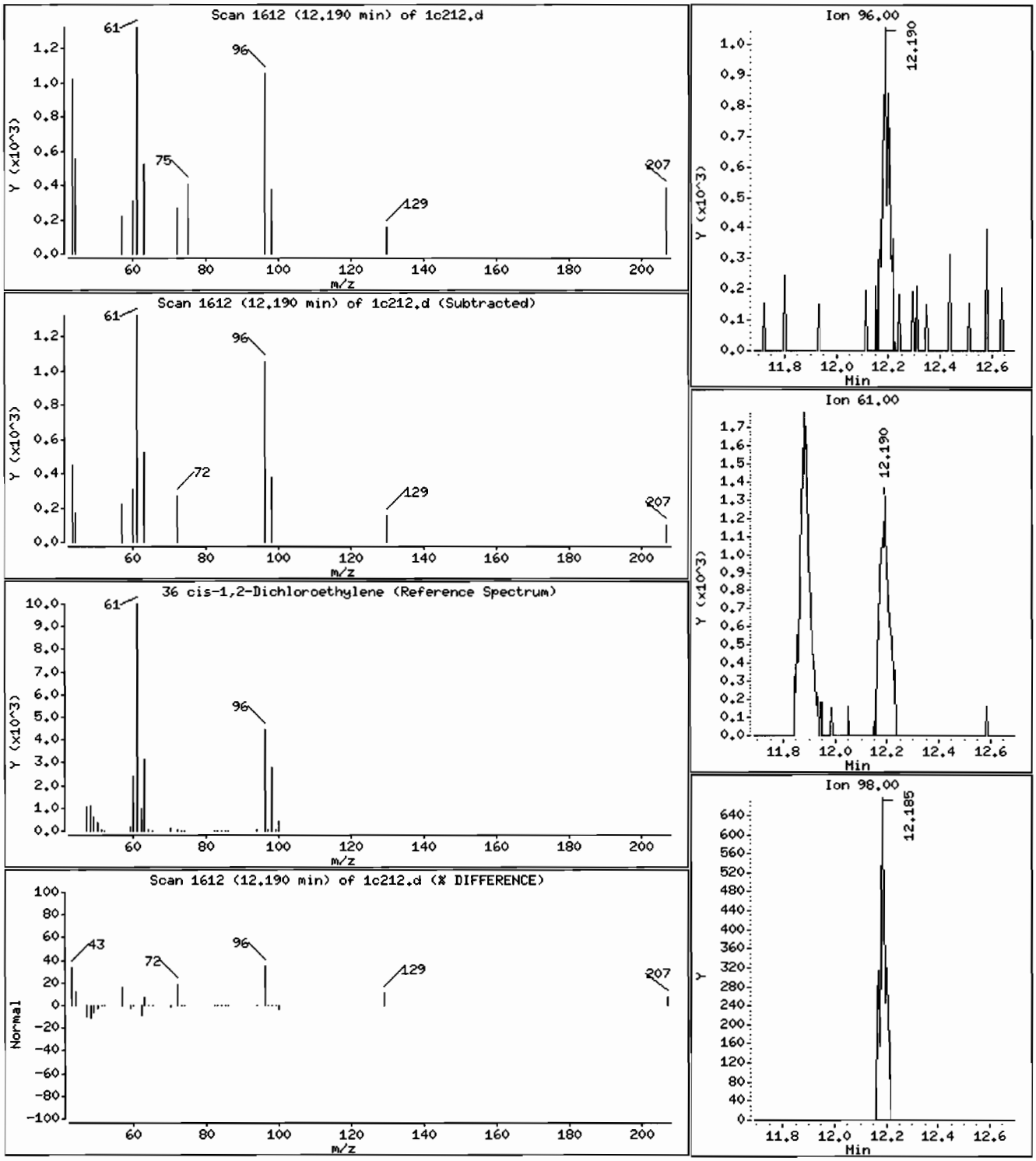

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

43 1,1,1-Trichloroethane

Concentration: 298 ug/Kg

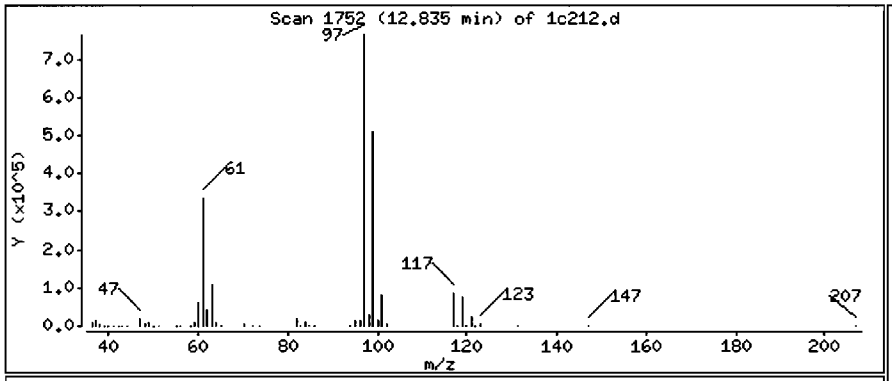

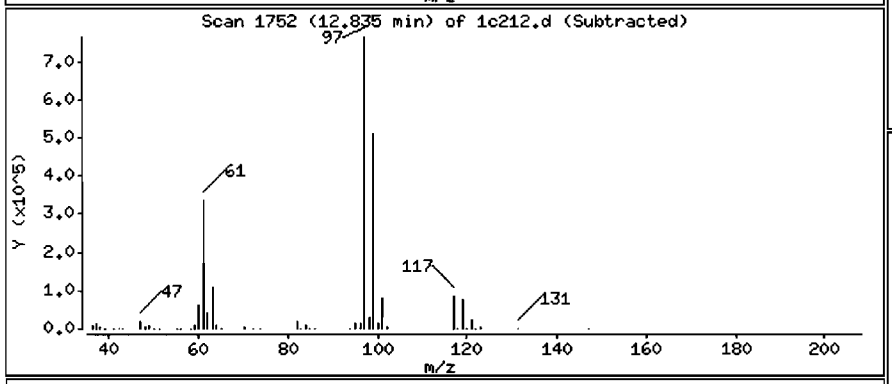

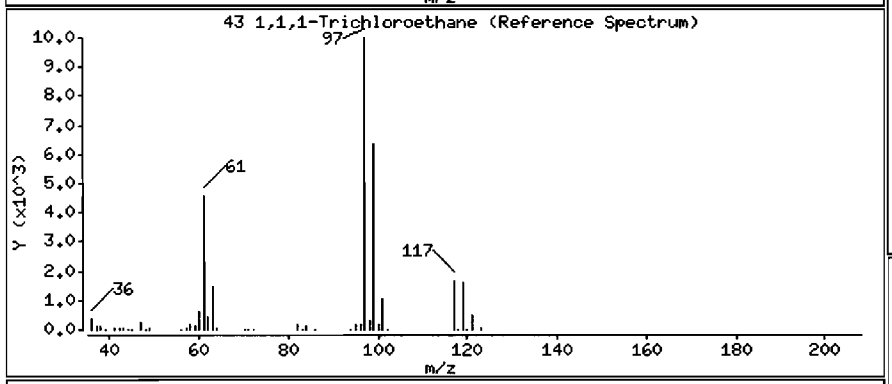

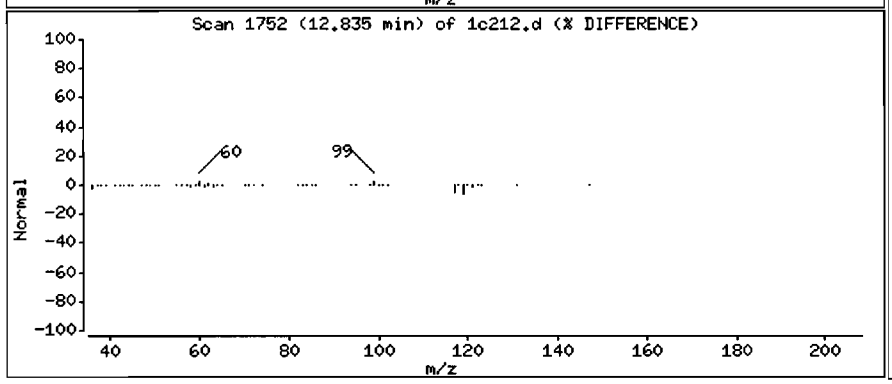

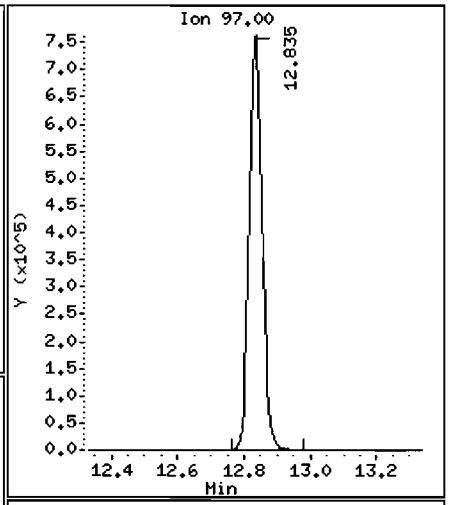

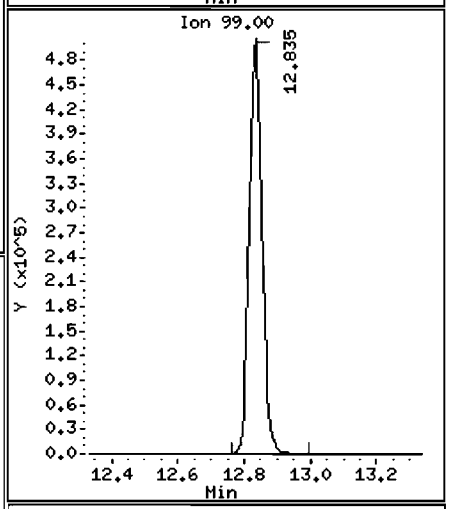

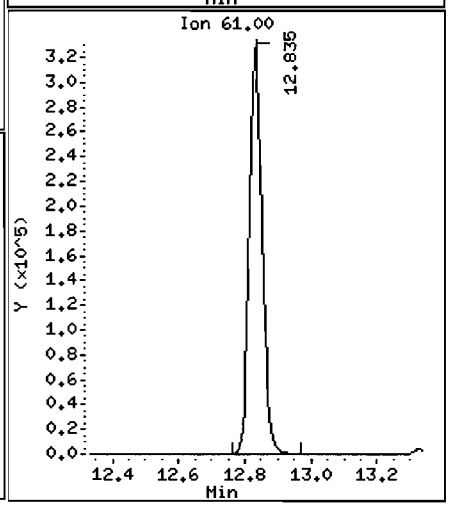

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

44 Carbon tetrachloride

Concentration: 0.60 ug/Kg

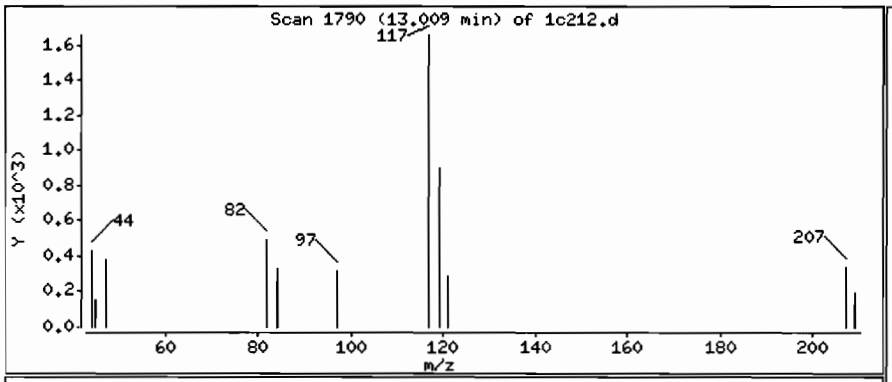

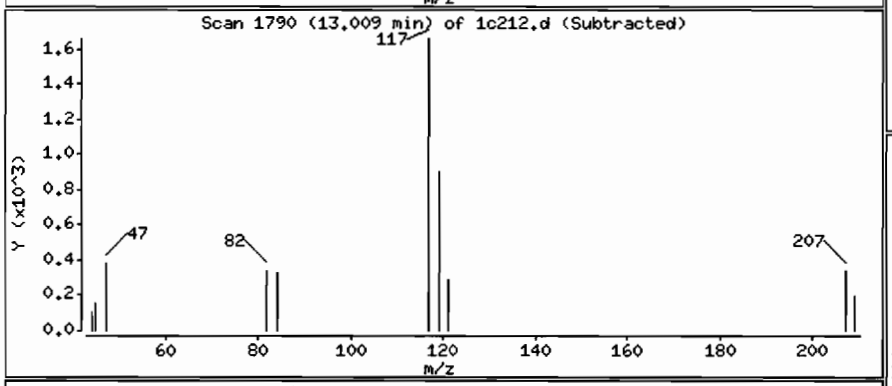

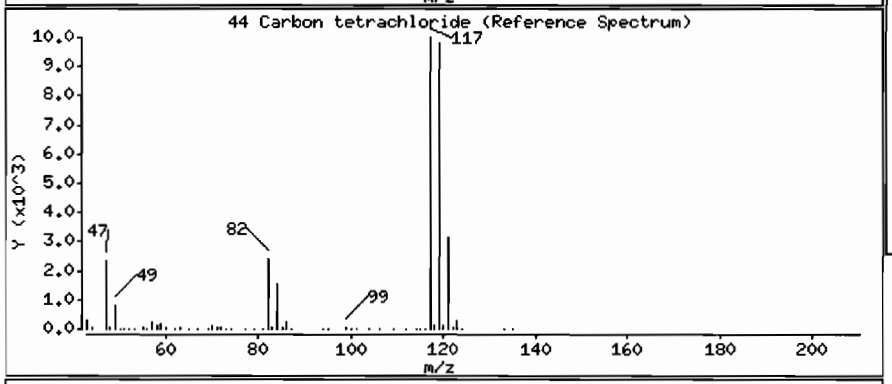

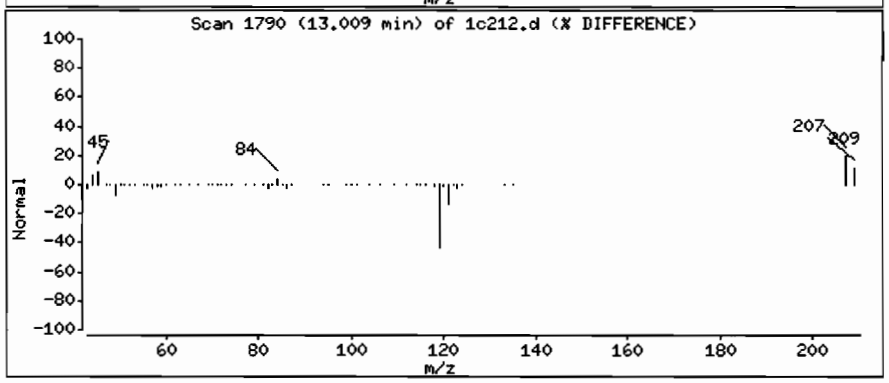

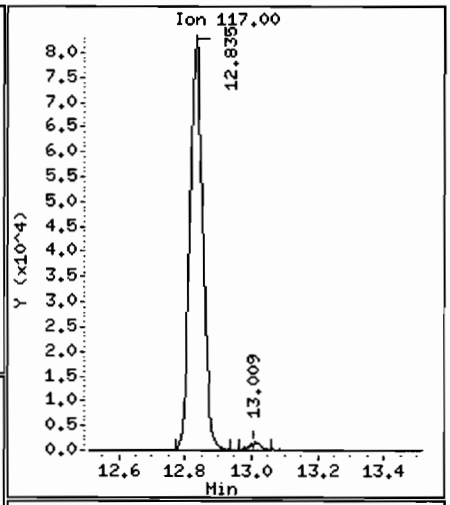

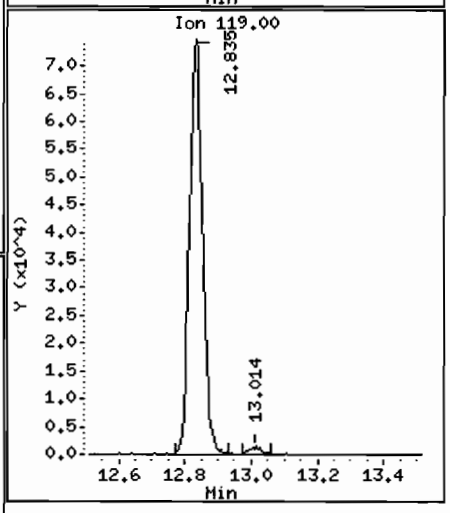

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

47 Benzene

Concentration: 0.41 ug/Kg

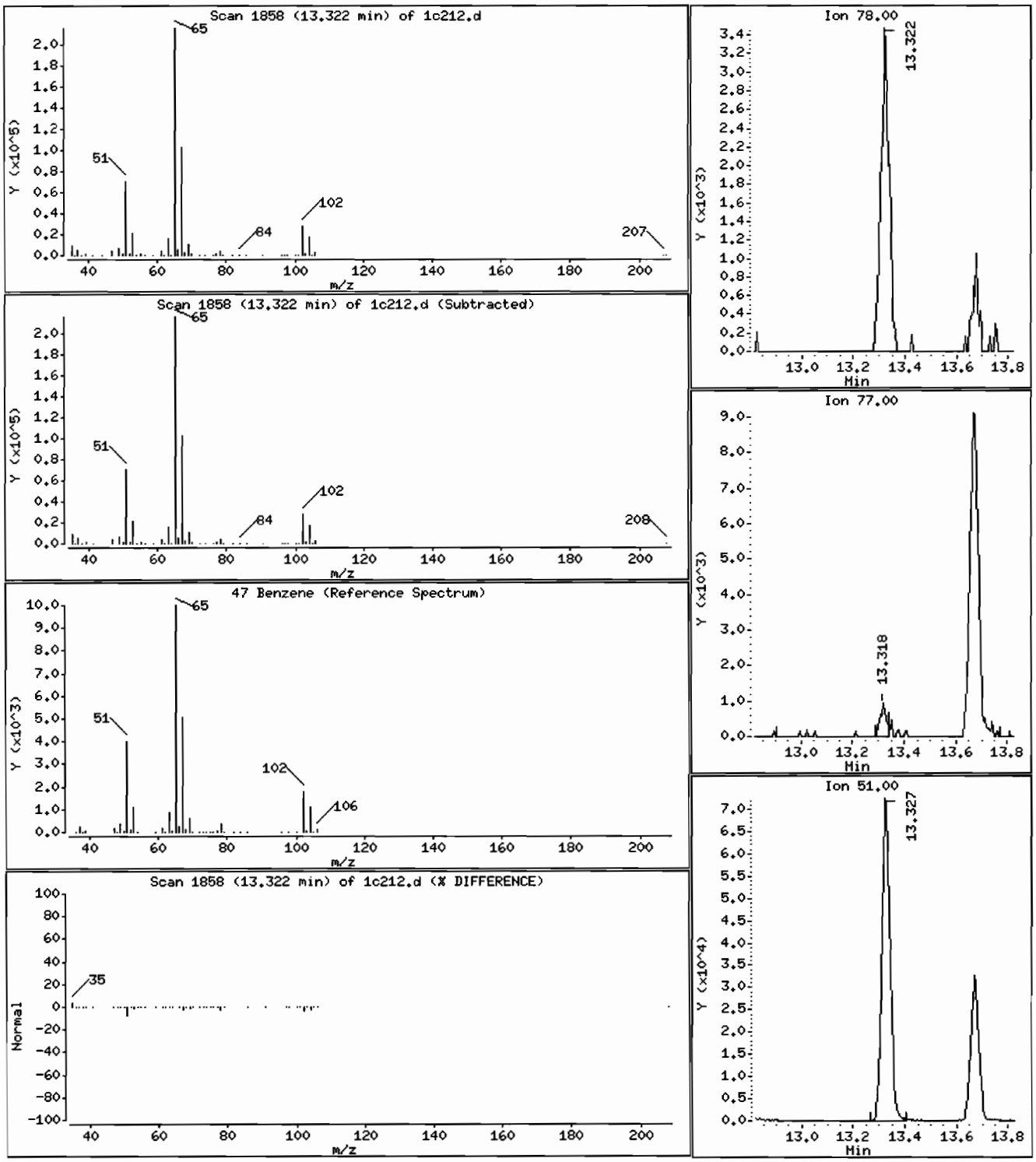

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

54 Trichloroethylene

Concentration: 4480 ug/Kg

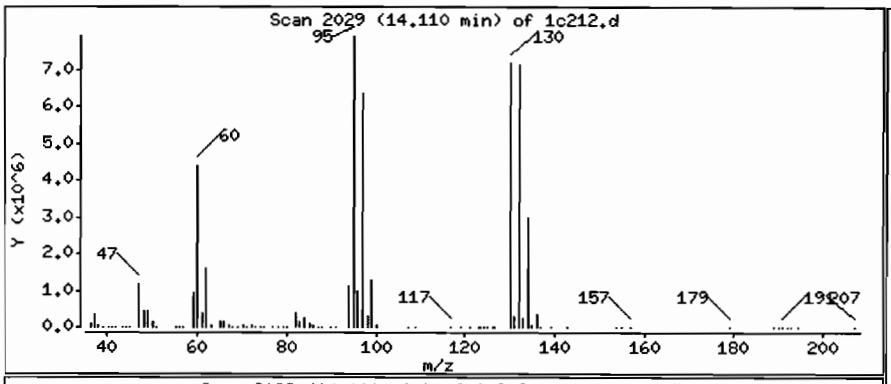

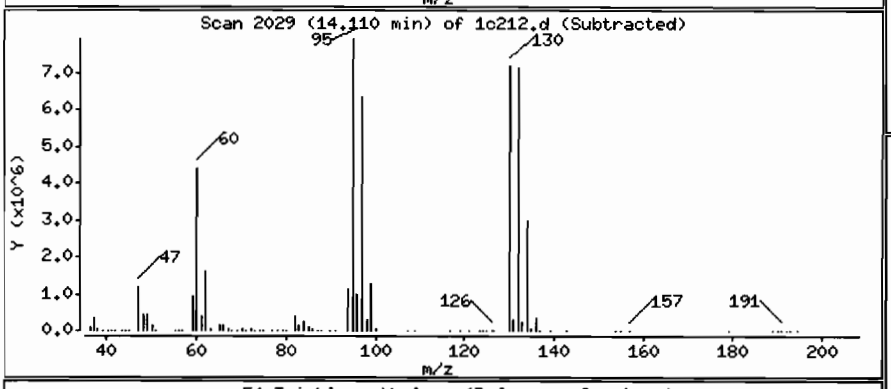

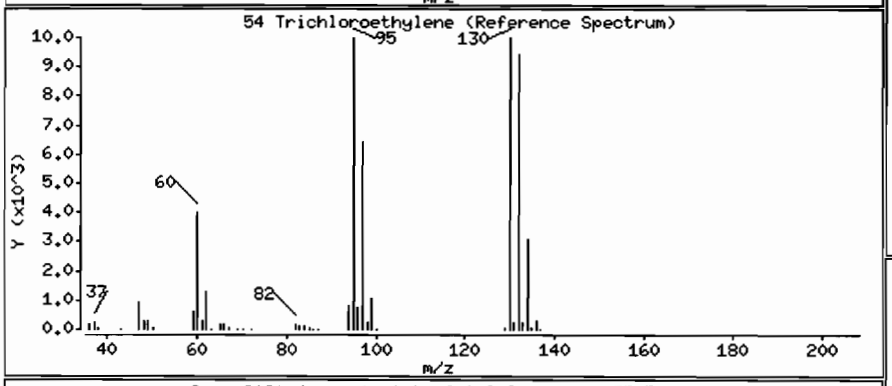

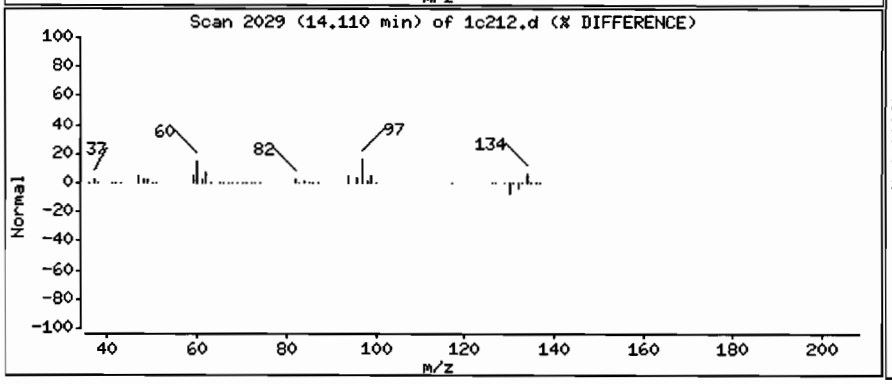

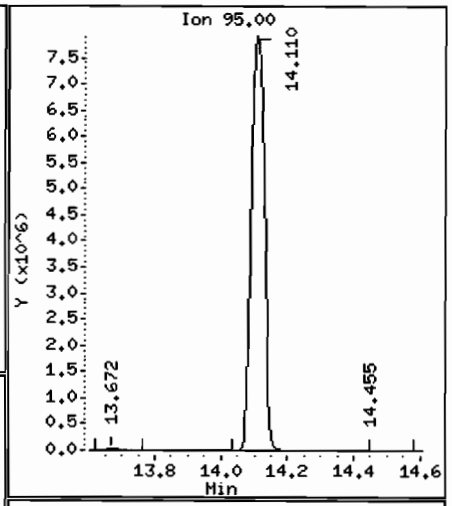

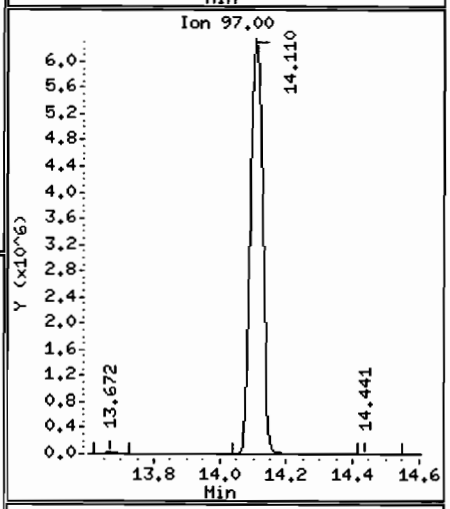

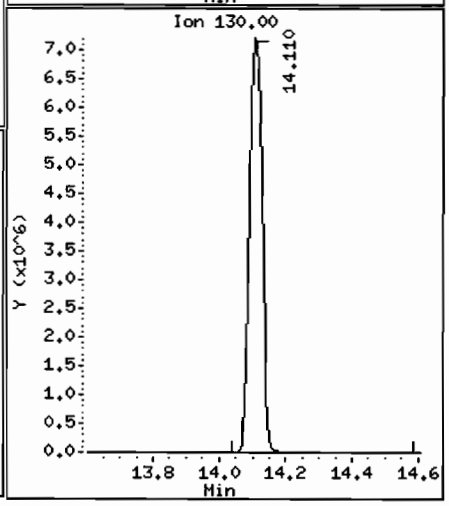

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

57 1,2-Dichloropropane

Concentration: 4.5 ug/Kg

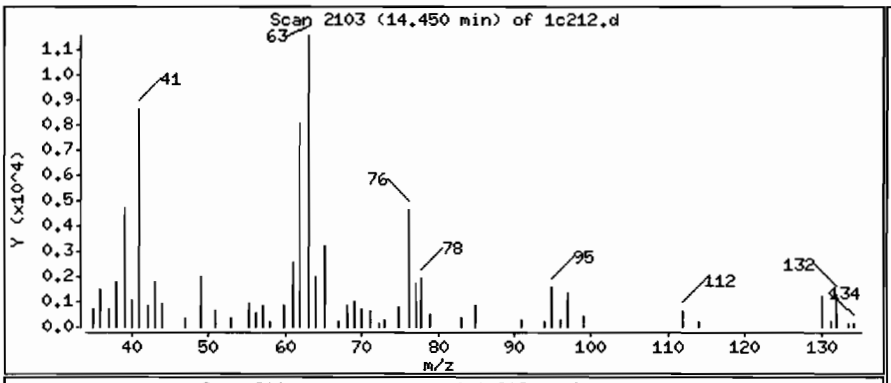

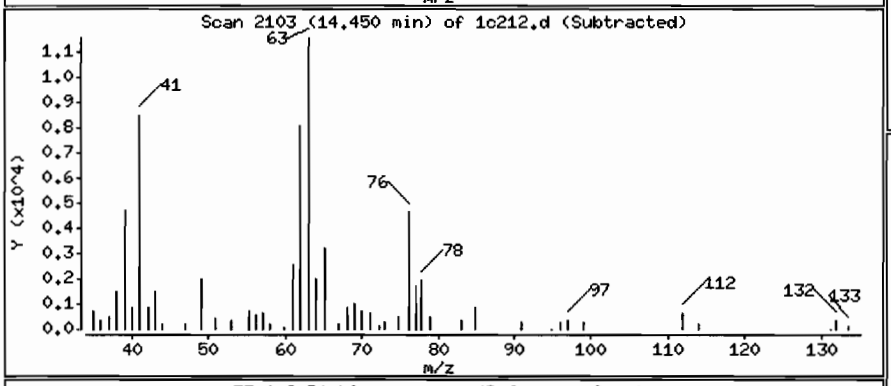

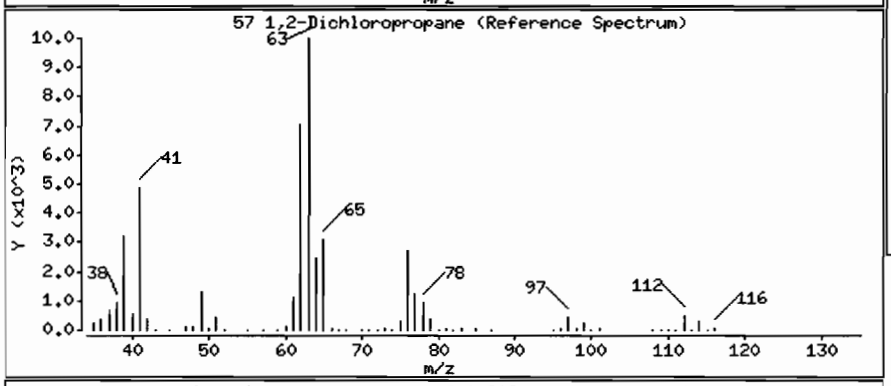

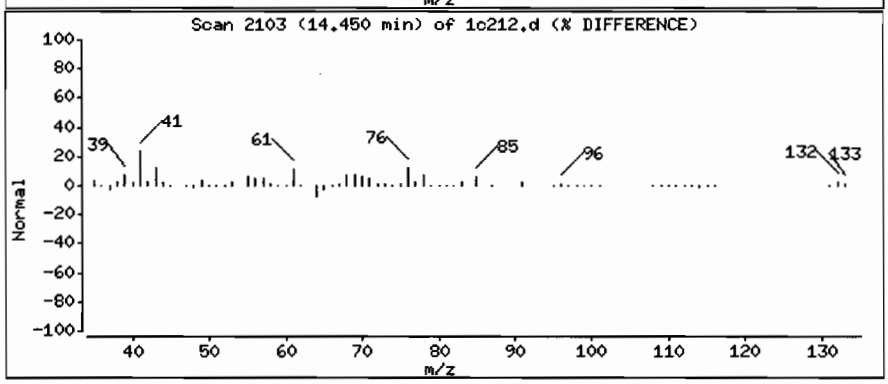

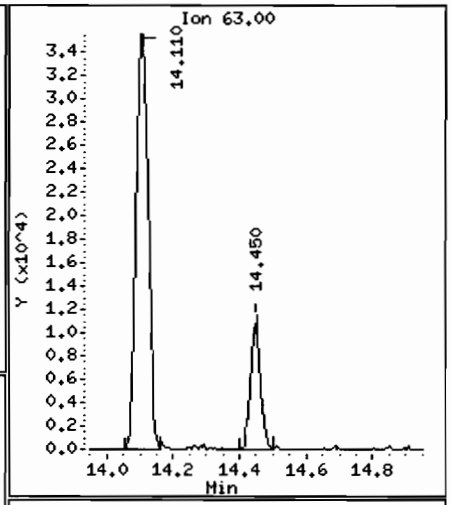

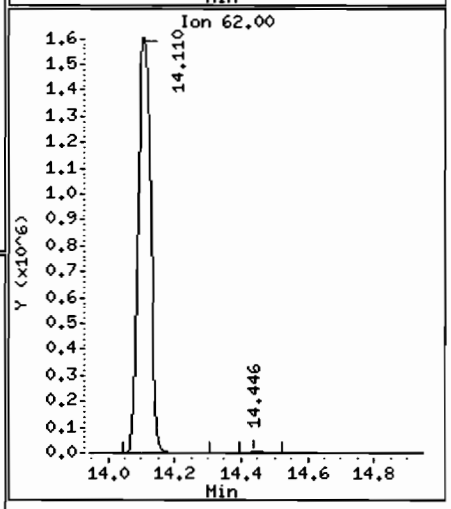

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

66 Toluene

Concentration: 11.5 ug/Kg

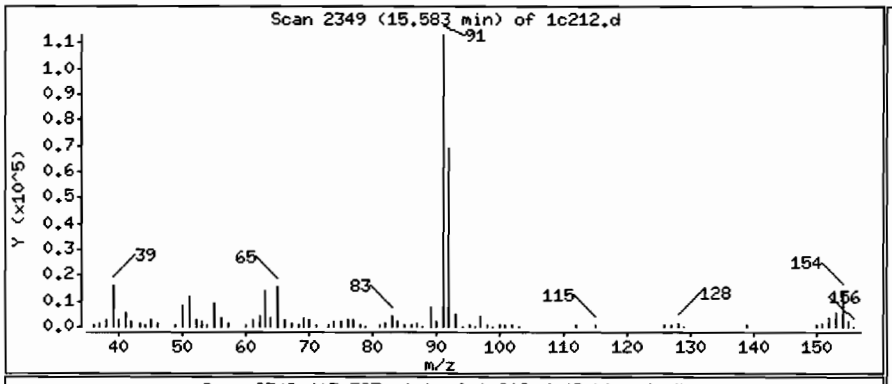

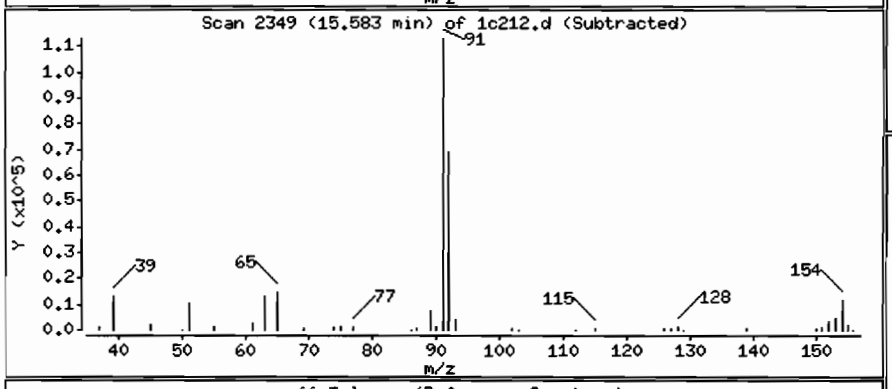

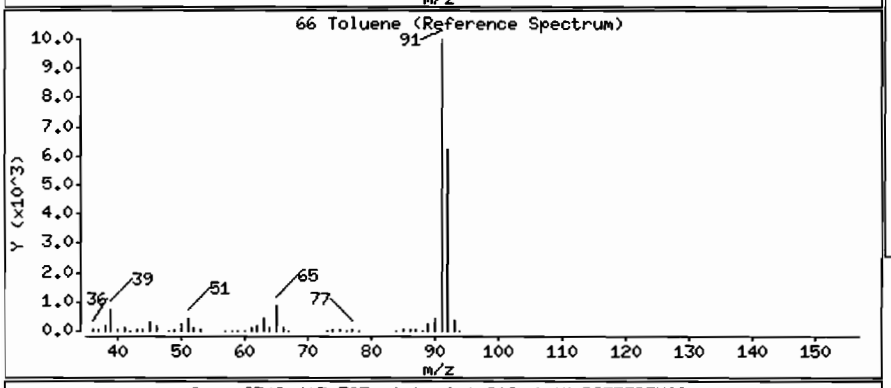

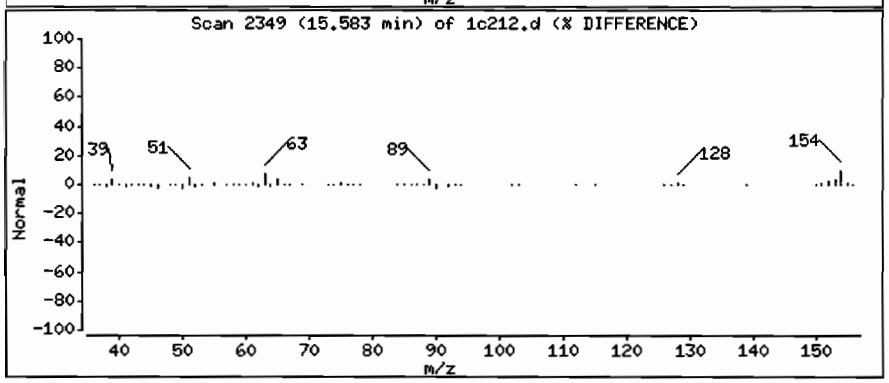

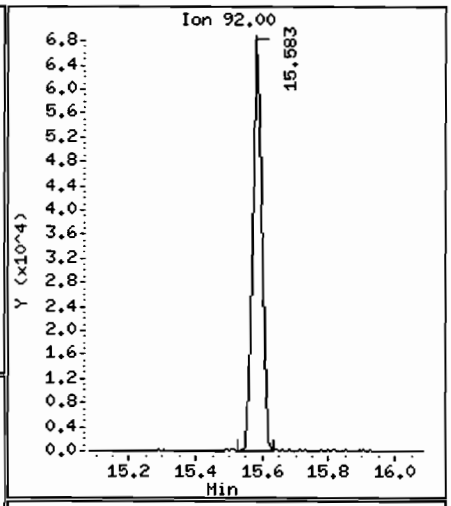

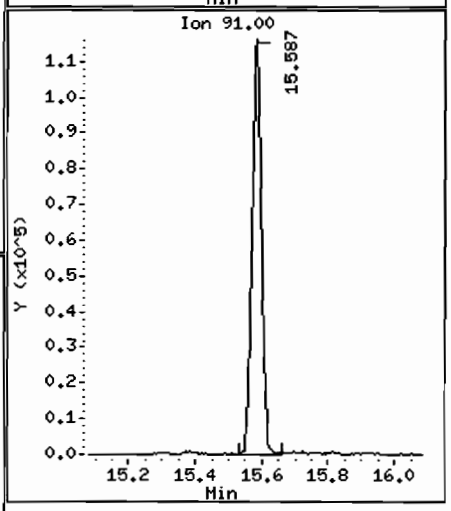

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

70 Tetrachloroethylene

Concentration: 407 ug/Kg

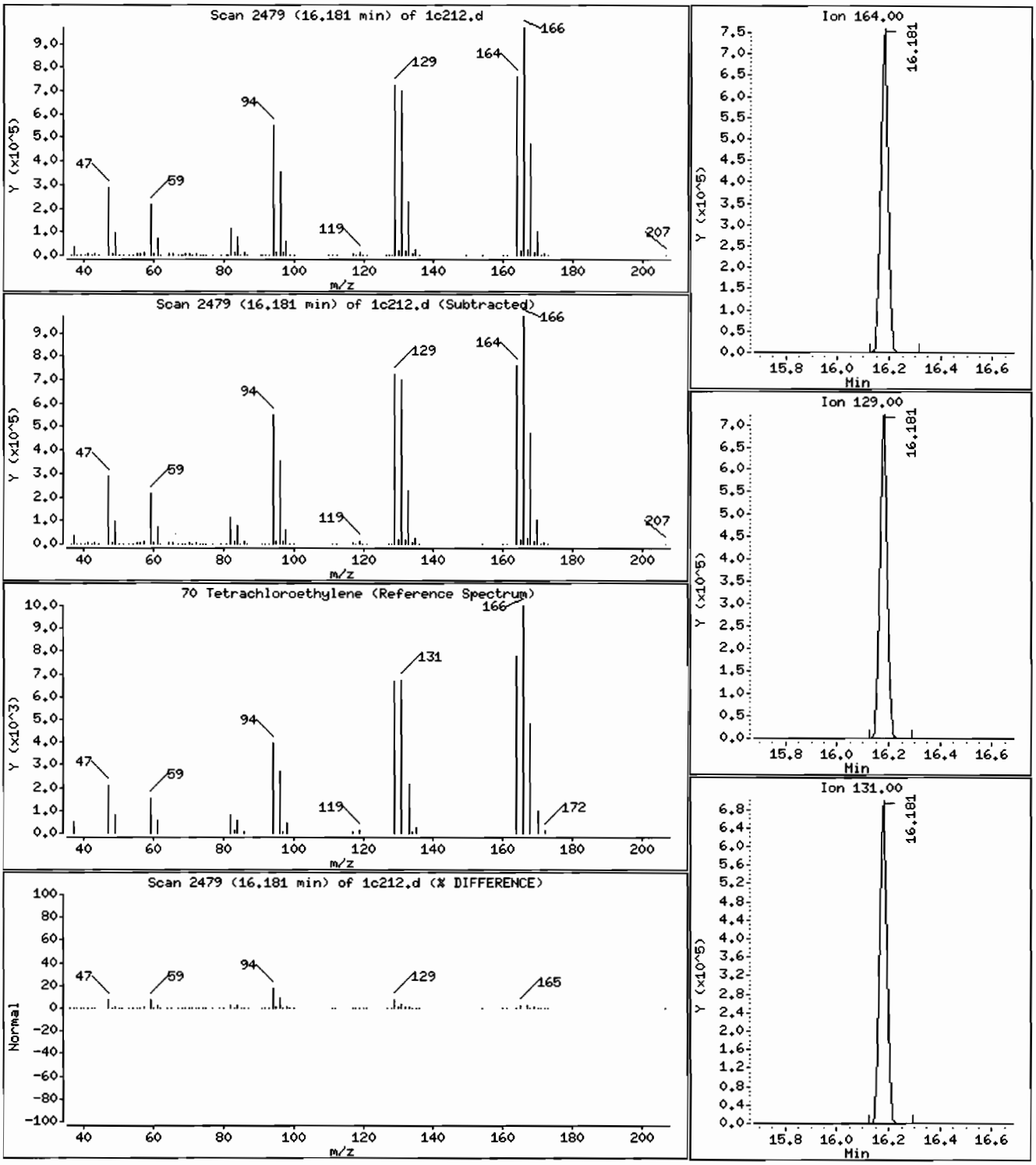

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

79 1,1,1,2-Tetrachloroethane

Concentration: 3.4 ug/Kg

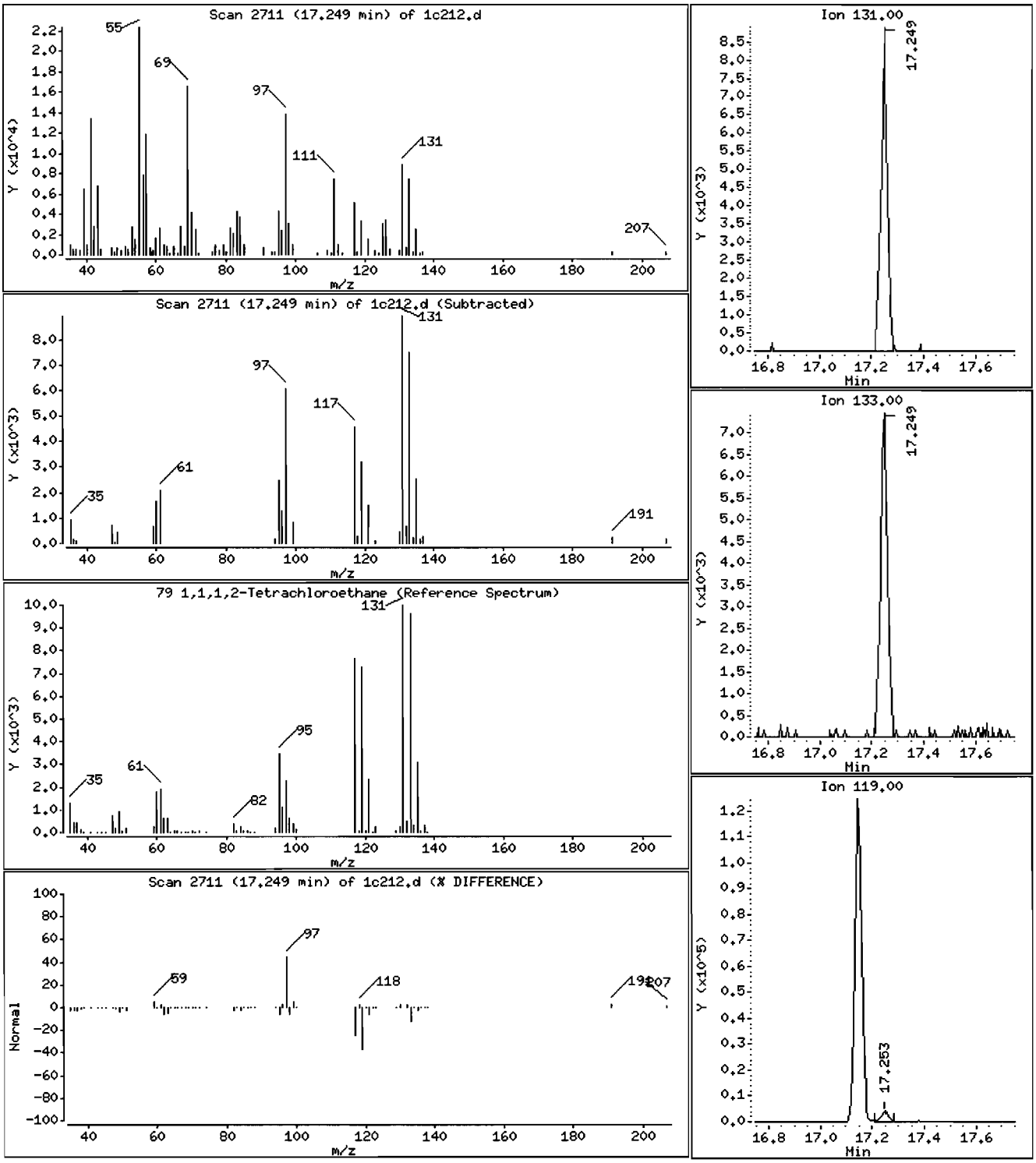

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

78 Ethylbenzene

Concentration: 3.9 ug/Kg

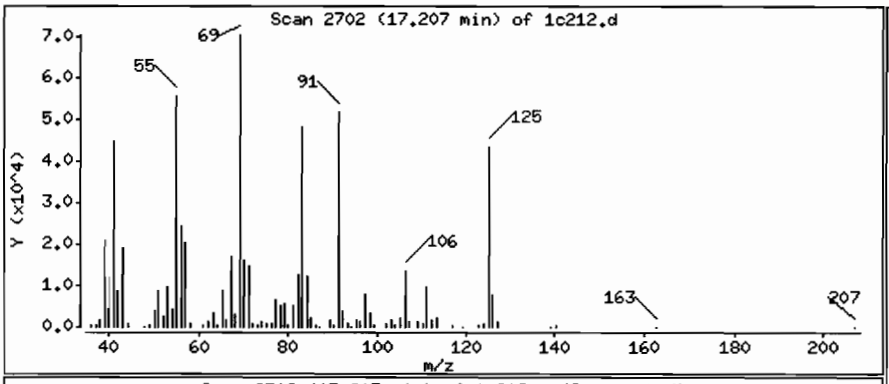

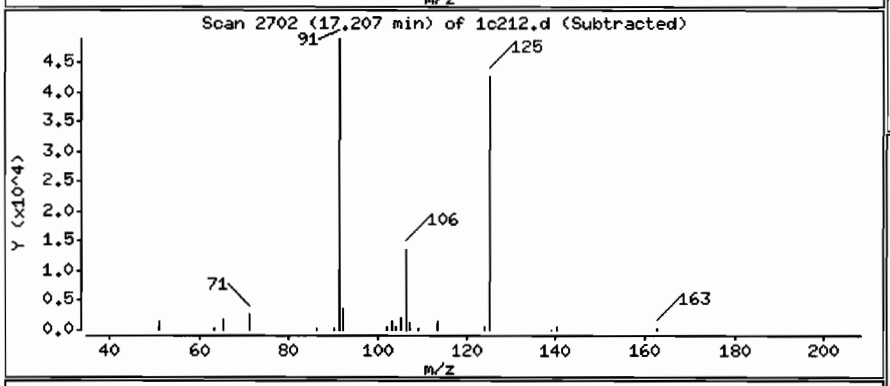

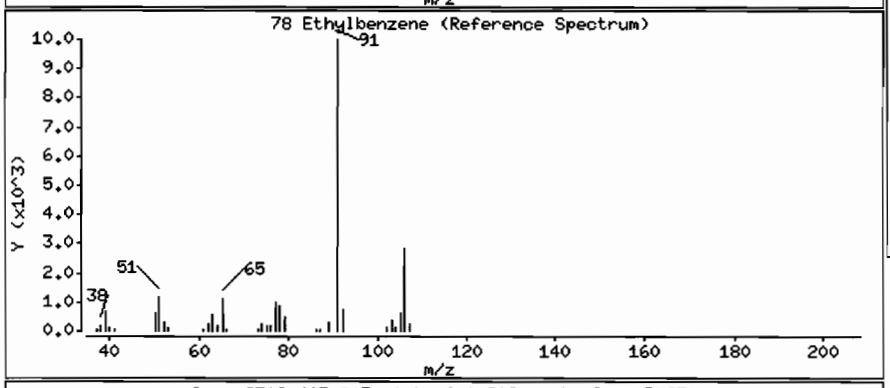

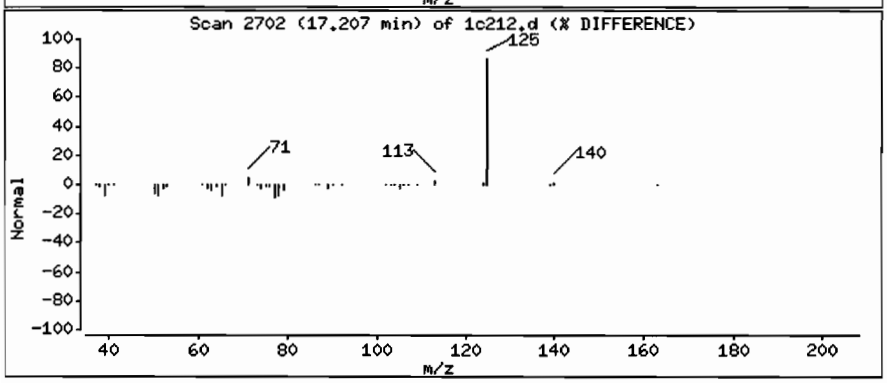

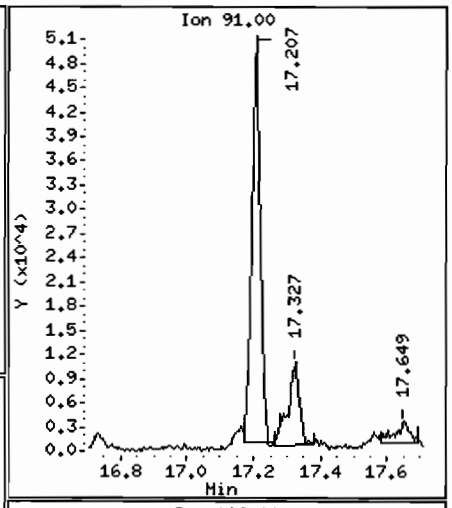

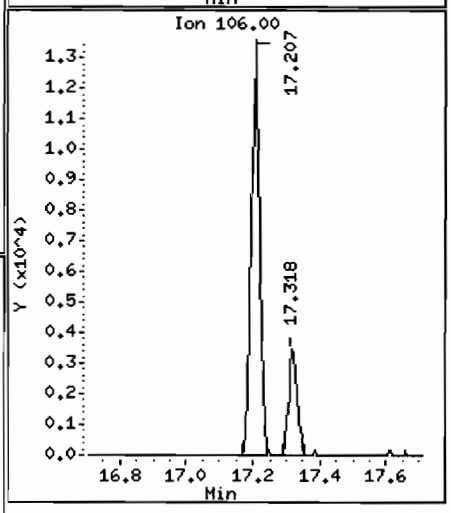

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

80 m,p-Xylenes

Concentration: 0.76 ug/Kg

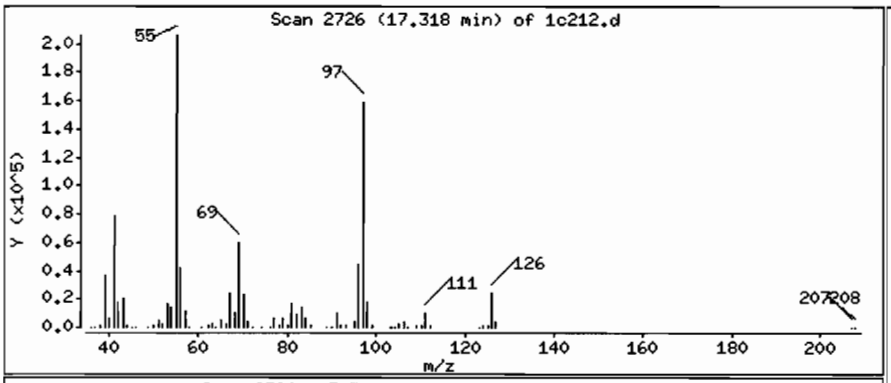

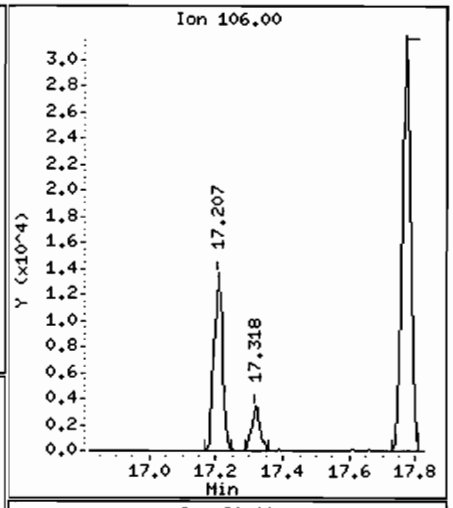

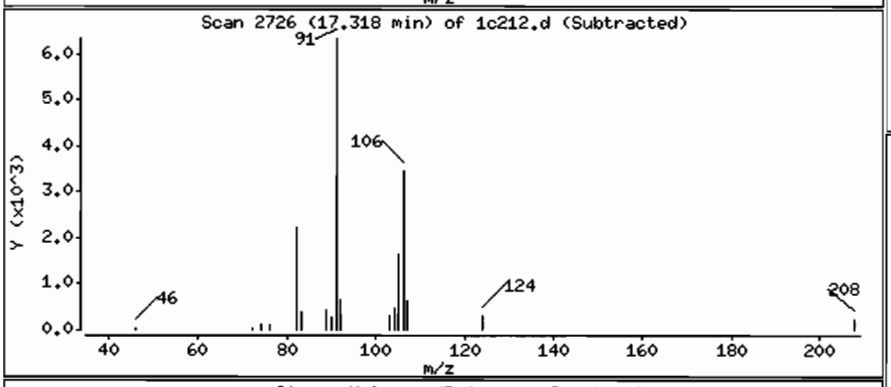

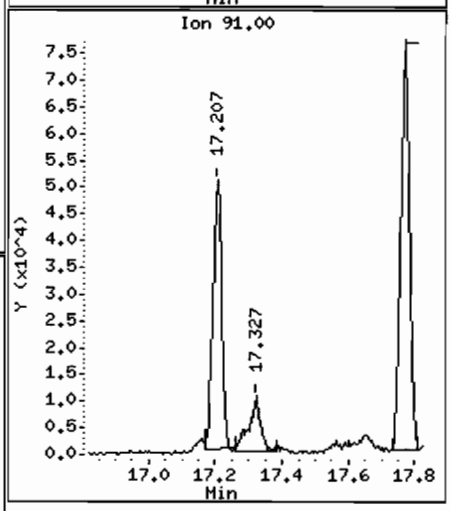

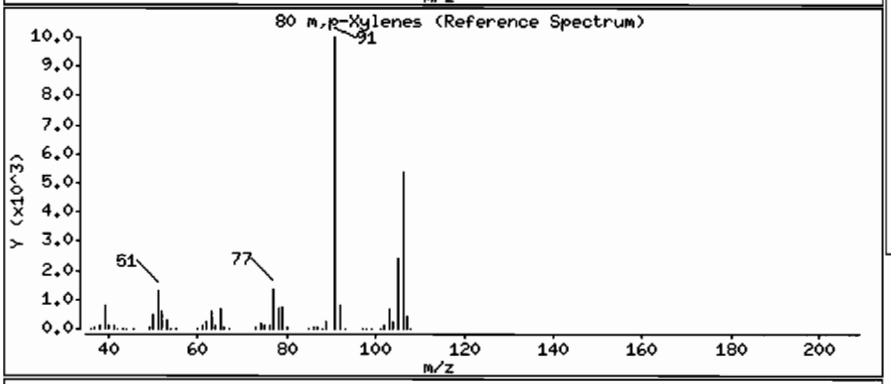

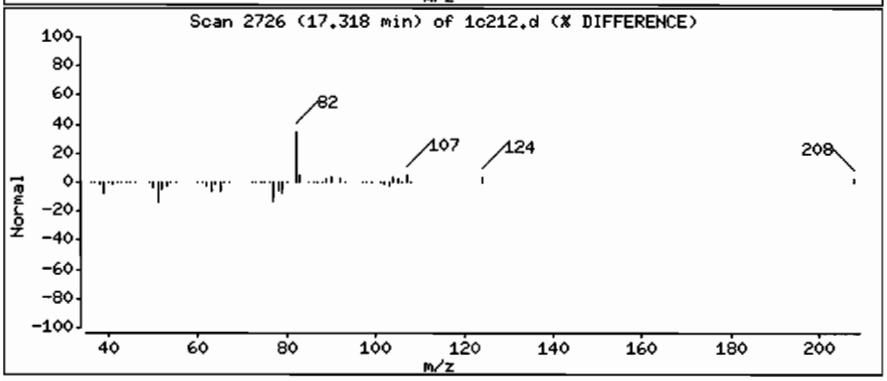

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

81 o-Xylene

Concentration: 7.2 ug/Kg

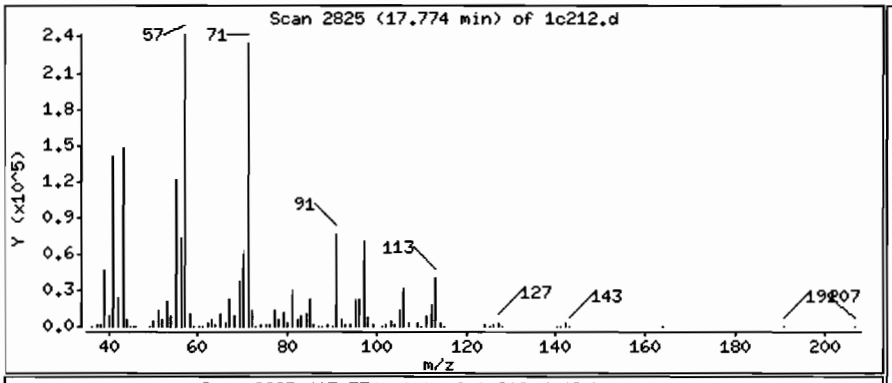

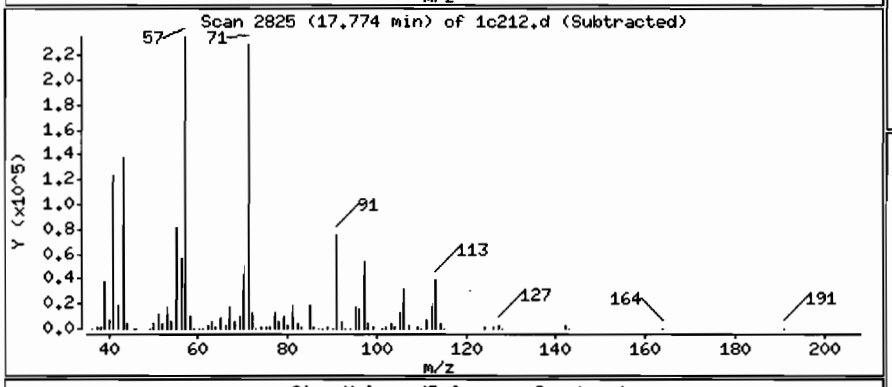

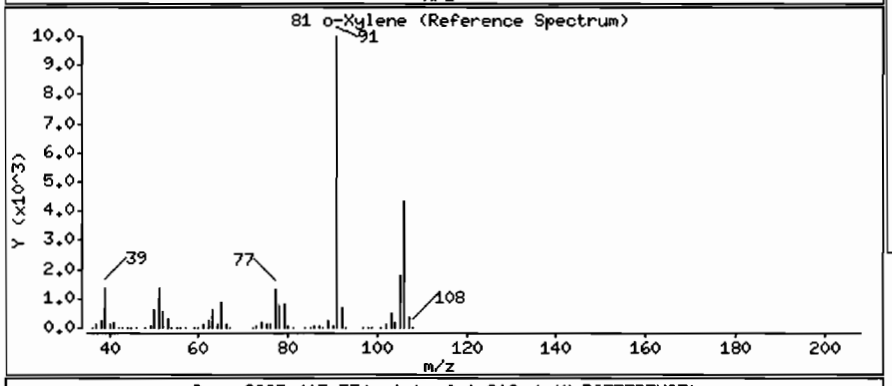

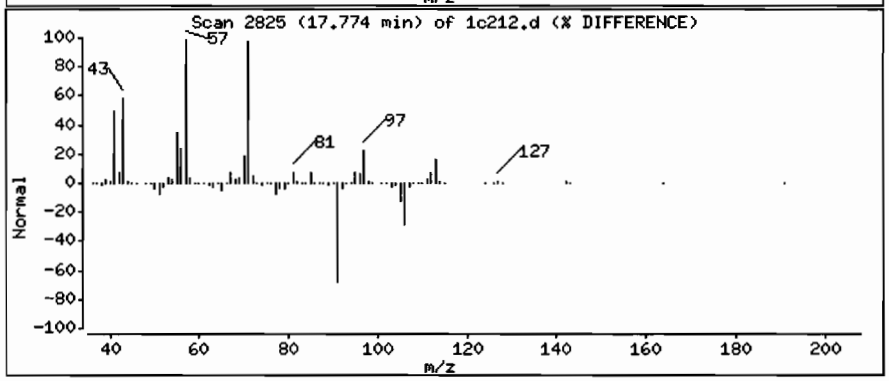

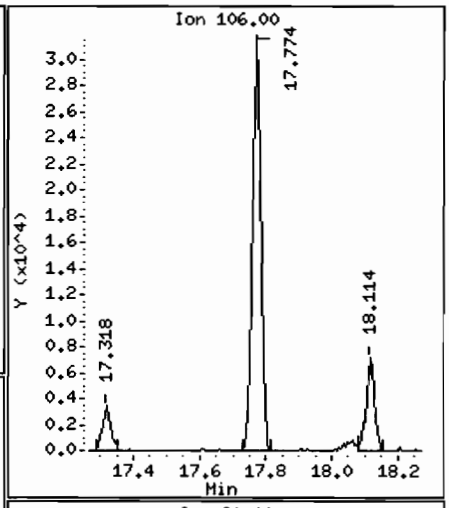

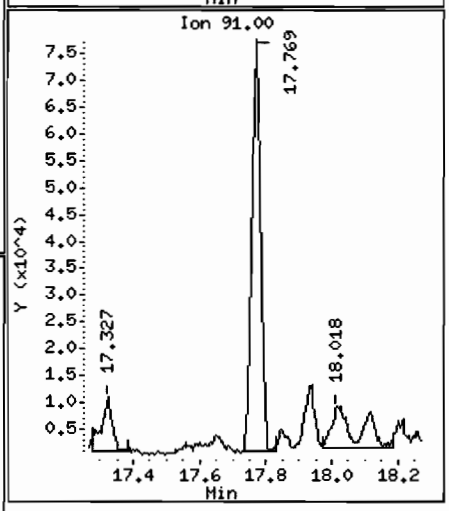

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

89 n-Propylbenzene

Concentration: 22.1 ug/Kg

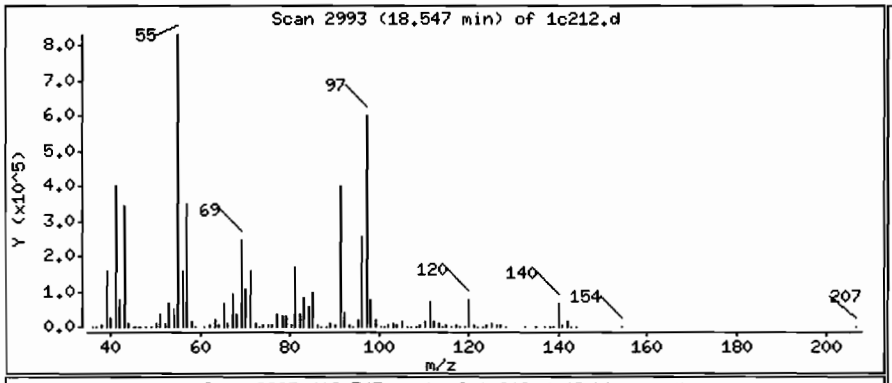

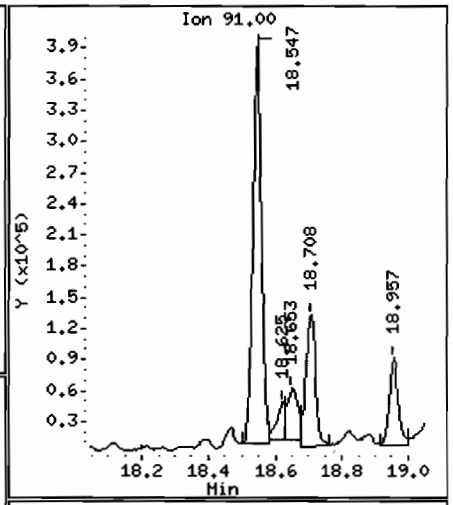

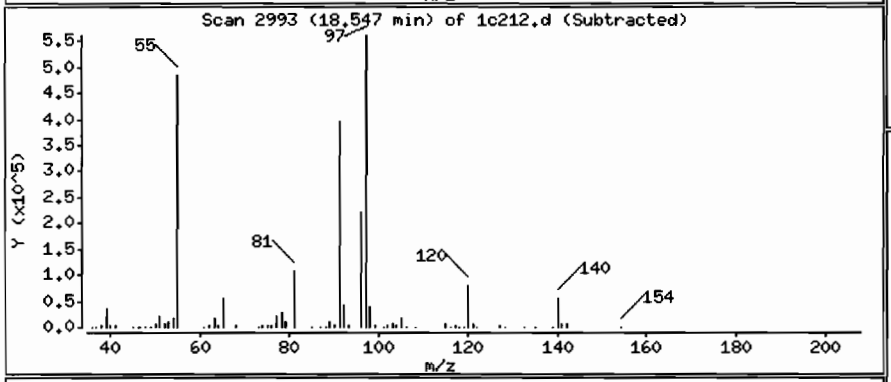

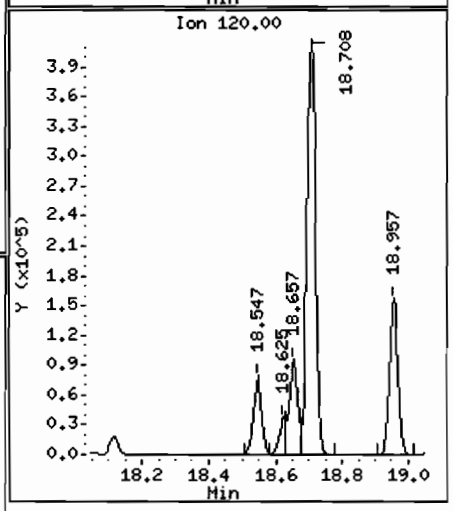

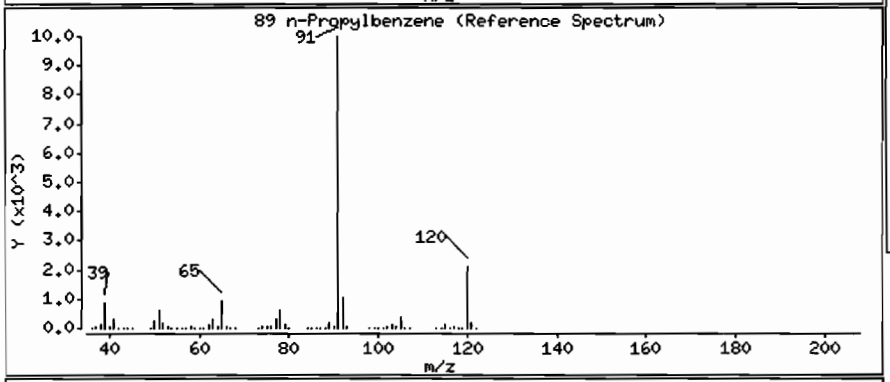

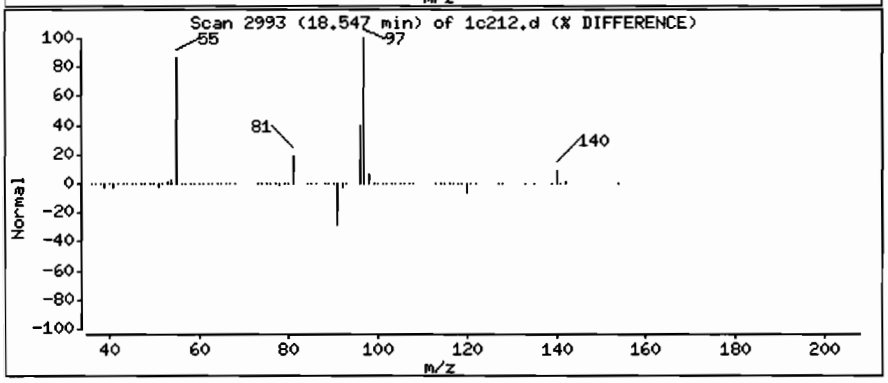

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

84 Isopropylbenzene

Concentration: 5.6 ug/Kg

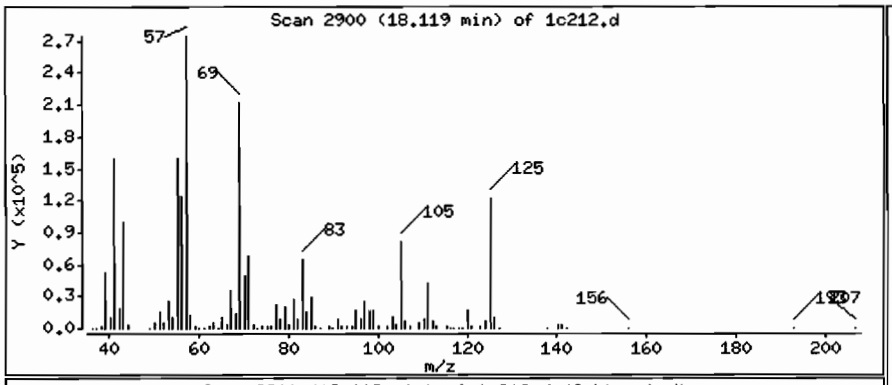

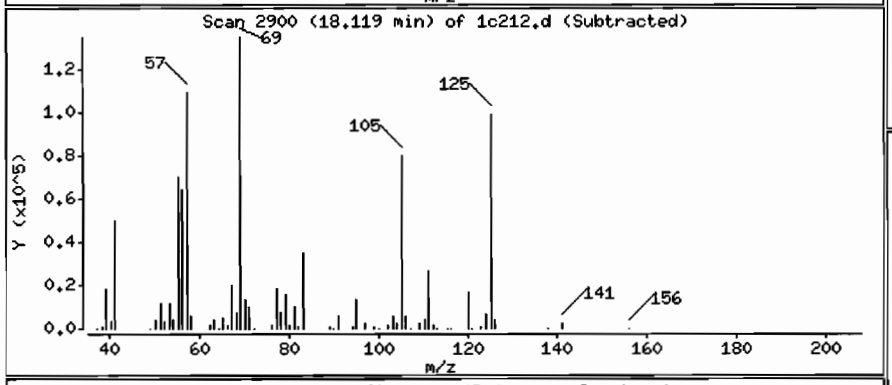

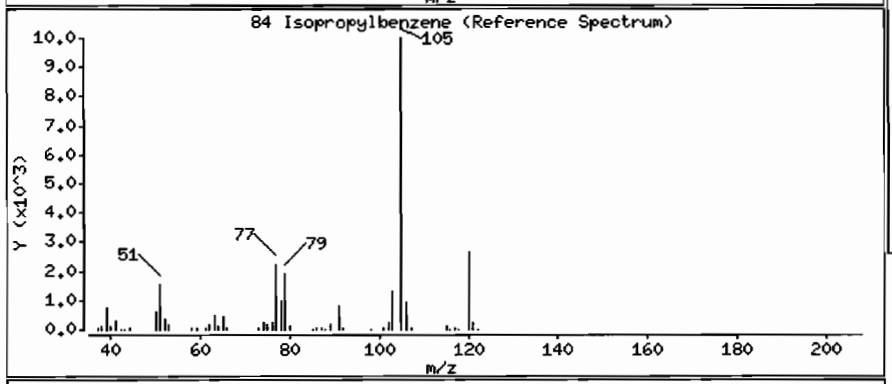

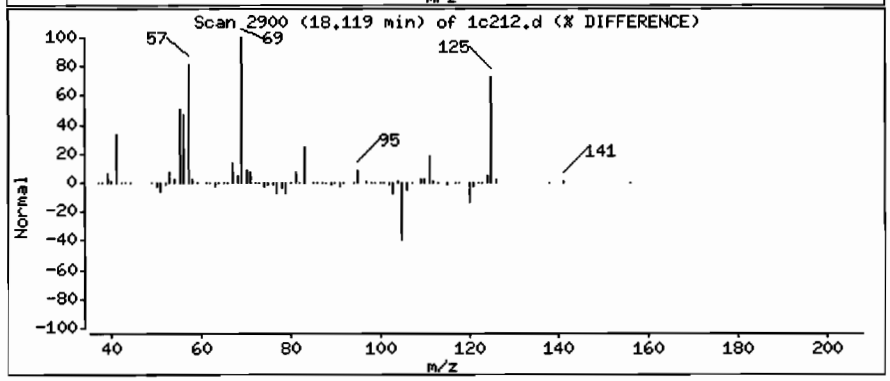

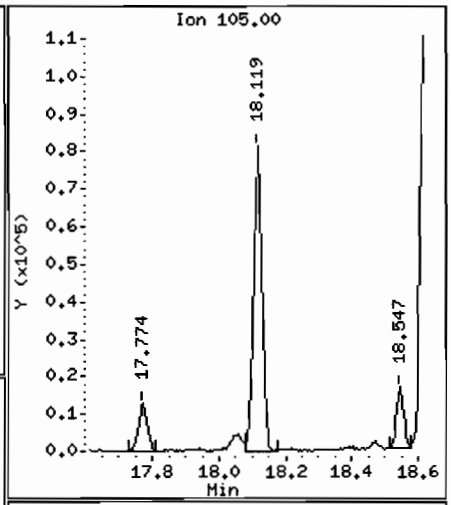

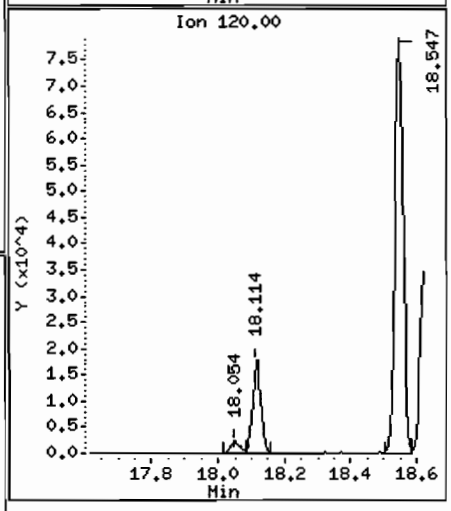

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

93 1,3,5-Trimethylbenzene

Concentration: 79.7 ug/Kg

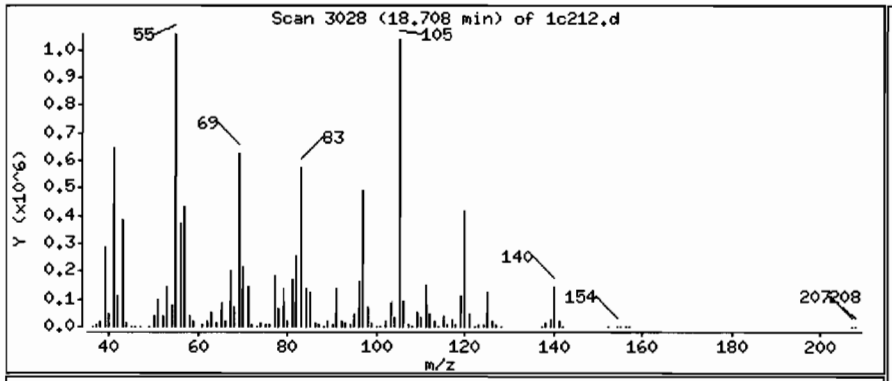

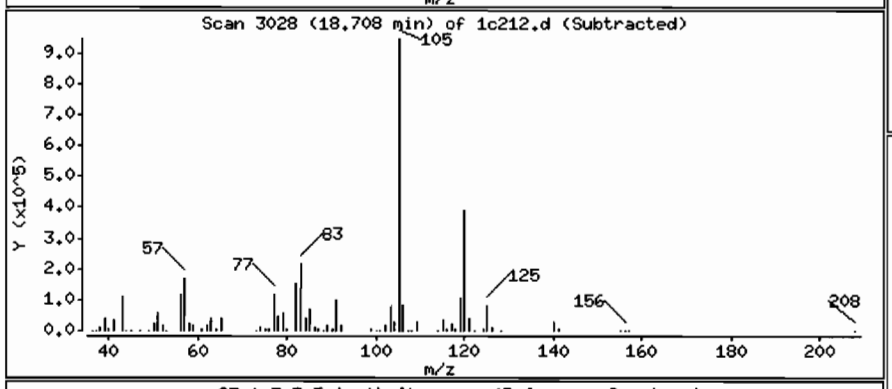

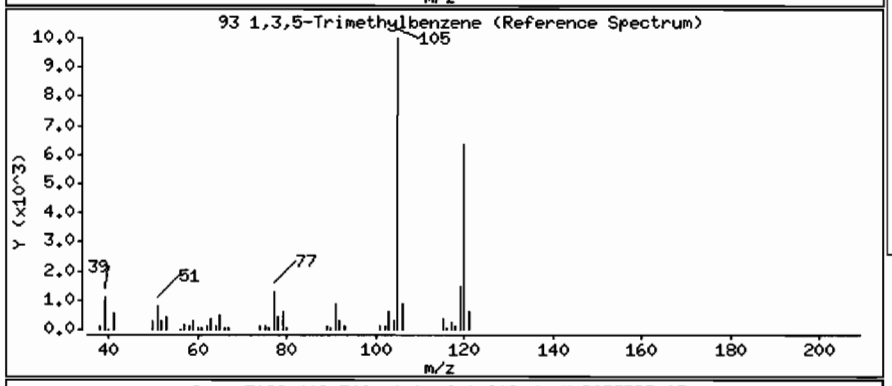

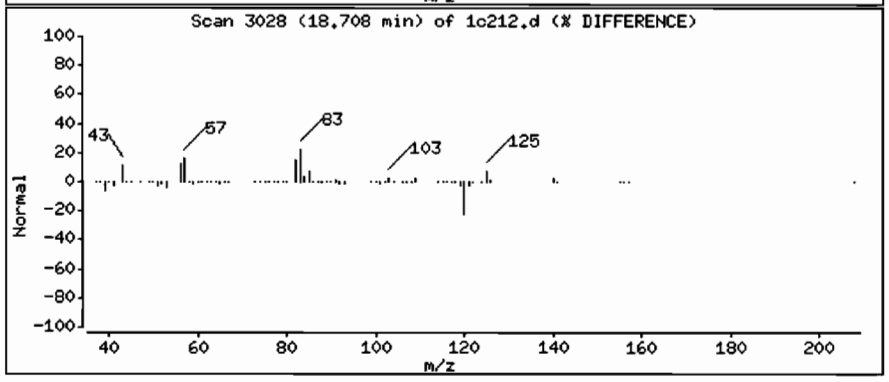

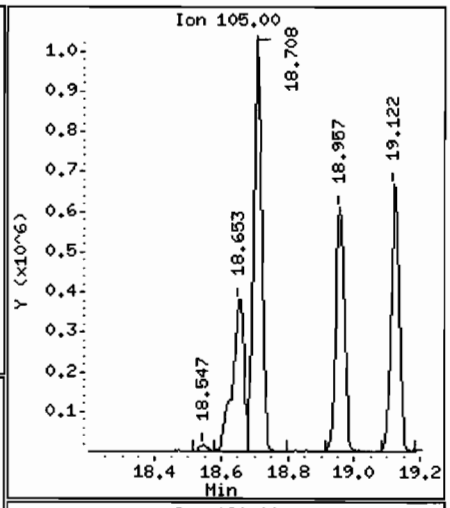

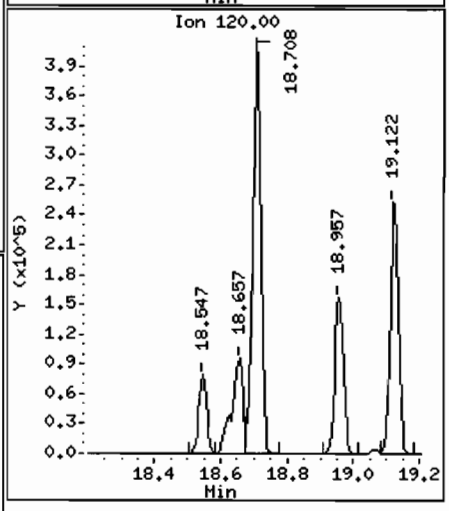

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

97 1,2,4-Trimethylbenzene

Concentration: 49.7 ug/Kg

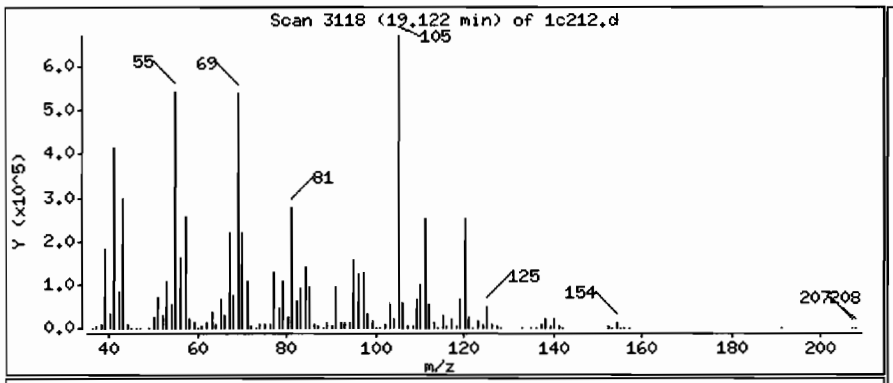

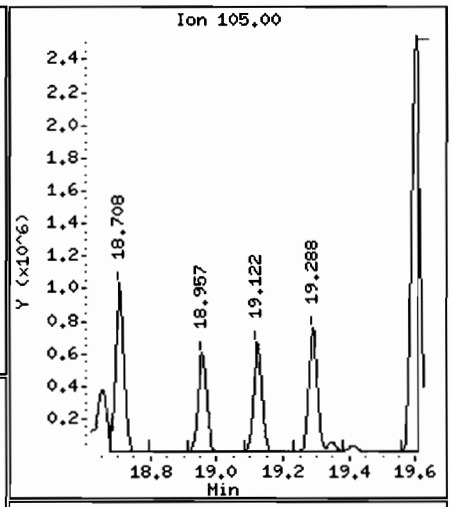

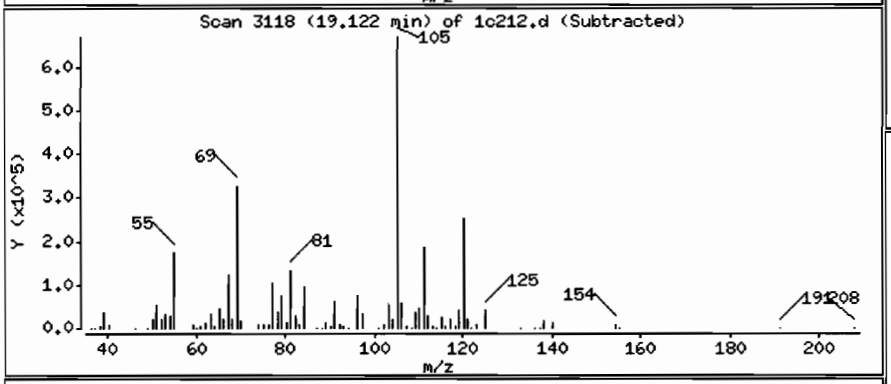

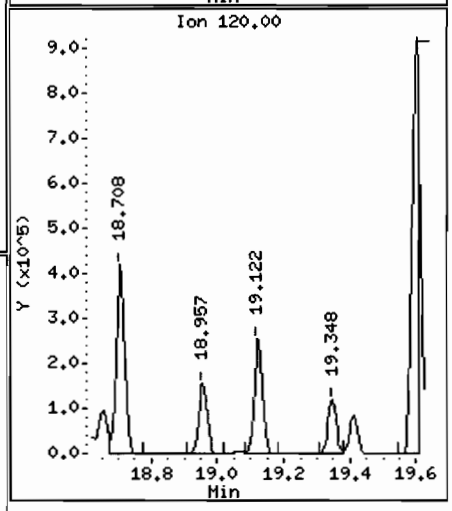

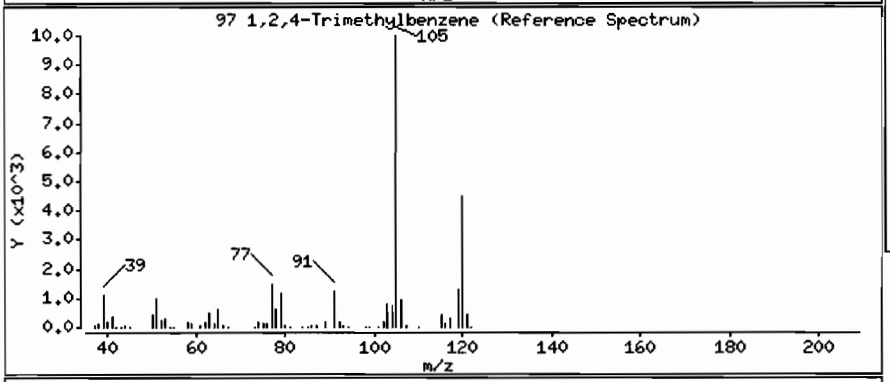

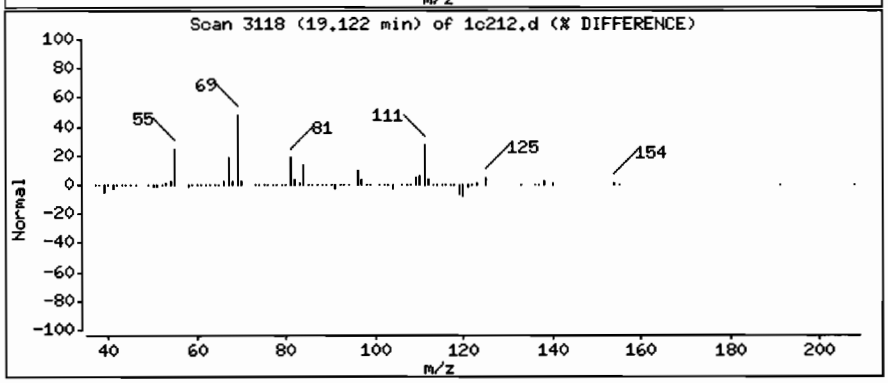

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

99 sec-Butylbenzene

Concentration: 47.1 ug/Kg

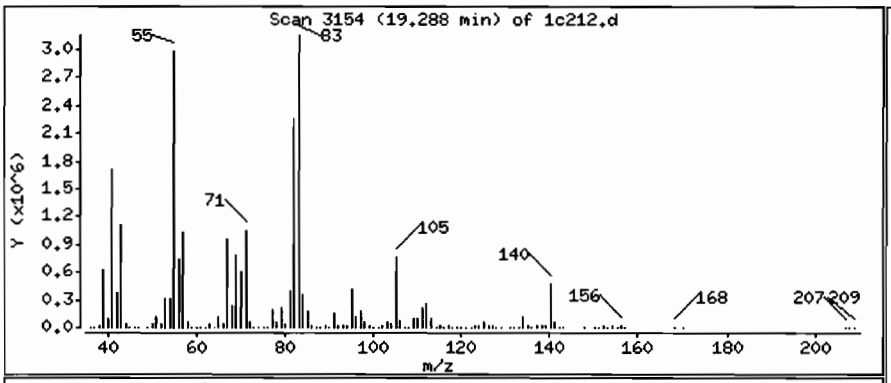

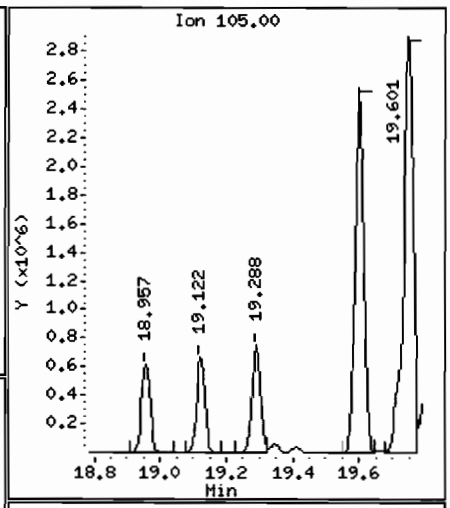

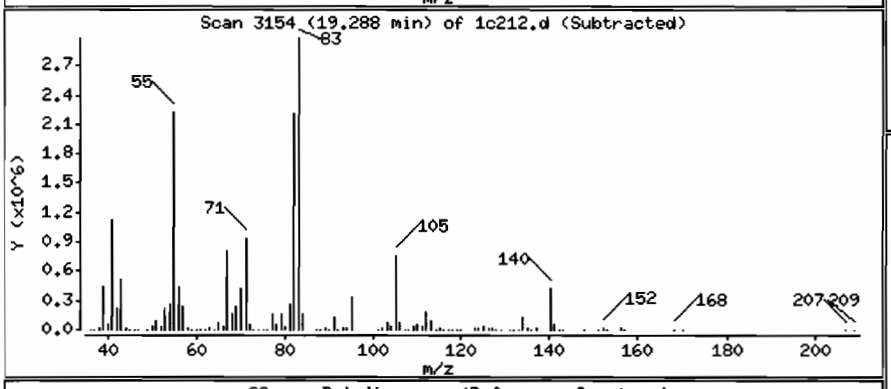

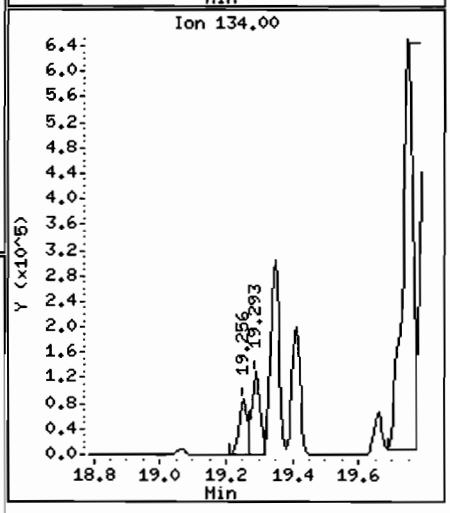

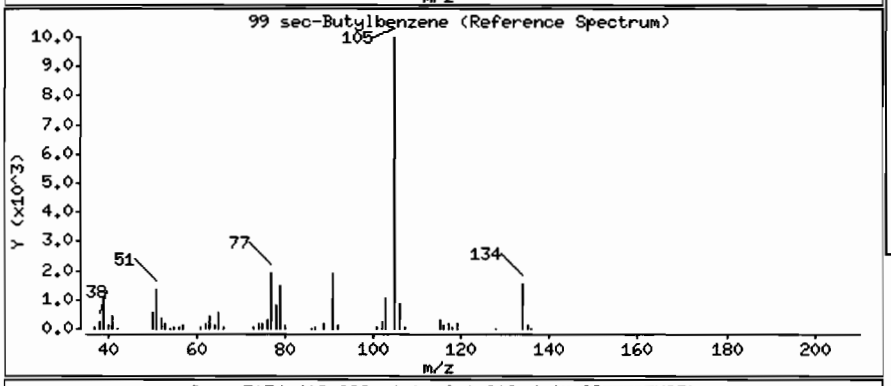

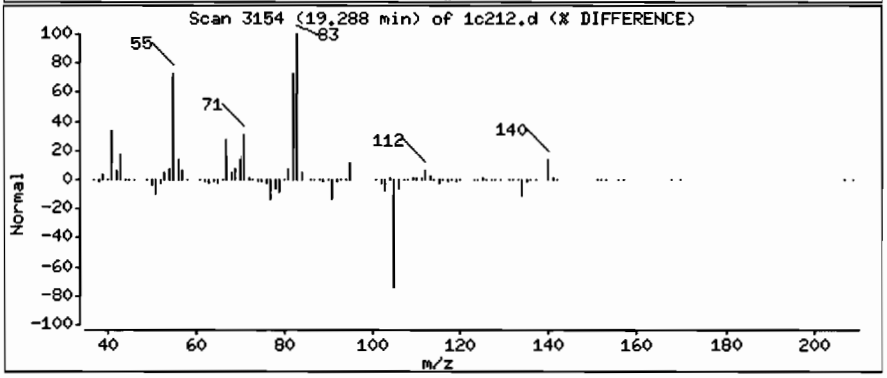

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

100 4-Isopropyltoluene

Concentration: 65.8 ug/Kg

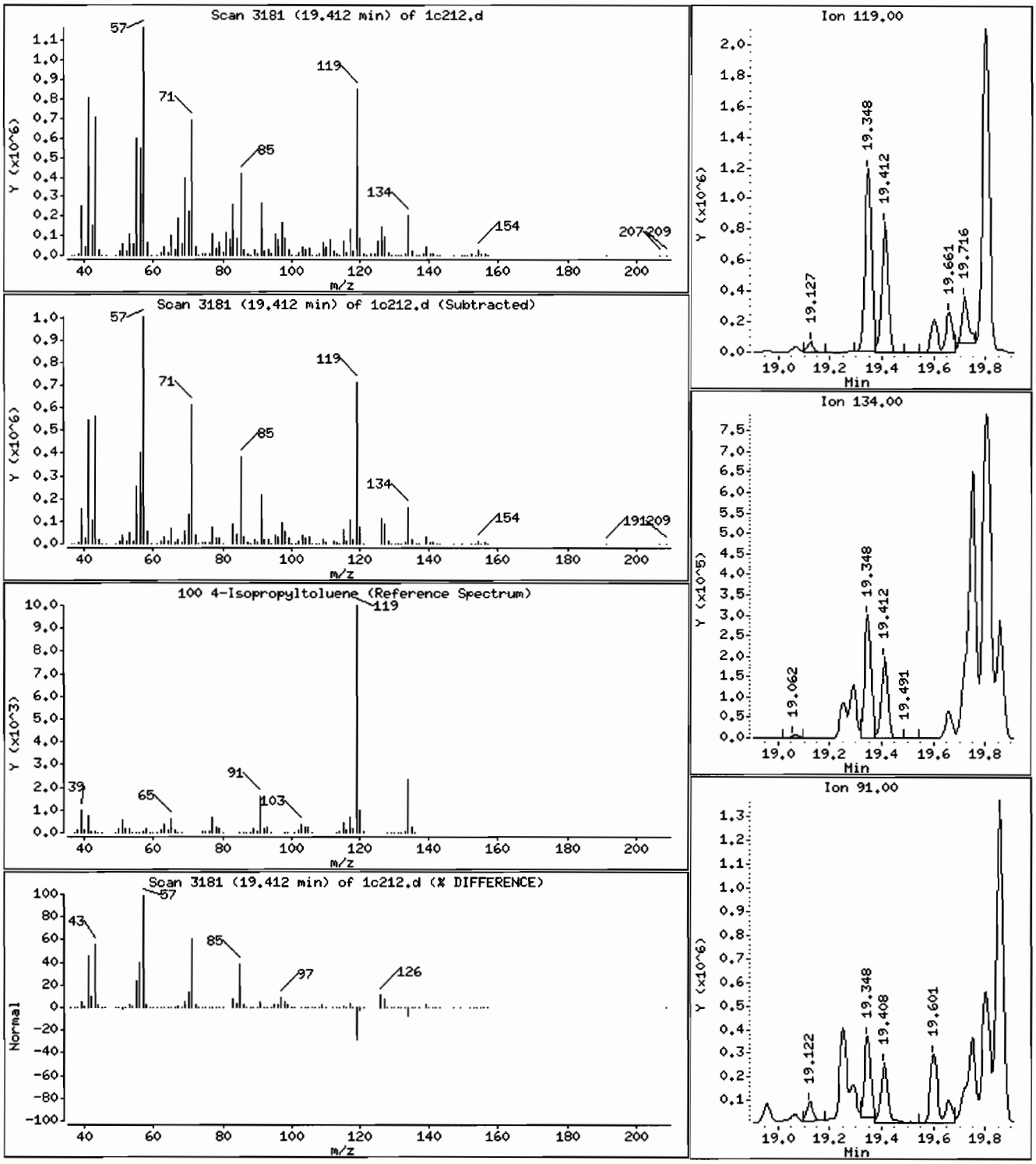

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

105 n-Butylbenzene

Concentration: 103 ug/Kg

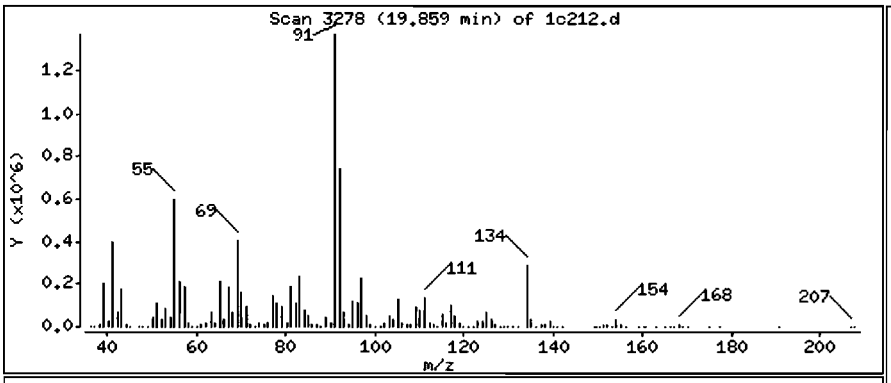

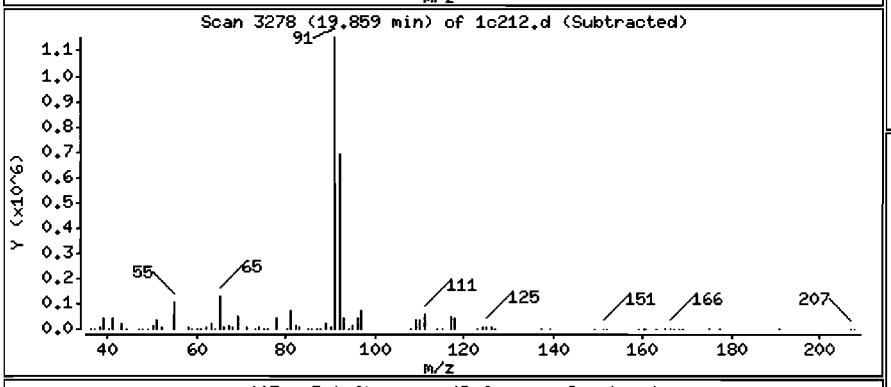

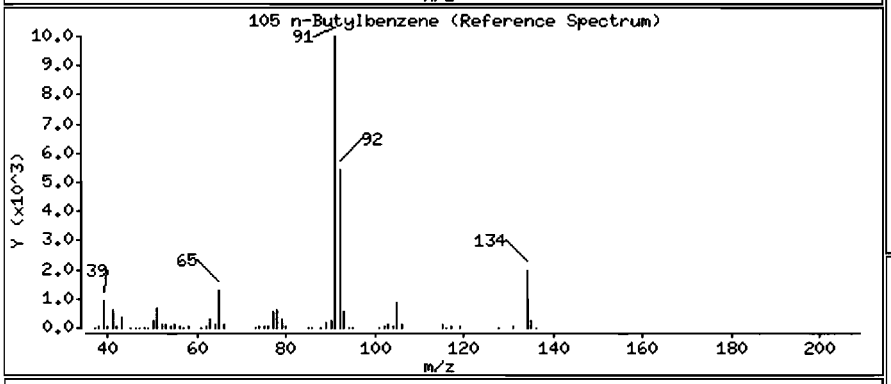

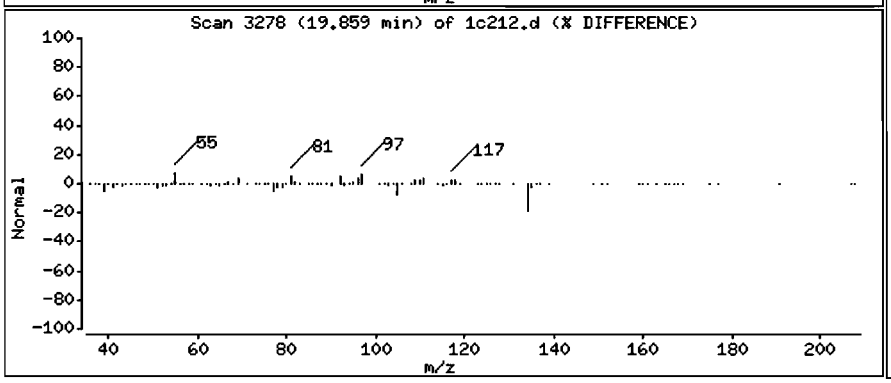

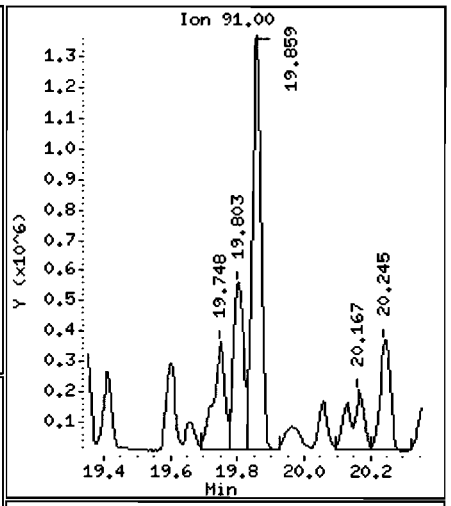

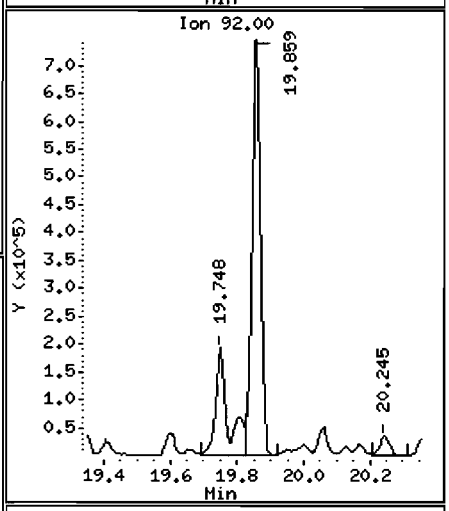

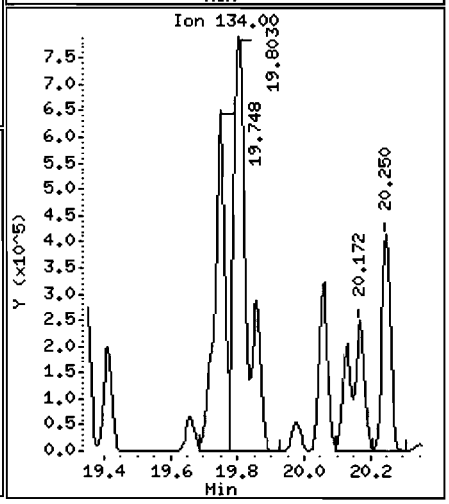

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Cyclohexane, 1,1,3-trimethyl-	3073-66-3	NIST05.L	11242	95	C9H18	126
Cyclohexane, 1,1,3-trimethyl-	3073-66-3	NIST05.L	11227	92	C9H18	126
Cyclohexane, 1,1,3-trimethyl-	3073-66-3	NIST05.L	11241	92	C9H18	126

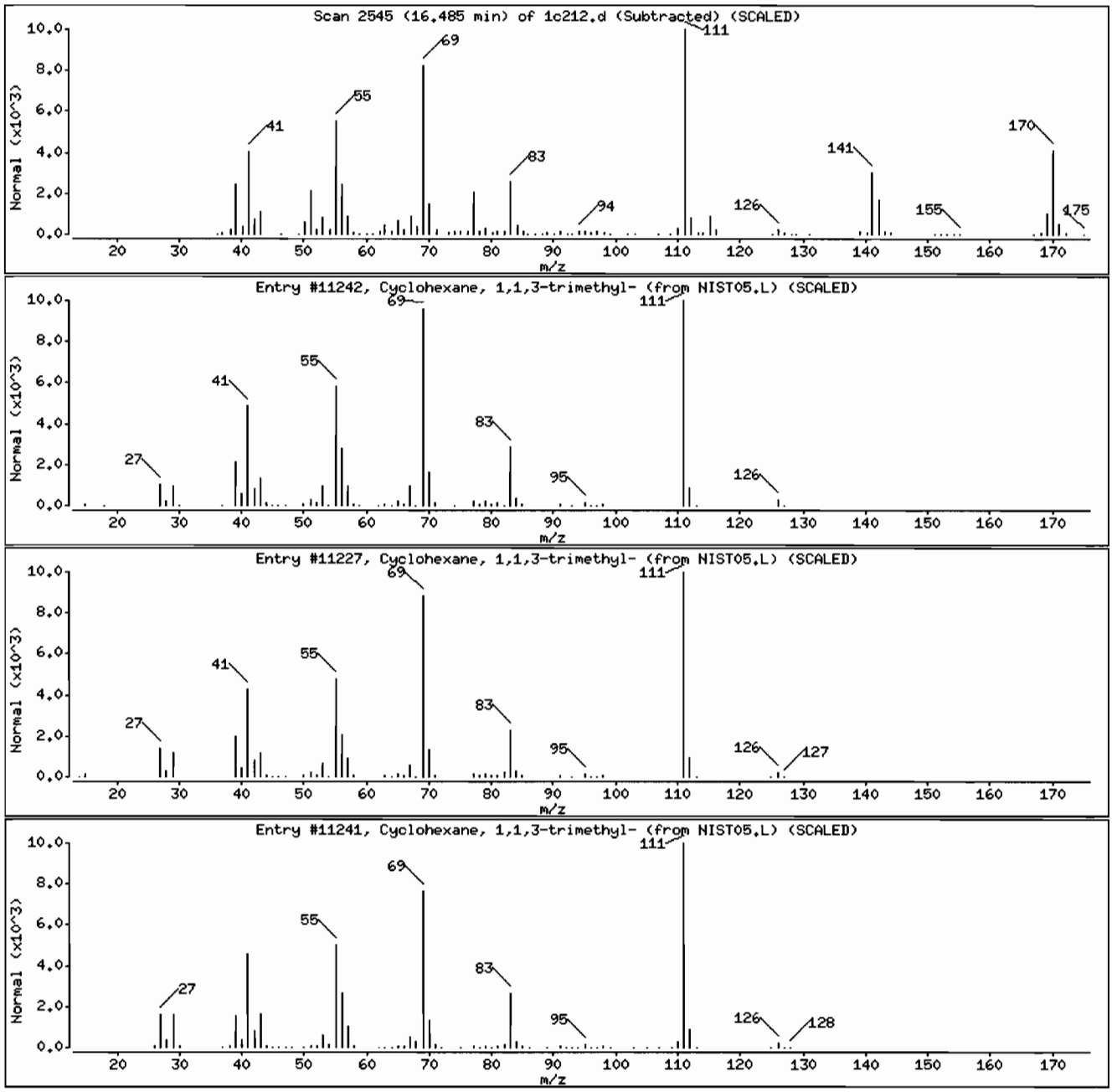

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Octane, 4-methyl-	2216-34-4	NIST05.L	12279	76	C9H20	128
Octane	111-65-9	NIST05.L	7419	64	C8H18	114
Octane	111-65-9	NIST05.L	7421	64	C8H18	114

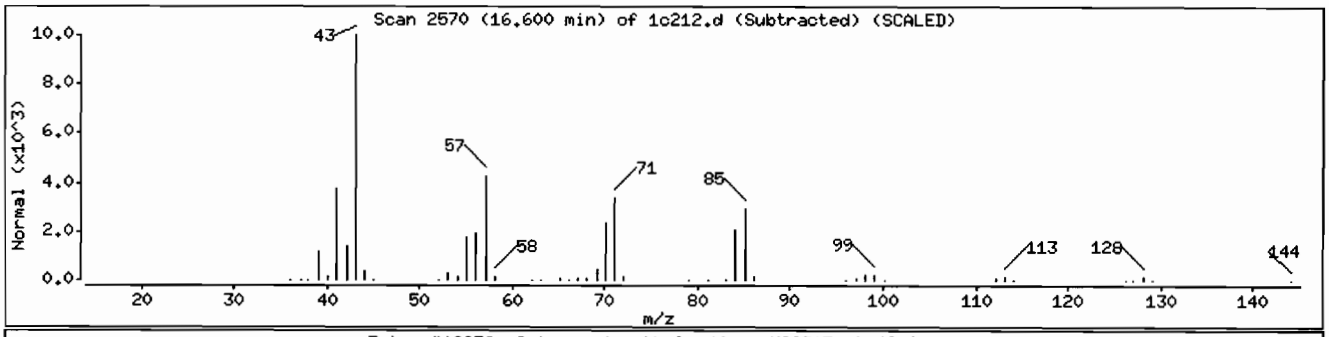

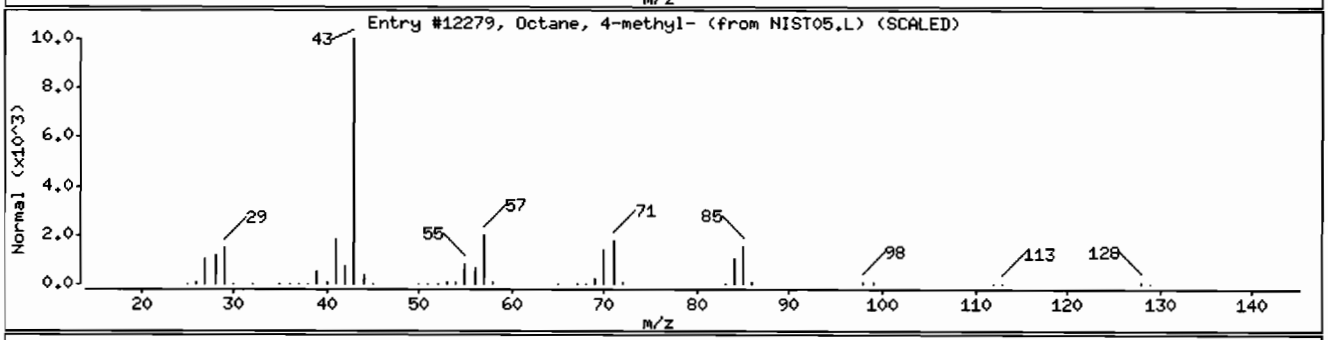

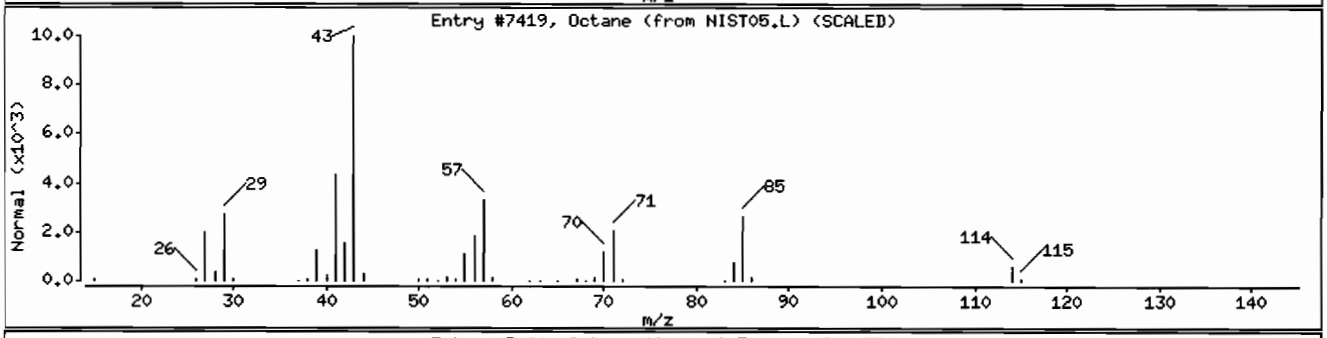

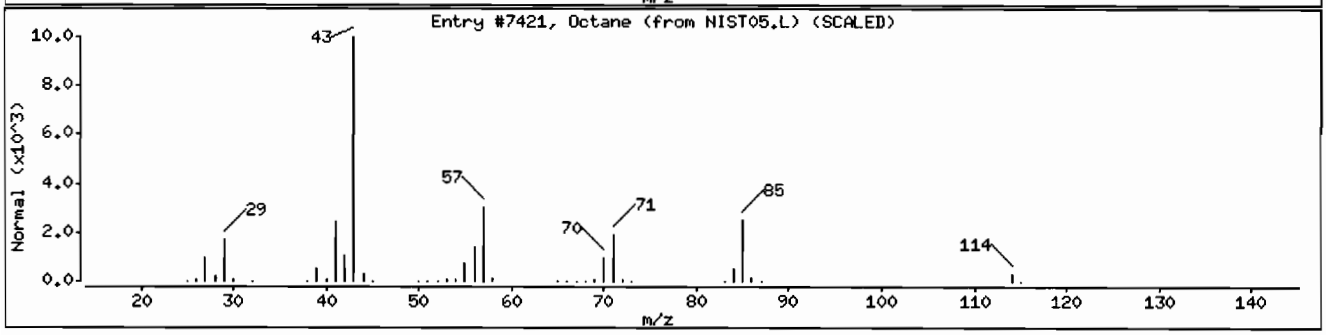

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Heptane, 3-ethyl-2-methyl-	14676-29-0	NIST05.L	18547	53	C10H22	142
Octane, 3-methyl-	2216-33-3	NIST05.L	12283	50	C9H20	128
Heptane, 4-propyl-	3178-29-8	NIST05.L	18503	47	C10H22	142

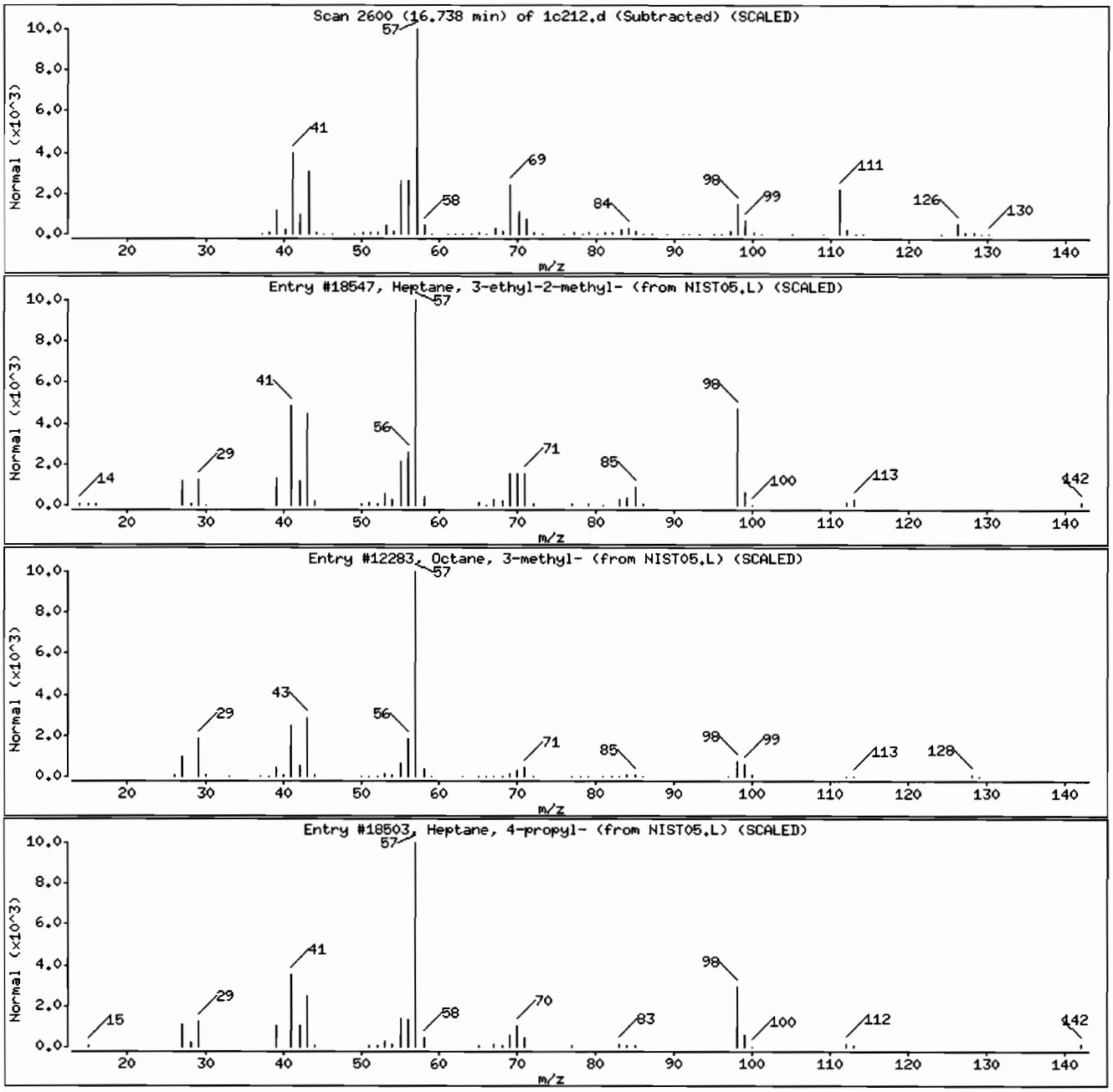

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Nonane, 3-methyl-	5911-04-6	NIST05.L	18496	89	C10H22	142
Octane, 2,6-dimethyl-	2051-30-1	NIST05.L	18510	81	C10H22	142
Octane, 3,6-dimethyl-	15869-94-0	NIST05.L	18514	81	C10H22	142

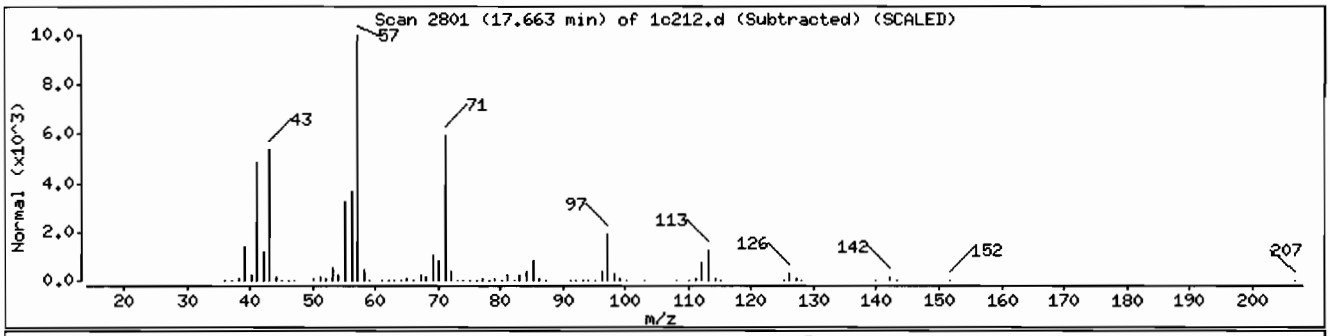

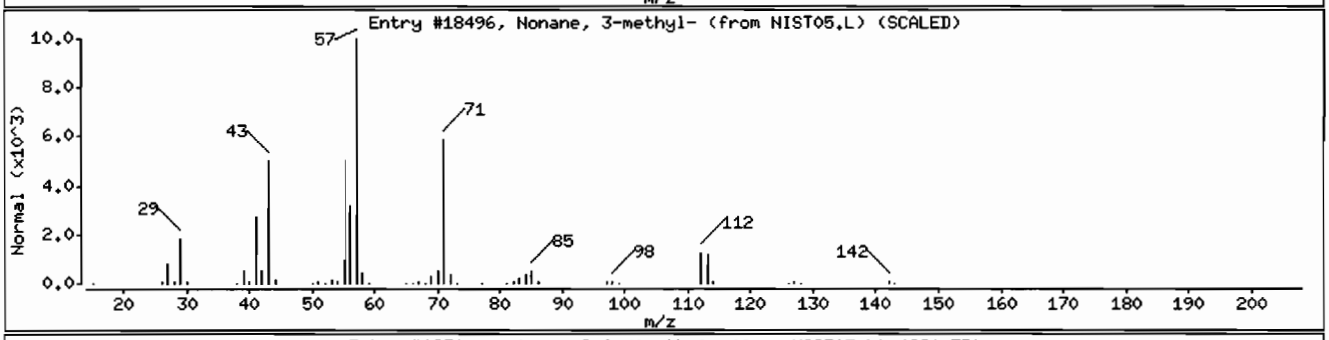

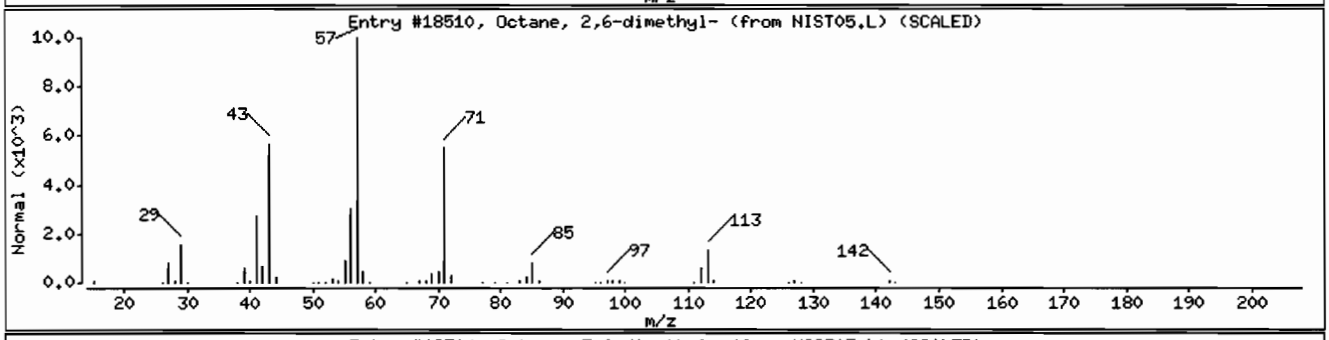

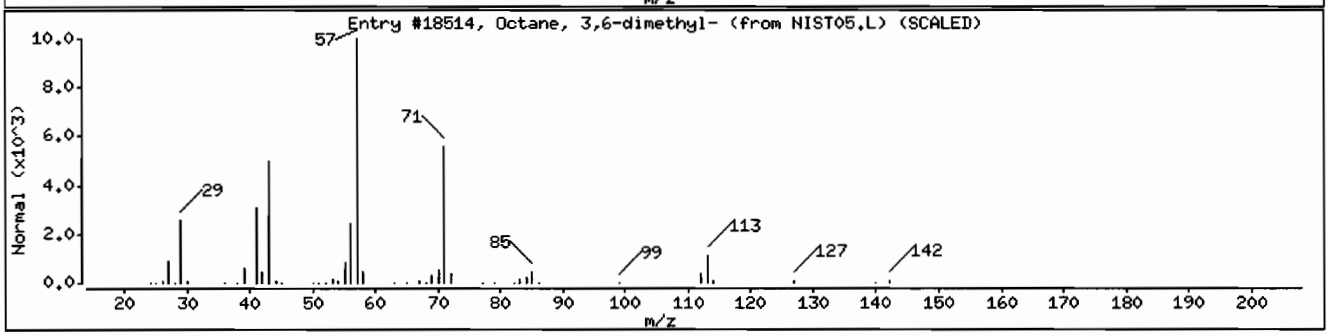

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Octane, 3,5-dimethyl-	15869-93-9	NIST05.L	18525	81	C10H22	142
Heptane, 3-ethyl-	15869-80-4	NIST05.L	12273	59	C9H20	128
Nonane, 4-methyl-	17301-94-9	NIST05.L	18502	52	C10H22	142

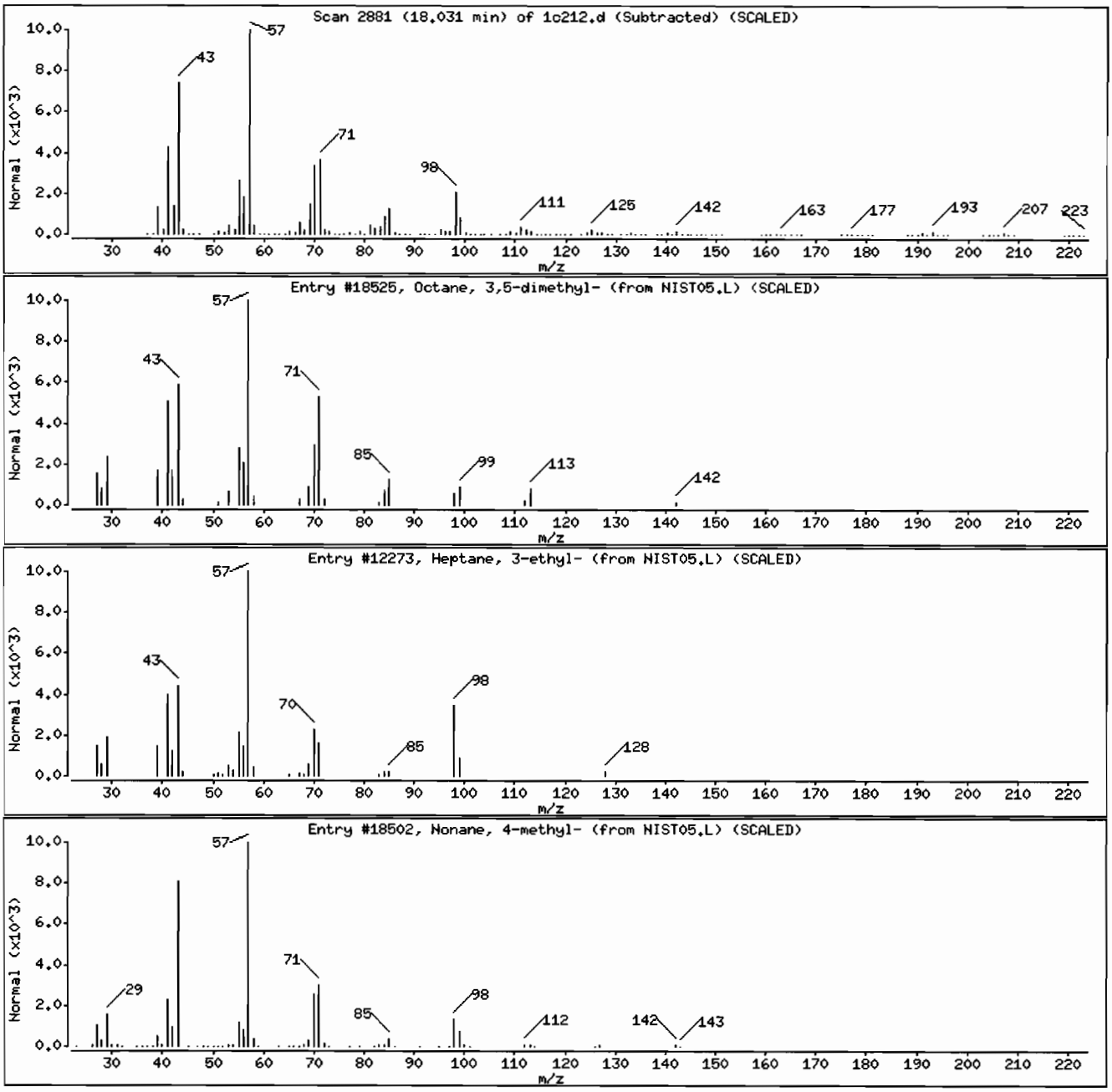

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Undecane	1120-21-4	NIST05.L	27239	94	C11H24	156
Undecane	1120-21-4	NIST05.L	27236	93	C11H24	156
Undecane	1120-21-4	NIST05.L	27238	91	C11H24	156

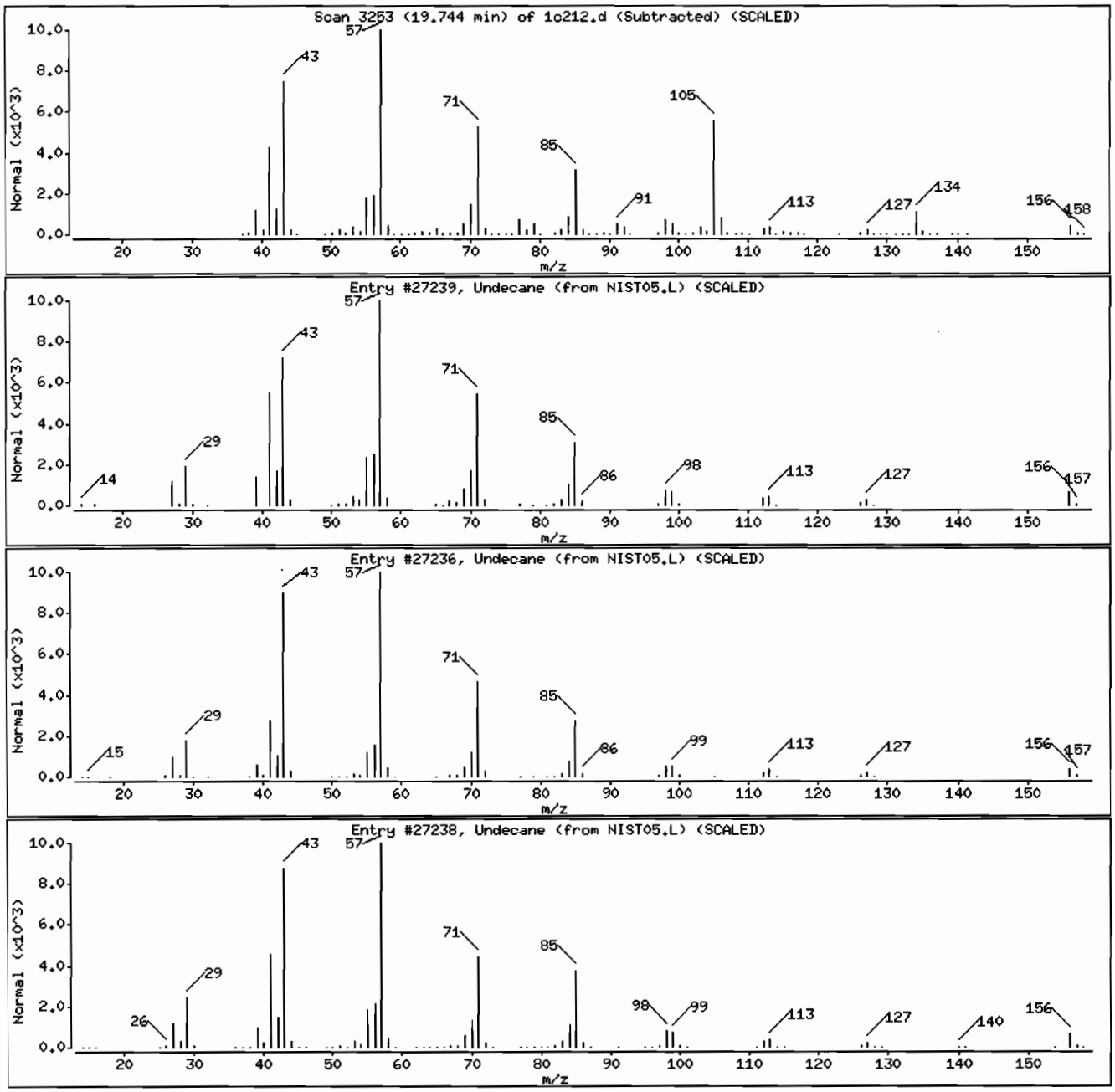

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16354	98	C10H18	138
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16349	98	C10H18	138
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16353	97	C10H18	138

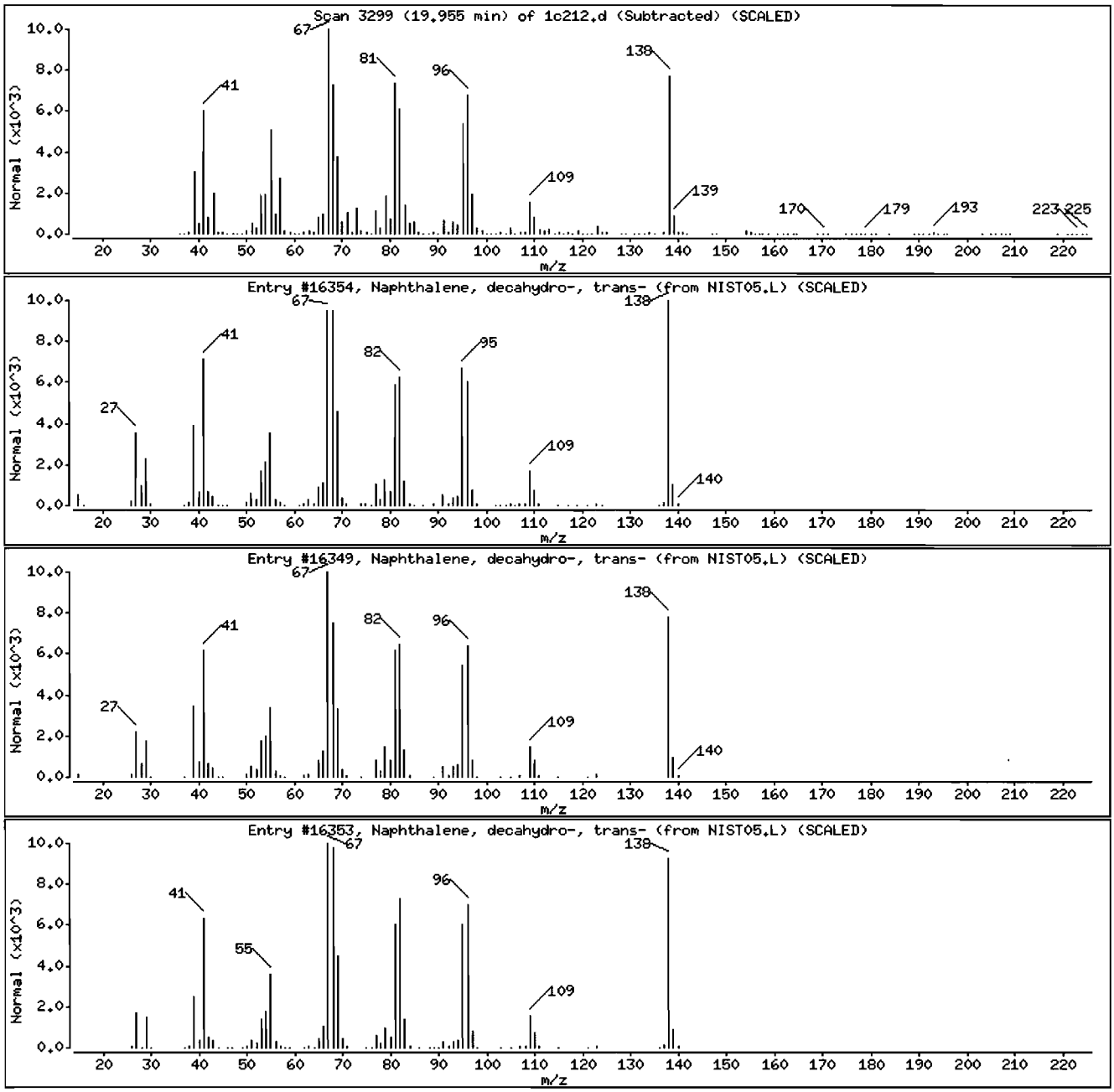

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 1-methyl-4-propyl-	1074-55-1	NIST05.L	14370	95	C10H14	134
Benzene, 1-methyl-4-propyl-	1074-55-1	NIST05.L	14373	91	C10H14	134
Benzene, 1-methyl-2-propyl-	1074-17-5	NIST05.L	14368	91	C10H14	134

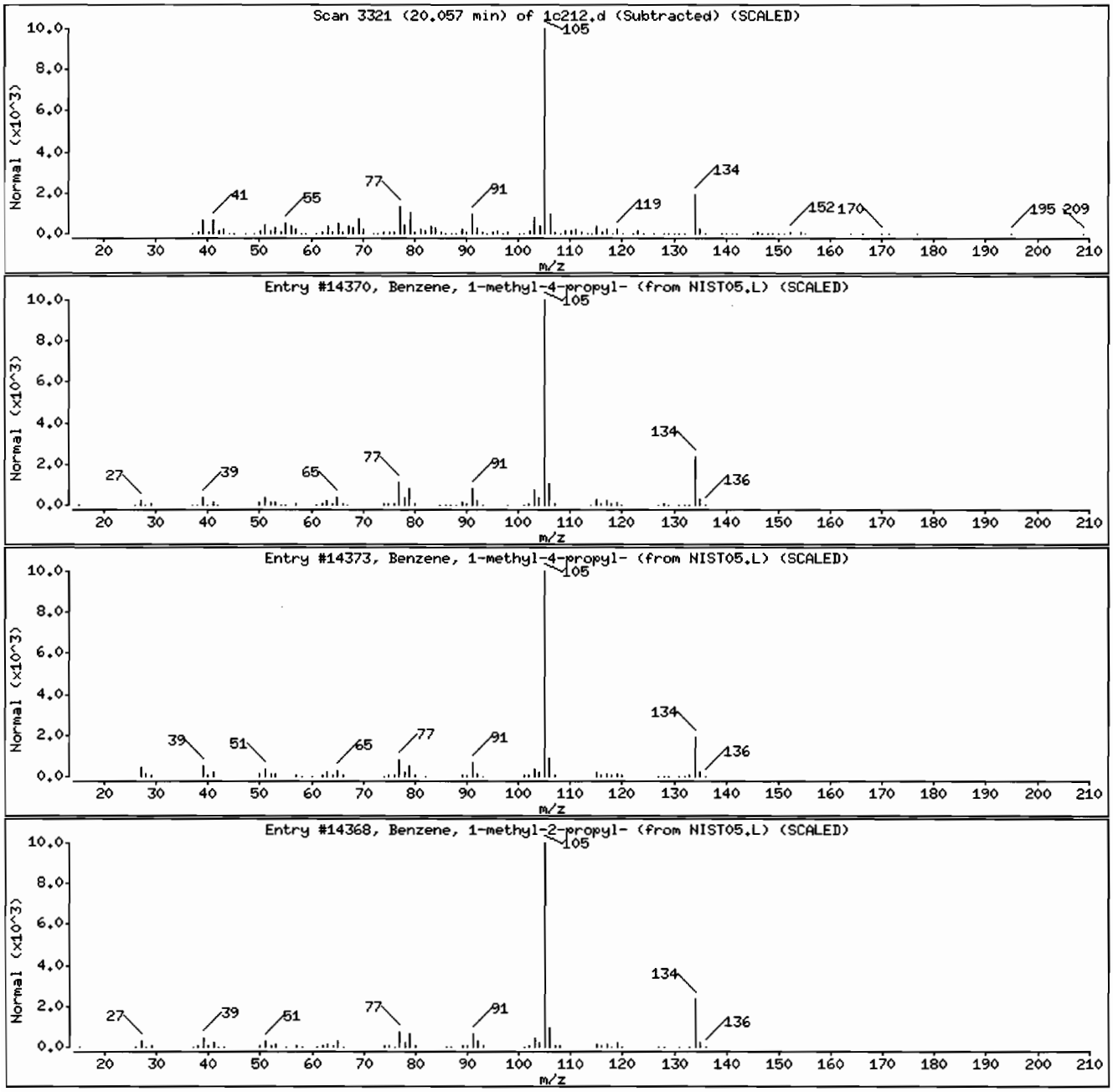

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 2-ethyl-1,4-dimethyl-	1758-88-9	NIST05.L	14402	96	C10H14	134
Benzene, 4-ethyl-1,2-dimethyl-	934-80-5	NIST05.L	14401	96	C10H14	134
Benzene, 2-ethyl-1,4-dimethyl-	1758-88-9	NIST05.L	14405	95	C10H14	134

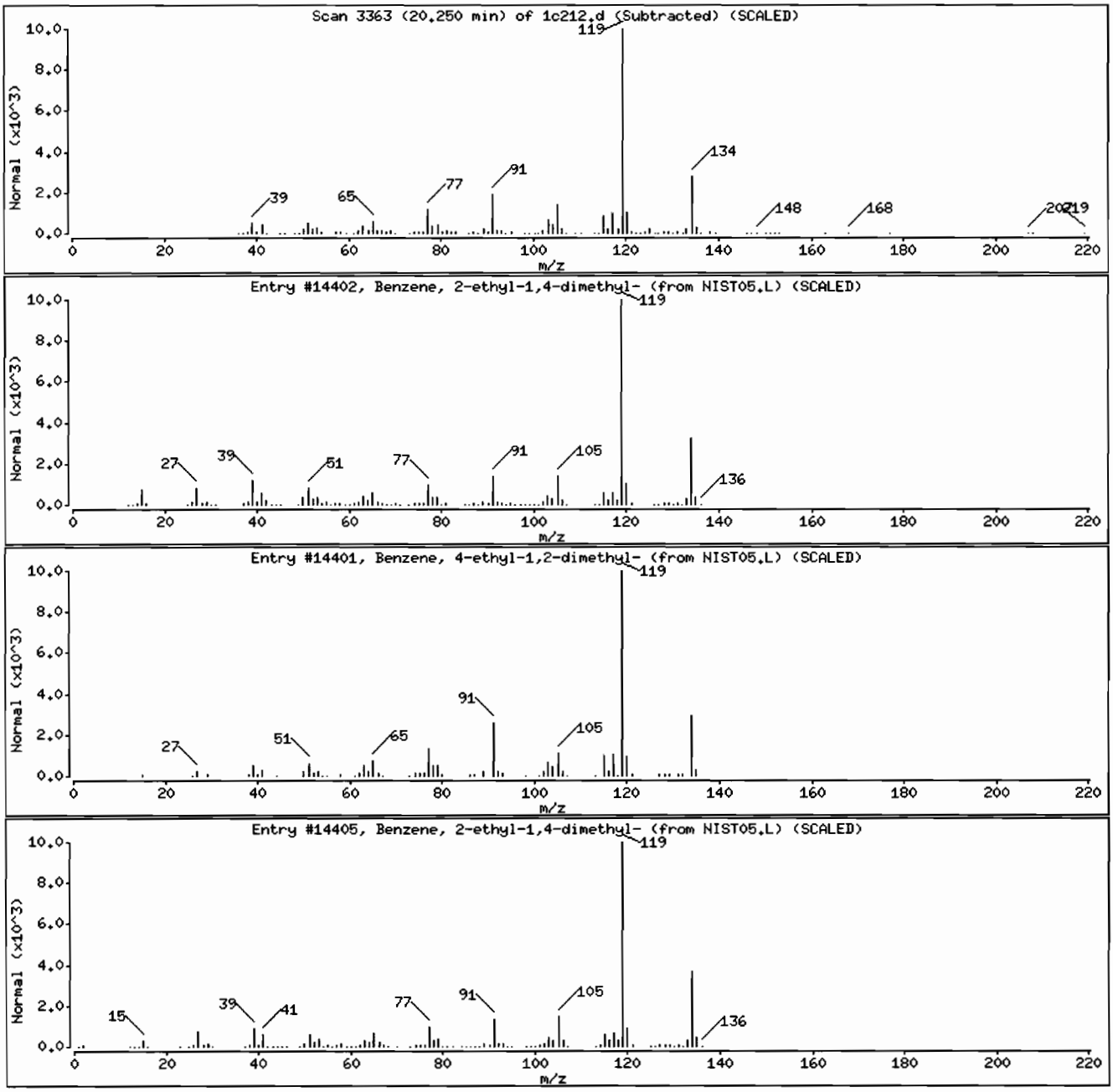

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 4-ethyl-1,2-dimethyl-	934-80-5	NIST05.L	14401	95	C10H14	134
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST05.L	14430	94	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST05.L	14425	94	C10H14	134

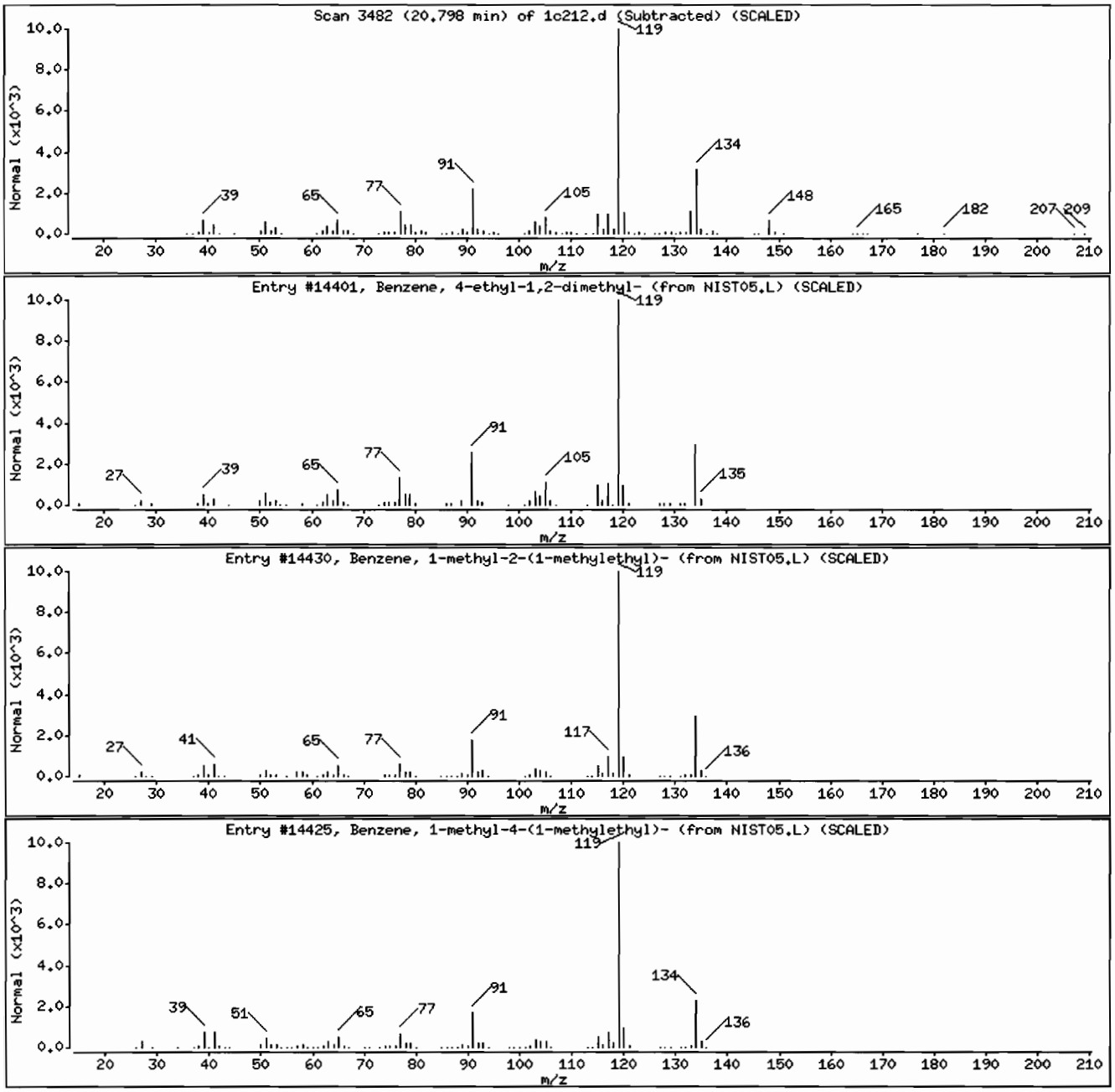

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Dodecane	112-40-3	NIST05.L	36431	93	C12H26	170
Dodecane	112-40-3	NIST05.L	36428	80	C12H26	170
Heptadecane, 2,6,10,14-tetramethyl-	18344-37-1	NIST05.L	122446	72	C21H44	296

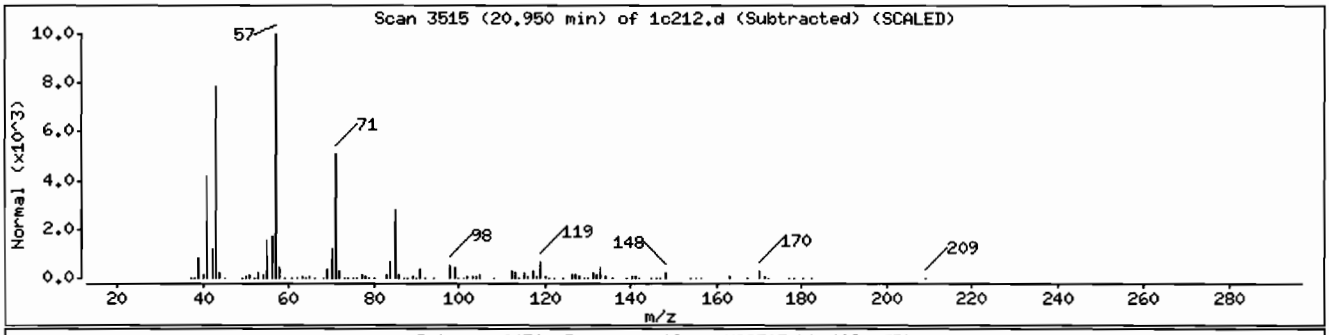

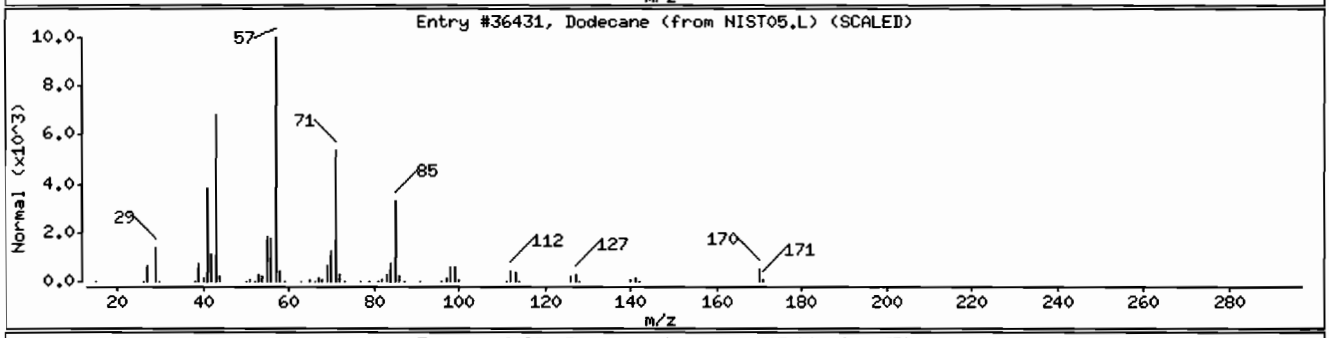

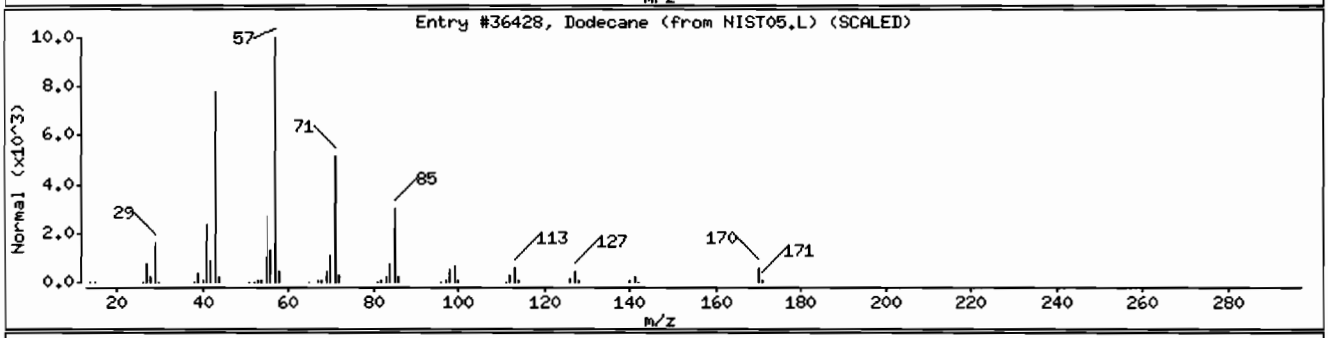

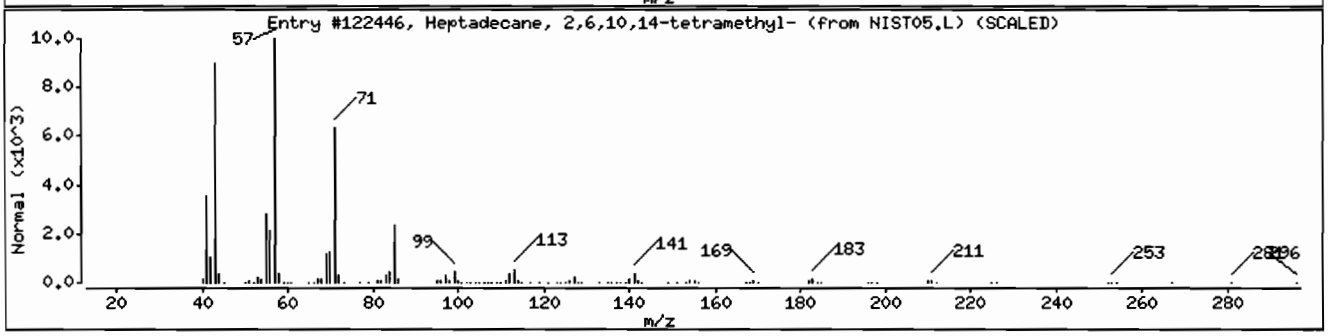

Data File: /chem/VOA1.i/031610v1/1c212.d

Date : 16-MAR-2010 16:18

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 1-ethyl-2,3-dimethyl-	933-98-2	NIST05.L	14399	97	C10H14	134
Benzene, 2-ethyl-1,4-dimethyl-	1758-88-9	NIST05.L	14402	97	C10H14	134
Benzene, 1-ethyl-3,5-dimethyl-	934-74-7	NIST05.L	14396	95	C10H14	134

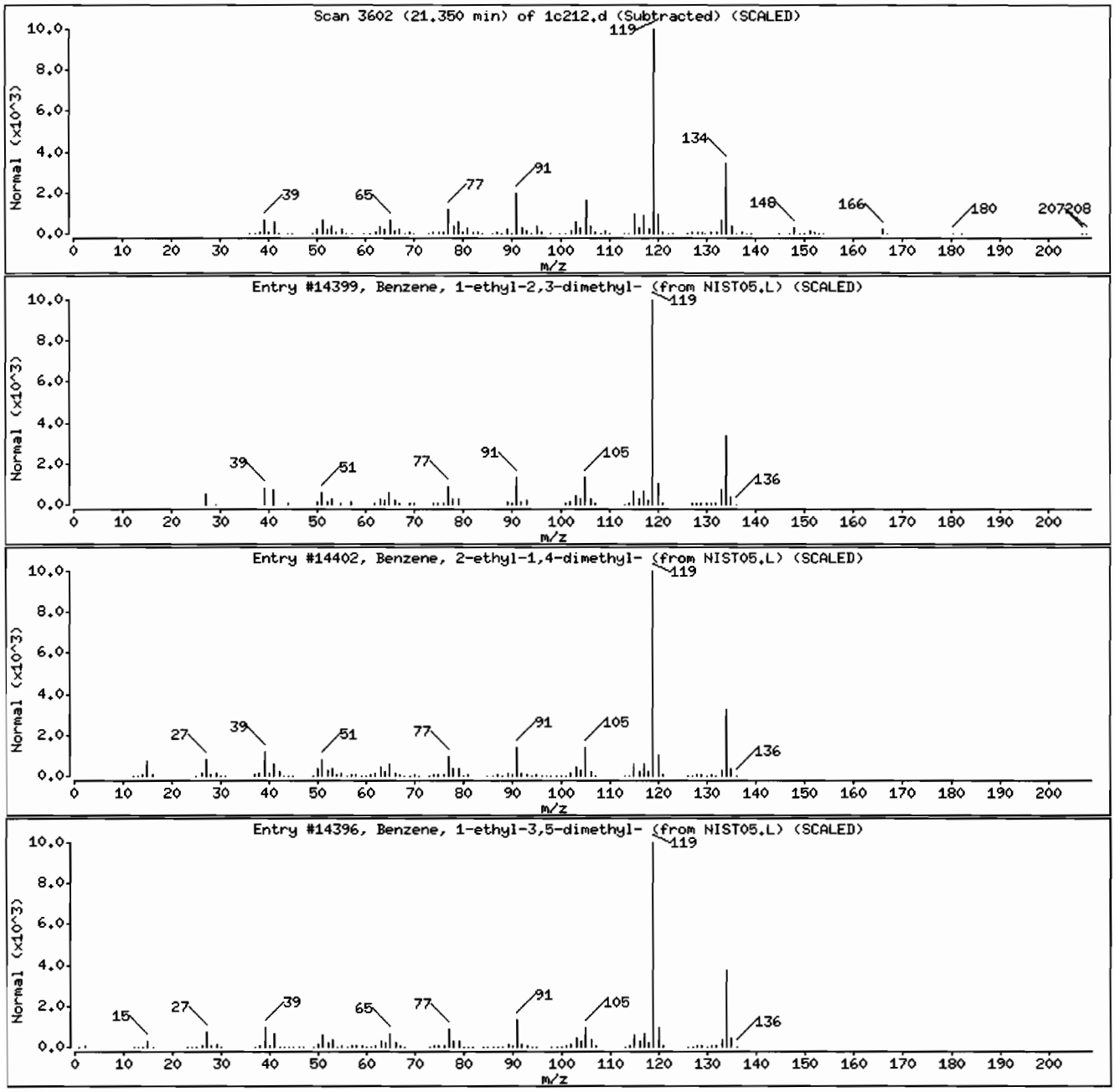

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13551REDL**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**50**
Run Date:	**03/18/2010 13:14**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:30**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**1c409.d**	**Column:**	**RTX-Volatiles**	**Level:**	**MED**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	HU	126	ug/kg	42.9	126
74-87-3	Chloromethane	HU	126	ug/kg	37.8	126
75-01-4	Vinyl chloride	HU	126	ug/kg	37.8	126
74-83-9	Bromomethane	HU	126	ug/kg	37.8	126
75-00-3	Chloroethane	HU	126	ug/kg	37.8	126
75-69-4	Trichlorofluoromethane	HU	126	ug/kg	37.8	126
67-64-1	Acetone	HU	631	ug/kg	209	631
75-35-4	1,1-Dichloroethylene	HU	126	ug/kg	37.8	126
74-88-4	Iodomethane	HU	631	ug/kg	202	631
75-09-2	Methylene chloride	HU	631	ug/kg	252	631
75-15-0	Carbon disulfide	HU	631	ug/kg	158	631
156-60-5	trans-1,2-Dichloroethylene	HU	126	ug/kg	37.8	126
75-34-3	1,1-Dichloroethane	HU	126	ug/kg	37.8	126
78-93-3	2-Butanone	HJ	218	ug/kg	189	631
156-59-2	cis-1,2-Dichloroethylene	HU	126	ug/kg	37.8	126
594-20-7	2,2-Dichloropropane	HU	126	ug/kg	37.8	126
67-66-3	Chloroform	HU	126	ug/kg	37.8	126
74-97-5	Bromochloromethane	HU	126	ug/kg	41.6	126
71-55-6	1,1,1-Trichloroethane	HJ	101	ug/kg	37.8	126
563-58-6	1,1-Dichloropropene	HU	126	ug/kg	37.8	126
56-23-5	Carbon tetrachloride	HU	126	ug/kg	37.8	126
107-06-2	1,2-Dichloroethane	HU	126	ug/kg	37.8	126
71-43-2	Benzene	HU	126	ug/kg	37.8	126
79-01-6	Trichloroethylene	H	2770	ug/kg	41.6	126
78-87-5	1,2-Dichloropropane	HU	126	ug/kg	37.8	126
75-27-4	Bromodichloromethane	HU	126	ug/kg	37.8	126
74-95-3	Dibromomethane	HU	126	ug/kg	37.8	126
108-10-1	4-Methyl-2-pentanone	HU	631	ug/kg	158	631
10061-01-5	cis-1,3-Dichloropropylene	HU	126	ug/kg	37.8	126
108-88-3	Toluene	HJ	63.8	ug/kg	37.8	126
10061-02-6	trans-1,3-Dichloropropylene	HU	126	ug/kg	37.8	126
79-00-5	1,1,2-Trichloroethane	HU	126	ug/kg	37.8	126
591-78-6	2-Hexanone	HU	631	ug/kg	189	631
142-28-9	1,3-Dichloropropane	HU	126	ug/kg	37.8	126
127-18-4	Tetrachloroethylene	H	368	ug/kg	37.8	126
124-48-1	Dibromochloromethane	HU	126	ug/kg	37.8	126
106-93-4	1,2-Dibromoethane	HU	126	ug/kg	37.8	126
108-90-7	Chlorobenzene	HU	126	ug/kg	37.8	126

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13551REDL**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**50**
Run Date:	**03/18/2010 13:14**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:30**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**1c409.d**	**Column:**	**RTX-Volatiles**	**Level:**	**MED**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	HU	126	ug/kg	37.8	126
179601-23-1	m,p-Xylenes	HU	252	ug/kg	37.8	252
95-47-6	o-Xylene	HU	126	ug/kg	37.8	126
100-42-5	Styrene	HU	126	ug/kg	37.8	126
75-25-2	Bromoform	HU	126	ug/kg	37.8	126
79-34-5	1,1,2,2-Tetrachloroethane	HU	126	ug/kg	37.8	126
96-18-4	1,2,3-Trichloropropane	HU	126	ug/kg	37.8	126
108-86-1	Bromobenzene	HU	126	ug/kg	37.8	126
103-65-1	n-Propylbenzene	HJ	42.6	ug/kg	37.8	126
95-49-8	2-Chlorotoluene	HU	126	ug/kg	37.8	126
98-82-8	Isopropylbenzene	HU	126	ug/kg	37.8	126
108-67-8	1,3,5-Trimethylbenzene	H	190	ug/kg	37.8	126
106-43-4	4-Chlorotoluene	HU	126	ug/kg	37.8	126
98-06-6	tert-Butylbenzene	HU	126	ug/kg	37.8	126
95-63-6	1,2,4-Trimethylbenzene	HJ	118	ug/kg	37.8	126
135-98-8	sec-Butylbenzene	H	156	ug/kg	37.8	126
99-87-6	4-Isopropyltoluene	H	265	ug/kg	37.8	126
541-73-1	1,3-Dichlorobenzene	HU	126	ug/kg	37.8	126
106-46-7	1,4-Dichlorobenzene	HU	126	ug/kg	37.8	126
104-51-8	n-Butylbenzene	H	536	ug/kg	37.8	126
96-12-8	1,2-Dibromo-3-chloropropane	HU	126	ug/kg	37.8	126
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	HU	631	ug/kg	202	631
630-20-6	1,1,1,2-Tetrachloroethane	HU	126	ug/kg	37.8	126
95-50-1	1,2-Dichlorobenzene	HU	126	ug/kg	37.8	126

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	6.97	1940	ug/kg		J
	Unknown Hydrocarbon	17.66	663	ug/kg		J
	Unknown Siloxane	18.05	2950	ug/kg		J
	Unknown Hydrocarbon	19.74	2630	ug/kg		J
	Unknown Hydrocarbon	19.95	6160	ug/kg		J
	Unknown Hydrocarbon	20.64	11900	ug/kg		J
	Unknown Hydrocarbon	20.8	2490	ug/kg		J
	Unknown Hydrocarbon	20.95	7100	ug/kg		J
	Unknown Hydrocarbon	21.35	2680	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031810v1/1c409.d
Lab Smp Id: 248842004 Client Smp ID: RE46-10-13551
Inj Date : 18-MAR-2010 13:14
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842004|965875|50|VOAF|2|
Misc Info : LANL 100uL N/A
Comment :
Method : /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 21:48 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vs/Ws)*(Vt/Va)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	20.70090	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Vs	10000.00000	Soil Extract Volume (uL)
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.668	13.672	(1.000)	879788	50.0000	
* 76 Chlorobenzene-d5	117	17.147	17.148	(1.000)	647981	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	365051	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	443487	51.6263	6510
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1094085	50.2017	6330
$ 87 Bromofluorobenzene	95	18.376	18.377	(0.938)	495079	54.0936	6820
35 2-Butanone	43	12.195	12.172	(0.892)	9572	1.73259	218(a)
43 1,1,1-Trichloroethane	97	12.830	12.835	(0.939)	6072	0.80334	101(a)
54 Trichloroethylene	95	14.100	14.105	(1.032)	114352	21.9995	2770
66 Toluene	92	15.578	15.583	(0.908)	6321	0.50576	63.8(a)
70 Tetrachloroethylene	164	16.176	16.181	(0.943)	11638	2.91534	368

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
89 n-Propylbenzene	91	18.542	18.547	(0.946)	10251	0.33766	42.6(a)
93 1,3,5-Trimethylbenzene	105	18.708	18.703	(0.955)	32593	1.50448	190
97 1,2,4-Trimethylbenzene	105	19.118	19.122	(0.976)	21143	0.93894	118(a)
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	34107	1.23674	156
100 4-Isopropyltoluene	119	19.407	19.408	(0.990)	45100	2.09956	265
105 n-Butylbenzene	91	19.849	19.854	(1.013)	98578	4.25000	536(Q)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

VOA REPORT

Data file: 1c409.d
Report Date: 03/18/2010 13:07
Lab. ID: 248842004 SampleType: SAMPLE
Injection Date: 18-MAR-2010 13:14
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248842004|965875|50|VOAF|1|
Miscellaneous Info: LANL 100uL N/A
Comment:
Method used: /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
10 Chloroethane			CAS#: 75-00-3			
64	1186	6.93	7.21	80-120	100	(T)
66	733	6.95	7.21	1- 61	62	(QT)
35 2-Butanone			CAS#: 78-93-3			
43	9572	12.19	12.17	80-120	100	( )
72	2001	12.18	12.18	0- 52	21	( )
43 1,1,1-Trichloroethane			CAS#: 71-55-6			
97	6072	12.83	12.83	80-120	100	( )
99	3498	12.83	12.83	34- 94	58	( )
61	2388	12.83	12.83	13- 73	39	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	16661	13.67	13.43	80-120	100	(T)
64	2868	13.67	13.43	2- 62	17	(T)
54 Trichloroethylene			CAS#: 79-01-6			
95	114352	14.10	14.10	80-120	100	( )
97	74421	14.10	14.10	35- 95	65	( )
130	93060	14.10	14.10	51-111	81	( )
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	11347	15.51	15.35	80-120	100	(T)
43	8404	15.50	15.35	221-281	74	(QT)
100	683776	15.50	15.35	0- 60	6026	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
66 Toluene		CAS#: 108-88-3				
92	6321	15.58	15.58	80-120	100	( )
91	10823	15.59	15.58	141-201	171	( )
69 1,1,2-Trichloroethane			CAS#: 79-00-5			
83	6831	16.44	16.09	80-120	100	(T)
97	692	16.42	16.09	88-148	10	(QT)
85	1092	16.53	16.09	35- 95	16	(QT)
70 Tetrachloroethylene			CAS#: 127-18-4			
164	11638	16.18	16.18	80-120	100	( )
129	11134	16.18	16.18	66-126	96	( )
131	10699	16.18	16.18	62-122	92	( )
88 1,1,2,2-Tetrachloroethane			CAS#: 79-34-5			
83	15445	18.47	18.50	80-120	100	( )
85	21281	18.51	18.50	36- 96	138	(Q)
92 1,2,3-Trichloropropane			CAS#: 96-18-4			
110	10230	18.62	18.59	80-120	100	( )
75	533	18.57	18.59	312-372	5	(Q)
77	15386	18.70	18.58	760-820	150	(QT)
91 Bromobenzene			CAS#: 108-86-1			
156	1980	18.82	18.58	80-120	100	(T)
77	2593	18.80	18.58	213-273	131	(QT)
158	142	18.58	18.58	67-127	7	(Q)
89 n-Propylbenzene			CAS#: 103-65-1			
91	10251	18.54	18.55	80-120	100	( )
120	2372	18.54	18.55	0- 49	23	( )
94 2-Chlorotoluene			CAS#: 95-49-8			
91	10251	18.54	18.73	80-120	100	(T)
126	1693	18.46	18.73	0- 52	17	(T)
93 1,3,5-Trimethylbenzene			CAS#: 108-67-8			
105	32593	18.71	18.70	80-120	100	( )
120	13003	18.70	18.70	9- 69	40	( )
97 1,2,4-Trimethylbenzene			CAS#: 95-63-6			
105	21143	19.12	19.12	80-120	100	( )
120	7594	19.12	19.12	6- 66	36	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
95 4-Chlorotoluene			CAS#: 106-43-4			
91	10352	18.54	18.84	80-120	100	(T)
126	1693	18.46	18.84	0- 55	16	(T)
96 tert-Butylbenzene			CAS#: 98-06-6			
119	61796	19.34	19.06	80-120	100	(T)
91	20193	19.34	19.06	57-117	33	(QT)
134	15756	19.35	19.06	0- 51	25	(T)
99 sec-Butylbenzene			CAS#: 135-98-8			
105	34107	19.29	19.29	80-120	100	( )
134	9367	19.29	19.29	0- 47	27	( )
100 4-Isopropyltoluene			CAS#: 99-87-6			
119	45104	19.41	19.41	80-120	100	( )
134	9580	19.41	19.41	0- 53	21	( )
91	18703	19.34	19.41	1- 61	41	(T)
105 n-Butylbenzene			CAS#: 104-51-8			
91	98578	19.85	19.85	80-120	100	( )
92	51541	19.85	19.85	24- 84	52	( )
134	104236	19.80	19.85	0- 51	106	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031810v1/1c409.d
Lab Smp Id: 248842004 Client Smp ID: RE46-10-13551
Inj Date : 18-MAR-2010 13:14
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842004|965875|50|VOAF|2|
Misc Info : LANL 100uL N/A
Comment :
Method : /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 21:48 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vs/Ws)*(Vt/Va)*(Uf) * CpndVarial

Name	Value	Description
DF	1.00000	Dilution Factor
M	20.70090	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Vs	10000.00000	Soil Extract Volume (uL)
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 52 Fluorobenzene	13.668	2073762	50.000
* 76 Chlorobenzene-d5	17.147	2376760	50.000
* 102 1,4-Dichlorobenzene-d4	19.596	3285588	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
6.975	638231	15.3882323	1940	0		0	52
Unknown Hydrocarbon				CAS #:			
17.658	249992	5.25909981	663	0		0	76
Unknown Siloxane				CAS #:			
18.045	1113164	23.4176639	2950	0		0	76
Unknown Hydrocarbon				CAS #:			
19.739	1372961	20.8936828	2630	0		0	102
Unknown Hydrocarbon				CAS #:			
19.951	3207388	48.8099407	6160	0		0	102
Unknown Hydrocarbon				CAS #:			
20.641	6221024	94.6713647	11900	0		0	102
Unknown Hydrocarbon				CAS #:			
20.798	1295029	19.7077103	2480	0		0	102
Unknown Hydrocarbon				CAS #:			
20.950	3701364	56.3272574	7100	0		0	102
Unknown Hydrocarbon				CAS #:			
21.350	1395857	21.2421092	2680	0		0	102

Data File: /chem/VOA1.i/031810v1/1c409.d
Date : 18-MAR-2010 13:14
Client ID: RE46-10-13551
Sample Info: |2488420041965875150|VOAF|2|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2
Column diameter: 0.25

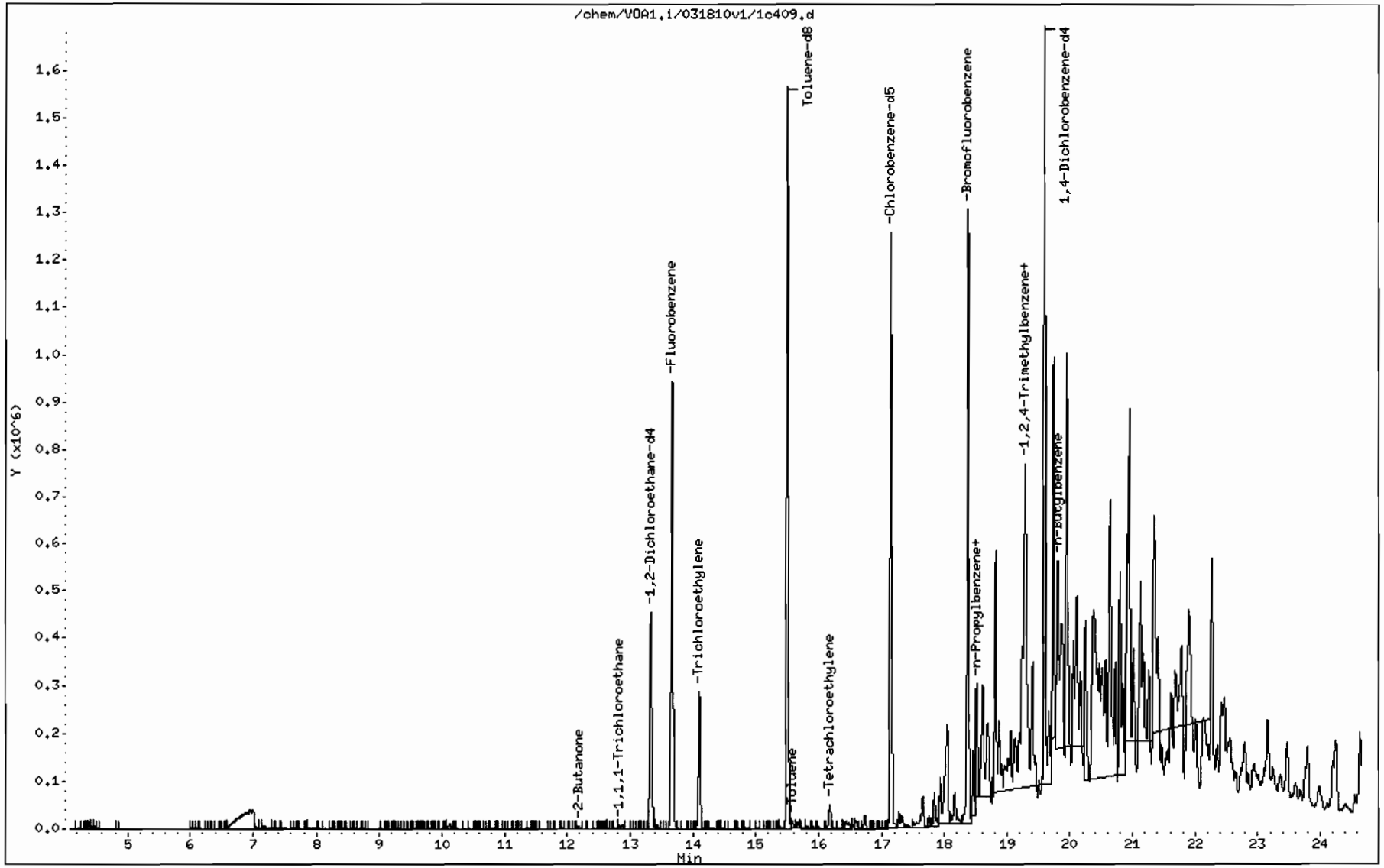

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875150|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

35 2-Butanone

Concentration: 218 ug/Kg

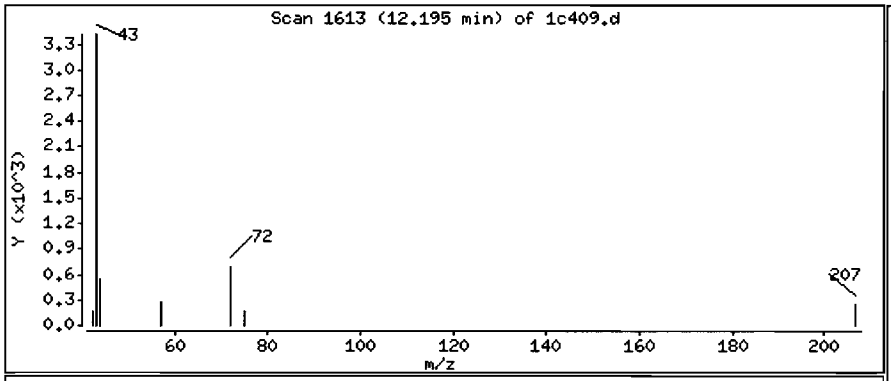

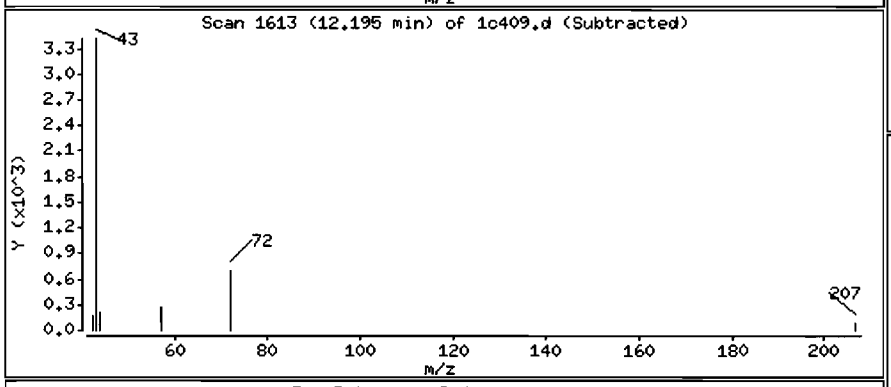

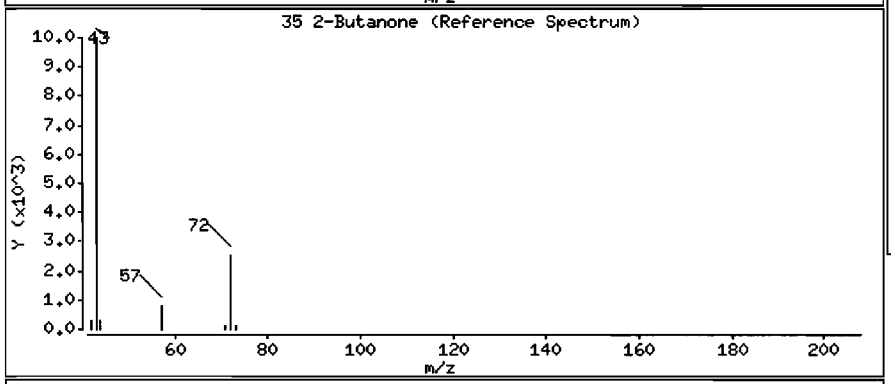

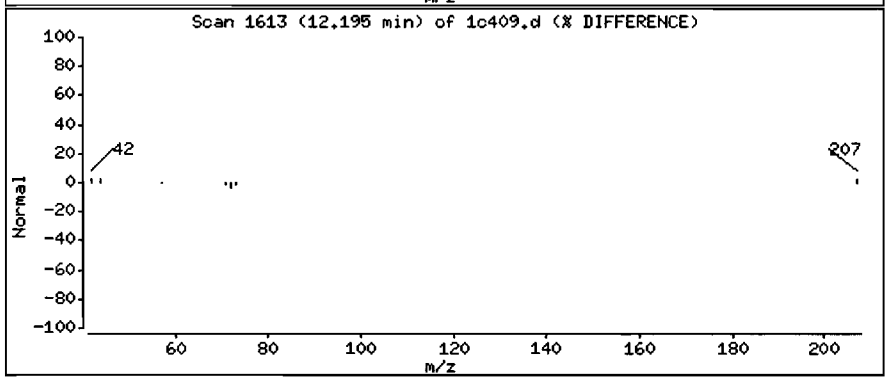

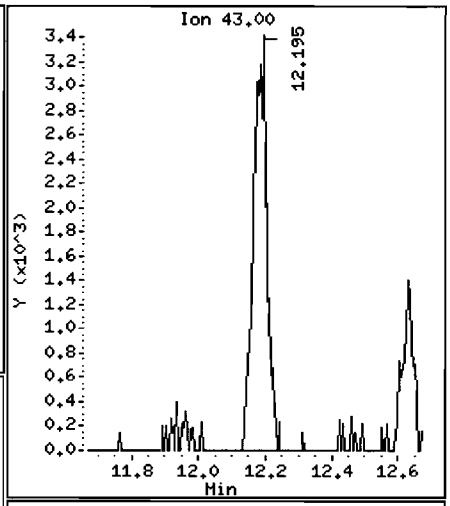

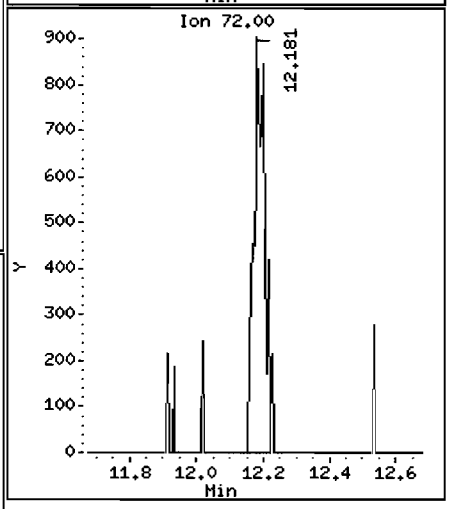

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875150|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

43 1,1,1-Trichloroethane

Concentration: 101 ug/Kg

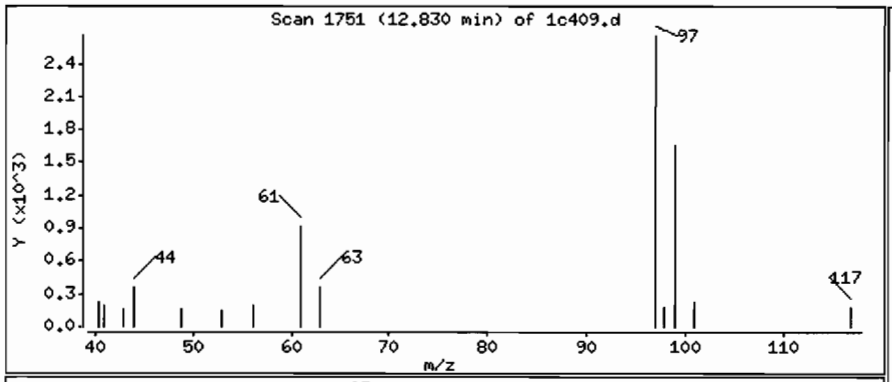

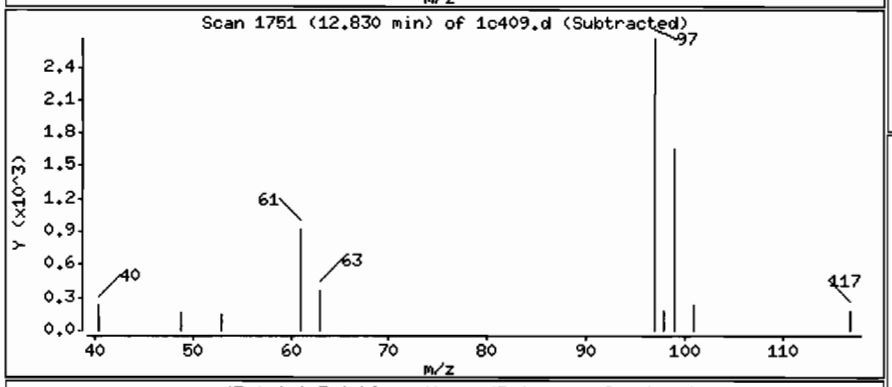

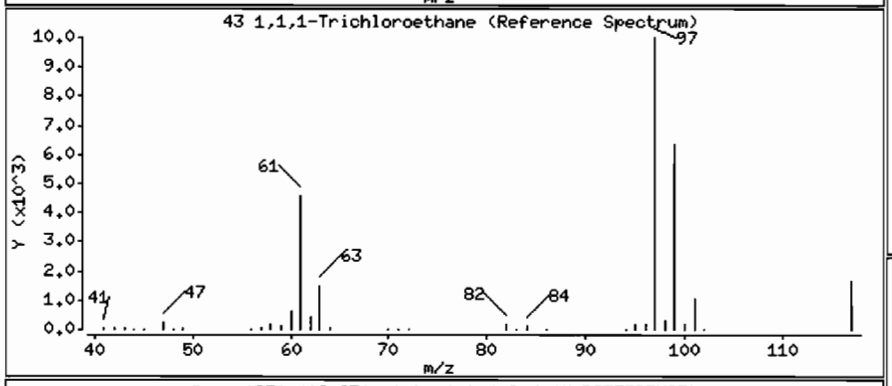

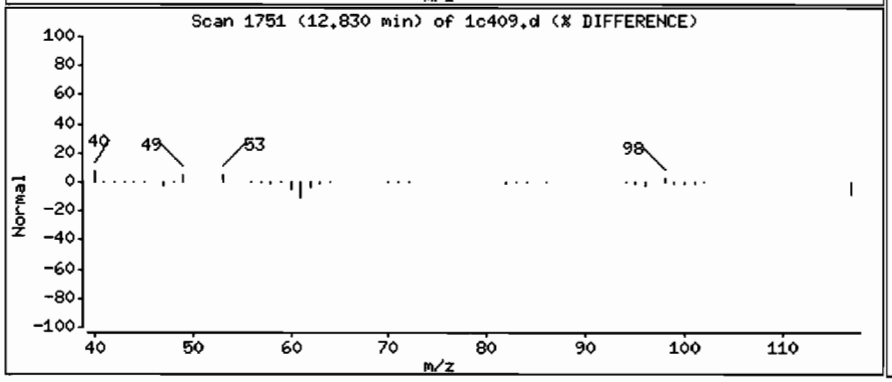

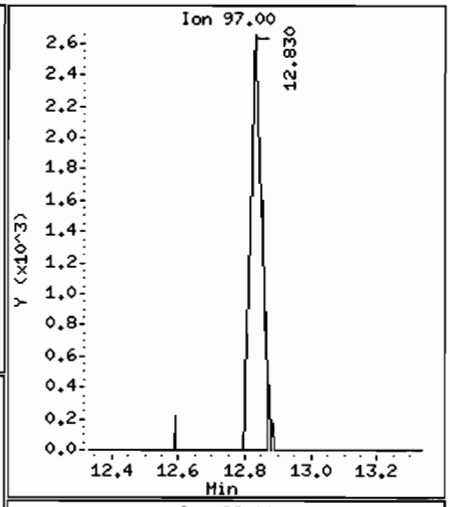

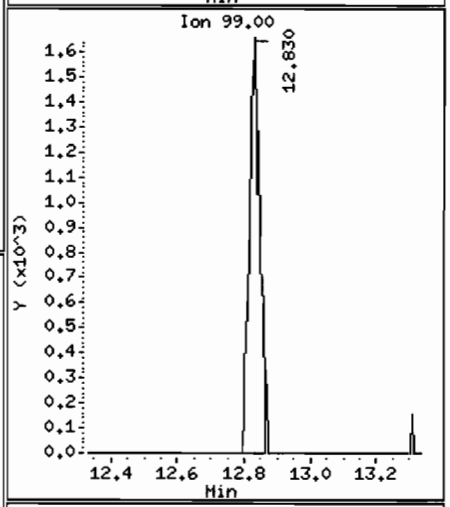

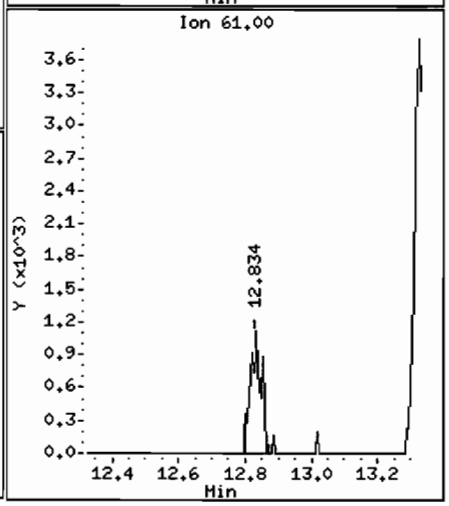

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|50|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

54 Trichloroethylene

Concentration: 2770 ug/Kg

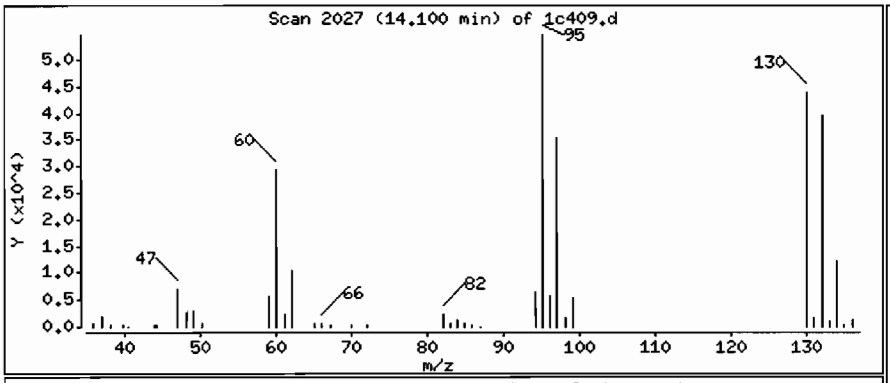

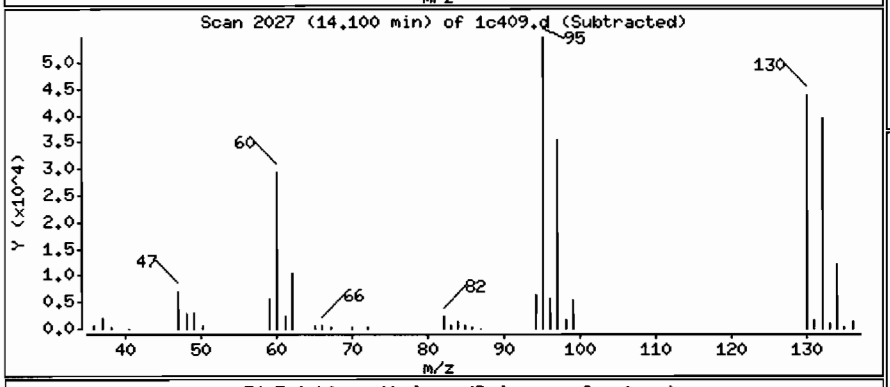

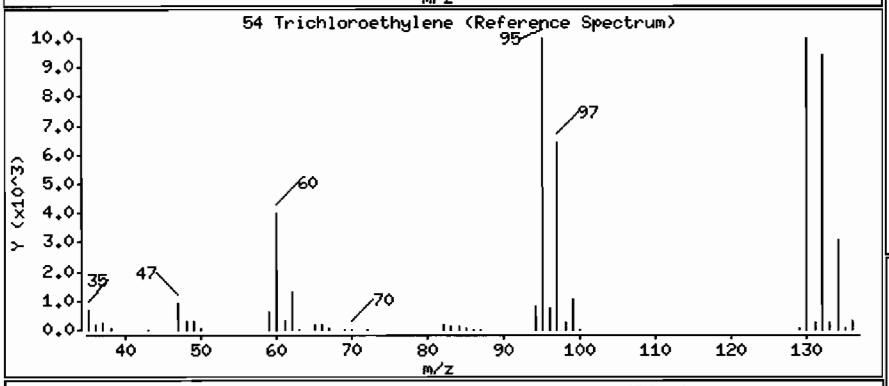

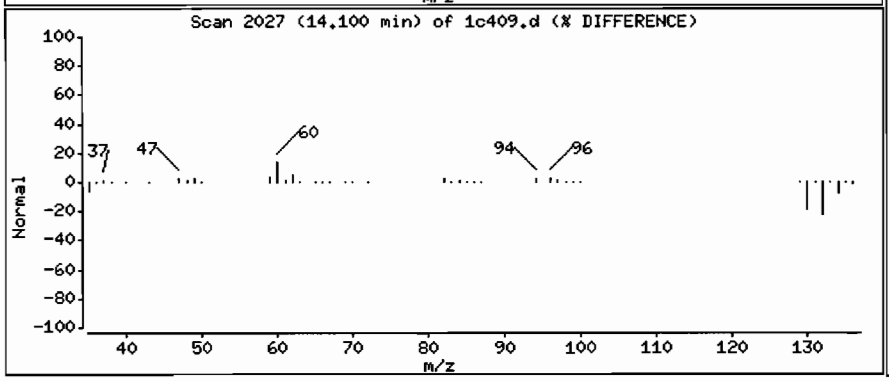

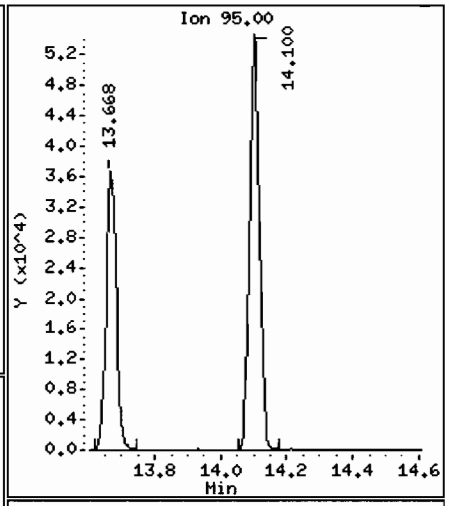

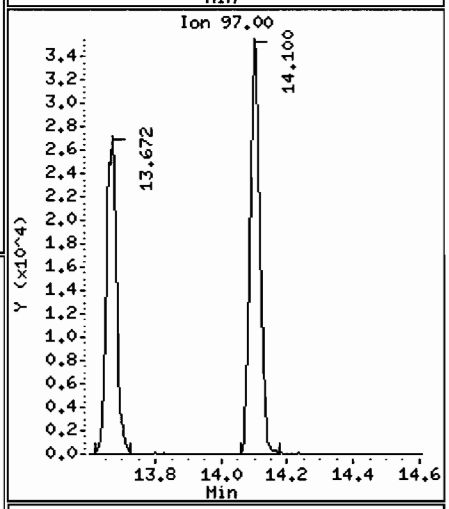

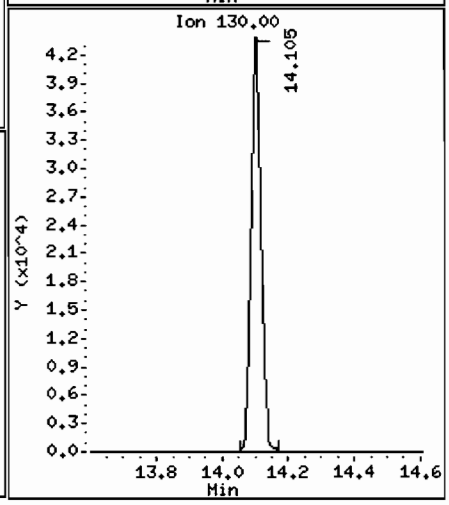

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: 1248842004196587515 0|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

66 Toluene

Concentration: 63.8 ug/Kg

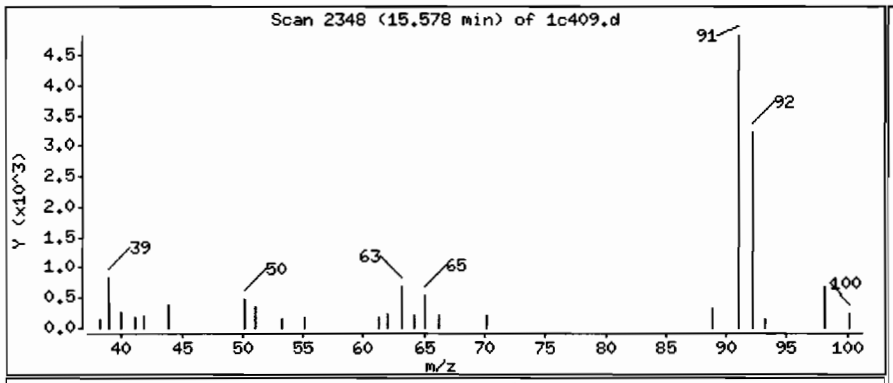

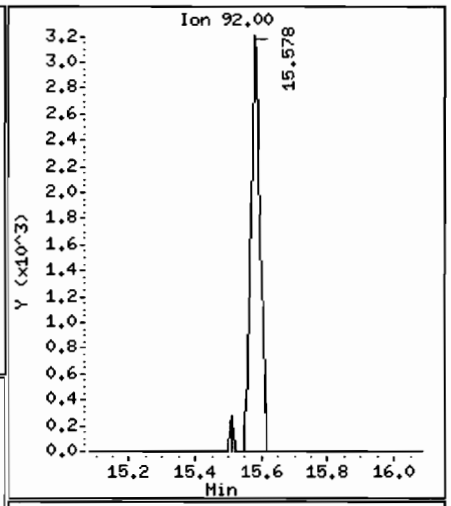

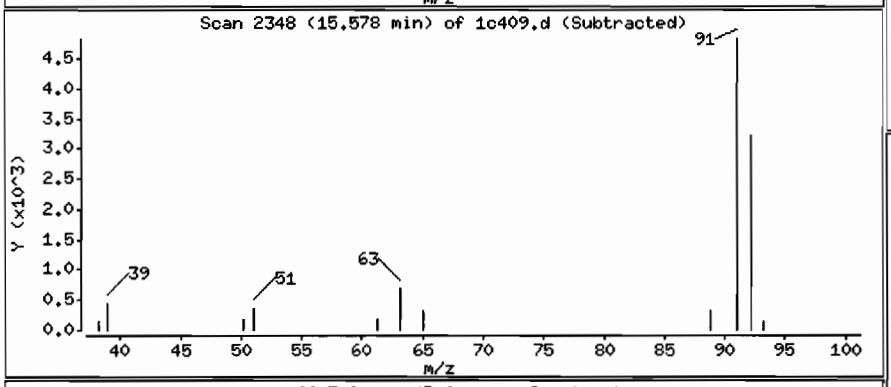

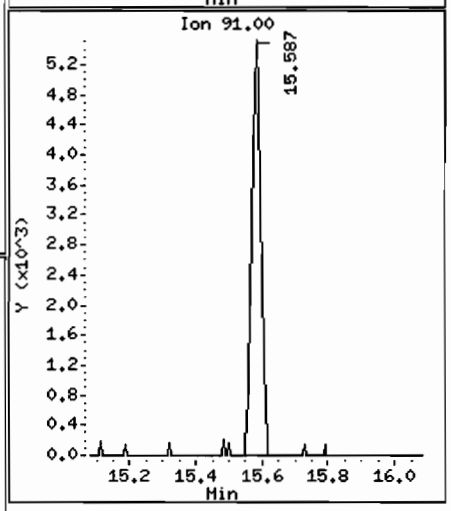

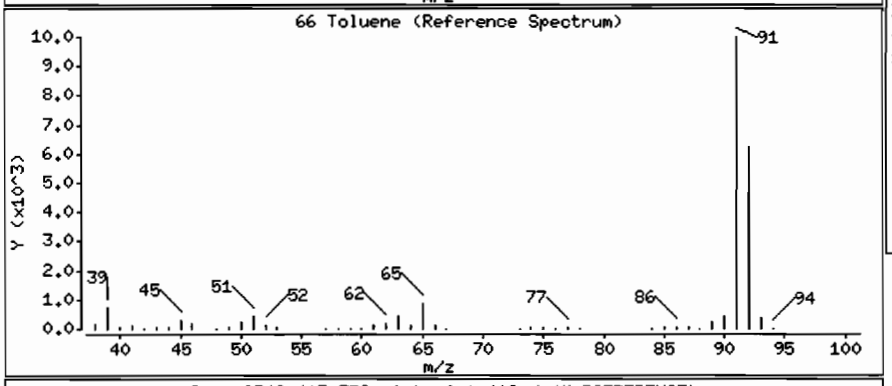

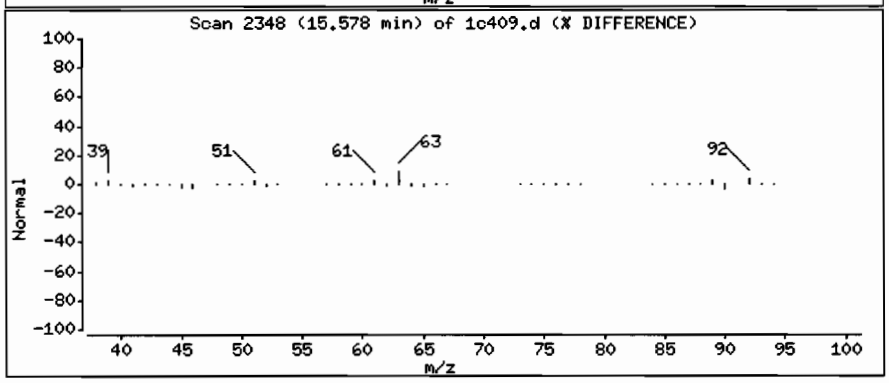

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875150|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

70 Tetrachloroethylene

Concentration: 368 ug/Kg

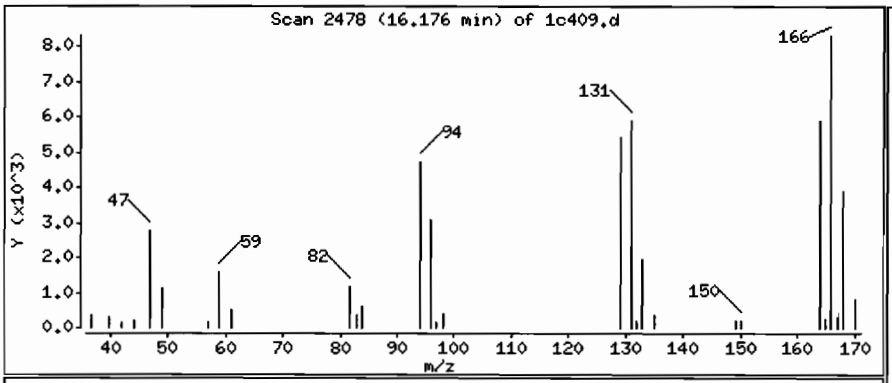

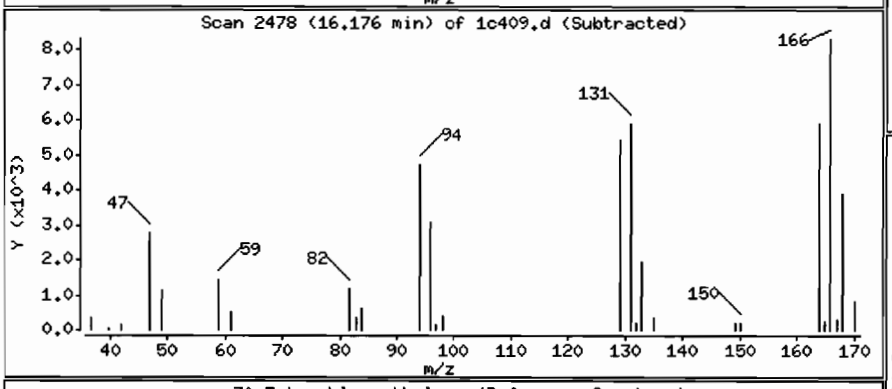

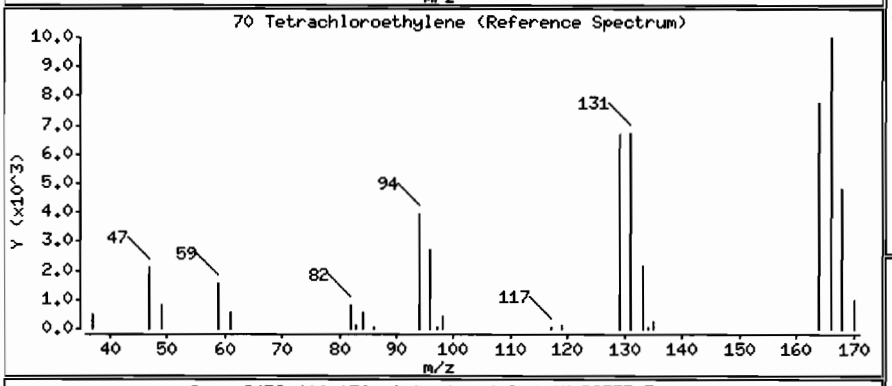

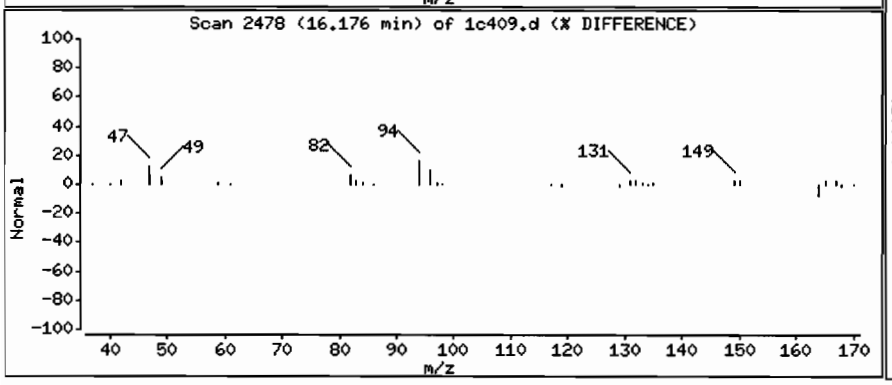

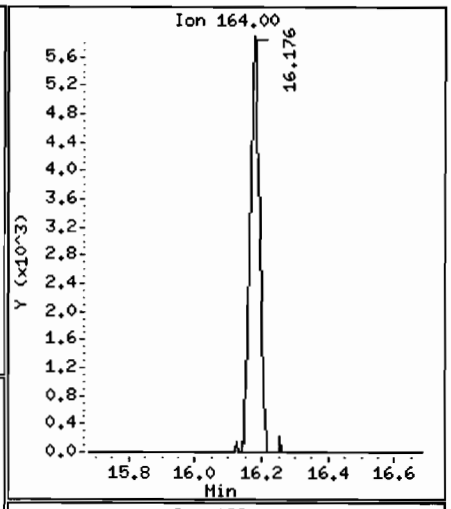

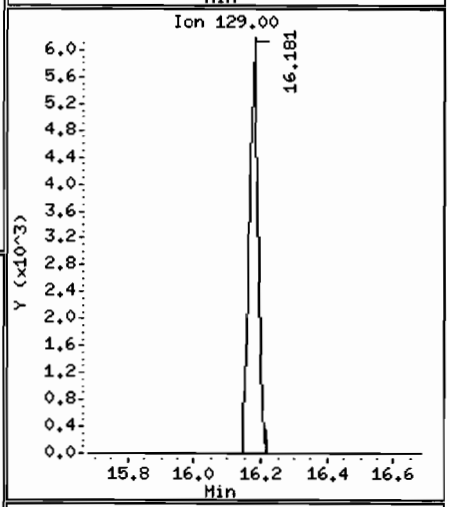

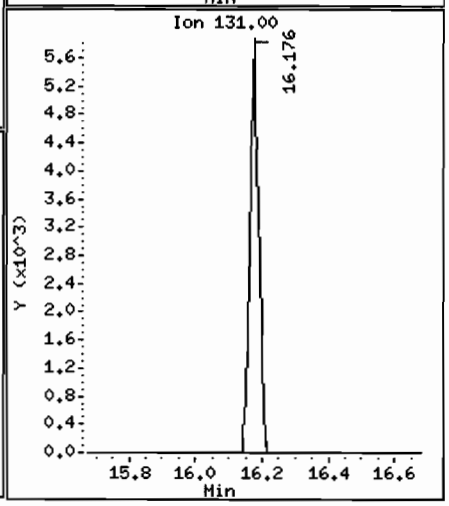

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|50|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

89 n-Propylbenzene

Concentration: 42.6 ug/Kg

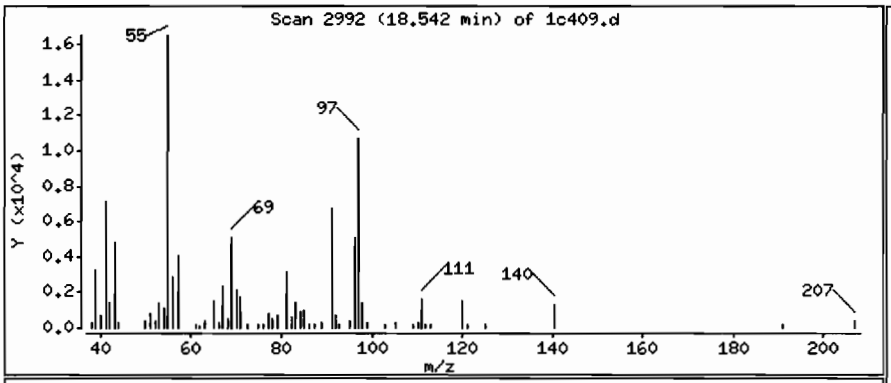

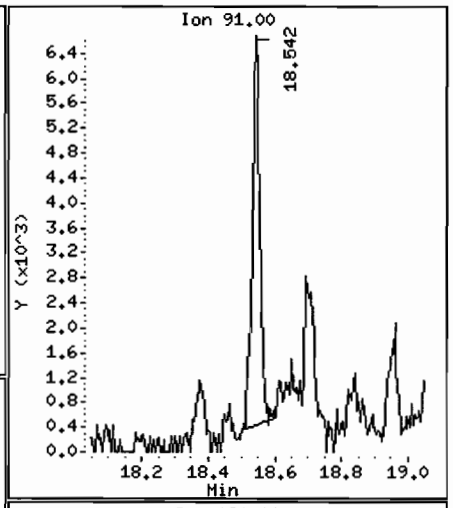

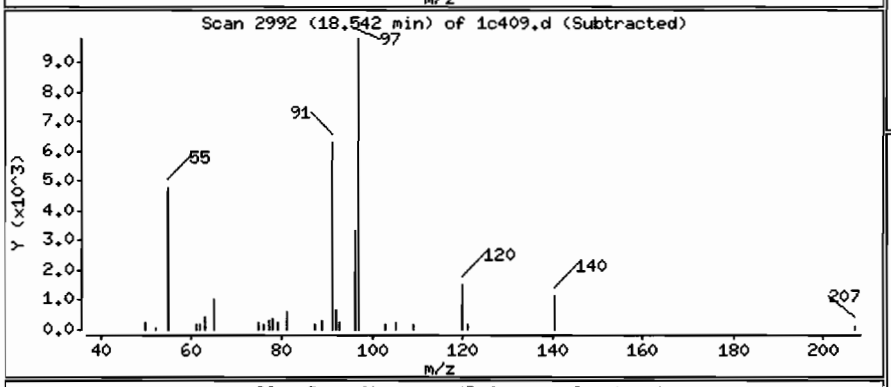

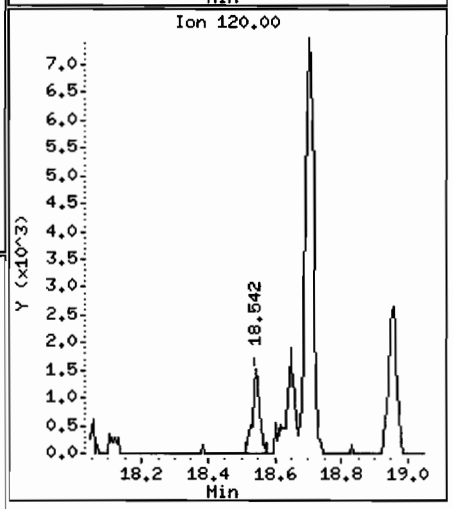

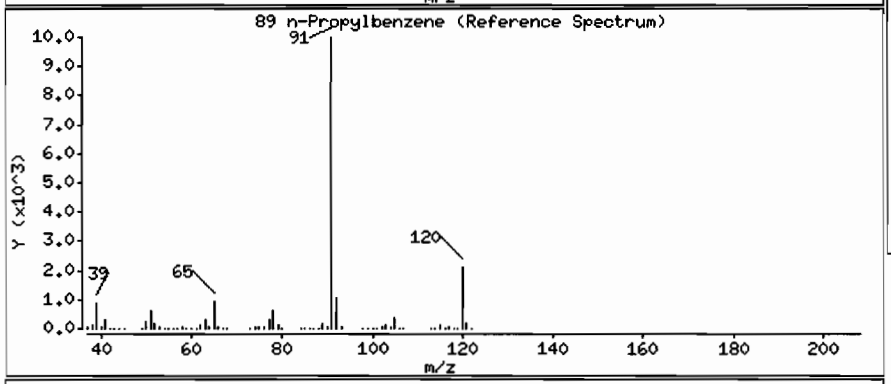

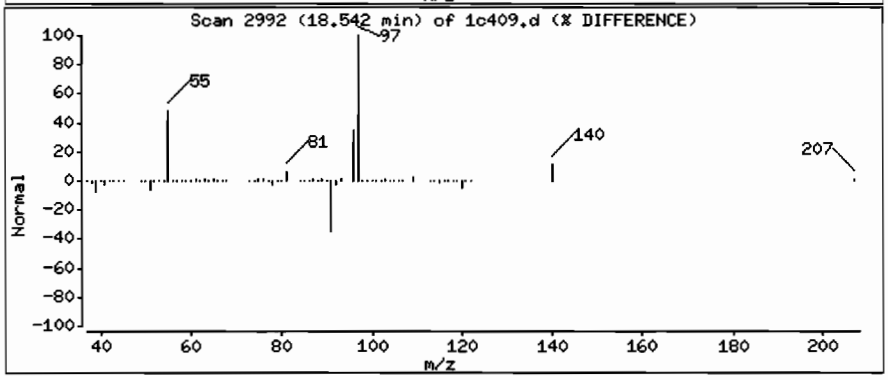

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875150|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

93 1,3,5-Trimethylbenzene

Concentration: 190 ug/Kg

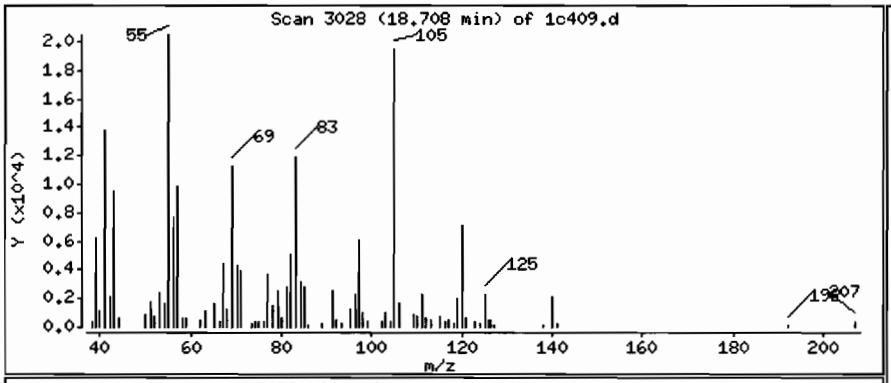

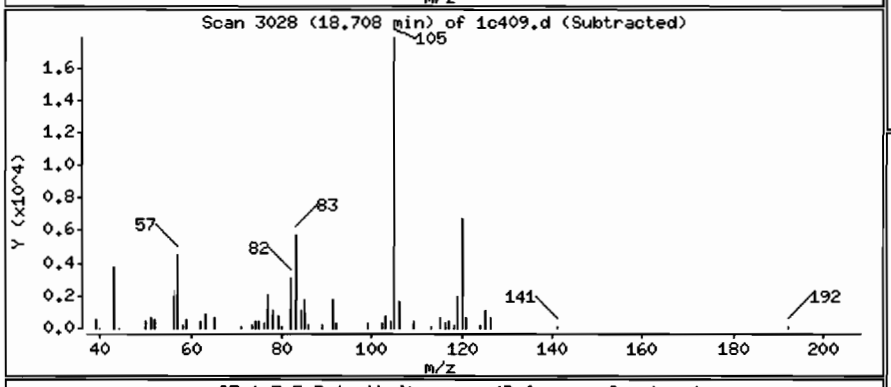

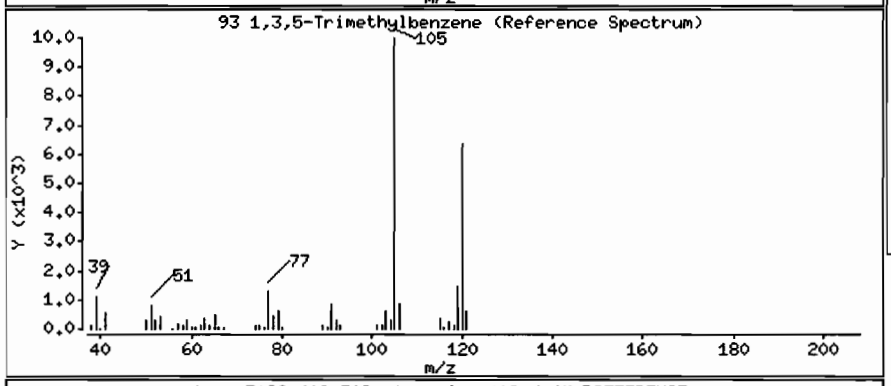

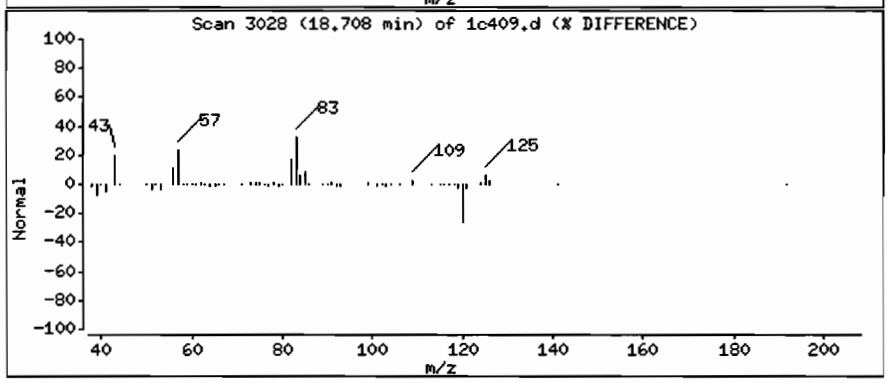

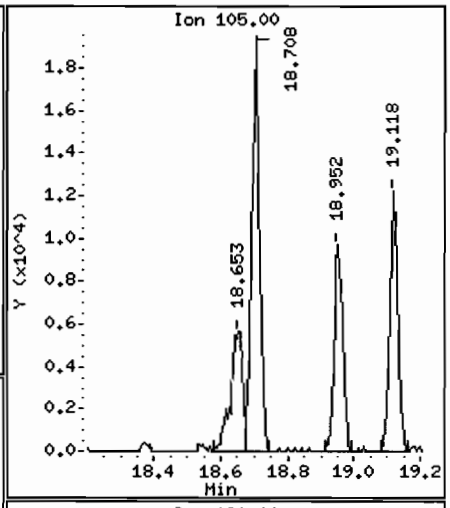

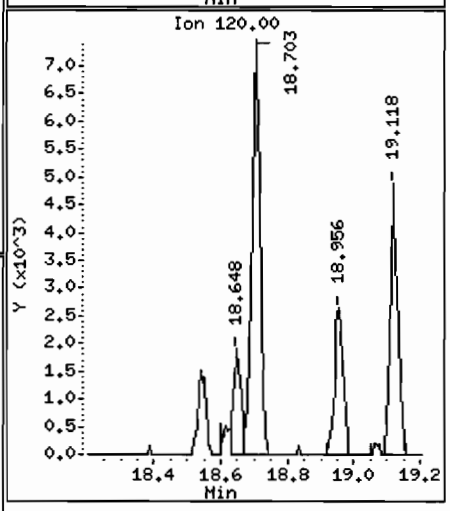

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875150|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

97 1,2,4-Trimethylbenzene

Concentration: 118 ug/Kg

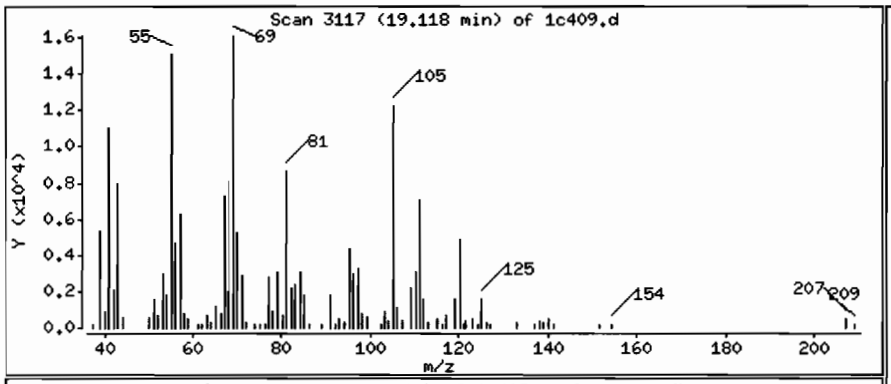

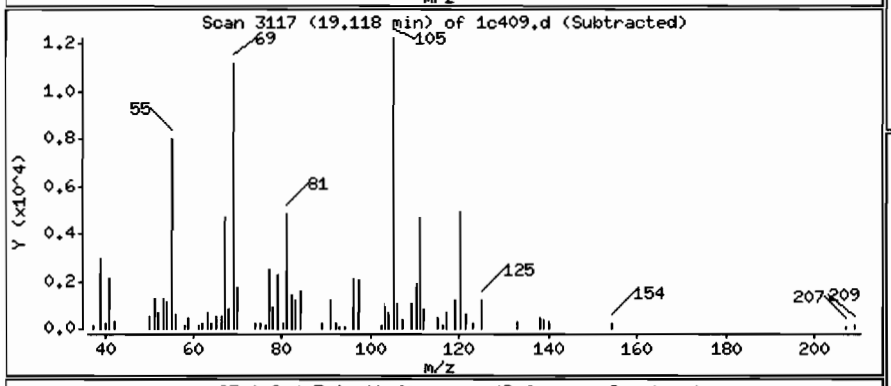

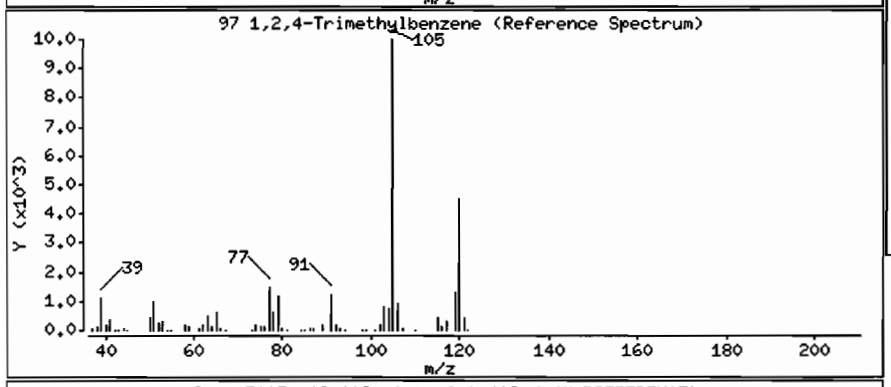

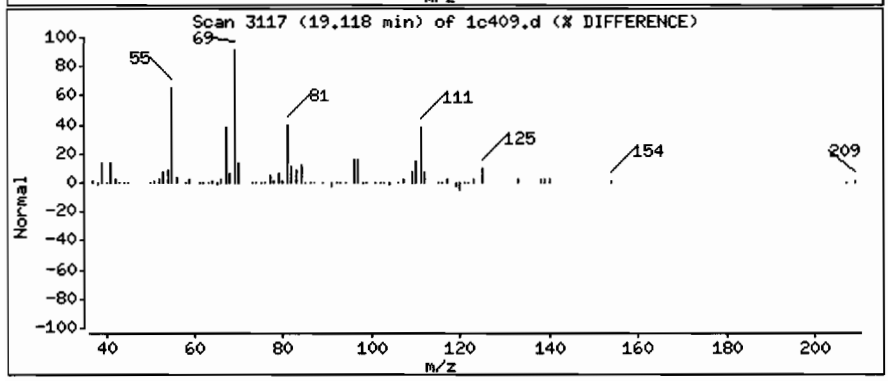

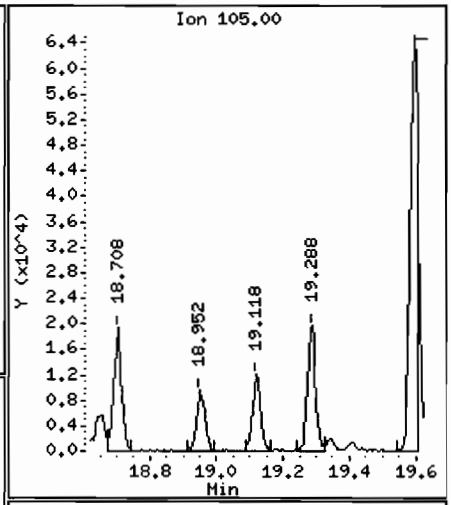

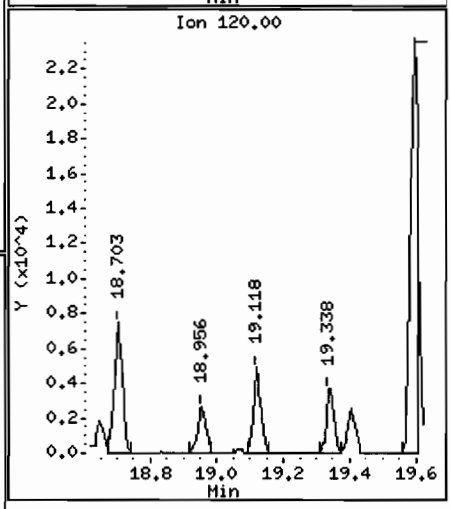

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875|50|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

99 sec-Butylbenzene

Concentration: 156 ug/Kg

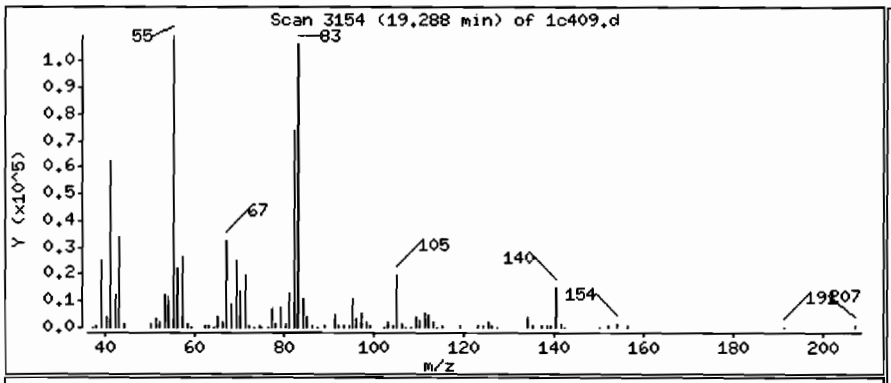

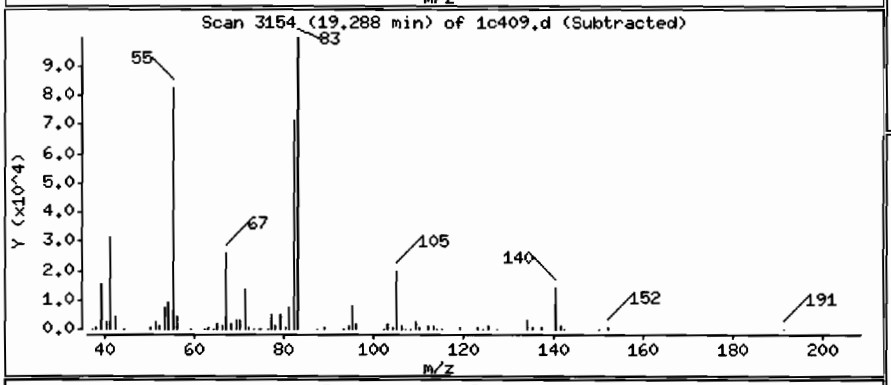

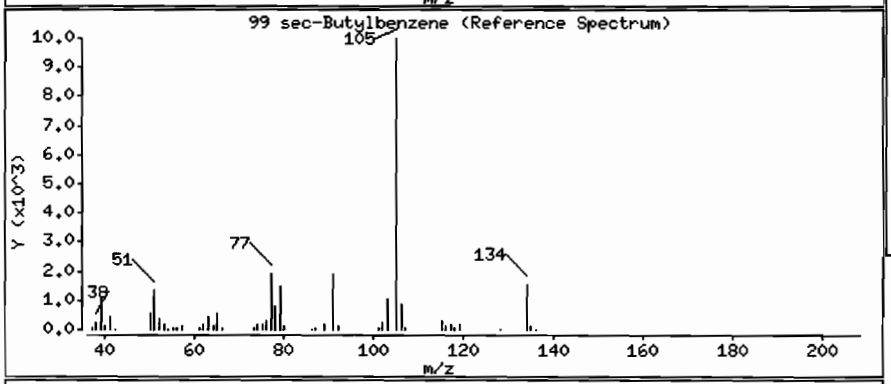

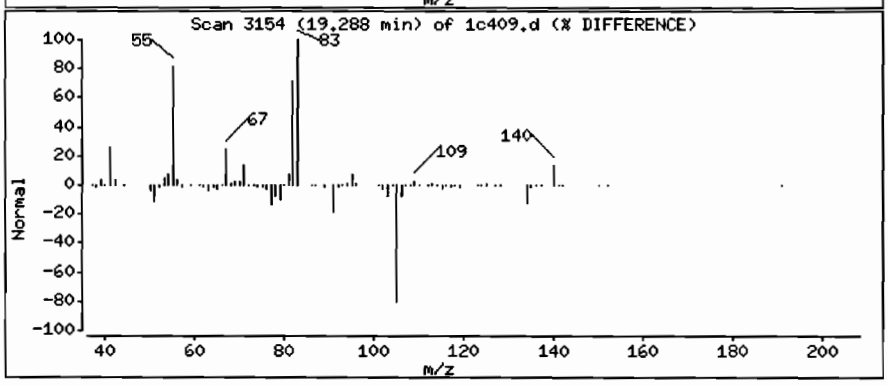

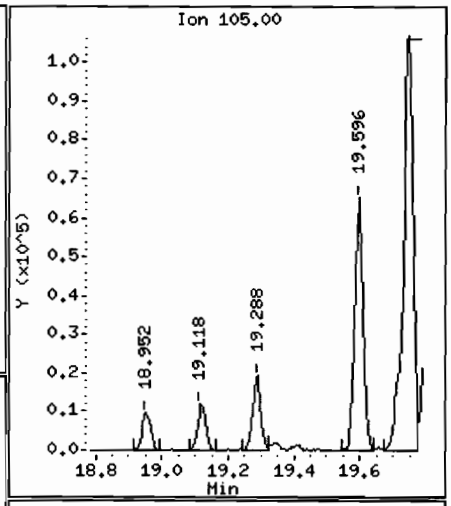

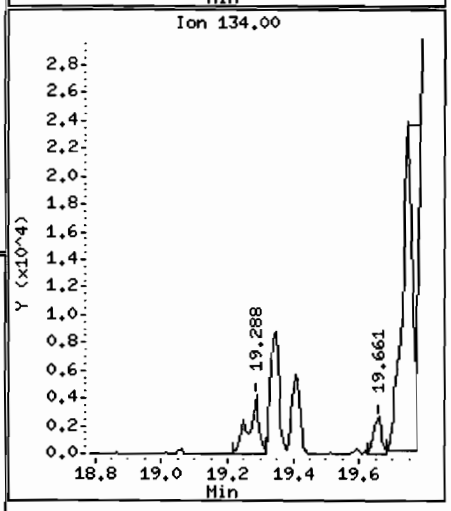

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875150|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

100 4-Isopropyltoluene

Concentration: 265 ug/Kg

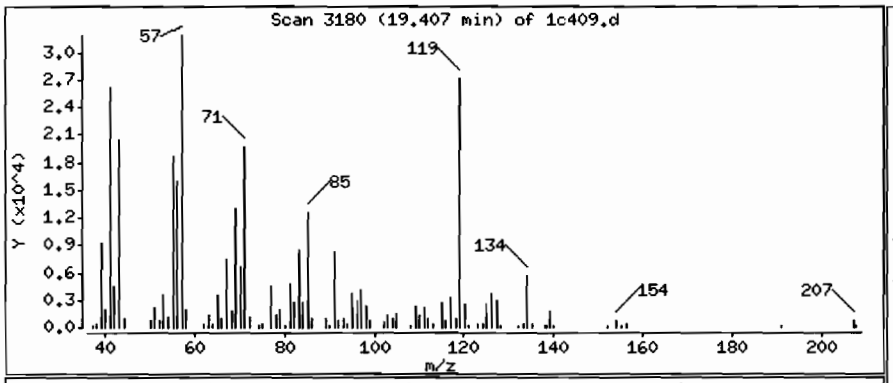

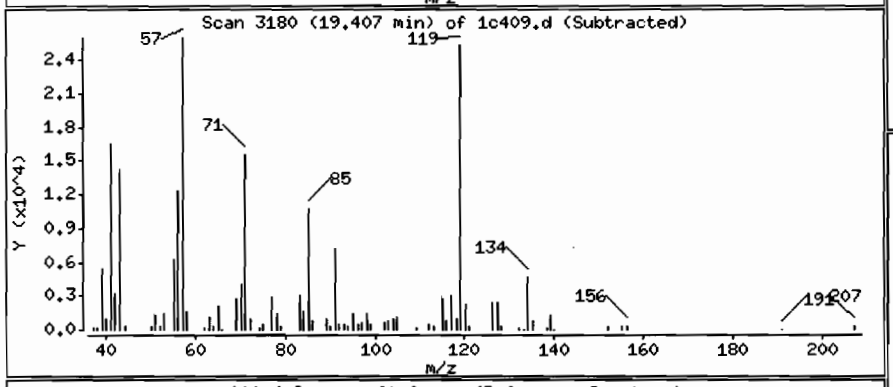

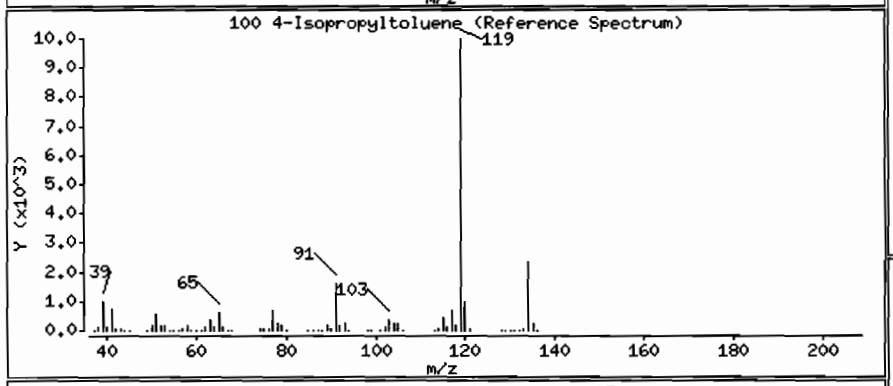

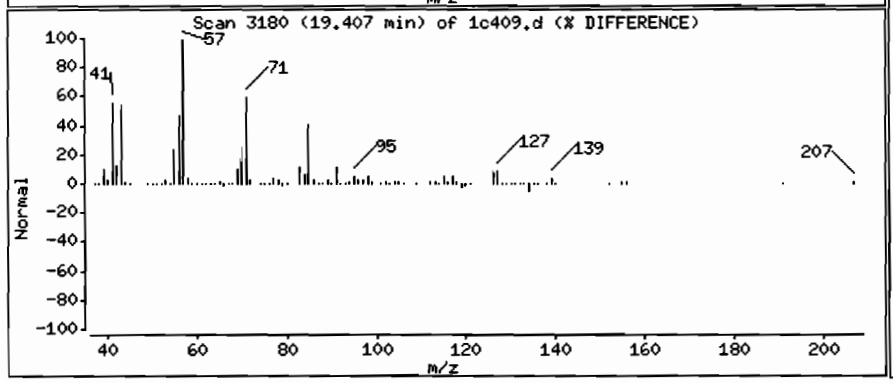

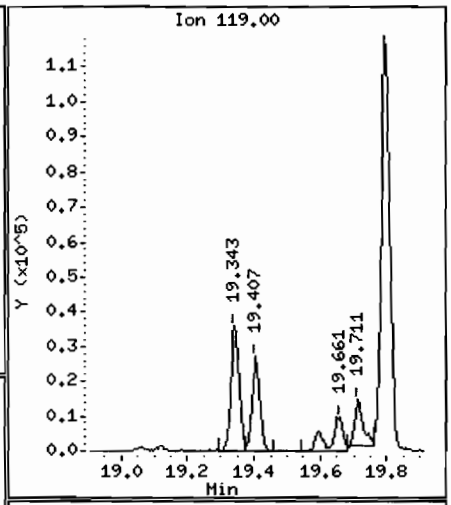

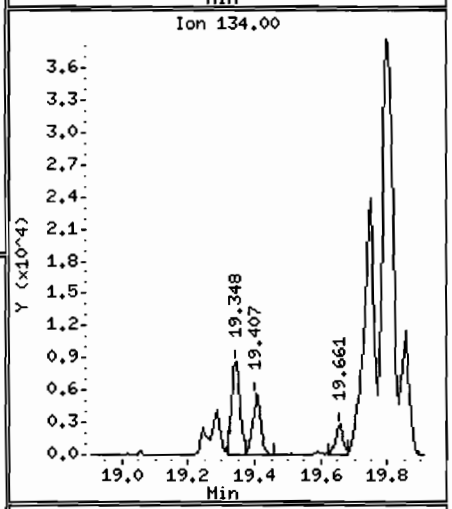

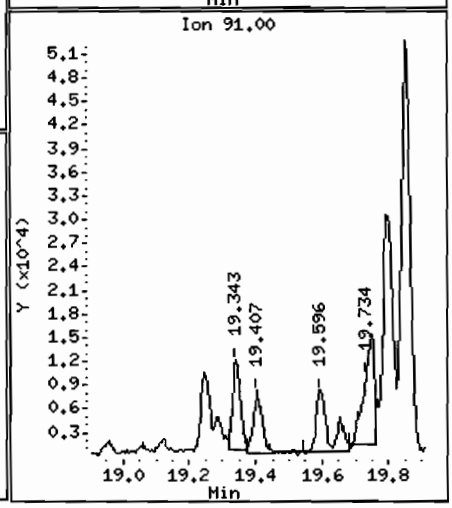

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875150|VOAF121

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

105 n-Butylbenzene

Concentration: 536 ug/Kg

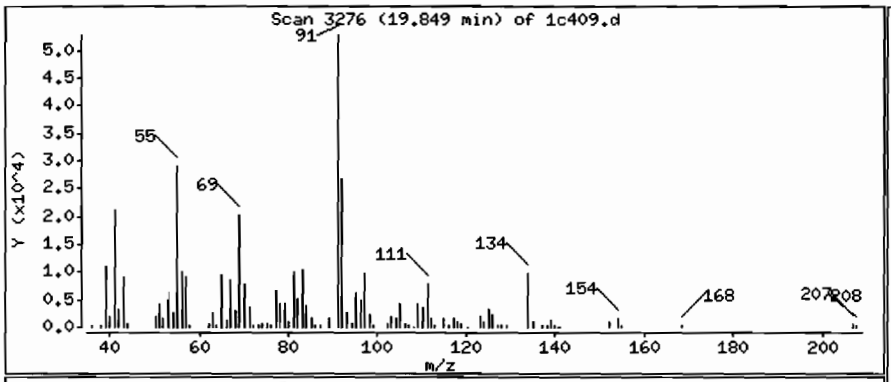

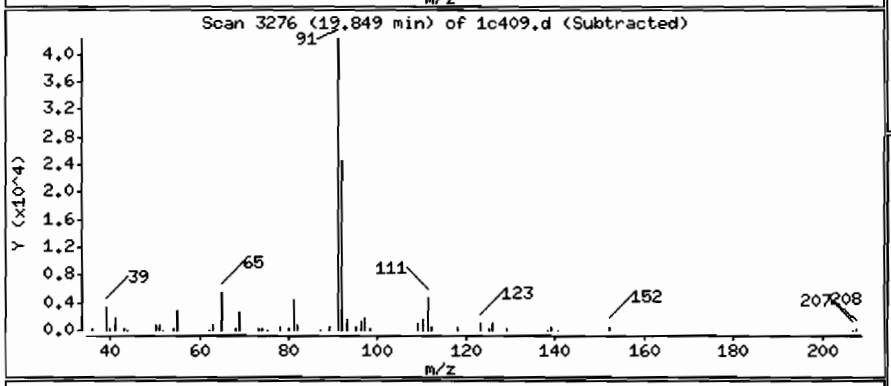

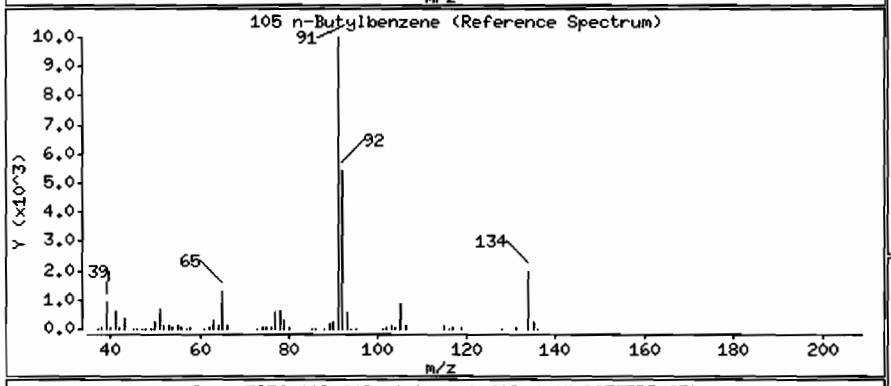

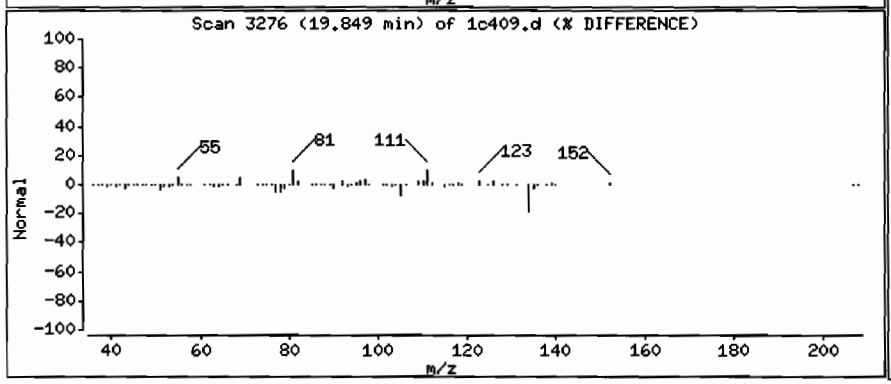

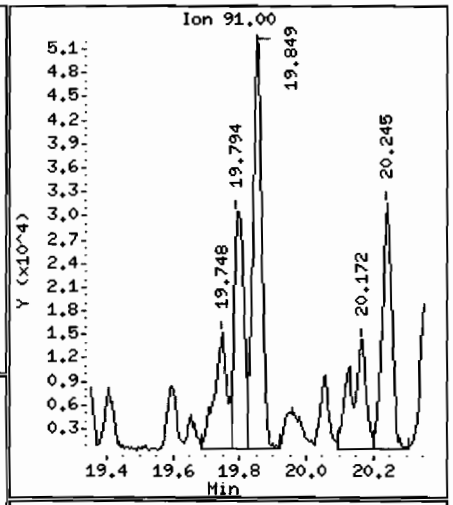

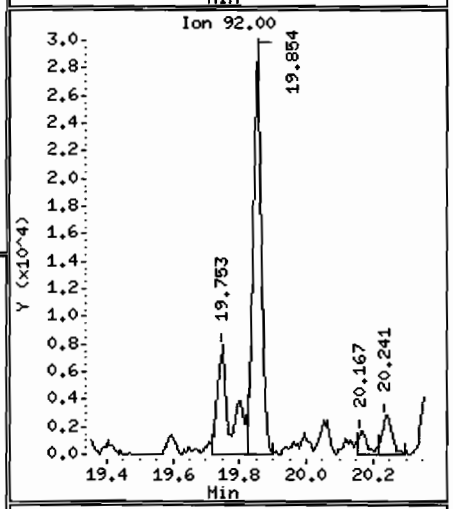

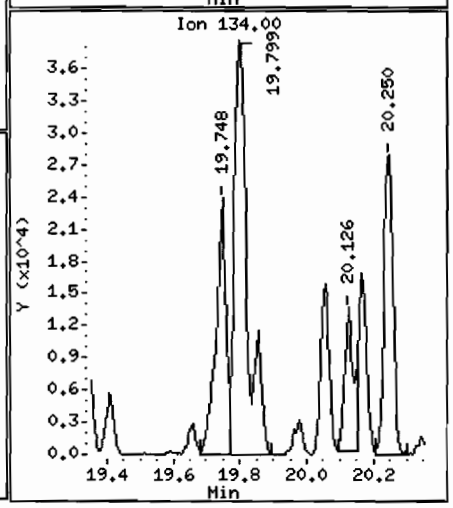

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875150|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bis(.beta.-chloroethyl) sulfone	471-03-4	NIST05.L	50083	17	C4H8Cl2O2S	190

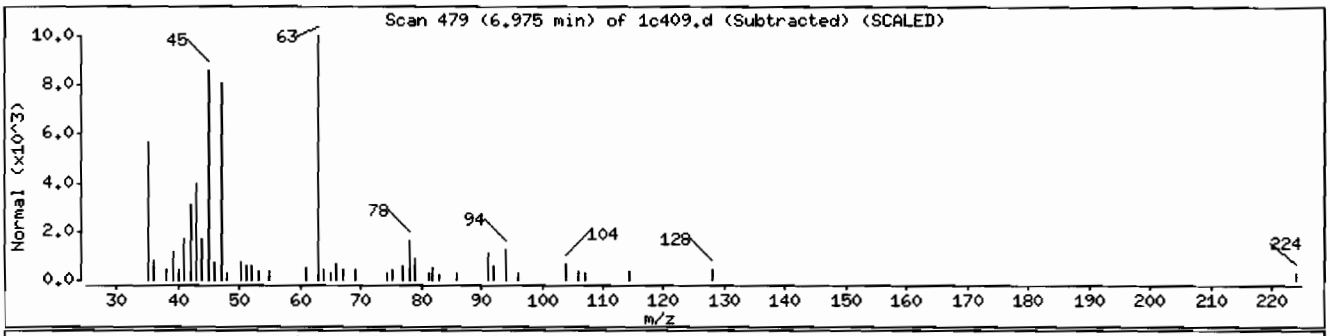

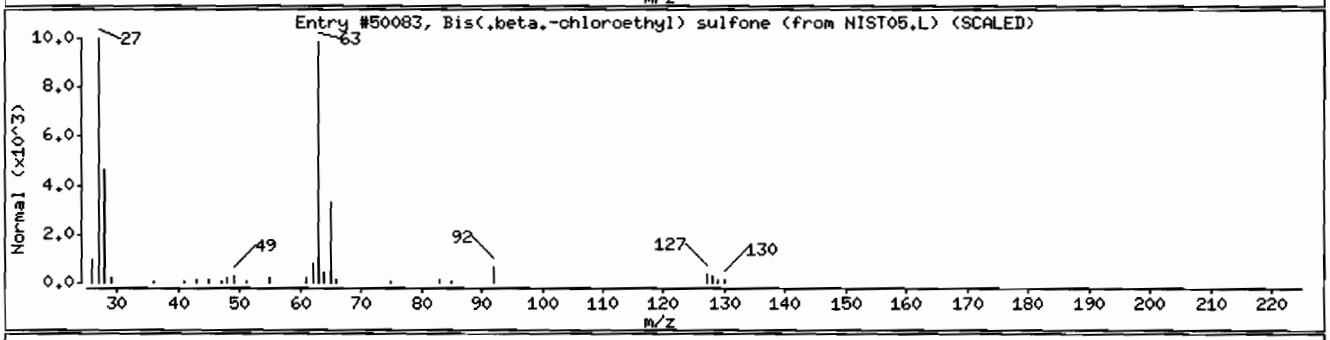

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875150|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Octane, 2,6-dimethyl-	2051-30-1	NIST05.L	18527	64	C10H22	142
Octane, 2,6-dimethyl-	2051-30-1	NIST05.L	18524	64	C10H22	142
Octane, 3,6-dimethyl-	15869-94-0	NIST05.L	18514	50	C10H22	142

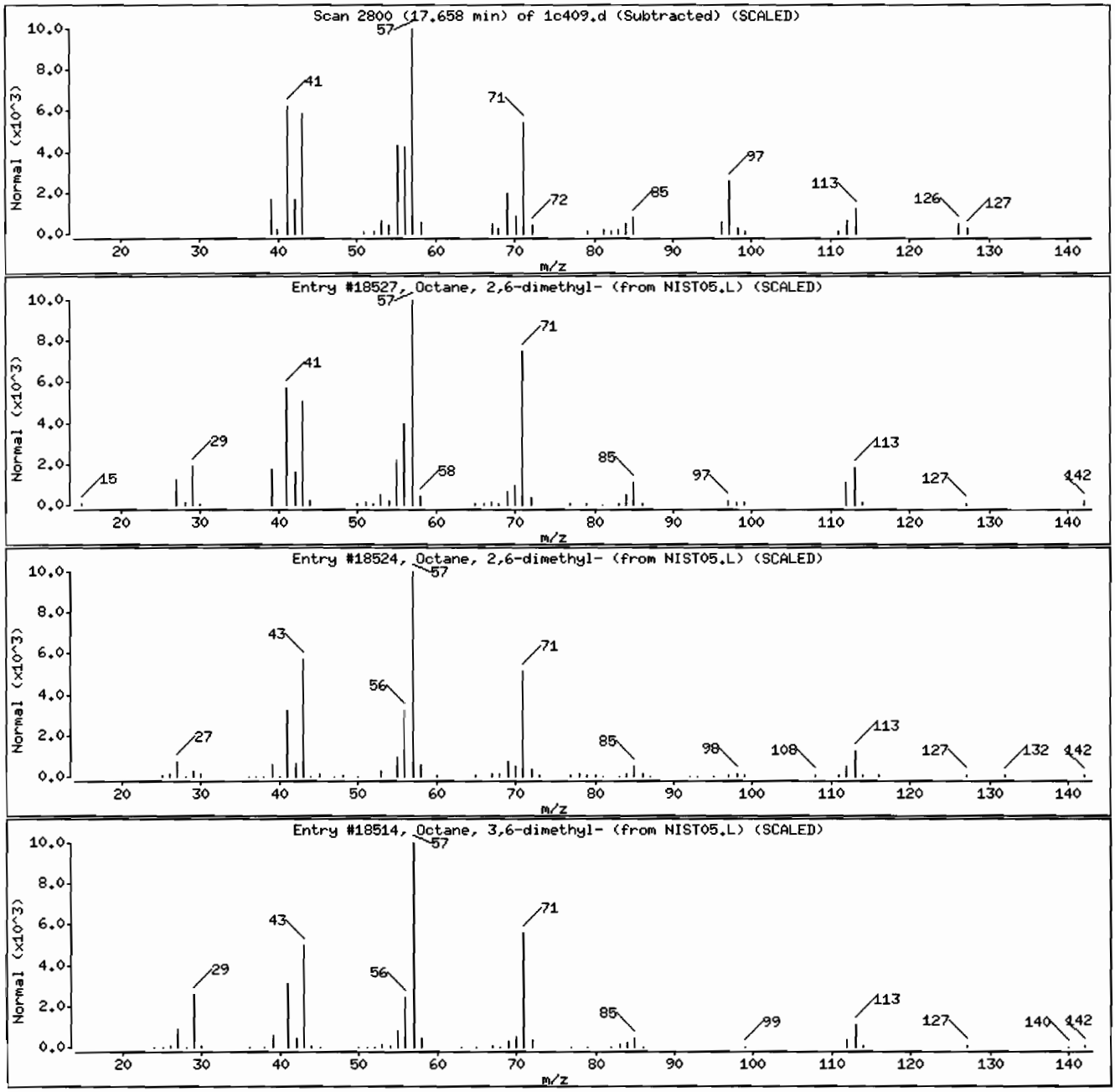

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: 1248842004|965875|50|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
aS-Triazine-3,5(2H,4H)-dione, 6-bromo-	4956-05-2	NIST05.L	50637	30	C3H2BrN3O2	191
1-Anthracenamine	610-49-1	NIST05.L	52061	27	C14H11N	193
1H-Isoindole-1,3(2H)-dithione, 2-methyl-	35373-10-5	NIST05.L	52227	25	C9H7NS2	193

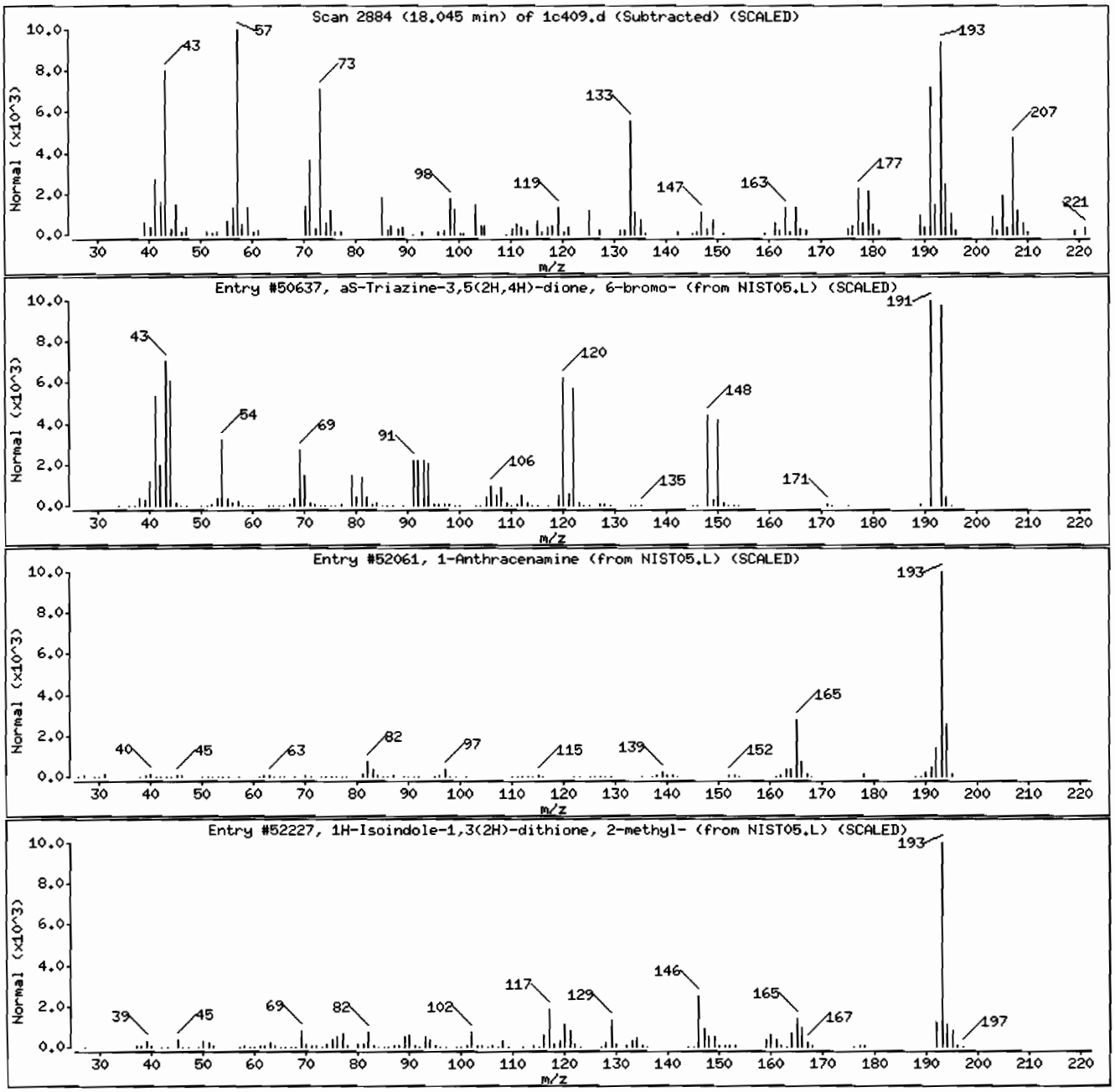

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875150|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Undecane	1120-21-4	NIST05.L	27236	94	C11H24	156
Undecane	1120-21-4	NIST05.L	27237	76	C11H24	156
Undecane	1120-21-4	NIST05.L	27240	64	C11H24	156

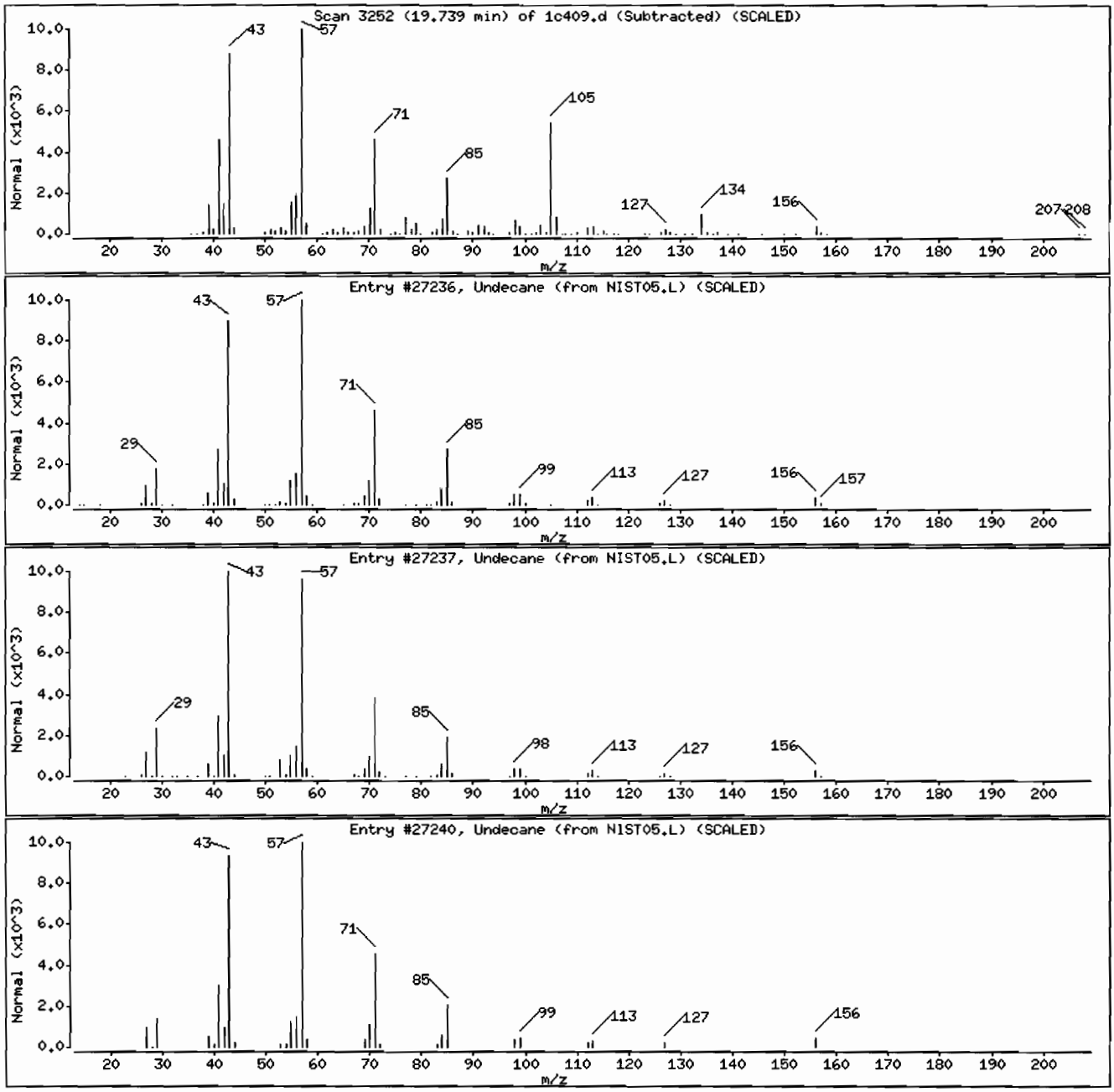

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875150|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16353	97	C10H18	138
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16354	96	C10H18	138
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16349	93	C10H18	138

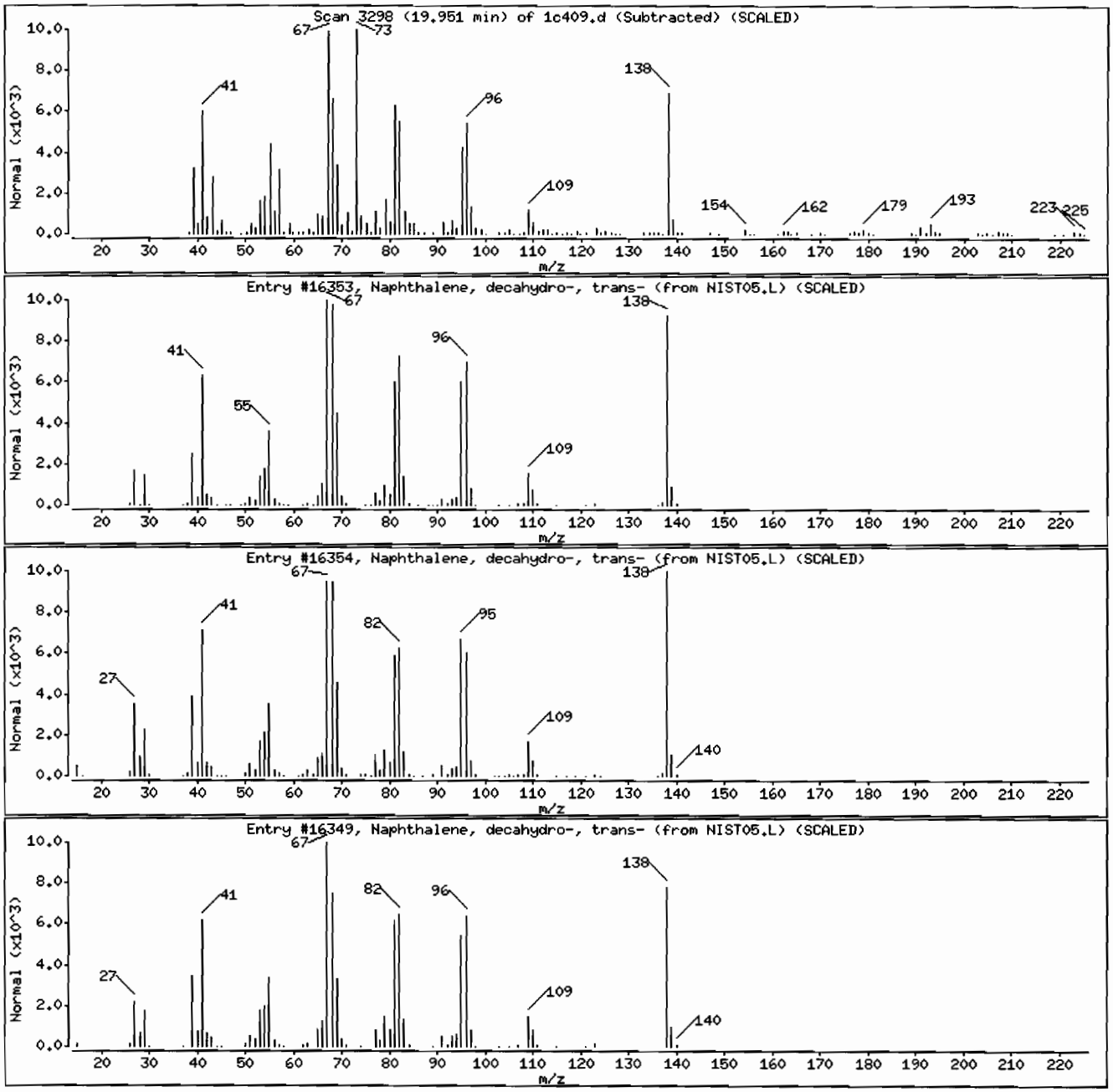

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: 1248842004196587515 0|VOAF121

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Naphthalene, decahydro-2-methyl-	2958-76-1	NIST05.L	24413	95	C11H20	152
1-Methyldecahydronaphthalene	2958-75-0	NIST05.L	24403	86	C11H20	152
Naphthalene, decahydro-2-methyl-	2958-76-1	NIST05.L	24412	86	C11H20	152

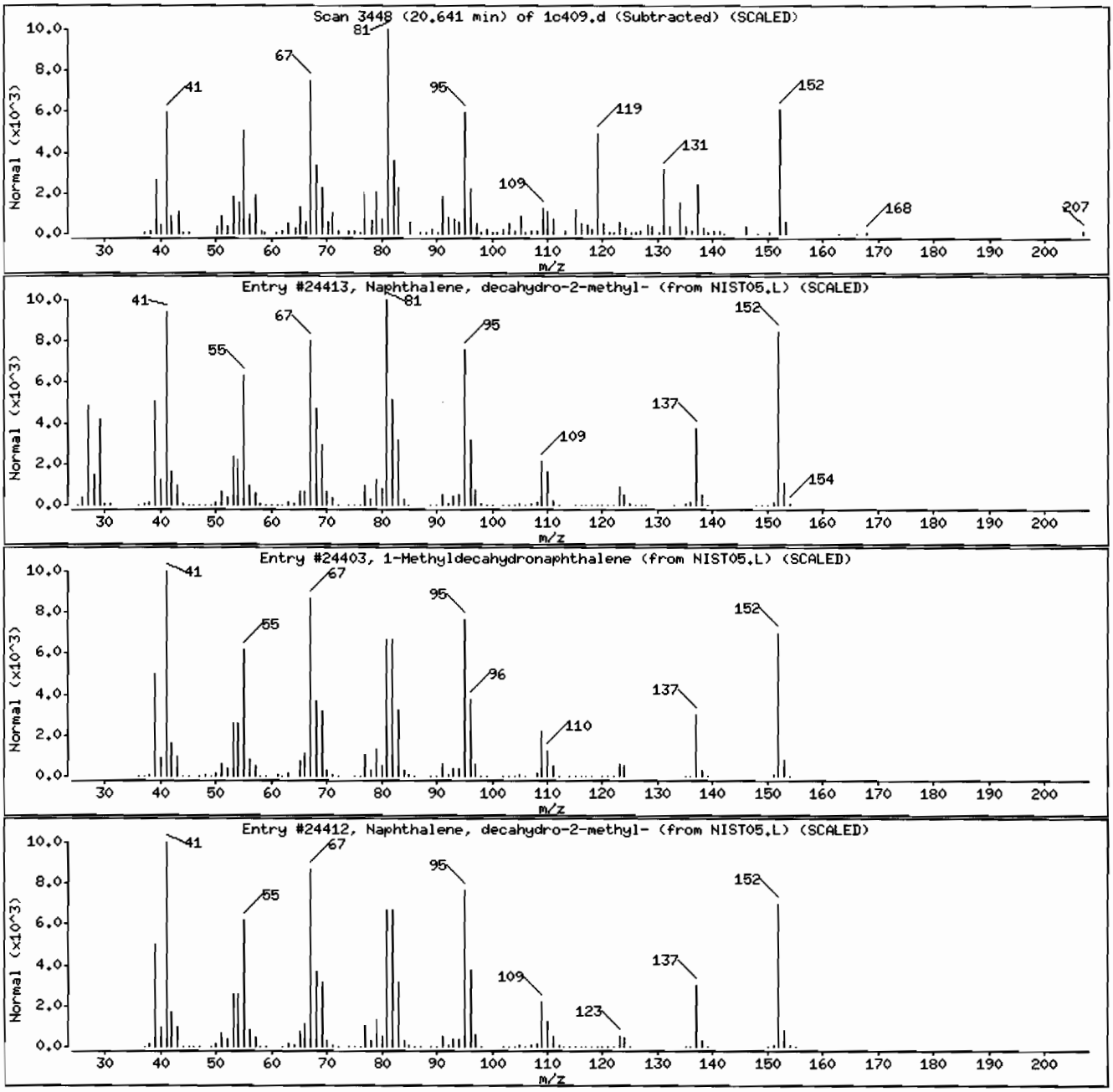

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875150|VOAF|2|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 4-ethyl-1,2-dimethyl-	934-80-5	NIST05.L	14401	96	C10H14	134
Benzene, 1-ethyl-2,3-dimethyl-	933-98-2	NIST05.L	14393	95	C10H14	134
Benzene, 2-ethyl-1,3-dimethyl-	2870-04-4	NIST05.L	14386	94	C10H14	134

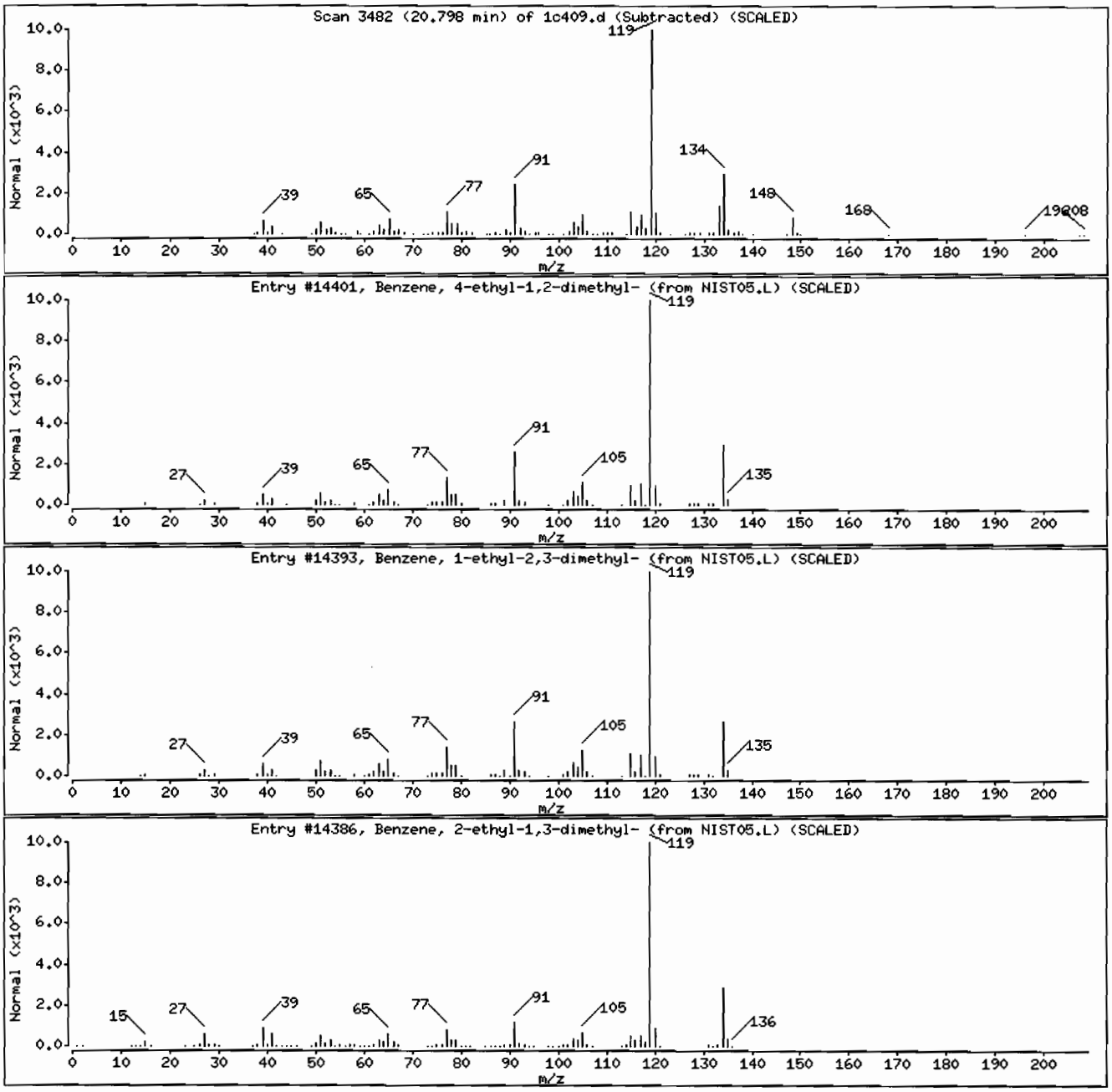

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: 1248842004196587515 01VOAF121

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Dodecane	112-40-3	NIST05.L	36431	94	C12H26	170
Dodecane	112-40-3	NIST05.L	36428	90	C12H26	170
Hexadecane	544-76-3	NIST05.L	76090	78	C16H34	226

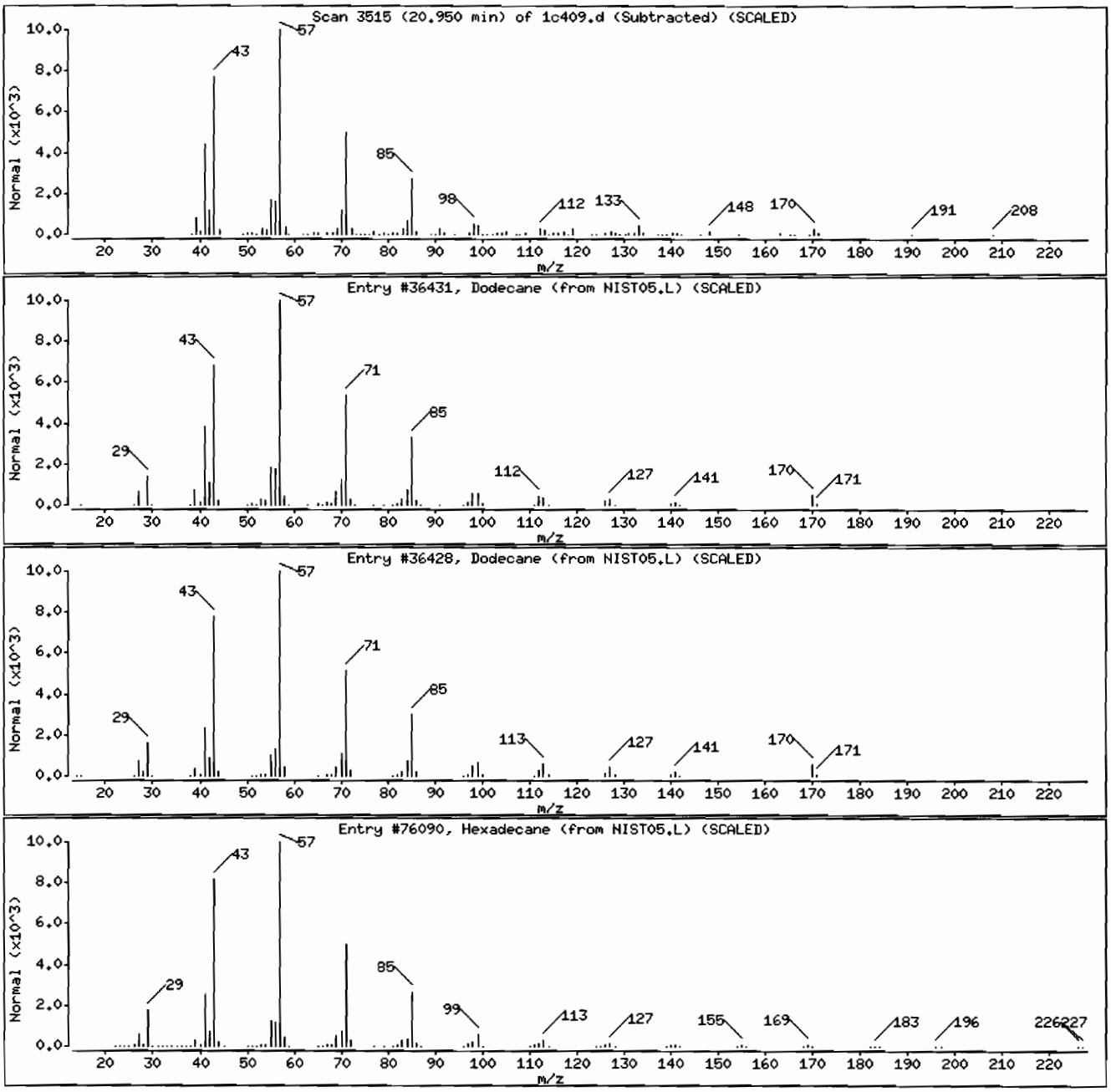

Data File: /chem/VOA1.i/031810v1/1c409.d

Date : 18-MAR-2010 13:14

Client ID: RE46-10-13551

Instrument: VOA1.i

Sample Info: |2488420041965875150|VOAF12|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 1-ethyl-2,3-dimethyl-	933-98-2	NIST05.L	14399	97	C10H14	134
Benzene, 1-ethyl-3,5-dimethyl-	934-74-7	NIST05.L	14396	95	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST05.L	14425	95	C10H14	134

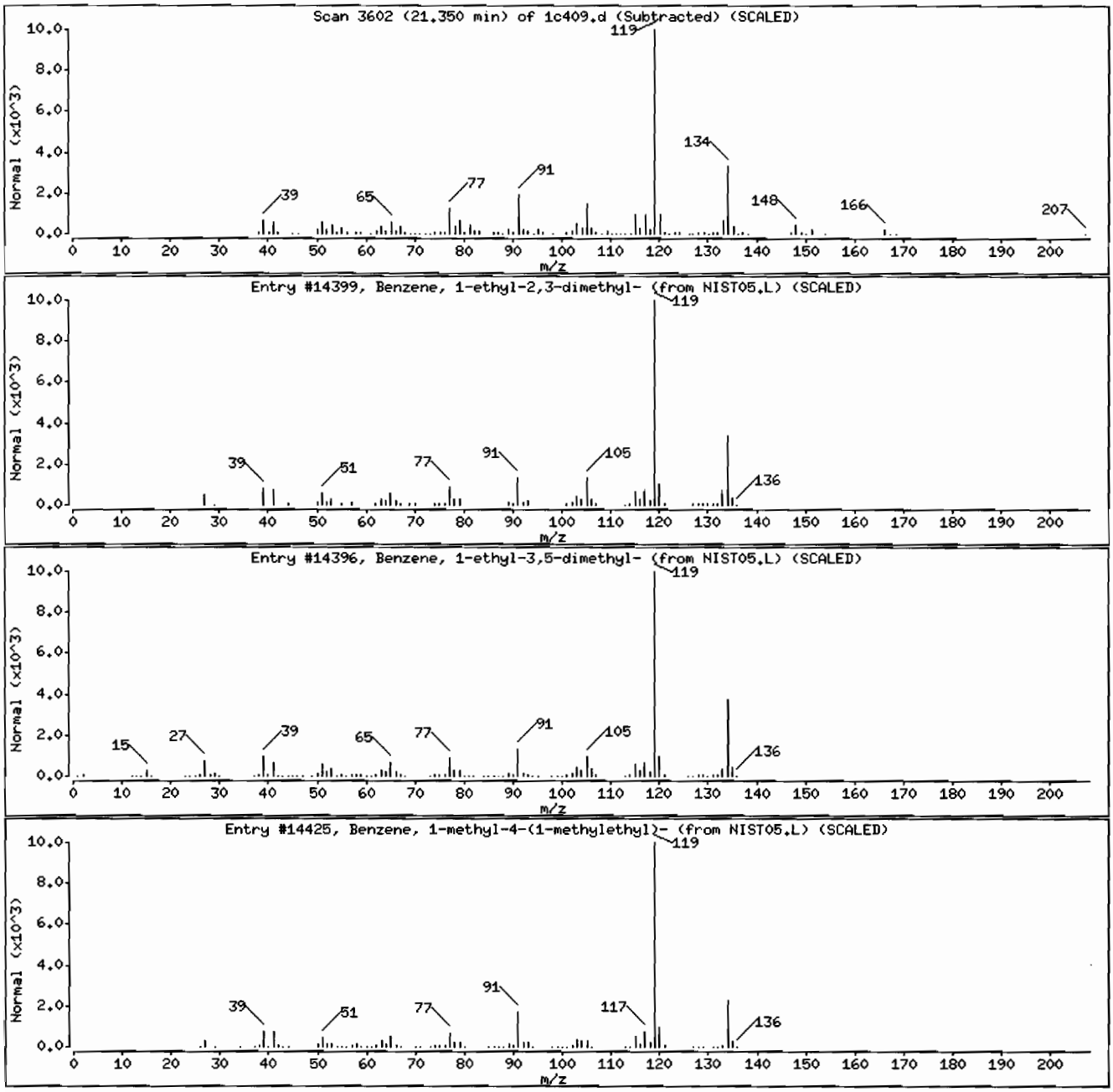

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13552**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 16:31**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:19**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c312.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.389	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15
67-64-1	Acetone		62.9	ug/kg	1.90	5.73
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.73	ug/kg	1.83	5.73
75-09-2	Methylene chloride	U	5.73	ug/kg	2.29	5.73
75-15-0	Carbon disulfide	U	5.73	ug/kg	1.43	5.73
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15
78-93-3	2-Butanone	U	5.73	ug/kg	1.72	5.73
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.378	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15
79-01-6	Trichloroethylene		10.9	ug/kg	0.378	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15
108-10-1	4-Methyl-2-pentanone	U	5.73	ug/kg	1.43	5.73
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15
591-78-6	2-Hexanone	U	5.73	ug/kg	1.72	5.73
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15
127-18-4	Tetrachloroethylene		3.36	ug/kg	0.344	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13552**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 16:31**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:19**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c312.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	J	0.404	ug/kg	0.344	1.15
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29
95-47-6	o-Xylene	J	0.908	ug/kg	0.344	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15
103-65-1	n-Propylbenzene		3.38	ug/kg	0.344	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-82-8	Isopropylbenzene	J	0.866	ug/kg	0.344	1.15
108-67-8	1,3,5-Trimethylbenzene		12.5	ug/kg	0.344	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15
95-63-6	1,2,4-Trimethylbenzene		9.83	ug/kg	0.344	1.15
135-98-8	sec-Butylbenzene		7.77	ug/kg	0.344	1.15
99-87-6	4-Isopropyltoluene		11.9	ug/kg	0.344	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
104-51-8	n-Butylbenzene		19.8	ug/kg	0.344	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.73	ug/kg	1.83	5.73
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	18.82	84.7	ug/kg		J
	Unknown Hydrocarbon	19.24	72.6	ug/kg		J
	Unknown Hydrocarbon	19.74	180	ug/kg		J
	Unknown Hydrocarbon	19.8	56.5	ug/kg		J
	Unknown Hydrocarbon	19.96	106	ug/kg		J
	Unknown Hydrocarbon	20.11	109	ug/kg		J
	Unknown Hydrocarbon	20.4	89.8	ug/kg		J
	Unknown Hydrocarbon	20.51	45.1	ug/kg		J
	Unknown Hydrocarbon	20.64	83.5	ug/kg		J
	Unknown Hydrocarbon	20.8	47.3	ug/kg		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13552**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 16:31**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:19**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c312.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Hydrocarbon	20.95	140	ug/kg		J
	Unknown Hydrocarbon	21.13	76.1	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c312.d
Lab Smp Id: 248842008 Client Smp ID: RE46-10-13552
Inj Date : 17-MAR-2010 16:31
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842008|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 17:24 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	12.67710	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	1173634	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	877065	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.596	(1.000)	477705	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	533990	46.5982	53.4
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1432907	48.5754	55.6
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	642595	53.6540	61.4
16 Acetone	43	9.240	9.240	(0.676)	382070	54.9536	62.9
54 Trichloroethylene	95	14.105	14.105	(1.032)	65822	9.49265	10.9
70 Tetrachloroethylene	164	16.172	16.181	(0.943)	15874	2.93789	3.4
78 Ethylbenzene	91	17.203	17.207	(1.003)	11914	0.35253	0.40(a)
81 o-Xylene	106	17.774	17.769	(1.036)	9324	0.79278	0.91(a)
89 n-Propylbenzene	91	18.542	18.547	(0.946)	117220	2.95045	3.4
84 Isopropylbenzene	105	18.114	18.114	(0.924)	24569	0.75654	0.87(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
93 1,3,5-Trimethylbenzene	105	18.703	18.703	(0.954)	310629	10.9569	12.5
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	252890	8.58212	9.8
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	244734	6.78124	7.8
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	293053	10.4252	11.9
105 n-Butylbenzene	91	19.854	19.854	(1.013)	523632	17.2515	19.8(Q)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

VOA REPORT

Data file: 1c312.d
Report Date: 03/18/2010 05:12
Lab. ID: 248842008 SampleType: SAMPLE
Injection Date: 17-MAR-2010 16:31
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248842008|965875|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	382070	9.24	9.24	80-120	100	( )
58	115139	9.24	9.23	0- 60	30	( )
35 2-Butanone			CAS#: 78-93-3			
43	47904	11.88	12.17	80-120	100	(T)
72	5311	11.89	12.17	0- 54	11	(T)
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	19254	13.67	13.43	80-120	100	(T)
64	3289	13.68	13.43	2- 62	17	(T)
54 Trichloroethylene			CAS#: 79-01-6			
95	65822	14.11	14.10	80-120	100	( )
97	43105	14.11	14.10	35- 95	65	( )
130	54964	14.11	14.10	55-115	84	( )
63 cis-1,3-Dichloropropylene			CAS#: 10061-01-5			
75	14751	15.71	15.24	80-120	100	(T)
77	10285	15.72	15.24	2- 62	70	(QT)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	12721	15.51	15.35	80-120	100	(T)
43	9700	15.50	15.35	208-268	76	(QT)
100	902315	15.50	15.35	1- 61	7093	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
68 trans-1,3-Dichloropropylene				CAS#: 10061-02-6		
75	32678	15.73	15.87	80-120	100	(T)
77	43146	15.76	15.87	2- 62	132	(QT)
69 1,1,2-Trichloroethane				CAS#: 79-00-5		
83	13791	16.43	16.09	80-120	100	(T)
97	1508	16.45	16.09	87-147	11	(QT)
85	1025	16.42	16.09	35- 95	7	(QT)
72 1,3-Dichloropropane				CAS#: 142-28-9		
76	14707	16.52	16.30	80-120	100	(T)
78	16606	16.53	16.30	3- 63	113	(QT)
71 2-Hexanone				CAS#: 591-78-6		
43	14746	16.54	16.25	80-120	100	(T)
58	3442	16.50	16.25	28- 88	23	(QT)
70 Tetrachloroethylene				CAS#: 127-18-4		
164	15874	16.17	16.18	80-120	100	( )
129	15505	16.18	16.18	64-124	98	( )
131	14828	16.18	16.18	62-122	93	( )
73 Dibromochloromethane				CAS#: 124-48-1		
129	15505	16.18	16.54	80-120	100	(T)
127	579	16.49	16.54	47-107	4	(Q)
78 Ethylbenzene				CAS#: 100-41-4		
91	11914	17.20	17.21	80-120	100	( )
106	2777	17.21	17.21	0- 58	23	( )
81 o-Xylene				CAS#: 95-47-6		
106	9324	17.77	17.77	80-120	100	( )
91	24757	17.77	17.77	211-271	266	( )
80 m,p-Xylenes				CAS#:		
106	9324	17.77	17.32	80-120	100	(T)
91	24758	17.77	17.32	198-258	266	(QT)
84 Isopropylbenzene				CAS#: 98-82-8		
105	24569	18.11	18.11	80-120	100	( )
120	5559	18.11	18.11	0- 53	23	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
88 1,1,2,2-Tetrachloroethane				CAS#: 79-34-5		
83	113372	18.47	18.50	80-120	100	( )
85	592909	18.52	18.50	35- 95	523	(Q)
92 1,2,3-Trichloropropane				CAS#: 96-18-4		
110	47208	18.60	18.59	80-120	100	( )
75	1650	18.65	18.59	318-378	3	(QT)
77	188997	18.70	18.58	787-847	400	(QT)
89 n-Propylbenzene				CAS#: 103-65-1		
91	151998	18.54	18.55	80-120	100	( )
120	21668	18.54	18.55	0- 50	14	( )
94 2-Chlorotoluene				CAS#: 95-49-8		
91	40940	18.70	18.73	80-120	100	( )
126	16223	18.72	18.73	0- 53	40	( )
93 1,3,5-Trimethylbenzene				CAS#: 108-67-8		
105	310629	18.70	18.70	80-120	100	( )
120	127665	18.71	18.70	11- 71	41	( )
97 1,2,4-Trimethylbenzene				CAS#: 95-63-6		
105	252890	19.12	19.12	80-120	100	( )
120	95395	19.12	19.12	9- 69	38	( )
95 4-Chlorotoluene				CAS#: 106-43-4		
91	40986	18.95	18.84	80-120	100	(T)
126	14624	18.92	18.84	0- 56	36	(T)
96 tert-Butylbenzene				CAS#: 98-06-6		
119	13649	19.06	19.06	80-120	100	( )
91	40461	19.12	19.06	52-112	296	(Q)
134	3410	19.06	19.06	0- 52	25	( )
99 sec-Butylbenzene				CAS#: 135-98-8		
105	244734	19.29	19.29	80-120	100	( )
134	42522	19.29	19.29	0- 47	17	( )
100 4-Isopropyltoluene				CAS#: 99-87-6		
119	293053	19.41	19.41	80-120	100	( )
134	68527	19.41	19.41	0- 54	23	( )
91	171410	19.25	19.41	0- 59	58	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
103 1,4-Dichlorobenzene				CAS#: 106-46-7		
146	4677	20.07	19.62	80-120	100	(T)
111	469353	19.60	19.62	15- 75	10034	(Q)
148	3157	20.07	19.63	35- 95	67	(T)
105 n-Butylbenzene				CAS#: 104-51-8		
91	523632	19.85	19.85	80-120	100	( )
92	281508	19.85	19.85	25- 85	54	( )
134	604713	19.80	19.85	0- 52	115	(Q)
106 1,2-Dichlorobenzene				CAS#: 95-50-1		
146	4677	20.07	20.07	80-120	100	( )
111	783311	19.60	20.07	17- 77	16746	(QT)
148	3157	20.07	20.07	34- 94	67	( )
108 1,2-Dibromo-3-chloropropane				CAS#: 96-12-8		
157	1749	20.60	20.99	80-120	100	(T)
155	10598	20.58	20.98	50-110	606	(QT)
75	10050	20.65	20.98	88-148	574	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c312.d
Lab Smp Id: 248842008 Client Smp ID: RE46-10-13552
Inj Date : 17-MAR-2010 16:31
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842008|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 17:24 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	12.67710	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 102 1,4-Dichlorobenzene-d4	19.601	9450198	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon					CAS #:		
18.823	13976988	73.9507621	84.7	0		0	102
Unknown Hydrocarbon					CAS #:		
19.242	11982322	63.3971972	72.6	0		0	102

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Hydrocarbon					CAS #:		
19.739	29782282	157.574901	180	0		0	102
Unknown Hydrocarbon					CAS #:		
19.804	9327992	49.3534209	56.5	0		0	102
Unknown Hydrocarbon					CAS #:		
19.955	17465391	92.4075338	106	0		0	102
Unknown Hydrocarbon					CAS #:		
20.107	18010549	95.2919112	109	0		0	102
Unknown Hydrocarbon					CAS #:		
20.397	14823142	78.4276737	89.8	0		0	102
Unknown Hydrocarbon					CAS #:		
20.512	7443485	39.3826927	45.1	0		0	102
Unknown Hydrocarbon					CAS #:		
20.641	13774057	72.8770781	83.4	0		0	102
Unknown Hydrocarbon					CAS #:		
20.798	7803704	41.2885745	47.3	0		0	102
Unknown Hydrocarbon					CAS #:		
20.950	23116468	122.306788	140	0		0	102
Unknown Hydrocarbon					CAS #:		
21.134	12560631	66.4569675	76.1	0		0	102

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Sample Info: |2488420081965875|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2

Column diameter: 0.25

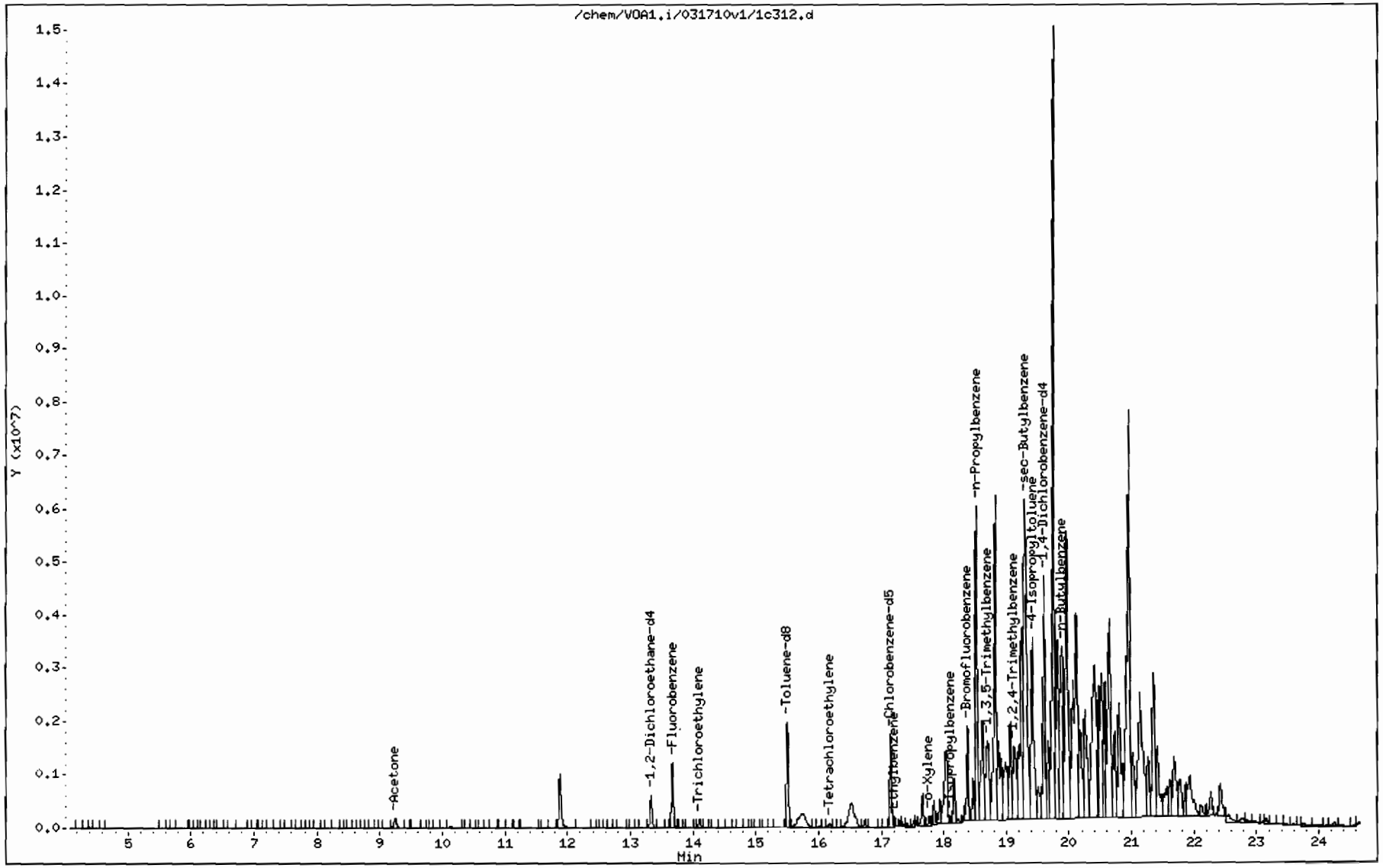

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 62.9 ug/Kg

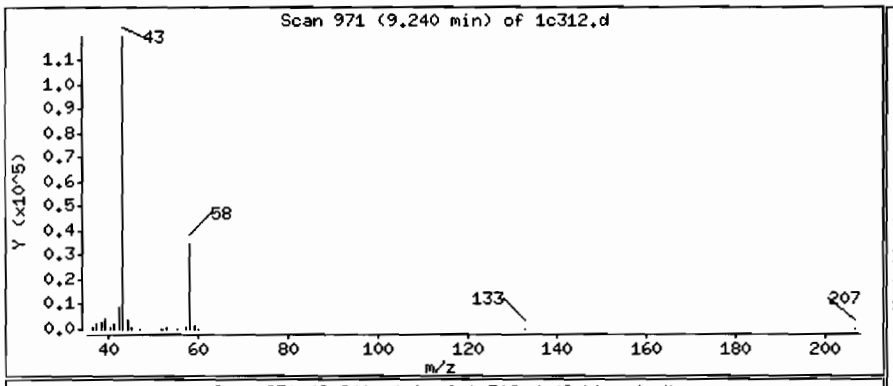

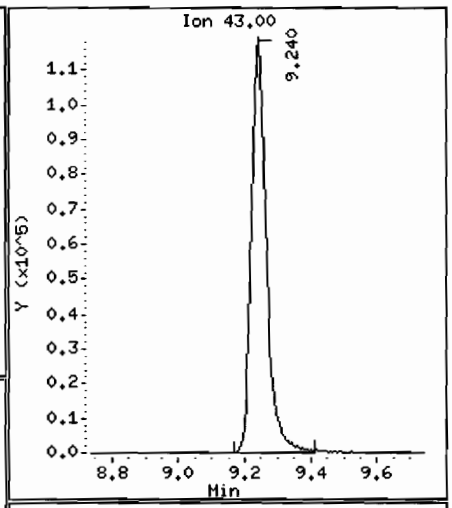

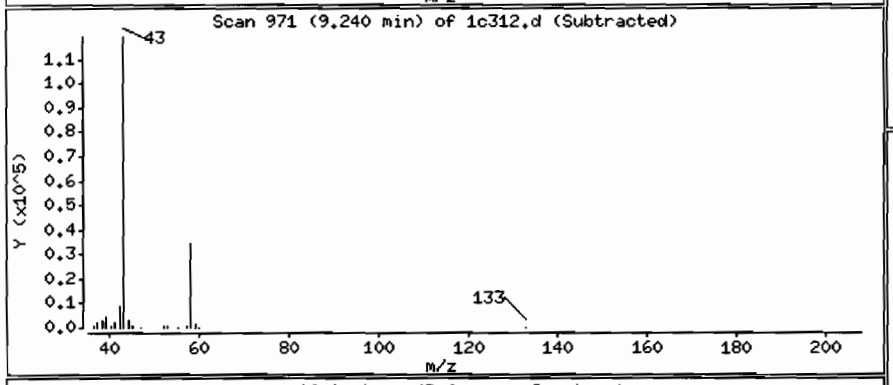

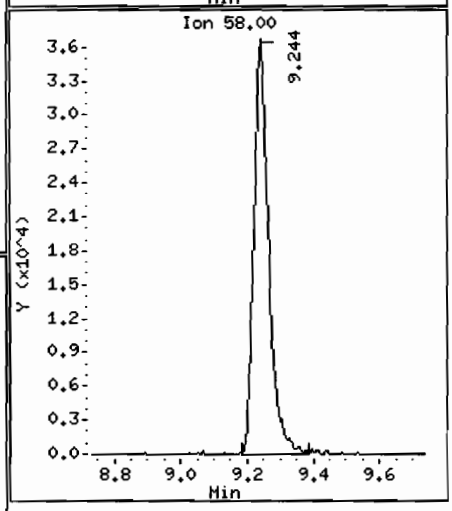

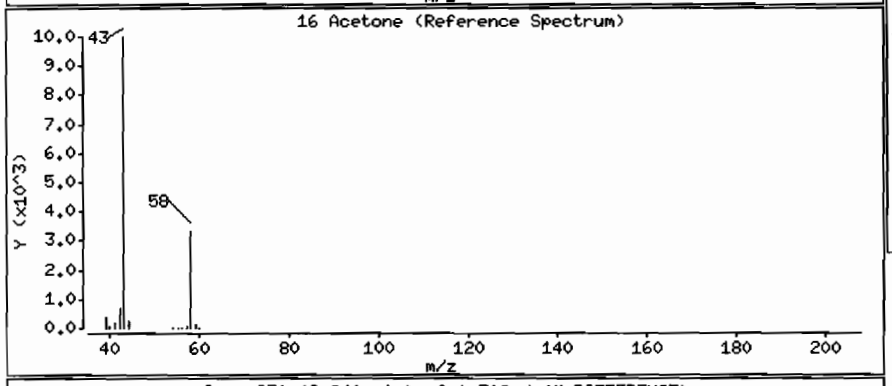

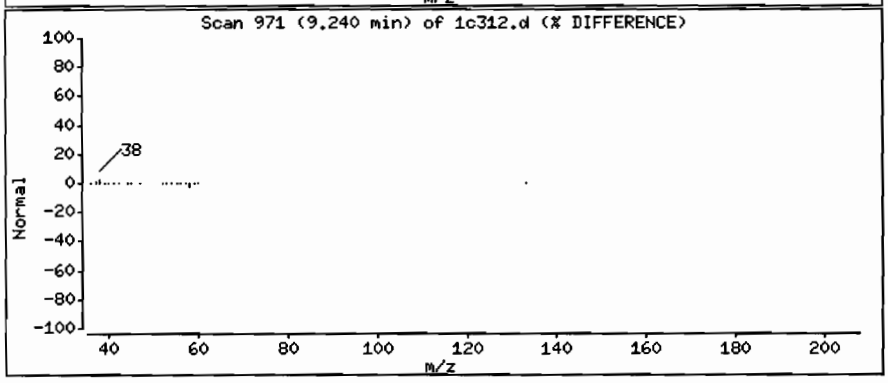

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

54 Trichloroethylene

Concentration: 10.9 ug/Kg

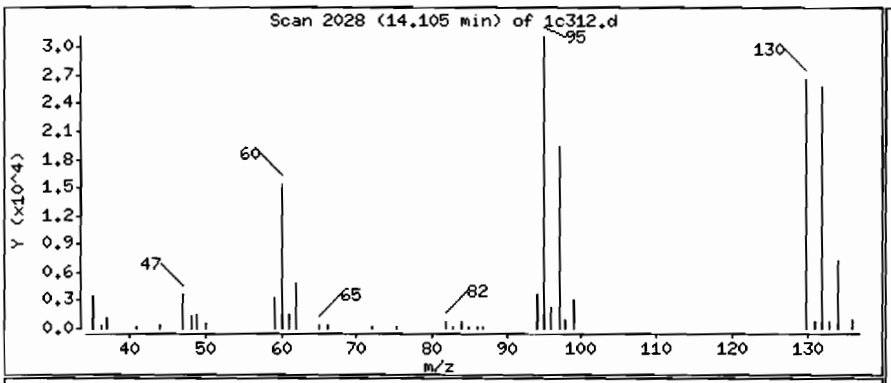

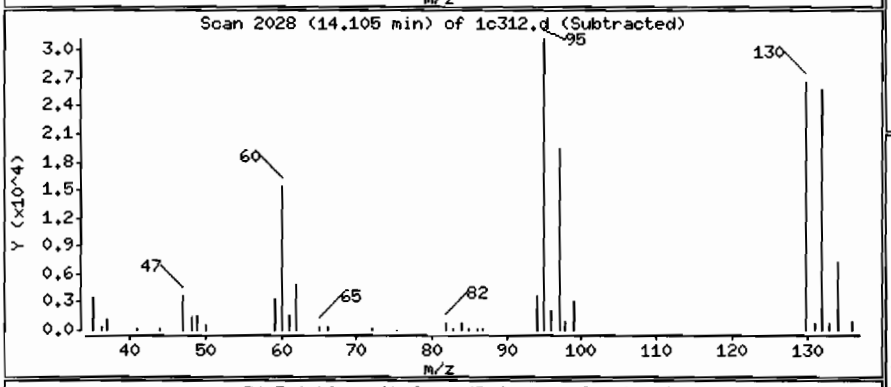

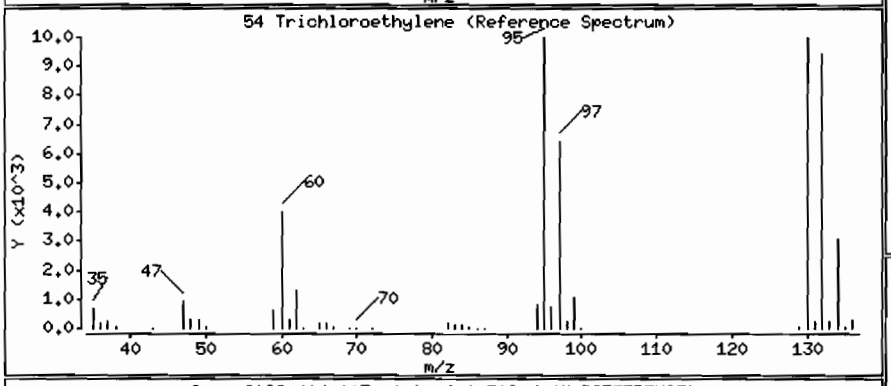

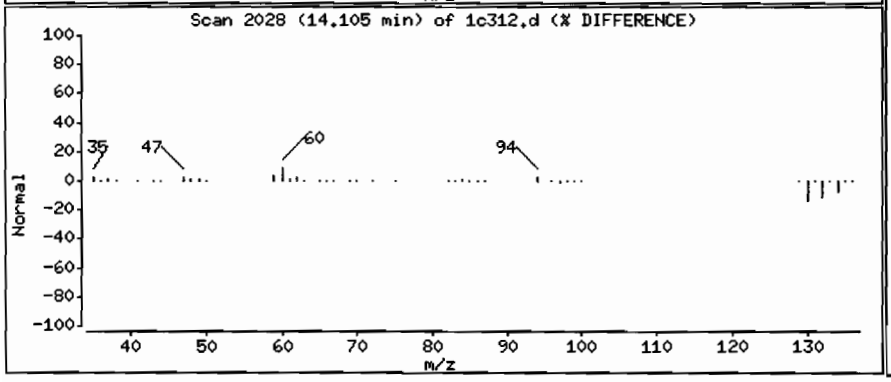

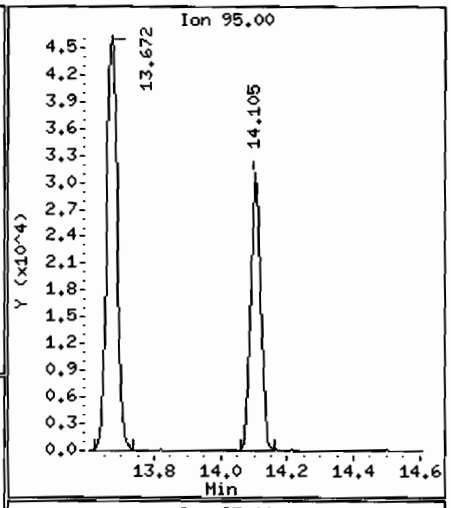

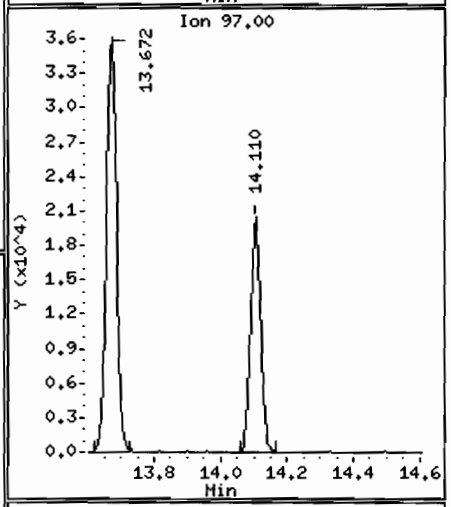

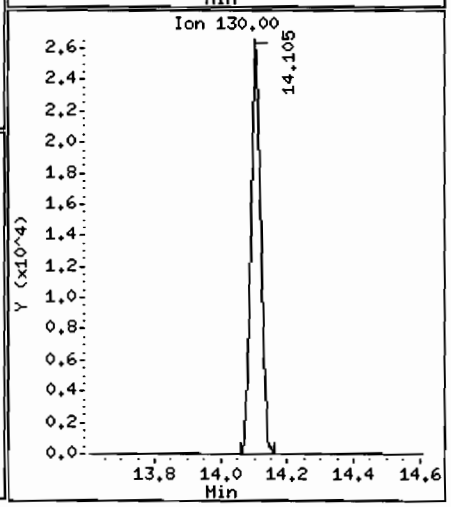

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: 1248842008196587511VOAF111

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

70 Tetrachloroethylene

Concentration: 3.4 ug/Kg

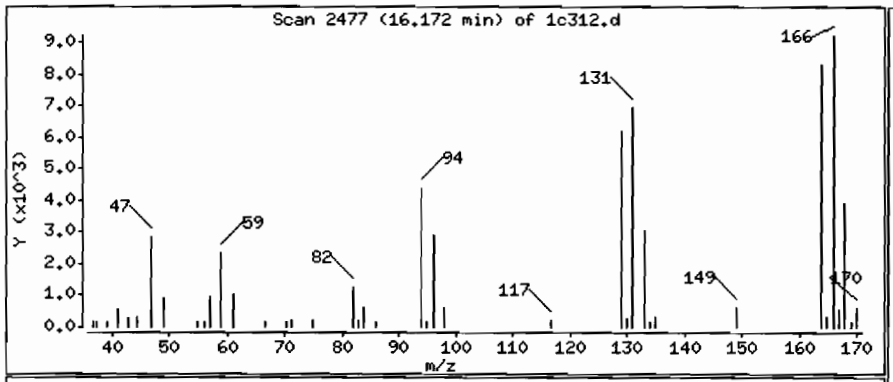

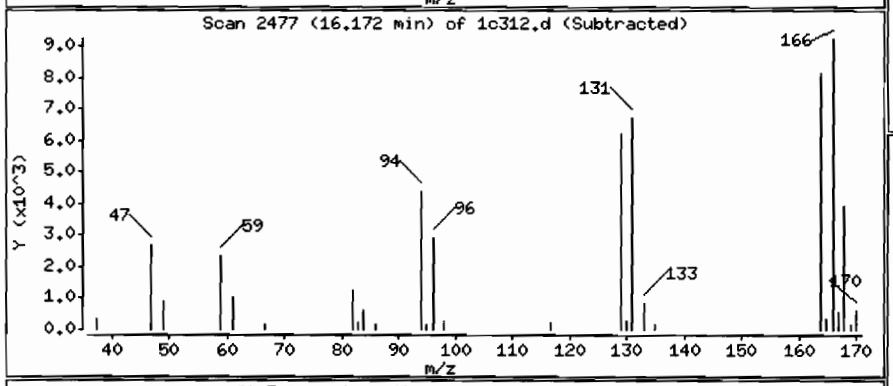

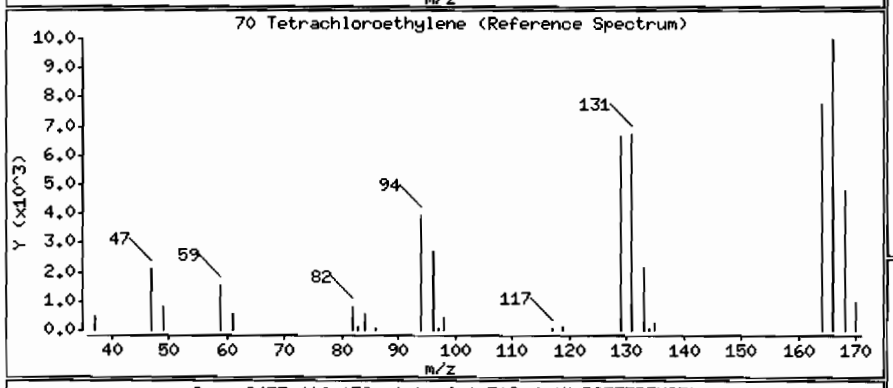

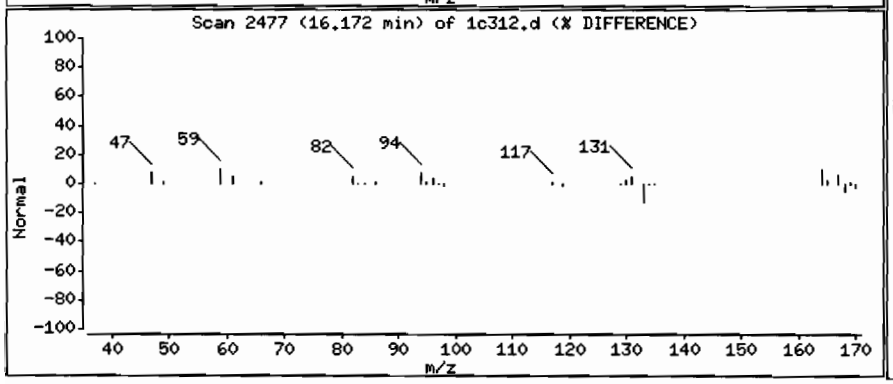

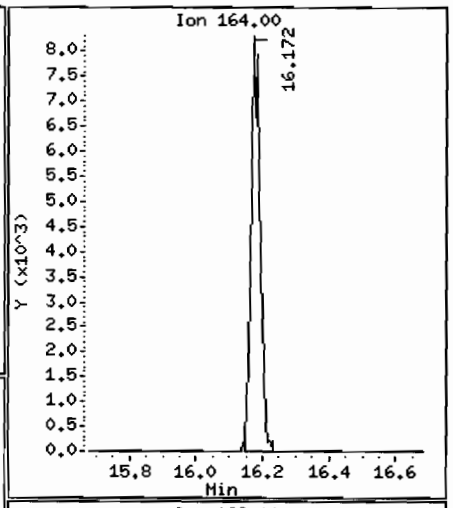

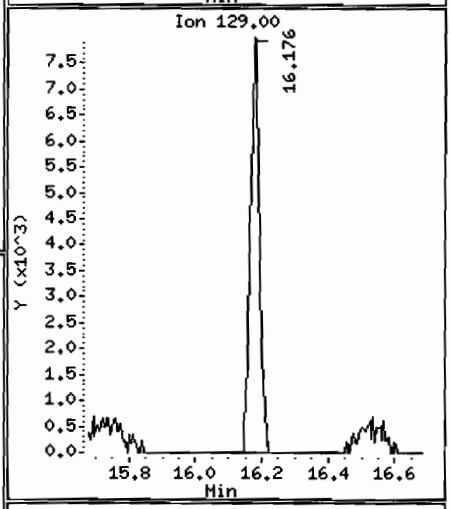

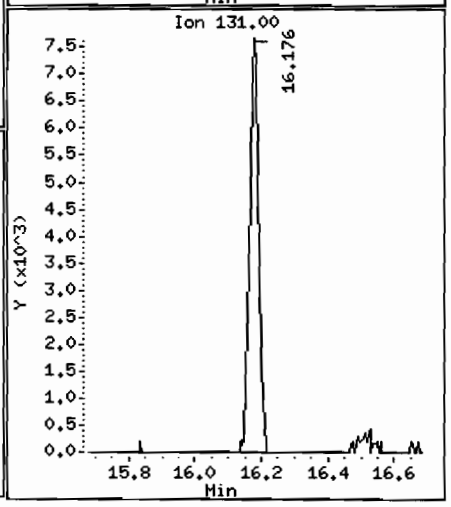

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

78 Ethylbenzene

Concentration: 0.40 ug/Kg

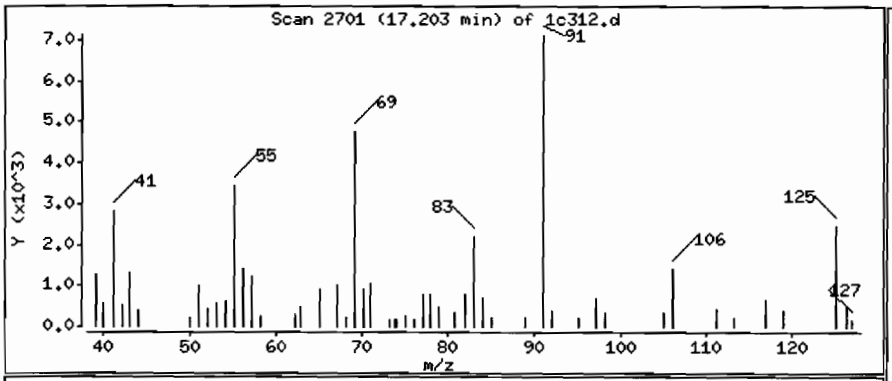

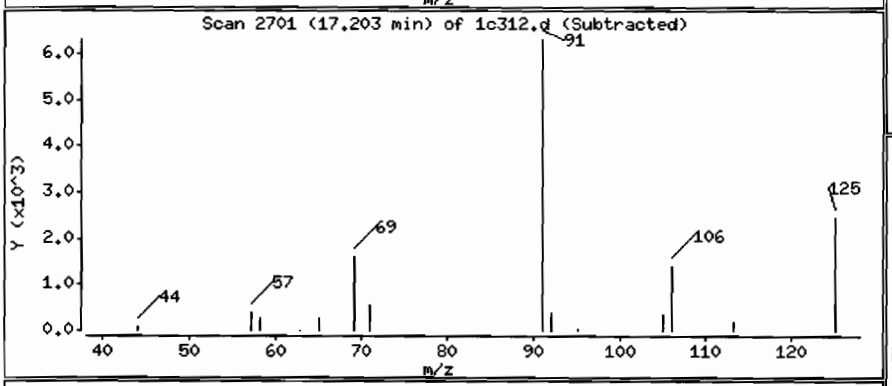

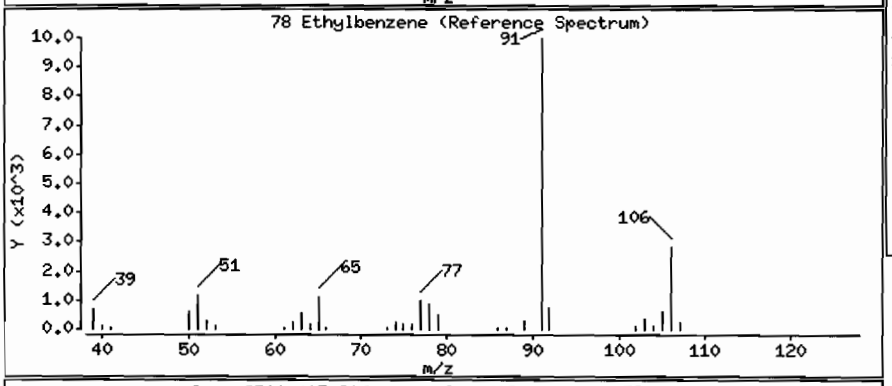

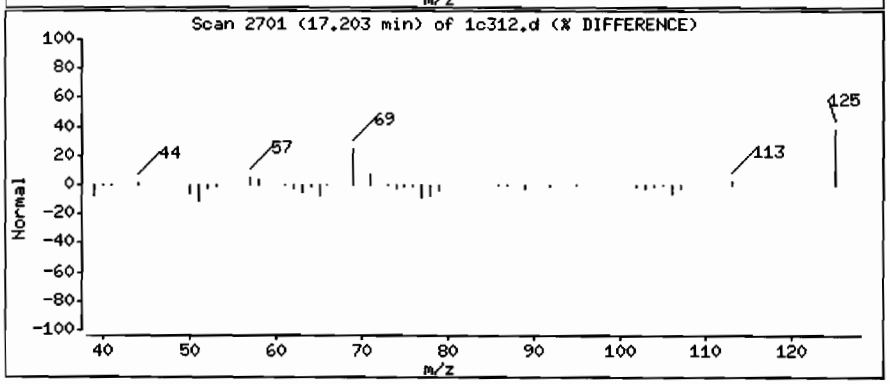

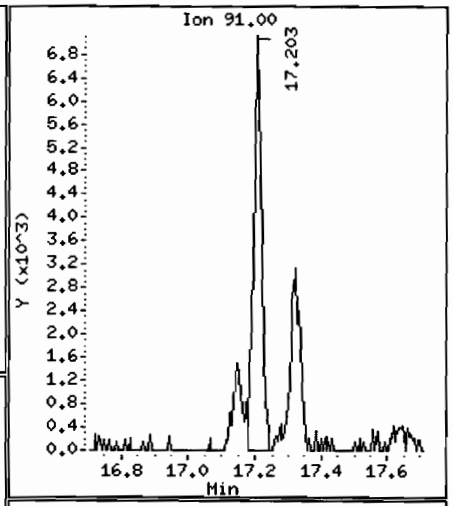

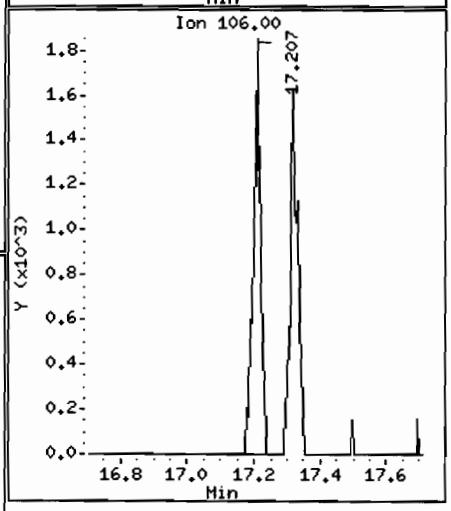

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: 1248842008196587511|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

81 o-Xylene

Concentration: 0.91 ug/Kg

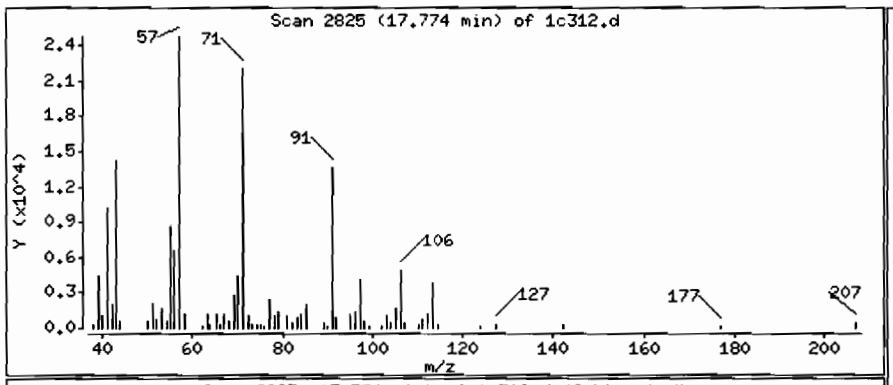

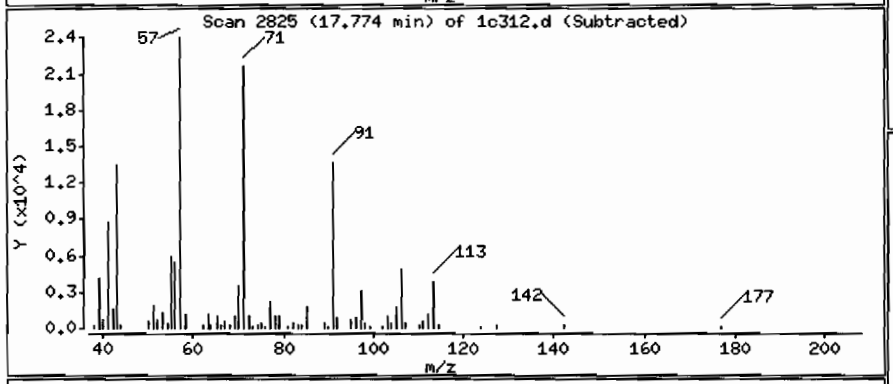

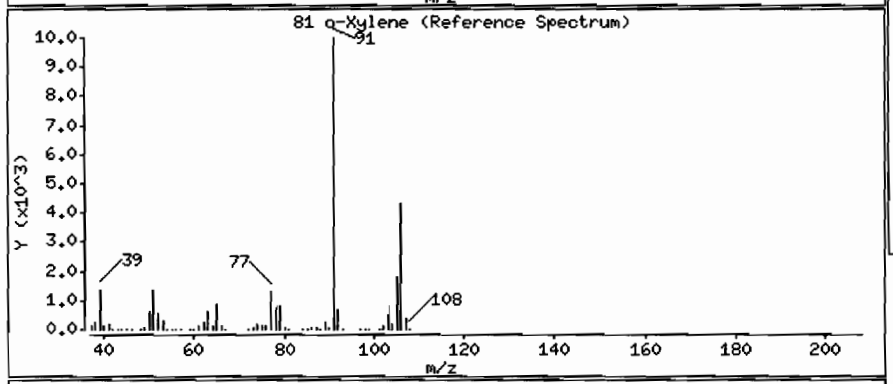

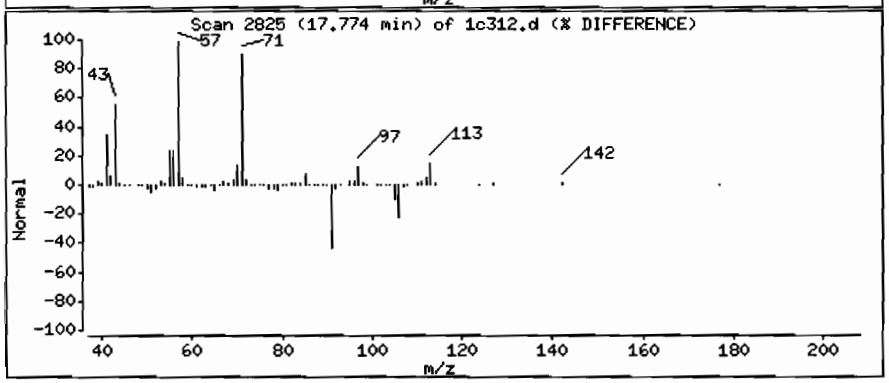

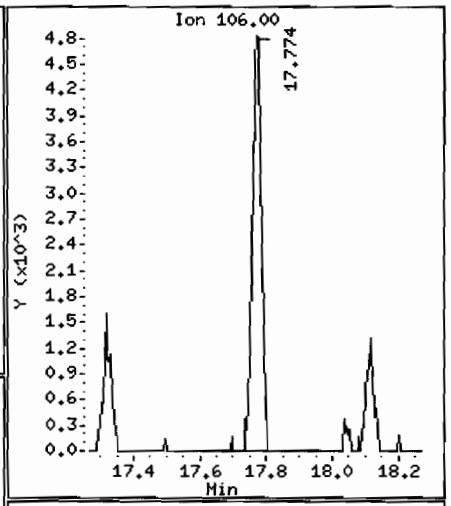

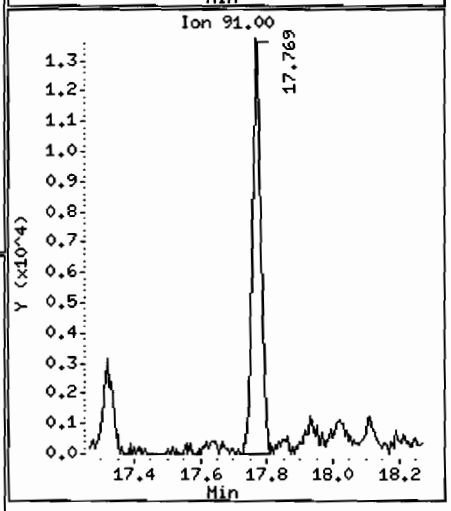

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

89 n-Propylbenzene

Concentration: 3.4 ug/Kg

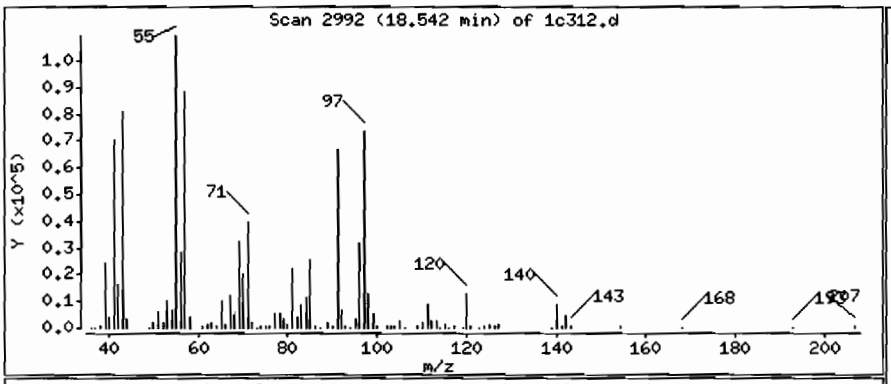

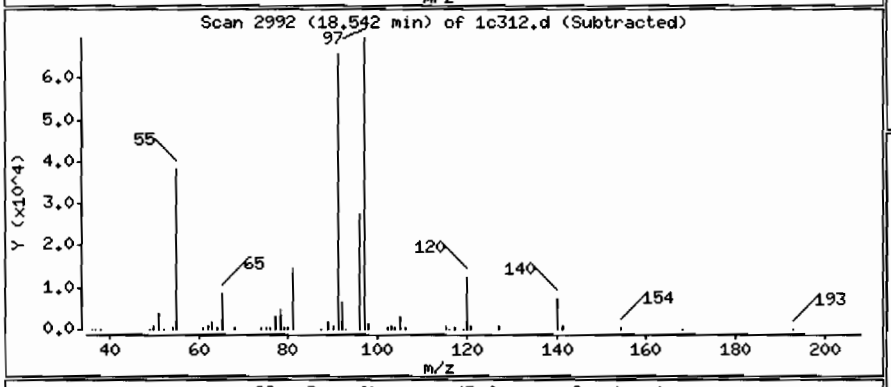

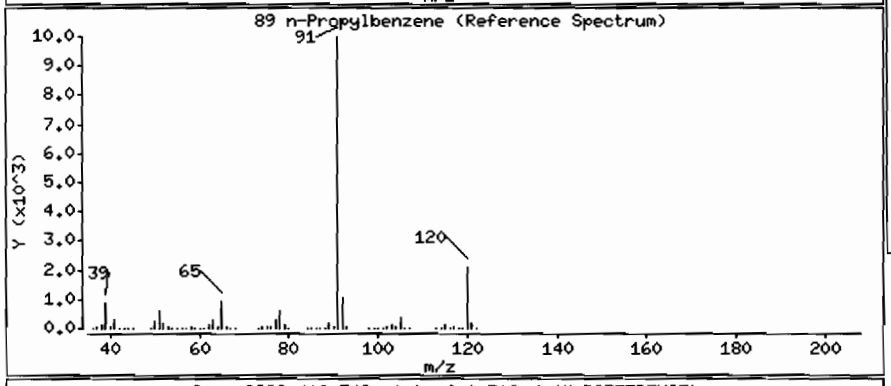

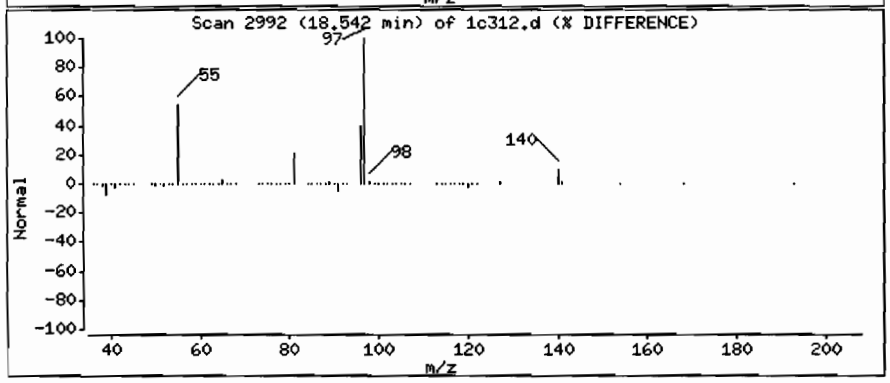

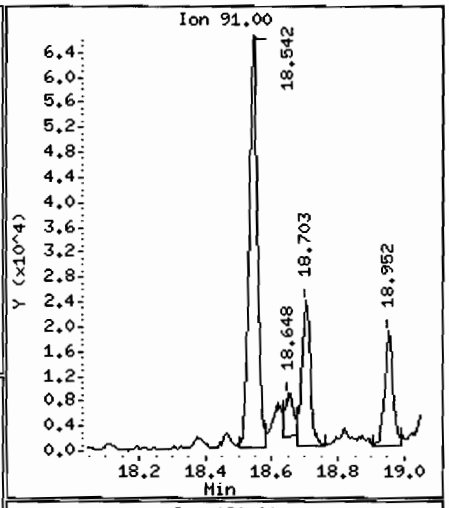

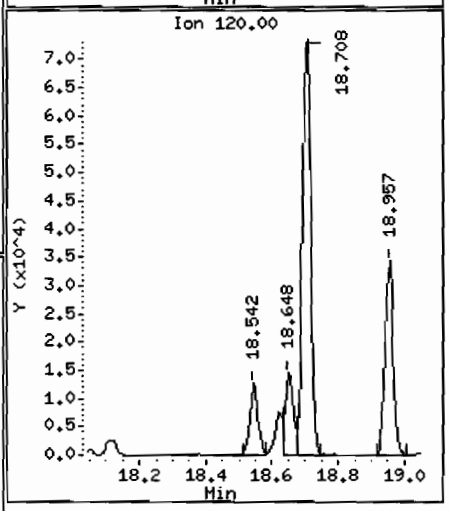

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

84 Isopropylbenzene

Concentration: 0.87 ug/Kg

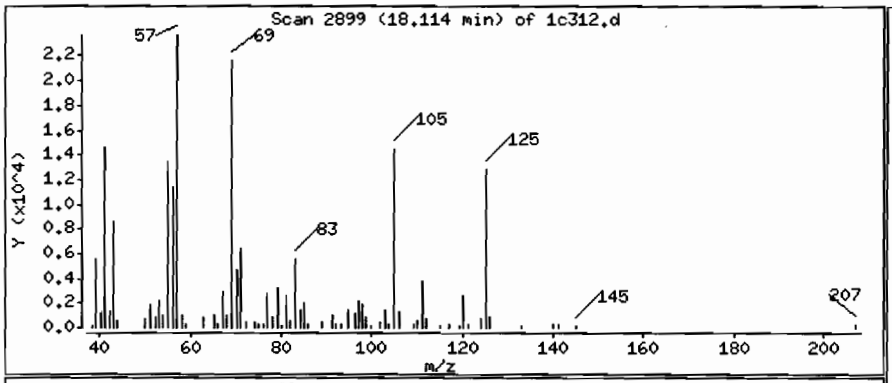

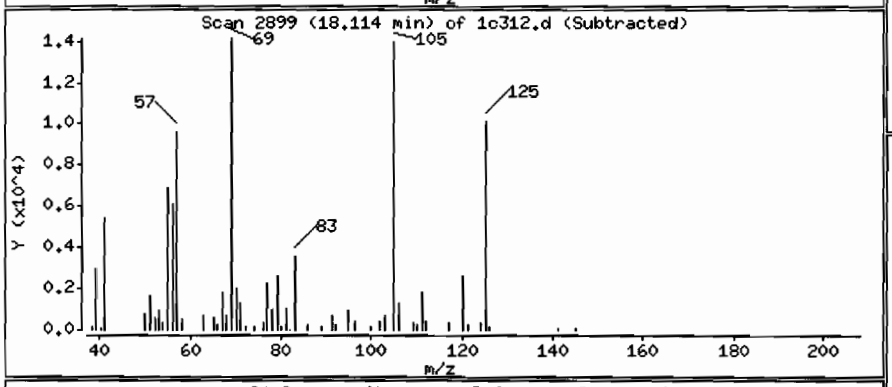

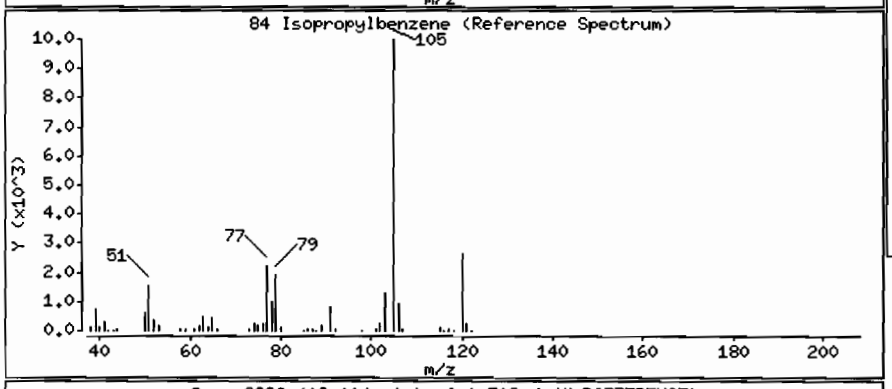

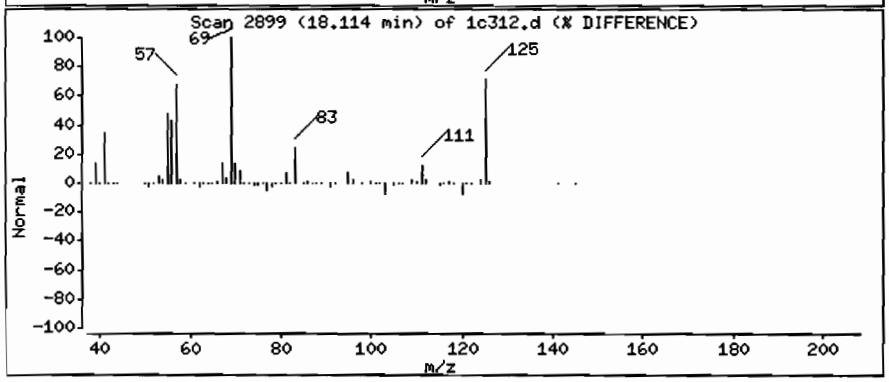

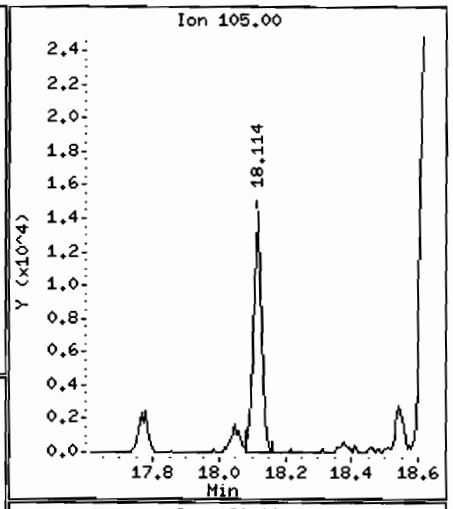

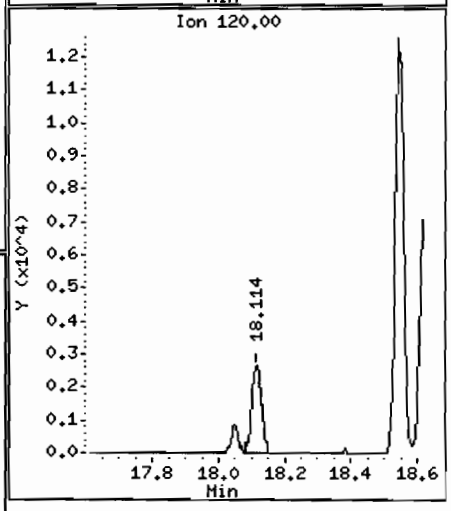

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

93 1,3,5-Trimethylbenzene

Concentration: 12.5 ug/Kg

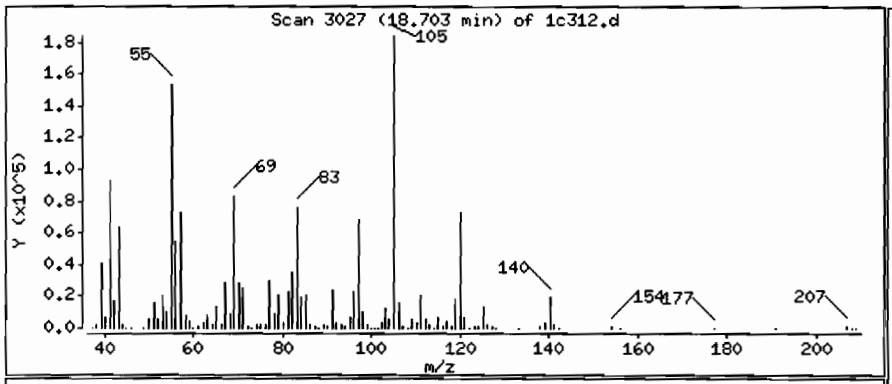

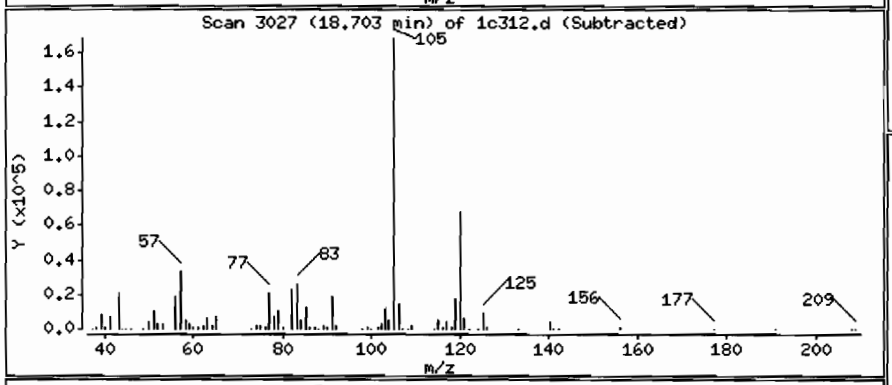

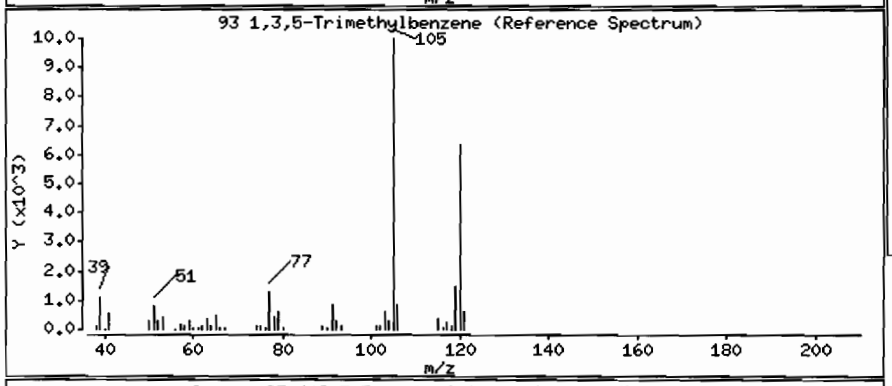

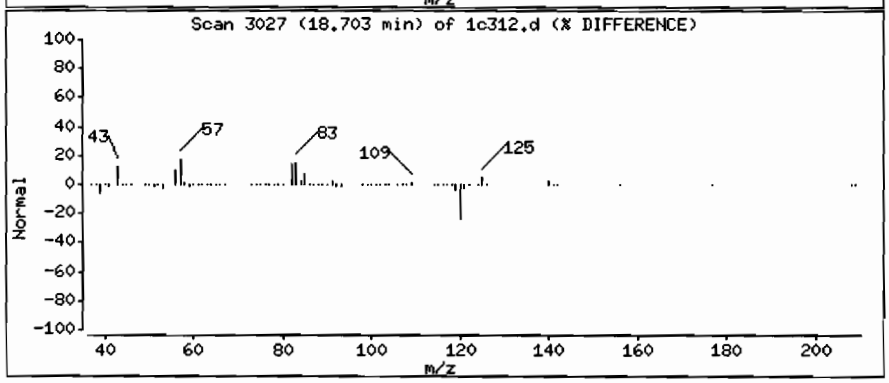

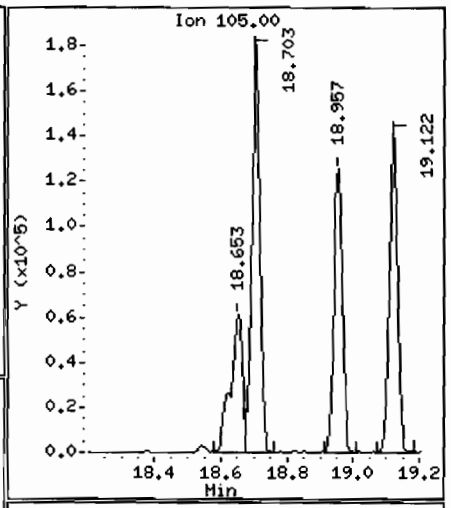

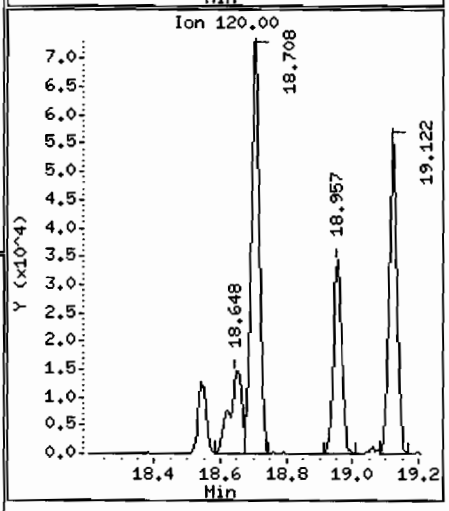

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: 1248842008196587511|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

97 1,2,4-Trimethylbenzene

Concentration: 9.8 ug/Kg

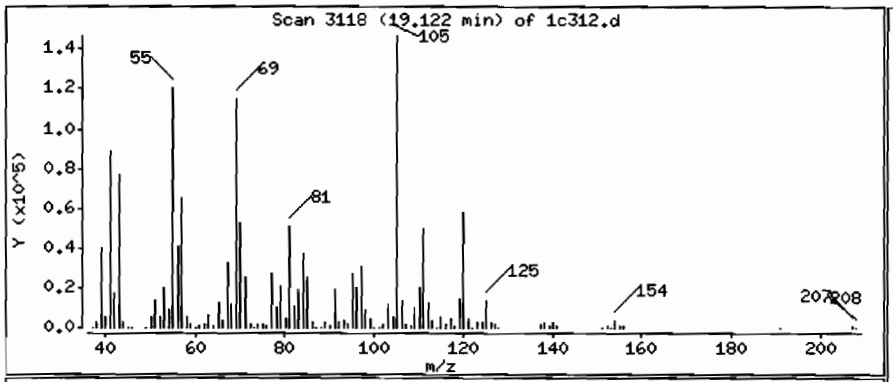

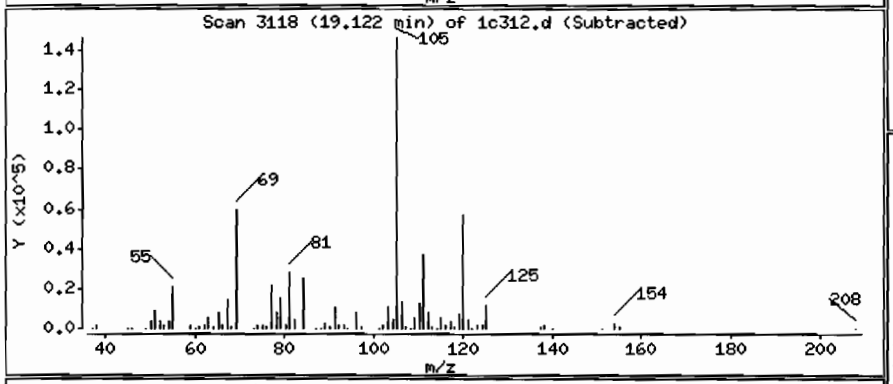

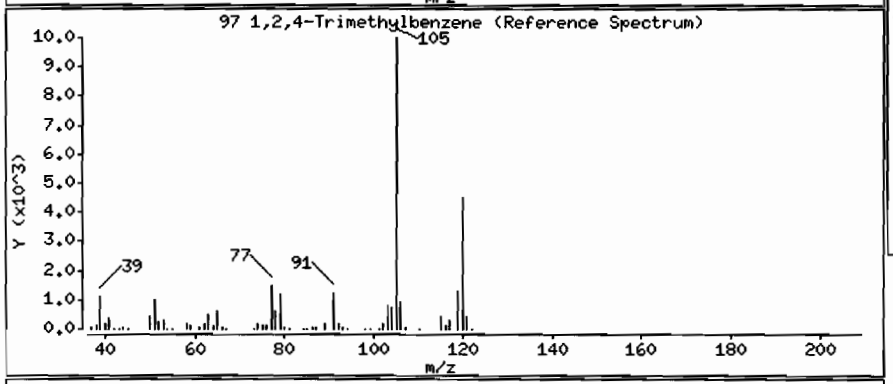

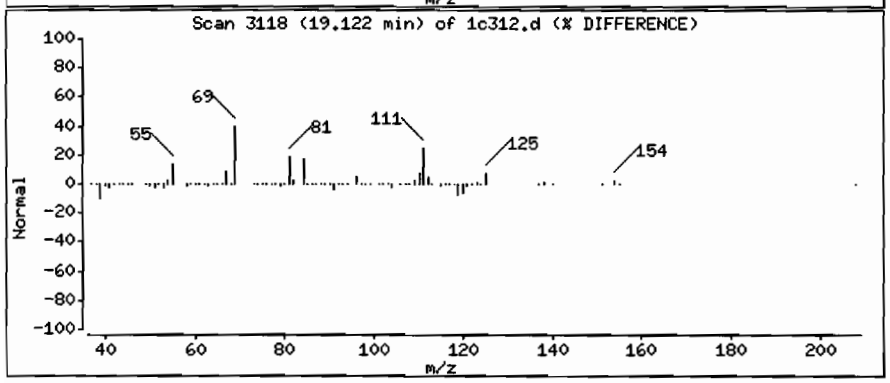

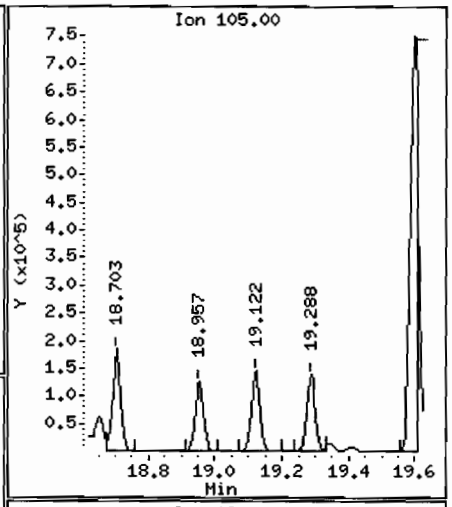

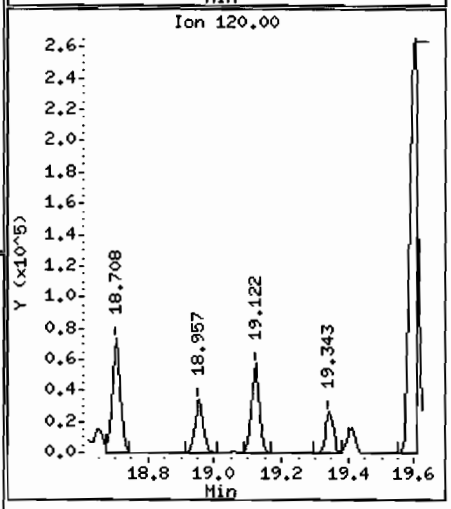

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

99 sec-Butylbenzene

Concentration: 7.8 ug/Kg

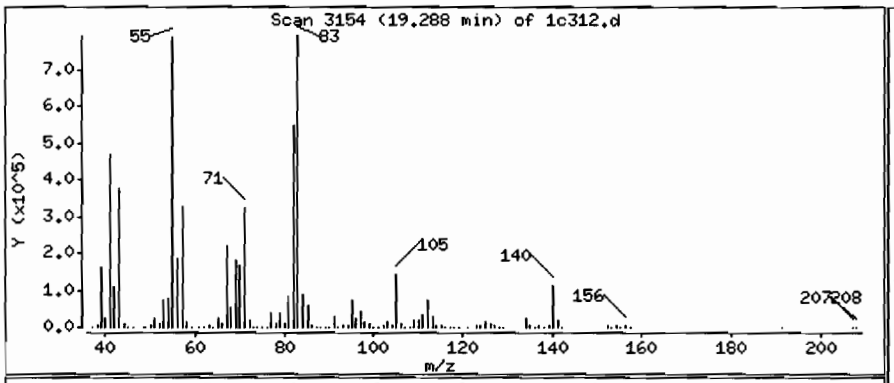

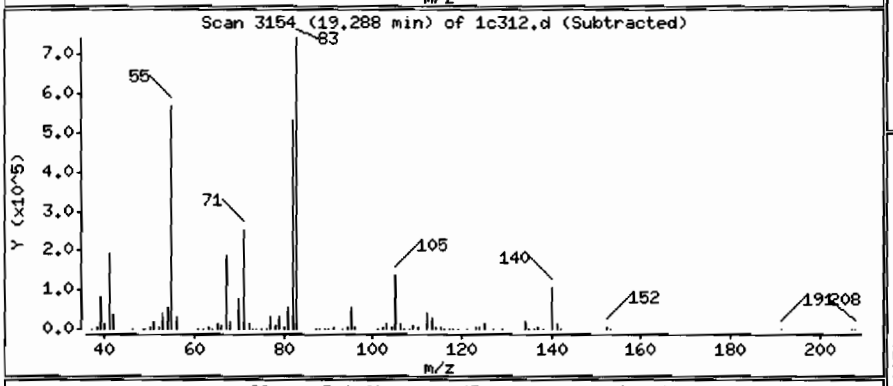

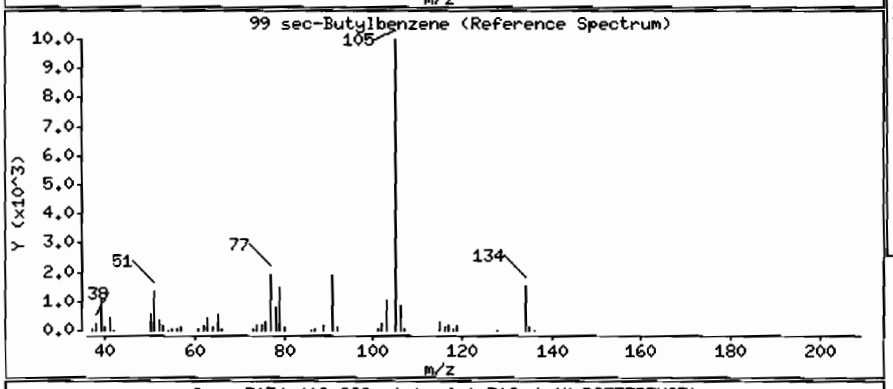

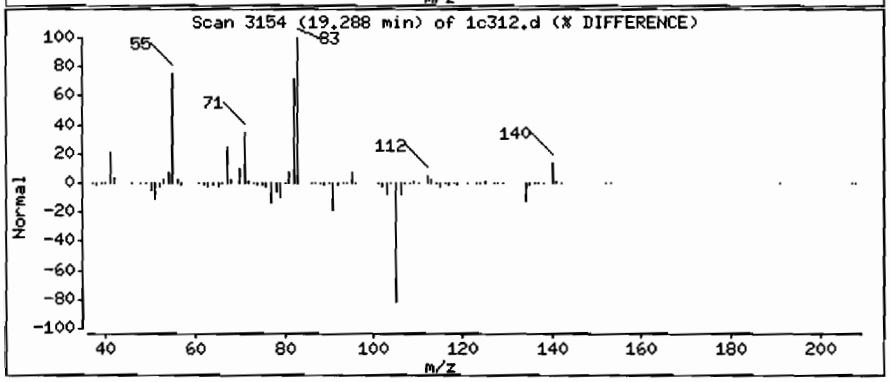

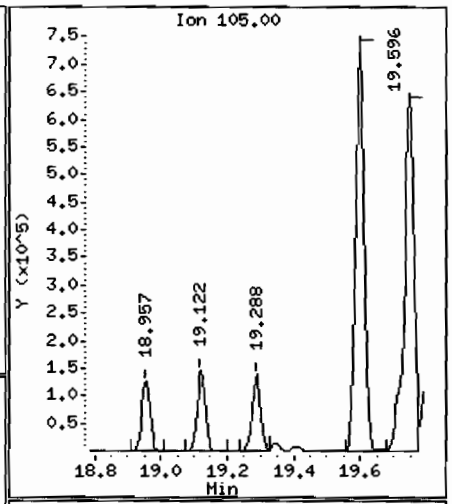

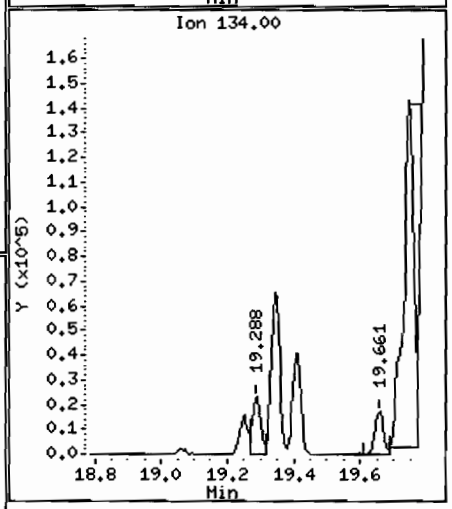

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

100 4-Isopropyltoluene

Concentration: 11.9 ug/Kg

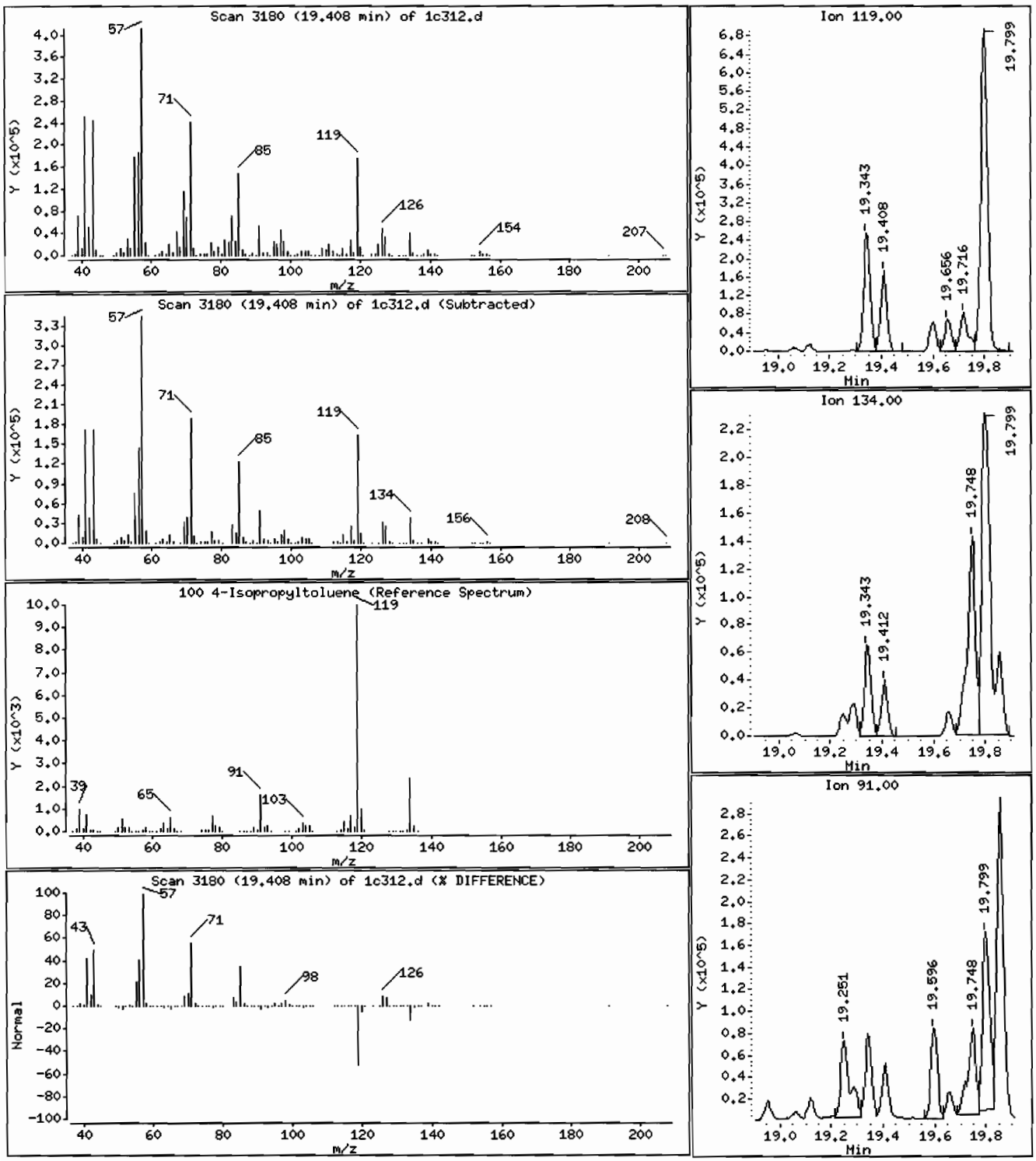

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

105 n-Butylbenzene

Concentration: 19.8 ug/Kg

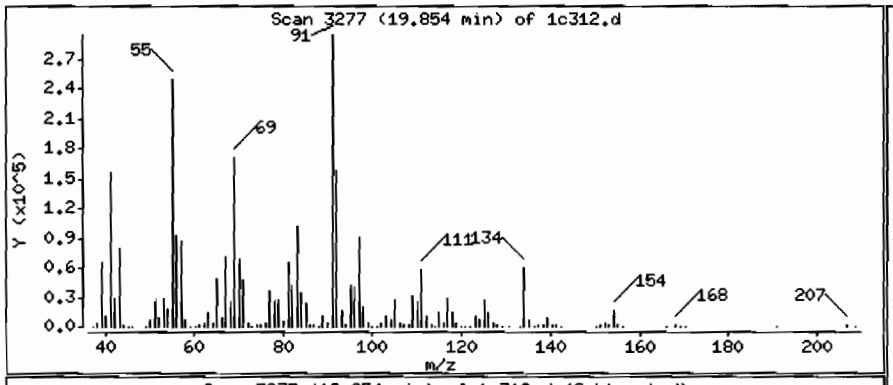

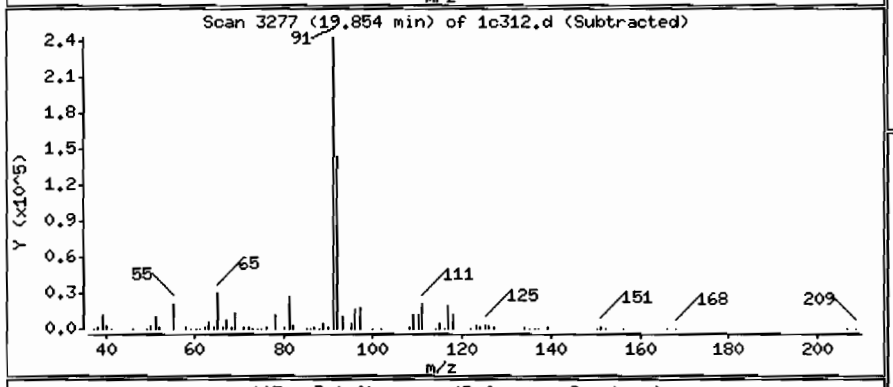

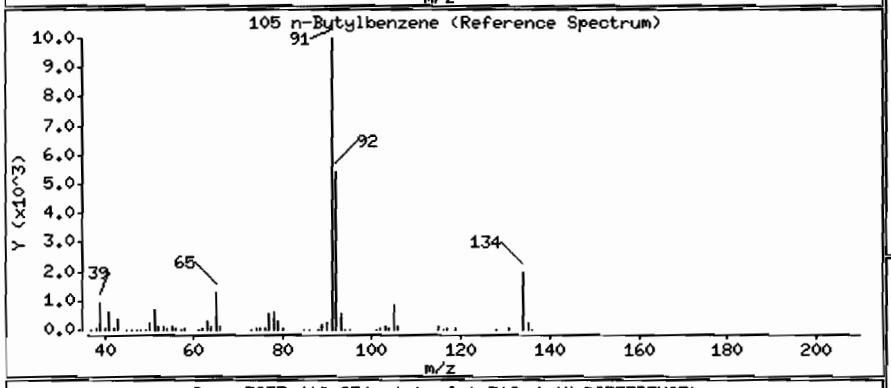

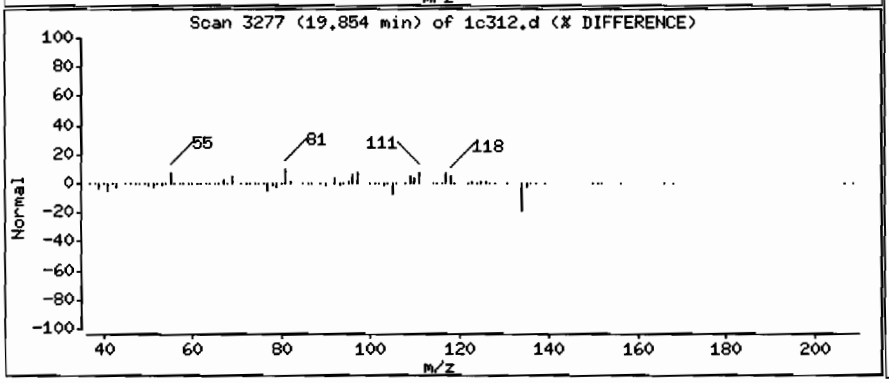

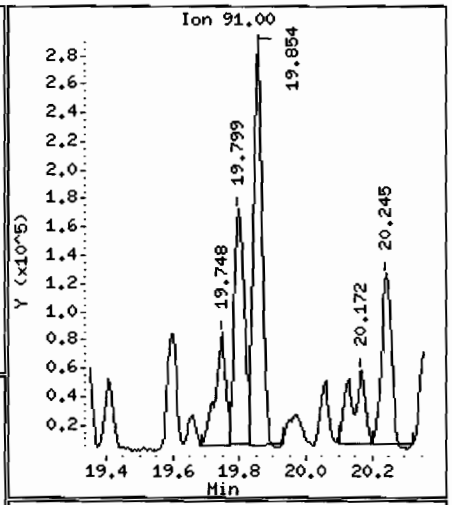

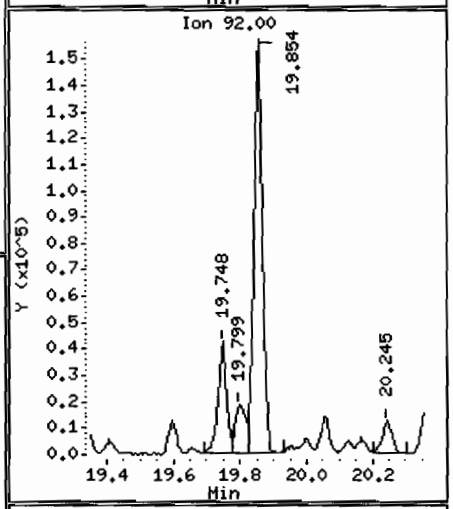

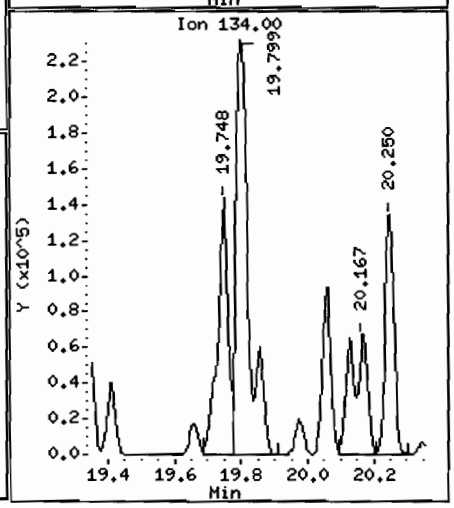

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: CRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Decane, 4-methyl-	2847-72-5	NIST05.L	27242	90	C11H24	156
Decane, 4-methyl-	2847-72-5	NIST05.L	27248	90	C11H24	156
Oxalic acid, 2-ethylhexyl hexyl ester	1000309-38-9	NIST05.L	115942	80	C16H3004	286

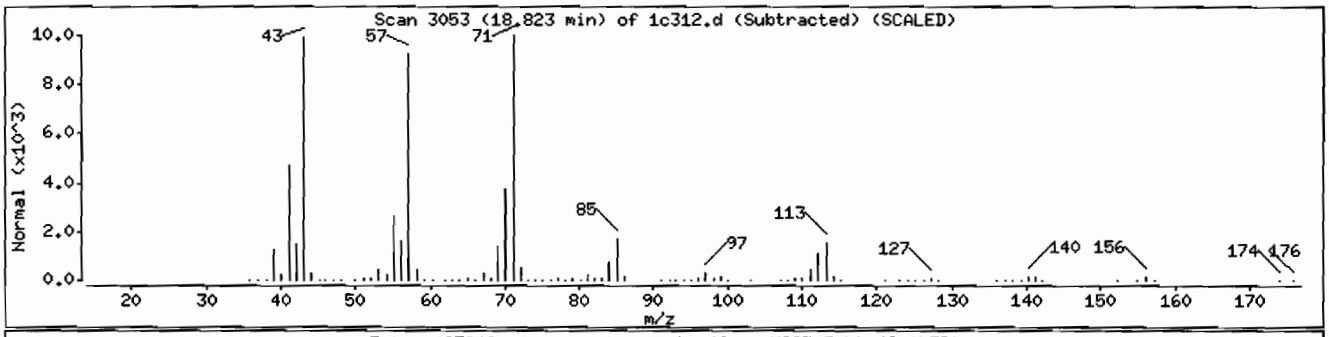

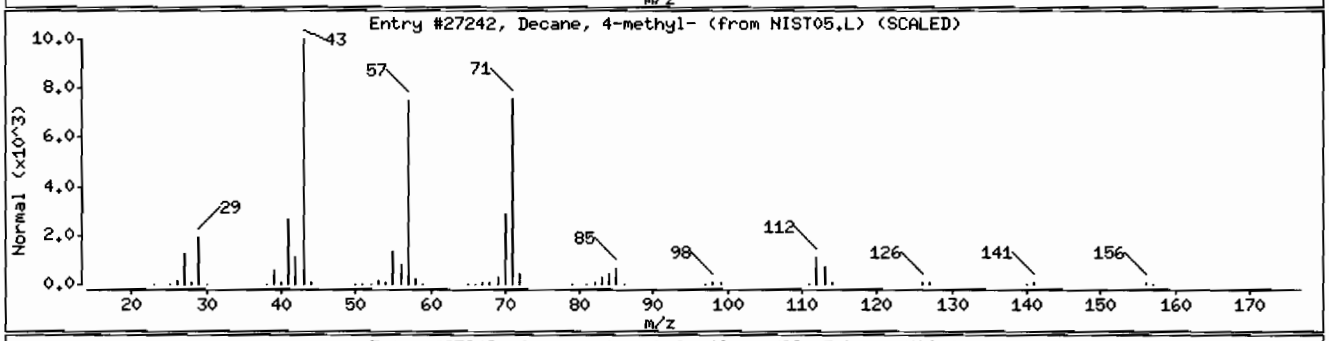

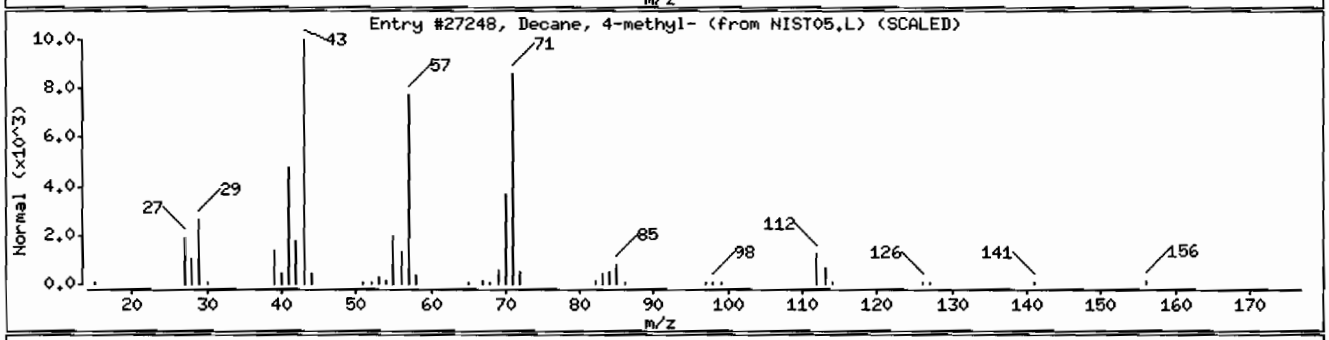

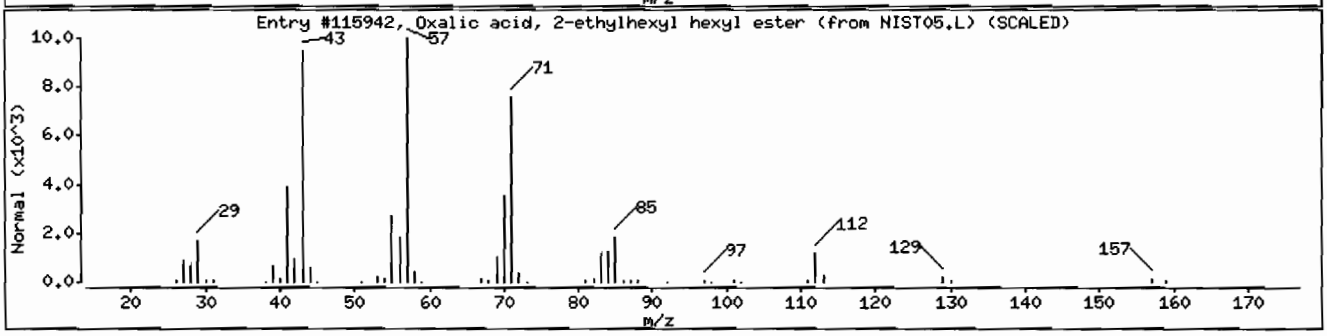

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Decane, 5-methyl-	13151-35-4	NIST05.L	27244	50	C11H24	156
Decane, 5-methyl-	13151-35-4	NIST05.L	27249	49	C11H24	156
Decane	124-18-5	NIST05.L	18485	47	C10H22	142

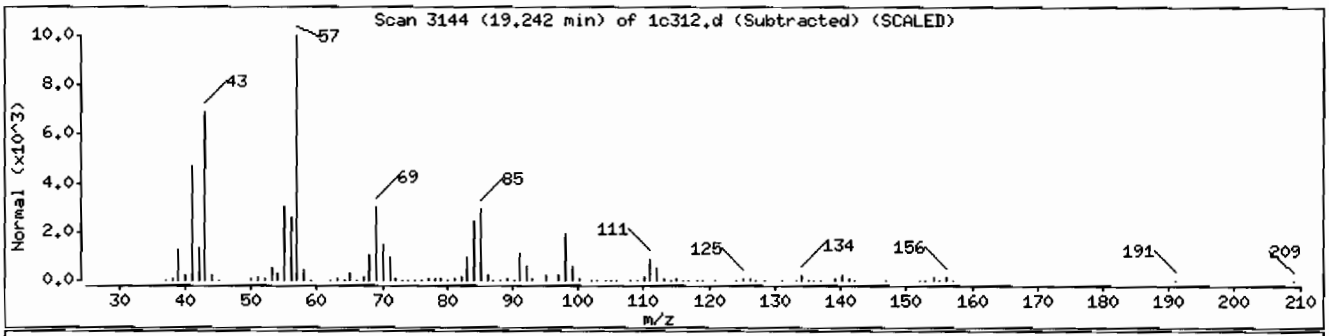

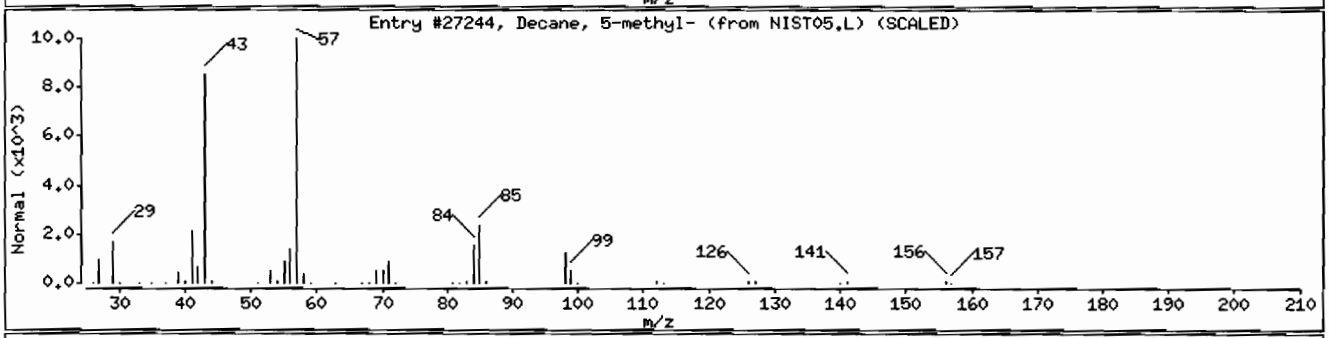

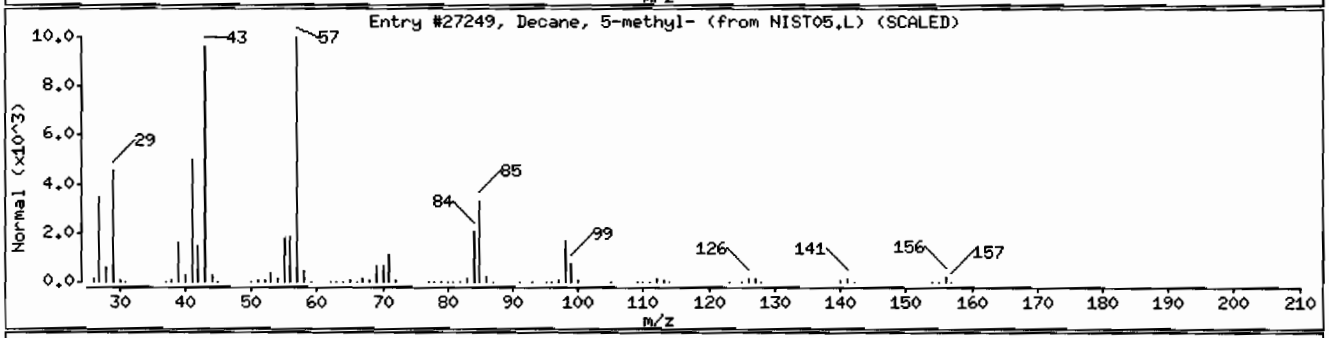

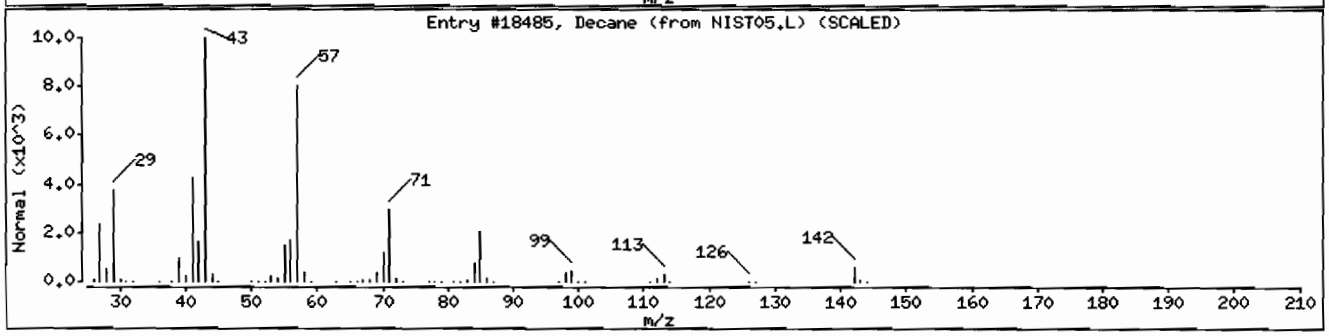

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Undecane	1120-21-4	NIST05.L	27236	91	C11H24	156
Undecane	1120-21-4	NIST05.L	27237	91	C11H24	156
Undecane	1120-21-4	NIST05.L	27240	81	C11H24	156

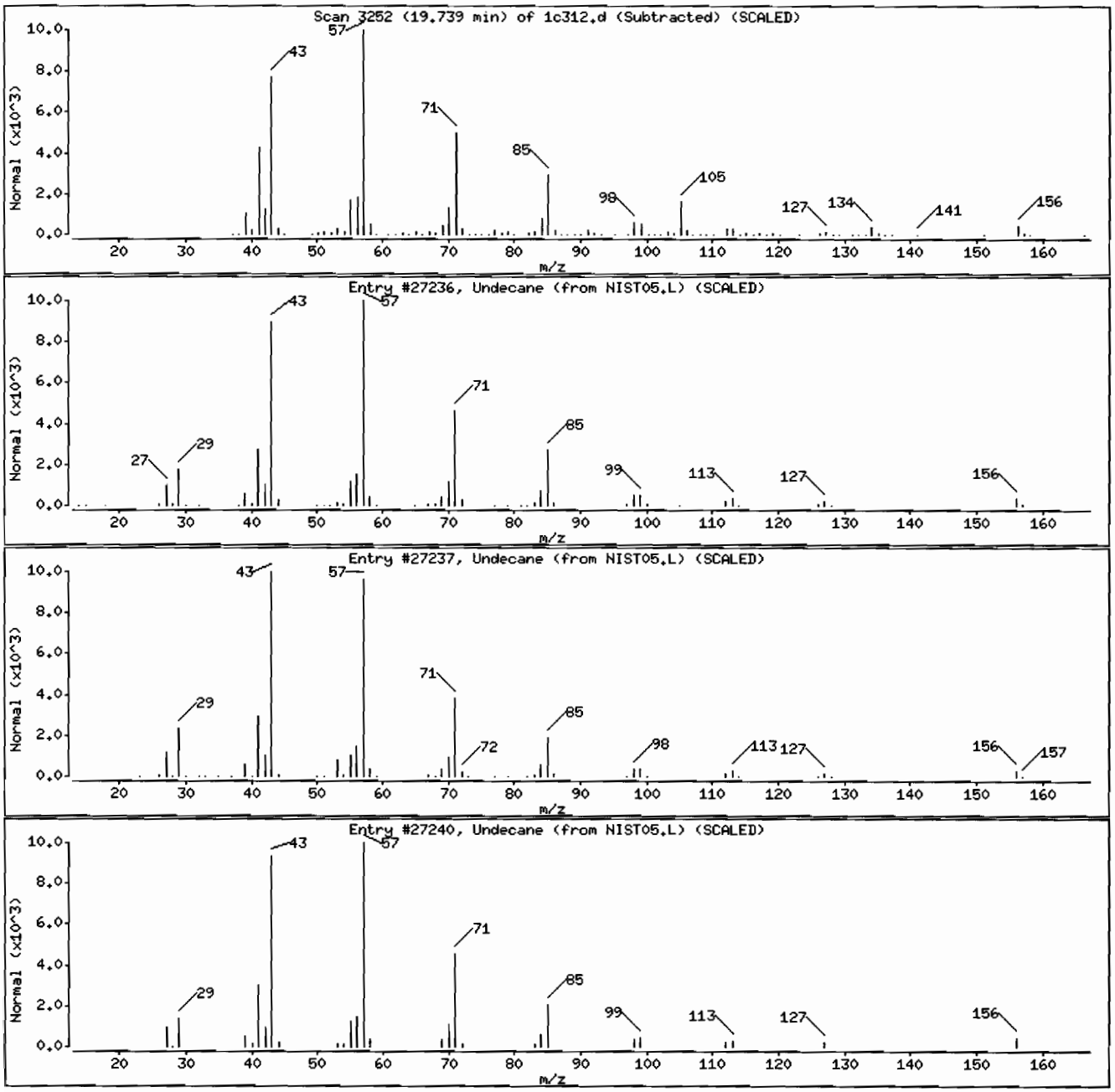

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 4-ethyl-1,2-dimethyl-	934-80-5	NIST05.L	14401	95	C10H14	134
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST05.L	14429	94	C10H14	134
Benzene, 1-ethyl-2,4-dimethyl-	874-41-9	NIST05.L	14394	93	C10H14	134

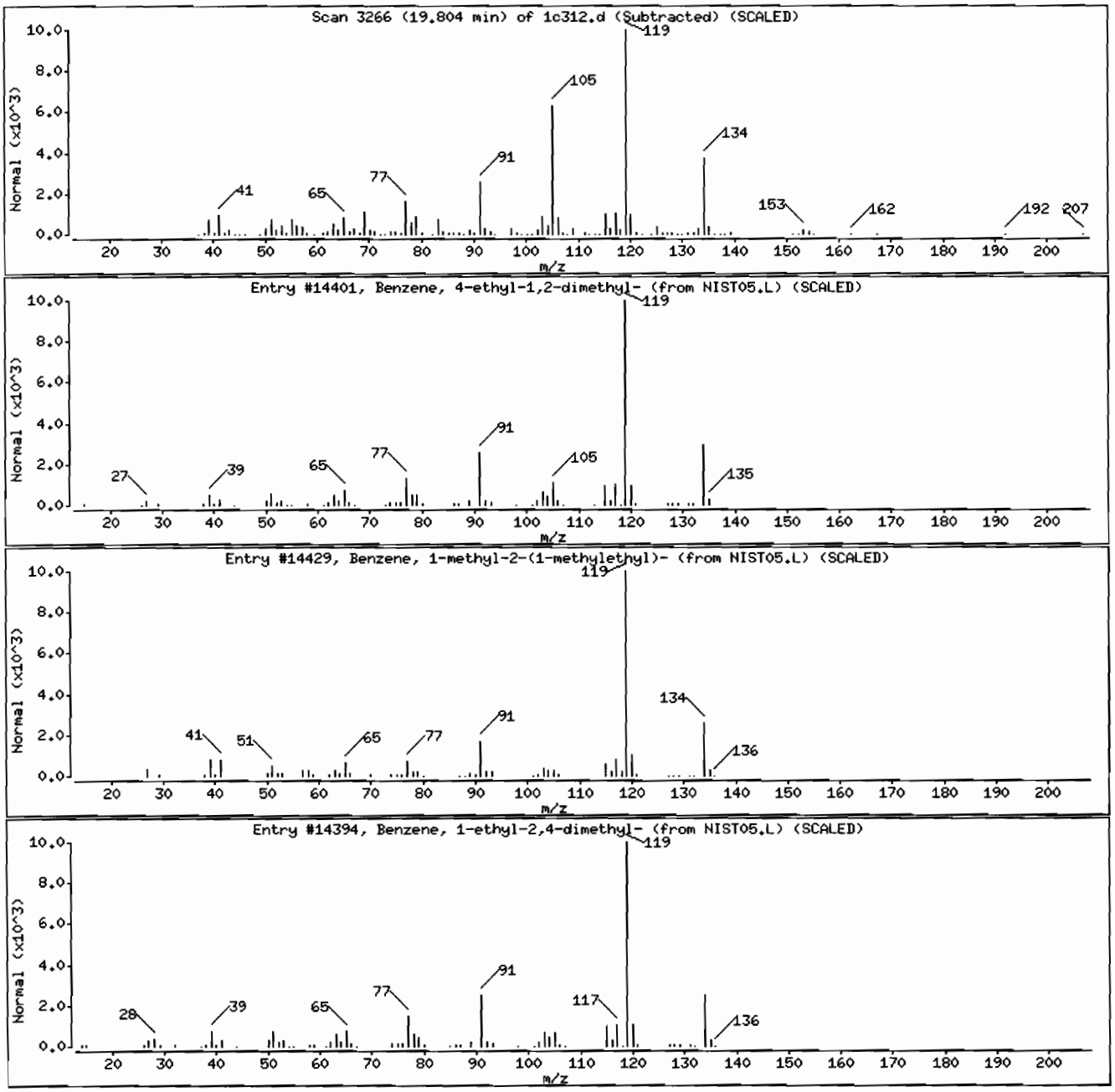

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16353	95	C10H18	138
Naphthalene, decahydro-	91-17-8	NIST05.L	16321	93	C10H18	138
Naphthalene, decahydro-	91-17-8	NIST05.L	16322	93	C10H18	138

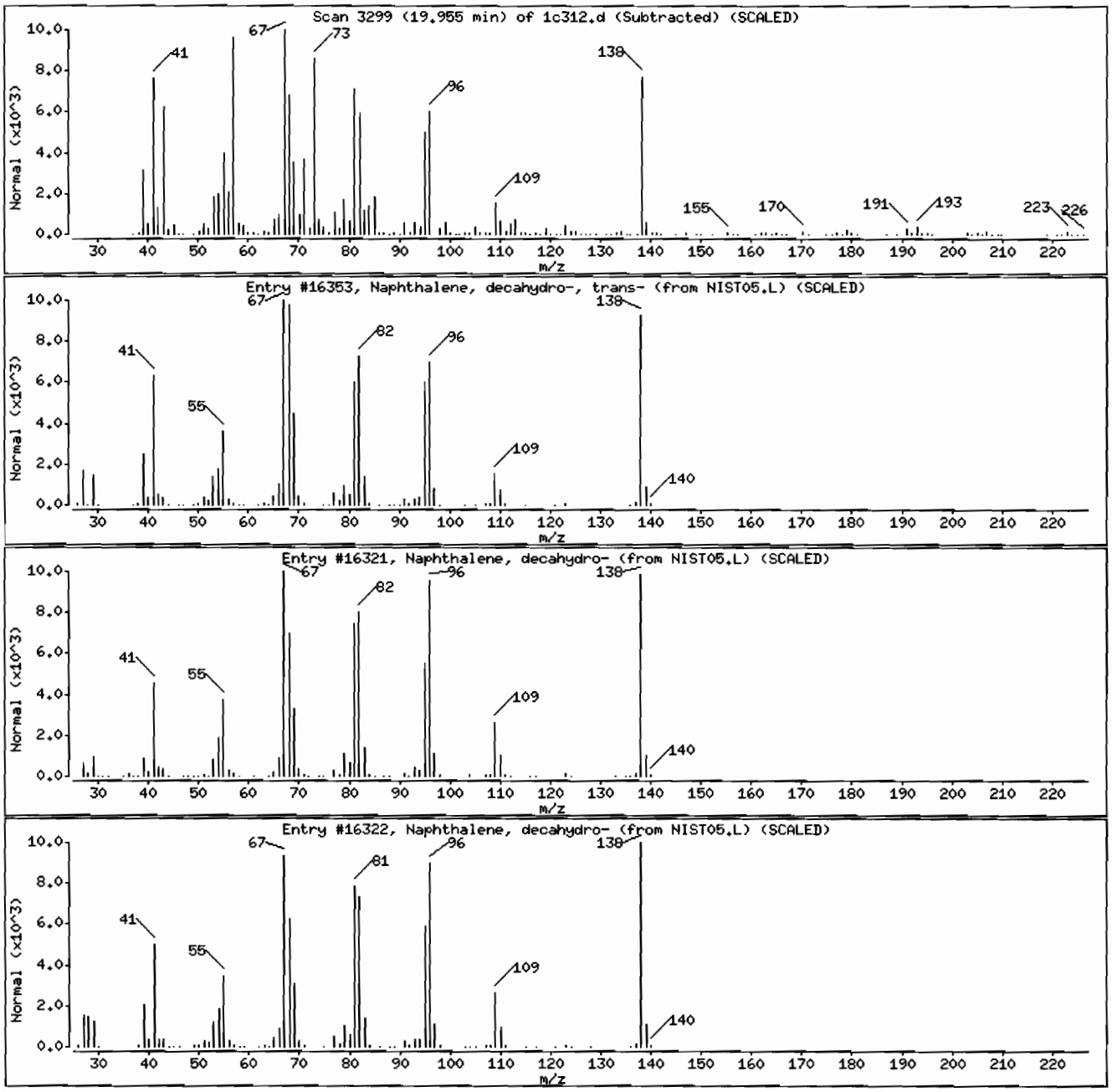

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Undecane, 4-methyl-	2980-69-0	NIST05.L	36439	43	C12H26	170
Nonane, 3,7-dimethyl-	17302-32-8	NIST05.L	27256	35	C11H24	156
Octadecane	593-45-3	NIST05.L	94930	35	C18H38	254

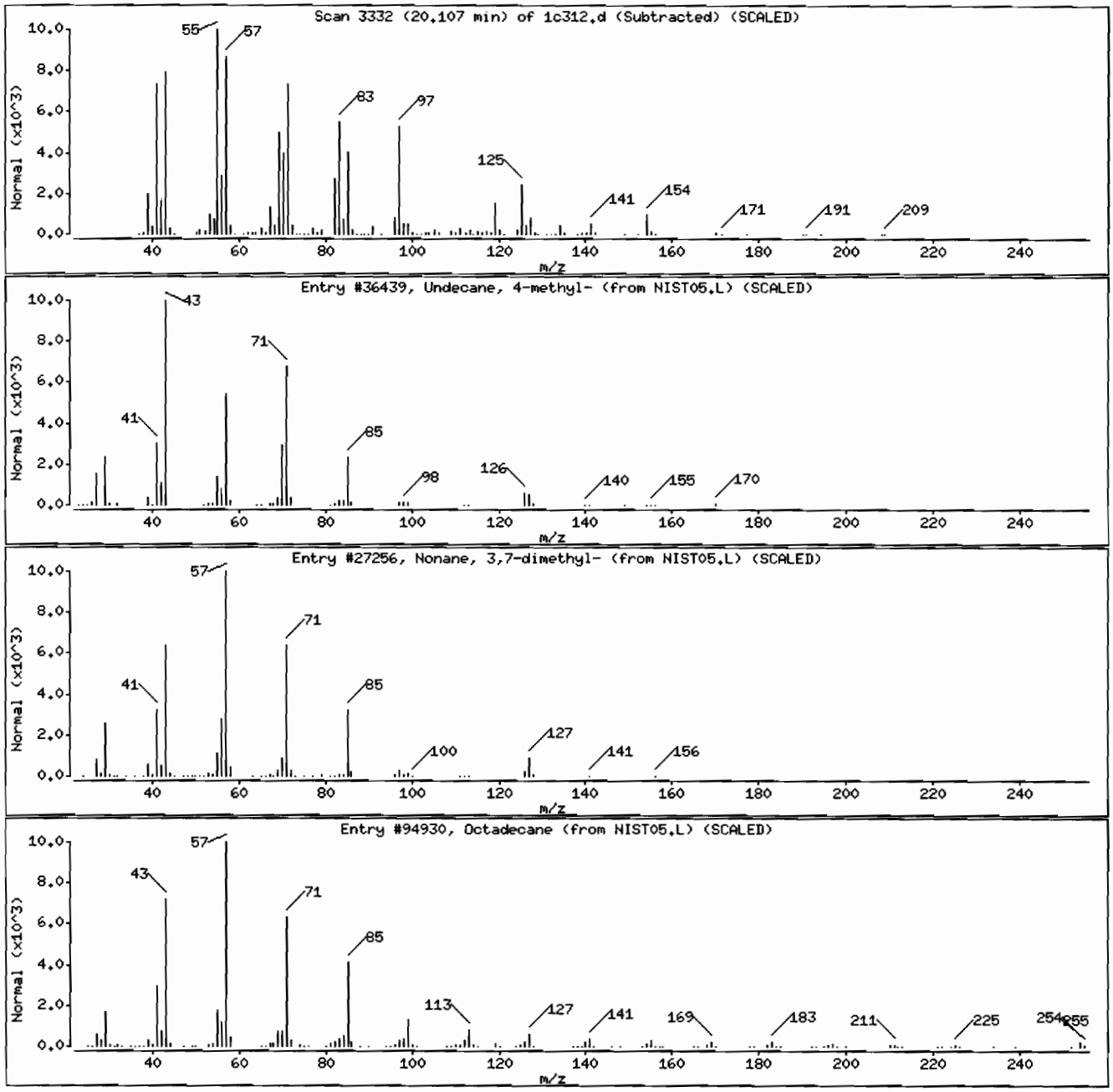

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Heptane, 3-ethyl-2-methyl-	14676-29-0	NIST05.L	18550	42	C10H22	142
Heptane, 3-ethyl-2-methyl-	14676-29-0	NIST05.L	18551	27	C10H22	142
Heptane, 4-propyl-	3178-29-8	NIST05.L	18505	27	C10H22	142

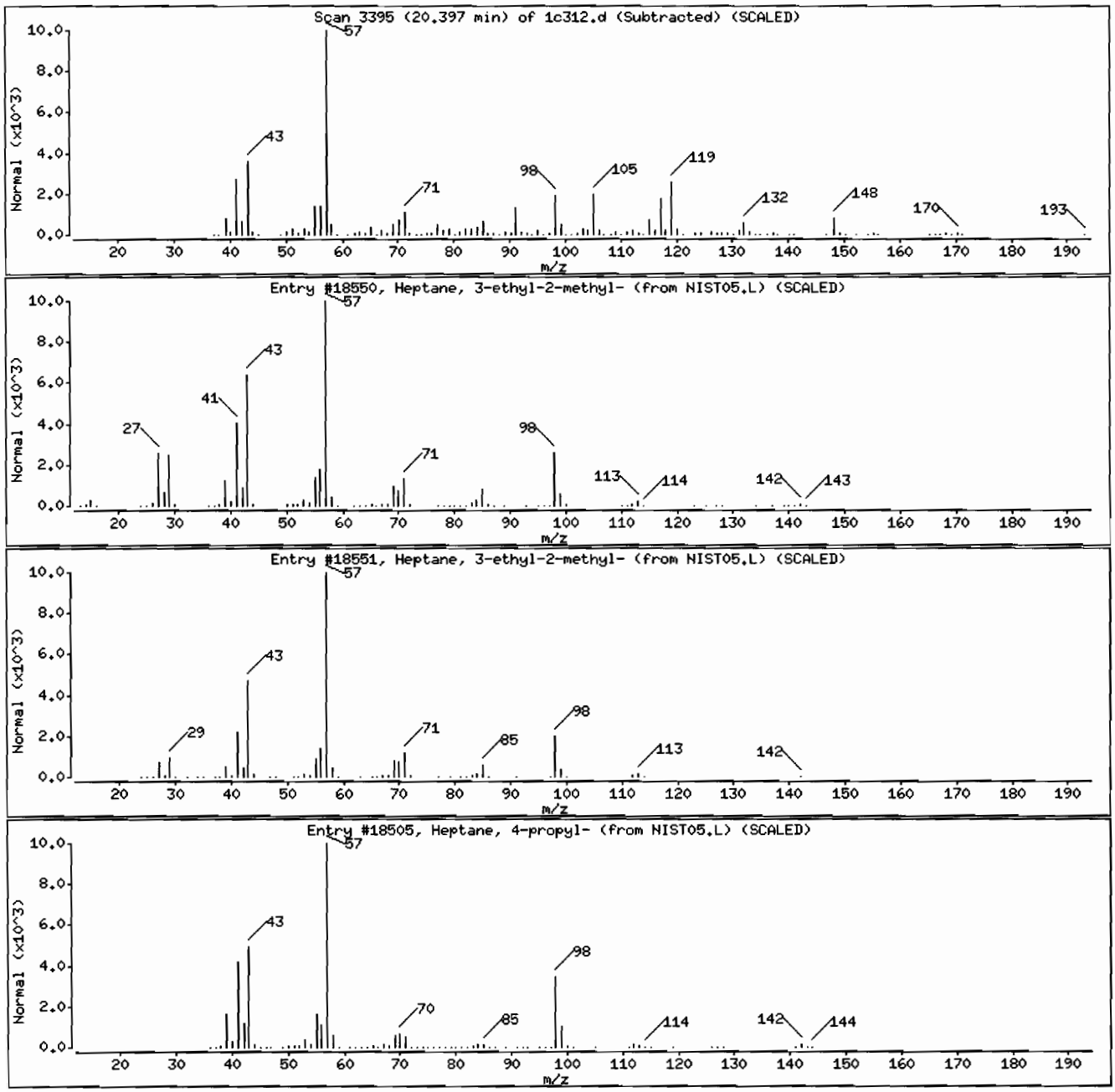

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Oxalic acid, monoamide, n-propyl, dodecy	1000309-65-1	NIST05.L	124195	47	C17H33NO3	299
Undecane, 2-methyl-	7045-71-8	NIST05.L	36443	47	C12H26	170
Octane, 2,7-dimethyl-	1072-16-8	NIST05.L	18517	47	C10H22	142

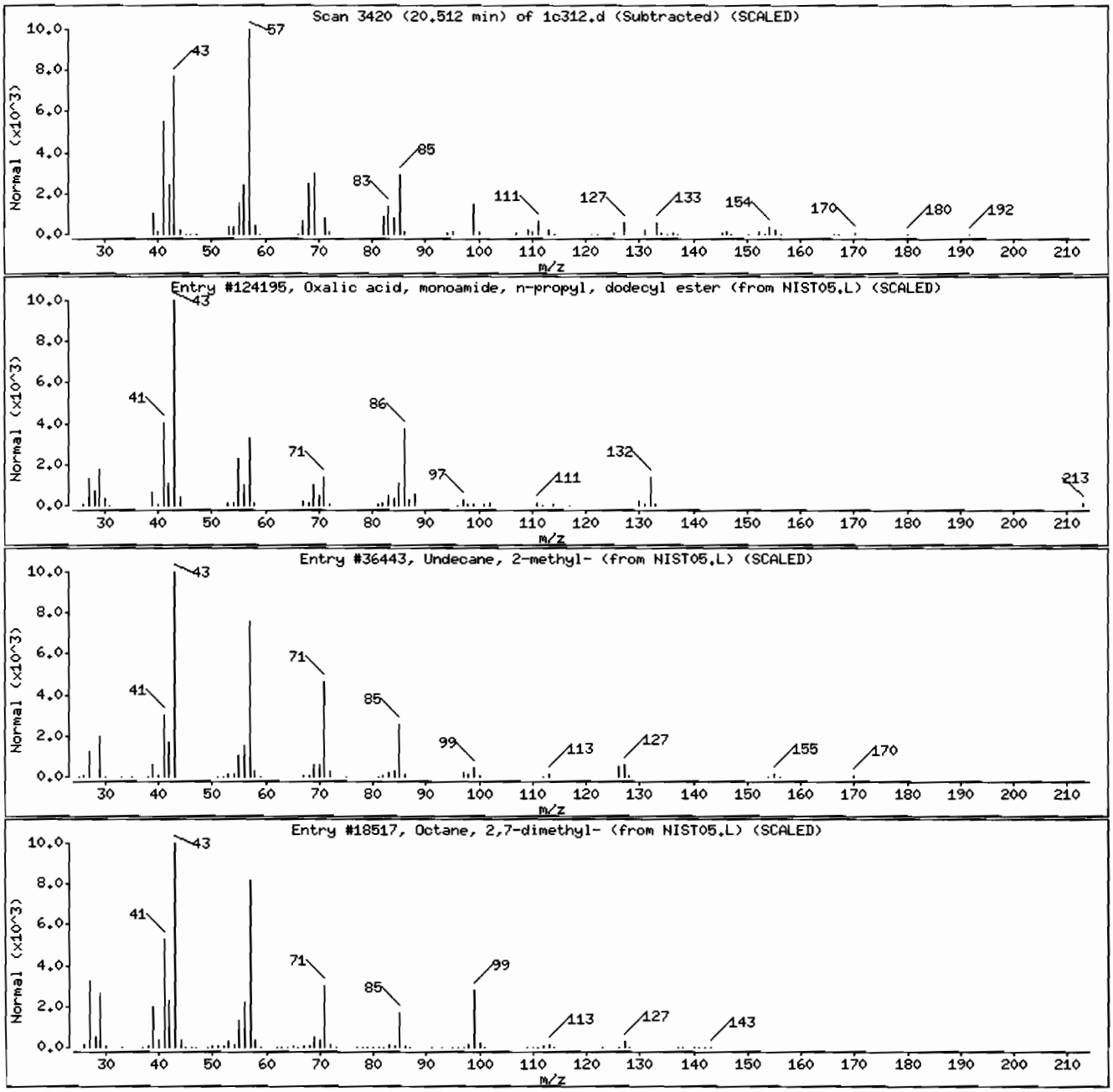

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST05.L	14420	60	C10H14	134
Benzene, 1,2,3,5-tetramethyl-	527-53-7	NIST05.L	14383	43	C10H14	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST05.L	14426	43	C10H14	134

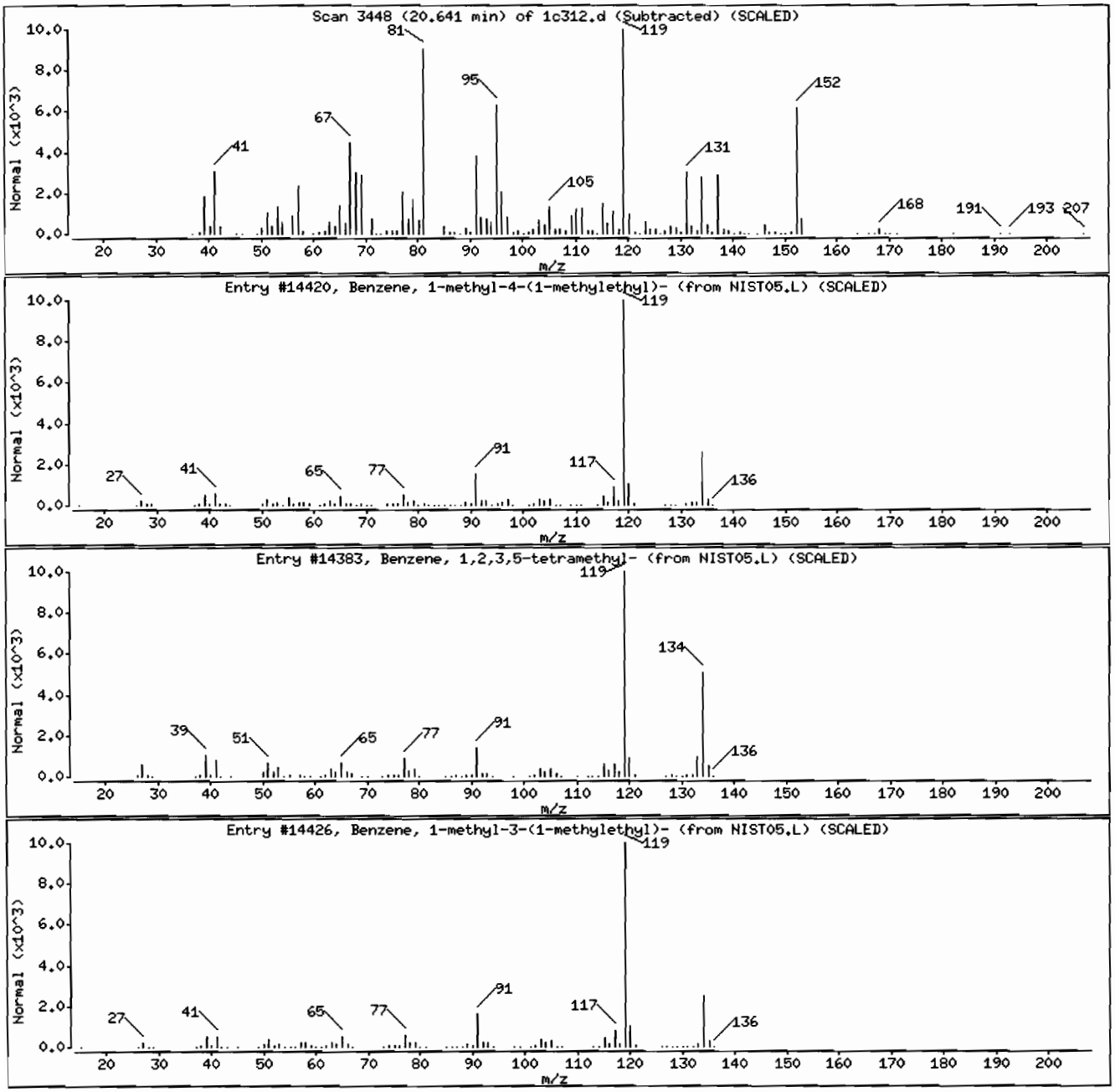

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST05.L	14425	94	C10H14	134
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST05.L	14428	94	C10H14	134
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	NIST05.L	14429	94	C10H14	134

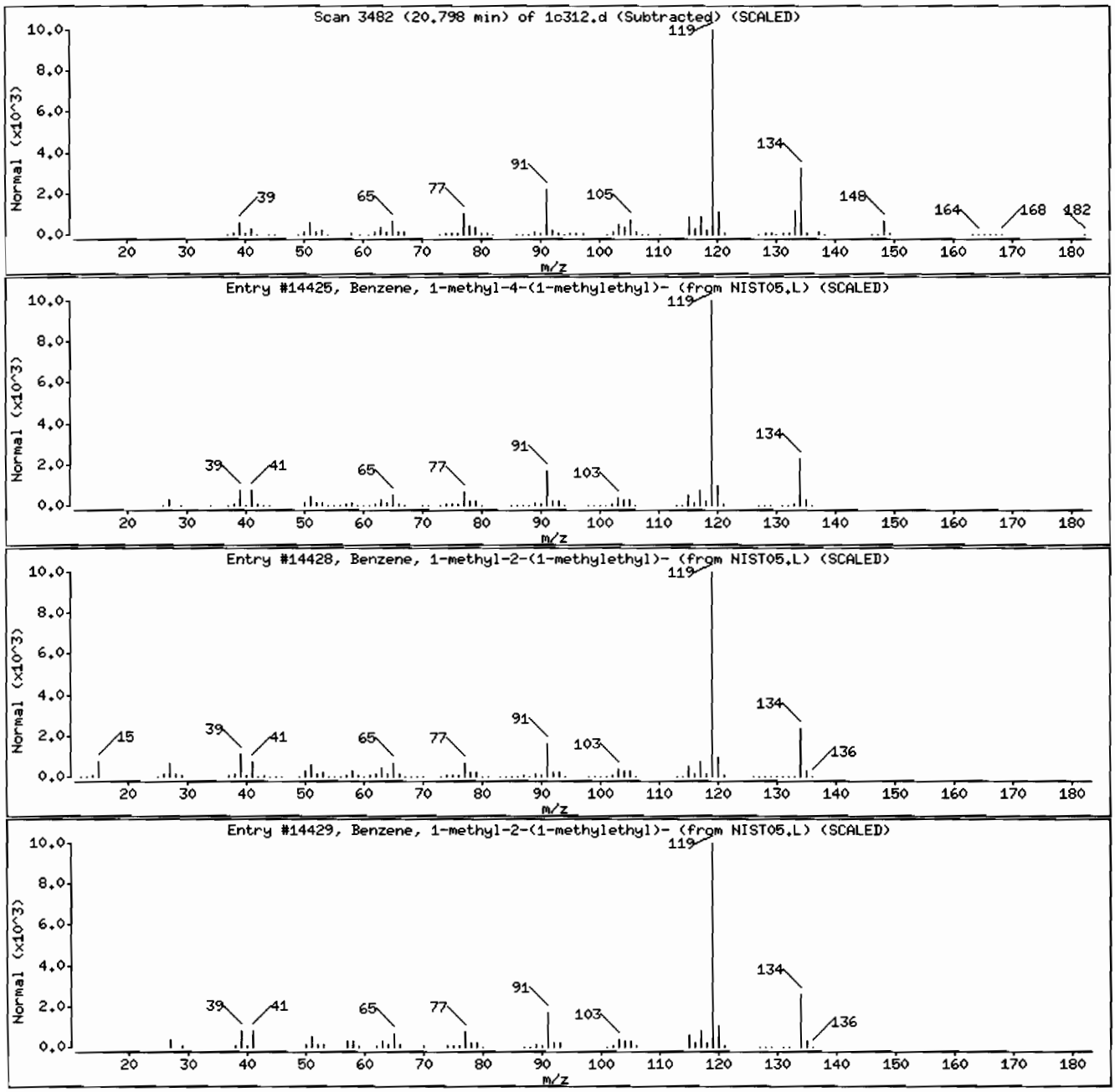

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Dodecane	112-40-3	NIST05.L	36431	95	C12H26	170
Dodecane	112-40-3	NIST05.L	36428	91	C12H26	170
Undecane	1120-21-4	NIST05.L	27236	91	C11H24	156

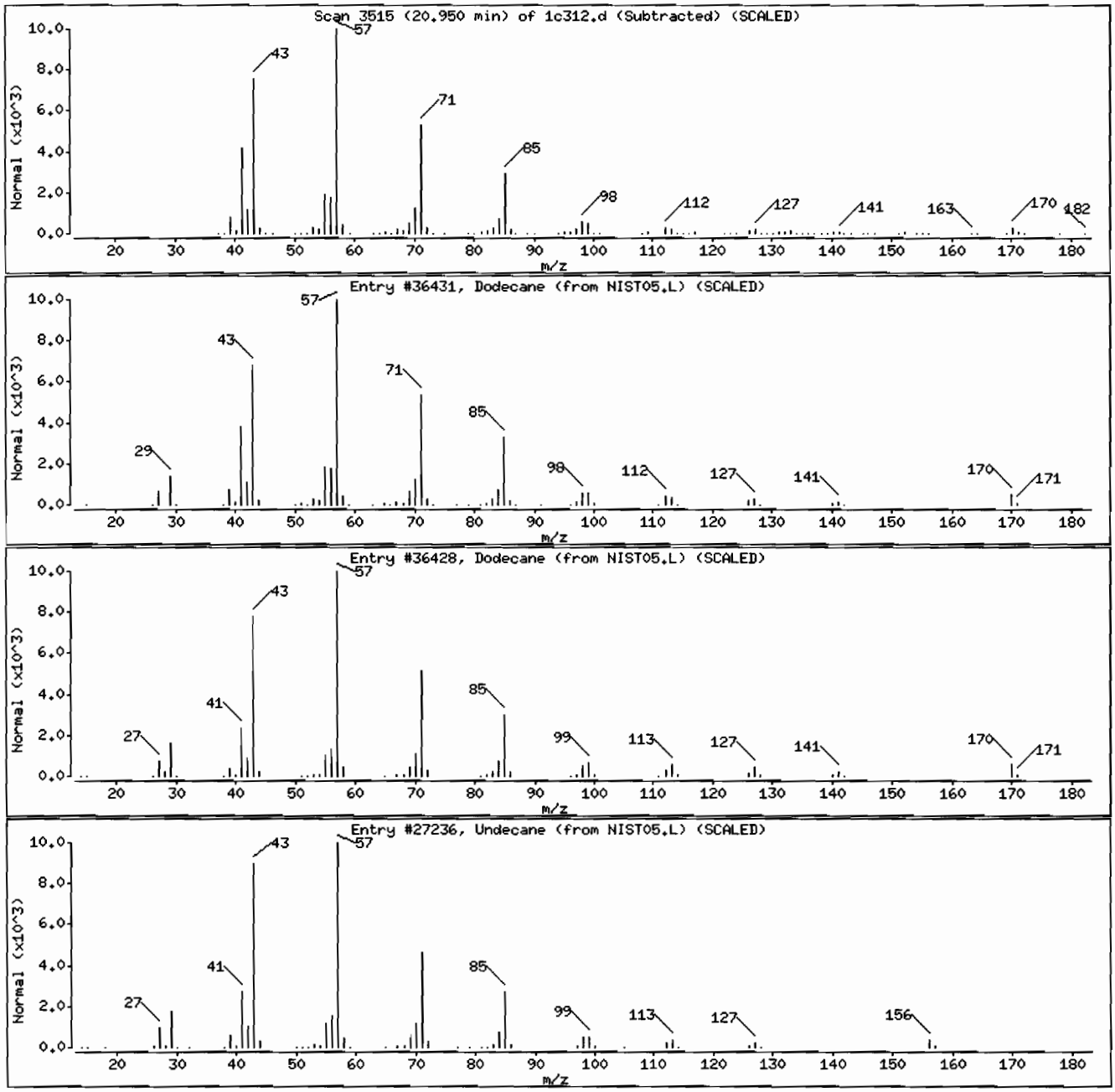

Data File: /chem/VOA1.i/031710v1/1c312.d

Date : 17-MAR-2010 16:31

Client ID: RE46-10-13552

Instrument: VOA1.i

Sample Info: |2488420081965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Dodecane, 6-methyl-	6044-71-9	NIST05.L	46099	95	C13H28	184
Undecane, 2,6-dimethyl-	17301-23-4	NIST05.L	46127	95	C13H28	184
Undecane, 2,6-dimethyl-	17301-23-4	NIST05.L	46136	94	C13H28	184

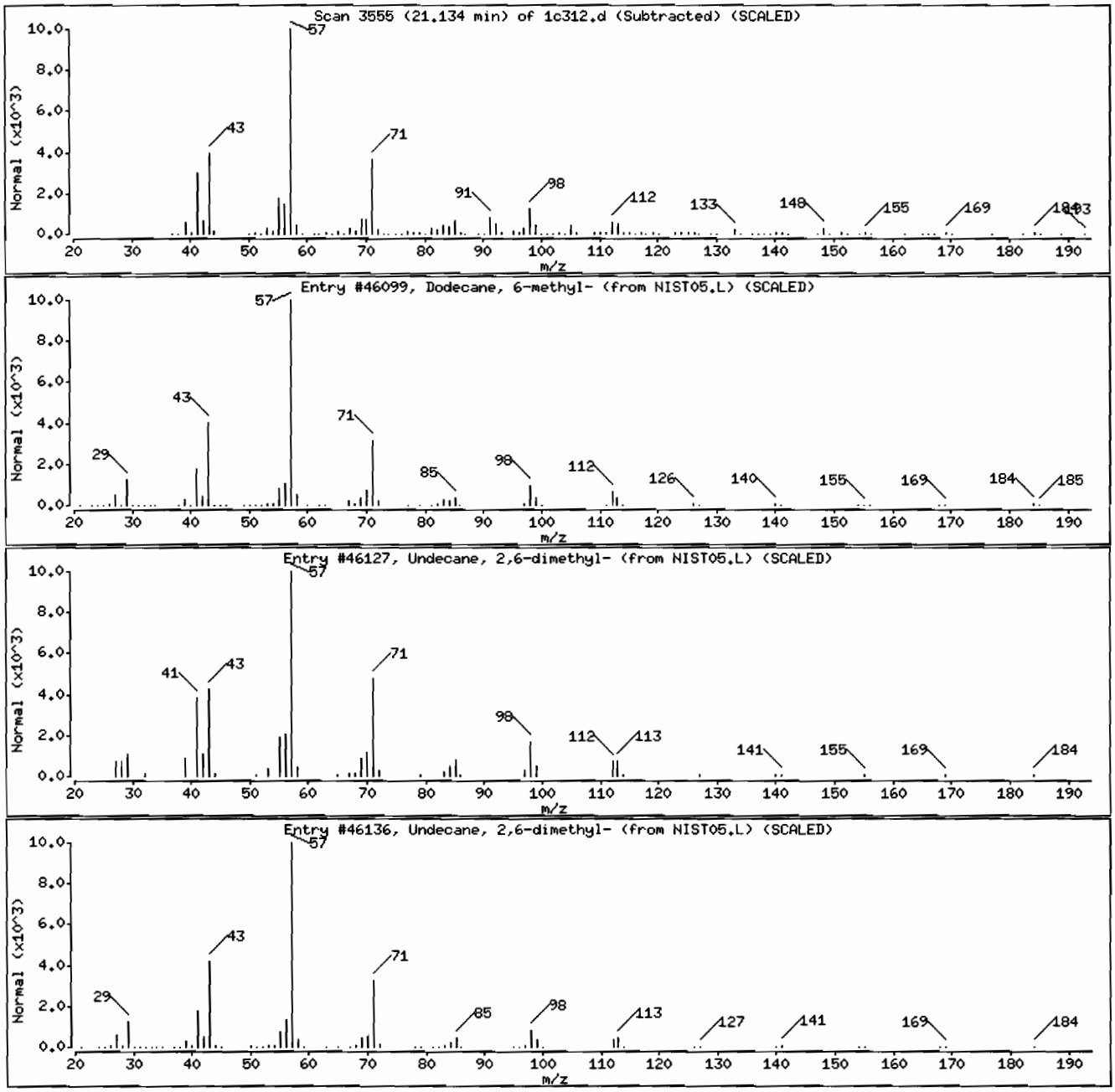

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13553**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 15:16**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 13:58**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c210.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.395	1.16
74-87-3	Chloromethane	U	1.16	ug/kg	0.349	1.16
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.349	1.16
74-83-9	Bromomethane	U	1.16	ug/kg	0.349	1.16
75-00-3	Chloroethane	U	1.16	ug/kg	0.349	1.16
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.349	1.16
67-64-1	Acetone		71.3	ug/kg	1.93	5.81
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
74-88-4	Iodomethane	U	5.81	ug/kg	1.86	5.81
75-09-2	Methylene chloride	U	5.81	ug/kg	2.32	5.81
75-15-0	Carbon disulfide	U	5.81	ug/kg	1.45	5.81
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.349	1.16
78-93-3	2-Butanone	U	5.81	ug/kg	1.74	5.81
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16
67-66-3	Chloroform	U	1.16	ug/kg	0.349	1.16
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.383	1.16
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.349	1.16
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.349	1.16
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.349	1.16
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.349	1.16
71-43-2	Benzene	U	1.16	ug/kg	0.349	1.16
79-01-6	Trichloroethylene		1.54	ug/kg	0.383	1.16
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.349	1.16
74-95-3	Dibromomethane	U	1.16	ug/kg	0.349	1.16
108-10-1	4-Methyl-2-pentanone	U	5.81	ug/kg	1.45	5.81
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16
108-88-3	Toluene	U	1.16	ug/kg	0.349	1.16
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.349	1.16
591-78-6	2-Hexanone	U	5.81	ug/kg	1.74	5.81
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.349	1.16
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.349	1.16
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.349	1.16
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.349	1.16
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.349	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13553**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.1**	**Dilution:**	**1**
Run Date:	**03/16/2010 15:16**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 13:58**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c210.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.349	1.16
179601-23-1	m,p-Xylenes	U	2.32	ug/kg	0.349	2.32
95-47-6	o-Xylene	U	1.16	ug/kg	0.349	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.349	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.349	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.349	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.349	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.349	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.349	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.349	1.16
95-63-6	1,2,4-Trimethylbenzene		1.23	ug/kg	0.349	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.349	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.349	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
104-51-8	n-Butylbenzene		1.20	ug/kg	0.349	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.349	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.81	ug/kg	1.86	5.81
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.88	28.2	ug/kg		J
	Unknown Siloxane	18.05	7.8	ug/kg		J
	Unknown Hydrocarbon	18.51	17.2	ug/kg		J
	Unknown Hydrocarbon	18.82	23.1	ug/kg		J
	Unknown Hydrocarbon	19.31	58.3	ug/kg		J
	Unknown Hydrocarbon	19.42	20.8	ug/kg		J
	Unknown Hydrocarbon	19.73	107	ug/kg		J
	Unknown Hydrocarbon	20.95	620	ug/kg		J
	Unknown Hydrocarbon	22.27	208	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c210.d
Lab Smp Id: 248842002 Client Smp ID: RE46-10-13553
Inj Date : 16-MAR-2010 15:16
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842002|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	13.94230	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/1)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	795940	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	607473	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	350418	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	503942	64.8438	75.3
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1038155	50.8119	59.0
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	463421	52.7489	61.3
16 Acetone	43	9.240	9.239	(0.676)	289179	61.3298	71.3
54 Trichloroethylene	95	14.105	14.105	(1.032)	6223	1.32332	1.5
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	22878	1.05841	1.2
105 n-Butylbenzene	91	19.854	19.854	(1.013)	22968	1.03157	1.2(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

VOA REPORT

Data file: 1c210.d
Report Date: 03/17/2010 05:37
Lab. ID: 248842002 SampleType: SAMPLE
Injection Date: 16-MAR-2010 15:16
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248842002|965875|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	289179	9.24	9.24	80-120	100	( )
58	75012	9.24	9.24	0- 56	26	( )
35 2-Butanone			CAS#: 78-93-3			
43	19610	11.88	12.17	80-120	100	(T)
72	1221	11.88	12.17	0- 51	6	(T)
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	16702	13.67	13.43	80-120	100	(T)
64	2685	13.66	13.43	3- 63	16	(T)
54 Trichloroethylene			CAS#: 79-01-6			
95	6223	14.11	14.10	80-120	100	( )
97	3831	14.11	14.10	36- 96	62	( )
130	4960	14.10	14.10	51-111	80	( )
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	10875	15.50	15.34	80-120	100	(T)
43	7624	15.50	15.35	227-287	70	(QT)
100	649109	15.50	15.35	0- 60	5969	(QT)
88 1,1,2,2-Tetrachloroethane			CAS#: 79-34-5			
83	2170	18.52	18.50	80-120	100	( )
85	27169	18.52	18.50	35- 95	1252	(Q)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
92 1,2,3-Trichloropropane				CAS#: 96-18-4		
110	623	19.02	18.59	80-120	100	(T)
75	897	18.83	18.59	316-376	144	(QT)
77	921	18.96	18.58	769-829	148	(QT)
91 Bromobenzene				CAS#: 108-86-1		
156	2690	18.82	18.58	80-120	100	(T)
77	1820	18.82	18.58	217-277	68	(QT)
158	181	18.58	18.58	70-130	7	(Q)
93 1,3,5-Trimethylbenzene				CAS#: 108-67-8		
105	22878	19.12	18.70	80-120	100	(T)
120	8179	19.12	18.70	9- 69	36	(T)
97 1,2,4-Trimethylbenzene				CAS#: 95-63-6		
105	22878	19.12	19.12	80-120	100	( )
120	8179	19.12	19.12	7- 67	36	( )
96 tert-Butylbenzene				CAS#: 98-06-6		
119	16520	19.34	19.06	80-120	100	(T)
91	7306	19.34	19.06	58-118	44	(QT)
134	4165	19.34	19.06	0- 51	25	(T)
99 sec-Butylbenzene				CAS#: 135-98-8		
105	22878	19.12	19.29	80-120	100	(T)
134	4165	19.34	19.29	0- 47	18	( )
100 4-Isopropyltoluene				CAS#: 99-87-6		
119	12161	19.41	19.41	80-120	100	( )
134	2979	19.41	19.41	0- 53	25	( )
91	7306	19.34	19.41	1- 61	60	(T)
105 n-Butylbenzene				CAS#: 104-51-8		
91	22968	19.85	19.85	80-120	100	( )
92	11451	19.85	19.85	24- 84	50	( )
134	46470	19.80	19.85	0- 51	202	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c210.d
Lab Smp Id: 248842002 Client Smp ID: RE46-10-13553
Inj Date : 16-MAR-2010 15:16
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842002|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	13.94230	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 52 Fluorobenzene	13.672	1954609	50.000
* 76 Chlorobenzene-d5	17.148	2268401	50.000
* 102 1,4-Dichlorobenzene-d4	19.596	2836404	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
11.882	949919	24.2994422	28.2	0		0	52

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
18.050	304411	6.70981319	7.8	0		0	76
Unknown Hydrocarbon					CAS #:		
18.515	840705	14.8199082	17.2	0		0	102
Unknown Hydrocarbon					CAS #:		
18.819	1125821	19.8459199	23.1	0		0	102
Unknown Hydrocarbon					CAS #:		
19.311	2848275	50.2092577	58.3	0		0	102
Unknown Hydrocarbon					CAS #:		
19.417	1013058	17.8581296	20.8	0		0	102
Unknown Hydrocarbon					CAS #:		
19.735	5236133	92.3022947	107	0		0	102
Unknown Hydrocarbon					CAS #:		
20.950	30272387	533.640152	620	0		0	102
Unknown Hydrocarbon					CAS #:		
22.266	10171596	179.304395	208	0		0	102

Data File: /chem/VOA1.i/031610v1/1c210.d

Date : 16-MAR-2010 15:16

Client ID: RE46-10-13553

Sample Info: |2488420021965875|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2

Column diameter: 0.25

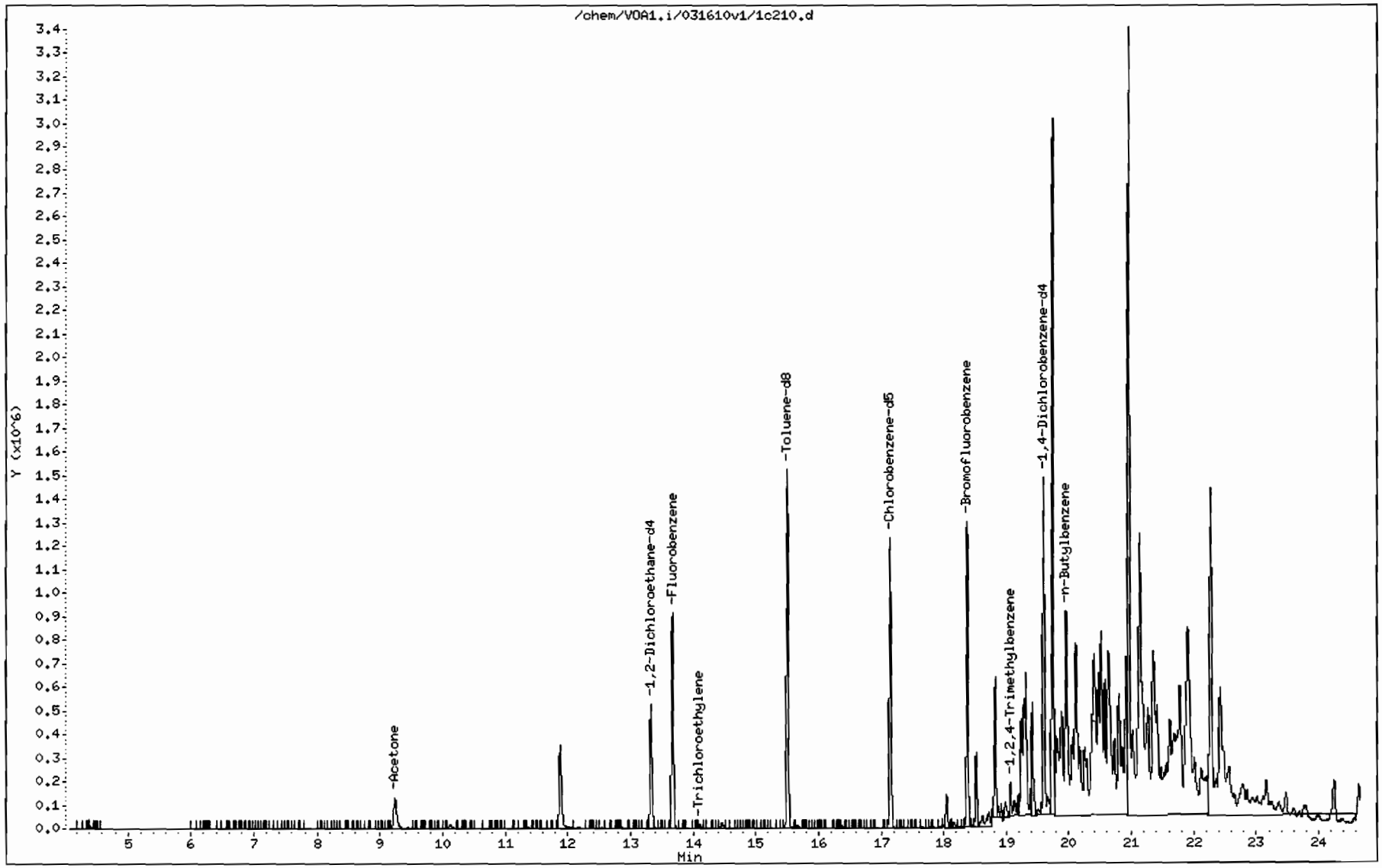

Data File: /chem/VOA1.i/031610v1/1c210.d

Date : 16-MAR-2010 15:16

Client ID: RE46-10-13553

Instrument: VOA1.i

Sample Info: |2488420021965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 71.3 ug/Kg

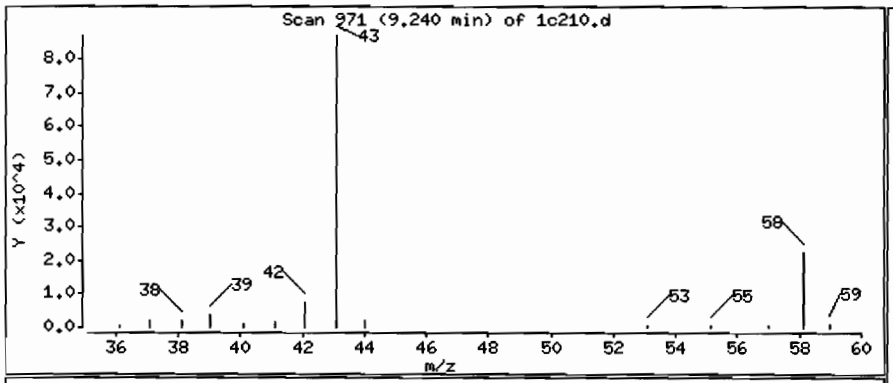

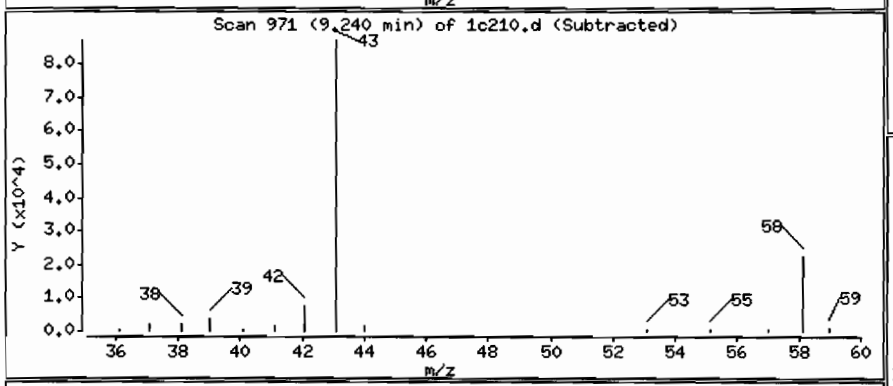

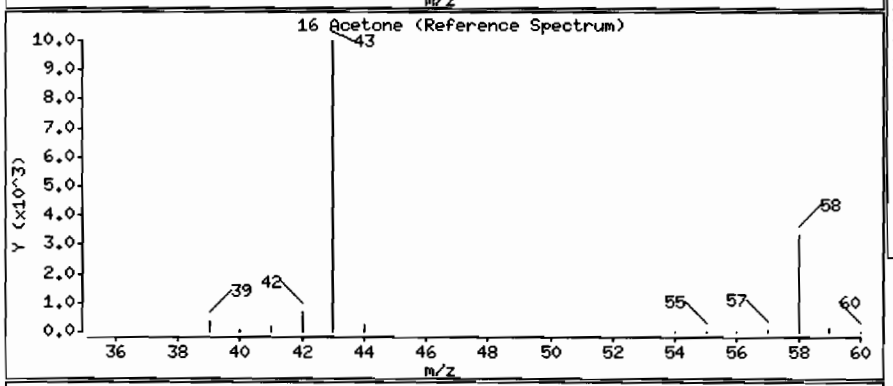

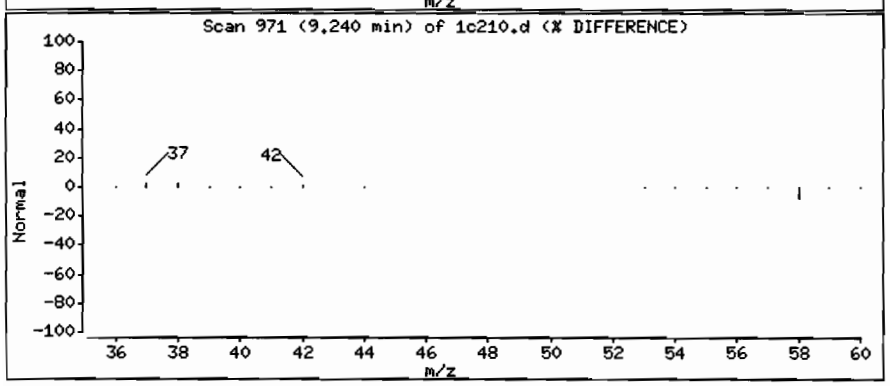

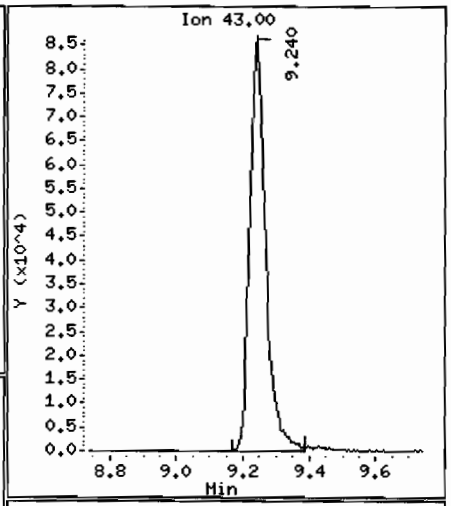

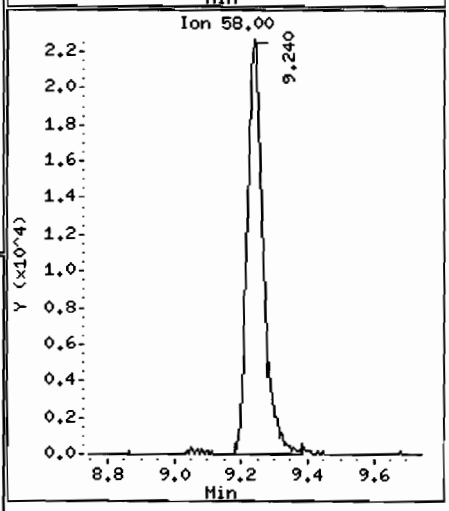

Data File: /chem/VOA1.i/031610v1/1c210.d

Date : 16-MAR-2010 15:16

Client ID: RE46-10-13553

Instrument: VOA1.i

Sample Info: |2488420021965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

54 Trichloroethylene

Concentration: 1.5 ug/Kg

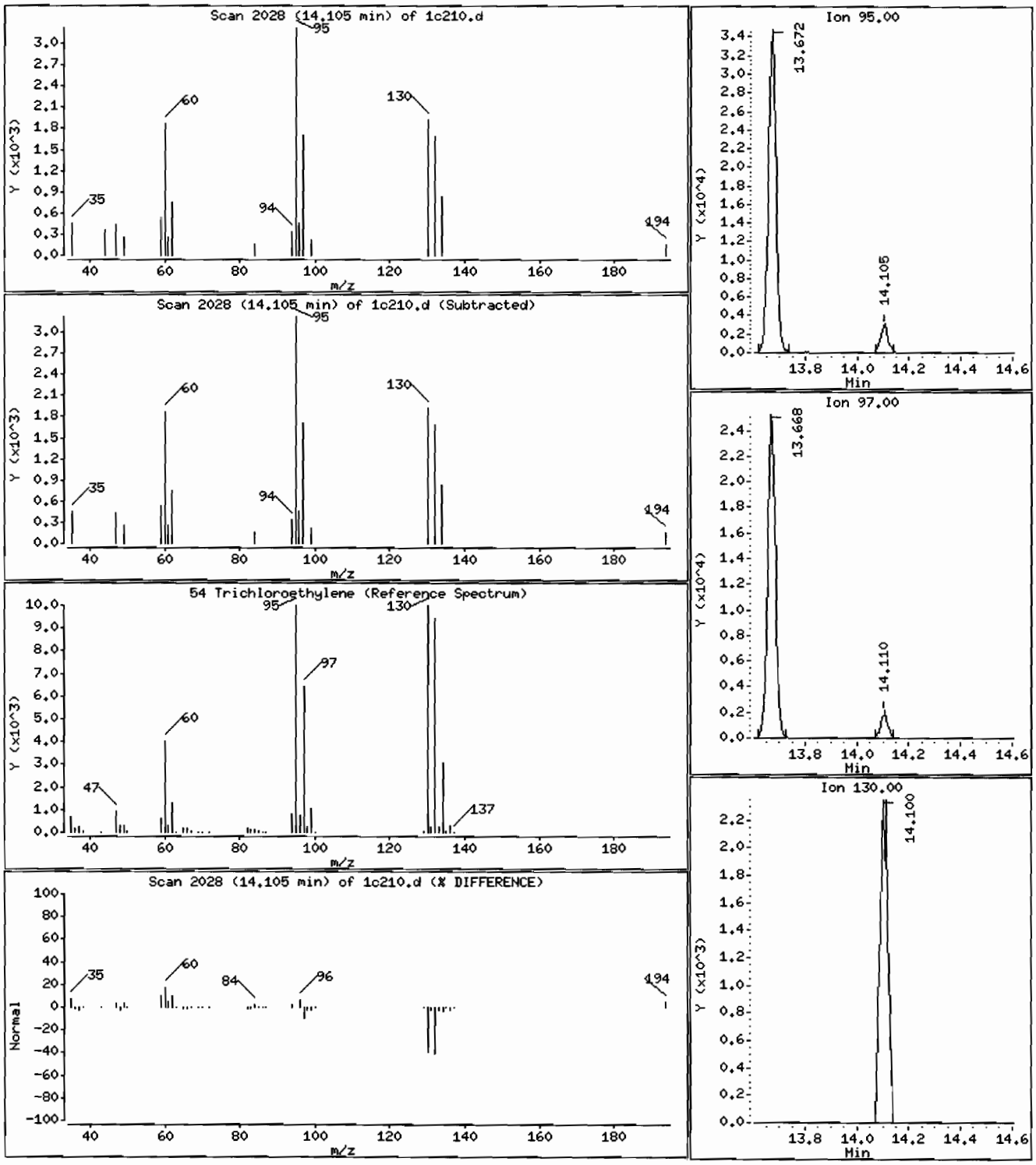

Data File: /chem/VOA1.i/031610v1/1c210.d

Date : 16-MAR-2010 15:16

Client ID: RE46-10-13553

Instrument: VOA1.i

Sample Info: |2488420021965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

97 1,2,4-Trimethylbenzene

Concentration: 1.2 ug/Kg

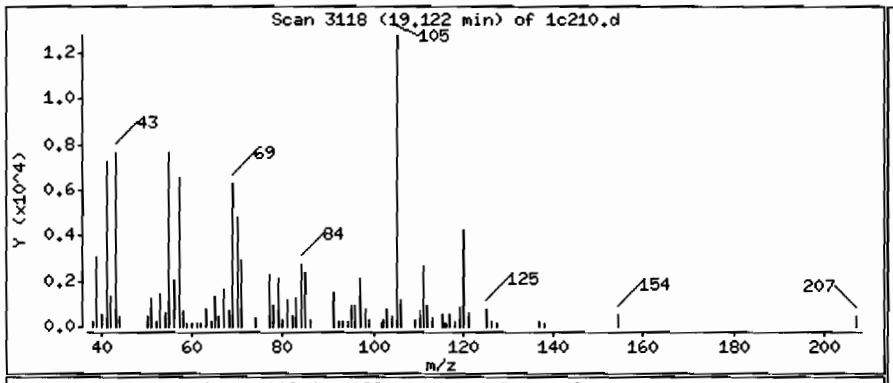

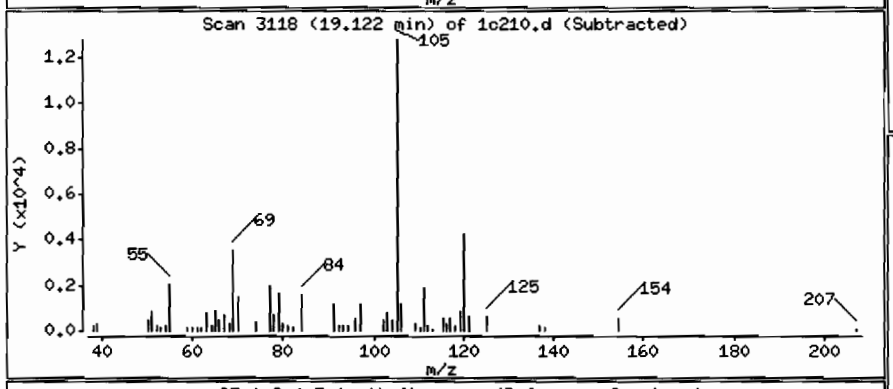

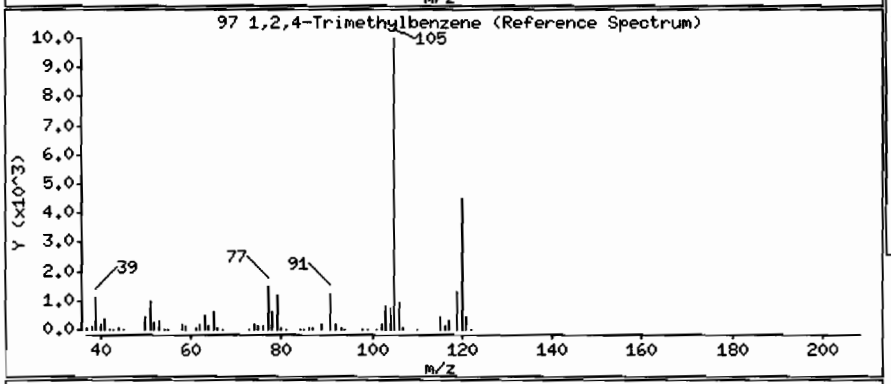

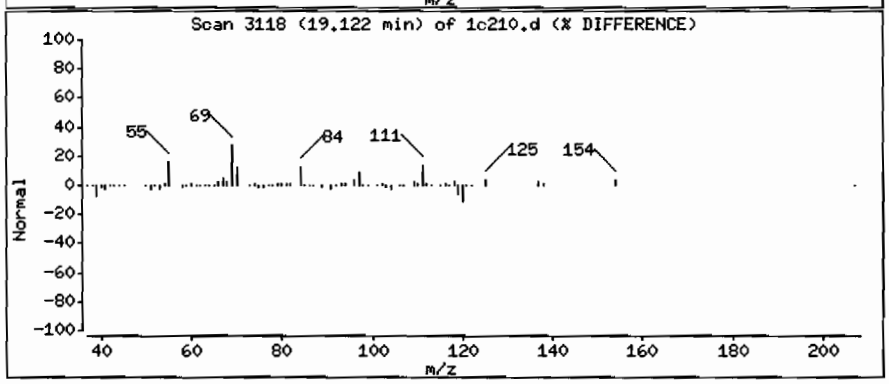

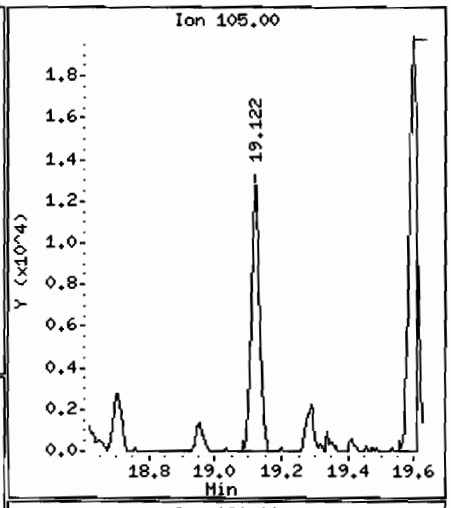

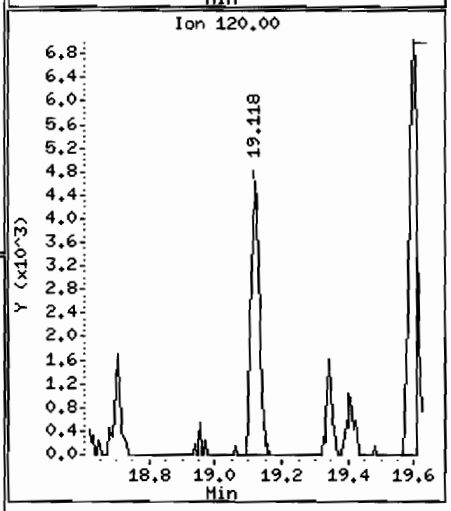

Data File: /chem/VOA1.i/031610v1/1c210.d

Date : 16-MAR-2010 15:16

Client ID: RE46-10-13553

Instrument: VOA1.i

Sample Info: |2488420021965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

105 n-Butylbenzene

Concentration: 1.2 ug/Kg

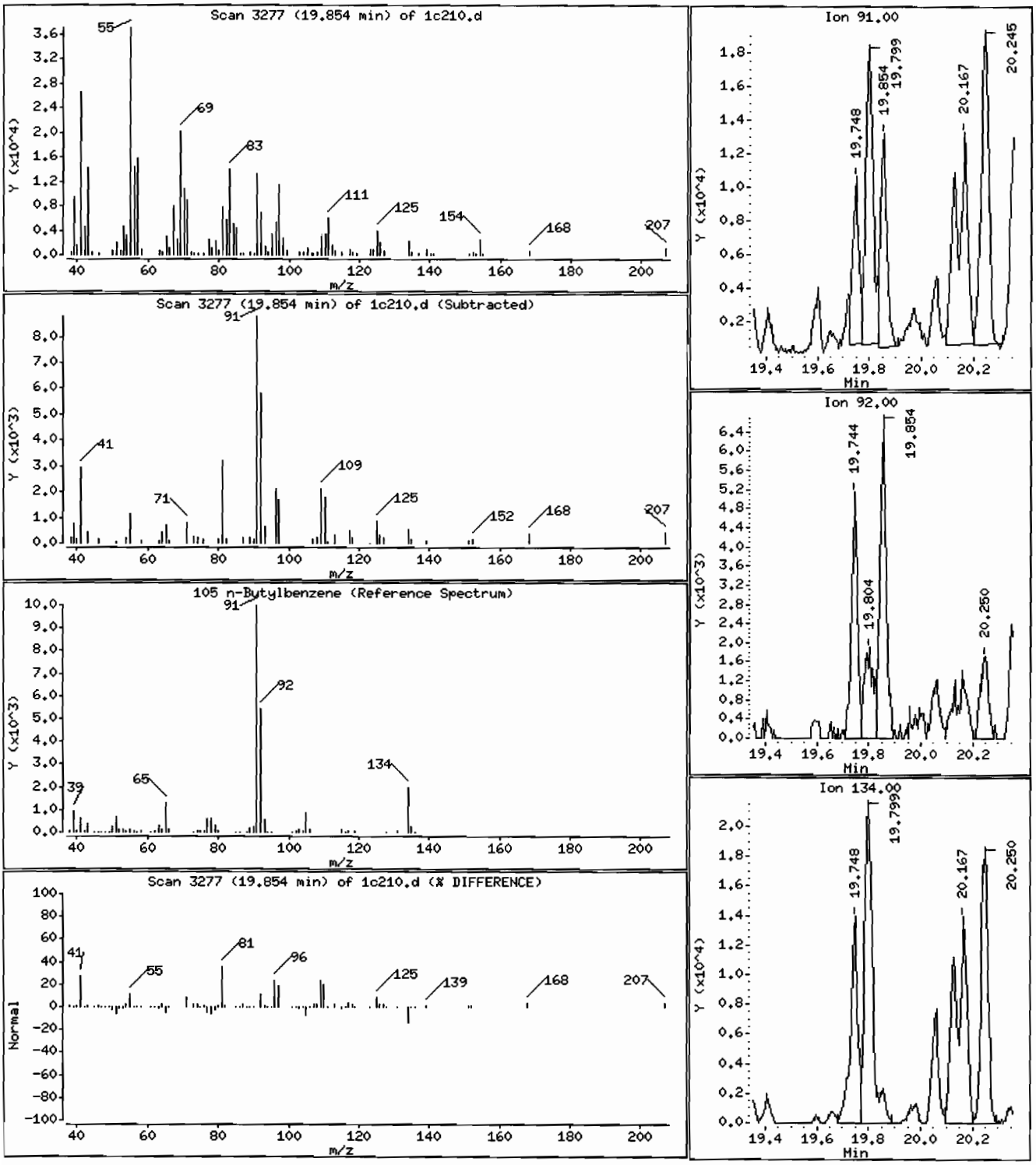

Data File: /chem/VOA1.i/031610v1/1c210.d

Date : 16-MAR-2010 15:16

Client ID: RE46-10-13553

Instrument: VOA1.i

Sample Info: |2488420021965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Silanol, trimethyl-	1066-40-6	NIST05.L	2199	94	C3H10OSi	90
tert-Butyldimethylsilanol	18173-64-3	NIST05.L	13928	64	C6H16OSi	132
Silanol, trimethyl-	1066-40-6	NIST05.L	2200	64	C3H10OSi	90

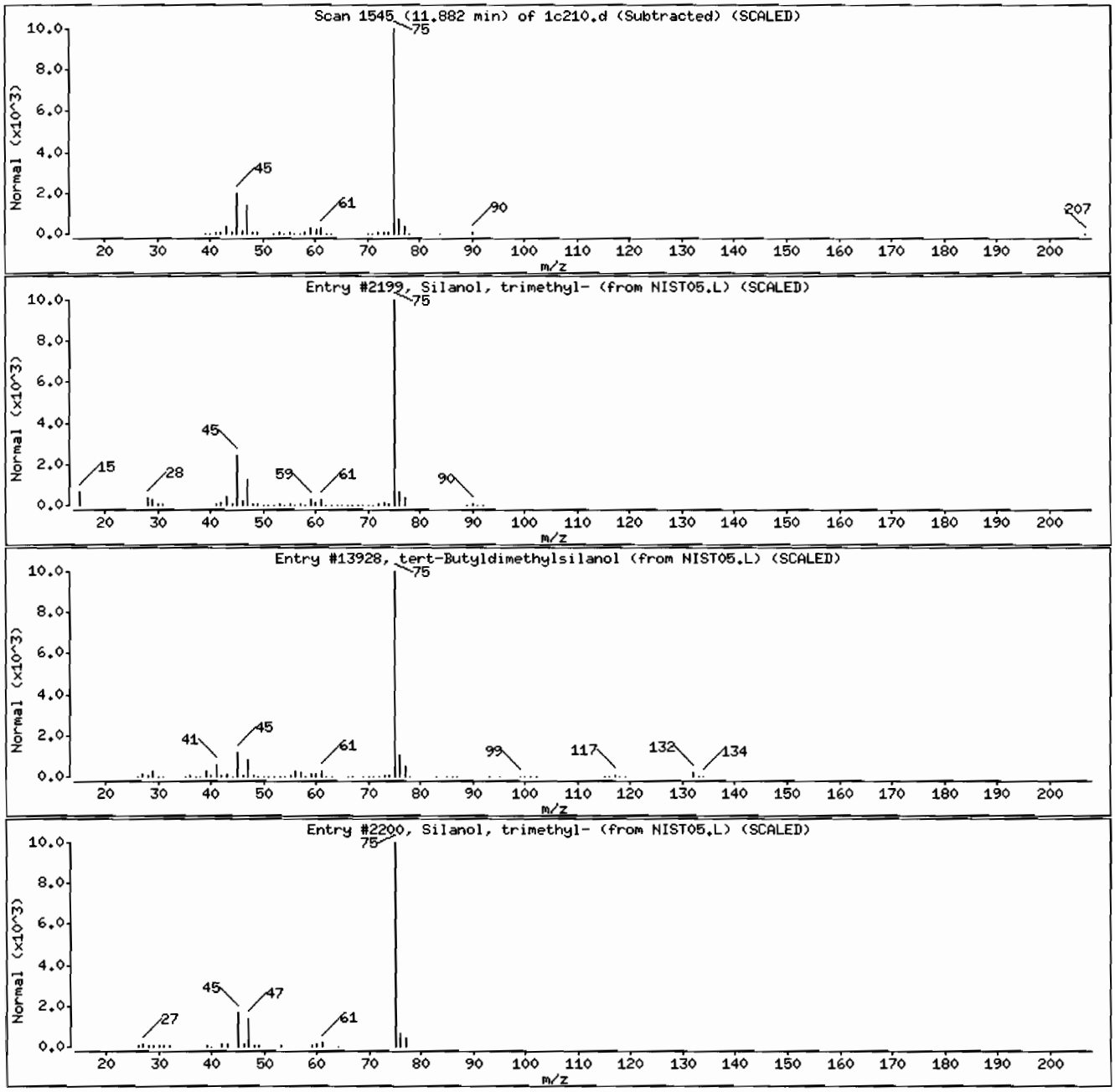

Data File: /chem/VOA1.i/031610v1/1c210.d

Date : 16-MAR-2010 15:16

Client ID: RE46-10-13553

Instrument: VOA1.i

Sample Info: |2488420021965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Trisiloxane, 1,1,3,3,5,5-hexamethyl-	1189-93-1	NIST05.L	63149	27	C6H20O2Si3	208
1-(3-Nitro-phenyl)-pyrrolidine	1000300-34-7	NIST05.L	50801	25	C10H12N2O2	192
Cyclopentanecarboxylic acid, 3-methylene	1000159-44-4	NIST05.L	62887	25	C13H20O2	208

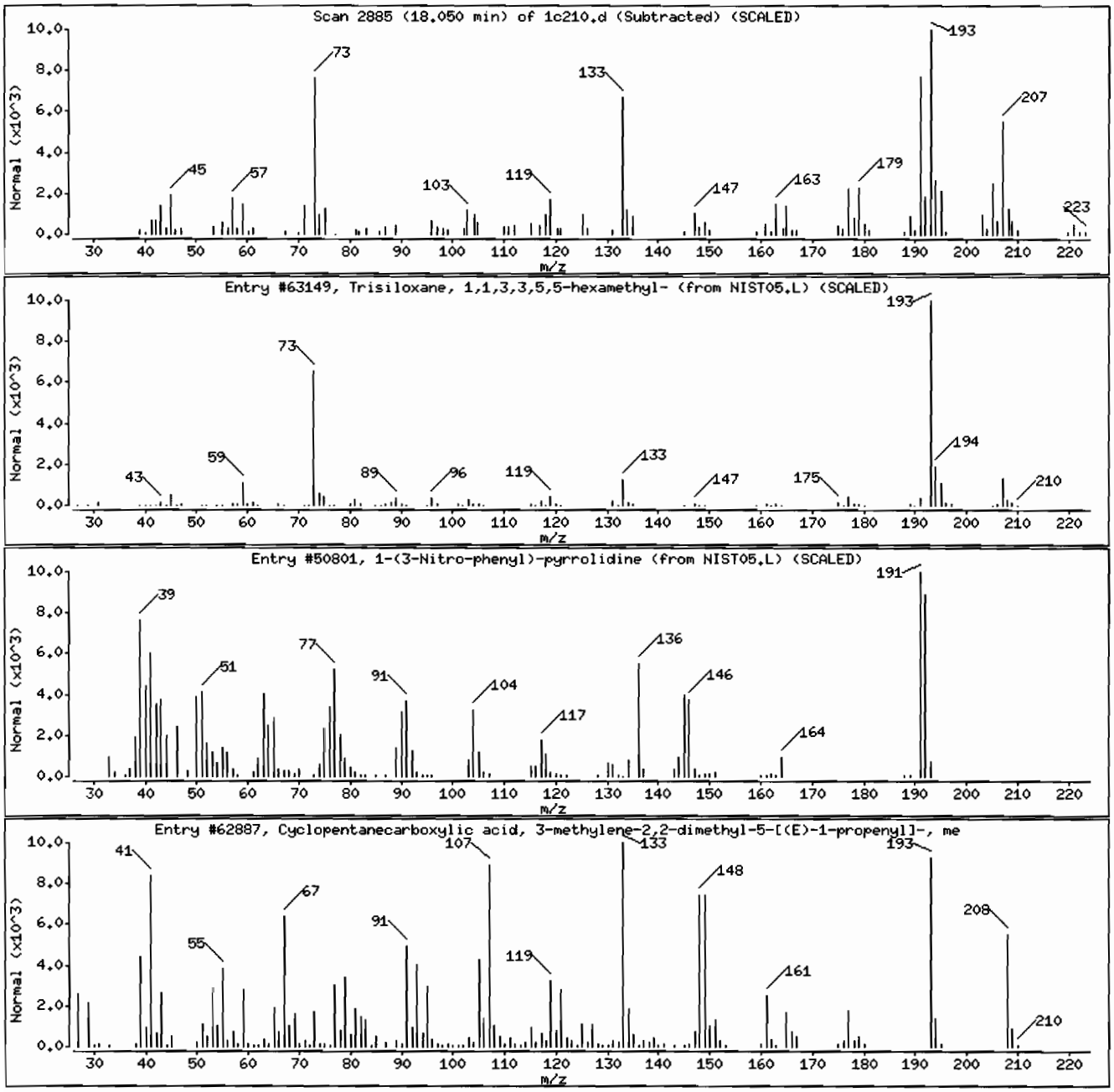

Data File: /chem/VOA1.i/031610v1/1c210.d

Date : 16-MAR-2010 15:16

Client ID: RE46-10-13553

Instrument: VOA1.i

Sample Info: 1248842002196587511VOAF111

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Decane	124-18-5	NIST05.L	18486	90	C10H22	142
Decane	124-18-5	NIST05.L	18488	90	C10H22	142
Undecane	1120-21-4	NIST05.L	27238	83	C11H24	156

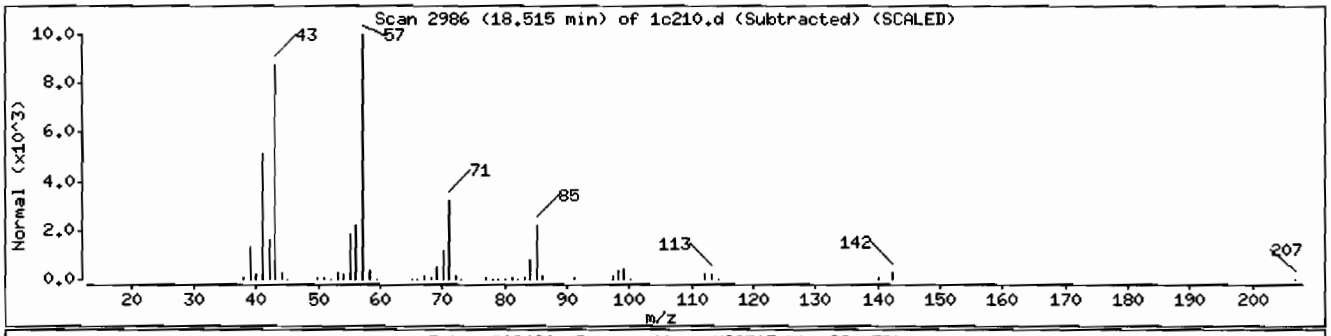

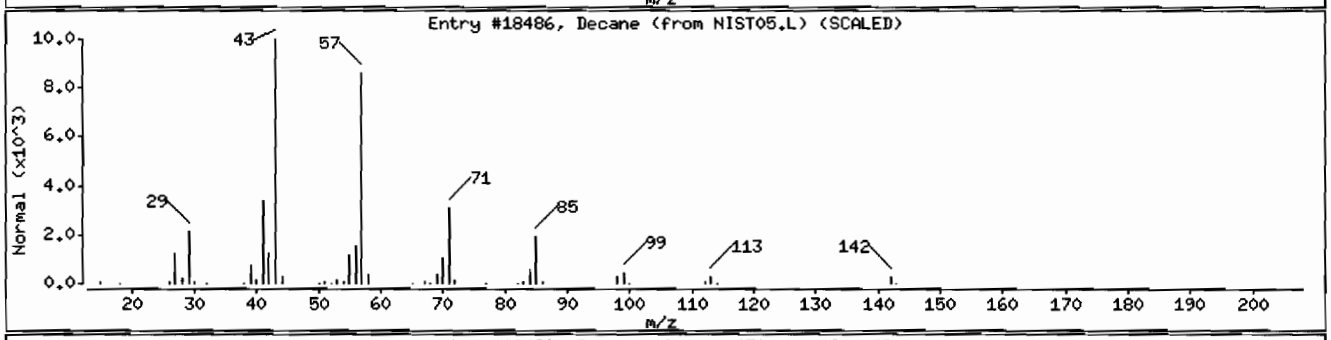

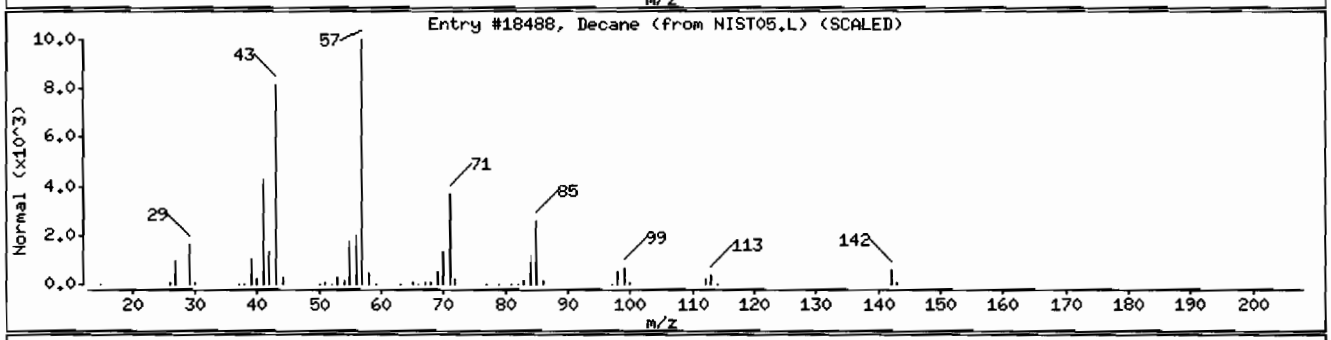

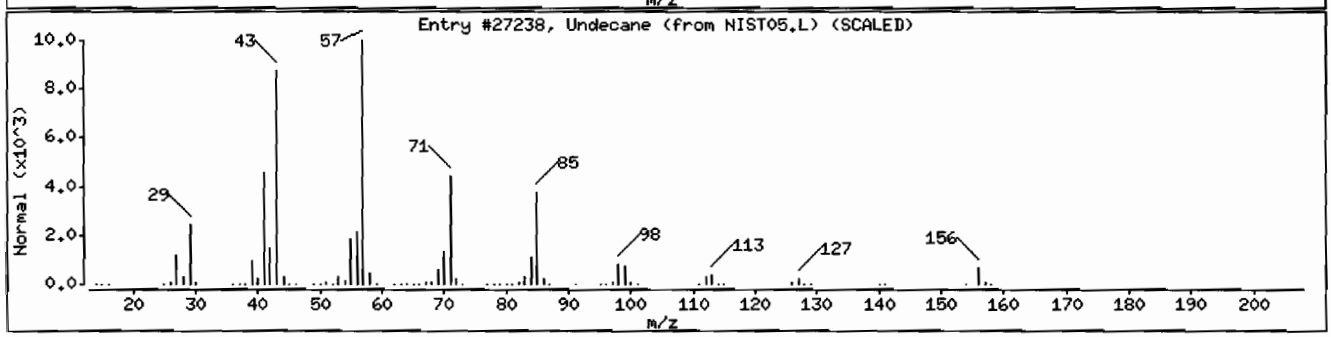

Data File: /chem/VOA1.i/031610v1/1c210.d

Date : 16-MAR-2010 15:16

Client ID: RE46-10-13553

Instrument: VOA1.i

Sample Info: |2488420021965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Decane, 4-methyl-	2847-72-5	NIST05.L	27248	94	C11H24	156
Decane, 4-methyl-	2847-72-5	NIST05.L	27242	91	C11H24	156
Octane, 3-ethyl-	5881-17-4	NIST05.L	18492	78	C10H22	142

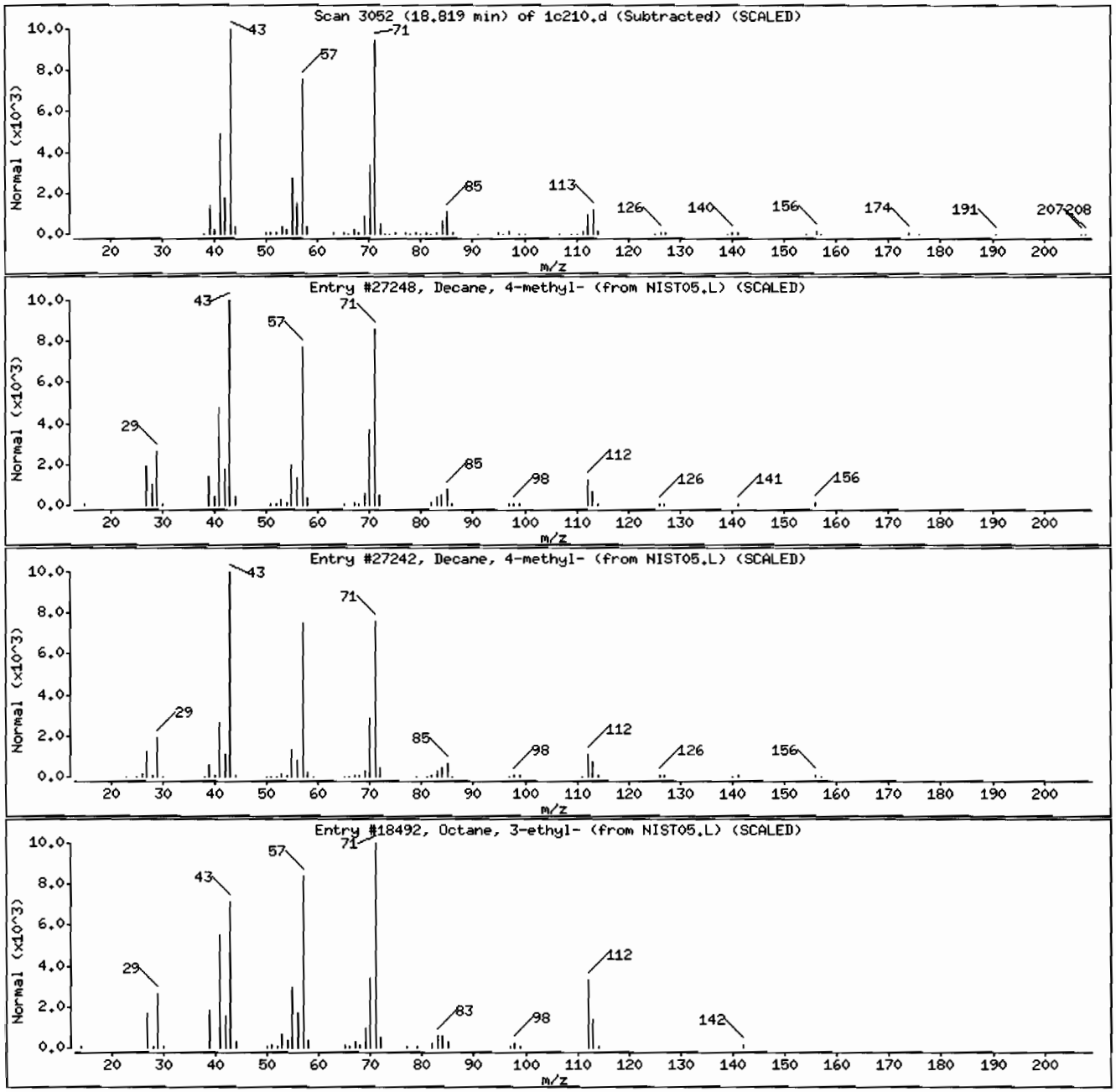

Data File: /chem/VOA1.i/031610v1/1c210.d

Date : 16-MAR-2010 15:16

Client ID: RE46-10-13553

Instrument: VOA1.i

Sample Info: |2488420021965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Decane, 2-methyl-	6975-98-0	NIST05.L	27250	95	C11H24	156
Decane, 2-methyl-	6975-98-0	NIST05.L	27246	93	C11H24	156
Hexadecane, 2,6,10,14-tetramethyl-	638-36-8	NIST05.L	113505	86	C20H42	282

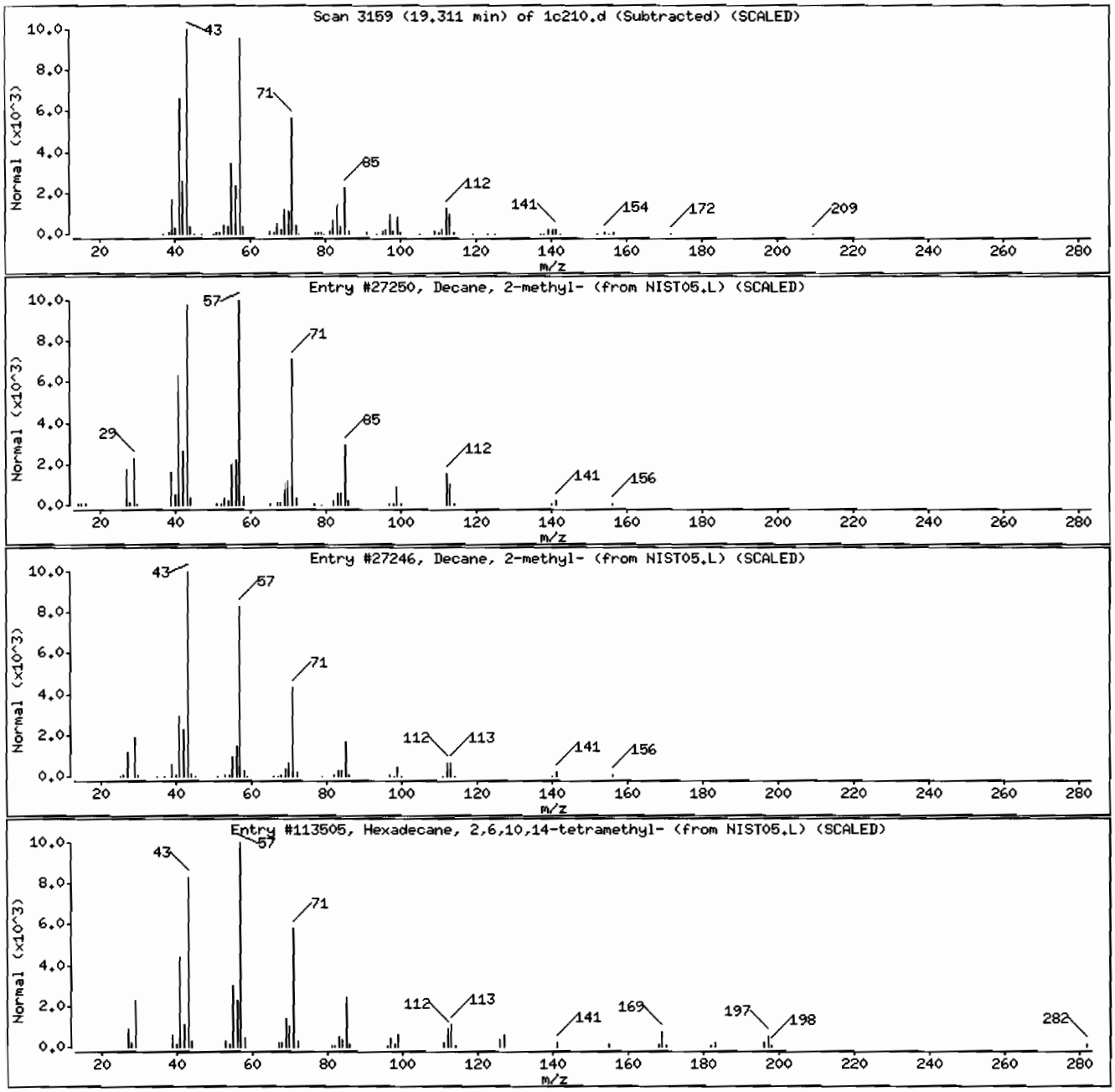

Data File: /chem/VOA1.i/031610v1/1c210.d

Date : 16-MAR-2010 15:16

Client ID: RE46-10-13553

Instrument: VOA1.i

Sample Info: |2488420021965875111VOAF111

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Decane, 3-methyl-	13151-34-3	NIST05.L	27251	76	C11H24	156
Dodecane, 3-methyl-	17312-57-1	NIST05.L	46105	64	C13H28	184
Decane, 3-methyl-	13151-34-3	NIST05.L	27243	59	C11H24	156

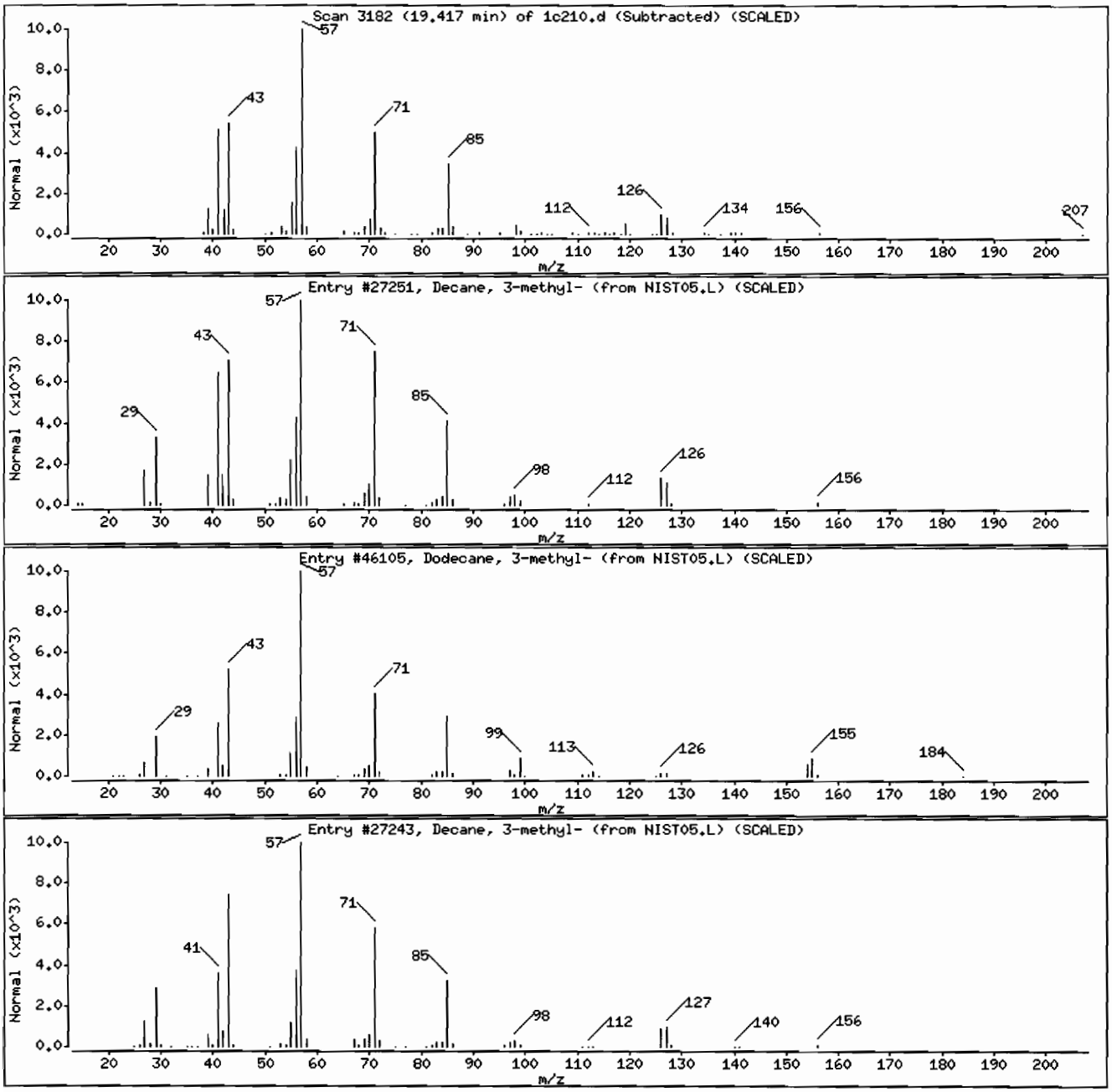

Data File: /chem/VOA1.i/031610v1/1c210.d

Date : 16-MAR-2010 15:16

Client ID: RE46-10-13553

Instrument: VOA1.i

Sample Info: |2488420021965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Undecane	1120-21-4	NIST05.L	27236	91	C11H24	156
Undecane	1120-21-4	NIST05.L	27240	87	C11H24	156
Undecane	1120-21-4	NIST05.L	27237	87	C11H24	156

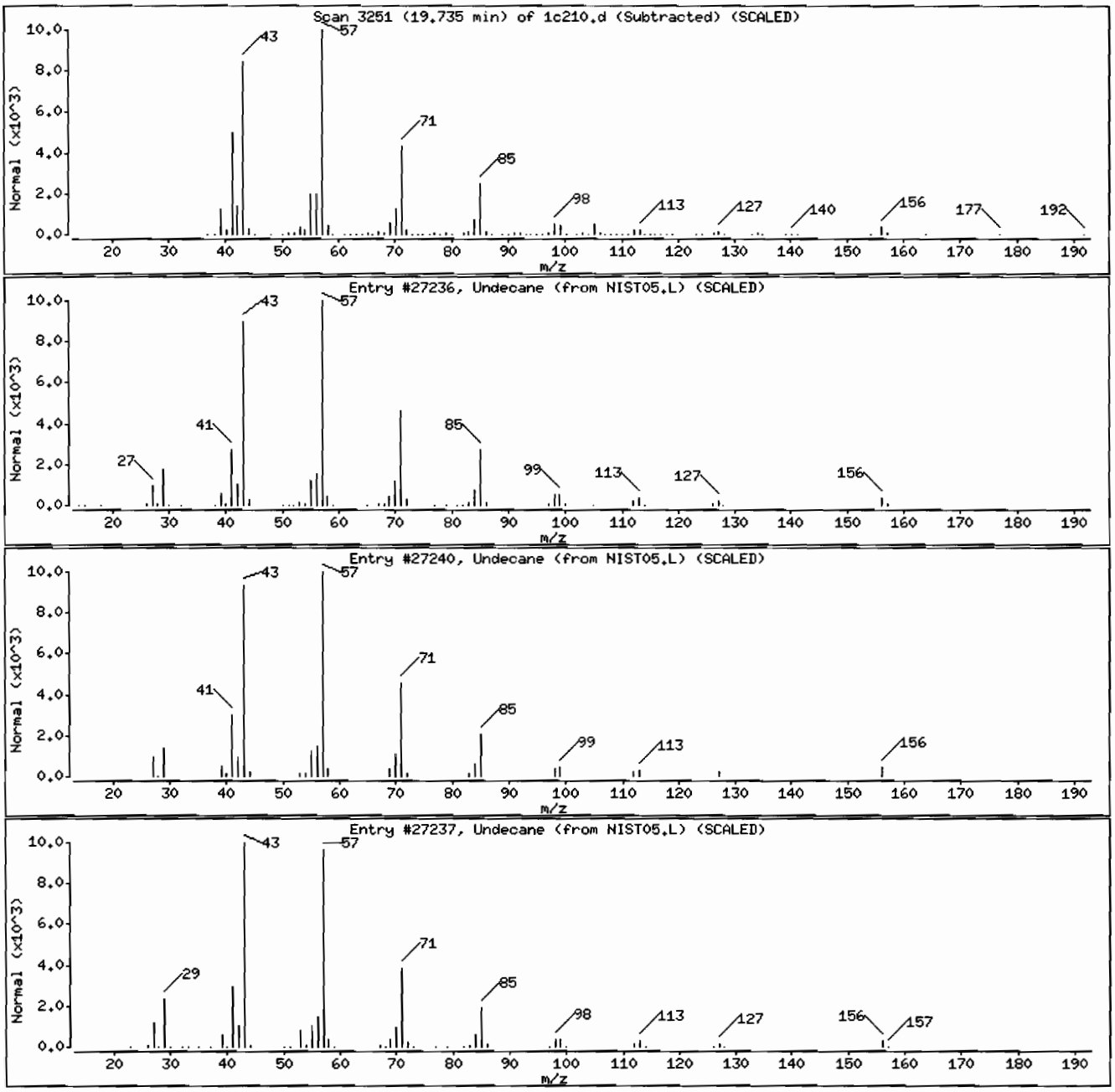

Data File: /chem/VOA1.i/031610v1/1c210.d

Date : 16-MAR-2010 15:16

Client ID: RE46-10-13553

Instrument: VOA1.i

Sample Info: |2488420021965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Dodecane	112-40-3	NIST05.L	36431	93	C12H26	170
Dodecane	112-40-3	NIST05.L	36428	91	C12H26	170
Hexadecane	544-76-3	NIST05.L	76089	83	C16H34	226

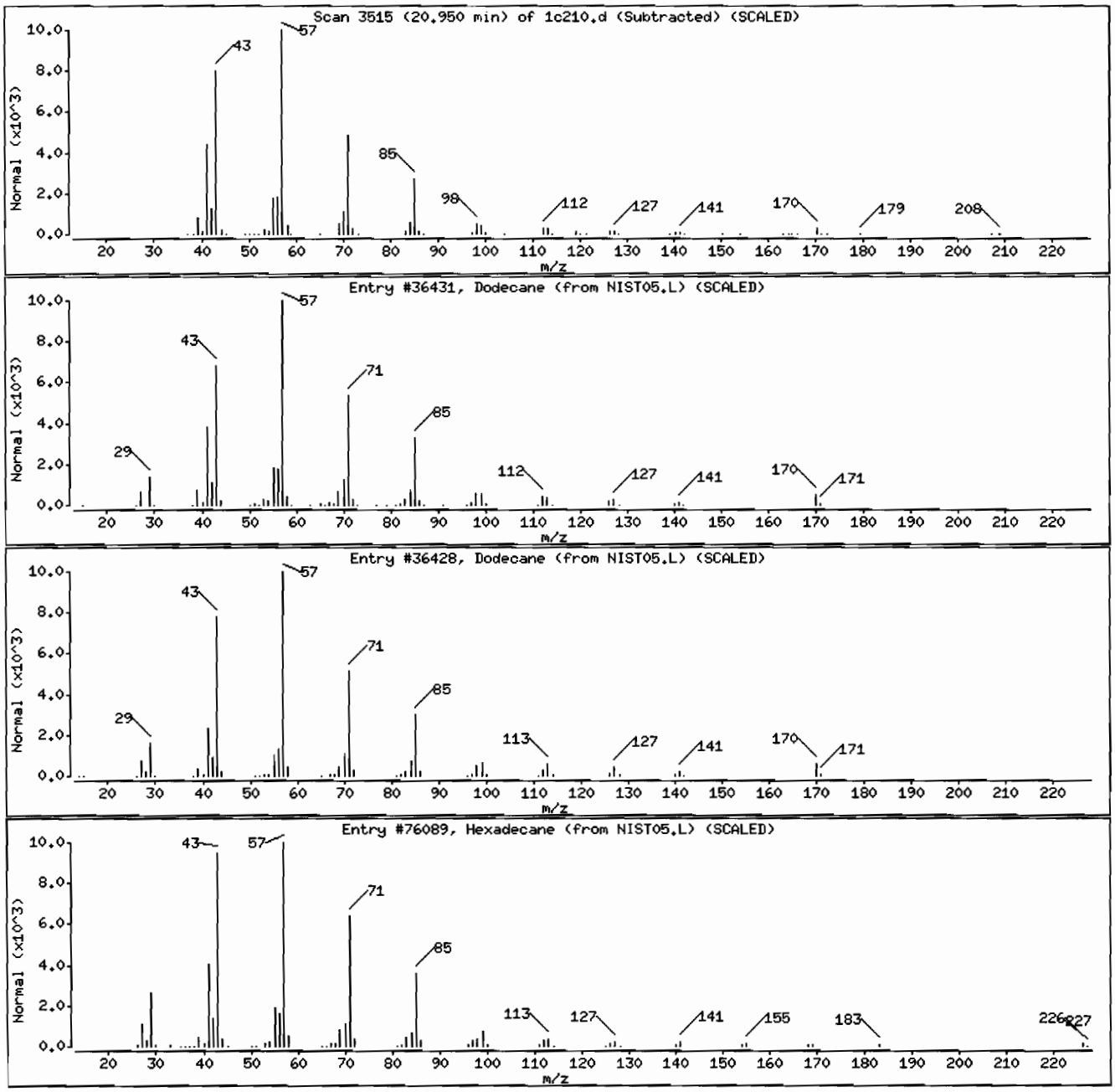

Data File: /chem/VOA1.i/031610v1/1c210.d

Date : 16-MAR-2010 15:16

Client ID: RE46-10-13553

Instrument: VOA1.i

Sample Info: 1248842002|965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Tridecane	629-50-5	NIST05.L	46087	94	C13H28	184
Tetradecane	629-59-4	NIST05.L	55973	90	C14H30	198
Tetradecane	629-59-4	NIST05.L	55974	90	C14H30	198

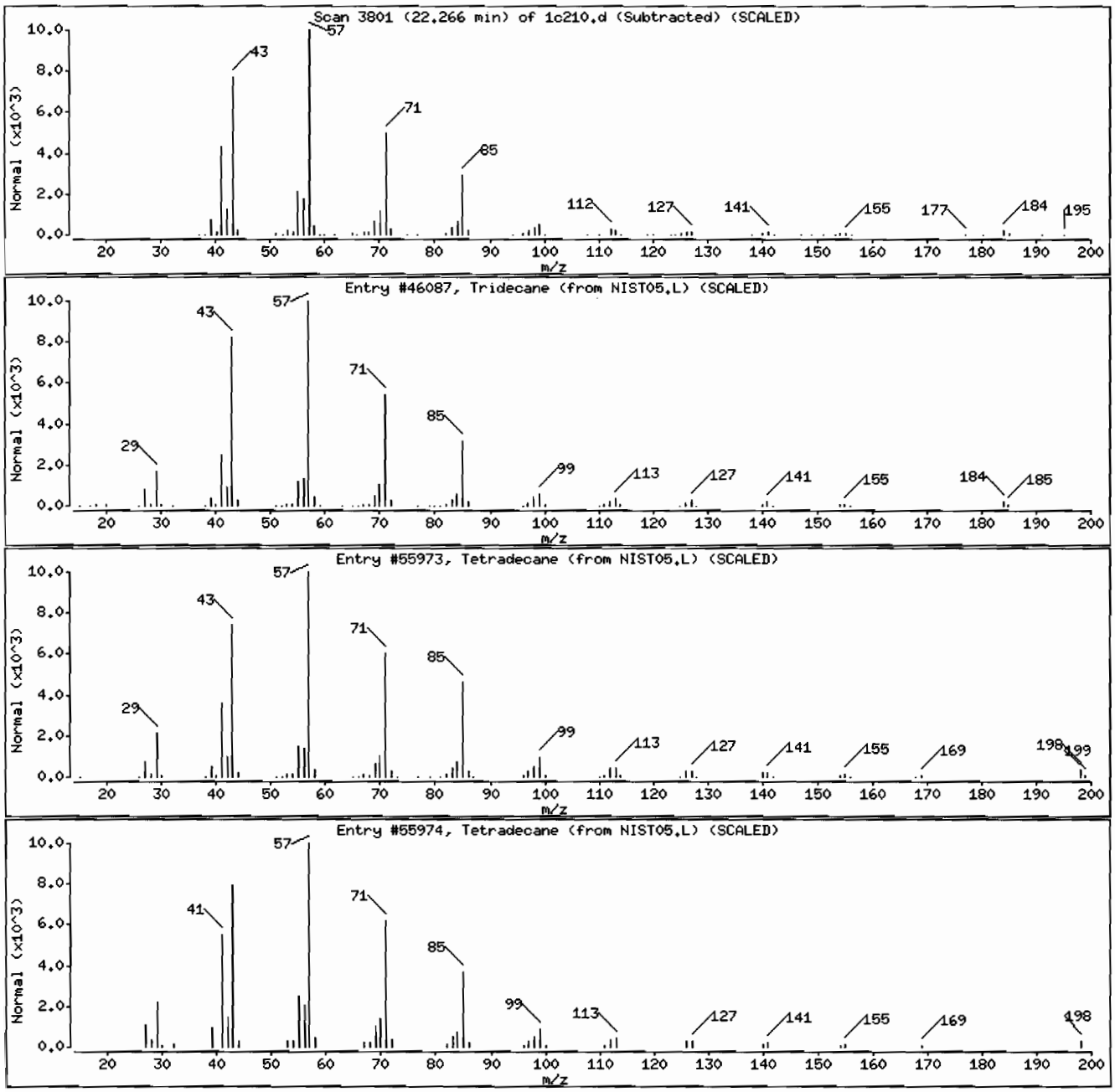

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842001**	**Date Received:**	**03/05/2010 10:20**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13555**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 14:14**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 13:56**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c208.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	1.97	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842001**	**Date Received:**	**03/05/2010 10:20**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13555**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 14:14**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 13:56**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c208.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c208.d
Lab Smp Id: 248842001 Client Smp ID: RE46-10-13555
Inj Date : 16-MAR-2010 14:14
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842001|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.663	13.672	(1.000)	856179	50.0000	
* 76 Chlorobenzene-d5	117	17.143	17.148	(1.000)	648479	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	365629	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.318	13.327	(0.975)	499865	59.7938	59.8
$ 65 Toluene-d8	98	15.500	15.504	(0.904)	1083405	49.6735	49.7
$ 87 Bromofluorobenzene	95	18.376	18.377	(0.938)	469932	51.2647	51.3
16 Acetone	43	9.221	9.239	(0.675)	10009	1.97338	2.0(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 1c208.d
Report Date: 03/17/2010 05:37
Lab. ID: 248842001 SampleType: SAMPLE
Injection Date: 16-MAR-2010 14:14
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248842001|965875|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	10009	9.22	9.24	80-120	100	( )
58	2113	9.23	9.24	0- 56	21	( )
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	17691	13.66	13.43	80-120	100	(T)
64	2738	13.66	13.43	3- 63	15	(T)
54 Trichloroethylene			CAS#: 79-01-6			
95	75289	13.66	14.10	80-120	100	(T)
97	56725	13.66	14.10	36- 96	75	(T)
130	130	14.10	14.10	51-111	0	(Q)
64 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	11665	15.50	15.34	80-120	100	(T)
43	7072	15.50	15.35	227-287	61	(QT)
100	667787	15.50	15.35	0- 60	5725	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c208.d
Lab Smp Id: 248842001 Client Smp ID: RE46-10-13555
Inj Date : 16-MAR-2010 14:14
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842001|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/031610v1/1c208.d
Date : 16-MAR-2010 14:14
Client ID: RE46-10-13555
Sample Info: |2488420011965875|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2
Column diameter: 0.25

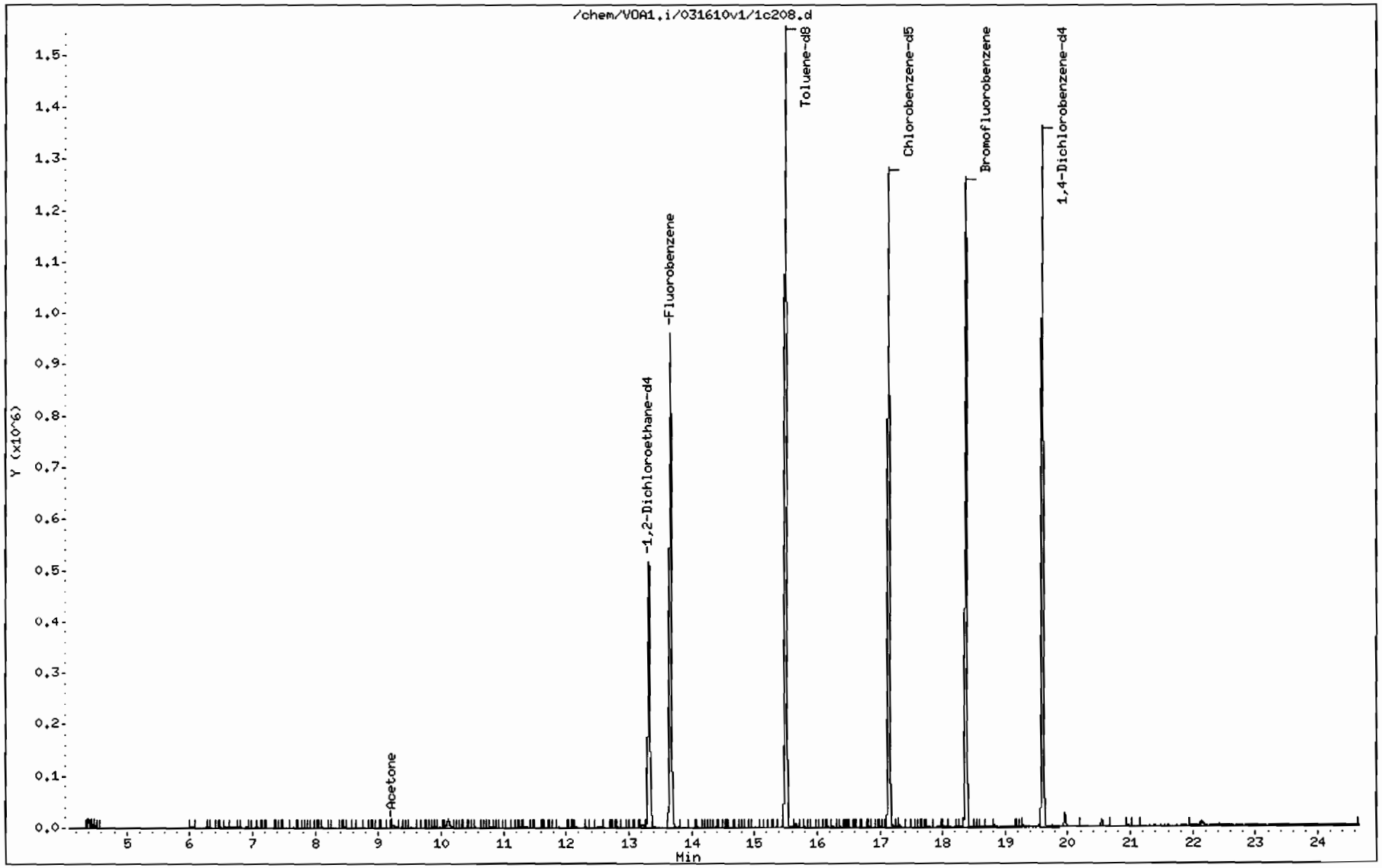

Data File: /chem/VOA1.i/031610v1/1c208.d

Date : 16-MAR-2010 14:14

Client ID: RE46-10-13555

Instrument: VOA1.i

Sample Info: |2488420011965875111VOAF111

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 2.0 ug/Kg

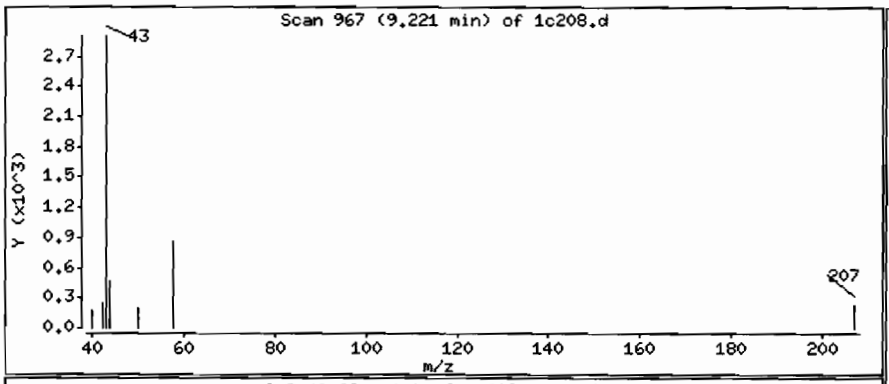

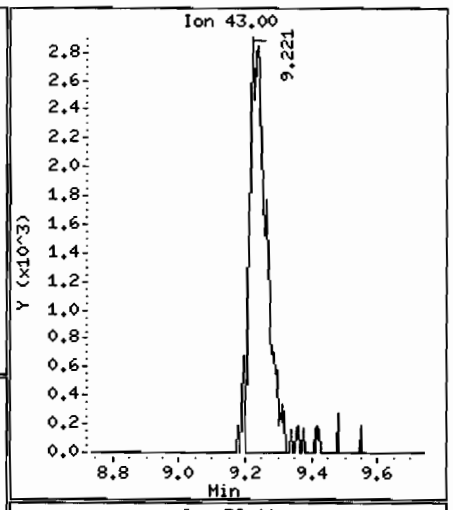

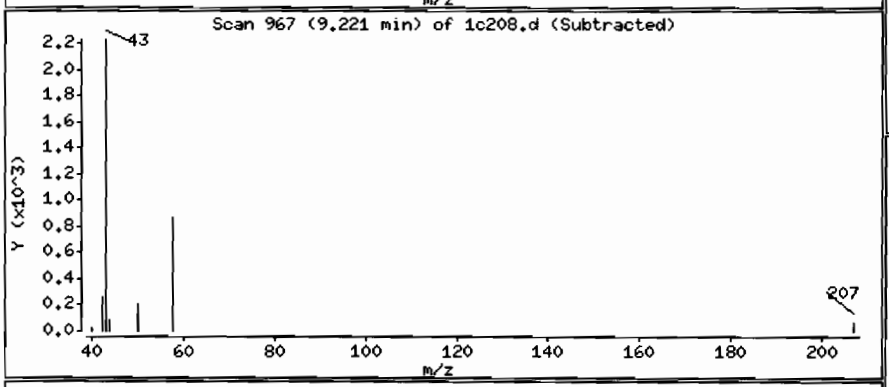

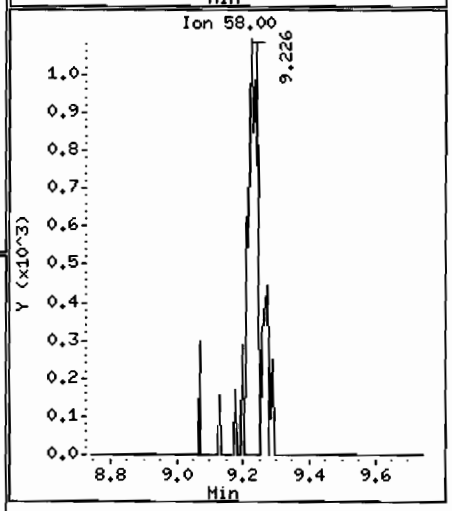

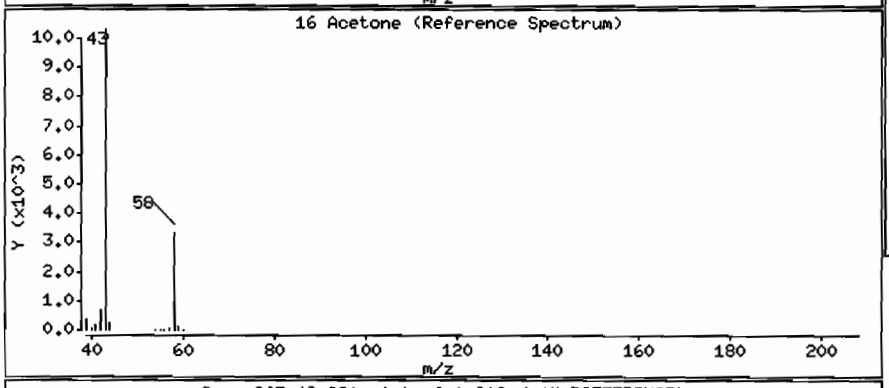

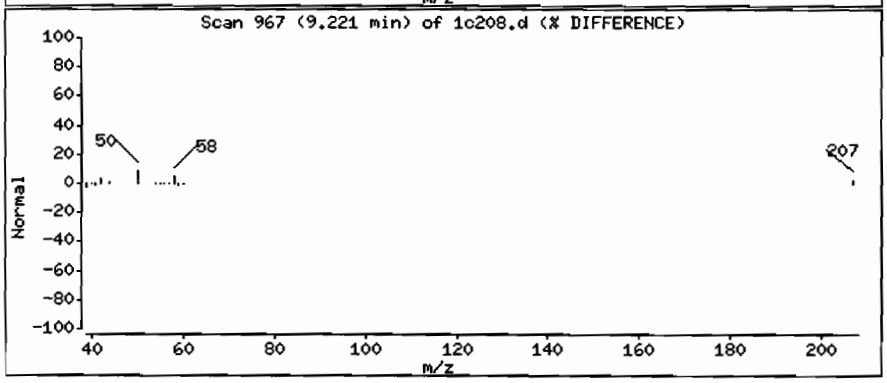

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13556**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 16:01**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 14:21**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c311.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.392	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.346	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.346	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.346	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.346	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.346	1.15
67-64-1	Acetone		89.8	ug/kg	1.91	5.76
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
74-88-4	Iodomethane	U	5.76	ug/kg	1.84	5.76
75-09-2	Methylene chloride	U	5.76	ug/kg	2.30	5.76
75-15-0	Carbon disulfide	U	5.76	ug/kg	1.44	5.76
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.346	1.15
78-93-3	2-Butanone	U	5.76	ug/kg	1.73	5.76
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.346	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.346	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.380	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.346	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.346	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.346	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.346	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.346	1.15
79-01-6	Trichloroethylene		1.71	ug/kg	0.380	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.346	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.346	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.346	1.15
108-10-1	4-Methyl-2-pentanone	U	5.76	ug/kg	1.44	5.76
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.346	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.346	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.346	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.346	1.15
591-78-6	2-Hexanone	U	5.76	ug/kg	1.73	5.76
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.346	1.15
127-18-4	Tetrachloroethylene	J	0.561	ug/kg	0.346	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.346	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.346	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.346	1.15

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842010	**Date Received:**	03/05/2010 10:20	**%Moisture:**	13.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13556	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/17/2010 16:01	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/17/2010 14:21	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c311.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.346	1.15
179601-23-1	m,p-Xylenes	U	2.30	ug/kg	0.346	2.30
95-47-6	o-Xylene	J	0.361	ug/kg	0.346	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.346	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.346	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.346	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.346	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.346	1.15
103-65-1	n-Propylbenzene		1.37	ug/kg	0.346	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.346	1.15
98-82-8	Isopropylbenzene	J	0.354	ug/kg	0.346	1.15
108-67-8	1,3,5-Trimethylbenzene		6.02	ug/kg	0.346	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.346	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.346	1.15
95-63-6	1,2,4-Trimethylbenzene		4.89	ug/kg	0.346	1.15
135-98-8	sec-Butylbenzene		3.77	ug/kg	0.346	1.15
99-87-6	4-Isopropyltoluene		6.41	ug/kg	0.346	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15
104-51-8	n-Butylbenzene		11.4	ug/kg	0.346	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.346	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.76	ug/kg	1.84	5.76
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.346	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.88	57.2	ug/kg		J
	Unknown	16.52	83	ug/kg		J
	Unknown Hydrocarbon	17.66	7.95	ug/kg		J
	Unknown Hydrocarbon	18.03	53.8	ug/kg		J
	Unknown Hydrocarbon	19.74	117	ug/kg		J
	Unknown Hydrocarbon	19.96	296	ug/kg		J
	Unknown Hydrocarbon	20.95	213	ug/kg		J
	Unknown Hydrocarbon	21.35	240	ug/kg		J
	Unknown Hydrocarbon	22.42	114	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c311.d
Lab Smp Id: 248842010 Client Smp ID: RE46-10-13556
Inj Date : 17-MAR-2010 16:01
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842010|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 17:24 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	13.22410	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	1091735	50.0000	
* 76 Chlorobenzene-d5	117	17.147	17.148	(1.000)	817430	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	440734	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	539804	50.6392	58.4
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1402795	51.0239	58.8
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	601602	54.4448	62.7
16 Acetone	43	9.239	9.240	(0.676)	503737	77.8883	89.8
54 Trichloroethylene	95	14.109	14.105	(1.032)	9596	1.48776	1.7
70 Tetrachloroethylene	164	16.176	16.181	(0.943)	2453	0.48714	0.56(a)
81 o-Xylene	106	17.764	17.769	(1.036)	3436	0.31347	0.36(a)
89 n-Propylbenzene	91	18.547	18.547	(0.946)	43705	1.19234	1.4
84 Isopropylbenzene	105	18.114	18.114	(0.924)	9212	0.30747	0.35(a)
93 1,3,5-Trimethylbenzene	105	18.703	18.703	(0.954)	136710	5.22671	6.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	115400	4.24475	4.9
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	109067	3.27561	3.8
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	144254	5.56223	6.4
105 n-Butylbenzene	91	19.854	19.854	(1.013)	276620	9.87797	11.4(Q)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

VOA REPORT

Data file: 1c311.d
Report Date: 03/18/2010 05:12
Lab. ID: 248842010 SampleType: SAMPLE
Injection Date: 17-MAR-2010 16:01
Operator: GRB2 Instrument: VOA1.i
Sample Info: |248842010|965875|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
16 Acetone			CAS#: 67-64-1			
43	503737	9.24	9.24	80-120	100	( )
58	148897	9.24	9.23	0- 60	30	( )
35 2-Butanone			CAS#: 78-93-3			
43	43313	11.88	12.17	80-120	100	(T)
72	5138	11.89	12.17	0- 54	12	(T)
33 2,2-Dichloropropane			CAS#: 594-20-7			
77	56934	11.89	12.14	80-120	100	(T)
79	407	12.31	12.15	2- 62	1	(QT)
51 1,2-Dichloroethane			CAS#: 107-06-2			
62	18215	13.67	13.43	80-120	100	(T)
64	2820	13.68	13.43	2- 62	15	(T)
54 Trichloroethylene			CAS#: 79-01-6			
95	9596	14.11	14.10	80-120	100	( )
97	6287	14.11	14.10	35- 95	66	( )
130	8152	14.11	14.10	55-115	85	( )
63 cis-1,3-Dichloropropylene			CAS#: 10061-01-5			
75	6611	15.68	15.24	80-120	100	(T)
77	3249	15.63	15.24	2- 62	49	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
64 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	13884	15.51	15.35	80-120	100	(T)
43	8131	15.50	15.35	208-268	59	(QT)
100	882817	15.50	15.35	1- 61	6358	(QT)
68 trans-1,3-Dichloropropylene				CAS#: 10061-02-6		
75	31644	15.75	15.87	80-120	100	(T)
77	57649	15.73	15.87	2- 62	182	(QT)
69 1,1,2-Trichloroethane				CAS#: 79-00-5		
83	1650	16.44	16.09	80-120	100	(T)
97	347	16.09	16.09	87-147	21	(Q)
85	1289	16.43	16.09	35- 95	78	(T)
72 1,3-Dichloropropane				CAS#: 142-28-9		
76	22603	16.52	16.30	80-120	100	(T)
78	26817	16.51	16.30	3- 63	119	(QT)
70 Tetrachloroethylene				CAS#: 127-18-4		
164	2453	16.18	16.18	80-120	100	( )
129	1778	16.18	16.18	64-124	73	( )
131	2374	16.19	16.18	62-122	97	( )
73 Dibromochloromethane				CAS#: 124-48-1		
129	1979	16.54	16.54	80-120	100	( )
127	2749	16.52	16.54	47-107	139	(Q)
81 o-Xylene			CAS#: 95-47-6			
106	3436	17.76	17.77	80-120	100	( )
91	7526	17.77	17.77	211-271	219	( )
80 m,p-Xylenes			CAS#:			
106	3436	17.76	17.32	80-120	100	(T)
91	7526	17.77	17.32	198-258	219	(T)
84 Isopropylbenzene				CAS#: 98-82-8		
105	9212	18.11	18.11	80-120	100	( )
120	2100	18.12	18.11	0- 53	23	( )
88 1,1,2,2-Tetrachloroethane				CAS#: 79-34-5		
83	38346	18.52	18.50	80-120	100	( )
85	252809	18.52	18.50	35- 95	659	(Q)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
92 1,2,3-Trichloropropane				CAS#: 96-18-4		
110	13986	18.60	18.59	80-120	100	( )
75	1341	18.63	18.59	318-378	10	(Q)
77	29500	18.63	18.58	787-847	211	(Q)
89 n-Propylbenzene				CAS#: 103-65-1		
91	50020	18.55	18.55	80-120	100	( )
120	8260	18.54	18.55	0- 50	17	( )
94 2-Chlorotoluene				CAS#: 95-49-8		
91	18414	18.71	18.73	80-120	100	( )
126	6250	18.83	18.73	0- 53	34	(T)
93 1,3,5-Trimethylbenzene				CAS#: 108-67-8		
105	136710	18.70	18.70	80-120	100	( )
120	55544	18.70	18.70	11- 71	41	( )
97 1,2,4-Trimethylbenzene				CAS#: 95-63-6		
105	115400	19.12	19.12	80-120	100	( )
120	43053	19.12	19.12	9- 69	37	( )
95 4-Chlorotoluene				CAS#: 106-43-4		
91	17209	18.96	18.84	80-120	100	(T)
126	7054	18.99	18.84	0- 56	41	(T)
96 tert-Butylbenzene				CAS#: 98-06-6		
119	6338	19.06	19.06	80-120	100	( )
91	18825	18.96	19.06	52-112	297	(QT)
134	1306	19.06	19.06	0- 52	21	( )
99 sec-Butylbenzene				CAS#: 135-98-8		
105	109067	19.29	19.29	80-120	100	( )
134	19181	19.29	19.29	0- 47	18	( )
100 4-Isopropyltoluene				CAS#: 99-87-6		
119	144192	19.41	19.41	80-120	100	( )
134	32918	19.41	19.41	0- 54	23	( )
91	71338	19.25	19.41	0- 59	49	(T)
105 n-Butylbenzene				CAS#: 104-51-8		
91	256607	19.85	19.85	80-120	100	( )
92	143257	19.85	19.85	25- 85	56	( )
134	316665	19.80	19.85	0- 52	123	(Q)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
106 1,2-Dichlorobenzene				CAS#: 95-50-1		
146	8208	20.53	20.07	80-120	100	(T)
111	329442	19.60	20.07	17- 77	4014	(QT)
148	216019	20.37	20.07	34- 94	2632	(QT)
108 1,2-Dibromo-3-chloropropane				CAS#: 96-12-8		
157	968	20.60	20.99	80-120	100	(T)
155	8906	20.58	20.98	50-110	919	(QT)
75	6872	20.64	20.98	88-148	709	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c311.d
Lab Smp Id: 248842010 Client Smp ID: RE46-10-13556
Inj Date : 17-MAR-2010 16:01
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |248842010|965875|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 17:24 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	13.22410	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 52 Fluorobenzene	13.672	2476155	50.000
* 76 Chlorobenzene-d5	17.147	2927910	50.000
* 102 1,4-Dichlorobenzene-d4	19.596	6269408	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
11.882	2458880	49.6511656	57.2	0		0	52

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
16.521	4216398	72.0035312	83.0	0		0	76
Unknown Hydrocarbon				CAS #:			
17.663	403760	6.89502704	7.9	0		0	76
Unknown Hydrocarbon				CAS #:			
18.031	2731644	46.6483612	53.8	0		0	76
Unknown Hydrocarbon				CAS #:			
19.739	12766260	101.813901	117	0		0	102
Unknown Hydrocarbon				CAS #:			
19.955	32231307	257.052202	296	0		0	102
Unknown Hydrocarbon				CAS #:			
20.954	23213229	185.130925	213	0		0	102
Unknown Hydrocarbon				CAS #:			
21.350	26098065	208.138158	240	0		0	102
Unknown Hydrocarbon				CAS #:			
22.418	12358270	98.5600886	114	0		0	102

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Sample Info: |2488420101965875|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2

Column diameter: 0.25

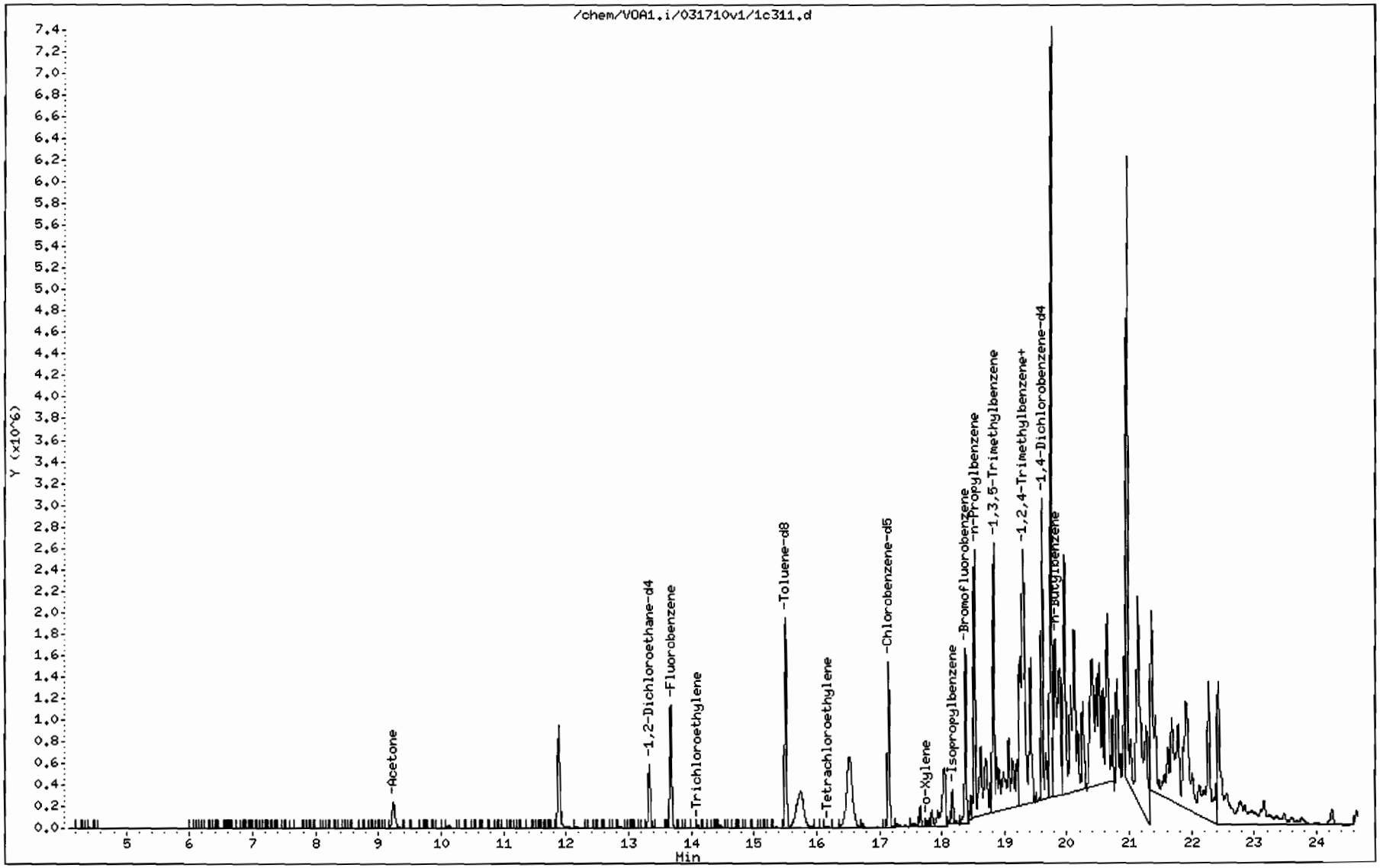

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

16 Acetone

Concentration: 89.8 ug/Kg

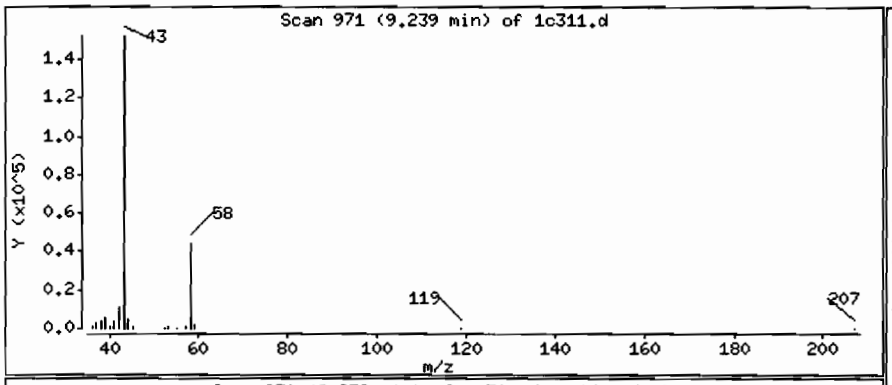

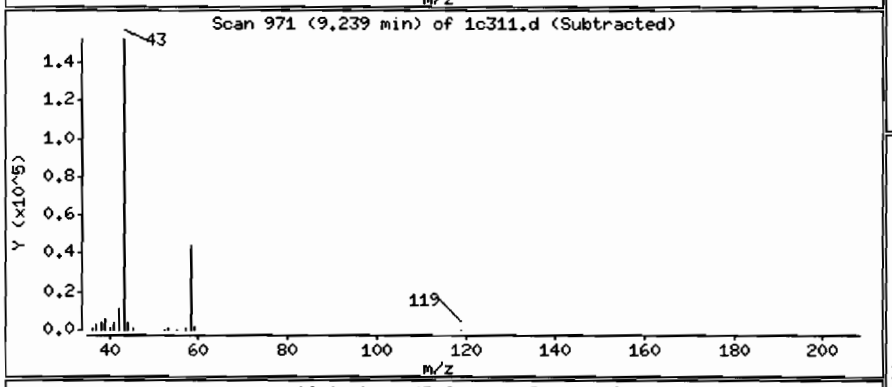

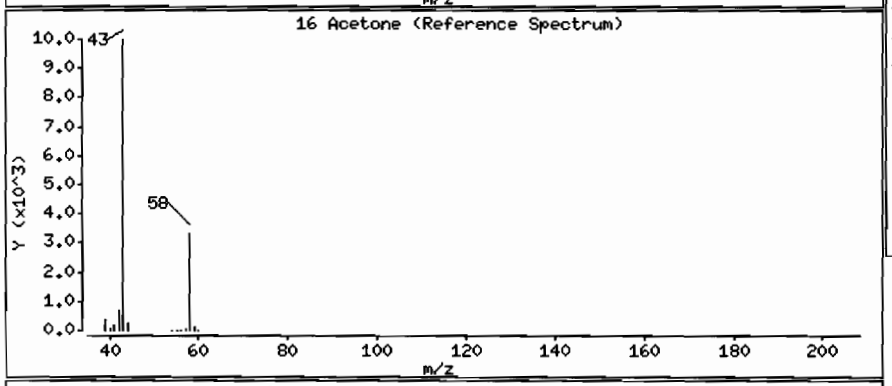

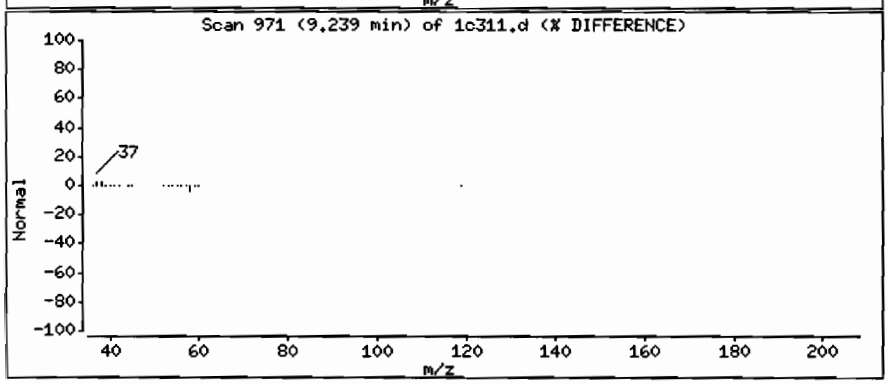

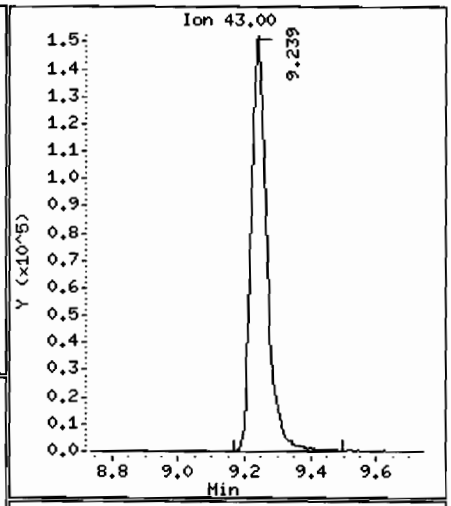

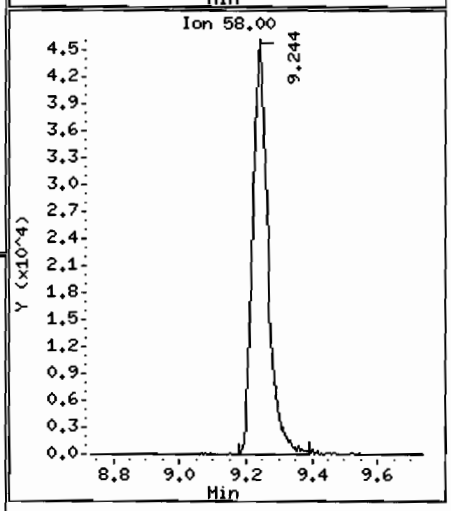

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875111VOAF111|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

54 Trichloroethylene

Concentration: 1.7 ug/Kg

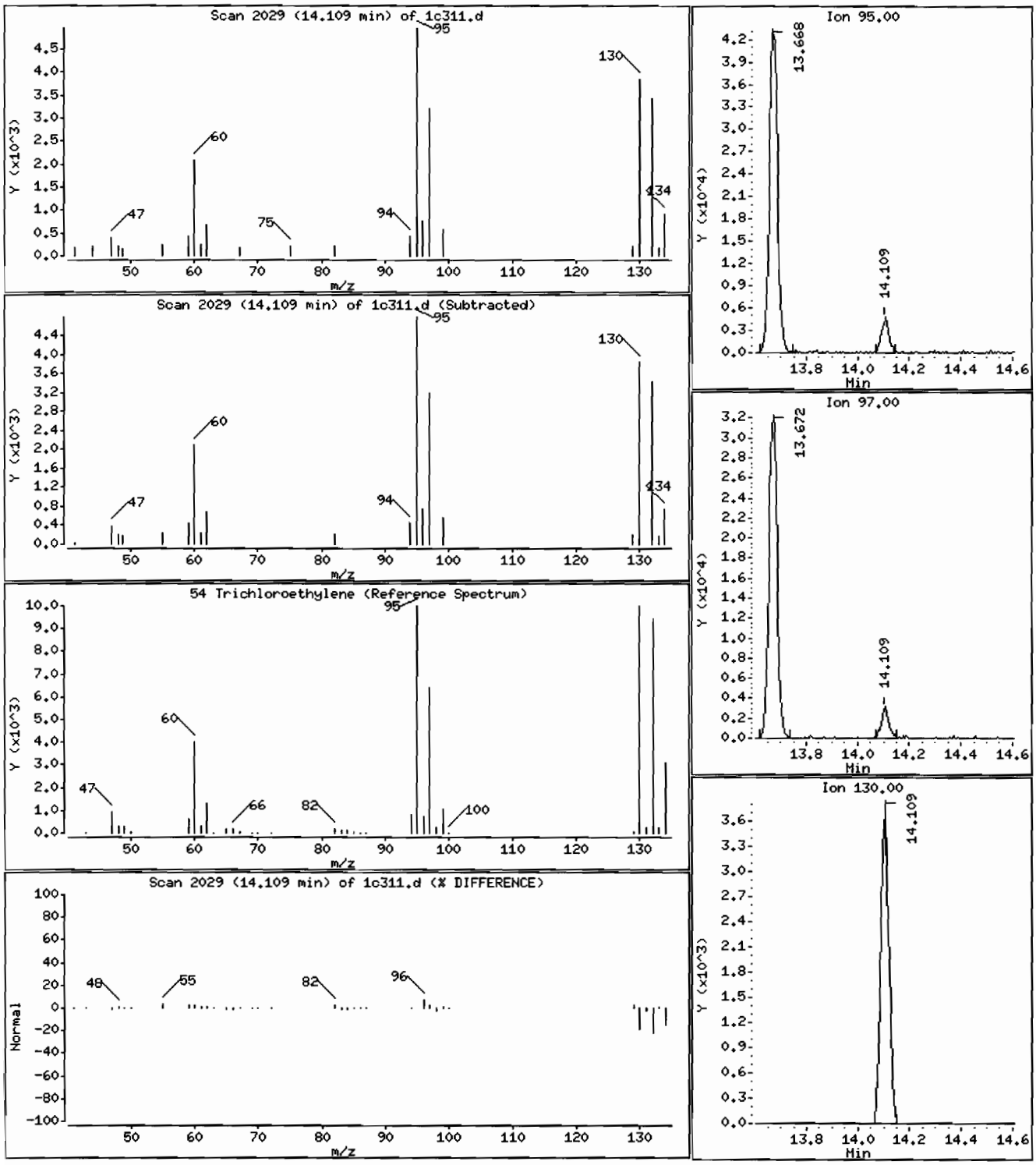

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

70 Tetrachloroethylene

Concentration: 0.56 ug/Kg

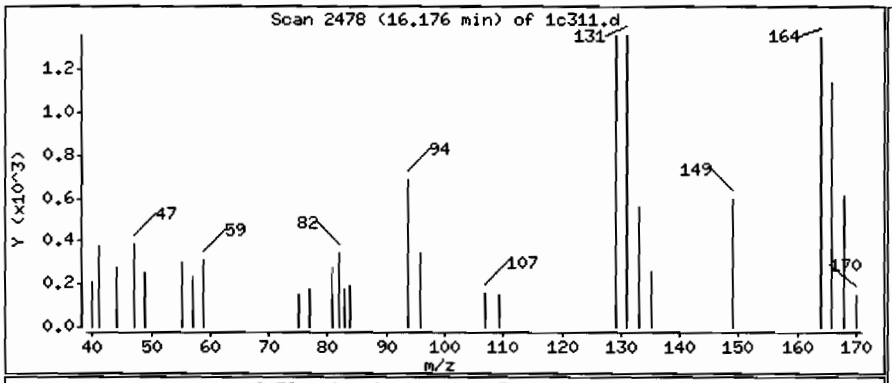

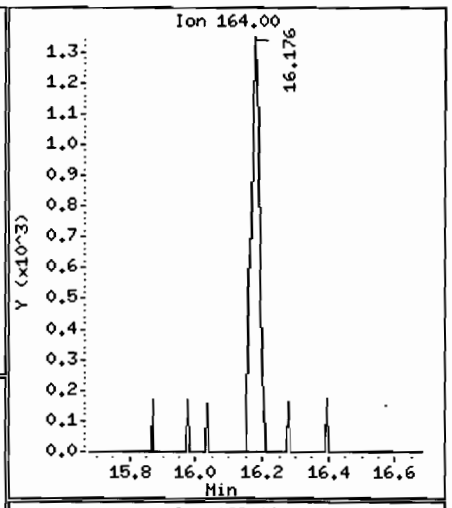

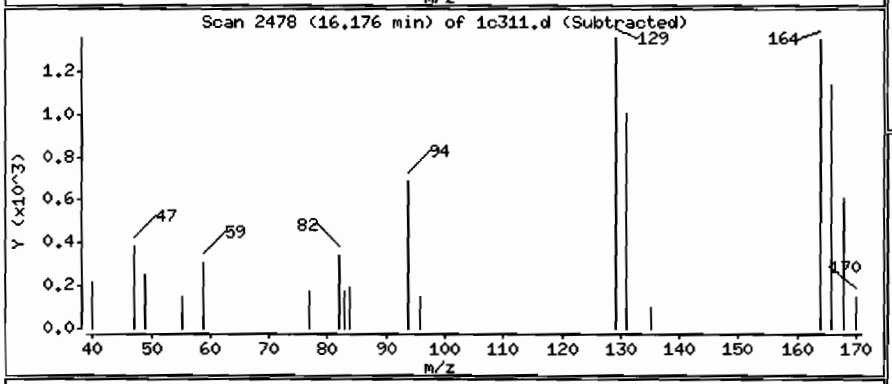

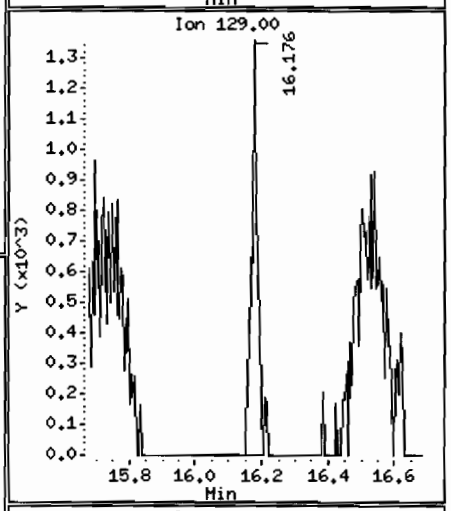

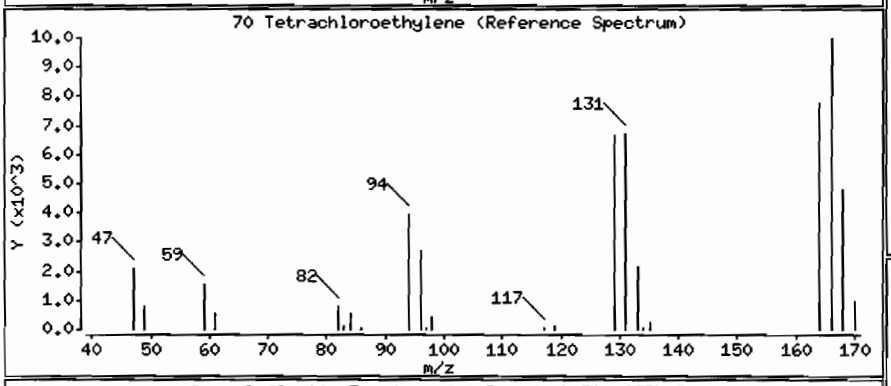

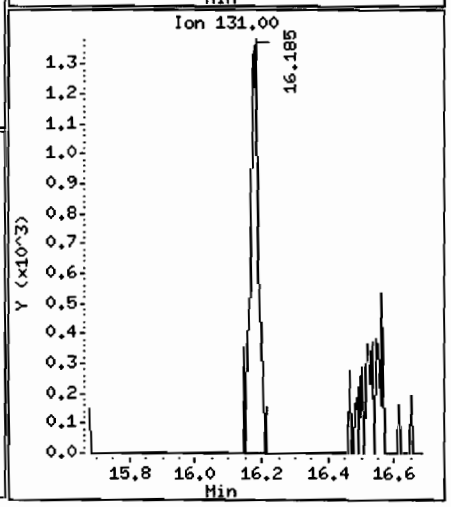

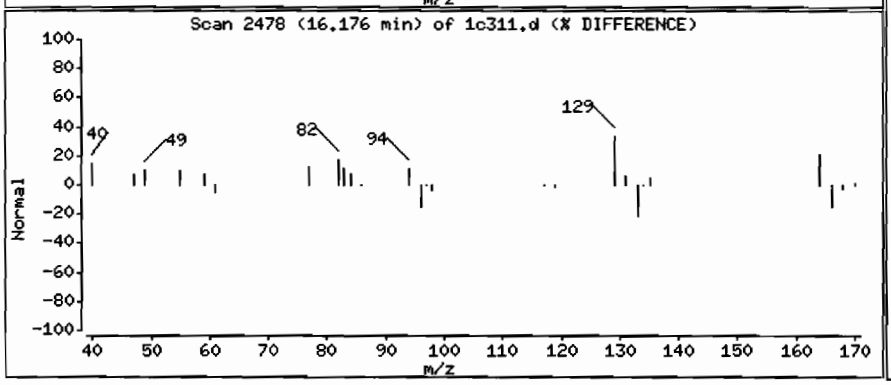

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

81 o-Xylene

Concentration: 0.36 ug/Kg

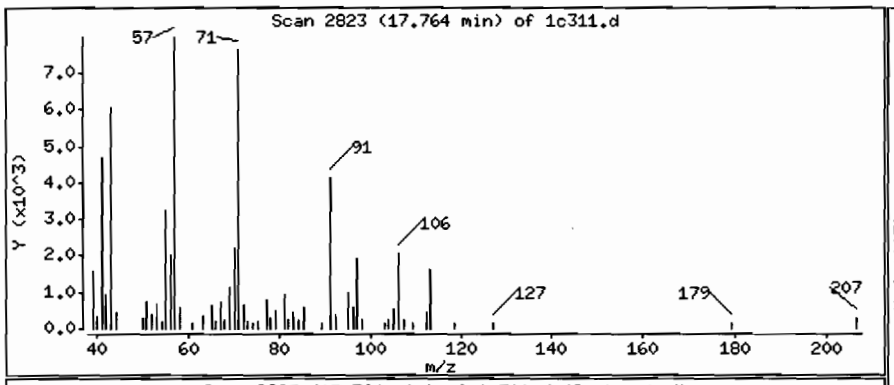

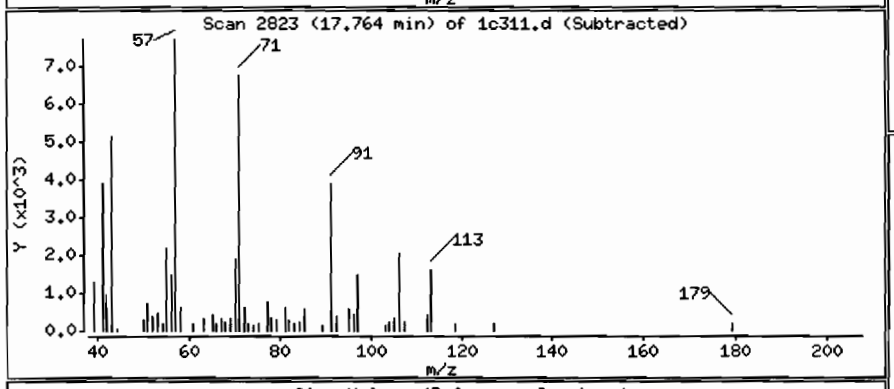

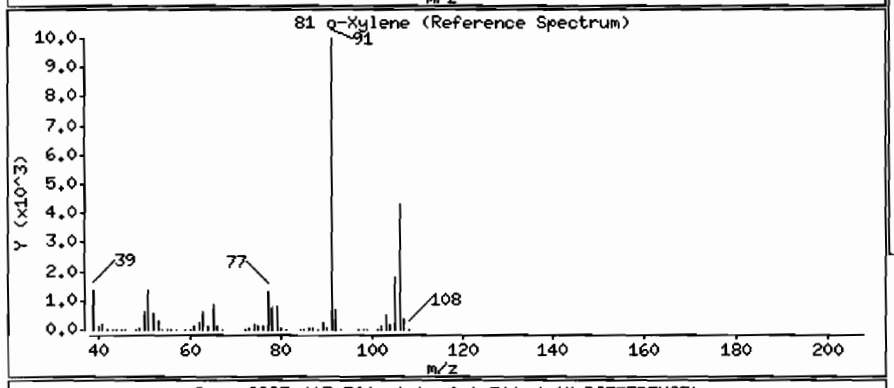

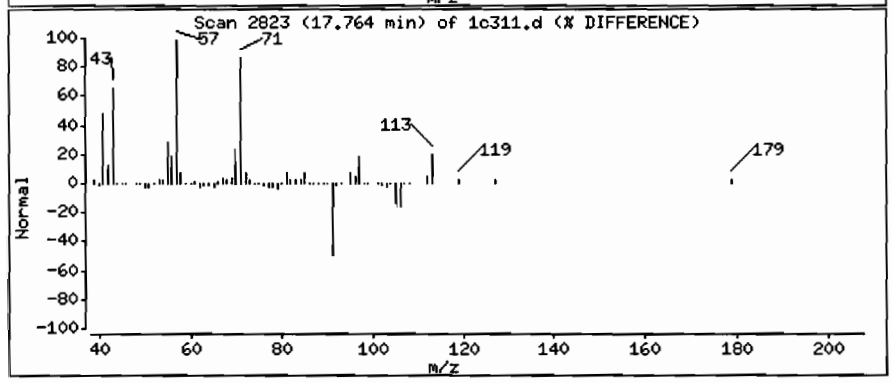

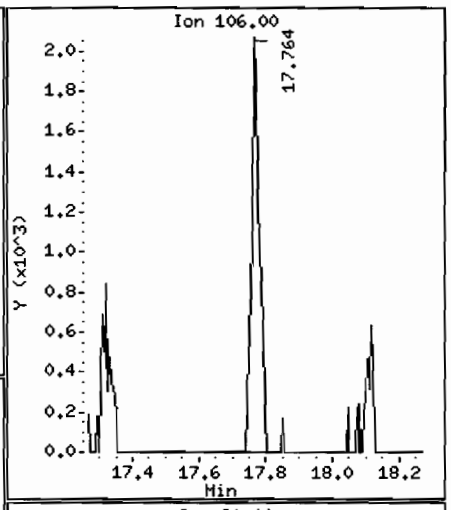

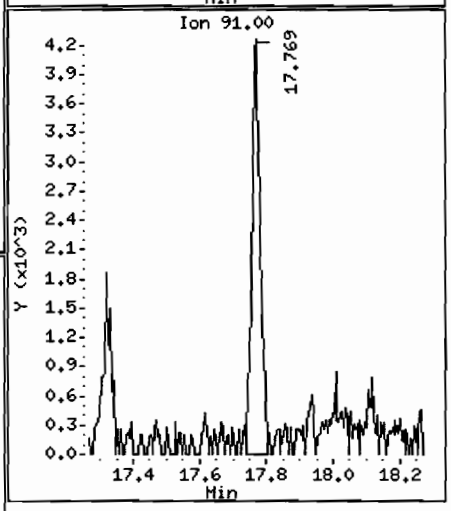

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

89 n-Propylbenzene

Concentration: 1.4 ug/Kg

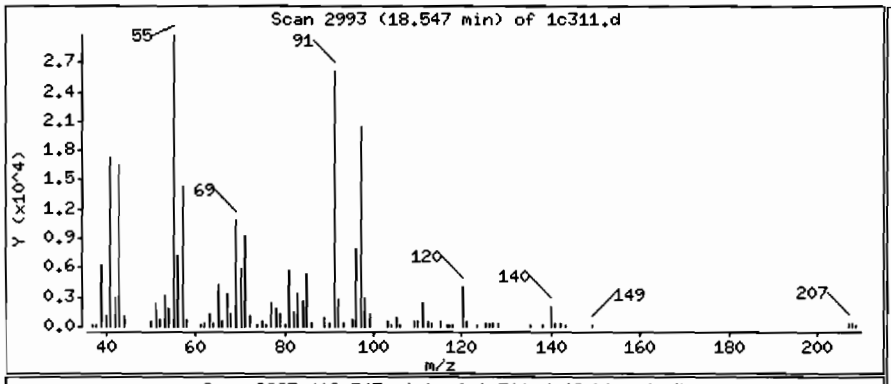

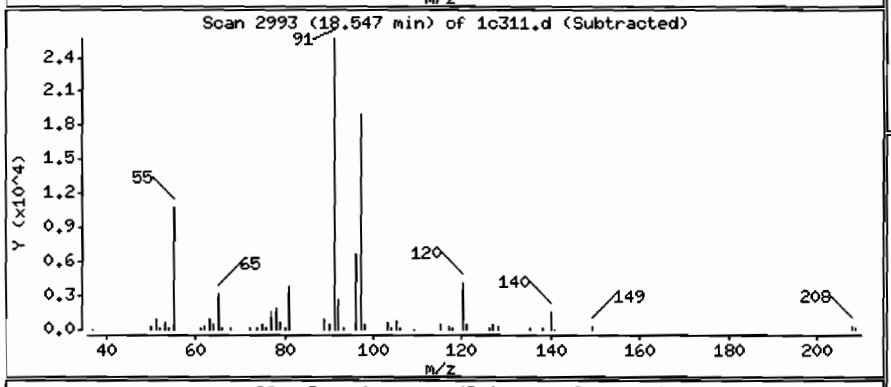

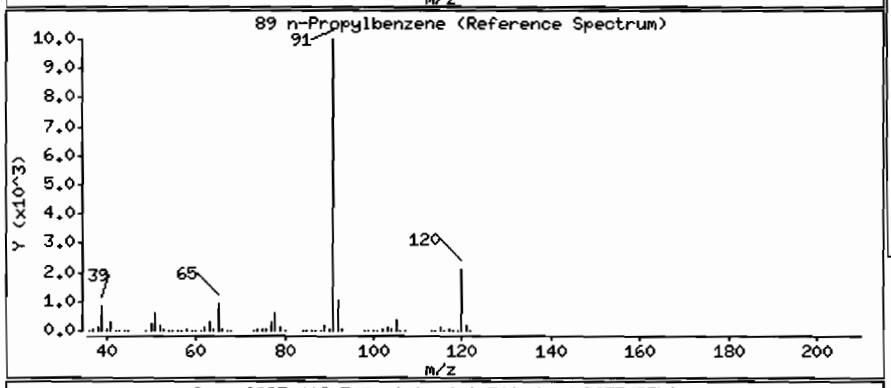

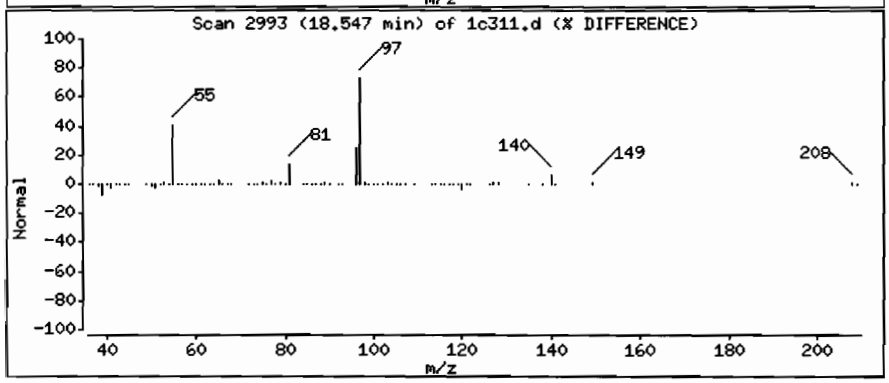

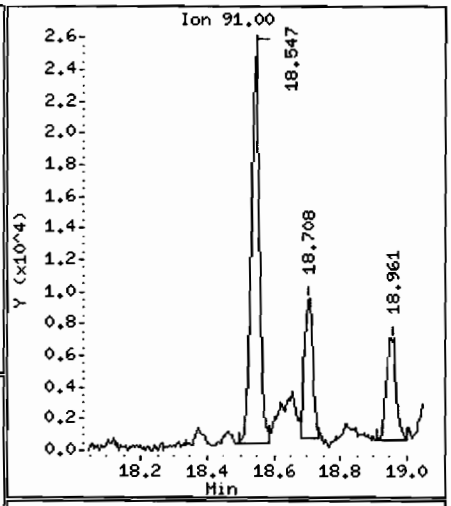

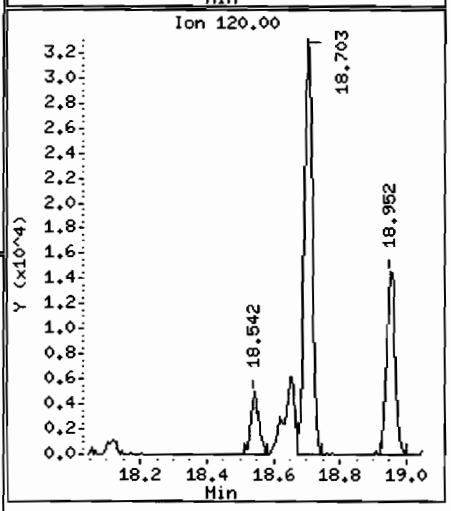

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

84 Isopropylbenzene

Concentration: 0.35 ug/Kg

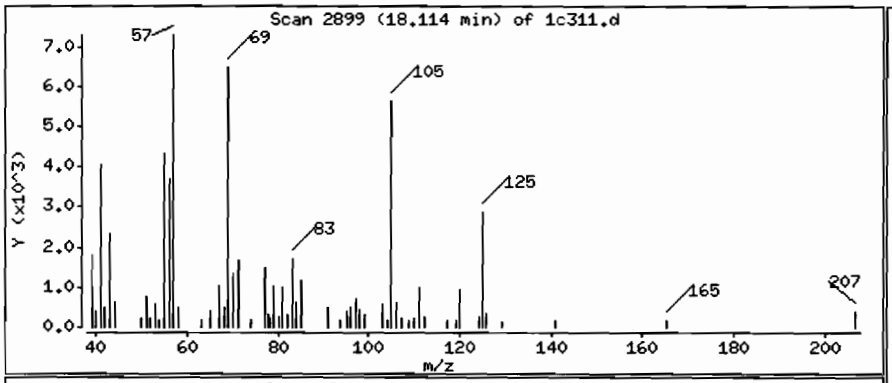

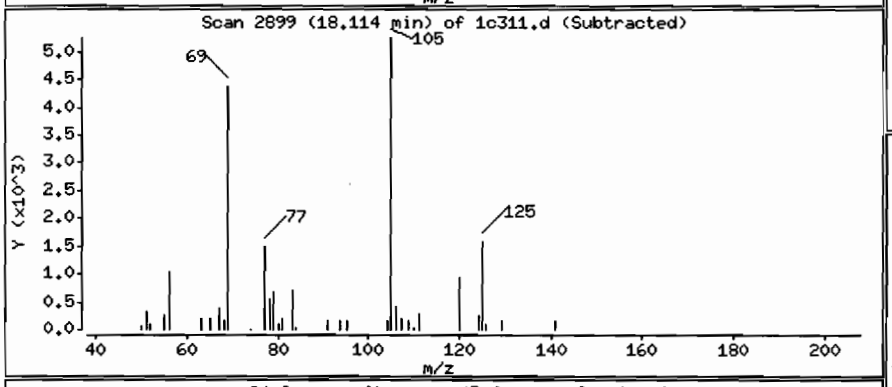

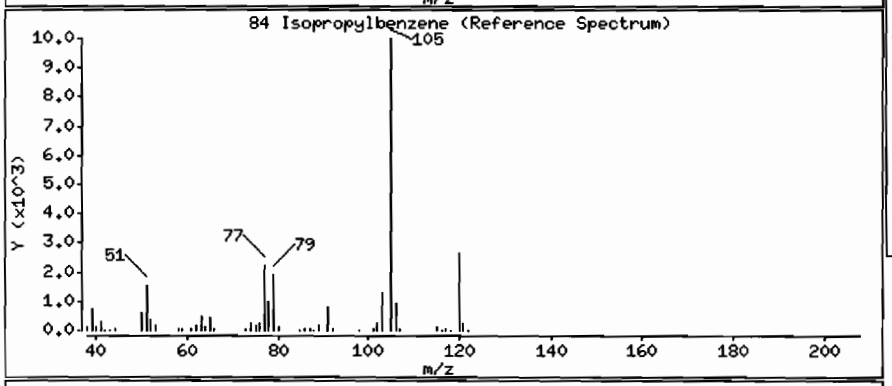

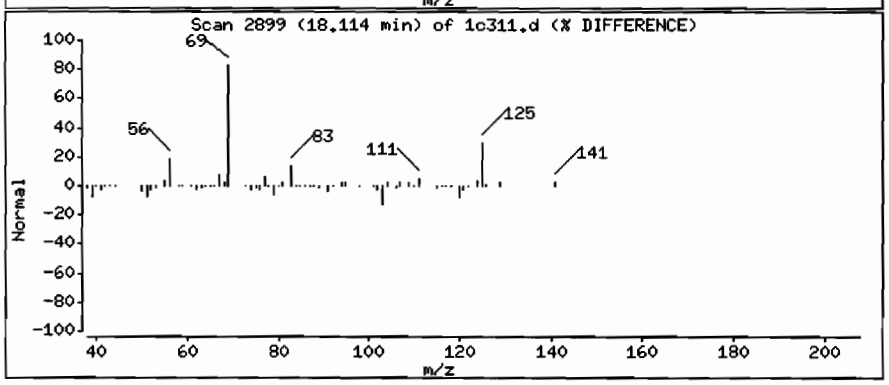

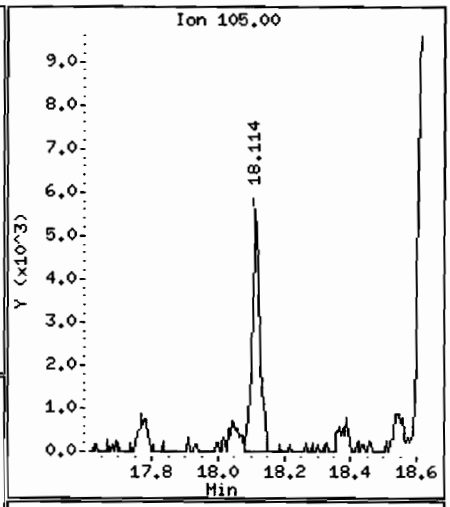

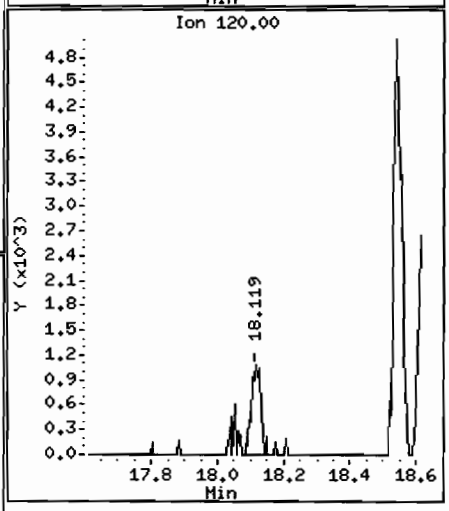

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

93 1,3,5-Trimethylbenzene

Concentration: 6.0 ug/Kg

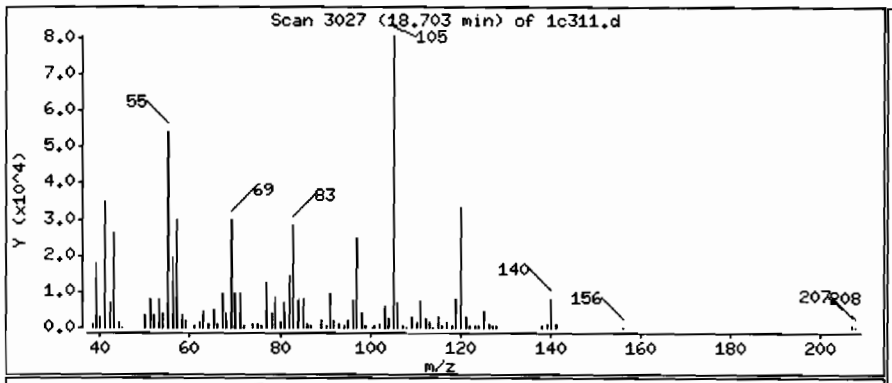

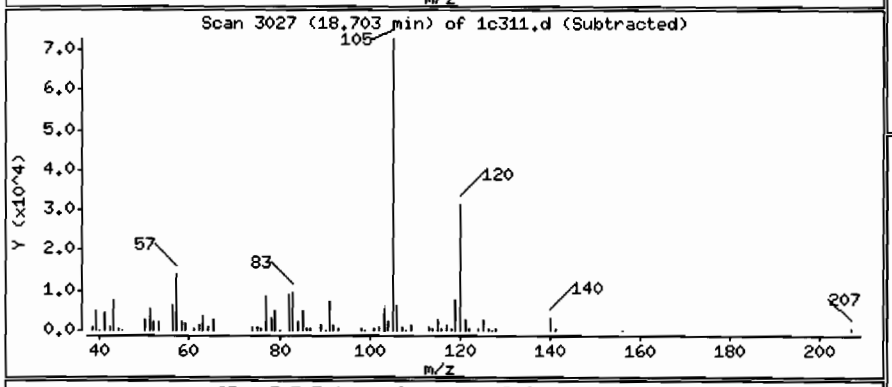

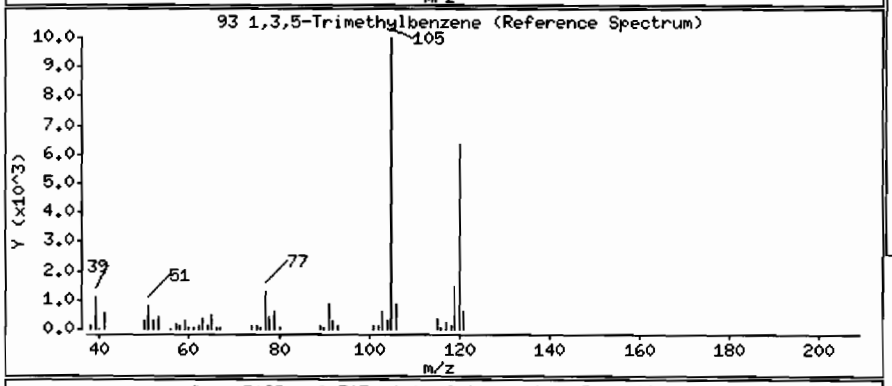

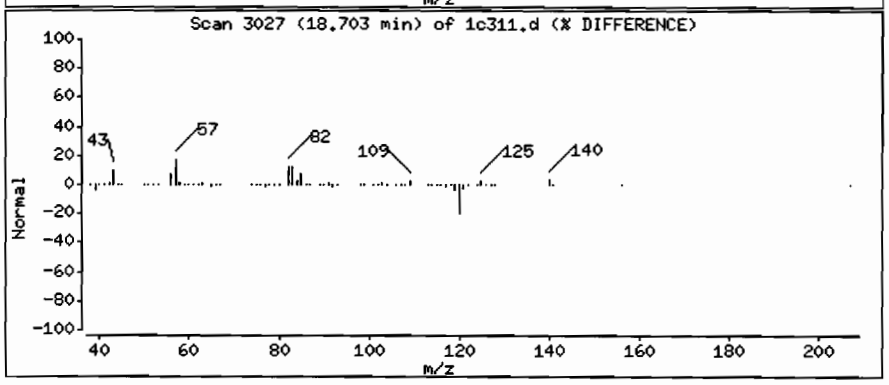

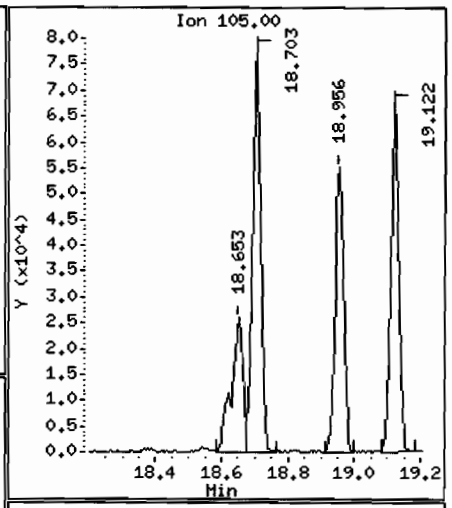

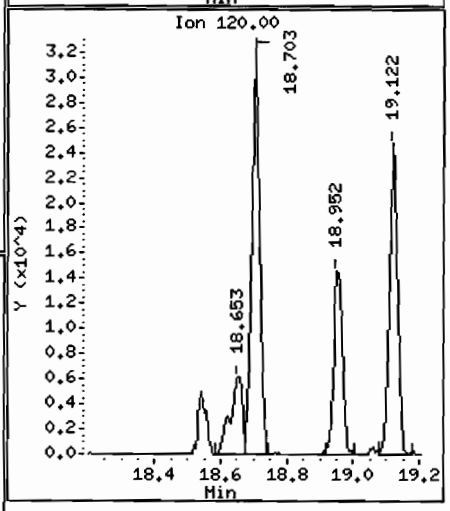

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

97 1,2,4-Trimethylbenzene

Concentration: 4.9 ug/Kg

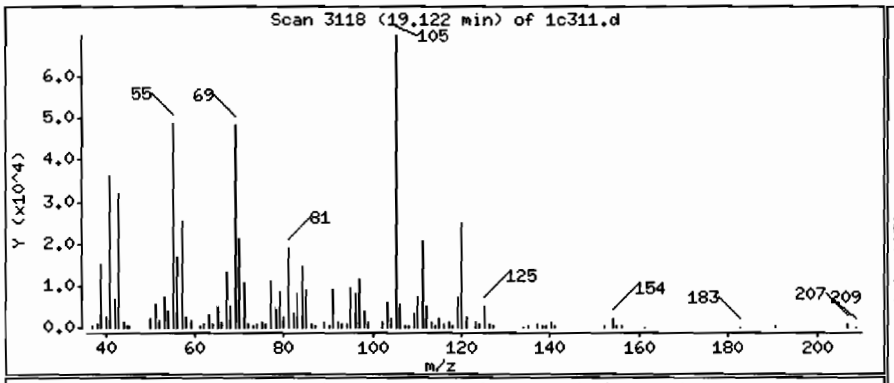

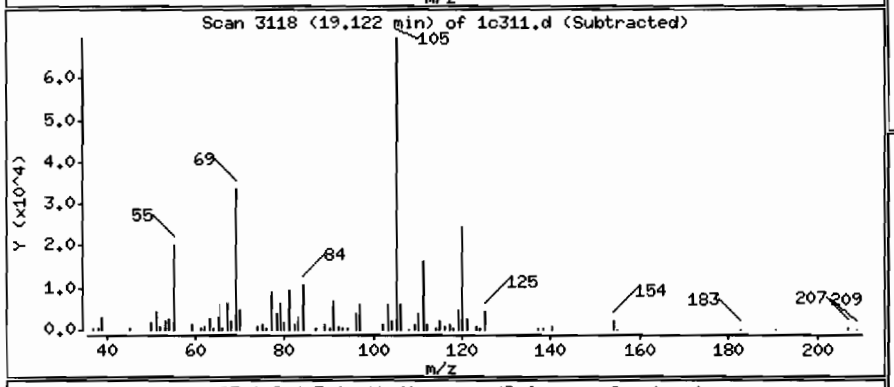

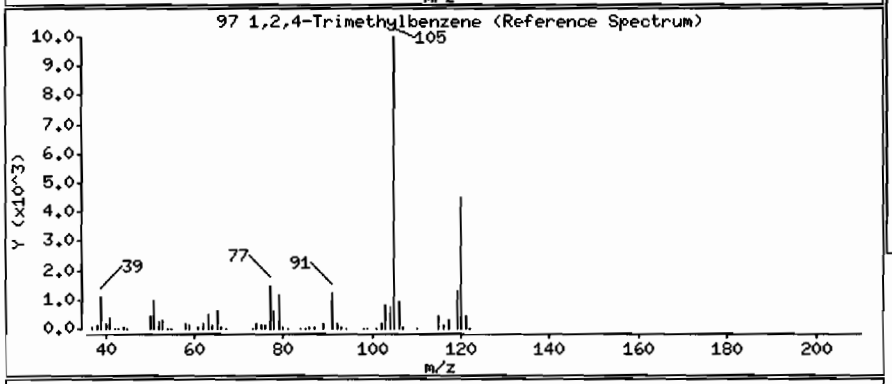

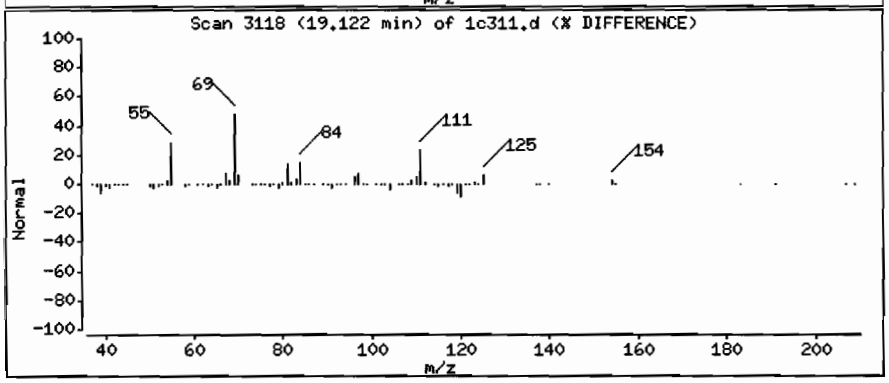

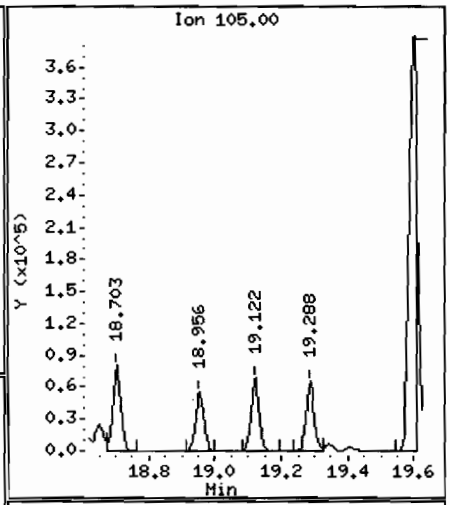

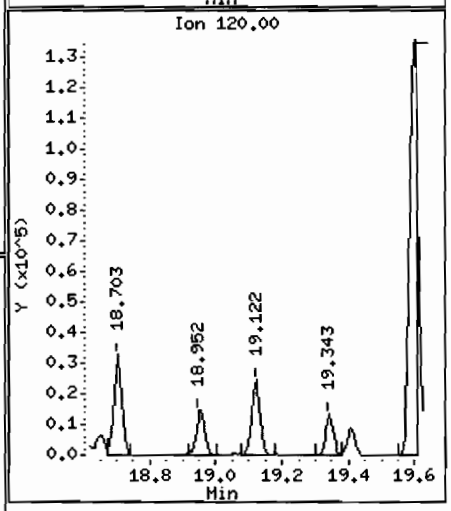

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

99 sec-Butylbenzene

Concentration: 3.8 ug/Kg

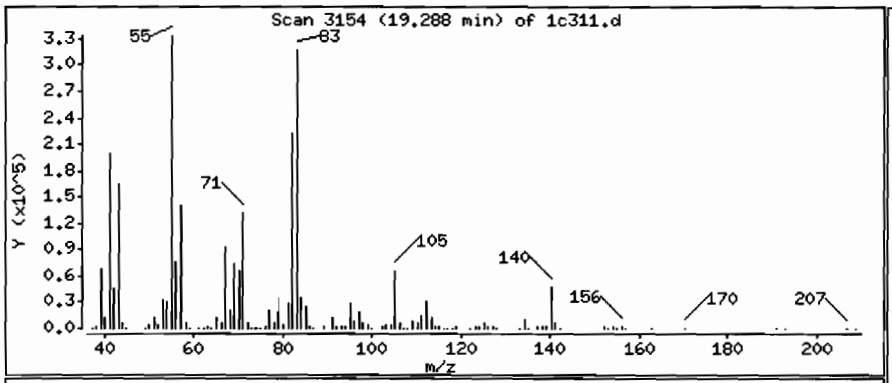

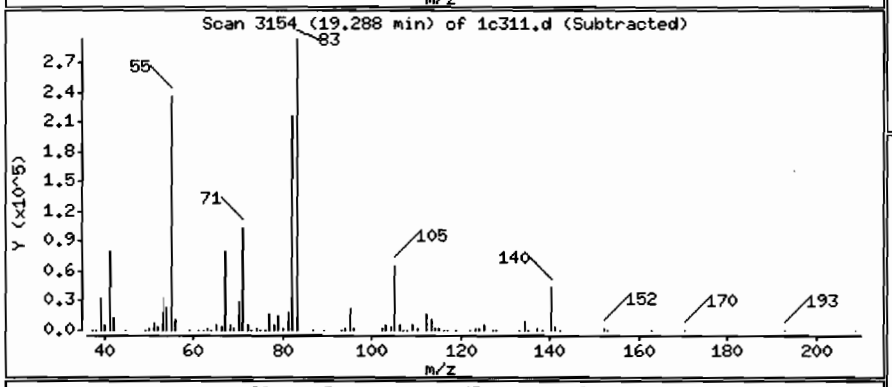

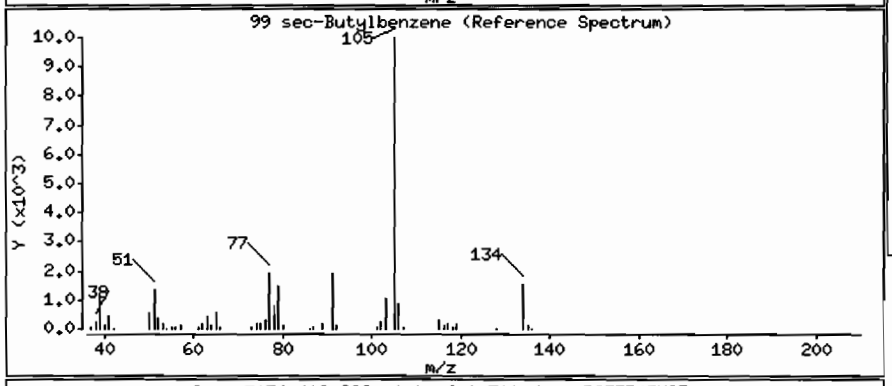

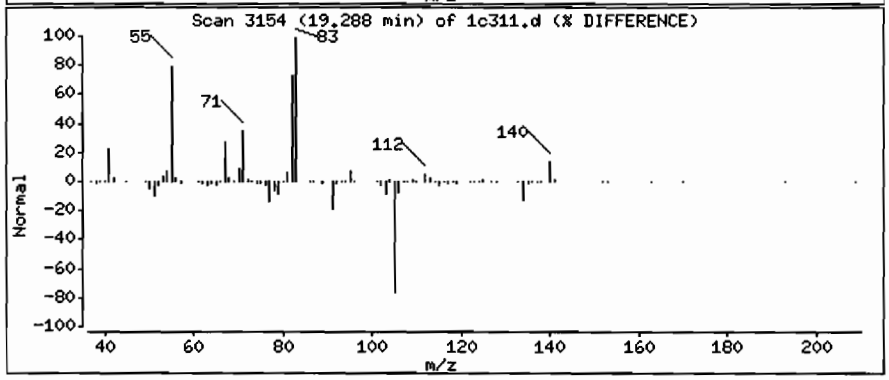

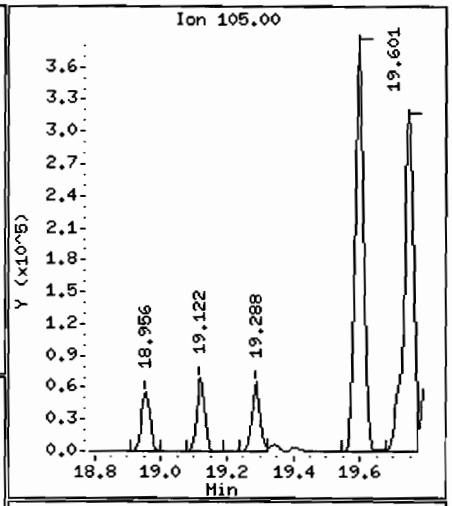

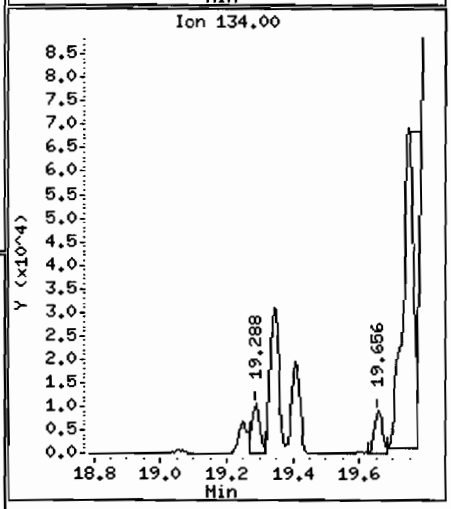

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

100 4-Isopropyltoluene

Concentration: 6.4 ug/Kg

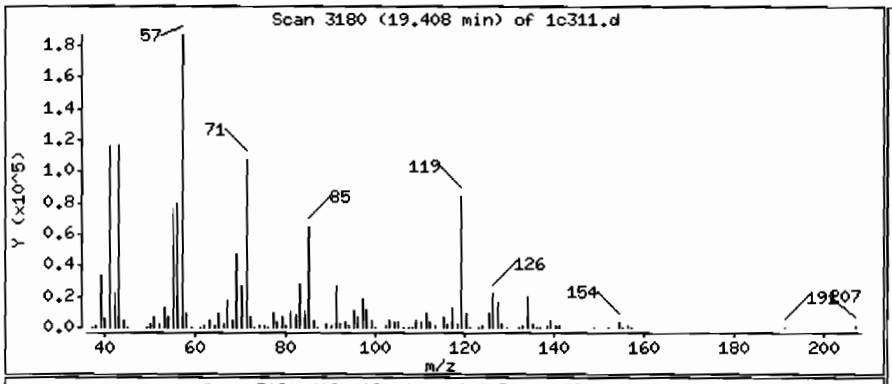

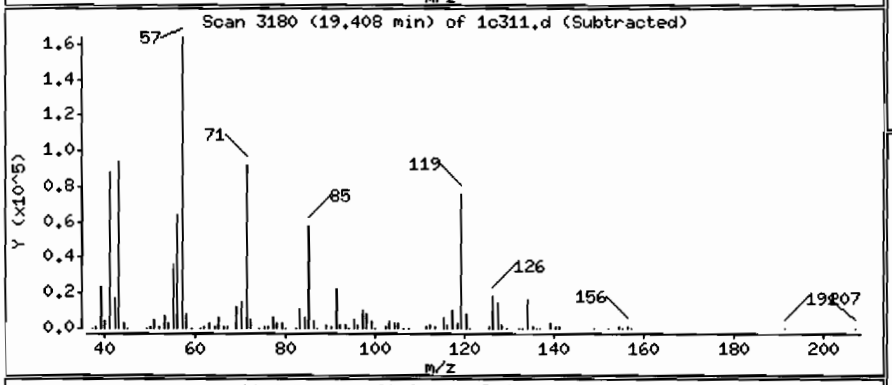

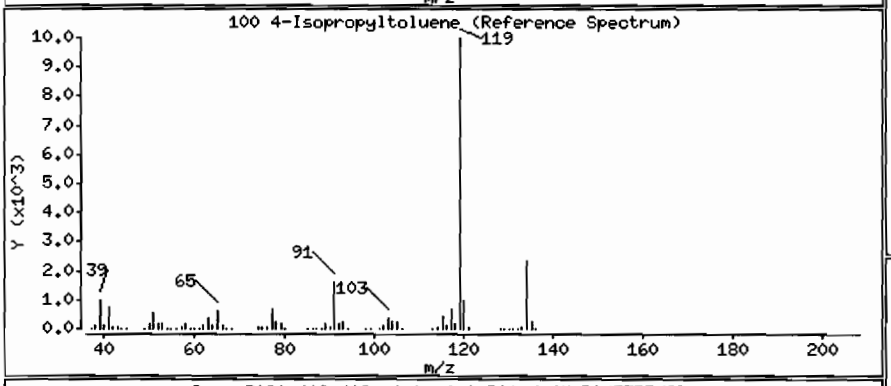

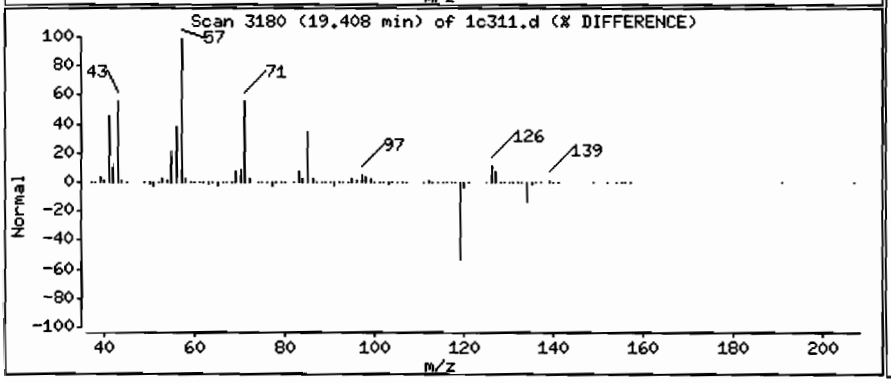

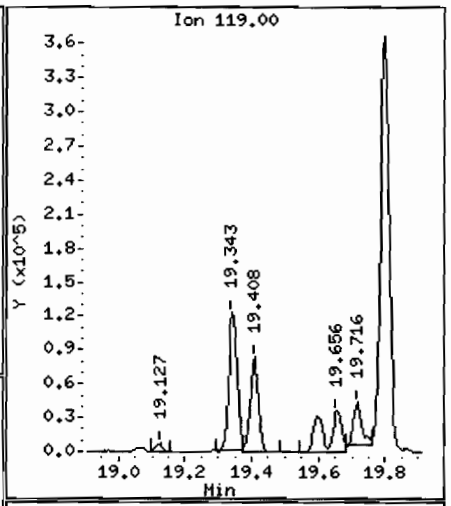

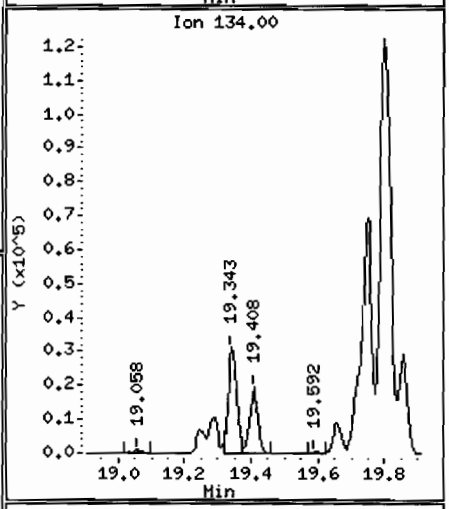

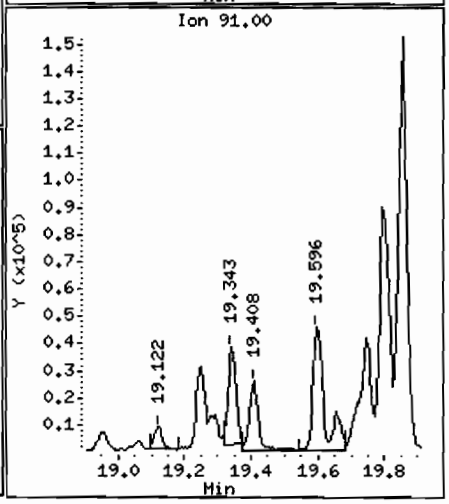

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

105 n-Butylbenzene

Concentration: 11.4 ug/Kg

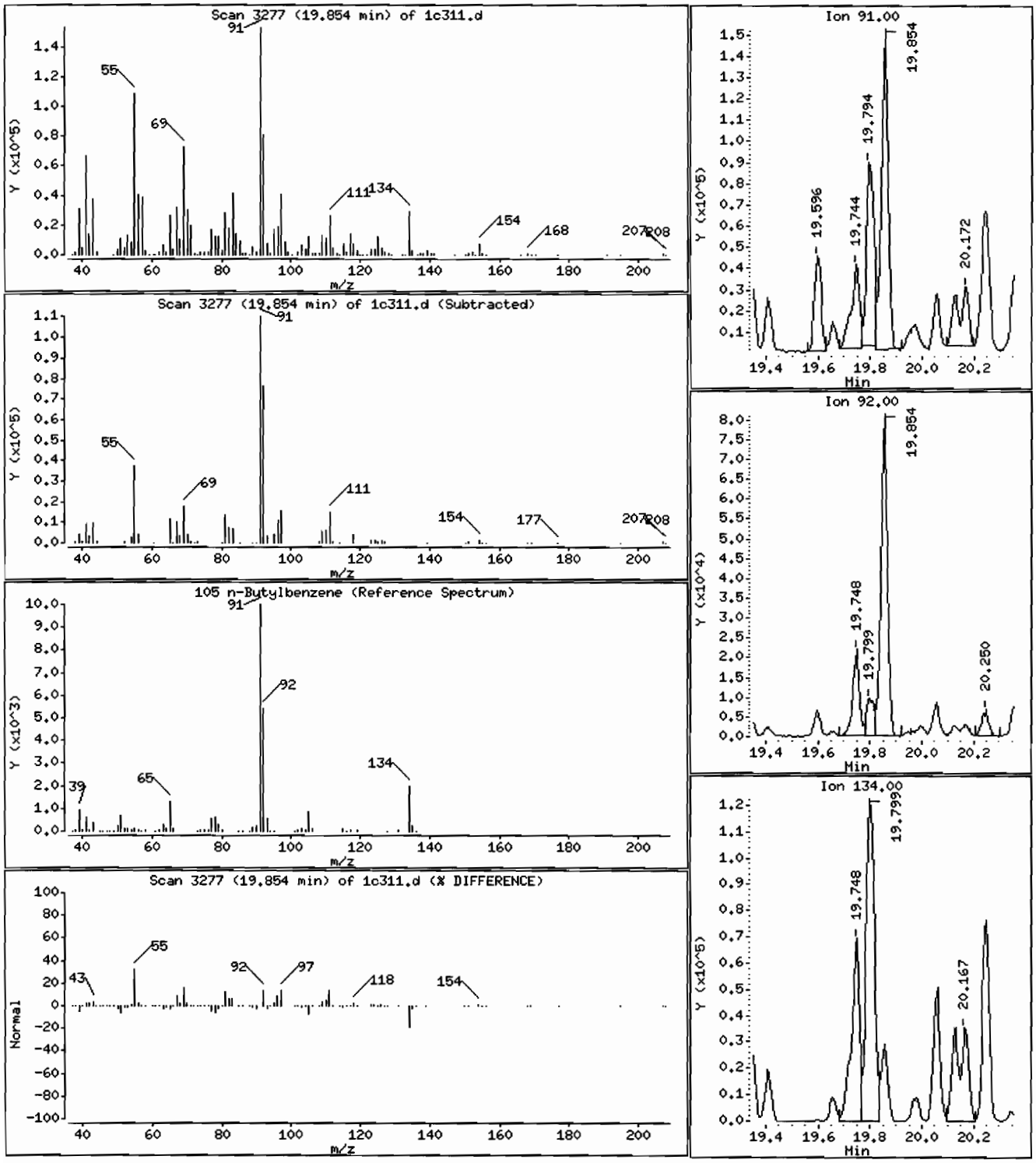

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Silanol, trimethyl-	1066-40-6	NIST05.L	2199	91	C3H10OSi	90
tert-Butyldimethylsilanol	18173-64-3	NIST05.L	13928	83	C6H16OSi	132
Silanol, dimethyl(1,1,2-trimethylpropyl)	55644-10-5	NIST05.L	29982	64	C8H20OSi	160

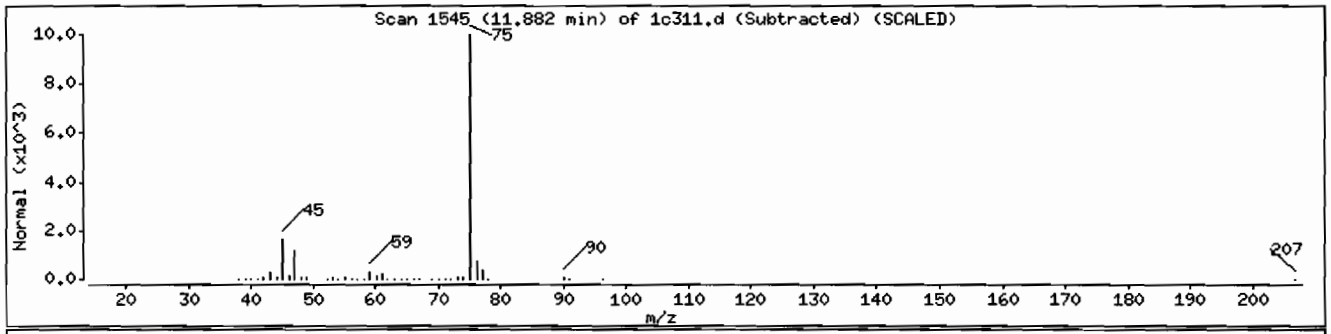

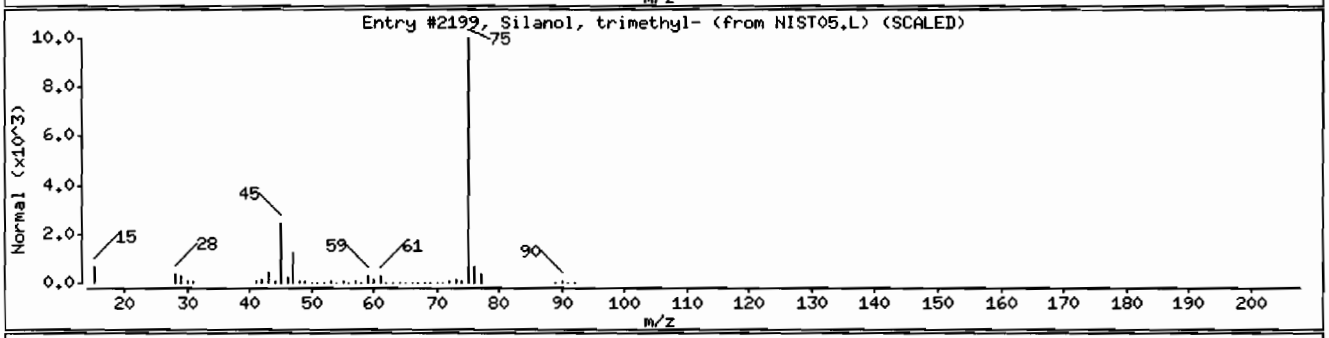

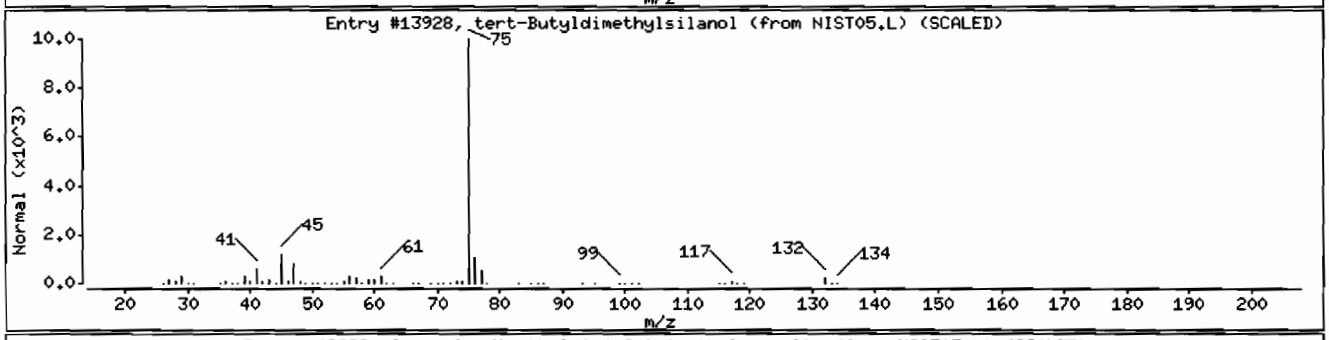

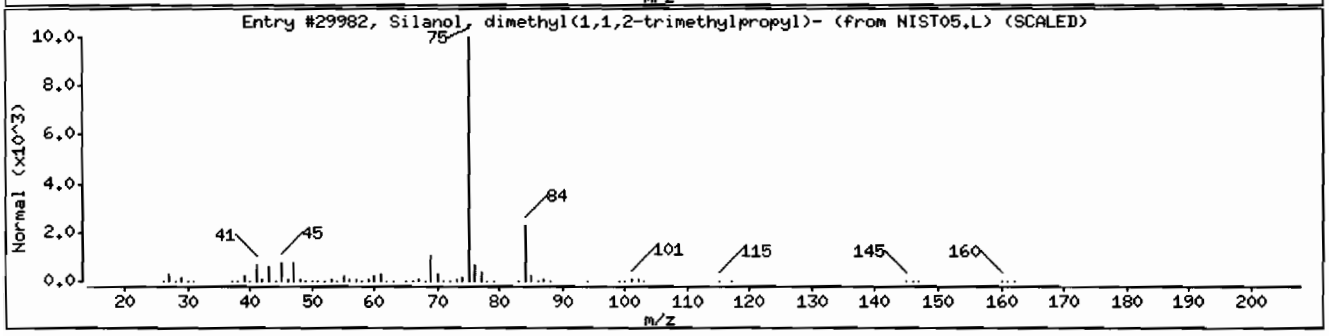

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Diphenyl ether	101-84-8	NIST05.L	36402	87	C12H10O	170
Diphenyl ether	101-84-8	NIST05.L	36401	87	C12H10O	170
Diphenyl ether	101-84-8	NIST05.L	36400	62	C12H10O	170

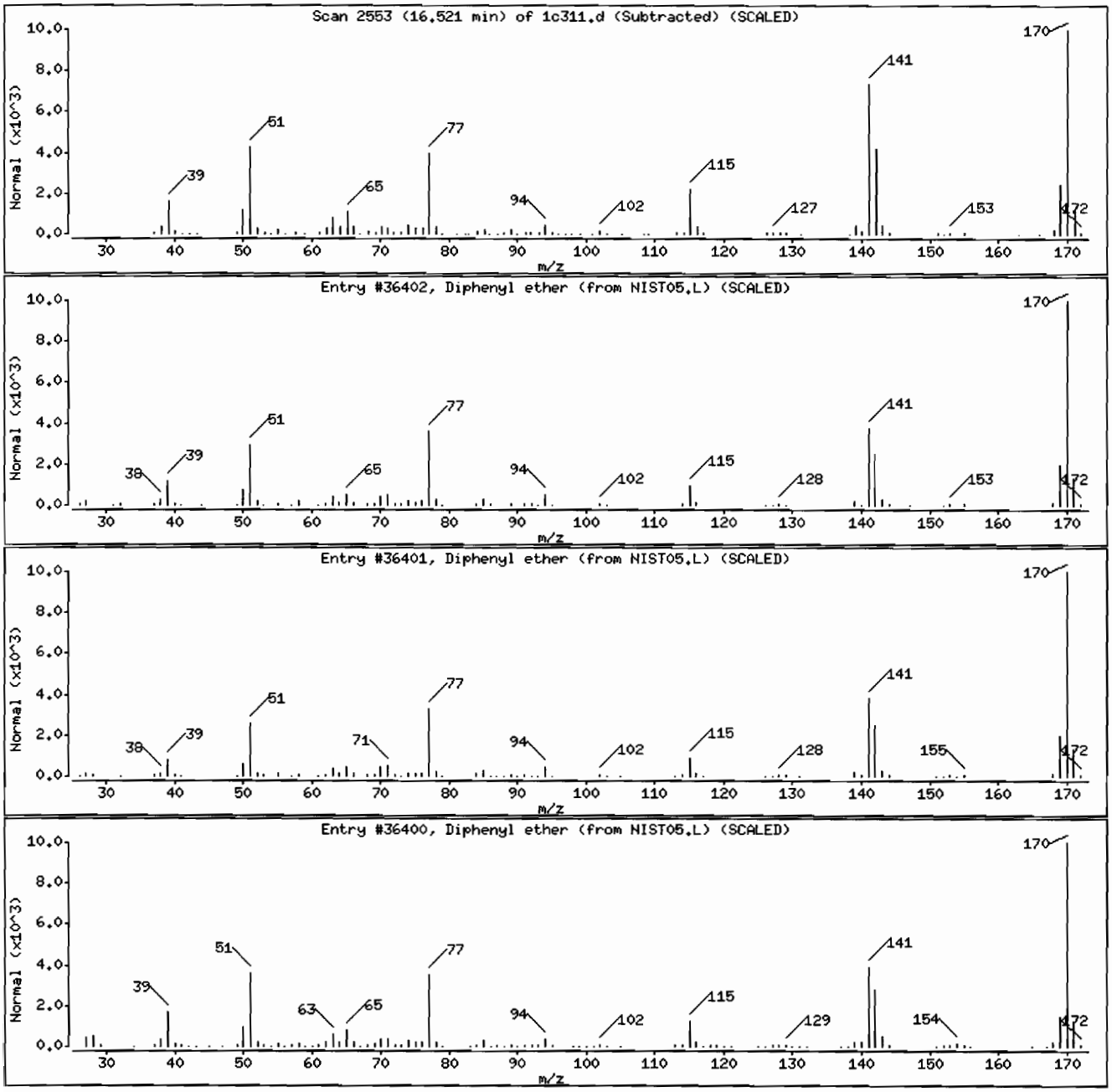

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Nonane, 3-methyl-	5911-04-6	NIST05.L	18496	94	C10H22	142
Octane, 2,6-dimethyl-	2051-30-1	NIST05.L	18510	93	C10H22	142
Octane, 2,6-dimethyl-	2051-30-1	NIST05.L	18527	90	C10H22	142

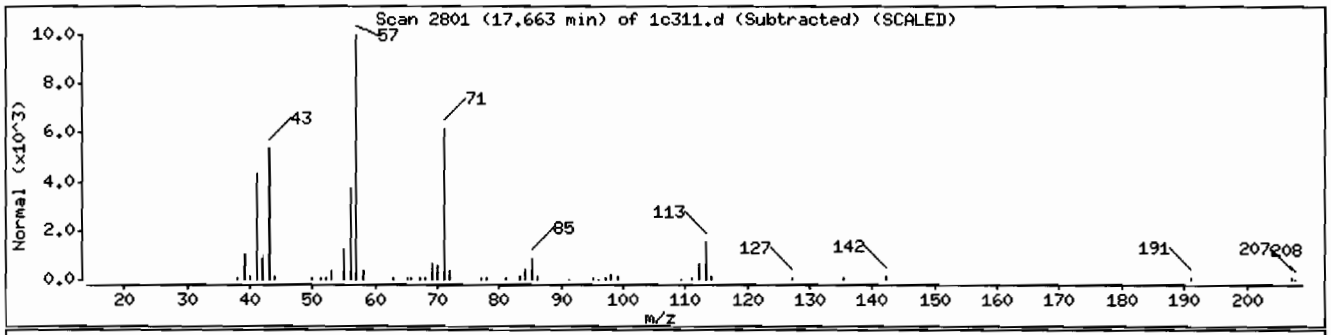

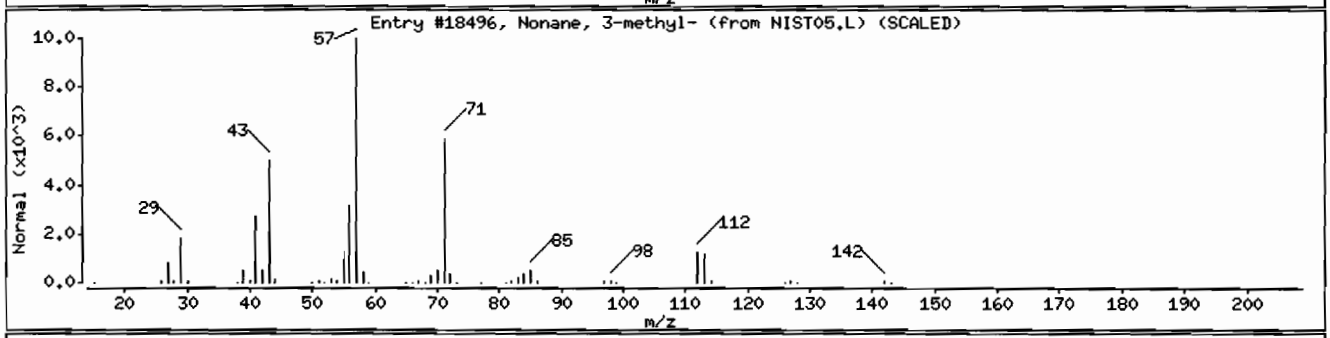

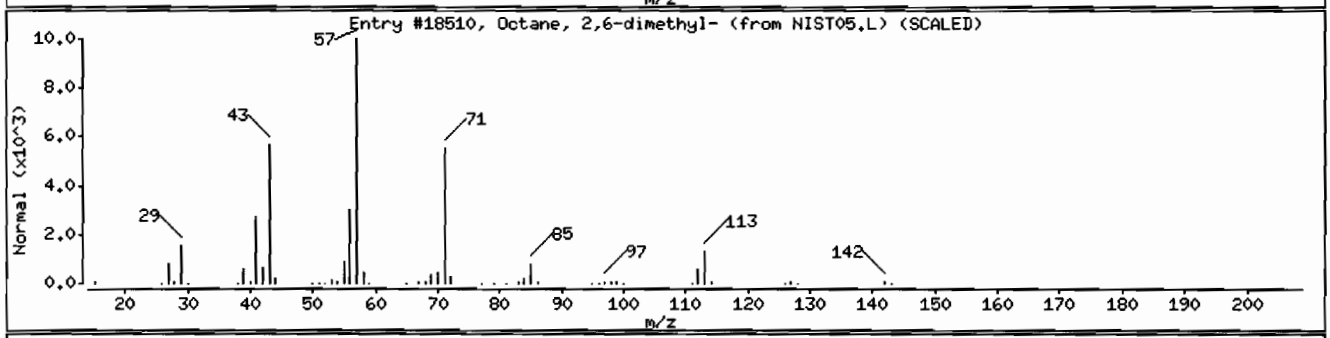

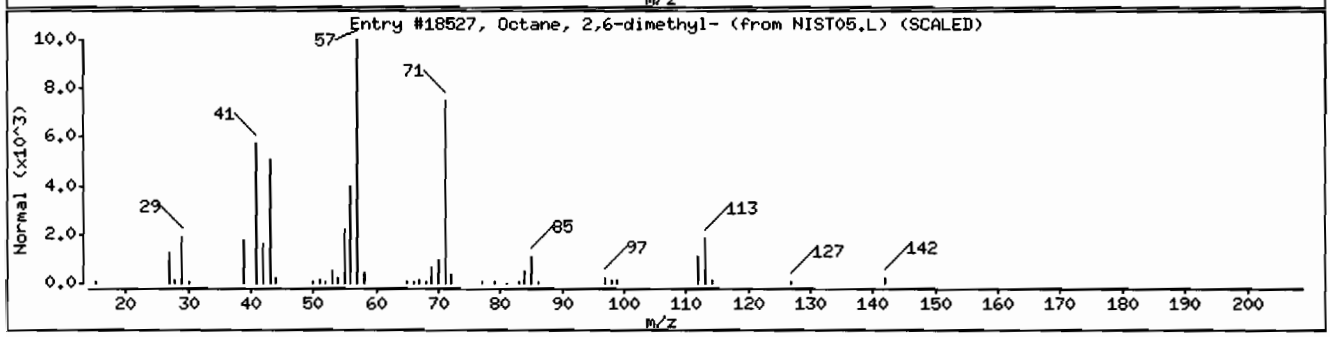

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Nonane, 4-methyl-	17301-94-9	NIST05.L	18501	93	C10H22	142
Nonane, 4-methyl-	17301-94-9	NIST05.L	18502	74	C10H22	142
Heptane, 2,3,4-trimethyl-	52896-95-4	NIST05.L	18537	50	C10H22	142

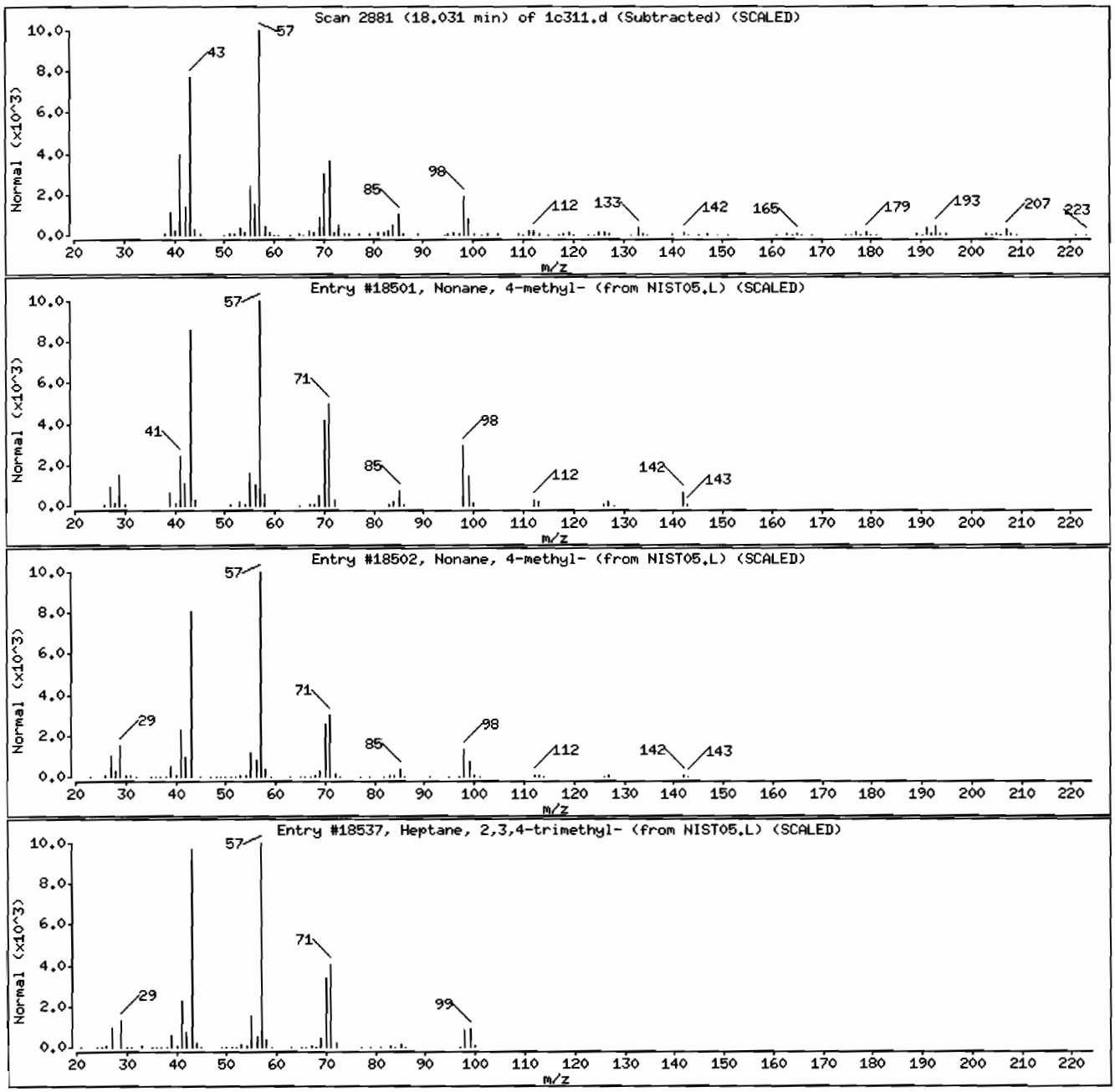

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Undecane	1120-21-4	NIST05.L	27237	93	C11H24	156
Undecane	1120-21-4	NIST05.L	27240	87	C11H24	156
Decane	124-18-5	NIST05.L	18486	80	C10H22	142

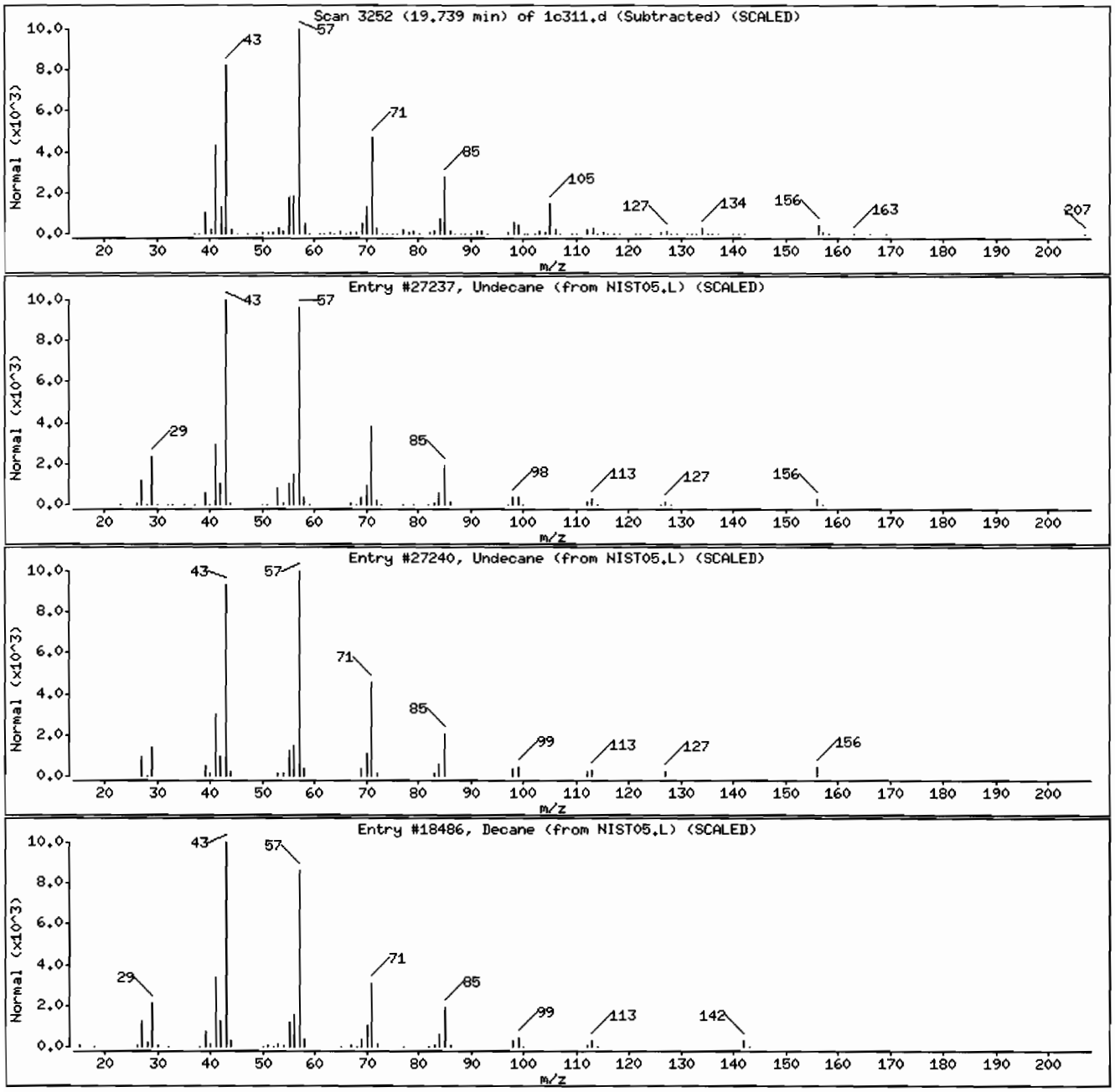

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16353	95	C10H18	138
Naphthalene, decahydro-, trans-	493-02-7	NIST05.L	16349	92	C10H18	138
Naphthalene, decahydro-	91-17-8	NIST05.L	16321	68	C10H18	138

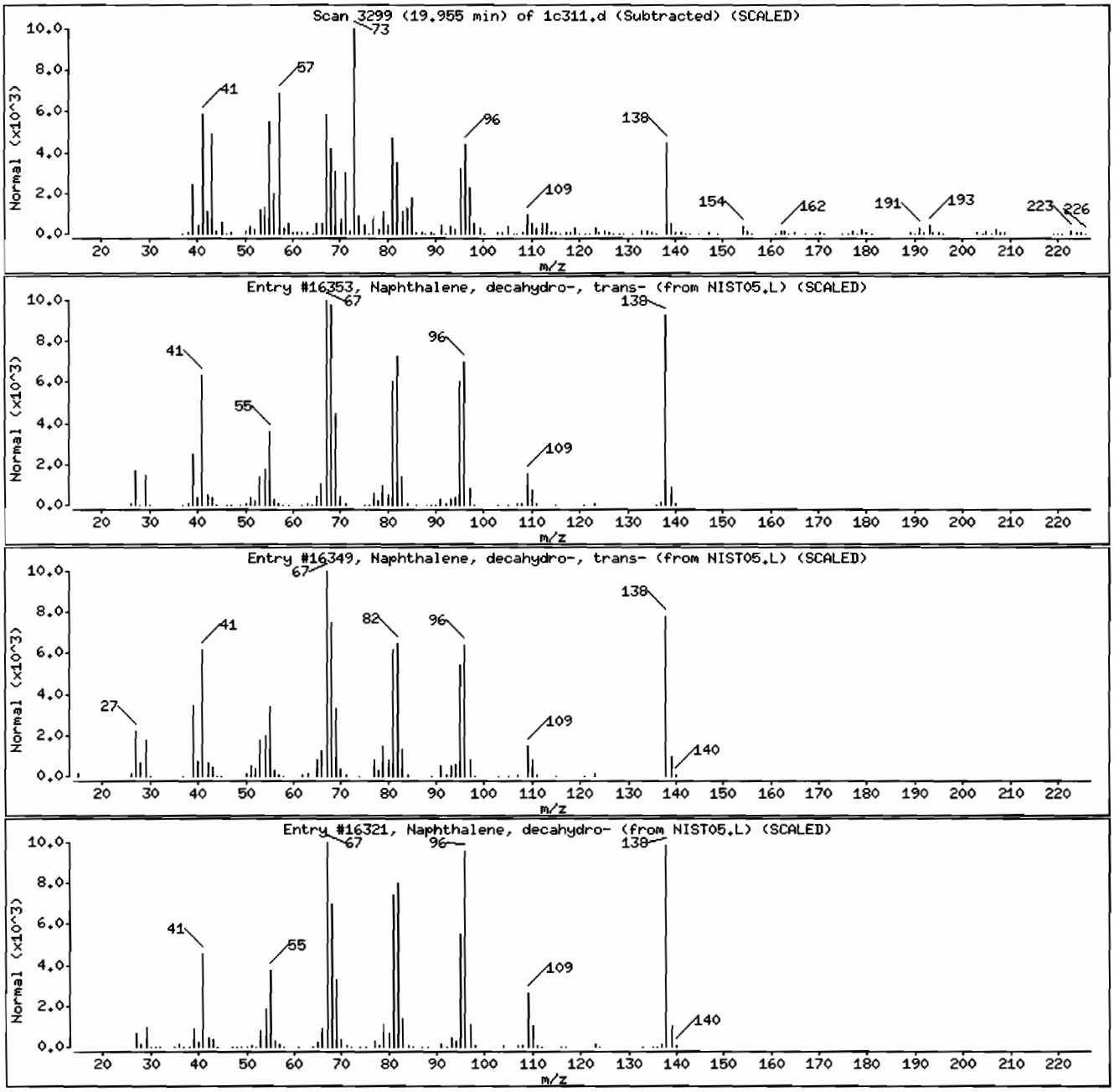

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Dodecane	112-40-3	NIST05.L	36431	95	C12H26	170
Dodecane	112-40-3	NIST05.L	36428	91	C12H26	170
Tetradecane	629-59-4	NIST05.L	55973	90	C14H30	198

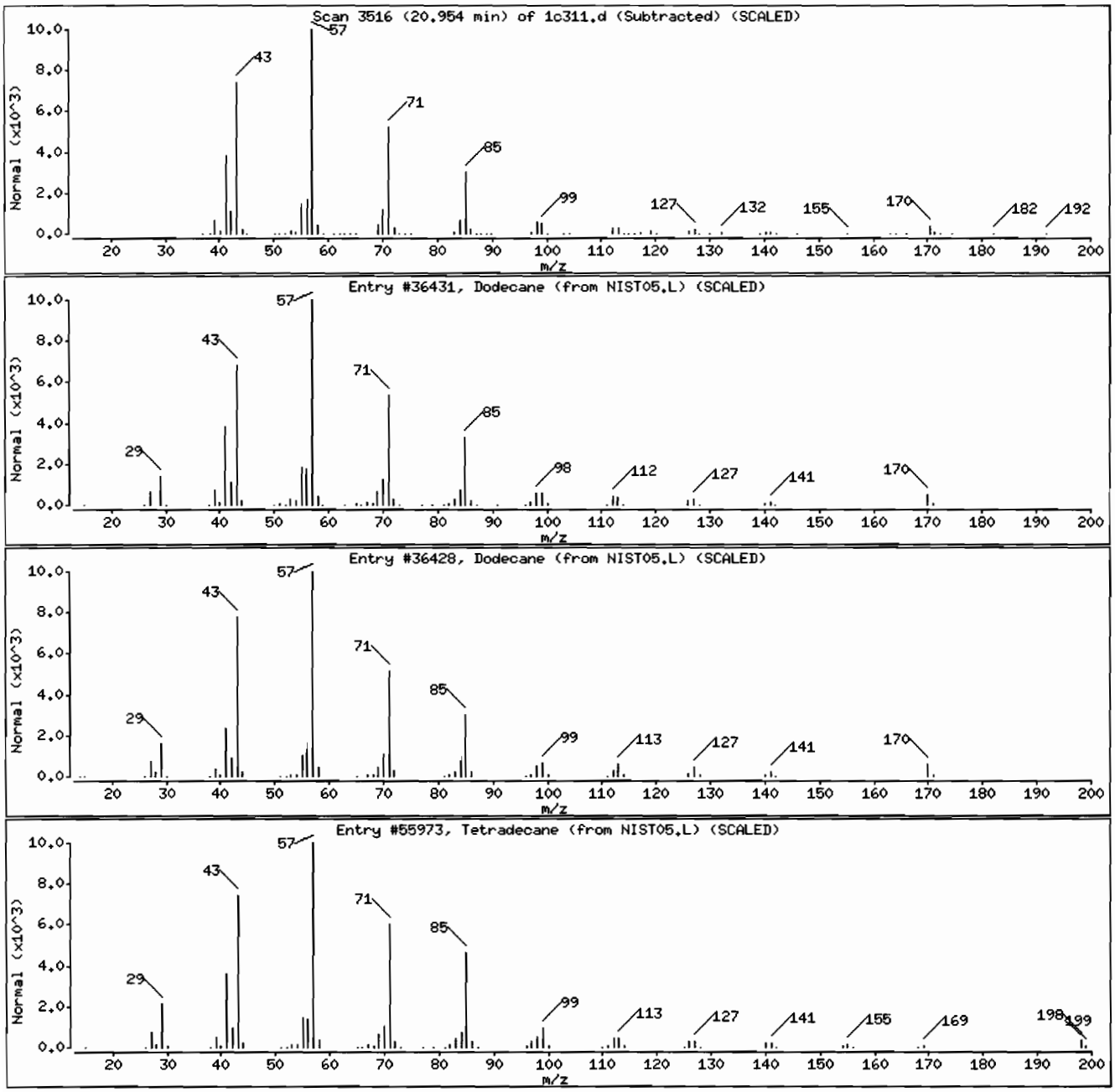

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Benzene, 1-ethyl-2,3-dimethyl-	933-98-2	NIST05.L	14399	97	C10H14	134
Benzene, 2-ethyl-1,4-dimethyl-	1758-88-9	NIST05.L	14402	95	C10H14	134
Benzene, 1-ethyl-3,5-dimethyl-	934-74-7	NIST05.L	14396	94	C10H14	134

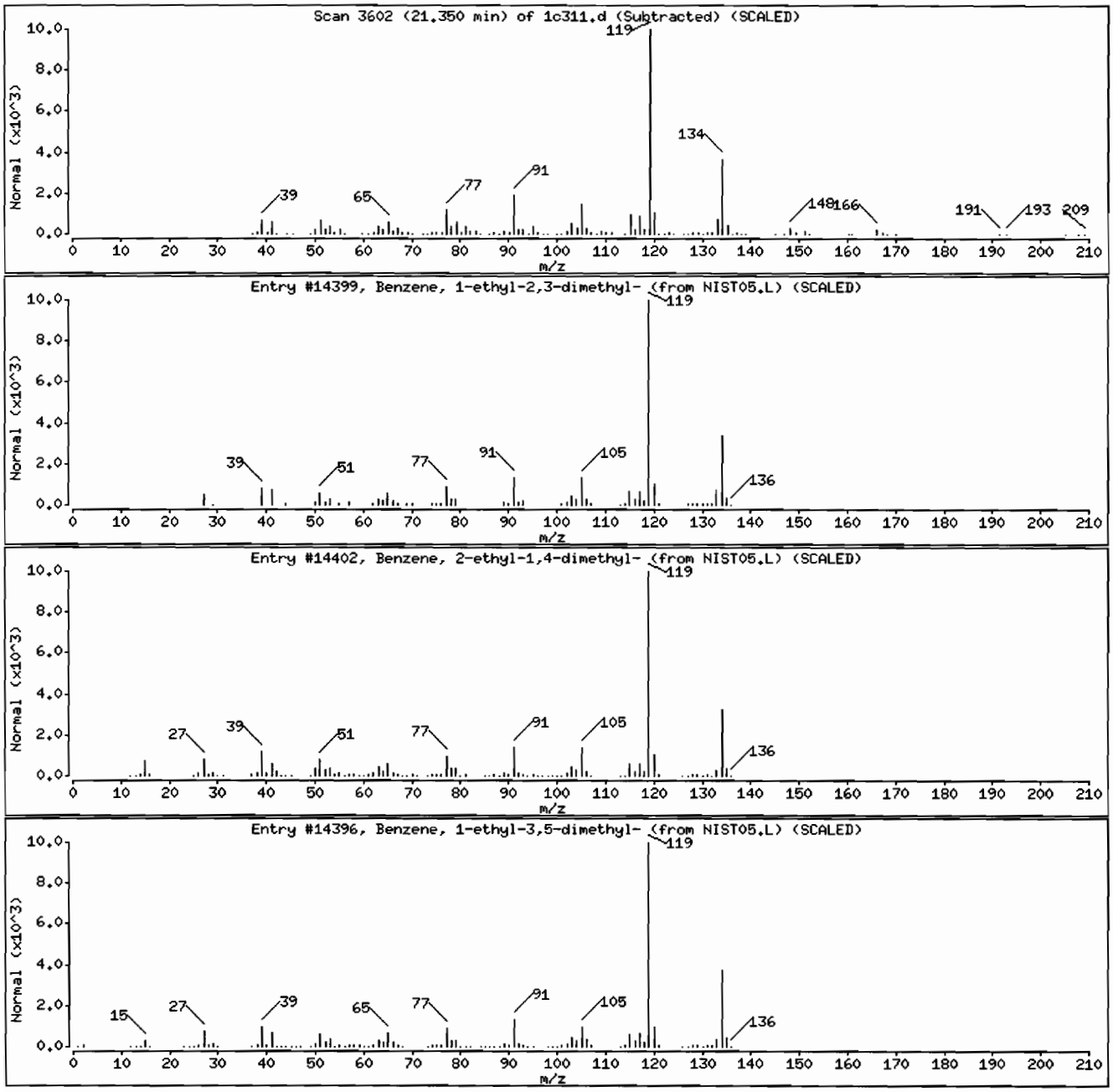

Data File: /chem/VOA1.i/031710v1/1c311.d

Date : 17-MAR-2010 16:01

Client ID: RE46-10-13556

Instrument: VOA1.i

Sample Info: |2488420101965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Hydrocarbon						
Naphthalene	91-20-3	NIST05.L	11578	95	C10H8	128
Naphthalene	91-20-3	NIST05.L	11576	95	C10H8	128
Azulene	275-51-4	NIST05.L	11574	95	C10H8	128

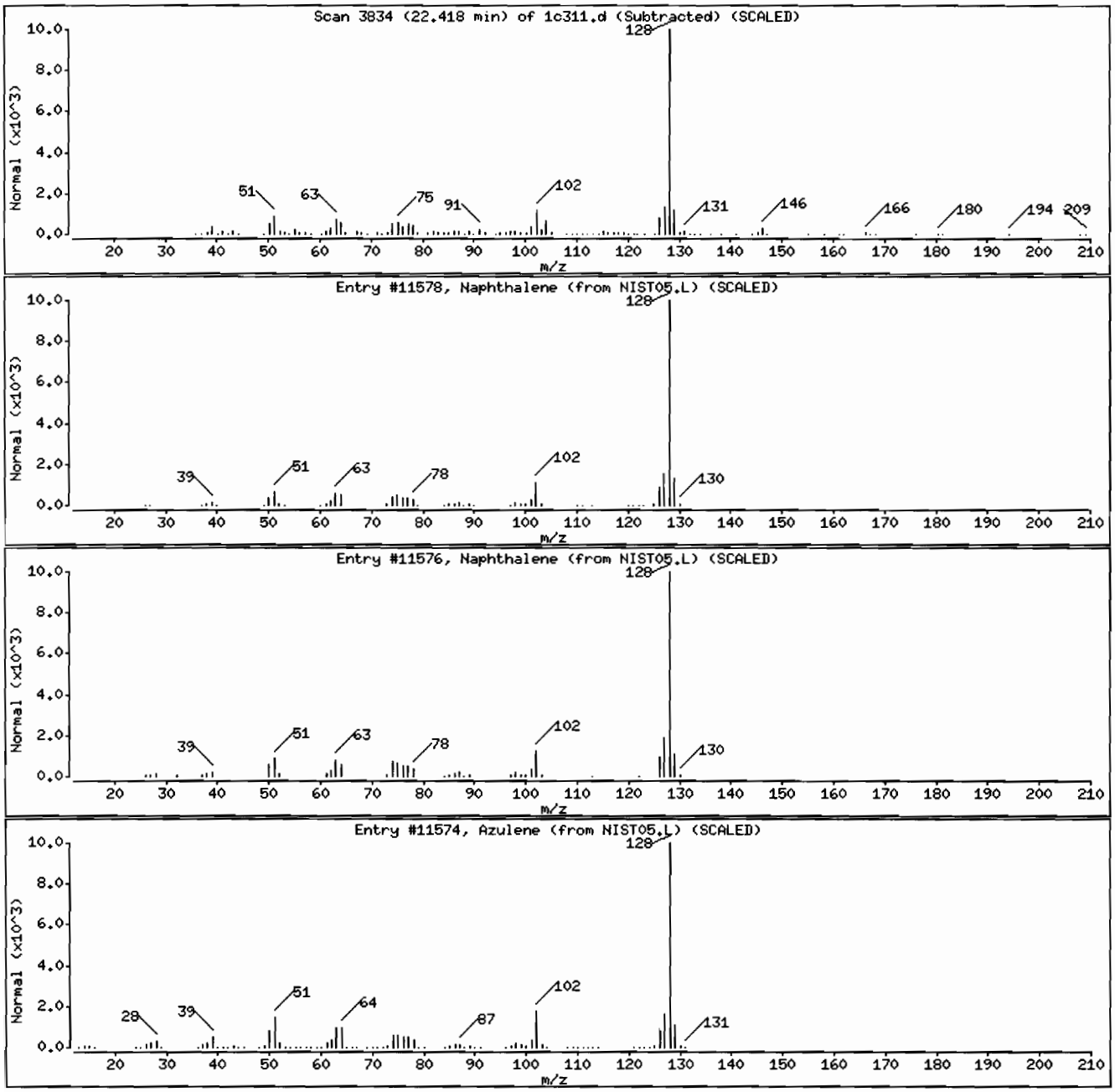

Standard Data

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Report Date: 16-Mar-2010 13:06

Calibration History

Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Start Cal Date: 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
04-MAR-2010 23:06	ICALsubS	/chem/VOA1.i/030410v1/1a423.d
04-MAR-2010 17:28	ICALsubL+	/chem/VOA1.i/030410v1/1a412.d
Cal Level: 2 , Cal Amount: 2.00000		
04-MAR-2010 23:37	ICALsubS	/chem/VOA1.i/030410v1/1a424.d
04-MAR-2010 17:59	ICALsubL+	/chem/VOA1.i/030410v1/1a413.d
Cal Level: 3 , Cal Amount: 5.00000		
05-MAR-2010 00:08	ICALsubS	/chem/VOA1.i/030410v1/1a425.d
04-MAR-2010 18:29	ICALsubL+	/chem/VOA1.i/030410v1/1a414.d
Cal Level: 4 , Cal Amount: 10.00000		
05-MAR-2010 00:39	ICALsubS	/chem/VOA1.i/030410v1/1a426.d
04-MAR-2010 19:00	ICALsubL+	/chem/VOA1.i/030410v1/1a415.d
Cal Level: 5 , Cal Amount: 20.00000		
05-MAR-2010 01:10	ICALsubS	/chem/VOA1.i/030410v1/1a427.d
04-MAR-2010 19:31	ICALsubL+	/chem/VOA1.i/030410v1/1a416.d
Cal Level: 6 , Cal Amount: 50.00000		
05-MAR-2010 01:41	ICALsubS	/chem/VOA1.i/030410v1/1a428.d
04-MAR-2010 20:02	ICALsubL+	/chem/VOA1.i/030410v1/1a417.d
Cal Level: 7 , Cal Amount: 100.00000		
05-MAR-2010 02:12	ICALsubS	/chem/VOA1.i/030410v1/1a429.d
04-MAR-2010 20:32	ICALsubL+	/chem/VOA1.i/030410v1/1a418.d
Cal Level: 8 , Cal Amount: 200.00000		
04-MAR-2010 21:35	BENZENE+	/chem/VOA1.i/030410v1/1a420.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

Ccal Level: 6 , Ccal Amount: 50.0
16-MAR-2010 11:00 | CALsubL+ | /chem/VOA1.i/031610v1/1c202.d
Ccal Level: 6 , Ccal Amount: 50.0
16-MAR-2010 12:01 | CALsubS+SS | /chem/VOA1.i/031610v1/1c204.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Cal Date : 16-Mar-2010 13:03 rya01514

Calibration File Names:
Level 1: /chem/VOA1.i/030410v1/1a423.d
Level 2: /chem/VOA1.i/030410v1/1a424.d
Level 3: /chem/VOA1.i/030410v1/1a425.d
Level 4: /chem/VOA1.i/030410v1/1a426.d
Level 5: /chem/VOA1.i/030410v1/1a427.d
Level 6: /chem/VOA1.i/030410v1/1a428.d
Level 7: /chem/VOA1.i/030410v1/1a429.d
Level 8: /chem/VOA1.i/030410v1/1a420.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
M 1 Xylenes (total)	0.75321	0.70295	0.67437	0.64934	0.66109	0.66867					
	0.64249	+++++					AVRG		0.67887		5.62262
M 2 1,2-Dichloroethylene (total)	0.30334	0.30025	0.27886	0.26621	0.26744	0.26937					
	0.27255	+++++					AVRG		0.27972		5.59995
M 3 1,3-Dichloropropylene	0.69166	0.64436	0.64939	0.67195	0.68534	0.69765					
	0.70488	+++++					AVRG		0.67789		3.47866
4 Chlorotrifluoroethylene	7805	16787	47024	110497	268873	338249					
	476883	+++++					LINR	0.06240	0.11129		0.99026
5 Dichlorodifluoromethane	0.27135	0.25757	0.29080	0.24806	0.24053	0.21915					
	0.23360	+++++					AVRG		0.25158		9.56487

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Cal Date : 16-Mar-2010 13:03 rya01514

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
6 Chloromethane	0.49489	0.44914	0.44193	0.42489	0.42420	0.40637					
	0.41388	+++++					AVRG		0.43647		6.81194
7 Vinyl chloride	0.40692	0.36796	0.35614	0.33153	0.31791	0.29484					
	0.29544	+++++					AVRG		0.33868		12.11013
8 2-Chloro-1,1,1-trifluoroethan	0.28441	0.28440	0.28998	0.28904	0.30052	0.29948					
	0.30499	+++++					AVRG		0.29326		2.83331
9 Bromomethane	0.21507	0.20535	0.20088	0.20376	0.19743	0.19252					
	0.18747	+++++					AVRG		0.20035		4.50690
10 Chloroethane	0.22216	0.22108	0.22663	0.21982	0.21544	0.21349					
	0.20610	+++++					AVRG		0.21782		3.09561
11 Trichlorofluoromethane	0.42098	0.47006	0.43077	0.42906	0.40992	0.41083					
	0.40666	+++++					AVRG		0.42547		5.13087
12 Ethyl Ether	0.29749	0.27429	0.26617	0.28422	0.28683	0.27691					
	0.27342	+++++					AVRG		0.27990		3.71030
13 Acrolein	0.05197	0.05349	0.05589	0.05663	0.06145	0.06074					
	0.06025	+++++					AVRG		0.05720		6.50407
14 Trichlorotrifluoroethane	0.24812	0.24556	0.24345	0.23944	0.24235	0.23563					
	0.22530	+++++					AVRG		0.23998		3.18126

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Cal Date : 16-Mar-2010 13:03 rya01514

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
15 1,1-Dichloroethylene	0.59051	0.56817	0.56621	0.52232	0.52017	0.53882					
	0.55068	+++++					AVRG		0.55098		4.69138
16 Acetone	0.34831	0.29514	0.29382	0.28949	0.28780	0.27337					
	0.28547	+++++					AVRG		0.29620		8.12358
17 Isopropyl Alcohol	0.02135	0.02088	0.02356	0.02326	0.01925	0.02447					
	0.02624	+++++					AVRG		0.02272		10.43485
18 Iodomethane	0.44533	0.41971	0.42192	0.40151	0.38432	0.38700					
	0.39337	+++++					AVRG		0.40759		5.46868
19 Carbon disulfide	0.97397	0.89862	0.85934	0.80937	0.70728	0.77734					
	0.82445	+++++					AVRG		0.83577		10.28708
20 Allyl chloride	8507	17929	43809	99452	210254	591520					
	1225666	+++++					LINR	0.15508	0.11299		0.99920
21 Methyl acetate	0.28095	0.26688	0.26567	0.27049	0.24559	0.24490					
	0.25595	+++++					AVRG		0.26149		5.09450
22 Acetonitrile	0.05311	0.04242	0.04264	0.04213	0.04352	0.03875					
	0.04193	+++++					AVRG		0.04350		10.33047
23 Methylene chloride	+++++	24115	41759	72196	139372	335541					
	709352	+++++					LINR	-0.01880	0.29499		0.99971

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Cal Date : 16-Mar-2010 13:03 rya01514

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
24 tert-Butyl Alcohol	0.03450	0.03286	0.03710	0.03753	0.03121	0.03968					
	0.04208	+++++					AVRG		0.03642		10.50706
25 tert-Butyl methyl ether	0.93371	1.08746	0.88131	0.89456	0.91498	0.87293					
	0.91476	+++++					AVRG		0.92853		7.88164
26 trans-1,2-Dichloroethylene	0.29478	0.29262	0.26391	0.25636	0.25335	0.25891					
	0.26549	+++++					AVRG		0.26935		6.37027
27 Acrylonitrile	0.10797	0.10596	0.11041	0.11289	0.11528	0.11298					
	0.11285	+++++					AVRG		0.11119		2.93632
28 Isopropyl ether	1.09877	1.11233	1.10276	1.11762	1.16730	1.12032					
	1.18051	+++++					AVRG		1.12852		2.84927
29 Vinyl acetate	0.63725	0.60486	0.62394	0.59395	0.60658	0.58731					
	0.55312	+++++					AVRG		0.60100		4.51404
30 1,1-Dichloroethane	0.62513	0.63230	0.58982	0.55421	0.54772	0.55281					
	0.55078	+++++					AVRG		0.57897		6.36993
31 2-Chloro-1,3-butadiene	0.41810	0.41746	0.43019	0.45620	0.47274	0.48150					
	0.49600	+++++					AVRG		0.45317		7.01467
32 Ethyl tert-butyl ether	0.86453	0.86266	0.87110	0.90491	0.97011	0.95654					
	1.02989	+++++					AVRG		0.92282		6.97391

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Cal Date : 16-Mar-2010 13:03 rya01514

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
33 2,2-Dichloropropane	0.39694	0.39205	0.36929	0.34932	0.35176	0.36430					
	0.35457	+++++					AVRG		0.36832		5.22710
34 Ethyl acetate	0.32902	0.29952	0.30825	0.30260	0.31733	0.30959					
	0.30120	+++++					AVRG		0.30964		3.38693
35 2-Butanone	0.34555	0.30939	0.30921	0.30431	0.30884	0.29894					
	0.32163	+++++					AVRG		0.31398		4.94376
36 cis-1,2-Dichloroethylene	0.31190	0.30788	0.29381	0.27606	0.28153	0.27982					
	0.27961	+++++					AVRG		0.29009		5.05776
37 Propionitrile	0.04709	0.04309	0.04679	0.04442	0.04601	0.04646					
	0.04636	+++++					AVRG		0.04574		3.17363
38 Tetrahydrofuran	0.26663	0.24683	0.26381	0.26054	0.25545	0.25212					
	0.24814	+++++					AVRG		0.25622		3.00396
39 Bromochloromethane	0.13836	0.13142	0.12971	0.13156	0.13371	0.12617					
	0.12976	+++++					AVRG		0.13153		2.88879
40 Methacrylonitrile	0.23771	0.23024	0.24233	0.24295	0.25151	0.24475					
	0.23800	+++++					AVRG		0.24107		2.76048
41 Chloroform	0.64658	0.60478	0.56892	0.55129	0.55756	0.55736					
	0.55798	+++++					AVRG		0.57778		6.10312

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Cal Date : 16-Mar-2010 13:03 rya01514

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
42 Cyclohexane	0.60530	0.60739	0.56143	0.52600	0.49687	0.53693					
	0.52530	+++++					AVRG		0.55132		7.64201
43 1,1,1-Trichloroethane	0.45718	0.45635	0.43251	0.40820	0.41251	0.42806					
	0.41223	+++++					AVRG		0.42958		4.78840
44 Carbon tetrachloride	0.42399	0.42089	0.40940	0.39794	0.39811	0.41779					
	0.40835	+++++					AVRG		0.41092		2.54998
45 1,1-Dichloropropene	0.44544	0.45160	0.42126	0.39213	0.39119	0.40990					
	0.40530	+++++					AVRG		0.41669		5.79289
46 Isobutyl alcohol	0.01181	0.01064	0.01226	0.01201	0.01008	0.01304					
	0.01267	+++++					AVRG		0.01179		9.05259
47 Benzene	1.28998	1.15477	1.12632	1.08296	1.06740	1.09512					
	1.08491	1.25413					AVRG		1.14445		7.33590
49 Methyl tert-amyl ether	0.63334	0.62456	0.66931	0.68471	0.75377	0.75941					
	0.82305	+++++					AVRG		0.70688		10.41836
50 Cyclohexene	0.46264	0.44813	0.43312	0.40701	0.39320	0.42308					
	0.41399	+++++					AVRG		0.42588		5.64859
51 1,2-Dichloroethane	0.55999	0.52493	0.51731	0.50725	0.50443	0.49881					
	0.49879	+++++					AVRG		0.51593		4.20091

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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Method file : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Cal Date : 16-Mar-2010 13:03 rya01514

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
53 n-Butyl alcohol	0.01024	0.00907	0.01003	0.01050	0.00888	0.01107					
	0.01122	+++++					AVRG		0.01014		8.92075
54 Trichloroethylene	0.33004	0.30974	0.28603	0.28383	0.28464	0.28975					
	0.28384	+++++					AVRG		0.29541		6.03769
55 Methylcyclohexane	0.49476	0.48703	0.47480	0.43861	0.43922	0.47464					
	0.45928	+++++					AVRG		0.46690		4.73137
56 Methyl methacrylate	0.17389	0.17599	0.18085	0.18308	0.19483	0.19527					
	0.18940	+++++					AVRG		0.18476		4.66850
57 1,2-Dichloropropane	0.33825	0.33087	0.31503	0.30131	0.30696	0.30490					
	0.30672	+++++					AVRG		0.31486		4.51981
58 1,4-Dioxane	0.00268	0.00257	0.00273	0.00275	0.00275	0.00281					
	0.00281	+++++					AVRG		0.00273		3.01538
59 Dibromomethane	0.19447	0.19393	0.18299	0.18510	0.18747	0.18297					
	0.18551	+++++					AVRG		0.18749		2.58103
60 Bromodichloromethane	0.40950	0.42240	0.42513	0.42497	0.43872	0.44091					
	0.44459	+++++					AVRG		0.42946		2.90391
61 2-Chloroethylvinyl ether	1534	4339	11215	24575	56621	+++++					
	+++++	+++++					LINR	0.08394	0.02560		0.99683

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Cal Date : 16-Mar-2010 13:03 rya01514

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
62 2-Nitropropane	8355	16281	47508	98345	220270	600056					
	1201622	+++++					LINR	0.11599	0.11103		0.99976
63 cis-1,3-Dichloropropylene	0.50349	0.47474	0.48488	0.49293	0.50736	0.51026					
	0.51996	+++++					AVRG		0.49909		3.14746
64 4-Methyl-2-pentanone	0.19874	0.19036	0.19606	0.19827	0.19870	0.19602					
	0.20758	+++++					AVRG		0.19796		2.60039
66 Toluene	1.08029	1.03835	0.96419	0.91516	0.91512	0.92876					
	0.90883	+++++					AVRG		0.96439		7.09762
67 Ethyl methacrylate	0.44077	0.44538	0.48183	0.48992	0.51785	0.51126					
	0.49563	+++++					AVRG		0.48324		6.21958
68 trans-1,3-Dichloropropylene	0.68217	0.63777	0.62991	0.66476	0.68131	0.70164					
	0.70410	+++++					AVRG		0.67167		4.33804
69 1,1,2-Trichloroethane	0.32465	0.30578	0.29078	0.29279	0.29162	0.29080					
	0.28928	+++++					AVRG		0.29796		4.37271
70 Tetrachloroethylene	0.37602	0.33298	0.30537	0.28451	0.28138	0.29671					
	0.27926	+++++					AVRG		0.30803		11.45604
71 2-Hexanone	0.57174	0.52453	0.54122	0.54512	0.55785	0.54679					
	0.57858	+++++					AVRG		0.55226		3.36783

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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Method file : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Cal Date : 16-Mar-2010 13:03 rya01514

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
72 1,3-Dichloropropane	0.71966	0.64917	0.62966	0.63963	0.62910	0.61431					
	0.61756	+++++					AVRG		0.64273		5.59769
73 Dibromochloromethane	0.39057	0.38477	0.37507	0.38697	0.40149	0.40885					
	0.41437	+++++					AVRG		0.39459		3.57493
74 1,2-Dibromoethane	0.38525	0.33966	0.34493	0.34795	0.35126	0.34244					
	0.34972	+++++					AVRG		0.35160		4.37512
75 1-Chlorohexane	0.30784	0.32105	0.32102	0.32615	0.34149	0.33470					
	0.36021	+++++					AVRG		0.33035		5.14370
77 Chlorobenzene	1.14795	1.07647	1.01136	0.98151	0.98002	0.98572					
	0.94770	+++++					AVRG		1.01868		6.83721
78 Ethylbenzene	2.14544	2.02011	1.89606	1.84090	1.85339	1.90287					
	1.82809	+++++					AVRG		1.92669		6.01325
79 1,1,1,2-Tetrachloroethane	0.37405	0.37314	0.35996	0.36122	0.36918	0.37374					
	0.36962	+++++					AVRG		0.36870		1.59367
80 m,p-Xylenes	0.76855	0.70366	0.68029	0.65351	0.66267	0.67323					
	0.63949	+++++					AVRG		0.68306		6.27525
81 o-Xylene	0.72253	0.70153	0.66252	0.64099	0.65795	0.65954					
	0.64848	+++++					AVRG		0.67051		4.46036

GEL Laboratories LLC

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Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Cal Date : 16-Mar-2010 13:03 rya01514

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
82 Styrene	1.09275	1.08435	1.09948	1.10852	1.13194	1.16948					
	1.15197	+++++					AVRG		1.11978		2.86591
83 Bromoform	0.41943	0.40765	0.45884	0.45833	0.49134	0.51077					
	0.51981	+++++					AVRG		0.46660		9.26892
84 Isopropylbenzene	3.65457	3.53232	3.40485	3.23822	3.27088	3.42401					
	3.26911	+++++					AVRG		3.39914		4.53997
85 cis-1,4-Dichloro-2-butene	0.27086	0.26576	0.29675	0.30266	0.32236	0.32519					
	0.32415	+++++					AVRG		0.30111		8.30060
86 Cyclohexanone	0.02452	0.02257	0.02302	0.02274	0.02518	0.02556					
	0.02720	+++++					AVRG		0.02440		7.06404
88 1,1,2,2-Tetrachloroethane	0.88305	0.84554	0.81587	0.83545	0.83718	0.85101					
	0.85147	+++++					AVRG		0.84565		2.42526
89 n-Propylbenzene	4.52756	4.31461	4.08942	3.96800	4.00981	4.21309					
	3.98618	+++++					AVRG		4.15838		4.97130
90 trans-1,4-Dichloro-2-butene	0.26047	0.24350	0.27777	0.28729	0.29324	0.30480					
	0.30069	+++++					AVRG		0.28111		7.92934
91 Bromobenzene	0.87561	0.84315	0.83031	0.80039	0.79985	0.78449					
	0.77364	+++++					AVRG		0.81535		4.41751

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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End Cal Date : 05-MAR-2010 02:12
Quant Method : ISTD
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Method file : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Cal Date : 16-Mar-2010 13:03 rya01514

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
92 1,2,3-Trichloropropane	0.25374	0.25157	0.23407	0.24149	0.24048	0.23469					
	0.23399	+++++					AVRG		0.24143		3.42436
93 1,3,5-Trimethylbenzene	3.15016	3.03866	2.92163	2.83430	2.90902	3.03029					
	2.88725	+++++					AVRG		2.96733		3.69365
94 2-Chlorotoluene	3.40116	3.10077	2.99009	2.85022	2.90368	2.95741					
	2.86121	+++++					AVRG		3.00922		6.41193
95 4-Chlorotoluene	2.96916	2.82351	2.72455	2.60839	2.62990	2.69119					
	2.64207	+++++					AVRG		2.72697		4.73307
96 tert-Butylbenzene	2.56799	2.45028	2.36355	2.27069	2.29279	2.43004					
	2.28987	+++++					AVRG		2.38074		4.56046
97 1,2,4-Trimethylbenzene	3.38891	3.11898	3.06635	2.94444	2.98604	3.11129					
	2.97368	+++++					AVRG		3.08424		4.89034
98 Pentachloroethane	12149	15882	38181	66725	133523	507783					
	1078303	+++++					LINR	0.27833	0.24667		0.99429
99 sec-Butylbenzene	4.10342	3.88387	3.73084	3.55024	3.66314	3.89266					
	3.61775	+++++					AVRG		3.77742		5.10627
100 4-Isopropyltoluene	3.12249	3.00522	2.91403	2.83082	2.81896	3.04721					
	2.85667	+++++					AVRG		2.94220		4.00251

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAR-2010 17:28
End Cal Date : 05-MAR-2010 02:12
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Method file : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Cal Date : 16-Mar-2010 13:03 rya01514

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
101 1,3-Dichlorobenzene	1.84867	1.68002	1.57918	1.49323	1.50639	1.51963					
	1.47490	++++++					AVRG		1.58600		8.52066
103 1,4-Dichlorobenzene	1.84911	1.65010	1.60437	1.53722	1.53074	1.53576					
	1.47931	++++++					AVRG		1.59809		7.74803
104 Benzyl chloride	1.12801	1.11484	1.29183	1.31709	1.38449	1.40406					
	1.37657	++++++					AVRG		1.28813		9.35175
105 n-Butylbenzene	3.44185	3.23539	3.12630	2.97997	3.06171	3.30417					
	3.08924	++++++					AVRG		3.17694		5.01186
106 1,2-Dichlorobenzene	1.69129	1.57033	1.50223	1.45431	1.47131	1.47889					
	1.43580	++++++					AVRG		1.51488		5.87152
107 bis(2-Chloroisopropyl)ether	0.42927	0.40771	0.45797	0.44748	0.46047	0.46175					
	0.45692	++++++					AVRG		0.44594		4.54779
108 1,2-Dibromo-3-chloropropane	0.14634	0.16047	0.16196	0.16379	0.17248	0.17743					
	0.18378	++++++					AVRG		0.16661		7.45078
109 1,2,4-Trichlorobenzene	1.41272	1.18723	1.16596	1.09928	1.12657	1.12407					
	1.09072	++++++					AVRG		1.17236		9.50296
110 Hexachlorobutadiene	0.81557	0.75828	0.69142	0.67610	0.68594	0.71859					
	0.67069	++++++					AVRG		0.71666		7.39638

GEL Laboratories LLC

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Method file : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Cal Date : 16-Mar-2010 13:03 rya01514

Compound	1 Level 1 / 100 Level 7	2 Level 2 / 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
111 Naphthalene	3.32209	2.52371	2.47904	2.48696	2.57602	2.54628					
	2.53867	++++++					AVRG		2.63897		11.48579
112 1,2,3-Trichlorobenzene	1.34666	1.04210	1.03215	1.03675	1.03134	1.00392					
	0.97889	++++++					AVRG		1.06740		11.72478
$ 48 1,2-Dichloroethane-d4	0.45047	0.46081	0.45790	0.48374	0.48927	0.51337					
	0.56187	++++++					AVRG		0.48820		8.00985
$ 65 Toluene-d8	1.70210	1.65586	1.65755	1.73908	1.67205	1.67342					
	1.67162	++++++					AVRG		1.68167		1.75445
$ 87 Bromofluorobenzene	1.23838	1.23601	1.23055	1.28837	1.26074	1.26956					
	1.25131	++++++					AVRG		1.25356		1.65830

GEL Laboratories LLC

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Method file : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Cal Date : 16-Mar-2010 13:03 rya01514

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 05-MAR-2010 03:14
Lab File ID: 1a431.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100304-23 Quant Type: ISTD
Method: /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Chlorotrifluoroethylene	176	150	0.12854	0.010	17.57577	30.00000	Linear
8 2-Chloro-1,1,1-trifluoroeth	0.29326	0.29918	0.29918	0.010	2.01988	30.00000	Averaged
13 Acrolein	0.05720	0.05786	0.05786	0.001	1.15202	30.00000	Averaged
14 Trichlorotrifluoroethane	0.23998	0.22387	0.22387	0.030	-6.71094	30.00000	Averaged
17 Isopropyl Alcohol	0.02272	0.02425	0.02425	0.000	6.77030	40.00000	Averaged
20 Allyl chloride	261	250	0.11450	0.010	4.44100	30.00000	Linear
24 tert-Butyl Alcohol	0.03642	0.03861	0.03861	0.010	6.01112	40.00000	Averaged
27 Acrylonitrile	0.11119	0.11685	0.11685	0.010	5.09258	30.00000	Averaged
28 Isopropyl ether	1.12852	1.11236	1.11236	0.010	-1.43125	30.00000	Averaged
31 2-Chloro-1,3-butadiene	0.45317	0.53602	0.53602	0.010	18.28132	30.00000	Averaged
32 Ethyl tert-butyl ether	0.92282	0.94254	0.94254	0.010	2.13673	30.00000	Averaged
37 Propionitrile	0.04574	0.04595	0.04595	0.010	0.44555	30.00000	Averaged
34 Ethyl acetate	0.30964	0.29007	0.29007	0.010	-6.32210	40.00000	Averaged
40 Methacrylonitrile	0.24107	0.24743	0.24743	0.010	2.63790	30.00000	Averaged
38 Tetrahydrofuran	0.25622	0.25409	0.25409	0.010	-0.83235	30.00000	Averaged
46 Isobutyl alcohol	0.01179	0.01194	0.01194	0.001	1.26309	40.00000	Averaged
49 Methyl tert-amyl ether	0.70688	0.74158	0.74158	0.010	4.90840	30.00000	Averaged
56 Methyl methacrylate	0.18476	0.19653	0.19653	0.010	6.37074	30.00000	Averaged
67 Ethyl methacrylate	0.48324	0.52431	0.52431	0.010	8.49938	30.00000	Averaged
75 1-Chlorohexane	0.33035	0.32814	0.32814	0.000	-0.66768	30.00000	Averaged
58 1,4-Dioxane	0.00273	0.00267	0.00267	0.001	-2.06096	40.00000	Averaged
62 2-Nitropropane	248	250	0.10744	0.000	-0.91469	30.00000	Linear
85 cis-1,4-Dichloro-2-butene	0.30111	0.34413	0.34413	0.010	14.29028	30.00000	Averaged
86 Cyclohexanone	0.02440	0.01830	0.01830	0.010	-24.97856	40.00000	Averaged
90 trans-1,4-Dichloro-2-butene	0.28111	0.32198	0.32198	0.010	14.53904	30.00000	Averaged
98 Pentachloroethane	254	250	0.23651	0.010	1.45004	30.00000	Linear
104 Benzyl chloride	1.28813	1.28543	1.28543	0.010	-0.20940	30.00000	Averaged
107 bis(2-Chloroisopropyl)ether	0.44594	0.46332	0.46332	0.010	3.89777	30.00000	Averaged
$ 48 1,2-Dichloroethane-d4	0.48820	0.45554	0.45554	0.010	-6.69163	30.00000	Averaged
$ 65 Toluene-d8	1.68167	1.70100	1.70100	0.010	1.14955	30.00000	Averaged
$ 87 Bromofluorobenzene	1.25356	1.23878	1.23878	0.010	-1.17885	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 05-MAR-2010 03:14
Lab File ID: 1a431.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100304-23 Quant Type: ISTD
Method: /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m

Average %D / Drift Results.
Calculated Average %D/Drift = 5.83118
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/030410v1/1a431.d
Lab Smp Id: W1VM100304-23 Client Smp ID: VSTD250S
Inj Date : 05-MAR-2010 03:14
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |W1VM100304-23|S-ICV|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM100304-08A/UVM100125-08E
Comment :
Method : /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m
Meth Date : 05-Mar-2010 11:12 dav01267 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
4 Chlorotrifluoroethylene	116	4.875	4.875	(0.357)	422849	150.000	176
8 2-Chloro-1,1,1-trifluoroethane	118	6.275	6.275	(0.459)	984214	150.000	153
13 Acrolein	56	8.940	8.940	(0.654)	317253	250.000	253
14 Trichlorotrifluoroethane	101	8.963	8.963	(0.656)	1227444	250.000	233
17 Isopropyl Alcohol	45	9.437	9.437	(0.690)	1329758	2500.00	2670
20 Allyl chloride	76	9.838	9.838	(0.720)	627804	250.000	261
24 tert-Butyl Alcohol	59	10.183	10.183	(0.745)	2117018	2500.00	2650
27 Acrylonitrile	53	10.662	10.662	(0.780)	640684	250.000	263
28 Isopropyl ether	45	11.182	11.182	(0.818)	1219773	50.0000	49.3
31 2-Chloro-1,3-butadiene	53	11.385	11.385	(0.833)	587773	50.0000	59.1
32 Ethyl tert-butyl ether	59	11.744	11.744	(0.859)	1033549	50.0000	51.1
37 Propionitrile	54	12.393	12.393	(0.906)	251923	250.000	251
34 Ethyl acetate	43	12.153	12.153	(0.889)	1590381	250.000	234
40 Methacrylonitrile	41	12.549	12.549	(0.918)	1356599	250.000	256
38 Tetrahydrofuran	42	12.531	12.531	(0.639)	564841	250.000	248
46 Isobutyl alcohol	41	13.097	13.097	(0.958)	654432	2500.00	2530

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
49 Methyl tert-amyl ether	73	13.336	13.336	(0.975)	813183	50.0000	52.4
56 Methyl methacrylate	69	14.427	14.427	(1.055)	1077534	250.000	266
67 Ethyl methacrylate	69	15.799	15.799	(0.921)	2089094	250.000	271
75 1-Chlorohexane	55	17.019	17.019	(1.245)	359829	50.0000	49.7
58 1,4-Dioxane	88	14.538	14.538	(1.063)	146478	2500.00	2450
62 2-Nitropropane	43	15.067	15.067	(1.102)	589084	250.000	248
85 cis-1,4-Dichloro-2-butene	53	18.266	18.266	(0.932)	765022	250.000	286
86 Cyclohexanone	55	18.377	18.377	(1.072)	364656	1250.00	938
90 trans-1,4-Dichloro-2-butene	53	18.556	18.556	(0.947)	715772	250.000	286
98 Pentachloroethane	167	19.187	19.187	(0.979)	525774	250.000	254(A)
104 Benzyl chloride	91	19.762	19.762	(1.008)	2857558	250.000	249
107 bis(2-Chloroisopropyl)ether	45	20.153	20.153	(1.028)	1029978	250.000	260
* 52 Fluorobenzene	96	13.672	13.668	(1.000)	1096559	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	796894	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.601	(1.000)	444607	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	499522	50.0000	46.6
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1355516	50.0000	50.6
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	550772	50.0000	49.4

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/030410v1/1a431.d
Date : 05-MAR-2010 03:14
Client ID: VSTD250S
Sample Info: IW1VH100304-231S-ICV|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

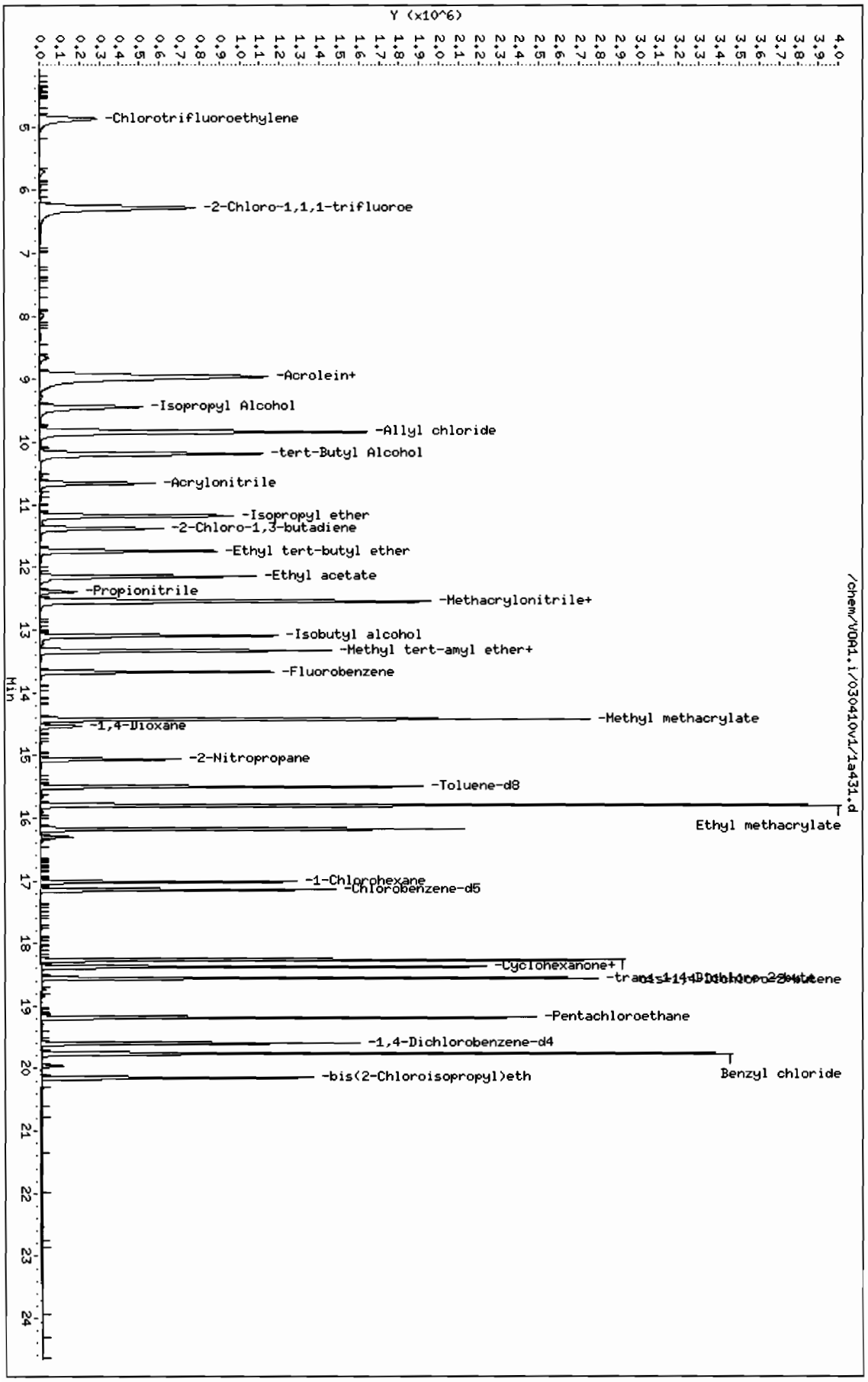

Page 1

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 05-MAR-2010 10:31
Lab File ID: 1a502.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100305-01 Quant Type: ISTD
Method: /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	0.67887	0.70270	0.70270	0.050	3.50958	30.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.27972	0.29253	0.29253	0.050	4.58161	30.00000	Averaged	
M	3 1,3-Dichloropropylene	0.67789	0.73948	0.73948	0.050	9.08598	30.00000	Averaged	
	5 Dichlorodifluoromethane	0.25158	0.28147	0.28147	0.050	11.88053	30.00000	Averaged	
	6 Chloromethane	0.43647	0.44111	0.44111	0.100	1.06208	30.00000	Averaged	spcc
	7 Vinyl chloride	0.33868	0.35060	0.35060	0.050	3.51988	20.00000	Averaged	ccc
	9 Bromomethane	0.20035	0.21019	0.21019	0.050	4.91190	30.00000	Averaged	
	10 Chloroethane	0.21782	0.22685	0.22685	0.050	4.14710	30.00000	Averaged	
	11 Trichlorofluoromethane	0.42547	0.47389	0.47389	0.050	11.38080	30.00000	Averaged	
	12 Ethyl Ether	0.27990	0.29643	0.29643	0.010	5.90323	30.00000	Averaged	
	16 Acetone	0.29620	0.26818	0.26818	0.000	-9.46030	40.00000	Averaged	
	22 Acetonitrile	0.04350	0.04236	0.04236	0.010	-2.62705	30.00000	Averaged	
	15 1,1-Dichloroethylene	0.55098	0.58968	0.58968	0.050	7.02346	20.00000	Averaged	ccc
	21 Methyl acetate	0.26149	0.25709	0.25709	0.010	-1.68238	40.00000	Averaged	
	18 Iodomethane	0.40759	0.41313	0.41313	0.050	1.35752	30.00000	Averaged	
	23 Methylene chloride	52.61887	50.00000	0.31598	0.000	5.23774	30.00000	Linear	
	19 Carbon disulfide	0.83577	0.92684	0.92684	0.050	10.89737	30.00000	Averaged	
	25 tert-Butyl methyl ether	0.92853	0.95444	0.95444	0.050	2.79026	30.00000	Averaged	
	26 trans-1,2-Dichloroethylene	0.26935	0.28551	0.28551	0.050	6.00229	30.00000	Averaged	
	29 Vinyl acetate	0.60100	0.73912	0.73912	0.010	22.98050	40.00000	Averaged	
	30 1,1-Dichloroethane	0.57897	0.60129	0.60129	0.100	3.85597	30.00000	Averaged	spcc
	35 2-Butanone	0.31398	0.28165	0.28165	0.030	-10.29650	40.00000	Averaged	
	36 cis-1,2-Dichloroethylene	0.29009	0.29955	0.29955	0.050	3.26249	30.00000	Averaged	
	33 2,2-Dichloropropane	0.36832	0.40745	0.40745	0.050	10.62596	30.00000	Averaged	
	41 Chloroform	0.57778	0.60477	0.60477	0.010	4.67163	20.00000	Averaged	ccc
	39 Bromochloromethane	0.13153	0.13791	0.13791	0.010	4.85169	30.00000	Averaged	
	43 1,1,1-Trichloroethane	0.42958	0.46035	0.46035	0.010	7.16254	30.00000	Averaged	
	42 Cyclohexane	0.55132	0.59714	0.59714	0.010	8.31206	30.00000	Averaged	
	45 1,1-Dichloropropene	0.41669	0.45350	0.45350	0.010	8.83380	30.00000	Averaged	
	53 n-Butyl alcohol	0.01014	0.01140	0.01140	0.001	12.38769	40.00000	Averaged	
	44 Carbon tetrachloride	0.41092	0.45961	0.45961	0.010	11.84942	30.00000	Averaged	
$	48 1,2-Dichloroethane-d4	0.48820	0.54295	0.54295	0.010	11.21406	30.00000	Averaged	
	51 1,2-Dichloroethane	0.51593	0.55085	0.55085	0.010	6.76938	30.00000	Averaged	
	47 Benzene	1.14445	1.16427	1.16427	0.010	1.73166	30.00000	Averaged	
	50 Cyclohexene	0.42588	0.45113	0.45113	0.010	5.92886	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 05-MAR-2010 10:31
Lab File ID: 1a502.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100305-01 Quant Type: ISTD
Method: /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DR1FT	MAX %D / %DR1FT	CURVE TYPE	
	54 Trichloroethylene	0.29541	0.30343	0.30343	0.010	2.71395	30.00000	Averaged	
	57 1,2-Dichloropropane	0.31486	0.32789	0.32789	0.010	4.13811	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.46690	0.50670	0.50670	0.010	8.52348	30.00000	Averaged	
	60 Bromodichloromethane	0.42946	0.47700	0.47700	0.010	11.07011	30.00000	Averaged	
	59 Dibromomethane	0.18749	0.19313	0.19313	0.010	3.00557	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	303	250	0.03059	0.000	21.20753	30.00000	Linear	
	64 4-Methyl-2-pentanone	0.19796	0.20254	0.20254	0.010	2.31048	40.00000	Averaged	
	63 cis-1,3-Dichloropropylene	0.49909	0.55038	0.55038	0.010	10.27752	30.00000	Averaged	
$	65 Toluene-d8	1.68167	1.69864	1.69864	0.010	1.00920	30.00000	Averaged	
	66 Toluene	0.96439	0.98216	0.98216	0.010	1.84342	20.00000	Averaged	ccc
	68 trans-1,3-Dichloropropylene	0.67167	0.74386	0.74386	0.010	10.74782	30.00000	Averaged	
	69 1,1,2-Trichloroethane	0.29796	0.30083	0.30083	0.010	0.96395	30.00000	Averaged	
	71 2-Hexanone	0.55226	0.51037	0.51037	0.010	-7.58551	40.00000	Averaged	
	72 1,3-Dichloropropane	0.64273	0.65261	0.65261	0.010	1.53845	30.00000	Averaged	
	70 Tetrachloroethylene	0.30803	0.31428	0.31428	0.010	2.02844	30.00000	Averaged	
	73 Dibromochloromethane	0.39459	0.42408	0.42408	0.010	7.47363	30.00000	Averaged	
	74 1,2-Dibromoethane	0.35160	0.36245	0.36245	0.010	3.08438	30.00000	Averaged	
	77 Chlorobenzene	1.01868	1.05248	1.05248	0.300	3.31789	30.00000	Averaged	spcc
	79 1,1,1,2-Tetrachloroethane	0.36870	0.39424	0.39424	0.010	6.92719	30.00000	Averaged	
	78 Ethylbenzene	1.92669	1.99643	1.99643	0.010	3.61924	20.00000	Averaged	ccc
	80 m,p-Xylenes	0.68306	0.70413	0.70413	0.010	3.08515	30.00000	Averaged	
	81 o-Xylene	0.67051	0.69984	0.69984	0.010	4.37431	30.00000	Averaged	
	82 Styrene	1.11978	1.22440	1.22440	0.010	9.34244	30.00000	Averaged	
	83 Bromoform	0.46660	0.52379	0.52379	0.100	12.25768	30.00000	Averaged	spcc
	84 Isopropylbenzene	3.39914	3.56476	3.56476	0.010	4.87255	30.00000	Averaged	
	88 1,1,2,2-Tetrachloroethane	0.84565	0.87401	0.87401	0.300	3.35316	30.00000	Averaged	spcc
$	87 Bromofluorobenzene	1.25356	1.28252	1.28252	0.010	2.31038	30.00000	Averaged	
	92 1,2,3-Trichloropropane	0.24143	0.24442	0.24442	0.010	1.23888	30.00000	Averaged	
	91 Bromobenzene	0.81535	0.83587	0.83587	0.010	2.51718	30.00000	Averaged	
	89 n-Propylbenzene	4.15838	4.37662	4.37662	0.010	5.24800	30.00000	Averaged	
	94 2-Chlorotoluene	3.00922	3.13432	3.13432	0.010	4.15715	30.00000	Averaged	
	93 1,3,5-Trimethylbenzene	2.96733	3.15153	3.15153	0.010	6.20738	30.00000	Averaged	
	95 4-Chlorotoluene	2.72697	2.87524	2.87524	0.010	5.43717	30.00000	Averaged	
	96 tert-Butylbenzene	2.38074	2.48278	2.48278	0.010	4.28576	30.00000	Averaged	
	97 1,2,4-Trimethylbenzene	3.08424	3.23504	3.23504	0.010	4.88953	30.00000	Averaged	
	99 sec-Butylbenzene	3.77742	3.96034	3.96034	0.010	4.84263	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 05-MAR-2010 10:31
Lab File ID: 1a502.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100305-01 Quant Type: ISTD
Method: /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
100 4-Isopropyltoluene	2.94220	3.12737	3.12737	0.010	6.29344	30.00000	Averaged
101 1,3-Dichlorobenzene	1.58600	1.61043	1.61043	0.010	1.54014	30.00000	Averaged
103 1,4-Dichlorobenzene	1.59809	1.62423	1.62423	0.010	1.63593	30.00000	Averaged
105 n-Butylbenzene	3.17694	3.41120	3.41120	0.010	7.37353	30.00000	Averaged
106 1,2-Dichlorobenzene	1.51488	1.54066	1.54066	0.010	1.70191	30.00000	Averaged
108 1,2-Dibromo-3-chloropropane	0.16661	0.18123	0.18123	0.010	8.77975	30.00000	Averaged
109 1,2,4-Trichlorobenzene	1.17236	1.22250	1.22250	0.010	4.27675	30.00000	Averaged
110 Hexachlorobutadiene	0.71666	0.74291	0.74291	0.010	3.66327	30.00000	Averaged
111 Naphthalene	2.63897	2.62914	2.62914	0.010	-0.37230	30.00000	Averaged
112 1,2,3-Trichlorobenzene	1.06740	1.10036	1.10036	0.010	3.08807	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 5.83118
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/030410v1/1a502.d
Lab Smp Id: W1VM100305-01 Client Smp ID: VSTD050
Inj Date : 05-MAR-2010 10:31
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |W1VM100305-01|ICV/CCV/LCS|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM100220-01D/IVM100304-01
Comment :
Method : /chem/VOA1.i/030410v1/VOA1-8260ox-030410.m
Meth Date : 05-Mar-2010 11:12 dav01267 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				1696711	150.000	155
M 2 1,2-Dichloroethylene (total)	96				628940	100.000	105
M 3 1,3-Dichloropropylene	75				1190353	100.000	110
5 Dichlorodifluoromethane	85	4.976	4.976	(0.364)	302577	50.0000	55.9
6 Chloromethane	50	5.528	5.528	(0.404)	474188	50.0000	50.5
7 Vinyl chloride	62	5.901	5.901	(0.432)	376890	50.0000	51.8
9 Bromomethane	96	6.929	6.929	(0.507)	225958	50.0000	52.4
10 Chloroethane	64	7.201	7.201	(0.527)	243865	50.0000	52.1
11 Trichlorofluoromethane	101	7.813	7.813	(0.572)	509427	50.0000	55.7
12 Ethyl Ether	59	8.457	8.457	(0.619)	318658	50.0000	53.0
16 Acetone	43	9.240	9.240	(0.676)	1441449	250.000	226
22 Acetonitrile	41	9.962	9.962	(0.729)	1138311	1250.00	1220
15 1,1-Dichloroethylene	61	9.065	9.065	(0.663)	633902	50.0000	53.5
21 Methyl acetate	43	9.820	9.820	(0.718)	1381847	250.000	246
18 Iodomethane	142	9.451	9.451	(0.692)	2220549	250.000	253
23 Methylene chloride	84	10.123	10.123	(0.741)	339679	50.0000	52.6

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	19 Carbon disulfide	76	9.553	9.553	(0.699)	4981747	250.000	277
	25 tert-Butyl methyl ether	73	10.423	10.423	(0.763)	1026015	50.0000	51.4
	26 trans-1,2-Dichloroethylene	96	10.533	10.533	(0.771)	306926	50.0000	53.0
	29 Vinyl acetate	43	11.279	11.279	(0.825)	3972726	250.000	307
	30 1,1-Dichloroethane	63	11.306	11.306	(0.827)	646385	50.0000	51.9
	35 2-Butanone	43	12.172	12.172	(0.891)	1513863	250.000	224
	36 cis-1,2-Dichloroethylene	96	12.190	12.190	(0.892)	322014	50.0000	51.6
	33 2,2-Dichloropropane	77	12.149	12.149	(0.889)	438011	50.0000	55.3
	41 Chloroform	83	12.600	12.600	(0.922)	650126	50.0000	52.3
	39 Bromochloromethane	128	12.545	12.545	(0.918)	148250	50.0000	52.4
	43 1,1,1-Trichloroethane	97	12.835	12.835	(0.939)	494870	50.0000	53.6
	42 Cyclohexane	56	12.825	12.825	(0.938)	641925	50.0000	54.2
	45 1,1-Dichloropropene	75	13.037	13.037	(0.954)	487506	50.0000	54.4
	53 n-Butyl alcohol	56	13.916	13.916	(1.018)	1225614	5000.00	5620
	44 Carbon tetrachloride	117	13.010	13.010	(0.952)	494082	50.0000	55.9
$	48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	583670	50.0000	55.6
	51 1,2-Dichloroethane	62	13.428	13.428	(0.982)	592164	50.0000	53.4
	47 Benzene	78	13.318	13.318	(0.974)	1251578	50.0000	50.9
	50 Cyclohexene	54	13.382	13.382	(0.979)	484963	50.0000	53.0
*	52 Fluorobenzene	96	13.668	13.668	(1.000)	1074993	50.0000	
	54 Trichloroethylene	95	14.105	14.105	(1.032)	326181	50.0000	51.4
	57 1,2-Dichloropropane	63	14.446	14.446	(1.057)	352482	50.0000	52.1
	55 Methylcyclohexane	83	14.266	14.266	(1.044)	544700	50.0000	54.3
	60 Bromodichloromethane	83	14.740	14.740	(1.078)	512774	50.0000	55.5
	59 Dibromomethane	93	14.611	14.611	(1.069)	207611	50.0000	51.5
	61 2-Chloroethylvinyl ether	63	15.017	15.017	(1.099)	164440	250.000	303
	64 4-Methyl-2-pentanone	58	15.343	15.343	(0.895)	815059	250.000	256
	63 cis-1,3-Dichloropropylene	75	15.242	15.242	(1.115)	591657	50.0000	55.1
$	65 Toluene-d8	98	15.504	15.504	(0.904)	1367158	50.0000	50.5
	66 Toluene	92	15.583	15.583	(0.909)	790500	50.0000	50.9
	68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	598696	50.0000	55.4
	69 1,1,2-Trichloroethane	83	16.094	16.094	(0.939)	242124	50.0000	50.5
	71 2-Hexanone	43	16.255	16.255	(0.948)	2053864	250.000	231
	72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	525260	50.0000	50.8
	70 Tetrachloroethylene	164	16.176	16.176	(0.943)	252952	50.0000	51.0
	73 Dibromochloromethane	129	16.535	16.535	(0.964)	341319	50.0000	53.7
	74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	291718	50.0000	51.5
*	76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	804855	50.0000	
	77 Chlorobenzene	112	17.180	17.180	(1.002)	847090	50.0000	51.6
	79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	317308	50.0000	53.5
	78 Ethylbenzene	91	17.208	17.208	(1.003)	1606834	50.0000	51.8
	80 m,p-Xylenes	106	17.323	17.323	(1.010)	1133444	100.000	103
	81 o-Xylene	106	17.769	17.769	(1.036)	563267	50.0000	52.2
	82 Styrene	104	17.792	17.792	(1.038)	985464	50.0000	54.7
	83 Bromoform	173	18.096	18.096	(0.923)	232402	50.0000	56.1
	84 Isopropylbenzene	105	18.114	18.114	(0.924)	1581663	50.0000	52.4
	88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	387792	50.0000	51.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	569048	50.0000	51.2
92 1,2,3-Trichloropropane	110	18.593	18.593	(0.949)	108449	50.0000	50.6
91 Bromobenzene	156	18.579	18.579	(0.948)	370872	50.0000	51.2
89 n-Propylbenzene	91	18.547	18.547	(0.946)	1941878	50.0000	52.6
94 2-Chlorotoluene	91	18.731	18.731	(0.956)	1390679	50.0000	52.1
93 1,3,5-Trimethylbenzene	105	18.704	18.704	(0.954)	1398313	50.0000	53.1
95 4-Chlorotoluene	91	18.842	18.842	(0.961)	1275725	50.0000	52.7
96 tert-Butylbenzene	119	19.063	19.063	(0.973)	1101593	50.0000	52.1
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	1435370	50.0000	52.4
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1757181	50.0000	52.4
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	1387594	50.0000	53.1
101 1,3-Dichlorobenzene	146	19.532	19.532	(0.996)	714537	50.0000	50.8
* 102 1,4-Dichlorobenzene-d4	152	19.601	19.601	(1.000)	443694	50.0000	
103 1,4-Dichlorobenzene	146	19.624	19.624	(1.001)	720661	50.0000	50.8
105 n-Butylbenzene	91	19.854	19.854	(1.013)	1513528	50.0000	53.7
106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	683582	50.0000	50.8
108 1,2-Dibromo-3-chloropropane	157	20.987	20.987	(1.071)	80412	50.0000	54.4
109 1,2,4-Trichlorobenzene	180	22.009	22.009	(1.123)	542417	50.0000	52.1
110 Hexachlorobutadiene	225	22.091	22.091	(1.127)	329624	50.0000	51.8
111 Naphthalene	128	22.418	22.418	(1.144)	1166534	50.0000	49.8
112 1,2,3-Trichlorobenzene	180	22.773	22.773	(1.162)	488224	50.0000	51.5

Data File: /chem/VOA1.i/030410v1/1a502.d
Date : 05-MAR-2010 10:31
Client ID: VSTD050
Sample Info: IW1VM100305-01|ICV/CCV/LCS|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

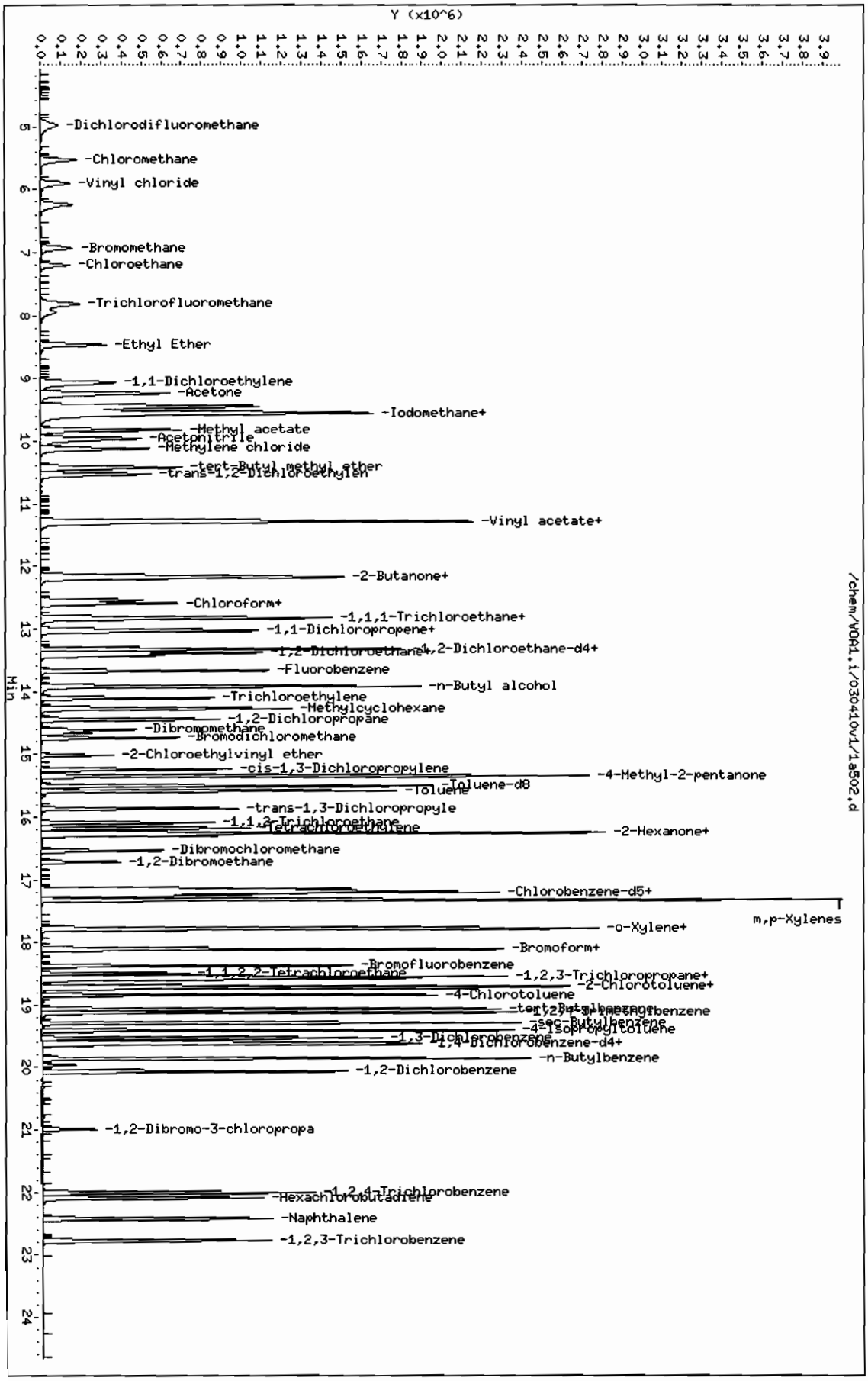

Data File: /chem/VOA1.i/031610v1/1c202.d
Report Date: 17-Mar-2010 05:29

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1c202.d
Analysis Type: WATER
Lab Sample ID: W1VM100316-01
Method: /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m

Injection Date: 16-MAR-2010 11:00
Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Init. Cal. Times: 17:28 02:12
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	0.67887	0.69938	0.69938	0.050	3.02105	30.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.27972	0.28483	0.28483	0.050	1.82915	30.00000	Averaged	
M	3 1,3-Dichloropropylene	0.67789	0.75281	0.75281	0.050	11.05262	30.00000	Averaged	
	5 Dichlorodifluoromethane	0.25158	0.29961	0.29961	0.050	19.09313	30.00000	Averaged	
	6 Chloromethane	0.43647	0.36599	0.36599	0.100	-16.14919	30.00000	Averaged	spcc
	7 Vinyl chloride	0.33868	0.33663	0.33663	0.050	-0.60541	20.00000	Averaged	ccc
	9 Bromomethane	0.20035	0.19604	0.19604	0.050	-2.15399	30.00000	Averaged	
	10 Chloroethane	0.21782	0.20427	0.20427	0.050	-6.21869	30.00000	Averaged	
	11 Trichlorofluoromethane	0.42547	0.56053	0.56053	0.050	31.74500	30.00000	Averaged	<-
	12 Ethyl Ether	0.27990	0.26499	0.26499	0.010	-5.32988	30.00000	Averaged	
	16 Acetone	0.29620	0.27084	0.27084	0.000	-8.56002	40.00000	Averaged	
	22 Acetonitrile	0.04350	0.03602	0.03602	0.010	-17.19845	30.00000	Averaged	
	15 1,1-Dichloroethylene	0.55098	0.60076	0.60076	0.050	9.03401	20.00000	Averaged	ccc
	21 Methyl acetate	0.26149	0.22280	0.22280	0.010	-14.79717	40.00000	Averaged	
	18 Iodomethane	0.40759	0.40577	0.40577	0.050	-0.44745	30.00000	Averaged	
	23 Methylene chloride	50.05522	50.00000	0.30086	0.000	0.11044	30.00000	Linear	
	19 Carbon disulfide	0.83577	0.87316	0.87316	0.050	4.47438	30.00000	Averaged	
	25 tert-Butyl methyl ether	0.92853	0.98754	0.98754	0.050	6.35469	30.00000	Averaged	
	26 trans-1,2-Dichloroethylene	0.26935	0.27429	0.27429	0.050	1.83610	30.00000	Averaged	
	29 Vinyl acetate	0.60100	0.70027	0.70027	0.010	16.51687	40.00000	Averaged	
	30 1,1-Dichloroethane	0.57897	0.60737	0.60737	0.100	4.90516	30.00000	Averaged	spcc
	35 2-Butanone	0.31398	0.26603	0.26603	0.030	-15.27050	40.00000	Averaged	
	36 cis-1,2-Dichloroethylene	0.29009	0.29537	0.29537	0.050	1.82269	30.00000	Averaged	
	33 2,2-Dichloropropane	0.36832	0.47677	0.47677	0.050	29.44622	30.00000	Averaged	
	41 Chloroform	0.57778	0.65918	0.65918	0.010	14.08758	20.00000	Averaged	ccc
	39 Bromochloromethane	0.13153	0.13093	0.13093	0.010	-0.45308	30.00000	Averaged	
	43 1,1,1-Trichloroethane	0.42958	0.54891	0.54891	0.010	27.77855	30.00000	Averaged	
	42 Cyclohexane	0.55132	0.56298	0.56298	0.010	2.11580	30.00000	Averaged	
	45 1,1-Dichloropropene	0.41669	0.47277	0.47277	0.010	13.45972	30.00000	Averaged	
	53 n-Butyl alcohol	0.01014	0.01053	0.01053	0.001	3.81733	40.00000	Averaged	
	44 Carbon tetrachloride	0.41092	0.55372	0.55372	0.010	34.75076	30.00000	Averaged	<-
$	48 1,2-Dichloroethane-d4	0.48820	0.62057	0.62057	0.010	27.11283	30.00000	Averaged	
	51 1,2-Dichloroethane	0.51593	0.60109	0.60109	0.010	16.50561	30.00000	Averaged	
	47 Benzene	1.14445	1.11615	1.11615	0.010	-2.47270	30.00000	Averaged	
	50 Cyclohexene	0.42588	0.43948	0.43948	0.010	3.19191	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 16-MAR-2010 11:00
Lab File ID: 1c202.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100316-01 Quant Type: ISTD
Method: /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	54 Trichloroethylene	0.29541	0.31782	0.31782	0.010	7.58593	30.00000	Averaged	
	57 1,2-Dichloropropane	0.31486	0.30537	0.30537	0.010	-3.01642	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.46690	0.49856	0.49856	0.010	6.77895	30.00000	Averaged	
	60 Bromodichloromethane	0.42946	0.52528	0.52528	0.010	22.31174	30.00000	Averaged	
	59 Dibromomethane	0.18749	0.20116	0.20116	0.010	7.28814	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	363	250	0.03677	0.000	45.33329	30.00000	Linear	<-
	64 4-Methyl-2-pentanone	0.19796	0.18055	0.18055	0.010	-8.79356	40.00000	Averaged	
	63 cis-1,3-Dichloropropylene	0.49909	0.55762	0.55762	0.010	11.72825	30.00000	Averaged	
$	65 Toluene-d8	1.68167	1.72929	1.72929	0.010	2.83169	30.00000	Averaged	
	66 Toluene	0.96439	0.95337	0.95337	0.010	-1.14189	20.00000	Averaged	ccc
	68 trans-1,3-Dichloropropylene	0.67167	0.77306	0.77306	0.010	15.09515	30.00000	Averaged	
	69 1,1,2-Trichloroethane	0.29796	0.28308	0.28308	0.010	-4.99461	30.00000	Averaged	
	71 2-Hexanone	0.55226	0.48053	0.48053	0.010	-12.98822	40.00000	Averaged	
	72 1,3-Dichloropropane	0.64273	0.62626	0.62626	0.010	-2.56132	30.00000	Averaged	
	70 Tetrachloroethylene	0.30803	0.31649	0.31649	0.010	2.74413	30.00000	Averaged	
	73 Dibromochloromethane	0.39459	0.44471	0.44471	0.010	12.70333	30.00000	Averaged	
	74 1,2-Dibromoethane	0.35160	0.34800	0.34800	0.010	-1.02513	30.00000	Averaged	
	77 Chlorobenzene	1.01868	1.02697	1.02697	0.300	0.81425	30.00000	Averaged	spcc
	79 1,1,1,2-Tetrachloroethane	0.36870	0.41244	0.41244	0.010	11.86172	30.00000	Averaged	
	78 Ethylbenzene	1.92669	2.05031	2.05031	0.010	6.41577	20.00000	Averaged	ccc
	80 m,p-Xylenes	0.68306	0.70598	0.70598	0.010	3.35582	30.00000	Averaged	
	81 o-Xylene	0.67051	0.68619	0.68619	0.010	2.33900	30.00000	Averaged	
	82 Styrene	1.11978	1.19828	1.19828	0.010	7.01005	30.00000	Averaged	
	83 Bromoform	0.46660	0.55005	0.55005	0.100	17.88580	30.00000	Averaged	spcc
	84 Isopropylbenzene	3.39914	3.65252	3.65252	0.010	7.45438	30.00000	Averaged	
	88 1,1,2,2-Tetrachloroethane	0.84565	0.80328	0.80328	0.300	-5.01043	30.00000	Averaged	spcc
$	87 Bromofluorobenzene	1.25356	1.31682	1.31682	0.010	5.04661	30.00000	Averaged	
	92 1,2,3-Trichloropropane	0.24143	0.24963	0.24963	0.010	3.39567	30.00000	Averaged	
	91 Bromobenzene	0.81535	0.80574	0.80574	0.010	-1.17842	30.00000	Averaged	
	89 n-Propylbenzene	4.15838	4.43517	4.43517	0.010	6.65609	30.00000	Averaged	
	94 2-Chlorotoluene	3.00922	3.24082	3.24082	0.010	7.69627	30.00000	Averaged	
	93 1,3,5-Trimethylbenzene	2.96733	3.28043	3.28043	0.010	10.55148	30.00000	Averaged	
	95 4-Chlorotoluene	2.72697	2.93354	2.93354	0.010	7.57520	30.00000	Averaged	
	96 tert-Butylbenzene	2.38074	2.56617	2.56617	0.010	7.78877	30.00000	Averaged	
	97 1,2,4-Trimethylbenzene	3.08424	3.33233	3.33233	0.010	8.04388	30.00000	Averaged	
	99 sec-Butylbenzene	3.77742	4.02555	4.02555	0.010	6.56891	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1c202.d
Analysis Type: WATER
Lab Sample ID: W1VM100316-01
Method: /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m

Injection Date: 16-MAR-2010 11:00
Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Init. Cal. Times: 17:28 02:12
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
100 4-Isopropyltoluene	2.94220	3.17983	3.17983	0.010	8.07644	30.00000	Averaged
101 1,3-Dichlorobenzene	1.58600	1.55871	1.55871	0.010	-1.72089	30.00000	Averaged
103 1,4-Dichlorobenzene	1.59809	1.57143	1.57143	0.010	-1.66828	30.00000	Averaged
105 n-Butylbenzene	3.17694	3.44080	3.44080	0.010	8.30546	30.00000	Averaged
106 1,2-Dichlorobenzene	1.51488	1.46043	1.46043	0.010	-3.59450	30.00000	Averaged
108 1,2-Dibromo-3-chloropropane	0.16661	0.17173	0.17173	0.010	3.07486	30.00000	Averaged
109 1,2,4-Trichlorobenzene	1.17236	1.19138	1.19138	0.010	1.62182	30.00000	Averaged
110 Hexachlorobutadiene	0.71666	0.81299	0.81299	0.010	13.44216	30.00000	Averaged
111 Naphthalene	2.63897	2.33422	2.33422	0.010	-11.54782	30.00000	Averaged
112 1,2,3-Trichlorobenzene	1.06740	1.07786	1.07786	0.010	0.98013	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 8.92989
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c202.d
Lab Smp Id: W1VM100316-01 Client Smp ID: VSTD050
Inj Date : 16-MAR-2010 11:00
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |W1VM100316-01|BFB/CCV/LCS|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM1000305-01B/IVM100316-01
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				1407644	150.000	154
M 2 1,2-Dichloroethylene (total)	96				502098	100.000	102
M 3 1,3-Dichloropropylene	75				1010125	100.000	113
5 Dichlorodifluoromethane	85	4.983	4.983	(0.364)	264077	50.0000	59.5
6 Chloromethane	50	5.542	5.542	(0.405)	322576	50.0000	41.9
7 Vinyl chloride	62	5.901	5.901	(0.432)	296699	50.0000	49.7
9 Bromomethane	96	6.933	6.933	(0.507)	172786	50.0000	48.9
10 Chloroethane	64	7.200	7.200	(0.527)	180045	50.0000	46.9
11 Trichlorofluoromethane	101	7.813	7.813	(0.571)	494047	50.0000	65.9
12 Ethyl Ether	59	8.466	8.466	(0.619)	233556	50.0000	47.3
16 Acetone	43	9.239	9.239	(0.676)	1193600	250.000	228
22 Acetonitrile	41	9.967	9.967	(0.729)	793640	1250.00	1040
15 1,1-Dichloroethylene	61	9.060	9.060	(0.663)	529502	50.0000	54.5
21 Methyl acetate	43	9.824	9.824	(0.719)	981850	250.000	213
18 Iodomethane	142	9.451	9.451	(0.691)	1788213	250.000	249

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	23 Methylene chloride	84	10.123	10.123	(0.740)	265173	50.0000	50.0
	19 Carbon disulfide	76	9.557	9.557	(0.699)	3847979	250.000	261
	25 tert-Butyl methyl ether	73	10.427	10.427	(0.763)	870404	50.0000	53.2
	26 trans-1,2-Dichloroethylene	96	10.533	10.533	(0.770)	241759	50.0000	50.9
	29 Vinyl acetate	43	11.279	11.279	(0.825)	3086055	250.000	291
	30 1,1-Dichloroethane	63	11.306	11.306	(0.827)	535327	50.0000	52.4
	35 2-Butanone	43	12.172	12.172	(0.890)	1172396	250.000	212
	36 cis-1,2-Dichloroethylene	96	12.185	12.185	(0.891)	260339	50.0000	50.9
	33 2,2-Dichloropropane	77	12.149	12.149	(0.889)	420223	50.0000	64.7
	41 Chloroform	83	12.600	12.600	(0.922)	580991	50.0000	57.0
	39 Bromochloromethane	128	12.544	12.544	(0.918)	115401	50.0000	49.8
	43 1,1,1-Trichloroethane	97	12.834	12.834	(0.939)	483803	50.0000	63.9
	42 Cyclohexane	56	12.825	12.825	(0.938)	496207	50.0000	51.0
	45 1,1-Dichloropropene	75	13.037	13.037	(0.954)	416697	50.0000	56.7
	53 n-Butyl alcohol	56	13.921	13.921	(1.018)	928255	5000.00	5190
	44 Carbon tetrachloride	117	13.014	13.014	(0.952)	488044	50.0000	67.4
$	48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	546965	50.0000	63.6
	51 1,2-Dichloroethane	62	13.428	13.428	(0.982)	529791	50.0000	58.2
	47 Benzene	78	13.318	13.318	(0.974)	983763	50.0000	48.8
	50 Cyclohexene	54	13.382	13.382	(0.979)	387349	50.0000	51.6
*	52 Fluorobenzene	96	13.672	13.672	(1.000)	881390	50.0000	
	54 Trichloroethylene	95	14.105	14.105	(1.032)	280122	50.0000	53.8
	57 1,2-Dichloropropane	63	14.450	14.450	(1.057)	269146	50.0000	48.5
	55 Methylcyclohexane	83	14.266	14.266	(1.043)	439422	50.0000	53.4
	60 Bromodichloromethane	83	14.740	14.740	(1.078)	462977	50.0000	61.2
	59 Dibromomethane	93	14.611	14.611	(1.069)	177298	50.0000	53.6
	61 2-Chloroethylvinyl ether	63	15.021	15.021	(1.099)	162038	250.000	363
	64 4-Methyl-2-pentanone	58	15.343	15.343	(0.895)	605667	250.000	228
	63 cis-1,3-Dichloropropylene	75	15.246	15.246	(1.115)	491483	50.0000	55.9
$	65 Toluene-d8	98	15.504	15.504	(0.904)	1160177	50.0000	51.4
	66 Toluene	92	15.582	15.582	(0.909)	639618	50.0000	49.4
	68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	518642	50.0000	57.5
	69 1,1,2-Trichloroethane	83	16.093	16.093	(0.939)	189915	50.0000	47.5
	71 2-Hexanone	43	16.255	16.255	(0.948)	1611941	250.000	218
	72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	420160	50.0000	48.7
	70 Tetrachloroethylene	164	16.181	16.181	(0.944)	212331	50.0000	51.4
	73 Dibromochloromethane	129	16.540	16.540	(0.965)	298356	50.0000	56.4
	74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	233472	50.0000	49.5
*	76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	670899	50.0000	
	77 Chlorobenzene	112	17.180	17.180	(1.002)	688994	50.0000	50.4
	79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	276703	50.0000	55.9
	78 Ethylbenzene	91	17.207	17.207	(1.003)	1375549	50.0000	53.2
	80 m,p-Xylenes	106	17.322	17.322	(1.010)	947280	100.000	103
	81 o-Xylene	106	17.769	17.769	(1.036)	460364	50.0000	51.2
	82 Styrene	104	17.792	17.792	(1.038)	803926	50.0000	53.5
	83 Bromoform	173	18.091	18.091	(0.923)	206345	50.0000	58.9
	84 Isopropylbenzene	105	18.114	18.114	(0.924)	1370203	50.0000	53.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	301342	50.0000	47.5
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	493992	50.0000	52.5
92 1,2,3-Trichloropropane	110	18.593	18.593	(0.949)	93646	50.0000	51.7
91 Bromobenzene	156	18.579	18.579	(0.948)	302265	50.0000	49.4
89 n-Propylbenzene	91	18.547	18.547	(0.946)	1663805	50.0000	53.3
94 2-Chlorotoluene	91	18.726	18.726	(0.956)	1215758	50.0000	53.8
93 1,3,5-Trimethylbenzene	105	18.703	18.703	(0.954)	1230617	50.0000	55.3
95 4-Chlorotoluene	91	18.841	18.841	(0.961)	1100485	50.0000	53.8
96 tert-Butylbenzene	119	19.062	19.062	(0.973)	962672	50.0000	53.9
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	1250088	50.0000	54.0
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1510142	50.0000	53.3
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	1192877	50.0000	54.0
101 1,3-Dichlorobenzene	146	19.532	19.532	(0.997)	584732	50.0000	49.1
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	375139	50.0000	
103 1,4-Dichlorobenzene	146	19.624	19.624	(1.001)	589503	50.0000	49.2
105 n-Butylbenzene	91	19.854	19.854	(1.013)	1290780	50.0000	54.2
106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	547863	50.0000	48.2
108 1,2-Dibromo-3-chloropropane	157	20.982	20.982	(1.071)	64422	50.0000	51.5
109 1,2,4-Trichlorobenzene	180	22.004	22.004	(1.123)	446932	50.0000	50.8
110 Hexachlorobutadiene	225	22.087	22.087	(1.127)	304984	50.0000	56.7
111 Naphthalene	128	22.418	22.418	(1.144)	875658	50.0000	44.2
112 1,2,3-Trichlorobenzene	180	22.772	22.772	(1.162)	404348	50.0000	50.5

Data File: /chem/VOA1.i/031610v1/1c202.d
Date : 16-MAR-2010 11:00
Client ID: VSTD050
Sample Info: IW1VH100316-01|BFB/CCV/LCS|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

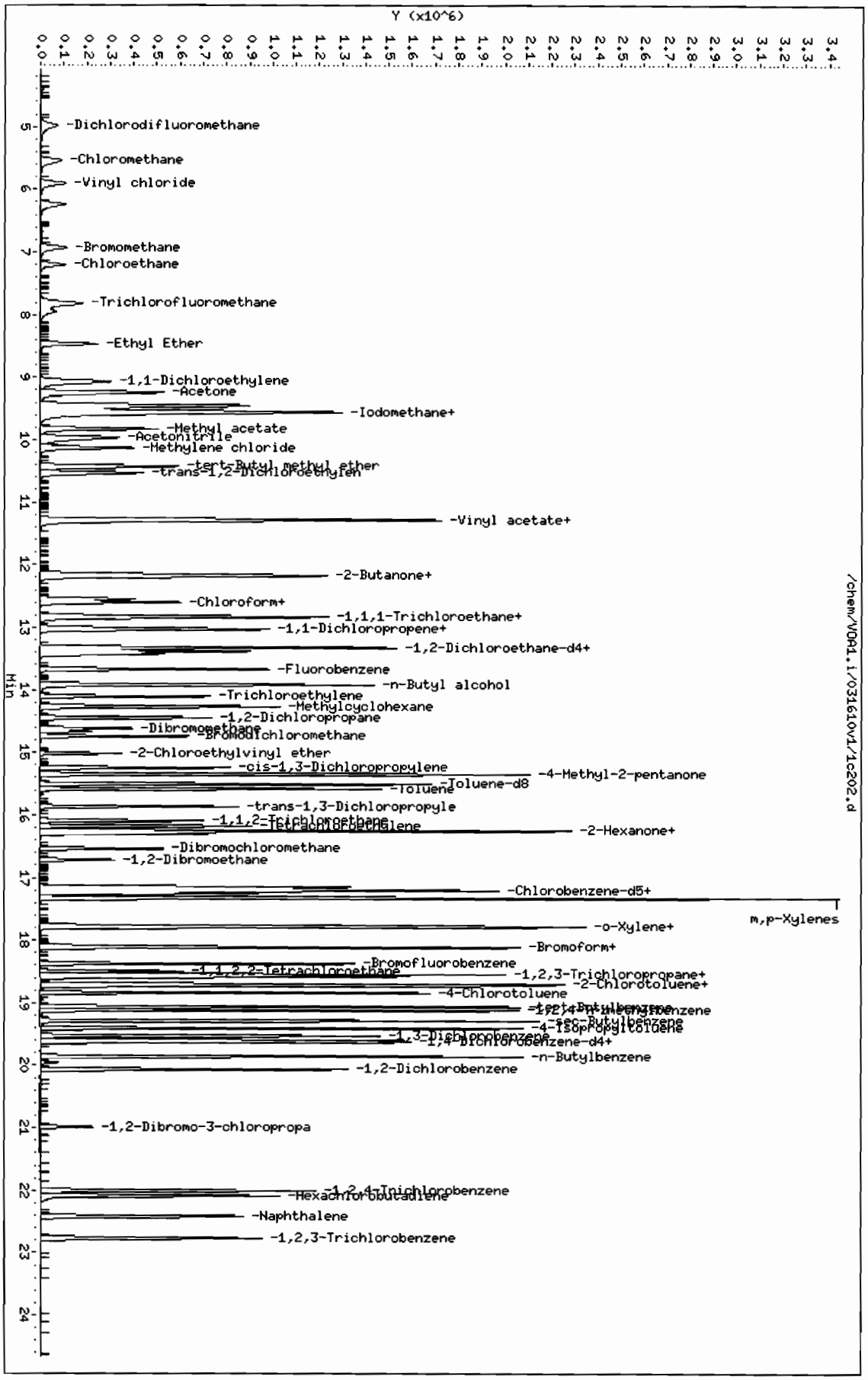

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 16-MAR-2010 12:01
Lab File ID: 1c204.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100316-03 Quant Type: ISTD
Method: /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Chlorotrifluoroethylene	134	150	0.09705	0.010	-10.71682	30.00000	Linear
8 2-Chloro-1,1,1-trifluoroeth	0.29326	0.32075	0.32075	0.010	9.37453	30.00000	Averaged
13 Acrolein	0.05720	0.05664	0.05664	0.001	-0.98353	30.00000	Averaged
14 Trichlorotrifluoroethane	0.23998	0.24508	0.24508	0.030	2.12863	30.00000	Averaged
17 Isopropyl Alcohol	0.02272	0.02553	0.02553	0.000	12.40727	40.00000	Averaged
20 Allyl chloride	257	250	0.11251	0.010	2.67816	30.00000	Linear
24 tert-Butyl Alcohol	0.03642	0.04577	0.04577	0.010	25.67089	40.00000	Averaged
27 Acrylonitrile	0.11119	0.10605	0.10605	0.010	-4.61953	30.00000	Averaged
28 Isopropyl ether	1.12852	1.10835	1.10835	0.010	-1.78724	30.00000	Averaged
31 2-Chloro-1,3-butadiene	0.45317	0.57348	0.57348	0.010	26.54788	30.00000	Averaged
32 Ethyl tert-butyl ether	0.92282	1.11025	1.11025	0.010	20.31098	30.00000	Averaged
37 Propionitrile	0.04574	0.04245	0.04245	0.010	-7.20087	30.00000	Averaged
34 Ethyl acetate	0.30964	0.27116	0.27116	0.010	-12.42954	40.00000	Averaged
40 Methacrylonitrile	0.24107	0.23437	0.23437	0.010	-2.77958	30.00000	Averaged
38 Tetrahydrofuran	0.25622	0.21648	0.21648	0.010	-15.50769	30.00000	Averaged
46 Isobutyl alcohol	0.01179	0.01163	0.01163	0.001	-1.34255	40.00000	Averaged
49 Methyl tert-amyl ether	0.70688	0.90347	0.90347	0.010	27.81064	30.00000	Averaged
56 Methyl methacrylate	0.18476	0.19395	0.19395	0.010	4.97408	30.00000	Averaged
67 Ethyl methacrylate	0.48324	0.51530	0.51530	0.010	6.63522	30.00000	Averaged
75 1-Chlorohexane	0.33035	0.38485	0.38485	0.000	16.49736	30.00000	Averaged
58 1,4-Dioxane	0.00273	0.00263	0.00263	0.001	-3.43097	40.00000	Averaged
62 2-Nitropropane	271	250	0.11793	0.000	8.53026	30.00000	Linear
85 cis-1,4-Dichloro-2-butene	0.30111	0.36984	0.36984	0.010	22.82845	30.00000	Averaged
86 Cyclohexanone	0.02440	0.01791	0.01791	0.010	-26.60323	40.00000	Averaged
90 trans-1,4-Dichloro-2-butene	0.28111	0.34734	0.34734	0.010	23.56124	30.00000	Averaged
98 Pentachloroethane	509	250	0.48849	0.010	104	30.00000	Linear <-
104 Benzyl chloride	1.28813	1.88019	1.88019	0.010	45.96304	30.00000	Averaged <-
107 bis(2-Chloroisopropyl)ether	0.44594	0.40196	0.40196	0.010	-9.86222	30.00000	Averaged
$ 48 1,2-Dichloroethane-d4	0.48820	0.53144	0.53144	0.010	8.85577	30.00000	Averaged
$ 65 Toluene-d8	1.68167	1.71077	1.71077	0.010	1.73059	30.00000	Averaged
$ 87 Bromofluorobenzene	1.25356	1.28153	1.28153	0.010	2.23151	30.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 16-MAR-2010 12:01
Lab File ID: 1c204.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100316-03 Quant Type: ISTD
Method: /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m

Average %D / Drift Results.	
Calculated Average %D/Drift =	15.14851
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c204.d
Lab Smp Id: W1VM100316-03 Client Smp ID: VSTD250S
Inj Date : 16-MAR-2010 12:01
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |W1VM100316-03|SHORT/SLCS|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM100304-08A
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 16-Mar-2010 13:03 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
4 Chlorotrifluoroethylene	116	4.875	4.875	(0.357)	280594	150.000	134
8 2-Chloro-1,1,1-trifluoroethane	118	6.280	6.280	(0.459)	927359	150.000	164
13 Acrolein	56	8.936	8.936	(0.654)	272939	250.000	248
14 Trichlorotrifluoroethane	101	8.963	8.963	(0.656)	1180988	250.000	255
17 Isopropyl Alcohol	45	9.442	9.442	(0.691)	1230392	2500.00	2810
20 Allyl chloride	76	9.838	9.838	(0.720)	542163	250.000	257
24 tert-Butyl Alcohol	59	10.183	10.183	(0.745)	2205641	2500.00	3140
27 Acrylonitrile	53	10.657	10.657	(0.779)	511044	250.000	238
28 Isopropyl ether	45	11.182	11.182	(0.818)	1068156	50.0000	49.1
31 2-Chloro-1,3-butadiene	53	11.380	11.380	(0.832)	552682	50.0000	63.3
32 Ethyl tert-butyl ether	59	11.743	11.743	(0.859)	1069994	50.0000	60.2
37 Propionitrile	54	12.393	12.393	(0.906)	204554	250.000	232
34 Ethyl acetate	43	12.153	12.153	(0.889)	1306618	250.000	219
40 Methacrylonitrile	41	12.549	12.549	(0.918)	1129349	250.000	243
38 Tetrahydrofuran	42	12.526	12.526	(0.639)	444023	250.000	211

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
46 Isobutyl alcohol	41	13.097	13.097	(0.958)	560364	2500.00	2470
49 Methyl tert-amyl ether	73	13.332	13.332	(0.975)	870707	50.0000	63.9
56 Methyl methacrylate	69	14.427	14.427	(1.055)	934583	250.000	262
67 Ethyl methacrylate	69	15.799	15.799	(0.921)	1865796	250.000	266
75 1-Chlorohexane	55	17.019	17.019	(1.245)	370893	50.0000	58.2
58 1,4-Dioxane	88	14.533	14.533	(1.063)	126935	2500.00	2410
62 2-Nitropropane	43	15.067	15.067	(1.102)	568265	250.000	271
85 cis-1,4-Dichloro-2-butene	53	18.261	18.261	(0.932)	758570	250.000	307
86 Cyclohexanone	55	18.372	18.372	(1.071)	324196	1250.00	917
90 trans-1,4-Dichloro-2-butene	53	18.556	18.556	(0.947)	712419	250.000	309
98 Pentachloroethane	167	19.187	19.187	(0.979)	1001921	250.000	509(A)
104 Benzyl chloride	91	19.762	19.762	(1.008)	3856385	250.000	365
107 bis(2-Chloroisopropyl)ether	45	20.149	20.149	(1.028)	824443	250.000	225
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	963738	50.0000	
* 76 Chlorobenzene-d5	117	17.147	17.147	(1.000)	724158	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	410212	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	512168	50.0000	54.4
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1238868	50.0000	50.9
$ 87 Bromofluorobenzene	95	18.376	18.376	(0.938)	525701	50.0000	51.1

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/031610v1/1c204.d
Date : 16-MAR-2010 12:01
Client ID: VSTD250S
Sample Info: IW1VM100316-031SHORT/SLCS11\VOAF11
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

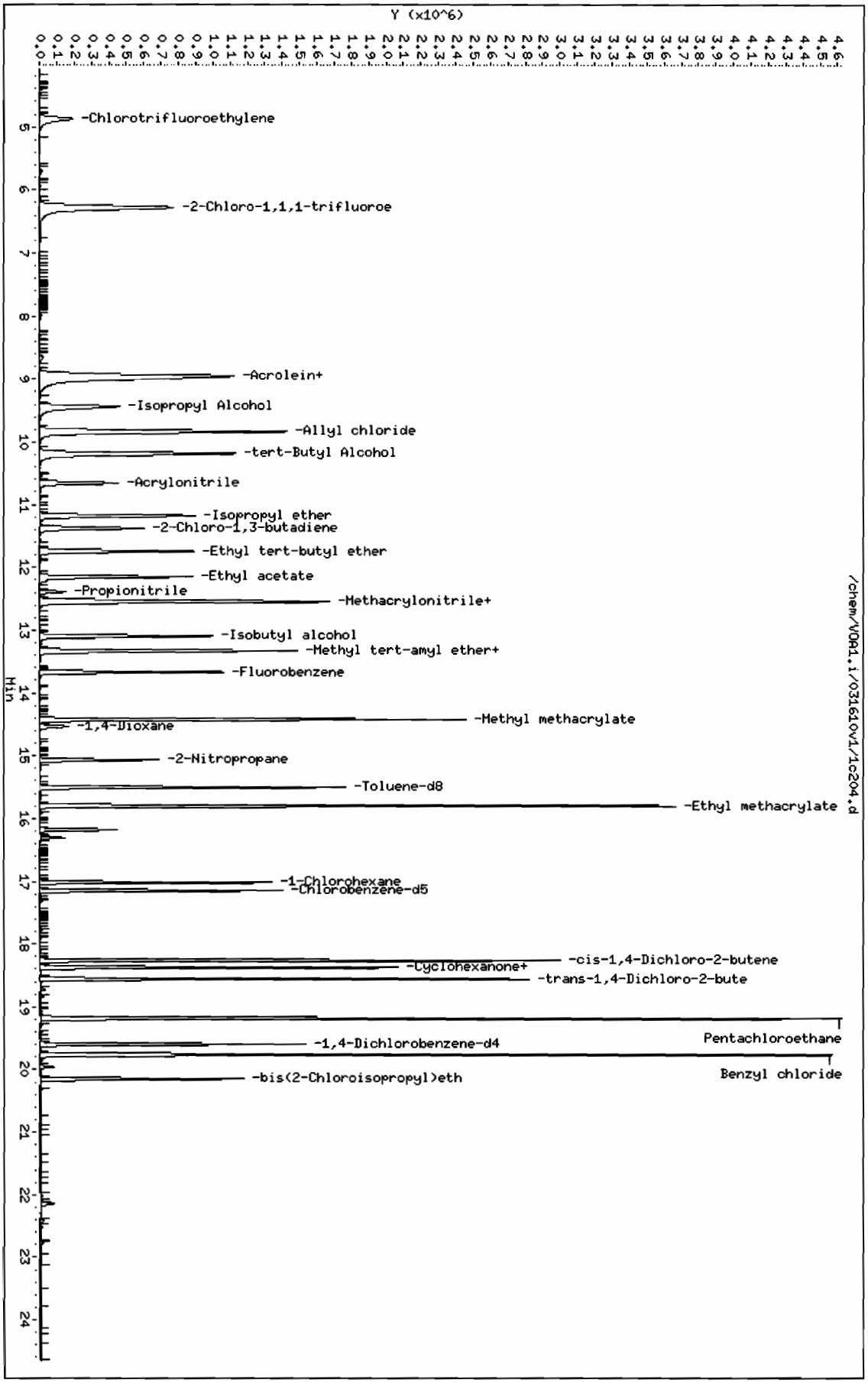

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-MAR-2010 10:43
Lab File ID: 1c302.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100317-01 Quant Type: ISTD
Method: /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	0.67887	0.67939	0.67939	0.050	0.07595	30.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.27972	0.28320	0.28320	0.050	1.24450	30.00000	Averaged	
M	3 1,3-Dichloropropylene	0.67789	0.67362	0.67362	0.050	-0.63005	30.00000	Averaged	
	5 Dichlorodifluoromethane	0.25158	0.24830	0.24830	0.050	-1.30445	30.00000	Averaged	
	6 Chloromethane	0.43647	0.33833	0.33833	0.100	-22.48594	30.00000	Averaged	spcc
	7 Vinyl chloride	0.33868	0.29402	0.29402	0.050	-13.18659	20.00000	Averaged	ccc
	9 Bromomethane	0.20035	0.18775	0.18775	0.050	-6.29280	30.00000	Averaged	
	10 Chloroethane	0.21782	0.20272	0.20272	0.050	-6.93402	30.00000	Averaged	
	11 Trichlorofluoromethane	0.42547	0.46670	0.46670	0.050	9.69025	30.00000	Averaged	
	12 Ethyl Ether	0.27990	0.24495	0.24495	0.010	-12.48941	30.00000	Averaged	
	16 Acetone	0.29620	0.15876	0.15876	0.000	-46.40125	40.00000	Averaged	<-
	22 Acetonitrile	0.04350	0.03265	0.03265	0.010	-24.94145	30.00000	Averaged	
	15 1,1-Dichloroethylene	0.55098	0.52695	0.52695	0.050	-4.36180	20.00000	Averaged	ccc
	21 Methyl acetate	0.26149	0.19546	0.19546	0.010	-25.25252	40.00000	Averaged	
	18 Iodomethane	0.40759	0.38703	0.38703	0.050	-5.04599	30.00000	Averaged	
	23 Methylene chloride	50.91434	50.00000	0.30593	0.000	1.82868	30.00000	Linear	
	19 Carbon disulfide	0.83577	0.88276	0.88276	0.050	5.62262	30.00000	Averaged	
	25 tert-Butyl methyl ether	0.92853	0.86581	0.86581	0.050	-6.75486	30.00000	Averaged	
	26 trans-1,2-Dichloroethylene	0.26935	0.27742	0.27742	0.050	2.99631	30.00000	Averaged	
	29 Vinyl acetate	0.60100	0.60459	0.60459	0.010	0.59737	40.00000	Averaged	
	30 1,1-Dichloroethane	0.57897	0.55268	0.55268	0.100	-4.53972	30.00000	Averaged	spcc
	35 2-Butanone	0.31398	0.17438	0.17438	0.030	-44.46255	40.00000	Averaged	<-
	36 cis-1,2-Dichloroethylene	0.29009	0.28898	0.28898	0.050	-0.38208	30.00000	Averaged	
	33 2,2-Dichloropropane	0.36832	0.39587	0.39587	0.050	7.47964	30.00000	Averaged	
	41 Chloroform	0.57778	0.56361	0.56361	0.010	-2.45269	20.00000	Averaged	ccc
	39 Bromochloromethane	0.13153	0.12801	0.12801	0.010	-2.67703	30.00000	Averaged	
	43 1,1,1-Trichloroethane	0.42958	0.44840	0.44840	0.010	4.38197	30.00000	Averaged	
	42 Cyclohexane	0.55132	0.53285	0.53285	0.010	-3.34925	30.00000	Averaged	
	45 1,1-Dichloropropene	0.41669	0.43580	0.43580	0.010	4.58624	30.00000	Averaged	
	53 n-Butyl alcohol	0.01014	0.00941	0.00941	0.001	-7.27168	40.00000	Averaged	
	44 Carbon tetrachloride	0.41092	0.44244	0.44244	0.010	7.66882	30.00000	Averaged	
$	48 1,2-Dichloroethane-d4	0.48820	0.48279	0.48279	0.010	-1.10851	30.00000	Averaged	
	51 1,2-Dichloroethane	0.51593	0.46053	0.46053	0.010	-10.73772	30.00000	Averaged	
	47 Benzene	1.14445	1.11574	1.11574	0.010	-2.50859	30.00000	Averaged	
	50 Cyclohexene	0.42588	0.39836	0.39836	0.010	-6.46205	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1c302.d
Analysis Type: WATER
Lab Sample ID: W1VM100317-01 Quant Type: ISTD
Method: /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m

Injection Date: 17-MAR-2010 10:43
Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Init. Cal. Times: 17:28 02:12

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	54 Trichloroethylene	0.29541	0.29654	0.29654	0.010	0.38357	30.00000	Averaged	
	57 1,2-Dichloropropane	0.31486	0.29050	0.29050	0.010	-7.73843	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.46690	0.49761	0.49761	0.010	6.57577	30.00000	Averaged	
	60 Bromodichloromethane	0.42946	0.43713	0.43713	0.010	1.78499	30.00000	Averaged	
	59 Dibromomethane	0.18749	0.17496	0.17496	0.010	-6.68466	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	360	250	0.03647	0.000	44.15415	30.00000	Linear	<-
	64 4-Methyl-2-pentanone	0.19796	0.15669	0.15669	0.010	-20.84727	40.00000	Averaged	
	63 cis-1,3-Dichloropropylene	0.49909	0.49898	0.49898	0.010	-0.02248	30.00000	Averaged	
$	65 Toluene-d8	1.68167	1.66031	1.66031	0.010	-1.26997	30.00000	Averaged	
	66 Toluene	0.96439	0.95889	0.95889	0.010	-0.56985	20.00000	Averaged	ccc
	68 trans-1,3-Dichloropropylene	0.67167	0.67311	0.67311	0.010	0.21509	30.00000	Averaged	
	69 1,1,2-Trichloroethane	0.29796	0.26784	0.26784	0.010	-10.10915	30.00000	Averaged	
	71 2-Hexanone	0.55226	0.32341	0.32341	0.010	-41.43915	40.00000	Averaged	<-
	72 1,3-Dichloropropane	0.64273	0.57902	0.57902	0.010	-9.91220	30.00000	Averaged	
	70 Tetrachloroethylene	0.30803	0.30064	0.30064	0.010	-2.40069	30.00000	Averaged	
	73 Dibromochloromethane	0.39459	0.39572	0.39572	0.010	0.28692	30.00000	Averaged	
	74 1,2-Dibromoethane	0.35160	0.32707	0.32707	0.010	-6.97624	30.00000	Averaged	
	77 Chlorobenzene	1.01868	0.99991	0.99991	0.300	-1.84259	30.00000	Averaged	spcc
	79 1,1,1,2-Tetrachloroethane	0.36870	0.36875	0.36875	0.010	0.01229	30.00000	Averaged	
	78 Ethylbenzene	1.92669	1.94213	1.94213	0.010	0.80088	20.00000	Averaged	ccc
	80 m,p-Xylenes	0.68306	0.68551	0.68551	0.010	0.35888	30.00000	Averaged	
	81 o-Xylene	0.67051	0.66715	0.66715	0.010	-0.50048	30.00000	Averaged	
	82 Styrene	1.11978	1.16690	1.16690	0.010	4.20739	30.00000	Averaged	
	83 Bromoform	0.46660	0.49073	0.49073	0.100	5.17219	30.00000	Averaged	spcc
	84 Isopropylbenzene	3.39914	3.52682	3.52682	0.010	3.75650	30.00000	Averaged	
	88 1,1,2,2-Tetrachloroethane	0.84565	0.79015	0.79015	0.300	-6.56294	30.00000	Averaged	spcc
$	87 Bromofluorobenzene	1.25356	1.25290	1.25290	0.010	-0.05281	30.00000	Averaged	
	92 1,2,3-Trichloropropane	0.24143	0.22238	0.22238	0.010	-7.89227	30.00000	Averaged	
	91 Bromobenzene	0.81535	0.77909	0.77909	0.010	-4.44655	30.00000	Averaged	
	89 n-Propylbenzene	4.15838	4.21973	4.21973	0.010	1.47518	30.00000	Averaged	
	94 2-Chlorotoluene	3.00922	3.01796	3.01796	0.010	0.29024	30.00000	Averaged	
	93 1,3,5-Trimethylbenzene	2.96733	3.09023	3.09023	0.010	4.14169	30.00000	Averaged	
	95 4-Chlorotoluene	2.72697	2.70693	2.70693	0.010	-0.73474	30.00000	Averaged	
	96 tert-Butylbenzene	2.38074	2.40022	2.40022	0.010	0.81813	30.00000	Averaged	
	97 1,2,4-Trimethylbenzene	3.08424	3.10174	3.10174	0.010	0.56749	30.00000	Averaged	
	99 sec-Butylbenzene	3.77742	3.86094	3.86094	0.010	2.21097	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-MAR-2010 10:43
Lab File ID: 1c302.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100317-01 Quant Type: ISTD
Method: /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
100 4-Isopropyltoluene	2.94220	3.02333	3.02333	0.010	2.75755	30.00000	Averaged
101 1,3-Dichlorobenzene	1.58600	1.48376	1.48376	0.010	-6.44665	30.00000	Averaged
103 1,4-Dichlorobenzene	1.59809	1.50664	1.50664	0.010	-5.72239	30.00000	Averaged
105 n-Butylbenzene	3.17694	3.24687	3.24687	0.010	2.20094	30.00000	Averaged
106 1,2-Dichlorobenzene	1.51488	1.41818	1.41818	0.010	-6.38321	30.00000	Averaged
108 1,2-Dibromo-3-chloropropane	0.16661	0.16169	0.16169	0.010	-2.94935	30.00000	Averaged
109 1,2,4-Trichlorobenzene	1.17236	1.12510	1.12510	0.010	-4.03119	30.00000	Averaged
110 Hexachlorobutadiene	0.71666	0.71091	0.71091	0.010	-0.80185	30.00000	Averaged
111 Naphthalene	2.63897	2.31812	2.31812	0.010	-12.15782	30.00000	Averaged
112 1,2,3-Trichlorobenzene	1.06740	1.01709	1.01709	0.010	-4.71374	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 6.95784
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c302.d
Lab Smp Id: W1VM100317-01 Client Smp ID: VSTD050
Inj Date : 17-MAR-2010 10:43
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |W1VM100317-01|CCV|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM1000305-01C/IVM100316-01
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 17:24 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				1857904	150.000	150
M 2 1,2-Dichloroethylene (total)	96				697534	100.000	101
M 3 1,3-Dichloropropylene	75				1228084	100.000	100
5 Dichlorodifluoromethane	85	4.983	4.983	(0.364)	305787	50.0000	49.3
6 Chloromethane	50	5.564	5.564	(0.407)	416661	50.0000	38.8
7 Vinyl chloride	62	5.908	5.908	(0.432)	362091	50.0000	43.4
9 Bromomethane	96	6.938	6.938	(0.507)	231215	50.0000	46.8
10 Chloroethane	64	7.205	7.205	(0.527)	249651	50.0000	46.5
11 Trichlorofluoromethane	101	7.822	7.822	(0.572)	574751	50.0000	54.8
12 Ethyl Ether	59	8.466	8.466	(0.619)	301659	50.0000	43.8
16 Acetone	43	9.240	9.240	(0.676)	977586	250.000	134
22 Acetonitrile	41	9.967	9.967	(0.729)	1005224	1250.00	938
15 1,1-Dichloroethylene	61	9.065	9.065	(0.663)	648955	50.0000	47.8
21 Methyl acetate	43	9.820	9.820	(0.718)	1203553	250.000	187
18 Iodomethane	142	9.456	9.456	(0.692)	2383185	250.000	237
23 Methylene chloride	84	10.128	10.128	(0.741)	376758	50.0000	50.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
19 Carbon disulfide	76	9.557	9.557	(0.699)	5435724	250.000	264
25 tert-Butyl methyl ether	73	10.427	10.427	(0.763)	1066272	50.0000	46.6
26 trans-1,2-Dichloroethylene	96	10.533	10.533	(0.770)	341649	50.0000	51.5
29 Vinyl acetate	43	11.279	11.279	(0.825)	3722880	250.000	251
30 1,1-Dichloroethane	63	11.306	11.306	(0.827)	680648	50.0000	47.7
35 2-Butanone	43	12.172	12.172	(0.890)	1073750	250.000	139
36 cis-1,2-Dichloroethylene	96	12.190	12.190	(0.892)	355885	50.0000	49.8
33 2,2-Dichloropropane	77	12.144	12.144	(0.888)	487522	50.0000	53.7
41 Chloroform	83	12.600	12.600	(0.922)	694103	50.0000	48.8
39 Bromochloromethane	128	12.545	12.545	(0.918)	157643	50.0000	48.7
43 1,1,1-Trichloroethane	97	12.830	12.830	(0.938)	552222	50.0000	52.2
42 Cyclohexane	56	12.830	12.830	(0.938)	656225	50.0000	48.3
45 1,1-Dichloropropene	75	13.037	13.037	(0.954)	536699	50.0000	52.3
53 n-Butyl alcohol	56	13.921	13.921	(1.018)	1158477	5000.00	4640
44 Carbon tetrachloride	117	13.009	13.009	(0.952)	544873	50.0000	53.8
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	594575	50.0000	49.4
51 1,2-Dichloroethane	62	13.428	13.428	(0.982)	567157	50.0000	44.6
47 Benzene	78	13.322	13.322	(0.974)	1374068	50.0000	48.7
50 Cyclohexene	54	13.382	13.382	(0.979)	490594	50.0000	46.8
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	1231532	50.0000	
54 Trichloroethylene	95	14.105	14.105	(1.032)	365201	50.0000	50.2
57 1,2-Dichloropropane	63	14.446	14.446	(1.057)	357757	50.0000	46.1
55 Methylcyclohexane	83	14.271	14.271	(1.044)	612819	50.0000	53.3
60 Bromodichloromethane	83	14.740	14.740	(1.078)	538335	50.0000	50.9
59 Dibromomethane	93	14.611	14.611	(1.069)	215468	50.0000	46.6
61 2-Chloroethylvinyl ether	63	15.016	15.016	(1.098)	224551	250.000	360
64 4-Methyl-2-pentanone	58	15.348	15.348	(0.895)	714169	250.000	198
63 cis-1,3-Dichloropropylene	75	15.242	15.242	(1.115)	614505	50.0000	50.0
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1513468	50.0000	49.4
66 Toluene	92	15.587	15.587	(0.909)	874084	50.0000	49.7
68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	613579	50.0000	50.1
69 1,1,2-Trichloroethane	83	16.089	16.089	(0.938)	244148	50.0000	44.9
71 2-Hexanone	43	16.255	16.255	(0.948)	1474026	250.000	146
72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	527808	50.0000	45.0
70 Tetrachloroethylene	164	16.181	16.181	(0.944)	274050	50.0000	48.8
73 Dibromochloromethane	129	16.535	16.535	(0.964)	360719	50.0000	50.1
74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	298147	50.0000	46.5
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	911557	50.0000	
77 Chlorobenzene	112	17.180	17.180	(1.002)	911472	50.0000	49.1
79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	336134	50.0000	50.0
78 Ethylbenzene	91	17.207	17.207	(1.003)	1770358	50.0000	50.4
80 m,p-Xylenes	106	17.323	17.323	(1.010)	1249758	100.000	100
81 o-Xylene	106	17.769	17.769	(1.036)	608146	50.0000	49.7
82 Styrene	104	17.792	17.792	(1.038)	1063694	50.0000	52.1
83 Bromoform	173	18.091	18.091	(0.923)	242357	50.0000	52.6
84 Isopropylbenzene	105	18.114	18.114	(0.924)	1741800	50.0000	51.9
88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	390234	50.0000	46.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	618772	50.0000	50.0
92 1,2,3-Trichloropropane	110	18.593	18.593	(0.949)	109826	50.0000	46.0
91 Bromobenzene	156	18.579	18.579	(0.948)	384773	50.0000	47.8
89 n-Propylbenzene	91	18.547	18.547	(0.946)	2084005	50.0000	50.7
94 2-Chlorotoluene	91	18.731	18.731	(0.956)	1490484	50.0000	50.1
93 1,3,5-Trimethylbenzene	105	18.703	18.703	(0.954)	1526178	50.0000	52.1
95 4-Chlorotoluene	91	18.841	18.841	(0.961)	1336877	50.0000	49.6
96 tert-Butylbenzene	119	19.062	19.062	(0.973)	1185402	50.0000	50.4
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	1531864	50.0000	50.3
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1906808	50.0000	51.1
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	1493140	50.0000	51.4
101 1,3-Dichlorobenzene	146	19.532	19.532	(0.997)	732786	50.0000	46.8
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	493872	50.0000	
103 1,4-Dichlorobenzene	146	19.624	19.624	(1.001)	744086	50.0000	47.1
105 n-Butylbenzene	91	19.854	19.854	(1.013)	1603537	50.0000	51.1
106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	700400	50.0000	46.8
108 1,2-Dibromo-3-chloropropane	157	20.991	20.991	(1.071)	79855	50.0000	48.5
109 1,2,4-Trichlorobenzene	180	22.008	22.008	(1.123)	555657	50.0000	48.0
110 Hexachlorobutadiene	225	22.087	22.087	(1.127)	351098	50.0000	49.6
111 Naphthalene	128	22.418	22.418	(1.144)	1144857	50.0000	43.9
112 1,2,3-Trichlorobenzene	180	22.768	22.768	(1.162)	502310	50.0000	47.6

Data File: /chem/VOA1.i/031710v1/1c302.d
Date : 17-MAR-2010 10:43
Client ID: VSTD050
Sample Info: |W1VM100317-01|CCV|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

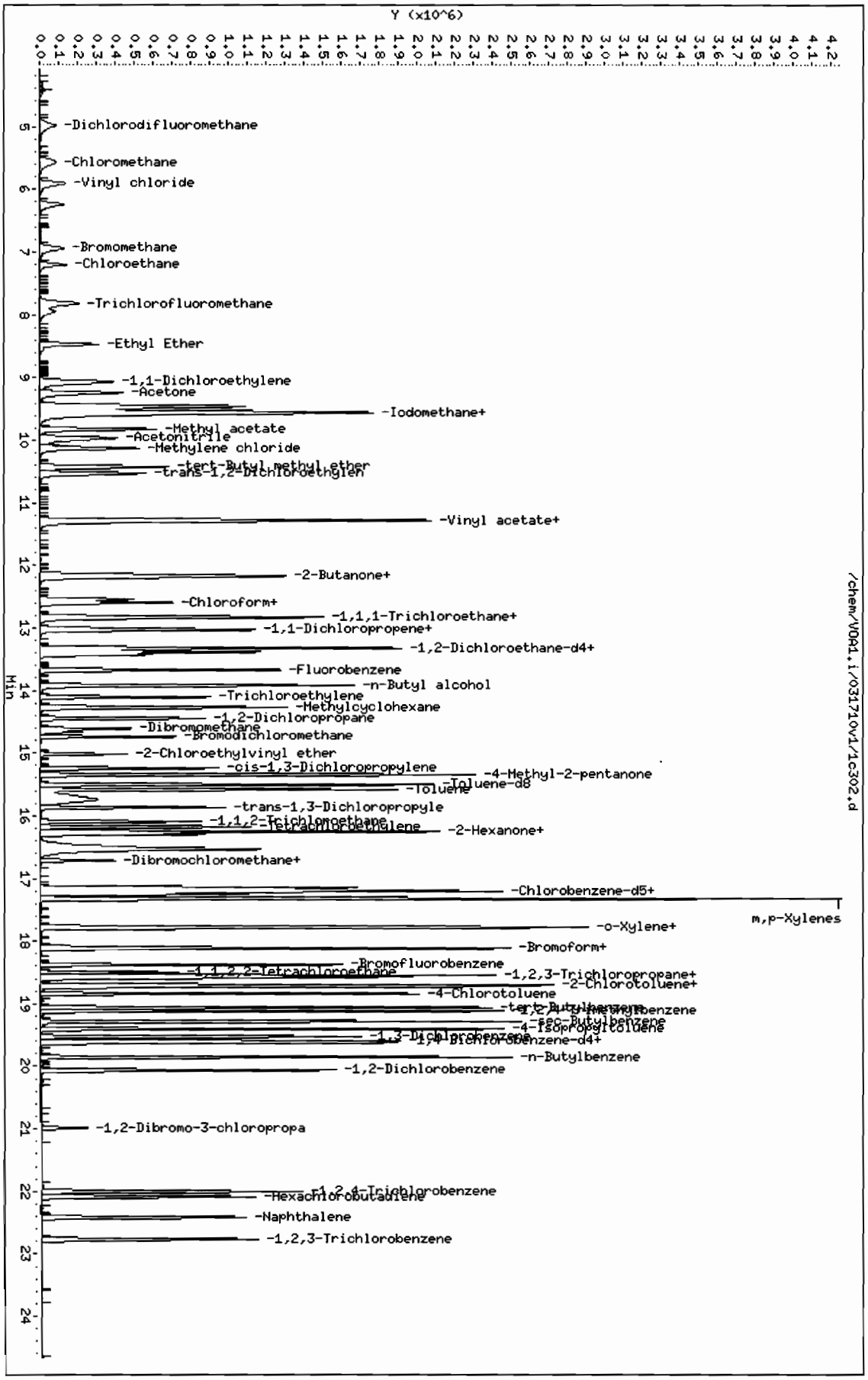

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 17-MAR-2010 11:44
Lab File ID: 1c304.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100317-03 Quant Type: ISTD
Method: /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Chlorotrifluoroethylene	118	150	0.08560	0.010	-21.00133	30.00000	Linear
8 2-Chloro-1,1,1-trifluoroeth	0.29326	0.29469	0.29469	0.010	0.48850	30.00000	Averaged
13 Acrolein	0.05720	0.05132	0.05132	0.001	-10.28423	30.00000	Averaged
14 Trichlorotrifluoroethane	0.23998	0.22381	0.22381	0.030	-6.73588	30.00000	Averaged
17 Isopropyl Alcohol	0.02272	0.02128	0.02128	0.000	-6.30832	40.00000	Averaged
20 Allyl chloride	256	250	0.11224	0.010	2.43891	30.00000	Linear
24 tert-Butyl Alcohol	0.03642	0.03835	0.03835	0.010	5.29711	40.00000	Averaged
27 Acrylonitrile	0.11119	0.09444	0.09444	0.010	-15.06171	30.00000	Averaged
28 Isopropyl ether	1.12852	0.98345	0.98345	0.010	-12.85481	30.00000	Averaged
31 2-Chloro-1,3-butadiene	0.45317	0.49988	0.49988	0.010	10.30781	30.00000	Averaged
32 Ethyl tert-butyl ether	0.92282	0.96993	0.96993	0.010	5.10510	30.00000	Averaged
37 Propionitrile	0.04574	0.03753	0.03753	0.010	-17.95861	30.00000	Averaged
34 Ethyl acetate	0.30964	0.22900	0.22900	0.010	-26.04511	40.00000	Averaged
40 Methacrylonitrile	0.24107	0.19405	0.19405	0.010	-19.50620	30.00000	Averaged
38 Tetrahydrofuran	0.25622	0.19472	0.19472	0.010	-24.00050	30.00000	Averaged
46 Isobutyl alcohol	0.01179	0.00947	0.00947	0.001	-19.63996	40.00000	Averaged
49 Methyl tert-amyl ether	0.70688	0.80750	0.80750	0.010	14.23398	30.00000	Averaged
56 Methyl methacrylate	0.18476	0.17679	0.17679	0.010	-4.31156	30.00000	Averaged
67 Ethyl methacrylate	0.48324	0.47595	0.47595	0.010	-1.50812	30.00000	Averaged
75 1-Chlorohexane	0.33035	0.32414	0.32414	0.000	-1.88018	30.00000	Averaged
58 1,4-Dioxane	0.00273	0.00232	0.00232	0.001	-15.06451	40.00000	Averaged
62 2-Nitropropane	211	250	0.09097	0.000	-15.75133	30.00000	Linear
85 cis-1,4-Dichloro-2-butene	0.30111	0.30837	0.30837	0.010	2.41155	30.00000	Averaged
86 Cyclohexanone	0.02440	0.01494	0.01494	0.010	-38.77460	40.00000	Averaged
90 trans-1,4-Dichloro-2-butene	0.28111	0.28909	0.28909	0.010	2.83848	30.00000	Averaged
98 Pentachloroethane	507	250	0.48678	0.010	103	30.00000	Linear <-
104 Benzyl chloride	1.28813	1.68995	1.68995	0.010	31.19448	30.00000	Averaged <-
107 bis(2-Chloroisopropyl)ether	0.44594	0.36324	0.36324	0.010	-18.54410	30.00000	Averaged
$ 48 1,2-Dichloroethane-d4	0.48820	0.45176	0.45176	0.010	-7.46491	30.00000	Averaged
$ 65 Toluene-d8	1.68167	1.73106	1.73106	0.010	2.93740	30.00000	Averaged
$ 87 Bromofluorobenzene	1.25356	1.28116	1.28116	0.010	2.20142	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i
Lab File ID: 1c304.d
Analysis Type: WATER
Lab Sample ID: W1VM100317-03
Method: /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m

Injection Date: 17-MAR-2010 11:44
Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Init. Cal. Times: 17:28 02:12
Quant Type: ISTD

Average %D / Drift Results.

Calculated Average %D/Drift = 6.95784
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c304.d
Lab Smp Id: W1VM100317-03 Client Smp ID: VSTD250S
Inj Date : 17-MAR-2010 11:44
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |W1VM100317-03|SHORT/SLCS|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM100304-08A/UVM100226-02A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 17:24 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
4 Chlorotrifluoroethylene	116	4.875	4.875	(0.357)	294354	150.000	118
8 2-Chloro-1,1,1-trifluoroethane	118	6.275	6.275	(0.459)	1013307	150.000	151
13 Acrolein	56	8.936	8.936	(0.654)	294116	250.000	224
14 Trichlorotrifluoroethane	101	8.963	8.963	(0.656)	1282642	250.000	233
17 Isopropyl Alcohol	45	9.437	9.437	(0.690)	1219672	2500.00	2340
20 Allyl chloride	76	9.838	9.838	(0.720)	643247	250.000	256
24 tert-Butyl Alcohol	59	10.183	10.183	(0.745)	2197908	2500.00	2630
27 Acrylonitrile	53	10.657	10.657	(0.779)	541246	250.000	212
28 Isopropyl ether	45	11.182	11.182	(0.818)	1127205	50.0000	43.6
31 2-Chloro-1,3-butadiene	53	11.380	11.380	(0.832)	572953	50.0000	55.2
32 Ethyl tert-butyl ether	59	11.739	11.739	(0.859)	1111713	50.0000	52.6
37 Propionitrile	54	12.393	12.393	(0.906)	215075	250.000	205
34 Ethyl acetate	43	12.149	12.149	(0.889)	1312353	250.000	185
40 Methacrylonitrile	41	12.549	12.549	(0.918)	1112054	250.000	201
38 Tetrahydrofuran	42	12.531	12.531	(0.639)	455830	250.000	190
46 Isobutyl alcohol	41	13.097	13.097	(0.958)	542842	2500.00	2010

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
49 Methyl tert-amyl ether	73	13.332	13.332	(0.975)	925536	50.0000	57.1
56 Methyl methacrylate	69	14.423	14.423	(1.055)	1013183	250.000	239
67 Ethyl methacrylate	69	15.799	15.799	(0.921)	2023325	250.000	246
75 1-Chlorohexane	55	17.014	17.014	(1.244)	371520	50.0000	49.0
58 1,4-Dioxane	88	14.533	14.533	(1.063)	132777	2500.00	2120
62 2-Nitropropane	43	15.067	15.067	(1.102)	521331	250.000	211
85 cis-1,4-Dichloro-2-butene	53	18.262	18.262	(0.932)	721854	250.000	256
86 Cyclohexanone	55	18.372	18.372	(1.071)	317514	1250.00	765
90 trans-1,4-Dichloro-2-butene	53	18.556	18.556	(0.947)	676726	250.000	257
98 Pentachloroethane	167	19.187	19.187	(0.979)	1139512	250.000	507(A)
104 Benzyl chloride	91	19.757	19.757	(1.008)	3956008	250.000	328
107 bis(2-Chloroisopropyl)ether	45	20.149	20.149	(1.028)	850316	250.000	204
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	1146177	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	850227	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	468179	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	517798	50.0000	46.3
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1471798	50.0000	51.5
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	599811	50.0000	51.1

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/031710v1/1c304.d
Date : 17-MAR-2010 11:44
Client ID: VSTD250S
Sample Info: IW1VM100317-031SHORT/SLCS11VOAF111
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

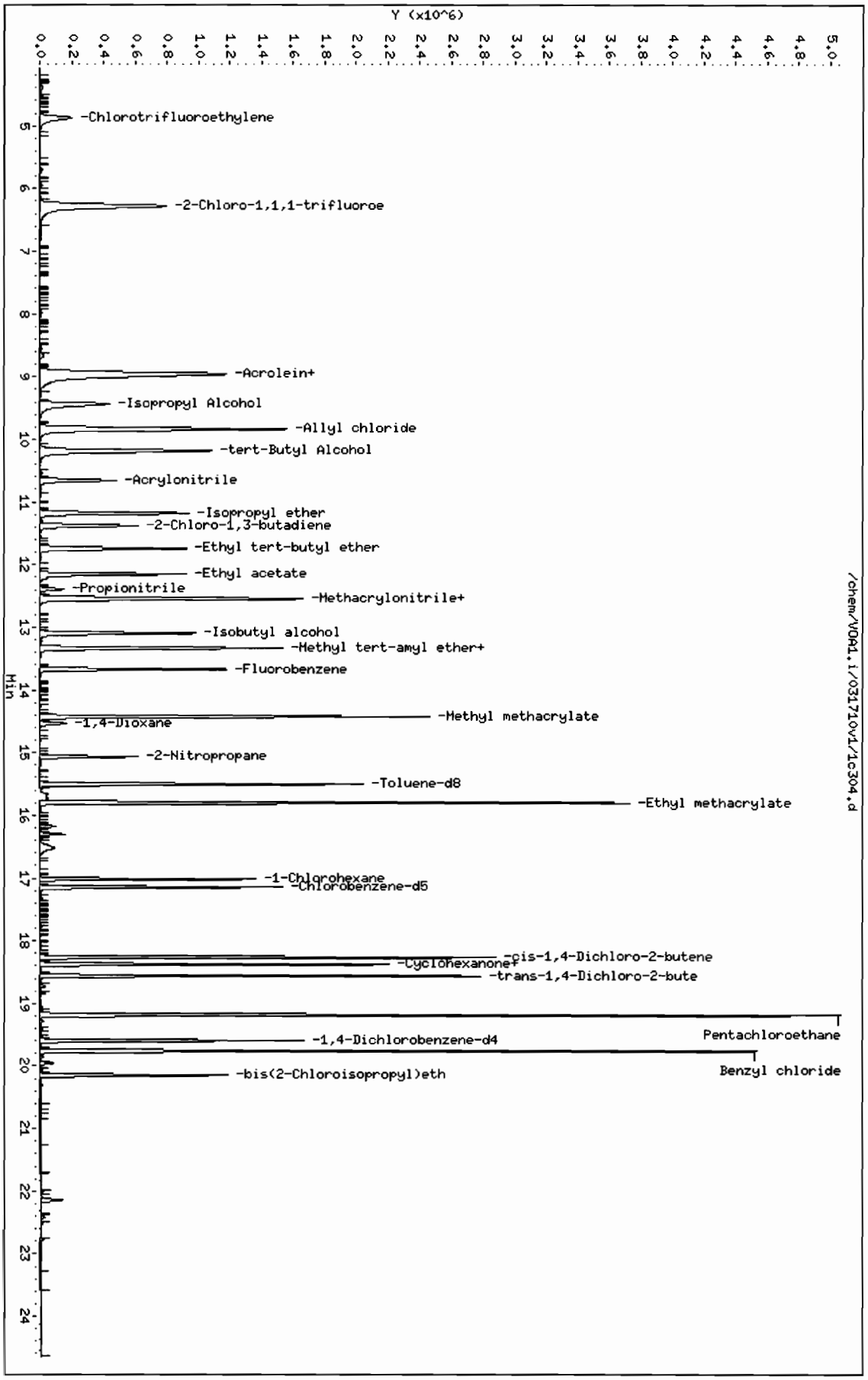

Page 1

Data File: /chem/VOA1.i/031810v1/1c403.d
Report Date: 26-Mar-2010 21:48

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-MAR-2010 10:11
Lab File ID: 1c403.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: SOIL Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100318-02 Quant Type: ISTD
Method: /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	1 Xylenes (total)	0.67887	0.69673	0.69673	0.050	2.63078	30.00000	Averaged	
M	2 1,2-Dichloroethylene (total	0.27972	0.28549	0.28549	0.050	2.06432	30.00000	Averaged	
M	3 1,3-Dichloropropylene	0.67789	0.72946	0.72946	0.050	7.60746	30.00000	Averaged	
	5 Dichlorodifluoromethane	0.25158	0.27976	0.27976	0.050	11.20045	30.00000	Averaged	
	6 Chloromethane	0.43647	0.37021	0.37021	0.100	-15.18131	30.00000	Averaged	spcc
	7 Vinyl chloride	0.33868	0.32353	0.32353	0.050	-4.47275	20.00000	Averaged	ccc
	9 Bromomethane	0.20035	0.19688	0.19688	0.050	-1.73363	30.00000	Averaged	
	10 Chloroethane	0.21782	0.20650	0.20650	0.050	-5.19637	30.00000	Averaged	
	11 Trichlorofluoromethane	0.42547	0.54249	0.54249	0.050	27.50559	30.00000	Averaged	
	12 Ethyl Ether	0.27990	0.26140	0.26140	0.010	-6.60949	30.00000	Averaged	
	16 Acetone	0.29620	0.23011	0.23011	0.000	-22.31295	40.00000	Averaged	
	22 Acetonitrile	0.04350	0.03589	0.03589	0.010	-17.48726	30.00000	Averaged	
	15 1,I-Dichloroethylene	0.55098	0.58498	0.58498	0.050	6.17088	20.00000	Averaged	ccc
	21 Methyl acetate	0.26149	0.21788	0.21788	0.010	-16.67727	40.00000	Averaged	
	18 Iodomethane	0.40759	0.40276	0.40276	0.050	-1.18639	30.00000	Averaged	
	23 Methylene chloride	50.01788	50.00000	0.30064	0.000	0.03576	30.00000	Linear	
	19 Carbon disulfide	0.83577	0.88685	0.88685	0.050	6.11261	30.00000	Averaged	
	25 tert-Butyl methyl ether	0.92853	0.95474	0.95474	0.050	2.82224	30.00000	Averaged	
	26 trans-1,2-Dichloroethylene	0.26935	0.27670	0.27670	0.050	2.72843	30.00000	Averaged	
	29 Vinyl acetate	0.60100	0.66805	0.66805	0.010	11.15653	40.00000	Averaged	
	30 1,1-Dichloroethane	0.57897	0.59311	0.59311	0.100	2.44202	30.00000	Averaged	spcc
	35 2-Butanone	0.31398	0.23227	0.23227	0.030	-26.02420	40.00000	Averaged	
	36 cis-1,2-Dichloroethylene	0.29009	0.29429	0.29429	0.050	1.44769	30.00000	Averaged	
	33 2,2-Dichloropropane	0.36832	0.46488	0.46488	0.050	26.21782	30.00000	Averaged	
	41 Chloroform	0.57778	0.62835	0.62835	0.010	8.75205	20.00000	Averaged	ccc
	39 Bromochloromethane	0.13153	0.12795	0.12795	0.010	-2.72065	30.00000	Averaged	
	43 1,1,1-Trichloroethane	0.42958	0.54017	0.54017	0.010	25.74336	30.00000	Averaged	
	42 Cyclohexane	0.55132	0.57891	0.57891	0.010	5.00530	30.00000	Averaged	
	45 1,1-Dichloropropene	0.41669	0.46864	0.46864	0.010	12.46816	30.00000	Averaged	
	53 n-Butyl alcohol	0.01014	0.01030	0.01030	0.001	1.57711	40.00000	Averaged	
	44 Carbon tetrachloride	0.41092	0.53508	0.53508	0.010	30.21363	30.00000	Averaged	<-
$	48 1,2-Dichloroethane-d4	0.48820	0.57977	0.57977	0.010	18.75507	30.00000	Averaged	
	51 1,2-Dichloroethane	0.51593	0.56913	0.56913	0.010	10.31190	30.00000	Averaged	
	47 Benzene	1.14445	1.12236	1.12236	0.010	-1.93017	30.00000	Averaged	
	50 Cyclohexene	0.42588	0.43773	0.43773	0.010	2.78117	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-MAR-2010 10:11
Lab File ID: 1c403.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: SOIL Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100318-02 Quant Type: ISTD
Method: /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	54 Trichloroethylene	0.29541	0.31336	0.31336	0.010	6.07755	30.00000	Averaged	
	57 1,2-Dichloropropane	0.31486	0.30039	0.30039	0.010	-4.59708	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.46690	0.51323	0.51323	0.010	9.92118	30.00000	Averaged	
	60 Bromodichloromethane	0.42946	0.49702	0.49702	0.010	15.73019	30.00000	Averaged	
	59 Dibromomethane	0.18749	0.19270	0.19270	0.010	2.77810	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	265	250	0.02673	0.000	6.09296	30.00000	Linear	
	64 4-Methyl-2-pentanone	0.19796	0.17558	0.17558	0.010	-11.30556	40.00000	Averaged	
	63 cis-1,3-Dichloropropylene	0.49909	0.53835	0.53835	0.010	7.86573	30.00000	Averaged	
$	65 Toluene-d8	1.68167	1.66951	1.66951	0.010	-0.72318	30.00000	Averaged	
	66 Toluene	0.96439	0.96794	0.96794	0.010	0.36799	20.00000	Averaged	ccc
	68 trans-1,3-Dichloropropylene	0.67167	0.74497	0.74497	0.010	10.91415	30.00000	Averaged	
	69 1,1,2-Trichloroethane	0.29796	0.27866	0.27866	0.010	-6.47793	30.00000	Averaged	
	71 2-Hexanone	0.55226	0.42349	0.42349	0.010	-23.31733	40.00000	Averaged	
	72 1,3-Dichloropropane	0.64273	0.61150	0.61150	0.010	-4.85905	30.00000	Averaged	
	70 Tetrachloroethylene	0.30803	0.31291	0.31291	0.010	1.58356	30.00000	Averaged	
	73 Dibromochloromethane	0.39459	0.42968	0.42968	0.010	8.89421	30.00000	Averaged	
	74 1,2-Dibromoethane	0.35160	0.34430	0.34430	0.010	-2.07743	30.00000	Averaged	
	77 Chlorobenzene	1.01868	1.02874	1.02874	0.300	0.98781	30.00000	Averaged	spcc
	79 1,1,1,2-Tetrachloroethane	0.36870	0.39864	0.39864	0.010	8.11960	30.00000	Averaged	
	78 Ethylbenzene	1.92669	2.06598	2.06598	0.010	7.22925	20.00000	Averaged	ccc
	80 m,p-Xylenes	0.68306	0.70241	0.70241	0.010	2.83372	30.00000	Averaged	
	81 o-Xylene	0.67051	0.68537	0.68537	0.010	2.21731	30.00000	Averaged	
	82 Styrene	1.11978	1.19467	1.19467	0.010	6.68786	30.00000	Averaged	
	83 Bromoform	0.46660	0.52220	0.52220	0.100	11.91653	30.00000	Averaged	spcc
	84 Isopropylbenzene	3.39914	3.65356	3.65356	0.010	7.48485	30.00000	Averaged	
	88 1,1,2,2-Tetrachloroethane	0.84565	0.78894	0.78894	0.300	-6.70575	30.00000	Averaged	spcc
$	87 Bromofluorobenzene	1.25356	1.27559	1.27559	0.010	1.75721	30.00000	Averaged	
	92 1,2,3-Trichloropropane	0.24143	0.24630	0.24630	0.010	2.01618	30.00000	Averaged	
	91 Bromobenzene	0.81535	0.80213	0.80213	0.010	-1.62122	30.00000	Averaged	
	89 n-Propylbenzene	4.15838	4.41777	4.41777	0.010	6.23779	30.00000	Averaged	
	94 2-Chlorotoluene	3.00922	3.19936	3.19936	0.010	6.31834	30.00000	Averaged	
	93 1,3,5-Trimethylbenzene	2.96733	3.26003	3.26003	0.010	9.86415	30.00000	Averaged	
	95 4-Chlorotoluene	2.72697	2.86634	2.86634	0.010	5.11106	30.00000	Averaged	
	96 tert-Butylbenzene	2.38074	2.51873	2.51873	0.010	5.79593	30.00000	Averaged	
	97 1,2,4-Trimethylbenzene	3.08424	3.26047	3.26047	0.010	5.71402	30.00000	Averaged	
	99 sec-Butylbenzene	3.77742	4.00098	4.00098	0.010	5.91846	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-MAR-2010 10:11
Lab File ID: 1c403.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: SOIL Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100318-02 Quant Type: ISTD
Method: /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
100 4-Isopropyltoluene	2.94220	3.14797	3.14797	0.010	6.99373	30.00000	Averaged
101 1,3-Dichlorobenzene	1.58600	1.51535	1.51535	0.010	-4.45435	30.00000	Averaged
103 1,4-Dichlorobenzene	1.59809	1.54182	1.54182	0.010	-3.52100	30.00000	Averaged
105 n-Butylbenzene	3.17694	3.41602	3.41602	0.010	7.52540	30.00000	Averaged
106 1,2-Dichlorobenzene	1.51488	1.43213	1.43213	0.010	-5.46219	30.00000	Averaged
108 1,2-Dibromo-3-chloropropane	0.16661	0.16740	0.16740	0.010	0.47952	30.00000	Averaged
109 1,2,4-Trichlorobenzene	1.17236	1.16451	1.16451	0.010	-0.66975	30.00000	Averaged
110 Hexachlorobutadiene	0.71666	0.78027	0.78027	0.010	8.87675	30.00000	Averaged
111 Naphthalene	2.63897	2.32036	2.32036	0.010	-12.07322	30.00000	Averaged
112 1,2,3-Trichlorobenzene	1.06740	1.02955	1.02955	0.010	-3.54619	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 7.76549
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031810v1/1c403.d
Lab Smp Id: W1VM100318-02 Client Smp ID: VSTD050
Inj Date : 18-MAR-2010 10:11
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |W1VM100318-02|BFB/CCV/LCS|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM100305-01C/IVM100316-01
Comment :
Method : /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 21:48 a1e01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				1424478	150.000	154
M 2 1,2-Dichloroethylene (total)	96				516055	100.000	102
M 3 1,3-Dichloropropylene	75				994260	100.000	109
5 Dichlorodifluoromethane	85	4.983	4.983	(0.364)	252846	50.0000	55.6
6 Chloromethane	50	5.535	5.535	(0.405)	334597	50.0000	42.4
7 Vinyl chloride	62	5.908	5.908	(0.432)	292406	50.0000	47.8
9 Bromomethane	96	6.924	6.924	(0.506)	177941	50.0000	49.1
10 Chloroethane	64	7.205	7.205	(0.527)	186636	50.0000	47.4
11 Trichlorofluoromethane	101	7.817	7.817	(0.572)	490308	50.0000	63.8
12 Ethyl Ether	59	8.466	8.466	(0.619)	236258	50.0000	46.7
16 Acetone	43	9.240	9.240	(0.676)	1039865	250.000	194
22 Acetonitrile	41	9.967	9.967	(0.729)	810983	1250.00	1030

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	15 1,1-Dichloroethylene	61	9.069	9.069	(0.663)	528709	50.0000	53.1
	21 Methyl acetate	43	9.820	9.820	(0.718)	984601	250.000	208
	18 Iodomethane	142	9.451	9.451	(0.691)	1820075	250.000	247
	23 Methylene chloride	84	10.128	10.128	(0.741)	271717	50.0000	50.0
	19 Carbon disulfide	76	9.557	9.557	(0.699)	4007703	250.000	265
	25 tert-Butyl methyl ether	73	10.427	10.427	(0.763)	862893	50.0000	51.4
	26 trans-1,2-Dichloroethylene	96	10.533	10.533	(0.770)	250079	50.0000	51.4
	29 Vinyl acetate	43	11.283	11.283	(0.825)	3018947	250.000	278
	30 1,1-Dichloroethane	63	11.311	11.311	(0.827)	536051	50.0000	51.2
	35 2-Butanone	43	12.172	12.172	(0.890)	1049627	250.000	185
	36 cis-1,2-Dichloroethylene	96	12.190	12.190	(0.892)	265976	50.0000	50.7
	33 2,2-Dichloropropane	77	12.149	12.149	(0.889)	420162	50.0000	63.1
	41 Chloroform	83	12.600	12.600	(0.922)	567903	50.0000	54.4
	39 Bromochloromethane	128	12.545	12.545	(0.918)	115640	50.0000	48.6
	43 1,1,1-Trichloroethane	97	12.835	12.835	(0.939)	488204	50.0000	62.9
	42 Cyclohexane	56	12.830	12.830	(0.938)	523223	50.0000	52.5
	45 1,1-Dichloropropene	75	13.037	13.037	(0.954)	423559	50.0000	56.2
	53 n-Butyl alcohol	56	13.921	13.921	(1.018)	931320	5000.00	5080
	44 Carbon tetrachloride	117	13.014	13.014	(0.952)	483604	50.0000	65.1
$	48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	523996	50.0000	59.4
	51 1,2-Dichloroethane	62	13.428	13.428	(0.982)	514382	50.0000	55.2
	47 Benzene	78	13.322	13.322	(0.974)	1014391	50.0000	49.0
	50 Cyclohexene	54	13.382	13.382	(0.979)	395618	50.0000	51.4
*	52 Fluorobenzene	96	13.672	13.672	(1.000)	903803	50.0000	
	54 Trichloroethylene	95	14.105	14.105	(1.032)	283218	50.0000	53.0
	57 1,2-Dichloropropane	63	14.446	14.446	(1.057)	271492	50.0000	47.7
	55 Methylcyclohexane	83	14.266	14.266	(1.043)	463856	50.0000	55.0
	60 Bromodichloromethane	83	14.740	14.740	(1.078)	449204	50.0000	57.9
	59 Dibromomethane	93	14.611	14.611	(1.069)	174164	50.0000	51.4
	61 2-Chloroethylvinyl ether	63	15.016	15.016	(1.098)	120771	250.000	265
	64 4-Methyl-2-pentanone	58	15.348	15.348	(0.895)	598296	250.000	222
	63 cis-1,3-Dichloropropylene	75	15.247	15.247	(1.115)	486558	50.0000	53.9
$	65 Toluene-d8	98	15.504	15.504	(0.904)	1137775	50.0000	49.6
	66 Toluene	92	15.583	15.583	(0.909)	659652	50.0000	50.2
	68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	507702	50.0000	55.4
	69 1,1,2-Trichloroethane	83	16.089	16.089	(0.938)	189905	50.0000	46.8
	71 2-Hexanone	43	16.255	16.255	(0.948)	1443044	250.000	192
	72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	416737	50.0000	47.6
	70 Tetrachloroethylene	164	16.181	16.181	(0.944)	213251	50.0000	50.8
	73 Dibromochloromethane	129	16.540	16.540	(0.965)	292829	50.0000	54.4
	74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	234641	50.0000	49.0
*	76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	681504	50.0000	
	77 Chlorobenzene	112	17.180	17.180	(1.002)	701090	50.0000	50.5
	79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	271674	50.0000	54.0
	78 Ethylbenzene	91	17.207	17.207	(1.003)	1407974	50.0000	53.6
	80 m,p-Xylenes	106	17.323	17.323	(1.010)	957393	100.000	103
	81 o-Xylene	106	17.769	17.769	(1.036)	467085	50.0000	51.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
82 Styrene	104	17.792	17.792	(1.038)	814175	50.0000	53.3
83 Bromoform	173	18.096	18.096	(0.923)	198202	50.0000	56.0
84 Isopropylbenzene	105	18.114	18.114	(0.924)	1386722	50.0000	53.7
88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	299447	50.0000	46.6
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	484155	50.0000	50.9
92 1,2,3-Trichloropropane	110	18.593	18.593	(0.949)	93484	50.0000	51.0
91 Bromobenzene	156	18.579	18.579	(0.948)	304452	50.0000	49.2
89 n-Propylbenzene	91	18.547	18.547	(0.946)	1676784	50.0000	53.1
94 2-Chlorotoluene	91	18.731	18.731	(0.956)	1214328	50.0000	53.2
93 1,3,5-Trimethylbenzene	105	18.703	18.703	(0.954)	1237359	50.0000	54.9
95 4-Chlorotoluene	91	18.841	18.841	(0.961)	1087932	50.0000	52.6
96 tert-Butylbenzene	119	19.062	19.062	(0.973)	955994	50.0000	52.9
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	1237526	50.0000	52.8
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1518589	50.0000	53.0
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	1194825	50.0000	53.5
101 1,3-Dichlorobenzene	146	19.532	19.532	(0.997)	575159	50.0000	47.8
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	379554	50.0000	
103 1,4-Dichlorobenzene	146	19.629	19.629	(1.002)	585203	50.0000	48.2
105 n-Butylbenzene	91	19.854	19.854	(1.013)	1296565	50.0000	53.8
106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	543572	50.0000	47.3
108 1,2-Dibromo-3-chloropropane	157	20.991	20.991	(1.071)	63539	50.0000	50.2
109 1,2,4-Trichlorobenzene	180	22.004	22.004	(1.123)	441995	50.0000	49.7
110 Hexachlorobutadiene	225	22.091	22.091	(1.127)	296155	50.0000	54.4
111 Naphthalene	128	22.418	22.418	(1.144)	880701	50.0000	44.0
112 1,2,3-Trichlorobenzene	180	22.773	22.773	(1.162)	390769	50.0000	48.2

Data File: /chem/VOA1.i/031810v1/1c403.d
Date : 18-MAR-2010 10:11
Client ID: VSTD050
Sample Info: IW1VM100318-02|BFB/CCV/LCS|1|VOAF1|1
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

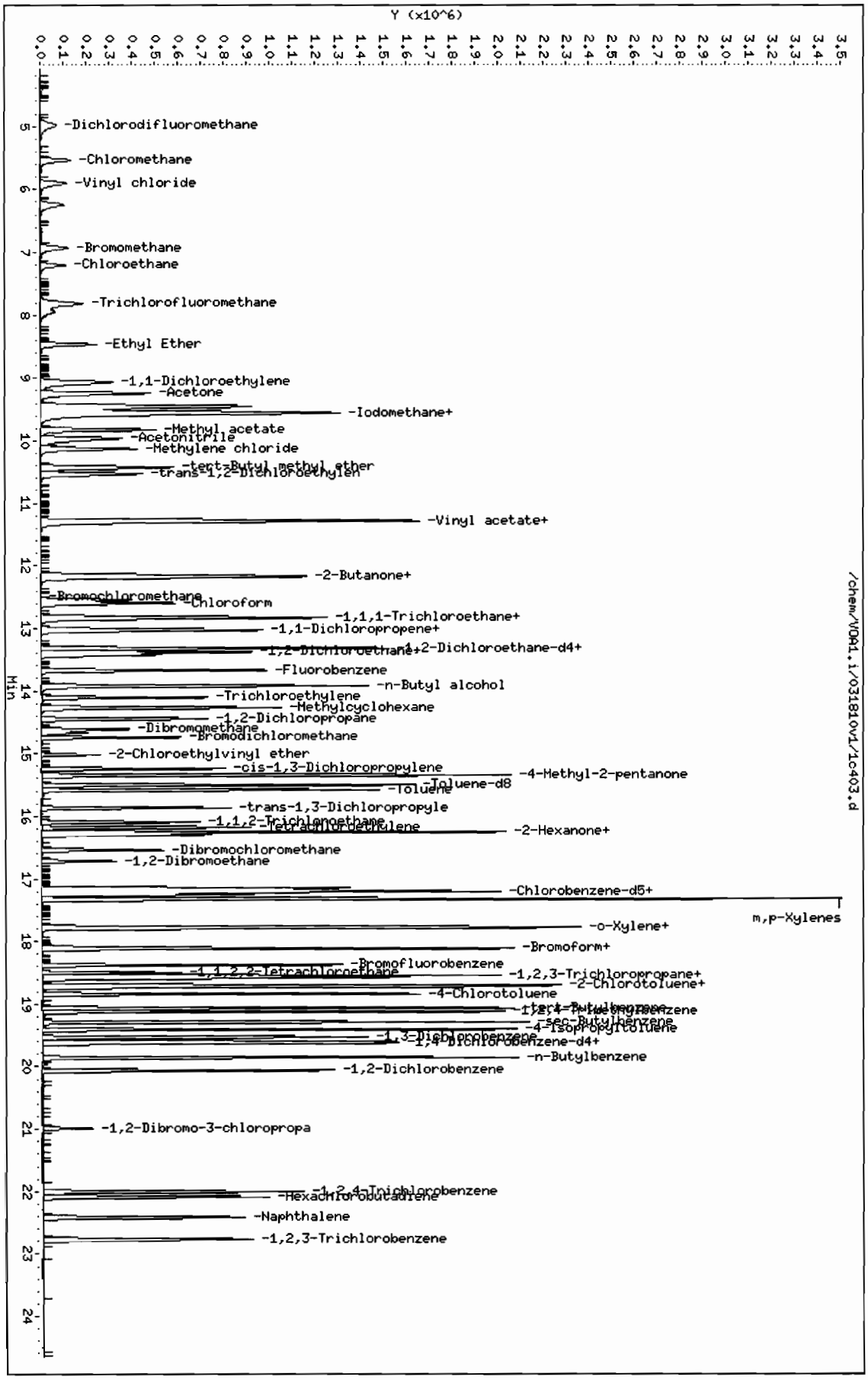

/chem/VOA1.i/031810v1/1c403.d

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-MAR-2010 11:12
Lab File ID: 1c405.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100318-03 Quant Type: ISTD
Method: /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
4 Chlorotrifluoroethylene	164	150	0.11929	0.010	9.26952	30.00000	Linear	
8 2-Chloro-1,1,1-trifluoroeth	0.29326	0.33886	0.33886	0.010	15.54928	30.00000	Averaged	
13 Acrolein	0.05720	0.04584	0.04584	0.001	-19.86284	30.00000	Averaged	
14 Trichlorotrifluoroethane	0.23998	0.22111	0.22111	0.030	-7.86267	30.00000	Averaged	
17 Isopropyl Alcohol	0.02272	0.02601	0.02601	0.000	14.49435	40.00000	Averaged	
20 Allyl chloride	239	250	0.10438	0.010	-4.52181	30.00000	Linear	
24 tert-Butyl Alcohol	0.03642	0.04621	0.04621	0.010	26.86464	40.00000	Averaged	
27 Acrylonitrile	0.11119	0.10270	0.10270	0.010	-7.63358	30.00000	Averaged	
28 Isopropyl ether	1.12852	1.14988	1.14988	0.010	1.89314	30.00000	Averaged	
31 2-Chloro-1,3-butadiene	0.45317	0.54875	0.54875	0.010	21.09030	30.00000	Averaged	
32 Ethyl tert-butyl ether	0.92282	1.12748	1.12748	0.010	22.17815	30.00000	Averaged	
37 Propionitrile	0.04574	0.04291	0.04291	0.010	-6.19683	30.00000	Averaged	
34 Ethyl acetate	0.30964	0.26919	0.26919	0.010	-13.06608	40.00000	Averaged	
40 Methacrylonitrile	0.24107	0.22705	0.22705	0.010	-5.81399	30.00000	Averaged	
38 Tetrahydrofuran	0.25622	0.22294	0.22294	0.010	-12.98976	30.00000	Averaged	
46 Isobutyl alcohol	0.01179	0.01144	0.01144	0.001	-2.93626	40.00000	Averaged	
49 Methyl tert-amyl ether	0.70688	0.92049	0.92049	0.010	30.21902	30.00000	Averaged	<-
56 Methyl methacrylate	0.18476	0.18946	0.18946	0.010	2.54227	30.00000	Averaged	
67 Ethyl methacrylate	0.48324	0.51099	0.51099	0.010	5.74415	30.00000	Averaged	
75 1-Chlorohexane	0.33035	0.40257	0.40257	0.000	21.86317	30.00000	Averaged	
58 1,4-Dioxane	0.00273	0.00271	0.00271	0.001	-0.48210	40.00000	Averaged	
62 2-Nitropropane	262	250	0.11397	0.000	4.96134	30.00000	Linear	
85 cis-1,4-Dichloro-2-butene	0.30111	0.35688	0.35688	0.010	18.52218	30.00000	Averaged	
86 Cyclohexanone	0.02440	0.07244	0.07244	0.010	197	40.00000	Averaged	<-
90 trans-1,4-Dichloro-2-butene	0.28111	0.33435	0.33435	0.010	18.93868	30.00000	Averaged	
98 Pentachloroethane	508	250	0.48732	0.010	103	30.00000	Linear	<-
104 Benzyl chloride	1.28813	1.84488	1.84488	0.010	43.22177	30.00000	Averaged	<-
107 bis(2-Chloroisopropyl)ether	0.44594	0.41181	0.41181	0.010	-7.65389	30.00000	Averaged	
$ 48 1,2-Dichloroethane-d4	0.48820	0.52990	0.52990	0.010	8.54028	30.00000	Averaged	
$ 65 Toluene-d8	1.68167	1.79188	1.79188	0.010	6.55372	30.00000	Averaged	
$ 87 Bromofluorobenzene	1.25356	1.34251	1.34251	0.010	7.09598	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA1.i Injection Date: 18-MAR-2010 11:12
Lab File ID: 1c405.d Init. Cal. Date(s): 04-MAR-2010 05-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:28 02:12
Lab Sample ID: W1VM100318-03 Quant Type: ISTD
Method: /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m

Average %D / Drift Results.
Calculated Average %D/Drift = 7.76549
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031810v1/1c405.d
Lab Smp Id: W1VM100318-03 Client Smp ID: VSTD250S
Inj Date : 18-MAR-2010 11:12
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |W1VM100318-03|SHORT/SLCS|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM100304-08A/UVM100226-02A
Comment :
Method : /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 18:30 a1e01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
4 Chlorotrifluoroethylene	116	4.876	4.876	(0.357)	322942	150.000	164
8 2-Chloro-1,1,1-trifluoroethane	118	6.275	6.275	(0.459)	917329	150.000	173
13 Acrolein	56	8.936	8.936	(0.654)	206832	250.000	200
14 Trichlorotrifluoroethane	101	8.954	8.954	(0.655)	997607	250.000	230
17 Isopropyl Alcohol	45	9.433	9.433	(0.690)	1173436	2500.00	2860
20 Allyl chloride	76	9.833	9.833	(0.719)	470934	250.000	239
24 tert-Butyl Alcohol	59	10.183	10.183	(0.745)	2084812	2500.00	3170
27 Acrylonitrile	53	10.657	10.657	(0.779)	463381	250.000	231
28 Isopropyl ether	45	11.182	11.182	(0.818)	1037619	50.0000	50.9
31 2-Chloro-1,3-butadiene	53	11.380	11.380	(0.832)	495171	50.0000	60.5
32 Ethyl tert-butyl ether	59	11.739	11.739	(0.859)	1017409	50.0000	61.1
37 Propionitrile	54	12.388	12.388	(0.906)	193601	250.000	234
34 Ethyl acetate	43	12.149	12.149	(0.889)	1214525	250.000	217
40 Methacrylonitrile	41	12.545	12.545	(0.918)	1024432	250.000	235
38 Tetrahydrofuran	42	12.526	12.526	(0.639)	413858	250.000	218
46 Isobutyl alcohol	41	13.097	13.097	(0.958)	516206	2500.00	2430

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
49 Methyl tert-amyl ether	73	13.332	13.332	(0.975)	830626	50.0000	65.1
56 Methyl methacrylate	69	14.427	14.427	(1.055)	854800	250.000	256
67 Ethyl methacrylate	69	15.799	15.799	(0.921)	1708137	250.000	264
75 1-Chlorohexane	55	17.014	17.014	(1.244)	363271	50.0000	60.9
58 1,4-Dioxane	88	14.538	14.538	(1.063)	122481	2500.00	2490
62 2-Nitropropane	43	15.067	15.067	(1.102)	514201	250.000	262
85 cis-1,4-Dichloro-2-butene	53	18.262	18.262	(0.932)	662505	250.000	296
86 Cyclohexanone	55	18.372	18.372	(1.071)	1210747	1250.00	3710(A)
90 trans-1,4-Dichloro-2-butene	53	18.556	18.556	(0.947)	620682	250.000	297
98 Pentachloroethane	167	19.187	19.187	(0.979)	904653	250.000	508(A)
104 Benzyl chloride	91	19.762	19.762	(1.008)	3424833	250.000	358
107 bis(2-Chloroisopropyl)ether	45	20.149	20.149	(1.028)	764478	250.000	231
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	902371	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	668553	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	371279	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	478165	50.0000	54.3
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1197967	50.0000	53.3
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	498448	50.0000	53.5

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/031810v1/1c405.d
Date : 18-MAR-2010 11:12
Client ID: VSTD250S
Sample Info: IW1VM100318-031SHORT/SLCS|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

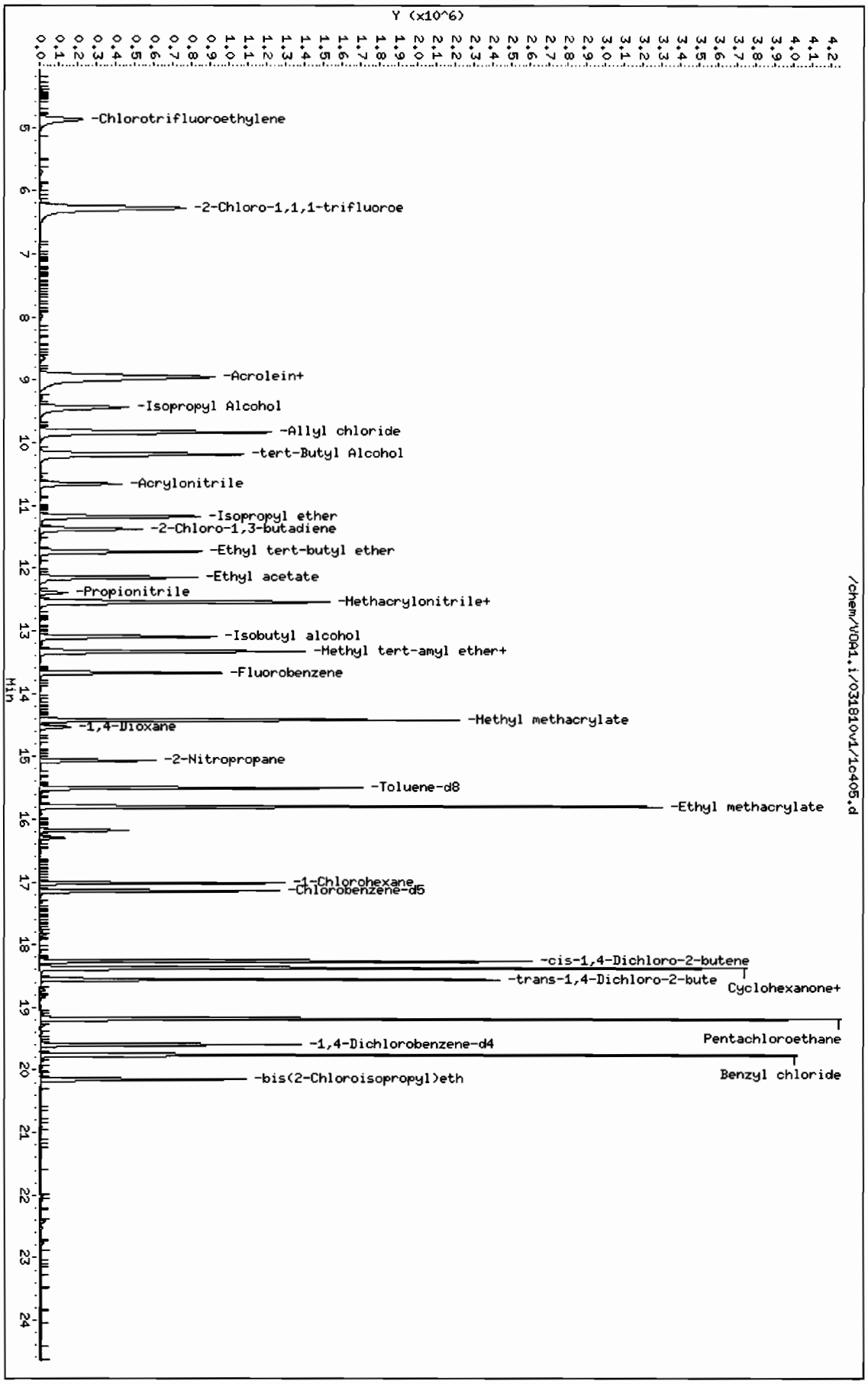

Page 1

QC Data

Data File: /chem/VOA1.i/030410v1/1a411.d

Date : 04-MAR-2010 16:41

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM100203-02|BFB01|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

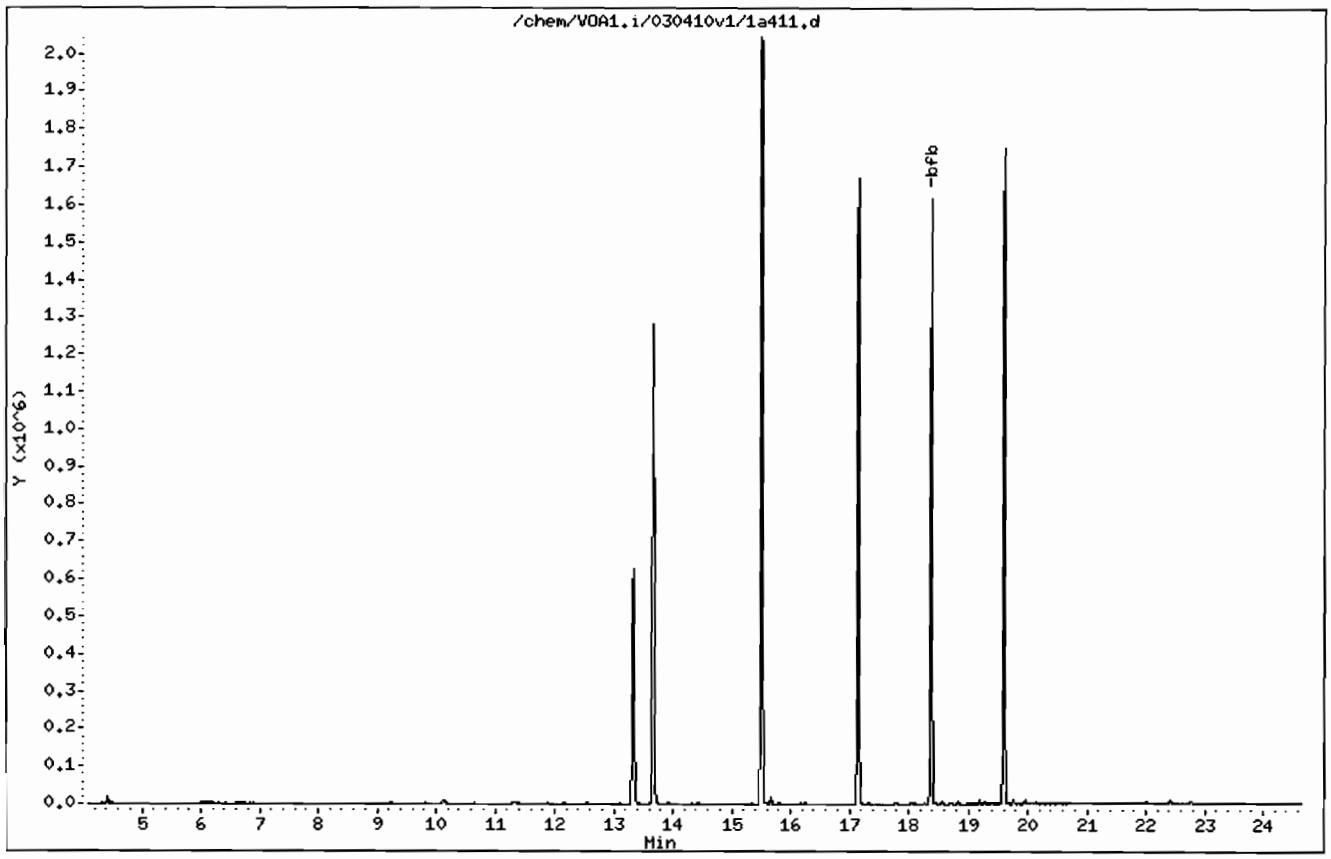

Data File: /chem/VOA1.i/030410v1/1a411.d

Date : 04-MAR-2010 16:41

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |UVM100203-02|BFB01|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

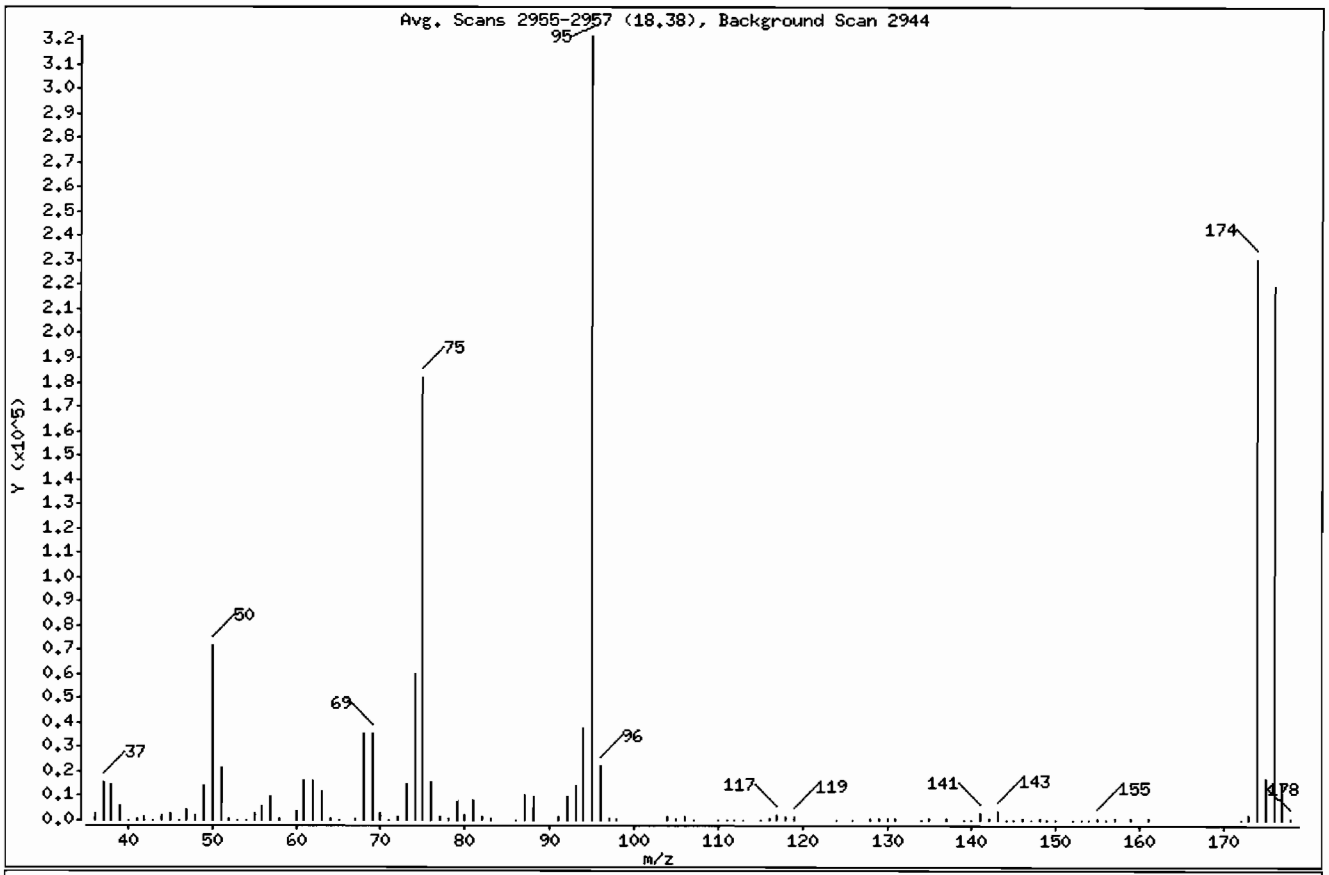

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.19
75	30.00 - 60.00% of mass 95	56.54
96	5.00 - 9.00% of mass 95	6.82
173	Less than 2.00% of mass 174	0.62 (0.86)
174	50.00 - 100.00% of mass 95	71.68
175	5.00 - 9.00% of mass 174	5.29 (7.37)
176	95.00 - 101.00% of mass 174	68.26 (95.22)
177	5.00 - 9.00% of mass 176	4.67 (6.84)

Data File: /chem/VOA1.i/030410v1/1a411.d

Date : 04-MAR-2010 16:41

Client ID: BFB01 Instrument: VOA1.i

Sample Info: |UVM100203-02|BFB01|1|VOAF|1|

Operator: RXM4

Column phase: RTX-Volatiles Column diameter: 0.25

Data File: 1a411.d
Spectrum: Avg. Scans 2955-2957 (18.38), Background Scan 2944
Location of Maximum: 95.00
Number of points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3252	64.00	1002	96.00	21928	141.00	3275
37.00	15572	65.00	151	97.00	684	142.00	452
38.00	14638	67.00	722	98.00	764	143.00	3350
39.00	6262	68.00	35600	104.00	1360	144.00	197
40.00	321	69.00	35720	105.00	511	145.00	327
41.00	477	70.00	2977	106.00	1216	146.00	439
42.00	1424	71.00	60	107.00	263	147.00	330
43.00	352	72.00	1701	110.00	109	148.00	888
44.00	1931	73.00	15015	111.00	277	149.00	183
45.00	2969	74.00	60064	112.00	125	150.00	338
46.00	158	75.00	181824	113.00	185	152.00	207
47.00	4691	76.00	15418	115.00	327	153.00	238
48.00	1850	77.00	1617	116.00	1071	154.00	133
49.00	13884	78.00	1067	117.00	1864	155.00	781
50.00	71368	79.00	7566	118.00	1148	156.00	51
51.00	21760	80.00	2438	119.00	1609	157.00	626
52.00	955	81.00	8436	124.00	161	159.00	370
53.00	76	82.00	1645	126.00	67	161.00	414
54.00	259	83.00	381	128.00	1053	172.00	188
55.00	2630	86.00	361	129.00	495	173.00	1978
56.00	5595	87.00	9988	130.00	1095	174.00	230528
57.00	9504	88.00	9653	131.00	434	175.00	17000
58.00	429	91.00	1151	134.00	69	176.00	219520
60.00	3442	92.00	9649	135.00	445	177.00	15017
61.00	16203	93.00	13946	137.00	440	178.00	465
62.00	16166	94.00	37880	139.00	135		
63.00	11877	95.00	321600	140.00	236		

Data File: /chem/VOA1.i/030410v1/1a502BFB.d

Date : 05-MAR-2010 10:31

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |W1VM100305-01|BFB/ICV/CCV/LCS|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

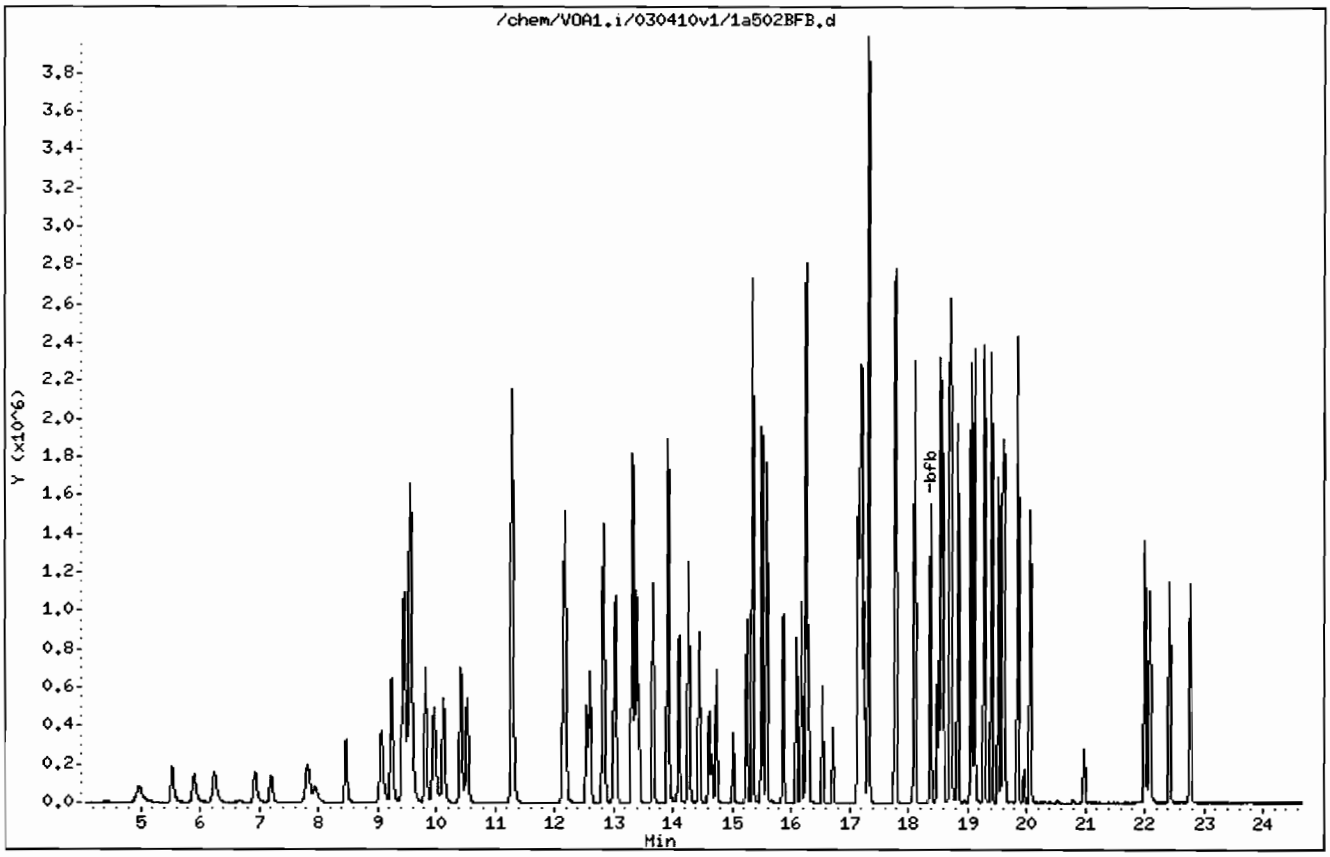

Data File: /chem/VOA1.i/030410v1/1a502BFB.d

Date : 05-MAR-2010 10:31

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |W1VH100305-01|BFB/ICV/CCV/LCS|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

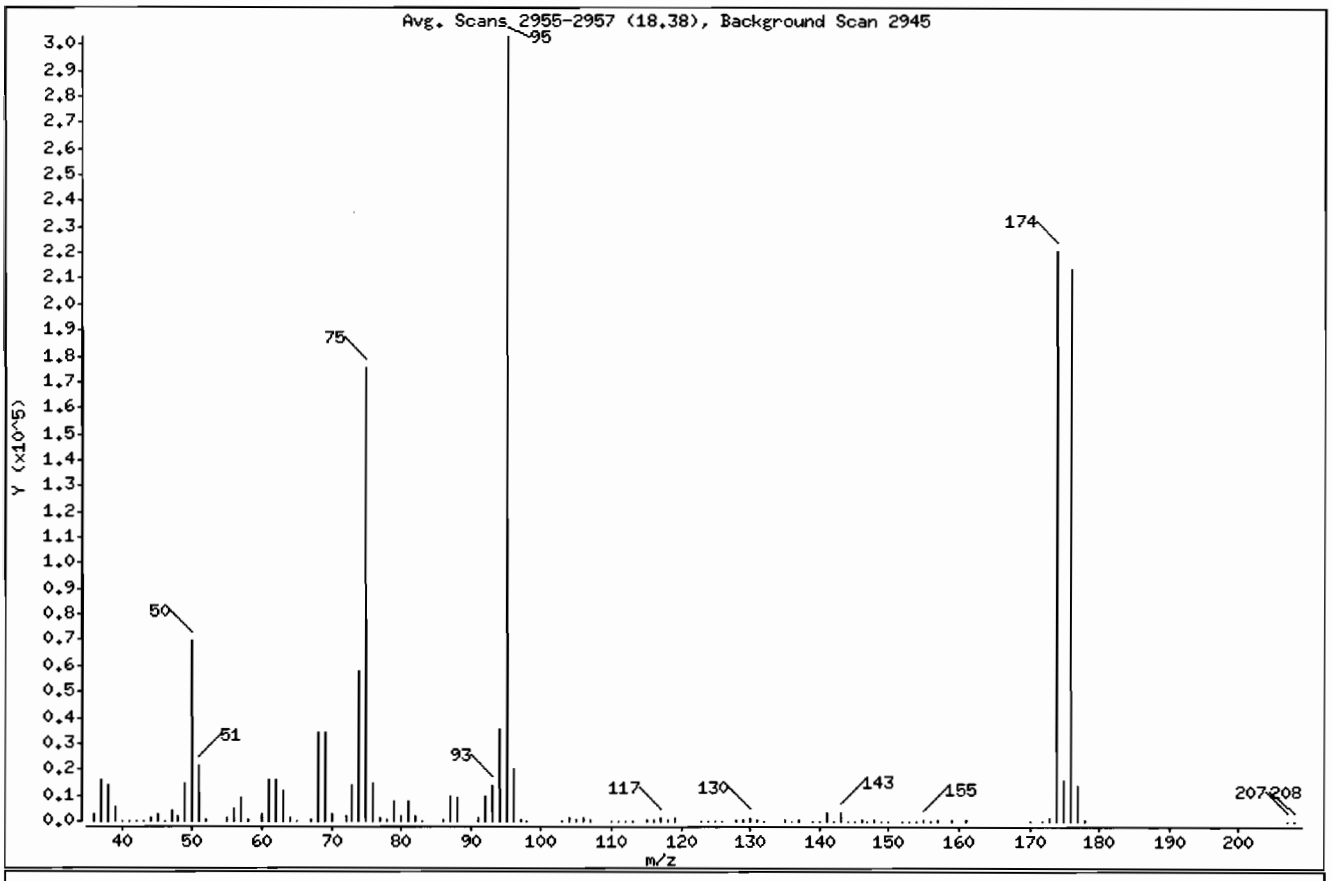

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.94
75	30.00 - 60.00% of mass 95	57.86
96	5.00 - 9.00% of mass 95	6.68
173	Less than 2.00% of mass 174	0.57 (0.79)
174	50.00 - 100.00% of mass 95	72.77
175	5.00 - 9.00% of mass 174	5.40 (7.42)
176	95.00 - 101.00% of mass 174	70.57 (96.98)
177	5.00 - 9.00% of mass 176	4.69 (6.65)

Data File: /chem/VOA1.i/030410v1/1a502BFB.d

Date : 05-MAR-2010 10:31

Client ID: BFB01 Instrument: VOA1.i

Sample Info: |W1VM100305-01|BFB/ICV/CCV/LCS|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles Column diameter: 0.25

Data File: 1a502BFB.d

Spectrum: Avg. Scans 2955-2957 (18.38), Background Scan 2945

Location of Maximum: 95.00

Number of points: 110

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2700	68.00	34160	105.00	576	143.00	3184
37.00	15903	69.00	34136	106.00	1250	144.00	226
38.00	13600	70.00	2594	107.00	391	145.00	331
39.00	5678	72.00	1760	110.00	184	146.00	429
40.00	18	73.00	14242	111.00	283	147.00	194
41.00	234	74.00	57680	112.00	86	148.00	598
42.00	316	75.00	175296	113.00	241	149.00	175
43.00	234	76.00	14596	115.00	370	150.00	288
44.00	1370	77.00	1460	116.00	973	152.00	186
45.00	2758	78.00	926	117.00	1708	153.00	151
46.00	201	79.00	7638	118.00	1043	154.00	115
47.00	3992	80.00	2309	119.00	1382	155.00	816
48.00	1892	81.00	7551	123.00	67	156.00	53
49.00	14691	82.00	1743	124.00	227	157.00	590
50.00	69512	83.00	212	125.00	75	159.00	435
51.00	21264	86.00	435	126.00	68	161.00	403
52.00	822	87.00	9645	128.00	909	170.00	55
55.00	1295	88.00	8766	129.00	455	172.00	217
56.00	5028	91.00	1143	130.00	1098	173.00	1733
57.00	8837	92.00	9719	131.00	473	174.00	220480
58.00	414	93.00	14084	132.00	53	175.00	16349
60.00	3066	94.00	35688	135.00	616	176.00	213824
61.00	16228	95.00	302976	136.00	73	177.00	14224
62.00	16261	96.00	20248	137.00	501	178.00	490
63.00	11722	97.00	594	139.00	112	207.00	66
64.00	1188	98.00	122	140.00	119	208.00	70
65.00	151	103.00	115	141.00	3164		
67.00	865	104.00	1261	142.00	316		

Data File: /chem/VOA1.i/031610v1/1c202BFB.d

Date : 16-MAR-2010 11:00

Client ID: BFB01

Instrument: VOA1.i

Sample Info: IW1VM100316-01|CCV|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

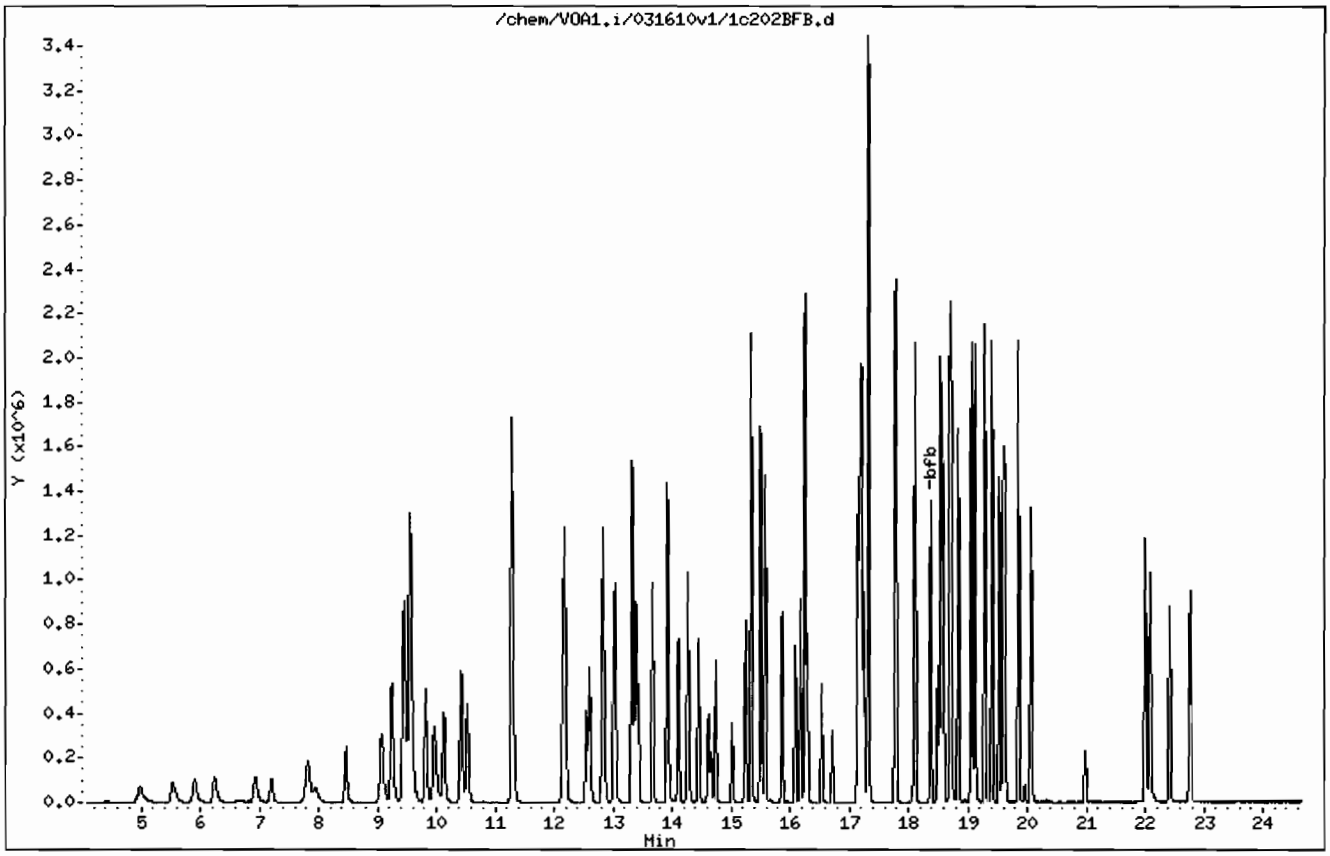

Data File: /chem/VOA1.i/031610v1/1c202BFB.d

Date : 16-MAR-2010 11:00

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |W1VM100316-01|CCV|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

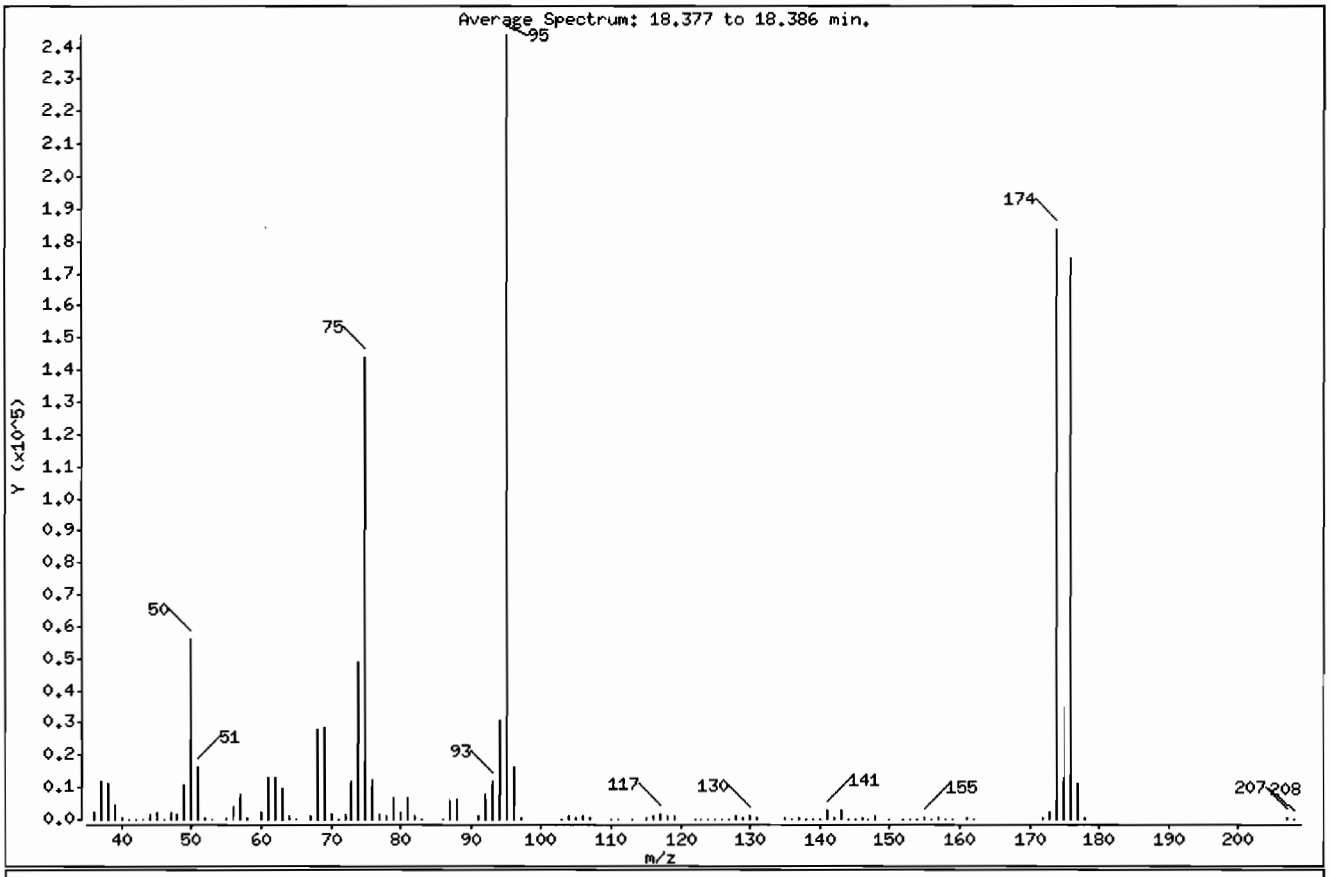

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.89
75	30.00 - 60.00% of mass 95	59.03
96	5.00 - 9.00% of mass 95	6.69
173	Less than 2.00% of mass 174	0.89 (1.18)
174	50.00 - 100.00% of mass 95	75.32
175	5.00 - 9.00% of mass 174	5.39 (7.15)
176	95.00 - 101.00% of mass 174	71.72 (95.22)
177	5.00 - 9.00% of mass 176	4.49 (6.26)

Data File: /chem/VOA1.i/031610v1/1c202BFB.d

Date : 16-MAR-2010 11:00

Client ID: BFB01 Instrument: VOA1.i

Sample Info: |W1VM100316-01|CCV|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles Column diameter: 0.25

Data File: 1c202BFB.d
Spectrum: Average Spectrum: 18.377 to 18.386 min.
Location of Maximum: 95.00
Number of points: 112

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2161	68.00	28096	106.00	887	144.00	225
37.00	11784	69.00	28672	107.00	388	145.00	246
38.00	11058	70.00	1918	110.00	50	146.00	459
39.00	4726	71.00	74	111.00	202	147.00	202
40.00	325	72.00	1709	113.00	54	148.00	849
41.00	59	73.00	11844	115.00	424	150.00	275
42.00	58	74.00	48720	116.00	893	152.00	142
43.00	93	75.00	143872	117.00	1492	153.00	221
44.00	1827	76.00	12119	118.00	957	154.00	240
45.00	2353	77.00	1604	119.00	1310	155.00	687
46.00	227	78.00	846	122.00	55	156.00	104
47.00	2521	79.00	6505	123.00	54	157.00	605
48.00	1615	80.00	2159	124.00	57	158.00	56
49.00	10513	81.00	6751	125.00	58	159.00	278
50.00	55776	82.00	1305	126.00	86	161.00	370
51.00	16112	83.00	53	127.00	121	162.00	58
52.00	767	86.00	52	128.00	927	172.00	307
53.00	54	87.00	5794	129.00	587	173.00	2174
55.00	798	88.00	6069	130.00	1126	174.00	183552
56.00	4006	91.00	985	131.00	476	175.00	13125
57.00	7657	92.00	8058	135.00	536	176.00	174784
58.00	349	93.00	11883	136.00	59	177.00	10947
60.00	2205	94.00	30768	137.00	413	178.00	337
61.00	12625	95.00	243712	138.00	92	207.00	383
62.00	13112	96.00	16303	139.00	190	208.00	76
63.00	9346	97.00	471	140.00	203		
64.00	887	103.00	66	141.00	2993		
65.00	263	104.00	1278	142.00	355		
67.00	843	105.00	376	143.00	2839		

Data File: /chem/VOA1.i/031710v1/1c302BFB.d

Date : 17-MAR-2010 10:43

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |W1VM100317-01|CCV|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

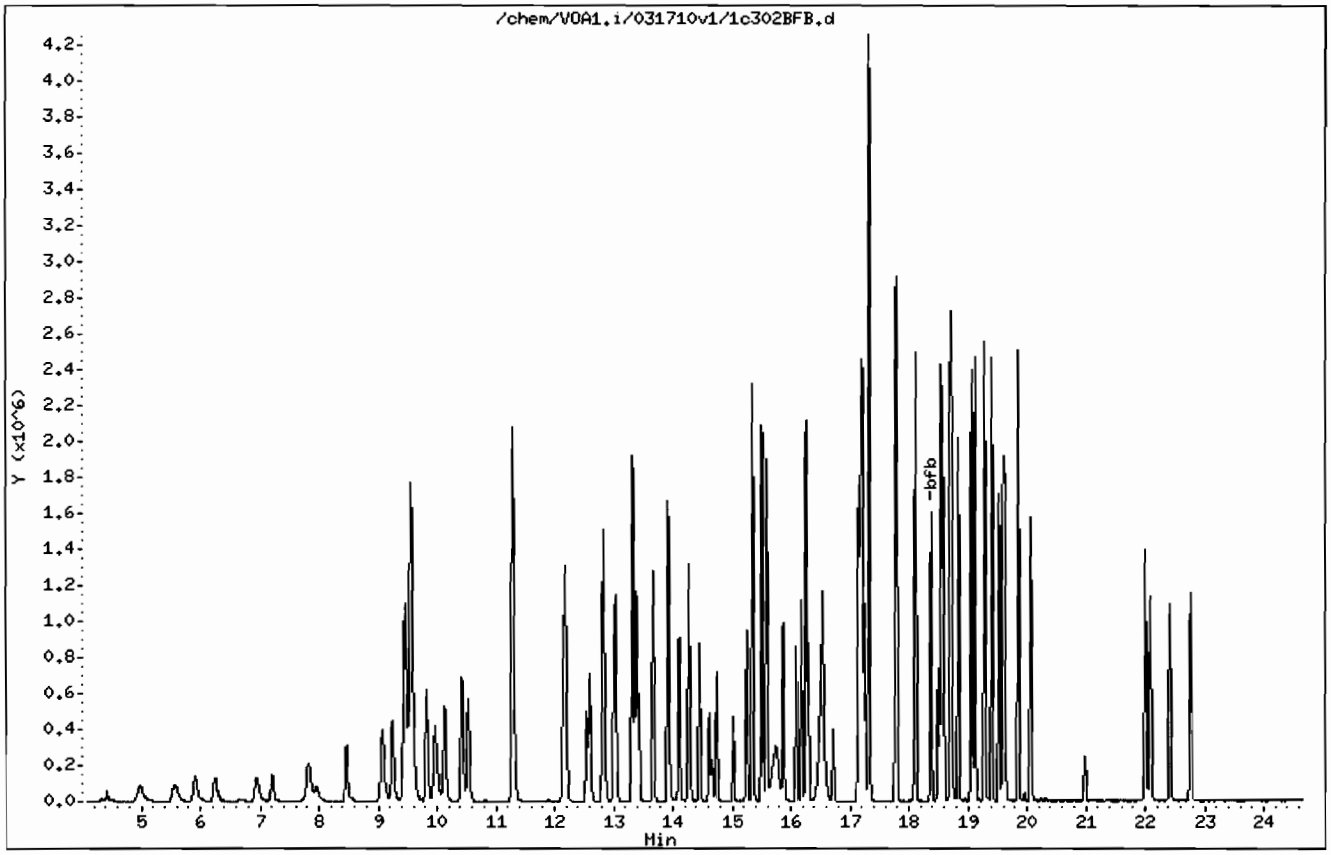

Data File: /chem/VOA1.i/031710v1/1c302BFB.d

Date : 17-MAR-2010 10:43

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |W1VM100317-01|CCV|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

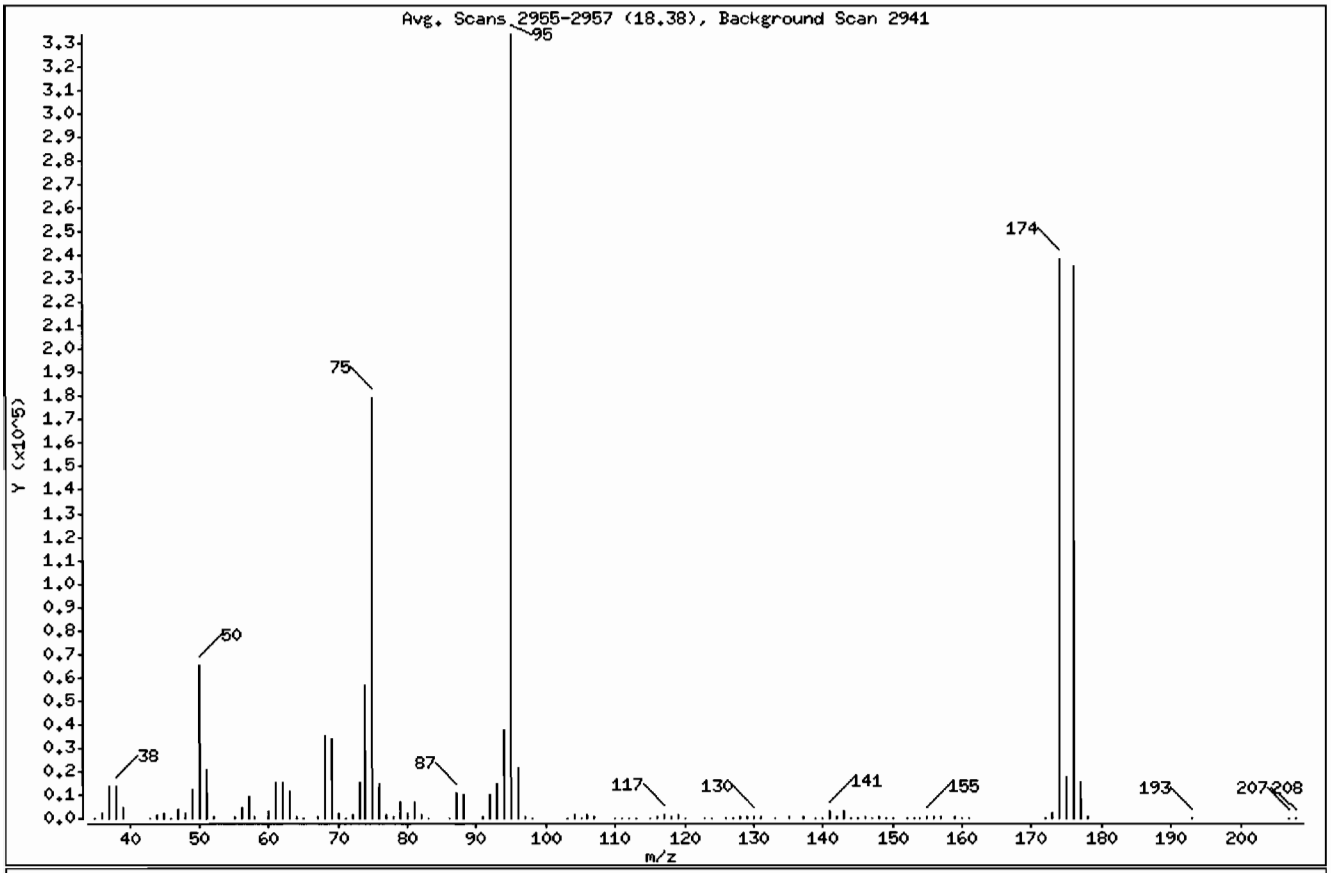

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.59
75	30.00 - 60.00% of mass 95	53.87
96	5.00 - 9.00% of mass 95	6.51
173	Less than 2.00% of mass 174	0.64 (0.89)
174	50.00 - 100.00% of mass 95	71.46
175	5.00 - 9.00% of mass 174	5.35 (7.49)
176	95.00 - 101.00% of mass 174	70.52 (98.68)
177	5.00 - 9.00% of mass 176	4.59 (6.51)

Data File: /chem/VOA1.i/031710v1/1c302BFB.d

Date : 17-MAR-2010 10:43

Client ID: BFB01 Instrument: VOA1.i

Sample Info: |W1VM100317-01|CCV|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles Column diameter: 0.25

Data File: 1c302BFB.d
Spectrum: Avg. Scans 2955-2957 (18.38), Background Scan 2941
Location of Maximum: 95.00
Number of points: 110

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	57	70.00	2342	106.00	1292	144.00	182
36.00	2621	71.00	71	107.00	419	145.00	244
37.00	13842	72.00	1668	110.00	55	146.00	420
38.00	13894	73.00	15095	111.00	292	147.00	313
39.00	4255	74.00	56952	112.00	68	148.00	747
43.00	224	75.00	179712	113.00	155	149.00	85
44.00	1274	76.00	14423	115.00	383	150.00	302
45.00	2530	77.00	1730	116.00	894	152.00	52
46.00	143	78.00	913	117.00	1644	153.00	277
47.00	4019	79.00	6763	118.00	1052	154.00	154
48.00	1985	80.00	2112	119.00	1241	155.00	679
49.00	12632	81.00	7131	120.00	194	156.00	410
50.00	65352	82.00	1425	123.00	54	157.00	566
51.00	20664	83.00	93	124.00	79	159.00	432
52.00	695	86.00	378	126.00	146	160.00	62
55.00	889	87.00	10896	127.00	176	161.00	380
56.00	4532	88.00	9957	128.00	1080	172.00	132
57.00	9165	91.00	761	129.00	436	173.00	2122
58.00	420	92.00	9808	130.00	1133	174.00	238400
60.00	3092	93.00	14291	131.00	484	175.00	17848
61.00	15065	94.00	37384	133.00	65	176.00	235264
62.00	14957	95.00	333632	135.00	450	177.00	15304
63.00	11262	96.00	21720	137.00	435	178.00	487
64.00	994	97.00	683	139.00	140	193.00	77
65.00	53	98.00	73	140.00	208	207.00	14
67.00	866	103.00	50	141.00	2990	208.00	128
68.00	34968	104.00	1193	142.00	472		
69.00	33720	105.00	268	143.00	2981		

Data File: /chem/VOA1.i/031810v1/1c403BFB.d

Date : 18-MAR-2010 10:11

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |W1VM100318-02|LCS|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

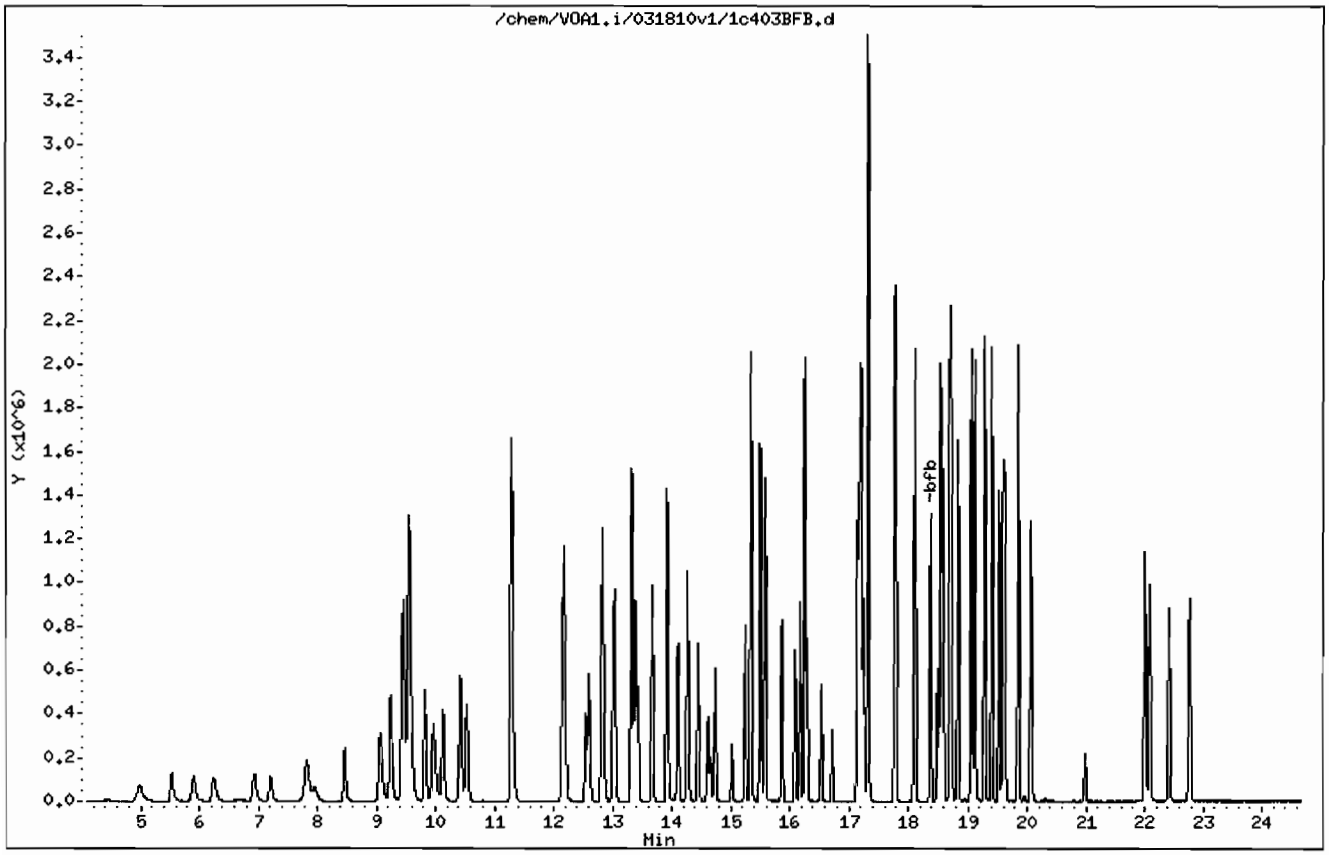

Data File: /chem/VOA1.i/031810v1/1c403BFB.d

Date : 18-MAR-2010 10:11

Client ID: BFB01

Instrument: VOA1.i

Sample Info: |W1VM100318-02|LCS|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

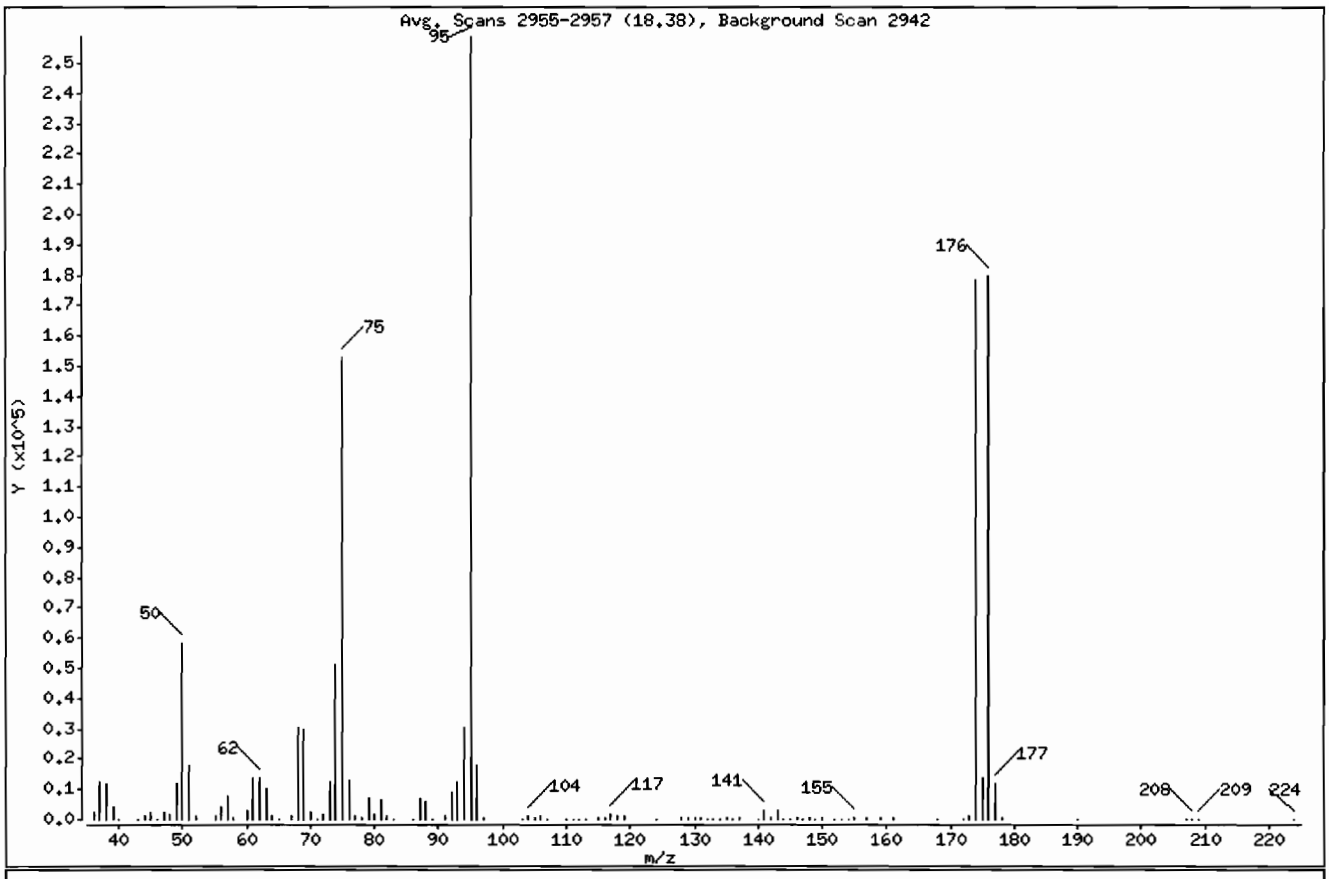

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.53
75	30.00 - 60.00% of mass 95	59.01
96	5.00 - 9.00% of mass 95	6.92
173	Less than 2.00% of mass 174	0.48 (0.69)
174	50.00 - 100.00% of mass 95	69.00
175	5.00 - 9.00% of mass 174	5.21 (7.55)
176	95.00 - 101.00% of mass 174	69.39 (100.57)
177	5.00 - 9.00% of mass 176	4.54 (6.54)

Data File: /chem/VOA1.i/031810v1/1c403BFB.d

Date : 18-MAR-2010 10:11

Client ID: BFB01 Instrument: VOA1.i

Sample Info: |W1VM100318-02|LCS|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles Column diameter: 0.25

Data File: 1c403BFB.d
Spectrum: Avg. Scans 2955-2957 (18.38), Background Scan 2942
Location of Maximum: 95.00
Number of points: 109

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2146	70.00	2254	106.00	1027	146.00	381
37.00	12776	71.00	98	107.00	214	147.00	251
38.00	11607	72.00	1644	110.00	157	148.00	736
39.00	4391	73.00	12368	111.00	285	149.00	74
40.00	72	74.00	51176	112.00	150	150.00	390
43.00	202	75.00	152768	113.00	116	152.00	80
44.00	1085	76.00	13080	115.00	395	153.00	183
45.00	2287	77.00	1270	116.00	877	154.00	27
46.00	121	78.00	862	117.00	1707	155.00	764
47.00	2445	79.00	6851	118.00	978	157.00	670
48.00	2025	80.00	1822	119.00	1294	159.00	363
49.00	12107	81.00	6843	124.00	72	161.00	370
50.00	58320	82.00	1437	128.00	860	168.00	66
51.00	17960	83.00	191	129.00	590	172.00	70
52.00	986	86.00	189	130.00	865	173.00	1230
55.00	899	87.00	7227	131.00	315	174.00	178624
56.00	4322	88.00	5975	132.00	106	175.00	13486
57.00	7785	89.00	92	133.00	116	176.00	179648
58.00	355	91.00	948	134.00	58	177.00	11749
60.00	2860	92.00	8630	135.00	570	178.00	344
61.00	13449	93.00	12414	136.00	69	190.00	65
62.00	13901	94.00	30232	137.00	508	207.00	32
63.00	10271	95.00	258880	140.00	196	208.00	53
64.00	900	96.00	17904	141.00	2900	209.00	56
65.00	143	97.00	627	142.00	363	224.00	50
67.00	1025	103.00	88	143.00	2807		
68.00	30544	104.00	1150	144.00	158		
69.00	30032	105.00	455	145.00	229		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202082296**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**HB for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**50**
Run Date:	**03/17/2010 14:29**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:35**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**1c308.d**	**Column:**	**RTX-Volatiles**	**Level:**	**MED**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	100	ug/kg	34.0	100
74-87-3	Chloromethane	U	100	ug/kg	30.0	100
75-01-4	Vinyl chloride	U	100	ug/kg	30.0	100
74-83-9	Bromomethane	U	100	ug/kg	30.0	100
75-00-3	Chloroethane	U	100	ug/kg	30.0	100
75-69-4	Trichlorofluoromethane	U	100	ug/kg	30.0	100
67-64-1	Acetone	U	500	ug/kg	166	500
75-35-4	1,1-Dichloroethylene	U	100	ug/kg	30.0	100
74-88-4	Iodomethane	U	500	ug/kg	160	500
75-09-2	Methylene chloride	U	500	ug/kg	200	500
75-15-0	Carbon disulfide	U	500	ug/kg	125	500
156-60-5	trans-1,2-Dichloroethylene	U	100	ug/kg	30.0	100
75-34-3	1,1-Dichloroethane	U	100	ug/kg	30.0	100
78-93-3	2-Butanone	J	176	ug/kg	150	500
156-59-2	cis-1,2-Dichloroethylene	U	100	ug/kg	30.0	100
594-20-7	2,2-Dichloropropane	U	100	ug/kg	30.0	100
67-66-3	Chloroform	U	100	ug/kg	30.0	100
74-97-5	Bromochloromethane	U	100	ug/kg	33.0	100
71-55-6	1,1,1-Trichloroethane	U	100	ug/kg	30.0	100
563-58-6	1,1-Dichloropropene	U	100	ug/kg	30.0	100
56-23-5	Carbon tetrachloride	U	100	ug/kg	30.0	100
107-06-2	1,2-Dichloroethane	U	100	ug/kg	30.0	100
71-43-2	Benzene	U	100	ug/kg	30.0	100
79-01-6	Trichloroethylene	U	100	ug/kg	33.0	100
78-87-5	1,2-Dichloropropane	U	100	ug/kg	30.0	100
75-27-4	Bromodichloromethane	U	100	ug/kg	30.0	100
74-95-3	Dibromomethane	U	100	ug/kg	30.0	100
108-10-1	4-Methyl-2-pentanone	U	500	ug/kg	125	500
10061-01-5	cis-1,3-Dichloropropylene	U	100	ug/kg	30.0	100
108-88-3	Toluene	U	100	ug/kg	30.0	100
10061-02-6	trans-1,3-Dichloropropylene	U	100	ug/kg	30.0	100
79-00-5	1,1,2-Trichloroethane	U	100	ug/kg	30.0	100
591-78-6	2-Hexanone	U	500	ug/kg	150	500
142-28-9	1,3-Dichloropropane	U	100	ug/kg	30.0	100
127-18-4	Tetrachloroethylene	U	100	ug/kg	30.0	100
124-48-1	Dibromochloromethane	U	100	ug/kg	30.0	100
106-93-4	1,2-Dibromoethane	U	100	ug/kg	30.0	100
108-90-7	Chlorobenzene	U	100	ug/kg	30.0	100

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202082296**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**HB for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**50**
Run Date:	**03/17/2010 14:29**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 13:35**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**1c308.d**	**Column:**	**RTX-Volatiles**	**Level:**	**MED**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	100	ug/kg	30.0	100
179601-23-1	m,p-Xylenes	U	200	ug/kg	30.0	200
95-47-6	o-Xylene	U	100	ug/kg	30.0	100
100-42-5	Styrene	U	100	ug/kg	30.0	100
75-25-2	Bromoform	U	100	ug/kg	30.0	100
79-34-5	1,1,2,2-Tetrachloroethane	U	100	ug/kg	30.0	100
96-18-4	1,2,3-Trichloropropane	U	100	ug/kg	30.0	100
108-86-1	Bromobenzene	U	100	ug/kg	30.0	100
103-65-1	n-Propylbenzene	U	100	ug/kg	30.0	100
95-49-8	2-Chlorotoluene	U	100	ug/kg	30.0	100
98-82-8	Isopropylbenzene	U	100	ug/kg	30.0	100
108-67-8	1,3,5-Trimethylbenzene	U	100	ug/kg	30.0	100
106-43-4	4-Chlorotoluene	U	100	ug/kg	30.0	100
98-06-6	tert-Butylbenzene	U	100	ug/kg	30.0	100
95-63-6	1,2,4-Trimethylbenzene	U	100	ug/kg	30.0	100
135-98-8	sec-Butylbenzene	U	100	ug/kg	30.0	100
99-87-6	4-Isopropyltoluene	U	100	ug/kg	30.0	100
541-73-1	1,3-Dichlorobenzene	U	100	ug/kg	30.0	100
106-46-7	1,4-Dichlorobenzene	U	100	ug/kg	30.0	100
104-51-8	n-Butylbenzene	U	100	ug/kg	30.0	100
96-12-8	1,2-Dibromo-3-chloropropane	U	100	ug/kg	30.0	100
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	500	ug/kg	160	500
630-20-6	1,1,1,2-Tetrachloroethane	U	100	ug/kg	30.0	100
95-50-1	1,2-Dichlorobenzene	U	100	ug/kg	30.0	100

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	6.93	1180	ug/kg		J
	Unknown Siloxane	19.96	708	ug/kg		J
	Unknown Siloxane	22.15	1370	ug/kg		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c308.d
Lab Smp Id: 1202082296 Client Smp ID: BLANK
Inj Date : 17-MAR-2010 14:29
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202082296|965875|50|VOAF|1|
Misc Info : GEL 0.1 mL N/A HB
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 17:24 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 8 QC Sample: HB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vs/Ws)*(Vt/Va)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Vs	10000.00000	Soil Extract Volume (uL)
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
35 2-Butanone	43	12.167	12.172	(0.891)	12416	1.75595	176(a)
$ 48 1,2-Dichloroethane-d4	65	13.313	13.327	(0.975)	511976	46.5670	4660
* 52 Fluorobenzene	96	13.658	13.672	(1.000)	1126002	50.0000	
$ 65 Toluene-d8	98	15.495	15.504	(0.904)	1362852	48.2667	4830
* 76 Chlorobenzene-d5	117	17.143	17.148	(1.000)	839520	50.0000	
$ 87 Bromofluorobenzene	95	18.372	18.377	(0.938)	560704	48.5419	4850
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	460724	50.0000	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c308.d
Lab Smp Id: 1202082296 Client Smp ID: BLANK
Inj Date : 17-MAR-2010 14:29
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202082296|965875|50|VOAF|1|
Misc Info : GEL 0.1 mL N/A HB
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 17:24 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 8 QC Sample: HB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vs/Ws)*(Vt/Va)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Vs	10000.00000	Soil Extract Volume (uL)
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 52 Fluorobenzene	13.658	2557112	50.000
* 102 1,4-Dichlorobenzene-d4	19.596	2996980	50.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
6.929	604678	11.8234601	1180	0		0	52

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
19.955	424148	7.07624991	708	0		0	102
Unknown Siloxane					CAS #:		
22.146	823436	13.7377587	1370	0		0	102

Data File: /chem/VOA1.i/031710v1/1c308.d
Date : 17-MAR-2010 14:29
Client ID: BLANK
Sample Info: |120208229619658751501VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2
Column diameter: 0.25

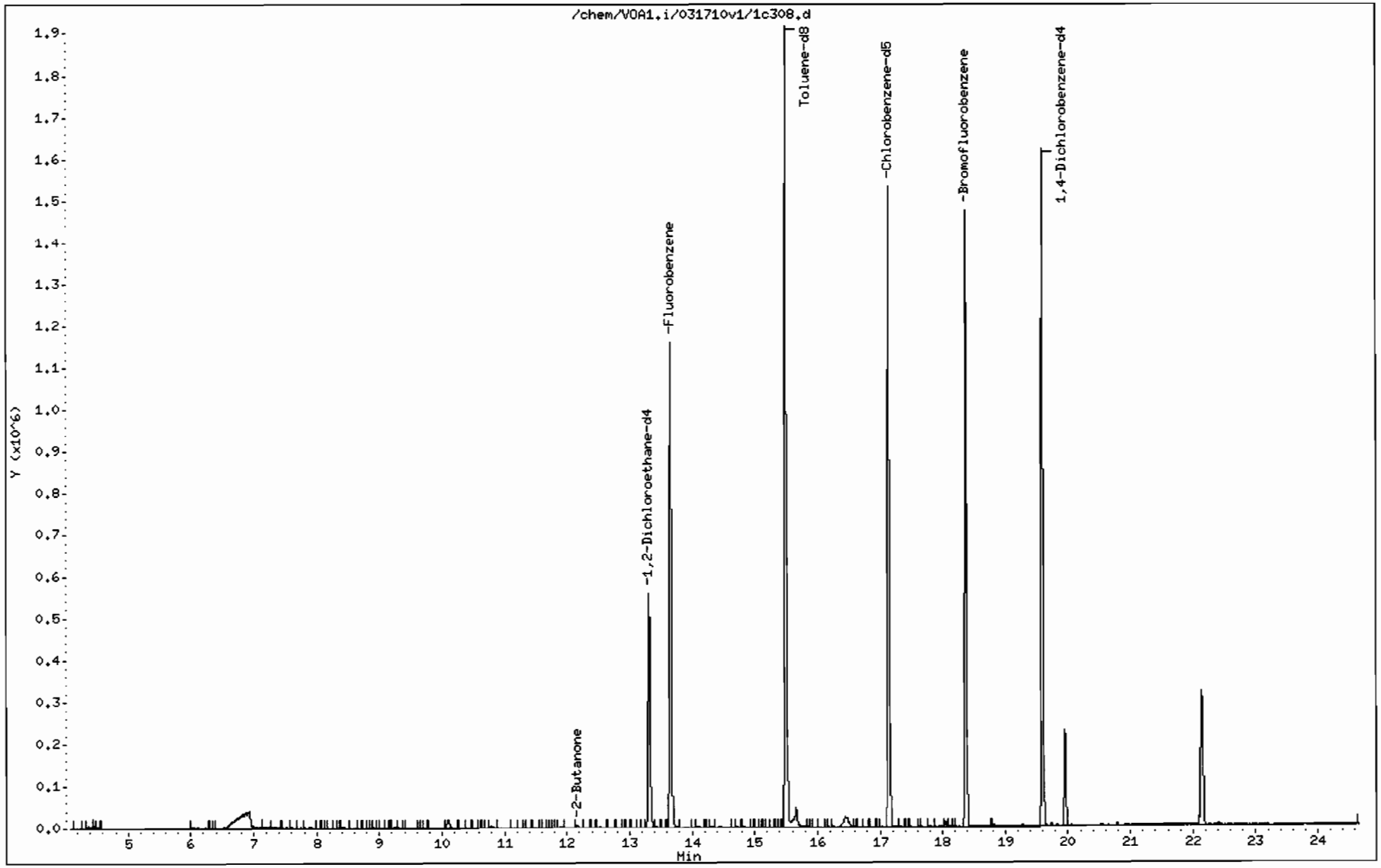

Data File: /chem/VOA1.i/031710v1/1c308.d

Date : 17-MAR-2010 14:29

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202082296|965875|50|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

35 2-Butanone

Concentration: 176 ug/Kg

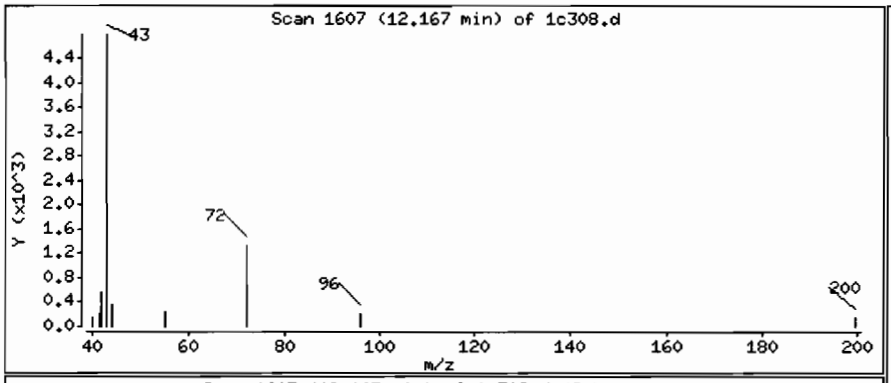

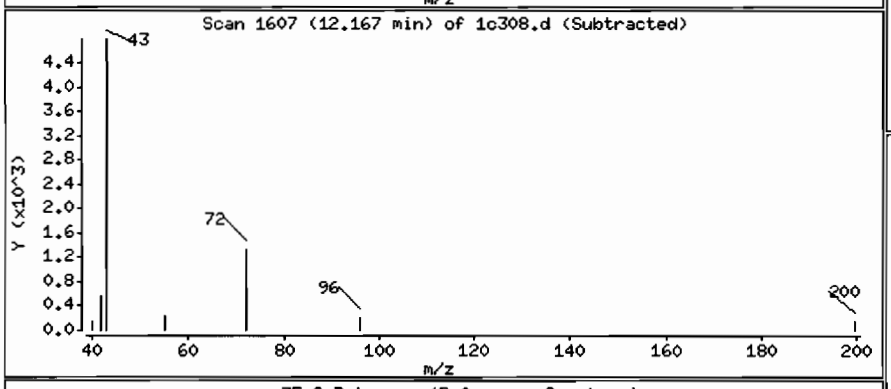

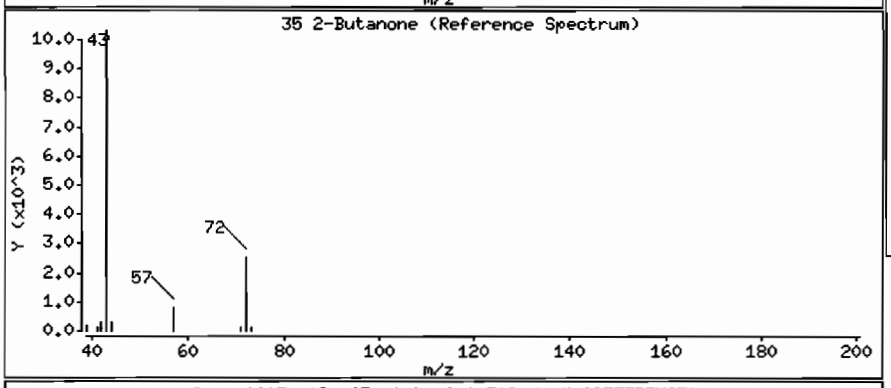

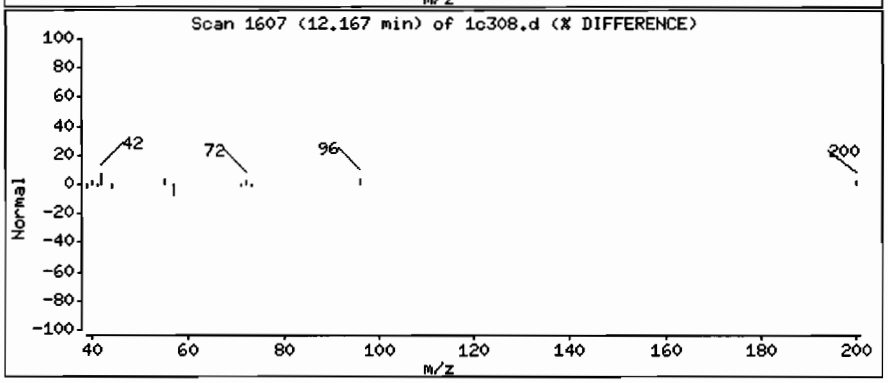

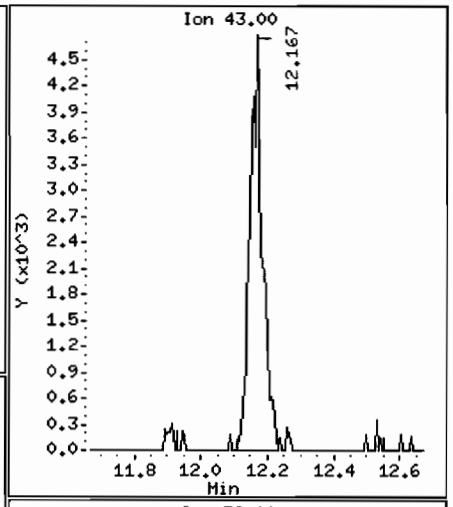

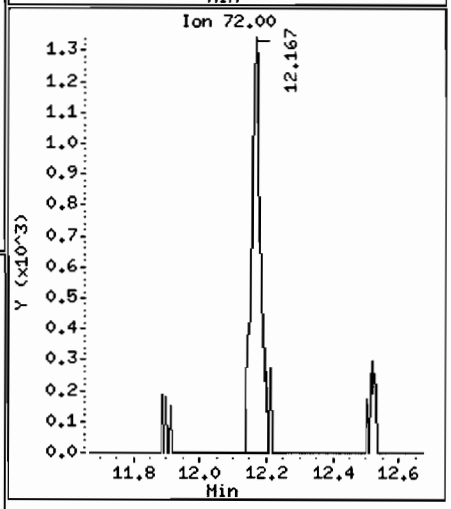

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Date : 17-MAR-2010 14:29

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202082296|965875|50|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Phosgene	75-44-5	NIST05.L	3350	42	CCl2O	98
Ethene, (methylsulfonyl)-	3680-02-2	NIST05.L	4836	32	C3H6O2S	106
Ethene, (methylsulfonyl)-	3680-02-2	NIST05.L	4837	23	C3H6O2S	106

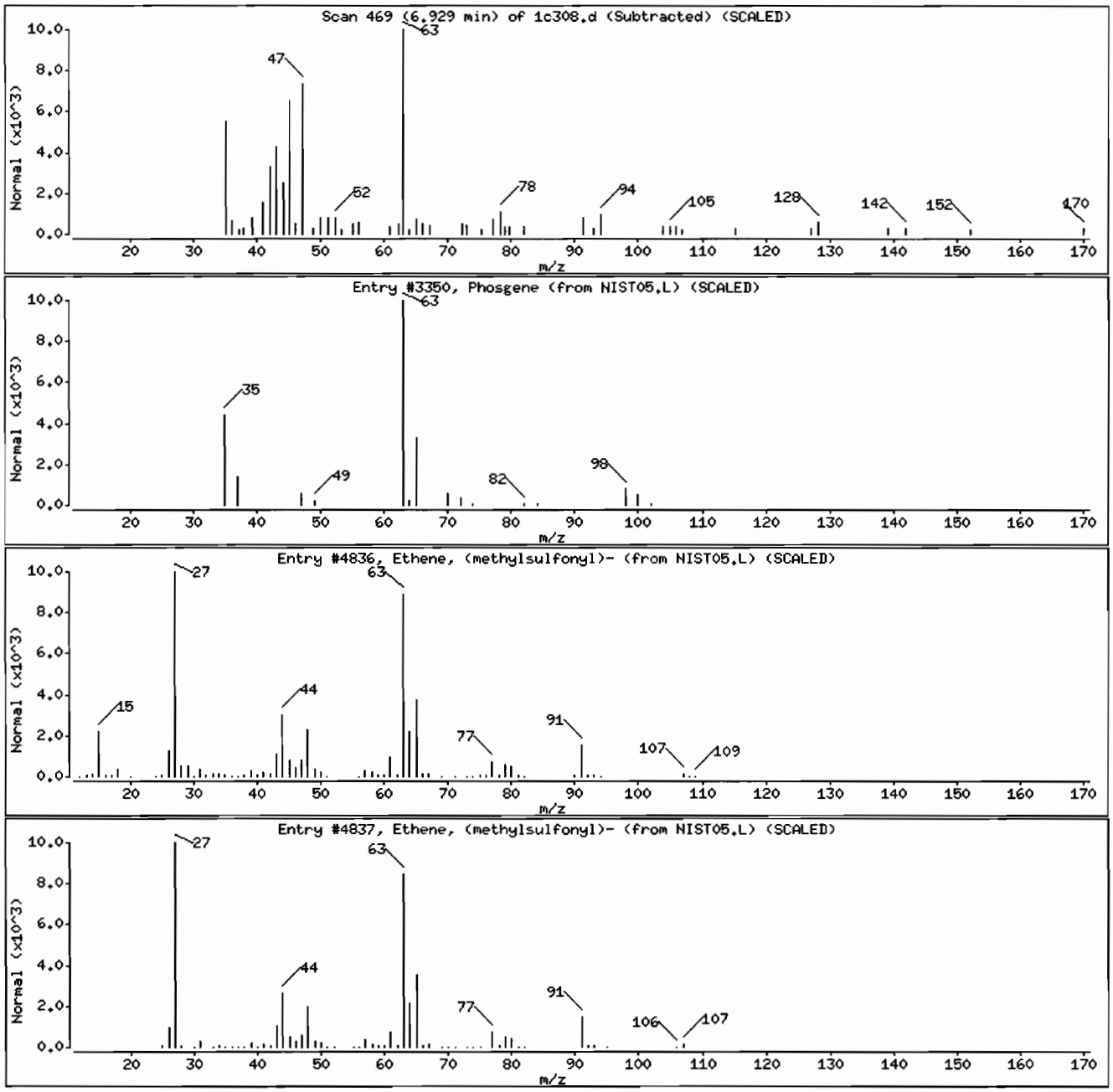

Data File: /chem/VOA1.i/031710v1/1c308.d

Date : 17-MAR-2010 14:29

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202082296|965875|50|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Unknown			0	0		0

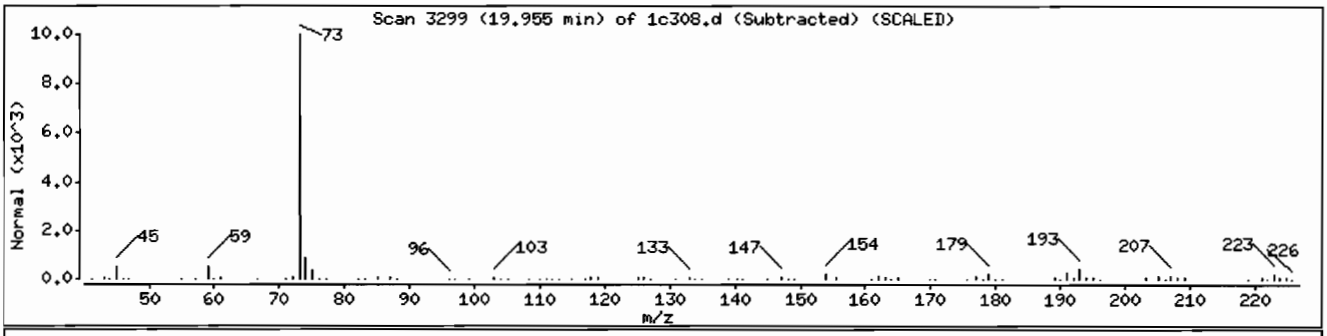

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Date : 17-MAR-2010 14:29

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202082296|965875|50|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
3-Phenyl-3-trimethylsilyloxypropanoic ac	1000079-40-7	NIST05.L	130717	42	C15H2603Si2	310
3,8-Dioxa-2,9-disiladecane, 2,2,9,9-tetr	74779-61-6	NIST05.L	178346	25	C18H4604Si4	438
Trimethylsilyl ether of glycerol	6787-10-6	NIST05.L	129247	25	C12H3203Si3	308

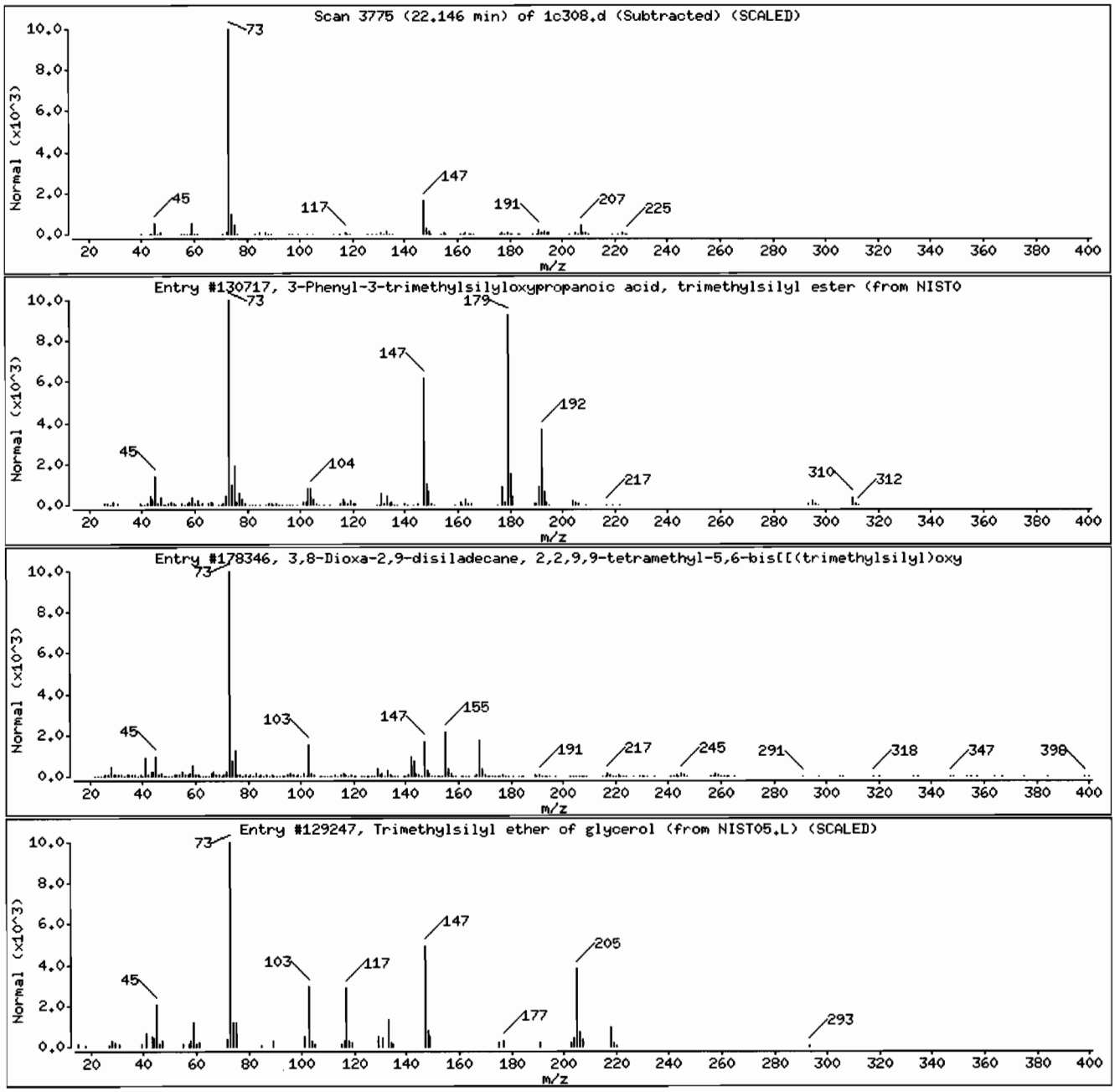

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072713**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 13:03**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 10:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c206LL.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072713**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 13:03**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 10:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c206LL.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c206LL.d
Lab Smp Id: 1202072713 Client Smp ID: BLANK
Inj Date : 16-MAR-2010 13:03
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202072713|965875|1|VOAF|1|
Misc Info : GEL 5g N/A
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	512844	56.2270	56.2
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	934133	50.0000	
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1182830	50.6560	50.6
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	694259	50.0000	
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	499200	50.6144	50.6
90 trans-1,4-Dichloro-2-butene	53	18.551	18.556	(0.947)	1624	0.73427	0.73(a)
98 Pentachloroethane	167	19.191	19.187	(0.979)	1793	14.8404	14.8
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	393391	50.0000	
104 Benzyl chloride	91	19.767	19.762	(1.009)	10897	1.07521	1.1(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c206LL.d
Lab Smp Id: 1202072713 Client Smp ID: BLANK
Inj Date : 16-MAR-2010 13:03
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202072713|965875|1|VOAF|1|
Misc Info : GEL 5g N/A
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/031610v1/1c206LL.d
Date : 16-MAR-2010 13:03
Client ID: BLANK
Sample Info: 1120207271319658751|1|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: CRB2
Column diameter: 0.25

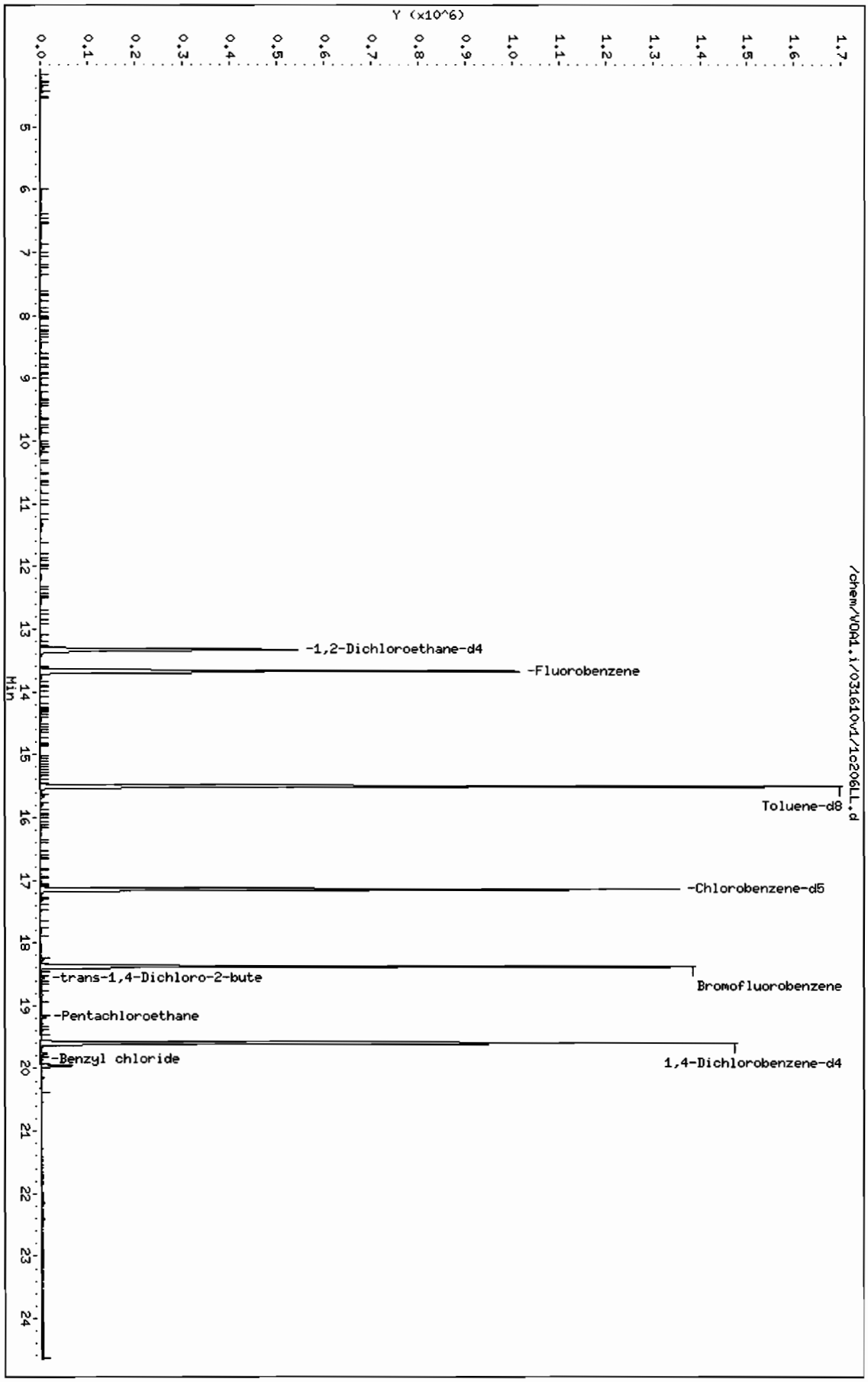

Page 1

Data File: /chem/VOA1.i/031610v1/1c206LL.d

Date : 16-MAR-2010 13:03

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202072713|965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

90 trans-1,4-Dichloro-2-butene

Concentration: 0.73 ug/Kg

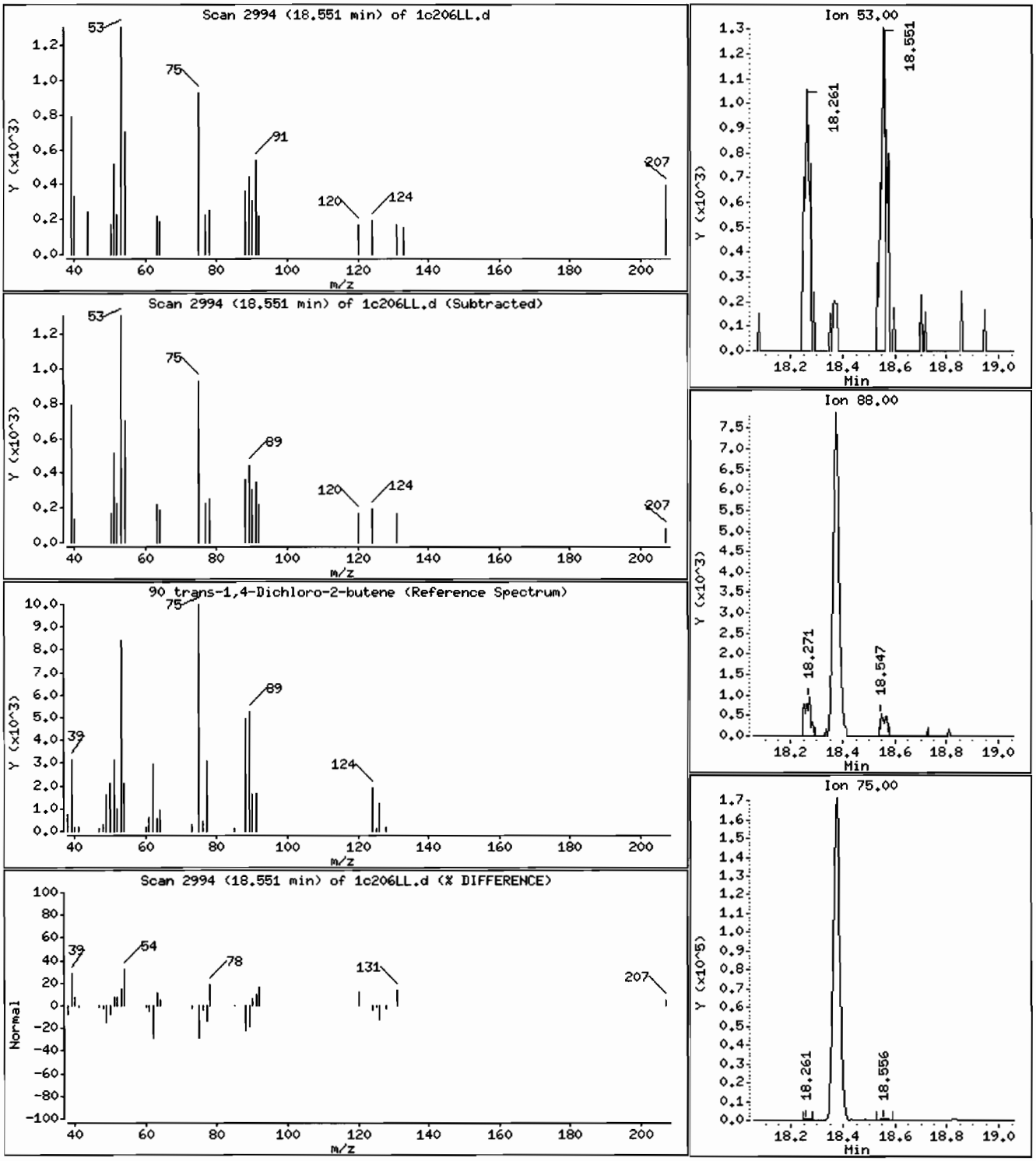

Data File: /chem/VOA1.i/031610v1/1c206LL.d

Date : 16-MAR-2010 13:03

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202072713|965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

98 Pentachloroethane

Concentration: 14.8 ug/Kg

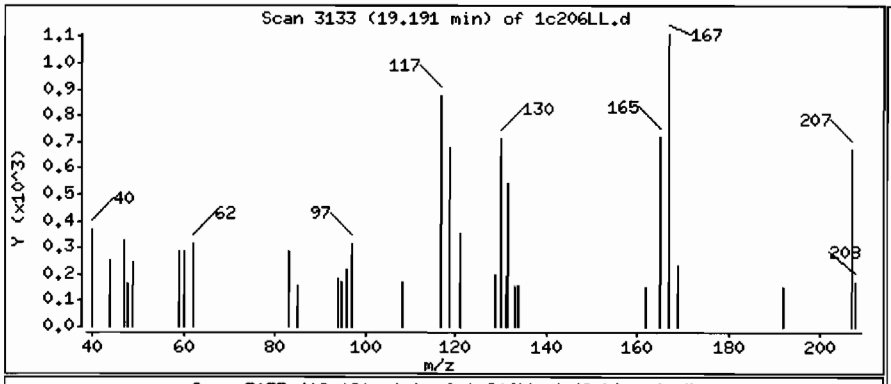

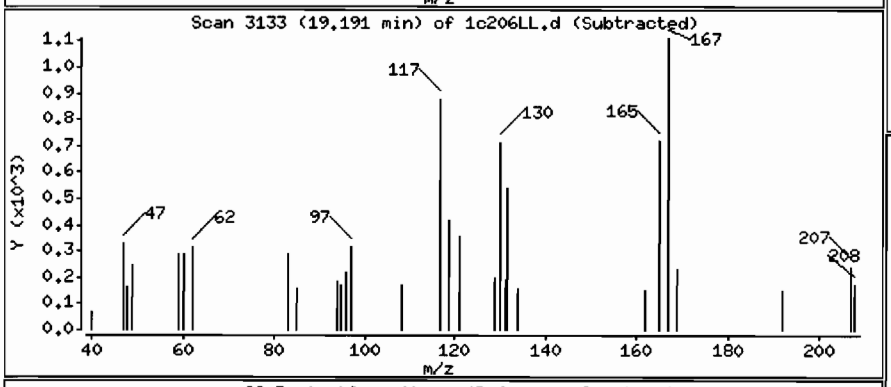

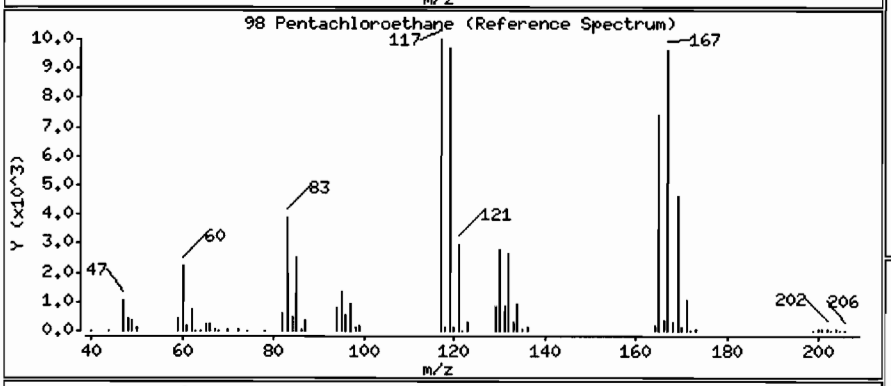

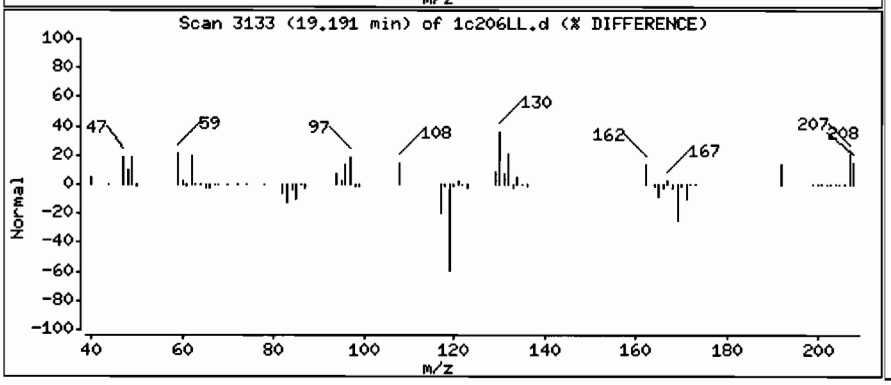

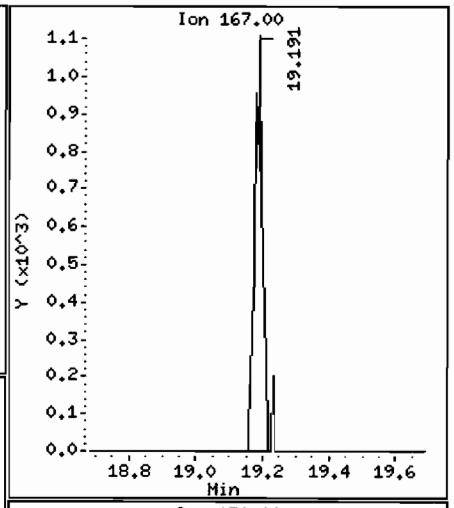

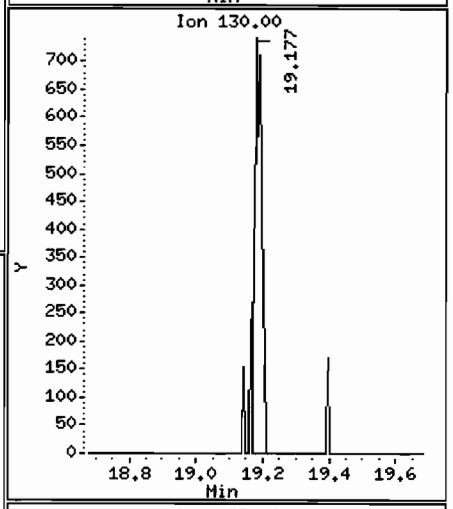

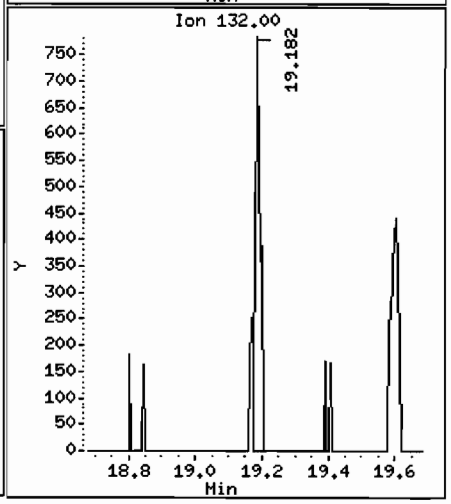

Data File: /chem/VOA1.i/031610v1/1c206LL.d

Date : 16-MAR-2010 13:03

Client ID: BLANK

Instrument: VOA1.i

Sample Info: |1202072713|965875|1|VOAF|1|

Operator: GRB2

Column phase: RTX-Volatiles

Column diameter: 0.25

104 Benzyl chloride

Concentration: 1.1 ug/Kg

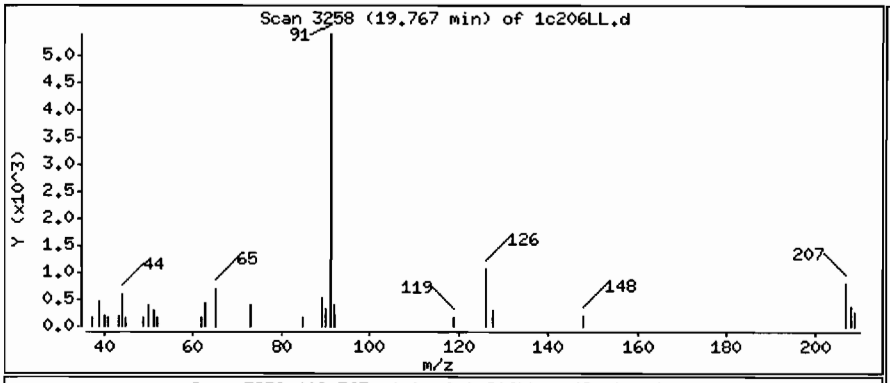

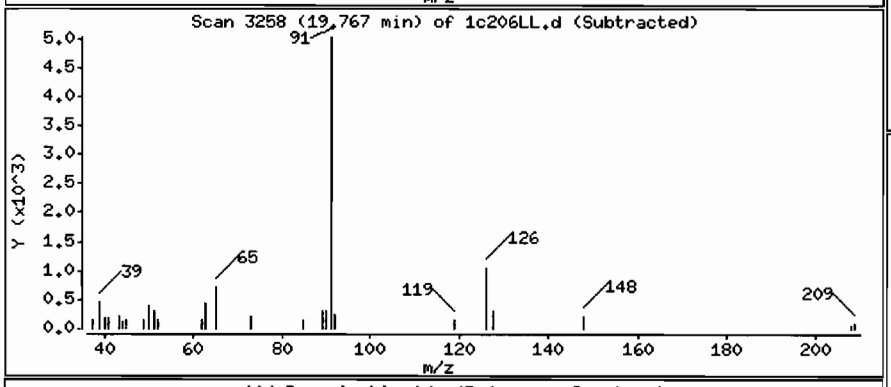

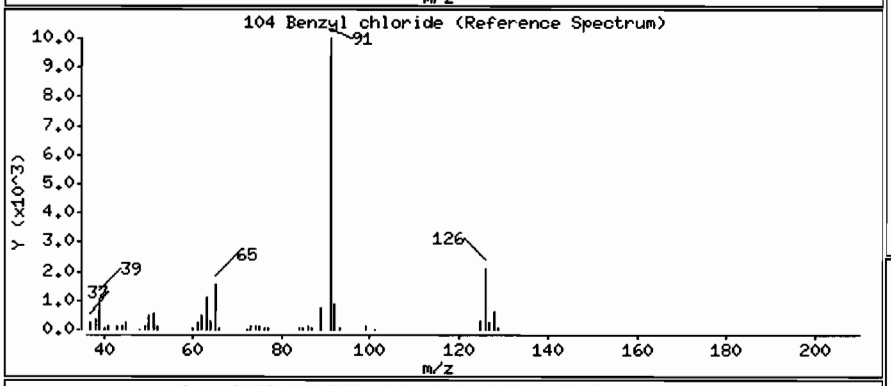

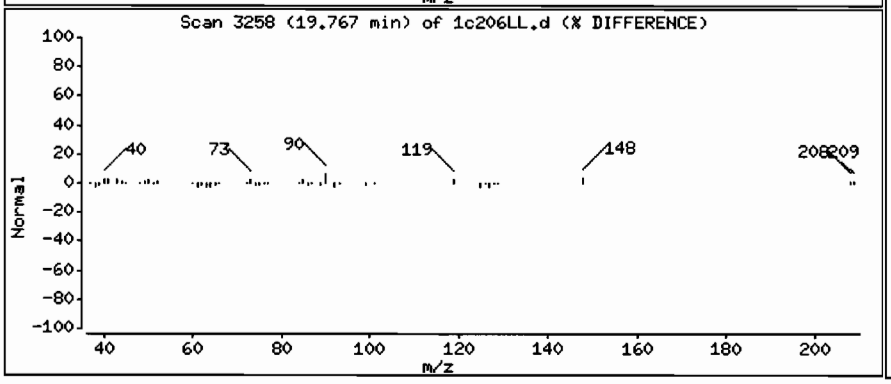

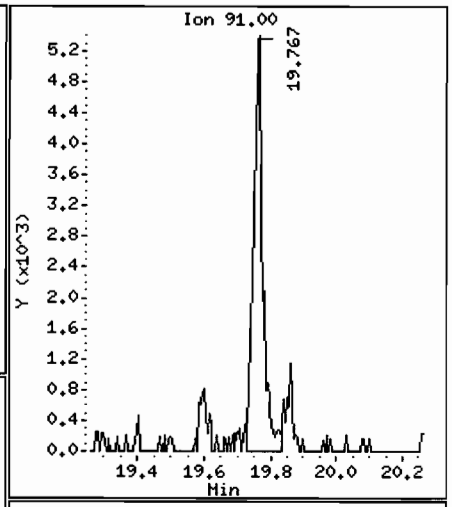

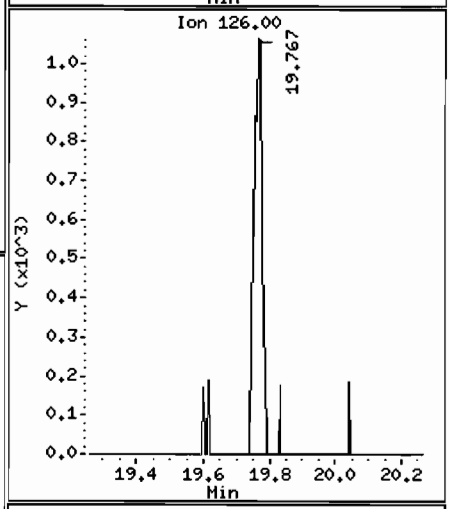

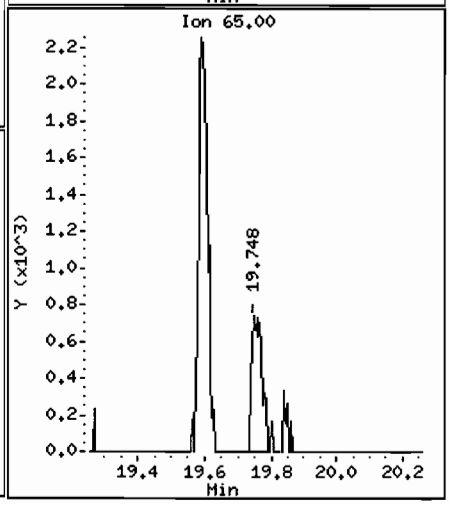

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202082289**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 13:16**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 09:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c307LL.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202082289**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 13:16**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 09:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c307LL.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c307LL.d
Lab Smp Id: 1202082289 Client Smp ID: BLANK
Inj Date : 17-MAR-2010 13:16
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202082289|965875|1|VOAF|1|
Misc Info : GEL 5g N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 17:24 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	523750	49.9861	50.0
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	1073106	50.0000	
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1375129	51.4709	51.5
* 76 Chlorobenzene-d5	117	17.147	17.148	(1.000)	794349	50.0000	
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	559174	50.9974	51.0
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	437344	50.0000	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c307LL.d
Lab Smp Id: 1202082289 Client Smp ID: BLANK
Inj Date : 17-MAR-2010 13:16
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202082289|965875|1|VOAF|1|
Misc Info : GEL 5g N/A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 17:24 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/031710v1/1c307LL.d
Date : 17-MAR-2010 13:16
Client ID: BLANK
Sample Info: |1202082289|965875|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2
Column diameter: 0.25

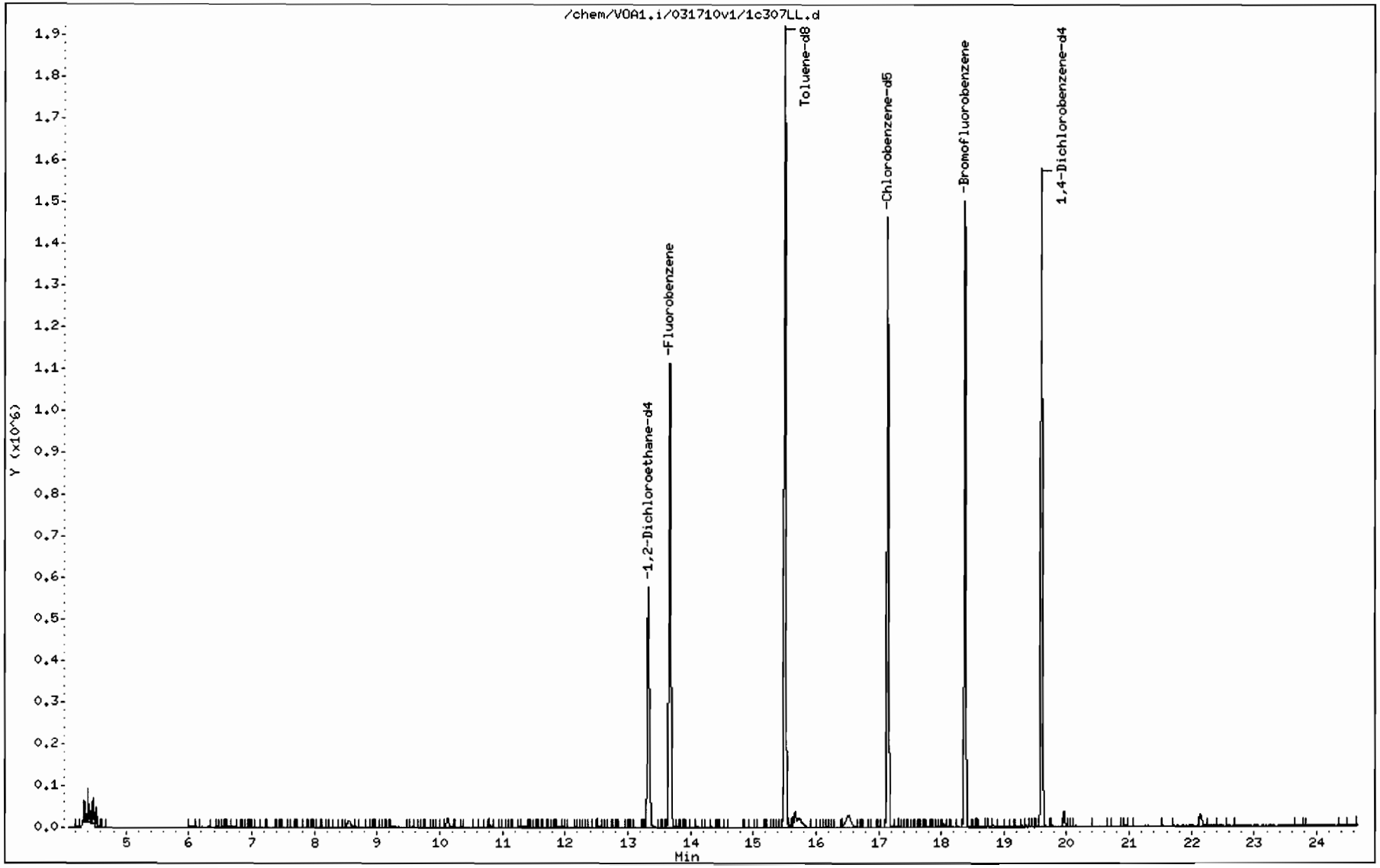

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202082290**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 12:43**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 08:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c408LL.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202082290**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 12:43**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 08:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c408LL.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031810v1/1c408LL.d
Lab Smp Id: 1202082290 Client Smp ID: BLANK
Inj Date : 18-MAR-2010 12:43
Operator : GRB2 Inst ID: VOA1.i
Smp Info : ¦1202082290¦965875¦1¦VOAF¦1¦
Misc Info : GEL 5ml N/A
Comment :
Method : /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 21:48 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	473320	55.1673	55.2
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	878701	50.0000	
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1121228	51.7470	51.7
* 76 Chlorobenzene-d5	117	17.147	17.148	(1.000)	644227	50.0000	
$ 87 Bromofluorobenzene	95	18.376	18.377	(0.938)	473051	52.2032	52.2
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	361439	50.0000	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031810v1/1c408LL.d
Lab Smp Id: 1202082290 Client Smp ID: BLANK
Inj Date : 18-MAR-2010 12:43
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202082290|965875|1|VOAF|1|
Misc Info : GEL 5ml N/A
Comment :
Method : /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 21:48 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA1.i/031810v1/1c408LL.d
Date : 18-MAR-2010 12:43
Client ID: BLANK
Sample Info: |1202082290|965875|1|VOAF|1|

Column phase: RTX-Volatiles

Instrument: VOA1.i

Operator: GRB2
Column diameter: 0.25

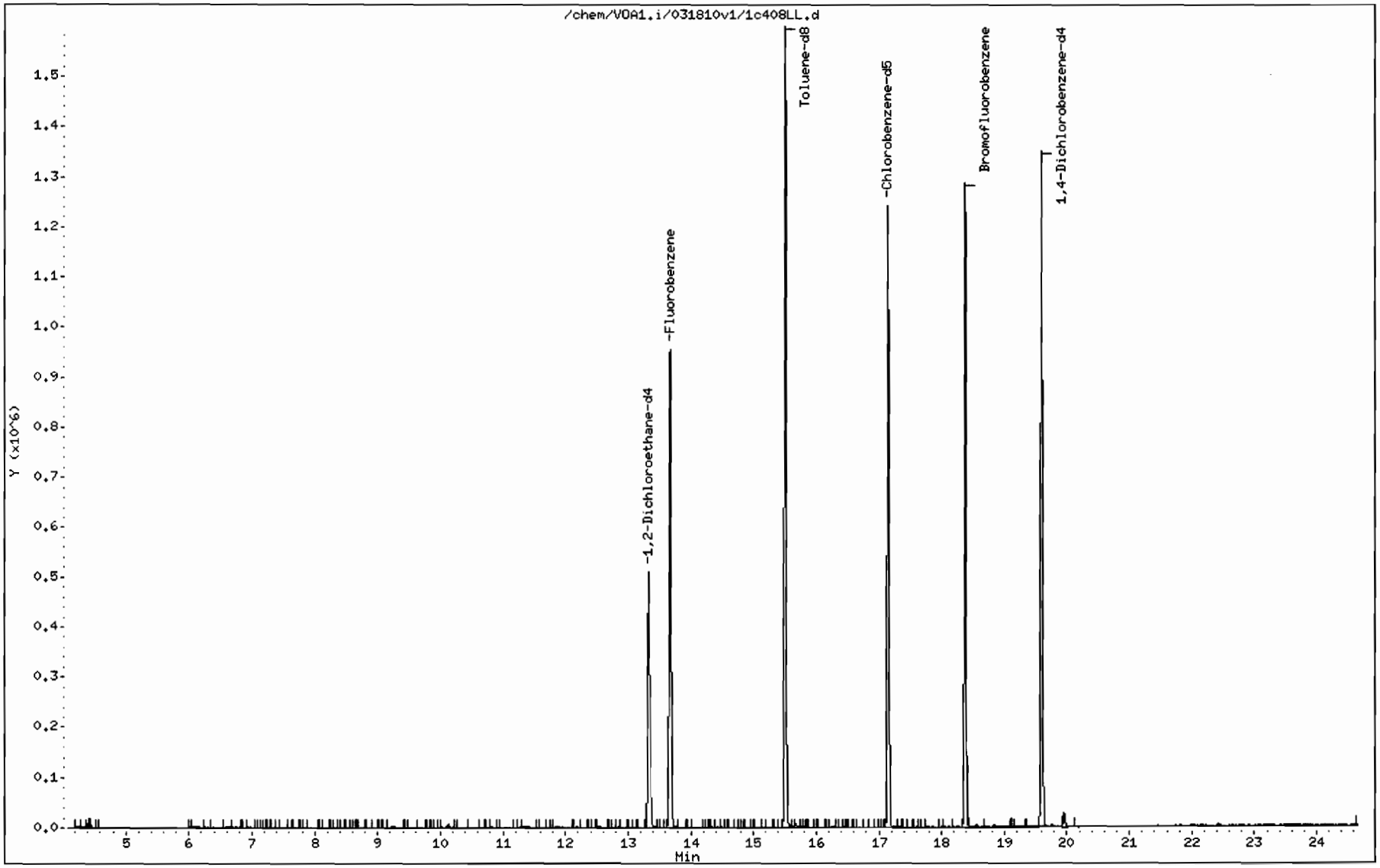

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072716**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 11:30**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 10:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c203LL.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		53.9	ug/kg	0.340	1.00
74-87-3	Chloromethane		39.5	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		45.3	ug/kg	0.300	1.00
74-83-9	Bromomethane		47.8	ug/kg	0.300	1.00
75-00-3	Chloroethane		44.6	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		60.2	ug/kg	0.300	1.00
67-64-1	Acetone		239	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		51.1	ug/kg	0.300	1.00
74-88-4	Iodomethane		241	ug/kg	1.60	5.00
75-09-2	Methylene chloride		48.5	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		250	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		48.3	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		50.2	ug/kg	0.300	1.00
78-93-3	2-Butanone		228	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		49.2	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		59.7	ug/kg	0.300	1.00
67-66-3	Chloroform		54.6	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		48.6	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		58.5	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		53.1	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		61.8	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		56.9	ug/kg	0.300	1.00
71-43-2	Benzene		47.4	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		50.9	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		47.3	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		58.1	ug/kg	0.300	1.00
74-95-3	Dibromomethane		52.6	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		242	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		54.5	ug/kg	0.300	1.00
108-88-3	Toluene		47.5	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		57.1	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		48.3	ug/kg	0.300	1.00
591-78-6	2-Hexanone		230	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		48.5	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		48.2	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		56.5	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		50.6	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		49.3	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072716**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 11:30**	**Analyst:**	**RXM4**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 10:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c203LL.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		51.2	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		98.4	ug/kg	0.300	2.00
95-47-6	o-Xylene		49.1	ug/kg	0.300	1.00
100-42-5	Styrene		52.1	ug/kg	0.300	1.00
75-25-2	Bromoform		57.4	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		47.4	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		51.5	ug/kg	0.300	1.00
108-86-1	Bromobenzene		47.7	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		49.2	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		49.6	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		50.1	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		51.5	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		50.1	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		49.8	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		50.4	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		49.3	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		50.3	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		46.2	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		46.5	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		50.1	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		53.7	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		54.2	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		46.9	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c203LL.d
Lab Smp Id: 1202072716 Client Smp ID: LCS
Inj Date : 16-MAR-2010 11:30
Operator : RXM4 Inst ID: VOA1.i
Smp Info : |1202072716|965875|1|VOAF|1|
Misc Info : GEL 5g N/A UVM100305-01B/IVM100316-01
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 2 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
M 1 Xylenes (total)	106				1385974	147.501	148
M 2 1,2-Dichloroethylene (total)	96				499481	97.5117	97.5
M 3 1,3-Dichloropropylene	75				1029028	111.628	112
5 Dichlorodifluoromethane	85	4.983	4.983	(0.364)	248398	53.9350	53.9
6 Chloromethane	50	5.535	5.542	(0.405)	315388	39.4718	39.5
7 Vinyl chloride	62	5.901	5.901	(0.432)	281139	45.3455	45.3
9 Bromomethane	96	6.924	6.933	(0.506)	175426	47.8294	47.8
10 Chloroethane	64	7.200	7.200	(0.527)	177660	44.5544	44.6
11 Trichlorofluoromethane	101	7.822	7.813	(0.572)	468668	60.1724	60.2
12 Ethyl Ether	59	8.466	8.466	(0.619)	242565	47.3387	47.3
15 1,1-Dichloroethylene	61	9.065	9.060	(0.663)	515651	51.1230	51.1
16 Acetone	43	9.240	9.239	(0.676)	1296483	239.100	239

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	18 Iodomethane	142	9.456	9.451	(0.692)	1799575	241.179	241
	19 Carbon disulfide	76	9.557	9.557	(0.699)	3818845	249.600	250
	21 Methyl acetate	43	9.820	9.824	(0.718)	1074704	224.509	224
	22 Acetonitrile	41	9.967	9.967	(0.729)	877701	1102.22	1100
	23 Methylene chloride	84	10.123	10.123	(0.740)	267173	48.5353	48.5
	25 tert-Butyl methyl ether	73	10.432	10.427	(0.763)	910756	53.5802	53.6
	26 trans-1,2-Dichloroethylene	96	10.533	10.533	(0.770)	238285	48.3261	48.3
	29 Vinyl acetate	43	11.283	11.279	(0.825)	3214817	292.198	292
	30 1,1-Dichloroethane	63	11.311	11.306	(0.827)	532106	50.2044	50.2
	33 2,2-Dichloropropane	77	12.149	12.149	(0.889)	402396	59.6801	59.7
	35 2-Butanone	43	12.172	12.172	(0.890)	1311496	228.173	228
	36 cis-1,2-Dichloroethylene	96	12.186	12.185	(0.891)	261196	49.1856	49.2
	39 Bromochloromethane	128	12.549	12.544	(0.918)	116939	48.5673	48.6
	41 Chloroform	83	12.600	12.600	(0.922)	578021	54.6486	54.6
	42 Cyclohexane	56	12.825	12.825	(0.938)	490117	48.5619	48.6
	43 1,1,1-Trichloroethane	97	12.835	12.834	(0.939)	460120	58.5095	58.5
	44 Carbon tetrachloride	117	13.009	13.014	(0.952)	465198	61.8410	61.8
	45 1,1-Dichloropropene	75	13.037	13.037	(0.954)	405391	53.1449	53.1
	47 Benzene	78	13.322	13.318	(0.974)	992965	47.3954	47.4
$	48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	565690	63.2957	63.3
	50 Cyclohexene	54	13.382	13.382	(0.979)	379800	48.7152	48.7
	51 1,2-Dichloroethane	62	13.428	13.428	(0.982)	537588	56.9191	56.9
*	52 Fluorobenzene	96	13.672	13.672	(1.000)	915318	50.0000	
	53 n-Butyl alcohol	56	13.921	13.921	(1.018)	1058706	5700.91	5700
	54 Trichloroethylene	95	14.105	14.105	(1.032)	275328	50.9125	50.9
	55 Methylcyclohexane	83	14.266	14.266	(1.043)	436488	51.0672	51.1
	57 1,2-Dichloropropane	63	14.446	14.450	(1.057)	272906	47.3467	47.3
	59 Dibromomethane	93	14.616	14.611	(1.069)	180398	52.5588	52.6
	60 Bromodichloromethane	83	14.740	14.740	(1.078)	457077	58.1386	58.1
	61 2-Chloroethylvinyl ether	63	15.016	15.021	(1.098)	180016	388.390	388(AR)
	63 cis-1,3-Dichloropropylene	75	15.242	15.246	(1.115)	498014	54.5082	54.5
	64 4-Methyl-2-pentanone	58	15.343	15.343	(0.895)	663029	241.982	242
$	65 Toluene-d8	98	15.504	15.504	(0.904)	1179873	50.6906	50.7
	66 Toluene	92	15.583	15.582	(0.909)	633813	47.4835	47.5
	68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	531014	57.1196	57.1
	69 1,1,2-Trichloroethane	83	16.094	16.093	(0.939)	199010	48.2562	48.2
	70 Tetrachloroethylene	164	16.181	16.181	(0.944)	205651	48.2352	48.2
	71 2-Hexanone	43	16.255	16.255	(0.948)	1758066	229.998	230
	72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	431637	48.5205	48.5
	73 Dibromochloromethane	129	16.540	16.540	(0.965)	308553	56.4965	56.5
	74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	246209	50.5922	50.6
*	76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	692050	50.0000	
	77 Chlorobenzene	112	17.180	17.180	(1.002)	694808	49.2789	49.3
	78 Ethylbenzene	91	17.207	17.207	(1.003)	1365696	51.2122	51.2
	79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	276382	54.1586	54.2
	80 m,p-Xylenes	106	17.323	17.322	(1.010)	930592	98.4318	98.4
	81 o-Xylene	106	17.769	17.769	(1.036)	455382	49.0688	49.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
82 Styrene	104	17.792	17.792	(1.038)	806884	52.0606	52.1
83 Bromoform	173	18.096	18.091	(0.923)	212454	57.3915	57.4
84 Isopropylbenzene	105	18.114	18.114	(0.924)	1351465	50.1140	50.1
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	512547	51.5361	51.5
88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	317846	47.3749	47.4
89 n-Propylbenzene	91	18.547	18.547	(0.946)	1624428	49.2378	49.2
91 Bromobenzene	156	18.579	18.579	(0.948)	308393	47.6742	47.7
92 1,2,3-Trichloropropane	110	18.593	18.593	(0.949)	98591	51.4714	51.5(Q)
93 1,3,5-Trimethylbenzene	105	18.703	18.703	(0.954)	1212052	51.4847	51.5
94 2-Chlorotoluene	91	18.726	18.726	(0.956)	1183272	49.5625	49.6
95 4-Chlorotoluene	91	18.842	18.841	(0.961)	1083333	50.0732	50.1
96 tert-Butylbenzene	119	19.062	19.062	(0.973)	940014	49.7674	49.8
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	1233262	50.4000	50.4
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1478909	49.3480	49.3
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	1175246	50.3477	50.3
101 1,3-Dichlorobenzene	146	19.527	19.532	(0.996)	581013	46.1749	46.2
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	396686	50.0000	
103 1,4-Dichlorobenzene	146	19.624	19.624	(1.001)	589958	46.5312	46.5
105 n-Butylbenzene	91	19.854	19.854	(1.013)	1263750	50.1389	50.1
106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	563989	46.9262	46.9
108 1,2-Dibromo-3-chloropropane	157	20.991	20.982	(1.071)	70926	53.6586	53.6
109 1,2,4-Trichlorobenzene	180	22.004	22.004	(1.123)	458265	49.2694	49.3
110 Hexachlorobutadiene	225	22.087	22.087	(1.127)	300337	52.8228	52.8
111 Naphthalene	128	22.418	22.418	(1.144)	988391	47.2083	47.2
112 1,2,3-Trichlorobenzene	180	22.773	22.772	(1.162)	423505	50.0097	50.0

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/031610v1/1c203LL.d
Date : 16-MAR-2010 11:30
Client ID: LCS
Sample Info: 1120207271619658751 1|VOAF1 1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: RXM4
Column diameter: 0.25

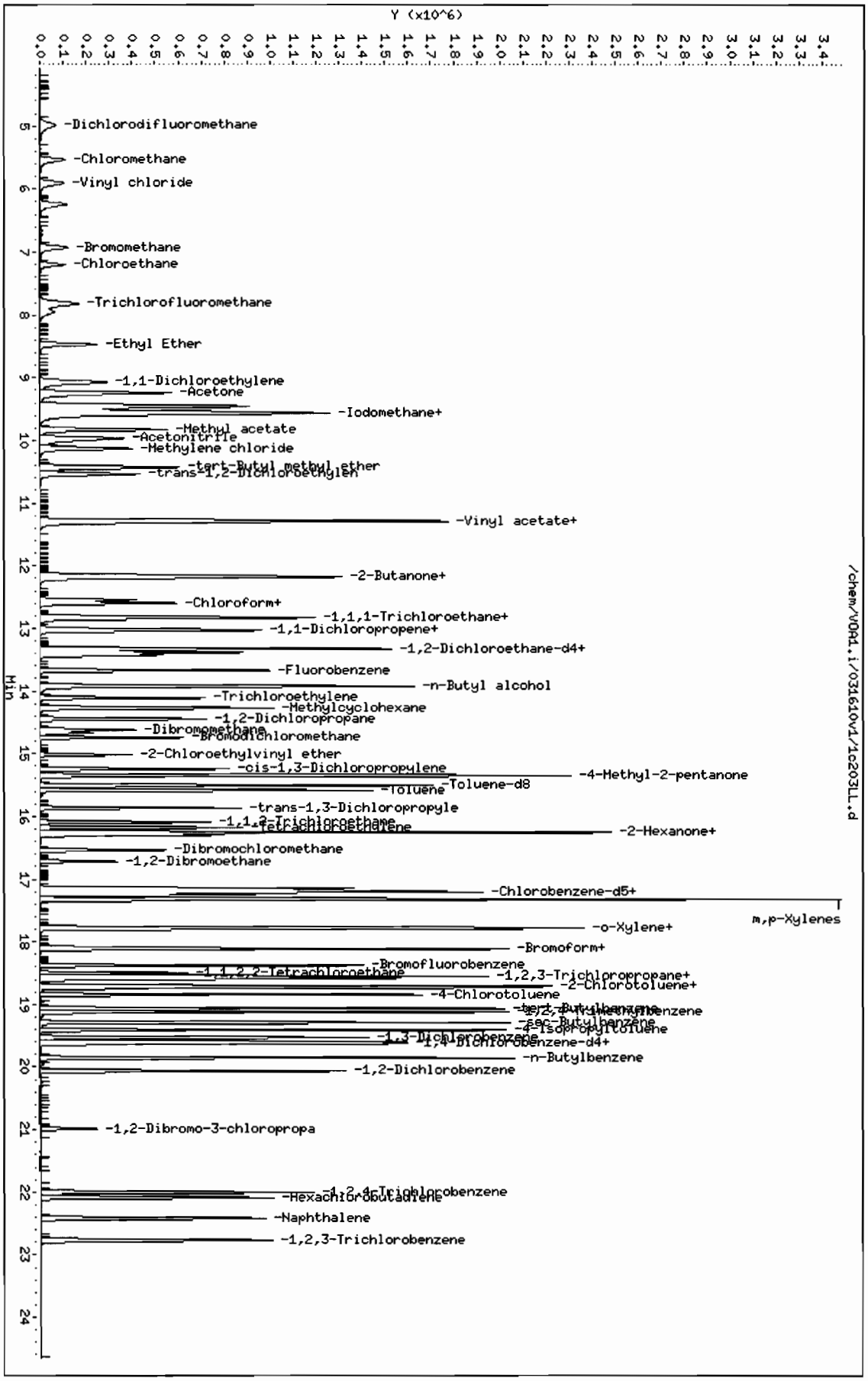

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202082291**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 11:13**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 09:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c303LL.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		50.2	ug/kg	0.340	1.00
74-87-3	Chloromethane		39.4	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		49.3	ug/kg	0.300	1.00
74-83-9	Bromomethane		49.1	ug/kg	0.300	1.00
75-00-3	Chloroethane		47.9	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		56.0	ug/kg	0.300	1.00
67-64-1	Acetone		122	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		49.3	ug/kg	0.300	1.00
74-88-4	Iodomethane		248	ug/kg	1.60	5.00
75-09-2	Methylene chloride		52.6	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		271	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		52.1	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		48.5	ug/kg	0.300	1.00
78-93-3	2-Butanone		136	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		51.5	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		54.8	ug/kg	0.300	1.00
67-66-3	Chloroform		50.8	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		49.5	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		54.0	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		53.3	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		55.4	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		46.7	ug/kg	0.300	1.00
71-43-2	Benzene		50.0	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		51.3	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		48.0	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		53.0	ug/kg	0.300	1.00
74-95-3	Dibromomethane		49.2	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		209	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		51.8	ug/kg	0.300	1.00
108-88-3	Toluene		50.3	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		52.2	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		47.0	ug/kg	0.300	1.00
591-78-6	2-Hexanone		145	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		46.7	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		49.9	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		51.2	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		48.4	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		49.8	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202082291**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 11:13**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 09:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c303LL.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		51.2	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		102	ug/kg	0.300	2.00
95-47-6	o-Xylene		51.4	ug/kg	0.300	1.00
100-42-5	Styrene		53.4	ug/kg	0.300	1.00
75-25-2	Bromoform		53.9	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		48.0	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		47.3	ug/kg	0.300	1.00
108-86-1	Bromobenzene		48.2	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		51.4	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		50.0	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		52.1	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		52.2	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		50.5	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		51.3	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		51.1	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		51.2	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		51.4	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		47.4	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		48.3	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		51.5	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		52.0	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		50.8	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		47.1	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c303LL.d
Lab Smp Id: 1202082291 Client Smp ID: LCS
Inj Date : 17-MAR-2010 11:13
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202082291|965875|1|VOAF|1|
Misc Info : GEL 5g N/A UVM100305-01C/IVM100316-01
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 17:24 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
M 1 Xylenes (total)	106				1759557	153.706	154
M 2 1,2-Dichloroethylene (total)	96				655760	103.660	104
M 3 1,3-Dichloropropylene	75				1175988	103.995	104
5 Dichlorodifluoromethane	85	4.976	4.983	(0.364)	285699	50.2025	50.2
6 Chloromethane	50	5.549	5.564	(0.406)	388894	39.3882	39.4
7 Vinyl chloride	62	5.915	5.908	(0.433)	377629	49.2915	49.3
9 Bromomethane	96	6.943	6.938	(0.508)	222527	49.0995	49.1
10 Chloroethane	64	7.205	7.205	(0.527)	236172	47.9318	47.9
11 Trichlorofluoromethane	101	7.822	7.822	(0.572)	538581	55.9599	56.0
12 Ethyl Ether	59	8.462	8.466	(0.619)	290597	45.8958	45.9
15 1,1-Dichloroethylene	61	9.069	9.065	(0.664)	614559	49.3081	49.3
16 Acetone	43	9.240	9.240	(0.676)	818749	122.196	122

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	18 Iodomethane	142	9.456	9.456	(0.692)	2286006	247.937	248
	19 Carbon disulfide	76	9.557	9.557	(0.699)	5127008	271.188	271
	21 Methyl acetate	43	9.819	9.820	(0.718)	1188884	200.992	201
	22 Acetonitrile	41	9.958	9.967	(0.729)	985519	1001.57	1000
	23 Methylene chloride	84	10.123	10.128	(0.741)	357387	52.6186	52.6
	25 tert-Butyl methyl ether	73	10.427	10.427	(0.763)	1028402	48.9620	49.0
	26 trans-1,2-Dichloroethylene	96	10.533	10.533	(0.771)	317572	52.1220	52.1
	29 Vinyl acetate	43	11.283	11.279	(0.826)	3595924	264.500	264
	30 1,1-Dichloroethane	63	11.306	11.306	(0.827)	635689	48.5381	48.5
	33 2,2-Dichloropropane	77	12.149	12.144	(0.889)	456400	54.7792	54.8
	35 2-Butanone	43	12.172	12.172	(0.891)	967227	136.182	136
	36 cis-1,2-Dichloroethylene	96	12.190	12.190	(0.892)	338188	51.5375	51.5
	39 Bromochloromethane	128	12.549	12.545	(0.918)	147202	49.4757	49.5
	41 Chloroform	83	12.600	12.600	(0.922)	664395	50.8341	50.8
	42 Cyclohexane	56	12.825	12.830	(0.938)	621637	49.8456	49.8
	43 1,1,1-Trichloroethane	97	12.834	12.830	(0.939)	524746	54.0006	54.0
	44 Carbon tetrachloride	117	13.014	13.009	(0.952)	515199	55.4252	55.4
	45 1,1-Dichloropropene	75	13.037	13.037	(0.954)	502448	53.3056	53.3
	47 Benzene	78	13.322	13.322	(0.975)	1294500	50.0032	50.0
$	48 1,2-Dichloroethane-d4	65	13.332	13.327	(0.975)	589515	53.3808	53.4
	50 Cyclohexene	54	13.382	13.382	(0.979)	462108	47.9675	48.0
	51 1,2-Dichloroethane	62	13.428	13.428	(0.982)	544647	46.6678	46.7
*	52 Fluorobenzene	96	13.668	13.672	(1.000)	1131040	50.0000	
	53 n-Butyl alcohol	56	13.921	13.921	(1.019)	1163788	5071.50	5070
	54 Trichloroethylene	95	14.105	14.105	(1.032)	342850	51.3065	51.3
	55 Methylcyclohexane	83	14.271	14.271	(1.044)	572744	54.2281	54.2
	57 1,2-Dichloropropane	63	14.446	14.446	(1.057)	342099	48.0311	48.0
	59 Dibromomethane	93	14.611	14.611	(1.069)	208594	49.1824	49.2
	60 Bromodichloromethane	83	14.740	14.740	(1.078)	514971	53.0092	53.0
	61 2-Chloroethylvinyl ether	63	15.016	15.016	(1.099)	234693	409.549	410(AR)
	63 cis-1,3-Dichloropropylene	75	15.242	15.242	(1.115)	584246	51.7500	51.8
	64 4-Methyl-2-pentanone	58	15.343	15.348	(0.895)	698216	209.159	209
$	65 Toluene-d8	98	15.504	15.504	(0.904)	1457974	51.4135	51.4
	66 Toluene	92	15.582	15.587	(0.909)	818703	50.3434	50.3
	68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	591742	52.2452	52.2
	69 1,1,2-Trichloroethane	83	16.089	16.089	(0.938)	236174	47.0052	47.0
	70 Tetrachloroethylene	164	16.176	16.181	(0.943)	258976	49.8572	49.8
	71 2-Hexanone	43	16.255	16.255	(0.948)	1354645	145.462	145
	72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	506187	46.7038	46.7
	73 Dibromochloromethane	129	16.535	16.535	(0.964)	340730	51.2079	51.2
	74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	287088	48.4206	48.4
*	76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	843145	50.0000	
	77 Chlorobenzene	112	17.180	17.180	(1.002)	854766	49.7598	49.8
	78 Ethylbenzene	91	17.207	17.207	(1.003)	1661903	51.1517	51.2
	79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	316108	50.8426	50.8
	80 m,p-Xylenes	106	17.322	17.323	(1.010)	1178436	102.310	102
	81 o-Xylene	106	17.774	17.769	(1.036)	581121	51.3962	51.4

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	82 Styrene	104	17.792	17.792	(1.038)	1008534	53.4102	53.4
	83 Bromoform	173	18.096	18.091	(0.923)	233964	53.8714	53.9
	84 Isopropylbenzene	105	18.114	18.114	(0.924)	1647406	52.0692	52.1
$	87 Bromofluorobenzene	95	18.377	18.377	(0.938)	595470	51.0345	51.0
	88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	377451	47.9533	48.0
	89 n-Propylbenzene	91	18.547	18.547	(0.946)	1990739	51.4327	51.4
	91 Bromobenzene	156	18.579	18.579	(0.948)	365820	48.2029	48.2
	92 1,2,3-Trichloropropane	110	18.593	18.593	(0.949)	106361	47.3301	47.3
	93 1,3,5-Trimethylbenzene	105	18.703	18.703	(0.954)	1440872	52.1685	52.2
	94 2-Chlorotoluene	91	18.731	18.731	(0.956)	1400580	50.0038	50.0
	95 4-Chlorotoluene	91	18.841	18.841	(0.961)	1282019	50.5084	50.5
	96 tert-Butylbenzene	119	19.062	19.062	(0.973)	1137873	51.3488	51.3
	97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	1467562	51.1208	51.1
	99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1801190	51.2287	51.2
	100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	1408472	51.4310	51.4
	101 1,3-Dichlorobenzene	146	19.527	19.532	(0.996)	700204	47.4319	47.4
*	102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	465394	50.0000	
	103 1,4-Dichlorobenzene	146	19.624	19.624	(1.001)	718769	48.3213	48.3
	105 n-Butylbenzene	91	19.854	19.854	(1.013)	1522493	51.4867	51.5
	106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	663557	47.0597	47.0
	108 1,2-Dibromo-3-chloropropane	157	20.986	20.991	(1.071)	80690	52.0331	52.0
	109 1,2,4-Trichlorobenzene	180	22.004	22.008	(1.123)	532204	48.7714	48.8
	110 Hexachlorobutadiene	225	22.087	22.087	(1.127)	338846	50.7974	50.8
	111 Naphthalene	128	22.418	22.418	(1.144)	1142646	46.5187	46.5
	112 1,2,3-Trichlorobenzene	180	22.768	22.768	(1.162)	491522	49.4726	49.5

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/031710v1/1c303LL.d
Date : 17-MAR-2010 11:13
Client ID: LCS
Sample Info: 1120208229|1965875|1|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

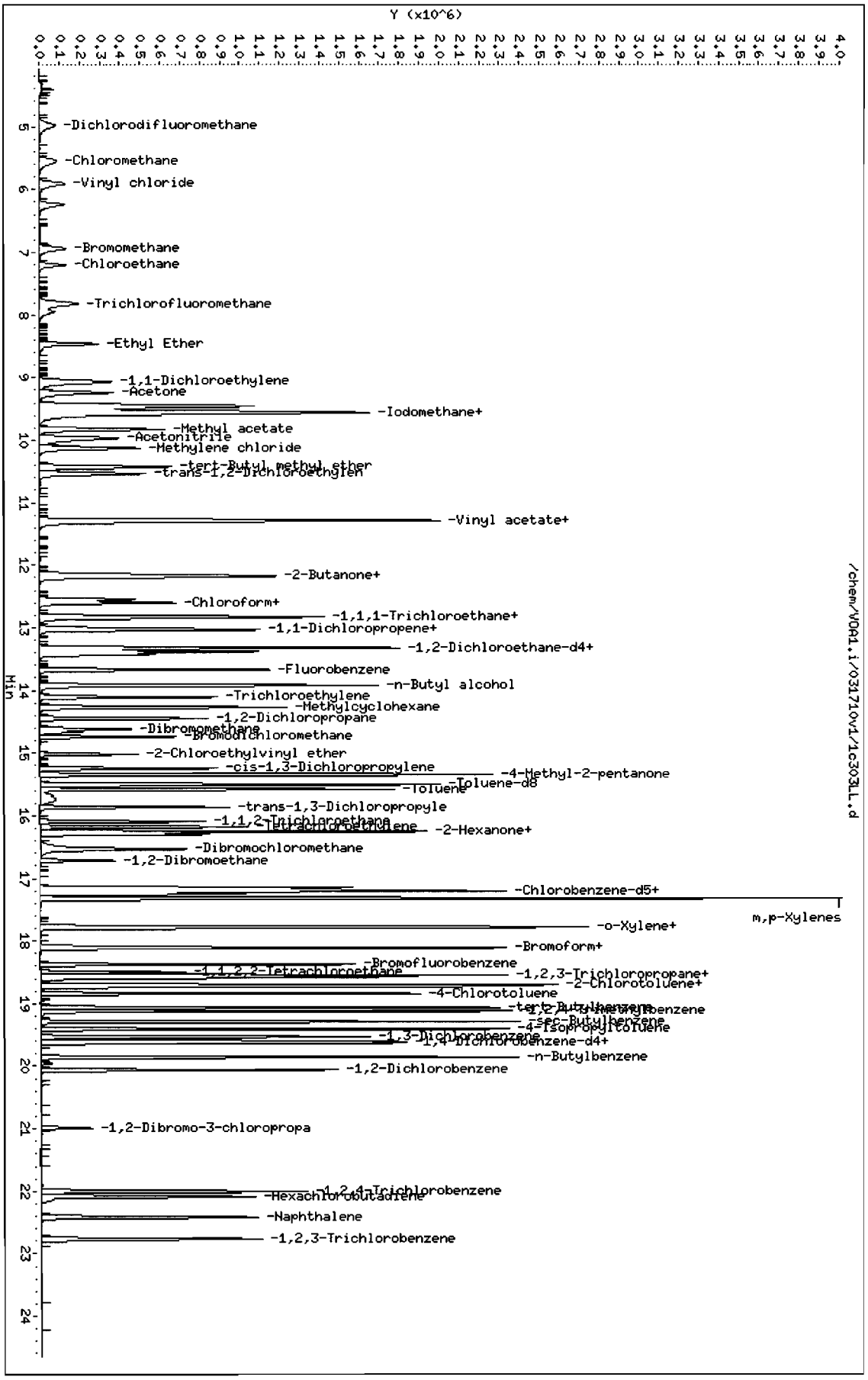

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202082293**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 10:41**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 08:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c404LL.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		53.7	ug/kg	0.340	1.00
74-87-3	Chloromethane		42.1	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		47.2	ug/kg	0.300	1.00
74-83-9	Bromomethane		49.6	ug/kg	0.300	1.00
75-00-3	Chloroethane		47.1	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		62.3	ug/kg	0.300	1.00
67-64-1	Acetone		205	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		53.1	ug/kg	0.300	1.00
74-88-4	Iodomethane		250	ug/kg	1.60	5.00
75-09-2	Methylene chloride		51.0	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		267	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		51.5	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		51.1	ug/kg	0.300	1.00
78-93-3	2-Butanone		196	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		51.0	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		61.3	ug/kg	0.300	1.00
67-66-3	Chloroform		56.0	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		49.9	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		61.3	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		56.4	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		63.3	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		56.3	ug/kg	0.300	1.00
71-43-2	Benzene		50.2	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		53.9	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		48.7	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		59.0	ug/kg	0.300	1.00
74-95-3	Dibromomethane		53.0	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		235	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		55.5	ug/kg	0.300	1.00
108-88-3	Toluene		50.0	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		57.4	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		49.0	ug/kg	0.300	1.00
591-78-6	2-Hexanone		204	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		49.0	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		51.1	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		55.9	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		50.7	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		50.6	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202082293**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 10:41**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 08:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c404LL.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		53.2	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		104	ug/kg	0.300	2.00
95-47-6	o-Xylene		51.4	ug/kg	0.300	1.00
100-42-5	Styrene		54.2	ug/kg	0.300	1.00
75-25-2	Bromoform		57.5	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		48.3	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		51.7	ug/kg	0.300	1.00
108-86-1	Bromobenzene		49.7	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		52.7	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		52.5	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		53.4	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		54.2	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		52.6	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		52.8	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		53.1	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		52.5	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		53.1	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		48.5	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		48.5	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		53.7	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		53.1	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		54.8	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		48.3	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031810v1/1c404LL.d
Lab Smp Id: 1202082293 Client Smp ID: LCS
Inj Date : 18-MAR-2010 10:41
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202082293|965875|1|VOAF|1|
Misc Info : GEL 5g N/A UVM100305-01C/IVM100316-01
Comment :
Method : /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 21:48 a1e01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
M 1 Xylenes (total)	106				1451964	155.301	155
M 2 1,2-Dichloroethylene (total)	96				520909	102.409	102
M 3 1,3-Dichloropropylene	75				1034043	112.825	113
5 Dichlorodifluoromethane	85	4.983	4.983	(0.364)	245758	53.7094	53.7
6 Chloromethane	50	5.535	5.535	(0.405)	333864	42.0563	42.0
7 Vinyl chloride	62	5.908	5.908	(0.432)	290539	47.1669	47.2
9 Bromomethane	96	6.934	6.924	(0.507)	180635	49.5705	49.6
10 Chloroethane	64	7.201	7.205	(0.527)	186693	47.1248	47.1
11 Trichlorofluoromethane	101	7.817	7.817	(0.572)	482066	62.2958	62.3
12 Ethyl Ether	59	8.466	8.466	(0.619)	244919	48.1095	48.1
15 1,1-Dichloroethylene	61	9.065	9.069	(0.663)	532536	53.1410	53.1
16 Acetone	43	9.240	9.240	(0.676)	1104893	205.095	205

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	18 Iodomethane	142	9.451	9.451	(0.691)	1855049	250.233	250
	19 Carbon disulfide	76	9.557	9.557	(0.699)	4055621	266.803	267
	21 Methyl acetate	43	9.824	9.820	(0.719)	1064169	223.757	224
	22 Acetonitrile	41	9.967	9.967	(0.729)	859612	1086.54	1090
	23 Methylene chloride	84	10.128	10.128	(0.741)	278865	51.0369	51.0
	25 tert-Butyl methyl ether	73	10.427	10.427	(0.763)	910824	53.9333	53.9
	26 trans-1,2-Dichloroethylene	96	10.533	10.533	(0.770)	252050	51.4508	51.4
	29 Vinyl acetate	43	11.283	11.283	(0.825)	3065672	280.458	280
	30 1,1-Dichloroethane	63	11.311	11.311	(0.827)	538271	51.1170	51.1
	33 2,2-Dichloropropane	77	12.149	12.149	(0.889)	410833	61.3284	61.3
	35 2-Butanone	43	12.172	12.172	(0.890)	1119623	196.060	196
	36 cis-1,2-Dichloroethylene	96	12.190	12.190	(0.892)	268859	50.9585	51.0
	39 Bromochloromethane	128	12.549	12.545	(0.918)	119384	49.9058	49.9
	41 Chloroform	83	12.600	12.600	(0.922)	588225	55.9756	56.0
	42 Cyclohexane	56	12.830	12.830	(0.938)	517164	51.5757	51.6
	43 1,1,1-Trichloroethane	97	12.835	12.835	(0.939)	478858	61.2890	61.3
	44 Carbon tetrachloride	117	13.014	13.014	(0.952)	473298	63.3277	63.3
	45 1,1-Dichloropropene	75	13.037	13.037	(0.954)	427669	56.4307	56.4
	47 Benzene	78	13.323	13.322	(0.974)	1045572	50.2315	50.2
$	48 1,2-Dichloroethane-d4	65	13.332	13.327	(0.975)	536903	60.4661	60.5
	50 Cyclohexene	54	13.382	13.382	(0.979)	400273	51.6757	51.7
	51 1,2-Dichloroethane	62	13.428	13.428	(0.982)	527874	56.2547	56.2
*	52 Fluorobenzene	96	13.672	13.672	(1.000)	909393	50.0000	
	53 n-Butyl alcohol	56	13.916	13.921	(1.018)	1003603	5439.40	5440
	54 Trichloroethylene	95	14.105	14.105	(1.032)	289597	53.9000	53.9
	55 Methylcyclohexane	83	14.271	14.266	(1.044)	456871	53.8002	53.8
	57 1,2-Dichloropropane	63	14.446	14.446	(1.057)	278629	48.6545	48.6
	59 Dibromomethane	93	14.611	14.611	(1.069)	180790	53.0162	53.0
	60 Bromodichloromethane	83	14.740	14.740	(1.078)	460888	59.0052	59.0
	61 2-Chloroethylvinyl ether	63	15.016	15.016	(1.098)	133783	291.579	292(A)
	63 cis-1,3-Dichloropropylene	75	15.242	15.247	(1.115)	503541	55.4723	55.5
	64 4-Methyl-2-pentanone	58	15.348	15.348	(0.895)	639808	234.689	235
$	65 Toluene-d8	98	15.504	15.504	(0.904)	1173555	50.6742	50.7
	66 Toluene	92	15.587	15.583	(0.909)	663926	49.9910	50.0
	68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	530502	57.3532	57.4
	69 1,1,2-Trichloroethane	83	16.094	16.089	(0.939)	201126	49.0160	49.0
	70 Tetrachloroethylene	164	16.181	16.181	(0.944)	216707	51.0855	51.1
	71 2-Hexanone	43	16.255	16.255	(0.948)	1551443	203.993	204
	72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	433942	49.0263	49.0
	73 Dibromochloromethane	129	16.540	16.540	(0.965)	303869	55.9203	55.9
	74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	245453	50.6920	50.7
*	76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	688567	50.0000	
	77 Chlorobenzene	112	17.184	17.180	(1.002)	709914	50.6050	50.6
	78 Ethylbenzene	91	17.208	17.207	(1.003)	1411684	53.2045	53.2
	79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	278387	54.8274	54.8
	80 m,p-Xylenes	106	17.323	17.323	(1.010)	977111	103.875	104
	81 o-Xylene	106	17.769	17.769	(1.036)	474853	51.4257	51.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
82 Styrene	104	17.792	17.792	(1.038)	835653	54.1895	54.2
83 Bromoform	173	18.096	18.096	(0.923)	207169	57.5221	57.5
84 Isopropylbenzene	105	18.114	18.114	(0.924)	1400412	53.3749	53.4
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	502690	51.9523	52.0
88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	315330	48.3085	48.3
89 n-Propylbenzene	91	18.547	18.547	(0.946)	1691212	52.6895	52.7
91 Bromobenzene	156	18.579	18.579	(0.948)	312700	49.6860	49.7
92 1,2,3-Trichloropropane	110	18.593	18.593	(0.949)	96429	51.7444	51.7
93 1,3,5-Trimethylbenzene	105	18.703	18.703	(0.954)	1242018	54.2265	54.2
94 2-Chlorotoluene	91	18.727	18.731	(0.956)	1220289	52.5362	52.5
95 4-Chlorotoluene	91	18.842	18.841	(0.961)	1108082	52.6432	52.6
96 tert-Butylbenzene	119	19.063	19.062	(0.973)	970056	52.7879	52.8
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	1263212	53.0613	53.1
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1529929	52.4719	52.5
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	1206147	53.1102	53.1
101 1,3-Dichlorobenzene	146	19.527	19.532	(0.996)	593474	48.4784	48.5
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	385940	50.0000	
103 1,4-Dichlorobenzene	146	19.624	19.629	(1.001)	598123	48.4887	48.5
105 n-Butylbenzene	91	19.854	19.854	(1.013)	1317091	53.7101	53.7
106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	564696	48.2933	48.3
108 1,2-Dibromo-3-chloropropane	157	20.987	20.991	(1.071)	68337	53.1394	53.1
109 1,2,4-Trichlorobenzene	180	22.004	22.004	(1.123)	451655	49.9108	49.9
110 Hexachlorobutadiene	225	22.087	22.091	(1.127)	302972	54.7699	54.8
111 Naphthalene	128	22.418	22.418	(1.144)	951826	46.7277	46.7
112 1,2,3-Trichlorobenzene	180	22.773	22.773	(1.162)	420572	51.0462	51.0

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA1.i/031810v1/1c404LL.d
Date : 18-MAR-2010 10:41
Client ID: LCS
Sample Info: 1120208229319658751|1|VOAF1|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: CRB2
Column diameter: 0.25

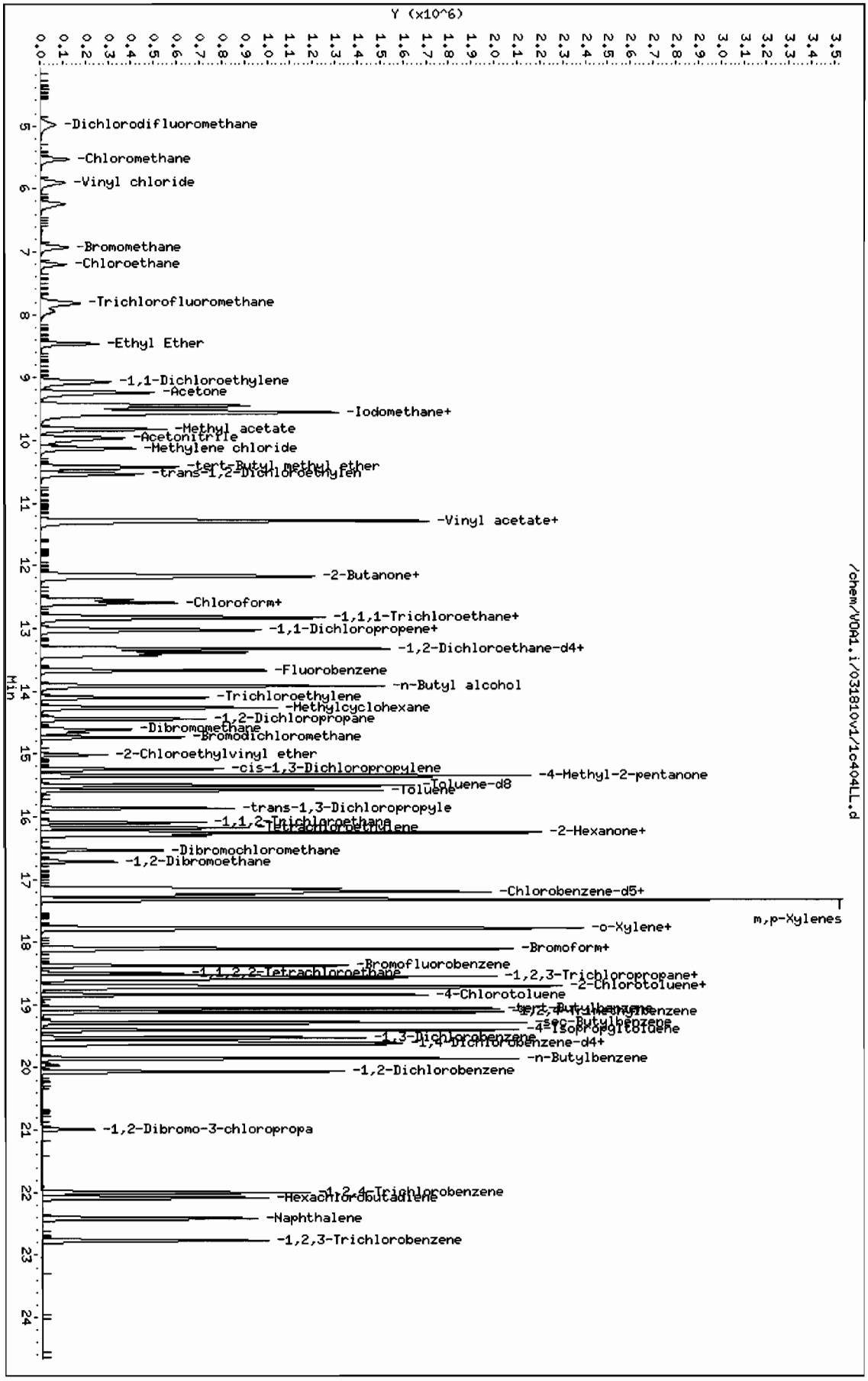

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072717**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 12:32**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 10:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c205LL.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072717**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**I**
Run Date:	**03/16/2010 12:32**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 10:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c205LL.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		260	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c205LL.d
Lab Smp Id: 1202072717 Client Smp ID: SLCS
Inj Date : 16-MAR-2010 12:32
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202072717|965875|1|VOAF|1|
Misc Info : GEL 5g N/A UVM100304-08A
Comment :
Method : /chem/VOA1.i/0316I0v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
4 Chlorotrifluoroethylene	116	4.868	4.875	(0.356)	277865	136.696	137
8 2-Chloro-1,1,1-trifluoroethane	118	6.275	6.280	(0.459)	888233	162.045	162
13 Acrolein	56	8.945	8.936	(0.654)	285438	266.959	267
14 Trichlorotrifluoroethane	101	8.959	8.963	(0.655)	1167108	260.198	260
17 Isopropyl Alcohol	45	9.437	9.442	(0.690)	1280427	3015.76	3020
20 Allyl chloride	76	9.833	9.838	(0.719)	532849	260.057	260
24 tert-Butyl Alcohol	59	10.188	10.183	(0.745)	2317976	3404.86	3400
27 Acrylonitrile	53	10.653	10.657	(0.779)	529626	254.836	255
28 Isopropyl ether	45	11.182	11.182	(0.818)	1034125	49.0260	49.0
31 2-Chloro-1,3-butadiene	53	11.380	11.380	(0.832)	539353	63.6756	63.7
32 Ethyl tert-butyl ether	59	11.739	11.743	(0.859)	1024613	59.4024	59.4
34 Ethyl acetate	43	12.149	12.153	(0.889)	1358245	234.681	235

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/Kg)
37 Propionitrile	54	12.393	12.393	(0.906)	213910	250.183	250
38 Tetrahydrofuran	42	12.526	12.526	(0.639)	463558	223.772	224
40 Methacrylonitrile	41	12.549	12.549	(0.918)	1156670	256.702	257
46 Isobutyl alcohol	41	13.097	13.097	(0.958)	600265	2724.54	2720
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	514800	56.4154	56.4
49 Methyl tert-amyl ether	73	13.332	13.332	(0.975)	856180	64.8008	64.8(R)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	934563	50.0000	
56 Methyl methacrylate	69	14.427	14.427	(1.055)	960086	278.013	278
58 1,4-Dioxane	88	14.533	14.533	(1.063)	132440	2597.56	2600
62 2-Nitropropane	43	15.067	15.067	(1.102)	587153	288.716	289
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1215295	51.1294	51.1
67 Ethyl methacrylate	69	15.799	15.799	(0.921)	1901089	278.337	278
75 1-Chlorohexane	55	17.014	17.019	(1.244)	356787	57.7826	57.8
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	706710	50.0000	
85 cis-1,4-Dichloro-2-butene	53	18.261	18.261	(0.932)	772386	317.270	317
86 Cyclohexanone	55	18.372	18.372	(1.071)	349540	1013.60	1010
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	521180	51.4227	51.4
90 trans-1,4-Dichloro-2-butene	53	18.556	18.556	(0.947)	725166	319.062	319
98 Pentachloroethane	167	19.182	19.187	(0.979)	921102	475.777	476(R)
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	404257	50.0000	
104 Benzyl chloride	91	19.757	19.762	(1.008)	3835916	368.318	368(R)
107 bis(2-Chloroisopropyl)ether	45	20.149	20.149	(1.028)	875967	242.954	243

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/031610v1/1c205LL.d
Date : 16-MAR-2010 12:32
Client ID: SLCS
Sample Info: 1120207271719658751 1|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

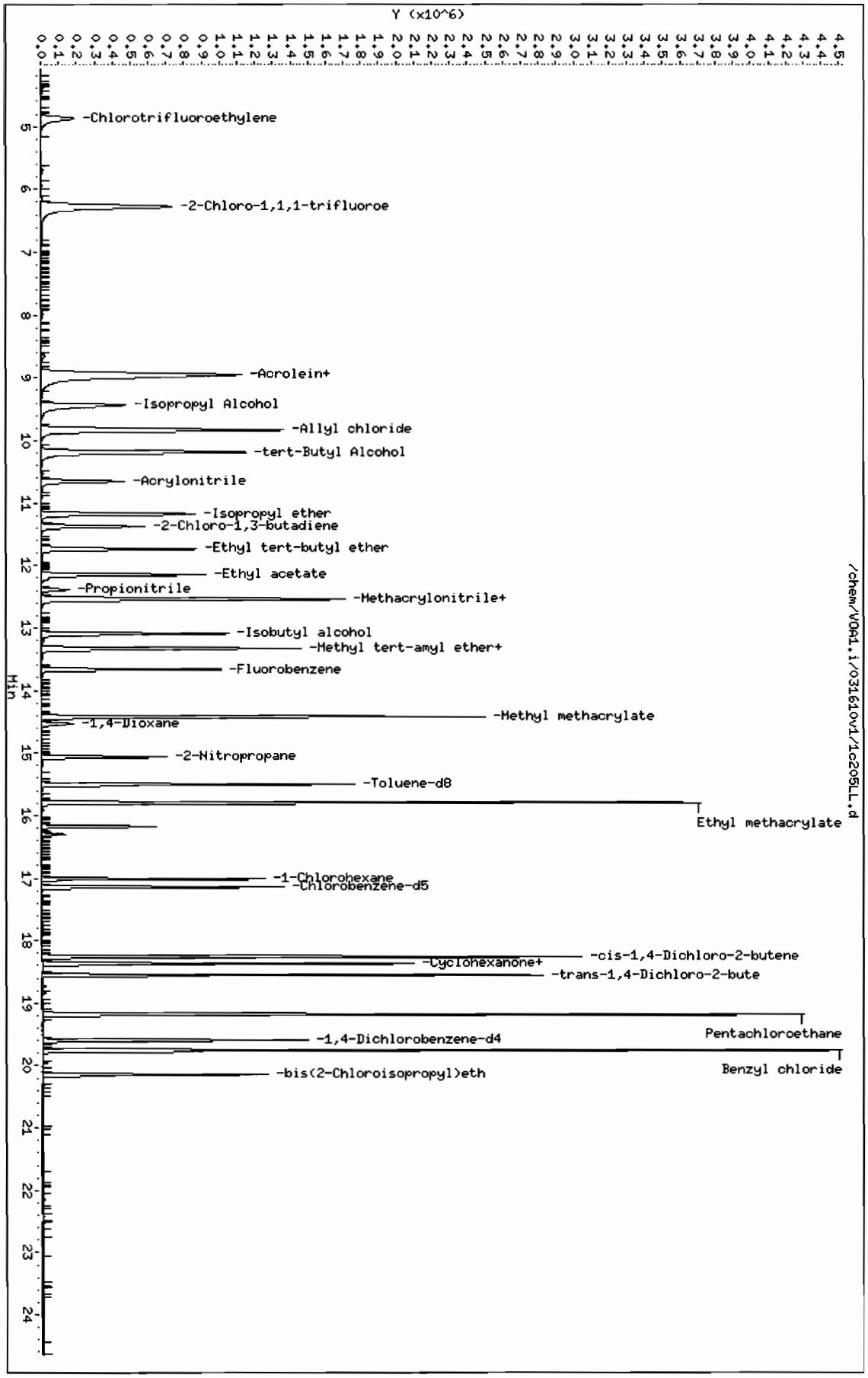

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202082292**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 12:14**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 09:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c305LL.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202082292**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 12:14**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/17/2010 09:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c305LL.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		238	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031710v1/1c305LL.d
Lab Smp Id: 1202082292 Client Smp ID: SLCS
Inj Date : 17-MAR-2010 12:14
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202082292|965875|1|VOAF|1|
Misc Info : GEL 5g N/A UVM100304-08A/UVM100226-02A
Comment :
Method : /chem/VOA1.i/031710v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 17:24 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
4 Chlorotrifluoroethylene	116	4.875	4.875	(0.357)	295640	120.656	121
8 2-Chloro-1,1,1-trifluoroethane	118	6.284	6.275	(0.460)	972497	146.727	147
13 Acrolein	56	8.936	8.936	(0.654)	303621	234.842	235
14 Trichlorotrifluoroethane	101	8.959	8.963	(0.655)	1293291	238.452	238
17 Isopropyl Alcohol	45	9.437	9.437	(0.690)	1215603	2367.80	2370
20 Allyl chloride	76	9.833	9.838	(0.719)	640753	258.666	259
24 tert-Butyl Alcohol	59	10.183	10.183	(0.745)	2190604	2661.13	2660
27 Acrylonitrile	53	10.657	10.657	(0.780)	547605	217.907	218
28 Isopropyl ether	45	11.182	11.182	(0.818)	1083026	42.4624	42.5
31 2-Chloro-1,3-butadiene	53	11.380	11.380	(0.833)	570050	55.6577	55.6
32 Ethyl tert-butyl ether	59	11.739	11.739	(0.859)	1071199	51.3602	51.4
34 Ethyl acetate	43	12.153	12.149	(0.889)	1336816	191.022	191

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
37 Propionitrile	54	12.397	12.393	(0.907)	219466	212.279	212
38 Tetrahydrofuran	42	12.526	12.531	(0.639)	456205	193.141	193
40 Methacrylonitrile	41	12.549	12.549	(0.918)	1134415	208.211	208
46 Isobutyl alcohol	41	13.097	13.097	(0.958)	562975	2113.25	2110
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	522813	47.3825	47.4
49 Methyl tert-amyl ether	73	13.336	13.332	(0.976)	899544	56.3054	56.3
* 52 Fluorobenzene	96	13.668	13.672	(1.000)	1130046	50.0000	
56 Methyl methacrylate	69	14.427	14.423	(1.056)	1016283	243.378	243
58 1,4-Dioxane	88	14.533	14.533	(1.063)	135181	2192.68	2190
62 2-Nitropropane	43	15.067	15.067	(1.102)	537480	219.981	220
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1418351	50.0518	50.0
67 Ethyl methacrylate	69	15.799	15.799	(0.921)	2032677	249.623	250
75 1-Chlorohexane	55	17.019	17.014	(1.245)	364382	48.8042	48.8
* 76 Chlorobenzene-d5	117	17.147	17.148	(1.000)	842546	50.0000	
85 cis-1,4-Dichloro-2-butene	53	18.261	18.262	(0.932)	722395	260.244	260
86 Cyclohexanone	55	18.372	18.372	(1.071)	317473	772.193	772
$ 87 Bromofluorobenzene	95	18.376	18.377	(0.938)	589753	51.0327	51.0
90 trans-1,4-Dichloro-2-butene	53	18.556	18.556	(0.947)	680448	262.569	262
98 Pentachloroethane	167	19.187	19.187	(0.979)	1134938	513.015	513(AR)
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	460942	50.0000	
104 Benzyl chloride	91	19.757	19.757	(1.008)	3903672	328.729	329
107 bis(2-Chloroisopropyl)ether	45	20.149	20.149	(1.028)	871627	212.021	212

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/031710v1/1c305LL.d
Date : 17-MAR-2010 12:14
Client ID: SLCS
Sample Info: 1120208229219658751 1|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

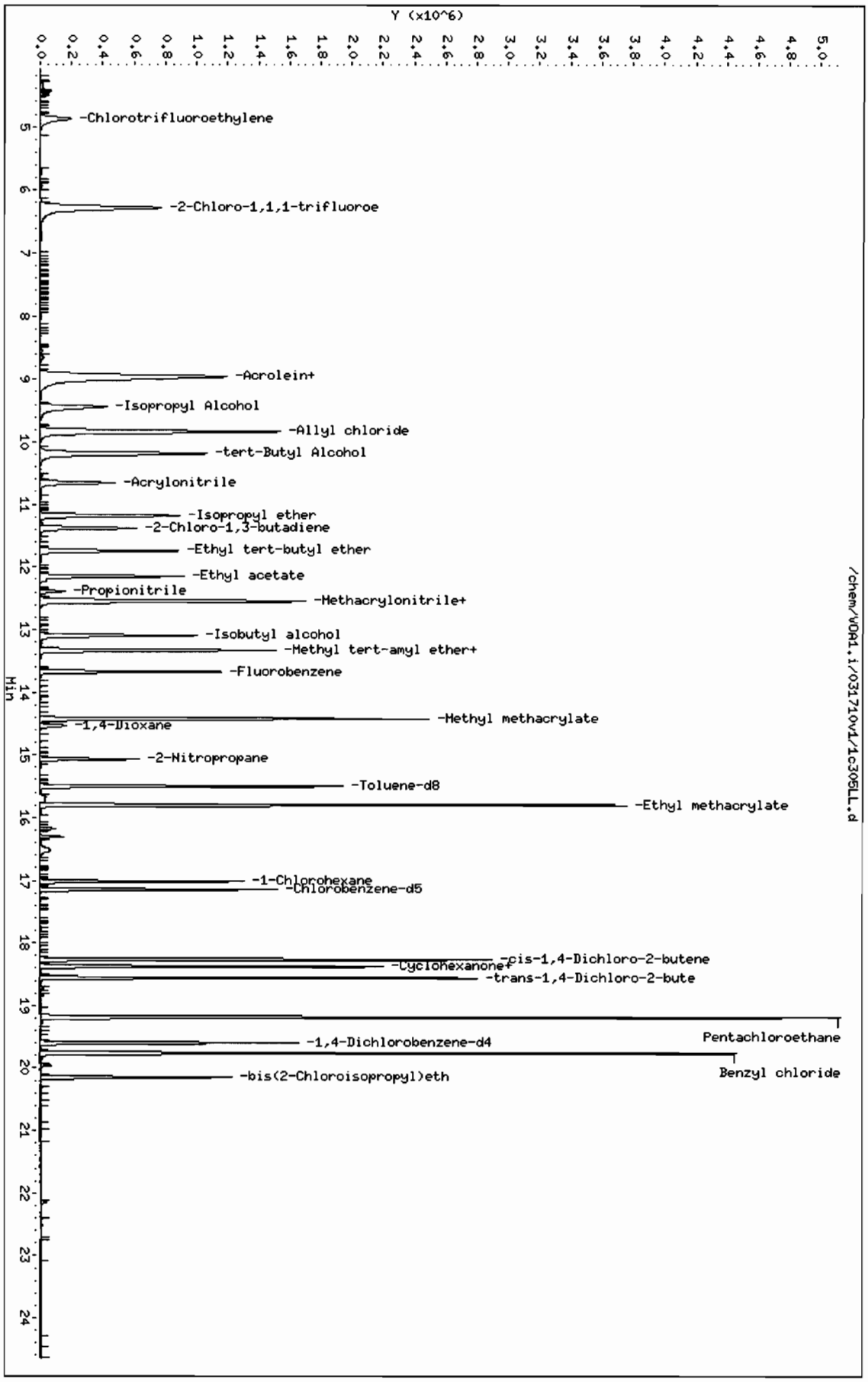

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202082294**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 11:42**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 08:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c406LL.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202082294**				
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/18/2010 11:42**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 08:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c406LL.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		221	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031810v1/1c406LL.d
Lab Smp Id: 1202082294 Client Smp ID: SLCS
Inj Date : 18-MAR-2010 11:42
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202082294|965875|1|VOAF|1|
Misc Info : GEL 5g N/A UVM100304-08A/UVM100226-02A
Comment :
Method : /chem/VOA1.i/031810v1/VOA1-8260ox-030410.m
Meth Date : 26-Mar-2010 21:48 ale01592 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
4 Chlorotrifluoroethylene	116	4.875	4.876	(0.357)	331963	163.306	163
8 2-Chloro-1,1,1-trifluoroethane	118	6.280	6.275	(0.459)	917301	167.982	168
13 Acrolein	56	8.936	8.936	(0.654)	213850	200.762	201
14 Trichlorotrifluoroethane	101	8.963	8.954	(0.656)	985862	220.622	221
17 Isopropyl Alcohol	45	9.442	9.433	(0.691)	1206549	2852.50	2850
20 Allyl chloride	76	9.838	9.833	(0.720)	477804	234.849	235
24 tert-Butyl Alcohol	59	10.183	10.183	(0.745)	2163538	3190.03	3190
27 Acrylonitrile	53	10.657	10.657	(0.779)	481119	232.372	232
28 Isopropyl ether	45	11.182	11.182	(0.818)	1045373	49.7467	49.7
31 2-Chloro-1,3-butadiene	53	11.380	11.380	(0.832)	494755	58.6314	58.6
32 Ethyl tert-butyl ether	59	11.744	11.739	(0.859)	1030778	59.9859	60.0
34 Ethyl acetate	43	12.149	12.149	(0.889)	1254642	217.600	218

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
	37 Propionitrile	54	12.393	12.388	(0.906)	198742	233.322	233
	38 Tetrahydrofuran	42	12.526	12.526	(0.639)	426685	212.848	213
	40 Methacrylonitrile	41	12.549	12.545	(0.918)	1051456	234.234	234
	46 Isobutyl alcohol	41	13.097	13.097	(0.958)	535298	2438.85	2440
S	48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	483869	53.2264	53.2
	49 Methyl tert-amyl ether	73	13.336	13.332	(0.975)	850336	64.6020	64.6(R)
*	52 Fluorobenzene	96	13.672	13.672	(1.000)	931041	50.0000	
	56 Methyl methacrylate	69	14.427	14.427	(1.055)	875247	254.405	254
	58 1,4-Dioxane	88	14.533	14.538	(1.063)	124073	2442.67	2440
	62 2-Nitropropane	43	15.067	15.067	(1.102)	524842	259.648	260
S	65 Toluene-d8	98	15.504	15.504	(0.904)	1193992	50.9516	51.0
	67 Ethyl methacrylate	69	15.799	15.799	(0.921)	1754240	260.511	260
	75 1-Chlorohexane	55	17.019	17.014	(1.245)	359303	58.4102	58.4
*	76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	696744	50.0000	
	85 cis-1,4-Dichloro-2-butene	53	18.262	18.262	(0.932)	671870	285.192	285
	86 Cyclohexanone	55	18.372	18.372	(1.071)	1256909	3696.95	3700(AR)
S	87 Bromofluorobenzene	95	18.377	18.377	(0.938)	502963	51.2816	51.3
	90 trans-1,4-Dichloro-2-butene	53	18.556	18.556	(0.947)	639566	290.791	291
	98 Pentachloroethane	167	19.187	19.187	(0.979)	860541	459.812	460(R)
*	102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	391200	50.0000	
	104 Benzyl chloride	91	19.758	19.762	(1.008)	3440036	341.330	341
	107 bis(2-Chloroisopropyl)ether	45	20.149	20.149	(1.028)	792105	227.028	227

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA1.i/031810v1/1c406LL.d
Date : 18-MAR-2010 11:42
Client ID: SLCS
Sample Info: 1120208229419658751 1|VOAF 1 1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

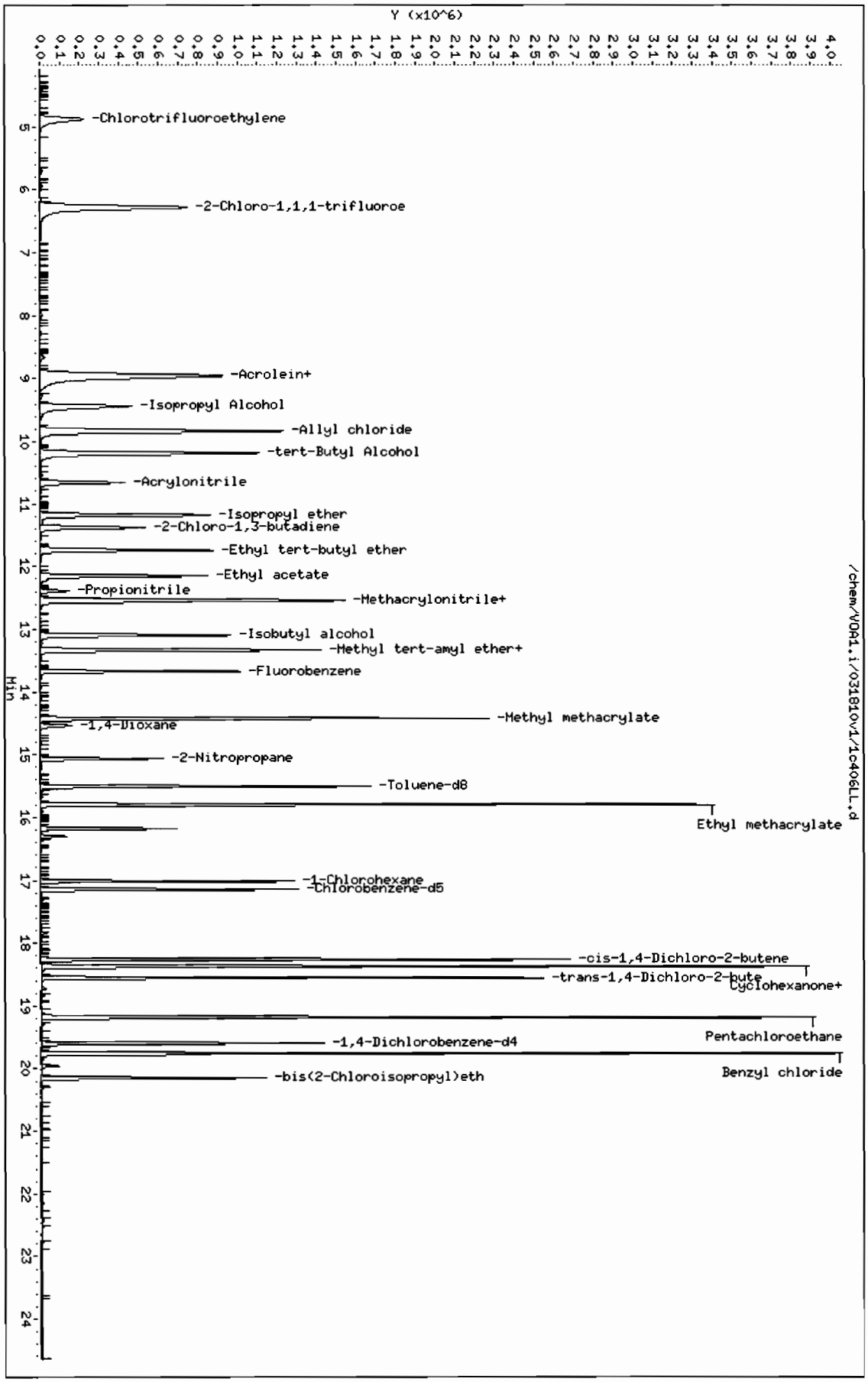

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202072714	**Date Received:**	03/05/2010 10:20	**%Moisture:**	13.9
Client Sample:	QC for batch 965874	**Client:**	LANL010	**Project:**	QC
Client ID:	RE46-10-13553PS	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965875	**Inst:**	VOA1.I	**Dilution:**	1
Run Date:	03/16/2010 21:55	**Analyst:**	GRB2	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 14:00	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	1c223.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		43.4	ug/kg	0.395	1.16
74-87-3	Chloromethane		37.6	ug/kg	0.349	1.16
75-01-4	Vinyl chloride		43.0	ug/kg	0.349	1.16
74-83-9	Bromomethane		46.8	ug/kg	0.349	1.16
75-00-3	Chloroethane		44.3	ug/kg	0.349	1.16
75-69-4	Trichlorofluoromethane		47.3	ug/kg	0.349	1.16
67-64-1	Acetone		169	ug/kg	1.93	5.81
75-35-4	1,1-Dichloroethylene		45.3	ug/kg	0.349	1.16
74-88-4	Iodomethane		235	ug/kg	1.86	5.81
75-09-2	Methylene chloride		49.1	ug/kg	2.32	5.81
75-15-0	Carbon disulfide		243	ug/kg	1.45	5.81
156-60-5	trans-1,2-Dichloroethylene		48.4	ug/kg	0.349	1.16
75-34-3	1,1-Dichloroethane		46.5	ug/kg	0.349	1.16
78-93-3	2-Butanone		118	ug/kg	1.74	5.81
156-59-2	cis-1,2-Dichloroethylene		48.3	ug/kg	0.349	1.16
594-20-7	2,2-Dichloropropane		45.8	ug/kg	0.349	1.16
67-66-3	Chloroform		48.6	ug/kg	0.349	1.16
74-97-5	Bromochloromethane		47.7	ug/kg	0.383	1.16
71-55-6	1,1,1-Trichloroethane		50.0	ug/kg	0.349	1.16
563-58-6	1,1-Dichloropropene		47.4	ug/kg	0.349	1.16
56-23-5	Carbon tetrachloride		49.9	ug/kg	0.349	1.16
107-06-2	1,2-Dichloroethane		46.4	ug/kg	0.349	1.16
71-43-2	Benzene		47.3	ug/kg	0.349	1.16
79-01-6	Trichloroethylene		50.3	ug/kg	0.383	1.16
78-87-5	1,2-Dichloropropane		45.9	ug/kg	0.349	1.16
75-27-4	Bromodichloromethane		51.4	ug/kg	0.349	1.16
74-95-3	Dibromomethane		48.0	ug/kg	0.349	1.16
108-10-1	4-Methyl-2-pentanone		208	ug/kg	1.45	5.81
10061-01-5	cis-1,3-Dichloropropylene		48.9	ug/kg	0.349	1.16
108-88-3	Toluene		45.5	ug/kg	0.349	1.16
10061-02-6	trans-1,3-Dichloropropylene		49.5	ug/kg	0.349	1.16
79-00-5	1,1,2-Trichloroethane		46.0	ug/kg	0.349	1.16
591-78-6	2-Hexanone		136	ug/kg	1.74	5.81
142-28-9	1,3-Dichloropropane		45.9	ug/kg	0.349	1.16
127-18-4	Tetrachloroethylene		42.8	ug/kg	0.349	1.16
124-48-1	Dibromochloromethane		49.8	ug/kg	0.349	1.16
106-93-4	1,2-Dibromoethane		47.5	ug/kg	0.349	1.16
108-90-7	Chlorobenzene		46.5	ug/kg	0.349	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202072714**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.9**
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13553PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 21:55**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c223.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		46.1	ug/kg	0.349	1.16
179601-23-1	m,p-Xylenes		91.0	ug/kg	0.349	2.32
95-47-6	o-Xylene		46.1	ug/kg	0.349	1.16
100-42-5	Styrene		49.2	ug/kg	0.349	1.16
75-25-2	Bromoform		53.7	ug/kg	0.349	1.16
79-34-5	1,1,2,2-Tetrachloroethane		48.6	ug/kg	0.349	1.16
96-18-4	1,2,3-Trichloropropane		48.3	ug/kg	0.349	1.16
108-86-1	Bromobenzene		46.2	ug/kg	0.349	1.16
103-65-1	n-Propylbenzene		44.6	ug/kg	0.349	1.16
95-49-8	2-Chlorotoluene		45.5	ug/kg	0.349	1.16
98-82-8	Isopropylbenzene		46.0	ug/kg	0.349	1.16
108-67-8	1,3,5-Trimethylbenzene		45.7	ug/kg	0.349	1.16
106-43-4	4-Chlorotoluene		45.1	ug/kg	0.349	1.16
98-06-6	tert-Butylbenzene		43.9	ug/kg	0.349	1.16
95-63-6	1,2,4-Trimethylbenzene		45.2	ug/kg	0.349	1.16
135-98-8	sec-Butylbenzene		42.2	ug/kg	0.349	1.16
99-87-6	4-Isopropyltoluene		43.0	ug/kg	0.349	1.16
541-73-1	1,3-Dichlorobenzene		41.8	ug/kg	0.349	1.16
106-46-7	1,4-Dichlorobenzene		42.3	ug/kg	0.349	1.16
104-51-8	n-Butylbenzene		41.3	ug/kg	0.349	1.16
96-12-8	1,2-Dibromo-3-chloropropane		49.6	ug/kg	0.349	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.81	ug/kg	1.86	5.81
630-20-6	1,1,1,2-Tetrachloroethane		49.4	ug/kg	0.349	1.16
95-50-1	1,2-Dichlorobenzene		42.3	ug/kg	0.349	1.16

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c223.d
Lab Smp Id: 1202072714 Client Smp ID: RE46-10-13553MS
Inj Date : 16-MAR-2010 21:55
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202072714|965875|1|VOAF|1|
Misc Info : LANL 5g N/A MS 248842002
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 23 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	13.94230	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	1144263	50.0000	
* 76 Chlorobenzene-d5	117	17.148	17.148	(1.000)	863924	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	468153	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	578161	51.7477	60.1
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1443326	49.6728	57.7
$ 87 Bromofluorobenzene	95	18.377	18.377	(0.938)	593401	50.5574	58.7
5 Dichlorodifluoromethane	85	4.983	4.983	(0.364)	214997	37.3423	43.4
6 Chloromethane	50	5.535	5.542	(0.405)	323200	32.3563	37.6
7 Vinyl chloride	62	5.901	5.901	(0.432)	287069	37.0378	43.0
9 Bromomethane	96	6.924	6.933	(0.506)	184799	40.3038	46.8
10 Chloroethane	64	7.200	7.200	(0.527)	190153	38.1461	44.3
11 Trichlorofluoromethane	101	7.822	7.813	(0.572)	396082	40.6783	47.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
16 Acetone	43	9.240	9.239	(0.676)	988601	145.841	169
15 1,1-Dichloroethylene	61	9.060	9.060	(0.663)	491040	38.9425	45.2
103 1,4-Dichlorobenzene	146	19.624	19.624	(1.001)	544729	36.4051	42.3
18 Iodomethane	142	9.451	9.451	(0.691)	1882876	201.854	234
23 Methylene chloride	84	10.128	10.123	(0.741)	291882	42.2964	49.1
19 Carbon disulfide	76	9.557	9.557	(0.699)	4002442	209.259	243
26 trans-1,2-Dichloroethylene	96	10.533	10.533	(0.770)	256775	41.6566	48.4
30 1,1-Dichloroethane	63	11.306	11.306	(0.827)	530367	40.0282	46.5
35 2-Butanone	43	12.172	12.172	(0.890)	728319	101.359	118
36 cis-1,2-Dichloroethylene	96	12.190	12.185	(0.892)	275982	41.5718	48.3
101 1,3-Dichlorobenzene	146	19.532	19.532	(0.997)	534668	36.0050	41.8
33 2,2-Dichloropropane	77	12.144	12.149	(0.888)	332524	39.4498	45.8
41 Chloroform	83	12.600	12.600	(0.922)	553429	41.8546	48.6
106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	516464	36.4120	42.3
39 Bromochloromethane	128	12.545	12.544	(0.918)	123466	41.0183	47.7
43 1,1,1-Trichloroethane	97	12.830	12.834	(0.938)	422957	43.0227	50.0
45 1,1-Dichloropropene	75	13.037	13.037	(0.954)	389307	40.8250	47.4
44 Carbon tetrachloride	117	13.009	13.014	(0.952)	403556	42.9129	49.9
51 1,2-Dichloroethane	62	13.424	13.428	(0.982)	471486	39.9322	46.4
47 Benzene	78	13.318	13.318	(0.974)	1065133	40.6679	47.2
54 Trichloroethylene	95	14.100	14.105	(1.031)	292505	43.2667	50.3
57 1,2-Dichloropropane	63	14.446	14.450	(1.057)	284736	39.5153	45.9
60 Bromodichloromethane	83	14.740	14.740	(1.078)	434630	44.2222	51.4
59 Dibromomethane	93	14.611	14.611	(1.069)	177373	41.3378	48.0
64 4-Methyl-2-pentanone	58	15.343	15.343	(0.895)	611676	178.828	208
63 cis-1,3-Dichloropropylene	75	15.247	15.246	(1.115)	481078	42.1194	48.9
66 Toluene	92	15.583	15.582	(0.909)	652916	39.1833	45.5
68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	494025	42.5686	49.5
69 1,1,2-Trichloroethane	83	16.093	16.093	(0.939)	203784	39.5832	46.0
71 2-Hexanone	43	16.255	16.255	(0.948)	1119009	117.269	136
72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	438947	39.5258	45.9
70 Tetrachloroethylene	164	16.176	16.181	(0.943)	196119	36.8481	42.8
73 Dibromochloromethane	129	16.535	16.540	(0.964)	292131	42.8481	49.8
74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	248338	40.8776	47.5
77 Chlorobenzene	112	17.180	17.180	(1.002)	704326	40.0158	46.5
79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	270683	42.4894	49.4
78 Ethylbenzene	91	17.207	17.207	(1.003)	1322065	39.7131	46.1
80 m,p-Xylenes	106	17.323	17.322	(1.010)	923891	78.2815	91.0
81 o-Xylene	106	17.769	17.769	(1.036)	459740	39.6829	46.1
82 Styrene	104	17.792	17.792	(1.038)	818921	42.3255	49.2
83 Bromoform	173	18.091	18.091	(0.923)	201796	46.1907	53.7
88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	331212	41.8309	48.6
92 1,2,3-Trichloropropane	110	18.593	18.593	(0.949)	93966	41.5679	48.3(Q)
91 Bromobenzene	156	18.579	18.579	(0.948)	303470	39.7516	46.2
89 n-Propylbenzene	91	18.547	18.547	(0.946)	1494948	38.3958	44.6
94 2-Chlorotoluene	91	18.726	18.726	(0.956)	1104307	39.1938	45.5
84 Isopropylbenzene	105	18.114	18.114	(0.924)	1260065	39.5919	46.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
93 1,3,5-Trimethylbenzene	105	18.703	18.703	(0.954)	1092413	39.3190	45.7
95 4-Chlorotoluene	91	18.841	18.841	(0.961)	991699	38.8403	45.1
96 tert-Butylbenzene	119	19.062	19.062	(0.973)	841672	37.7583	43.9
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	1123272	38.8973	45.2
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1284846	36.3277	42.2
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	1019364	37.0032	43.0
105 n-Butylbenzene	91	19.854	19.854	(1.013)	1057865	35.5634	41.3
108 1,2-Dibromo-3-chloropropane	157	20.987	20.982	(1.071)	66579	42.6806	49.6

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA1.i/031610v1/1c223.d
Date : 16-MAR-2010 21:55
Client ID: RE46-10-13553MS
Sample Info: I120207271419658751I1VOAF1I1
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: CRB2
Column diameter: 0.25

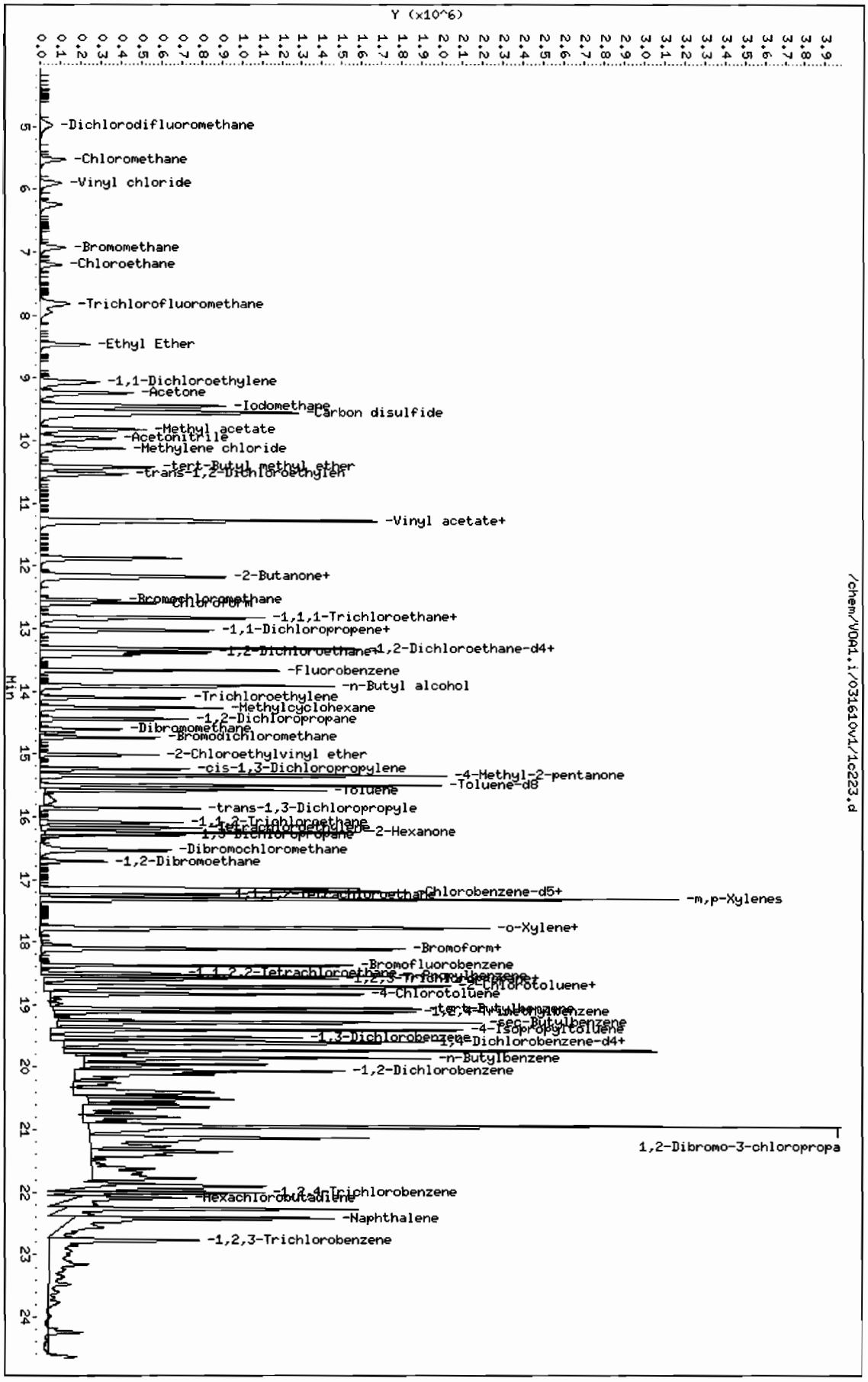

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202072715**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.9**
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13553PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 22:26**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c224.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		41.3	ug/kg	0.395	1.16
74-87-3	Chloromethane		36.2	ug/kg	0.349	1.16
75-01-4	Vinyl chloride		42.9	ug/kg	0.349	1.16
74-83-9	Bromomethane		45.0	ug/kg	0.349	1.16
75-00-3	Chloroethane		42.7	ug/kg	0.349	1.16
75-69-4	Trichlorofluoromethane		46.0	ug/kg	0.349	1.16
67-64-1	Acetone		156	ug/kg	1.93	5.81
75-35-4	1,1-Dichloroethylene		44.4	ug/kg	0.349	1.16
74-88-4	Iodomethane		228	ug/kg	1.86	5.81
75-09-2	Methylene chloride		48.1	ug/kg	2.32	5.81
75-15-0	Carbon disulfide		239	ug/kg	1.45	5.81
156-60-5	trans-1,2-Dichloroethylene		47.4	ug/kg	0.349	1.16
75-34-3	1,1-Dichloroethane		44.7	ug/kg	0.349	1.16
78-93-3	2-Butanone		116	ug/kg	1.74	5.81
156-59-2	cis-1,2-Dichloroethylene		47.7	ug/kg	0.349	1.16
594-20-7	2,2-Dichloropropane		44.7	ug/kg	0.349	1.16
67-66-3	Chloroform		46.8	ug/kg	0.349	1.16
74-97-5	Bromochloromethane		46.3	ug/kg	0.383	1.16
71-55-6	1,1,1-Trichloroethane		48.3	ug/kg	0.349	1.16
563-58-6	1,1-Dichloropropene		46.9	ug/kg	0.349	1.16
56-23-5	Carbon tetrachloride		48.6	ug/kg	0.349	1.16
107-06-2	1,2-Dichloroethane		44.3	ug/kg	0.349	1.16
71-43-2	Benzene		45.5	ug/kg	0.349	1.16
79-01-6	Trichloroethylene		47.7	ug/kg	0.383	1.16
78-87-5	1,2-Dichloropropane		44.7	ug/kg	0.349	1.16
75-27-4	Bromodichloromethane		49.6	ug/kg	0.349	1.16
74-95-3	Dibromomethane		46.9	ug/kg	0.349	1.16
108-10-1	4-Methyl-2-pentanone		205	ug/kg	1.45	5.81
10061-01-5	cis-1,3-Dichloropropylene		47.9	ug/kg	0.349	1.16
108-88-3	Toluene		45.3	ug/kg	0.349	1.16
10061-02-6	trans-1,3-Dichloropropylene		48.4	ug/kg	0.349	1.16
79-00-5	1,1,2-Trichloroethane		45.3	ug/kg	0.349	1.16
591-78-6	2-Hexanone		132	ug/kg	1.74	5.81
142-28-9	1,3-Dichloropropane		44.9	ug/kg	0.349	1.16
127-18-4	Tetrachloroethylene		42.2	ug/kg	0.349	1.16
124-48-1	Dibromochloromethane		49.4	ug/kg	0.349	1.16
106-93-4	1,2-Dibromoethane		46.5	ug/kg	0.349	1.16
108-90-7	Chlorobenzene		45.2	ug/kg	0.349	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202072715**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.9**
Client Sample:	**QC for batch 965874**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13553PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965875**	**Inst:**	**VOA1.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 22:26**	**Analyst:**	**GRB2**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 14:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**1c224.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		44.7	ug/kg	0.349	1.16
179601-23-1	m,p-Xylenes		88.4	ug/kg	0.349	2.32
95-47-6	o-Xylene		44.8	ug/kg	0.349	1.16
100-42-5	Styrene		47.9	ug/kg	0.349	1.16
75-25-2	Bromoform		51.8	ug/kg	0.349	1.16
79-34-5	1,1,2,2-Tetrachloroethane		46.7	ug/kg	0.349	1.16
96-18-4	1,2,3-Trichloropropane		47.2	ug/kg	0.349	1.16
108-86-1	Bromobenzene		44.5	ug/kg	0.349	1.16
103-65-1	n-Propylbenzene		41.3	ug/kg	0.349	1.16
95-49-8	2-Chlorotoluene		43.1	ug/kg	0.349	1.16
98-82-8	Isopropylbenzene		43.3	ug/kg	0.349	1.16
108-67-8	1,3,5-Trimethylbenzene		42.1	ug/kg	0.349	1.16
106-43-4	4-Chlorotoluene		43.7	ug/kg	0.349	1.16
98-06-6	tert-Butylbenzene		39.0	ug/kg	0.349	1.16
95-63-6	1,2,4-Trimethylbenzene		42.4	ug/kg	0.349	1.16
135-98-8	sec-Butylbenzene		36.9	ug/kg	0.349	1.16
99-87-6	4-Isopropyltoluene		37.1	ug/kg	0.349	1.16
541-73-1	1,3-Dichlorobenzene		39.9	ug/kg	0.349	1.16
106-46-7	1,4-Dichlorobenzene		40.8	ug/kg	0.349	1.16
104-51-8	n-Butylbenzene		34.7	ug/kg	0.349	1.16
96-12-8	1,2-Dibromo-3-chloropropane		48.0	ug/kg	0.349	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.81	ug/kg	1.86	5.81
630-20-6	1,1,1,2-Tetrachloroethane		47.6	ug/kg	0.349	1.16
95-50-1	1,2-Dichlorobenzene		40.8	ug/kg	0.349	1.16

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA1.i/031610v1/1c224.d
Lab Smp Id: 1202072715 Client Smp ID: RE46-10-13553MSD
Inj Date : 16-MAR-2010 22:26
Operator : GRB2 Inst ID: VOA1.i
Smp Info : |1202072715|965875|1|VOAF|1|
Misc Info : LANL 5g N/A MSD 248842002
Comment :
Method : /chem/VOA1.i/031610v1/VOA1-8260ox-030410.m
Meth Date : 17-Mar-2010 05:29 rya01514 Quant Type: ISTD
Cal Date : 05-MAR-2010 01:41 Cal File: 1a428.d
Als bottle: 24 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	13.94230	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 52 Fluorobenzene	96	13.672	13.672	(1.000)	1149104	50.0000	
* 76 Chlorobenzene-d5	117	17.147	17.148	(1.000)	859150	50.0000	
* 102 1,4-Dichlorobenzene-d4	152	19.596	19.596	(1.000)	470416	50.0000	
$ 48 1,2-Dichloroethane-d4	65	13.327	13.327	(0.975)	590260	52.6080	61.1
$ 65 Toluene-d8	98	15.504	15.504	(0.904)	1470586	50.8922	59.1
$ 87 Bromofluorobenzene	95	18.376	18.377	(0.938)	606045	51.3863	59.7
5 Dichlorodifluoromethane	85	4.976	4.983	(0.364)	205373	35.5204	41.3
6 Chloromethane	50	5.528	5.542	(0.404)	312784	31.1816	36.2
7 Vinyl chloride	62	5.901	5.901	(0.432)	287138	36.8906	42.9
9 Bromomethane	96	6.919	6.933	(0.506)	178438	38.7526	45.0
10 Chloroethane	64	7.200	7.200	(0.527)	183751	36.7066	42.6
11 Trichlorofluoromethane	101	7.817	7.813	(0.572)	386998	39.5780	46.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
16 Acetone	43	9.239	9.239	(0.676)	913096	134.135	156
15 1,1-Dichloroethylene	61	9.065	9.060	(0.663)	483499	38.1829	44.4
103 1,4-Dichlorobenzene	146	19.624	19.624	(1.001)	527537	35.0865	40.8
18 Iodomethane	142	9.451	9.451	(0.691)	1839000	196.320	228
23 Methylene chloride	84	10.123	10.123	(0.740)	287280	41.4354	48.1
19 Carbon disulfide	76	9.552	9.557	(0.699)	3954725	205.893	239
26 trans-1,2-Dichloroethylene	96	10.533	10.533	(0.770)	252622	40.8102	47.4
30 1,1-Dichloroethane	63	11.306	11.306	(0.827)	511298	38.4265	44.6
35 2-Butanone	43	12.172	12.172	(0.890)	719161	99.6633	116
36 cis-1,2-Dichloroethylene	96	12.190	12.185	(0.892)	273547	41.0314	47.7
101 1,3-Dichlorobenzene	146	19.532	19.532	(0.997)	512828	34.3682	39.9
33 2,2-Dichloropropane	77	12.144	12.149	(0.888)	325532	38.4576	44.7
41 Chloroform	83	12.600	12.600	(0.922)	535367	40.3180	46.8
106 1,2-Dichlorobenzene	146	20.066	20.066	(1.024)	500605	35.1241	40.8
39 Bromochloromethane	128	12.549	12.544	(0.918)	120420	39.8378	46.3
43 1,1,1-Trichloroethane	97	12.834	12.834	(0.939)	409939	41.5229	48.2
45 1,1-Dichloropropene	75	13.037	13.037	(0.954)	386841	40.3955	46.9
44 Carbon tetrachloride	117	13.009	13.014	(0.952)	395305	41.8585	48.6
51 1,2-Dichloroethane	62	13.428	13.428	(0.982)	452053	38.1250	44.3
47 Benzene	78	13.322	13.318	(0.974)	1030317	39.1729	45.5
54 Trichloroethylene	95	14.105	14.105	(1.032)	278771	41.0615	47.7
57 1,2-Dichloropropane	63	14.445	14.450	(1.057)	278519	38.4896	44.7
60 Bromodichloromethane	83	14.740	14.740	(1.078)	421517	42.7073	49.6
59 Dibromomethane	93	14.611	14.611	(1.069)	173884	40.3540	46.9
64 4-Methyl-2-pentanone	58	15.348	15.343	(0.895)	599255	176.170	205
63 cis-1,3-Dichloropropylene	75	15.242	15.246	(1.115)	473090	41.2455	47.9
66 Toluene	92	15.582	15.582	(0.909)	646051	38.9867	45.3
68 trans-1,3-Dichloropropylene	75	15.868	15.868	(0.925)	480430	41.6272	48.4
69 1,1,2-Trichloroethane	83	16.093	16.093	(0.939)	199596	38.9851	45.3
71 2-Hexanone	43	16.254	16.255	(0.948)	1079179	113.724	132
72 1,3-Dichloropropane	76	16.296	16.296	(0.950)	426331	38.6031	44.8
70 Tetrachloroethylene	164	16.181	16.181	(0.944)	192361	36.3428	42.2
73 Dibromochloromethane	129	16.535	16.540	(0.964)	288363	42.5304	49.4
74 1,2-Dibromoethane	107	16.715	16.715	(0.975)	241573	39.9850	46.5
77 Chlorobenzene	112	17.180	17.180	(1.002)	680239	38.8621	45.2
79 1,1,1,2-Tetrachloroethane	131	17.249	17.249	(1.006)	259702	40.9922	47.6
78 Ethylbenzene	91	17.207	17.207	(1.003)	1273983	38.4815	44.7
80 m,p-Xylenes	106	17.322	17.322	(1.010)	892916	76.0773	88.4
81 o-Xylene	106	17.769	17.769	(1.036)	444607	38.5900	44.8
82 Styrene	104	17.792	17.792	(1.038)	793165	41.2221	47.9
83 Bromoform	173	18.096	18.091	(0.923)	195573	44.5509	51.8
88 1,1,2,2-Tetrachloroethane	83	18.496	18.496	(0.944)	320014	40.2222	46.7
92 1,2,3-Trichloropropane	110	18.593	18.593	(0.949)	92186	40.5843	47.2(Q)
91 Bromobenzene	156	18.579	18.579	(0.948)	293945	38.3186	44.5
89 n-Propylbenzene	91	18.547	18.547	(0.946)	1388920	35.5010	41.2
94 2-Chlorotoluene	91	18.731	18.726	(0.956)	1050879	37.1182	43.1
84 Isopropylbenzene	105	18.114	18.114	(0.924)	1192364	37.2845	43.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
93 1,3,5-Trimethylbenzene	105	18.703	18.703	(0.954)	1011449	36.2298	42.1
95 4-Chlorotoluene	91	18.841	18.841	(0.961)	965692	37.6398	43.7
96 tert-Butylbenzene	119	19.062	19.062	(0.973)	751618	33.5562	39.0
97 1,2,4-Trimethylbenzene	105	19.122	19.122	(0.976)	1057594	36.4467	42.4
99 sec-Butylbenzene	105	19.288	19.288	(0.984)	1127226	31.7179	36.8
100 4-Isopropyltoluene	119	19.408	19.408	(0.990)	884321	31.9467	37.1
105 n-Butylbenzene	91	19.854	19.854	(1.013)	892452	29.8582	34.7
108 1,2-Dibromo-3-chloropropane	157	20.986	20.982	(1.071)	64683	41.2657	48.0

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA1.i/031610v1/1c224.d
Date : 16-MAR-2010 22:26
Client ID: RE46-10-13553MSD
Sample Info: 1120207271519658751|1|VOAF|1|
Column phase: RTX-Volatiles

Instrument: VOA1.i
Operator: GRB2
Column diameter: 0.25

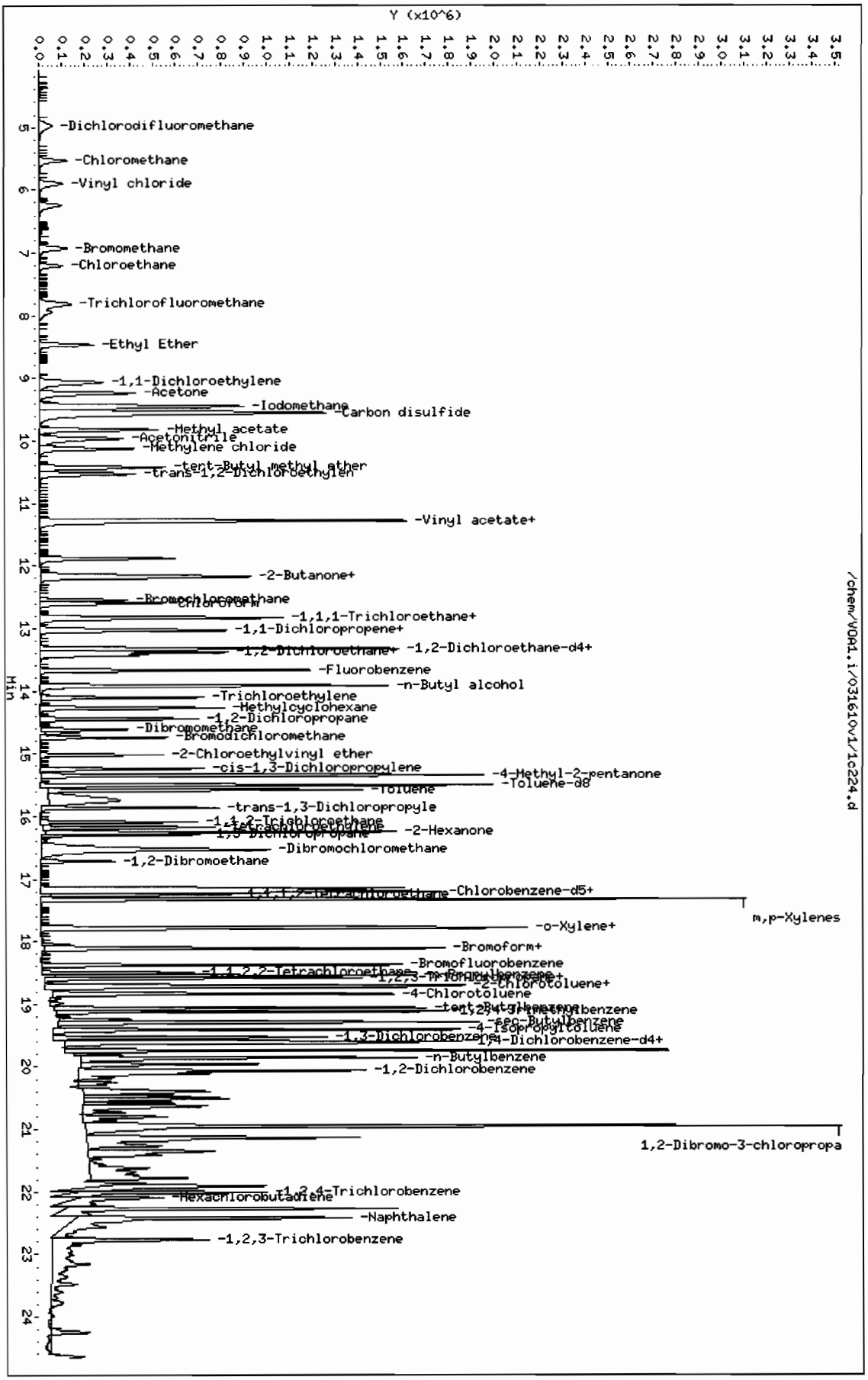

Miscellaneous Data

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **965874** Verified by:

Analyst: Alex Olson

Method: SW846 5030

Lab SOP: GL-OA-E-038 REV# 14

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202072713 MB	16-MAR-2010 10:00:00	Soil	5	5	1	N/A
1202072716 LCS	16-MAR-2010 10:00:00	Soil	5	5	1	N/A
1202072717 LCS	16-MAR-2010 10:00:00	Soil	5	5	1	N/A
248842001	16-MAR-2010 13:56:00	Misc Solid	5	5	1	N/A
248842002	16-MAR-2010 13:58:00	Soil	5	5	1	N/A
1202072714 PS (248842002)	16-MAR-2010 14:00:00	Soil	5	5	1	N/A
1202072715 PSD (248842002)	16-MAR-2010 14:02:00	Soil	5	5	1	N/A
248842003	16-MAR-2010 14:04:00	Soil	5	5	1	N/A
248842004	16-MAR-2010 14:06:00	Soil	5	5	1	N/A
248842007	16-MAR-2010 14:12:00	Soil	5	5	1	N/A
248842009	16-MAR-2010 14:16:00	Soil	5	5	1	N/A
249057001	16-MAR-2010 14:20:00	Soil	5	5	1	N/A
249057002	16-MAR-2010 14:22:00	Soil	5	5	1	N/A
249057003	16-MAR-2010 14:24:00	Soil	5	5	1	N/A
1202082289 MB	17-MAR-2010 09:30:00	Soil	5	5	1	N/A
1202082291 LCS	17-MAR-2010 09:30:00	Soil	5	5	1	N/A
1202082292 LCS	17-MAR-2010 09:30:00	Soil	5	5	1	N/A
248842006	17-MAR-2010 13:17:00	Soil	5	5	1	N/A
248842008	17-MAR-2010 13:19:00	Soil	5	5	1	N/A
248842004 - 2	17-MAR-2010 13:30:00	Soil	5	10	2	N/A
248842007 - 2	17-MAR-2010 13:31:00	Soil	5	10	2	N/A
248842009 - 2	17-MAR-2010 13:32:00	Soil	5	10	2	N/A
249057001 - 2	17-MAR-2010 13:33:00	Soil	5	10	2	N/A
249057002 - 2	17-MAR-2010 13:33:00	Soil	5	10	2	N/A
249057003 - 2	17-MAR-2010 13:34:00	Soil	5	10	2	N/A
1202082296 HB	17-MAR-2010 13:35:00	Soil	5	10	2	N/A

Prep Logbook

Batch ID: **965874** Verified by:

Analyst: Alex Olson
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 14
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
248842010	17-MAR-2010 14:21:00	Soil	5	5	1	N/A
1202082290 MB	18-MAR-2010 08:30:00	Soil	5	5	1	N/A
1202082293 LCS	18-MAR-2010 08:30:00	Soil	5	5	1	N/A
1202082294 LCS	18-MAR-2010 08:30:00	Soil	5	5	1	N/A
248842005	18-MAR-2010 12:10:00	Soil	5	5	1	N/A

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 3/4/2010 Method 8260B/624 Operator: RXD1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1471

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/4/2010

(See pg. 30,31,32 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 030410V1

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
Long ICV	W1VM100305-01			5+5	
IS	UVM1000214-01	1	1	1	
SS	UVM1000203-02	1	1	1	
SHORT ICV	W1VM100304-23			5+5	
BFB	UVM1000203-02				1

Purge Amount	
5	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
4 Mar 2010 08:55	1A401.D	UVM100114-02	GEL	RINSE	5mL	1	N/A	1	w	RXD1	N/A	X	
4 Mar 2010 09:26	1A402.D	W1VM100304-01	GEL	CCV	5mL	1	N/A	2	w	RXD1	N/A	X	UVM100220-01C/IVM100301-01 1,2DCE-d4 S.S. high
4 Mar 2010 10:53	1A403.D	W1VM100304-02	GEL	CCV	5mL	1	N/A	2	w	RXD1	N/A	X	UVM100220-01C/IVM100304-01 Surr Still high
4 Mar 2010 12:09	1A404.D	12020---	GEL	BLANK	5mL	1	N/A	4	w	RXD1	N/A	X	RINSE
4 Mar 2010 12:40	1A405.D	12020---	GEL	BLANK	5mL	1	N/A	5	w	RXD1	N/A	X	RINSE
4 Mar 2010 13:55	1A406.D	12020---	GEL	BLANK	5mL	1	N/A	6	w	RXD1	N/A	X	RINSE Adjusting EM voltage
4 Mar 2010 14:26	1A407.D	12020---	GEL	BLANK	5mL	1	N/A	7	w	RXD1	N/A	X	RINSE
4 Mar 2010 15:08	1A408.D	W1VM100304-03	GEL	CCV	5mL	1	N/A	8	w	RXD1	N/A	X	UVM100106-07D/UVM100222-07A
4 Mar 2010 15:39	1A409.D	W1VM100304-04	GEL	LCS	5mL	1	N/A	9	s	RXD1	N/A	X	UVM100220-01C/IVM100304-01
4 Mar 2010 16:10	1A410.D	W1VM100304-05	GEL	SHORT	5g	1	N/A	10	w	RXD1	N/A	X	UVM100215-08A
4 Mar 2010 16:41	1A411.D	UVM100203-02	GEL	BFB01	5mL	1	N/A	11	w	RXD1	N/A	O	
4 Mar 2010 17:28	1A412.D	W1VM100304-06	GEL	VSTD001	5mL	1	N/A	12	w	RXD1	N/A	O	UVM100106-02D/UVM100222-02A
4 Mar 2010 17:59	1A413.D	W1VM100304-07	GEL	VSTD002	5mL	1	N/A	13	w	RXD1	N/A	O	UVM100106-03D/UVM100222-03A
4 Mar 2010 18:29	1A414.D	W1VM100304-08	GEL	VSTD005	5mL	1	N/A	14	w	RXD1	N/A	O	UVM100106-04D/UVM100222-04A
4 Mar 2010 19:00	1A415.D	W1VM100304-09	GEL	VSTD010	5mL	1	N/A	15	w	RXD1	N/A	O	UVM100106-05D/UVM100222-05A
4 Mar 2010 19:31	1A416.D	W1VM100304-10	GEL	VSTD020	5mL	1	N/A	16	w	RXD1	N/A	O	UVM100106-06D/UVM100222-06A
4 Mar 2010 20:02	1A417.D	W1VM100304-11	GEL	VSTD050	5mL	1	N/A	17	w	RXD1	N/A	O	UVM100106-07D/UVM100222-07A
4 Mar 2010 20:32	1A418.D	W1VM100304-12	GEL	VSTD100	5mL	1	N/A	18	w	RXD1	N/A	O	UVM100106-08D/UVM100222-08A
4 Mar 2010 21:04	1A419.D	12020---	GEL	BLANK	5mL	1	N/A	19	w	RXD1	N/A	X	RINSE
4 Mar 2010 21:35	1A420.D	W1VM100304-13	GEL	VSTD0005	5mL	1	N/A	20	w	RXD1	N/A	O	UVM100106-01D/UVM100222-01A
4 Mar 2010 22:05	1A421.D	W1VM100304-14	GEL	ICV	5mL	1	N/A	21	w	RXD1	N/A	X	UVM100220-01C/IVM100304-01 See 7A502
4 Mar 2010 22:36	1A422.D	W1VM100304-15	GEL	ICV	5mL	1	N/A	22	w	RXD1	N/A	X	UVM100126-02E/IVM100304-01 See 7A502
4 Mar 2010 23:06	1A423.D	W1VM100304-16	GEL	VSTD005S	5mL	1	N/A	23	w	RXD1	N/A	O	UVM100304-01/UVM100227-01A
4 Mar 2010 23:37	1A424.D	W1VM100304-17	GEL	VSTD010S	5mL	1	N/A	24	w	RXD1	N/A	O	UVM100304-02/UVM100227-02A
5 Mar 2010 00:08	1A425.D	W1VM100304-18	GEL	VSTD025S	5mL	1	N/A	25	w	RXD1	N/A	O	UVM100304-03/UVM100227-03A
5 Mar 2010 00:39	1A426.D	W1VM100304-19	GEL	VSTD050S	5mL	1	N/A	26	w	RXD1	N/A	O	UVM100304-04/UVM100227-04A

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 3/4/2010 Method 8260B/624 Operator: RXD1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1471

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/4/2010

(See pg. 30,31,32 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 030410V1

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
Long ICV	W1VM100305-01			5+5	
IS	UVM1000214-01	1	1	1	
SS	UVM1000203-02	1	1	1	
SHORT ICV	W1VM100304-23			5+5	
BFB	UVM1000203-02				1

Purge Amount	
5	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
5 Mar 2010 01:10	1A427.D	W1VM100304-20	GEL	VSTD100S	5mL	1	N/A	27	w	RXD1	N/A	O	UVM100304-05/UVM100227-05A
5 Mar 2010 01:41	1A428.D	W1VM100304-21	GEL	VSTD250S	5mL	1	N/A	28	w	RXD1	N/A	O	UVM100304-06/UVM100227-06A
5 Mar 2010 02:12	1A429.D	W1VM100304-22	GEL	VSTD500S	5mL	1	N/A	29	w	RXD1	N/A	O	UVM100304-07/UVM100227-07A
5 Mar 2010 02:43	1A430.D	12020---	GEL	BLANK	5mL	1	N/A	30	w	RXD1	N/A	X	RINSE
5 Mar 2010 03:14	1A431.D	W1VM100304-23	GEL	SICV	5mL	1	N/A	31	w	RXD1	N/A	O	UVM100304-08A/UVM100125-08E
5 Mar 2010 03:44	1A432.D	W1VM100304-24	GEL	SICV	5mL	1	N/A	32	w	RXD1	N/A	X	UVM100215-08A/UVM100125-08E Not needed
5 Mar 2010 04:15	1A433.D	12020---	GEL	BLANK	5mL	1	N/A	33	w	RXD1	N/A	X	RINSE

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 3/5/2010 Method 8260B/624 Operator: AXO1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1471

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/4/2010

(See pg. 14,15 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 030510v1

Daily Standard	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W1VM100305-01		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100203-02	1	1	1	
LCS/MS	W1VM100305-01/02			5+5	
BFB	UVM100203-02				1
SHORT	W1VM100305-03/04		5+5	5+5	

Purge Amount	
5	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
5 Mar 2010 10:00	1A501.D	UVM100203-02	GEL	RINSE	5mL	1	N/A	1	W	AXO1	N/A	X	BFB ok but see 1A502
5 Mar 2010 10:31	1A502.D	W1VM100305-01	GEL	BFB/ICV/CCV/LCS	5mL	1	N/A	2	w	AXO1	N/A	O	UVM100220-01D/IVM100304-01
5 Mar 2010 11:02	1A503.D	W1VM100305-02	GEL	LCS	5g	1	N/A	3	s	AXO1	N/A	O	UVM100220-01D/IVM100304-01
5 Mar 2010 11:32	1A504.D	W1VM100305-03	GEL	SHORT/SLCS	5mL	1	N/A	4	w	AXO1	N/A	O	UVM100304-08A/UVM100125-08E
5 Mar 2010 12:03	1A505.D	W1VM100305-04	GEL	SLCS	5g	1	N/A	5	s	AXO1	N/A	O	UVM100304-08A/UVM100125-08E
5 Mar 2010 12:35	1A506.D	12020---	GEL	BLANK	5g	1	N/A	6	s	AXO1	N/A	O	RINSE
5 Mar 2010 13:06	1A507.D	12020---	GEL	BLANK	5mL	1	N/A	7	w	AXO1	N/A	O	RINSE
5 Mar 2010 13:38	1A508.D	247920001	LANL	961771	5g	1	N/A	8	s	AXO1	N/A	O	
5 Mar 2010 14:10	1A509.D	247866001	WASP	961764	5mL	1	pH2	9	w	AXO1	N	O	
5 Mar 2010 14:43	1A510.D	247920002	LANL	961771	5g	1	N/A	10	s	AXO1	N/A	O	
5 Mar 2010 15:15	1A511.D	247973001	LANL	961771	5g	1	N/A	11	s	AXO1	N/A	O	
5 Mar 2010 15:46	1A512.D	247973002	LANL	961771	5g	1	N/A	12	s	AXO1	N/A	O	
5 Mar 2010 16:17	1A513.D	247973003	LANL	961771	5g	1	N/A	13	s	AXO1	N/A	O	
5 Mar 2010 16:48	1A514.D	247973004	LANL	961771	5g	1	N/A	14	s	AXO1	N/A	O	
5 Mar 2010 17:19	1A515.D	247973005	LANL	961771	5g	1	N/A	15	s	AXO1	N/A	O	
5 Mar 2010 17:50	1A516.D	247973006	LANL	961771	5g	1	N/A	16	s	AXO1	N/A	O	
5 Mar 2010 18:20	1A517.D	247973007	LANL	961771	5g	1	N/A	17	s	AXO1	N/A	O	
5 Mar 2010 18:51	1A518.D	247973008	LANL	961771	5g	1	N/A	18	s	AXO1	N/A	O	
5 Mar 2010 19:21	1A519.D	248130001	LANL	961771	5g	1	N/A	19	s	AXO1	N/A	O	
5 Mar 2010 19:52	1A520.D	248130002	LANL	961771	5g	1	N/A	20	s	AXO1	N/A	O	
5 Mar 2010 20:22	1A521.D	248130003	LANL	961771	5g	1	N/A	21	s	AXO1	N/A	O	
5 Mar 2010 20:53	1A522.D	248130004	LANL	961771	5g	1	N/A	22	s	AXO1	N/A	O	
5 Mar 2010 21:23	1A523.D	248130005	LANL	961771	5g	1	N/A	23	s	AXO1	N/A	O	
5 Mar 2010 21:54	1A524.D	1202062920	LANL	961771	5g	1	N/A	24	s	AXO1	N/A	O	MS 248130005
5 Mar 2010 22:24	1A525.D	1202062921	LANL	961771	5g	1	N/A	25	s	AXO1	N/A	O	MSD 248130005

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 3/16/2010 Method 8260B/624 Operator: AXO1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1506

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/4/2010

(See pg. 30,31,32 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

CI test lot # 84515

Sequence Number: 031610v1

Daily Standard

	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W1VM100316-01		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100217-02	1	1	1	
LCS/MS	W1VM100316-01/02			5+5	
BFB	W1VM100316-01				1
SHORT	W1VM100316-03/04		5	5	

Purge Amount

5	Water Purge Vol:ML
5	Soil Purge Wt.:G
	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	CI test (Y/N)	Acceptable O/X	Comments
3/16/2010 10:29	1C201.D	UVM100217-02	GEL	BFB01	5mL	1	N/A	1	w	AXO1	N/A	X	BFB
3/16/2010 11:00	1C202.D	W1VM100316-01	GEL	BFB/CCV/LCS	5mL	1	N/A	2	w	AXO1	N/A	O	UVM1000305-01B/IVM100316-01
3/16/2010 11:30	1C203.D	W1VM100316-02	GEL	LCS	5g	1	N/A	3	s	AXO1	N/A	O	UVM100305-01B/IVM100316-01
3/16/2010 12:01	1C204.D	W1VM100316-03	GEL	SHORT/SLCS	5mL	1	N/A	4	w	AXO1	N/A	O	UVM100304-08A
3/16/2010 12:32	1C205.D	W1VM100316-04	GEL	SLCS	5g	1	N/A	5	s	AXO1	N/A	O	UVM100304-08A
3/16/2010 13:03	1C206.D	12020--	GEL	BLANK	5g	1	N/A	6	s	AXO1	N/A	O	
3/16/2010 13:34	1C207.D	12020--	GEL	BLANK	5ml	1	N/A	7	w	AXO1	N/A	O	
3/16/2010 14:14	1C208.D	248842001	LANL	965875	5g	1	N/A	8	s	AXO1	N/A	O	
3/16/2010 14:45	1C209.D	249057001	LANL	965875	5g	1	N/A	9	s	AXO1	N/A	O	
3/16/2010 15:16	1C210.D	248842002	LANL	965875	5g	1	N/A	10	s	AXO1	N/A	O	
3/16/2010 15:47	1C211.D	248842003	LANL	965875	5g	1	N/A	11	s	AXO1	N/A	O	
3/16/2010 16:18	1C212.D	248842004	LANL	965875	5g	1	N/A	12	s	AXO1	N/A	O	O/R, see 1C409 for dilution
3/16/2010 16:48	1C213.D	248842005	LANL	965875	5g	1	N/A	13	s	AXO1	N/A	x	C/O, see 1c415
3/16/2010 17:19	1C214.D	248842006	LANL	965875	5g	1	N/A	14	s	AXO1	N/A	x	C/O, see 1c309
3/16/2010 17:50	1C215.D	248842007	LANL	965875	5g	1	N/A	15	s	AXO1	N/A	O	O/R, see 1c411 for dilution
3/16/2010 18:21	1C216.D	248842008	LANL	965875	5g	1	N/A	16	s	AXO1	N/A	x	C/O, see 1c312
3/16/2010 18:52	1C217.D	248842009	LANL	965875	5g	1	N/A	17	s	AXO1	N/A	O	O/R, see 1c410 for dilution
3/16/2010 19:23	1C218.D	248842010	LANL	965875	5g	1	N/A	18	s	AXO1	N/A	x	C/O, see 1c311
3/16/2010 19:53	1C219.D	249057002	LANL	965875	5g	1	N/A	19	s	AXO1	N/A	x	O/R, see 1c412
3/16/2010 20:24	1C220.D	249057003	LANL	965875	5g	1	N/A	20	s	AXO1	N/A	x	O/R, see 1c413
3/16/2010 20:54	1C221.D	1202071473	BJCO	965414	500uL	10	N/A	21	w	AXO1	N/A	O	MS 248735002
3/16/2010 21:25	1C222.D	1202071474	BJCO	965414	500uL	10	N/A	22	w	AXO1	N/A	O	MSD 248735002
3/16/2010 21:55	1C223.D	1202072714	LANL	965875	5g	1	N/A	23	s	AXO1	N/A	O	MS 248842002
3/16/2010 22:26	1C224.D	1202072715	LANL	965875	5g	1	N/A	24	s	AXO1	N/A	O	MSD 248842002

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 3/17/2010 Method 8260B/624 Operator: AXO1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1506

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/4/2010

(See pg. 30,31,32 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 031710v1

Daily Standard	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W1VM100317-01		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100311-02	1	1	1	
LCS/MS	W1VM100317-01/02			5+5	
BFB	UVM100311-02				1
SHORT	W1VM100317-03/04		5+5	5+5	
	UVM100311-02				

Purge Amount	
5	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
Y	Mid level ext. MeOH Vol:
various	ul
DA992	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
3/17/2010 10:12	1C301.D	UVM100217-02	GEL	RINSE	5mL	1	N/A	1	w	AXO1	N/A	X	BFB
3/17/2010 10:43	1C302.D	W1VM100317-01	GEL	BFB/CCV/LCS	5mL	1	N/A	2	w	AXO1	N/A	O	UVM1000305-01C/IVM100316-01
3/17/2010 11:13	1C303.D	W1VM100317-02	GEL	LCS	5g	1	N/A	3	s	AXO1	N/A	O	UVM100305-01C/IVM100316-01
3/17/2010 11:44	1C304.D	W1VM100317-03	GEL	SHORT/SLCS	5mL	1	N/A	4	w	AXO1	N/A	O	UVM100304-08A/UVM100226-02A
3/17/2010 12:14	1C305.D	W1VM100317-04	GEL	SLCS	5g	1	N/A	5	s	AXO1	N/A	O	UVM100304-08A/UVM100226-02A
3/17/2010 12:45	1C306.D	12020--	GEL	BLANK	5mL	1	N/A	6	w	AXO1	N/A	O	
3/17/2010 13:16	1C307.D	12020--	GEL	BLANK	5g	1	N/A	7	s	AXO1	N/A	O	
3/17/2010 14:29	1C308.D	12020--	GEL	BLANK	0.1	50	mL	8	s	AXO1	N/A	O	N/A HB
3/17/2010 15:00	1C309.D	248842006	LANL	965875	5g	1	N/A	9	s	AXO1	N/A	O	
3/17/2010 15:30	1C310.D	248842005	LANL	965875	5g	1	N/A	10	s	AXO1	N/A	X	RR C/O SEE 1c415
3/17/2010 16:01	1C311.D	248842010	LANL	965875	5g	1	N/A	11	s	AXO1	N/A	O	
3/17/2010 16:31	1C312.D	248842008	LANL	965875	5g	1	N/A	12	s	AXO1	N/A	O	
3/17/2010 17:02	1C313.D	12020--	GEL	BLANK	5mL	1	N/A	13	w	AXO1	N/A	X	RINSE
3/17/2010 17:32	1C314.D	248842004	LANL	965875	50uL	100	N/A	14	s	AXO1	N/A	X	RR 50X SEE 1c409
3/17/2010 18:03	1C315.D	248842009	LANL	965875	50uL	100	N/A	15	s	AXO1	N/A	X	RR 50X SEE 1c410
3/17/2010 18:33	1C316.D	249057002	LANL	965875	25uL	200	N/A	16	s	AXO1	N/A	X	RR 50X SEE 1c412
3/17/2010 19:04	1C317.D	249057003	LANL	965875	25uL	200	N/A	17	s	AXO1	N/A	X	RR 50X SEE 4c413
3/17/2010 19:34	1C318.D	248842007	LANL	965875	10uL	500	N/A	18	s	AXO1	N/A	X	RR 100X SEE 1c411
3/17/2010 20:05	1C319.D	12020--	GEL	BLANK	5mL	1	N/A	19	w	AXO1	N/A	X	RINSE
3/17/2010 20:35	1C320.D	12020--	GEL	BLANK	5mL	1	N/A	20	w	AXO1	N/A	X	RINSE
3/17/2010 21:05	1C321.D	12020--	GEL	BLANK	5mL	1	N/A	21	w	AXO1	N/A	X	RINSE

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA1

Date: 3/18/2010 Method 8260B/624 Operator: AXO1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 2

Daily Instrument Readings:
Multiplier Voltage: 1506

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/4/2010

(See pg. 30,31,32 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 031810V1

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W1VM100318-02		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100311-02	1	1	1	
LCS/MS	W1VM100318-04			5+5	
BFB	UVM100311-02				1
SHORT	W1VM100318-03		5+5	5+5	

Purge Amount	
5	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
Y	Mid level ext. MeOH Vol:
various	ul
DA992	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable O/X	Comments
3/18/2010 9:10	1C401.D	UVM100217-02	GEL	RINSE	5mL	1	N/A	1	w	AXO1	N/A	X	
3/18/2010 9:40	1C402.D	W1VM100318-01	GEL	CCV	5mL	1	N/A	2	w	AXO1	N/A	X	UVM1000314-07A/UVM100315-07
3/18/2010 10:11	1C403.D	W1VM100318-02	GEL	BFB/CCVLCS	5mL	1	N/A	3	w	AXO1	N/A	O	UVM100305-01C/IVM100316-01
3/18/2010 10:41	1C404.D	W1VM100318-03	GEL	LCS	5g	1	N/A	4	s	AXO1	N/A	O	UVM100305-01C/IVM100316-01
3/18/2010 11:12	1C405.D	W1VM100318-04	GEL	SHORT/SLCS	5mL	1	N/A	5	w	AXO1	N/A	O	UVM100304-08A/UVM100226-02A
3/18/2010 11:42	1C406.D	W1VM100318-05	GEL	SLCS	5g	1	N/A	6	s	AXO1	N/A	O	UVM100304-08A/UVM100226-02A
3/18/2010 12:13	1C407.D	12020--	GEL	BLANK	5mL	1	N/A	7	s	AXO1	N/A	X	
3/18/2010 12:43	1C408.D	12020--	GEL	BLANK	5g	1	N/A	8	w	AXO1	N/A	O	
3/18/2010 13:14	1C409.D	248842004	LANL	965875	100uL	50	N/A	9	w	AXO1	N/A	O	
3/18/2010 13:45	1C410.D	248842009	LANL	965875	100uL	50	N/A	10	w	AXO1	N/A	O	
3/18/2010 14:16	1C411.D	948842007	LANL	965875	50uL	100	N/A	11	w	AXO1	N/A	O	
3/18/2010 14:47	1C412.D	249057002	LANL	965875	100uL	50	N/A	12	w	AXO1	N/A	O	
3/18/2010 15:18	1C413.D	249057003	LANL	965875	100uL	50	N/A	13	w	AXO1	N/A	O	
3/18/2010 15:49	1C414.D	12020--	GEL	BLANK	5mL	1	N/A	14	w	AXO1	N/A	X	RINSE
3/18/2010 16:20	1C415.D	248842005	LANL	965875	5g	1	N/A	15	s	AXO1	N/A	O	

GEL Laboratories LLC
Form GEL-DER

DER Report No.: 811338
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
30-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOA GC/MS	SW846 8260B	Solid	LANL
Batch ID:	**Sample Numbers:**		
965875	See Below		

Potentially affected work order(s)(SDG): 248842(10-2302),249057(10-2350)

Application Issues:

Sample Analyzed out of Holding

Failed Yield for Surrogates

Specification and Requirements Exception Description:	DER Disposition:
1. Samples 248842004,005,007,009 249057002, & 003 were analyzed outside the fourteen day holding time.	1. Samples 248842004,005,007,009, 249057002, & 003 were analyzed within two times the recommended holding time. This satisfies client criteria. The results are reported.
2. Sample 249057003 did not meet acceptance criteria for surrogate recovery. Bromofluorobenzene recovered at 135%. The limits are 65%-130%.	2., Sample 249057003 did not meet acceptance criteria for surrogate recovery. Re-analysis was needed for this sample at a dilution due to over range analytes. The diluted analysis passed surrogate recovery. Matrix interference has been demonstrated. The results were reported.

Originator's Name:

Alex Olson 30-MAR-10

Data Validator/Group Leader:

Kelle Bellamy 30-MAR-10

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2302

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	965425
Prep Batch Number:	965424

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
248842002	RE46-10-13553
248842003	RE46-10-13549
248842004	RE46-10-13551
248842005	RE46-10-13550
248842006	RE46-10-13548
248842007	RE46-10-13546
248842008	RE46-10-13552
248842009	RE46-10-13547
248842010	RE46-10-13556
1202071493	Method Blank (MB)
1202071494	Laboratory Control Sample (LCS)
1202071495	248842002(RE46-10-13553) Matrix Spike (MS)
1202071496	248842002(RE46-10-13553) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the

'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.
Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5. "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries were within the acceptance limits except for Phenol-d5 and Nitrobenzene-d5 in sample 248842005 (RE46-10-13550) and Nitrobenzene-d5 in sample 248842006 (RE46-10-13548). The samples were re-extracted beyond the required holding time and reanalyzed. The low surrogate recoveries were confirmed by re-extraction for sample 248842005. The initial analysis was reported. Sample 248842006 surrogate recoveries were within the acceptance limits upon re-extraction. Both sets of data were reported. The low recovery for 2,4,6-Tribromophenyl in sample 248842008 (RE-10-13552) was

attributed to the dilution factor. therefore the sample was not re-extracted.

Laboratory Control Sample (LCS) Recovery
The laboratory control sample (LCS) recoveries were within the acceptance limits except for Benzyl alcohol. The low recovery accounts for less than 5% of the total analytes requested, therefore the LCS was considered acceptable and reported.

QC Sample Designation
Sample 248842002 (RE46-10-13553) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
Many of the MS recoveries were not within the acceptance limits. The low recoveries were attributed to possible laboratory error combined with matrix interference. The recoveries in the MS, although below the acceptance limits, were similarly demonstrated in the MSD. The recoveries in the MSD were within the acceptance limits, however many recoveries were slightly above the lower limit. Please see the spike summary form in the QC Data Summary section of the data package for details.

Matrix Spike Duplicate (MSD) Recovery Statement
The recoveries in the MSD were within the acceptance limits except for Benzyl alcohol. The low recovery was attributed to matrix interference. Many of the MSD recoveries were slightly above the lower limit. Please see the spike summary form in the QC Data Summary section of the data package for details.

MS/MSD Relative Percent Difference (RPD) Statement
Many of the relative percent differences (RPD) between the MS and MSD were above the acceptance limits. The high differences were attributed to possible laboratory error and matrix interference. Please see the spike summary form in the QC Data Summary section of the data package for details.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Samples 248842004 (RE46-10-13551), 248842007 (RE46-10-13546), 248842008 (RE46-10-13552), 248842009 (RE46-10-13547) and 248842010 (RE46-10-13556) were diluted because the extracts were very dark and viscous.

Sample Re-extraction/Re-analysis
Samples in this SDG were re-extracted and re-analyzed to confirm surrogate recoveries.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report (DER ID 809235) was generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

The Semi-Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD6.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.20mm x 0.33 um (5% Phenylmethylpolysiloxane)

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	968549
Prep Batch Number:	968547

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
248842006	RE46-10-13548
1202079224	Method Blank (MB)
1202079225	Laboratory Control Sample (LCS)
1202079226	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas

chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute. but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries were within the acceptance limits except for Nitrobenzene-d5 in sample 248842005 (RE46-10-13550). The low surrogate recovery was confirmed in the initial analysis.

Laboratory Control Sample (LCS) Recovery
The laboratory control sample (LCS) recoveries were within the acceptance limits except for Benzyl alcohol. The low recovery accounts for less than 5% of the total analytes requested, therefore the LCS was considered acceptable and reported.

Laboratory Control Sample Duplicate (LCSD) Recovery
The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement
Many of the relative percent differences (RPD) between the LCS and LCSD concentrations were not within the acceptance limits. The high differences were attributed vagaries in the extraction process.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
Samples in the initial batch for this SDG were extracted within the required holding time. Samples 248842006 (RE46-10-13548) and 248842005 (RE46-10-13550) were re-extracted beyond the required holding time to confirm surrogate recoveries. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Samples in this batch for this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this batch for this SDG.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report (DER ID 810015) was generated for this batch /SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

The Semi-Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD6.1	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.20mm x 0.33 um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2302 GEL Work Order: 248842

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

h Preparation or preservation holding time was exceeded

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Pat Steele **Name: Patricia Steele**

Date: 01 APR 2010 **Title: Group Leader**
Laboratory Manager

Roadmap for LANL 10-2302 SVOA

This roadmap was analyzed by llo00884 on 03-25-2010, 21:03.
This roadmap was analyzed by bar00895 on 03-26-2010, 11:13.
This roadmap was reviewed by bar00895 on 03-29-2010, 08:50.
This roadmap was packaged by CHA01131 on 03-30-2010, 12:39.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s032010.b/s6c2021.d	248842002	20-MAR-2010	22:22	10-2302.sub	RE46-10-13553	1	965425	
☐	N	/chem/MSD6.i/s032010.b/s6c2024.d	248842003	20-MAR-2010	23:30	10-2302.sub	RE46-10-13549	1	965425	
☐	N	/chem/MSD6.i/s032010.b/s6c2026.d	248842005	21-MAR-2010	00:16	10-2302.sub	RE46-10-13550	1	965425	USE; fail surr RX; SEE RE S6C2415 CONFIRMS
☐	N	/chem/MSD6.i/s032010.b/s6c2027.d	248842006	21-MAR-2010	00:39	10-2302.sub	RE46-10-13548	1	965425	USE; fail surr RX; SEE RE S6C2420 PASS OK REPORT BOTH SETS
☐	N	/chem/MSD6.i/s032310.b/s6c2318.d	248842004	23-MAR-2010	21:08	10-2302.sub	RE46-10-13551	10	965425	USE; RE OF S6C2128
☐	N	/chem/MSD6.i/s032310.b/s6c2319.d	248842007	23-MAR-2010	21:32	10-2302.sub	RE46-10-13546	10	965425	USE; RE OF S6C2131
☐	N	/chem/MSD6.i/s032310.b/s6c2320.d	248842008	23-MAR-2010	21:55	10-2302.sub	RE46-10-13552	10	965425	USE; RE OF S6C2132
☐	N	/chem/MSD6.i/s032310.b/s6c2321.d	248842009	23-MAR-2010	22:19	10-2302.sub	RE46-10-13547	10	965425	USE; RE OF S6C2133
☐	N	/chem/MSD6.i/s032310.b/s6c2322.d	248842010	23-MAR-2010	22:42	10-2302.sub	RE46-10-13556	10	965425	USE; RE OF S6C2134
■	N	/chem/MSD6.i/s032410.b/s6c2419.d	248842005	24-MAR-2010	20:07	10-2302.sub	RE46-10-13550RE	1	968549	DUSE; RE OF S6C2026; CONFIRMS SURR FAILURE
☐	N	/chem/MSD6.i/s032410.b/s6c2420.d	248842006	24-MAR-2010	20:31	10-2302.sub	RE46-10-13548RE	1	968549	USE; RE OF S6C2027; SURR PASS OUT OF HOLD

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s032010.b/s6c2009-2.d	1202071493	mb	20-MAR-2010	17:42	10-2302.sub	SBLK01	1	965425	
☐	N	/chem/MSD6.i/s032010.b/s6c2010-2.d	1202071494	lcs	20-MAR-2010	18:06	10-2302.sub	SBLK01LCS	1	965425	
☐	N	/chem/MSD6.i/s032010.b/s6c2022.d	1202071495	ms	20-MAR-2010	22:45	10-2302.sub	RE46-10-13553MS	1	965425	
☐	N	/chem/MSD6.i/s032010.b/s6c2023.d	1202071496	msd	20-MAR-2010	23:07	10-2302.sub	RE46-10-13553MSD	1	965425	
☐	N	/chem/MSD6.i/s032410.b/s6c2414.d	1202079224	mb	24-MAR-2010	18:11	10-2302.sub	SBLK02	1	968549	USE
☐	N	/chem/MSD6.i/s032410.b/s6c2415.d	1202079225	lcs	24-MAR-2010	18:34	10-2302.sub	SBLK02LCS	1	968549	USE
☐	N	/chem/MSD6.i/s032410.b/s6c2416.d	1202079226	lcsd	24-MAR-2010	18:57	10-2302.sub	SBLK02LCSD	1	968549	USE

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13546**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 21:32**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2319.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	4030	ug/kg	806	4030
108-95-2	Phenol	U	4030	ug/kg	806	4030
95-57-8	2-Chlorophenol	U	4030	ug/kg	806	4030
106-46-7	1,4-Dichlorobenzene	U	4030	ug/kg	806	4030
621-64-7	N-Nitrosodipropylamine	U	4030	ug/kg	806	4030
59-50-7	4-Chloro-3-methylphenol	U	4030	ug/kg	806	4030
83-32-9	Acenaphthene	U	403	ug/kg	133	403
121-14-2	2,4-Dinitrotoluene	U	4030	ug/kg	403	4030
100-02-7	4-Nitrophenol	U	4030	ug/kg	1330	4030
87-86-5	Pentachlorophenol	U	4030	ug/kg	1010	4030
129-00-0	Pyrene	J	178	ug/kg	121	403
110-86-1	Pyridine	U	4030	ug/kg	806	4030
62-53-3	Aniline	U	4030	ug/kg	1210	4030
111-44-4	bis(2-Chloroethyl) ether	U	4030	ug/kg	806	4030
541-73-1	1,3-Dichlorobenzene	U	4030	ug/kg	806	4030
100-51-6	Benzyl alcohol	U	4030	ug/kg	1210	4030
95-50-1	1,2-Dichlorobenzene	U	4030	ug/kg	806	4030
108-60-1	bis(2-Chloroisopropyl)ether	U	4030	ug/kg	806	4030
95-48-7	o-Cresol	U	4030	ug/kg	806	4030
65794-96-9	m,p-Cresols	U	4030	ug/kg	1210	4030
67-72-1	Hexachloroethane	U	4030	ug/kg	806	4030
98-95-3	Nitrobenzene	U	4030	ug/kg	806	4030
78-59-1	Isophorone	U	4030	ug/kg	806	4030
88-75-5	2-Nitrophenol	U	4030	ug/kg	806	4030
105-67-9	2,4-Dimethylphenol	U	4030	ug/kg	1410	4030
111-91-1	bis(2-Chloroethoxy)methane	U	4030	ug/kg	806	4030
120-83-2	2,4-Dichlorophenol	U	4030	ug/kg	806	4030
65-85-0	Benzoic acid	U	8060	ug/kg	2020	8060
91-20-3	Naphthalene	U	403	ug/kg	121	403
106-47-8	4-Chloroaniline	U	4030	ug/kg	806	4030
87-68-3	Hexachlorobutadiene	U	4030	ug/kg	806	4030
91-57-6	2-Methylnaphthalene		753	ug/kg	80.6	403
77-47-4	Hexachlorocyclopentadiene	U	4030	ug/kg	806	4030
88-06-2	2,4,6-Trichlorophenol	U	4030	ug/kg	806	4030
95-95-4	2,4,5-Trichlorophenol	U	4030	ug/kg	806	4030
91-58-7	2-Chloronaphthalene	U	403	ug/kg	133	403
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	4030	ug/kg	806	4030
99-09-2	3-Nitroaniline	U	4030	ug/kg	806	4030

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13546**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 21:32**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2319.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	4030	ug/kg	806	4030
606-20-2	2,6-Dinitrotoluene	U	4030	ug/kg	403	4030
208-96-8	Acenaphthylene	U	403	ug/kg	121	403
51-28-5	2,4-Dinitrophenol	U	8060	ug/kg	1530	8060
132-64-9	Dibenzofuran	U	4030	ug/kg	806	4030
84-66-2	Diethylphthalate	U	4030	ug/kg	806	4030
86-73-7	Fluorene	J	147	ug/kg	121	403
7005-72-3	4-Chlorophenylphenylether	U	4030	ug/kg	806	4030
534-52-1	2-Methyl-4,6-dinitrophenol	U	4030	ug/kg	806	4030
100-01-6	4-Nitroaniline	U	4030	ug/kg	1210	4030
	p-Nitroaniline					
122-39-4	Diphenylamine	U	4030	ug/kg	806	4030
122-66-7	Azobenzene	U	4030	ug/kg	806	4030
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	4030	ug/kg	806	4030
118-74-1	Hexachlorobenzene	U	4030	ug/kg	806	4030
85-01-8	Phenanthrene	J	225	ug/kg	121	403
120-12-7	Anthracene	U	403	ug/kg	80.6	403
84-74-2	Di-n-butylphthalate	U	4030	ug/kg	806	4030
206-44-0	Fluoranthene	J	242	ug/kg	121	403
85-68-7	Butylbenzylphthalate	U	4030	ug/kg	806	4030
56-55-3	Benzo(a)anthracene	U	403	ug/kg	121	403
91-94-1	3,3'-Dichlorobenzidine	U	4030	ug/kg	1210	4030
218-01-9	Chrysene	U	403	ug/kg	121	403
117-81-7	bis(2-Ethylhexyl)phthalate		34200	ug/kg	806	4030
117-84-0	Di-n-octylphthalate	U	4030	ug/kg	806	4030
205-99-2	Benzo(b)fluoranthene	U	403	ug/kg	121	403
207-08-9	Benzo(k)fluoranthene	U	403	ug/kg	121	403
50-32-8	Benzo(a)pyrene	U	403	ug/kg	121	403
193-39-5	Indeno(1,2,3-cd)pyrene	U	403	ug/kg	121	403
53-70-3	Dibenzo(a,h)anthracene	U	403	ug/kg	121	403
191-24-2	Benzo(ghi)perylene	U	403	ug/kg	121	403
120-82-1	1,2,4-Trichlorobenzene	U	4030	ug/kg	806	4030

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.36	15200	ug/kg		J
	Unknown	4.98	6520	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842007	**Date Received:**	03/05/2010 10:20	**%Moisture:**	17.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13546	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	10
Run Date:	03/23/2010 21:32	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s6c2319.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	5.06	8060	ug/kg		J
41446-67-7	3-Tetradecene, (Z)-	5.17	7570	ug/kg	86	NJ
	Unknown	5.22	3850	ug/kg		J
	Unknown	5.24	3810	ug/kg		J
4453-90-1	1,4-Methanonaphthalene, 1,4-dihydro-	5.38	4480	ug/kg	83	NJ
	Unknown	5.43	5280	ug/kg		J
3891-98-3	Dodecane, 2,6,10-trimethyl-	5.48	14600	ug/kg	91	NJ
92-52-4	Biphenyl	5.64	53500	ug/kg	96	NJ
	Unknown	9.08	5890	ug/kg		J
	Unknown	9.22	5570	ug/kg		J
	Unknown	9.3	7230	ug/kg		J
	Unknown	9.43	5240	ug/kg		J
	Unknown	9.83	9830	ug/kg		J
	Unknown	9.9	7030	ug/kg		J
	Unknown	10.06	6570	ug/kg		J
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	10.13	9270	ug/kg	98	NJ
112-04-9	Silane, trichlorooctadecyl-	10.16	5440	ug/kg	90	NJ
55255-85-1	Cyclopentane, 1,1'-[3-(2-cyclopentylethy	10.26	8320	ug/kg	92	NJ
	Unknown	10.49	6930	ug/kg		J
	Unknown	10.54	6290	ug/kg		J
	Unknown	10.7	43500	ug/kg		J
1000130-78-5	11,12-Dibromo-tetradecan-1-ol acetate	10.86	5950	ug/kg	90	NJ
	Unknown	10.95	7190	ug/kg		J
81469-02-5	13,17,21-Trimethyltritriacontane	11.12	7140	ug/kg	90	NJ
	Unknown	11.46	6370	ug/kg		J
1000130-81-0	11,13-Dimethyl-12-tetradecen-1-ol acetat	11.76	5390	ug/kg	86	NJ
3390-61-2	Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p	13.29	40900	ug/kg	92	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13547**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.1**	**Dilution:**	**10**
Run Date:	**03/23/2010 22:19**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2321.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	3810	ug/kg	762	3810
108-95-2	Phenol	U	3810	ug/kg	762	3810
95-57-8	2-Chlorophenol	U	3810	ug/kg	762	3810
106-46-7	1,4-Dichlorobenzene	U	3810	ug/kg	762	3810
621-64-7	N-Nitrosodipropylamine	U	3810	ug/kg	762	3810
59-50-7	4-Chloro-3-methylphenol	U	3810	ug/kg	762	3810
83-32-9	Acenaphthene	U	381	ug/kg	126	381
121-14-2	2,4-Dinitrotoluene	U	3810	ug/kg	381	3810
100-02-7	4-Nitrophenol	U	3810	ug/kg	1260	3810
87-86-5	Pentachlorophenol	U	3810	ug/kg	953	3810
129-00-0	Pyrene	U	381	ug/kg	114	381
110-86-1	Pyridine	U	3810	ug/kg	762	3810
62-53-3	Aniline	U	3810	ug/kg	1140	3810
111-44-4	bis(2-Chloroethyl) ether	U	3810	ug/kg	762	3810
541-73-1	1,3-Dichlorobenzene	U	3810	ug/kg	762	3810
100-51-6	Benzyl alcohol	U	3810	ug/kg	1140	3810
95-50-1	1,2-Dichlorobenzene	U	3810	ug/kg	762	3810
108-60-1	bis(2-Chloroisopropyl)ether	U	3810	ug/kg	762	3810
95-48-7	o-Cresol	U	3810	ug/kg	762	3810
65794-96-9	m,p-Cresols	U	3810	ug/kg	1140	3810
67-72-1	Hexachloroethane	U	3810	ug/kg	762	3810
98-95-3	Nitrobenzene	U	3810	ug/kg	762	3810
78-59-1	Isophorone	U	3810	ug/kg	762	3810
88-75-5	2-Nitrophenol	U	3810	ug/kg	762	3810
105-67-9	2,4-Dimethylphenol	U	3810	ug/kg	1330	3810
111-91-1	bis(2-Chloroethoxy)methane	U	3810	ug/kg	762	3810
120-83-2	2,4-Dichlorophenol	U	3810	ug/kg	762	3810
65-85-0	Benzoic acid	U	7620	ug/kg	1910	7620
91-20-3	Naphthalene		681	ug/kg	114	381
106-47-8	4-Chloroaniline	U	3810	ug/kg	762	3810
87-68-3	Hexachlorobutadiene	U	3810	ug/kg	762	3810
91-57-6	2-Methylnaphthalene		1700	ug/kg	76.2	381
77-47-4	Hexachlorocyclopentadiene	U	3810	ug/kg	762	3810
88-06-2	2,4,6-Trichlorophenol	U	3810	ug/kg	762	3810
95-95-4	2,4,5-Trichlorophenol	U	3810	ug/kg	762	3810
91-58-7	2-Chloronaphthalene	U	381	ug/kg	126	381
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	3810	ug/kg	762	3810
99-09-2	3-Nitroaniline	U	3810	ug/kg	762	3810

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13547**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 22:19**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2321.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	3810	ug/kg	762	3810
606-20-2	2,6-Dinitrotoluene	U	3810	ug/kg	381	3810
208-96-8	Acenaphthylene	U	381	ug/kg	114	381
51-28-5	2,4-Dinitrophenol	U	7620	ug/kg	1450	7620
132-64-9	Dibenzofuran	U	3810	ug/kg	762	3810
84-66-2	Diethylphthalate	U	3810	ug/kg	762	3810
86-73-7	Fluorene	U	381	ug/kg	114	381
7005-72-3	4-Chlorophenylphenylether	U	3810	ug/kg	762	3810
534-52-1	2-Methyl-4,6-dinitrophenol	U	3810	ug/kg	762	3810
100-01-6	4-Nitroaniline	U	3810	ug/kg	1140	3810
	p-Nitroaniline					
122-39-4	Diphenylamine	U	3810	ug/kg	762	3810
122-66-7	Azobenzene	U	3810	ug/kg	762	3810
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	3810	ug/kg	762	3810
118-74-1	Hexachlorobenzene	U	3810	ug/kg	762	3810
85-01-8	Phenanthrene	U	381	ug/kg	114	381
120-12-7	Anthracene	U	381	ug/kg	76.2	381
84-74-2	Di-n-butylphthalate	U	3810	ug/kg	762	3810
206-44-0	Fluoranthene	U	381	ug/kg	114	381
85-68-7	Butylbenzylphthalate	U	3810	ug/kg	762	3810
56-55-3	Benzo(a)anthracene	U	381	ug/kg	114	381
91-94-1	3,3'-Dichlorobenzidine	U	3810	ug/kg	1140	3810
218-01-9	Chrysene	U	381	ug/kg	114	381
117-81-7	bis(2-Ethylhexyl)phthalate		18300	ug/kg	762	3810
117-84-0	Di-n-octylphthalate	U	3810	ug/kg	762	3810
205-99-2	Benzo(b)fluoranthene	U	381	ug/kg	114	381
207-08-9	Benzo(k)fluoranthene	U	381	ug/kg	114	381
50-32-8	Benzo(a)pyrene	U	381	ug/kg	114	381
193-39-5	Indeno(1,2,3-cd)pyrene	U	381	ug/kg	114	381
53-70-3	Dibenzo(a,h)anthracene	U	381	ug/kg	114	381
191-24-2	Benzo(ghi)perylene	U	381	ug/kg	114	381
120-82-1	1,2,4-Trichlorobenzene	U	3810	ug/kg	762	3810

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-40-3	Dodecane	4.75	10200	ug/kg	96	NJ
	Unknown	4.98	4500	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13547**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 22:19**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2321.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	5.05	5500	ug/kg		J
629-50-5	Tridecane	5.17	13700	ug/kg	97	NJ
90-12-0	Naphthalene, 1-methyl-	5.38	4010	ug/kg	94	NJ
1560-96-9	Tridecane, 2-methyl-	5.43	4180	ug/kg	83	NJ
31295-56-4	Dodecane, 2,6,11-trimethyl-	5.48	6210	ug/kg	93	NJ
629-59-4	Tetradecane	5.59	11500	ug/kg	98	NJ
92-52-4	Biphenyl	5.65	69800	ug/kg	96	NJ
	Unknown	7.87	5310	ug/kg		J
	Unknown	9.12	3760	ug/kg		J
	Unknown	9.22	5380	ug/kg		J
	Unknown	9.3	5610	ug/kg		J
	Unknown	9.4	3800	ug/kg		J
	Unknown	9.43	3860	ug/kg		J
	Unknown	9.73	4910	ug/kg		J
	Unknown	9.83	7470	ug/kg		J
1000130-81-0	11,13-Dimethyl-12-tetradecen-1-ol acetat	9.9	3870	ug/kg	89	NJ
	Unknown	10.06	3830	ug/kg		J
	Unknown	10.16	5160	ug/kg		J
	Unknown	10.26	6020	ug/kg		J
	Unknown	10.49	6640	ug/kg		J
	Unknown	10.55	5000	ug/kg		J
	Unknown	10.69	16900	ug/kg		J
	Unknown	10.85	5340	ug/kg		J
	Unknown	10.95	5480	ug/kg		J
	Unknown	11.11	6530	ug/kg		J
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	11.46	5760	ug/kg	83	NJ
	Unknown	13.25	14600	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13548**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 00:39**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2027.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	401	ug/kg	80.3	401
108-95-2	Phenol	U	401	ug/kg	80.3	401
95-57-8	2-Chlorophenol	U	401	ug/kg	80.3	401
106-46-7	1,4-Dichlorobenzene	U	401	ug/kg	80.3	401
621-64-7	N-Nitrosodipropylamine	U	401	ug/kg	80.3	401
59-50-7	4-Chloro-3-methylphenol	U	401	ug/kg	80.3	401
83-32-9	Acenaphthene	U	40.1	ug/kg	13.2	40.1
121-14-2	2,4-Dinitrotoluene	U	401	ug/kg	40.1	401
100-02-7	4-Nitrophenol	U	401	ug/kg	132	401
87-86-5	Pentachlorophenol	U	401	ug/kg	100	401
129-00-0	Pyrene	U	40.1	ug/kg	12.0	40.1
110-86-1	Pyridine	U	401	ug/kg	80.3	401
62-53-3	Aniline	U	401	ug/kg	120	401
111-44-4	bis(2-Chloroethyl) ether	U	401	ug/kg	80.3	401
541-73-1	1,3-Dichlorobenzene	U	401	ug/kg	80.3	401
100-51-6	Benzyl alcohol	U	401	ug/kg	120	401
95-50-1	1,2-Dichlorobenzene	U	401	ug/kg	80.3	401
108-60-1	bis(2-Chloroisopropyl)ether	U	401	ug/kg	80.3	401
95-48-7	o-Cresol	U	401	ug/kg	80.3	401
65794-96-9	m,p-Cresols	U	401	ug/kg	120	401
67-72-1	Hexachloroethane	U	401	ug/kg	80.3	401
98-95-3	Nitrobenzene	U	401	ug/kg	80.3	401
78-59-1	Isophorone	U	401	ug/kg	80.3	401
88-75-5	2-Nitrophenol	U	401	ug/kg	80.3	401
105-67-9	2,4-Dimethylphenol	U	401	ug/kg	140	401
111-91-1	bis(2-Chloroethoxy)methane	U	401	ug/kg	80.3	401
120-83-2	2,4-Dichlorophenol	U	401	ug/kg	80.3	401
65-85-0	Benzoic acid	U	803	ug/kg	201	803
91-20-3	Naphthalene	U	40.1	ug/kg	12.0	40.1
106-47-8	4-Chloroaniline	U	401	ug/kg	80.3	401
87-68-3	Hexachlorobutadiene	U	401	ug/kg	80.3	401
91-57-6	2-Methylnaphthalene	U	40.1	ug/kg	8.03	40.1
77-47-4	Hexachlorocyclopentadiene	U	401	ug/kg	80.3	401
88-06-2	2,4,6-Trichlorophenol	U	401	ug/kg	80.3	401
95-95-4	2,4,5-Trichlorophenol	U	401	ug/kg	80.3	401
91-58-7	2-Chloronaphthalene	U	40.1	ug/kg	13.2	40.1
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	401	ug/kg	80.3	401
99-09-2	3-Nitroaniline	U	401	ug/kg	80.3	401

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13548**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 00:39**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2027.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	401	ug/kg	80.3	401
606-20-2	2,6-Dinitrotoluene	U	401	ug/kg	40.1	401
208-96-8	Acenaphthylene	U	40.1	ug/kg	12.0	40.1
51-28-5	2,4-Dinitrophenol	U	803	ug/kg	152	803
132-64-9	Dibenzofuran	U	401	ug/kg	80.3	401
84-66-2	Diethylphthalate	U	401	ug/kg	80.3	401
86-73-7	Fluorene	U	40.1	ug/kg	12.0	40.1
7005-72-3	4-Chlorophenylphenylether	U	401	ug/kg	80.3	401
534-52-1	2-Methyl-4,6-dinitrophenol	U	401	ug/kg	80.3	401
100-01-6	4-Nitroaniline	U	401	ug/kg	120	401
	p-Nitroaniline					
122-39-4	Diphenylamine	U	401	ug/kg	80.3	401
122-66-7	Azobenzene	U	401	ug/kg	80.3	401
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	401	ug/kg	80.3	401
118-74-1	Hexachlorobenzene	U	401	ug/kg	80.3	401
85-01-8	Phenanthrene	U	40.1	ug/kg	12.0	40.1
120-12-7	Anthracene	U	40.1	ug/kg	8.03	40.1
84-74-2	Di-n-butylphthalate	U	401	ug/kg	80.3	401
206-44-0	Fluoranthene	U	40.1	ug/kg	12.0	40.1
85-68-7	Butylbenzylphthalate	U	401	ug/kg	80.3	401
56-55-3	Benzo(a)anthracene	U	40.1	ug/kg	12.0	40.1
91-94-1	3,3'-Dichlorobenzidine	U	401	ug/kg	120	401
218-01-9	Chrysene	U	40.1	ug/kg	12.0	40.1
117-81-7	bis(2-Ethylhexyl)phthalate		530	ug/kg	80.3	401
117-84-0	Di-n-octylphthalate	U	401	ug/kg	80.3	401
205-99-2	Benzo(b)fluoranthene	U	40.1	ug/kg	12.0	40.1
207-08-9	Benzo(k)fluoranthene	U	40.1	ug/kg	12.0	40.1
50-32-8	Benzo(a)pyrene	U	40.1	ug/kg	12.0	40.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.1	ug/kg	12.0	40.1
53-70-3	Dibenzo(a,h)anthracene	U	40.1	ug/kg	12.0	40.1
191-24-2	Benzo(ghi)perylene	U	40.1	ug/kg	12.0	40.1
120-82-1	1,2,4-Trichlorobenzene	U	401	ug/kg	80.3	401

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	599	ug/kg		JA
57-10-3	n-Hexadecanoic acid	7.54	176	ug/kg	95	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842006	**Date Received:**	03/05/2010 10:20	**%Moisture:**	17.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13548	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/21/2010 00:39	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s6c2027.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.33	637	ug/kg		J
	Unknown	9.76	378	ug/kg		J
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	9.96	302	ug/kg	91	NJ
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	10.04	341	ug/kg	99	NJ
	Unknown	10.17	230	ug/kg		J
	Unknown	10.4	399	ug/kg		J
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	10.84	273	ug/kg	86	NJ
	Unknown	13.07	1180	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13548RE**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**968549**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 20:31**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/24/2010 10:49**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2420.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	Uh	402	ug/kg	80.5	402
108-95-2	Phenol	Uh	402	ug/kg	80.5	402
95-57-8	2-Chlorophenol	Uh	402	ug/kg	80.5	402
106-46-7	1,4-Dichlorobenzene	Uh	402	ug/kg	80.5	402
621-64-7	N-Nitrosodipropylamine	Uh	402	ug/kg	80.5	402
59-50-7	4-Chloro-3-methylphenol	Uh	402	ug/kg	80.5	402
83-32-9	Acenaphthene	Uh	40.2	ug/kg	13.3	40.2
121-14-2	2,4-Dinitrotoluene	Uh	402	ug/kg	40.2	402
100-02-7	4-Nitrophenol	Uh	402	ug/kg	133	402
87-86-5	Pentachlorophenol	Uh	402	ug/kg	101	402
129-00-0	Pyrene	Uh	40.2	ug/kg	12.1	40.2
110-86-1	Pyridine	Uh	402	ug/kg	80.5	402
62-53-3	Aniline	Uh	402	ug/kg	121	402
111-44-4	bis(2-Chloroethyl) ether	Uh	402	ug/kg	80.5	402
541-73-1	1,3-Dichlorobenzene	Uh	402	ug/kg	80.5	402
100-51-6	Benzyl alcohol	Uh	402	ug/kg	121	402
95-50-1	1,2-Dichlorobenzene	Uh	402	ug/kg	80.5	402
108-60-1	bis(2-Chloroisopropyl)ether	Uh	402	ug/kg	80.5	402
95-48-7	o-Cresol	Uh	402	ug/kg	80.5	402
65794-96-9	m,p-Cresols	Uh	402	ug/kg	121	402
67-72-1	Hexachloroethane	Uh	402	ug/kg	80.5	402
98-95-3	Nitrobenzene	Uh	402	ug/kg	80.5	402
78-59-1	Isophorone	Uh	402	ug/kg	80.5	402
88-75-5	2-Nitrophenol	Uh	402	ug/kg	80.5	402
105-67-9	2,4-Dimethylphenol	Uh	402	ug/kg	141	402
111-91-1	bis(2-Chloroethoxy)methane	Uh	402	ug/kg	80.5	402
120-83-2	2,4-Dichlorophenol	Uh	402	ug/kg	80.5	402
65-85-0	Benzoic acid	Uh	805	ug/kg	201	805
91-20-3	Naphthalene	Uh	40.2	ug/kg	12.1	40.2
106-47-8	4-Chloroaniline	Uh	402	ug/kg	80.5	402
87-68-3	Hexachlorobutadiene	Uh	402	ug/kg	80.5	402
91-57-6	2-Methylnaphthalene	h	85.7	ug/kg	8.05	40.2
77-47-4	Hexachlorocyclopentadiene	Uh	402	ug/kg	80.5	402
88-06-2	2,4,6-Trichlorophenol	Uh	402	ug/kg	80.5	402
95-95-4	2,4,5-Trichlorophenol	Uh	402	ug/kg	80.5	402
91-58-7	2-Chloronaphthalene	Uh	40.2	ug/kg	13.3	40.2
88-74-4	2-Nitroaniline	Uh	402	ug/kg	80.5	402
	o-Nitroaniline					
99-09-2	3-Nitroaniline	Uh	402	ug/kg	80.5	402

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248842006	Date Received:	03/05/2010 10:20	%Moisture:	17.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13548RE	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	968549	Inst:	MSD6.I	Dilution:	1
Run Date:	03/24/2010 20:31	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	03/24/2010 10:49	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s6c2420.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	Uh	402	ug/kg	80.5	402
606-20-2	2,6-Dinitrotoluene	Uh	402	ug/kg	40.2	402
208-96-8	Acenaphthylene	Uh	40.2	ug/kg	12.1	40.2
51-28-5	2,4-Dinitrophenol	Uh	805	ug/kg	153	805
132-64-9	Dibenzofuran	Uh	402	ug/kg	80.5	402
84-66-2	Diethylphthalate	Uh	402	ug/kg	80.5	402
86-73-7	Fluorene	Uh	40.2	ug/kg	12.1	40.2
7005-72-3	4-Chlorophenylphenylether	Uh	402	ug/kg	80.5	402
534-52-1	2-Methyl-4,6-dinitrophenol	Uh	402	ug/kg	80.5	402
100-01-6	4-Nitroaniline	Uh	402	ug/kg	121	402
	p-Nitroaniline					
122-39-4	Diphenylamine	Uh	402	ug/kg	80.5	402
122-66-7	Azobenzene	Uh	402	ug/kg	80.5	402
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	Uh	402	ug/kg	80.5	402
118-74-1	Hexachlorobenzene	Uh	402	ug/kg	80.5	402
85-01-8	Phenanthrene	Uh	40.2	ug/kg	12.1	40.2
120-12-7	Anthracene	Uh	40.2	ug/kg	8.05	40.2
84-74-2	Di-n-butylphthalate	Uh	402	ug/kg	80.5	402
206-44-0	Fluoranthene	Uh	40.2	ug/kg	12.1	40.2
85-68-7	Butylbenzylphthalate	Uh	402	ug/kg	80.5	402
56-55-3	Benzo(a)anthracene	Uh	40.2	ug/kg	12.1	40.2
91-94-1	3,3'-Dichlorobenzidine	Uh	402	ug/kg	121	402
218-01-9	Chrysene	Uh	40.2	ug/kg	12.1	40.2
117-81-7	bis(2-Ethylhexyl)phthalate	h	4300	ug/kg	80.5	402
117-84-0	Di-n-octylphthalate	Uh	402	ug/kg	80.5	402
205-99-2	Benzo(b)fluoranthene	Uh	40.2	ug/kg	12.1	40.2
207-08-9	Benzo(k)fluoranthene	Uh	40.2	ug/kg	12.1	40.2
50-32-8	Benzo(a)pyrene	Uh	40.2	ug/kg	12.1	40.2
193-39-5	Indeno(1,2,3-cd)pyrene	Uh	40.2	ug/kg	12.1	40.2
53-70-3	Dibenzo(a,h)anthracene	Uh	40.2	ug/kg	12.1	40.2
191-24-2	Benzo(ghi)perylene	Uh	40.2	ug/kg	12.1	40.2
120-82-1	1,2,4-Trichlorobenzene	Uh	402	ug/kg	80.5	402

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
629-50-5	Tridecane	5.12	1090	ug/kg	96	NJ
629-59-4	Tetradecane	5.53	1450	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13548RE**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**968549**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 20:31**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/24/2010 10:49**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2420.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
92-52-4	Biphenyl	5.59	7430	ug/kg	96	NJ
57-10-3	n-Hexadecanoic acid	7.59	5050	ug/kg	99	NJ
57-11-4	Octadecanoic acid	8.29	3920	ug/kg	99	NJ
	Unknown	8.85	893	ug/kg		J
	Unknown	9.03	601	ug/kg		J
	Unknown	9.36	658	ug/kg		J
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	10.08	1310	ug/kg	87	NJ
	Unknown	10.21	870	ug/kg		J
	Unknown	10.45	851	ug/kg		J
	Unknown	10.9	841	ug/kg		J
	Unknown	11.36	705	ug/kg		J
3390-61-2	Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p	13.2	5020	ug/kg	93	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**16.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13549**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 23:30**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2024.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	400	ug/kg	79.9	400
108-95-2	Phenol	U	400	ug/kg	79.9	400
95-57-8	2-Chlorophenol	U	400	ug/kg	79.9	400
106-46-7	1,4-Dichlorobenzene	U	400	ug/kg	79.9	400
621-64-7	N-Nitrosodipropylamine	U	400	ug/kg	79.9	400
59-50-7	4-Chloro-3-methylphenol	U	400	ug/kg	79.9	400
83-32-9	Acenaphthene	U	40.0	ug/kg	13.2	40.0
121-14-2	2,4-Dinitrotoluene	U	400	ug/kg	40.0	400
100-02-7	4-Nitrophenol	U	400	ug/kg	132	400
87-86-5	Pentachlorophenol	U	400	ug/kg	99.9	400
129-00-0	Pyrene	U	40.0	ug/kg	12.0	40.0
110-86-1	Pyridine	U	400	ug/kg	79.9	400
62-53-3	Aniline	U	400	ug/kg	120	400
111-44-4	bis(2-Chloroethyl) ether	U	400	ug/kg	79.9	400
541-73-1	1,3-Dichlorobenzene	U	400	ug/kg	79.9	400
100-51-6	Benzyl alcohol	U	400	ug/kg	120	400
95-50-1	1,2-Dichlorobenzene	U	400	ug/kg	79.9	400
108-60-1	bis(2-Chloroisopropyl)ether	U	400	ug/kg	79.9	400
95-48-7	o-Cresol	U	400	ug/kg	79.9	400
65794-96-9	m,p-Cresols	U	400	ug/kg	120	400
67-72-1	Hexachloroethane	U	400	ug/kg	79.9	400
98-95-3	Nitrobenzene	U	400	ug/kg	79.9	400
78-59-1	Isophorone	U	400	ug/kg	79.9	400
88-75-5	2-Nitrophenol	U	400	ug/kg	79.9	400
105-67-9	2,4-Dimethylphenol	U	400	ug/kg	140	400
111-91-1	bis(2-Chloroethoxy)methane	U	400	ug/kg	79.9	400
120-83-2	2,4-Dichlorophenol	U	400	ug/kg	79.9	400
65-85-0	Benzoic acid	U	799	ug/kg	200	799
91-20-3	Naphthalene	U	40.0	ug/kg	12.0	40.0
106-47-8	4-Chloroaniline	U	400	ug/kg	79.9	400
87-68-3	Hexachlorobutadiene	U	400	ug/kg	79.9	400
91-57-6	2-Methylnaphthalene	J	9.13	ug/kg	7.99	40.0
77-47-4	Hexachlorocyclopentadiene	U	400	ug/kg	79.9	400
88-06-2	2,4,6-Trichlorophenol	U	400	ug/kg	79.9	400
95-95-4	2,4,5-Trichlorophenol	U	400	ug/kg	79.9	400
91-58-7	2-Chloronaphthalene	U	40.0	ug/kg	13.2	40.0
88-74-4	2-Nitroaniline	U	400	ug/kg	79.9	400
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	400	ug/kg	79.9	400

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**16.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13549**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 23:30**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2024.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	400	ug/kg	79.9	400
606-20-2	2,6-Dinitrotoluene	U	400	ug/kg	40.0	400
208-96-8	Acenaphthylene	U	40.0	ug/kg	12.0	40.0
51-28-5	2,4-Dinitrophenol	U	799	ug/kg	152	799
132-64-9	Dibenzofuran	U	400	ug/kg	79.9	400
84-66-2	Diethylphthalate	U	400	ug/kg	79.9	400
86-73-7	Fluorene	U	40.0	ug/kg	12.0	40.0
7005-72-3	4-Chlorophenylphenylether	U	400	ug/kg	79.9	400
534-52-1	2-Methyl-4,6-dinitrophenol	U	400	ug/kg	79.9	400
100-01-6	4-Nitroaniline	U	400	ug/kg	120	400
	p-Nitroaniline					
122-39-4	Diphenylamine	U	400	ug/kg	79.9	400
122-66-7	Azobenzene	U	400	ug/kg	79.9	400
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	400	ug/kg	79.9	400
118-74-1	Hexachlorobenzene	U	400	ug/kg	79.9	400
85-01-8	Phenanthrene	U	40.0	ug/kg	12.0	40.0
120-12-7	Anthracene	U	40.0	ug/kg	7.99	40.0
84-74-2	Di-n-butylphthalate	U	400	ug/kg	79.9	400
206-44-0	Fluoranthene	U	40.0	ug/kg	12.0	40.0
85-68-7	Butylbenzylphthalate	U	400	ug/kg	79.9	400
56-55-3	Benzo(a)anthracene	U	40.0	ug/kg	12.0	40.0
91-94-1	3,3'-Dichlorobenzidine	U	400	ug/kg	120	400
218-01-9	Chrysene	U	40.0	ug/kg	12.0	40.0
117-81-7	bis(2-Ethylhexyl)phthalate		840	ug/kg	79.9	400
117-84-0	Di-n-octylphthalate	U	400	ug/kg	79.9	400
205-99-2	Benzo(b)fluoranthene	U	40.0	ug/kg	12.0	40.0
207-08-9	Benzo(k)fluoranthene	U	40.0	ug/kg	12.0	40.0
50-32-8	Benzo(a)pyrene	U	40.0	ug/kg	12.0	40.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.0	ug/kg	12.0	40.0
53-70-3	Dibenzo(a,h)anthracene	U	40.0	ug/kg	12.0	40.0
191-24-2	Benzo(ghi)perylene	U	40.0	ug/kg	12.0	40.0
120-82-1	1,2,4-Trichlorobenzene	U	400	ug/kg	79.9	400

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.97	166	ug/kg		J
	Unknown Aldol Condensate	2.9	819	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**16.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13549**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 23:30**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2024.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-40-3	Dodecane	4.67	175	ug/kg	93	NJ
629-50-5	Tridecane	5.1	255	ug/kg	97	NJ
629-62-9	Pentadecane	5.88	160	ug/kg	97	NJ
57-10-3	n-Hexadecanoic acid	7.55	572	ug/kg	97	NJ
57-11-4	Octadecanoic acid	8.25	171	ug/kg	93	NJ
112-71-0	Tetradecane, 1-bromo-	9.35	253	ug/kg	83	NJ
629-78-7	Heptadecane	9.66	175	ug/kg	93	NJ
	Unknown	9.76	237	ug/kg		J
1000130-81-0	11,13-Dimethyl-12-tetradecen-1-ol acetat	9.83	171	ug/kg	83	NJ
	Unknown	9.98	192	ug/kg		J
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	10.04	357	ug/kg	98	NJ
	Unknown	10.17	181	ug/kg		J
	Unknown	10.39	255	ug/kg		J
	Unknown	10.45	186	ug/kg		J
61639-11-0	1-Bromo-4-bromomethyldecane	10.72	335	ug/kg	80	NJ
	Unknown	10.85	191	ug/kg		J
	Unknown	13.08	2250	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13550**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 00:16**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2026.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	407	ug/kg	81.5	407
108-95-2	Phenol	U	407	ug/kg	81.5	407
95-57-8	2-Chlorophenol	U	407	ug/kg	81.5	407
106-46-7	1,4-Dichlorobenzene	U	407	ug/kg	81.5	407
621-64-7	N-Nitrosodipropylamine	U	407	ug/kg	81.5	407
59-50-7	4-Chloro-3-methylphenol	U	407	ug/kg	81.5	407
83-32-9	Acenaphthene	U	40.7	ug/kg	13.4	40.7
121-14-2	2,4-Dinitrotoluene	U	407	ug/kg	40.7	407
100-02-7	4-Nitrophenol	U	407	ug/kg	134	407
87-86-5	Pentachlorophenol	U	407	ug/kg	102	407
129-00-0	Pyrene	U	40.7	ug/kg	12.2	40.7
110-86-1	Pyridine	U	407	ug/kg	81.5	407
62-53-3	Aniline	U	407	ug/kg	122	407
111-44-4	bis(2-Chloroethyl) ether	U	407	ug/kg	81.5	407
541-73-1	1,3-Dichlorobenzene	U	407	ug/kg	81.5	407
100-51-6	Benzyl alcohol	U	407	ug/kg	122	407
95-50-1	1,2-Dichlorobenzene	U	407	ug/kg	81.5	407
108-60-1	bis(2-Chloroisopropyl)ether	U	407	ug/kg	81.5	407
95-48-7	o-Cresol	U	407	ug/kg	81.5	407
65794-96-9	m,p-Cresols	U	407	ug/kg	122	407
67-72-1	Hexachloroethane	U	407	ug/kg	81.5	407
98-95-3	Nitrobenzene	U	407	ug/kg	81.5	407
78-59-1	Isophorone	U	407	ug/kg	81.5	407
88-75-5	2-Nitrophenol	U	407	ug/kg	81.5	407
105-67-9	2,4-Dimethylphenol	U	407	ug/kg	143	407
111-91-1	bis(2-Chloroethoxy)methane	U	407	ug/kg	81.5	407
120-83-2	2,4-Dichlorophenol	U	407	ug/kg	81.5	407
65-85-0	Benzoic acid	U	815	ug/kg	204	815
91-20-3	Naphthalene	U	40.7	ug/kg	12.2	40.7
106-47-8	4-Chloroaniline	U	407	ug/kg	81.5	407
87-68-3	Hexachlorobutadiene	U	407	ug/kg	81.5	407
91-57-6	2-Methylnaphthalene	U	40.7	ug/kg	8.15	40.7
77-47-4	Hexachlorocyclopentadiene	U	407	ug/kg	81.5	407
88-06-2	2,4,6-Trichlorophenol	U	407	ug/kg	81.5	407
95-95-4	2,4,5-Trichlorophenol	U	407	ug/kg	81.5	407
91-58-7	2-Chloronaphthalene	U	40.7	ug/kg	13.4	40.7
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	407	ug/kg	81.5	407
99-09-2	3-Nitroaniline	U	407	ug/kg	81.5	407

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13550**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 00:16**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2026.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	407	ug/kg	81.5	407
606-20-2	2,6-Dinitrotoluene	U	407	ug/kg	40.7	407
208-96-8	Acenaphthylene	U	40.7	ug/kg	12.2	40.7
51-28-5	2,4-Dinitrophenol	U	815	ug/kg	155	815
132-64-9	Dibenzofuran	U	407	ug/kg	81.5	407
84-66-2	Diethylphthalate	U	407	ug/kg	81.5	407
86-73-7	Fluorene	U	40.7	ug/kg	12.2	40.7
7005-72-3	4-Chlorophenylphenylether	U	407	ug/kg	81.5	407
534-52-1	2-Methyl-4,6-dinitrophenol	U	407	ug/kg	81.5	407
100-01-6	4-Nitroaniline	U	407	ug/kg	122	407
	p-Nitroaniline					
122-39-4	Diphenylamine	U	407	ug/kg	81.5	407
122-66-7	Azobenzene	U	407	ug/kg	81.5	407
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	407	ug/kg	81.5	407
118-74-1	Hexachlorobenzene	U	407	ug/kg	81.5	407
85-01-8	Phenanthrene	U	40.7	ug/kg	12.2	40.7
120-12-7	Anthracene	U	40.7	ug/kg	8.15	40.7
84-74-2	Di-n-butylphthalate	U	407	ug/kg	81.5	407
206-44-0	Fluoranthene	U	40.7	ug/kg	12.2	40.7
85-68-7	Butylbenzylphthalate	U	407	ug/kg	81.5	407
56-55-3	Benzo(a)anthracene	U	40.7	ug/kg	12.2	40.7
91-94-1	3,3'-Dichlorobenzidine	U	407	ug/kg	122	407
218-01-9	Chrysene	U	40.7	ug/kg	12.2	40.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	407	ug/kg	81.5	407
117-84-0	Di-n-octylphthalate	U	407	ug/kg	81.5	407
205-99-2	Benzo(b)fluoranthene	U	40.7	ug/kg	12.2	40.7
207-08-9	Benzo(k)fluoranthene	U	40.7	ug/kg	12.2	40.7
50-32-8	Benzo(a)pyrene	U	40.7	ug/kg	12.2	40.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.7	ug/kg	12.2	40.7
53-70-3	Dibenzo(a,h)anthracene	U	40.7	ug/kg	12.2	40.7
191-24-2	Benzo(ghi)perylene	U	40.7	ug/kg	12.2	40.7
120-82-1	1,2,4-Trichlorobenzene	U	407	ug/kg	81.5	407

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.96	210	ug/kg		J
	Unknown Aldol Condensate	2.9	512	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842005**	**Date Received:**	**03/05/2010 10:20**	**% Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13550**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 00:16**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2026.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.73	381	ug/kg		J
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	10.04	214	ug/kg	99	NJ
	Unknown	10.58	400	ug/kg		J
	Unknown	11.62	171	ug/kg		J
	Unknown	13.07	1300	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13551**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 21:08**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2318.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	4200	ug/kg	840	4200
108-95-2	Phenol	U	4200	ug/kg	840	4200
95-57-8	2-Chlorophenol	U	4200	ug/kg	840	4200
106-46-7	1,4-Dichlorobenzene	U	4200	ug/kg	840	4200
621-64-7	N-Nitrosodipropylamine	U	4200	ug/kg	840	4200
59-50-7	4-Chloro-3-methylphenol	U	4200	ug/kg	840	4200
83-32-9	Acenaphthene	U	420	ug/kg	139	420
121-14-2	2,4-Dinitrotoluene	U	4200	ug/kg	420	4200
100-02-7	4-Nitrophenol	U	4200	ug/kg	1390	4200
87-86-5	Pentachlorophenol	U	4200	ug/kg	1050	4200
129-00-0	Pyrene	U	420	ug/kg	126	420
110-86-1	Pyridine	U	4200	ug/kg	840	4200
62-53-3	Aniline	U	4200	ug/kg	1260	4200
111-44-4	bis(2-Chloroethyl) ether	U	4200	ug/kg	840	4200
541-73-1	1,3-Dichlorobenzene	U	4200	ug/kg	840	4200
100-51-6	Benzyl alcohol	U	4200	ug/kg	1260	4200
95-50-1	1,2-Dichlorobenzene	U	4200	ug/kg	840	4200
108-60-1	bis(2-Chloroisopropyl)ether	U	4200	ug/kg	840	4200
95-48-7	o-Cresol	U	4200	ug/kg	840	4200
65794-96-9	m,p-Cresols	U	4200	ug/kg	1260	4200
67-72-1	Hexachloroethane	U	4200	ug/kg	840	4200
98-95-3	Nitrobenzene	U	4200	ug/kg	840	4200
78-59-1	Isophorone	U	4200	ug/kg	840	4200
88-75-5	2-Nitrophenol	U	4200	ug/kg	840	4200
105-67-9	2,4-Dimethylphenol	U	4200	ug/kg	1470	4200
111-91-1	bis(2-Chloroethoxy)methane	U	4200	ug/kg	840	4200
120-83-2	2,4-Dichlorophenol	U	4200	ug/kg	840	4200
65-85-0	Benzoic acid	U	8400	ug/kg	2100	8400
91-20-3	Naphthalene	U	420	ug/kg	126	420
106-47-8	4-Chloroaniline	U	4200	ug/kg	840	4200
87-68-3	Hexachlorobutadiene	U	4200	ug/kg	840	4200
91-57-6	2-Methylnaphthalene		743	ug/kg	84.0	420
77-47-4	Hexachlorocyclopentadiene	U	4200	ug/kg	840	4200
88-06-2	2,4,6-Trichlorophenol	U	4200	ug/kg	840	4200
95-95-4	2,4,5-Trichlorophenol	U	4200	ug/kg	840	4200
91-58-7	2-Chloronaphthalene	U	420	ug/kg	139	420
88-74-4	2-Nitroaniline	U	4200	ug/kg	840	4200
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	4200	ug/kg	840	4200

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13551**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 21:08**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2318.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	4200	ug/kg	840	4200
606-20-2	2,6-Dinitrotoluene	U	4200	ug/kg	420	4200
208-96-8	Acenaphthylene	U	420	ug/kg	126	420
51-28-5	2,4-Dinitrophenol	U	8400	ug/kg	1600	8400
132-64-9	Dibenzofuran	U	4200	ug/kg	840	4200
84-66-2	Diethylphthalate	U	4200	ug/kg	840	4200
86-73-7	Fluorene	U	420	ug/kg	126	420
7005-72-3	4-Chlorophenylphenylether	U	4200	ug/kg	840	4200
534-52-1	2-Methyl-4,6-dinitrophenol	U	4200	ug/kg	840	4200
100-01-6	4-Nitroaniline	U	4200	ug/kg	1260	4200
	p-Nitroaniline					
122-39-4	Diphenylamine	U	4200	ug/kg	840	4200
122-66-7	Azobenzene	U	4200	ug/kg	840	4200
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	4200	ug/kg	840	4200
118-74-1	Hexachlorobenzene	U	4200	ug/kg	840	4200
85-01-8	Phenanthrene	U	420	ug/kg	126	420
120-12-7	Anthracene	U	420	ug/kg	84.0	420
84-74-2	Di-n-butylphthalate	U	4200	ug/kg	840	4200
206-44-0	Fluoranthene	U	420	ug/kg	126	420
85-68-7	Butylbenzylphthalate	U	4200	ug/kg	840	4200
56-55-3	Benzo(a)anthracene	U	420	ug/kg	126	420
91-94-1	3,3'-Dichlorobenzidine	U	4200	ug/kg	1260	4200
218-01-9	Chrysene	U	420	ug/kg	126	420
117-81-7	bis(2-Ethylhexyl)phthalate		12800	ug/kg	840	4200
117-84-0	Di-n-octylphthalate	U	4200	ug/kg	840	4200
205-99-2	Benzo(b)fluoranthene	U	420	ug/kg	126	420
207-08-9	Benzo(k)fluoranthene	U	420	ug/kg	126	420
50-32-8	Benzo(a)pyrene	U	420	ug/kg	126	420
193-39-5	Indeno(1,2,3-cd)pyrene	U	420	ug/kg	126	420
53-70-3	Dibenzo(a,h)anthracene	U	420	ug/kg	126	420
191-24-2	Benzo(ghi)perylene	U	420	ug/kg	126	420
120-82-1	1,2,4-Trichlorobenzene	U	4200	ug/kg	840	4200

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.53	2500	ug/kg		J
112-40-3	Dodecane	4.75	5650	ug/kg	96	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13551**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 21:08**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2318.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.98	3580	ug/kg		J
61141-72-8	Dodecane, 4,6-dimethyl-	5.05	4540	ug/kg	91	NJ
629-50-5	Tridecane	5.17	8040	ug/kg	95	NJ
90-12-0	Naphthalene, 1-methyl-	5.38	2330	ug/kg	92	NJ
1560-96-9	Tridecane, 2-methyl-	5.43	2530	ug/kg	83	NJ
3891-98-3	Dodecane, 2,6,10-trimethyl-	5.48	3040	ug/kg	91	NJ
581-42-0	Naphthalene, 2,6-dimethyl-	5.76	3270	ug/kg	95	NJ
	Unknown	9.83	3300	ug/kg		J
	Unknown	9.9	2600	ug/kg		J
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	10.12	5890	ug/kg	99	NJ
	Unknown	10.16	3090	ug/kg		J
	Unknown	10.26	3710	ug/kg		J
	Unknown	10.49	3640	ug/kg		J
	Unknown	10.55	2650	ug/kg		J
	Unknown	10.62	2200	ug/kg		J
	Unknown	10.73	2060	ug/kg		J
	Unknown	10.79	2100	ug/kg		J
	Unknown	10.82	2050	ug/kg		J
	Unknown	10.85	3550	ug/kg		J
	Unknown	10.95	3490	ug/kg		J
	Unknown	11.11	4110	ug/kg		J
	Unknown	11.24	2970	ug/kg		J
	Unknown	11.42	2150	ug/kg		J
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	11.46	3590	ug/kg	83	NJ
	Unknown	11.67	2760	ug/kg		J
	Unknown	12.15	2170	ug/kg		J
	Unknown	13.27	36500	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13552**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 21:55**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2320.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	3820	ug/kg	763	3820
108-95-2	Phenol	U	3820	ug/kg	763	3820
95-57-8	2-Chlorophenol	U	3820	ug/kg	763	3820
106-46-7	1,4-Dichlorobenzene	U	3820	ug/kg	763	3820
621-64-7	N-Nitrosodipropylamine	U	3820	ug/kg	763	3820
59-50-7	4-Chloro-3-methylphenol	U	3820	ug/kg	763	3820
83-32-9	Acenaphthene	U	382	ug/kg	126	382
121-14-2	2,4-Dinitrotoluene	U	3820	ug/kg	382	3820
100-02-7	4-Nitrophenol	U	3820	ug/kg	1260	3820
87-86-5	Pentachlorophenol	U	3820	ug/kg	954	3820
129-00-0	Pyrene	U	382	ug/kg	115	382
110-86-1	Pyridine	U	3820	ug/kg	763	3820
62-53-3	Aniline	U	3820	ug/kg	1150	3820
111-44-4	bis(2-Chloroethyl) ether	U	3820	ug/kg	763	3820
541-73-1	1,3-Dichlorobenzene	U	3820	ug/kg	763	3820
100-51-6	Benzyl alcohol	U	3820	ug/kg	1150	3820
95-50-1	1,2-Dichlorobenzene	U	3820	ug/kg	763	3820
108-60-1	bis(2-Chloroisopropyl)ether	U	3820	ug/kg	763	3820
95-48-7	o-Cresol	U	3820	ug/kg	763	3820
65794-96-9	m,p-Cresols	U	3820	ug/kg	1150	3820
67-72-1	Hexachloroethane	U	3820	ug/kg	763	3820
98-95-3	Nitrobenzene	U	3820	ug/kg	763	3820
78-59-1	Isophorone	U	3820	ug/kg	763	3820
88-75-5	2-Nitrophenol	U	3820	ug/kg	763	3820
105-67-9	2,4-Dimethylphenol	U	3820	ug/kg	1340	3820
111-91-1	bis(2-Chloroethoxy)methane	U	3820	ug/kg	763	3820
120-83-2	2,4-Dichlorophenol	U	3820	ug/kg	763	3820
65-85-0	Benzoic acid	U	7630	ug/kg	1910	7630
91-20-3	Naphthalene	U	382	ug/kg	115	382
106-47-8	4-Chloroaniline	U	3820	ug/kg	763	3820
87-68-3	Hexachlorobutadiene	U	3820	ug/kg	763	3820
91-57-6	2-Methylnaphthalene	U	382	ug/kg	76.3	382
77-47-4	Hexachlorocyclopentadiene	U	3820	ug/kg	763	3820
88-06-2	2,4,6-Trichlorophenol	U	3820	ug/kg	763	3820
95-95-4	2,4,5-Trichlorophenol	U	3820	ug/kg	763	3820
91-58-7	2-Chloronaphthalene	U	382	ug/kg	126	382
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	3820	ug/kg	763	3820
99-09-2	3-Nitroaniline	U	3820	ug/kg	763	3820

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13552**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 21:55**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2320.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	3820	ug/kg	763	3820
606-20-2	2,6-Dinitrotoluene	U	3820	ug/kg	382	3820
208-96-8	Acenaphthylene	U	382	ug/kg	115	382
51-28-5	2,4-Dinitrophenol	U	7630	ug/kg	1450	7630
132-64-9	Dibenzofuran	U	3820	ug/kg	763	3820
84-66-2	Diethylphthalate	U	3820	ug/kg	763	3820
86-73-7	Fluorene	U	382	ug/kg	115	382
7005-72-3	4-Chlorophenylphenylether	U	3820	ug/kg	763	3820
534-52-1	2-Methyl-4,6-dinitrophenol	U	3820	ug/kg	763	3820
100-01-6	4-Nitroaniline	U	3820	ug/kg	1150	3820
	p-Nitroaniline					
122-39-4	Diphenylamine	U	3820	ug/kg	763	3820
122-66-7	Azobenzene	U	3820	ug/kg	763	3820
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	3820	ug/kg	763	3820
118-74-1	Hexachlorobenzene	U	3820	ug/kg	763	3820
85-01-8	Phenanthrene	U	382	ug/kg	115	382
120-12-7	Anthracene	U	382	ug/kg	76.3	382
84-74-2	Di-n-butylphthalate	U	3820	ug/kg	763	3820
206-44-0	Fluoranthene	U	382	ug/kg	115	382
85-68-7	Butylbenzylphthalate	U	3820	ug/kg	763	3820
56-55-3	Benzo(a)anthracene	U	382	ug/kg	115	382
91-94-1	3,3'-Dichlorobenzidine	U	3820	ug/kg	1150	3820
218-01-9	Chrysene	U	382	ug/kg	115	382
117-81-7	bis(2-Ethylhexyl)phthalate	J	1110	ug/kg	763	3820
117-84-0	Di-n-octylphthalate	U	3820	ug/kg	763	3820
205-99-2	Benzo(b)fluoranthene	U	382	ug/kg	115	382
207-08-9	Benzo(k)fluoranthene	U	382	ug/kg	115	382
50-32-8	Benzo(a)pyrene	U	382	ug/kg	115	382
193-39-5	Indeno(1,2,3-cd)pyrene	U	382	ug/kg	115	382
53-70-3	Dibenzo(a,h)anthracene	U	382	ug/kg	115	382
191-24-2	Benzo(ghi)perylene	U	382	ug/kg	115	382
120-82-1	1,2,4-Trichlorobenzene	U	3820	ug/kg	763	3820

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	10.68	3440	ug/kg		J
	Unknown	13.24	3330	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13553**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 22:22**	**Analyst:**	**NAGI**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2021.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	387	ug/kg	77.4	387
108-95-2	Phenol	U	387	ug/kg	77.4	387
95-57-8	2-Chlorophenol	U	387	ug/kg	77.4	387
106-46-7	1,4-Dichlorobenzene	U	387	ug/kg	77.4	387
621-64-7	N-Nitrosodipropylamine	U	387	ug/kg	77.4	387
59-50-7	4-Chloro-3-methylphenol	U	387	ug/kg	77.4	387
83-32-9	Acenaphthene	U	38.7	ug/kg	12.8	38.7
121-14-2	2,4-Dinitrotoluene	U	387	ug/kg	38.7	387
100-02-7	4-Nitrophenol	U	387	ug/kg	128	387
87-86-5	Pentachlorophenol	U	387	ug/kg	96.7	387
129-00-0	Pyrene	U	38.7	ug/kg	11.6	38.7
110-86-1	Pyridine	U	387	ug/kg	77.4	387
62-53-3	Aniline	U	387	ug/kg	116	387
111-44-4	bis(2-Chloroethyl) ether	U	387	ug/kg	77.4	387
541-73-1	1,3-Dichlorobenzene	U	387	ug/kg	77.4	387
100-51-6	Benzyl alcohol	U	387	ug/kg	116	387
95-50-1	1,2-Dichlorobenzene	U	387	ug/kg	77.4	387
108-60-1	bis(2-Chloroisopropyl)ether	U	387	ug/kg	77.4	387
95-48-7	o-Cresol	U	387	ug/kg	77.4	387
65794-96-9	m,p-Cresols	U	387	ug/kg	116	387
67-72-1	Hexachloroethane	U	387	ug/kg	77.4	387
98-95-3	Nitrobenzene	U	387	ug/kg	77.4	387
78-59-1	Isophorone	U	387	ug/kg	77.4	387
88-75-5	2-Nitrophenol	U	387	ug/kg	77.4	387
105-67-9	2,4-Dimethylphenol	U	387	ug/kg	135	387
111-91-1	bis(2-Chloroethoxy)methane	U	387	ug/kg	77.4	387
120-83-2	2,4-Dichlorophenol	U	387	ug/kg	77.4	387
65-85-0	Benzoic acid	U	774	ug/kg	193	774
91-20-3	Naphthalene	U	38.7	ug/kg	11.6	38.7
106-47-8	4-Chloroaniline	U	387	ug/kg	77.4	387
87-68-3	Hexachlorobutadiene	U	387	ug/kg	77.4	387
91-57-6	2-Methylnaphthalene	U	38.7	ug/kg	7.74	38.7
77-47-4	Hexachlorocyclopentadiene	U	387	ug/kg	77.4	387
88-06-2	2,4,6-Trichlorophenol	U	387	ug/kg	77.4	387
95-95-4	2,4,5-Trichlorophenol	U	387	ug/kg	77.4	387
91-58-7	2-Chloronaphthalene	U	38.7	ug/kg	12.8	38.7
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	387	ug/kg	77.4	387
99-09-2	3-Nitroaniline	U	387	ug/kg	77.4	387

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13553**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 22:22**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2021.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	387	ug/kg	77.4	387
606-20-2	2,6-Dinitrotoluene	U	387	ug/kg	38.7	387
208-96-8	Acenaphthylene	U	38.7	ug/kg	11.6	38.7
51-28-5	2,4-Dinitrophenol	U	774	ug/kg	147	774
132-64-9	Dibenzofuran	U	387	ug/kg	77.4	387
84-66-2	Diethylphthalate	U	387	ug/kg	77.4	387
86-73-7	Fluorene	U	38.7	ug/kg	11.6	38.7
7005-72-3	4-Chlorophenylphenylether	U	387	ug/kg	77.4	387
534-52-1	2-Methyl-4,6-dinitrophenol	U	387	ug/kg	77.4	387
100-01-6	4-Nitroaniline	U	387	ug/kg	116	387
	p-Nitroaniline					
122-39-4	Diphenylamine	U	387	ug/kg	77.4	387
122-66-7	Azobenzene	U	387	ug/kg	77.4	387
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	387	ug/kg	77.4	387
118-74-1	Hexachlorobenzene	U	387	ug/kg	77.4	387
85-01-8	Phenanthrene	U	38.7	ug/kg	11.6	38.7
120-12-7	Anthracene	U	38.7	ug/kg	7.74	38.7
84-74-2	Di-n-butylphthalate	U	387	ug/kg	77.4	387
206-44-0	Fluoranthene	U	38.7	ug/kg	11.6	38.7
85-68-7	Butylbenzylphthalate	U	387	ug/kg	77.4	387
56-55-3	Benzo(a)anthracene	U	38.7	ug/kg	11.6	38.7
91-94-1	3,3'-Dichlorobenzidine	U	387	ug/kg	116	387
218-01-9	Chrysene	U	38.7	ug/kg	11.6	38.7
117-81-7	bis(2-Ethylhexyl)phthalate	J	236	ug/kg	77.4	387
117-84-0	Di-n-octylphthalate	U	387	ug/kg	77.4	387
205-99-2	Benzo(b)fluoranthene	U	38.7	ug/kg	11.6	38.7
207-08-9	Benzo(k)fluoranthene	U	38.7	ug/kg	11.6	38.7
50-32-8	Benzo(a)pyrene	U	38.7	ug/kg	11.6	38.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.7	ug/kg	11.6	38.7
53-70-3	Dibenzo(a,h)anthracene	U	38.7	ug/kg	11.6	38.7
191-24-2	Benzo(ghi)perylene	U	38.7	ug/kg	11.6	38.7
120-82-1	1,2,4-Trichlorobenzene	U	387	ug/kg	77.4	387

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.98	334	ug/kg		J
	Unknown Aldol Condensate	2.9	946	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13553**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 22:22**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2021.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
629-59-4	Tetradecane	9.36	186	ug/kg	93	NJ
	Unknown	10.58	330	ug/kg		J
112-95-8	Eicosane	10.72	238	ug/kg	89	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13556**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 22:42**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2322.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	3830	ug/kg	766	3830
108-95-2	Phenol	U	3830	ug/kg	766	3830
95-57-8	2-Chlorophenol	U	3830	ug/kg	766	3830
106-46-7	1,4-Dichlorobenzene	U	3830	ug/kg	766	3830
621-64-7	N-Nitrosodipropylamine	U	3830	ug/kg	766	3830
59-50-7	4-Chloro-3-methylphenol	U	3830	ug/kg	766	3830
83-32-9	Acenaphthene	U	383	ug/kg	126	383
121-14-2	2,4-Dinitrotoluene	U	3830	ug/kg	383	3830
100-02-7	4-Nitrophenol	U	3830	ug/kg	1260	3830
87-86-5	Pentachlorophenol	U	3830	ug/kg	957	3830
129-00-0	Pyrene	U	383	ug/kg	115	383
110-86-1	Pyridine	U	3830	ug/kg	766	3830
62-53-3	Aniline	U	3830	ug/kg	1150	3830
111-44-4	bis(2-Chloroethyl) ether	U	3830	ug/kg	766	3830
541-73-1	1,3-Dichlorobenzene	U	3830	ug/kg	766	3830
100-51-6	Benzyl alcohol	U	3830	ug/kg	1150	3830
95-50-1	1,2-Dichlorobenzene	U	3830	ug/kg	766	3830
108-60-1	bis(2-Chloroisopropyl)ether	U	3830	ug/kg	766	3830
95-48-7	o-Cresol	U	3830	ug/kg	766	3830
65794-96-9	m,p-Cresols	U	3830	ug/kg	1150	3830
67-72-1	Hexachloroethane	U	3830	ug/kg	766	3830
98-95-3	Nitrobenzene	U	3830	ug/kg	766	3830
78-59-1	Isophorone	U	3830	ug/kg	766	3830
88-75-5	2-Nitrophenol	U	3830	ug/kg	766	3830
105-67-9	2,4-Dimethylphenol	U	3830	ug/kg	1340	3830
111-91-1	bis(2-Chloroethoxy)methane	U	3830	ug/kg	766	3830
120-83-2	2,4-Dichlorophenol	U	3830	ug/kg	766	3830
65-85-0	Benzoic acid	U	7660	ug/kg	1910	7660
91-20-3	Naphthalene	U	383	ug/kg	115	383
106-47-8	4-Chloroaniline	U	3830	ug/kg	766	3830
87-68-3	Hexachlorobutadiene	U	3830	ug/kg	766	3830
91-57-6	2-Methylnaphthalene	U	383	ug/kg	76.6	383
77-47-4	Hexachlorocyclopentadiene	U	3830	ug/kg	766	3830
88-06-2	2,4,6-Trichlorophenol	U	3830	ug/kg	766	3830
95-95-4	2,4,5-Trichlorophenol	U	3830	ug/kg	766	3830
91-58-7	2-Chloronaphthalene	U	383	ug/kg	126	383
88-74-4	2-Nitroaniline	U	3830	ug/kg	766	3830
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	3830	ug/kg	766	3830

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13556**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 22:42**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2322.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	3830	ug/kg	766	3830
606-20-2	2,6-Dinitrotoluene	U	3830	ug/kg	383	3830
208-96-8	Acenaphthylene	U	383	ug/kg	115	383
51-28-5	2,4-Dinitrophenol	U	7660	ug/kg	1460	7660
132-64-9	Dibenzofuran	U	3830	ug/kg	766	3830
84-66-2	Diethylphthalate	U	3830	ug/kg	766	3830
86-73-7	Fluorene	U	383	ug/kg	115	383
7005-72-3	4-Chlorophenylphenylether	U	3830	ug/kg	766	3830
534-52-1	2-Methyl-4,6-dinitrophenol	U	3830	ug/kg	766	3830
100-01-6	4-Nitroaniline	U	3830	ug/kg	1150	3830
	p-Nitroaniline					
122-39-4	Diphenylamine	U	3830	ug/kg	766	3830
122-66-7	Azobenzene	U	3830	ug/kg	766	3830
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	3830	ug/kg	766	3830
118-74-1	Hexachlorobenzene	U	3830	ug/kg	766	3830
85-01-8	Phenanthrene	U	383	ug/kg	115	383
120-12-7	Anthracene	U	383	ug/kg	76.6	383
84-74-2	Di-n-butylphthalate	U	3830	ug/kg	766	3830
206-44-0	Fluoranthene	U	383	ug/kg	115	383
85-68-7	Butylbenzylphthalate	U	3830	ug/kg	766	3830
56-55-3	Benzo(a)anthracene	U	383	ug/kg	115	383
91-94-1	3,3'-Dichlorobenzidine	U	3830	ug/kg	1150	3830
218-01-9	Chrysene	U	383	ug/kg	115	383
117-81-7	bis(2-Ethylhexyl)phthalate	J	968	ug/kg	766	3830
117-84-0	Di-n-octylphthalate	U	3830	ug/kg	766	3830
205-99-2	Benzo(b)fluoranthene	U	383	ug/kg	115	383
207-08-9	Benzo(k)fluoranthene	U	383	ug/kg	115	383
50-32-8	Benzo(a)pyrene	U	383	ug/kg	115	383
193-39-5	Indeno(1,2,3-cd)pyrene	U	383	ug/kg	115	383
53-70-3	Dibenzo(a,h)anthracene	U	383	ug/kg	115	383
191-24-2	Benzo(ghi)perylene	U	383	ug/kg	115	383
120-82-1	1,2,4-Trichlorobenzene	U	3830	ug/kg	766	3830

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.43	1700	ug/kg		J
	Unknown	10.68	3380	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842010	**Date Received:**	03/05/2010 10:20	**%Moisture:**	13.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13556	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	10
Run Date:	03/23/2010 22:42	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s6c2322.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	13.24	2310	ug/kg		J

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-2302

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC		PHL %REC		NBZ %REC		FBP %REC		TBP %REC		TPH %REC	
1202071493	MB for batch 965424	62		64		61		71		77		85	
1202071494	LCS for batch 965424	61		59		61		70		80		89	
248842002	RE46-10-13553	54		55		51		61		73		75	
1202071495	RE46-10-13553MS	41		40		39		46		56		63	
1202071496	RE46-10-13553MSD	46		41		41		51		58		62	
248842003	RE46-10-13549	42		45		36		49		69		73	
248842005	RE46-10-13550	31		31 *		27 *		33		40		52	
248842006	RE46-10-13548	32		33		29 *		36		45		54	
248842004	RE46-10-13551	60	D	65	D	59	D	84	D	73	D	98	D
248842007	RE46-10-13546	55	D	58	D	50	D	75	D	67	D	83	D
248842008	RE46-10-13552	33	D	33	D	33	D	43	D	36 *	D	48	D
248842009	RE46-10-13547	57	D	63	D	68	D	85	D	74	D	96	D
248842010	RE46-10-13556	50	D	50	D	46	D	58	D	57	D	73	D
1202079224	MB for batch 968547	50		50		48		57		70		74	
1202079225	LCS for batch 968547	45		44		44		50		66		72	
1202079226	LCSD for batch 968547	69		67		66		77		99		95	
248842006	RE46-10-13548RE	41		45		38		51		66		83	

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(29%-99%)
PHL	=	Phenol-d5	(33%-98%)
NBZ	=	Nitrobenzene-d5	(31%-105%)
FBP	=	2-Fluorobiphenyl	(25%-109%)
TBP	=	2,4,6-Tribromophenol	(37%-106%)
TPH	=	p-Terphenyl-d14	(13%-150%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: LCS for batch 965424
Lab Sample ID: 1202071494
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/20/2010 18:06
Prep Batch ID: 965424
Batch ID: 965425
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	816	49	22-114
108-95-2	LCS	Phenol	1670	0.0	981	59	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1060	64	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1040	63	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1020	61	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1110	67	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	1040	62	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1220	73	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	811	49	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	1430	86	27-116
129-00-0	LCS	Pyrene	1670	0.0	1240	75	42-113
110-86-1	LCS	Pyridine	1670	0.0	771	46	8-125
62-53-3	LCS	Aniline	1670	0.0	1090	65	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	960	58	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1020	61	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	338	20 *	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1110	67	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	924	55	28-117
95-48-7	LCS	o-Cresol	1670	0.0	1130	68	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1240	74	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	925	56	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	1120	67	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: LCS for batch 965424
Lab Sample ID: 1202071494
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/20/2010 18:06
Dilution: 1
Prep Batch ID: 965424
Batch ID: 965425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1040	62	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	1120	67	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1390	83	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1010	61	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1140	69	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	2580	77	22-138
91-20-3	LCS	Naphthalene	1670	0.0	975	58	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	1050	63	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1150	69	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1070	64	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1040	63	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1020	61	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1400	84	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1120	67	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	999	60	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1040	62	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	1300	78	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1230	74	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	1170	70	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1180	71	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	1220	73	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	1340	81	51-126

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302 **Sample Type:** Laboratory Control Sample
Client ID: LCS for batch 965424 **Matrix:** SOIL
Lab Sample ID: 1202071494
Instrument: MSD6.I **Analysis Date:** 03/20/2010 18:06 **Dilution:** 1
Analyst: NAG1 **Prep Batch ID** 965424
Inj. Vol: .5 uL **Batch ID:** 965425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1130	68	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1290	78	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1180	71	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1250	75	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	1280	77	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1180	71	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1340	80	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1400	84	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	1150	69	46-107
120-12-7	LCS	Anthracene	1670	0.0	1150	69	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1310	78	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1290	77	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1330	80	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1270	76	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1230	74	36-103
218-01-9	LCS	Chrysene	1670	0.0	1270	76	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1310	79	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1230	74	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1240	74	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1380	83	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1340	80	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1370	82	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: LCS for batch 965424
Lab Sample ID: 1202071494
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/20/2010 18:06
Dilution: 1
Prep Batch ID: 965424
Batch ID: 965425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1370	82	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1350	81	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1140	68	32-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2302**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE46-10-13553MS**	**Matrix:**	**S**
Lab Sample ID:	**1202071495**	**%Moisture:**	**13.9**
Instrument:	**MSD6.I**	**Analysis Date:**	**03/20/2010 22:45**
Analyst:	**NAG1**	**Prep Batch ID:**	**965424**
Inj. Vol:	**.5 uL**	**Batch ID:**	**965425**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1930	0.00	U	439	23 *	27-98
108-95-2	MS	Phenol	1930	0.00	U	521	27 *	33-94
95-57-8	MS	2-Chlorophenol	1930	0.00	U	550	29	29-96
106-46-7	MS	1,4-Dichlorobenzene	1930	0.00	U	495	26 *	27-96
621-64-7	MS	N-Nitrosodipropylamine	1930	0.00	U	504	26 *	29-102
59-50-7	MS	4-Chloro-3-methylphenol	1930	0.00	U	590	31	29-110
83-32-9	MS	Acenaphthene	1930	0.00	U	521	27	17-109
121-14-2	MS	2,4-Dinitrotoluene	1930	0.00	U	615	32 *	33-107
100-02-7	MS	4-Nitrophenol	1930	0.00	U	459	24	15-110
87-86-5	MS	Pentachlorophenol	1930	0.00	U	642	33	23-110
129-00-0	MS	Pyrene	1930	0.00	U	656	34	24-118
110-86-1	MS	Pyridine	1930	0.00	U	305	16 *	25-102
62-53-3	MS	Aniline	1930	0.00	U	453	23	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	1930	0.00	U	461	24 *	29-96
541-73-1	MS	1,3-Dichlorobenzene	1930	0.00	U	480	25 *	26-97
100-51-6	MS	Benzyl alcohol	1930	0.00	U	0.00	0 *	19-112
95-50-1	MS	1,2-Dichlorobenzene	1930	0.00	U	546	28 *	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	1930	0.00	U	442	23 *	28-103
95-48-7	MS	o-Cresol	1930	0.00	U	540	28 *	32-107
65794-96-9	MS	m,p-Cresols	1930	0.00	U	606	31 *	33-115
67-72-1	MS	Hexachloroethane	1930	0.00	U	411	21 *	25-100
98-95-3	MS	Nitrobenzene	1930	0.00	U	602	31	27-106

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2302

Client ID: RE46-10-13553MS

Lab Sample ID: 1202071495

Instrument: MSD6.I

Analyst: NAG1

Inj. Vol: .5 uL

Sample Type: Matrix Spike

Matrix: S

%Moisture: 13.9

Analysis Date: 03/20/2010 22:45

Dilution: 1

Prep Batch ID: 965424

Batch ID: 965425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1930	0.00	U	522	27 *	29-104
88-75-5	MS	2-Nitrophenol	1930	0.00	U	593	31	26-102
105-67-9	MS	2,4-Dimethylphenol	1930	0.00	U	1170	60	22-104
111-91-1	MS	bis(2-Chloroethoxy)methane	1930	0.00	U	529	27	27-101
120-83-2	MS	2,4-Dichlorophenol	1930	0.00	U	576	30	26-103
65-85-0	MS	Benzoic acid	3860	0.00	U	1400	36	13-131
91-20-3	MS	Naphthalene	1930	0.00	U	507	26	23-103
106-47-8	MS	4-Chloroaniline	1930	0.00	U	542	28	26-103
87-68-3	MS	Hexachlorobutadiene	1930	0.00	U	544	28	28-101
91-57-6	MS	2-Methylnaphthalene	1930	0.00	U	554	29	27-106
77-47-4	MS	Hexachlorocyclopentadiene	1930	0.00	U	375	19 *	24-117
88-06-2	MS	2,4,6-Trichlorophenol	1930	0.00	U	536	28	26-105
95-95-4	MS	2,4,5-Trichlorophenol	1930	0.00	U	668	35	30-110
91-58-7	MS	2-Chloronaphthalene	1930	0.00	U	574	30	28-102
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1930	0.00	U	791	41	33-106
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1930	0.00	U	586	30 *	33-116
131-11-3	MS	Dimethylphthalate	1930	0.00	U	651	34 *	38-113
606-20-2	MS	2,6-Dinitrotoluene	1930	0.00	U	586	30	29-107
208-96-8	MS	Acenaphthylene	1930	0.00	U	598	31	25-108
51-28-5	MS	2,4-Dinitrophenol	1930	0.00	U	565	29	14-102
132-64-9	MS	Dibenzofuran	1930	0.00	U	649	34 *	35-112
84-66-2	MS	Diethylphthalate	1930	0.00	U	657	34 *	36-122

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: RE46-10-13553MS
Lab Sample ID: 1202071495
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 13.9
Analysis Date: 03/20/2010 22:45
Prep Batch ID: 965424
Batch ID: 965425
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1930	0.00	U	588	30 *	33-105
7005-72-3	MS	4-Chlorophenylphenylether	1930	0.00	U	657	34	30-110
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1930	0.00	U	595	31	26-97
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1930	0.00	U	692	36	28-135
122-39-4	MS	Diphenylamine	1930	0.00	U	653	34	33-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1930	0.00	U	592	31	31-113
101-55-3	MS	4-Bromophenylphenylether	1930	0.00	U	679	35	31-109
118-74-1	MS	Hexachlorobenzene	1930	0.00	U	691	36 *	37-99
85-01-8	MS	Phenanthrene	1930	0.00	U	598	31	29-109
120-12-7	MS	Anthracene	1930	0.00	U	627	32	19-118
84-74-2	MS	Di-n-butylphthalate	1930	0.00	U	637	33 *	39-123
206-44-0	MS	Fluoranthene	1930	0.00	U	644	33	33-114
85-68-7	MS	Butylbenzylphthalate	1930	0.00	U	636	33 *	35-131
56-55-3	MS	Benzo(a)anthracene	1930	0.00	U	616	32	30-111
91-94-1	MS	3,3'-Dichlorobenzidine	1930	0.00	U	557	29 *	30-124
218-01-9	MS	Chrysene	1930	0.00	U	653	34	32-108
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1930	236	J	728	25 *	37-129
117-84-0	MS	Di-n-octylphthalate	1930	0.00	U	846	44	31-143
205-99-2	MS	Benzo(b)fluoranthene	1930	0.00	U	687	36	29-118
207-08-9	MS	Benzo(k)fluoranthene	1930	0.00	U	778	40	32-118
50-32-8	MS	Benzo(a)pyrene	1930	0.00	U	652	34	33-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1930	0.00	U	455	24 *	29-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2302**
Client ID: **RE46-10-13553MS**
Lab Sample ID: **1202071495**
Instrument: **MSD6.I**
Analyst: **NAG1**
Inj. Vol: **.5 uL**

Sample Type: **Matrix Spike**
Matrix: **S**
%Moisture: **13.9**
Analysis Date: **03/20/2010 22:45**
Prep Batch ID: **965424**
Batch ID: **965425**
Dilution: 1

CAS No	Parmname		Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1930	0.00	U	477	25 *	27-119
191-24-2	MS	Benzo(ghi)perylene	1930	0.00	U	391	20 *	28-112
120-82-1	MS	1,2,4-Trichlorobenzene	1930	0.00	U	561	29	28-99

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: RE46-10-13553MSD
Lab Sample ID: 1202071496
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 13.9
Analysis Date: 03/20/2010 23:07
Dilution: 1
Prep Batch ID: 965424
Batch ID: 965425

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	1930	0.00	U	693	36	27-98	45 *	0-30
108-95-2	MSD	Phenol	1930	0.00	U	886	46	33-94	52 *	0-30
95-57-8	MSD	2-Chlorophenol	1930	0.00	U	780	40	29-96	35 *	0-30
106-46-7	MSD	1,4-Dichlorobenzene	1930	0.00	U	669	35	27-96	30	0-30
621-64-7	MSD	N-Nitrosodipropylamine	1930	0.00	U	815	42	29-102	47 *	0-30
59-50-7	MSD	4-Chloro-3-methylphenol	1930	0.00	U	937	48	29-110	45 *	0-30
83-32-9	MSD	Acenaphthene	1930	0.00	U	818	42	17-109	44 *	0-30
121-14-2	MSD	2,4-Dinitrotoluene	1930	0.00	U	954	49	33-107	43 *	0-30
100-02-7	MSD	4-Nitrophenol	1930	0.00	U	666	34	15-110	37 *	0-30
87-86-5	MSD	Pentachlorophenol	1930	0.00	U	944	49	23-110	38 *	0-30
129-00-0	MSD	Pyrene	1930	0.00	U	964	50	24-118	38 *	0-30
110-86-1	MSD	Pyridine	1930	0.00	U	488	25	25-102	46 *	0-30
62-53-3	MSD	Aniline	1930	0.00	U	830	43	18-109	59 *	0-30
111-44-4	MSD	bis(2-Chloroethyl) ether	1930	0.00	U	723	37	29-96	44 *	0-30
541-73-1	MSD	1,3-Dichlorobenzene	1930	0.00	U	698	36	26-97	37 *	0-30
100-51-6	MSD	Benzyl alcohol	1930	0.00	U	0.00	0 *	19-112	0	0-30
95-50-1	MSD	1,2-Dichlorobenzene	1930	0.00	U	779	40	30-97	35 *	0-30
108-60-1	MSD	bis(2-Chloroisopropyl)ether	1930	0.00	U	702	36	28-103	46 *	0-30
95-48-7	MSD	o-Cresol	1930	0.00	U	944	49	32-107	55 *	0-30
65794-96-9	MSD	m,p-Cresols	1930	0.00	U	1050	54	33-115	54 *	0-30
67-72-1	MSD	Hexachloroethane	1930	0.00	U	578	30	25-100	34 *	0-30
98-95-3	MSD	Nitrobenzene	1930	0.00	U	944	49	27-106	44 *	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: RE46-10-13553MSD
Lab Sample ID: 1202071496
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 13.9
Analysis Date: 03/20/2010 23:07
Dilution: 1
Prep Batch ID: 965424
Batch ID: 965425

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1930	0.00	U	844	44	29-104	47 *	0-30
88-75-5	MSD 2-Nitrophenol	1930	0.00	U	929	48	26-102	44 *	0-30
105-67-9	MSD 2,4-Dimethylphenol	1930	0.00	U	2000	104	22-104	53 *	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1930	0.00	U	844	44	27-101	46 *	0-30
120-83-2	MSD 2,4-Dichlorophenol	1930	0.00	U	868	45	26-103	40 *	0-30
65-85-0	MSD Benzoic acid	3870	0.00	U	2040	53	13-131	38 *	0-30
91-20-3	MSD Naphthalene	1930	0.00	U	756	39	23-103	40 *	0-30
106-47-8	MSD 4-Chloroaniline	1930	0.00	U	865	45	26-103	46 *	0-30
87-68-3	MSD Hexachlorobutadiene	1930	0.00	U	784	41	28-101	36 *	0-30
91-57-6	MSD 2-Methylnaphthalene	1930	0.00	U	867	45	27-106	44 *	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1930	0.00	U	514	27	24-117	31 *	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1930	0.00	U	954	49	26-105	56 *	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1930	0.00	U	961	50	30-110	36 *	0-30
91-58-7	MSD 2-Chloronaphthalene	1930	0.00	U	899	46	28-102	44 *	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1930	0.00	U	1470	76	33-106	60 *	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1930	0.00	U	892	46	33-116	41 *	0-30
131-11-3	MSD Dimethylphthalate	1930	0.00	U	998	52	38-113	42 *	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1930	0.00	U	955	49	29-107	48 *	0-30
208-96-8	MSD Acenaphthylene	1930	0.00	U	956	49	25-108	46 *	0-30
51-28-5	MSD 2,4-Dinitrophenol	1930	0.00	U	748	39	14-102	28	0-30
132-64-9	MSD Dibenzofuran	1930	0.00	U	1020	53	35-112	44 *	0-30
84-66-2	MSD Diethylphthalate	1930	0.00	U	1020	53	36-122	43 *	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2302**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE46-10-13553MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202071496**	**%Moisture:**	**13.9**
Instrument:	**MSD6.I**	**Analysis Date:**	**03/20/2010 23:07**
Analyst:	**NAG1**	**Prep Batch ID:**	**965424**
Inj. Vol:	**.5 uL**	**Batch ID:**	**965425**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD Fluorene	1930	0.00	U	919	48	33-105	44 *	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	1930	0.00	U	1050	54	30-110	46 *	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	1930	0.00	U	785	41	26-97	28	0-30
100-01-6	MSD 4-Nitroaniline *p-Nitroaniline*	1930	0.00	U	998	52	28-135	36 *	0-30
122-39-4	MSD Diphenylamine	1930	0.00	U	1020	53	33-109	44 *	0-30
122-66-7	MSD Azobenzene *1,2-Diphenylhydrazine*	1930	0.00	U	924	48	31-113	44 *	0-30
101-55-3	MSD 4-Bromophenylphenylether	1930	0.00	U	1060	55	31-109	44 *	0-30
118-74-1	MSD Hexachlorobenzene	1930	0.00	U	1070	55	37-99	43 *	0-30
85-01-8	MSD Phenanthrene	1930	0.00	U	908	47	29-109	41 *	0-30
120-12-7	MSD Anthracene	1930	0.00	U	930	48	19-118	39 *	0-30
84-74-2	MSD Di-n-butylphthalate	1930	0.00	U	970	50	39-123	41 *	0-30
206-44-0	MSD Fluoranthene	1930	0.00	U	986	51	33-114	42 *	0-30
85-68-7	MSD Butylbenzylphthalate	1930	0.00	U	977	51	35-131	42 *	0-30
56-55-3	MSD Benzo(a)anthracene	1930	0.00	U	939	49	30-111	42 *	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	1930	0.00	U	995	51	30-124	56 *	0-30
218-01-9	MSD Chrysene	1930	0.00	U	1010	52	32-108	43 *	0-30
117-81-7	MSD bis(2-Ethylhexyl)phthalate	1930	236	J	1120	46	37-129	42 *	0-30
117-84-0	MSD Di-n-octylphthalate	1930	0.00	U	1030	53	31-143	19	0-30
205-99-2	MSD Benzo(b)fluoranthene	1930	0.00	U	940	49	29-118	31 *	0-30
207-08-9	MSD Benzo(k)fluoranthene	1930	0.00	U	1160	60	32-118	40 *	0-30
50-32-8	MSD Benzo(a)pyrene	1930	0.00	U	1010	52	33-115	44 *	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	1930	0.00	U	903	47	29-114	66 *	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: RE46-10-13553MSD
Lab Sample ID: 1202071496
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 13.9
Analysis Date: 03/20/2010 23:07
Dilution: 1
Prep Batch ID: 965424
Batch ID: 965425

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1930	0.00	U	919	48	27-119	63 *	0-30
191-24-2	MSD Benzo(ghi)perylene	1930	0.00	U	827	43	28-112	72 *	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1930	0.00	U	821	42	28-99	38 *	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: LCS for batch 968547
Lab Sample ID: 1202079225
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/24/2010 18:34
Dilution: 1
Prep Batch ID: 968547
Batch ID: 968549

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	595	36	22-114
108-95-2	LCS	Phenol	1670	0.0	729	44	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	771	46	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	727	44	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	665	40	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	852	51	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	748	45	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	953	57	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	853	51	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	1210	73	27-116
129-00-0	LCS	Pyrene	1670	0.0	971	58	42-113
110-86-1	LCS	Pyridine	1670	0.0	473	28	8-125
62-53-3	LCS	Aniline	1670	0.0	625	38	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	629	38	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	708	42	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	143	9 *	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	780	47	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	597	36	28-117
95-48-7	LCS	o-Cresol	1670	0.0	889	53	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	958	57	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	622	37	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	797	48	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: LCS for batch 968547
Lab Sample ID: 1202079225
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/24/2010 18:34
Dilution: 1
Prep Batch ID 968547
Batch ID: 968549

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	725	43	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	835	50	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1040	62	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	710	43	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	828	50	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	2090	63	22-138
91-20-3	LCS	Naphthalene	1670	0.0	727	44	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	662	40	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	791	47	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	788	47	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	814	49	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	780	47	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	978	59	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	805	48	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	716	43	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	754	45	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	921	55	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	890	53	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	838	50	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1200	72	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	910	55	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	964	58	51-126

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: LCS for batch 968547
Lab Sample ID: 1202079225
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/24/2010 18:34
Dilution: 1
Prep Batch ID: 968547
Batch ID: 968549

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	835	50	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	928	56	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1180	71	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1040	62	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	922	55	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	844	51	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	976	59	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1020	61	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	896	54	46-107
120-12-7	LCS	Anthracene	1670	0.0	896	54	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1010	60	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1040	63	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1000	60	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	997	60	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	942	57	36-103
218-01-9	LCS	Chrysene	1670	0.0	1090	65	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1030	62	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	963	58	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1010	61	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1170	70	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1080	65	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1070	64	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: LCS for batch 968547
Lab Sample ID: 1202079225
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/24/2010 18:34
Dilution: 1
Prep Batch ID 968547
Batch ID: 968549

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1080	65	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1020	61	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	807	48	32-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302 **Sample Type:** Laboratory Control Sample Duplicate
Client ID: LCSD for batch 968547 **Matrix:** SOIL
Lab Sample ID: 1202079226
Instrument: MSD6.I **Analysis Date:** 03/24/2010 18:57 **Dilution:** 1
Analyst: NAG1 **Prep Batch ID:** 968547
Inj. Vol: .5 uL **Batch ID:** 968549

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	LCSD N-Methyl-N-nitrosomethylam	1670	0.0	871	52	22-114	38 *	0-37
108-95-2	LCSD Phenol	1670	0.0	1120	67	39-104	42 *	0-35
95-57-8	LCSD 2-Chlorophenol	1670	0.0	1200	72	40-107	43 *	0-30
106-46-7	LCSD 1,4-Dichlorobenzene	1670	0.0	1080	65	33-108	39 *	0-30
621-64-7	LCSD N-Nitrosodipropylamine	1670	0.0	1050	63	34-113	45 *	0-35
59-50-7	LCSD 4-Chloro-3-methylphenol	1670	0.0	1300	78	42-114	42 *	0-30
83-32-9	LCSD Acenaphthene	1670	0.0	1120	67	40-105	40 *	0-30
121-14-2	LCSD 2,4-Dinitrotoluene	1670	0.0	1360	82	49-112	35 *	0-30
100-02-7	LCSD 4-Nitrophenol	1670	0.0	1160	69	24-113	30	0-30
87-86-5	LCSD Pentachlorophenol	1670	0.0	1710	102	27-116	34 *	0-30
129-00-0	LCSD Pyrene	1670	0.0	1290	77	42-113	28	0-34
110-86-1	LCSD Pyridine	1670	0.0	761	46	8-125	47 *	0-37
62-53-3	LCSD Aniline	1670	0.0	935	56	18-126	40 *	0-30
111-44-4	LCSD bis(2-Chloroethyl) ether	1670	0.0	962	58	32-103	42 *	0-36
541-73-1	LCSD 1,3-Dichlorobenzene	1670	0.0	1060	63	32-108	40 *	0-30
100-51-6	LCSD Benzyl alcohol	1670	0.0	472	28	27-108	107 *	0-30
95-50-1	LCSD 1,2-Dichlorobenzene	1670	0.0	1150	69	35-111	38 *	0-30
108-60-1	LCSD bis(2-Chloroisopropyl)ether	1670	0.0	927	56	28-117	43 *	0-34
95-48-7	LCSD o-Cresol	1670	0.0	1360	81	39-111	42 *	0-29
65794-96-9	LCSD m,p-Cresols	1670	0.0	1440	86	45-121	40 *	0-28
67-72-1	LCSD Hexachloroethane	1670	0.0	969	58	30-109	44 *	0-34
98-95-3	LCSD Nitrobenzene	1670	0.0	1150	69	33-116	36 *	0-33

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2302

Sample Type: Laboratory Control Sample Duplicate

Client ID: LCSD for batch 968547

Matrix: SOIL

Lab Sample ID: 1202079226

Instrument: MSD6.I

Analysis Date: 03/24/2010 18:57

Dilution: 1

Analyst: NAG1

Prep Batch ID: 968547

Inj. Vol: .5 uL

Batch ID: 968549

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	LCSD Isophorone	1670	0.0	1100	66	35-113	41 *	0-34
88-75-5	LCSD 2-Nitrophenol	1670	0.0	1280	77	31-117	42 *	0-30
105-67-9	LCSD 2,4-Dimethylphenol	1670	0.0	1610	96	32-112	43 *	0-30
111-91-1	LCSD bis(2-Chloroethoxy)methane	1670	0.0	1140	68	34-110	47 *	0-34
120-83-2	LCSD 2,4-Dichlorophenol	1670	0.0	1290	78	34-116	44 *	0-30
65-85-0	LCSD Benzoic acid	3330	0.0	3340	100	22-138	46 *	0-30
91-20-3	LCSD Naphthalene	1670	0.0	1050	63	35-103	36 *	0-33
106-47-8	LCSD 4-Chloroaniline	1670	0.0	1010	61	20-118	42 *	0-30
87-68-3	LCSD Hexachlorobutadiene	1670	0.0	1250	75	31-117	45 *	0-32
91-57-6	LCSD 2-Methylnaphthalene	1670	0.0	1170	70	38-115	39 *	0-30
77-47-4	LCSD Hexachlorocyclopentadiene	1670	0.0	1340	80	22-140	49 *	0-30
88-06-2	LCSD 2,4,6-Trichlorophenol	1670	0.0	1280	77	40-110	48 *	0-30
95-95-4	LCSD 2,4,5-Trichlorophenol	1670	0.0	1480	89	43-113	41 *	0-30
91-58-7	LCSD 2-Chloronaphthalene	1670	0.0	1220	73	37-111	41 *	0-30
88-74-4	LCSD 2-Nitroaniline *o-Nitroaniline*	1670	0.0	1080	65	41-113	41 *	0-30
99-09-2	LCSD 3-Nitroaniline *m-Nitroaniline*	1670	0.0	1070	64	34-125	35 *	0-26
131-11-3	LCSD Dimethylphthalate	1670	0.0	1400	84	48-122	41 *	0-33
606-20-2	LCSD 2,6-Dinitrotoluene	1670	0.0	1350	81	47-107	41 *	0-30
208-96-8	LCSD Acenaphthylene	1670	0.0	1250	75	44-110	39 *	0-30
51-28-5	LCSD 2,4-Dinitrophenol	1670	0.0	1660	99	18-127	32 *	0-30
132-64-9	LCSD Dibenzofuran	1670	0.0	1350	81	49-115	39 *	0-24
84-66-2	LCSD Diethylphthalate	1670	0.0	1390	84	51-126	36 *	0-32

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: LCSD for batch 968547
Lab Sample ID: 1202079226
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample Duplicate
Matrix: SOIL
Analysis Date: 03/24/2010 18:57
Dilution: 1
Prep Batch ID 968547
Batch ID: 968549

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	LCSD Fluorene	1670	0.0	1230	74	43-109	38 *	0-30
7005-72-3	LCSD 4-Chlorophenylphenylether	1670	0.0	1410	84	45-115	41 *	0-30
534-52-1	LCSD 2-Methyl-4,6-dinitrophenol	1670	0.0	1480	89	32-117	23	0-30
100-01-6	LCSD 4-Nitroaniline *p-Nitroaniline*	1670	0.0	1390	83	33-148	29	0-30
122-39-4	LCSD Diphenylamine	1670	0.0	1340	81	46-114	37 *	0-32
122-66-7	LCSD Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1250	75	38-123	39 *	0-30
101-55-3	LCSD 4-Bromophenylphenylether	1670	0.0	1450	87	40-119	39 *	0-30
118-74-1	LCSD Hexachlorobenzene	1670	0.0	1490	90	43-111	38 *	0-32
85-01-8	LCSD Phenanthrene	1670	0.0	1240	74	46-107	32	0-34
120-12-7	LCSD Anthracene	1670	0.0	1240	74	46-110	32 *	0-30
84-74-2	LCSD Di-n-butylphthalate	1670	0.0	1300	78	52-132	26	0-33
206-44-0	LCSD Fluoranthene	1670	0.0	1310	79	51-115	23	0-34
85-68-7	LCSD Butylbenzylphthalate	1670	0.0	1350	81	47-137	30	0-35
56-55-3	LCSD Benzo(a)anthracene	1670	0.0	1310	79	50-108	27	0-30
91-94-1	LCSD 3,3'-Dichlorobenzidine	1670	0.0	1230	74	36-103	27	0-30
218-01-9	LCSD Chrysene	1670	0.0	1360	82	48-111	22	0-33
117-81-7	LCSD bis(2-Ethylhexyl)phthalate	1670	0.0	1350	81	48-139	27	0-36
117-84-0	LCSD Di-n-octylphthalate	1670	0.0	1390	83	42-141	36	0-37
205-99-2	LCSD Benzo(b)fluoranthene	1670	0.0	1380	83	49-114	31	0-35
207-08-9	LCSD Benzo(k)fluoranthene	1670	0.0	1510	90	50-116	25	0-37
50-32-8	LCSD Benzo(a)pyrene	1670	0.0	1400	84	54-114	26	0-30
193-39-5	LCSD Indeno(1,2,3-cd)pyrene	1670	0.0	1300	78	53-120	19	0-33

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: LCSD for batch 968547
Lab Sample ID: 1202079226
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample Duplicate
Matrix: SOIL
Analysis Date: 03/24/2010 18:57
Dilution: 1
Prep Batch ID: 968547
Batch ID: 968549

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	LCSD Dibenzo(a,h)anthracene	1670	0.0	1320	79	53-121	20	0-33
191-24-2	LCSD Benzo(ghi)perylene	1670	0.0	1210	72	50-121	17	0-34
120-82-1	LCSD 1,2,4-Trichlorobenzene	1670	0.0	1220	73	32-114	41 *	0-30

Method Blank Summary

SDG Number:	10-2302	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965424	Instrument ID:	MSD6.I	Data File:	s6c2009-1.d
Lab Sample ID:	1202071493	Prep Date:	03/16/2010 12:02	Analyzed:	03/20/10 17:42
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 965424	1202071494	s6c2010-1.d	03/20/10	1806
02	RE46-10-13553	248842002	s6c2021.d	03/20/10	2222
03	RE46-10-13553MS	1202071495	s6c2022.d	03/20/10	2245
04	RE46-10-13553MSD	1202071496	s6c2023.d	03/20/10	2307
05	RE46-10-13549	248842003	s6c2024.d	03/20/10	2330
06	RE46-10-13550	248842005	s6c2026.d	03/21/10	0016
07	RE46-10-13548	248842006	s6c2027.d	03/21/10	0039
08	RE46-10-13551	248842004	s6c2318.d	03/23/10	2108
09	RE46-10-13546	248842007	s6c2319.d	03/23/10	2132
10	RE46-10-13552	248842008	s6c2320.d	03/23/10	2155
11	RE46-10-13547	248842009	s6c2321.d	03/23/10	2219
12	RE46-10-13556	248842010	s6c2322.d	03/23/10	2242

Method Blank Summary

SDG Number:	10-2302	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 968547	Instrument ID:	MSD6.I	Data File:	s6c2414.d
Lab Sample ID:	1202079224	Prep Date:	03/24/2010 10:49	Analyzed:	03/24/10 18:11
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 968547	1202079225	s6c2415.d	03/24/10	1834
02 LCSD for batch 968547	1202079226	s6c2416.d	03/24/10	1857
03 RE46-10-13548RE	248842006	s6c2420.d	03/24/10	2031

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2302

Instrument ID: MSD6.I **Injection Date/Time:** 16-MAR-10 08:42

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s031610.b/s6c1601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	53.3
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	50.4
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	52
197	0 - 1% of mass 198	0.8
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	22.3
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	76.8
442	Greater than 40% of mass 198	55.2
443	17 - 23% of mass 442	18.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100309-08	s6c1603.d	16-MAR-10 09:18
MEGA010	WBN100309-07	s6c1604.d	16-MAR-10 09:47
MEGA020	WBN100309-06	s6c1605.d	16-MAR-10 10:17
MEGA040	WBN100309-05.1	s6c1606.d	16-MAR-10 10:48
MEGA050	WBN100309-04	s6c1607.d	16-MAR-10 11:18
MEGA080	WBN100309-03	s6c1608.d	16-MAR-10 11:48
MEGA100	WBN100309-02	s6c1609.d	16-MAR-10 12:18
MEGA120	WBN100309-01	s6c1610.d	16-MAR-10 12:48
MEGAICV	WBN100309-09.1	s6c1612.d	16-MAR-10 13:40

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2302

Instrument ID MSD6.I **Injection Date/Time:** 16-MAR-10 16:06

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s031610.b/s6c1613.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	46.4
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43.8
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	48.2
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.4
365	Greater than 1% of mass 198	2.1
441	Present, but less than mass 443	74.3
442	Greater than 40% of mass 198	65.5
443	17 - 23% of mass 442	19.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN100312-01	s6c1615.d	16-MAR-10 16:42
AP020	WBN100312-02	s6c1616.d	16-MAR-10 17:06
AP040	WBN100312-03.1	s6c1617.d	16-MAR-10 17:30
AP050	WBN100312-04	s6c1618.d	16-MAR-10 17:53
AP080	WBN100312-05	s6c1619.d	16-MAR-10 18:16
AP100	WBN100312-06	s6c1620.d	16-MAR-10 18:40
AP120	WBN100312-07	s6c1621.d	16-MAR-10 19:04
APICV	WBN100312-08.1	s6c1635.d	17-MAR-10 00:41

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2302

Instrument ID MSD6.I **Injection Date/Time:** 20-MAR-10 14:38

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s032010.b/s6c2003.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	42.9
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	41.5
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	47.3
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	24.1
365	Greater than 1% of mass 198	2
441	Present, but less than mass 443	74.8
442	Greater than 40% of mass 198	70.8
443	17 - 23% of mass 442	19.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
APCVS	WBN100312-03.3	s6c2005.d	20-MAR-10 15:22
MEGACVS	WBN100309-05.3	s6c2006.d	20-MAR-10 15:45
SBLK01	1202071493	s6c2009-1.d	20-MAR-10 17:42
SBLK01LCS	1202071494	s6c2010-1.d	20-MAR-10 18:06
RE46-10-13553	248842002	s6c2021.d	20-MAR-10 22:22
RE46-10-13553MS	1202071495	s6c2022.d	20-MAR-10 22:45
RE46-10-13553MSD	1202071496	s6c2023.d	20-MAR-10 23:07
RE46-10-13549	248842003	s6c2024.d	20-MAR-10 23:30
RE46-10-13550	248842005	s6c2026.d	21-MAR-10 00:16
RE46-10-13548	248842006	s6c2027.d	21-MAR-10 00:39

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2302

Instrument ID: MSD6.I **Injection Date/Time:** 23-MAR-10 16:10

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s032310.b/s6c2306.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	39.2
68	Less than 2% of mass 69	1.9
69	Mass 69 Relative Abundance	39
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	45.5
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	25.2
365	Greater than 1% of mass 198	2.1
441	Present, but less than mass 443	72.9
442	Greater than 40% of mass 198	77
443	17 - 23% of mass 442	19.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
APCVS	WBN100312-03.3	s6c2308.d	23-MAR-10 17:02
MEGACVS	WBN100309-05.3	s6c2309.d	23-MAR-10 17:25
RE46-10-13551	248842004	s6c2318.d	23-MAR-10 21:08
RE46-10-13546	248842007	s6c2319.d	23-MAR-10 21:32
RE46-10-13552	248842008	s6c2320.d	23-MAR-10 21:55
RE46-10-13547	248842009	s6c2321.d	23-MAR-10 22:19
RE46-10-13556	248842010	s6c2322.d	23-MAR-10 22:42

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2302

Instrument ID: MSD6.1 **Injection Date/Time:** 24-MAR-10 14:19

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s032410.b/s6c2404.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	40
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	39.5
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	46.4
197	0 - 1% of mass 198	0.6
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	25
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	78.8
442	Greater than 40% of mass 198	81.6
443	17 - 23% of mass 442	18.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-05.5	s6c2405.d	24-MAR-10 14:31
APCVS	WBN100312-03.5	s6c2406.d	24-MAR-10 15:00
SBLK02	1202079224	s6c2414.d	24-MAR-10 18:11
SBLK02LCS	1202079225	s6c2415.d	24-MAR-10 18:34
SBLK02LCSD	1202079226	s6c2416.d	24-MAR-10 18:57
RE46-10-13548RE	248842006	s6c2420.d	24-MAR-10 20:31

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2302

Instrument: MSD6.I

STD Analysis Time: 20-MAR-10 15:45

GC Column: J&W DB-5MS

Data File: s6c2006.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	# RT	# Area	# RT	# Area	# RT	# Area	# RT	# Area	# RT	# Area	# RT	# Area	# RT	# Area	# RT	#
12 Hour STD	322202	3.86	1215321	4.73	685274	5.99	1152765	7.15	953837	9.55	730562	11.2						
Upper Limit	644404	4.36	2430642	5.23	1370548	6.49	2305530	7.65	1907674	10.1	1461124	11.7						
Lower Limit	161101	3.36	607661	4.23	342637	5.49	576383	6.65	476919	9.05	365281	10.7						
Sample ID																		
LK01	397721	3.88	1424092	4.74	893608	5.99	1517057	7.16	1386290	9.56	1218363	11.2						
LK01LCS	372664	3.87	1418901	4.74	821866	5.99	1405089	7.16	1211561	9.57	1059467	11.2						
E46-10-13553	413074	3.87	1492562	4.74	920190	5.99	1597918	7.16	1388542	9.56	1001590	11.2						
E46-10-13553MS	383971	3.87	1432691	4.74	855124	5.99	1482724	7.16	1208205	9.56	725547	11.2						
E46-10-13553MSD	362790	3.87	1398747	4.74	819843	5.99	1417372	7.16	1212784	9.56	925568	11.2						
E46-10-13549	355235	3.88	1300462	4.74	795082	5.99	1367008	7.16	1150098	9.56	817604	11.2						
E46-10-13550	333447	3.87	1203738	4.74	740431	5.99	1279067	7.16	1068114	9.56	741575	11.2						
E46-10-13548	330761	3.87	1203702	4.74	731655	5.99	1289493	7.16	995355	9.56	607815	11.2						

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2302

Instrument: MSD6.I

STD Analysis Time: 23-MAR-10 17:25

GC Column: J&W DB-5MS

Data File: s6c2309.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT	# Area	#	RT	# Area	#	RT	# Area	#	RT	# Area	#	RT	# Area	#	RT #
12 Hour STD	304917		3.95	1164981		4.8	659784		6.06	1172427		7.23	972017		9.63	816579		11.3
Upper Limit	609834		4.45	2329962		5.3	1319568		6.56	2344854		7.73	1944034		10.1	1633158		11.8
Lower Limit	152459		3.45	582491		4.3	329892		5.56	586214		6.73	486009		9.13	408290		10.8
Sample ID																		
RE46-10-13551	331958		3.95	1151471		4.82	724043		6.07	1211870		7.23	1075131		9.64	950239		11.3
RE46-10-13546	303582		3.95	1067177		4.82	686917		6.07	1175068		7.23	1017669		9.64	834536		11.3
RE46-10-13552	287689		3.95	1020000		4.82	623117		6.06	1045287		7.23	883970		9.64	781613		11.3
RE46-10-13547	356024		3.95	1214688		4.82	769254		6.07	1287418		7.23	1052681		9.64	879606		11.3
RE46-10-13556	255672		3.95	914629		4.82	567841		6.06	984808		7.23	862694		9.64	765482		11.3

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2302

Instrument: MSD6.I

STD Analysis Time: 24-MAR-10 14:31

GC Column: J&W DB-5MS

Data File: s6c2405.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	525197		3.88	1930360		4.75	1132303		6.01	1895969		7.17	1547185		9.58	1157851		11.2
Upper Limit	1050394		4.38	3860720		5.25	2264606		6.51	3791938		7.67	3094370		10.1	2315702		11.7
Lower Limit	262599		3.38	965180		4.25	566152		5.51	947985		6.67	773593		9.08	578926		10.7
Sample ID																		
BLK02	498645		3.89	1736651		4.76	1080135		6.01	1854435		7.18	1611148		9.59	1308457		11.3
BLK02LCS	472154		3.89	1748793		4.76	1056349		6.02	1833172		7.19	1649210		9.59	1426972		11.3
BLK02LCSD	472948		3.89	1768314		4.76	1043209		6.02	1839017		7.19	1554191		9.59	1238121		11.3
RE46-10-13548RE	426058		3.89	1469674		4.76	941107		6.02	1563803		7.19	1205519		9.59	900223		11.3

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842007**	**Date Received:**	**03/05/2010 10:20**	**% Moisture:**	**17.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13546**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 21:32**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2319.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	4030	ug/kg	806	4030
108-95-2	Phenol	U	4030	ug/kg	806	4030
95-57-8	2-Chlorophenol	U	4030	ug/kg	806	4030
106-46-7	1.4-Dichlorobenzene	U	4030	ug/kg	806	4030
621-64-7	N-Nitrosodipropylamine	U	4030	ug/kg	806	4030
59-50-7	4-Chloro-3-methylphenol	U	4030	ug/kg	806	4030
83-32-9	Acenaphthene	U	403	ug/kg	133	403
121-14-2	2.4-Dinitrotoluene	U	4030	ug/kg	403	4030
100-02-7	4-Nitrophenol	U	4030	ug/kg	1330	4030
87-86-5	Pentachlorophenol	U	4030	ug/kg	1010	4030
129-00-0	Pyrene	J	178	ug/kg	121	403
110-86-1	Pyridine	U	4030	ug/kg	806	4030
62-53-3	Aniline	U	4030	ug/kg	1210	4030
111-44-4	bis(2-Chloroethyl) ether	U	4030	ug/kg	806	4030
541-73-1	1,3-Dichlorobenzene	U	4030	ug/kg	806	4030
100-51-6	Benzyl alcohol	U	4030	ug/kg	1210	4030
95-50-1	1,2-Dichlorobenzene	U	4030	ug/kg	806	4030
108-60-1	bis(2-Chloroisopropyl)ether	U	4030	ug/kg	806	4030
95-48-7	o-Cresol	U	4030	ug/kg	806	4030
65794-96-9	m,p-Cresols	U	4030	ug/kg	1210	4030
67-72-1	Hexachloroethane	U	4030	ug/kg	806	4030
98-95-3	Nitrobenzene	U	4030	ug/kg	806	4030
78-59-1	Isophorone	U	4030	ug/kg	806	4030
88-75-5	2-Nitrophenol	U	4030	ug/kg	806	4030
105-67-9	2,4-Dimethylphenol	U	4030	ug/kg	1410	4030
111-91-1	bis(2-Chloroethoxy)methane	U	4030	ug/kg	806	4030
120-83-2	2,4-Dichlorophenol	U	4030	ug/kg	806	4030
65-85-0	Benzoic acid	U	8060	ug/kg	2020	8060
91-20-3	Naphthalene	U	403	ug/kg	121	403
106-47-8	4-Chloroaniline	U	4030	ug/kg	806	4030
87-68-3	Hexachlorobutadiene	U	4030	ug/kg	806	4030
91-57-6	2-Methylnaphthalene		753	ug/kg	80.6	403
77-47-4	Hexachlorocyclopentadiene	U	4030	ug/kg	806	4030
88-06-2	2,4,6-Trichlorophenol	U	4030	ug/kg	806	4030
95-95-4	2,4,5-Trichlorophenol	U	4030	ug/kg	806	4030
91-58-7	2-Chloronaphthalene	U	403	ug/kg	133	403
88-74-4	2-Nitroaniline	U	4030	ug/kg	806	4030
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	4030	ug/kg	806	4030

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13546**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.1**	**Dilution:**	**10**
Run Date:	**03/23/2010 21:32**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2319.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	4030	ug/kg	806	4030
606-20-2	2,6-Dinitrotoluene	U	4030	ug/kg	403	4030
208-96-8	Acenaphthylene	U	403	ug/kg	121	403
51-28-5	2,4-Dinitrophenol	U	8060	ug/kg	1530	8060
132-64-9	Dibenzofuran	U	4030	ug/kg	806	4030
84-66-2	Diethylphthalate	U	4030	ug/kg	806	4030
86-73-7	Fluorene	J	147	ug/kg	121	403
7005-72-3	4-Chlorophenylphenylether	U	4030	ug/kg	806	4030
534-52-1	2-Methyl-4,6-dinitrophenol	U	4030	ug/kg	806	4030
100-01-6	4-Nitroaniline	U	4030	ug/kg	1210	4030
	p-Nitroaniline					
122-39-4	Diphenylamine	U	4030	ug/kg	806	4030
122-66-7	Azobenzene	U	4030	ug/kg	806	4030
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	4030	ug/kg	806	4030
118-74-1	Hexachlorobenzene	U	4030	ug/kg	806	4030
85-01-8	Phenanthrene	J	225	ug/kg	121	403
120-12-7	Anthracene	U	403	ug/kg	80.6	403
84-74-2	Di-n-butylphthalate	U	4030	ug/kg	806	4030
206-44-0	Fluoranthene	J	242	ug/kg	121	403
85-68-7	Butylbenzylphthalate	U	4030	ug/kg	806	4030
56-55-3	Benzo(a)anthracene	U	403	ug/kg	121	403
91-94-1	3,3'-Dichlorobenzidine	U	4030	ug/kg	1210	4030
218-01-9	Chrysene	U	403	ug/kg	121	403
117-81-7	bis(2-Ethylhexyl)phthalate		34200	ug/kg	806	4030
117-84-0	Di-n-octylphthalate	U	4030	ug/kg	806	4030
205-99-2	Benzo(b)fluoranthene	U	403	ug/kg	121	403
207-08-9	Benzo(k)fluoranthene	U	403	ug/kg	121	403
50-32-8	Benzo(a)pyrene	U	403	ug/kg	121	403
193-39-5	Indeno(1,2,3-cd)pyrene	U	403	ug/kg	121	403
53-70-3	Dibenzo(a,h)anthracene	U	403	ug/kg	121	403
191-24-2	Benzo(ghi)perylene	U	403	ug/kg	121	403
120-82-1	1,2,4-Trichlorobenzene	U	4030	ug/kg	806	4030

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.36	15200	ug/kg		J
	Unknown	4.98	6520	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13546**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 21:32**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2319.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	5.06	8060	ug/kg		J
41446-67-7	3-Tetradecene, (Z)-	5.17	7570	ug/kg	86	NJ
	Unknown	5.22	3850	ug/kg		J
	Unknown	5.24	3810	ug/kg		J
4453-90-1	1,4-Methanonaphthalene, 1,4-dihydro-	5.38	4480	ug/kg	83	NJ
	Unknown	5.43	5280	ug/kg		J
3891-98-3	Dodecane, 2,6,10-trimethyl-	5.48	14600	ug/kg	91	NJ
92-52-4	Biphenyl	5.64	53500	ug/kg	96	NJ
	Unknown	9.08	5890	ug/kg		J
	Unknown	9.22	5570	ug/kg		J
	Unknown	9.3	7230	ug/kg		J
	Unknown	9.43	5240	ug/kg		J
	Unknown	9.83	9830	ug/kg		J
	Unknown	9.9	7030	ug/kg		J
	Unknown	10.06	6570	ug/kg		J
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	10.13	9270	ug/kg	98	NJ
112-04-9	Silane, trichlorooctadecyl-	10.16	5440	ug/kg	90	NJ
55255-85-1	Cyclopentane, 1,1'-[3-(2-cyclopentylethy	10.26	8320	ug/kg	92	NJ
	Unknown	10.49	6930	ug/kg		J
	Unknown	10.54	6290	ug/kg		J
	Unknown	10.7	43500	ug/kg		J
1000130-78-5	11,12-Dibromo-tetradecan-1-ol acetate	10.86	5950	ug/kg	90	NJ
	Unknown	10.95	7190	ug/kg		J
81469-02-5	13,17,21-Trimethyltritriacontane	11.12	7140	ug/kg	90	NJ
	Unknown	11.46	6370	ug/kg		J
1000130-81-0	11,13-Dimethyl-12-tetradecen-1-ol acetat	11.76	5390	ug/kg	86	NJ
3390-61-2	Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p	13.29	40900	ug/kg	92	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032310.b/s6c2319.d
Lab Smp Id: 248842007 Client Smp ID: RE46-10-13546
Inj Date : 23-MAR-2010 21:32
Operator : nagl Inst ID: MSD6.i
Smp Info : |248842007|965425|10|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 09:23 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 14
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	17.53750	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.951	3.946	(1.000)	303582	40.0000	
* 29 Naphthalene-d8	136	4.816	4.804	(1.000)	1067177	40.0000	
* 46 Acenaphthene-d10	164	6.069	6.057	(1.000)	686917	40.0000	
* 67 Phenanthrene-d10	188	7.233	7.228	(1.000)	1175068	40.0000	
* 91 Chrysene-d12	240	9.639	9.628	(1.000)	1017669	40.0000	
* 98 Perylene-d12	264	11.327	11.298	(1.000)	834536	40.0000	
$ 3 2-Fluorophenol	112	3.140	3.128	(0.795)	46634	5.52583	2230
$ 5 Phenol-d5	99	3.657	3.657	(0.926)	61980	5.77497	2330
$ 20 Nitrobenzene-d5	82	4.310	4.304	(0.895)	25347	2.48463	1000
$ 39 2-Fluorobiphenyl	172	5.557	5.546	(0.916)	66218	3.73635	1500
$ 60 2,4,6-Tribromophenol	329	6.663	6.651	(1.098)	12904	6.69439	2700
$ 81 p-Terphenyl-d14	244	8.610	8.604	(0.893)	73997	4.17266	1680

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	8.510	8.498	(0.883)	13730	0.44257	178(a)
34 2-Methylnapnthalene	142	5.310	5.304	(1.103)	30198	1.86890	753
53 Fluorene	166	6.475	6.469	(1.067)	6992	0.36424	147(aH)
68 Phenanthrene	178	7.257	7.245	(1.003)	16015	0.55934	225(a)
76 Fluoranthene	202	8.292	8.287	(1.146)	17407	0.59949	242(a)
93 bis(2-Ethylhexyl)phthalate	149	9.569	9.551	(0.993)	1700807	84.7719	34200

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

ION RATIO REPORT

SV REPORT

Data file: s6c2319.d
Report Date: 03/24/2010 09:28
Lab. ID: 248842007 SampleType: SAMPLE
Injection Date: 23-MAR-2010 21:32
Operator: nagl Instrument: MSD6.i
Sample Info: |248842007|965425|10|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100319-01
Comment:
Method used: /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m
Dilution Factor= 10.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	29980	4.29	4.18	80-120	100	(T)
42	13384	4.27	4.18	40-100	45	(T)
22 Isophorone				CAS#: 78-59-1		
82	45254	4.52	4.47	80-120	100	( )
138	3279	4.56	4.47	0- 48	7	(T)
23 2-Nitrophenol				CAS#: 88-75-5		
139	9021	4.22	4.53	80-120	100	(T)
65	2793	4.22	4.53	42-102	31	(QT)
109	16026	4.22	4.53	0- 60	178	(QT)
26 2,4-Dichlorophenol				CAS#: 120-83-2		
162	20017	4.74	4.69	80-120	100	( )
164	1024	4.76	4.69	34- 94	5	(QT)
98	11848	4.75	4.69	3- 63	59	( )
27 Benzoic acid				CAS#: 65-85-0		
105	33838	4.66	4.57	80-120	100	(T)
122	1447	4.66	4.57	57-117	4	(QT)
77	5563	4.66	4.57	48-108	16	(QT)
30 Naphthalene				CAS#: 91-20-3		
128	11157	4.83	4.82	80-120	100	( )
129	6008	4.83	4.82	0- 52	54	(Q)
127	6924	4.83	4.82	23- 83	62	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
34 2-Methylnaphthalene				CAS#: 91-57-6		
142	30198	5.31	5.30	80-120	100	( )
141	25660	5.31	5.30	55-115	85	( )
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	640501	6.07	5.66	80-120	100	(T)
164	686917	6.07	5.66	3- 63	107	(QT)
127	11513	5.96	5.66	7- 67	2	(QT)
42 o-Nitroaniline				CAS#: 88-74-4		
65	287043	5.71	5.71	80-120	100	( )
92	22814	5.72	5.71	38- 98	8	(Q)
138	5336	5.72	5.71	81-141	2	(Q)
43 Dimethylphthalate				CAS#: 131-11-3		
163	123181	6.07	5.82	80-120	100	(T)
164	686917	6.07	5.82	0- 41	558	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	10088	5.83	5.87	80-120	100	( )
63	14536	5.81	5.87	43-103	144	(QT)
45 Acenaphthylene				CAS#: 208-96-8		
152	12596	5.82	5.96	80-120	100	(T)
151	8159	5.81	5.96	0- 50	65	(QT)
153	13100	5.81	5.96	0- 44	104	(QT)
47 Acenaphthene				CAS#: 83-32-9		
154	9937	5.96	6.08	80-120	100	(T)
153	6903	5.90	6.08	70-130	69	(QT)
152	5370	5.90	6.08	17- 77	54	(T)
48 2,4-Dinitrophenol				CAS#: 51-28-5		
184	647	6.19	6.07	80-120	100	(T)
154	5064	6.13	6.07	843-903	782	(Q)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	96077	6.07	6.17	80-120	100	(T)
89	2028	6.07	6.17	38- 98	2	(QT)
63	3566	6.07	6.17	18- 78	4	(QT)
52 4-Nitrophenol				CAS#: 100-02-7		
139	13711	5.81	6.09	80-120	100	(T)
109	9715	5.79	6.09	36- 96	71	(T)
65	13384	5.82	6.09	69-129	98	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	6992	6.47	6.47	80-120	100	( )
165	8020	6.47	6.47	60-120	115	( )
167	3036	6.47	6.47	0- 44	43	( )
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	449	6.56	6.48	80-120	100	(T)
105	1166	6.57	6.48	10- 70	260	(QT)
51	1383	6.47	6.48	27- 87	308	(Q)
68 Phenanthrene			CAS#: 85-01-8			
178	16015	7.26	7.25	80-120	100	( )
179	2167	7.25	7.25	0- 46	14	( )
176	3323	7.26	7.25	0- 49	21	( )
69 Anthracene			CAS#: 120-12-7			
178	16052	7.26	7.29	80-120	100	( )
179	2167	7.25	7.29	0- 46	14	( )
176	3323	7.26	7.29	0- 49	21	( )
76 Fluoranthene			CAS#: 206-44-0			
202	17407	8.29	8.29	80-120	100	( )
203	2731	8.29	8.29	0- 48	16	( )
101	1883	8.29	8.29	0- 42	11	( )
79 Pyrene			CAS#: 129-00-0			
202	13730	8.51	8.50	80-120	100	( )
200	3095	8.51	8.50	0- 51	23	( )
101	2703	8.51	8.50	0- 44	20	( )
92 Chrysene			CAS#: 218-01-9			
228	7737	9.66	9.66	80-120	100	( )
229	3022	9.66	9.66	0- 50	39	( )
226	2375	9.66	9.66	0- 60	31	( )
93 bis(2-Ethylhexyl)phthalate				CAS#: 117-81-7		
149	1700807	9.57	9.55	80-120	100	( )
167	556437	9.57	9.55	4- 64	33	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	7316	10.80	10.79	80-120	100	( )
253	5027	10.82	10.79	0- 52	69	(Q)
125	5695	10.80	10.79	0- 40	78	(Q)
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	7316	10.80	10.82	80-120	100	( )
253	5027	10.82	10.82	0- 52	69	(Q)
125	7427	10.80	10.82	0- 42	102	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032310.b/s6c2319.d
Lab Smp Id: 248842007 Client Smp ID: RE46-10-13546
Inj Date : 23-MAR-2010 21:32
Operator : nagl Inst ID: MSD6.i
Smp Info : |248842007|965425|10|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 09:23 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 14
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	17.53750	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.951	2189516	40.000
* 29 Naphthalene-d8	4.816	8556175	40.000
* 46 Acenaphthene-d10	6.069	3226453	40.000
* 91 Chrysene-d12	9.639	5535104	40.000
* 98 Perylene-d12	11.327	5370953	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
4.357	2067376	37.7686266	15200	0		0	10
Unknown				CAS #:			
4.981	3460727	16.1788498	6520	0		0	29
Unknown				CAS #:			
5.057	4278264	20.0008241	8060	0		0	29
3-Tetradecene, (Z)-				CAS #:	41446-67-7		
5.175	4019169	18.7895573	7570	86	NIST05.L	54518	29
Unknown				CAS #:			
5.216	2042203	9.54727101	3850	0		0	29
Unknown				CAS #:			
5.239	2020677	9.44663512	3810	0		0	29
1,4-Methanonaphthalene, 1,4-dihydro-				CAS #:	4453-90-1		
5.381	2376031	11.1079131	4480	83	NIST05.L	18571	29
Unknown				CAS #:			
5.428	2800160	13.0907078	5280	0		0	29
Dodecane, 2,6,10-trimethyl-				CAS #:	3891-98-3		
5.481	2915161	36.1407461	14600	91	NIST05.L	66082	46
Biphenyl				CAS #:	92-52-4		
5.639	10710711	132.786177	53500	96	NIST05.L	25992	46
Unknown				CAS #:			
9.080	2022888	14.6186063	5890	0		0	91
Unknown				CAS #:			
9.216	1910865	13.8090616	5560	0		0	91
Unknown				CAS #:			
9.298	2483111	17.9444530	7230	0		0	91
Unknown				CAS #:			
9.433	1799796	13.0064115	5240	0		0	91
Unknown				CAS #:			
9.833	3375675	24.3946626	9830	0		0	91

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
9.898	2414833	17.4510357	7030	0		0	91
Unknown					CAS #:		
10.057	2257070	16.3109494	6570	0		0	91
1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa					CAS #: 807-28-3		
10.127	3183375	23.0049863	9270	98	NIST05.L	173479	91
Silane, trichlorooctadecyl-					CAS #: 112-04-9		
10.163	1867306	13.4942759	5440	90	NIST05.L	166992	91
Cyclopentane, 1,1'-[3-(2-cyclopentylethy					CAS #: 55255-85-1		
10.263	2857871	20.6526951	8320	92	NIST05.L	127513	91
Unknown					CAS #:		
10.492	2310091	17.2043268	6930	0		0	98
Unknown					CAS #:		
10.545	2097159	15.6185183	6290	0		0	98
Unknown					CAS #:		
10.698	14508552	108.051954	43500	0		0	98
11,12-Dibromo-tetradecan-1-ol acetate					CAS #: 1000130-78-5		
10.857	1983005	14.7683624	5950	90	NIST05.L	173750	98
Unknown					CAS #:		
10.951	2395817	17.8427693	7190	0		0	98
13,17,21-Trimethyltritriacontane					CAS #: 81469-02-5		
11.116	2379503	17.7212697	7140	90	NIST05.L	182867	98
Unknown					CAS #:		
11.463	2122302	15.8057736	6370	0		0	98
11,13-Dimethyl-12-tetradecen-1-ol acetat					CAS #: 1000130-81-0		
11.763	1794792	13.3666510	5390	86	NIST05.L	113394	98
Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p					CAS #: 3390-61-2		
13.292	13622039	101.449679	40900	92	NIST05.L	186811	98

Data File: /chem/MSD6.i/s032310.b/s6c2319.d
Date : 23-MAR-2010 21:32
Client ID: RE46-10-13546
Sample Info: |248842007|965425|10|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

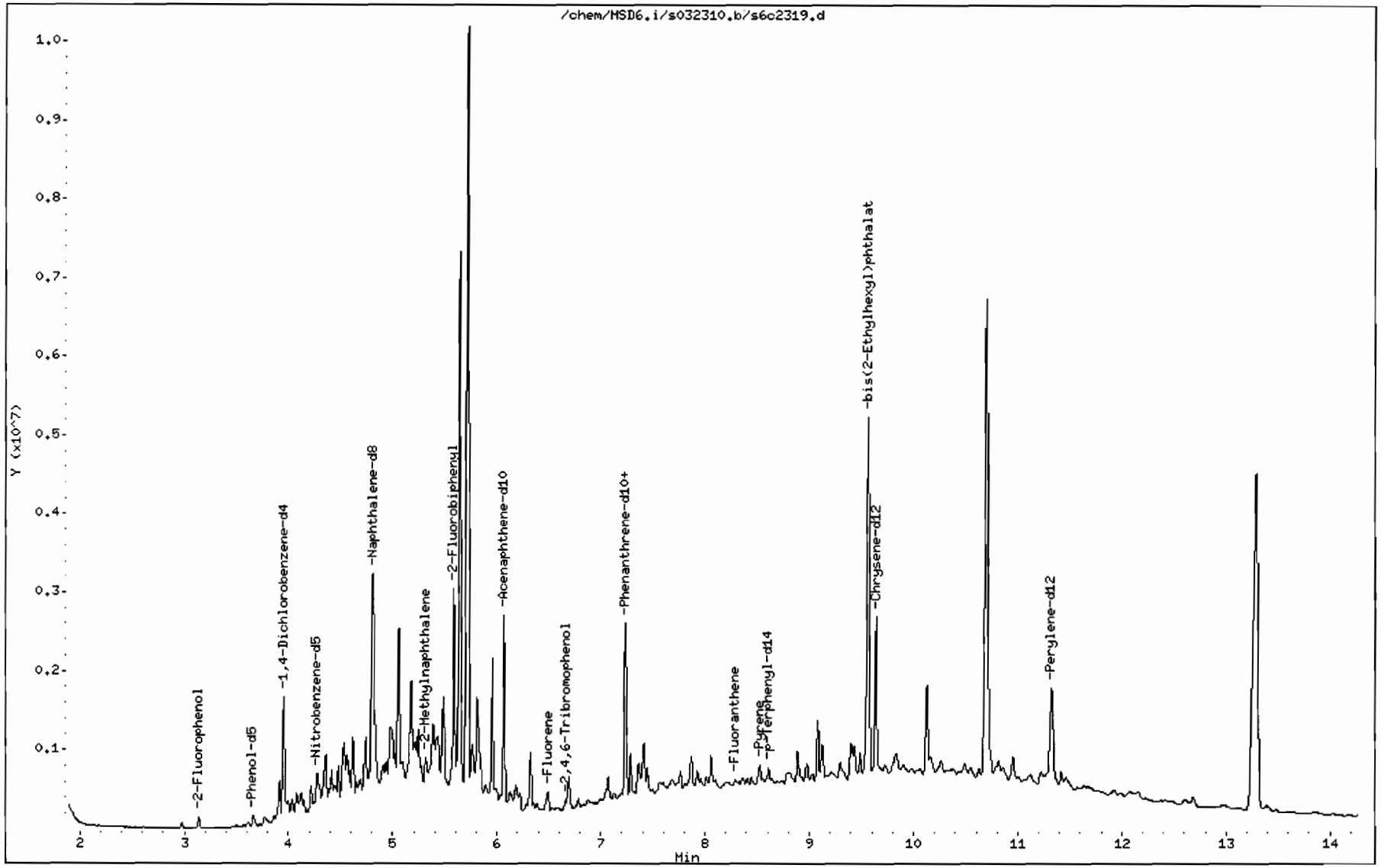

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546

Instrument: MSD6.i

Sample Info: 1248842007|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 178 ug/Kg

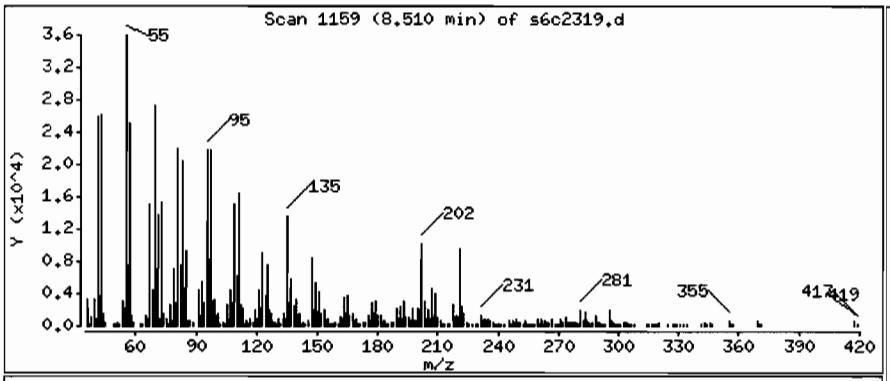

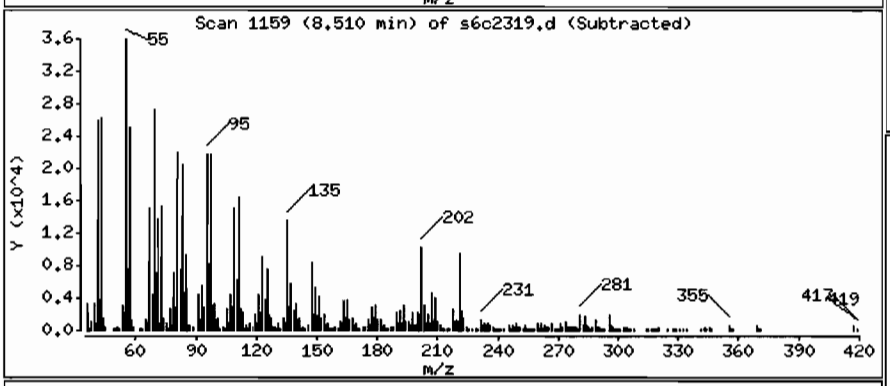

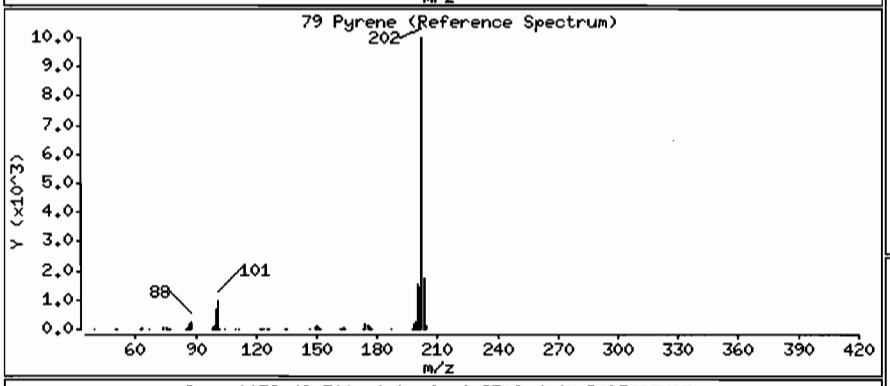

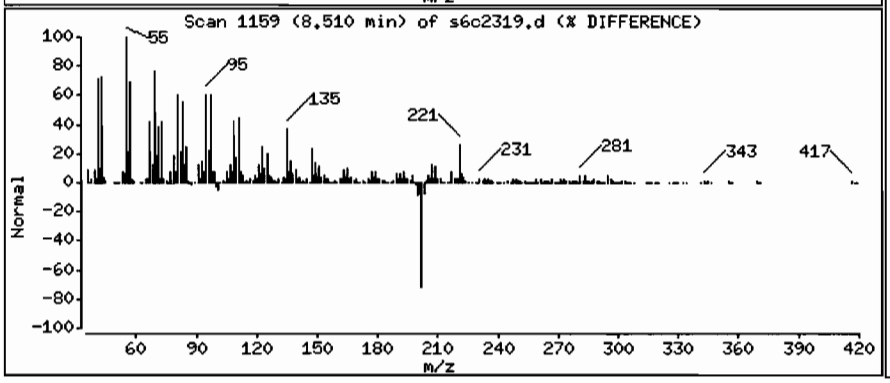

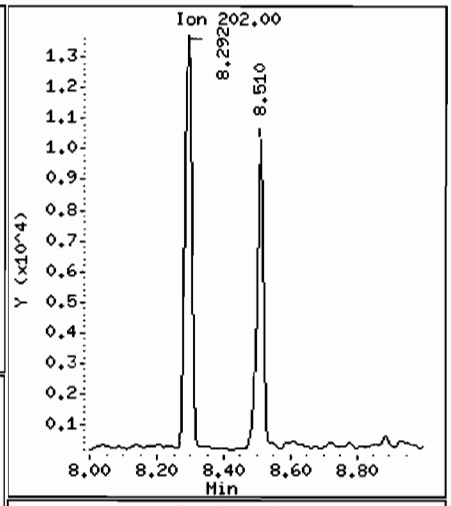

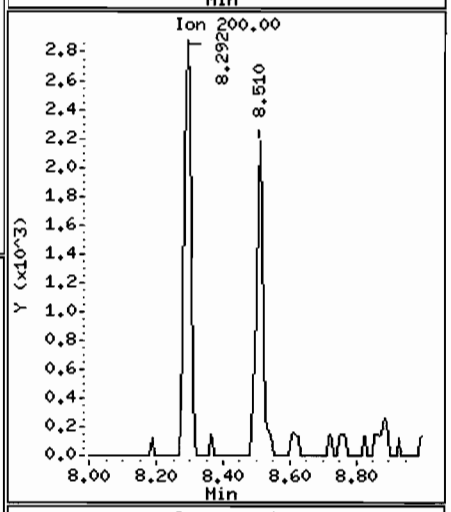

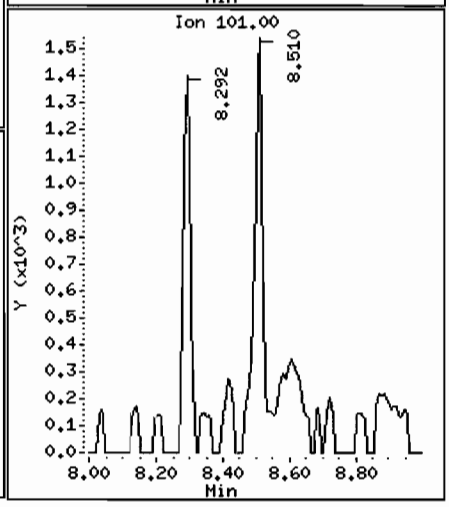

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546

Instrument: MSD6.i

Sample Info: 1248842007|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 753 ug/Kg

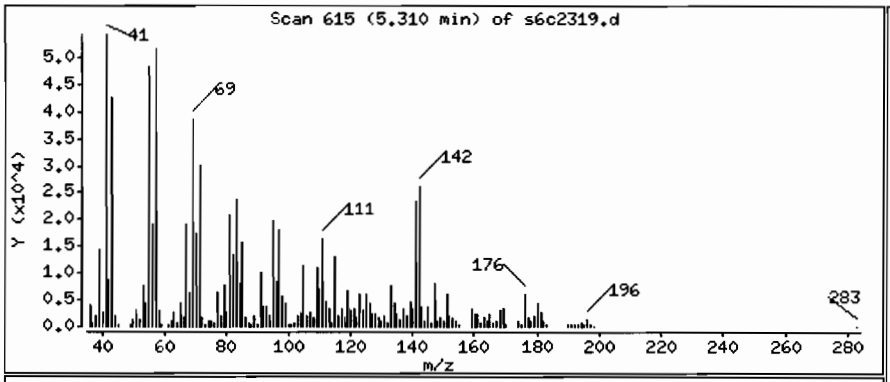

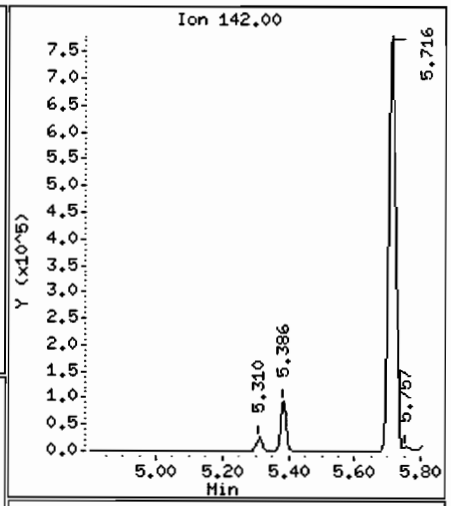

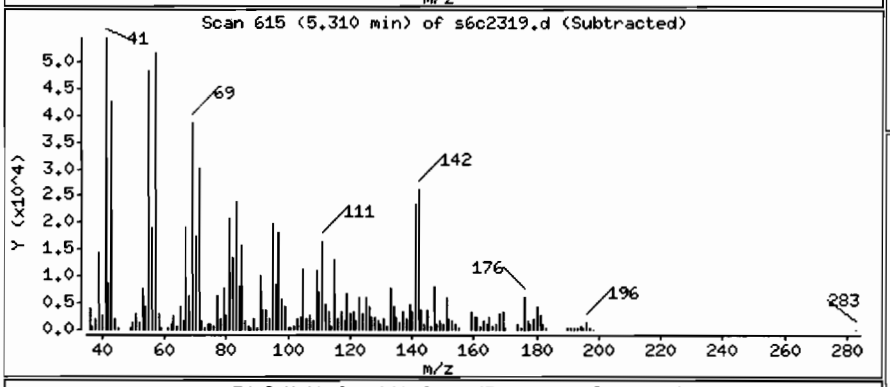

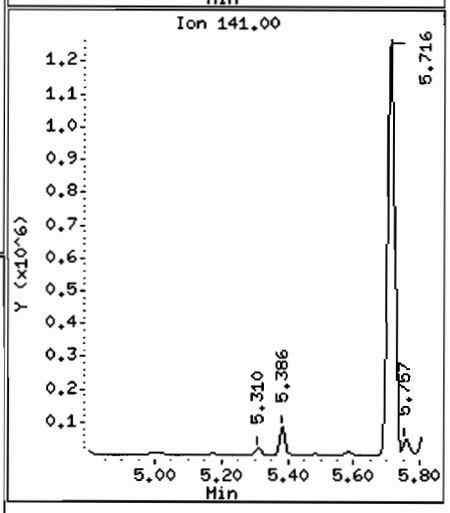

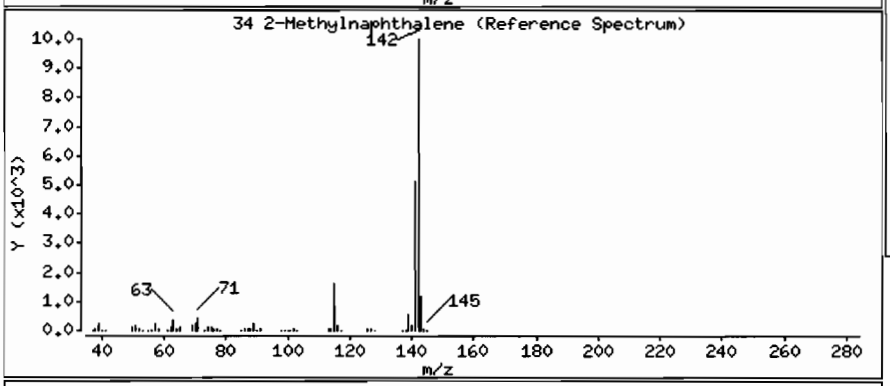

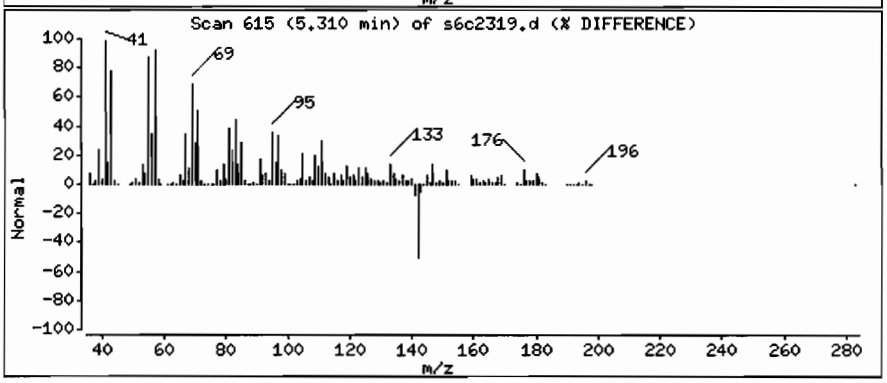

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546

Instrument: MSD6.i

Sample Info: |2488420071965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 147 ug/Kg

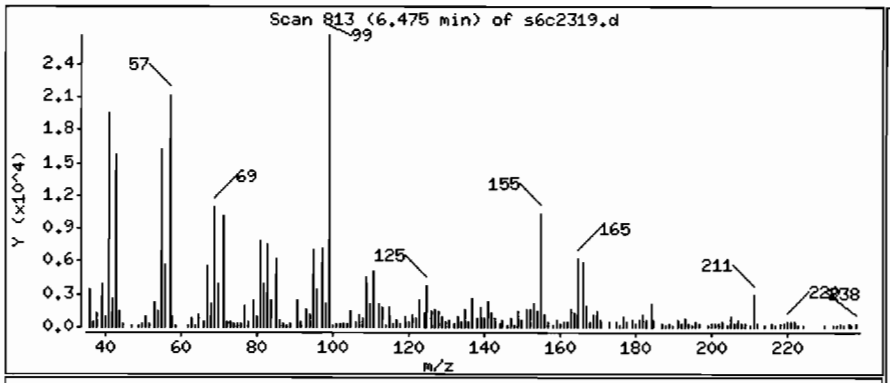

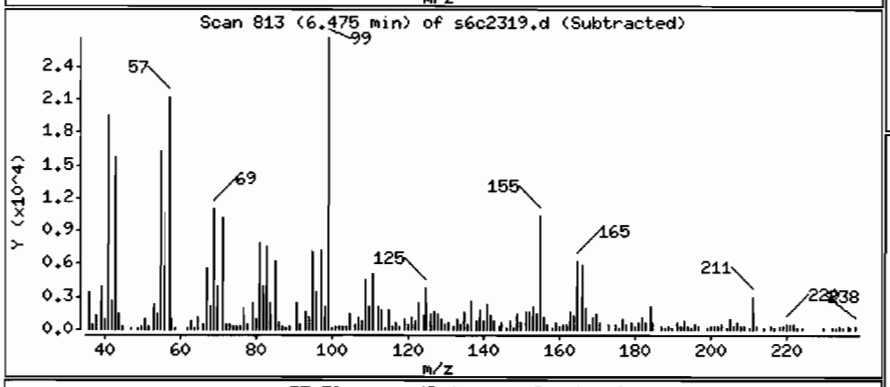

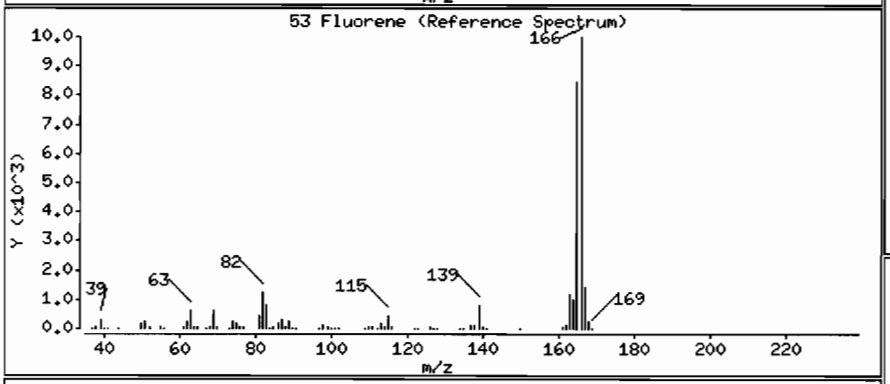

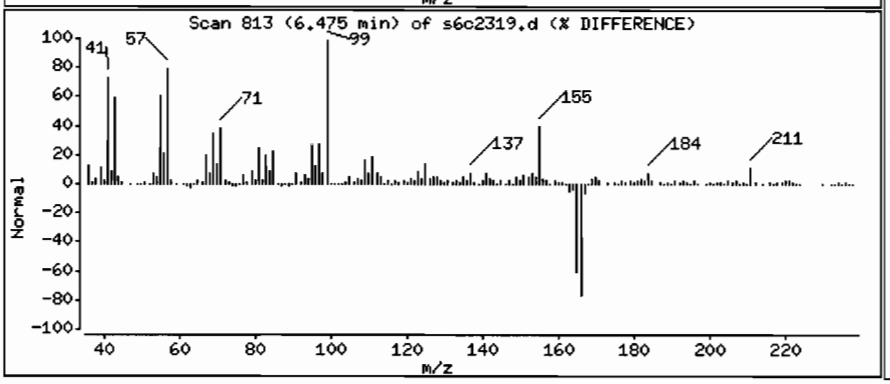

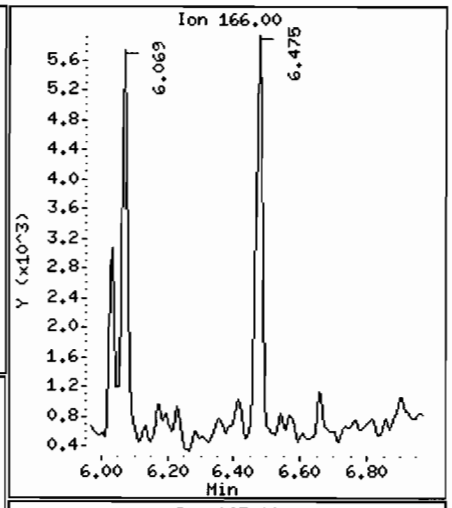

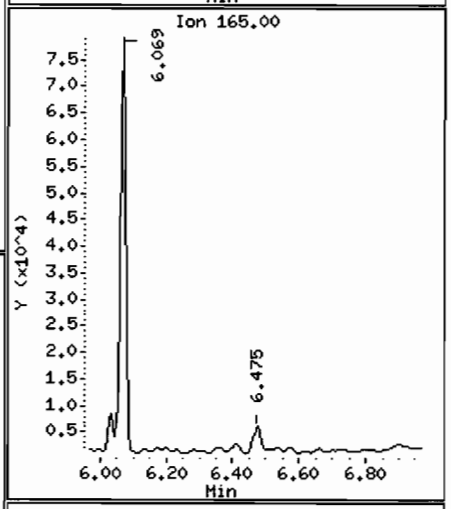

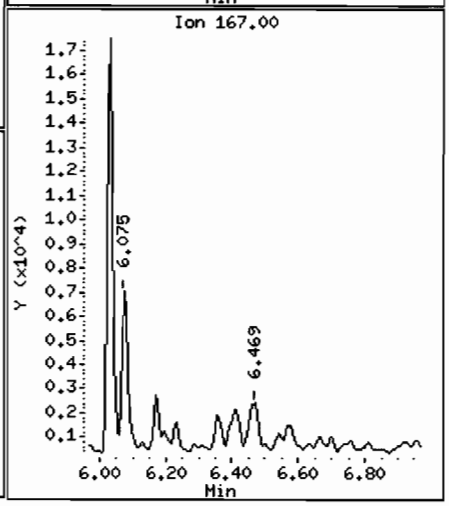

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546

Instrument: MSD6.i

Sample Info: 1248842007|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 225 ug/Kg

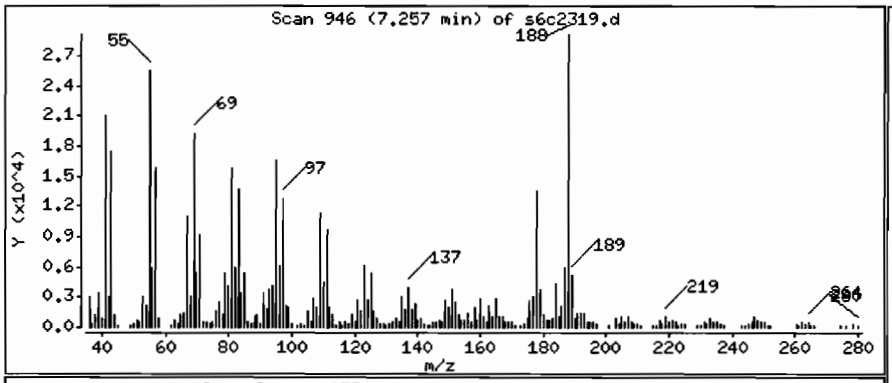

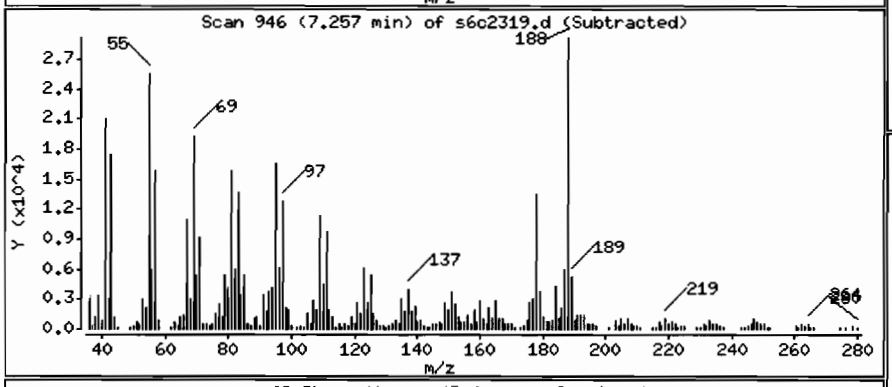

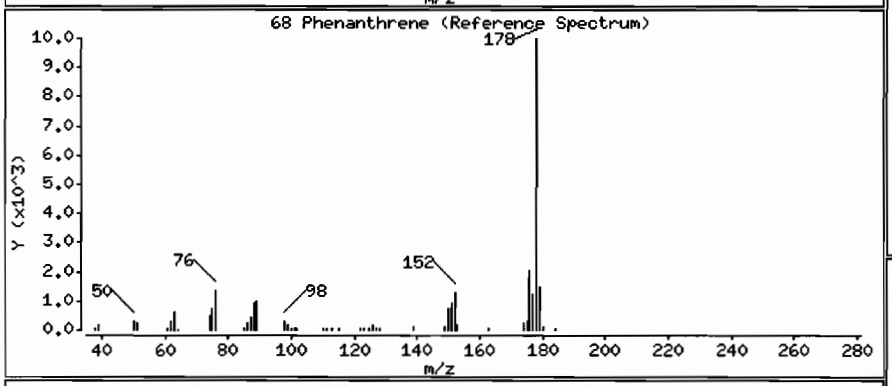

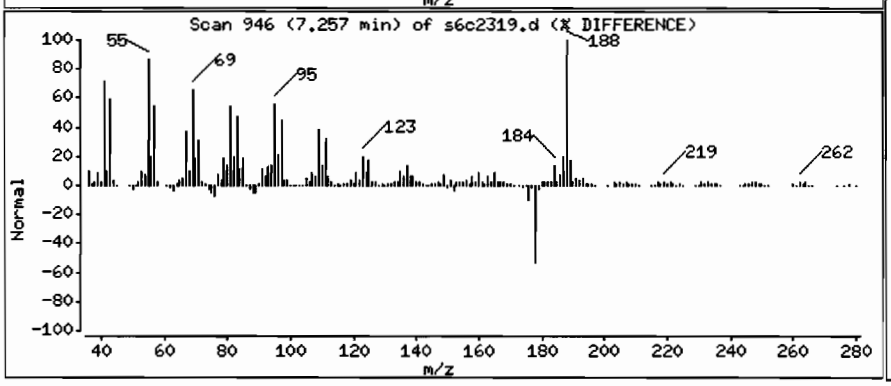

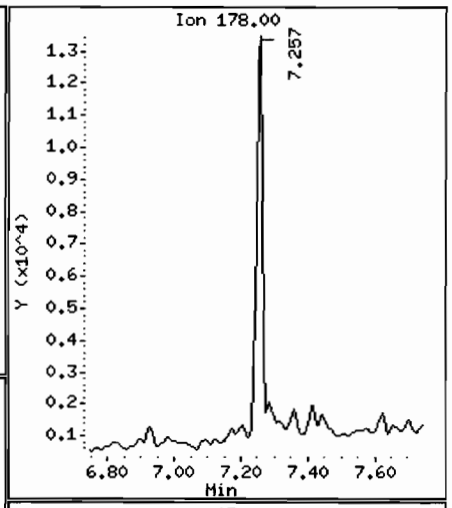

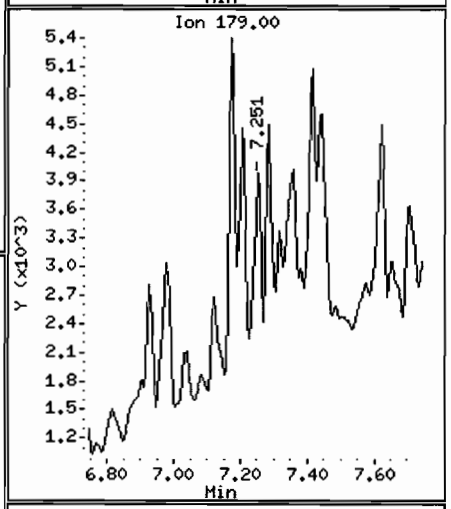

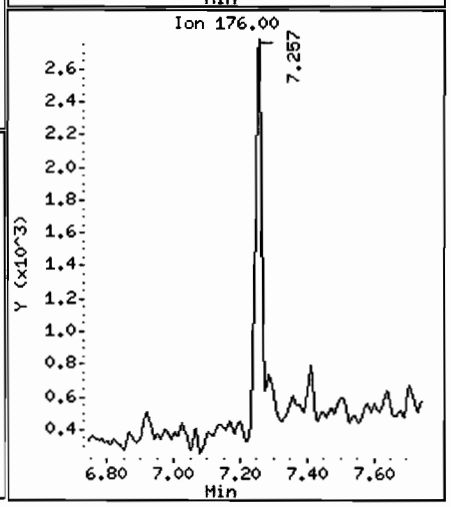

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546

Instrument: MSD6.i

Sample Info: 1248842007|965425|10|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 242 ug/Kg

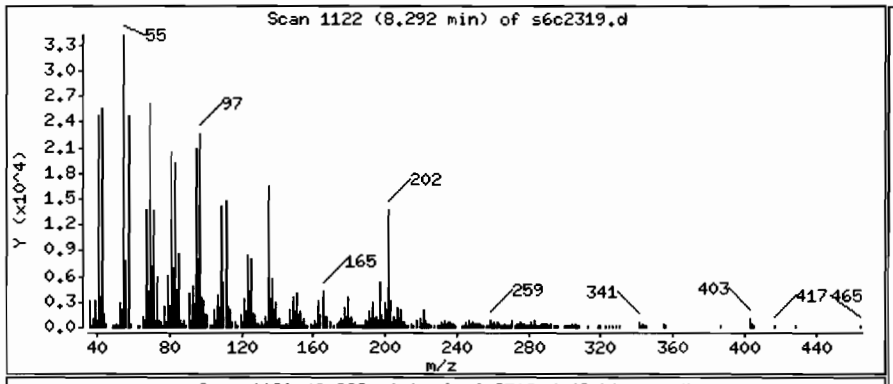

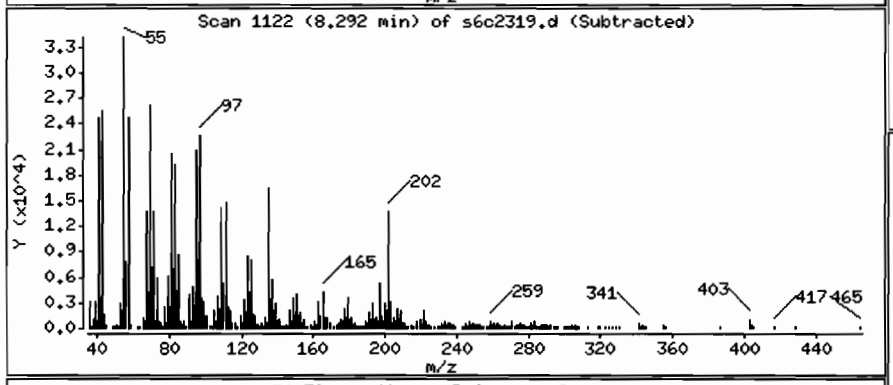

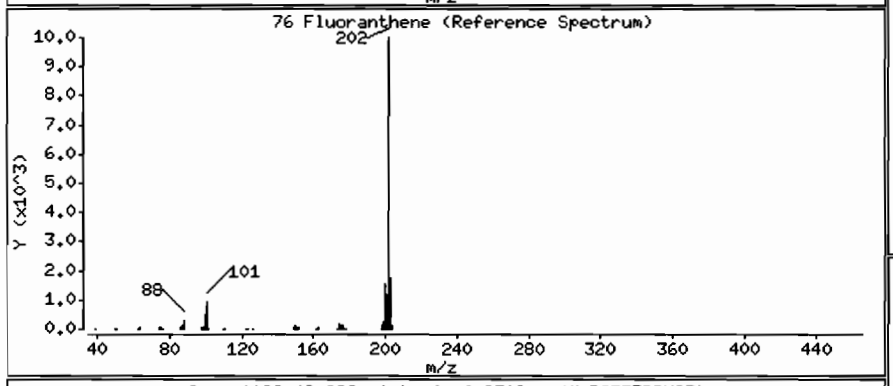

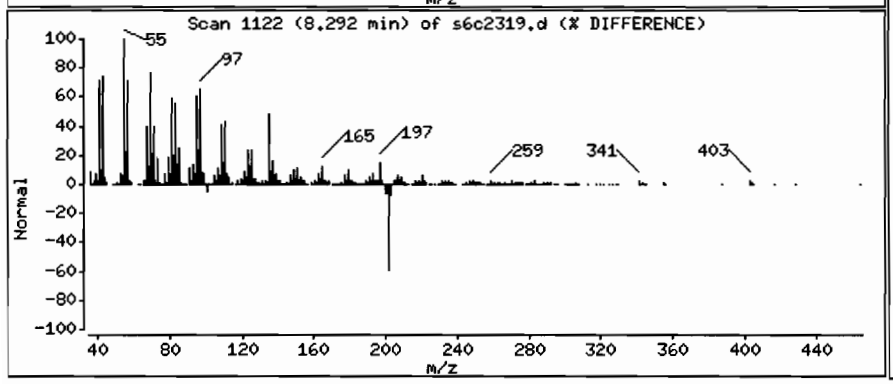

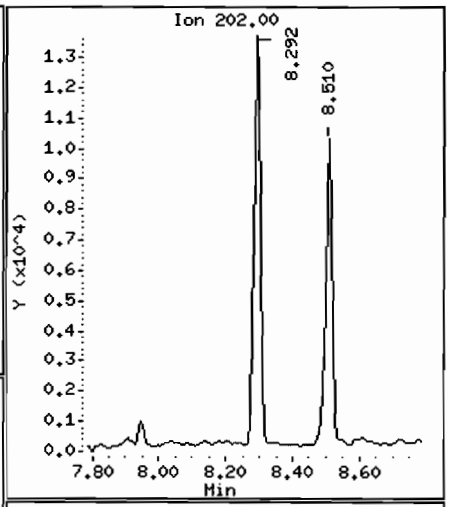

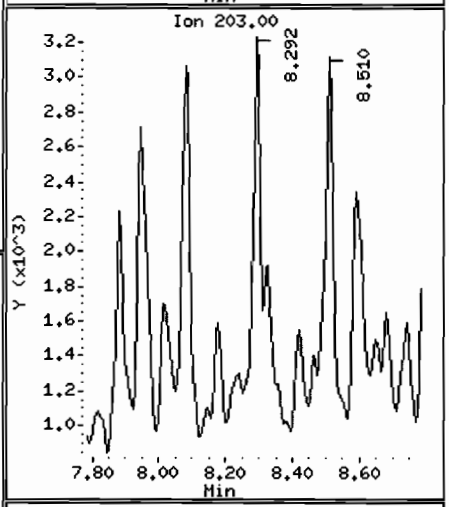

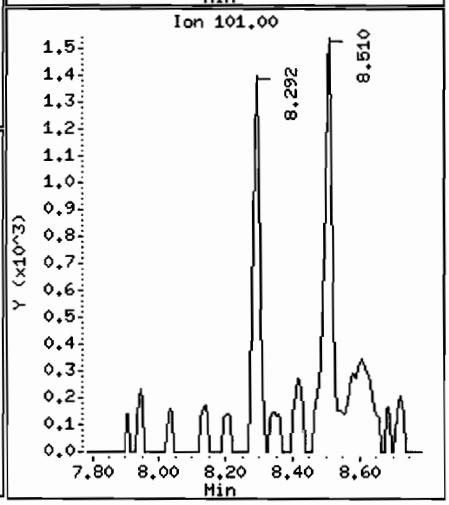

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546

Instrument: MSD6.i

Sample Info: 1248842007|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 34200 ug/Kg

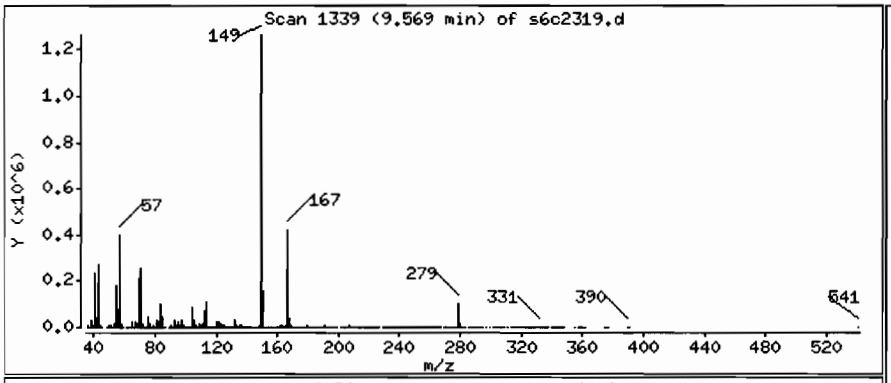

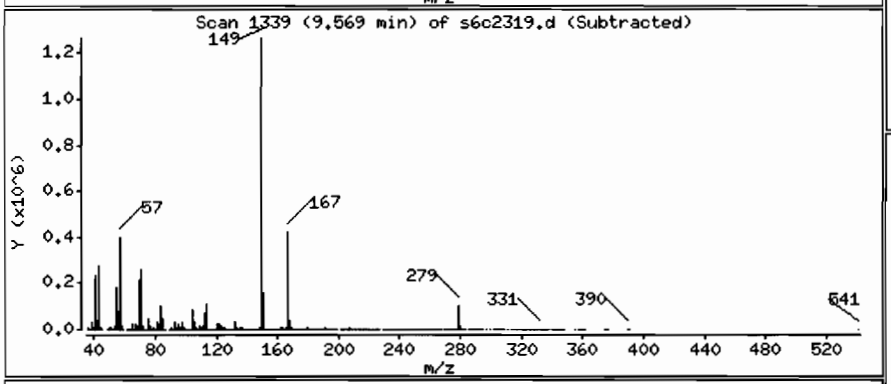

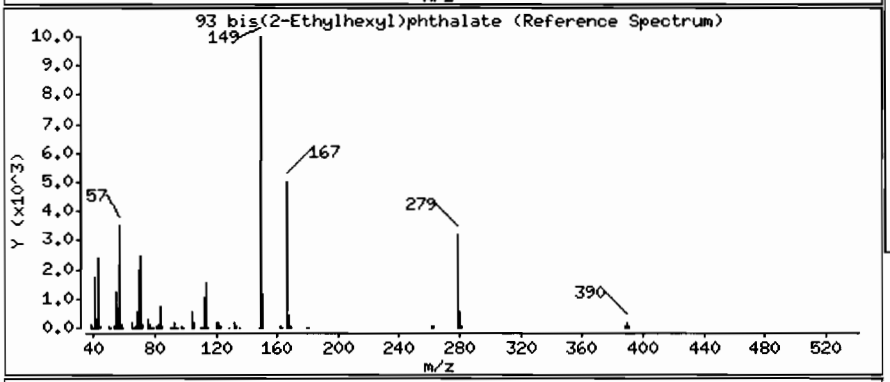

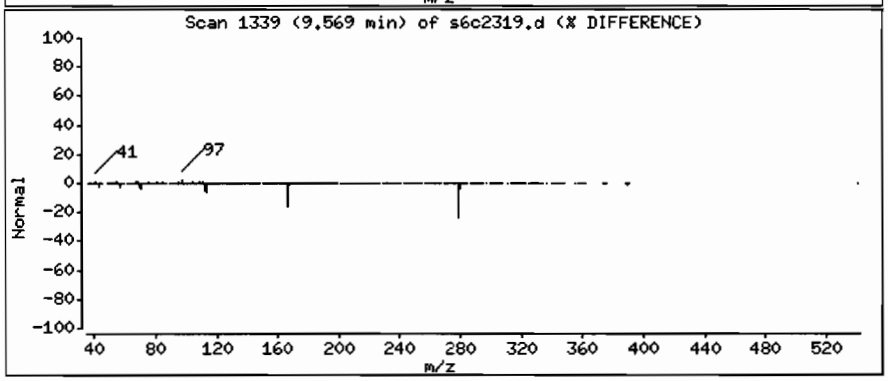

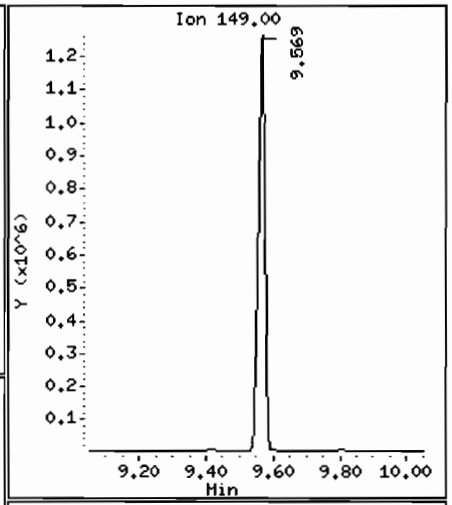

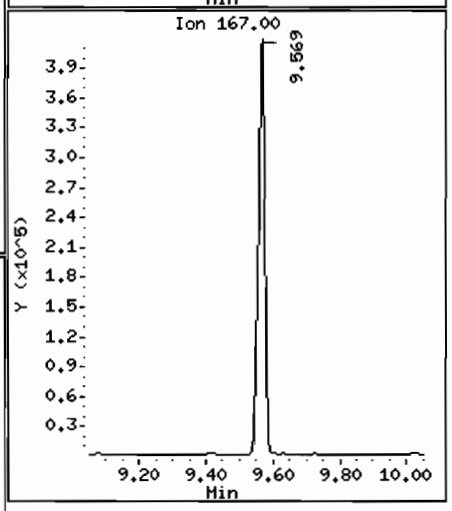

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546

Instrument: MSD6.i

Sample Info: |2488842007|965425|10|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Oxalic acid, isobutyl octadecyl ester	1000309-38-3	NIST05.L	170757	58	C24H4604	398
Oxalic acid, isobutyl heptadecyl ester	1000309-38-2	NIST05.L	166464	58	C23H4404	384
Oxalic acid, allyl tetradecyl ester	1000309-24-2	NIST05.L	140130	52	C19H3404	326

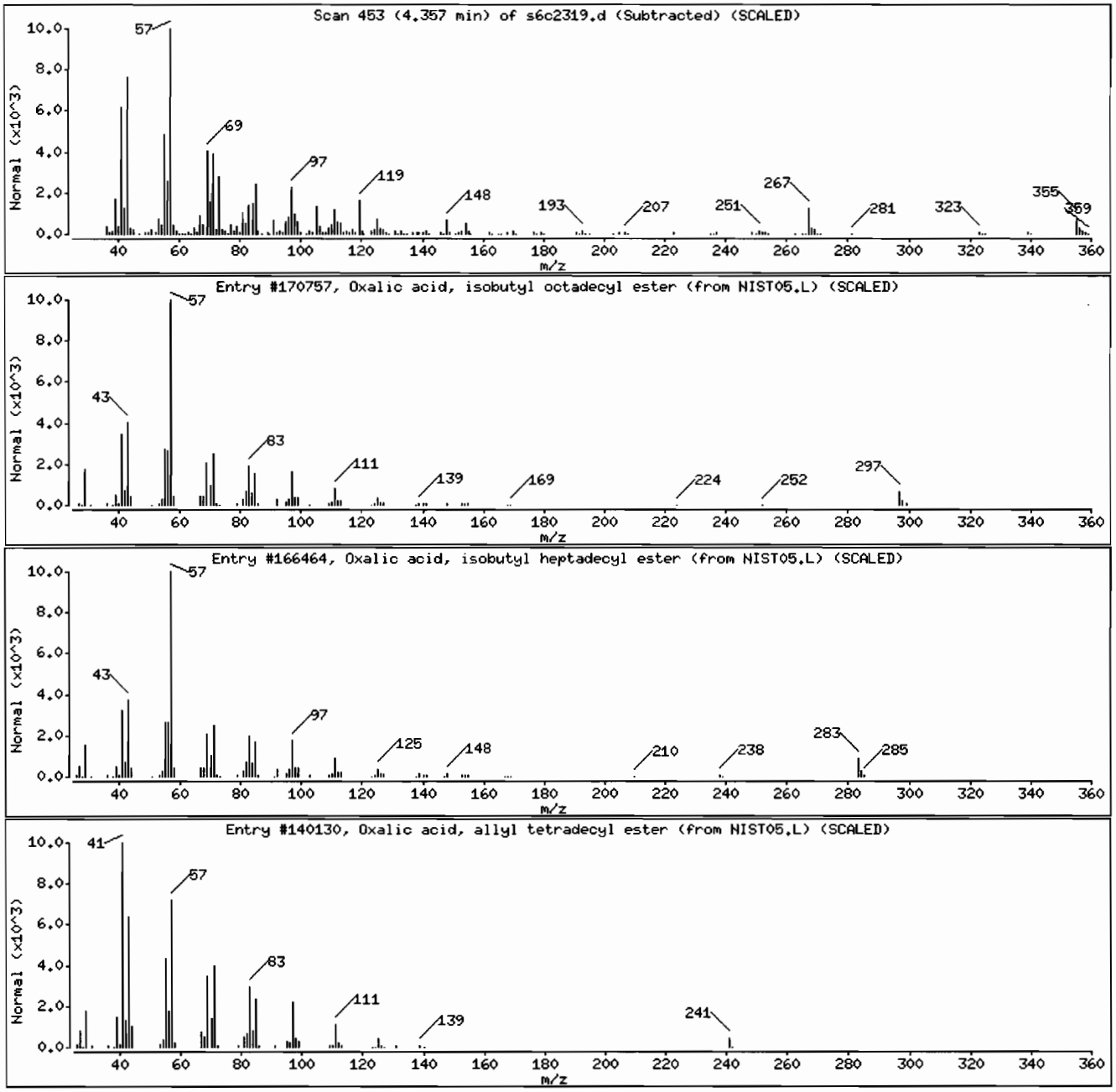

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546

Instrument: MSD6.i

Sample Info: |2488420071965425|10|SVHI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ethanone, 1-cyclohexyl-	823-76-7	NIST05.L	11006	43	C8H14O	126
Cyclopentane, (2-methylpropyl)-	3788-32-7	NIST05.L	11249	38	C9H18	126
Cyclohexane, (1,3-dimethylbutyl)-	61142-19-6	NIST05.L	35070	30	C12H24	168

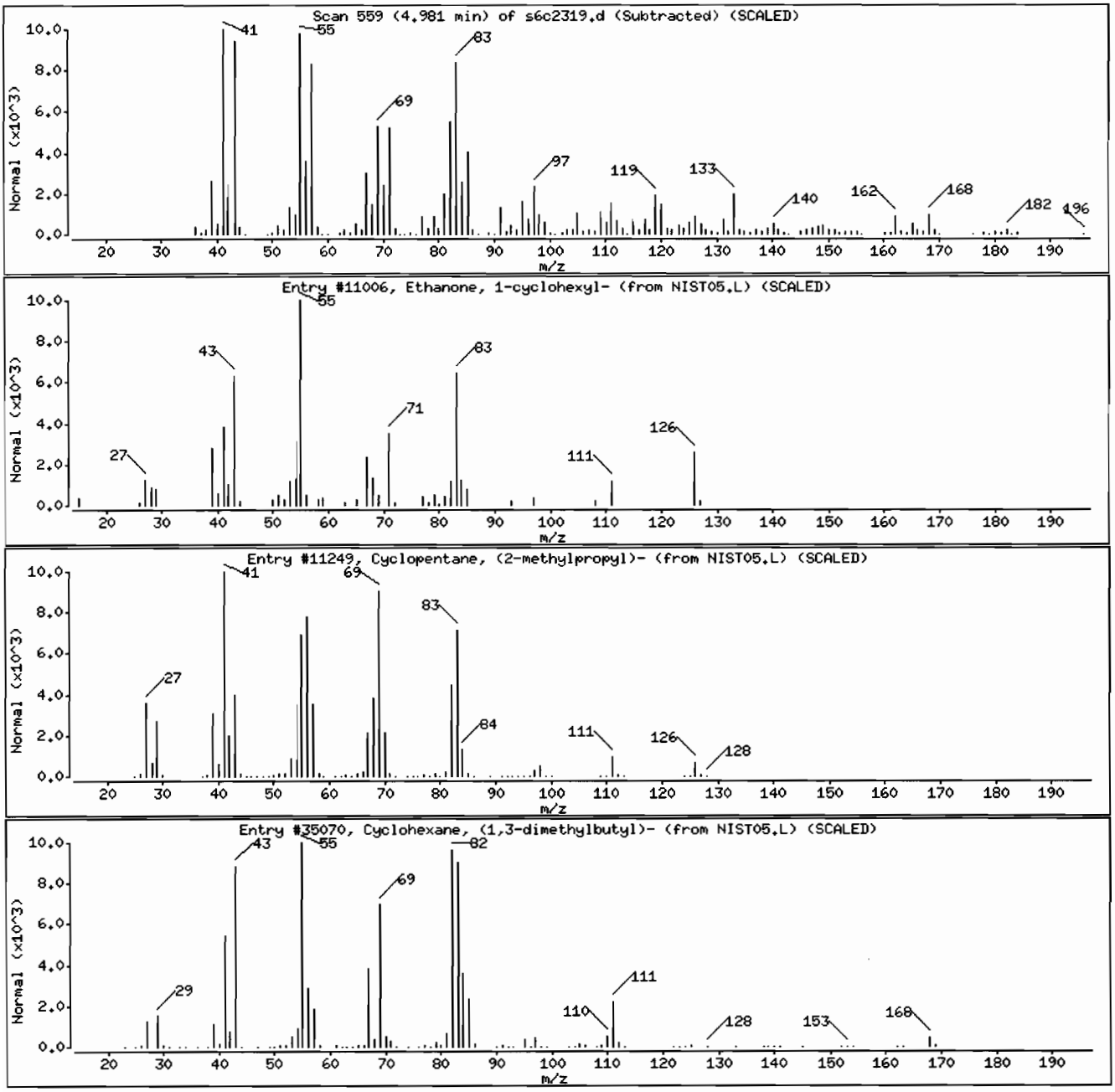

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: |2488420071965425110|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Sulfurous acid, 2-ethylhexyl heptadecyl	1000309-20-0	NIST05.L	177565	74	C25H5203S	432
Octane, 2,6-dimethyl-	2051-30-1	NIST05.L	18510	72	C10H22	142
Sulfurous acid, 2-ethylhexyl hexadecyl e	1000309-19-9	NIST05.L	175131	72	C24H5003S	418

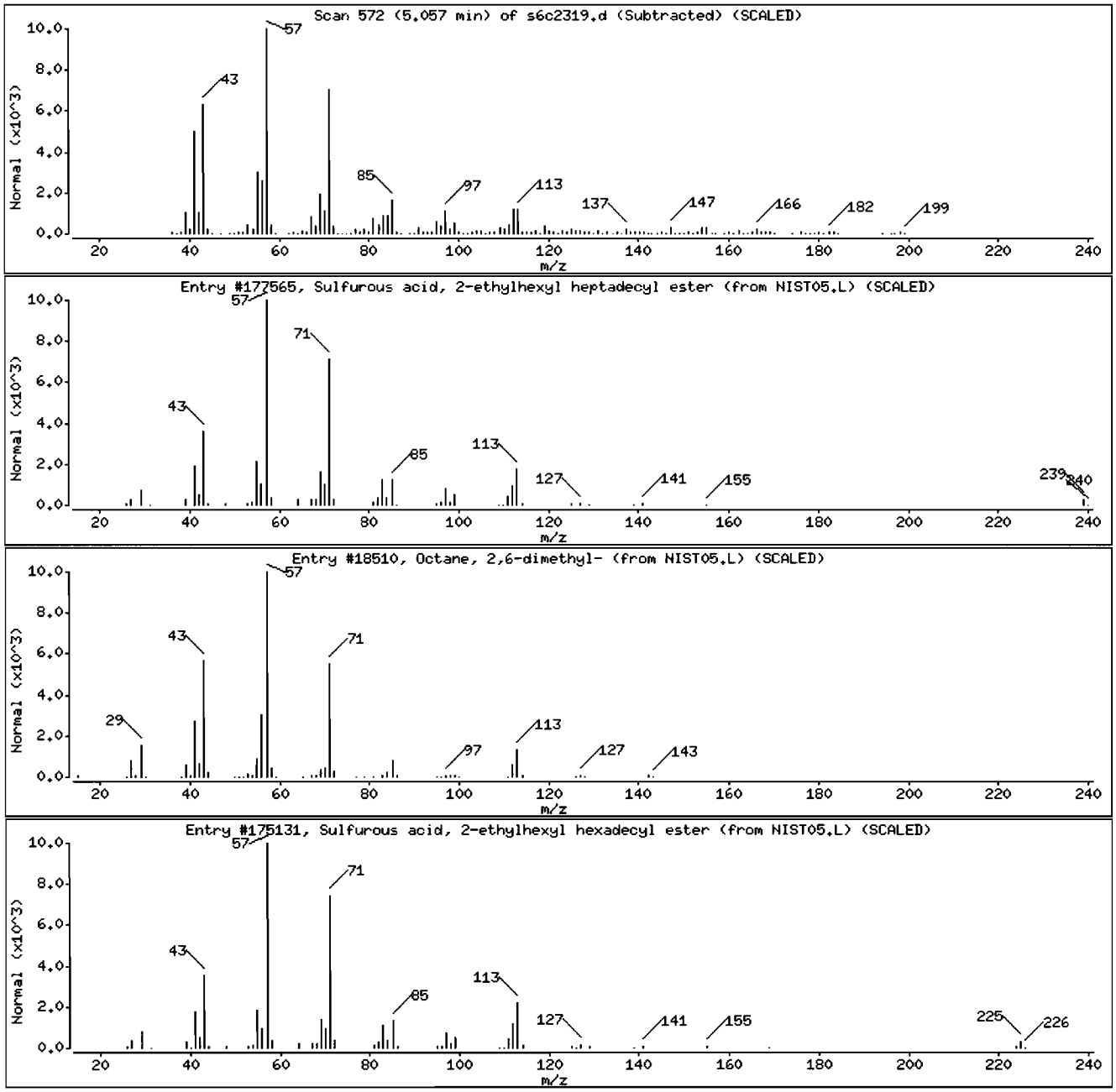

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: 1248842007196542511010SVMI11LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Tetradecene, (Z)-	41446-67-7	NIST05.L	54518	86	C14H28	196
Undecane	1120-21-4	NIST05.L	27239	80	C11H24	156
Tridecane	629-50-5	NIST05.L	46087	76	C13H28	184

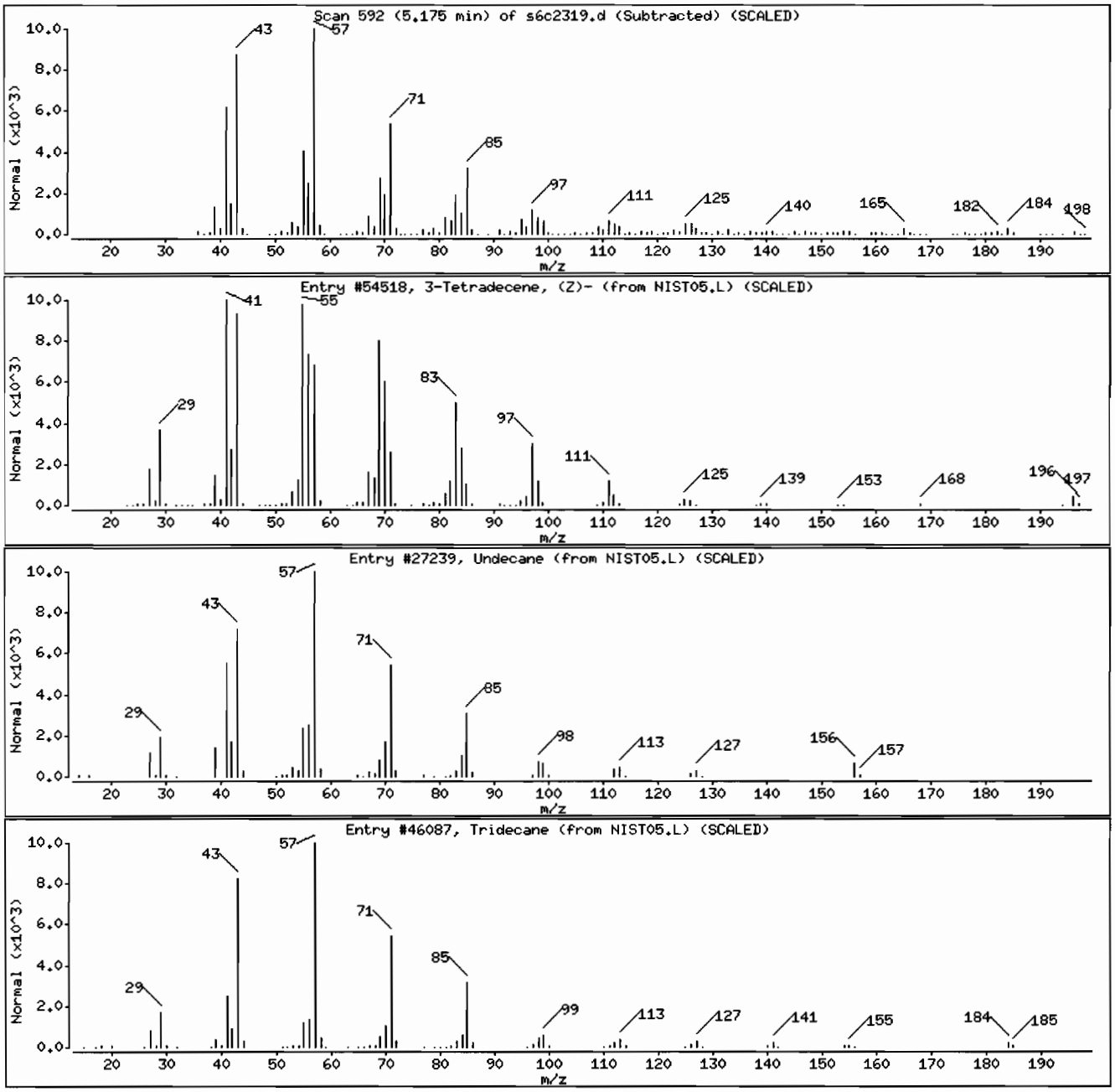

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: |2488420071965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Piperidinone, N-[4-bromo-n-butyl]-	195194-80-0	NIST05.L	80594	45	C9H16BrNO	233
2-Ethyl-1-dodecanol	19780-33-7	NIST05.L	67338	45	C14H30O	214
Nonane, 3,7-dimethyl-	17302-32-8	NIST05.L	27256	30	C11H24	156

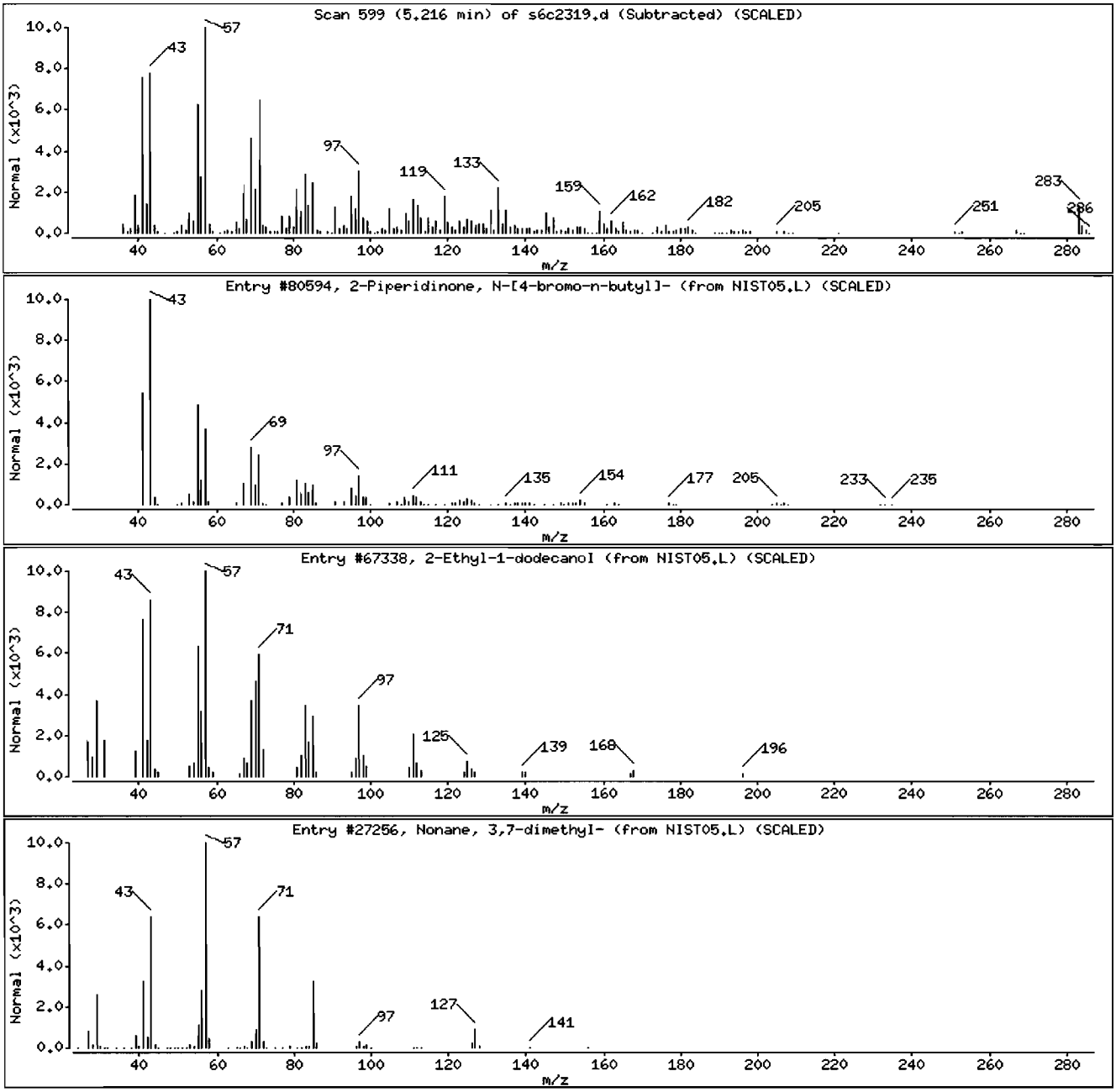

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546

Instrument: MSD6.i

Sample Info: |2488420071965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Tetracontane, 3,5,24-trimethyl-	55162-61-3	NIST05.L	188551	64	C43H88	605
Decane	124-18-5	NIST05.L	18486	60	C10H22	142
Nonane, 3,7-dimethyl-	17302-32-8	NIST05.L	27256	53	C11H24	156

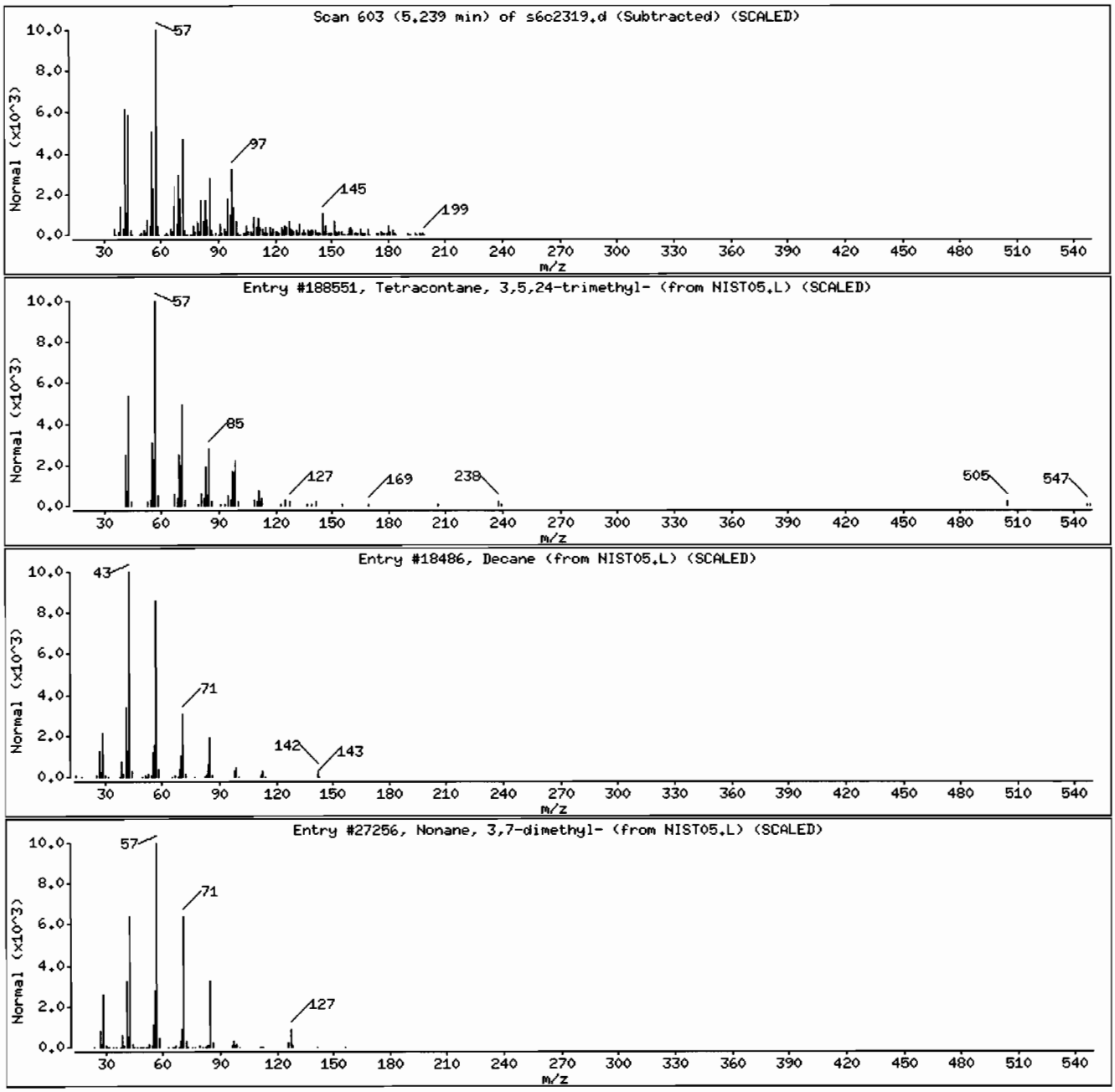

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546

Instrument: MSD6.i

Sample Info: |2488420071965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanonaphthalene, 1,4-dihydro-	4453-90-1	NIST05.L	18571	83	C11H10	142
Naphthalene, 1-methyl-	90-12-0	NIST05.L	18564	64	C11H10	142
Naphthalene, 2-methyl-	91-57-6	NIST05.L	18567	64	C11H10	142

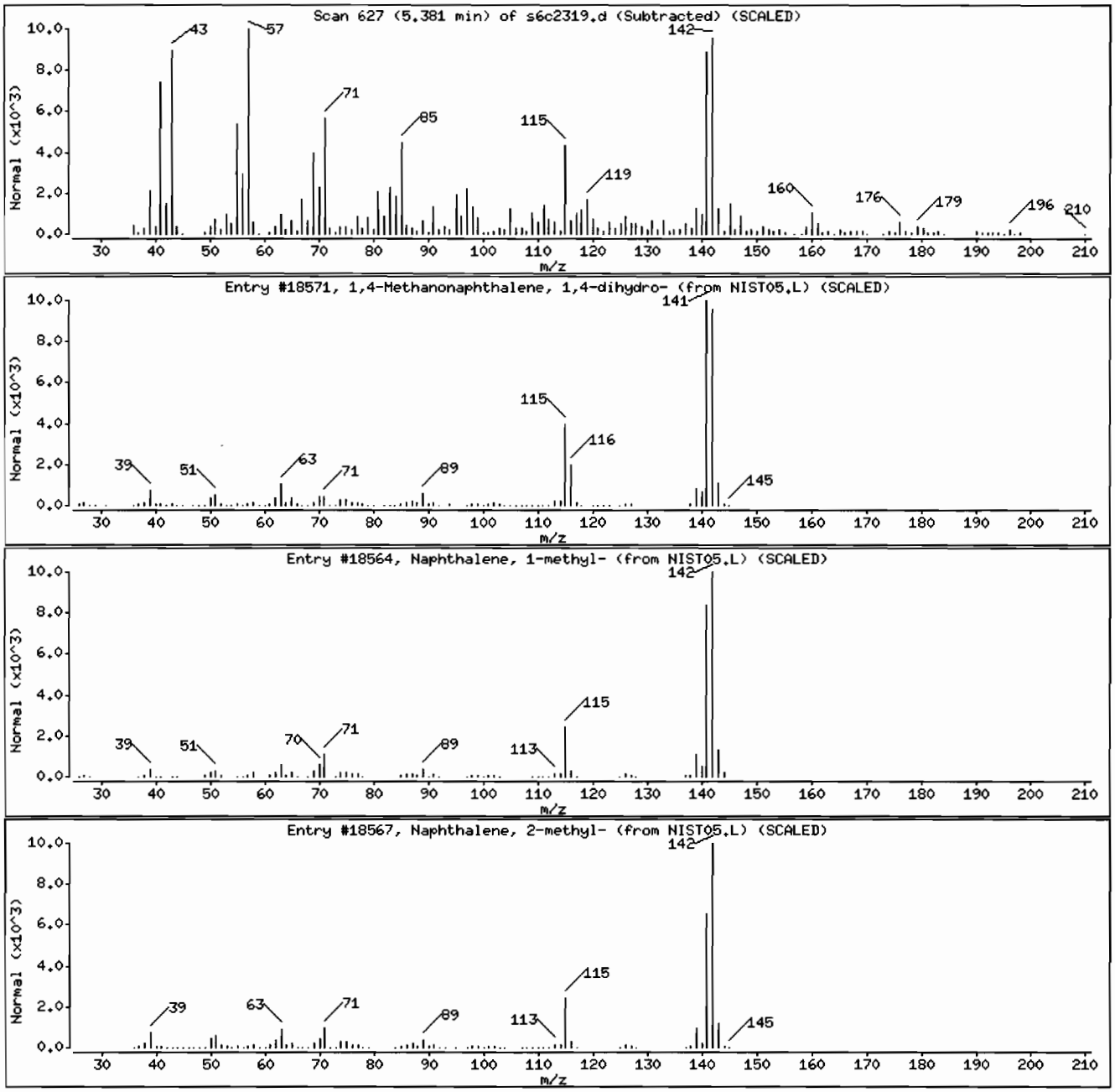

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: |2488420071965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Tridecane, 2-methyl-	1560-96-9	NIST05.L	55988	74	C14H30	198
Sulfurous acid, 2-propyl tetradecyl este	1000309-12-5	NIST05.L	136806	53	C17H36O3S	320
Tetracontane, 3,5,24-trimethyl-	55162-61-3	NIST05.L	188551	49	C43H88	605

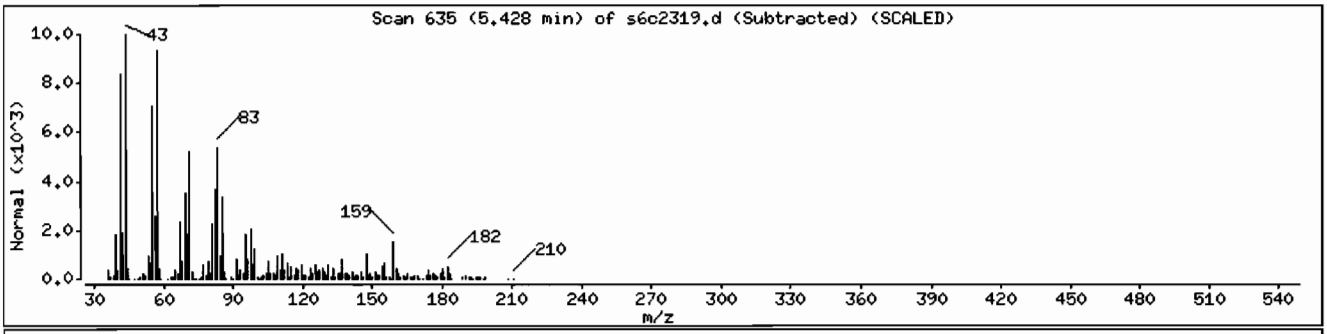

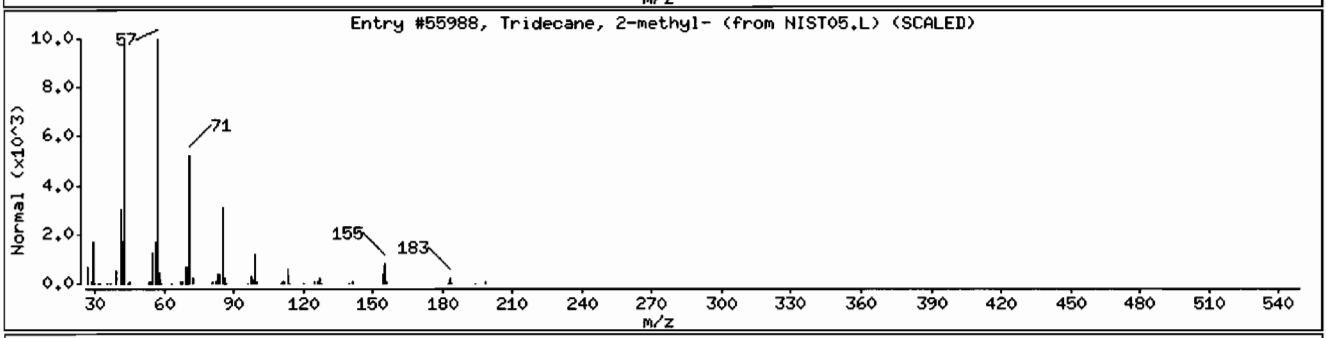

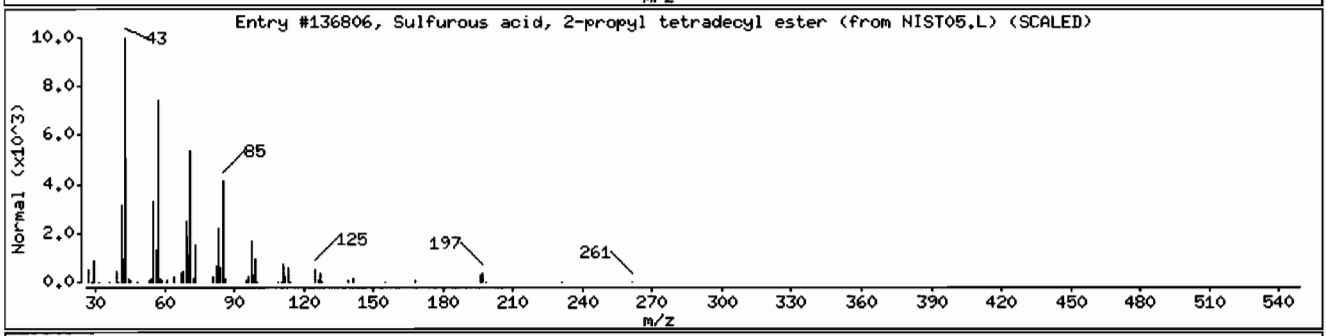

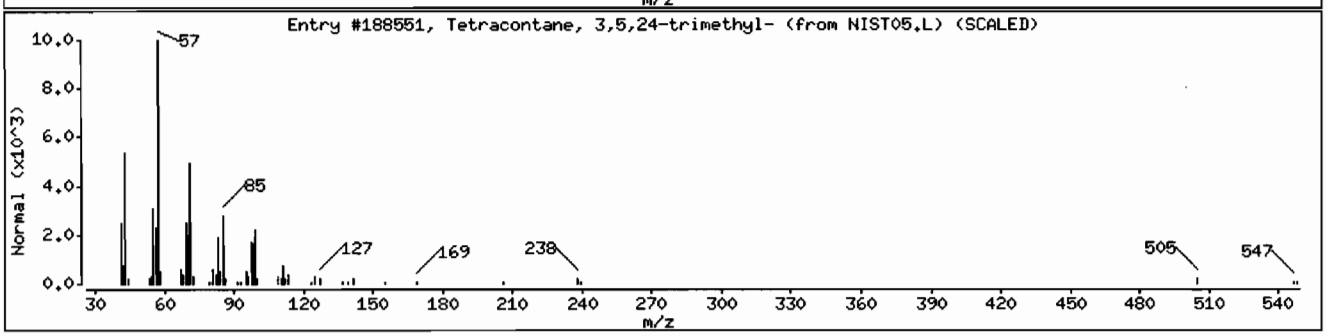

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546

Instrument: MSD6.i

Sample Info: |2488420071965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Dodecane, 2,6,10-trimethyl-	3891-98-3	NIST05.L	66082	91	C15H32	212
Nonane, 3,7-dimethyl-	17302-32-8	NIST05.L	27256	87	C11H24	156
Dodecane, 2,7,10-trimethyl-	74645-98-0	NIST05.L	66079	86	C15H32	212

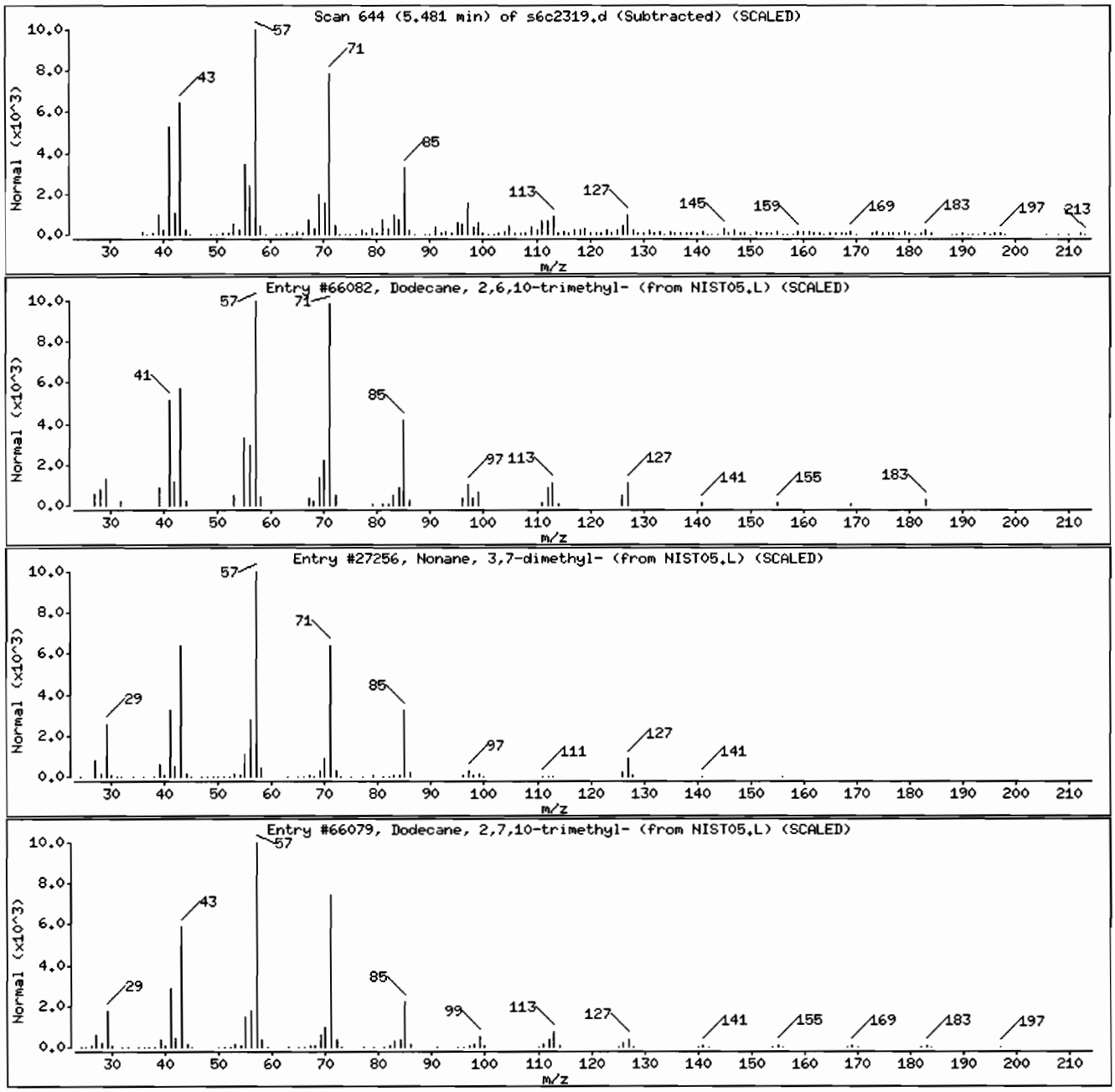

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546

Instrument: MSD6.i

Sample Info: 1248842007196542511 0|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Biphenyl	92-52-4	NIST05.L	25992	96	C12H10	154
Biphenyl	92-52-4	NIST05.L	25989	93	C12H10	154
Biphenyl	92-52-4	NIST05.L	25988	93	C12H10	154

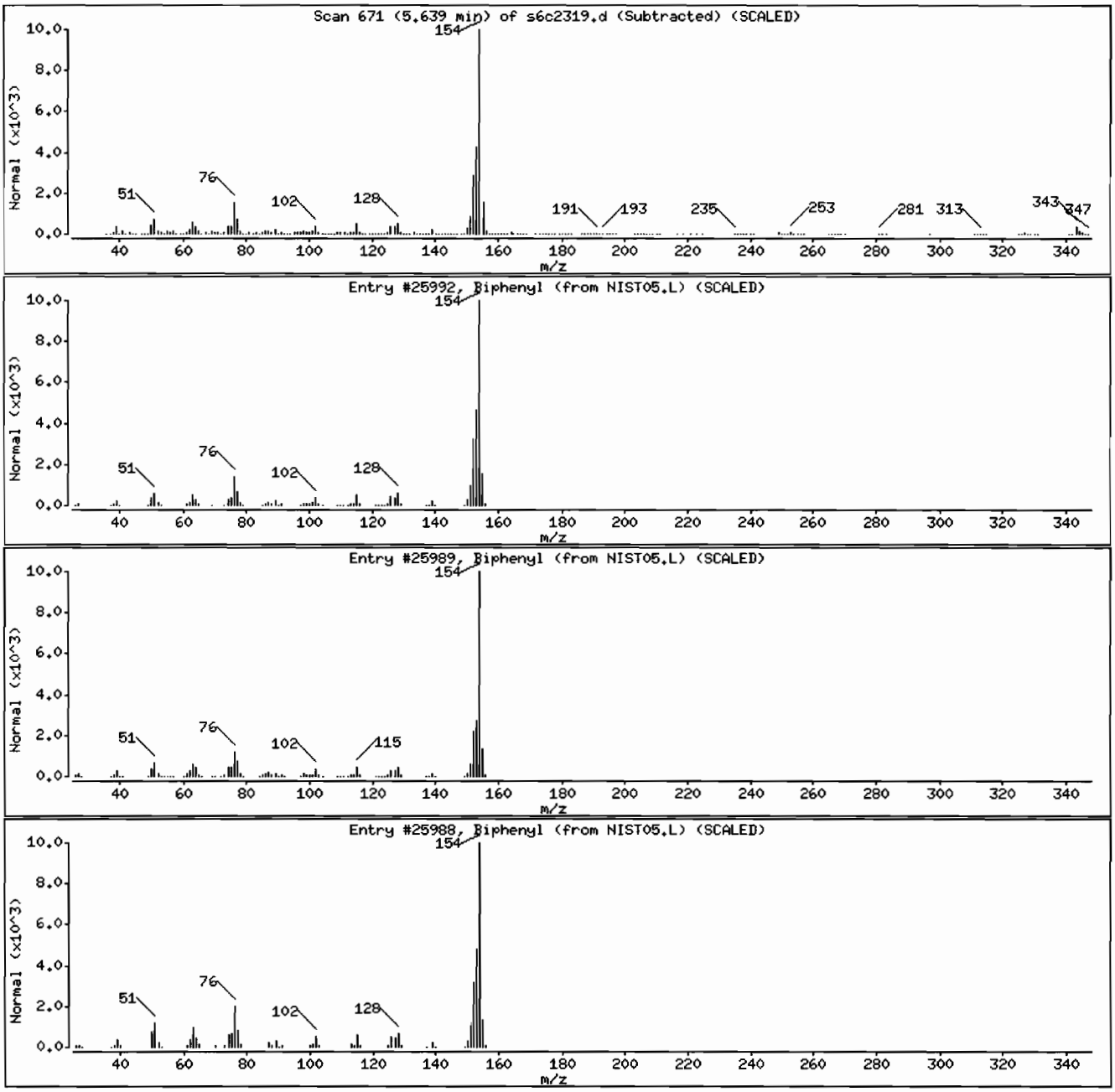

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: |2488420071965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzene, 1-isocyanato-3-(trifluoromethyl	329-01-1	NIST05.L	48283	18	C8H4F3NO	187
4-(3-Iodo-phenyl)-2-methyl-5-oxo-1,4,5,6	314052-23-8	NIST05.L	168271	16	C17H15IN2O	390
(3-Cyanopropyl)cymantrene	64848-76-6	NIST05.L	105935	14	C12H10MnNO3	271

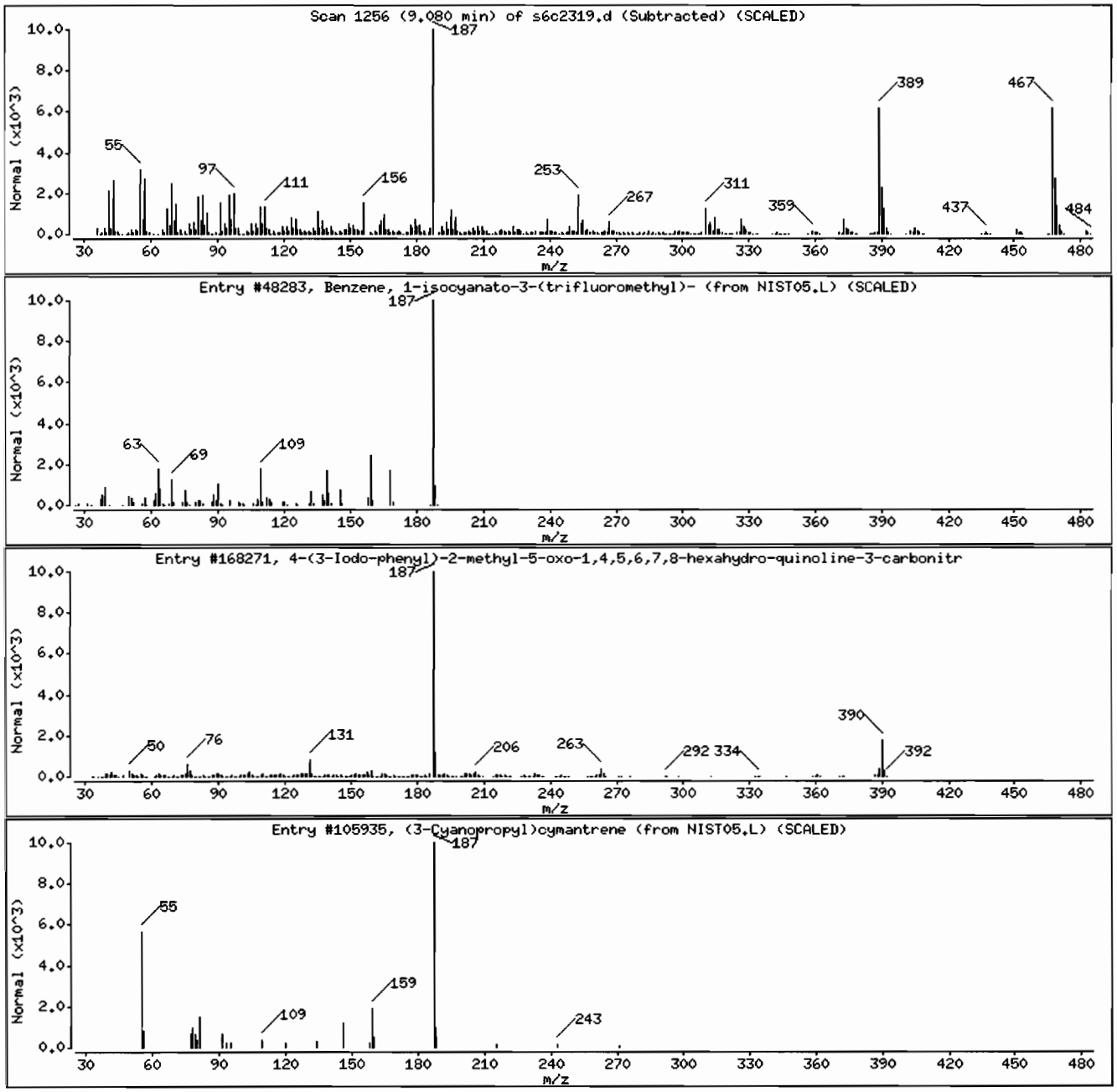

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: |2488420071965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclopentane, (2-hexyloctyl)-	55044-77-4	NIST05.L	102875	64	C19H38	266
Cyclopentane, (2-hexyloctyl)-	55044-77-4	NIST05.L	102876	64	C19H38	266
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	60	C18H3402	282

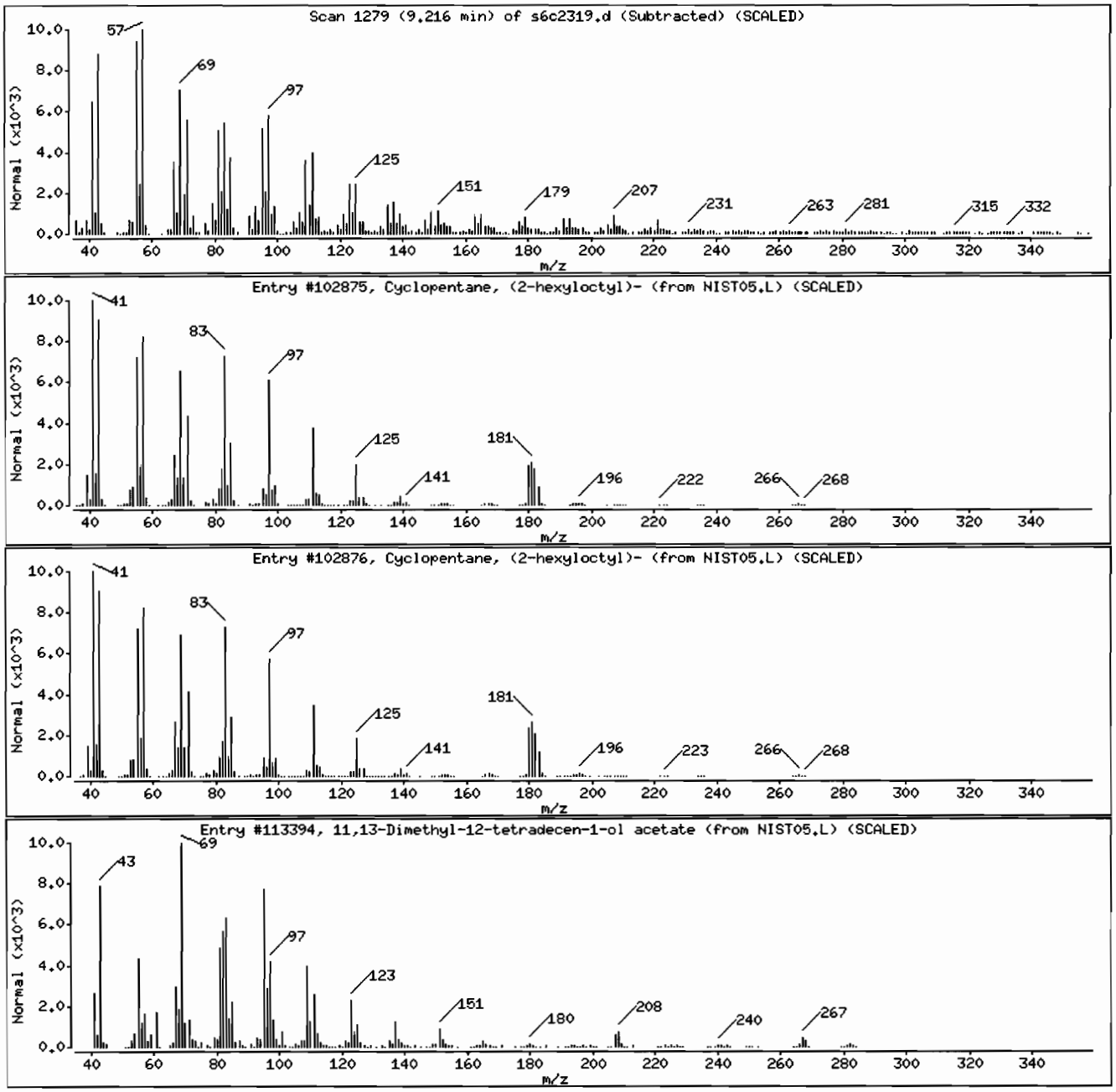

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: |248842007|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2R-Acetoxymethyl-1,3,3-trimethyl-4t-(3-m	1000146-23-9	NIST05.L	113280	42	C17H30O3	282
Isoindole-1,3-dione, 2-[2-(adamantan-1-y	1000317-02-2	NIST05.L	149330	25	C21H29NO3	343
1-Diazene,1-(4-methoxy-2,6-dimethylpheny	1000188-86-5	NIST05.L	183013	15	C30H32N4O2	480

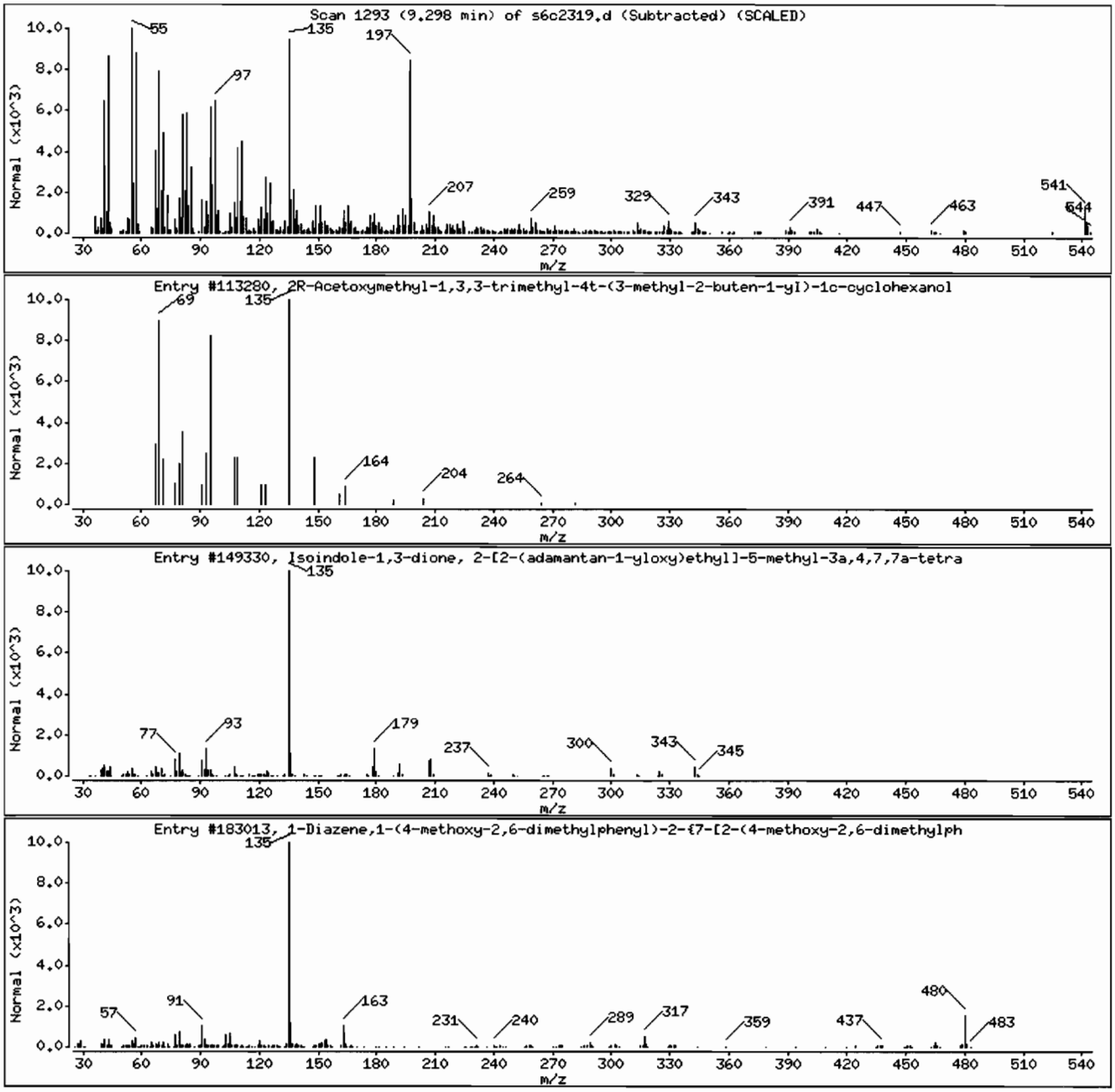

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: |2488420071965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Tetradecanoic acid, 2-oxo-, ethyl ester	160941-13-9	NIST05.L	105503	38	C16H3003	270
Bicyclo[3.2.0]heptan-2-one, 5-(ethoxycar	1000153-17-5	NIST05.L	113075	30	C15H2205	282
Diphenyldimethylsilane	778-24-5	NIST05.L	65969	27	C14H16Si	212

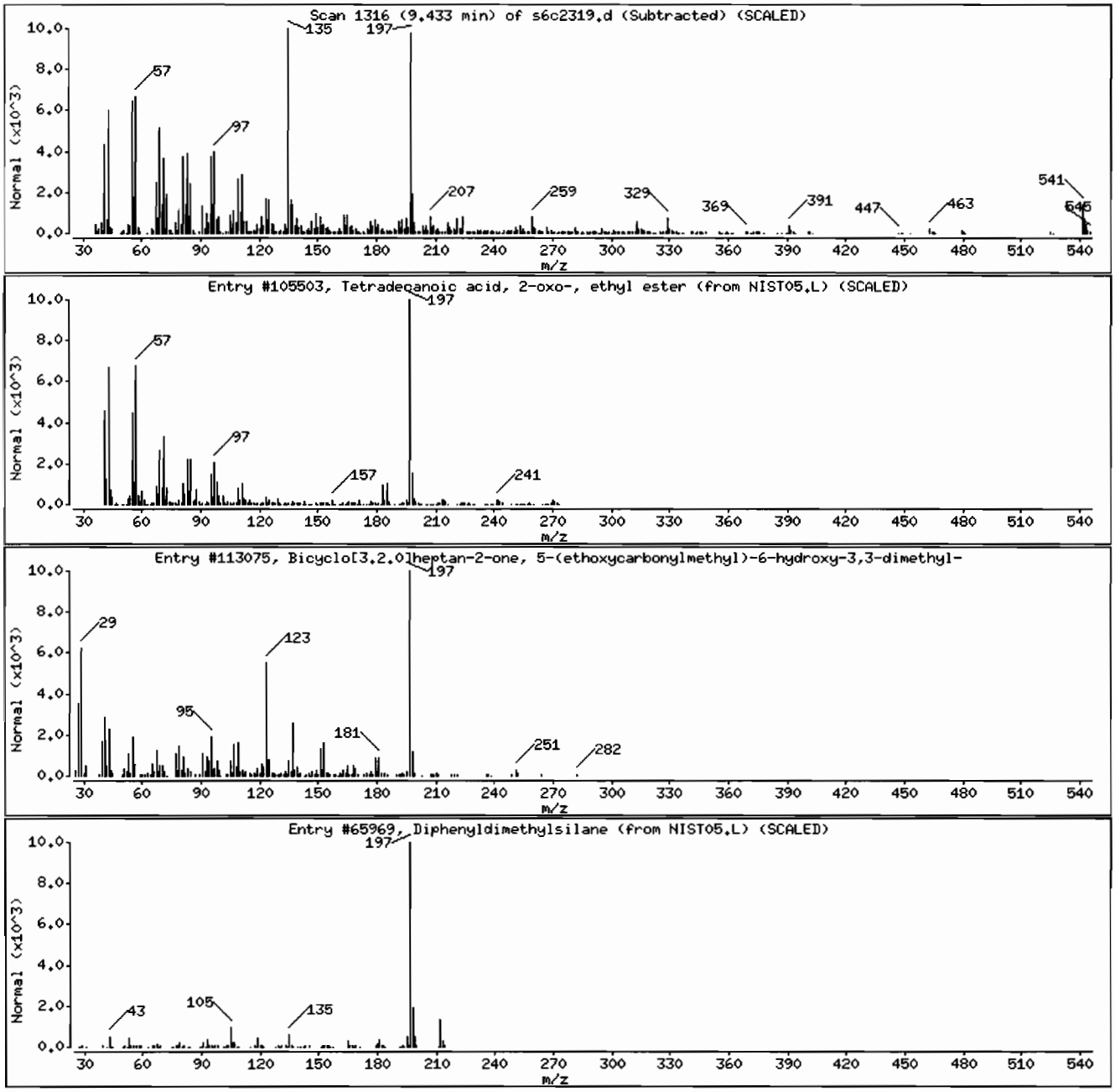

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546

Instrument: MSD6.i

Sample Info: |2488420071965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Bromo-11-iodoundecane	139123-69-6	NIST05.L	156814	70	C11H22BrI	360
1-Bromodocosane	6938-66-5	NIST05.L	167801	55	C22H45Br	388
1-Bromoeicosane	4276-49-7	NIST05.L	157121	53	C20H41Br	360

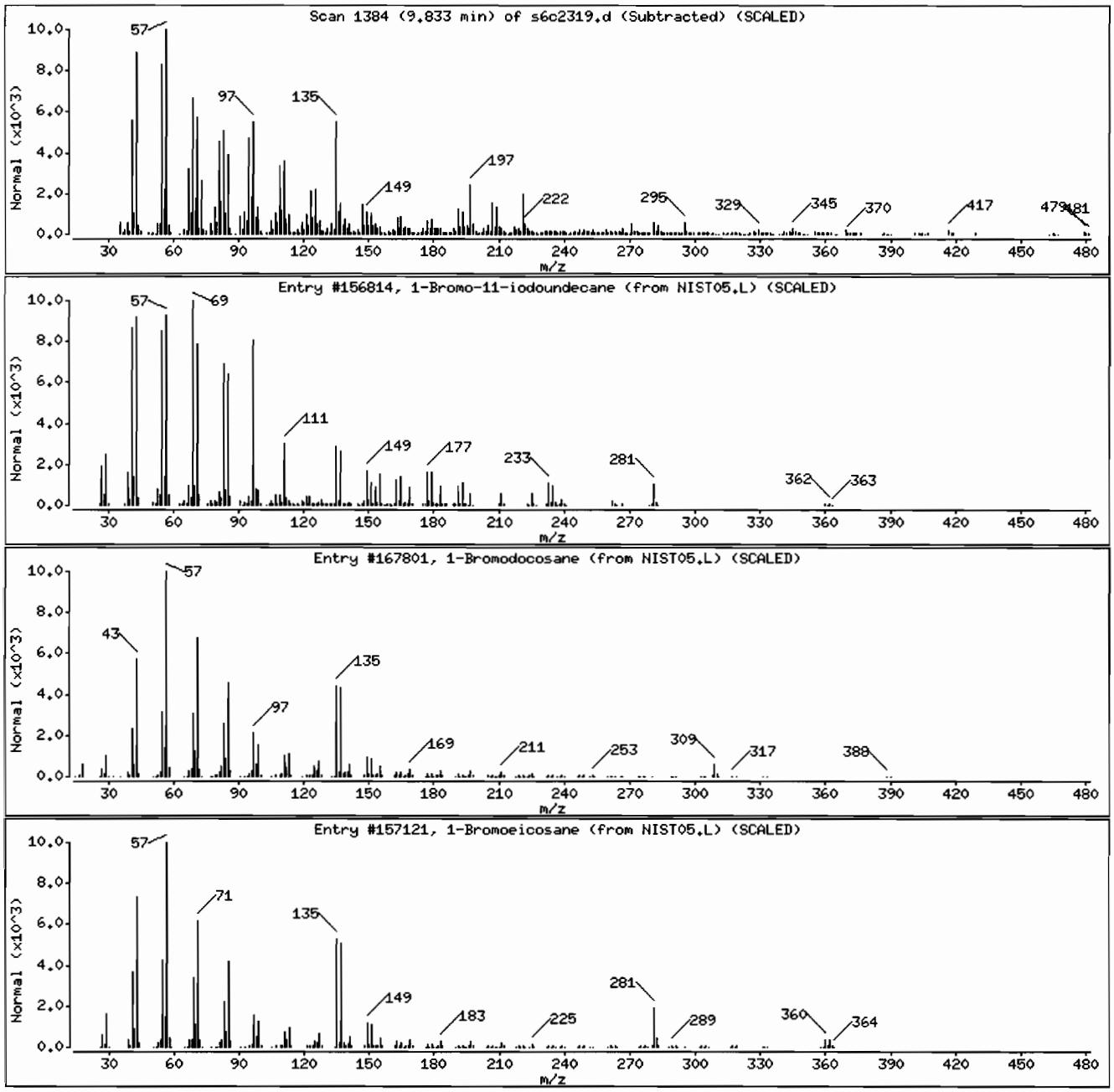

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: 1248842007196542511011SVMI11LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	64	C18H3402	282
Tetrapentacontane, 1,54-dibromo-	1000156-09-4	NIST05.L	190704	60	C54H108Br2	915
Silane, trichlorooctadecyl-	112-04-9	NIST05.L	166992	53	C18H37Cl3Si	386

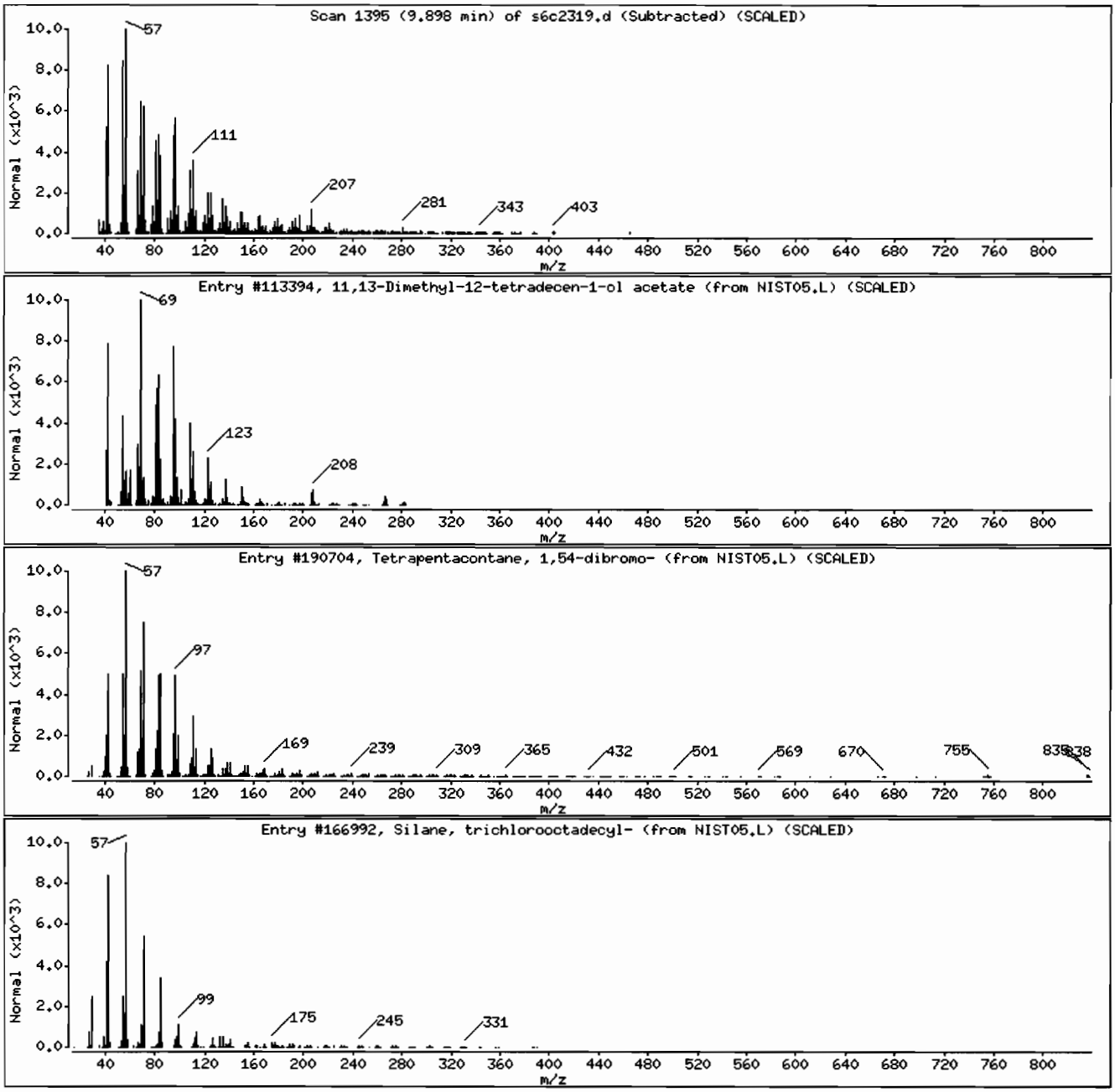

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: |2488420071965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexadecane, 1,2-diethyl-	1000155-85-3	NIST05.L	112113	70	C20H40	280
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	70	C18H3402	282
Cyclotetradecane, 1,7,11-trimethyl-4-(1-	1786-12-5	NIST05.L	112115	59	C20H40	280

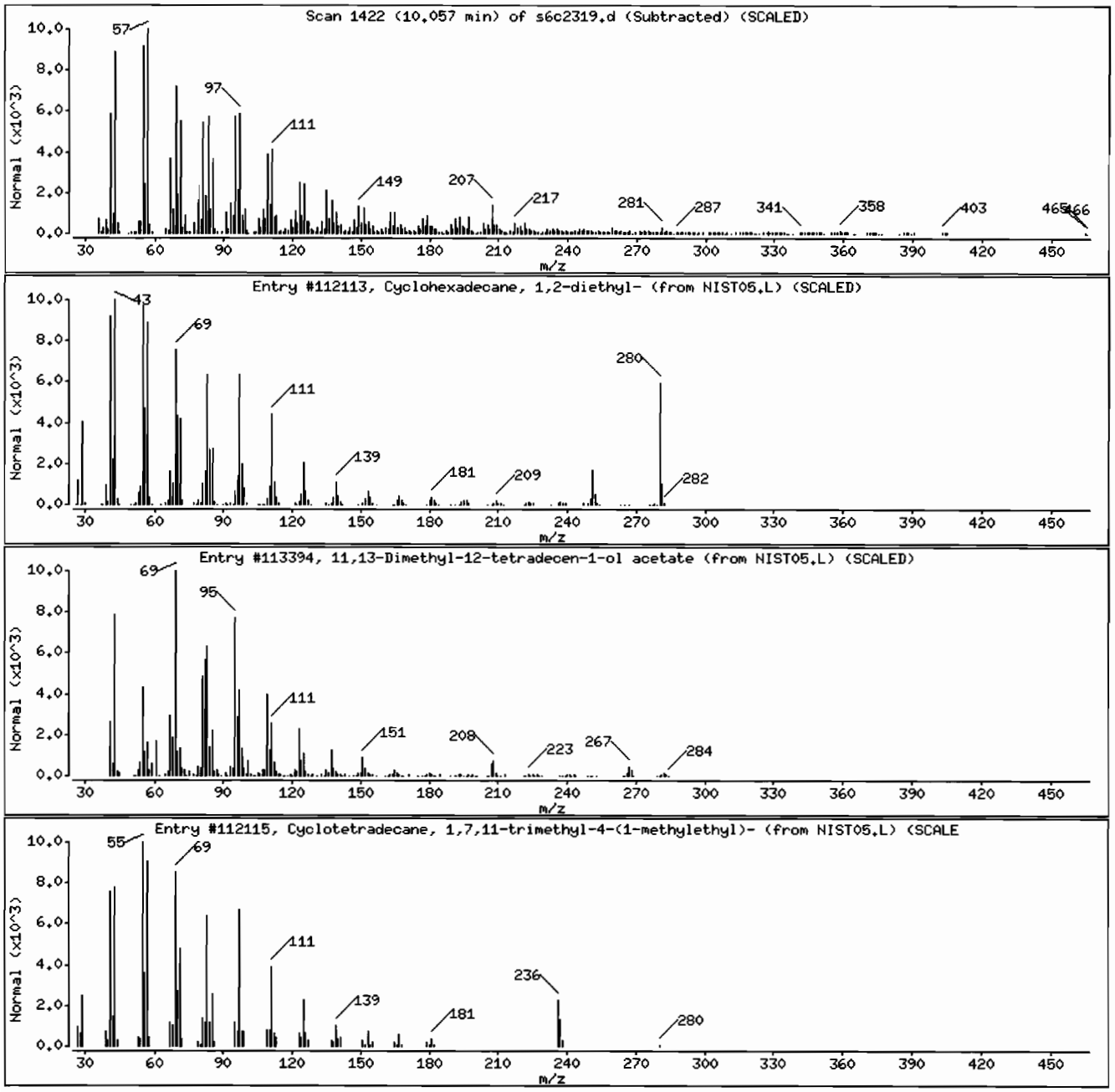

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Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: |2488420071965425|10|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	807-28-3	NIST05.L	173479	98	C26H26OSi2	410
Crinan,3,7-dimethoxy-,(3.alpha.)-	105232-32-4	NIST05.L	135134	90	C18H23NO4	317
Benzamide, 3,4,5-trimethoxy-N-(4-methoxy	742-15-4	NIST05.L	135093	41	C17H19NO5	317

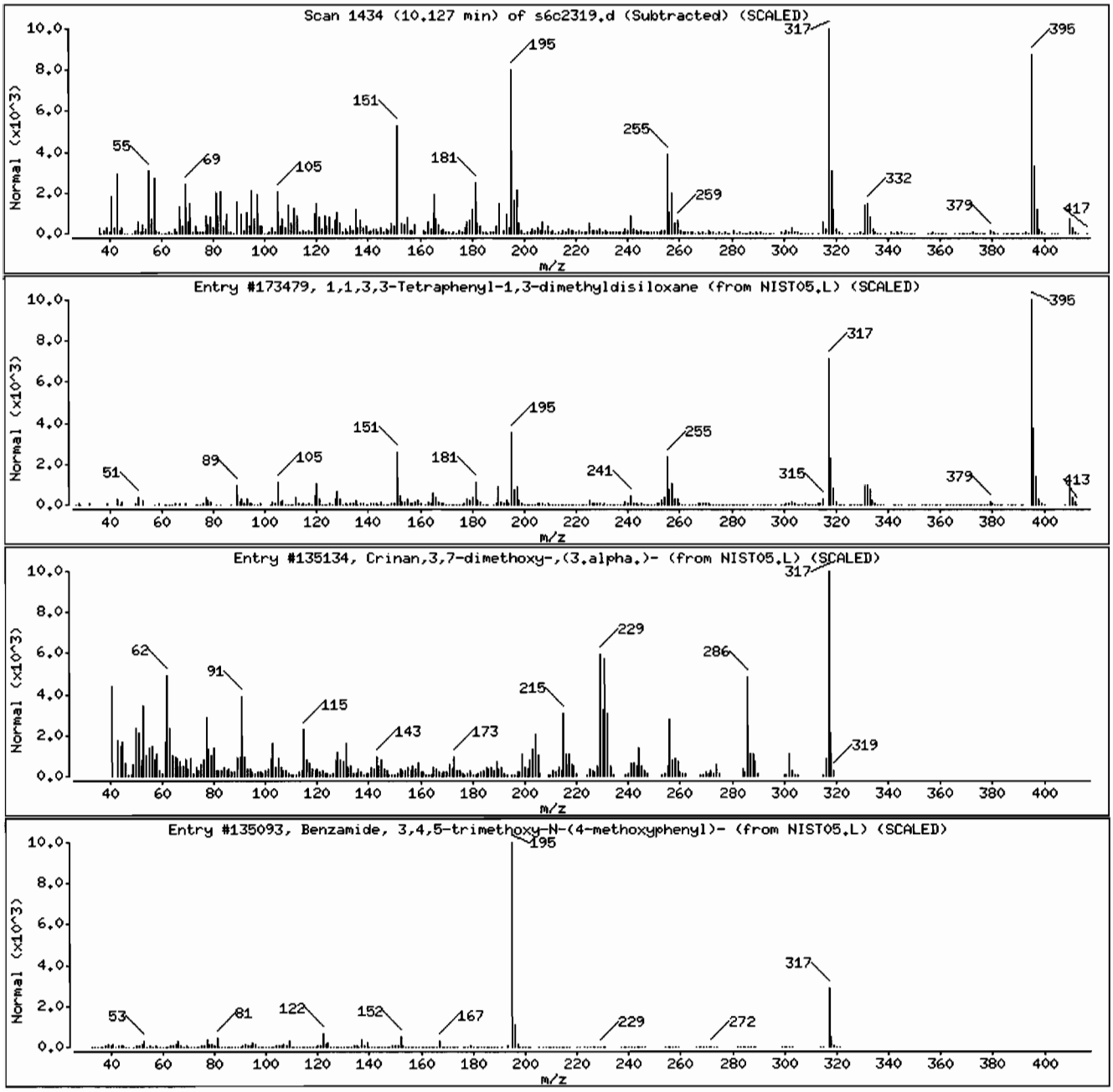

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Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546

Instrument: MSD6.i

Sample Info: 1248842007|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Silane, trichlorooctadecyl-	112-04-9	NIST05.L	166992	90	C18H37Cl3Si	386
Heneicosane, 11-cyclopentyl-	6703-81-7	NIST05.L	159051	70	C26H52	364
1-Bromo-11-iodoundecane	139123-69-6	NIST05.L	156814	64	C11H22BrI	360

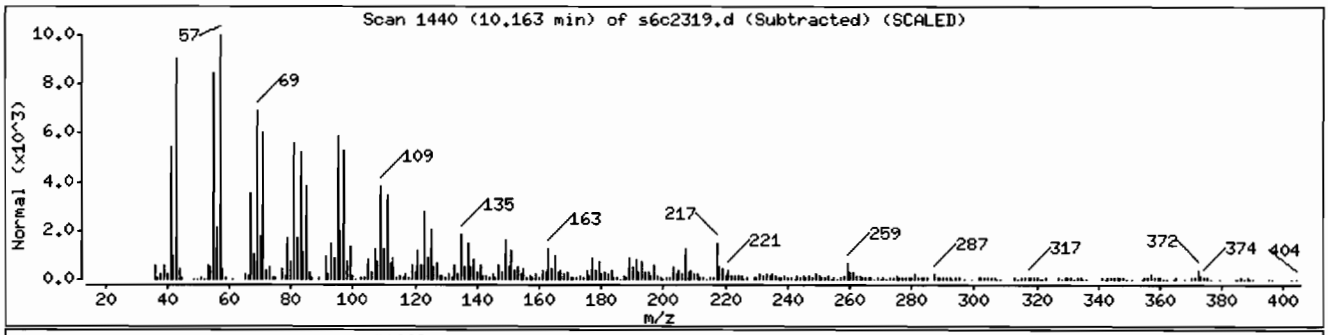

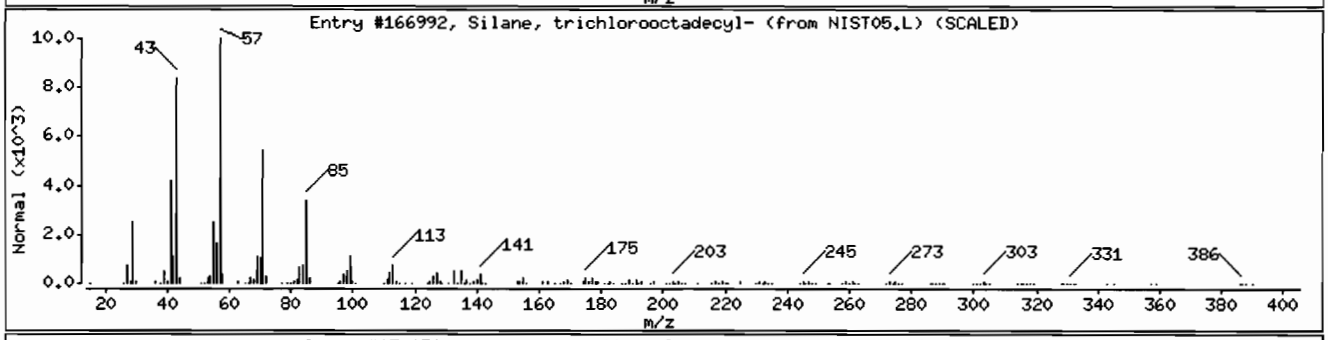

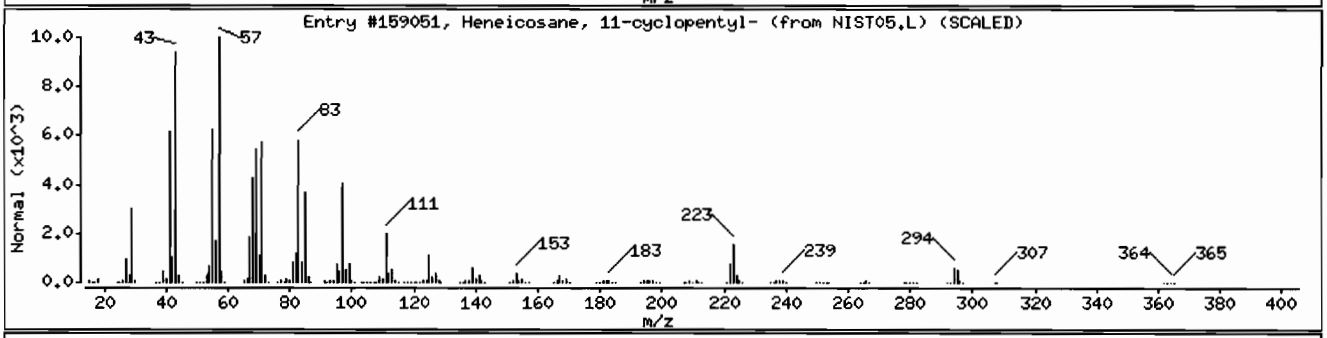

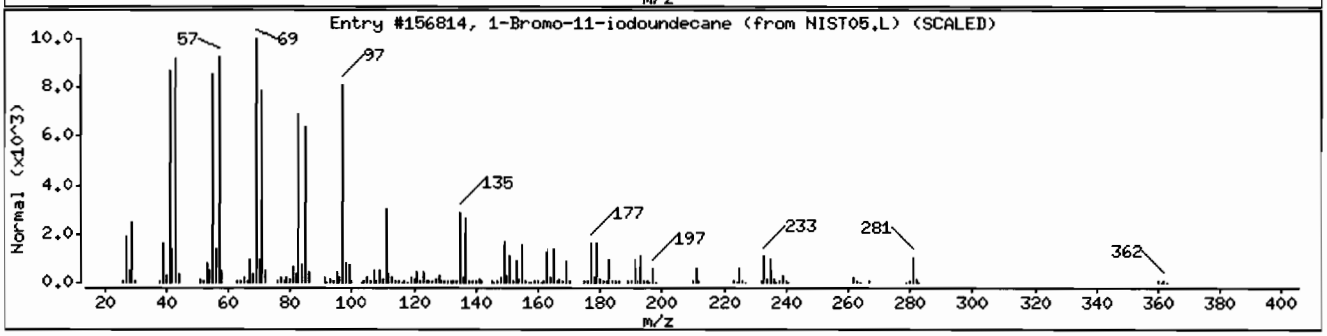

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: |2488420071965425110|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclopentane, 1,1'-[3-(2-cyclopentylethy	55255-85-1	NIST05.L	127513	92	C22H40	304
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	64	C18H3402	282
2- Chloropropionic acid, octadecyl ester	88104-31-8	NIST05.L	157163	50	C21H41Cl02	360

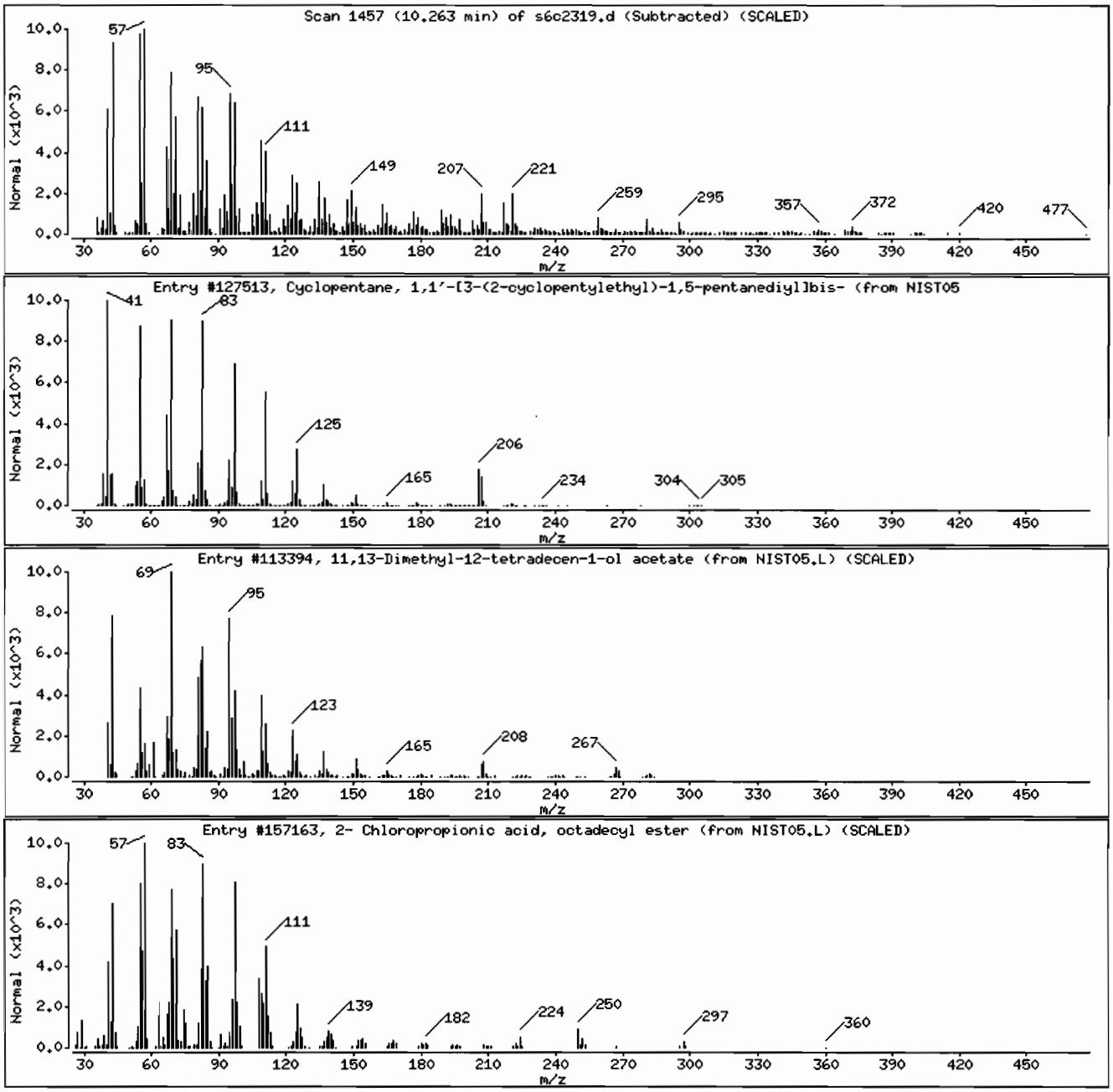

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: |2488420071965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Bromo-11-iodoundecane	139123-69-6	NIST05.L	156814	55	C11H22BrI	360
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	53	C20H34	274
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	44	C13H21NO	207

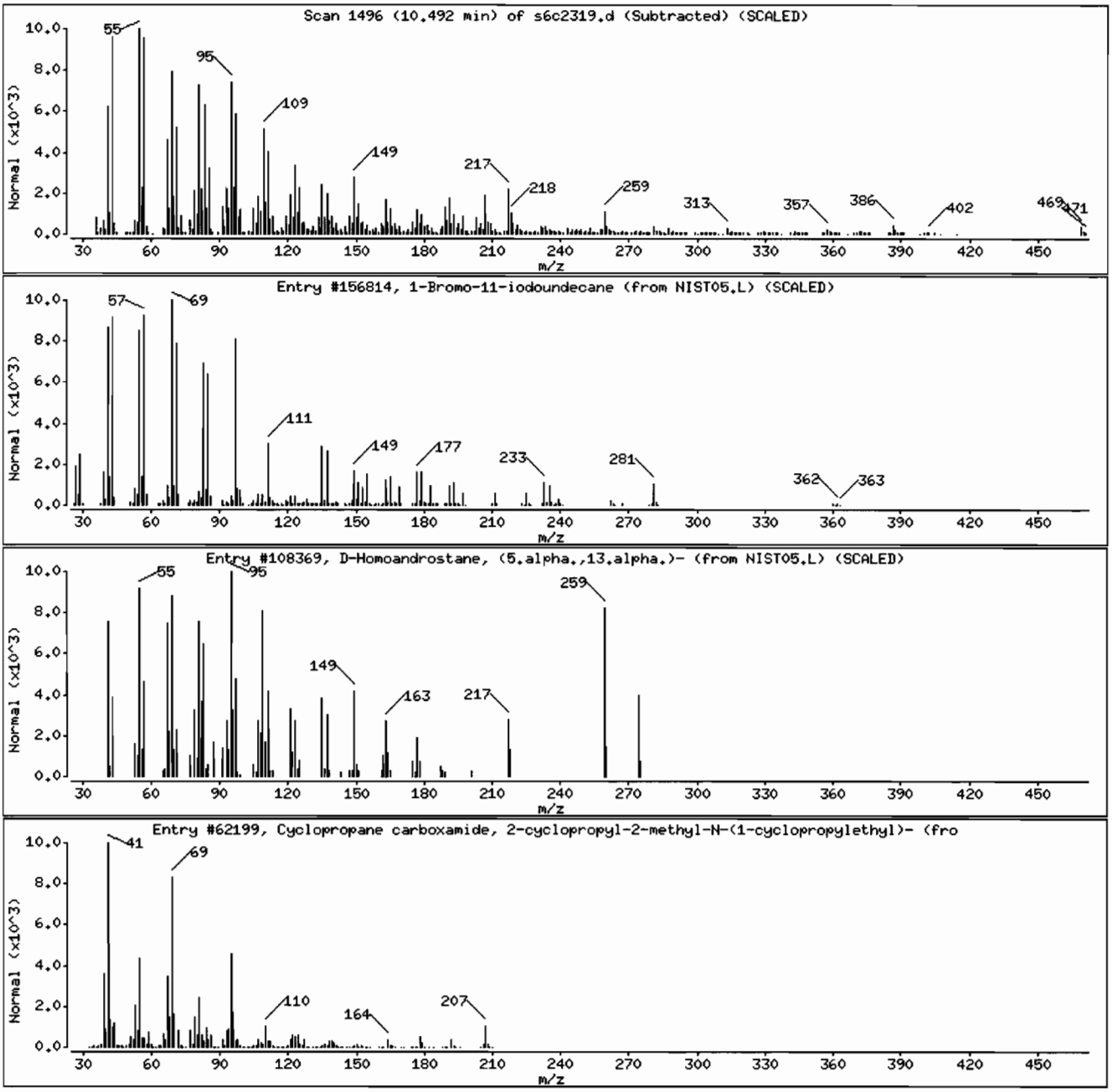

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: 1248842007196542510 1SVMI1ILANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	60	C18H34O2	282
Eicosane	112-95-8	NIST05.L	113490	53	C20H42	282
Hexadecane, 1-chloro-	4860-03-1	NIST05.L	98777	48	C16H33Cl	260

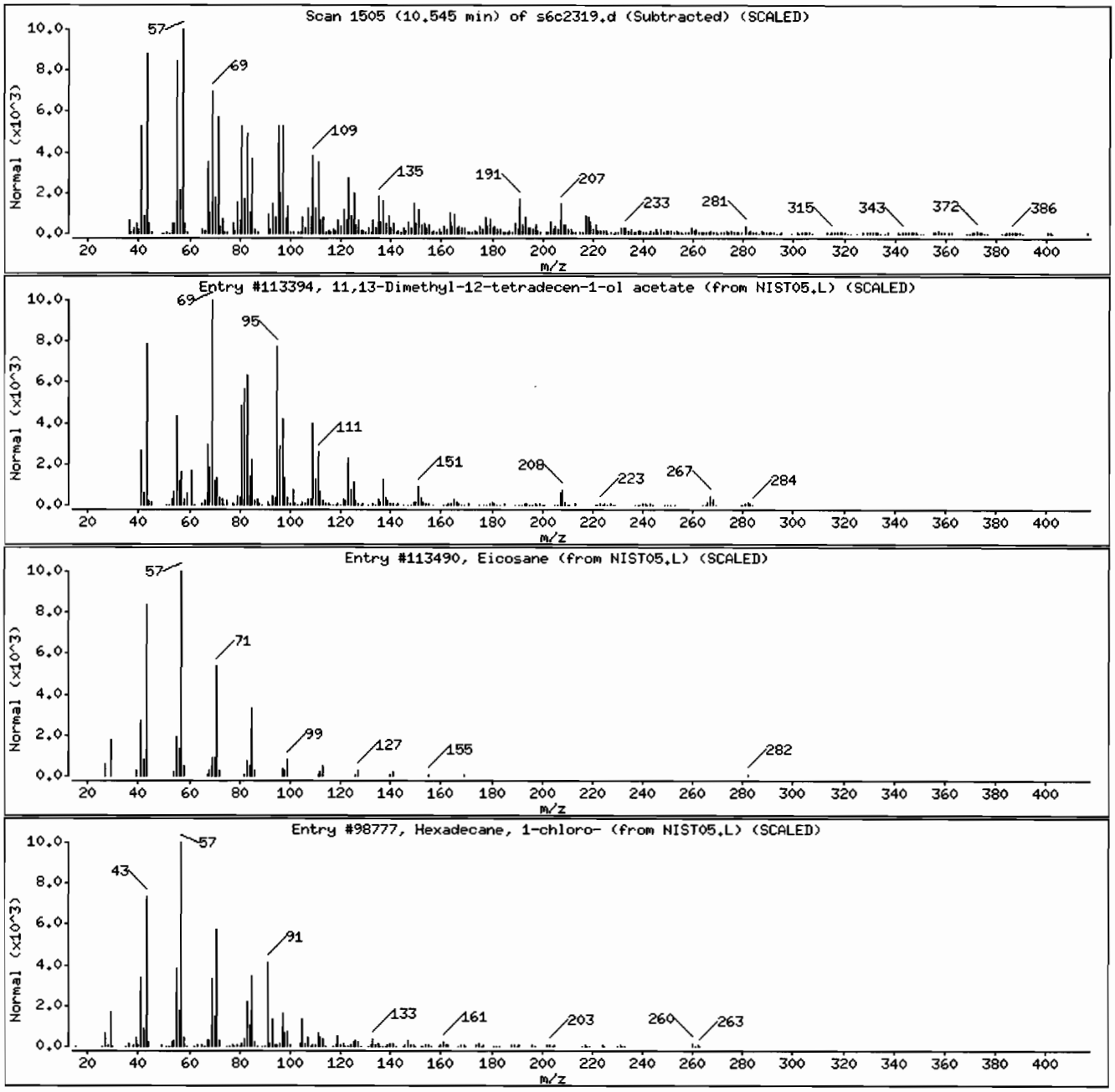

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Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546

Instrument: MSD6.i

Sample Info: 1248842007196542511O1SVMI1ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1'H-Cholesta-2,4,6-trieno[3,2-b]indole,	38389-25-2	NIST05.L	182008	12	C34H47N	469
4-(4-Methyl-2,4-diphenyl-2-pentyl)phenol	52379-26-7	NIST05.L	142639	11	C24H26O	330
4-Hydrazono-5-hydroxyimino-4,5,6,7-tetra	303194-86-7	NIST05.L	55129	11	C6H7N5O3	197

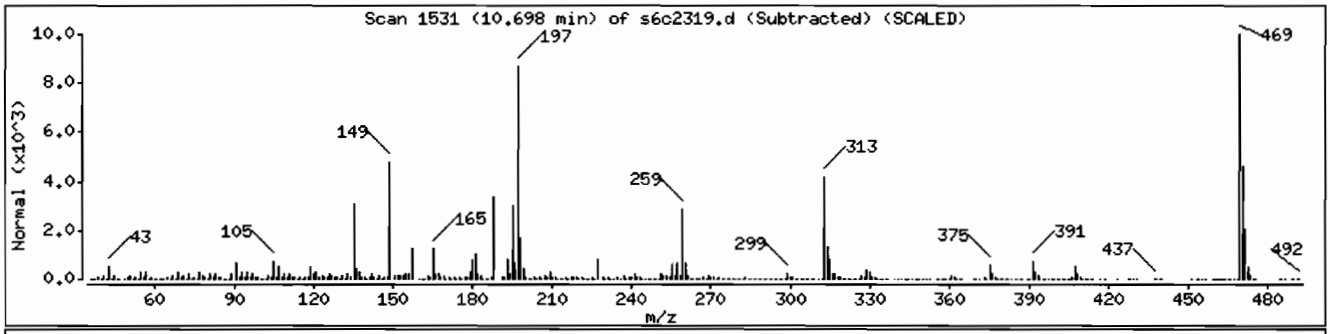

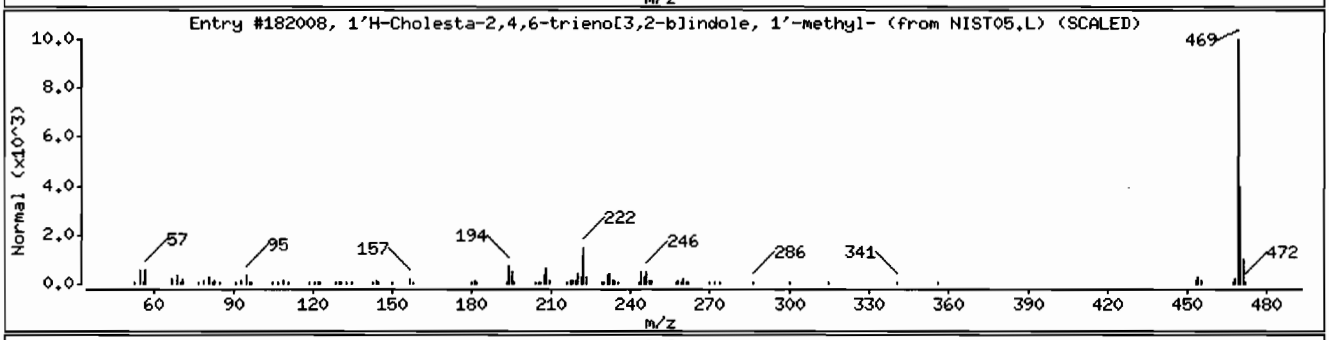

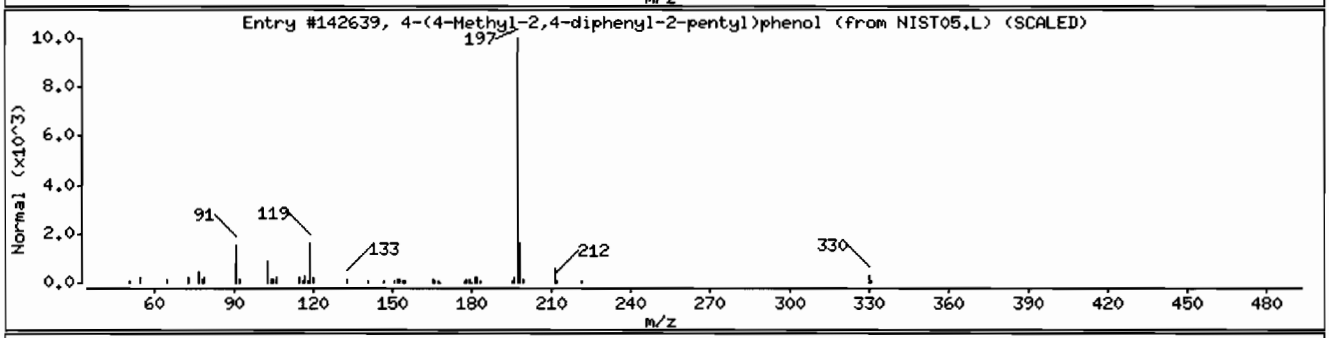

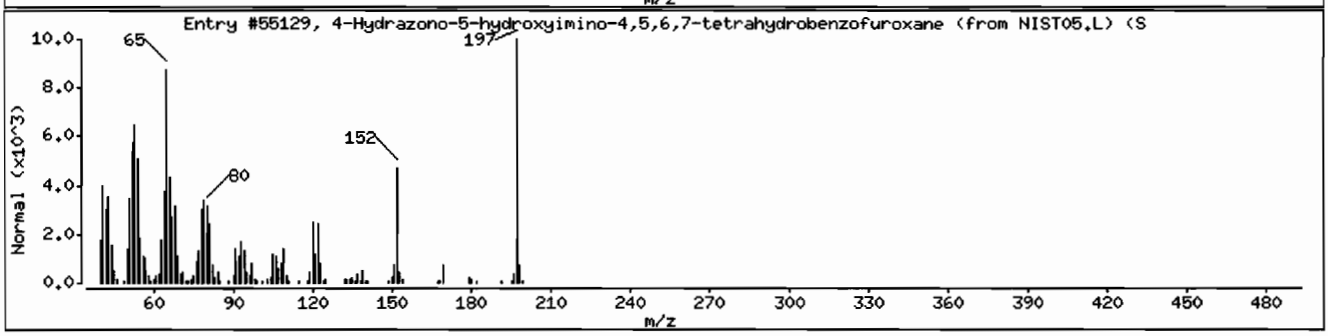

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: 1248842007196542511 01SVMI1ILANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	90	C16H30Br2O2	412
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	50	C18H34O2	282
Spiro[4.5]decan-7-one, 1,8-dimethyl-8,9-	61050-91-7	NIST05.L	82504	46	C15H24O2	236

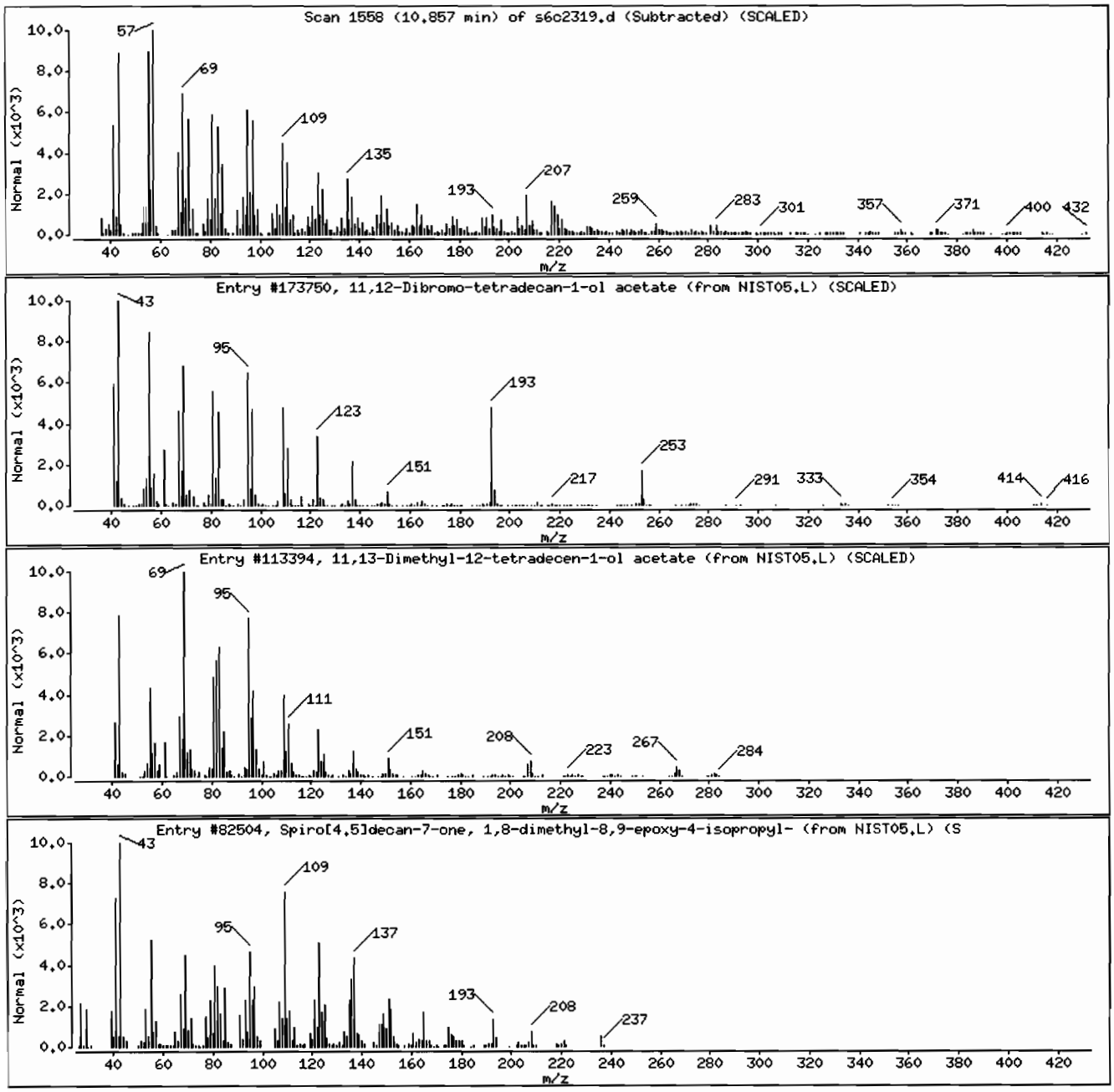

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: 1248842007196542511 0 1SVMI1 1LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Methyl-cis-7,8-epoxynonadecane	1000130-93-3	NIST05.L	122417	16	C20H40O	296
2,2,2-Trichloroethyl 7-methoxycarbonylam	97609-96-6	NIST05.L	181462	12	C13H15Cl3N2O8S	464
4-Hexenoic acid, 2-acetyl-5-methyl-2-(3-	74016-17-4	NIST05.L	102635	11	C16H26O3	266

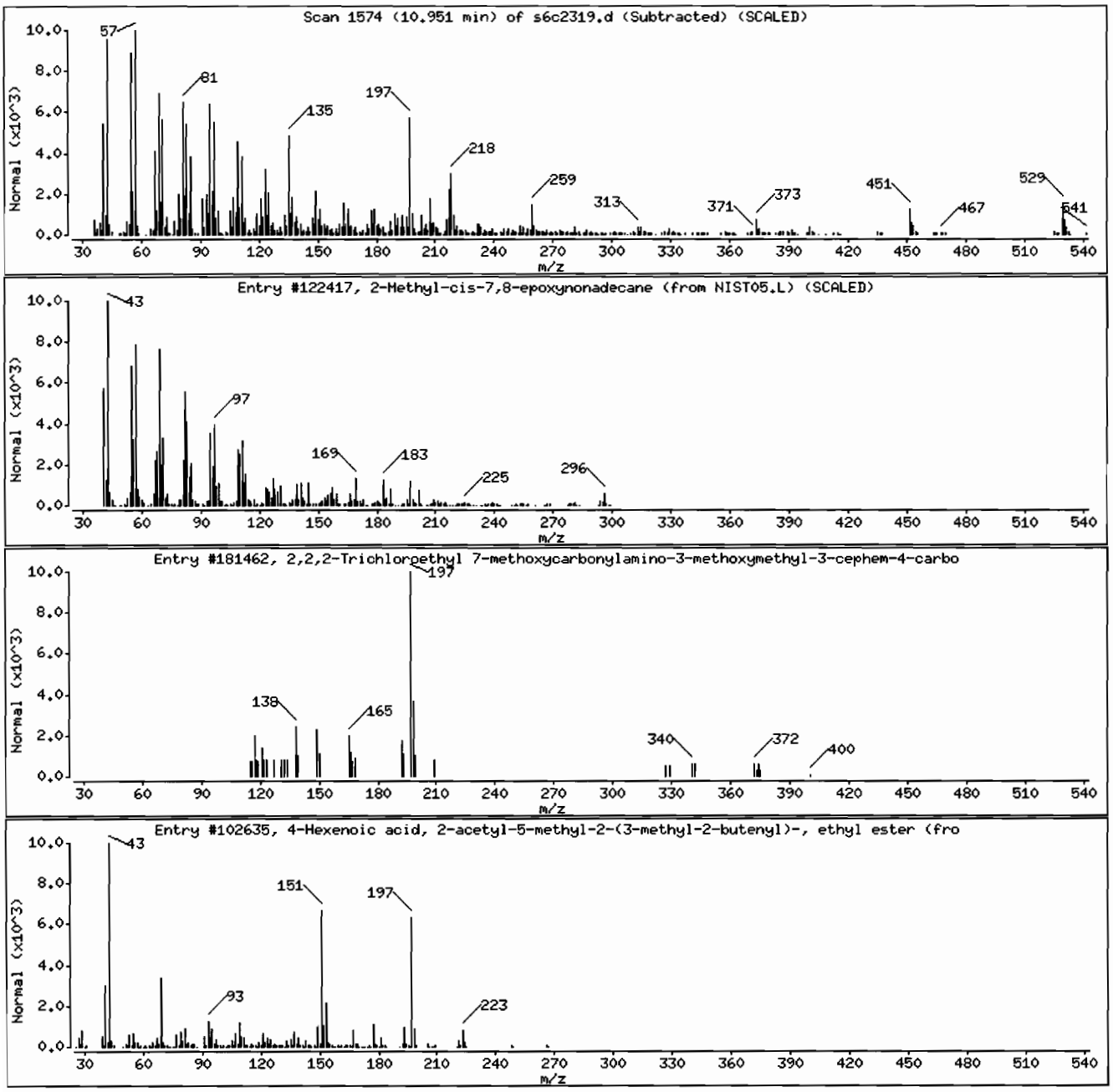

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: |2488420071965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
13,17,21-Trimethyltritriacontane	81469-02-5	NIST05.L	182867	90	C34H70	479
Tetrapentacontane, 1,54-dibromo-	1000156-09-4	NIST05.L	190704	64	C54H108Br2	915
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	60	C18H3402	282

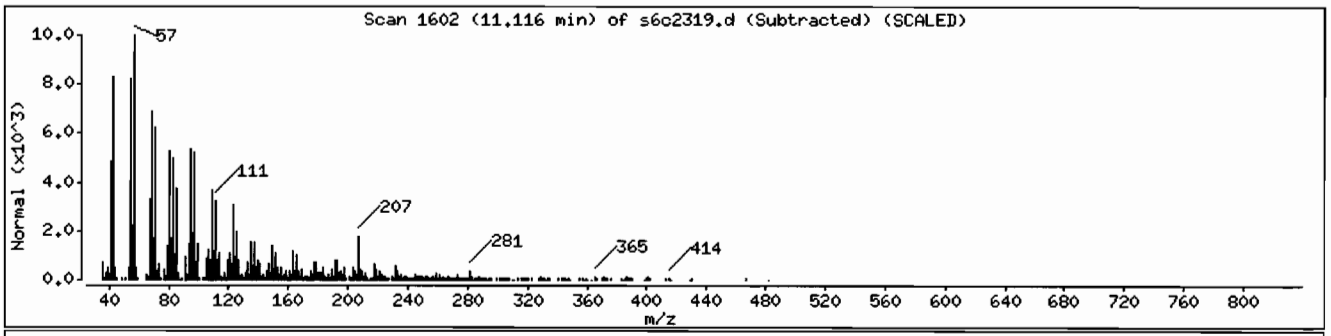

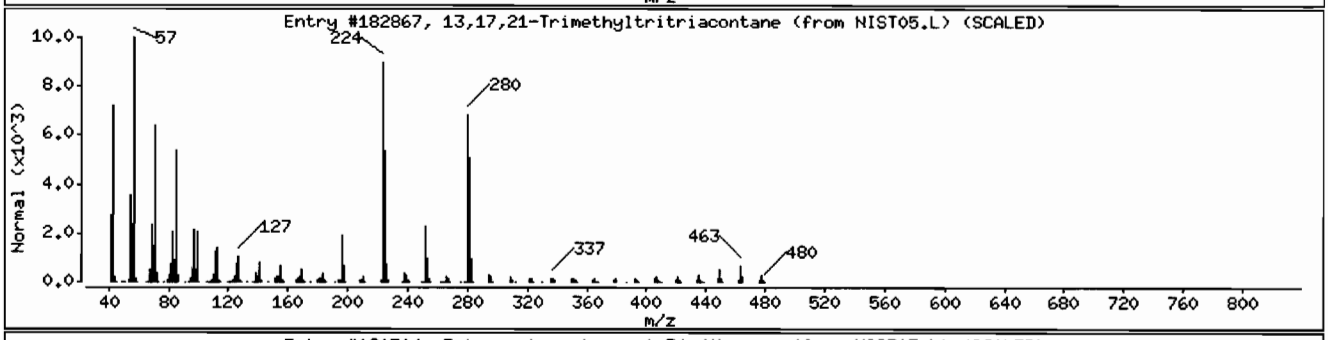

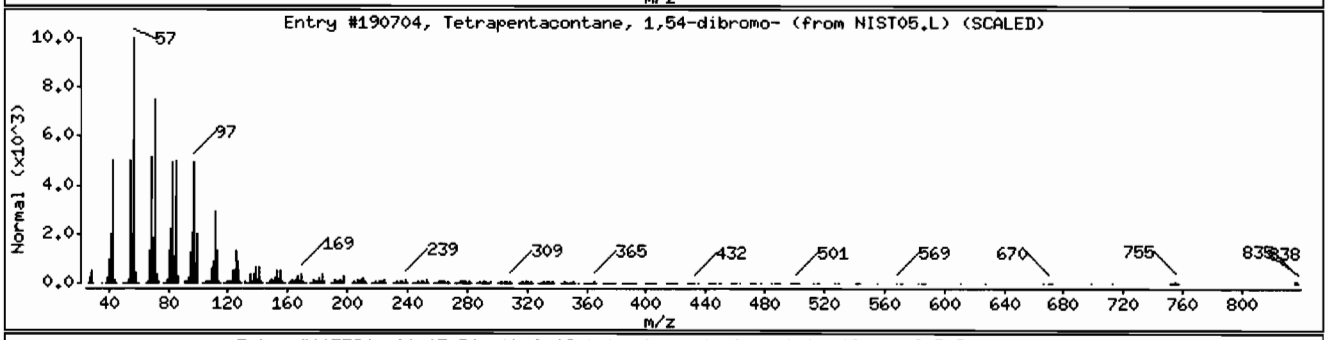

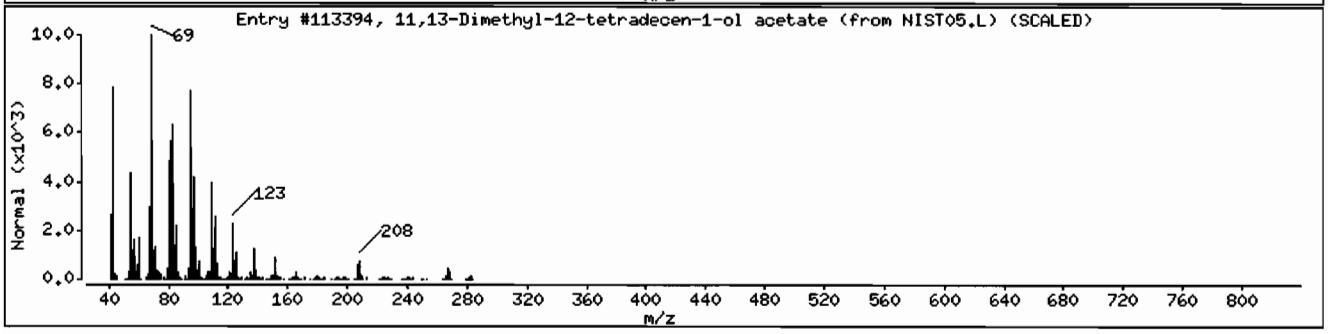

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: 1248842007|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Hexadecanoic acid, 2-hydroxy-, methyl es	16742-51-1	NIST05.L	116045	47	C17H3403	286
Cyclopentane, 1,1'-[3-(2-cyclopentylethy	55255-85-1	NIST05.L	127513	42	C22H40	304
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	38	C20H34	274

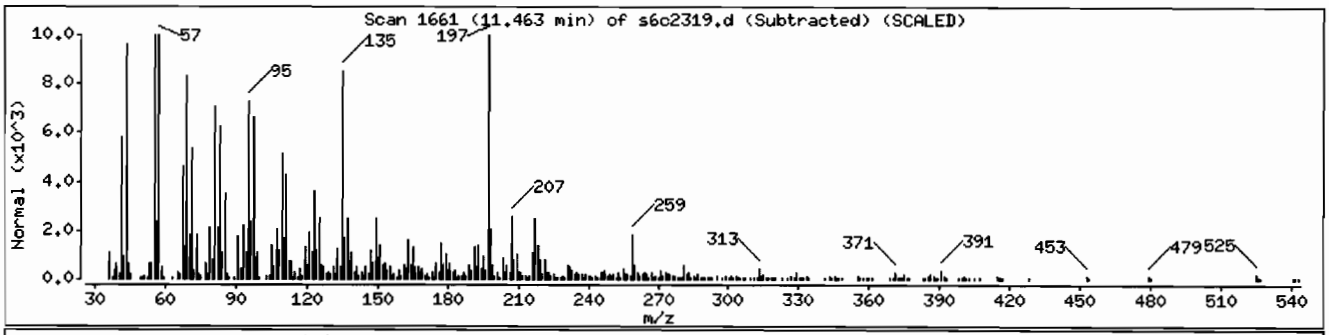

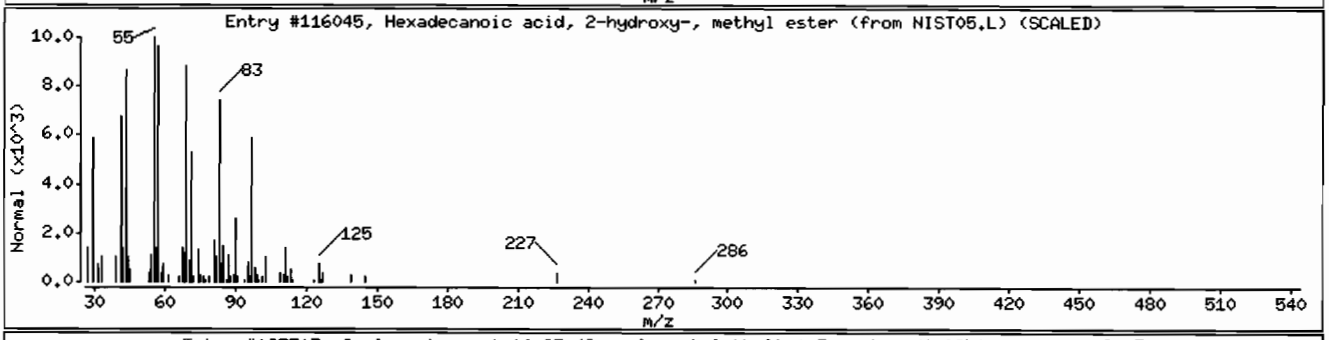

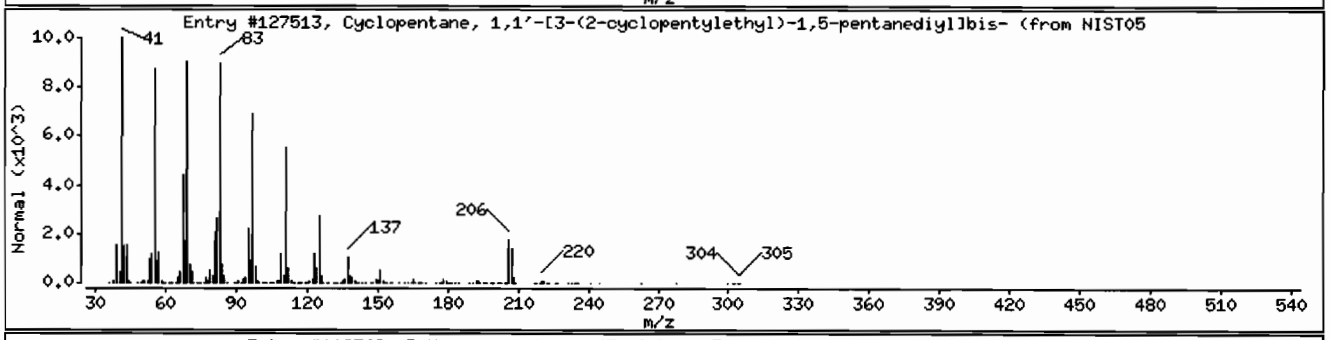

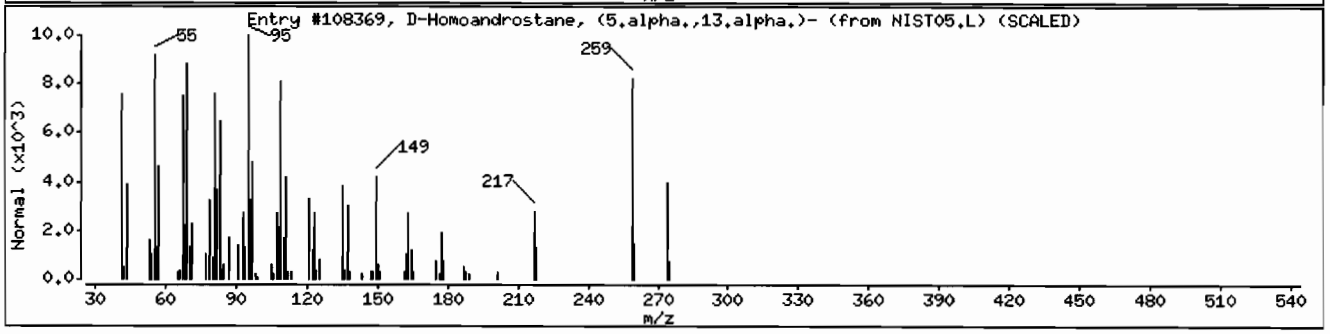

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: 1248842007|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	86	C18H3402	282
8,12-Tetradecadienoic acid, 5-ethenyl-3,	36237-73-7	NIST05.L	137085	49	C21H3602	320
Octane, 1,8-dibromo-	4549-32-0	NIST05.L	105848	42	C8H16Br2	270

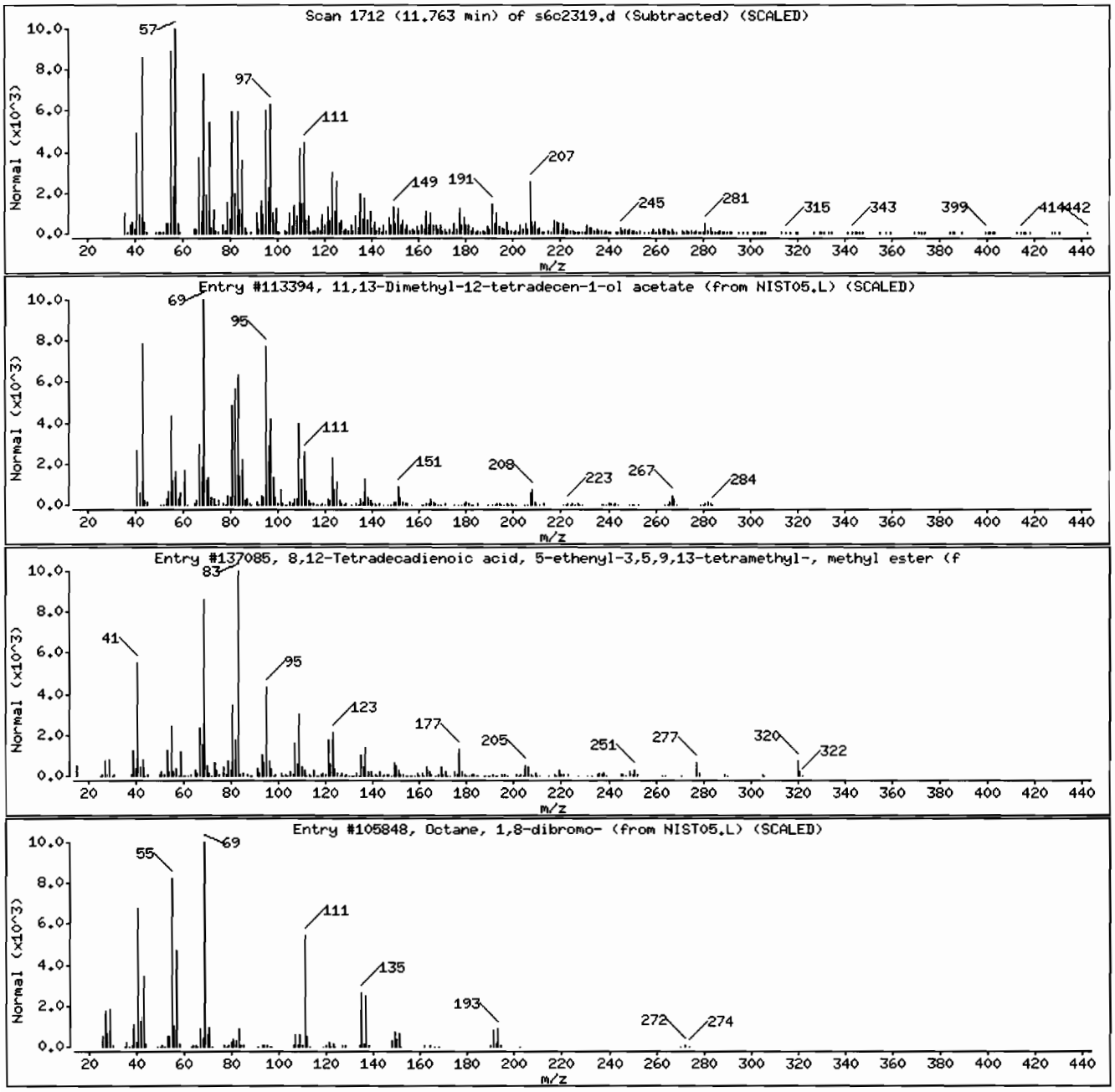

Data File: /chem/MSD6.i/s032310.b/s6c2319.d

Date : 23-MAR-2010 21:32

Client ID: RE46-10-13546 Instrument: MSD6.i

Sample Info: |2488420071965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p	3390-61-2	NIST05.L	186811	92	C33H3402Si3	546
Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p	3390-61-2	NIST05.L	186812	41	C33H3402Si3	546
2'-Methyldihydro-2-stilbazole	58246-68-7	NIST05.L	55103	11	C14H15N	197

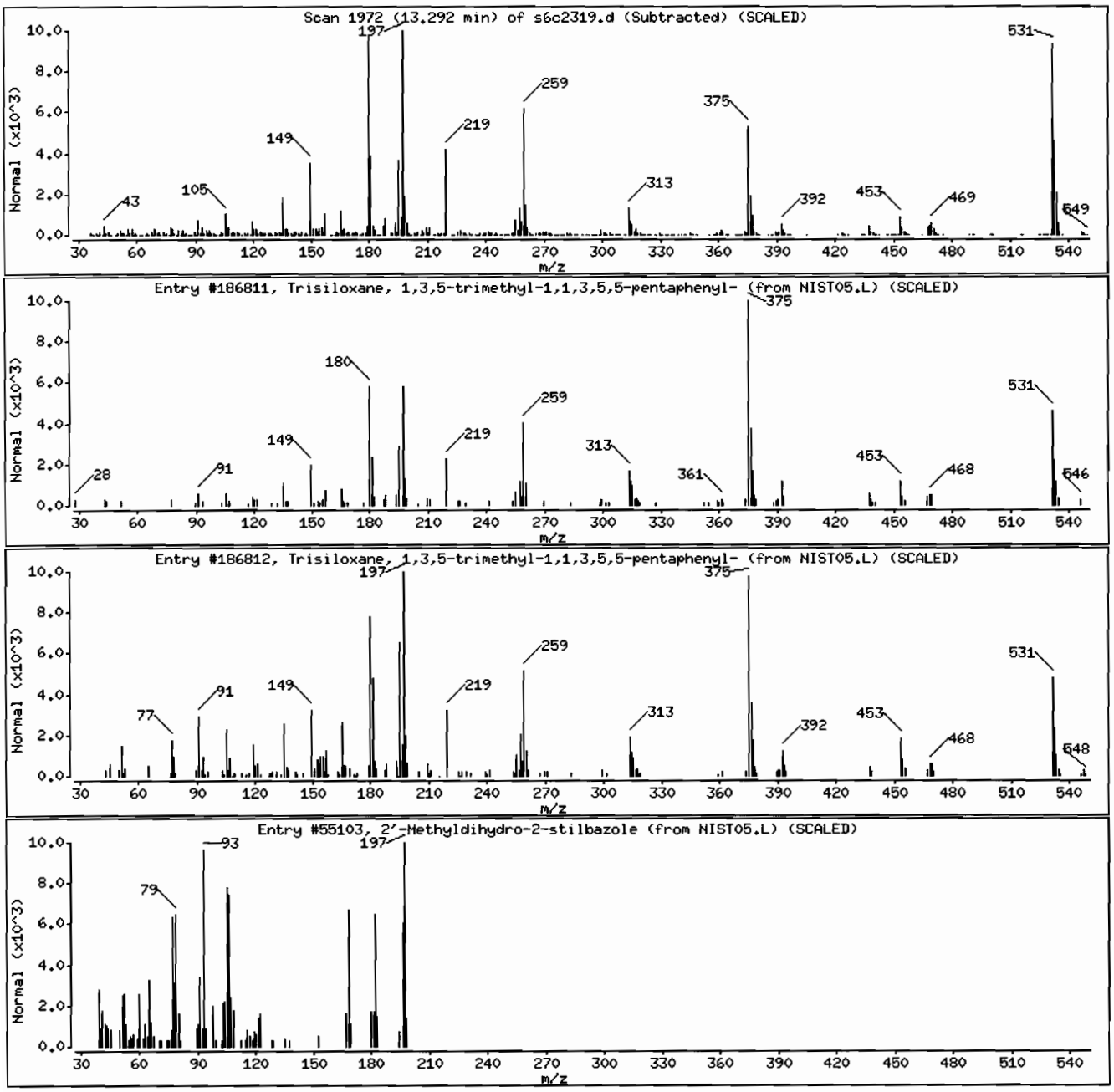

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13547**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 22:19**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2321.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	3810	ug/kg	762	3810
108-95-2	Phenol	U	3810	ug/kg	762	3810
95-57-8	2-Chlorophenol	U	3810	ug/kg	762	3810
106-46-7	1,4-Dichlorobenzene	U	3810	ug/kg	762	3810
621-64-7	N-Nitrosodipropylamine	U	3810	ug/kg	762	3810
59-50-7	4-Chloro-3-methylphenol	U	3810	ug/kg	762	3810
83-32-9	Acenaphthene	U	381	ug/kg	126	381
121-14-2	2,4-Dinitrotoluene	U	3810	ug/kg	381	3810
100-02-7	4-Nitrophenol	U	3810	ug/kg	1260	3810
87-86-5	Pentachlorophenol	U	3810	ug/kg	953	3810
129-00-0	Pyrene	U	381	ug/kg	114	381
110-86-1	Pyridine	U	3810	ug/kg	762	3810
62-53-3	Aniline	U	3810	ug/kg	1140	3810
111-44-4	bis(2-Chloroethyl) ether	U	3810	ug/kg	762	3810
541-73-1	1,3-Dichlorobenzene	U	3810	ug/kg	762	3810
100-51-6	Benzyl alcohol	U	3810	ug/kg	1140	3810
95-50-1	1,2-Dichlorobenzene	U	3810	ug/kg	762	3810
108-60-1	bis(2-Chloroisopropyl)ether	U	3810	ug/kg	762	3810
95-48-7	o-Cresol	U	3810	ug/kg	762	3810
65794-96-9	m,p-Cresols	U	3810	ug/kg	1140	3810
67-72-1	Hexachloroethane	U	3810	ug/kg	762	3810
98-95-3	Nitrobenzene	U	3810	ug/kg	762	3810
78-59-1	Isophorone	U	3810	ug/kg	762	3810
88-75-5	2-Nitrophenol	U	3810	ug/kg	762	3810
105-67-9	2,4-Dimethylphenol	U	3810	ug/kg	1330	3810
111-91-1	bis(2-Chloroethoxy)methane	U	3810	ug/kg	762	3810
120-83-2	2,4-Dichlorophenol	U	3810	ug/kg	762	3810
65-85-0	Benzoic acid	U	7620	ug/kg	1910	7620
91-20-3	Naphthalene		681	ug/kg	114	381
106-47-8	4-Chloroaniline	U	3810	ug/kg	762	3810
87-68-3	Hexachlorobutadiene	U	3810	ug/kg	762	3810
91-57-6	2-Methylnaphthalene		1700	ug/kg	76.2	381
77-47-4	Hexachlorocyclopentadiene	U	3810	ug/kg	762	3810
88-06-2	2,4,6-Trichlorophenol	U	3810	ug/kg	762	3810
95-95-4	2,4,5-Trichlorophenol	U	3810	ug/kg	762	3810
91-58-7	2-Chloronaphthalene	U	381	ug/kg	126	381
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	3810	ug/kg	762	3810
99-09-2	3-Nitroaniline	U	3810	ug/kg	762	3810

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-I3547**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 22:19**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2321.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	3810	ug/kg	762	3810
606-20-2	2,6-Dinitrotoluene	U	3810	ug/kg	381	3810
208-96-8	Acenaphthylene	U	381	ug/kg	114	381
51-28-5	2,4-Dinitrophenol	U	7620	ug/kg	1450	7620
132-64-9	Dibenzofuran	U	3810	ug/kg	762	3810
84-66-2	Diethylphthalate	U	3810	ug/kg	762	3810
86-73-7	Fluorene	U	381	ug/kg	114	381
7005-72-3	4-Chlorophenylphenylether	U	3810	ug/kg	762	3810
534-52-1	2-Methyl-4,6-dinitrophenol	U	3810	ug/kg	762	3810
100-01-6	4-Nitroaniline	U	3810	ug/kg	1140	3810
	p-Nitroaniline					
122-39-4	Diphenylamine	U	3810	ug/kg	762	3810
122-66-7	Azobenzene	U	3810	ug/kg	762	3810
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	3810	ug/kg	762	3810
118-74-1	Hexachlorobenzene	U	3810	ug/kg	762	3810
85-01-8	Phenanthrene	U	381	ug/kg	114	381
120-12-7	Anthracene	U	381	ug/kg	76.2	381
84-74-2	Di-n-butylphthalate	U	3810	ug/kg	762	3810
206-44-0	Fluoranthene	U	381	ug/kg	114	381
85-68-7	Butylbenzylphthalate	U	3810	ug/kg	762	3810
56-55-3	Benzo(a)anthracene	U	381	ug/kg	114	381
91-94-1	3,3'-Dichlorobenzidine	U	3810	ug/kg	1140	3810
218-01-9	Chrysene	U	381	ug/kg	114	381
117-81-7	bis(2-Ethylhexyl)phthalate		18300	ug/kg	762	3810
117-84-0	Di-n-octylphthalate	U	3810	ug/kg	762	3810
205-99-2	Benzo(b)fluoranthene	U	381	ug/kg	114	381
207-08-9	Benzo(k)fluoranthene	U	381	ug/kg	114	381
50-32-8	Benzo(a)pyrene	U	381	ug/kg	114	381
193-39-5	Indeno(1,2,3-cd)pyrene	U	381	ug/kg	114	381
53-70-3	Dibenzo(a,h)anthracene	U	381	ug/kg	114	381
191-24-2	Benzo(ghi)perylene	U	381	ug/kg	114	381
120-82-1	1,2,4-Trichlorobenzene	U	3810	ug/kg	762	3810

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-40-3	Dodecane	4.75	10200	ug/kg	96	NJ
	Unknown	4.98	4500	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13547**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 22:19**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2321.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	5.05	5500	ug/kg		J
629-50-5	Tridecane	5.17	13700	ug/kg	97	NJ
90-12-0	Naphthalene, 1-methyl-	5.38	4010	ug/kg	94	NJ
1560-96-9	Tridecane, 2-methyl-	5.43	4180	ug/kg	83	NJ
31295-56-4	Dodecane, 2,6,11-trimethyl-	5.48	6210	ug/kg	93	NJ
629-59-4	Tetradecane	5.59	11500	ug/kg	98	NJ
92-52-4	Biphenyl	5.65	69800	ug/kg	96	NJ
	Unknown	7.87	5310	ug/kg		J
	Unknown	9.12	3760	ug/kg		J
	Unknown	9.22	5380	ug/kg		J
	Unknown	9.3	5610	ug/kg		J
	Unknown	9.4	3800	ug/kg		J
	Unknown	9.43	3860	ug/kg		J
	Unknown	9.73	4910	ug/kg		J
	Unknown	9.83	7470	ug/kg		J
1000130-81-0	11,13-Dimethyl-12-tetradecen-1-ol acetat	9.9	3870	ug/kg	89	NJ
	Unknown	10.06	3830	ug/kg		J
	Unknown	10.16	5160	ug/kg		J
	Unknown	10.26	6020	ug/kg		J
	Unknown	10.49	6640	ug/kg		J
	Unknown	10.55	5000	ug/kg		J
	Unknown	10.69	16900	ug/kg		J
	Unknown	10.85	5340	ug/kg		J
	Unknown	10.95	5480	ug/kg		J
	Unknown	11.11	6530	ug/kg		J
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	11.46	5760	ug/kg	83	NJ
	Unknown	13.25	14600	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032310.b/s6c2321.d
Lab Smp Id: 248842009 Client Smp ID: RE46-10-13547
Inj Date : 23-MAR-2010 22:19
Operator : nagl Inst ID: MSD6.i
Smp Info : |248842009|965425|10|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 09:23 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 16
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	12.65350	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.951	3.946	(1.000)	356024	40.0000	
* 29 Naphthalene-d8	136	4.816	4.804	(1.000)	1214688	40.0000	
* 46 Acenaphthene-d10	164	6.069	6.057	(1.000)	769254	40.0000	
* 67 Phenanthrene-d10	188	7.234	7.228	(1.000)	1287418	40.0000	
* 91 Chrysene-d12	240	9.639	9.628	(1.000)	1052681	40.0000	
* 98 Perylene-d12	264	11.322	11.298	(1.000)	879606	40.0000	
$ 3 2-Fluorophenol	112	3.140	3.128	(0.795)	56843	5.74339	2190
$ 5 Phenol-d5	99	3.657	3.657	(0.926)	79735	6.33497	2410
$ 20 Nitrobenzene-d5	82	4.310	4.304	(0.895)	39499	3.40167	1300
$ 39 2-Fluorobiphenyl	172	5.557	5.546	(0.916)	84094	4.23713	1610
$ 60 2,4,6-Tribromophenol	329	6.663	6.651	(1.098)	15983	7.40422	2820
$ 81 p-Terphenyl-d14	244	8.610	8.604	(0.893)	87655	4.77843	1820

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
30 Naphthalene	128	4.828	4.822	(1.002)	53473	1.78795	681(Q)
34 2-Methylnaphthalene	142	5.310	5.304	(1.103)	81932	4.45485	1700
93 bis(2-Ethylhexyl)phthalate	149	9.563	9.551	(0.992)	997955	48.0859	18300

QC Flag Legend

Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

SV REPORT

Data file: s6c2321.d
Report Date: 03/24/2010 09:30
Lab. ID: 248842009 SampleType: SAMPLE
Injection Date: 23-MAR-2010 22:19
Operator: nagl Instrument: MSD6.i
Sample Info: |248842009|965425|10|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100319-01
Comment:
Method used: /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m
Dilution Factor= 10.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	37967	4.29	4.18	80-120	100	(T)
42	33578	4.29	4.18	40-100	88	(T)
22 Isophorone				CAS#: 78-59-1		
82	54322	4.82	4.47	80-120	100	(T)
138	7464	4.82	4.47	0- 48	14	(T)
30 Naphthalene				CAS#: 91-20-3		
128	53473	4.83	4.82	80-120	100	( )
129	8790	4.83	4.82	0- 52	16	( )
127	9552	4.83	4.82	23- 83	18	(Q)
34 2-Methylnaphthalene				CAS#: 91-57-6		
142	81932	5.31	5.30	80-120	100	( )
141	68604	5.31	5.30	55-115	84	( )
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	719271	6.07	5.66	80-120	100	(T)
164	769161	6.07	5.66	3- 63	107	(QT)
127	6240	5.96	5.66	7- 67	1	(QT)
42 o-Nitroaniline				CAS#: 88-74-4		
65	482914	5.72	5.71	80-120	100	( )
92	27275	5.72	5.71	38- 98	6	(Q)
138	7132	5.72	5.71	81-141	1	(Q)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
43 Dimethylphthalate			CAS#: 131-11-3			
163	138367	6.07	5.82	80-120	100	(T)
164	769421	6.07	5.82	0- 41	556	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	13291	5.83	5.87	80-120	100	( )
63	11670	5.83	5.87	43-103	88	( )
45 Acenaphthylene			CAS#: 208-96-8			
152	23476	5.83	5.96	80-120	100	(T)
151	3027	5.83	5.96	0- 50	13	(T)
153	26842	5.83	5.96	0- 44	114	(QT)
47 Acenaphthene			CAS#: 83-32-9			
154	9908	5.95	6.08	80-120	100	(T)
153	4795	5.94	6.08	70-130	48	(QT)
152	3133	5.96	6.08	17- 77	32	(T)
48 2,4-Dinitrophenol			CAS#: 51-28-5			
184	295	6.19	6.07	80-120	100	(T)
154	3788	6.13	6.07	843-903	1282	(Q)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	104937	6.07	6.17	80-120	100	(T)
89	1783	6.07	6.17	38- 98	2	(QT)
63	1910	6.07	6.17	18- 78	2	(QT)
52 4-Nitrophenol			CAS#: 100-02-7			
139	190714	5.72	6.09	80-120	100	(T)
109	2631	5.75	6.09	36- 96	1	(QT)
65	482914	5.72	6.09	69-129	253	(QT)
53 Fluorene			CAS#: 86-73-7			
166	6879	6.07	6.47	80-120	100	(T)
165	103744	6.07	6.47	60-120	1508	(QT)
167	6413	6.07	6.47	0- 44	93	(QT)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	356	6.67	6.48	80-120	100	(T)
105	1059	6.67	6.48	10- 70	297	(QT)
51	3426	6.79	6.48	27- 87	960	(QT)
93 bis(2-Ethylhexyl)phthalate			CAS#: 117-81-7			
149	997955	9.56	9.55	80-120	100	( )
167	321127	9.56	9.55	4- 64	32	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032310.b/s6c2321.d
Lab Smp Id: 248842009 Client Smp ID: RE46-10-13547
Inj Date : 23-MAR-2010 22:19
Operator : nag1 Inst ID: MSD6.i
Smp Info : |248842009|965425|10|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 09:23 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 16
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	12.65350	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 29 Naphthalene-d8	4.816	4854487	40.000
* 46 Acenaphthene-d10	6.069	3493672	40.000
* 67 Phenanthrene-d10	7.234	3636356	40.000
* 91 Chrysene-d12	9.639	4483602	40.000
* 98 Perylene-d12	11.322	3971534	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Dodecane				CAS #: 112-40-3			
4.746	3254869	26.8194619	10200	96	NIST05.L	36431	29
Unknown				CAS #:			
4.981	1432548	11.8039043	4500	0		0	29
Unknown				CAS #:			
5.051	1751502	14.4320189	5500	0		0	29
Tridecane				CAS #: 629-50-5			
5.175	4354517	35.8803395	13700	97	NIST05.L	46084	29
Naphthalene, 1-methyl-				CAS #: 90-12-0			
5.381	1276666	10.5194723	4010	94	NIST05.L	18566	29
Tridecane, 2-methyl-				CAS #: 1560-96-9			
5.428	1331270	10.9693943	4180	83	NIST05.L	55988	29
Dodecane, 2,6,11-trimethyl-				CAS #: 31295-56-4			
5.481	1423870	16.3022732	6210	93	NIST05.L	66080	46
Tetradecane				CAS #: 629-59-4			
5.587	2639561	30.2210378	11500	98	NIST05.L	55974	46
Biphenyl				CAS #: 92-52-4			
5.646	16002885	183.221327	69800	96	NIST05.L	25992	46
Unknown				CAS #:			
7.869	1266122	13.9273705	5310	0		0	67
Unknown				CAS #:			
9.122	1107045	9.87638710	3760	0		0	91
Unknown				CAS #:			
9.216	1582754	14.1203746	5380	0		0	91
Unknown				CAS #:			
9.298	1650621	14.7258429	5610	0		0	91
Unknown				CAS #:			
9.398	1117312	9.96798226	3800	0		0	91
Unknown				CAS #:			
9.433	1134967	10.1254913	3860	0		0	91

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
9.728	1445105	12.8923569	4910	0		0	91
Unknown				CAS #:			
9.833	2197528	19.6050154	7470	0		0	91
11,13-Dimethyl-12-tetradecen-1-ol acetat				CAS #: 1000130-81-0			
9.898	1137909	10.1517404	3870	89	NIST05.L	113394	91
Unknown				CAS #:			
10.057	1125877	10.0443924	3830	0		0	91
Unknown				CAS #:			
10.157	1518650	13.5484811	5160	0		0	91
Unknown				CAS #:			
10.263	1770528	15.7955816	6020	0		0	91
Unknown				CAS #:			
10.486	1730540	17.4294372	6640	0		0	98
Unknown				CAS #:			
10.545	1302269	13.1160255	5000	0		0	98
Unknown				CAS #:			
10.686	4402420	44.3397344	16900	0		0	98
Unknown				CAS #:			
10.851	1390887	14.0085593	5340	0		0	98
Unknown				CAS #:			
10.951	1426702	14.3692803	5480	0		0	98
Unknown				CAS #:			
11.110	1700510	17.1269831	6530	0		0	98
D-Homoandrostane, (5.alpha.,13.alpha.)-				CAS #: 54482-31-4			
11.457	1500333	15.1108666	5760	83	NIST05.L	108369	98
Unknown				CAS #:			
13.251	3811378	38.3869539	14600	0		0	98

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547

Sample Info: |2488420091965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20

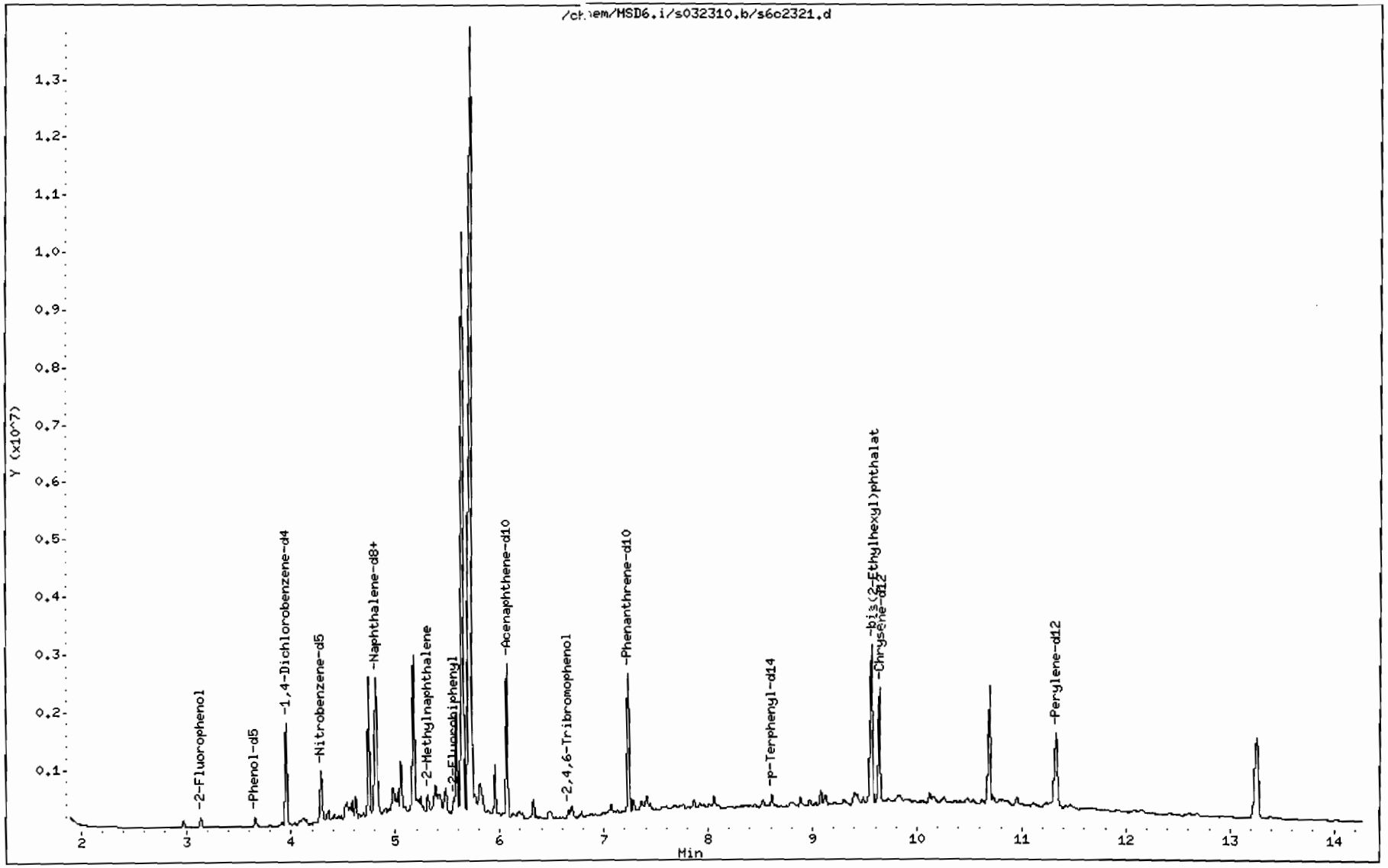

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547

Instrument: MSD6.i

Sample Info: 1248842009|965425|10|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

30 Naphthalene

Concentration: 681 ug/Kg

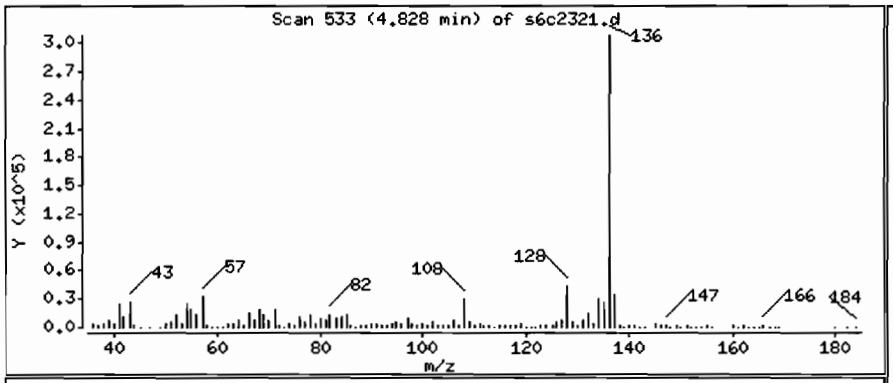

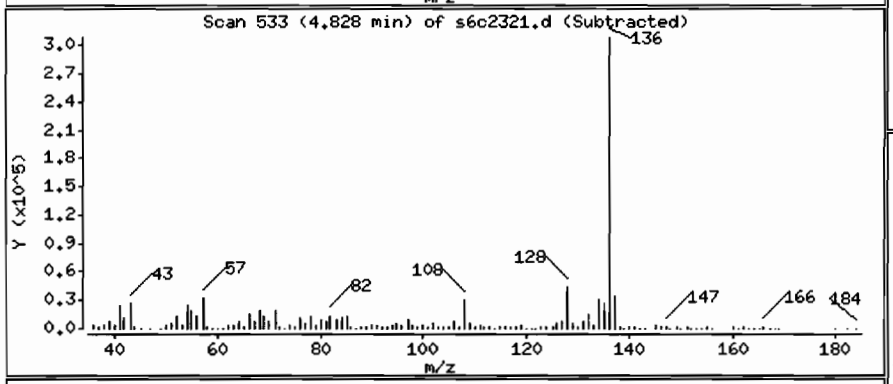

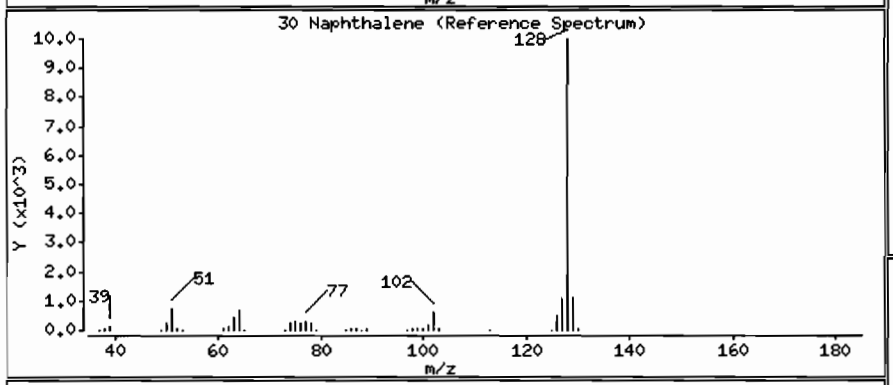

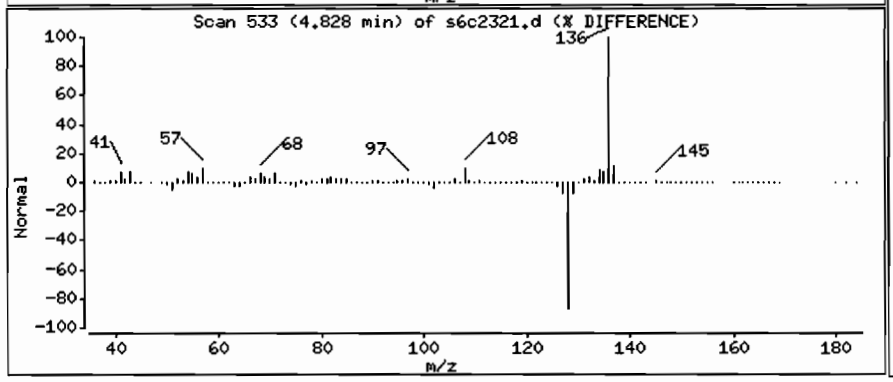

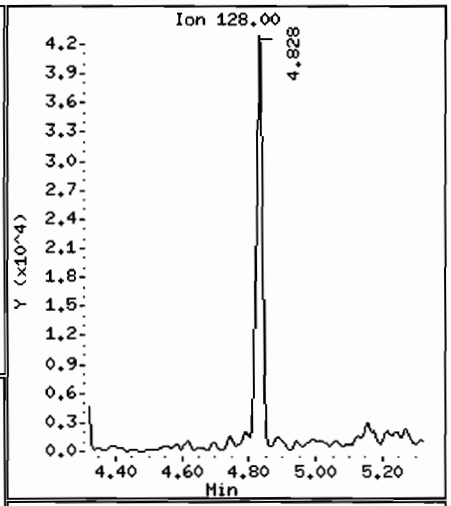

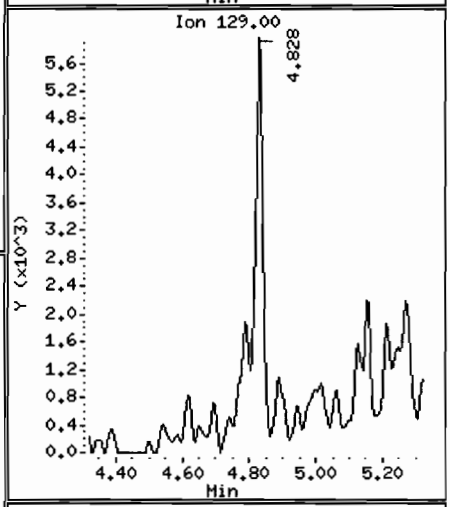

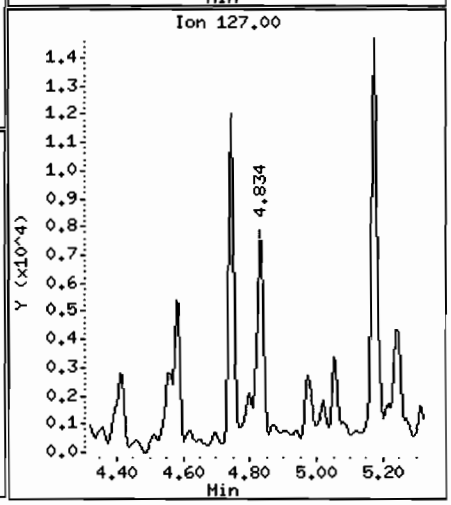

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547

Instrument: MSD6.i

Sample Info: |2488420091965425|10|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 1700 ug/Kg

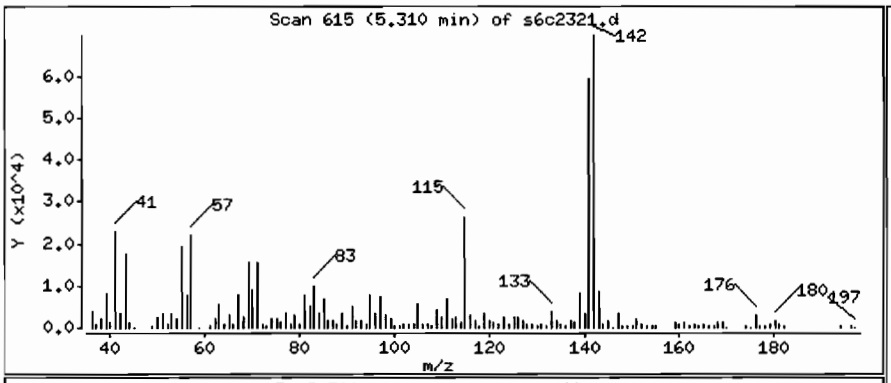

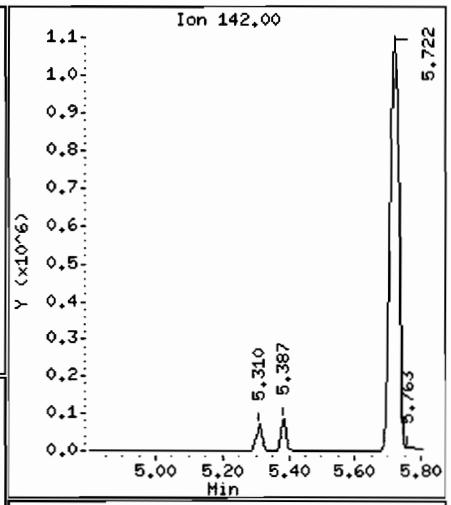

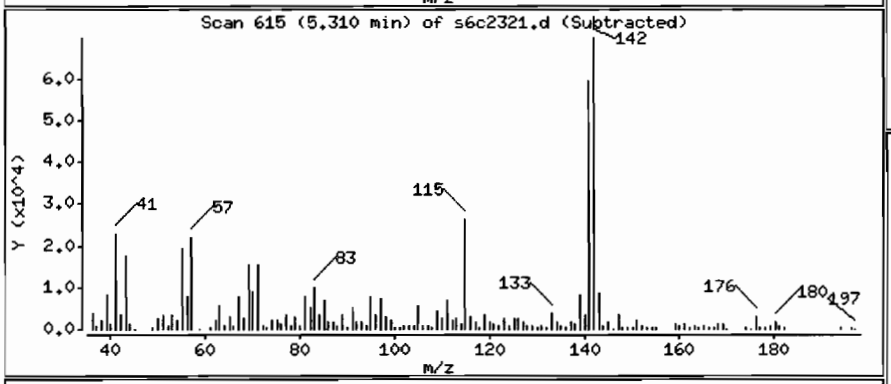

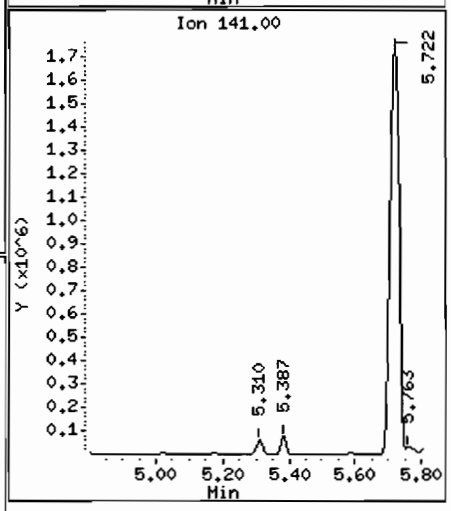

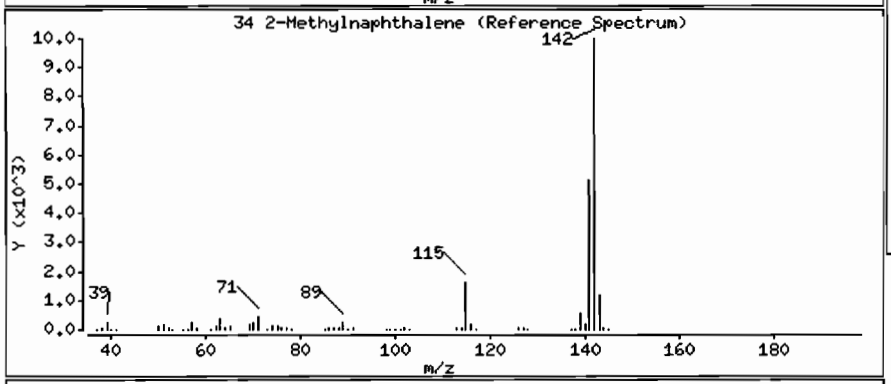

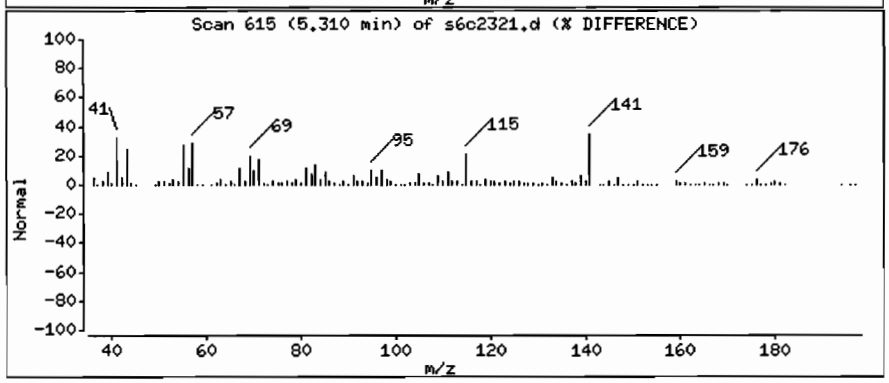

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547

Instrument: MSD6.i

Sample Info: 1248842009|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 18300 ug/Kg

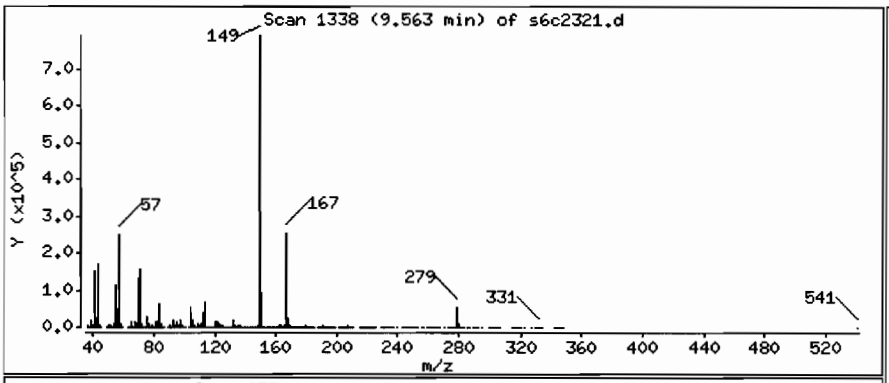

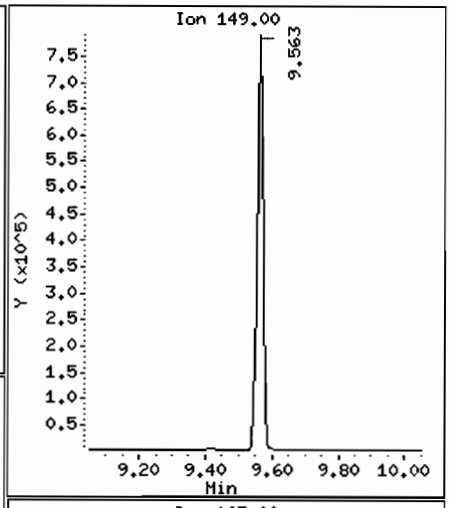

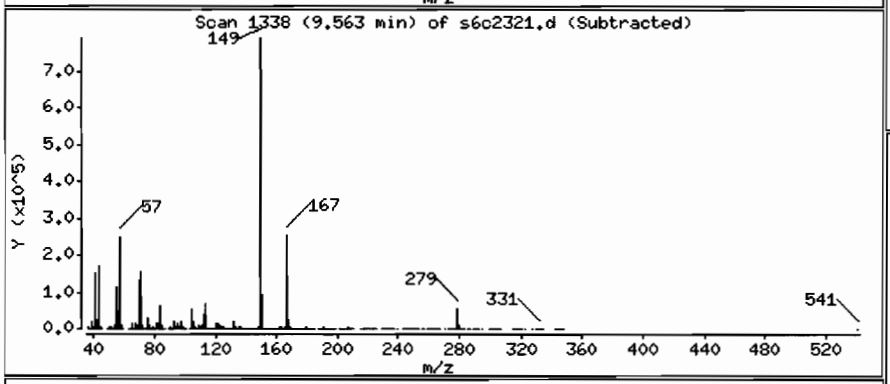

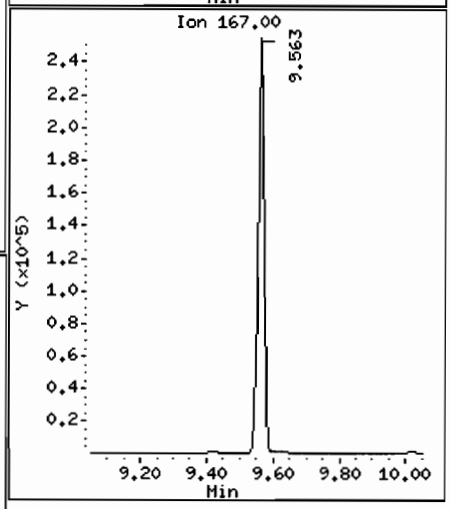

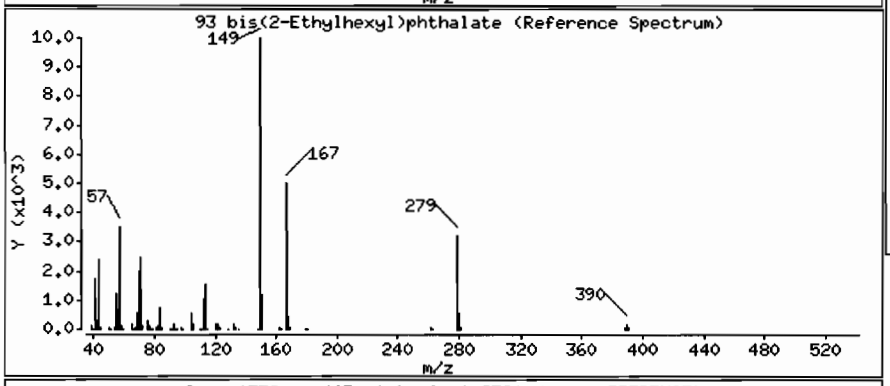

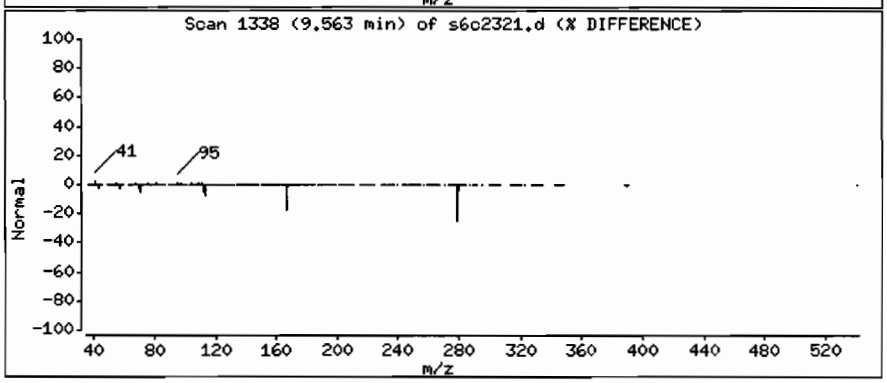

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547

Instrument: MSD6.i

Sample Info: 1248842009196542511 0|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Dodecane	112-40-3	NIST05.L	36431	96	C12H26	170
Dodecane	112-40-3	NIST05.L	36430	87	C12H26	170
Dodecane	112-40-3	NIST05.L	36429	87	C12H26	170

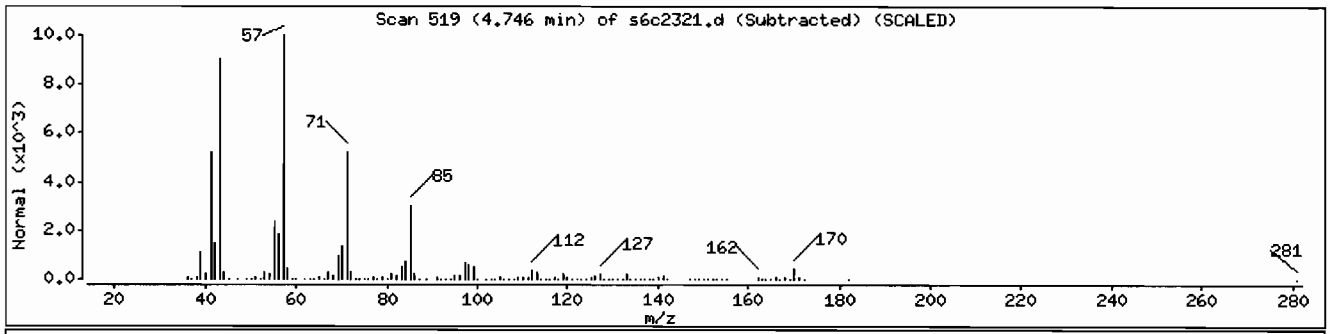

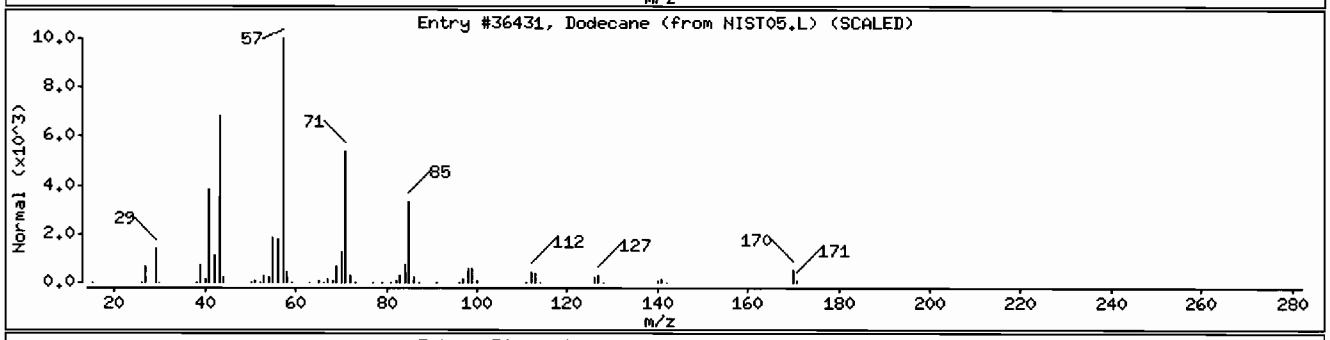

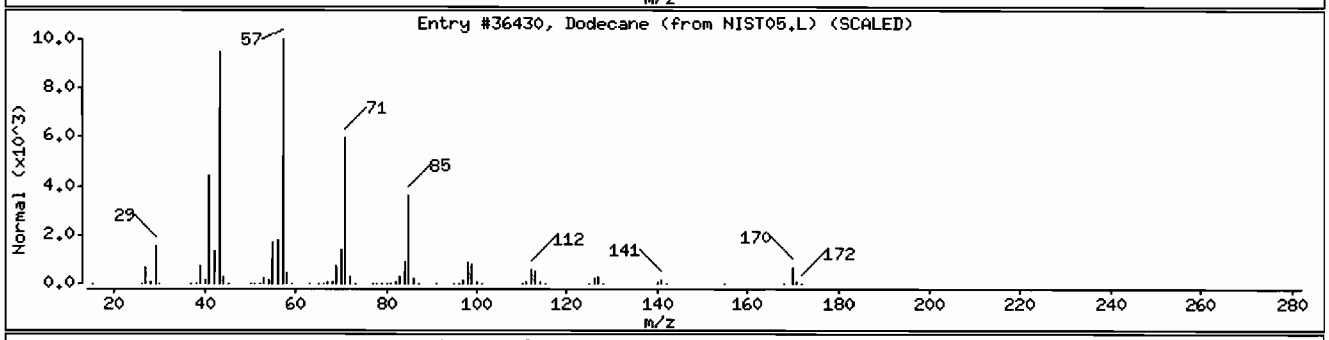

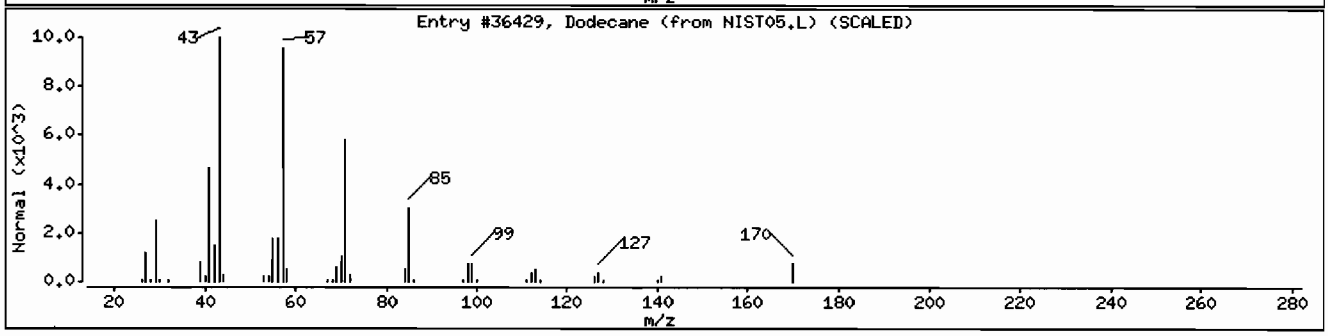

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: |2488420091965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ethanone, 1-cyclohexyl-	823-76-7	NIST05.L	11006	55	C8H14O	126
Pentafluoropropionic acid, octadecyl est	1000280-07-7	NIST05.L	174660	38	C21H37F5O2	416
Pentafluoropropionic acid, hexadecyl est	6222-07-7	NIST05.L	167697	30	C19H33F5O2	388

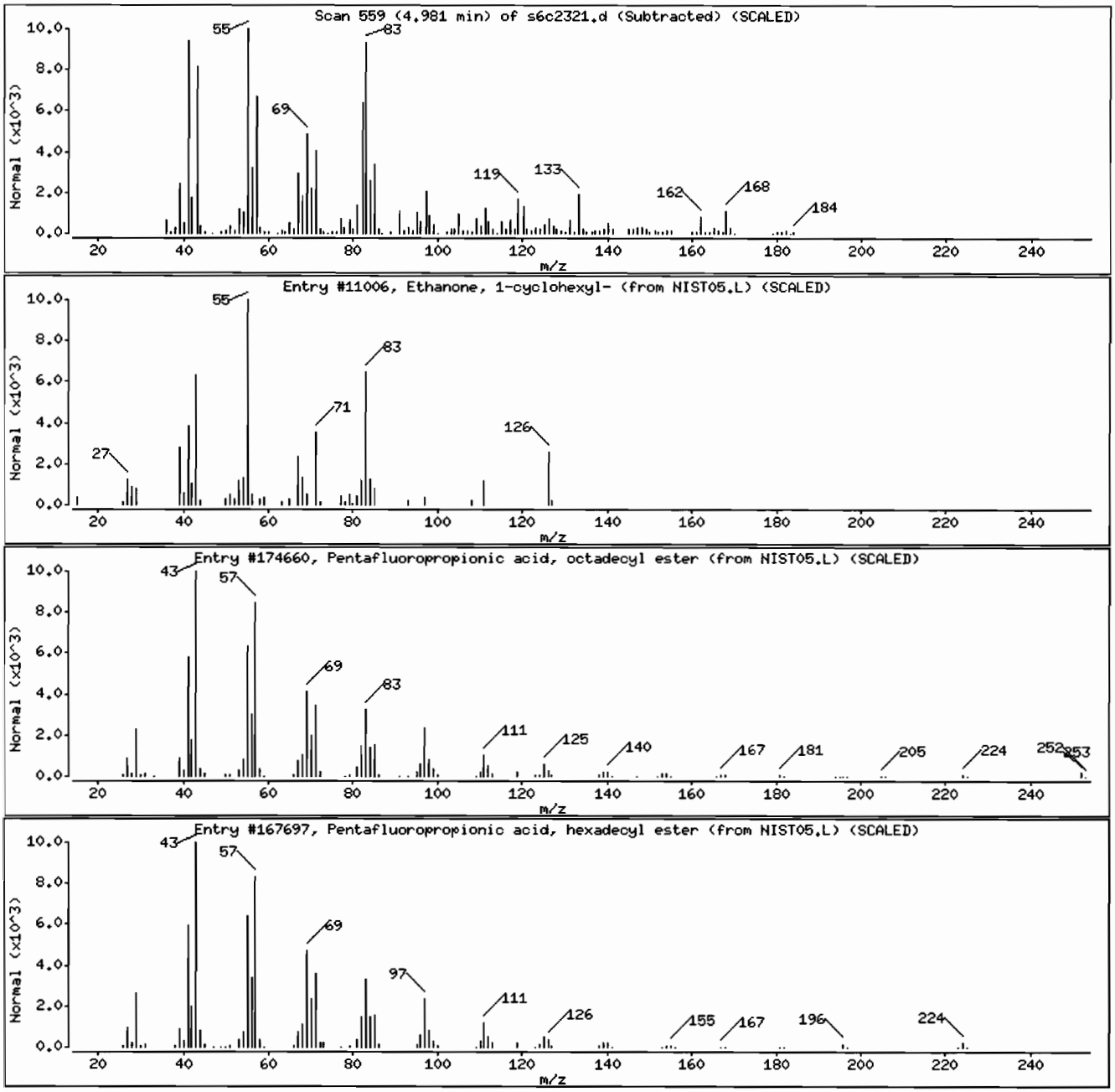

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547

Instrument: MSD6.i

Sample Info: |2488420091965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Octane, 2,6-dimethyl-	2051-30-1	NIST05.L	18510	74	C10H22	142
Sulfurous acid, 2-ethylhexyl tridecyl es	1000309-19-6	NIST05.L	163815	64	C21H44O3S	376
Decane, 2-methyl-	6975-98-0	NIST05.L	27246	64	C11H24	156

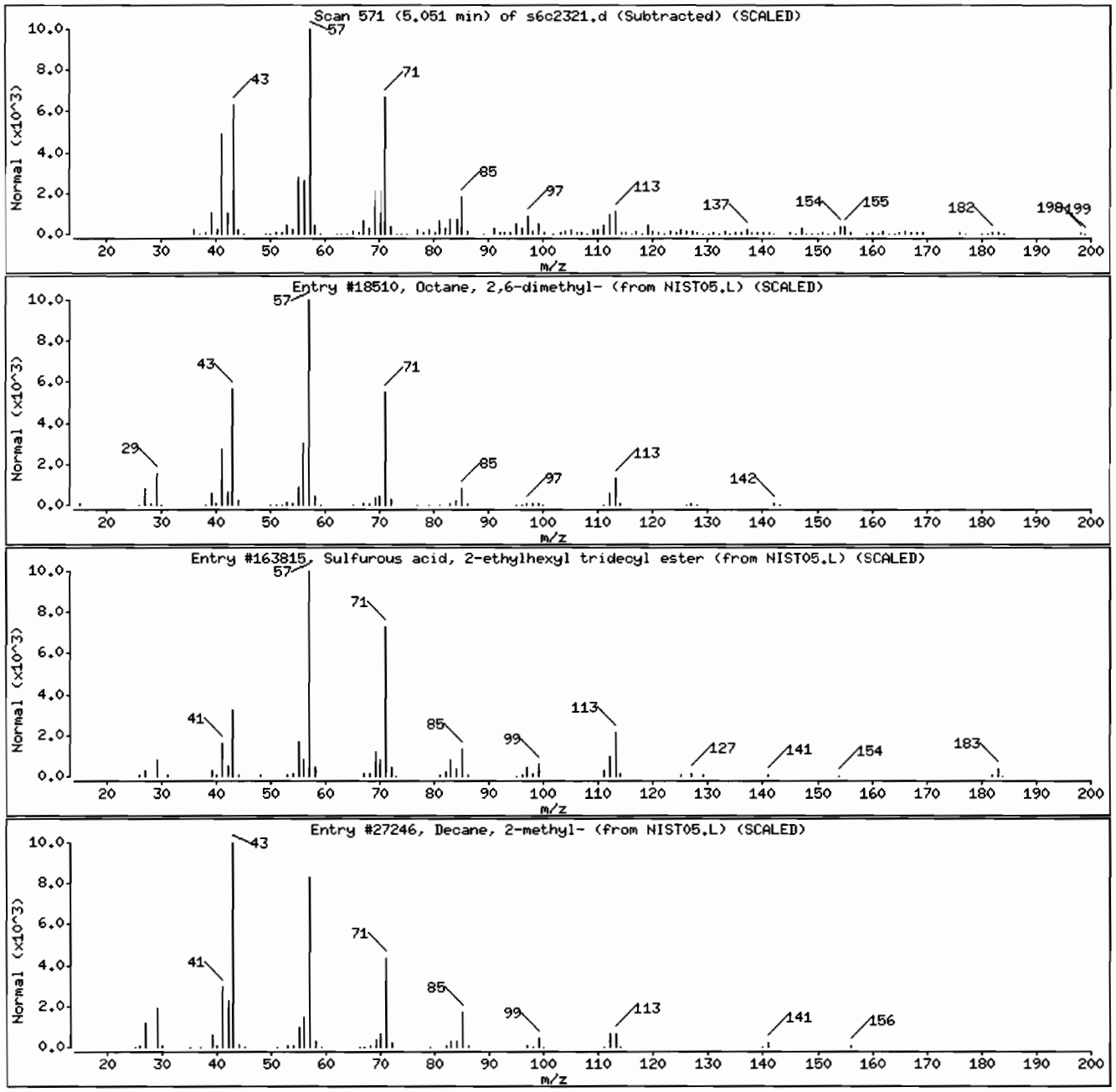

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547

Instrument: MSD6.i

Sample Info: |2488420091965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tridecane	629-50-5	NIST05.L	46084	97	C13H28	184
Tridecane	629-50-5	NIST05.L	46087	97	C13H28	184
Tridecane	629-50-5	NIST05.L	46086	97	C13H28	184

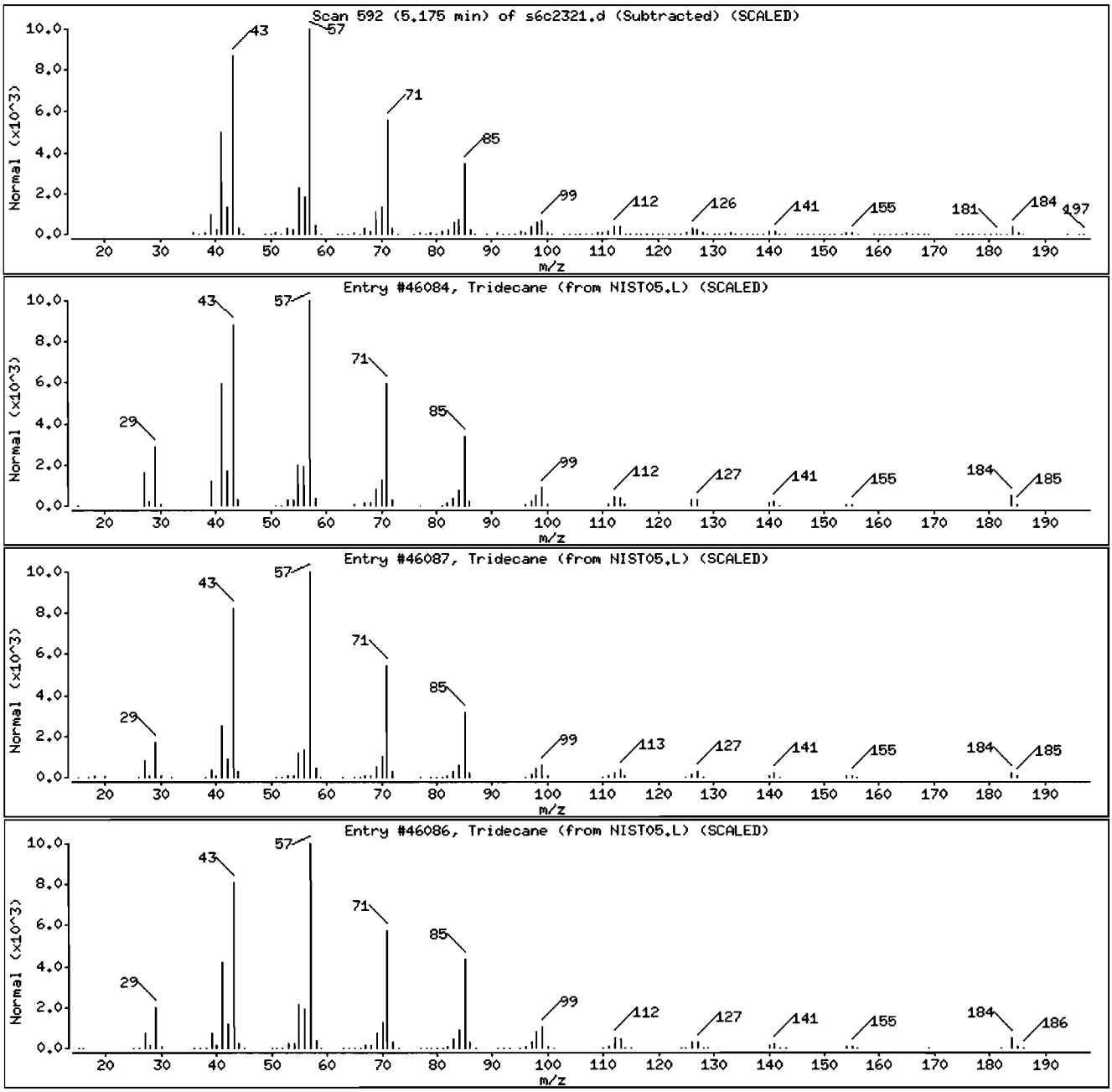

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: |2488420091965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1-methyl-	90-12-0	NIST05.L	18566	94	C11H10	142
Naphthalene, 2-methyl-	91-57-6	NIST05.L	18568	94	C11H10	142
1,4-Methanonaphthalene, 1,4-dihydro-	4453-90-1	NIST05.L	18571	89	C11H10	142

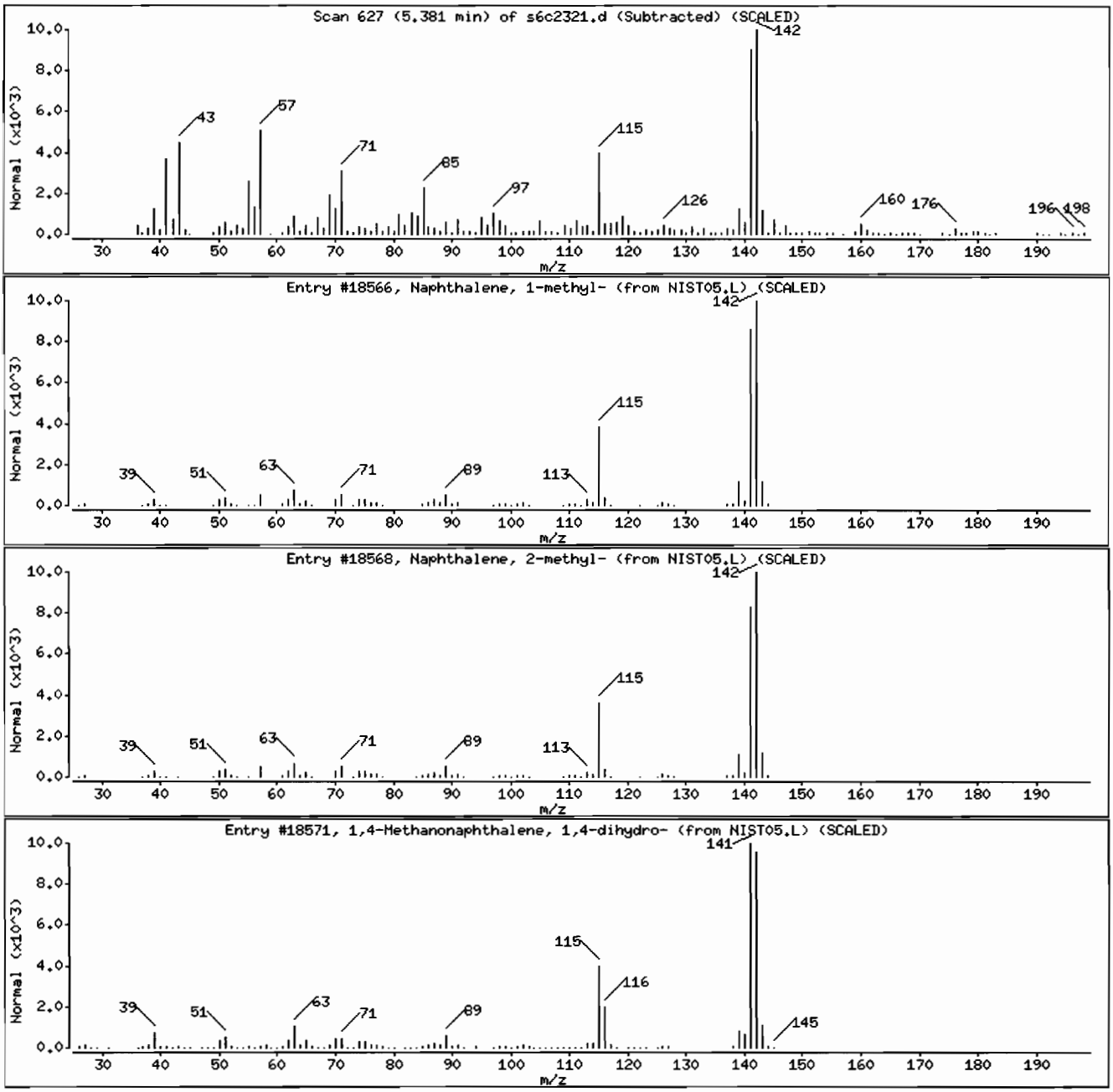

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547

Instrument: MSD6.i

Sample Info: |2488420091965425|10|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tridecane, 2-methyl-	1560-96-9	NIST05.L	55988	83	C14H30	198
(+-)-3-(2-Carboxy-trans-propenyl)-2,2-di	40253-03-0	NIST05.L	55435	53	C10H1404	198
Sulfurous acid, 2-propyl tetradecyl este	1000309-12-5	NIST05.L	136806	49	C17H3603S	320

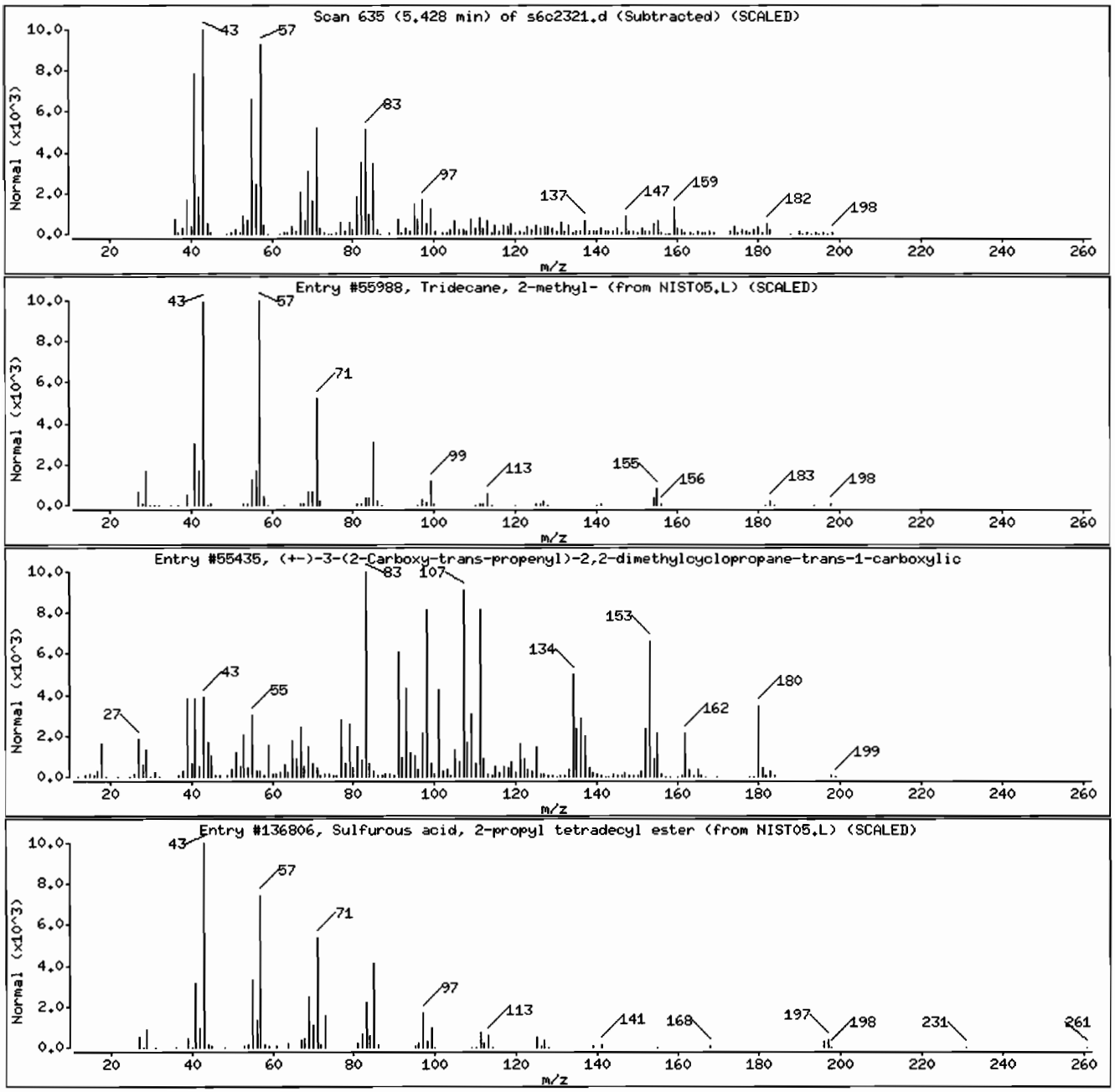

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547

Instrument: MSD6.i

Sample Info: 1248842009|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Dodecane, 2,6,11-trimethyl-	31295-56-4	NIST05.L	66080	93	C15H32	212
Dodecane, 2,6,10-trimethyl-	3891-98-3	NIST05.L	66082	91	C15H32	212
Dodecane, 2,6,10-trimethyl-	3891-98-3	NIST05.L	66081	90	C15H32	212

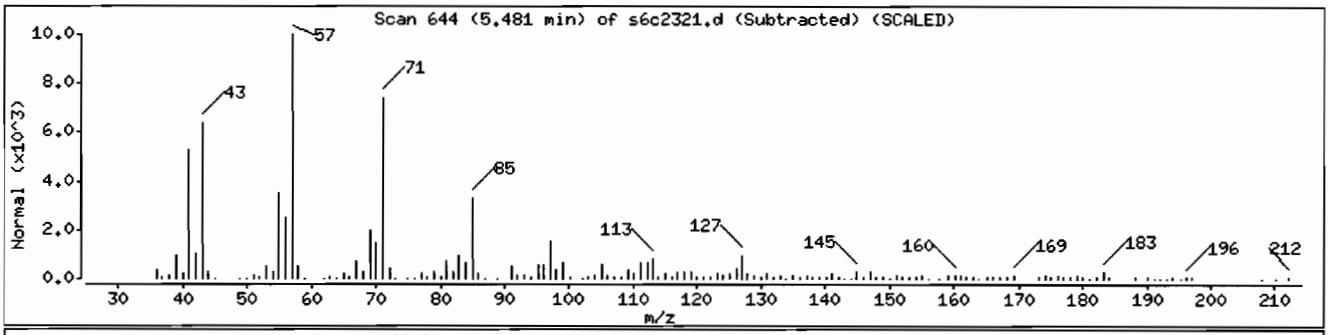

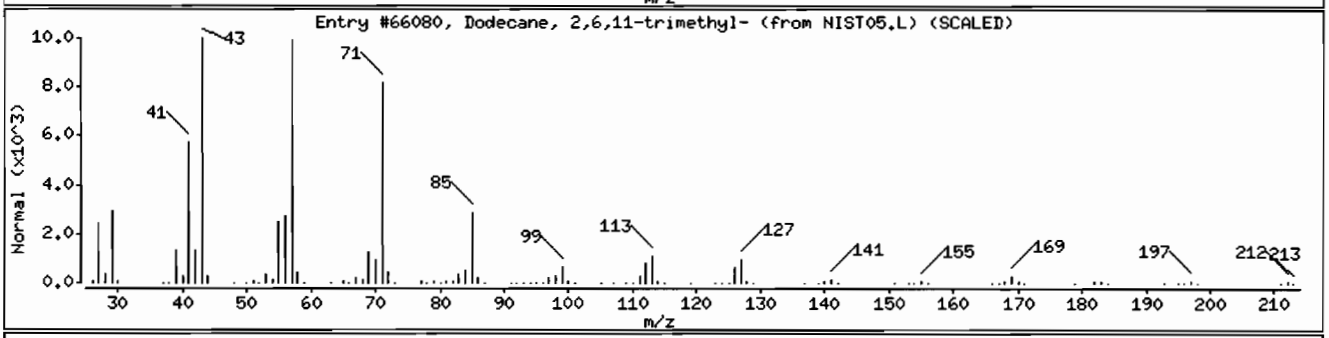

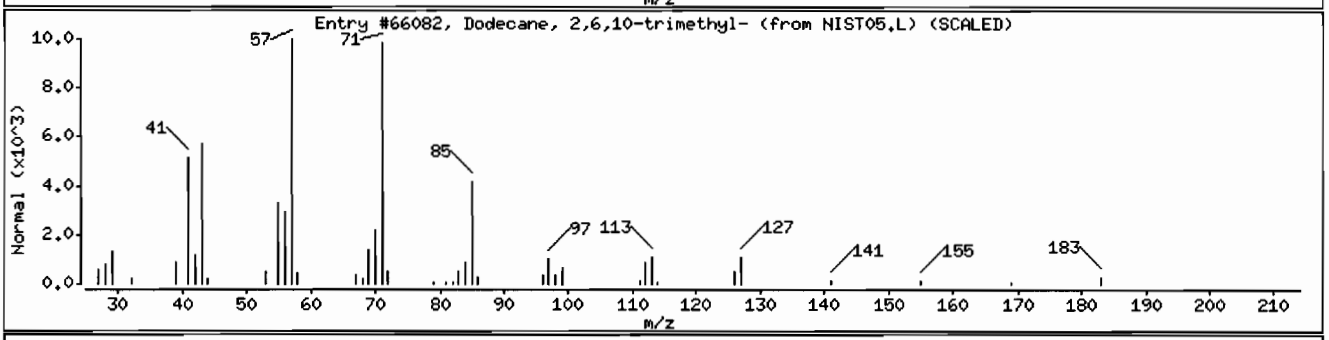

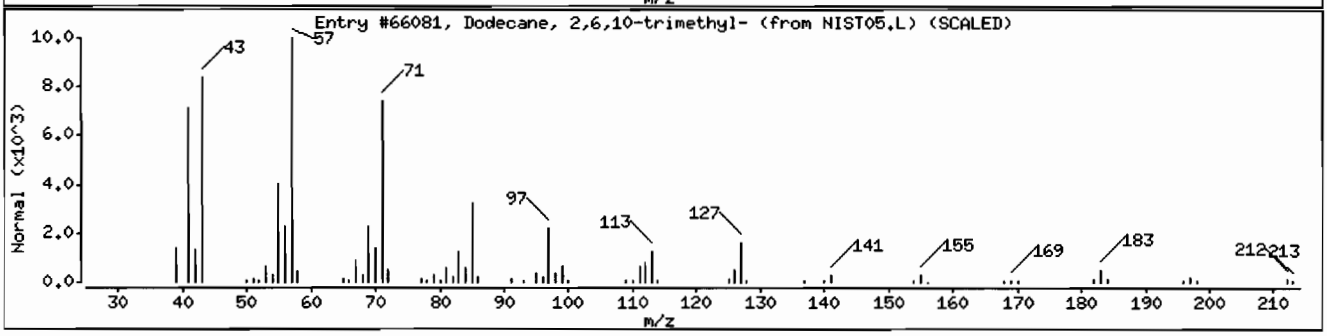

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: 1248842009|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetradecane	629-59-4	NIST05.L	55974	98	C14H30	198
Tetradecane	629-59-4	NIST05.L	55975	97	C14H30	198
Tetradecane	629-59-4	NIST05.L	55973	96	C14H30	198

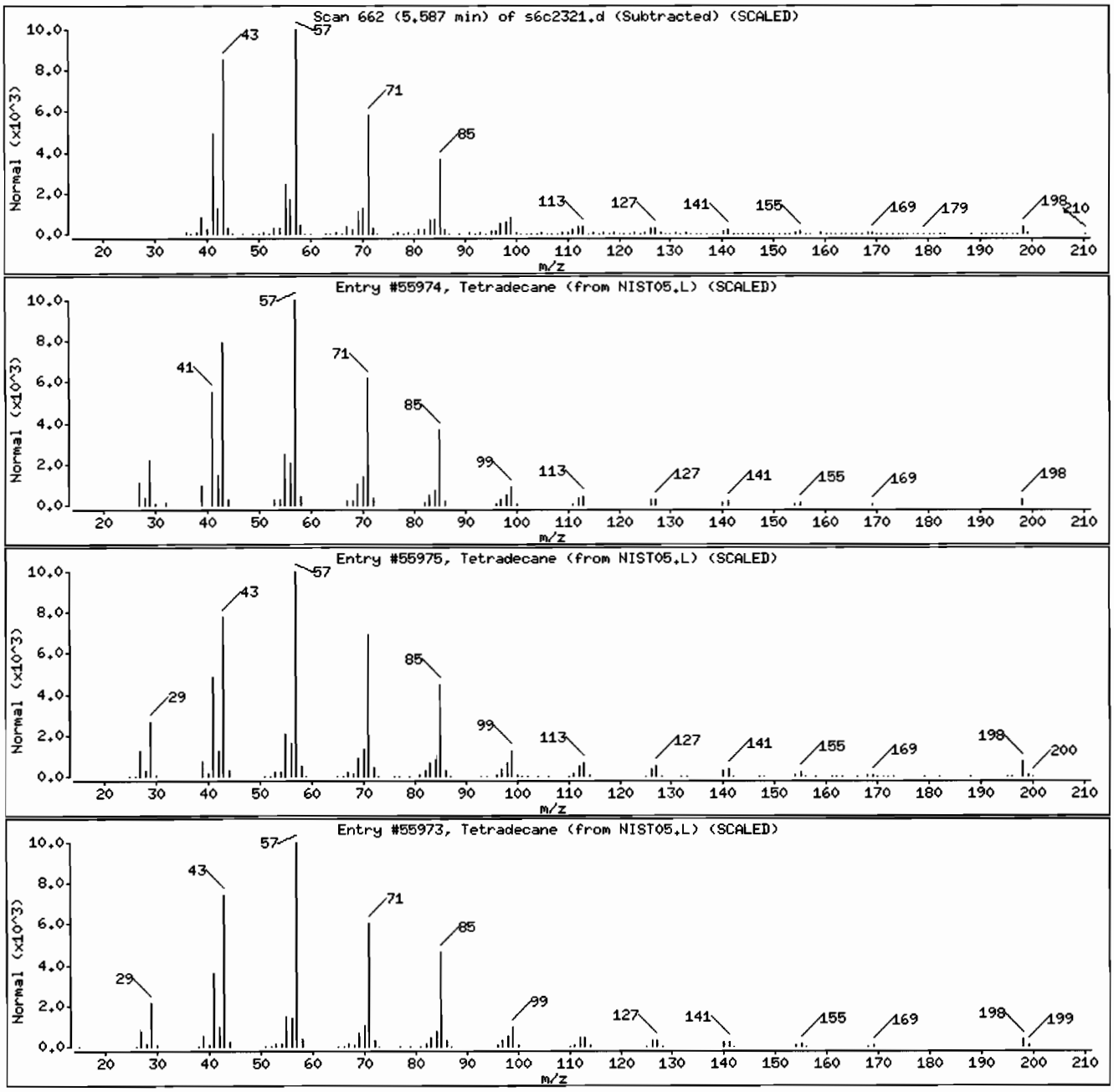

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547

Instrument: MSD6.i

Sample Info: |2488420091965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Biphenyl	92-52-4	NIST05.L	25992	96	C12H10	154
Biphenyl	92-52-4	NIST05.L	25989	94	C12H10	154
Biphenyl	92-52-4	NIST05.L	25988	93	C12H10	154

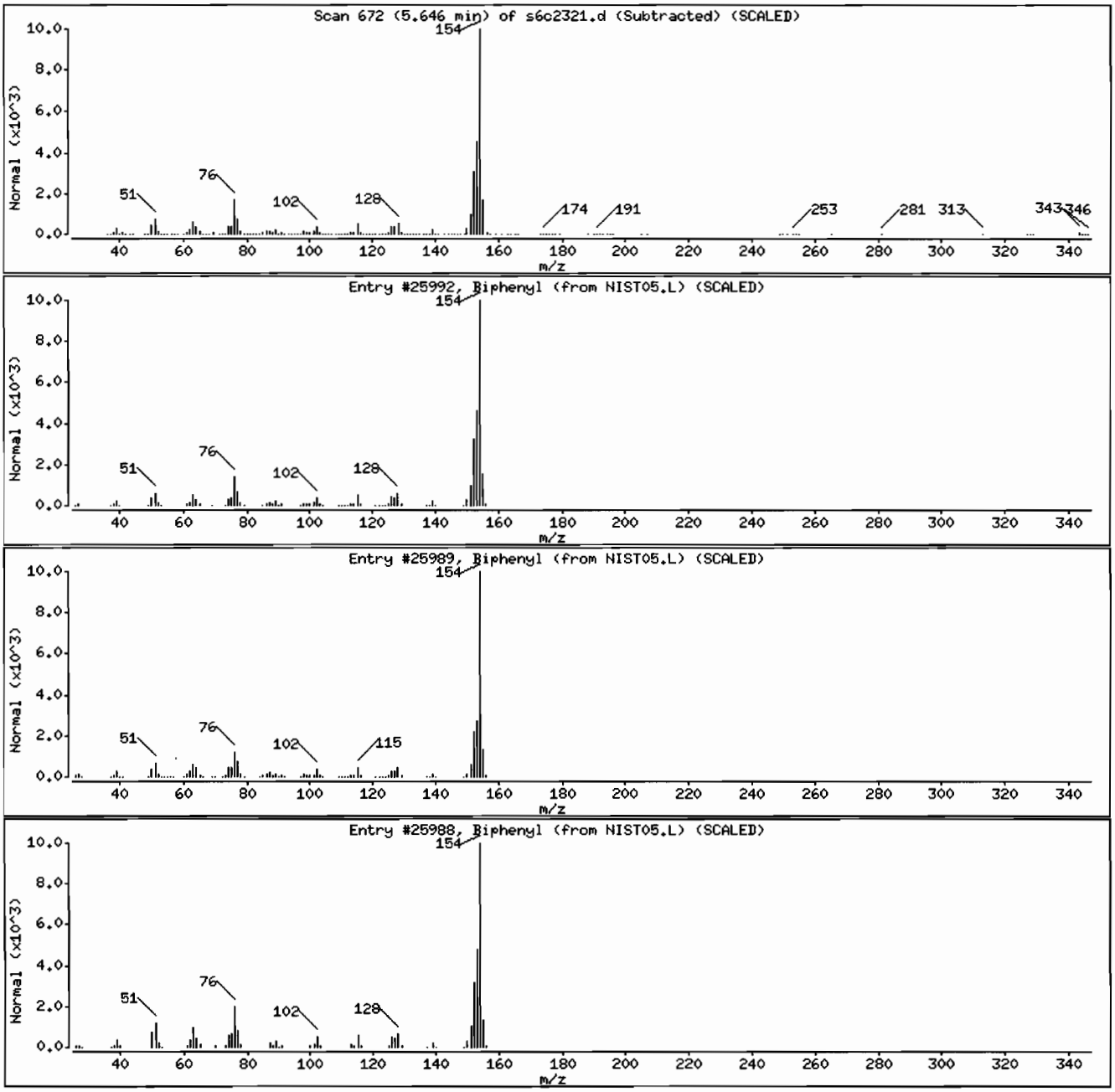

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: 1248842009|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzhydrazide, 3-chloro-N2-[3-(4-methoxy	311789-22-7	NIST05.L	149636	27	C18H17ClN2O3	344
2-Methoxybenzoylformic acid, TMS	1000071-87-1	NIST05.L	93016	18	C12H16O4Si	252
1-Adamantanecarboxylic acid, 2,2-dimethy	1000282-39-0	NIST05.L	92132	18	C16H26O2	250

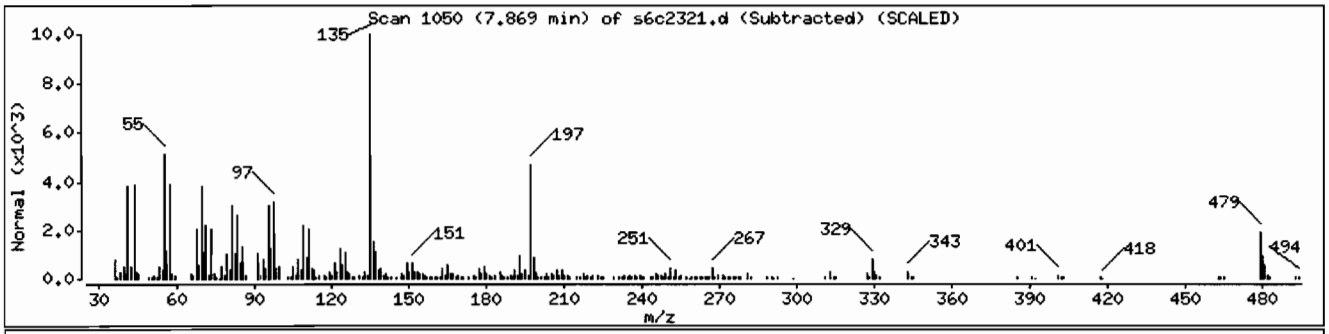

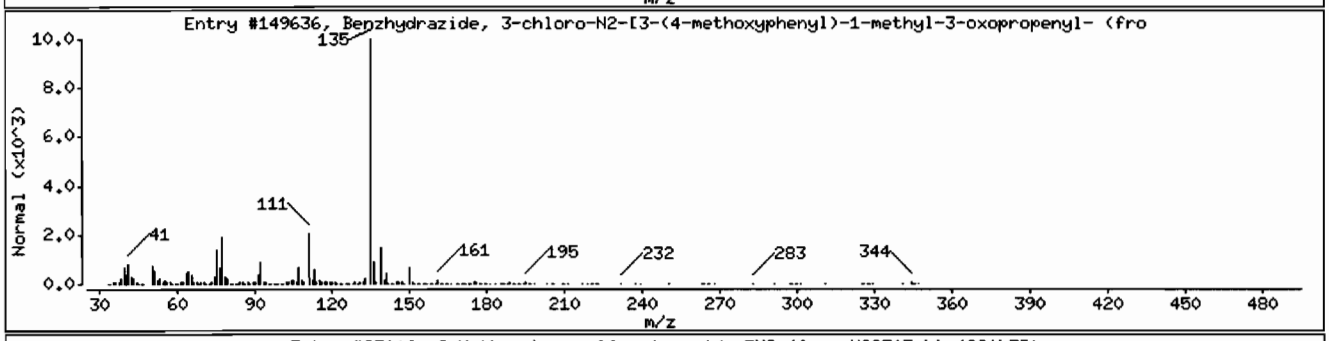

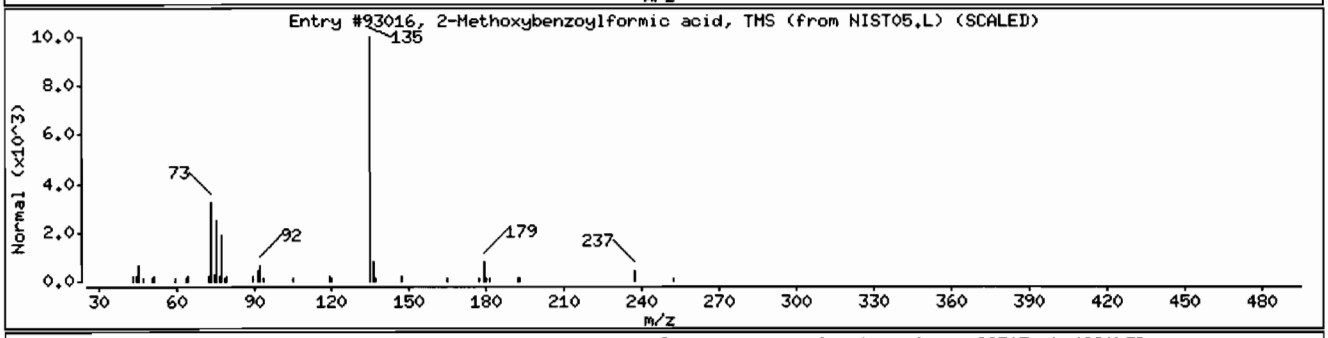

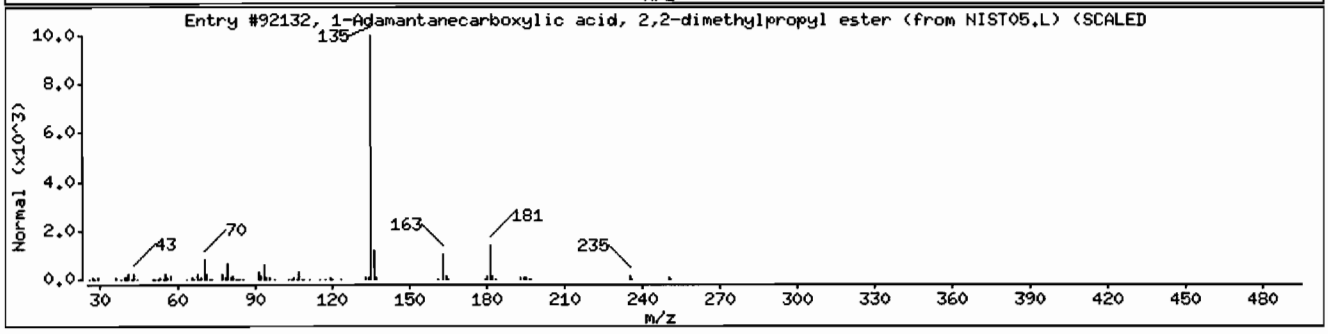

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: |2488420091965425|10|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Dimethyl(3-chloropropyl)silyloxyoctane	1000279-41-3	NIST05.L	101078	17	C13H29ClOSi	264
Lanosta-8,24-dien-3-ol, acetate, (3.beta	2671-68-3	NIST05.L	181941	10	C32H52O2	468
2-Methyl-6-quinolinecarboxylic acid	635-80-3	NIST05.L	48046	9	C11H9NO2	187

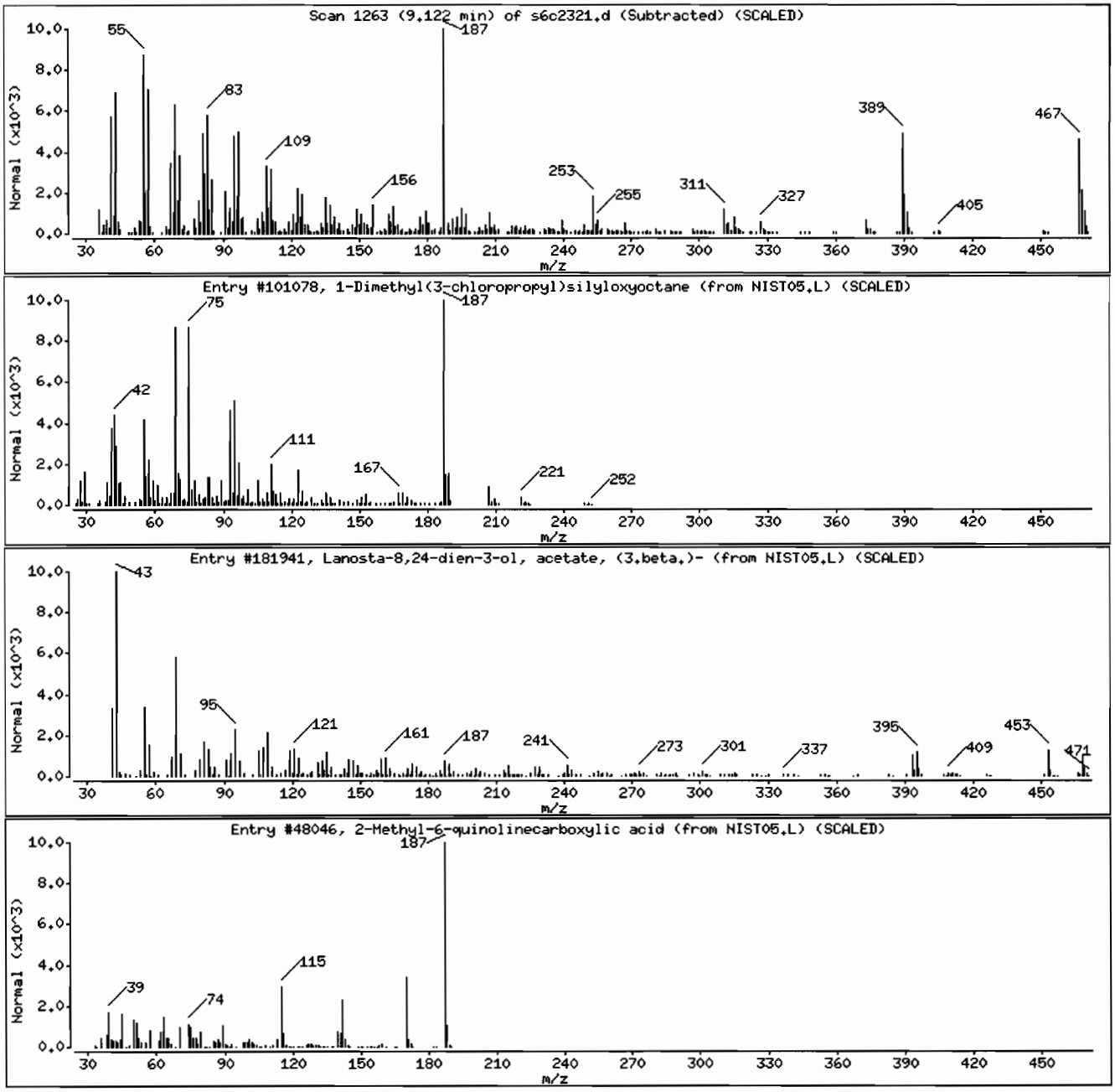

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: |2488420091965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Methanesulfonic acid, 2,7-dioxatricyclo[	75568-59-1	NIST05.L	81422	55	C9H14O5S	234
Cyclohexanamine, N,N'-1,2-ethanediyliden	3673-06-1	NIST05.L	71274	51	C14H24N2	220
Pentadec-7-ene, 7-bromomethyl-	1000259-58-5	NIST05.L	125926	50	C16H31Br	302

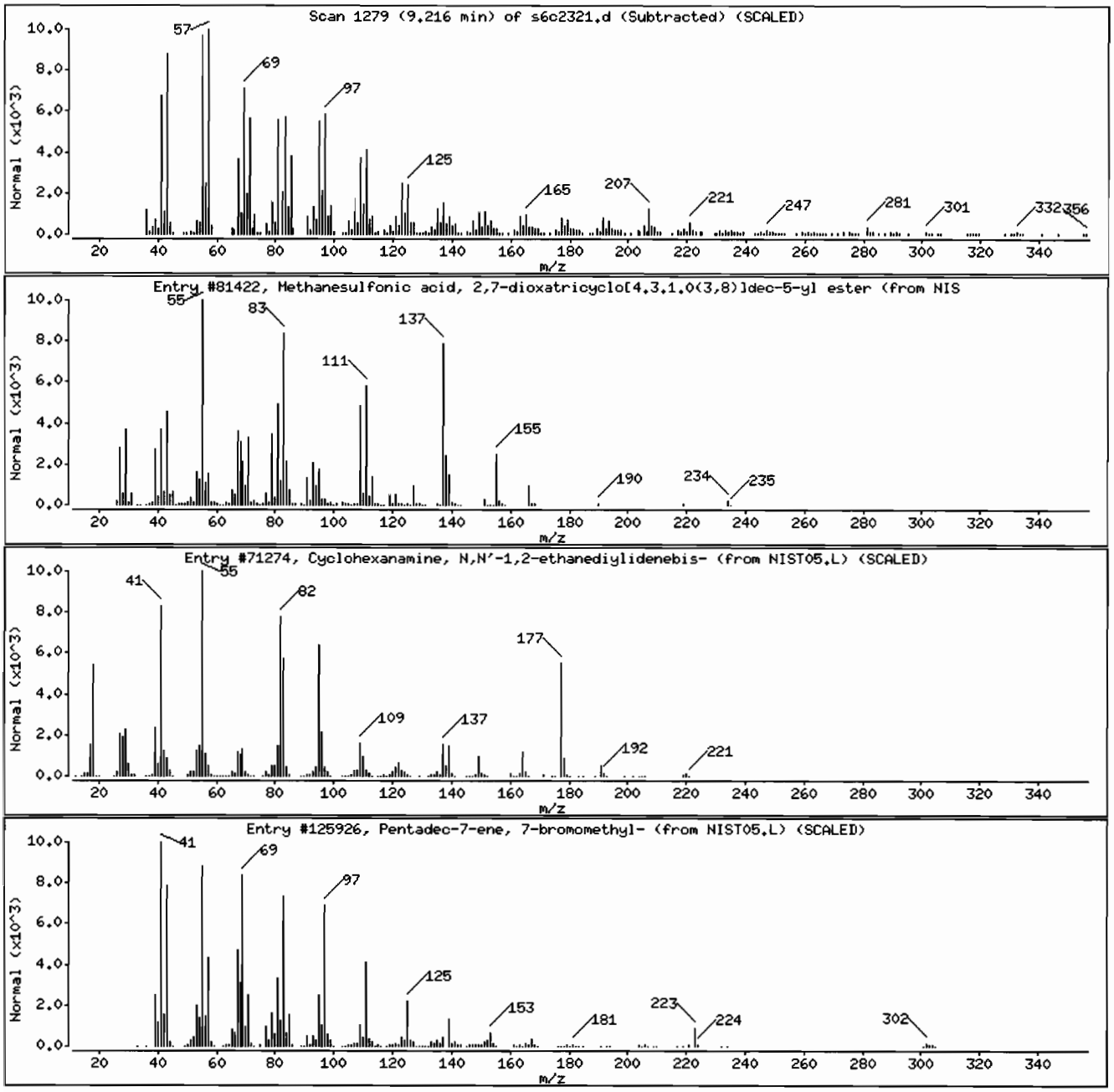

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: I2488420091965425I10ISVMI1ILANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,7-Dimethyl-4-(1-methylethyl)cyclodecan	645-10-3	NIST05.L	64469	43	C15H30	210
Cyclopentane, 1,1'-[3-(2-cyclopentylethy	55255-85-1	NIST05.L	127513	43	C22H40	304
Dodecane, 1,12-dibromo-	3344-70-5	NIST05.L	139747	38	C12H24Br2	326

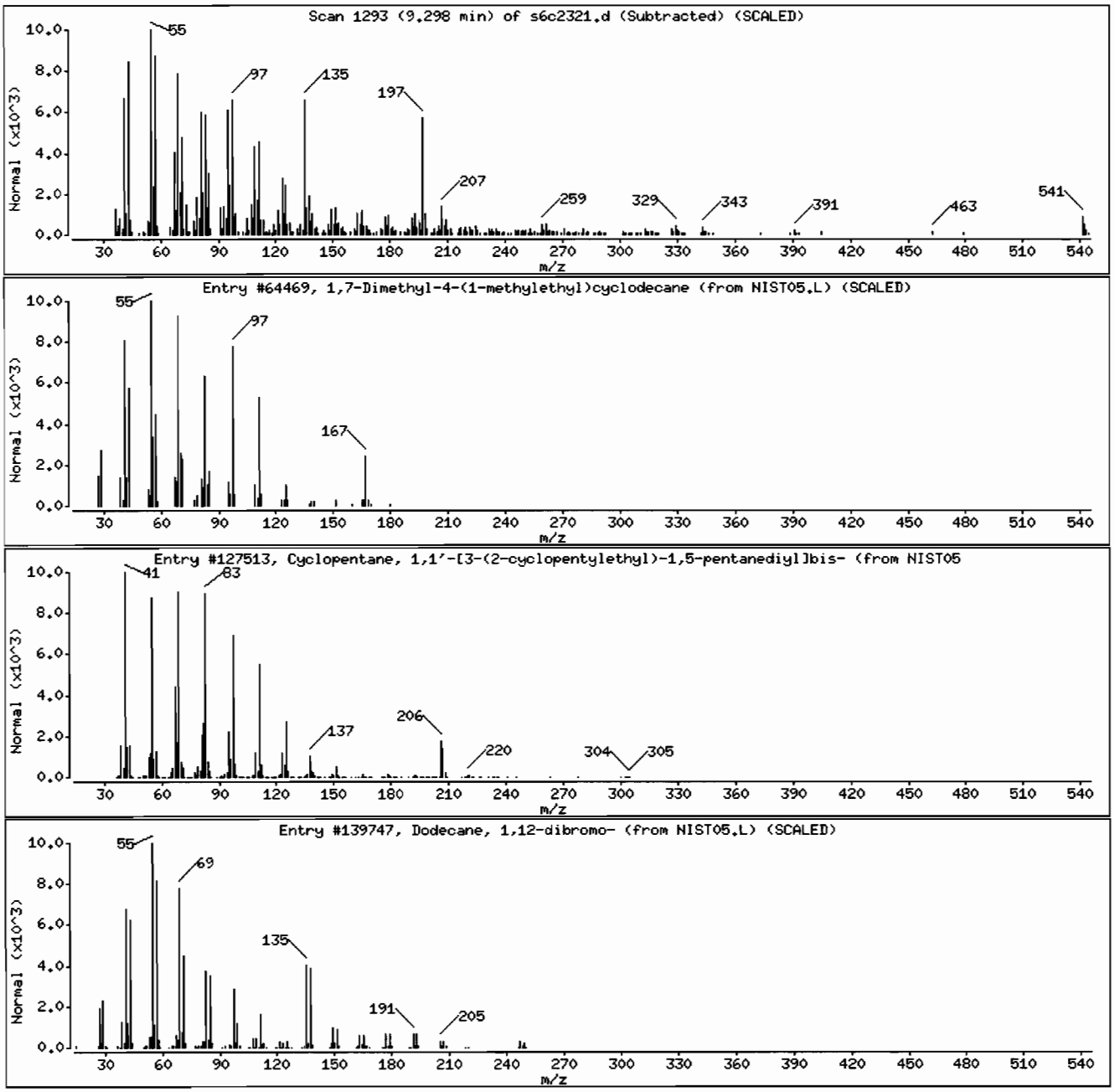

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Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: 1248842009|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexane, 1-(1,5-dimethylhexyl)-4-(4-	56009-20-2	NIST05.L	112117	25	C20H40	280
3,6-Dioxa-2,4,5,7-tetrasilaoctane, 2,2,4	4342-25-0	NIST05.L	120498	20	C10H30O2Si4	294
2,2,5-Trimethyl-6-trimethylsilylmethylen	1000192-75-1	NIST05.L	82311	20	C13H20O2Si	236

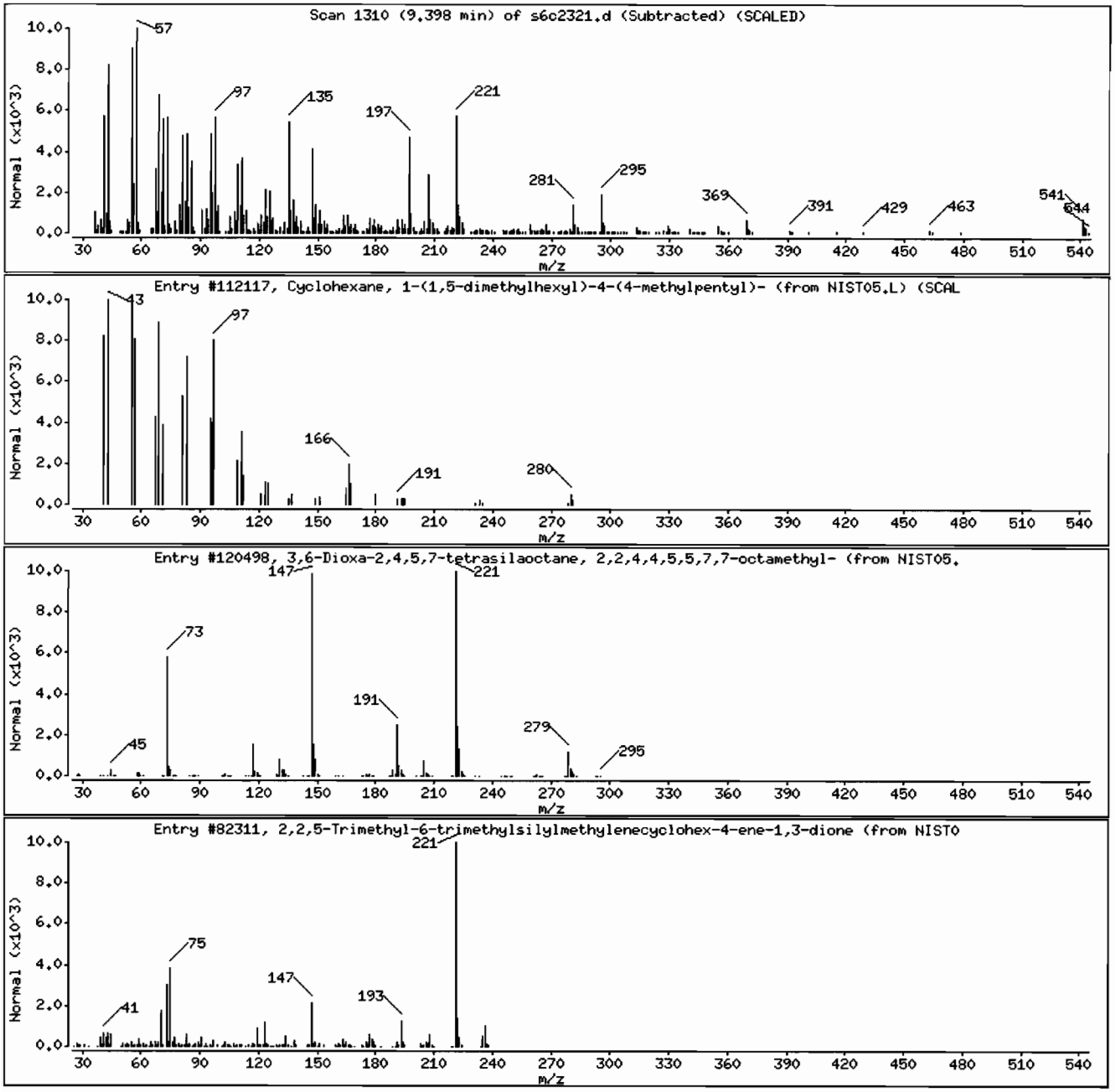

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: |2488420091965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
N-Adamantan-1-ylmethyl-4-chloro-3-methox	1000296-46-6	NIST05.L	160820	25	C18H24ClNO3S	369
Trichlor-(1,2,3,4,5-pentamethylcyclopent	1000288-04-1	NIST05.L	132926	15	C10H15Cl3Ge	314
Acetic acid, 2-[2,3-dihydro-4-(2-adamant	1000294-10-3	NIST05.L	144140	15	C18H23NO5	333

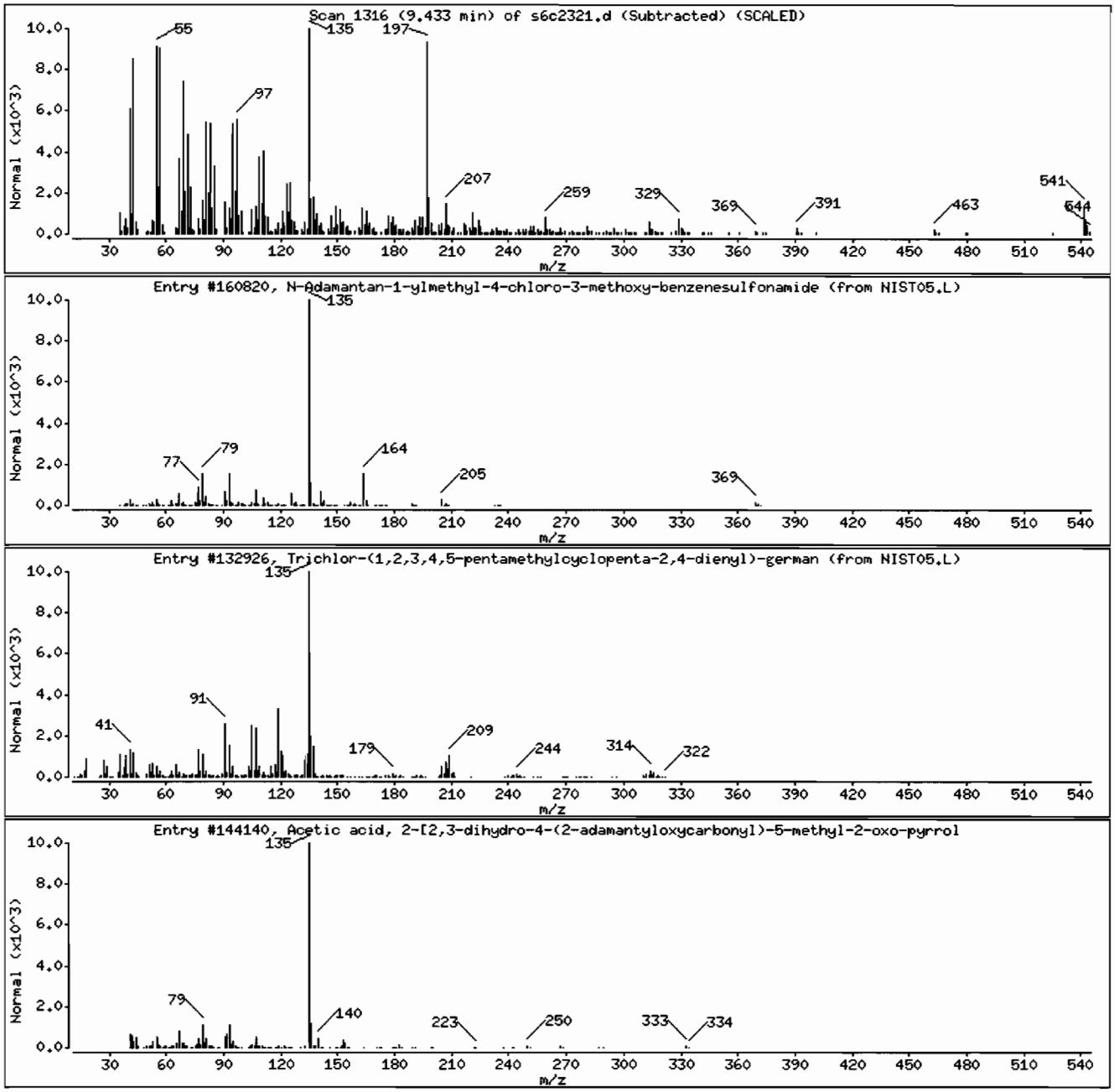

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: |2488420091965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	70	C18H3402	282
1-Bromo-11-iodoundecane	139123-69-6	NIST05.L	156814	64	C11H22BrI	360
Heptadecane	629-78-7	NIST05.L	85524	59	C17H36	240

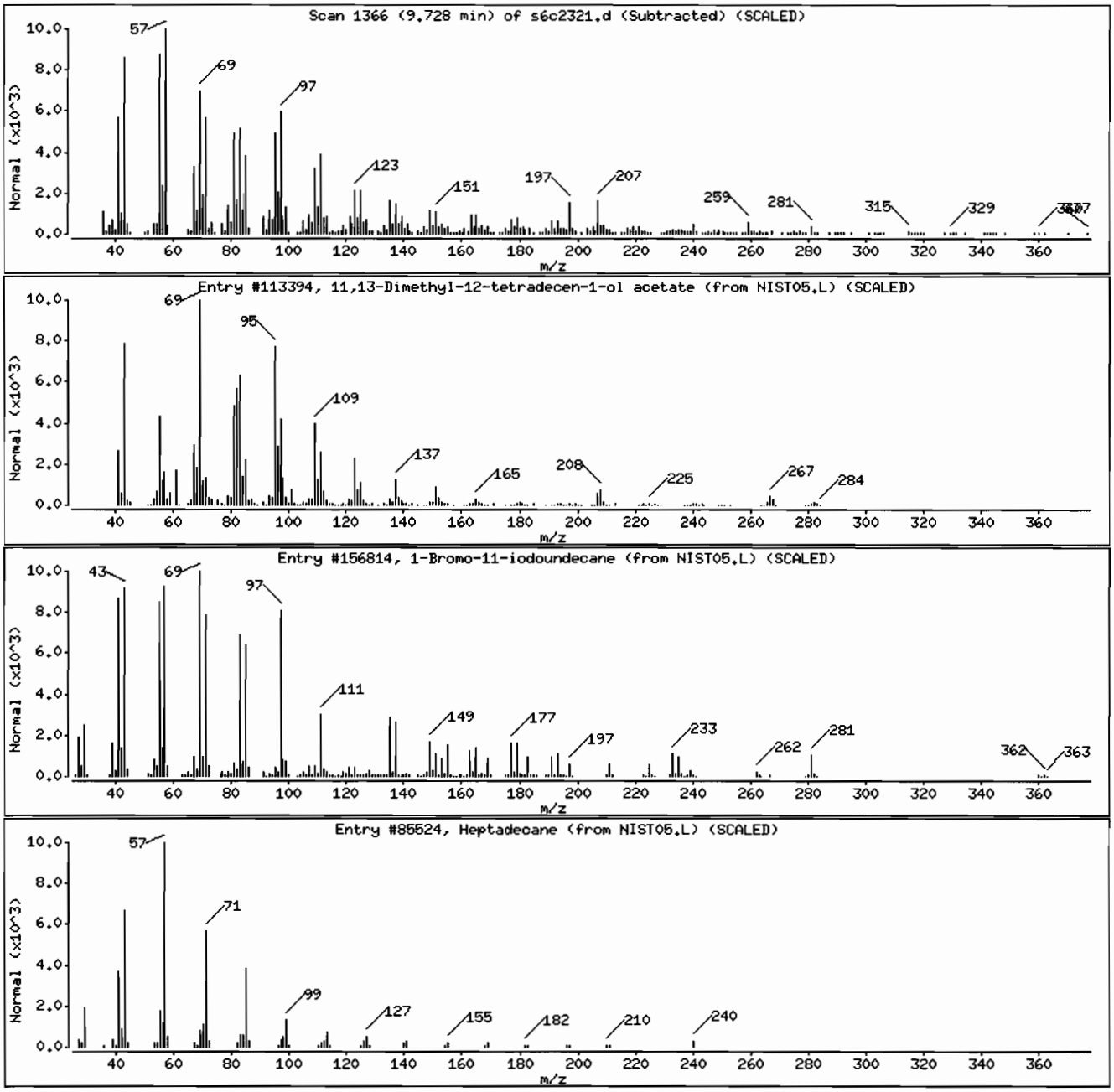

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: I2488420091965425I10ISVMI1ILANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Bromoeicosane	4276-49-7	NIST05.L	157121	60	C20H41Br	360
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	59	C18H3402	282
1-Bromo-11-iodoundecane	139123-69-6	NIST05.L	156814	55	C11H22BrI	360

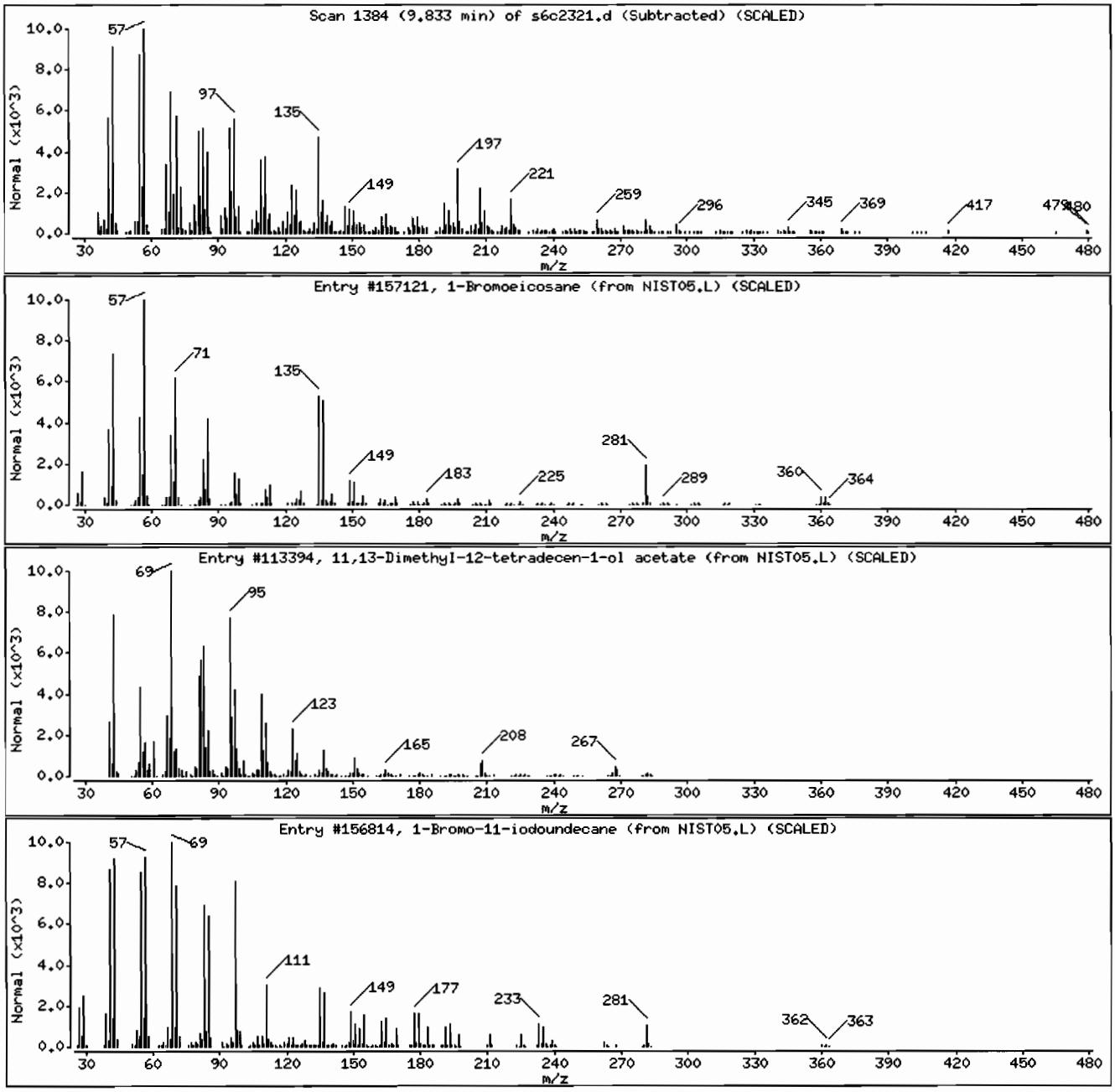

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: 1248842009|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	89	C18H3402	282
Methanesulfonic acid, 2,7-dioxatricyclo[	75568-59-1	NIST05.L	81422	45	C9H1405S	234
Borane, 2,3-dimethyl-2-butyl- (dimer)	1000159-64-3	NIST05.L	54378	42	C12H30B2	196

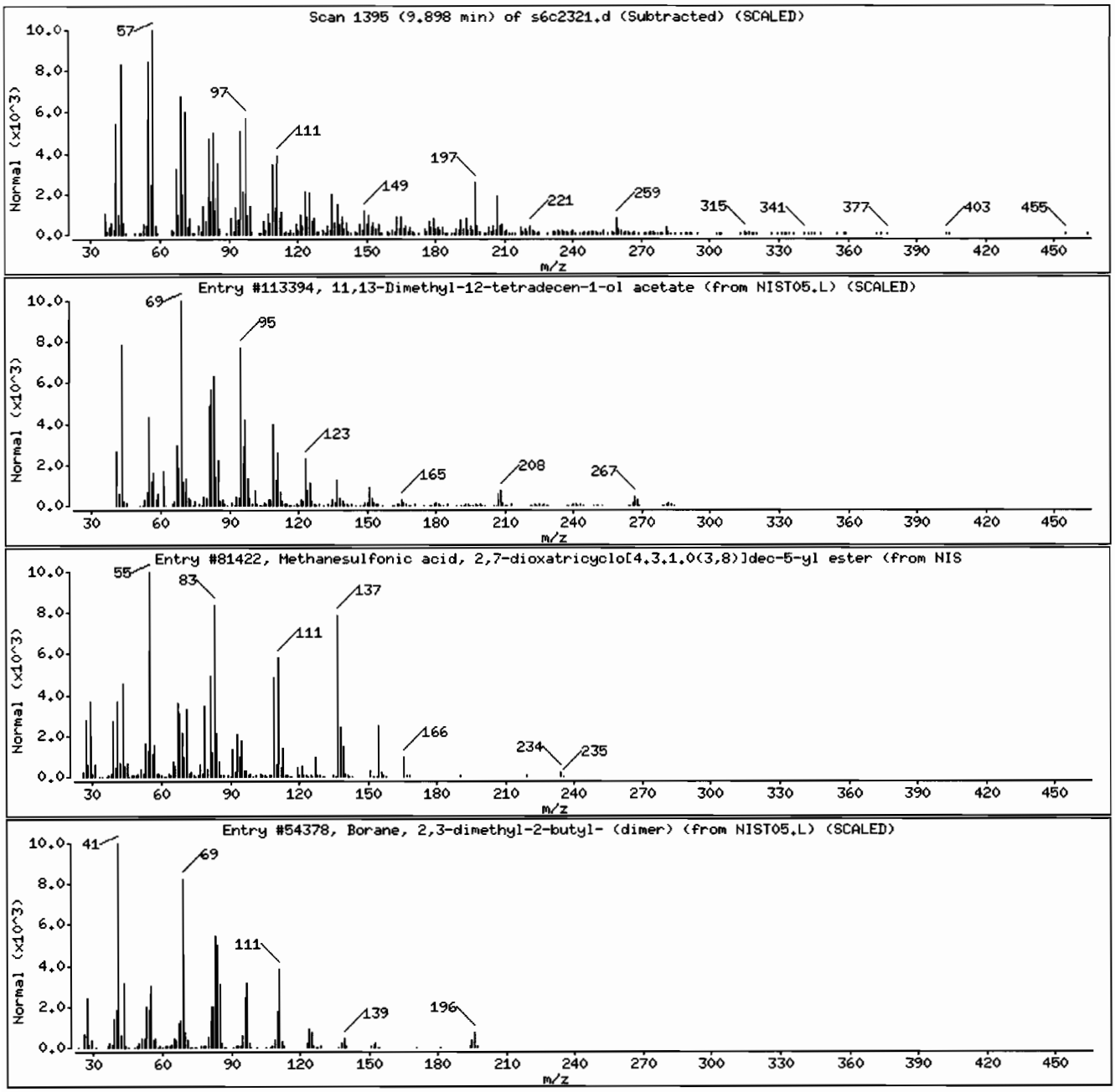

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: 1248842009|965425|10|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	78	C18H34O2	282
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	46	C13H21NO	207
Trichloroacetic acid, hexadecyl ester	74339-54-1	NIST05.L	166990	45	C18H33Cl3O2	386

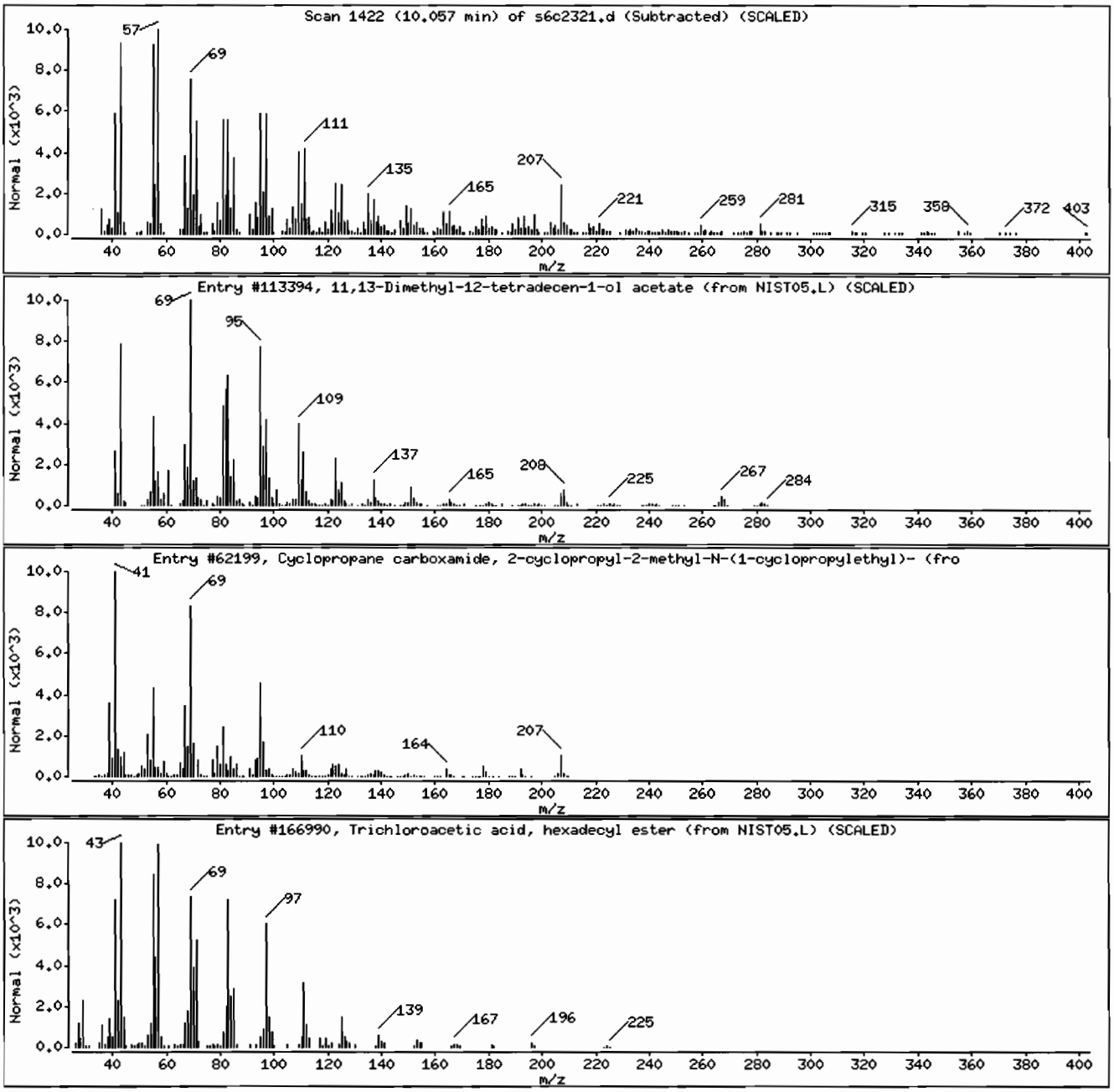

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Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: |2488420091965425|10|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	70	C18H3402	282
Octane, 1,8-dibromo-	4549-32-0	NIST05.L	105848	46	C8H16Br2	270
9-Oxabicyclo[6.1.0]nonane, 1-methyl-, ci	52954-47-9	NIST05.L	18147	38	C9H16O	140

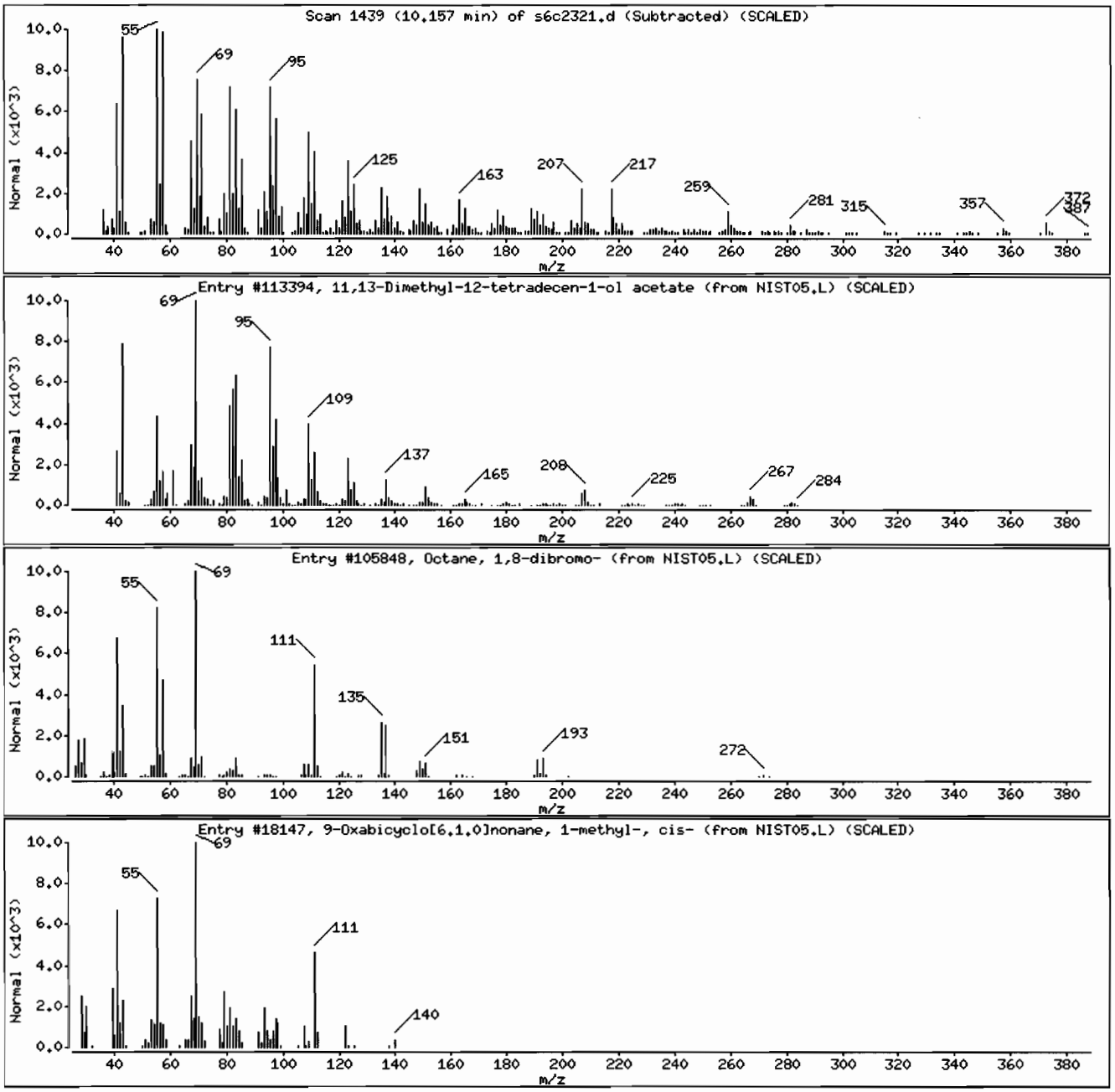

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Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: 1248842009|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,7-Dimethyl-4-(1-methylethyl)cyclodecan	645-10-3	NIST05.L	64469	43	C15H30	210
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	42	C13H21NO	207
Cyclohexane, 1,2-dimethyl-3-pentyl-4-pro	62376-17-4	NIST05.L	74543	42	C16H32	224

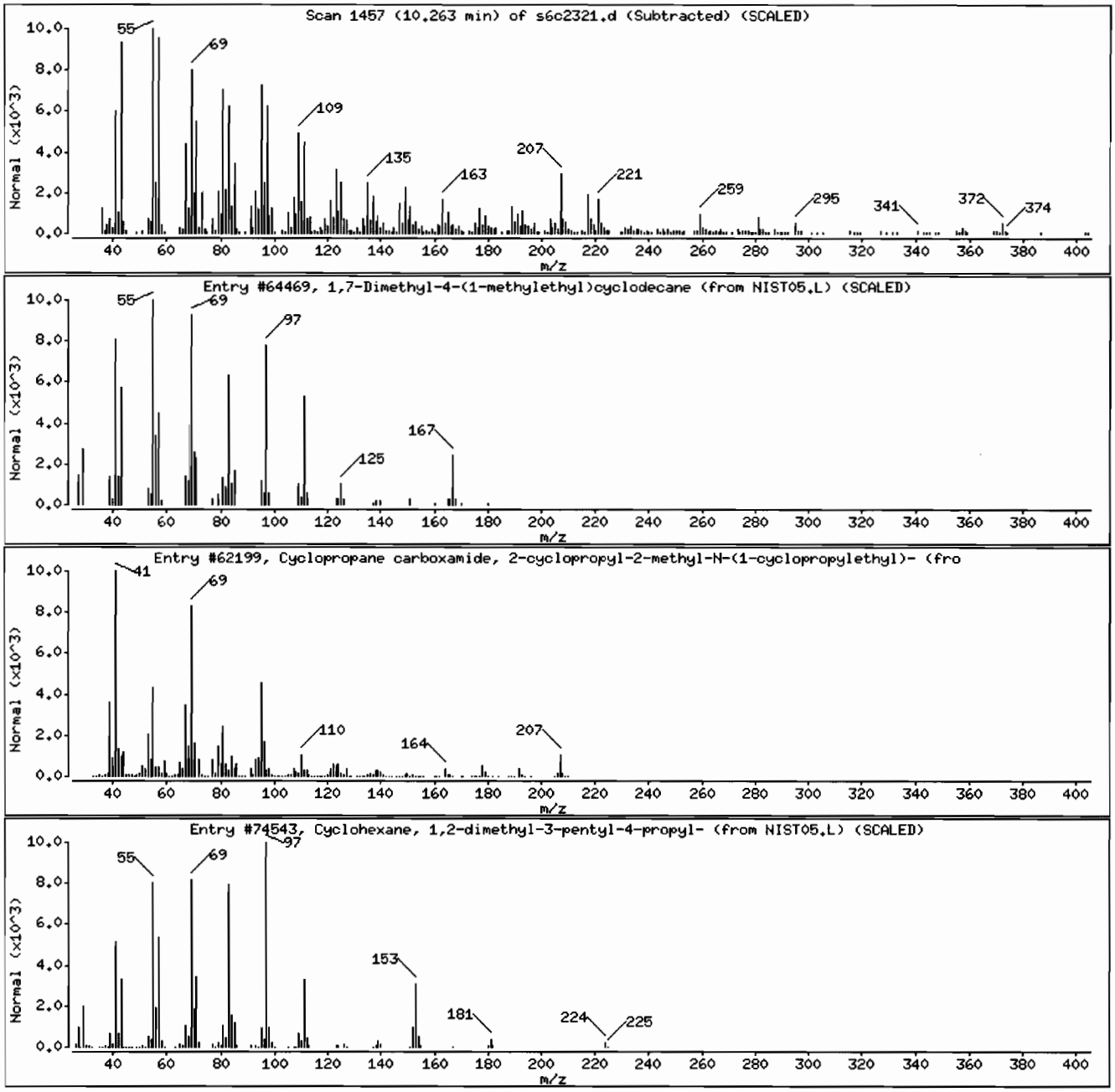

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Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: |2488420091965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	45	C20H34	274
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	44	C18H3402	282
2-Cyclohexene-1-carboxaldehyde, 2,6-dime	56772-07-7	NIST05.L	71436	38	C15H240	220

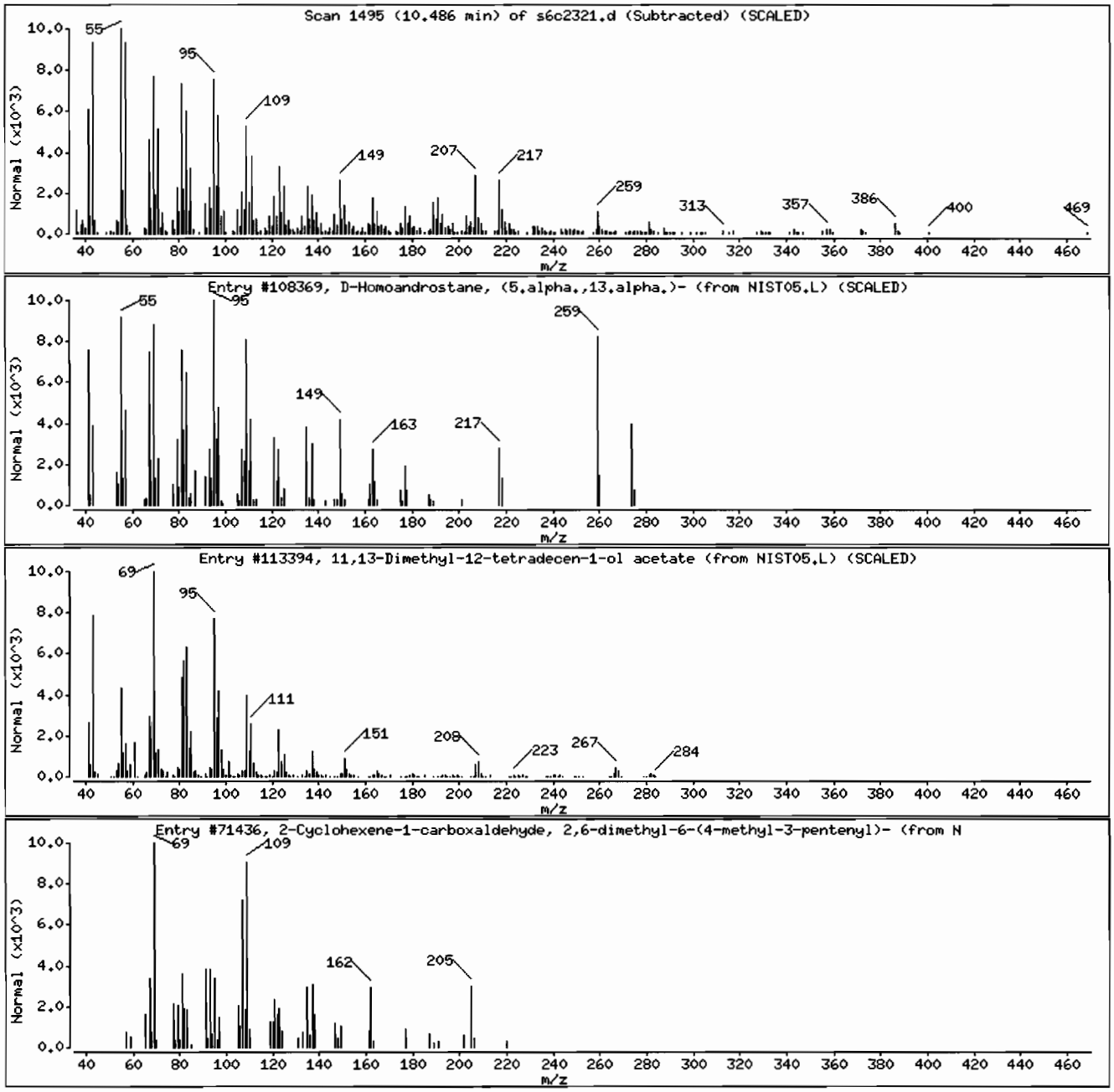

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Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: 1248842009196542510ISVM11LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	55	C16H26O3	266
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	50	C18H34O2	282
Hexadecane, 1-chloro-	4860-03-1	NIST05.L	98777	45	C16H33Cl	260

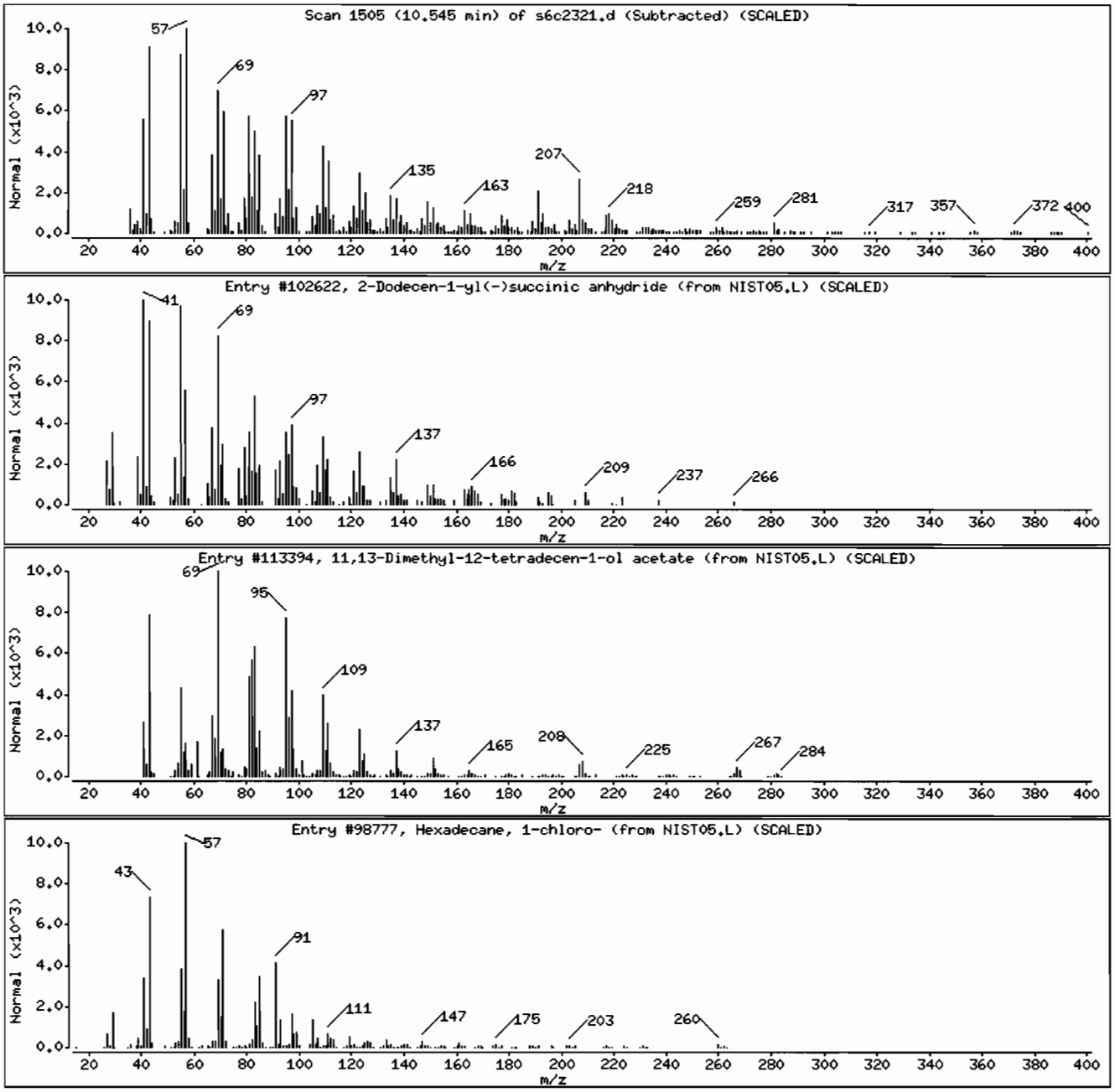

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Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: |2488842009|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1'H-Cholesta-2,4,6-trieno[3,2-b]indole,	38389-25-2	NIST05.L	182008	14	C34H47N	469
9H-Carbazole-3,6-diamine	86-71-5	NIST05.L	55003	11	C12H11N3	197
5,7-Dimethyl[1,3,4]thiadiazolo[3,2-a]pyr	87253-83-6	NIST05.L	55162	10	C7H7N3S2	197

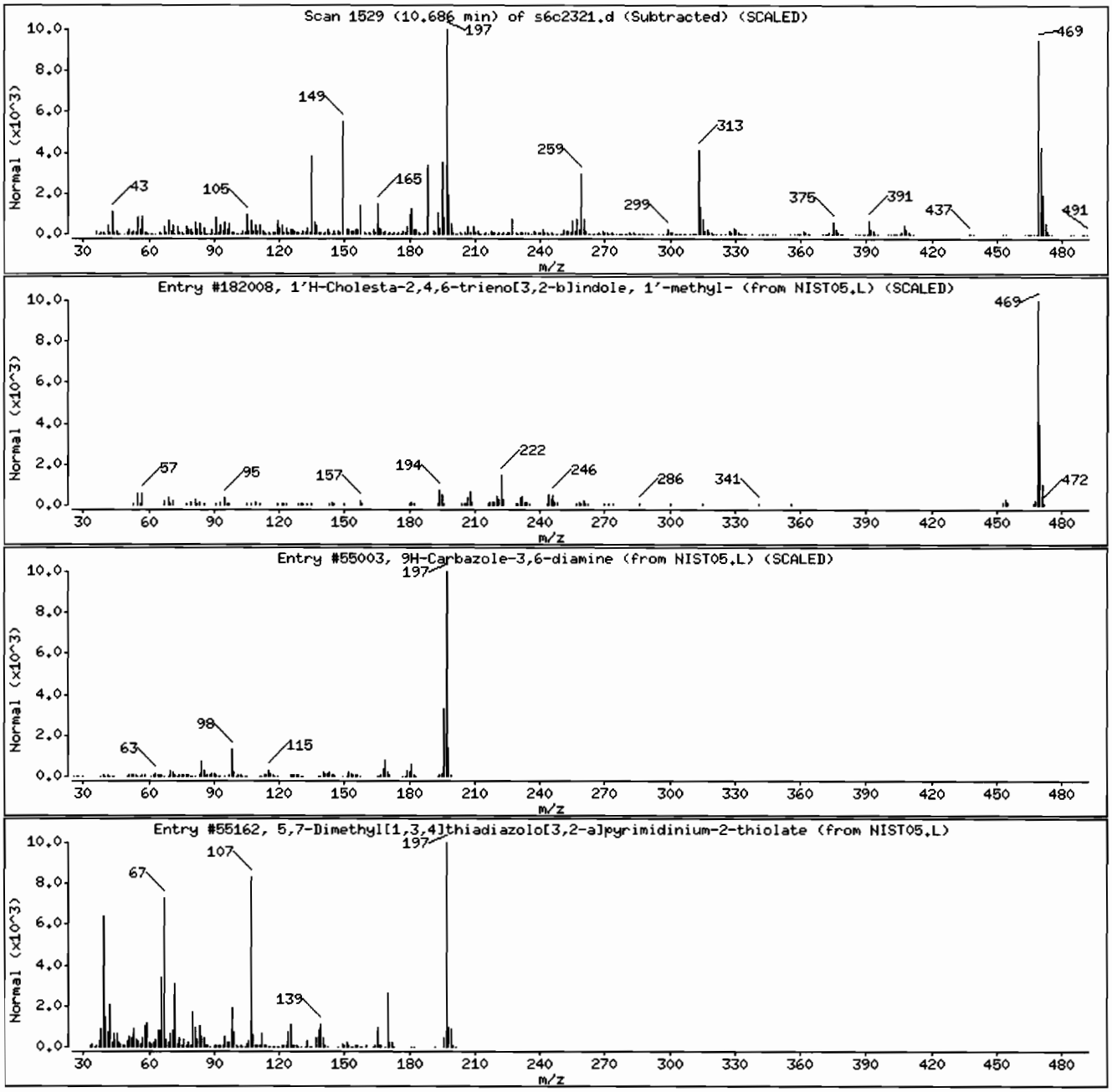

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: |2488420091965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	58	C20H34	274
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	53	C16H30Br2O2	412
4,6,10,10-Tetramethyl-5-oxatricyclo[4.4.	97371-50-1	NIST05.L	62867	46	C13H20O2	208

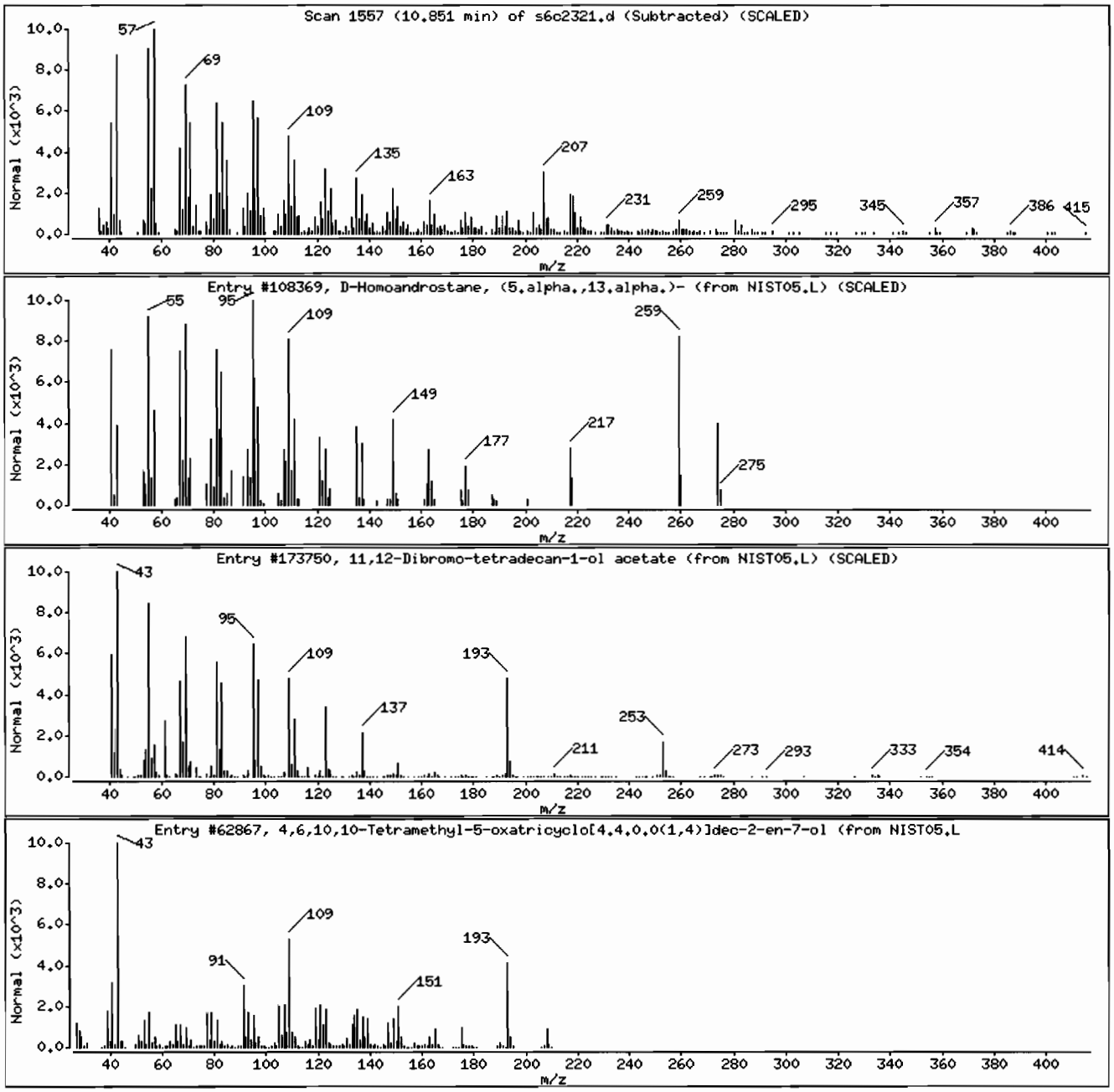

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547

Instrument: MSD6.i

Sample Info: 1248842009|965425|101|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	46	C20H34	274
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	30	C19H36	264
Hexadecanoic acid, 2-hydroxy-, methyl es	16742-51-1	NIST05.L	116045	25	C17H3403	286

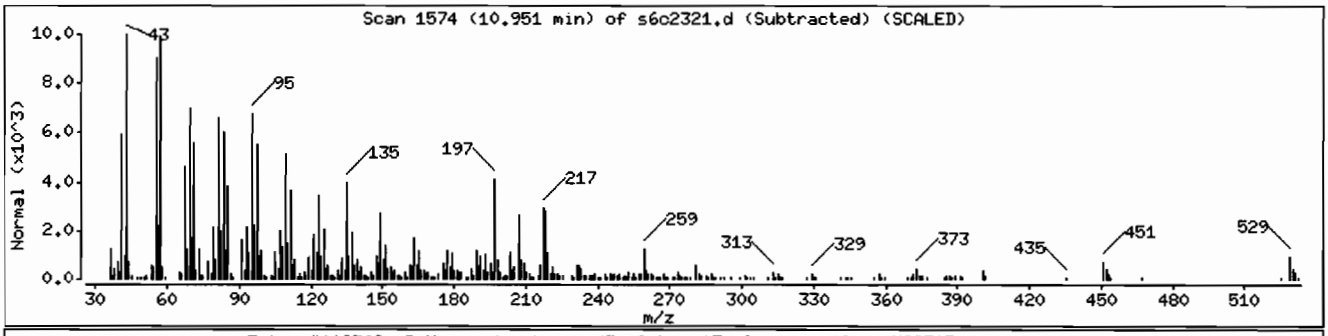

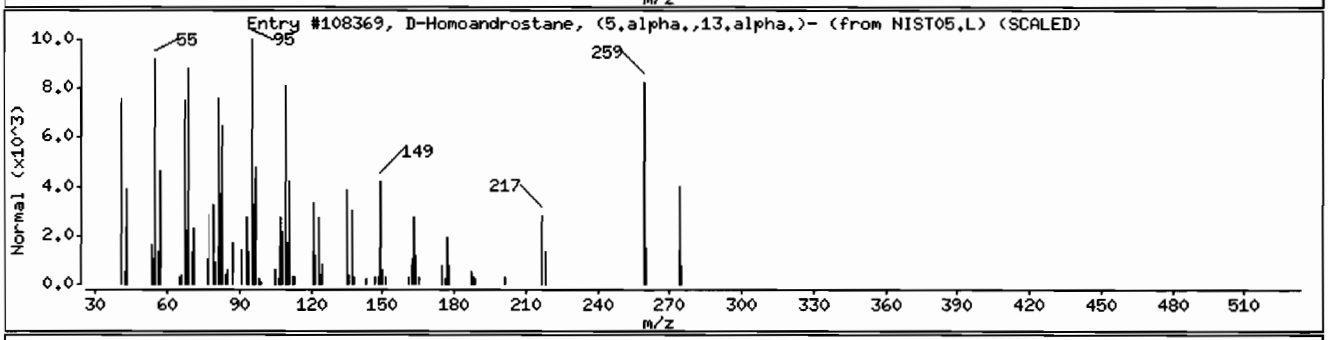

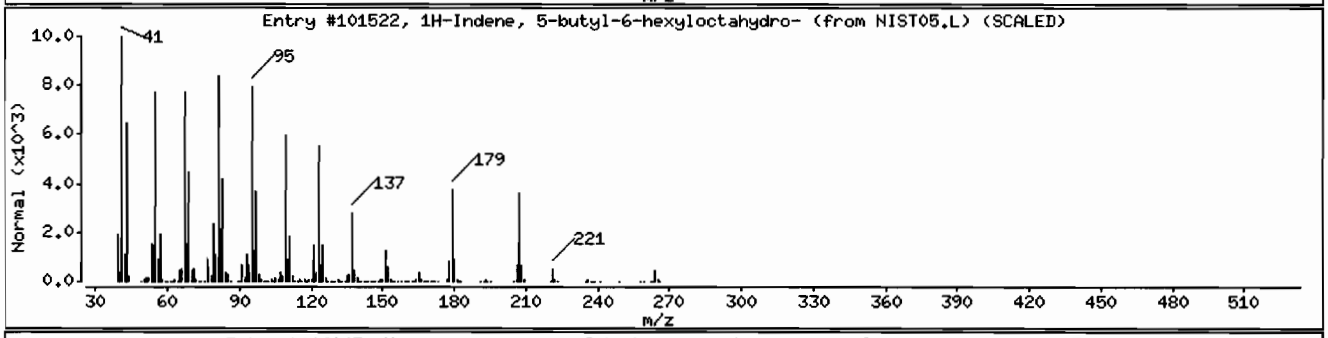

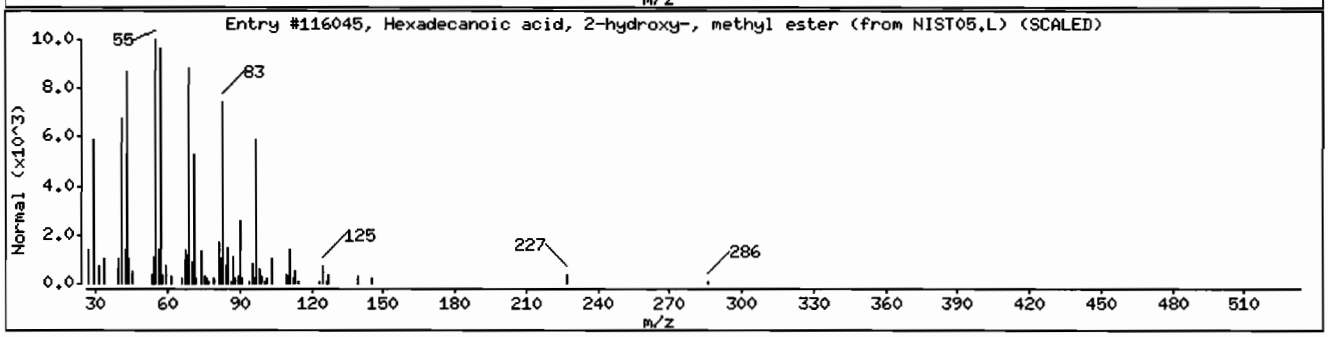

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547

Instrument: MSD6.i

Sample Info: |2488420091965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	58	C16H30Br2O2	412
2-Butanone, 4-(2,6,6-trimethyl-2-cyclohe	39721-65-8	NIST05.L	52864	49	C13H22O	194
17-Pentatriacontene	6971-40-0	NIST05.L	183897	46	C35H70	491

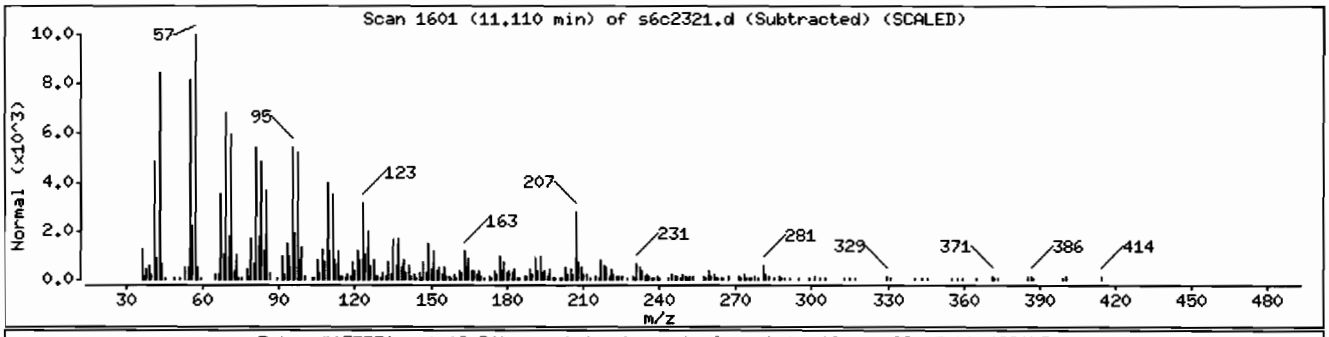

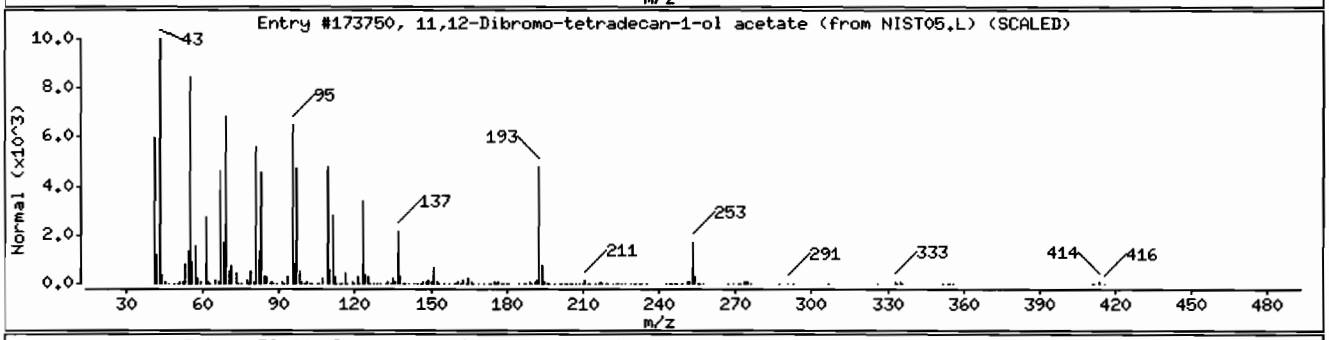

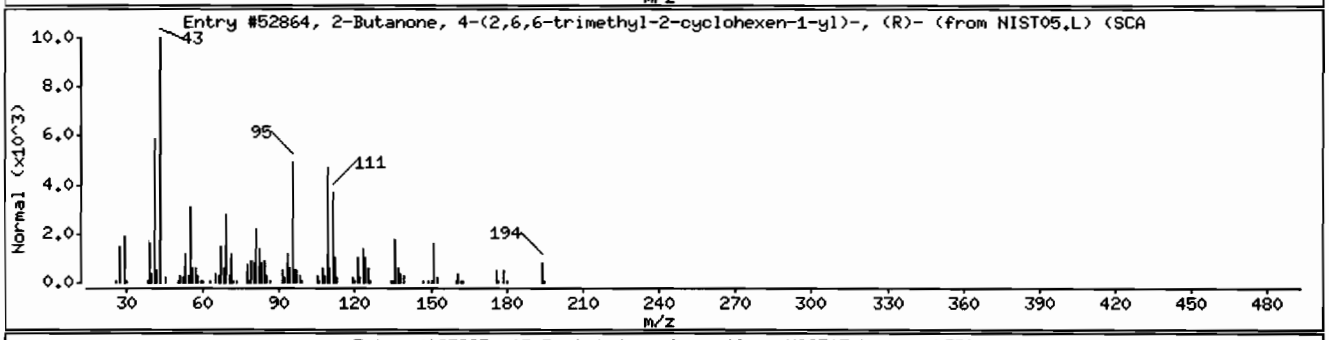

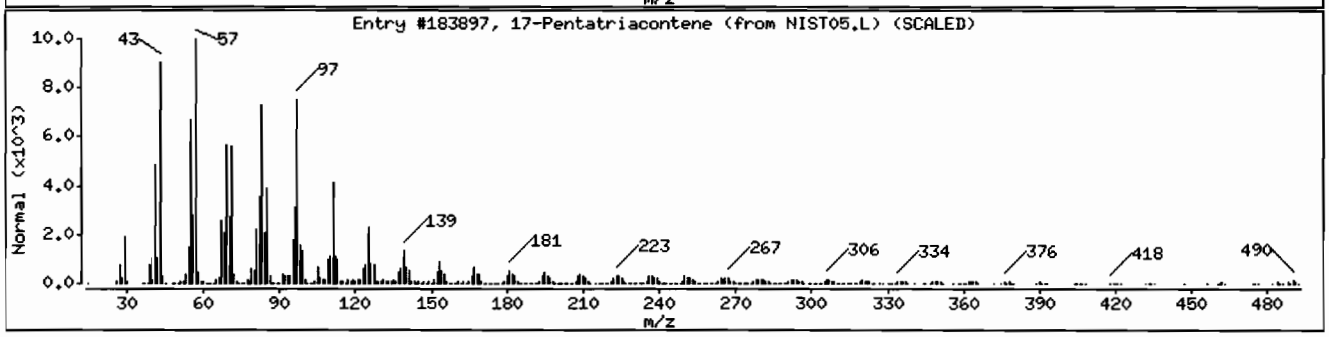

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: 1248842009|965425|10|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	83	C20H34	274
Cyclododecanemethanol	1892-12-2	NIST05.L	55891	43	C13H26O	198
8-Decenoic acid, 5-ethenyl-3,5,9-trimeth	56114-53-5	NIST05.L	93453	42	C16H28O2	252

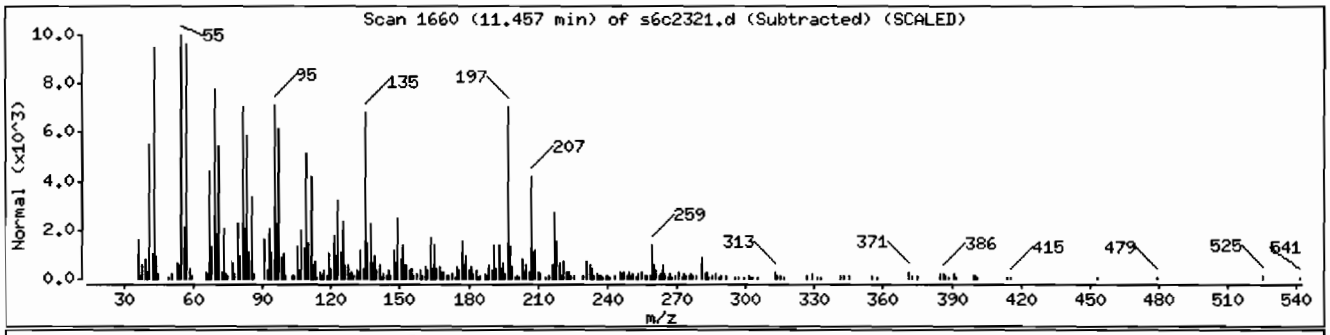

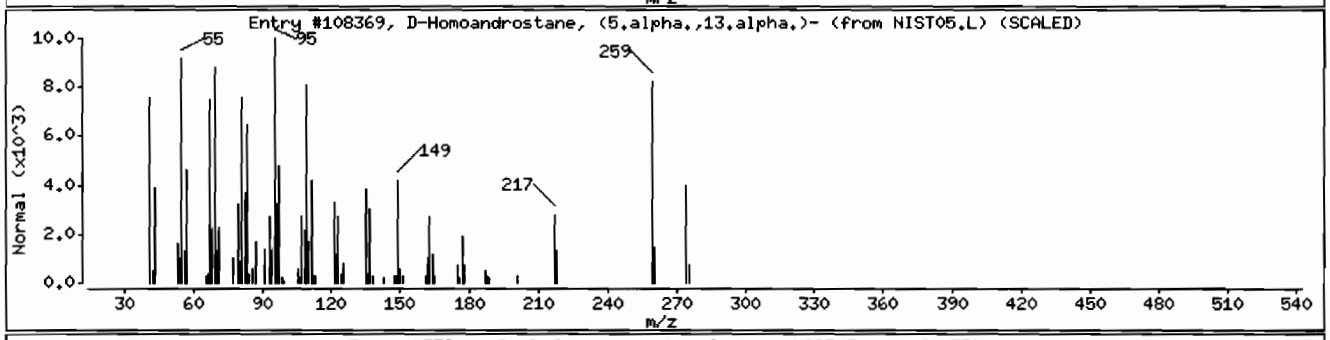

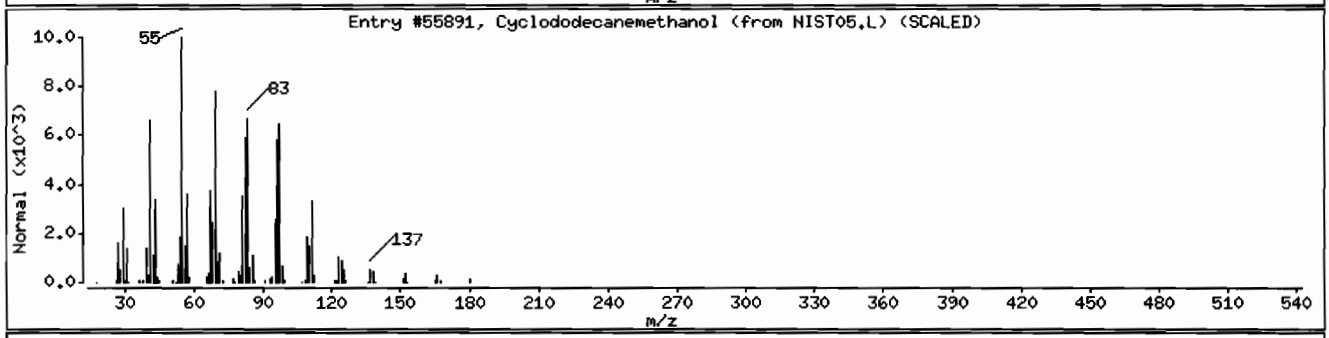

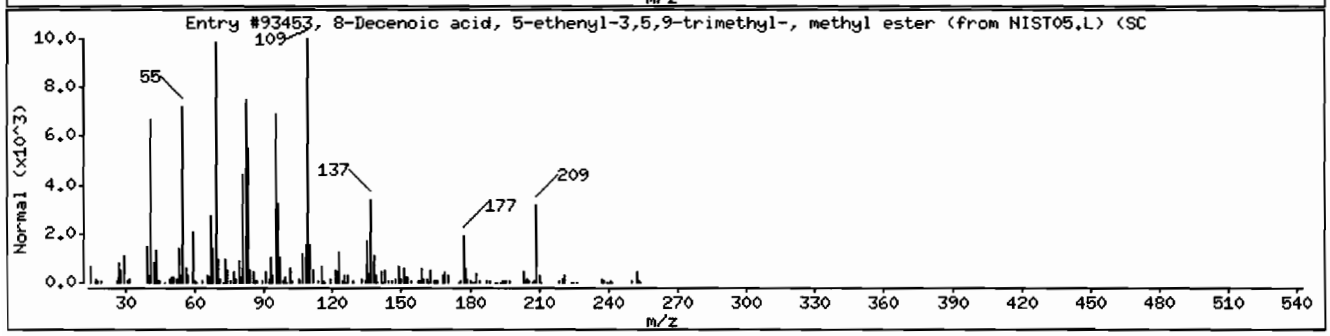

Data File: /chem/MSD6.i/s032310.b/s6c2321.d

Date : 23-MAR-2010 22:19

Client ID: RE46-10-13547 Instrument: MSD6.i

Sample Info: |2488842009|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p	3390-61-2	NIST05.L	186812	70	C33H34O2Si3	546
9H-Carbazole-3,6-diamine	86-71-5	NIST05.L	55003	18	C12H11N3	197
Azacyclotridecan-2-one	947-04-6	NIST05.L	55015	11	C12H23NO	197

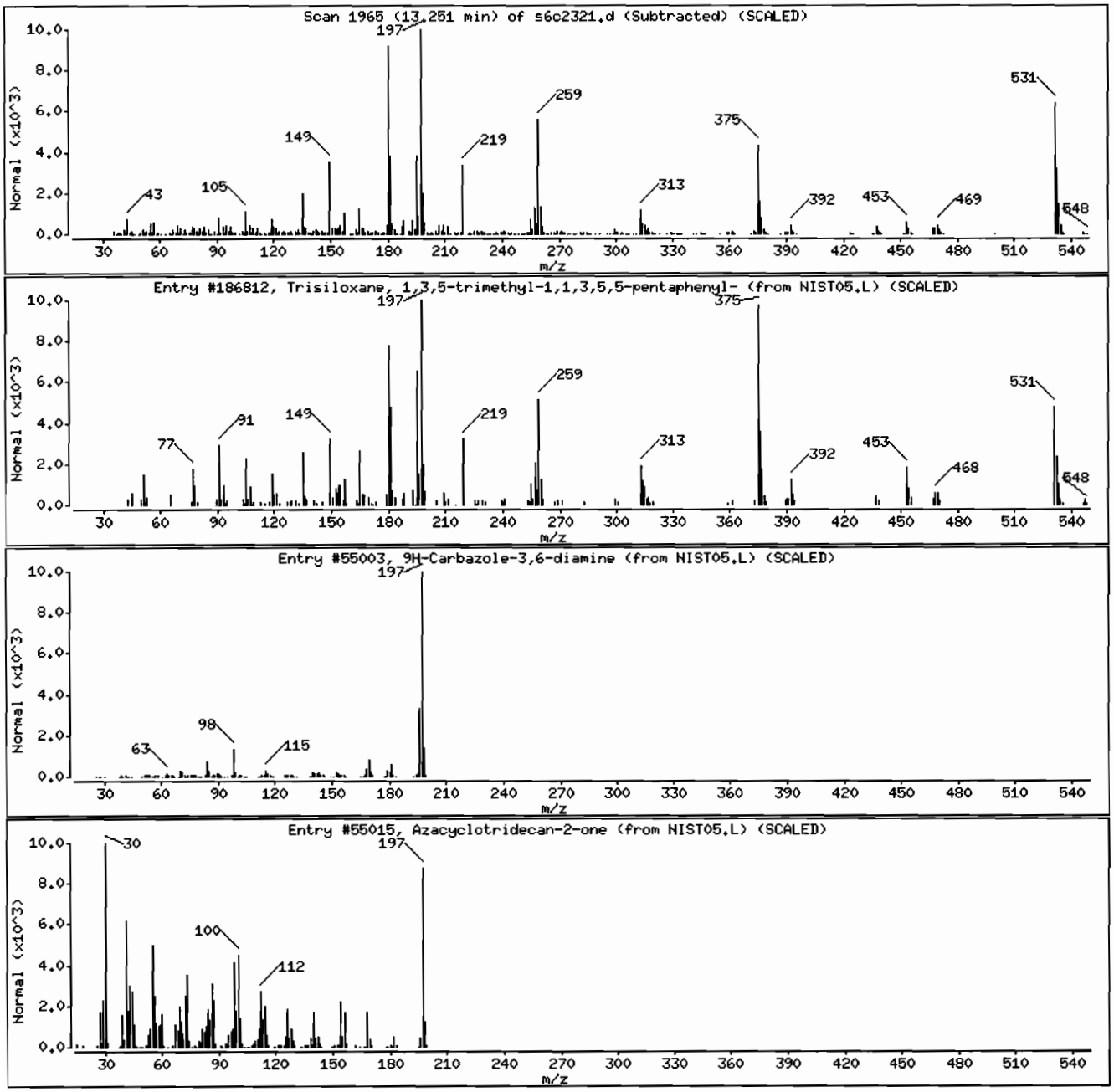

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13548**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 00:39**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2027.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	401	ug/kg	80.3	401
108-95-2	Phenol	U	401	ug/kg	80.3	401
95-57-8	2-Chlorophenol	U	401	ug/kg	80.3	401
106-46-7	1,4-Dichlorobenzene	U	401	ug/kg	80.3	401
621-64-7	N-Nitrosodipropylamine	U	401	ug/kg	80.3	401
59-50-7	4-Chloro-3-methylphenol	U	401	ug/kg	80.3	401
83-32-9	Acenaphthene	U	40.1	ug/kg	13.2	40.1
121-14-2	2,4-Dinitrotoluene	U	401	ug/kg	40.1	401
100-02-7	4-Nitrophenol	U	401	ug/kg	132	401
87-86-5	Pentachlorophenol	U	401	ug/kg	100	401
129-00-0	Pyrene	U	40.1	ug/kg	12.0	40.1
110-86-1	Pyridine	U	401	ug/kg	80.3	401
62-53-3	Aniline	U	401	ug/kg	120	401
111-44-4	bis(2-Chloroethyl) ether	U	401	ug/kg	80.3	401
541-73-1	1,3-Dichlorobenzene	U	401	ug/kg	80.3	401
100-51-6	Benzyl alcohol	U	401	ug/kg	120	401
95-50-1	1,2-Dichlorobenzene	U	401	ug/kg	80.3	401
108-60-1	bis(2-Chloroisopropyl)ether	U	401	ug/kg	80.3	401
95-48-7	o-Cresol	U	401	ug/kg	80.3	401
65794-96-9	m,p-Cresols	U	401	ug/kg	120	401
67-72-1	Hexachloroethane	U	401	ug/kg	80.3	401
98-95-3	Nitrobenzene	U	401	ug/kg	80.3	401
78-59-1	Isophorone	U	401	ug/kg	80.3	401
88-75-5	2-Nitrophenol	U	401	ug/kg	80.3	401
105-67-9	2,4-Dimethylphenol	U	401	ug/kg	140	401
111-91-1	bis(2-Chloroethoxy)methane	U	401	ug/kg	80.3	401
120-83-2	2,4-Dichlorophenol	U	401	ug/kg	80.3	401
65-85-0	Benzoic acid	U	803	ug/kg	201	803
91-20-3	Naphthalene	U	40.1	ug/kg	12.0	40.1
106-47-8	4-Chloroaniline	U	401	ug/kg	80.3	401
87-68-3	Hexachlorobutadiene	U	401	ug/kg	80.3	401
91-57-6	2-Methylnaphthalene	U	40.1	ug/kg	8.03	40.1
77-47-4	Hexachlorocyclopentadiene	U	401	ug/kg	80.3	401
88-06-2	2,4,6-Trichlorophenol	U	401	ug/kg	80.3	401
95-95-4	2,4,5-Trichlorophenol	U	401	ug/kg	80.3	401
91-58-7	2-Chloronaphthalene	U	40.1	ug/kg	13.2	40.1
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	401	ug/kg	80.3	401
99-09-2	3-Nitroaniline	U	401	ug/kg	80.3	401

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13548**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 00:39**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2027.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	401	ug/kg	80.3	401
606-20-2	2,6-Dinitrotoluene	U	401	ug/kg	40.1	401
208-96-8	Acenaphthylene	U	40.1	ug/kg	12.0	40.1
51-28-5	2,4-Dinitrophenol	U	803	ug/kg	152	803
132-64-9	Dibenzofuran	U	401	ug/kg	80.3	401
84-66-2	Diethylphthalate	U	401	ug/kg	80.3	401
86-73-7	Fluorene	U	40.1	ug/kg	12.0	40.1
7005-72-3	4-Chlorophenylphenylether	U	401	ug/kg	80.3	401
534-52-1	2-Methyl-4,6-dinitrophenol	U	401	ug/kg	80.3	401
100-01-6	4-Nitroaniline	U	401	ug/kg	120	401
	p-Nitroaniline					
122-39-4	Diphenylamine	U	401	ug/kg	80.3	401
122-66-7	Azobenzene	U	401	ug/kg	80.3	401
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	401	ug/kg	80.3	401
118-74-1	Hexachlorobenzene	U	401	ug/kg	80.3	401
85-01-8	Phenanthrene	U	40.1	ug/kg	12.0	40.1
120-12-7	Anthracene	U	40.1	ug/kg	8.03	40.1
84-74-2	Di-n-butylphthalate	U	401	ug/kg	80.3	401
206-44-0	Fluoranthene	U	40.1	ug/kg	12.0	40.1
85-68-7	Butylbenzylphthalate	U	401	ug/kg	80.3	401
56-55-3	Benzo(a)anthracene	U	40.1	ug/kg	12.0	40.1
91-94-1	3,3'-Dichlorobenzidine	U	401	ug/kg	120	401
218-01-9	Chrysene	U	40.1	ug/kg	12.0	40.1
117-81-7	bis(2-Ethylhexyl)phthalate		530	ug/kg	80.3	401
117-84-0	Di-n-octylphthalate	U	401	ug/kg	80.3	401
205-99-2	Benzo(b)fluoranthene	U	40.1	ug/kg	12.0	40.1
207-08-9	Benzo(k)fluoranthene	U	40.1	ug/kg	12.0	40.1
50-32-8	Benzo(a)pyrene	U	40.1	ug/kg	12.0	40.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.1	ug/kg	12.0	40.1
53-70-3	Dibenzo(a,h)anthracene	U	40.1	ug/kg	12.0	40.1
191-24-2	Benzo(ghi)perylene	U	40.1	ug/kg	12.0	40.1
120-82-1	1,2,4-Trichlorobenzene	U	401	ug/kg	80.3	401

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	599	ug/kg		JA
57-10-3	n-Hexadecanoic acid	7.54	176	ug/kg	95	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13548**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 00:39**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2027.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.33	637	ug/kg		J
	Unknown	9.76	378	ug/kg		J
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	9.96	302	ug/kg	91	NJ
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	10.04	341	ug/kg	99	NJ
	Unknown	10.17	230	ug/kg		J
	Unknown	10.4	399	ug/kg		J
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	10.84	273	ug/kg	86	NJ
	Unknown	13.07	1180	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2027.d
Lab Smp Id: 248842006 Client Smp ID: RE46-10-13548
Inj Date : 21-MAR-2010 00:39
Operator : nagl Inst ID: MSD6.i
Smp Info : |248842006|965425|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	17.17990	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.869	3.863	(1.000)	330761	40.0000	
* 29 Naphthalene-d8	136	4.740	4.734	(1.000)	1203702	40.0000	
* 46 Acenaphthene-d10	164	5.993	5.987	(1.000)	731655	40.0000	
* 67 Phenanthrene-d10	188	7.157	7.145	(1.000)	1289493	40.0000	
* 91 Chrysene-d12	240	9.557	9.551	(1.000)	995355	40.0000	
* 98 Perylene-d12	264	11.192	11.174	(1.000)	607815	40.0000	
$ 3 2-Fluorophenol	112	3.063	3.046	(0.792)	296632	32.2608	1290
$ 5 Phenol-d5	99	3.587	3.575	(0.927)	389392	33.3002	1340
$ 20 Nitrobenzene-d5	82	4.234	4.228	(0.893)	168380	14.6333	587(R)
$ 39 2-Fluorobiphenyl	172	5.481	5.475	(0.915)	343304	18.1865	730
$ 60 2,4,6-Tribromophenol	329	6.587	6.575	(1.099)	91951	44.7859	1800
$ 81 p-Terphenyl-d14	244	8.534	8.522	(0.893)	467825	26.9718	1080

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
93 bis(2-Ethylhexyl)phthalate	149	9.492	9.486	(0.993)	259330	13.2153	530

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ION RATIO REPORT

SV REPORT

Data file: s6c2027.d
Report Date: 03/21/2010 08:21
Lab. ID: 248842006 SampleType: SAMPLE
Injection Date: 21-MAR-2010 00:39
Operator: nagl Instrument: MSD6.i
Sample Info: |248842006|965425|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100319-01
Comment:
Method used: /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	19796	3.59	3.65	80-120	100	( )
93	383	3.55	3.65	387-447	2	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	26495	4.23	4.10	80-120	100	(T)
42	16391	4.23	4.10	40-100	62	(T)
22 Isophorone		CAS#: 78-59-1				
82	168380	4.23	4.39	80-120	100	(T)
138	964	4.13	4.39	0- 49	1	(T)
34 2-Methylnaphthalene				CAS#: 91-57-6		
142	128557	5.63	5.23	80-120	100	(T)
141	233153	5.63	5.23	55-115	181	(QT)
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	687695	5.99	5.58	80-120	100	(T)
164	731655	5.99	5.58	4- 64	106	(QT)
127	1071	5.88	5.58	7- 67	0	(QT)
42 o-Nitroaniline				CAS#: 88-74-4		
65	34905	5.63	5.64	80-120	100	( )
92	2125	5.63	5.64	38- 98	6	(Q)
138	770	5.63	5.64	79-139	2	(Q)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
43 Dimethylphthalate			CAS#: 131-11-3			
163	133336	5.99	5.75	80-120	100	(T)
164	731655	5.99	5.75	0- 40	549	(QT)
45 Acenaphthylene			CAS#: 208-96-8			
152	74185	5.56	5.89	80-120	100	(T)
151	21466	5.56	5.89	0- 50	29	(T)
153	105398	5.56	5.89	0- 44	142	(QT)
47 Acenaphthene			CAS#: 83-32-9			
154	266507	5.56	6.01	80-120	100	(T)
153	105398	5.56	6.01	72-132	40	(QT)
152	73544	5.56	6.01	18- 78	28	(T)
48 2,4-Dinitrophenol			CAS#: 51-28-5			
184	164	6.40	6.00	80-120	100	(T)
154	623	6.40	6.01	1559-1619	380	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	98440	5.99	6.10	80-120	100	(T)
89	1480	5.99	6.10	39- 99	2	(QT)
63	1269	5.99	6.10	16- 76	1	(QT)
52 4-Nitrophenol			CAS#: 100-02-7			
139	13463	5.63	6.02	80-120	100	(T)
109	1749	5.67	6.02	41-101	13	(QT)
65	34905	5.63	6.02	59-119	259	(QT)
53 Fluorene			CAS#: 86-73-7			
166	6519	5.99	6.39	80-120	100	(T)
165	98000	5.99	6.39	61-121	1503	(QT)
167	760	6.00	6.39	0- 44	12	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	312	6.58	6.40	80-120	100	(T)
105	903	6.58	6.40	9- 69	290	(QT)
51	983	6.58	6.40	36- 96	315	(QT)
93 bis(2-Ethylhexyl)phthalate			CAS#: 117-81-7			
149	259330	9.49	9.49	80-120	100	( )
167	81821	9.49	9.49	3- 63	32	( )
94 Di-n-octylphthalate			CAS#: 117-84-0			
149	160947	10.58	10.12	80-120	100	(T)
43	13975	10.58	10.12	0- 42	9	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2027.d
Lab Smp Id: 248842006 Client Smp ID: RE46-10-13548
Inj Date : 21-MAR-2010 00:39
Operator : nag1 Inst ID: MSD6.i
Smp Info : |248842006|965425|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	17.17990	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.869	2008042	40.000
* 67 Phenanthrene-d10	7.157	3167096	40.000
* 91 Chrysene-d12	9.557	3362558	40.000
* 98 Perylene-d12	11.192	2118226	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.899	749345	14.9268688	599	0		0	10
n-Hexadecanoic acid					CAS #: 57-10-3		
7.539	347879	4.39366418	176	95	NIST05.L	96235	67
Unknown					CAS #:		
9.328	1334019	15.8690971	637	0		0	91
Unknown					CAS #:		
9.757	791438	9.41471391	378	0		0	91
Pyridine-3-carboxamide, oxime, N-(2-trif					CAS #: 288246-53-7		
9.963	633224	7.53264779	302	91	NIST05.L	112295	91
1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa					CAS #: 807-28-3		
10.039	715352	8.50961655	341	99	NIST05.L	173479	91
Unknown					CAS #:		
10.169	481735	5.73057688	230	0		0	91
Unknown					CAS #:		
10.398	526204	9.93668306	399	0		0	98
D-Homoandrostane, (5.alpha.,13.alpha.)-					CAS #: 54482-31-4		
10.839	359911	6.79645209	273	86	NIST05.L	108369	98
Unknown					CAS #:		
13.069	1561859	29.4937075	1180	0		0	98

Data File: /chem/MSD6.i/s032010.b/s6c2027.d
Date : 21-MAR-2010 00:39
Client ID: RE46-10-13548
Sample Info: I2488420061965425111SVM11LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

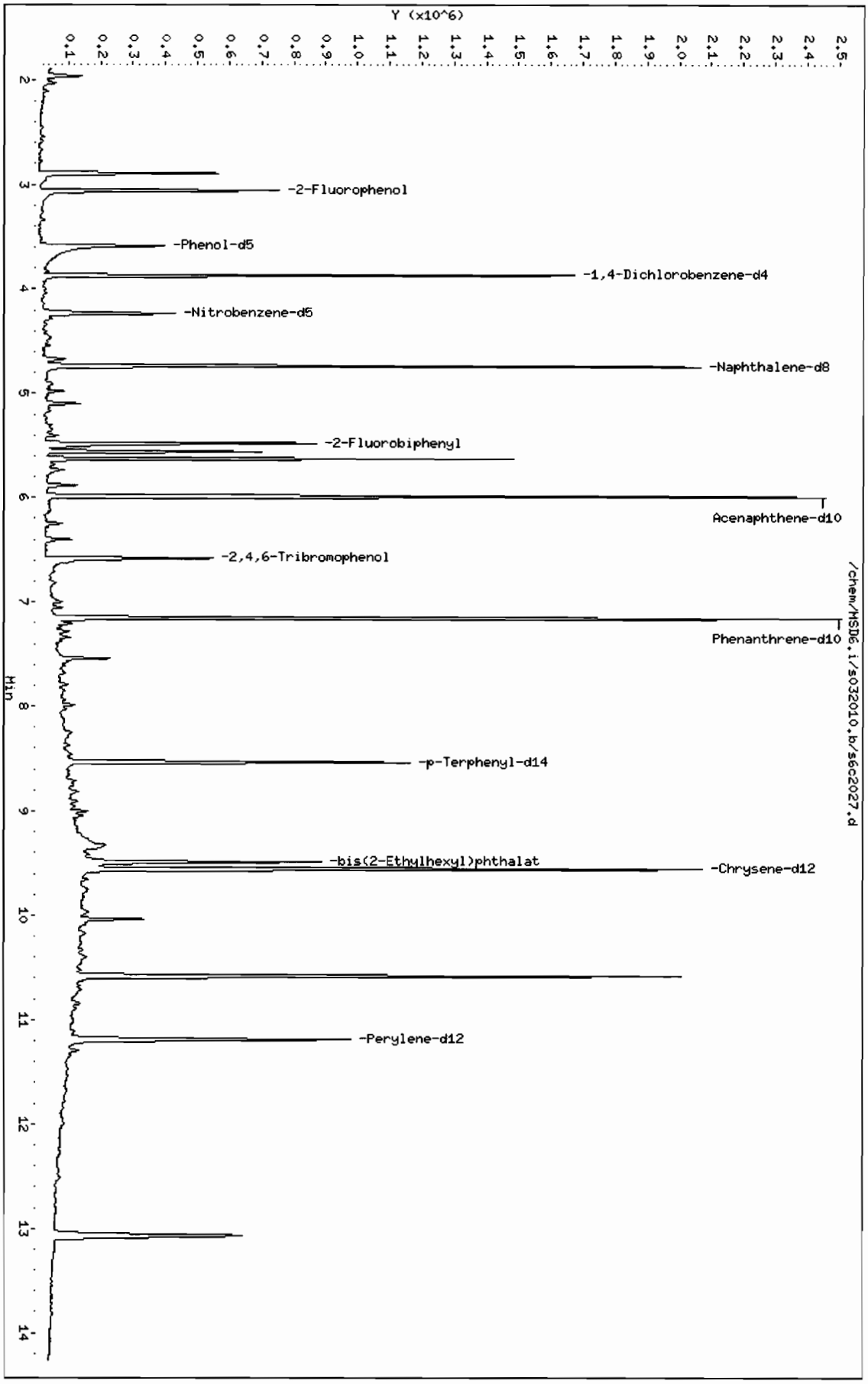

Page 1

Data File: /chem/MSD6.i/s032010.b/s6c2027.d

Date : 21-MAR-2010 00:39

Client ID: RE46-10-13548

Instrument: MSD6.i

Sample Info: |2488420061965425|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 530 ug/Kg

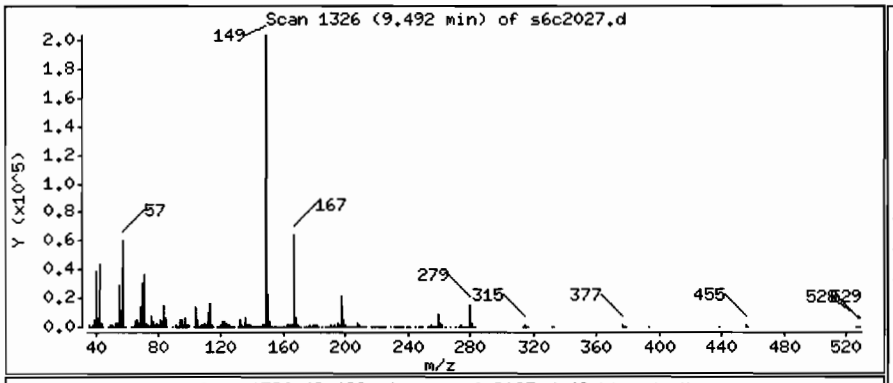

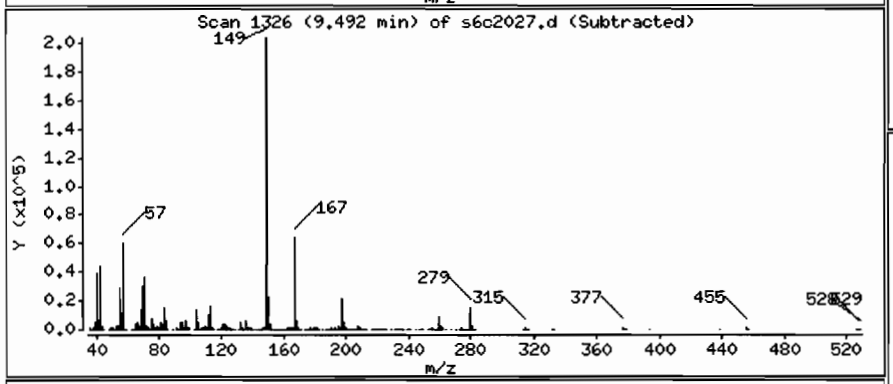

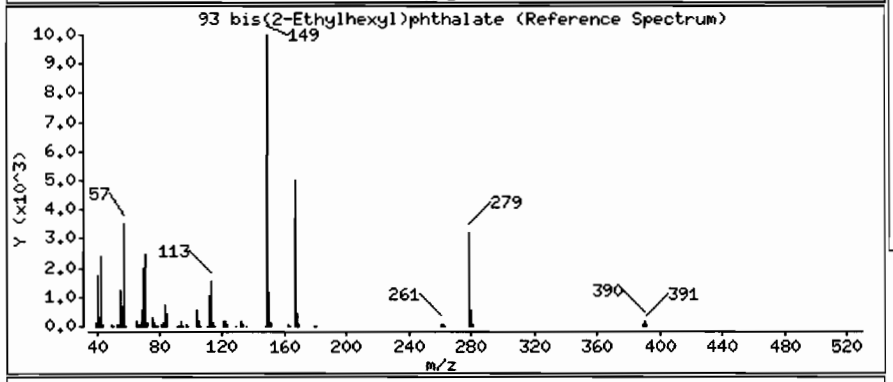

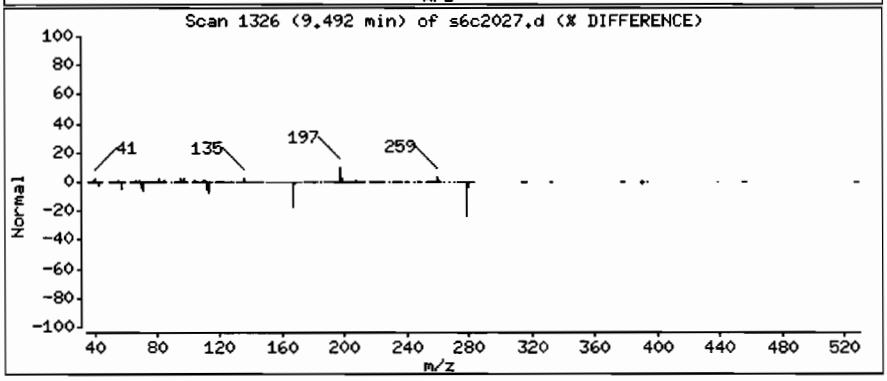

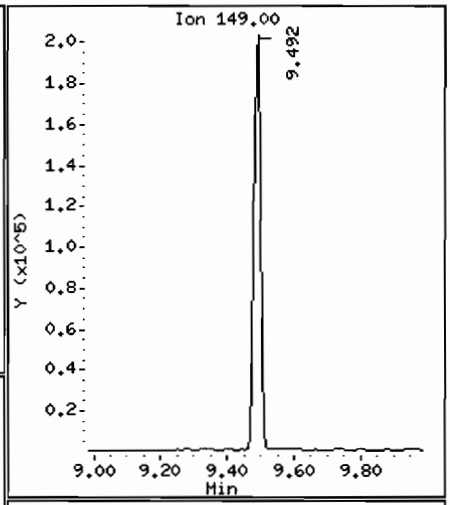

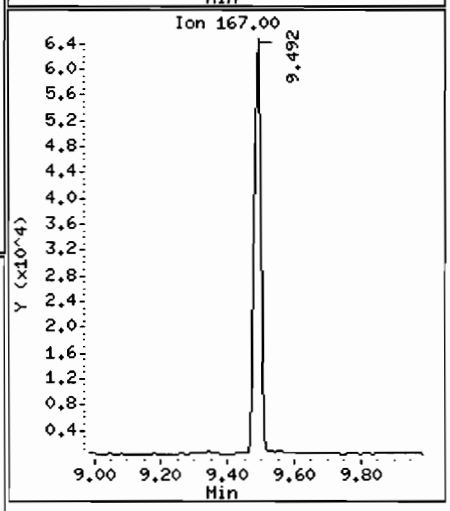

Data File: /chem/MSD6.i/s032010.b/s6c2027.d

Date : 21-MAR-2010 00:39

Client ID: RE46-10-13548

Instrument: MSD6.i

Sample Info: 1248842006196542511SVMI11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	45	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	40	C6H12O2	116

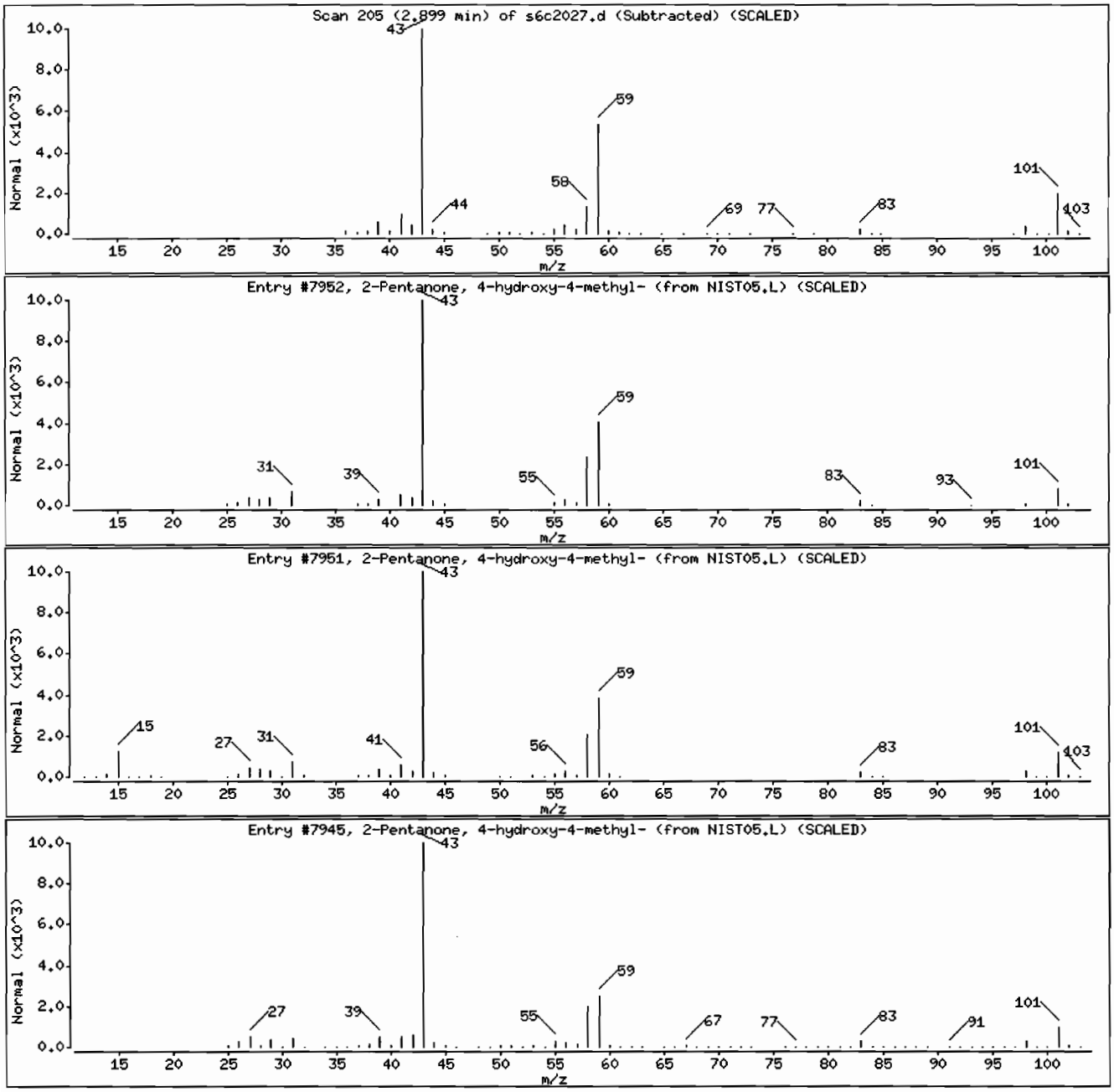

Data File: /chem/MSD6.i/s032010.b/s6c2027.d

Date : 21-MAR-2010 00:39

Client ID: RE46-10-13548

Instrument: MSD6.i

Sample Info: I2488420061965425I1ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
n-Hexadecanoic acid	57-10-3	NIST05.L	96235	95	C16H3202	256
Estra-1,3,5(10)-trien-17.beta.-ol	2529-64-8	NIST05.L	96358	78	C18H240	256
n-Hexadecanoic acid	57-10-3	NIST05.L	96234	50	C16H3202	256

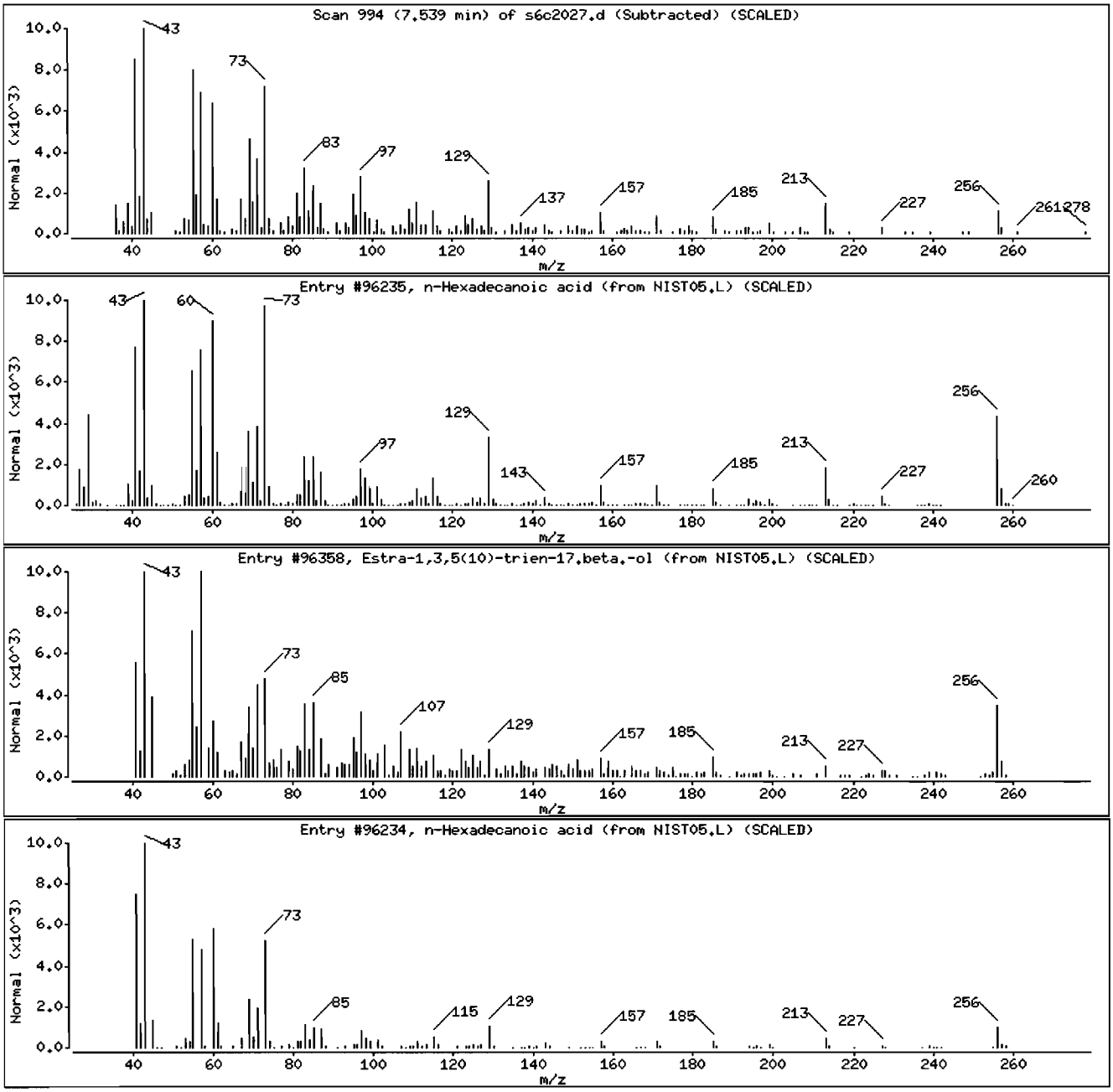

Data File: /chem/MSD6.i/s032010.b/s6c2027.d

Date : 21-MAR-2010 00:39

Client ID: RE46-10-13548

Instrument: MSD6.i

Sample Info: 1248842006|965425|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
12-Hydroxystearic acid	106-14-9	NIST05.L	124866	43	C18H3603	300
Benzenamine, 4-methyl-2,6-dinitro-	6393-42-6	NIST05.L	55158	43	C7H7N304	197
Phenol, 2-[(phenylmethylene)amino]-	3230-45-3	NIST05.L	55075	43	C13H11NO	197

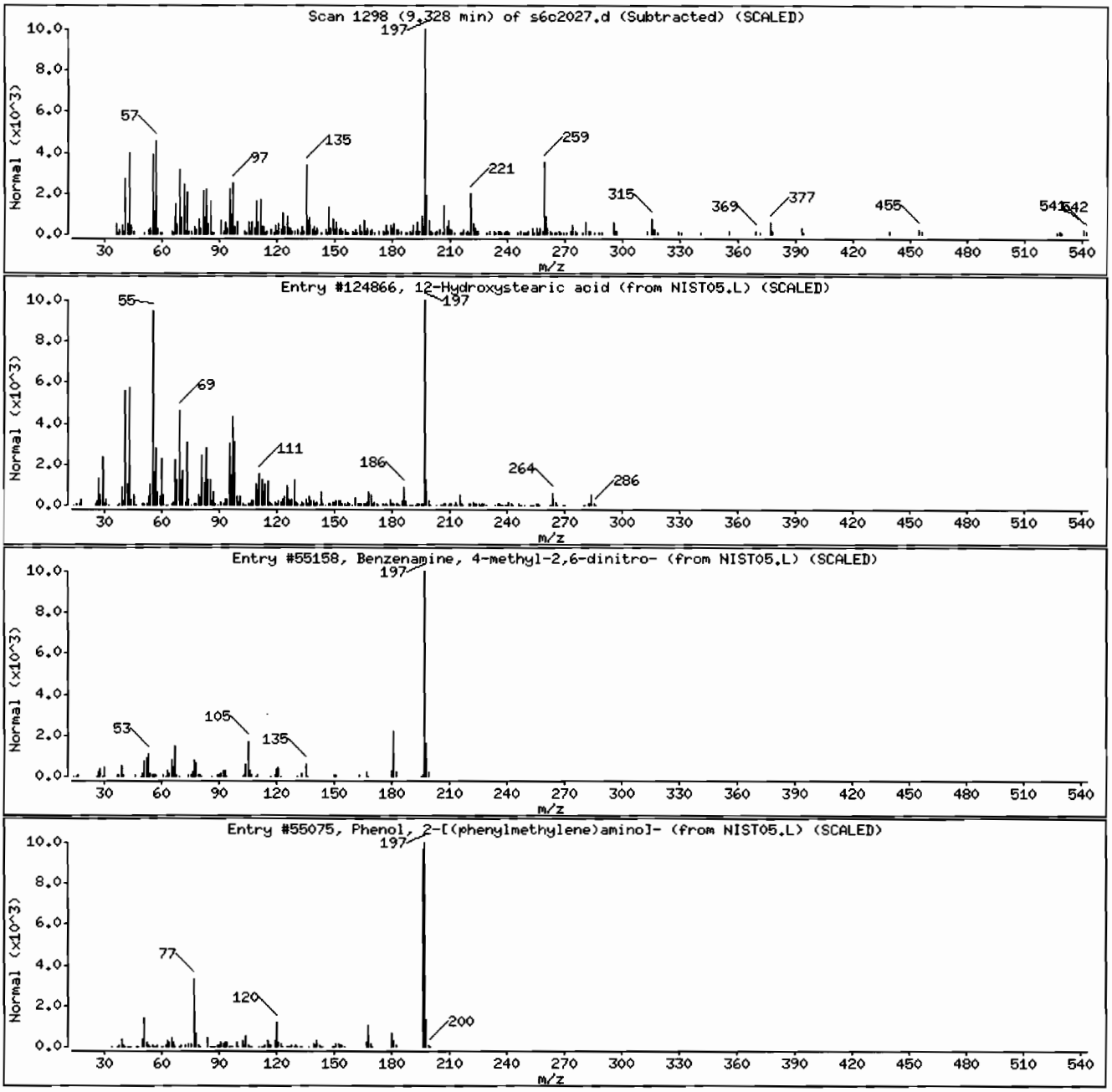

Data File: /chem/MSD6.i/s032010.b/s6c2027.d

Date : 21-MAR-2010 00:39

Client ID: RE46-10-13548

Instrument: MSD6.i

Sample Info: 1248842006196542511ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
17-Pentatriacontene	6971-40-0	NIST05.L	183897	49	C35H70	491
1-Bromo-11-iodoundecane	139123-69-6	NIST05.L	156814	42	C11H22BrI	360
3-Hexen-2-one, 3-cyclohexyl-4-ethyl-	1000150-19-1	NIST05.L	62952	41	C14H24O	208

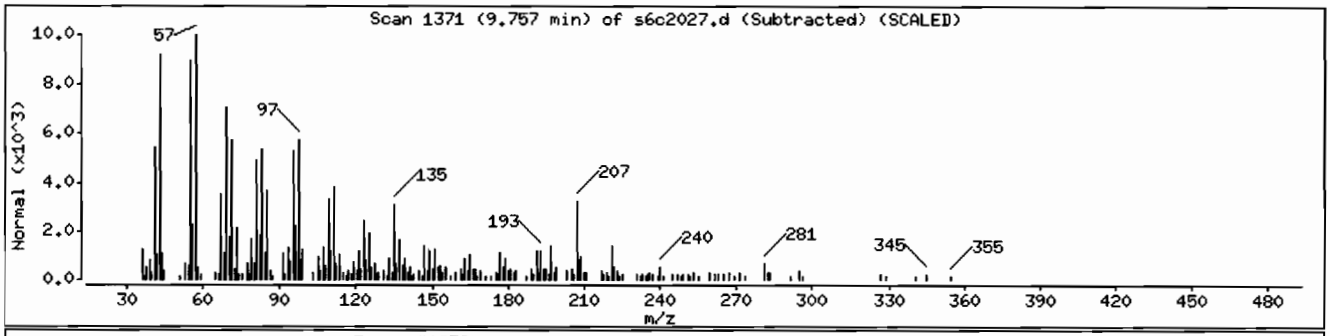

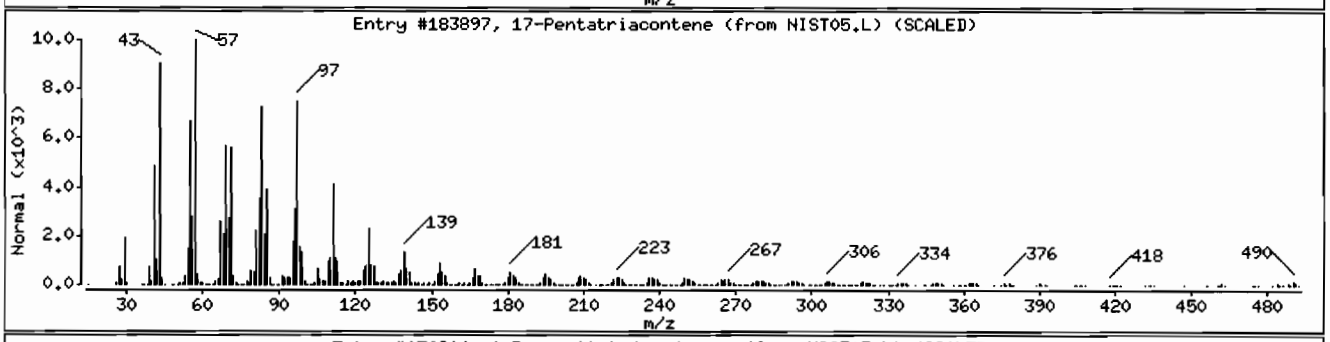

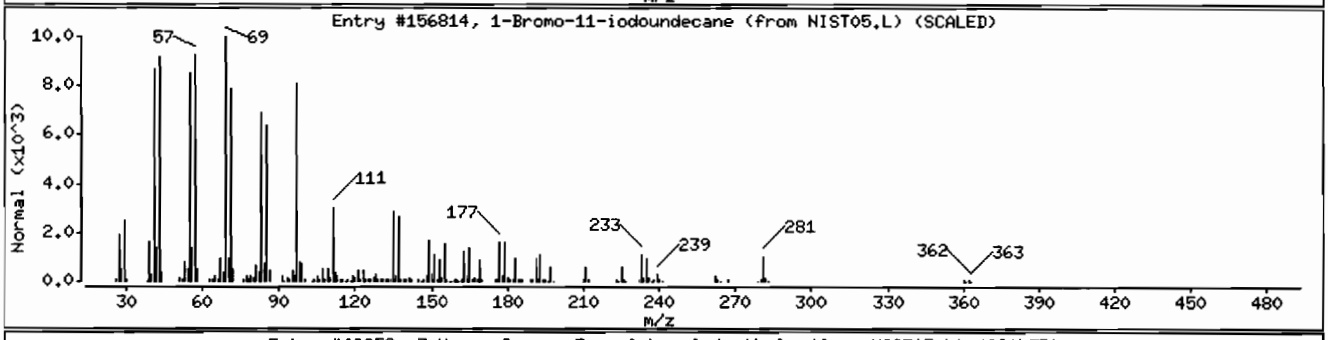

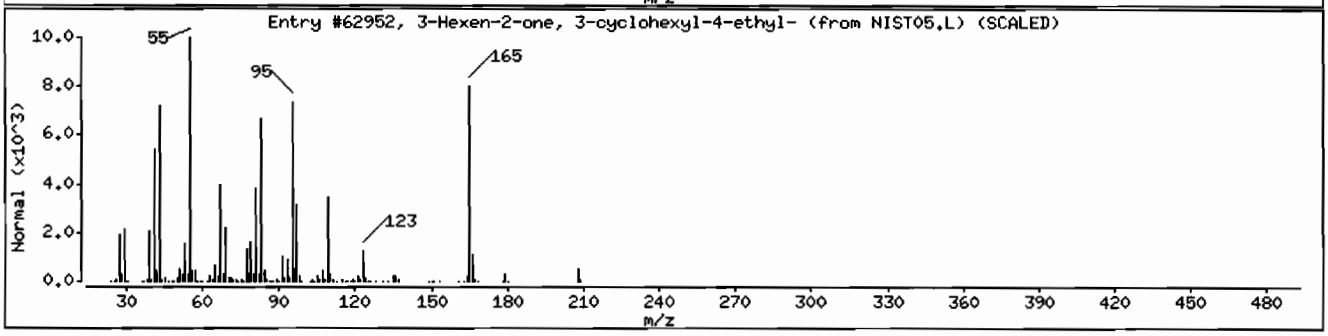

Data File: /chem/MSD6.i/s032010.b/s6c2027.d

Date : 21-MAR-2010 00:39

Client ID: RE46-10-13548

Instrument: MSD6.i

Sample Info: 1248842006196542511ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyridine-3-carboxamide, oxime, N-(2-trif	288246-53-7	NIST05.L	112295	91	C13H10F3N3O	281
1,3-Dioxolane, 4-ethyl-5-octyl-2,2-bis(t	38274-72-5	NIST05.L	152413	46	C15H24F6O2	350
Cyclododecanemethanol	1892-12-2	NIST05.L	55891	46	C13H26O	198

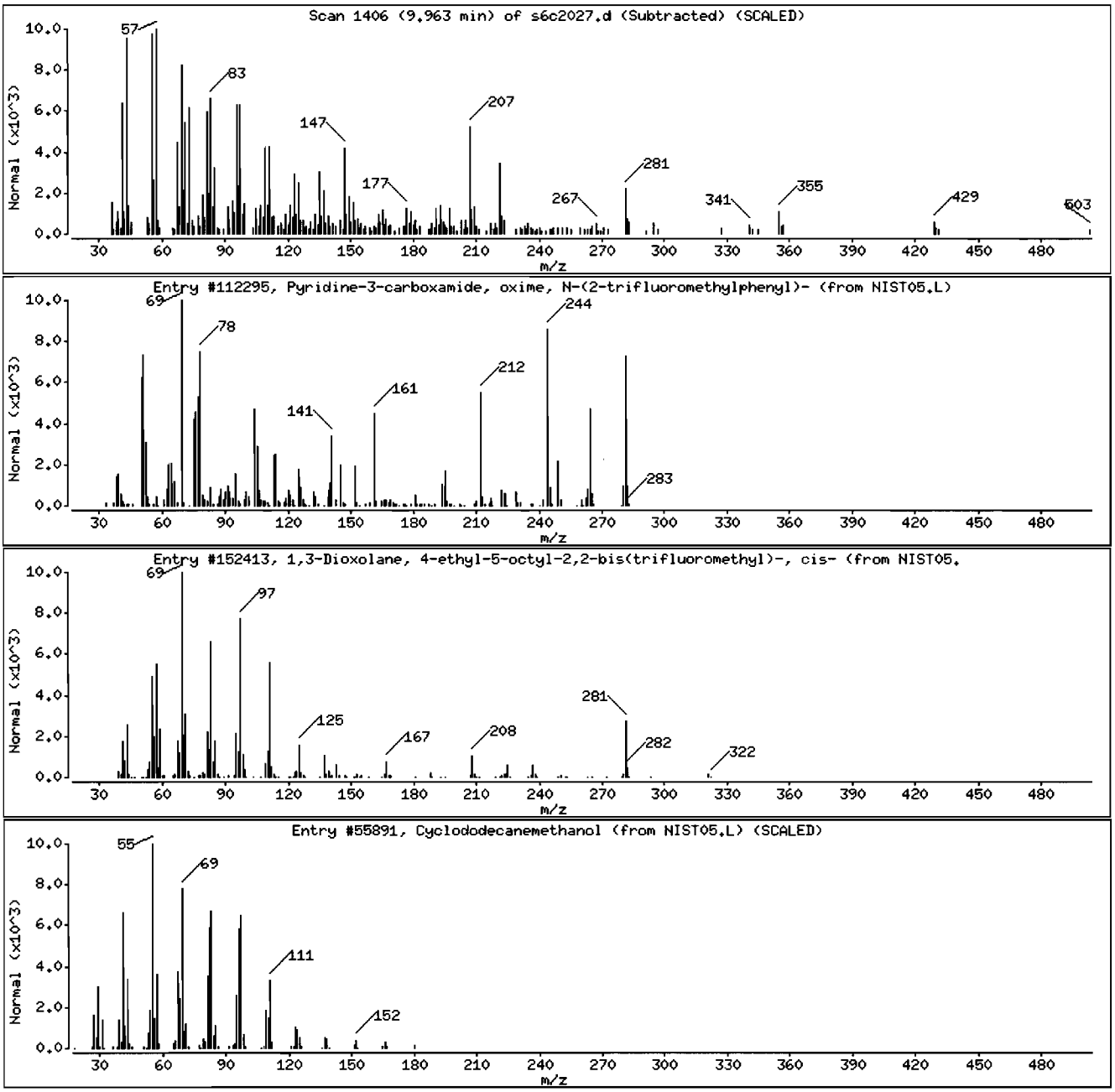

Data File: /chem/MSD6.i/s032010.b/s6c2027.d

Date : 21-MAR-2010 00:39

Client ID: RE46-10-13548 Instrument: MSD6.i

Sample Info: 1248842006|965425|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	807-28-3	NIST05.L	173479	99	C26H26OSi2	410
1,3-Diphenyl-1,3-dimethyl-1,3-disila-2-o	1000078-51-7	NIST05.L	143636	90	C20H20OSi2	332
15H-Benzo[a]naphtho[2,3-h]carbazole	17182-04-6	NIST05.L	135278	25	C24H15N	317

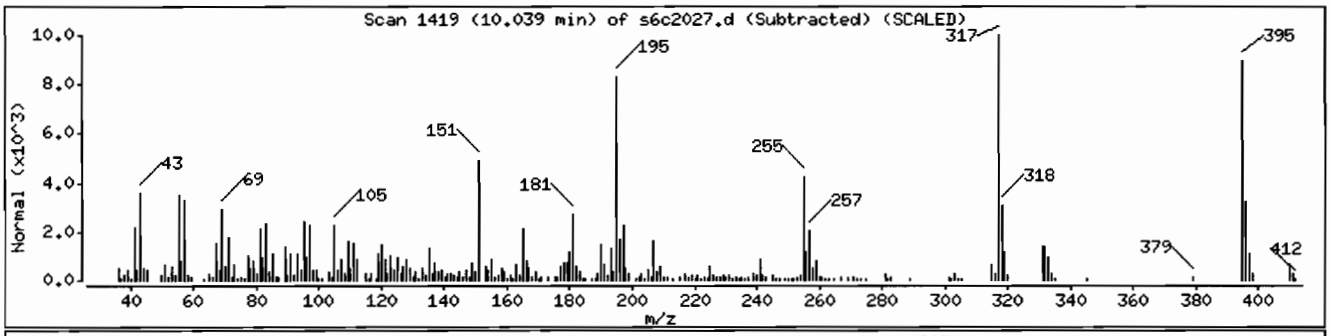

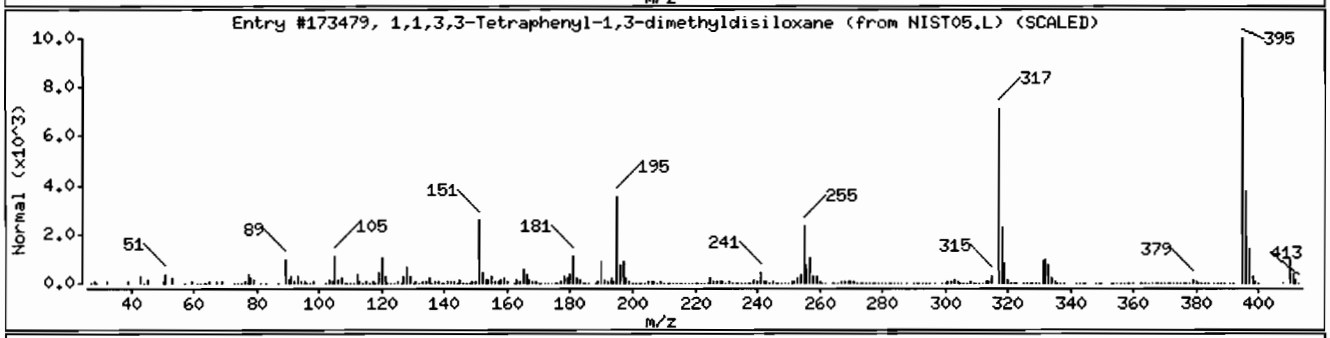

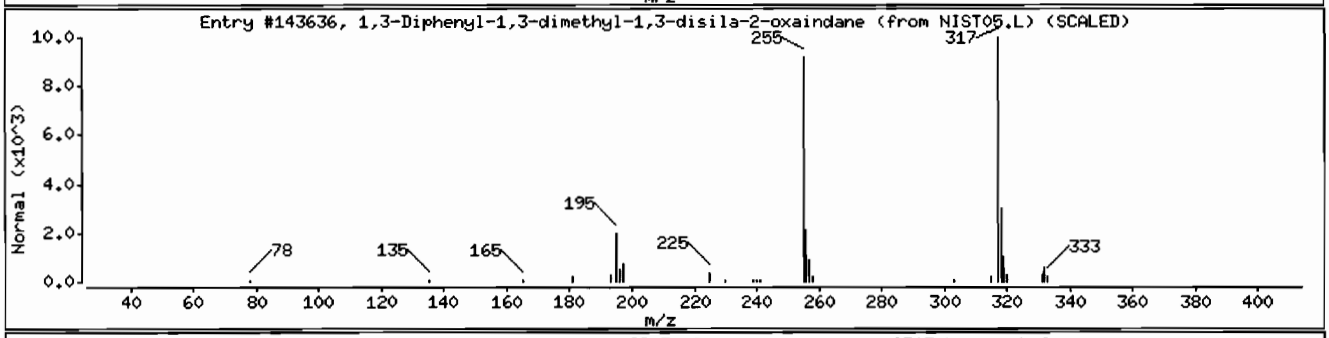

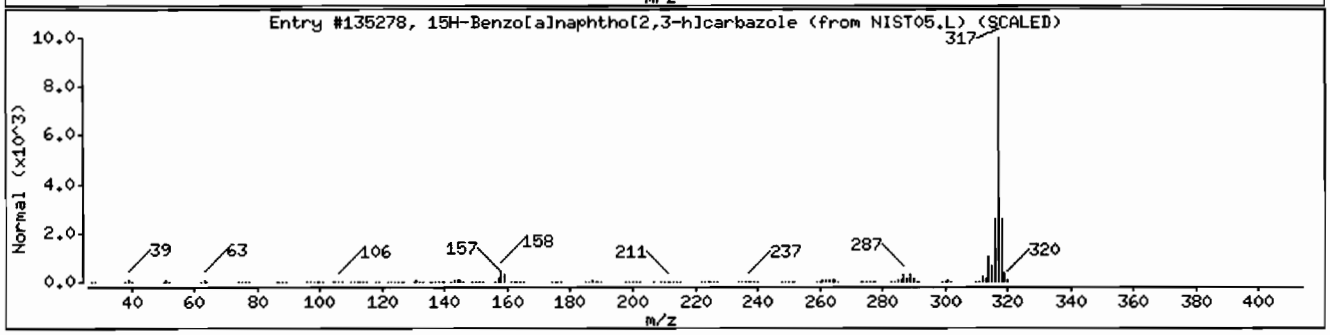

Data File: /chem/MSD6.i/s032010.b/s6c2027.d

Date : 21-MAR-2010 00:39

Client ID: RE46-10-13548

Instrument: MSD6.i

Sample Info: |2488420061965425|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Butanone, 4-(2,6,6-trimethyl-2-cyclohe	39721-65-8	NIST05.L	52864	43	C13H22O	194
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	30	C18H34O2	282
Cyclohexane, 1,1'-(2-ethyl-1,3-propanedi	54833-34-0	NIST05.L	82661	30	C17H32	236

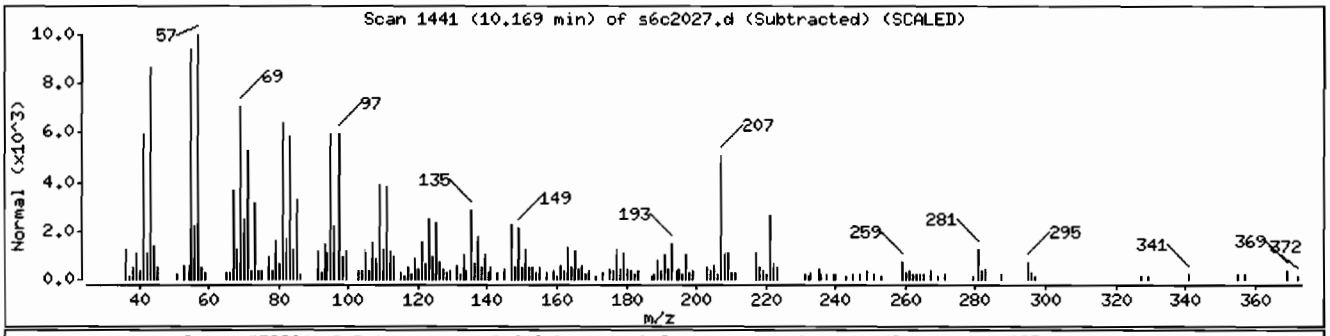

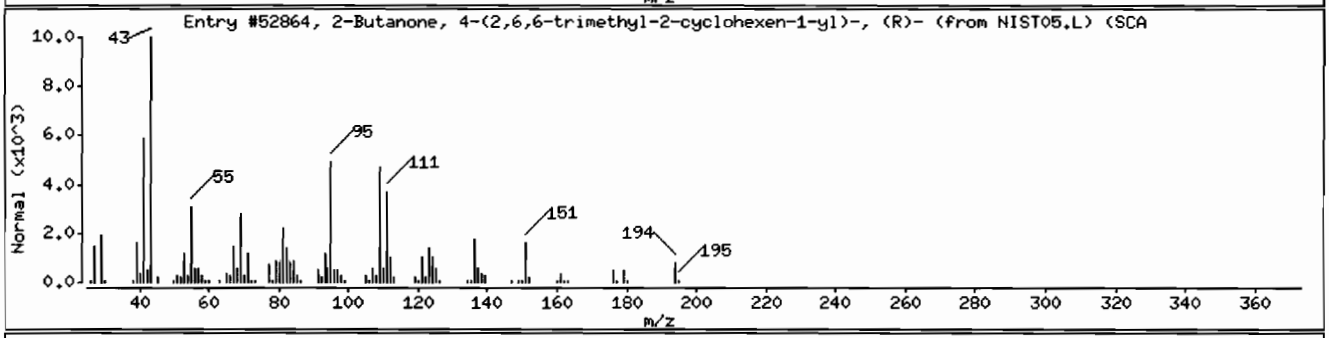

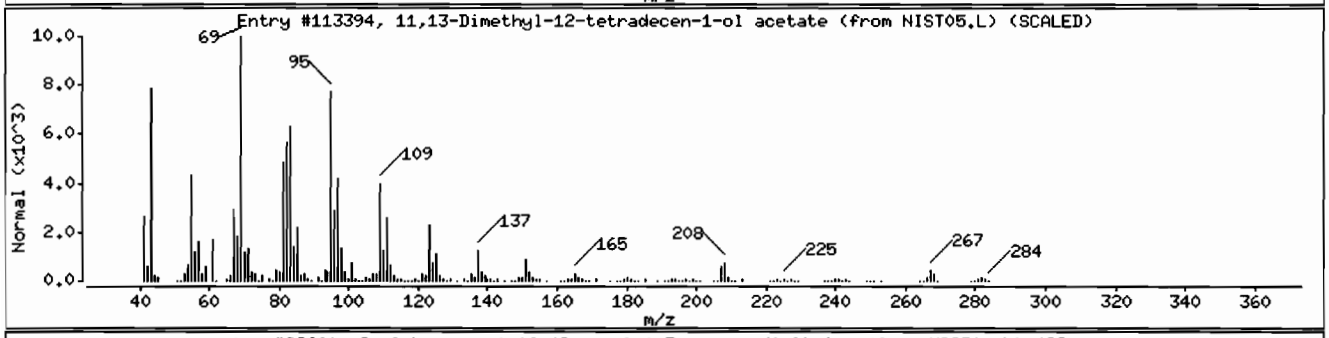

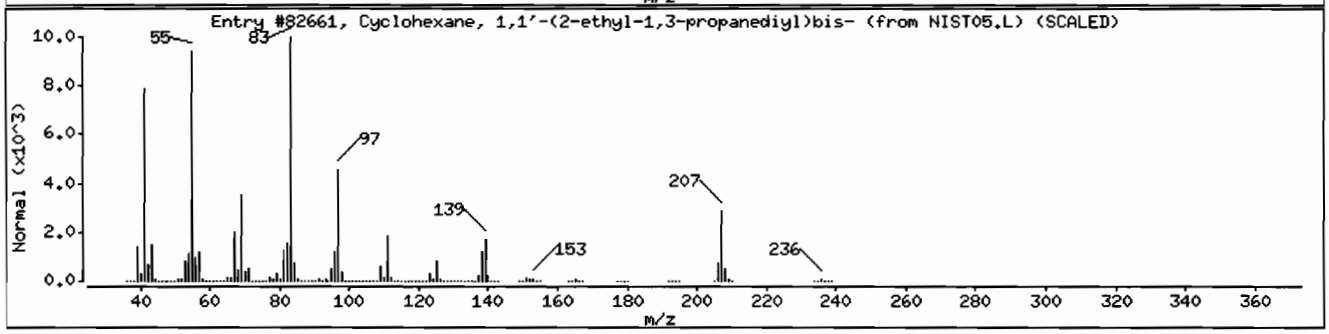

Data File: /chem/MSD6.i/s032010.b/s6c2027.d

Date : 21-MAR-2010 00:39

Client ID: RE46-10-13548

Instrument: MSD6.i

Sample Info: 1248842006196542511SVM11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Pyridine-3-carboxamide, oxime, N-(2-trif	288246-53-7	NIST05.L	112295	90	C13H10F3N3O	281
1,3-Dioxolane, 4-ethyl-5-octyl-2,2-bis(t	38274-73-6	NIST05.L	152414	38	C15H24F6O2	350
Cyclododecanemethanol	1892-12-2	NIST05.L	55891	38	C13H26O	198

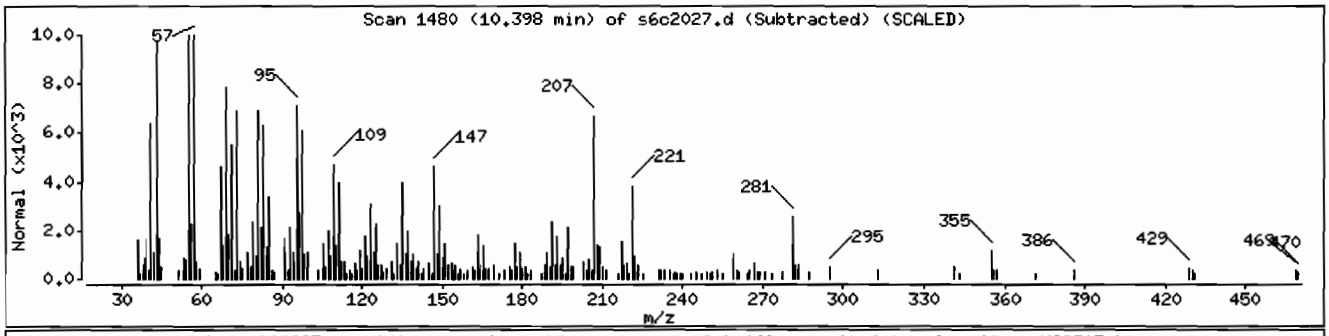

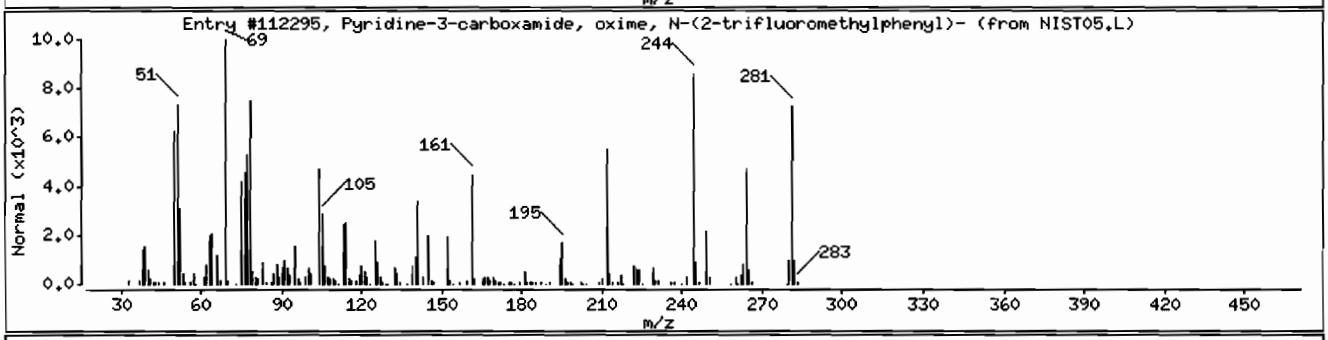

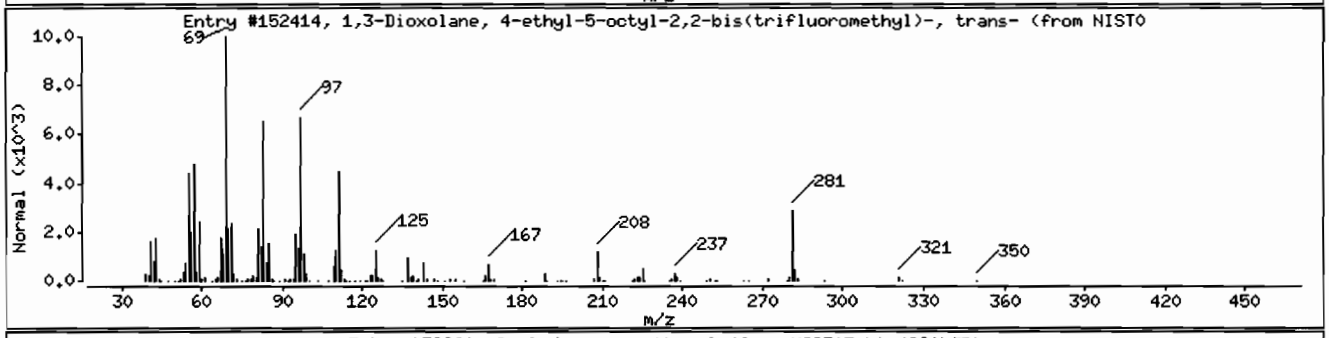

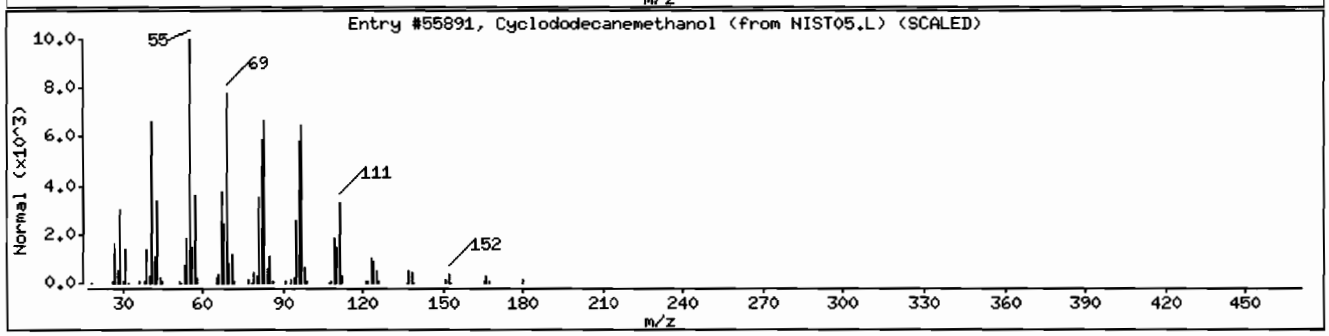

Data File: /chem/MSD6.i/s032010.b/s6c2027.d

Date : 21-MAR-2010 00:39

Client ID: RE46-10-13548

Instrument: MSD6.i

Sample Info: |2488420061965425|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	86	C20H34	274
9-Isopropyl-6-methyl-6,7-dihydro-9H-5-ox	134076-78-1	NIST05.L	70512	46	C13H17NO2	219
1-Pentadecene	13360-61-7	NIST05.L	64457	42	C15H30	210

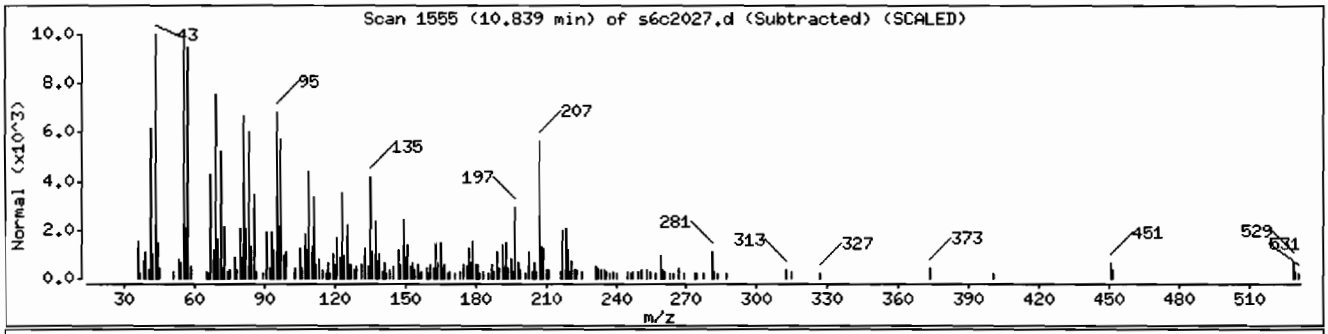

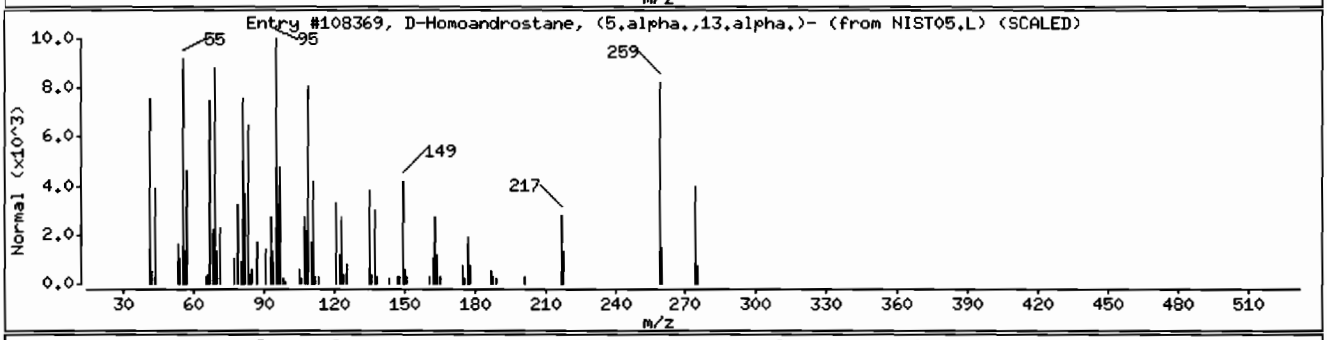

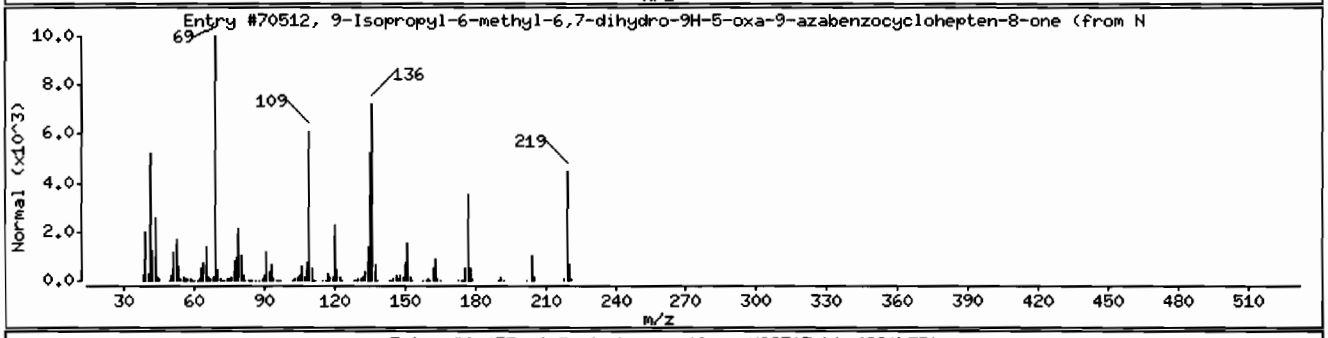

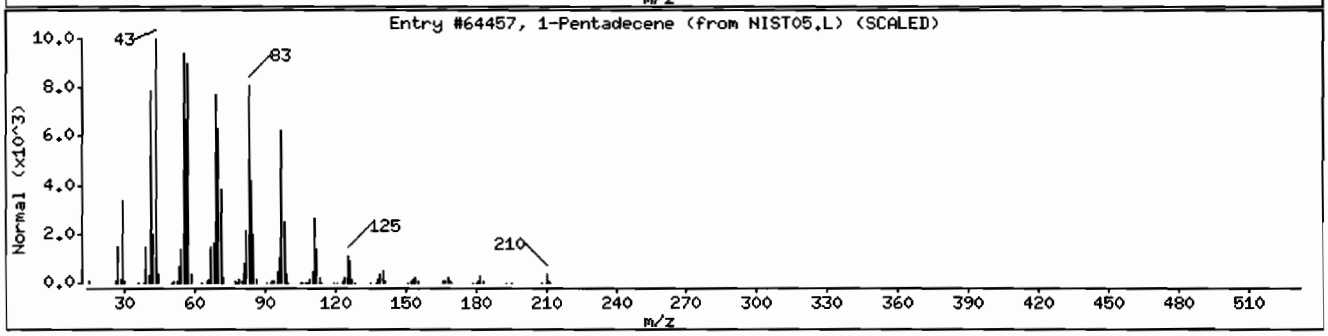

Data File: /chem/MSD6.i/s032010.b/s6c2027.d

Date : 21-MAR-2010 00:39

Client ID: RE46-10-13548 Instrument: MSD6.i

Sample Info: 1248842006|965425|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p	3390-61-2	NIST05.L	186812	49	C33H34O2Si3	546
9H-Carbazole-3,6-diamine	86-71-5	NIST05.L	55003	18	C12H11N3	197
Proline, 3-methyl-1-(trifluoroacetyl)-,	57983-47-8	NIST05.L	112274	11	C12H18F3NO3	281

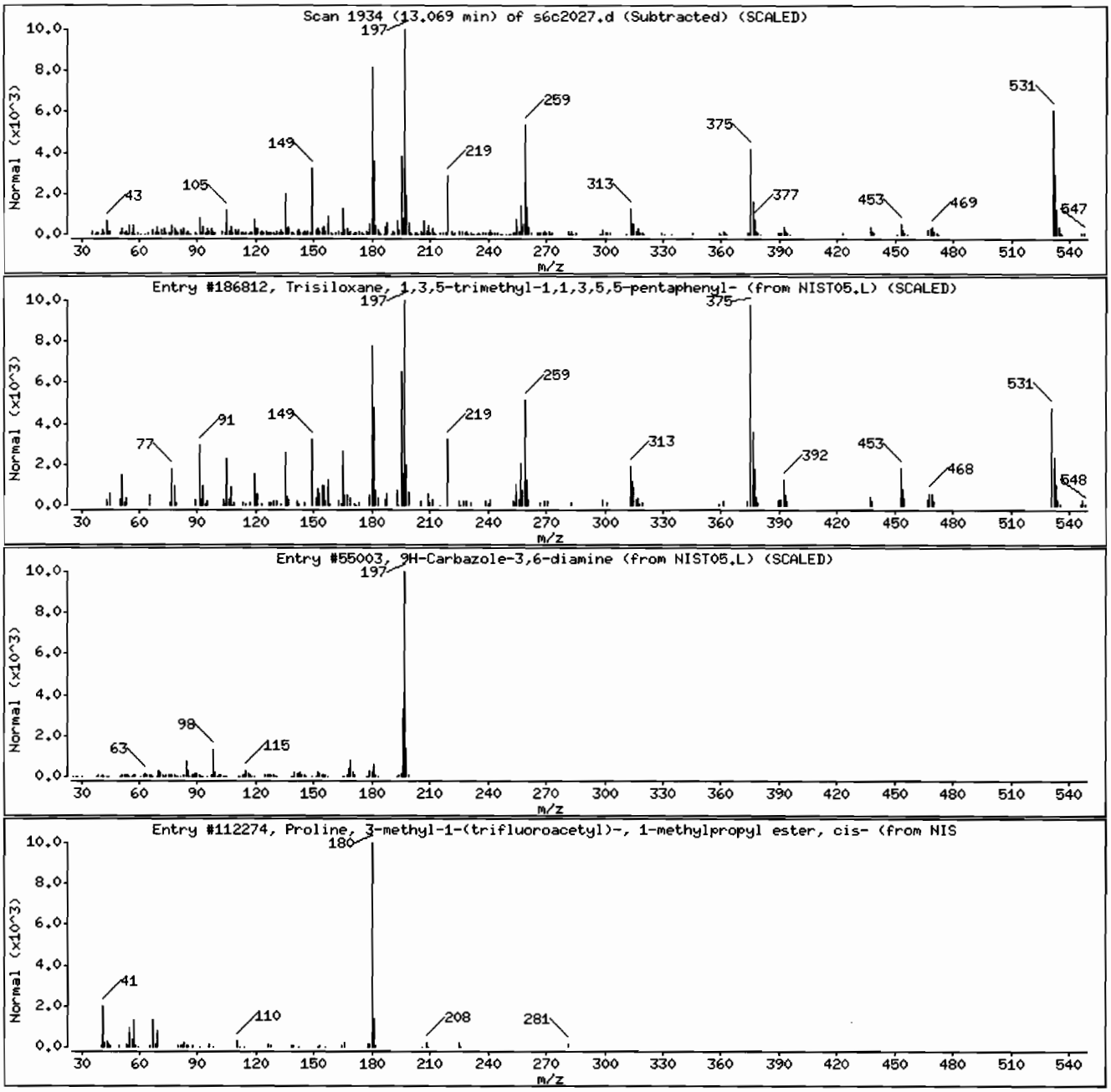

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13548RE**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**968549**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 20:31**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/24/2010 10:49**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2420.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	Uh	402	ug/kg	80.5	402
108-95-2	Phenol	Uh	402	ug/kg	80.5	402
95-57-8	2-Chlorophenol	Uh	402	ug/kg	80.5	402
106-46-7	1,4-Dichlorobenzene	Uh	402	ug/kg	80.5	402
621-64-7	N-Nitrosodipropylamine	Uh	402	ug/kg	80.5	402
59-50-7	4-Chloro-3-methylphenol	Uh	402	ug/kg	80.5	402
83-32-9	Acenaphthene	Uh	40.2	ug/kg	13.3	40.2
121-14-2	2,4-Dinitrotoluene	Uh	402	ug/kg	40.2	402
100-02-7	4-Nitrophenol	Uh	402	ug/kg	133	402
87-86-5	Pentachlorophenol	Uh	402	ug/kg	101	402
129-00-0	Pyrene	Uh	40.2	ug/kg	12.1	40.2
110-86-1	Pyridine	Uh	402	ug/kg	80.5	402
62-53-3	Aniline	Uh	402	ug/kg	121	402
111-44-4	bis(2-Chloroethyl) ether	Uh	402	ug/kg	80.5	402
541-73-1	1,3-Dichlorobenzene	Uh	402	ug/kg	80.5	402
100-51-6	Benzyl alcohol	Uh	402	ug/kg	121	402
95-50-1	1,2-Dichlorobenzene	Uh	402	ug/kg	80.5	402
108-60-1	bis(2-Chloroisopropyl)ether	Uh	402	ug/kg	80.5	402
95-48-7	o-Cresol	Uh	402	ug/kg	80.5	402
65794-96-9	m,p-Cresols	Uh	402	ug/kg	121	402
67-72-1	Hexachloroethane	Uh	402	ug/kg	80.5	402
98-95-3	Nitrobenzene	Uh	402	ug/kg	80.5	402
78-59-1	Isophorone	Uh	402	ug/kg	80.5	402
88-75-5	2-Nitrophenol	Uh	402	ug/kg	80.5	402
105-67-9	2,4-Dimethylphenol	Uh	402	ug/kg	141	402
111-91-1	bis(2-Chloroethoxy)methane	Uh	402	ug/kg	80.5	402
120-83-2	2,4-Dichlorophenol	Uh	402	ug/kg	80.5	402
65-85-0	Benzoic acid	Uh	805	ug/kg	201	805
91-20-3	Naphthalene	Uh	40.2	ug/kg	12.1	40.2
106-47-8	4-Chloroaniline	Uh	402	ug/kg	80.5	402
87-68-3	Hexachlorobutadiene	Uh	402	ug/kg	80.5	402
91-57-6	2-Methylnaphthalene	h	85.7	ug/kg	8.05	40.2
77-47-4	Hexachlorocyclopentadiene	Uh	402	ug/kg	80.5	402
88-06-2	2,4,6-Trichlorophenol	Uh	402	ug/kg	80.5	402
95-95-4	2,4,5-Trichlorophenol	Uh	402	ug/kg	80.5	402
91-58-7	2-Chloronaphthalene	Uh	40.2	ug/kg	13.3	40.2
88-74-4	2-Nitroaniline	Uh	402	ug/kg	80.5	402
99-09-2	*o-Nitroaniline* 3-Nitroaniline	Uh	402	ug/kg	80.5	402

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13548RE**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**968549**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 20:31**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/24/2010 10:49**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2420.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	Uh	402	ug/kg	80.5	402
606-20-2	2,6-Dinitrotoluene	Uh	402	ug/kg	40.2	402
208-96-8	Acenaphthylene	Uh	40.2	ug/kg	12.1	40.2
51-28-5	2,4-Dinitrophenol	Uh	805	ug/kg	153	805
132-64-9	Dibenzofuran	Uh	402	ug/kg	80.5	402
84-66-2	Diethylphthalate	Uh	402	ug/kg	80.5	402
86-73-7	Fluorene	Uh	40.2	ug/kg	12.1	40.2
7005-72-3	4-Chlorophenylphenylether	Uh	402	ug/kg	80.5	402
534-52-1	2-Methyl-4,6-dinitrophenol	Uh	402	ug/kg	80.5	402
100-01-6	4-Nitroaniline	Uh	402	ug/kg	121	402
	p-Nitroaniline					
122-39-4	Diphenylamine	Uh	402	ug/kg	80.5	402
122-66-7	Azobenzene	Uh	402	ug/kg	80.5	402
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	Uh	402	ug/kg	80.5	402
118-74-1	Hexachlorobenzene	Uh	402	ug/kg	80.5	402
85-01-8	Phenanthrene	Uh	40.2	ug/kg	12.1	40.2
120-12-7	Anthracene	Uh	40.2	ug/kg	8.05	40.2
84-74-2	Di-n-butylphthalate	Uh	402	ug/kg	80.5	402
206-44-0	Fluoranthene	Uh	40.2	ug/kg	12.1	40.2
85-68-7	Butylbenzylphthalate	Uh	402	ug/kg	80.5	402
56-55-3	Benzo(a)anthracene	Uh	40.2	ug/kg	12.1	40.2
91-94-1	3,3'-Dichlorobenzidine	Uh	402	ug/kg	121	402
218-01-9	Chrysene	Uh	40.2	ug/kg	12.1	40.2
117-81-7	bis(2-Ethylhexyl)phthalate	h	4300	ug/kg	80.5	402
117-84-0	Di-n-octylphthalate	Uh	402	ug/kg	80.5	402
205-99-2	Benzo(b)fluoranthene	Uh	40.2	ug/kg	12.1	40.2
207-08-9	Benzo(k)fluoranthene	Uh	40.2	ug/kg	12.1	40.2
50-32-8	Benzo(a)pyrene	Uh	40.2	ug/kg	12.1	40.2
193-39-5	Indeno(1,2,3-cd)pyrene	Uh	40.2	ug/kg	12.1	40.2
53-70-3	Dibenzo(a,h)anthracene	Uh	40.2	ug/kg	12.1	40.2
191-24-2	Benzo(ghi)perylene	Uh	40.2	ug/kg	12.1	40.2
120-82-1	1,2,4-Trichlorobenzene	Uh	402	ug/kg	80.5	402

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
629-50-5	Tridecane	5.12	1090	ug/kg	96	NJ
629-59-4	Tetradecane	5.53	1450	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13548RE**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**968549**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 20:31**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/24/2010 10:49**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2420.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
92-52-4	Biphenyl	5.59	7430	ug/kg	96	NJ
57-10-3	n-Hexadecanoic acid	7.59	5050	ug/kg	99	NJ
57-11-4	Octadecanoic acid	8.29	3920	ug/kg	99	NJ
	Unknown	8.85	893	ug/kg		J
	Unknown	9.03	601	ug/kg		J
	Unknown	9.36	658	ug/kg		J
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	10.08	1310	ug/kg	87	NJ
	Unknown	10.21	870	ug/kg		J
	Unknown	10.45	851	ug/kg		J
	Unknown	10.9	841	ug/kg		J
	Unknown	11.36	705	ug/kg		J
3390-61-2	Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p	13.2	5020	ug/kg	93	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032410.b/s6c2420.d
Lab Smp Id: 248842006 Client Smp ID: RE46-10-13548RE
Inj Date : 24-MAR-2010 20:31
Operator : nag1 Inst ID: MSD6.i
Smp Info : |248842006|968549|1|SVM|2|LANLRE
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032410.b/MSD6-M8270C-AQA-031610.m
Meth Date : 25-Mar-2010 09:44 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	17.17990	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.892	3.881	(1.000)	426058	40.0000	
* 29 Naphthalene-d8	136	4.757	4.751	(1.000)	1469674	40.0000	
* 46 Acenaphthene-d10	164	6.016	6.010	(1.000)	941107	40.0000	
* 67 Phenanthrene-d10	188	7.186	7.175	(1.000)	1563803	40.0000	
* 91 Chrysene-d12	240	9.592	9.580	(1.000)	1205519	40.0000	
* 98 Perylene-d12	264	11.257	11.233	(1.000)	900223	40.0000	
$ 3 2-Fluorophenol	112	3.087	3.069	(0.793)	486663	41.0895	1650
$ 5 Phenol-d5	99	3.604	3.598	(0.926)	674245	44.7634	1800
$ 20 Nitrobenzene-d5	82	4.251	4.245	(0.894)	264365	18.8172	757
$ 39 2-Fluorobiphenyl	172	5.504	5.492	(0.915)	615778	25.3607	1020
$ 60 2,4,6-Tribromophenol	329	6.610	6.604	(1.099)	174328	66.0114	2660
$ 81 p-Terphenyl-d14	244	8.563	8.551	(0.893)	876661	41.7314	1680

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
34 2-Methylnaphthalene	142	5.257	5.245	(1.105)	47418	2.13092	85.7
93 bis(2-Ethylhexyl)phthalate	149	9.527	9.510	(0.993)	2541578	106.938	4300

ION RATIO REPORT

SV REPORT

Data file: s6c2420.d
Report Date: 03/24/2010 21:50
Lab. ID: 248842006 SampleType: SAMPLE
Injection Date: 24-MAR-2010 20:31
Operator: nag1 Instrument: MSD6.i
Sample Info: |248842006|968549|1|SVM|2|LANLRE
Miscellaneous Info: |MSD8270_S|WBN100319-01
Comment:
Method used: /chem/MSD6.i/s032410.b/MSD6-M8270C-AQA-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	34592	3.60	3.67	80-120	100	(T)
93	286	3.61	3.67	404-464	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	38242	4.23	4.12	80-120	100	(T)
42	33136	4.23	4.12	38- 98	87	(T)
22 Isophorone		CAS#: 78-59-1				
82	262161	4.25	4.42	80-120	100	(T)
138	17943	4.16	4.42	0- 49	7	(T)
34 2-Methylnaphthalene			CAS#: 91-57-6			
142	47418	5.26	5.25	80-120	100	( )
141	40864	5.26	5.25	55-115	86	( )
40 2-Chloronaphthalene			CAS#: 91-58-7			
162	874303	6.02	5.60	80-120	100	(T)
164	941107	6.02	5.60	4- 64	108	(QT)
127	14514	5.91	5.60	7- 67	2	(QT)
42 o-Nitroaniline			CAS#: 88-74-4			
65	601665	5.67	5.66	80-120	100	( )
92	36272	5.67	5.66	37- 97	6	(Q)
138	10373	5.67	5.66	82-142	2	(Q)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
43 Dimethylphthalate			CAS#: 131-11-3			
163	169796	6.02	5.77	80-120	100	(T)
164	941107	6.02	5.77	0- 41	554	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	18985	5.77	5.83	80-120	100	( )
63	14634	5.77	5.82	44-104	77	( )
45 Acenaphthylene			CAS#: 208-96-8			
152	29722	5.77	5.91	80-120	100	(T)
151	8912	5.76	5.91	0- 50	30	(T)
153	36486	5.77	5.91	0- 44	123	(QT)
47 Acenaphthene			CAS#: 83-32-9			
154	21214	5.91	6.03	80-120	100	(T)
153	3760	5.90	6.03	67-127	18	(QT)
152	4485	5.91	6.03	16- 76	21	(T)
48 2,4-Dinitrophenol			CAS#: 51-28-5			
184	841	6.14	6.03	80-120	100	(T)
154	2704	6.15	6.03	646-706	321	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	131946	6.02	6.12	80-120	100	(T)
89	2191	6.02	6.12	38- 98	2	(QT)
63	2635	6.02	6.12	13- 73	2	(QT)
52 4-Nitrophenol			CAS#: 100-02-7			
139	239492	5.67	6.05	80-120	100	(T)
109	10384	5.69	6.05	34- 94	4	(QT)
65	604348	5.67	6.05	72-132	252	(QT)
53 Fluorene			CAS#: 86-73-7			
166	9787	6.61	6.42	80-120	100	(T)
165	8696	6.61	6.42	60-120	89	(T)
167	2871	6.61	6.42	0- 44	29	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	583	6.43	6.43	80-120	100	( )
105	3935	6.53	6.43	8- 68	675	(QT)
51	1406	6.53	6.43	27- 87	241	(QT)
69 Anthracene			CAS#: 120-12-7			
178	11001	7.20	7.24	80-120	100	( )
179	2318	7.20	7.24	0- 47	21	( )
176	2588	7.20	7.24	0- 49	24	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
79 Pyrene		CAS#: 129-00-0				
202	11289	8.25	8.45	80-120	100	(T)
200	2251	8.25	8.45	0- 51	20	(T)
101	4817	8.24	8.45	0- 44	43	(T)
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	10038	9.59	9.57	80-120	100	( )
226	866	9.58	9.57	0- 56	9	( )
229	2468	9.59	9.57	0- 50	25	( )
92 Chrysene		CAS#: 218-01-9				
228	10034	9.59	9.60	80-120	100	( )
229	2641	9.59	9.60	0- 50	26	( )
226	866	9.58	9.60	0- 59	9	( )
93 bis(2-Ethylhexyl)phthalate			CAS#: 117-81-7			
149	2541578	9.53	9.51	80-120	100	( )
167	856155	9.53	9.51	4- 64	34	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	51804	10.66	10.72	80-120	100	( )
253	46853	10.66	10.72	0- 52	90	(Q)
125	9844	10.69	10.72	0- 41	19	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032410.b/s6c2420.d
Lab Smp Id: 248842006 Client Smp ID: RE46-10-13548RE
Inj Date : 24-MAR-2010 20:31
Operator : nag1 Inst ID: MSD6.i
Smp Info : |248842006|968549|1|SVM|2|LANLRE
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032410.b/MSD6-M8270C-AQA-031610.m
Meth Date : 25-Mar-2010 09:44 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	17.17990	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 29 Naphthalene-d8	4.757	5575217	40.000
* 46 Acenaphthene-d10	6.016	4033612	40.000
* 67 Phenanthrene-d10	7.186	3665842	40.000
* 91 Chrysene-d12	9.592	8954177	40.000
* 98 Perylene-d12	11.257	7512297	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Tridecane				CAS #: 629-50-5			
5.122	3789482	27.1880511	1090	96	NIST05.L	46084	29
Tetradecane				CAS #: 629-59-4			
5.534	3636426	36.0612285	1450	98	NIST05.L	55974	46
Biphenyl				CAS #: 92-52-4			
5.592	18621447	184.662725	7430	96	NIST05.L	25992	46
n-Hexadecanoic acid				CAS #: 57-10-3			
7.592	11512122	125.615020	5050	99	NIST05.L	96235	67
Octadecanoic acid				CAS #: 57-11-4			
8.292	8922380	97.3569355	3920	99	NIST05.L	114822	67
Unknown				CAS #:			
8.845	4967836	22.1922624	893	0		0	91
Unknown				CAS #:			
9.033	3342984	14.9337416	601	0		0	91
Unknown				CAS #:			
9.357	3658996	16.3454277	658	0		0	91
1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa				CAS #: 807-28-3			
10.080	7297767	32.6005034	1310	87	NIST05.L	173479	91
Unknown				CAS #:			
10.210	4842874	21.6340316	870	0		0	91
Unknown				CAS #:			
10.445	3973027	21.1547906	851	0		0	98
Unknown				CAS #:			
10.898	3925438	20.9013978	841	0		0	98
Unknown				CAS #:			
11.357	3288783	17.5114627	704	0		0	98
Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p				CAS #: 3390-61-2			
13.198	23434070	124.777122	5020	93	NIST05.L	186811	98

Data File: /chem/MSD6.i/s032410.b/s6c2420.d
Date : 24-MAR-2010 20:31
Client ID: RE46-10-13548RE
Sample Info: |2488420061968549|1|SVM|2|LANLRE
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

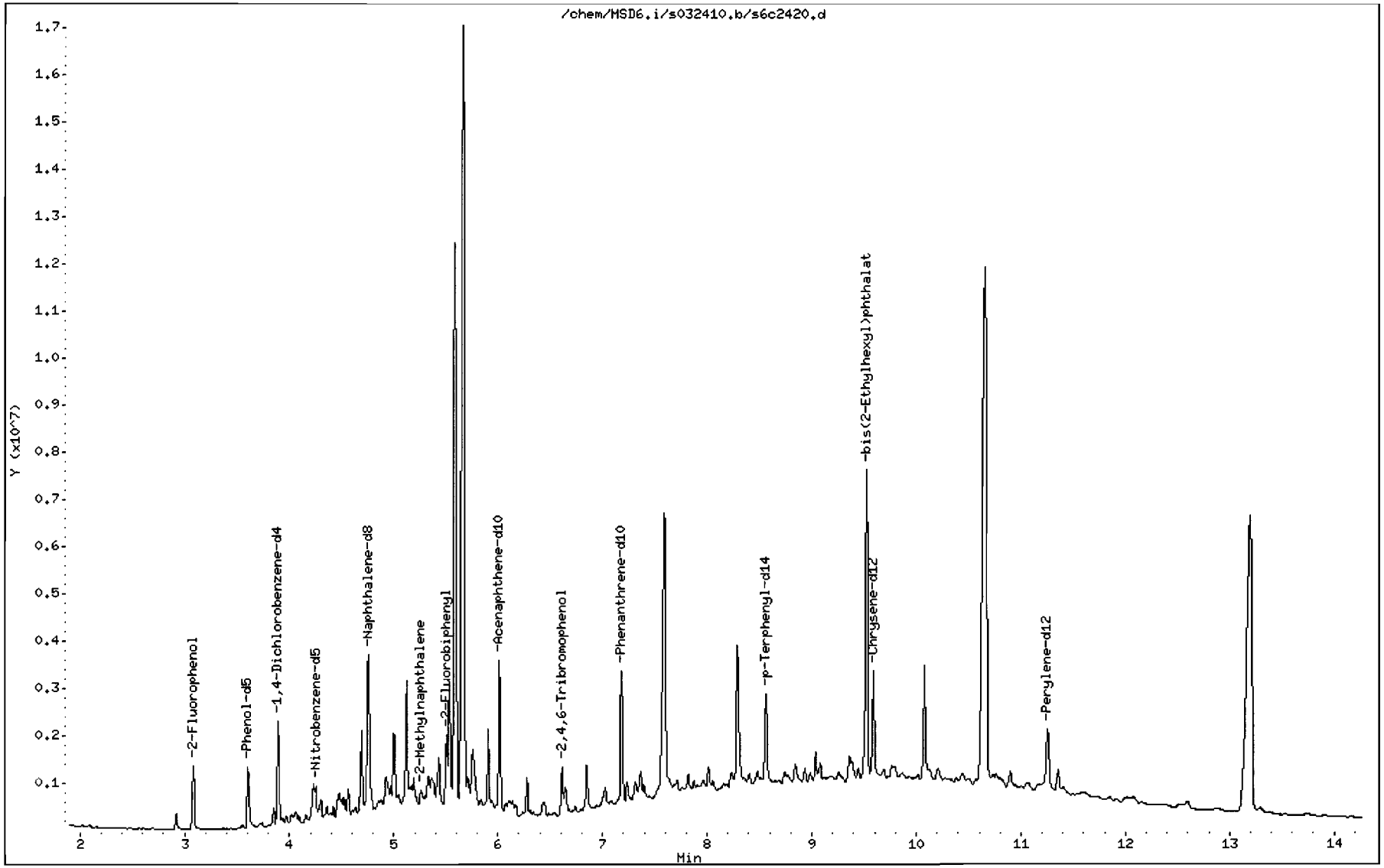

Data File: /chem/MSD6.i/s032410.b/s6c2420.d

Date : 24-MAR-2010 20:31

Client ID: RE46-10-13548RE

Instrument: MSD6.i

Sample Info: 1248842006196854911ISVMI2ILANLRE

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 85.7 ug/Kg

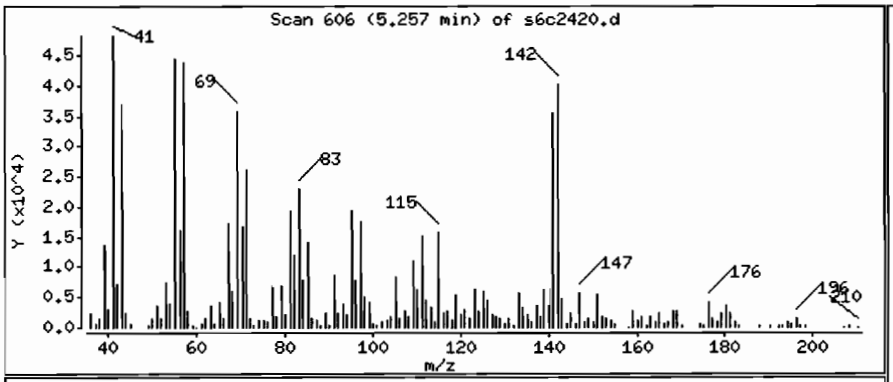

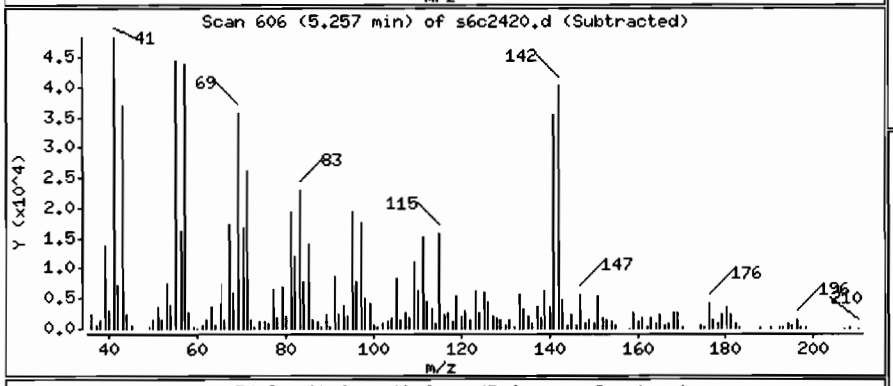

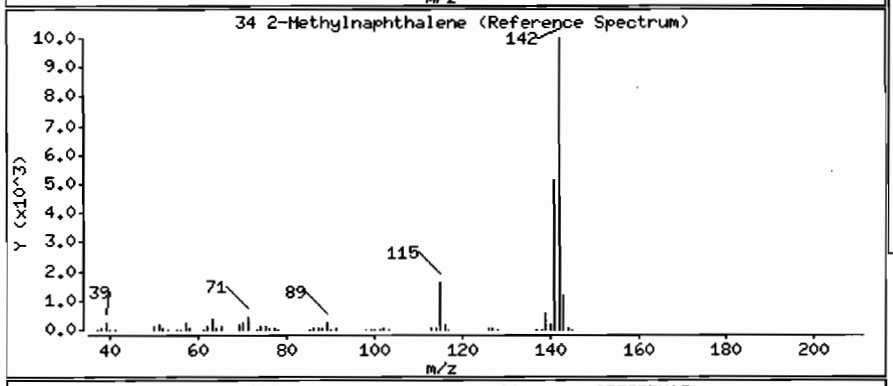

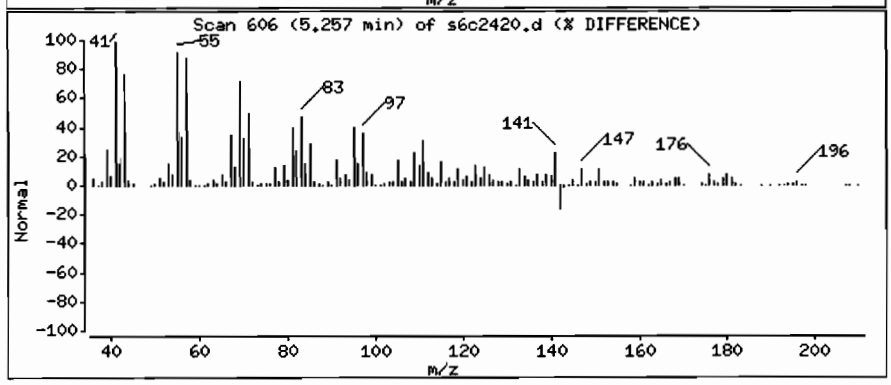

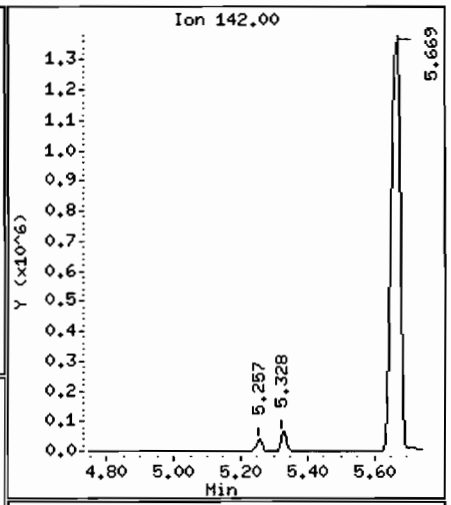

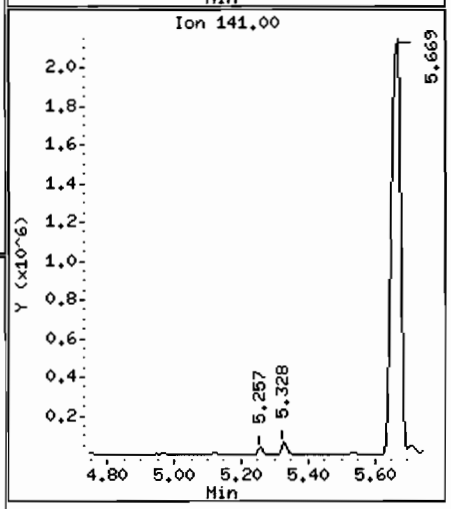

Data File: /chem/MSD6.i/s032410.b/s6c2420.d

Date : 24-MAR-2010 20:31

Client ID: RE46-10-13548RE

Instrument: MSD6.i

Sample Info: 1248842006|968549|1|SVM|2|LANLRE

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 4300 ug/Kg

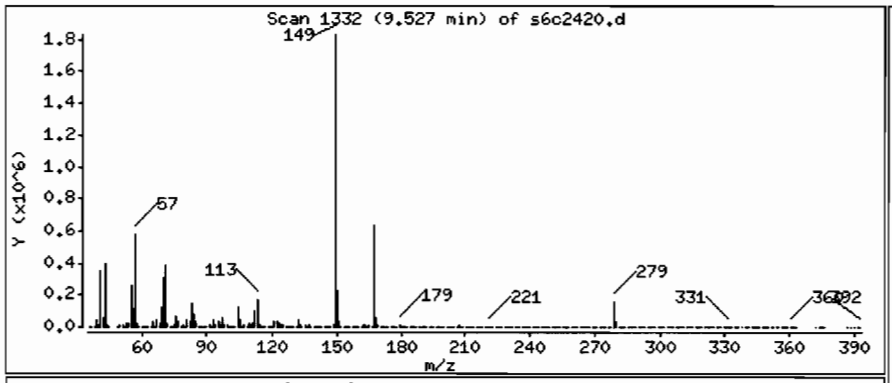

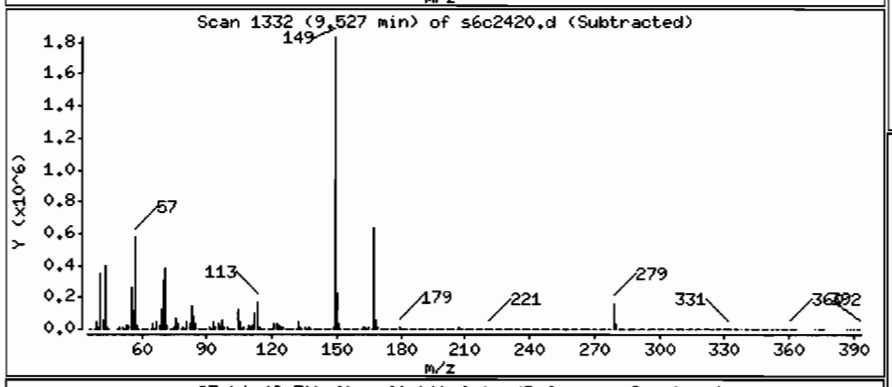

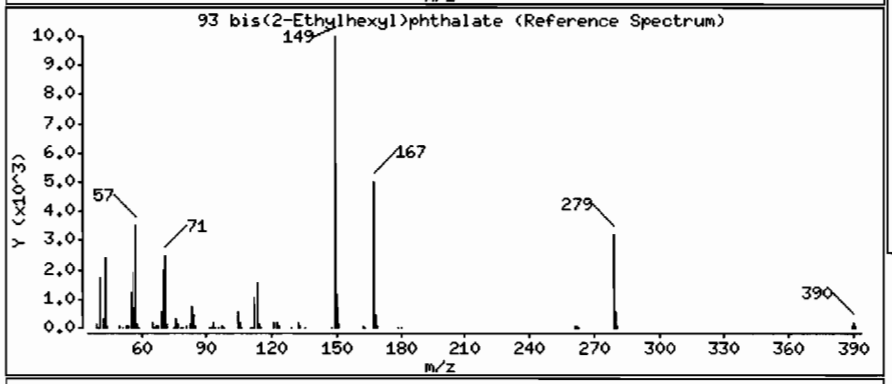

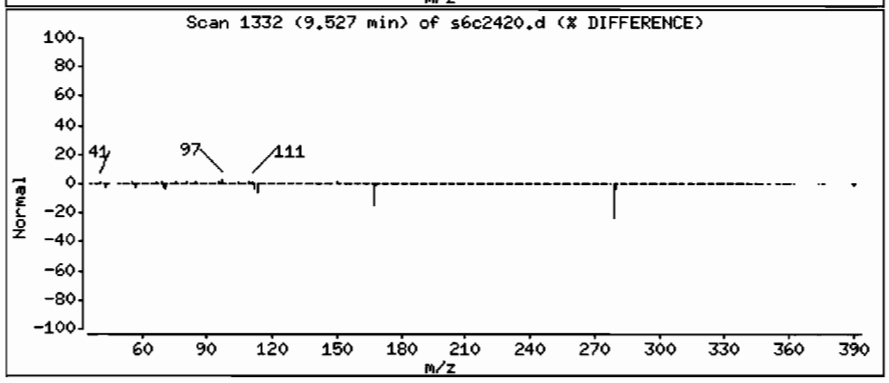

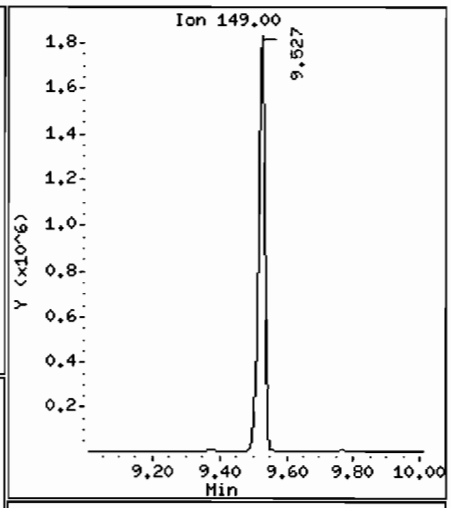

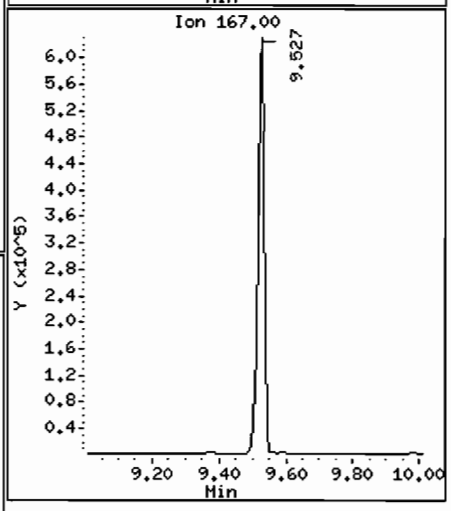

Data File: /chem/MSD6.i/s032410.b/s6c2420.d

Date : 24-MAR-2010 20:31

Client ID: RE46-10-13548RE

Instrument: MSD6.i

Sample Info: 1248842006196854911ISVMI2ILANLRE

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tridecane	629-50-5	NIST05.L	46084	96	C13H28	184
Tridecane	629-50-5	NIST05.L	46086	95	C13H28	184
Tridecane	629-50-5	NIST05.L	46087	93	C13H28	184

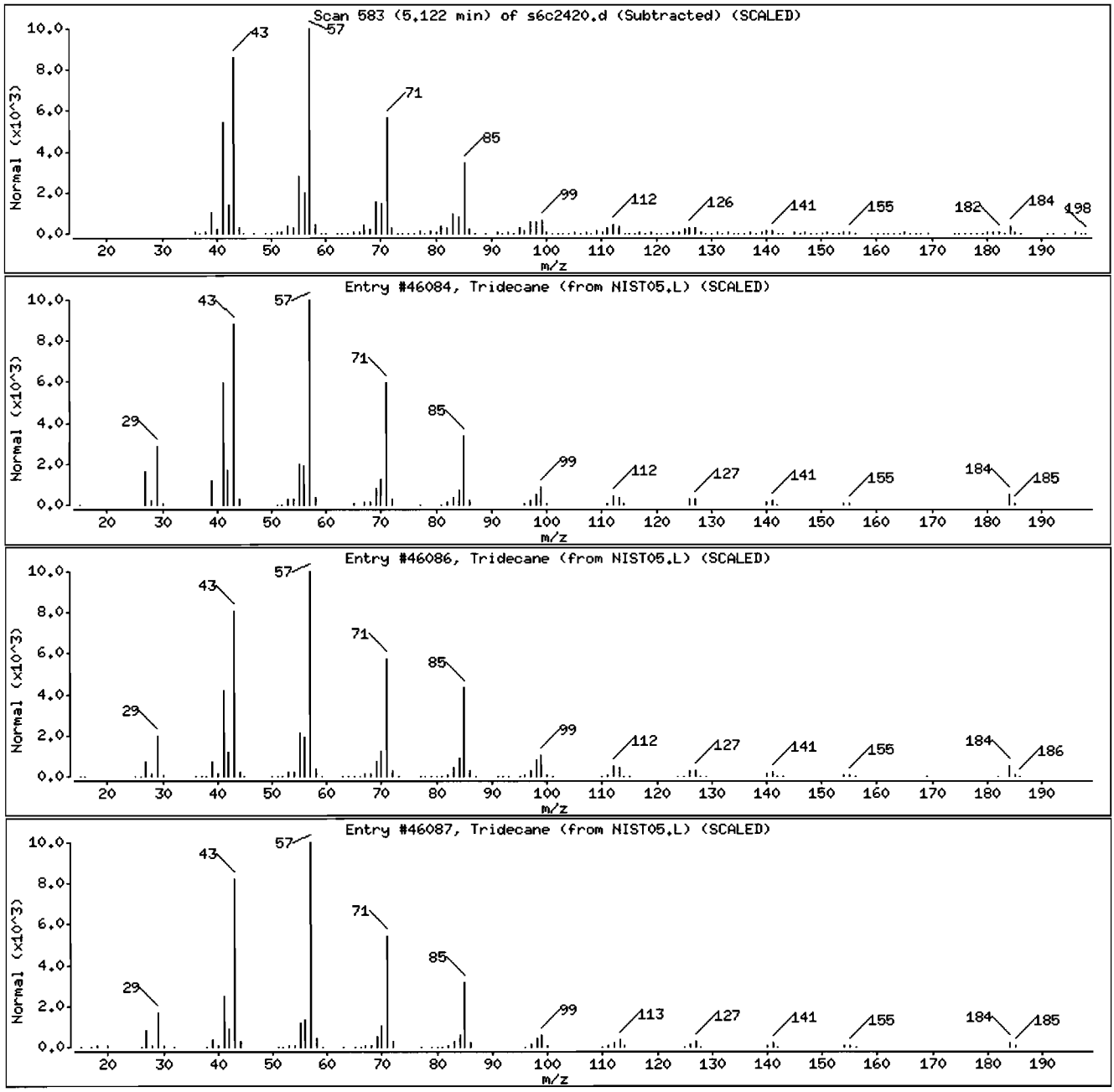

Data File: /chem/MSD6.i/s032410.b/s6c2420.d

Date : 24-MAR-2010 20:31

Client ID: RE46-10-13548RE

Instrument: MSD6.i

Sample Info: |2488420061968549|1|SVM|2|LANLRE

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetradecane	629-59-4	NIST05.L	55974	98	C14H30	198
Tetradecane	629-59-4	NIST05.L	55975	97	C14H30	198
Tetradecane	629-59-4	NIST05.L	55972	96	C14H30	198

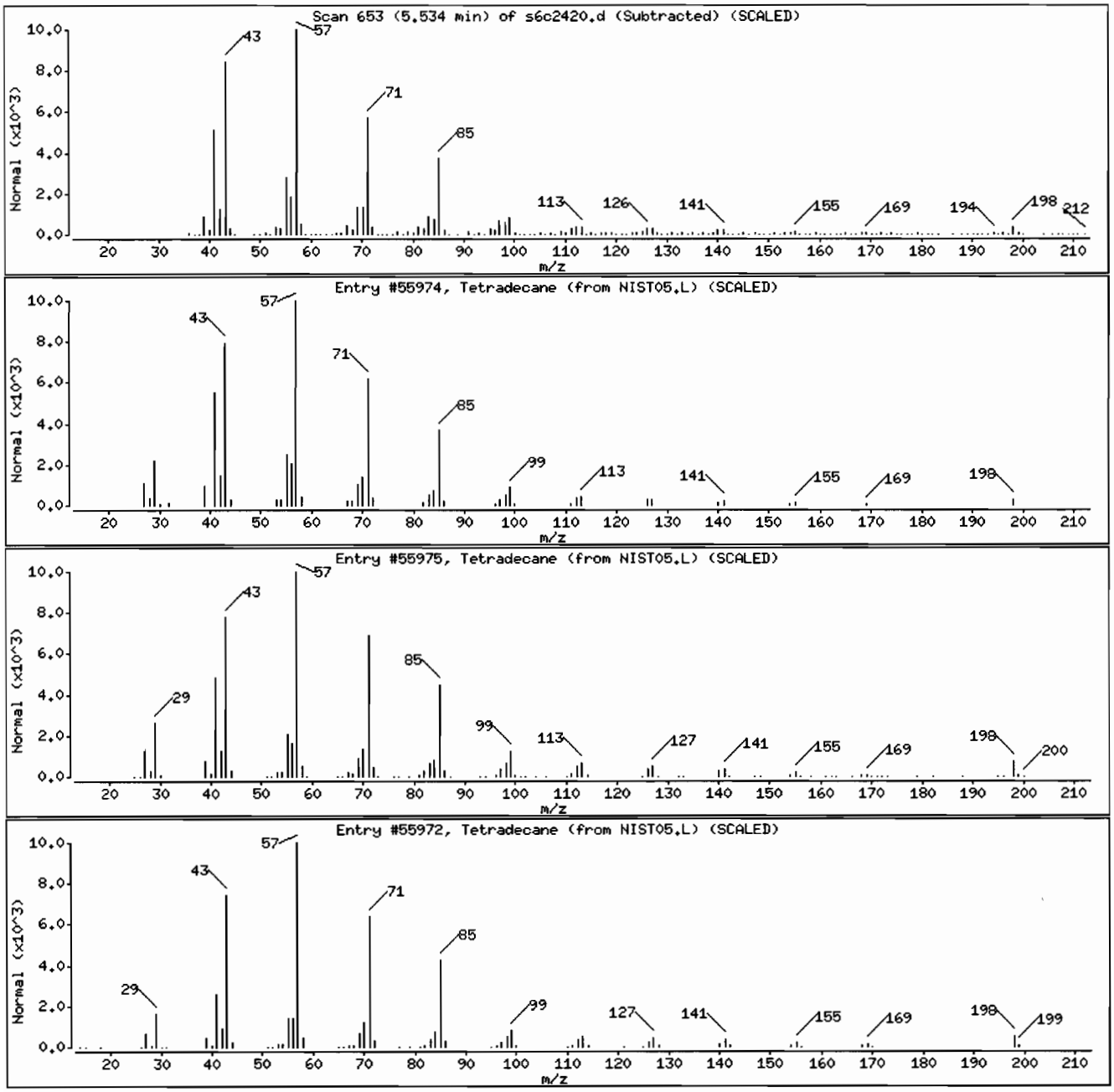

Data File: /chem/MSD6.i/s032410.b/s6c2420.d

Date : 24-MAR-2010 20:31

Client ID: RE46-10-13548RE

Instrument: MSD6.i

Sample Info: 1248842006|968549|1|SVM|2|LANLRE

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Biphenyl	92-52-4	NIST05.L	25992	96	C12H10	154
Biphenyl	92-52-4	NIST05.L	25989	94	C12H10	154
Biphenyl	92-52-4	NIST05.L	25988	93	C12H10	154

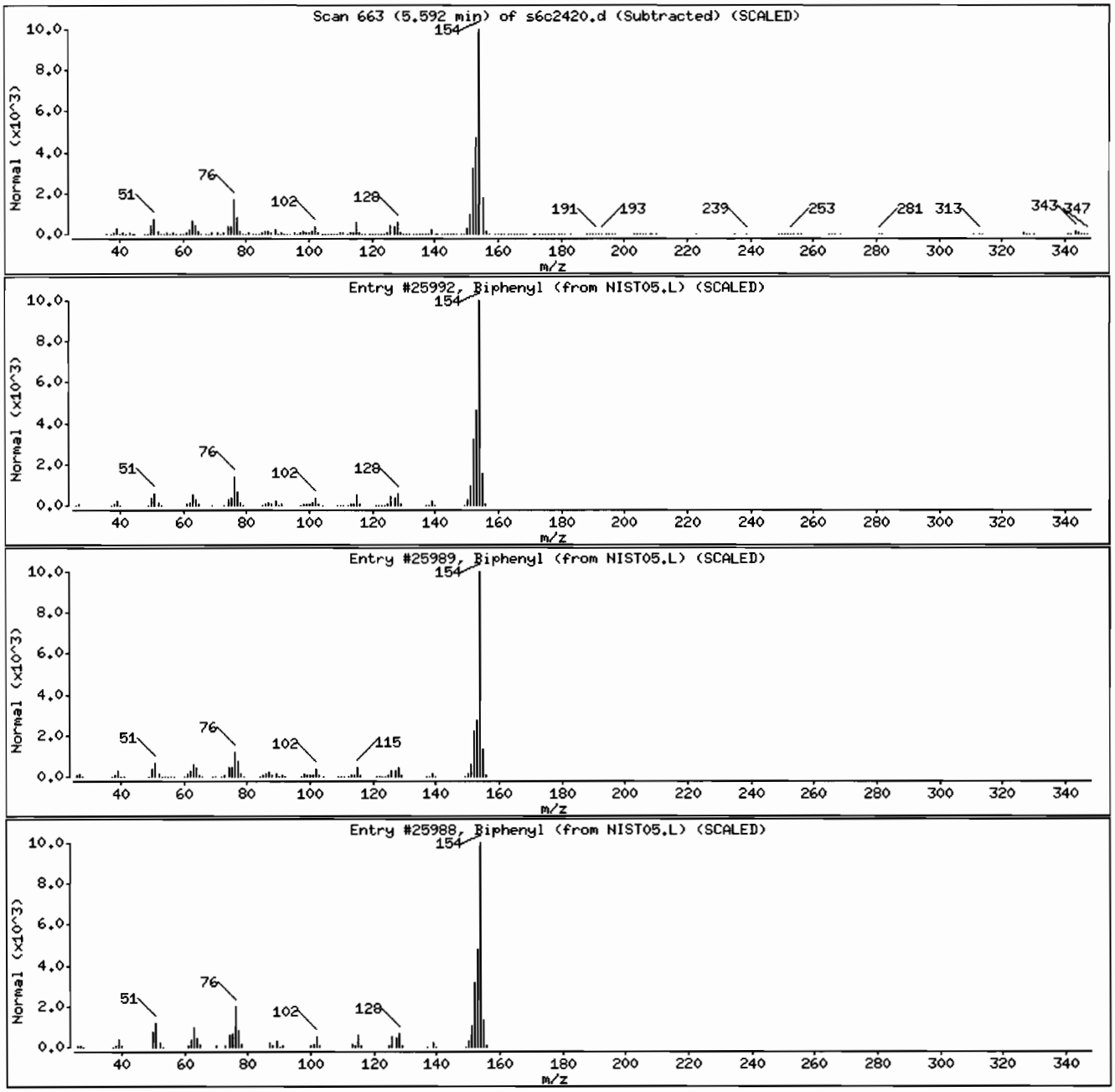

Data File: /chem/MSD6.i/s032410.b/s6c2420.d

Date : 24-MAR-2010 20:31

Client ID: RE46-10-13548RE

Instrument: MSD6.i

Sample Info: 1248842006196854911ISVM12ILANLRE

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
n-Hexadecanoic acid	57-10-3	NIST05.L	96235	99	C16H32O2	256
n-Hexadecanoic acid	57-10-3	NIST05.L	96233	95	C16H32O2	256
n-Hexadecanoic acid	57-10-3	NIST05.L	96234	94	C16H32O2	256

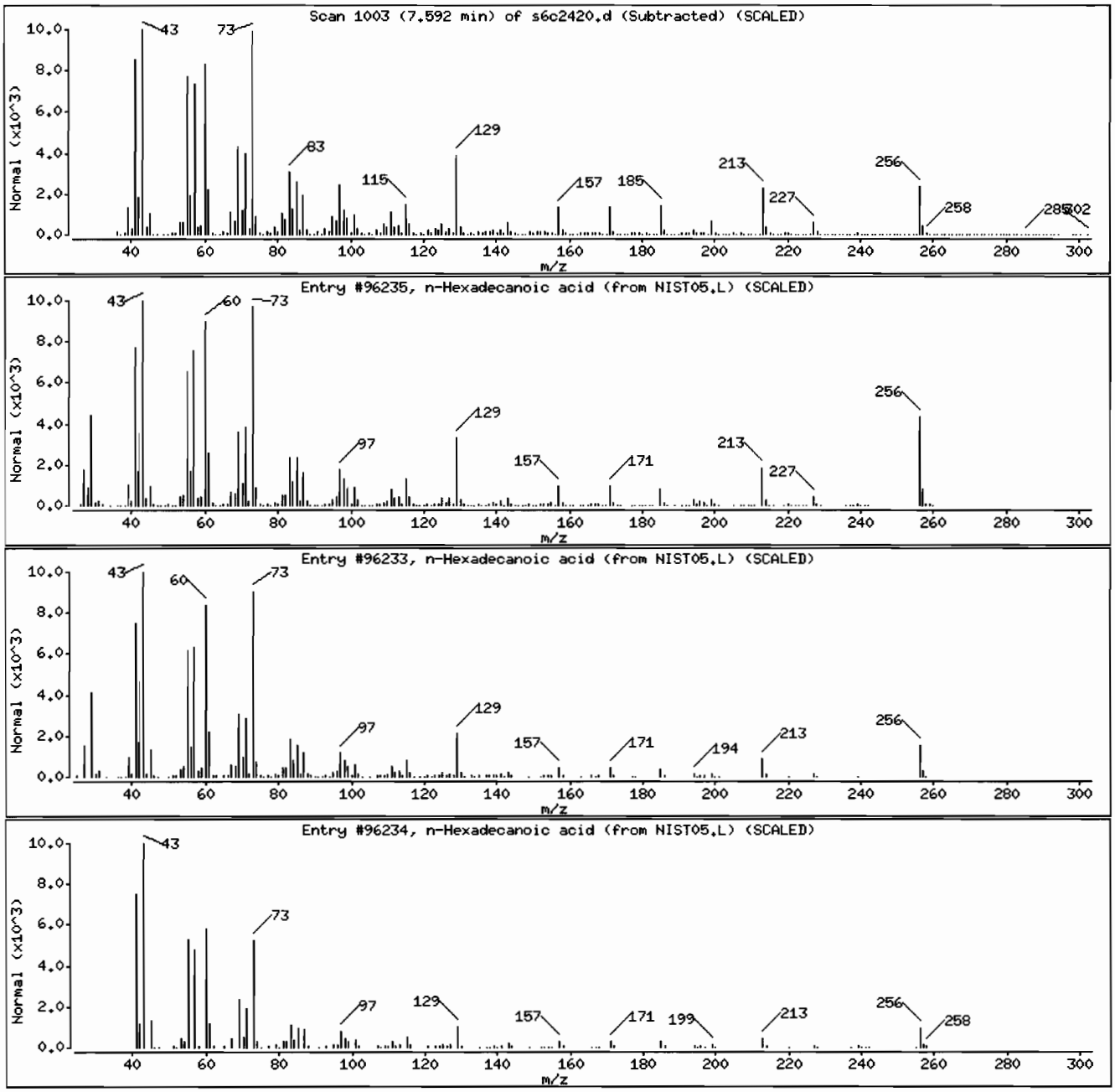

Data File: /chem/MSD6.i/s032410.b/s6c2420.d

Date : 24-MAR-2010 20:31

Client ID: RE46-10-13548RE

Instrument: MSD6.i

Sample Info: 1248842006196854911ISVMI2ILANLRE

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octadecanoic acid	57-11-4	NIST05.L	114822	99	C18H3602	284
Octadecanoic acid	57-11-4	NIST05.L	114820	96	C18H3602	284
Octadecanoic acid	57-11-4	NIST05.L	114821	93	C18H3602	284

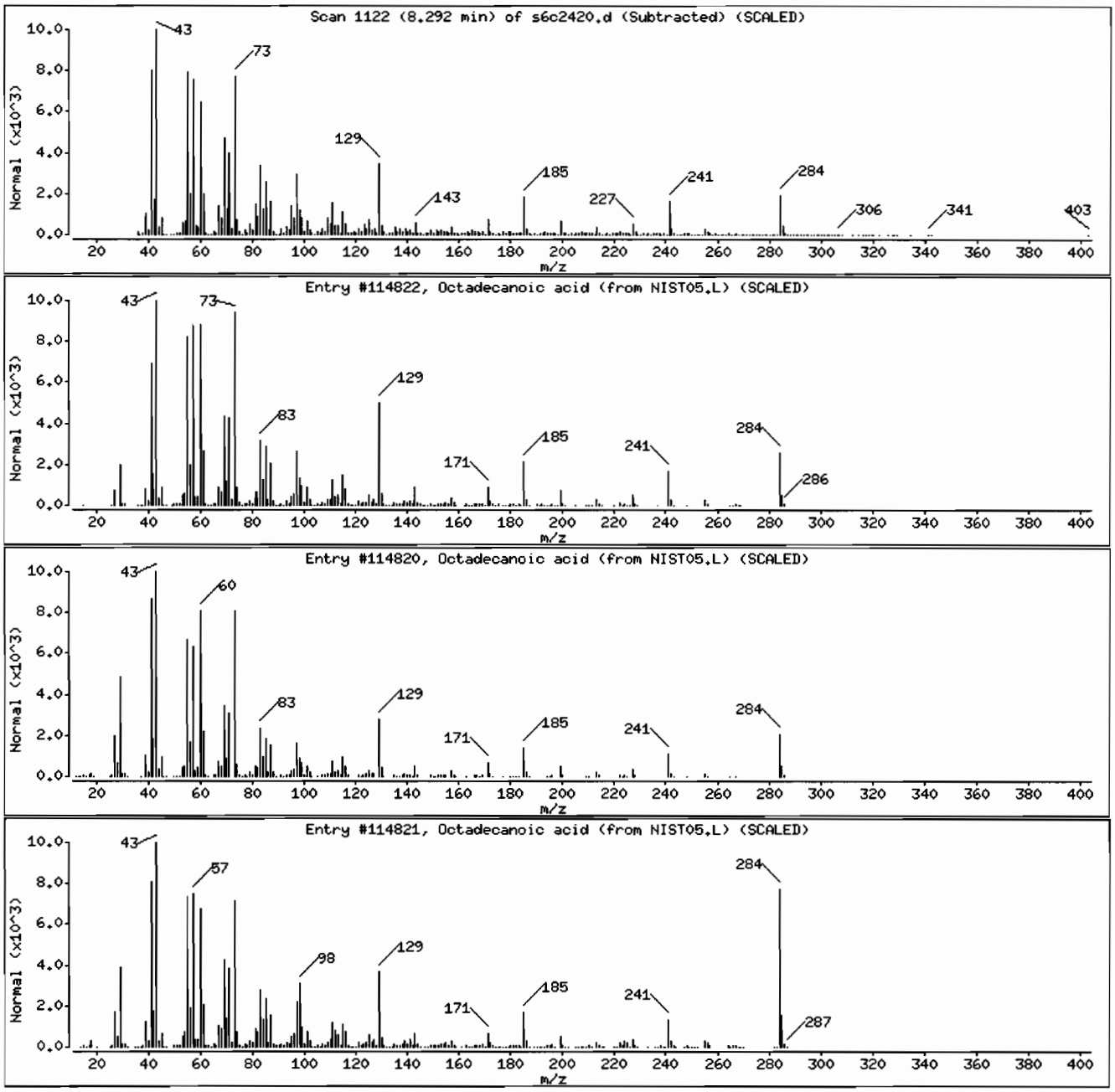

Data File: /chem/MSD6.i/s032410.b/s6c2420.d

Date : 24-MAR-2010 20:31

Client ID: RE46-10-13548RE Instrument: MSD6.i

Sample Info: |2488420061968549|1|SVMI2|LANLRE

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Hexadecanoic acid, 2-hydroxy-, methyl es	16742-51-1	NIST05.L	116045	42	C17H3403	286
Triethoxo-oxovanadium	1686-22-2	NIST05.L	58598	11	C6H1504V	202
Ascorbic acid, 5,6-O-heptylidene-	1000160-05-7	NIST05.L	106518	10	C13H2006	272

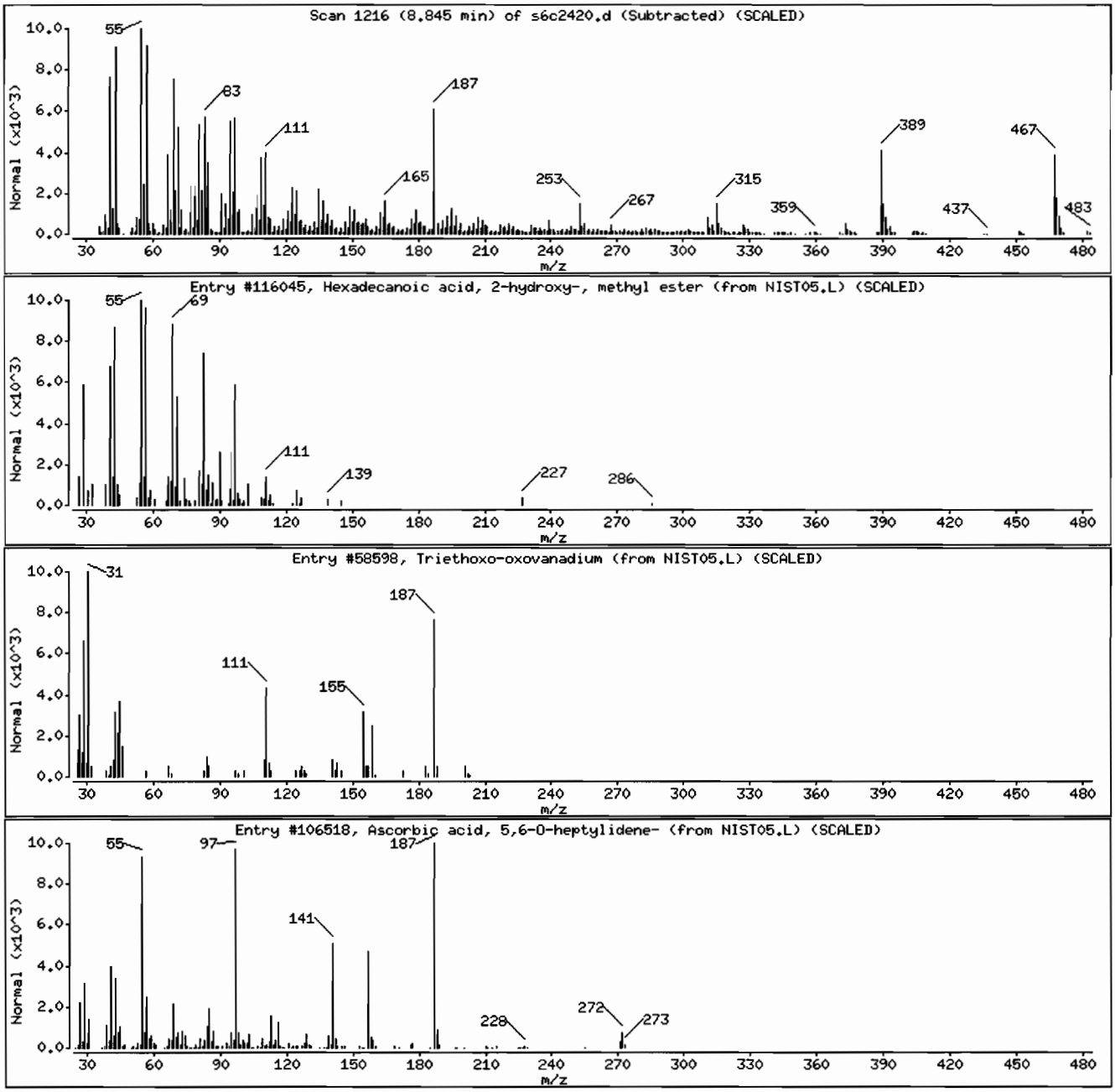

Data File: /chem/MSD6.i/s032410.b/s6c2420.d

Date : 24-MAR-2010 20:31

Client ID: RE46-10-13548RE Instrument: MSD6.i

Sample Info: |2488420061968549|1|SVM|2|LANLRE

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,4-Bis[2-(4-methoxyphenyl-2-propyl)]met	147364-69-0	NIST05.L	172385	32	C27H3203	404
(3-Cyanopropyl)cymantrene	64848-76-6	NIST05.L	105935	18	C12H10MnNO3	271
10-Iodo-2-oxa-7-thiatricyclo[4.3.1.0(3,8	1000192-07-8	NIST05.L	133662	18	C8H11IO3S	314

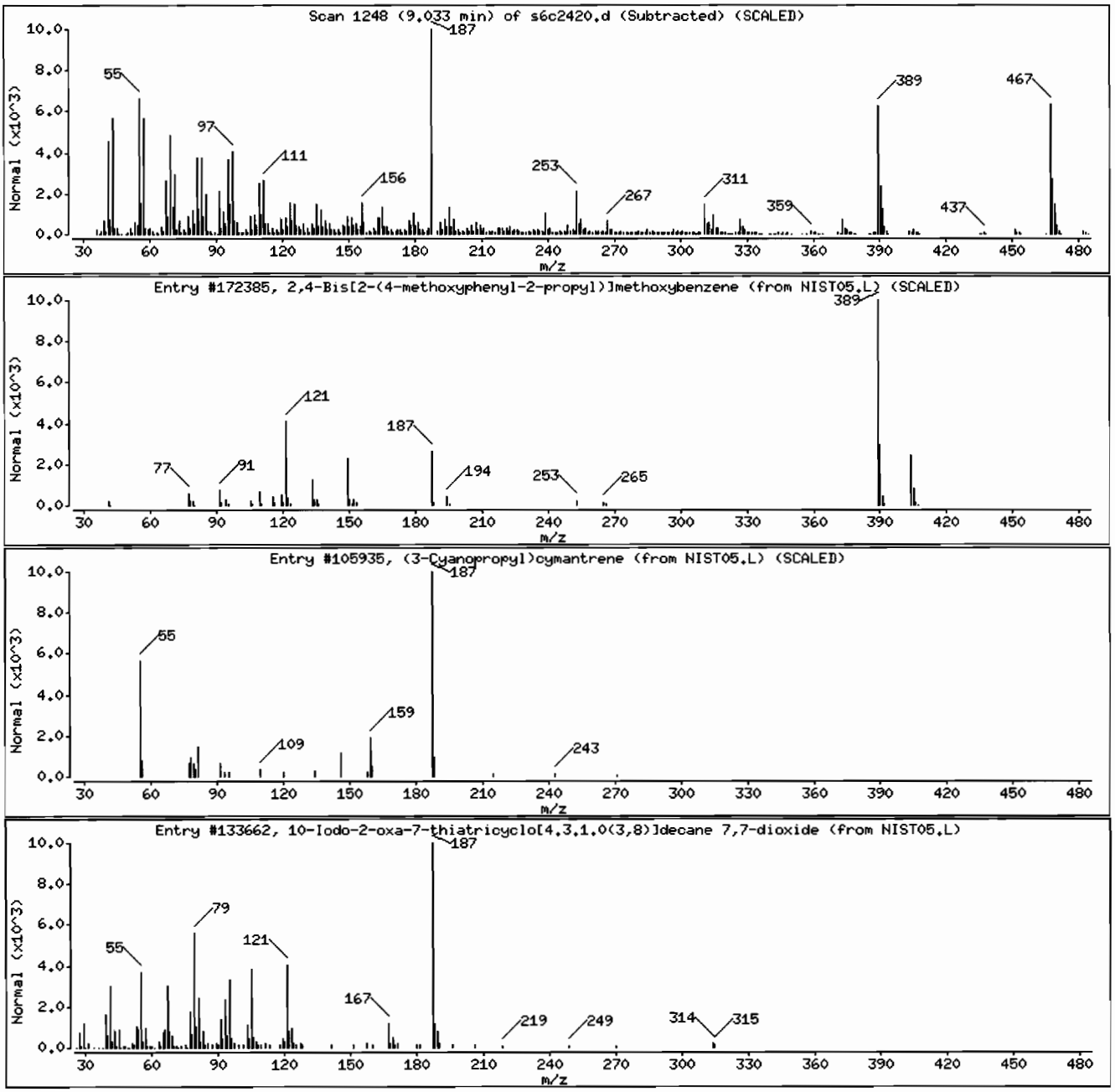

Data File: /chem/MSD6.i/s032410.b/s6c2420.d

Date : 24-MAR-2010 20:31

Client ID: RE46-10-13548RE

Instrument: MSD6.i

Sample Info: 1248842006196854911ISVMI2ILANLRE

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ambrox	100679-85-4	NIST05.L	82614	27	C16H28O	236
1-Bromo-11-iodoundecane	139123-69-6	NIST05.L	156814	25	C11H22BrI	360
Heptasiloxane, hexadecamethyl-	541-01-5	NIST05.L	186164	22	C16H48O6Si7	532

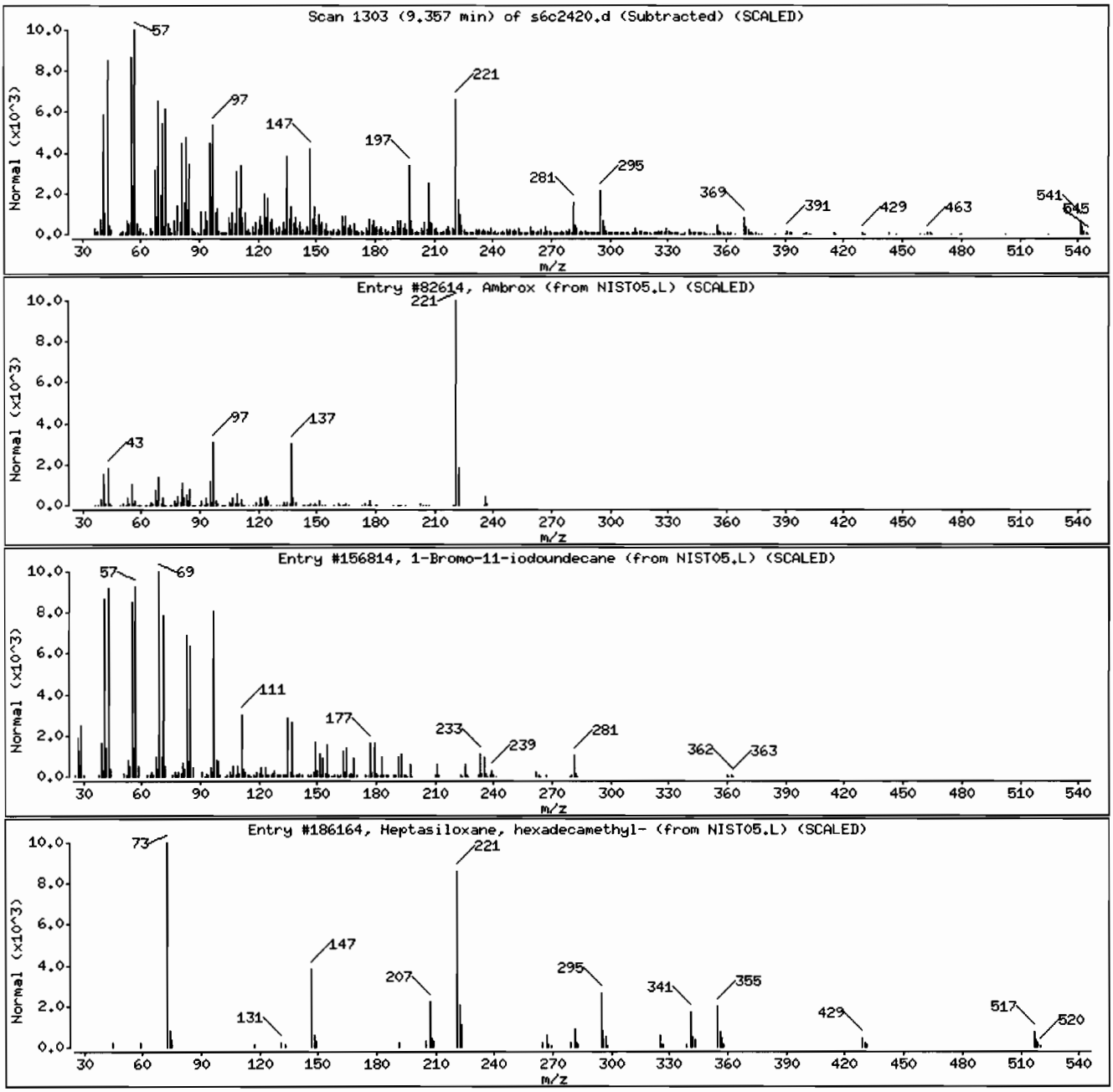

Data File: /chem/MSD6.i/s032410.b/s6c2420.d

Date : 24-MAR-2010 20:31

Client ID: RE46-10-13548RE

Instrument: MSD6.i

Sample Info: 1248842006196854911ISVMI2ILANLRE

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	807-28-3	NIST05.L	173479	87	C26H26OSi2	410
Benzamide, 3,4,5-trimethoxy-N-(4-methoxy	742-15-4	NIST05.L	135093	41	C17H19NO5	317
4-(3,5-Dinitrobenzamido)butyric acid	102202-82-4	NIST05.L	122514	25	C11H11N3O7	297

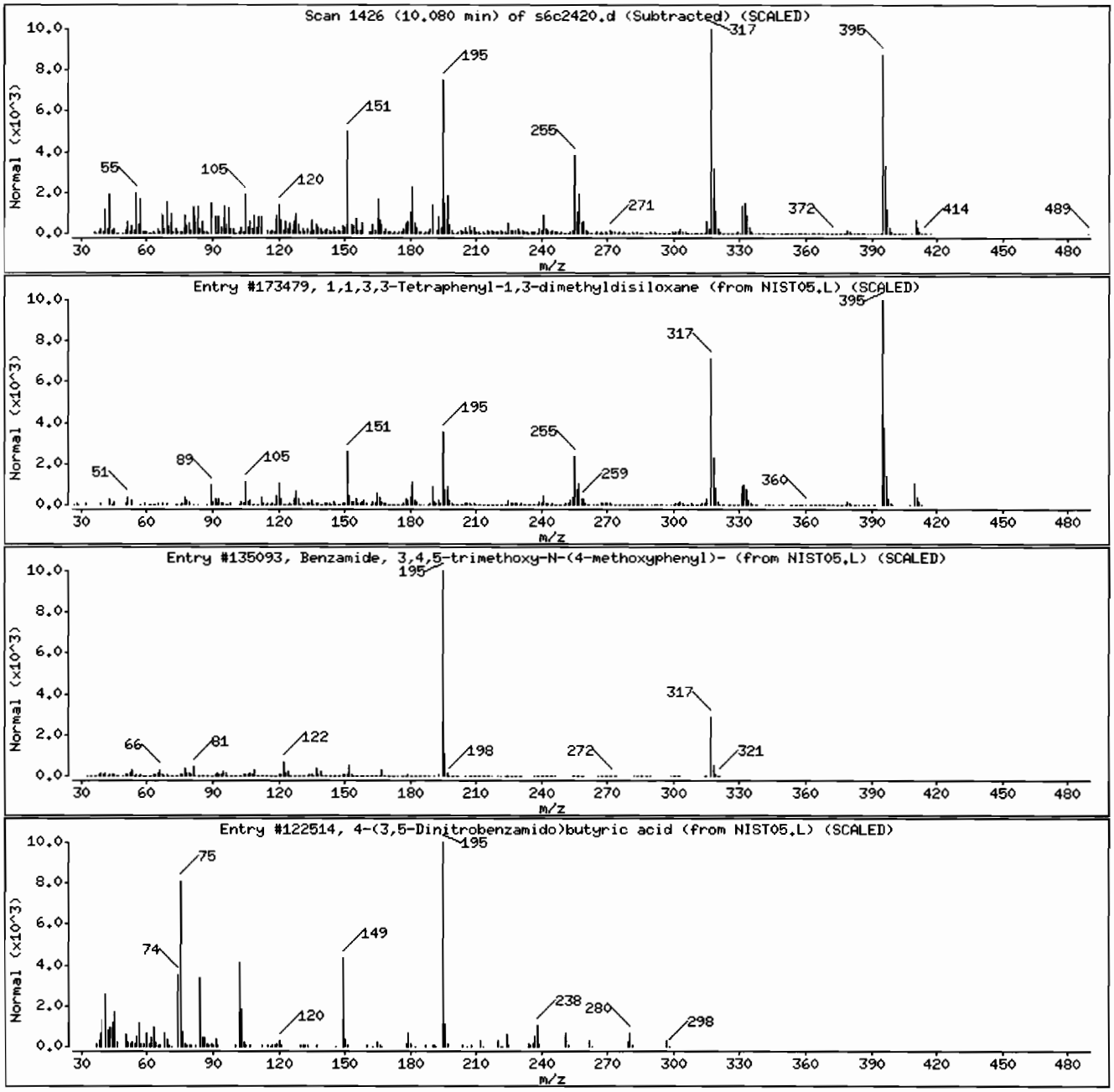

Data File: /chem/MSD6.i/s032410.b/s6c2420.d

Date : 24-MAR-2010 20:31

Client ID: RE46-10-13548RE

Instrument: MSD6.i

Sample Info: 1248842006|968549|1|SVM|2|LANLRE

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclopentane, 1,1'-[3-(2-cyclopentylethy	55255-85-1	NIST05.L	127513	43	C22H40	304
1-Heneicosyl formate	77899-03-7	NIST05.L	147938	43	C22H44O2	340
1,7-Dimethyl-4-(1-methylethyl)cyclodecan	645-10-3	NIST05.L	64469	43	C15H30	210

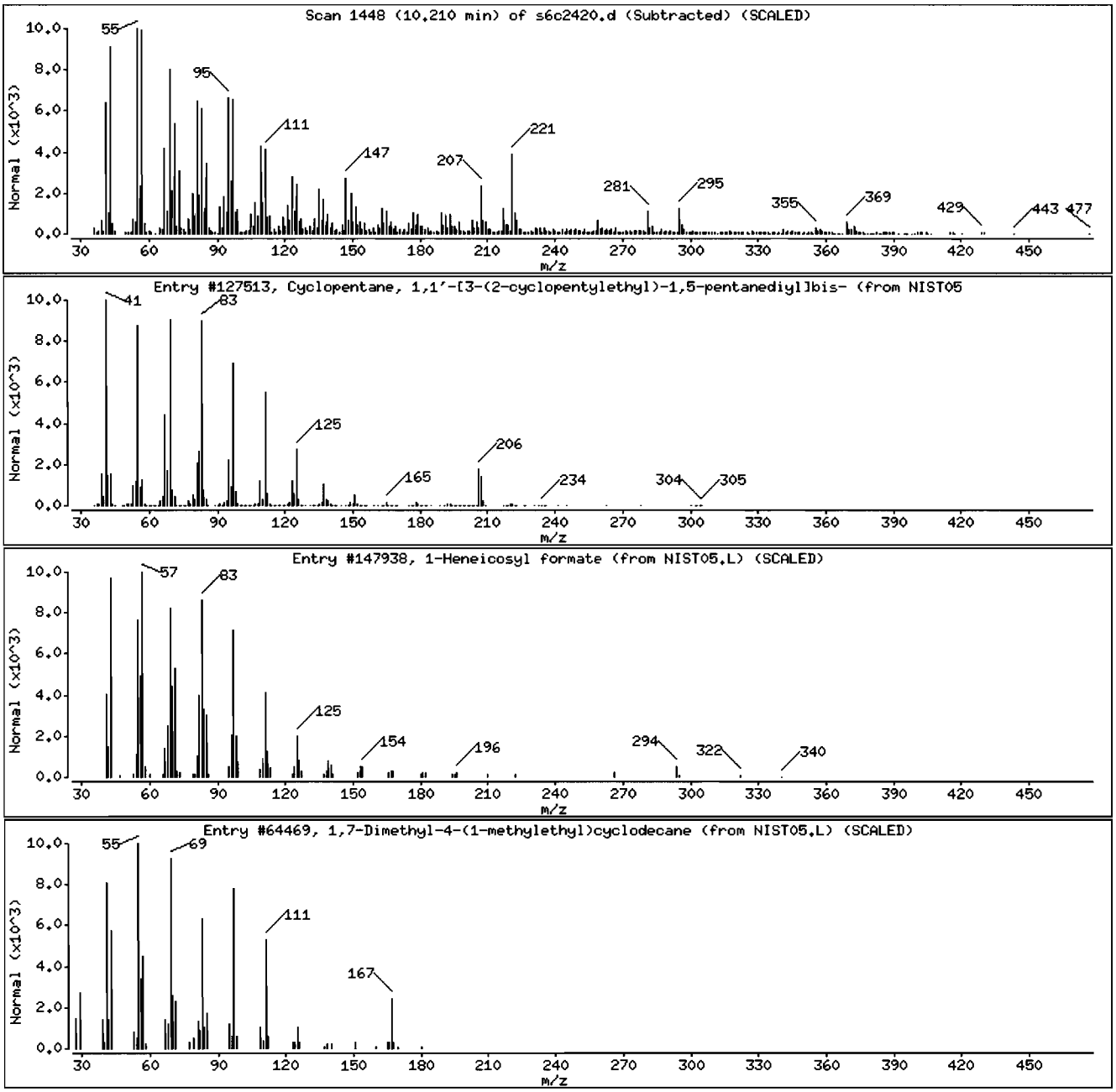

Data File: /chem/MSD6.i/s032410.b/s6c2420.d

Date : 24-MAR-2010 20:31

Client ID: RE46-10-13548RE

Instrument: MSD6.i

Sample Info: 1248842006|968549|1|SVHI2|LANLRE

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	60	C16H30Br2O2	412
9-Hexacosene	71502-22-2	NIST05.L	159038	60	C26H52	364
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	55	C18H34O2	282

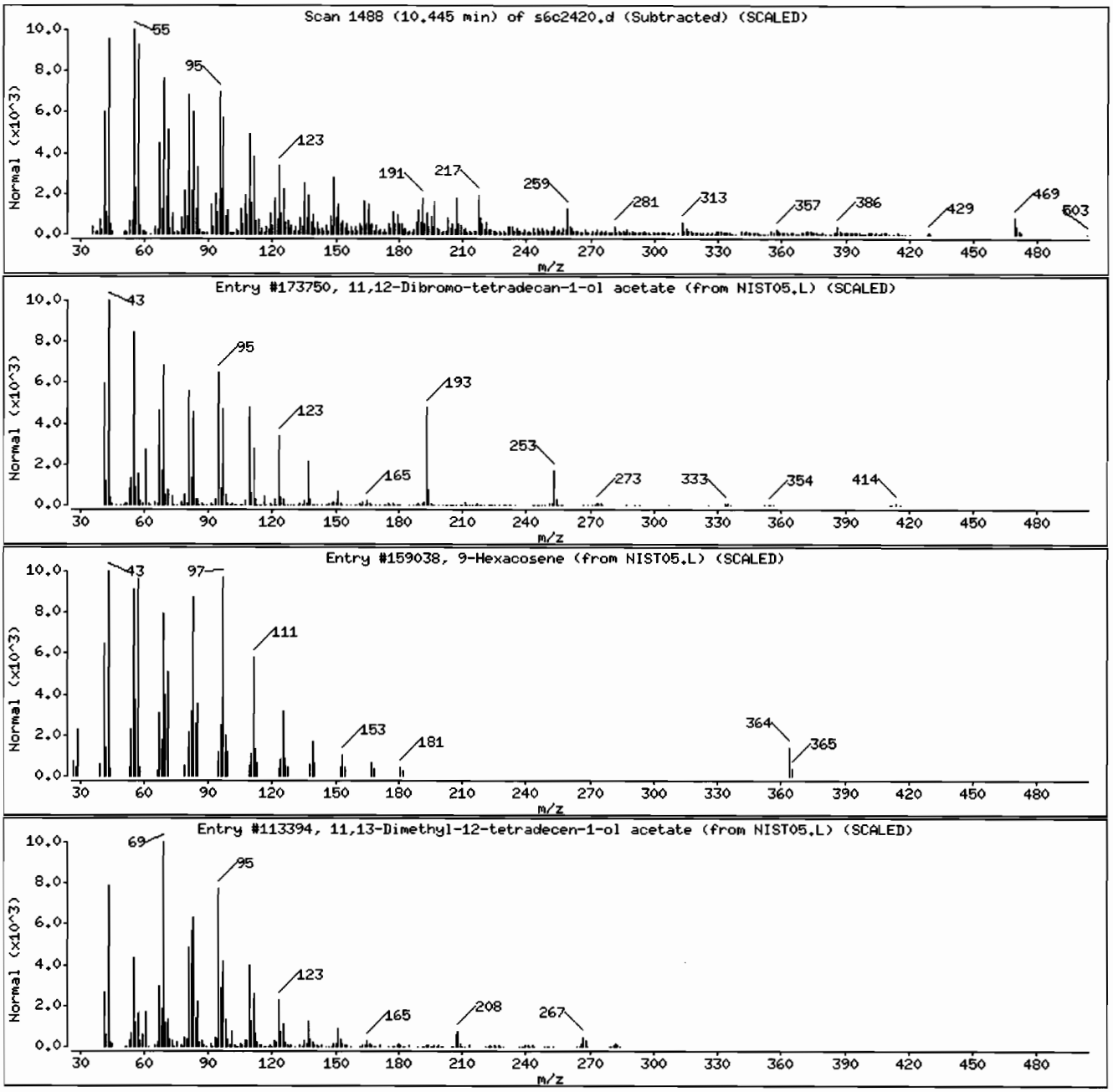

Data File: /chem/MSD6.i/s032410.b/s6c2420.d

Date : 24-MAR-2010 20:31

Client ID: RE46-10-13548RE

Instrument: MSD6.i

Sample Info: 1248842006196854911ISVMI2ILANLRE

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Propanesulfonic acid, methyl ester	2697-50-9	NIST05.L	16493	10	C4H10O3S	138
1,37-Octatriacontadiene	1000159-37-3	NIST05.L	186137	10	C38H74	531
Octopamine	104-14-3	NIST05.L	25339	10	C8H11NO2	153

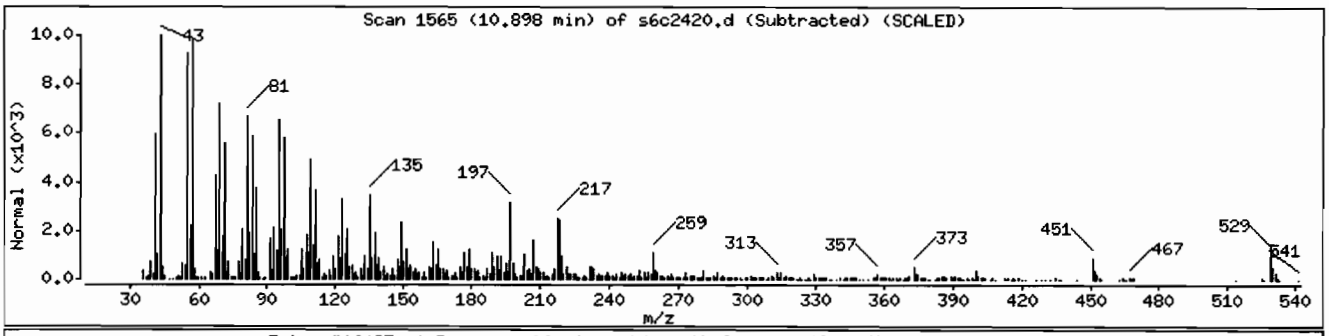

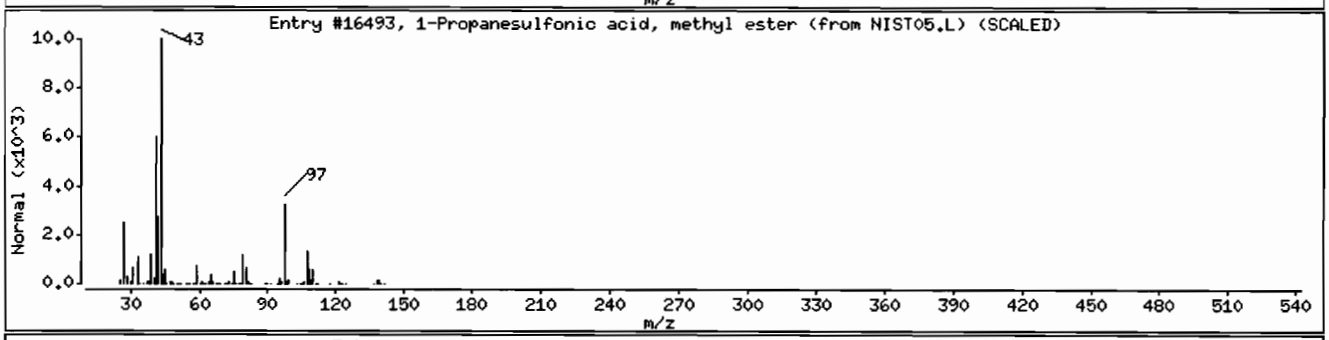

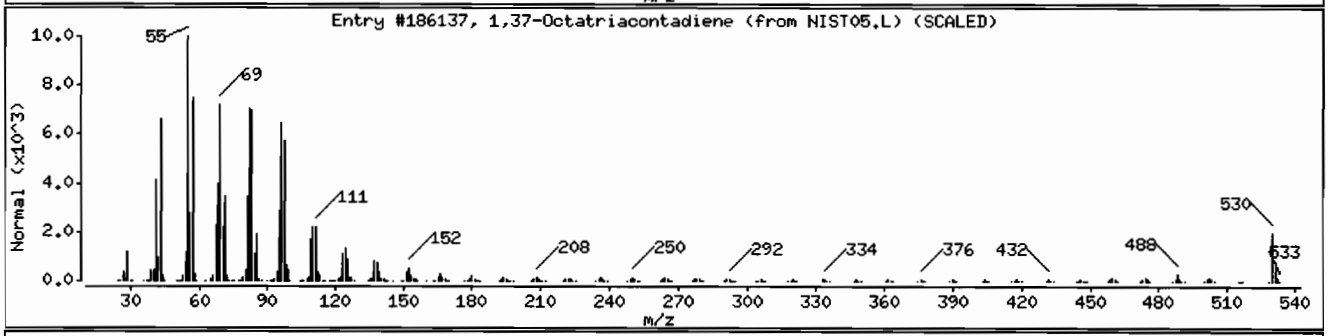

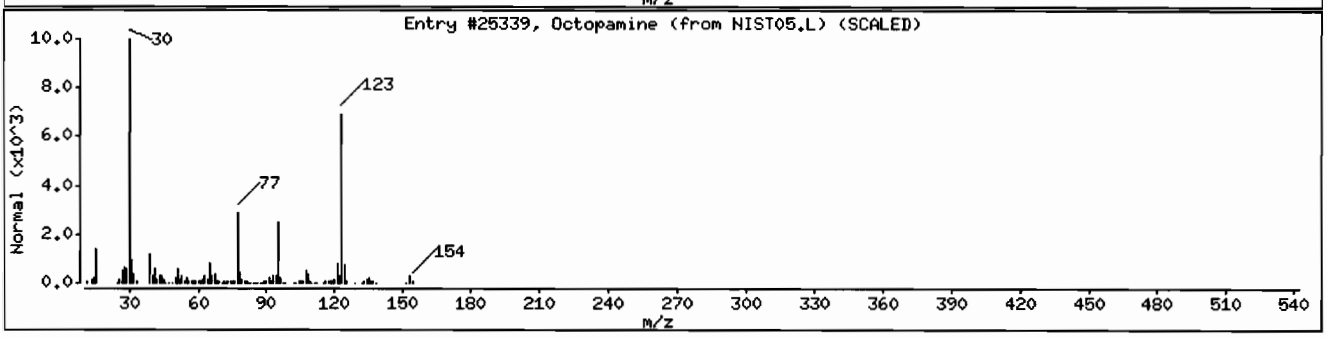

Data File: /chem/MSD6.i/s032410.b/s6c2420.d

Date : 24-MAR-2010 20:31

Client ID: RE46-10-13548RE Instrument: MSD6.i

Sample Info: 1248842006196854911ISVMI2ILANLRE

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Tetradecanoic acid, 2-oxo-, ethyl ester	160941-13-9	NIST05.L	105503	47	C16H3003	270
Diphenyldimethylsilane	778-24-5	NIST05.L	65969	47	C14H16Si	212
2,4-Diphenyl-2-(2-hydroxyphenyl)butane	1000280-74-0	NIST05.L	126240	47	C22H220	302

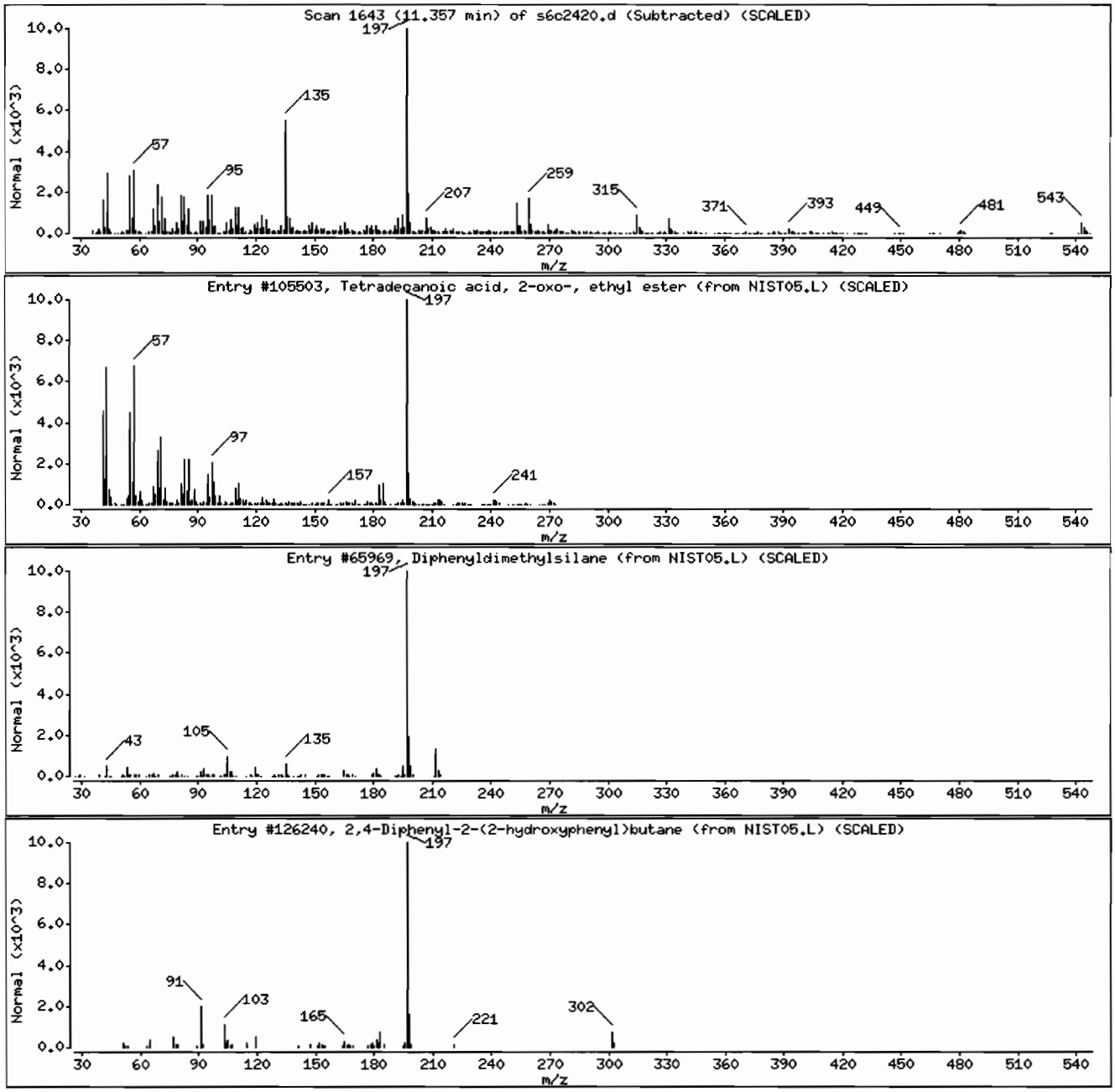

Data File: /chem/MSD6.i/s032410.b/s6c2420.d

Date : 24-MAR-2010 20:31

Client ID: RE46-10-13548RE

Instrument: MSD6.i

Sample Info: 1248842006196854911ISVMI2ILANLRE

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p	3390-61-2	NIST05.L	186811	93	C33H3402Si3	546
Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p	3390-61-2	NIST05.L	186812	46	C33H3402Si3	546
2'-Methyldihydro-2-stilbazole	58246-68-7	NIST05.L	55103	11	C14H15N	197

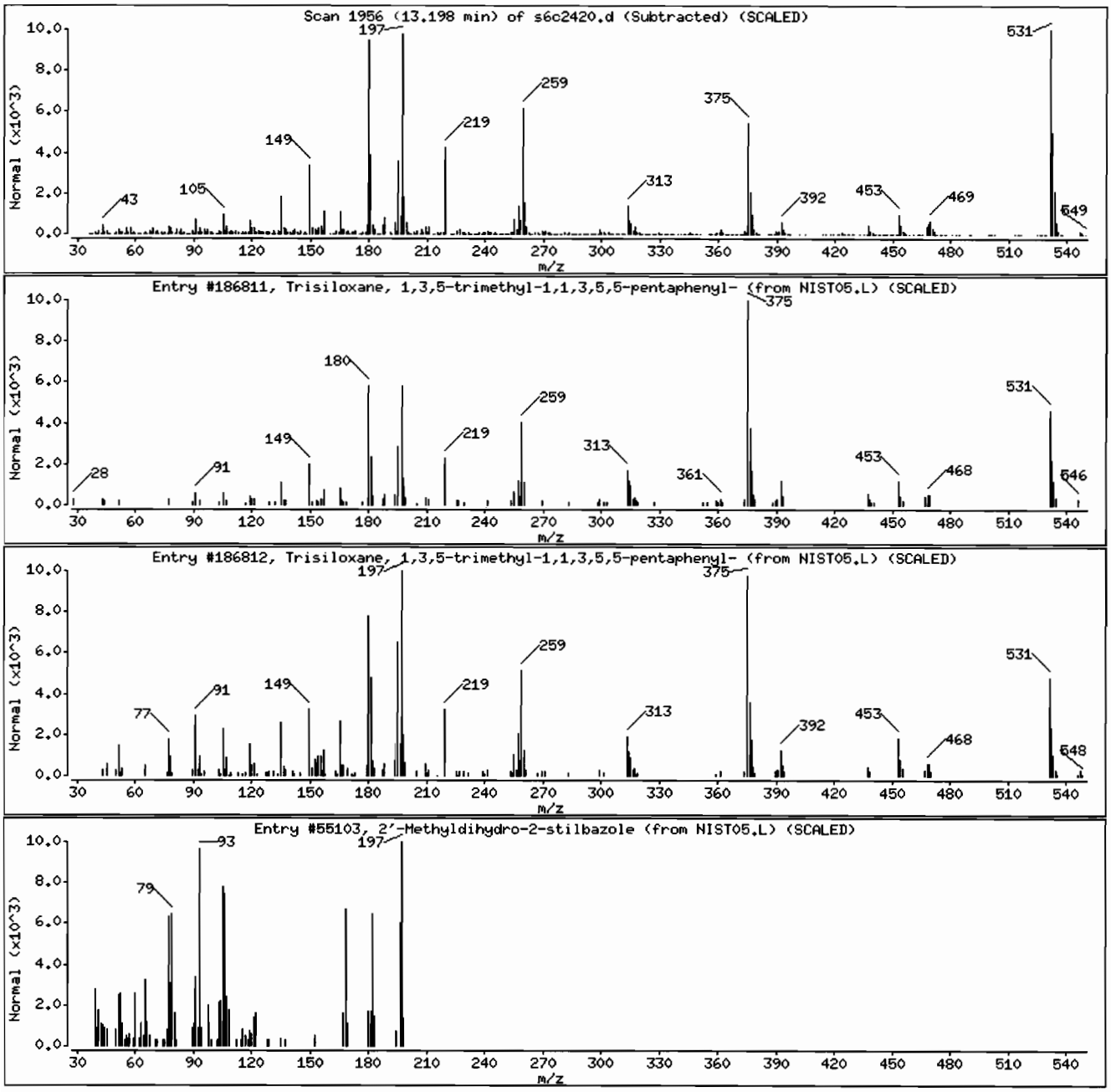

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**16.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13549**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 23:30**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2024.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	400	ug/kg	79.9	400
108-95-2	Phenol	U	400	ug/kg	79.9	400
95-57-8	2-Chlorophenol	U	400	ug/kg	79.9	400
106-46-7	1,4-Dichlorobenzene	U	400	ug/kg	79.9	400
621-64-7	N-Nitrosodipropylamine	U	400	ug/kg	79.9	400
59-50-7	4-Chloro-3-methylphenol	U	400	ug/kg	79.9	400
83-32-9	Acenaphthene	U	40.0	ug/kg	13.2	40.0
121-14-2	2,4-Dinitrotoluene	U	400	ug/kg	40.0	400
100-02-7	4-Nitrophenol	U	400	ug/kg	132	400
87-86-5	Pentachlorophenol	U	400	ug/kg	99.9	400
129-00-0	Pyrene	U	40.0	ug/kg	12.0	40.0
110-86-1	Pyridine	U	400	ug/kg	79.9	400
62-53-3	Aniline	U	400	ug/kg	120	400
111-44-4	bis(2-Chloroethyl) ether	U	400	ug/kg	79.9	400
541-73-1	1,3-Dichlorobenzene	U	400	ug/kg	79.9	400
100-51-6	Benzyl alcohol	U	400	ug/kg	120	400
95-50-1	1,2-Dichlorobenzene	U	400	ug/kg	79.9	400
108-60-1	bis(2-Chloroisopropyl)ether	U	400	ug/kg	79.9	400
95-48-7	o-Cresol	U	400	ug/kg	79.9	400
65794-96-9	m,p-Cresols	U	400	ug/kg	120	400
67-72-1	Hexachloroethane	U	400	ug/kg	79.9	400
98-95-3	Nitrobenzene	U	400	ug/kg	79.9	400
78-59-1	Isophorone	U	400	ug/kg	79.9	400
88-75-5	2-Nitrophenol	U	400	ug/kg	79.9	400
105-67-9	2,4-Dimethylphenol	U	400	ug/kg	140	400
111-91-1	bis(2-Chloroethoxy)methane	U	400	ug/kg	79.9	400
120-83-2	2,4-Dichlorophenol	U	400	ug/kg	79.9	400
65-85-0	Benzoic acid	U	799	ug/kg	200	799
91-20-3	Naphthalene	U	40.0	ug/kg	12.0	40.0
106-47-8	4-Chloroaniline	U	400	ug/kg	79.9	400
87-68-3	Hexachlorobutadiene	U	400	ug/kg	79.9	400
91-57-6	2-Methylnaphthalene	J	9.13	ug/kg	7.99	40.0
77-47-4	Hexachlorocyclopentadiene	U	400	ug/kg	79.9	400
88-06-2	2,4,6-Trichlorophenol	U	400	ug/kg	79.9	400
95-95-4	2,4,5-Trichlorophenol	U	400	ug/kg	79.9	400
91-58-7	2-Chloronaphthalene	U	40.0	ug/kg	13.2	40.0
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	400	ug/kg	79.9	400
99-09-2	3-Nitroaniline	U	400	ug/kg	79.9	400

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**16.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13549**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 23:30**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2024.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	400	ug/kg	79.9	400
606-20-2	2,6-Dinitrotoluene	U	400	ug/kg	40.0	400
208-96-8	Acenaphthylene	U	40.0	ug/kg	12.0	40.0
51-28-5	2,4-Dinitrophenol	U	799	ug/kg	152	799
132-64-9	Dibenzofuran	U	400	ug/kg	79.9	400
84-66-2	Diethylphthalate	U	400	ug/kg	79.9	400
86-73-7	Fluorene	U	40.0	ug/kg	12.0	40.0
7005-72-3	4-Chlorophenylphenylether	U	400	ug/kg	79.9	400
534-52-1	2-Methyl-4,6-dinitrophenol	U	400	ug/kg	79.9	400
100-01-6	4-Nitroaniline	U	400	ug/kg	120	400
	p-Nitroaniline					
122-39-4	Diphenylamine	U	400	ug/kg	79.9	400
122-66-7	Azobenzene	U	400	ug/kg	79.9	400
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	400	ug/kg	79.9	400
118-74-1	Hexachlorobenzene	U	400	ug/kg	79.9	400
85-01-8	Phenanthrene	U	40.0	ug/kg	12.0	40.0
120-12-7	Anthracene	U	40.0	ug/kg	7.99	40.0
84-74-2	Di-n-butylphthalate	U	400	ug/kg	79.9	400
206-44-0	Fluoranthene	U	40.0	ug/kg	12.0	40.0
85-68-7	Butylbenzylphthalate	U	400	ug/kg	79.9	400
56-55-3	Benzo(a)anthracene	U	40.0	ug/kg	12.0	40.0
91-94-1	3,3'-Dichlorobenzidine	U	400	ug/kg	120	400
218-01-9	Chrysene	U	40.0	ug/kg	12.0	40.0
117-81-7	bis(2-Ethylhexyl)phthalate		840	ug/kg	79.9	400
117-84-0	Di-n-octylphthalate	U	400	ug/kg	79.9	400
205-99-2	Benzo(b)fluoranthene	U	40.0	ug/kg	12.0	40.0
207-08-9	Benzo(k)fluoranthene	U	40.0	ug/kg	12.0	40.0
50-32-8	Benzo(a)pyrene	U	40.0	ug/kg	12.0	40.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.0	ug/kg	12.0	40.0
53-70-3	Dibenzo(a,h)anthracene	U	40.0	ug/kg	12.0	40.0
191-24-2	Benzo(ghi)perylene	U	40.0	ug/kg	12.0	40.0
120-82-1	1,2,4-Trichlorobenzene	U	400	ug/kg	79.9	400

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.97	166	ug/kg		J
	Unknown Aldol Condensate	2.9	819	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**16.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13549**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.1**	**Dilution:**	**1**
Run Date:	**03/20/2010 23:30**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2024.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-40-3	Dodecane	4.67	175	ug/kg	93	NJ
629-50-5	Tridecane	5.1	255	ug/kg	97	NJ
629-62-9	Pentadecane	5.88	160	ug/kg	97	NJ
57-10-3	n-Hexadecanoic acid	7.55	572	ug/kg	97	NJ
57-11-4	Octadecanoic acid	8.25	171	ug/kg	93	NJ
112-71-0	Tetradecane, 1-bromo-	9.35	253	ug/kg	83	NJ
629-78-7	Heptadecane	9.66	175	ug/kg	93	NJ
	Unknown	9.76	237	ug/kg		J
1000130-81-0	11,13-Dimethyl-12-tetradecen-1-ol acetat	9.83	171	ug/kg	83	NJ
	Unknown	9.98	192	ug/kg		J
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	10.04	357	ug/kg	98	NJ
	Unknown	10.17	181	ug/kg		J
	Unknown	10.39	255	ug/kg		J
	Unknown	10.45	186	ug/kg		J
61639-11-0	1-Bromo-4-bromomethyldecane	10.72	335	ug/kg	80	NJ
	Unknown	10.85	191	ug/kg		J
	Unknown	13.08	2250	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2024.d
Lab Smp Id: 248842003 Client Smp ID: RE46-10-13549
Inj Date : 20-MAR-2010 23:30
Operator : nagl Inst ID: MSD6.i
Smp Info : |248842003|965425|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 11o00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	16.56910	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.875	3.863	(1.000)	355235	40.0000	
* 29 Naphthalene-d8	136	4.740	4.734	(1.000)	1300462	40.0000	
* 46 Acenaphthene-d10	164	5.993	5.987	(1.000)	795082	40.0000	
* 67 Phenanthrene-d10	188	7.157	7.145	(1.000)	1367008	40.0000	
* 91 Chrysene-d12	240	9.557	9.551	(1.000)	1150098	40.0000	
* 98 Perylene-d12	264	11.192	11.174	(1.000)	817604	40.0000	
$ 3 2-Fluorophenol	112	3.063	3.046	(0.791)	411419	41.6619	1660
$ 5 Phenol-d5	99	3.587	3.575	(0.926)	558975	44.5093	1780
$ 20 Nitrobenzene-d5	82	4.234	4.228	(0.893)	226297	18.2034	727
$ 39 2-Fluorobiphenyl	172	5.481	5.475	(0.915)	497460	24.2506	969
$ 60 2,4,6-Tribromophenol	329	6.587	6.575	(1.099)	153847	68.9553	2750
$ 81 p-Terphenyl-d14	244	8.534	8.522	(0.893)	733975	36.6228	1460

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
34 2-Methylnaphthalene	142	5.234	5.228	(1.004)	4500	0.22854	9.1(a)
93 bis(2-Ethylhexyl)phthalate	149	9.492	9.486	(0.993)	47680I	2I.0284	840

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s6c2024.d
Report Date: 03/21/2010 08:16
Lab. ID: 248842003 SampleType: SAMPLE
Injection Date: 20-MAR-2010 23:30
Operator: nagl Instrument: MSD6.i
Sample Info: |248842003|965425|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100319-01
Comment:
Method used: /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	27810	3.59	3.65	80-120	100	( )
93	834	3.55	3.65	387-447	3	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	39306	4.23	4.10	80-120	100	(T)
42	23854	4.23	4.10	40-100	61	(T)
22 Isophorone		CAS#: 78-59-1				
82	226360	4.23	4.39	80-120	100	(T)
138	1551	4.13	4.39	0- 49	1	(T)
34 2-Methylnaphthalene			CAS#: 91-57-6			
142	4500	5.23	5.23	80-120	100	( )
141	3529	5.23	5.23	55-115	78	( )
40 2-Chloronaphthalene			CAS#: 91-58-7			
162	743950	5.99	5.58	80-120	100	(T)
164	795082	5.99	5.58	4- 64	107	(QT)
127	1755	5.88	5.58	7- 67	0	(QT)
42 o-Nitroaniline			CAS#: 88-74-4			
65	127140	5.63	5.64	80-120	100	( )
92	6881	5.63	5.64	38- 98	5	(Q)
138	1875	5.63	5.64	79-139	1	(Q)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
43 Dimethylphthalate			CAS#: 131-11-3			
163	145062	5.99	5.75	80-120	100	(T)
164	795082	5.99	5.75	0- 40	548	(QT)
45 Acenaphthylene			CAS#: 208-96-8			
152	286380	5.56	5.89	80-120	100	(T)
151	85338	5.56	5.89	0- 50	30	(T)
153	418643	5.56	5.89	0- 44	146	(QT)
47 Acenaphthene			CAS#: 83-32-9			
154	1042477	5.56	6.01	80-120	100	(T)
153	418416	5.56	6.01	72-132	40	(QT)
152	286072	5.56	6.01	18- 78	27	(T)
48 2,4-Dinitrophenol			CAS#: 51-28-5			
184	100	5.73	6.00	80-120	100	(T)
154	1569	5.73	6.01	1559-1619	1554	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	105580	5.99	6.10	80-120	100	(T)
89	1618	5.99	6.10	39- 99	2	(QT)
63	1274	5.99	6.10	16- 76	1	(QT)
52 4-Nitrophenol			CAS#: 100-02-7			
139	49706	5.63	6.02	80-120	100	(T)
109	583	5.62	6.02	41-101	1	(QT)
65	127140	5.63	6.02	59-119	256	(QT)
53 Fluorene			CAS#: 86-73-7			
166	7951	6.58	6.39	80-120	100	(T)
165	8172	6.58	6.39	61-121	103	(T)
167	3013	6.59	6.39	0- 44	38	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	337	6.59	6.40	80-120	100	(T)
105	1626	6.58	6.40	9- 69	482	(QT)
51	1001	6.58	6.40	36- 96	297	(QT)
93 bis(2-Ethylhexyl)phthalate			CAS#: 117-81-7			
149	476801	9.49	9.49	80-120	100	( )
167	149271	9.49	9.49	3- 63	31	( )
94 Di-n-octylphthalate			CAS#: 117-84-0			
149	317231	10.59	10.12	80-120	100	(T)
43	22935	10.59	10.12	0- 42	7	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	9333	10.59	10.67	80-120	100	(T)
253	8517	10.59	10.67	0- 52	91	(QT)
125	5630	10.57	10.67	0- 40	60	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2024.d
Lab Smp Id: 248842003 Client Smp ID: RE46-10-13549
Inj Date : 20-MAR-2010 23:30
Operator : nagl Inst ID: MSD6.i
Smp Info : |248842003|965425|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	16.56910	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.875	2153104	40.000
* 29 Naphthalene-d8	4.740	2922708	40.000
* 46 Acenaphthene-d10	5.993	3255083	40.000
* 67 Phenanthrene-d10	7.157	3286118	40.000
* 91 Chrysene-d12	9.557	3343680	40.000
* 98 Perylene-d12	11.192	2420288	40.000

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.969	223883	4.15926052	166	0		0	10
Unknown Aldol Condensate				CAS #:			
2.899	1102947	20.4903504	819	0		0	10
Dodecane				CAS #: 112-40-3			
4.669	319567	4.37357713	175	93	NIST05.L	36430	29
Tridecane				CAS #: 629-50-5			
5.098	465834	6.37537295	255	97	NIST05.L	46086	29
Pentadecane				CAS #: 629-62-9			
5.881	326840	4.01636720	160	97	NIST05.L	66064	46
n-Hexadecanoic acid				CAS #: 57-10-3			
7.545	1176879	14.3254598	572	97	NIST05.L	96235	67
Octadecanoic acid				CAS #: 57-11-4			
8.251	350732	4.26925059	170	93	NIST05.L	114820	67
Tetradecane, 1-bromo-				CAS #: 112-71-0			
9.351	530041	6.34080332	253	83	NIST05.L	109299	91
Heptadecane				CAS #: 629-78-7			
9.657	366047	4.37897267	175	93	NIST05.L	85524	91
Unknown				CAS #:			
9.763	496742	5.94246133	237	0		0	91
11,13-Dimethyl-12-tetradecen-1-ol acetat				CAS #: 1000130-81-0			
9.828	357598	4.27789953	171	83	NIST05.L	113394	91
Unknown				CAS #:			
9.981	400668	4.79313650	192	0		0	91
1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa				CAS #: 807-28-3			
10.039	746955	8.93572054	357	98	NIST05.L	173479	91
Unknown				CAS #:			
10.175	378799	4.53152348	181	0		0	91
Unknown				CAS #:			
10.392	385910	6.37791451	255	0		0	98

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
10.445	280960	4.64341558	186	0		0	98
1-Bromo-4-bromomethyldecane				CAS #: 61639-11-0			
10.722	508045	8.39644039	335	80	NIST05.L	131672	98
Unknown				CAS #:			
10.845	289791	4.78936622	191	0		0	98
Unknown				CAS #:			
13.080	3402642	56.2353218	2250	0		0	98

Data File: /chem/MSD6.i/s032010.b/s6c2024.d
Date : 20-MAR-2010 23:30
Client ID: RE46-10-13549
Sample Info: 1248842003196542511|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

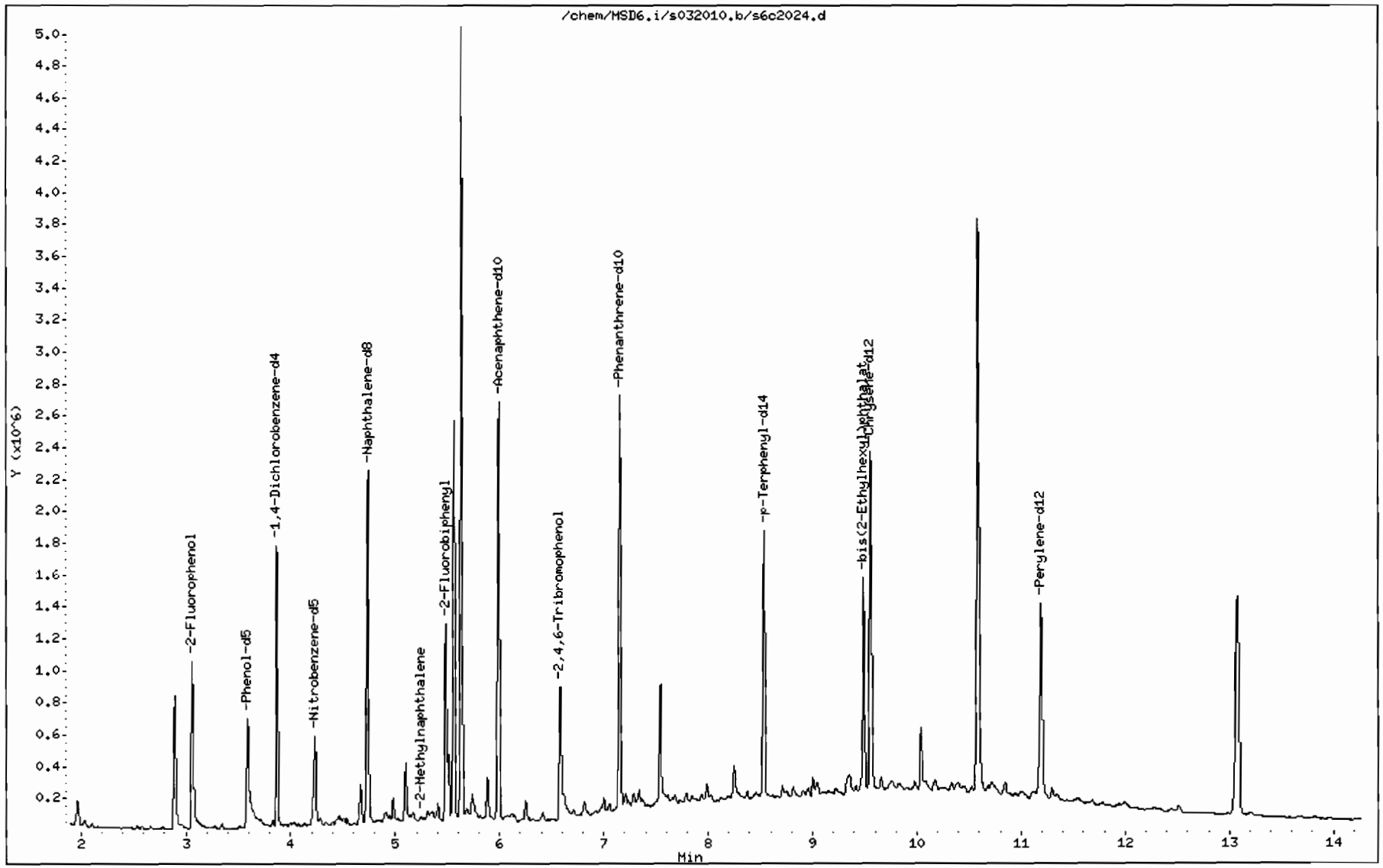

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549

Instrument: MSD6.i

Sample Info: 1248842003196542511SVMI1ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 9.1 ug/Kg

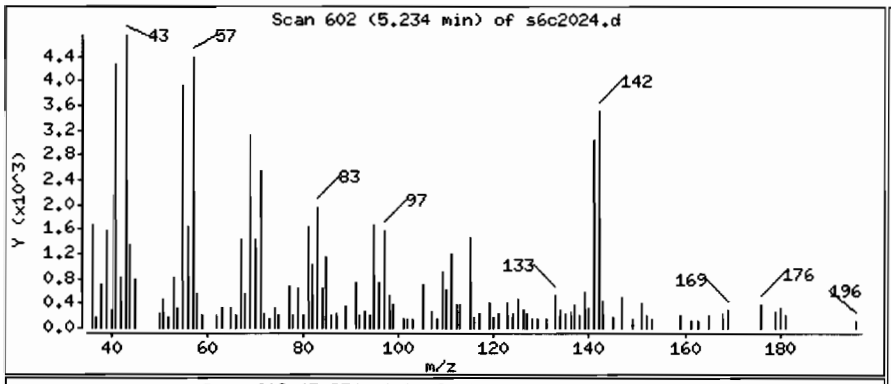

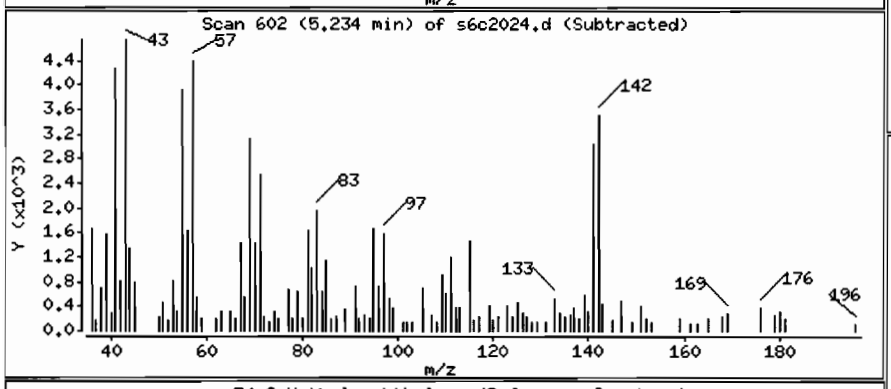

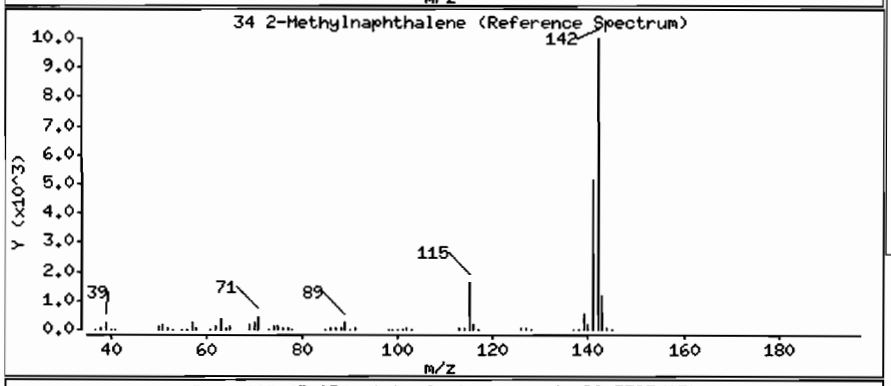

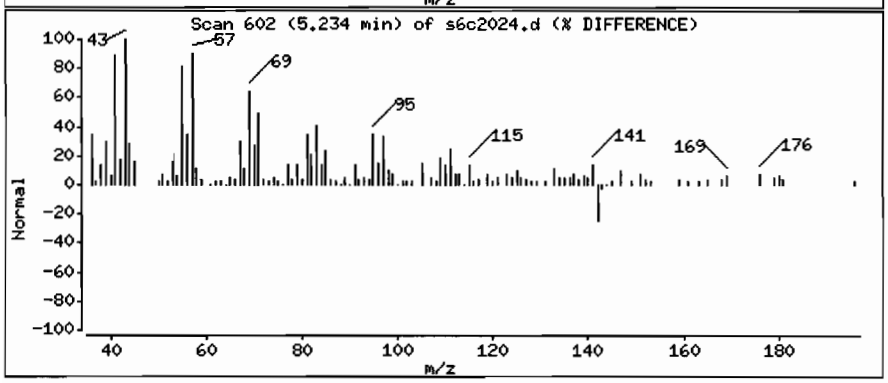

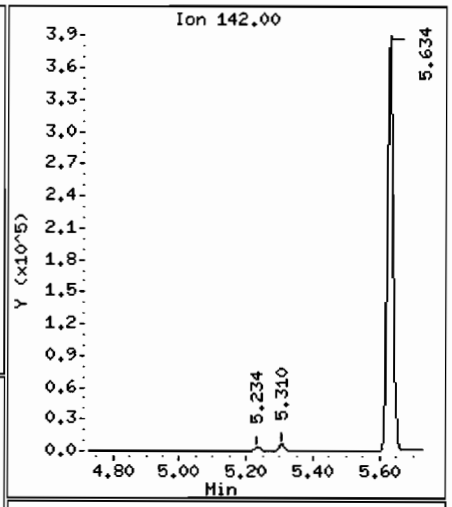

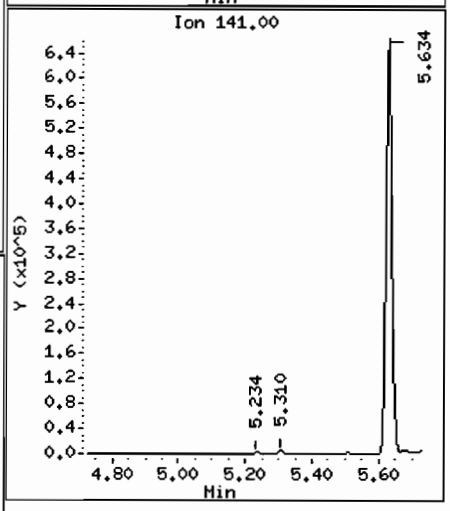

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549

Instrument: MSD6.i

Sample Info: 1248842003|965425|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 840 ug/Kg

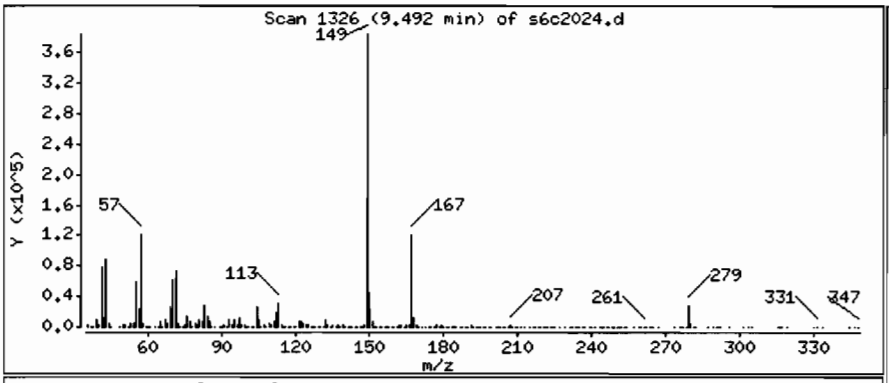

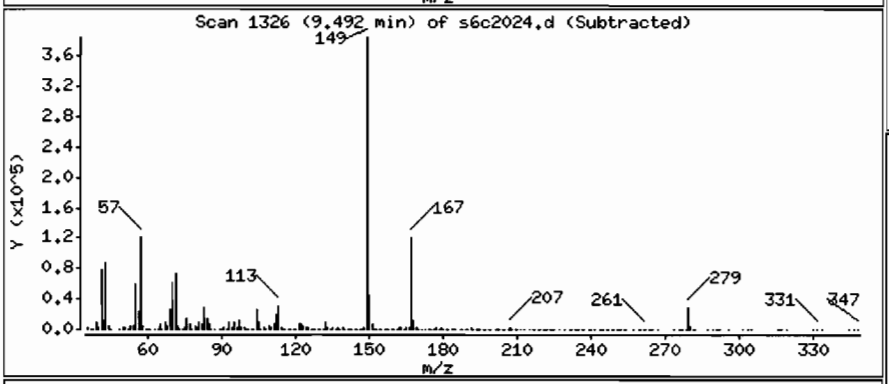

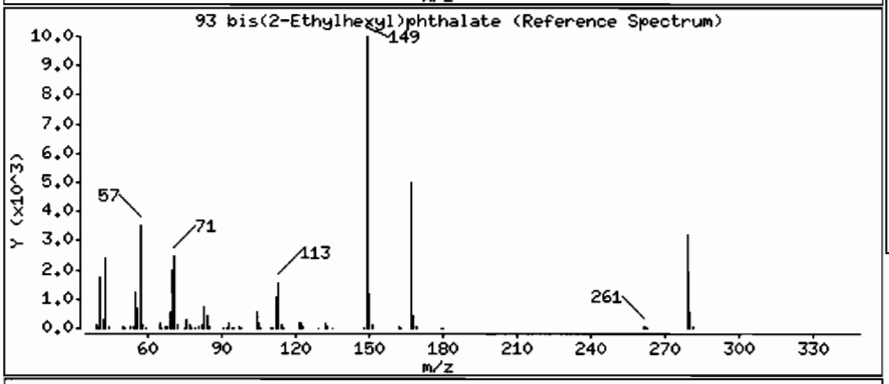

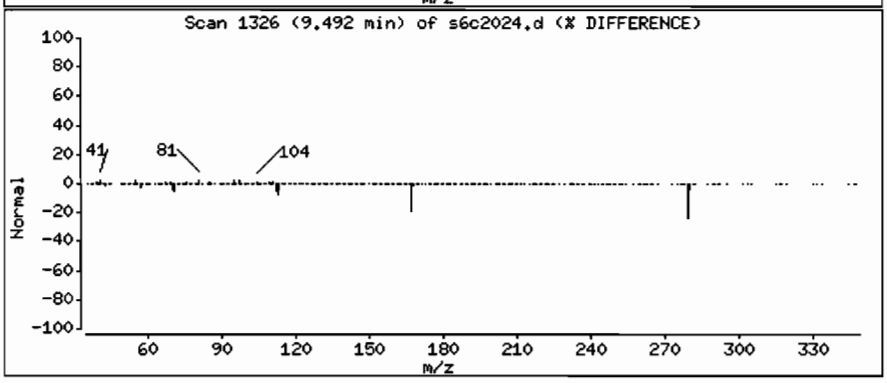

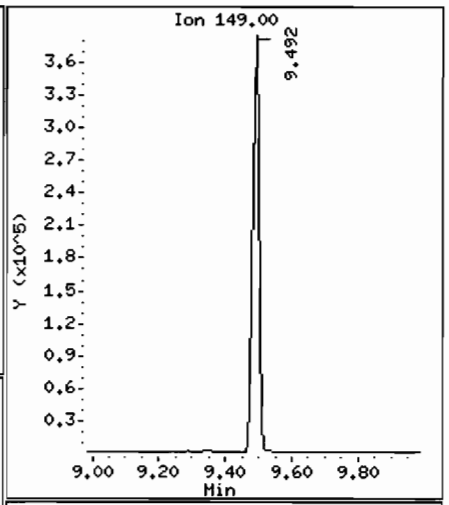

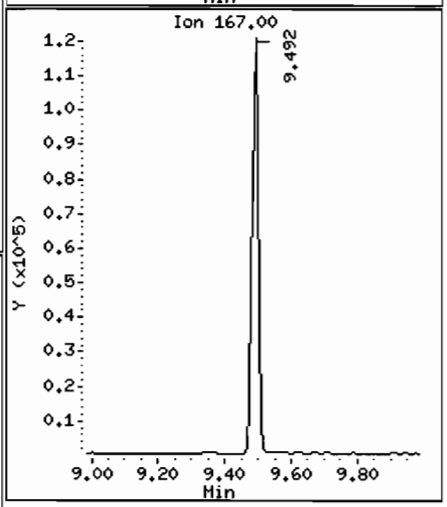

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549

Instrument: MSD6.i

Sample Info: |2488420031965425|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	38	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	28	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	12	C5H12O2	104

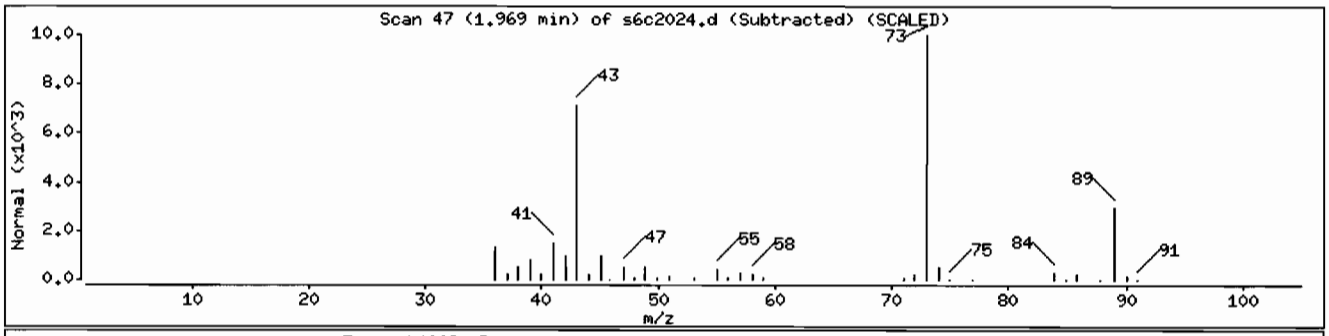

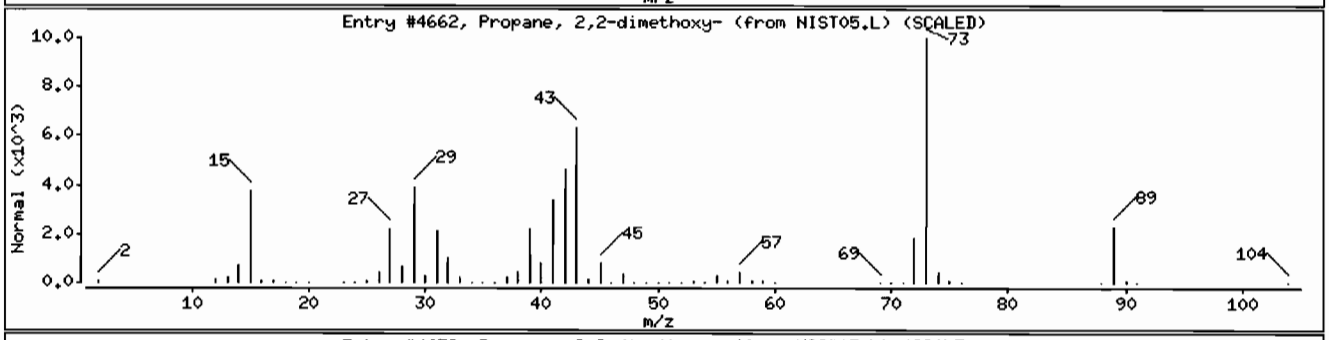

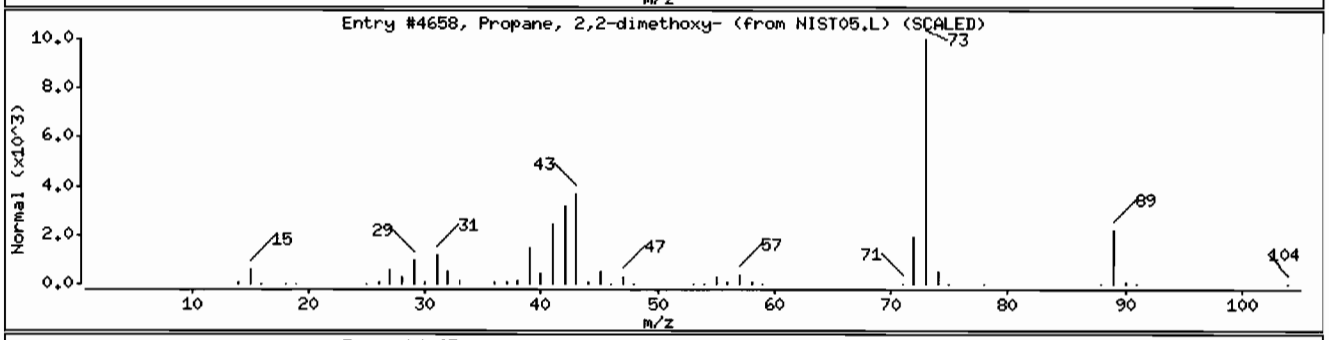

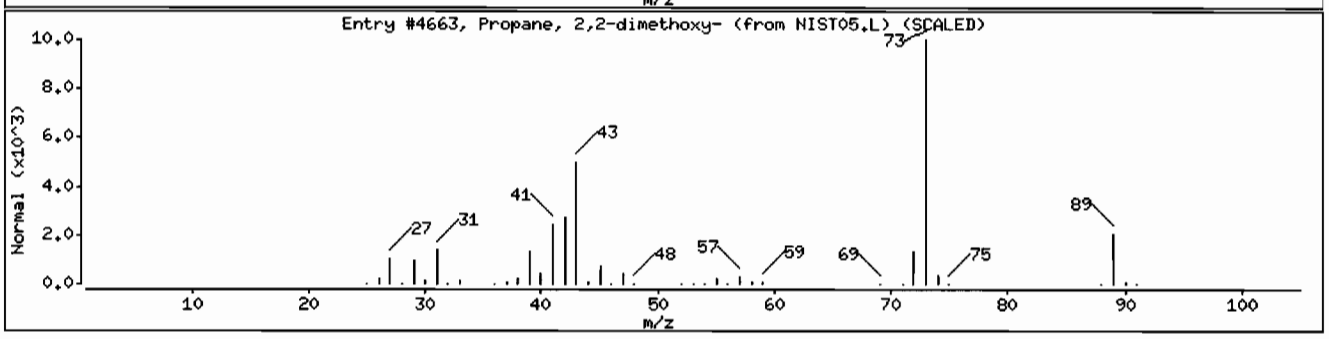

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549

Instrument: MSD6.i

Sample Info: |2488420031965425|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	45	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	38	C6H12O2	116

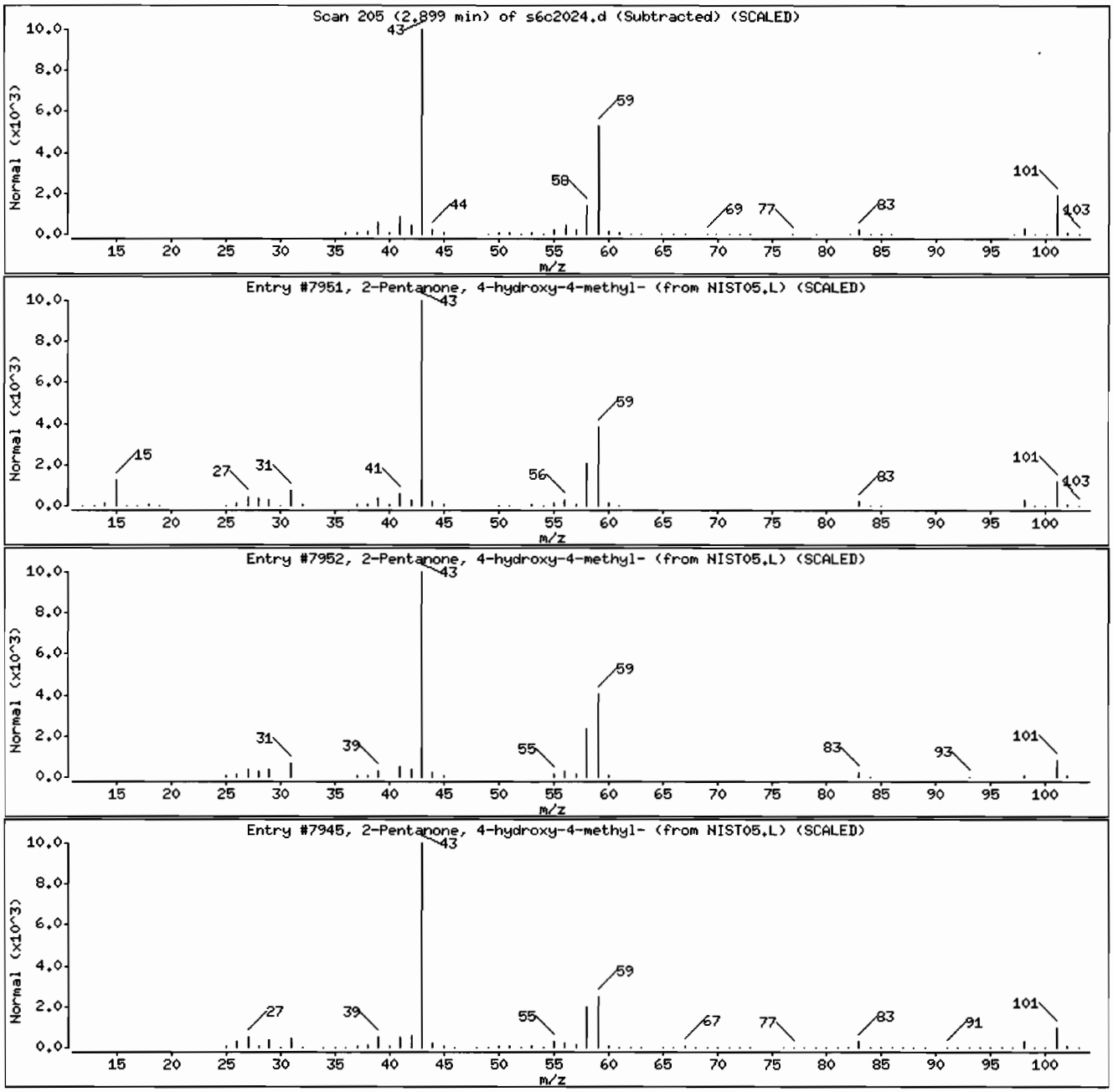

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549 Instrument: MSD6.i

Sample Info: 1248842003|965425|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Dodecane	112-40-3	NIST05.L	36430	93	C12H26	170
Dodecane	112-40-3	NIST05.L	36431	93	C12H26	170
Heptadecane, 2,6,10,14-tetramethyl-	18344-37-1	NIST05.L	122446	80	C21H44	296

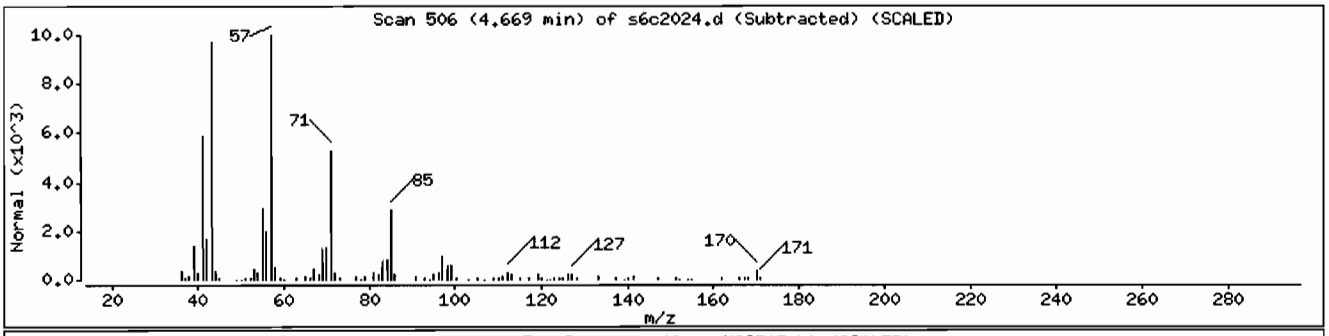

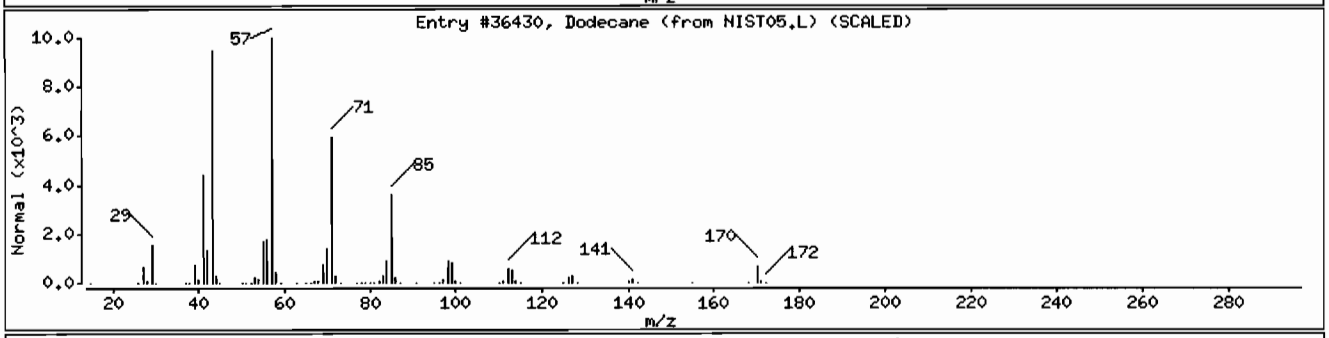

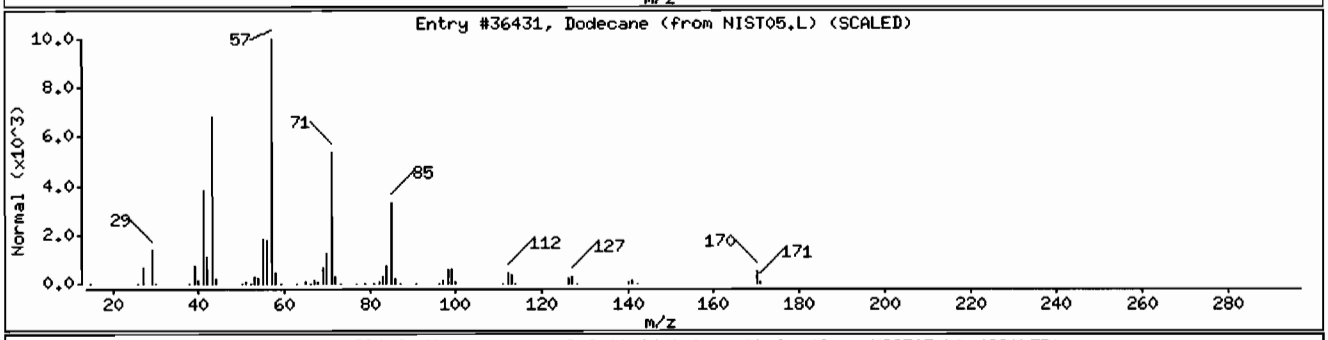

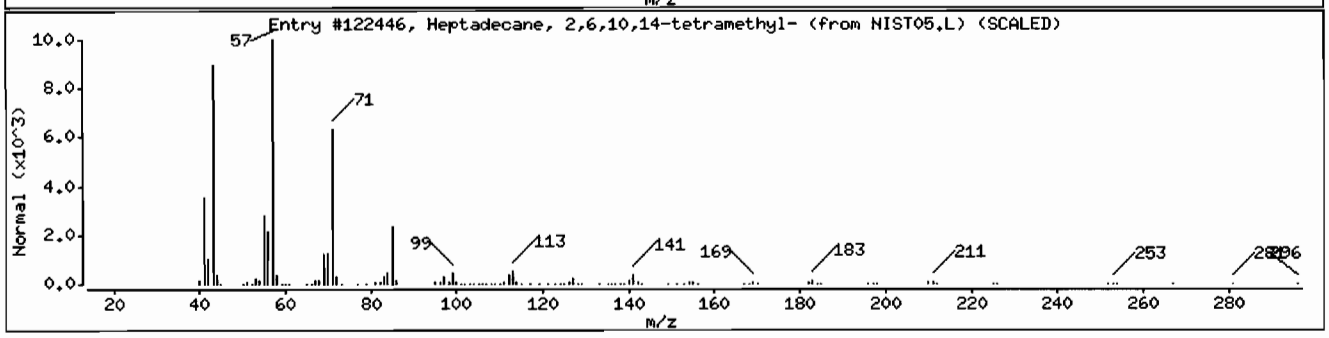

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549

Instrument: MSD6.i

Sample Info: |2488420031965425111SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tridecane	629-50-5	NIST05.L	46086	97	C13H28	184
Tridecane	629-50-5	NIST05.L	46084	96	C13H28	184
Tridecane	629-50-5	NIST05.L	46087	94	C13H28	184

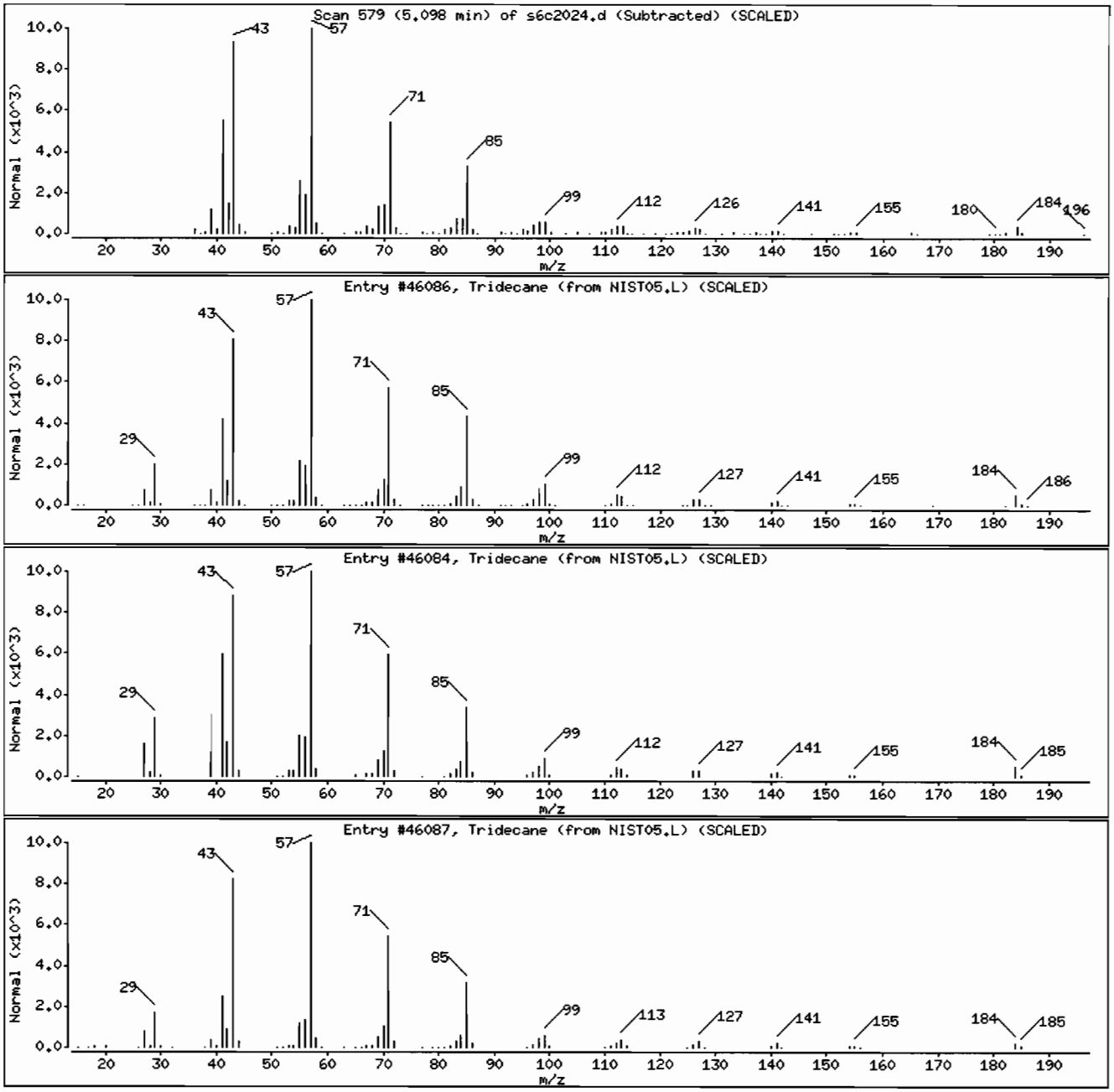

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549

Instrument: MSD6.i

Sample Info: |2488420031965425|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pentadecane	629-62-9	NIST05.L	66064	97	C15H32	212
Pentadecane	629-62-9	NIST05.L	66067	96	C15H32	212
Pentadecane	629-62-9	NIST05.L	66066	93	C15H32	212

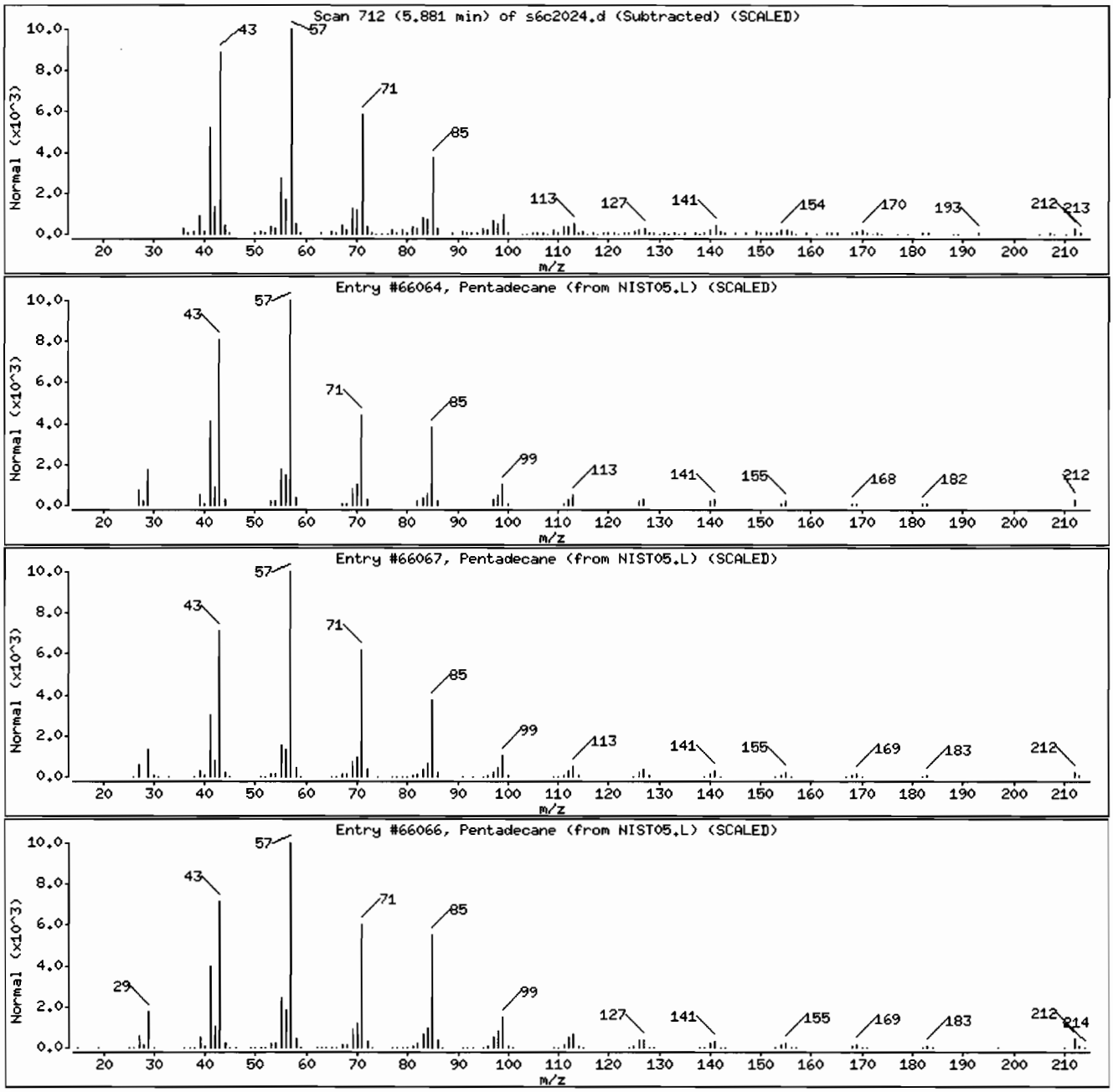

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549

Instrument: MSD6.i

Sample Info: 1248842003|965425|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
n-Hexadecanoic acid	57-10-3	NIST05.L	96235	97	C16H3202	256
n-Hexadecanoic acid	57-10-3	NIST05.L	96234	93	C16H3202	256
n-Hexadecanoic acid	57-10-3	NIST05.L	96233	70	C16H3202	256

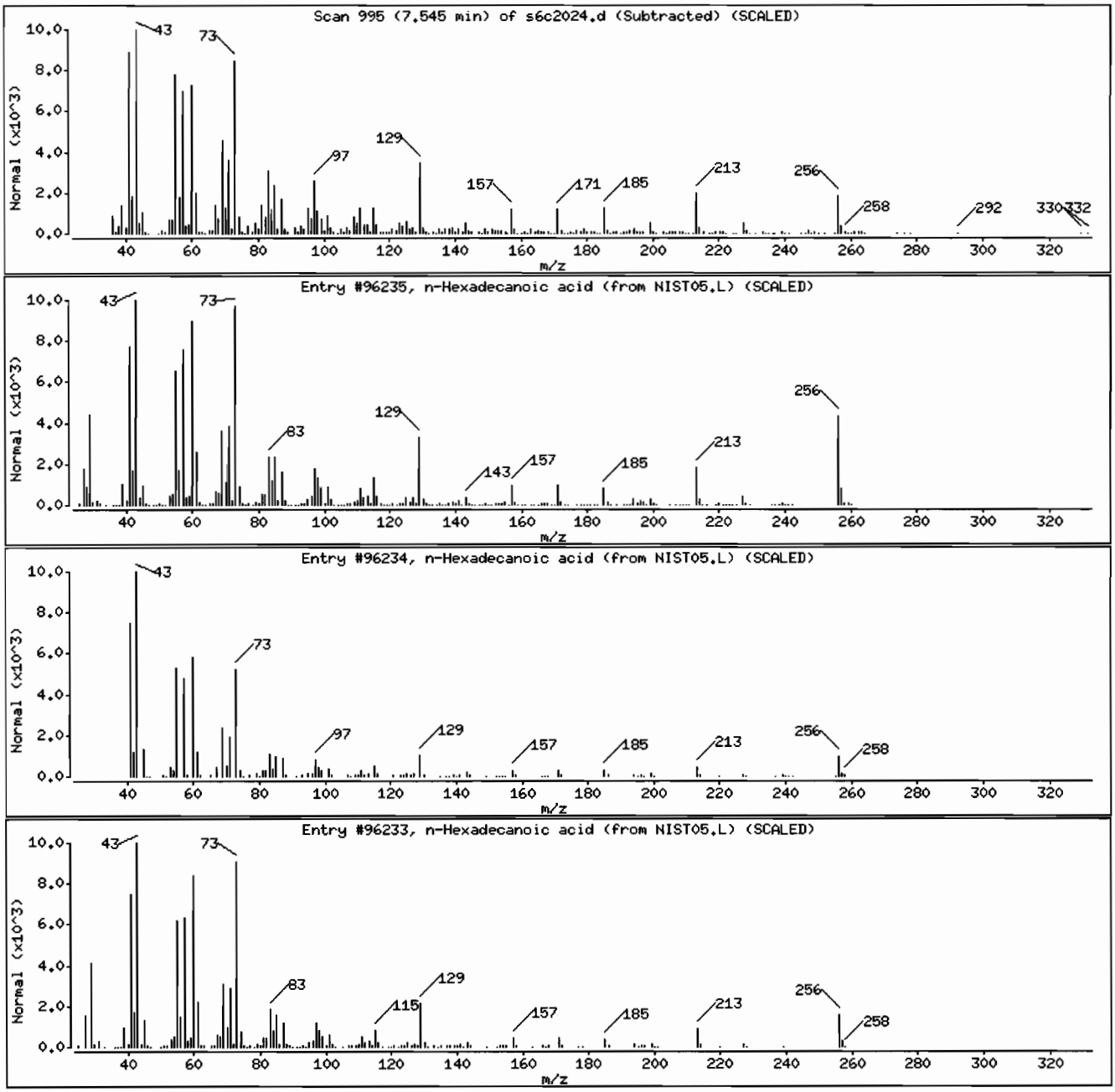

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549

Instrument: MSD6.i

Sample Info: |2488420031965425|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octadecanoic acid	57-11-4	NIST05.L	114820	93	C18H3602	284
1-Hentetracontanol	40710-42-7	NIST05.L	188274	53	C41H840	593
Hexadecanoic acid, 2-hydroxy-, methyl es	16742-51-1	NIST05.L	116045	50	C17H3403	286

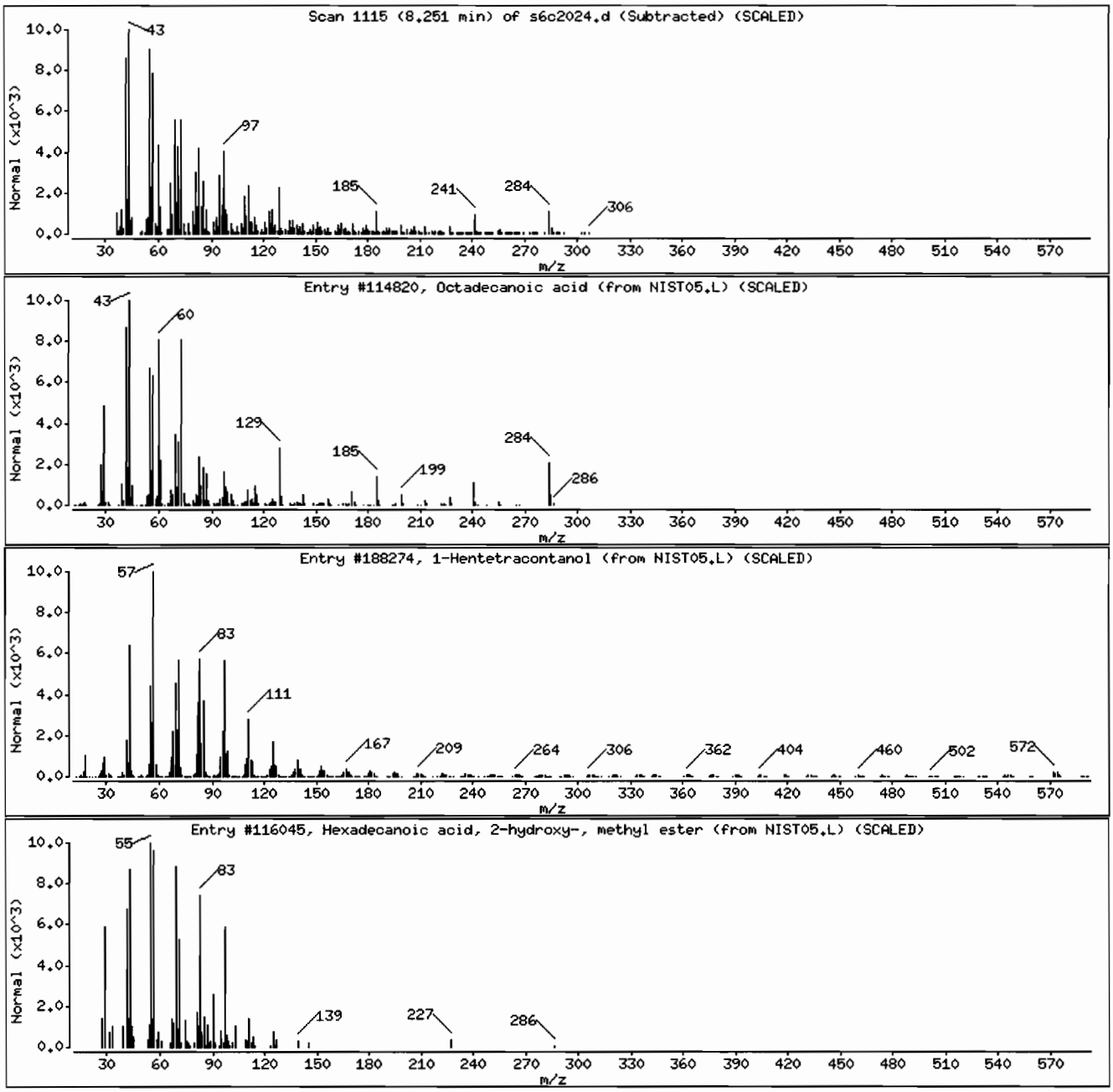

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549 Instrument: MSD6.i

Sample Info: 1248842003196542511ISVMI1ILANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetradecane, 1-bromo-	112-71-0	NIST05.L	109299	83	C14H29Br	276
Tetrapentacontane, 1,54-dibromo-	1000156-09-4	NIST05.L	190704	60	C54H108Br2	915
1-Iodoundecane	4282-44-4	NIST05.L	112794	55	C11H23I	282

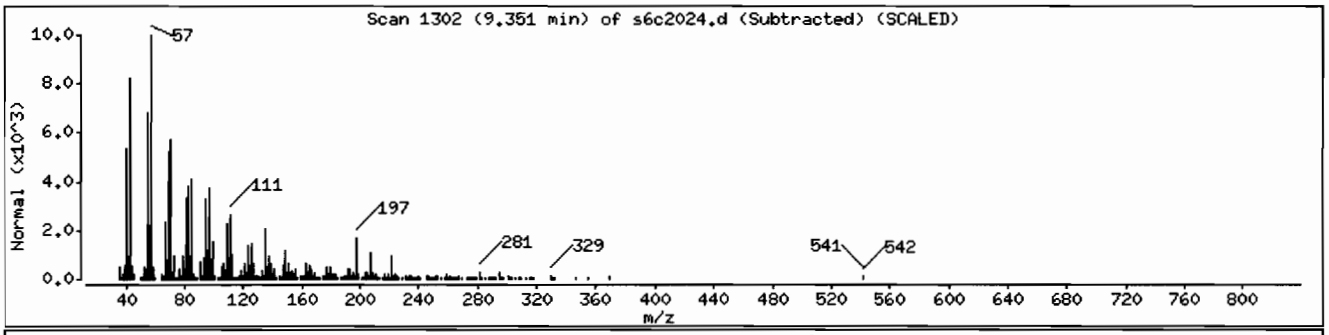

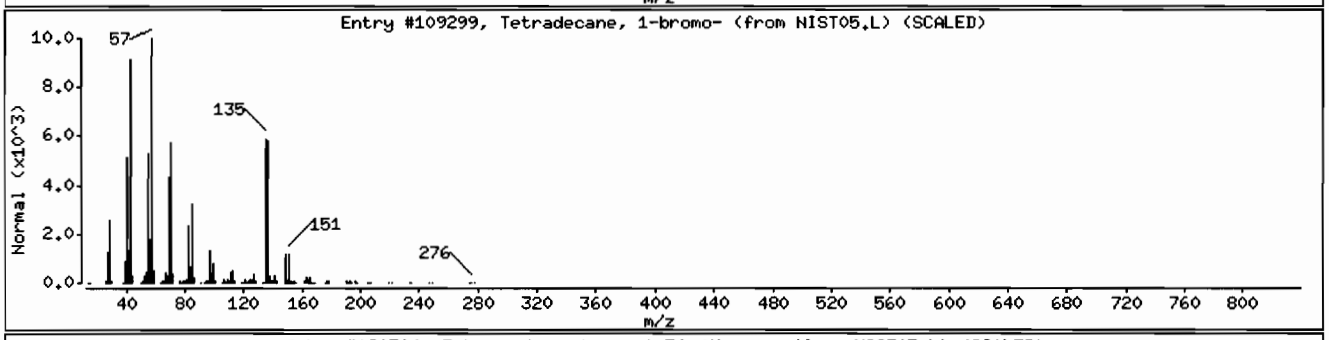

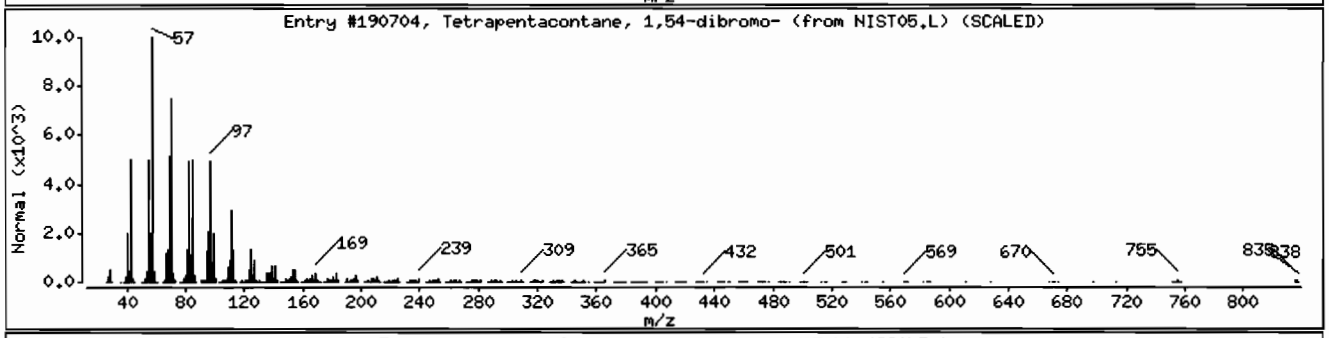

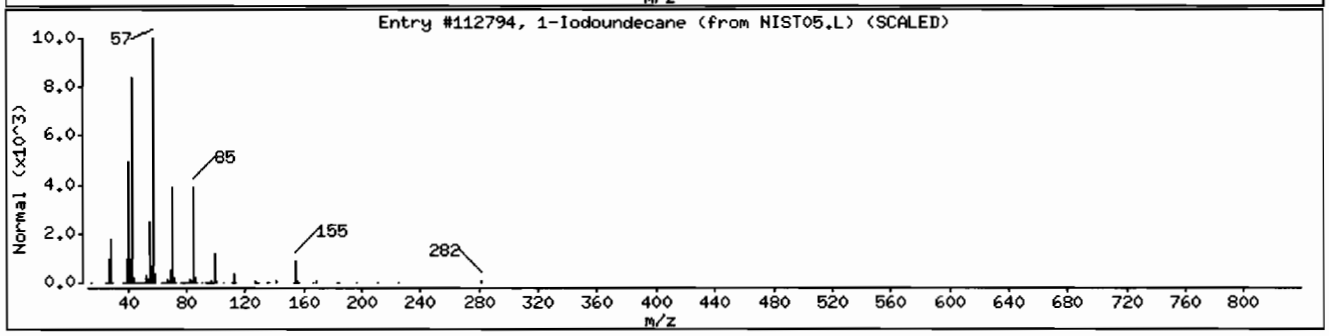

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549 Instrument: MSD6.i

Sample Info: |2488420031965425|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heptadecane	629-78-7	NIST05.L	85524	93	C17H36	240
Heptadecane	629-78-7	NIST05.L	85525	92	C17H36	240
Tetrapentacontane, 1,54-dibromo-	1000156-09-4	NIST05.L	190704	76	C54H108Br2	915

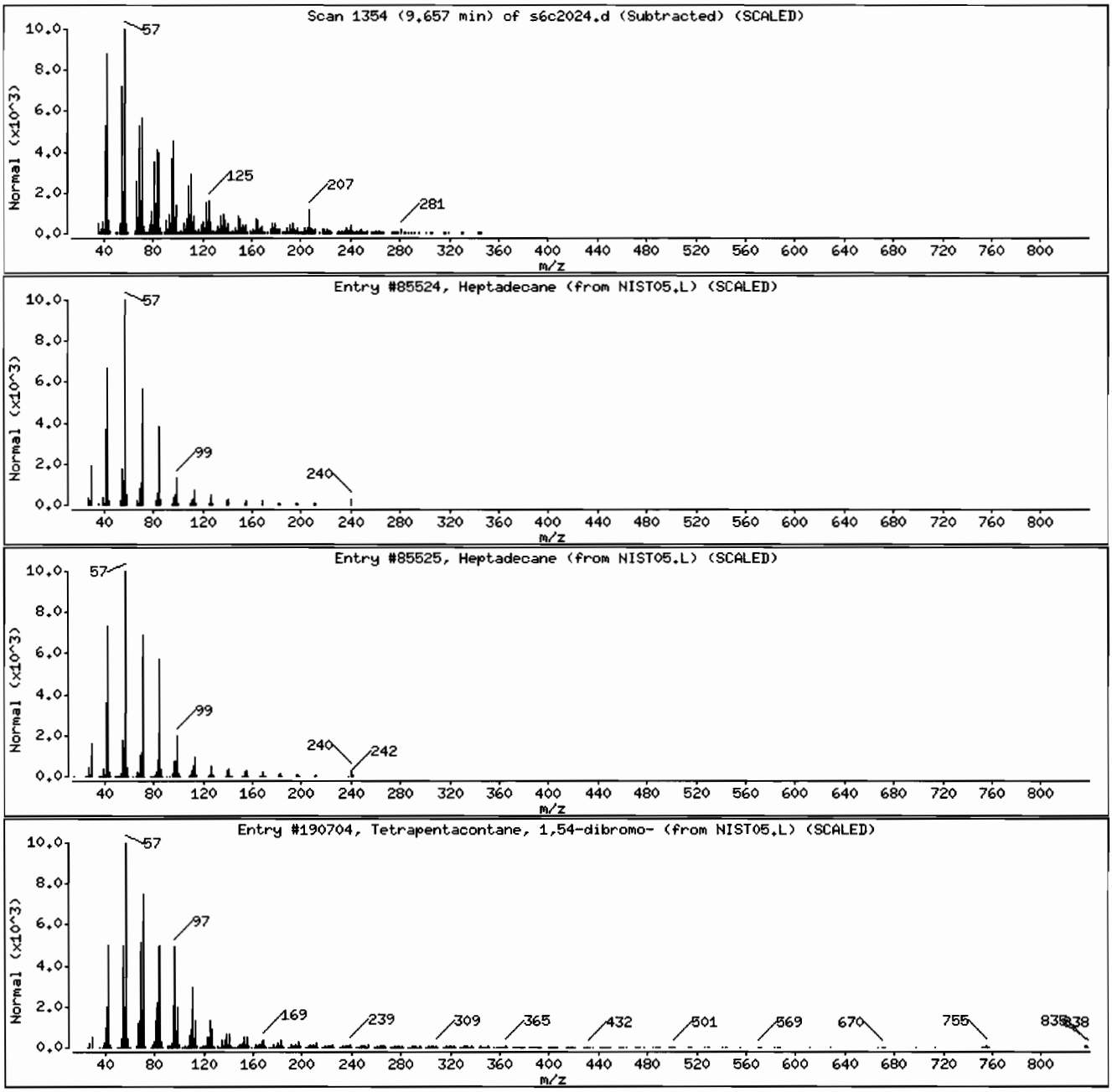

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549 Instrument: MSD6.i

Sample Info: 1248842003196542511SVMI11LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclopentane, (2-hexyloctyl)-	55044-77-4	NIST05.L	102875	51	C19H38	266
Dodecane, 1,2-dibromo-	55334-42-4	NIST05.L	139744	50	C12H24Br2	326
Methanesulfonic acid, 2,7-dioxatricyclo[	75568-59-1	NIST05.L	81422	47	C9H14O5S	234

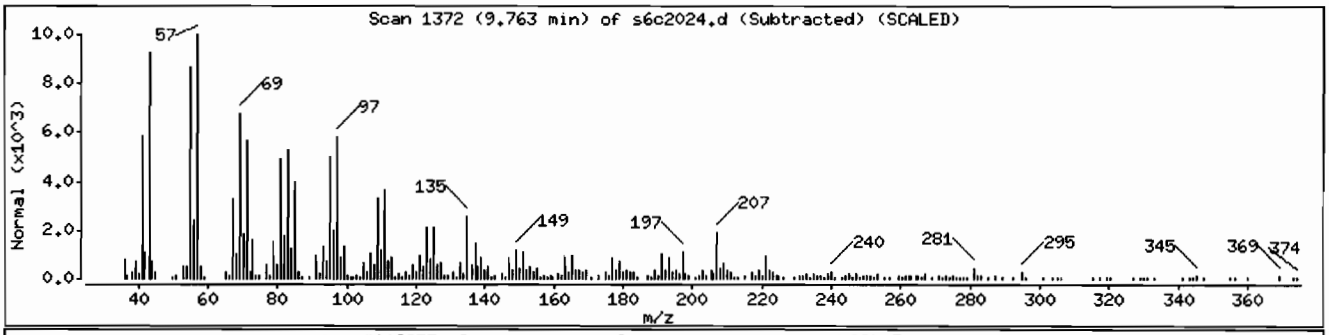

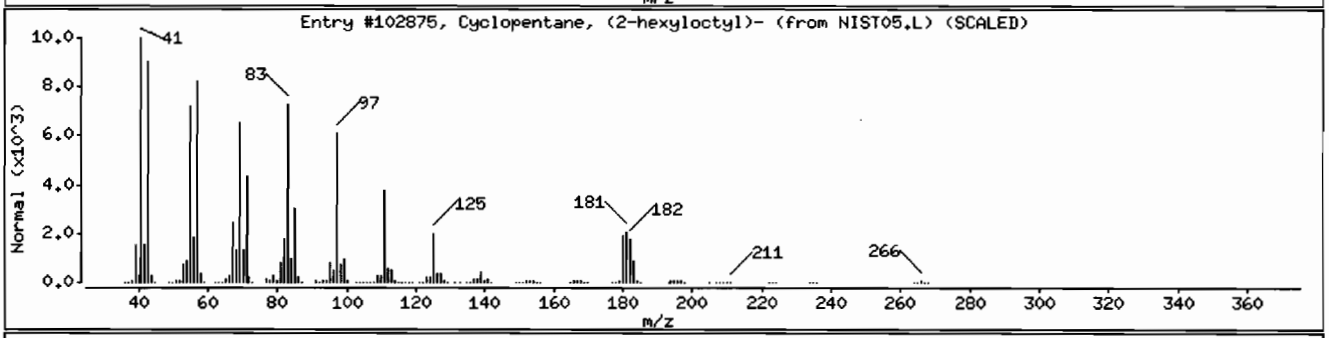

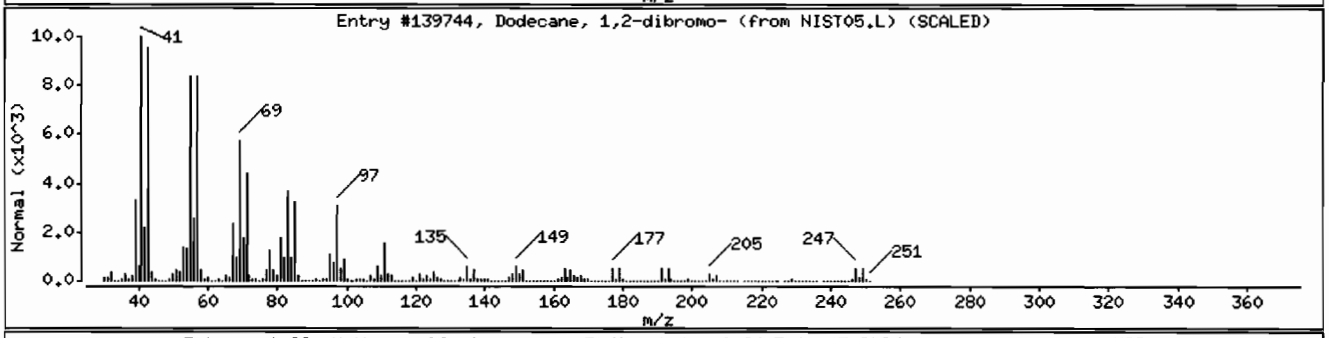

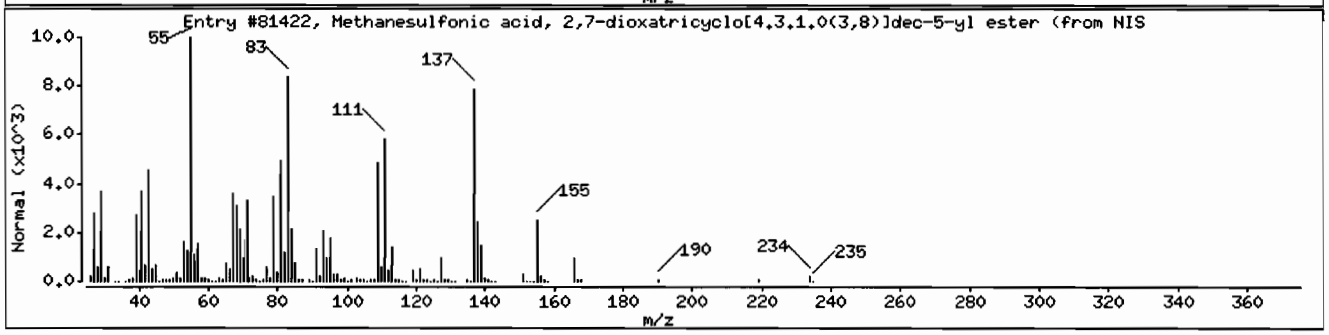

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549 Instrument: MSD6.i

Sample Info: |2488420031965425|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	83	C18H3402	282
E-8-Methyl-9-tetradecen-1-ol acetate	1000130-81-4	NIST05.L	104138	58	C17H3202	268
5,6,6-Trimethyl-5-(3-oxobut-1-enyl)-1-ox	1000192-73-9	NIST05.L	82376	52	C14H2003	236

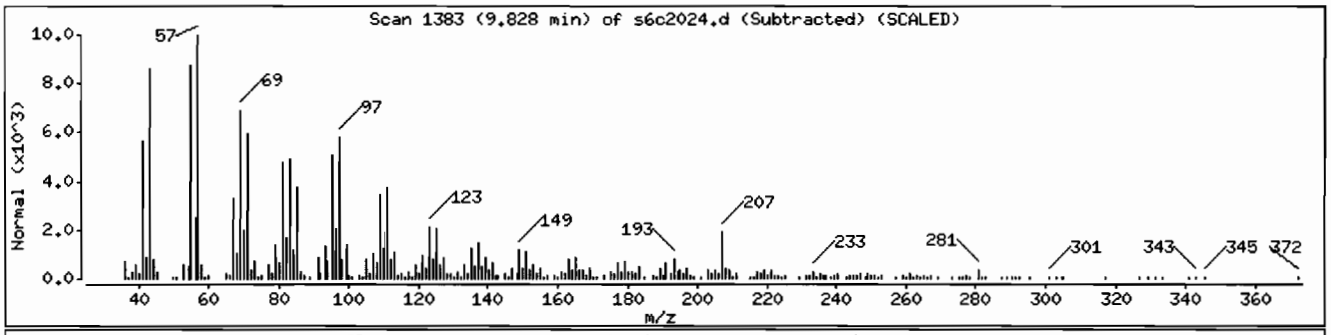

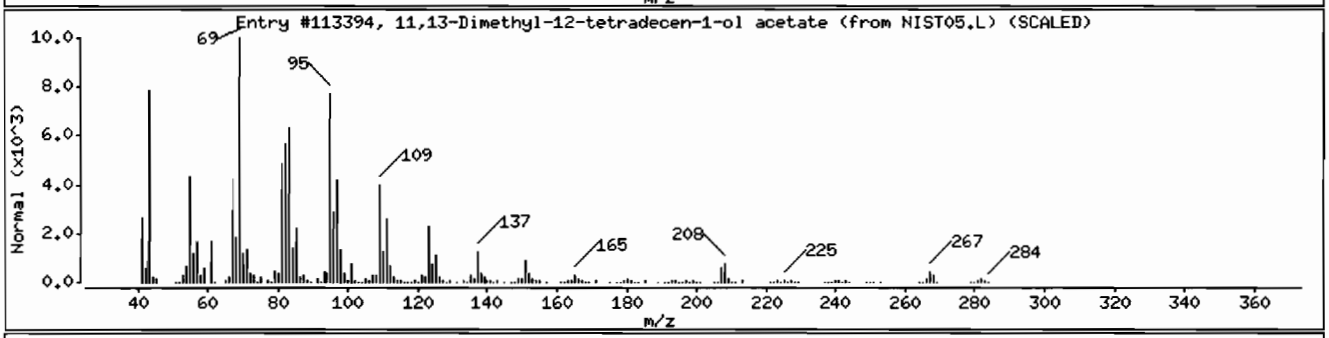

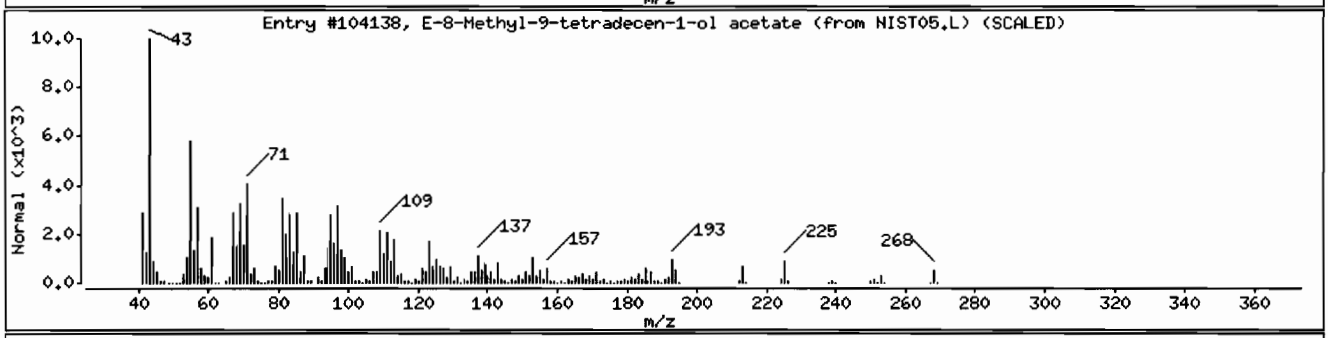

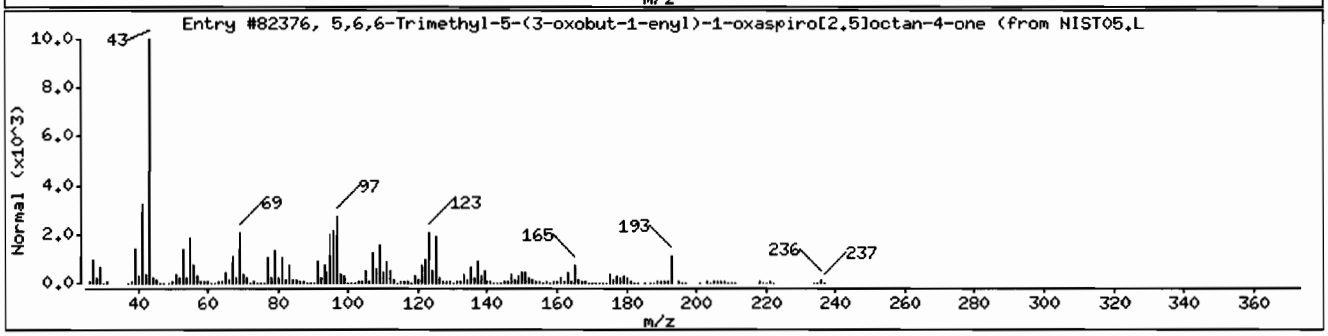

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549 Instrument: MSD6.i

Sample Info: |2488420031965425|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Tetrapentacontane, 1,54-dibromo-	1000156-09-4	NIST05.L	190704	76	C54H108Br2	915
Eicosane	112-95-8	NIST05.L	113490	70	C20H42	282
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	64	C18H3402	282

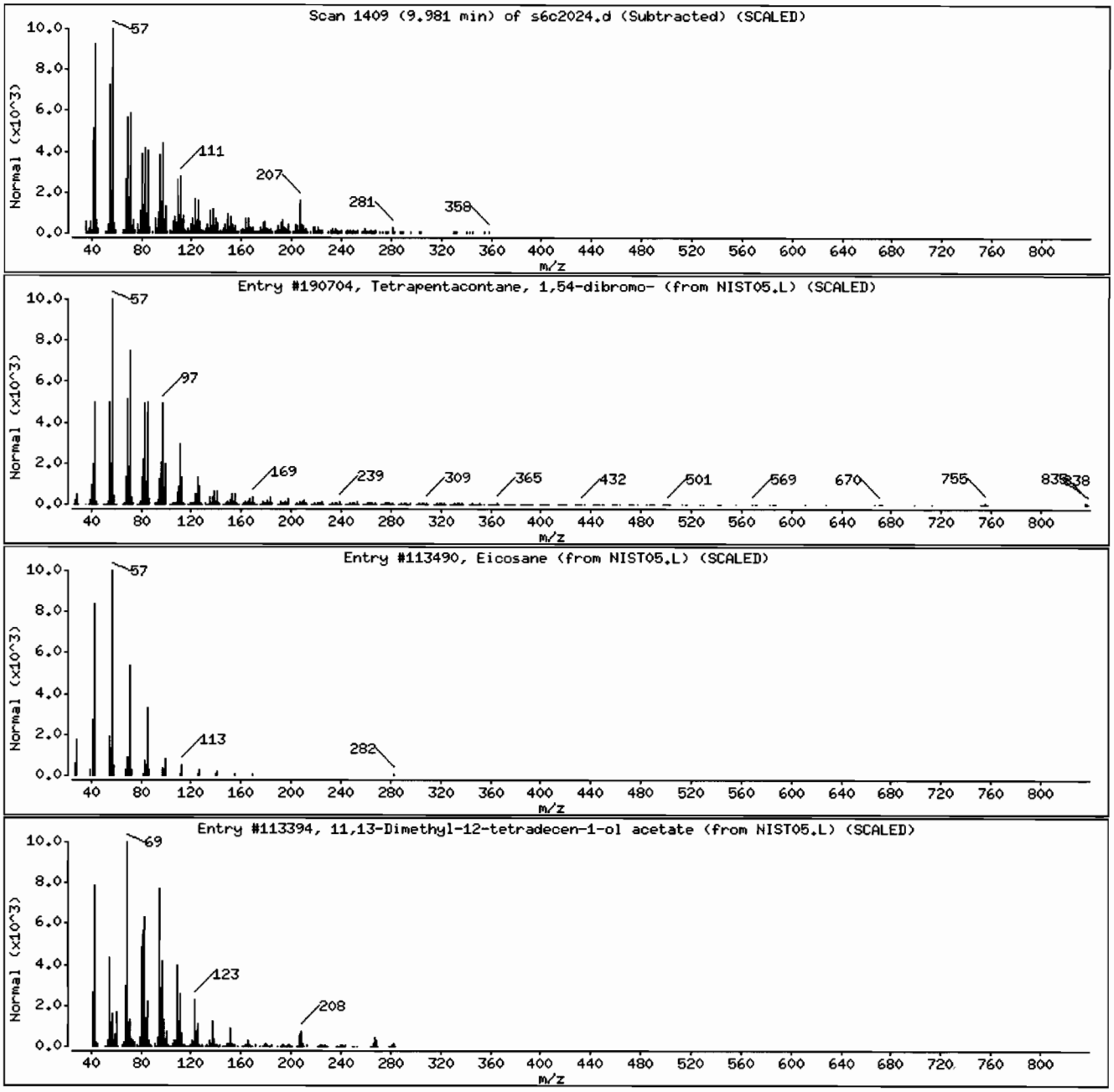

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549 Instrument: MSD6.i

Sample Info: |2488420031965425|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	807-28-3	NIST05.L	173479	98	C26H26OSi2	410
1,3-Diphenyl-1,3-dimethyl-1,3-disila-2-o	1000078-51-7	NIST05.L	143636	78	C20H20OSi2	332
5-Methyl-4-triphenylsilyl-2-carboxylic a	37980-85-1	NIST05.L	169913	46	C25H21NO2Si	395

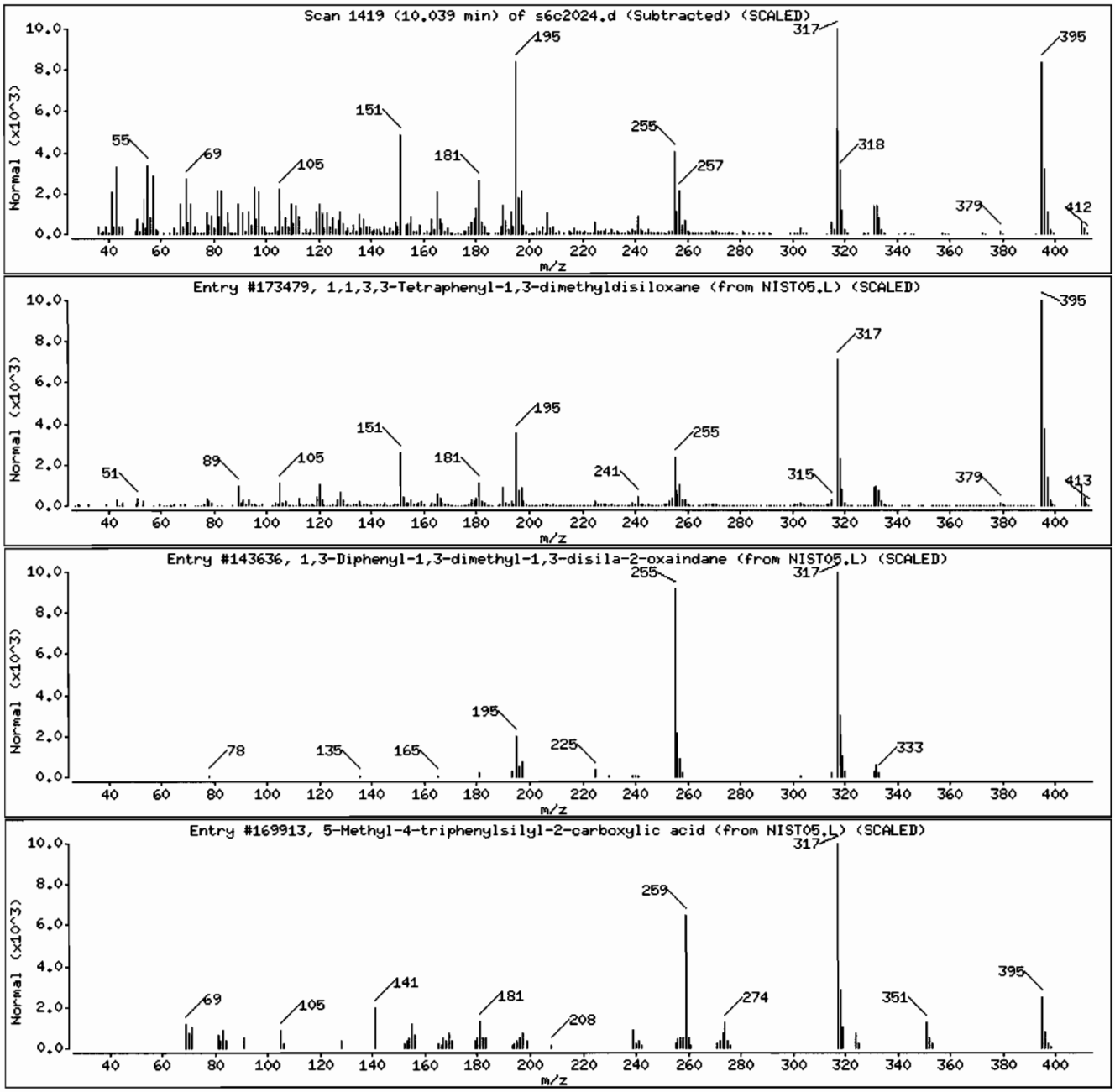

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549

Instrument: MSD6.i

Sample Info: |2488420031965425|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	55	C18H3402	282
2-Butanone, 4-(2,6,6-trimethyl-2-cyclohe	39721-65-8	NIST05.L	52864	49	C13H220	194
Cyclopentadecanone, 2-hydroxy-	4727-18-8	NIST05.L	85349	43	C15H2802	240

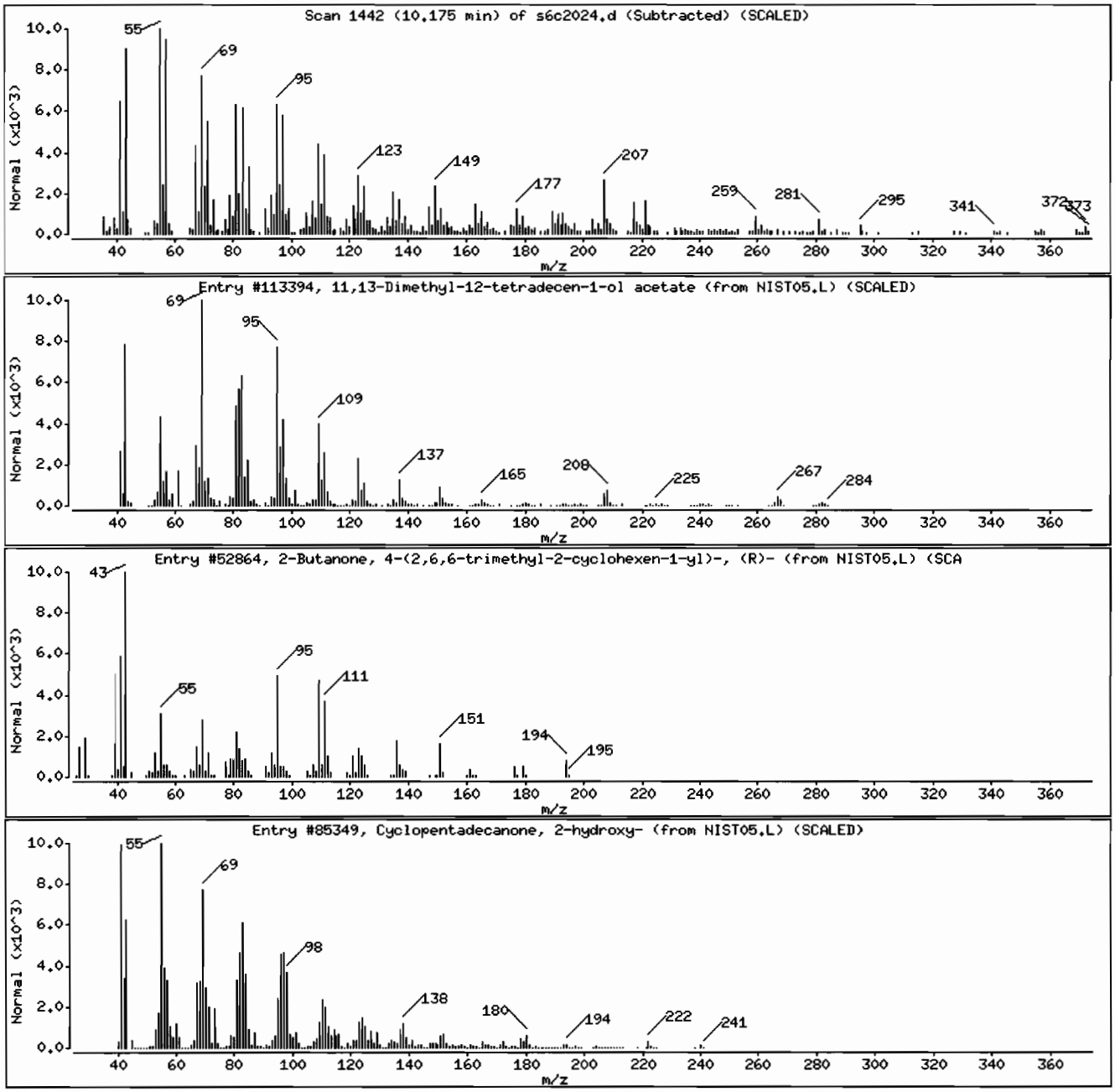

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549 Instrument: MSD6.i

Sample Info: |2488420031965425|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	68	C20H34	274
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	50	C18H3402	282
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	45	C16H30Br2O2	412

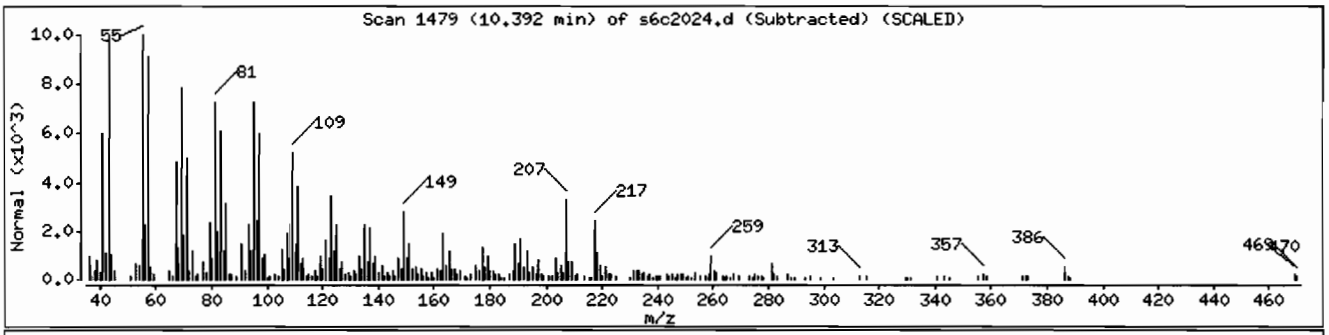

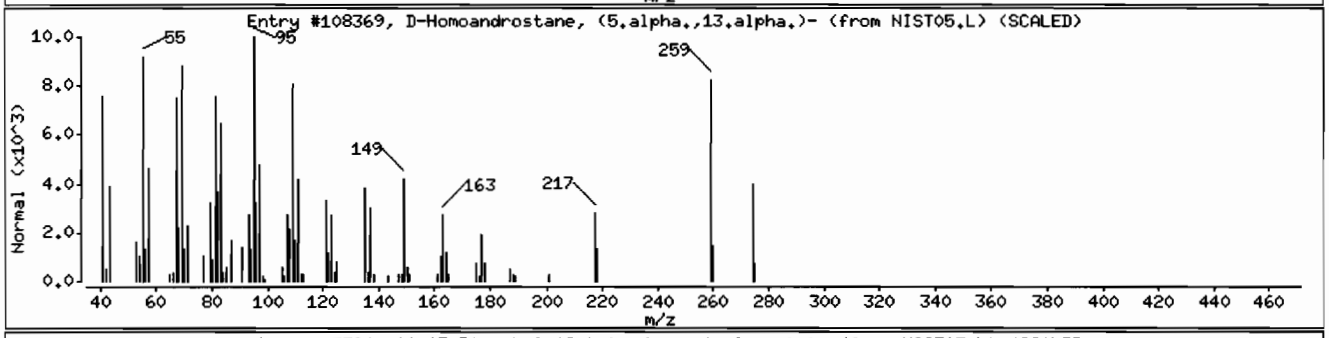

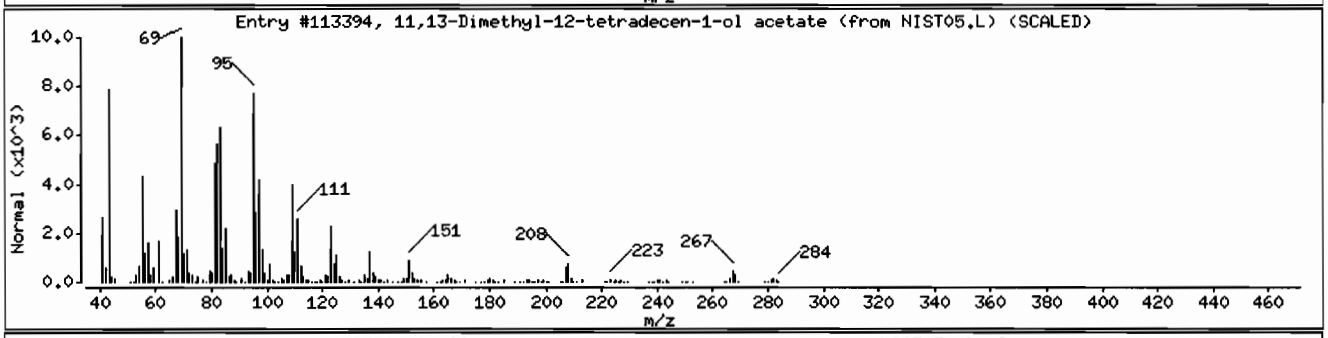

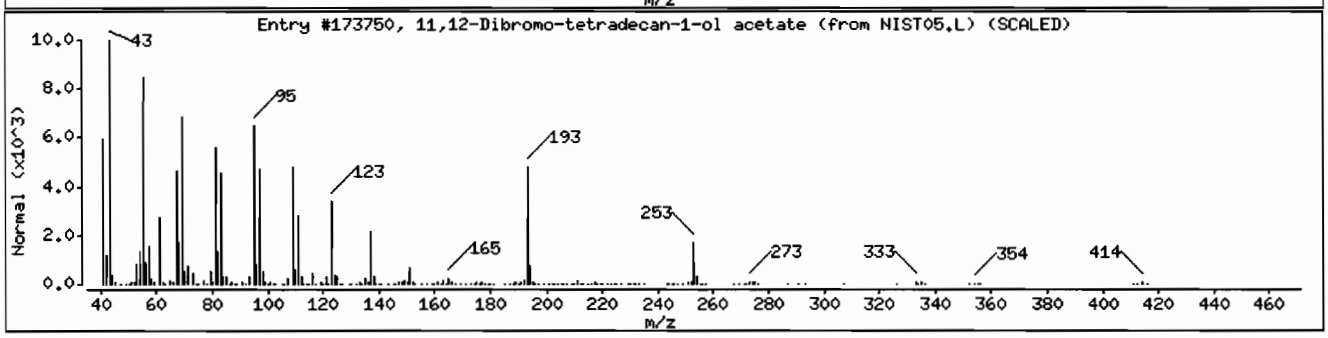

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549 Instrument: MSD6.i

Sample Info: |2488420031965425|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
5,6,6-Trimethyl-5-(3-oxobut-1-enyl)-1-ox	1000192-73-9	NIST05.L	82376	53	C14H2003	236
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	53	C18H3402	282
9-Oxabicyclo[6.1.0]nonane, 1-methyl-, ci	52954-47-9	NIST05.L	18147	38	C9H160	140

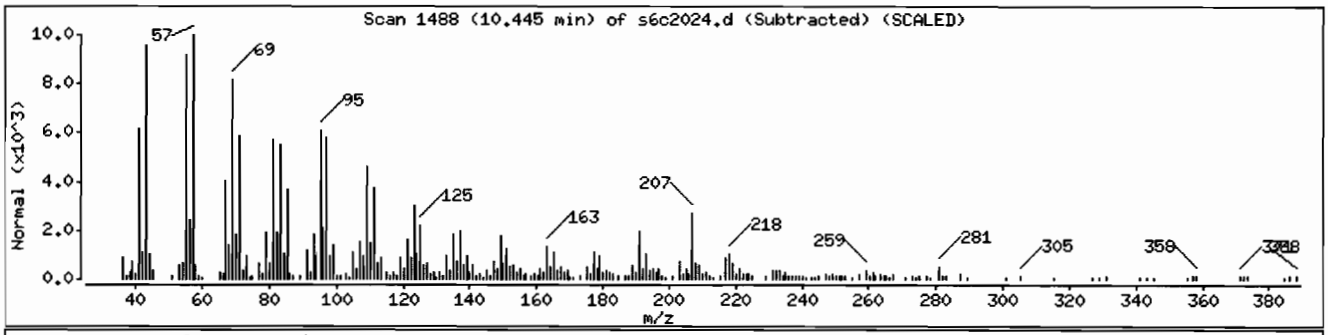

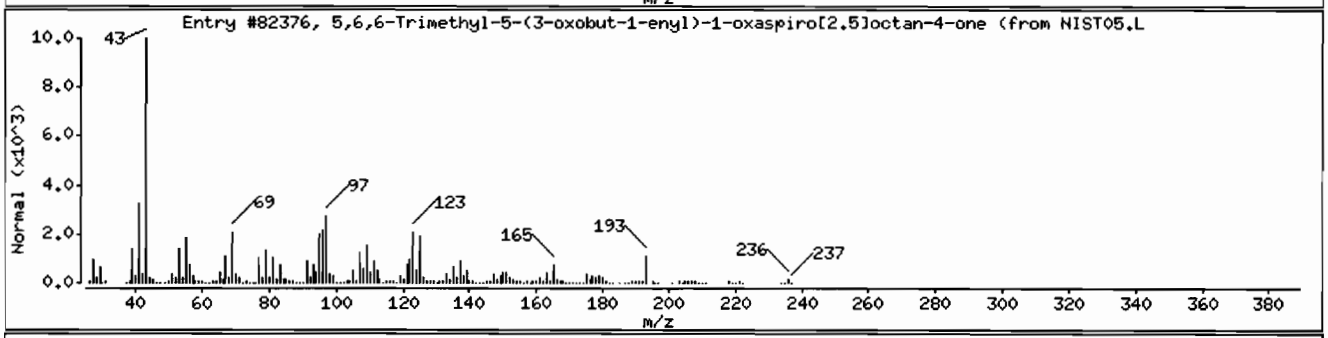

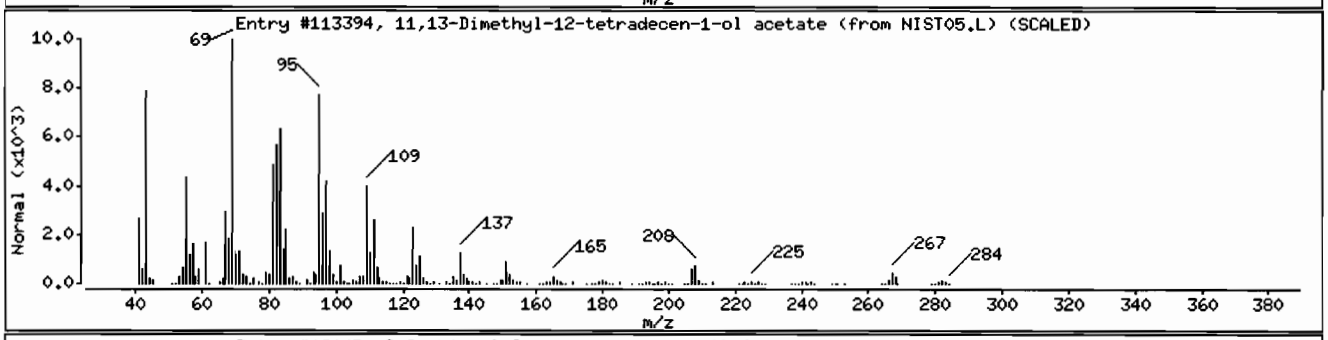

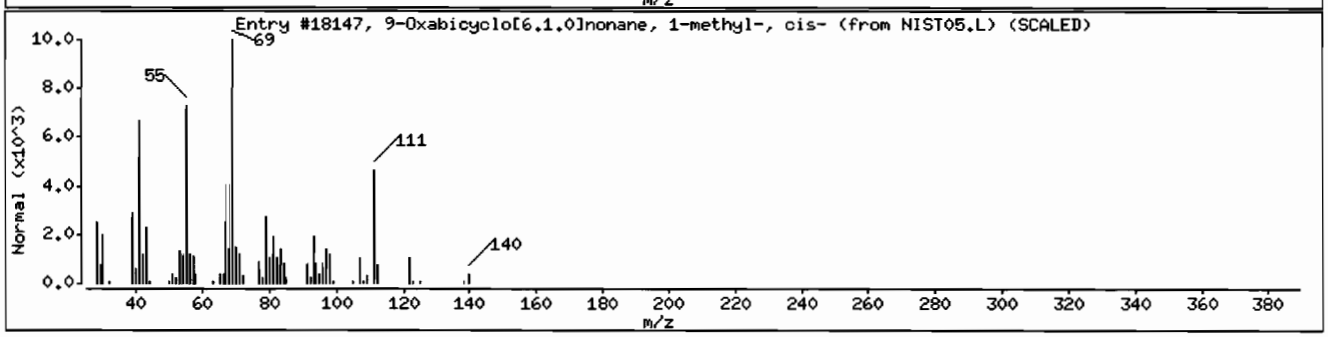

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549

Instrument: MSD6.i

Sample Info: |2488420031965425|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Bromo-4-bromomethyldecane	61639-11-0	NIST05.L	131672	80	C11H22Br2	312
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	60	C18H3402	282
Dodecane, 1,2-dibromo-	55334-42-4	NIST05.L	139744	49	C12H24Br2	326

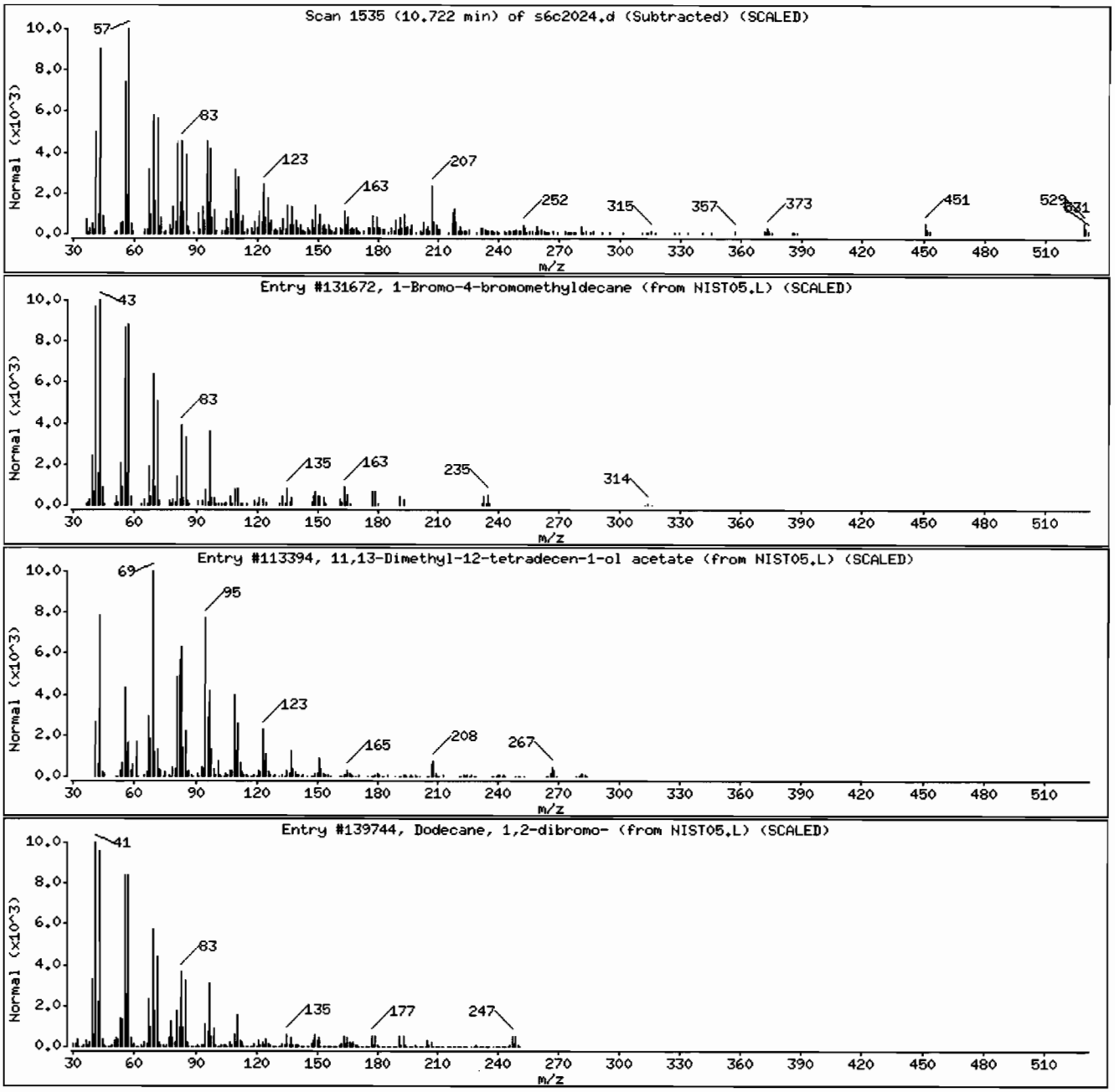

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549 Instrument: MSD6.i

Sample Info: |2488420031965425|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	55	C20H34	274
Ledol	577-27-5	NIST05.L	72883	42	C15H260	222
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	42	C18H3402	282

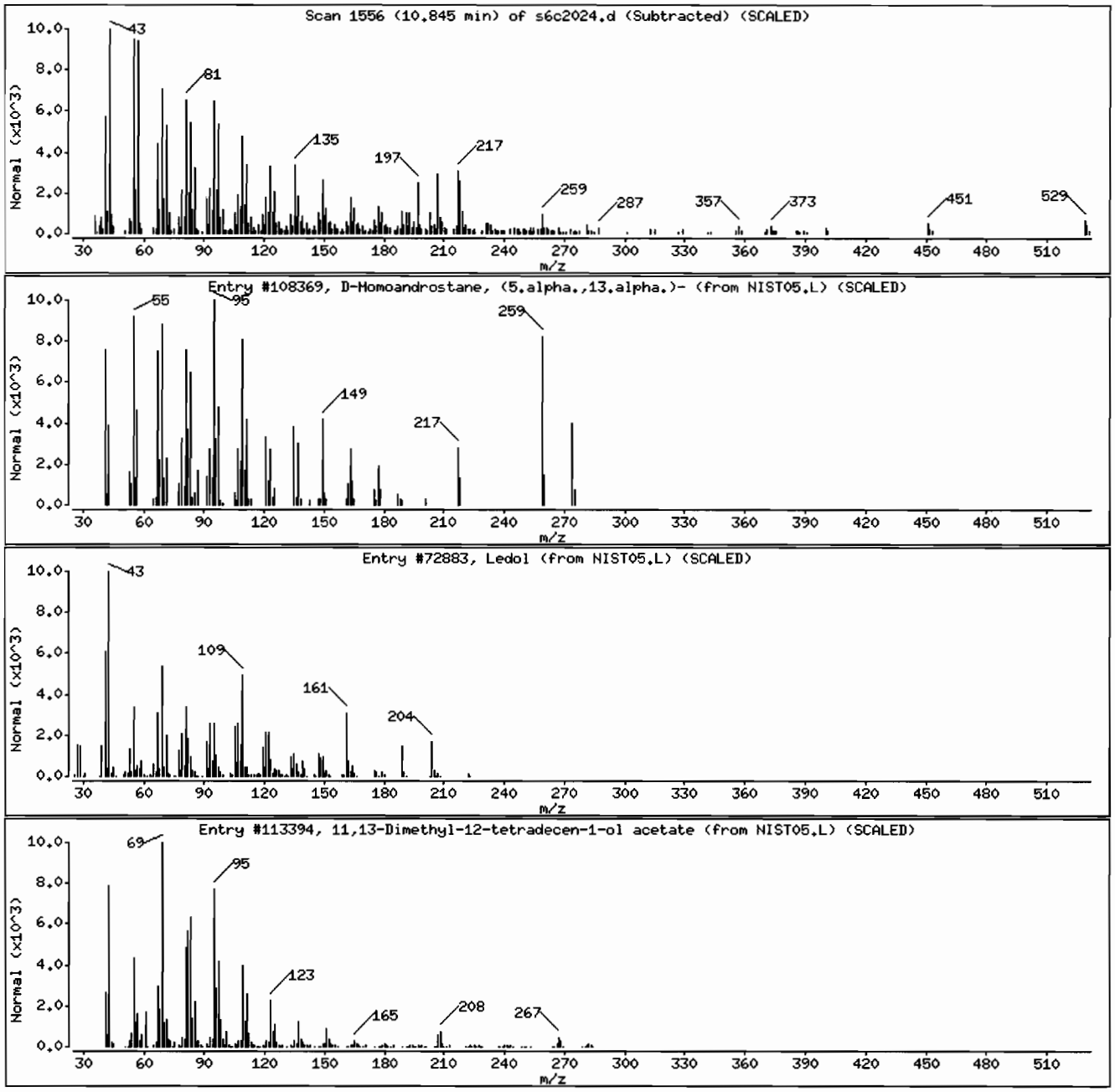

Data File: /chem/MSD6.i/s032010.b/s6c2024.d

Date : 20-MAR-2010 23:30

Client ID: RE46-10-13549 Instrument: MSD6.i

Sample Info: |2488420031965425|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p	3390-61-2	NIST05.L	186812	50	C33H3402Si3	546
4-Hydrazono-5-hydroxyimino-4,5,6,7-tetra	303194-86-7	NIST05.L	55129	25	C6H7N503	197
9H-Carbazole-3,6-diamine	86-71-5	NIST05.L	55003	18	C12H11N3	197

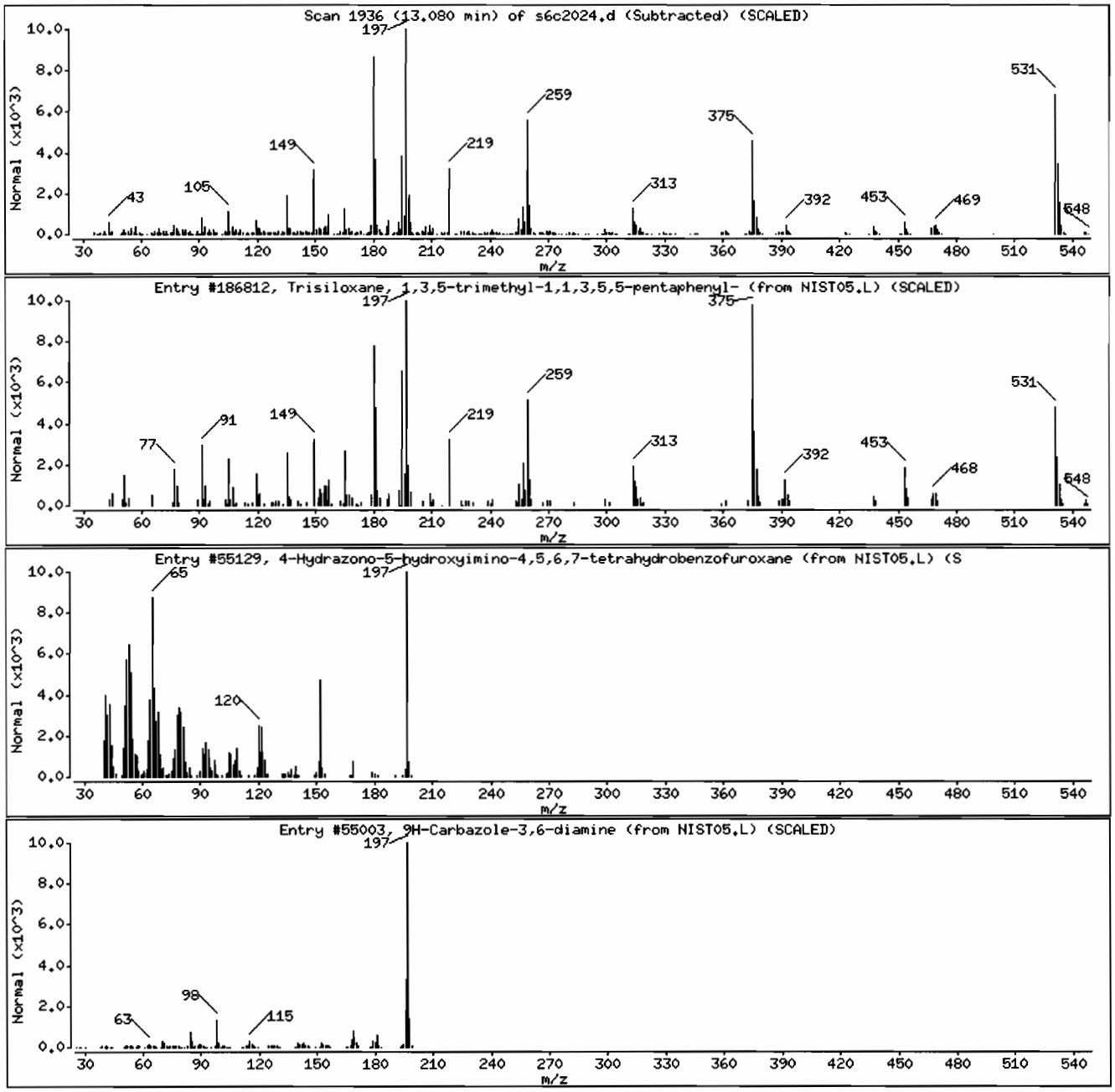

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13550**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.l**	**Dilution:**	**1**
Run Date:	**03/21/2010 00:16**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2026.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	407	ug/kg	81.5	407
108-95-2	Phenol	U	407	ug/kg	81.5	407
95-57-8	2-Chlorophenol	U	407	ug/kg	81.5	407
106-46-7	1,4-Dichlorobenzene	U	407	ug/kg	81.5	407
621-64-7	N-Nitrosodipropylamine	U	407	ug/kg	81.5	407
59-50-7	4-Chloro-3-methylphenol	U	407	ug/kg	81.5	407
83-32-9	Acenaphthene	U	40.7	ug/kg	13.4	40.7
121-14-2	2,4-Dinitrotoluene	U	407	ug/kg	40.7	407
100-02-7	4-Nitrophenol	U	407	ug/kg	134	407
87-86-5	Pentachlorophenol	U	407	ug/kg	102	407
129-00-0	Pyrene	U	40.7	ug/kg	12.2	40.7
110-86-1	Pyridine	U	407	ug/kg	81.5	407
62-53-3	Aniline	U	407	ug/kg	122	407
111-44-4	bis(2-Chloroethyl) ether	U	407	ug/kg	81.5	407
541-73-1	1,3-Dichlorobenzene	U	407	ug/kg	81.5	407
100-51-6	Benzyl alcohol	U	407	ug/kg	122	407
95-50-1	1,2-Dichlorobenzene	U	407	ug/kg	81.5	407
108-60-1	bis(2-Chloroisopropyl)ether	U	407	ug/kg	81.5	407
95-48-7	o-Cresol	U	407	ug/kg	81.5	407
65794-96-9	m,p-Cresols	U	407	ug/kg	122	407
67-72-1	Hexachloroethane	U	407	ug/kg	81.5	407
98-95-3	Nitrobenzene	U	407	ug/kg	81.5	407
78-59-1	Isophorone	U	407	ug/kg	81.5	407
88-75-5	2-Nitrophenol	U	407	ug/kg	81.5	407
105-67-9	2,4-Dimethylphenol	U	407	ug/kg	143	407
111-91-1	bis(2-Chloroethoxy)methane	U	407	ug/kg	81.5	407
120-83-2	2,4-Dichlorophenol	U	407	ug/kg	81.5	407
65-85-0	Benzoic acid	U	815	ug/kg	204	815
91-20-3	Naphthalene	U	40.7	ug/kg	12.2	40.7
106-47-8	4-Chloroaniline	U	407	ug/kg	81.5	407
87-68-3	Hexachlorobutadiene	U	407	ug/kg	81.5	407
91-57-6	2-Methylnaphthalene	U	40.7	ug/kg	8.15	40.7
77-47-4	Hexachlorocyclopentadiene	U	407	ug/kg	81.5	407
88-06-2	2,4,6-Trichlorophenol	U	407	ug/kg	81.5	407
95-95-4	2,4,5-Trichlorophenol	U	407	ug/kg	81.5	407
91-58-7	2-Chloronaphthalene	U	40.7	ug/kg	13.4	40.7
88-74-4	2-Nitroaniline	U	407	ug/kg	81.5	407
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	407	ug/kg	81.5	407

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13550**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/21/2010 00:16**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2026.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	407	ug/kg	81.5	407
606-20-2	2,6-Dinitrotoluene	U	407	ug/kg	40.7	407
208-96-8	Acenaphthylene	U	40.7	ug/kg	12.2	40.7
51-28-5	2,4-Dinitrophenol	U	815	ug/kg	155	815
132-64-9	Dibenzofuran	U	407	ug/kg	81.5	407
84-66-2	Diethylphthalate	U	407	ug/kg	81.5	407
86-73-7	Fluorene	U	40.7	ug/kg	12.2	40.7
7005-72-3	4-Chlorophenylphenylether	U	407	ug/kg	81.5	407
534-52-1	2-Methyl-4,6-dinitrophenol	U	407	ug/kg	81.5	407
100-01-6	4-Nitroaniline	U	407	ug/kg	122	407
	p-Nitroaniline					
122-39-4	Diphenylamine	U	407	ug/kg	81.5	407
122-66-7	Azobenzene	U	407	ug/kg	81.5	407
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	407	ug/kg	81.5	407
118-74-1	Hexachlorobenzene	U	407	ug/kg	81.5	407
85-01-8	Phenanthrene	U	40.7	ug/kg	12.2	40.7
120-12-7	Anthracene	U	40.7	ug/kg	8.15	40.7
84-74-2	Di-n-butylphthalate	U	407	ug/kg	81.5	407
206-44-0	Fluoranthene	U	40.7	ug/kg	12.2	40.7
85-68-7	Butylbenzylphthalate	U	407	ug/kg	81.5	407
56-55-3	Benzo(a)anthracene	U	40.7	ug/kg	12.2	40.7
91-94-1	3,3'-Dichlorobenzidine	U	407	ug/kg	122	407
218-01-9	Chrysene	U	40.7	ug/kg	12.2	40.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	407	ug/kg	81.5	407
117-84-0	Di-n-octylphthalate	U	407	ug/kg	81.5	407
205-99-2	Benzo(b)fluoranthene	U	40.7	ug/kg	12.2	40.7
207-08-9	Benzo(k)fluoranthene	U	40.7	ug/kg	12.2	40.7
50-32-8	Benzo(a)pyrene	U	40.7	ug/kg	12.2	40.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.7	ug/kg	12.2	40.7
53-70-3	Dibenzo(a,h)anthracene	U	40.7	ug/kg	12.2	40.7
191-24-2	Benzo(ghi)perylene	U	40.7	ug/kg	12.2	40.7
120-82-1	1,2,4-Trichlorobenzene	U	407	ug/kg	81.5	407

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.96	210	ug/kg		J
	Unknown Aldol Condensate	2.9	512	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842005	**Date Received:**	03/05/2010 10:20	**%Moisture:**	18.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13550	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	03/21/2010 00:16	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s6c2026.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.73	381	ug/kg		J
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	10.04	214	ug/kg	99	NJ
	Unknown	10.58	400	ug/kg		J
	Unknown	11.62	171	ug/kg		J
	Unknown	13.07	1300	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2026.d
Lab Smp Id: 248842005 Client Smp ID: RE46-10-13550
Inj Date : 21-MAR-2010 00:16
Operator : nagl Inst ID: MSD6.i
Smp Info : |248842005|965425|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 11o00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	18.43150	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.875	3.863	(1.000)	333447	40.0000	
* 29 Naphthalene-d8	136	4.739	4.734	(1.000)	1203738	40.0000	
* 46 Acenaphthene-d10	164	5.992	5.987	(1.000)	740431	40.0000	
* 67 Phenanthrene-d10	188	7.157	7.145	(1.000)	1279067	40.0000	
* 91 Chrysene-d12	240	9.557	9.551	(1.000)	1068114	40.0000	
* 98 Perylene-d12	264	11.192	11.174	(1.000)	741575	40.0000	
$ 3 2-Fluorophenol	112	3.063	3.046	(0.790)	284682	30.7117	1250
$ 5 Phenol-d5	99	3.587	3.575	(0.926)	366237	31.0678	1260(R)
$ 20 Nitrobenzene-d5	82	4.234	4.228	(0.893)	152899	13.2875	541(R)
$ 39 2-Fluorobiphenyl	172	5.481	5.475	(0.915)	314223	16.4486	670
$ 60 2,4,6-Tribromophenol	329	6.586	6.575	(1.099)	83153	40.0206	1630
$ 81 p-Terphenyl-d14	244	8.533	8.522	(0.893)	481106	25.8481	1050

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ION RATIO REPORT

SV REPORT

Data file: s6c2026.d
Report Date: 03/21/2010 08:21
Lab. ID: 248842005 SampleType: SAMPLE
Injection Date: 21-MAR-2010 00:16
Operator: nag1 Instrument: MSD6.i
Sample Info: |248842005|965425|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100319-01
Comment:
Method used: /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	16743	3.59	3.65	80-120	100	( )
93	323	3.55	3.65	387-447	2	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	22108	4.23	4.10	80-120	100	(T)
42	13045	4.23	4.10	40-100	59	(T)
22 Isophorone		CAS#: 78-59-1				
82	152899	4.23	4.39	80-120	100	(T)
138	6191	4.74	4.39	0- 49	4	(T)
40 2-Chloronaphthalene			CAS#: 91-58-7			
162	687288	5.99	5.58	80-120	100	(T)
164	740431	5.99	5.58	4- 64	108	(QT)
127	158	5.56	5.58	7- 67	0	(Q)
43 Dimethylphthalate			CAS#: 131-11-3			
163	132506	5.99	5.75	80-120	100	(T)
164	740431	5.99	5.75	0- 40	559	(QT)
45 Acenaphthylene			CAS#: 208-96-8			
152	16479	5.48	5.89	80-120	100	(T)
151	16525	5.48	5.89	0- 50	100	(QT)
153	5812	5.48	5.89	0- 44	35	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	99098	5.99	6.10	80-120	100	(T)
89	1392	5.99	6.10	39- 99	1	(QT)
63	1219	5.99	6.10	16- 76	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	258	6.58	6.40	80-120	100	(T)
105	599	6.58	6.40	9- 69	232	(QT)
51	551	6.58	6.40	36- 96	213	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2026.d
Lab Smp Id: 248842005 Client Smp ID: RE46-10-13550
Inj Date : 21-MAR-2010 00:16
Operator : nag1 Inst ID: MSD6.i
Smp Info : |248842005|965425|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	18.43150	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.875	2040026	40.000
* 91 Chrysene-d12	9.557	2772160	40.000
* 98 Perylene-d12	11.192	2064062	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	========	======
Unknown				CAS #:			
1.963	263313	5.16293796	210	0		0	10
Unknown Aldol Condensate				CAS #:			
2.898	640724	12.5630572	512	0		0	10
Unknown				CAS #:			
9.733	648395	9.35581312	381	0		0	91
1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa				CAS #: 807-28-3			
10.039	363532	5.24547532	214	99	NIST05.L	173479	91
Unknown				CAS #:			
10.580	506688	9.81924037	400	0		0	98
Unknown				CAS #:			
11.621	217093	4.20710081	171	0		0	98
Unknown				CAS #:			
13.068	1643348	31.8468566	1300	0		0	98

Data File: /chem/MSD6.i/s032010.b/s6c2026.d
Date : 21-MAR-2010 00:16
Client ID: RE46-10-13550
Sample Info: |2488420051965425|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

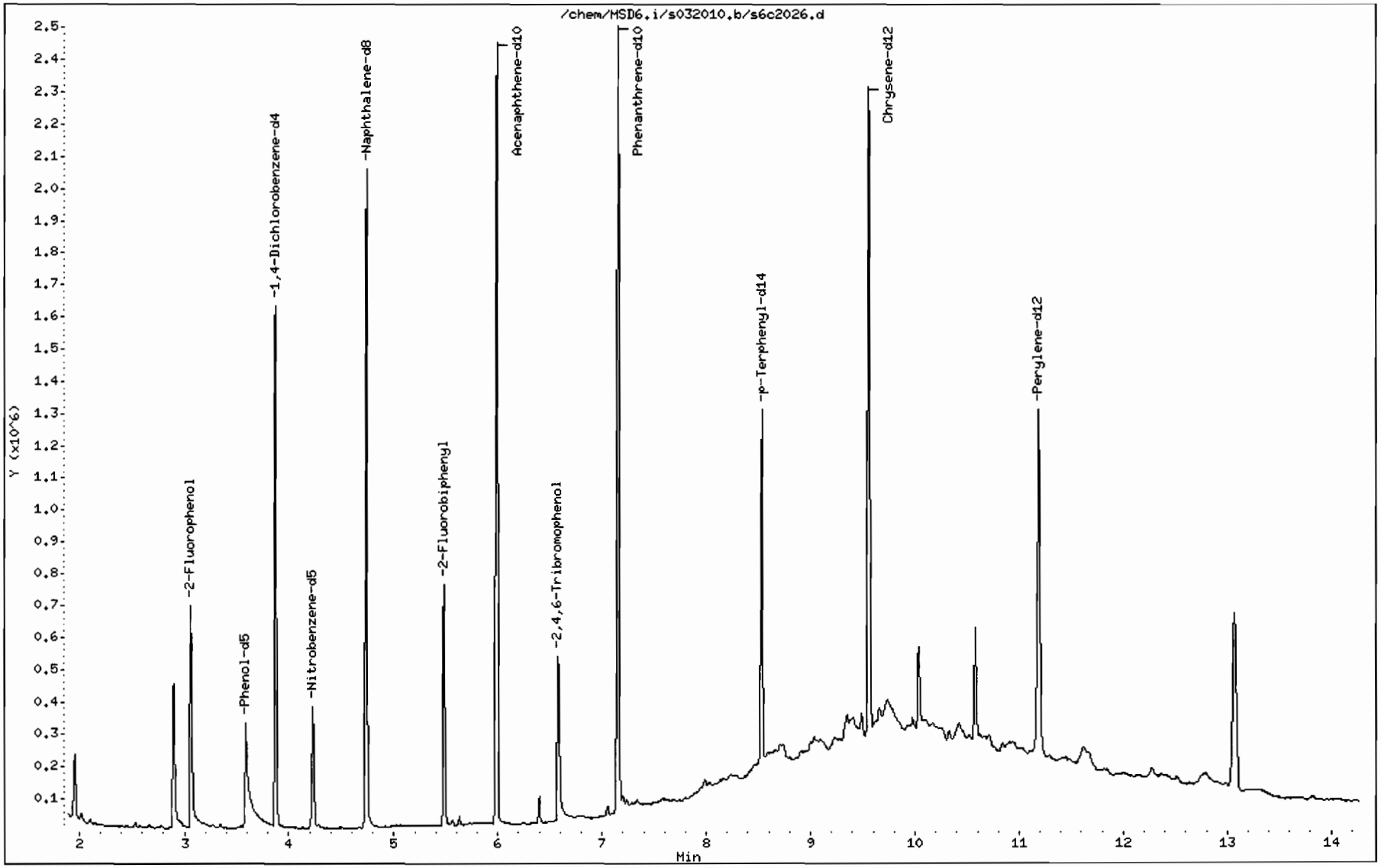

Data File: /chem/MSD6.i/s032010.b/s6c2026.d

Date : 21-MAR-2010 00:16

Client ID: RE46-10-13550

Instrument: MSD6.i

Sample Info: 1248842005196542511|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	38	C5H12O2	104
Ethane, 1,1,1-trimethoxy-	1445-45-0	NIST05.L	8968	17	C5H12O3	120
Propanoic acid, 2-methyl-, propyl ester	644-49-5	NIST05.L	13119	16	C7H14O2	130

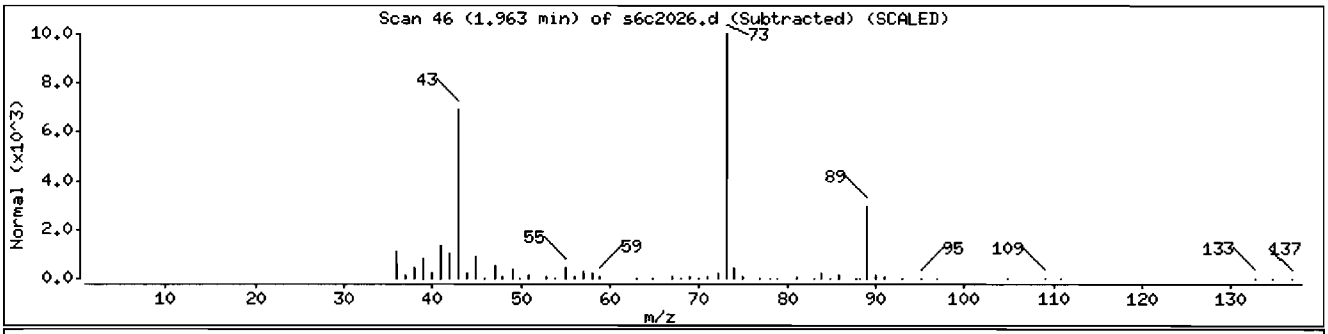

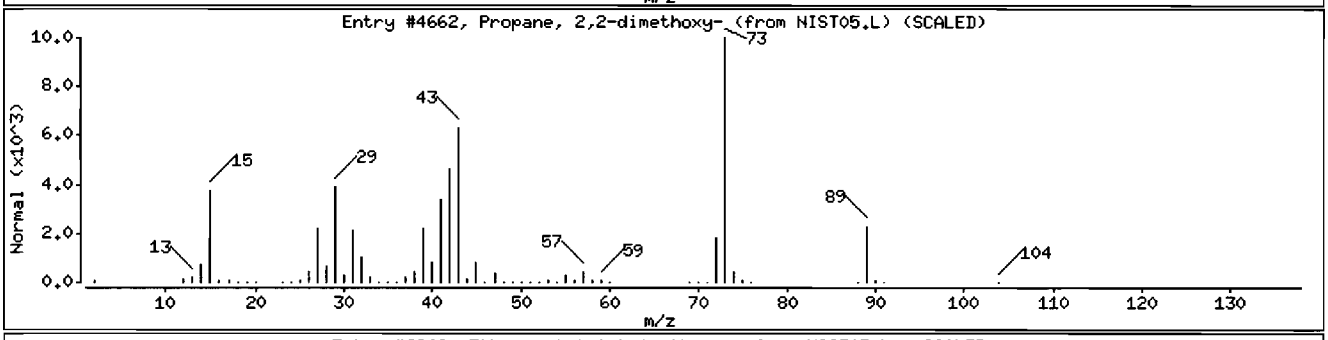

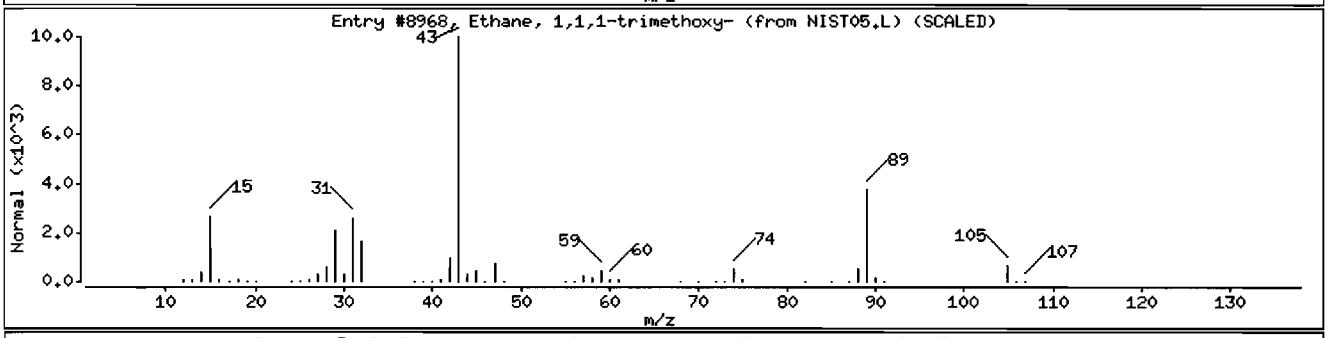

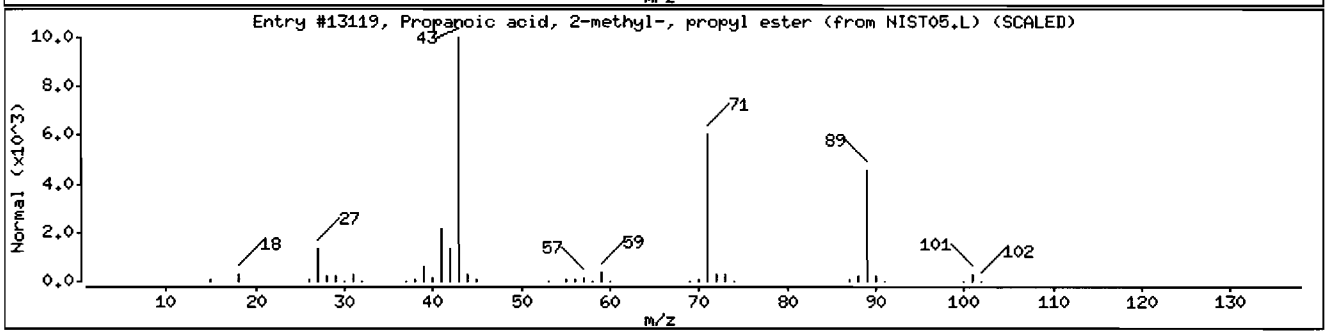

Data File: /chem/MSD6.i/s032010.b/s6c2026.d

Date : 21-MAR-2010 00:16

Client ID: RE46-10-13550

Instrument: MSD6.i

Sample Info: |2488420051965425111SVM11|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	45	C6H12O2	116

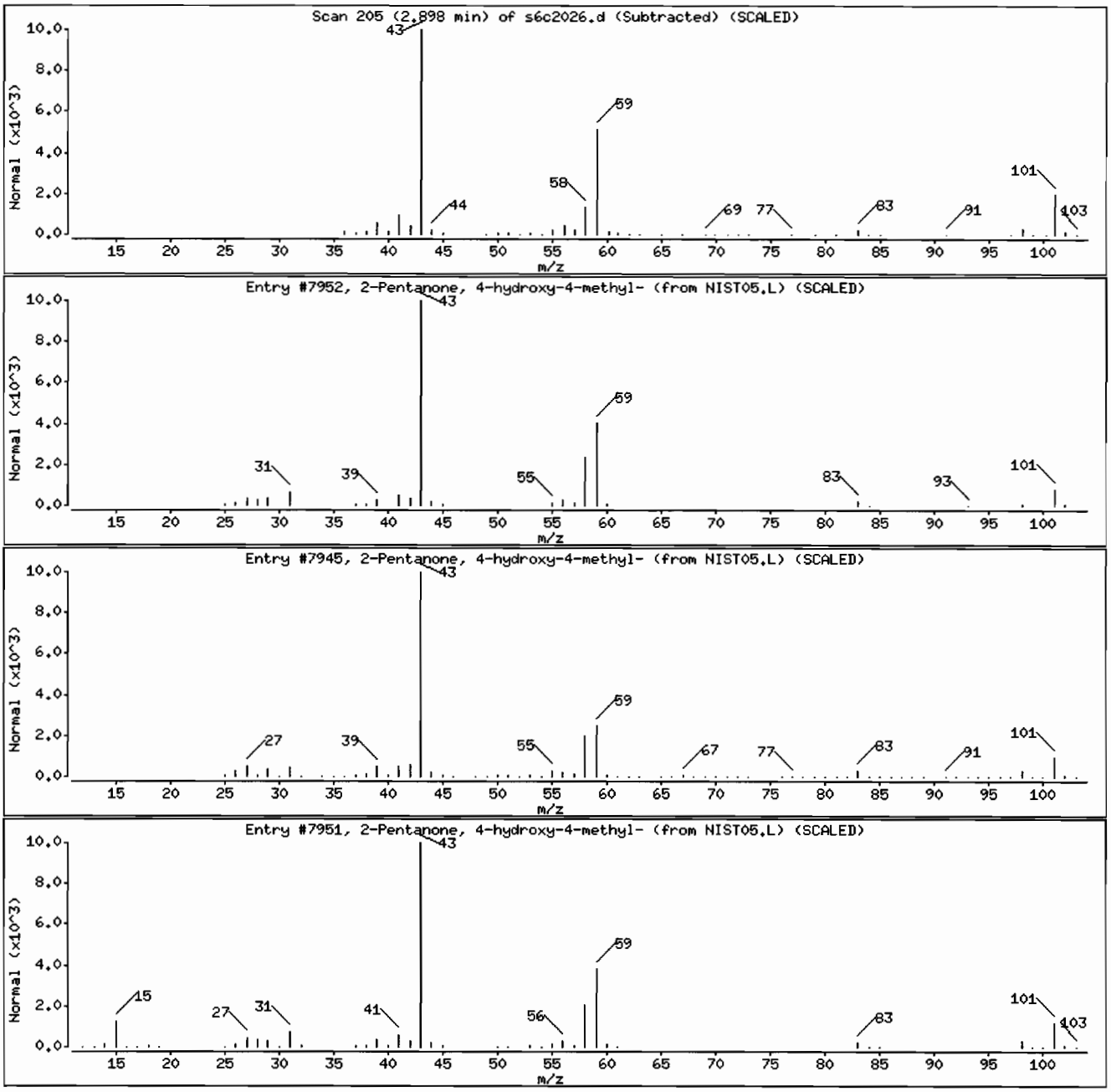

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Date : 21-MAR-2010 00:16

Client ID: RE46-10-13550

Instrument: MSD6.i

Sample Info: |2488420051965425|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Heneicosyl formate	77899-03-7	NIST05.L	147938	30	C22H4402	340
Spiro[4.5]decan-7-one, 1,8-dimethyl-8,9-	61050-91-7	NIST05.L	82504	25	C15H2402	236
Oleic Acid	112-80-1	NIST05.L	113353	25	C18H3402	282

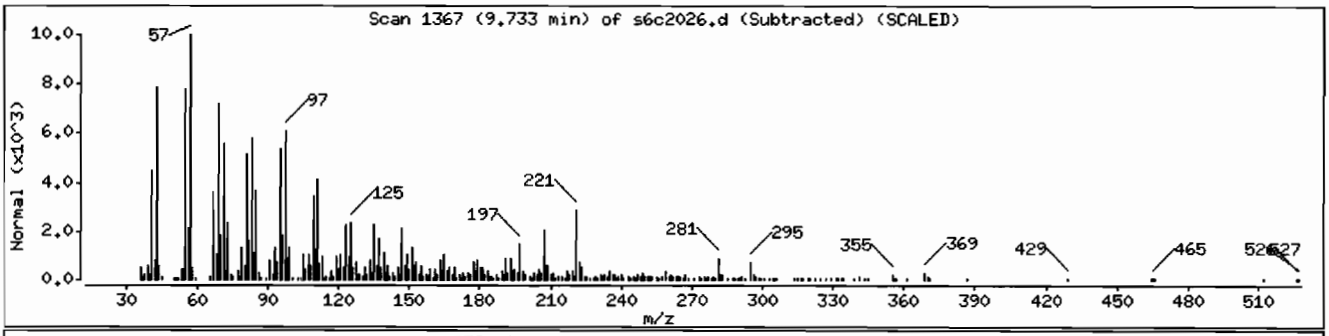

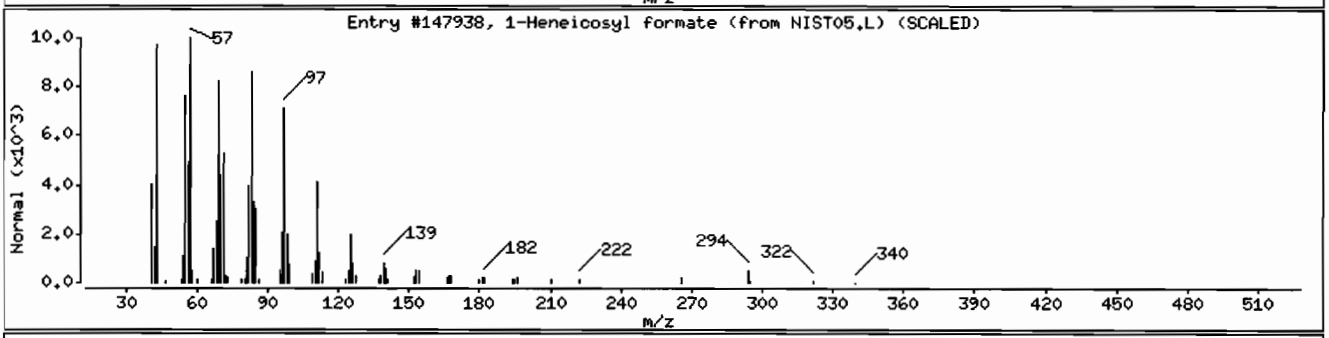

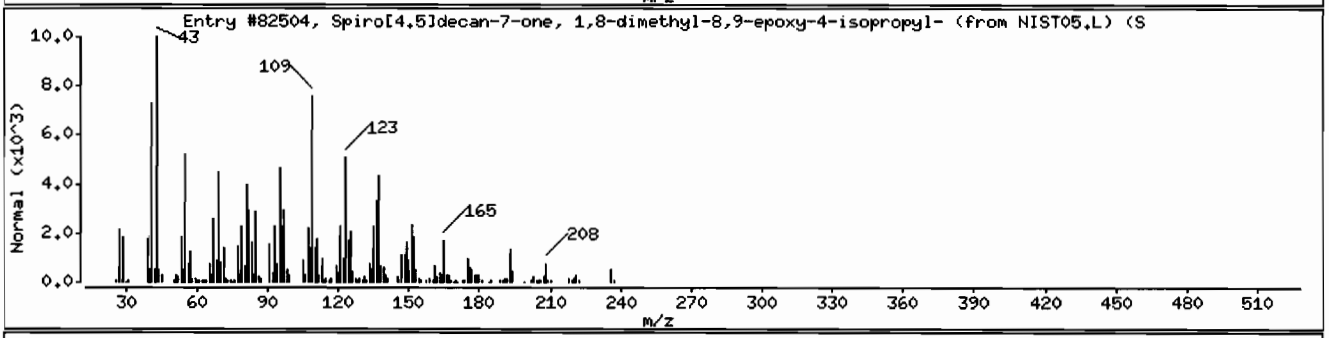

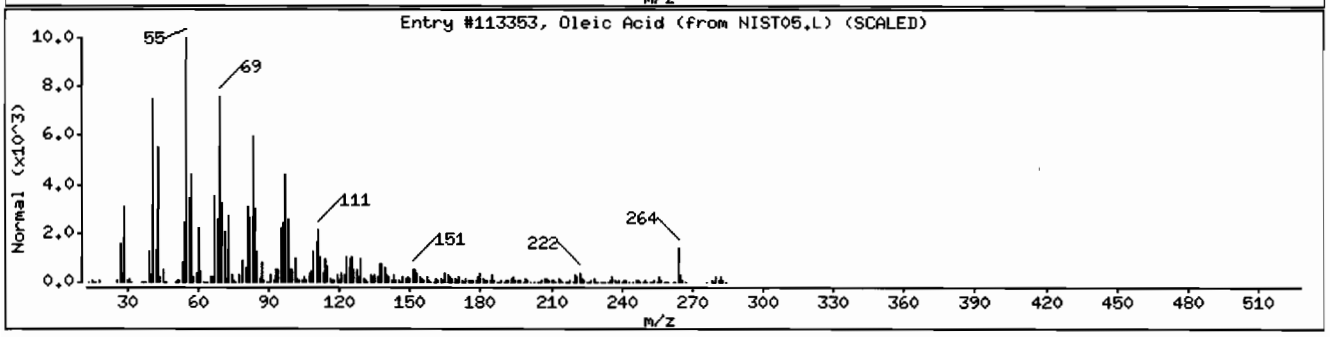

Data File: /chem/MSD6.i/s032010.b/s6c2026.d

Date : 21-MAR-2010 00:16

Client ID: RE46-10-13550 Instrument: MSD6.i

Sample Info: |2488842005|965425|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	807-28-3	NIST05.L	173479	99	C26H26OSi2	410
1,3-Diphenyl-1,3-dimethyl-1,3-disila-2-o	1000078-51-7	NIST05.L	143636	87	C20H20OSi2	332
Crinan,3,7-dimethoxy-,(3.alpha.)-	105232-32-4	NIST05.L	135134	59	C18H23NO4	317

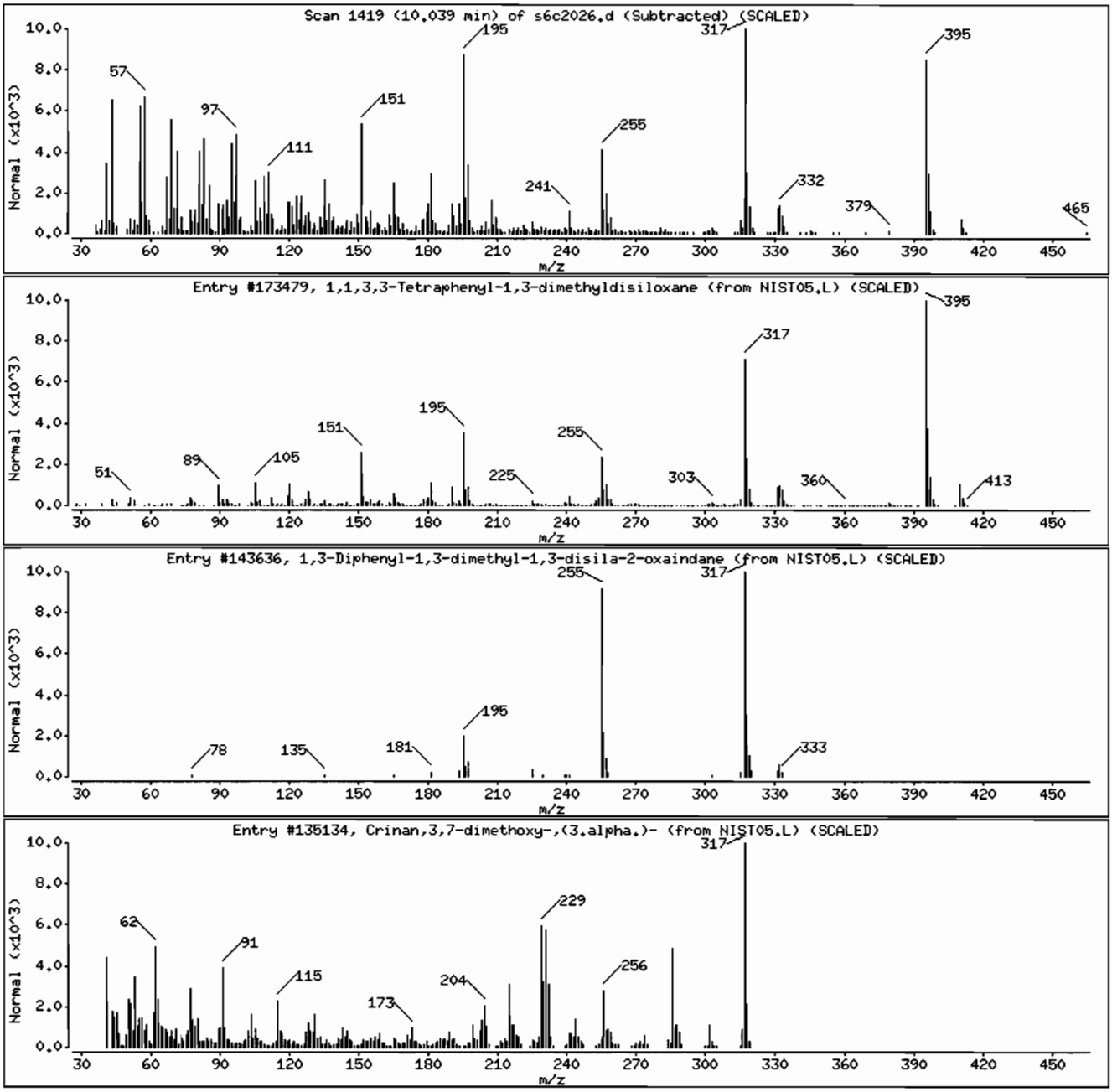

Data File: /chem/MSD6.i/s032010.b/s6c2026.d

Date : 21-MAR-2010 00:16

Client ID: RE46-10-13550 Instrument: MSD6.i

Sample Info: 1248842005|965425|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4-Hydrazono-5-hydroxyimino-4,5,6,7-tetra	303194-86-7	NIST05.L	55129	25	C6H7N5O3	197
p,p'-Ditolylamine	620-93-9	NIST05.L	55093	25	C14H15N	197
Bicyclo[3.2.0]heptan-2-one, 5-(ethoxycar	1000153-17-5	NIST05.L	113075	11	C15H22O5	282

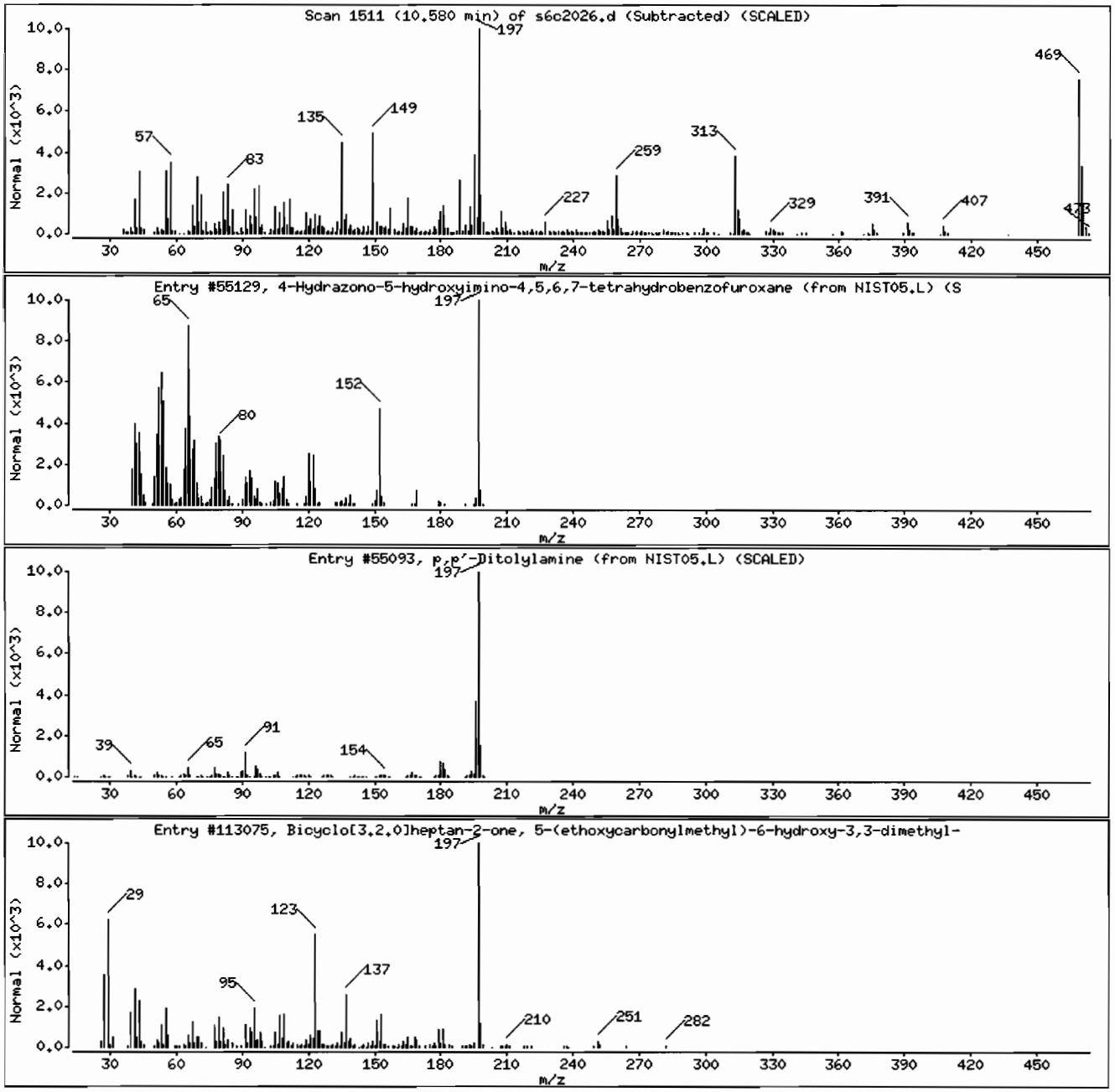

Data File: /chem/MSD6.i/s032010.b/s6c2026.d

Date : 21-MAR-2010 00:16

Client ID: RE46-10-13550 Instrument: MSD6.i

Sample Info: |2488420051965425|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3-Methyl-4-(methoxycarbonyl)hexa-2,4-die	1000104-10-8	NIST05.L	46507	38	C9H1204	184
6-Hydroxy-7-methyl-oct-3-enedithioic aci	83041-08-1	NIST05.L	88946	38	C12H22OS2	246
1-Bromo-11-iodoundecane	139123-69-6	NIST05.L	156814	38	C11H22BrI	360

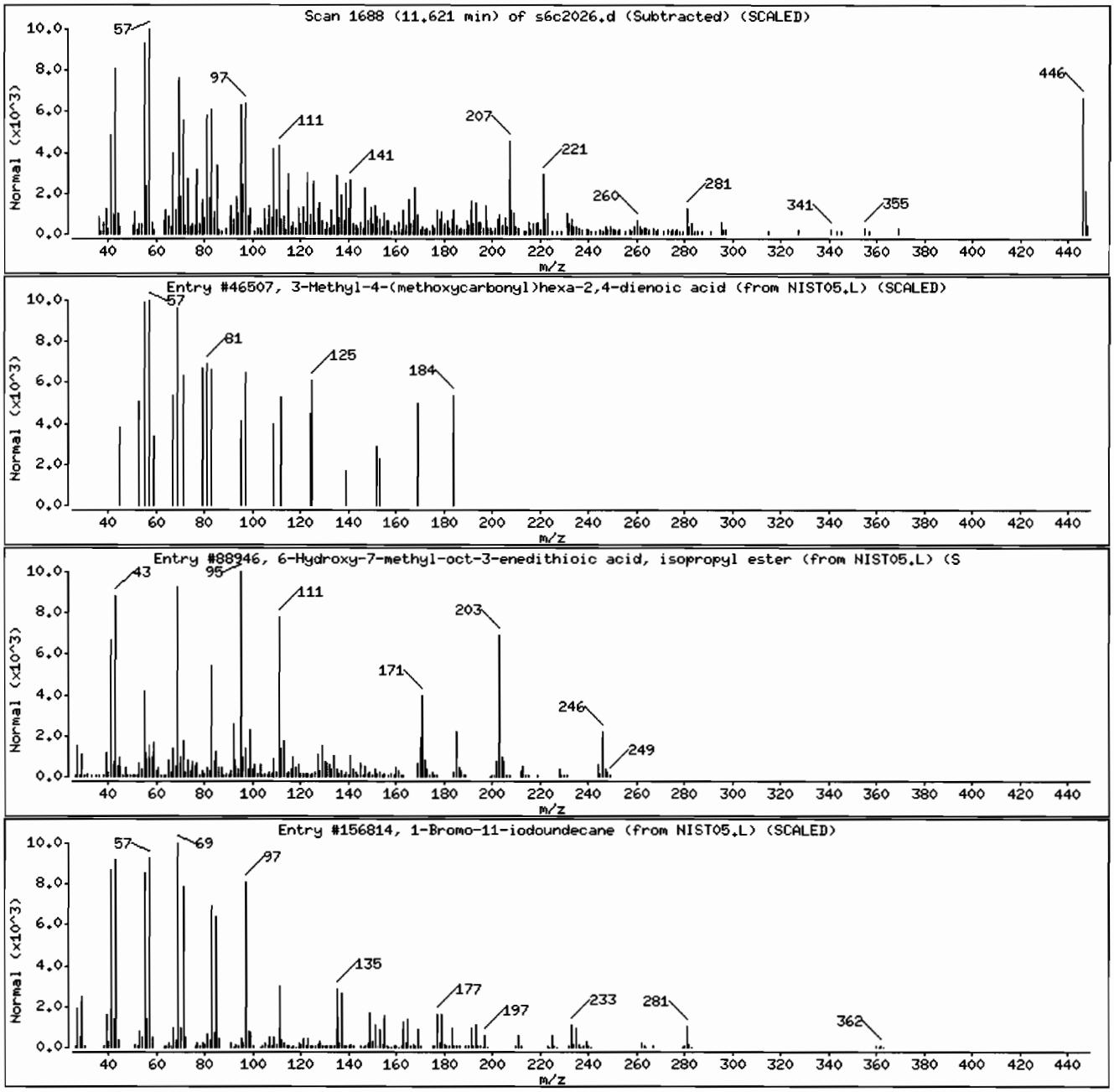

Data File: /chem/MSD6.i/s032010.b/s6c2026.d

Date : 21-MAR-2010 00:16

Client ID: RE46-10-13550

Instrument: MSD6.i

Sample Info: 1248842005|965425|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p	3390-61-2	NIST05.L	186812	74	C33H3402Si3	546
Proline, 3-methyl-1-(trifluoroacetyl)-,	57983-48-9	NIST05.L	112275	44	C12H18F3NO3	281
2H-1,3-Benzoxazine, 4-chloro-2,2-dimethy	74405-07-5	NIST05.L	53373	22	C10H10ClNO	195

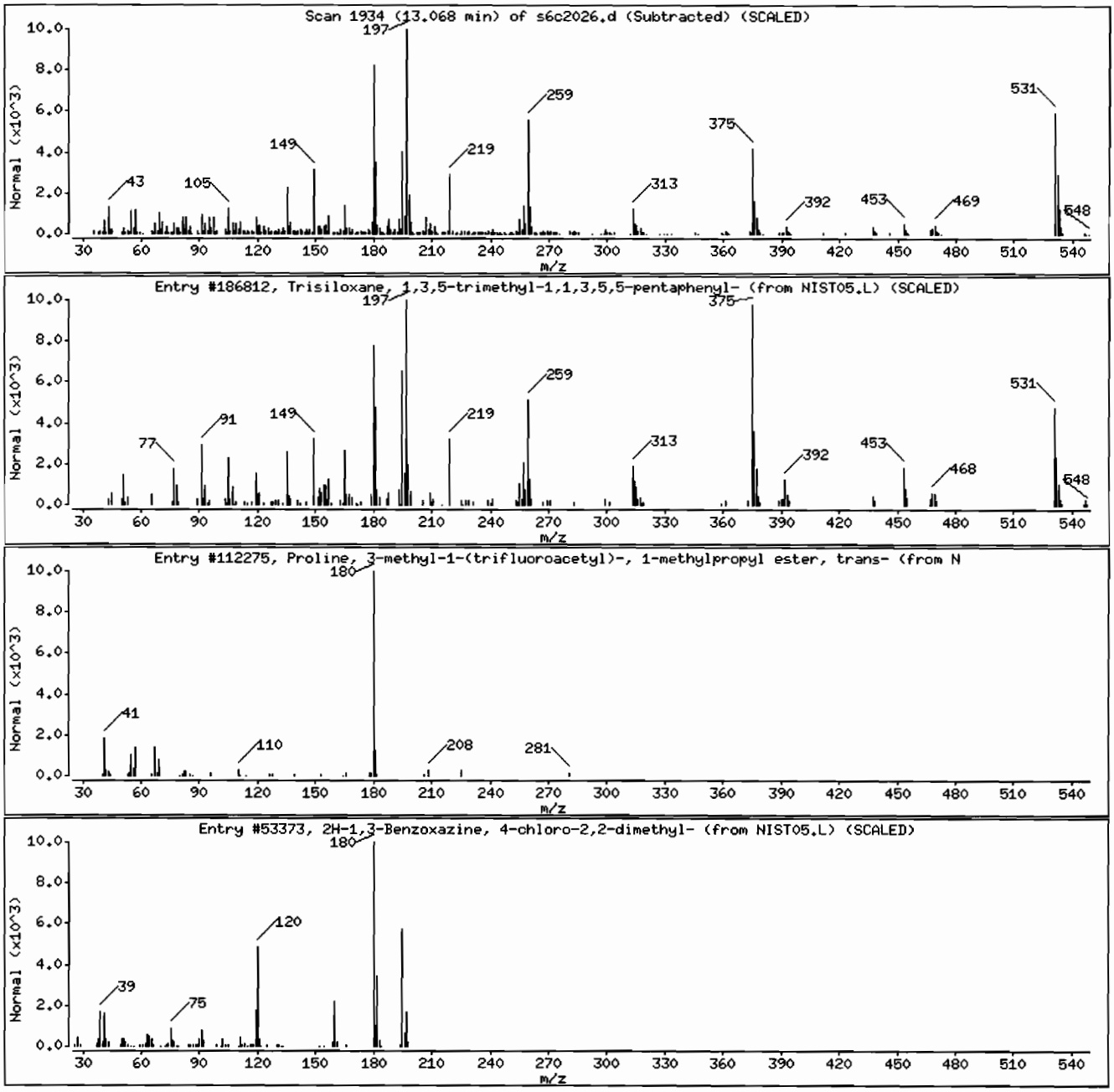

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13551**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 21:08**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2318.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	4200	ug/kg	840	4200
108-95-2	Phenol	U	4200	ug/kg	840	4200
95-57-8	2-Chlorophenol	U	4200	ug/kg	840	4200
106-46-7	1,4-Dichlorobenzene	U	4200	ug/kg	840	4200
621-64-7	N-Nitrosodipropylamine	U	4200	ug/kg	840	4200
59-50-7	4-Chloro-3-methylphenol	U	4200	ug/kg	840	4200
83-32-9	Acenaphthene	U	420	ug/kg	139	420
121-14-2	2,4-Dinitrotoluene	U	4200	ug/kg	420	4200
100-02-7	4-Nitrophenol	U	4200	ug/kg	1390	4200
87-86-5	Pentachlorophenol	U	4200	ug/kg	1050	4200
129-00-0	Pyrene	U	420	ug/kg	126	420
110-86-1	Pyridine	U	4200	ug/kg	840	4200
62-53-3	Aniline	U	4200	ug/kg	1260	4200
111-44-4	bis(2-Chloroethyl) ether	U	4200	ug/kg	840	4200
541-73-1	1,3-Dichlorobenzene	U	4200	ug/kg	840	4200
100-51-6	Benzyl alcohol	U	4200	ug/kg	1260	4200
95-50-1	1,2-Dichlorobenzene	U	4200	ug/kg	840	4200
108-60-1	bis(2-Chloroisopropyl)ether	U	4200	ug/kg	840	4200
95-48-7	o-Cresol	U	4200	ug/kg	840	4200
65794-96-9	m,p-Cresols	U	4200	ug/kg	1260	4200
67-72-1	Hexachloroethane	U	4200	ug/kg	840	4200
98-95-3	Nitrobenzene	U	4200	ug/kg	840	4200
78-59-1	Isophorone	U	4200	ug/kg	840	4200
88-75-5	2-Nitrophenol	U	4200	ug/kg	840	4200
105-67-9	2,4-Dimethylphenol	U	4200	ug/kg	1470	4200
111-91-1	bis(2-Chloroethoxy)methane	U	4200	ug/kg	840	4200
120-83-2	2,4-Dichlorophenol	U	4200	ug/kg	840	4200
65-85-0	Benzoic acid	U	8400	ug/kg	2100	8400
91-20-3	Naphthalene	U	420	ug/kg	126	420
106-47-8	4-Chloroaniline	U	4200	ug/kg	840	4200
87-68-3	Hexachlorobutadiene	U	4200	ug/kg	840	4200
91-57-6	2-Methylnaphthalene		743	ug/kg	84.0	420
77-47-4	Hexachlorocyclopentadiene	U	4200	ug/kg	840	4200
88-06-2	2,4,6-Trichlorophenol	U	4200	ug/kg	840	4200
95-95-4	2,4,5-Trichlorophenol	U	4200	ug/kg	840	4200
91-58-7	2-Chloronaphthalene	U	420	ug/kg	139	420
88-74-4	2-Nitroaniline	U	4200	ug/kg	840	4200
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	4200	ug/kg	840	4200

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13551**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 21:08**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2318.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	4200	ug/kg	840	4200
606-20-2	2,6-Dinitrotoluene	U	4200	ug/kg	420	4200
208-96-8	Acenaphthylene	U	420	ug/kg	126	420
51-28-5	2,4-Dinitrophenol	U	8400	ug/kg	1600	8400
132-64-9	Dibenzofuran	U	4200	ug/kg	840	4200
84-66-2	Diethylphthalate	U	4200	ug/kg	840	4200
86-73-7	Fluorene	U	420	ug/kg	126	420
7005-72-3	4-Chlorophenylphenylether	U	4200	ug/kg	840	4200
534-52-1	2-Methyl-4,6-dinitrophenol	U	4200	ug/kg	840	4200
100-01-6	4-Nitroaniline	U	4200	ug/kg	1260	4200
	p-Nitroaniline					
122-39-4	Diphenylamine	U	4200	ug/kg	840	4200
122-66-7	Azobenzene	U	4200	ug/kg	840	4200
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	4200	ug/kg	840	4200
118-74-1	Hexachlorobenzene	U	4200	ug/kg	840	4200
85-01-8	Phenanthrene	U	420	ug/kg	126	420
120-12-7	Anthracene	U	420	ug/kg	84.0	420
84-74-2	Di-n-butylphthalate	U	4200	ug/kg	840	4200
206-44-0	Fluoranthene	U	420	ug/kg	126	420
85-68-7	Butylbenzylphthalate	U	4200	ug/kg	840	4200
56-55-3	Benzo(a)anthracene	U	420	ug/kg	126	420
91-94-1	3,3'-Dichlorobenzidine	U	4200	ug/kg	1260	4200
218-01-9	Chrysene	U	420	ug/kg	126	420
117-81-7	bis(2-Ethylhexyl)phthalate		12800	ug/kg	840	4200
117-84-0	Di-n-octylphthalate	U	4200	ug/kg	840	4200
205-99-2	Benzo(b)fluoranthene	U	420	ug/kg	126	420
207-08-9	Benzo(k)fluoranthene	U	420	ug/kg	126	420
50-32-8	Benzo(a)pyrene	U	420	ug/kg	126	420
193-39-5	Indeno(1,2,3-cd)pyrene	U	420	ug/kg	126	420
53-70-3	Dibenzo(a,h)anthracene	U	420	ug/kg	126	420
191-24-2	Benzo(ghi)perylene	U	420	ug/kg	126	420
120-82-1	1,2,4-Trichlorobenzene	U	4200	ug/kg	840	4200

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.53	2500	ug/kg		J
112-40-3	Dodecane	4.75	5650	ug/kg	96	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842004	**Date Received:**	03/05/2010 10:20	**%Moisture:**	20.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13551	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	10
Run Date:	03/23/2010 21:08	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s6c2318.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.98	3580	ug/kg		J
61141-72-8	Dodecane, 4,6-dimethyl-	5.05	4540	ug/kg	91	NJ
629-50-5	Tridecane	5.17	8040	ug/kg	95	NJ
90-12-0	Naphthalene, 1-methyl-	5.38	2330	ug/kg	92	NJ
1560-96-9	Tridecane, 2-methyl-	5.43	2530	ug/kg	83	NJ
3891-98-3	Dodecane, 2,6,10-trimethyl-	5.48	3040	ug/kg	91	NJ
581-42-0	Naphthalene, 2,6-dimethyl-	5.76	3270	ug/kg	95	NJ
	Unknown	9.83	3300	ug/kg		J
	Unknown	9.9	2600	ug/kg		J
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	10.12	5890	ug/kg	99	NJ
	Unknown	10.16	3090	ug/kg		J
	Unknown	10.26	3710	ug/kg		J
	Unknown	10.49	3640	ug/kg		J
	Unknown	10.55	2650	ug/kg		J
	Unknown	10.62	2200	ug/kg		J
	Unknown	10.73	2060	ug/kg		J
	Unknown	10.79	2100	ug/kg		J
	Unknown	10.82	2050	ug/kg		J
	Unknown	10.85	3550	ug/kg		J
	Unknown	10.95	3490	ug/kg		J
	Unknown	11.11	4110	ug/kg		J
	Unknown	11.24	2970	ug/kg		J
	Unknown	11.42	2150	ug/kg		J
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	11.46	3590	ug/kg	83	NJ
	Unknown	11.67	2760	ug/kg		J
	Unknown	12.15	2170	ug/kg		J
	Unknown	13.27	36500	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032310.b/s6c2318.d
Lab Smp Id: 248842004 Client Smp ID: RE46-10-13551
Inj Date : 23-MAR-2010 21:08
Operator : nagl Inst ID: MSD6.i
Smp Info : |248842004|965425|10|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 09:23 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 13
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	20.70090	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.952	3.946	(1.000)	331958	40.0000	
* 29 Naphthalene-d8	136	4.816	4.804	(1.000)	1151471	40.0000	
* 46 Acenaphthene-d10	164	6.069	6.057	(1.000)	724043	40.0000	
* 67 Phenanthrene-d10	188	7.234	7.228	(1.000)	1211870	40.0000	
* 91 Chrysene-d12	240	9.639	9.628	(1.000)	1075131	40.0000	
* 98 Perylene-d12	264	11.322	11.298	(1.000)	950239	40.0000	
$ 3 2-Fluorophenol	112	3.140	3.128	(0.795)	55237	5.98574	2510
$ 5 Phenol-d5	99	3.657	3.657	(0.926)	75982	6.47444	2720
$ 20 Nitrobenzene-d5	82	4.310	4.304	(0.895)	32549	2.95703	1240
$ 39 2-Fluorobiphenyl	172	5.551	5.546	(0.915)	78914	4.22441	1770
$ 60 2,4,6-Tribromophenol	329	6.663	6.651	(1.098)	14899	7.33303	3080
$ 81 p-Terphenyl-d14	244	8.610	8.604	(0.893)	91373	4.87710	2050

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
34 2-Methylnaphthalene	142	5.310	5.304	(1.103)	30853	1.76965	743
93 bis(2-Ethylhexyl)phthalate	149	9.563	9.551	(0.992)	646698	30.5101	12800

ION RATIO REPORT

SV REPORT

Data file: s6c2318.d
Report Date: 03/24/2010 09:26
Lab. ID: 248842004 SampleType: SAMPLE
Injection Date: 23-MAR-2010 21:08
Operator: nagl Instrument: MSD6.i
Sample Info: |248842004|965425|10|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100319-01
Comment:
Method used: /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m
Dilution Factor= 10.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	25189	4.29	4.18	80-120	100	(T)
42	19959	4.29	4.18	40-100	79	(T)
22 Isophorone				CAS#: 78-59-1		
82	50607	4.82	4.47	80-120	100	(T)
138	7014	4.82	4.47	0- 48	14	(T)
34 2-Methylnaphthalene				CAS#: 91-57-6		
142	30853	5.31	5.30	80-120	100	( )
141	26054	5.31	5.30	55-115	84	( )
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	675034	6.07	5.66	80-120	100	(T)
164	723517	6.07	5.66	3- 63	107	(QT)
127	3962	5.95	5.66	7- 67	1	(QT)
42 o-Nitroaniline				CAS#: 88-74-4		
65	280622	5.71	5.71	80-120	100	( )
92	15993	5.71	5.71	38- 98	6	(Q)
138	4306	5.71	5.71	81-141	2	(Q)
43 Dimethylphthalate				CAS#: 131-11-3		
163	132315	6.07	5.82	80-120	100	(T)
164	723600	6.07	5.82	0- 41	547	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	5796	5.82	5.87	80-120	100	( )
63	5647	5.82	5.87	43-103	97	( )
45 Acenaphthylene				CAS#: 208-96-8		
152	10221	5.82	5.96	80-120	100	(T)
151	3440	5.81	5.96	0- 50	34	(T)
153	11387	5.82	5.96	0- 44	111	(QT)
47 Acenaphthene				CAS#: 83-32-9		
154	2707053	5.64	6.08	80-120	100	(T)
153	1137288	5.64	6.08	70-130	42	(QT)
152	768263	5.64	6.08	17- 77	28	(T)
48 2,4-Dinitrophenol				CAS#: 51-28-5		
184	193	5.93	6.07	80-120	100	(T)
154	4494	5.95	6.07	843-903	2324	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	98979	6.07	6.17	80-120	100	(T)
89	1603	6.07	6.17	38- 98	2	(QT)
63	1445	6.07	6.17	18- 78	1	(QT)
52 4-Nitrophenol				CAS#: 100-02-7		
139	108444	5.71	6.09	80-120	100	(T)
109	2159	5.70	6.09	36- 96	2	(QT)
65	279278	5.71	6.09	69-129	258	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	230	6.66	6.48	80-120	100	(T)
105	1125	6.59	6.48	10- 70	489	(QT)
51	364	6.66	6.48	27- 87	158	(QT)
93 bis(2-Ethylhexyl)phthalate				CAS#: 117-81-7		
149	646698	9.56	9.55	80-120	100	( )
167	205397	9.56	9.55	4- 64	32	( )
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	8947	10.69	10.79	80-120	100	(T)
253	7307	10.69	10.79	0- 52	82	(QT)
125	2010	10.67	10.79	0- 40	22	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032310.b/s6c2318.d
Lab Smp Id: 248842004 Client Smp ID: RE46-10-13551
Inj Date : 23-MAR-2010 21:08
Operator : nag1 Inst ID: MSD6.i
Smp Info : |248842004|965425|10|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 09:23 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 13
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	20.70090	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 29 Naphthalene-d8	4.816	3744000	40.000
* 46 Acenaphthene-d10	6.069	3079648	40.000
* 91 Chrysene-d12	9.639	3140408	40.000
* 98 Perylene-d12	11.322	3618690	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
4.534	557171	5.95268359	2500	0		0	29
Dodecane				CAS #: 112-40-3			
4.746	1258657	13.4471851	5650	96	NIST05.L	36431	29
Unknown				CAS #:			
4.981	796701	8.51175558	3580	0		0	29
Dodecane, 4,6-dimethyl-				CAS #: 61141-72-8			
5.051	1011576	10.8074279	4540	91	NIST05.L	55993	29
Tridecane				CAS #: 629-50-5			
5.169	1790798	19.1324491	8040	95	NIST05.L	46086	29
Naphthalene, 1-methyl-				CAS #: 90-12-0			
5.381	518771	5.54241922	2330	92	NIST05.L	18566	29
Tridecane, 2-methyl-				CAS #: 1560-96-9			
5.428	562980	6.01473697	2530	83	NIST05.L	55988	29
Dodecane, 2,6,10-trimethyl-				CAS #: 3891-98-3			
5.481	556780	7.23173737	3040	91	NIST05.L	66082	46
Naphthalene, 2,6-dimethyl-				CAS #: 581-42-0			
5.757	598512	7.77376322	3260	95	NIST05.L	27302	46
Unknown				CAS #:			
9.834	616102	7.84741592	3300	0		0	91
Unknown				CAS #:			
9.898	486538	6.19713075	2600	0		0	91
1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa				CAS #: 807-28-3			
10.122	1101374	14.0284180	5890	99	NIST05.L	173479	91
Unknown				CAS #:			
10.163	577461	7.35523817	3090	0		0	91
Unknown				CAS #:			
10.263	693220	8.82968463	3710	0		0	91
Unknown				CAS #:			
10.486	783987	8.66597912	3640	0		0	98

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
10.545	569951	6.30008086	2650	0		0	98
Unknown				CAS #:			
10.622	473054	5.22900269	2200	0		0	98
Unknown				CAS #:			
10.728	444204	4.91011251	2060	0		0	98
Unknown				CAS #:			
10.786	452310	4.99970840	2100	0		0	98
Unknown				CAS #:			
10.816	440819	4.87268877	2050	0		0	98
Unknown				CAS #:			
10.845	763826	8.44312032	3550	0		0	98
Unknown				CAS #:			
10.951	750644	8.29740552	3480	0		0	98
Unknown				CAS #:			
11.110	884867	9.78106959	4110	0		0	98
Unknown				CAS #:			
11.239	639758	7.07171105	2970	0		0	98
Unknown				CAS #:			
11.416	463915	5.12798923	2150	0		0	98
D-Homoandrostane, (5.alpha.,13.alpha.)-				CAS #: 54482-31-4			
11.463	772329	8.53710946	3590	83	NIST05.L	108369	98
Unknown				CAS #:			
11.675	594722	6.57389496	2760	0		0	98
Unknown				CAS #:			
12.151	468248	5.17588152	2170	0		0	98
Unknown				CAS #:			
13.274	7864854	86.9359099	36500	0		0	98

Data File: /chem/MSD6.i/s032310.b/s6o2318.d
Date : 23-MAR-2010 21:08
Client ID: RE46-10-13551
Sample Info: 1248842004|965425|10|SVM11|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

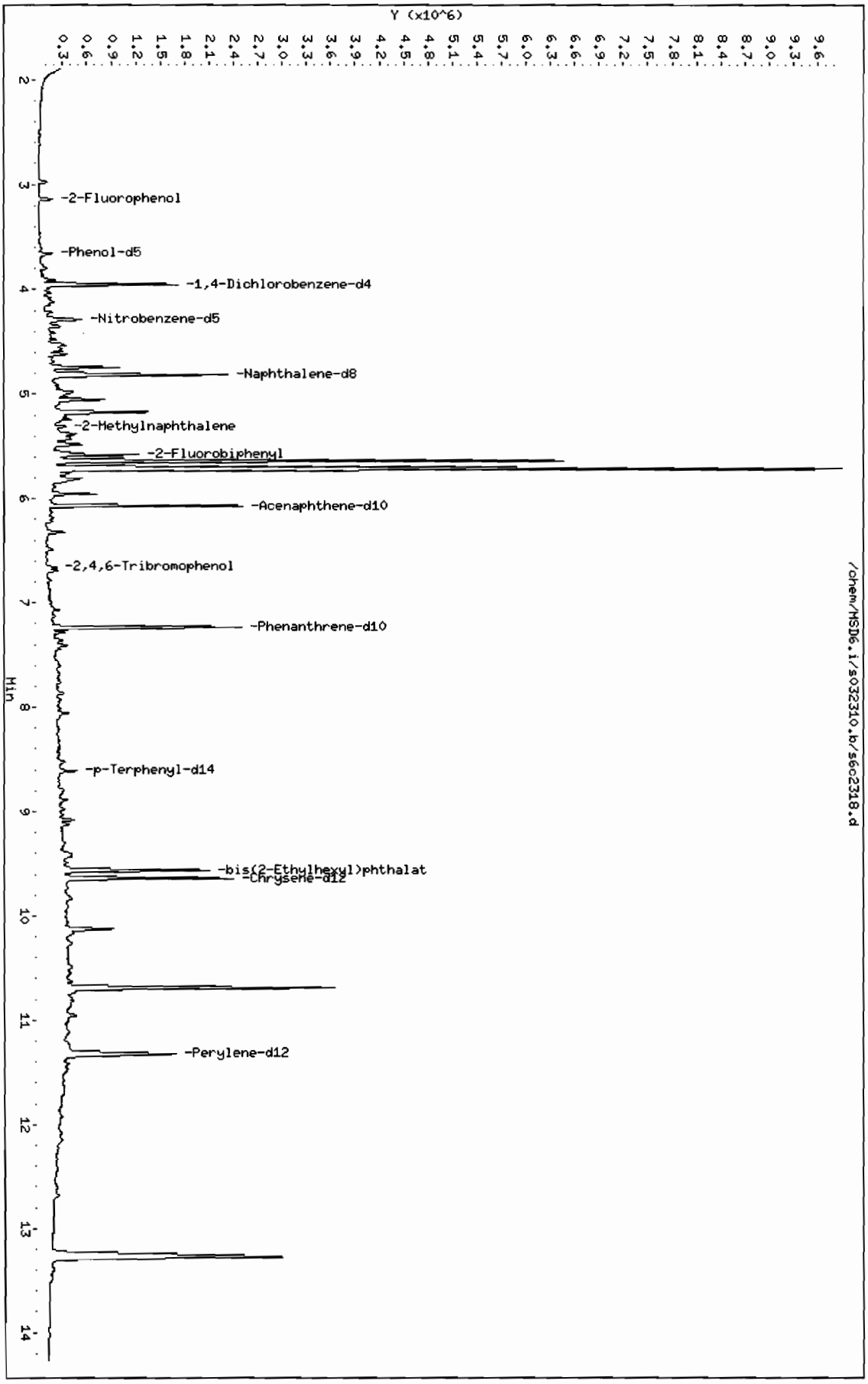

/chem/MSD6.i/s032310.b/s6o2318.d

Page 1

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551

Instrument: MSD6.i

Sample Info: 1248842004|965425|10|SVH|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 743 ug/Kg

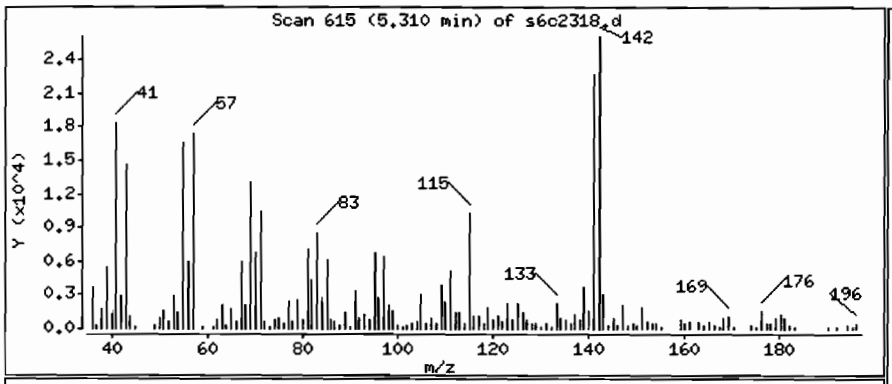

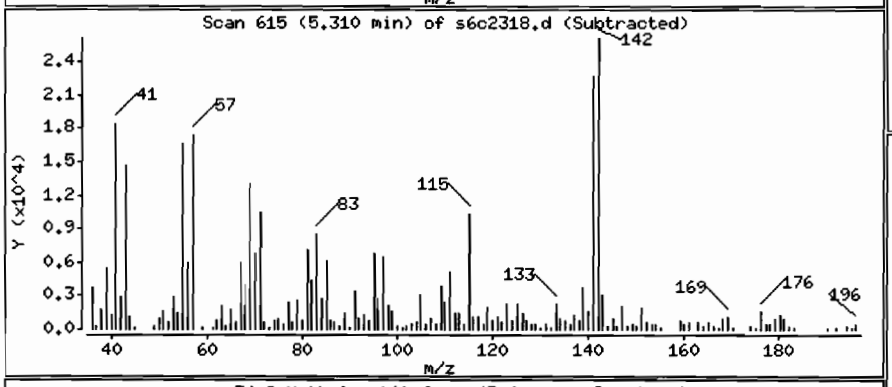

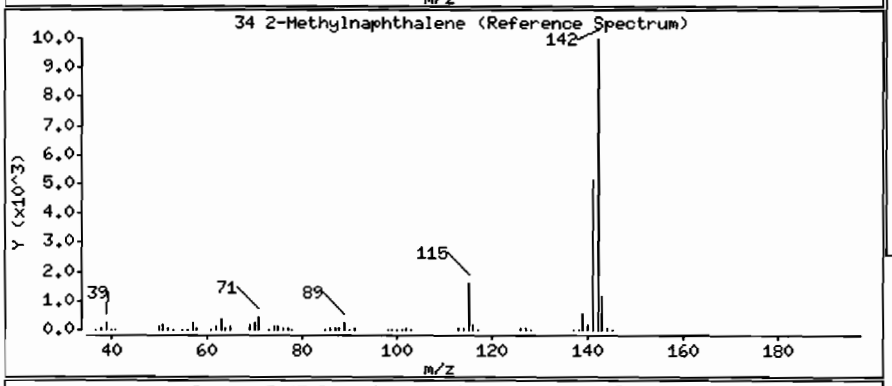

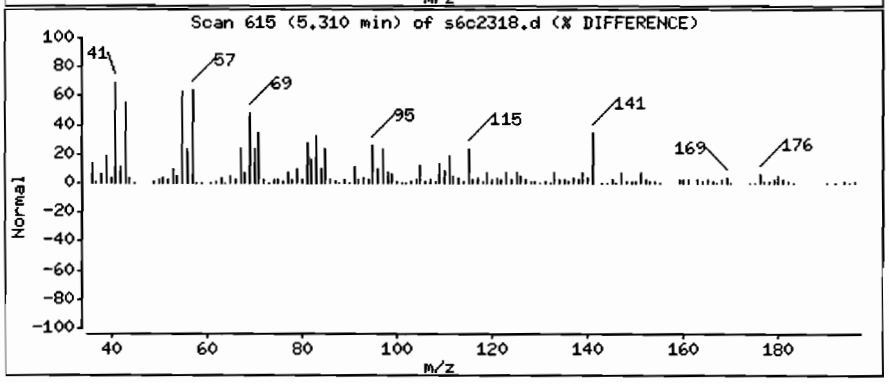

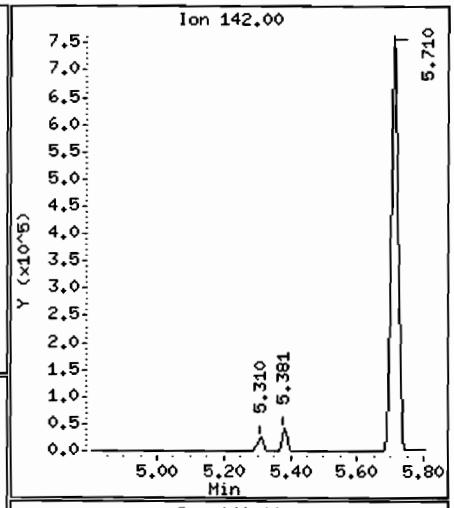

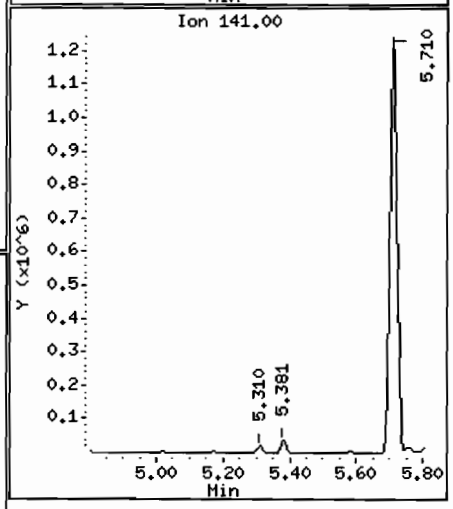

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551

Instrument: MSD6.i

Sample Info: 1248842004|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 12800 ug/Kg

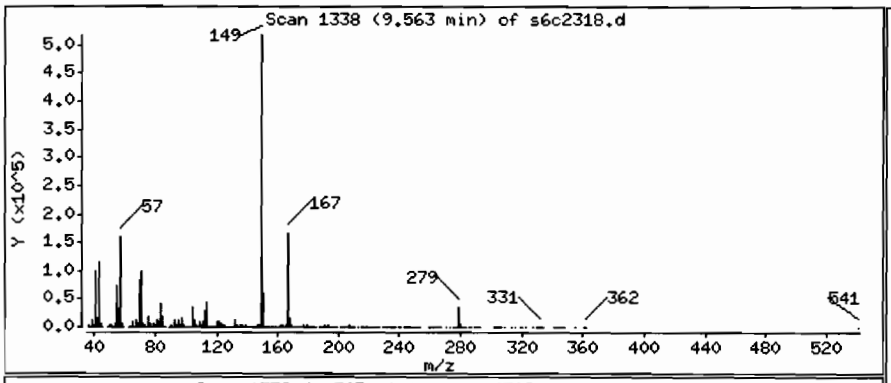

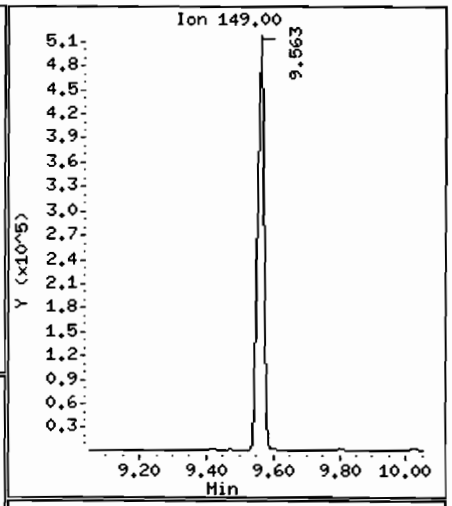

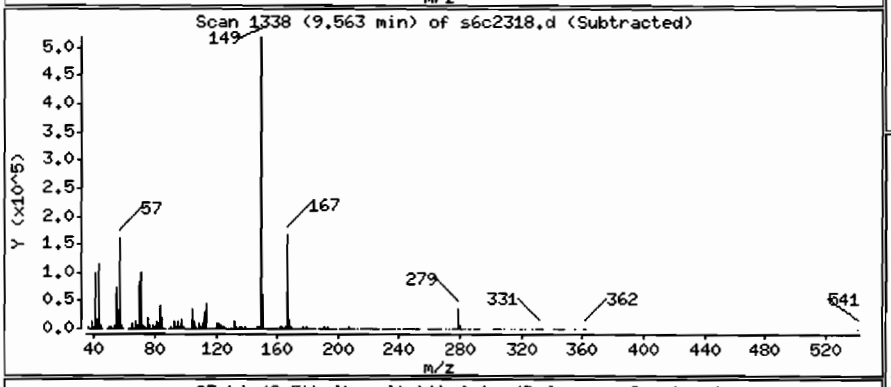

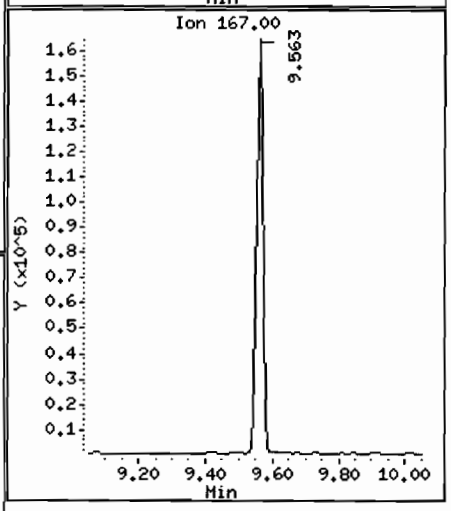

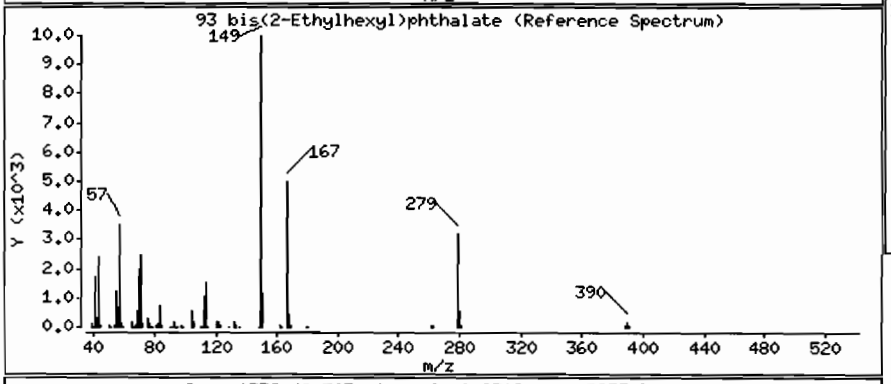

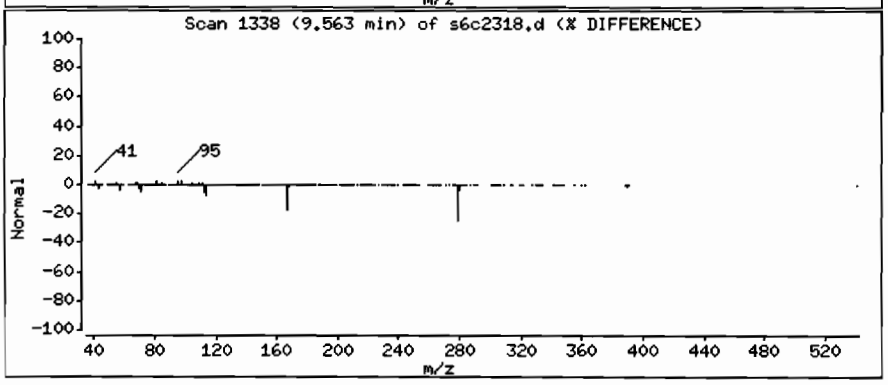

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: 1248842004|965425|10|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Undecane, 5-methyl-	1632-70-8	NIST05.L	36445	43	C12H26	170
Decane, 1,1'-oxybis-	2456-28-2	NIST05.L	123794	43	C20H420	298
Tetradecane, 2,5-dimethyl-	56292-69-4	NIST05.L	76111	43	C16H34	226

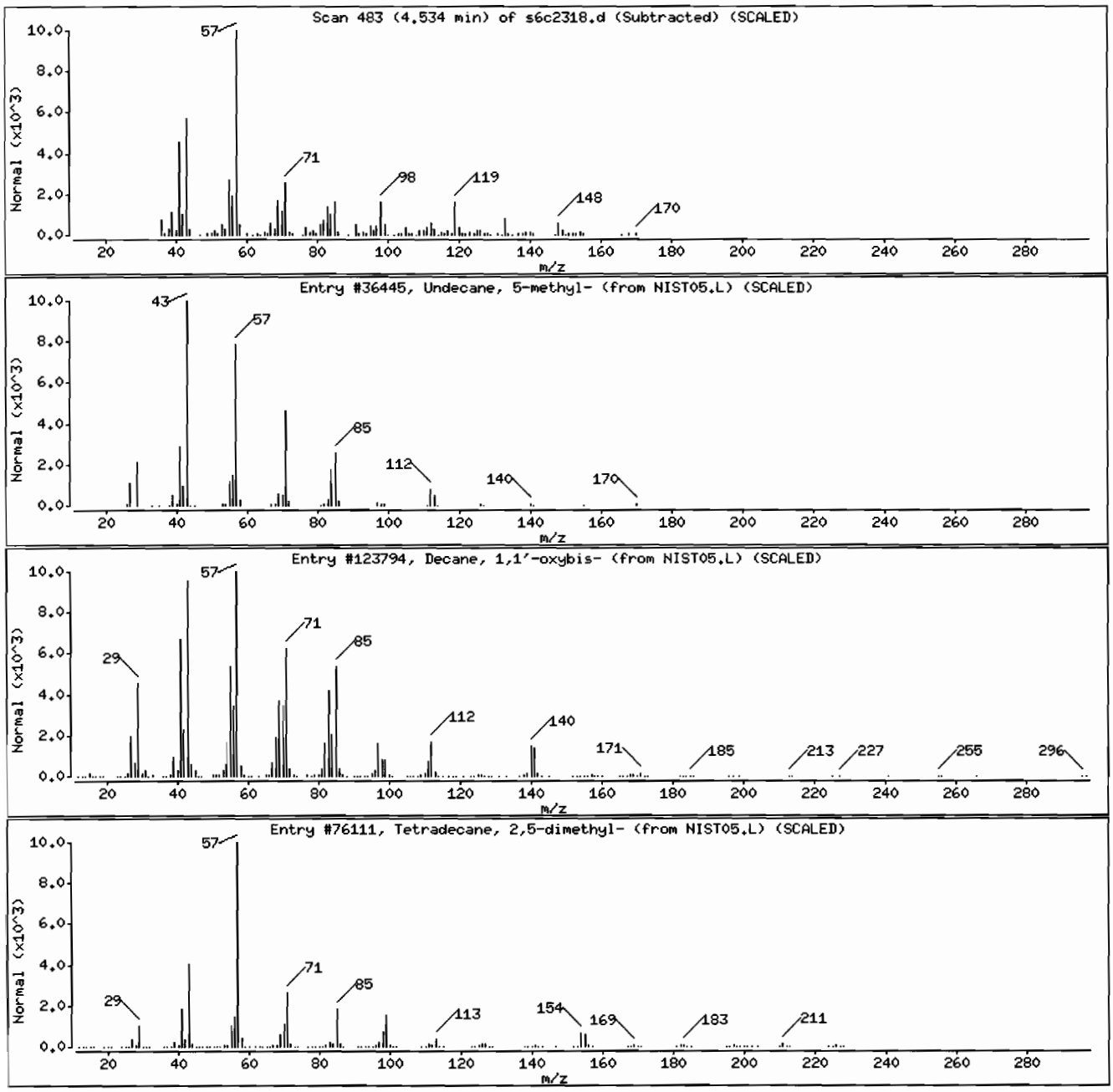

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: |2488420041965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Dodecane	112-40-3	NIST05.L	36431	96	C12H26	170
Dodecane	112-40-3	NIST05.L	36430	94	C12H26	170
Undecane	1120-21-4	NIST05.L	27239	80	C11H24	156

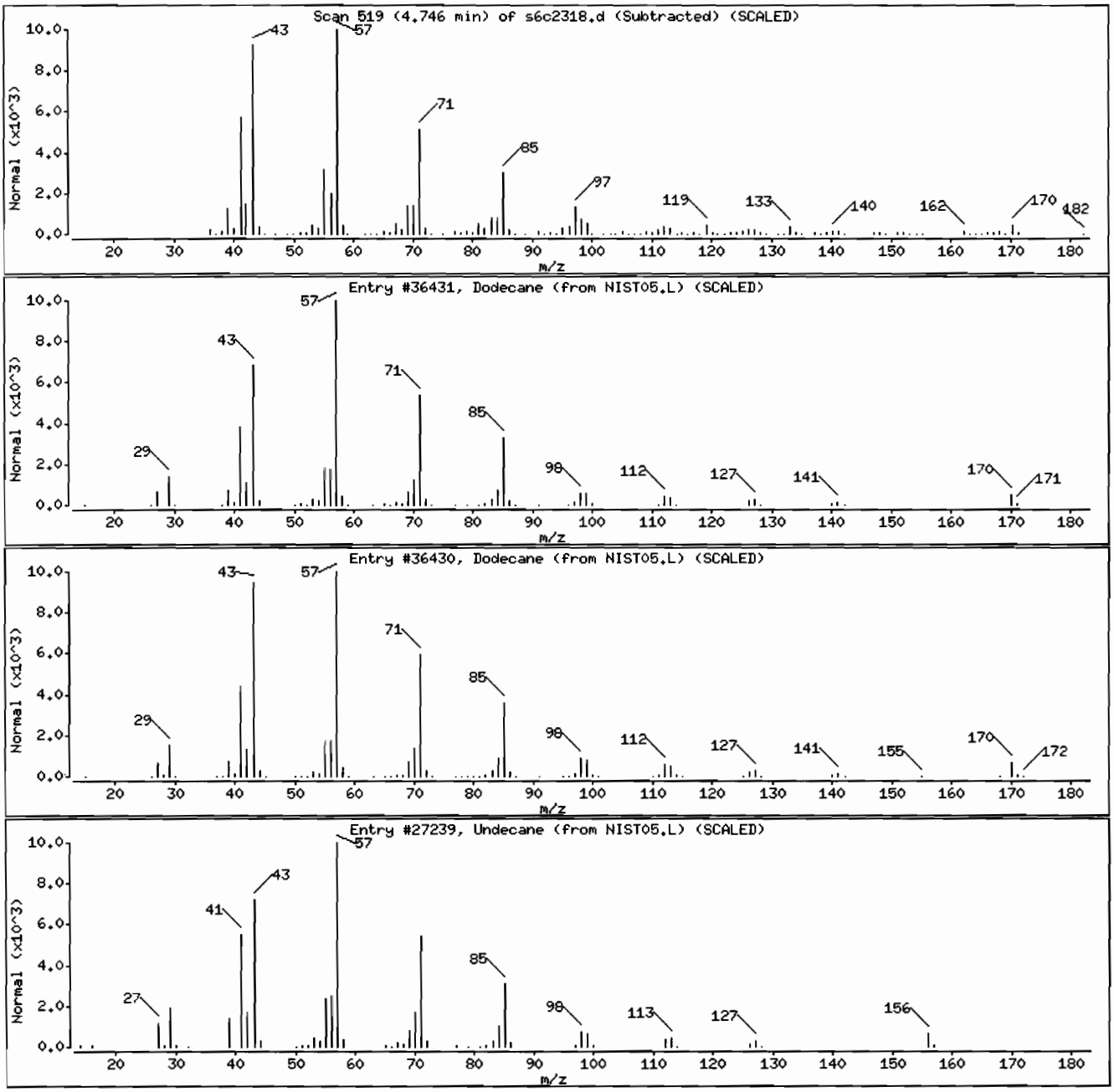

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Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551

Instrument: MSD6.i

Sample Info: |2488420041965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ethanone, 1-cyclohexyl-	823-76-7	NIST05.L	11006	49	C8H14O	126
Cyclopentane, (2-methylpropyl)-	3788-32-7	NIST05.L	11249	45	C9H18	126
Cyclohexane, (1-methylethyl)-	696-29-7	NIST05.L	11226	38	C9H18	126

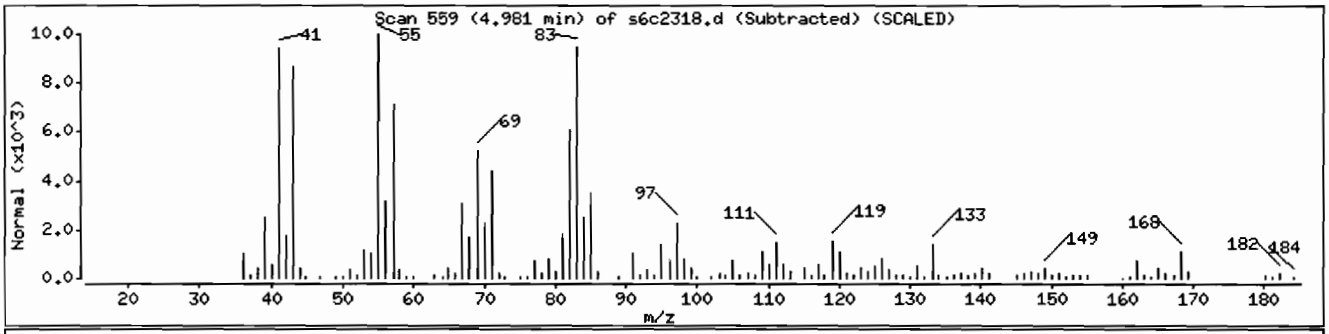

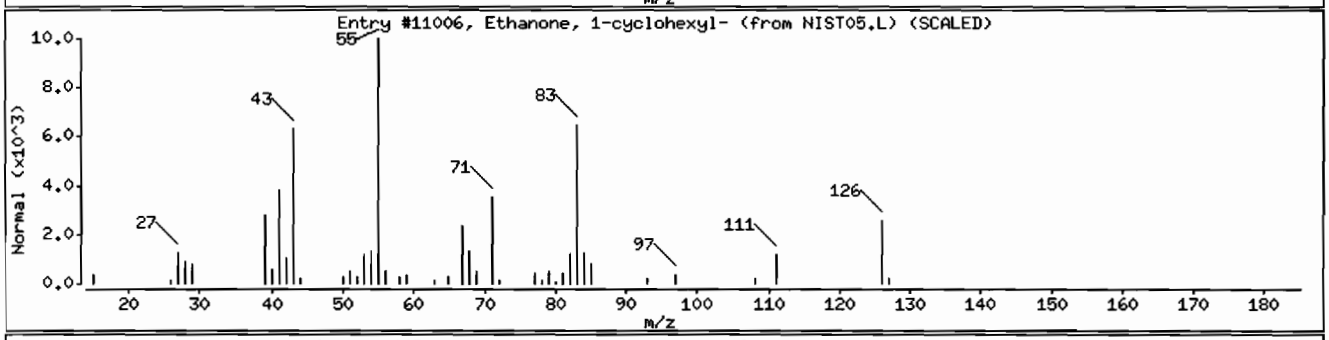

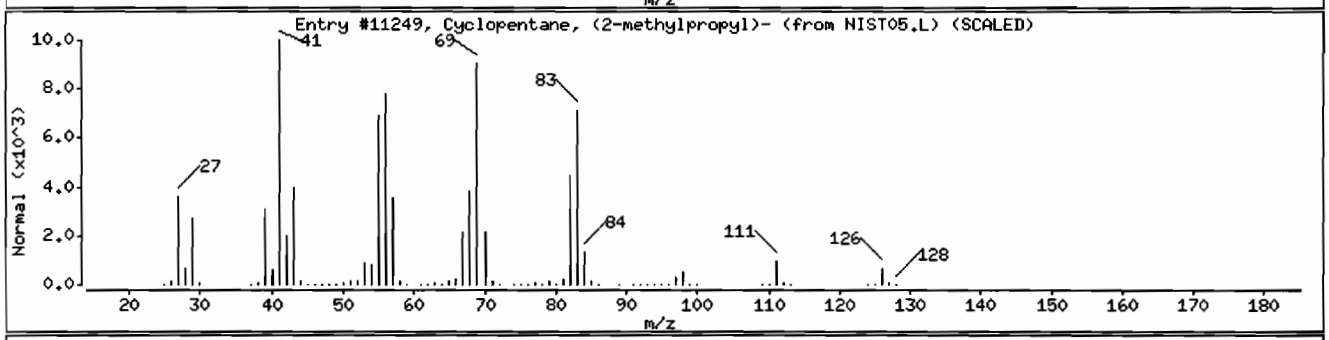

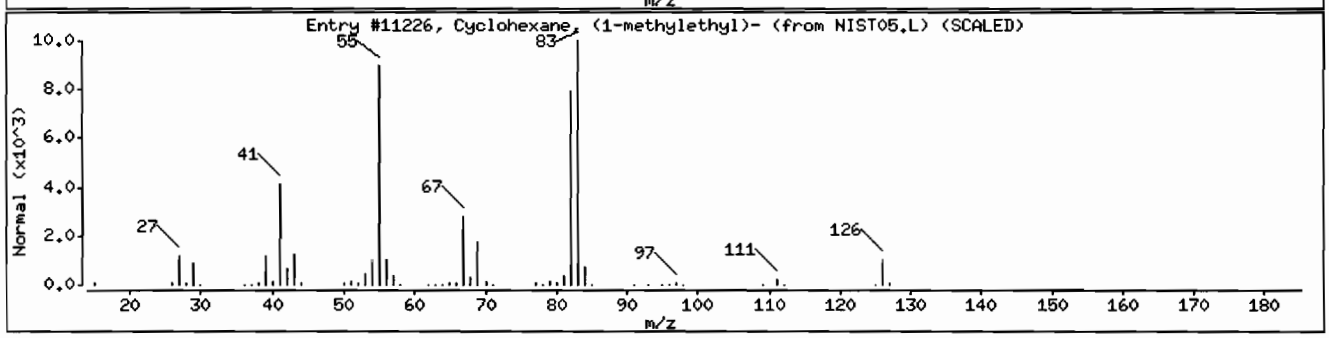

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: |2488420041965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Dodecane, 4,6-dimethyl-	61141-72-8	NIST05.L	55993	91	C14H30	198
Octadecane, 2,6-dimethyl-	75163-97-2	NIST05.L	113501	64	C20H42	282
Sulfurous acid, 2-ethylhexyl heptadecyl	1000309-20-0	NIST05.L	177565	64	C25H5203S	432

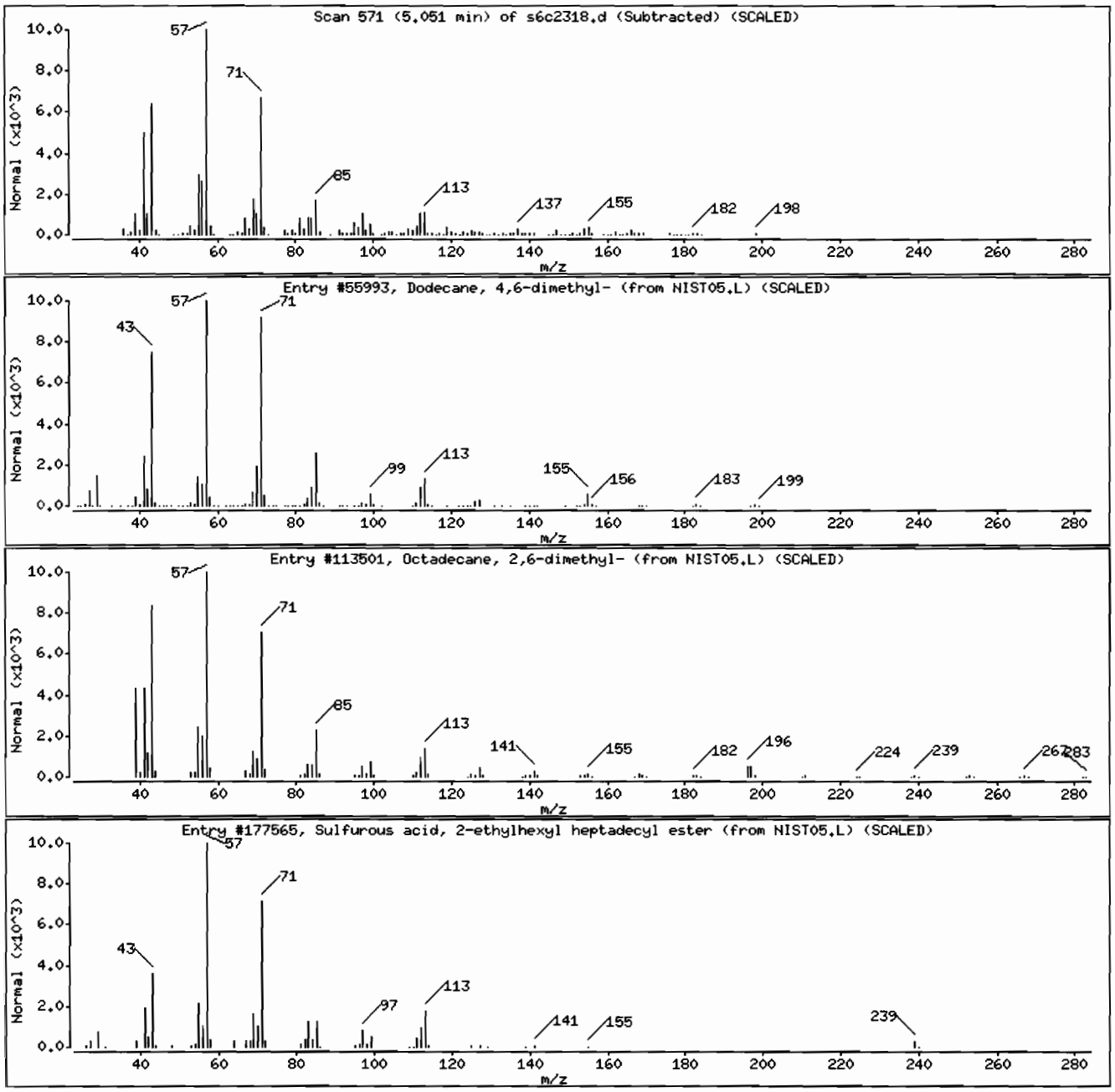

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551

Instrument: MSD6.i

Sample Info: |2488420041965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tridecane	629-50-5	NIST05.L	46086	95	C13H28	184
Tridecane	629-50-5	NIST05.L	46087	93	C13H28	184
Tridecane	629-50-5	NIST05.L	46084	93	C13H28	184

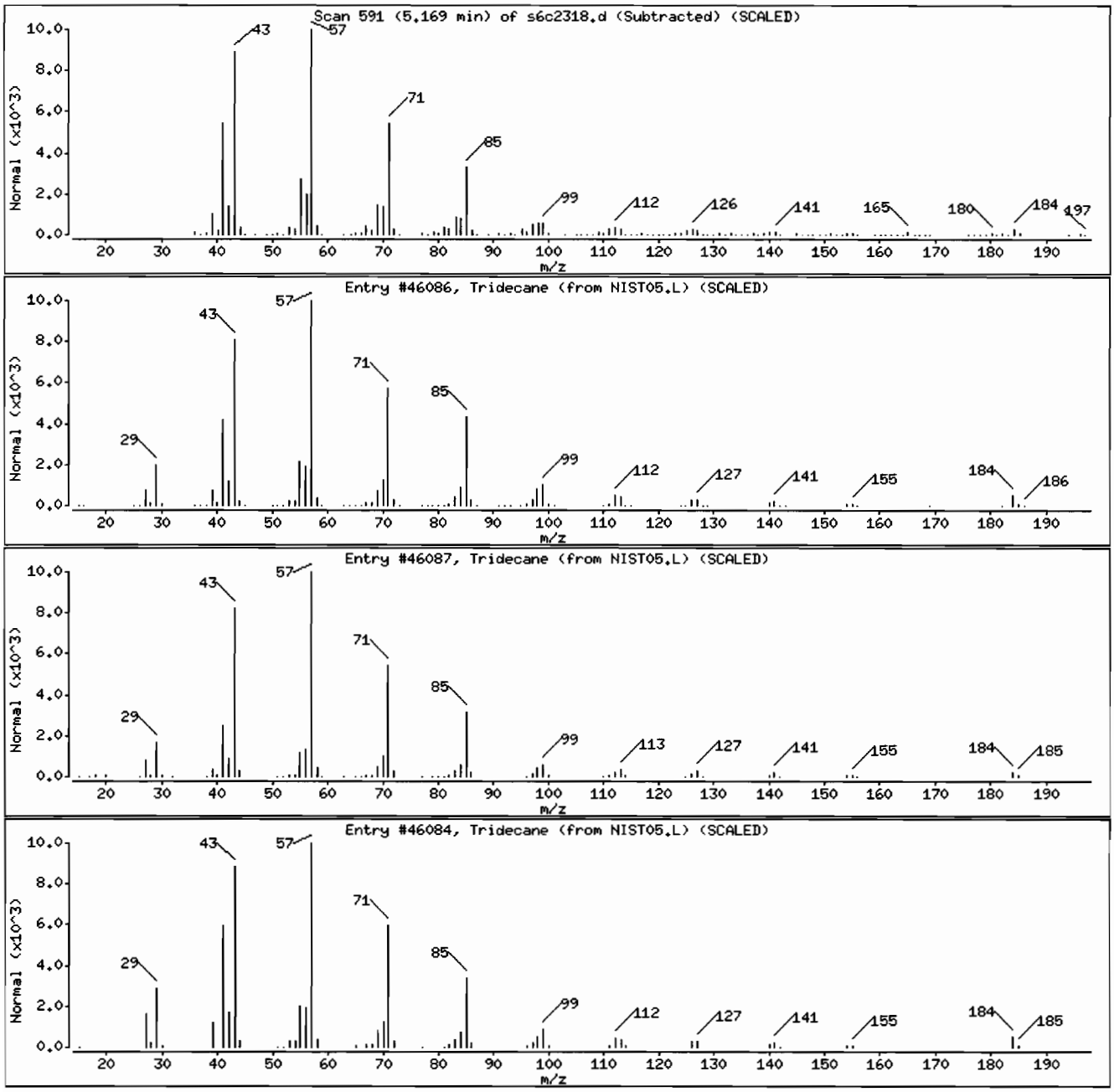

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: |2488420041965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1-methyl-	90-12-0	NIST05.L	18566	92	C11H10	142
Bicyclo[4.4.1]undeca-1,3,5,7,9-pentaene	2443-46-1	NIST05.L	18573	70	C11H10	142
Naphthalene, 2-methyl-	91-57-6	NIST05.L	18568	70	C11H10	142

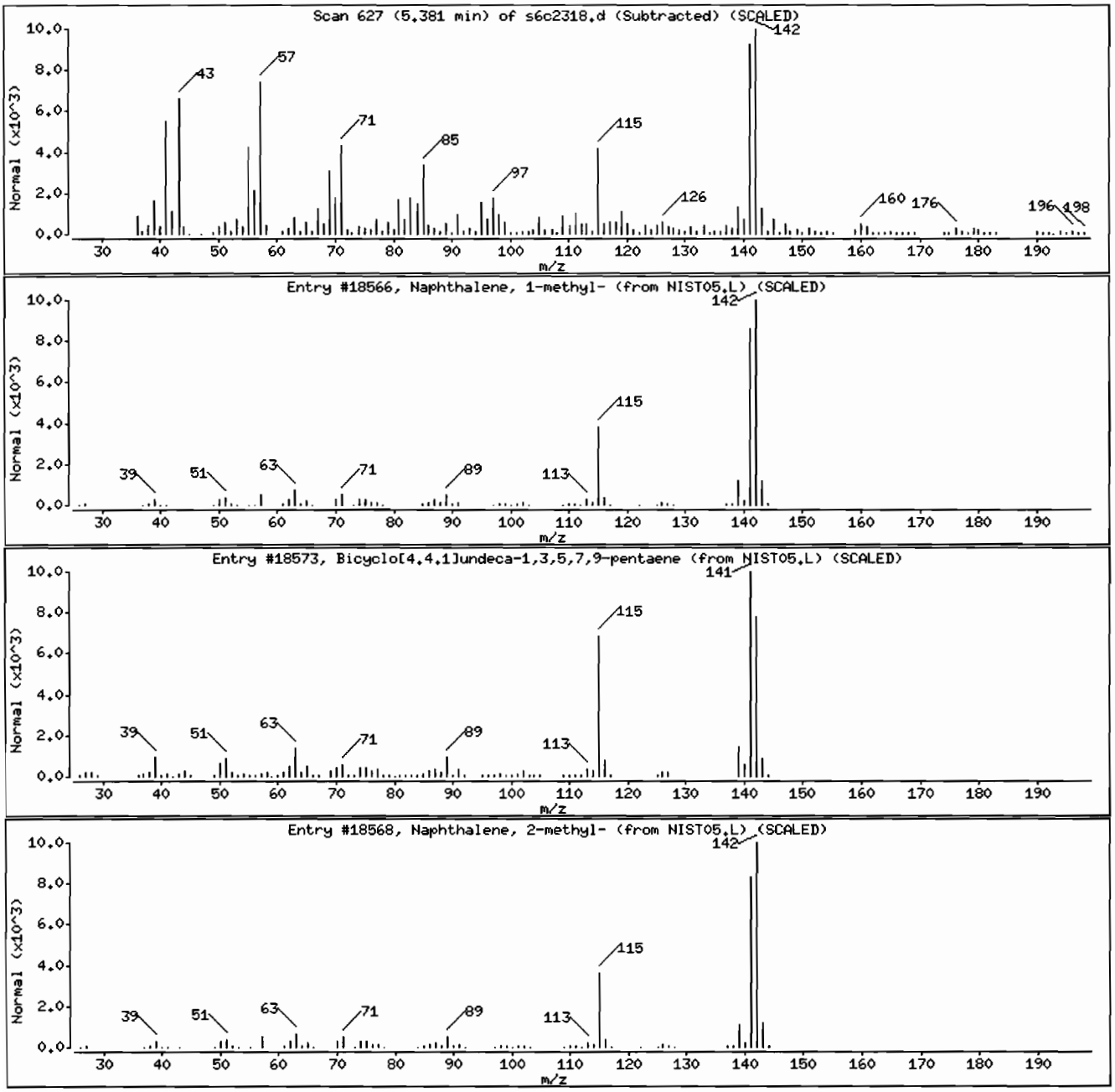

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Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: |2488420041965425|10|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tridecane, 2-methyl-	1560-96-9	NIST05.L	55988	83	C14H30	198
Sulfurous acid, 2-propyl tetradecyl este	1000309-12-5	NIST05.L	136806	52	C17H36O3S	320
Tritetracontane	7098-21-7	NIST05.L	188549	49	C43H88	605

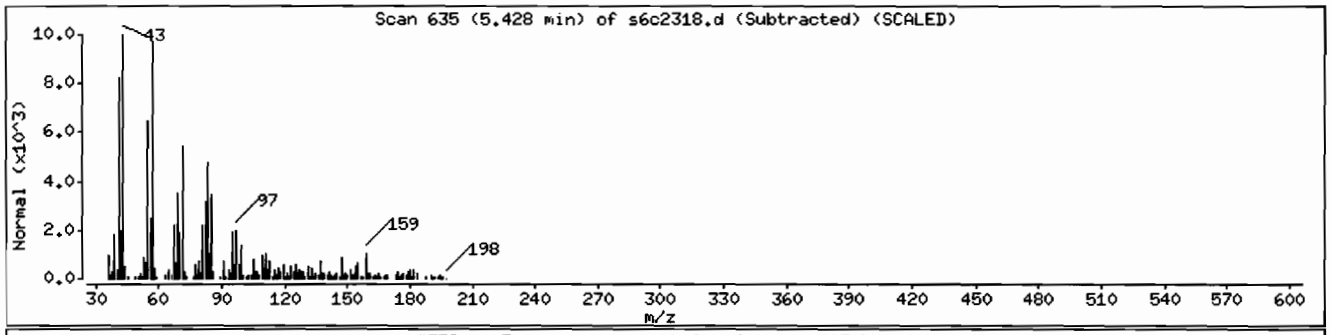

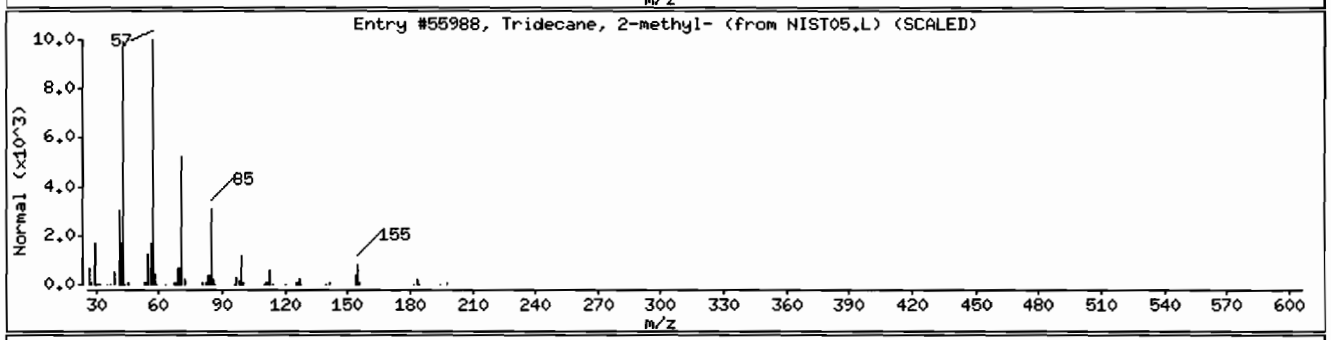

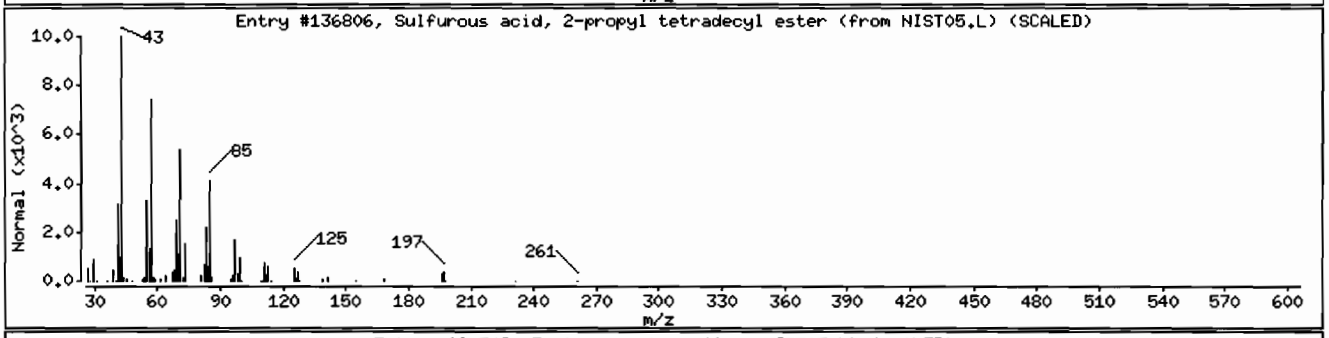

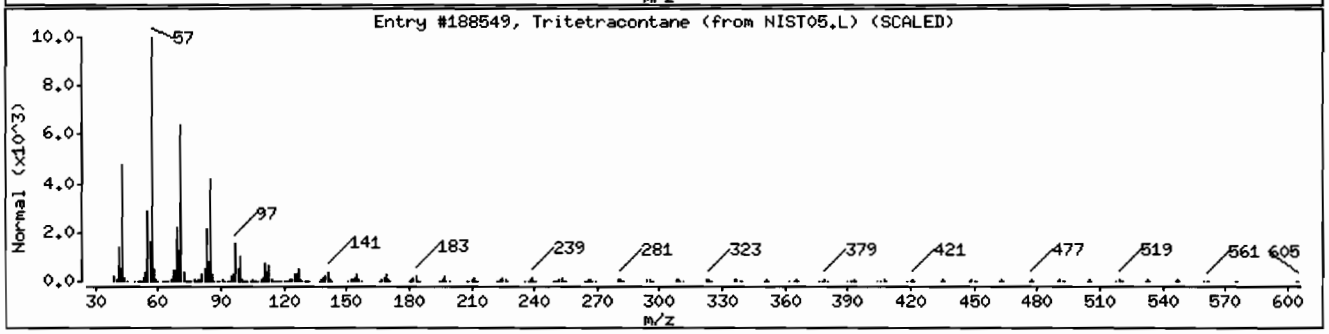

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Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551

Instrument: MSD6.i

Sample Info: |2488420041965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Dodecane, 2,6,10-trimethyl-	3891-98-3	NIST05.L	66082	91	C15H32	212
Dodecane, 2,6,10-trimethyl-	3891-98-3	NIST05.L	66081	90	C15H32	212
Dodecane, 2,6,11-trimethyl-	31295-56-4	NIST05.L	66078	86	C15H32	212

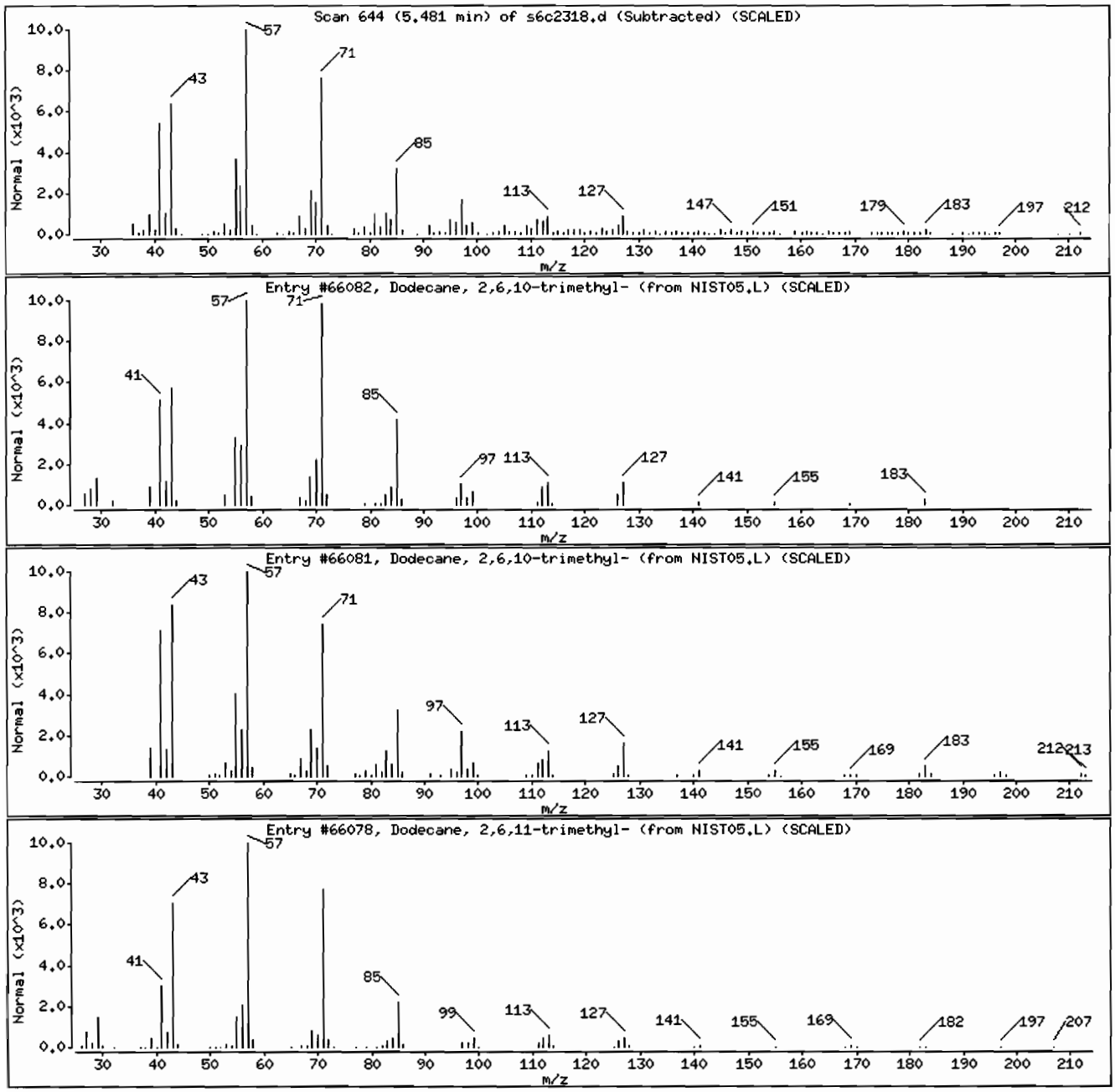

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Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551

Instrument: MSD6.i

Sample Info: 1248842004|965425|10|SVH|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 2,6-dimethyl-	581-42-0	NIST05.L	27302	95	C12H12	156
Naphthalene, 1,7-dimethyl-	575-37-1	NIST05.L	27288	89	C12H12	156
Naphthalene, 2,3-dimethyl-	581-40-8	NIST05.L	27283	89	C12H12	156

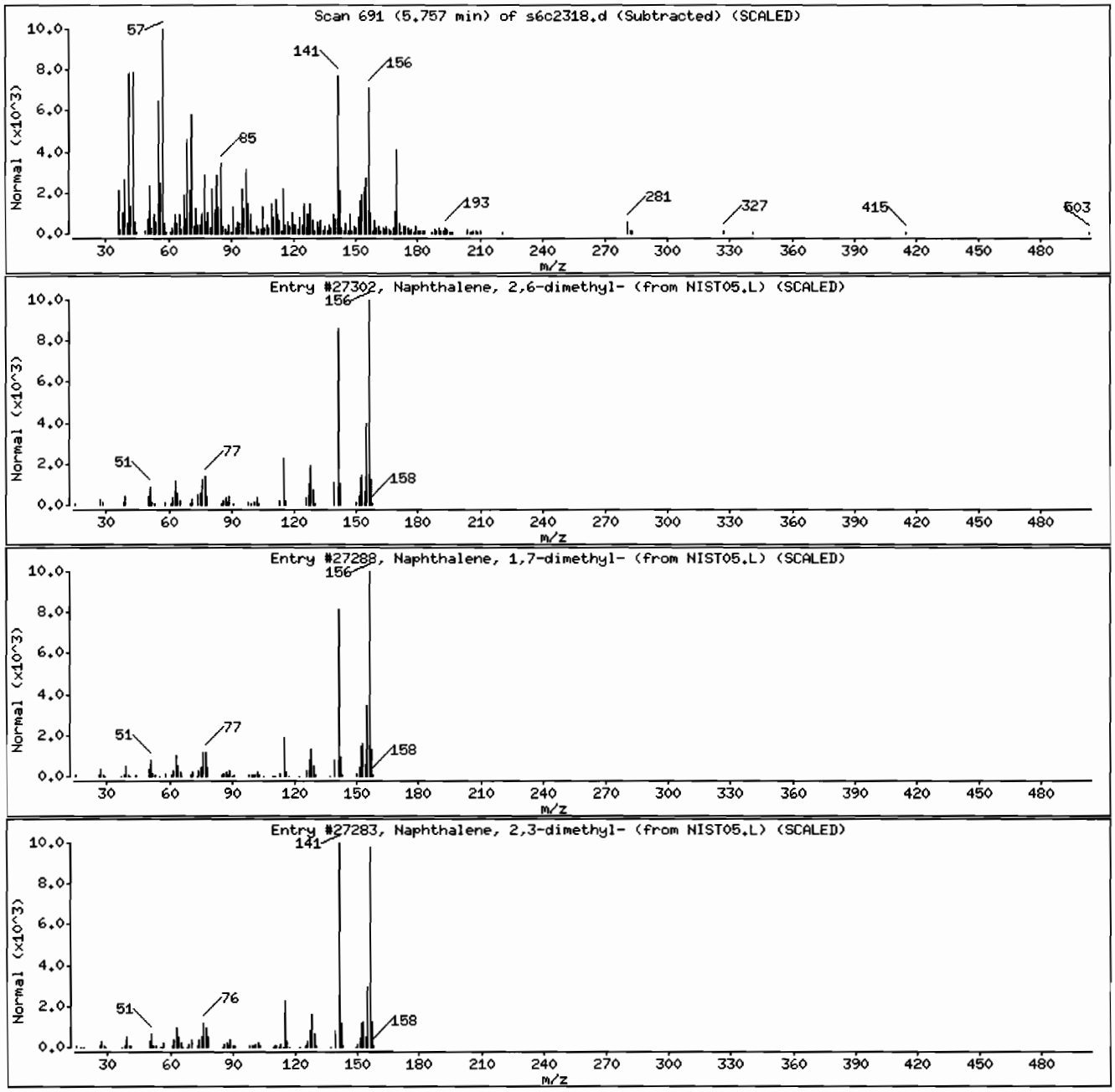

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: |2488420041965425|10|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Bromo-11-iodoundecane	139123-69-6	NIST05.L	156814	62	C11H22BrI	360
1-Bromoeicosane	4276-49-7	NIST05.L	157121	50	C20H41Br	360
Methanesulfonic acid, 2,7-dioxatricyclo[	75568-59-1	NIST05.L	81422	44	C9H14O5S	234

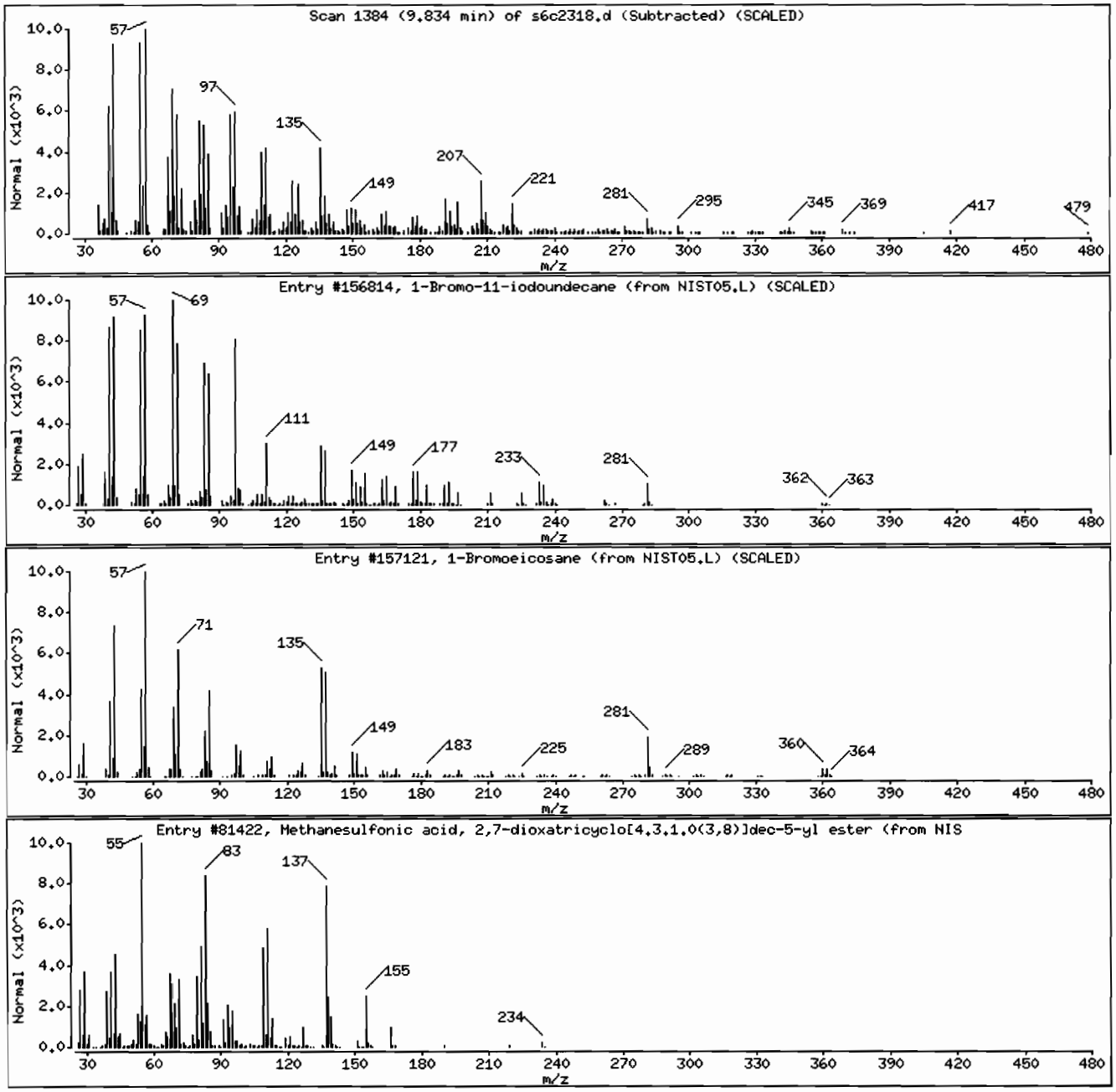

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: |2488420041965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	78	C18H3402	282
Tetrapentacontane, 1,54-dibromo-	1000156-09-4	NIST05.L	190704	46	C54H108Br2	915
Hexadecane, 1-chloro-	4860-03-1	NIST05.L	98777	45	C16H33Cl	260

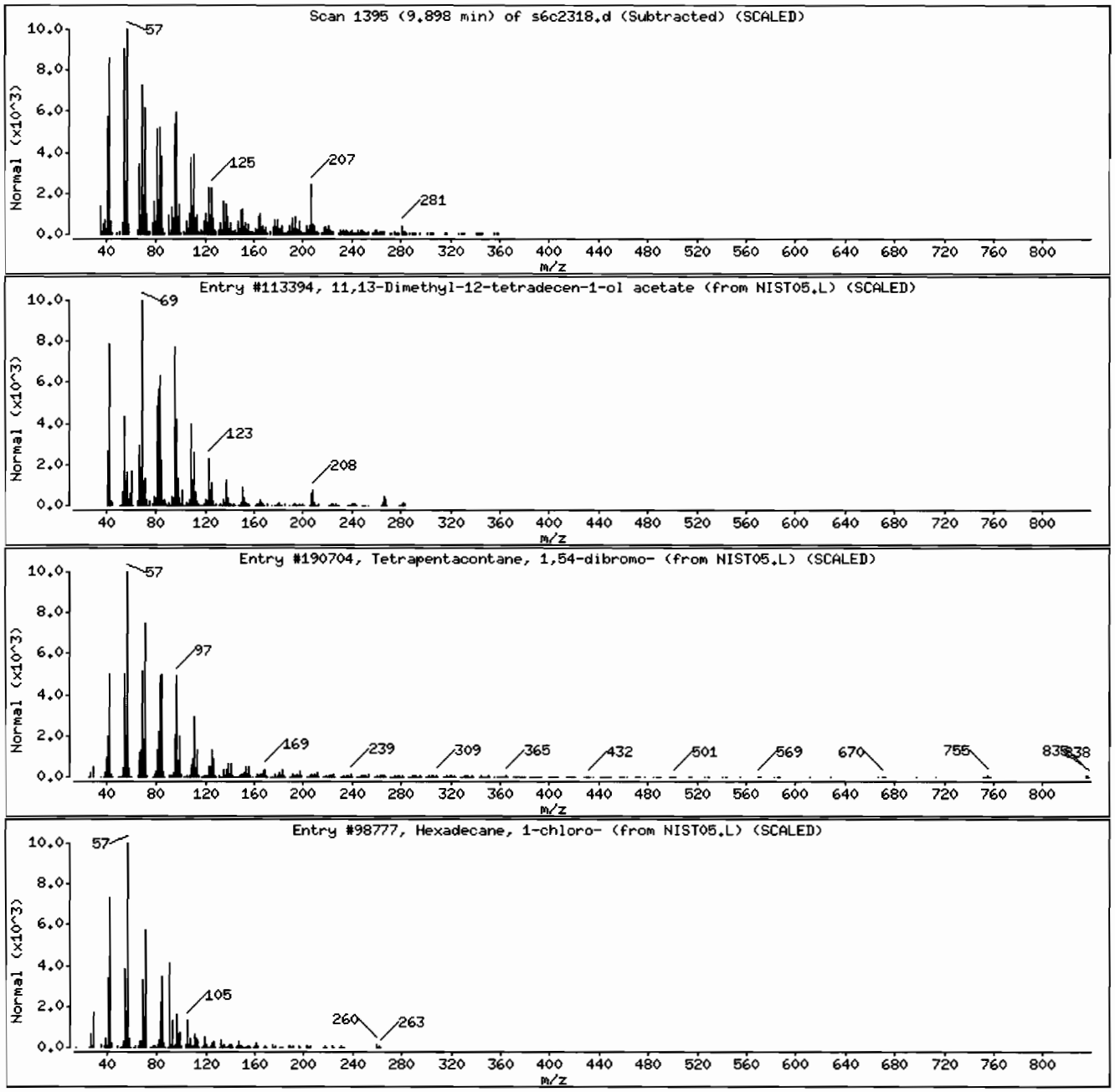

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551

Instrument: MSD6.i

Sample Info: |2488420041965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	807-28-3	NIST05.L	173479	99	C26H26OSi2	410
Crinan,3,7-dimethoxy-,(3.alpha.)-	105232-32-4	NIST05.L	135134	90	C18H23NO4	317
15H-Benzo[a]naphtho[2,3-h]carbazole	17182-04-6	NIST05.L	135278	25	C24H15N	317

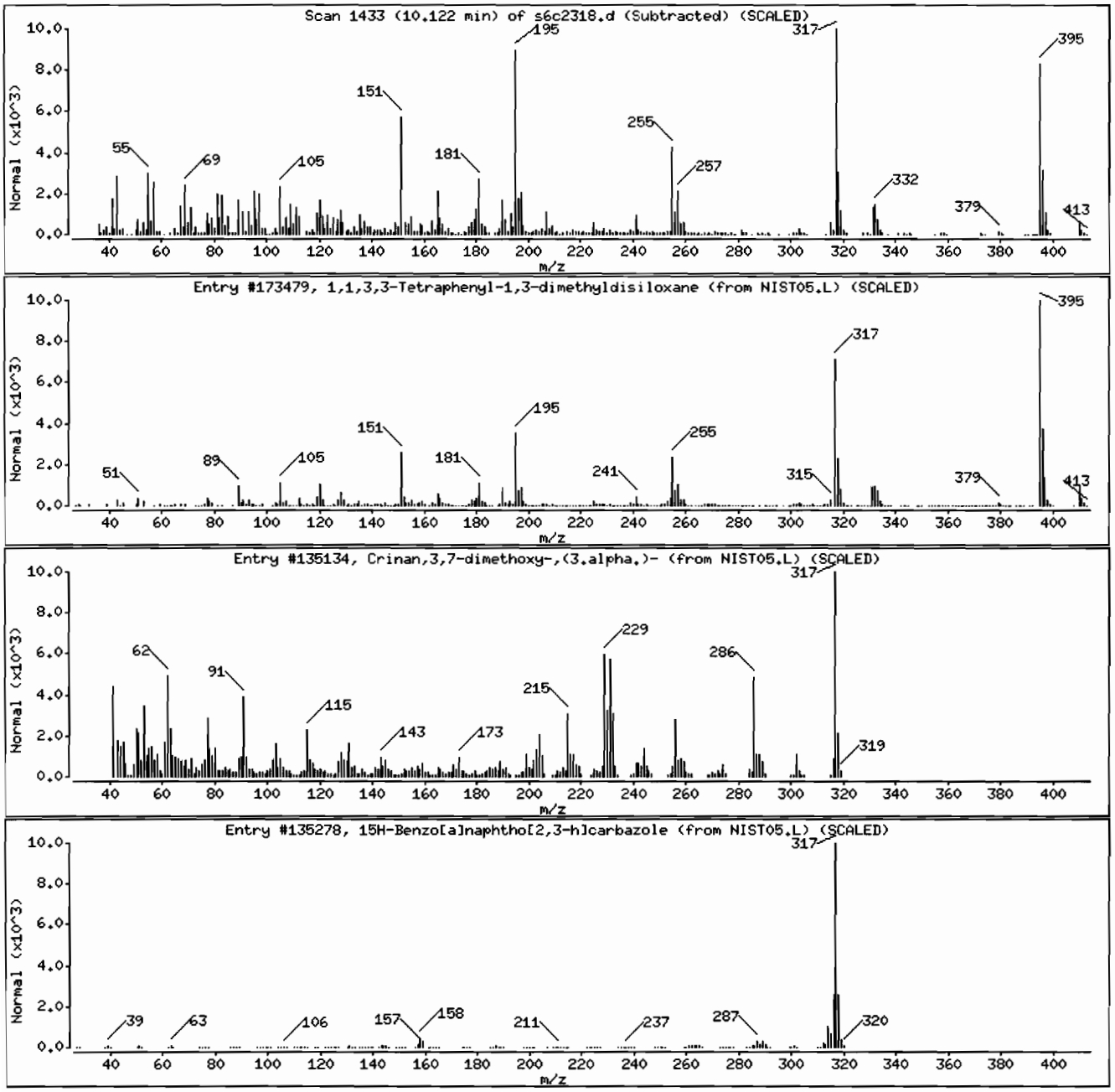

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Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: 1248842004196542510|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	60	C18H3402	282
Tetradecane, 1-bromo-	112-71-0	NIST05.L	109299	49	C14H29Br	276
1,7-Dimethyl-4-(1-methylethyl)cyclodecan	645-10-3	NIST05.L	64469	43	C15H30	210

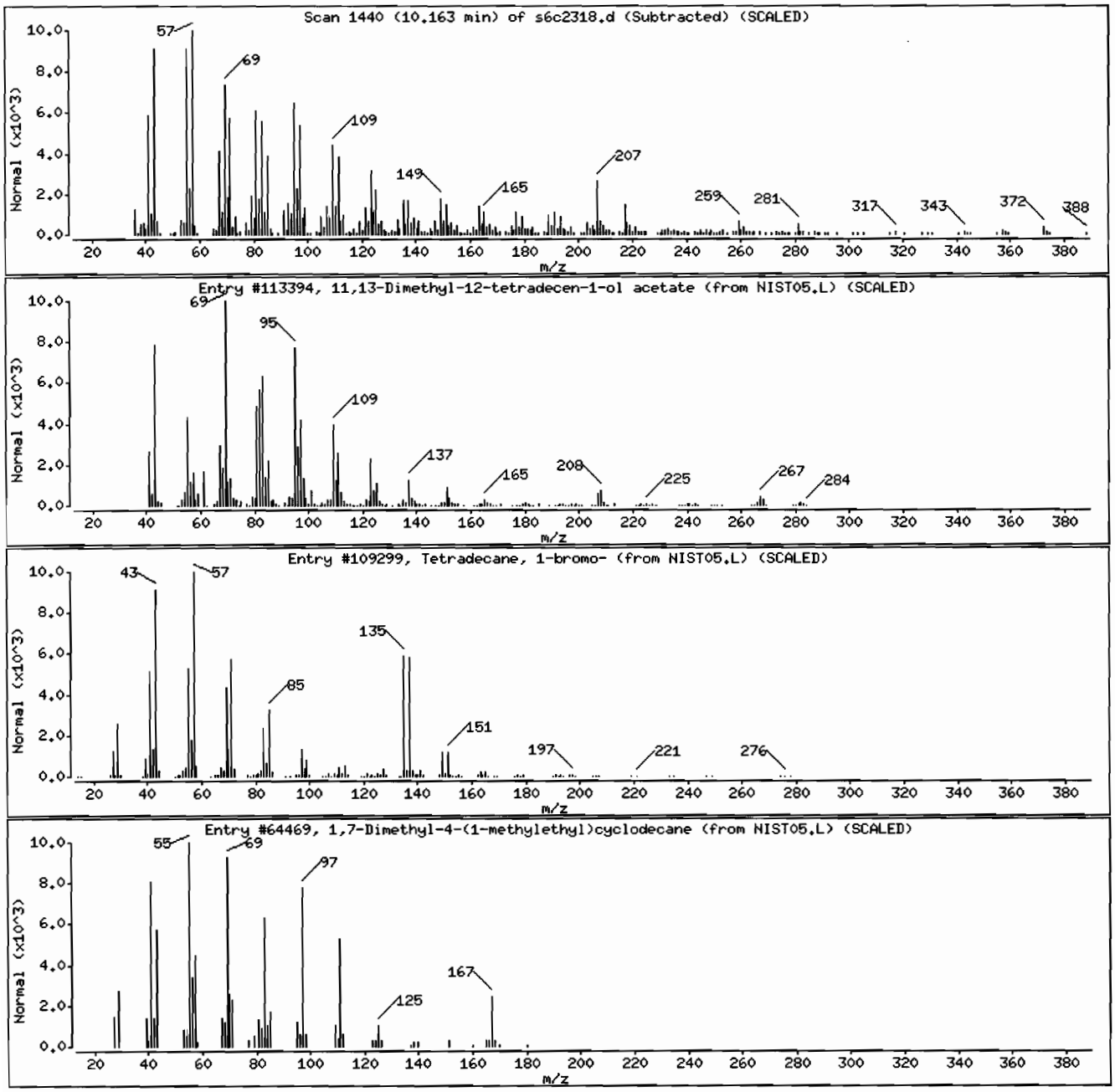

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: 1248842004196542511O1SVMI1ILANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	46	C20H34	274
1-Bromo-11-iodoundecane	139123-69-6	NIST05.L	156814	45	C11H22BrI	360
Cyclohexane, 1,2-dimethyl-3-pentyl-4-pro	62376-17-4	NIST05.L	74543	42	C16H32	224

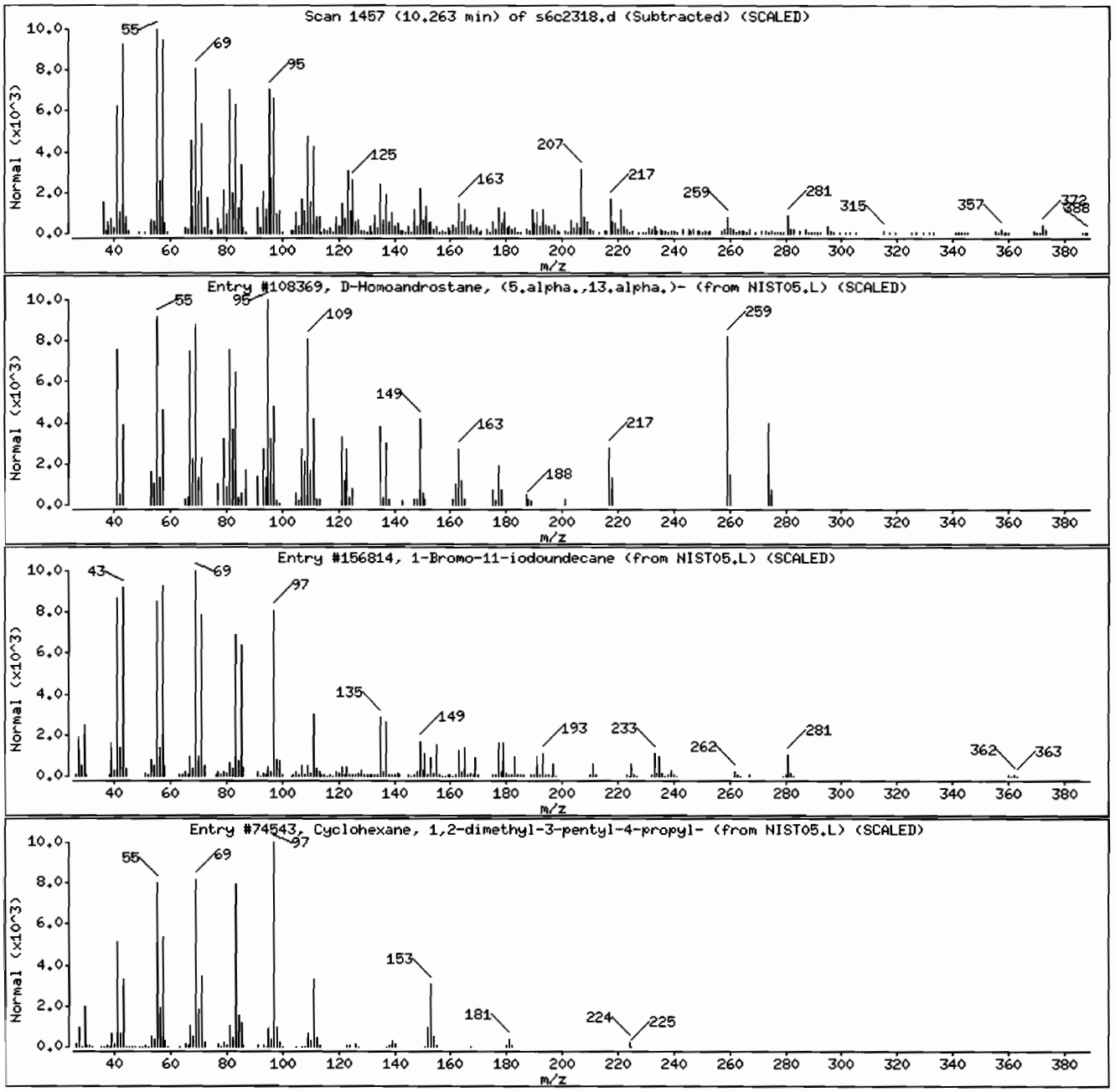

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: |2488420041965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexene, 4-(4-ethylcyclohexyl)-1-pen	301643-32-3	NIST05.L	100231	49	C19H34	262
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	45	C20H34	274
2-Cyclohexene-1-carboxaldehyde, 2,6-dime	56772-07-7	NIST05.L	71436	38	C15H24O	220

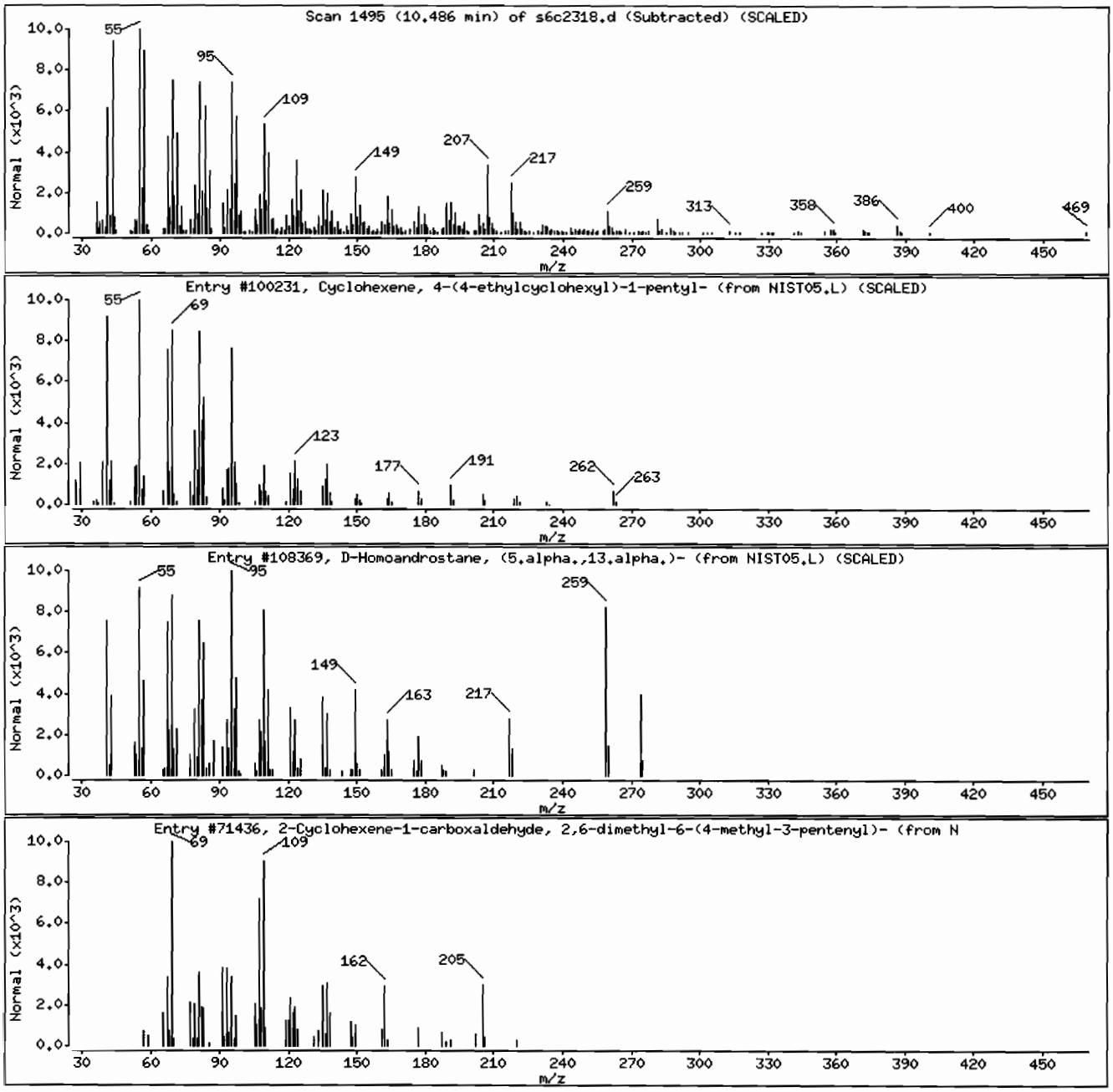

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: |2488420041965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	50	C18H3402	282
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	45	C13H21NO	207
2- Chloropropionic acid, hexadecyl ester	86711-81-1	NIST05.L	143599	45	C19H37ClO2	332

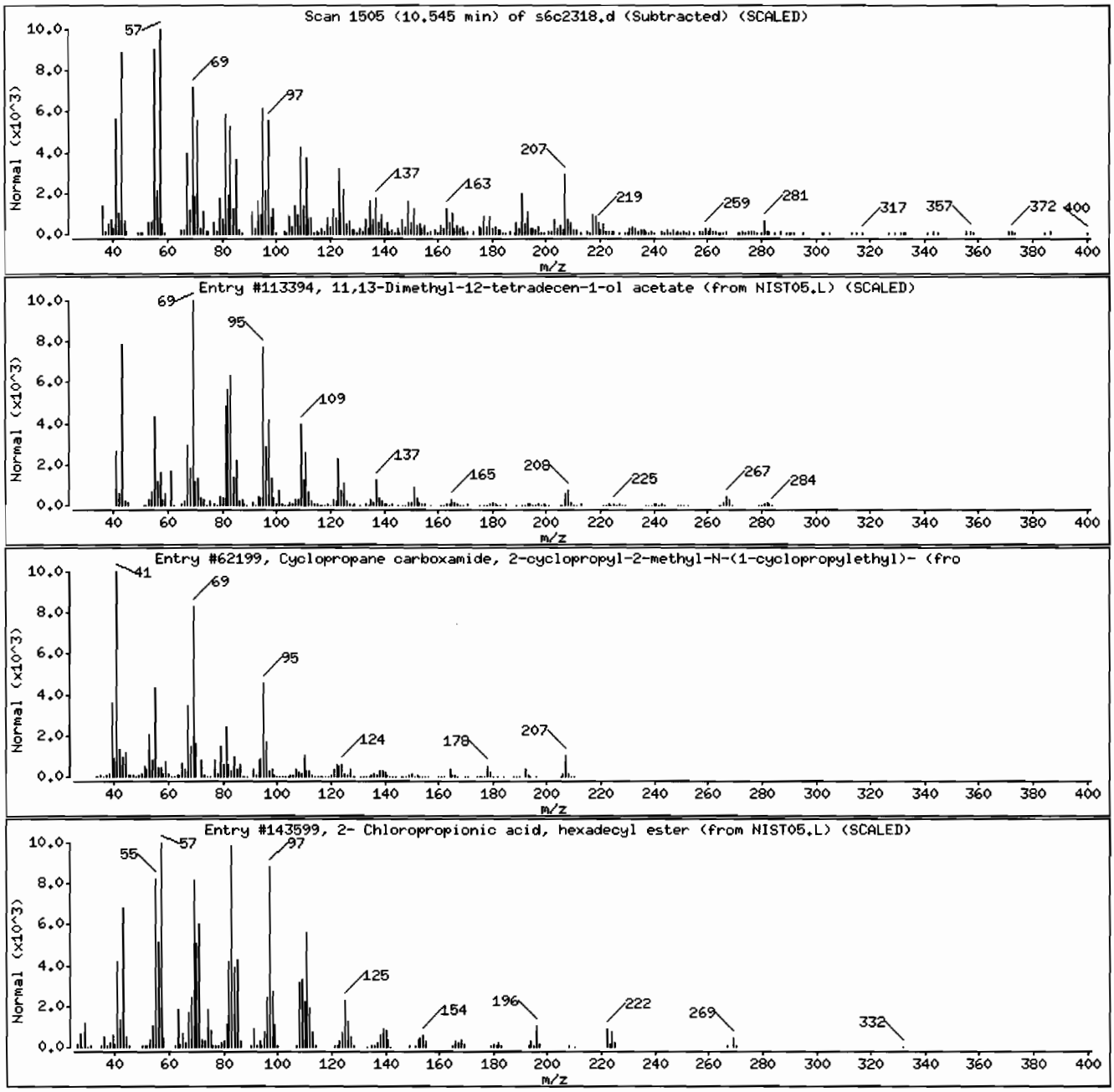

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: |2488420041965425|10|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Chol-23-ene, (5.beta.)-	54411-82-4	NIST05.L	141563	46	C24H40	328
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	46	C20H34	274
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	41	C16H30Br2O2	412

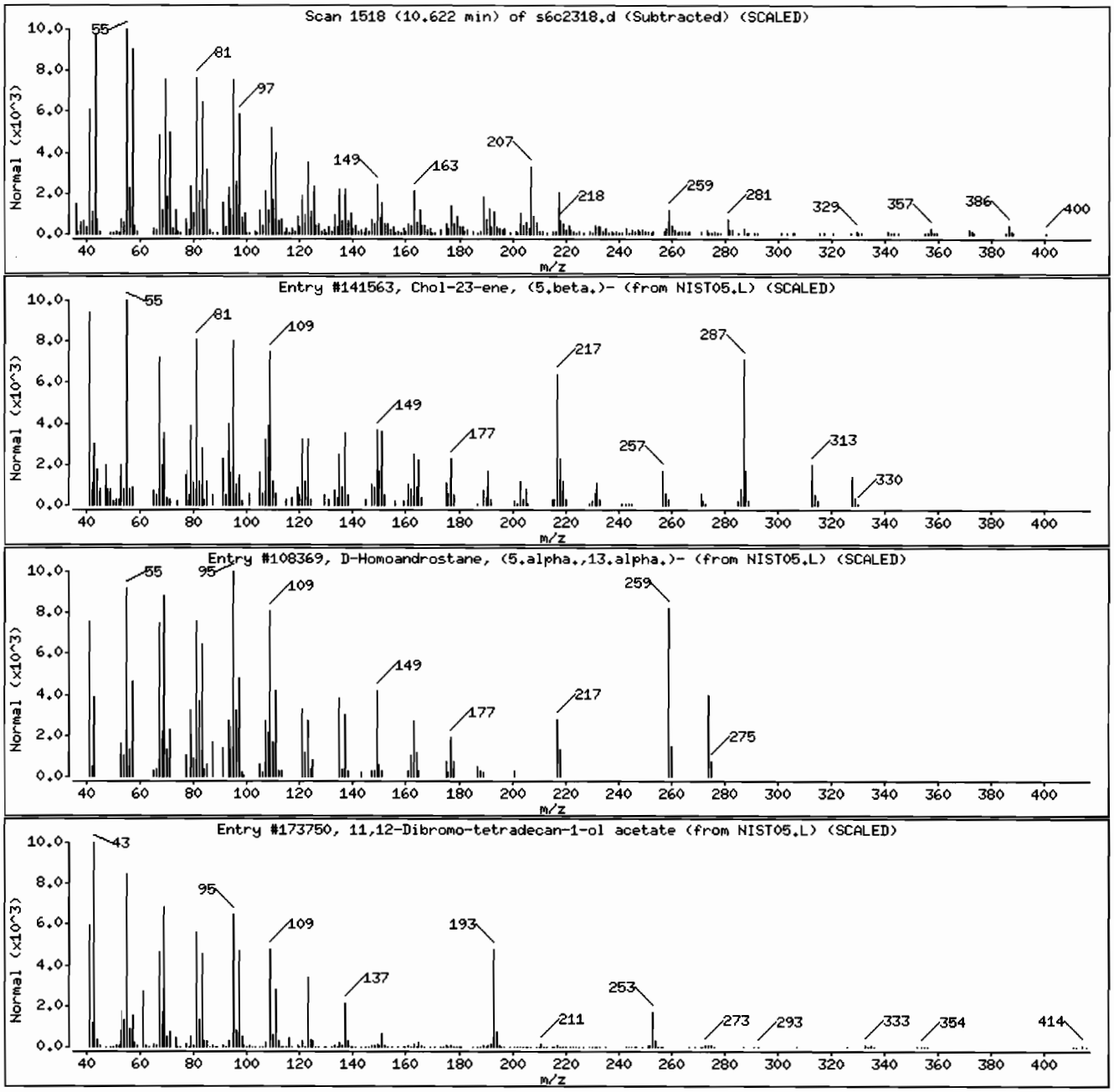

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551

Instrument: MSD6.i

Sample Info: |2488420041965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-e	1000188-72-8	NIST05.L	69963	27	C15H22O	218
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	27	C13H21NO	207
Sesquirosefuran	39007-93-7	NIST05.L	69927	25	C15H22O	218

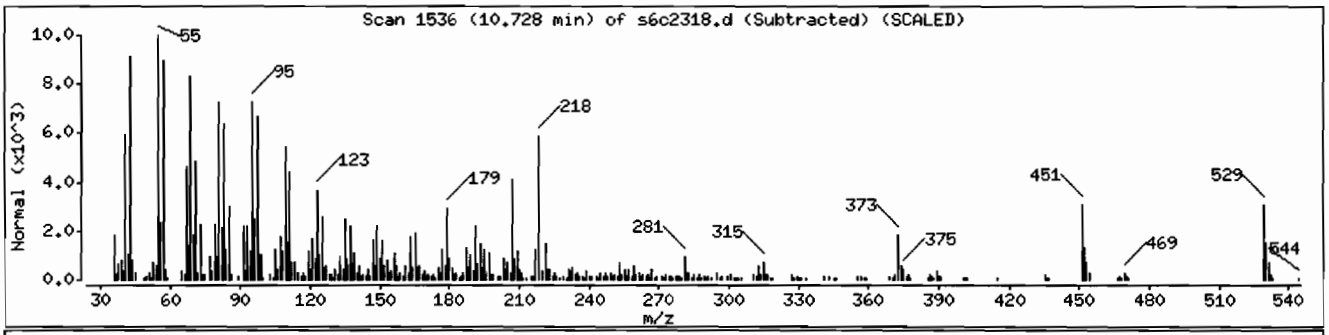

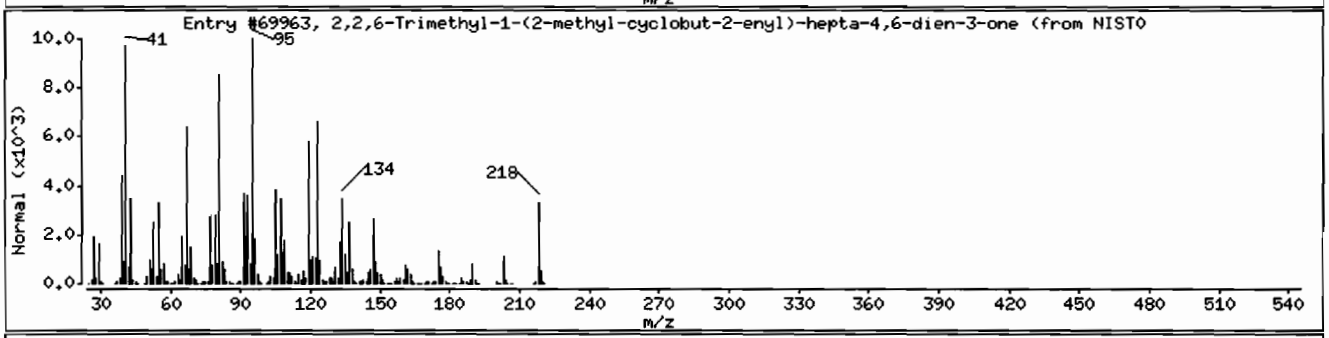

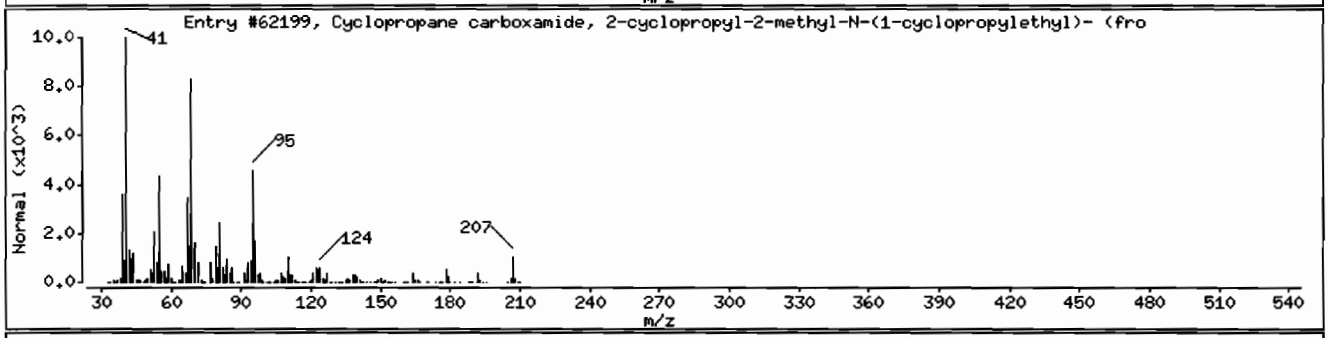

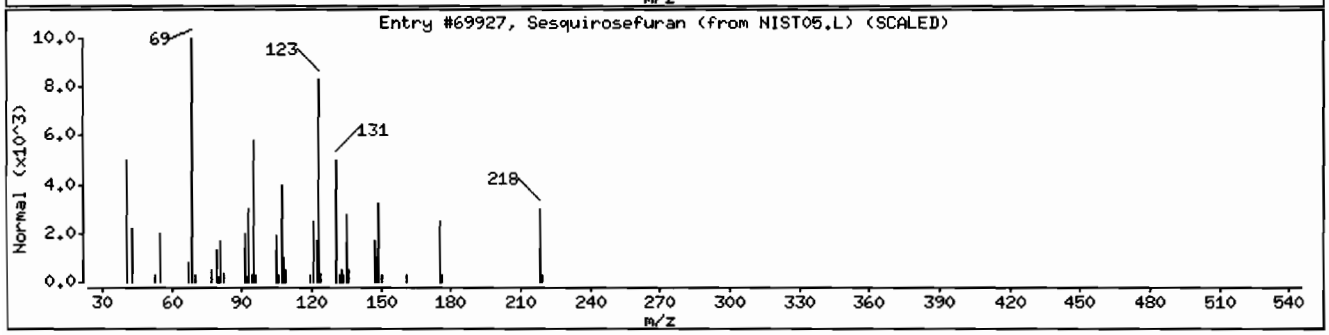

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: 1248842004|965425|10|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	62	C18H3402	282
Cholestan-3-ol, 2-methylene-, (3.beta.,5	22599-96-8	NIST05.L	171460	38	C28H480	400
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	38	C20H34	274

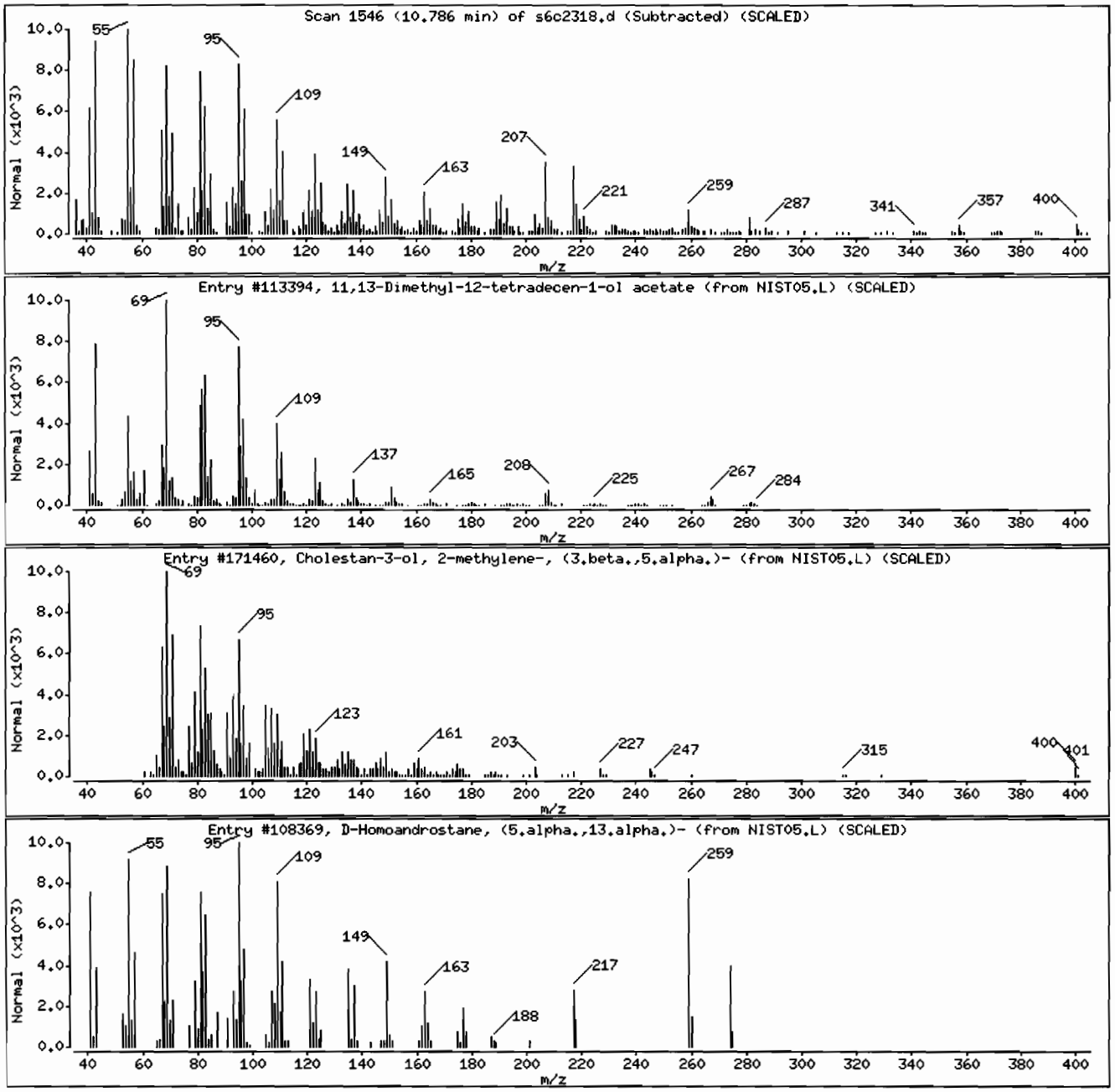

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: 1248842004|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclopentane, 1,1'-[3-(2-cyclopentylethy	55255-85-1	NIST05.L	127513	50	C22H40	304
1,22-Docosanediol	22513-81-1	NIST05.L	148950	38	C22H4602	342
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	38	C13H21NO	207

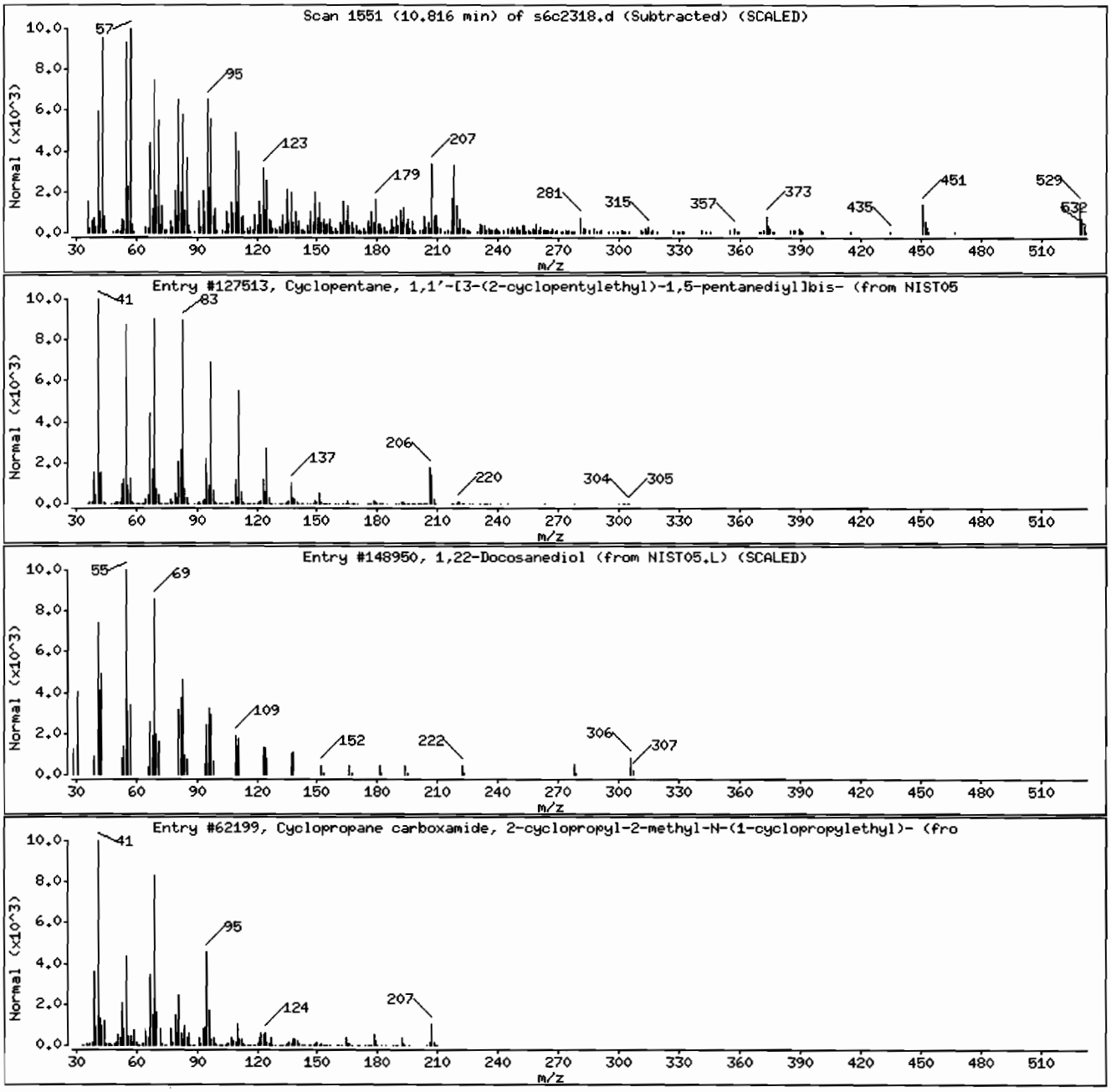

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551

Instrument: MSD6.i

Sample Info: 1248842004196542510ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	53	C20H34	274
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	49	C13H21NO	207
Octane, 1,8-dibromo-	4549-32-0	NIST05.L	105845	43	C8H16Br2	270

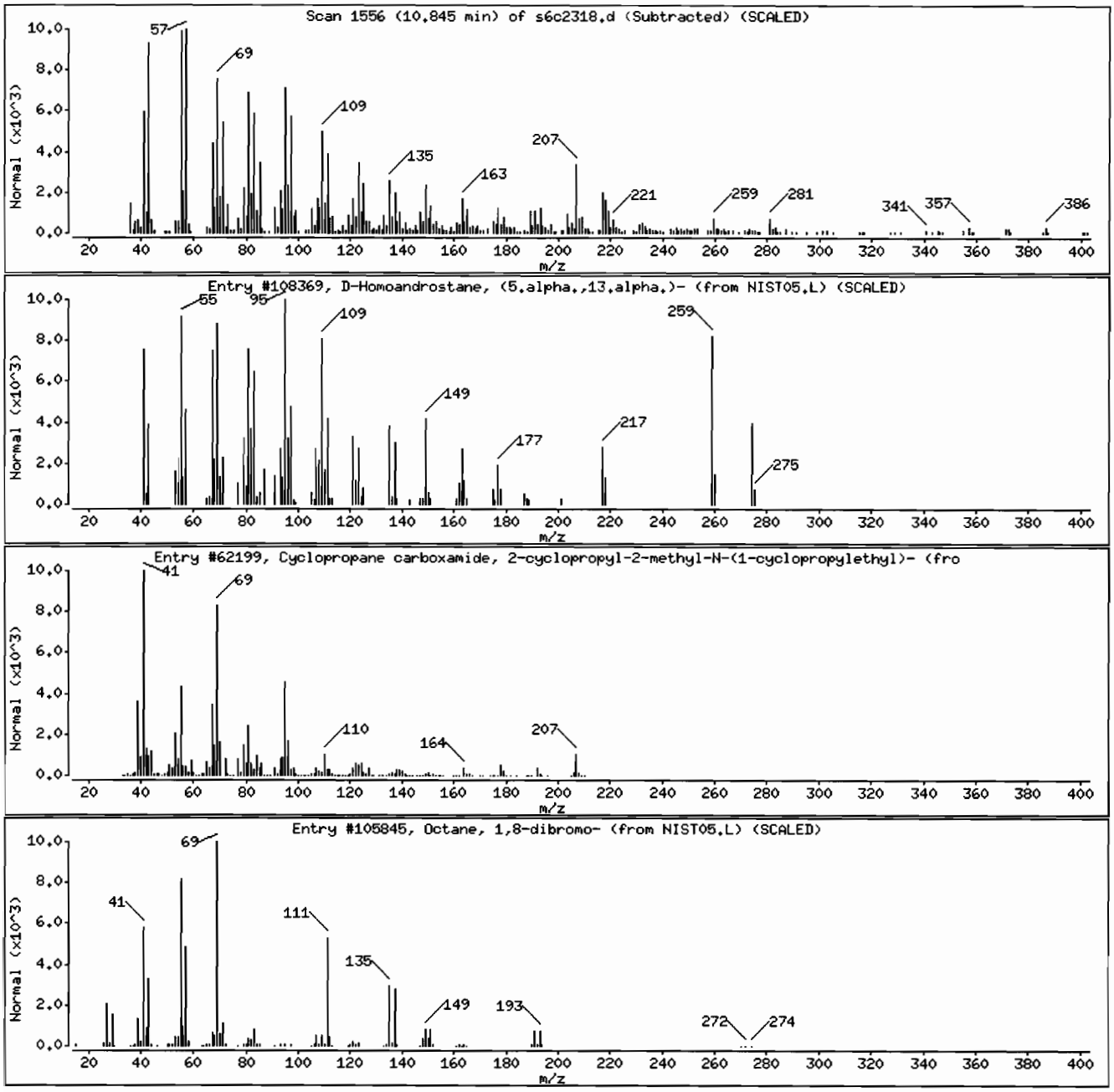

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: 1248842004196542511O1SVMI1ILANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	70	C16H26O3	266
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	68	C20H34	274
Cyclohexane, 1-(cyclohexylmethyl)-2-ethy	54934-92-8	NIST05.L	63061	49	C15H28	208

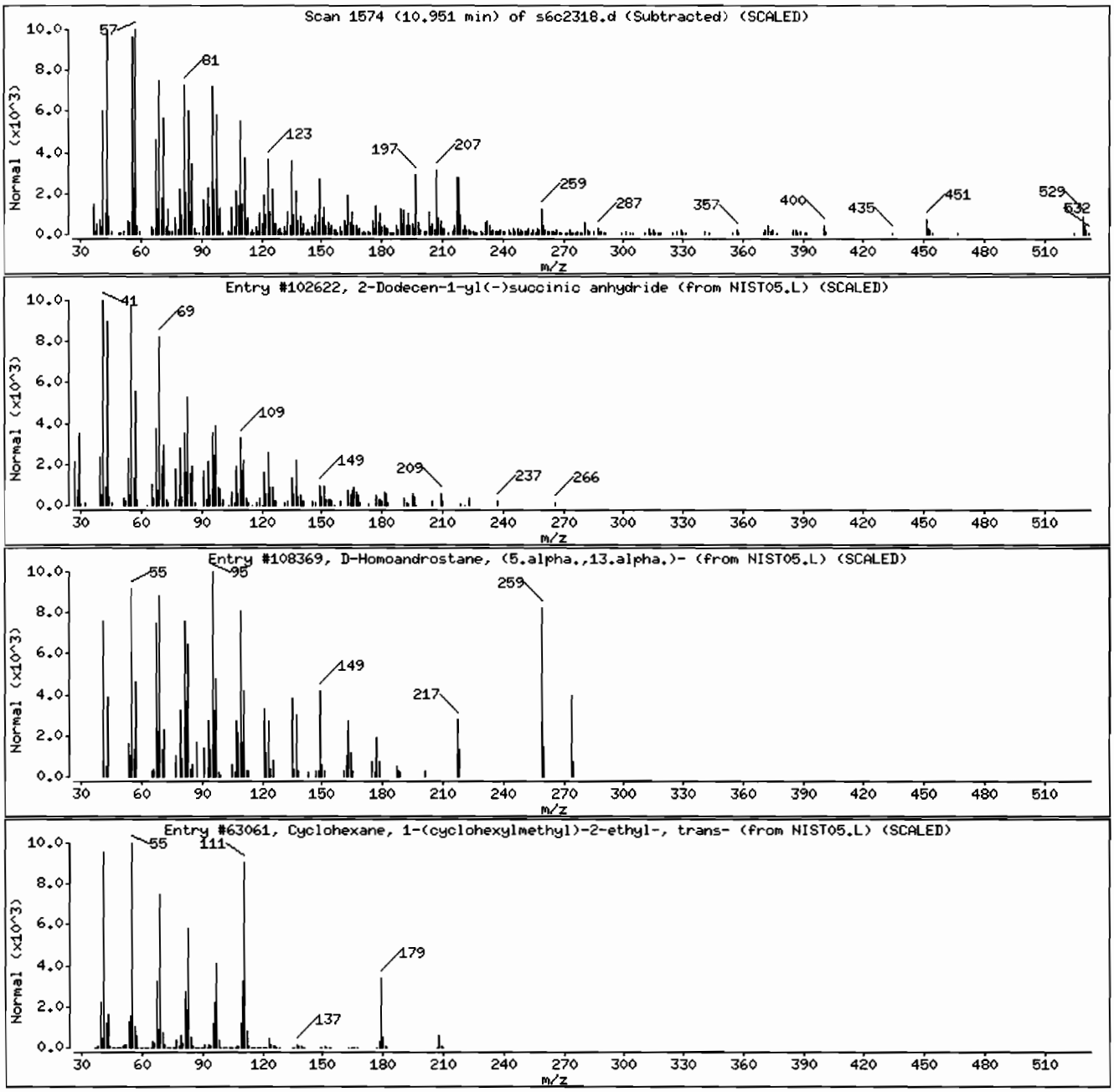

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Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: 1248842004|965425|10|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	78	C18H3402	282
Methanesulfonic acid, 2,7-dioxatricyclo[	75568-59-1	NIST05.L	81422	55	C9H1405S	234
17-Pentatriacontene	6971-40-0	NIST05.L	183897	49	C35H70	491

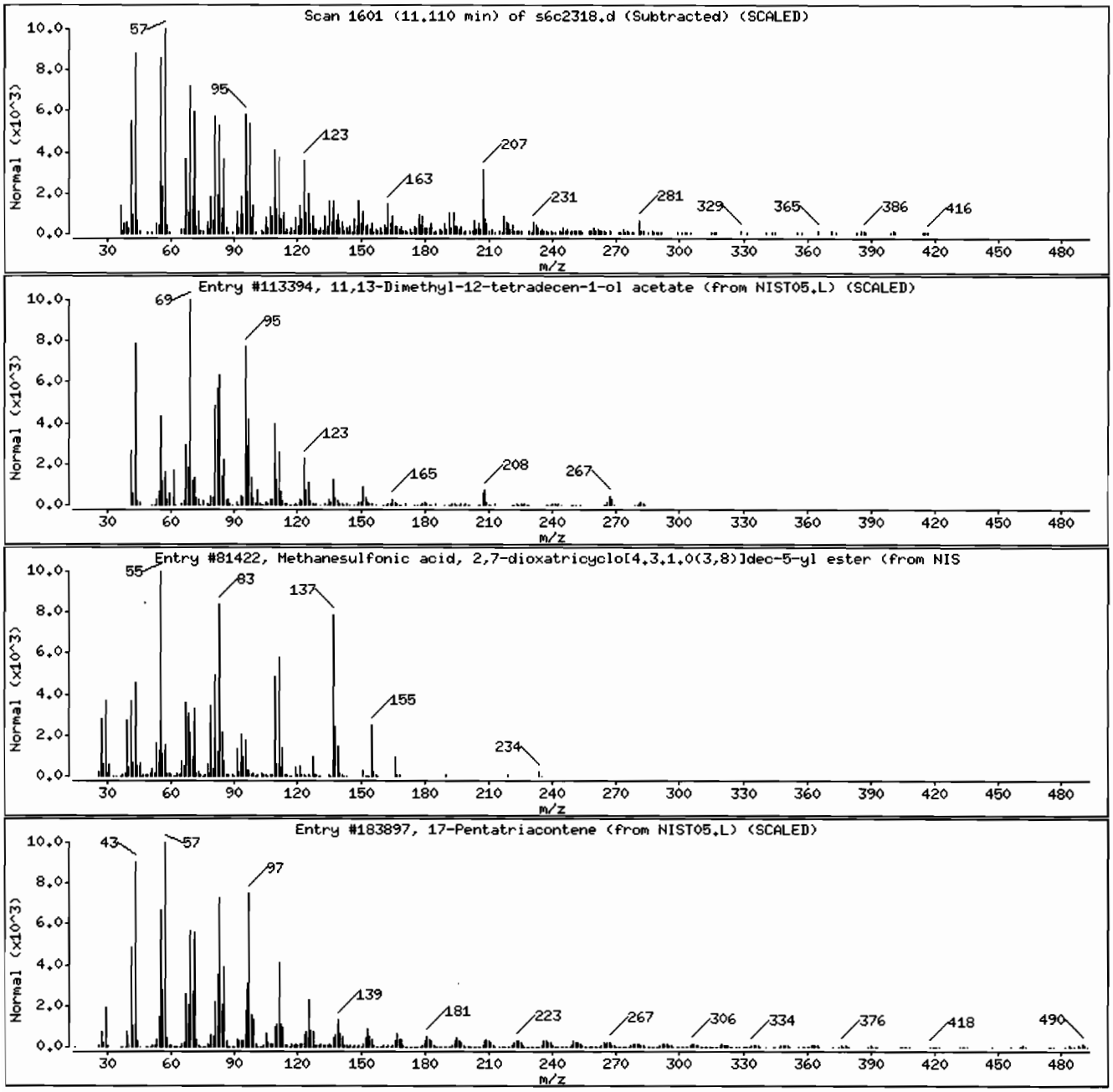

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: 1248842004196542511O1SVMI1ILANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	60	C18H34O2	282
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	42	C20H34	274
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	41	C16H30Br2O2	412

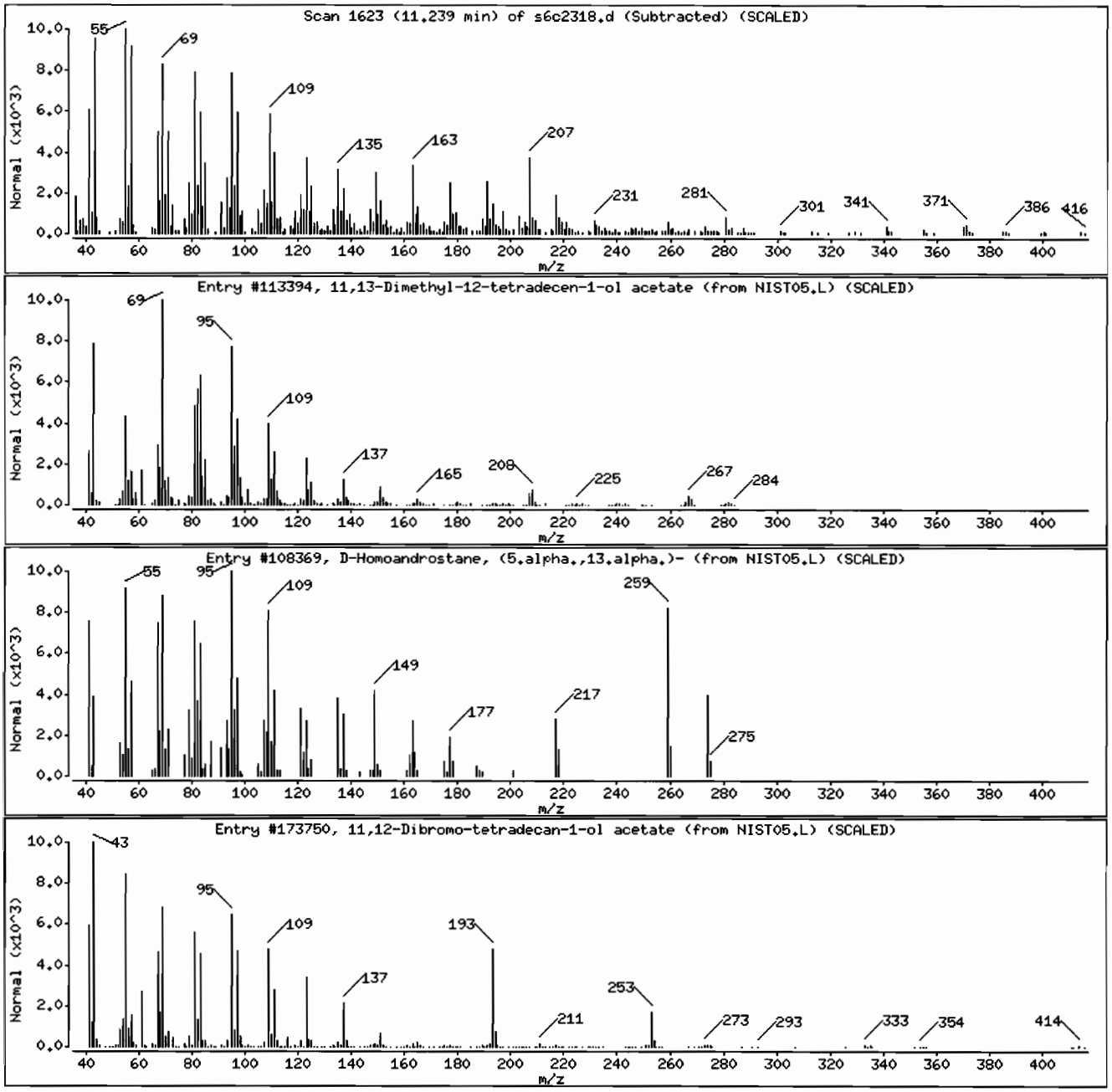

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Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551

Instrument: MSD6.i

Sample Info: |2488420041965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,6-Dioxaadamantane, 8-iodo-4-acetoxy-	1000196-52-8	NIST05.L	138591	25	C10H13IO4	324
Bicyclo[3.2.0]heptan-2-one, 5-(ethoxycar	1000157-07-8	NIST05.L	102496	25	C15H22O4	266
Benzenamine, 4-methyl-2,6-dinitro-	6393-42-6	NIST05.L	55158	22	C7H7N3O4	197

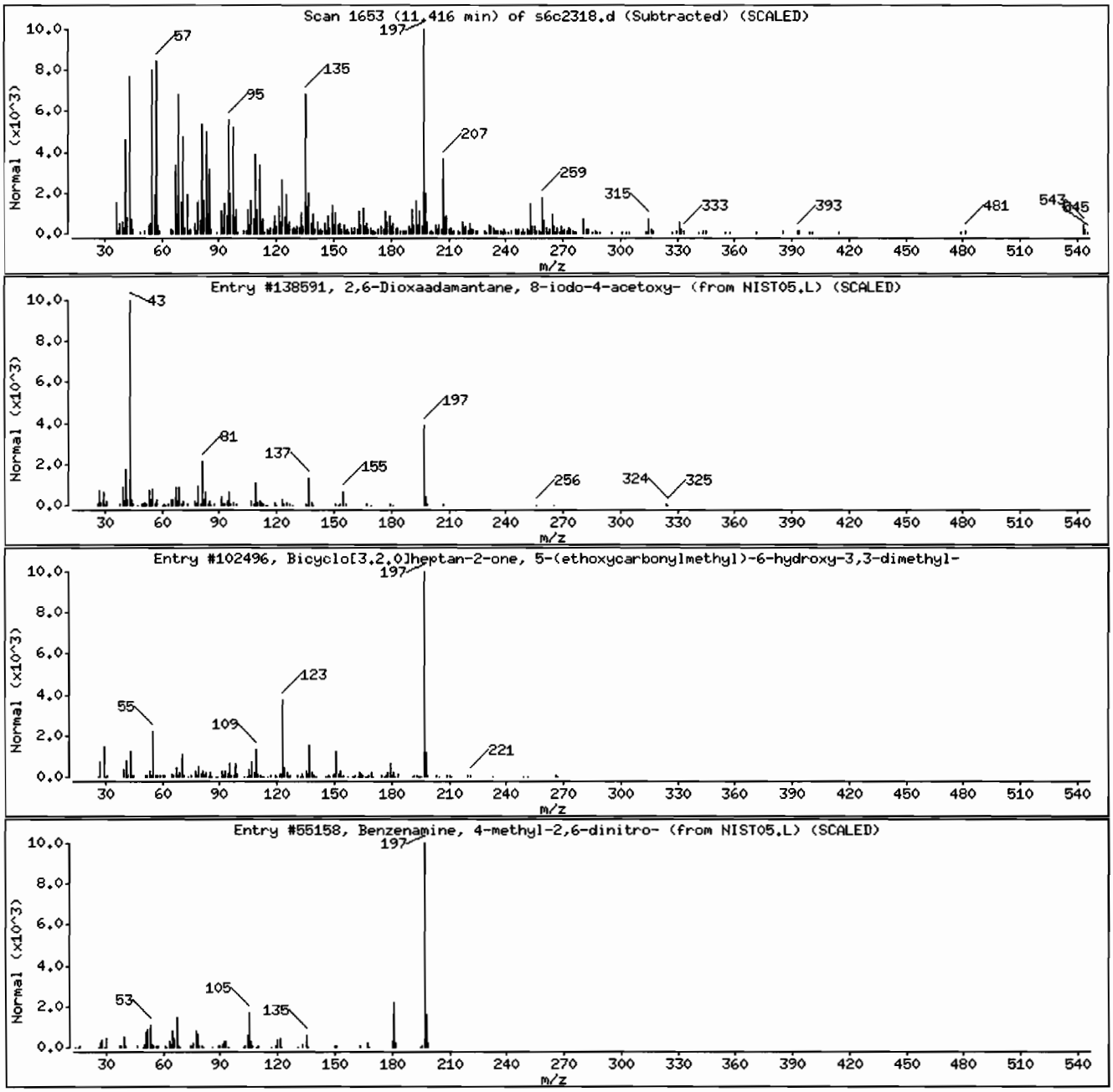

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: 1248842004196542511 0|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	83	C20H34	274
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	41	C16H30Br2O2	412
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	38	C19H36	264

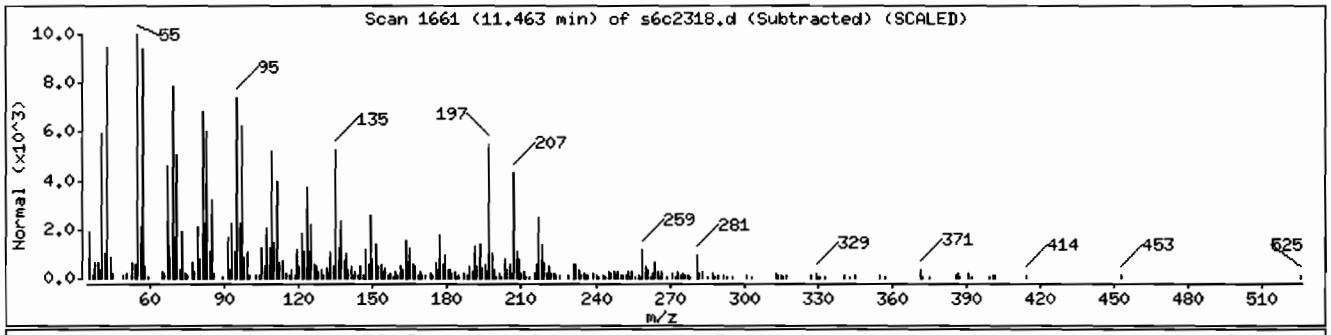

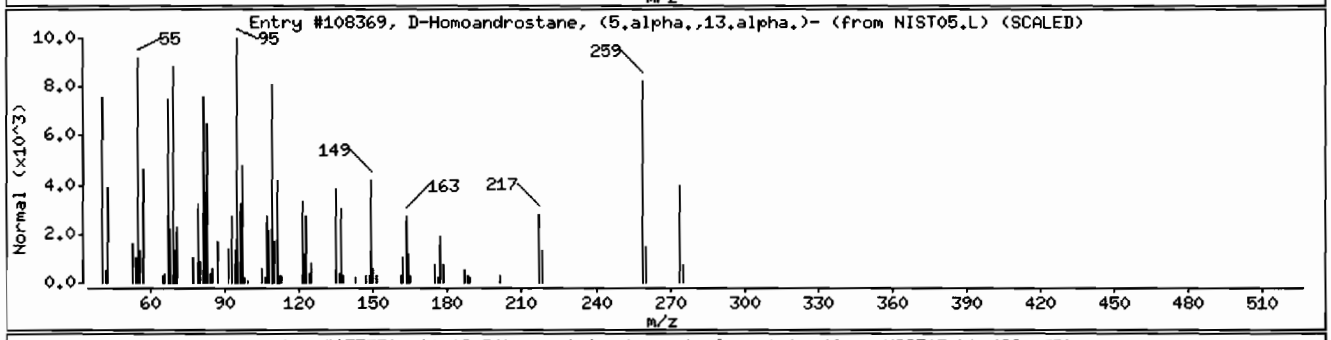

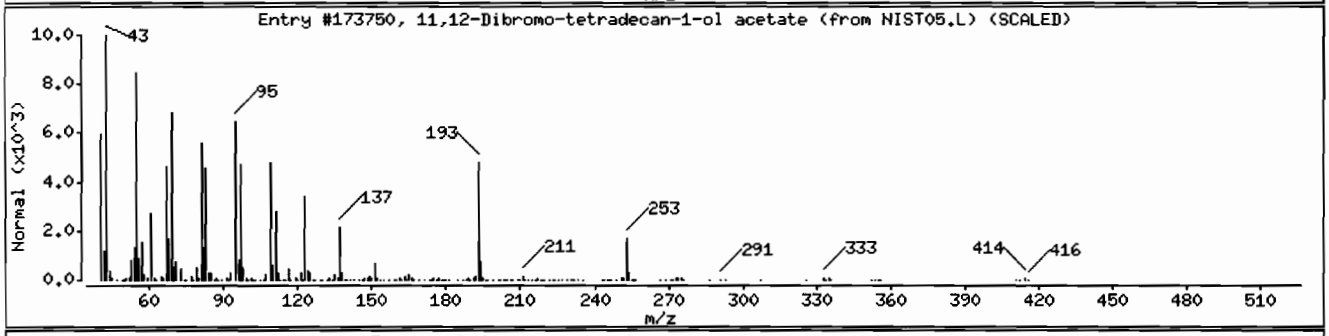

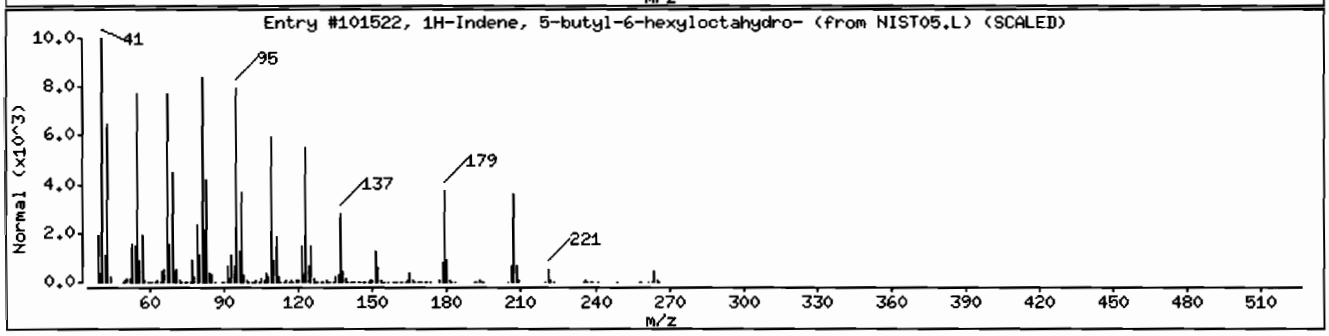

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: 1248842004|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	66	C16H30Br2O2	412
Cyclododecanemethanol	1892-12-2	NIST05.L	55891	46	C13H26O	198
1,7-Dimethyl-4-(1-methylethyl)cyclodecan	645-10-3	NIST05.L	64470	43	C15H30	210

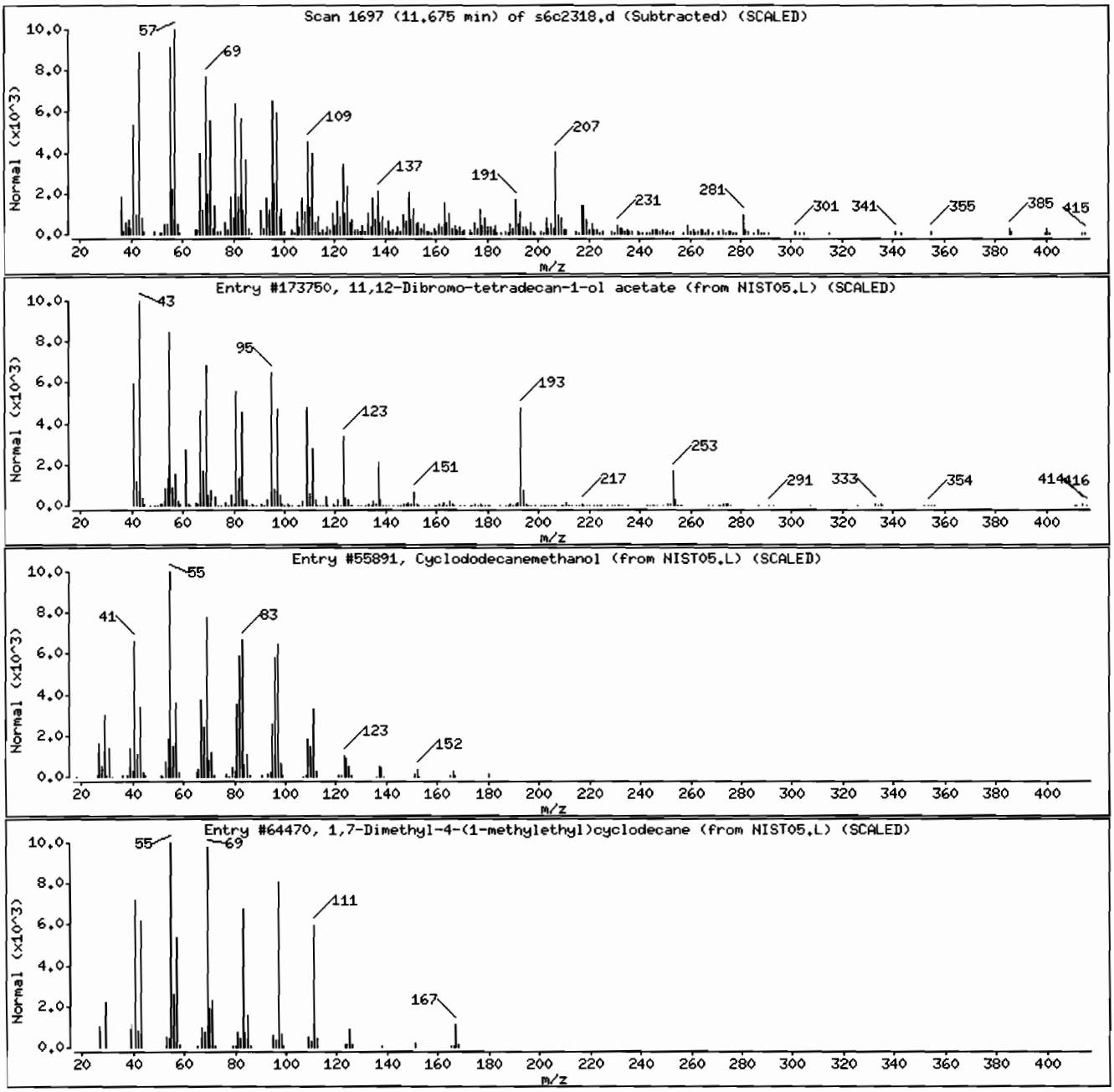

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: 1248842004|965425|10|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
28-Nor-17.alpha.(H)-hopane	53584-60-4	NIST05.L	170885	70	C29H50	398
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	58	C13H21NO	207
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	55	C18H3402	282

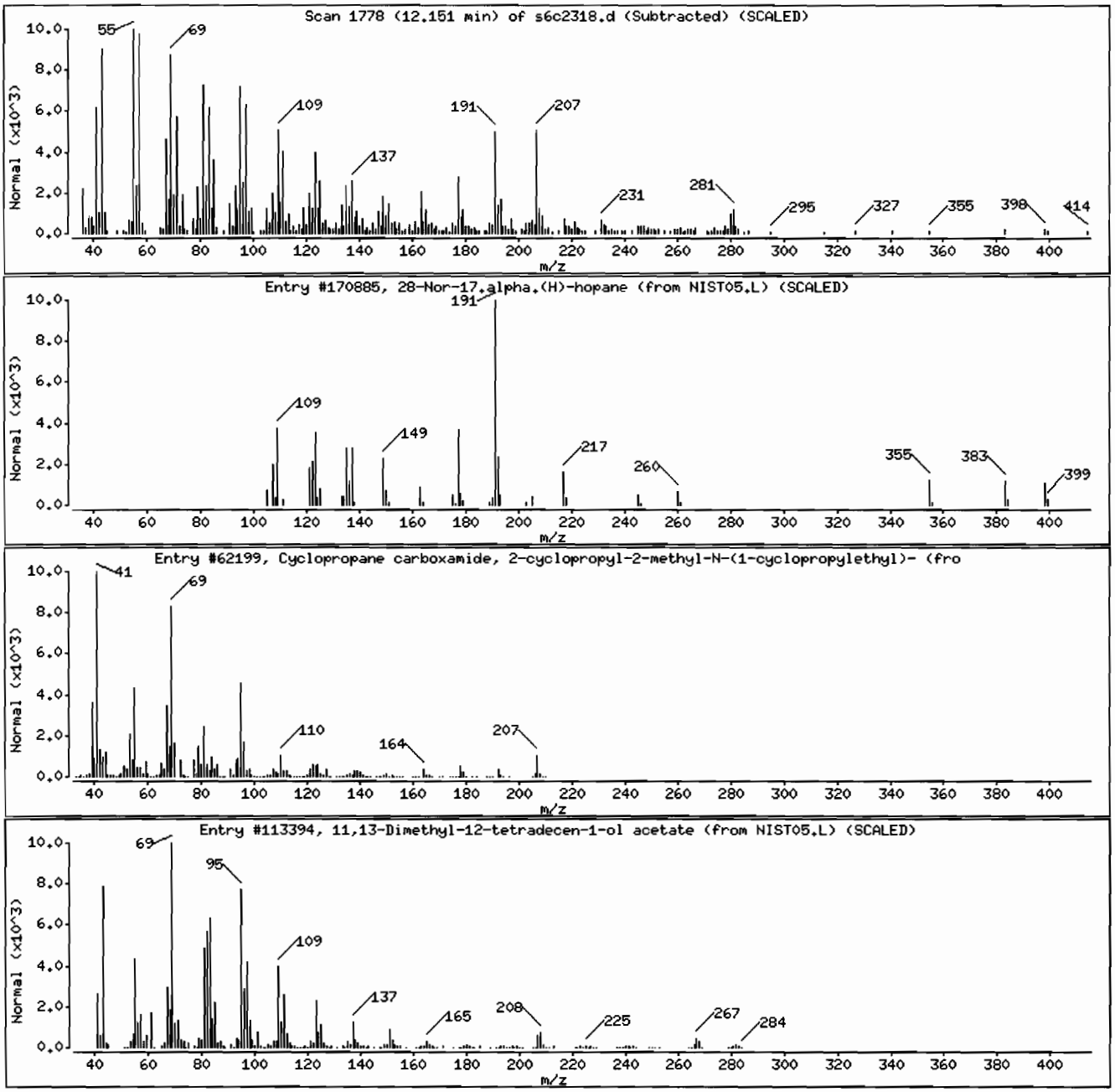

Data File: /chem/MSD6.i/s032310.b/s6c2318.d

Date : 23-MAR-2010 21:08

Client ID: RE46-10-13551 Instrument: MSD6.i

Sample Info: |2488420041965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p	3390-61-2	NIST05.L	186812	45	C33H3402Si3	546
9H-Carbazole-3,6-diamine	86-71-5	NIST05.L	55003	10	C12H11N3	197
Benzaldehyde, 4-hydroxy-3-methoxy-5-nitr	6635-20-7	NIST05.L	55230	9	C8H7N05	197

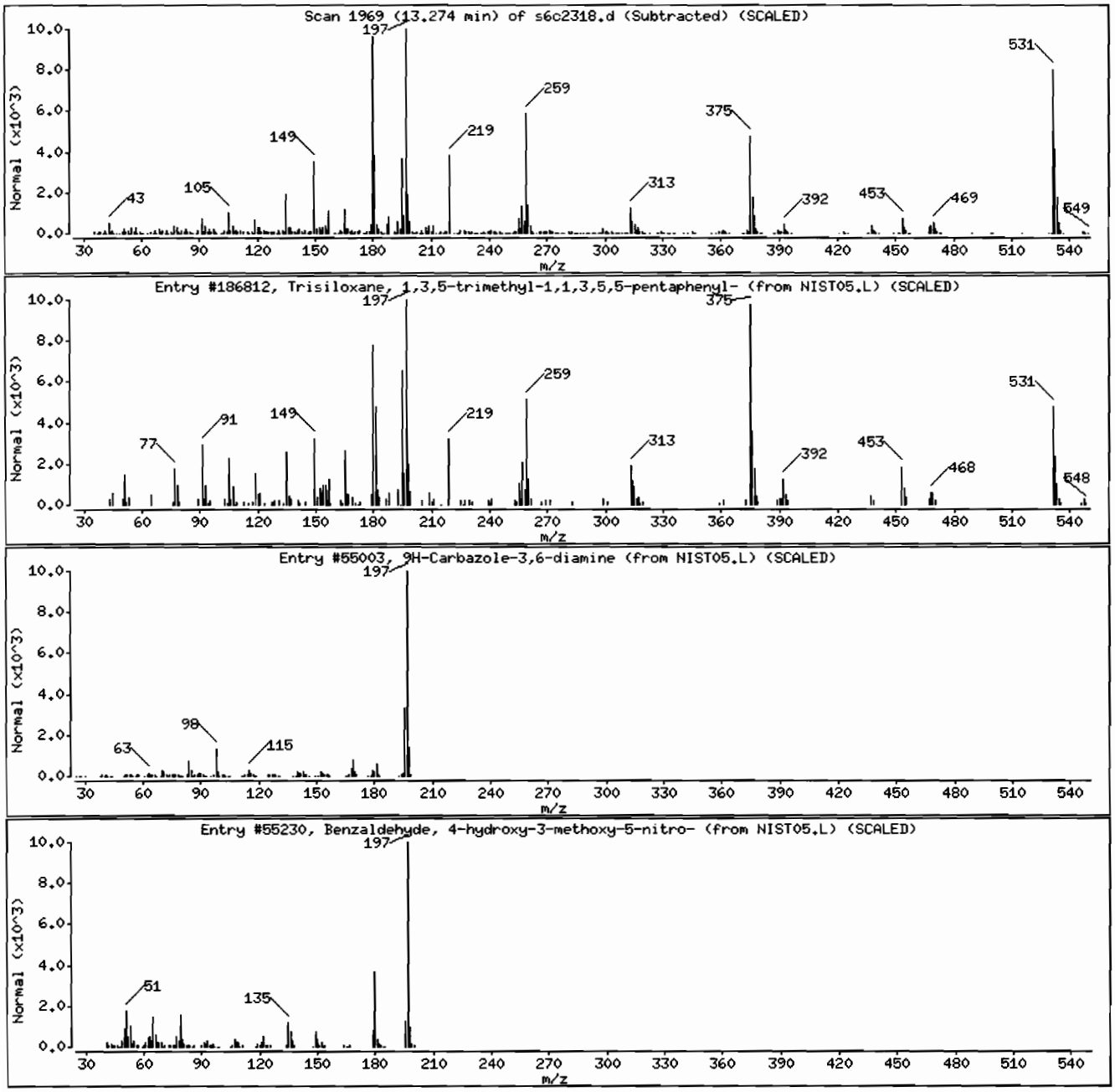

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13552**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 21:55**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2320.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	3820	ug/kg	763	3820
108-95-2	Phenol	U	3820	ug/kg	763	3820
95-57-8	2-Chlorophenol	U	3820	ug/kg	763	3820
106-46-7	1,4-Dichlorobenzene	U	3820	ug/kg	763	3820
621-64-7	N-Nitrosodipropylamine	U	3820	ug/kg	763	3820
59-50-7	4-Chloro-3-methylphenol	U	3820	ug/kg	763	3820
83-32-9	Acenaphthene	U	382	ug/kg	126	382
121-14-2	2,4-Dinitrotoluene	U	3820	ug/kg	382	3820
100-02-7	4-Nitrophenol	U	3820	ug/kg	1260	3820
87-86-5	Pentachlorophenol	U	3820	ug/kg	954	3820
129-00-0	Pyrene	U	382	ug/kg	115	382
110-86-1	Pyridine	U	3820	ug/kg	763	3820
62-53-3	Aniline	U	3820	ug/kg	1150	3820
111-44-4	bis(2-Chloroethyl) ether	U	3820	ug/kg	763	3820
541-73-1	1,3-Dichlorobenzene	U	3820	ug/kg	763	3820
100-51-6	Benzyl alcohol	U	3820	ug/kg	1150	3820
95-50-1	1,2-Dichlorobenzene	U	3820	ug/kg	763	3820
108-60-1	bis(2-Chloroisopropyl)ether	U	3820	ug/kg	763	3820
95-48-7	o-Cresol	U	3820	ug/kg	763	3820
65794-96-9	m,p-Cresols	U	3820	ug/kg	1150	3820
67-72-1	Hexachloroethane	U	3820	ug/kg	763	3820
98-95-3	Nitrobenzene	U	3820	ug/kg	763	3820
78-59-1	Isophorone	U	3820	ug/kg	763	3820
88-75-5	2-Nitrophenol	U	3820	ug/kg	763	3820
105-67-9	2,4-Dimethylphenol	U	3820	ug/kg	1340	3820
111-91-1	bis(2-Chloroethoxy)methane	U	3820	ug/kg	763	3820
120-83-2	2,4-Dichlorophenol	U	3820	ug/kg	763	3820
65-85-0	Benzoic acid	U	7630	ug/kg	1910	7630
91-20-3	Naphthalene	U	382	ug/kg	115	382
106-47-8	4-Chloroaniline	U	3820	ug/kg	763	3820
87-68-3	Hexachlorobutadiene	U	3820	ug/kg	763	3820
91-57-6	2-Methylnaphthalene	U	382	ug/kg	76.3	382
77-47-4	Hexachlorocyclopentadiene	U	3820	ug/kg	763	3820
88-06-2	2,4,6-Trichlorophenol	U	3820	ug/kg	763	3820
95-95-4	2,4,5-Trichlorophenol	U	3820	ug/kg	763	3820
91-58-7	2-Chloronaphthalene	U	382	ug/kg	126	382
88-74-4	2-Nitroaniline	U	3820	ug/kg	763	3820
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	3820	ug/kg	763	3820

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13552**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 21:55**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2320.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	3820	ug/kg	763	3820
606-20-2	2,6-Dinitrotoluene	U	3820	ug/kg	382	3820
208-96-8	Acenaphthylene	U	382	ug/kg	115	382
51-28-5	2,4-Dinitrophenol	U	7630	ug/kg	1450	7630
132-64-9	Dibenzofuran	U	3820	ug/kg	763	3820
84-66-2	Diethylphthalate	U	3820	ug/kg	763	3820
86-73-7	Fluorene	U	382	ug/kg	115	382
7005-72-3	4-Chlorophenylphenylether	U	3820	ug/kg	763	3820
534-52-1	2-Methyl-4,6-dinitrophenol	U	3820	ug/kg	763	3820
100-01-6	4-Nitroaniline	U	3820	ug/kg	1150	3820
	p-Nitroaniline					
122-39-4	Diphenylamine	U	3820	ug/kg	763	3820
122-66-7	Azobenzene	U	3820	ug/kg	763	3820
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	3820	ug/kg	763	3820
118-74-1	Hexachlorobenzene	U	3820	ug/kg	763	3820
85-01-8	Phenanthrene	U	382	ug/kg	115	382
120-12-7	Anthracene	U	382	ug/kg	76.3	382
84-74-2	Di-n-butylphthalate	U	3820	ug/kg	763	3820
206-44-0	Fluoranthene	U	382	ug/kg	115	382
85-68-7	Butylbenzylphthalate	U	3820	ug/kg	763	3820
56-55-3	Benzo(a)anthracene	U	382	ug/kg	115	382
91-94-1	3,3'-Dichlorobenzidine	U	3820	ug/kg	1150	3820
218-01-9	Chrysene	U	382	ug/kg	115	382
117-81-7	bis(2-Ethylhexyl)phthalate	J	1110	ug/kg	763	3820
117-84-0	Di-n-octylphthalate	U	3820	ug/kg	763	3820
205-99-2	Benzo(b)fluoranthene	U	382	ug/kg	115	382
207-08-9	Benzo(k)fluoranthene	U	382	ug/kg	115	382
50-32-8	Benzo(a)pyrene	U	382	ug/kg	115	382
193-39-5	Indeno(1,2,3-cd)pyrene	U	382	ug/kg	115	382
53-70-3	Dibenzo(a,h)anthracene	U	382	ug/kg	115	382
191-24-2	Benzo(ghi)perylene	U	382	ug/kg	115	382
120-82-1	1,2,4-Trichlorobenzene	U	3820	ug/kg	763	3820

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	10.68	3440	ug/kg		J
	Unknown	13.24	3330	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032310.b/s6c2320.d
Lab Smp Id: 248842008 Client Smp ID: RE46-10-13552
Inj Date : 23-MAR-2010 21:55
Operator : nagl Inst ID: MSD6.i
Smp Info : |248842008|965425|10|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 09:23 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 15
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	12.67710	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.952	3.946	(1.000)	287689	40.0000	
* 29 Naphthalene-d8	136	4.816	4.804	(1.000)	1020000	40.0000	
* 46 Acenaphthene-d10	164	6.063	6.057	(1.000)	623117	40.0000	
* 67 Phenanthrene-d10	188	7.234	7.228	(1.000)	1045287	40.0000	
* 91 Chrysene-d12	240	9.639	9.628	(1.000)	883970	40.0000	
* 98 Perylene-d12	264	11.316	11.298	(1.000)	781613	40.0000	
$ 3 2-Fluorophenol	112	3.140	3.128	(0.795)	25999	3.25090	1240
$ 5 Phenol-d5	99	3.657	3.657	(0.926)	33897	3.33282	1270
$ 20 Nitrobenzene-d5	82	4.310	4.304	(0.895)	16009	1.64186	627
$ 39 2-Fluorobiphenyl	172	5.551	5.546	(0.916)	34200	2.12732	812
$ 60 2,4,6-Tribromophenol	329	6.657	6.651	(1.098)	6252	3.57553	1360(R)
$ 81 p-Terphenyl-d14	244	8.610	8.604	(0.893)	37055	2.40555	918

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
93 bis(2-Ethylhexyl)phthalate	149	9.557	9.551	(0.991)	50649	2.90628	1110(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

ION RATIO REPORT

SV REPORT

Data file: s6c2320.d
Report Date: 03/24/2010 09:29
Lab. ID: 248842008 SampleType: SAMPLE
Injection Date: 23-MAR-2010 21:55
Operator: nagl Instrument: MSD6.i
Sample Info: |248842008|965425|10|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100319-01
Comment:
Method used: /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m
Dilution Factor= 10.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
22 Isophorone			CAS#: 78-59-1			
82	35487	4.82	4.47	80-120	100	(T)
138	5532	4.82	4.47	0- 48	16	(T)
34 2-Methylnaphthalene			CAS#: 91-57-6			
142	177777	5.70	5.30	80-120	100	(T)
141	312694	5.70	5.30	55-115	176	(QT)
40 2-Chloronaphthalene			CAS#: 91-58-7			
162	584215	6.06	5.66	80-120	100	(T)
164	623117	6.06	5.66	3- 63	107	(QT)
127	417	5.95	5.66	7- 67	0	(QT)
42 o-Nitroaniline			CAS#: 88-74-4			
65	45340	5.70	5.71	80-120	100	( )
92	2156	5.70	5.71	38- 98	5	(Q)
138	776	5.70	5.71	81-141	2	(Q)
43 Dimethylphthalate			CAS#: 131-11-3			
163	112594	6.07	5.82	80-120	100	(T)
164	623117	6.06	5.82	0- 41	553	(QT)
45 Acenaphthylene			CAS#: 208-96-8			
152	104309	5.63	5.96	80-120	100	(T)
151	31638	5.63	5.96	0- 50	30	(T)
153	155444	5.63	5.96	0- 44	149	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
47 Acenaphthene			CAS#: 83-32-9			
154	384589	5.63	6.08	80-120	100	(T)
153	155444	5.63	6.08	70-130	40	(QT)
152	104309	5.63	6.08	17- 77	27	(T)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	81248	6.06	6.17	80-120	100	(T)
89	795	6.06	6.17	38- 98	1	(QT)
63	879	6.07	6.17	18- 78	1	(QT)
52 4-Nitrophenol			CAS#: 100-02-7			
139	18925	5.70	6.09	80-120	100	(T)
109	169	5.70	6.09	36- 96	1	(QT)
65	45340	5.70	6.09	69-129	240	(QT)
93 bis(2-Ethylhexyl)phthalate			CAS#: 117-81-7			
149	50649	9.56	9.55	80-120	100	( )
167	16234	9.56	9.55	4- 64	32	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032310.b/s6c2320.d
Lab Smp Id: 248842008 Client Smp ID: RE46-10-13552
Inj Date : 23-MAR-2010 21:55
Operator : nag1 Inst ID: MSD6.i
Smp Info : |248842008|965425|10|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 09:23 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 15
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	12.67710	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 98 Perylene-d12	11.316	2095022	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
10.681	471961	9.01108593	3440	0		0	98
Unknown				CAS #:			
13.239	456628	8.71834917	3330	0		0	98

Data File: /chem/MSD6.i/s032310.b/s6c2320.d
Date : 23-MAR-2010 21:55
Client ID: RE46-10-13552
Sample Info: 1248842008|965425|10|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

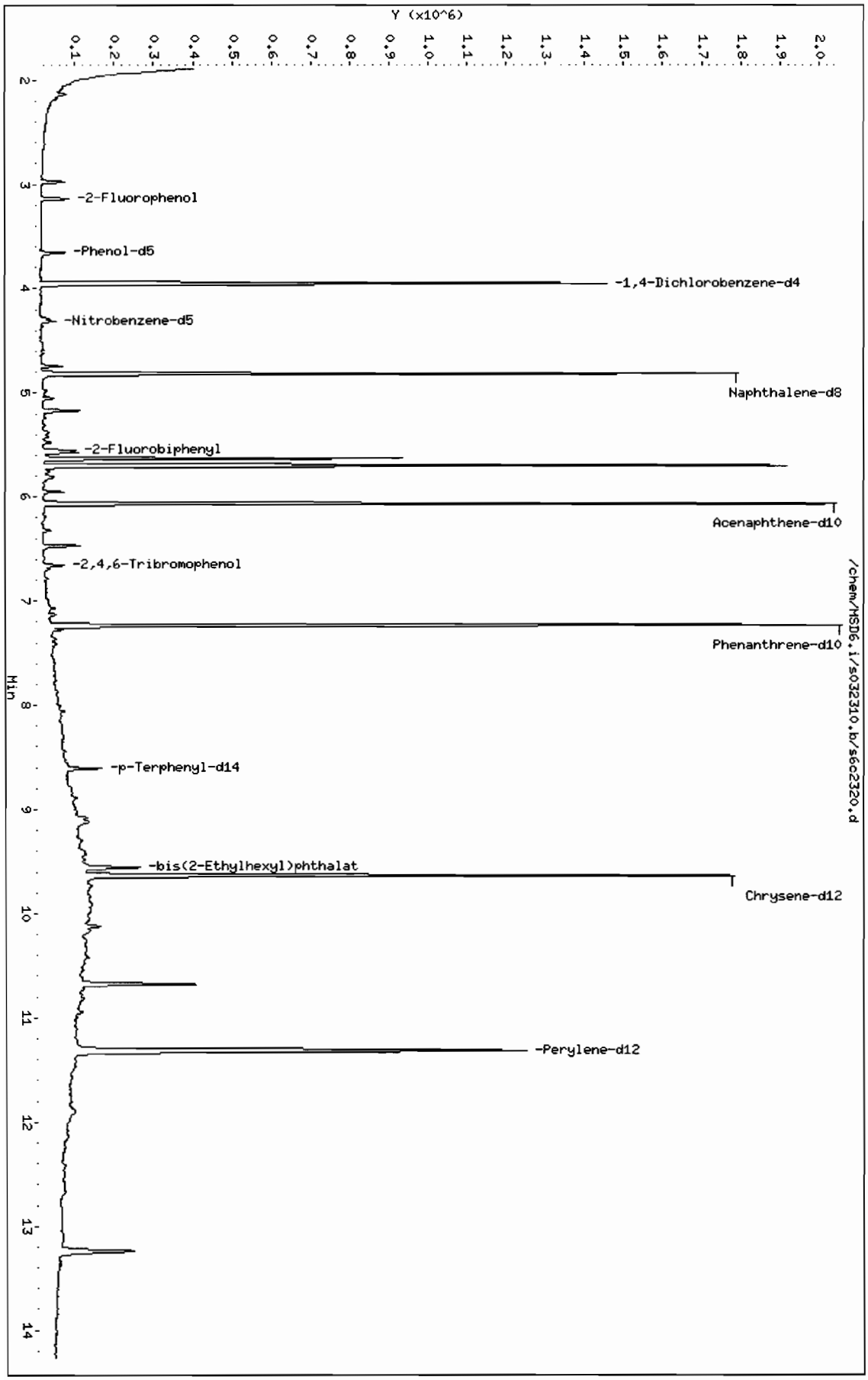

Page 1

Data File: /chem/MSD6.i/s032310.b/s6c2320.d

Date : 23-MAR-2010 21:55

Client ID: RE46-10-13552

Instrument: MSD6.i

Sample Info: 1248842008196542511 0|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 1110 ug/Kg

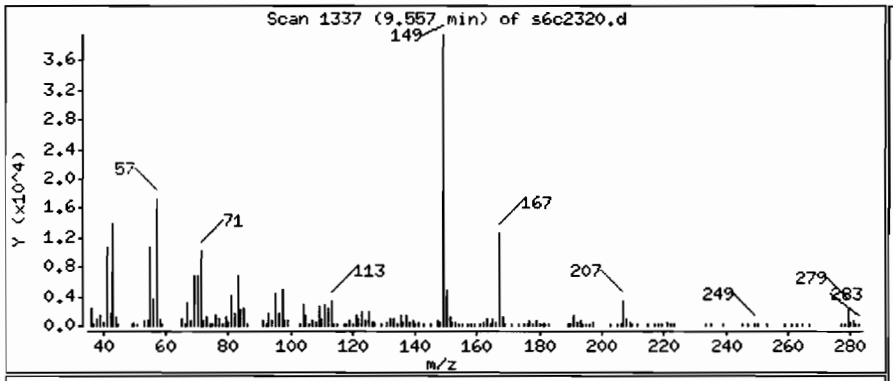

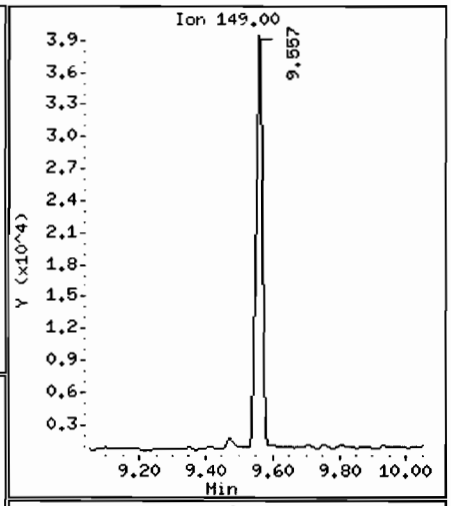

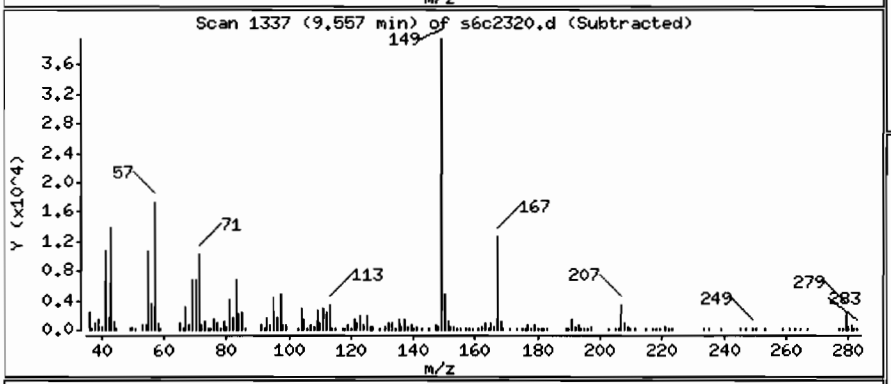

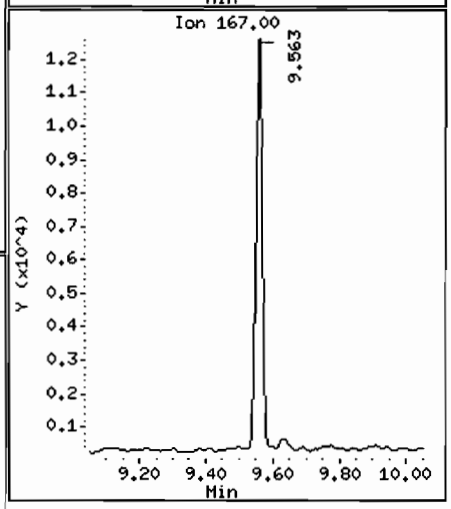

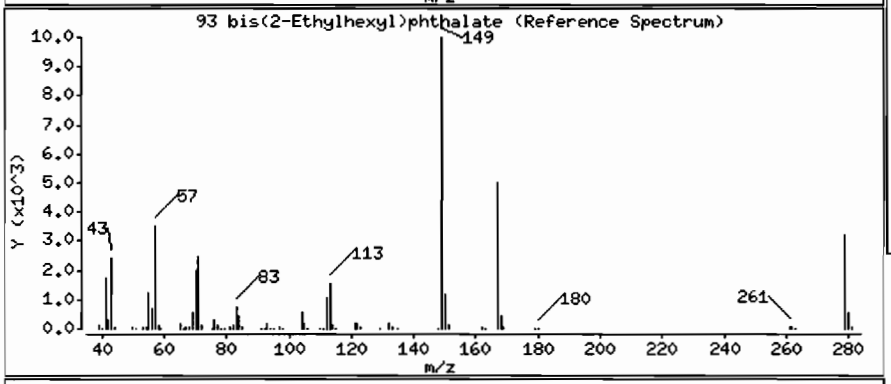

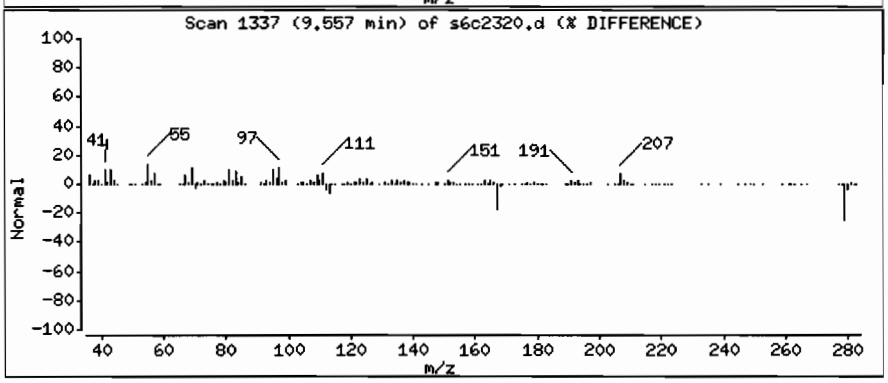

Data File: /chem/MSD6.i/s032310.b/s6c2320.d

Date : 23-MAR-2010 21:55

Client ID: RE46-10-13552

Instrument: MSD6.i

Sample Info: 1248842008|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
p,p'-Ditolylamine	620-93-9	NIST05.L	55093	15	C14H15N	197
4-Hydrazono-5-hydroxyimino-4,5,6,7-tetra	303194-86-7	NIST05.L	55129	11	C6H7N5O3	197
2'-Methyldihydro-2-stilbazole	58246-68-7	NIST05.L	55103	11	C14H15N	197

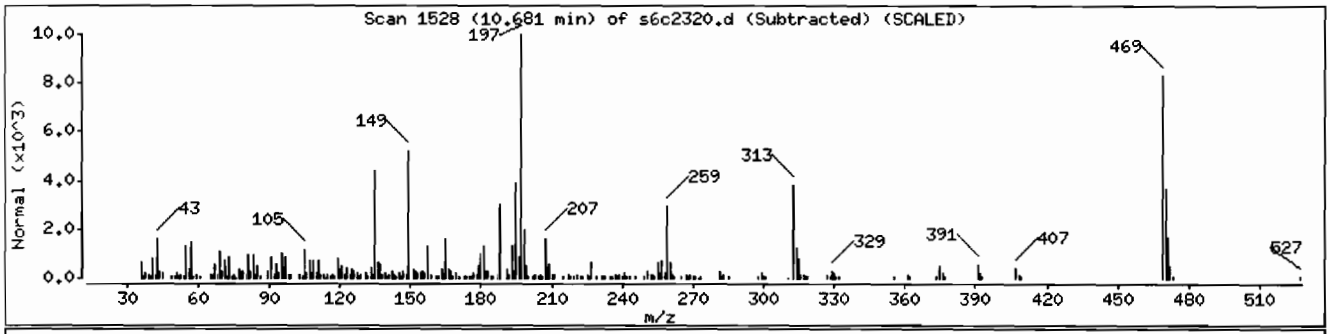

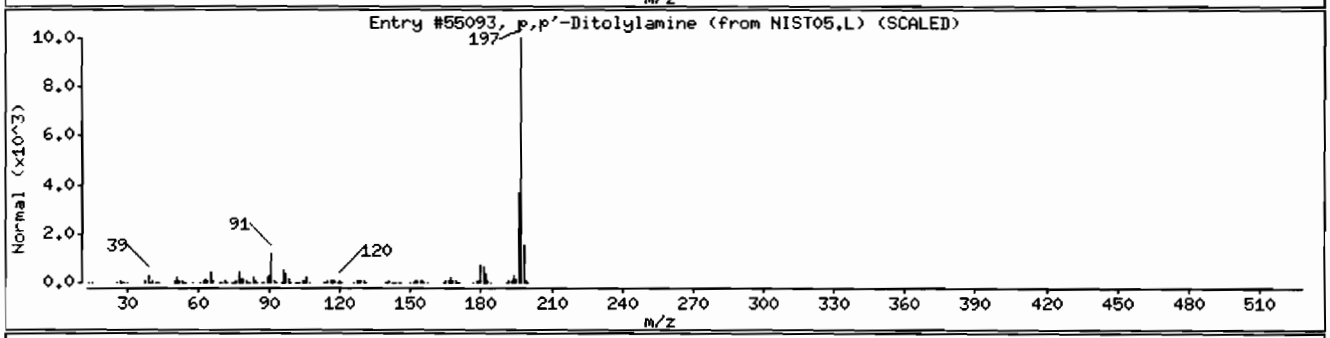

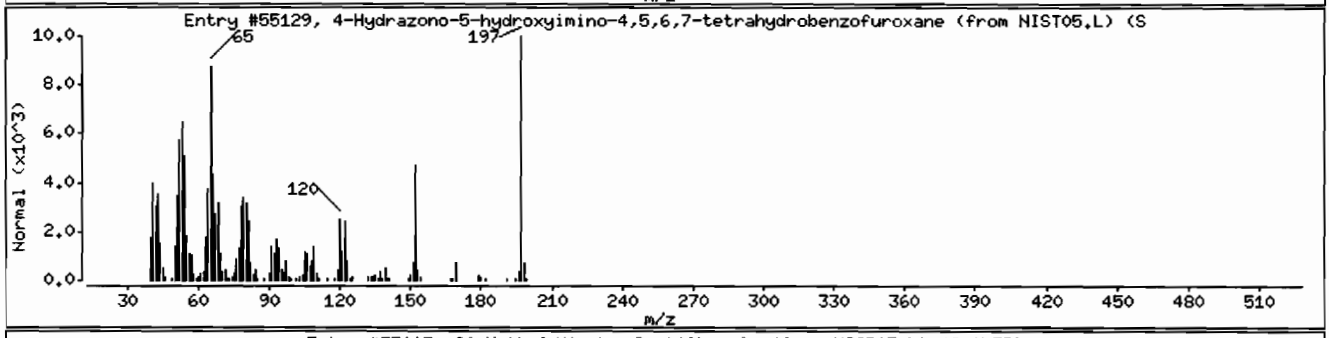

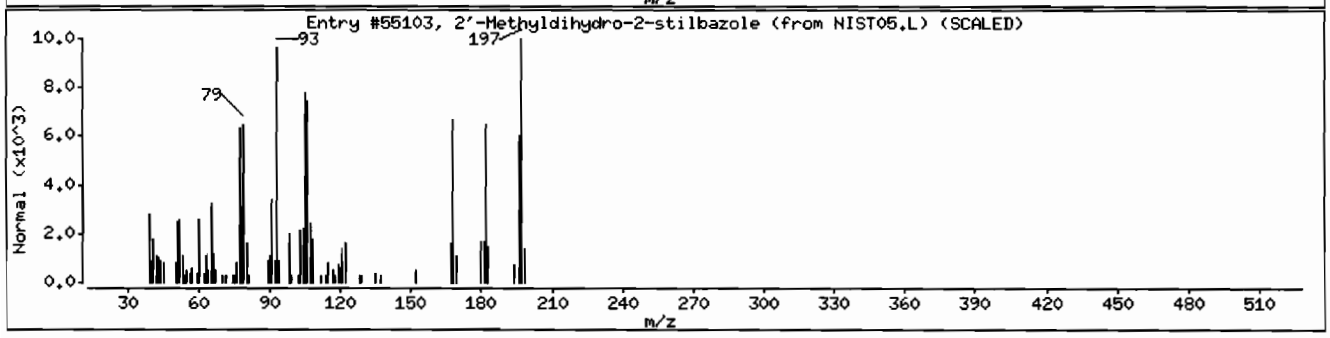

Data File: /chem/MSD6.i/s032310.b/s6c2320.d

Date : 23-MAR-2010 21:55

Client ID: RE46-10-13552

Instrument: MSD6.i

Sample Info: 1248842008|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p	3390-61-2	NIST05.L	186812	50	C33H3402Si3	546
4-Hydrazono-5-hydroxyimino-4,5,6,7-tetra	303194-86-7	NIST05.L	55129	25	C6H7N503	197
Proline, 3-methyl-1-(trifluoroacetyl)-,	57983-48-9	NIST05.L	112275	15	C12H18F3N03	281

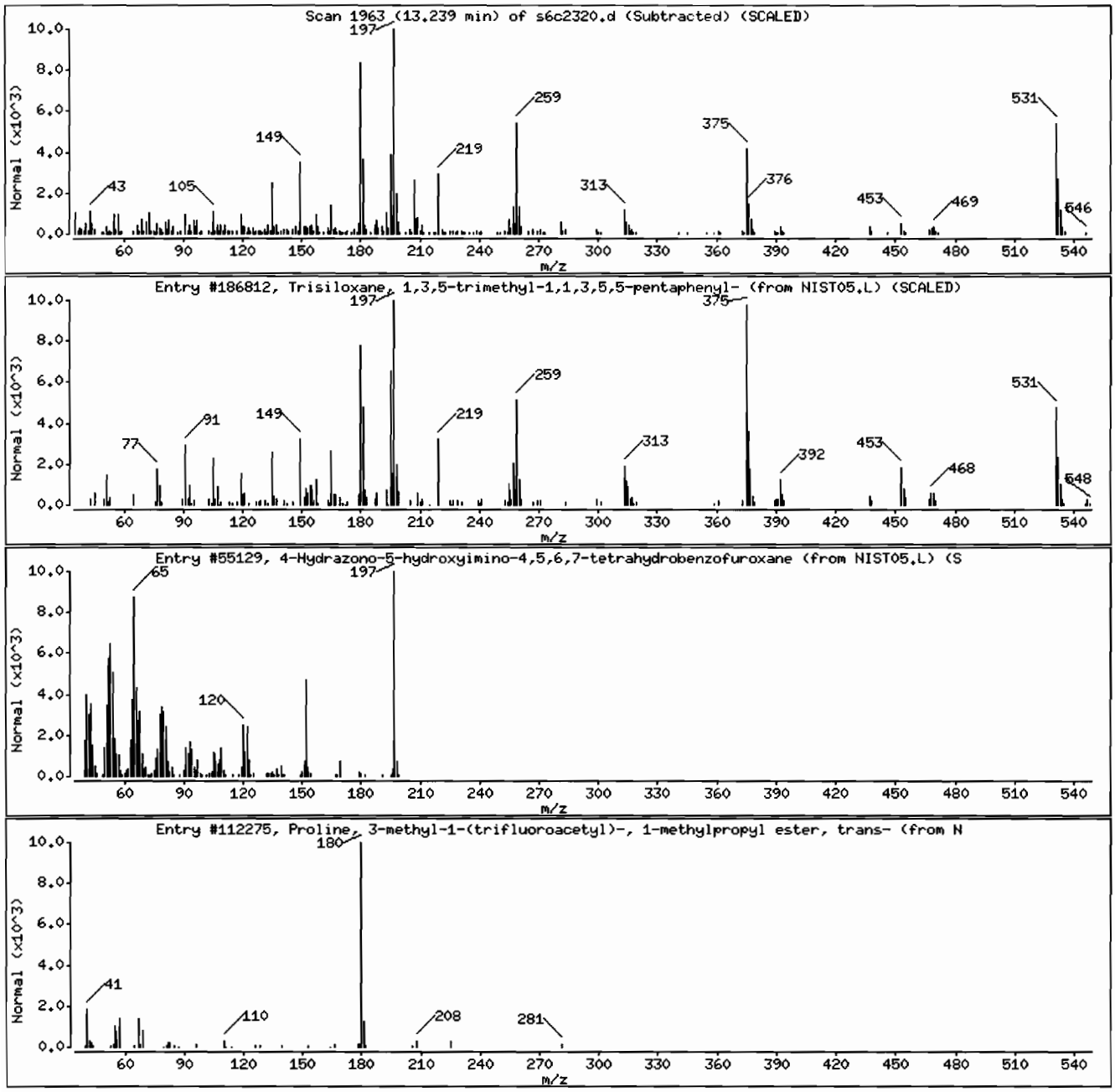

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13553**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 22:22**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2021.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	387	ug/kg	77.4	387
108-95-2	Phenol	U	387	ug/kg	77.4	387
95-57-8	2-Chlorophenol	U	387	ug/kg	77.4	387
106-46-7	1,4-Dichlorobenzene	U	387	ug/kg	77.4	387
621-64-7	N-Nitrosodipropylamine	U	387	ug/kg	77.4	387
59-50-7	4-Chloro-3-methylphenol	U	387	ug/kg	77.4	387
83-32-9	Acenaphthene	U	38.7	ug/kg	12.8	38.7
121-14-2	2,4-Dinitrotoluene	U	387	ug/kg	38.7	387
100-02-7	4-Nitrophenol	U	387	ug/kg	128	387
87-86-5	Pentachlorophenol	U	387	ug/kg	96.7	387
129-00-0	Pyrene	U	38.7	ug/kg	11.6	38.7
110-86-1	Pyridine	U	387	ug/kg	77.4	387
62-53-3	Aniline	U	387	ug/kg	116	387
111-44-4	bis(2-Chloroethyl) ether	U	387	ug/kg	77.4	387
541-73-1	1,3-Dichlorobenzene	U	387	ug/kg	77.4	387
100-51-6	Benzyl alcohol	U	387	ug/kg	116	387
95-50-1	1,2-Dichlorobenzene	U	387	ug/kg	77.4	387
108-60-1	bis(2-Chloroisopropyl)ether	U	387	ug/kg	77.4	387
95-48-7	o-Cresol	U	387	ug/kg	77.4	387
65794-96-9	m,p-Cresols	U	387	ug/kg	116	387
67-72-1	Hexachloroethane	U	387	ug/kg	77.4	387
98-95-3	Nitrobenzene	U	387	ug/kg	77.4	387
78-59-1	Isophorone	U	387	ug/kg	77.4	387
88-75-5	2-Nitrophenol	U	387	ug/kg	77.4	387
105-67-9	2,4-Dimethylphenol	U	387	ug/kg	135	387
111-91-1	bis(2-Chloroethoxy)methane	U	387	ug/kg	77.4	387
120-83-2	2,4-Dichlorophenol	U	387	ug/kg	77.4	387
65-85-0	Benzoic acid	U	774	ug/kg	193	774
91-20-3	Naphthalene	U	38.7	ug/kg	11.6	38.7
106-47-8	4-Chloroaniline	U	387	ug/kg	77.4	387
87-68-3	Hexachlorobutadiene	U	387	ug/kg	77.4	387
91-57-6	2-Methylnaphthalene	U	38.7	ug/kg	7.74	38.7
77-47-4	Hexachlorocyclopentadiene	U	387	ug/kg	77.4	387
88-06-2	2,4,6-Trichlorophenol	U	387	ug/kg	77.4	387
95-95-4	2,4,5-Trichlorophenol	U	387	ug/kg	77.4	387
91-58-7	2-Chloronaphthalene	U	38.7	ug/kg	12.8	38.7
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	387	ug/kg	77.4	387
99-09-2	3-Nitroaniline	U	387	ug/kg	77.4	387

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13553**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 22:22**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2021.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	387	ug/kg	77.4	387
606-20-2	2,6-Dinitrotoluene	U	387	ug/kg	38.7	387
208-96-8	Acenaphthylene	U	38.7	ug/kg	11.6	38.7
51-28-5	2,4-Dinitrophenol	U	774	ug/kg	147	774
132-64-9	Dibenzofuran	U	387	ug/kg	77.4	387
84-66-2	Diethylphthalate	U	387	ug/kg	77.4	387
86-73-7	Fluorene	U	38.7	ug/kg	11.6	38.7
7005-72-3	4-Chlorophenylphenylether	U	387	ug/kg	77.4	387
534-52-1	2-Methyl-4,6-dinitrophenol	U	387	ug/kg	77.4	387
100-01-6	4-Nitroaniline	U	387	ug/kg	116	387
	p-Nitroaniline					
122-39-4	Diphenylamine	U	387	ug/kg	77.4	387
122-66-7	Azobenzene	U	387	ug/kg	77.4	387
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	387	ug/kg	77.4	387
118-74-1	Hexachlorobenzene	U	387	ug/kg	77.4	387
85-01-8	Phenanthrene	U	38.7	ug/kg	11.6	38.7
120-12-7	Anthracene	U	38.7	ug/kg	7.74	38.7
84-74-2	Di-n-butylphthalate	U	387	ug/kg	77.4	387
206-44-0	Fluoranthene	U	38.7	ug/kg	11.6	38.7
85-68-7	Butylbenzylphthalate	U	387	ug/kg	77.4	387
56-55-3	Benzo(a)anthracene	U	38.7	ug/kg	11.6	38.7
91-94-1	3,3'-Dichlorobenzidine	U	387	ug/kg	116	387
218-01-9	Chrysene	U	38.7	ug/kg	11.6	38.7
117-81-7	bis(2-Ethylhexyl)phthalate	J	236	ug/kg	77.4	387
117-84-0	Di-n-octylphthalate	U	387	ug/kg	77.4	387
205-99-2	Benzo(b)fluoranthene	U	38.7	ug/kg	11.6	38.7
207-08-9	Benzo(k)fluoranthene	U	38.7	ug/kg	11.6	38.7
50-32-8	Benzo(a)pyrene	U	38.7	ug/kg	11.6	38.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.7	ug/kg	11.6	38.7
53-70-3	Dibenzo(a,h)anthracene	U	38.7	ug/kg	11.6	38.7
191-24-2	Benzo(ghi)perylene	U	38.7	ug/kg	11.6	38.7
120-82-1	1,2,4-Trichlorobenzene	U	387	ug/kg	77.4	387

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.98	334	ug/kg		J
	Unknown Aldol Condensate	2.9	946	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842002**	**Date Received:**	**03/05/2010 10:20**	**% Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13553**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.1**	**Dilution:**	**1**
Run Date:	**03/20/2010 22:22**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2021.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
629-59-4	Tetradecane	9.36	186	ug/kg	93	NJ
	Unknown	10.58	330	ug/kg		J
112-95-8	Eicosane	10.72	238	ug/kg	89	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2021.d
Lab Smp Id: 248842002 Client Smp ID: RE46-10-13553
Inj Date : 20-MAR-2010 22:22
Operator : nagl Inst ID: MSD6.i
Smp Info : |248842002|965425|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 18 QC Sample: SAMPLE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	13.94230	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.869	3.863	(1.000)	413074	40.0000	
* 29 Naphthalene-d8	136	4.740	4.734	(1.000)	1492562	40.0000	
* 46 Acenaphthene-d10	164	5.993	5.987	(1.000)	920190	40.0000	
* 67 Phenanthrene-d10	188	7.157	7.145	(1.000)	1597918	40.0000	
* 91 Chrysene-d12	240	9.563	9.551	(1.000)	1388542	40.0000	
* 98 Perylene-d12	264	11.192	11.174	(1.000)	1001590	40.0000	
$ 3 2-Fluorophenol	112	3.063	3.046	(0.792)	617434	53.7692	2080
$ 5 Phenol-d5	99	3.587	3.575	(0.927)	798495	54.6788	2120
$ 20 Nitrobenzene-d5	82	4.234	4.228	(0.893)	366701	25.7011	994
$ 39 2-Fluorobiphenyl	172	5.481	5.475	(0.915)	727398	30.6387	1180
$ 60 2,4,6-Tribromophenol	329	6.587	6.575	(1.099)	187368	72.5619	2810
$ 81 p-Terphenyl-d14	244	8.534	8.522	(0.892)	909128	37.5726	1450

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
93 bis(2-Ethylhexyl)phthalate	149	9.492	9.486	(0.993)	166788	6.09269	236(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s6c2021.d
Report Date: 03/21/2010 08:15
Lab. ID: 248842002 SampleType: SAMPLE
Injection Date: 20-MAR-2010 22:22
Operator: nagl Instrument: MSD6.i
Sample Info: |248842002|965425|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100319-01
Comment:
Method used: /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	45628	3.59	3.65	80-120	100	( )
93	109	3.59	3.65	387-447	0	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	52791	4.23	4.10	80-120	100	(T)
42	32204	4.23	4.10	40-100	61	(T)
22 Isophorone		CAS#: 78-59-1				
82	366701	4.23	4.39	80-120	100	(T)
138	280	4.15	4.39	0- 49	0	(T)
34 2-Methylnaphthalene				CAS#: 91-57-6		
142	429659	5.63	5.23	80-120	100	(T)
141	738522	5.63	5.23	55-115	172	(QT)
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	860044	5.99	5.58	80-120	100	(T)
164	920190	5.99	5.58	4- 64	107	(QT)
127	1077	5.89	5.58	7- 67	0	(QT)
42 o-Nitroaniline				CAS#: 88-74-4		
65	111569	5.63	5.64	80-120	100	( )
92	5428	5.63	5.64	38- 98	5	(Q)
138	1778	5.63	5.64	79-139	2	(Q)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
43 Dimethylphthalate			CAS#: 131-11-3			
163	164846	5.99	5.75	80-120	100	(T)
164	920190	5.99	5.75	0- 40	558	(QT)
45 Acenaphthylene			CAS#: 208-96-8			
152	229974	5.56	5.89	80-120	100	(T)
151	69177	5.56	5.89	0- 50	30	(T)
153	336111	5.56	5.89	0- 44	146	(QT)
47 Acenaphthene			CAS#: 83-32-9			
154	843034	5.56	6.01	80-120	100	(T)
153	335455	5.56	6.01	72-132	40	(QT)
152	229404	5.56	6.01	18- 78	27	(T)
48 2,4-Dinitrophenol			CAS#: 51-28-5			
184	162	6.41	6.00	80-120	100	(T)
154	216	6.42	6.01	1559-1619	133	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	119966	5.99	6.10	80-120	100	(T)
89	1526	5.99	6.10	39- 99	1	(QT)
63	1853	5.99	6.10	16- 76	2	(QT)
52 4-Nitrophenol			CAS#: 100-02-7			
139	42464	5.63	6.02	80-120	100	(T)
109	333	5.63	6.02	41-101	1	(QT)
65	111569	5.63	6.02	59-119	263	(QT)
53 Fluorene			CAS#: 86-73-7			
166	11202	6.58	6.39	80-120	100	(T)
165	10844	6.58	6.39	61-121	97	(T)
167	4105	6.59	6.39	0- 44	37	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	601	6.58	6.40	80-120	100	(T)
105	1215	6.58	6.40	9- 69	202	(QT)
51	1269	6.58	6.40	36- 96	211	(QT)
61 4-Bromophenylphenylether			CAS#: 101-55-3			
248	14059	6.59	6.76	80-120	100	(T)
141	80498	6.58	6.76	43-103	573	(QT)
250	26749	6.59	6.76	68-128	190	(QT)
93 bis(2-Ethylhexyl)phthalate			CAS#: 117-81-7			
149	166788	9.49	9.49	80-120	100	( )
167	51901	9.49	9.49	3- 63	31	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2021.d
Lab Smp Id: 248842002 Client Smp ID: RE46-10-13553
Inj Date : 20-MAR-2010 22:22
Operator : nagl Inst ID: MSD6.i
Smp Info : |248842002|965425|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 18 QC Sample: SAMPLE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	13.94230	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.869	2487737	40.000
* 91 Chrysene-d12	9.563	3860974	40.000
* 98 Perylene-d12	11.192	2883429	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.981	537165	8.63700261	334	0		0	10
Unknown Aldol Condensate				CAS #:			
2.899	1521587	24.4641087	946	0		0	10
Tetradecane				CAS #: 629-59-4			
9.357	464379	4.81100069	186	93	NIST05.L	55972	91
Unknown				CAS #:			
10.580	615258	8.53509108	330	0		0	98
Eicosane				CAS #: 112-95-8			
10.722	443954	6.15869123	238	89	NIST05.L	113489	98

Data File: /chem/MSD6.i/so32010.b/s6c2021.d
Date : 20-MAR-2010 22:22
Client ID: RE46-10-13553
Sample Info: 1248842002196542511SVM11LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

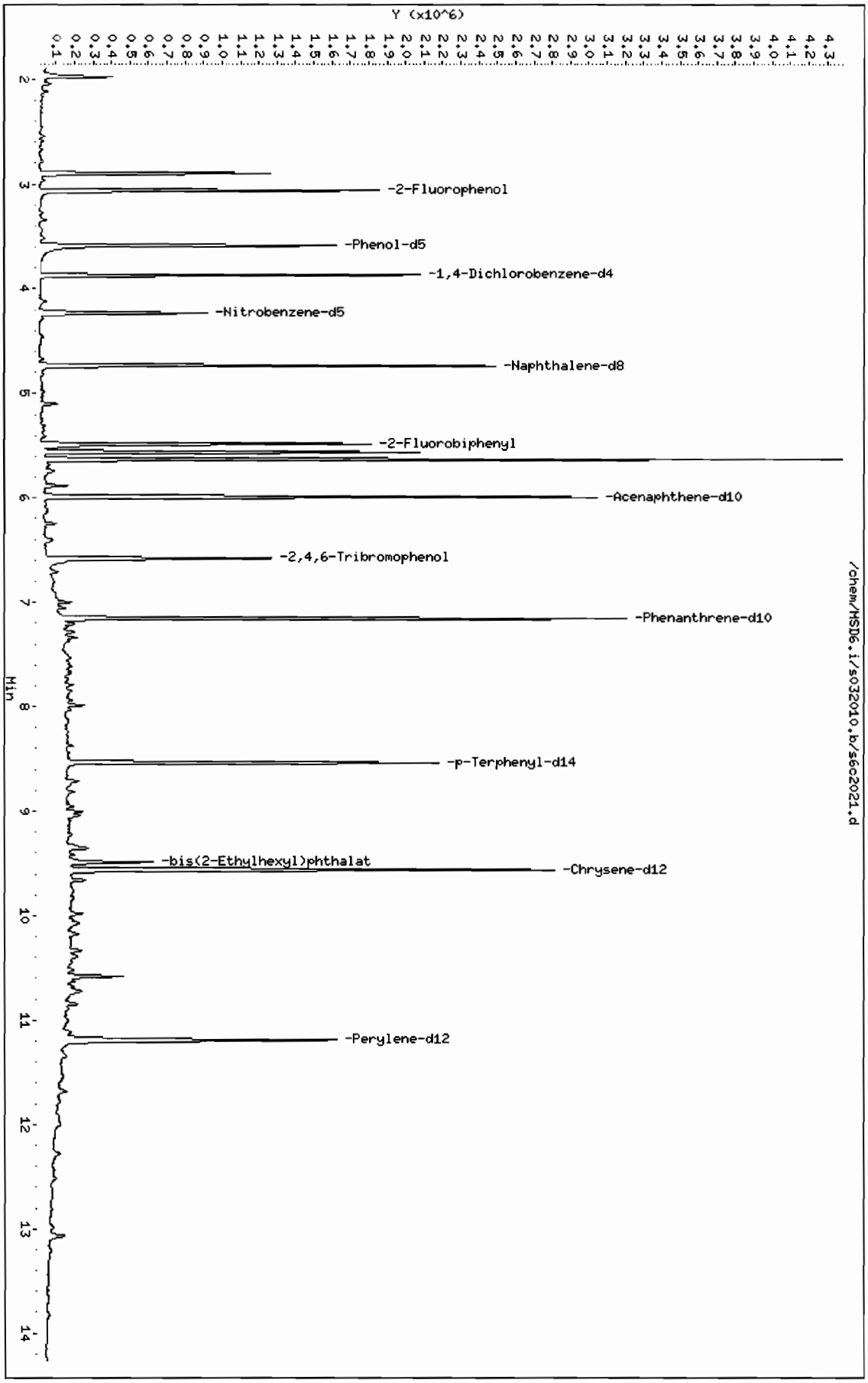

Page 1

Data File: /chem/MSD6.i/s032010.b/s6c2021.d

Date : 20-MAR-2010 22:22

Client ID: RE46-10-13553 Instrument: MSD6.i

Sample Info: 1248842002196542511ISVMI1ILANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate Concentration: 236 ug/Kg

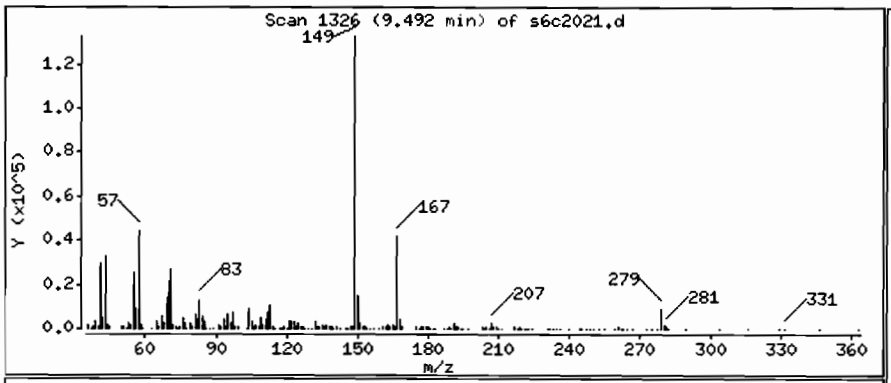

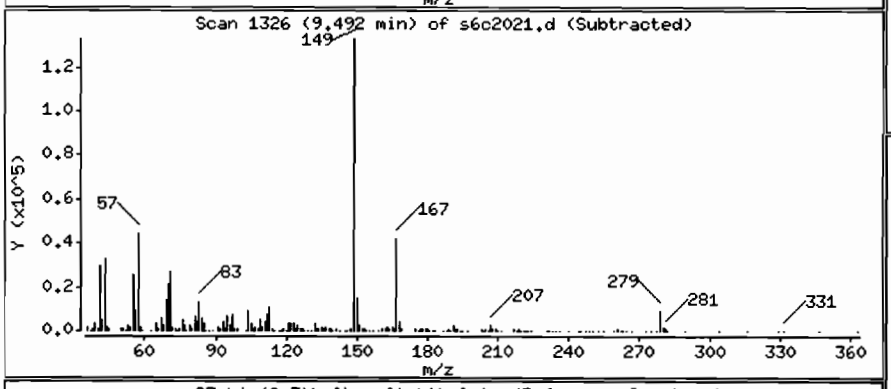

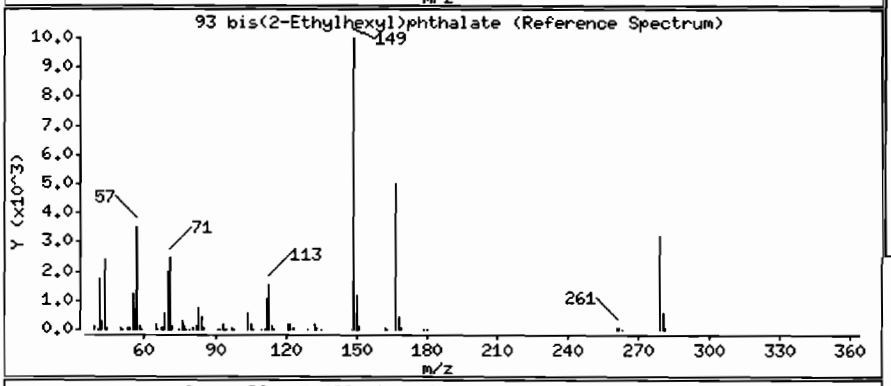

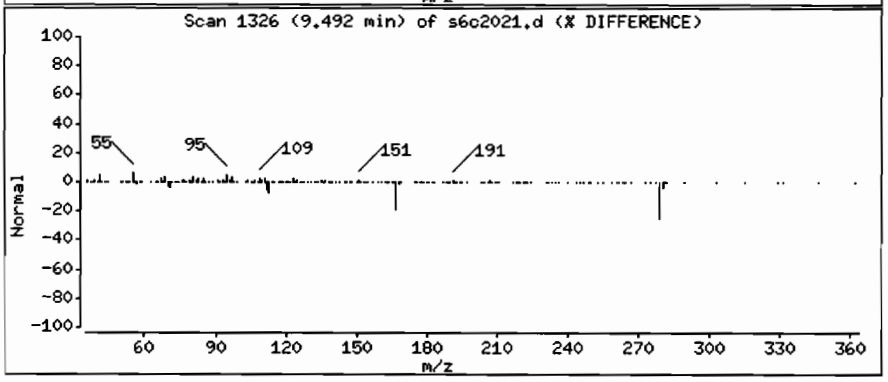

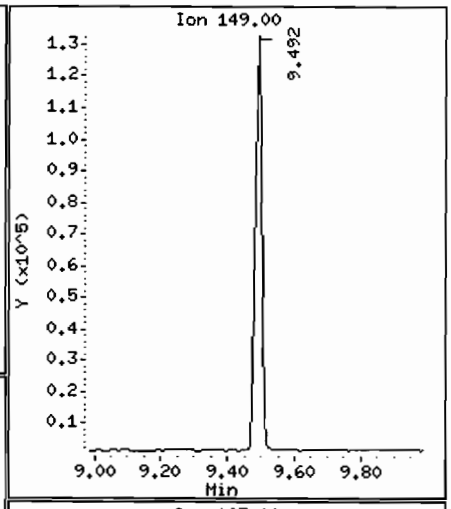

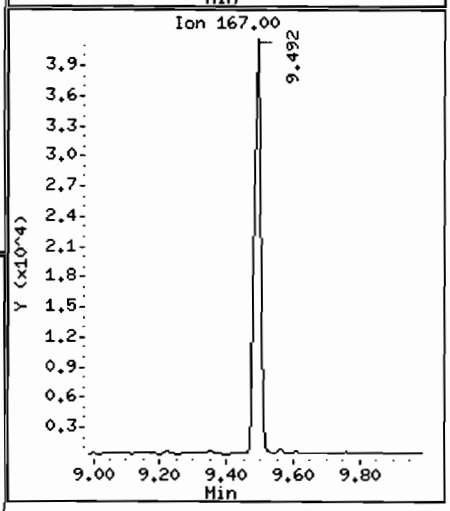

Data File: /chem/MSD6.i/s032010.b/s6c2021.d

Date : 20-MAR-2010 22:22

Client ID: RE46-10-13553

Instrument: MSD6.i

Sample Info: 1248842002196542511ISVMI11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	72	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	45	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	40	C5H12O2	104

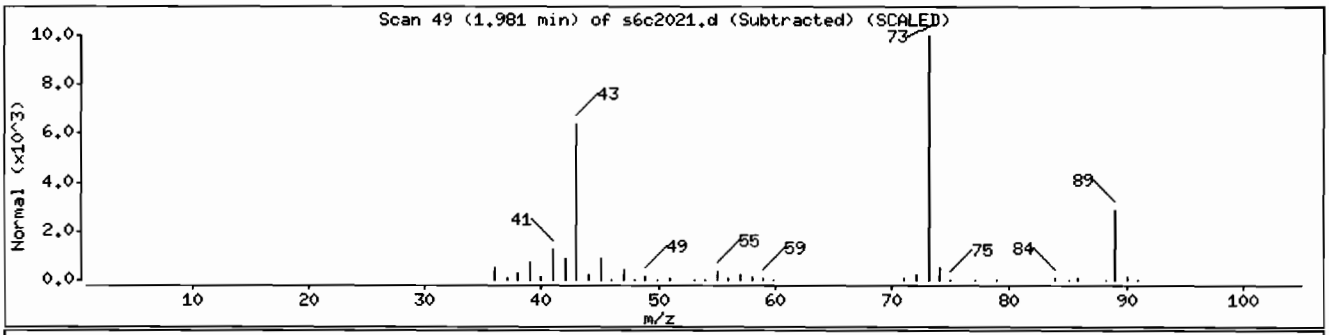

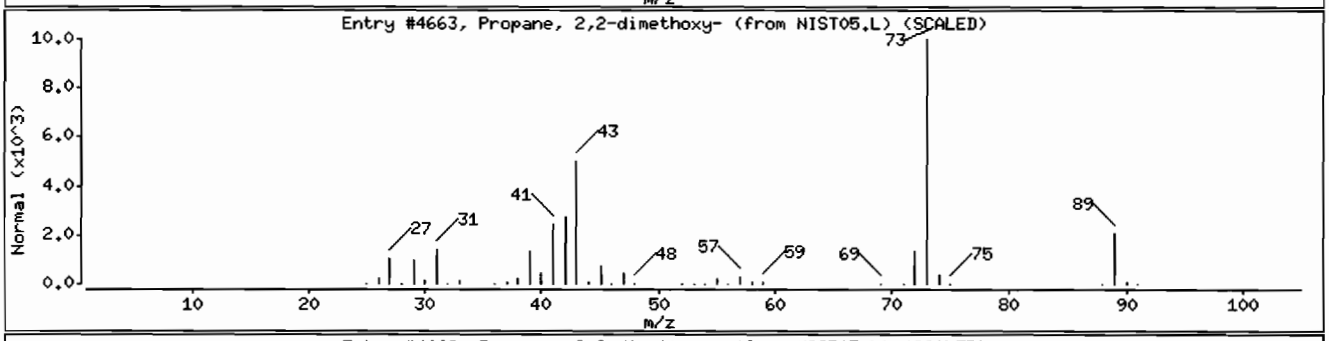

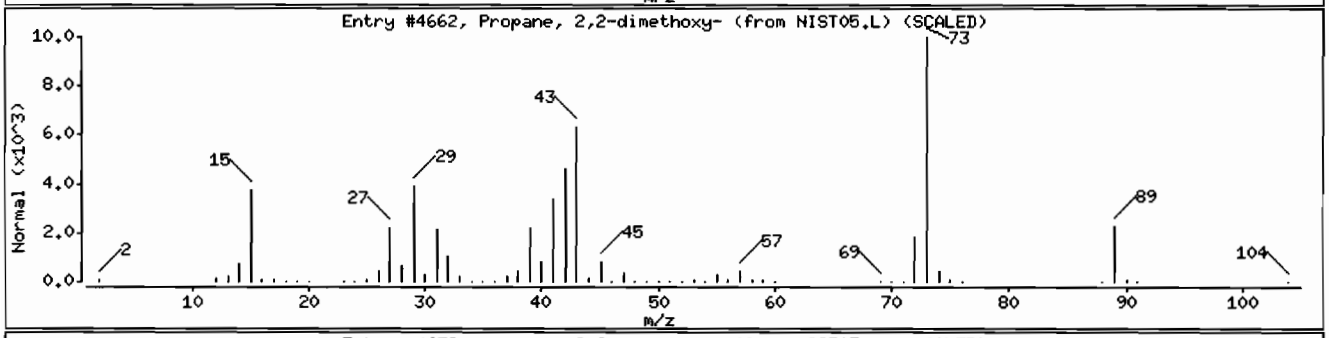

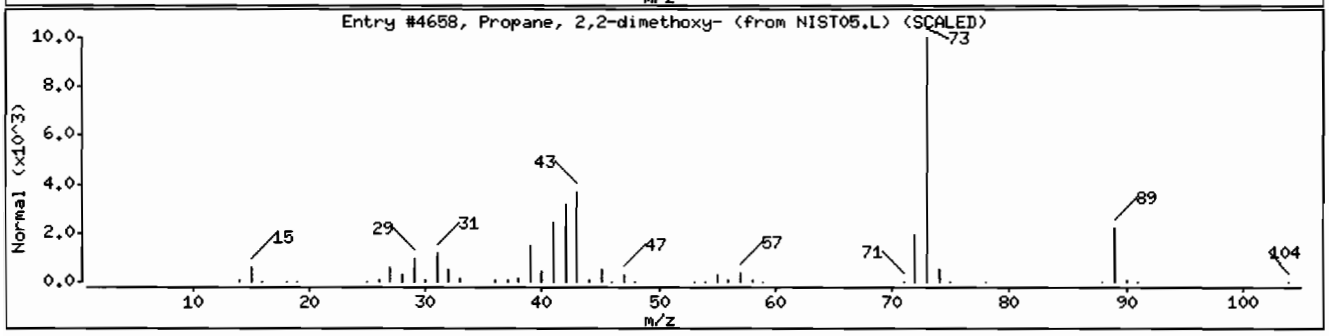

Data File: /chem/MSD6.i/s032010.b/s6c2021.d

Date : 20-MAR-2010 22:22

Client ID: RE46-10-13553

Instrument: MSD6.i

Sample Info: |2488420021965425|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	45	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	27	C4H7NO2	101

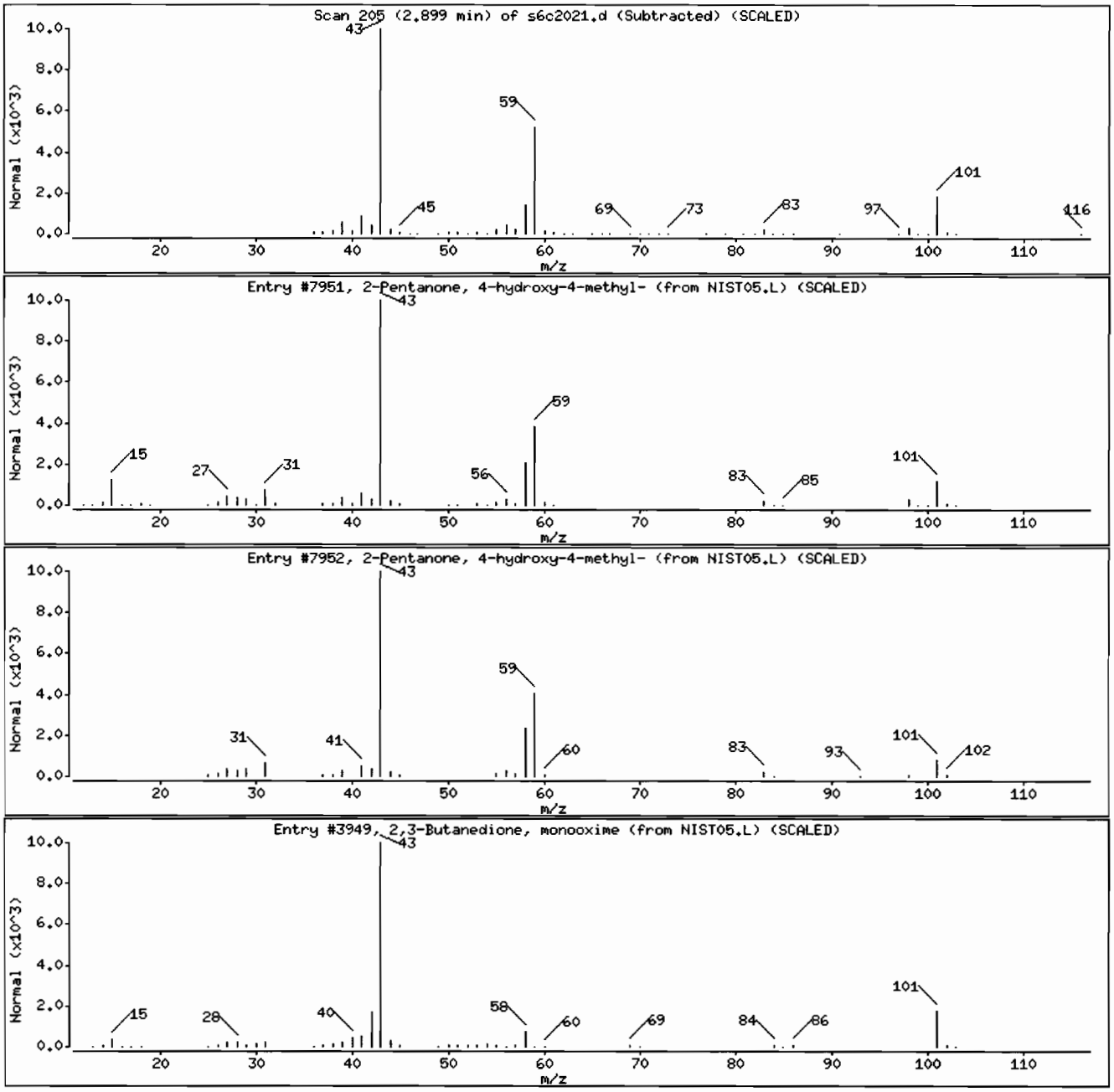

Data File: /chem/MSD6.i/s032010.b/s6c2021.d

Date : 20-MAR-2010 22:22

Client ID: RE46-10-13553

Instrument: MSD6.i

Sample Info: 1248842002196542511ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetradecane	629-59-4	NIST05.L	55972	93	C14H30	198
Tetradecane	629-59-4	NIST05.L	55973	80	C14H30	198
Tetradecane	629-59-4	NIST05.L	55975	80	C14H30	198

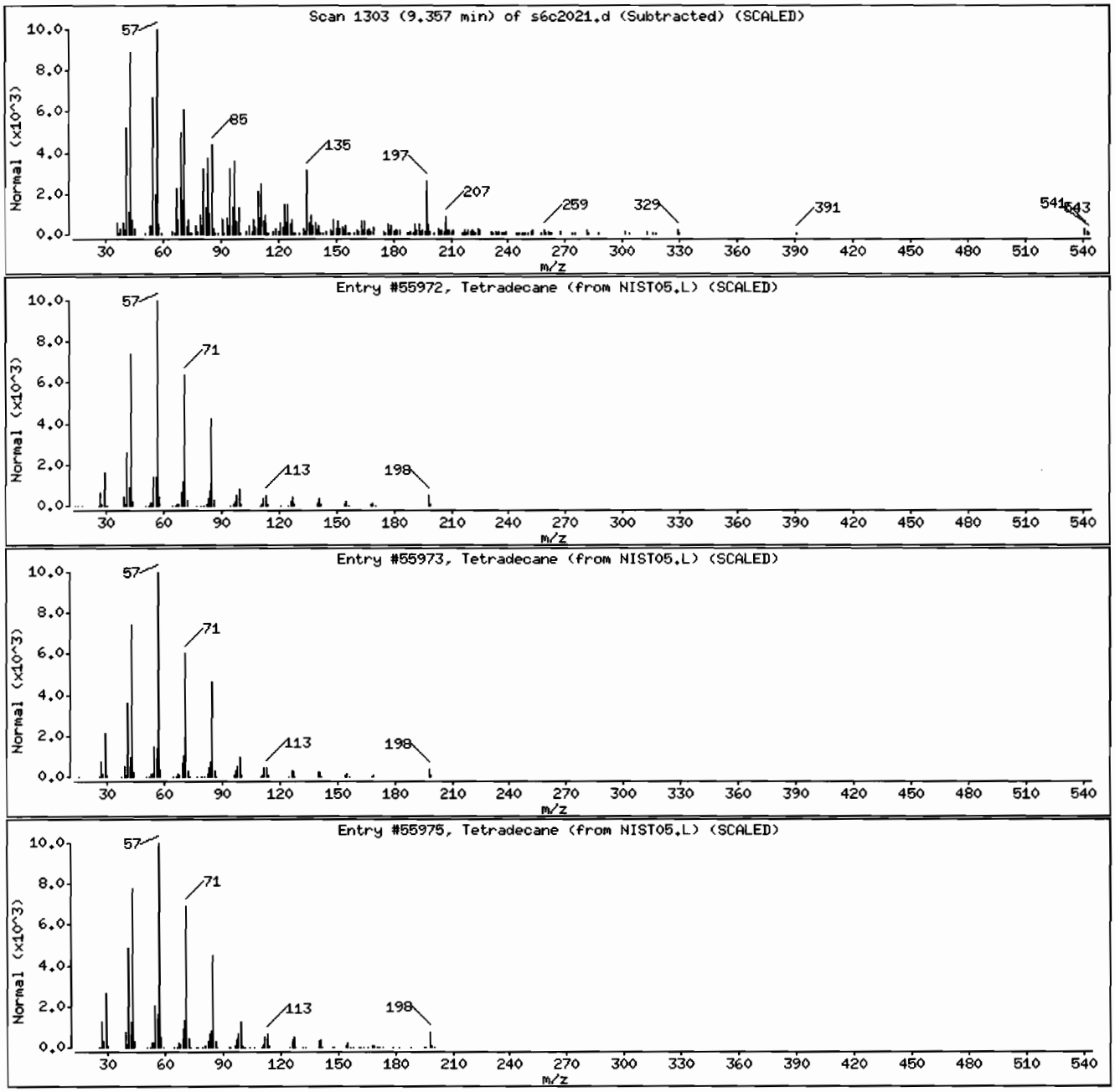

Data File: /chem/MSD6.i/s032010.b/s6c2021.d

Date : 20-MAR-2010 22:22

Client ID: RE46-10-13553

Instrument: MSD6.i

Sample Info: 1248842002|965425|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
p,p'-Ditolylamine	620-93-9	NIST05.L	55093	38	C14H15N	197
1,1-Diphenyl-1-methoxyethane	40743-08-6	NIST05.L	66029	25	C15H16O	212
Benzene, 1,1',1''-[1-(bromomethyl)-2-met	55373-93-8	NIST05.L	169605	22	C23H23BrO	394

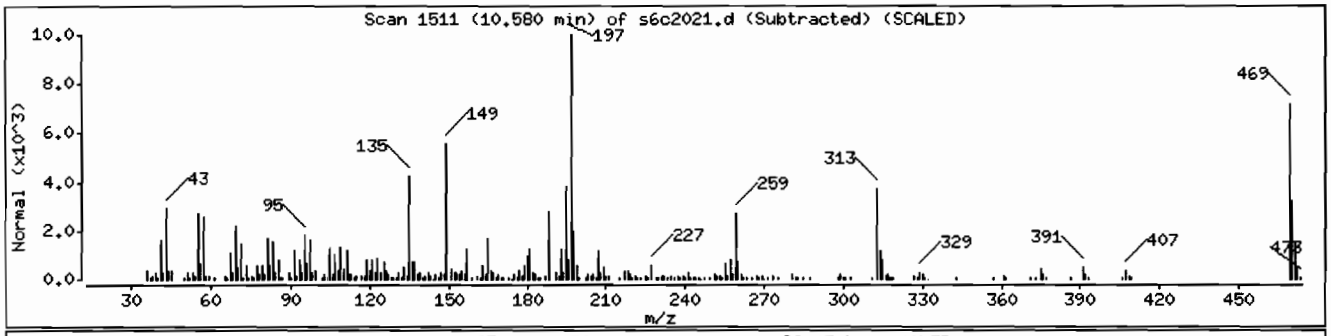

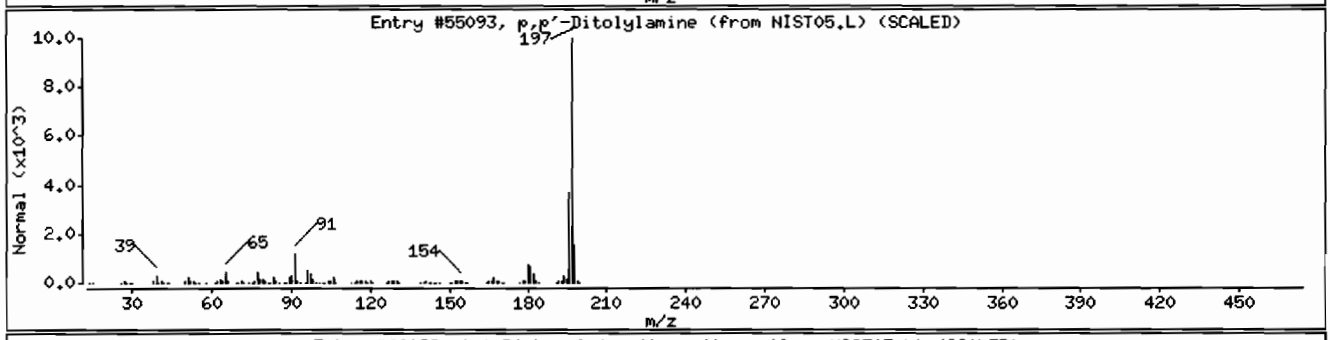

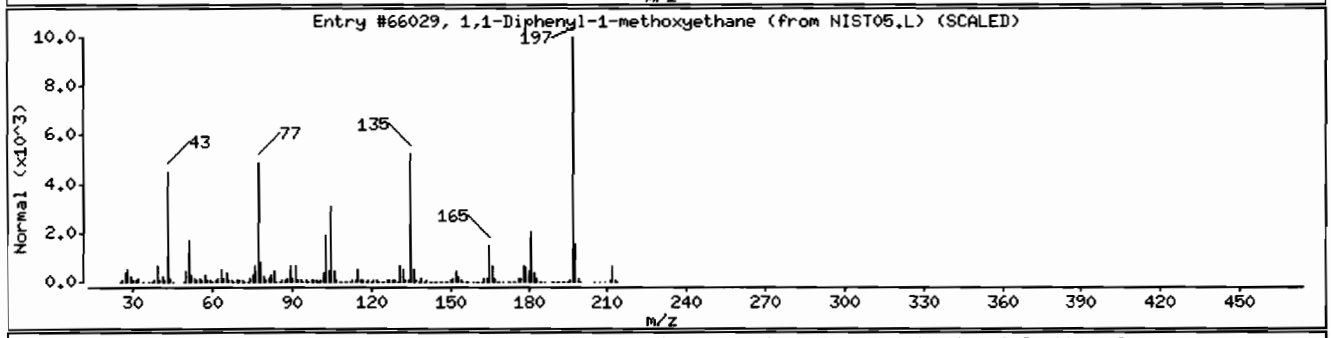

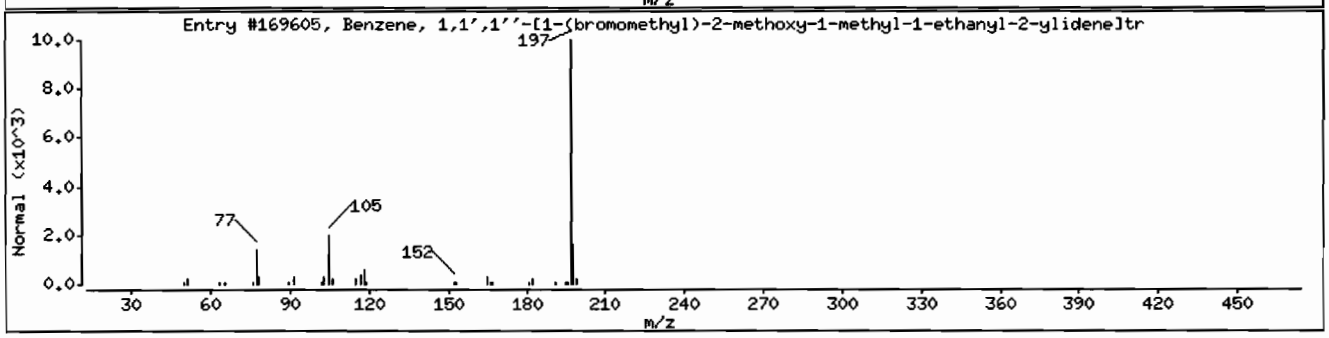

Data File: /chem/MSD6.i/s032010.b/s6c2021.d

Date : 20-MAR-2010 22:22

Client ID: RE46-10-13553 Instrument: MSD6.i

Sample Info: 1248842002|965425|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NIST05.L	113489	89	C20H42	282
Eicosane	112-95-8	NIST05.L	113490	89	C20H42	282
Tetrapentacontane, 1,54-dibromo-	1000156-09-4	NIST05.L	190704	64	C54H108Br2	915

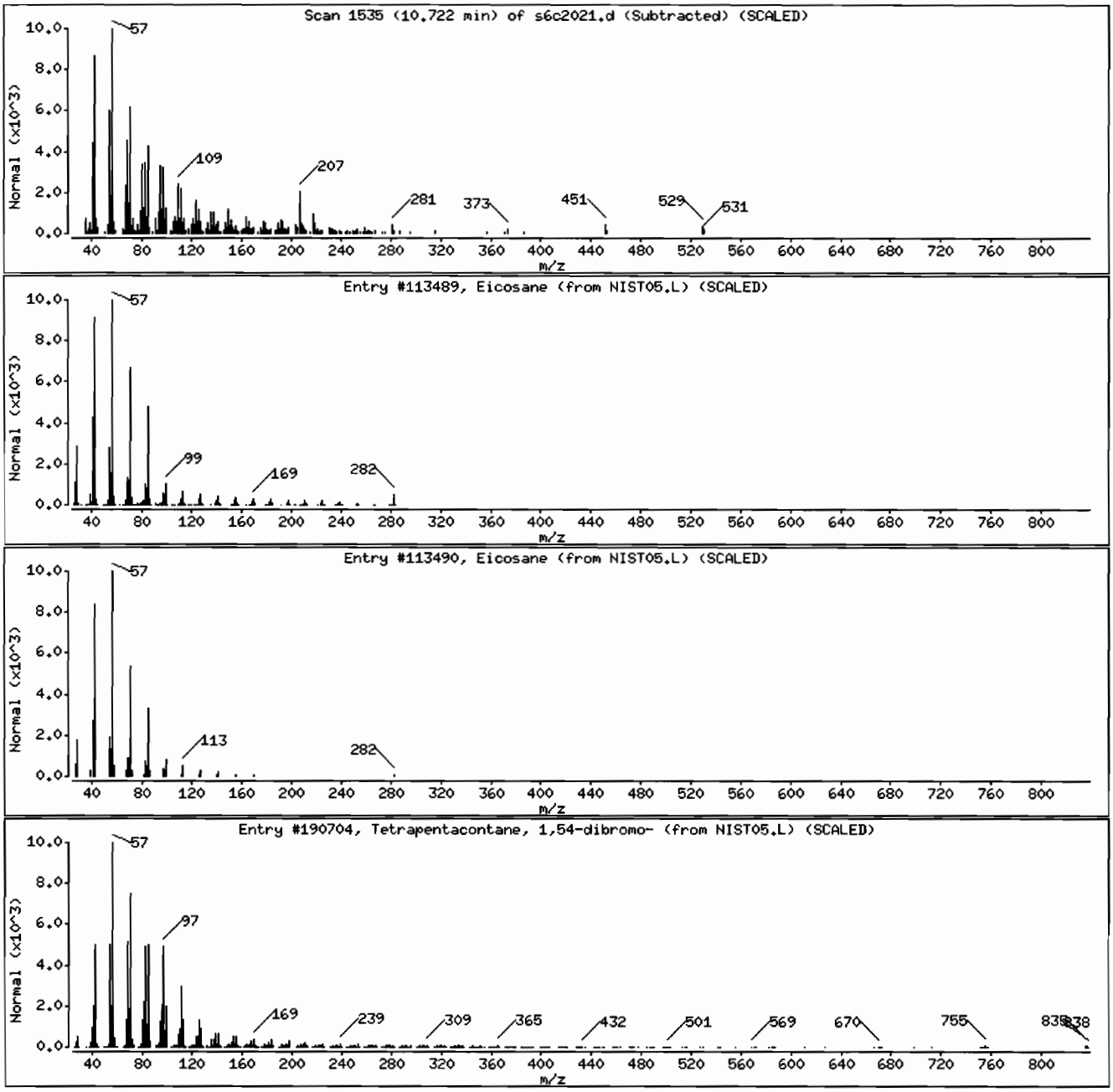

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13556**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 22:42**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2322.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	3830	ug/kg	766	3830
108-95-2	Phenol	U	3830	ug/kg	766	3830
95-57-8	2-Chlorophenol	U	3830	ug/kg	766	3830
106-46-7	1,4-Dichlorobenzene	U	3830	ug/kg	766	3830
621-64-7	N-Nitrosodipropylamine	U	3830	ug/kg	766	3830
59-50-7	4-Chloro-3-methylphenol	U	3830	ug/kg	766	3830
83-32-9	Acenaphthene	U	383	ug/kg	126	383
121-14-2	2,4-Dinitrotoluene	U	3830	ug/kg	383	3830
100-02-7	4-Nitrophenol	U	3830	ug/kg	1260	3830
87-86-5	Pentachlorophenol	U	3830	ug/kg	957	3830
129-00-0	Pyrene	U	383	ug/kg	115	383
110-86-1	Pyridine	U	3830	ug/kg	766	3830
62-53-3	Aniline	U	3830	ug/kg	1150	3830
111-44-4	bis(2-Chloroethyl) ether	U	3830	ug/kg	766	3830
541-73-1	1,3-Dichlorobenzene	U	3830	ug/kg	766	3830
100-51-6	Benzyl alcohol	U	3830	ug/kg	1150	3830
95-50-1	1,2-Dichlorobenzene	U	3830	ug/kg	766	3830
108-60-1	bis(2-Chloroisopropyl)ether	U	3830	ug/kg	766	3830
95-48-7	o-Cresol	U	3830	ug/kg	766	3830
65794-96-9	m,p-Cresols	U	3830	ug/kg	1150	3830
67-72-1	Hexachloroethane	U	3830	ug/kg	766	3830
98-95-3	Nitrobenzene	U	3830	ug/kg	766	3830
78-59-1	Isophorone	U	3830	ug/kg	766	3830
88-75-5	2-Nitrophenol	U	3830	ug/kg	766	3830
105-67-9	2,4-Dimethylphenol	U	3830	ug/kg	1340	3830
111-91-1	bis(2-Chloroethoxy)methane	U	3830	ug/kg	766	3830
120-83-2	2,4-Dichlorophenol	U	3830	ug/kg	766	3830
65-85-0	Benzoic acid	U	7660	ug/kg	1910	7660
91-20-3	Naphthalene	U	383	ug/kg	115	383
106-47-8	4-Chloroaniline	U	3830	ug/kg	766	3830
87-68-3	Hexachlorobutadiene	U	3830	ug/kg	766	3830
91-57-6	2-Methylnaphthalene	U	383	ug/kg	76.6	383
77-47-4	Hexachlorocyclopentadiene	U	3830	ug/kg	766	3830
88-06-2	2,4,6-Trichlorophenol	U	3830	ug/kg	766	3830
95-95-4	2,4,5-Trichlorophenol	U	3830	ug/kg	766	3830
91-58-7	2-Chloronaphthalene	U	383	ug/kg	126	383
88-74-4	2-Nitroaniline	U	3830	ug/kg	766	3830
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	3830	ug/kg	766	3830

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13556**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 22:42**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2322.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	3830	ug/kg	766	3830
606-20-2	2,6-Dinitrotoluene	U	3830	ug/kg	383	3830
208-96-8	Acenaphthylene	U	383	ug/kg	115	383
51-28-5	2,4-Dinitrophenol	U	7660	ug/kg	1460	7660
132-64-9	Dibenzofuran	U	3830	ug/kg	766	3830
84-66-2	Diethylphthalate	U	3830	ug/kg	766	3830
86-73-7	Fluorene	U	383	ug/kg	115	383
7005-72-3	4-Chlorophenylphenylether	U	3830	ug/kg	766	3830
534-52-1	2-Methyl-4,6-dinitrophenol	U	3830	ug/kg	766	3830
100-01-6	4-Nitroaniline	U	3830	ug/kg	1150	3830
	p-Nitroaniline					
122-39-4	Diphenylamine	U	3830	ug/kg	766	3830
122-66-7	Azobenzene	U	3830	ug/kg	766	3830
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	3830	ug/kg	766	3830
118-74-1	Hexachlorobenzene	U	3830	ug/kg	766	3830
85-01-8	Phenanthrene	U	383	ug/kg	115	383
120-12-7	Anthracene	U	383	ug/kg	76.6	383
84-74-2	Di-n-butylphthalate	U	3830	ug/kg	766	3830
206-44-0	Fluoranthene	U	383	ug/kg	115	383
85-68-7	Butylbenzylphthalate	U	3830	ug/kg	766	3830
56-55-3	Benzo(a)anthracene	U	383	ug/kg	115	383
91-94-1	3,3'-Dichlorobenzidine	U	3830	ug/kg	1150	3830
218-01-9	Chrysene	U	383	ug/kg	115	383
117-81-7	bis(2-Ethylhexyl)phthalate	J	968	ug/kg	766	3830
117-84-0	Di-n-octylphthalate	U	3830	ug/kg	766	3830
205-99-2	Benzo(b)fluoranthene	U	383	ug/kg	115	383
207-08-9	Benzo(k)fluoranthene	U	383	ug/kg	115	383
50-32-8	Benzo(a)pyrene	U	383	ug/kg	115	383
193-39-5	Indeno(1,2,3-cd)pyrene	U	383	ug/kg	115	383
53-70-3	Dibenzo(a,h)anthracene	U	383	ug/kg	115	383
191-24-2	Benzo(ghi)perylene	U	383	ug/kg	115	383
120-82-1	1,2,4-Trichlorobenzene	U	3830	ug/kg	766	3830

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.43	1700	ug/kg		J
	Unknown	10.68	3380	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842010	**Date Received:**	03/05/2010 10:20	**%Moisture:**	13.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13556	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965425	**Inst:**	MSD6.I	**Dilution:**	10
Run Date:	03/23/2010 22:42	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 12:02	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s6c2322.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	13.24	2310	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032310.b/s6c2322.d
Lab Smp Id: 248842010 Client Smp ID: RE46-10-13556
Inj Date : 23-MAR-2010 22:42
Operator : nagl Inst ID: MSD6.i
Smp Info : |248842010|965425|10|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 09:23 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 17
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	13.22410	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.951	3.946	(1.000)	255672	40.0000	
* 29 Naphthalene-d8	136	4.816	4.804	(1.000)	914629	40.0000	
* 46 Acenaphthene-d10	164	6.063	6.057	(1.000)	567841	40.0000	
* 67 Phenanthrene-d10	188	7.234	7.228	(1.000)	984808	40.0000	
* 91 Chrysene-d12	240	9.639	9.628	(1.000)	862694	40.0000	
* 98 Perylene-d12	264	11.316	11.298	(1.000)	765482	40.0000	
$ 3 2-Fluorophenol	112	3.140	3.128	(0.795)	35533	4.99942	1910
$ 5 Phenol-d5	99	3.657	3.657	(0.926)	45395	5.02226	1920
$ 20 Nitrobenzene-d5	82	4.310	4.304	(0.895)	20073	2.29582	879
$ 39 2-Fluorobiphenyl	172	5.551	5.546	(0.916)	42806	2.92182	1120
$ 60 2,4,6-Tribromophenol	329	6.663	6.651	(1.099)	9023	5.66259	2170
$ 81 p-Terphenyl-d14	244	8.610	8.604	(0.893)	54512	3.62611	1390

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
93 bis(2-Ethylhexyl)phthalate	149	9.563	9.551	(0.992)	42968	2.52634	968(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s6c2322.d
Report Date: 03/24/2010 09:30
Lab. ID: 248842010 SampleType: SAMPLE
Injection Date: 23-MAR-2010 22:42
Operator: nagl Instrument: MSD6.i
Sample Info: |248842010|965425|10|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100319-01
Comment:
Method used: /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m
Dilution Factor= 10.0
Integrator: HP RTE Compound Sublist: 10-2302
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
22 Isophorone			CAS#: 78-59-1			
82	31774	4.82	4.47	80-120	100	(T)
138	5310	4.82	4.47	0- 48	17	(T)
34 2-Methylnaphthalene			CAS#: 91-57-6			
142	156420	5.70	5.30	80-120	100	(T)
141	275862	5.70	5.30	55-115	176	(QT)
40 2-Chloronaphthalene			CAS#: 91-58-7			
162	533653	6.06	5.66	80-120	100	(T)
164	567841	6.06	5.66	3- 63	106	(QT)
127	343	5.95	5.66	7- 67	0	(QT)
42 o-Nitroaniline			CAS#: 88-74-4			
65	39181	5.70	5.71	80-120	100	( )
92	2024	5.70	5.71	38- 98	5	(Q)
138	653	5.70	5.71	81-141	2	(Q)
43 Dimethylphthalate			CAS#: 131-11-3			
163	104218	6.06	5.82	80-120	100	(T)
164	567841	6.06	5.82	0- 41	545	(QT)
45 Acenaphthylene			CAS#: 208-96-8			
152	89407	5.63	5.96	80-120	100	(T)
151	27937	5.63	5.96	0- 50	31	(T)
153	131146	5.63	5.96	0- 44	147	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
47 Acenaphthene			CAS#: 83-32-9			
154	323688	5.63	6.08	80-120	100	(T)
153	131146	5.63	6.08	70-130	41	(QT)
152	89407	5.63	6.08	17- 77	28	(T)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	75799	6.06	6.17	80-120	100	(T)
89	738	6.06	6.17	38- 98	1	(QT)
63	958	6.06	6.17	18- 78	1	(QT)
52 4-Nitrophenol			CAS#: 100-02-7			
139	16124	5.70	6.09	80-120	100	(T)
109	519	5.71	6.09	36- 96	3	(QT)
65	39181	5.70	6.09	69-129	243	(QT)
93 bis(2-Ethylhexyl)phthalate			CAS#: 117-81-7			
149	42968	9.56	9.55	80-120	100	( )
167	13335	9.56	9.55	4- 64	31	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032310.b/s6c2322.d
Lab Smp Id: 248842010 Client Smp ID: RE46-10-13556
Inj Date : 23-MAR-2010 22:42
Operator : nag1 Inst ID: MSD6.i
Smp Info : |248842010|965425|10|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 09:23 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 17
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	13.22410	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 91 Chrysene-d12	9.639	2522031	40.000
* 98 Perylene-d12	11.316	2090636	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
9.433	280156	4.44333174	1700	0		0	91

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
10.680	461033	8.82091148	3380	0		0	98
Unknown				CAS #:			
13.239	315725	6.04074833	2310	0		0	98

Data File: /chem/MSD6.i/s032310.b/s6c2322.d
Date : 23-MAR-2010 22:42
Client ID: RE46-10-13556
Sample Info: |2488420101965425|10|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

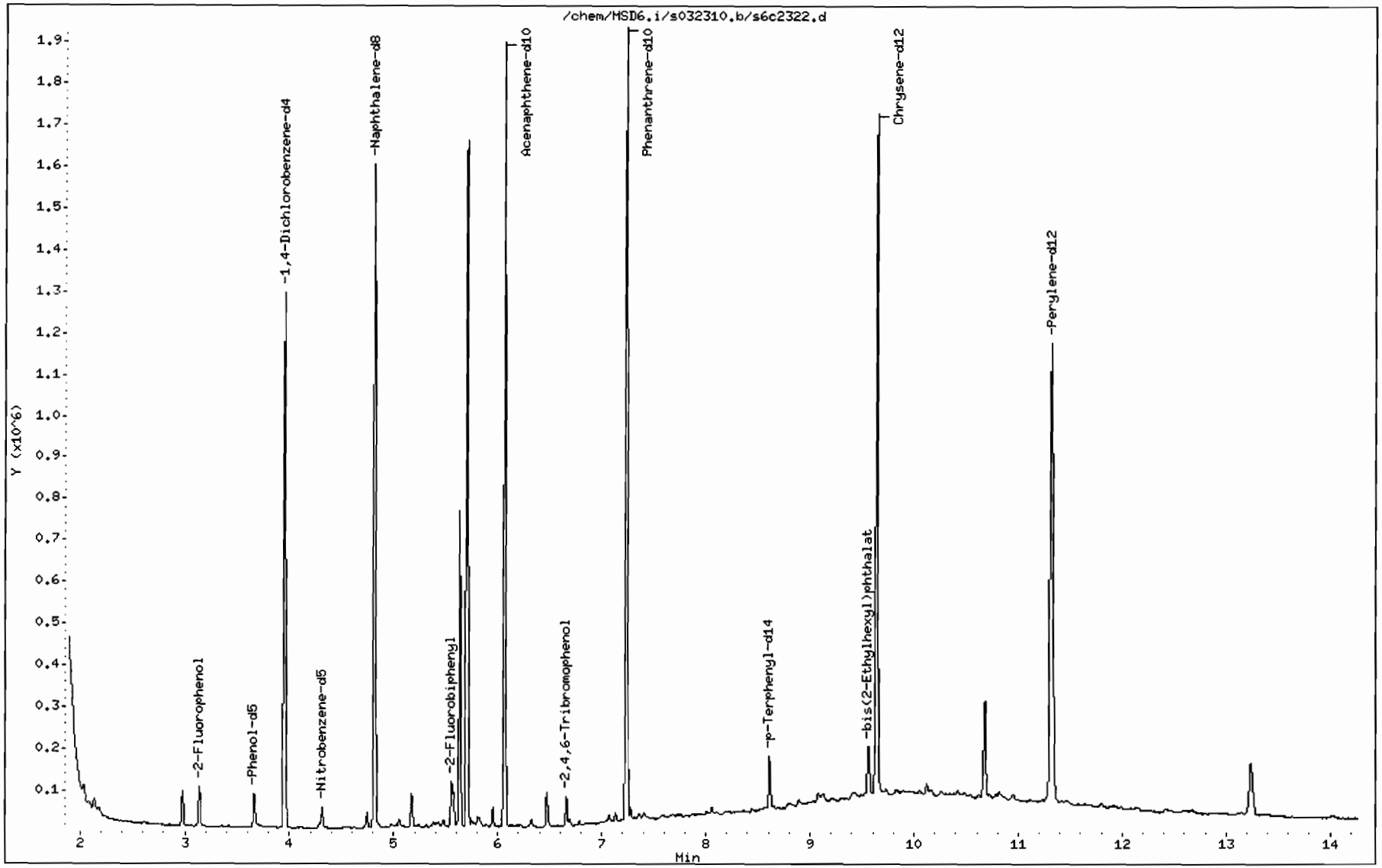

Data File: /chem/MSD6.i/s032310.b/s6c2322.d

Date : 23-MAR-2010 22:42

Client ID: RE46-10-13556

Instrument: MSD6.i

Sample Info: |2488420101965425|101SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 968 ug/Kg

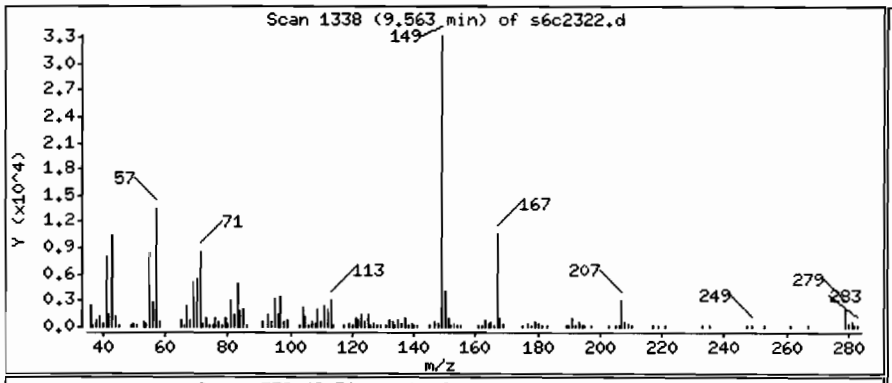

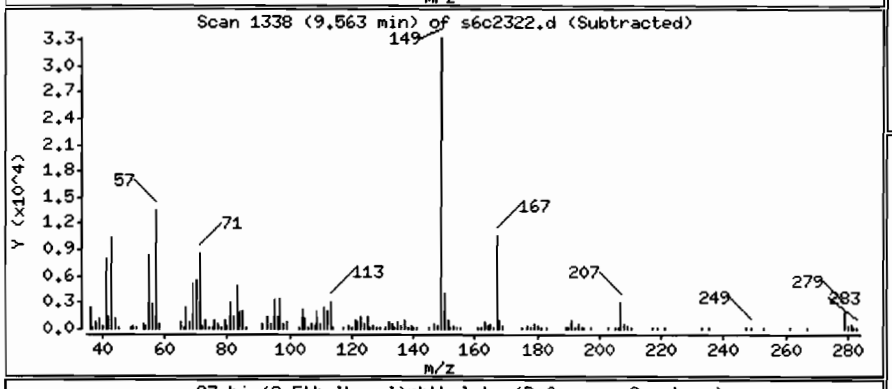

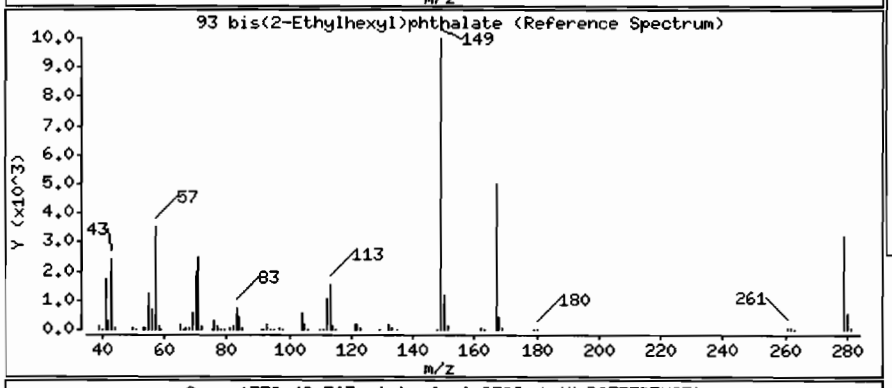

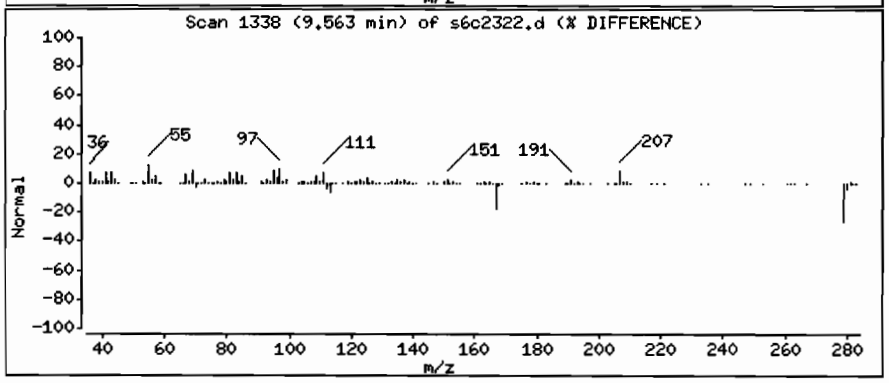

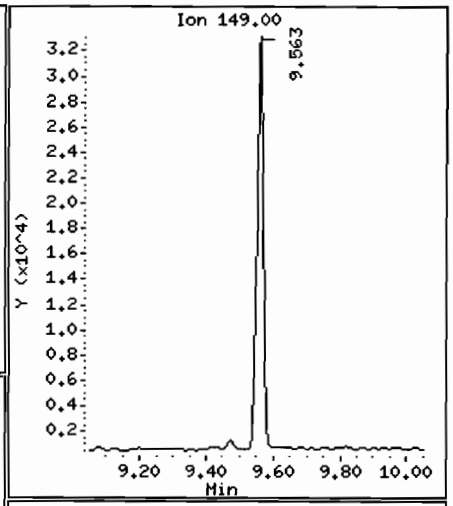

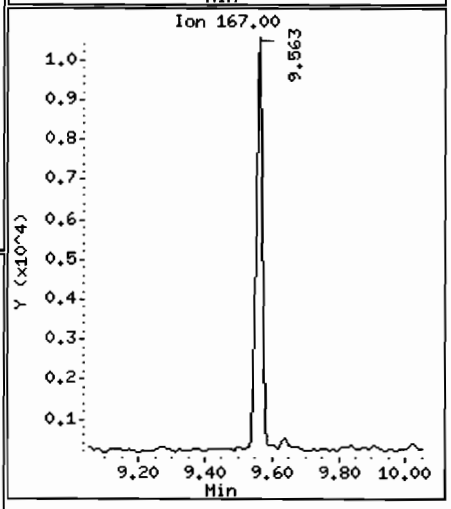

Data File: /chem/MSD6.i/s032310.b/s6c2322.d

Date : 23-MAR-2010 22:42

Client ID: RE46-10-13556

Instrument: MSD6.i

Sample Info: |2488420101965425|10|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,7-Dimethyl-4-(1-methylethyl)cyclodecan	645-10-3	NIST05.L	64469	43	C15H30	210
9-Undecenol, 2,10-dimethyl-	1000131-86-0	NIST05.L	55900	38	C13H26O	198
9-Oxabicyclo[6.1.0]nonane, 1-methyl-, ci	52954-47-9	NIST05.L	18147	30	C9H16O	140

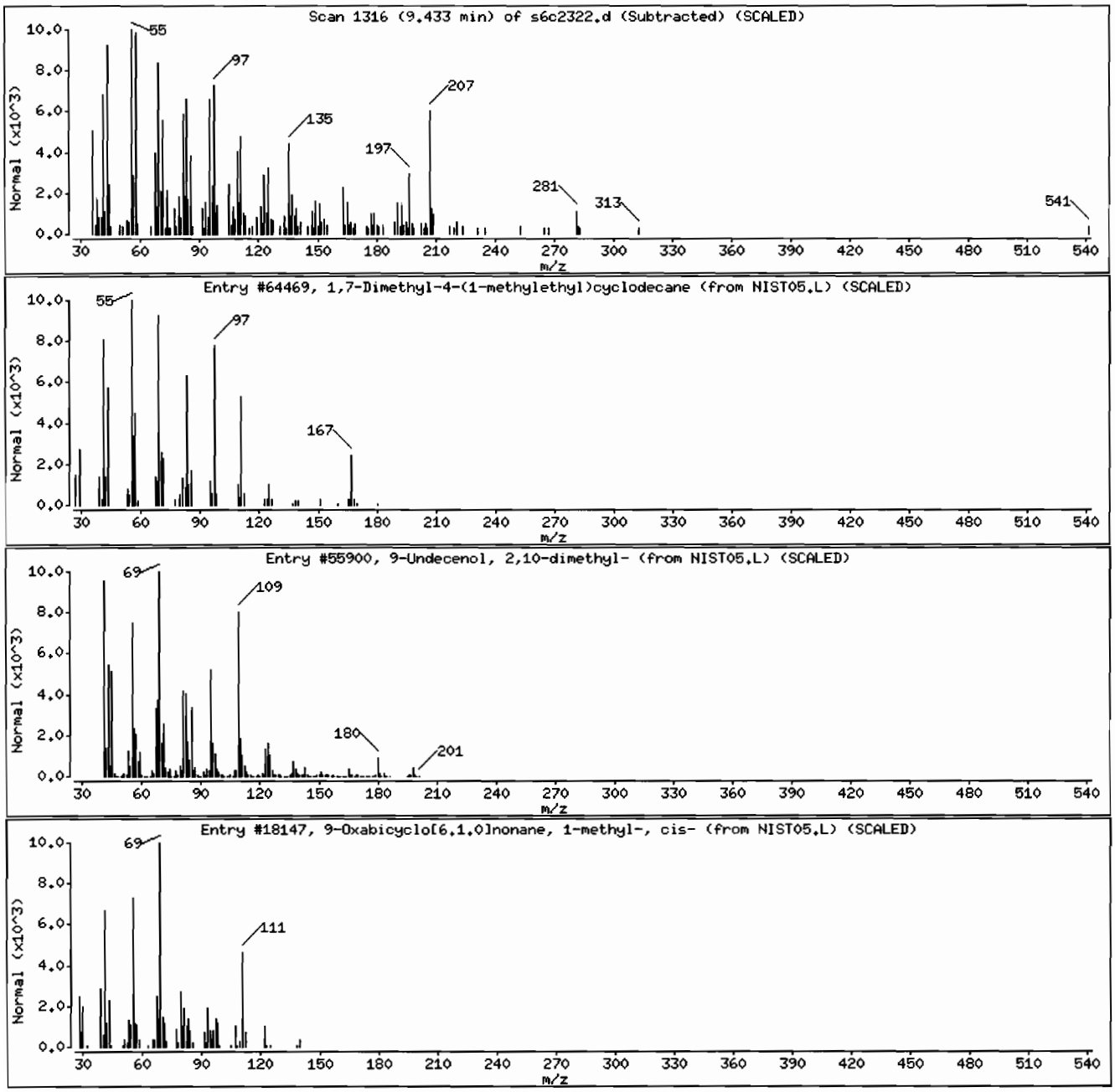

Data File: /chem/MSD6.i/s032310.b/s6c2322.d

Date : 23-MAR-2010 22:42

Client ID: RE46-10-13556 Instrument: MSD6.i

Sample Info: 1248842010|965425|10|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,4-Diphenyl-2-(2-hydroxyphenyl)butane	1000280-74-0	NIST05.L	126240	14	C22H22O	302
1-Propanone, 2,2-dimethyl-1-(4-phenoxyph	55814-54-5	NIST05.L	94861	14	C17H18O2	254
Tetradecanoic acid, 2-oxo-, ethyl ester	160941-13-9	NIST05.L	105503	14	C16H30O3	270

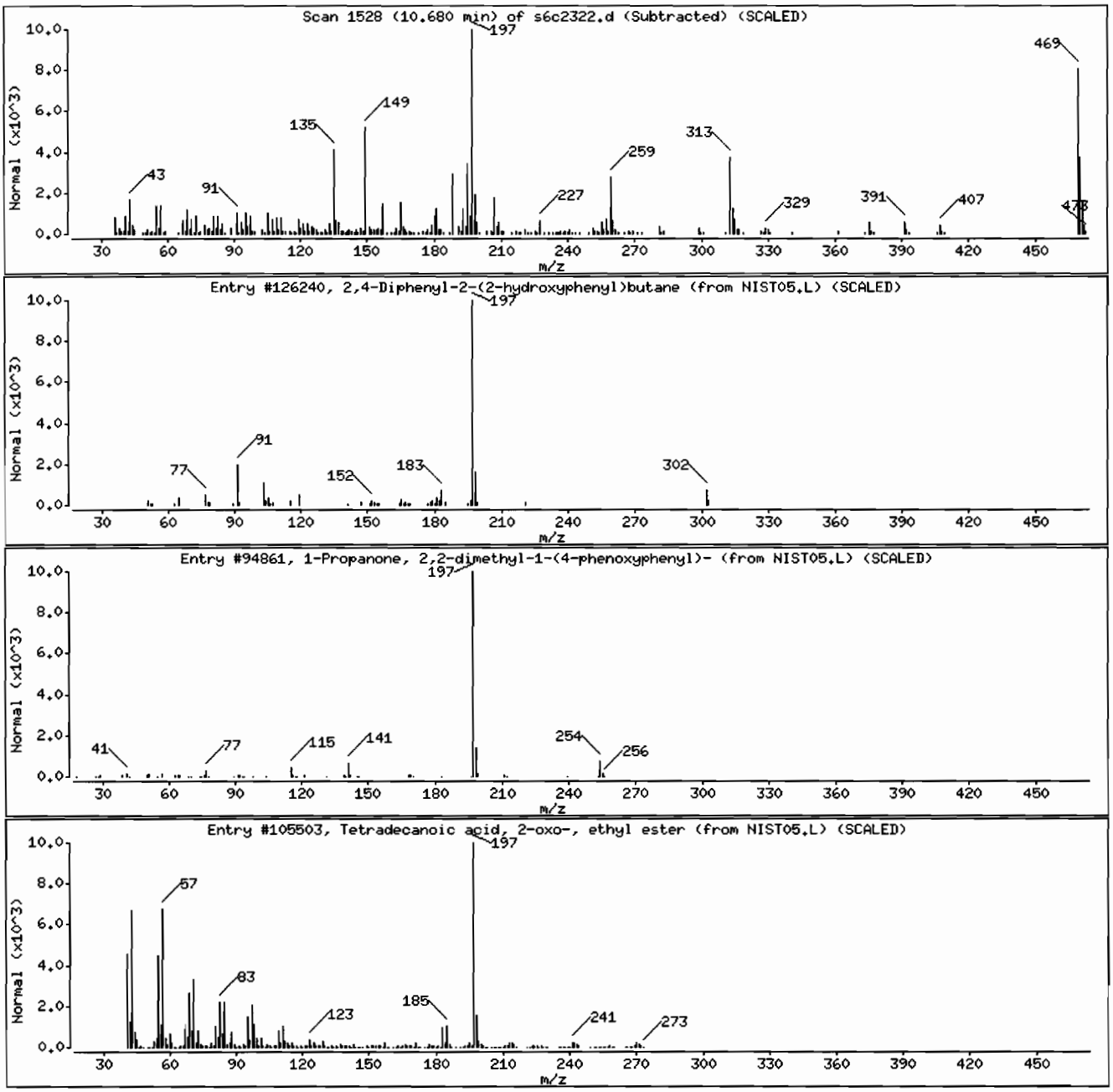

Data File: /chem/MSD6.i/s032310.b/s6c2322.d

Date : 23-MAR-2010 22:42

Client ID: RE46-10-13556

Instrument: MSD6.i

Sample Info: |2488420101965425|10|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
p,p'-Ditolylamine	620-93-9	NIST05.L	55093	15	C14H15N	197
Proline, 3-methyl-1-(trifluoroacetyl)-,	57983-48-9	NIST05.L	112275	11	C12H18F3NO3	281
Pyridine, 2-(2-phenylethenyl)-	714-08-9	NIST05.L	43903	11	C13H11N	181

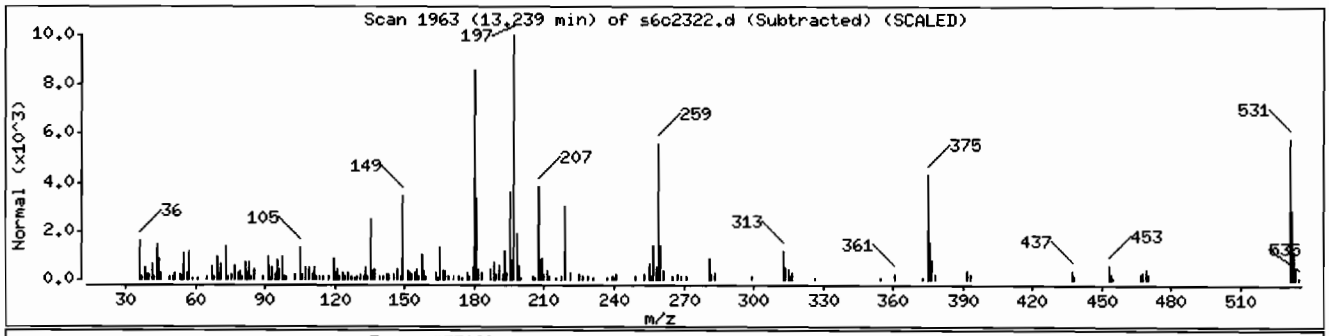

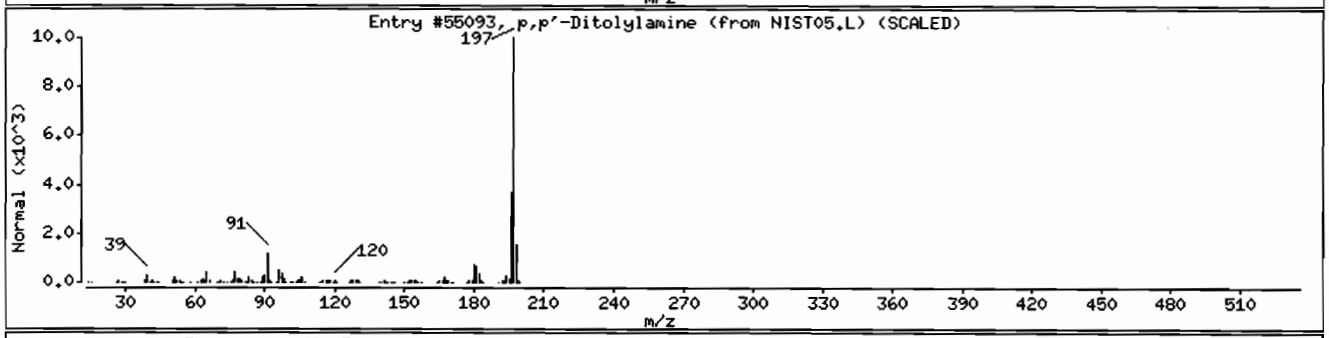

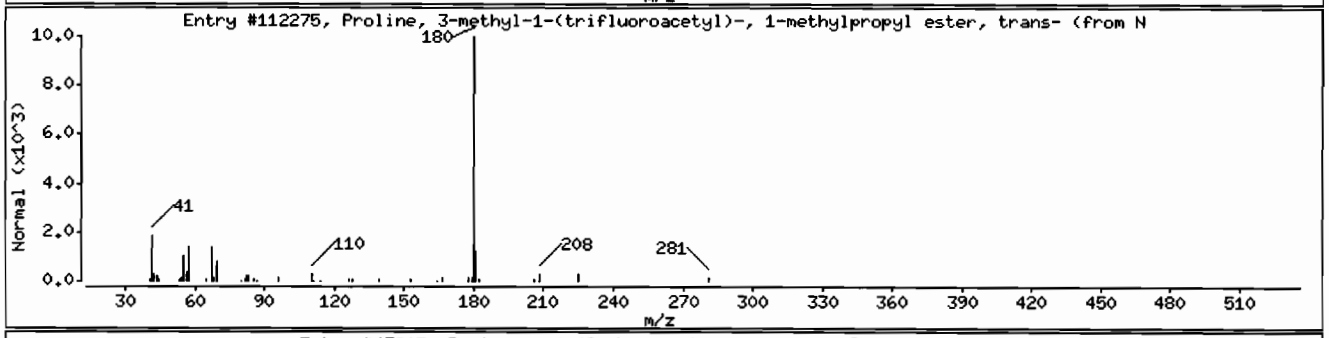

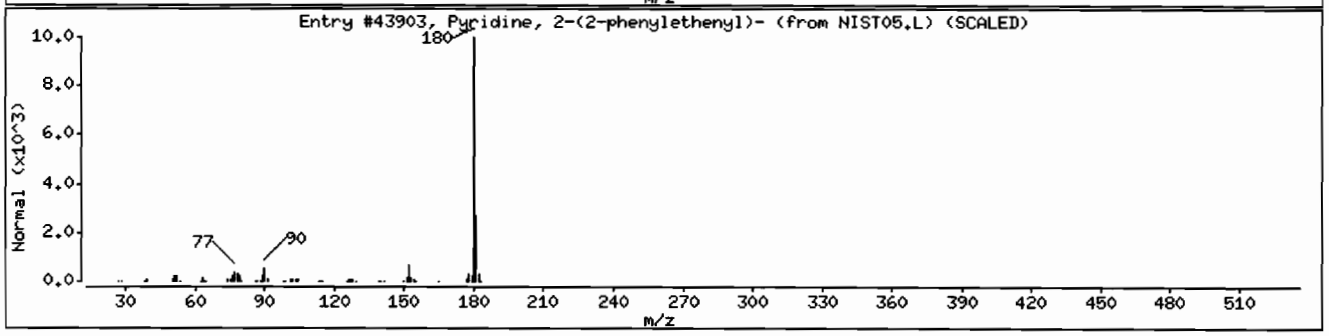

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 21-Mar-2010 13:30

Calibration History

Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Start Cal Date: 16-MAR-2010 09:18
End Cal Date : 17-MAR-2010 04:51

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
16-MAR-2010 09:18	MEGA	/chem/MSD6.i/s031610.b/s6c1603.d
Cal Level: 2 , Cal Amount: 10.00000		
17-MAR-2010 02:32	NEV	/chem/MSD6.i/s031610.b/s6c1640.d
16-MAR-2010 22:16	HEX	/chem/MSD6.i/s031610.b/s6c1629.d
16-MAR-2010 19:27	PEST	/chem/MSD6.i/s031610.b/s6c1622.d
16-MAR-2010 16:42	AP12	/chem/MSD6.i/s031610.b/s6c1615.d
16-MAR-2010 09:47	MEGA	/chem/MSD6.i/s031610.b/s6c1604.d
Cal Level: 3 , Cal Amount: 20.00000		
17-MAR-2010 02:55	NEV	/chem/MSD6.i/s031610.b/s6c1641.d
16-MAR-2010 22:40	HEX	/chem/MSD6.i/s031610.b/s6c1630.d
16-MAR-2010 19:51	PEST	/chem/MSD6.i/s031610.b/s6c1623.d
16-MAR-2010 17:06	AP12	/chem/MSD6.i/s031610.b/s6c1616.d
16-MAR-2010 10:17	MEGA	/chem/MSD6.i/s031610.b/s6c1605.d
Cal Level: 4 , Cal Amount: 40.00000		
17-MAR-2010 03:19	NEV	/chem/MSD6.i/s031610.b/s6c1642.d
16-MAR-2010 23:05	HEX	/chem/MSD6.i/s031610.b/s6c1631.d
16-MAR-2010 20:16	PEST	/chem/MSD6.i/s031610.b/s6c1624.d
16-MAR-2010 17:30	AP12	/chem/MSD6.i/s031610.b/s6c1617.d
16-MAR-2010 10:48	MEGA	/chem/MSD6.i/s031610.b/s6c1606.d
Cal Level: 5 , Cal Amount: 50.00000		
17-MAR-2010 03:42	NEV	/chem/MSD6.i/s031610.b/s6c1643.d
16-MAR-2010 23:30	HEX	/chem/MSD6.i/s031610.b/s6c1632.d
16-MAR-2010 20:39	PEST	/chem/MSD6.i/s031610.b/s6c1625.d
16-MAR-2010 17:53	AP12	/chem/MSD6.i/s031610.b/s6c1618.d
16-MAR-2010 11:18	MEGA	/chem/MSD6.i/s031610.b/s6c1607.d
Cal Level: 6 , Cal Amount: 80.00000		
17-MAR-2010 04:05	NEV	/chem/MSD6.i/s031610.b/s6c1644.d
16-MAR-2010 23:53	HEX	/chem/MSD6.i/s031610.b/s6c1633.d
16-MAR-2010 21:04	PEST	/chem/MSD6.i/s031610.b/s6c1626.d
16-MAR-2010 18:16	AP12	/chem/MSD6.i/s031610.b/s6c1619.d
16-MAR-2010 11:48	MEGA	/chem/MSD6.i/s031610.b/s6c1608.d
Cal Level: 7 , Cal Amount: 100.00000		

17-MAR-2010 04:28	NEV	/chem/MSD6.i/s031610.b/s6c1645.d
17-MAR-2010 00:17	HEX	/chem/MSD6.i/s031610.b/s6c1634.d
16-MAR-2010 21:29	PEST	/chem/MSD6.i/s031610.b/s6c1627.d
16-MAR-2010 18:40	AP12	/chem/MSD6.i/s031610.b/s6c1620.d
16-MAR-2010 12:18	MEGA	/chem/MSD6.i/s031610.b/s6c1609.d

Cal Level: 8 , Cal Amount: 120.00000

17-MAR-2010 04:51	NEV	/chem/MSD6.i/s031610.b/s6c1646.d
16-MAR-2010 21:52	PEST	/chem/MSD6.i/s031610.b/s6c1628.d
16-MAR-2010 19:04	AP12	/chem/MSD6.i/s031610.b/s6c1621.d
16-MAR-2010 12:48	MEGA	/chem/MSD6.i/s031610.b/s6c1610.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0

20-MAR-2010 15:45	MEGA	/chem/MSD6.i/s032010.b/s6c2006.d

Ccal Level: 4 , Ccal Amount: 40.0

20-MAR-2010 16:39	NEV	/chem/MSD6.i/s032010.b/s6c2008.d

Ccal Level: 4 , Ccal Amount: 40.0

20-MAR-2010 16:15	PEST	/chem/MSD6.i/s032010.b/s6c2007.d

Ccal Level: 4 , Ccal Amount: 40.0

20-MAR-2010 15:22	AP12	/chem/MSD6.i/s032010.b/s6c2005.d

Ccal Level: 4 , Ccal Amount: 40.0

20-MAR-2010 14:52	MEGA	/chem/MSD6.i/s032010.b/s6c2004.d

Ccal Level: 4 , Ccal Amount: 40.0

20-MAR-2010 13:00	MEGA	/chem/MSD6.i/s032010.b/s6c2002.d

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Start Cal Date : 16-MAR-2010 09:18
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Method file : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Cal Date : 21-Mar-2010 07:38 nat00999

Calibration File Names:
Level 1: /chem/MSD6.i/s031610.b/s6c1603.d
Level 2: /chem/MSD6.i/s031610.b/s6c1640.d
Level 3: /chem/MSD6.i/s031610.b/s6c1641.d
Level 4: /chem/MSD6.i/s031610.b/s6c1642.d
Level 5: /chem/MSD6.i/s031610.b/s6c1643.d
Level 6: /chem/MSD6.i/s031610.b/s6c1644.d
Level 7: /chem/MSD6.i/s031610.b/s6c1645.d
Level 8: /chem/MSD6.i/s031610.b/s6c1646.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.81792	0.82056	0.78930	0.79192	0.76046					
	0.72590	0.72296					AVRG		0.77557		5.19380
2 Pyridine	+++++	1.11606	1.14524	1.09549	1.10183	1.07067					
	1.05148	1.15602					AVRG		1.10526		3.40288
4 Aniline	+++++	0.72133	0.70476	0.66890	0.68894	0.64499					
	0.62930	0.62826					AVRG		0.66950		5.53075
209 Benzaldehyde	+++++	1.13309	1.08471	1.00392	0.97767	0.86499					
	0.83244	0.82430					AVRG		0.96016		12.85923
6 Phenol	+++++	1.61272	1.56254	1.44105	1.45641	1.36160					
	1.30346	1.28275					AVRG		1.43150		8.74973

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	+++++	1.19254	1.18236	1.09028	1.09625	1.00058					
	0.95191	0.93692					AVRG		1.06440		9.77817
8 2-Chlorophenol	+++++	1.26962	1.28222	1.17814	1.18825	1.10696					
	1.06189	1.06261					AVRG		1.16424		7.83127
203 n-Decane	+++++	1.96779	1.93918	1.70280	1.68456	1.47743					
	1.37227	+++++					AVRG		1.69067		14.13608
9 1,3-Dichlorobenzene	+++++	1.44879	1.44947	1.30584	1.30842	1.19897					
	1.15341	1.11325					AVRG		1.28259		10.51030
11 1,4-Dichlorobenzene	+++++	1.42133	1.40639	1.25708	1.27799	1.16100					
	1.09866	1.09543					AVRG		1.24541		10.83313
12 Benzyl alcohol	+++++	0.85394	0.86245	0.80492	0.83695	0.79588					
	0.79193	0.78165					AVRG		0.81825		3.95576
13 1,2-Dichlorobenzene	+++++	1.34498	1.29593	1.11046	1.13364	1.03705					
	0.99051	0.98974					AVRG		1.12890		12.62648
14 bis(2-Chloroisopropyl)ether	+++++	2.53022	2.53492	2.29878	2.31844	2.11439					
	1.96542	1.89769					AVRG		2.23712		11.38315
15 o-Cresol	+++++	1.01324	0.99090	0.86659	0.89293	0.83096					
	0.81771	0.80283					AVRG		0.88788		9.44602

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.46180	1.39429	1.25730	1.25356	1.14795					
	1.11097	1.11114					AVRG		1.24814		11.07970
17 N-Nitrosodipropylamine	+++++	1.04632	1.03866	0.98744	1.01348	0.95067					
	0.89995	0.90020					AVRG		0.97668		6.28044
18 m,p-Cresols	+++++	1.32601	1.35004	1.26915	1.31796	1.25447					
	1.21737	1.21749					AVRG		1.27893		4.16878
19 Hexachloroethane	+++++	0.59901	0.59645	0.55146	0.55577	0.50879					
	0.48359	0.46860					AVRG		0.53767		9.68345
21 Nitrobenzene	+++++	0.41616	0.40868	0.35909	0.36547	0.32858					
	0.30203	0.28967					AVRG		0.35281		13.92765
22 Isophorone	+++++	0.76756	0.76141	0.67508	0.70486	0.64538					
	0.60504	0.57972					AVRG		0.67701		10.74431
23 2-Nitrophenol	+++++	0.18755	0.16925	0.15697	0.15800	0.13948					
	0.13113	0.12806					AVRG		0.15292		14.07952
24 2,4-Dimethylphenol	+++++	128503	217256	416723	533570	827995					
	966250	+++++					WLINR	-0.14975	0.25299		0.99406
25 bis(2-Chloroethoxy)methane	+++++	0.43560	0.42444	0.37400	0.37627	0.33980					
	0.32172	0.30463					AVRG		0.36806		13.49875

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.28833	0.28887	0.25784	0.26048	0.23660					
	0.22233	0.21321					AVRG		0.25252		11.88589
27 Benzoic acid	+++++	+++++	0.15188	0.16162	0.20350	0.20115					
	0.19885	0.20819					AVRG		0.18753		12.92549
28 1,2,4-Trichlorobenzene	+++++	0.33900	0.33884	0.29761	0.29991	0.26567					
	0.24757	0.23474					AVRG		0.28905		14.39082
30 Naphthalene	1.17741	1.03786	1.00687	0.84879	0.85336	+++++					
	+++++	+++++					AVRG		0.98486		14.01214
204 alpha-Terpineol	+++++	0.33608	0.33453	0.29084	0.29286	0.26114					
	0.24448	0.23009					AVRG		0.28429		14.63166
31 4-Chloroaniline	+++++	0.47746	0.49291	0.44934	0.45825	0.40866					
	0.38534	0.36929					AVRG		0.43446		10.86864
189 Caprolactam	+++++	0.10378	0.10570	0.09999	0.09912	0.09284					
	0.09092	0.09292					AVRG		0.09790		5.90407
32 Hexachlorobutadiene	+++++	0.19255	0.18969	0.16950	0.16919	0.15167					
	0.14051	0.13534					AVRG		0.16407		13.75956
33 4-Chloro-3-methylphenol	+++++	0.32043	0.30822	0.27683	0.28548	0.25715					
	0.24213	0.23028					AVRG		0.27436		12.15912

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.72925	0.65481	0.63621	0.55294	0.56663	0.49402					
	*****	*****					AVRG		0.60564		13.89123
35 1-Methylnaphthalene	0.70436	0.66500	0.61927	0.53454	0.53753	0.47391					
	*****	*****					AVRG		0.58910		14.96497
36 Hexachlorocyclopentadiene	*****	0.25218	0.24426	0.26357	0.23616	0.19125					
	0.18872	*****					AVRG		0.22936		13.87544
208 1,1'-Biphenyl	*****	1.34441	1.27102	1.12196	1.11758	1.01987					
	0.96643	0.94136					AVRG		1.11180		13.65187
205 2,3-Dichloroaniline	*****	0.61240	0.60292	0.54053	0.53714	0.47736					
	0.45417	0.44760					AVRG		0.52459		12.87597
37 2,4,6-Trichlorophenol	*****	0.38108	0.37793	0.32193	0.36706	0.30741					
	0.28219	0.30558					AVRG		0.33474		11.93741
38 2,4,5-Trichlorophenol	*****	0.37129	0.37911	0.38732	0.34179	0.35266					
	0.34748	0.30293					AVRG		0.35465		8.00704
40 2-Chloronaphthalene	1.19201	1.10470	1.08122	0.97966	0.96619	0.86532					
	0.80529	0.79483					AVRG		0.97365		14.96311
42 o-Nitroaniline	*****	0.36102	0.36661	0.34980	0.35607	0.33160					
	0.31294	0.31605					AVRG		0.34201		6.37491

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.23455	0.26751	0.26609	0.27182	0.25408					
	0.24489	0.23973					AVRG		0.25409		5.81743
43 Dimethylphthalate	+++++	1.30419	1.28387	1.15700	1.15779	1.04419					
	0.99525	0.96796					AVRG		1.13004		11.83407
44 2,6-Dinitrotoluene	+++++	0.30420	0.29865	0.27654	0.28158	0.25526					
	0.23916	0.23864					AVRG		0.27058		9.91397
45 Acenaphthylene	1.85647	1.73104	1.67326	1.48789	1.47507	1.32790					
	1.24637	+++++					AVRG		1.54257		14.31335
47 Acenaphthene	1.28627	1.05044	1.03429	0.91274	0.90543	+++++					
	+++++	+++++					AVRG		1.03783		14.85478
48 2,4-Dinitrophenol	+++++	+++++	23383	83099	110420	178844					
	226466	280792					LINR	0.14548	0.11086		0.99537
49 Dibenzofuran	+++++	1.49805	1.45690	1.29929	1.28456	1.15301					
	1.08151	1.05151					AVRG		1.26069		13.90416
50 2,4-Dinitrotoluene	+++++	0.36954	0.37982	0.36276	0.37594	0.34784					
	0.32724	0.33221					AVRG		0.35648		5.89787
51 Diethylphthalate	+++++	1.30298	1.28452	1.13974	1.14323	1.01648					
	0.94857	0.91864					AVRG		1.10774		13.84255

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	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.20176	0.19292	0.19251	0.19939	0.18710					
	0.18356	0.18929					AVRG		0.19236		3.37304
53 Fluorene	1.38576	1.24024	1.19555	1.05553	1.05905	0.97044					
	0.91808	+++++					AVRG		1.11781		14.68974
54 4-Chlorophenylphenylether	+++++	0.61669	0.60649	0.55132	0.54613	0.49714					
	0.46826	0.46745					AVRG		0.53621		11.44943
55 2-Methyl-4,6-dinitrophenol	+++++	19709	42715	133111	183242	300925					
	377022	458868					LINR	0.11116	0.10470		0.99841
56 p-Nitroaniline	+++++	0.18685	0.19668	0.22186	0.22558	0.21140					
	0.20310	0.21295					AVRG		0.20835		6.60344
133 Diphenylamine	+++++	0.59755	0.58488	0.51490	0.52719	0.49057					
	0.45816	0.45986					AVRG		0.51902		10.72829
58 1,2-Diphenylhydrazine	+++++	0.81379	0.80943	0.71643	0.71366	0.64914					
	0.59712	0.58414					AVRG		0.69767		13.33528
59 Tributylphosphate	+++++	1.48756	1.31745	1.19079	1.17530	1.07632					
	0.98767	+++++					AVRG		1.20585		14.71177
61 4-Bromophenylphenylether	+++++	0.18913	0.19414	0.17251	0.17518	0.16699					
	0.15758	0.16024					AVRG		0.17368		7.95612

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.17986	0.18314	0.16397	0.16914	0.16087					
	0.15325	0.15146					AVRG		0.16595		7.37947
207 Atrazine	+++++	0.05303	0.05040	0.04601	0.04433	0.03650					
	+++++	+++++					AVRG		0.04606		13.80997
65 Pentachlorophenol	+++++	0.08594	0.09329	0.09347	0.09827	0.09698					
	0.09437	0.09548					AVRG		0.09397		4.23639
206 n-Octadecane	+++++	0.53452	0.53921	0.46736	0.45674	0.40532					
	+++++	+++++					AVRG		0.48063		11.74926
68 Phenanthrene	1.18955	1.04058	1.01586	0.88259	0.91454	0.80483					
	+++++	+++++					AVRG		0.97466		14.00439
69 Anthracene	1.17774	1.06636	1.01144	0.91703	0.90561	0.81316					
	+++++	+++++					AVRG		0.98189		13.26811
72 Di-n-butylphthalate	+++++	1.28361	1.29174	1.09885	1.06066	0.94298					
	+++++	+++++					AVRG		1.13557		13.23540
76 Fluoranthene	1.20011	1.09187	1.06525	0.96204	0.95592	0.84379					
	0.79997	+++++					AVRG		0.98842		14.28401
77 Benzidine	+++++	0.40621	0.45200	0.39954	0.40216	0.42655					
	0.43042	0.42719					AVRG		0.42058		4.50256

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.35186	1.32429	1.37915	1.14942	1.19852	1.19422					
	1.08124	1.07630					AVRG		1.21938		9.78236
85 Butylbenzylphthalate	+++++	0.60942	0.68418	0.57419	0.59563	0.59071					
	0.53615	0.53958					AVRG		0.58998		8.46660
89 Benzo(a)anthracene	1.23844	1.07586	1.08943	0.99635	1.02654	0.99275					
	0.98276	0.95356					AVRG		1.04446		8.71633
90 3,3'-Dichlorobenzidine	+++++	0.28634	0.34000	0.31737	0.30439	0.29332					
	0.28534	0.28530					AVRG		0.30172		6.84952
92 Chrysene	1.21905	1.11052	1.09284	0.99293	1.00791	0.89389					
	0.83298	0.83097					AVRG		0.99764		14.00287
93 bis(2-Ethylhexyl)phthalate	+++++	0.87792	0.94166	0.75843	0.78894	0.76390					
	0.69996	0.68939					AVRG		0.78860		11.64783
94 Di-n-octylphthalate	+++++	1.50498	1.84996	1.38120	1.53446	1.53965					
	1.35710	1.54699					AVRG		1.53062		10.51568
95 Benzo(b)fluoranthene	1.06453	1.04231	1.18249	1.05565	1.10684	1.12171					
	1.04658	1.07946					AVRG		1.08744		4.38133
96 Benzo(k)fluoranthene	1.13857	1.15145	1.13298	1.00215	1.05846	0.96843					
	0.91790	0.97630					AVRG		1.04328		8.61578

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INITIAL CALIBRATION DATA

Start Cal Date : 16-MAR-2010 09:18
End Cal Date : 17-MAR-2010 04:51
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Cal Date : 21-Mar-2010 07:38 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.91272	0.95091	0.96305	0.93841	0.94477	0.90966					
	0.87668	0.87161					AVRG		0.92098		3.70068
99 Indeno(1,2,3-cd)pyrene	0.82214	0.91774	0.83742	0.89629	0.86445	0.85264					
	0.81655	0.75359					AVRG		0.84510		6.01764
100 Dibenzo(a,h)anthracene	0.65413	0.74504	0.67287	0.73440	0.69759	0.67777					
	0.65411	0.60951					AVRG		0.68068		6.53700
101 Benzo(ghi)perylene	0.72104	0.79945	0.72249	0.76566	0.71838	0.73009					
	0.68866	0.62705					AVRG		0.72160		7.04885
102 1,4-Dioxane	+++++	0.40364	0.39108	0.35833	0.36073	0.32452					
	0.31161	0.30837					AVRG		0.35119		10.77795
103 Methyl methacrylate	+++++	0.21508	0.20768	0.19444	0.19248	0.17684					
	0.16911	0.17292					AVRG		0.18979		9.29691
104 Ethyl methacrylate	+++++	0.94302	0.90271	0.84859	0.85171	0.77200					
	0.73535	0.73626					AVRG		0.82709		9.86302
105 2-Picoline	+++++	1.41751	1.35879	1.23892	1.24366	1.11707					
	1.05418	1.05943					AVRG		1.21280		11.79135
106 N-Nitrosomethylethylamine	+++++	0.58418	0.57876	0.54352	0.54304	0.51432					
	0.50151	0.50138					AVRG		0.53810		6.38520

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.64507	0.64908	0.61336	0.60691	0.56546					
	0.55158	0.54936					AVRG		0.59726		7.07556
108 N-Nitrosodiethylamine	+++++	0.60002	0.59792	0.54460	0.55515	0.50996					
	0.50185	0.50111					AVRG		0.54437		7.84567
109 Ethyl Methanesulfonate	+++++	0.77937	0.78398	0.73252	0.74517	0.68922					
	0.67400	0.67651					AVRG		0.72583		6.44394
110 Pentachloroethane	+++++	0.36537	0.35868	0.33978	0.34412	0.31859					
	0.30477	0.30069					AVRG		0.33314		7.67816
111 N-Nitrosopyrrolidine	+++++	0.65147	0.65118	0.60564	0.59568	0.54014					
	0.52363	0.52349					AVRG		0.58446		9.60255
113 N-Nitrosomorpholine	+++++	0.77690	0.75720	0.69860	0.69697	0.63076					
	0.60862	0.59644					AVRG		0.68078		10.46970
114 o-Toluidine	+++++	2.05374	1.96418	1.78212	1.74117	1.58116					
	1.51078	1.51005					AVRG		1.73474		12.47332
115 N-Nitrosopiperidine	+++++	0.16517	0.16671	0.15400	0.15626	0.14779					
	0.14357	0.14183					AVRG		0.15362		6.43146
116 a,a-Dimethylphenethylamine	+++++	0.84998	0.91437	0.90226	0.91158	0.87133					
	0.84727	0.81794					AVRG		0.87353		4.25275

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
117 Triethylphosphorothioate	+++++	0.16227	0.15179	0.14508	0.14517	0.13799						
	0.13034	0.12625					AVRG		0.14270		8.68942	
118 2,6-Dichlorophenol	+++++	0.27261	0.26747	0.24661	0.24973	0.23288						
	0.22683	0.22120					AVRG		0.24533		8.04029	
119 Hexachloropropene	+++++	0.12422	0.14505	0.13455	0.13486	0.13756						
	0.13062	0.12490					AVRG		0.13311		5.48816	
120 p-Phenylenediamine	+++++	0.34413	0.36083	0.31398	0.29301	0.26154						
	0.24844	+++++					AVRG		0.30365		14.69115	
121 N-Nitrosodi-n-butylamine	+++++	0.30402	0.30501	0.24131	0.24260	0.22117						
	+++++	+++++					AVRG		0.26282		14.83811	
122 Safrole	+++++	0.24219	0.23822	0.21649	0.21692	0.20189						
	0.19239	0.18963					AVRG		0.21396		9.73528	
123 1,2,4,5-Tetrachlorobenzene	+++++	0.51062	0.49855	0.44614	0.45393	0.42366						
	0.40150	0.39571					AVRG		0.44716		10.00072	
124 Isosafrole	+++++	0.39056	0.38828	0.35693	0.35264	0.33685						
	0.32525	0.32217					AVRG		0.35324		7.88298	
125 1,4-Naphthoquinone	+++++	0.44627	0.42913	0.36710	0.34310	0.27951						
	0.26871	0.26396					AVRG		0.34254		22.12484	<-

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	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.19457	0.20451	0.19900	0.20530	0.18435					
	0.17688	0.17754					AVRG		0.19174		6.33347
127 Pentachlorobenzene	+++++	0.43110	0.41421	0.37919	0.37551	0.35401					
	0.33716	0.33489					AVRG		0.37515		9.84443
128 1-Naphthylamine	+++++	1.01413	1.02551	0.91517	0.89074	0.84391					
	0.80481	0.80092					AVRG		0.89931		10.26327
129 2-Naphthylamine	+++++	1.06923	1.09028	0.96961	0.93134	0.88633					
	0.81714	0.82229					AVRG		0.94089		11.64761
130 2,3,4,6-Tetrachlorophenol	+++++	0.28320	0.29838	0.27851	0.29220	0.26438					
	0.26048	0.26802					AVRG		0.27788		5.16598
131 5-Nitro-o-toluidine	+++++	0.30371	0.33910	0.30524	0.30826	0.30565					
	0.28937	0.29520					AVRG		0.30665		5.15108
132 Thionazin	+++++	0.18517	0.17934	0.16941	0.16728	0.15846					
	0.15141	0.14819					AVRG		0.16561		8.34122
134 Sulfotepp	+++++	0.08460	0.08173	0.08195	0.08009	0.07824					
	0.07503	0.07583					AVRG		0.07964		4.35673
135 Phorate	+++++	0.45146	0.42713	0.42213	0.39953	0.37573					
	0.35382	0.34151					AVRG		0.39590		10.25989

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.14215	0.17801	0.16278	0.16019	0.15578					
	0.15027	0.14373					AVRG		0.15613		7.94442
137 Phenacetin	+++++	0.31318	0.31793	0.28873	0.29334	0.28901					
	0.27803	0.27408					AVRG		0.29347		5.64036
138 Diallate	+++++	0.28920	0.27813	0.25090	0.24969	0.23408					
	0.22095	0.21741					AVRG		0.24862		10.98494
139 Dimethoate	+++++	0.27336	0.26946	0.26875	0.26784	0.25717					
	0.24705	0.24235					AVRG		0.26085		4.66441
140 4-Aminobiphenyl	+++++	0.55261	0.60071	0.58243	0.60084	0.53773					
	0.49732	0.48294					AVRG		0.55066		8.65686
141 Pentachloronitrobenzene	+++++	0.07818	0.07606	0.06875	0.06554	0.05850					
	0.05467	+++++					AVRG		0.06695		13.96038
142 Pronamide	+++++	0.30552	0.28970	0.25313	0.24216	0.21416					
	+++++	+++++					AVRG		0.26094		14.10331
143 Dinoseb	+++++	26789	59526	194494	260402	434843					
	550419	666120					LINR	0.12393	0.15282		0.99867
144 Disulfoton	+++++	0.33440	0.31848	0.31065	0.30032	0.28000					
	0.26612	0.25293					AVRG		0.29470		9.99476

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	100 Level 7	120 Level 8										
145 Methyl parathion	+++++	0.23174	0.22766	0.22643	0.22704	0.21420						
	0.20697	0.20133					AVRG		0.21934		5.38336	
146 4-Nitroquinoline-1-oxide	+++++	0.03620	0.04258	0.03229	0.02624	0.02359						
	0.02090	0.01975					AVRG		0.02879		29.56738	<-
147 Methapyrilene	+++++	0.50709	0.51231	0.47429	0.44273	0.38752						
	0.37265	0.36578					AVRG		0.43748		14.35658	
148 Isodrin	+++++	0.12789	0.12550	0.11252	0.11113	0.10270						
	0.09732	0.09486					AVRG		0.11028		11.76979	
149 Aramite	+++++	0.04987	0.05241	0.05098	0.04801	0.04511						
	0.04334	0.04247					AVRG		0.04746		8.18427	
150 Kepone	+++++	0.08033	0.08350	0.07854	0.07324	0.07530						
	0.07353	0.07232					AVRG		0.07668		5.48032	
151 p-(Dimethylamino)azobenzene	+++++	0.35661	0.32327	0.31849	0.32153	0.28722						
	0.28883	0.27624					AVRG		0.31031		8.98103	
152 Chlorobenzilate	+++++	0.34601	0.29739	0.29945	0.30335	0.27160						
	0.27932	0.26590					AVRG		0.29472		9.12242	
153 3,3'-Dimethylbenzidine	+++++	0.63324	0.65171	0.60049	0.59103	0.56476						
	0.56416	0.54908					AVRG		0.59350		6.40934	

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	100 Level 7	120 Level 8										
154 Famphur	+++++	0.44294	0.43580	0.46237	0.43998	0.43138						
	0.41231	0.39369					AVRG		0.43121		5.16049	
155 2-Acetylaminofluorene	+++++	0.28561	0.37666	0.36505	0.36381	0.34665						
	0.35179	0.35001					AVRG		0.34851		8.50665	
157 7,12Dimethylbenz(a)anthracene	+++++	0.51449	0.49379	0.48383	0.50239	0.49617						
	0.46390	0.44355					AVRG		0.48545		5.00153	
158 3-Methylcholanthrene	+++++	0.35367	0.42677	0.41143	0.40554	0.40467						
	0.39610	0.40256					AVRG		0.40010		5.65129	
26 Phthalic anhydride	+++++	27295	87036	200557	277210	460400						
	556029	682236					LINR	0.03349	0.14624		0.99669	
173 Carbazole	1.01509	0.74843	0.72374	0.75388	0.76522	0.69273						
	0.66795	+++++					AVRG		0.76672		14.99112	
174 Hexachlorophene	+++++	0.04741	0.06158	+++++	0.06384	0.06162						
	0.05947	+++++					AVRG		0.05878		11.13226	
179 Dibenzo(a,e)pyrene	+++++	0.36049	0.28249	0.34513	0.30393	0.34223						
	0.31678	0.29389					AVRG		0.32071		9.10777	
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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	100 Level 7	120 Level 8										
184 p-Benzoquinone	+++++	0.20897	0.35254	0.17686	0.22912	0.25164						
	0.22851	0.25291					AVRG		0.24293		22.61358	<-
191 Parathion	+++++	0.06141	0.06185	0.06208	0.06168	0.05986						
	0.05714	0.05627					AVRG		0.06004		3.99838	
192 Methoxychlor	+++++	0.71007	0.76187	0.67557	0.67506	0.65556						
	0.60574	0.57499					AVRG		0.66555		9.36899	
210 m-Toluidine	+++++	1.67718	1.91596	1.79952	2.07052	1.85391						
	1.82362	+++++					AVRG		1.85679		7.05627	
211 p-Toluidine	+++++	1.47044	1.37288	1.42100	1.28519	1.31427						
	1.16108	+++++					AVRG		1.33748		8.21058	
212 Cis Diallate	+++++	0.29467	0.31145	0.29067	0.29841	0.28191						
	0.27521	0.27193					AVRG		0.28918		4.80566	
213 Trans Diallate	+++++	0.34024	0.32722	0.29518	0.29375	0.27539						
	0.25994	0.25578					AVRG		0.29250		10.98494	
214 1,4-Dinitrobenzene	+++++	0.27003	0.28077	0.27490	0.28781	0.26587						
	0.25743	0.25119					AVRG		0.26971		4.75195	
215 2-Ethoxyethanol	+++++	0.75153	0.75427	0.72199	0.73882	0.68817						
	0.66248	0.66748					AVRG		0.71211		5.48996	

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	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	0.14670	0.14448	0.16081	0.16367	0.16247					
	0.16353	0.15734					AVRG		0.15700		5.16494
229 2,2'-Dichlorobenzil	+++++	0.75519	0.72438	0.63746	0.67020	+++++					
	0.60843	0.58423					AVRG		0.66332		10.03522
230 4-Chlorothioanisole	+++++	0.25858	0.25840	0.25992	0.26979	+++++					
	0.24846	0.24389					AVRG		0.25651		3.57209
231 4-Chlorothiophenol	+++++	20380	113799	319351	419370	+++++					
	924542	1190062					LINR	0.19963	0.21635		0.99920
232 bis(p-Chlorophenyl)sulfone	+++++	0.42993	0.41812	0.36485	0.38196	+++++					
	0.35821	0.34208					AVRG		0.38252		9.09627
233 bis(p-Chlorophenyl)disulfide	+++++	0.18867	0.16361	0.14247	0.15771	+++++					
	0.13916	0.13446					AVRG		0.15435		13.09397
234 Diphenyl disulfide	+++++	0.25253	0.23711	0.22392	0.22770	+++++					
	0.20985	0.20621					AVRG		0.22622		7.62190
235 Diphenyl sulfide	+++++	0.81794	0.80171	0.75220	0.72922	+++++					
	0.67001	0.65856					AVRG		0.73827		8.91554
236 Phenyl sulfone	+++++	0.47552	0.46096	0.43737	0.43617	+++++					
	0.40374	0.40017					AVRG		0.43565		6.89465

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	100 Level 7	120 Level 8									
237 Hydroxymethyl phthalimide	+++++	38588	80856	126016	157606	+++++					
	292598	364853					LINR	-0.21210	0.09455		0.99652
238 Phthalic acid	+++++	19671	59106	176058	250394	+++++					
	603096	+++++					LINR	0.26696	0.14514		0.99255
239 Thiophenol	+++++	62327	207465	508832	672604	+++++					
	1367181	1721186					LINR	0.09119	1.06115		0.99838
240 bis(Chloromethyl)ether	+++++	0.97516	0.91313	0.87686	0.87662	+++++					
	0.80538	0.76021					AVRG		0.86789		8.80685
241 Octachlorostyrene	+++++	0.05974	0.05913	0.05893	0.06005	+++++					
	0.05689	0.05659					AVRG		0.05855		2.50376
M 225 Trichlorophenols	+++++	0.37618	0.37852	0.35462	0.35443	0.33004					
	0.31483	0.30425					AVRG		0.34470		8.43399
M 226 Tetrachlorophenols	+++++	0.28320	0.29838	0.27851	0.29220	0.26438					
	0.26048	0.26802					AVRG		0.27788		5.16598
M 227 Benzo(b,k)fluoranthene	1.10155	1.09688	1.15773	1.02890	1.08265	1.04507					
	0.98224	1.02788					AVRG		1.06536		5.16433
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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Integrator : HP RTE
Method file : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Cal Date : 21-Mar-2010 07:38 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	1.17799	1.21081	1.12585	1.16530	1.06488						
	1.02412	1.01478					AVRG		1.11196		7.01882	
$ 5 Phenol-d5	+++++	1.53055	1.52276	1.42264	1.44854	1.34995						
	1.31463	1.30976					AVRG		1.41412		6.55306	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.43556	0.43337	0.38834	0.39802	0.36088						
	0.33590	0.32456					AVRG		0.38237		11.53560	
$ 39 2-Fluorobiphenyl	+++++	1.22526	1.18747	1.05919	1.04982	0.94356						
	0.89495	0.86381					AVRG		1.03201		13.55845	
$ 60 2,4,6-Tribromophenol	+++++	0.11014	0.11537	0.11089	0.11508	0.11113						
	0.10877	0.11433					AVRG		0.11225		2.35114	
$ 81 p-Terphenyl-d14	+++++	0.73264	0.77308	0.65971	0.68870	0.71170						
	0.64309	0.67033					AVRG		0.69704		6.50888	

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INITIAL CALIBRATION DATA

Start Cal Date : 16-MAR-2010 09:18
End Cal Date : 17-MAR-2010 04:51
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Cal Date : 21-Mar-2010 07:38 nat00999

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-MAR-2010 13:40
Lab File ID: s6c1612.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 03:19
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 3 2-Fluorophenol	1.11196	1.12168	1.12168	0.000	0.87417	60.00000	Averaged	
$ 5 Phenol-d5	1.41412	1.37076	1.37076	0.000	-3.06618	60.00000	Averaged	
$ 20 Nitrobenzene-d5	0.38237	0.38375	0.38375	0.000	0.36085	60.00000	Averaged	
$ 39 2-Fluorobiphenyl	1.03201	1.06678	1.06678	0.000	3.36917	60.00000	Averaged	
$ 60 2,4,6-Tribromophenol	0.11225	0.11519	0.11519	0.000	2.62633	60.00000	Averaged	
$ 81 p-Terphenyl-d14	0.69704	0.79497	0.79497	0.000	14.04962	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.77557	0.72913	0.72913	0.000	-5.98844	60.00000	Averaged	
2 Pyridine	1.10526	0.87234	0.87234	0.000	-21.07309	60.00000	Averaged	
4 Aniline	0.66950	0.60777	0.60777	0.000	-9.21935	60.00000	Averaged	
6 Phenol	1.43150	1.41995	1.41995	0.001	-0.80724	20.00000	Averaged	ccc
7 bis(2-Chloroethyl) ether	1.06440	0.94128	0.94128	0.000	-11.56744	60.00000	Averaged	
8 2-Chlorophenol	1.16424	1.11829	1.11829	0.000	-3.94731	60.00000	Averaged	
203 n-Decane	1.69067	1.54455	1.54455	0.000	-8.64282	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.28259	1.28904	1.28904	0.000	0.50225	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.24541	1.21952	1.21952	0.001	-2.07919	20.00000	Averaged	ccc
13 1,2-Dichlorobenzene	1.12890	1.06600	1.06600	0.000	-5.57188	60.00000	Averaged	
14 bis(2-Chloroisopropyl)ether	2.23712	2.09235	2.09235	0.000	-6.47116	60.00000	Averaged	
12 Benzyl alcohol	0.81825	0.80249	0.80249	0.000	-1.92556	60.00000	Averaged	
15 o-Cresol	0.88788	0.81788	0.81788	0.000	-7.88416	60.00000	Averaged	
18 m,p-Cresols	1.27893	1.27505	1.27505	0.000	-0.30315	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.97668	0.94425	0.94425	0.050	-3.31985	60.00000	Averaged	spcc
19 Hexachloroethane	0.53767	0.51894	0.51894	0.000	-3.48261	60.00000	Averaged	
21 Nitrobenzene	0.35281	0.34682	0.34682	0.000	-1.69798	60.00000	Averaged	
22 Isophorone	0.67701	0.62895	0.62895	0.000	-7.09880	60.00000	Averaged	
23 2-Nitrophenol	0.15292	0.16307	0.16307	0.001	6.63474	20.00000	Averaged	ccc
24 2,4-Dimethylphenol	41.38180	40.00000	0.29961	0.000	3.45451	60.00000	Wt Linear	
25 bis(2-Chloroethoxy)methane	0.36806	0.34233	0.34233	0.000	-6.99093	60.00000	Averaged	
26 2,4-Dichlorophenol	0.25252	0.26160	0.26160	0.001	3.59413	20.00000	Averaged	ccc
27 Benzoic acid	0.18753	0.19379	0.19379	0.000	3.33592	60.00000	Averaged	
28 1,2,4-Trichlorobenzene	0.28905	0.28858	0.28858	0.000	-0.16362	60.00000	Averaged	
30 Naphthalene	0.98486	0.79921	0.79921	0.000	-18.85032	60.00000	Averaged	
204 alpha-Terpineol	0.28429	0.25507	0.25507	0.000	-10.27705	60.00000	Averaged	
31 4-Chloroaniline	0.43446	0.43164	0.43164	0.000	-0.64988	60.00000	Averaged	
32 Hexachlorobutadiene	0.16407	0.16530	0.16530	0.001	0.75184	20.00000	Averaged	ccc
33 4-Chloro-3-methylphenol	0.27436	0.27921	0.27921	0.001	1.76856	20.00000	Averaged	ccc
34 2-Methylnaphthalene	0.60564	0.55335	0.55335	0.000	-8.63470	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-MAR-2010 13:40
Lab File ID: s6c1612.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 03:19
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.58910	0.52291	0.52291	0.000	-11.23674	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.22936	0.18652	0.18652	0.050	-18.67482	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.52459	0.51110	0.51110	0.000	-2.57171	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.33474	0.32662	0.32662	0.001	-2.42453	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.35465	0.40021	0.40021	0.000	12.84507	60.00000	Averaged	
40	2-Chloronaphthalene	0.97365	0.93597	0.93597	0.000	-3.87057	60.00000	Averaged	
42	o-Nitroaniline	0.34201	0.32847	0.32847	0.000	-3.95892	60.00000	Averaged	
41	m-Nitroaniline	0.25409	0.25677	0.25677	0.000	1.05507	60.00000	Averaged	
43	Dimethylphthalate	1.13004	1.08997	1.08997	0.000	-3.54579	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.27058	0.26832	0.26832	0.000	-0.83186	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.35648	0.35493	0.35493	0.000	-0.43442	60.00000	Averaged	
45	Acenaphthylene	1.54257	1.46080	1.46080	0.000	-5.30128	60.00000	Averaged	
47	Acenaphthene	1.03783	0.85181	0.85181	0.001	-17.92376	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	46.32757	40.00000	0.11227	0.050	15.81891	60.00000	Linear	spcc
49	Dibenzofuran	1.26069	1.27158	1.27158	0.000	0.86401	60.00000	Averaged	
51	Diethylphthalate	1.10774	1.08784	1.08784	0.000	-1.79621	60.00000	Averaged	
52	4-Nitrophenol	0.19236	0.19555	0.19555	0.050	1.66021	60.00000	Averaged	spcc
53	Fluorene	1.11781	1.00173	1.00173	0.000	-10.38406	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.53621	0.52718	0.52718	0.000	-1.68531	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	53.31509	40.00000	0.12791	0.000	33.28773	60.00000	Linear	
56	p-Nitroaniline	0.20835	0.21709	0.21709	0.000	4.19498	60.00000	Averaged	
133	Diphenylamine	0.51902	0.51728	0.51728	0.001	-0.33469	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.69767	0.67966	0.67966	0.000	-2.58092	60.00000	Averaged	
61	4-Bromophenylphenylether	0.17368	0.16740	0.16740	0.000	-3.61790	60.00000	Averaged	
63	Hexachlorobenzene	0.16595	0.16267	0.16267	0.000	-1.98022	60.00000	Averaged	
65	Pentachlorophenol	0.09397	0.10258	0.10258	0.001	9.16648	20.00000	Averaged	ccc
206	n-Octadecane	0.48063	0.43611	0.43611	0.000	-9.26268	60.00000	Averaged	
68	Phenanthrene	0.97466	0.84202	0.84202	0.000	-13.60887	60.00000	Averaged	
69	Anthracene	0.98189	0.86400	0.86400	0.000	-12.00660	60.00000	Averaged	
72	Di-n-butylphthalate	1.13557	1.00857	1.00857	0.000	-11.18389	60.00000	Averaged	
76	Fluoranthene	0.98842	0.88230	0.88230	0.001	-10.73646	20.00000	Averaged	ccc
79	Pyrene	1.21938	1.19482	1.19482	0.000	-2.01369	60.00000	Averaged	
85	Butylbenzylphthalate	0.58998	0.57132	0.57132	0.000	-3.16294	60.00000	Averaged	
89	Benzo(a)anthracene	1.04446	0.93343	0.93343	0.000	-10.63003	60.00000	Averaged	
92	Chrysene	0.99764	0.88878	0.88878	0.000	-10.91116	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.78860	0.68724	0.68724	0.000	-12.85331	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 16-MAR-2010 13:40
Lab File ID: s6c1612.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 03:19
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.53062	1.45980	1.45980	0.001	-4.62716	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	1.08744	1.04680	1.04680	0.000	-3.73780	60.00000	Averaged	
96 Benzo(k)fluoranthene	1.04328	1.00268	1.00268	0.000	-3.89200	60.00000	Averaged	
97 Benzo(a)pyrene	0.92098	0.86170	0.86170	0.001	-6.43663	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	0.84510	0.68869	0.68869	0.000	-18.50875	60.00000	Averaged	
100 Dibenzo(a,h)anthracene	0.68068	0.54838	0.54838	0.000	-19.43674	60.00000	Averaged	
101 Benzo(ghi)perylene	0.72160	0.57432	0.57432	0.000	-20.41069	60.00000	Averaged	
126 m-Dinitrobenzene	0.19174	0.20089	0.20089	0.000	4.77491	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.27788	0.27031	0.27031	0.000	-2.72357	60.00000	Averaged	
143 Dinoseb	45.06416	40.00000	0.15323	0.000	12.66041	60.00000	Linear	
173 Carbazole	0.76672	0.77286	0.77286	0.000	0.80138	60.00000	Averaged	
184 p-Benzoquinone	0.24293	0.15889	0.15889	0.000	-34.59747	60.00000	Averaged	
192 Methoxychlor	0.66555	0.59810	0.59810	0.000	-10.13445	60.00000	Averaged	
211 p-Toluidine	1.33748	1.16997	1.16997	0.000	-12.52380	60.00000	Averaged	
210 m-Toluidine	1.85679	1.79116	1.79116	0.000	-3.53432	60.00000	Averaged	
215 2-Ethoxyethanol	0.71211	0.71416	0.71416	0.000	0.28894	60.00000	Averaged	
179 Dibenzo(a,e)pyrene	0.32071	0.16099	0.16099	0.000	-49.80217	60.00000	Averaged	
26 Phthalic anhydride	53.63299	40.00000	0.19118	0.000	34.08247	60.00000	Linear	
214 1,4-Dinitrobenzene	0.26971	0.26900	0.26900	0.000	-0.26254	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	0.15700	0.15460	0.15460	0.000	-1.53152	60.00000	Averaged	
M 225 Trichlorophenols	0.34470	0.36342	0.36342	0.000	5.43080	60.00000	Averaged	
M 226 Tetrachlorophenols	0.27788	0.27031	0.27031	0.000	-2.72357	60.00000	Averaged	
M 227 Benzo(b,k)fluoranthene	1.06536	1.02474	1.02474	0.000	-3.81330	60.00000	Averaged	

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Data file : /chem/MSD6.i/s031610.b/s6c1612.d
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGAICV
Inj Date : 16-MAR-2010 13:40
Operator : nag1 Inst ID: MSD6.i
Smp Info : |WBN100309-09.1|040 PPM|1|SVM|1|MEGAICV
Misc Info : |MSD8270|WBN100310-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m
Meth Date : 17-Mar-2010 09:42 nat00999 Quant Type: ISTD
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.963	3.963	(1.000)	456524	40.0000	
* 29 Naphthalene-d8	136	4.834	4.834	(1.000)	1718025	40.0000	
* 46 Acenaphthene-d10	164	6.093	6.093	(1.000)	1004258	40.0000	
* 67 Phenanthrene-d10	188	7.269	7.269	(1.000)	1718283	40.0000	
* 91 Chrysene-d12	240	9.698	9.698	(1.000)	1300638	40.0000	
* 98 Perylene-d12	264	11.398	11.398	(1.000)	952660	40.0000	
$ 3 2-Fluorophenol	112	3.140	3.140	(0.792)	512074	40.0000	40.3
$ 5 Phenol-d5	99	3.669	3.669	(0.926)	625784	40.0000	38.8
$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.895)	659299	40.0000	40.1
$ 39 2-Fluorobiphenyl	172	5.575	5.575	(0.915)	1071322	40.0000	41.3
$ 60 2,4,6-Tribromophenol	329	6.692	6.692	(1.098)	115684	40.0000	41.0
$ 81 p-Terphenyl-d14	244	8.657	8.657	(0.893)	1033963	40.0000	45.6
1 N-Methyl-N-nitrosomethylamine	74	2.452	2.452	(0.619)	332865	40.0000	37.6
2 Pyridine	79	2.481	2.481	(0.626)	398246	40.0000	31.6
4 Aniline	66	3.746	3.746	(0.945)	277463	40.0000	36.3
6 Phenol	94	3.681	3.681	(0.929)	648240	40.0000	39.7
7 bis(2-Chloroethyl) ether	63	3.763	3.763	(0.950)	429717	40.0000	35.4
8 2-Chlorophenol	128	3.828	3.828	(0.966)	510524	40.0000	38.4
203 n-Decane	43	3.810	3.810	(0.961)	705124	40.0000	36.5
9 1,3-Dichlorobenzene	146	3.928	3.928	(0.991)	588476	40.0000	40.2
11 1,4-Dichlorobenzene	146	3.975	3.975	(1.003)	556738	40.0000	39.2
13 1,2-Dichlorobenzene	146	4.081	4.081	(1.030)	486655	40.0000	37.8
14 bis(2-Chloroisopropyl)ether	45	4.104	4.104	(1.036)	955210	40.0000	37.4
12 Benzyl alcohol	108	4.028	4.028	(1.016)	366356	40.0000	39.2
15 o-Cresol	107	4.075	4.075	(1.028)	373380	40.0000	36.8
18 m,p-Cresols	107	4.181	4.181	(1.055)	582091	40.0000	39.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.204	4.204	(1.061)	431074	40.0000	38.7
19 Hexachloroethane	117	4.310	4.310	(1.088)	236910	40.0000	38.6
21 Nitrobenzene	77	4.340	4.340	(0.898)	595845	40.0000	39.3
22 Isophorone	82	4.498	4.498	(0.931)	1080551	40.0000	37.2
23 2-Nitrophenol	139	4.557	4.557	(0.943)	280151	40.0000	42.6
24 2,4-Dimethylphenol	122	4.546	4.546	(0.940)	514742	40.0000	41.4
25 bis(2-Chloroethoxy)methane	93	4.616	4.616	(0.955)	588138	40.0000	37.2
26 2,4-Dichlorophenol	162	4.716	4.716	(0.976)	449433	40.0000	41.4
27 Benzoic acid	105	4.604	4.604	(0.953)	332933	40.0000	41.3
28 1,2,4-Trichlorobenzene	180	4.781	4.781	(0.989)	495781	40.0000	39.9
30 Naphthalene	128	4.851	4.851	(1.004)	1373063	40.0000	32.4
204 alpha-Terpineol	59	4.822	4.822	(0.998)	438221	40.0000	35.9
31 4-Chloroaniline	127	4.863	4.863	(1.006)	741569	40.0000	39.7
32 Hexachlorobutadiene	225	4.910	4.910	(1.016)	283988	40.0000	40.3
33 4-Chloro-3-methylphenol	107	5.169	5.169	(1.069)	479692	40.0000	40.7
34 2-Methylnaphthalene	142	5.328	5.328	(1.102)	950663	40.0000	36.5
35 1-Methylnaphthalene	142	5.404	5.404	(1.118)	898368	40.0000	35.5
36 Hexachlorocyclopentadiene	237	5.434	5.434	(0.892)	187318	40.0000	32.5
205 2,3-Dichloroaniline	161	5.528	5.528	(0.907)	513274	40.0000	39.0
37 2,4,6-Trichlorophenol	196	5.516	5.516	(0.905)	328015	40.0000	39.0
38 2,4,5-Trichlorophenol	196	5.545	5.545	(0.910)	401913	40.0000	45.1
40 2-Chloronaphthalene	162	5.687	5.687	(0.933)	939951	40.0000	38.4
42 o-Nitroaniline	65	5.740	5.740	(0.942)	329871	40.0000	38.4
41 m-Nitroaniline	138	6.040	6.040	(0.991)	257868	40.0000	40.4
43 Dimethylphthalate	163	5.851	5.851	(0.960)	1094609	40.0000	38.6
44 2,6-Dinitrotoluene	165	5.910	5.910	(0.970)	269467	40.0000	39.7
50 2,4-Dinitrotoluene	165	6.204	6.204	(1.018)	356439	40.0000	39.8
45 Acenaphthylene	152	5.993	5.993	(0.984)	1467016	40.0000	37.9
47 Acenaphthene	154	6.116	6.116	(1.004)	855440	40.0000	32.8
48 2,4-Dinitrophenol	184	6.110	6.110	(1.003)	112751	40.0000	46.3
49 Dibenzofuran	168	6.245	6.245	(1.025)	1276999	40.0000	40.3
51 Diethylphthalate	149	6.363	6.363	(1.044)	1092470	40.0000	39.3
52 4-Nitrophenol	139	6.122	6.122	(1.005)	196387	40.0000	40.7
53 Fluorene	166	6.504	6.504	(1.068)	1005998	40.0000	35.8
54 4-Chlorophenylphenylether	204	6.481	6.481	(1.064)	529421	40.0000	39.3
55 2-Methyl-4,6-dinitrophenol	198	6.522	6.522	(0.897)	219793	40.0000	53.3
56 p-Nitroaniline	138	6.504	6.504	(1.068)	218010	40.0000	41.7
133 Diphenylamine	169	6.569	6.569	(0.904)	888833	40.0000	39.9
58 1,2-Diphenylhydrazine	77	6.604	6.604	(0.909)	1167855	40.0000	39.0
61 4-Bromophenylphenylether	248	6.869	6.869	(0.945)	287633	40.0000	38.6
63 Hexachlorobenzene	284	6.940	6.940	(0.955)	279510	40.0000	39.2
65 Pentachlorophenol	266	7.087	7.087	(0.975)	176266	40.0000	43.7
206 n-Octadecane	57	7.081	7.081	(0.974)	749361	40.0000	36.3
68 Phenanthrene	178	7.292	7.292	(1.003)	1446824	40.0000	34.6
69 Anthracene	178	7.334	7.334	(1.009)	1484597	40.0000	35.2
72 Di-n-butylphthalate	149	7.692	7.692	(1.058)	1733003	40.0000	35.5
76 Fluoranthene	202	8.339	8.339	(1.147)	1516040	40.0000	35.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	8.557	8.557	(0.882)	1554030	40.0000	39.2
85 Butylbenzylphthalate	149	9.092	9.092	(0.938)	743080	40.0000	38.7
89 Benzo(a)anthracene	228	9.681	9.681	(0.998)	1214059	40.0000	35.7
92 Chrysene	228	9.722	9.722	(1.002)	1155983	40.0000	35.6
93 bis(2-Ethylhexyl)phthalate	149	9.616	9.616	(0.992)	893848	40.0000	34.8
94 Di-n-octylphthalate	149	10.280	10.280	(0.902)	1390689	40.0000	38.1
95 Benzo(b)fluoranthene	252	10.875	10.875	(0.954)	997243	40.0000	38.5
96 Benzo(k)fluoranthene	252	10.910	10.910	(0.957)	955210	40.0000	38.4
97 Benzo(a)pyrene	252	11.322	11.322	(0.993)	820904	40.0000	37.4
99 Indeno(1,2,3-cd)pyrene	276	13.204	13.204	(1.158)	656083	40.0000	32.6
100 Dibenzo(a,h)anthracene	278	13.221	13.221	(1.160)	522415	40.0000	32.2
101 Benzo(ghi)perylene	276	13.757	13.757	(1.207)	547130	40.0000	31.8
126 m-Dinitrobenzene	168	5.893	5.893	(0.967)	201747	40.0000	41.9
130 2,3,4,6-Tetrachlorophenol	232	6.316	6.316	(1.037)	271462	40.0000	38.9
143 Dinoseb	211	7.210	7.210	(0.992)	263293	40.0000	45.1
173 Carbazole	167	7.451	7.451	(1.025)	1327998	40.0000	40.3
184 p-Benzoquinone	54	3.446	3.446	(0.869)	72535	40.0000	26.2
192 Methoxychlor	227	9.569	9.569	(0.987)	777910	40.0000	35.9
211 p-Toluidine	106	4.246	4.246	(1.071)	534121	40.0000	35.0(H)
210 m-Toluidine	106	4.263	4.263	(1.076)	817708	40.0000	38.6
215 2-Ethoxyethanol	59	2.293	2.293	(0.578)	326033	40.0000	40.1
179 Dibenzo(a,e)pyrene	302	17.974	17.974	(1.577)	153366	40.0000	20.1
26 Phthalic anhydride	104	5.369	5.369	(1.111)	328450	40.0000	53.6
214 1,4-Dinitrobenzene	75	5.834	5.834	(0.958)	270150	40.0000	39.9
216 Methylenebis(2-chloroaniline)	231	9.628	9.628	(0.993)	201073	40.0000	39.4
M 225 Trichlorophenols	196				729928	80.0000	84.3
M 226 Tetrachlorophenols	232				271462	40.0000	38.9
M 227 Benzo(b,k)fluoranthene	252				1952453	80.0000	76.9

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s031610.b/s6c1612.d
Date : 16-MAR-2010 13:40
Client ID: MEGAICV
Sample Info: IWBN100309-09,1|040 PPM|1|SVMI1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

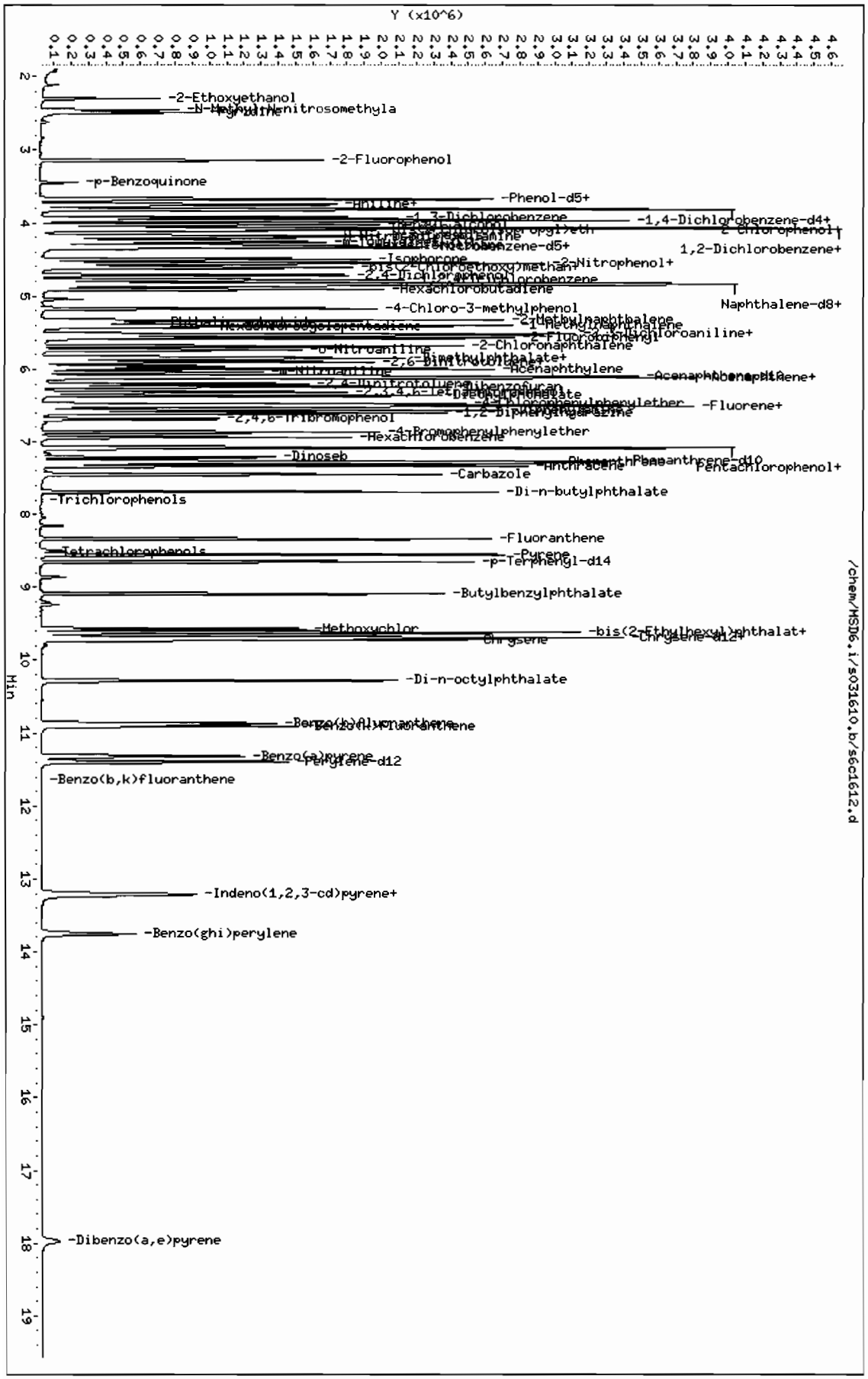

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 17-MAR-2010 00:41
Lab File ID: s6c1635.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 03:19
Lab Sample ID: WBN100312-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.96016	0.81875	0.81875	0.000	-14.72761	60.00000	Averaged
16 Acetophenone	1.24814	1.25263	1.25263	0.000	0.35947	60.00000	Averaged
189 Caprolactam	0.09790	0.10379	0.10379	0.000	6.01713	60.00000	Averaged
208 1,1'-Biphenyl	1.11180	1.18809	1.18809	0.000	6.86162	60.00000	Averaged
207 Atrazine	0.04606	0.04863	0.04863	0.000	5.59576	60.00000	Averaged
77 Benzidine	0.42058	0.38100	0.38100	0.000	-9.41199	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.30172	0.29115	0.29115	0.000	-3.50494	60.00000	Averaged
102 1,4-Dioxane	0.35119	0.42489	0.42489	0.000	20.98835	60.00000	Averaged
103 Methyl methacrylate	0.18979	0.23586	0.23586	0.000	24.27101	60.00000	Averaged
104 Ethyl methacrylate	0.82709	0.99246	0.99246	0.000	19.99468	60.00000	Averaged
105 2-Picoline	1.21280	1.17717	1.17717	0.000	-2.93779	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.53810	0.51671	0.51671	0.000	-3.97561	60.00000	Averaged
107 Methyl methanesulfonate	0.59726	0.64303	0.64303	0.000	7.66352	60.00000	Averaged
108 N-Nitrosodiethylamine	0.54437	0.51427	0.51427	0.000	-5.53074	60.00000	Averaged
109 Ethyl Methanesulfonate	0.72583	0.86252	0.86252	0.000	18.83349	60.00000	Averaged
110 Pentachloroethane	0.33314	0.46050	0.46050	0.000	38.22991	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.58446	0.54601	0.54601	0.000	-6.57949	60.00000	Averaged
113 N-Nitrosomorpholine	0.68078	0.67817	0.67817	0.000	-0.38364	60.00000	Averaged
114 o-Toluidine	1.73474	1.71282	1.71282	0.000	-1.26373	60.00000	Averaged
115 N-Nitrosopiperidine	0.15362	0.15537	0.15537	0.000	1.14048	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.87353	0.84296	0.84296	0.000	-3.49989	60.00000	Averaged
118 2,6-Dichlorophenol	0.24533	0.25532	0.25532	0.000	4.07128	60.00000	Averaged
119 Hexachloropropene	0.13311	0.21102	0.21102	0.000	58.53040	60.00000	Averaged
120 p-Phenylenediamine	0.30365	0.25418	0.25418	0.000	-16.29271	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.26282	0.23622	0.23622	0.000	-10.12220	60.00000	Averaged
122 Safrole	0.21396	0.24803	0.24803	0.000	15.92258	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44716	0.49965	0.49965	0.000	11.73987	60.00000	Averaged
124 Isosafrole	0.35324	0.46919	0.46919	0.000	32.82296	60.00000	Averaged
125 1,4-Naphthoquinone	0.34254	0.36074	0.36074	0.000	5.31328	60.00000	Averaged
127 Pentachlorobenzene	0.37515	0.39513	0.39513	0.000	5.32511	60.00000	Averaged
128 1-Naphthylamine	0.89931	0.86590	0.86590	0.000	-3.71571	60.00000	Averaged
129 2-Naphthylamine	0.94089	0.95153	0.95153	0.000	1.13110	60.00000	Averaged
131 5-Nitro-o-toluidine	0.30665	0.29799	0.29799	0.000	-2.82387	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.15613	0.20859	0.20859	0.000	33.60060	60.00000	Averaged
137 Phenacetin	0.29347	0.31337	0.31337	0.000	6.77907	60.00000	Averaged
138 Diallate	0.24862	0.23882	0.23882	0.000	-3.94194	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 17-MAR-2010 00:41
Lab File ID: s6c1635.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 03:19
Lab Sample ID: WBN100312-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.28918	0.35766	0.35766	0.000	23.68031	60.00000	Averaged
213 Trans Diallate	0.29250	0.28097	0.28097	0.000	-3.94194	60.00000	Averaged
140 4-Aminobiphenyl	0.55066	0.60803	0.60803	0.000	10.41902	60.00000	Averaged
141 Pentachloronitrobenzene	0.06695	0.07174	0.07174	0.000	7.16089	60.00000	Averaged
142 Pronamide	0.26094	0.27195	0.27195	0.000	4.22099	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02879	0.02702	0.02702	0.000	-6.14630	60.00000	Averaged
147 Methapyrilene	0.43748	0.36011	0.36011	0.000	-17.68475	60.00000	Averaged
148 Isodrin	0.11028	0.10672	0.10672	0.000	-3.22110	60.00000	Averaged
149 Aramite	0.04746	0.04804	0.04804	0.000	1.23400	60.00000	Averaged
150 Kepone	0.07668	0.07470	0.07470	0.000	-2.58614	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31031	0.32655	0.32655	0.000	5.23269	60.00000	Averaged
152 Chlorobenzilate	0.29472	0.31516	0.31516	0.000	6.93640	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.59350	0.56147	0.56147	0.000	-5.39699	60.00000	Averaged
155 2-Acetylaminofluorene	0.34851	0.33367	0.33367	0.000	-4.25802	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.48545	0.50464	0.50464	0.000	3.95471	60.00000	Averaged
158 3-Methylcholanthrene	0.40010	0.40383	0.40383	0.000	0.93137	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD6.i/s031610.b/s6c1635.d
Lab Smp Id: WBN100312-08.1 Client Smp ID: APICV
Inj Date : 17-MAR-2010 00:41
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN100312-08.1|40 PPM|1|SVM|1|APICV
Misc Info : |MSD8270|WBN100310-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s031610.b/MSD6-M8270C-AQA-031610.m
Meth Date : 17-Mar-2010 09:44 nat00999 Quant Type: ISTD
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d
Als bottle: 34 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpc1p1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.969	3.969	(1.000)	439915	40.0000	
* 29 Naphthalene-d8	136	4.840	4.840	(1.000)	1539251	40.0000	
* 46 Acenaphthene-d10	164	6.098	6.098	(1.000)	929656	40.0000	
* 67 Phenanthrene-d10	188	7.281	7.281	(1.000)	1586415	40.0000	
* 91 Chrysene-d12	240	9.704	9.704	(1.000)	1243348	40.0000	
* 98 Perylene-d12	264	11.422	11.422	(1.000)	840077	40.0000	
209 Benzaldehyde	77	3.698	3.698	(0.932)	360181	40.0000	34.1
16 Acetophenone	105	4.222	4.222	(1.064)	551051	40.0000	40.1
189 Caprolactam	113	5.116	5.116	(1.057)	159753	40.0000	42.4
208 1,1'-Biphenyl	154	5.663	5.663	(0.929)	1104517	40.0000	42.7
207 Atrazine	173	6.981	6.981	(0.959)	77154	40.0000	42.2
77 Benzidine	184	8.439	8.439	(0.870)	473712	40.0000	36.2
90 3,3'-Dichlorobenzidine	252	9.639	9.639	(0.993)	361998	40.0000	38.6
102 1,4-Dioxane	88	2.310	2.310	(0.582)	186917	40.0000	48.4
103 Methyl methacrylate	100	2.304	2.304	(0.581)	103758	40.0000	49.7
104 Ethyl methacrylate	69	2.669	2.669	(0.672)	436599	40.0000	48.0
105 2-Picoline	93	2.863	2.863	(0.721)	517853	40.0000	38.8
106 N-Nitrosomethylethylamine	88	2.904	2.904	(0.732)	227308	40.0000	38.4
107 Methyl methanesulfonate	80	3.063	3.063	(0.772)	282879	40.0000	43.1
108 N-Nitrosodiethylamine	102	3.299	3.299	(0.831)	226233	40.0000	37.8
109 Ethyl Methanesulfonate	79	3.457	3.457	(0.871)	379437	40.0000	47.5
110 Pentachloroethane	167	3.798	3.798	(0.957)	202582	40.0000	55.3
111 N-Nitrosopyrrolidine	100	4.210	4.210	(1.061)	240197	40.0000	37.4(Q)
113 N-Nitrosomorpholine	56	4.234	4.234	(1.067)	298338	40.0000	39.8
114 o-Toluidine	106	4.251	4.251	(1.071)	753495	40.0000	39.5
115 N-Nitrosopiperidine	114	4.451	4.451	(0.920)	239154	40.0000	40.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.710	4.710	(0.973)	1297528	40.0000	38.6
118 2,6-Dichlorophenol	162	4.881	4.881	(1.008)	393003	40.0000	41.6
119 Hexachloropropene	213	4.910	4.910	(1.015)	324808	40.0000	63.4
120 p-Phenylenediamine	108	5.122	5.122	(1.058)	391247	40.0000	33.5
121 N-Nitrosodi-n-butylamine	84	5.087	5.087	(1.051)	363602	40.0000	36.0(Q)
122 Safrole	162	5.251	5.251	(1.085)	381780	40.0000	46.4
123 1,2,4,5-Tetrachlorobenzene	216	5.457	5.457	(0.895)	464506	40.0000	44.7
124 Isosafrole	162	5.622	5.622	(0.922)	436182	40.0000	53.1
125 1,4-Naphthoquinone	158	5.816	5.816	(0.954)	335363	40.0000	42.1
127 Pentachlorobenzene	250	6.216	6.216	(1.019)	367336	40.0000	42.1
128 1-Naphthylamine	143	6.310	6.310	(1.035)	804986	40.0000	38.5
129 2-Naphthylamine	143	6.363	6.363	(1.043)	884595	40.0000	40.4
131 5-Nitro-o-toluidine	152	6.504	6.504	(1.067)	277025	40.0000	38.9
136 1,3,5-Trinitrobenzene	75	6.757	6.757	(0.928)	330916	40.0000	53.4
137 Phenacetin	108	6.798	6.798	(0.934)	497127	40.0000	42.7(Q)
138 Diallate	86	6.787	6.787	(0.932)	378872	40.0000	38.4
212 Cis Diallate	86	6.863	6.863	(0.943)	85109	6.00000	7.4
213 Trans Diallate	86	6.787	6.787	(0.932)	378872	34.0000	32.6
140 4-Aminobiphenyl	169	7.092	7.092	(0.974)	964585	40.0000	44.2
141 Pentachloronitrobenzene	237	7.110	7.110	(0.977)	113813	40.0000	42.9(Q)
142 Pronamide	173	7.110	7.110	(0.977)	431425	40.0000	41.7
146 4-Nitroquinoline-1-oxide	101	7.951	7.951	(1.092)	42870	40.0000	37.5
147 Methapyrilene	58	7.986	7.986	(1.097)	571288	40.0000	32.9
148 Isodrin	193	8.210	8.210	(1.128)	169307	40.0000	38.7
149 Aramite	185	8.616	8.616	(1.183)	76213	40.0000	40.5
150 Kepone	272	9.204	9.204	(1.264)	118500	40.0000	39.0
151 p-(Dimethylamino)azobenzene	120	8.792	8.792	(0.906)	406018	40.0000	42.1
152 Chlorobenzilate	251	8.828	8.828	(0.910)	391852	40.0000	42.8
153 3,3'-Dimethylbenzidine	212	9.116	9.116	(0.939)	698099	40.0000	37.8
155 2-Acetylaminofluorene	181	9.363	9.363	(0.965)	414870	40.0000	38.3
157 7,12Dimethylbenz(a)anthracene	256	10.869	10.869	(0.952)	423939	40.0000	41.6
158 3-Methylcholanthrene	268	11.839	11.839	(1.037)	339249	40.0000	40.4(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s031610.b/s6c1635.d
Date : 17-MAR-2010 00:41
Client ID: APICV
Sample Info: IWBM100312-08,1|40 PPM|1|SVM1|1|APICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

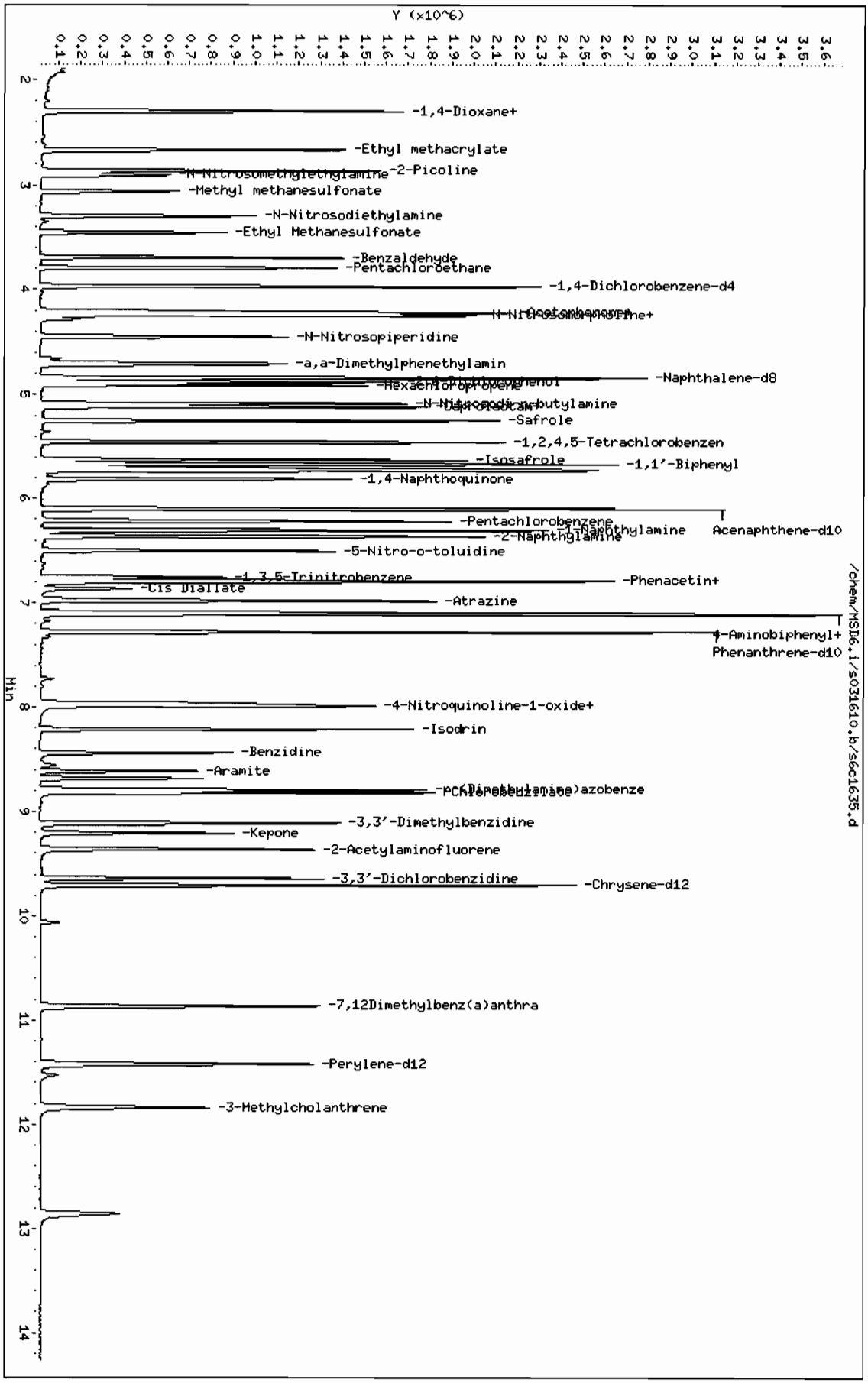

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 20-MAR-2010 15:22
Lab File ID: s6c2005.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100312-03.3 Quant Type: ISTD
Method: /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.96016	0.89482	0.89482	0.000	-6.80537	60.00000	Averaged
16 Acetophenone	1.24814	1.19219	1.19219	0.000	-4.48267	60.00000	Averaged
189 Caprolactam	0.09790	0.08921	0.08921	0.000	-8.86749	60.00000	Averaged
208 1,1'-Biphenyl	1.11180	1.06819	1.06819	0.000	-3.92265	60.00000	Averaged
207 Atrazine	0.04606	0.04555	0.04555	0.000	-1.10178	60.00000	Averaged
77 Benzidine	0.42058	0.29615	0.29615	0.000	-29.58499	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.30172	0.29349	0.29349	0.000	-2.72948	60.00000	Averaged
102 1,4-Dioxane	0.35119	0.33235	0.33235	0.000	-5.36418	60.00000	Averaged
103 Methyl methacrylate	0.18979	0.18996	0.18996	0.000	0.08938	60.00000	Averaged
104 Ethyl methacrylate	0.82709	0.75123	0.75123	0.000	-9.17223	60.00000	Averaged
105 2-Picoline	1.21280	1.15322	1.15322	0.000	-4.91208	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.53810	0.47171	0.47171	0.000	-12.33760	60.00000	Averaged
107 Methyl methanesulfonate	0.59726	0.54914	0.54914	0.000	-8.05707	60.00000	Averaged
108 N-Nitrosodiethylamine	0.54437	0.50236	0.50236	0.000	-7.71821	60.00000	Averaged
109 Ethyl Methanesulfonate	0.72583	0.63098	0.63098	0.000	-13.06736	60.00000	Averaged
110 Pentachloroethane	0.33314	0.32694	0.32694	0.000	-1.86102	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.58446	0.52768	0.52768	0.000	-9.71532	60.00000	Averaged
113 N-Nitrosomorpholine	0.68078	0.62098	0.62098	0.000	-8.78389	60.00000	Averaged
114 o-Toluidine	1.73474	1.64225	1.64225	0.000	-5.33157	60.00000	Averaged
115 N-Nitrosopiperidine	0.15362	0.13993	0.13993	0.000	-8.91021	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.87353	0.74645	0.74645	0.000	-14.54843	60.00000	Averaged
118 2,6-Dichlorophenol	0.24533	0.23357	0.23357	0.000	-4.79382	60.00000	Averaged
119 Hexachloropropene	0.13311	0.08857	0.08857	0.000	-33.45646	60.00000	Averaged
120 p-Phenylenediamine	0.30365	0.25324	0.25324	0.000	-16.60112	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.26282	0.22473	0.22473	0.000	-14.49332	60.00000	Averaged
122 Safrole	0.21396	0.21216	0.21216	0.000	-0.84102	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44716	0.45897	0.45897	0.000	2.64228	60.00000	Averaged
124 Isosafrole	0.35324	0.32312	0.32312	0.000	-8.52835	60.00000	Averaged
125 1,4-Naphthoquinone	0.34254	0.33199	0.33199	0.000	-3.07871	60.00000	Averaged
127 Pentachlorobenzene	0.37515	0.39097	0.39097	0.000	4.21466	60.00000	Averaged
128 1-Naphthylamine	0.89931	0.81231	0.81231	0.000	-9.67465	60.00000	Averaged
129 2-Naphthylamine	0.94089	0.84042	0.84042	0.000	-10.67782	60.00000	Averaged
131 5-Nitro-o-toluidine	0.30665	0.25461	0.25461	0.000	-16.97013	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.15613	0.10585	0.10585	0.000	-32.20593	60.00000	Averaged
137 Phenacetin	0.29347	0.25310	0.25310	0.000	-13.75481	60.00000	Averaged
138 Diallate	0.24862	0.22850	0.22850	0.000	-8.09230	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 20-MAR-2010 15:22
Lab File ID: s6c2005.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100312-03.3 Quant Type: ISTD
Method: /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.28918	0.24806	0.24806	0.000	-14.22061	60.00000	Averaged
213 Trans Diallate	0.29250	0.26883	0.26883	0.000	-8.09230	60.00000	Averaged
140 4-Aminobiphenyl	0.55066	0.49237	0.49237	0.000	-10.58397	60.00000	Averaged
141 Pentachloronitrobenzene	0.06695	0.07135	0.07135	0.000	6.58110	60.00000	Averaged
142 Pronamide	0.26094	0.25931	0.25931	0.000	-0.62248	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02879	0.02498	0.02498	0.000	-13.23682	60.00000	Averaged
147 Methapyrilene	0.43748	0.39906	0.39906	0.000	-8.78258	60.00000	Averaged
148 Isodrin	0.11028	0.11460	0.11460	0.000	3.91881	60.00000	Averaged
149 Aramite	0.04746	0.04755	0.04755	0.000	0.19177	60.00000	Averaged
150 Kepone	0.07668	0.08132	0.08132	0.000	6.05603	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31031	0.27771	0.27771	0.000	-10.50844	60.00000	Averaged
152 Chlorobenzilate	0.29472	0.30967	0.30967	0.000	5.07493	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.59350	0.55125	0.55125	0.000	-7.11862	60.00000	Averaged
155 2-Acetylaminofluorene	0.34851	0.32258	0.32258	0.000	-7.44180	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.48545	0.49342	0.49342	0.000	1.64352	60.00000	Averaged
158 3-Methylcholanthrene	0.40010	0.40749	0.40749	0.000	1.84580	60.00000	Averaged

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Data file : /chem/MSD6.i/s032010.b/s6c2005.d
Lab Smp Id: WBN100312-03.3 Client Smp ID: APCVS
Inj Date : 20-MAR-2010 15:22
Operator : nag1 Inst ID: MSD6.i
Smp Info : |WBN100312-03.3|40 PPM|1|SVM|1|APCVS
Misc Info : |MSD8270|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 21-Mar-2010 13:31 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.875	3.875	(1.000)	337680	40.0000	
* 29 Naphthalene-d8	136	4.740	4.740	(1.000)	1173617	40.0000	
* 46 Acenaphthene-d10	164	5.992	5.992	(1.000)	742841	40.0000	
* 67 Phenanthrene-d10	188	7.157	7.157	(1.000)	1247917	40.0000	
* 91 Chrysene-d12	240	9.563	9.563	(1.000)	1062454	40.0000	
* 98 Perylene-d12	264	11.192	11.192	(1.000)	879792	40.0000	
209 Benzaldehyde	77	3.598	3.598	(0.929)	302162	40.0000	37.3(H)
16 Acetophenone	105	4.128	4.128	(1.065)	402580	40.0000	38.2(H)
189 Caprolactam	113	5.010	5.010	(1.057)	104704	40.0000	36.4
208 1,1'-Biphenyl	154	5.563	5.563	(0.928)	793497	40.0000	38.4(H)
207 Atrazine	173	6.863	6.863	(0.959)	56842	40.0000	39.6(H)
77 Benzidine	184	8.310	8.310	(0.869)	314649	40.0000	28.2
90 3,3'-Dichlorobenzidine	252	9.498	9.498	(0.993)	311817	40.0000	38.9(H)
102 1,4-Dioxane	88	2.210	2.210	(0.570)	112227	40.0000	37.8
103 Methyl methacrylate	100	2.204	2.204	(0.569)	64147	40.0000	40.0
104 Ethyl methacrylate	69	2.581	2.581	(0.666)	253674	40.0000	36.3
105 2-Picoline	93	2.769	2.769	(0.715)	389420	40.0000	38.0(H)
106 N-Nitrosomethylethylamine	88	2.816	2.816	(0.727)	159288	40.0000	35.1
107 Methyl methanesulfonate	80	2.975	2.975	(0.768)	185433	40.0000	36.8
108 N-Nitrosodiethylamine	102	3.204	3.204	(0.827)	169636	40.0000	36.9
109 Ethyl Methanesulfonate	79	3.363	3.363	(0.868)	213069	40.0000	34.8
110 Pentachloroethane	167	3.698	3.698	(0.954)	110402	40.0000	39.2
111 N-Nitrosopyrrolidine	100	4.116	4.116	(1.062)	178187	40.0000	36.1(QH)
113 N-Nitrosomorpholine	56	4.134	4.134	(1.067)	209694	40.0000	36.5
114 o-Toluidine	106	4.151	4.151	(1.071)	554556	40.0000	37.9
115 N-Nitrosopiperidine	114	4.351	4.351	(0.918)	164225	40.0000	36.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.604	4.604	(0.971)	876044	40.0000	34.2
118 2,6-Dichlorophenol	162	4.781	4.781	(1.009)	274124	40.0000	38.1
119 Hexachloropropene	213	4.810	4.810	(1.015)	103953	40.0000	26.6
120 p-Phenylenediamine	108	5.016	5.016	(1.058)	297211	40.0000	33.4(H)
121 N-Nitrosodi-n-butylamine	84	4.987	4.987	(1.052)	263749	40.0000	34.2(QH)
122 Safrole	162	5.151	5.151	(1.087)	248997	40.0000	39.7
123 1,2,4,5-Tetrachlorobenzene	216	5.351	5.351	(0.893)	340944	40.0000	41.0(H)
124 Isosafrole	162	5.522	5.522	(0.921)	240024	40.0000	36.6(H)
125 1,4-Naphthoquinone	158	5.710	5.710	(0.953)	246618	40.0000	38.8
127 Pentachlorobenzene	250	6.110	6.110	(1.020)	290425	40.0000	41.7(H)
128 1-Naphthylamine	143	6.198	6.198	(1.034)	603415	40.0000	36.1(H)
129 2-Naphthylamine	143	6.257	6.257	(1.044)	624299	40.0000	35.7(H)
131 5-Nitro-o-toluidine	152	6.392	6.392	(1.067)	189133	40.0000	33.2
136 1,3,5-Trinitrobenzene	75	6.645	6.645	(0.928)	132090	40.0000	27.1(H)
137 Phenacetin	108	6.687	6.687	(0.934)	315853	40.0000	34.5(QH)
138 Diallate	86	6.675	6.675	(0.933)	285154	40.0000	36.8(H)
212 Cis Diallate	86	6.751	6.751	(0.943)	46433	6.00000	5.1(H)
213 Trans Diallate	86	6.675	6.675	(0.933)	285154	34.0000	31.2(H)
140 4-Aminobiphenyl	169	6.975	6.975	(0.975)	614442	40.0000	35.8
141 Pentachloronitrobenzene	237	6.992	6.992	(0.977)	89044	40.0000	42.6(Q)
142 Pronamide	173	6.992	6.992	(0.977)	323599	40.0000	39.8(H)
146 4-Nitroquinoline-1-oxide	101	7.828	7.828	(1.094)	31175	40.0000	34.7(H)
147 Methapyrilene	58	7.863	7.863	(1.099)	497991	40.0000	36.5(H)
148 Isodrin	193	8.081	8.081	(1.129)	143007	40.0000	41.6(H)
149 Aramite	185	8.486	8.486	(1.186)	59334	40.0000	40.1(H)
150 Kepone	272	9.069	9.069	(1.267)	101485	40.0000	42.4(H)
151 p-(Dimethylamino)azobenzene	120	8.663	8.663	(0.906)	295049	40.0000	35.8(H)
152 Chlorobenzilate	251	8.692	8.692	(0.909)	329013	40.0000	42.0(H)
153 3,3'-Dimethylbenzidine	212	8.980	8.980	(0.939)	585677	40.0000	37.2(H)
155 2-Acetylaminofluorene	181	9.222	9.222	(0.964)	342722	40.0000	37.0
157 7,12Dimethylbenz(a)anthracene	256	10.669	10.669	(0.953)	434110	40.0000	40.6(H)
158 3-Methylcholanthrene	268	11.586	11.586	(1.035)	358506	40.0000	40.7(QH)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s032010.b/s6c2005.d
Date : 20-MAR-2010 15:22
Client ID: APCVS
Sample Info: IWBN100312-03,3140 PPM11ISVM11APCVS
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

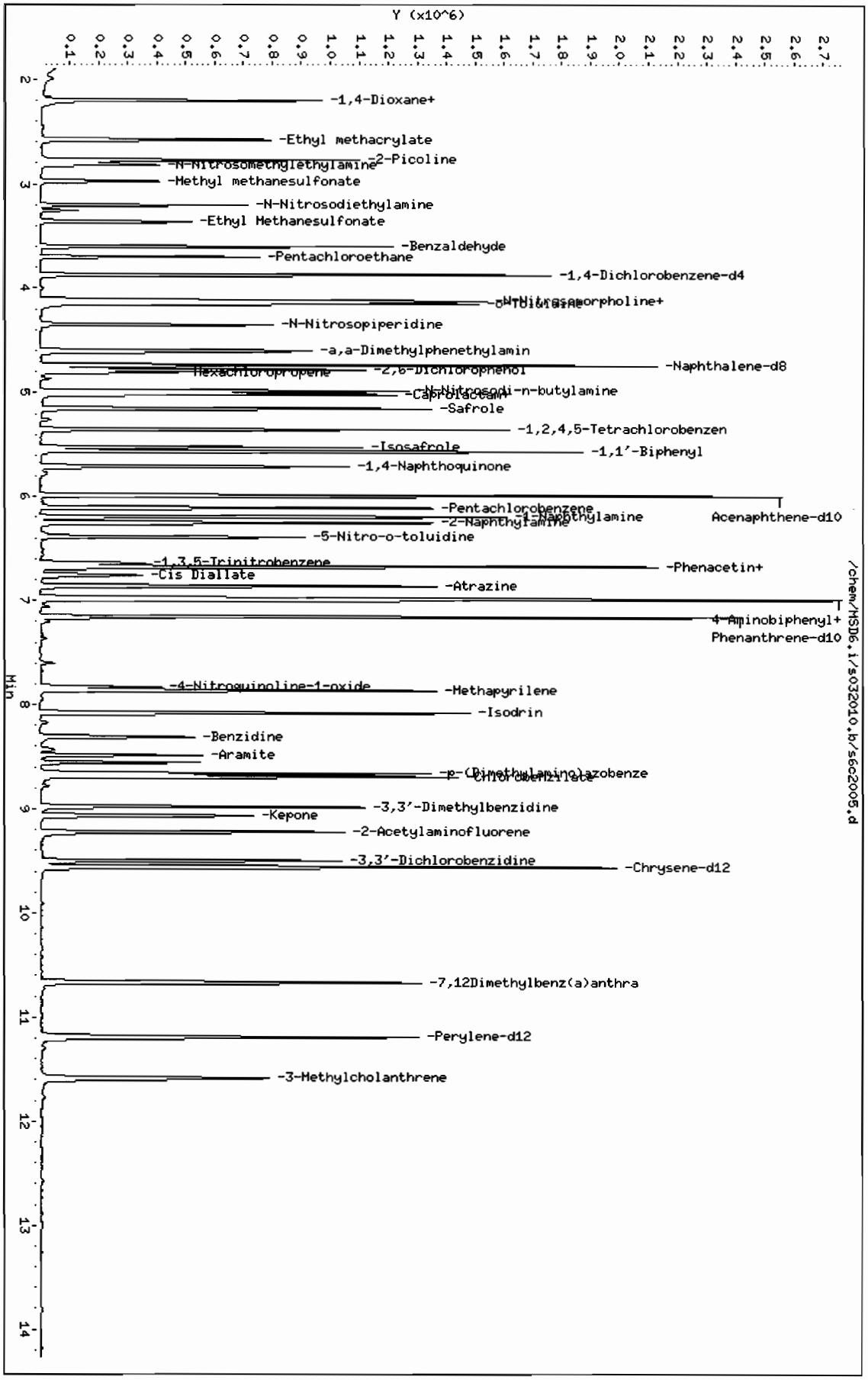

Page 1

Data File: /chem/MSD6.i/s032010.b/s6c2006.d
Report Date: 24-Mar-2010 18:20

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6c2006.d
Analysis Type:
Lab Sample ID: WBN100309-05.3
Method: /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m

Injection Date: 20-MAR-2010 15:45
Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Init. Cal. Times: 09:18 04:51
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$	3 2-Fluorophenol	1.11196	1.00219	1.00219	0.000	-9.87137	60.00000	Averaged
$	5 Phenol-d5	1.41412	1.20425	1.20425	0.000	-14.84083	60.00000	Averaged
$	20 Nitrobenzene-d5	0.38237	0.32337	0.32337	0.000	-15.43152	60.00000	Averaged
$	39 2-Fluorobiphenyl	1.03201	1.05949	1.05949	0.000	2.66254	60.00000	Averaged
$	60 2,4,6-Tribromophenol	0.11225	0.12168	0.12168	0.000	8.40759	60.00000	Averaged
$	81 p-Terphenyl-d14	0.69704	0.71667	0.71667	0.000	2.81715	60.00000	Averaged
	1 N-Methyl-N-nitrosomethylami	0.77557	0.64765	0.64765	0.000	-16.49456	60.00000	Averaged
	2 Pyridine	1.10526	0.90273	0.90273	0.000	-18.32398	60.00000	Averaged
	4 Aniline	0.66950	0.57029	0.57029	0.000	-14.81739	60.00000	Averaged
	6 Phenol	1.43150	1.18631	1.18631	0.001	-17.12824	20.00000	Averaged ccc
	7 bis(2-Chloroethyl) ether	1.06440	0.87191	0.87191	0.000	-18.08506	60.00000	Averaged
	8 2-Chlorophenol	1.16424	1.04973	1.04973	0.000	-9.83574	60.00000	Averaged
	203 n-Decane	1.69067	1.27619	1.27619	0.000	-24.51578	60.00000	Averaged
	9 1,3-Dichlorobenzene	1.28259	1.27629	1.27629	0.000	-0.49158	60.00000	Averaged
	11 1,4-Dichlorobenzene	1.24541	1.22201	1.22201	0.001	-1.87889	20.00000	Averaged ccc
	13 1,2-Dichlorobenzene	1.12890	1.14719	1.14719	0.000	1.61973	60.00000	Averaged
	14 bis(2-Chloroisopropyl)ether	2.23712	1.69657	1.69657	0.000	-24.16287	60.00000	Averaged
	12 Benzyl alcohol	0.81825	0.51413	0.51413	0.000	-37.16671	60.00000	Averaged
	15 o-Cresol	0.88788	0.79000	0.79000	0.000	-11.02398	60.00000	Averaged
	18 m,p-Cresols	1.27893	1.05513	1.05513	0.000	-17.49858	60.00000	Averaged
	17 N-Nitrosodipropylamine	0.97668	0.80229	0.80229	0.050	-17.85495	60.00000	Averaged spcc
	19 Hexachloroethane	0.53767	0.47331	0.47331	0.000	-11.97067	60.00000	Averaged
	21 Nitrobenzene	0.35281	0.30783	0.30783	0.000	-12.74830	60.00000	Averaged
	22 Isophorone	0.67701	0.57580	0.57580	0.000	-14.94978	60.00000	Averaged
	23 2-Nitrophenol	0.15292	0.13774	0.13774	0.001	-9.92687	20.00000	Averaged ccc
	24 2,4-Dimethylphenol	23.72940	40.00000	0.18797	0.000	-40.67649	60.00000	Wt Linear
	25 bis(2-Chloroethoxy)methane	0.36806	0.32078	0.32078	0.000	-12.84593	60.00000	Averaged
	26 2,4-Dichlorophenol	0.25252	0.23278	0.23278	0.001	-7.81668	20.00000	Averaged ccc
	27 Benzoic acid	0.18753	0.13473	0.13473	0.000	-28.15778	60.00000	Averaged
	28 1,2,4-Trichlorobenzene	0.28905	0.29213	0.29213	0.000	1.06624	60.00000	Averaged
	30 Naphthalene	0.98486	0.82570	0.82570	0.000	-16.16032	60.00000	Averaged
	204 alpha-Terpineol	0.28429	0.23467	0.23467	0.000	-17.45472	60.00000	Averaged
	31 4-Chloroaniline	0.43446	0.39473	0.39473	0.000	-9.14525	60.00000	Averaged
	32 Hexachlorobutadiene	0.16407	0.17388	0.17388	0.001	5.98149	20.00000	Averaged ccc
	33 4-Chloro-3-methylphenol	0.27436	0.24687	0.24687	0.001	-10.01978	20.00000	Averaged ccc
	34 2-Methylnaphthalene	0.60564	0.51983	0.51983	0.000	-14.16932	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 20-MAR-2010 15:45
Lab File ID: s6c2006.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100309-05.3 Quant Type: ISTD
Method: /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.58910	0.50923	0.50923	0.000	-13.55916	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.22936	0.18903	0.18903	0.050	-17.58041	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.52459	0.52928	0.52928	0.000	0.89406	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.33474	0.34403	0.34403	0.001	2.77490	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.35465	0.35870	0.35870	0.000	1.14026	60.00000	Averaged	
40 2-Chloronaphthalene	0.97365	0.94080	0.94080	0.000	-3.37372	60.00000	Averaged	
42 o-Nitroaniline	0.34201	0.27296	0.27296	0.000	-20.19104	60.00000	Averaged	
41 m-Nitroaniline	0.25409	0.19461	0.19461	0.000	-23.41142	60.00000	Averaged	
43 Dimethylphthalate	1.13004	1.12325	1.12325	0.000	-0.60045	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.27058	0.26122	0.26122	0.000	-3.45609	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.35648	0.33179	0.33179	0.000	-6.92553	60.00000	Averaged	
45 Acenaphthylene	1.54257	1.43540	1.43540	0.000	-6.94765	60.00000	Averaged	
47 Acenaphthene	1.03783	0.89802	0.89802	0.001	-13.47146	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	26.20351	40.00000	0.05650	0.050	-34.49122	60.00000	Linear	spcc
49 Dibenzofuran	1.26069	1.24905	1.24905	0.000	-0.92376	60.00000	Averaged	
51 Diethylphthalate	1.10774	1.10853	1.10853	0.000	0.07217	60.00000	Averaged	
52 4-Nitrophenol	0.19236	0.16212	0.16212	0.050	-15.72056	60.00000	Averaged	spcc
53 Fluorene	1.11781	1.06626	1.06626	0.000	-4.61116	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.53621	0.55932	0.55932	0.000	4.30887	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	29.75544	40.00000	0.06625	0.000	-25.61139	60.00000	Linear	
56 p-Nitroaniline	0.20835	0.13095	0.13095	0.000	-37.14674	60.00000	Averaged	
133 Diphenylamine	0.51902	0.49847	0.49847	0.001	-3.95909	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.69767	0.59870	0.59870	0.000	-14.18637	60.00000	Averaged	
61 4-Bromophenylphenylether	0.17368	0.18696	0.18696	0.000	7.64782	60.00000	Averaged	
63 Hexachlorobenzene	0.16595	0.19028	0.19028	0.000	14.65632	60.00000	Averaged	
65 Pentachlorophenol	0.09397	0.09893	0.09893	0.001	5.27568	20.00000	Averaged	ccc
206 n-Octadecane	0.48063	0.38944	0.38944	0.000	-18.97290	60.00000	Averaged	
68 Phenanthrene	0.97466	0.88547	0.88547	0.000	-9.15025	60.00000	Averaged	
69 Anthracene	0.98189	0.88999	0.88999	0.000	-9.36008	60.00000	Averaged	
72 Di-n-butylphthalate	1.13557	1.06095	1.06095	0.000	-6.57116	60.00000	Averaged	
76 Fluoranthene	0.98842	0.95564	0.95564	0.001	-3.31607	20.00000	Averaged	ccc
79 Pyrene	1.21938	1.21374	1.21374	0.000	-0.46254	60.00000	Averaged	
85 Butylbenzylphthalate	0.58998	0.55828	0.55828	0.000	-5.37314	60.00000	Averaged	
89 Benzo(a)anthracene	1.04446	0.94926	0.94926	0.000	-9.11487	60.00000	Averaged	
92 Chrysene	0.99764	0.98511	0.98511	0.000	-1.25520	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.78860	0.74351	0.74351	0.000	-5.71808	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 20-MAR-2010 15:45
Lab File ID: s6c2006.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100309-05.3 Quant Type: ISTD
Method: /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94	Di-n-octylphthalate	1.53062	1.51659	1.51659	0.001	-0.91644	20.00000	Averaged	ccc
95	Benzo(b)fluoranthene	1.08744	1.07475	1.07475	0.000	-1.16697	60.00000	Averaged	
96	Benzo(k)fluoranthene	1.04328	1.09364	1.09364	0.000	4.82712	60.00000	Averaged	
97	Benzo(a)pyrene	0.92098	0.89443	0.89443	0.001	-2.88267	20.00000	Averaged	ccc
99	Indeno(1,2,3-cd)pyrene	0.84510	0.68838	0.68838	0.000	-18.54444	60.00000	Averaged	
100	Dibenzo(a,h)anthracene	0.68068	0.55395	0.55395	0.000	-18.61808	60.00000	Averaged	
101	Benzo(ghi)perylene	0.72160	0.57502	0.57502	0.000	-20.31320	60.00000	Averaged	
126	m-Dinitrobenzene	0.19174	0.17701	0.17701	0.000	-7.67851	60.00000	Averaged	
130	2,3,4,6-Tetrachlorophenol	0.27788	0.26828	0.26828	0.000	-3.45306	60.00000	Averaged	
143	Dinoseb	28.48686	40.00000	0.08990	0.000	-28.78285	60.00000	Linear	
173	Carbazole	0.76672	0.57051	0.57051	0.000	-25.59050	60.00000	Averaged	
184	p-Benzoquinone	0.24293	0.27894	0.27894	0.000	14.82225	60.00000	Averaged	
192	Methoxychlor	0.66555	0.64062	0.64062	0.000	-3.74571	60.00000	Averaged	
211	p-Toluidine	1.33748	1.09499	1.09499	0.000	-18.13037	60.00000	Averaged	
210	m-Toluidine	1.85679	1.49491	1.49491	0.000	-19.48920	60.00000	Averaged	
215	2-Ethoxyethanol	0.71211	0.51390	0.51390	0.000	-27.83408	60.00000	Averaged	
179	Dibenzo(a,e)pyrene	0.32071	0.20454	0.20454	0.000	-36.22275	60.00000	Averaged	
26	Phthalic anhydride	26.18243	40.00000	0.09082	0.000	-34.54392	60.00000	Linear	
214	1,4-Dinitrobenzene	0.26971	0.21477	0.21477	0.000	-20.36990	60.00000	Averaged	
216	Methylenebis(2-chloroanilin	0.15700	0.10549	0.10549	0.000	-32.80649	60.00000	Averaged	
M 225	Trichlorophenols	0.34470	0.35136	0.35136	0.000	1.93397	60.00000	Averaged	
M 226	Tetrachlorophenols	0.27788	0.26828	0.26828	0.000	-3.45306	60.00000	Averaged	
M 227	Benzo(b,k)fluoranthene	1.06536	1.08420	1.08420	0.000	1.76796	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2006.d
Lab Smp Id: WBN100309-05.3 Client Smp ID: MEGACVS
Inj Date : 20-MAR-2010 15:45
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN100309-05.3|40 PPM|1|SVM|1|MEGACVS
Misc Info : |MSD8270|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.863	3.863	(1.000)	322202	40.0000	
* 29 Naphthalene-d8	136	4.734	4.734	(1.000)	1215321	40.0000	
* 46 Acenaphthene-d10	164	5.987	5.987	(1.000)	685274	40.0000	
* 67 Phenanthrene-d10	188	7.145	7.145	(1.000)	1152765	40.0000	
* 91 Chrysene-d12	240	9.551	9.551	(1.000)	953837	40.0000	
* 98 Perylene-d12	264	11.174	11.174	(1.000)	730562	40.0000	
$ 3 2-Fluorophenol	112	3.046	3.046	(0.788)	322909	40.0000	36.0
$ 5 Phenol-d5	99	3.575	3.575	(0.925)	388012	40.0000	34.1
$ 20 Nitrobenzene-d5	82	4.228	4.228	(0.893)	392996	40.0000	33.8
$ 39 2-Fluorobiphenyl	172	5.475	5.475	(0.915)	726039	40.0000	41.1
$ 60 2,4,6-Tribromophenol	329	6.575	6.575	(1.098)	83386	40.0000	43.4
$ 81 p-Terphenyl-d14	244	8.522	8.522	(0.892)	683588	40.0000	41.1
1 N-Methyl-N-nitrosomethylamine	74	2.352	2.352	(0.609)	208673	40.0000	33.4
2 Pyridine	79	2.381	2.381	(0.616)	290861	40.0000	32.7
4 Aniline	66	3.646	3.646	(0.944)	183750	40.0000	34.1
6 Phenol	94	3.587	3.587	(0.928)	382232	40.0000	33.1
7 bis(2-Chloroethyl) ether	63	3.669	3.669	(0.950)	280930	40.0000	32.8
8 2-Chlorophenol	128	3.728	3.728	(0.965)	338225	40.0000	36.1
203 n-Decane	43	3.716	3.716	(0.962)	411191	40.0000	30.2
9 1,3-Dichlorobenzene	146	3.834	3.834	(0.992)	411223	40.0000	39.8
11 1,4-Dichlorobenzene	146	3.875	3.875	(1.003)	393734	40.0000	39.2
13 1,2-Dichlorobenzene	146	3.981	3.981	(1.030)	369626	40.0000	40.6
14 bis(2-Chloroisopropyl)ether	45	4.010	4.010	(1.038)	546638	40.0000	30.3
12 Benzyl alcohol	108	3.934	3.934	(1.018)	165654	40.0000	25.1
15 o-Cresol	107	3.981	3.981	(1.030)	254539	40.0000	35.6
18 m,p-Cresols	107	4.081	4.081	(1.056)	339966	40.0000	33.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.104	4.104	(1.062)	258500	40.0000	32.8
19 Hexachloroethane	117	4.210	4.210	(1.090)	152500	40.0000	35.2
21 Nitrobenzene	77	4.240	4.240	(0.896)	374116	40.0000	34.9
22 Isophorone	82	4.393	4.393	(0.928)	699779	40.0000	34.0
23 2-Nitrophenol	139	4.457	4.457	(0.942)	167398	40.0000	36.0
24 2,4-Dimethylphenol	122	4.445	4.445	(0.939)	228440	40.0000	23.7
25 bis(2-Chloroethoxy)methane	93	4.516	4.516	(0.954)	389855	40.0000	34.9
26 2,4-Dichlorophenol	162	4.616	4.616	(0.975)	282907	40.0000	36.9
27 Benzoic acid	105	4.487	4.487	(0.948)	163737	40.0000	28.7
28 1,2,4-Trichlorobenzene	180	4.681	4.681	(0.989)	355033	40.0000	40.4
30 Naphthalene	128	4.745	4.745	(1.002)	1003494	40.0000	33.5
204 alpha-Terpineol	59	4.722	4.722	(0.998)	285196	40.0000	33.0
31 4-Chloroaniline	127	4.763	4.763	(1.006)	479725	40.0000	36.3
32 Hexachlorobutadiene	225	4.810	4.810	(1.016)	211319	40.0000	42.4
33 4-Chloro-3-methylphenol	107	5.075	5.075	(1.072)	300025	40.0000	36.0
34 2-Methylnaphthalene	142	5.228	5.228	(1.104)	631756	40.0000	34.3
35 1-Methylnaphthalene	142	5.304	5.304	(1.121)	618873	40.0000	34.6
36 Hexachlorocyclopentadiene	237	5.328	5.328	(0.890)	129540	40.0000	33.0
205 2,3-Dichloroaniline	161	5.422	5.422	(0.906)	362701	40.0000	40.4
37 2,4,6-Trichlorophenol	196	5.416	5.416	(0.905)	235754	40.0000	41.1
38 2,4,5-Trichlorophenol	196	5.440	5.440	(0.909)	245806	40.0000	40.4
40 2-Chloronaphthalene	162	5.581	5.581	(0.932)	644708	40.0000	38.6
42 o-Nitroaniline	65	5.640	5.640	(0.942)	187050	40.0000	31.9
41 m-Nitroaniline	138	5.934	5.934	(0.991)	133359	40.0000	30.6
43 Dimethylphthalate	163	5.751	5.751	(0.961)	769735	40.0000	39.8
44 2,6-Dinitrotoluene	165	5.804	5.804	(0.970)	179010	40.0000	38.6
50 2,4-Dinitrotoluene	165	6.098	6.098	(1.019)	227366	40.0000	37.2
45 Acenaphthylene	152	5.887	5.887	(0.983)	983642	40.0000	37.2
47 Acenaphthene	154	6.010	6.010	(1.004)	615390	40.0000	34.6
48 2,4-Dinitrophenol	184	6.004	6.004	(1.003)	38716	40.0000	26.2
49 Dibenzofuran	168	6.134	6.134	(1.025)	855939	40.0000	39.6
51 Diethylphthalate	149	6.257	6.257	(1.045)	759650	40.0000	40.0
52 4-Nitrophenol	139	6.016	6.016	(1.005)	111097	40.0000	33.7
53 Fluorene	166	6.392	6.392	(1.068)	730682	40.0000	38.2
54 4-Chlorophenylphenylether	204	6.369	6.369	(1.064)	383286	40.0000	41.7
55 2-Methyl-4,6-dinitrophenol	198	6.404	6.404	(0.896)	76367	40.0000	29.8
56 p-Nitroaniline	138	6.387	6.387	(1.067)	89738	40.0000	25.1
133 Diphenylamine	169	6.457	6.457	(0.904)	574617	40.0000	38.4
58 1,2-Diphenylhydrazine	77	6.492	6.492	(0.909)	690156	40.0000	34.3
61 4-Bromophenylphenylether	248	6.757	6.757	(0.946)	215523	40.0000	43.0
63 Hexachlorobenzene	284	6.822	6.822	(0.955)	219345	40.0000	45.9
65 Pentachlorophenol	266	6.969	6.969	(0.975)	114039	40.0000	42.1
206 n-Octadecane	57	6.969	6.969	(0.975)	448933	40.0000	32.4
68 Phenanthrene	178	7.169	7.169	(1.003)	1020743	40.0000	36.3
69 Anthracene	178	7.210	7.210	(1.009)	1025945	40.0000	36.2
72 Di-n-butylphthalate	149	7.575	7.575	(1.060)	1223023	40.0000	37.4
76 Fluoranthene	202	8.204	8.204	(1.148)	1101633	40.0000	38.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	8.422	8.422	(0.882)	1157706	40.0000	39.8
85 Butylbenzylphthalate	149	8.957	8.957	(0.938)	532508	40.0000	37.8
89 Benzo(a)anthracene	228	9.539	9.539	(0.999)	905438	40.0000	36.4
92 Chrysene	228	9.575	9.575	(1.002)	939637	40.0000	39.5
93 bis(2-Ethylhexyl)phthalate	149	9.486	9.486	(0.993)	709184	40.0000	37.7
94 Di-n-octylphthalate	149	10.122	10.122	(0.906)	1107965	40.0000	39.6
95 Benzo(b)fluoranthene	252	10.674	10.674	(0.955)	785175	40.0000	39.5
96 Benzo(k)fluoranthene	252	10.710	10.710	(0.958)	798973	40.0000	41.9
97 Benzo(a)pyrene	252	11.098	11.098	(0.993)	653435	40.0000	38.8
99 Indeno(1,2,3-cd)pyrene	276	12.880	12.880	(1.153)	502907	40.0000	32.6
100 Dibenzo(a,h)anthracene	278	12.898	12.898	(1.154)	404693	40.0000	32.6
101 Benzo(ghi)perylene	276	13.398	13.398	(1.199)	420089	40.0000	31.9
126 m-Dinitrobenzene	168	5.787	5.787	(0.967)	121303	40.0000	36.9
130 2,3,4,6-Tetrachlorophenol	232	6.210	6.210	(1.037)	183848	40.0000	38.6
143 Dinoseb	211	7.092	7.092	(0.993)	103629	40.0000	28.5
173 Carbazole	167	7.328	7.328	(1.026)	657666	40.0000	29.8
184 p-Benzoquinone	54	3.351	3.351	(0.868)	89876	40.0000	45.9
192 Methoxychlor	227	9.428	9.428	(0.987)	611046	40.0000	38.5
211 p-Toluidine	106	4.146	4.146	(1.073)	352807	40.0000	32.7
210 m-Toluidine	106	4.163	4.163	(1.078)	481664	40.0000	32.2
215 2-Ethoxyethanol	59	2.187	2.187	(0.566)	165579	40.0000	28.9
179 Dibenzo(a,e)pyrene	302	17.368	17.368	(1.554)	149427	40.0000	25.5
26 Phthalic anhydride	104	5.263	5.263	(1.112)	110379	40.0000	26.2
214 1,4-Dinitrobenzene	75	5.728	5.728	(0.957)	147178	40.0000	31.8
216 Methylenebis(2-chloroaniline)	231	9.486	9.486	(0.993)	100624	40.0000	26.9
M 225 Trichlorophenols	196				481560	80.0000	81.5
M 226 Tetrachlorophenols	232				183848	40.0000	38.6
M 227 Benzo(b,k)fluoranthene	252				1584148	80.0000	81.4

Data File: /chem/MSD6.i/s032010.b/s6c2006.d

Date : 20-MAR-2010 15:45

Client ID: MEGACVS

Sample Info: IWBN100309-05.3140 PPMI1ISVMI1IMEGACVS

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20

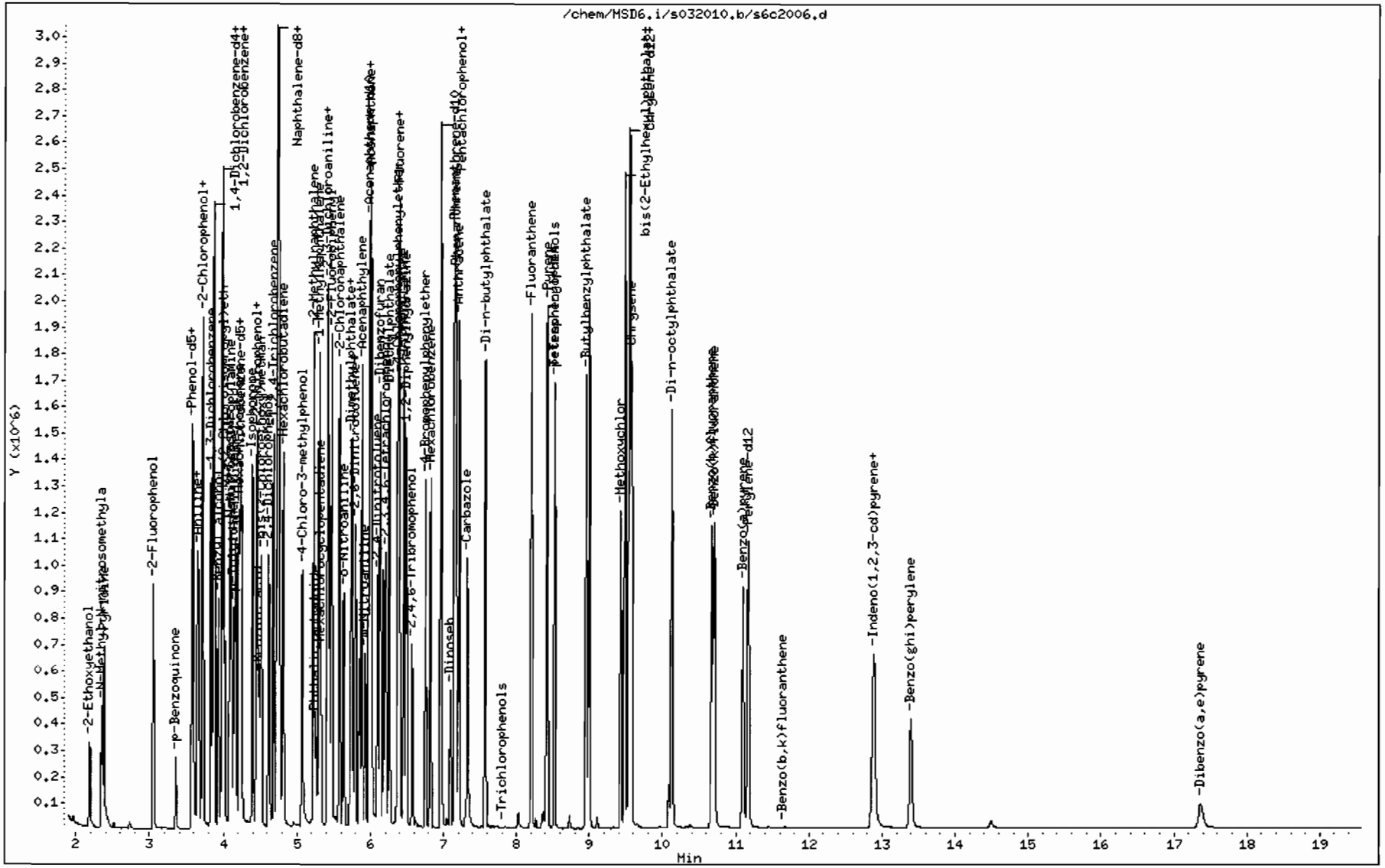

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 23-MAR-2010 17:02
Lab File ID: s6c2308.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100312-03.3 Quant Type: ISTD
Method: /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.96016	0.87287	0.87287	0.000	-9.09093	60.00000	Averaged
16 Acetophenone	1.24814	1.16938	1.16938	0.000	-6.31014	60.00000	Averaged
189 Caprolactam	0.09790	0.08727	0.08727	0.000	-10.85479	60.00000	Averaged
208 1,1'-Biphenyl	1.11180	1.05701	1.05701	0.000	-4.92863	60.00000	Averaged
207 Atrazine	0.04606	0.04374	0.04374	0.000	-5.03828	60.00000	Averaged
77 Benzidine	0.42058	0.21777	0.21777	0.000	-48.22241	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.30172	0.29011	0.29011	0.000	-3.84967	60.00000	Averaged
102 1,4-Dioxane	0.35119	0.29629	0.29629	0.000	-15.63082	60.00000	Averaged
103 Methyl methacrylate	0.18979	0.16744	0.16744	0.000	-11.77814	60.00000	Averaged
104 Ethyl methacrylate	0.82709	0.70538	0.70538	0.000	-14.71567	60.00000	Averaged
105 2-Picoline	1.21280	1.08920	1.08920	0.000	-10.19130	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.53810	0.44262	0.44262	0.000	-17.74472	60.00000	Averaged
107 Methyl methanesulfonate	0.59726	0.51055	0.51055	0.000	-14.51713	60.00000	Averaged
108 N-Nitrosodiethylamine	0.54437	0.48157	0.48157	0.000	-11.53729	60.00000	Averaged
109 Ethyl Methanesulfonate	0.72583	0.60718	0.60718	0.000	-16.34603	60.00000	Averaged
110 Pentachloroethane	0.33314	0.30985	0.30985	0.000	-6.99026	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.58446	0.50502	0.50502	0.000	-13.59315	60.00000	Averaged
113 N-Nitrosomorpholine	0.68078	0.57954	0.57954	0.000	-14.87197	60.00000	Averaged
114 o-Toluidine	1.73474	1.60883	1.60883	0.000	-7.25812	60.00000	Averaged
115 N-Nitrosopiperidine	0.15362	0.13690	0.13690	0.000	-10.88376	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.87353	0.72476	0.72476	0.000	-17.03089	60.00000	Averaged
118 2,6-Dichlorophenol	0.24533	0.22741	0.22741	0.000	-7.30394	60.00000	Averaged
119 Hexachloropropene	0.13311	0.10467	0.10467	0.000	-21.36605	60.00000	Averaged
120 p-Phenylenediamine	0.30365	0.23979	0.23979	0.000	-21.03191	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.26282	0.21138	0.21138	0.000	-19.57342	60.00000	Averaged
122 Safrole	0.21396	0.20168	0.20168	0.000	-5.74175	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44716	0.44188	0.44188	0.000	-1.18101	60.00000	Averaged
124 Isosafrole	0.35324	0.31824	0.31824	0.000	-9.91013	60.00000	Averaged
125 1,4-Naphthoquinone	0.34254	0.31407	0.31407	0.000	-8.31089	60.00000	Averaged
127 Pentachlorobenzene	0.37515	0.37880	0.37880	0.000	0.97312	60.00000	Averaged
128 1-Naphthylamine	0.89931	0.79913	0.79913	0.000	-11.14029	60.00000	Averaged
129 2-Naphthylamine	0.94089	0.79658	0.79658	0.000	-15.33780	60.00000	Averaged
131 5-Nitro-o-toluidine	0.30665	0.25879	0.25879	0.000	-15.60747	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.15613	0.11868	0.11868	0.000	-23.98885	60.00000	Averaged
137 Phenacetin	0.29347	0.24395	0.24395	0.000	-16.87273	60.00000	Averaged
138 Diallate	0.24862	0.22299	0.22299	0.000	-10.31149	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 23-MAR-2010 17:02
Lab File ID: s6c2308.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100312-03.3 Quant Type: ISTD
Method: /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.28918	0.23526	0.23526	0.000	-18.64727	60.00000	Averaged
213 Trans Diallate	0.29250	0.26234	0.26234	0.000	-10.31149	60.00000	Averaged
140 4-Aminobiphenyl	0.55066	0.46118	0.46118	0.000	-16.24929	60.00000	Averaged
141 Pentachloronitrobenzene	0.06695	0.06373	0.06373	0.000	-4.81289	60.00000	Averaged
142 Pronamide	0.26094	0.23908	0.23908	0.000	-8.37728	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02879	0.01757	0.01757	0.000	-38.97987	60.00000	Averaged
147 Methapyrilene	0.43748	0.32441	0.32441	0.000	-25.84679	60.00000	Averaged
148 Isodrin	0.11028	0.10843	0.10843	0.000	-1.67181	60.00000	Averaged
149 Aramite	0.04746	0.04387	0.04387	0.000	-7.54647	60.00000	Averaged
150 Kepone	0.07668	0.07251	0.07251	0.000	-5.43645	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31031	0.26560	0.26560	0.000	-14.41023	60.00000	Averaged
152 Chlorobenzilate	0.29472	0.29580	0.29580	0.000	0.36640	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.59350	0.47899	0.47899	0.000	-19.29448	60.00000	Averaged
155 2-Acetylaminofluorene	0.34851	0.34014	0.34014	0.000	-2.40146	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.48545	0.45915	0.45915	0.000	-5.41696	60.00000	Averaged
158 3-Methylcholanthrene	0.40010	0.39251	0.39251	0.000	-1.89806	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032310.b/s6c2308.d
Lab Smp Id: WBN100312-03.3 Client Smp ID: APCVS
Inj Date : 23-MAR-2010 17:02
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN100312-03.3|40 PPM|1|SVM|1|APCVS
Misc Info : |MSD8270|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m
Meth Date : 23-Mar-2010 18:45 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.951	3.951	(1.000)	378022	40.0000	
* 29 Naphthalene-d8	136	4.816	4.816	(1.000)	1335372	40.0000	
* 46 Acenaphthene-d10	164	6.069	6.069	(1.000)	840922	40.0000	
* 67 Phenanthrene-d10	188	7.239	7.239	(1.000)	1466465	40.0000	
* 91 Chrysene-d12	240	9.639	9.639	(1.000)	1279301	40.0000	
* 98 Perylene-d12	264	11.322	11.322	(1.000)	1090945	40.0000	
209 Benzaldehyde	77	3.681	3.681	(0.932)	329965	40.0000	36.4(H)
16 Acetophenone	105	4.204	4.204	(1.064)	442053	40.0000	37.5(H)
189 Caprolactam	113	5.093	5.093	(1.057)	116537	40.0000	35.6
208 1,1'-Biphenyl	154	5.634	5.634	(0.928)	888861	40.0000	38.0(H)
207 Atrazine	173	6.940	6.940	(0.959)	64138	40.0000	38.0(H)
77 Benzidine	184	8.392	8.392	(0.871)	278590	40.0000	20.7(H)
90 3,3'-Dichlorobenzidine	252	9.581	9.581	(0.994)	371135	40.0000	38.5
102 1,4-Dioxane	88	2.305	2.305	(0.583)	112005	40.0000	33.7(H)
103 Methyl methacrylate	100	2.293	2.293	(0.580)	63296	40.0000	35.3
104 Ethyl methacrylate	69	2.657	2.657	(0.673)	266648	40.0000	34.1(H)
105 2-Picoline	93	2.857	2.857	(0.723)	411740	40.0000	35.9(H)
106 N-Nitrosomethylethylamine	88	2.899	2.899	(0.734)	167319	40.0000	32.9(H)
107 Methyl methanesulfonate	80	3.052	3.052	(0.772)	193001	40.0000	34.2
108 N-Nitrosodiethylamine	102	3.287	3.287	(0.832)	182043	40.0000	35.4
109 Ethyl Methanesulfonate	79	3.440	3.440	(0.870)	229528	40.0000	33.5(H)
110 Pentachloroethane	167	3.775	3.775	(0.955)	117132	40.0000	37.2
111 N-Nitrosopyrrolidine	100	4.193	4.193	(1.061)	190907	40.0000	34.6(QH)
113 N-Nitrosomorpholine	56	4.210	4.210	(1.065)	219078	40.0000	34.0(H)
114 o-Toluidine	106	4.228	4.228	(1.070)	608174	40.0000	37.1
115 N-Nitrosopiperidine	114	4.428	4.428	(0.919)	182811	40.0000	35.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.704	4.704	(0.977)	967828	40.0000	33.2(H)
118 2,6-Dichlorophenol	162	4.857	4.857	(1.009)	303682	40.0000	37.1
119 Hexachloropropene	213	4.887	4.887	(1.015)	139771	40.0000	31.4
120 p-Phenylenediamine	108	5.098	5.098	(1.059)	320208	40.0000	31.6(H)
121 N-Nitrosodi-n-butylamine	84	5.057	5.057	(1.050)	282271	40.0000	32.2(QH)
122 Safrole	162	5.228	5.228	(1.085)	269313	40.0000	37.7(H)
123 1,2,4,5-Tetrachlorobenzene	216	5.428	5.428	(0.894)	371584	40.0000	39.5
124 Isosafrole	162	5.593	5.593	(0.921)	267611	40.0000	36.0(H)
125 1,4-Naphthoquinone	158	5.781	5.781	(0.952)	264109	40.0000	36.7
127 Pentachlorobenzene	250	6.187	6.187	(1.019)	318545	40.0000	40.4
128 1-Naphthylamine	143	6.275	6.275	(1.034)	672003	40.0000	35.5(H)
129 2-Naphthylamine	143	6.334	6.334	(1.044)	669858	40.0000	33.9(H)
131 5-Nitro-o-toluidine	152	6.469	6.469	(1.066)	217619	40.0000	33.8(H)
136 1,3,5-Trinitrobenzene	75	6.722	6.722	(0.928)	174037	40.0000	30.4(H)
137 Phenacetin	108	6.763	6.763	(0.934)	357750	40.0000	33.2(QH)
138 Diallate	86	6.751	6.751	(0.933)	327002	40.0000	35.9(H)
212 Cis Diallate	86	6.828	6.828	(0.943)	51749	6.00000	4.9(H)
213 Trans Diallate	86	6.751	6.751	(0.933)	327002	34.0000	30.5(H)
140 4-Aminobiphenyl	169	7.057	7.057	(0.975)	676301	40.0000	33.5(H)
141 Pentachloronitrobenzene	237	7.075	7.075	(0.977)	93452	40.0000	38.1(QH)
142 Pronamide	173	7.069	7.069	(0.976)	350597	40.0000	36.6(H)
146 4-Nitroquinoline-1-oxide	101	7.910	7.910	(1.093)	25765	40.0000	24.4(H)
147 Methapyrilene	58	7.939	7.939	(1.097)	475729	40.0000	29.7
148 Isodrin	193	8.163	8.163	(1.128)	159011	40.0000	39.3(H)
149 Aramite	185	8.563	8.563	(1.183)	64340	40.0000	37.0(H)
150 Kepone	272	9.145	9.145	(1.263)	106335	40.0000	37.8(H)
151 p-(Dimethylamino)azobenzene	120	8.739	8.739	(0.907)	339779	40.0000	34.2(H)
152 Chlorobenzilate	251	8.769	8.769	(0.910)	378412	40.0000	40.1(H)
153 3,3'-Dimethylbenzidine	212	9.057	9.057	(0.940)	612767	40.0000	32.3(H)
155 2-Acetylaminofluorene	181	9.304	9.304	(0.965)	435144	40.0000	39.0(H)
157 7,12Dimethylbenz(a)anthracene	256	10.780	10.780	(0.952)	500906	40.0000	37.8(H)
158 3-Methylcholanthrene	268	11.727	11.727	(1.036)	428207	40.0000	39.2(QH)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s032310.b/s6c2308.d
Date : 23-MAR-2010 17:02
Client ID: APCVS
Sample Info: IWBN100312-03,3|40 PPM|1|SVM|1|APCVS
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

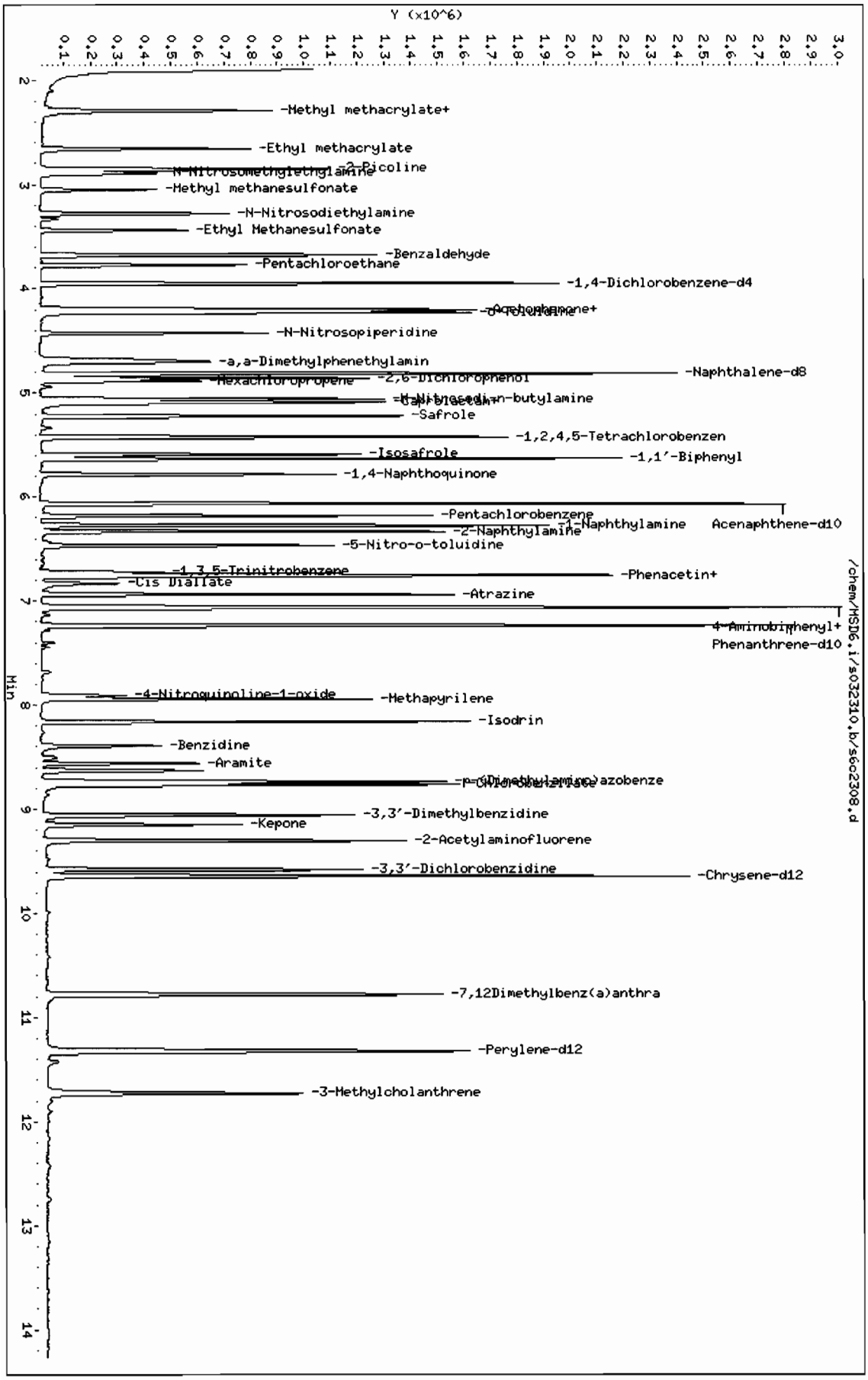

Page 1

Data File: /chem/MSD6.i/s032310.b/s6c2309.d
Report Date: 23-Mar-2010 20:54

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6c2309.d
Analysis Type:
Lab Sample ID: WBN100309-05.3
Method: /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m

Injection Date: 23-MAR-2010 17:25
Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Init. Cal. Times: 09:18 04:51
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.11196	1.04225	1.04225	0.000	-6.26903	60.00000	Averaged
$ 5 Phenol-d5	1.41412	1.28572	1.28572	0.000	-9.07966	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.38237	0.34056	0.34056	0.000	-10.93473	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.03201	1.10386	1.10386	0.000	6.96261	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11225	0.12797	0.12797	0.000	14.00956	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.69704	0.78467	0.78467	0.000	12.57316	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.77557	0.62007	0.62007	0.000	-20.05014	60.00000	Averaged
2 Pyridine	1.10526	0.70485	0.70485	0.000	-36.22705	60.00000	Averaged
4 Aniline	0.66950	0.52144	0.52144	0.000	-22.11503	60.00000	Averaged
6 Phenol	1.43150	1.30088	1.30088	0.001	-9.12475	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06440	0.84028	0.84028	0.000	-21.05654	60.00000	Averaged
8 2-Chlorophenol	1.16424	1.11357	1.11357	0.000	-4.35215	60.00000	Averaged
203 n-Decane	1.69067	1.35145	1.35145	0.000	-20.06412	60.00000	Averaged
9 1,3-Dichlorobenzene	1.28259	1.31406	1.31406	0.000	2.45296	60.00000	Averaged
11 1,4-Dichlorobenzene	1.24541	1.28224	1.28224	0.001	2.95761	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.12890	1.15412	1.15412	0.000	2.23362	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.23712	1.73353	1.73353	0.000	-22.51068	60.00000	Averaged
12 Benzyl alcohol	0.81825	0.53330	0.53330	0.000	-34.82449	60.00000	Averaged
15 o-Cresol	0.88788	0.82026	0.82026	0.000	-7.61536	60.00000	Averaged
18 m,p-Cresols	1.27893	1.15498	1.15498	0.000	-9.69177	60.00000	Averaged
17 N-Nitrosodipropylamine	0.97668	0.81765	0.81765	0.050	-16.28224	60.00000	Averaged spcc
19 Hexachloroethane	0.53767	0.47771	0.47771	0.000	-11.15204	60.00000	Averaged
21 Nitrobenzene	0.35281	0.31110	0.31110	0.000	-11.82125	60.00000	Averaged
22 Isophorone	0.67701	0.57487	0.57487	0.000	-15.08625	60.00000	Averaged
23 2-Nitrophenol	0.15292	0.14712	0.14712	0.001	-3.79389	20.00000	Averaged ccc
24 2,4-Dimethylphenol	36.68767	40.00000	0.26992	0.000	-8.28083	60.00000	Wt Linear
25 bis(2-Chloroethoxy)methane	0.36806	0.31768	0.31768	0.000	-13.68825	60.00000	Averaged
26 2,4-Dichlorophenol	0.25252	0.25247	0.25247	0.001	-0.02247	20.00000	Averaged ccc
27 Benzoic acid	0.18753	0.17012	0.17012	0.000	-9.28613	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.28905	0.29031	0.29031	0.000	0.43604	60.00000	Averaged
30 Naphthalene	0.98486	0.82189	0.82189	0.000	-16.54731	60.00000	Averaged
204 alpha-Terpineol	0.28429	0.22876	0.22876	0.000	-19.53172	60.00000	Averaged
31 4-Chloroaniline	0.43446	0.38128	0.38128	0.000	-12.24047	60.00000	Averaged
32 Hexachlorobutadiene	0.16407	0.17434	0.17434	0.001	6.26039	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.27436	0.26888	0.26888	0.001	-1.99708	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.60564	0.54996	0.54996	0.000	-9.19342	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 23-MAR-2010 17:25
Lab File ID: s6c2309.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100309-05.3 Quant Type: ISTD
Method: /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.58910	0.52029	0.52029	0.000	-11.68148	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.22936	0.20970	0.20970	0.050	-8.56771	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.52459	0.52211	0.52211	0.000	-0.47158	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.33474	0.38030	0.38030	0.001	13.61195	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.35465	0.36460	0.36460	0.000	2.80320	60.00000	Averaged	
40 2-Chloronaphthalene	0.97365	0.98361	0.98361	0.000	1.02231	60.00000	Averaged	
42 o-Nitroaniline	0.34201	0.27833	0.27833	0.000	-18.62020	60.00000	Averaged	
41 m-Nitroaniline	0.25409	0.20418	0.20418	0.000	-19.64307	60.00000	Averaged	
43 Dimethylphthalate	1.13004	1.12355	1.12355	0.000	-0.57407	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.27058	0.26836	0.26836	0.000	-0.81853	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.35648	0.34202	0.34202	0.000	-4.05548	60.00000	Averaged	
45 Acenaphthylene	1.54257	1.47358	1.47358	0.000	-4.47258	60.00000	Averaged	
47 Acenaphthene	1.03783	0.90558	0.90558	0.001	-12.74323	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	43.25379	40.00000	0.10375	0.050	8.13446	60.00000	Linear	spcc
49 Dibenzofuran	1.26069	1.31704	1.31704	0.000	4.46961	60.00000	Averaged	
51 Diethylphthalate	1.10774	1.12181	1.12181	0.000	1.27042	60.00000	Averaged	
52 4-Nitrophenol	0.19236	0.18900	0.18900	0.050	-1.74803	60.00000	Averaged	spcc
53 Fluorene	1.11781	1.06571	1.06571	0.000	-4.66064	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.53621	0.56257	0.56257	0.000	4.91489	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	48.40600	40.00000	0.11506	0.000	21.01499	60.00000	Linear	
56 p-Nitroaniline	0.20835	0.16862	0.16862	0.000	-19.06700	60.00000	Averaged	
133 Diphenylamine	0.51902	0.46926	0.46926	0.001	-9.58643	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.69767	0.61676	0.61676	0.000	-11.59746	60.00000	Averaged	
61 4-Bromophenylphenylether	0.17368	0.17547	0.17547	0.000	1.03126	60.00000	Averaged	
63 Hexachlorobenzene	0.16595	0.17974	0.17974	0.000	8.30731	60.00000	Averaged	
65 Pentachlorophenol	0.09397	0.10600	0.10600	0.001	12.80293	20.00000	Averaged	ccc
206 n-Octadecane	0.48063	0.41194	0.41194	0.000	-14.29239	60.00000	Averaged	
68 Phenanthrene	0.97466	0.86842	0.86842	0.000	-10.90022	60.00000	Averaged	
69 Anthracene	0.98189	0.86393	0.86393	0.000	-12.01331	60.00000	Averaged	
72 Di-n-butylphthalate	1.13557	1.07463	1.07463	0.000	-5.36641	60.00000	Averaged	
76 Fluoranthene	0.98842	0.92505	0.92505	0.001	-6.41119	20.00000	Averaged	ccc
79 Pyrene	1.21938	1.14194	1.14194	0.000	-6.35079	60.00000	Averaged	
85 Butylbenzylphthalate	0.58998	0.55715	0.55715	0.000	-5.56470	60.00000	Averaged	
89 Benzo(a)anthracene	1.04446	0.99462	0.99462	0.000	-4.77178	60.00000	Averaged	
92 Chrysene	0.99764	0.93169	0.93169	0.000	-6.61009	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.78860	0.74083	0.74083	0.000	-6.05752	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 23-MAR-2010 17:25
Lab File ID: s6c2309.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100309-05.3 Quant Type: ISTD
Method: /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.53062	1.38416	1.38416	0.001	-9.56843	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.08744	1.08983	1.08983	0.000	0.21896	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.04328	1.01794	1.01794	0.000	-2.42939	60.00000	Averaged	
	97 Benzo(a)pyrene	0.92098	0.91247	0.91247	0.001	-0.92362	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.84510	0.79867	0.79867	0.000	-5.49414	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.68068	0.63575	0.63575	0.000	-6.60081	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.72160	0.66600	0.66600	0.000	-7.70514	60.00000	Averaged	
	126 m-Dinitrobenzene	0.19174	0.18773	0.18773	0.000	-2.08734	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27788	0.28551	0.28551	0.000	2.74719	60.00000	Averaged	
	143 Dinoseb	39.36388	40.00000	0.13145	0.000	-1.59031	60.00000	Linear	
	173 Carbazole	0.76672	0.62660	0.62660	0.000	-18.27467	60.00000	Averaged	
	184 p-Benzoquinone	0.24293	0.15290	0.15290	0.000	-37.06101	60.00000	Averaged	
	192 Methoxychlor	0.66555	0.58522	0.58522	0.000	-12.06994	60.00000	Averaged	
	211 p-Toluidine	1.33748	0.84318	0.84318	0.000	-36.95761	60.00000	Averaged	
	210 m-Toluidine	1.85679	1.42840	1.42840	0.000	-23.07162	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71211	0.50821	0.50821	0.000	-28.63234	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene	0.32071	0.21334	0.21334	0.000	-33.47673	60.00000	Averaged	
	26 Phthalic anhydride	29.41158	40.00000	0.10263	0.000	-26.47105	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.26971	0.22658	0.22658	0.000	-15.99088	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.15700	0.13099	0.13099	0.000	-16.56861	60.00000	Averaged	
M	225 Trichlorophenols	0.34470	0.37245	0.37245	0.000	8.05147	60.00000	Averaged	
M	226 Tetrachlorophenols	0.27788	0.28551	0.28551	0.000	2.74719	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	1.06536	1.05388	1.05388	0.000	-1.07777	60.00000	Averaged	

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Data file : /chem/MSD6.i/s032310.b/s6c2309.d
Lab Smp Id: WBN100309-05.3 Client Smp ID: MEGACVS
Inj Date : 23-MAR-2010 17:25
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN100309-05.3|40 PPM|1|SVM|1|MEGACVS
Misc Info : |MSD8270|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032310.b/MSD6-M8270C-AQA-031610.m
Meth Date : 23-Mar-2010 20:54 11o00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.946	3.946	(1.000)	304917	40.0000	
* 29 Naphthalene-d8	136	4.804	4.804	(1.000)	1164981	40.0000	
* 46 Acenaphthene-d10	164	6.057	6.057	(1.000)	659784	40.0000	
* 67 Phenanthrene-d10	188	7.228	7.228	(1.000)	1172427	40.0000	
* 91 Chrysene-d12	240	9.628	9.628	(1.000)	972017	40.0000	
* 98 Perylene-d12	264	11.298	11.298	(1.000)	816579	40.0000	
$ 3 2-Fluorophenol	112	3.128	3.128	(0.793)	317800	40.0000	37.5
$ 5 Phenol-d5	99	3.657	3.657	(0.927)	392038	40.0000	36.4
$ 20 Nitrobenzene-d5	82	4.304	4.304	(0.896)	396749	40.0000	35.6
$ 39 2-Fluorobiphenyl	172	5.546	5.546	(0.916)	728312	40.0000	42.8
$ 60 2,4,6-Tribromophenol	329	6.651	6.651	(1.098)	84433	40.0000	45.6
$ 81 p-Terphenyl-d14	244	8.604	8.604	(0.894)	762717	40.0000	45.0
1 N-Methyl-N-nitrosomethylamine	74	2.446	2.446	(0.620)	189070	40.0000	32.0
2 Pyridine	79	2.481	2.481	(0.629)	214922	40.0000	25.5
4 Aniline	66	3.728	3.728	(0.945)	158995	40.0000	31.2
6 Phenol	94	3.663	3.663	(0.928)	396661	40.0000	36.4
7 bis(2-Chloroethyl) ether	63	3.746	3.746	(0.949)	256215	40.0000	31.6
8 2-Chlorophenol	128	3.804	3.804	(0.964)	339547	40.0000	38.2
203 n-Decane	43	3.787	3.787	(0.960)	412081	40.0000	32.0
9 1,3-Dichlorobenzene	146	3.910	3.910	(0.991)	400678	40.0000	41.0
11 1,4-Dichlorobenzene	146	3.951	3.951	(1.001)	390978	40.0000	41.2
13 1,2-Dichlorobenzene	146	4.057	4.057	(1.028)	351910	40.0000	40.9
14 bis(2-Chloroisopropyl)ether	45	4.087	4.087	(1.036)	528583	40.0000	31.0
12 Benzyl alcohol	108	4.010	4.010	(1.016)	162611	40.0000	26.1
15 o-Cresol	107	4.057	4.057	(1.028)	250112	40.0000	37.0
18 m,p-Cresols	107	4.157	4.157	(1.054)	352172	40.0000	36.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.181	4.181	(1.060)	249316	40.0000	38.5
19 Hexachloroethane	117	4.287	4.287	(1.086)	145661	40.0000	35.5
21 Nitrobenzene	77	4.316	4.316	(0.898)	362430	40.0000	35.3
22 Isophorone	82	4.469	4.469	(0.930)	669717	40.0000	34.0
23 2-Nitrophenol	139	4.528	4.528	(0.942)	171390	40.0000	38.5
24 2,4-Dimethylphenol	122	4.522	4.522	(0.941)	314456	40.0000	36.7
25 bis(2-Chloroethoxy)methane	93	4.593	4.593	(0.956)	370095	40.0000	34.5
26 2,4-Dichlorophenol	162	4.693	4.693	(0.977)	294118	40.0000	40.0
27 Benzoic acid	105	4.569	4.569	(0.951)	198184	40.0000	36.3
28 1,2,4-Trichlorobenzene	180	4.757	4.757	(0.990)	338205	40.0000	40.2
30 Naphthalene	128	4.822	4.822	(1.004)	957488	40.0000	33.4
204 alpha-Terpineol	59	4.798	4.798	(0.999)	266504	40.0000	32.2
31 4-Chloroaniline	127	4.834	4.834	(1.006)	444188	40.0000	35.1
32 Hexachlorobutadiene	225	4.887	4.887	(1.017)	203099	40.0000	42.5
33 4-Chloro-3-methylphenol	107	5.146	5.146	(1.071)	313240	40.0000	39.2
34 2-Methylnaphthalene	142	5.304	5.304	(1.104)	640696	40.0000	36.3
35 1-Methylnaphthalene	142	5.375	5.375	(1.119)	606125	40.0000	35.3
36 Hexachlorocyclopentadiene	237	5.404	5.404	(0.892)	138360	40.0000	36.6
205 2,3-Dichloroaniline	161	5.498	5.498	(0.908)	344483	40.0000	39.8
37 2,4,6-Trichlorophenol	196	5.487	5.487	(0.906)	250919	40.0000	45.4
38 2,4,5-Trichlorophenol	196	5.516	5.516	(0.911)	240554	40.0000	41.1
40 2-Chloronaphthalene	162	5.657	5.657	(0.934)	648967	40.0000	40.4
42 o-Nitroaniline	65	5.710	5.710	(0.943)	183637	40.0000	32.6
41 m-Nitroaniline	138	6.004	6.004	(0.991)	134716	40.0000	32.1
43 Dimethylphthalate	163	5.822	5.822	(0.961)	741300	40.0000	39.8
44 2,6-Dinitrotoluene	165	5.875	5.875	(0.970)	177060	40.0000	39.7
50 2,4-Dinitrotoluene	165	6.169	6.169	(1.018)	225659	40.0000	38.4
45 Acenaphthylene	152	5.957	5.957	(0.983)	972244	40.0000	38.2
47 Acenaphthene	154	6.081	6.081	(1.004)	597486	40.0000	34.9
48 2,4-Dinitrophenol	184	6.075	6.075	(1.003)	68455	40.0000	43.2
49 Dibenzofuran	168	6.210	6.210	(1.025)	868962	40.0000	41.8
51 Diethylphthalate	149	6.328	6.328	(1.045)	740151	40.0000	40.5
52 4-Nitrophenol	139	6.093	6.093	(1.006)	124698	40.0000	39.3
53 Fluorene	166	6.469	6.469	(1.068)	703138	40.0000	38.1
54 4-Chlorophenylphenylether	204	6.445	6.445	(1.064)	371173	40.0000	42.0
55 2-Methyl-4,6-dinitrophenol	198	6.481	6.481	(0.897)	134905	40.0000	48.4
56 p-Nitroaniline	138	6.463	6.463	(1.067)	111253	40.0000	32.4
133 Diphenylamine	169	6.534	6.534	(0.904)	550175	40.0000	36.2
58 1,2-Diphenylhydrazine	77	6.569	6.569	(0.909)	723104	40.0000	35.4
61 4-Bromophenylphenylether	248	6.834	6.834	(0.945)	205726	40.0000	40.4
63 Hexachlorobenzene	284	6.898	6.898	(0.954)	210733	40.0000	43.3
65 Pentachlorophenol	266	7.051	7.051	(0.976)	124277	40.0000	45.1
206 n-Octadecane	57	7.040	7.040	(0.974)	482965	40.0000	34.3
68 Phenanthrene	178	7.245	7.245	(1.002)	1018156	40.0000	35.6
69 Anthracene	178	7.292	7.292	(1.009)	1012900	40.0000	35.2
72 Di-n-butylphthalate	149	7.645	7.645	(1.058)	1259923	40.0000	37.8
76 Fluoranthene	202	8.287	8.287	(1.146)	1084555	40.0000	37.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	8.498	8.498	(0.883)	1109981	40.0000	37.4
85 Butylbenzylphthalate	149	9.034	9.034	(0.938)	541559	40.0000	37.8
89 Benzo(a)anthracene	228	9.616	9.616	(0.999)	966788	40.0000	38.1
92 Chrysene	228	9.657	9.657	(1.003)	905619	40.0000	37.4
93 bis(2-Ethylhexyl)phthalate	149	9.551	9.551	(0.992)	720099	40.0000	37.6
94 Di-n-octylphthalate	149	10.204	10.204	(0.903)	1130279	40.0000	36.2
95 Benzo(b)fluoranthene	252	10.786	10.786	(0.955)	889929	40.0000	40.1
96 Benzo(k)fluoranthene	252	10.822	10.822	(0.958)	831225	40.0000	39.0
97 Benzo(a)pyrene	252	11.222	11.222	(0.993)	745104	40.0000	39.6
99 Indeno(1,2,3-cd)pyrene	276	13.063	13.063	(1.156)	652179	40.0000	37.8
100 Dibenzo(a,h)anthracene	278	13.080	13.080	(1.158)	519137	40.0000	37.4
101 Benzo(ghi)perylene	276	13.604	13.604	(1.204)	543843	40.0000	36.9
126 m-Dinitrobenzene	168	5.857	5.857	(0.967)	123864	40.0000	39.2
130 2,3,4,6-Tetrachlorophenol	232	6.287	6.287	(1.038)	188377	40.0000	41.1
143 Dinoseb	211	7.169	7.169	(0.992)	154118	40.0000	39.4
173 Carbazole	167	7.404	7.404	(1.024)	734647	40.0000	32.7
184 p-Benzoquinone	54	3.434	3.434	(0.870)	46622	40.0000	25.2
192 Methoxychlor	227	9.504	9.504	(0.987)	568841	40.0000	35.2
211 p-Toluidine	106	4.222	4.222	(1.070)	257099	40.0000	25.2(H)
210 m-Toluidine	106	4.240	4.240	(1.075)	435542	40.0000	30.8
215 2-Ethoxyethanol	59	2.287	2.287	(0.580)	154963	40.0000	28.5
179 Dibenzo(a,e)pyrene	302	17.709	17.709	(1.567)	174212	40.0000	26.6
26 Phthalic anhydride	104	5.340	5.340	(1.111)	119560	40.0000	29.4
214 1,4-Dinitrobenzene	75	5.804	5.804	(0.958)	149496	40.0000	33.6
216 Methylenebis(2-chloroaniline)	231	9.563	9.563	(0.993)	127322	40.0000	33.4
M 225 Trichlorophenols	196				491473	80.0000	86.4
M 226 Tetrachlorophenols	232				188377	40.0000	41.1
M 227 Benzo(b,k)fluoranthene	252				1721154	80.0000	79.1

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s032310.b/s6c2309.d
Date : 23-MAR-2010 17:25
Client ID: MEGACVS
Sample Info: IWBN100309-05,3140 PPM|1|SVM11|MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

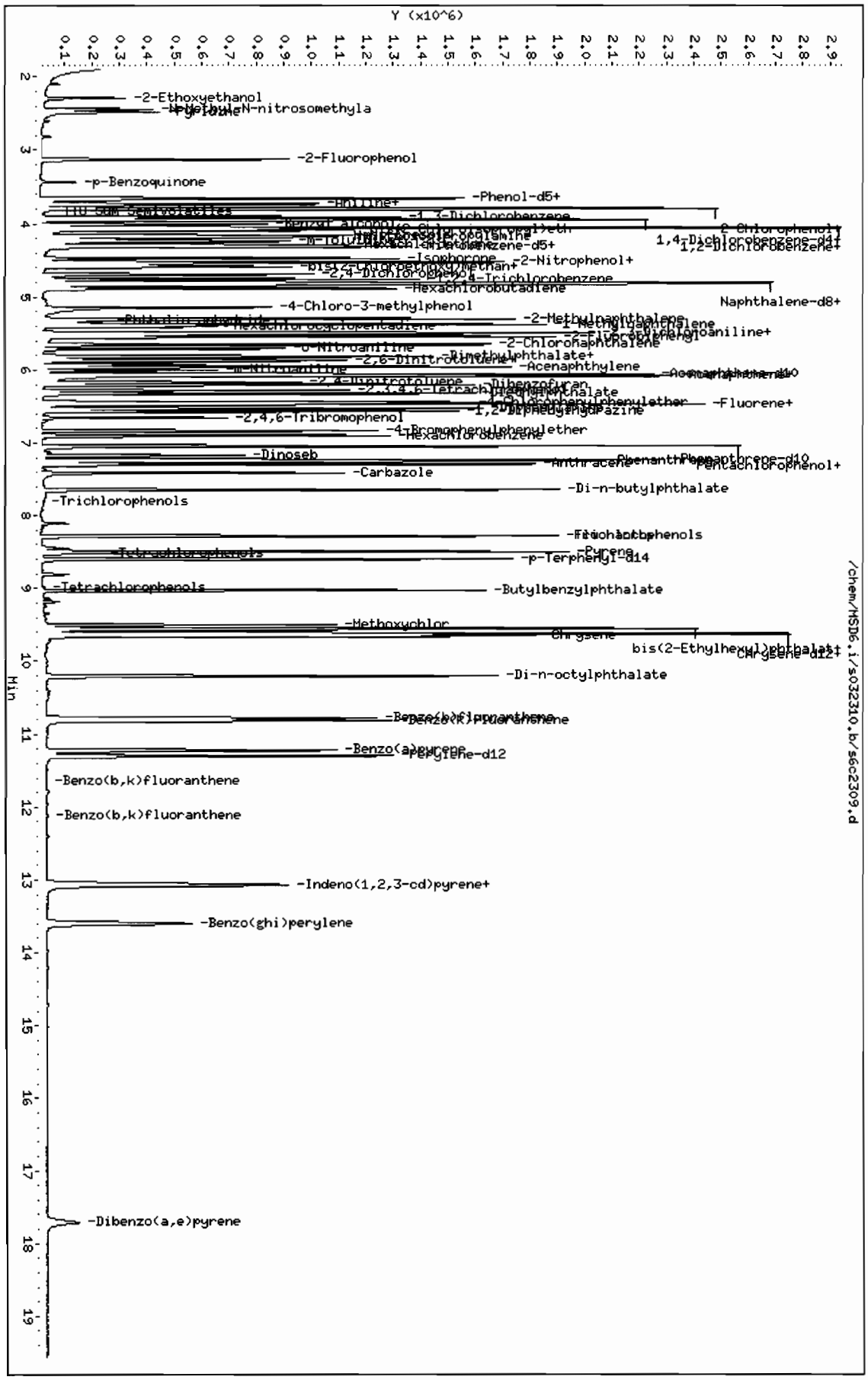

Page 1

Data File: /chem/MSD6.i/s032410.b/s6c2405.d
Report Date: 24-Mar-2010 21:48

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 24-MAR-2010 14:31
Lab File ID: s6c2405.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100309-05.5 Quant Type: ISTD
Method: /chem/MSD6.i/s032410.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.11196	0.98934	0.98934	0.000	-11.02761	60.00000	Averaged
$ 5 Phenol-d5	1.41412	1.23899	1.23899	0.000	-12.38393	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.38237	0.33068	0.33068	0.000	-13.51811	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.03201	1.00845	1.00845	0.000	-2.28322	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11225	0.12350	0.12350	0.000	10.02472	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.69704	0.68652	0.68652	0.000	-1.50832	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.77557	0.59797	0.59797	0.000	-22.89995	60.00000	Averaged
2 Pyridine	1.10526	0.85347	0.85347	0.000	-22.78039	60.00000	Averaged
4 Aniline	0.66950	0.53517	0.53517	0.000	-20.06312	60.00000	Averaged
6 Phenol	1.43150	1.22993	1.22993	0.001	-14.08129	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06440	0.84593	0.84593	0.000	-20.52550	60.00000	Averaged
8 2-Chlorophenol	1.16424	1.06147	1.06147	0.000	-8.82714	60.00000	Averaged
203 n-Decane	1.69067	1.21191	1.21191	0.000	-28.31800	60.00000	Averaged
9 1,3-Dichlorobenzene	1.28259	1.22250	1.22250	0.000	-4.68528	60.00000	Averaged
11 1,4-Dichlorobenzene	1.24541	1.20330	1.20330	0.001	-3.38097	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.12890	1.11989	1.11989	0.000	-0.79844	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.23712	1.59795	1.59795	0.000	-28.57131	60.00000	Averaged
12 Benzyl alcohol	0.81825	0.41076	0.41076	0.000	-49.79992	60.00000	Averaged
15 o-Cresol	0.88788	0.78939	0.78939	0.000	-11.09254	60.00000	Averaged
18 m,p-Cresols	1.27893	1.09671	1.09671	0.000	-14.24778	60.00000	Averaged
17 N-Nitrosodipropylamine	0.97668	0.78184	0.78184	0.050	-19.94896	60.00000	Averaged spcc
19 Hexachloroethane	0.53767	0.48019	0.48019	0.000	-10.69072	60.00000	Averaged
21 Nitrobenzene	0.35281	0.32193	0.32193	0.000	-8.75310	60.00000	Averaged
22 Isophorone	0.67701	0.57688	0.57688	0.000	-14.79014	60.00000	Averaged
23 2-Nitrophenol	0.15292	0.14623	0.14623	0.001	-4.37631	20.00000	Averaged ccc
24 2,4-Dimethylphenol	43.90830	40.00000	0.31559	0.000	9.77075	60.00000	Wt Linear
25 bis(2-Chloroethoxy)methane	0.36806	0.32673	0.32673	0.000	-11.23055	60.00000	Averaged
26 2,4-Dichlorophenol	0.25252	0.24852	0.24852	0.001	-1.58467	20.00000	Averaged ccc
27 Benzoic acid	0.18753	0.18883	0.18883	0.000	0.69258	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.28905	0.29182	0.29182	0.000	0.95834	60.00000	Averaged
30 Naphthalene	0.98486	0.81687	0.81687	0.000	-17.05761	60.00000	Averaged
204 alpha-Terpineol	0.28429	0.23983	0.23983	0.000	-15.63764	60.00000	Averaged
31 4-Chloroaniline	0.43446	0.41353	0.41353	0.000	-4.81747	60.00000	Averaged
32 Hexachlorobutadiene	0.16407	0.17155	0.17155	0.001	4.56175	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.27436	0.25743	0.25743	0.001	-6.17166	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.60564	0.51966	0.51966	0.000	-14.19714	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 24-MAR-2010 14:31
Lab File ID: s6c2405.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100309-05.5 Quant Type: ISTD
Method: /chem/MSD6.i/s032410.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.58910	0.50746	0.50746	0.000	-13.85950	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.22936	0.27162	0.27162	0.050	18.42783	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.52459	0.50561	0.50561	0.000	-3.61811	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.33474	0.34055	0.34055	0.001	1.73623	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.35465	0.35337	0.35337	0.000	-0.36236	60.00000	Averaged	
40 2-Chloronaphthalene	0.97365	0.91441	0.91441	0.000	-6.08430	60.00000	Averaged	
42 o-Nitroaniline	0.34201	0.26793	0.26793	0.000	-21.65942	60.00000	Averaged	
41 m-Nitroaniline	0.25409	0.21024	0.21024	0.000	-17.25868	60.00000	Averaged	
43 Dimethylphthalate	1.13004	1.06052	1.06052	0.000	-6.15195	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.27058	0.25396	0.25396	0.000	-6.14160	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.35648	0.33013	0.33013	0.000	-7.39205	60.00000	Averaged	
45 Acenaphthylene	1.54257	1.36345	1.36345	0.000	-11.61194	60.00000	Averaged	
47 Acenaphthene	1.03783	0.89597	0.89597	0.001	-13.66898	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	53.64588	40.00000	0.13256	0.050	34.11471	60.00000	Linear	spcc
49 Dibenzofuran	1.26069	1.20738	1.20738	0.000	-4.22845	60.00000	Averaged	
51 Diethylphthalate	1.10774	1.03629	1.03629	0.000	-6.44953	60.00000	Averaged	
52 4-Nitrophenol	0.19236	0.18461	0.18461	0.050	-4.02810	60.00000	Averaged	spcc
53 Fluorene	1.11781	1.02131	1.02131	0.000	-8.63300	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.53621	0.53898	0.53898	0.000	0.51539	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	49.94061	40.00000	0.11908	0.000	24.85152	60.00000	Linear	
56 p-Nitroaniline	0.20835	0.17510	0.17510	0.000	-15.95875	60.00000	Averaged	
133 Diphenylamine	0.51902	0.49165	0.49165	0.001	-5.27365	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.69767	0.59276	0.59276	0.000	-15.03765	60.00000	Averaged	
61 4-Bromophenylphenylether	0.17368	0.18242	0.18242	0.000	5.03500	60.00000	Averaged	
63 Hexachlorobenzene	0.16595	0.18319	0.18319	0.000	10.38616	60.00000	Averaged	
65 Pentachlorophenol	0.09397	0.10866	0.10866	0.001	15.63502	20.00000	Averaged	ccc
206 n-Octadecane	0.48063	0.36853	0.36853	0.000	-23.32287	60.00000	Averaged	
68 Phenanthrene	0.97466	0.85207	0.85207	0.000	-12.57748	60.00000	Averaged	
69 Anthracene	0.98189	0.85089	0.85089	0.000	-13.34229	60.00000	Averaged	
72 Di-n-butylphthalate	1.13557	1.02612	1.02612	0.000	-9.63797	60.00000	Averaged	
76 Fluoranthene	0.98842	0.89454	0.89454	0.001	-9.49844	20.00000	Averaged	ccc
79 Pyrene	1.21938	1.15538	1.15538	0.000	-5.24854	60.00000	Averaged	
85 Butylbenzylphthalate	0.58998	0.52694	0.52694	0.000	-10.68479	60.00000	Averaged	
89 Benzo(a)anthracene	1.04446	0.92248	0.92248	0.000	-11.67845	60.00000	Averaged	
92 Chrysene	0.99764	0.92225	0.92225	0.000	-7.55685	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.78860	0.68868	0.68868	0.000	-12.66984	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 24-MAR-2010 14:31
Lab File ID: s6c2405.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100309-05.5 Quant Type: ISTD
Method: /chem/MSD6.i/s032410.b/MSD6-M8270C-AQA-031610.m

	COMPOUND	RRF	AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate		1.53062	1.46527	1.46527	0.001	-4.26964	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene		1.08744	1.01389	1.01389	0.000	-6.76358	60.00000	Averaged	
	96 Benzo(k)fluoranthene		1.04328	1.08480	1.08480	0.000	3.97941	60.00000	Averaged	
	97 Benzo(a)pyrene		0.92098	0.88013	0.88013	0.001	-4.43470	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene		0.84510	0.73273	0.73273	0.000	-13.29681	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene		0.68068	0.58906	0.58906	0.000	-13.45982	60.00000	Averaged	
	101 Benzo(ghi)perylene		0.72160	0.62565	0.62565	0.000	-13.29776	60.00000	Averaged	
	126 m-Dinitrobenzene		0.19174	0.17771	0.17771	0.000	-7.31524	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol		0.27788	0.28297	0.28297	0.000	1.83175	60.00000	Averaged	
	143 Dinoseb		50.80261	40.00000	0.17515	0.000	27.00652	60.00000	Linear	
	173 Carbazole		0.76672	0.63302	0.63302	0.000	-17.43721	60.00000	Averaged	
	184 p-Benzoquinone		0.24293	0.14675	0.14675	0.000	-39.59176	60.00000	Averaged	
	192 Methoxychlor		0.66555	0.64142	0.64142	0.000	-3.62470	60.00000	Averaged	
	211 p-Toluidine		1.33748	1.25717	1.25717	0.000	-6.00431	60.00000	Averaged	
	210 m-Toluidine		1.85679	1.36419	1.36419	0.000	-26.52954	60.00000	Averaged	
	215 2-Ethoxyethanol		0.71211	0.46069	0.46069	0.000	-35.30655	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene		0.32071	0.25579	0.25579	0.000	-20.24297	60.00000	Averaged	
	26 Phthalic anhydride		27.68404	40.00000	0.09631	0.000	-30.78991	60.00000	Linear	
	214 1,4-Dinitrobenzene		0.26971	0.21699	0.21699	0.000	-19.54688	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin		0.15700	0.11429	0.11429	0.000	-27.20586	60.00000	Averaged	
M	225 Trichlorophenols		0.34470	0.34696	0.34696	0.000	0.65663	60.00000	Averaged	
M	226 Tetrachlorophenols		0.27788	0.28297	0.28297	0.000	1.83175	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene		1.06536	1.04935	1.04935	0.000	-1.50342	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032410.b/s6c2405.d
Lab Smp Id: WBN100309-05.5 Client Smp ID: MEGACVS
Inj Date : 24-MAR-2010 14:31
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN100309-05.5|40 PPM|1|SVM|1|MEGACVS
Misc Info : |MSD8270|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032410.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 21:48 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.881	3.881	(1.000)	525197	40.0000	
* 29 Naphthalene-d8	136	4.751	4.751	(1.000)	1930360	40.0000	
* 46 Acenaphthene-d10	164	6.010	6.010	(1.000)	1132303	40.0000	
* 67 Phenanthrene-d10	188	7.175	7.175	(1.000)	1895969	40.0000	
* 91 Chrysene-d12	240	9.580	9.580	(1.000)	1547185	40.0000	
* 98 Perylene-d12	264	11.233	11.233	(1.000)	1157851	40.0000	
$ 3 2-Fluorophenol	112	3.069	3.069	(0.791)	519597	40.0000	35.6
$ 5 Phenol-d5	99	3.598	3.598	(0.927)	650716	40.0000	35.0
$ 20 Nitrobenzene-d5	82	4.245	4.245	(0.894)	638340	40.0000	34.6
$ 39 2-Fluorobiphenyl	172	5.492	5.492	(0.914)	1141867	40.0000	39.1
$ 60 2,4,6-Tribromophenol	329	6.604	6.604	(1.099)	139837	40.0000	44.0
$ 81 p-Terphenyl-d14	244	8.551	8.551	(0.893)	1062176	40.0000	39.4
1 N-Methyl-N-nitrosomethylamine	74	2.381	2.381	(0.614)	314051	40.0000	30.8
2 Pyridine	79	2.416	2.416	(0.623)	448242	40.0000	30.9
4 Aniline	66	3.669	3.669	(0.945)	281072	40.0000	32.0
6 Phenol	94	3.604	3.604	(0.929)	645955	40.0000	34.4
7 bis(2-Chloroethyl) ether	63	3.687	3.687	(0.950)	444280	40.0000	31.8
8 2-Chlorophenol	128	3.745	3.745	(0.965)	557482	40.0000	36.5
203 n-Decane	43	3.734	3.734	(0.962)	636490	40.0000	28.7
9 1,3-Dichlorobenzene	146	3.851	3.851	(0.992)	642054	40.0000	38.1
11 1,4-Dichlorobenzene	146	3.893	3.893	(1.003)	631971	40.0000	38.6
13 1,2-Dichlorobenzene	146	3.998	3.998	(1.030)	588162	40.0000	39.7
14 bis(2-Chloroisopropyl)ether	45	4.028	4.028	(1.038)	839237	40.0000	28.6
12 Benzyl alcohol	108	3.951	3.951	(1.018)	215730	40.0000	20.1
15 o-Cresol	107	3.998	3.998	(1.030)	414585	40.0000	35.6
18 m,p-Cresols	107	4.104	4.104	(1.058)	575988	40.0000	34.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.122	4.122	(1.062)	410620	40.0000	32.0
19 Hexachloroethane	117	4.228	4.228	(1.089)	252193	40.0000	35.7
21 Nitrobenzene	77	4.263	4.263	(0.897)	621438	40.0000	36.5
22 Isophorone	82	4.416	4.416	(0.929)	1113583	40.0000	34.1
23 2-Nitrophenol	139	4.475	4.475	(0.942)	282272	40.0000	38.2
24 2,4-Dimethylphenol	122	4.469	4.469	(0.941)	609206	40.0000	43.9
25 bis(2-Chloroethoxy)methane	93	4.534	4.534	(0.954)	630705	40.0000	35.5
26 2,4-Dichlorophenol	162	4.634	4.634	(0.975)	479735	40.0000	39.4
27 Benzoic acid	105	4.528	4.528	(0.953)	364512	40.0000	40.3
28 1,2,4-Trichlorobenzene	180	4.698	4.698	(0.989)	563316	40.0000	40.4
30 Naphthalene	128	4.769	4.769	(1.004)	1576845	40.0000	33.2
204 alpha-Terpineol	59	4.745	4.745	(0.999)	462964	40.0000	33.7
31 4-Chloroaniline	127	4.781	4.781	(1.006)	798269	40.0000	38.1
32 Hexachlorobutadiene	225	4.828	4.828	(1.016)	331153	40.0000	41.8
33 4-Chloro-3-methylphenol	107	5.098	5.098	(1.073)	496926	40.0000	37.5
34 2-Methylnaphthalene	142	5.245	5.245	(1.104)	1003127	40.0000	34.3
35 1-Methylnaphthalene	142	5.322	5.322	(1.120)	979574	40.0000	34.4
36 Hexachlorocyclopentadiene	237	5.351	5.351	(0.890)	307557	40.0000	47.4
205 2,3-Dichloroaniline	161	5.445	5.445	(0.906)	572502	40.0000	38.6
37 2,4,6-Trichlorophenol	196	5.434	5.434	(0.904)	385608	40.0000	40.7
38 2,4,5-Trichlorophenol	196	5.463	5.463	(0.909)	400120	40.0000	39.8
40 2-Chloronaphthalene	162	5.604	5.604	(0.932)	1035391	40.0000	37.6
42 o-Nitroaniline	65	5.657	5.657	(0.941)	303383	40.0000	31.3
41 m-Nitroaniline	138	5.957	5.957	(0.991)	238056	40.0000	33.1
43 Dimethylphthalate	163	5.775	5.775	(0.961)	1200827	40.0000	37.5
44 2,6-Dinitrotoluene	165	5.828	5.828	(0.970)	287557	40.0000	37.5
50 2,4-Dinitrotoluene	165	6.122	6.122	(1.019)	373802	40.0000	37.0
45 Acenaphthylene	152	5.910	5.910	(0.983)	1543838	40.0000	35.4
47 Acenaphthene	154	6.034	6.034	(1.004)	1014510	40.0000	34.5
48 2,4-Dinitrophenol	184	6.028	6.028	(1.003)	150094	40.0000	53.6
49 Dibenzofuran	168	6.157	6.157	(1.024)	1367125	40.0000	38.3
51 Diethylphthalate	149	6.281	6.281	(1.045)	1173396	40.0000	37.4
52 4-Nitrophenol	139	6.051	6.051	(1.007)	209037	40.0000	38.4
53 Fluorene	166	6.416	6.416	(1.068)	1156428	40.0000	36.5
54 4-Chlorophenylphenylether	204	6.392	6.392	(1.064)	610285	40.0000	40.2
55 2-Methyl-4,6-dinitrophenol	198	6.434	6.434	(0.897)	225775	40.0000	49.9
56 p-Nitroaniline	138	6.416	6.416	(1.068)	198262	40.0000	33.6
133 Diphenylamine	169	6.481	6.481	(0.903)	932145	40.0000	37.9
58 1,2-Diphenylhydrazine	77	6.516	6.516	(0.908)	1123849	40.0000	34.0
61 4-Bromophenylphenylether	248	6.781	6.781	(0.945)	345870	40.0000	42.0
63 Hexachlorobenzene	284	6.845	6.845	(0.954)	347324	40.0000	44.2
65 Pentachlorophenol	266	6.998	6.998	(0.975)	206018	40.0000	46.2
206 n-Octadecane	57	6.992	6.992	(0.975)	698727	40.0000	30.7
68 Phenanthrene	178	7.198	7.198	(1.003)	1615498	40.0000	35.0
69 Anthracene	178	7.239	7.239	(1.009)	1613252	40.0000	34.7
72 Di-n-butylphthalate	149	7.598	7.598	(1.059)	1945495	40.0000	36.1
76 Fluoranthene	202	8.233	8.233	(1.148)	1696013	40.0000	36.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	8.451	8.451	(0.882)	1787581	40.0000	37.9
85 Butylbenzylphthalate	149	8.986	8.986	(0.938)	815277	40.0000	35.7
89 Benzo(a)anthracene	228	9.569	9.569	(0.999)	1427252	40.0000	35.3
92 Chrysene	228	9.604	9.604	(1.002)	1426884	40.0000	37.0
93 bis(2-Ethylhexyl)phthalate	149	9.510	9.510	(0.993)	1065523	40.0000	34.9
94 Di-n-octylphthalate	149	10.157	10.157	(0.904)	1696562	40.0000	38.3
95 Benzo(b)fluoranthene	252	10.722	10.722	(0.954)	1173939	40.0000	37.3
96 Benzo(k)fluoranthene	252	10.757	10.757	(0.958)	1256034	40.0000	41.6
97 Benzo(a)pyrene	252	11.157	11.157	(0.993)	1019064	40.0000	38.2
99 Indeno(1,2,3-cd)pyrene	276	12.963	12.963	(1.154)	848394	40.0000	34.7
100 Dibenzo(a,h)anthracene	278	12.974	12.974	(1.155)	682042	40.0000	34.6
101 Benzo(ghi)perylene	276	13.486	13.486	(1.201)	724404	40.0000	34.7
126 m-Dinitrobenzene	168	5.810	5.810	(0.967)	201222	40.0000	37.1
130 2,3,4,6-Tetrachlorophenol	232	6.234	6.234	(1.037)	320407	40.0000	40.7
143 Dinoseb	211	7.122	7.122	(0.993)	332087	40.0000	50.8
173 Carbazole	167	7.357	7.357	(1.025)	1200195	40.0000	33.0
184 p-Benzoquinone	54	3.369	3.369	(0.868)	77074	40.0000	24.2
192 Methoxychlor	227	9.457	9.457	(0.987)	992402	40.0000	38.6
211 p-Toluidine	106	4.163	4.163	(1.073)	660262	40.0000	37.6
210 m-Toluidine	106	4.181	4.181	(1.077)	716468	40.0000	29.4
215 2-Ethoxyethanol	59	2.228	2.228	(0.574)	241951	40.0000	25.9
179 Dibenzo(a,e)pyrene	302	17.509	17.509	(1.559)	296161	40.0000	31.9
26 Phthalic anhydride	104	5.287	5.287	(1.113)	185918	40.0000	27.7
214 1,4-Dinitrobenzene	75	5.757	5.757	(0.958)	245701	40.0000	32.2
216 Methylenebis(2-chloroaniline)	231	9.516	9.516	(0.993)	176823	40.0000	29.1
M 225 Trichlorophenols	196				785728	80.0000	80.5
M 226 Tetrachlorophenols	232				320407	40.0000	40.7
M 227 Benzo(b,k)fluoranthene	252				2429973	80.0000	78.8

Data File: /chem/MSD6.i/s032410.b/s6c2405.d
Date : 24-MAR-2010 14:31
Client ID: MEGACVS
Sample Info: IWBN100309-05,5ll40 PPMIIISVMIIIMEGACVS

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nagl
Column diameter: 0.20

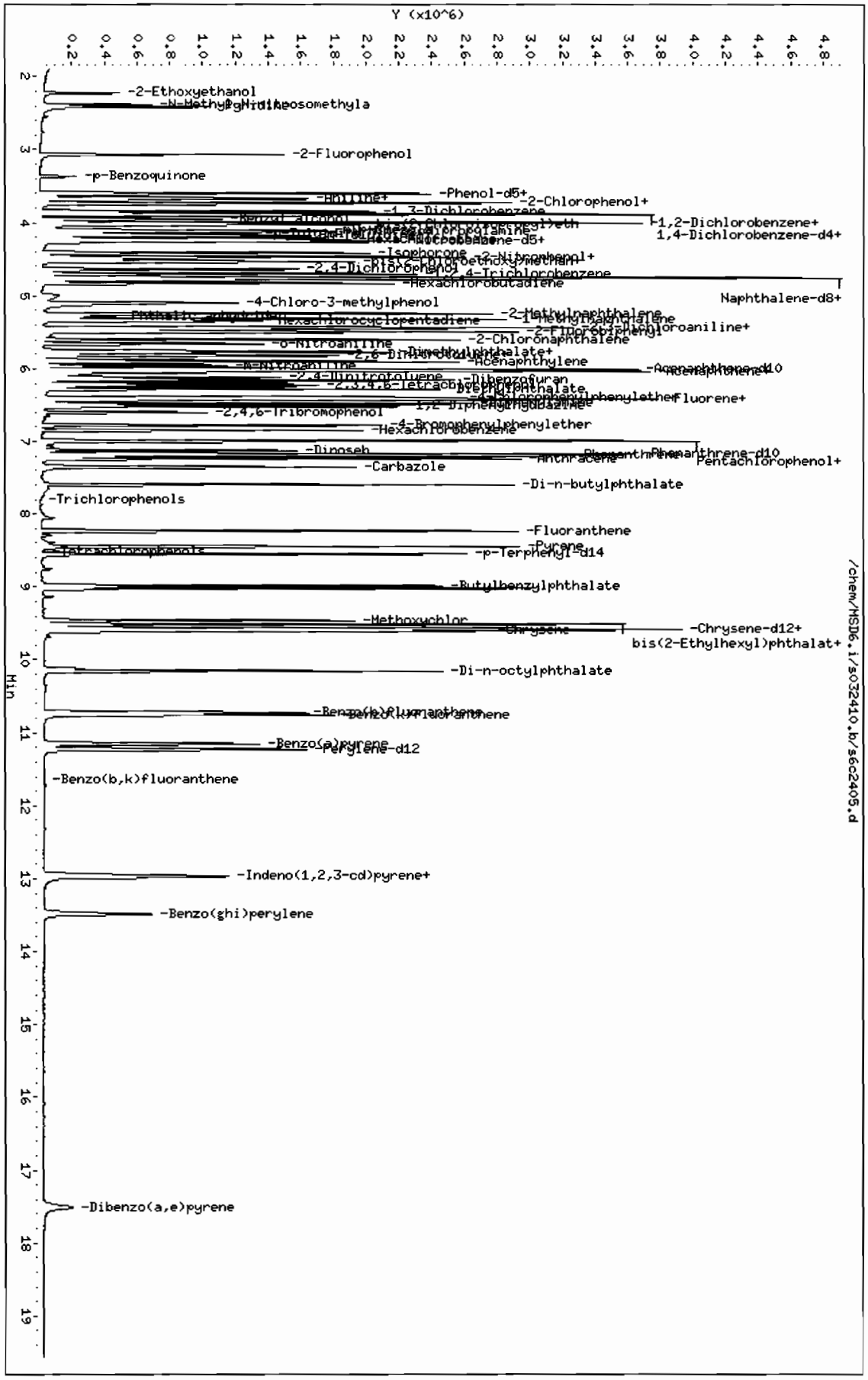

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 24-MAR-2010 15:00
Lab File ID: s6c2406.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100312-03.5 Quant Type: ISTD
Method: /chem/MSD6.i/s032410.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.96016	0.88882	0.88882	0.000	-7.43011	60.00000	Averaged
16 Acetophenone	1.24814	1.18045	1.18045	0.000	-5.42327	60.00000	Averaged
189 Caprolactam	0.09790	0.08738	0.08738	0.000	-10.74305	60.00000	Averaged
208 1,1'-Biphenyl	1.11180	1.07349	1.07349	0.000	-3.44573	60.00000	Averaged
207 Atrazine	0.04606	0.04470	0.04470	0.000	-2.94910	60.00000	Averaged
77 Benzidine	0.42058	0.26259	0.26259	0.000	-37.56459	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.30172	0.28095	0.28095	0.000	-6.88546	60.00000	Averaged
102 1,4-Dioxane	0.35119	0.31331	0.31331	0.000	-10.78572	60.00000	Averaged
103 Methyl methacrylate	0.18979	0.17886	0.17886	0.000	-5.76069	60.00000	Averaged
104 Ethyl methacrylate	0.82709	0.72634	0.72634	0.000	-12.18104	60.00000	Averaged
105 2-Picoline	1.21280	1.11655	1.11655	0.000	-7.93620	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.53810	0.46642	0.46642	0.000	-13.32110	60.00000	Averaged
107 Methyl methanesulfonate	0.59726	0.51171	0.51171	0.000	-14.32364	60.00000	Averaged
108 N-Nitrosodiethylamine	0.54437	0.50641	0.50641	0.000	-6.97294	60.00000	Averaged
109 Ethyl Methanesulfonate	0.72583	0.62010	0.62010	0.000	-14.56657	60.00000	Averaged
110 Pentachloroethane	0.33314	0.33199	0.33199	0.000	-0.34636	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.58446	0.53392	0.53392	0.000	-8.64778	60.00000	Averaged
113 N-Nitrosomorpholine	0.68078	0.60257	0.60257	0.000	-11.48913	60.00000	Averaged
114 o-Toluidine	1.73474	1.63213	1.63213	0.000	-5.91483	60.00000	Averaged
115 N-Nitrosopiperidine	0.15362	0.14107	0.14107	0.000	-8.16727	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.87353	0.75448	0.75448	0.000	-13.62937	60.00000	Averaged
118 2,6-Dichlorophenol	0.24533	0.23758	0.23758	0.000	-3.16063	60.00000	Averaged
119 Hexachloropropene	0.13311	0.13489	0.13489	0.000	1.33964	60.00000	Averaged
120 p-Phenylenediamine	0.30365	0.25872	0.25872	0.000	-14.79889	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.26282	0.22117	0.22117	0.000	-15.84905	60.00000	Averaged
122 Safrole	0.21396	0.21135	0.21135	0.000	-1.22287	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44716	0.46284	0.46284	0.000	3.50797	60.00000	Averaged
124 Isosafrole	0.35324	0.33365	0.33365	0.000	-5.54614	60.00000	Averaged
125 1,4-Naphthoquinone	0.34254	0.32815	0.32815	0.000	-4.20192	60.00000	Averaged
127 Pentachlorobenzene	0.37515	0.39950	0.39950	0.000	6.48914	60.00000	Averaged
128 1-Naphthylamine	0.89931	0.82160	0.82160	0.000	-8.64131	60.00000	Averaged
129 2-Naphthylamine	0.94089	0.86264	0.86264	0.000	-8.31668	60.00000	Averaged
131 5-Nitro-o-toluidine	0.30665	0.26905	0.26905	0.000	-12.25877	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.15613	0.13932	0.13932	0.000	-10.77027	60.00000	Averaged
137 Phenacetin	0.29347	0.25287	0.25287	0.000	-13.83593	60.00000	Averaged
138 Diallate	0.24862	0.23509	0.23509	0.000	-5.44264	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 24-MAR-2010 15:00
Lab File ID: s6c2406.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 09:18 04:51
Lab Sample ID: WBN100312-03.5 Quant Type: ISTD
Method: /chem/MSD6.i/s032410.b/MSD6-M8270C-AQA-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.28918	0.24806	0.24806	0.000	-14.22092	60.00000	Averaged
213 Trans Diallate	0.28250	0.27658	0.27658	0.000	-5.44264	60.00000	Averaged
140 4-Aminobiphenyl	0.55066	0.54072	0.54072	0.000	-1.80462	60.00000	Averaged
141 Pentachloronitrobenzene	0.06695	0.06789	0.06789	0.000	1.41378	60.00000	Averaged
142 Pronamide	0.26094	0.25385	0.25385	0.000	-2.71492	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02879	0.01982	0.01982	0.000	-31.17936	60.00000	Averaged
147 Methapyrilene	0.43748	0.34049	0.34049	0.000	-22.16940	60.00000	Averaged
148 Isodrin	0.11028	0.11421	0.11421	0.000	3.57207	60.00000	Averaged
149 Aramite	0.04746	0.04688	0.04688	0.000	-1.21348	60.00000	Averaged
150 Kepone	0.07668	0.07798	0.07798	0.000	1.69243	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31031	0.28245	0.28245	0.000	-8.98091	60.00000	Averaged
152 Chlorobenzilate	0.29472	0.32281	0.32281	0.000	9.53225	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.59350	0.51250	0.51250	0.000	-13.64837	60.00000	Averaged
155 2-Acetylaminofluorene	0.34851	0.28568	0.28568	0.000	-18.02917	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.48545	0.51965	0.51965	0.000	7.04650	60.00000	Averaged
158 3-Methylcholanthrene	0.40010	0.39517	0.39517	0.000	-1.23210	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032410.b/s6c2406.d
Lab Smp Id: WBN100312-03.5 Client Smp ID: APCVS
Inj Date : 24-MAR-2010 15:00
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN100312-03.5|40 PPM|1|SVM|1|APCVS
Misc Info : |MSD8270|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032410.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 15:30 11o00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclpl

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.893	3.893	(1.000)	541136	40.0000	
* 29 Naphthalene-d8	136	4.757	4.757	(1.000)	1879268	40.0000	
* 46 Acenaphthene-d10	164	6.016	6.016	(1.000)	1172181	40.0000	
* 67 Phenanthrene-d10	188	7.187	7.187	(1.000)	1973056	40.0000	
* 91 Chrysene-d12	240	9.592	9.592	(1.000)	1637531	40.0000	
* 98 Perylene-d12	264	11.251	11.251	(1.000)	1247585	40.0000	
209 Benzaldehyde	77	3.616	3.616	(0.929)	480972	40.0000	37.0(H)
16 Acetophenone	105	4.146	4.146	(1.065)	638786	40.0000	37.8
189 Caprolactam	113	5.040	5.040	(1.059)	164208	40.0000	35.7
208 1,1'-Biphenyl	154	5.581	5.581	(0.928)	1258330	40.0000	38.6(H)
207 Atrazine	173	6.893	6.893	(0.959)	88193	40.0000	38.8
77 Benzidine	184	8.339	8.339	(0.869)	430003	40.0000	25.0
90 3,3'-Dichlorobenzidine	252	9.528	9.528	(0.993)	460061	40.0000	37.2
102 1,4-Dioxane	88	2.246	2.246	(0.577)	169542	40.0000	35.7
103 Methyl methacrylate	100	2.240	2.240	(0.575)	96788	40.0000	37.7
104 Ethyl methacrylate	69	2.599	2.599	(0.668)	393049	40.0000	35.1
105 2-Picoline	93	2.793	2.793	(0.717)	604203	40.0000	36.8
106 N-Nitrosomethylethylamine	88	2.834	2.834	(0.728)	252397	40.0000	34.7(H)
107 Methyl methanesulfonate	80	2.993	2.993	(0.769)	276905	40.0000	34.3(H)
108 N-Nitrosodiethylamine	102	3.222	3.222	(0.828)	274039	40.0000	37.2
109 Ethyl Methanesulfonate	79	3.381	3.381	(0.869)	335557	40.0000	34.2(H)
110 Pentachloroethane	167	3.716	3.716	(0.955)	179651	40.0000	39.9
111 N-Nitrosopyrrolidine	100	4.134	4.134	(1.062)	288923	40.0000	36.5(Q)
113 N-Nitrosomorpholine	56	4.157	4.157	(1.068)	326071	40.0000	35.4(H)
114 o-Toluidine	106	4.169	4.169	(1.071)	883207	40.0000	37.6
115 N-Nitrosopiperidine	114	4.369	4.369	(0.918)	265112	40.0000	36.7(H)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.622	4.622	(0.972)	1417863	40.0000	34.5(H)
118 2,6-Dichlorophenol	162	4.799	4.799	(1.009)	446474	40.0000	38.7
119 Hexachloropropene	213	4.828	4.828	(1.015)	253497	40.0000	40.5
120 p-Phenylenediamine	108	5.040	5.040	(1.059)	486197	40.0000	34.1
121 N-Nitrosodi-n-butylamine	84	5.004	5.004	(1.052)	415635	40.0000	33.7(QH)
122 Safrole	162	5.169	5.169	(1.087)	397174	40.0000	39.5(H)
123 1,2,4,5-Tetrachlorobenzene	216	5.369	5.369	(0.892)	542537	40.0000	41.4
124 Isosafrole	162	5.540	5.540	(0.921)	391099	40.0000	37.8(H)
125 1,4-Naphthoquinone	158	5.728	5.728	(0.952)	384646	40.0000	38.3
127 Pentachlorobenzene	250	6.128	6.128	(1.019)	468284	40.0000	42.6
128 1-Naphthylamine	143	6.222	6.222	(1.034)	963064	40.0000	36.5(H)
129 2-Naphthylamine	143	6.281	6.281	(1.044)	1011166	40.0000	36.7(H)
131 5-Nitro-o-toluidine	152	6.416	6.416	(1.066)	315381	40.0000	35.1
136 1,3,5-Trinitrobenzene	75	6.675	6.675	(0.929)	274879	40.0000	35.7
137 Phenacetin	108	6.716	6.716	(0.935)	498919	40.0000	34.5(Q)
138 Diallate	86	6.698	6.698	(0.932)	463849	40.0000	37.8(H)
212 Cis Diallate	86	6.775	6.775	(0.943)	73414	6.00000	5.1(H)
213 Trans Diallate	86	6.698	6.698	(0.932)	463849	34.0000	32.1(H)
140 4-Aminobiphenyl	169	7.004	7.004	(0.975)	1066867	40.0000	39.3
141 Pentachloronitrobenzene	237	7.022	7.022	(0.977)	133960	40.0000	40.6(Q)
142 Pronamide	173	7.016	7.016	(0.976)	500863	40.0000	38.9
146 4-Nitroquinoline-1-oxide	101	7.857	7.857	(1.093)	39097	40.0000	27.5(H)
147 Methapyrilene	58	7.887	7.887	(1.097)	671812	40.0000	31.1(H)
148 Isodrin	193	8.110	8.110	(1.128)	225351	40.0000	41.4(H)
149 Aramite	185	8.510	8.510	(1.184)	92496	40.0000	39.5(H)
150 Kepone	272	9.092	9.092	(1.265)	153854	40.0000	40.7
151 p-(Dimethylamino)azobenzene	120	8.692	8.692	(0.906)	462513	40.0000	36.4
152 Chlorobenzilate	251	8.722	8.722	(0.909)	528610	40.0000	43.8
153 3,3'-Dimethylbenzidine	212	9.010	9.010	(0.939)	839227	40.0000	34.5(H)
155 2-Acetylaminofluorene	181	9.251	9.251	(0.964)	467806	40.0000	32.8(H)
157 7,12Dimethylbenz(a)anthracene	256	10.716	10.716	(0.952)	648310	40.0000	42.8(H)
158 3-Methylcholanthrene	268	11.651	11.651	(1.036)	493014	40.0000	39.5(QH)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s032410.b/s6c2406.d
Date : 24-MAR-2010 15:00
Client ID: APCVS
Sample Info: IWBN100312-03,5ISO PPMI1ISVMI1IAPCVS
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

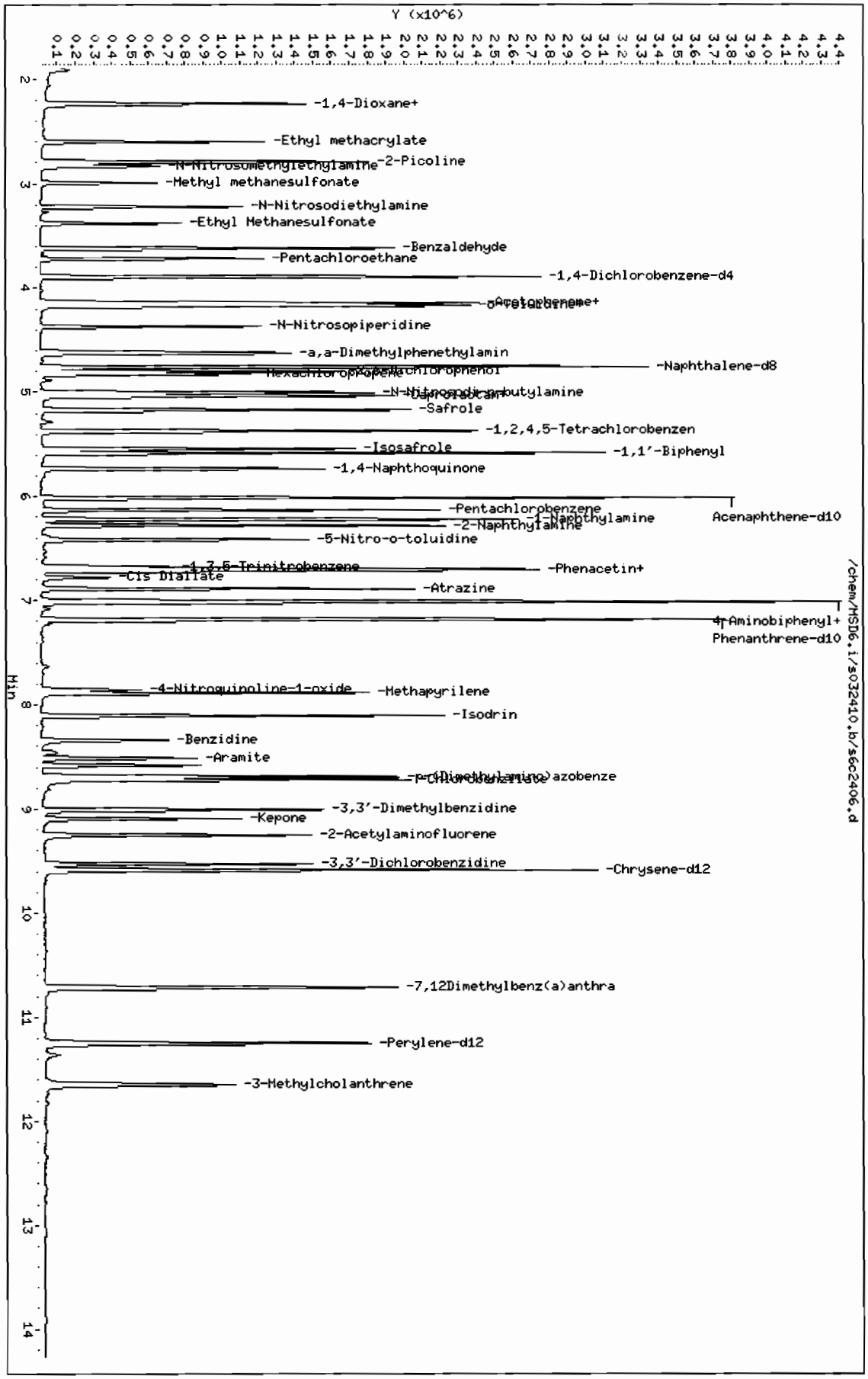

Page 1

QC Data

Data File: /chem/MSD6.i/s031610.b/s6c1601.d

Date : 16-MAR-2010 08:42

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

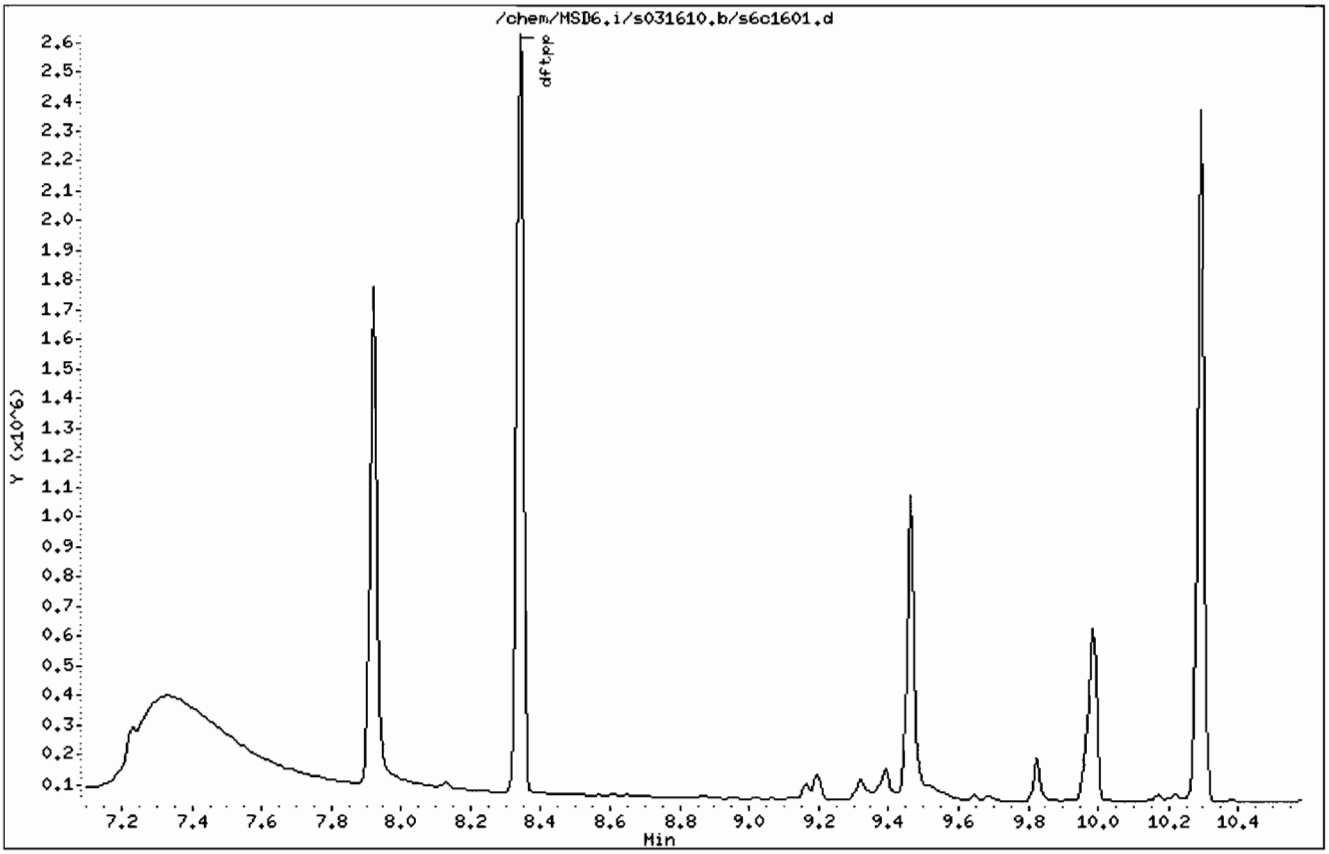

Data File: /chem/MSD6.i/s031610.b/s6c1601.d

Date : 16-MAR-2010 08:42

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

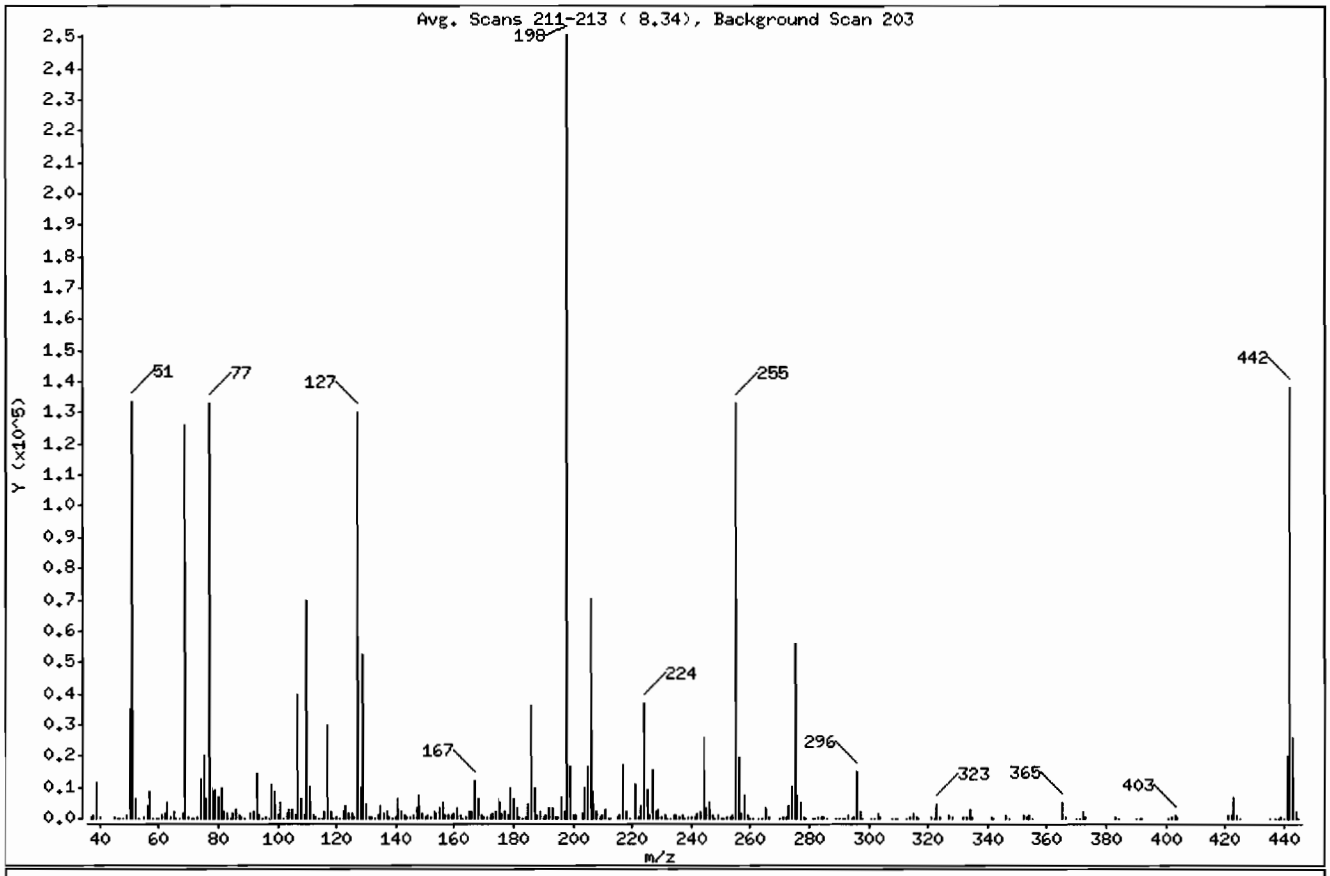

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	53.30
68	Less than 2.00% of mass 69	0.78 (1.54)
69	Mass 69 relative abundance	50.41
70	Less than 2.00% of mass 69	0.28 (0.56)
127	40.00 - 60.00% of mass 198	52.01
197	Less than 1.00% of mass 198	0.84
199	5.00 - 9.00% of mass 198	6.75
275	10.00 - 30.00% of mass 198	22.34
365	Greater than 1.00% of mass 198	2.18
441	Present, but less than mass 443	8.03
442	Greater than 40.00% of mass 198	55.21
443	17.00 - 23.00% of mass 442	10.46 (18.94)

Date : 16-MAR-2010 08:42

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c1601.d
Spectrum: Avg. Scans 211-213 (8.34), Background Scan 203
Location of Maximum: 198.00
Number of points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	539	120.00	690	197.00	2101	282.00	175
38.00	1021	121.00	284	198.00	250688	283.00	581
39.00	11554	122.00	2497	199.00	16920	284.00	435
40.00	474	123.00	4070	200.00	1419	285.00	830
45.00	300	124.00	1835	201.00	1008	286.00	97
46.00	46	125.00	1582	203.00	2006	289.00	199
47.00	60	126.00	769	204.00	9820	290.00	99
48.00	25	127.00	130384	205.00	16848	291.00	153
49.00	905	128.00	9814	206.00	70072	292.00	220
50.00	35064	129.00	52280	207.00	8715	293.00	1013
51.00	133568	130.00	4484	208.00	2324	294.00	236
52.00	6515	131.00	816	209.00	743	295.00	313
53.00	284	132.00	347	210.00	990	296.00	14707
55.00	376	133.00	28	211.00	2712	297.00	2266
56.00	3828	134.00	1402	212.00	148	298.00	198
57.00	8839	135.00	3990	213.00	284	301.00	142
58.00	228	136.00	1606	215.00	822	302.00	270
59.00	27	137.00	2099	216.00	1420	303.00	1812
60.00	108	138.00	482	217.00	17528	304.00	512
61.00	1396	139.00	258	218.00	2263	308.00	203
62.00	1919	140.00	663	219.00	261	309.00	114
63.00	5112	141.00	6250	221.00	11113	310.00	110
64.00	635	142.00	2224	222.00	580	313.00	93
65.00	2325	143.00	1420	223.00	3783	314.00	744
66.00	149	144.00	488	224.00	36608	315.00	1650
67.00	103	145.00	350	225.00	8974	316.00	843
68.00	1952	146.00	1154	226.00	893	317.00	116
69.00	126368	147.00	3460	227.00	15730	321.00	466
70.00	702	148.00	7480	228.00	2314	322.00	243
71.00	66	149.00	1592	229.00	3106	323.00	4480
72.00	95	150.00	434	230.00	397	324.00	777
73.00	837	151.00	889	231.00	1211	327.00	865
74.00	12548	152.00	496	232.00	91	328.00	383
75.00	20072	153.00	2051	233.00	286	332.00	333
76.00	6493	154.00	1643	234.00	1082	333.00	429

Date : 16-MAR-2010 08:42

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c1601.d
Spectrum: Avg. Scans 211-213 (8.34), Background Scan 203
Location of Maximum: 198.00
Number of points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	133056	155.00	3537	235.00	1238	334.00	2708
78.00	8864	156.00	5472	236.00	768	335.00	749
79.00	8991	157.00	1057	237.00	1331	341.00	581
80.00	6867	158.00	1121	238.00	239	342.00	43
81.00	9608	159.00	928	239.00	633	346.00	972
82.00	2327	160.00	1972	240.00	459	347.00	145
83.00	1949	161.00	3180	241.00	862	352.00	1224
84.00	261	162.00	886	242.00	1802	353.00	739
85.00	1469	163.00	271	243.00	2025	354.00	1267
86.00	2809	164.00	438	244.00	26176	355.00	268
87.00	1114	165.00	2425	245.00	3604	365.00	5468
88.00	433	166.00	2061	246.00	5257	366.00	789
89.00	231	167.00	12297	247.00	1192	370.00	107
91.00	1935	168.00	6571	248.00	227	371.00	268
92.00	2326	169.00	1233	249.00	956	372.00	2160
93.00	14334	170.00	433	250.00	234	373.00	460
94.00	1077	171.00	659	251.00	256	383.00	543
95.00	133	172.00	1265	252.00	384	384.00	118
96.00	674	173.00	1486	253.00	717	390.00	253
97.00	121	174.00	2557	254.00	1407	391.00	132
98.00	11118	175.00	5058	255.00	133184	392.00	111
99.00	8880	176.00	1554	256.00	19792	401.00	115
100.00	944	177.00	2489	257.00	1568	402.00	760
101.00	5006	178.00	902	258.00	7663	403.00	1027
102.00	281	179.00	9717	259.00	1235	404.00	326
103.00	1616	180.00	6606	260.00	239	421.00	927
104.00	3089	181.00	3260	261.00	257	422.00	875
105.00	2736	182.00	564	263.00	87	423.00	6945
106.00	1065	183.00	288	264.00	119	424.00	1275
107.00	39496	184.00	841	265.00	3196	425.00	105
108.00	6480	185.00	4847	266.00	506	435.00	219
109.00	1157	186.00	36512	270.00	248	437.00	226
110.00	69912	187.00	10075	271.00	298	438.00	232
111.00	10462	188.00	1064	272.00	473	439.00	357
112.00	1431	189.00	2374	273.00	3934	440.00	227

Data File: /chem/MSD6.i/s031610.b/s6c1601.d

Date : 16-MAR-2010 08:42

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c1601.d

Spectrum: Avg. Scans 211-213 (8.34), Background Scan 203

Location of Maximum: 198.00

Number of points: 306

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	400	190.00	463	274.00	10466	441.00	20128
114.00	154	191.00	1185	275.00	55992	442.00	138368
115.00	109	192.00	3223	276.00	7246	443.00	26216
116.00	2178	193.00	3395	277.00	4967	444.00	2405
117.00	30184	194.00	756	278.00	826	445.00	105
118.00	2298	195.00	517	279.00	213		
119.00	256	196.00	7034	281.00	100		

Data File: /chem/MSD6.i/s031610.b/s6c1613.d

Date : 16-MAR-2010 16:06

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

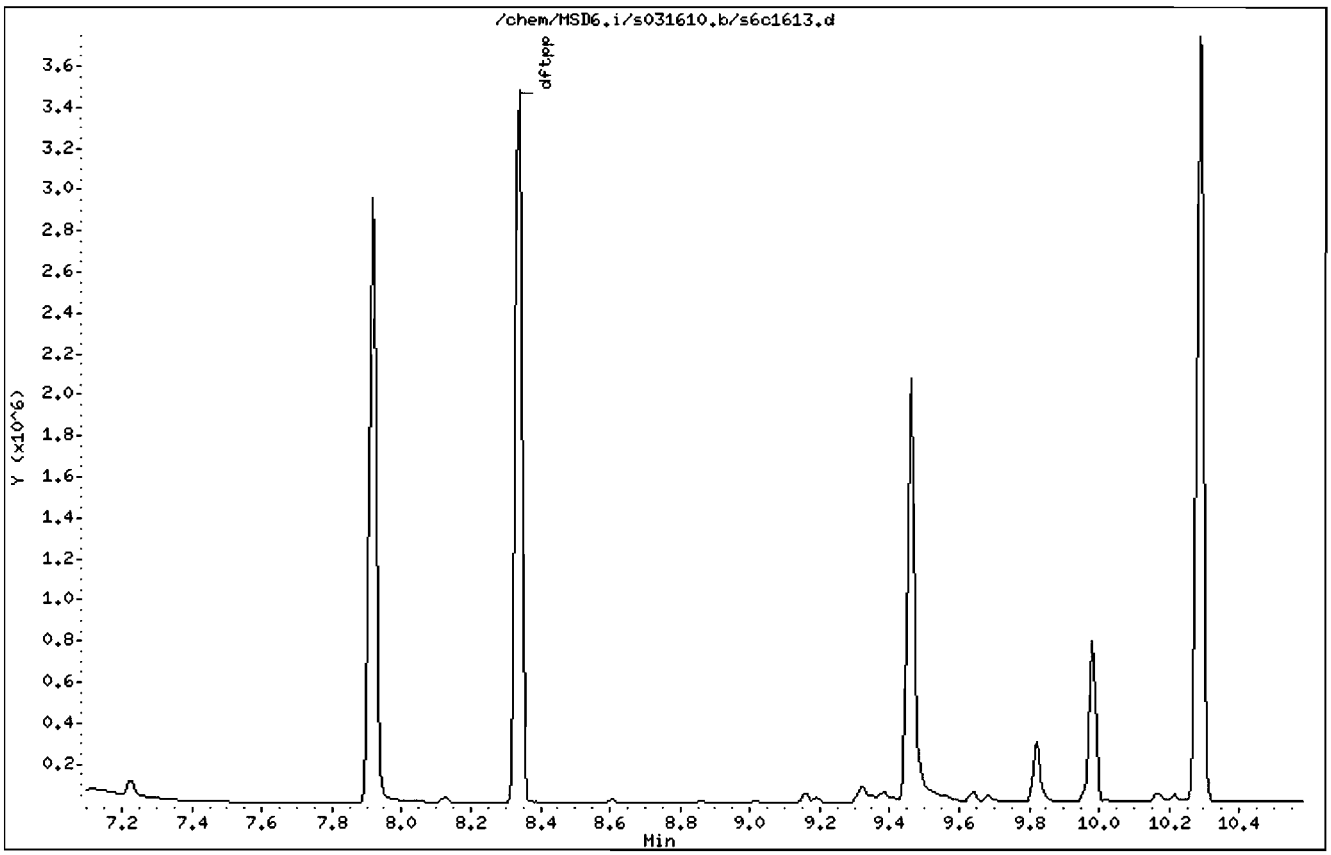

Data File: /chem/MSD6.i/s031610.b/s6c1613.d

Date : 16-MAR-2010 16:06

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

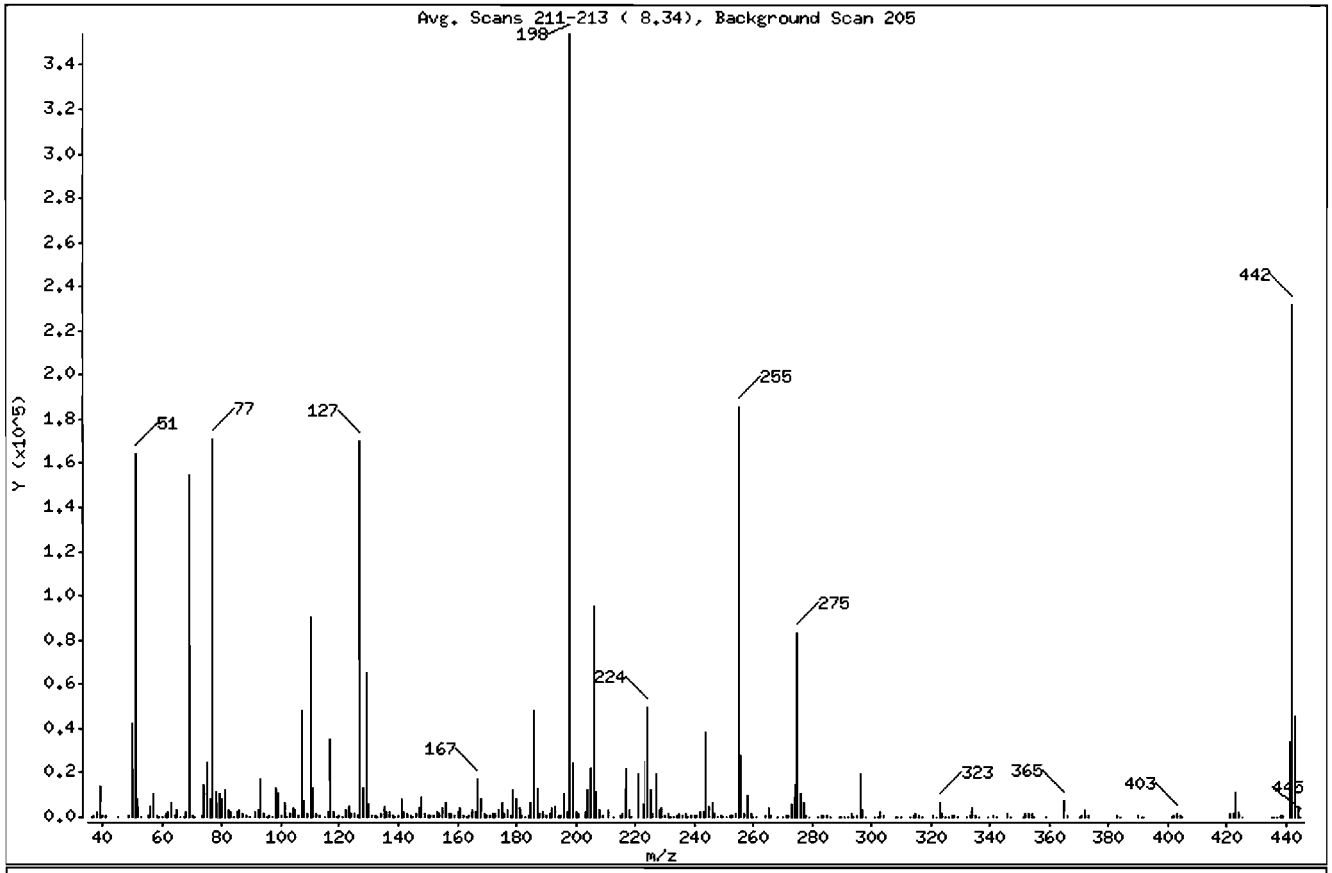

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	46.37
68	Less than 2.00% of mass 69	0.69 (1.58)
69	Mass 69 relative abundance	43.77
70	Less than 2.00% of mass 69	0.27 (0.61)
127	40.00 - 60.00% of mass 198	48.16
197	Less than 1.00% of mass 198	0.72
199	5.00 - 9.00% of mass 198	6.92
275	10.00 - 30.00% of mass 198	23.38
365	Greater than 1.00% of mass 198	2.06
441	Present, but less than mass 443	9.55
442	Greater than 40.00% of mass 198	65.47
443	17.00 - 23.00% of mass 442	12.86 (19.65)

Date : 16-MAR-2010 16:06

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c1613.d
Spectrum: Avg. Scans 211-213 (8.34), Background Scan 205
Location of Maximum: 198.00
Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	365	123.00	4688	200.00	2049	291.00	95
37.00	686	124.00	1969	201.00	1887	292.00	268
38.00	2219	125.00	2034	203.00	2289	293.00	1469
39.00	14217	126.00	969	204.00	12413	294.00	360
40.00	662	127.00	170560	205.00	22120	295.00	415
41.00	451	128.00	12972	206.00	94880	296.00	19192
45.00	343	129.00	65336	207.00	11802	297.00	2923
49.00	1033	130.00	5614	208.00	3327	298.00	205
50.00	42256	131.00	1072	209.00	988	301.00	261
51.00	164224	132.00	586	211.00	3614	302.00	347
52.00	8273	133.00	265	213.00	247	303.00	2358
53.00	361	134.00	1727	215.00	826	304.00	634
55.00	615	135.00	4970	216.00	1782	308.00	279
56.00	4569	136.00	2207	217.00	22368	309.00	172
57.00	10965	137.00	2269	218.00	2954	310.00	279
58.00	541	138.00	648	219.00	312	313.00	172
59.00	160	139.00	341	221.00	19520	314.00	916
60.00	185	140.00	679	223.00	5297	315.00	2018
61.00	1949	141.00	7898	224.00	49688	316.00	1164
62.00	2059	142.00	2664	225.00	12403	317.00	239
63.00	6240	143.00	1748	226.00	1307	321.00	668
64.00	905	144.00	480	227.00	19504	322.00	322
65.00	3077	145.00	407	228.00	2871	323.00	6305
66.00	225	146.00	1518	229.00	4196	324.00	1298
67.00	216	147.00	4305	230.00	634	325.00	44
68.00	2445	148.00	9003	231.00	1804	326.00	156
69.00	155008	149.00	1778	232.00	342	327.00	1043
70.00	947	150.00	449	233.00	316	328.00	530
71.00	201	151.00	1098	234.00	1167	329.00	108
73.00	1127	152.00	658	235.00	1577	332.00	394
74.00	14976	153.00	2511	236.00	873	333.00	734
75.00	24336	154.00	1999	237.00	1570	334.00	3934
76.00	8200	155.00	4297	238.00	231	335.00	1090
77.00	171200	156.00	6528	239.00	790	336.00	90
78.00	11711	157.00	1348	240.00	604	339.00	45

Date : 16-MAR-2010 16:06

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c1613.d
Spectrum: Avg. Scans 211-213 (8.34), Background Scan 205
Location of Maximum: 198.00
Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	10991	158.00	1467	241.00	1051	341.00	791
80.00	8089	159.00	1196	242.00	2678	342.00	112
81.00	12006	160.00	2557	243.00	2830	346.00	1303
82.00	3062	161.00	3725	244.00	38552	347.00	236
83.00	2754	162.00	1103	245.00	5015	351.00	51
84.00	311	163.00	384	246.00	6837	352.00	1714
85.00	2148	164.00	520	247.00	1386	353.00	1258
86.00	2960	165.00	2927	248.00	316	354.00	1807
87.00	1512	166.00	2460	249.00	1167	355.00	303
88.00	490	167.00	16936	250.00	324	359.00	50
89.00	261	168.00	7860	251.00	332	365.00	7286
91.00	2590	169.00	1424	252.00	511	366.00	1134
92.00	2914	170.00	561	253.00	815	370.00	153
93.00	17192	171.00	668	254.00	1800	371.00	455
94.00	1273	172.00	1340	255.00	185344	372.00	2898
95.00	330	173.00	1876	256.00	27576	373.00	675
96.00	904	174.00	3377	257.00	1895	383.00	836
97.00	358	175.00	6789	258.00	10115	384.00	240
98.00	12960	176.00	2015	259.00	1699	390.00	414
99.00	10708	177.00	3013	260.00	258	391.00	350
100.00	942	178.00	1036	261.00	383	392.00	234
101.00	6393	179.00	11838	264.00	435	401.00	184
102.00	360	180.00	8500	265.00	3865	402.00	1191
103.00	1979	181.00	4159	266.00	588	403.00	1692
104.00	4113	182.00	603	268.00	160	404.00	639
105.00	3560	183.00	335	270.00	275	405.00	87
106.00	1067	184.00	1026	271.00	443	421.00	1562
107.00	48096	185.00	6230	272.00	556	422.00	1423
108.00	7432	186.00	48112	273.00	5738	423.00	11200
109.00	1348	187.00	13352	274.00	15003	424.00	2246
110.00	90080	188.00	1313	275.00	82816	425.00	236
111.00	13316	189.00	2686	276.00	10769	435.00	42
112.00	1579	190.00	445	277.00	6686	436.00	161
113.00	490	191.00	1473	278.00	1075	437.00	275
115.00	181	192.00	4225	279.00	229	438.00	434

Date : 16-MAR-2010 16:06

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c1613.d
Spectrum: Avg. Scans 211-213 (8.34), Background Scan 205
Location of Maximum: 198.00
Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	2631	193.00	4772	282.00	109	439.00	605
117.00	34760	194.00	868	283.00	778	441.00	33840
118.00	2557	195.00	649	284.00	498	442.00	231872
119.00	366	196.00	10847	285.00	1031	443.00	45560
120.00	634	197.00	2536	286.00	215	444.00	4334
121.00	221	198.00	354176	289.00	202	445.00	211
122.00	3127	199.00	24520	290.00	227		

Data File: /chem/MSD6.i/s032010.b/s6c2003.d

Date : 20-MAR-2010 14:38

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

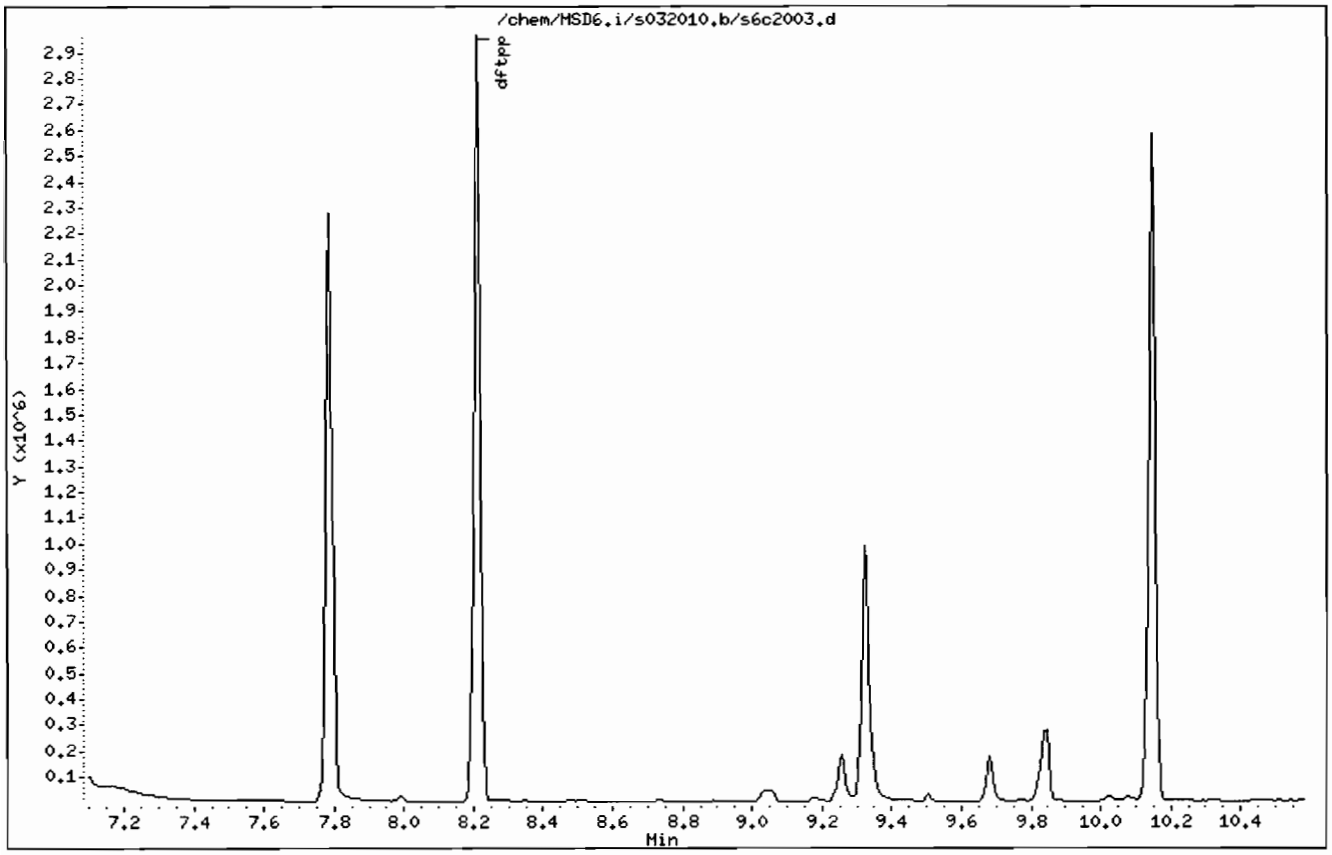

Data File: /chem/MSD6.i/s032010.b/s6c2003.d

Date : 20-MAR-2010 14:38

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

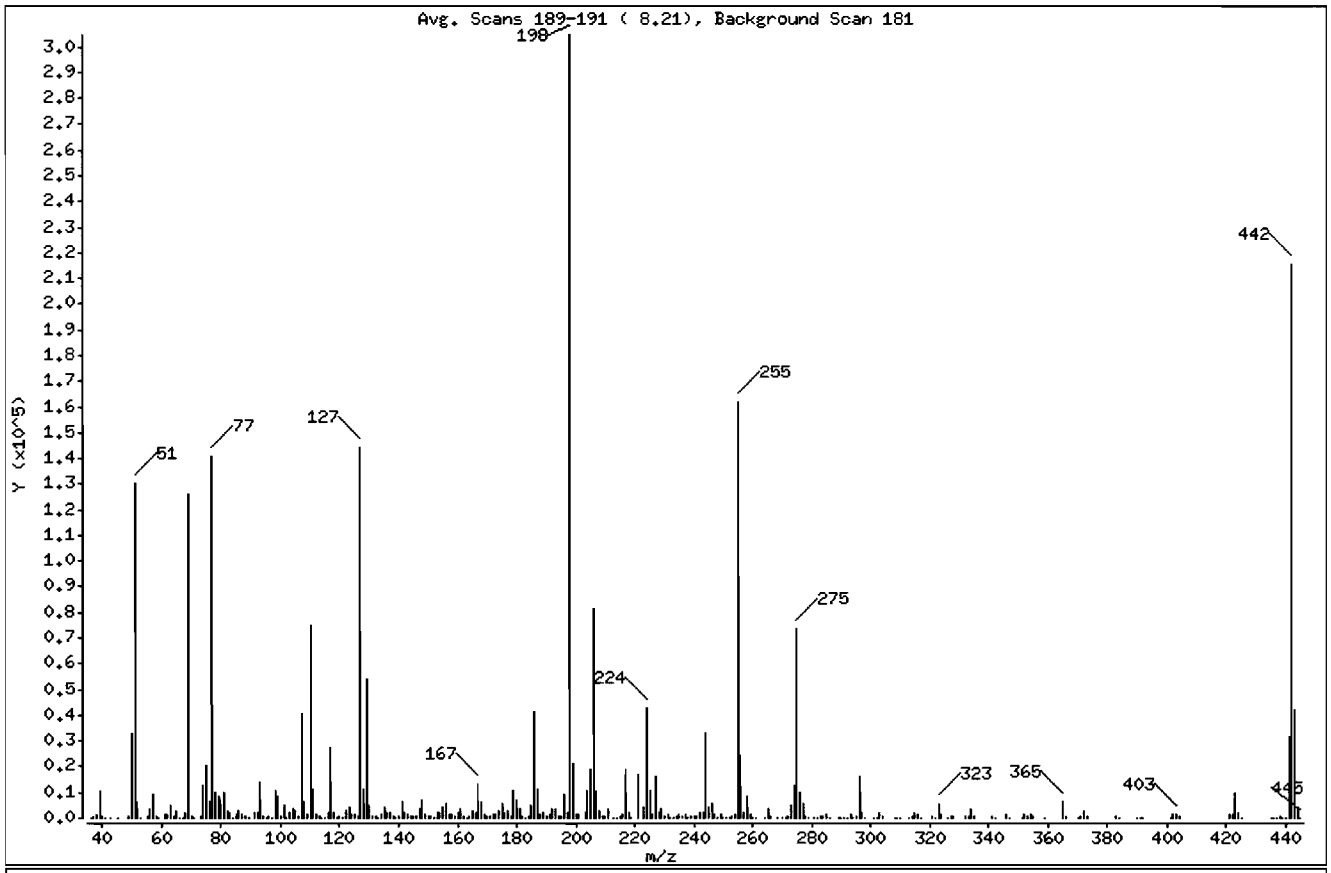

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	42.87
68	Less than 2.00% of mass 69	0.64 (1.54)
69	Mass 69 relative abundance	41.49
70	Less than 2.00% of mass 69	0.20 (0.48)
127	40.00 - 60.00% of mass 198	47.26
197	Less than 1.00% of mass 198	0.66
199	5.00 - 9.00% of mass 198	6.84
275	10.00 - 30.00% of mass 198	24.08
365	Greater than 1.00% of mass 198	2.00
441	Present, but less than mass 443	10.30
442	Greater than 40.00% of mass 198	70.78
443	17.00 - 23.00% of mass 442	13.77 (19.45)

Date : 20-MAR-2010 14:38

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c2003.d
Spectrum: Avg. Scans 189-191 (8.21), Background Scan 181
Location of Maximum: 198.00
Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	317	122.00	2594	199.00	20848	285.00	1058
37.00	480	123.00	4087	200.00	1555	286.00	147
38.00	1611	124.00	1734	201.00	1561	289.00	202
39.00	10694	125.00	1623	203.00	1990	290.00	104
40.00	570	126.00	932	204.00	10532	291.00	117
41.00	350	127.00	143936	205.00	19168	292.00	265
43.00	8	128.00	11325	206.00	81072	293.00	1147
45.00	306	129.00	53632	207.00	10545	294.00	314
49.00	918	130.00	4686	208.00	2485	295.00	451
50.00	32784	131.00	893	209.00	923	296.00	16205
51.00	130600	132.00	569	210.00	358	297.00	2191
52.00	6611	133.00	188	211.00	3160	298.00	125
53.00	293	134.00	1499	213.00	198	301.00	291
55.00	534	135.00	4229	214.00	114	302.00	311
56.00	3686	136.00	1753	215.00	851	303.00	1997
57.00	9343	137.00	2062	216.00	1676	304.00	623
58.00	434	138.00	433	217.00	18776	308.00	260
59.00	44	139.00	284	218.00	2426	309.00	101
61.00	1597	140.00	557	219.00	231	310.00	222
62.00	1608	141.00	6555	221.00	16632	313.00	178
63.00	4917	142.00	2167	223.00	4277	314.00	715
64.00	739	143.00	1435	224.00	42424	315.00	1760
65.00	2561	144.00	440	225.00	10334	316.00	1106
66.00	309	145.00	361	226.00	1129	317.00	194
67.00	192	146.00	1047	227.00	16440	321.00	440
68.00	1947	147.00	3370	228.00	2238	322.00	271
69.00	126384	148.00	6802	229.00	3428	323.00	5566
70.00	609	149.00	1432	230.00	586	324.00	1130
71.00	95	150.00	425	231.00	1499	326.00	49
73.00	867	151.00	841	232.00	195	327.00	938
74.00	12340	152.00	185	233.00	329	328.00	496
75.00	20136	153.00	2066	234.00	1000	332.00	411
76.00	6558	154.00	1755	235.00	1171	333.00	561
77.00	140672	155.00	3863	236.00	783	334.00	3540
78.00	9836	156.00	5728	237.00	1396	335.00	965

Date : 20-MAR-2010 14:38

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c2003.d
Spectrum: Avg. Scans 189-191 (8.21), Background Scan 181
Location of Maximum: 198.00
Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	8411	157.00	1214	238.00	206	341.00	606
80.00	6929	158.00	1150	239.00	628	342.00	128
81.00	9924	159.00	826	240.00	526	346.00	1115
82.00	2488	160.00	2183	241.00	1028	347.00	239
83.00	2273	161.00	3163	242.00	2278	351.00	86
84.00	219	162.00	842	243.00	2306	352.00	1480
85.00	1648	163.00	185	244.00	33056	353.00	988
86.00	2663	164.00	361	245.00	4351	354.00	1514
87.00	1222	165.00	2767	246.00	5917	355.00	403
88.00	450	166.00	2065	247.00	1413	359.00	122
89.00	291	167.00	13188	248.00	273	365.00	6083
91.00	2152	168.00	6179	249.00	1106	366.00	813
92.00	2387	169.00	1122	250.00	241	370.00	140
93.00	13980	170.00	354	251.00	316	371.00	366
94.00	892	171.00	591	252.00	348	372.00	2538
95.00	322	172.00	1131	253.00	795	373.00	782
96.00	733	173.00	1463	254.00	1446	383.00	762
97.00	295	174.00	3091	255.00	161728	384.00	179
98.00	10472	175.00	5360	256.00	24352	390.00	348
99.00	8615	176.00	1859	257.00	1823	391.00	157
100.00	895	177.00	2761	258.00	8301	392.00	149
101.00	4706	178.00	988	259.00	1446	401.00	51
102.00	343	179.00	10360	260.00	279	402.00	1084
103.00	1773	180.00	7036	261.00	282	403.00	1377
104.00	3158	181.00	3401	264.00	171	404.00	472
105.00	2914	182.00	527	265.00	3202	421.00	1272
106.00	1045	183.00	301	266.00	488	422.00	1249
107.00	40360	184.00	876	268.00	41	423.00	9888
108.00	6244	185.00	5017	270.00	219	424.00	2004
109.00	1211	186.00	41584	271.00	292	425.00	110
110.00	74640	187.00	11462	272.00	458	435.00	98
111.00	11110	188.00	1176	273.00	5131	436.00	117
112.00	1441	189.00	2382	274.00	12939	437.00	197
113.00	415	190.00	459	275.00	73352	438.00	395
114.00	93	191.00	1058	276.00	9547	439.00	253

Date : 20-MAR-2010 14:38

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c2003.d
Spectrum: Avg. Scans 189-191 (8.21), Background Scan 181
Location of Maximum: 198.00
Number of points: 307

m/z	Y	m/z	Y	m/z	Y	m/z	Y
115.00	203	192.00	3255	277.00	5266	440.00	175
116.00	2312	193.00	3518	278.00	827	441.00	31368
117.00	26984	194.00	735	279.00	249	442.00	215616
118.00	2030	195.00	621	281.00	138	443.00	41936
119.00	284	196.00	9339	282.00	216	444.00	4201
120.00	498	197.00	2024	283.00	569	445.00	202
121.00	261	198.00	304640	284.00	379		

Data File: /chem/MSD6.i/s032310.b/s6c2306.d

Date : 23-MAR-2010 16:10

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

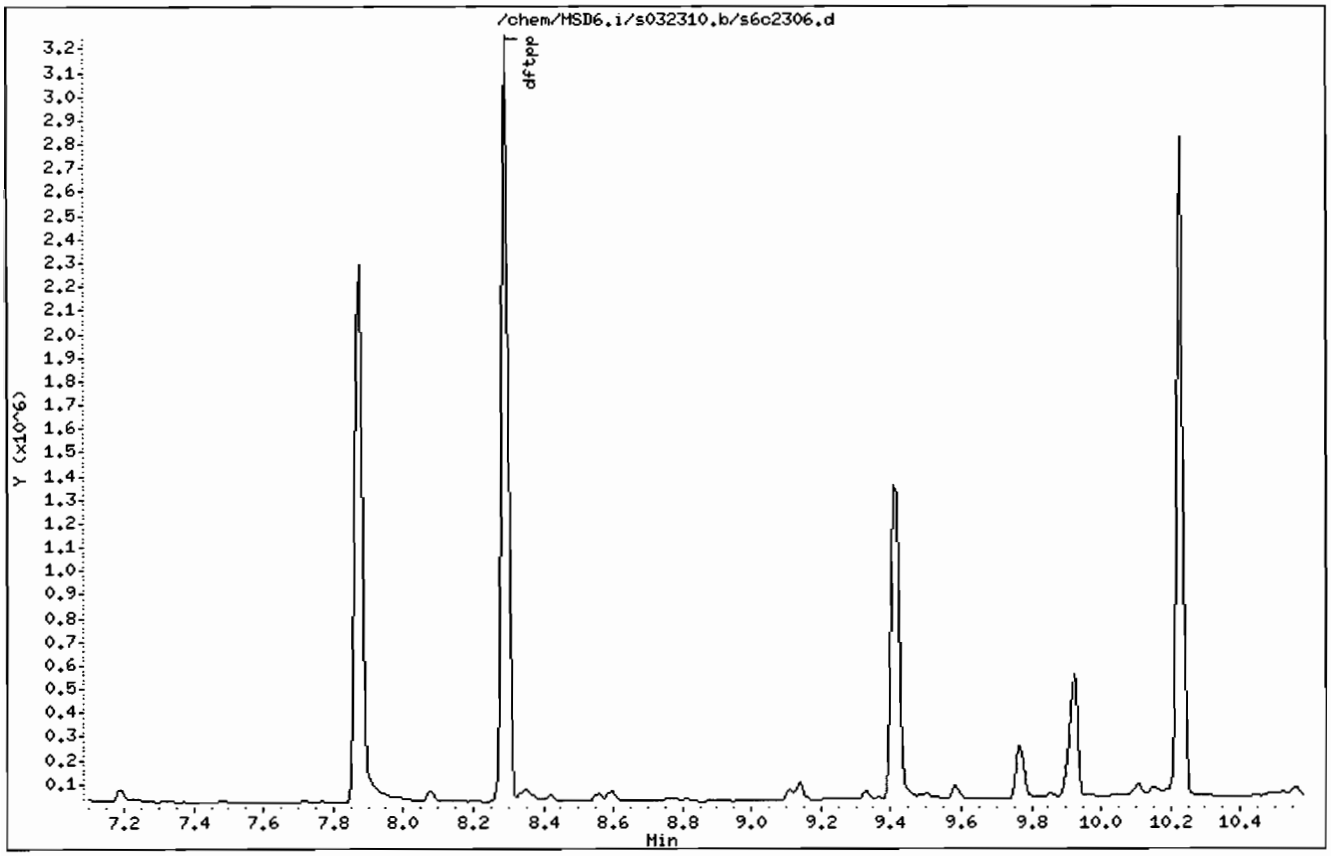

Data File: /chem/MSD6.i/s032310.b/s6c2306.d

Date : 23-MAR-2010 16:10

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

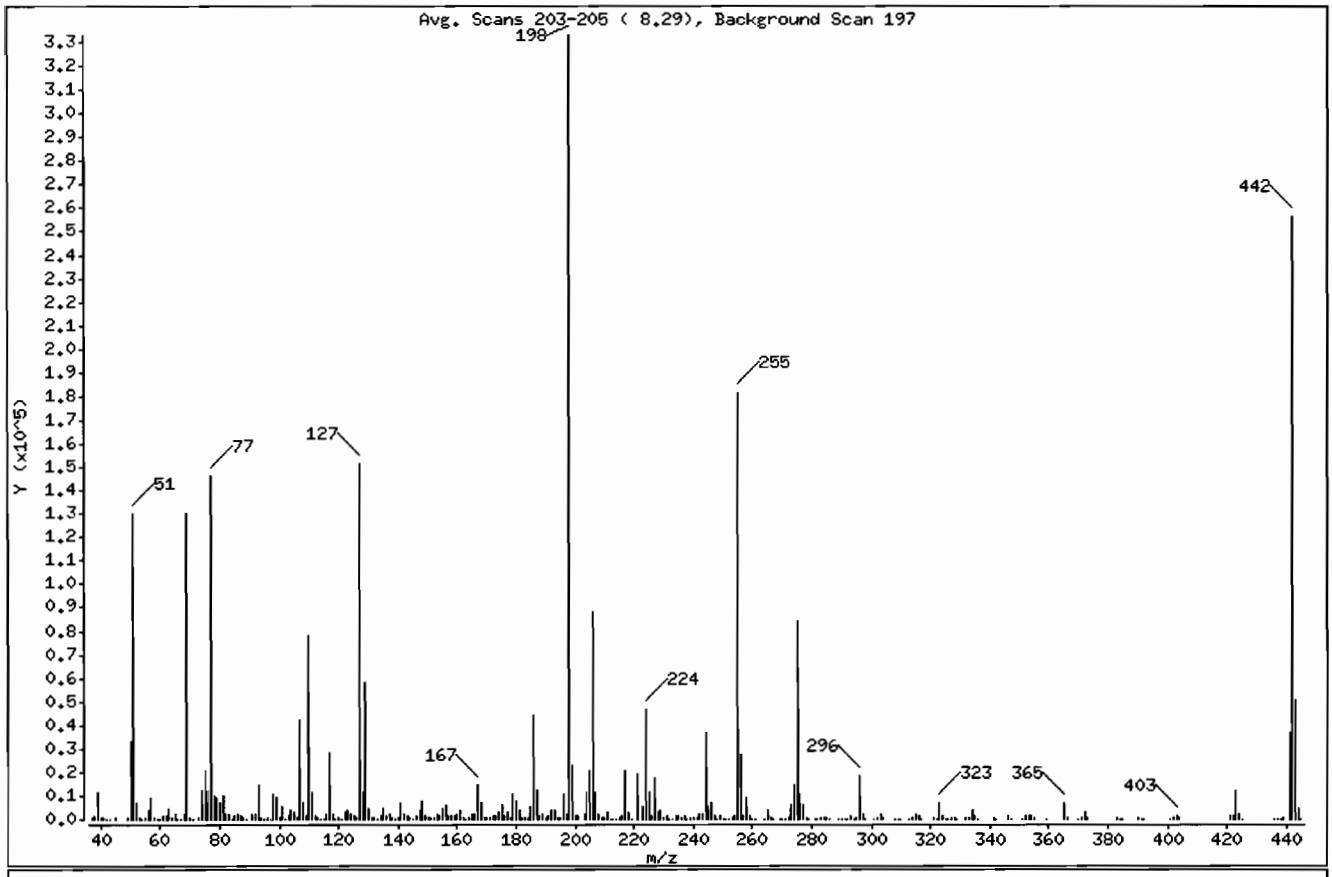

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	39.19
68	Less than 2.00% of mass 69	0.72 (1.85)
69	Mass 69 relative abundance	38.97
70	Less than 2.00% of mass 69	0.22 (0.57)
127	40.00 - 60.00% of mass 198	45.53
197	Less than 1.00% of mass 198	0.70
199	5.00 - 9.00% of mass 198	6.93
275	10.00 - 30.00% of mass 198	25.22
365	Greater than 1.00% of mass 198	2.12
441	Present, but less than mass 443	11.06
442	Greater than 40.00% of mass 198	77.03
443	17.00 - 23.00% of mass 442	15.17 (19.70)

Date : 23-MAR-2010 16:10

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c2306.d
Spectrum: Avg. Scans 203-205 (8.29), Background Scan 197
Location of Maximum: 198.00
Number of points: 313

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	468	122.00	2711	201.00	1814	289.00	293
38.00	1559	123.00	4182	203.00	2291	290.00	209
39.00	11495	124.00	1927	204.00	11384	291.00	48
40.00	564	125.00	1868	205.00	20504	292.00	279
41.00	520	126.00	1064	206.00	88168	293.00	1354
42.00	11	127.00	151616	207.00	11673	294.00	320
43.00	236	128.00	11426	208.00	2635	295.00	467
45.00	394	129.00	57872	209.00	764	296.00	18032
49.00	521	130.00	4744	210.00	891	297.00	2603
50.00	32888	131.00	1069	211.00	3433	298.00	211
51.00	130528	132.00	560	212.00	315	301.00	275
52.00	7079	133.00	171	213.00	225	302.00	413
53.00	394	134.00	1756	214.00	109	303.00	2457
54.00	43	135.00	4786	215.00	922	304.00	568
55.00	782	136.00	1905	216.00	1832	308.00	339
56.00	3872	137.00	2227	217.00	20456	309.00	184
57.00	9393	138.00	592	218.00	2730	310.00	225
58.00	460	139.00	327	219.00	275	313.00	209
59.00	186	140.00	799	221.00	19120	314.00	795
60.00	126	141.00	6742	223.00	5100	315.00	2063
61.00	1633	142.00	2379	224.00	46752	316.00	1242
62.00	1678	143.00	1879	225.00	11739	317.00	226
63.00	4972	144.00	457	226.00	1207	321.00	691
64.00	653	145.00	356	227.00	17304	322.00	291
65.00	2462	146.00	1339	228.00	2936	323.00	6672
66.00	219	147.00	3556	229.00	3937	324.00	1293
67.00	222	148.00	7634	230.00	615	325.00	51
68.00	2404	149.00	1679	231.00	1629	326.00	158
69.00	129808	150.00	491	232.00	225	327.00	1128
70.00	742	151.00	932	233.00	363	328.00	603
71.00	115	152.00	687	234.00	1233	329.00	101
73.00	866	153.00	2219	235.00	1237	332.00	409
74.00	12560	154.00	1869	236.00	874	333.00	609
75.00	20400	155.00	4213	237.00	1455	334.00	4017
76.00	6905	156.00	5954	238.00	178	335.00	1166

Date : 23-MAR-2010 16:10

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c2306.d
Spectrum: Avg. Scans 203-205 (8.29), Background Scan 197
Location of Maximum: 198.00
Number of points: 313

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	146304	157.00	1216	239.00	964	336.00	176
78.00	9744	158.00	1388	240.00	621	341.00	835
79.00	8912	159.00	1197	241.00	1087	342.00	222
80.00	6898	160.00	2254	242.00	2449	346.00	1425
81.00	9900	161.00	3526	243.00	2621	347.00	209
82.00	2584	162.00	987	244.00	36696	351.00	93
83.00	2472	163.00	299	245.00	5058	352.00	1668
84.00	75	164.00	588	246.00	6620	353.00	1275
85.00	1685	165.00	2457	247.00	1392	354.00	1853
86.00	2565	166.00	2323	248.00	293	355.00	437
87.00	1272	167.00	14224	249.00	1167	359.00	180
88.00	479	168.00	6635	250.00	312	365.00	7074
89.00	288	169.00	1029	251.00	289	366.00	985
91.00	2181	170.00	506	252.00	309	370.00	231
92.00	2501	171.00	659	253.00	931	371.00	510
93.00	14278	172.00	1427	254.00	1681	372.00	3263
94.00	970	173.00	1614	255.00	181504	373.00	770
95.00	275	174.00	3002	256.00	27344	383.00	773
96.00	766	175.00	6095	257.00	1870	384.00	247
97.00	286	176.00	1642	258.00	9336	385.00	42
98.00	10836	177.00	2726	259.00	1544	390.00	443
99.00	8959	178.00	1038	260.00	192	391.00	284
100.00	665	179.00	10669	261.00	293	392.00	201
101.00	5265	180.00	7826	264.00	240	401.00	227
102.00	189	181.00	3484	265.00	3767	402.00	1120
103.00	1818	182.00	573	266.00	563	403.00	1755
104.00	3489	183.00	441	267.00	156	404.00	618
105.00	3237	184.00	934	269.00	46	421.00	1540
106.00	1147	185.00	5572	270.00	291	422.00	1642
107.00	42400	186.00	44080	271.00	344	423.00	11934
108.00	6883	187.00	12563	272.00	500	424.00	2428
109.00	1281	188.00	1389	273.00	5805	425.00	247
110.00	78192	189.00	2629	274.00	14774	436.00	117
111.00	11787	190.00	471	275.00	84016	437.00	239
112.00	1498	191.00	1334	276.00	11019	438.00	261

Date : 23-MAR-2010 16:10

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c2306.d
Spectrum: Avg. Scans 203-205 (8.29), Background Scan 197
Location of Maximum: 198.00
Number of points: 313

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	421	192.00	3547	277.00	6075	439.00	668
114.00	161	193.00	4052	278.00	961	441.00	36840
115.00	253	194.00	820	279.00	181	442.00	256576
116.00	1994	195.00	680	281.00	167	443.00	50544
117.00	28328	196.00	10650	282.00	254	444.00	4745
118.00	2228	197.00	2334	283.00	762	445.00	211
119.00	339	198.00	333056	284.00	458		
120.00	574	199.00	23096	285.00	1050		
121.00	268	200.00	1863	286.00	229		

Data File: /chem/MSD6.i/s032410.b/s6c2404.d

Date : 24-MAR-2010 14:19

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

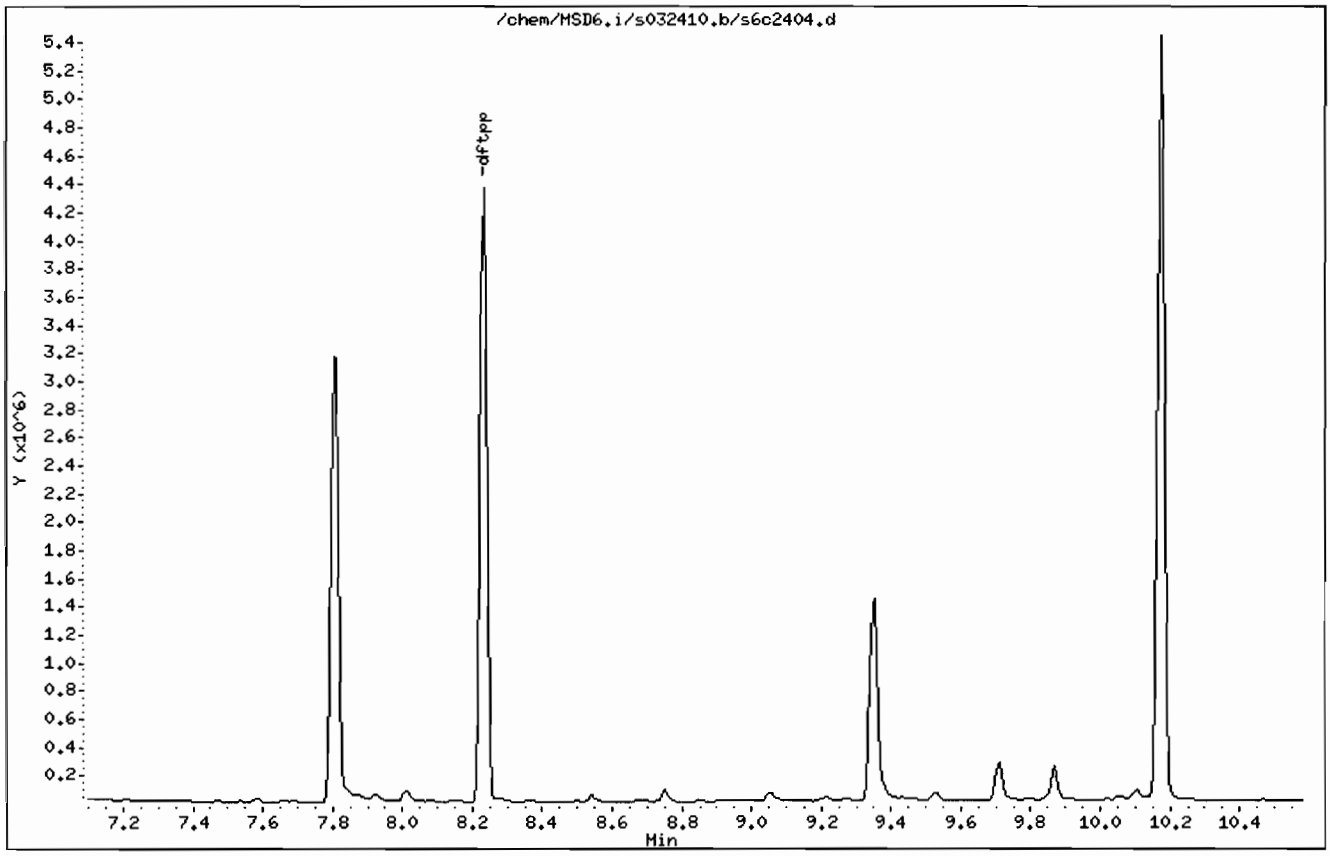

Data File: /chem/MSD6.i/s032410.b/s6c2404.d

Date : 24-MAR-2010 14:19

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

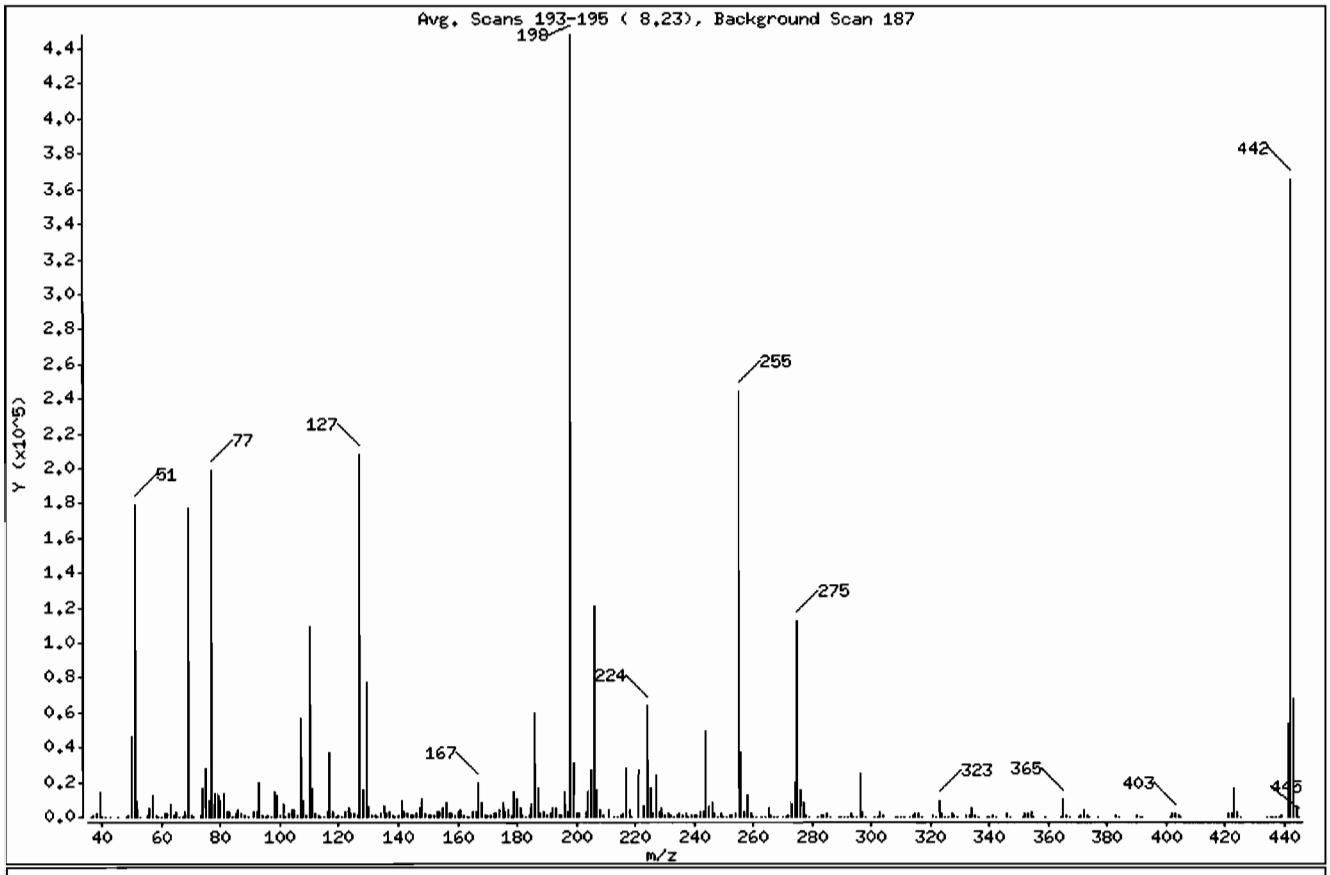

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	39.97
68	Less than 2.00% of mass 69	0.64 (1.63)
69	Mass 69 relative abundance	39.47
70	Less than 2.00% of mass 69	0.21 (0.53)
127	40.00 - 60.00% of mass 198	46.43
197	Less than 1.00% of mass 198	0.65
199	5.00 - 9.00% of mass 198	6.94
275	10.00 - 30.00% of mass 198	25.01
365	Greater than 1.00% of mass 198	2.20
441	Present, but less than mass 443	11.92
442	Greater than 40.00% of mass 198	81.60
443	17.00 - 23.00% of mass 442	15.13 (18.54)

Date : 24-MAR-2010 14:19

CIient ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c2404.d
Spectrum: Avg. Scans 193-195 (8.23), Background Scan 187
Location of Maximum: 198.00
Number of points: 320

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	457	124.00	2428	206.00	120304	297.00	3442
37.00	843	125.00	2551	207.00	14970	298.00	252
38.00	2427	126.00	1164	208.00	3875	301.00	388
39.00	14853	127.00	208128	209.00	1279	302.00	469
40.00	425	128.00	15510	211.00	4271	303.00	3390
41.00	171	129.00	76880	213.00	328	304.00	802
43.00	42	130.00	6245	214.00	178	308.00	412
45.00	439	131.00	1280	215.00	1161	309.00	233
48.00	47	132.00	740	216.00	2401	310.00	372
49.00	1037	133.00	157	217.00	27696	311.00	48
50.00	46112	134.00	2175	218.00	4057	313.00	189
51.00	179200	135.00	6193	219.00	425	314.00	1331
52.00	9312	136.00	2354	221.00	27128	315.00	2534
53.00	512	137.00	3168	223.00	6593	316.00	1801
55.00	852	138.00	632	224.00	63496	317.00	250
56.00	5356	139.00	457	225.00	16294	321.00	855
57.00	12163	140.00	909	226.00	1700	322.00	475
58.00	650	141.00	9569	227.00	24072	323.00	8866
59.00	190	142.00	3160	228.00	3128	324.00	1549
60.00	165	143.00	2112	229.00	4765	325.00	121
61.00	2214	144.00	647	230.00	758	326.00	224
62.00	2289	145.00	576	231.00	2251	327.00	1614
63.00	7117	146.00	1708	232.00	535	328.00	861
64.00	1041	147.00	4795	233.00	403	329.00	155
65.00	3425	148.00	9848	234.00	1526	332.00	656
66.00	254	149.00	2291	235.00	1665	333.00	810
67.00	263	150.00	667	236.00	1158	334.00	5282
68.00	2887	151.00	1307	237.00	1945	335.00	1419
69.00	176896	152.00	859	238.00	282	336.00	163
70.00	939	153.00	3019	239.00	903	339.00	95
71.00	101	154.00	2672	240.00	781	340.00	99
73.00	1333	155.00	5477	241.00	1489	341.00	912
74.00	16720	156.00	8162	242.00	3352	342.00	307
75.00	28112	157.00	1910	243.00	3472	346.00	1702
76.00	9480	158.00	1579	244.00	49536	347.00	406

Data File: /chem/MSD6.i/s032410.b/s6c2404.d

Date : 24-MAR-2010 14:19

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c2404.d
Spectrum: Avg. Scans 193-195 (8.23), Background Scan 187
Location of Maximum: 198.00
Number of points: 320

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	198976	159.00	1231	245.00	6424	351.00	216
78.00	13504	160.00	2869	246.00	8575	352.00	2147
79.00	12304	161.00	4606	247.00	1604	353.00	1720
80.00	9663	162.00	1421	248.00	373	354.00	2751
81.00	13717	163.00	440	249.00	1739	355.00	481
82.00	3230	164.00	515	250.00	462	359.00	221
83.00	3121	165.00	3564	251.00	389	364.00	105
84.00	304	166.00	3150	252.00	612	365.00	9841
85.00	2281	167.00	20056	253.00	1059	366.00	1343
86.00	3608	168.00	8320	254.00	2061	367.00	108
87.00	1724	169.00	1512	255.00	243968	370.00	198
88.00	749	170.00	618	256.00	36664	371.00	597
89.00	355	171.00	804	257.00	2601	372.00	4618
91.00	2755	172.00	1813	258.00	12670	373.00	1070
92.00	3213	173.00	2183	259.00	2026	374.00	208
93.00	19384	174.00	4012	260.00	380	377.00	92
94.00	1377	175.00	7773	261.00	442	383.00	1141
95.00	183	176.00	2703	263.00	173	384.00	261
96.00	870	177.00	3751	264.00	248	390.00	582
97.00	315	178.00	1198	265.00	4673	391.00	449
98.00	14649	179.00	14581	266.00	658	392.00	334
99.00	11913	180.00	10455	267.00	43	401.00	250
100.00	1097	181.00	5196	268.00	108	402.00	1682
101.00	7588	182.00	852	270.00	297	403.00	2414
102.00	433	183.00	414	271.00	454	404.00	848
103.00	2432	184.00	1210	272.00	581	405.00	92
104.00	4628	185.00	7221	273.00	7378	421.00	2172
105.00	4402	186.00	59272	274.00	19392	422.00	2097
106.00	1519	187.00	16792	275.00	112128	423.00	16808
107.00	56696	188.00	1641	276.00	15623	424.00	3517
108.00	9153	189.00	3171	277.00	8640	425.00	365
109.00	1362	190.00	666	278.00	1334	434.00	96
110.00	109192	191.00	1709	279.00	301	435.00	278
111.00	16023	192.00	4998	282.00	182	436.00	258
112.00	1939	193.00	5438	283.00	1061	437.00	203

Date : 24-MAR-2010 14:19

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6c2404.d
Spectrum: Avg. Scans 193-195 (8.23), Background Scan 187
Location of Maximum: 198.00
Number of points: 320

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	820	194.00	1178	284.00	661	438.00	426
114.00	178	195.00	910	285.00	1546	439.00	940
115.00	240	196.00	14273	286.00	303	441.00	53440
116.00	3318	197.00	2906	289.00	407	442.00	365824
117.00	37376	198.00	448320	290.00	308	443.00	67840
118.00	2737	199.00	31096	291.00	190	444.00	6005
119.00	428	200.00	2402	292.00	328	445.00	369
120.00	809	201.00	2180	293.00	2013		
121.00	329	203.00	2919	294.00	439		
122.00	3557	204.00	14829	295.00	467		
123.00	5534	205.00	27256	296.00	25104		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071493**				
Client Sample:	**QC for batch 965424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965424**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 17:42**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2009-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071493**				
Client Sample:	**QC for batch 965424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965424**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 17:42**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2009-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	425	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2009-2.d
Lab Smp Id: 1202071493 Client Smp ID: SBLK01
Inj Date : 20-MAR-2010 17:42
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202071493|965425|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6cl646.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.875	3.863	(1.000)	397721	40.0000	
* 29 Naphthalene-d8	136	4.740	4.734	(1.000)	1424092	40.0000	
* 46 Acenaphthene-d10	164	5.993	5.987	(1.000)	893608	40.0000	
* 67 Phenanthrene-d10	188	7.157	7.145	(1.000)	1517057	40.0000	
* 91 Chrysene-d12	240	9.563	9.551	(1.000)	1386290	40.0000	
* 98 Perylene-d12	264	11.192	11.174	(1.000)	1218363	40.0000	
$ 3 2-Fluorophenol	112	3.063	3.046	(0.791)	682604	61.7392	2060
$ 5 Phenol-d5	99	3.587	3.575	(0.926)	902243	64.1681	2140
$ 20 Nitrobenzene-d5	82	4.234	4.228	(0.893)	415209	30.5000	1020
$ 39 2-Fluorobiphenyl	172	5.481	5.475	(0.915)	820096	35.5708	1180
$ 60 2,4,6-Tribromophenol	329	6.581	6.575	(1.098)	193465	77.1518	2570
$ 81 p-Terphenyl-d14	244	8.534	8.522	(0.892)	1031268	42.6897	1420

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2009-2.d
Lab Smp Id: 1202071493 Client Smp ID: SBLK01
Inj Date : 20-MAR-2010 17:42
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202071493|965425|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 11o00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.875	2464282	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.899	784976	12.7416497	425	0		0	10

Data File: /chem/MSD6.i/s032010.b/s6c2009-2.d
Date : 20-MAR-2010 17:42
Client ID: SBLK01
Sample Info: |1202071493|965425|1|SVM|1|MB
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

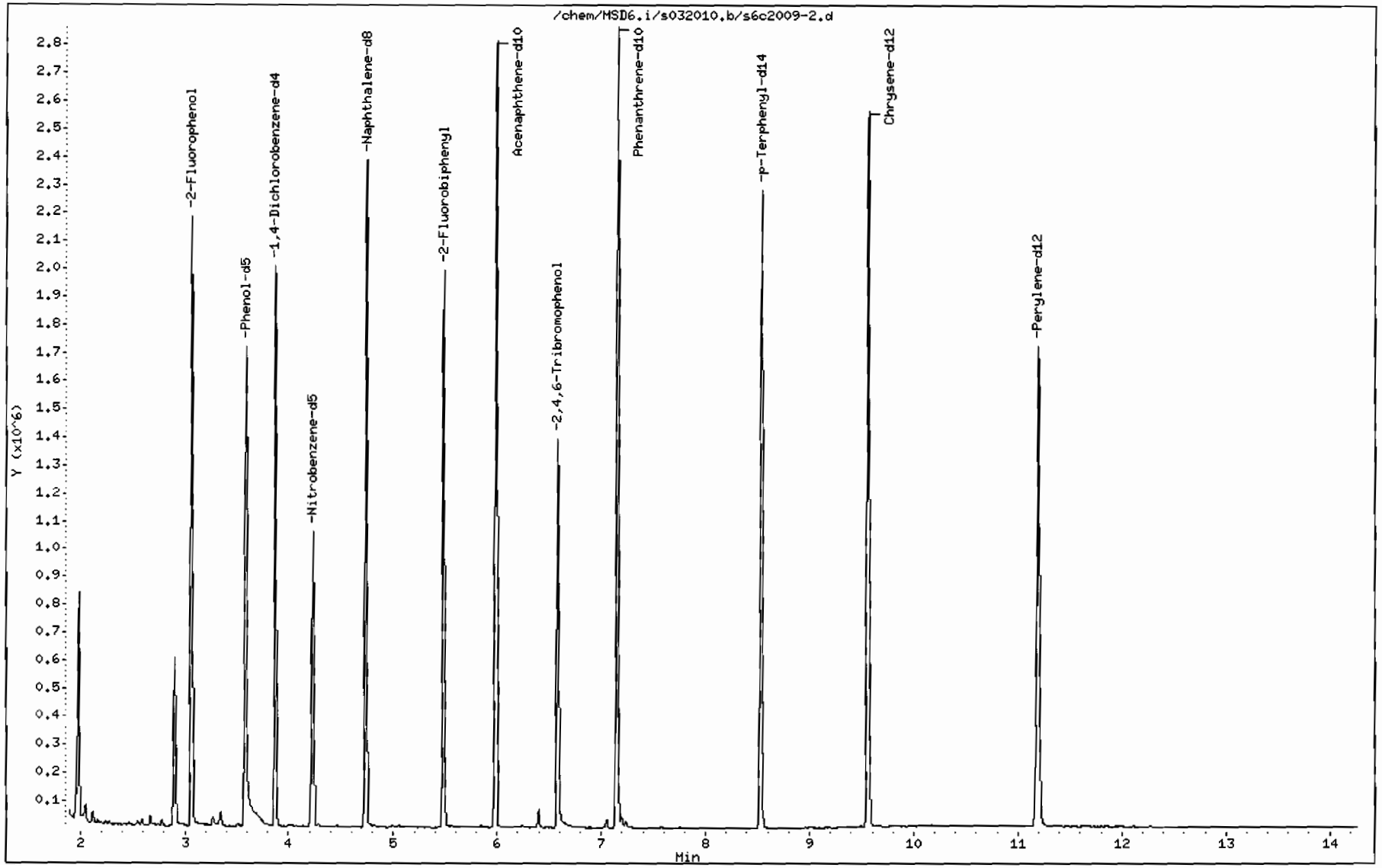

Data File: /chem/MSD6.i/s032010.b/s6c2009-2.d

Date : 20-MAR-2010 17:42

Client ID: SBLK01

Instrument: MSD6.i

Sample Info: |1202071493|965425|1|SVM|1|MB

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	45	C6H12O2	116

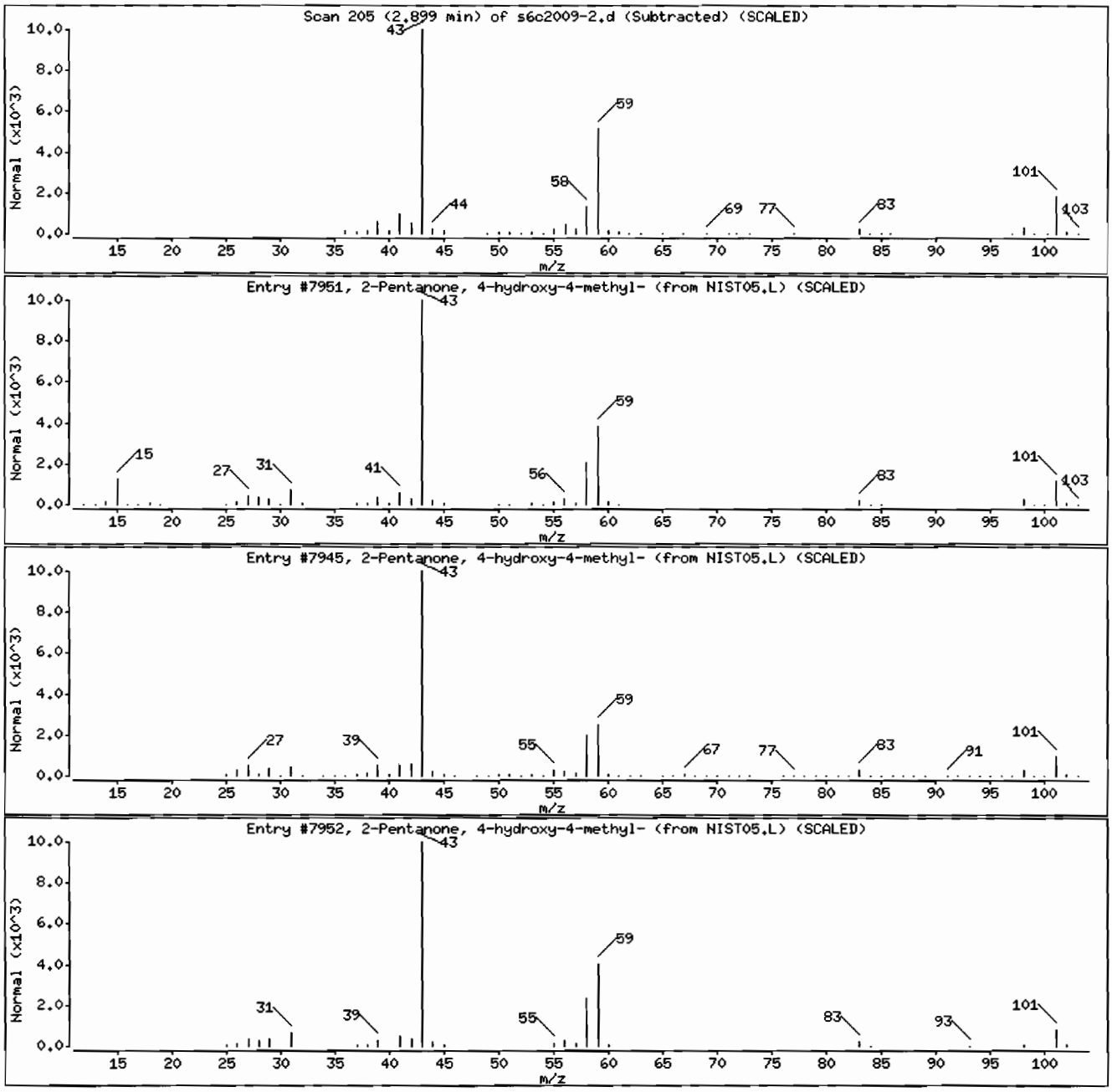

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202079224**				
Client Sample:	**QC for batch 968547**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 968547**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**968549**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 18:11**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/24/2010 10:49**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2414.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1.4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202079224**				
Client Sample:	**QC for batch 968547**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 968547**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**968549**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 18:1I**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/24/2010 10:49**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2414.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Ideutified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.92	290	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032410.b/s6c2414.d
Lab Smp Id: 1202079224 Client Smp ID: SBLK02
Inj Date : 24-MAR-2010 18:11
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202079224|968549|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032410.b/MSD6-M8270C-AQA-031610.m
Meth Date : 25-Mar-2010 09:44 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d
Als bottle: 11 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.887	3.881	(1.000)	498645	40.0000	
* 29 Naphthalene-d8	136	4.757	4.751	(1.000)	1736651	40.0000	
* 46 Acenaphthene-d10	164	6.010	6.010	(1.000)	1080135	40.0000	
* 67 Phenanthrene-d10	188	7.181	7.175	(1.000)	1854435	40.0000	
* 91 Chrysene-d12	240	9.586	9.580	(1.000)	1611148	40.0000	
* 98 Perylene-d12	264	11.251	11.233	(1.000)	1308457	40.0000	
$ 3 2-Fluorophenol	112	3.087	3.069	(0.794)	687006	49.5610	1650
$ 5 Phenol-d5	99	3.599	3.598	(0.926)	881967	50.0306	1670
$ 20 Nitrobenzene-d5	82	4.252	4.245	(0.894)	397897	23.9679	799
$ 39 2-Fluorobiphenyl	172	5.498	5.492	(0.915)	793118	28.4601	949
$ 60 2,4,6-Tribromophenol	329	6.610	6.604	(1.100)	213086	70.3020	2340
$ 81 p-Terphenyl-d14	244	8.563	8.551	(0.893)	1035509	36.8828	1230

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032410.b/s6c2414.d
Lab Smp Id: 1202079224 Client Smp ID: SBLK02
Inj Date : 24-MAR-2010 18:11
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202079224|968549|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032410.b/MSD6-M8270C-AQA-031610.m
Meth Date : 25-Mar-2010 09:44 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d
Als bottle: 11 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.887	2997335	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.922	652868	8.71264790	290	0		0	10

Data File: /chem/MSD6.i/s032410.b/s6c2414.d
Date : 24-MAR-2010 18:11
Client ID: SBLK02
Sample Info: 1120207922419685491 1|SVM11|MB
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

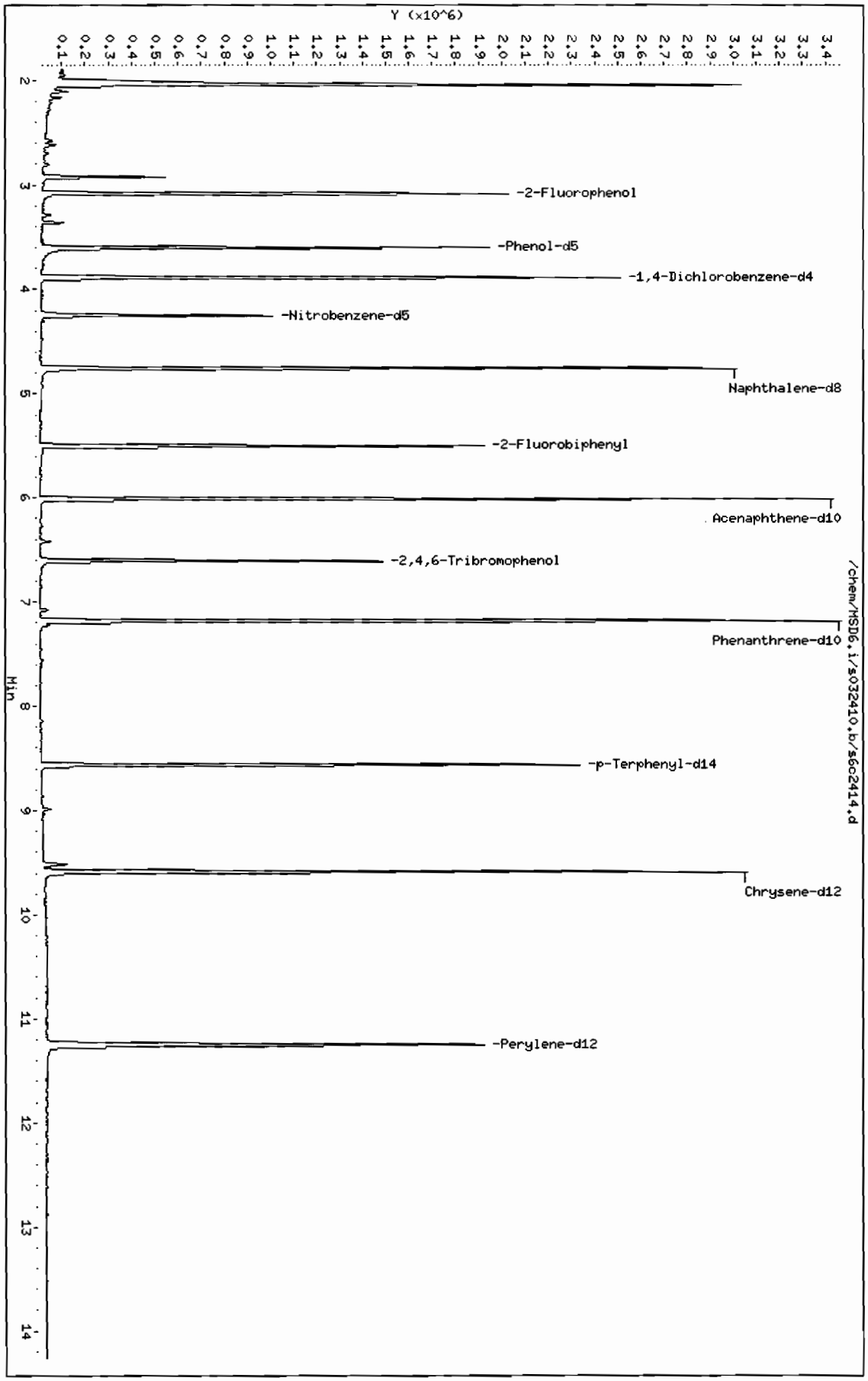

Page 1

Data File: /chem/MSD6.i/s032410.b/s6c2414.d

Date : 24-MAR-2010 18:11

Client ID: SBLK02

Instrument: MSD6.i

Sample Info: |1202079224196854911|SVMI1|MB

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	45	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	40	C6H12O2	116

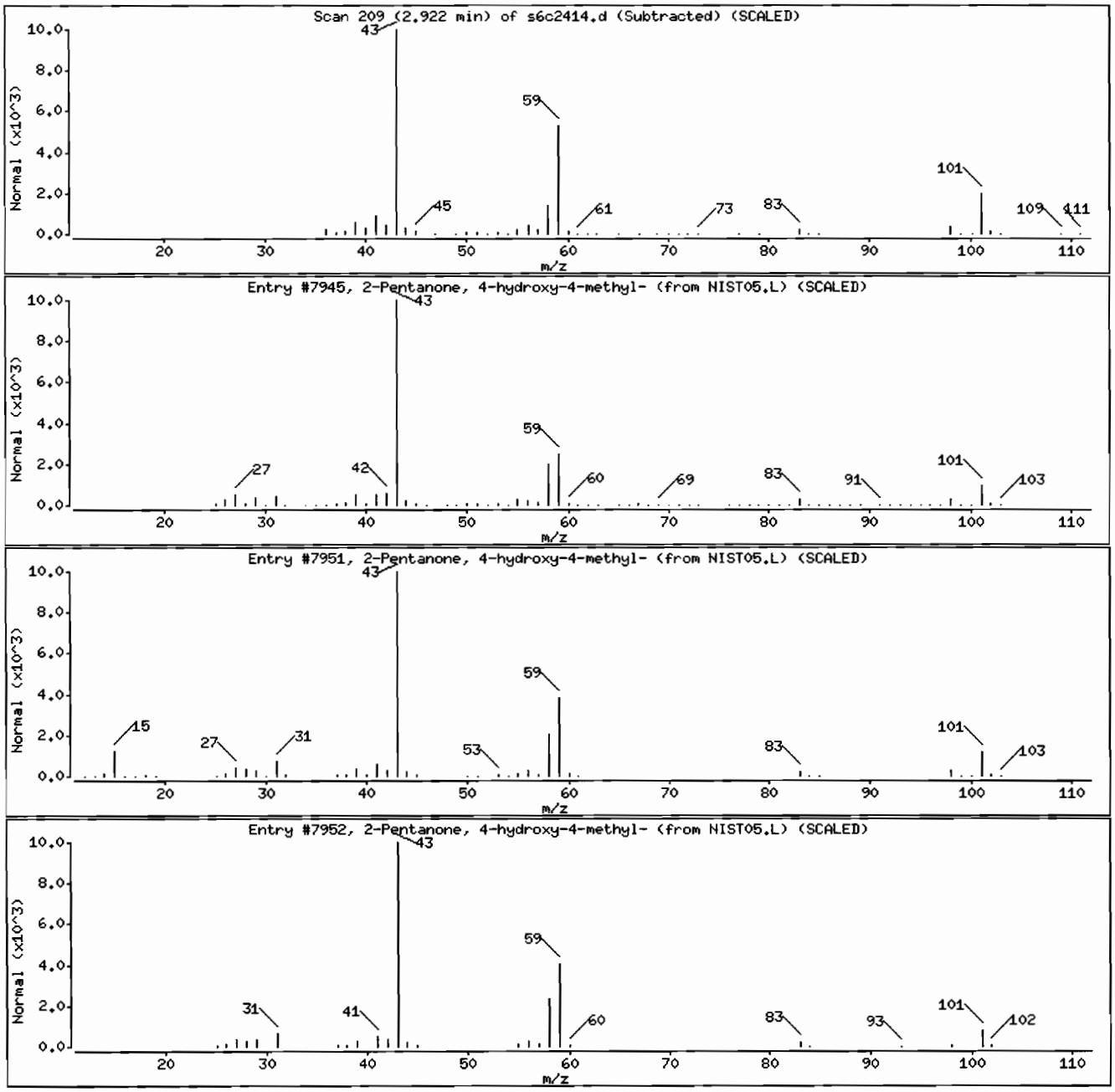

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071494**				
Client Sample:	**QC for batch 965424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965424**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 18:06**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2010-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		816	ug/kg	66.7	333
108-95-2	Phenol		981	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1060	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1040	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1020	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1110	ug/kg	66.7	333
83-32-9	Acenaphthene		1040	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1220	ug/kg	33.3	333
100-02-7	4-Nitrophenol		811	ug/kg	110	333
87-86-5	Pentachlorophenol		1430	ug/kg	83.3	333
129-00-0	Pyrene		1240	ug/kg	10.0	33.3
110-86-1	Pyridine		771	ug/kg	66.7	333
62-53-3	Aniline		1090	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		960	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1020	ug/kg	66.7	333
100-51-6	Benzyl alcohol		338	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1110	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		924	ug/kg	66.7	333
95-48-7	o-Cresol		1130	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1240	ug/kg	100	333
67-72-1	Hexachloroethane		925	ug/kg	66.7	333
98-95-3	Nitrobenzene		1120	ug/kg	66.7	333
78-59-1	Isophorone		1040	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1120	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1390	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1010	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1140	ug/kg	66.7	333
65-85-0	Benzoic acid		2580	ug/kg	167	667
91-20-3	Naphthalene		975	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1050	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1150	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1070	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1040	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1020	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1400	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1120	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		999	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1040	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071494**				
Client Sample:	**QC for batch 965424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965424**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 18:06**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2010-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1300	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1230	ug/kg	33.3	333
208-96-8	Acenaphthylene		1170	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1180	ug/kg	127	667
132-64-9	Dibenzofuran		1220	ug/kg	66.7	333
84-66-2	Diethylphthalate		1340	ug/kg	66.7	333
86-73-7	Fluorene		1130	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1290	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1180	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1250	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1280	ug/kg	66.7	333
122-66-7	Azobenzene		1180	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1340	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1400	ug/kg	66.7	333
85-01-8	Phenanthrene		1150	ug/kg	10.0	33.3
120-12-7	Anthracene		1150	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1310	ug/kg	66.7	333
206-44-0	Fluoranthene		1290	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1330	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1270	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1230	ug/kg	100	333
218-01-9	Chrysene		1270	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1310	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1230	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1240	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1380	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1340	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1370	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1370	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1350	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1140	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2010-2.d
Lab Smp Id: 1202071494 Client Smp ID: SBLK01LCS
Inj Date : 20-MAR-2010 18:06
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202071494|965425|1|SVM|1|LCS
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 11o00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 7 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.875	3.863	(1.000)	372664	40.0000	
* 29 Naphthalene-d8	136	4.740	4.734	(1.000)	1418901	40.0000	
* 46 Acenaphthene-d10	164	5.992	5.987	(1.000)	821866	40.0000	
* 67 Phenanthrene-d10	188	7.157	7.145	(1.000)	1405089	40.0000	
* 91 Chrysene-d12	240	9.569	9.551	(1.000)	1211561	40.0000	
* 98 Perylene-d12	264	11.198	11.174	(1.000)	1059467	40.0000	
$ 3 2-Fluorophenol	112	3.063	3.046	(0.791)	628792	60.6960	2020
$ 5 Phenol-d5	99	3.587	3.575	(0.926)	774325	58.7733	1960
$ 20 Nitrobenzene-d5	82	4.234	4.228	(0.893)	411367	30.3283	1010
$ 39 2-Fluorobiphenyl	172	5.481	5.475	(0.915)	739019	34.8523	1160
$ 60 2,4,6-Tribromophenol	329	6.586	6.575	(1.099)	184328	79.9247	2660
$ 81 p-Terphenyl-d14	244	8.533	8.522	(0.892)	936326	44.3493	1480

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.598	3.587	(0.929)	392505	29.4304	981
8 2-Chlorophenol	128	3.740	3.728	(0.965)	344745	31.7832	1060
11 1,4-Dichlorobenzene	146	3.887	3.875	(1.003)	362739	31.2626	1040
17 N-Nitrosodipropylamine	70	4.110	4.104	(1.061)	279623	30.7301	1020(Q)
28 1,2,4-Trichlorobenzene	180	4.692	4.681	(0.990)	350267	34.1614	1140
33 4-Chloro-3-methylphenol	107	5.092	5.075	(1.074)	325339	33.4291	1110
47 Acenaphthene	154	6.016	6.010	(1.004)	664634	31.1684	1040
50 2,4-Dinitrotoluene	165	6.104	6.098	(1.019)	267639	36.5408	1220
52 4-Nitrophenol	139	6.039	6.016	(1.008)	96104	24.3155	810
65 Pentachlorophenol	266	6.986	6.969	(0.976)	141240	42.7887	1430
79 Pyrene	202	8.433	8.422	(0.881)	1377948	37.3087	1240
2 Pyridine	79	2.416	2.381	(0.624)	238176	23.1301	771
4 Aniline	66	3.657	3.646	(0.944)	203796	32.6731	1090
7 bis(2-Chloroethyl) ether	63	3.675	3.669	(0.948)	285635	28.8036	960
9 1,3-Dichlorobenzene	146	3.840	3.834	(0.991)	366004	30.6294	1020
12 Benzyl alcohol	108	3.945	3.934	(1.018)	77311	10.1414	338(R)
13 1,2-Dichlorobenzene	146	3.987	3.981	(1.029)	350167	33.2937	1110
14 bis(2-Chloroisopropyl)ether	45	4.016	4.010	(1.036)	578035	27.7336	924
15 o-Cresol	107	3.993	3.981	(1.030)	281409	34.0195	1130
18 m,p-Cresols	107	4.093	4.081	(1.056)	443559	37.2261	1240
19 Hexachloroethane	117	4.216	4.210	(1.088)	139019	27.7525	925
21 Nitrobenzene	77	4.251	4.240	(0.897)	422113	33.7284	1120
22 Isophorone	82	4.404	4.393	(0.929)	747955	31.1450	1040
23 2-Nitrophenol	139	4.463	4.457	(0.942)	181925	33.5379	1120
24 2,4-Dimethylphenol	122	4.492	4.445	(0.948)	428035	41.7066	1390(Q)
25 bis(2-Chloroethoxy)methane	93	4.522	4.516	(0.954)	395070	30.2592	1010
26 2,4-Dichlorophenol	162	4.634	4.616	(0.978)	306921	34.2637	1140
27 Benzoic acid	105	4.522	4.487	(0.954)	514830	77.3919	2580(Q)
30 Naphthalene	128	4.757	4.745	(1.004)	1021802	29.2483	975
31 4-Chloroaniline	127	4.769	4.763	(1.006)	485506	31.5028	1050
32 Hexachlorobutadiene	225	4.822	4.810	(1.017)	201332	34.5942	1150
34 2-Methylnaphthalene	142	5.234	5.228	(1.104)	691216	32.1741	1070
36 Hexachlorocyclopentadiene	237	5.339	5.328	(0.891)	147488	31.2973	1040
37 2,4,6-Trichlorophenol	196	5.428	5.416	(0.906)	211229	30.7118	1020
38 2,4,5-Trichlorophenol	196	5.457	5.440	(0.911)	306393	42.0469	1400(H)
40 2-Chloronaphthalene	162	5.592	5.581	(0.933)	674256	33.7039	1120
42 o-Nitroaniline	65	5.645	5.640	(0.942)	210696	29.9829	999
41 m-Nitroaniline	138	5.939	5.934	(0.991)	162918	31.2057	1040
43 Dimethylphthalate	163	5.757	5.751	(0.961)	908718	39.1377	1300
44 2,6-Dinitrotoluene	165	5.810	5.804	(0.970)	205090	36.8906	1230
45 Acenaphthylene	152	5.892	5.887	(0.983)	1110241	35.0292	1170
48 2,4-Dinitrophenol	184	6.010	6.004	(1.003)	67463	35.4357	1180(Q)
49 Dibenzofuran	168	6.139	6.134	(1.025)	947478	36.5779	1220
51 Diethylphthalate	149	6.263	6.257	(1.045)	918347	40.3487	1340
53 Fluorene	166	6.404	6.392	(1.069)	777862	33.8684	1130
54 4-Chlorophenylphenylether	204	6.381	6.369	(1.065)	427150	38.7705	1290
55 2-Methyl-4,6-dinitrophenol	198	6.416	6.404	(0.896)	113808	35.3907	1180

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.398	6.387	(1.068)	160761	37.5539	1250
133 Diphenylamine	169	6.469	6.457	(0.904)	700359	38.4145	1280
58 1,2-Diphenylhydrazine	77	6.504	6.492	(0.909)	863903	35.2510	1180
61 4-Bromophenylphenylether	248	6.769	6.757	(0.946)	244883	40.1391	1340
63 Hexachlorobenzene	284	6.833	6.822	(0.955)	244817	41.9961	1400
68 Phenanthrene	178	7.181	7.169	(1.003)	1177361	34.3886	1150
69 Anthracene	178	7.222	7.210	(1.009)	1193994	34.6174	1150
72 Di-n-butylphthalate	149	7.581	7.575	(1.059)	1561871	39.1551	1300
76 Fluoranthene	202	8.216	8.204	(1.148)	1342354	38.6617	1290
85 Butylbenzylphthalate	149	8.969	8.957	(0.937)	711923	39.8392	1330
89 Benzo(a)anthracene	228	9.551	9.539	(0.998)	1209285	38.2254	1270
90 3,3'-Dichlorobenzidine	252	9.504	9.498	(0.993)	337569	36.9376	1230
92 Chrysene	228	9.592	9.575	(1.002)	1149394	38.0375	1270
93 bis(2-Ethylhexyl)phthalate	149	9.492	9.486	(0.992)	942088	39.4412	1310
94 Di-n-octylphthalate	149	10.139	10.122	(0.905)	1499800	36.9946	1230
95 Benzo(b)fluoranthene	252	10.692	10.674	(0.955)	1068812	37.1079	1240
96 Benzo(k)fluoranthene	252	10.727	10.710	(0.958)	1148106	41.5483	1380
97 Benzo(a)pyrene	252	11.121	11.098	(0.993)	980528	40.1961	1340
99 Indeno(1,2,3-cd)pyrene	276	12.915	12.880	(1.153)	923297	41.2481	1370
100 Dibenzo(a,h)anthracene	278	12.933	12.898	(1.155)	742679	41.1939	1370
101 Benzo(ghi)perylene	276	13.445	13.398	(1.201)	775373	40.5682	1350
1 N-Methyl-N-nitrosomethylamine	74	2.381	2.352	(0.614)	176974	24.4923	816

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s032010.b/s6c2010-2.d
Date : 20-MAR-2010 18:06
Client ID: SBLK01LCS
Sample Info: 1120207149419654251 1SVMI1 1LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

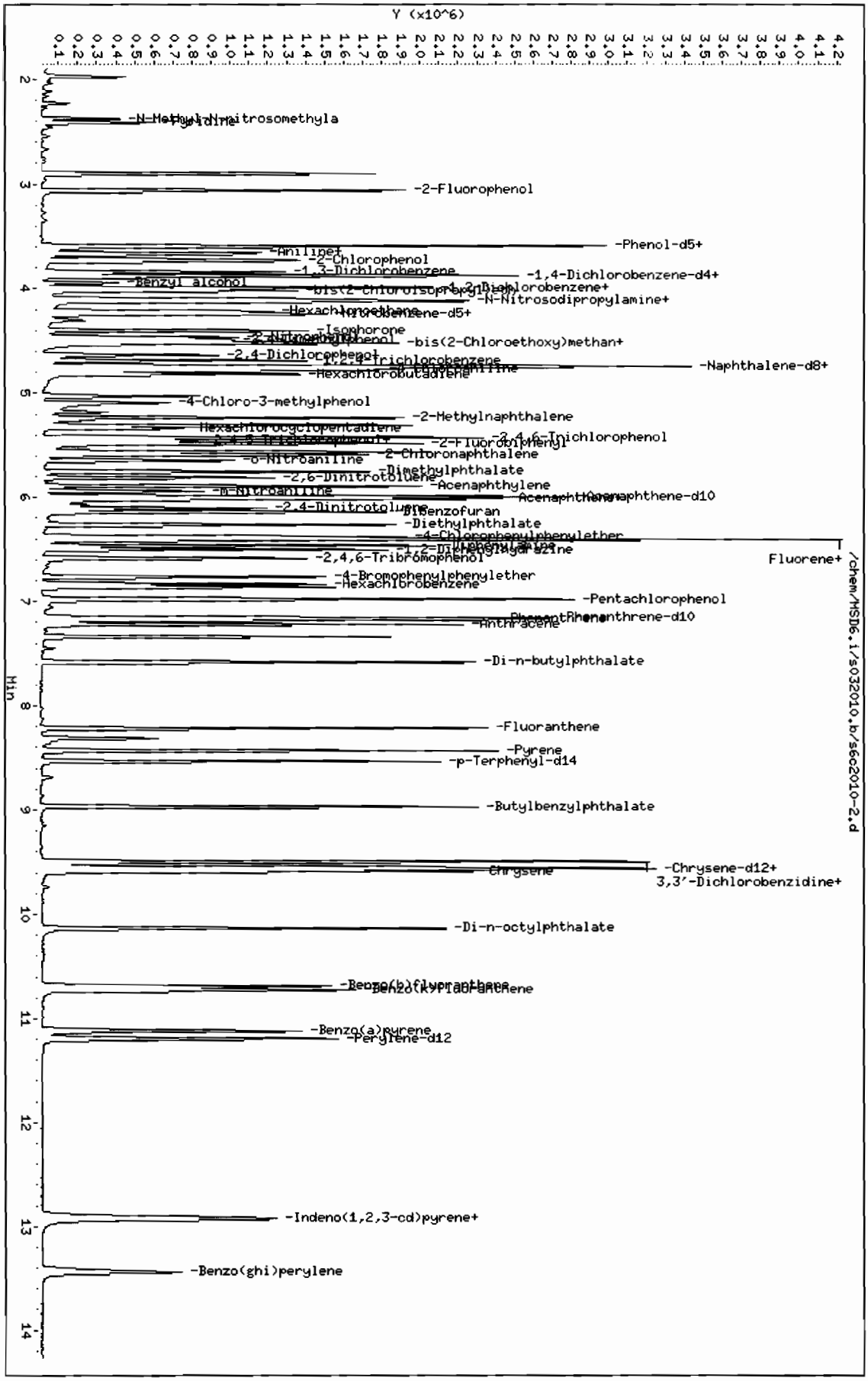

Page 1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202079225**				
Client Sample:	**QC for batch 968547**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 968547**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**968549**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 18:34**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/24/2010 10:49**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2415.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		595	ug/kg	66.7	333
108-95-2	Phenol		729	ug/kg	66.7	333
95-57-8	2-Chlorophenol		771	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		727	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		665	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		852	ug/kg	66.7	333
83-32-9	Acenaphthene		748	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		953	ug/kg	33.3	333
100-02-7	4-Nitrophenol		853	ug/kg	110	333
87-86-5	Pentachlorophenol		1210	ug/kg	83.3	333
129-00-0	Pyrene		971	ug/kg	10.0	33.3
110-86-1	Pyridine		473	ug/kg	66.7	333
62-53-3	Aniline		625	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		629	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		708	ug/kg	66.7	333
100-51-6	Benzyl alcohol	J	143	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		780	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		597	ug/kg	66.7	333
95-48-7	o-Cresol		889	ug/kg	66.7	333
65794-96-9	m,p-Cresols		958	ug/kg	100	333
67-72-1	Hexachloroethane		622	ug/kg	66.7	333
98-95-3	Nitrobenzene		797	ug/kg	66.7	333
78-59-1	Isophorone		725	ug/kg	66.7	333
88-75-5	2-Nitrophenol		835	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1040	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		710	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		828	ug/kg	66.7	333
65-85-0	Benzoic acid		2090	ug/kg	167	667
91-20-3	Naphthalene		727	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		662	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		791	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		788	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		814	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		780	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		978	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		805	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		716	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		754	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202079225**				
Client Sample:	**QC for batch 968547**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 968547**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**968549**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 18:34**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/24/2010 10:49**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2415.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		921	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		890	ug/kg	33.3	333
208-96-8	Acenaphthylene		838	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1200	ug/kg	127	667
132-64-9	Dibenzofuran		910	ug/kg	66.7	333
84-66-2	Diethylphthalate		964	ug/kg	66.7	333
86-73-7	Fluorene		835	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		928	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1180	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1040	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		922	ug/kg	66.7	333
122-66-7	Azobenzene		844	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		976	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1020	ug/kg	66.7	333
85-01-8	Phenanthrene		896	ug/kg	10.0	33.3
120-12-7	Anthracene		896	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1010	ug/kg	66.7	333
206-44-0	Fluoranthene		1040	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1000	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		997	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		942	ug/kg	100	333
218-01-9	Chrysene		1090	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1030	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		963	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1010	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1170	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1080	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1070	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1080	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1020	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		807	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032410.b/s6c2415.d
Lab Smp Id: 1202079225 Client Smp ID: SBLK02LCS
Inj Date : 24-MAR-2010 18:34
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202079225|968549|1|SVM|1|LCS
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032410.b/MSD6-M8270C-AQA-031610.m
Meth Date : 25-Mar-2010 09:44 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.893	3.881	(1.000)	472154	40.0000	
* 29 Naphthalene-d8	136	4.757	4.751	(1.000)	1748793	40.0000	
* 46 Acenaphthene-d10	164	6.016	6.010	(1.000)	1056349	40.0000	
* 67 Phenanthrene-d10	188	7.187	7.175	(1.000)	1833172	40.0000	
* 91 Chrysene-d12	240	9.592	9.580	(1.000)	1649210	40.0000	
* 98 Perylene-d12	264	11.257	11.233	(1.000)	1426972	40.0000	
$ 3 2-Fluorophenol	112	3.081	3.069	(0.791)	590724	45.0061	1500
$ 5 Phenol-d5	99	3.605	3.598	(0.926)	735681	44.0738	1470
$ 20 Nitrobenzene-d5	82	4.252	4.245	(0.894)	367528	21.9848	733
$ 39 2-Fluorobiphenyl	172	5.498	5.492	(0.914)	687921	25.2411	841
$ 60 2,4,6-Tribromophenol	329	6.610	6.604	(1.099)	196133	66.1659	2200
$ 81 p-Terphenyl-d14	244	8.563	8.551	(0.893)	1034913	36.0108	1200

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.616	3.604	(0.929)	369671	21.8776	729
8 2-Chlorophenol	128	3.757	3.745	(0.965)	317770	23.1231	771
11 1,4-Dichlorobenzene	146	3.904	3.893	(1.003)	320721	21.8168	727
17 N-Nitrosodipropylamine	70	4.128	4.122	(1.060)	229846	19.9371	664(Q)
28 1,2,4-Trichlorobenzene	180	4.704	4.698	(0.989)	305786	24.1973	806
33 4-Chloro-3-methylphenol	107	5.110	5.098	(1.074)	306510	25.5533	852
47 Acenaphthene	154	6.040	6.034	(1.004)	614730	22.4290	748
50 2,4-Dinitrotoluene	165	6.128	6.122	(1.019)	269035	28.5779	952
52 4-Nitrophenol	139	6.063	6.051	(1.008)	130034	25.5972	853
65 Pentachlorophenol	266	7.010	6.998	(0.975)	156537	36.3487	1210
79 Pyrene	202	8.457	8.451	(0.882)	1464093	29.1216	971
2 Pyridine	79	2.452	2.416	(0.630)	185315	14.2044	473
4 Aniline	66	3.675	3.669	(0.944)	148225	18.7564	625
7 bis(2-Chloroethyl) ether	63	3.687	3.687	(0.947)	237194	18.8788	629
9 1,3-Dichlorobenzene	146	3.857	3.851	(0.991)	321563	21.2399	708
12 Benzyl alcohol	108	3.963	3.951	(1.018)	41367	4.28298	143(aR)
13 1,2-Dichlorobenzene	146	4.004	3.998	(1.029)	311718	23.3928	780
14 bis(2-Chloroisopropyl)ether	45	4.034	4.028	(1.036)	472702	17.9009	597
15 o-Cresol	107	4.010	3.998	(1.030)	279388	26.6582	889
18 m,p-Cresols	107	4.110	4.104	(1.056)	433908	28.7427	958
19 Hexachloroethane	117	4.234	4.228	(1.088)	118443	18.6626	622
21 Nitrobenzene	77	4.269	4.263	(0.897)	368772	23.9077	797
22 Isophorone	82	4.416	4.416	(0.928)	643342	21.7355	724
23 2-Nitrophenol	139	4.481	4.475	(0.942)	167410	25.0403	835
24 2,4-Dimethylphenol	122	4.493	4.469	(0.944)	410101	31.0876	1040
25 bis(2-Chloroethoxy)methane	93	4.540	4.534	(0.954)	342661	21.2942	710
26 2,4-Dichlorophenol	162	4.646	4.634	(0.976)	274320	24.8473	828
27 Benzoic acid	105	4.540	4.528	(0.954)	515031	62.8172	2090(Q)
30 Naphthalene	128	4.775	4.769	(1.004)	938976	21.8073	727
31 4-Chloroaniline	127	4.787	4.781	(1.006)	376978	19.8465	662
32 Hexachlorobutadiene	225	4.840	4.828	(1.017)	170138	23.7195	791
34 2-Methylnaphthalene	142	5.257	5.245	(1.105)	625829	23.6353	788
36 Hexachlorocyclopentadiene	237	5.357	5.351	(0.890)	147824	24.4055	814
37 2,4,6-Trichlorophenol	196	5.446	5.434	(0.905)	206952	23.4107	780
38 2,4,5-Trichlorophenol	196	5.475	5.463	(0.910)	274750	29.3350	978
40 2-Chloronaphthalene	162	5.610	5.604	(0.933)	620701	24.1397	805
42 o-Nitroaniline	65	5.669	5.657	(0.942)	193995	21.4784	716
41 m-Nitroaniline	138	5.963	5.957	(0.991)	151851	22.6296	754
43 Dimethylphthalate	163	5.775	5.775	(0.960)	824293	27.6211	921
44 2,6-Dinitrotoluene	165	5.834	5.828	(0.970)	190744	26.6941	890
45 Acenaphthylene	152	5.916	5.910	(0.983)	1023914	25.1345	838
48 2,4-Dinitrophenol	184	6.034	6.028	(1.003)	88545	36.0623	1200
49 Dibenzofuran	168	6.163	6.157	(1.024)	909294	27.3116	910
51 Diethylphthalate	149	6.287	6.281	(1.045)	846387	28.9325	964
53 Fluorene	166	6.422	6.416	(1.067)	739433	25.0487	835
54 4-Chlorophenylphenylether	204	6.404	6.392	(1.065)	394324	27.8464	928
55 2-Methyl-4,6-dinitrophenol	198	6.440	6.434	(0.896)	148080	35.3070	1180

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ml)	FINAL (ug/Kg)
56	p-Nitroaniline	138	6.422	6.416	(1.067)	171648	31.1966	1040
133	Diphenylamine	169	6.493	6.481	(0.903)	658117	27.6680	922
58	1,2-Diphenylhydrazine	77	6.528	6.516	(0.908)	809664	25.3228	844
61	4-Bromophenylphenylether	248	6.793	6.781	(0.945)	233039	29.2778	976
63	Hexachlorobenzene	284	6.857	6.845	(0.954)	232543	30.5753	1020
68	Phenanthrene	178	7.204	7.198	(1.002)	1200086	26.8669	896
69	Anthracene	178	7.245	7.239	(1.008)	1209513	26.8784	896
72	Di-n-butylphthalate	149	7.610	7.598	(1.059)	1570576	30.1789	1000
76	Fluoranthene	202	8.245	8.233	(1.147)	1418726	31.3194	1040
85	Butylbenzylphthalate	149	8.998	8.986	(0.938)	731701	30.0802	1000
89	Benzo(a)anthracene	228	9.581	9.569	(0.999)	1288311	29.9167	997
90	3,3'-Dichlorobenzidine	252	9.534	9.528	(0.994)	351621	28.2651	942
92	Chrysene	228	9.616	9.604	(1.002)	1345059	32.7004	1090
93	bis(2-Ethylhexyl)phthalate	149	9.522	9.510	(0.993)	1006861	30.9669	1030
94	Di-n-octylphthalate	149	10.169	10.157	(0.903)	1577470	28.8894	963
95	Benzo(b)fluoranthene	252	10.739	10.722	(0.954)	1177792	30.3603	1010
96	Benzo(k)fluoranthene	252	10.775	10.757	(0.957)	1304142	35.0403	1170(H)
97	Benzo(a)pyrene	252	11.175	11.157	(0.993)	1065389	32.4268	1080
99	Indeno(1,2,3-cd)pyrene	276	12.992	12.963	(1.154)	964199	31.9817	1070
100	Dibenzo(a,h)anthracene	278	13.010	12.974	(1.156)	786957	32.4082	1080
101	Benzo(ghi)perylene	276	13.527	13.486	(1.202)	783952	30.4534	1020
1	N-Methyl-N-nitrosomethylamine	74	2.410	2.381	(0.619)	163379	17.8463	595

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s032410.b/s6c2415.d
Date : 24-MAR-2010 18:34
Client ID: SBLK02LCS
Sample Info: 1420279225|968549|1|SVM|1|LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

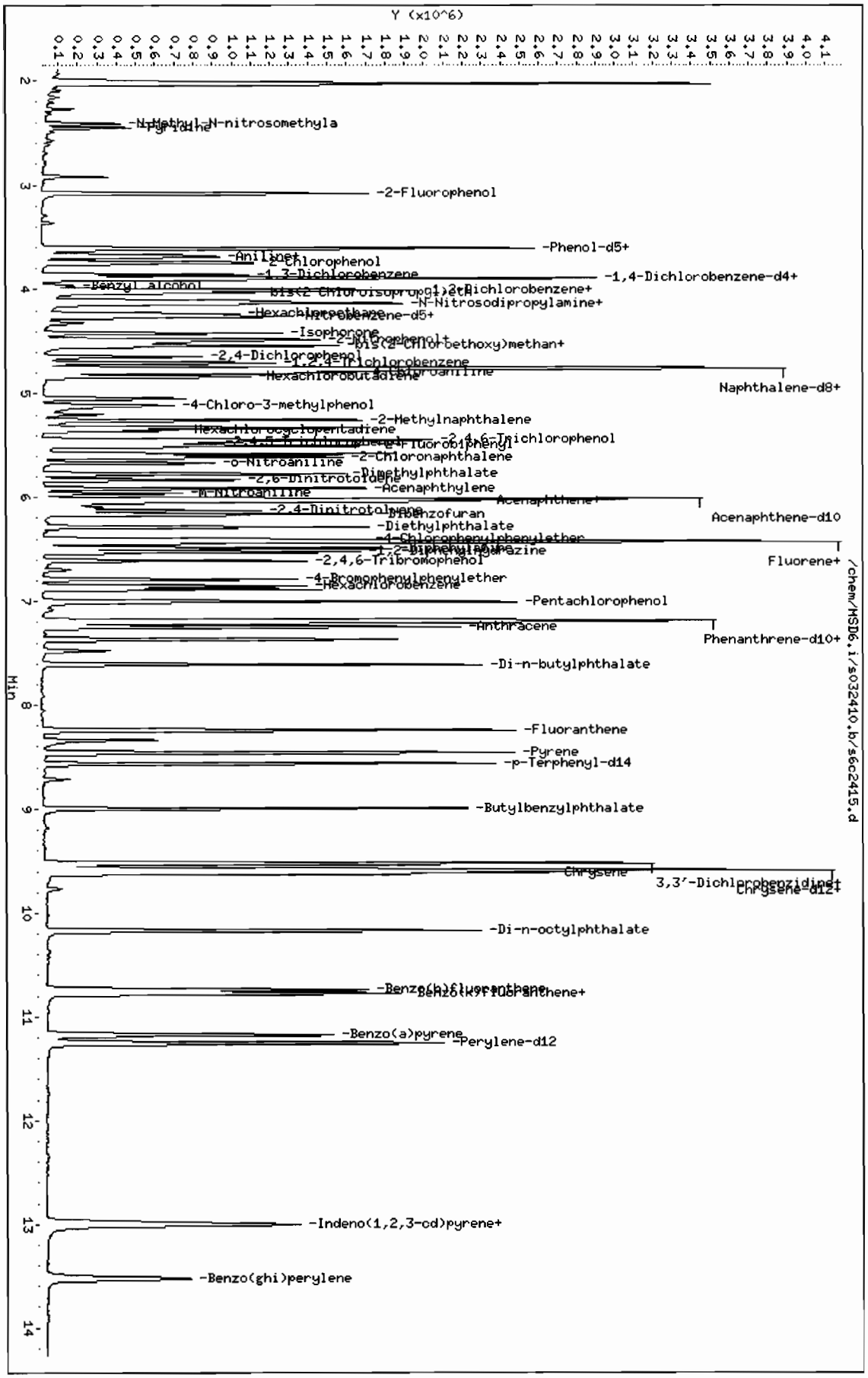

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202079226**				
Client Sample:	**QC for batch 968547**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCSD for batch 968547**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**968549**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 18:57**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/24/2010 10:49**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2416.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		871	ug/kg	66.7	333
108-95-2	Phenol		1120	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1200	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1080	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1050	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1300	ug/kg	66.7	333
83-32-9	Acenaphthene		1120	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1360	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1160	ug/kg	110	333
87-86-5	Pentachlorophenol		1710	ug/kg	83.3	333
129-00-0	Pyrene		1290	ug/kg	10.0	33.3
110-86-1	Pyridine		761	ug/kg	66.7	333
62-53-3	Aniline		935	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		962	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1060	ug/kg	66.7	333
100-51-6	Benzyl alcohol		472	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1150	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		927	ug/kg	66.7	333
95-48-7	o-Cresol		1360	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1440	ug/kg	100	333
67-72-1	Hexachloroethane		969	ug/kg	66.7	333
98-95-3	Nitrobenzene		1150	ug/kg	66.7	333
78-59-1	Isophorone		1100	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1280	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1610	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1140	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1290	ug/kg	66.7	333
65-85-0	Benzoic acid		3340	ug/kg	167	667
91-20-3	Naphthalene		1050	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1010	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1250	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1170	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1340	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1280	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1480	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1220	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1080	ug/kg	66.7	333
	o-Nitroaniline					
99-09-2	3-Nitroaniline		1070	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202079226**				
Client Sample:	**QC for batch 968547**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCSD for batch 968547**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**968549**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 18:57**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/24/2010 10:49**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2416.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1400	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1350	ug/kg	33.3	333
208-96-8	Acenaphthylene		1250	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1660	ug/kg	127	667
132-64-9	Dibenzofuran		1350	ug/kg	66.7	333
84-66-2	Diethylphthalate		1390	ug/kg	66.7	333
86-73-7	Fluorene		1230	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1410	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1480	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1390	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1340	ug/kg	66.7	333
122-66-7	Azobenzene		1250	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1450	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1490	ug/kg	66.7	333
85-01-8	Phenanthrene		1240	ug/kg	10.0	33.3
120-12-7	Anthracene		1240	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1300	ug/kg	66.7	333
206-44-0	Fluoranthene		1310	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1350	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1310	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1230	ug/kg	100	333
218-01-9	Chrysene		1360	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1350	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1390	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1380	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1510	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1400	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1300	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1320	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1210	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1220	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032410.b/s6c2416.d
Lab Smp Id: 1202079226 Client Smp ID: SBLK02LCSD
Inj Date : 24-MAR-2010 18:57
Operator : nagl Inst ID: MSD6.i
Smp Info : 1202079226|968549|1|SVM|1|LCSD
Misc Info : MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032410.b/MSD6-M8270C-AQA-031610.m
Meth Date : 25-Mar-2010 09:44 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d
Als bottle: 13 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.893	3.881	(1.000)	472948	40.0000	
* 29 Naphthalene-d8	136	4.757	4.751	(1.000)	1768314	40.0000	
* 46 Acenaphthene-d10	164	6.016	6.010	(1.000)	1043209	40.0000	
* 67 Phenanthrene-d10	188	7.187	7.175	(1.000)	1839017	40.0000	
* 91 Chrysene-d12	240	9.592	9.580	(1.000)	1554191	40.0000	
* 98 Perylene-d12	264	11.251	11.233	(1.000)	1238121	40.0000	
$ 3 2-Fluorophenol	112	3.087	3.069	(0.793)	907077	68.9925	2300
$ 5 Phenol-d5	99	3.610	3.598	(0.927)	1115636	66.7242	2220
$ 20 Nitrobenzene-d5	82	4.257	4.245	(0.895)	559226	33.0826	1100
$ 39 2-Fluorobiphenyl	172	5.504	5.492	(0.915)	1031917	38.3398	1280
$ 60 2,4,6-Tribromophenol	329	6.616	6.604	(1.100)	288474	98.5431	3280
$ 81 p-Terphenyl-d14	244	8.563	8.551	(0.893)	1282663	47.3602	1580

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.616	3.604	(0.929)	569021	33.6188	1120
8 2-Chlorophenol	128	3.757	3.745	(0.965)	494526	35.9247	1200
11 1,4-Dichlorobenzene	146	3.904	3.893	(1.003)	477763	32.4449	1080
17 N-Nitrosodipropylamine	70	4.128	4.122	(1.060)	365212	31.6257	1050(Q)
28 1,2,4-Trichlorobenzene	180	4.710	4.698	(0.990)	468651	36.6757	1220
33 4-Chloro-3-methylphenol	107	5.116	5.098	(1.075)	474508	39.1223	1300
47 Acenaphthene	154	6.040	6.034	(1.004)	910899	33.6536	1120
50 2,4-Dinitrotoluene	165	6.134	6.122	(1.020)	380104	40.8847	1360
52 4-Nitrophenol	139	6.069	6.051	(1.009)	174320	34.7472	1160
65 Pentachlorophenol	266	.010	6.998	(0.975)	221392	51.2450	1710
79 Pyrene	202	8.463	8.451	(0.882)	1833420	38.6972	1290
2 Pyridine	79	2.452	2.416	(0.630)	298316	22.8276	761
4 Aniline	66	3.675	3.669	(0.944)	221932	28.0361	934
7 bis(2-Chloroethyl) ether	63	3.693	3.687	(0.949)	363178	28.8575	962
9 1,3-Dichlorobenzene	146	3.857	3.851	(0.991)	481044	31.7206	1060
12 Benzyl alcohol	108	3.963	3.951	(1.018)	136908	14.1511	472
13 1,2-Dichlorobenzene	146	4.004	3.998	(1.029)	458909	34.3809	1150
14 bis(2-Chloroisopropyl)ether	45	4.034	4.028	(1.036)	735444	27.8039	927
15 o-Cresol	107	4.010	3.998	(1.030)	426774	40.6529	1360
18 m,p-Cresols	107	4.110	4.104	(1.056)	651549	43.0872	1440
19 Hexachloroethane	117	4.234	4.228	(1.088)	184818	29.0721	969
21 Nitrobenzene	77	4.269	4.263	(0.897)	538903	34.5517	1150
22 Isophorone	82	4.422	4.416	(0.930)	984501	32.8944	1100
23 2-Nitrophenol	139	4.481	4.475	(0.942)	259988	38.4583	1280
24 2,4-Dimethylphenol	122	4.493	4.469	(0.944)	605987	48.1931	1610
25 bis(2-Chloroethoxy)methane	93	4.546	4.534	(0.955)	556390	34.1944	1140
26 2,4-Dichlorophenol	162	4.646	4.634	(0.976)	433636	38.8441	1290
27 Benzoic acid	105	4.557	4.528	(0.958)	829688	100.078	3340
30 Naphthalene	128	4.775	4.769	(1.004)	1370262	31.4724	1050
31 4-Chloroaniline	127	4.793	4.781	(1.007)	582434	30.3245	1010
32 Hexachlorobutadiene	225	4.840	4.828	(1.017)	272152	37.5227	1250
34 2-Methylnaphthalene	142	5.257	5.245	(1.105)	939047	35.0729	1170
36 Hexachlorocyclopentadiene	237	5.357	5.351	(0.890)	239618	40.0589	1340
37 2,4,6-Trichlorophenol	196	5.445	5.434	(0.905)	334086	38.2683	1280
38 2,4,5-Trichlorophenol	196	5.481	5.463	(0.911)	410769	44.4101	1480(H)
40 2-Chloronaphthalene	162	5.610	5.604	(0.933)	926023	36.4676	1220
42 o-Nitroaniline	65	5.669	5.657	(0.942)	289798	32.4894	1080
41 m-Nitroaniline	138	5.963	5.957	(0.991)	212607	32.0828	1070
43 Dimethylphthalate	163	5.775	5.775	(0.960)	1233725	41.8615	1400
44 2,6-Dinitrotoluene	165	5.834	5.828	(0.970)	286702	40.6285	1350
45 Acenaphthylene	152	5.916	5.910	(0.983)	1506162	37.4382	1250
48 2,4-Dinitrophenol	184	6.040	6.028	(1.004)	126829	49.6841	1660(Q)
49 Dibenzofuran	168	6.163	6.157	(1.024)	1336109	40.6370	1350
51 Diethylphthalate	149	6.287	6.281	(1.045)	1207011	41.7796	1390
53 Fluorene	166	6.428	6.416	(1.068)	1075393	36.8884	1230
54 4-Chlorophenylphenylether	204	6.404	6.392	(1.065)	589601	42.1609	1400
55 2-Methyl-4,6-dinitrophenol	198	6.445	6.434	(0.897)	192297	44.3947	1480

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.428	6.416	(1.068)	226082	41.6074	1390
133 Diphenylamine	169	6.492	6.481	(0.903)	960574	40.2554	1340
58 1,2-Diphenylhydrazine	77	6.528	6.516	(0.908)	1200186	37.4173	1250
61 4-Bromophenylphenylether	248	6.792	6.781	(0.945)	346701	43.4192	1450
63 Hexachlorobenzene	284	6.857	6.845	(0.954)	341452	44.7523	1490
68 Phenanthrene	178	7.204	7.198	(1.002)	1662735	37.1061	1240
69 Anthracene	178	7.251	7.239	(1.009)	1676026	37.1271	1240
72 Di-n-butylphthalate	149	7.610	7.598	(1.059)	2042508	39.1224	1300
76 Fluoranthene	202	8.245	8.233	(1.147)	1785138	39.2830	1310
85 Butylbenzylphthalate	149	8.998	8.986	(0.938)	930104	40.5742	1350
89 Benzo(a)anthracene	228	9.581	9.569	(0.999)	1593872	39.2751	1310
90 3,3'-Dichlorobenzidine	252	9.533	9.528	(0.994)	432617	36.9021	1230
92 Chrysene	228	9.616	9.604	(1.002)	1580880	40.7833	1360
93 bis(2-Ethylhexyl)phthalate	149	9.516	9.510	(0.992)	1239292	40.4458	1350
94 Di-n-octylphthalate	149	10.169	10.157	(0.904)	1970969	41.6015	1390
95 Benzo(b)fluoranthene	252	10.739	10.722	(0.954)	1393600	41.4026	1380
96 Benzo(k)fluoranthene	252	10.775	10.757	(0.958)	1461229	45.2495	1510(H)
97 Benzo(a)pyrene	252	11.175	11.157	(0.993)	1196916	41.9867	1400
99 Indeno(1,2,3-cd)pyrene	276	12.992	12.963	(1.155)	1016548	38.8611	1300
100 Dibenzo(a,h)anthracene	278	13.010	12.974	(1.156)	832520	39.5140	1320
101 Benzo(ghi)perylene	276	13.521	13.486	(1.202)	808548	36.1997	1210
1 N-Methyl-N-nitrosomethylamine	74	2.410	2.381	(0.619)	239672	26.1361	871

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s032410.b/s6c2416.d
Date : 24-MAR-2010 18:57
Client ID: SBLK02LCSD
Sample Info: 1120207922619685491|1|SVM11|LCSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

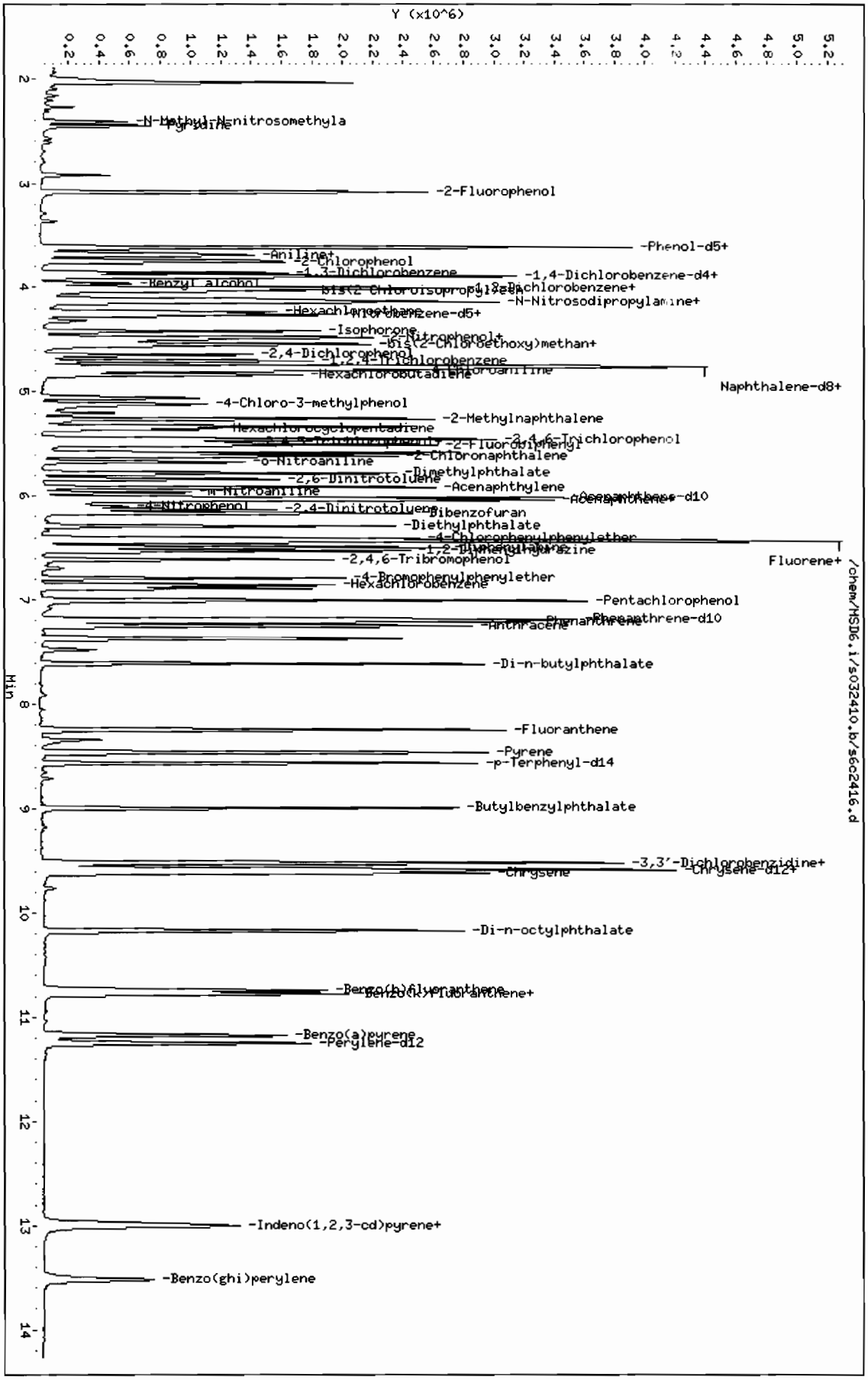

Page 1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202071495**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.9**
Client Sample:	**QC for batch 965424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13553MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 22:45**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2022.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		439	ug/kg	77.2	386
108-95-2	Phenol		521	ug/kg	77.2	386
95-57-8	2-Chlorophenol		550	ug/kg	77.2	386
106-46-7	1,4-Dichlorobenzene		495	ug/kg	77.2	386
621-64-7	N-Nitrosodipropylamine		504	ug/kg	77.2	386
59-50-7	4-Chloro-3-methylphenol		590	ug/kg	77.2	386
83-32-9	Acenaphthene		521	ug/kg	12.7	38.6
121-14-2	2,4-Dinitrotoluene		615	ug/kg	38.6	386
100-02-7	4-Nitrophenol		459	ug/kg	127	386
87-86-5	Pentachlorophenol		642	ug/kg	96.5	386
129-00-0	Pyrene		656	ug/kg	11.6	38.6
110-86-1	Pyridine	J	305	ug/kg	77.2	386
62-53-3	Aniline		453	ug/kg	116	386
111-44-4	bis(2-Chloroethyl) ether		461	ug/kg	77.2	386
541-73-1	1,3-Dichlorobenzene		480	ug/kg	77.2	386
100-51-6	Benzyl alcohol	U	386	ug/kg	116	386
95-50-1	1,2-Dichlorobenzene		546	ug/kg	77.2	386
108-60-1	bis(2-Chloroisopropyl)ether		442	ug/kg	77.2	386
95-48-7	o-Cresol		540	ug/kg	77.2	386
65794-96-9	m,p-Cresols		606	ug/kg	116	386
67-72-1	Hexachloroethane		411	ug/kg	77.2	386
98-95-3	Nitrobenzene		602	ug/kg	77.2	386
78-59-1	Isophorone		522	ug/kg	77.2	386
88-75-5	2-Nitrophenol		593	ug/kg	77.2	386
105-67-9	2,4-Dimethylphenol		1170	ug/kg	135	386
111-91-1	bis(2-Chloroethoxy)methane		529	ug/kg	77.2	386
120-83-2	2,4-Dichlorophenol		576	ug/kg	77.2	386
65-85-0	Benzoic acid		1400	ug/kg	193	772
91-20-3	Naphthalene		507	ug/kg	11.6	38.6
106-47-8	4-Chloroaniline		542	ug/kg	77.2	386
87-68-3	Hexachlorobutadiene		544	ug/kg	77.2	386
91-57-6	2-Methylnaphthalene		554	ug/kg	7.72	38.6
77-47-4	Hexachlorocyclopentadiene	J	375	ug/kg	77.2	386
88-06-2	2,4,6-Trichlorophenol		536	ug/kg	77.2	386
95-95-4	2,4,5-Trichlorophenol		668	ug/kg	77.2	386
91-58-7	2-Chloronaphthalene		574	ug/kg	12.7	38.6
88-74-4	2-Nitroaniline		791	ug/kg	77.2	386
99-09-2	*o-Nitroaniline* 3-Nitroaniline		586	ug/kg	77.2	386

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202071495**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.9**
Client Sample:	**QC for batch 965424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13553MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 22:45**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2022.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		651	ug/kg	77.2	386
606-20-2	2,6-Dinitrotoluene		586	ug/kg	38.6	386
208-96-8	Acenaphthylene		598	ug/kg	11.6	38.6
51-28-5	2,4-Dinitrophenol	J	565	ug/kg	147	772
132-64-9	Dibenzofuran		649	ug/kg	77.2	386
84-66-2	Diethylphthalate		657	ug/kg	77.2	386
86-73-7	Fluorene		588	ug/kg	11.6	38.6
7005-72-3	4-Chlorophenylphenylether		657	ug/kg	77.2	386
534-52-1	2-Methyl-4,6-dinitrophenol		595	ug/kg	77.2	386
100-01-6	4-Nitroaniline		692	ug/kg	116	386
	p-Nitroaniline					
122-39-4	Diphenylamine		653	ug/kg	77.2	386
122-66-7	Azobenzene		592	ug/kg	77.2	386
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		679	ug/kg	77.2	386
118-74-1	Hexachlorobenzene		691	ug/kg	77.2	386
85-01-8	Phenanthrene		598	ug/kg	11.6	38.6
120-12-7	Anthracene		627	ug/kg	7.72	38.6
84-74-2	Di-n-butylphthalate		637	ug/kg	77.2	386
206-44-0	Fluoranthene		644	ug/kg	11.6	38.6
85-68-7	Butylbenzylphthalate		636	ug/kg	77.2	386
56-55-3	Benzo(a)anthracene		616	ug/kg	11.6	38.6
91-94-1	3,3'-Dichlorobenzidine		557	ug/kg	116	386
218-01-9	Chrysene		653	ug/kg	11.6	38.6
117-81-7	bis(2-Ethylhexyl)phthalate		728	ug/kg	77.2	386
117-84-0	Di-n-octylphthalate		846	ug/kg	77.2	386
205-99-2	Benzo(b)fluoranthene		687	ug/kg	11.6	38.6
207-08-9	Benzo(k)fluoranthene		778	ug/kg	11.6	38.6
50-32-8	Benzo(a)pyrene		652	ug/kg	11.6	38.6
193-39-5	Indeno(1,2,3-cd)pyrene		455	ug/kg	11.6	38.6
53-70-3	Dibenzo(a,h)anthracene		477	ug/kg	11.6	38.6
191-24-2	Benzo(ghi)perylene		391	ug/kg	11.6	38.6
120-82-1	1,2,4-Trichlorobenzene		561	ug/kg	77.2	386

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2022.d
Lab Smp Id: 1202071495 Client Smp ID: RE46-10-13553MS
Inj Date : 20-MAR-2010 22:45
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202071495|965425|1 SVM|1|MS
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 llc00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 19 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	13.94230	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.869	3.863	(1.000)	383971	40.0000	
* 29 Naphthalene-d8	136	4.740	4.734	(1.000)	1432691	40.0000	
* 46 Acenaphthene-d10	164	5.992	5.987	(1.000)	855124	40.0000	
* 67 Phenanthrene-d10	188	7.157	7.145	(1.000)	1482724	40.0000	
* 91 Chrysene-d12	240	9.563	9.551	(1.000)	1208205	40.0000	
* 98 Perylene-d12	264	11.192	11.174	(1.000)	725547	40.0000	
$ 3 2-Fluorophenol	112	3.063	3.046	(0.792)	437210	40.9602	1580
$ 5 Phenol-d5	99	3.587	3.575	(0.927)	538964	39.7041	1530
$ 20 Nitrobenzene-d5	82	4.234	4.228	(0.893)	265441	19.3815	748
$ 39 2-Fluorobiphenyl	172	5.481	5.475	(0.915)	506906	22.9760	887
$ 60 2,4,6-Tribromophenol	329	6.586	6.575	(1.099)	133665	55.7031	2150
$ 81 p-Terphenyl-d14	244	8.533	8.522	(0.892)	660979	31.3944	1210

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6	Phenol	94	3.598	3.587	(0.930)	185233	13.4799	520(R)
8	2-Chlorophenol	128	3.734	3.728	(0.965)	159303	14.2542	550(R)
11	1,4-Dichlorobenzene	146	3.881	3.875	(1.003)	153323	12.8250	495(R)
17	N-Nitrosodipropylamine	70	4.104	4.104	(1.061)	122387	13.0541	504(QR)
28	1,2,4-Trichlorobenzene	180	4.687	4.681	(0.989)	150438	14.5309	561
33	4-Chloro-3-methylphenol	107	5.098	5.075	(1.076)	150192	15.2839	590
47	Acenaphthene	154	6.016	6.010	(1.004)	299595	13.5033	521
50	2,4-Dinitrotoluene	165	6.104	6.098	(1.019)	121317	15.9192	615(R)
52	4-Nitrophenol	139	6.051	6.016	(1.010)	48871	11.8841	459
65	Pentachlorophenol	266	6.986	6.969	(0.976)	57885	16.6181	642
79	Pyrene	202	8.428	8.422	(0.881)	625636	16.9865	656
2	Pyridine	79	2.416	2.381	(0.624)	83749	7.89366	305(aR)
4	Aniline	66	3.651	3.646	(0.944)	75439	11.7384	453
7	bis(2-Chloroethyl) ether	63	3.669	3.669	(0.948)	121888	11.9293	461(R)
9	1,3-Dichlorobenzene	146	3.840	3.834	(0.992)	152877	12.4169	480(R)
13	1,2-Dichlorobenzene	146	3.987	3.981	(1.030)	153228	14.1398	546(R)
14	bis(2-Chloroisopropyl)ether	45	4.016	4.010	(1.038)	245589	11.4362	442(R)
15	o-Cresol	107	3.993	3.981	(1.032)	119181	13.9835	540(R)
18	m,p-Cresols	107	4.087	4.081	(1.056)	192790	15.7036	606(R)
19	Hexachloroethane	117	4.216	4.210	(1.090)	54889	10.6349	411(R)
21	Nitrobenzene	77	4.245	4.240	(0.896)	197121	15.5991	602
22	Isophorone	82	4.398	4.393	(0.928)	327827	13.5194	522(R)
23	2-Nitrophenol	139	4.463	4.457	(0.942)	84147	15.3632	593
24	2,4-Dimethylphenol	122	4.493	4.445	(0.948)	327755	30.1806	1160(Q)
25	bis(2-Chloroethoxy)methane	93	4.522	4.516	(0.954)	180584	13.6982	529
26	2,4-Dichlorophenol	162	4.628	4.616	(0.976)	135010	14.9270	576
27	Benzoic acid	105	4.504	4.487	(0.950)	242763	36.1421	1400
30	Naphthalene	128	4.751	4.745	(1.002)	463183	13.1306	507
31	4-Chloroaniline	127	4.769	4.763	(1.006)	218594	14.0473	542
32	Hexachlorobutadiene	225	4.816	4.810	(1.016)	82852	14.0992	544
34	2-Methylnaphthalene	142	5.234	5.228	(1.104)	311195	14.3458	554
36	Hexachlorocyclopentadiene	237	5.340	5.328	(0.891)	47647	9.71756	375(aR)
37	2,4,6-Trichlorophenol	196	5.422	5.416	(0.905)	99278	13.8732	536
38	2,4,5-Trichlorophenol	196	5.457	5.440	(0.911)	131070	17.2874	668
40	2-Chloronaphthalene	162	5.587	5.581	(0.932)	309495	14.8690	574
42	o-Nitroaniline	65	5.645	5.640	(0.942)	149714	20.4763	791(Q)
41	m-Nitroaniline	138	5.939	5.934	(0.991)	82417	15.1724	586(R)
43	Dimethylphthalate	163	5.751	5.751	(0.960)	407385	16.8633	651(R)
44	2,6-Dinitrotoluene	165	5.810	5.804	(0.970)	87820	15.1823	586
45	Acenaphthylene	152	5.892	5.887	(0.983)	510986	15.4951	598
48	2,4-Dinitrophenol	184	6.010	6.004	(1.003)	20880	14.6291	565(aQ)
49	Dibenzofuran	168	6.139	6.134	(1.025)	452819	16.8014	649(R)
51	Diethylphthalate	149	6.263	6.257	(1.045)	403191	17.0257	657(R)
53	Fluorene	166	6.398	6.392	(1.068)	364057	15.2347	588(R)
54	4-Chlorophenylphenylether	204	6.381	6.369	(1.065)	194888	17.0012	656
55	2-Methyl-4,6-dinitrophenol	198	6.410	6.404	(0.896)	42492	15.3949	594
56	p-Nitroaniline	138	6.398	6.387	(1.068)	79783	17.9125	692(R)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.463	6.457	(0.903)	325514	16.9195	653
58 1,2-Diphenylhydrazine	77	6.504	6.492	(0.909)	396151	15.3183	592(R)
61 4-Bromophenylphenylether	248	6.763	6.757	(0.945)	113140	17.5739	679
63 Hexachlorobenzene	284	6.834	6.822	(0.955)	110073	17.8933	691(R)
68 Phenanthrene	178	7.175	7.169	(1.002)	559013	15.4728	598
69 Anthracene	178	7.222	7.210	(1.009)	591327	16.2466	627
72 Di-n-butylphthalate	149	7.581	7.575	(1.059)	694700	16.5038	637(R)
76 Fluoranthene	202	8.216	8.204	(1.148)	610881	16.6730	644
85 Butylbenzylphthalate	149	8.969	8.957	(0.938)	293578	16.4742	636(R)
89 Benzo(a)anthracene	228	9.551	9.539	(0.999)	503131	15.9481	616
90 3,3'-Dichlorobenzidine	252	9.504	9.498	(0.994)	131500	14.4290	557(R)
92 Chrysene	228	9.586	9.575	(1.002)	509205	16.8982	652
93 bis(2-Ethylhexyl)phthalate	149	9.492	9.486	(0.993)	449041	18.8516	728
94 Di-n-octylphthalate	149	10.133	10.122	(0.905)	608090	21.9026	846
95 Benzo(b)fluoranthene	252	10.686	10.674	(0.955)	350968	17.7932	687
96 Benzo(k)fluoranthene	252	10.722	10.710	(0.958)	381401	20.1546	778
97 Benzo(a)pyrene	252	11.116	11.098	(0.993)	281954	16.8781	652
99 Indeno(1,2,3-cd)pyrene	276	12.898	12.880	(1.152)	180548	11.7782	455(R)
100 Dibenzo(a,h)anthracene	278	12.915	12.898	(1.154)	152651	12.3638	477(R)
101 Benzo(ghi)perylene	276	13.421	13.398	(1.199)	132560	10.1277	391(R)
1 N-Methyl-N-nitrosomethylamine	74	2.375	2.352	(0.614)	84543	11.3558	438(R)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD6.i/s03201O.b/s6o2022.d
Date : 20-MAR-2010 22:45
Client ID: RE46-10-13553MS
Sample Info: 1120207149519654251 1|SVMI1|MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

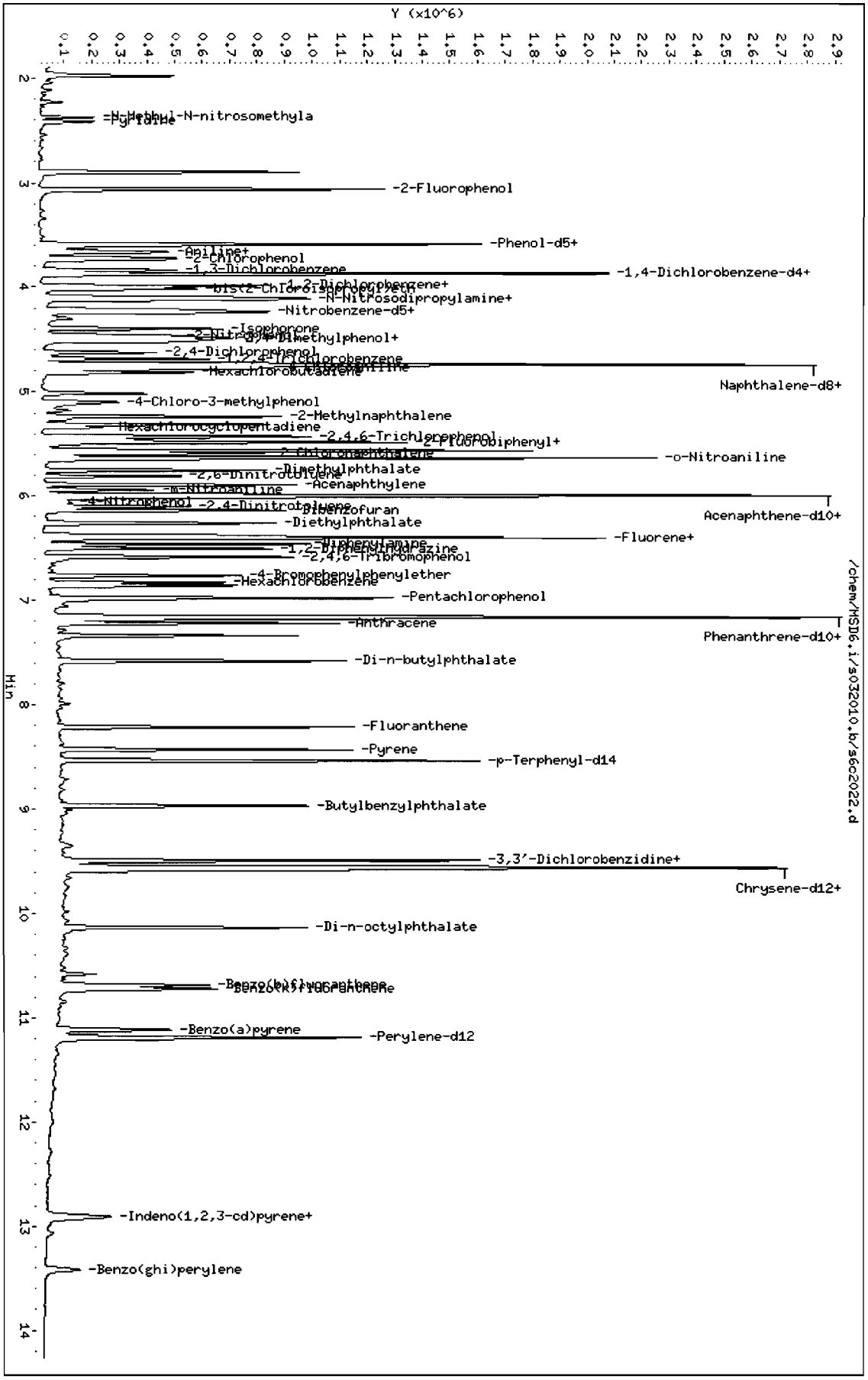

Page 1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202071496**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.9**
Client Sample:	**QC for batch 965424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13553MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 23:07**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2023.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		693	ug/kg	77.4	387
108-95-2	Phenol		886	ug/kg	77.4	387
95-57-8	2-Chlorophenol		780	ug/kg	77.4	387
106-46-7	1,4-Dichlorobenzene		669	ug/kg	77.4	387
621-64-7	N-Nitrosodipropylamine		815	ug/kg	77.4	387
59-50-7	4-Chloro-3-methylphenol		937	ug/kg	77.4	387
83-32-9	Acenaphthene		818	ug/kg	12.8	38.7
121-14-2	2,4-Dinitrotoluene		954	ug/kg	38.7	387
100-02-7	4-Nitrophenol		666	ug/kg	128	387
87-86-5	Pentachlorophenol		944	ug/kg	96.7	387
129-00-0	Pyrene		964	ug/kg	11.6	38.7
110-86-1	Pyridine		488	ug/kg	77.4	387
62-53-3	Aniline		830	ug/kg	116	387
111-44-4	bis(2-Chloroethyl) ether		723	ug/kg	77.4	387
541-73-1	1,3-Dichlorobenzene		698	ug/kg	77.4	387
100-51-6	Benzyl alcohol	U	387	ug/kg	116	387
95-50-1	1,2-Dichlorobenzene		779	ug/kg	77.4	387
108-60-1	bis(2-Chloroisopropyl)ether		702	ug/kg	77.4	387
95-48-7	o-Cresol		944	ug/kg	77.4	387
65794-96-9	m,p-Cresols		1050	ug/kg	116	387
67-72-1	Hexachloroethane		578	ug/kg	77.4	387
98-95-3	Nitrobenzene		944	ug/kg	77.4	387
78-59-1	Isophorone		844	ug/kg	77.4	387
88-75-5	2-Nitrophenol		929	ug/kg	77.4	387
105-67-9	2,4-Dimethylphenol		2000	ug/kg	135	387
111-91-1	bis(2-Chloroethoxy)methane		844	ug/kg	77.4	387
120-83-2	2,4-Dichlorophenol		868	ug/kg	77.4	387
65-85-0	Benzoic acid		2040	ug/kg	193	774
91-20-3	Naphthalene		756	ug/kg	11.6	38.7
106-47-8	4-Chloroaniline		865	ug/kg	77.4	387
87-68-3	Hexachlorobutadiene		784	ug/kg	77.4	387
91-57-6	2-Methylnaphthalene		867	ug/kg	7.74	38.7
77-47-4	Hexachlorocyclopentadiene		514	ug/kg	77.4	387
88-06-2	2,4,6-Trichlorophenol		954	ug/kg	77.4	387
95-95-4	2,4,5-Trichlorophenol		961	ug/kg	77.4	387
91-58-7	2-Chloronaphthalene		899	ug/kg	12.8	38.7
88-74-4	2-Nitroaniline		1470	ug/kg	77.4	387
99-09-2	*o-Nitroaniline* 3-Nitroaniline		892	ug/kg	77.4	387

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202071496**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.9**
Client Sample:	**QC for batch 965424**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13553MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965425**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 23:07**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 12:02**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s6c2023.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		998	ug/kg	77.4	387
606-20-2	2,6-Dinitrotoluene		955	ug/kg	38.7	387
208-96-8	Acenaphthylene		956	ug/kg	11.6	38.7
51-28-5	2,4-Dinitrophenol	J	748	ug/kg	147	774
132-64-9	Dibenzofuran		1020	ug/kg	77.4	387
84-66-2	Diethylphthalate		1020	ug/kg	77.4	387
86-73-7	Fluorene		919	ug/kg	11.6	38.7
7005-72-3	4-Chlorophenylphenylether		1050	ug/kg	77.4	387
534-52-1	2-Methyl-4,6-dinitrophenol		785	ug/kg	77.4	387
100-01-6	4-Nitroaniline		998	ug/kg	116	387
	p-Nitroaniline					
122-39-4	Diphenylamine		1020	ug/kg	77.4	387
122-66-7	Azobenzene		924	ug/kg	77.4	387
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1060	ug/kg	77.4	387
118-74-1	Hexachlorobenzene		1070	ug/kg	77.4	387
85-01-8	Phenanthrene		908	ug/kg	11.6	38.7
120-12-7	Anthracene		930	ug/kg	7.74	38.7
84-74-2	Di-n-butylphthalate		970	ug/kg	77.4	387
206-44-0	Fluoranthene		986	ug/kg	11.6	38.7
85-68-7	Butylbenzylphthalate		977	ug/kg	77.4	387
56-55-3	Benzo(a)anthracene		939	ug/kg	11.6	38.7
91-94-1	3,3'-Dichlorobenzidine		995	ug/kg	116	387
218-01-9	Chrysene		1010	ug/kg	11.6	38.7
117-81-7	bis(2-Ethylhexyl)phthalate		1120	ug/kg	77.4	387
117-84-0	Di-n-octylphthalate		1030	ug/kg	77.4	387
205-99-2	Benzo(b)fluoranthene		940	ug/kg	11.6	38.7
207-08-9	Benzo(k)fluoranthene		1160	ug/kg	11.6	38.7
50-32-8	Benzo(a)pyrene		1010	ug/kg	11.6	38.7
193-39-5	Indeno(1,2,3-cd)pyrene		903	ug/kg	11.6	38.7
53-70-3	Dibenzo(a,h)anthracene		919	ug/kg	11.6	38.7
191-24-2	Benzo(ghi)perylene		827	ug/kg	11.6	38.7
120-82-1	1,2,4-Trichlorobenzene		821	ug/kg	77.4	387

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032010.b/s6c2023.d
Lab Smp Id: 1202071496 Client Smp ID: RE46-10-13553MSD
Inj Date : 20-MAR-2010 23:07
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202071496|965425|1|SVM|1|MSD
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032010.b/MSD6-M8270C-AQA-031610.m
Meth Date : 24-Mar-2010 18:20 11o00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d
Als bottle: 20 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	13.94230	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.869	3.863	(1.000)	362790	40.0000	
* 29 Naphthalene-d8	136	4.740	4.734	(1.000)	1398747	40.0000	
* 46 Acenaphthene-d10	164	5.992	5.987	(1.000)	819843	40.0000	
* 67 Phenanthrene-d10	188	7.157	7.145	(1.000)	1417372	40.0000	
* 91 Chrysene-d12	240	9.563	9.551	(1.000)	1212784	40.0000	
* 98 Perylene-d12	264	11.198	11.174	(1.000)	925568	40.0000	
$ 3 2-Fluorophenol	112	3.063	3.046	(0.792)	465027	46.1098	1780
$ 5 Phenol-d5	99	3.587	3.575	(0.927)	527140	41.1003	1590
$ 20 Nitrobenzene-d5	82	4.234	4.228	(0.893)	275487	20.6031	797
$ 39 2-Fluorobiphenyl	172	5.481	5.475	(0.915)	537454	25.4090	983
$ 60 2,4,6-Tribromophenol	329	6.586	6.575	(1.099)	133938	58.2189	2250
$ 81 p-Terphenyl-d14	244	8.533	8.522	(0.892)	660179	31.2380	1210

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.[illegible]98	3.587	(0.930)	297332	22.9010	886
8 2-Chlorophenol	128	3.[illegible]	3.728	(0.967)	212831	20.1556	780
11 1,4-Dichlorobenzene	146	3.88[illegible]	3.875	(1.003)	195422	17.3008	669
17 N-Nitrosodipropylamine	70	4.1[illegible]4	4.104	(1.061)	186722	21.0790	815(Q)
28 1,2,4-Trichlorobenzene	180	4.68[illegible]	4.681	(0.989)	214650	21.2364	821
33 4-Chloro-3-methylphenol	107	5.[illegible]92	5.075	(1.074)	232411	24.2247	937
47 Acenaphthene	154	6.0[illegible]6	6.010	(1.004)	449592	21.1359	818
50 2,4-Dinitrotoluene	165	6.0[illegible]4	6.098	(1.019)	180174	24.6599	954
52 4-Nitrophenol	139	6.045	6.016	(1.009)	67884	17.2179	666
65 Pentachlorophenol	266	6.986	6.969	(0.976)	81241	24.3987	944
79 Pyrene	202	8.428	8.422	(0.881)	921465	24.9240	964
2 Pyridine	79	2.4[illegible]	2.381	(0.623)	126488	12.6180	488
4 Aniline	66	3.651	3.646	(0.944)	130244	21.4494	830
7 bis(2-Chloroethyl) ether	63	3.669	3.669	(0.948)	180314	18.6779	722
9 1,3-Dichlorobenzene	146	3.834	3.834	(0.991)	209976	18.0503	698
13 1,2-Dichlorobenzene	146	3.981	3.981	(1.029)	206075	20.1268	778
14 bis(2-Chloroisopropyl)ether	45	4.016	4.010	(1.038)	368400	18.1566	702
15 o-Cresol	107	3.993	3.981	(1.032)	196600	24.4138	944
18 m,p-Cresols	107	4.093	4.081	(1.058)	315819	27.2268	1050
19 Hexachloroethane	117	4.210	4.210	(1.088)	72863	14.9416	578
21 Nitrobenzene	77	4.245	4.240	(0.896)	301198	24.4136	944
22 Isophorone	82	4.398	4.393	(0.928)	516521	21.8180	844
23 2-Nitrophenol	139	4.463	4.457	(0.942)	128452	24.0214	929
24 2,4-Dimethylphenol	122	4.487	4.445	(0.947)	511268	51.8022	2000(Q)
25 bis(2-Chloroethoxy)methane	93	4.522	4.516	(0.954)	280674	21.8071	844
26 2,4-Dichlorophenol	162	4.628	4.616	(0.976)	198074	22.4310	868
27 Benzoic acid	105	4.510	4.487	(0.952)	346594	52.8525	2040
30 Naphthalene	128	4.751	4.745	(1.002)	673378	19.5526	756
31 4-Chloroaniline	127	4.769	4.763	(1.006)	339826	22.3678	865
32 Hexachlorobutadiene	225	4.816	4.810	(1.016)	116335	20.2775	784
34 2-Methylnaphthalene	142	5.234	5.228	(1.104)	474417	22.4009	866
36 Hexachlorocyclopentadiene	237	5.334	5.328	(0.890)	62491	13.2934	514
37 2,4,6-Trichlorophenol	196	5.422	5.416	(0.905)	169127	24.6510	954
38 2,4,5-Trichlorophenol	196	5.457	5.440	(0.911)	180511	24.8330	960
40 2-Chloronaphthalene	162	5.587	5.581	(0.932)	463595	23.2308	899
42 o-Nitroaniline	65	5.645	5.640	(0.942)	265898	37.9317	1470(Q)
41 m-Nitroaniline	138	5.939	5.934	(0.991)	120081	23.0574	892
43 Dimethylphthalate	163	5.751	5.751	(0.960)	597690	25.8055	998
44 2,6-Dinitrotoluene	165	5.810	5.804	(0.970)	136859	24.6783	955
45 Acenaphthylene	152	5.892	5.887	(0.983)	781093	24.7051	956
48 2,4-Dinitrophenol	184	6.010	6.004	(1.003)	30734	19.3449	748(aQ)
49 Dibenzofuran	168	6.139	6.134	(1.025)	680260	26.3266	1020
51 Diethylphthalate	149	6.263	6.257	(1.045)	600063	26.4296	1020
53 Fluorene	166	6.398	6.392	(1.068)	544152	23.7511	919
54 4-Chlorophenylphenylether	204	6.381	6.369	(1.065)	298901	27.1969	1050
55 2-Methyl-4,6-dinitrophenol	198	6.416	6.404	(0.896)	58836	20.3052	785
56 p-Nitroaniline	138	6.398	6.387	(1.068)	110228	25.8129	998

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.469	6.457	(0.904)	486755	26.4670	1020
58 1,2-Diphenylhydrazine	[illegible]	6.504	6.492	(0.909)	590219	23.8748	924
61 4-Bromophenylphenylether	248	6.763	6.757	(0.945)	168904	27.4453	1060
63 Hexachlorobenzene	284	6.834	6.822	(0.955)	162771	27.6799	1070
68 Phenanthrene	178	7.181	7.169	(1.003)	810489	23.4677	908
69 Anthracene	178	7.222	7.210	(1.009)	836068	24.0300	930
72 Di-n-butylphthalate	149	7.581	7.575	(1.059)	1009483	25.0878	970
76 Fluoranthene	202	8.216	8.204	(1.148)	893103	25.4997	986
85 Butylbenzylphthalate	149	8.969	8.957	(0.938)	451833	25.2590	977
89 Benzo(a)anthracene	228	9.551	9.539	(0.999)	768687	24.2736	939
90 3,3'-Dichlorobenzidine	252	9.504	9.498	(0.994)	235220	25.7124	995
92 Chrysene	228	9.586	9.575	(1.002)	791629	26.1714	1010
93 bis(2-Ethylhexyl)phthalate	149	9.492	9.486	(0.993)	691773	28.9324	1120
94 Di-n-octylphthalate	149	10.133	10.122	(0.905)	941179	26.5740	1030
95 Benzo(b)fluoranthene	252	10.692	10.674	(0.955)	611489	24.3015	940
96 Benzo(k)fluoranthene	252	10.722	10.710	(0.957)	724756	30.0222	1160
97 Benzo(a)pyrene	252	11.116	11.098	(0.993)	559123	26.2368	1010
99 Indeno(1,2,3-cd)pyrene	276	12.904	12.880	(1.152)	456555	23.3472	903
100 Dibenzo(a,h)anthracene	278	12.921	12.898	(1.154)	374112	23.7527	919
101 Benzo(ghi)perylene	276	13.427	13.398	(1.199)	356845	21.3714	827
1 N-Methyl-N-nitrosomethylamine	74	2.369	2.352	(0.612)	125970	17.9081	693

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s032010.b/s6c2023.d
Date : 20-MAR-2010 23:07
Client ID: RE46-10-13553MSD
Sample Info: 1120207149619654251|1|SVM1|1|MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

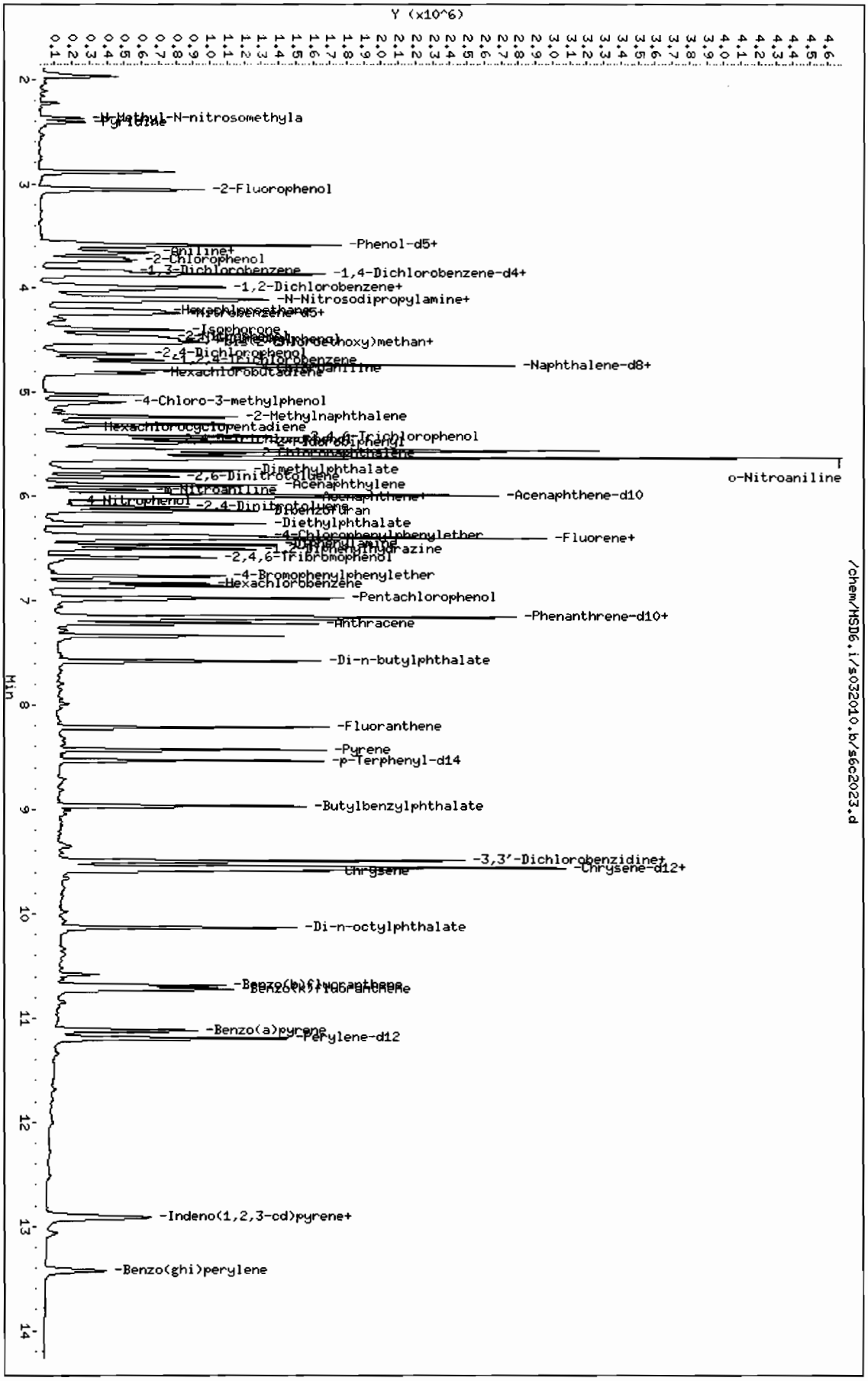

Page 1

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 965424 **Verified by:**
Analyst: Robin Hunt
Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202071493 MB	16-MAR-2010 12:02:00	30	1	0.03333
1202071494 LCS	16-MAR-2010 12:02:00	30	1	0.03333
248702001	16-MAR-2010 12:02:00	30	1	0.03333
248702002	16-MAR-2010 12:02:00	30.03	1	0.0333
248780002	16-MAR-2010 12:02:00	30.02	1	0.03331
248780003	16-MAR-2010 12:02:00	30.06	1	0.03327
248780004	16-MAR-2010 12:02:00	30.09	1	0.03323
248780005	16-MAR-2010 12:02:00	30.08	1	0.03324
248780006	16-MAR-2010 12:02:00	30.09	1	0.03323
248780007	16-MAR-2010 12:02:00	30.06	1	0.03327
248780008	16-MAR-2010 12:02:00	30.03	1	0.0333
248780009	16-MAR-2010 12:02:00	30.04	1	0.03329
248842002	16-MAR-2010 12:02:00	30.04	1	0.03329
1202071495 MS (248842002)	16-MAR-2010 12:02:00	30.09	1	0.03323
1202071496 MSD (248842002)	16-MAR-2010 12:02:00	30.04	1	0.03329
248842003	16-MAR-2010 12:02:00	30	1	0.03333
248842004	16-MAR-2010 12:02:00	30.02	1	0.03331
248842005	16-MAR-2010 12:02:00	30.09	1	0.03323
248842006	16-MAR-2010 12:02:00	30.09	1	0.03323
248842007	16-MAR-2010 12:02:00	30.09	1	0.03323
248842008	16-MAR-2010 12:02:00	30	1	0.03333
248842009	16-MAR-2010 12:02:00	30.04	1	0.03329
248842010	16-MAR-2010 12:02:00	30.09	1	0.03323

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202071494	BNA LCS w/o Benzidine 50ppm	UE100302-14	1	mL
LCS	1202071494	BENZIDINE LCS	UE100310-22	1	mL
MS	1202071495	BNA LCS w/o Benzidine 50ppm	UE100302-14	1	mL
MS	1202071495	BENZIDINE LCS	UE100310-22	1	mL
MSD	1202071496	BNA LCS w/o Benzidine 50ppm	UE100302-14	1	mL
MSD	1202071496	BENZIDINE LCS	UE100310-22	1	mL
SURR	All	BNA for all Surrogate	UE100310-10	1	mL
REGNT	All	Acetone	1273739-B1	150	mL
REGNT	All	Methylene Chloride	1281955-D	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: JAM
Final Solvent: CH2Cl2

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 968547 **Verified by:**
Analyst: Joshua McCartney
Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202079224 MB	24-MAR-2010 10:49:00	30	1	0.03333
1202079225 LCS	24-MAR-2010 10:49:00	30	1	0.03333
1202079226 LCSD	24-MAR-2010 10:49:00	30	1	0.03333
248842005 - 2	24-MAR-2010 10:49:00	30	1	0.03333
248842006 - 2	24-MAR-2010 10:49:00	30.01	1	0.03332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202079225	BNA LCS w/o Benzidine 50ppm	UE100310-17	1	mL
LCS	1202079225	BENZIDINE LCS	UE100310-23	1	mL
LCSD	1202079226	BNA LCS w/o Benzidine 50ppm	UE100310-17	1	mL
LCSD	1202079226	BENZIDINE LCS	UE100310-23	1	mL
SURR	All	BNA for all Surrogate	UE100319-10	1	mL
REGNT	All	Acetone	1273823-B1	150	mL
REGNT	All	Methylene Chloride	1286042-D	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:
Verified By: RWH
Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 03/16/2010 METHOD: See raw data OPERATOR: nagl REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1576 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s031610.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6c1601-D.d	WBN100306-01.2	nagl	16-MAR-2010 08:42	DFTPP	s031610	1.0	DFTPP	MEGA
s6c1601.d	WBN100306-01.2	nagl	16-MAR-2010 08:42	DFTPP	s031610	1.0	DFTPP	MEGA
s6c1602.d	INSTBLK	nagl	16-MAR-2010 08:55		s031610	1.0		
s6c1603.d	WBN100309-08	nagl	16-MAR-2010 09:18	001 PPM	s031610	1.0	MEGA001	
s6c1604-RQ.d	WBN100309-07	nagl	16-MAR-2010 09:47	010 PPM	s031610	1.0	MEGA010	
s6c1604.d	WBN100309-07	nagl	16-MAR-2010 09:47	010 PPM	s031610	1.0	MEGA010	
s6c1605.d	WBN100309-06	nagl	16-MAR-2010 10:17	020 PPM	s031610	1.0	MEGA020	
s6c1606.d	WBN100309-05.1	nagl	16-MAR-2010 10:48	040 PPM	s031610	1.0	MEGA040	
s6c1607.d	WBN100309-04	nagl	16-MAR-2010 11:18	050 PPM	s031610	1.0	MEGA050	
s6c1608.d	WBN100309-03	nagl	16-MAR-2010 11:48	080 PPM	s031610	1.0	MEGA080	
s6c1609.d	WBN100309-02	nagl	16-MAR-2010 12:18	100 PPM	s031610	1.0	MEGA100	
s6c1610.d	WBN100309-01	nagl	16-MAR-2010 12:48	120 PPM	s031610	1.0	MEGA120	
s6c1611.d	INSTBLK	nagl	16-MAR-2010 13:16		s031610	1.0		
s6c1612-BOE.d	WBN100309-09.1	nagl	16-MAR-2010 13:40	040 PPM	s031610	1.0	MEGAICV	
s6c1612-D.d	WBN100309-09.1	nagl	16-MAR-2010 13:40	040 PPM	s031610	1.0	MEGAICV	
s6c1612.d	WBN100309-09.1	nagl	16-MAR-2010 13:40	040 PPM	s031610	1.0	MEGAICV	
s6c1613-D.d	WBN100306-01.2	nagl	16-MAR-2010 16:06	DFTPP	s031610	1.0	DFTPP	AP/PEST/HEX
s6c1613.d	WBN100306-01.2	nagl	16-MAR-2010 16:06	DFTPP	s031610	1.0	DFTPP	AP/PEST/HEX
s6c1614.d	INSTBLK	nagl	16-MAR-2010 16:19		s031610	1.0		

s6c1615.d	WBN100312-01	nag1	16-MAR-2010 16:42	10 PPM	s031610	1.0	AP010	
s6c1616.d	WBN100312-02	nag1	16-MAR-2010 17:06	20 PPM	s031610	1.0	AP020	
s6c1617.d	WBN100312-03.1	nag1	16-MAR-2010 17:30	40 PPM	s031610	1.0	AP040	
s6c1618.d	WBN100312-04	nag1	16-MAR-2010 17:53	50 PPM	s031610	1.0	AP050	
s6c1619.d	WBN100312-05	nag1	16-MAR-2010 18:16	80 PPM	s031610	1.0	AP080	
s6c1620.d	WBN100312-06	nag1	16-MAR-2010 18:40	100 PPM	s031610	1.0	AP100	
s6c1621.d	WBN100312-07	nag1	16-MAR-2010 19:04	120 PPM	s031610	1.0	AP120	
s6c1622.d	WBN100304-25	nag1	16-MAR-2010 19:27	10 PPM	s031610	1.0	PEST010	
s6c1623.d	WBN100304-24	nag1	16-MAR-2010 19:51	20 PPM	s031610	1.0	PEST020	
s6c1624.d	WBN100304-23.1	nag1	16-MAR-2010 20:16	40 PPM	s031610	1.0	PEST040	
s6c1625.d	WBN100304-22	nag1	16-MAR-2010 20:39	50 PPM	s031610	1.0	PEST050	
s6c1626.d	WBN100304-21	nag1	16-MAR-2010 21:04	80 PPM	s031610	1.0	PEST080	
s6c1627.d	WBN100304-20	nag1	16-MAR-2010 21:29	100 PPM	s031610	1.0	PEST100	
s6c1628.d	WBN100304-19	nag1	16-MAR-2010 21:52	120 PPM	s031610	1.0	PEST120	
s6c1629.d	WBN100304-16	nag1	16-MAR-2010 22:16	500 PPM	s031610	1.0	HEX500	
s6c1630.d	WBN100304-15	nag1	16-MAR-2010 22:40	1000 PPM	s031610	1.0	HEX1000	
s6c1631.d	WBN100304-14	nag1	16-MAR-2010 23:05	1250 PPM	s031610	1.0	HEX1250	
s6c1632.d	WBN100304-15	nag1	16-MAR-2010 23:30	1500 PPM	s031610	1.0	HEX1500	
s6c1633.d	WBN100304-16	nag1	16-MAR-2010 23:53	1750 PPM	s031610	1.0	HEX1750	
s6c1634.d	UBN100304-16	nag1	17-MAR-2010 00:17	2000 PPM	s031610	1.0	HEX2000	
s6c1635-D.d	WBN100312-08.1	nag1	17-MAR-2010 00:41	40 PPM	s031710	1.0	APICV	
s6c1635.d	WBN100312-08.1	nag1	17-MAR-2010 00:41	40 PPM	s031710	1.0	APICV	
s6c1636-D.d	WBN100304-26.1	nag1	17-MAR-2010 01:05	40 PPM	s031710	1.0	PESTICV	
s6c1636.d	WBN100304-26.1	nag1	17-MAR-2010 01:05	40 PPM	s031710	1.0	PESTICV	
s6c1637-D.d	WBN100304-14	nag1	17-MAR-2010 01:30	1250 PPM	s031710	1.0	HEX1250	
s6c1637.d	WBN100304-14	nag1	17-MAR-2010 01:30	1250 PPM	s031710	1.0	HEX1250	
s6c1638-D.d	WBN100306-01.2	nag1	17-MAR-2010 01:55	DFTPP	s031610	1.0	DFTPP	NEV

s6c1638.d	WBN100306-01.2	nag1	17-MAR-2010 01:55	DFTPP	s031610		1.0	DFTPP	NEV
s6c1639.d	INSTBLK	nag1	17-MAR-2010 02:08		s031610		1.0		
s6c1640.d	WBN100127-01	nag1	17-MAR-2010 02:32	10 PPM	s031610		1.0	NEV010	
s6c1641.d	WBN100127-02	nag1	17-MAR-2010 02:55	20 PPM	s031610		1.0	NEV020	
s6c1642.d	WBN100127-03	nag1	17-MAR-2010 03:19	40 PPM	s031610		1.0	NEV040	
s6c1643.d	WBN100127-04	nag1	17-MAR-2010 03:42	50 PPM	s031610		1.0	NEV050	
s6c1644.d	WBN100127-05	nag1	17-MAR-2010 04:05	80 PPM	s031610		1.0	NEV080	
s6c1645.d	WBN100127-06	nag1	17-MAR-2010 04:28	100 PPM	s031610		1.0	NEV100	
s6c1646.d	WBN100127-07	nag1	17-MAR-2010 04:51	120 PPM	s031610		1.0	NEV120	
s6c1647.d	WBN100127-03	nag1	17-MAR-2010 05:14	40 PPM	s031610		1.0	NEVcvs	

Instrument Batch: /chem/MSD6.i/s031610.b

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 03/20/2010 METHOD: See raw data OPERATOR: nagl REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1576 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s032010.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6c2001.d	WBN100306-01.2	nagl	20-MAR-2010 12:47	DFTPP	s032010	1.0	DFTPP	DUSE
s6c2002.d	WBN100309-05.3	nagl	20-MAR-2010 13:00	40 PPM	s032010	1.0	MEGACVS	DUSE; MAINTENANCE
s6c2003.d	WBN100306-01.2	nagl	20-MAR-2010 14:38	DFTPP	s032010	1.0	DFTPP	USE
s6c2004.d	WBN100309-05.3	nagl	20-MAR-2010 14:52	40 PPM	s032010	1.0	MEGACVS	DUSE
s6c2005.d	WBN100312-03.3	nagl	20-MAR-2010 15:22	40 PPM	s032010	1.0	APCVS	USE
s6c2006.d	WBN100309-05.3	nagl	20-MAR-2010 15:45	40 PPM	s032010	1.0	MEGACVS	pass 322202
s6c2007.d	WBN100304-23.3	nagl	20-MAR-2010 16:15	40 PPM	s032010	1.0	PESTCVS	USE
s6c2008.d	UBN100127-08.1	nagl	20-MAR-2010 16:39	40 PPM	s032010	1.0	NEVCVS	USE
s6c2009-1.d	1202071493	nagl	20-MAR-2010 17:42	965425	10-2283	1.0	MB	
s6c2009-2.d	1202071493	nagl	20-MAR-2010 17:42	965425	10-2302	1.0	MB	
s6c2009.d	1202071493	nagl	20-MAR-2010 17:42	965425	10-2264	1.0	MB	
s6c2010-1.d	1202071494	nagl	20-MAR-2010 18:06	965425	10-2283	1.0	LCS	
s6c2010-2.d	1202071494	nagl	20-MAR-2010 18:06	965425	10-2302	1.0	LCS	
s6c2010.d	1202071494	nagl	20-MAR-2010 18:06	965425	10-2264	1.0	LCS	
s6c2011.d	248702001	nagl	20-MAR-2010 18:29	965425	10-2264	1.0	LANL	
s6c2012.d	248702002	nagl	20-MAR-2010 18:52	965425	10-2264	1.0	LANL	
s6c2013.d	248780002	nagl	20-MAR-2010 19:16	965425	10-2283	1.0	LANL	
s6c2014.d	248780003	nagl	20-MAR-2010 19:40	965425	10-2283	1.0	LANL	
s6c2015.d	248780004	nagl	20-MAR-2010 20:03	965425	10-2283	1.0	LANL	

s6c2016.d	248780005	nagl	20-MAR-2010 20:26	965425	10-2283	1.0	LANL	
s6c2017.d	248780006	nagl	20-MAR-2010 20:49	965425	10-2283	1.0	LANL	
s6c2018.d	248780007	nagl	20-MAR-2010 21:12	965425	10-2283	1.0	LANL	
s6c2019.d	248780008	nagl	20-MAR-2010 21:36	965425	10-2283	1.0	LANL	
s6c2020.d	248780009	nagl	20-MAR-2010 21:58	965425	10-2283	1.0	LANL	
s6c2021.d	248842002	nagl	20-MAR-2010 22:22	965425	10-2302	1.0	LANL	
s6c2022.d	1202071495	nagl	20-MAR-2010 22:45	965425	10-2302	1.0	MS	
s6c2023.d	1202071496	nagl	20-MAR-2010 23:07	965425	10-2302	1.0	MSD	
s6c2024.d	248842003	nagl	20-MAR-2010 23:30	965425	10-2302	1.0	LANL	
s6c2025.d	248842004	nagl	20-MAR-2010 23:53	965425	10-2302	1.0	LANL	DUSE c93 overrange rr 10x s6c2318
s6c2026.d	248842005	nagl	21-MAR-2010 00:16	965425	10-2302	1.0	LANL	USE; fail surr RX; SEE RE S6C2419 CONFIRMS
s6c2027.d	248842006	nagl	21-MAR-2010 00:39	965425	10-2302	1.0	LANL	USE; fail surr RX; SEE RE S6C2420 PASS OH REPORT BOTH SETS
s6c2028.d	248842007	nagl	21-MAR-2010 01:01	965425	10-2302	1.0	LANL	DUSE c93 overrange rr 10x s6c2319
s6c2029.d	248842008	nagl	21-MAR-2010 01:24	965425	10-2302	1.0	LANL	DUSE-carryover s6c2320
s6c2030.d	248842009	nagl	21-MAR-2010 01:47	965425	10-2302	1.0	LANL	DUSE-c93 overrange rr 10x s6c2321

Instrument Batch: /chem/MSD6.i/s032010.b Page: 1

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 03/23/2010 METHOD: See raw data OPERATOR: nagl REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1576 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100319-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s032310.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6c2301.d	WBN100306-01.2	nagl	23-MAR-2010 13:49	DFTPP	s032310	1.0	DFTPP	DUSE
s6c2302.d	WBN100309-05.3	nagl	23-MAR-2010 14:02	40 PPM	s032310	1.0	MEGACVS	DUSE
s6c2303.d	WBN100312-03.3	nagl	23-MAR-2010 14:34	40 PPM	s032310	1.0	APCVS	DUSE
s6c2304.d	WBN100304-26.3	nagl	23-MAR-2010 14:59	40 PPM	s032310	1.0	PESTCVS	DUSE; MAINTENANCE
s6c2305.d	WBN100306-01.2	nagl	23-MAR-2010 15:53	DFTPP	s032310	1.0	DFTPP	DUSE
s6c2306.d	WBN100306-01.2	nagl	23-MAR-2010 16:10	DFTPP	s032310	1.0	DFTPP	USE
s6c2307.d	WBN100309-05.3	nagl	23-MAR-2010 16:23	40 PPM	s032310	1.0	MEGACVS	DUSE
s6c2308.d	WBN100312-03.3	nagl	23-MAR-2010 17:02	40 PPM	s032310	1.0	APCVS	USE
s6c2309.d	WBN100309-05.3	nagl	23-MAR-2010 17:25	40 PPM	s032310	1.0	MEGACVS	USE; 304917
s6c2310.d	INST BLK	nagl	23-MAR-2010 17:57	-------	s032310	1.0	INST BLK	IB
s6c2311.d	1202069973	nagl	23-MAR-2010 18:20	964843	249222	1.0	MB	USE
s6c2312.d	1202069974	nagl	23-MAR-2010 18:45	964843	249222	1.0	LCS	USE
s6c2313.d	1202069975	nagl	23-MAR-2010 19:09	964843	249222	1.0	LCSD	MEASURE VOLUME/SPIKES HIGH???
s6c2314.d	249222001	nagl	23-MAR-2010 19:33	964843	249222	1.0	GEEL	USE
s6c2315.d	249222002	nagl	23-MAR-2010 19:57	964843	249222	1.0	GEEL	USE
s6c2316.d	249222004	nagl	23-MAR-2010 20:20	964843	249222	1.0	GEEL	USE; SURR LOW; CONSUMED
s6c2317.d	249222005	nagl	23-MAR-2010 20:44	964843	249222	1.0	GEEL	USE; SURR LOW; CONSUMED
s6c2318.d	248842004	nagl	23-MAR-2010 21:08	965425	10-2302	10.0	LANL	USE; RR OF S6C2128
s6c2319.d	248842007	nagl	23-MAR-2010 21:32	965425	10-2302	10.0	LANL	USE; RR OF S6C2131

s6c2320.d	248842008	nagl	23-MAR-2010 21:55	965425	10-2302	10.0	LANL	USE; RR OF S6C2132
s6c2321.d	248842009	nagl	23-MAR-2010 22:19	965425	10-2302	10.0	LANL	USE; RR OF S6C2133
s6c2322.d	248842010	nagl	23-MAR-2010 22:42	965425	10-2302	10.0	LANL	USE; RR OF S6C2134
s6c2323.d	248514002	nagl	23-MAR-2010 23:06	963133	10-2196	4.0	LANL	USE; RR OF S6C2111
s6c2324.d	248514003	nagl	23-MAR-2010 23:30	963133	10-2196	4.0	LANL	USE; RR OF S6C2112
s6c2325.d	248519001	nagl	23-MAR-2010 23:53	963133	10-2199	4.0	LANL	USE; RR OF S6C2114
s6c2326.d	248519002	nagl	24-MAR-2010 00:17	963133	10-2199	4.0	LANL	USE; RR OF S6C2115
s6c2327.d	248519003	nagl	24-MAR-2010 00:40	963133	10-2199	4.0	LANL	USE; RR OF S6C2116
s6c2328.d	248519004	nagl	24-MAR-2010 01:03	963133	10-2199	4.0	LANL	USE; RR OF S6C2117
s6c2329.d	248519006	nagl	24-MAR-2010 01:26	963133	10-2199	4.0	LANL	USE; RR OF S6C2119
s6c2330.d	248519007	nagl	24-MAR-2010 01:50	963133	10-2199	4.0	LANL	USE; RR OF S6C2120
s6c2331.d	248519010	nagl	24-MAR-2010 02:12	963133	10-2199	4.0	LANL	USE; RR OF S6C2123
s6c2332.d	248519011	nagl	24-MAR-2010 02:35	963133	10-2199	4.0	LANL	USE; RR OF S6C2124
s6c2333.d	249222004	nagl	24-MAR-2010 02:57	964843	249222	1.0	GEEL	DUSE; SURR STILL LOW
s6c2334.d	249222005	nagl	24-MAR-2010 03:20	964843	249222	1.0	GEEL	DUSE; SURR STILL LOW

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 03/24/2010 METHOD: See raw data OPERATOR: nag1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1576 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100319-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s032410.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6c2401.d	WBN100306-01.2	nag1	24-MAR-2010 12:18	DFTPP	s032410	1.0	DFTPP	DUSE
s6c2402.d	WBN100306-01.2	nag1	24-MAR-2010 12:51	DFTPP	s032410	1.0	DFTPP	DUSE
s6c2403.d	WBN100309-05.5	nag1	24-MAR-2010 13:05	40 PPM	s032410	1.0	MEGACVS	DUSE
s6c2404-D.d	WBN100306-01.2	nag1	24-MAR-2010 14:19	DFTPP	s032410	1.0	DFTPP	USE; 8270D
s6c2404.d	WBN100306-01.2	nag1	24-MAR-2010 14:19	DFTPP	s032410	1.0	DFTPP	USE; 8270C
s6c2405-D.d	WBN100309-05.5	nag1	24-MAR-2010 14:31	40 PPM	s032410	1.0	MEGACVS	USE; 8270D 525197
s6c2405.d	WBN100309-05.5	nag1	24-MAR-2010 14:31	40 PPM	s032410	1.0	MEGACVS	USE; 8270C
s6c2406-D.d	WBN100312-03.5	nag1	24-MAR-2010 15:00	40 PPM	s032410	1.0	APCVS	USE; 8270D
s6c2406.d	WBN100312-03.5	nag1	24-MAR-2010 15:00	40 PPM	s032410	1.0	APCVS	USE; 8270C
s6c2407.d	UBN100127-08.2	nag1	24-MAR-2010 15:24	40 PPM	s032410	1.0	NEVCVS	USE
s6c2408.d	1202074765	JMB3	24-MAR-2010 15:48	966749	249534	1.0	MB	USE
s6c2409.d	1202074766	JMB3	24-MAR-2010 16:12	966749	249534	1.0	LCS	USE
s6c2410.d	249534001	JMB3	24-MAR-2010 16:36	966749	249534	1.0	COMM	USE
s6c2411.d	1202074767	JMB3	24-MAR-2010 17:00	966749	249534	1.0	MS	USE
s6c2412.d	1202074768	JMB3	24-MAR-2010 17:24	966749	249534	1.0	MSD	USE
s6c2413.d	WBN100304-23.4	nag1	24-MAR-2010 17:47	40 PPM	s032410	1.0	PESTCVS	USE
s6c2414.d	1202079224	nag1	24-MAR-2010 18:11	968549	10-2302	1.0	MB	USE
s6c2415.d	1202079225	nag1	24-MAR-2010 18:34	968549	10-2302	1.0	LCS	USE
s6c2416.d	1202079226	nag1	24-MAR-2010 18:57	968549	10-2302	1.0	LCSD	USE

s6c2417.d	1202074783	nagl	24-MAR-2010 19:21	966756	248933		1.0	MB	USE
s6c2418.d	1202074789	nagl	24-MAR-2010 19:44	966756	248933		1.0	LCS	USE
s6c2419.d	248842005	nagl	24-MAR-2010 20:07	968549	10-2302		1.0	LANLRE	DUSE; RE OF S6C2026; CONFIRMS SURR FAILURE
s6c2420.d	248842006	nagl	24-MAR-2010 20:31	968549	10-2302		1.0	LANLRE	USE; RE OF S6C2027; SURR PASS OUT OF HOLD
s6c2421.d	248933020	nagl	24-MAR-2010 20:55	966756	248933		1.0	BRCM	USE
s6c2422.d	1202074785	nagl	24-MAR-2010 21:19	966756	248933		1.0	MS	USE
s6c2423.d	1202074787	nagl	24-MAR-2010 21:41	966756	248933		1.0	MSD	USE
s6c2424.d	248933021	nagl	24-MAR-2010 22:05	966756	248933		1.0	BRCM	USE
s6c2425.d	1202074784	nagl	24-MAR-2010 22:28	966756	248933		1.0	DUP	USE
s6c2426.d	248933022	nagl	24-MAR-2010 22:51	966756	248933		1.0	BRCM	USE
s6c2427.d	248933023	nagl	24-MAR-2010 23:15	966756	248933		1.0	BRCM	USE
s6c2428.d	248933024	nagl	24-MAR-2010 23:38	966756	248933		1.0	BRCM	USE

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
965425	See Below		

Potentially affected work order(s)(SDG): 248702(10-2264),248780(10-2283),248842(10-2302)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Yield for Surrogates

Failed Recovery for LCS/LCSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Samples 248842005 and 248842006 recovered surrogates outside of the established acceptance limits. Please see the QC Summary report for the specific failures.	1. The samples were re-extracted out of hold in batch 968549 for confirmation. The surrogate failure was confirmed by re-extraction for sample 248842004. The original data was reported. Sample 248842005 passed surrogate recovery upon re-extraction. Both sets of data were reported.
2. The LCS(1202071494) recovered Benzyl alcohol at 20%. The limits are 27%-108%.	2. The LCS failure represents less than 5% of the total spike analyte list. That satisfied the acceptance criteria for the client and the data results have been reported. Please note that Benzyl alcohol is known to be a poor responder that is subject to erratic chromatography behavior as stated in the method. This may account for the low recovery in the LCS (and also the zero recoveries in the MS and MSD).
3. The MS(1202071495) recovered multiple spike analytes outside of the established acceptance limits. Please see the QC Summary report for the specific failures.	3. With the exception of Benzyl alcohol, the MSD displayed similar low (but passing) recoveries to the MS. Therefore, the failures were attributed to sample matrix interference and the data results have been reported. Please note that Benzyl alcohol is known to be a poor responder that is subject to erratic chromatography behavior as stated in the method. This may account for the zero recoveries in the MS and MSD (and also the low recovery in the LCS).
4. The MSD recovered Benzyl alcohol at 0%. The limits are 19%-112%.	4. The MSD confirmed the failure was attributed to sample matrix interference (please see item #3 above about Benzyl alcohol).
5. Multiple MS(1202071495)/MSD(1202071496) RPD values were outside of the established acceptance limits. Please see the QC Summary report for the specific failures.	5. The RPD failures attributed to sample matrix interference and the data results have been reported.

Originator's Name:

Lloyd O Fox 24-MAR-10

Data Validator/Group Leader:

Barbara Bailey 26-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
25-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
968549	See Below		

Potentially affected work order(s)(SDG): 248842(10-2302)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for LCS/LCSD

Failed Yield for Surrogates

Specification and Requirements Exception Description:	DER Disposition:
1. Sample 248842005 recovered Nitrobenzene-d5 at 29%. The limits are 31%-105%.	1. The sample was re-extracted out of holding from batch 965425 due to surrogate failures. Since the re-extraction displayed similar recoveries, the failures were attributed to matrix interference and the data results have been reported.
2. The LCS(1202079225) recovered Benzyl alcohol at 9%. The limits are 27%-108%.	2. The LCS failure represents less than 5% of the total requested spike analyte list. That satisfied the acceptance criteria for the client and the data results have been reported. Please note that Benzyl alcohol is a poor responder that is subject to erratic chromatography behavior as stated in the Method. This may account for the low recovery of the analyte in the LCS.
3. Multiple LCS(1202079225)/LCSD(1202079226) RPD values were outside of the established acceptance limits. Please see the QC Summary report for the specific failures.	3. Since all spike analytes (with the exception of Benzyl alcohol, see disposition 2) were individually within the acceptance limits for the LCS and LCSD, the data results have been reported.
4. Sample 248842004 re-extracted out of holding from batch 965425 due to surrogate failures.	4. Since the re-extraction was within the acceptance limits for all surrogates, both sets of data results have been reported.

Originator's Name:

Lloyd O Fox 25-MAR-10

Data Validator/Group Leader:

Barbara Bailey 26-MAR-10

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032410.b/s6c2419.d
Lab Smp Id: 248842005 Client Smp ID: RE46-10-13550RE
Inj Date : 24-MAR-2010 20:07
Operator : nagl Inst ID: MSD6.i
Smp Info : |248842005|968549|1|SVM|2|LANLRE
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032410.b/MSD6-M8270C-AQA-031610.m
Meth Date : 25-Mar-2010 09:44 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	18.43150	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.893	3.881	(1.000)	485724	40.0000	
* 29 Naphthalene-d8	136	4.757	4.751	(1.000)	1669803	40.0000	
* 46 Acenaphthene-d10	164	6.010	6.010	(1.000)	1050496	40.0000	
* 67 Phenanthrene-d10	188	7.181	7.175	(1.000)	1770696	40.0000	
* 91 Chrysene-d12	240	9.586	9.580	(1.000)	1497584	40.0000	
* 98 Perylene-d12	264	11.251	11.233	(1.000)	1247459	40.0000	
$ 3 2-Fluorophenol	112	3.087	3.069	(0.793)	434908	32.2091	1320
$ 5 Phenol-d5	99	3.605	3.598	(0.926)	573002	33.3688	1360
$ 20 Nitrobenzene-d5	82	4.252	4.245	(0.894)	232093	14.5401	594(R)
$ 39 2-Fluorobiphenyl	172	5.498	5.492	(0.915)	423153	15.6127	638
$ 60 2,4,6-Tribromophenol	329	6.610	6.604	(1.100)	112600	38.1975	1560
$ 81 p-Terphenyl-d14	244	8.563	8.551	(0.893)	509310	19.5162	798

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

GEL Laboratories LLC

Data file : /chem/MSD6.i/s032410.b/s6c2419.d
Lab Smp Id: 248842005 Client Smp ID: RE46-10-13550RE
Inj Date : 24-MAR-2010 20:07
Operator : nagl Inst ID: MSD6.i
Smp Info : |248842005|968549|1|SVM|2|LANLRE
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s032410.b/MSD6-M8270C-AQA-031610.m
Meth Date : 25-Mar-2010 09:44 jen00986 Quant Type: ISTD
Cal Date : 17-MAR-2010 03:19 Cal File: s6c1642.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2302.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	18.43150	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.893	2918292	40.000
* 91 Chrysene-d12	9.586	4039870	40.000
* 98 Perylene-d12	11.251	3366435	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.922	358381	4.91219473	201	0		0	10
Unknown				CAS #:			
10.075	564120	5.58552965	228	0		0	91
Unknown				CAS #:			
10.628	642363	7.63255950	312	0		0	98
Trisiloxane, 1,3,5-trimethyl-1,1,3,5,5-p				CAS #: 3390-61-2			
13.151	1812440	21.5354253	880	90	NIST05.L	186812	98

Data File: /chem/MSD6.i/s032410.b/s6c2419.d
Date : 24-MAR-2010 20:07
Client ID: RE46-10-13550RE
Sample Info: 1248842005|968549|1|SVMI2|LANLRE
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

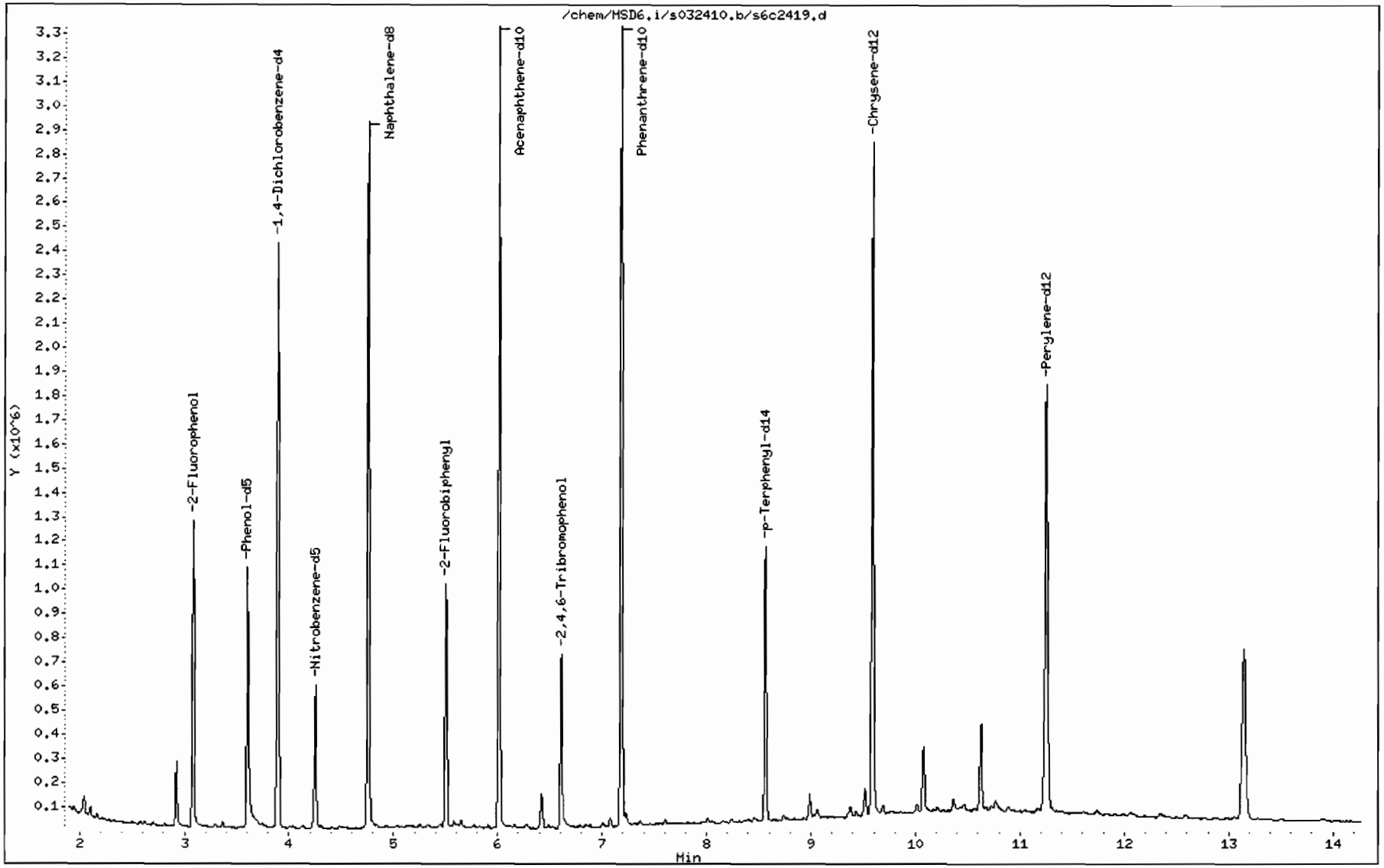

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2302

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	967396
Prep Batch Number:	967394

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
248842002	RE46-10-13553
248842003	RE46-10-13549
248842004	RE46-10-13551
248842005	RE46-10-13550
248842006	RE46-10-13548
248842007	RE46-10-13546
248842008	RE46-10-13552
248842009	RE46-10-13547
248842010	RE46-10-13556
1202076355	Method Blank (MB)
1202076356	Laboratory Control Sample (LCS)
1202076357	248862002(RE46-10-13782) Matrix Spike (MS)
1202076358	248862002(RE46-10-13782) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
The surrogate recoveries were within the acceptance limits for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248862002 (RE46-10-13782), from another SDG, was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were not all within the acceptance limits. The MSD failed acceptance limits with a positive bias. The MS was within the acceptance limits and the RPD between the MS/MSD passed. The data were reported.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from

sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina.

Sample Dilutions
Samples 1202076357 (RE46-10-13782MS), 1202076358 (RE46-10-13782MSD), 248842004 (RE46-10-13551), 248842007 (RE46-10-13546) and 248842009 (RE46-10-13547) were diluted prior to analysis due to the oily matrix of the extracts.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
The following DER was generated for this SDG: 808224 1202076358 (RE46-10-13782).

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average

response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD8A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD8A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: _____ Date: 03-30-10

Roadmap for LANL 10-2302 PCB

This roadmap was analyzed by jen01212 on 03-23-2010, 12:56.
This roadmap was packaged by sha01289 on 03-31-2010, 11:46.
This roadmap was validated by jcb on 03-31-2010, 15:32.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032210.b/059f5901.d	248842002	sample	22-MAR-2010	20:55	10-2302.sub	RE46-10-13553	1.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/060f6001.d	248842003	sample	22-MAR-2010	21:08	10-2302.sub	RE46-10-13549	1.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/061f6101.d	248842004	sample	22-MAR-2010	21:20	10-2302.sub	RE46-10-13551	5.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/062f6201.d	248842005	sample	22-MAR-2010	21:32	10-2302.sub	RE46-10-13550	1.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/063f6301.d	248842006	sample	22-MAR-2010	21:45	10-2302.sub	RE46-10-13548	1.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/064f6401.d	248842007	sample	22-MAR-2010	21:57	10-2302.sub	RE46-10-13546	5.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/065f6501.d	248842008	sample	22-MAR-2010	22:09	10-2302.sub	RE46-10-13552	1.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/066f6601.d	248842009	sample	22-MAR-2010	22:26	10-2302.sub	RE46-10-13547	5.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/069f6901.d	248842010	sample	22-MAR-2010	23:07	10-2302.sub	RE46-10-13556	1.00000	967396	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032210.b/059b5901.d	248842002	sample	22-MAR-2010	20:55	10-2302.sub	RE46-10-13553	1.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/060b6001.d	248842003	sample	22-MAR-2010	21:08	10-2302.sub	RE46-10-13549	1.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/061b6101.d	248842004	sample	22-MAR-2010	21:20	10-2302.sub	RE46-10-13551	5.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/062b6201.d	248842005	sample	22-MAR-2010	21:32	10-2302.sub	RE46-10-13550	1.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/063b6301.d	248842006	sample	22-MAR-2010	21:45	10-2302.sub	RE46-10-13548	1.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/064b6401.d	248842007	sample	22-MAR-2010	21:57	10-2302.sub	RE46-10-13546	5.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/065b6501.d	248842008	sample	22-MAR-2010	22:09	10-2302.sub	RE46-10-13552	1.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/066b6601.d	248842009	sample	22-MAR-2010	22:26	10-2302.sub	RE46-10-13547	5.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/069b6901.d	248842010	sample	22-MAR-2010	23:07	10-2302.sub	RE46-10-13556	1.00000	967396	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032210.b/057f5701.d	1202076355	mb	22-MAR-2010	20:31	10-2302.sub	PBLK01	1.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/058f5801.d	1202076356	lcs	22-MAR-2010	20:43	10-2302.sub	PBLK01LCS	1.00000	967396	UPLOAD BOTH, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032210.b/057b5701.d	1202076355	mb	22-MAR-2010	20:31	10-2302.sub	PBLK01	1.00000	967396	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032210.b/058b5801.d	1202076356	lcs	22-MAR-2010	20:43	10-2302.sub	PBLK01LCS	1.00000	967396	UPLOAD BOTH, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13546**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 21:57**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**064f6401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	064b6401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	20.1	ug/kg	6.70	20.1	1
11104–28–2	Aroclor–1221	U	20.1	ug/kg	6.70	20.1	1
11141–16–5	Aroclor–1232	U	20.1	ug/kg	6.70	20.1	1
53469–21–9	Aroclor–1242	U	20.1	ug/kg	6.70	20.1	1
12672–29–6	Aroclor–1248	U	20.1	ug/kg	6.70	20.1	1
11097–69–1	Aroclor–1254		359	ug/kg	6.70	20.1	2
11096–82–5	Aroclor–1260		197	ug/kg	6.70	20.1	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13547**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 22:26**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**066f6601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	066b6601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	19.0	ug/kg	6.34	19.0	1
11104–28–2	Aroclor–1221	U	19.0	ug/kg	6.34	19.0	1
11141–16–5	Aroclor–1232	U	19.0	ug/kg	6.34	19.0	1
53469–21–9	Aroclor–1242	U	19.0	ug/kg	6.34	19.0	1
12672–29–6	Aroclor–1248	U	19.0	ug/kg	6.34	19.0	1
11097–69–1	Aroclor–1254		23.7	ug/kg	6.34	19.0	2
11096–82–5	Aroclor–1260	J	16.1	ug/kg	6.34	19.0	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13548**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 21:45**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**063f6301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	063b6301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.01	ug/kg	1.34	4.01	1
11104-28-2	Aroclor-1221	U	4.01	ug/kg	1.34	4.01	1
11141-16-5	Aroclor-1232	U	4.01	ug/kg	1.34	4.01	1
53469-21-9	Aroclor-1242	U	4.01	ug/kg	1.34	4.01	1
12672-29-6	Aroclor-1248	U	4.01	ug/kg	1.34	4.01	1
11097-69-1	Aroclor-1254	P	64.5	ug/kg	1.34	4.01	2
11096-82-5	Aroclor-1260		47.2	ug/kg	1.34	4.01	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**16.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13549**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 21:08**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**060f6001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	060b6001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.98	ug/kg	1.32	3.98	1
11104–28–2	Aroclor–1221	U	3.98	ug/kg	1.32	3.98	1
11141–16–5	Aroclor–1232	U	3.98	ug/kg	1.32	3.98	1
53469–21–9	Aroclor–1242	U	3.98	ug/kg	1.32	3.98	1
12672–29–6	Aroclor–1248	U	3.98	ug/kg	1.32	3.98	1
11097–69–1	Aroclor–1254	P	23.7	ug/kg	1.32	3.98	2
11096–82–5	Aroclor–1260		17.8	ug/kg	1.32	3.98	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13550**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 21:32**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.16 g**	**Final Volume:**	**1 mL**
Data File:	**062f6201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	062b6201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.06	ug/kg	1.35	4.06	1
11104-28-2	Aroclor-1221	U	4.06	ug/kg	1.35	4.06	1
11141-16-5	Aroclor-1232	U	4.06	ug/kg	1.35	4.06	1
53469-21-9	Aroclor-1242	U	4.06	ug/kg	1.35	4.06	1
12672-29-6	Aroclor-1248	U	4.06	ug/kg	1.35	4.06	1
11097-69-1	Aroclor-1254		20.8	ug/kg	1.35	4.06	2
11096-82-5	Aroclor-1260		7.50	ug/kg	1.35	4.06	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13551**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 21:20**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**061f6101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	061b6101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	20.9	ug/kg	6.97	20.9	1
11104–28–2	Aroclor–1221	U	20.9	ug/kg	6.97	20.9	1
11141–16–5	Aroclor–1232	U	20.9	ug/kg	6.97	20.9	1
53469–21–9	Aroclor–1242	U	20.9	ug/kg	6.97	20.9	1
12672–29–6	Aroclor–1248	U	20.9	ug/kg	6.97	20.9	1
11097–69–1	Aroclor–1254		183	ug/kg	6.97	20.9	2
11096–82–5	Aroclor–1260		101	ug/kg	6.97	20.9	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13552**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 22:09**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**065f6501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	065b6501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.81	ug/kg	1.27	3.81	1
11104–28–2	Aroclor–1221	U	3.81	ug/kg	1.27	3.81	1
11141–16–5	Aroclor–1232	U	3.81	ug/kg	1.27	3.81	1
53469–21–9	Aroclor–1242	U	3.81	ug/kg	1.27	3.81	1
12672–29–6	Aroclor–1248	U	3.81	ug/kg	1.27	3.81	1
11097–69–1	Aroclor–1254		48.0	ug/kg	1.27	3.81	2
11096–82–5	Aroclor–1260		22.8	ug/kg	1.27	3.81	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842002	**Date Received:**	03/05/2010 10:20	**% Moisture:**	13.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13553	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967396	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	03/22/2010 20:55	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 12:13	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	059f5901.d	**Column:**	1 CLP1	**Level:**	LOW
	059b5901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.87	ug/kg	1.29	3.87	1
11104-28-2	Aroclor-1221	U	3.87	ug/kg	1.29	3.87	1
11141-16-5	Aroclor-1232	U	3.87	ug/kg	1.29	3.87	1
53469-21-9	Aroclor-1242		108	ug/kg	1.29	3.87	2
12672-29-6	Aroclor-1248	U	3.87	ug/kg	1.29	3.87	1
11097-69-1	Aroclor-1254		124	ug/kg	1.29	3.87	2
11096-82-5	Aroclor-1260		31.3	ug/kg	1.29	3.87	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13556**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 23:07**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**069f6901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	069b6901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.83	ug/kg	1.28	3.83	1
11104–28–2	Aroclor–1221	U	3.83	ug/kg	1.28	3.83	1
11141–16–5	Aroclor–1232	U	3.83	ug/kg	1.28	3.83	1
53469–21–9	Aroclor–1242	U	3.83	ug/kg	1.28	3.83	1
12672–29–6	Aroclor–1248	U	3.83	ug/kg	1.28	3.83	1
11097–69–1	Aroclor–1254		17.7	ug/kg	1.28	3.83	2
11096–82–5	Aroclor–1260		11.0	ug/kg	1.28	3.83	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-2302

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
1202076355	MB for batch 967394	86		92		93		98	
1202076356	LCS for batch 967394	87		94		67		100	
248842002	RE46-10-13553	56		59		36		57	
248842003	RE46-10-13549	65		72		64		70	
248842004	RE46-10-13551	72	D	68	D	66	D	75	D
248842005	RE46-10-13550	76		85		71		79	
248842006	RE46-10-13548	64		72		59		66	
248842007	RE46-10-13546	77	D	85	D	70	D	64	D
248842008	RE46-10-13552	49		53		52		52	
248842009	RE46-10-13547	69	D	69	D	68	D	73	D
248842010	RE46-10-13556	65		68		68		73	

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%-120%)
DCB = Decachlorobiphenyl	(30%-116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2302**
Client ID: **LCS for batch 967394**
Lab Sample ID: **1202076356**
Instrument: **ECD8A.I**
Analyst: **JAOC**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **03/22/2010 20:43**
Dilution: **1**
Prep Batch ID: **967394**
Batch ID: **967396**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	24.7	74	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	28.2	85	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2302
Client ID: RE46-10-13782MS
Lab Sample ID: 1202076357
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 13.9
Analysis Date: 03/22/2010 23:32
Prep Batch ID: 967394
Batch ID: 967396
Dilution: 5

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	38.7	0.00	U	34.8	90	23-119
11096-82-5	MS	Aroclor-1260	38.7	0.00	U	38.7	100	28-124

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2302
Client ID: RE46–10–13782MSD
Lab Sample ID: 1202076358
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 13.9
Analysis Date: 03/22/2010 23:44
Prep Batch ID: 967394
Batch ID: 967396
Dilution: 5

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	38.6	0.00	U	43.1	112	23–119	21	0–28
11096–82–5	MSD Aroclor–1260	38.6	0.00	U	48.5	126 *	28–124	23	0–30

Method Blank Summary

SDG Number:	10-2302	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 967394	Instrument ID:	ECD8A.I_2 ECD8A.I_1	Data File:	057b5701-1.d 057f5701-1.d
Lab Sample ID:	1202076355				
Column:	CLP2 CLP1	Prep Date:	03/21/2010 12:13	Analyzed:	03/22/10 20:31
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 967394	1202076356	058f5801-1.d 058b5801-1.d	03/22/10	2043
02 RE46-10-13553	248842002	059f5901.d 059b5901.d	03/22/10	2055
03 RE46-10-13549	248842003	060f6001.d 060b6001.d	03/22/10	2108
04 RE46-10-13551	248842004	061f6101.d 061b6101.d	03/22/10	2120
05 RE46-10-13550	248842005	062f6201.d 062b6201.d	03/22/10	2132
06 RE46-10-13548	248842006	063f6301.d 063b6301.d	03/22/10	2145
07 RE46-10-13546	248842007	064f6401.d 064b6401.d	03/22/10	2157
08 RE46-10-13552	248842008	065f6501.d 065b6501.d	03/22/10	2209
09 RE46-10-13547	248842009	066f6601.d 066b6601.d	03/22/10	2226
10 RE46-10-13556	248842010	069f6901.d 069b6901.d	03/22/10	2307

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13546**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 21:57**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**064f6401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	064b6401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	20.1	ug/kg	6.70	20.1	1
11104–28–2	Aroclor–1221	U	20.1	ug/kg	6.70	20.1	1
11141–16–5	Aroclor–1232	U	20.1	ug/kg	6.70	20.1	1
53469–21–9	Aroclor–1242	U	20.1	ug/kg	6.70	20.1	1
12672–29–6	Aroclor–1248	U	20.1	ug/kg	6.70	20.1	1
11097–69–1	Aroclor–1254		359	ug/kg	6.70	20.1	2
11096–82–5	Aroclor–1260		197	ug/kg	6.70	20.1	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/064f6401.d
Lab Smp Id: 248842007 Client Smp ID: RE46-10-13546
Inj Date : 22-MAR-2010 21:57
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248842007|5|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13546|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 64
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.15000	Weight of sample extracted (g)
M	17.53750	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.251	2.249	0.002	3840031	30.7297	6.2	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.262	6.240	0.022	2290458	27.8133	5.6	80.00- 120.00	100.00(M)
6 Aroclor-1254					CAS #: 11097-69-1		
3.834	3.832	0.002	6128348	1414.03	284	80.00- 120.00	100.00(M)
4.021	4.019	0.002	7610731	1319.81	265	113.15- 153.15	124.19
4.216	4.214	0.002	5109135	1145.93	230	83.81- 123.81	83.37
4.303	4.301	0.002	9230828	1227.25	247	155.36- 195.36	150.63
4.501	4.497	0.004	7054117	1226.97	247	112.54- 152.54	115.11
Average of Peak Concentrations =					255		

RT	EXP RT	DIFF RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-12					CAS #: 11096-82-5		
4.432	4.430	0.002	6519891	1106.93	223	80.00- 120.00	100.00(M)
4.630	4.625	0.005	11150324	1312.53	264	126.61- 166.61	171.02
4.905	4.900	0.005	4769120	941.348	189	65.41- 105.41	73.15
5.076	5.073	0.003	3558243	667.711	134	71.29- 111.29	54.58
5.491	5.485	0.006	4790534	849.238	171	78.39- 118.39	73.48
			Average of Peak Concentrations =		196		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/064f6401.d
Date : 22-MAR-2010 21:57
Client ID: RE46-10-13546
Sample Info: |248842007|5|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

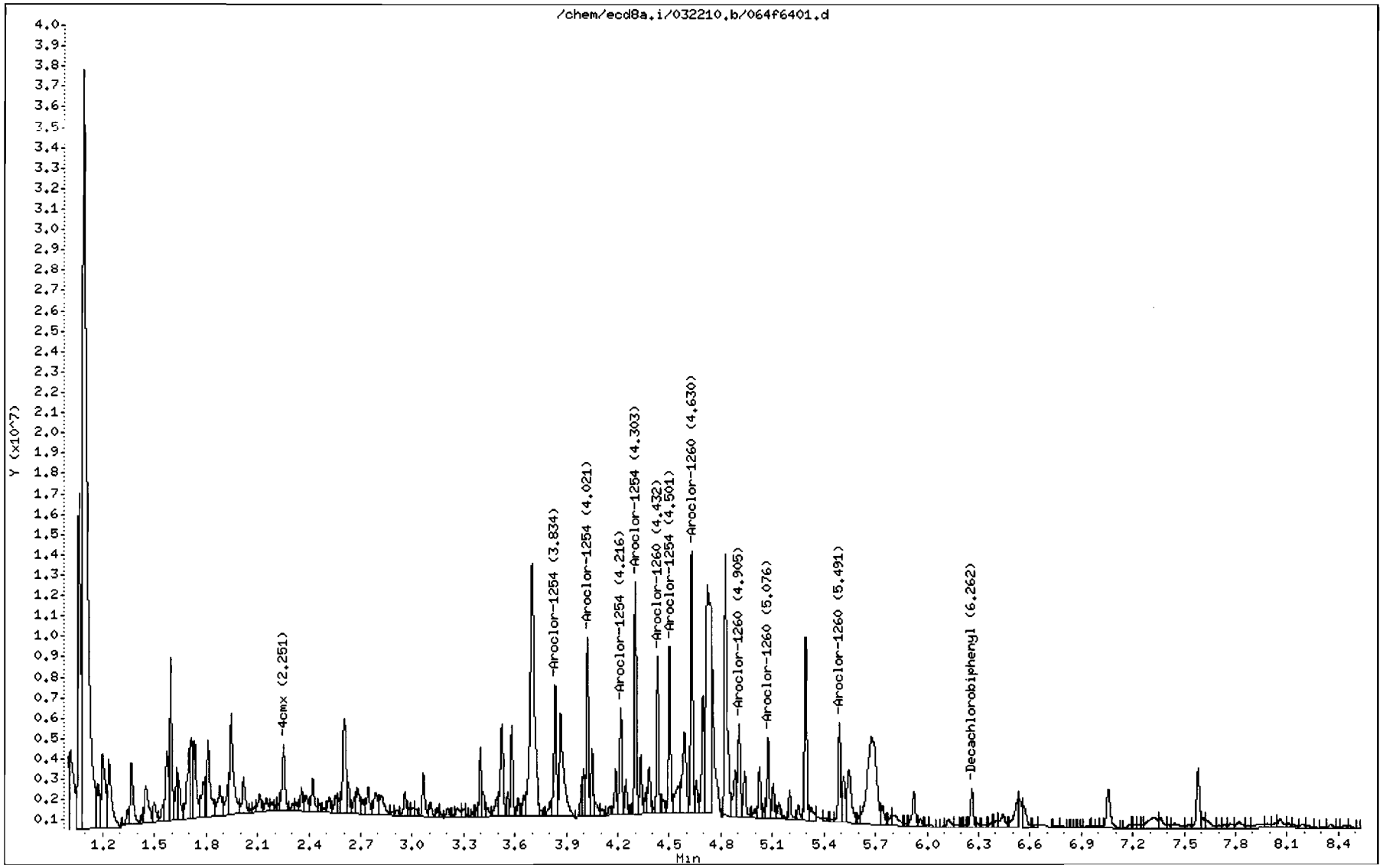

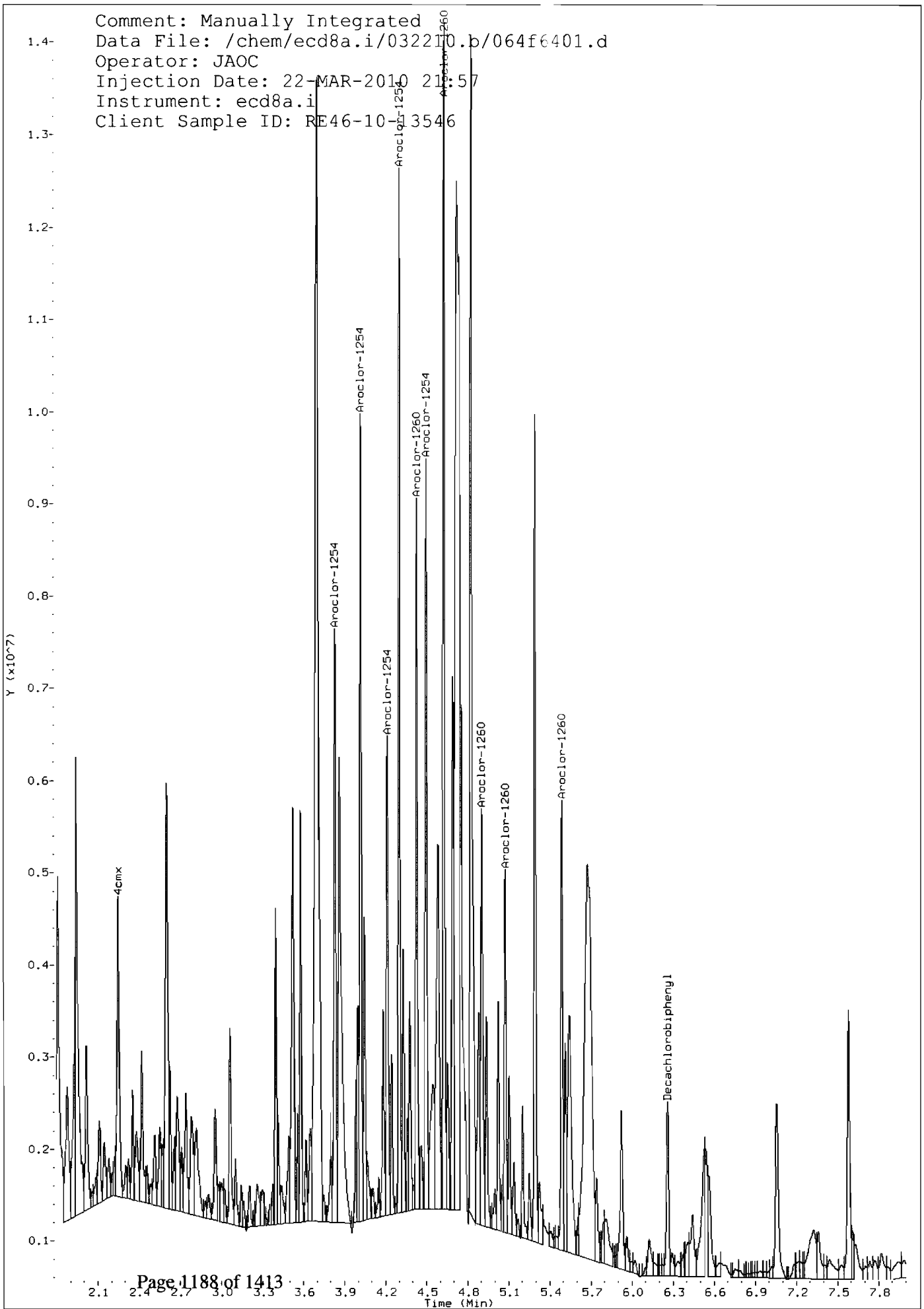
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/064f6401.d
Operator: JAOC
Injection Date: 22-MAR-2010 21:57
Instrument: ecd8a.i
Client Sample ID: RE46-10-13546
Y (x10^7)
Time (Min)
4cmx
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl

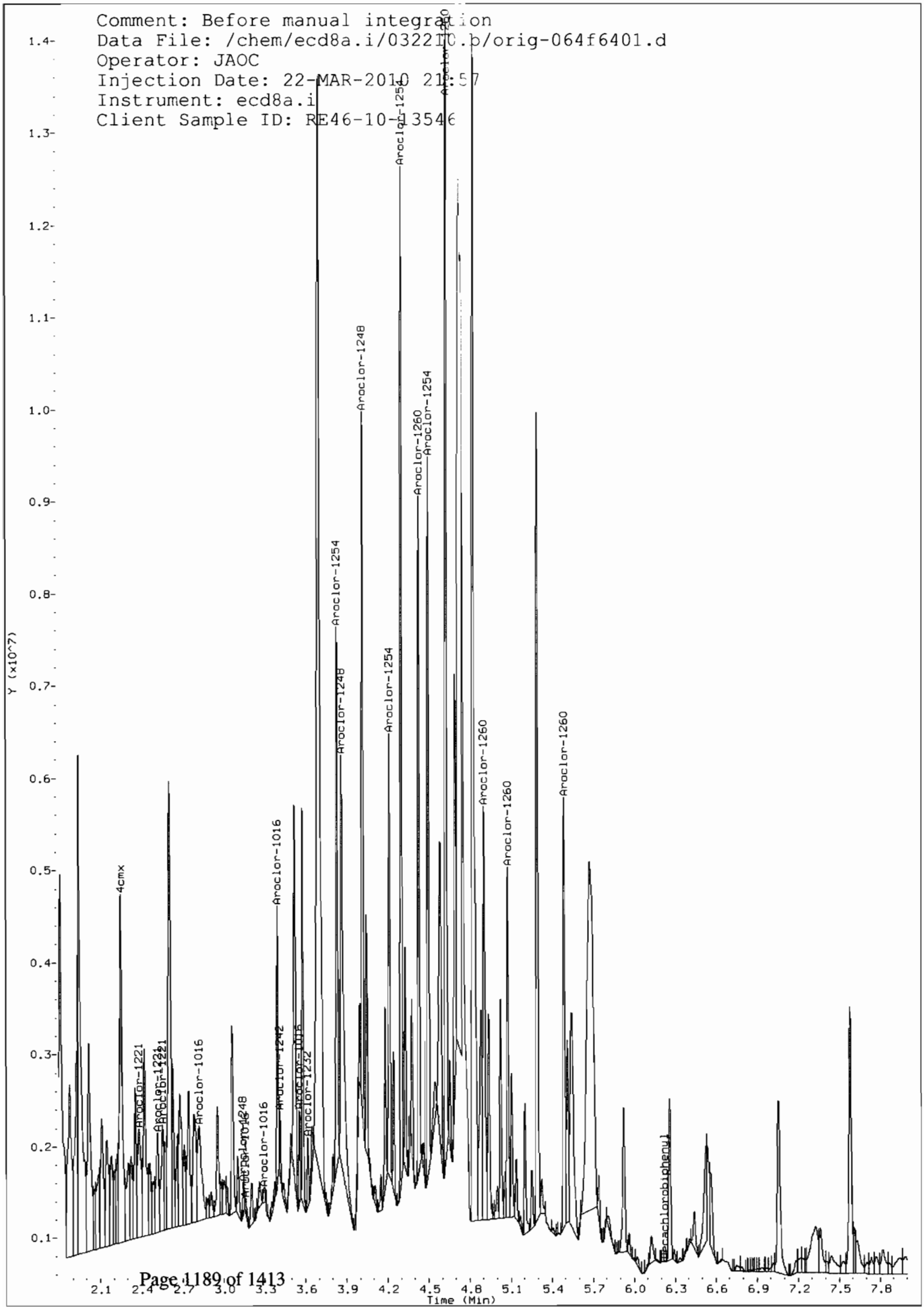
Comment: Before manual integration
Data File: /chem/ecd8a.i/0322IC.b/orig-064f6401.d
Operator: JAOC
Injection Date: 22-MAR-2010 21:57
Instrument: ecd8a.i
Client Sample ID: RE46-10-13546
Y (x10^7)
Time (Min)
4cmx
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Pentachlorobiphenyl

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/064b6401.d
Lab Smp Id: 248842007 Client Smp ID: RE46-10-13546
Inj Date : 22-MAR-2010 21:57
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248842007|5|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13546|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 64
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.15000	Weight of sample extracted (g)
M	17.53750	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.480	2.477	0.003	2827713	33.8316	6.8	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.841	6.825	0.016	1507270	25.4381	5.1	80.00- 120.00	100.00(M)
6 Aroclor-1254					CAS #: 11097-69-1		
4.305	4.302	0.003	4132913	1326.07	267	80.00- 120.00	100.00(M)
4.445	4.441	0.004	7436153	2137.97	430	91.89- 131.89	179.93
4.772	4.770	0.002	6765548	1400.14	282	137.30- 177.30	163.70
4.936	4.932	0.004	4704129	1346.32	271	91.85- 131.85	113.82
5.061	5.057	0.004	5951913	2703.33	544	50.50- 90.50	144.01
Average of Peak Concentrations =					359		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.911	4.909	0.002	4634992	1176.84	237	80.00- 120.00	100.00(M)
5.061	5.058	0.003	5951913	1258.21	253	101.53- 141.53	128.41
5.379	5.375	0.004	3147831	877.652	176	71.56- 111.56	67.91
5.583	5.581	0.002	3166183	852.904	172	75.17- 115.17	68.31
6.018	6.013	0.005	4233605	724.767	146	132.27- 172.27	91.34
Average of Peak Concentrations =					197		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/064b6401.d

Date : 22-MAR-2010 21:57

Client ID: RE46-10-13546

Sample Info: 1248842007151

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

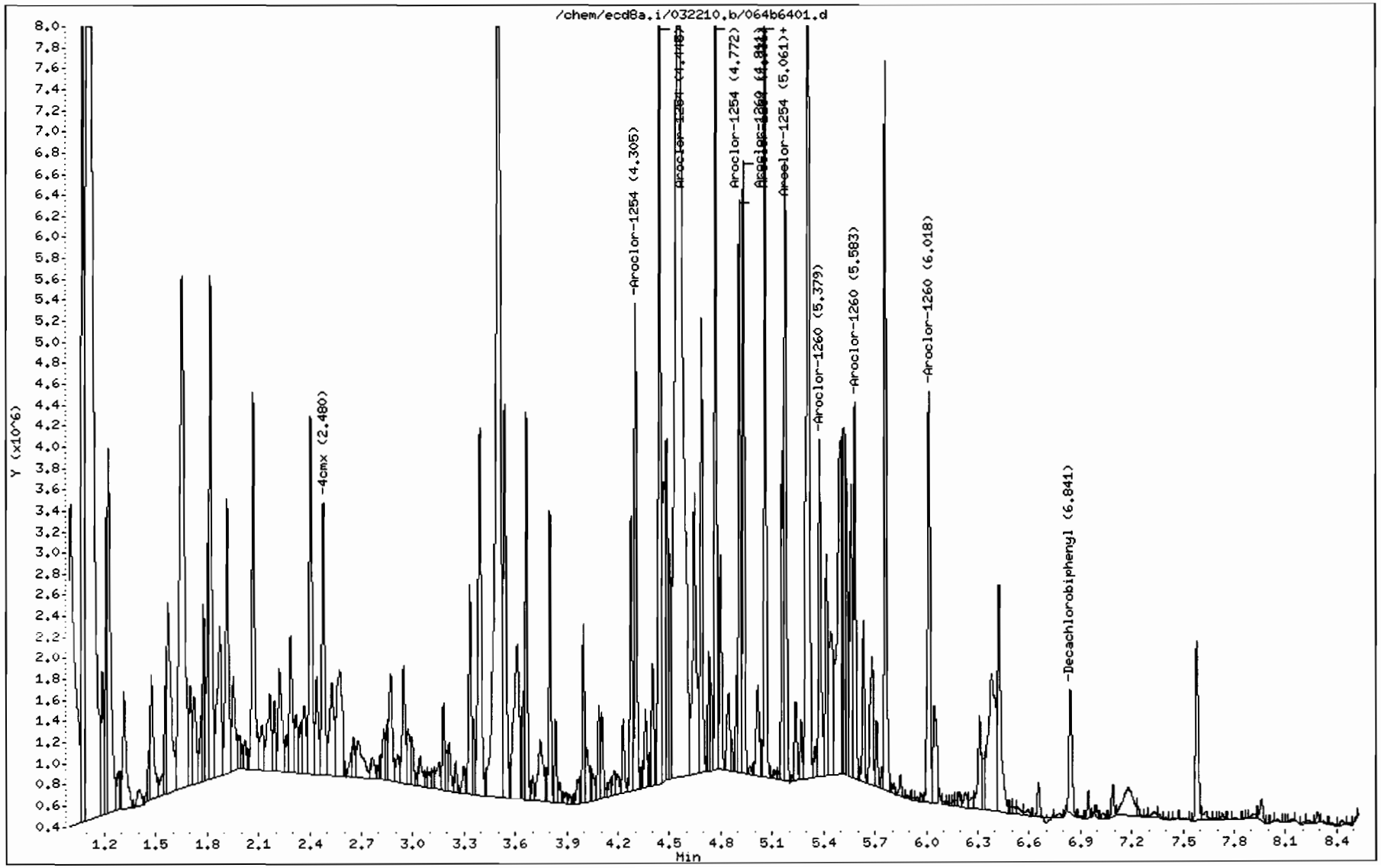

Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/064b6401.d
Operator: JAOC
Injection Date: 22-MAR-2010 21:57
Instrument: ecd8a.i
Client Sample ID: RE46-10-13546

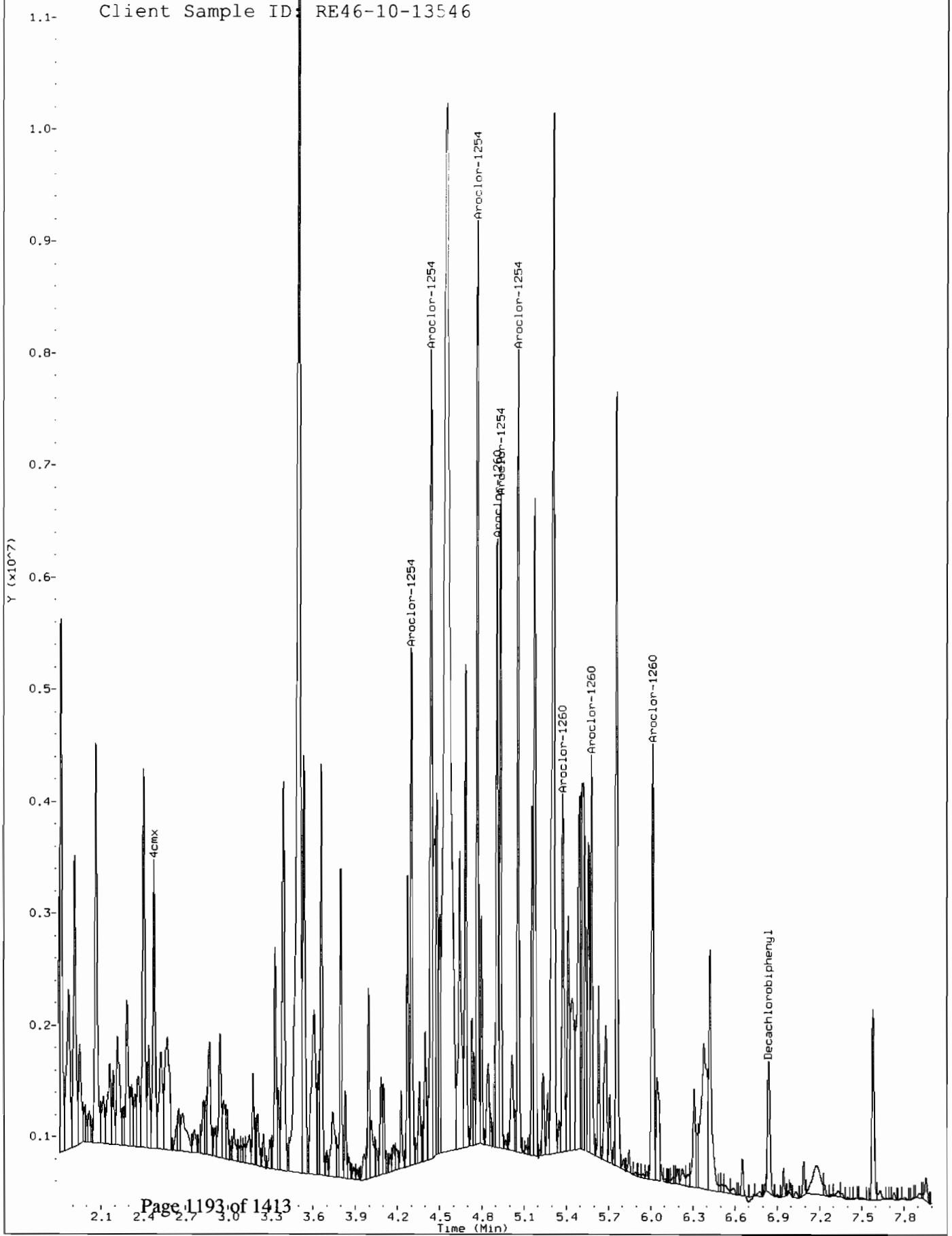

Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-064b6401.d
Operator: JAOC
Injection Date: 22-MAR-2010 21:57
Instrument: ecd8a.i
Client Sample ID: RE46-10-13546

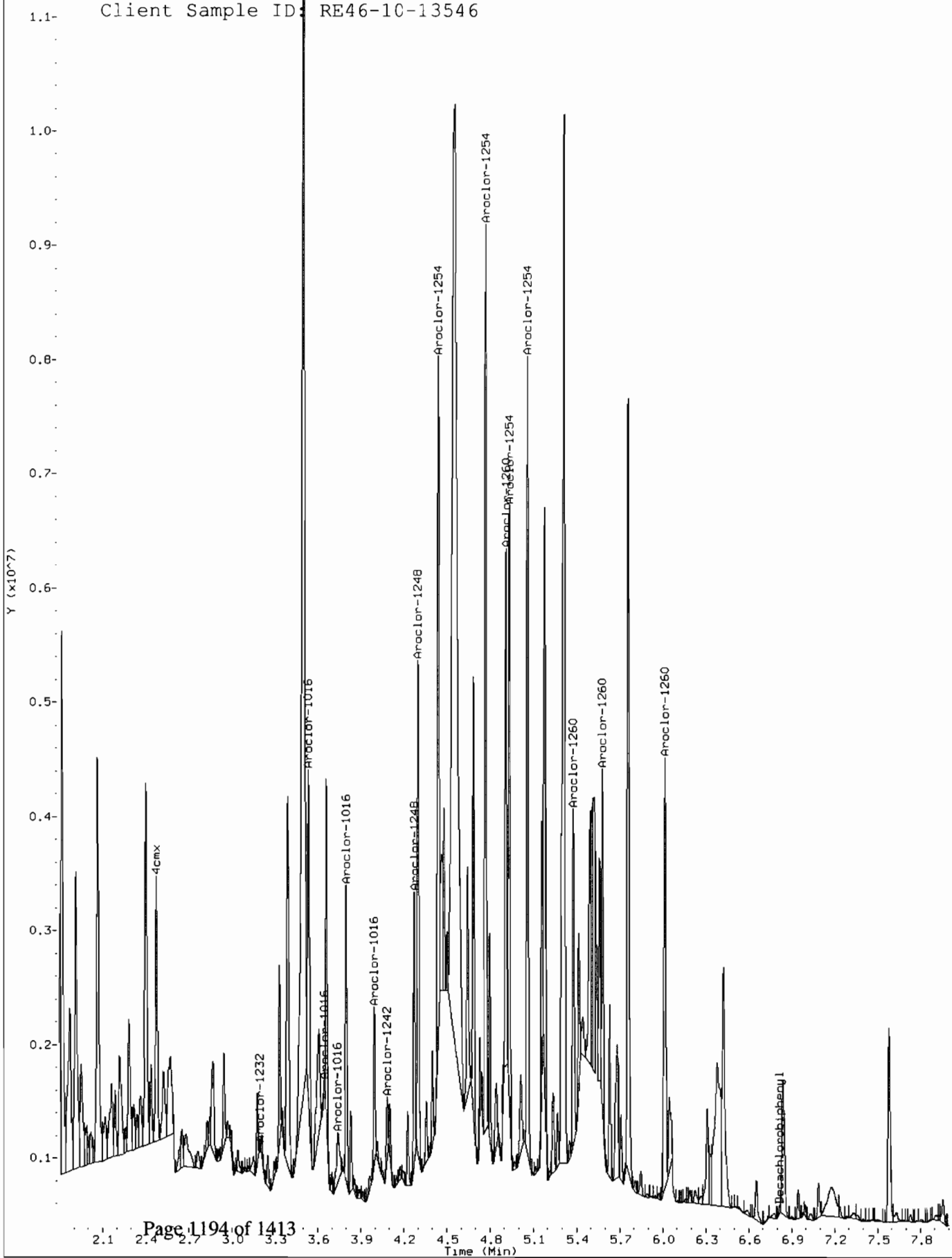

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13547	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967396	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/22/2010 22:26	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 12:13	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	066f6601.d	**Column:**	1 CLP1	**Level:**	LOW
	066b6601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	19.0	ug/kg	6.34	19.0	1
11104–28–2	Aroclor–1221	U	19.0	ug/kg	6.34	19.0	1
11141–16–5	Aroclor–1232	U	19.0	ug/kg	6.34	19.0	1
53469–21–9	Aroclor–1242	U	19.0	ug/kg	6.34	19.0	1
12672–29–6	Aroclor–1248	U	19.0	ug/kg	6.34	19.0	1
11097–69–1	Aroclor–1254		23.7	ug/kg	6.34	19.0	2
11096–82–5	Aroclor–1260	J	16.1	ug/kg	6.34	19.0	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/066f6601.d
Lab Smp Id: 248842009 Client Smp ID: RE46-10-13547
Inj Date : 22-MAR-2010 22:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248842009|5|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13547|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 66
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	12.65350	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.247	2.249	-0.002	3468338	27.7553	5.3	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.237	6.240	-0.003	2251117	27.3356	5.2	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.828	3.832	-0.004	437257	100.891	19.2	80.00- 120.00	100.00(aM)
4.016	4.019	-0.003	534861	92.7526	17.7	113.15- 153.15	122.32
4.211	4.214	-0.003	378985	85.0023	16.2	83.81- 123.81	86.67
4.297	4.301	-0.004	674527	89.6794	17.1	155.36- 195.36	154.26
4.493	4.497	-0.004	544165	94.6505	18.0	112.54- 152.54	124.45

Average of Peak Concentrations = 17.6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.426	4.430	-0.004	549913	93.3629	17.8	80.00- 120.00	100.00(aM)
4.622	4.625	-0.003	875072	103.007	19.6	126.61- 166.61	159.13
4.897	4.900	-0.003	473749	93.5104	17.8	65.41- 105.41	86.15
5.068	5.073	-0.005	312518	58.6446	11.2	71.29- 111.29	56.83
5.481	5.485	-0.004	417426	73.9988	14.1	78.39- 118.39	75.91
Average of Peak Concentrations =					16.1		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/066f6601.d

Date : 22-MAR-2010 22:26

Client ID: RE46-10-13547

Sample Info: |248842009151

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

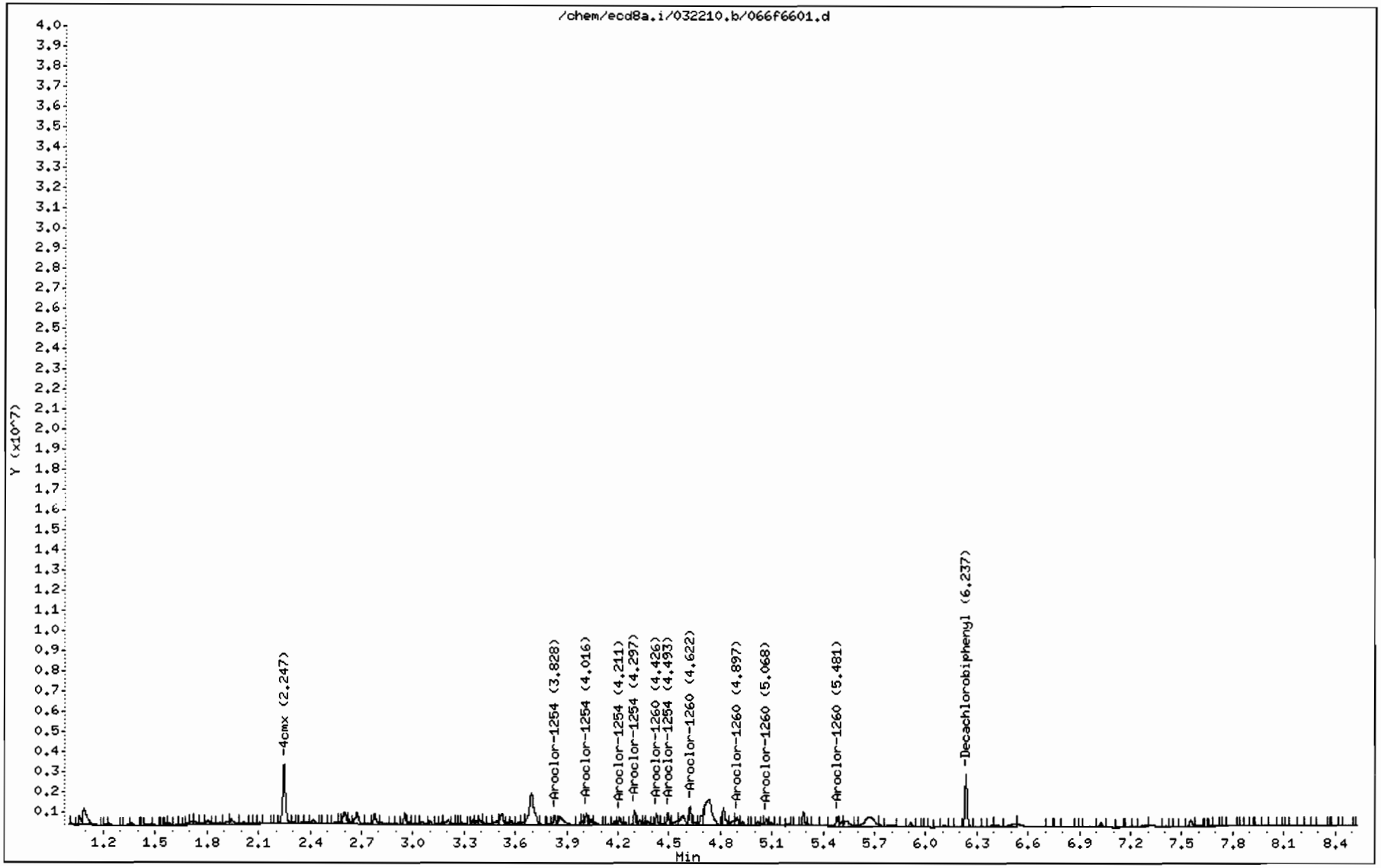

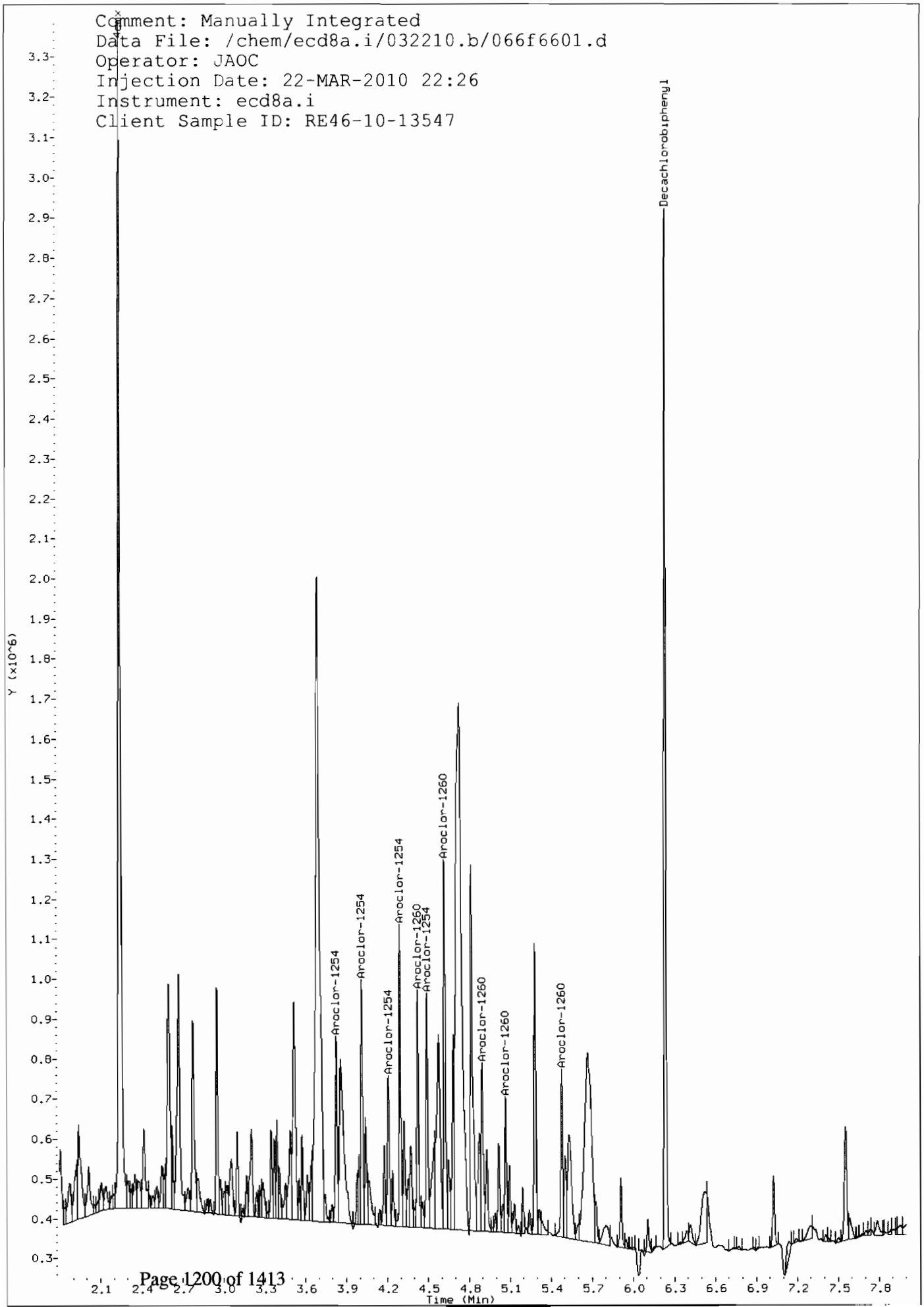
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/066f6601.d
Operator: JAOC
Injection Date: 22-MAR-2010 22:26
Instrument: ecd8a.i
Client Sample ID: RE46-10-13547
Decachlorobiphenyl
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1254
Aroclor-1260
Aroclor-1260
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Aroclor-1260
Y (x10^6)
Time (Min)

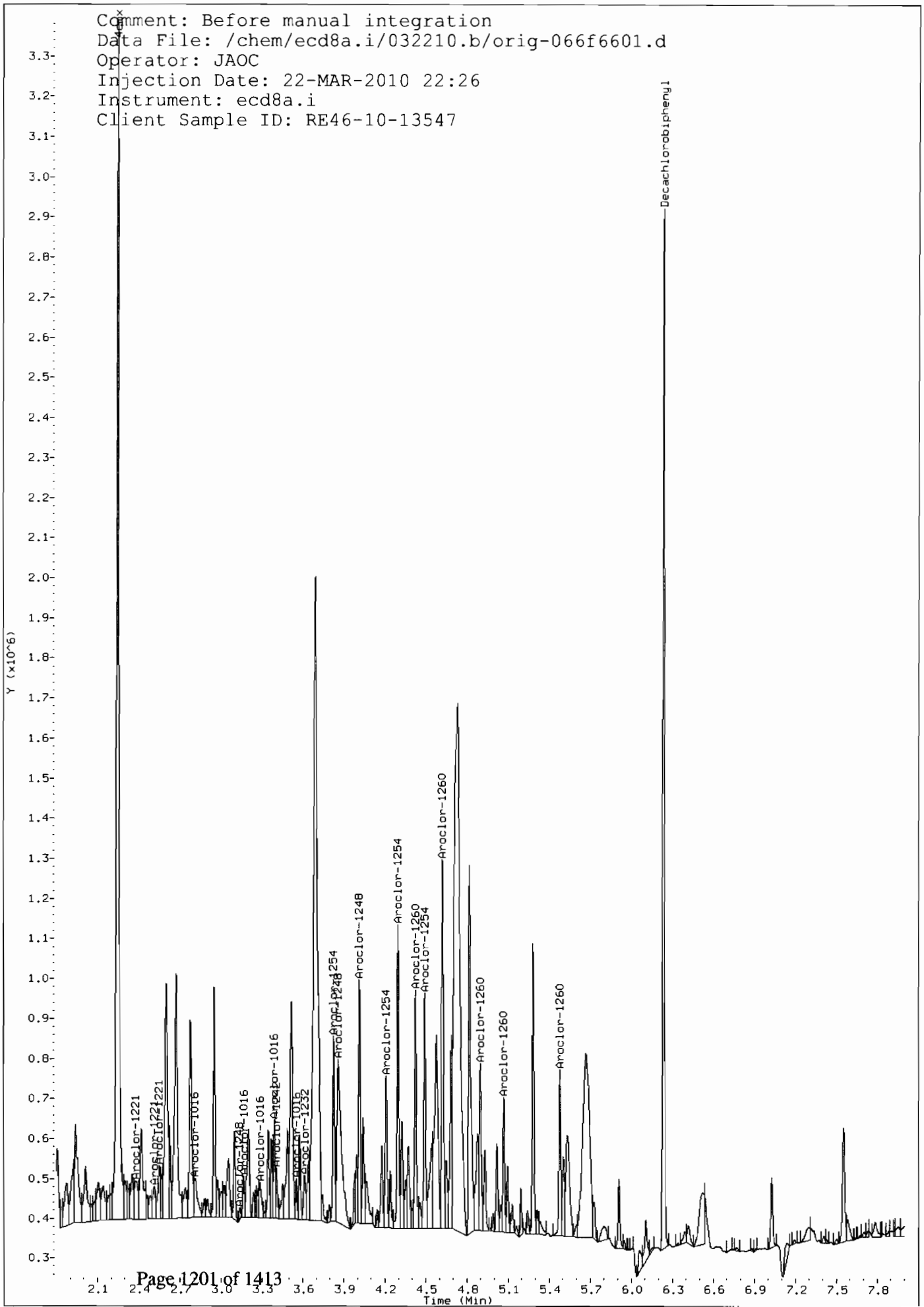
Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-066f6601.d
Operator: JAOC
Injection Date: 22-MAR-2010 22:26
Instrument: ecd8a.i
Client Sample ID: RE46-10-13547
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/066b6601.d
Lab Smp Id: 248842009 Client Smp ID: RE46-10-13547
Inj Date : 22-MAR-2010 22:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248842009|5|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13547|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 66
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	12.65350	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	2316231	27.7120	5.3	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.825	-0.003	1733860	29.2622	5.6	80.00- 120.00	100.00(M)
6 Aroclor-1254					CAS #: 11097-69-1		
4.300	4.302	-0.002	296170	95.0280	18.1	80.00- 120.00	100.00(M)
4.440	4.441	-0.001	612568	176.119	33.5	91.89- 131.89	206.83
4.767	4.770	-0.003	414546	85.7911	16.3	137.30- 177.30	139.97
4.930	4.932	-0.002	282439	80.8342	15.4	91.85- 131.85	95.36
5.056	5.057	-0.001	408065	185.341	35.3	50.50- 90.50	137.78

Average of Peak Concentrations = 23.7

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.909	-0.002	331188	84.0898	16.0	80.00- 120.00	100.00(aM)
5.056	5.058	-0.002	408065	86.2630	16.4	101.53- 141.53	123.21
5.372	5.375	-0.003	261127	72.8053	13.9	71.56- 111.56	78.85
5.578	5.581	-0.003	252408	67.9935	12.9	75.17- 115.17	76.21
6.011	6.013	-0.002	318922	54.5975	10.4	132.27- 172.27	96.30
			Average of Peak Concentrations =		13.9		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/066b6601.d
Date : 22-MAR-2010 22:26
Client ID: RE46-10-13547
Sample Info: 1248842009151
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

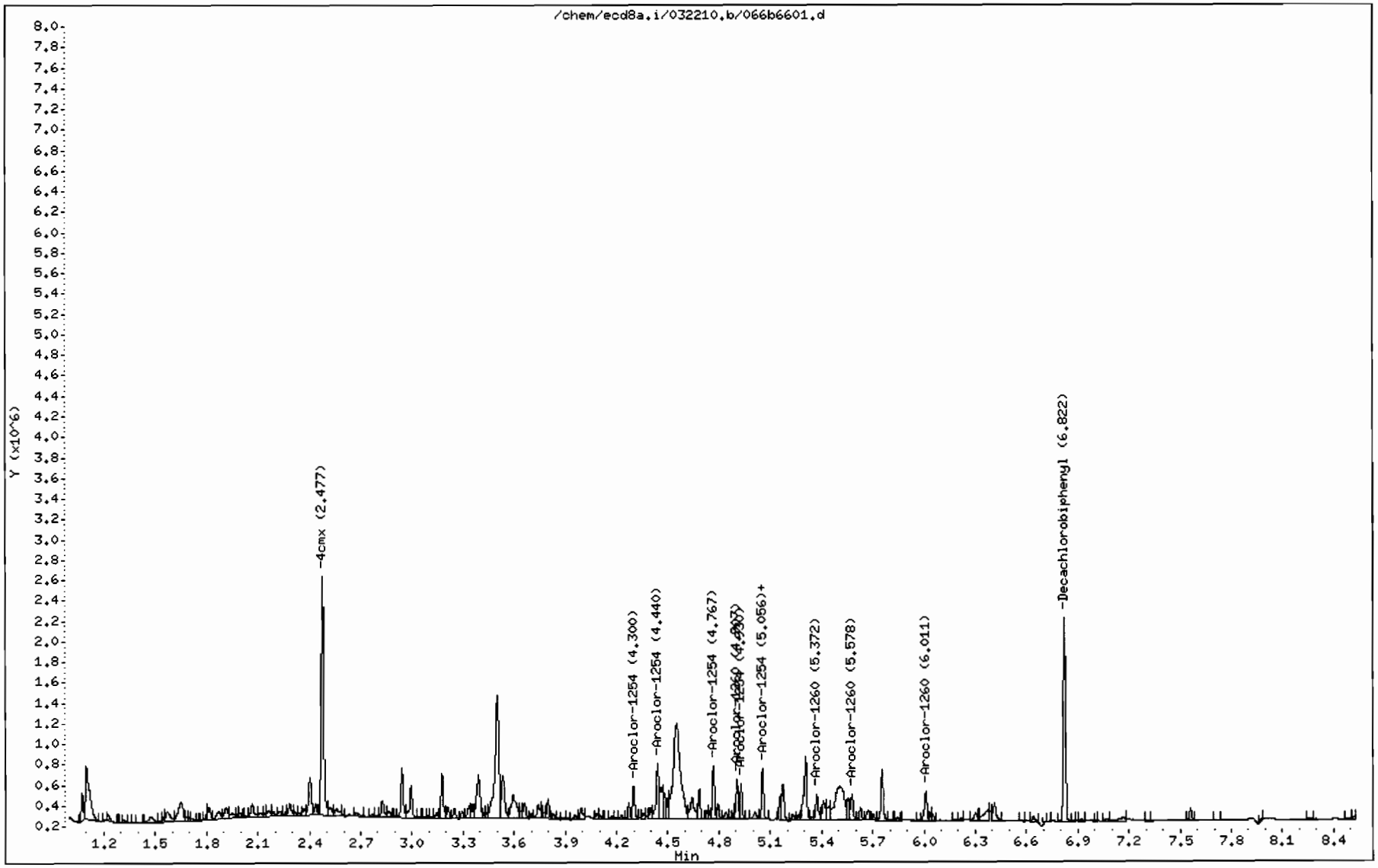

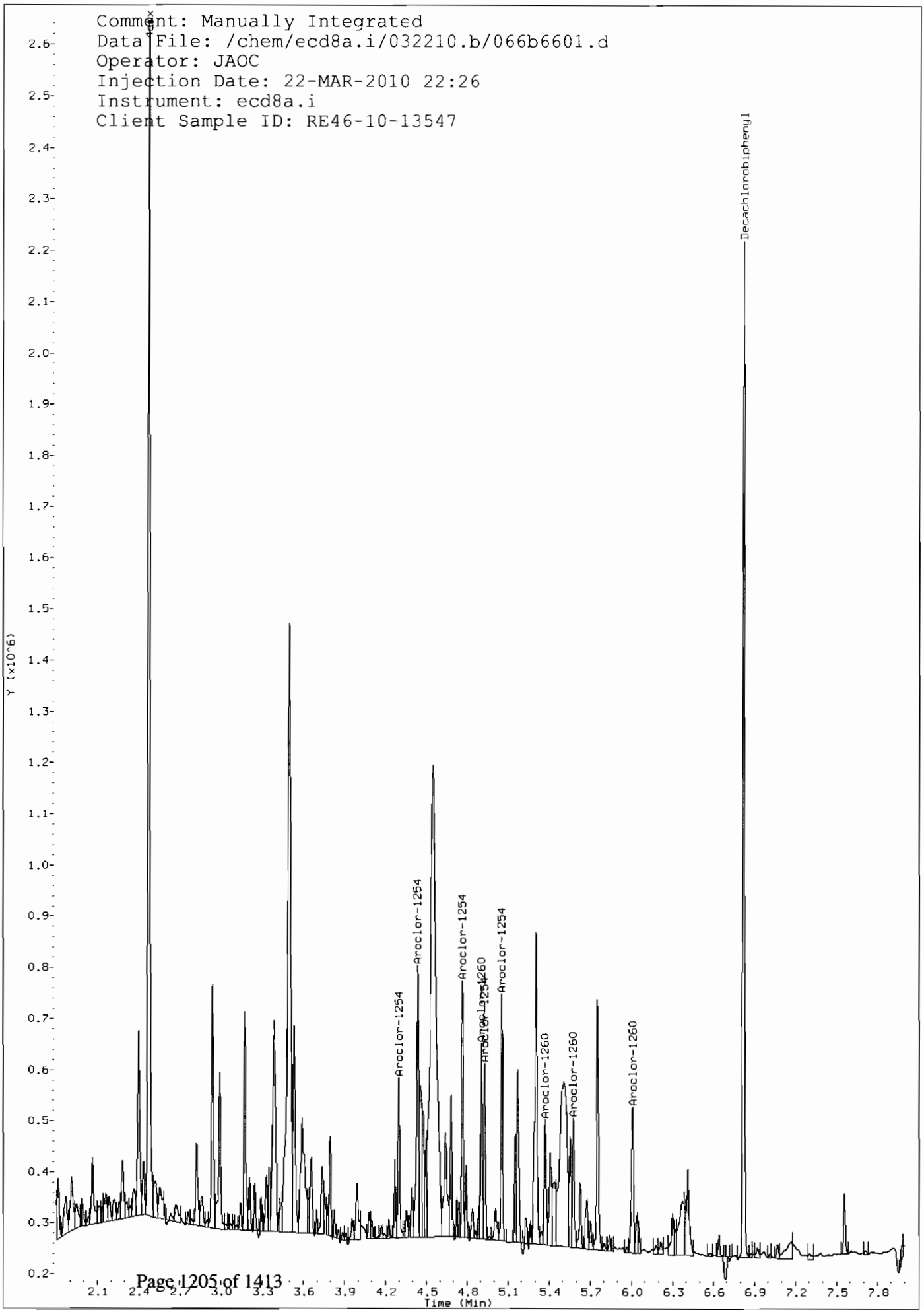
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/066b6601.d
Operator: JAOC
Injection Date: 22-MAR-2010 22:26
Instrument: ecd8a.i
Client Sample ID: RE46-10-13547
Decachlorobiphenyl
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^6)
Time (Min)

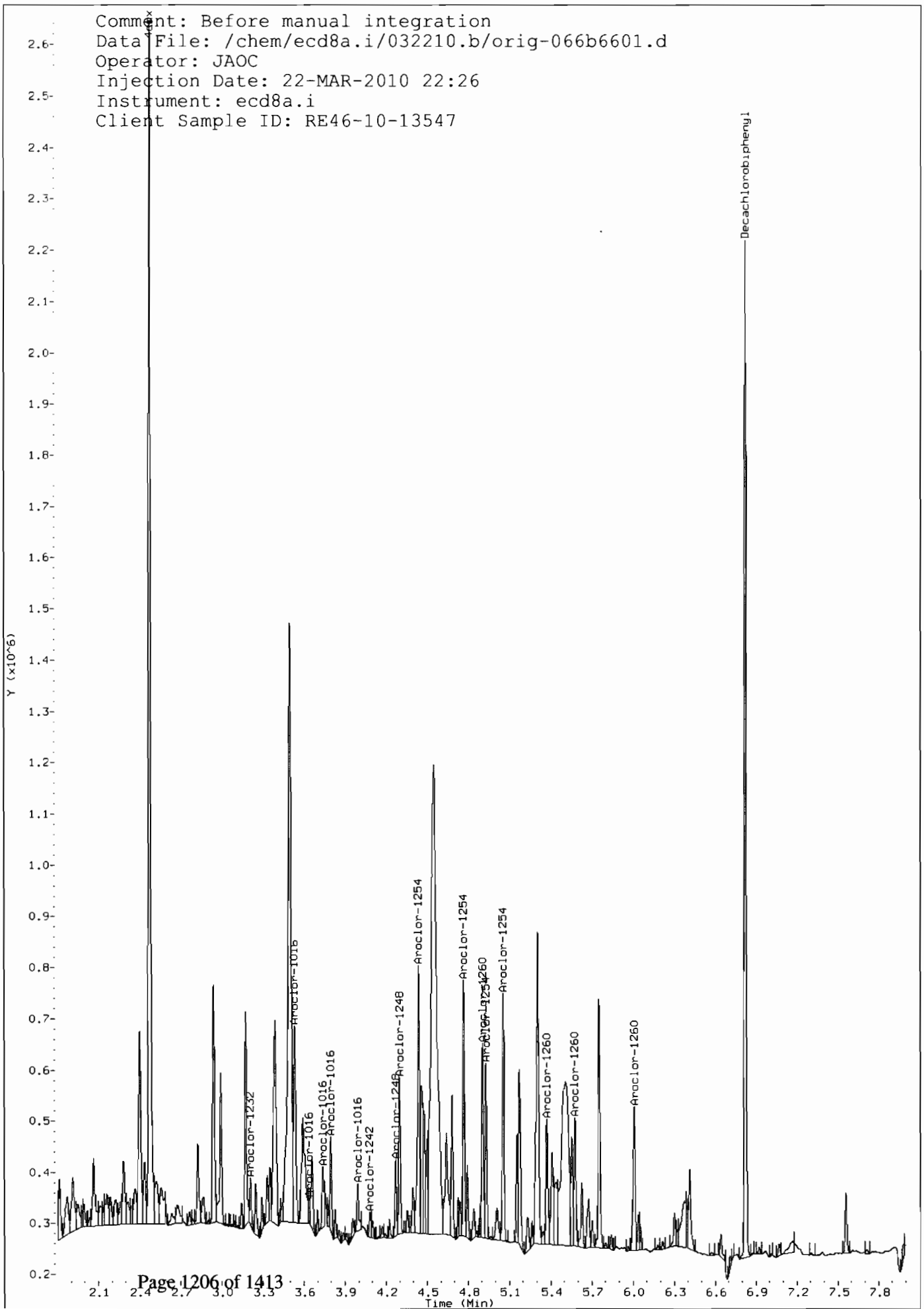
Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-066b6601.d
Operator: JAOC
Injection Date: 22-MAR-2010 22:26
Instrument: ecd8a.i
Client Sample ID: RE46-10-13547
Decachlorobiphenyl
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^6)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13548**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 21:45**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**063f6301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	063b6301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.01	ug/kg	1.34	4.01	1
11104–28–2	Aroclor–1221	U	4.01	ug/kg	1.34	4.01	1
11141–16–5	Aroclor–1232	U	4.01	ug/kg	1.34	4.01	1
53469–21–9	Aroclor–1242	U	4.01	ug/kg	1.34	4.01	1
12672–29–6	Aroclor–1248	U	4.01	ug/kg	1.34	4.01	1
11097–69–1	Aroclor–1254	P	64.5	ug/kg	1.34	4.01	2
11096–82–5	Aroclor–1260		47.2	ug/kg	1.34	4.01	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/063f6301.d
Lab Smp Id: 248842006 Client Smp ID: RE46-10-13548
Inj Date : 22-MAR-2010 21:45
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248842006|1|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13548|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 63
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weight of sample extracted (g)
M	17.17990	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.249	0.000	16070987	128.608	5.2	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.243	6.240	0.003	9681649	117.566	4.7	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.831	3.832	-0.001	4127336	952.324	38.2	80.00- 120.00	100.00(M)
4.018	4.019	-0.001	5775533	1001.56	40.2	113.15- 153.15	139.93
4.212	4.214	-0.002	3831880	859.450	34.5	83.81- 123.81	92.84
4.299	4.301	-0.002	7789764	1035.66	41.5	155.36- 195.36	188.74
4.496	4.497	-0.001	5540229	963.651	38.6	112.54- 152.54	134.23

Average of Peak Concentrations = 38.6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.430	-0.002	7067131	1199.84	48.1	80.00- 120.00	100.00(M)
4.625	4.625	0.000	11384215	1340.06	53.7	126.61- 166.61	161.09
4.900	4.900	0.000	6510155	1285.00	51.5	65.41- 105.41	92.12
5.071	5.073	-0.002	4446004	834.301	33.4	71.29- 111.29	62.91
5.483	5.485	-0.002	5699471	1010.37	40.5	78.39- 118.39	80.65
Average of Peak Concentrations =					45.4		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/063f6301.d

Date : 22-MAR-2010 21:45

Client ID: RE46-10-13548

Sample Info: 1248842006|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

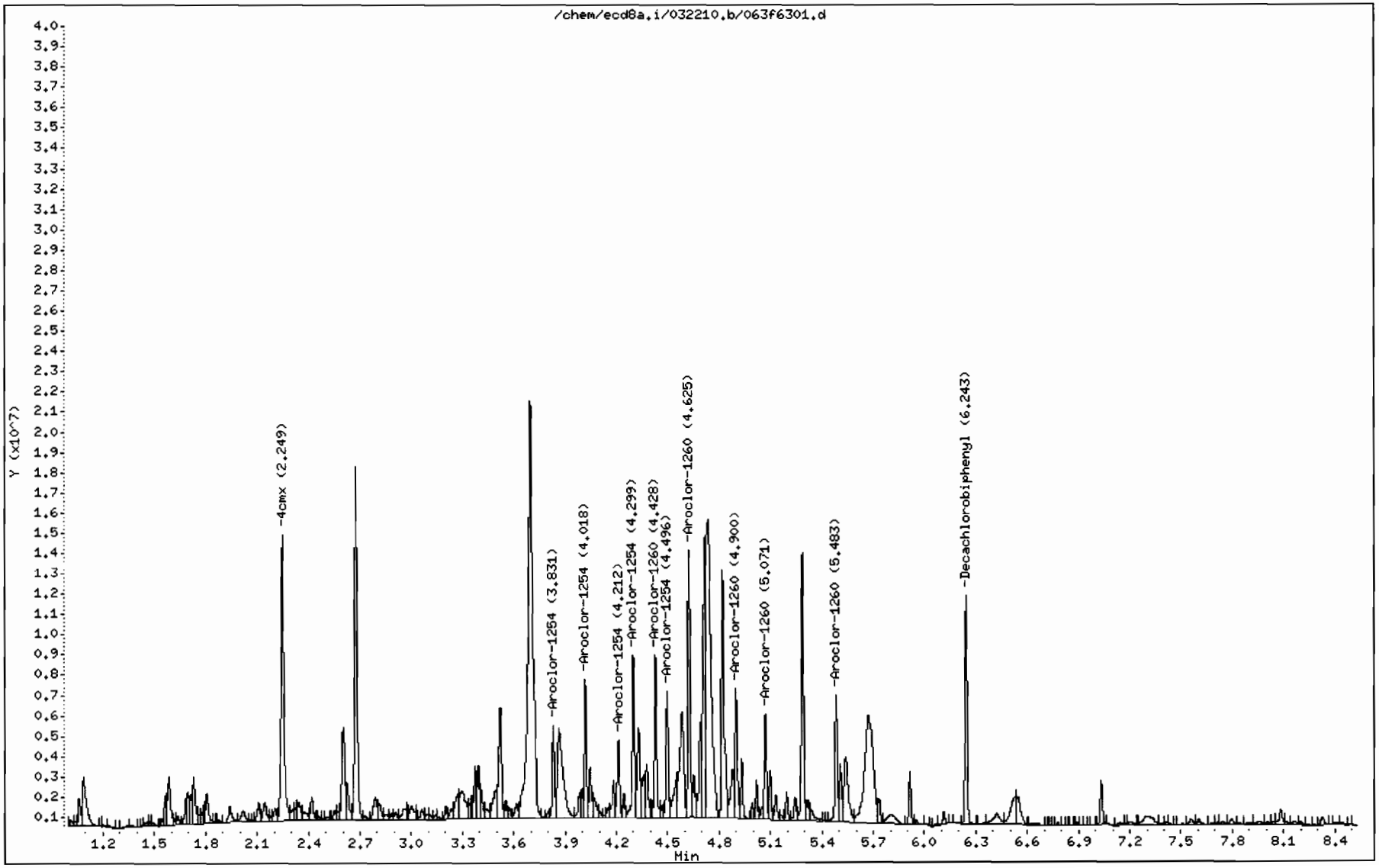

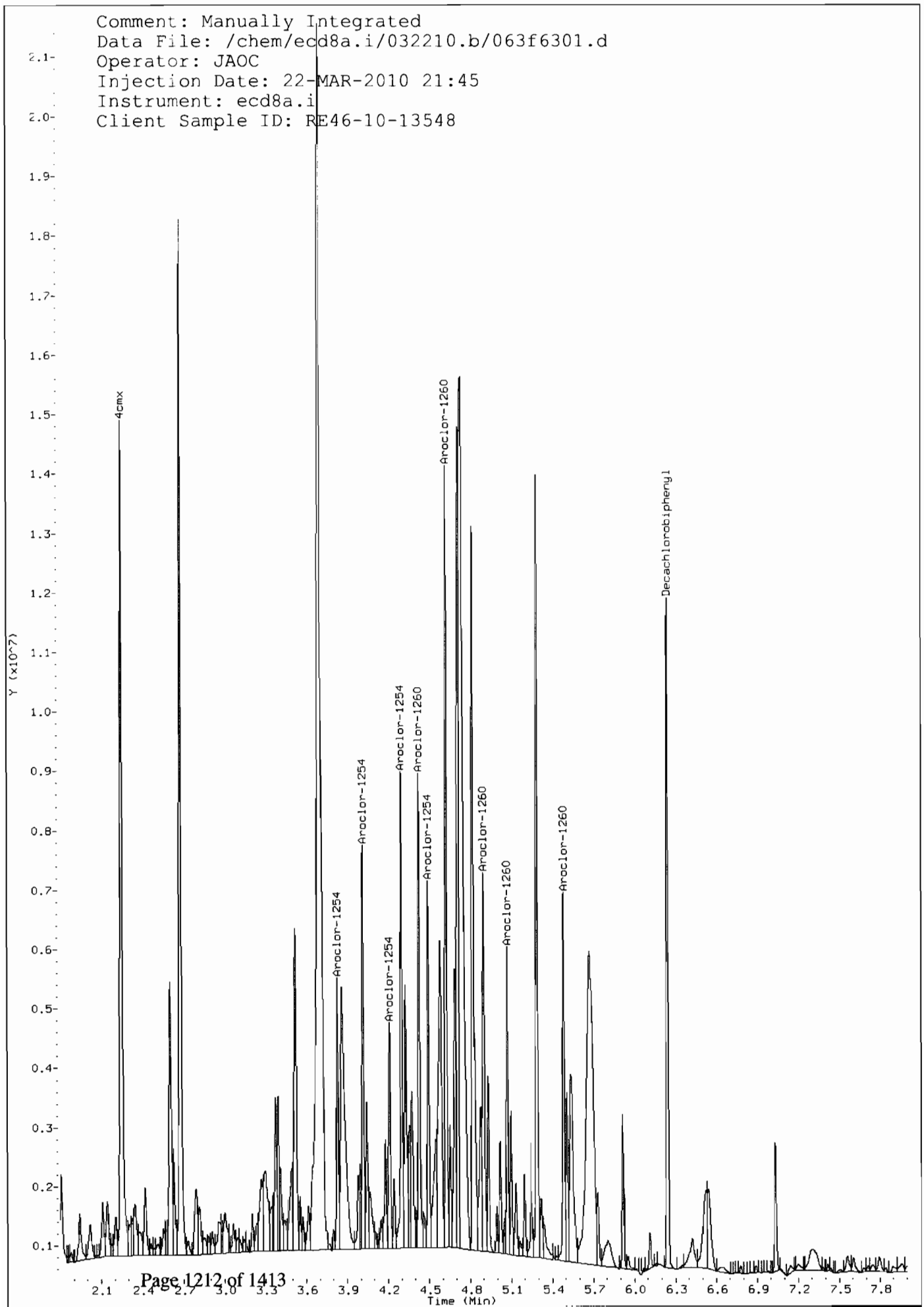
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/063f6301.d
Operator: JAOC
Injection Date: 22-MAR-2010 21:45
Instrument: ecd8a.i
Client Sample ID: RE46-10-13548
4cmx
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

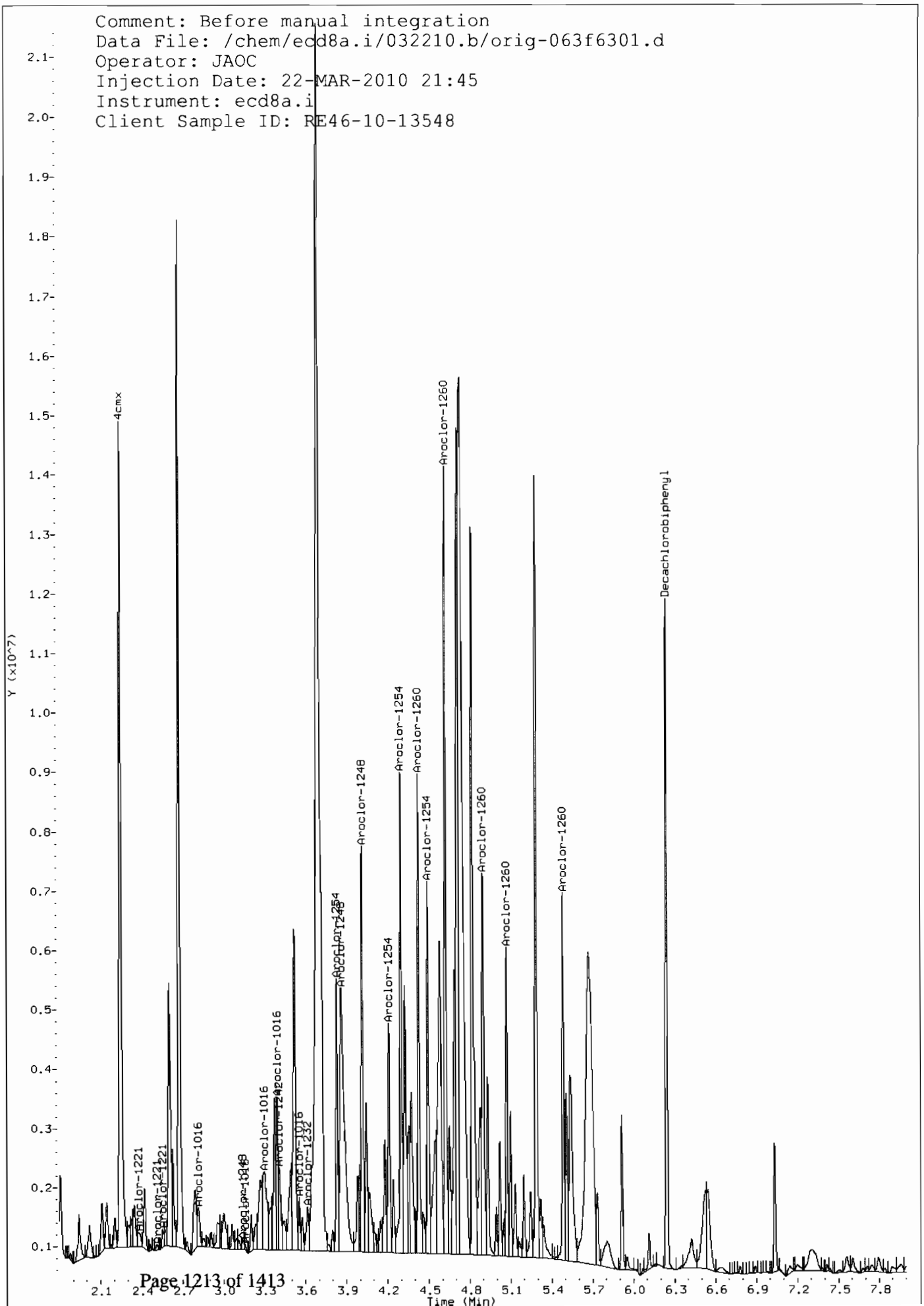
Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-063f6301.d
Operator: JAOC
Injection Date: 22-MAR-2010 21:45
Instrument: ecd8a.i
Client Sample ID: RE46-10-13548
Y (x10^7)
Time (Min)
4cmx
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1232
Decachlorobiphenyl

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/063b6301.d
Lab Smp Id: 248842006 Client Smp ID: RE46-10-13548
Inj Date : 22-MAR-2010 21:45
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248842006|1|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13548|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 63
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weight of sample extracted (g)
M	17.17990	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	11964110	143.142	5.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.827	6.825	0.002	7832483	132.188	5.3	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
4.302	4.302	0.000	3404551	1092.37	43.8	80.00- 120.00	100.00
4.441	4.441	0.000	6957761	2000.43	80.2	91.89- 131.89	204.37
4.769	4.770	-0.001	4428605	916.509	36.8	137.30- 177.30	130.08
4.932	4.932	0.000	3368096	963.951	38.6	91.85- 131.85	98.93
5.057	5.057	0.000	6767694	3073.86	123	50.50- 90.50	198.78

Average of Peak Concentrations = 64.5

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.908	4.909	-0.001	5294865	1344.38	53.9	80.00- 120.00	[illegible]
5.057	5.058	-0.001	6767694	1430.66	57.4	101.53- 141.53	[illegible]
5.375	5.375	0.000	3945356	1100.01	44.1	71.56- 111.56	[illegible]
5.580	5.581	-0.001	4173609	1124.28	45.1	75.17- 115.17	[illegible]
6.013	6.013	0.000	5161400	883.600	35.4	132.27- 172.27	[illegible]
Average of Peak Concentrations =					47.2		

Data File: /chem/ecd8a.i/032210.b/063b6301.d
Date : 22-MAR-2010 21:45
Client ID: RE46-10-13548
Sample Info: 1248842006111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

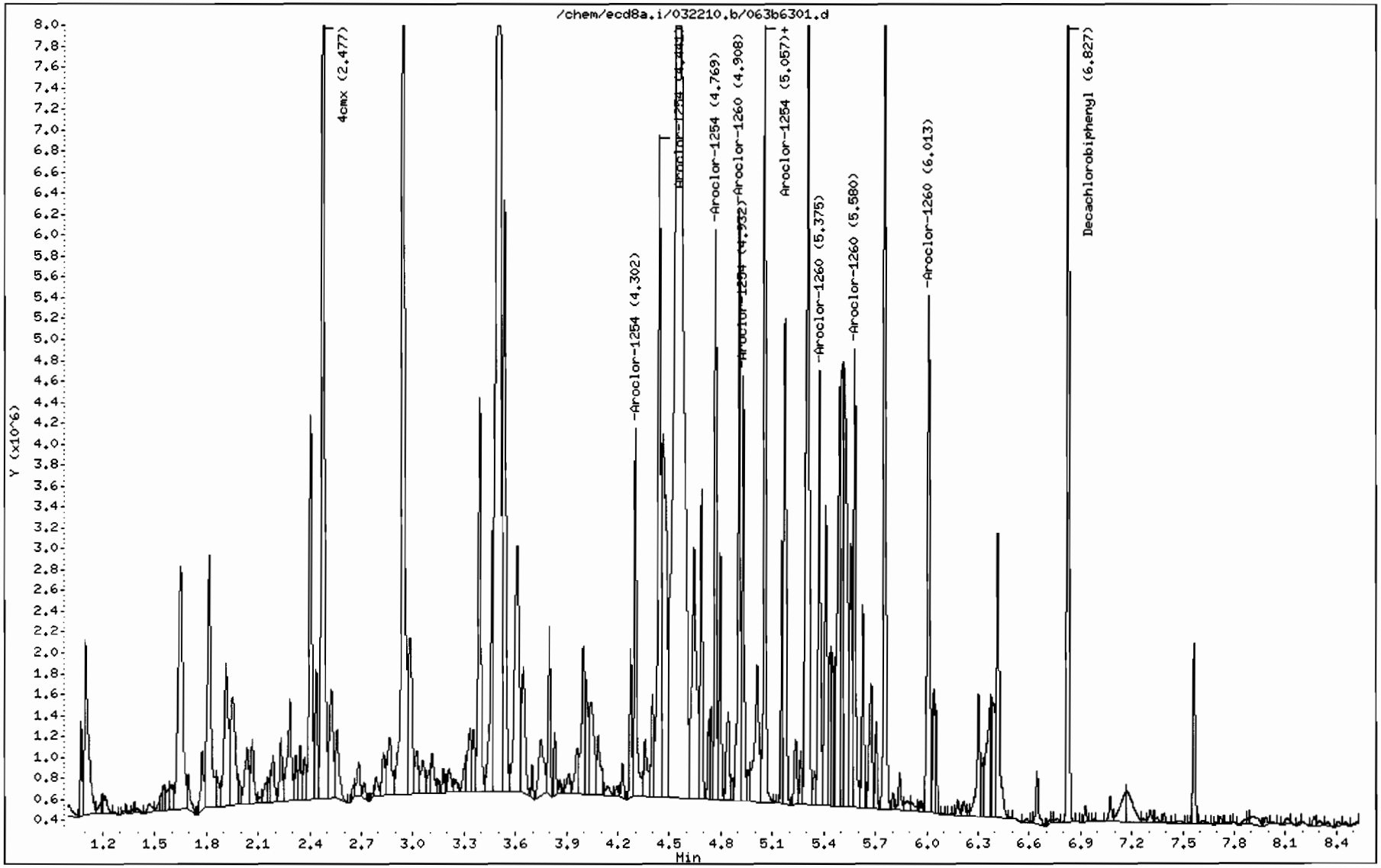

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2302	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248842003	**Date Received:**	03/05/2010 10:20	**%Moisture:**	16.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13549	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967396	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	03/22/2010 21:08	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 12:13	**Aliquot:**	30.15 g	**Final Volume:**	1 mL
Data File:	060f6001.d	**Column:**	1 CLP1	**Level:**	LOW
	060b6001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.98	ug/kg	1.32	3.98	1
11104-28-2	Aroclor-1221	U	3.98	ug/kg	1.32	3.98	1
11141-16-5	Aroclor-1232	U	3.98	ug/kg	1.32	3.98	1
53469-21-9	Aroclor-1242	U	3.98	ug/kg	1.32	3.98	1
12672-29-6	Aroclor-1248	U	3.98	ug/kg	1.32	3.98	1
11097-69-1	Aroclor-1254	P	23.7	ug/kg	1.32	3.98	2
11096-82-5	Aroclor-1260		17.8	ug/kg	1.32	3.98	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/060f6001.d
Lab Smp Id: 248842003 Client Smp ID: RE46-10-13549
Inj Date : 22-MAR-2010 21:08
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248842003|1|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13549|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 60
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.15000	Weight of sample extracted (g)
M	16.56910	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.249	-0.001	16290824	130.367	5.2	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.240	6.240	0.000	10478460	127.241	5.0	80.00- 120.00	100.00(M)
6 Aroclor-1254					CAS #: 11097-69-1		
3.830	3.832	-0.002	1547665	357.102	14.2	80.00- 120.00	100.00(M)
4.017	4.019	-0.002	2128329	369.083	14.7	113.15- 153.15	137.52
4.212	4.214	-0.002	1394267	312.719	12.4	83.81- 123.81	90.09
4.299	4.301	-0.002	2544352	338.276	13.4	155.36- 195.36	164.40
4.495	4.497	-0.002	1984405	345.162	13.7	112.54- 152.54	128.22

Average of Peak Concentrations = 13.7

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.427	4.430	-0.003	2510178	426.172	16.9	80.00- 120.00	100.00(M)
4.624	4.625	-0.001	4153172	488.880	19.4	126.61- 166.61	165.45
4.898	4.900	-0.002	2417102	477.097	19.0	65.41- 105.41	96.29
5.070	5.073	-0.003	1692323	317.568	12.6	71.29- 111.29	67.42
5.482	5.485	-0.003	2151391	381.386	15.2	78.39- 118.39	85.71
			Average of Peak Concentrations =		16.6		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/060f6001.d

Page 1

Date : 22-MAR-2010 21:08

Client ID: RE46-10-13549

Instrument: ecd8a.i

Sample Info: |248842003|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

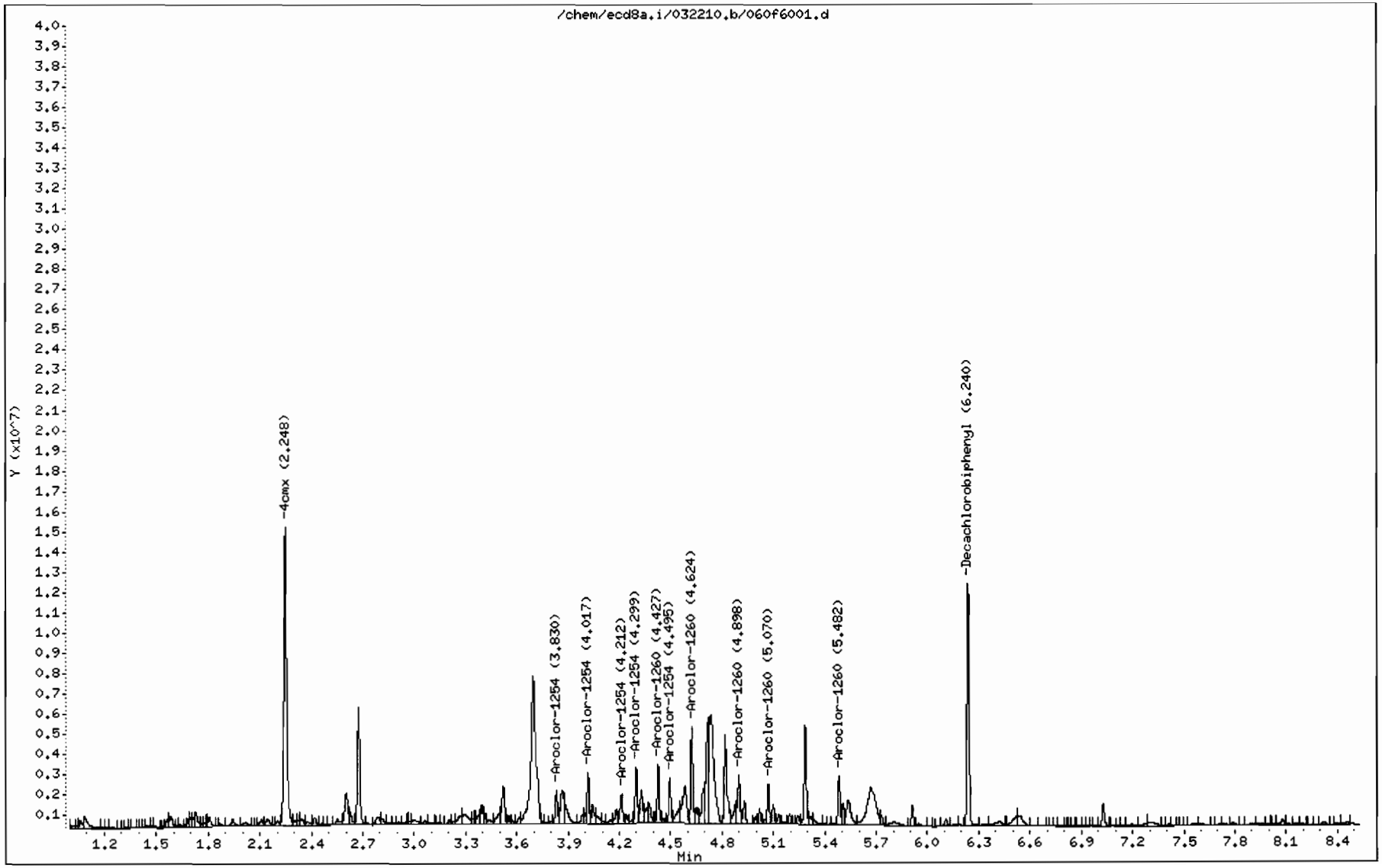

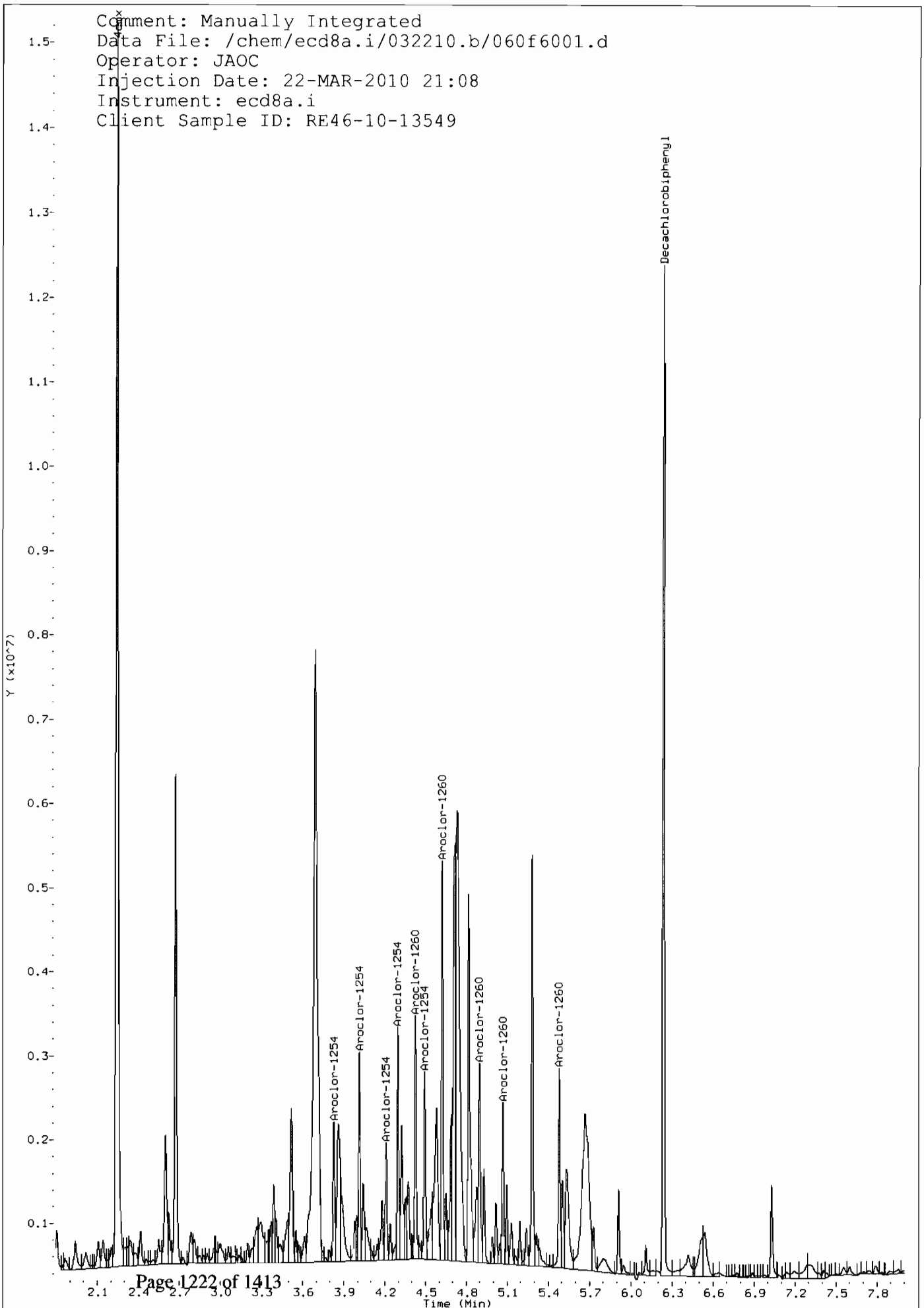
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/060f6001.d
Operator: JAOC
Injection Date: 22-MAR-2010 21:08
Instrument: ecd8a.i
Client Sample ID: RE46-10-13549
Decachlorobiphenyl
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1254
Aroclor-1260
Aroclor-1260
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Aroclor-1260
Y (x10^7)
Time (Min)

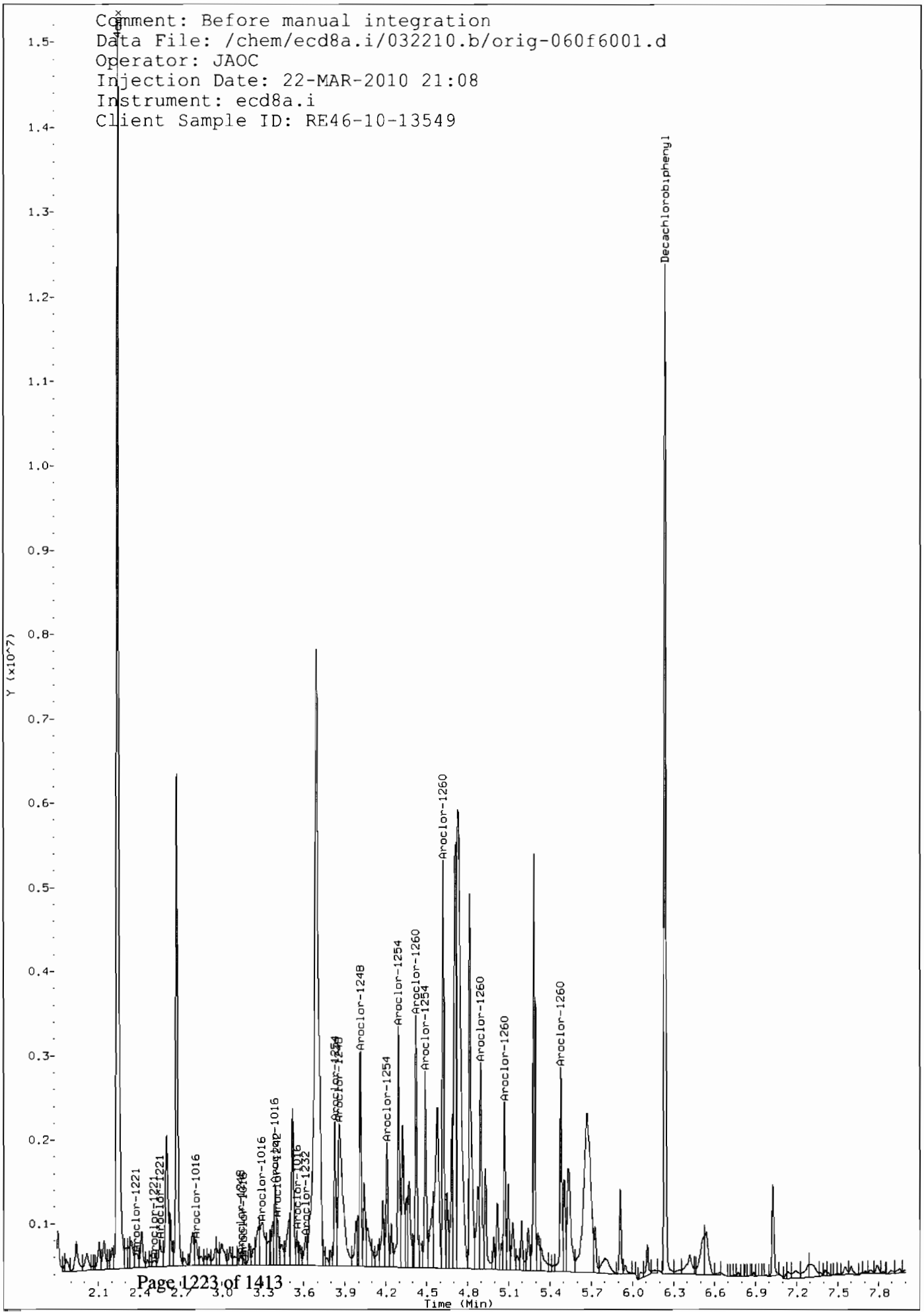
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Operator: JAOC
Injection Date: 22-MAR-2010 21:08
Instrument: ecd8a.i
Client Sample ID: RE46-10-13549
Y (x10^7)
Time (Min)
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/060b6001.d
Lab Smp Id: 248842003 Client Smp ID: RE46-10-13549
Inj Date : 22-MAR-2010 21:08
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248842003|1|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13549|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 60
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.15000	Weight of sample extracted (g)
M	16.56910	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	12082566	144.559	5.7	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.825	-0.001	8284879	139.823	5.6	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
4.301	4.302	-0.001	1193325	382.886	15.2	80.00- 120.00	100.00(M)
4.440	4.441	-0.001	2613686	751.461	29.9	91.89- 131.89	198.80
4.769	4.770	-0.001	1602955	331.735	13.2	137.30- 177.30	121.92
4.930	4.932	-0.002	1214076	347.469	13.8	91.85- 131.85	95.39
5.056	5.057	-0.001	2568881	1166.77	46.4	50.50- 90.50	195.39
Average of Peak Concentrations =					23.7		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.909	-0.002	1988325	504.843	20.1	80.00- 120.00	100.00(M)
5.056	5.058	-0.002	2568881	543.049	21.6	101.53- 141.53	129.20
5.373	5.375	-0.002	1519739	423.721	16.8	71.56- 111.56	76.43
5.579	5.581	-0.002	1574589	424.162	16.9	75.17- 115.17	79.19
6.011	6.013	-0.002	1994772	341.493	13.6	132.27- 172.27	100.32
			Average of Peak Concentrations =		17.8		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/060b6001.d
Date : 22-MAR-2010 21:08
Client ID: RE46-10-13549
Sample Info: 1248842003111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

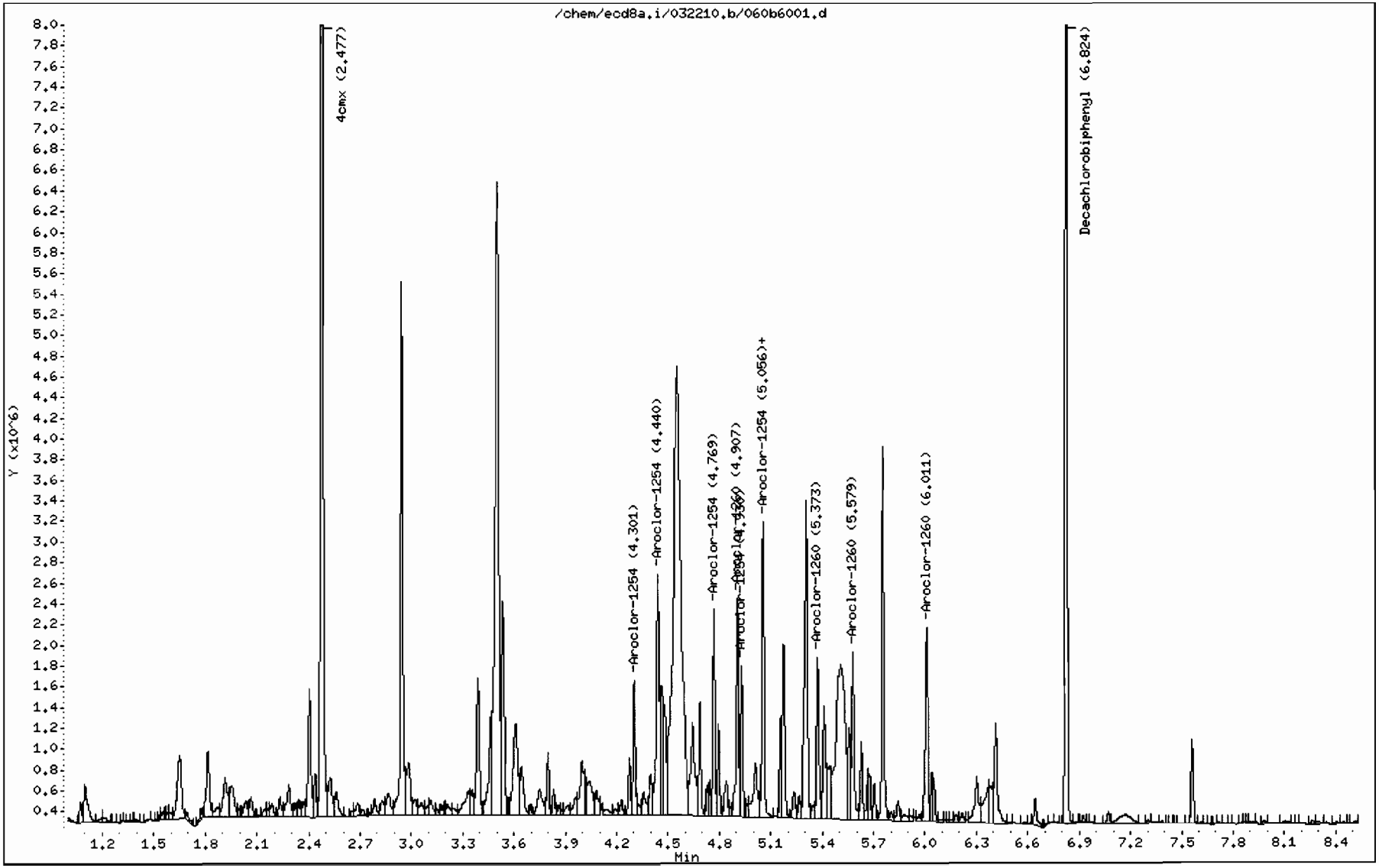

Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/060b6001.d
Operator: JAOC
Injection Date: 22-MAR-2010 21:08
Instrument: ecd8a.i
Client Sample ID: RE46-10-13549

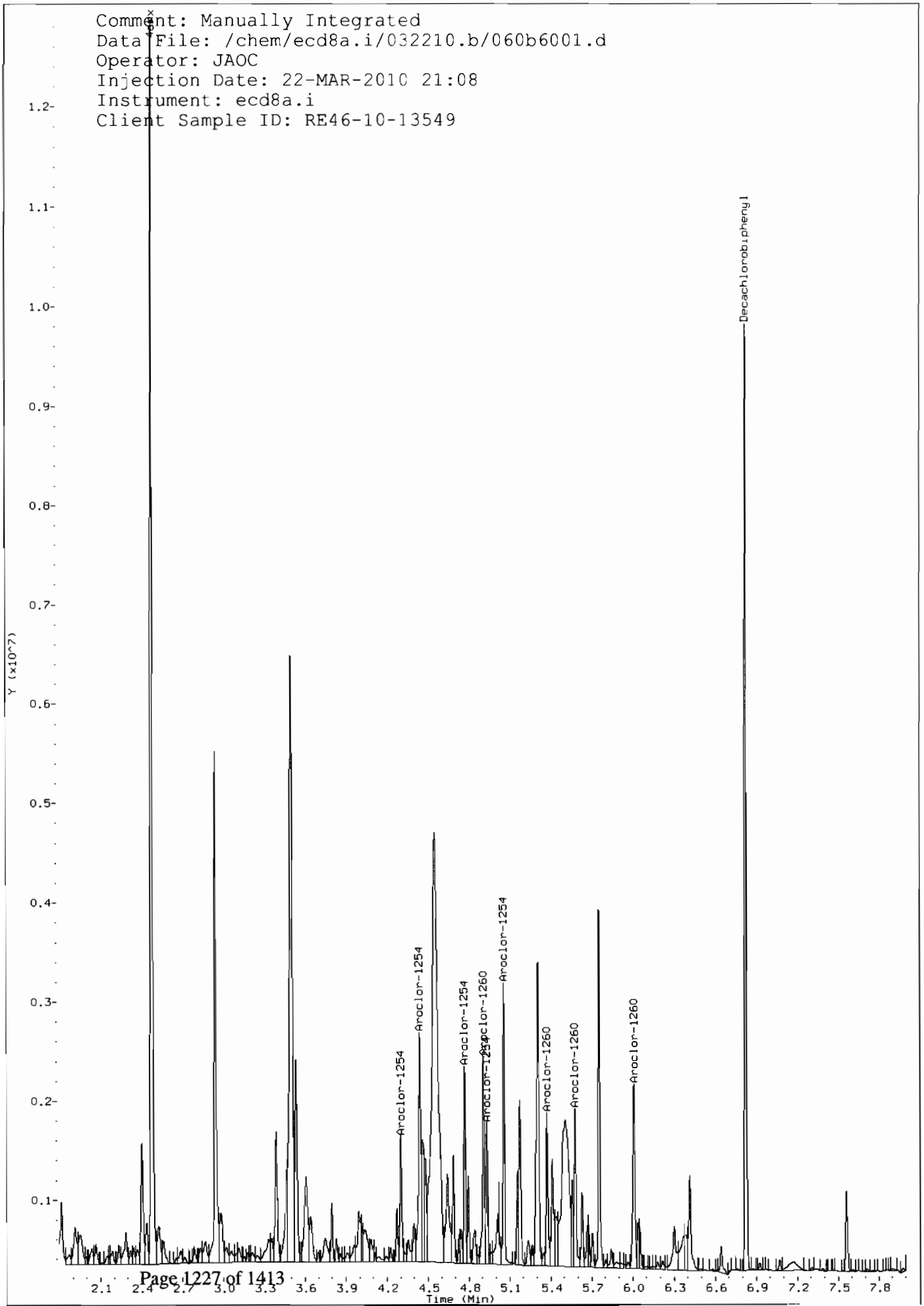

Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-060b6001.d
Operator: JAOC
Injection Date: 22-MAR-2010 21:08
Instrument: ecd8a.i
Client Sample ID: RE46-10-13549

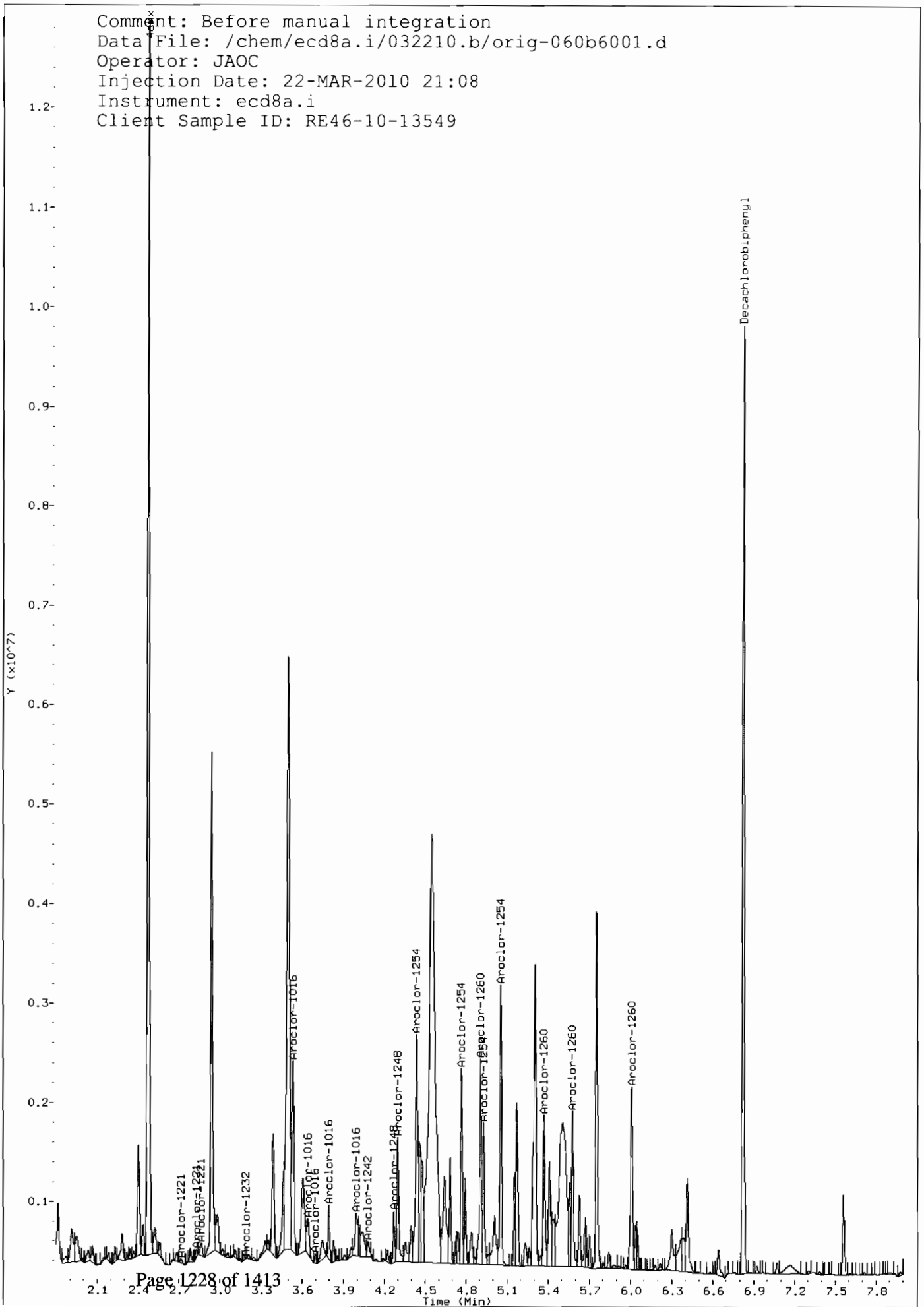

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13550**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 21:32**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.16 g**	**Final Volume:**	**1 mL**
Data File:	**062f6201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	062b6201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.06	ug/kg	1.35	4.06	1
11104-28-2	Aroclor-1221	U	4.06	ug/kg	1.35	4.06	1
11141-16-5	Aroclor-1232	U	4.06	ug/kg	1.35	4.06	1
53469-21-9	Aroclor-1242	U	4.06	ug/kg	1.35	4.06	1
12672-29-6	Aroclor-1248	U	4.06	ug/kg	1.35	4.06	1
11097-69-1	Aroclor-1254		20.8	ug/kg	1.35	4.06	2
11096-82-5	Aroclor-1260		7.50	ug/kg	1.35	4.06	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/062f6201.d
Lab Smp Id: 248842005 Client Smp ID: RE46-10-13550
Inj Date : 22-MAR-2010 21:32
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248842005|1|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13550|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 62
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.16000	Weight of sample extracted (g)
M	18.43150	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.249	-0.001	18940199	151.568	6.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.240	-0.001	11671897	141.733	5.8	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.830	3.832	-0.002	1596806	368.440	15.0	80.00- 120.00	100.00
4.017	4.019	-0.002	2220259	385.025	15.6	113.15- 153.15	139.04
4.213	4.214	-0.001	1723229	386.502	15.7	83.81- 123.81	107.92
4.298	4.301	-0.003	2970149	394.886	16.0	155.36- 195.36	186.01
4.495	4.497	-0.002	2322181	403.913	16.4	112.54- 152.54	145.43

Average of Peak Concentrations = 15.7

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.430	-0.002	1402693	238.146	9.7	80.00- 120.00	100.00
4.624	4.625	-0.001	2665752	313.792	12.8	126.61- 166.61	190.05
4.898	4.900	-0.002	671006	132.446	5.4	65.41- 105.41	47.84
5.070	5.073	-0.003	436084	81.8320	3.3	71.29- 111.29	31.09
5.482	5.485	-0.003	662632	117.467	4.8	78.39- 118.39	47.24
			Average of Peak Concentrations =		7.2		

Data File: /chem/ecd8a.i/032210.b/062f6201.d

Date : 22-MAR-2010 21:32

Client ID: RE46-10-13550

Sample Info: |248842005|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

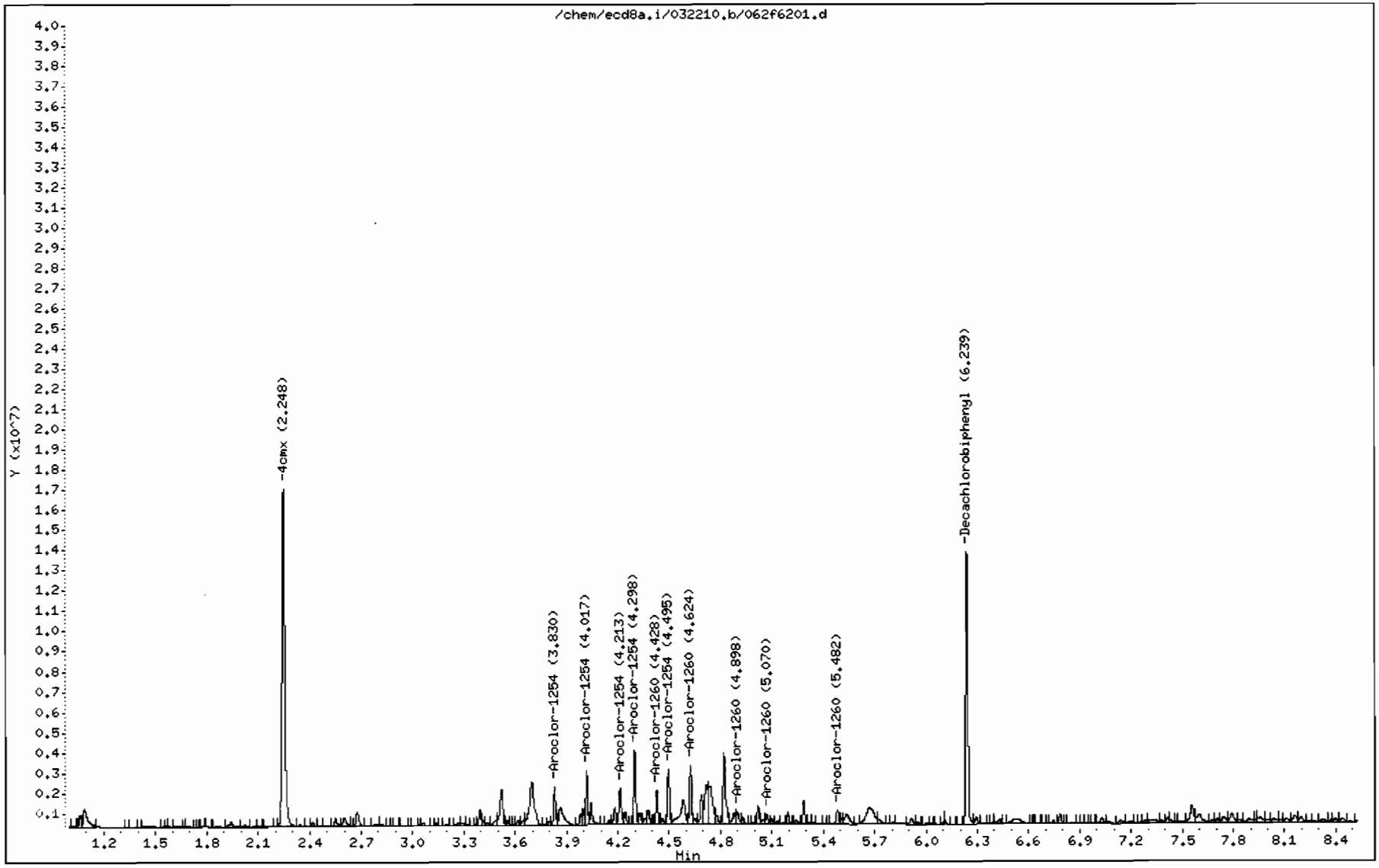

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/062b6201.d
Lab Smp Id: 248842005 Client Smp ID: RE46-10-13550
Inj Date : 22-MAR-2010 21:32
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248842005|1|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13550|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 62
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.16000	Weight of sample extracted (g)
M	18.43150	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	14158139	169.392	6.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.825	-0.001	9343792	157.694	6.4	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
4.301	4.302	-0.001	1330422	426.874	17.4	80.00- 120.00	100.00
4.441	4.441	0.000	2252856	647.719	26.3	91.89- 131.89	169.33
4.768	4.770	-0.002	2121645	439.079	17.8	137.30- 177.30	159.47
4.931	4.932	-0.001	1518143	434.494	17.7	91.85- 131.85	114.11
5.056	5.057	-0.001	1336831	607.183	24.7	50.50- 90.50	100.48

Average of Peak Concentrations = 20.8

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.908	4.909	-0.001	1123679	285.306	11.6	80.00- 120.00	100.00
5.056	5.058	-0.002	1336831	282.600	11.5	101.53- 141.53	118.97
5.375	5.375	0.000	503626	140.417	5.7	71.56- 111.56	44.82
5.579	5.581	-0.002	422029	113.686	4.6	75.17- 115.17	37.56
6.012	6.013	-0.001	554882	94.9924	3.9	132.27- 172.27	49.38
Average of Peak Concentrations =					7.5		

Data File: /chem/ecd8a.i/032210.b/062b6201.d

Date : 22-MAR-2010 21:32

Client ID: RE46-10-13550

Sample Info: |248842005|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

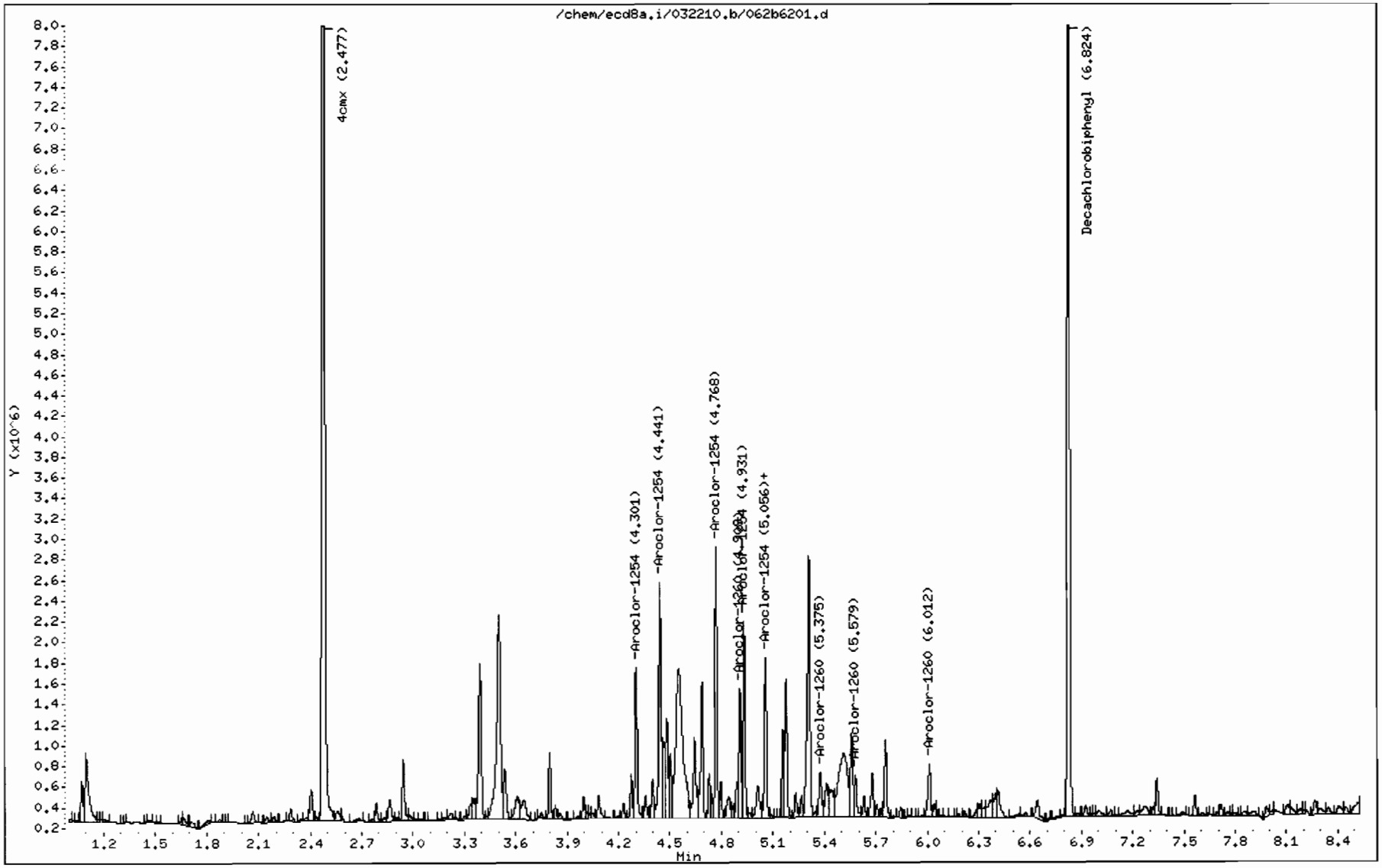

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13551**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 21:20**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**061f6101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	061b6101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	20.9	ug/kg	6.97	20.9	1
11104–28–2	Aroclor–1221	U	20.9	ug/kg	6.97	20.9	1
11141–16–5	Aroclor–1232	U	20.9	ug/kg	6.97	20.9	1
53469–21–9	Aroclor–1242	U	20.9	ug/kg	6.97	20.9	1
12672–29–6	Aroclor–1248	U	20.9	ug/kg	6.97	20.9	1
11097–69–1	Aroclor–1254		183	ug/kg	6.97	20.9	2
11096–82–5	Aroclor–1260		101	ug/kg	6.97	20.9	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/061f6101.d
Lab Smp Id: 248842004 Client Smp ID: RE46-10-13551
Inj Date : 22-MAR-2010 21:20
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248842004|5|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13551|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 61
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.13000	Weight of sample extracted (g)
M	20.70090	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.249	0.000	3578391	28.6360	6.0	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.243	6.240	0.003	2182986	26.5083	5.5	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.831	3.832	-0.001	2885179	665.714	139	80.00- 120.00	100.00(M)
4.018	4.019	-0.001	3655931	633.991	133	113.15- 153.15	126.71
4.213	4.214	-0.001	2556573	573.412	120	83.81- 123.81	88.61
4.300	4.301	-0.001	5072872	674.446	141	155.36- 195.36	175.83
4.495	4.497	-0.002	3451532	600.349	126	112.54- 152.54	119.63

Average of Peak Concentrations = 132

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.429	4.430	-0.001	3379916	573.834	120	80.00- 120.00	100.00(M)
4.625	4.625	0.000	5487727	645.973	135	126.61- 166.61	162.36
4.900	4.900	0.000	2323310	458.584	96.0	65.41- 105.41	68.74
5.071	5.073	-0.002	1634570	306.730	64.2	71.29- 111.29	48.36
5.484	5.485	-0.001	2332185	413.436	86.5	78.39- 118.39	69.00
Average of Peak Concentrations =					100		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/061f6101.d

Page 1

Date : 22-MAR-2010 21:20

Client ID: RE46-10-13551

Instrument: ecd8a.i

Sample Info: 1248842004151

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

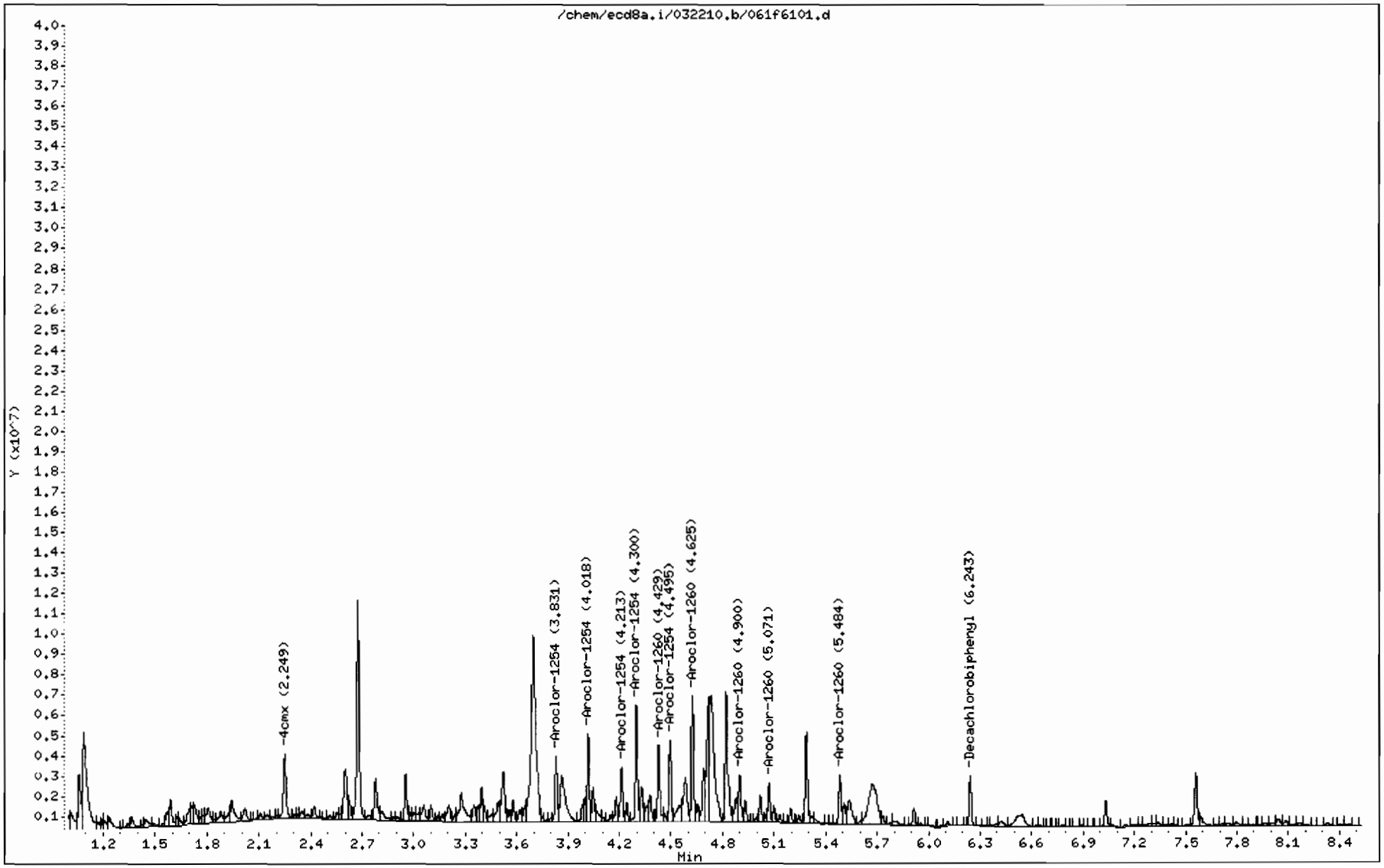

Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/061f6101.d
Operator: JAOC
Injection Date: 22-MAR-2010 21:20
Instrument: ecd8a.i
Client Sample ID: RE46-10-13551

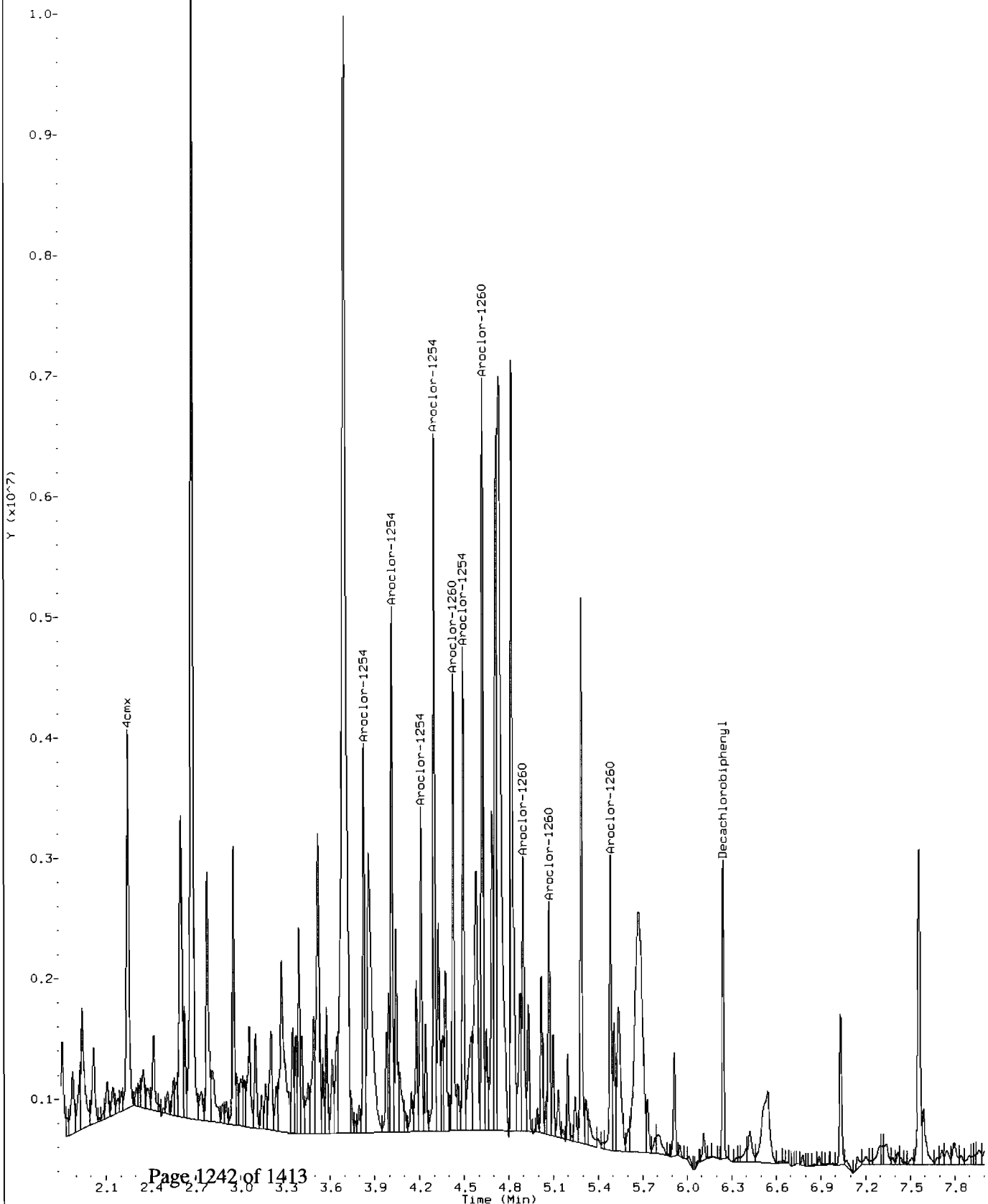

Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-061f6101.d
Operator: JAOC
Injection Date: 22-MAR-2010 21:20
Instrument: ecd8a.i
Client Sample ID: RE46-10-13551

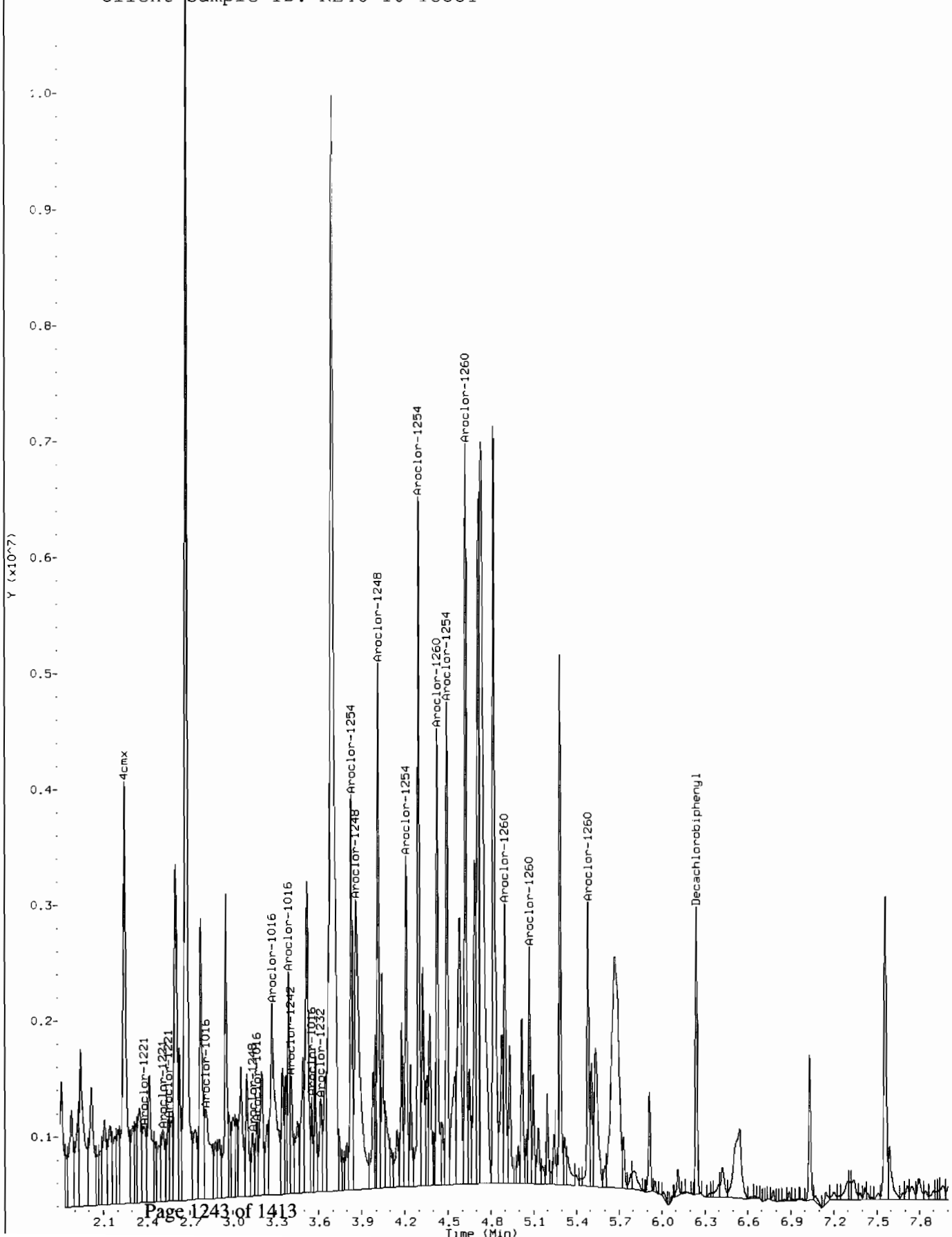

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/061b6101.d
Lab Smp Id: 248842004 Client Smp ID: RE46-10-13551
Inj Date : 22-MAR-2010 21:20
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248842004|5|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13551|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 61
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.13000	Weight of sample extracted (g)
M	20.70090	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.478	2.477	0.001	2285075	27.3393	5.7	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.828	6.825	0.003	1786324	30.1477	6.3	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
4.302	4.302	0.000	1970738	632.324	132	80.00- 120.00	100.00(M)
4.441	4.441	0.000	3578221	1028.77	215	91.89- 131.89	181.57
4.770	4.770	0.000	3336340	690.462	144	137.30- 177.30	169.29
4.931	4.932	-0.001	2213593	633.532	132	91.85- 131.85	112.32
5.057	5.057	0.000	3048221	1384.49	290	50.50- 90.50	154.67
			Average of Peak Concentrations =		183		

RT	EXP RT	DIF RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.908	4.909	-0.001	2403507	610.259	128	80.00- 120.00	100.00(M)
5.057	5.058	-0.001	3048221	644.379	135	101.53- 141.53	126.82
5.374	5.375	-0.001	1529545	426.455	89.2	71.56- 111.56	63.64
5.580	5.581	-0.001	1464493	394.504	82.6	75.17- 115.17	60.93
6.013	6.013	0.000	1916144	328.032	68.6	132.27- 172.27	79.72
Average of Peak Concentrations =					101		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/061b6101.d

Date : 22-MAR-2010 21:20

Client ID: RE46-10-13551

Sample Info: 1248842004151

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

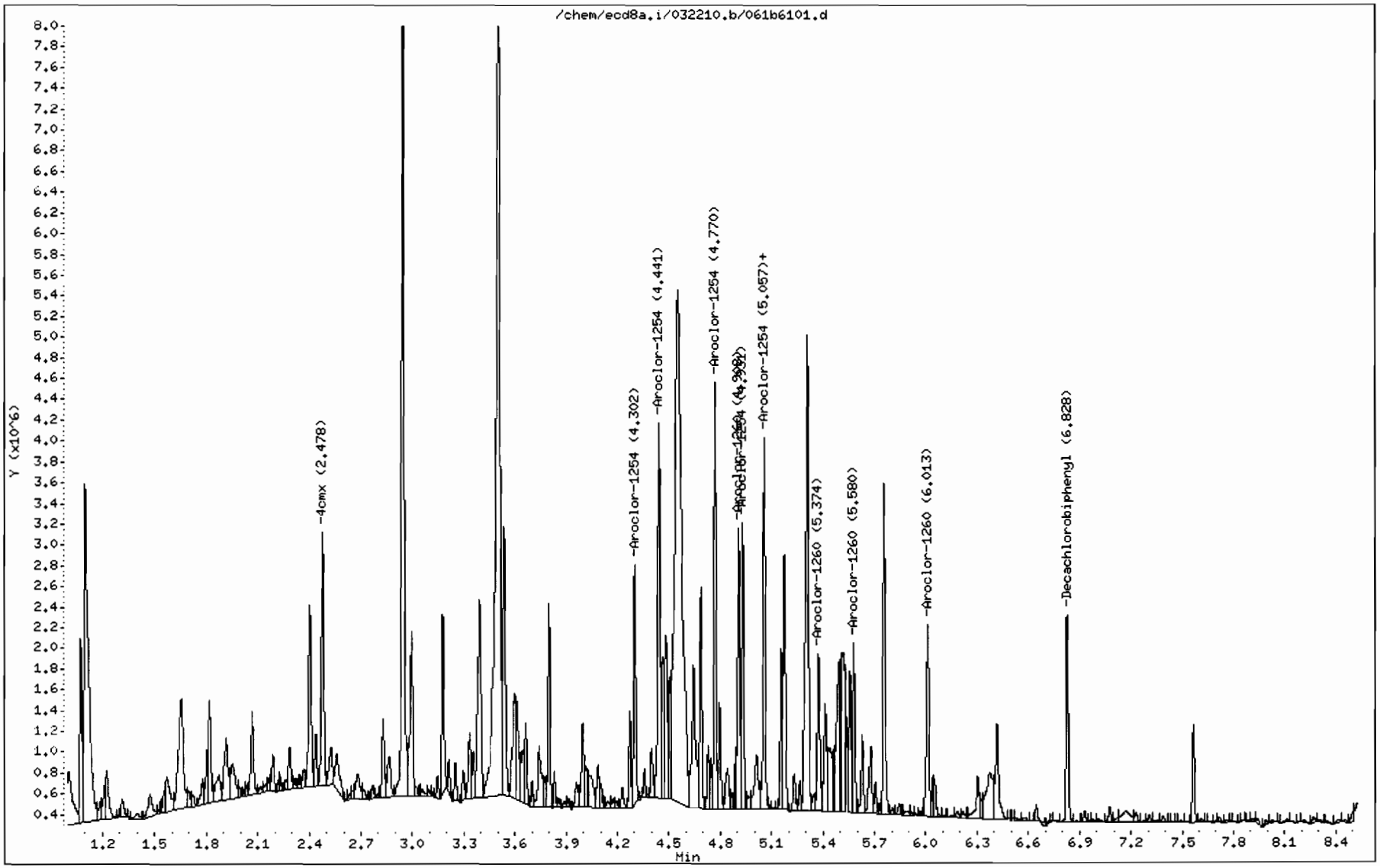

Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/061b6101.d
Operator: JAOC
Injection Date: 22-MAR-2010 21:20
Instrument: ecd8a.i
Client Sample ID: RE46-10-13551

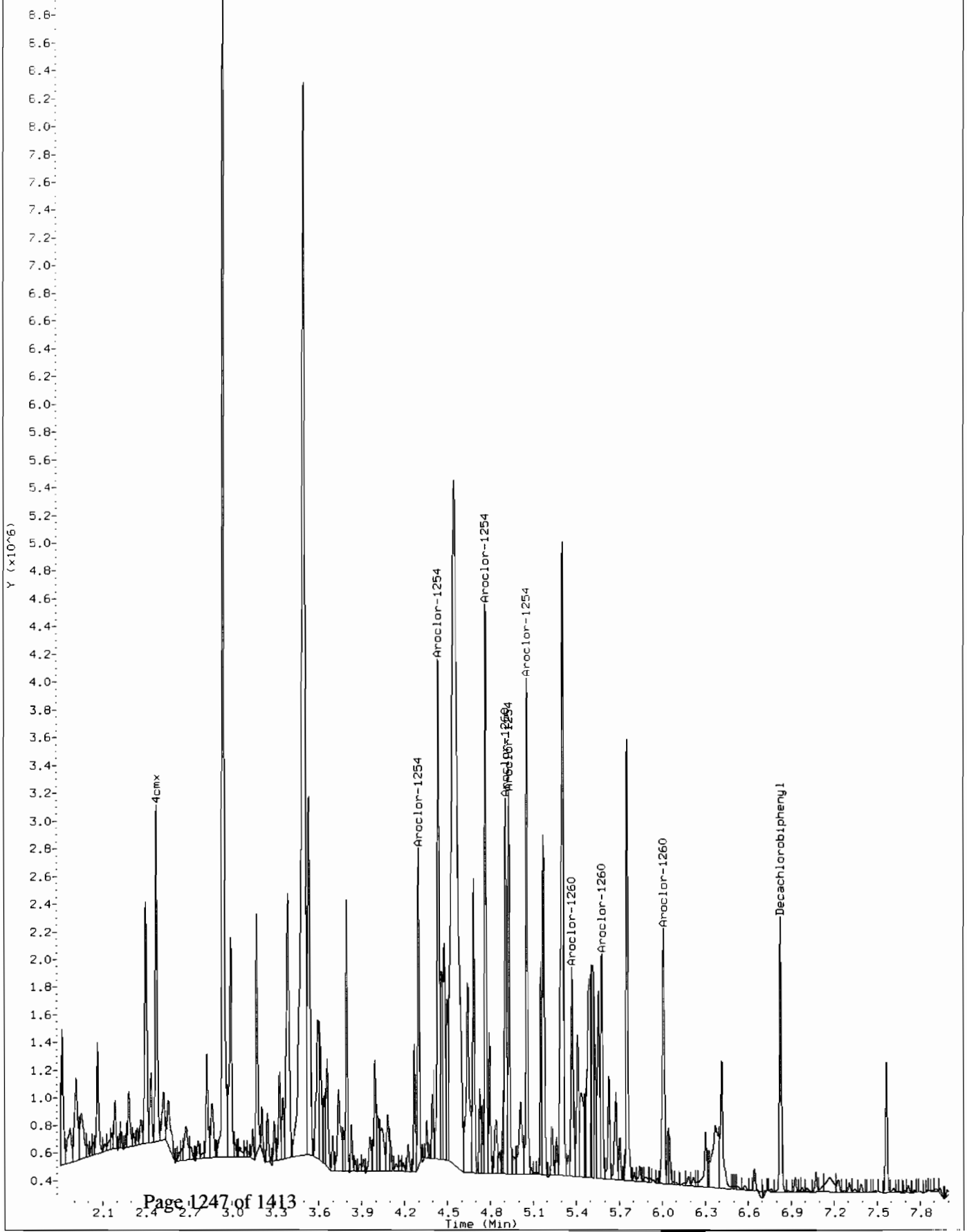

Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-061b6101.d
Operator: JAOC
Injection Date: 22-MAR-2010 21:20
Instrument: ecd8a.i
Client Sample ID: RE46-10-13551

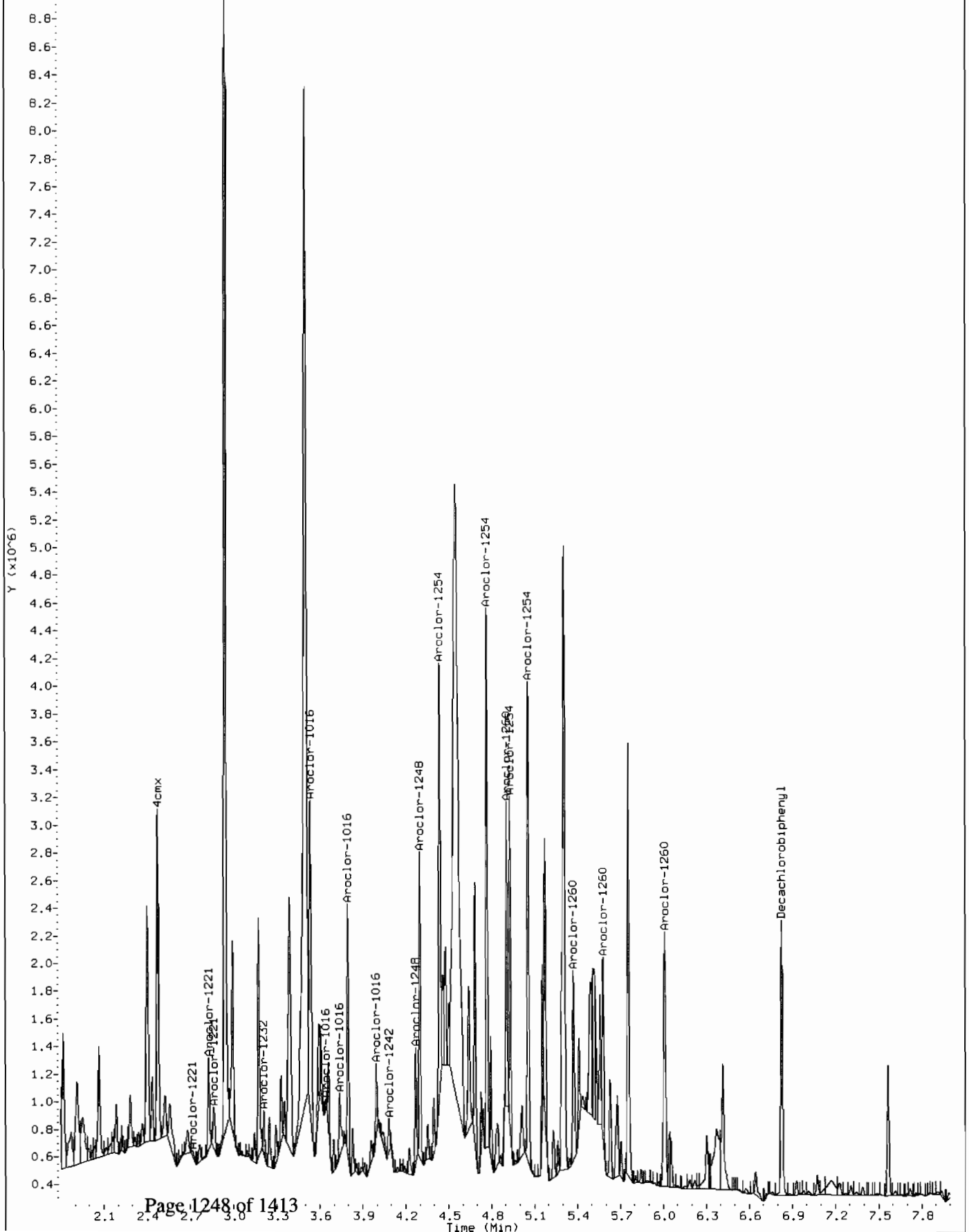

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13552**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967396**	**Inst:**	**ECD8A.1**	**Dilution:**	**1**
Run Date:	**03/22/2010 22:09**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**065f6501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	065b6501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.81	ug/kg	1.27	3.81	1
11104-28-2	Aroclor-1221	U	3.81	ug/kg	1.27	3.81	1
11141-16-5	Aroclor-1232	U	3.81	ug/kg	1.27	3.81	1
53469-21-9	Aroclor-1242	U	3.81	ug/kg	1.27	3.81	1
12672-29-6	Aroclor-1248	U	3.81	ug/kg	1.27	3.81	1
11097-69-1	Aroclor-1254		48.0	ug/kg	1.27	3.81	2
11096-82-5	Aroclor-1260		22.8	ug/kg	1.27	3.81	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/065f6501.d
Lab Smp Id: 248842008 Client Smp ID: RE46-10-13552
Inj Date : 22-MAR-2010 22:09
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248842008|1|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13552|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 65
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	12.67710	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.249	0.006	12345061	98.7910	3.8	80.00- 120.00	100.00(M)
$ 12 Decachlorobipheny1					CAS #: 2051-24-3		
6.264	6.240	0.024	8547096	103.789	4.0	80.00- 120.00	100.00(M)
6 Aroclor-1254					CAS #: 11097-69-1		
3.837	3.832	0.005	4293319	990.622	37.7	80.00- 120.00	100.00(M)
4.026	4.019	0.007	5487273	951.572	36.2	113.15- 153.15	127.81
4.220	4.214	0.006	3800353	852.379	32.4	83.81- 123.81	88.52
4.306	4.301	0.005	6448388	857.323	32.6	155.36- 195.36	150.20
4.504	4.497	0.007	5696802	990.885	37.7	112.54- 152.54	132.69

Average of Peak Concentrations = 35.3

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.436	4.430	0.006	4198492	712.810	27.1	80.00- 120.00	100.00(M)
4.633	4.625	0.008	7270529	855.831	32.6	126.61- 166.61	173.17
4.908	4.900	0.008	2954586	583.188	22.2	65.41- 105.41	70.37
5.080	5.073	0.007	1894431	355.494	13.5	71.29- 111.29	45.12
5.495	5.485	0.010	2743870	486.417	18.5	78.39- 118.39	65.35
			Average of Peak Concentrations =		22.8		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/065f6501.d
Date : 22-MAR-2010 22:09
Client ID: RE46-10-13552
Sample Info: 1248842008111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

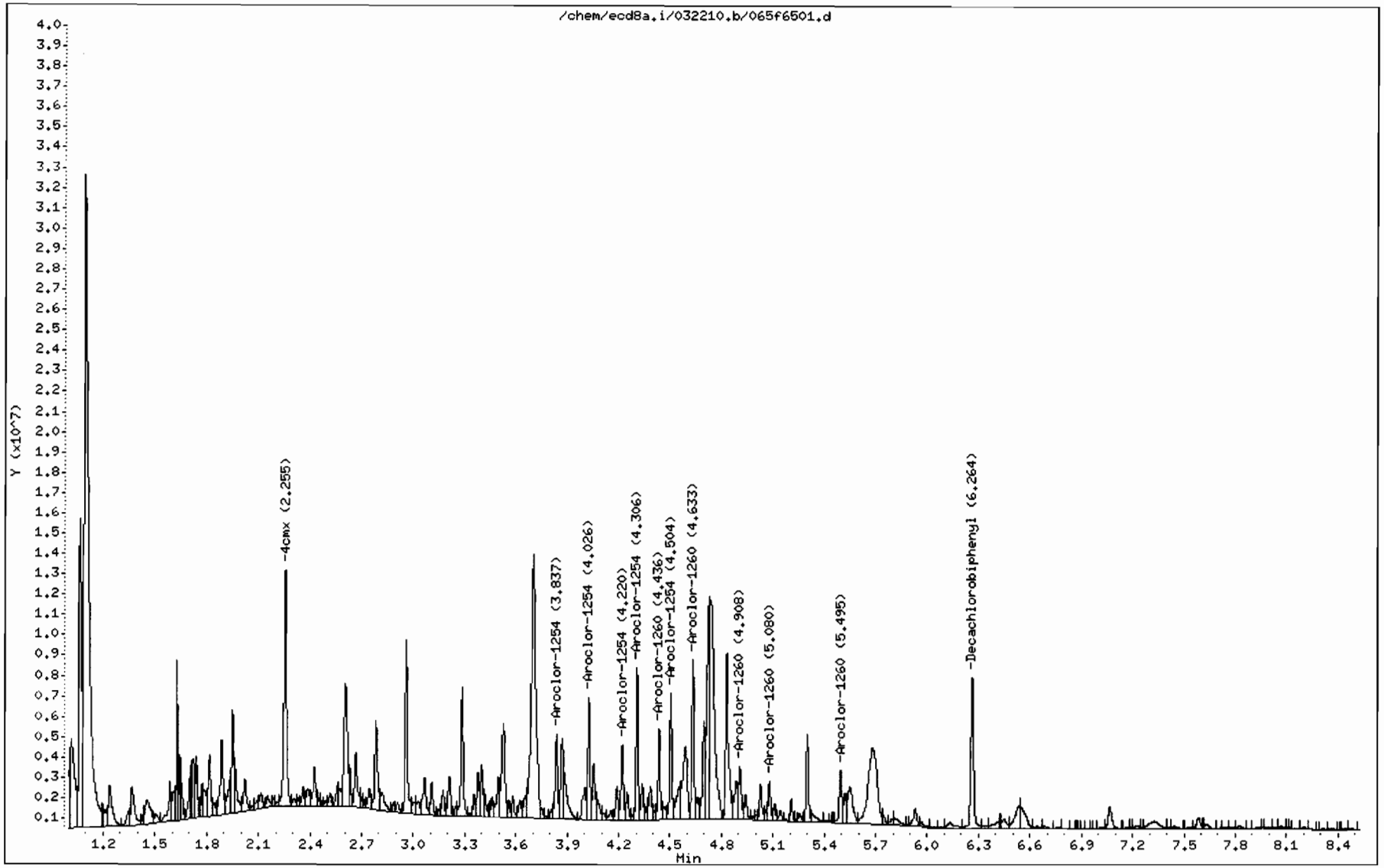

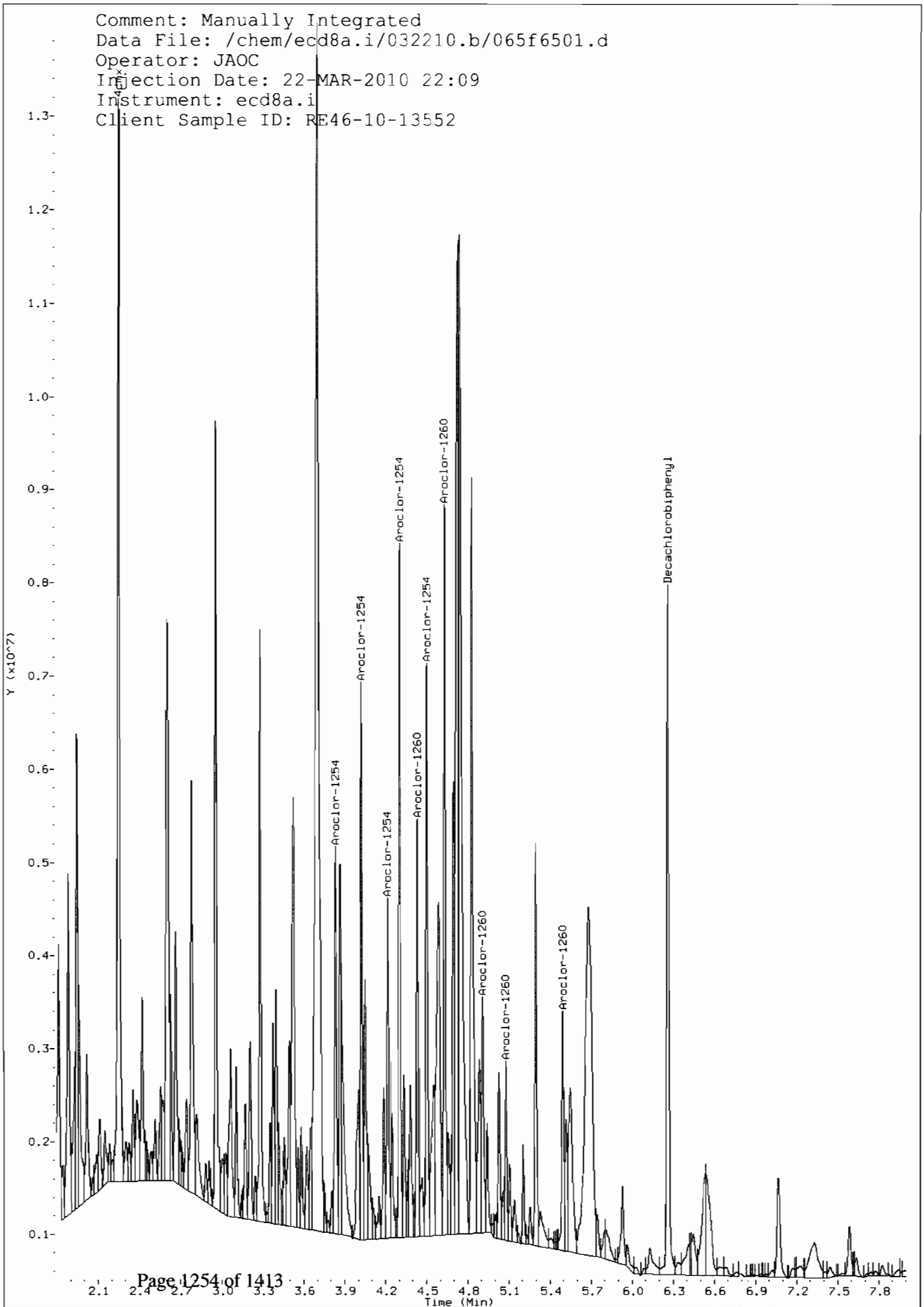
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/065f6501.d
Operator: JAOC
Injection Date: 22-MAR-2010 22:09
Instrument: ecd8a.i
Client Sample ID: RE46-10-13552
Y (x10^7)
Time (Min)
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-065f6501.d
Operator: JAOC
Injection Date: 22-MAR-2010 22:09
Instrument: ecd8a.i
Client Sample ID: RE46-10-13552

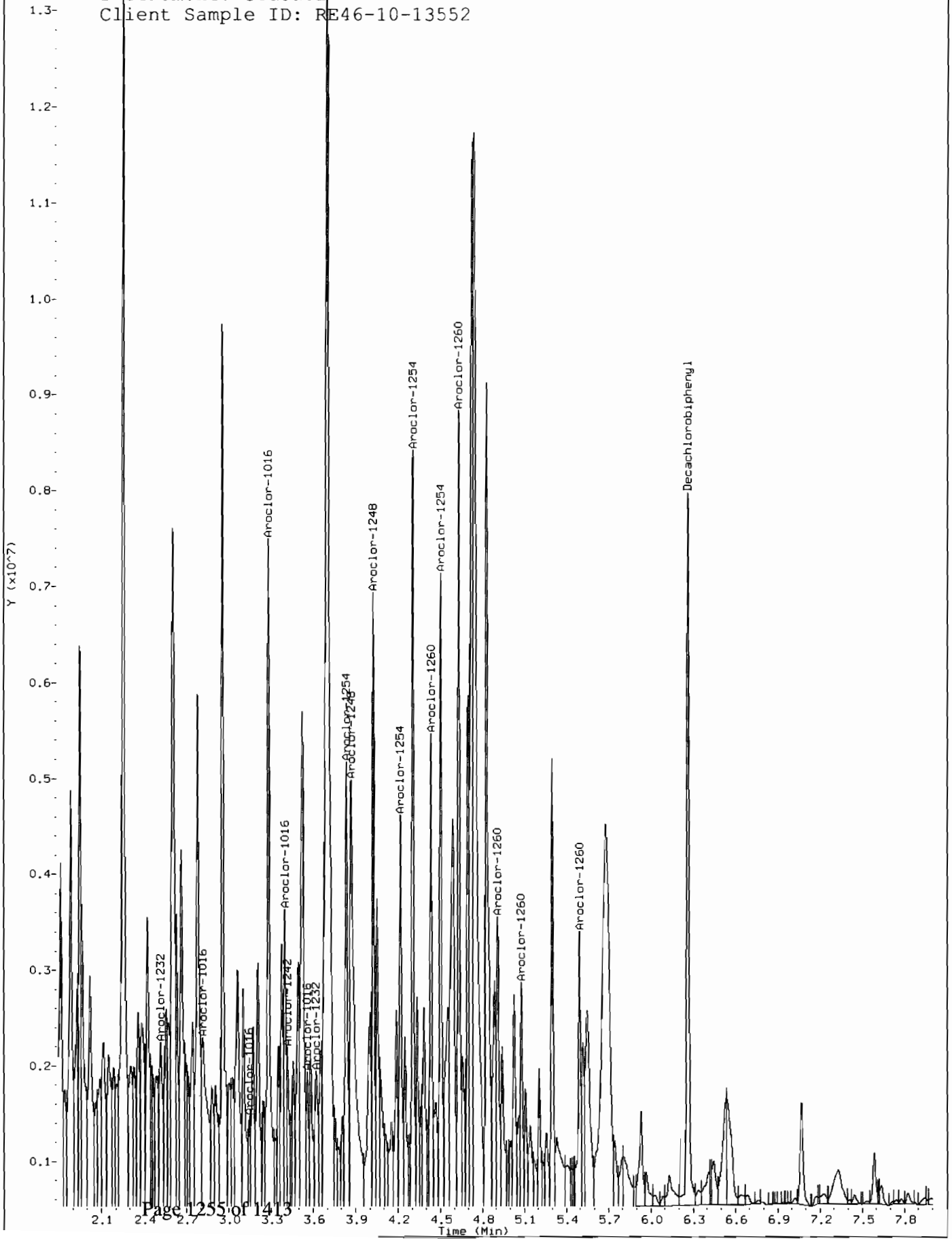

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/065b6501.d
Lab Smp Id: 248842008 Client Smp ID: RE46-10-13552
Inj Date : 22-MAR-2010 22:09
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248842008|1|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13552|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 65
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	12.67710	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.483	2.477	0.006	8870022	106.123	4.0	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.843	6.825	0.018	6138364	103.597	3.9	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
4.307	4.302	0.005	2836918	910.243	34.6	80.00- 120.00	100.00(M)
4.448	4.441	0.007	6200396	1782.68	67.9	91.89- 131.89	218.56
4.774	4.770	0.004	4669219	966.304	36.8	137.30- 177.30	164.59
4.938	4.932	0.006	3421933	979.360	37.3	91.85- 131.85	120.62
5.064	5.057	0.007	3654361	1659.79	63.2	50.50- 90.50	128.81

Average of Peak Concentrations = 48.0

RT	EXP RT	DIF RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.913	4.909	0.004	2800207	710.982	27.1	80.00- 120.00	100.00(M)
5.064	5.058	0.006	3654361	772.514	29.4	101.53- 141.53	130.50
5.382	5.375	0.007	1700114	474.012	18.0	71.56- 111.56	60.71
5.587	5.581	0.006	1592237	428.916	16.3	75.17- 115.17	56.86
6.021	6.013	0.008	2191797	375.222	14.3	132.27- 172.27	78.27
Average of Peak Concentrations =					21.0		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/065b6501.d
Date : 22-MAR-2010 22:09
Client ID: RE46-10-13552
Sample Info: 1248842008111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

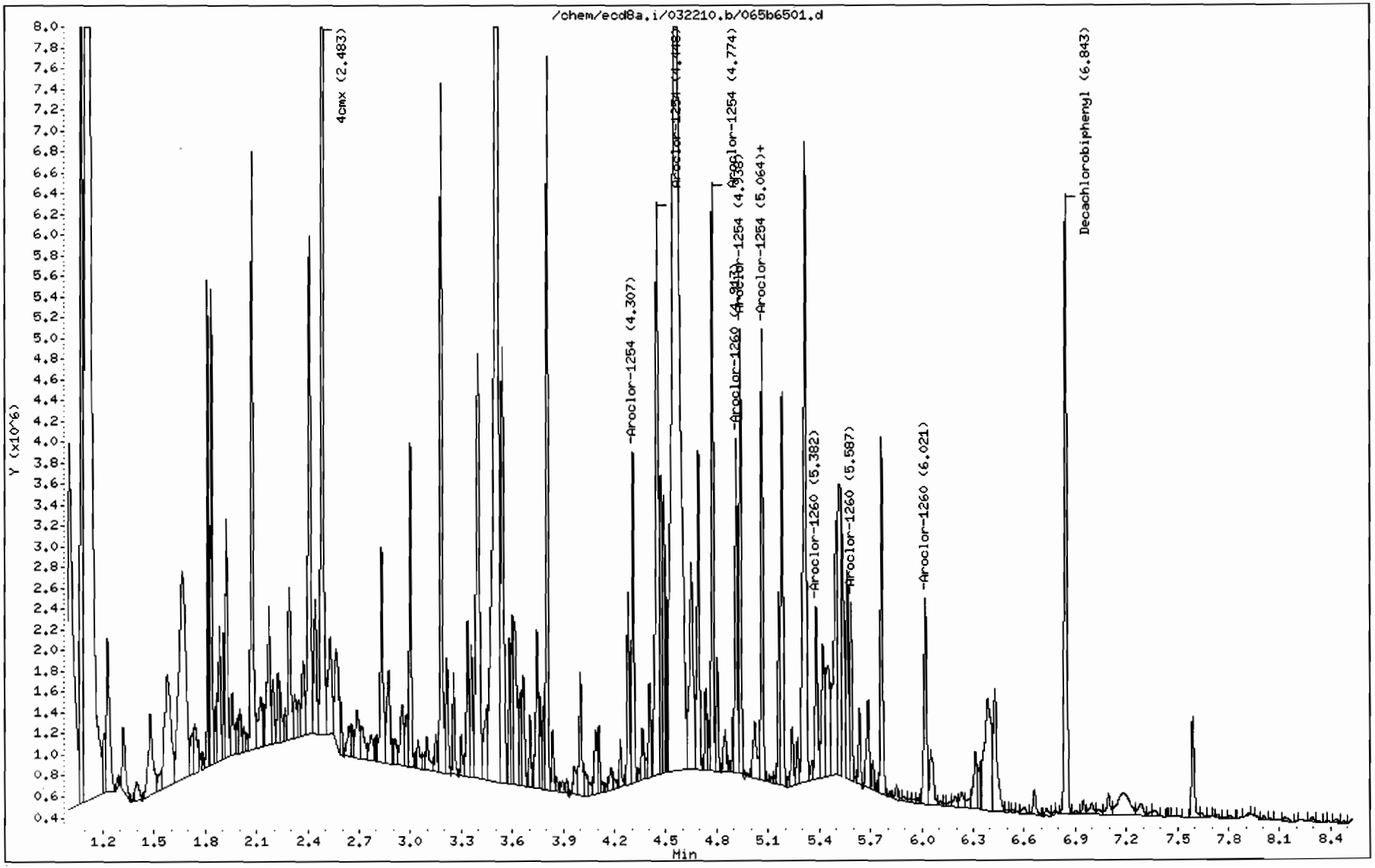

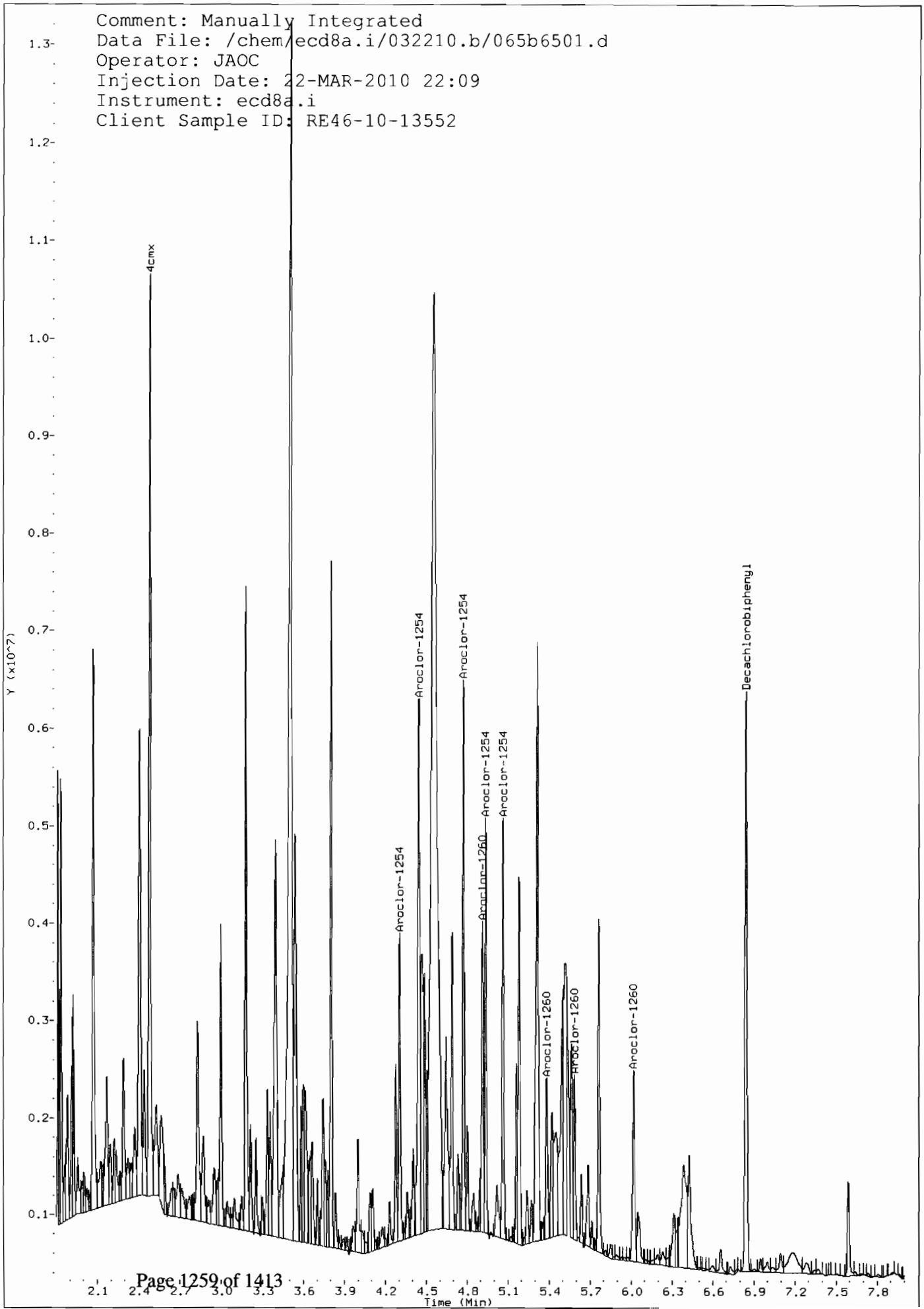
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/065b6501.d
Operator: JAOC
Injection Date: 22-MAR-2010 22:09
Instrument: ecd8a.i
Client Sample ID: RE46-10-13552
4cmx
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4 5.7 6.0 6.3 6.6 6.9 7.2 7.5 7.8
Time (Min)

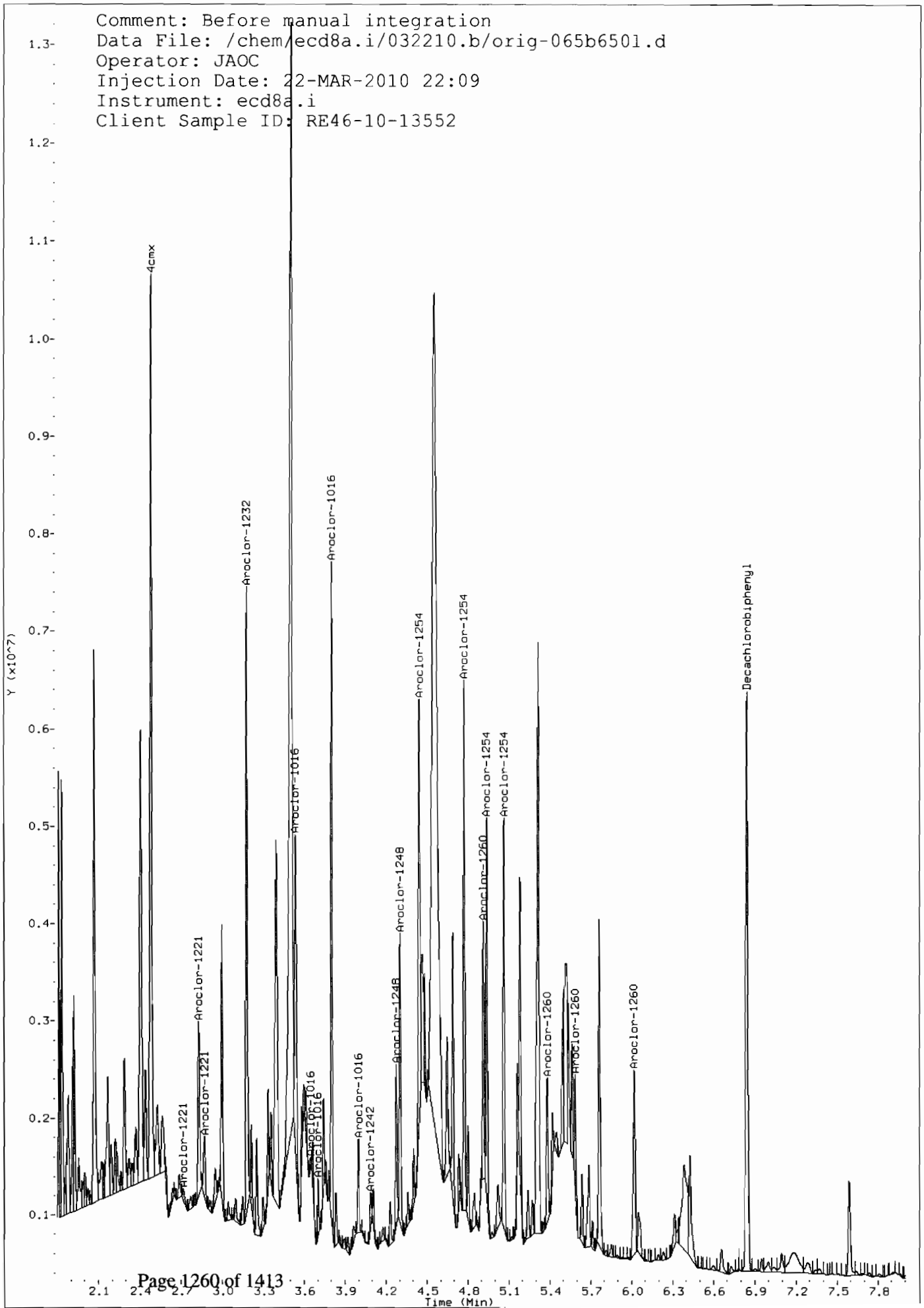
Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-065b6501.d
Operator: JAOC
Injection Date: 22-MAR-2010 22:09
Instrument: ecd8a.i
Client Sample ID: RE46-10-13552
Y (x10^7)
Time (Min)
4cmx
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13553**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 20:55**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**059f5901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	059b5901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.87	ug/kg	1.29	3.87	1
11104–28–2	Aroclor–1221	U	3.87	ug/kg	1.29	3.87	1
11141–16–5	Aroclor–1232	U	3.87	ug/kg	1.29	3.87	1
53469–21–9	Aroclor–1242		108	ug/kg	1.29	3.87	2
12672–29–6	Aroclor–1248	U	3.87	ug/kg	1.29	3.87	1
11097–69–1	Aroclor–1254		124	ug/kg	1.29	3.87	2
11096–82–5	Aroclor–1260		31.3	ug/kg	1.29	3.87	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/059f5901.d
Lab Smp Id: 248842002 Client Smp ID: RE46-10-13553
Inj Date : 22-MAR-2010 20:55
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248842002|1|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13553|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 59
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	13.94230	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.249	-0.001	13990572	111.959	4.3	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	5988601	72.7204	2.8	80.00- 120.00	100.00(M)
4 Aroclor-1242					CAS #: 53469-21-9		
2.806	2.806	0.000	8540837	2148.99	83.2	80.00- 120.00	100.00(M)
3.157	3.158	-0.001	9538328	1988.75	77.0	99.37- 139.37	111.68
3.388	3.393	-0.005	7913601	4383.13	170	24.26- 64.26	92.66
3.409	3.411	-0.002	4814697	2548.68	98.6	26.32- 66.32	56.37
3.554	3.555	-0.001	6820414	2578.57	99.8	45.85- 85.85	79.86

Average of Peak Concentrations = 106

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.830	3.832	-0.002	9994429	2306.07	89.2	80.00- 120.00	100.00(M)
4.017	4.019	-0.002	15544059	2695.56	104	113.15- 153.15	155.53
4.212	4.214	-0.002	11596116	2600.89	101	83.81- 123.81	116.03
4.299	4.301	-0.002	18102225	2406.72	93.1	155.36- 195.36	181.12
4.495	4.497	-0.002	15144052	2634.11	102	112.54- 152.54	151.52
Average of Peak Concentrations =					97.9		
7 Aroclor-1260					CAS #: 11096-82-5		
4.427	4.430	-0.003	6662773	1131.19	43.8	80.00- 120.00	100.00(M)
4.624	4.625	-0.001	13509505	1590.24	61.5	126.61- 166.61	202.76
4.898	4.900	-0.002	2341797	462.233	17.9	65.41- 105.41	35.15
5.070	5.073	-0.003	1377118	258.419	10.0	71.29- 111.29	20.67
5.482	5.485	-0.003	2485953	440.695	17.0	78.39- 118.39	37.31
Average of Peak Concentrations =					30.0		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/059f5901.d

Date : 22-MAR-2010 20:55

Client ID: RE46-10-13553

Sample Info: 1248842002111

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

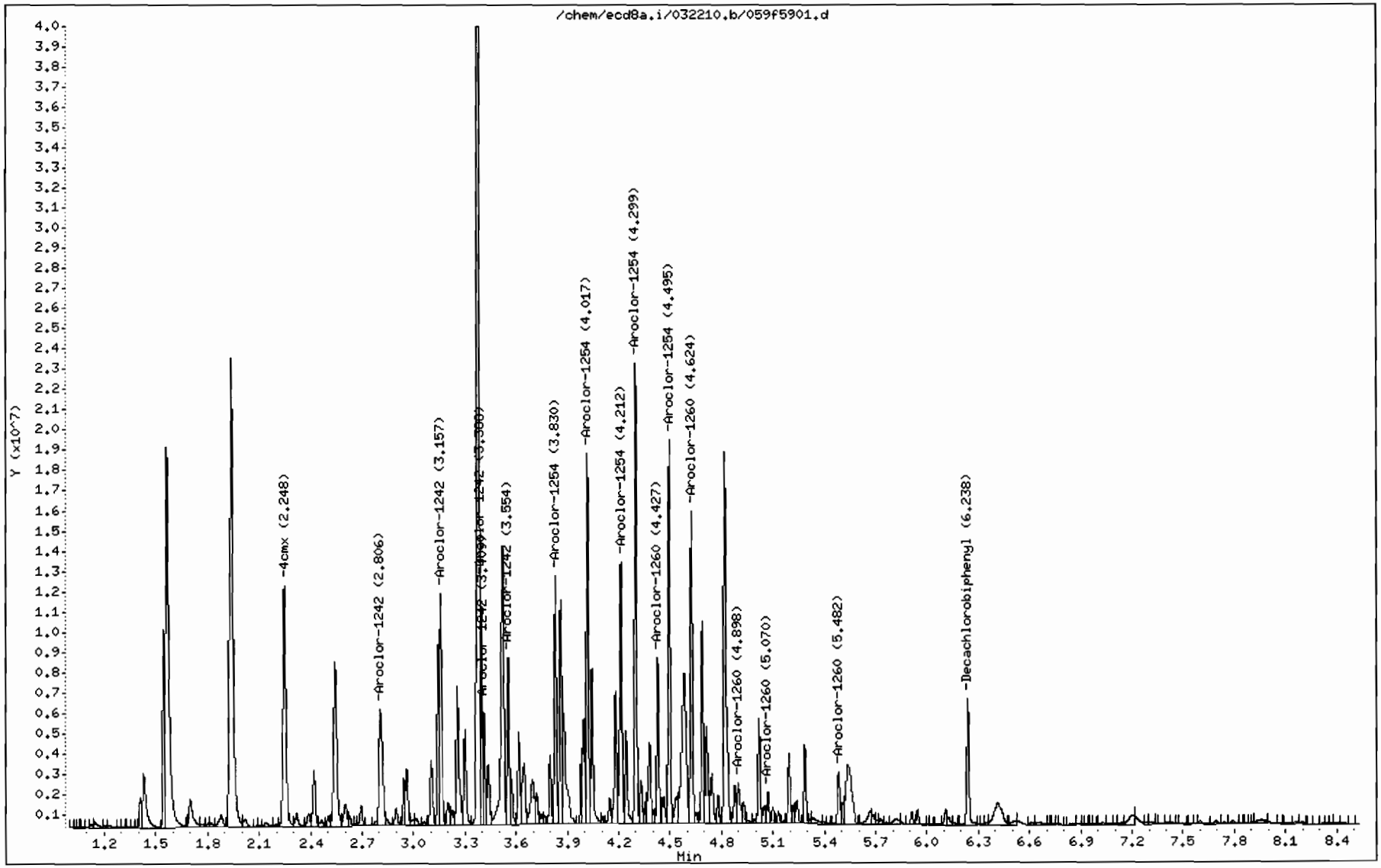

Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/059f5901.d
Operator: JAOC
Injection Date: 22-MAR-2010 20:55
Instrument: ecd8a.i
Client Sample ID: RE46-10-13553

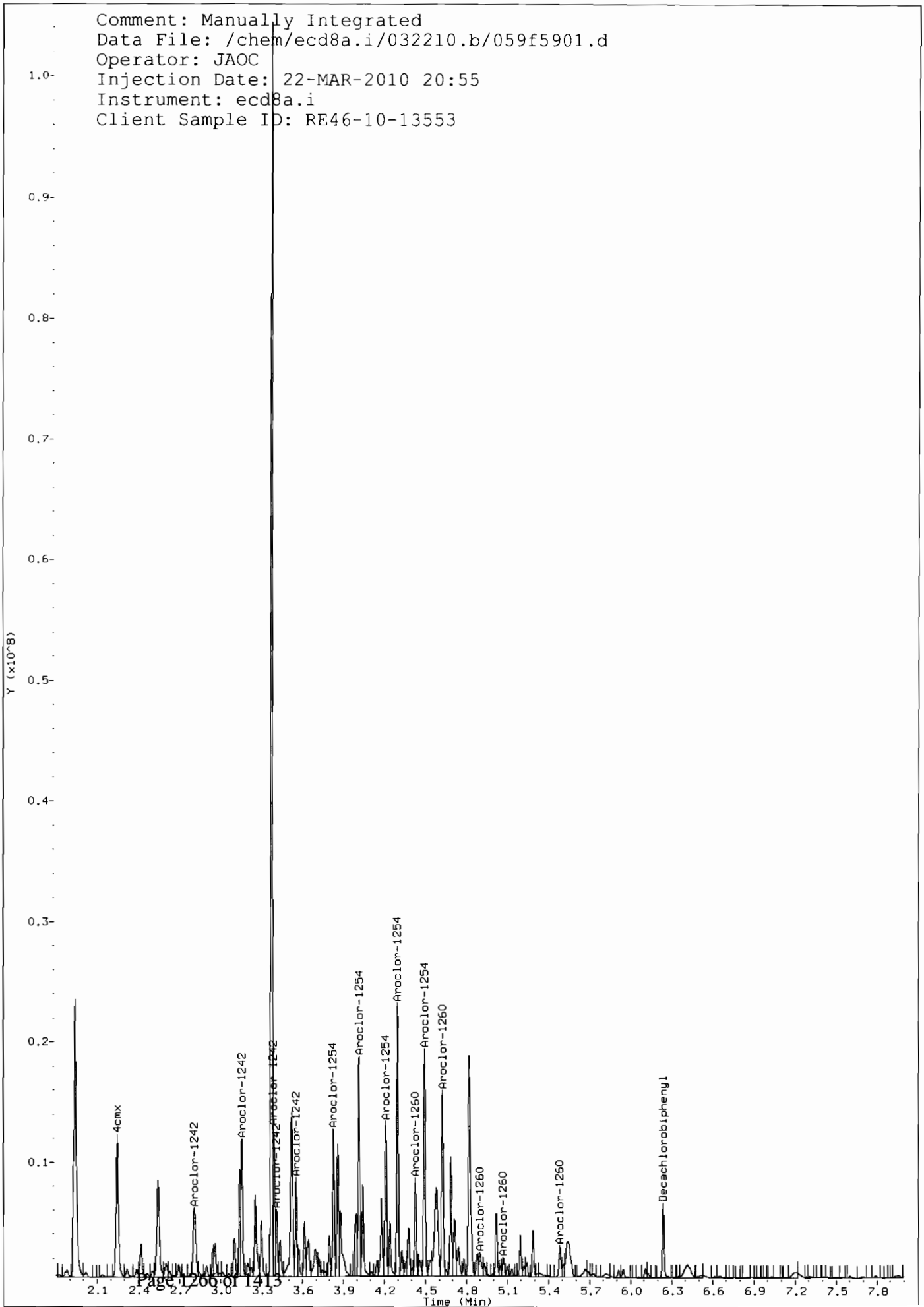

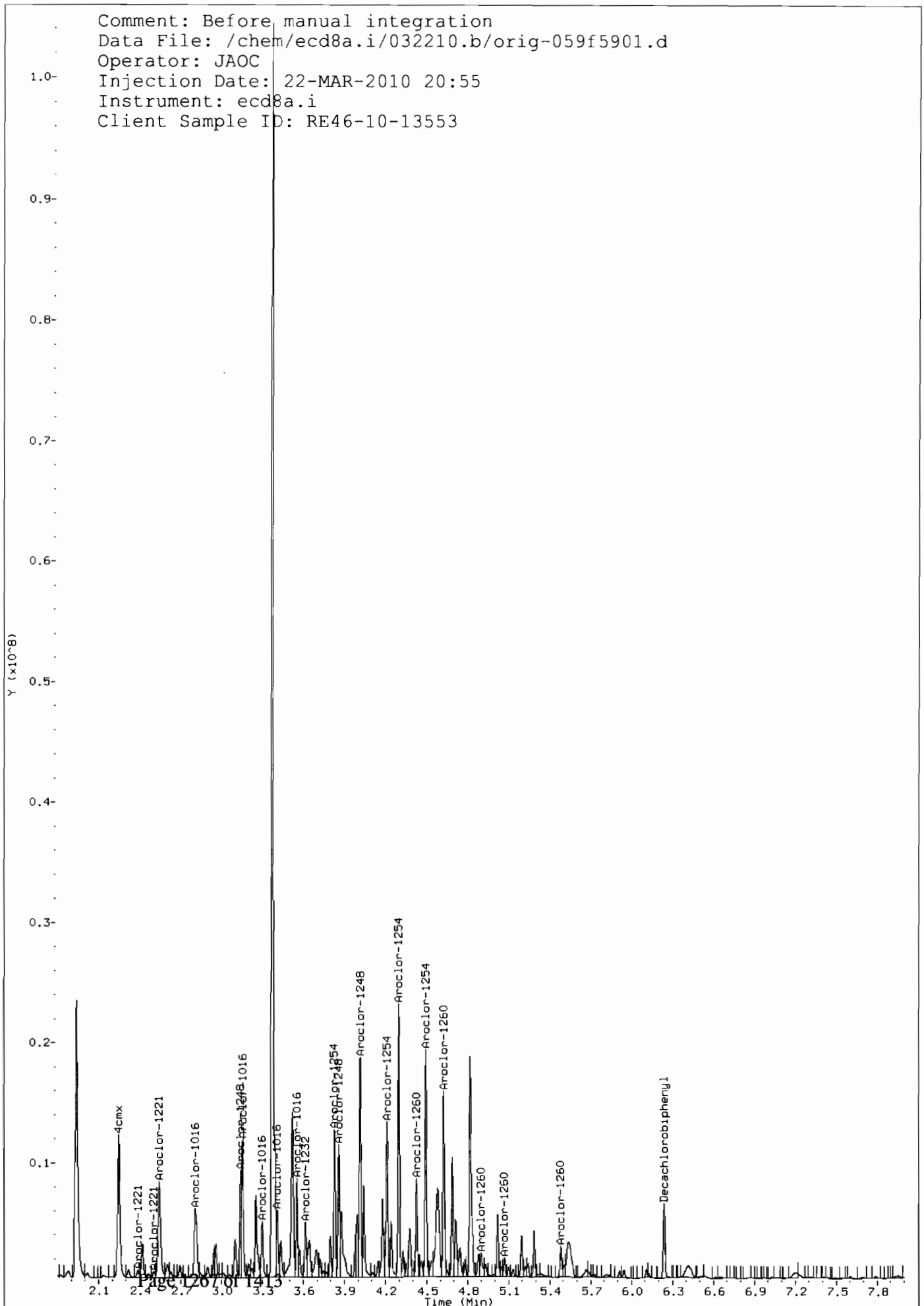
Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-059f5901.d
Operator: JAOC
Injection Date: 22-MAR-2010 20:55
Instrument: ecd8a.i
Client Sample ID: RE46-10-13553
Y (x10^8)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
4cmx
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1232
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Aroclor-1254
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Aroclor-1260
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
4.8
5.1
5.4
5.7
6.0
6.3
6.6
6.9
7.2
7.5
7.8
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/059b5901.d
Lab Smp Id: 248842002 Client Smp ID: RE46-10-13553
Inj Date : 22-MAR-2010 20:55
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248842002|1|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13553|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 59
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	13.94230	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.477	-0.001	9874020	118.136	4.6	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.825	-0.001	6758573	114.064	4.4	80.00- 120.00	100.00(M)
4 Aroclor-1242					CAS #: 53469-21-9		
3.196	3.196	0.000	5607669	2094.64	81.0	80.00- 120.00	100.00(M)
3.548	3.549	-0.001	7634542	2442.40	94.5	96.84- 136.84	136.14
3.648	3.648	0.000	6889455	3238.33	125	59.12- 99.12	122.86
3.995	3.996	-0.001	5551599	3258.97	126	42.33- 82.33	99.00
4.085	4.085	0.000	4603695	2938.80	114	37.42- 77.42	82.10
Average of Peak Concentrations =					108		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.302	4.302	0.000	10021423	3215.44	124	80.00- 120.00	100.00(M)
4.441	4.441	0.000	13432379	3861.94	149	91.89- 131.89	134.04
4.769	4.770	-0.001	13448227	2783.14	108	137.30- 177.30	134.19
4.931	4.932	-0.001	10814197	3095.03	120	91.85- 131.85	107.91
5.056	5.057	-0.001	6755962	3068.53	119	50.50- 90.50	67.42
Average of Peak Concentrations =					124		
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.909	-0.002	5753922	1460.94	56.5	80.00- 120.00	100.00(M)
5.056	5.058	-0.002	6755962	1428.18	55.3	101.53- 141.53	117.41
5.377	5.375	0.002	1832711	510.981	19.8	71.56- 111.56	31.85
5.580	5.581	-0.001	1055511	284.333	11.0	75.17- 115.17	18.34
6.011	6.013	-0.002	2121684	363.219	14.0	132.27- 172.27	36.87
Average of Peak Concentrations =					31.3		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/059b5901.d
Date : 22-MAR-2010 20:55
Client ID: RE46-10-13553
Sample Info: 1248842002111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

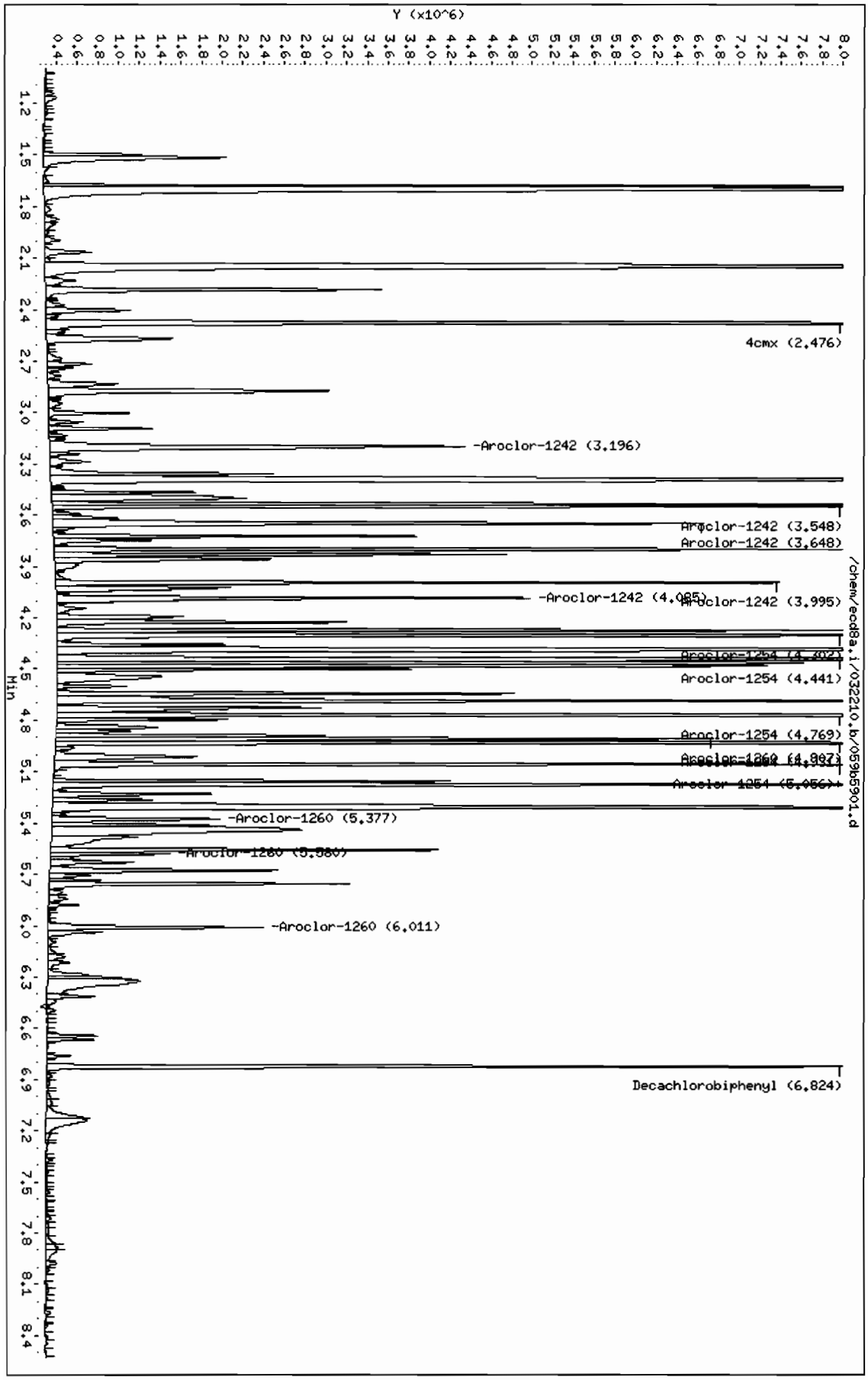

Page 1

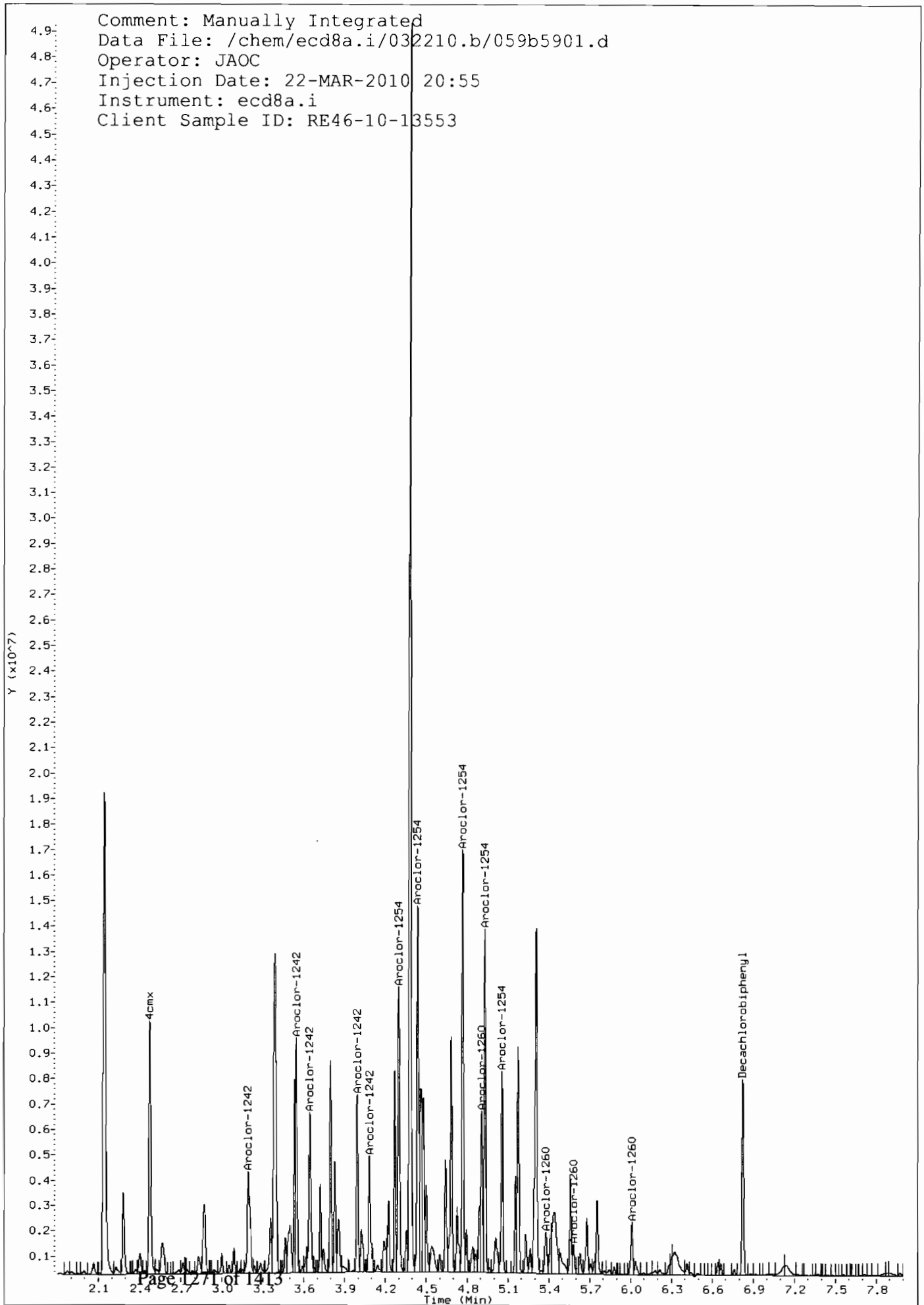
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/059b5901.d
Operator: JAOC
Injection Date: 22-MAR-2010 20:55
Instrument: ecd8a.i
Client Sample ID: RE46-10-13553
Y (x10^7)
4cmx
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-059b5901.d
Operator: JAOC
Injection Date: 22-MAR-2010 20:55
Instrument: ecd8a.i
Client Sample ID: RE46-10-13553

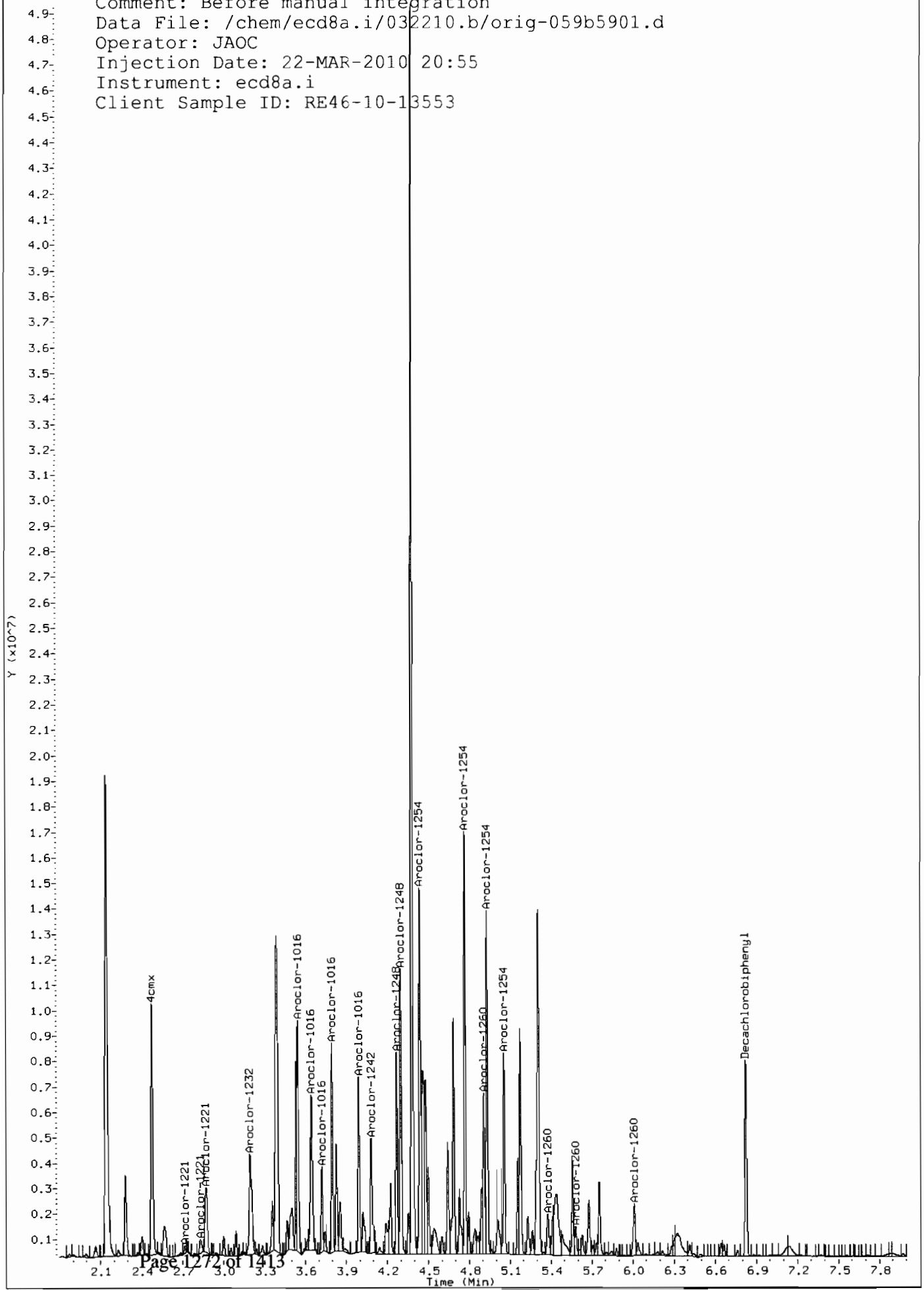

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2302**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248842010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**13.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13556**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.1**	**Dilution:**	**1**
Run Date:	**03/22/2010 23:07**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**069f6901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	069b6901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.83	ug/kg	1.28	3.83	1
11104–28–2	Aroclor–1221	U	3.83	ug/kg	1.28	3.83	1
11141–16–5	Aroclor–1232	U	3.83	ug/kg	1.28	3.83	1
53469–21–9	Aroclor–1242	U	3.83	ug/kg	1.28	3.83	1
12672–29–6	Aroclor–1248	U	3.83	ug/kg	1.28	3.83	1
11097–69–1	Aroclor–1254		17.7	ug/kg	1.28	3.83	2
11096–82–5	Aroclor–1260		11.0	ug/kg	1.28	3.83	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/069f6901.d
Lab Smp Id: 248842010 Client Smp ID: RE46-10-13556
Inj Date : 22-MAR-2010 23:07
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248842010|1|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13556|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 69
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	13.22410	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.250	2.249	0.001	16199270	129.634	5.0	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.243	6.240	0.003	11164175	135.568	5.2	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.832	3.832	0.000	1555989	359.022	13.7	80.00- 120.00	100.00(M)
4.019	4.019	0.000	1843606	319.708	12.2	113.15- 153.15	118.48
4.214	4.214	0.000	1281575	287.444	11.0	83.81- 123.81	82.36
4.300	4.301	-0.001	2076999	276.140	10.6	155.36- 195.36	133.48
4.497	4.497	0.000	1856106	322.846	12.4	112.54- 152.54	119.29

Average of Peak Concentrations = 12.0

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.429	4.430	-0.001	1785134	303.076	11.6	80.00- 120.00	100.00(M)
4.626	4.625	0.001	2945498	346.721	13.3	126.61- 166.61	165.00
4.900	4.900	0.000	1721416	339.780	13.0	65.41- 105.41	96.43
5.072	5.073	-0.001	1036377	194.478	7.4	71.29- 111.29	58.06
5.485	5.485	0.000	1439647	255.212	9.8	78.39- 118.39	80.65
Average of Peak Concentrations =					11.0		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/069f6901.d

Date : 22-MAR-2010 23:07

Client ID: RE46-10-13556

Sample Info: |248842010|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

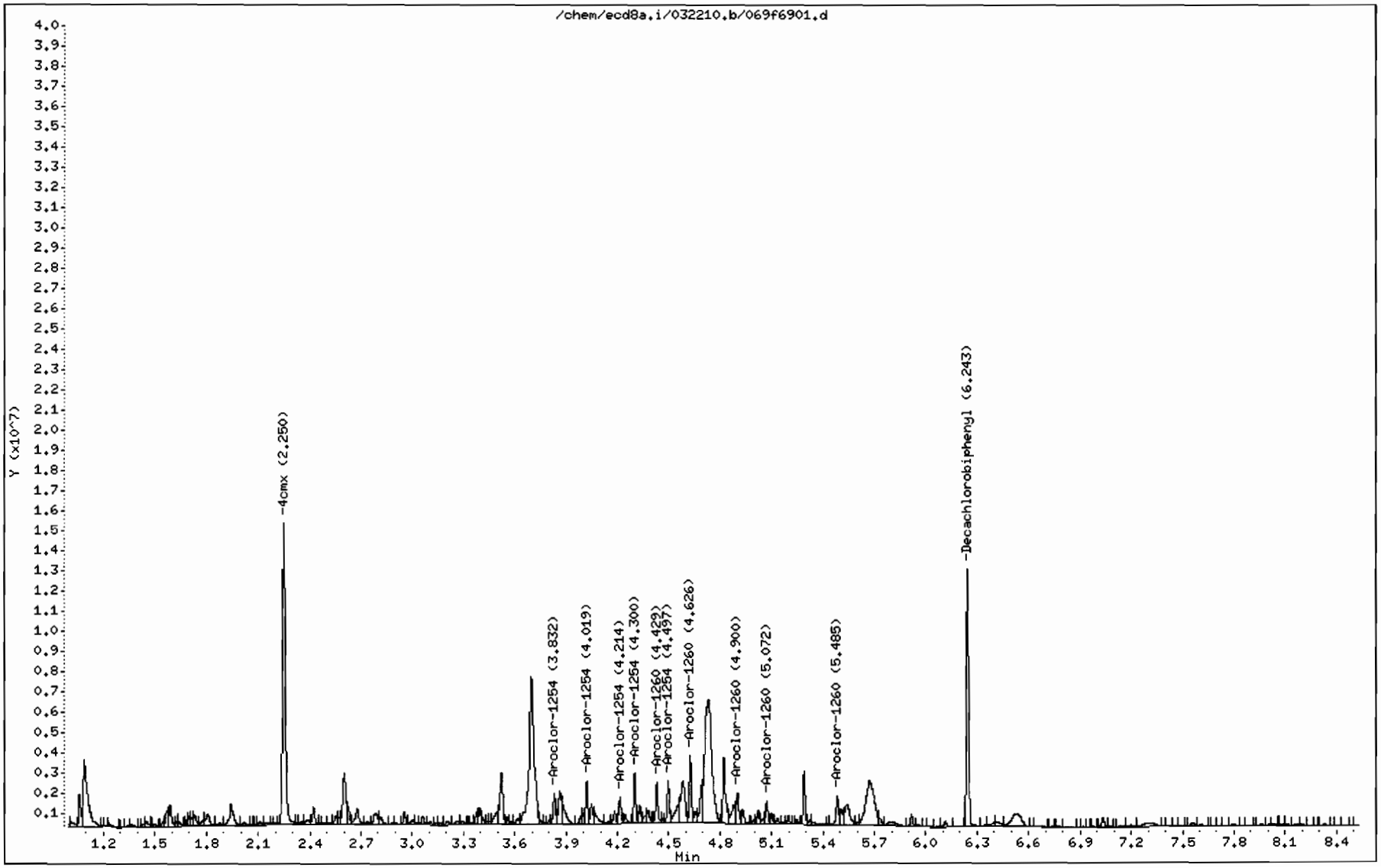

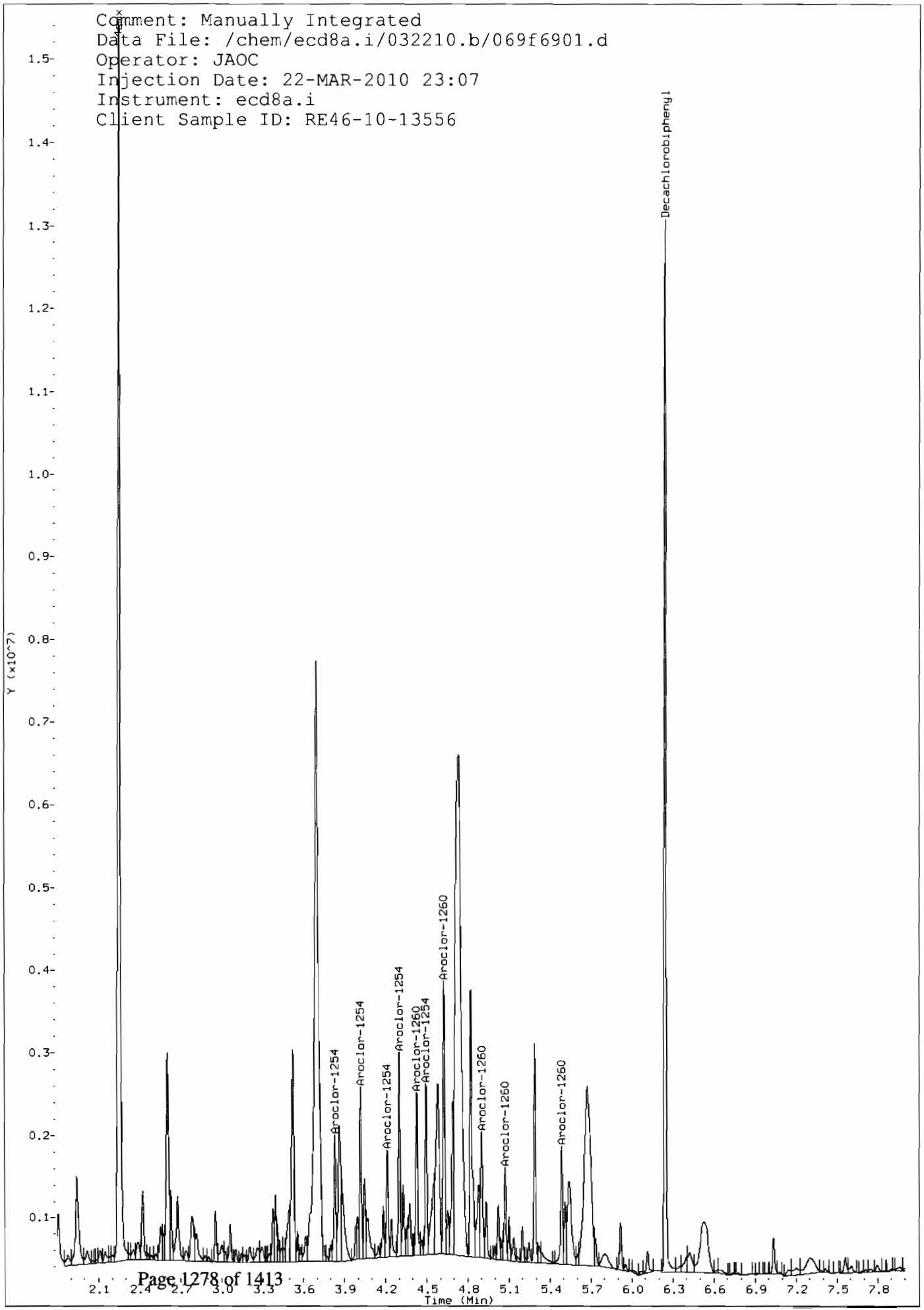
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/069f6901.d
Operator: JAOC
Injection Date: 22-MAR-2010 23:07
Instrument: ecd8a.i
Client Sample ID: RE46-10-13556
Decachlorobiphenyl
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

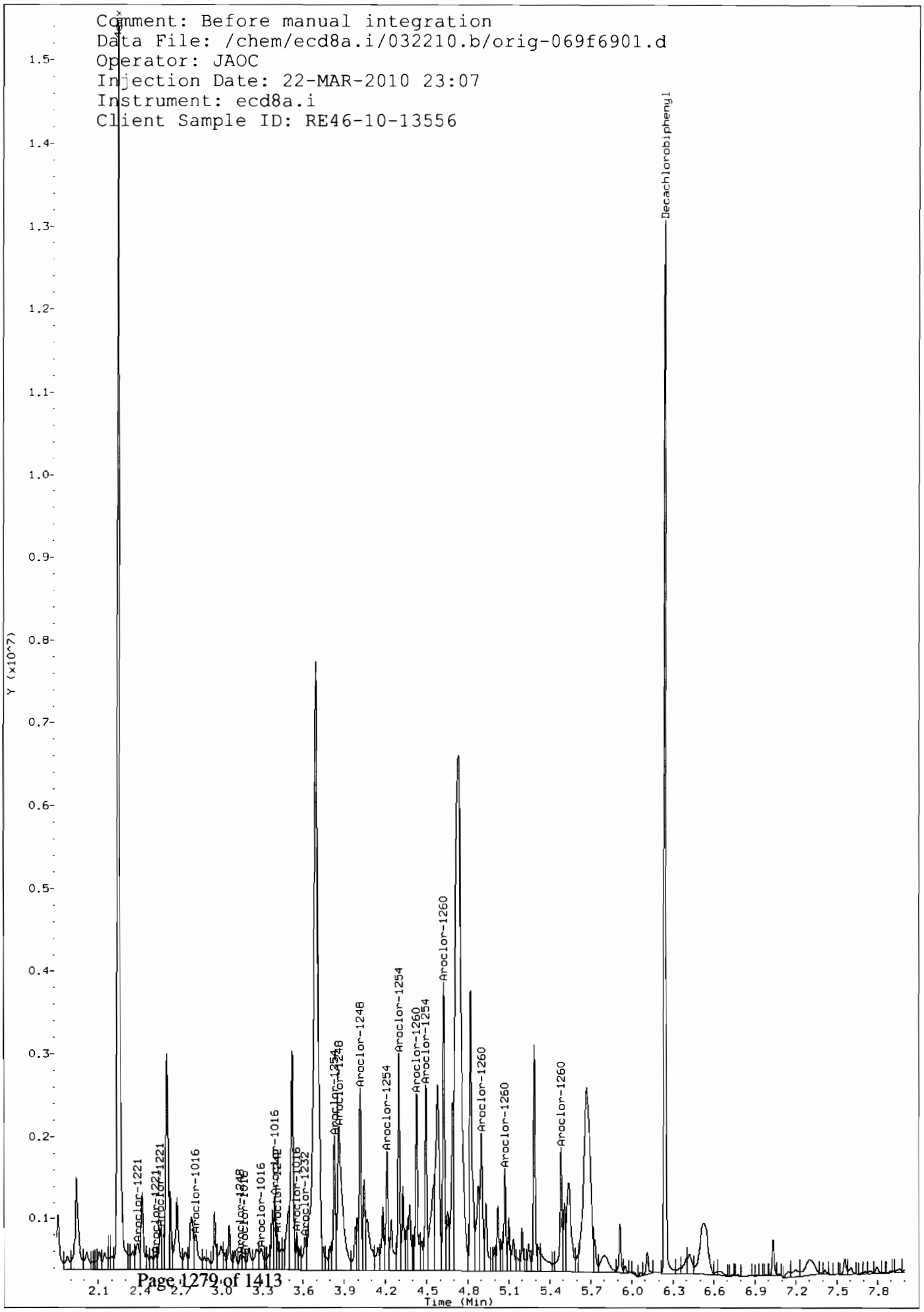
Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-069f6901.d
Operator: JAOC
Injection Date: 22-MAR-2010 23:07
Instrument: ecd8a.i
Client Sample ID: RE46-10-13556
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/069b6901.d
Lab Smp Id: 248842010 Client Smp ID: RE46-10-13556
Inj Date : 22-MAR-2010 23:07
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |248842010|1|
Misc Info : |ECD82P_1S|967396|SVA|LANL|SOIL|RE46-10-13556|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 69
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	13.22410	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.478	2.477	0.001	11444089	136.920	5.2	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.828	6.825	0.003	8677168	146.444	5.6	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
4.303	4.302	0.001	958527	307.549	11.8	80.00- 120.00	100.00(MH)
4.443	4.441	0.002	2404063	691.192	26.5	91.89- 131.89	250.81
4.770	4.770	0.000	1451990	300.492	11.5	137.30- 177.30	151.48
4.933	4.932	0.001	1061945	303.929	11.6	91.85- 131.85	110.79
5.058	5.057	0.001	1554843	706.203	27.0	50.50- 90.50	162.21
Average of Peak Concentrations =					17.7		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.908	4.909	-0.001	1337144	339.505	13.0	80.00- 120.00	100.00(M)
5.058	5.058	0.000	1554843	328.686	12.6	101.53- 141.53	116.28
5.375	5.375	0.000	904163	252.091	9.6	71.56- 111.56	67.62
5.581	5.581	0.000	931495	250.925	9.6	75.17- 115.17	69.66
6.013	6.013	0.000	1105445	189.245	7.2	132.27- 172.27	82.67
			Average of Peak Concentrations =		10.4		

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /chem/ecd8a.i/032210.b/069b6901.d
Date : 22-MAR-2010 23:07
Client ID: RE46-10-13556
Sample Info: I2488420101I
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

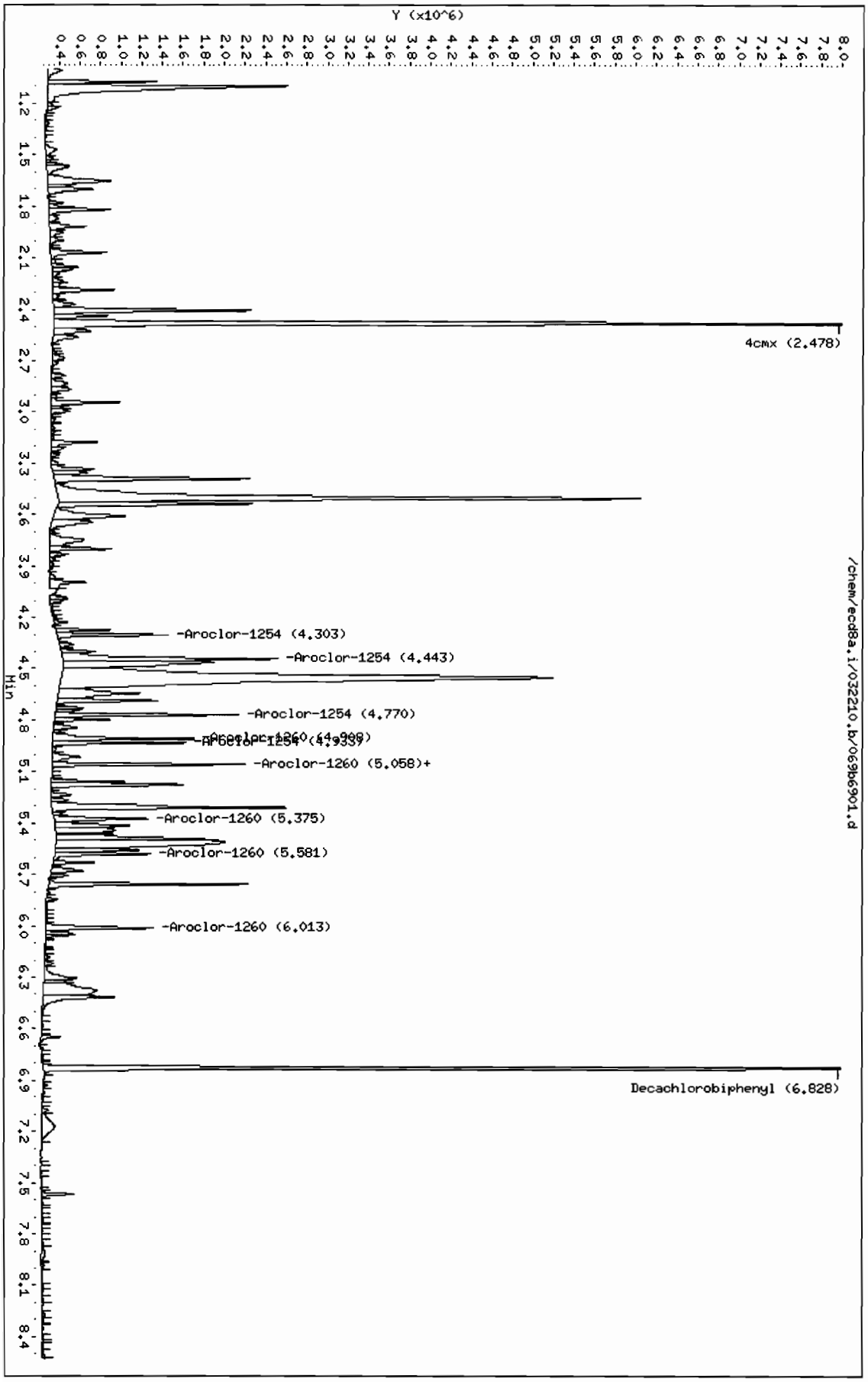

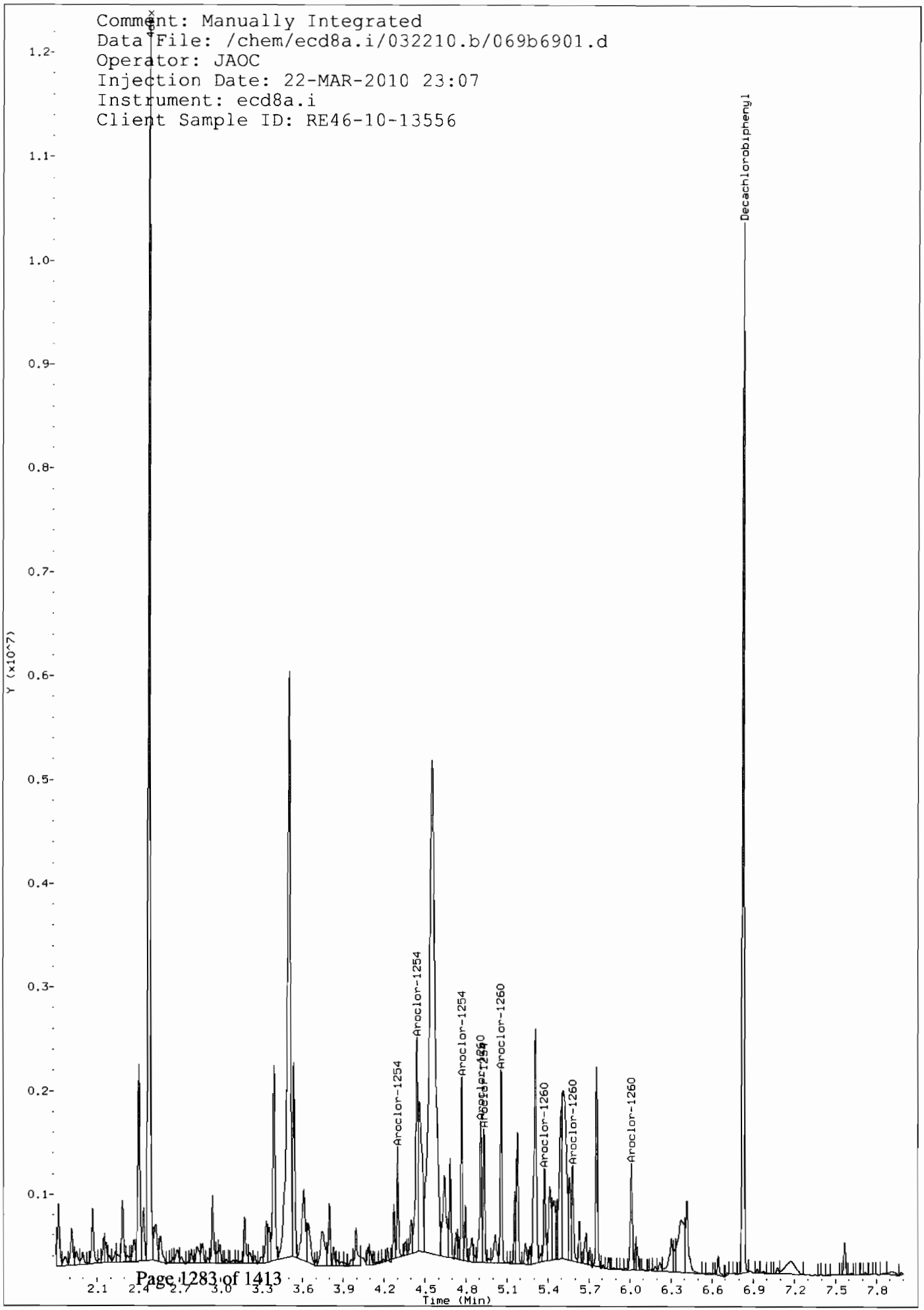
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/069b6901.d
Operator: JAOC
Injection Date: 22-MAR-2010 23:07
Instrument: ecd8a.i
Client Sample ID: RE46-10-13556
Decachlorobiphenyl
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4 5.7 6.0 6.3 6.6 6.9 7.2 7.5 7.8
Time (Min)

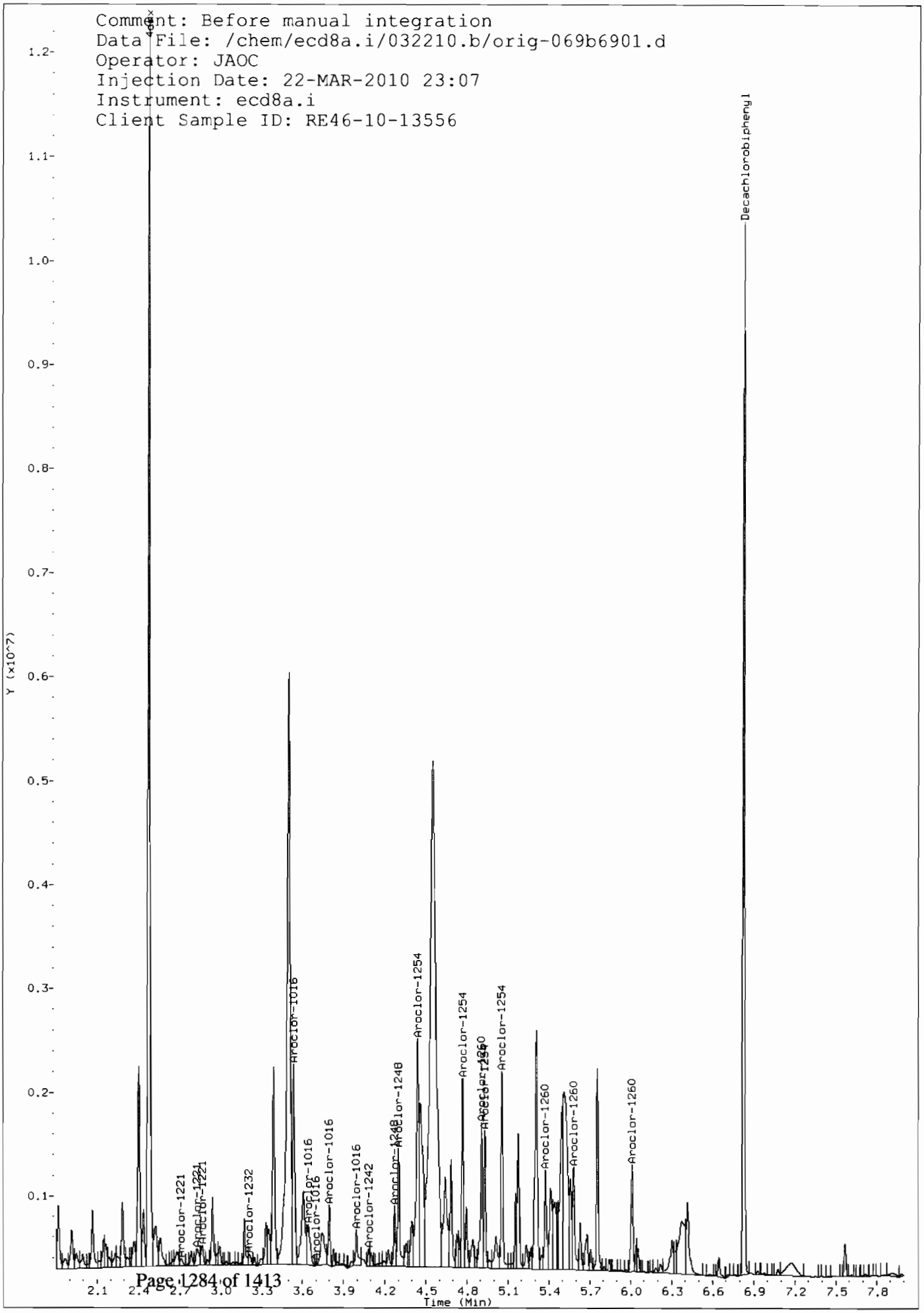
Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-069b6901.d
Operator: JAOC
Injection Date: 22-MAR-2010 23:07
Instrument: ecd8a.i
Client Sample ID: RE46-10-13556
Decachlorobiphenyl
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Y (x10^7)
Time (Min)

STANDARDS DATA

Report Date: 23-Mar-2010 11:37

Calibration History

Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
23-FEB-2010 10:43	AR1221	/chem/ecd8a.i/022310.b/013f1301.d
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028f2801.d
09-MAR-2010 10:41	AR1248	/chem/ecd8a.i/030910.b/013f1301.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014f1401.d
09-MAR-2010 09:27	AR1254	/chem/ecd8a.i/030910.b/007f0701.d
18-MAR-2010 06:25	AR1660	/chem/ecd8a.i/031810.b/002f0201.d
Cal Level: 2 , Cal Amount: 250.00000		
23-FEB-2010 10:55	AR1221	/chem/ecd8a.i/022310.b/014f1401.d
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029f2901.d
09-MAR-2010 10:53	AR1248	/chem/ecd8a.i/030910.b/014f1401.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015f1501.d
09-MAR-2010 09:39	AR1254	/chem/ecd8a.i/030910.b/008f0801.d
18-MAR-2010 06:38	AR1660	/chem/ecd8a.i/031810.b/003f0301.d
Cal Level: 3 , Cal Amount: 500.00000		
23-FEB-2010 11:07	AR1221	/chem/ecd8a.i/022310.b/015f1501.d
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030f3001.d
09-MAR-2010 11:05	AR1248	/chem/ecd8a.i/030910.b/015f1501.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016f1601.d
09-MAR-2010 09:51	AR1254	/chem/ecd8a.i/030910.b/009f0901.d
18-MAR-2010 06:50	AR1660	/chem/ecd8a.i/031810.b/004f0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036f3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034f3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031f3101.d
23-FEB-2010 11:20	AR1221	/chem/ecd8a.i/022310.b/016f1601.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026f2601.d
09-MAR-2010 11:18	AR1248	/chem/ecd8a.i/030910.b/016f1601.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017f1701.d
09-MAR-2010 10:04	AR1254	/chem/ecd8a.i/030910.b/010f1001.d
18-MAR-2010 07:02	AR1660	/chem/ecd8a.i/031810.b/005f0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
23-FEB-2010 11:32	AR1221	/chem/ecd8a.i/022310.b/017f1701.d
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032f3201.d
09-MAR-2010 11:30	AR1248	/chem/ecd8a.i/030910.b/017f1701.d

03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018f1801.d
09-MAR-2010 10:16	AR1254	/chem/ecd8a.i/030910.b/011f1101.d
18-MAR-2010 07:15	AR1660	/chem/ecd8a.i/031810.b/006f0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 20:06	AR1660	/chem/ecd8a.i/032210.b/055f5501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 19:25	AR1660	/chem/ecd8a.i/032210.b/052f5201.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 02:17	AR1660	/chem/ecd8a.i/032210.b/083f8301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 01:19	AR1660	/chem/ecd8a.i/032210.b/079f7901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 22:42	AR1660	/chem/ecd8a.i/032210.b/067f6701.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 16:48	AR1660	/chem/ecd8a.i/032210.b/040f4001.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:03	AR1248	/chem/ecd8a.i/032210.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 08:39	AR1254	/chem/ecd8a.i/032210.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 14:11	AR1660	/chem/ecd8a.i/032210.b/028f2801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 12:33	AR1660	/chem/ecd8a.i/032210.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:53	AR1268	/chem/ecd8a.i/032210.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:40	AR1262	/chem/ecd8a.i/032210.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:28	AR1221	/chem/ecd8a.i/032210.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:16	AR1232	/chem/ecd8a.i/032210.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 08:51	AR1242	/chem/ecd8a.i/032210.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 08:26	AR1660	/chem/ecd8a.i/032210.b/002f0201.d

Report Date: 23-Mar-2010 11:36

Calibration History

Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
23-FEB-2010 10:43	AR1221	/chem/ecd8a.i/022310.b/013b1301.d
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028b2801.d
09-MAR-2010 10:41	AR1248	/chem/ecd8a.i/030910.b/013b1301.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014b1401.d
09-MAR-2010 09:27	AR1254	/chem/ecd8a.i/030910.b/007b0701.d
18-MAR-2010 06:25	AR1660	/chem/ecd8a.i/031810.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
23-FEB-2010 10:55	AR1221	/chem/ecd8a.i/022310.b/014b1401.d
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029b2901.d
09-MAR-2010 10:53	AR1248	/chem/ecd8a.i/030910.b/014b1401.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015b1501.d
09-MAR-2010 09:39	AR1254	/chem/ecd8a.i/030910.b/008b0801.d
18-MAR-2010 06:38	AR1660	/chem/ecd8a.i/031810.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
23-FEB-2010 11:07	AR1221	/chem/ecd8a.i/022310.b/015b1501.d
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030b3001.d
09-MAR-2010 11:05	AR1248	/chem/ecd8a.i/030910.b/015b1501.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016b1601.d
09-MAR-2010 09:51	AR1254	/chem/ecd8a.i/030910.b/009b0901.d
18-MAR-2010 06:50	AR1660	/chem/ecd8a.i/031810.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036b3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034b3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031b3101.d
23-FEB-2010 11:20	AR1221	/chem/ecd8a.i/022310.b/016b1601.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026b2601.d
09-MAR-2010 11:18	AR1248	/chem/ecd8a.i/030910.b/016b1601.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017b1701.d
09-MAR-2010 10:04	AR1254	/chem/ecd8a.i/030910.b/010b1001.d
18-MAR-2010 07:02	AR1660	/chem/ecd8a.i/031810.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
23-FEB-2010 11:32	AR1221	/chem/ecd8a.i/022310.b/017b1701.d
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032b3201.d
09-MAR-2010 11:30	AR1248	/chem/ecd8a.i/030910.b/017b1701.d

03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018b1801.d
09-MAR-2010 10:16	AR1254	/chem/ecd8a.i/030910.b/011b1101.d
18-MAR-2010 07:15	AR1660	/chem/ecd8a.i/031810.b/006b0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 02:17	AR1660	/chem/ecd8a.i/032210.b/083b8301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 01:19	AR1660	/chem/ecd8a.i/032210.b/079b7901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 22:42	AR1660	/chem/ecd8a.i/032210.b/067b6701.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 20:06	AR1660	/chem/ecd8a.i/032210.b/055b5501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 19:25	AR1660	/chem/ecd8a.i/032210.b/052b5201.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 16:48	AR1660	/chem/ecd8a.i/032210.b/040b4001.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:03	AR1248	/chem/ecd8a.i/032210.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 08:39	AR1254	/chem/ecd8a.i/032210.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 14:11	AR1660	/chem/ecd8a.i/032210.b/028b2801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 12:33	AR1660	/chem/ecd8a.i/032210.b/021b2101.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:53	AR1268	/chem/ecd8a.i/032210.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:40	AR1262	/chem/ecd8a.i/032210.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:28	AR1221	/chem/ecd8a.i/032210.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 09:16	AR1232	/chem/ecd8a.i/032210.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 08:51	AR1242	/chem/ecd8a.i/032210.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 08:26	AR1660	/chem/ecd8a.i/032210.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Mar-2010 09:50 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	758.000000
Initial:End Threshold	379.000000
Initial:Area Threshold	734.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.500000
6.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.805	2.775-2.835	4.772e+03
	3.158	3.128-3.188	5.397e+03
	3.301	3.271-3.331	2.352e+03
	3.393	3.363-3.423	2.192e+03
	3.555	3.525-3.585	3.079e+03
2 Aroclor-1221	2.389	2.359-2.419	1.568e+03
	2.503	2.473-2.533	9.154e+02
	2.535	2.505-2.565	3.573e+03
3 Aroclor-1232	2.535	2.505-2.565	2.601e+03
	2.806	2.776-2.836	2.261e+03
	3.301	3.271-3.331	1.243e+03
	3.555	3.525-3.585	1.479e+03
	3.617	3.587-3.647	9.227e+02
4 Aroclor-1242	2.806	2.776-2.836	3.974e+03
	3.158	3.128-3.188	4.796e+03
	3.393	3.363-3.423	1.805e+03
	3.411	3.381-3.441	1.889e+03
	3.555	3.525-3.585	2.645e+03
5 Aroclor-1248	3.143	3.113-3.173	2.721e+03
	3.393	3.363-3.423	3.402e+03
	3.555	3.525-3.585	4.371e+03
	3.862	3.832-3.892	5.250e+03
	4.020	3.990-4.050	4.212e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.832	3.801-3.861	4.334e+03
		4.019	3.989-4.049	5.767e+03
		4.214	4.184-4.244	4.459e+03
		4.301	4.271-4.331	7.522e+03
		4.497	4.466-4.527	5.749e+03
	7 Aroclor-1260	4.430	4.400-4.460	5.890e+03
		4.625	4.595-4.655	8.495e+03
		4.900	4.870-4.930	5.066e+03
		5.073	5.043-5.103	5.329e+03
		5.485	5.455-5.515	5.641e+03
	8 Aroclor-1262	4.329	4.299-4.359	3.367e+03
		4.429	4.399-4.459	5.243e+03
		4.624	4.594-4.654	7.103e+03
		4.899	4.869-4.929	8.580e+03
		5.072	5.042-5.102	7.966e+03
	9 Aroclor-1268	5.507	5.477-5.537	1.632e+04
		5.534	5.504-5.564	1.572e+04
		5.667	5.637-5.697	1.207e+04
		5.913	5.883-5.943	6.023e+03
		6.110	6.080-6.140	3.601e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.249	2.219-2.279	1.250e+05
$	12 Decachlorobiphenyl	6.240	6.210-6.270	8.235e+04
	13 4,4'-DDT	4.852	4.832-4.872	2.393e+04
	14 4,4'-DDD	4.658	4.638-4.678	1.570e+05
	15 4,4'-DDE	4.234	4.214-4.254	1.340e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Mar-2010 09:30 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	733.000000
Initial:End Threshold	366.500000
Initial:Area Threshold	522.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	2.000000
9.000:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.549	3.519-3.579	3.678e+03
	3.648	3.618-3.678	2.551e+03
	3.724	3.694-3.754	1.492e+03
	3.800	3.770-3.830	1.478e+03
	3.995	3.965-4.025	2.025e+03
2 Aroclor-1221	2.718	2.688-2.748	9.481e+02
	2.830	2.800-2.860	5.911e+02
	2.878	2.848-2.908	2.179e+03
3 Aroclor-1232	3.196	3.166-3.226	1.515e+03
	3.549	3.519-3.579	1.744e+03
	3.648	3.618-3.678	1.176e+03
	3.724	3.694-3.754	7.101e+02
	3.799	3.769-3.829	6.182e+02
4 Aroclor-1242	3.196	3.166-3.226	2.677e+03
	3.549	3.519-3.579	3.126e+03
	3.648	3.618-3.678	2.127e+03
	3.996	3.966-4.026	1.703e+03
	4.085	4.055-4.115	1.567e+03
5 Aroclor-1248	3.648	3.618-3.678	1.329e+03
	3.799	3.769-3.829	2.249e+03
	3.996	3.966-4.026	2.790e+03
	4.273	4.243-4.303	3.273e+03
	4.306	4.276-4.336	3.592e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	4.302	4.272-4.332	3.117e+03
		4.441	4.412-4.471	3.478e+03
		4.770	4.740-4.800	4.832e+03
		4.932	4.902-4.962	3.494e+03
		5.057	5.027-5.087	2.202e+03
	7 Aroclor-1260	4.909	4.879-4.939	3.939e+03
		5.058	5.028-5.088	4.730e+03
		5.375	5.345-5.405	3.587e+03
		5.581	5.551-5.611	3.712e+03
		6.013	5.983-6.043	5.841e+03
	8 Aroclor-1262	4.909	4.879-4.939	3.276e+03
		5.057	5.027-5.087	3.827e+03
		5.374	5.344-5.404	5.446e+03
		5.580	5.550-5.610	5.047e+03
		6.009	5.979-6.039	7.196e+03
	9 Aroclor-1268	6.007	5.977-6.037	1.138e+04
		6.040	6.010-6.070	1.041e+04
		6.218	6.188-6.248	8.192e+03
		6.415	6.385-6.445	4.057e+03
		6.644	6.614-6.674	2.464e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.477	2.447-2.507	8.358e+04
$	12 Decachlorobiphenyl	6.825	6.795-6.855	5.925e+04
	13 4,4'-DDT	5.323	5.303-5.343	1.460e+04
	14 4,4'-DDD	5.102	5.082-5.122	1.001e+05
	15 4,4'-DDE	4.691	4.671-4.711	8.898e+04

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Cal Date : 23-Mar-2010 09:50 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/022310.b/013f1301.d
Level 2: /chem/ecd8a.i/022310.b/014f1401.d
Level 3: /chem/ecd8a.i/022310.b/015f1501.d
Level 4: /chem/ecd8a.i/020310a.b/036f3601.d
Level 5: /chem/ecd8a.i/022310.b/017f1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	5919	5050	4827	4394	3671	4772	17.374
(2)	6305	5464	5600	5079	4539	5397	12.103
(3)	2780	2401	2389	2196	1992	2352	12.417
(4)	2749	2248	2191	2001	1769	2192	16.589
(5)	3808	3166	3086	2824	2511	3079	15.627
2 Aroclor-1221(1)	1843	1746	1580	1468	1203	1568	15.964
(2)	1118	1046	917	835	660	915	19.675
(3)	4334	3992	3544	3325	2672	3573	17.859
3 Aroclor-1232(1)	+++++	+++++	+++++	2601	+++++	2601	0.000
(2)	+++++	+++++	+++++	2261	+++++	2261	0.000
(3)	+++++	+++++	+++++	1243	+++++	1243	0.000
(4)	+++++	+++++	+++++	1479	+++++	1479	0.000
(5)	+++++	+++++	+++++	923	+++++	923	0.000
4 Aroclor-1242(1)	4726	4372	4070	3706	2998	3974	16.680
(2)	5172	5152	4949	4680	4027	4796	9.873
(3)	2139	1968	1820	1683	1417	1805	15.251
(4)	2229	2050	1908	1759	1500	1889	14.735
(5)	3065	2855	2678	2500	2127	2645	13.507
5 Aroclor-1248(1)	3009	2847	2875	2619	2254	2721	10.891
(2)	3979	3666	3503	3232	2633	3402	14.930
(3)	4974	4644	4593	4148	3497	4371	13.049
(4)	5772	5534	5553	5051	4341	5250	10.905
(5)	4772	4453	4399	4004	3430	4212	12.231
6 Aroclor-1254(1)	4848	4583	4256	4143	3840	4334	9.026
(2)	6355	6045	5692	5573	5168	5767	7.878
(3)	4755	4649	4399	4320	4170	4459	5.382
(4)	7994	7880	7432	7366	6934	7522	5.676
(5)	6153	6013	5632	5615	5334	5749	5.750

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Cal Date : 23-Mar-2010 09:50 jen01212
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	7147	5970	6060	5488	4785	5890	14.695
(2)	10103	8518	8810	7994	7052	8495	13.185
(3)	6142	5086	5206	4683	4213	5066	14.134
(4)	6261	5444	5587	4872	4481	5329	12.849
(5)	6525	5540	5787	5277	5076	5641	9.964
8 Aroclor-1262(1)	3851	3558	3311	3256	2859	3367	10.954
(2)	5935	5551	5239	5102	4386	5243	10.995
(3)	7996	7523	7022	6963	6012	7103	10.414
(4)	9555	9028	8567	8433	7318	8580	9.694
(5)	8875	8357	7946	7802	6850	7966	9.421
9 Aroclor-1268(1)	+++++	+++++	+++++	16324	+++++	16324	0.000
(2)	+++++	+++++	+++++	15723	+++++	15723	0.000
(3)	+++++	+++++	+++++	12075	+++++	12075	0.000
(4)	+++++	+++++	+++++	6023	+++++	6023	0.000
(5)	+++++	+++++	+++++	36012	+++++	36012	0.000
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4,4'-DDT	+++++	+++++	+++++	23929	+++++	23929	0.000
14 4,4'-DDD	+++++	+++++	+++++	157020	+++++	157020	0.000
15 4,4'-DDE	+++++	+++++	+++++	133975	+++++	133975	0.000
$ 11 4cmx	136153	126431	127871	122774	111579	124961	7.155
$ 12 Decachlorobiphenyl	95355	82633	85082	76716	71970	82351	10.796

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Cal Date : 23-Mar-2010 09:30 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/022310.b/013b1301.d
Level 2: /chem/ecd8a.i/022310.b/014b1401.d
Level 3: /chem/ecd8a.i/022310.b/015b1501.d
Level 4: /chem/ecd8a.i/020310a.b/036b3601.d
Level 5: /chem/ecd8a.i/022310.b/017b1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	3858	3610	3858	3627	3436	3678	4.905
(2)	2824	2559	2590	2465	2318	2551	7.270
(3)	1619	1461	1511	1446	1422	1492	5.243
(4)	1671	1484	1494	1405	1335	1478	8.500
(5)	2238	2022	2057	1951	1857	2025	6.982
2 Aroclor-1221(1)	1008	1017	964	925	826	948	8.179
(2)	642	644	604	571	494	591	10.518
(3)	2384	2349	2220	2116	1827	2179	10.256
3 Aroclor-1232(1)	+++++	+++++	+++++	1515	+++++	1515	0.000
(2)	+++++	+++++	+++++	1744	+++++	1744	0.000
(3)	+++++	+++++	+++++	1176	+++++	1176	0.000
(4)	+++++	+++++	+++++	710	+++++	710	0.000
(5)	+++++	+++++	+++++	618	+++++	618	0.000
4 Aroclor-1242(1)	2949	2857	2758	2609	2213	2677	10.779
(2)	3213	3196	3180	3232	2808	3126	5.721
(3)	2287	2232	2178	2099	1842	2127	8.178
(4)	1820	1782	1741	1678	1497	1703	7.463
(5)	1675	1595	1607	1522	1434	1567	5.872
5 Aroclor-1248(1)	1413	1408	1337	1299	1188	1329	6.944
(2)	2387	2358	2277	2198	2024	2249	6.480
(3)	2920	2903	2849	2753	2523	2790	5.825
(4)	3350	3368	3334	3259	3054	3273	3.955
(5)	3677	3689	3657	3584	3353	3592	3.894
6 Aroclor-1254(1)	3242	3137	3080	3079	3045	3117	2.483
(2)	3591	3494	3433	3454	3418	3478	1.994
(3)	4854	4823	4800	4853	4830	4832	0.471
(4)	3516	3466	3440	3510	3538	3494	1.145
(5)	2281	2214	2159	2166	2188	2202	2.240

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Cal Date : 23-Mar-2010 09:30 jen01212
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	4310	3885	4025	3827	3646	3939	6.300
(2)	5135	4638	4867	4591	4421	4730	5.847
(3)	3916	3515	3674	3464	3365	3587	5.999
(4)	4033	3615	3813	3590	3510	3712	5.689
(5)	6224	5645	6036	5678	5624	5841	4.664
8 Aroclor-1262(1)	3545	3367	3269	3249	2948	3276	6.635
(2)	4038	3929	3844	3825	3498	3827	5.277
(3)	5683	5613	5515	5463	4958	5446	5.255
(4)	5266	5178	5090	5067	4633	5047	4.838
(5)	7327	7356	7286	7270	6740	7196	3.572
9 Aroclor-1268(1)	#####	#####	#####	11384	#####	11384	0.000
(2)	#####	#####	#####	10412	#####	10412	0.000
(3)	#####	#####	#####	8192	#####	8192	0.000
(4)	#####	#####	#####	4057	#####	4057	0.000
(5)	#####	#####	#####	24640	#####	24640	0.000
M 10 Aroclor-Total	#####	#####	#####	#####	#####	#####	#####
13 4,4'-DDT	#####	#####	#####	14596	#####	14596	0.000
14 4,4'-DDD	#####	#####	#####	100145	#####	100145	0.000
15 4,4'-DDE	#####	#####	#####	88982	#####	88982	0.000
$ 11 4cmx	83925	81585	84996	84651	82754	83582	1.685
$ 12 Decachlorobiphenyl	64763	57453	61017	56769	56260	59252	6.076

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

Instrument ID: ECD8A Calibration Date: 03/22/10 Time: 0826

Lab File ID: 002F0201 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4382.995	0.01	-8.2	15.0
(2)	5397.398	5158.479	0.01	-4.4	15.0
(3)	2351.643	2214.706	0.01	-5.8	15.0
(4)	2191.567	2003.916	0.01	-8.6	15.0
(5)	3078.945	2885.103	0.01	-6.3	15.0
Aroclor-1260	5890.060	5934.565	0.01	0.8	15.0
(2)	8495.287	8765.365	0.01	3.2	15.0
(3)	5066.269	5135.681	0.01	1.4	15.0
(4)	5329.016	5372.227	0.01	0.8	15.0
(5)	5640.982	5850.838	0.01	3.7	15.0
4cmx	124961.40	130101.36	0.01	4.1	15.0
Decachlorobiphenyl	82351.042	83075.330	0.01	0.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

Instrument ID: ECD8A Calibration Date: 03/22/10 Time: 0826

Lab File ID: 002B0201 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3655.954	0.01	-0.6	15.0
(2)	2551.186	2529.207	0.01	-0.9	15.0
(3)	1492.032	1490.235	0.01	-0.1	15.0
(4)	1477.704	1456.469	0.01	-1.4	15.0
(5)	2024.804	2023.515	0.01	-0.1	15.0
Aroclor-1260	3938.505	4263.921	0.01	8.3	15.0
(2)	4730.476	5094.006	0.01	7.7	15.0
(3)	3586.650	3844.714	0.01	7.2	15.0
(4)	3712.238	3978.250	0.01	7.2	15.0
(5)	5841.333	6122.565	0.01	4.8	15.0
4cmx	83582.102	91344.070	0.01	9.3	15.0
Decachlorobiphenyl	59252.492	60733.460	0.01	2.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

Instrument ID: ECD8A Calibration Date: 03/22/10 Time: 0839

Lab File ID: 003F0301 Init. Calib. Date(s): 03/09/10 03/09/10

Heated Purge: (Y/N) N Init. Calib. Times: 0927 1016

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	4333.962	4128.391	0.01	-4.7	15.0
(2)	5766.534	5497.005	0.01	-4.7	15.0
(3)	4458.524	4285.594	0.01	-3.9	15.0
(4)	7521.536	7239.592	0.01	-3.7	15.0
(5)	5749.206	5471.909	0.01	-4.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

Instrument ID: ECD8A Calibration Date: 03/22/10 Time: 0839

Lab File ID: 003B0301 Init. Calib. Date(s): 03/09/10 03/09/10

Heated Purge: (Y/N) N Init. Calib. Times: 0927 1016

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	3116.660	3267.250	0.01	4.8	15.0
(2)	3478.140	3655.762	0.01	5.1	15.0
(3)	4832.039	5139.439	0.01	6.4	15.0
(4)	3494.052	3654.503	0.01	4.6	15.0
(5)	2201.695	2303.521	0.01	4.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

Instrument ID: ECD8A Calibration Date: 03/22/10 Time: 0851

Lab File ID: 004F0401 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1253 1342

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1242	3974.352	3882.256	0.01	-2.3	15.0
(2)	4796.139	4634.399	0.01	-3.4	15.0
(3)	1805.468	1718.166	0.01	-4.8	15.0
(4)	1889.091	1798.285	0.01	-4.8	15.0
(5)	2645.035	2556.342	0.01	-3.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

Instrument ID: ECD8A Calibration Date: 03/22/10 Time: 0851

Lab File ID: 004B0401 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1253 1342

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1242	2677.149	2807.928	0.01	4.9	15.0
(2)	3125.833	3280.674	0.01	5.0	15.0
(3)	2127.474	2221.704	0.01	4.4	15.0
(4)	1703.485	1750.185	0.01	2.7	15.0
(5)	1566.523	1612.214	0.01	2.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

Instrument ID: ECD8A Calibration Date: 03/22/10 Time: 2006

Lab File ID: 055F5501 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4318.218	0.01	-9.5	15.0
(2)	5397.398	5237.996	0.01	-3.0	15.0
(3)	2351.643	2214.637	0.01	-5.8	15.0
(4)	2191.567	2018.557	0.01	-7.9	15.0
(5)	3078.945	2887.079	0.01	-6.2	15.0
Aroclor-1260	5890.060	5827.949	0.01	-1.0	15.0
(2)	8495.287	8544.225	0.01	0.6	15.0
(3)	5066.269	4977.397	0.01	-1.8	15.0
(4)	5329.016	5320.498	0.01	-0.2	15.0
(5)	5640.982	5734.076	0.01	1.6	15.0
4cmx	124961.40	127201.28	0.01	1.8	15.0
Decachlorobiphenyl	82351.042	83783.480	0.01	1.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

Instrument ID: ECD8A Calibration Date: 03/22/10 Time: 2006

Lab File ID: 055B5501 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3754.233	0.01	2.1	15.0
(2)	2551.186	2472.485	0.01	-3.1	15.0
(3)	1492.032	1469.235	0.01	-1.5	15.0
(4)	1477.704	1418.739	0.01	-4.0	15.0
(5)	2024.804	1968.690	0.01	-2.8	15.0
Aroclor-1260	3938.505	4154.556	0.01	5.5	15.0
(2)	4730.476	5026.988	0.01	6.3	15.0
(3)	3586.650	3790.620	0.01	5.7	15.0
(4)	3712.238	3926.529	0.01	5.8	15.0
(5)	5841.333	6263.637	0.01	7.2	15.0
4cmx	83582.102	89294.840	0.01	6.8	15.0
Decachlorobiphenyl	59252.492	62696.640	0.01	5.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

Instrument ID: ECD8A Calibration Date: 03/22/10 Time: 2242

Lab File ID: 067F6701 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4329.055	0.01	-9.3	15.0
(2)	5397.398	5380.417	0.01	-0.3	15.0
(3)	2351.643	2254.903	0.01	-4.1	15.0
(4)	2191.567	1978.240	0.01	-9.7	15.0
(5)	3078.945	2864.371	0.01	-7.0	15.0
Aroclor-1260	5890.060	6019.529	0.01	2.2	15.0
(2)	8495.287	8845.570	0.01	4.1	15.0
(3)	5066.269	5217.063	0.01	3.0	15.0
(4)	5329.016	5610.266	0.01	5.3	15.0
(5)	5640.982	6016.806	0.01	6.7	15.0
4cmx	124961.40	128646.73	0.01	2.9	15.0
Decachlorobiphenyl	82351.042	89152.650	0.01	8.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

Instrument ID: ECD8A Calibration Date: 03/22/10 Time: 2242

Lab File ID: 067B6701 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3886.042	0.01	5.7	15.0
(2)	2551.186	2546.458	0.01	-0.2	15.0
(3)	1492.032	1532.980	0.01	2.7	15.0
(4)	1477.704	1480.729	0.01	0.2	15.0
(5)	2024.804	2046.374	0.01	1.1	15.0
Aroclor-1260	3938.505	4346.400	0.01	10.4	15.0
(2)	4730.476	5289.631	0.01	11.8	15.0
(3)	3586.650	3981.780	0.01	11.0	15.0
(4)	3712.238	4138.906	0.01	11.5	15.0
(5)	5841.333	6627.546	0.01	13.4	15.0
4cmx	83582.102	91339.430	0.01	9.3	15.0
Decachlorobiphenyl	59252.492	65897.640	0.01	11.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 0119

Lab File ID: 079F7901 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4442.874	0.01	-6.9	15.0
(2)	5397.398	5509.552	0.01	2.1	15.0
(3)	2351.643	2308.285	0.01	-1.8	15.0
(4)	2191.567	2034.542	0.01	-7.2	15.0
(5)	3078.945	2957.478	0.01	-3.9	15.0
Aroclor-1260	5890.060	6193.749	0.01	5.2	15.0
(2)	8495.287	9103.544	0.01	7.2	15.0
(3)	5066.269	5349.240	0.01	5.6	15.0
(4)	5329.016	5731.243	0.01	7.5	15.0
(5)	5640.982	6133.197	0.01	8.7	15.0
4cmx	124961.40	131744.49	0.01	5.4	15.0
Decachlorobiphenyl	82351.042	89124.700	0.01	8.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 0119

Lab File ID: 079B7901 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3785.461	0.01	2.9	15.0
(2)	2551.186	2526.646	0.01	-1.0	15.0
(3)	1492.032	1521.975	0.01	2.0	15.0
(4)	1477.704	1471.070	0.01	-0.4	15.0
(5)	2024.804	2034.532	0.01	0.5	15.0
Aroclor-1260	3938.505	4322.759	0.01	9.8	15.0
(2)	4730.476	5257.221	0.01	11.1	15.0
(3)	3586.650	3957.056	0.01	10.3	15.0
(4)	3712.238	4112.636	0.01	10.8	15.0
(5)	5841.333	6580.335	0.01	12.6	15.0
4cmx	83582.102	91326.080	0.01	9.3	15.0
Decachlorobiphenyl	59252.492	65795.770	0.01	11.0	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/002f0201.d
Lab Smp Id: WAR100224-60 01 Client Smp ID: AR166001
Inj Date : 22-MAR-2010 08:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 14:20 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.249	0.000	13010136	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.240	6.240	0.000	8307533	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.805	2.805	0.000	4382994	1000.00	918	80.00- 120.00	100.00
3.158	3.158	0.000	5158478	1000.00	956	102.28- 142.28	117.69
3.301	3.301	0.000	2214706	1000.00	942	32.11- 72.11	50.53
3.393	3.393	0.000	2003915	1000.00	914	26.32- 66.32	45.72
3.555	3.555	0.000	2885102	1000.00	937	46.67- 86.67	65.82
Average of Peak Amounts =					933		
7 Aroclor-1260					CAS #: 11096-82-5		
4.430	4.430	0.000	5934565	1000.00	1010	80.00- 120.00	100.00
4.625	4.625	0.000	8765365	1000.00	1030	125.26- 165.26	147.70
4.900	4.900	0.000	5135681	1000.00	1010	65.29- 105.29	86.54
5.073	5.073	0.000	5372226	1000.00	1010	71.92- 111.92	90.52
5.485	5.485	0.000	5850838	1000.00	1040	78.39- 118.39	98.59
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd8a.i/032210.b/002f0201.d
Date : 22-MAR-2010 08:26
Client ID: AR166001
Sample Info: IWAR100224-60 01
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

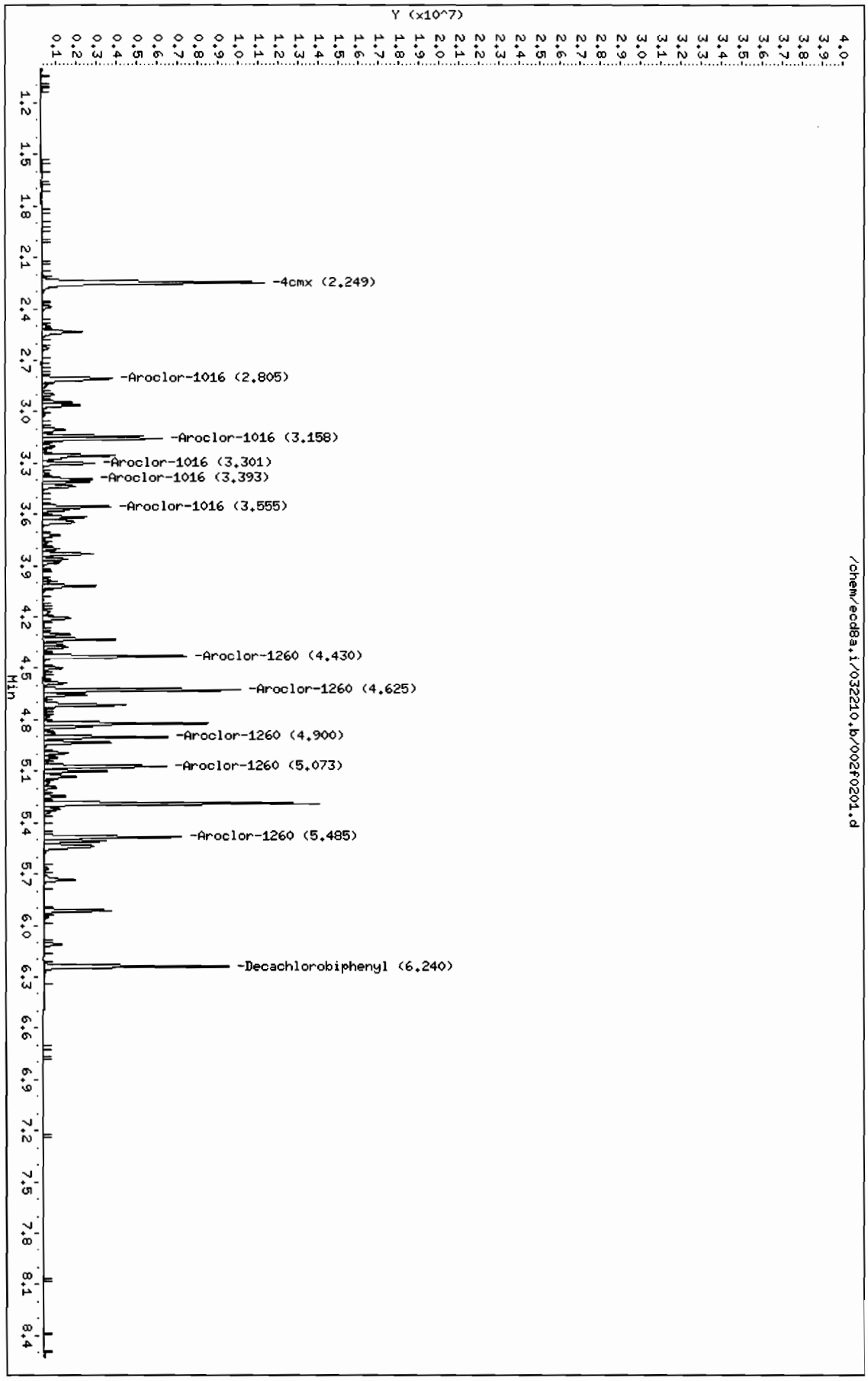

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/002b0201.d
Lab Smp Id: WAR100224-60 01 Client Smp ID: AR166001
Inj Date : 22-MAR-2010 08:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 14:20 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	9134407	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.825	6.825	0.000	6073346	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.549	3.549	0.000	3655954	1000.00	994	80.00- 120.00	100.00
3.648	3.648	0.000	2529207	1000.00	991	46.54- 86.54	69.18
3.724	3.724	0.000	1490235	1000.00	999	19.79- 59.79	40.76
3.800	3.800	0.000	1456468	1000.00	986	18.43- 58.43	39.84
3.995	3.995	0.000	2023514	1000.00	999	32.44- 72.44	55.35
Average of Peak Amounts =					994		
7 Aroclor-1260					CAS #: 11096-82-5		
4.909	4.909	0.000	4263921	1000.00	1080	80.00- 120.00	100.00
5.058	5.058	0.000	5094005	1000.00	1080	100.55- 140.55	119.47
5.375	5.375	0.000	3844714	1000.00	1070	70.91- 110.91	90.17
5.581	5.581	0.000	3978250	1000.00	1070	76.36- 116.36	93.30
6.013	6.013	0.000	6122565	1000.00	1050	131.40- 171.40	143.59
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd8a.i/032210.b/002b0201.d
Date : 22-MAR-2010 08:26
Client ID: AR166001
Sample Info: IWAR100224-60 01
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

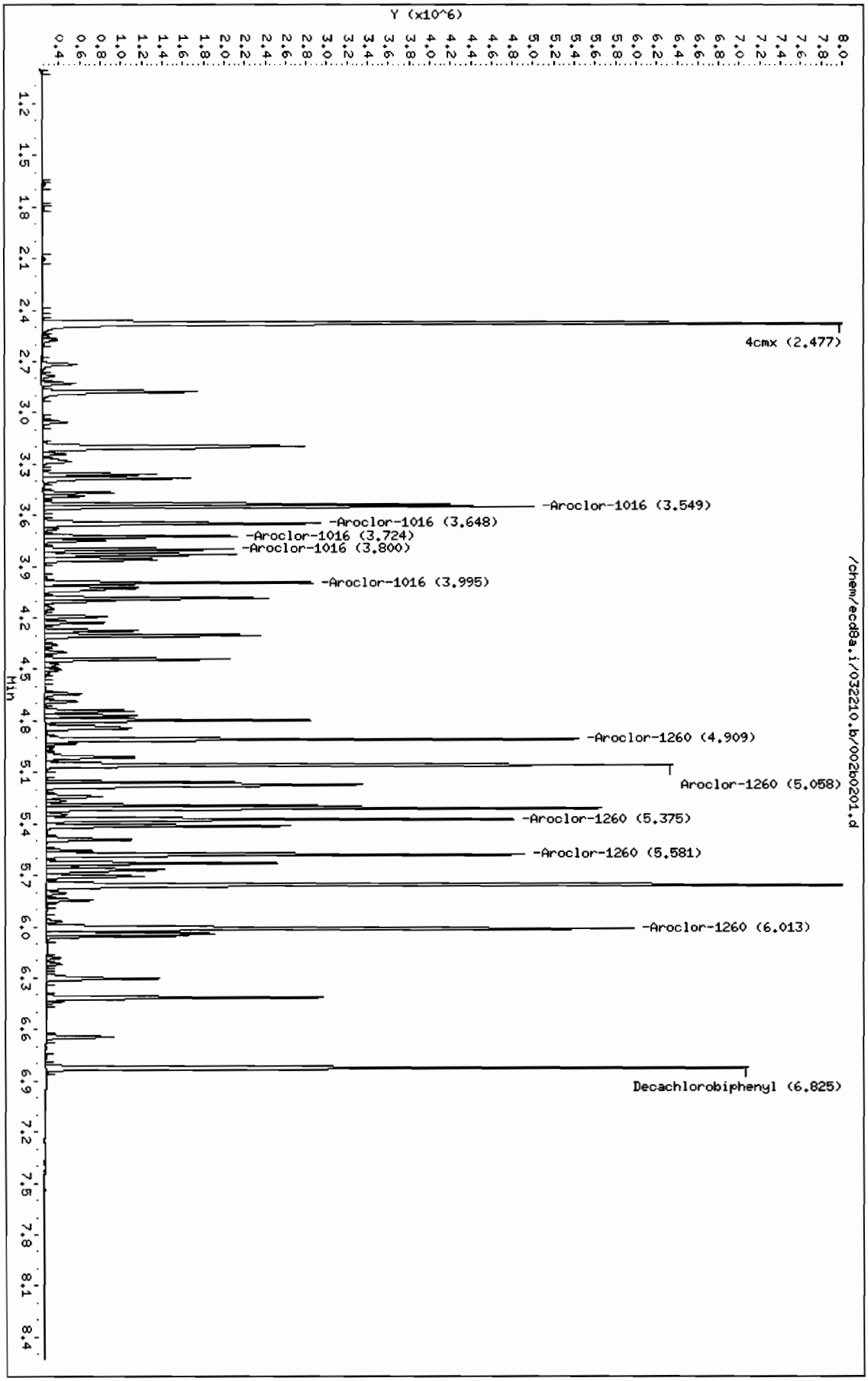

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 22-MAR-2010 08:39
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100219-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 16:03 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.832	3.832	0.000	4128391	1000.00	952	80.00- 120.00	100.00
4.019	4.019	0.000	5497005	1000.00	953	113.15- 153.15	133.15
4.214	4.214	0.000	4285594	1000.00	961	83.81- 123.81	103.81
4.301	4.301	0.000	7239592	1000.00	962	155.36- 195.36	175.36
4.497	4.497	0.000	5471909	1000.00	952	112.54- 152.54	132.54
Average of Peak Amounts =					956		

Data File: /chem/ecd8a.i/032210.b/003f0301.d

Date : 22-MAR-2010 08:39

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

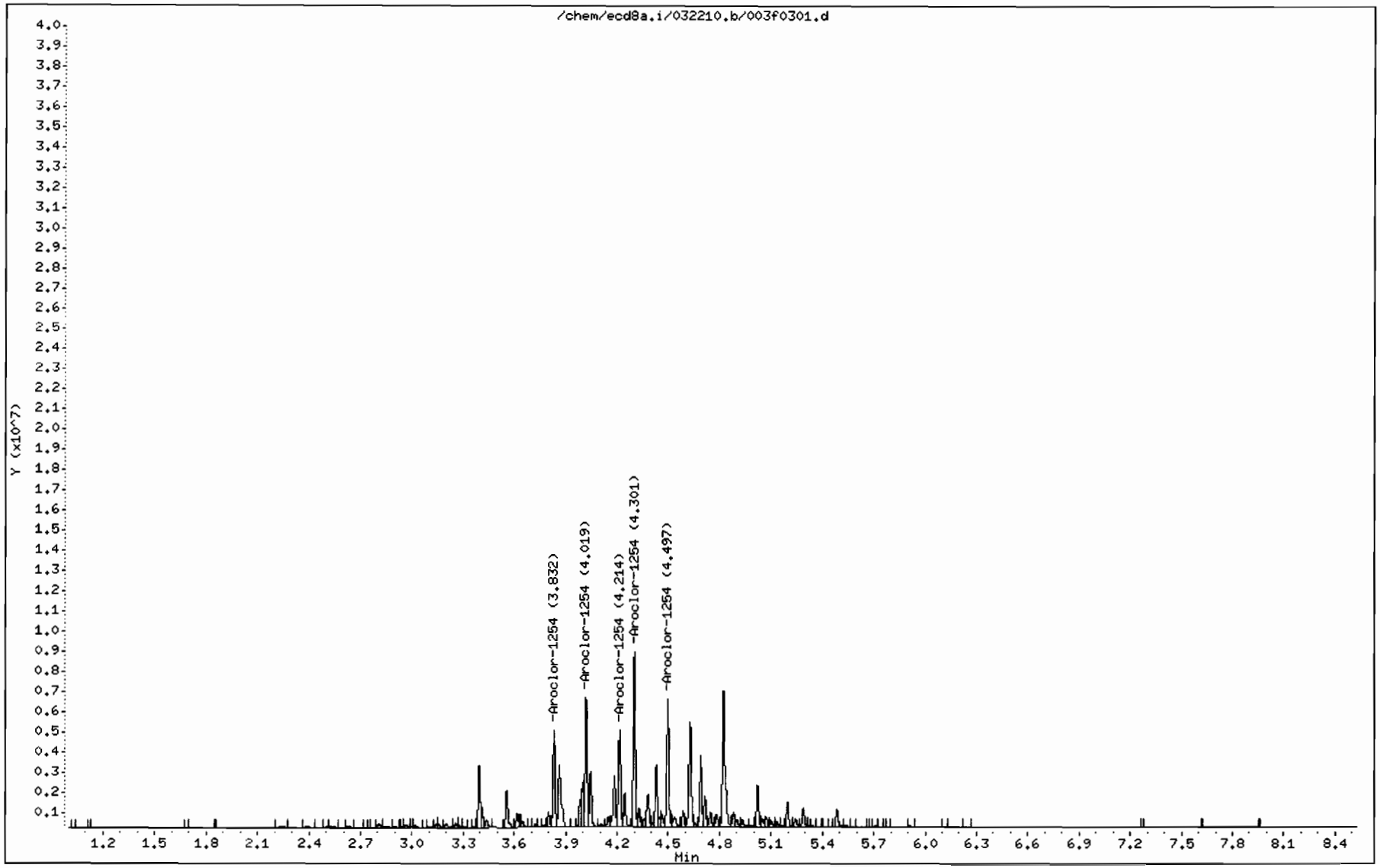

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 22-MAR-2010 08:39
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100219-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 16:02 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.302	4.302	0.000	3267250	1000.00	1050	80.00- 120.00	100.00
4.441	4.441	0.000	3655762	1000.00	1050	91.89- 131.89	111.89
4.770	4.770	0.000	5139439	1000.00	1060	137.30- 177.30	157.30
4.932	4.932	0.000	3654503	1000.00	1040	91.85- 131.85	111.85
5.057	5.057	0.000	2303521	1000.00	1050	50.50- 90.50	70.50

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd8a.i/032210.b/003b0301.d

Date : 22-MAR-2010 08:39

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

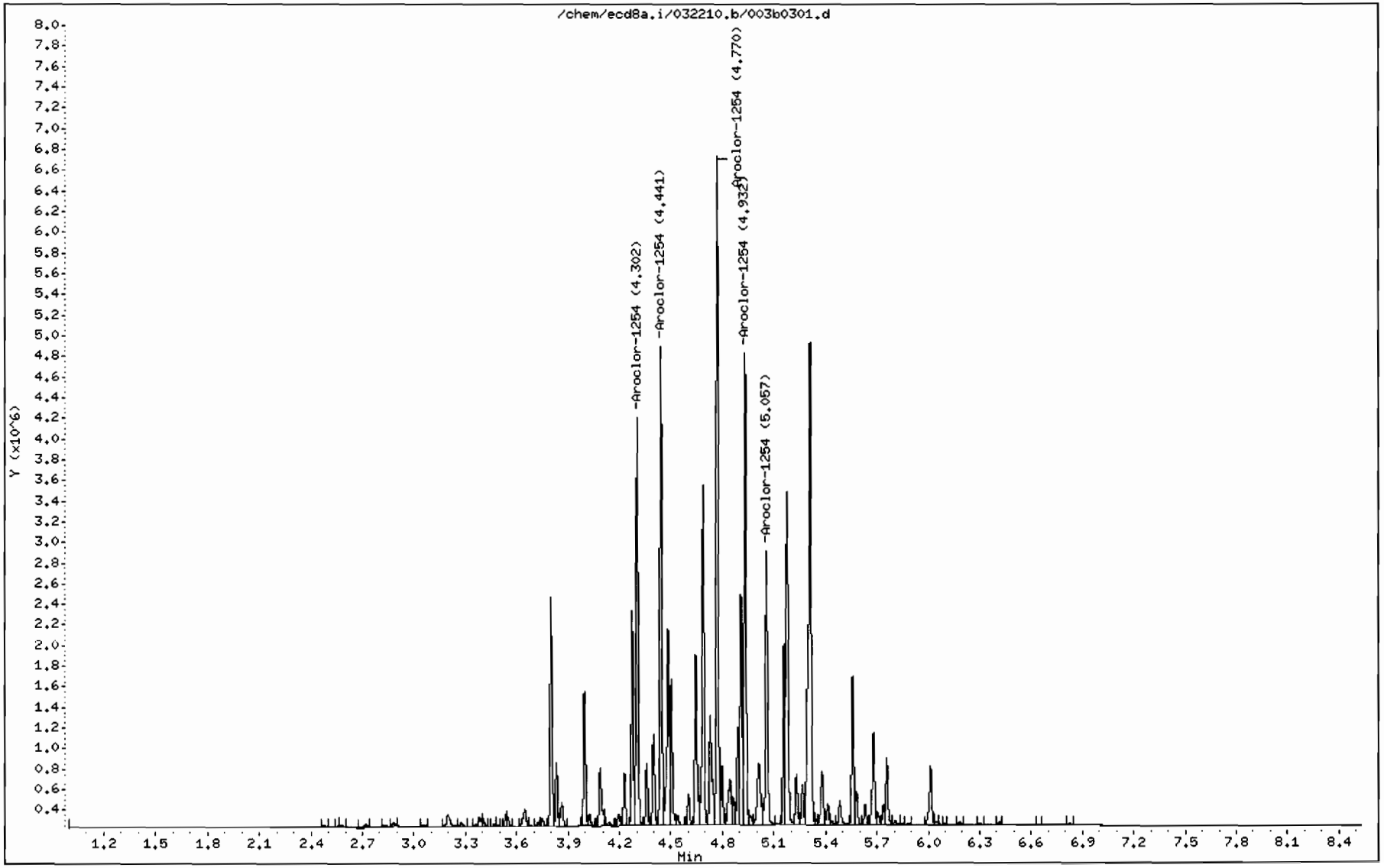

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 22-MAR-2010 08:51
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 14:20 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.806	2.806	0.000	3882256	1000.00	977	80.00- 120.00	100.00
3.158	3.158	0.000	4634398	1000.00	966	99.37- 139.37	119.37
3.393	3.393	0.000	1718165	1000.00	952	24.26- 64.26	44.26
3.411	3.411	0.000	1798284	1000.00	952	26.32- 66.32	46.32
3.555	3.555	0.000	2556341	1000.00	966	45.85- 85.85	65.85
Average of Peak Amounts =					963		

Data File: /chem/ecd8a.i/032210.b/004f0401.d

Date : 22-MAR-2010 08:51

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

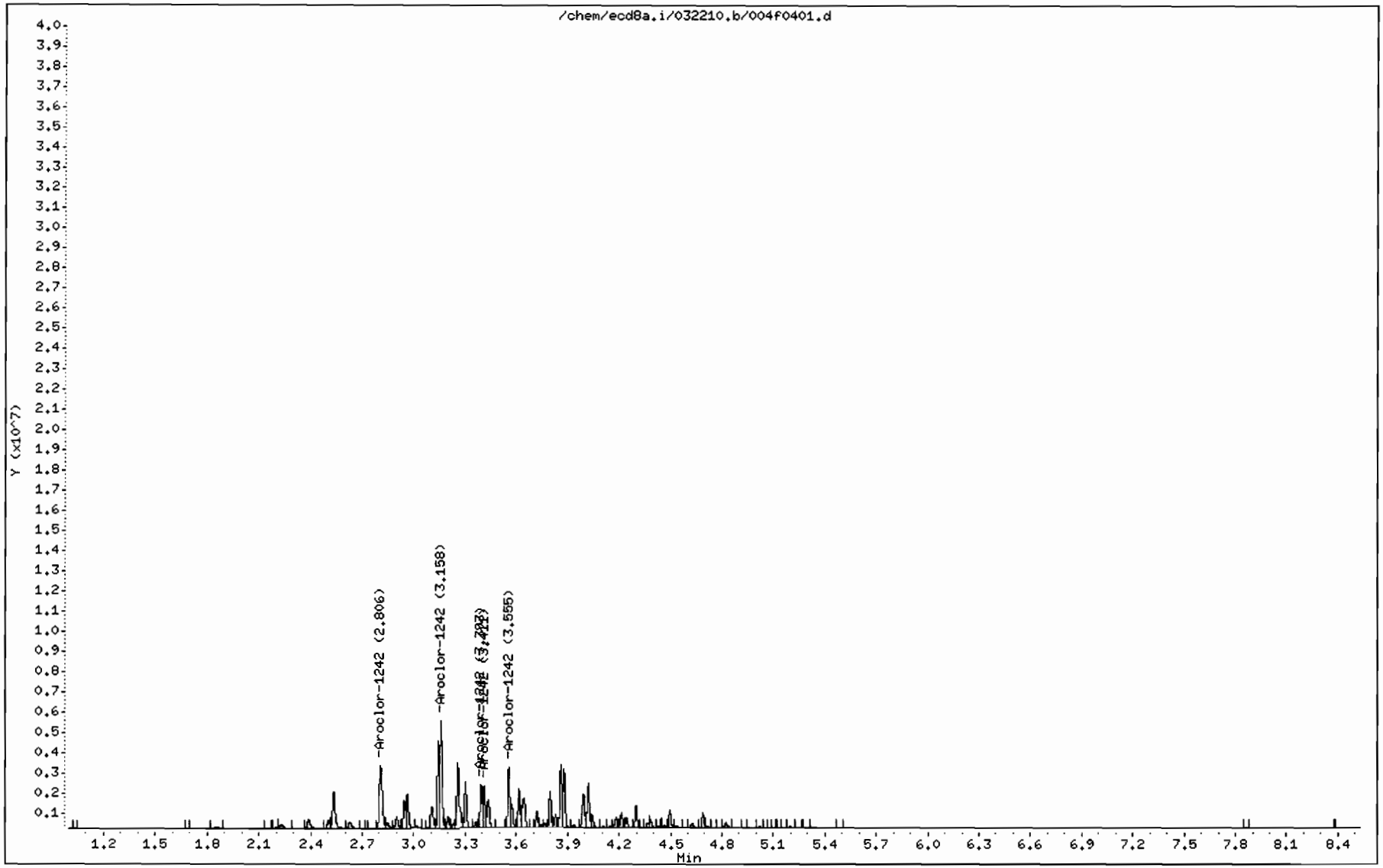

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 22-MAR-2010 08:51
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 14:20 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.196	3.196	0.000	2807928	1000.00	1050	80.00- 120.00	100.00(M)
3.549	3.549	0.000	3280674	1000.00	1050	96.84- 136.84	116.84
3.648	3.648	0.000	2221704	1000.00	1040	59.12- 99.12	79.12
3.996	3.996	0.000	1750185	1000.00	1030	42.33- 82.33	62.33
4.085	4.085	0.000	1612214	1000.00	1030	37.42- 77.42	57.42

Average of Peak Amounts = 1.04e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/004b0401.d

Date : 22-MAR-2010 08:51

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

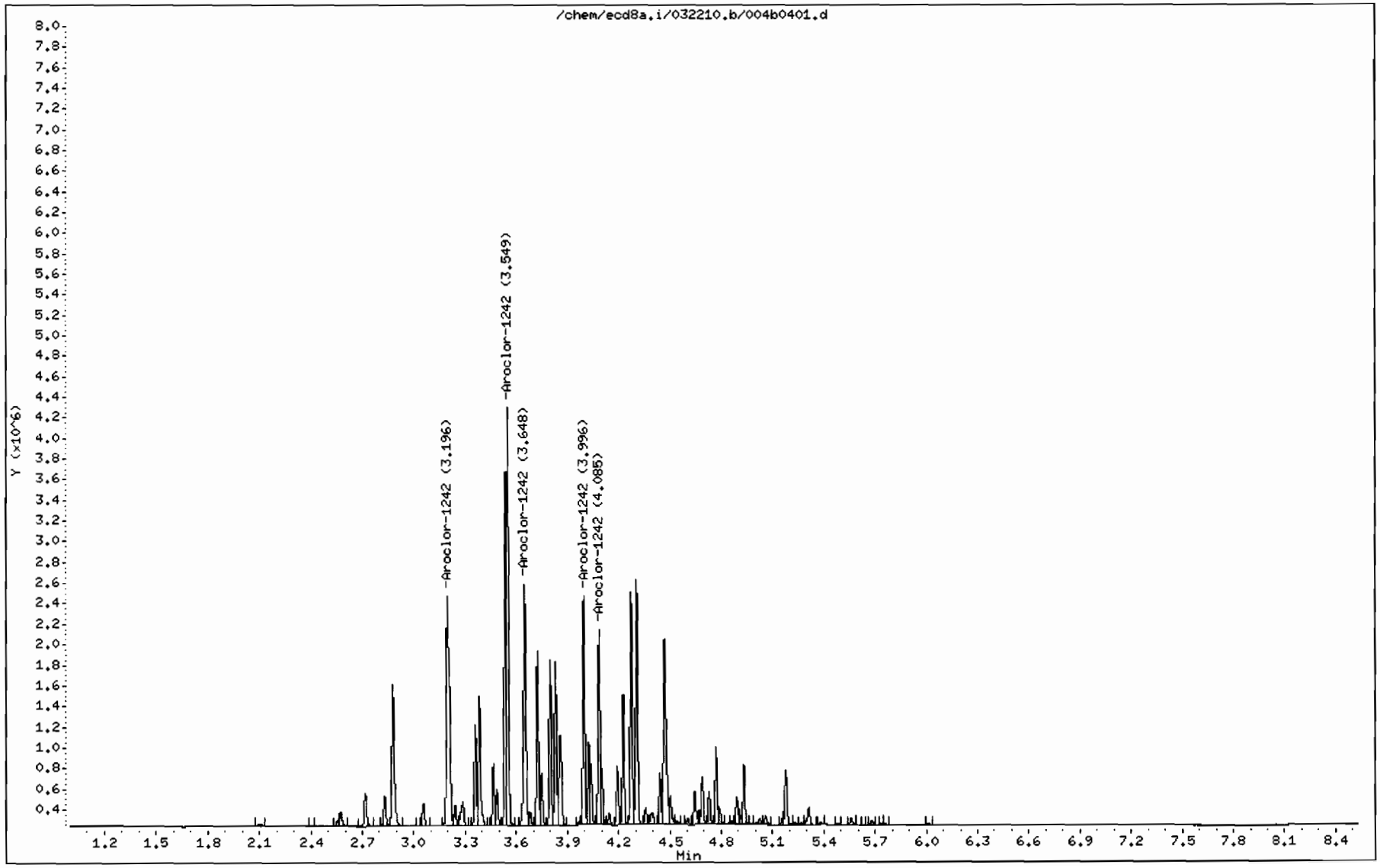

Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/004b0401.d
Operator: JAOC
Injection Date: 22-MAR-2010 08:51
Instrument: ecd8a.i
Client Sample ID: AR124201

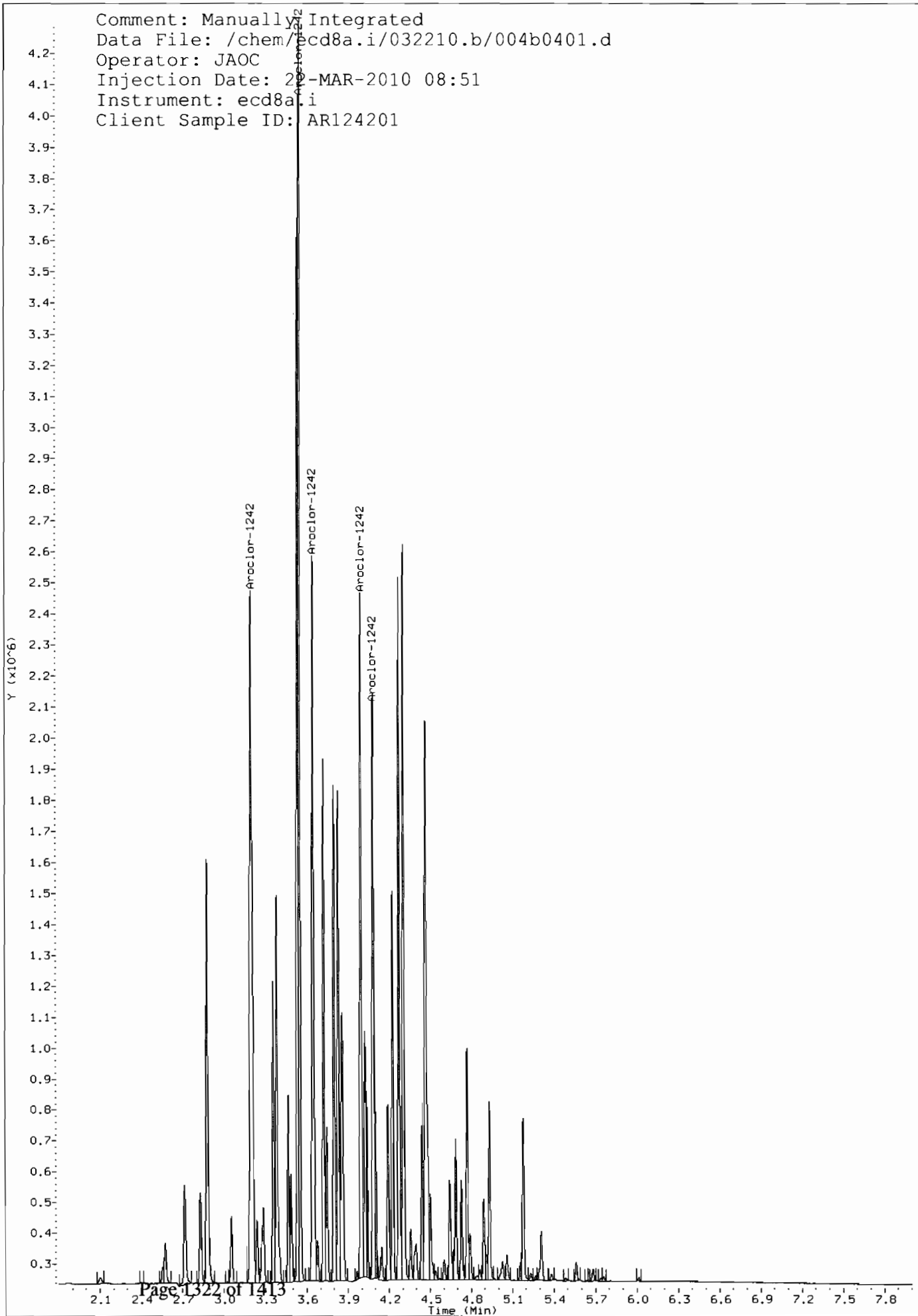

Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-004b0401.d
Operator: JAOC
Injection Date: 22-MAR-2010 08:51
Instrument: ecd8a.i
Client Sample ID: AR124201

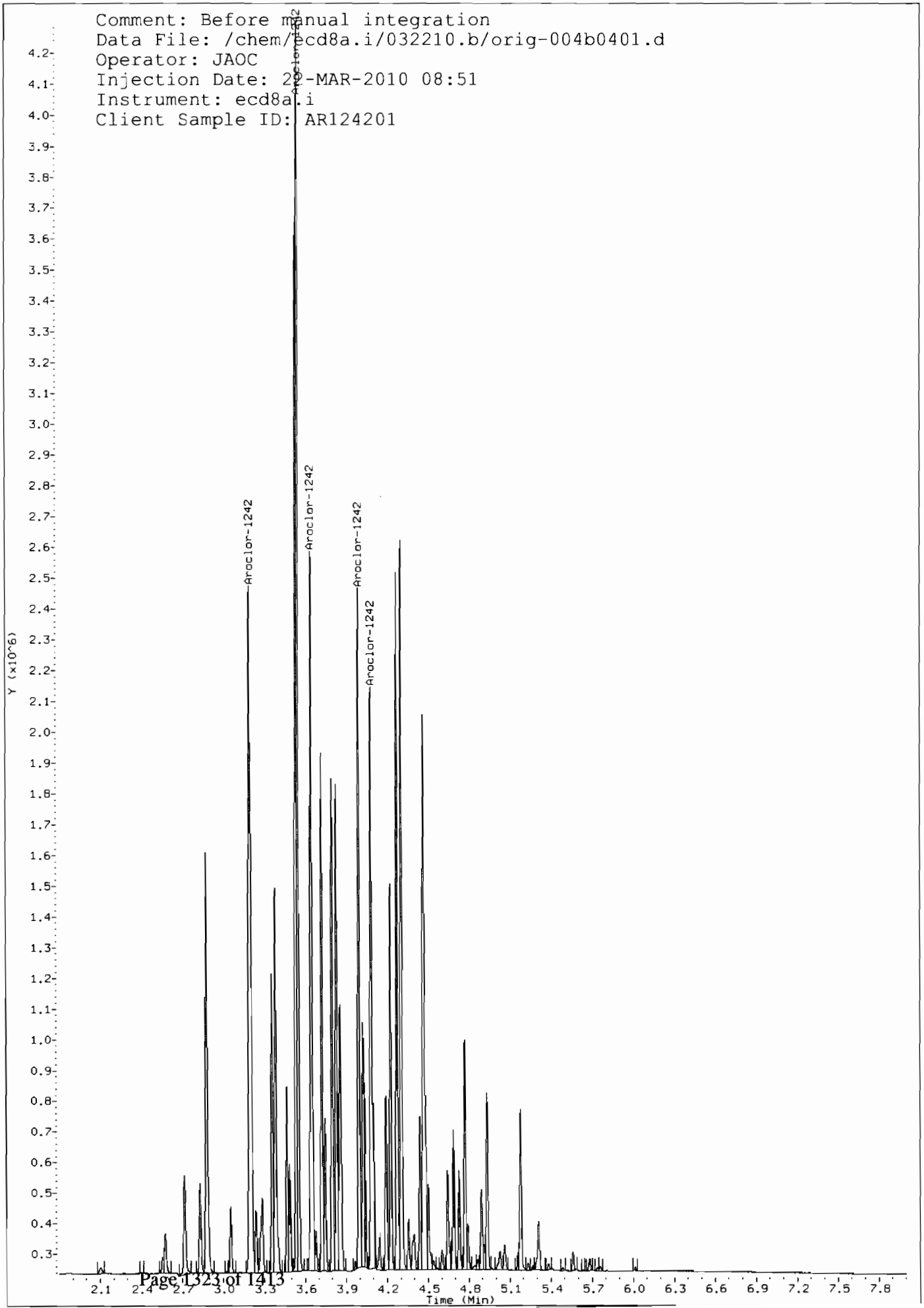

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 22-MAR-2010 09:03
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100223-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 16:03 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.143	3.143	0.000	2550227	1000.00	937	80.00- 120.00	100.00
3.393	3.393	0.000	3314779	1000.00	974	109.98- 149.98	129.98
3.555	3.555	0.000	4266678	1000.00	976	147.31- 187.31	167.31
3.862	3.862	0.000	5116173	1000.00	974	180.62- 220.62	200.62
4.020	4.020	0.000	4068708	1000.00	966	139.54- 179.54	159.54
Average of Peak Amounts =					966		

Data File: /chem/ecd8a.i/032210.b/005f0501.d

Date : 22-MAR-2010 09:03

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

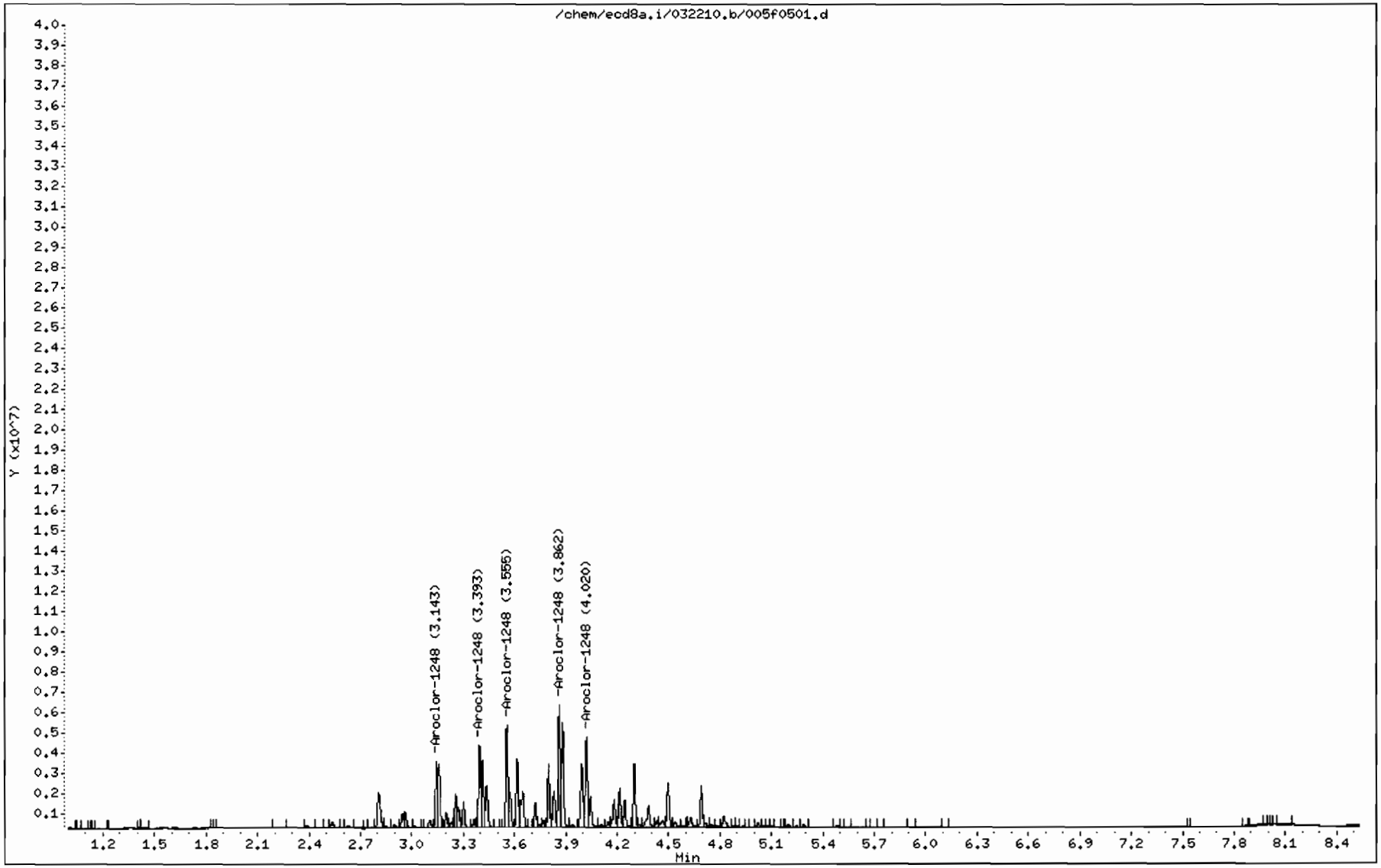

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 22-MAR-2010 09:03
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100223-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 16:02 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.648	3.648	0.000	1362602	1000.00	1020	80.00- 120.00	100.00
3.799	3.799	0.000	2427594	1000.00	1080	158.16- 198.16	178.16
3.996	3.996	0.000	3060721	1000.00	1100	204.62- 244.62	224.62
4.273	4.273	0.000	3551875	1000.00	1080	240.67- 280.67	260.67
4.306	4.306	0.000	3914248	1000.00	1090	267.26- 307.26	287.26

Average of Peak Amounts = 1.08e+03

Data File: /chem/ecd8a.i/032210.b/005b0501.d

Date : 22-MAR-2010 09:03

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

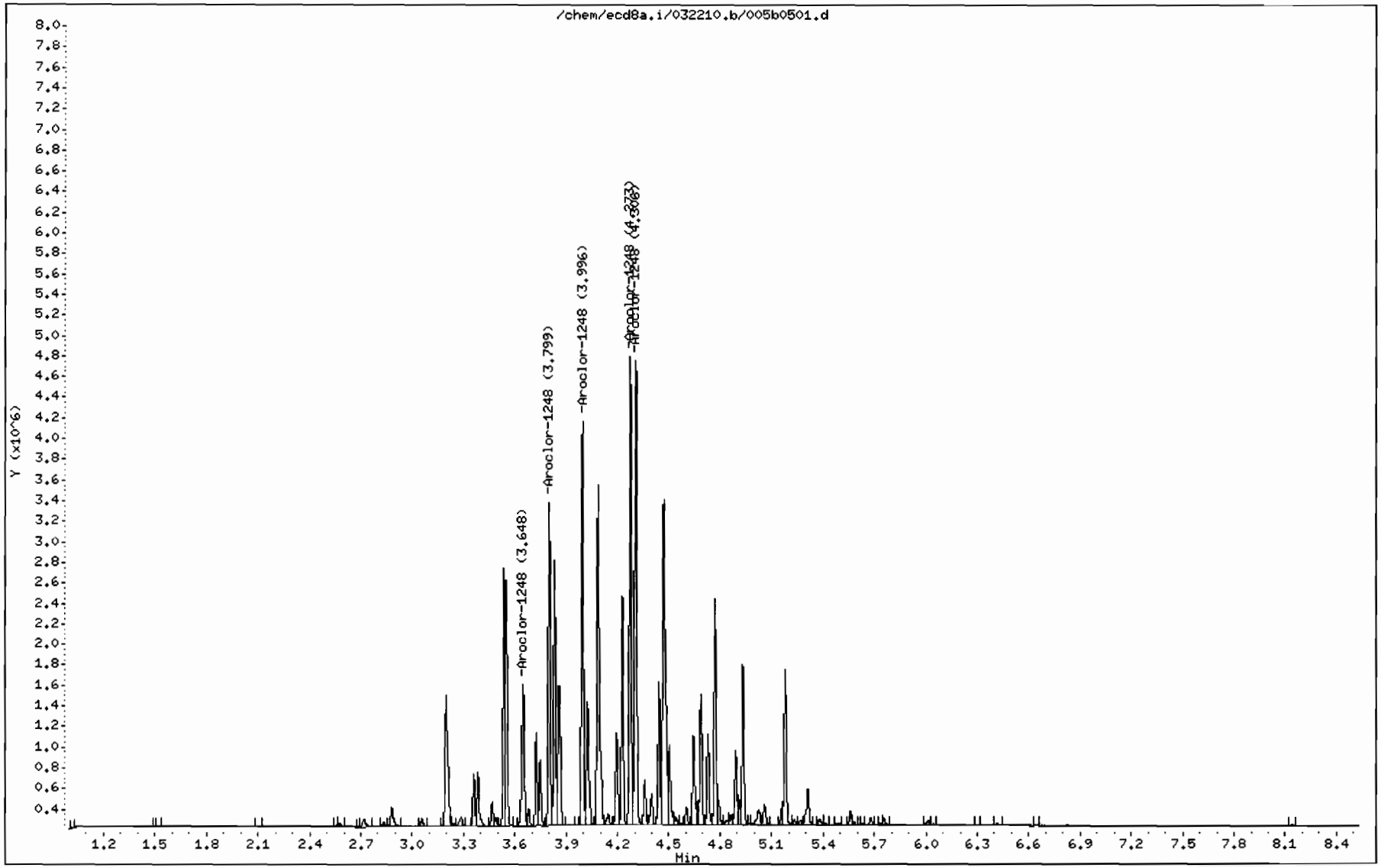

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 22-MAR-2010 09:16
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 14:20 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.535	2.535	0.000	2516127	1000.00	968	80.00- 120.00	100.00
2.806	2.806	0.000	2226579	1000.00	985	68.49- 108.49	88.49
3.301	3.301	0.000	1155393	1000.00	929	25.92- 65.92	45.92
3.555	3.555	0.000	1406374	1000.00	951	35.89- 75.89	55.89
3.617	3.617	0.000	850459	1000.00	922	13.80- 53.80	33.80
Average of Peak Amounts =					951		

Data File: /chem/ecd8a.i/032210.b/006f0601.d
Date : 22-MAR-2010 09:16
Client ID: AR123201
Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

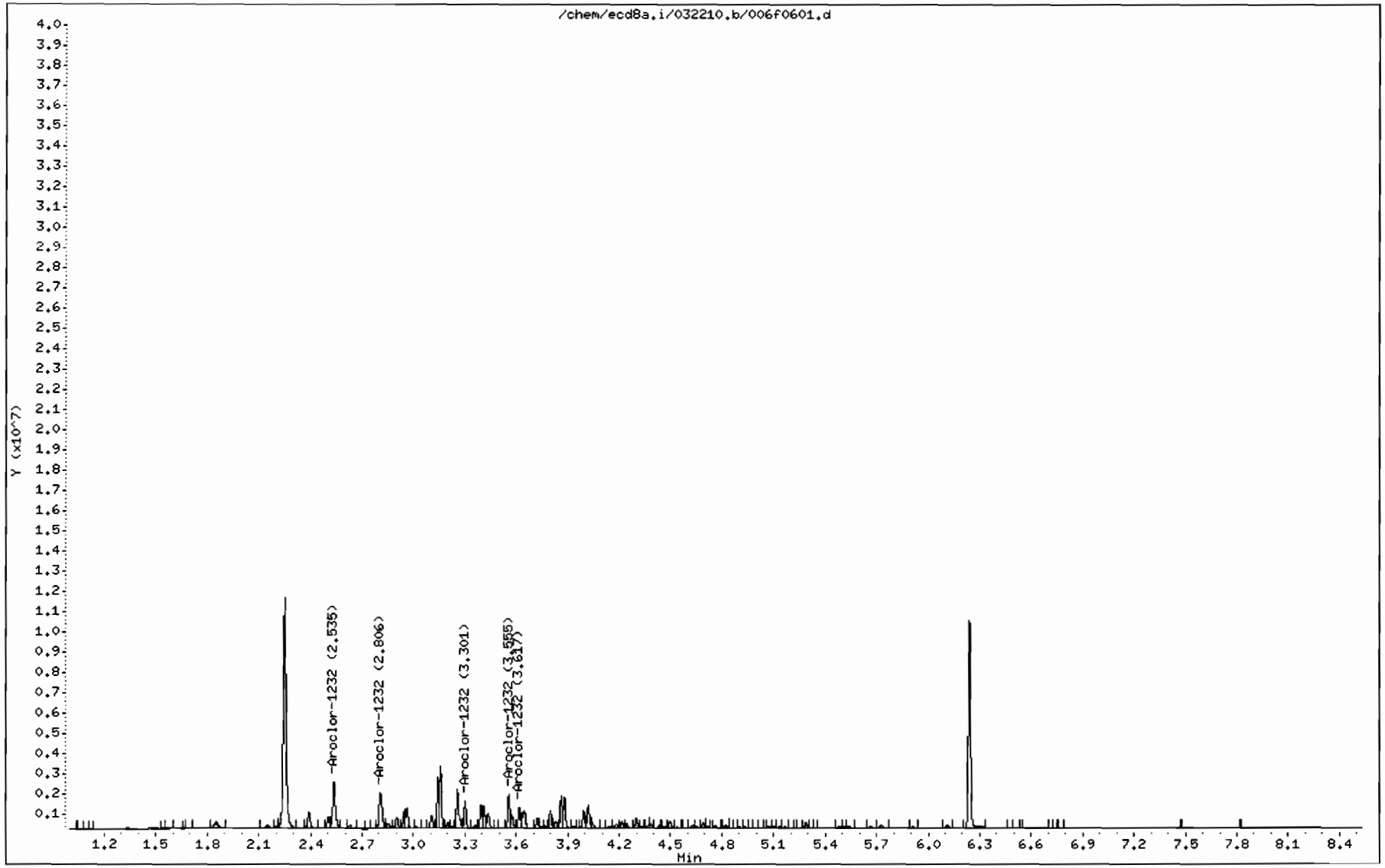

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 22-MAR-2010 09:16
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 14:20 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
3.196	3.196	0.000	1651756	1000.00	1090	80.00- 120.00	100.00
3.549	3.549	0.000	1825069	1000.00	1050	90.49- 130.49	110.49
3.648	3.648	0.000	1279983	1000.00	1090	57.49- 97.49	77.49
3.724	3.724	0.000	758219	1000.00	1070	25.90- 65.90	45.90
3.799	3.799	0.000	661447	1000.00	1070	20.05- 60.05	40.05

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd8a.i/032210.b/006b0601.d

Date : 22-MAR-2010 09:16

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

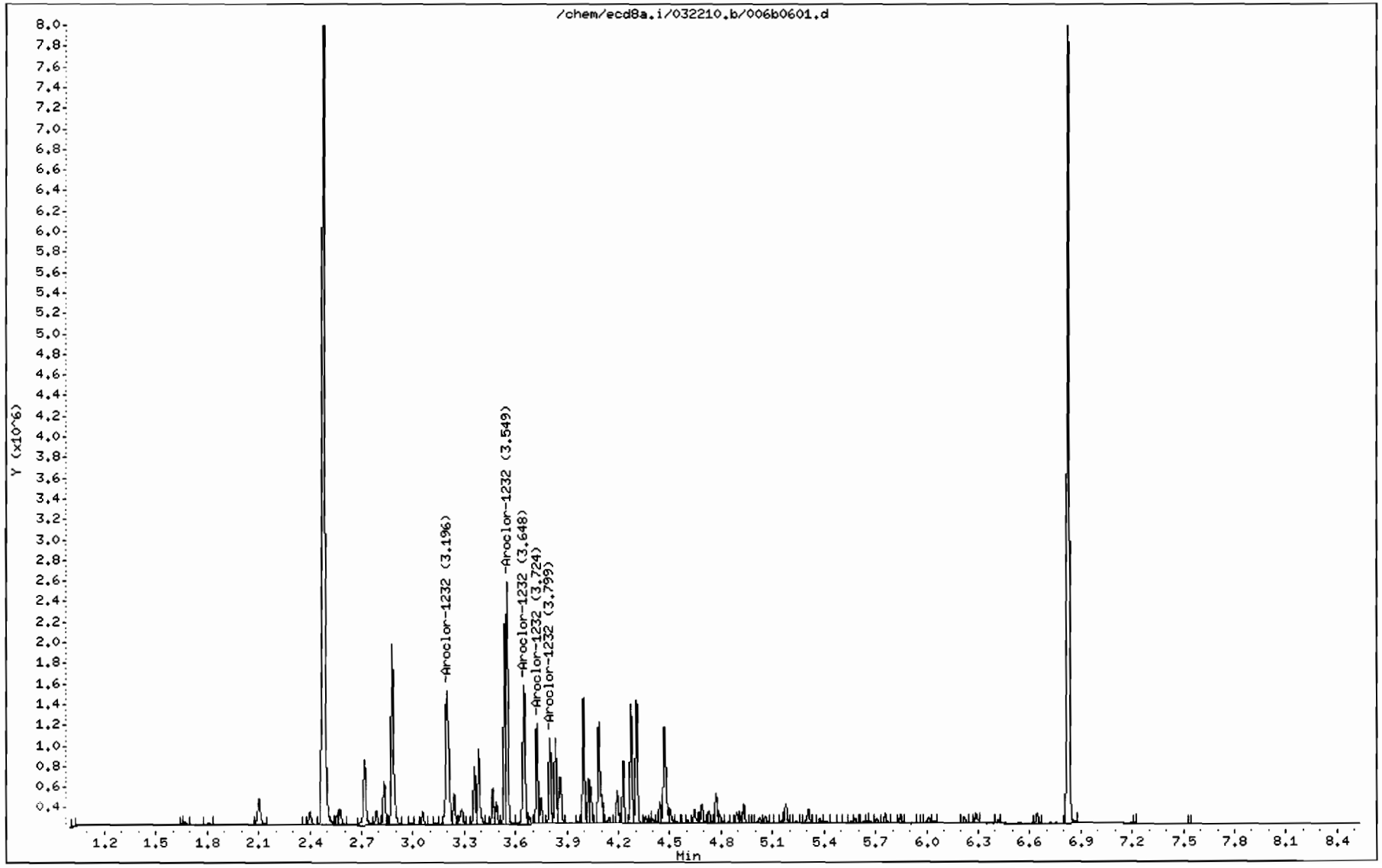

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 22-MAR-2010 09:28
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 22-Mar-2010 14:20 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.389	2.389	0.000	1527685	1000.00	974	80.00- 120.00	100.00
2.503	2.503	0.000	905876	1000.00	990	39.30- 79.30	59.30
2.535	2.535	0.000	3466739	1000.00	970	206.93- 246.93	226.93
			Average of Peak Amounts =		978		

Data File: /chem/ecd8a.i/032210.b/007f0701.d

Date : 22-MAR-2010 09:28

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

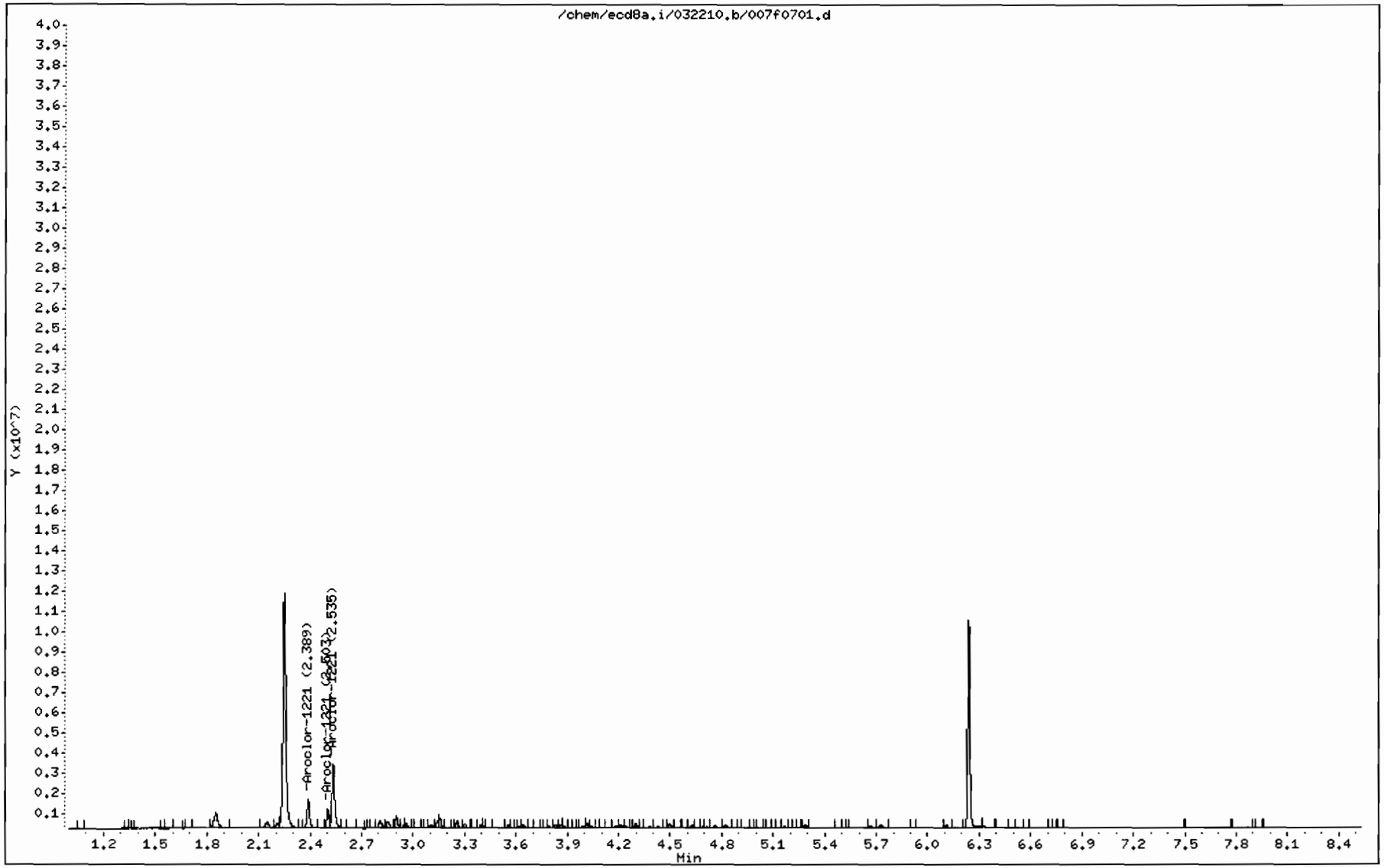

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 22-MAR-2010 09:28
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 22-Mar-2010 14:20 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.718	2.718	0.000	1071301	1000.00	1130	80.00- 120.00	100.00
2.830	2.830	0.000	643132	1000.00	1090	40.03- 80.03	60.03
2.878	2.878	0.000	2334601	1000.00	1070	197.92- 237.92	217.92

Average of Peak Amounts = 1.1e+03

Data File: /chem/ecd8a.i/032210.b/007b0701.d

Date : 22-MAR-2010 09:28

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

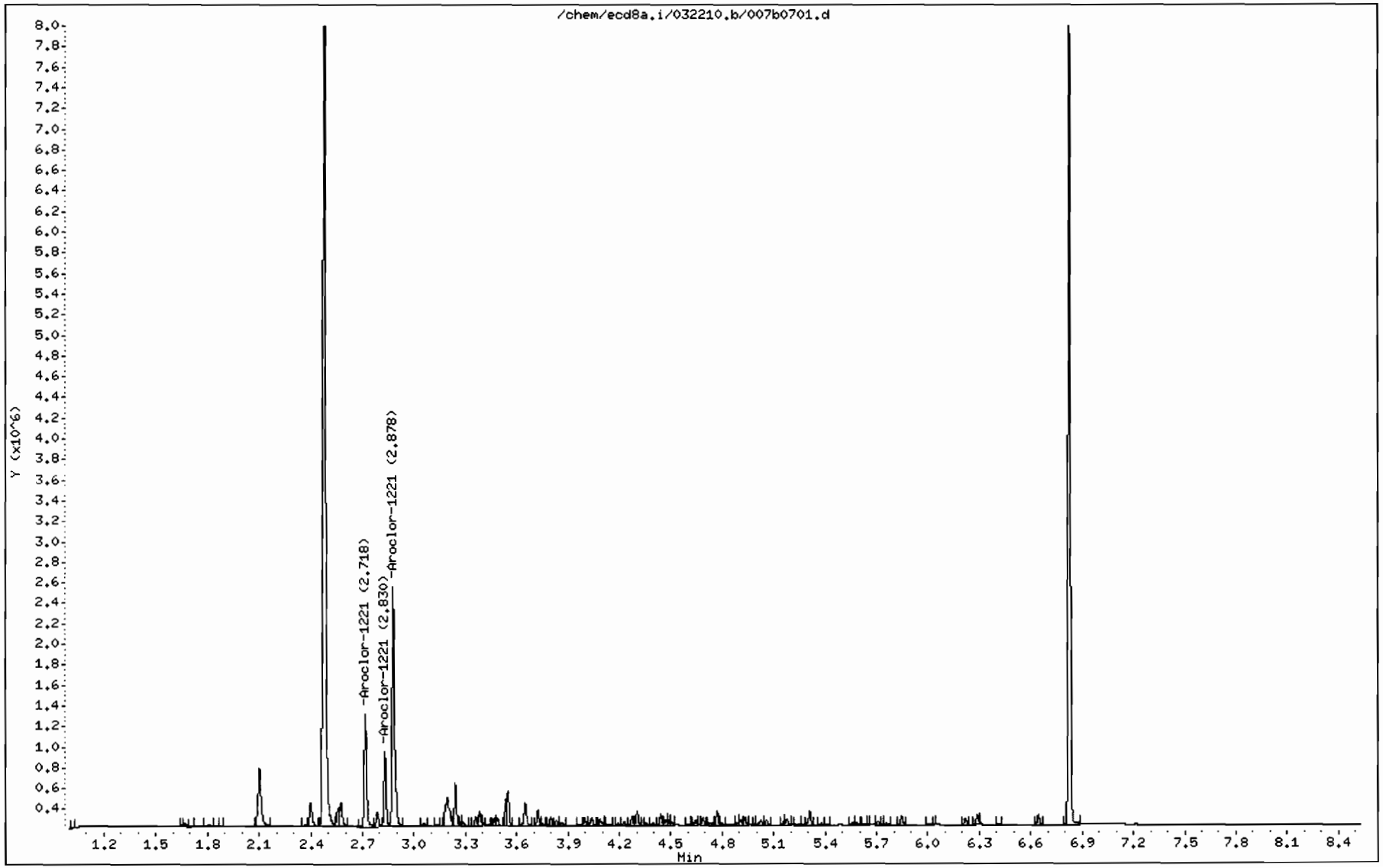

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/055f5501.d
Lab Smp Id: WAR100224-60 06 Client Smp ID: AR166006
Inj Date : 22-MAR-2010 20:06
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 06
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 55 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.247	2.249	-0.002	12720128	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.237	6.240	-0.003	8378348	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.804	2.805	-0.001	4318218	1000.00	905	80.00- 120.00	100.00(M)
3.155	3.158	-0.003	5237996	1000.00	970	101.30- 141.30	121.30
3.299	3.301	-0.002	2214637	1000.00	942	31.29- 71.29	51.29
3.390	3.393	-0.003	2018557	1000.00	921	26.75- 66.75	46.75
3.553	3.555	-0.002	2887079	1000.00	938	46.86- 86.86	66.86
Average of Peak Amounts =					935		
7 Aroclor-1260					CAS #: 11096-82-5		
4.426	4.430	-0.004	5827949	1000.00	989	80.00- 120.00	100.00(M)
4.622	4.625	-0.003	8544225	1000.00	1000	126.61- 166.61	146.61
4.898	4.900	-0.002	4977397	1000.00	982	65.41- 105.41	85.41
5.069	5.073	-0.004	5320498	1000.00	998	71.29- 111.29	91.29
5.481	5.485	-0.004	5734076	1000.00	1020	78.39- 118.39	98.39
Average of Peak Amounts =					999		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/055f5501.d

Date : 22-MAR-2010 20:06

Client ID: AR166006

Sample Info: IWAR100224-60 06

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

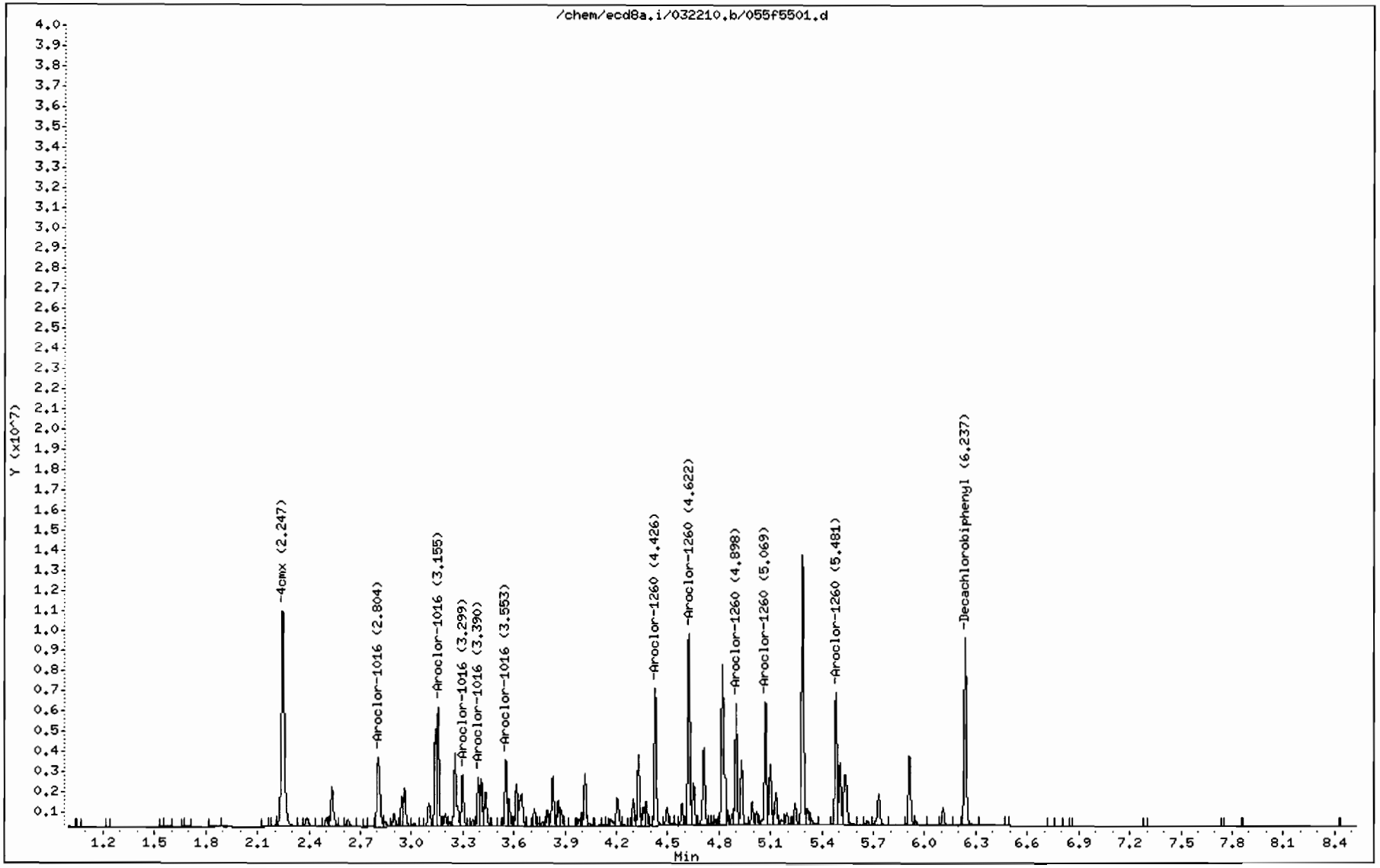

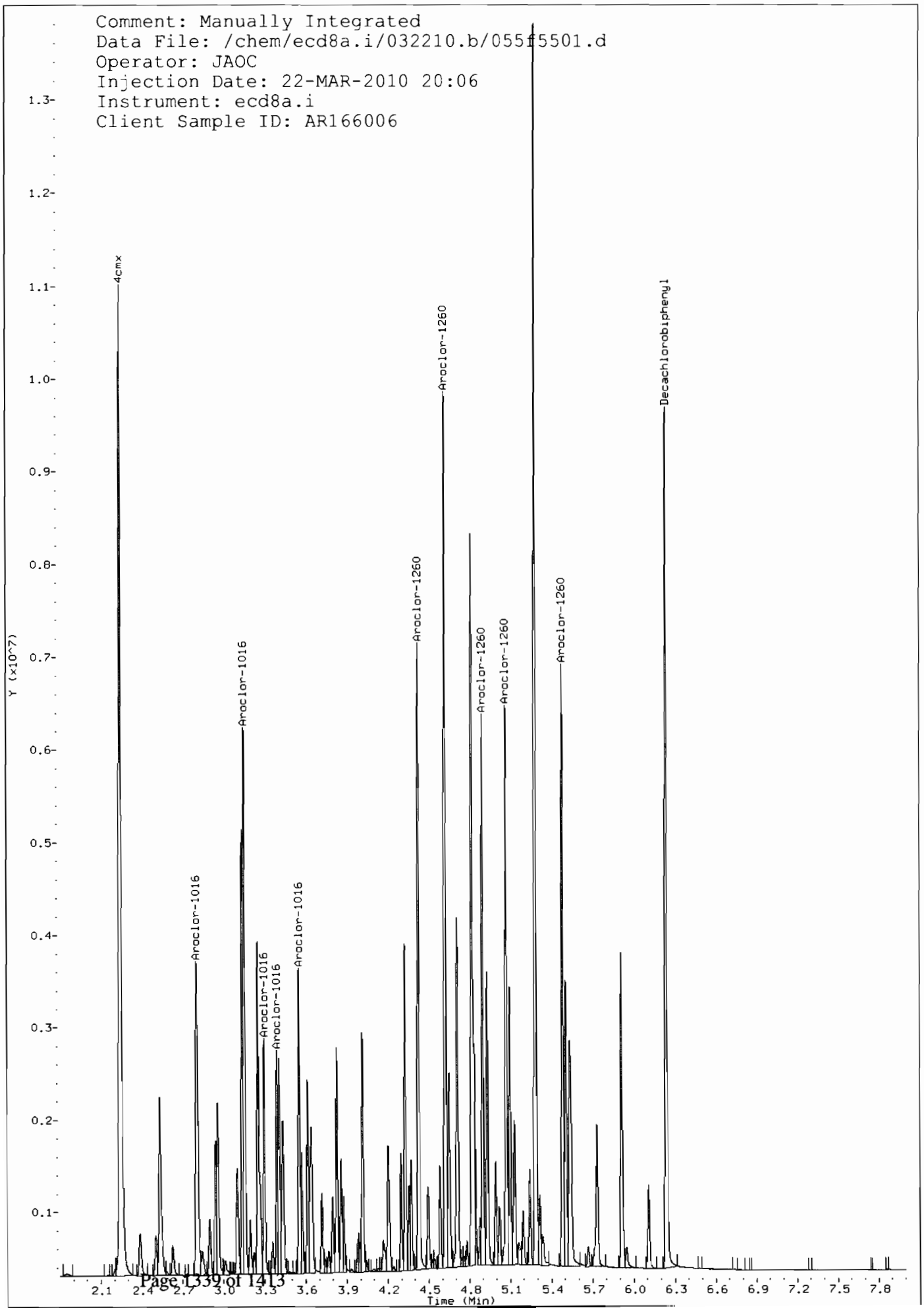
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/055f5501.d
Operator: JAOC
Injection Date: 22-MAR-2010 20:06
Instrument: ecd8a.i
Client Sample ID: AR166006
Y (x10^7)
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
4.8
5.1
5.4
5.7
6.0
6.3
6.6
6.9
7.2
7.5
7.8
Time (Min)

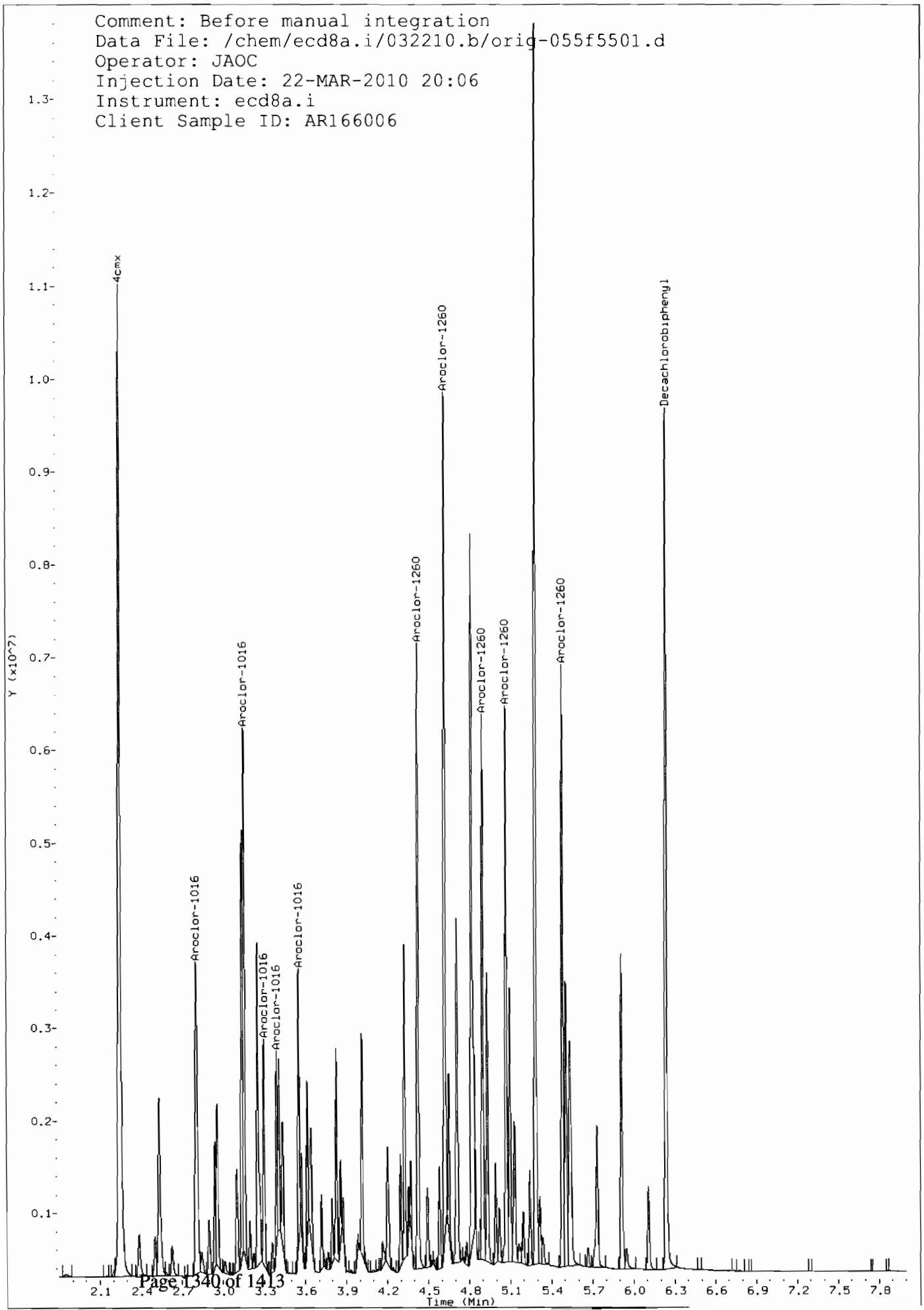
Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-055f5501.d
Operator: JAOC
Injection Date: 22-MAR-2010 20:06
Instrument: ecd8a.i
Client Sample ID: AR166006
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/055b5501.d
Lab Smp Id: WAR100224-60 06 Client Smp ID: AR166006
Inj Date : 22-MAR-2010 20:06
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 06
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 55 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.477	-0.001	8929484	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.825	-0.003	6269664	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.547	3.549	-0.002	3754232	1000.00	1020	80.00- 120.00	100.00
3.646	3.648	-0.002	2472485	1000.00	969	46.77- 86.77	65.86
3.722	3.724	-0.002	1469235	1000.00	985	20.25- 60.25	39.14
3.798	3.800	-0.002	1418739	1000.00	960	18.74- 58.74	37.79
3.994	3.995	-0.001	1968690	1000.00	972	33.82- 73.82	52.44
Average of Peak Amounts =					981		
7 Aroclor-1260					CAS #: 11096-82-5		
4.906	4.909	-0.003	4154556	1000.00	1050	80.00- 120.00	100.00
5.055	5.058	-0.003	5026988	1000.00	1060	101.53- 141.53	121.00
5.372	5.375	-0.003	3790619	1000.00	1060	71.56- 111.56	91.24
5.579	5.581	-0.002	3926529	1000.00	1060	75.17- 115.17	94.51
6.010	6.013	-0.003	6263637	1000.00	1070	132.27- 172.27	150.77
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd8a.i/032210.b/055b5501.d
Date : 22-MAR-2010 20:06
Client ID: AR166006
Sample Info: IWAR100224-60 06

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

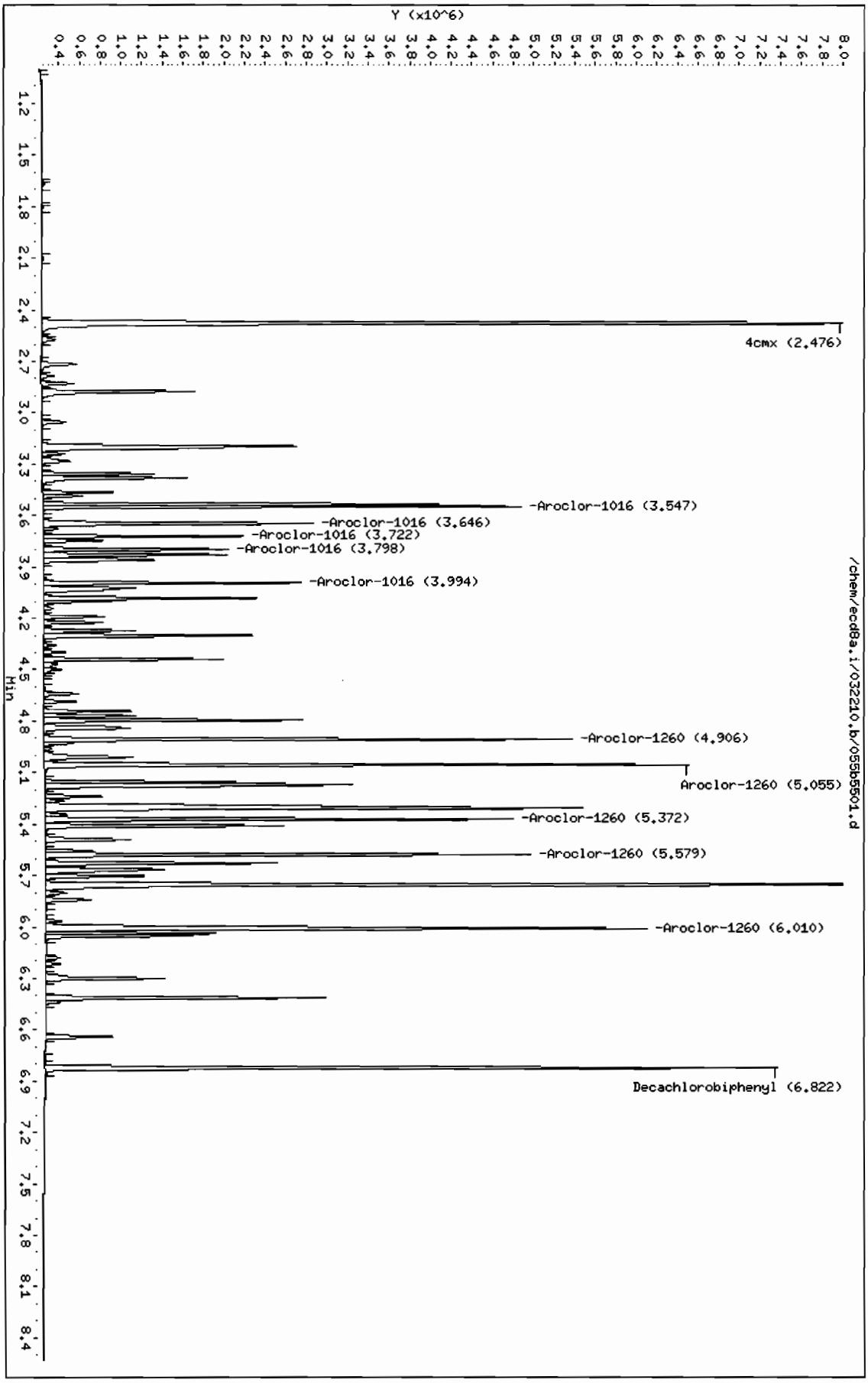

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/067f6701.d
Lab Smp Id: WAR100224-60 07 Client Smp ID: AR166007
Inj Date : 22-MAR-2010 22:42
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 07
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 67 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.247	2.249	-0.002	12864673	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.237	6.240	-0.003	8915265	100.000	108	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.805	2.805	0.000	4329054	1000.00	907	80.00- 120.00	100.00
3.155	3.158	-0.003	5380417	1000.00	997	101.30- 141.30	124.29
3.299	3.301	-0.002	2254903	1000.00	959	31.29- 71.29	52.09
3.391	3.393	-0.002	1978240	1000.00	903	26.75- 66.75	45.70
3.554	3.555	-0.001	2864371	1000.00	930	46.86- 86.86	66.17
Average of Peak Amounts =					939		
7 Aroclor-1260					CAS #: 11096-82-5		
4.427	4.430	-0.003	6019528	1000.00	1020	80.00- 120.00	100.00
4.623	4.625	-0.002	8845570	1000.00	1040	126.61- 166.61	146.95
4.898	4.900	-0.002	5217063	1000.00	1030	65.41- 105.41	86.67
5.070	5.073	-0.003	5610266	1000.00	1050	71.29- 111.29	93.20
5.481	5.485	-0.004	6016805	1000.00	1070	78.39- 118.39	99.95
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd8a.i/032210.b/067f6701.d

Date : 22-MAR-2010 22:42

Client ID: AR166007

Sample Info: IWAR100224-60 07

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

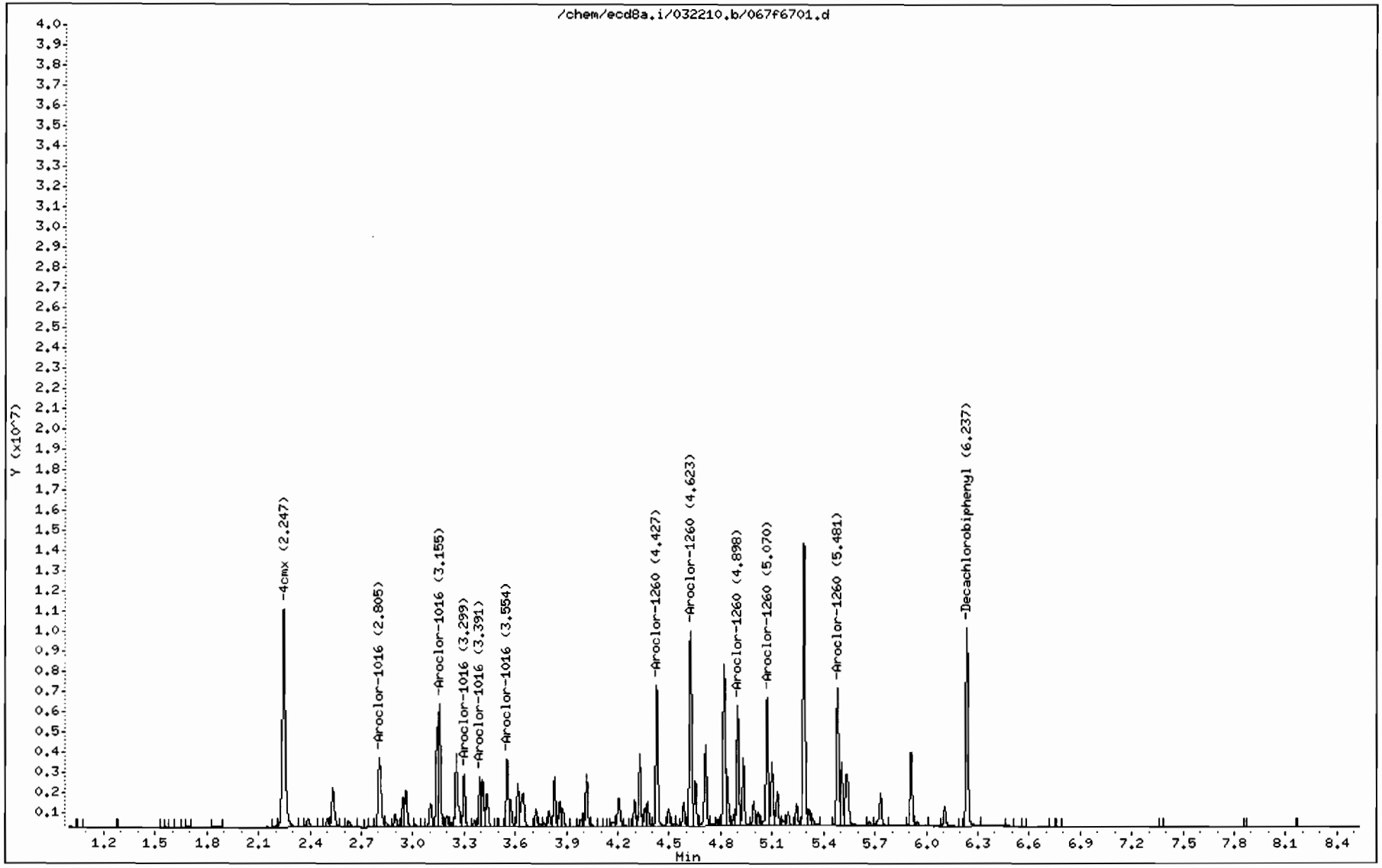

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/067b6701.d
Lab Smp Id: WAR100224-60 07 Client Smp ID: AR166007
Inj Date : 22-MAR-2010 22:42
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 07
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 67 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.477	-0.001	9133943	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.825	-0.002	6589764	100.000	111	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.549	-0.001	3886041	1000.00	1060	80.00- 120.00	100.00
3.646	3.648	-0.002	2546458	1000.00	998	46.77- 86.77	65.53
3.723	3.724	-0.001	1532979	1000.00	1030	20.25- 60.25	39.45
3.798	3.800	-0.002	1480728	1000.00	1000	18.74- 58.74	38.10
3.995	3.995	0.000	2046373	1000.00	1010	33.82- 73.82	52.66
Average of Peak Amounts =					1.02e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.909	-0.002	4346399	1000.00	1100	80.00- 120.00	100.00
5.055	5.058	-0.003	5289630	1000.00	1120	101.53- 141.53	121.70
5.372	5.375	-0.003	3981780	1000.00	1110	71.56- 111.56	91.61
5.580	5.581	-0.001	4138905	1000.00	1110	75.17- 115.17	95.23
6.010	6.013	-0.003	6627546	1000.00	1130	132.27- 172.27	152.48
Average of Peak Amounts =					1.12e+03		

Data File: /chem/ecd8a.i/032210.b/067b6701.d
Date : 22-MAR-2010 22:42
Client ID: AR166007
Sample Info: IWAR100224-60 07

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

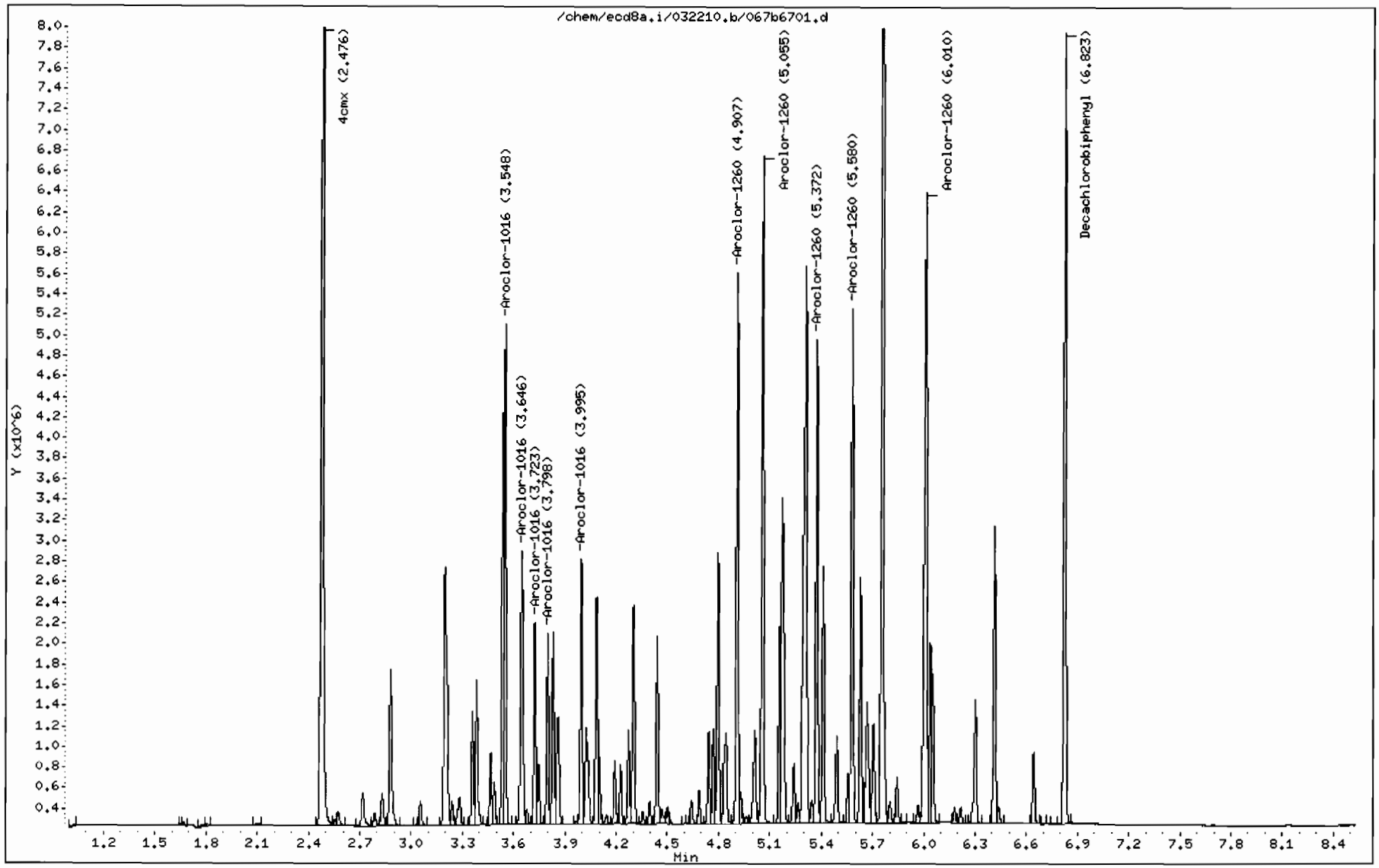

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/079f7901.d
Lab Smp Id: WAR100224-60 08 Client Smp ID: AR166008
Inj Date : 23-MAR-2010 01:19
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 08
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 79 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.247	2.249	-0.002	13174449	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	8912470	100.000	108	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.803	2.805	-0.002	4442873	1000.00	931	80.00- 120.00	100.00
3.155	3.158	-0.003	5509551	1000.00	1020	101.30- 141.30	124.01
3.299	3.301	-0.002	2308285	1000.00	982	31.29- 71.29	51.95
3.391	3.393	-0.002	2034542	1000.00	928	26.75- 66.75	45.79
3.553	3.555	-0.002	2957478	1000.00	960	46.86- 86.86	66.57
Average of Peak Amounts =					964		
7 Aroclor-1260					CAS #: 11096-82-5		
4.427	4.430	-0.003	6193749	1000.00	1050	80.00- 120.00	100.00
4.623	4.625	-0.002	9103544	1000.00	1070	126.61- 166.61	146.98
4.898	4.900	-0.002	5349239	1000.00	1060	65.41- 105.41	86.37
5.070	5.073	-0.003	5731242	1000.00	1080	71.29- 111.29	92.53
5.481	5.485	-0.004	6133196	1000.00	1090	78.39- 118.39	99.02
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd8a.i/032210.b/079f7901.d
Date : 23-MAR-2010 01:19
Client ID: AR166008
Sample Info: IWAR100224-60 08

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

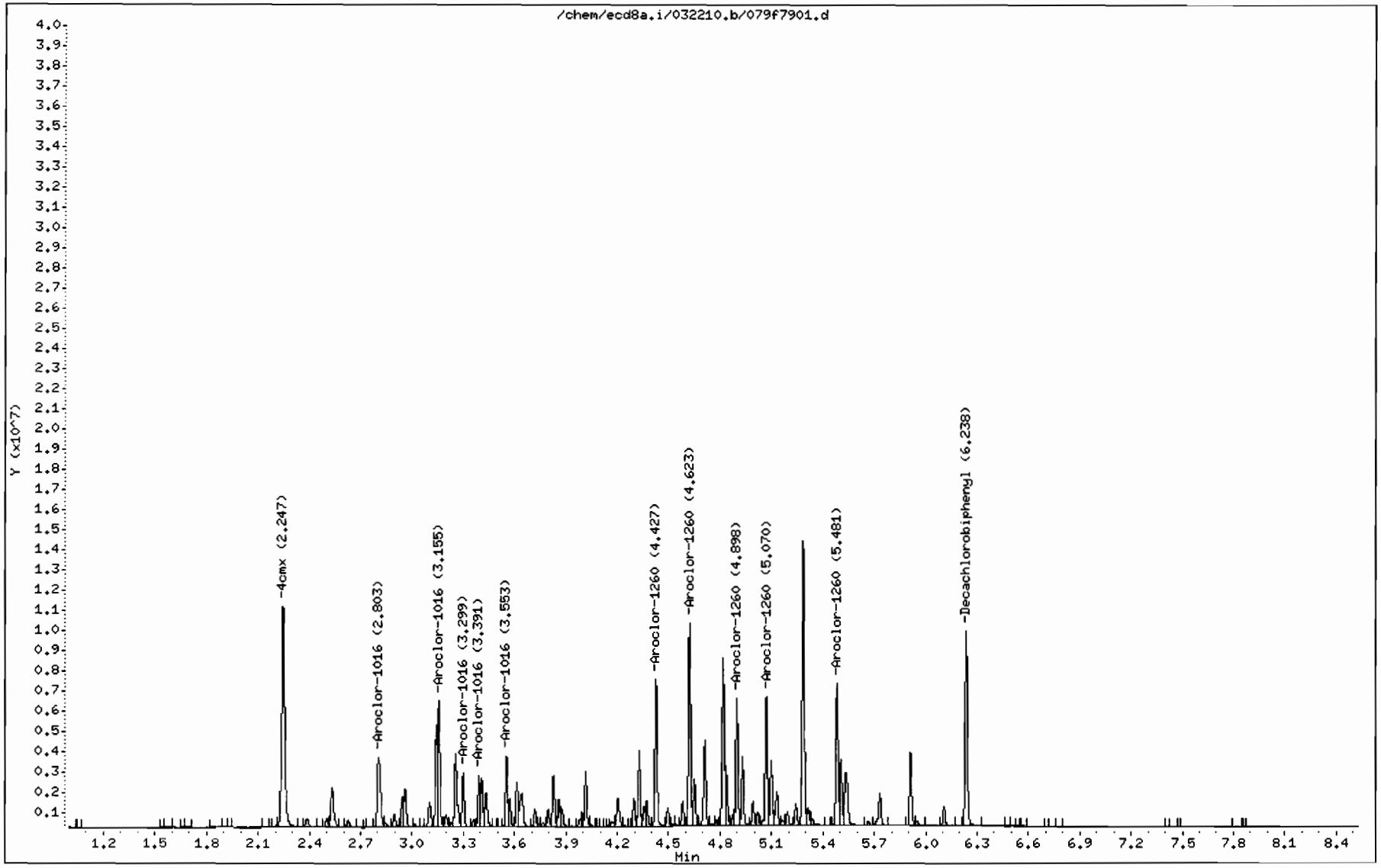

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/079b7901.d
Lab Smp Id: WAR100224-60 08 Client Smp ID: AR166008
Inj Date : 23-MAR-2010 01:19
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 08
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 79 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.477	-0.001	9132608	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.825	-0.002	6579577	100.000	111	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.549	-0.001	3785461	1000.00	1030	80.00- 120.00	100.00
3.646	3.648	-0.002	2526646	1000.00	990	46.77- 86.77	66.75
3.723	3.724	-0.001	1521974	1000.00	1020	20.25- 60.25	40.21
3.797	3.800	-0.003	1471069	1000.00	996	18.74- 58.74	38.86
3.994	3.995	-0.001	2034531	1000.00	1000	33.82- 73.82	53.75
Average of Peak Amounts =					1.01e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.909	-0.002	4322759	1000.00	1100	80.00- 120.00	100.00
5.055	5.058	-0.003	5257220	1000.00	1110	101.53- 141.53	121.62
5.372	5.375	-0.003	3957055	1000.00	1100	71.56- 111.56	91.54
5.578	5.581	-0.003	4112635	1000.00	1110	75.17- 115.17	95.14
6.010	6.013	-0.003	6580334	1000.00	1130	132.27- 172.27	152.23
Average of Peak Amounts =					1.11e+03		

Data File: /chem/ecd8a.i/032210.b/079b7901.d
Date : 23-MAR-2010 01:19
Client ID: AR166008
Sample Info: IWAR100224-60 08

Instrument: ecd8a.i

Column phase: CLP2

Operator: JAOC
Column diameter: 0.25

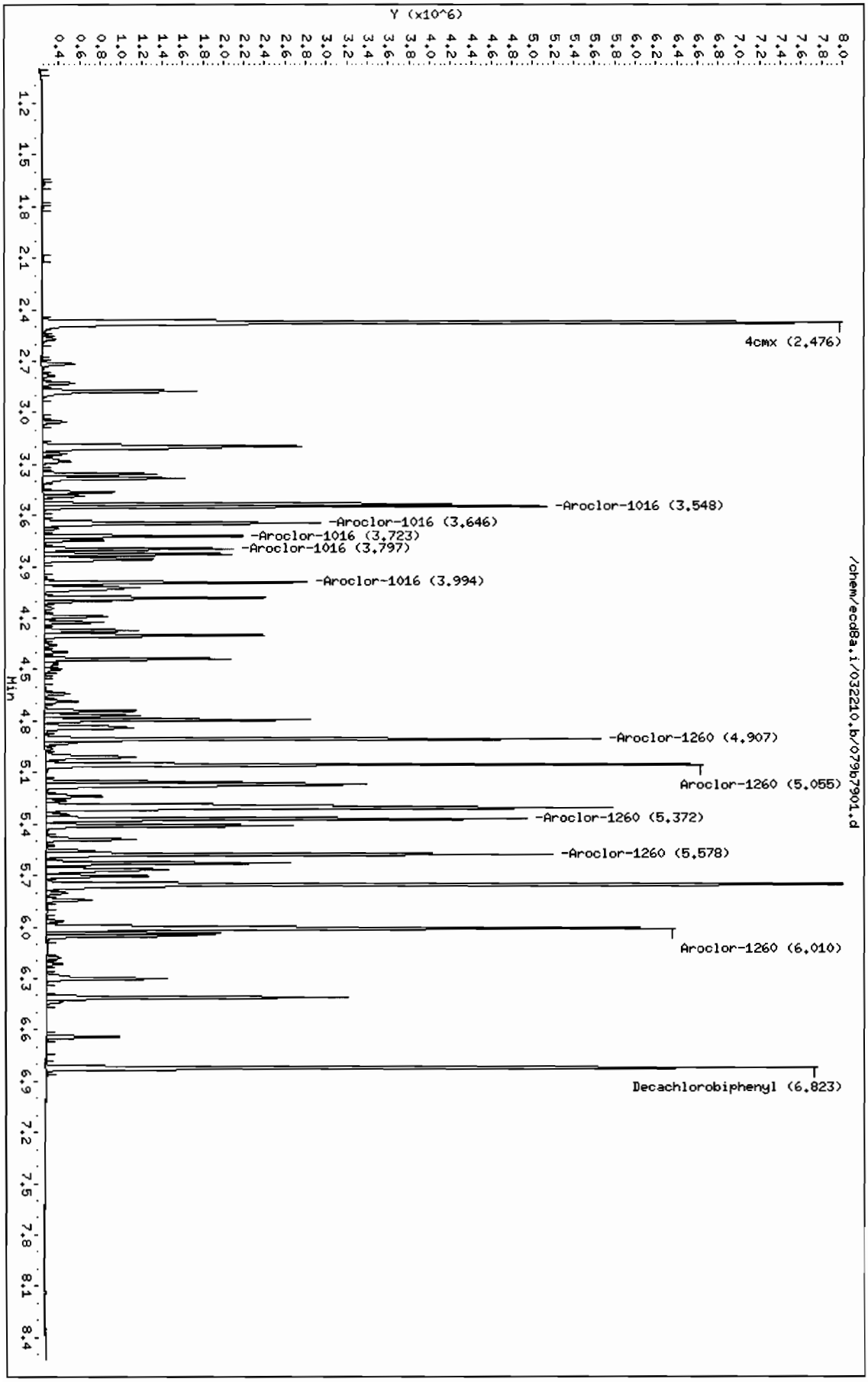

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8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/09/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/09/10	0759	2.25	6.24
02	AR166001	WAR100225-60	03/09/10	0811	2.25	6.24
03	AR125401	WAR100201-54	03/09/10	0824		
04	AR124201	WAR091217-42	03/09/10	0836		
05	AR124801	WAR091217-48	03/09/10	0848		
06	AR166001	WAR100309-60	03/09/10	0908	2.25	6.24
07	AR125401	WAR100309-05	03/09/10	0927		
08	AR125402	WAR100309-06	03/09/10	0939		
09	AR125403	WAR100309-07	03/09/10	0951		
10	AR125404	WAR100309-08	03/09/10	1004		
11	AR125405	IAR100219-02	03/09/10	1016		
12	AR125401	WAR100201-54	03/09/10	1029		
13	AR124801	WAR100309-09	03/09/10	1041		
14	AR124802	WAR100309-10	03/09/10	1053		
15	AR124803	WAR100309-11	03/09/10	1105		
16	AR124804	WAR100309-12	03/09/10	1118		
17	AR124805	IAR100211-01	03/09/10	1130		
18	AR124801	WAR091217-48	03/09/10	1143		
19	AR123201	WAR100104-32	03/09/10	1155		
20	AR122101	WAR100104-21	03/09/10	1207		
21	AR126201	WAR100104-62	03/09/10	1220		
22	AR126801	WAR100107-68	03/09/10	1232		
23	DDTANALOGSTD	WAR091219-DD	03/09/10	1244		
24	PIBLK02	WAR100219-99	03/09/10	1257	2.25	6.24
25	ZZZZZ	ZZZZZ	03/09/10	1309	2.25	6.24
26	AR166002	WAR100309-60	03/09/10	1322	2.25	6.24
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/09/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/09/10	0759	2.48	6.83
02	AR166001	WAR100225-60	03/09/10	0811	2.48	6.83
03	AR125401	WAR100201-54	03/09/10	0824		
04	AR124201	WAR091217-42	03/09/10	0836		
05	AR124801	WAR091217-48	03/09/10	0848		
06	AR166001	WAR100309-60	03/09/10	0908	2.48	6.83
07	AR125401	WAR100309-05	03/09/10	0927		
08	AR125402	WAR100309-06	03/09/10	0939		
09	AR125403	WAR100309-07	03/09/10	0951		
10	AR125404	WAR100309-08	03/09/10	1004		
11	AR125405	IAR100219-02	03/09/10	1016		
12	AR125401	WAR100201-54	03/09/10	1029		
13	AR124801	WAR100309-09	03/09/10	1041		
14	AR124802	WAR100309-10	03/09/10	1053		
15	AR124803	WAR100309-11	03/09/10	1105		
16	AR124804	WAR100309-12	03/09/10	1118		
17	AR124805	IAR100211-01	03/09/10	1130		
18	AR124801	WAR091217-48	03/09/10	1143		
19	AR123201	WAR100104-32	03/09/10	1155		
20	AR122101	WAR100104-21	03/09/10	1207		
21	AR126201	WAR100104-62	03/09/10	1220		
22	AR126801	WAR100107-68	03/09/10	1232		
23	DDTANALOGSTD	WAR091219-DD	03/09/10	1244		
24	PIBLK02	WAR100219-99	03/09/10	1257	2.48	6.83
25	ZZZZZ	ZZZZZ	03/09/10	1309	2.48	6.83
26	AR166002	WAR100309-60	03/09/10	1322	2.48	6.83
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/18/10	0613	2.25	6.24
02	AR166001	WAR100317-01	03/18/10	0625	2.25	6.24
03	AR166002	WAR100317-02	03/18/10	0638	2.25	6.24
04	AR166003	WAR100317-03	03/18/10	0650	2.25	6.24
05	AR166004	WAR100317-04	03/18/10	0702	2.25	6.24
06	AR166005	IAR100311-01	03/18/10	0715	2.25	6.24
07	AR166001	WAR100224-60	03/18/10	0727	2.25	6.24
08	AR125401	WAR100201-54	03/18/10	0739		
09	AR124201	WAR091217-42	03/18/10	0752		
10	AR124801	WAR091217-48	03/18/10	0804		
11	AR123201	WAR100104-32	03/18/10	0817		
12	AR122101	WAR100104-21	03/18/10	0829		
13	AR126201	WAR100104-62	03/18/10	0841		
14	AR126801	WAR100107-68	03/18/10	0854		
15	DDTANALOGSTD	WAR091219-DD	03/18/10	0906		
16	PIBLK02	WAR100219-99	03/18/10	0919	2.25	6.24
17	ZZZZZ	ZZZZZ	03/18/10	0931	2.25	6.24
18	ZZZZZ	ZZZZZ	03/18/10	0943	2.25	6.24
19	ZZZZZ	ZZZZZ	03/18/10	0955	2.25	6.24
20	ZZZZZ	ZZZZZ	03/18/10	1008	2.25	6.24
21	ZZZZZ	ZZZZZ	03/18/10	1020	2.25	6.24
22	ZZZZZ	ZZZZZ	03/18/10	1033	2.25	6.25
23	ZZZZZ	ZZZZZ	03/18/10	1045	2.25	6.24
24	ZZZZZ	ZZZZZ	03/18/10	1057	2.25	6.24
25	ZZZZZ	ZZZZZ	03/18/10	1110	2.25	6.24
26	ZZZZZ	ZZZZZ	03/18/10	1122	2.25	6.25
27	AR166002	WAR100224-60	03/18/10	1139	2.25	6.24
28	PIBLK03	WAR100219-99	03/18/10	1151	2.25	6.24
29	ZZZZZ	ZZZZZ	03/18/10	1203	2.25	6.24
30	ZZZZZ	ZZZZZ	03/18/10	1216	2.25	6.29*
31	ZZZZZ	ZZZZZ	03/18/10	1228	2.25	6.26
32	ZZZZZ	ZZZZZ	03/18/10	1240	2.25	6.24

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/18/10	1253	2.25	6.24
02	ZZZZZ	ZZZZZ	03/18/10	1305	2.25	6.25
03	ZZZZZ	ZZZZZ	03/18/10	1317	2.25	6.24
04	ZZZZZ	ZZZZZ	03/18/10	1330	2.25	6.24
05	ZZZZZ	ZZZZZ	03/18/10	1342	2.25	6.24
06	ZZZZZ	ZZZZZ	03/18/10	1354	2.25	6.24
07	AR166003	WAR100224-60	03/18/10	1411	2.25	6.24
08	PIBLK04	WAR100219-99	03/18/10	1423	2.25	6.24
09	ZZZZZ	ZZZZZ	03/18/10	1436	2.25	6.24
10	ZZZZZ	ZZZZZ	03/18/10	1448	2.25	6.24
11	ZZZZZ	ZZZZZ	03/18/10	1501	2.25	6.24
12	ZZZZZ	ZZZZZ	03/18/10	1513	2.25	6.24
13	ZZZZZ	ZZZZZ	03/18/10	1525	2.25	6.25
14	AR166004	WAR100224-60	03/18/10	1538	2.25	6.24
15	PIBLK05	WAR100219-99	03/18/10	1550	2.25	6.24
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25						
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27						
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29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/18/10	0613	2.48	6.82
02	AR166001	WAR100317-01	03/18/10	0625	2.48	6.83
03	AR166002	WAR100317-02	03/18/10	0638	2.48	6.83
04	AR166003	WAR100317-03	03/18/10	0650	2.48	6.83
05	AR166004	WAR100317-04	03/18/10	0702	2.48	6.83
06	AR166005	IAR100311-01	03/18/10	0715	2.48	6.83
07	AR166001	WAR100224-60	03/18/10	0727	2.48	6.83
08	AR125401	WAR100201-54	03/18/10	0739		
09	AR124201	WAR091217-42	03/18/10	0752		
10	AR124801	WAR091217-48	03/18/10	0804		
11	AR123201	WAR100104-32	03/18/10	0817		
12	AR122101	WAR100104-21	03/18/10	0829		
13	AR126201	WAR100104-62	03/18/10	0841		
14	AR126801	WAR100107-68	03/18/10	0854		
15	DDTANALOGSTD	WAR091219-DD	03/18/10	0906		
16	PIBLK02	WAR100219-99	03/18/10	0919	2.48	6.83
17	ZZZZZ	ZZZZZ	03/18/10	0931	2.48	6.83
18	ZZZZZ	ZZZZZ	03/18/10	0943	2.48	6.82
19	ZZZZZ	ZZZZZ	03/18/10	0955	2.48	6.82
20	ZZZZZ	ZZZZZ	03/18/10	1008	2.48	6.83
21	ZZZZZ	ZZZZZ	03/18/10	1020	2.48	6.83
22	ZZZZZ	ZZZZZ	03/18/10	1033	2.48	6.83
23	ZZZZZ	ZZZZZ	03/18/10	1045	2.48	6.83
24	ZZZZZ	ZZZZZ	03/18/10	1057	2.48	6.83
25	ZZZZZ	ZZZZZ	03/18/10	1110	2.48	6.83
26	ZZZZZ	ZZZZZ	03/18/10	1122	2.48	6.83
27	AR166002	WAR100224-60	03/18/10	1139	2.48	6.82
28	PIBLK03	WAR100219-99	03/18/10	1151	2.48	6.83
29	ZZZZZ	ZZZZZ	03/18/10	1203	2.48	6.83
30	ZZZZZ	ZZZZZ	03/18/10	1216	2.48	6.86*
31	ZZZZZ	ZZZZZ	03/18/10	1228	2.48	6.84
32	ZZZZZ	ZZZZZ	03/18/10	1240	2.48	6.83

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/18/10	1253	2.48	6.83
02	ZZZZZ	ZZZZZ	03/18/10	1305	2.48	6.84
03	ZZZZZ	ZZZZZ	03/18/10	1317	2.48	6.83
04	ZZZZZ	ZZZZZ	03/18/10	1330	2.48	6.83
05	ZZZZZ	ZZZZZ	03/18/10	1342	2.48	6.82
06	ZZZZZ	ZZZZZ	03/18/10	1354	2.48	6.82
07	AR166003	WAR100224-60	03/18/10	1411	2.48	6.82
08	PIBLK04	WAR100219-99	03/18/10	1423	2.48	6.82
09	ZZZZZ	ZZZZZ	03/18/10	1436	2.48	6.82
10	ZZZZZ	ZZZZZ	03/18/10	1448	2.48	6.82
11	ZZZZZ	ZZZZZ	03/18/10	1501	2.48	6.82
12	ZZZZZ	ZZZZZ	03/18/10	1513	2.48	6.82
13	ZZZZZ	ZZZZZ	03/18/10	1525	2.48	6.84
14	AR166004	WAR100224-60	03/18/10	1538	2.48	6.83
15	PIBLK05	WAR100219-99	03/18/10	1550	2.48	6.83
16						
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29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/22/10	0814	2.25	6.24
02	AR166001	WAR100224-60	03/22/10	0826	2.25	6.24
03	AR125401	WAR100219-54	03/22/10	0839		
04	AR124201	WAR091217-42	03/22/10	0851		
05	AR124801	WAR100223-48	03/22/10	0903		
06	AR123201	WAR100104-32	03/22/10	0916		
07	AR122101	WAR100104-21	03/22/10	0928		
08	AR126201	WAR100104-62	03/22/10	0940		
09	AR126801	WAR100107-68	03/22/10	0953		
10	DDTANALOGSTD	WAR091219-DD	03/22/10	1005		
11	PIBLK02	WAR100219-99	03/22/10	1018	2.25	6.24
12	ZZZZZ	ZZZZZ	03/22/10	1030	2.25	6.24
13	ZZZZZ	ZZZZZ	03/22/10	1042	2.25	6.24
14	ZZZZZ	ZZZZZ	03/22/10	1055	2.25	6.24
15	ZZZZZ	ZZZZZ	03/22/10	1107	2.25	6.24
16	ZZZZZ	ZZZZZ	03/22/10	1119	2.25	6.24
17	ZZZZZ	ZZZZZ	03/22/10	1132	2.25	6.25
18	ZZZZZ	ZZZZZ	03/22/10	1144	2.25	6.24
19	ZZZZZ	ZZZZZ	03/22/10	1200	2.25	6.24
20	ZZZZZ	ZZZZZ	03/22/10	1216	2.25	6.24
21	AR166002	WAR100224-60	03/22/10	1233	2.25	6.24
22	PIBLK03	WAR100219-99	03/22/10	1245	2.25	6.24
23	ZZZZZ	ZZZZZ	03/22/10	1257	2.25	6.24
24	ZZZZZ	ZZZZZ	03/22/10	1310	2.25	6.24
25	ZZZZZ	ZZZZZ	03/22/10	1322	2.25	6.24
26	ZZZZZ	ZZZZZ	03/22/10	1338	2.25	6.24
27	ZZZZZ	ZZZZZ	03/22/10	1355	2.25	6.24
28	AR166003	WAR100224-60	03/22/10	1411	2.25	6.24
29	PIBLK04	WAR100219-99	03/22/10	1424	2.25	6.24
30	ZZZZZ	ZZZZZ	03/22/10	1436	2.25	6.24
31	ZZZZZ	ZZZZZ	03/22/10	1449	2.25	6.24
32	ZZZZZ	ZZZZZ	03/22/10	1501	2.25	6.24

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/22/10	1513	2.25	6.24
02	ZZZZZ	ZZZZZ	03/22/10	1526	2.25	6.24
03	ZZZZZ	ZZZZZ	03/22/10	1538	2.25	6.24
04	ZZZZZ	ZZZZZ	03/22/10	1550	2.25	6.24
05	ZZZZZ	ZZZZZ	03/22/10	1603	2.25	6.24
06	ZZZZZ	ZZZZZ	03/22/10	1615	2.25	6.24
07	ZZZZZ	ZZZZZ	03/22/10	1632	2.25	6.24
08	AR166004	WAR100224-60	03/22/10	1648	2.25	6.24
09	PIBLK05	WAR100219-99	03/22/10	1701	2.25	6.24
10	ZZZZZ	ZZZZZ	03/22/10	1713	2.25	6.24
11	ZZZZZ	ZZZZZ	03/22/10	1725	2.25	6.24
12	ZZZZZ	ZZZZZ	03/22/10	1738	2.25	6.24
13	ZZZZZ	ZZZZZ	03/22/10	1750	2.25	6.24
14	ZZZZZ	ZZZZZ	03/22/10	1802	2.25	6.24
15	ZZZZZ	ZZZZZ	03/22/10	1815	2.25	6.24
16	ZZZZZ	ZZZZZ	03/22/10	1827	2.25	6.24
17	ZZZZZ	ZZZZZ	03/22/10	1839	2.25	6.24
18	ZZZZZ	ZZZZZ	03/22/10	1852	2.25	6.24
19	ZZZZZ	ZZZZZ	03/22/10	1908	2.25	6.24
20	AR166005	WAR100224-60	03/22/10	1925	2.25	6.24
21	PIBLK06	WAR100219-99	03/22/10	1937	2.25	6.24
22	ZZZZZ	ZZZZZ	03/22/10	1950	2.25	6.24
23	AR166006	WAR100224-60	03/22/10	2006	2.25	6.24
24	PIBLK07	WAR100219-99	03/22/10	2018	2.25	6.24
25	PBLK01	1202076355	03/22/10	2031	2.25	6.24
26	PBLK01LCS	1202076356	03/22/10	2043	2.25	6.24
27	RE46-10-1355	248842002	03/22/10	2055	2.25	6.24
28	RE46-10-1354	248842003	03/22/10	2108	2.25	6.24
29	RE46-10-1355	248842004	03/22/10	2120	2.25	6.24
30	RE46-10-1355	248842005	03/22/10	2132	2.25	6.24
31	RE46-10-1354	248842006	03/22/10	2145	2.25	6.24
32	RE46-10-1354	248842007	03/22/10	2157	2.25	6.26

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	RE46-10-1355	248842008	03/22/10	2209	2.26	6.26
02	RE46-10-1354	248842009	03/22/10	2226	2.25	6.24
03	AR166007	WAR100224-60	03/22/10	2242	2.25	6.24
04	PIBLK08	WAR100219-99	03/22/10	2255	2.25	6.24
05	RE46-10-1355	248842010	03/22/10	2307	2.25	6.24
06	ZZZZZ	ZZZZZ	03/22/10	2320	2.25	6.24
07	ZZZZZ	ZZZZZ	03/22/10	2332	2.25	6.24
08	ZZZZZ	ZZZZZ	03/22/10	2344	2.25	6.24
09	ZZZZZ	ZZZZZ	03/22/10	2357	2.25	6.24
10	ZZZZZ	ZZZZZ	03/23/10	0009	2.25	6.24
11	ZZZZZ	ZZZZZ	03/23/10	0021	2.25	6.24
12	ZZZZZ	ZZZZZ	03/23/10	0034	2.25	6.24
13	ZZZZZ	ZZZZZ	03/23/10	0046	2.25	6.24
14	ZZZZZ	ZZZZZ	03/23/10	0103	2.25	6.24
15	AR166008	WAR100224-60	03/23/10	0119	2.25	6.24
16	PIBLK09	WAR100219-99	03/23/10	0132	2.25	6.24
17	ZZZZZ	ZZZZZ	03/23/10	0144	2.25	6.24
18	ZZZZZ	ZZZZZ	03/23/10	0200	2.25	6.24
19	AR166009	WAR100224-60	03/23/10	0217	2.25	6.24
20	PIBLK10	WAR100219-99	03/23/10	0229	2.25	6.24
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/22/10	0814	2.48	6.83
02	AR166001	WAR100224-60	03/22/10	0826	2.48	6.83
03	AR125401	WAR100219-54	03/22/10	0839		
04	AR124201	WAR091217-42	03/22/10	0851		
05	AR124801	WAR100223-48	03/22/10	0903		
06	AR123201	WAR100104-32	03/22/10	0916		
07	AR122101	WAR100104-21	03/22/10	0928		
08	AR126201	WAR100104-62	03/22/10	0940		
09	AR126801	WAR100107-68	03/22/10	0953		
10	DDTANALOGSTD	WAR091219-DD	03/22/10	1005		
11	PIBLK02	WAR100219-99	03/22/10	1018	2.48	6.82
12	ZZZZZ	ZZZZZ	03/22/10	1030	2.48	6.82
13	ZZZZZ	ZZZZZ	03/22/10	1042	2.48	6.82
14	ZZZZZ	ZZZZZ	03/22/10	1055	2.48	6.82
15	ZZZZZ	ZZZZZ	03/22/10	1107	2.48	6.82
16	ZZZZZ	ZZZZZ	03/22/10	1119	2.48	6.82
17	ZZZZZ	ZZZZZ	03/22/10	1132	2.48	6.83
18	ZZZZZ	ZZZZZ	03/22/10	1144	2.48	6.82
19	ZZZZZ	ZZZZZ	03/22/10	1200	2.48	6.82
20	ZZZZZ	ZZZZZ	03/22/10	1216	2.48	6.82
21	AR166002	WAR100224-60	03/22/10	1233	2.48	6.82
22	PIBLK03	WAR100219-99	03/22/10	1245	2.48	6.82
23	ZZZZZ	ZZZZZ	03/22/10	1257	2.48	6.82
24	ZZZZZ	ZZZZZ	03/22/10	1310	2.48	6.82
25	ZZZZZ	ZZZZZ	03/22/10	1322	2.48	6.82
26	ZZZZZ	ZZZZZ	03/22/10	1338	2.48	6.82
27	ZZZZZ	ZZZZZ	03/22/10	1355	2.48	6.82
28	AR166003	WAR100224-60	03/22/10	1411	2.48	6.82
29	PIBLK04	WAR100219-99	03/22/10	1424	2.48	6.82
30	ZZZZZ	ZZZZZ	03/22/10	1436	2.48	6.82
31	ZZZZZ	ZZZZZ	03/22/10	1449	2.48	6.82
32	ZZZZZ	ZZZZZ	03/22/10	1501	2.48	6.82

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/22/10	1513	2.48	6.82
02	ZZZZZ	ZZZZZ	03/22/10	1526	2.48	6.82
03	ZZZZZ	ZZZZZ	03/22/10	1538	2.48	6.82
04	ZZZZZ	ZZZZZ	03/22/10	1550	2.48	6.82
05	ZZZZZ	ZZZZZ	03/22/10	1603	2.48	6.82
06	ZZZZZ	ZZZZZ	03/22/10	1615	2.48	6.82
07	ZZZZZ	ZZZZZ	03/22/10	1632	2.48	6.82
08	AR166004	WAR100224-60	03/22/10	1648	2.48	6.82
09	PIBLK05	WAR100219-99	03/22/10	1701	2.48	6.82
10	ZZZZZ	ZZZZZ	03/22/10	1713	2.48	6.82
11	ZZZZZ	ZZZZZ	03/22/10	1725	2.48	6.82
12	ZZZZZ	ZZZZZ	03/22/10	1738	2.48	6.82
13	ZZZZZ	ZZZZZ	03/22/10	1750	2.48	6.82
14	ZZZZZ	ZZZZZ	03/22/10	1802	2.48	6.82
15	ZZZZZ	ZZZZZ	03/22/10	1815	2.48	6.82
16	ZZZZZ	ZZZZZ	03/22/10	1827	2.48	6.82
17	ZZZZZ	ZZZZZ	03/22/10	1839	2.48	6.82
18	ZZZZZ	ZZZZZ	03/22/10	1852	2.48	6.82
19	ZZZZZ	ZZZZZ	03/22/10	1908	2.48	6.82
20	AR166005	WAR100224-60	03/22/10	1925	2.48	6.82
21	PIBLK06	WAR100219-99	03/22/10	1937	2.48	6.82
22	ZZZZZ	ZZZZZ	03/22/10	1950	2.48	6.82
23	AR166006	WAR100224-60	03/22/10	2006	2.48	6.82
24	PIBLK07	WAR100219-99	03/22/10	2018	2.48	6.82
25	PBLK01	1202076355	03/22/10	2031	2.48	6.82
26	PBLK01LCS	1202076356	03/22/10	2043	2.48	6.82
27	RE46-10-1355	248842002	03/22/10	2055	2.48	6.82
28	RE46-10-1354	248842003	03/22/10	2108	2.48	6.82
29	RE46-10-1355	248842004	03/22/10	2120	2.48	6.83
30	RE46-10-1355	248842005	03/22/10	2132	2.48	6.82
31	RE46-10-1354	248842006	03/22/10	2145	2.48	6.83
32	RE46-10-1354	248842007	03/22/10	2157	2.48	6.84

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2302

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	RE46-10-1355	248842008	03/22/10	2209	2.48	6.84
02	RE46-10-1354	248842009	03/22/10	2226	2.48	6.82
03	AR166007	WAR100224-60	03/22/10	2242	2.48	6.82
04	PIBLK08	WAR100219-99	03/22/10	2255	2.48	6.82
05	RE46-10-1355	248842010	03/22/10	2307	2.48	6.83
06	ZZZZZ	ZZZZZ	03/22/10	2320	2.48	6.82
07	ZZZZZ	ZZZZZ	03/22/10	2332	2.48	6.82
08	ZZZZZ	ZZZZZ	03/22/10	2344	2.48	6.82
09	ZZZZZ	ZZZZZ	03/22/10	2357	2.48	6.82
10	ZZZZZ	ZZZZZ	03/23/10	0009	2.48	6.82
11	ZZZZZ	ZZZZZ	03/23/10	0021	2.48	6.82
12	ZZZZZ	ZZZZZ	03/23/10	0034	2.48	6.82
13	ZZZZZ	ZZZZZ	03/23/10	0046	2.48	6.83
14	ZZZZZ	ZZZZZ	03/23/10	0103	2.48	6.82
15	AR166008	WAR100224-60	03/23/10	0119	2.48	6.82
16	PIBLK09	WAR100219-99	03/23/10	0132	2.48	6.82
17	ZZZZZ	ZZZZZ	03/23/10	0144	2.48	6.82
18	ZZZZZ	ZZZZZ	03/23/10	0200	2.48	6.82
19	AR166009	WAR100224-60	03/23/10	0217	2.48	6.82
20	PIBLK10	WAR100219-99	03/23/10	0229	2.48	6.82
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–2302 **Client ID:** LCS for batch 967394

Lab Sample ID: 1202076356

Data File:	058f5801.d	**Data File:**	058b5801.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLPI	**Column:**	CLP2
Analyzed:	22–MAR–10 20:43	**Analyzed:**	22–MAR–10 20:43

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							7.85
Column 1	1	2.8	2.78 – 2.84	22.1		ug/kg	
	2	3.16	3.13 – 3.19	24.2		ug/kg	
	3	3.3	3.27 – 3.33	22.4		ug/kg	
	4	3.39	3.36 – 3.42	23.2		ug/kg	
	5	3.55	3.53 – 3.59	22.3		ug/kg	
					22.8		
Column 2	1	3.55	3.52 – 3.58	26.2		ug/kg	
	2	3.65	3.62 – 3.68	24.2		ug/kg	
	3	3.72	3.69 – 3.75	23.7		ug/kg	
	4	3.8	3.77 – 3.83	25.2		ug/kg	
	5	3.99	3.97 – 4.03	24.3		ug/kg	
					24.7		
Aroclor–1260							7.31
Column 1	1	4.43	4.4 – 4.46	25.9		ug/kg	
	2	4.62	4.6 – 4.66	27.6		ug/kg	
	3	4.9	4.87 – 4.93	27.8		ug/kg	
	4	5.07	5.04 – 5.1	25.5		ug/kg	
	5	5.48	5.45 – 5.51	24		ug/kg	
					26.2		
Column 2	1	4.91	4.88 – 4.94	28.1		ug/kg	
	2	5.06	5.03 – 5.09	28.3		ug/kg	
	3	5.37	5.34 – 5.4	30.1		ug/kg	
	4	5.58	5.55 – 5.61	24.1		ug/kg	
	5	6.01	5.98 – 6.04	30.2		ug/kg	
					28.1		

Identification Summary

SDG Number: 10–2302 **Client ID:** RE46–10–13546

Lab Sample ID: 248842007

Data File:	064f6401.d	**Data File:**	064b6401.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–MAR–10 21:57	**Analyzed:**	22–MAR–10 21:57

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							33.8
Column 1	1	3.83	3.8 – 3.86	284		ug/kg	
	2	4.02	3.99 – 4.05	265		ug/kg	
	3	4.22	4.18 – 4.24	230		ug/kg	
	4	4.3	4.27 – 4.33	247		ug/kg	
	5	4.5	4.47 – 4.53	247		ug/kg	
					255		
Column 2	1	4.3	4.27 – 4.33	267		ug/kg	
	2	4.44	4.41 – 4.47	430		ug/kg	
	3	4.77	4.74 – 4.8	282		ug/kg	
	4	4.94	4.9 – 4.96	271		ug/kg	
	5	5.06	5.03 – 5.09	544		ug/kg	
					359		
Aroclor–1260							.258
Column 1	1	4.43	4.4 – 4.46	223		ug/kg	
	2	4.63	4.6 – 4.66	264		ug/kg	
	3	4.9	4.87 – 4.93	189		ug/kg	
	4	5.08	5.04 – 5.1	134		ug/kg	
	5	5.49	5.45 – 5.51	171		ug/kg	
					196		
Column 2	1	4.91	4.88 – 4.94	237		ug/kg	
	2	5.06	5.03 – 5.09	253		ug/kg	
	3	5.38	5.34 – 5.4	177		ug/kg	
	4	5.58	5.55 – 5.61	172		ug/kg	
	5	6.02	5.98 – 6.04	146		ug/kg	
					197		

Identification Summary

SDG Number: 10–2302 **Client ID:** RE46–10–13547

Lab Sample ID: 248842009

Data File:	066f6601.d	**Data File:**	066b6601.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–MAR–10 22:26	**Analyzed:**	22–MAR–10 22:26

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							29.5
Column 1	1	3.83	3.8 – 3.86	19.2		ug/kg	
	2	4.02	3.99 – 4.05	17.7		ug/kg	
	3	4.21	4.18 – 4.24	16.2		ug/kg	
	4	4.3	4.27 – 4.33	17.1		ug/kg	
	5	4.49	4.47 – 4.53	18		ug/kg	
					17.6		
Column 2	1	4.3	4.27 – 4.33	18.1		ug/kg	
	2	4.44	4.41 – 4.47	33.5		ug/kg	
	3	4.77	4.74 – 4.8	16.3		ug/kg	
	4	4.93	4.9 – 4.96	15.4		ug/kg	
	5	5.06	5.03 – 5.09	35.3		ug/kg	
					23.7		
Aroclor–1260							14.4
Column 1	1	4.43	4.4 – 4.46	17.8		ug/kg	
	2	4.62	4.6 – 4.66	19.6		ug/kg	
	3	4.9	4.87 – 4.93	17.8		ug/kg	
	4	5.07	5.04 – 5.1	11.2		ug/kg	
	5	5.48	5.45 – 5.51	14.1		ug/kg	
					16.1		
Column 2	1	4.91	4.88 – 4.94	16		ug/kg	
	2	5.06	5.03 – 5.09	16.4		ug/kg	
	3	5.37	5.34 – 5.4	13.9		ug/kg	
	4	5.58	5.55 – 5.61	12.9		ug/kg	
	5	6.01	5.98 – 6.04	10.4		ug/kg	
					13.9		

Identification Summary

SDG Number: 10-2302 **Client ID:** RE46-10-13548

Lab Sample ID: 248842006

Data File:	063f6301.d	**Data File:**	063b6301.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22-MAR-10 21:45	**Analyzed:**	22-MAR-10 21:45

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							50.3
Column 1	1	3.83	3.8 - 3.86	38.2		ug/kg	
	2	4.02	3.99 - 4.05	40.2		ug/kg	
	3	4.21	4.18 - 4.24	34.5		ug/kg	
	4	4.3	4.27 - 4.33	41.5		ug/kg	
	5	4.5	4.47 - 4.53	38.6		ug/kg	
					38.6		
Column 2	1	4.3	4.27 - 4.33	43.8		ug/kg	
	2	4.44	4.41 - 4.47	80.2		ug/kg	
	3	4.77	4.74 - 4.8	36.8		ug/kg	
	4	4.93	4.9 - 4.96	38.7		ug/kg	
	5	5.06	5.03 - 5.09	123		ug/kg	
					64.5		
Aroclor-1260							3.69
Column 1	1	4.43	4.4 - 4.46	48.1		ug/kg	
	2	4.62	4.6 - 4.66	53.7		ug/kg	
	3	4.9	4.87 - 4.93	51.5		ug/kg	
	4	5.07	5.04 - 5.1	33.5		ug/kg	
	5	5.48	5.45 - 5.51	40.5		ug/kg	
					45.5		
Column 2	1	4.91	4.88 - 4.94	53.9		ug/kg	
	2	5.06	5.03 - 5.09	57.4		ug/kg	
	3	5.37	5.34 - 5.4	44.1		ug/kg	
	4	5.58	5.55 - 5.61	45.1		ug/kg	
	5	6.01	5.98 - 6.04	35.4		ug/kg	
					47.2		

Identification Summary

SDG Number: 10-2302 **Client ID:** RE46-10-13549

Lab Sample ID: 248842003

Data File:	060f6001.d	**Data File:**	060b6001.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22-MAR-10 21:08	**Analyzed:**	22-MAR-10 21:08

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							53.5
Column 1	1	3.83	3.8 – 3.86	14.2		ug/kg	
	2	4.02	3.99 – 4.05	14.7		ug/kg	
	3	4.21	4.18 – 4.24	12.4		ug/kg	
	4	4.3	4.27 – 4.33	13.4		ug/kg	
	5	4.49	4.47 – 4.53	13.7		ug/kg	
					13.7		
Column 2	1	4.3	4.27 – 4.33	15.2		ug/kg	
	2	4.44	4.41 – 4.47	29.9		ug/kg	
	3	4.77	4.74 – 4.8	13.2		ug/kg	
	4	4.93	4.9 – 4.96	13.8		ug/kg	
	5	5.06	5.03 – 5.09	46.4		ug/kg	
					23.7		
Aroclor-1260							6.75
Column 1	1	4.43	4.4 – 4.46	16.9		ug/kg	
	2	4.62	4.6 – 4.66	19.4		ug/kg	
	3	4.9	4.87 – 4.93	19		ug/kg	
	4	5.07	5.04 – 5.1	12.6		ug/kg	
	5	5.48	5.45 – 5.51	15.2		ug/kg	
					16.6		
Column 2	1	4.91	4.88 – 4.94	20.1		ug/kg	
	2	5.06	5.03 – 5.09	21.6		ug/kg	
	3	5.37	5.34 – 5.4	16.8		ug/kg	
	4	5.58	5.55 – 5.61	16.9		ug/kg	
	5	6.01	5.98 – 6.04	13.6		ug/kg	
					17.8		

Identification Summary

SDG Number: 10–2302 **Client ID:** RE46–10–13550

Lab Sample ID: 248842005

Data File:	062f6201.d	**Data File:**	062b6201.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–MAR–10 21:32	**Analyzed:**	22–MAR–10 21:32

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							27.4
Column 1	1	3.83	3.8 – 3.86	15		ug/kg	
	2	4.02	3.99 – 4.05	15.7		ug/kg	
	3	4.21	4.18 – 4.24	15.7		ug/kg	
	4	4.3	4.27 – 4.33	16.1		ug/kg	
	5	4.5	4.47 – 4.53	16.4		ug/kg	
					15.8		
Column 2	1	4.3	4.27 – 4.33	17.4		ug/kg	
	2	4.44	4.41 – 4.47	26.3		ug/kg	
	3	4.77	4.74 – 4.8	17.8		ug/kg	
	4	4.93	4.9 – 4.96	17.7		ug/kg	
	5	5.06	5.03 – 5.09	24.7		ug/kg	
					20.8		
Aroclor–1260							3.7
Column 1	1	4.43	4.4 – 4.46	9.68		ug/kg	
	2	4.62	4.6 – 4.66	12.8		ug/kg	
	3	4.9	4.87 – 4.93	5.38		ug/kg	
	4	5.07	5.04 – 5.1	3.33		ug/kg	
	5	5.48	5.45 – 5.51	4.78		ug/kg	
					7.18		
Column 2	1	4.91	4.88 – 4.94	11.6		ug/kg	
	2	5.06	5.03 – 5.09	11.5		ug/kg	
	3	5.38	5.34 – 5.4	5.71		ug/kg	
	4	5.58	5.55 – 5.61	4.62		ug/kg	
	5	6.01	5.98 – 6.04	3.86		ug/kg	
					7.46		

Identification Summary

SDG Number: 10–2302 **Client ID:** RE46–10–13551

Lab Sample ID: 248842004

Data File:	061f6101.d	**Data File:**	061b6101.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–MAR–10 21:20	**Analyzed:**	22–MAR–10 21:20

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							32.5
Column 1	1	3.83	3.8 – 3.86	139		ug/kg	
	2	4.02	3.99 – 4.05	133		ug/kg	
	3	4.21	4.18 – 4.24	120		ug/kg	
	4	4.3	4.27 – 4.33	141		ug/kg	
	5	4.5	4.47 – 4.53	126		ug/kg	
					132		
Column 2	1	4.3	4.27 – 4.33	132		ug/kg	
	2	4.44	4.41 – 4.47	215		ug/kg	
	3	4.77	4.74 – 4.8	144		ug/kg	
	4	4.93	4.9 – 4.96	133		ug/kg	
	5	5.06	5.03 – 5.09	290		ug/kg	
					183		
Aroclor–1260							.211
Column 1	1	4.43	4.4 – 4.46	120		ug/kg	
	2	4.63	4.6 – 4.66	135		ug/kg	
	3	4.9	4.87 – 4.93	96		ug/kg	
	4	5.07	5.04 – 5.1	64.2		ug/kg	
	5	5.48	5.45 – 5.51	86.5		ug/kg	
					100		
Column 2	1	4.91	4.88 – 4.94	128		ug/kg	
	2	5.06	5.03 – 5.09	135		ug/kg	
	3	5.37	5.34 – 5.4	89.2		ug/kg	
	4	5.58	5.55 – 5.61	82.6		ug/kg	
	5	6.01	5.98 – 6.04	68.6		ug/kg	
					101		

Identification Summary

SDG Number: 10–2302 **Client ID:** RE46–10–13552

Lab Sample ID: 248842008

Data File:	065f6501.d	**Data File:**	065b6501.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–MAR–10 22:09	**Analyzed:**	22–MAR–10 22:09

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							30.3
Column 1	1	3.84	3.8 – 3.86	37.7		ug/kg	
	2	4.03	3.99 – 4.05	36.2		ug/kg	
	3	4.22	4.18 – 4.24	32.4		ug/kg	
	4	4.31	4.27 – 4.33	32.6		ug/kg	
	5	4.5	4.47 – 4.53	37.7		ug/kg	
					35.3		
Column 2	1	4.31	4.27 – 4.33	34.6		ug/kg	
	2	4.45	4.41 – 4.47	67.9		ug/kg	
	3	4.77	4.74 – 4.8	36.8		ug/kg	
	4	4.94	4.9 – 4.96	37.3		ug/kg	
	5	5.06	5.03 – 5.09	63.2		ug/kg	
					48		
Aroclor–1260							8.07
Column 1	1	4.44	4.4 – 4.46	27.1		ug/kg	
	2	4.63	4.6 – 4.66	32.6		ug/kg	
	3	4.91	4.87 – 4.93	22.2		ug/kg	
	4	5.08	5.04 – 5.1	13.5		ug/kg	
	5	5.5	5.45 – 5.51	18.5		ug/kg	
					22.8		
Column 2	1	4.91	4.88 – 4.94	27.1		ug/kg	
	2	5.06	5.03 – 5.09	29.4		ug/kg	
	3	5.38	5.34 – 5.4	18		ug/kg	
	4	5.59	5.55 – 5.61	16.3		ug/kg	
	5	6.02	5.98 – 6.04	14.3		ug/kg	
					21		

Identification Summary

SDG Number: 10–2302 **Client ID:** RE46–10–13553

Lab Sample ID: 248842002

Data File:	059f5901.d	**Data File:**	059b5901.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–MAR–10 20:55	**Analyzed:**	22–MAR–10 20:55

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1242							2.35
Column 1	1	2.81	2.78 – 2.84	83.2		ug/kg	
	2	3.16	3.13 – 3.19	77		ug/kg	
	3	3.39	3.36 – 3.42	170		ug/kg	
	4	3.41	3.38 – 3.44	98.6		ug/kg	
	5	3.55	3.53 – 3.59	99.8		ug/kg	
					106		
Column 2	1	3.2	3.17 – 3.23	81.1		ug/kg	
	2	3.55	3.52 – 3.58	94.5		ug/kg	
	3	3.65	3.62 – 3.68	125		ug/kg	
	4	3.99	3.97 – 4.03	126		ug/kg	
	5	4.08	4.06 – 4.12	114		ug/kg	
					108		
Aroclor–1254							23.6
Column 1	1	3.83	3.8 – 3.86	89.2		ug/kg	
	2	4.02	3.99 – 4.05	104		ug/kg	
	3	4.21	4.18 – 4.24	101		ug/kg	
	4	4.3	4.27 – 4.33	93.1		ug/kg	
	5	4.49	4.47 – 4.53	102		ug/kg	
					97.8		
Column 2	1	4.3	4.27 – 4.33	124		ug/kg	
	2	4.44	4.41 – 4.47	149		ug/kg	
	3	4.77	4.74 – 4.8	108		ug/kg	
	4	4.93	4.9 – 4.96	120		ug/kg	
	5	5.06	5.03 – 5.09	119		ug/kg	
					124		

Identification Summary

SDG Number: 10-2302 **Client ID:** RE46-10-13553

Lab Sample ID: 248842002

Data File:	059f5901.d	**Data File:**	059b5901.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22-MAR-10 20:55	**Analyzed:**	22-MAR-10 20:55

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1260							4.16
Column 1	1	4.43	4.4 – 4.46	43.8		ug/kg	
	2	4.62	4.6 – 4.66	61.5		ug/kg	
	3	4.9	4.87 – 4.93	17.9		ug/kg	
	4	5.07	5.04 – 5.1	10		ug/kg	
	5	5.48	5.45 – 5.51	17.1		ug/kg	
					30		
Column 2	1	4.91	4.88 – 4.94	56.5		ug/kg	
	2	5.06	5.03 – 5.09	55.3		ug/kg	
	3	5.38	5.34 – 5.4	19.8		ug/kg	
	4	5.58	5.55 – 5.61	11		ug/kg	
	5	6.01	5.98 – 6.04	14.1		ug/kg	
					31.3		

Identification Summary

SDG Number: 10-2302 **Client ID:** RE46-10-13556

Lab Sample ID: 248842010

Data File:	069f6901.d	**Data File:**	069b6901.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22-MAR-10 23:07	**Analyzed:**	22-MAR-10 23:07

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							38.4
Column 1	1	3.83	3.8 – 3.86	13.7		ug/kg	
	2	4.02	3.99 – 4.05	12.2		ug/kg	
	3	4.21	4.18 – 4.24	11		ug/kg	
	4	4.3	4.27 – 4.33	10.6		ug/kg	
	5	4.5	4.47 – 4.53	12.4		ug/kg	
					12		
Column 2	1	4.3	4.27 – 4.33	11.8		ug/kg	
	2	4.44	4.41 – 4.47	26.5		ug/kg	
	3	4.77	4.74 – 4.8	11.5		ug/kg	
	4	4.93	4.9 – 4.96	11.6		ug/kg	
	5	5.06	5.03 – 5.09	27		ug/kg	
					17.7		
Aroclor-1260							5.63
Column 1	1	4.43	4.4 – 4.46	11.6		ug/kg	
	2	4.63	4.6 – 4.66	13.3		ug/kg	
	3	4.9	4.87 – 4.93	13		ug/kg	
	4	5.07	5.04 – 5.1	7.45		ug/kg	
	5	5.49	5.45 – 5.51	9.77		ug/kg	
					11		
Column 2	1	4.91	4.88 – 4.94	13		ug/kg	
	2	5.06	5.03 – 5.09	12.6		ug/kg	
	3	5.38	5.34 – 5.4	9.65		ug/kg	
	4	5.58	5.55 – 5.61	9.61		ug/kg	
	5	6.01	5.98 – 6.04	7.25		ug/kg	
					10.4		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076355**				
Client Sample:	**QC for batch 967394**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 967394**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 20:31**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**057f5701-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	057b5701-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/057f5701.d
Lab Smp Id: 1202076355 Client Smp ID: PBLK01
Inj Date : 22-MAR-2010 20:31
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202076355|1|
Misc Info : |ECD82P_1S|967396|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 57 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.249	-0.001	21468939	171.805	5.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.240	-0.001	15258832	185.290	6.2	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032210.b/057f5701.d

Page 1

Date : 22-MAR-2010 20:31

Client ID: PBLK01

Instrument: ecd8a.i

Sample Info: |1202076355|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

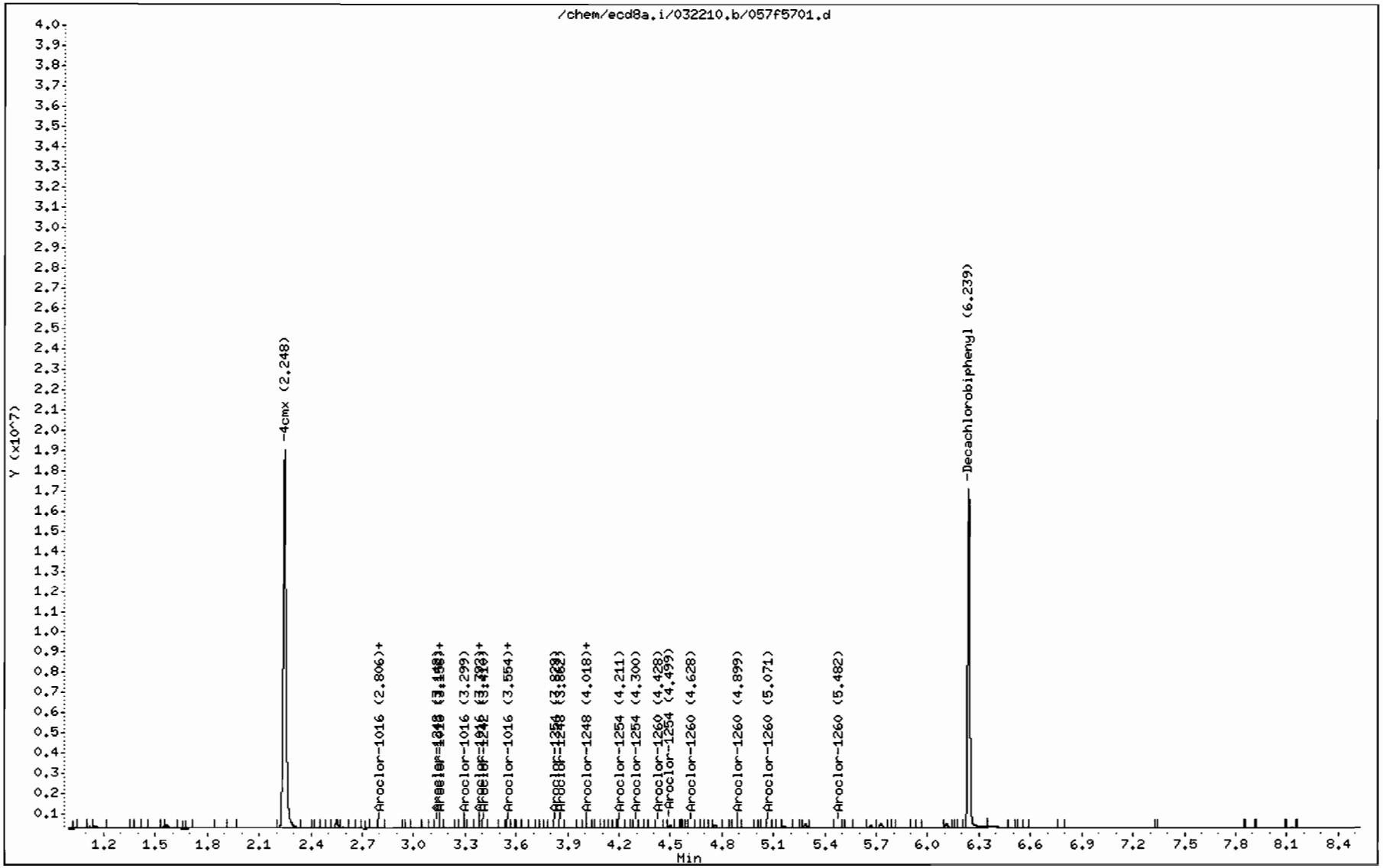

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/057b5701.d
Lab Smp Id: 1202076355 Client Smp ID: PBLK01
Inj Date : 22-MAR-2010 20:31
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202076355|1|
Misc Info : |ECD82P_1S|967396|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 57 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	15380433	184.016	6.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.825	-0.002	11651762	196.646	6.6	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032210.b/057b5701.d
Date : 22-MAR-2010 20:31
Client ID: PBLK01
Sample Info: |1202076355|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

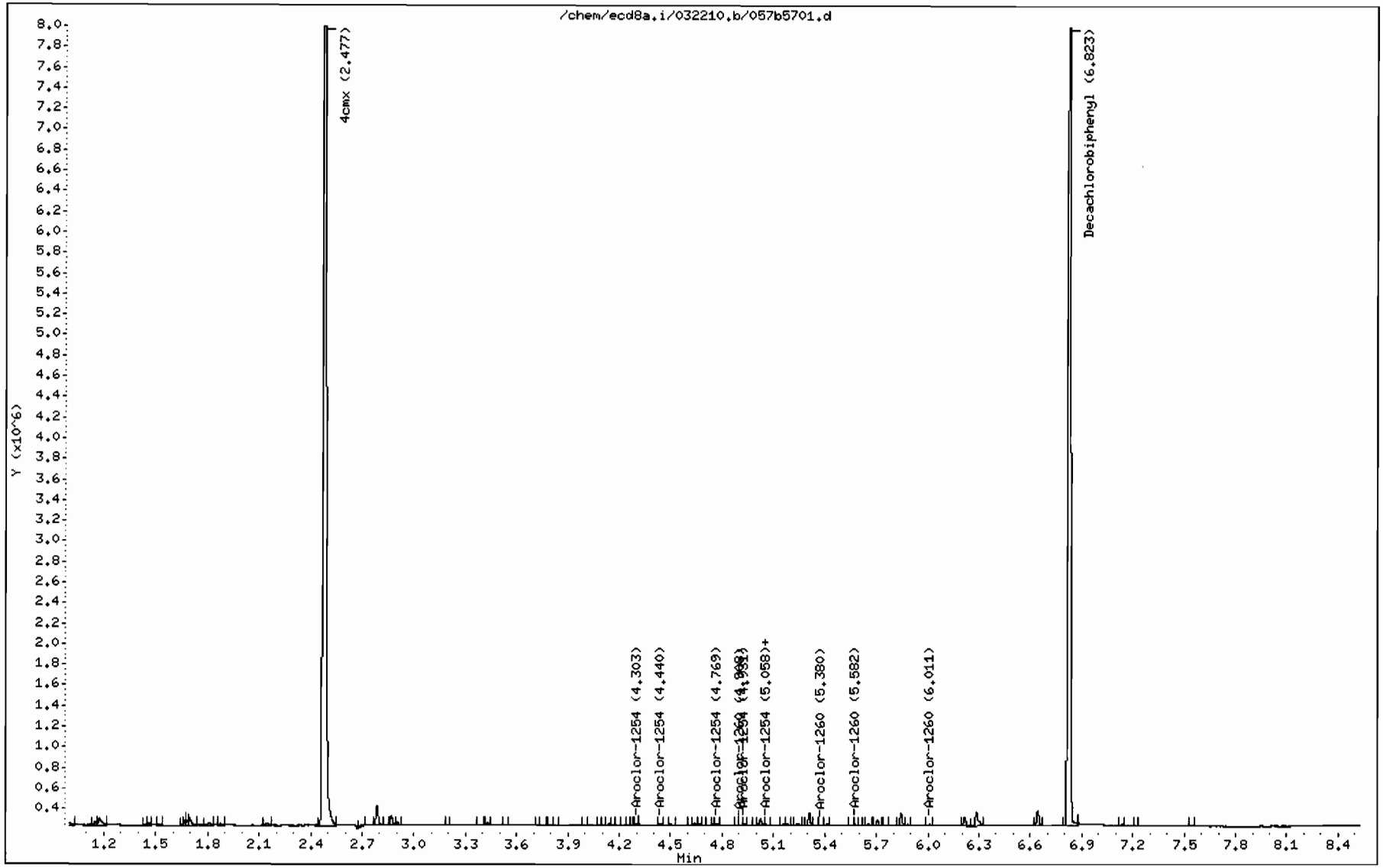

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2302**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076356**				
Client Sample:	**QC for batch 967394**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967394**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967396**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 20:43**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 12:13**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**058f5801–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	058b5801–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		24.7	ug/kg	1.11	3.33	2
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		28.2	ug/kg	1.11	3.33	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/058f5801.d
Lab Smp Id: 1202076356 Client Smp ID: PBLK01LCS
Inj Date : 22-MAR-2010 20:43
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202076356|1|
Misc Info : |ECD82P_1S|967396|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 58 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.249	-0.001	21618809	173.004	5.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.240	-0.001	10983975	133.380	4.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.805	2.805	0.000	3168531	663.946	22.1	80.00- 120.00	100.00
3.157	3.158	-0.001	3917591	725.830	24.2	101.30- 141.30	123.64
3.300	3.301	-0.001	1583002	673.147	22.4	31.29- 71.29	49.96
3.392	3.393	-0.001	1522567	694.739	23.2	26.75- 66.75	48.05
3.555	3.555	0.000	2061930	669.687	22.3	46.86- 86.86	65.08

Average of Peak Concentrations = 22.8

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.430	-0.002	4568523	775.633	25.8	80.00- 120.00	100.00
4.624	4.625	-0.001	7025392	826.975	27.6	126.61- 166.61	153.78
4.900	4.900	0.000	4228846	834.706	27.8	65.41- 105.41	92.56
5.072	5.073	-0.001	4082513	766.091	25.5	71.29- 111.29	89.36
5.482	5.485	-0.003	4068453	721.231	24.0	78.39- 118.39	89.05
Average of Peak Concentrations =					26.1		

Data File: /chem/ecd8a.i/032210.b/058f5801.d
Date : 22-MAR-2010 20:43
Client ID: PBLK01LCS
Sample Info: 1120207635611
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JADC
Column diameter: 0.25

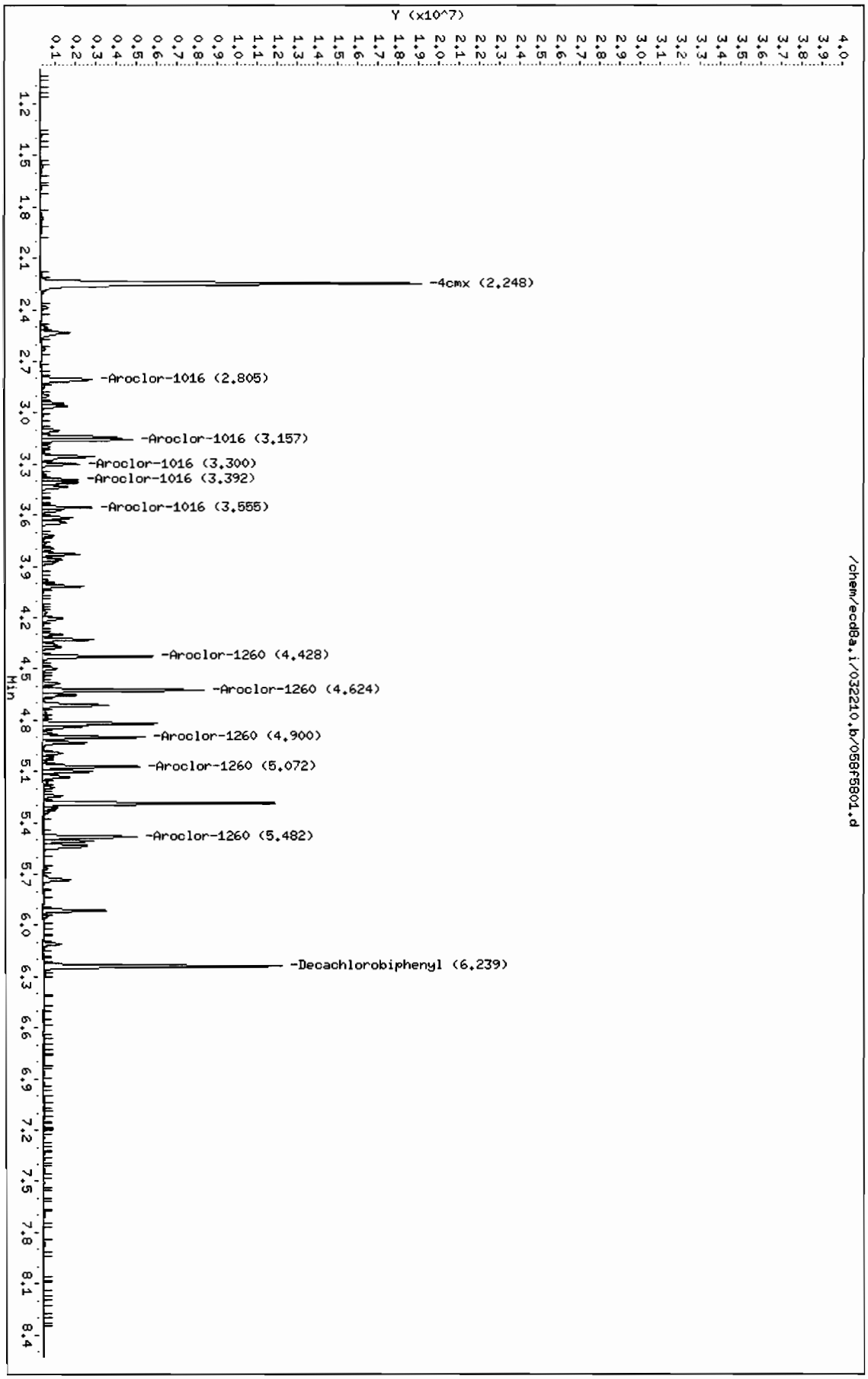

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/058b5801.d
Lab Smp Id: 1202076356 Client Smp ID: PBLK01LCS
Inj Date : 22-MAR-2010 20:43
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202076356|1|
Misc Info : |ECD82P_1S|967396|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 58 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2302.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	15643068	187.158	6.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.825	-0.001	11898684	200.813	6.7	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.549	-0.001	2886117	784.746	26.2	80.00- 120.00	100.00(M)
3.647	3.648	-0.001	1850726	725.437	24.2	46.77- 86.77	64.13
3.723	3.724	-0.001	1060947	711.075	23.7	20.25- 60.25	36.76
3.798	3.800	-0.002	1116619	755.645	25.2	18.74- 58.74	38.69

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.995	3.995	0.000	1478806	730.345	24.3	33.82- 73.82	51.24
Average of Peak Concentrations =					24.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.908	4.909	-0.001	3323321	843.803	28.1	80.00- 120.00	100.00(M)
5.057	5.058	-0.001	4012770	848.280	28.3	101.53- 141.53	120.75
5.373	5.375	-0.002	3240621	903.523	30.1	71.56- 111.56	97.51
5.580	5.581	-0.001	2680633	722.107	24.1	75.17- 115.17	80.66
6.011	6.013	-0.002	5285247	904.802	30.2	132.27- 172.27	159.04
Average of Peak Concentrations =					28.2		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/058b5801.d
Date : 22-MAR-2010 20:43
Client ID: PBLK01LCS
Sample Info: 1120207635611
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

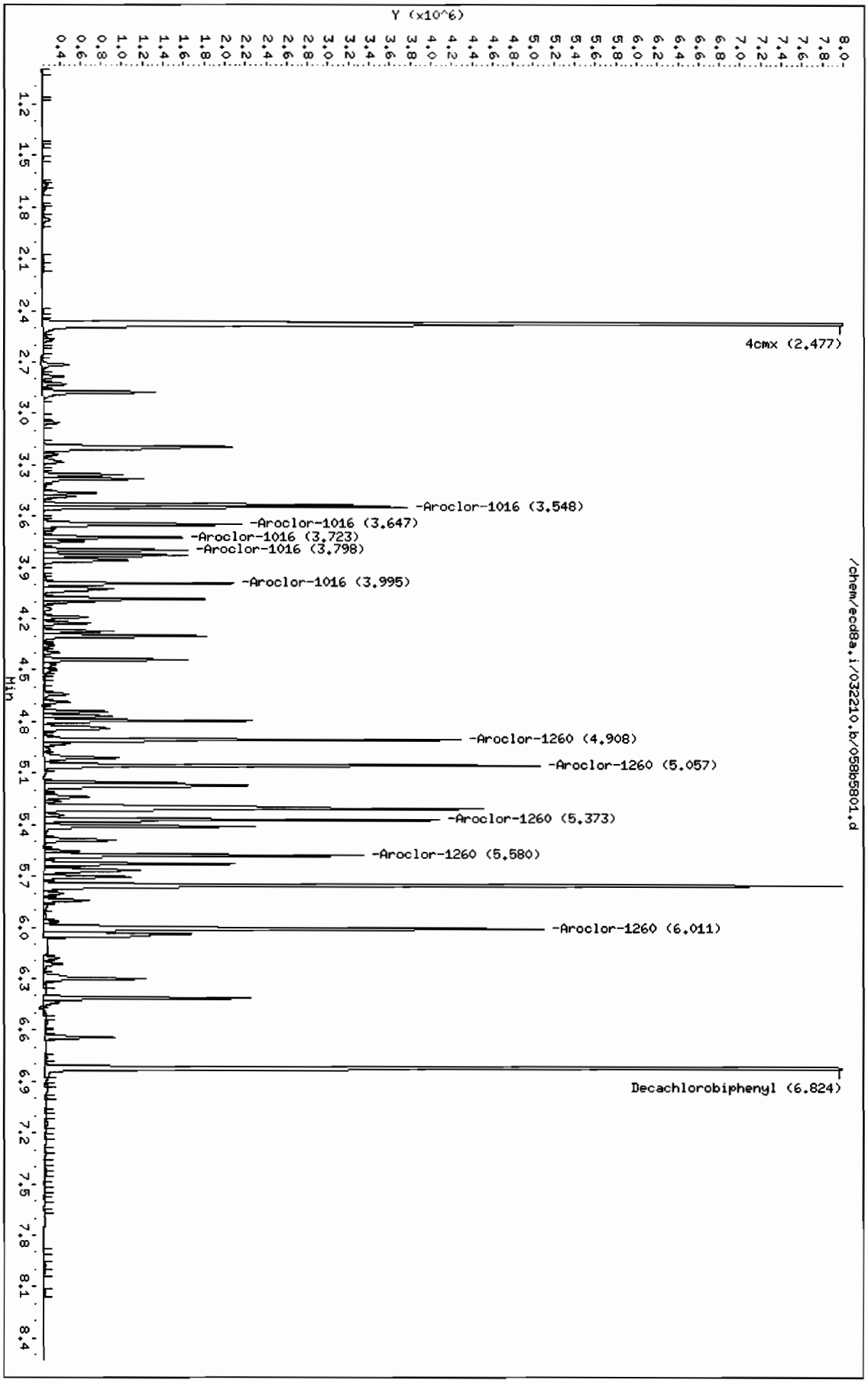

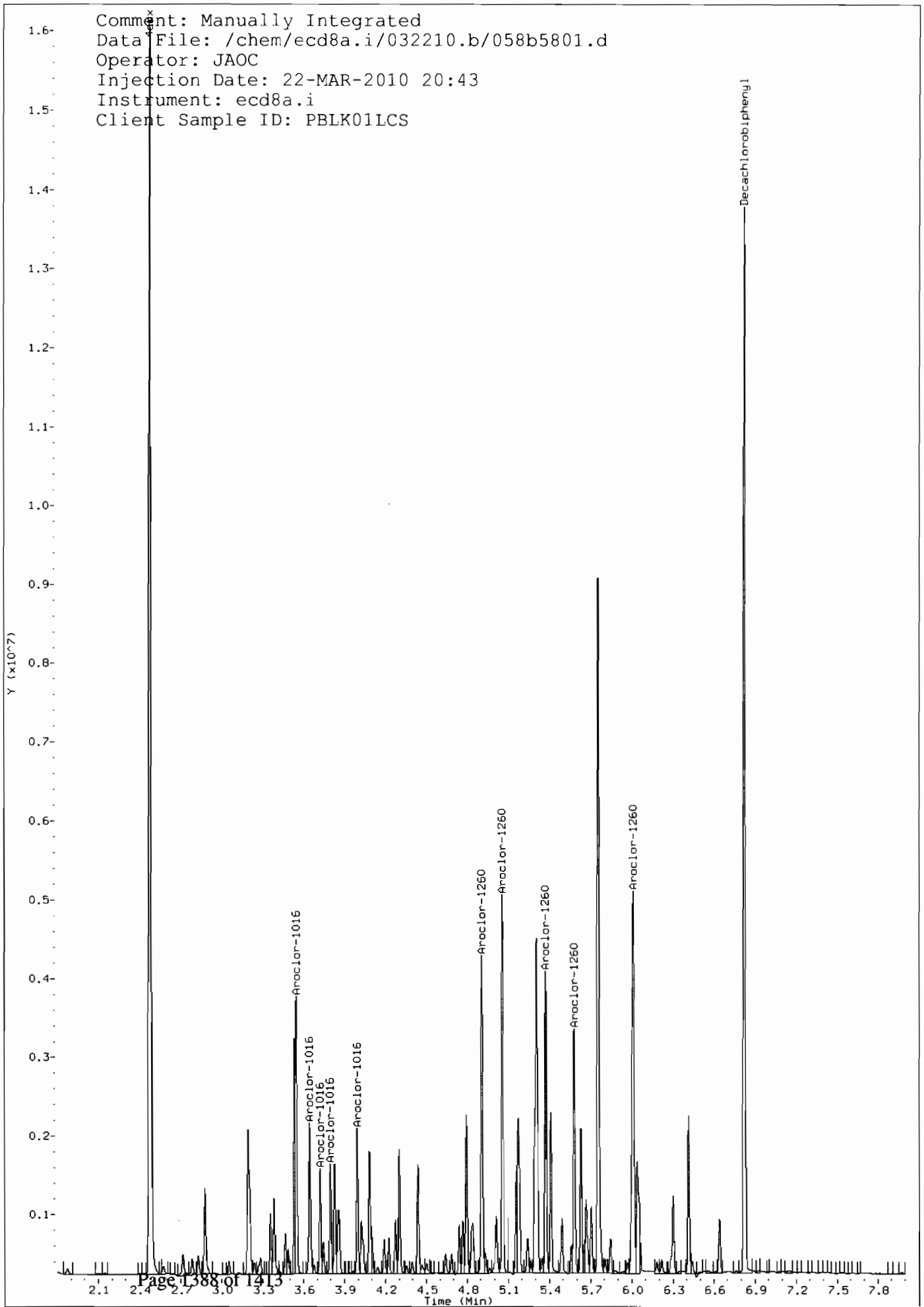
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032210.b/058b5801.d
Operator: JAOC
Injection Date: 22-MAR-2010 20:43
Instrument: ecd8a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
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Aroclor-1260
Y (x10^7)
Time (Min)

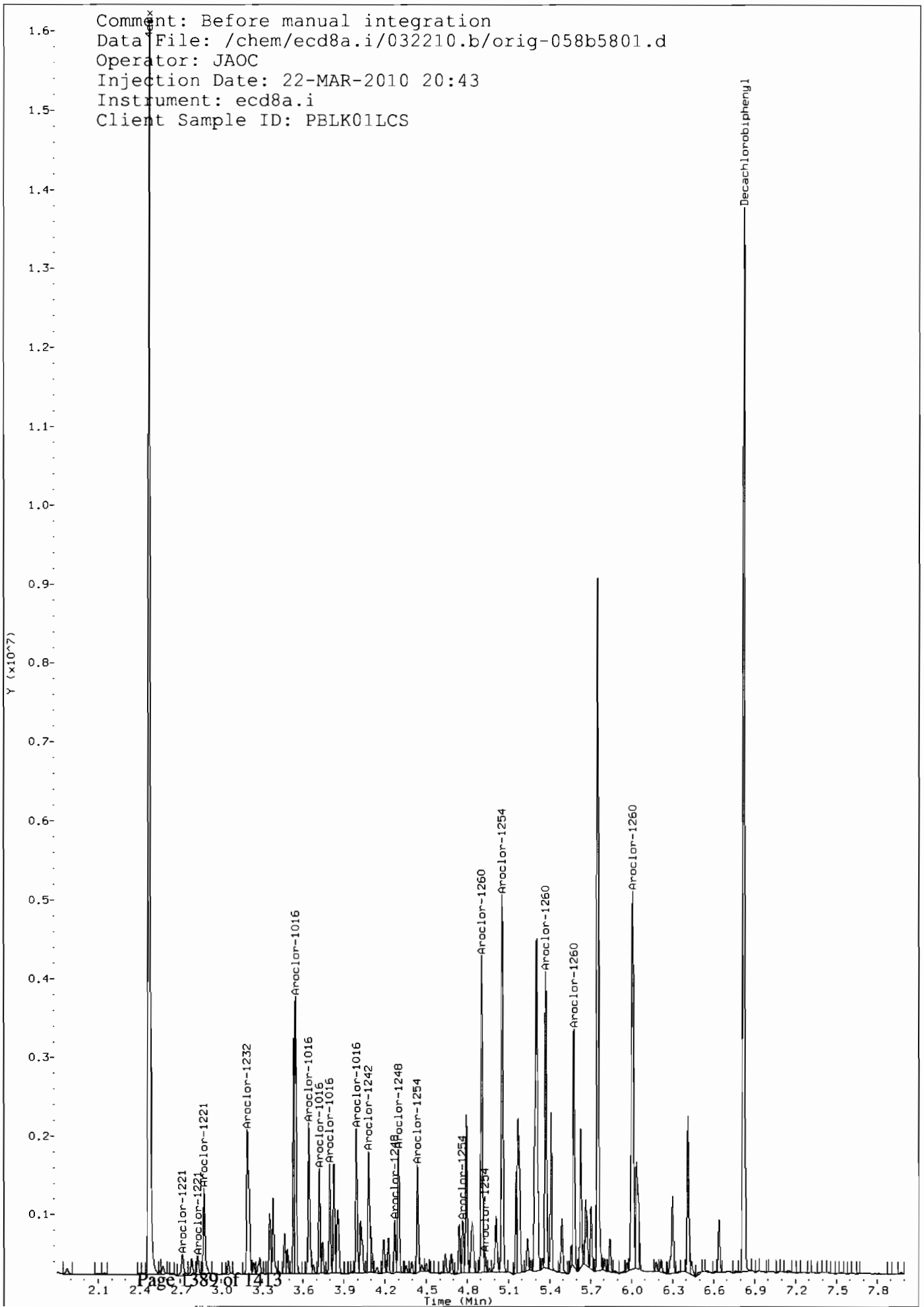
Comment: Before manual integration
Data File: /chem/ecd8a.i/032210.b/orig-058b5801.d
Operator: JAOC
Injection Date: 22-MAR-2010 20:43
Instrument: ecd8a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 03/09/2010 METHOD: ECD8-F-8082-020310a.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/030910.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	JAOC	09-MAR-2010 07:59		030910	1.0		CLEAN
002f0201.d	WAR100225-60 01	JAOC	09-MAR-2010 08:11		030910	1.0		DUSE
003f0301.d	WAR100201-54	JAOC	09-MAR-2010 08:24		030910	1.0		DUSE
004f0401.d	WAR091217-42	JAOC	09-MAR-2010 08:36		030910	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091217-48	JAOC	09-MAR-2010 08:48		030910	1.0		DUSE
006f0601.d	WAR100309-60 01	JAOC	09-MAR-2010 09:08		030910	1.0		PASSES BOTH COLUMNS
007f0701.d	WAR100309-05 54	JAOC	09-MAR-2010 09:27		030910	1.0		1254 LEVEL 1
008f0801.d	WAR100309-06 54	JAOC	09-MAR-2010 09:39		030910	1.0		1254 LEVEL 2
009f0901.d	WAR100309-07 54	JAOC	09-MAR-2010 09:51		030910	1.0		1254 LEVEL 3
010f1001.d	WAR100309-08 54	JAOC	09-MAR-2010 10:04		030910	1.0		1254 LEVEL 4
011f1101.d	IAR100219-02 54	JAOC	09-MAR-2010 10:16		030910	1.0		1254 LEVEL 5
012f1201.d	WAR100201-54	JAOC	09-MAR-2010 10:29		030910	1.0		PASSES BOTH COLUMNS
013f1301.d	WAR100309-09 48	JAOC	09-MAR-2010 10:41		030910	1.0		1248 LEVEL 1
014f1401.d	WAR100309-10 48	JAOC	09-MAR-2010 10:53		030910	1.0		1248 LEVEL 2
015f1501.d	WAR100309-11 48	JAOC	09-MAR-2010 11:05		030910	1.0		1248 LEVEL 3

Instrument Batch: /chem/ecd8a.i/030910.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR100309-12 48	JAOC	09-MAR-2010 11:18		030910	1.0		1248 LEVEL 4
017f1701.d	IAR100211-01 48	JAOC	09-MAR-2010 11:30		030910	1.0		1248 LEVEL 5

018f1801.d	WAR091217-48	JAOC	09-MAR-2010 11:43		030910		1.0		PASSES BOTH COLUMNS
019f1901.d	WAR100104-32	JAOC	09-MAR-2010 11:55		030910		1.0		PATTERN ONLY
020f2001.d	WAR100104-21	JAOC	09-MAR-2010 12:07		030910		1.0		PATTERN ONLY
021f2101.d	WAR100104-62	JAOC	09-MAR-2010 12:20		030910		1.0		PATTERN ONLY
022f2201.d	WAR100107-68	JAOC	09-MAR-2010 12:32		030910		1.0		PATTERN ONLY
023f2301.d	WAR091219-DDT	JAOC	09-MAR-2010 12:44		030910		1.0		DDT
024f2401.d	WAR100219-99 02	JAOC	09-MAR-2010 12:57		030910		1.0		CLEAN
025f2501.d	248545006	JAOC	09-MAR-2010 13:09	961905	10-2213		1.0	LANL	UPLOAD BOTH, USE HIGHER
026f2601.d	WAR100309-60 02	JAOC	09-MAR-2010 13:22		030910		1.0		PASSES BOTH COLUMNS

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 03/19/2010 METHOD: ECD8-F-8082-031810.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/031810.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	JAOC	18-MAR-2010 06:13		031810	1.0		CLEAN
002f0201.d	WAR100317-01 60	JAOC	18-MAR-2010 06:25		031810	1.0		1660 LEVEL 1
003f0301.d	WAR100317-02 60	JAOC	18-MAR-2010 06:38		031810	1.0		1660 LEVEL 2
004f0401.d	WAR100317-03 60	JAOC	18-MAR-2010 06:50		031810	1.0		1660 LEVEL 3
005f0501.d	WAR100317-04 60	JAOC	18-MAR-2010 07:02		031810	1.0		1660 LEVEL 4
006f0601.d	IAR100311-01 60	JAOC	18-MAR-2010 07:15		031810	1.0		1660 LEVEL 5
007f0701.d	WAR100224-60 01	JAOC	18-MAR-2010 07:27		031810	1.0		PASSES BOTH COLUMNS
008f0801.d	WAR100201-54	JAOC	18-MAR-2010 07:39		031810	1.0		PASSES BOTH COLUMNS
009f0901.d	WAR091217-42	JAOC	18-MAR-2010 07:52		031810	1.0		PASSES BOTH COLUMNS
010f1001.d	WAR091217-48	JAOC	18-MAR-2010 08:04		031810	1.0		PASSES BOTH COLUMNS
011f1101.d	WAR100104-32	JAOC	18-MAR-2010 08:17		031810	1.0		PATTERN ONLY
012f1201.d	WAR100104-21	JAOC	18-MAR-2010 08:29		031810	1.0		PATTERN ONLY
013f1301.d	WAR100104-62	JAOC	18-MAR-2010 08:41		031810	1.0		PATTERN ONLY
014f1401.d	WAR100107-68	JAOC	18-MAR-2010 08:54		031810	1.0		PATTERN ONLY
015f1501.d	WAR091219-DDT	JAOC	18-MAR-2010 09:06		031810	1.0		DDT

Instrument Batch: /chem/ecd8a.i/031810.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR100219-99 02	JAOC	18-MAR-2010 09:19		031810	1.0		CLEAN
017f1701.d	1202073907	JAOC	18-MAR-2010 09:31	966402	10033	1.0	QC A	UPLOAD BOTH, USE HIGHER

018f1801.d	1202073908	JAOC	18-MAR-2010 09:43	966402	10033		1.0	QC A	UPLOAD BOTH, USE HIGHER
019f1901.d	1202073909	JAOC	18-MAR-2010 09:55	966402	10033		1.0	QC A	UPLOAD BOTH, USE HIGHER
020f2001.d	248554001	JAOC	18-MAR-2010 10:08	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
021f2101.d	248554002	JAOC	18-MAR-2010 10:20	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
022f2201.d	248554003	JAOC	18-MAR-2010 10:33	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
023f2301.d	248554004	JAOC	18-MAR-2010 10:45	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
024f2401.d	248554005	JAOC	18-MAR-2010 10:57	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
025f2501.d	248554006	JAOC	18-MAR-2010 11:10	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
026f2601.d	248554007	JAOC	18-MAR-2010 11:22	966402	10033		5.0	WSRS	UPLOAD BOTH, USE HIGHER
027f2701.d	WAR100224-60 02	JAOC	18-MAR-2010 11:39		031810		1.0		PASSES BOTH COLUMNS
028f2801.d	WAR100219-99 03	JAOC	18-MAR-2010 11:51		031810		1.0		CLEAN
029f2901.d	248554008	JAOC	18-MAR-2010 12:03	966402	10033		5.0	WSRS	UPLOAD BOTH, USE HIGHER
030f3001.d	248554009	JAOC	18-MAR-2010 12:16	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
031f3101.d	248554010	JAOC	18-MAR-2010 12:28	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
032f3201.d	248554011	JAOC	18-MAR-2010 12:40	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
033f3301.d	248554012	JAOC	18-MAR-2010 12:53	966402	10033		1.0	WSRS	DUSE, 5X RERUN END SEQUENCE
034f3401.d	248554013	JAOC	18-MAR-2010 13:05	966402	10033		1.0	WSRS	DUSE, AFTER OVERRANGE RERUN END SEQUENCE
035f3501.d	248554014	JAOC	18-MAR-2010 13:17	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/031810.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	248554015	JAOC	18-MAR-2010 13:30	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
037f3701.d	248554016	JAOC	18-MAR-2010 13:42	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
038f3801.d	248554017	JAOC	18-MAR-2010 13:54	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
039f3901.d	WAR100224-60 03	JAOC	18-MAR-2010 14:11		031810		1.0		PASSES BOTH COLUMNS
040f4001.d	WAR100219-99 04	JAOC	18-MAR-2010 14:23		031810		1.0		CLEAN
041f4101.d	248554018	JAOC	18-MAR-2010 14:36	966402	10033		1.0	WSRS	DUSE, 5X RERUN 031910

042f4201.d	248554019	JAOC	18-MAR-2010 14:48	966402	10033		1.0	WSRS	DUSE, AFTER OVERRANGE RERUN 031910
043f4301.d	248554020	JAOC	18-MAR-2010 15:01	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
044f4401.d	248554012	JAOC	18-MAR-2010 15:13	966402	10033		5.0	WSRS	UPLOAD BOTH, USE HIGHER
045f4501.d	248554013	JAOC	18-MAR-2010 15:25	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
046f4601.d	WAR100224-60 04	JAOC	18-MAR-2010 15:38		031810		1.0		PASSES BOTH COLUMNS
047f4701.d	WAR100219-99 05	JAOC	18-MAR-2010 15:50		031810		1.0		CLEAN

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/071b7101.d
Lab Smp Id: 1202076357 Client Smp ID: RE46-10-13782MS
Inj Date : 22-MAR-2010 23:32
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202076357|5|
Misc Info : |ECD82P_1S|967396|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 71 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	13.92880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	3001245	35.9077	6.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.825	-0.001	2428289	40.9821	7.9	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.549	-0.001	648479	176.324	34.1	80.00- 120.00	100.00(M)
3.647	3.648	-0.001	437998	171.684	33.2	46.77- 86.77	67.54
3.723	3.724	-0.001	255326	171.126	33.1	20.25- 60.25	39.37
3.798	3.800	-0.002	266472	180.328	34.8	18.74- 58.74	41.09
3.995	3.995	0.000	351240	173.469	33.5	33.82- 73.82	54.16
Average of Peak Concentrations =					33.7		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.909	-0.002	799677	203.041	39.2	80.00- 120.[illegible]	100.00(M)
5.057	5.058	-0.001	942882	199.321	38.5	101.53- 141.[illegible]	117.91
5.373	5.375	-0.002	776077	216.379	41.8	71.56- 111.[illegible]	97.05
5.580	5.581	-0.001	798208	215.021	41.6	75.17- 115.[illegible]	99.82
6.012	6.013	-0.001	1317771	225.594	43.6	132.27- 172.[illegible]	164.79
			Average of Peak Concentrations =		40.9		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/071b7101.d
Date : 22-MAR-2010 23:32
Client ID: RE46-10-13782MS
Sample Info: 1120207635715|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

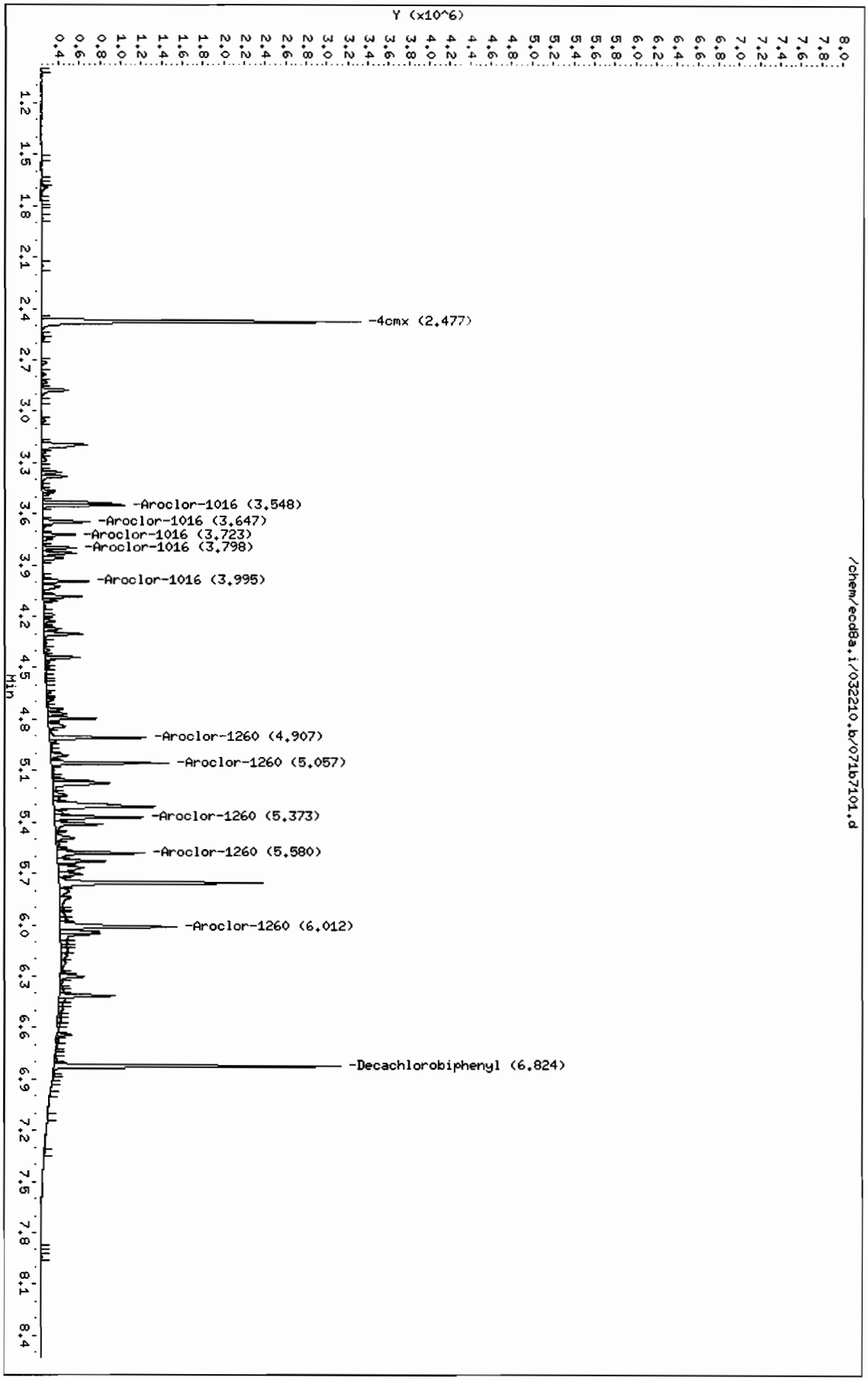

Page 1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/071f7101.d
Lab Smp Id: 1202076357 Client Smp ID: RE46-10-13782MS
Inj Date : 22-MAR-2010 23:32
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202076357|5|
Misc Info : |ECD82P_1S|967396|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 71 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	13.92880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.249	-0.001	4487218	35.9088	6.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.240	-0.001	3447761	41.8666	8.1	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
2.806	2.805	0.001	853883	178.926	34.6	80.00- 120.00	100.00
3.157	3.158	-0.001	972899	180.253	34.8	101.30- 141.30	113.94
3.300	3.301	-0.001	415677	176.760	34.2	31.29- 71.29	48.68
3.392	3.393	-0.001	405265	184.920	35.7	26.75- 66.75	47.46
3.555	3.555	0.000	554678	180.152	34.8	46.86- 86.86	64.96

Average of Peak Concentrations = 34.8

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.429	4.430	-0.001	1143747	194.183	37.5	80.00- 120.00	100.00(M)
4.625	4.625	0.000	1717130	202.127	39.1	126.61- 166.61	150.13
4.901	4.900	0.001	974743	192.399	37.2	65.41- 105.41	85.22
5.072	5.073	-0.001	1045512	196.192	37.9	71.29- 111.29	91.41
5.483	5.485	-0.002	1220255	216.320	41.8	78.39- 118.39	106.69
			Average of Peak Concentrations =		38.7		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/071f7101.d

Date : 22-MAR-2010 23:32

Client ID: RE46-10-13782MS

Sample Info: |1202076357|5|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

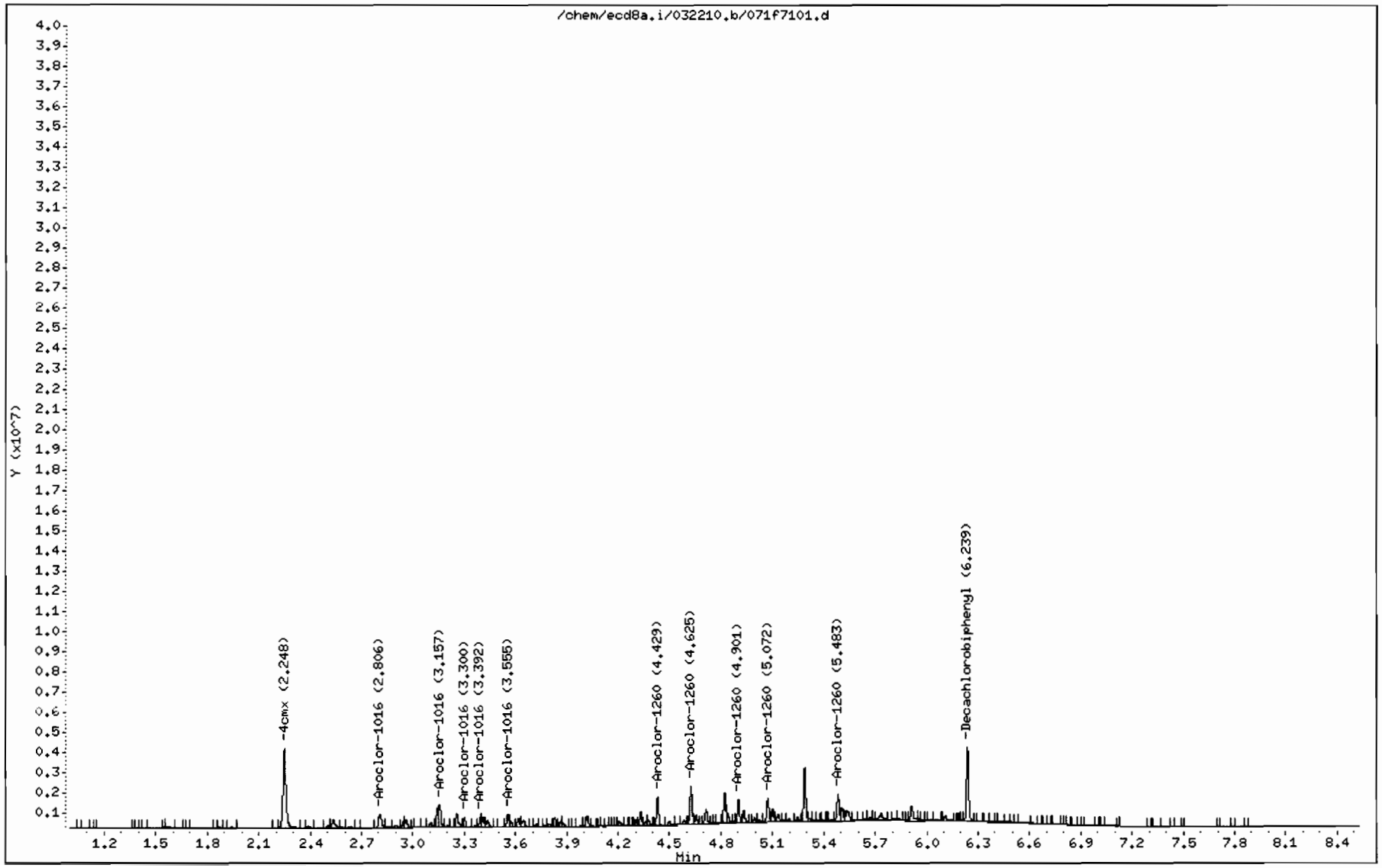

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/072b7201.d
Lab Smp Id: 1202076358 Client Smp ID: RE46-10-13782MSD
Inj Date : 22-MAR-2010 23:44
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202076358|5|
Misc Info : |ECD82P_1S|967396|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 09:30 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 72 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	13.92880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.477	0.000	3610391	43.1957	8.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.825	-0.002	3141014	53.0107	10.2	80.00- 120.00	100.00(RM)
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.549	-0.001	809127	220.005	42.5	80.00- 120.00	100.00(M)
3.648	3.648	0.000	537684	210.758	40.7	46.77- 86.77	66.45
3.723	3.724	-0.001	313197	209.913	40.5	20.25- 60.25	38.71
3.798	3.800	-0.002	325858	220.516	42.6	18.74- 58.74	40.27
3.995	3.995	0.000	435651	215.157	41.6	33.82- 73.82	53.84

Average of Peak Concentrations = 41.6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.908	4.909	-0.001	965428	245.125	47.3	80.00- 120.00	100.00(RM)
5.057	5.058	-0.001	1146812	242.431	46.8	101.53- 141.53	118.79
5.373	5.375	-0.002	933187	260.183	50.2	71.56- 111.56	96.66
5.580	5.581	-0.001	927286	249.792	48.2	75.17- 115.17	101.72
6.012	6.013	-0.001	1552698	265.812	51.3	132.27- 172.27	160.83
Average of Peak Concentrations =					48.8		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/072b7201.d
Date : 22-MAR-2010 23:44
Client ID: RE46-10-13782MSD
Sample Info: |120207635815|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

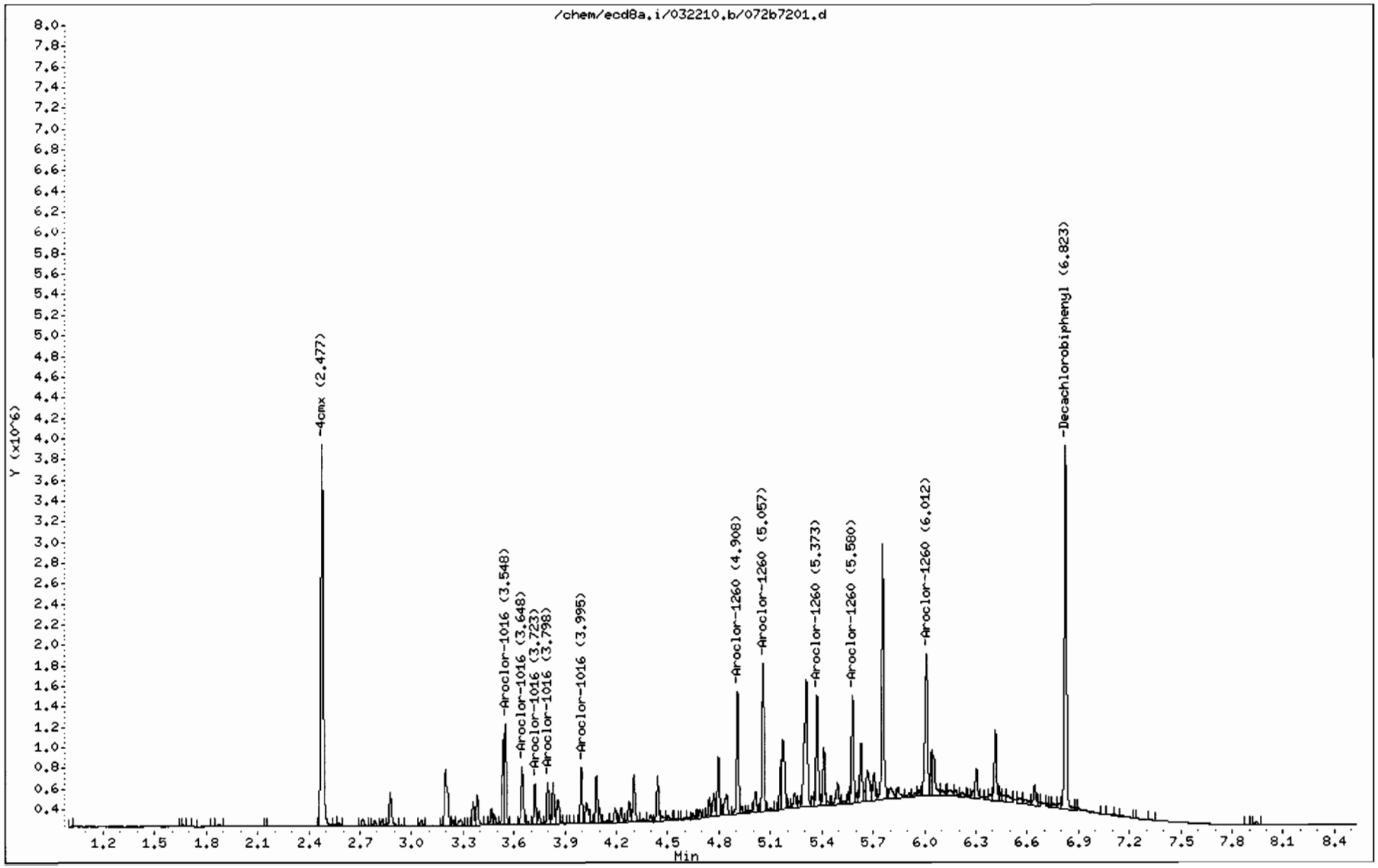

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032210.b/072f7201.d
Lab Smp Id: 1202076358 Client Smp ID: RE46-10-13782MSD
Inj Date : 22-MAR-2010 23:44
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202076358|5|
Misc Info : |ECD82P_1S|967396|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/032210.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 09:50 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 72 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2314.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	13.92880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.249	-0.001	5404924	43.2527	8.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.240	-0.001	4191140	50.8936	9.8	80.00- 120.00	100.00(RM)
1 Aroclor-1016					CAS #: 12674-11-2		
2.806	2.805	0.001	1041834	218.310	42.2	80.00- 120.00	100.00
3.157	3.158	-0.001	1198926	222.130	42.9	101.30- 141.30	115.08
3.301	3.301	0.000	512200	217.805	42.1	31.29- 71.29	49.16
3.393	3.393	0.000	510004	232.712	44.9	26.75- 66.75	48.95
3.555	3.555	0.000	689498	223.940	43.2	46.86- 86.86	66.18

Average of Peak Concentrations = 43.1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.429	4.430	-0.001	1456947	247.357	47.8	80.00- 120.00	100.00(RM)
4.625	4.625	0.000	2133211	251.105	48.5	126.61- 166.61	146.42
4.900	4.900	0.000	1231809	243.139	47.0	65.41- 105.41	84.55
5.073	5.073	0.000	1300477	244.037	47.1	71.29- 111.29	89.26
5.483	5.485	-0.002	1524595	270.271	52.2	78.39- 118.39	104.64
			Average of Peak Concentrations =		48.5		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032210.b/072f7201.d
Date : 22-MAR-2010 23:44
Client ID: RE46-10-13782MSD
Sample Info: |120207635815|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

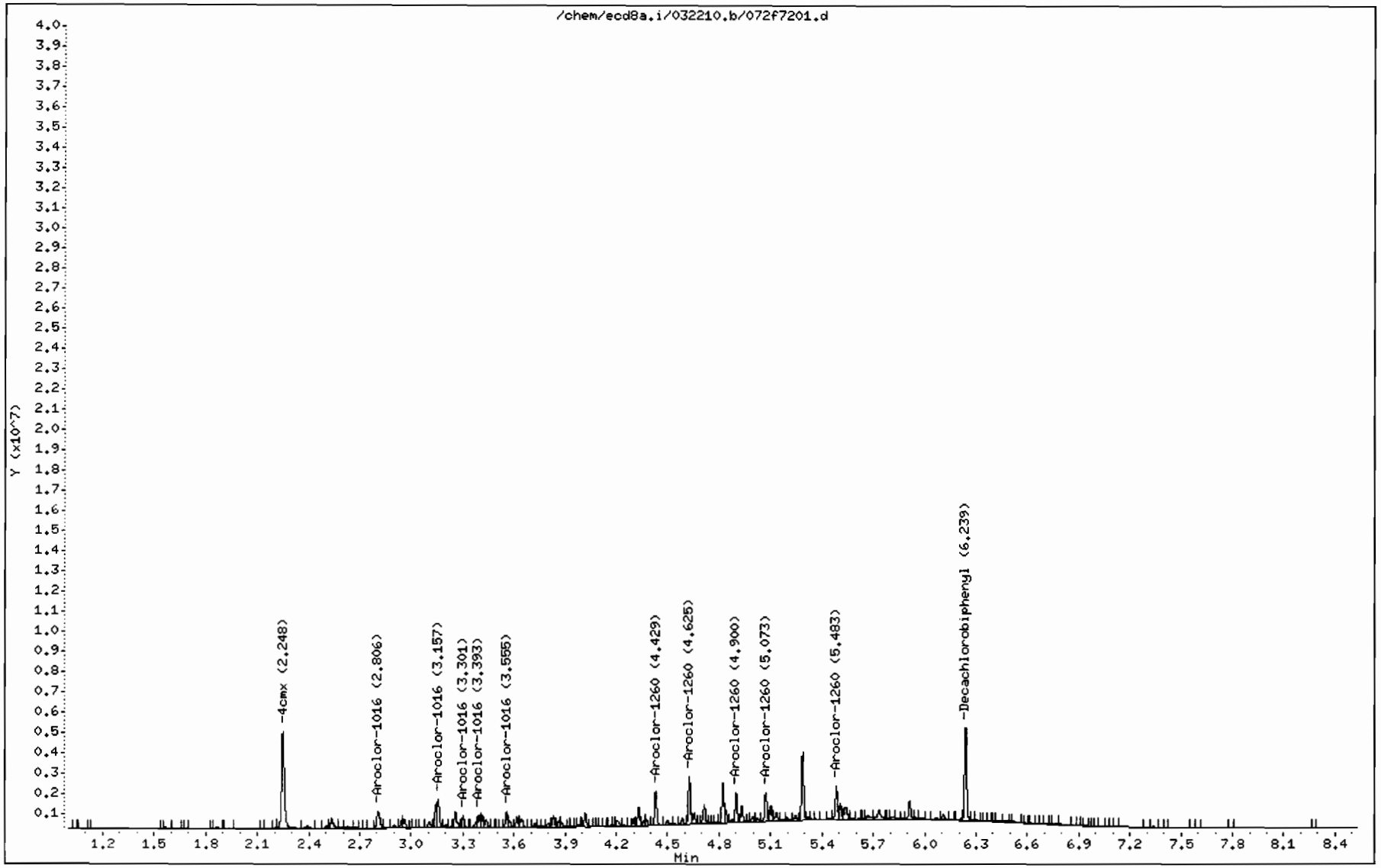

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 03/23/2010 METHOD: ECD8-F-8082-031810.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/032210.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	JAOC	22-MAR-2010 08:14		032210	1.0		CLEAN
002f0201.d	WAR100224-60 01	JAOC	22-MAR-2010 08:26		032210	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR100219-54	JAOC	22-MAR-2010 08:39		032210	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091217-42	JAOC	22-MAR-2010 08:51		032210	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR100223-48	JAOC	22-MAR-2010 09:03		032210	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR100104-32	JAOC	22-MAR-2010 09:16		032210	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	JAOC	22-MAR-2010 09:28		032210	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	JAOC	22-MAR-2010 09:40		032210	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	JAOC	22-MAR-2010 09:53		032210	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	JAOC	22-MAR-2010 10:05		032210	1.0		DDT
011f1101.d	WAR100219-99 02	JAOC	22-MAR-2010 10:18		032210	1.0		CLEAN
012f1201.d	1202074832	JAOC	22-MAR-2010 10:30	966777	248989	1.0	QC A	UPLOAD BOTH, USE HIGHER: 4CMX FAILS LOW SEND BACK SAMPLES WITH HITS
013f1301.d	1202074833	JAOC	22-MAR-2010 10:42	966777	248989	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	1202075899	JAOC	22-MAR-2010 10:55	966777	248989	1.0	QC A	UPLOAD BOTH, USE HIGHER
015f1501.d	248989001	JAOC	22-MAR-2010 11:07	966777	248989	5.0	BRKL	DUSE: SENT FOR RE, UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/032210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	248989002	JAOC	22-MAR-2010 11:19	966777	248989	1.0	BRKL	DUSE: SENT FOR RE, UPLOAD BOTH, USE HIGHER
017f1701.d	248989003	JAOC	22-MAR-2010 11:32	966777	248989	5.0	BRKL	DUSE: SENT FOR RE, UPLOAD BOTH, USE HIGHER

018f1801.d	248989004	JAOC	22-MAR-2010 11:44	966777	248989		1.0	BRKL	UPLOAD BOTH, USE HIGHER
019f1901.d	248989005	JAOC	22-MAR-2010 12:00	966777	248989		25.0	BRKL	UPLOAD BOTH, USE HIGHER
020f2001.d	248989006	JAOC	22-MAR-2010 12:16	966777	248989		5.0	BRKL	UPLOAD BOTH, USE HIGHER
021f2101.d	WAR100224-60 02	JAOC	22-MAR-2010 12:33		032210		1.0		PASSES BOTH COLUMNS
022f2201.d	WAR100219-99 03	JAOC	22-MAR-2010 12:45		032210		1.0		CLEAN
023f2301.d	1202076028	JAOC	22-MAR-2010 12:57	967268	249320		1.0	QC A	UPLOAD BOTH, USE HIGHER
024f2401.d	1202076029	JAOC	22-MAR-2010 13:10	967268	249320		1.0	QC A	UPLOAD BOTH, USE HIGHER
025f2501.d	249320001	JAOC	22-MAR-2010 13:22	967268	249320		20.0	COMM	UPLOAD BOTH, USE HIGHER
026f2601.d	1202076030	JAOC	22-MAR-2010 13:38	967268	249320		20.0	QC A	UPLOAD BOTH, USE HIGHER
027f2701.d	1202076031	JAOC	22-MAR-2010 13:55	967268	249320		20.0	QC A	UPLOAD BOTH, USE HIGHER
028f2801.d	WAR100224-60 03	JAOC	22-MAR-2010 14:11		032210		1.0		PASSES BOTH COLUMNS
029f2901.d	WAR100219-99 04	JAOC	22-MAR-2010 14:24		032210		1.0		CLEAN
030f3001.d	1202076024	JAOC	22-MAR-2010 14:36	967266	249616		1.0	QC A	UPLOAD BOTH, USE HIGHER
031f3101.d	1202076025	JAOC	22-MAR-2010 14:49	967266	249616		1.0	QC A	UPLOAD BOTH, USE HIGHER
032f3201.d	249616001	JAOC	22-MAR-2010 15:01	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER
033f3301.d	1202076026	JAOC	22-MAR-2010 15:13	967266	249616		5.0	QC A	UPLOAD BOTH, USE HIGHER
034f3401.d	1202076027	JAOC	22-MAR-2010 15:26	967266	249616		5.0	QC A	UPLOAD BOTH, USE HIGHER
035f3501.d	249616009	JAOC	22-MAR-2010 15:38	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/032210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	249616010	JAOC	22-MAR-2010 15:50	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER
037f3701.d	249616011	JAOC	22-MAR-2010 16:03	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER
038f3801.d	249616012	JAOC	22-MAR-2010 16:15	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER
039f3901.d	249616013	JAOC	22-MAR-2010 16:32	967266	249616		1.0	SSFL	UPLOAD BOTH, USE HIGHER
040f4001.d	WAR100224-60 04	JAOC	22-MAR-2010 16:48		032210		1.0		PASSES BOTH COLUMNS
041f4101.d	WAR100219-99 05	JAOC	22-MAR-2010 17:01		032210		1.0		CLEAN

042f4201.d	249616014	JAOC	22-MAR-2010 17:13	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER
043f4301.d	249616015	JAOC	22-MAR-2010 17:25	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER
044f4401.d	249616016	JAOC	22-MAR-2010 17:38	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER
045f4501.d	249616017	JAOC	22-MAR-2010 17:50	967266	249616		1.0	SSFL	UPLOAD BOTH, USE HIGHER
046f4601.d	249616018	JAOC	22-MAR-2010 18:02	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER
047f4701.d	249616019	JAOC	22-MAR-2010 18:15	967266	249616		1.0	SSFL	UPLOAD BOTH, USE HIGHER
048f4801.d	249616020	JAOC	22-MAR-2010 18:27	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER
049f4901.d	249616021	JAOC	22-MAR-2010 18:39	967266	249616		1.0	SSFL	UPLOAD BOTH, USE HIGHER
050f5001.d	249616022	JAOC	22-MAR-2010 18:52	967266	249616		1.0	SSFL	UPLOAD BOTH, USE HIGHER
051f5101.d	249616023	JAOC	22-MAR-2010 19:08	967266	249616		5.0	SSFL	UPLOAD BOTH, USE HIGHER
052f5201.d	WAR100224-60 05	JAOC	22-MAR-2010 19:25		032210		1.0		PASSES BOTH COLUMNS
053f5301.d	WAR100219-99 06	JAOC	22-MAR-2010 19:37		032210		1.0		CLEAN
054f5401.d	249616024	JAOC	22-MAR-2010 19:50	967266	249616		1.0	SSFL	UPLOAD BOTH, USE HIGHER
055f5501.d	WAR100224-60 06	JAOC	22-MAR-2010 20:06		032210		1.0		PASSES BOTH COLUMNS

Instrument Batch: /chem/ecd8a.i/032210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	WAR100219-99 07	JAOC	22-MAR-2010 20:18		032210	1.0		CLEAN
057f5701.d	1202076355	JAOC	22-MAR-2010 20:31	967396	10-2302	1.0	QC A	UPLOAD BOTH, USE HIGHER
058f5801.d	1202076356	JAOC	22-MAR-2010 20:43	967396	10-2302	1.0	QC A	UPLOAD BOTH, USE HIGHER
059f5901.d	248842002	JAOC	22-MAR-2010 20:55	967396	10-2302	1.0	LANL	UPLOAD BOTH, USE HIGHER
060f6001.d	248842003	JAOC	22-MAR-2010 21:08	967396	10-2302	1.0	LANL	UPLOAD BOTH, USE HIGHER
061f6101.d	248842004	JAOC	22-MAR-2010 21:20	967396	10-2302	5.0	LANL	UPLOAD BOTH, USE HIGHER
062f6201.d	248842005	JAOC	22-MAR-2010 21:32	967396	10-2302	1.0	LANL	UPLOAD BOTH, USE HIGHER
063f6301.d	248842006	JAOC	22-MAR-2010 21:45	967396	10-2302	1.0	LANL	UPLOAD BOTH, USE HIGHER
064f6401.d	248842007	JAOC	22-MAR-2010 21:57	967396	10-2302	5.0	LANL	UPLOAD BOTH, USE HIGHER
065f6501.d	248842008	JAOC	22-MAR-2010 22:09	967396	10-2302	1.0	LANL	UPLOAD BOTH, USE HIGHER
066f6601.d	248842009	JAOC	22-MAR-2010 22:26	967396	10-2302	5.0	LANL	UPLOAD BOTH, USE HIGHER

067f6701.d	WAR100224-60 07	JAOC	22-MAR-2010 22:42		032210		1.0		PASSES BOTH COLUMNS
068f6801.d	WAR100219-99 08	JAOC	22-MAR-2010 22:55		032210		1.0		CLEAN
069f6901.d	248842010	JAOC	22-MAR-2010 23:07	967396	10-2302		1.0	LANL	UPLOAD BOTH, USE HIGHER
070f7001.d	248862002	JAOC	22-MAR-2010 23:20	967396	10-2314		5.0	LANL	UPLOAD BOTH, USE HIGHER
071f7101.d	1202076357	JAOC	22-MAR-2010 23:32	967396	10-2314		5.0	QC A	UPLOAD BOTH, USE HIGHER
072f7201.d	1202076358	JAOC	22-MAR-2010 23:44	967396	10-2314		5.0	QC A	UPLOAD BOTH, USE HIGHER
073f7301.d	248862003	JAOC	22-MAR-2010 23:57	967396	10-2314		5.0	LANL	UPLOAD BOTH, USE HIGHER
074f7401.d	248862004	JAOC	23-MAR-2010 00:09	967396	10-2314		20.0	LANL	UPLOAD BOTH, USE HIGHER
075f7501.d	248862005	JAOC	23-MAR-2010 00:21	967396	10-2314		5.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/032210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	248862006	JAOC	23-MAR-2010 00:34	967396	10-2314	5.0	LANL	UPLOAD BOTH, USE HIGHER
077f7701.d	248862007	JAOC	23-MAR-2010 00:46	967396	10-2314	10.0	LANL	UPLOAD BOTH, USE HIGHER
078f7801.d	248862008	JAOC	23-MAR-2010 01:03	967396	10-2314	20.0	LANL	UPLOAD BOTH, USE HIGHER
079f7901.d	WAR100224-60 08	JAOC	23-MAR-2010 01:19		032210	1.0		PASSES BOTH COLUMNS
080f8001.d	WAR100219-99 09	JAOC	23-MAR-2010 01:32		032210	1.0		CLEAN
081f8101.d	248862009	JAOC	23-MAR-2010 01:44	967396	10-2314	5.0	LANL	UPLOAD BOTH, USE HIGHER
082f8201.d	248862010	JAOC	23-MAR-2010 02:00	967396	10-2314	10.0	LANL	UPLOAD BOTH, USE HIGHER
083f8301.d	WAR100224-60 09	JAOC	23-MAR-2010 02:17		032210	1.0		PASSES BOTH COLUMNS
084f8401.d	WAR100219-99 10	JAOC	23-MAR-2010 02:29		032210	1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 967394 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202076355 MB	21-MAR-2010 12:13:00	30	H2SO4/KMn2		2	9	1	0.03333
1202076356 LCS	21-MAR-2010 12:13:00	30	H2SO4/KMn2		2	9	1	0.03333
248842002	21-MAR-2010 12:13:00	30.03	H2SO4/KMn2		2	9	1	0.0333
248842003	21-MAR-2010 12:13:00	30.15	H2SO4/KMn2		2	9	1	0.03317
248842004	21-MAR-2010 12:13:00	30.13	H2SO4/KMn2		2	9	1	0.03319
248842005	21-MAR-2010 12:13:00	30.16	H2SO4/KMn2		2	9	1	0.03316
248842006	21-MAR-2010 12:13:00	30.11	H2SO4/KMn2		2	9	1	0.03321
248842007	21-MAR-2010 12:13:00	30.15	H2SO4/KMn2		2	9	1	0.03317
248842008	21-MAR-2010 12:13:00	30.08	H2SO4/KMn2		2	9	1	0.03324
248842009	21-MAR-2010 12:13:00	30.06	H2SO4/KMn2		2	9	1	0.03327
248842010	21-MAR-2010 12:13:00	30.09	H2SO4/KMn2		2	9	1	0.03323
248862002	21-MAR-2010 12:13:00	30.12	H2SO4/KMn2		2	9	1	0.0332
1202076357 MS (248862002)	21-MAR-2010 12:13:00	30.06	H2SO4/KMn2		2	9	1	0.03327
1202076358 MSD (248862002)	21-MAR-2010 12:13:00	30.08	H2SO4/KMn2		2	9	1	0.03324
248862003	21-MAR-2010 12:13:00	30.06	H2SO4/KMn2		2	9	1	0.03327
248862004	21-MAR-2010 12:13:00	30.05	H2SO4/KMn2		2	9	1	0.03328
248862005	21-MAR-2010 12:13:00	30.01	H2SO4/KMn2		2	9	1	0.03332
248862006	21-MAR-2010 12:13:00	30.03	H2SO4/KMn2		2	9	1	0.0333
248862007	21-MAR-2010 12:13:00	30.09	H2SO4/KMn2		2	9	1	0.03323
248862008	21-MAR-2010 12:13:00	30.03	H2SO4/KMn2		2	9	1	0.0333
248862009	21-MAR-2010 12:13:00	30.02	H2SO4/KMn2		2	9	1	0.03331
248862010	21-MAR-2010 12:13:00	30.12	H2SO4/KMn2		2	9	1	0.0332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202076356	PCB Laboratory Control	WE100311-07	1	mL
MS	1202076357	PCB Laboratory Control	WE100311-07	1	mL
MSD	1202076358	PCB Laboratory Control	WE100311-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100310-16	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1273823-B1	150	mL
REGNT	All	Hexane	1279345-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 3/21/10

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

GEL Laboratories LLC
Form GEL-DER

DER Report No.: 808224
Revision No.: 2

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
23-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8082	Solid	LANL
Batch ID:	**Sample Numbers:**		
967396	See Below		

Potentially affected work order(s)(SDG): 248842(10-2302),248862(10-2314)

Application Issues:

Failed Recovery for MSD/PSD

Failed Yield for Surrogates

Specification and Requirements Exception Description:	DER Disposition:
1. 248862007 and 1202076358MSD do not meet surrogate recovery limits.	1. The surrogate failures are due to dilution and matrix interference. There are no hits in the samples.
2. 1202076358MSD does not meet spike recovery limits.	2. The MSD fails slightly high for spike recovery. The MS is within acceptable limits and the RPD is passing. There are no hits in the parent sample. The data is reported.

Originator's Name:
Jennifer Criscione 23-MAR-10

Data Validator/Group Leader:
Robert Whitlock 25-MAR-10

Thursday, March 04, 2010

REQUEST NUMBER: 10-2301

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Danny Coleman
American Radiation Services - Primary
1726 Wooddale Court
Baton Rouge, LA 70806

These Samples are on:
LANL Request Number:10-2301
Per Agreement Number:126310041
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010
TURNAROUND/REPORT DUE: 4/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:600M4	1	RE46-10-13546	S	3/3/2010	
		1	RE46-10-13547	S	3/3/2010	
		1	RE46-10-13548	S	3/3/2010	
		1	RE46-10-13549	S	3/3/2010	
		1	RE46-10-13550	S	3/3/2010	
		1	RE46-10-13551	S	3/3/2010	

1	RE46-10-13552	S	3/3/2010
1	RE46-10-13553	S	3/3/2010
1	RE46-10-13556	S	3/3/2010

Final Page of REQUEST NUMBER 10-2301

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2301C

REQUEST NUMBER: 10-2301

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Danny Coleman

American Radiation Services - Primary

1726 Wooddale Court

Baton Rouge, LA 70806

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13553	1	GLASS	ASBESTOS	Ice	S
RE46-10-13549	1	GLASS	ASBESTOS	Ice	S
RE46-10-13551	1	GLASS	ASBESTOS	Ice	S
RE46-10-13550	1	GLASS	ASBESTOS	Ice	S
RE46-10-13548	1	GLASS	ASBESTOS	Ice	S
RE46-10-13546	1	GLASS	ASBESTOS	Ice	S
RE46-10-13552	1	GLASS	ASBESTOS	Ice	S
RE46-10-13547	1	GLASS	ASBESTOS	Ice	S
RE46-10-13556	1	GLASS	ASBESTOS	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	3/4/10	1800	Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13546 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1100	SUB-MEDIA:	SOIL	ok
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611622	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	8 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	9 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~R JRT 3-3-10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1-2	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: tuff, Pinkish gray (7.5YR 6/3), solvent odor?

SAMPLE COMMENTS: Base of well

LOCATION DESC: 4c-1

FIELD SCREENING/MEASUREMENT RESULTS: Background:

PID: ~~NA~~ JRT 3-3-10 373 ppm

α: 12 dpm

β: 827

Samples MDA

COLLECTED BY (PRINT) J. Jordan

REVIEWED BY (PRINT) J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13547 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1125	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611622	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	13 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	14 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	SR JJS 3-3-10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: tuff, pinkish gray (7.5YR 6/3), moist, solvent odor?

SAMPLE COMMENTS: 5ft below base of well

LOCATION DESC: 4C-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 421 ppm Background: K: 12 dpm B: 827 Samples < MDA

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13548 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QB + 3
TIME COLLECTED (HH:MM)		1140	SUB-MEDIA:	SOIL	O/C
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611622	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	18	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	19	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 2	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice JT 3-3-10	Y	Plus Cesium Metal

SAMPLE DESC: tuff, pinkish-gray (7.5YR 6/3), solvent odor? Sl. moist

SAMPLE COMMENTS: 10 ft below base of well

LOCATION DESC: 4c-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 433 ppm Background: α: 12 β: 807 dpm Sample's MDA

COLLECTED BY (PRINT) J. [illegible] **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [illegible]	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature) [illegible]	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13549 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1205	SUB-MEDIA:	SOIL	Ok
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611622	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK JJS 3-3-10	FIELD PREP:	NA	
TOP DEPTH:	0	~~24~~ 23 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	24 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R JJS 3-3-10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 ~~2~~	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: tuff, pinkish gray (7.5 YR 6/3) solvent odor, sl. moist

SAMPLE COMMENTS: 15 ft below base of well

LOCATION DESC: 4C-1

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples < MDA
PID = 390 ppm α: 12 dpm
β: 827

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13550 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1335	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611623	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	8 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	9 ft	SCREEN/PORT DESC:		
FIELD MATRIX:	~~S~~ R SLJ 3-3-10		EXCAVATED: YES / NO / NA	NA	

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
~~1~~ 2	LW 3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: tuff, pinkish-gray (7.5YR 6/3), solvent odor, moist

SAMPLE COMMENTS: base of well

LOCATION DESC: 4C-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 265 ppm

Background: Samples < MDA
α: 12 dpm
β: 827 dpm

COLLECTED BY (PRINT) J. J[illegible] **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J[illegible]	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13551 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT 3
TIME COLLECTED (HH:MM)			SUB-MEDIA:	SOIL	ok
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611623	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	13 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	14 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~SR~~ SUS 3-3-10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 2	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: ~~tuff, pinkish-gray (7.5YR 6/3)~~ DJ 3-3-10
Sand, brn (7.5YR 4/3), crse gr, sub angular - sub rounded wet, solvent odor

SAMPLE COMMENTS: 5 ft below base of well

LOCATION DESC: 4c-2

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples < MDA
PID = 373 ppm α: 12 β: 827 dpm

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13552 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1415	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611623	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	18 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	19 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
~~1~~ 2 3-3-10		ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: tuff, Pinkish-gray (7.5YR 6/3), Solvent odor, moist

SAMPLE COMMENTS: 10 ft below base of well

LOCATION DESC: 4c-2

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples < MDA
PID = 360 ppm
α: 12
β: 837 dpm

COLLECTED BY (PRINT) J. Jones **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jones	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature) J. Jones	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13553 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT 3
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611623	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	23 ft	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	24 ft	SCREEN/PORT DESC:		
FIELD MATRIX:	~~S~~ R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1 → 2	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

SAMPLE DESC: Tuff, Pinkish-gray (7.5YR 6/3), solvent odor, sl. moist

SAMPLE COMMENTS: 15 ft below base of well

LOCATION DESC: 4c-2

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples < MDA

PID = 323 ppm α: 12 β: 827 dpm

COLLECTED BY (PRINT) J. [illegible] **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [illegible]	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature) [illegible]	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13555 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	NA	All H
TIME COLLECTED (HH:MM)		1100	SUB-MEDIA:	OTHER	O/C
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611622	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	8 ft	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	9 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING: YES / NO (NA)**

BOREHOLE: YES / NO (NA) **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 2		8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

3/3/10

SAMPLE DESC: QC Sample of RE 46-10-13546

SAMPLE COMMENTS: NA

LOCATION DESC: 4C-1

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Andress **REVIEWED BY (PRINT)** J. Ramos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature)	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2665 **EVENT NAME:** SWMU 46-004(a2),46-004(c), 46-004(h), 46-004(p), 46-004(r)

SAMPLE ID: RE46-10-13556 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1415	SUB-MEDIA:	SOIL	ok
PRS ID:	46-004(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	~~UNK~~ 46-611623		FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	18 ft	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	19 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		ASBESTOS	125 ML GLASS	Ice	Y	
1		Met+NO3+CL04+CN	1 LITER POLY	Ice	Y	Plus Cesium Metal

ft 3/10

SAMPLE DESC: QC Sample of RE46-10-13552
tuff, Pinkish-gray (7.5YR 6/3), solvent odor, sl. moist

SAMPLE COMMENTS: NA

LOCATION DESC: 4C-2

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) J. J[illegible] **REVIEWED BY (PRINT)** J. POMMERS

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. J[illegible]	3-3-10	(Printed Name) Sherri Sherwood	3-3-10
(Signature) [illegible]	1715	(Signature) Sherri Sherwood	1715
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

American Radiation Services, Inc.

Laboratory Analysis Report

ARS1-10-00475

Asbestos Analysis Report

10-2301

Prepared for:

Los Alamos National Laboratory

Keith Greene
Drop Point MS H865 TA-3, Bldg 271
Los Alamos, NM 87545

kgreene@lanl.gov

Phone: 505-665-9966
Fax: 505-665-9972

Project Manager Review

Management Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager

ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949 **NELAP Cert# E87558**

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

March 18, 2010

LANL
Keith Greene
Drop Point MS H865
Los Alamos, NM 87545

Request Number: 10-2301
LANL Sample ID: RE46-10-13546; RE46-10-13547; RE46-10-13548; RE46-10-13549; RE46-10-13550; RE46-10-13551; RE46-10-13552; RE46-10-1553; RE46-10-13555.

Dear Mr. Greene;

On March 5, 2010, ARS International received nine (9) solid sample(s) to be analyzed for Asbestos.

The samples were submitted to Materials and Chemistry Laboratory, Inc. in Oak Ridge, Tennessee for analysis.

If you have any questions please do not hesitate to call at 225.381.2991 or email ProjectManagers@amrad.com.

Sincerely,

Laboratory Management
ARS International

ARS INTERNATIONAL
2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

COVER PAGE

18980SOW0-8S
Statement of Work for Analytical Laboratories

PROJECT SAMPLE IDENTIFICATION CROSS-REFERENCE TO ARS SAMPLE LABORATORY IDs

Subcontract (LANL Agreement Number) 126310041

Request Number	LANL PROJECT SAMPLE ID NUMBER	Laboratory SAMPLE ID NUMBER(S)
10-2301	RE46-10-13546	100309-009
10-2301	RE46-10-13547	100309-010
10-2301	RE46-10-13548	100309-011
10-2301	RE46-10-13549	100309-012
10-2301	RE46-10-13550	100309-013
10-2301	RE46-10-13551	100309-014
10-2301	RE46-10-13552	100309-015
10-2301	RE46-10-13553	100309-016
10-2301	RE46-10-13556	100309-017

ANALYTICAL METHODS

Asbestos analyses were performed using **NIOSH Method 9002.**

ANALYTICAL RESULTS

Data is reported as positive or negative for asbestos. A positive result indicates presence >1%.

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767

1 (800) 401-4277 • Fax (225) 381-2996

American Radiation Services Project Manager/Laboratory Director's Comments:
"I certify that this sample data package is in compliance with SOW requirements, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this sample data package and the computer-readable EDD, as applicable, submitted on diskette or by modem, has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature."

"I certify that this electronic image and all hardcopies produced from this image accurately represent the data and is in compliance with the LANL specific requirements, both technically and for completeness, other than the conditions detailed above or in the sample data package narrative. Release, by submission through email, the data contained in this electronic image and the computer-readable EDD (as applicable), has been authorized by the laboratory Manager/Technical Director or the Manager's designee."

	Laboratory Management, ARS International	
Signature	**Title**	**Date**

Materials and Chemistry Laboratory, Inc.
Asbestos Laboratory
East Tennessee Technology Park
Oak Ridge, TN 37830-1702

MCL ID: **100309-009** ***Customer Sample ID:*** **RE46-10-13546**

Contact: Virgene Mulligan
Client: ARS International
2609 North River Road
Port Allen, Louisiana 70767
Sample received from: Virgene Mulligan

Request Number: 80038
Date Received: 3/9/2010
Date Analyzed: 3/12/2010
Date Completed: 3/12/2010
Approved by: Travaglini 3/15/2010
Date Issued: 3/15/2010
Program Manager: RJ Stevenson (#701642)

Sample Analyses Results

This sample was **NEGATIVE** for asbestos (Positive is > 1%)

Trace cellulose fibers.

NIOSH 9002 Method *
Asbestos Microscopic ID

Analyst: Diann Hall # 29815

QA File Number: ID262

Diann Hall
Analyst

Sam Travaglini
Approver

AIHA Accredited Laboratory
Number 102797

Method NIOSH 9002
*** Ver. 4, August 15, 1994**

MCLInc Project Number: ARS002257 K

Phone: (865) 576-4138
Website: www.MCL-inc.com

Materials and Chemistry Laboratory, Inc.
Asbestos Laboratory
East Tennessee Technology Park
Oak Ridge, TN 37830-1702

MCL ID: **100309-010** ***Customer Sample ID:*** **RE46-10-13547**

Contact: Virgene Mulligan
Client: ARS International
2609 North River Road
Port Allen, Louisiana 70767
Sample received from: Virgene Mulligan

Request Number: 80038
Date Received: 3/9/2010
Date Analyzed: 3/12/2010
Date Completed: 3/12/2010
Approved by: Travaglini 3/15/2010
Date Issued: 3/15/2010
Program Manager: RJ Stevenson (#701642)

Sample Analyses Results

This sample was **NEGATIVE** for asbestos (Positive is > 1%)

Trace cellulose fibers.

NIOSH 9002 Method *
Asbestos Microscopic ID

Analyst: Diann Hall # 29815

QA File Number: ID262

Diann Hall
Analyst

Sam Travaglini
Approver

AIHA Accredited Laboratory
Number 102797

Method NIOSH 9002
*** Ver. 4, August 15, 1994**

MCLInc Project Number: ARS002257 K

Phone: (865) 576-4138
Website: www.MCL-inc.com

Materials and Chemistry Laboratory, Inc.
Asbestos Laboratory
East Tennessee Technology Park
Oak Ridge, TN 37830-1702

MCL ID: 100309-011 ***Customer Sample ID:*** RE46-10-13548

Contact: Virgene Mulligan
Client: ARS International
2609 North River Road
Port Allen, Louisiana 70767
Sample received from: Virgene Mulligan

Request Number: 80038
Date Received: 3/9/2010
Date Analyzed: 3/12/2010
Date Completed: 3/12/2010
Approved by: Travaglini 3/15/2010
Date Issued: 3/15/2010
Program Manager: RJ Stevenson (#701642)

Sample Analyses Results

This sample was **NEGATIVE** for asbestos (Positive is > 1%)

No fibers found.

NIOSH 9002 Method *
Asbestos Microscopic ID

Analyst: Diann Hall # 29815

QA File Number: ID264

Diann Hall
Analyst

Sam Travaglini
Approver

AIHA Accredited Laboratory
Number 102797

Method NIOSH 9002
*** Ver. 4, August 15, 1994**

MCLinc Project Number: ARS002257 K

Phone: (865) 576-4138
Website: www.MCL-inc.com

Materials and Chemistry Laboratory, Inc.
Asbestos Laboratory
East Tennessee Technology Park
Oak Ridge, TN 37830-1702

MCL ID: **100309-012** ***Customer Sample ID:*** **RE46-10-13549**

Contact: Virgene Mulligan
Client: ARS International
2609 North River Road
Port Allen, Louisiana 70767
Sample received from: Virgene Mulligan

Request Number: 80038
Date Received: 3/9/2010
Date Analyzed: 3/12/2010
Date Completed: 3/12/2010
Approved by: Travaglini 3/15/2010
Date Issued: 3/15/2010
Program Manager: RJ Stevenson (#701642)

Sample Analyses Results

This sample was **NEGATIVE** for asbestos (Positive is > 1%)

Trace cellulose fibers.

NIOSH 9002 Method *
Asbestos Microscopic ID

Analyst: Diann Hall # 29815

QA File Number: ID264

Diann Hall
Analyst

Sam Travaglini
Approver

AIHA Accredited Laboratory
Number 102797

Method NIOSH 9002
*** Ver. 4, August 15, 1994**

MCLinc Project Number: ARS002257 K

Phone: (865) 576-4138
Website: www.MCL-Inc.com

Materials and Chemistry Laboratory, Inc.
Asbestos Laboratory
East Tennessee Technology Park
Oak Ridge, TN 37830-1702

MCL ID: 100309-013

Customer Sample ID: RE46-10-13550

Contact: Virgene Mulligan
Client: ARS International
2609 North River Road
Port Allen, Louisiana 70767
Sample received from: Virgene Mulligan

Request Number: 80038
Date Received: 3/9/2010
Date Analyzed: 3/12/2010
Date Completed: 3/12/2010
Approved by: Travaglini 3/15/2010
Date Issued: 3/15/2010
Program Manager: RJ Stevenson (#701642)

Sample Analyses Results

This sample was **NEGATIVE** for asbestos (Positive is > 1%)

No fibers found.

NIOSH 9002 Method *
Asbestos Microscopic ID

Analyst: Diann Hall # 29815

QA File Number: ID264

Diann Hall
Analyst

Sam Travaglini
Approver

AIHA Accredited Laboratory
Number 102797

Method NIOSH 9002
*** Ver. 4, August 15, 1994**

MCLinc Project Number: ARS002257 K

Phone: (865) 576-4138
Website: www.MCL-inc.com

Materials and Chemistry Laboratory, Inc.
Asbestos Laboratory
East Tennessee Technology Park
Oak Ridge, TN 37830-1702

MCL ID: 100309-014 ***Customer Sample ID:*** RE46-10-13551

Contact: Virgene Mulligan
Client: ARS International
2609 North River Road
Port Allen, Louisiana 70767
Sample received from: Virgene Mulligan

Request Number: 80038
Date Received: 3/9/2010
Date Analyzed: 3/12/2010
Date Completed: 3/12/2010
Approved by: Travaglini 3/15/2010
Date Issued: 3/15/2010
Program Manager: RJ Stevenson (#701642)

Sample Analyses Results

This sample was **NEGATIVE** for asbestos (Positive is > 1%)

Trace cellulose fibers.

NIOSH 9002 Method *
Asbestos Microscopic ID

Analyst: Diann Hall # 29815

QA File Number: ID264

Diann Hall
Analyst

Sam Travaglini
Approver

AIHA Accredited Laboratory
Number 102797

Method NIOSH 9002
*** Ver. 4, August 15, 1994**

MCLinc Project Number: ARS002257 K

Phone: (865) 576-4138
Website: www.MCL-Inc.com

Materials and Chemistry Laboratory, Inc.
Asbestos Laboratory
East Tennessee Technology Park
Oak Ridge, TN 37830-1702

MCL ID: **100309-015** ***Customer Sample ID:*** **RE46-10-13552**

Contact: Virgene Mulligan
Client: ARS International
2609 North River Road
Port Allen, Louisiana 70767
Sample received from: Virgene Mulligan

Request Number: 80038
Date Received: 3/9/2010
Date Analyzed: 3/12/2010
Date Completed: 3/12/2010
Approved by: Travaglini 3/15/2010
Date Issued: 3/15/2010
Program Manager: RJ Stevenson (#701642)

Sample Analyses Results

This sample was **NEGATIVE** for asbestos (Positive is > 1%)

Trace cellulose fibers.

NIOSH 9002 Method *
Asbestos Microscopic ID

Analyst: Diann Hall # 29815

QA File Number: ID264

Diann Hall
Analyst

Sam Travaglini
Approver

AIHA Accredited Laboratory
Number 102797

Method NIOSH 9002
*** Ver. 4, August 15, 1994**

MCLinc Project Number: ARS002257 K

Phone: (865) 576-4138
Website: www.MCL-inc.com

Materials and Chemistry Laboratory, Inc.
Asbestos Laboratory
East Tennessee Technology Park
Oak Ridge, TN 37830-1702

MCL ID: 100309-016 ***Customer Sample ID:*** RE46-10-13553

Contact: Virgene Mulligan
Client: ARS International
2609 North River Road
Port Allen, Louisiana 70767
Sample received from: Virgene Mulligan

Request Number: 80038
Date Received: 3/9/2010
Date Analyzed: 3/12/2010
Date Completed: 3/12/2010
Approved by: Travaglini 3/15/2010
Date Issued: 3/15/2010
Program Manager: RJ Stevenson (#701642)

Sample Analyses Results

This sample was **NEGATIVE** for asbestos (Positive is > 1%)

No fibers found.

NIOSH 9002 Method *
Asbestos Microscopic ID

Analyst: Diann Hall # 29815

QA File Number: 1D264

Diann Hall
Analyst

Sam Travaglini
Approver

AIHA Accredited Laboratory
Number 102797

Method NIOSH 9002
*** Ver. 4, August 15, 1994**

MCLinc Project Number: ARS002257 K

Phone: (865) 576-4138
Website: www.MCL-inc.com

Materials and Chemistry Laboratory, Inc.
Asbestos Laboratory
East Tennessee Technology Park
Oak Ridge, TN 37830-1702

MCL ID: 100309-017

Customer Sample ID: RE46-10-13556

Contact: Virgene Mulligan
Client: ARS International
2609 North River Road
Port Allen, Louisiana 70767
Sample received from: Virgene Mulligan

Request Number: 80038
Date Received: 3/9/2010
Date Analyzed: 3/12/2010
Date Completed: 3/12/2010
Approved by: Travaglini 3/15/2010
Date Issued: 3/15/2010
Program Manager: RJ Stevenson (#701642)

Sample Analyses Results

This sample was **NEGATIVE** for asbestos (Positive is > 1%)

Trace cellulose fibers.

NIOSH 9002 Method *
Asbestos Microscopic ID

Analyst: Diann Hall # 29815

QA File Number: ID264

Diann Hall
Analyst

Sam Travaglini
Approver

AIHA Accredited Laboratory
Number 102797

Method NIOSH 9002
*** Ver. 4, August 15, 1994**

MCLinc Project Number: ARS002257 K

Phone: (865) 576-4138
Website: www.MCL-inc.com

Hard Copy Required

Thursday, March 04, 2010

REQUEST NUMBER: 10-2301

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Danny Coleman
American Radiation Services - Primary
1726 Wooddale Court
Baton Rouge, LA 70806

These Samples are on:
LANL Request Number:10-2301
Per Agreement Number:126310041
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010
TURNAROUND/REPORT DUE: 4/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:600M4	1	RE46-10-13546	S	3/3/2010	
		1	RE46-10-13547	S	3/3/2010	
		1	RE46-10-13548	S	3/3/2010	
		1	RE46-10-13549	S	3/3/2010	
		1	RE46-10-13550	S	3/3/2010	
		1	RE46-10-13551	S	3/3/2010	

1	RE46-10-13552	S	3/3/2010
1	RE46-10-13553	S	3/3/2010
1	RE46-10-13556	S	3/3/2010

Final Page of REQUEST NUMBER 10-2301

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2301C

REQUEST NUMBER: 10-2301

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Danny Coleman

American Radiation Services - Primary

1726 Wooddale Court

Baton Rouge, LA 70806

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13553	1	GLASS	ASBESTOS	Ice	S
RE46-10-13549	1	GLASS	ASBESTOS	Ice	S
RE46-10-13551	1	GLASS	ASBESTOS	Ice	S
RE46-10-13550	1	GLASS	ASBESTOS	Ice	S
RE46-10-13548	1	GLASS	ASBESTOS	Ice	S
RE46-10-13546	1	GLASS	ASBESTOS	Ice	S
RE46-10-13552	1	GLASS	ASBESTOS	Ice	S
RE46-10-13547	1	GLASS	ASBESTOS	Ice	S
RE46-10-13556	1	GLASS	ASBESTOS	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	3/4/10	1700	William Stickle / William Stickle	3-5-10	10:14
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Thursday, March 04, 2010

REQUEST NUMBER: 10-2300

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2300

Per Agreement Number:126310011

Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13860	S	3/3/2010	
		1	RE46-10-13861	S	3/3/2010	
		1	RE46-10-13862	S	3/3/2010	
		1	RE46-10-13863	S	3/3/2010	
		1	RE46-10-13864	S	3/3/2010	
		1	RE46-10-13865	S	3/3/2010	

	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010
	1	RE46-10-13873	S	3/3/2010
HASL-300:AM-241	1	RE46-10-13860	S	3/3/2010
	1	RE46-10-13861	S	3/3/2010
	1	RE46-10-13862	S	3/3/2010
	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010
	1	RE46-10-13873	S	3/3/2010
HASL-300:ISOPU	1	RE46-10-13860	S	3/3/2010
	1	RE46-10-13861	S	3/3/2010
	1	RE46-10-13862	S	3/3/2010
	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010
	1	RE46-10-13873	S	3/3/2010
HASL-300:ISOU	1	RE46-10-13860	S	3/3/2010
	1	RE46-10-13861	S	3/3/2010
	1	RE46-10-13862	S	3/3/2010
	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010

1	RE46-10-13873	S	3/3/2010

Final Page of REQUEST NUMBER 10-2300

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2300C

REQUEST NUMBER: 10-2300

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13867	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13864	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13863	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13869	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13861	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13866	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13860	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13865	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13868	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13862	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13873	1	POLY	AM241+GS+ISOPU+ ISOU	None	S

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	3/4/10	1400	Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13860 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1337	SUB-MEDIA:	SOIL	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611754	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1	SCREEN/PORT DESC:		13A
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: fill & brown tuff (7.5YR 5/2)

SAMPLE COMMENTS: tuff @ 3" sampled beneath asphalt

LOCATION DESC: 7-1

FIELD SCREENING/MEASUREMENT RESULTS:
PID: 0.5ppm Background
α: 12
β: 827 dpm
Samples < MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) Sherri Sherwood	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13861 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	~~ALLH~~ SR 3/3/10	Qbt3
TIME COLLECTED (HH:MM)		1357	SUB-MEDIA:	SOIL	N
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611754		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	2	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	3	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R SR 3/3/10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: gray tuff (5YR 5/1)

SAMPLE COMMENTS: sampled beneath asphalt

LOCATION DESC: 7-1

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.4 ppm Background α: 12 β: 827 dpm

Samples < MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) [signature]	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13862 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	~~ALLH~~ RA 3/3/10	Qbt3
TIME COLLECTED (HH:MM)		1349	SUB-MEDIA:	SOIL	N
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611755	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R RA 3/3/10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ 1 ISOPU+ISOU	LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: Dark Reddish gray tuff (5YR 4/2)

SAMPLE COMMENTS: Sample beneath asphalt

LOCATION DESC: 7-2

FIELD SCREENING/MEASUREMENT RESULTS: Background:
PID: 4.6 ppm
α: 12 dpm
β: 827
Samples < MDA

COLLECTED BY (PRINT) JRamos **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) Sherri Sherwood	1632
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13863 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1340	SUB-MEDIA:	SOIL	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611755	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ 1 ISOPU+ISOU	LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: brown tuff (7.5 YR 4/2), coarse sediment

SAMPLE COMMENTS: tuff @ 6", sampled beneath asphalt

LOCATION DESC: 7-2

FIELD SCREENING/MEASUREMENT RESULTS: Background: PID: 6.6 ppm α: 12 dpm β: 827 Samples < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) Sherri Sherwood	1632
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13864 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		03-03-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1335	SUB-MEDIA:	SOIL	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611756	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: brown coarse grained silty sand (7.5YR 4/3)

SAMPLE COMMENTS: tuff @ 10", ~~Sampled beneath asphalt~~ 3/3/10

LOCATION DESC: 7-3

FIELD SCREENING/MEASUREMENT RESULTS: PID: 6.1 ppm

Background screening α: 12 β: 827 dpm Samples < MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) [signature]	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13865 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	~~ALLH~~ RA 3/3/10	QbT3
TIME COLLECTED (HH:MM)		1352	SUB-MEDIA:	SOIL	N
PRS ID:	46-007	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	46-611756	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ RA 3/3/10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: gray tuff (5YR 6/1)

SAMPLE COMMENTS:

LOCATION DESC: 7-3, ~~sampled beneath asphalt~~ 3/3/10

FIELD SCREENING/MEASUREMENT RESULTS: PID: 5.7 ppm
Background Screening α: 12 ppm β: 827 Samples < MDA

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) [signature]	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13866 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1443	SUB-MEDIA:	SOIL	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611757	—	FIELD QC TYPE:	NA	—
LOCATION TYPE:	GENERIC	—	FIELD PREP:	NA	—
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	—
BOTTOM DEPTH:	0	1	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: Reddish brown Coarse Sandy Sediment w/gravel (5YR 4/3)

SAMPLE COMMENTS: Sampled under asphalt

LOCATION DESC: 7-~~2~~4 AW 3-3-10

FIELD SCREENING/MEASUREMENT RESULTS: PID • 0.6ppm Background α: 12 dpm β: 827 Samples < MDA

COLLECTED BY (PRINT) J. Ramero REVIEWED BY (PRINT) Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature)	1632	(Signature) Sherri Sherwood	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13867 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	~~ALLH~~ 3/3/10	QST3
TIME COLLECTED (HH:MM)		1502	SUB-MEDIA:	SOIL	N
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611757		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	2	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	SR 3/3/10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: pale red tuff (2.5 YR 6/2)

SAMPLE COMMENTS: Sampled under asphalt

LOCATION DESC: 7-~~2~~ 4 MU 3-3-10

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.6ppm Background α: 12 β: 827 dpm Samples < MDA

COLLECTED BY (PRINT) M. Nawck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) Sherri Sherwood	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13868 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1442	SUB-MEDIA:	SOIL	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611758		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: coarse sandy sediment w/ gravel (2.5 YR 6/1)

SAMPLE COMMENTS: Sample under asphalt, tuff @ 6"

LOCATION DESC: 7-~~3~~ 5 3-3-10

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.8ppm Background α: 12 β: 827 dpm Samples < MDA

COLLECTED BY (PRINT) M. Shenda **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) [signature]	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13869 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	~~ALLH~~ Rd 3/3/10	Qbt3
TIME COLLECTED (HH:MM)		1505	SUB-MEDIA:	SOIL	N
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611758		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	2	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	3	SCREEN/PORT DESC:		L2A
FIELD MATRIX:	S R RA 3/3/10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: reddish gray tuff (2.5 YR 6/1)

SAMPLE COMMENTS: sampled under asphalt

LOCATION DESC: 7-~~B~~5 AW 3-3-10

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.7ppm Background α: 12 β: 827 dpm Samples < MDA

COLLECTED BY (PRINT) M. Shenda **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) Sherri Sherwood	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13872 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		3/3/10 1415 3/3/10 1409 1415	SUB-MEDIA:	OTHER	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611757	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING: YES / NO / NA**

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	Plus Cesium Metal pH <2
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH >12
1		SW-846:6850	250 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13866

SAMPLE COMMENTS: NA

LOCATION DESC: 7-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Sheado **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature)	1632	(Signature)	1632
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13873 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1443	SUB-MEDIA:	SOIL	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	46-611757	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / (NA)

BOREHOLE: YES / NO / (NA) **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: QC Sample of RE46-10-13866

SAMPLE COMMENTS: NA

LOCATION DESC: 7-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) [signature]	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13874 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1443	SUB-MEDIA:	OTHER	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611757	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA	NA	

COMPOSITE TYPE: ____ COMPOSITE TIME INTERVAL: ____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ____ BOREHOLE DIRECTION: ____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 ~~2~~		8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13866

SAMPLE COMMENTS: NA

LOCATION DESC: 7-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Andress

REVIEWED BY (PRINT) ~~Lane Andress~~ M. Nauck 3/3/10

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature)	3/3/10 1632	(Printed Name) Sherri Sherwood (Signature)	3/3/10 1632
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13875 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		3/3/10 ~~1415~~ 1409	SUB-MEDIA:	OTHER	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611757	FIELD QC TYPE:	FB	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING: YES / NO (NA)**

BOREHOLE: YES / NO / (NA) **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	Plus Cesium Metal pH <2
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH >12
1		SW-846:6850	250 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13866

SAMPLE COMMENTS: NA

LOCATION DESC: 7-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) [signature]	1632
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2300 VALIDATION DATE: 04/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: David Schwent ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. All reported sample results that were rejected by the laboratory due to interference or low abundance were qualified R,R5a. In the QC samples, several results were also rejected by the laboratory. No sample data were qualified as a result.

2. It should be noted that the matrix QC analysis for the gamma spec analysis in this RN was performed on a LANL sample from another RN. No sample data were qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 4/23/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

VALIDATOR'S SIGNATURE: David Schmoll DATE: 04/22/10

Form 5119-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☐	☒	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13867
Sample ID: 248841001
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 7.9%

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	0.00278		0.0241	+/-0.00336	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
PU "Dry Weight Corrected"													
nium-238	U	0.0108		0.0169	+/-0.00401	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
nium-239/240	U	0.00597		0.0142	+/-0.00398	0.050	pCi/g						
J "Dry Weight Corrected"													
um-233/234		0.916		0.101	+/-0.0871	0.100	pCi/g		JXH2	03/30/10	1643	965810	3
um-235/236	U	0.0308		0.0614	+/-0.0119	0.100	pCi/g						
um-238		0.795		0.0707	+/-0.0781	0.100	pCi/g						
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
icium-241	U	0.0116		0.0822	+/-0.0251	0.200	pCi/g		MXR1	03/18/10	1645	962629	4
uth-211	UI	4.69	R,R5a	0.381	+/-0.333		pCi/g						
uth-214		1.30		0.146	+/-0.131	0.200	pCi/g						
ium-109	UI	4.27	R,R5a	0.848	+/-0.440		pCi/g						
m-139	U	-0.0125		0.0419	+/-0.0122	0.050	pCi/g						
m-134	UI	0.134	R,R5a	0.130	+/-0.0428	0.100	pCi/g						
m-137	U	-0.0449		0.0647	+/-0.0223	0.100	pCi/g						
lt-60	U	-0.00399		0.0896	+/-0.0269	0.100	pCi/g						
ium-152	U	-0.0163		0.160	+/-0.0492	0.200	pCi/g						
anum-140	U	-0.00738		0.198	+/-0.0609		pCi/g						
-212		2.12		0.0866	+/-0.123	0.100	pCi/g						
-214		1.70		0.139	+/-0.130	0.100	pCi/g						
ury-203	UI	0.104	R,R5a	0.0572	+/-0.0324	0.100	pCi/g						
sium-40		37.3		0.507	+/-2.01	1.00	pCi/g						
m-223	U	0.0531		1.09	+/-0.366		pCi/g						
m-224	UI	2.28	R,R5a	0.931	+/-0.521		pCi/g						
m-226		1.30		0.146	+/-0.131		pCi/g						
m-228		1.43		0.295	+/-0.211	0.500	pCi/g						
enium-106	U	0.0783		0.672	+/-0.199	0.800	pCi/g						
m-22	U	0.0732		0.117	+/-0.0322	0.080	pCi/g						
tium-85	U	0.0164		0.0714	+/-0.023		pCi/g						

DJS

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Certificate of Analysis

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Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13867
Sample ID: 248841001

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Gamma Spec Analysis												
MA SPEC "Dry Weight Corrected"												
ium-208		0.696	0.0656	+/-0.065	0.080	pCi/g						
um-227	U	-0.0607	0.420	+/-0.126		pCi/g						
um-231	U	0.0531	1.09	+/-0.366		pCi/g						
um-234		1.58	0.861	+/-0.464	2.00	pCi/g						
13	U	-0.0035	0.0846	+/-0.0262	0.100	pCi/g						
um-235	U	0.187	0.319	+/-0.0955	0.500	pCi/g						
m-88	U	-0.038	0.0743	+/-0.0275	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	78.5	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	89.2	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	96.0	(50%-105%)

s:
J is calculated at the 67% confidence level (1-sigma).
Qualifiers in this report are defined as follows :

Analyte is a surrogate compound
Result is less than value reported
Result is greater than value reported
The TIC is a suspected aldol-condensation product
For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
) Results are either below the MDC or tracer recovery is low
Analyte has been confirmed by GC/MS analysis
Results are reported from a diluted aliquot of the sample
Estimated Value
Analytical holding time was exceeded
Value is estimated
M if above MDC and less than LLD
Matrix Related Failure

DJS

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13864
Sample ID: 248841002
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 14%

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
ılpha Spec Analysis													
'41 "Dry Weight Corrected"													
·icium-241	U	0.00238		0.0218	+/-0.003	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
ᵊU "Dry Weight Corrected"													
nium-238	U	0.00228		0.0161	+/-0.0028	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
nium-239/240		0.0148		0.0136	+/-0.00477	0.050	pCi/g						
J "Dry Weight Corrected"													
.um-233/234		0.799		0.107	+/-0.0797	0.100	pCi/g		JXH2	03/30/10	1643	965810	3
.um-235/236	U	0.0517		0.0655	+/-0.016	0.100	pCi/g						
.um-238		0.883		0.0754	+/-0.0863	0.100	pCi/g						
Gamma Spec Analysis													
1MA SPEC "Dry Weight Corrected"													
·icium-241	U	0.145		0.515	+/-0.166	0.200	pCi/g		MXR1	03/18/10	1824	962629	4
uth-211	UI	3.93	R,R5a	0.407	+/-0.346		pCi/g						
uth-214		1.13		0.135	+/-0.106	0.200	pCi/g						
ıium-109	U	1.81		2.12	+/-0.683		pCi/g						
.m-139	U	0.00979		0.0655	+/-0.0196	0.050	pCi/g						
ım-134	U	0.0494		0.107	+/-0.0296	0.100	pCi/g						
ım-137		0.0885		0.0818	+/-0.0386	0.100	pCi/g						
lt-60	U	-0.0602		0.0642	+/-0.0244	0.100	pCi/g						
›ium-152	U	0.0659		0.204	+/-0.0844	0.200	pCi/g						
ıanum-140	U	0.0222		0.170	+/-0.0498		pCi/g						
·212		1.82		0.125	+/-0.132	0.100	pCi/g						
·214		1.43		0.148	+/-0.131	0.100	pCi/g						
ury-203	U	0.0562		0.0853	+/-0.0336	0.100	pCi/g						
sium-40		31.1		0.785	+/-1.85	1.00	pCi/g						
ım-223	U	-1.89		1.24	+/-0.455		pCi/g						
ım-224	UI	4.18	R,R5a	1.34	+/-0.682		pCi/g						
ım-226		1.13		0.135	+/-0.106		pCi/g						
ım-228		1.81		0.281	+/-0.192	0.500	pCi/g						
·nium-106	U	0.093		0.637	+/-0.192	0.800	pCi/g						
ım-22	U	0.00868		0.092	+/-0.028	0.080	pCi/g						
tium-85	UI	0.122	R,R5a	0.098	+/-0.0298		pCi/g						
ium-208		0.516		0.0676	+/-0.0498	0.080	pCi/g						

DJS

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13864
Sample ID: 248841002

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Gamma Spec Analysis												
MA SPEC "Dry Weight Corrected"												
um-227	U	-0.158	0.572	+/-0.171		pCi/g						
um-231	U	-1.89	1.24	+/-0.455		pCi/g						
um-234	U	2.99	4.34	+/-1.50	2.00	pCi/g						
13	U	0.0272	0.0951	+/-0.0276	0.100	pCi/g						
um-235	U	-0.158	0.436	+/-0.137	0.500	pCi/g						
m-88	U	0.0331	0.0733	+/-0.0192	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	88.3	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	91.0	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	90.1	(50%-105%)

s:
J is calculated at the 67% confidence level (1-sigma).
: Qualifiers in this report are defined as follows :

Analyte is a surrogate compound
Result is less than value reported
Result is greater than value reported
The TIC is a suspected aldol-condensation product
For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
) Results are either below the MDC or tracer recovery is low
Analyte has been confirmed by GC/MS analysis
Results are reported from a diluted aliquot of the sample
Estimated Value
Analytical holding time was exceeded
Value is estimated
M if above MDC and less than LLD
Matrix Related Failure
A RPD or %Recovery limits do not apply.

DJS

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13863
Sample ID: 248841003
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 11.5%

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	3.22E-05		0.0213	+/-0.00145	0.050	pCi/g		JXH2	03/29/10	1140	965807	1
PU "Dry Weight Corrected"													
nium-238	U	0.00628		0.0148	+/-0.00259	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
nium-239/240	U	-0.00105		0.0124	+/-0.00347	0.050	pCi/g						
J "Dry Weight Corrected"													
um-233/234		0.884		0.113	+/-0.0877	0.100	pCi/g		JXH2	03/30/10	1643	965810	3
um-235/236	U	0.0496		0.0692	+/-0.0161	0.100	pCi/g						
um-238		0.827		0.0796	+/-0.0834	0.100	pCi/g						
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
icium-241	U	0.0971		0.136	+/-0.044	0.200	pCi/g		MXR1	03/18/10	2052	962629	4
uth-211	UI	4.52	R,R5a	0.430	+/-0.334		pCi/g						
uth-214		1.59		0.169	+/-0.133	0.200	pCi/g						
ium-109	UI	5.18	R,R5a	1.13	+/-0.570		pCi/g						
m-139	U	-0.024		0.062	+/-0.0196	0.050	pCi/g						
m-134	U	0.102		0.132	+/-0.0508	0.100	pCi/g						
m-137	U	0.0147		0.0907	+/-0.0277	0.100	pCi/g						
lt-60	U	-0.014		0.0884	+/-0.0284	0.100	pCi/g						
ium-152	U	-0.145		0.195	+/-0.0734	0.200	pCi/g						
anum-140	U	-0.126		0.143	+/-0.0544		pCi/g						
-212		2.11		0.123	+/-0.136	0.100	pCi/g						
-214		1.64		0.154	+/-0.129	0.100	pCi/g						
ury-203	U	0.0457		0.0912	+/-0.0262	0.100	pCi/g						
sium-40		38.2		0.720	+/-1.65	1.00	pCi/g						
m-223	U	0.616		1.47	+/-0.487		pCi/g						
m-224	UI	5.61	R,R5a	1.32	+/-0.927		pCi/g						
m-226		1.59		0.169	+/-0.133		pCi/g						
m-228		1.66		0.345	+/-0.234	0.500	pCi/g						
nium-106	U	-0.162		0.747	+/-0.238	0.800	pCi/g						
m-22	U	-0.00775		0.0975	+/-0.0306	0.080	pCi/g						
tium-85	U	0.0842		0.0935	+/-0.0295		pCi/g						
ium-208		0.594		0.0814	+/-0.0624	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13863
Sample ID: 248841003

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Gamma Spec Analysis												
AMA SPEC "Dry Weight Corrected"												
um-227	U	0.0982	0.551	+/-0.161		pCi/g						
um-231	U	0.616	1.47	+/-0.487		pCi/g						
um-234	U	1.08	1.37	+/-0.585	2.00	pCi/g						
13	U	-0.0688	0.0931	+/-0.0303	0.100	pCi/g						
um-235	U	-0.246	0.416	+/-0.135	0.500	pCi/g						
m-88	U	-0.00663	0.0818	+/-0.0257	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	88.6	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	99.1	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	87.0	(50%-105%)

s:
J is calculated at the 67% confidence level (1-sigma).
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Result is greater than value reported
The TIC is a suspected aldol-condensation product
For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
) Results are either below the MDC or tracer recovery is low
Analyte has been confirmed by GC/MS analysis
Results are reported from a diluted aliquot of the sample
Estimated Value
Analytical holding time was exceeded
Value is estimated
M if above MDC and less than LLD
Matrix Related Failure
A RPD or %Recovery limits do not apply.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID:	RE46-10-13869	Project:	LANL01004
Sample ID:	248841004	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	7.99%		

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	0.00167		0.0226	+/-0.00161	0.050	pCi/g		JXH2	03/29/10	1140	965807	1
PU "Dry Weight Corrected"													
nium-238	U	0.0065		0.0183	+/-0.00293	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
nium-239/240	U	0.0039		0.0155	+/-0.00226	0.050	pCi/g						
J "Dry Weight Corrected"													
um-233/234		0.857		0.0963	+/-0.082	0.100	pCi/g		JXH2	03/30/10	1643	965810	3
um-235/236	U	0.0338		0.0588	+/-0.0122	0.100	pCi/g						
um-238		0.803		0.0677	+/-0.0777	0.100	pCi/g						
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
icium-241	U	-0.0797		0.219	+/-0.0717	0.200	pCi/g		MXR1	03/18/10	2232	962629	4
uth-211	UI	4.38	R,R5a	0.202	+/-0.208		pCi/g						
uth-214		1.29		0.075	+/-0.0756	0.200	pCi/g						
ium-109	UI	4.90	R,R5a	0.873	+/-0.449		pCi/g						
m-139	U	0.00741		0.0329	+/-0.00941	0.050	pCi/g						
m-134	UI	0.0973	R,R5a	0.0549	+/-0.0209	0.100	pCi/g						
m-137	U	-0.0104		0.0365	+/-0.011	0.100	pCi/g						
lt-60	U	-0.0126		0.0396	+/-0.0125	0.100	pCi/g						
ium-152	U	-0.0338		0.0915	+/-0.0399	0.200	pCi/g						
anum-140	U	-0.0267		0.0759	+/-0.0261		pCi/g						
-212		1.92		0.0611	+/-0.0791	0.100	pCi/g						
-214		1.59		0.0733	+/-0.0874	0.100	pCi/g						
ury-203	U	0.0356		0.0441	+/-0.0145	0.100	pCi/g						
sium-40		38.8		0.343	+/-1.59	1.00	pCi/g						
m-223	U	-0.0451		0.648	+/-0.228		pCi/g						
m-224	UI	4.80	R,R5a	0.654	+/-0.426		pCi/g						
m-226		1.29		0.075	+/-0.0756		pCi/g						
m-228		2.03		0.150	+/-0.176	0.500	pCi/g						
nium-106	U	-0.014		0.328	+/-0.101	0.800	pCi/g						
m-22	U	-0.0331		0.0455	+/-0.0148	0.080	pCi/g						
tium-85	UI	0.0647	R,R5a	0.0437	+/-0.0137		pCi/g						
ium-208		0.548		0.0364	+/-0.0341	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13869
Sample ID: 248841004

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Gamma Spec Analysis												
MA SPEC "Dry Weight Corrected"												
um-227	U	0.112	0.278	+/-0.0816		pCi/g						
um-231	U	-0.0451	0.648	+/-0.228		pCi/g						
um-234	U	1.49	1.83	+/-0.728	2.00	pCi/g						
13	U	-0.00911	0.0442	+/-0.0132	0.100	pCi/g						
um-235	U	0.0412	0.225	+/-0.0707	0.500	pCi/g						
m-88	U	-0.013	0.0349	+/-0.0113	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	81.9	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	90.3	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	99.1	(50%-105%)

s:
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Result is greater than value reported
The TIC is a suspected aldol-condensation product
For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
) Results are either below the MDC or tracer recovery is low
Analyte has been confirmed by GC/MS analysis
Results are reported from a diluted aliquot of the sample
Estimated Value
Analytical holding time was exceeded
Value is estimated
M if above MDC and less than LLD
Matrix Related Failure
A RPD or %Recovery limits do not apply.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13861
Sample ID: 248841005
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 12.1%

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtc
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	0.0018		0.0207	+/-0.00224	0.050	pCi/g		JXH2	03/29/10	1140	965807	1
PU "Dry Weight Corrected"													
nium-238	U	0.00503		0.0142	+/-0.00226	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
nium-239/240	U	0.00603		0.0119	+/-0.00248	0.050	pCi/g						
J "Dry Weight Corrected"													
um-233/234		0.883		0.112	+/-0.0874	0.100	pCi/g		JXH2	03/30/10	1644	965810	3
um-235/236	U	0.0246		0.0685	+/-0.0149	0.100	pCi/g						
um-238		0.799		0.0788	+/-0.081	0.100	pCi/g						
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
icium-241	U	-0.0195		0.0594	+/-0.0202	0.200	pCi/g		MXR1	03/18/10	2232	962629	4
uth-211	UI	4.72	R,R5a	0.227	+/-0.307		pCi/g						
uth-214		1.44		0.086	+/-0.111	0.200	pCi/g						
ium-109	UI	4.28	R,R5a	0.556	+/-0.338		pCi/g						
m-139	U	-0.00313		0.0315	+/-0.00935	0.050	pCi/g						
m-134	UI	0.130	R,R5a	0.0755	+/-0.0302	0.100	pCi/g						
m-137	U	-0.0153		0.0584	+/-0.0176	0.100	pCi/g						
lt-60	U	-0.00231		0.0525	+/-0.0162	0.100	pCi/g						
ium-152	U	-0.0318		0.114	+/-0.0354	0.200	pCi/g						
anum-140	U	-0.039		0.111	+/-0.0378		pCi/g						
-212		2.06		0.0638	+/-0.125	0.100	pCi/g						
-214		1.71		0.0825	+/-0.121	0.100	pCi/g						
ury-203	U	0.0351		0.0458	+/-0.0151	0.100	pCi/g						
sium-40		39.5		0.425	+/-1.84	1.00	pCi/g						
m-223	U	-0.35		0.715	+/-0.249		pCi/g						
m-224	UI	4.74	R,R5a	0.685	+/-0.417		pCi/g						
m-226		1.44		0.086	+/-0.111		pCi/g						
m-228		2.31		0.184	+/-0.198	0.500	pCi/g						
enium-106	U	0.135		0.431	+/-0.124	0.800	pCi/g						
m-22	U	-0.014		0.0622	+/-0.0194	0.080	pCi/g						
tium-85	U	0.0381		0.0496	+/-0.0161		pCi/g						
ium-208		0.630		0.0451	+/-0.0489	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13861
Sample ID: 248841005

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Gamma Spec Analysis												
AMA SPEC "Dry Weight Corrected"												
um-227	U	0.0202	0.278	+/-0.0851		pCi/g						
um-231	U	-0.35	0.715	+/-0.249		pCi/g						
um-234		1.35	0.584	+/-0.381	2.00	pCi/g						
13	U	0.00725	0.0561	+/-0.0165	0.100	pCi/g						
um-235	U	0.0177	0.216	+/-0.0649	0.500	pCi/g						
m-88	U	0.0205	0.0496	+/-0.0138	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	88.6	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	103	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	82.5	(50%-105%)

s:
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Analyte has been confirmed by GC/MS analysis
Results are reported from a diluted aliquot of the sample
Estimated Value
Analytical holding time was exceeded
Value is estimated
M if above MDC and less than LLD
Matrix Related Failure
A RPD or %Recovery limits do not apply.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID:	RE46-10-13866	Project:	LANL01004
Sample ID:	248841006	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	7.09%		

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	-1.28E-06		0.0208	+/-0.00142	0.050	pCi/g		JXH2	03/29/10	1140	965807	1
PU "Dry Weight Corrected"													
nium-238	U	0.00624		0.0147	+/-0.00257	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
nium-239/240	U	0.00624		0.0124	+/-0.00257	0.050	pCi/g						
J "Dry Weight Corrected"													
um-233/234		0.888		0.0994	+/-0.0847	0.100	pCi/g		JXH2	03/30/10	1644	965810	3
um-235/236	U	0.0349		0.0607	+/-0.0153	0.100	pCi/g						
um-238		0.825		0.0699	+/-0.080	0.100	pCi/g						
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
icium-241	U	-0.128		0.223	+/-0.0654	0.200	pCi/g		MXR1	03/18/10	2233	962629	4
uth-211	UI	3.77	R,R5a	0.271	+/-0.243		pCi/g						
uth-214		1.22		0.0851	+/-0.0908	0.200	pCi/g						
ium-109	UI	2.42	R,R5a	1.25	+/-0.294		pCi/g						
m-139	U	0.00598		0.0415	+/-0.0124	0.050	pCi/g						
m-134	UI	0.0864	R,R5a	0.0694	+/-0.0266	0.100	pCi/g						
m-137	U	-0.0135		0.0478	+/-0.0144	0.100	pCi/g						
lt-60	U	-0.0404		0.0404	+/-0.0139	0.100	pCi/g						
ium-152	U	-0.0614		0.122	+/-0.0459	0.200	pCi/g						
anum-140	U	0.0901		0.111	+/-0.0333		pCi/g						
-212		1.90		0.0745	+/-0.104	0.100	pCi/g						
-214		1.37		0.0988	+/-0.0961	0.100	pCi/g						
ury-203	U	0.0421		0.0557	+/-0.0179	0.100	pCi/g						
sium-40		36.7		0.378	+/-2.11	1.00	pCi/g						
m-223	U	0.160		0.840	+/-0.281		pCi/g						
m-224	UI	5.08	R,R5a	0.798	+/-0.564		pCi/g						
m-226		1.22		0.0851	+/-0.0908		pCi/g						
m-228		1.83		0.163	+/-0.183	0.500	pCi/g						
nium-106	U	0.151		0.411	+/-0.117	0.800	pCi/g						
m-22	U	-0.0179		0.0561	+/-0.0172	0.080	pCi/g						
tium-85	UI	0.114	R,R5a	0.057	+/-0.0175		pCi/g						
ium-208		0.575		0.046	+/-0.0418	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13866
Sample ID: 248841006

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Gamma Spec Analysis												
AMA SPEC "Dry Weight Corrected"												
um-227	U	0.0449	0.345	+/-0.0994		pCi/g						
um-231	U	0.160	0.840	+/-0.281		pCi/g						
um-234	U	0.689	2.00	+/-0.588	2.00	pCi/g						
13	U	0.0113	0.0579	+/-0.017	0.100	pCi/g						
um-235	U	-0.106	0.283	+/-0.0883	0.500	pCi/g						
m-88	U	0.00797	0.0418	+/-0.0124	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	90.7	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	98.2	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	95.4	(50%-105%)

s:
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Analyte has been confirmed by GC/MS analysis
Results are reported from a diluted aliquot of the sample
Estimated Value
Analytical holding time was exceeded
Value is estimated
M if above MDC and less than LLD
Matrix Related Failure
A RPD or %Recovery limits do not apply.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13860
Sample ID: 248841007
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 9.53%

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	-0.000853		0.0295	+/-0.00248	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
PU "Dry Weight Corrected"													
nium-238	U	-0.0011		0.0154	+/-0.0019	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
nium-239/240		0.0142		0.013	+/-0.00431	0.050	pCi/g						
J "Dry Weight Corrected"													
um-233/234		0.875		0.0999	+/-0.0842	0.100	pCi/g		JXH2	03/30/10	1644	965810	3
um-235/236	U	0.0569		0.061	+/-0.0163	0.100	pCi/g						
um-238		0.783		0.0702	+/-0.077	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
icium-241	U	0.0491		0.0849	+/-0.0276	0.200	pCi/g		MXR1	03/18/10	2256	962629	4
uth-211	UI	3.77	R,R5a	0.275	+/-0.251		pCi/g						
uth-214		1.30		0.104	+/-0.0946	0.200	pCi/g						
ium-109	UI	4.57	R,R5a	0.728	+/-0.379		pCi/g						
m-139	U	0.00217		0.0419	+/-0.0127	0.050	pCi/g						
m-134	U	0.0496		0.0773	+/-0.0258	0.100	pCi/g						
m-137	U	0.0193		0.0606	+/-0.0182	0.100	pCi/g						
lt-60	U	0.0238		0.0648	+/-0.0192	0.100	pCi/g						
ium-152	U	-0.0464		0.136	+/-0.0511	0.200	pCi/g						
anum-140	U	-0.00557		0.117	+/-0.0421		pCi/g						
-212		1.69		0.0744	+/-0.102	0.100	pCi/g						
-214		1.37		0.0999	+/-0.0986	0.100	pCi/g						
ury-203	U	0.0254		0.057	+/-0.0164	0.100	pCi/g						
sium-40		34.3		0.485	+/-1.32	1.00	pCi/g						
m-223	U	0.410		0.949	+/-0.316		pCi/g						
m-224	UI	4.68	R,R5a	0.798	+/-0.544		pCi/g						
m-226		1.30		0.104	+/-0.0946		pCi/g						
m-228		1.80		0.204	+/-0.182	0.500	pCi/g						
nium-106	U	-0.0312		0.484	+/-0.150	0.800	pCi/g						
m-22	U	-0.0434		0.063	+/-0.0211	0.080	pCi/g						
tium-85	U	0.0385		0.0613	+/-0.0204		pCi/g						
ium-208		0.490		0.0558	+/-0.0378	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13860
Sample ID: 248841007

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Gamma Spec Analysis												
AMA SPEC "Dry Weight Corrected"												
um-227	U	-0.0281	0.352	+/-0.104		pCi/g						
um-231	U	0.410	0.949	+/-0.316		pCi/g						
um-234		1.25	0.843	+/-0.406	2.00	pCi/g						
13	U	0.0119	0.0673	+/-0.0199	0.100	pCi/g						
um-235	U	0.105	0.290	+/-0.0897	0.500	pCi/g						
m-88	U	0.00569	0.0496	+/-0.0148	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	64.8	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	97.3	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	92.7	(50%-105%)

s:
J is calculated at the 67% confidence level (1-sigma).
Qualifiers in this report are defined as follows :

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Result is greater than value reported
The TIC is a suspected aldol-condensation product
For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
) Results are either below the MDC or tracer recovery is low
Analyte has been confirmed by GC/MS analysis
Results are reported from a diluted aliquot of the sample
Estimated Value
Analytical holding time was exceeded
Value is estimated
M if above MDC and less than LLD
Matrix Related Failure
A RPD or %Recovery limits do not apply.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13865
Sample ID: 248841008
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 8.45%

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	0.000375		0.0205	+/-0.00173	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
PU "Dry Weight Corrected"													
nium-238	U	0.00463		0.0163	+/-0.00233	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
nium-239/240	U	0.00		0.0138	+/-0.00116	0.050	pCi/g						
J "Dry Weight Corrected"													
.um-233/234		0.889		0.0969	+/-0.0844	0.100	pCi/g		JXH2	03/30/10	1644	965810	3
.um-235/236		0.068		0.0592	+/-0.0187	0.100	pCi/g						
.um-238		0.687		0.0681	+/-0.0692	0.100	pCi/g						
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
icium-241	U	-0.305		0.396	+/-0.122	0.200	pCi/g		MXR1	03/18/10	2310	962629	4
uth-211	UI	4.58	R,R5a	0.320	+/-0.316		pCi/g						
uth-214		1.39		0.107	+/-0.105	0.200	pCi/g						
ium-109	UI	2.60	R,R5a	1.39	+/-0.485		pCi/g						
m-139	U	0.013		0.0516	+/-0.0156	0.050	pCi/g						
m-134	UI	0.129	R,R5a	0.0924	+/-0.0332	0.100	pCi/g						
m-137	U	-0.000816		0.0585	+/-0.0174	0.100	pCi/g						
lt-60	U	0.00754		0.0695	+/-0.0213	0.100	pCi/g						
ium-152	U	0.087		0.159	+/-0.066	0.200	pCi/g						
anum-140	U	0.0534		0.135	+/-0.0438		pCi/g						
-212		2.13		0.0935	+/-0.139	0.100	pCi/g						
-214		1.66		0.121	+/-0.123	0.100	pCi/g						
ury-203	U	0.0578		0.0695	+/-0.0199	0.100	pCi/g						
sium-40		41.4		0.462	+/-2.21	1.00	pCi/g						
m-223	U	-0.736		1.08	+/-0.341		pCi/g						
m-224	UI	5.50	R,R5a	1.00	+/-0.738		pCi/g						
m-226		1.39		0.107	+/-0.105		pCi/g						
m-228		1.85		0.220	+/-0.184	0.500	pCi/g						
nium-106	U	-0.261		0.454	+/-0.149	0.800	pCi/g						
m-22	U	0.00514		0.0728	+/-0.0224	0.080	pCi/g						
tium-85	UI	0.186	R,R5a	0.0797	+/-0.0243		pCi/g						
ium-208		0.646		0.0557	+/-0.0487	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13865
Sample ID: 248841008

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Gamma Spec Analysis												
AMA SPEC "Dry Weight Corrected"												
um-227	U	0.123	0.446	+/-0.130		pCi/g						
um-231	U	-0.736	1.08	+/-0.341		pCi/g						
um-234	U	0.854	3.26	+/-1.02	2.00	pCi/g						
13	U	-0.0449	0.0729	+/-0.023	0.100	pCi/g						
um-235	U	-0.0365	0.329	+/-0.104	0.500	pCi/g						
m-88	U	-0.0239	0.0347	+/-0.0129	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	93.1	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	91.7	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	95.5	(50%-105%)

s:
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For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
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Analyte has been confirmed by GC/MS analysis
Results are reported from a diluted aliquot of the sample
Estimated Value
Analytical holding time was exceeded
Value is estimated
M if above MDC and less than LLD
Matrix Related Failure
A RPD or %Recovery limits do not apply.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13868
Sample ID: 248841009
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 7.71%

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	0.00416		0.0204	+/-0.00242	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
PU "Dry Weight Corrected"													
nium-238	U	0.00591		0.0167	+/-0.00266	0.050	pCi/g		JXH2	03/30/10	0802	965808	2
nium-239/240	U	0.00354		0.014	+/-0.00265	0.050	pCi/g						
J "Dry Weight Corrected"													
um-233/234		0.809		0.101	+/-0.0791	0.100	pCi/g		JXH2	03/30/10	1644	965810	4
um-235/236	U	0.0264		0.0614	+/-0.011	0.100	pCi/g						
um-238		0.820		0.0707	+/-0.0801	0.100	pCi/g						
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
icium-241	U	0.0634		0.133	+/-0.042	0.200	pCi/g		MXR1	03/18/10	2311	962629	5
uth-211	UI	3.88	R,R5a	0.216	+/-0.241		pCi/g						
uth-214		1.22		0.0768	+/-0.0874	0.200	pCi/g						
ium-109	UI	3.87	R,R5a	0.738	+/-0.405		pCi/g						
m-139	U	-0.0149		0.033	+/-0.0103	0.050	pCi/g						
m-134	UI	0.105	R,R5a	0.0632	+/-0.0303	0.100	pCi/g						
m-137	U	0.00154		0.0429	+/-0.0125	0.100	pCi/g						
lt-60	U	0.00747		0.0431	+/-0.0131	0.100	pCi/g						
ium-152	U	0.00307		0.110	+/-0.0368	0.200	pCi/g						
anum-140	U	-0.0071		0.0965	+/-0.0308		pCi/g						
-212		1.80		0.0628	+/-0.104	0.100	pCi/g						
-214		1.41		0.0787	+/-0.0956	0.100	pCi/g						
ury-203	UI	0.0711	R,R5a	0.0381	+/-0.0215	0.100	pCi/g						
sium-40		36.1		0.292	+/-1.70	1.00	pCi/g						
m-223	U	-0.129		0.699	+/-0.238		pCi/g						
m-224	UI	4.14	R,R5a	0.673	+/-0.438		pCi/g						
m-226		1.22		0.0768	+/-0.0874		pCi/g						
m-228		1.99		0.151	+/-0.167	0.500	pCi/g						
enium-106	U	0.0766		0.345	+/-0.104	0.800	pCi/g						
m-22	U	-0.00782		0.0476	+/-0.015	0.080	pCi/g						
tium-85	UI	0.0845	R,R5a	0.0499	+/-0.0138		pCi/g						
ium-208		0.564		0.0387	+/-0.0402	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13868
Sample ID: 248841009

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Gamma Spec Analysis												
AMA SPEC "Dry Weight Corrected"												
um-227	U	0.0469	0.286	+/-0.0822		pCi/g						
um-231	U	-0.129	0.699	+/-0.238		pCi/g						
um-234		1.45	1.20	+/-0.528	2.00	pCi/g						
13	U	0.0159	0.0506	+/-0.0147	0.100	pCi/g						
um-235	U	-0.0548	0.229	+/-0.0711	0.500	pCi/g						
m-88	U	0.0117	0.0386	+/-0.011	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	93.2	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	85.2	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	93.9	(50%-105%)

s:
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Analyte has been confirmed by GC/MS analysis
Results are reported from a diluted aliquot of the sample
Estimated Value
Analytical holding time was exceeded
Value is estimated
M if above MDC and less than LLD
Matrix Related Failure

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13862
Sample ID: 248841010
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 11.3%

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	-0.000232		0.0208	+/-0.00267	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
PU "Dry Weight Corrected"													
nium-238	U	0.00919		0.0162	+/-0.00401	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
nium-239/240		0.0207		0.0136	+/-0.00573	0.050	pCi/g						
J "Dry Weight Corrected"													
um-233/234		0.935		0.0929	+/-0.0867	0.100	pCi/g		JXH2	03/30/10	1644	965810	3
um-235/236	U	0.0407		0.0568	+/-0.0132	0.100	pCi/g						
um-238		0.992		0.0653	+/-0.0909	0.100	pCi/g						
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
icium-241	U	-0.0932		0.364	+/-0.113	0.200	pCi/g		MXR1	03/19/10	1225	962629	4
uth-211	UI	4.00	R,R5a	0.305	+/-0.267		pCi/g						
uth-214		1.28		0.103	+/-0.0918	0.200	pCi/g						
ium-109	UI	3.56	R,R5a	1.22	+/-0.534		pCi/g						
m-139	U	-0.0114		0.0466	+/-0.0139	0.050	pCi/g						
m-134	UI	0.135	R,R5a	0.101	+/-0.0258	0.100	pCi/g						
m-137		0.286		0.0597	+/-0.0421	0.100	pCi/g						
lt-60	U	0.0455		0.0745	+/-0.0199	0.100	pCi/g						
ium-152	U	0.0255		0.159	+/-0.0466	0.200	pCi/g						
anum-140	U	-0.0288		0.148	+/-0.0471		pCi/g						
-212		1.67		0.0942	+/-0.0869	0.100	pCi/g						
-214		1.45		0.111	+/-0.105	0.100	pCi/g						
ury-203	U	-0.00466		0.0644	+/-0.0184	0.100	pCi/g						
sium-40		31.9		0.464	+/-1.48	1.00	pCi/g						
m-223	U	-0.26		1.03	+/-0.304		pCi/g						
m-224	UI	4.89	R,R5a	1.01	+/-0.524		pCi/g						
m-226		1.28		0.103	+/-0.0918		pCi/g						
m-228		2.01		0.192	+/-0.194	0.500	pCi/g						
nium-106	U	0.183		0.505	+/-0.146	0.800	pCi/g						
m-22	U	0.0209		0.0715	+/-0.0202	0.080	pCi/g						
tium-85	U	0.0626		0.0702	+/-0.0214		pCi/g						
ium-208		0.508		0.0523	+/-0.0395	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13862
Sample ID: 248841010

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Gamma Spec Analysis												
AMA SPEC "Dry Weight Corrected"												
um-227	U	-0.0654	0.395	+/-0.113		pCi/g						
um-231	U	-0.26	1.03	+/-0.304		pCi/g						
um-234		4.58	2.73	+/-1.59	2.00	pCi/g						
13	U	-0.0078	0.0698	+/-0.0206	0.100	pCi/g						
um-235	U	-0.0975	0.315	+/-0.0953	0.500	pCi/g						
m-88	U	0.00228	0.038	+/-0.0114	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	91.3	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	95.7	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	104	(50%-105%)

s:
J is calculated at the 67% confidence level (1-sigma).
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Analyte has been confirmed by GC/MS analysis
Results are reported from a diluted aliquot of the sample
Estimated Value
Analytical holding time was exceeded
Value is estimated
M if above MDC and less than LLD
Matrix Related Failure
A RPD or %Recovery limits do not apply.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID:	RE46-10-13873	Project:	LANL01004
Sample ID:	248841011	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	7.07%		

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
ılpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	0.00066		0.0237	+/-0.00208	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
PU "Dry Weight Corrected"													
nium-238	U	0.014		0.0164	+/-0.00526	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
nium-239/240	U	0.00932		0.0138	+/-0.00333	0.050	pCi/g						
J "Dry Weight Corrected"													
.um-233/234		0.736		0.0989	+/-0.0734	0.100	pCi/g		JXH2	03/30/10	1644	965810	3
.um-235/236	U	0.0433		0.0604	+/-0.0165	0.100	pCi/g						
.um-238		0.824		0.0695	+/-0.080	0.100	pCi/g						
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
icium-241	U	0.091		0.118	+/-0.0372	0.200	pCi/g		MXR1	03/19/10	1301	962629	4
uth-211	UI	3.69	R,R5a	0.400	+/-0.299		pCi/g						
uth-214		1.21		0.124	+/-0.113	0.200	pCi/g						
ıium-109	UI	4.25	R,R5a	1.10	+/-0.514		pCi/g						
.m-139	U	0.0178		0.0601	+/-0.0178	0.050	pCi/g						
ım-134	UI	0.162	R,R5a	0.118	+/-0.0443	0.100	pCi/g						
ım-137	U	-0.0125		0.0725	+/-0.0229	0.100	pCi/g						
lt-60	U	-0.00661		0.0777	+/-0.0245	0.100	pCi/g						
ɔium-152	U	-0.13		0.190	+/-0.107	0.200	pCi/g						
ıanum-140	U	-0.0399		0.171	+/-0.0557		pCi/g						
·212		1.98		0.107	+/-0.125	0.100	pCi/g						
·214		1.34		0.140	+/-0.115	0.100	pCi/g						
ury-203	U	0.0612		0.0781	+/-0.0244	0.100	pCi/g						
sium-40		35.4		0.373	+/-1.50	1.00	pCi/g						
ım-223	U	-1.02		1.21	+/-0.393		pCi/g						
ım-224	UI	4.64	R,R5a	1.15	+/-0.708		pCi/g						
ım-226		1.21		0.124	+/-0.113		pCi/g						
ım-228		1.82		0.279	+/-0.205	0.500	pCi/g						
ɜnium-106	U	-0.148		0.610	+/-0.193	0.800	pCi/g						
ım-22	U	-0.0286		0.0956	+/-0.0308	0.080	pCi/g						
tium-85	U	0.0754		0.083	+/-0.0257		pCi/g						
ium-208		0.554		0.0718	+/-0.049	0.080	pCi/g						

DJS

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13873
Sample ID: 248841011

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Gamma Spec Analysis												
AMA SPEC "Dry Weight Corrected"												
um-227	U	-0.0458	0.476	+/-0.140		pCi/g						
um-231	U	-1.02	1.21	+/-0.393		pCi/g						
um-234		2.52	1.23	+/-0.570	2.00	pCi/g						
13	U	-0.0212	0.0918	+/-0.028	0.100	pCi/g						
um-235	U	0.0704	0.387	+/-0.116	0.500	pCi/g						
m-88	U	-0.0161	0.0371	+/-0.0139	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	79.7	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	88.4	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	95.6	(50%-105%)

s:
J is calculated at the 67% confidence level (1-sigma).
: Qualifiers in this report are defined as follows :

Analyte is a surrogate compound
Result is less than value reported
Result is greater than value reported
The TIC is a suspected aldol-condensation product
For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
) Results are either below the MDC or tracer recovery is low
Analyte has been confirmed by GC/MS analysis
Results are reported from a diluted aliquot of the sample
Estimated Value
Analytical holding time was exceeded
Value is estimated
M if above MDC and less than LLD
Matrix Related Failure
A RPD or %Recovery limits do not apply.

DJS

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2300

REQUEST NUMBER: 10-2300

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248841

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13867	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13864	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13863	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13869	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13861	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13866	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13860	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13865	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13868	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13862	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13873	1	POLY	AM241+GS+ISOPU+ ISOU	None	S

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	3/4/10	1400	Patricia Dover-Dent / P. D. Dent	3/5/10	10:20
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: Date Time **Remarks:**

Printed Name Signature

Hard Copy Required

Thursday, March 04, 2010

REQUEST NUMBER: 10-2300

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2300

Per Agreement Number:126310011

Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13860	S	3/3/2010	
		1	RE46-10-13861	S	3/3/2010	
		1	RE46-10-13862	S	3/3/2010	
		1	RE46-10-13863	S	3/3/2010	
		1	RE46-10-13864	S	3/3/2010	
		1	RE46-10-13865	S	3/3/2010	

	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010
	1	RE46-10-13873	S	3/3/2010
HASL-300:AM-241	1	RE46-10-13860	S	3/3/2010
	1	RE46-10-13861	S	3/3/2010
	1	RE46-10-13862	S	3/3/2010
	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010
	1	RE46-10-13873	S	3/3/2010
HASL-300:ISOPU	1	RE46-10-13860	S	3/3/2010
	1	RE46-10-13861	S	3/3/2010
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	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
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	1	RE46-10-13873	S	3/3/2010
HASL-300:ISOU	1	RE46-10-13860	S	3/3/2010
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	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010

1	RE46-10-13873	S	3/3/2010

Final Page of REQUEST NUMBER 10-2300

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

March 12, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 248841
SDG: 10-2300

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 05, 2010, and analyzed for Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2300
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 248841
SDG: 10-2300

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- Quality Control Data.....63
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- Background and Efficiency Data.....585
- Standards Data.....733
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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 248841
SDG # : 10-2300

March 12, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 05, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 13/15C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
248841001	RE46-10-13867
248841002	RE46-10-13864
248841003	RE46-10-13863
248841004	RE46-10-13869
248841005	RE46-10-13861
248841006	RE46-10-13866
248841007	RE46-10-13860
248841008	RE46-10-13865
248841009	RE46-10-13868
248841010	RE46-10-13862
248841011	RE46-10-13873

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

GEL Laboratories LLC PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178 www.gel.com

List of current GEL Certifications as of 12 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2300C

REQUEST NUMBER: 10-2300

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 248841

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13867	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13864	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13863	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13869	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13861	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13866	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13860	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13865	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13868	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13862	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13873	1	POLY	AM241+GS+ISOPU+ ISOU	None	S

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	3/4/10	1400	Patricia Dover-Dent / P. D. Dent	3/5/10	10:20
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Thursday, March 04, 2010

REQUEST NUMBER: 10-2300

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2300

Per Agreement Number:126310011

Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13860	S	3/3/2010	
		1	RE46-10-13861	S	3/3/2010	
		1	RE46-10-13862	S	3/3/2010	
		1	RE46-10-13863	S	3/3/2010	
		1	RE46-10-13864	S	3/3/2010	
		1	RE46-10-13865	S	3/3/2010	

	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010
	1	RE46-10-13873	S	3/3/2010
HASL-300:AM-241	1	RE46-10-13860	S	3/3/2010
	1	RE46-10-13861	S	3/3/2010
	1	RE46-10-13862	S	3/3/2010
	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
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	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010

1	RE46-10-13873	S	3/3/2010

Final Page of REQUEST NUMBER 10-2300

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order:10-2300**
Received By:Patricia Dover-Dent	**Date Received: 3/5/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **1-5** **13,15**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers:

7209 7850 3587 1C **7209 7850 3668 4C**
7209 7850 3613 2C **7209 7850 3657 5C**
7209 7850 3598 2C **7209 7850 3565 13C**
7209 7850 3602 3C **7209 7850 3543 13C**
7209 7850 3635 3C **7209 7850 3554 15C**
7209 7850 3576 3C
7209 7850 3646 3C
7209 7850 3624 3C

PM (or PMA) review: Initials MMS Date 3/8/10

N ID: SAFA (505) 665-9968
NE VALDEZ
LAMOS NATL LAB
BLDG 1237 DPU 03

LAMOS, NM 87545
ED STATES US

ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
) 556-8171
F: 6B010AMR3A0223KY10

1°

FedEx Express

FRI - 05MAR A1
PRIORITY OVERNIGHT

K# 7209 7850 3587
01

29407
SC-US
CHS

X CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

2°

FedEx Express

3 of 3
MPS# 7209 7850 3613
0263
Mstr# 7209 7850 3598 0201

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PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 44.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

2°

FedEx Express

1 of 3
MPS# 7209 7850 3598
0201
MASTER ##

FRI - 05MAR A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE24

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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2 of 3
MPS# 7209 7850 3602
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Mstr# 7209 7850 3598 0201

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LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2450

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REF: 6B010AMR1A015AGWM0

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ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 52.0 LB MAN.
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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Mstr# 7209 7850 3565 0201

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Part # 156148-434 NRT V2.04.08

LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 66.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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TRK# 0201 7209 7850 3624

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PRIORITY OVERNIGHT

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IGIN ID: SAFA (505) 665-9968
YLENE VALDEZ
S ALAMOS NATL LAB.
00 BLDG 1237 DPU 03

S ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
13) 556-8171
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JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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Mstr# 7209 7850 3635 0201

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PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87546
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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ORIGIN ID: SAFA (505)
LENE VALDEZ
ALAMOS NATL LAB.
0 BLDG 1237 DPU 03

ALAMOS, NM 87545
TED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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TRK# 7209 7850 3543
0201

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PRIORITY OVERNIGHT

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SC-US
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 65.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

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3 of 3

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Mstr# 7209 7850 3532 0201

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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2300

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965807
Prep Batch Number:	962371

Sample ID	Client ID
248841001	RE46-10-13867
248841002	RE46-10-13864
248841003	RE46-10-13863
248841004	RE46-10-13869
248841005	RE46-10-13861
248841006	RE46-10-13866
248841007	RE46-10-13860
248841008	RE46-10-13865
248841009	RE46-10-13868
248841010	RE46-10-13862
248841011	RE46-10-13873
1202072510	Method Blank (MB)
1202072511	248841001(RE46-10-13867) Sample Duplicate (DUP)
1202072512	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202072510 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248841001 (RE46-10-13867). The QC was from LANL work order 248841.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples 1202072510 (MB), 1202072511 (RE46-10-13867) and 1202072512 (LCS) were recounted to verify results.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965808
Prep Batch Number:	962371

Sample ID	Client ID
248841001	RE46-10-13867
248841002	RE46-10-13864
248841003	RE46-10-13863
248841004	RE46-10-13869
248841005	RE46-10-13861
248841006	RE46-10-13866
248841007	RE46-10-13860
248841008	RE46-10-13865
248841009	RE46-10-13868
248841010	RE46-10-13862
248841011	RE46-10-13873
1202072513	Method Blank (MB)
1202072514	248841001(RE46-10-13867) Sample Duplicate (DUP)
1202072515	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202072513 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248841001 (RE46-10-13867). The QC was from LANL work order 248841.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The Pu238 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 248841009 (RE46-10-13868) was given additional clean-up steps and recounted in order to remove suspected interferences.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The Pu238 blank result is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965810
Prep Batch Number:	962371

Sample ID	Client ID
248841001	RE46-10-13867
248841002	RE46-10-13864
248841003	RE46-10-13863
248841004	RE46-10-13869
248841005	RE46-10-13861
248841006	RE46-10-13866
248841007	RE46-10-13860
248841008	RE46-10-13865
248841009	RE46-10-13868
248841010	RE46-10-13862
248841011	RE46-10-13873
1202072519	Method Blank (MB)
1202072520	248841001(RE46-10-13867) Sample Duplicate (DUP)
1202072521	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202072519 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248841001 (RE46-10-13867). The QC was from LANL work order 248841.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-233/234, U-235/236, and U-238 blank, 1202072519 (MB), result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U-235/236 and U-238 blank, 1202072519 (MB), result is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962629
Prep Batch Number:	962371

Sample ID	Client ID
248841001	RE46-10-13867
248841002	RE46-10-13864
248841003	RE46-10-13863
248841004	RE46-10-13869
248841005	RE46-10-13861
248841006	RE46-10-13866
248841007	RE46-10-13860
248841008	RE46-10-13865
248841009	RE46-10-13868
248841010	RE46-10-13862
248841011	RE46-10-13873
1202065180	Method Blank (MB)
1202065181	248788008(RE16-10-1107) Sample Duplicate (DUP)
1202065182	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 19.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in April 2009, May 2009, June 2009, July 2009, August 2009, October 2009 and February 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 248788008 (RE16-10-1107). The QC was from LANL work order 248788.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The method blank 1202065180 (MB) result is greater than 1.65 times the CSU but less than the MDC for Bi-211, Pb-214, Na-22, and Tl-208.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The method blank 1202065180 (MB) result is greater than the decision level but less than the MDC for Bi-211 and Pb-214.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	248841001	RE46-10-13867
			248841002	RE46-10-13864
			248841003	RE46-10-13863
			248841004	RE46-10-13869

	248841005	RE46-10-13861
	248841006	RE46-10-13866
	248841007	RE46-10-13860
	248841008	RE46-10-13865
	248841009	RE46-10-13868
	248841010	RE46-10-13862
	248841011	RE46-10-13873
	1202065181	RE16-10-1107(248788008DUP)
Cadmium-109	248841001	RE46-10-13867
	248841003	RE46-10-13863
	248841004	RE46-10-13869
	248841005	RE46-10-13861
	248841006	RE46-10-13866
	248841007	RE46-10-13860
	248841008	RE46-10-13865
	248841009	RE46-10-13868
	248841010	RE46-10-13862
	248841011	RE46-10-13873
	1202065181	RE16-10-1107(248788008DUP)
Mercury-203	248841001	RE46-10-13867
	248841009	RE46-10-13868
Radium-224	248841001	RE46-10-13867
	248841002	RE46-10-13864
	248841003	RE46-10-13863
	248841004	RE46-10-13869
	248841005	RE46-10-13861
	248841006	RE46-10-13866
	248841007	RE46-10-13860
	248841008	RE46-10-13865
	248841009	RE46-10-13868

			248841010	RE46-10-13862
			248841011	RE46-10-13873
			1202065181	RE16-10-1107(248788008DUP)
UI	Data rejected due to low abundance.	Cesium-134	248841001	RE46-10-13867
			248841004	RE46-10-13869
			248841005	RE46-10-13861
			248841006	RE46-10-13866
			248841008	RE46-10-13865
			248841009	RE46-10-13868
			248841010	RE46-10-13862
			248841011	RE46-10-13873
		Strontium-85	248841002	RE46-10-13864
			248841004	RE46-10-13869
			248841006	RE46-10-13866
			248841008	RE46-10-13865
			248841009	RE46-10-13868

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 4/1/10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2300 GEL Work Order: 248841

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13867
Sample ID: 248841001
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 7.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00278	0.0241	+/-0.00336	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0108	0.0169	+/-0.00401	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
Plutonium-239/240	U	0.00597	0.0142	+/-0.00398	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.916	0.101	+/-0.0871	0.100	pCi/g		JXH2	03/30/10	1643	965810	3
Uranium-235/236	U	0.0308	0.0614	+/-0.0119	0.100	pCi/g						
Uranium-238		0.795	0.0707	+/-0.0781	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0116	0.0822	+/-0.0251	0.200	pCi/g		MXR1	03/18/10	1645	962629	4
Bismuth-211	UI	4.69	0.381	+/-0.333		pCi/g						
Bismuth-214		1.30	0.146	+/-0.131	0.200	pCi/g						
Cadmium-109	UI	4.27	0.848	+/-0.440		pCi/g						
Cerium-139	U	-0.0125	0.0419	+/-0.0122	0.050	pCi/g						
Cesium-134	UI	0.134	0.130	+/-0.0428	0.100	pCi/g						
Cesium-137	U	-0.0449	0.0647	+/-0.0223	0.100	pCi/g						
Cobalt-60	U	-0.00399	0.0896	+/-0.0269	0.100	pCi/g						
Europium-152	U	-0.0163	0.160	+/-0.0492	0.200	pCi/g						
Lanthanum-140	U	-0.00738	0.198	+/-0.0609		pCi/g						
Lead-212		2.12	0.0866	+/-0.123	0.100	pCi/g						
Lead-214		1.70	0.139	+/-0.130	0.100	pCi/g						
Mercury-203	UI	0.104	0.0572	+/-0.0324	0.100	pCi/g						
Potassium-40		37.3	0.507	+/-2.01	1.00	pCi/g						
Radium-223	U	0.0531	1.09	+/-0.366		pCi/g						
Radium-224	UI	2.28	0.931	+/-0.521		pCi/g						
Radium-226		1.30	0.146	+/-0.131		pCi/g						
Radium-228		1.43	0.295	+/-0.211	0.500	pCi/g						
Ruthenium-106	U	0.0783	0.672	+/-0.199	0.800	pCi/g						
Sodium-22	U	0.0732	0.117	+/-0.0322	0.080	pCi/g						
Strontium-85	U	0.0164	0.0714	+/-0.023		pCi/g						

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13867
Sample ID: 248841001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.696	0.0656	+/-0.065	0.080	pCi/g						
Thorium-227	U	-0.0607	0.420	+/-0.126		pCi/g						
Thorium-231	U	0.0531	1.09	+/-0.366		pCi/g						
Thorium-234		1.58	0.861	+/-0.464	2.00	pCi/g						
Tin-113	U	-0.0035	0.0846	+/-0.0262	0.100	pCi/g						
Uranium-235	U	0.187	0.319	+/-0.0955	0.500	pCi/g						
Yttrium-88	U	-0.038	0.0743	+/-0.0275	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.5	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	89.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	96.0	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13867
Sample ID: 248841001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13864
Sample ID: 248841002
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 14%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00238	0.0218	+/-0.003	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00228	0.0161	+/-0.0028	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
Plutonium-239/240		0.0148	0.0136	+/-0.00477	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.799	0.107	+/-0.0797	0.100	pCi/g		JXH2	03/30/10	1643	965810	3
Uranium-235/236	U	0.0517	0.0655	+/-0.016	0.100	pCi/g						
Uranium-238		0.883	0.0754	+/-0.0863	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.145	0.515	+/-0.166	0.200	pCi/g		MXR1	03/18/10	1824	962629	4
Bismuth-211	UI	3.93	0.407	+/-0.346		pCi/g						
Bismuth-214		1.13	0.135	+/-0.106	0.200	pCi/g						
Cadmium-109	U	1.81	2.12	+/-0.683		pCi/g						
Cerium-139	U	0.00979	0.0655	+/-0.0196	0.050	pCi/g						
Cesium-134	U	0.0494	0.107	+/-0.0296	0.100	pCi/g						
Cesium-137		0.0885	0.0818	+/-0.0386	0.100	pCi/g						
Cobalt-60	U	-0.0602	0.0642	+/-0.0244	0.100	pCi/g						
Europium-152	U	0.0659	0.204	+/-0.0844	0.200	pCi/g						
Lanthanum-140	U	0.0222	0.170	+/-0.0498		pCi/g						
Lead-212		1.82	0.125	+/-0.132	0.100	pCi/g						
Lead-214		1.43	0.148	+/-0.131	0.100	pCi/g						
Mercury-203	U	0.0562	0.0853	+/-0.0336	0.100	pCi/g						
Potassium-40		31.1	0.785	+/-1.85	1.00	pCi/g						
Radium-223	U	-1.89	1.24	+/-0.455		pCi/g						
Radium-224	UI	4.18	1.34	+/-0.682		pCi/g						
Radium-226		1.13	0.135	+/-0.106		pCi/g						
Radium-228		1.81	0.281	+/-0.192	0.500	pCi/g						
Ruthenium-106	U	0.093	0.637	+/-0.192	0.800	pCi/g						
Sodium-22	U	0.00868	0.092	+/-0.028	0.080	pCi/g						
Strontium-85	UI	0.122	0.098	+/-0.0298		pCi/g						
Thallium-208		0.516	0.0676	+/-0.0498	0.080	pCi/g						

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Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13864
Sample ID: 248841002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.158	0.572	+/-0.171		pCi/g						
Thorium-231	U	-1.89	1.24	+/-0.455		pCi/g						
Thorium-234	U	2.99	4.34	+/-1.50	2.00	pCi/g						
Tin-113	U	0.0272	0.0951	+/-0.0276	0.100	pCi/g						
Uranium-235	U	-0.158	0.436	+/-0.137	0.500	pCi/g						
Yttrium-88	U	0.0331	0.0733	+/-0.0192	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.3	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	91.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	90.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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< Result is less than value reported
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B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
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C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.

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Client Sample ID: RE46-10-13864
Sample ID: 248841002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13863
Sample ID: 248841003
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 11.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	3.22E-05	0.0213	+/-0.00145	0.050	pCi/g		JXH2	03/29/10	1140	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00628	0.0148	+/-0.00259	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
Plutonium-239/240	U	-0.00105	0.0124	+/-0.00347	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.884	0.113	+/-0.0877	0.100	pCi/g		JXH2	03/30/10	1643	965810	3
Uranium-235/236	U	0.0496	0.0692	+/-0.0161	0.100	pCi/g						
Uranium-238		0.827	0.0796	+/-0.0834	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0971	0.136	+/-0.044	0.200	pCi/g		MXR1	03/18/10	2052	962629	4
Bismuth-211	UI	4.52	0.430	+/-0.334		pCi/g						
Bismuth-214		1.59	0.169	+/-0.133	0.200	pCi/g						
Cadmium-109	UI	5.18	1.13	+/-0.570		pCi/g						
Cerium-139	U	-0.024	0.062	+/-0.0196	0.050	pCi/g						
Cesium-134	U	0.102	0.132	+/-0.0508	0.100	pCi/g						
Cesium-137	U	0.0147	0.0907	+/-0.0277	0.100	pCi/g						
Cobalt-60	U	-0.014	0.0884	+/-0.0284	0.100	pCi/g						
Europium-152	U	-0.145	0.195	+/-0.0734	0.200	pCi/g						
Lanthanum-140	U	-0.126	0.143	+/-0.0544		pCi/g						
Lead-212		2.11	0.123	+/-0.136	0.100	pCi/g						
Lead-214		1.64	0.154	+/-0.129	0.100	pCi/g						
Mercury-203	U	0.0457	0.0912	+/-0.0262	0.100	pCi/g						
Potassium-40		38.2	0.720	+/-1.65	1.00	pCi/g						
Radium-223	U	0.616	1.47	+/-0.487		pCi/g						
Radium-224	UI	5.61	1.32	+/-0.927		pCi/g						
Radium-226		1.59	0.169	+/-0.133		pCi/g						
Radium-228		1.66	0.345	+/-0.234	0.500	pCi/g						
Ruthenium-106	U	-0.162	0.747	+/-0.238	0.800	pCi/g						
Sodium-22	U	-0.00775	0.0975	+/-0.0306	0.080	pCi/g						
Strontium-85	U	0.0842	0.0935	+/-0.0295		pCi/g						
Thallium-208		0.594	0.0814	+/-0.0624	0.080	pCi/g						

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Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13863
Sample ID: 248841003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.0982	0.551	+/-0.161		pCi/g						
Thorium-231	U	0.616	1.47	+/-0.487		pCi/g						
Thorium-234	U	1.08	1.37	+/-0.585	2.00	pCi/g						
Tin-113	U	-0.0688	0.0931	+/-0.0303	0.100	pCi/g						
Uranium-235	U	-0.246	0.416	+/-0.135	0.500	pCi/g						
Yttrium-88	U	-0.00663	0.0818	+/-0.0257	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.6	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	99.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	87.0	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.

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Client Sample ID: RE46-10-13863
Sample ID: 248841003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID:	RE46-10-13869	Project:	LANL01004
Sample ID:	248841004	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	7.99%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00167	0.0226	+/-0.00161	0.050	pCi/g		JXH2	03/29/10	1140	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0065	0.0183	+/-0.00293	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
Plutonium-239/240	U	0.0039	0.0155	+/-0.00226	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.857	0.0963	+/-0.082	0.100	pCi/g		JXH2	03/30/10	1643	965810	3
Uranium-235/236	U	0.0338	0.0588	+/-0.0122	0.100	pCi/g						
Uranium-238		0.803	0.0677	+/-0.0777	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0797	0.219	+/-0.0717	0.200	pCi/g		MXR1	03/18/10	2232	962629	4
Bismuth-211	UI	4.38	0.202	+/-0.208		pCi/g						
Bismuth-214		1.29	0.075	+/-0.0756	0.200	pCi/g						
Cadmium-109	UI	4.90	0.873	+/-0.449		pCi/g						
Cerium-139	U	0.00741	0.0329	+/-0.00941	0.050	pCi/g						
Cesium-134	UI	0.0973	0.0549	+/-0.0209	0.100	pCi/g						
Cesium-137	U	-0.0104	0.0365	+/-0.011	0.100	pCi/g						
Cobalt-60	U	-0.0126	0.0396	+/-0.0125	0.100	pCi/g						
Europium-152	U	-0.0338	0.0915	+/-0.0399	0.200	pCi/g						
Lanthanum-140	U	-0.0267	0.0759	+/-0.0261		pCi/g						
Lead-212		1.92	0.0611	+/-0.0791	0.100	pCi/g						
Lead-214		1.59	0.0733	+/-0.0874	0.100	pCi/g						
Mercury-203	U	0.0356	0.0441	+/-0.0145	0.100	pCi/g						
Potassium-40		38.8	0.343	+/-1.59	1.00	pCi/g						
Radium-223	U	-0.0451	0.648	+/-0.228		pCi/g						
Radium-224	UI	4.80	0.654	+/-0.426		pCi/g						
Radium-226		1.29	0.075	+/-0.0756		pCi/g						
Radium-228		2.03	0.150	+/-0.176	0.500	pCi/g						
Ruthenium-106	U	-0.014	0.328	+/-0.101	0.800	pCi/g						
Sodium-22	U	-0.0331	0.0455	+/-0.0148	0.080	pCi/g						
Strontium-85	UI	0.0647	0.0437	+/-0.0137		pCi/g						
Thallium-208		0.548	0.0364	+/-0.0341	0.080	pCi/g						

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Report Date: April 1, 2010

Client Sample ID: RE46-10-13869
Sample ID: 248841004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.112	0.278	+/-0.0816		pCi/g						
Thorium-231	U	-0.0451	0.648	+/-0.228		pCi/g						
Thorium-234	U	1.49	1.83	+/-0.728	2.00	pCi/g						
Tin-113	U	-0.00911	0.0442	+/-0.0132	0.100	pCi/g						
Uranium-235	U	0.0412	0.225	+/-0.0707	0.500	pCi/g						
Yttrium-88	U	-0.013	0.0349	+/-0.0113	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	81.9	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	90.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	99.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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< Result is less than value reported
> Result is greater than value reported
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D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.

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Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13869
Sample ID: 248841004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

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TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID:	RE46-10-13861	Project:	LANL01004
Sample ID:	248841005	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	12.1%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0018	0.0207	+/-0.00224	0.050	pCi/g		JXH2	03/29/10	1140	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00503	0.0142	+/-0.00226	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
Plutonium-239/240	U	0.00603	0.0119	+/-0.00248	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.883	0.112	+/-0.0874	0.100	pCi/g		JXH2	03/30/10	1644	965810	3
Uranium-235/236	U	0.0246	0.0685	+/-0.0149	0.100	pCi/g						
Uranium-238		0.799	0.0788	+/-0.081	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0195	0.0594	+/-0.0202	0.200	pCi/g		MXR1	03/18/10	2232	962629	4
Bismuth-211	UI	4.72	0.227	+/-0.307		pCi/g						
Bismuth-214		1.44	0.086	+/-0.111	0.200	pCi/g						
Cadmium-109	UI	4.28	0.556	+/-0.338		pCi/g						
Cerium-139	U	-0.00313	0.0315	+/-0.00935	0.050	pCi/g						
Cesium-134	UI	0.130	0.0755	+/-0.0302	0.100	pCi/g						
Cesium-137	U	-0.0153	0.0584	+/-0.0176	0.100	pCi/g						
Cobalt-60	U	-0.00231	0.0525	+/-0.0162	0.100	pCi/g						
Europium-152	U	-0.0318	0.114	+/-0.0354	0.200	pCi/g						
Lanthanum-140	U	-0.039	0.111	+/-0.0378		pCi/g						
Lead-212		2.06	0.0638	+/-0.125	0.100	pCi/g						
Lead-214		1.71	0.0825	+/-0.121	0.100	pCi/g						
Mercury-203	U	0.0351	0.0458	+/-0.0151	0.100	pCi/g						
Potassium-40		39.5	0.425	+/-1.84	1.00	pCi/g						
Radium-223	U	-0.35	0.715	+/-0.249		pCi/g						
Radium-224	UI	4.74	0.685	+/-0.417		pCi/g						
Radium-226		1.44	0.086	+/-0.111		pCi/g						
Radium-228		2.31	0.184	+/-0.198	0.500	pCi/g						
Ruthenium-106	U	0.135	0.431	+/-0.124	0.800	pCi/g						
Sodium-22	U	-0.014	0.0622	+/-0.0194	0.080	pCi/g						
Strontium-85	U	0.0381	0.0496	+/-0.0161		pCi/g						
Thallium-208		0.630	0.0451	+/-0.0489	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13861
Sample ID: 248841005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.0202	0.278	+/-0.0851		pCi/g						
Thorium-231	U	-0.35	0.715	+/-0.249		pCi/g						
Thorium-234		1.35	0.584	+/-0.381	2.00	pCi/g						
Tin-113	U	0.00725	0.0561	+/-0.0165	0.100	pCi/g						
Uranium-235	U	0.0177	0.216	+/-0.0649	0.500	pCi/g						
Yttrium-88	U	0.0205	0.0496	+/-0.0138	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.6	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	103	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	82.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13861
Sample ID: 248841005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13866
Sample ID: 248841006
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 7.09%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-1.28E-06	0.0208	+/-0.00142	0.050	pCi/g		JXH2	03/29/10	1140	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00624	0.0147	+/-0.00257	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
Plutonium-239/240	U	0.00624	0.0124	+/-0.00257	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.888	0.0994	+/-0.0847	0.100	pCi/g		JXH2	03/30/10	1644	965810	3
Uranium-235/236	U	0.0349	0.0607	+/-0.0153	0.100	pCi/g						
Uranium-238		0.825	0.0699	+/-0.080	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.128	0.223	+/-0.0654	0.200	pCi/g		MXR1	03/18/10	2233	962629	4
Bismuth-211	UI	3.77	0.271	+/-0.243		pCi/g						
Bismuth-214		1.22	0.0851	+/-0.0908	0.200	pCi/g						
Cadmium-109	UI	2.42	1.25	+/-0.294		pCi/g						
Cerium-139	U	0.00598	0.0415	+/-0.0124	0.050	pCi/g						
Cesium-134	UI	0.0864	0.0694	+/-0.0266	0.100	pCi/g						
Cesium-137	U	-0.0135	0.0478	+/-0.0144	0.100	pCi/g						
Cobalt-60	U	-0.0404	0.0404	+/-0.0139	0.100	pCi/g						
Europium-152	U	-0.0614	0.122	+/-0.0459	0.200	pCi/g						
Lanthanum-140	U	0.0901	0.111	+/-0.0333		pCi/g						
Lead-212		1.90	0.0745	+/-0.104	0.100	pCi/g						
Lead-214		1.37	0.0988	+/-0.0961	0.100	pCi/g						
Mercury-203	U	0.0421	0.0557	+/-0.0179	0.100	pCi/g						
Potassium-40		36.7	0.378	+/-2.11	1.00	pCi/g						
Radium-223	U	0.160	0.840	+/-0.281		pCi/g						
Radium-224	UI	5.08	0.798	+/-0.564		pCi/g						
Radium-226		1.22	0.0851	+/-0.0908		pCi/g						
Radium-228		1.83	0.163	+/-0.183	0.500	pCi/g						
Ruthenium-106	U	0.151	0.411	+/-0.117	0.800	pCi/g						
Sodium-22	U	-0.0179	0.0561	+/-0.0172	0.080	pCi/g						
Strontium-85	UI	0.114	0.057	+/-0.0175		pCi/g						
Thallium-208		0.575	0.046	+/-0.0418	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13866
Sample ID: 248841006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.0449	0.345	+/-0.0994		pCi/g						
Thorium-231	U	0.160	0.840	+/-0.281		pCi/g						
Thorium-234	U	0.689	2.00	+/-0.588	2.00	pCi/g						
Tin-113	U	0.0113	0.0579	+/-0.017	0.100	pCi/g						
Uranium-235	U	-0.106	0.283	+/-0.0883	0.500	pCi/g						
Yttrium-88	U	0.00797	0.0418	+/-0.0124	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	90.7	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	98.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13866
Sample ID: 248841006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13860
Sample ID: 248841007
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 9.53%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000853	0.0295	+/-0.00248	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.0011	0.0154	+/-0.0019	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
Plutonium-239/240		0.0142	0.013	+/-0.00431	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.875	0.0999	+/-0.0842	0.100	pCi/g		JXH2	03/30/10	1644	965810	3
Uranium-235/236	U	0.0569	0.061	+/-0.0163	0.100	pCi/g						
Uranium-238		0.783	0.0702	+/-0.077	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0491	0.0849	+/-0.0276	0.200	pCi/g		MXR1	03/18/10	2256	962629	4
Bismuth-211	UI	3.77	0.275	+/-0.251		pCi/g						
Bismuth-214		1.30	0.104	+/-0.0946	0.200	pCi/g						
Cadmium-109	UI	4.57	0.728	+/-0.379		pCi/g						
Cerium-139	U	0.00217	0.0419	+/-0.0127	0.050	pCi/g						
Cesium-134	U	0.0496	0.0773	+/-0.0258	0.100	pCi/g						
Cesium-137	U	0.0193	0.0606	+/-0.0182	0.100	pCi/g						
Cobalt-60	U	0.0238	0.0648	+/-0.0192	0.100	pCi/g						
Europium-152	U	-0.0464	0.136	+/-0.0511	0.200	pCi/g						
Lanthanum-140	U	-0.00557	0.117	+/-0.0421		pCi/g						
Lead-212		1.69	0.0744	+/-0.102	0.100	pCi/g						
Lead-214		1.37	0.0999	+/-0.0986	0.100	pCi/g						
Mercury-203	U	0.0254	0.057	+/-0.0164	0.100	pCi/g						
Potassium-40		34.3	0.485	+/-1.32	1.00	pCi/g						
Radium-223	U	0.410	0.949	+/-0.316		pCi/g						
Radium-224	UI	4.68	0.798	+/-0.544		pCi/g						
Radium-226		1.30	0.104	+/-0.0946		pCi/g						
Radium-228		1.80	0.204	+/-0.182	0.500	pCi/g						
Ruthenium-106	U	-0.0312	0.484	+/-0.150	0.800	pCi/g						
Sodium-22	U	-0.0434	0.063	+/-0.0211	0.080	pCi/g						
Strontium-85	U	0.0385	0.0613	+/-0.0204		pCi/g						
Thallium-208		0.490	0.0558	+/-0.0378	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13860
Sample ID: 248841007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0281	0.352	+/-0.104		pCi/g						
Thorium-231	U	0.410	0.949	+/-0.316		pCi/g						
Thorium-234		1.25	0.843	+/-0.406	2.00	pCi/g						
Tin-113	U	0.0119	0.0673	+/-0.0199	0.100	pCi/g						
Uranium-235	U	0.105	0.290	+/-0.0897	0.500	pCi/g						
Yttrium-88	U	0.00569	0.0496	+/-0.0148	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	64.8	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	97.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	92.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.

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Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13860
Sample ID: 248841007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID:	RE46-10-13865	Project:	LANL01004
Sample ID:	248841008	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	8.45%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.000375	0.0205	+/-0.00173	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00463	0.0163	+/-0.00233	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
Plutonium-239/240	U	0.00	0.0138	+/-0.00116	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.889	0.0969	+/-0.0844	0.100	pCi/g		JXH2	03/30/10	1644	965810	3
Uranium-235/236		0.068	0.0592	+/-0.0187	0.100	pCi/g						
Uranium-238		0.687	0.0681	+/-0.0692	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.305	0.396	+/-0.122	0.200	pCi/g		MXR1	03/18/10	2310	962629	4
Bismuth-211	UI	4.58	0.320	+/-0.316		pCi/g						
Bismuth-214		1.39	0.107	+/-0.105	0.200	pCi/g						
Cadmium-109	UI	2.60	1.39	+/-0.485		pCi/g						
Cerium-139	U	0.013	0.0516	+/-0.0156	0.050	pCi/g						
Cesium-134	UI	0.129	0.0924	+/-0.0332	0.100	pCi/g						
Cesium-137	U	-0.000816	0.0585	+/-0.0174	0.100	pCi/g						
Cobalt-60	U	0.00754	0.0695	+/-0.0213	0.100	pCi/g						
Europium-152	U	0.087	0.159	+/-0.066	0.200	pCi/g						
Lanthanum-140	U	0.0534	0.135	+/-0.0438		pCi/g						
Lead-212		2.13	0.0935	+/-0.139	0.100	pCi/g						
Lead-214		1.66	0.121	+/-0.123	0.100	pCi/g						
Mercury-203	U	0.0578	0.0695	+/-0.0199	0.100	pCi/g						
Potassium-40		41.4	0.462	+/-2.21	1.00	pCi/g						
Radium-223	U	-0.736	1.08	+/-0.341		pCi/g						
Radium-224	UI	5.50	1.00	+/-0.738		pCi/g						
Radium-226		1.39	0.107	+/-0.105		pCi/g						
Radium-228		1.85	0.220	+/-0.184	0.500	pCi/g						
Ruthenium-106	U	-0.261	0.454	+/-0.149	0.800	pCi/g						
Sodium-22	U	0.00514	0.0728	+/-0.0224	0.080	pCi/g						
Strontium-85	UI	0.186	0.0797	+/-0.0243		pCi/g						
Thallium-208		0.646	0.0557	+/-0.0487	0.080	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13865
Sample ID: 248841008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.123	0.446	+/-0.130		pCi/g						
Thorium-231	U	-0.736	1.08	+/-0.341		pCi/g						
Thorium-234	U	0.854	3.26	+/-1.02	2.00	pCi/g						
Tin-113	U	-0.0449	0.0729	+/-0.023	0.100	pCi/g						
Uranium-235	U	-0.0365	0.329	+/-0.104	0.500	pCi/g						
Yttrium-88	U	-0.0239	0.0347	+/-0.0129	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	93.1	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	91.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.

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Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13865
Sample ID: 248841008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13868
Sample ID: 248841009
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 7.71%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00416	0.0204	+/-0.00242	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00591	0.0167	+/-0.00266	0.050	pCi/g		JXH2	03/30/10	0802	965808	2
Plutonium-239/240	U	0.00354	0.014	+/-0.00265	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.809	0.101	+/-0.0791	0.100	pCi/g		JXH2	03/30/10	1644	965810	4
Uranium-235/236	U	0.0264	0.0614	+/-0.011	0.100	pCi/g						
Uranium-238		0.820	0.0707	+/-0.0801	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0634	0.133	+/-0.042	0.200	pCi/g		MXR1	03/18/10	2311	962629	5
Bismuth-211	UI	3.88	0.216	+/-0.241		pCi/g						
Bismuth-214		1.22	0.0768	+/-0.0874	0.200	pCi/g						
Cadmium-109	UI	3.87	0.738	+/-0.405		pCi/g						
Cerium-139	U	-0.0149	0.033	+/-0.0103	0.050	pCi/g						
Cesium-134	UI	0.105	0.0632	+/-0.0303	0.100	pCi/g						
Cesium-137	U	0.00154	0.0429	+/-0.0125	0.100	pCi/g						
Cobalt-60	U	0.00747	0.0431	+/-0.0131	0.100	pCi/g						
Europium-152	U	0.00307	0.110	+/-0.0368	0.200	pCi/g						
Lanthanum-140	U	-0.0071	0.0965	+/-0.0308		pCi/g						
Lead-212		1.80	0.0628	+/-0.104	0.100	pCi/g						
Lead-214		1.41	0.0787	+/-0.0956	0.100	pCi/g						
Mercury-203	UI	0.0711	0.0381	+/-0.0215	0.100	pCi/g						
Potassium-40		36.1	0.292	+/-1.70	1.00	pCi/g						
Radium-223	U	-0.129	0.699	+/-0.238		pCi/g						
Radium-224	UI	4.14	0.673	+/-0.438		pCi/g						
Radium-226		1.22	0.0768	+/-0.0874		pCi/g						
Radium-228		1.99	0.151	+/-0.167	0.500	pCi/g						
Ruthenium-106	U	0.0766	0.345	+/-0.104	0.800	pCi/g						
Sodium-22	U	-0.00782	0.0476	+/-0.015	0.080	pCi/g						
Strontium-85	UI	0.0845	0.0499	+/-0.0138		pCi/g						
Thallium-208		0.564	0.0387	+/-0.0402	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13868
Sample ID: 248841009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.0469	0.286	+/-0.0822		pCi/g						
Thorium-231	U	-0.129	0.699	+/-0.238		pCi/g						
Thorium-234		1.45	1.20	+/-0.528	2.00	pCi/g						
Tin-113	U	0.0159	0.0506	+/-0.0147	0.100	pCi/g						
Uranium-235	U	-0.0548	0.229	+/-0.0711	0.500	pCi/g						
Yttrium-88	U	0.0117	0.0386	+/-0.011	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	93.2	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	85.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	93.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
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A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure

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Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13868
Sample ID: 248841009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13862
Sample ID: 248841010
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 11.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000232	0.0208	+/-0.00267	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00919	0.0162	+/-0.00401	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
Plutonium-239/240		0.0207	0.0136	+/-0.00573	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.935	0.0929	+/-0.0867	0.100	pCi/g		JXH2	03/30/10	1644	965810	3
Uranium-235/236	U	0.0407	0.0568	+/-0.0132	0.100	pCi/g						
Uranium-238		0.992	0.0653	+/-0.0909	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0932	0.364	+/-0.113	0.200	pCi/g		MXR1	03/19/10	1225	962629	4
Bismuth-211	UI	4.00	0.305	+/-0.267		pCi/g						
Bismuth-214		1.28	0.103	+/-0.0918	0.200	pCi/g						
Cadmium-109	UI	3.56	1.22	+/-0.534		pCi/g						
Cerium-139	U	-0.0114	0.0466	+/-0.0139	0.050	pCi/g						
Cesium-134	UI	0.135	0.101	+/-0.0258	0.100	pCi/g						
Cesium-137		0.286	0.0597	+/-0.0421	0.100	pCi/g						
Cobalt-60	U	0.0455	0.0745	+/-0.0199	0.100	pCi/g						
Europium-152	U	0.0255	0.159	+/-0.0466	0.200	pCi/g						
Lanthanum-140	U	-0.0288	0.148	+/-0.0471		pCi/g						
Lead-212		1.67	0.0942	+/-0.0869	0.100	pCi/g						
Lead-214		1.45	0.111	+/-0.105	0.100	pCi/g						
Mercury-203	U	-0.00466	0.0644	+/-0.0184	0.100	pCi/g						
Potassium-40		31.9	0.464	+/-1.48	1.00	pCi/g						
Radium-223	U	-0.26	1.03	+/-0.304		pCi/g						
Radium-224	UI	4.89	1.01	+/-0.524		pCi/g						
Radium-226		1.28	0.103	+/-0.0918		pCi/g						
Radium-228		2.01	0.192	+/-0.194	0.500	pCi/g						
Ruthenium-106	U	0.183	0.505	+/-0.146	0.800	pCi/g						
Sodium-22	U	0.0209	0.0715	+/-0.0202	0.080	pCi/g						
Strontium-85	U	0.0626	0.0702	+/-0.0214		pCi/g						
Thallium-208		0.508	0.0523	+/-0.0395	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13862
Sample ID: 248841010

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0654	0.395	+/-0.113		pCi/g						
Thorium-231	U	-0.26	1.03	+/-0.304		pCi/g						
Thorium-234		4.58	2.73	+/-1.59	2.00	pCi/g						
Tin-113	U	-0.0078	0.0698	+/-0.0206	0.100	pCi/g						
Uranium-235	U	-0.0975	0.315	+/-0.0953	0.500	pCi/g						
Yttrium-88	U	0.00228	0.038	+/-0.0114	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	91.3	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	95.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	104	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13862
Sample ID: 248841010

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13873
Sample ID: 248841011
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 05-MAR-10
Collector: Client
Moisture: 7.07%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00066	0.0237	+/-0.00208	0.050	pCi/g		JXH2	03/29/10	1141	965807	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.014	0.0164	+/-0.00526	0.050	pCi/g		JXH2	03/27/10	1340	965808	2
Plutonium-239/240	U	0.00932	0.0138	+/-0.00333	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.736	0.0989	+/-0.0734	0.100	pCi/g		JXH2	03/30/10	1644	965810	3
Uranium-235/236	U	0.0433	0.0604	+/-0.0165	0.100	pCi/g						
Uranium-238		0.824	0.0695	+/-0.080	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.091	0.118	+/-0.0372	0.200	pCi/g		MXR1	03/19/10	1301	962629	4
Bismuth-211	UI	3.69	0.400	+/-0.299		pCi/g						
Bismuth-214		1.21	0.124	+/-0.113	0.200	pCi/g						
Cadmium-109	UI	4.25	1.10	+/-0.514		pCi/g						
Cerium-139	U	0.0178	0.0601	+/-0.0178	0.050	pCi/g						
Cesium-134	UI	0.162	0.118	+/-0.0443	0.100	pCi/g						
Cesium-137	U	-0.0125	0.0725	+/-0.0229	0.100	pCi/g						
Cobalt-60	U	-0.00661	0.0777	+/-0.0245	0.100	pCi/g						
Europium-152	U	-0.13	0.190	+/-0.107	0.200	pCi/g						
Lanthanum-140	U	-0.0399	0.171	+/-0.0557		pCi/g						
Lead-212		1.98	0.107	+/-0.125	0.100	pCi/g						
Lead-214		1.34	0.140	+/-0.115	0.100	pCi/g						
Mercury-203	U	0.0612	0.0781	+/-0.0244	0.100	pCi/g						
Potassium-40		35.4	0.373	+/-1.50	1.00	pCi/g						
Radium-223	U	-1.02	1.21	+/-0.393		pCi/g						
Radium-224	UI	4.64	1.15	+/-0.708		pCi/g						
Radium-226		1.21	0.124	+/-0.113		pCi/g						
Radium-228		1.82	0.279	+/-0.205	0.500	pCi/g						
Ruthenium-106	U	-0.148	0.610	+/-0.193	0.800	pCi/g						
Sodium-22	U	-0.0286	0.0956	+/-0.0308	0.080	pCi/g						
Strontium-85	U	0.0754	0.083	+/-0.0257		pCi/g						
Thallium-208		0.554	0.0718	+/-0.049	0.080	pCi/g						

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Report Date: April 1, 2010

Client Sample ID: RE46-10-13873
Sample ID: 248841011

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0458	0.476	+/-0.140		pCi/g						
Thorium-231	U	-1.02	1.21	+/-0.393		pCi/g						
Thorium-234		2.52	1.23	+/-0.570	2.00	pCi/g						
Tin-113	U	-0.0212	0.0918	+/-0.028	0.100	pCi/g						
Uranium-235	U	0.0704	0.387	+/-0.116	0.500	pCi/g						
Yttrium-88	U	-0.0161	0.0371	+/-0.0139	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.7	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	88.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 1, 2010

Client Sample ID: RE46-10-13873
Sample ID: 248841011

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: April 1, 2010

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 248841

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965807										
QC1202072511 248841001 DUP										
Americium-241	U	0.00278	U	-0.00331	pCi/g	0.511		(0-1)	JXH2	03/30/1019:03
	TPU:	+/-0.00336		+/-0.0026						
	Yield:	78.5		76.3						
QC1202072512 LCS										
Americium-241	33.1			25.2	pCi/g		76.1	(75%-125%)		03/30/1019:03
	TPU:			+/-1.96						
	Yield:			82.7						
QC1202072510 MB										
Americium-241			U	-0.00156	pCi/g					03/30/1019:03
	TPU:			+/-0.00365						
	Yield:			87.1						
Batch 965808										
QC1202072514 248841001 DUP										
Plutonium-238	U	0.0108	U	0.00797	pCi/g	0.187		(0-1)	JXH2	03/27/1013:40
	TPU:	+/-0.00401		+/-0.00344						
	Yield:	89.2		90.0						
Plutonium-239/240	U	0.00597	U	0.00683	pCi/g	0.0537		(0-1)		
	TPU:	+/-0.00398		+/-0.00396						
	Yield:	89.2		90.0						
QC1202072515 LCS										
Plutonium-238				5.02	pCi/g			(75%-125%)		
	TPU:			+/-0.399						
	Yield:			90.0						
Plutonium-239/240	41.8			40.3	pCi/g		96.4	(75%-125%)		
	TPU:			+/-2.55						
	Yield:			90.0						
QC1202072513 MB										
Plutonium-238			U	0.0108	pCi/g					
	TPU:			+/-0.0043						
	Yield:			93.8						
Plutonium-239/240			U	0.00135	pCi/g					
	TPU:			+/-0.00234						
	Yield:			93.8						
Batch 965810										
QC1202072520 248841001 DUP										
Uranium-233/234		0.916		0.872	pCi/g	0.128		(0-1)	JXH2	03/30/1016:44
	TPU:	+/-0.0871		+/-0.0827						
	Yield:	96.0		104						
Uranium-235/236	U	0.0308	U	0.0418	pCi/g	0.216		(0-1)		
	TPU:	+/-0.0119		+/-0.0136						
	Yield:	96.0		104						
Uranium-238		0.795		0.870	pCi/g	0.232		(0-1)		
	TPU:	+/-0.0781		+/-0.0825						

QC Summary

Workorder: 248841

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965810										
	Yield:	96.0		104						
QC1202072521 LCS										
Uranium-233/234				5.45	pCi/g					03/30/1016:44
	TPU:			+/-0.518						
	Yield:			101						
Uranium-235/236				0.303	pCi/g					
	TPU:			+/-0.0816						
	Yield:			101						
Uranium-238	5.75			5.52	pCi/g		96	(75%-125%)		
	TPU:			+/-0.523						
	Yield:			101						
QC1202072519 MB										
Uranium-233/234			U	0.0134	pCi/g					03/30/1016:44
	TPU:			+/-0.0049						
	Yield:			101						
Uranium-235/236			U	0.0128	pCi/g					
	TPU:			+/-0.00609						
	Yield:			101						
Uranium-238			U	0.0155	pCi/g					
	TPU:			+/-0.00528						
	Yield:			101						
Rad Gamma Spec										
Batch 962629										
QC1202065181 248788008 DUP										
Americium-241	U	-0.00757	U	0.0398	pCi/g	0.150		(0-1)	MXR1	03/19/1013:02
	TPU:	+/-0.0986		+/-0.0591						
Bismuth-211	Ul	3.53	UI	3.21	pCi/g	0.268		(0-1)		
	TPU:	+/-0.328		+/-0.262						
Bismuth-214		1.03		1.17	pCi/g	0.376		(0-1)		
	TPU:	+/-0.0948		+/-0.104						
Cadmium-109	UI	3.07	UI	3.21	pCi/g	0.0737		(0-1)		
	TPU:	+/-0.486		+/-0.478						
Cerium-139	U	-0.0106	U	0.00282	pCi/g	0.204		(0-1)		
	TPU:	+/-0.0171		+/-0.0159						
Cesium-134	UI	0.106	U	0.0815	pCi/g	0.222		(0-1)		
	TPU:	+/-0.0285		+/-0.0275						
Cesium-137		0.330		0.263	pCi/g	0.368		(0-1)		
	TPU:	+/-0.0424		+/-0.0489						
Cobalt-60	U	-0.0149	U	-0.0437	pCi/g	0.301		(0-1)		
	TPU:	+/-0.0253		+/-0.0225						
Europium-152	U	-0.109	U	-0.149	pCi/g	0.163		(0-1)		
	TPU:	+/-0.0578		+/-0.0619						
Lanthanum-140	U	0.0736	U	-0.0307	pCi/g	0.563		(0-1)		
	TPU:	+/-0.049		+/-0.0436						
Lead-212		1.63		1.54	pCi/g	0.189		(0-1)		
	TPU:	+/-0.121		+/-0.0964						
Lead-214		1.28		1.17	pCi/g	0.256		(0-1)		
	TPU:	+/-0.124		+/-0.100						
Mercury-203	U	-0.0568	U	0.0441	pCi/g	1.12		(0-1)		
	TPU:	+/-0.0233		+/-0.0216						

QC Summary

Workorder: 248841

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962629										
Potassium-40		32.7		34.9	pCi/g	0.299		(0-1)		
	TPU:	+/-1.89		+/-1.82						
Radium-223	U	-0.357	U	-0.0611	pCi/g	0.191		(0-1)		
	TPU:	+/-0.364		+/-0.412						
Radium-224	UI	4.31	UI	3.63	pCi/g	0.238		(0-1)		
	TPU:	+/-0.788		+/-0.636						
Radium-226		1.03		1.17	pCi/g	0.376		(0-1)		
	TPU:	+/-0.0948		+/-0.104						
Radium-228		1.57		1.79	pCi/g	0.274		(0-1)		
	TPU:	+/-0.184		+/-0.210						
Ruthenium-106	U	0.296	U	0.130	pCi/g	0.231		(0-1)		
	TPU:	+/-0.188		+/-0.171						
Sodium-22	U	-0.00692	U	0.0559	pCi/g	0.575		(0-1)		
	TPU:	+/-0.0289		+/-0.0257						
Strontium-85	U	0.00237	U	0.071	pCi/g	0.661		(0-1)		
	TPU:	+/-0.0265		+/-0.0254						
Thallium-208		0.451		0.487	pCi/g	0.180		(0-1)		
	TPU:	+/-0.0496		+/-0.0512						
Thorium-227	U	0.0836	U	-0.00348	pCi/g	0.157		(0-1)		
	TPU:	+/-0.149		+/-0.128						
Thorium-231	U	-0.357	U	-0.0611	pCi/g	0.191		(0-1)		
	TPU:	+/-0.364		+/-0.412						
Thorium-234	U	-0.0313	U	1.42	pCi/g	0.447		(0-1)		
	TPU:	+/-0.896		+/-0.728						
Tin-113	U	-0.0276	U	-0.0342	pCi/g	0.0671		(0-1)		
	TPU:	+/-0.0261		+/-0.0236						
Uranium-235	U	0.254	U	0.059	pCi/g	0.397		(0-1)		
	TPU:	+/-0.138		+/-0.108						
Yttrium-88	U	0.00524	U	0.00447	pCi/g	0.0105		(0-1)		
	TPU:	+/-0.0214		+/-0.0152						
QC1202065182 LCS										
Americium-241	15.9			13.1	pCi/g		82.4	(75%-125%)		03/18/1022:04
	TPU:			+/-0.970						
Bismuth-211				2.23	pCi/g					
	TPU:			+/-0.397						
Bismuth-214				0.733	pCi/g					
	TPU:			+/-0.141						
Cadmium-109				25.9	pCi/g					
	TPU:			+/-2.26						
Cerium-139			U	-0.00486	pCi/g					
	TPU:			+/-0.0278						
Cesium-134			U	0.126	pCi/g					
	TPU:			+/-0.0525						
Cesium-137	5.55			5.75	pCi/g		104	(75%-125%)		
	TPU:			+/-0.284						
Cobalt-60	6.33			6.59	pCi/g		104	(75%-125%)		
	TPU:			+/-0.368						
Europium-152			U	-0.0379	pCi/g					
	TPU:			+/-0.128						
Lanthanum-140			U	-0.0366	pCi/g					
	TPU:			+/-0.047						

QC Summary

Workorder: 248841

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962629										
Lead-212				1.14	pCi/g					
	TPU:			+/-0.119						
Lead-214				0.811	pCi/g					
	TPU:			+/-0.146						
Mercury-203			U	0.0429	pCi/g					
	TPU:			+/-0.0372						
Potassium-40				1.59	pCi/g					
	TPU:			+/-0.284						
Radium-223			U	-1.01	pCi/g					
	TPU:			+/-0.730						
Radium-224				3.66	pCi/g					
	TPU:			+/-1.18						
Radium-226				0.733	pCi/g					
	TPU:			+/-0.141						
Radium-228				0.948	pCi/g					
	TPU:			+/-0.325						
Ruthenium-106			U	-0.145	pCi/g					
	TPU:			+/-0.346						
Sodium-22			U	0.0266	pCi/g					
	TPU:			+/-0.0281						
Strontium-85			U	0.0969	pCi/g					
	TPU:			+/-0.0449						
Thallium-208				0.385	pCi/g					
	TPU:			+/-0.0749						
Thorium-227			U	0.589	pCi/g					
	TPU:			+/-0.272						
Thorium-231			U	-1.01	pCi/g					
	TPU:			+/-0.730						
Thorium-234			U	-5.1	pCi/g					
	TPU:			+/-2.21						
Tin-113			U	0.0854	pCi/g					
	TPU:			+/-0.0526						
Uranium-235			U	0.060	pCi/g					
	TPU:			+/-0.190						
Yttrium-88			U	-0.00523	pCi/g					
	TPU:			+/-0.0256						
QC1202065180 MB										
Americium-241			U	-0.0196	pCi/g					03/19/1013:01
	TPU:			+/-0.0382						
Bismuth-211			U	0.138	pCi/g					
	TPU:			+/-0.0688						
Bismuth-214			U	0.030	pCi/g					
	TPU:			+/-0.0224						
Cadmium-109			U	-0.0714	pCi/g					
	TPU:			+/-0.160						
Cerium-139			U	-0.00431	pCi/g					
	TPU:			+/-0.00808						
Cesium-134			U	-0.0018	pCi/g					
	TPU:			+/-0.0128						
Cesium-137			U	0.0141	pCi/g					
	TPU:			+/-0.011						

QC Summary

Workorder: 248841

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962629										
Cobalt-60			U	-0.011	pCi/g					
	TPU:			+/-0.0111						
Europium-152			U	0.0459	pCi/g					
	TPU:			+/-0.0283						
Lanthanum-140			U	0.00236	pCi/g					
	TPU:			+/-0.0161						
Lead-212			U	-0.0233	pCi/g					
	TPU:			+/-0.0197						
Lead-214			U	0.0596	pCi/g					
	TPU:			+/-0.0251						
Mercury-203			U	-0.00183	pCi/g					
	TPU:			+/-0.00987						
Potassium-40			U	-0.141	pCi/g					
	TPU:			+/-0.128						
Radium-223			U	-0.484	pCi/g					
	TPU:			+/-0.205						
Radium-224			U	-0.0596	pCi/g					
	TPU:			+/-0.182						
Radium-226			U	0.030	pCi/g					
	TPU:			+/-0.0224						
Radium-228			U	-0.0534	pCi/g					
	TPU:			+/-0.0467						
Ruthenium-106			U	0.0103	pCi/g					
	TPU:			+/-0.0948						
Sodium-22			U	0.0176	pCi/g					
	TPU:			+/-0.00971						
Strontium-85			U	-0.0284	pCi/g					
	TPU:			+/-0.0161						
Thallium-208			U	0.0215	pCi/g					
	TPU:			+/-0.0127						
Thorium-227			U	-0.0657	pCi/g					
	TPU:			+/-0.0747						
Thorium-231			U	-0.484	pCi/g					
	TPU:			+/-0.205						
Thorium-234			U	-0.239	pCi/g					
	TPU:			+/-0.354						
Tin-113			U	-0.00226	pCi/g					
	TPU:			+/-0.0138						
Uranium-235			U	-0.056	pCi/g					
	TPU:			+/-0.0527						
Yttrium-88			U	0.0137	pCi/g					
	TPU:			+/-0.00836						

Notes:
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported

QC Summary

Workorder: 248841

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 965807 Product: Am Date: 3/31/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 3/31/10

Secondary Review Performed By: _____

4/2

LANL

Am/Cm Que Sheet

16-MAR-10

Batch #: 965807 Analyst: JXH2 First Client Due Date: 02-APR-10 Internal Due Date22-MAR-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-96-2-VV Expiration Date: 3-9-11 Vol: 0.1

LCS Isotope(s): Am241/Cm244 LCS Code(s): — / — Expiration Date: — / — Vol(s): — / —

Spike Isotope(s): Am241/Cm244 Spike Code(s): — / — Expiration Date: — / — Vol(s): — / —

Prep Date: 3-22-10 Initials: JEH Pipet ID: 4497063 Balance ID: 50410272 Witness: ML 3/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) l / f	Am/Cm Det #
248818001-1	RE46-10-13553	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	1	1	1.259	220
248818002-1	RE46-10-13549	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	2	2	1.256	221
248818003-1	RE46-10-13551	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	3	3	1.255	222
248818004-1	RE46-10-13550	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	4	4	1.252	223
248818005-1	RE46-10-13548	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	5	5	1.253	224
248818006-1	RE46-10-13546	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	6	6	1.254	225
248818007-1	RE46-10-13552	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	7	7	1.254	226
248818008-1	RE46-10-13547	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	8	8	1.262	227
248818009-1	RE46-10-13556	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	9	9	1.251	228
248841001-1	RE46-10-13867	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	10	10	1.257	229
248841002-1	RE46-10-13864	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	11	11	1.251	230
248841003-1	RE46-10-13863	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	12	12	1.255	209
248841004-1	RE46-10-13869	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	13	13	1.256	210
248841005-1	RE46-10-13861	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	14	14	1.257	211
248841006-1	RE46-10-13866	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	15	15	1.257	212
248841007-1	RE46-10-13860	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	16	16	1.258	213
248841008-1	RE46-10-13865	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	17	17	1.255	214
248841009-1	RE46-10-13868	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	18	18	1.260	215
248841010-1	RE46-10-13862	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	19	19	1.252	216
248841011-1	RE46-10-13873	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	20	20	1.260	217
1202072510-1	MB for batch 965807	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1	247 218
1202072511-1	RE46-10-13867(248841001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	03-MAR-10	22	22	1.251	248 219
1202072512-1	LCS for batch 965807	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.107	256 220

* SRM 0244-B 4-30-20

Choose SOP Used: ~~GL-RAD-A-011~~ GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 3/31/10

Blank Correction Report

Batch ID 965807

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202072511	DUP	Americium-241	1.25 g	-0.00331	0.0026	0.0238	-.001248	pCi/g	NO
1202072512	LCS	Americium-241	0.107 g	25.2	1.96	0.258	-.01457944	pCi/g	NO
1202072510	MB	Americium-241	1.00 g	-0.00156	0.00365	0.0265	-.00156	pCi/g	NO
248818001	RE46-10-13553	Americium-241	1.26 g	0.000208	0.00163	0.0238	-.00123810	pCi/g	NO
248818002	RE46-10-13549	Americium-241	1.26 g	-0.00811	0.00314	0.0227	-.00123810	pCi/g	YES
248818003	RE46-10-13551	Americium-241	1.26 g	0.00424	0.00247	0.0208	-.00123810	pCi/g	NO
248818004	RE46-10-13550	Americium-241	1.25 g	0.000135	0.00156	0.0228	-.001248	pCi/g	NO
248818005	RE46-10-13548	Americium-241	1.25 g	0.00192	0.00234	0.0215	-.001248	pCi/g	NO
248818006	RE46-10-13546	Americium-241	1.25 g	0.00142	0.00142	0.0208	-.001248	pCi/g	NO
248818007	RE46-10-13552	Americium-241	1.25 g	-0.00142	0.00204	0.0298	-.001248	pCi/g	NO
248818008	RE46-10-13547	Americium-241	1.26 g	0.000688	0.00211	0.024	-.00123810	pCi/g	NO
248818009	RE46-10-13556	Americium-241	1.25 g	-6.73E-05	0.00136	0.0199	-.001248	pCi/g	NO
248841001	RE46-10-13867	Americium-241	1.26 g	0.00278	0.00336	0.0241	-.00123810	pCi/g	NO
248841002	RE46-10-13864	Americium-241	1.25 g	0.00238	0.003	0.0218	-.001248	pCi/g	NO
248841003	RE46-10-13863	Americium-241	1.26 g	3.22E-05	0.00145	0.0213	-.00123810	pCi/g	NO
248841004	RE46-10-13869	Americium-241	1.26 g	0.00167	0.00161	0.0226	-.00123810	pCi/g	NO
248841005	RE46-10-13861	Americium-241	1.26 g	0.0018	0.00224	0.0207	-.00123810	pCi/g	NO
248841006	RE46-10-13866	Americium-241	1.26 g	-1.28E-06	0.00142	0.0208	-.00123810	pCi/g	NO
248841007	RE46-10-13860	Americium-241	1.26 g	-0.000853	0.00248	0.0295	-.00123810	pCi/g	NO
248841008	RE46-10-13865	Americium-241	1.26 g	0.000375	0.00173	0.0205	-.00123810	pCi/g	NO
248841009	RE46-10-13868	Americium-241	1.26 g	0.00416	0.00242	0.0204	-.00123810	pCi/g	NO
248841010	RE46-10-13862	Americium-241	1.25 g	-0.000232	0.00267	0.0208	-.001248	pCi/g	NO
248841011	RE46-10-13873	Americium-241	1.26 g	0.00066	0.00208	0.0237	-.00123810	pCi/g	NO

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 229	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248841001_AM	DETECTOR S/N : 79422	BKG FILE : B229.CNF;93
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 38.6797	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:41:40	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W229.CNF;30
% YIELD : 78.492		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.7860E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5534.779	138.677	4.000	1.697	1.440	2.7707	99.94000	2.78E-03	3.36E-03	9.81E-03	2.41E-02	3.35E-03
AM243	5270.000	5277.013	37.894	497.000	496.280	0.720	0.8485	99.78000	8.15E-01	6.65E-02	3.01E-03	1.05E-02	3.66E-02
CM-242	6102.000	6042.572	0.000	8.000	7.280	0.720	4.0092	100.0000	1.34E-02	5.44E-03	1.42E-02	3.28E-02	5.36E-03
CM-3/4	5795.020	5775.715	7.274	9.000	9.000	0.000	4.8510	100.0000	1.48E-02	5.03E-03	1.72E-02	3.88E-02	4.93E-03
CM-5/6	5386.000	5375.107	0.000	9.000	9.000	0.000	6.1294	86.09000	1.71E-02	5.83E-03	2.52E-02	5.55E-02	5.71E-03
CM-247	4946.000	4937.047	4.953	11.000	11.000	0.000	6.3427	79.30000	2.27E-02	7.03E-03	2.83E-02	6.22E-02	6.86E-03
CM-248	5078.600	5071.775	37.919	11.000	11.000	0.000	11.0244	91.00000	1.98E-02	6.13E-03	4.28E-02	9.06E-02	5.97E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

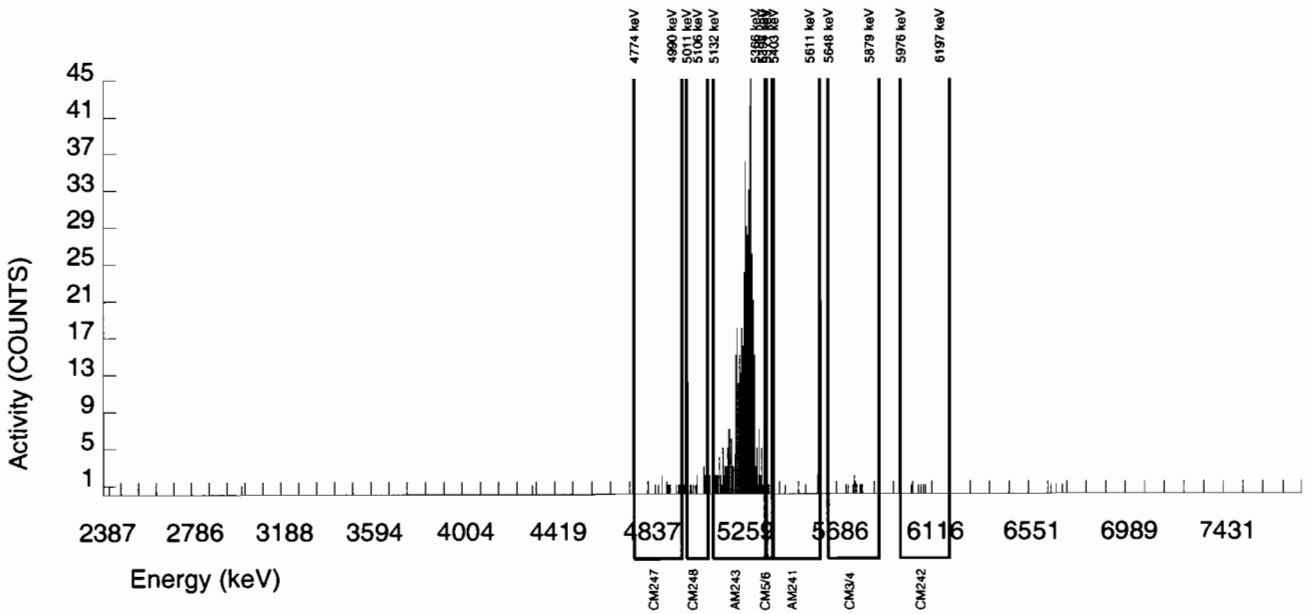

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 230	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248841002_AM	DETECTOR S/N : 79423	BKG FILE : B230.CNF;93
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 38.1908	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:41:43	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W230.CNF;30
% YIELD : 88.308		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 2.0093E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5489.054	0.000	4.000	1.601	1.440	2.7707	99.94000	2.38E-03	3.00E-03	8.87E-03	2.18E-02	3.00E-03
AM243	5270.000	5276.927	34.534	552.000	551.280	0.720	0.8485	99.78000	8.19E-01	6.48E-02	2.72E-03	9.47E-03	3.49E-02
CM-242	6102.000	6046.160	54.509	6.000	6.000	0.000	4.0092	100.0000	9.97E-03	4.12E-03	1.28E-02	2.97E-02	4.07E-03
CM-3/4	5795.020	5730.369	89.196	5.000	5.000	0.000	4.8510	100.0000	7.44E-03	3.36E-03	1.55E-02	3.51E-02	3.33E-03
CM-5/6	5386.000	5374.708	0.000	8.000	8.000	0.000	6.1294	86.09000	1.38E-02	4.96E-03	2.28E-02	5.02E-02	4.87E-03
CM-247	4946.000	4940.531	0.000	8.000	7.280	0.720	6.3427	79.30000	1.36E-02	5.53E-03	2.56E-02	5.62E-02	5.46E-03
CM-248	5078.600	5056.216	0.000	9.000	9.000	0.000	11.0244	91.00000	1.47E-02	4.99E-03	3.88E-02	8.19E-02	4.89E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

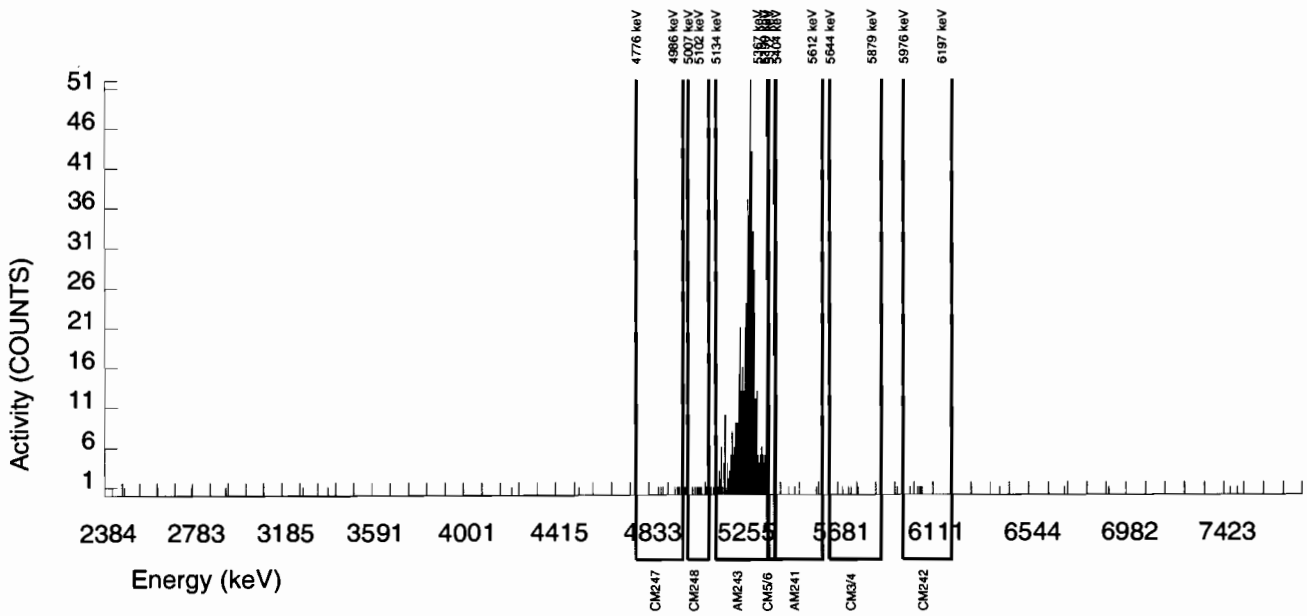

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 209	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248841003_AM	DETECTOR S/N : 79188	BKG FILE : B209.CNF;94
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 38.7951	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:40:51	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W209.CNF;33
% YIELD : 88.622		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 2.0164E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5542.473	4.929	1.000	0.022	0.000	2.7707	99.94000	3.22E-05	1.45E-03	8.67E-03	2.13E-02	1.45E-03
AM243	5270.000	5278.573	40.603	562.000	562.000	0.000	0.0000	99.78000	8.17E-01	6.42E-02	0.00E+00	3.94E-03	3.44E-02
CM-242	6102.000	6047.429	39.431	3.000	3.000	0.000	4.0092	100.0000	4.87E-03	2.83E-03	1.25E-02	2.90E-02	2.81E-03
CM-3/4	5795.020	5765.829	7.239	7.000	6.280	0.720	4.8510	100.0000	9.13E-03	4.03E-03	1.52E-02	3.43E-02	3.99E-03
CM-5/6	5386.000	5383.077	14.787	2.000	2.000	0.000	6.1294	86.09000	3.37E-03	2.39E-03	2.23E-02	4.91E-02	2.38E-03
CM-247	4946.000	4931.950	88.721	6.000	6.000	0.000	6.3427	79.30000	1.10E-02	4.54E-03	2.50E-02	5.50E-02	4.48E-03
CM-248	5078.600	5067.763	7.239	6.000	5.280	0.720	11.0244	91.00000	8.41E-03	4.11E-03	3.79E-02	8.01E-02	4.07E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

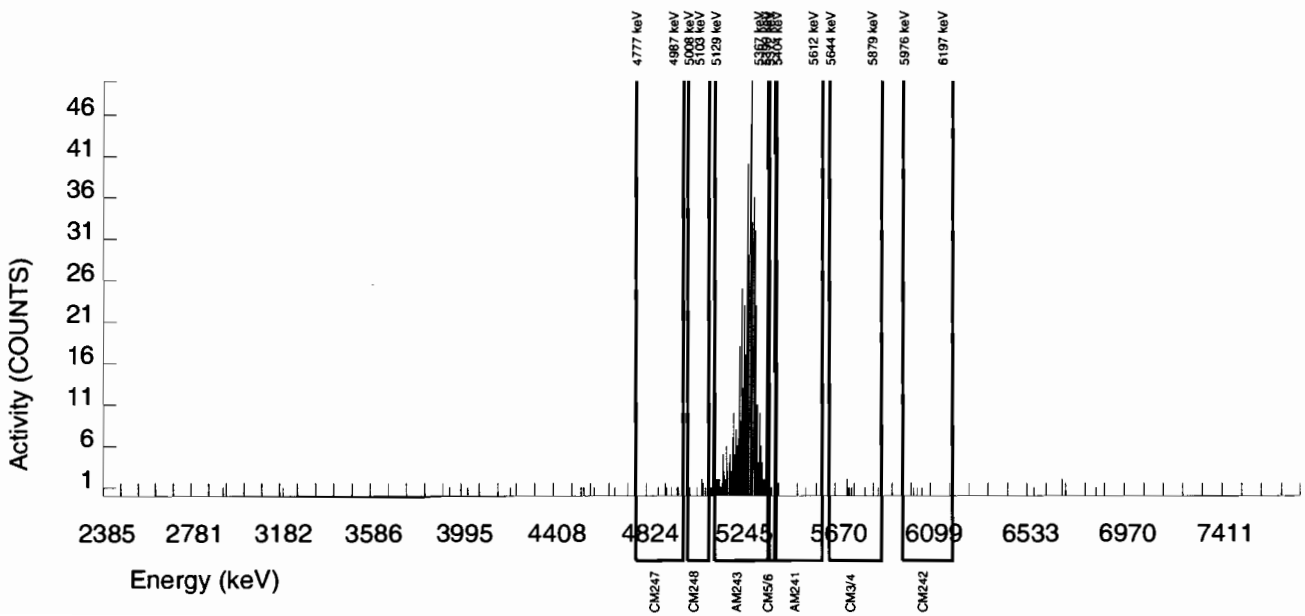

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 210	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248841004_AM	DETECTOR S/N : 79189	BKG FILE : B210.CNF;93
SAMPLE QTY : 1.256 G	AVERAGE %EFFICIENCY : 39.4745	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:40:53	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W210.CNF;31
% YIELD : 81.871		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.8628E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5423.006	34.528	2.000	1.081	0.000	2.7707	99.94000	1.67E-03	1.61E-03	9.22E-03	2.26E-02	1.60E-03
AM243	5270.000	5267.457	62.804	529.000	528.280	0.720	0.8485	99.78000	8.16E-01	6.53E-02	2.83E-03	9.84E-03	3.55E-02
CM-242	6102.000	6060.988	39.461	6.000	6.000	0.000	4.0092	100.0000	1.04E-02	4.29E-03	1.33E-02	3.08E-02	4.23E-03
CM-3/4	5795.020	5699.901	4.933	1.000	0.280	0.720	4.8510	100.0000	4.33E-04	1.91E-03	1.61E-02	3.64E-02	1.90E-03
CM-5/6	5386.000	5379.800	0.000	7.000	7.000	0.000	6.1294	86.09000	1.25E-02	4.81E-03	2.37E-02	5.22E-02	4.74E-03
CM-247	4946.000	4907.493	177.573	25.000	25.000	0.000	6.3427	79.30000	4.86E-02	1.03E-02	2.66E-02	5.85E-02	9.72E-03
CM-248	5078.600	5064.131	76.455	33.000	33.000	0.000	11.0244	91.00000	5.59E-02	1.04E-02	4.03E-02	8.52E-02	9.73E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

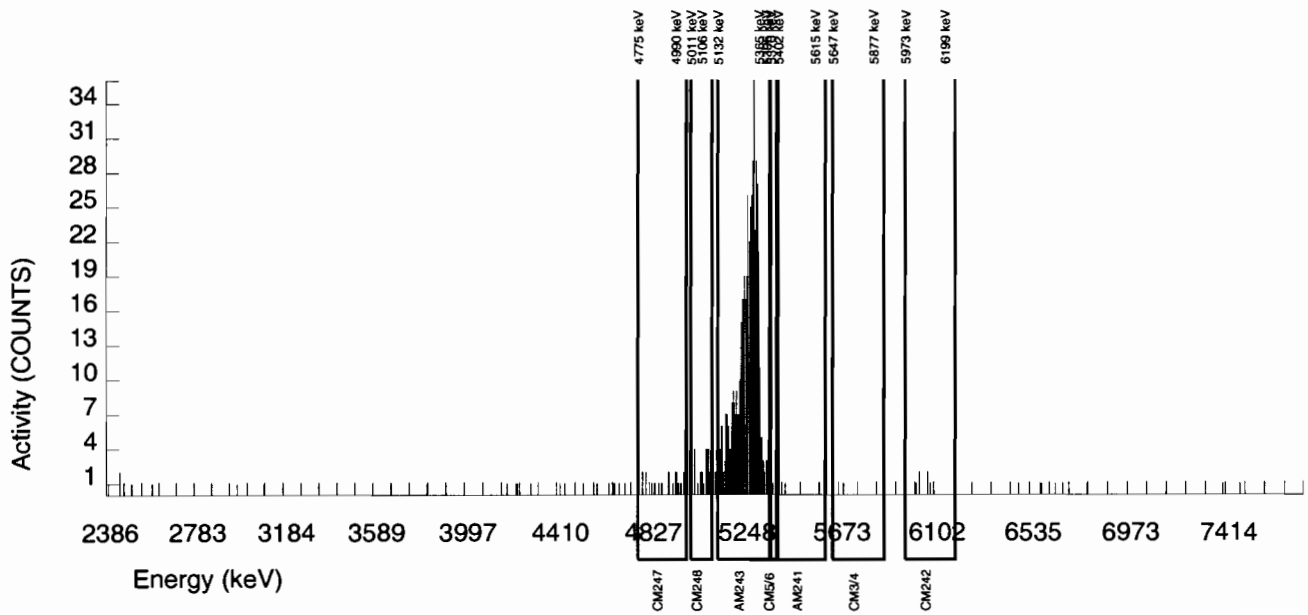

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 211	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248841005_AM	DETECTOR S/N : 79190	BKG FILE : B211.CNF;93
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 39.8764	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:40:55	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W211.CNF;31
% YIELD : 88.564		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 2.0151E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5514.638	93.180	3.000	1.276	0.720	2.7707	99.94000	1.80E-03	2.24E-03	8.43E-03	2.07E-02	2.24E-03
AM243	5270.000	5272.575	43.146	578.000	577.280	0.720	0.8485	99.78000	8.15E-01	6.36E-02	2.59E-03	9.00E-03	3.40E-02
CM-242	6102.000	6049.463	74.050	7.000	7.000	0.000	4.0092	100.0000	1.11E-02	4.24E-03	1.22E-02	2.82E-02	4.18E-03
CM-3/4	5795.020	5759.784	4.937	6.000	5.280	0.720	4.8510	100.0000	7.46E-03	3.64E-03	1.47E-02	3.33E-02	3.61E-03
CM-5/6	5386.000	5372.636	0.000	6.000	6.000	0.000	6.1294	86.09000	9.82E-03	4.06E-03	2.16E-02	4.77E-02	4.01E-03
CM-247	4946.000	4883.435	172.167	8.000	8.000	0.000	6.3427	79.30000	1.42E-02	5.11E-03	2.43E-02	5.35E-02	5.03E-03
CM-248	5078.600	5059.831	48.081	13.000	13.000	0.000	11.0244	91.00000	2.01E-02	5.74E-03	3.68E-02	7.79E-02	5.58E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

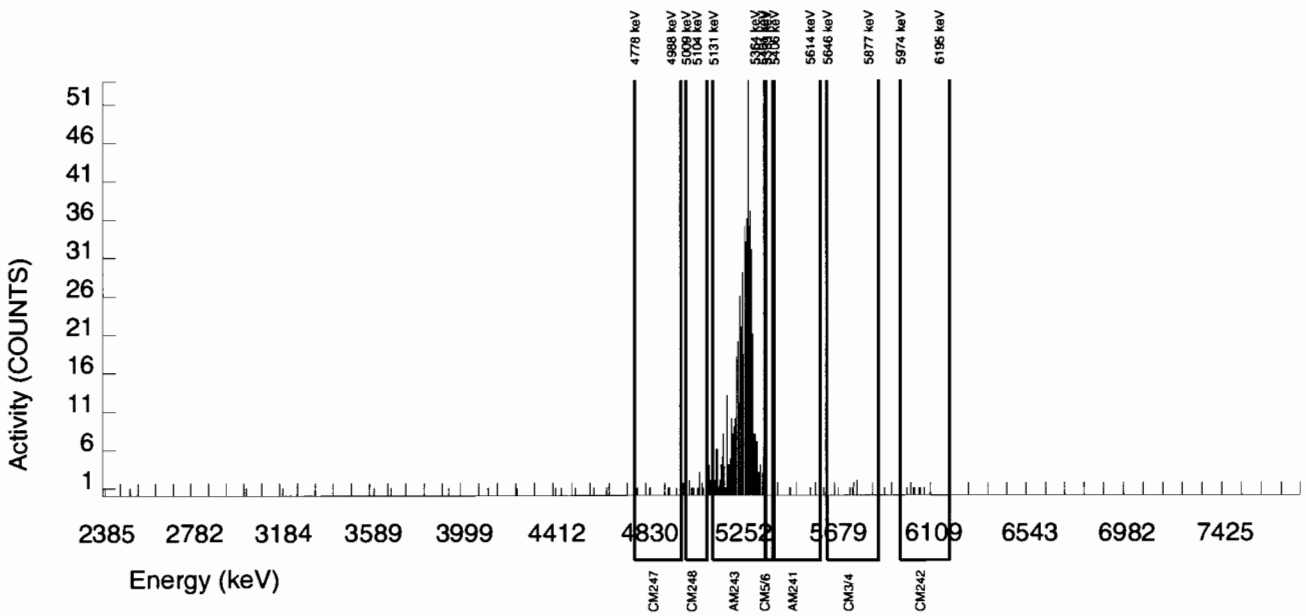

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 212	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248841006_AM	DETECTOR S/N : 79191	BKG FILE : B212.CNF;93
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 38.7906	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:40:58	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W212.CNF;30
% YIELD : 90.727		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 2.0643E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5509.540	4.931	1.000	-0.001	0.000	2.7707	99.94000	-1.28E-06	1.42E-03	8.46E-03	2.08E-02	1.42E-03
AM243	5270.000	5272.208	50.862	576.000	575.280	0.720	0.8485	99.78000	8.15E-01	6.37E-02	2.59E-03	9.03E-03	3.40E-02
CM-242	6102.000	6051.695	46.843	7.000	7.000	0.000	4.0092	100.0000	1.11E-02	4.26E-03	1.22E-02	2.83E-02	4.19E-03
CM-3/4	5795.020	5741.601	112.792	9.000	8.280	0.720	4.8510	100.0000	1.17E-02	4.44E-03	1.48E-02	3.34E-02	4.38E-03
CM-5/6	5386.000	5383.385	16.950	7.000	7.000	0.000	6.1294	86.09000	1.15E-02	4.41E-03	2.17E-02	4.79E-02	4.35E-03
CM-247	4946.000	4953.734	14.176	3.000	3.000	0.000	6.3427	79.30000	5.35E-03	3.11E-03	2.44E-02	5.36E-02	3.09E-03
CM-248	5078.600	5075.147	29.277	19.000	19.000	0.000	11.0244	91.00000	2.95E-02	7.05E-03	3.70E-02	7.81E-02	6.77E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

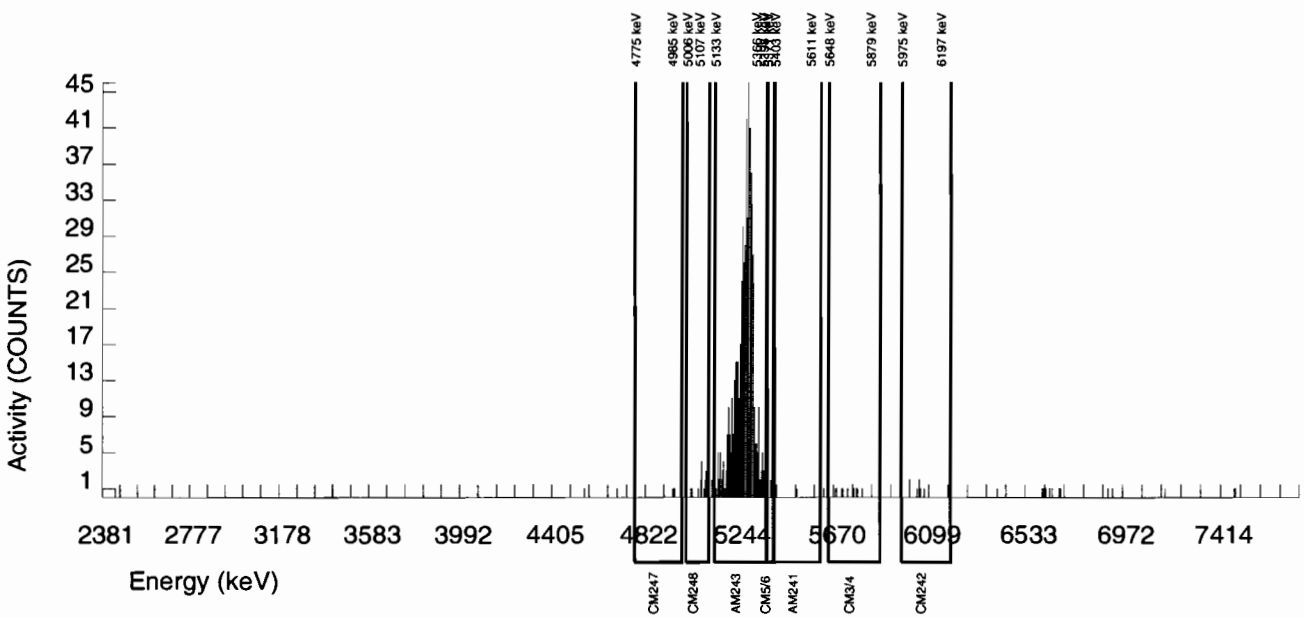

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 213	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248841007_AM	DETECTOR S/N : 79192	BKG FILE : B213.CNF;93
SAMPLE QTY : 1.258 G	AVERAGE %EFFICIENCY : 38.2471	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:41:01	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W213.CNF;30
% YIELD : 64.780		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.4740E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5466.068	4.933	1.000	-0.425	0.720	2.7707	99.94000	-8.53E-04	2.48E-03	1.20E-02	2.95E-02	2.48E-03
AM243	5270.000	5271.732	57.651	405.000	405.000	0.000	0.0000	99.78000	8.15E-01	7.08E-02	0.00E+00	5.45E-03	4.05E-02
CM-242	6102.000	6086.109	4.933	1.000	1.000	0.000	4.0092	100.0000	2.25E-03	2.25E-03	1.74E-02	4.02E-02	2.25E-03
CM-3/4	5795.020	5764.350	4.933	2.000	2.000	0.000	4.8510	100.0000	4.03E-03	2.86E-03	2.10E-02	4.75E-02	2.85E-03
CM-5/6	5386.000	5382.970	7.246	6.000	6.000	0.000	6.1294	86.09000	1.40E-02	5.80E-03	3.08E-02	6.80E-02	5.71E-03
CM-247	4946.000	4874.624	167.121	7.000	7.000	0.000	6.3427	79.30000	1.77E-02	6.81E-03	3.46E-02	7.61E-02	6.70E-03
CM-248	5078.600	5065.137	17.267	7.000	7.000	0.000	11.0244	91.00000	1.54E-02	5.94E-03	5.25E-02	1.11E-01	5.84E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

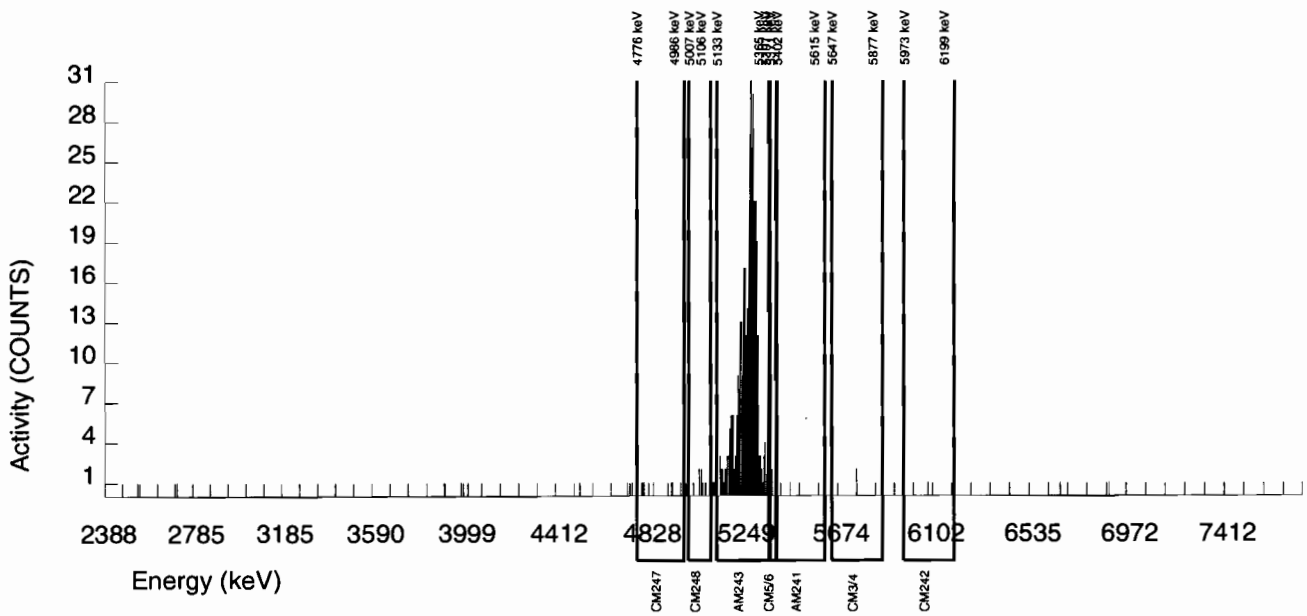

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 214	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248841008_AM	DETECTOR S/N : 79193	BKG FILE : B214.CNF;93
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 38.2529	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:41:03	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W214.CNF;30
% YIELD : 93.077		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 2.1178E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5495.816	68.829	2.000	0.267	0.720	2.7707	99.94000	3.75E-04	1.73E-03	8.37E-03	2.05E-02	1.73E-03
AM243	5270.000	5273.786	37.338	582.000	582.000	0.000	0.0000	99.78000	8.17E-01	6.35E-02	0.00E+00	3.80E-03	3.39E-02
CM-242	6102.000	6067.263	14.749	2.000	2.000	0.000	4.0092	100.0000	3.14E-03	2.23E-03	1.21E-02	2.80E-02	2.22E-03
CM-3/4	5795.020	5747.590	39.331	5.000	5.000	0.000	4.8510	100.0000	7.02E-03	3.17E-03	1.47E-02	3.31E-02	3.14E-03
CM-5/6	5386.000	5378.730	9.218	2.000	2.000	0.000	6.1294	86.09000	3.25E-03	2.31E-03	2.15E-02	4.74E-02	2.30E-03
CM-247	4946.000	4935.075	4.916	7.000	6.280	0.720	6.3427	79.30000	1.11E-02	4.90E-03	2.42E-02	5.31E-02	4.84E-03
CM-248	5078.600	5052.413	0.000	7.000	7.000	0.000	11.0244	91.00000	1.08E-02	4.13E-03	3.66E-02	7.74E-02	4.07E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

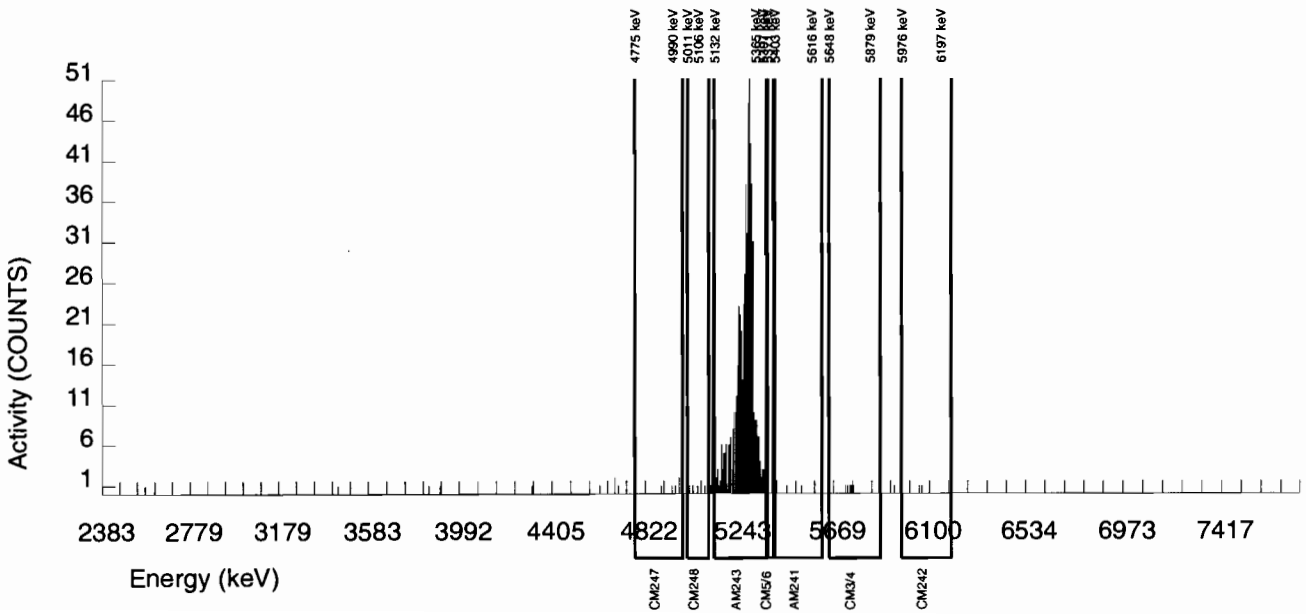

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 215	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248841009_AM	DETECTOR S/N : 79468	BKG FILE : B215.CNF;93
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 38.2619	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:41:06	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W215.CNF;35
% YIELD : 93.215		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 2.1209E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5478.698	64.079	4.000	2.986	0.000	2.7707	99.94000	4.16E-03	2.42E-03	8.33E-03	2.04E-02	2.41E-03
AM243	5270.000	5270.376	55.238	583.000	583.000	0.000	0.0000	99.78000	8.13E-01	6.32E-02	0.00E+00	3.78E-03	3.37E-02
CM-242	6102.000	5992.072	4.929	1.000	1.000	0.000	4.0092	100.0000	1.56E-03	1.56E-03	1.20E-02	2.79E-02	1.56E-03
CM-3/4	5795.020	5777.539	78.250	8.000	8.000	0.000	4.8510	100.0000	1.12E-02	4.02E-03	1.46E-02	3.29E-02	3.95E-03
CM-5/6	5386.000	5371.791	0.000	6.000	6.000	0.000	6.1294	86.09000	9.70E-03	4.01E-03	2.14E-02	4.72E-02	3.96E-03
CM-247	4946.000	4910.359	4.929	10.000	8.560	1.440	6.3427	79.30000	1.50E-02	5.92E-03	2.40E-02	5.28E-02	5.83E-03
CM-248	5078.600	5065.697	4.929	13.000	13.000	0.000	11.0244	91.00000	1.99E-02	5.67E-03	3.64E-02	7.69E-02	5.52E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

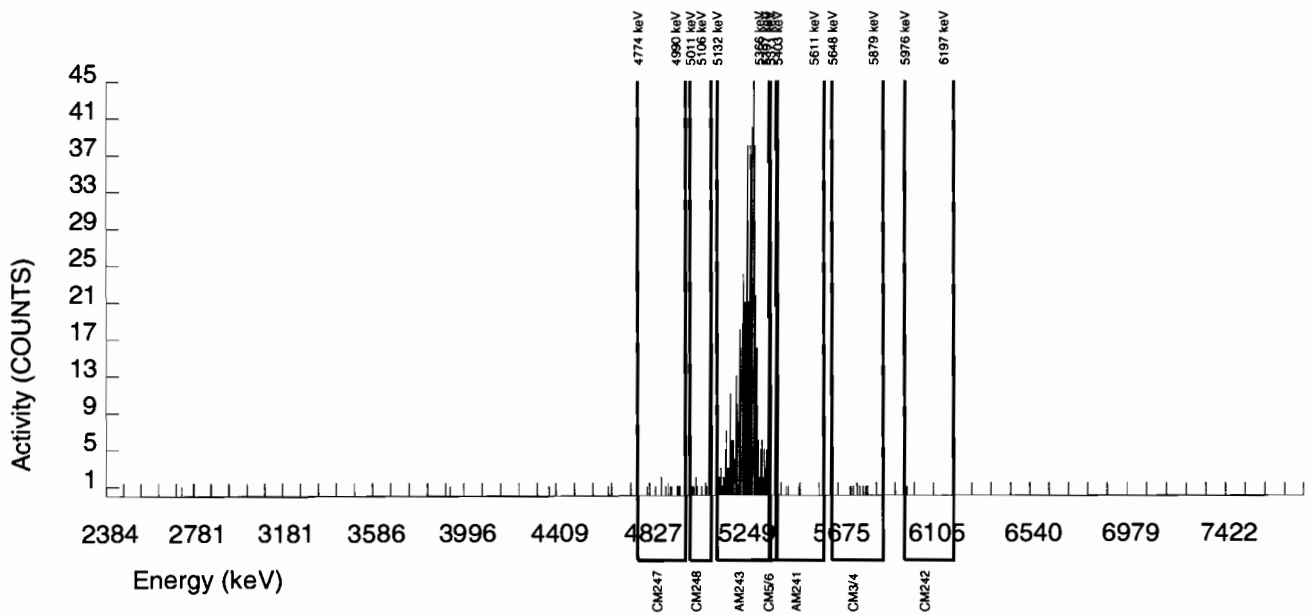

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 216	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248841010_AM	DETECTOR S/N : 79195	BKG FILE : B216.CNF;93
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 38.6826	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:41:08	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W216.CNF;30
% YIELD : 91.271		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 2.0767E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5513.056	133.071	3.000	-0.164	2.160	2.7707	99.94000	-2.32E-04	2.67E-03	8.47E-03	2.08E-02	2.67E-03
AM243	5270.000	5276.887	51.887	580.000	577.120	2.880	1.6971	99.78000	8.19E-01	6.40E-02	5.19E-03	1.42E-02	3.42E-02
CM-242	6102.000	6064.109	4.929	5.000	5.000	0.000	4.0092	100.0000	7.93E-03	3.58E-03	1.22E-02	2.83E-02	3.55E-03
CM-3/4	5795.020	5762.400	133.071	5.000	5.000	0.000	4.8510	100.0000	7.10E-03	3.21E-03	1.48E-02	3.35E-02	3.17E-03
CM-5/6	5386.000	5381.570	0.000	12.000	12.000	0.000	6.1294	86.09000	1.97E-02	5.84E-03	2.17E-02	4.79E-02	5.70E-03
CM-247	4946.000	4891.457	0.000	8.000	6.560	1.440	6.3427	79.30000	1.17E-02	5.42E-03	2.44E-02	5.37E-02	5.37E-03
CM-248	5078.600	5080.164	9.857	10.000	10.000	0.000	11.0244	91.00000	1.56E-02	5.02E-03	3.70E-02	7.82E-02	4.92E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

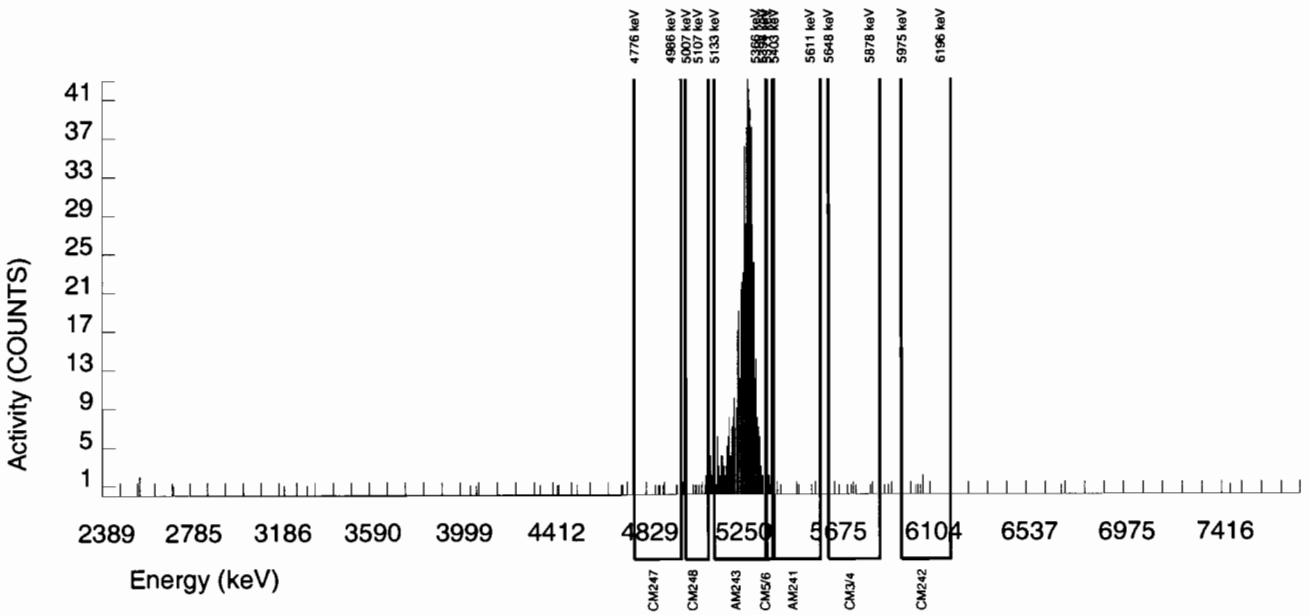

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 217	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248841011_AM	DETECTOR S/N : 79410	BKG FILE : B217.CNF;95
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 38.4865	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 11:41:11	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W217.CNF;32
% YIELD : 79.726		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.8140E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5491.029	83.506	2.000	0.407	0.720	2.7707	99.94000	6.60E-04	2.08E-03	9.68E-03	2.37E-02	2.08E-03
AM243	5270.000	5279.070	52.830	503.000	501.560	1.440	1.2000	99.78000	8.13E-01	6.62E-02	4.20E-03	1.28E-02	3.64E-02
CM-242	6102.000	6069.713	4.912	6.000	6.000	0.000	4.0092	100.0000	1.09E-02	4.50E-03	1.40E-02	3.24E-02	4.44E-03
CM-3/4	5795.020	5765.100	112.365	6.000	5.280	0.720	4.8510	100.0000	8.57E-03	4.18E-03	1.69E-02	3.83E-02	4.14E-03
CM-5/6	5386.000	5380.484	11.820	5.000	5.000	0.000	6.1294	86.09000	9.40E-03	4.25E-03	2.49E-02	5.48E-02	4.20E-03
CM-247	4946.000	4880.881	0.000	0.000	-0.720	0.720	6.3427	79.30000	-1.47E-03	2.52E-03	2.79E-02	6.14E-02	2.51E-03
CM-248	5078.600	5072.724	7.215	10.000	10.000	0.000	11.0244	91.00000	1.78E-02	5.75E-03	4.23E-02	8.94E-02	5.62E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

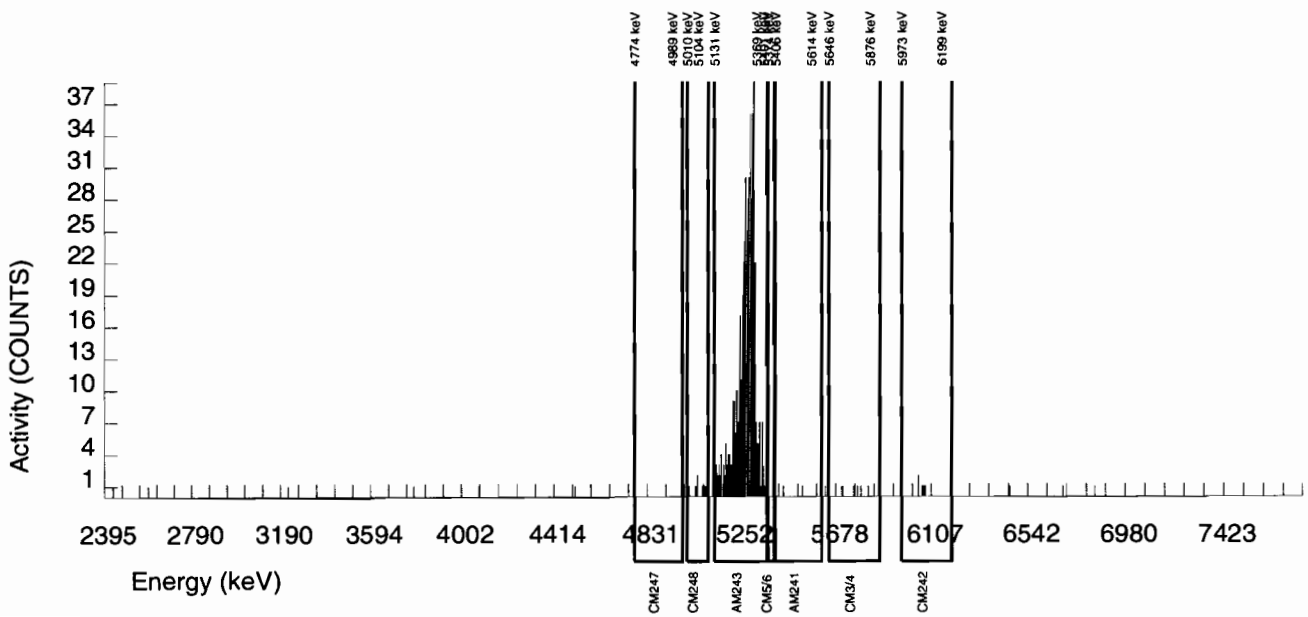

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 247	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202072510_AM	DETECTOR S/N : 79440	BKG FILE : B247.CNF;94
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 39.7754	BKG DATE : 28-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 30-MAR-2010 19:03:32	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W247.CNF;34
% YIELD : 87.115		CAL DATE : 30-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3148E+01 pCi/G	NOMINAL : 3.3148E+01 pCi/G
RESULTS : 1.9821E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5508.301	162.727	3.000	-0.865	2.880	2.7707	99.94000	-1.56E-03	3.65E-03	1.08E-02	2.65E-02	3.65E-03
AM243	5270.000	5277.609	50.410	570.000	566.400	3.600	1.8974	99.78000	1.02E+00	8.06E-02	7.41E-03	1.97E-02	4.33E-02
CM-242	6102.000	6050.686	59.174	2.000	2.000	0.000	4.0092	100.0000	3.75E-03	2.67E-03	1.56E-02	3.61E-02	2.65E-03
CM-3/4	5795.020	5763.120	93.691	5.000	2.840	2.160	4.8510	100.0000	5.13E-03	4.64E-03	1.89E-02	4.27E-02	4.63E-03
CM-5/6	5386.000	5376.673	0.000	8.000	8.000	0.000	6.1294	86.09000	1.68E-02	6.04E-03	2.77E-02	6.12E-02	5.93E-03
CM-247	4946.000	4899.927	0.000	8.000	7.280	0.720	6.3427	79.30000	1.66E-02	6.74E-03	3.12E-02	6.85E-02	6.65E-03
CM-248	5078.600	5069.560	16.951	14.000	13.280	0.720	11.0244	91.00000	2.63E-02	7.76E-03	4.72E-02	9.98E-02	7.56E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

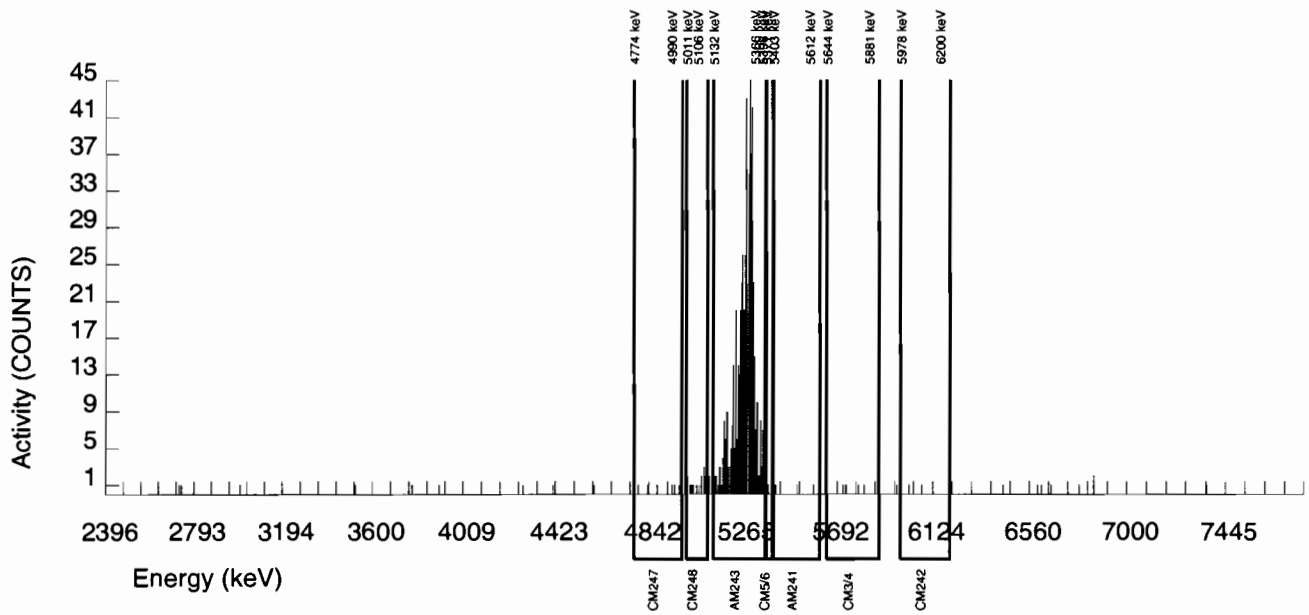

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 248	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202072511_AM	DETECTOR S/N : 79441	BKG FILE : B248.CNF;96
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 40.3361	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 19:03:34	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W248.CNF;34
% YIELD : 76.307		CAL DATE : 30-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.7362E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5580.021	4.922	1.000	-2.035	2.160	2.7707	99.94000	-3.31E-03	2.60E-03	9.72E-03	2.38E-02	2.60E-03
AM243	5270.000	5280.404	31.134	506.000	503.120	2.880	1.6971	99.78000	8.19E-01	6.67E-02	5.96E-03	1.63E-02	3.67E-02
CM-242	6102.000	6048.942	7.229	5.000	4.280	0.720	4.0092	100.0000	7.84E-03	4.33E-03	1.41E-02	3.25E-02	4.30E-03
CM-3/4	5795.020	5794.955	118.120	5.000	2.840	2.160	4.8510	100.0000	4.63E-03	4.18E-03	1.70E-02	3.84E-02	4.17E-03
CM-5/6	5386.000	5383.542	4.922	4.000	4.000	0.000	6.1294	86.09000	7.55E-03	3.81E-03	2.50E-02	5.50E-02	3.77E-03
CM-247	4946.000	4928.409	4.922	7.000	5.560	1.440	6.3427	79.30000	1.14E-02	5.86E-03	2.80E-02	6.16E-02	5.81E-03
CM-248	5078.600	5063.479	0.000	12.000	12.000	0.000	11.0244	91.00000	2.14E-02	6.35E-03	4.25E-02	8.98E-02	6.19E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

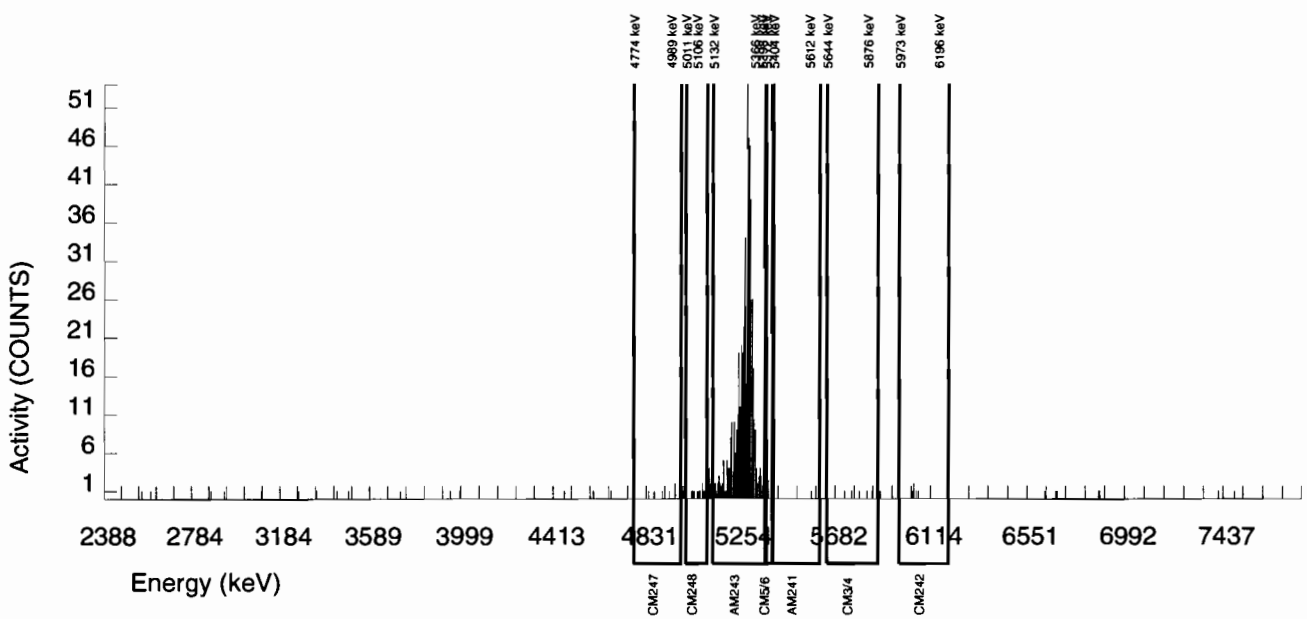

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965807	CHAMBER : 256	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202072512_AM	DETECTOR S/N : 79449	BKG FILE : B256.CNF;95
SAMPLE QTY : 0.107 G	AVERAGE %EFFICIENCY : 40.2693	BKG DATE : 28-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 30-MAR-2010 19:03:37	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W256.CNF;33
% YIELD : 82.729		CAL DATE : 30-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3148E+01 pCi/G	NOMINAL : 3.3148E+01 pCi/G
RESULTS : 1.8823E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5494.719	61.740	1440.000	1436.172	2.880	2.7707	99.94000	2.52E+01	1.96E+00	1.05E-01	2.58E-01	6.67E-01
AM243	5270.000	5273.722	40.072	546.000	544.560	1.440	1.2000	99.78000	9.58E+00	8.13E-01	4.55E-02	1.39E-01	4.11E-01
CM-242	6102.000	6087.735	0.000	0.000	0.000	0.000	4.0092	100.0000	0.00E+00	1.83E-02	1.52E-01	3.51E-01	1.82E-02
CM-3/4	5795.020	5775.554	4.936	10.000	8.560	1.440	4.8510	100.0000	1.50E-01	5.94E-02	1.84E-01	4.15E-01	5.84E-02
CM-5/6	5386.000	5382.953	0.000	54.000	54.000	0.000	6.1294	86.09000	1.10E+00	1.70E-01	2.70E-01	5.94E-01	1.50E-01
CM-247	4946.000	4904.651	7.249	11.000	7.400	3.600	6.3427	79.30000	1.64E-01	8.25E-02	3.03E-01	6.66E-01	8.16E-02
CM-248	5078.600	5061.882	31.876	23.000	23.000	0.000	11.0244	91.00000	4.44E-01	9.80E-02	4.59E-01	9.70E-01	9.25E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

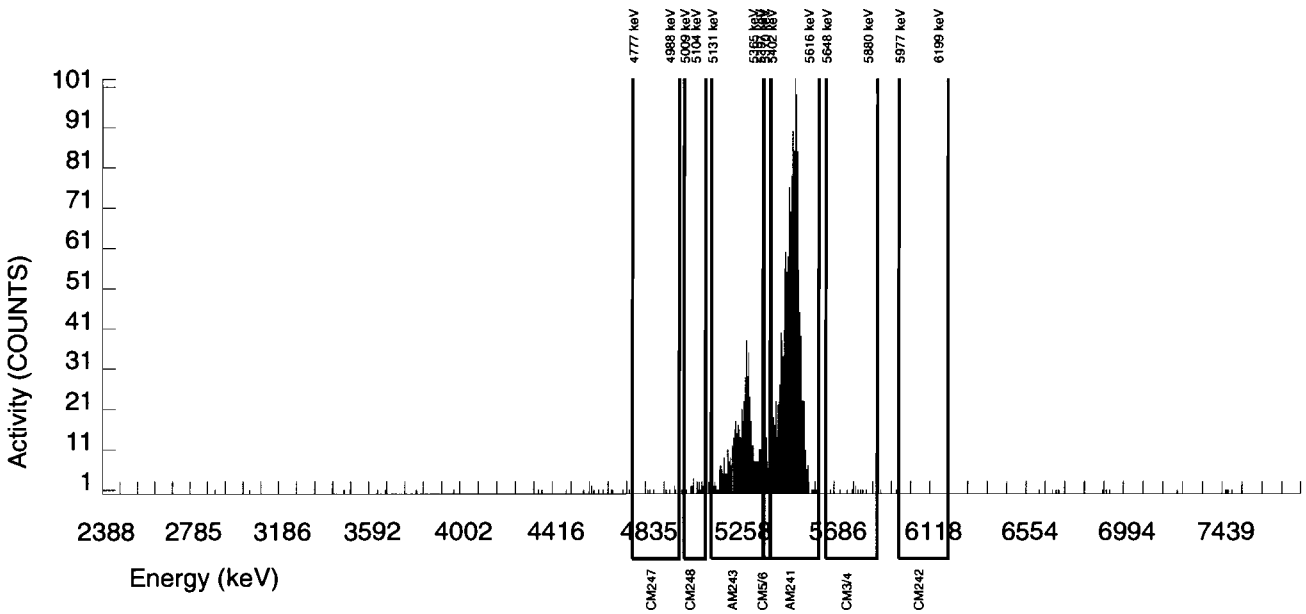

Radiochemistry Batch Checklist, Rev10

Batch# 965808 Product: Pu Date: 3/31/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.	✗		N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JapLMLr 3/31/10

Secondary Review Performed By: [illegible] 3/31/10

4/2

LANL

Plutonium Que Sheet

22-MAR-10

Batch #: 965808 Pu-236 Analyst: JXH2 First Client Due Date:02-APR-10 Internal Due Date:22-MAR-10

Tracer Isotope(s): ~~Pu-242/Pu-238~~ Tracer Code: 1430-C Expiration Date: 3-4-11 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: — Expiration Date: — Vol: —

Spike Isotope(s): Pu-239/Pu-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 3-22-10 Initials: JEH Pipet ID: 4497063 Balance ID: 50410272 Witness: 3/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g / l / f)	Pu Det #
248818001-1	RE46-10-13553	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	1	1	1.259	107 ~~25~~
248818002-1	RE46-10-13549	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	2	2	1.256	26
248818003-1	RE46-10-13551	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	3	3	1.255	27
248818004-1	RE46-10-13550	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	4	4	1.252	28
248818005-1	RE46-10-13548	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	5	5	1.253	29
248818006-1	RE46-10-13546	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	6	6	1.254	30
248818007-1	RE46-10-13552	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	7	7	1.254	37
248818008-1	RE46-10-13547	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	8	8	1.262	38
248818009-1	RE46-10-13556	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	9	9	1.251	108 ~~39~~
248841001-1	RE46-10-13867	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	10	10	1.257	40
248841002-1	RE46-10-13864	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	11	11	1.251	41
248841003-1	RE46-10-13863	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	12	12	1.255	42
248841004-1	RE46-10-13869	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	13	13	1.256	89
248841005-1	RE46-10-13861	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	14	14	1.257	90
248841006-1	RE46-10-13866	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	15	15	1.257	91
248841007-1	RE46-10-13860	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	16	16	1.258	93
248841008-1	RE46-10-13865	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	17	17	1.255	94
248841009-1	RE46-10-13868	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	18	18 JH 3-25-10	~~1.256~~ 1.260	109 ~~95~~
248841010-1	RE46-10-13862	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	19	19	1.252	96
248841011-1	RE46-10-13873	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	20	20	1.260	97
1202072513-1	MB for batch 965808	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1	98
1202072514-1	RE46-10-13867(248841001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	03-MAR-10	22	22	1.251	99
1202072515-1	LCS for batch 965808	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.107	100

* SRM 0244-B, 4-30-20

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, ~~GL-RAD-A-045~~, GL-RAD-A-043

Solid Sample Dissolution by LEACH or DIGESTION Circle One

Data Reviewed By: 3/31/10

Blank Correction Report

Batch ID 965808

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202072514	DUP	Plutonium-238	1.25 g	0.00797	0.00344	0.0161	.00864	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00683	0.00396	0.0135	.00108	pCi/g	NO
1202072515	LCS	Plutonium-238	0.107 g	5.02	0.399	0.185	.100934579	pCi/g	NO
		Plutonium-239/240	0.107 g	40.3	2.55	0.156	.012616822	pCi/g	NO
1202072513	MB	Plutonium-238	1.00 g	0.0108	0.0043	0.019	.0108	pCi/g	YES
		Plutonium-239/240	1.00 g	0.00135	0.00234	0.016	.00135	pCi/g	YES
248818001	RE46-10-13553	Plutonium-238	1.26 g	-0.00127	0.0022	0.0179	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00254	0.00254	0.0151	.001071429	pCi/g	YES
248818002	RE46-10-13549	Plutonium-238	1.26 g	0.00112	0.00336	0.0158	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00672	0.00356	0.0133	.001071429	pCi/g	NO
248818003	RE46-10-13551	Plutonium-238	1.26 g	0.00362	0.0032	0.017	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00843	0.00364	0.0143	.001071429	pCi/g	NO
248818004	RE46-10-13550	Plutonium-238	1.25 g	0.00391	0.00227	0.0184	.00864	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00652	0.00472	0.0155	.00108	pCi/g	NO
248818005	RE46-10-13548	Plutonium-238	1.25 g	0.0101	0.00644	0.0158	.00864	pCi/g	YES
		Plutonium-239/240	1.25 g	-0.00223	0.00316	0.0133	.00108	pCi/g	YES
248818006	RE46-10-13546	Plutonium-238	1.25 g	0.00221	0.00565	0.0156	.00864	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00332	0.00332	0.0132	.00108	pCi/g	YES
248818007	RE46-10-13552	Plutonium-238	1.25 g	0.0119	0.00492	0.014	.00864	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00696	0.00457	0.0118	.00108	pCi/g	NO
248818008	RE46-10-13547	Plutonium-238	1.26 g	0.00917	0.00447	0.0144	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00407	0.00323	0.0121	.001071429	pCi/g	YES
248818009	RE46-10-13556	Plutonium-238	1.25 g	0.00358	0.00267	0.0168	.00864	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00	0.00119	0.0142	.00108	pCi/g	YES
248841001	RE46-10-13867	Plutonium-238	1.26 g	0.0108	0.00401	0.0169	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00597	0.00398	0.0142	.001071429	pCi/g	NO
248841002	RE46-10-13864	Plutonium-238	1.25 g	0.00228	0.0028	0.0161	.00864	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0148	0.00477	0.0136	.00108	pCi/g	NO
248841003	RE46-10-13863	Plutonium-238	1.26 g	0.00628	0.00259	0.0148	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	-0.00105	0.00347	0.0124	.001071429	pCi/g	YES
248841004	RE46-10-13869	Plutonium-238	1.26 g	0.0065	0.00293	0.0183	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0039	0.00226	0.0155	.001071429	pCi/g	YES
248841005	RE46-10-13861	Plutonium-238	1.26 g	0.00503	0.00226	0.0142	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00603	0.00248	0.0119	.001071429	pCi/g	NO
248841006	RE46-10-13866	Plutonium-238	1.26 g	0.00624	0.00257	0.0147	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00624	0.00257	0.0124	.001071429	pCi/g	NO
248841007	RE46-10-13860	Plutonium-238	1.26 g	-0.0011	0.0019	0.0154	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0142	0.00431	0.013	.001071429	pCi/g	NO
248841008	RE46-10-13865	Plutonium-238	1.26 g	0.00463	0.00233	0.0163	.008571429	pCi/g	YES

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248841008	RE46-10-13865	Plutonium-239/240	1.26 g	0.00	0.00116	0.0138	.001071429	pCi/g	YES
248841009	RE46-10-13868	Plutonium-238	1.26 g	0.00591	0.00266	0.0167	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00354	0.00265	0.014	.001071429	pCi/g	YES
248841010	RE46-10-13862	Plutonium-238	1.25 g	0.00919	0.00401	0.0162	.00864	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0207	0.00573	0.0136	.00108	pCi/g	NO
248841011	RE46-10-13873	Plutonium-238	1.26 g	0.014	0.00526	0.0164	.008571429	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00932	0.00333	0.0138	.001071429	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 040	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248841001_PU	DETECTOR S/N : 78773	BKG FILE : B040.CNF;1127
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 33.6397	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W040.CNF;319
% YIELD : 89.243		CAL DATE : 5-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6807E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5751.945	49.718	888.000	887.000	1.000	1.0000	100.0000	1.08E+00	6.81E-02	2.78E-03	8.79E-03	3.62E-02
PU-238	5499.000	5438.150	19.414	10.000	9.000	1.000	2.4495	99.90000	1.08E-02	4.01E-03	6.81E-03	1.69E-02	3.97E-03
PU-9/0	5155.000	5126.188	4.879	8.000	5.000	3.000	1.9732	99.90000	5.97E-03	3.98E-03	5.48E-03	1.42E-02	3.96E-03
PU242	4890.000	4783.268	301.890	13.000	11.000	2.000	*******	100.0000	1.31E-02	4.68E-03	3.46E-01	6.95E-01	4.62E-03
PU-244	4589.000	4564.943	24.395	2.000	2.000	0.000	6.4609	99.90000	2.39E-03	1.69E-03	1.80E-02	3.92E-02	1.69E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

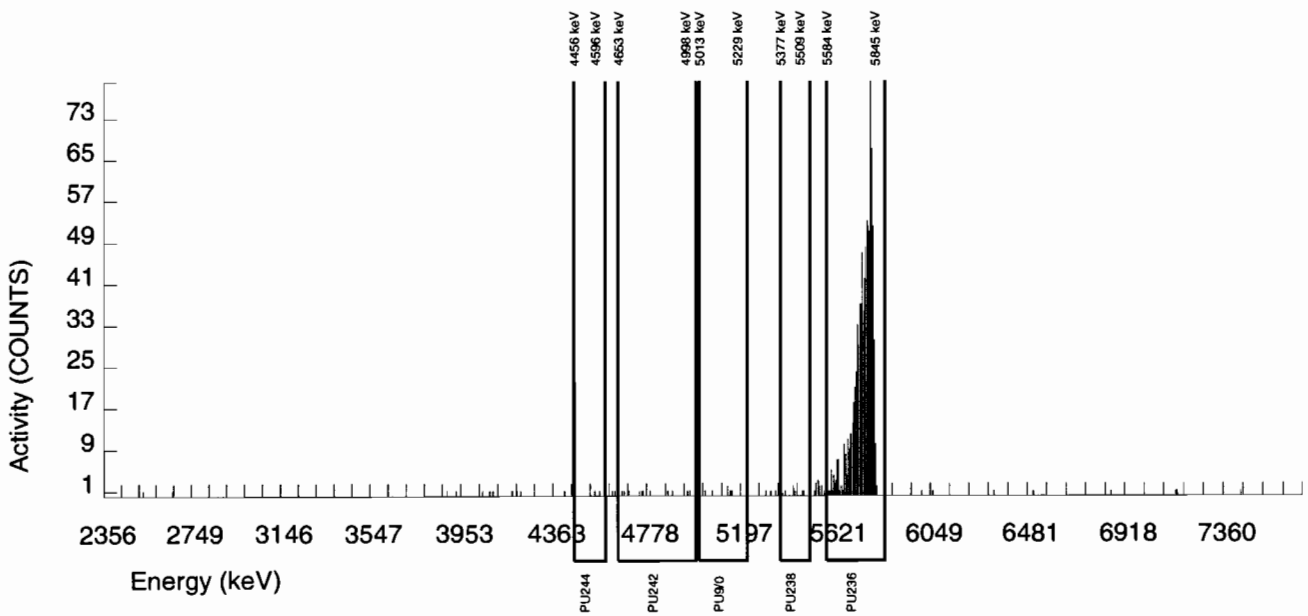

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 041	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248841002_PU	DETECTOR S/N : 78205	BKG FILE : B041.CNF;1120
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 34.7283	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W041.CNF;323
% YIELD : 91.026		CAL DATE : 5-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7343E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5771.819	31.827	936.000	934.000	2.000	1.4142	100.0000	1.08E+00	6.75E-02	3.75E-03	1.06E-02	3.55E-02
PU-238	5499.000	5451.616	84.072	4.000	2.000	2.000	2.4495	99.90000	2.28E-03	2.80E-03	6.50E-03	1.61E-02	2.79E-03
PU-9/0	5155.000	5115.757	83.968	15.000	13.000	2.000	1.9732	99.90000	1.48E-02	4.77E-03	5.23E-03	1.36E-02	4.70E-03
PU242	4890.000	4828.137	276.942	6.000	1.000	5.000	*******	100.0000	1.14E-03	3.78E-03	3.30E-01	6.64E-01	3.78E-03
PU-244	4589.000	4517.410	14.836	2.000	0.000	2.000	6.4609	99.90000	0.00E+00	2.28E-03	1.71E-02	3.74E-02	2.28E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

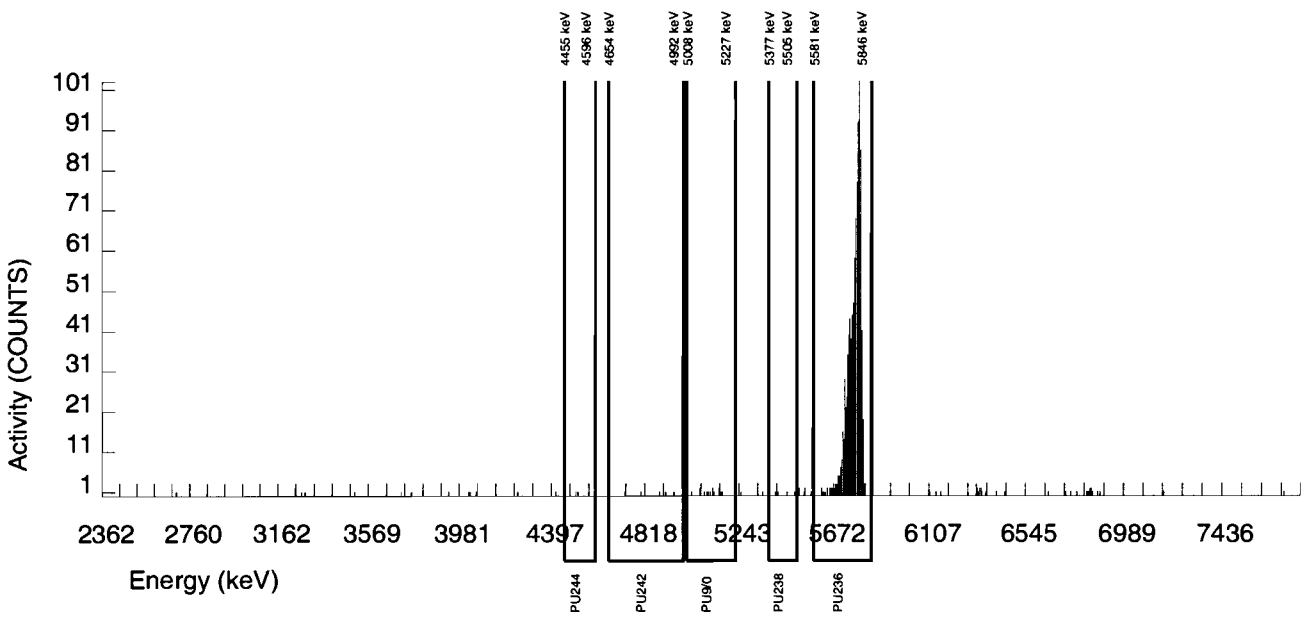

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 042	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248841003_PU	DETECTOR S/N : 78793	BKG FILE : B042.CNF;1119
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 34.6417	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W042.CNF;296
% YIELD : 99.069		CAL DATE : 5-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9759E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5771.598	54.016	1017.000	1014.000	3.000	1.7321	100.0000	1.08E+00	6.58E-02	4.21E-03	1.13E-02	3.40E-02
PU-238	5499.000	5424.130	117.191	6.000	6.000	0.000	2.4495	99.90000	6.28E-03	2.59E-03	5.97E-03	1.48E-02	2.57E-03
PU-9/0	5155.000	5107.391	112.896	5.000	-1.000	6.000	1.9732	99.90000	-1.05E-03	3.47E-03	4.81E-03	1.24E-02	3.47E-03
PU242	4890.000	4754.309	4.909	11.000	5.000	6.000	*******	100.0000	5.23E-03	4.32E-03	3.03E-01	6.09E-01	4.31E-03
PU-244	4589.000	4567.838	4.909	1.000	1.000	0.000	6.4609	99.90000	1.05E-03	1.05E-03	1.57E-02	3.43E-02	1.05E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

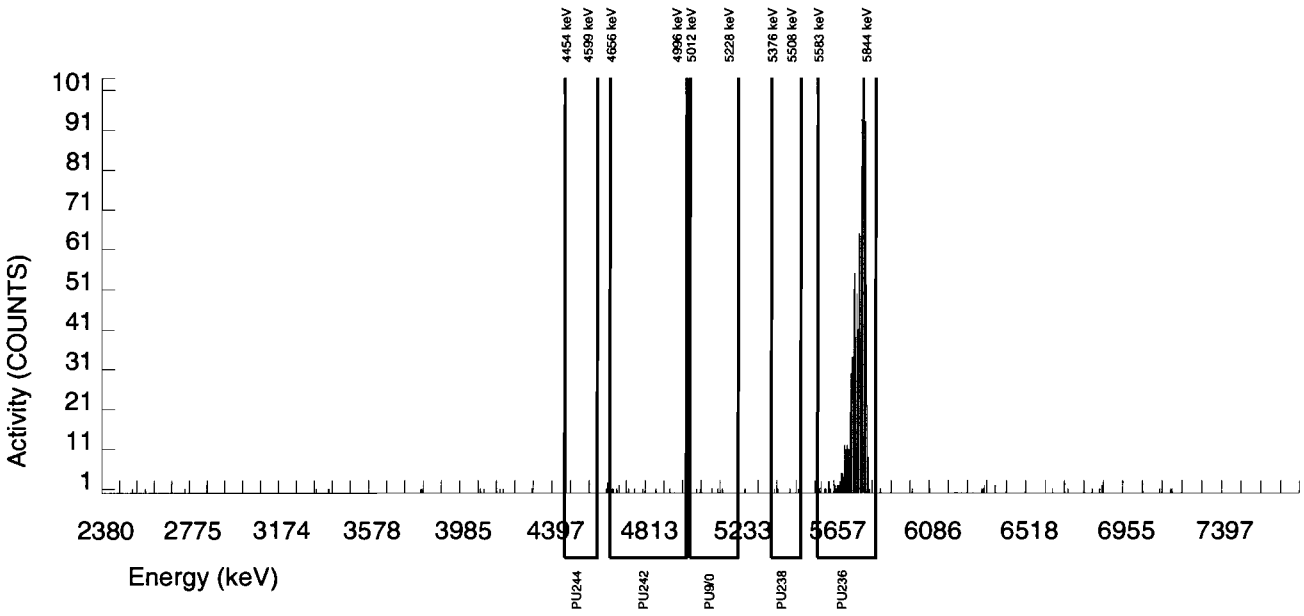

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 089	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248841004_PU	DETECTOR S/N : 78262	BKG FILE : B089.CNF;729
SAMPLE QTY : 1.256 G	AVERAGE %EFFICIENCY : 30.5954	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:32	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W089.CNF;197
% YIELD : 90.269		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7116E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5765.583	30.122	816.000	816.000	0.000	0.0000	100.0000	1.08E+00	6.98E-02	0.00E+00	3.52E-03	3.77E-02
PU-238	5499.000	5457.599	0.000	5.000	5.000	0.000	2.4495	99.90000	6.50E-03	2.93E-03	7.41E-03	1.83E-02	2.91E-03
PU-9/0	5155.000	5135.259	139.958	3.000	3.000	0.000	1.9732	99.90000	3.90E-03	2.26E-03	5.97E-03	1.55E-02	2.25E-03
PU242	4890.000	4804.102	254.923	4.000	4.000	0.000	*******	100.0000	5.19E-03	2.61E-03	3.77E-01	7.57E-01	2.60E-03
PU-244	4589.000	4502.426	4.998	1.000	0.000	1.000	6.4609	99.90000	0.00E+00	1.84E-03	1.95E-02	4.26E-02	1.84E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

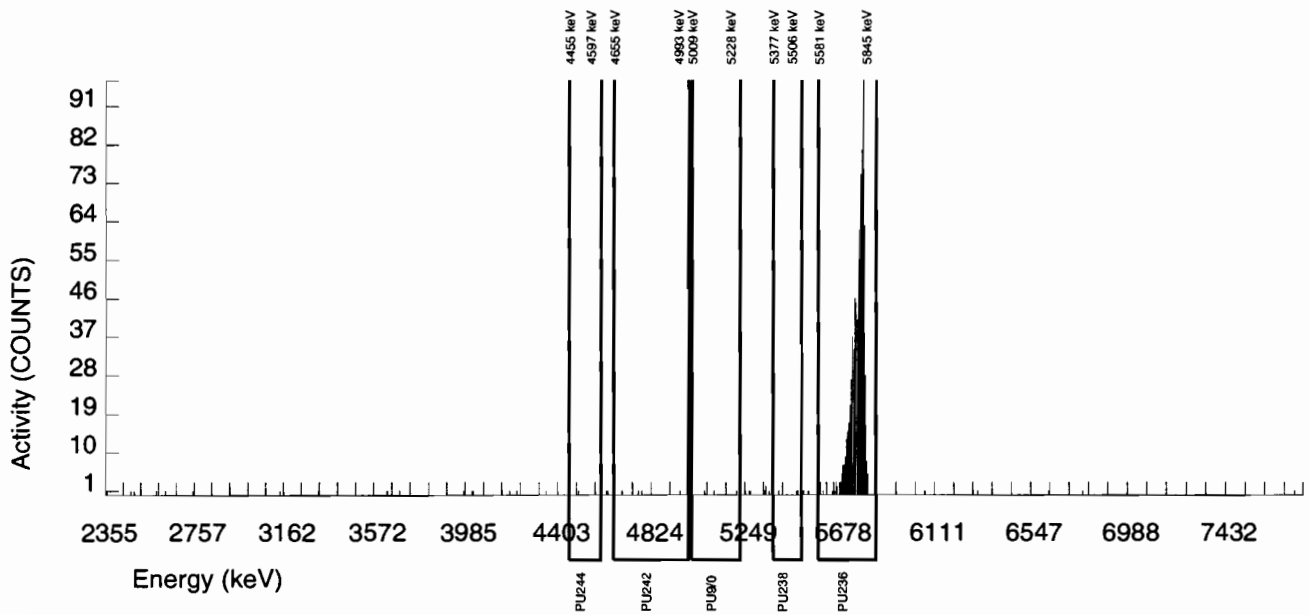

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 090	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248841005_PU	DETECTOR S/N : 78263	BKG FILE : B090.CNF;737
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 34.8354	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:32	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W090.CNF;203
% YIELD : 102.503		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0791E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5759.663	53.888	1056.000	1055.000	1.000	1.0000	100.0000	1.08E+00	6.49E-02	2.33E-03	7.39E-03	3.32E-02
PU-238	5499.000	5435.914	92.819	5.000	5.000	0.000	2.4495	99.90000	5.03E-03	2.26E-03	5.72E-03	1.42E-02	2.25E-03
PU-9/0	5155.000	5148.033	0.000	6.000	6.000	0.000	1.9732	99.90000	6.03E-03	2.48E-03	4.61E-03	1.19E-02	2.46E-03
PU242	4890.000	4764.992	4.885	8.000	7.000	1.000	*******	100.0000	7.03E-03	3.03E-03	2.91E-01	5.85E-01	3.01E-03
PU-244	4589.000	4517.249	83.049	4.000	3.000	1.000	6.4609	99.90000	3.01E-03	2.25E-03	1.51E-02	3.29E-02	2.25E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

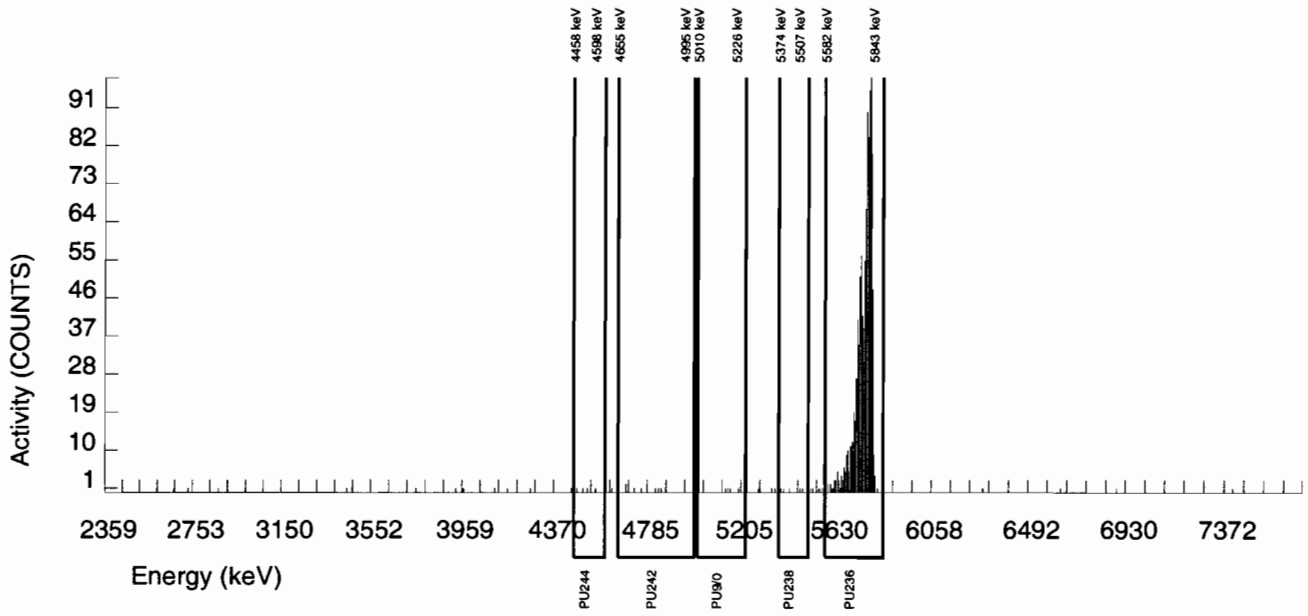

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 091	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248841006_PU	DETECTOR S/N : 78259	BKG FILE : B091.CNF;735
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 35.1113	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:32	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W091.CNF;194
% YIELD : 98.227		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9506E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5759.349	25.699	1019.000	1019.000	0.000	0.0000	100.0000	1.08E+00	6.55E-02	0.00E+00	2.82E-03	3.37E-02
PU-238	5499.000	5464.083	0.000	6.000	6.000	0.000	2.4495	99.90000	6.24E-03	2.57E-03	5.93E-03	1.47E-02	2.55E-03
PU-9/0	5155.000	5136.396	4.964	6.000	6.000	0.000	1.9732	99.90000	6.24E-03	2.57E-03	4.77E-03	1.24E-02	2.55E-03
PU242	4890.000	4757.109	258.111	4.000	4.000	0.000	*******	100.0000	4.16E-03	2.09E-03	3.01E-01	6.05E-01	2.08E-03
PU-244	4589.000	4558.461	4.964	1.000	-2.000	3.000	6.4609	99.90000	-2.08E-03	2.08E-03	1.56E-02	3.41E-02	2.08E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

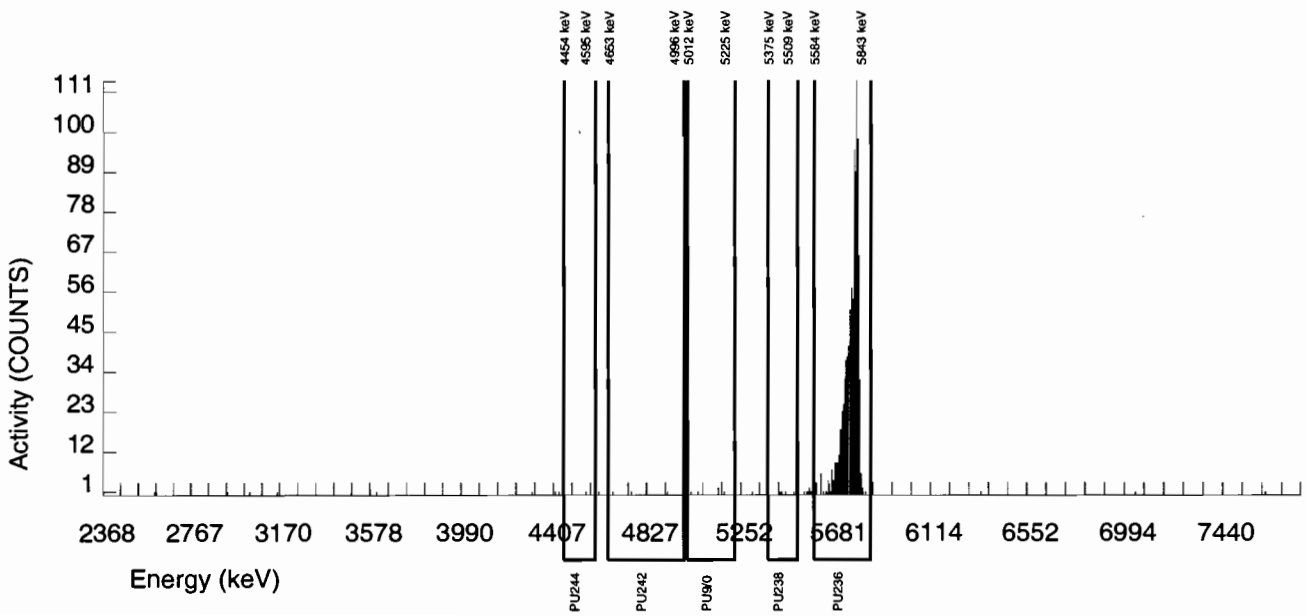

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 093	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248841007_PU	DETECTOR S/N : 33206	BKG FILE : B093.CNF;726
SAMPLE QTY : 1.258 G	AVERAGE %EFFICIENCY : 33.6363	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:32	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W093.CNF;203
% YIELD : 97.302		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9228E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5763.497	30.749	967.000	967.000	0.000	0.0000	100.0000	1.08E+00	6.64E-02	0.00E+00	2.96E-03	3.46E-02
PU-238	5499.000	5485.365	4.909	1.000	-1.000	2.000	2.4495	99.90000	-1.10E-03	1.90E-03	6.24E-03	1.54E-02	1.90E-03
PU-9/0	5155.000	5147.327	56.454	14.000	13.000	1.000	1.9732	99.90000	1.42E-02	4.31E-03	5.03E-03	1.30E-02	4.24E-03
PU242	4890.000	4830.127	269.996	8.000	7.000	1.000	*******	100.0000	7.66E-03	3.31E-03	3.17E-01	6.37E-01	3.28E-03
PU-244	4589.000	4560.257	53.999	2.000	2.000	0.000	6.4609	99.90000	2.19E-03	1.55E-03	1.65E-02	3.59E-02	1.55E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

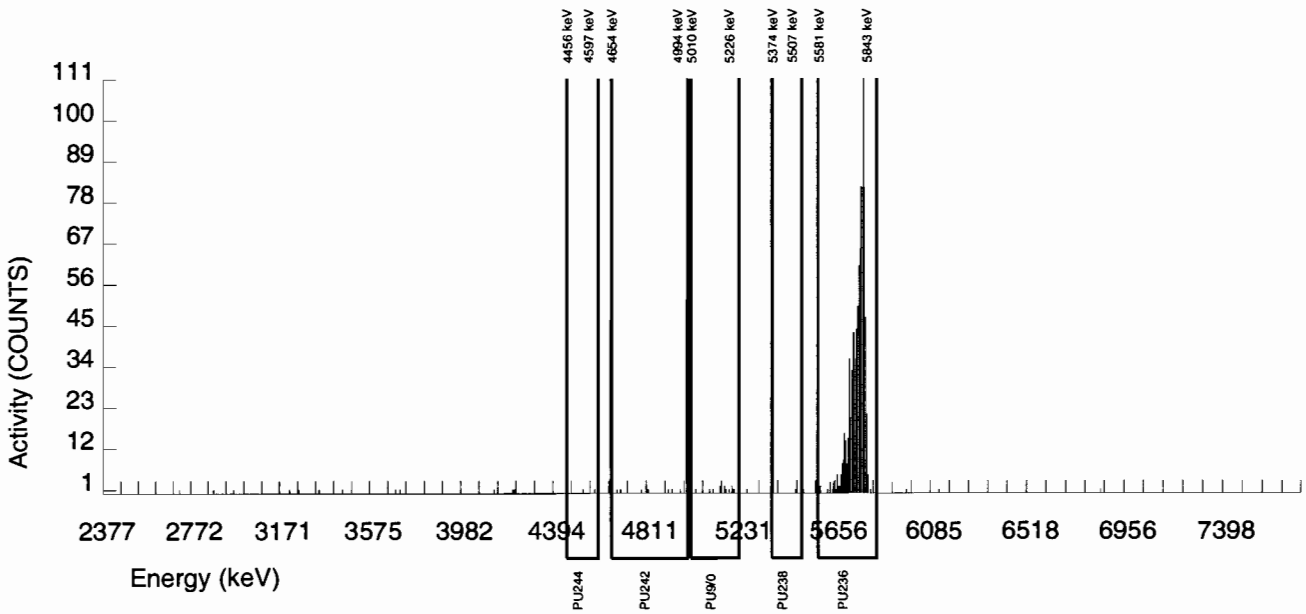

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 094	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248841008_PU	DETECTOR S/N : 78267	BKG FILE : B094.CNF;727
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 33.8294	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:32	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W094.CNF;195
% YIELD : 91.744		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7559E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5764.282	29.028	918.000	917.000	1.000	1.0000	100.0000	1.08E+00	6.76E-02	2.69E-03	8.51E-03	3.56E-02
PU-238	5499.000	5429.677	73.701	4.000	4.000	0.000	2.4495	99.90000	4.63E-03	2.33E-03	6.60E-03	1.63E-02	2.32E-03
PU-9/0	5155.000	5117.253	0.000	0.000	0.000	0.000	1.9732	99.90000	0.00E+00	1.16E-03	5.31E-03	1.38E-02	1.16E-03
PU242	4890.000	4781.858	63.874	3.000	1.000	2.000	*******	100.0000	1.16E-03	2.59E-03	3.35E-01	6.74E-01	2.59E-03
PU-244	4589.000	4476.013	4.913	1.000	-1.000	2.000	6.4609	99.90000	-1.16E-03	2.01E-03	1.74E-02	3.79E-02	2.01E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

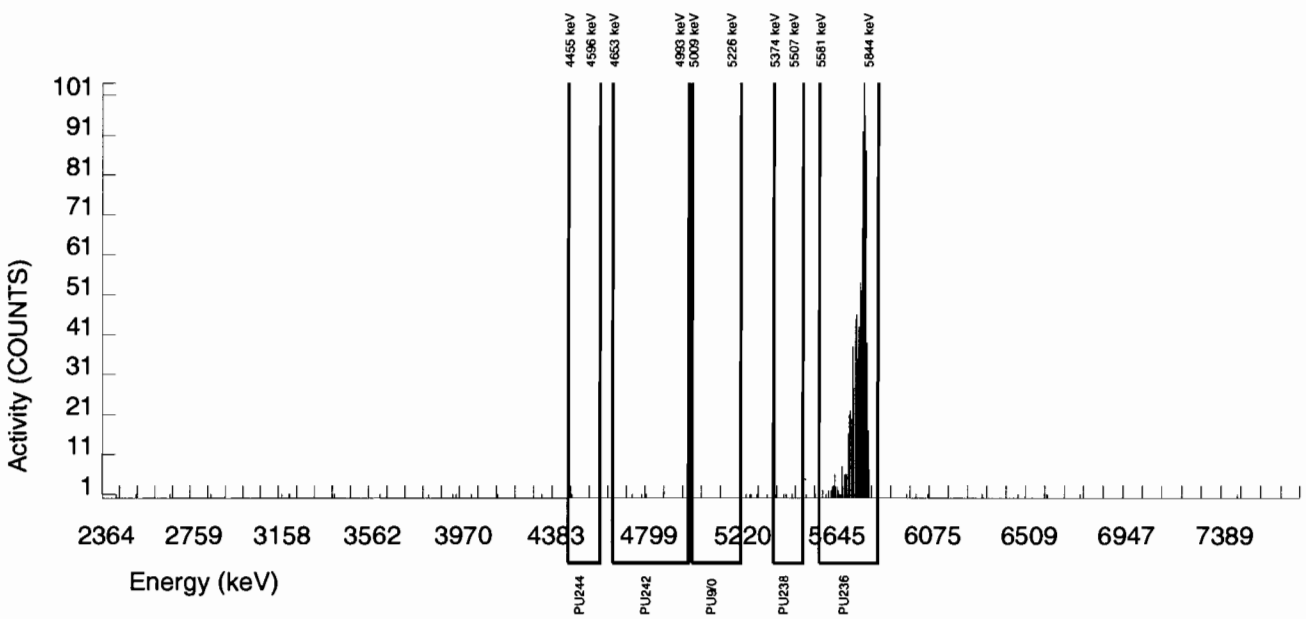

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 109	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248841009_PU	DETECTOR S/N : 79463	BKG FILE : B109.CNF;693
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 35.5809	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 08:02:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W109.CNF;196
% YIELD : 85.196		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.5592E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5772.587	44.565	896.000	894.000	2.000	1.4142	100.0000	1.07E+00	6.78E-02	3.88E-03	1.10E-02	3.60E-02
PU-238	5499.000	5473.139	54.017	5.000	5.000	0.000	2.4495	99.90000	5.91E-03	2.66E-03	6.73E-03	1.67E-02	2.64E-03
PU-9/0	5155.000	5169.696	117.856	4.000	3.000	1.000	1.9732	99.90000	3.54E-03	2.65E-03	5.42E-03	1.40E-02	2.64E-03
PU242	4890.000	4783.786	289.730	6.000	5.000	1.000	*******	100.0000	5.90E-03	3.14E-03	3.42E-01	6.87E-01	3.12E-03
PU-244	4589.000	4464.165	14.732	2.000	1.000	1.000	6.4609	99.90000	1.18E-03	2.05E-03	1.77E-02	3.87E-02	2.04E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

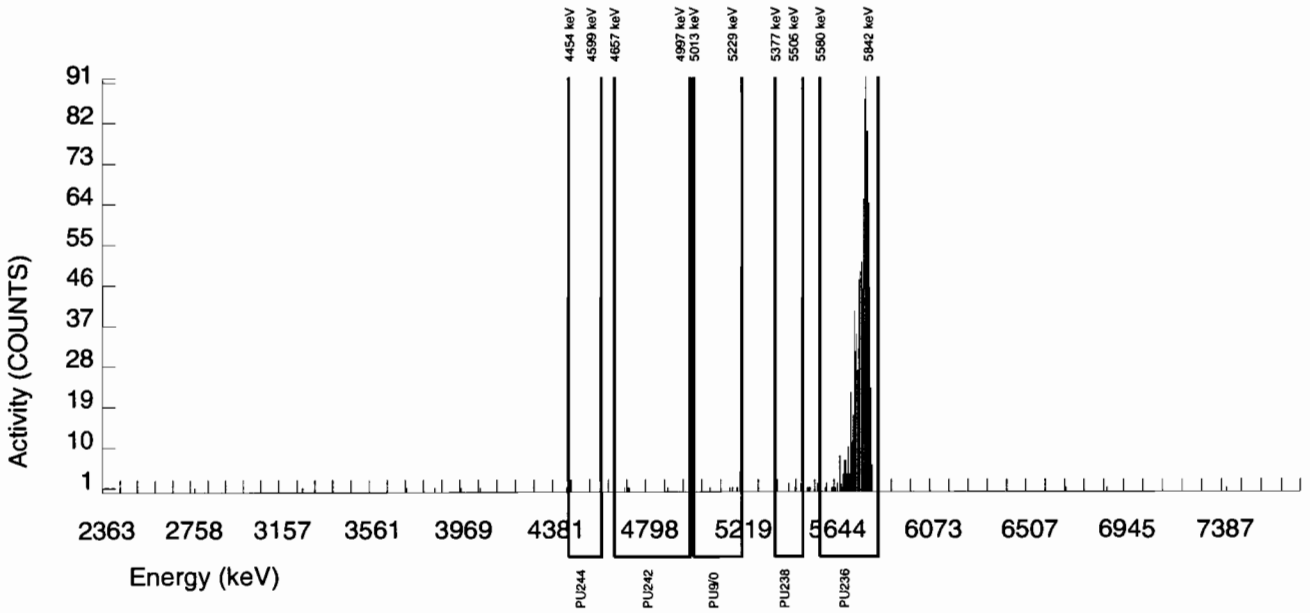

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 096	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248841010_PU	DETECTOR S/N : 80016	BKG FILE : B096.CNF;689
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 32.7970	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W096.CNF;181
% YIELD : 95.664		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8736E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5760.241	48.264	927.000	927.000	0.000	0.0000	100.0000	1.08E+00	6.75E-02	0.00E+00	3.11E-03	3.55E-02
PU-238	5499.000	5459.310	0.000	10.000	8.000	2.000	2.4495	99.90000	9.19E-03	4.01E-03	6.54E-03	1.62E-02	3.98E-03
PU-9/0	5155.000	5121.837	127.001	21.000	18.000	3.000	1.9732	99.90000	2.07E-02	5.73E-03	5.27E-03	1.36E-02	5.62E-03
PU242	4890.000	4799.359	98.497	16.000	12.000	4.000	*******	100.0000	1.38E-02	5.18E-03	3.33E-01	6.68E-01	5.13E-03
PU-244	4589.000	4526.814	0.000	0.000	-1.000	1.000	6.4609	99.90000	-1.15E-03	1.62E-03	1.73E-02	3.76E-02	1.62E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

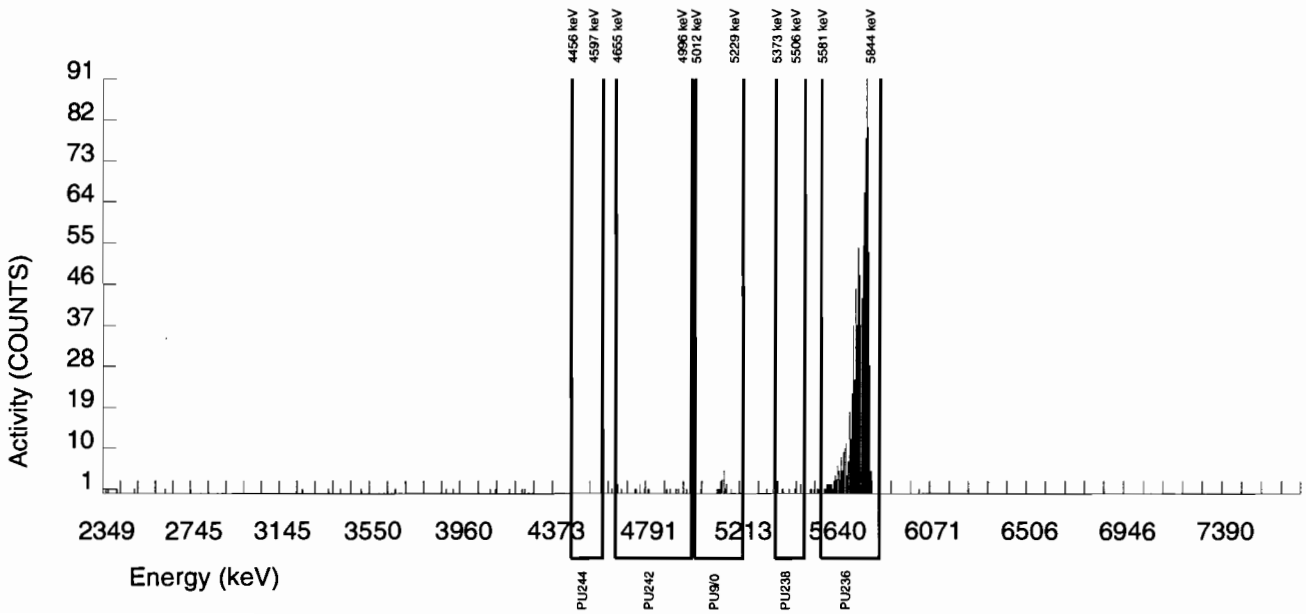

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 097	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248841011_PU	DETECTOR S/N : 67599	BKG FILE : B097.CNF;686
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 34.7742	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W097.CNF;195
% YIELD : 88.376		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6547E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5765.125	66.009	912.000	908.000	4.000	2.0000	100.0000	1.07E+00	6.76E-02	5.41E-03	1.40E-02	3.58E-02
PU-238	5499.000	5431.857	49.293	16.000	12.000	4.000	2.4495	99.90000	1.40E-02	5.26E-03	6.64E-03	1.64E-02	5.21E-03
PU-9/0	5155.000	5103.336	4.929	8.000	8.000	0.000	1.9732	99.90000	9.32E-03	3.33E-03	5.35E-03	1.38E-02	3.29E-03
PU242	4890.000	4812.543	7.240	10.000	3.000	7.000	*******	100.0000	3.49E-03	4.80E-03	3.37E-01	6.78E-01	4.80E-03
PU-244	4589.000	4527.076	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.17E-03	1.75E-02	3.82E-02	1.16E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

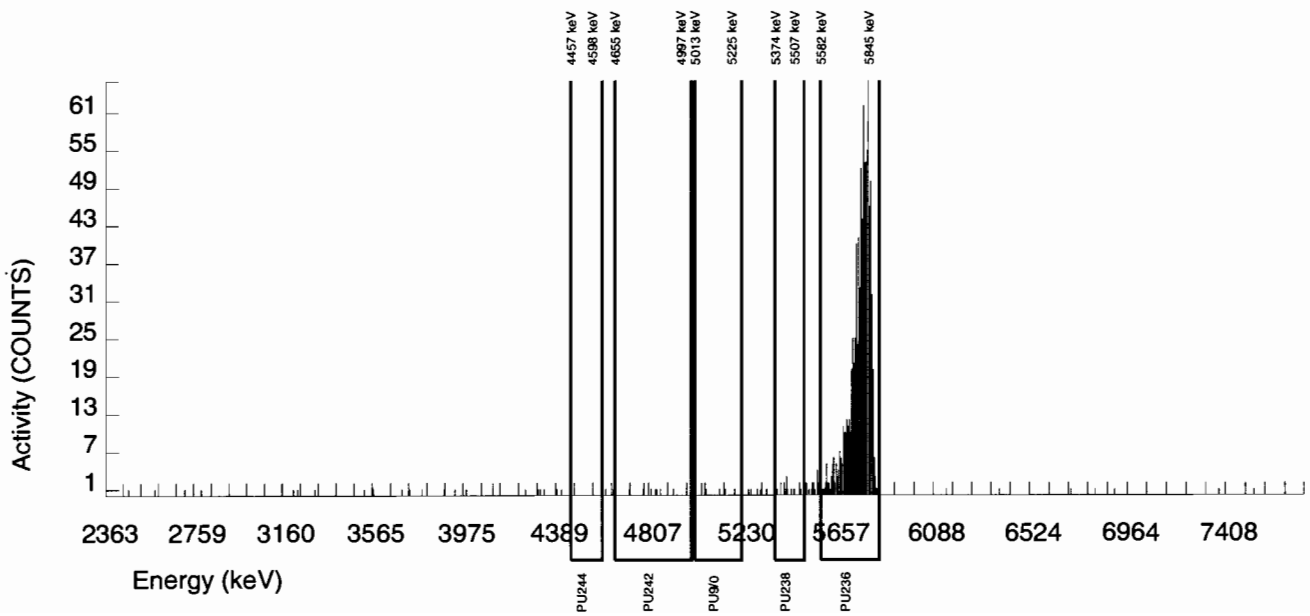

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 098	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202072513_PU	DETECTOR S/N : 80017	BKG FILE : B098.CNF;692
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 35.6488	BKG DATE : 21-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 27-MAR-2010 13:40:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W098.CNF;200
% YIELD : 93.803		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9662E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7824E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5770.160	42.336	989.000	988.000	1.000	1.0000	100.0000	1.34E+00	8.21E-02	3.13E-03	9.92E-03	4.26E-02
PU-238	5499.000	5449.054	0.000	9.000	8.000	1.000	2.4495	99.90000	1.08E-02	4.30E-03	7.68E-03	1.90E-02	4.26E-03
PU-9/0	5155.000	5149.535	64.398	2.000	1.000	1.000	1.9732	99.90000	1.35E-03	2.34E-03	6.19E-03	1.60E-02	2.34E-03
PU242	4890.000	4746.538	158.518	4.000	3.000	1.000	*******	100.0000	4.04E-03	3.02E-03	3.91E-01	7.85E-01	3.01E-03
PU-244	4589.000	4572.805	4.954	1.000	0.000	1.000	6.4609	99.90000	0.00E+00	1.91E-03	2.03E-02	4.42E-02	1.91E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

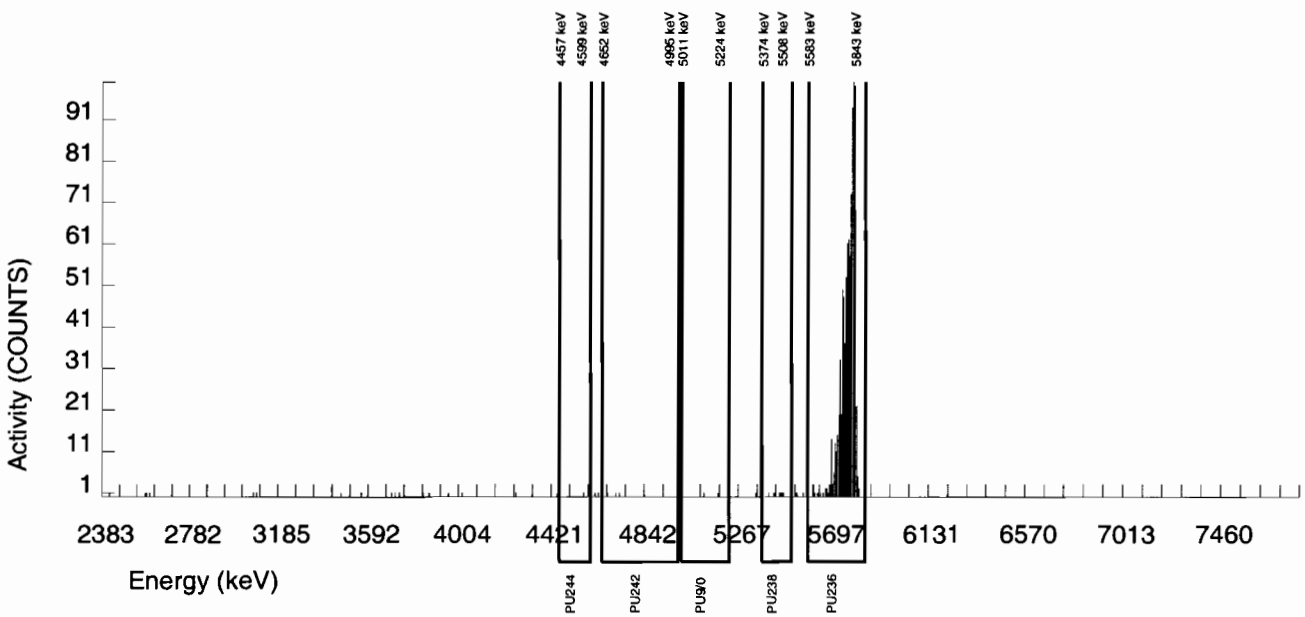

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 099	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202072514_PU	DETECTOR S/N : 70317	BKG FILE : B099.CNF;689
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 35.1904	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 27-MAR-2010 13:40:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W099.CNF;195
% YIELD : 90.023		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0039E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7042E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5771.542	51.466	938.000	936.000	2.000	1.4142	100.0000	1.08E+00	6.74E-02	3.74E-03	1.06E-02	3.54E-02
PU-238	5499.000	5456.988	0.000	8.000	7.000	1.000	2.4495	99.90000	7.97E-03	3.44E-03	6.48E-03	1.61E-02	3.42E-03
PU-9/0	5155.000	5120.149	4.915	9.000	6.000	3.000	1.9732	99.90000	6.83E-03	3.96E-03	5.22E-03	1.35E-02	3.94E-03
PU242	4890.000	4858.543	275.266	8.000	7.000	1.000	*******	100.0000	7.96E-03	3.44E-03	3.30E-01	6.62E-01	3.41E-03
PU-244	4589.000	4541.741	68.817	3.000	2.000	1.000	6.4609	99.90000	2.28E-03	2.28E-03	1.71E-02	3.73E-02	2.28E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

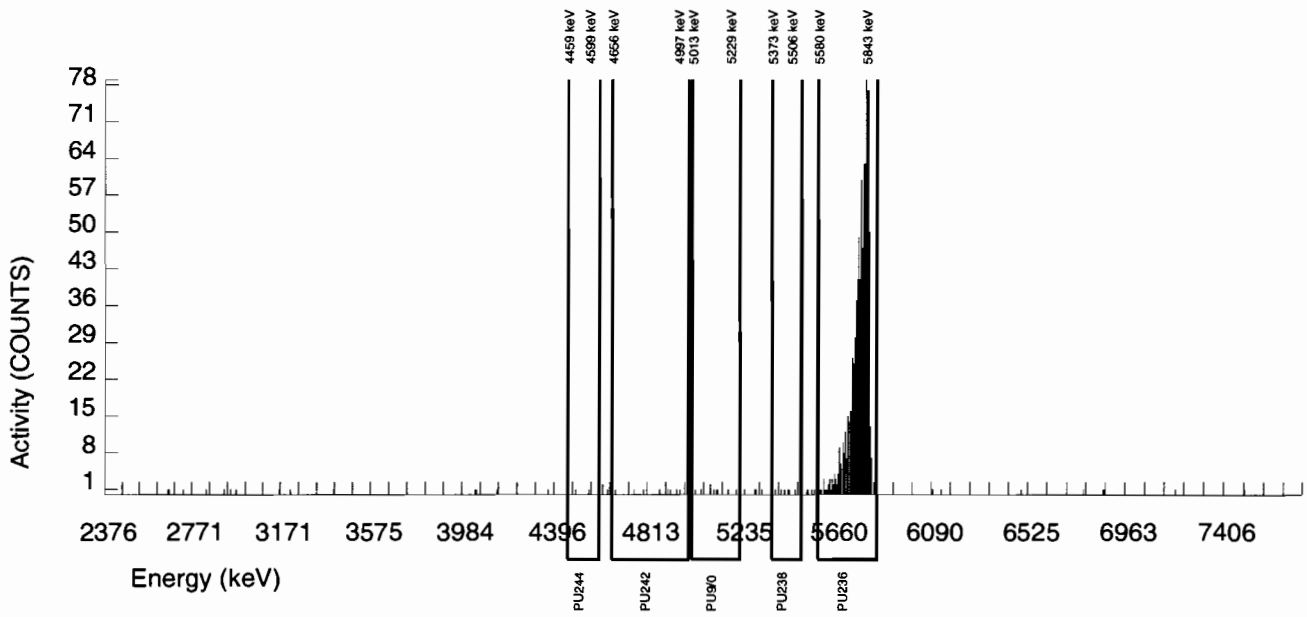

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965808	CHAMBER : 100	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202072515_PU	DETECTOR S/N : 79456	BKG FILE : B100.CNF;690
SAMPLE QTY : 0.107 G	AVERAGE %EFFICIENCY : 35.7974	BKG DATE : 21-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 27-MAR-2010 13:40:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W100.CNF;203
% YIELD : 90.009		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9662E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6699E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5761.045	54.643	952.000	952.000	0.000	0.0000	100.0000	1.25E+01	8.60E-01	0.00E+00	3.54E-02	4.05E-01
PU-238	5499.000	5477.716	0.000	384.000	384.000	0.000	2.4495	99.90000	5.02E+00	3.99E-01	7.45E-02	1.84E-01	2.56E-01
PU-9/0	5155.000	5145.080	32.162	3079.000	3078.000	1.000	1.9732	99.90000	4.03E+01	2.55E+00	6.00E-02	1.56E-01	7.26E-01
PU242	4890.000	4877.870	154.014	57.000	54.000	3.000	*******	100.0000	7.06E-01	1.10E-01	3.79E+00	7.61E+00	1.01E-01
PU-244	4589.000	4534.087	24.182	15.000	15.000	0.000	6.4609	99.90000	1.96E-01	5.20E-02	1.97E-01	4.29E-01	5.07E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

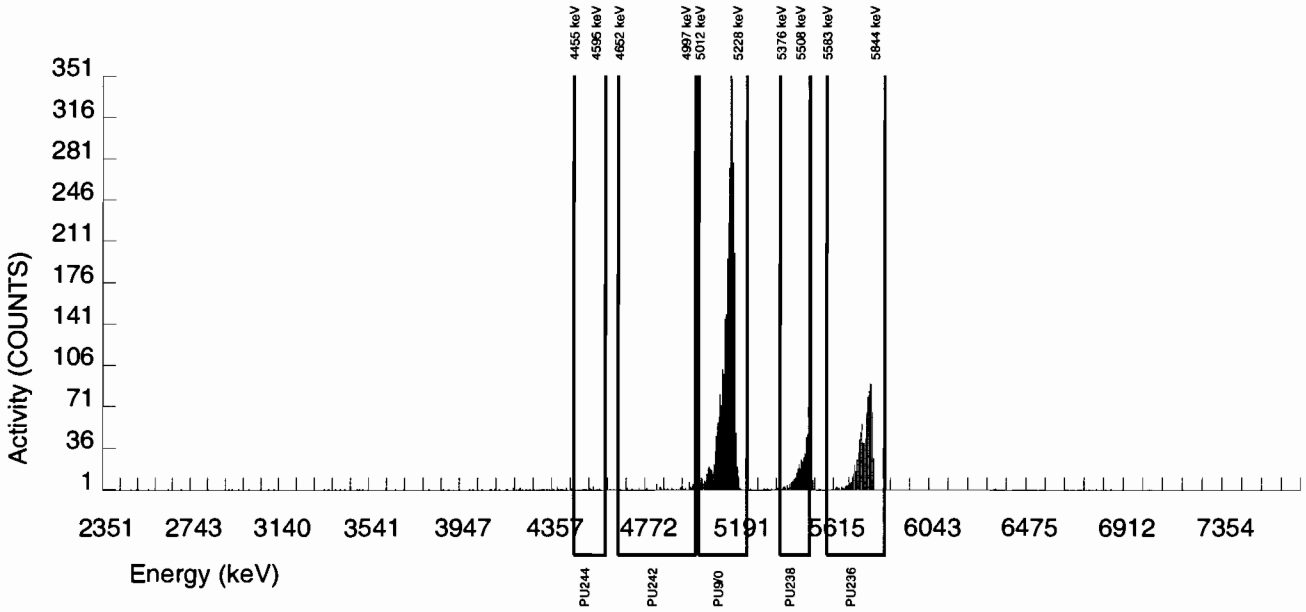

Radiochemistry Batch Checklist, Rev10

Batch# 965810 Product: U Date: 3/31/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 3/31/10

Secondary Review Performed By: [illegible] 3/31/10

4/2

LANL

Uranium Que Sheet

16-MAR-10

Batch #: 965810 Analyst: JXH2 First Client Due Date:02-APR-10 Internal Due Date:22-MAR-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12-9-10 Vol: 0.1 Analyzed Sequentially with Pu N/A

LCS Isotope: U-238 LCS Code: — Expiration Date: — Vol: — Pu-236 ID: —

Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: — Vol.: —

Prep Date: 3-22-10 Initials: JEH Pipet ID: 4497063 Balance ID: 50410272 Witness: 3/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	U Det #
248818001-1	RE46-10-13553	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	1	1	0.503	1
248818002-1	RE46-10-13549	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	2	2	0.501	6
248818003-1	RE46-10-13551	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	3	3	0.502	7
248818004-1	RE46-10-13550	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	4	4	0.508	8
248818005-1	RE46-10-13548	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	5	5	0.511	9
248818006-1	RE46-10-13546	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	6	6	0.500	10
248818007-1	RE46-10-13552	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	7	7	0.511	11
248818008-1	RE46-10-13547	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	8	8	0.507	113
248818009-1	RE46-10-13556	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	9	9	0.514	114
248841001-1	RE46-10-13867	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	10	10	0.508	119
248841002-1	RE46-10-13864	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	11	11	0.502	120
248841003-1	RE46-10-13863	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	12	12	0.500	121
248841004-1	RE46-10-13869	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	13	13	0.504	122
248841005-1	RE46-10-13861	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	14	14	0.504	123
248841006-1	RE46-10-13866	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	15	15	0.502	124
248841007-1	RE46-10-13860	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	16	16	0.508	125
248841008-1	RE46-10-13865	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	17	17	0.515	126
248841009-1	RE46-10-13868	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	18	18	0.511	127
248841010-1	RE46-10-13862	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	19	19	0.504	128
248841011-1	RE46-10-13873	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	20	20	0.507	129
1202072519-1	MB for batch 965810	MB		.1 pCi/g	SOIL	QC ACCOUNT		21	21	1	130
1202072520-1	RE46-10-13867(248841001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	03-MAR-10	22	22	0.502	131
1202072521-1	LCS for batch 965810	LCS		.1 pCi/g	SOIL	QC ACCOUNT		23	23	0.103	132

SBM 0244-A exp. 10/31/20

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: 3/31/10

Blank Correction Report

Batch ID 965810

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202072520	DUP	Uranium-233/234	0.502 g	0.872	0.0827	0.0954	.026693227	pCi/g	NO
		Uranium-235/236	0.502 g	0.0418	0.0136	0.0583	.025498008	pCi/g	YES
		Uranium-238	0.502 g	0.870	0.0825	0.0671	.030876494	pCi/g	NO
1202072521	LCS	Uranium-233/234	0.103 g	5.45	0.518	0.460	.130097087	pCi/g	NO
		Uranium-235/236	0.103 g	0.303	0.0816	0.281	.124271845	pCi/g	YES
		Uranium-238	0.103 g	5.52	0.523	0.324	.150485437	pCi/g	NO
1202072519	MB	Uranium-233/234	1.00 g	0.0134	0.0049	0.0486	.0134	pCi/g	YES
		Uranium-235/236	1.00 g	0.0128	0.00609	0.0297	.0128	pCi/g	YES
		Uranium-238	1.00 g	0.0155	0.00528	0.0341	.0155	pCi/g	YES
248818001	RE46-10-13553	Uranium-233/234	0.503 g	0.961	0.0863	0.0824	.026640159	pCi/g	NO
		Uranium-235/236	0.503 g	0.0578	0.015	0.0504	.025447316	pCi/g	YES
		Uranium-238	0.503 g	0.997	0.0888	0.058	.030815109	pCi/g	NO
248818002	RE46-10-13549	Uranium-233/234	0.501 g	1.00	0.0892	0.082	.026746507	pCi/g	NO
		Uranium-235/236	0.501 g	0.0647	0.0167	0.0501	.025548902	pCi/g	YES
		Uranium-238	0.501 g	1.00	0.0892	0.0576	.030938124	pCi/g	NO
248818003	RE46-10-13551	Uranium-233/234	0.502 g	1.20	0.106	0.0909	.026693227	pCi/g	NO
		Uranium-235/236	0.502 g	0.0518	0.0168	0.0555	.025498008	pCi/g	YES
		Uranium-238	0.502 g	1.04	0.0945	0.0639	.030876494	pCi/g	NO
248818004	RE46-10-13550	Uranium-233/234	0.508 g	0.941	0.0832	0.0758	.026377953	pCi/g	NO
		Uranium-235/236	0.508 g	0.0564	0.0143	0.0463	.025196850	pCi/g	YES
		Uranium-238	0.508 g	0.980	0.086	0.0532	.030511811	pCi/g	NO
248818005	RE46-10-13548	Uranium-233/234	0.511 g	1.42	0.118	0.0772	.026223092	pCi/g	NO
		Uranium-235/236	0.511 g	0.0812	0.0175	0.0472	.025048924	pCi/g	YES
		Uranium-238	0.511 g	1.31	0.110	0.0543	.030332681	pCi/g	NO
248818006	RE46-10-13546	Uranium-233/234	0.500 g	1.17	0.101	0.0832	.0268	pCi/g	NO
		Uranium-235/236	0.500 g	0.062	0.0157	0.0508	.0256	pCi/g	YES
		Uranium-238	0.500 g	1.08	0.0954	0.0585	.031	pCi/g	NO
248818007	RE46-10-13552	Uranium-233/234	0.511 g	0.705	0.0663	0.0772	.026223092	pCi/g	NO
		Uranium-235/236	0.511 g	0.0406	0.0161	0.0471	.025048924	pCi/g	YES
		Uranium-238	0.511 g	0.873	0.0788	0.0543	.030332681	pCi/g	NO
248818008	RE46-10-13547	Uranium-233/234	0.507 g	0.977	0.0913	0.0988	.026429980	pCi/g	NO
		Uranium-235/236	0.507 g	0.0346	0.0139	0.0603	.025246548	pCi/g	YES
		Uranium-238	0.507 g	0.946	0.089	0.0694	.030571992	pCi/g	NO
248818009	RE46-10-13556	Uranium-233/234	0.514 g	0.774	0.0758	0.0963	.026070039	pCi/g	NO
		Uranium-235/236	0.514 g	0.0506	0.0162	0.0588	.024902724	pCi/g	YES
		Uranium-238	0.514 g	0.812	0.0786	0.0677	.030155642	pCi/g	NO
248841001	RE46-10-13867	Uranium-233/234	0.508 g	0.916	0.0871	0.101	.026377953	pCi/g	NO
		Uranium-235/236	0.508 g	0.0308	0.0119	0.0614	.025196850	pCi/g	YES
		Uranium-238	0.508 g	0.795	0.0781	0.0707	.030511811	pCi/g	NO
248841002	RE46-10-13864	Uranium-233/234	0.502 g	0.799	0.0797	0.107	.026693227	pCi/g	NO
		Uranium-235/236	0.502 g	0.0517	0.016	0.0655	.025498008	pCi/g	YES

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248841002	RE46-10-13864	Uranium-238	0.502 g	0.883	0.0863	0.0754	.030876494	pCi/g	NO
248841003	RE46-10-13863	Uranium-233/234	0.500 g	0.884	0.0877	0.113	.0268	pCi/g	NO
		Uranium-235/236	0.500 g	0.0496	0.0161	0.0692	.0256	pCi/g	YES
		Uranium-238	0.500 g	0.827	0.0834	0.0796	.031	pCi/g	NO
248841004	RE46-10-13869	Uranium-233/234	0.504 g	0.857	0.082	0.0963	.026587302	pCi/g	NO
		Uranium-235/236	0.504 g	0.0338	0.0122	0.0588	.025396825	pCi/g	YES
		Uranium-238	0.504 g	0.803	0.0777	0.0677	.030753968	pCi/g	NO
248841005	RE46-10-13861	Uranium-233/234	0.504 g	0.883	0.0874	0.112	.026587302	pCi/g	NO
		Uranium-235/236	0.504 g	0.0246	0.0149	0.0685	.025396825	pCi/g	YES
		Uranium-238	0.504 g	0.799	0.081	0.0788	.030753968	pCi/g	NO
248841006	RE46-10-13866	Uranium-233/234	0.502 g	0.888	0.0847	0.0994	.026693227	pCi/g	NO
		Uranium-235/236	0.502 g	0.0349	0.0153	0.0607	.025498008	pCi/g	YES
		Uranium-238	0.502 g	0.825	0.080	0.0699	.030876494	pCi/g	NO
248841007	RE46-10-13860	Uranium-233/234	0.508 g	0.875	0.0842	0.0999	.026377953	pCi/g	NO
		Uranium-235/236	0.508 g	0.0569	0.0163	0.061	.025196850	pCi/g	YES
		Uranium-238	0.508 g	0.783	0.077	0.0702	.030511811	pCi/g	NO
248841008	RE46-10-13865	Uranium-233/234	0.515 g	0.889	0.0844	0.0969	.026019417	pCi/g	NO
		Uranium-235/236	0.515 g	0.068	0.0187	0.0592	.024854369	pCi/g	YES
		Uranium-238	0.515 g	0.687	0.0692	0.0681	.030097087	pCi/g	NO
248841009	RE46-10-13868	Uranium-233/234	0.511 g	0.809	0.0791	0.101	.026223092	pCi/g	NO
		Uranium-235/236	0.511 g	0.0264	0.011	0.0614	.025048924	pCi/g	YES
		Uranium-238	0.511 g	0.820	0.0801	0.0707	.030332681	pCi/g	NO
248841010	RE46-10-13862	Uranium-233/234	0.504 g	0.935	0.0867	0.0929	.026587302	pCi/g	NO
		Uranium-235/236	0.504 g	0.0407	0.0132	0.0568	.025396825	pCi/g	YES
		Uranium-238	0.504 g	0.992	0.0909	0.0653	.030753968	pCi/g	NO
248841011	RE46-10-13873	Uranium-233/234	0.507 g	0.736	0.0734	0.0989	.026429980	pCi/g	NO
		Uranium-235/236	0.507 g	0.0433	0.0165	0.0604	.025246548	pCi/g	YES
		Uranium-238	0.507 g	0.824	0.080	0.0695	.030571992	pCi/g	NO

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 119	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248841001_UU	DETECTOR S/N : 79450	BKG FILE : B119.CNF;473
SAMPLE QTY : 0.508 G	AVERAGE %EFFICIENCY : 25.9082	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:43:50	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W119.CNF;123
% YIELD : 96.012		CAL DATE : 19-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3224E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5311.039	80.166	1122.000	1119.000	3.000	1.7321	100.0000	3.99E+00	3.11E-01	1.44E-02	3.84E-02	1.20E-01
U-3/4	4763.020	4764.605	50.385	258.000	256.866	0.000	5.4790	100.0000	9.16E-01	8.71E-02	4.54E-02	1.01E-01	5.71E-02
U-235	4391.000	4393.862	108.845	7.000	7.000	0.000	2.4127	80.90000	3.08E-02	1.19E-02	2.47E-02	6.14E-02	1.17E-02
U-238	4184.730	4195.082	49.406	223.000	223.000	0.000	3.6781	100.0000	7.95E-01	7.81E-02	3.05E-02	7.07E-02	5.32E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

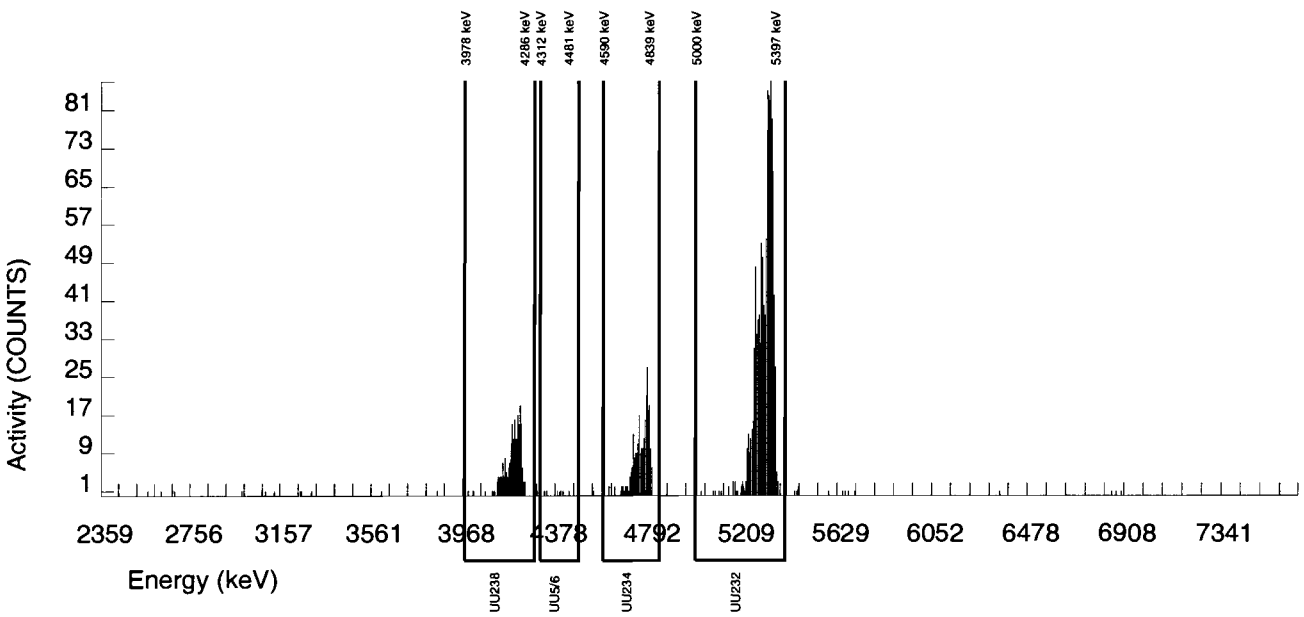

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 120	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248841002_UU	DETECTOR S/N : 74430	BKG FILE : B120.CNF;477
SAMPLE QTY : 0.502 G	AVERAGE %EFFICIENCY : 26.1668	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:43:52	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W120.CNF;130
% YIELD : 90.136		CAL DATE : 19-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.0579E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.994	72.594	1064.000	1061.000	3.000	1.7321	100.0000	4.04E+00	3.17E-01	1.53E-02	4.10E-02	1.24E-01
U-3/4	4763.020	4764.182	73.882	211.000	209.925	0.000	5.4790	100.0000	7.99E-01	7.97E-02	4.85E-02	1.07E-01	5.51E-02
U-235	4391.000	4406.211	34.561	11.000	11.000	0.000	2.4127	80.90000	5.17E-02	1.60E-02	2.64E-02	6.55E-02	1.56E-02
U-238	4184.730	4190.520	53.159	233.000	232.000	1.000	3.6781	100.0000	8.83E-01	8.63E-02	3.26E-02	7.54E-02	5.82E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

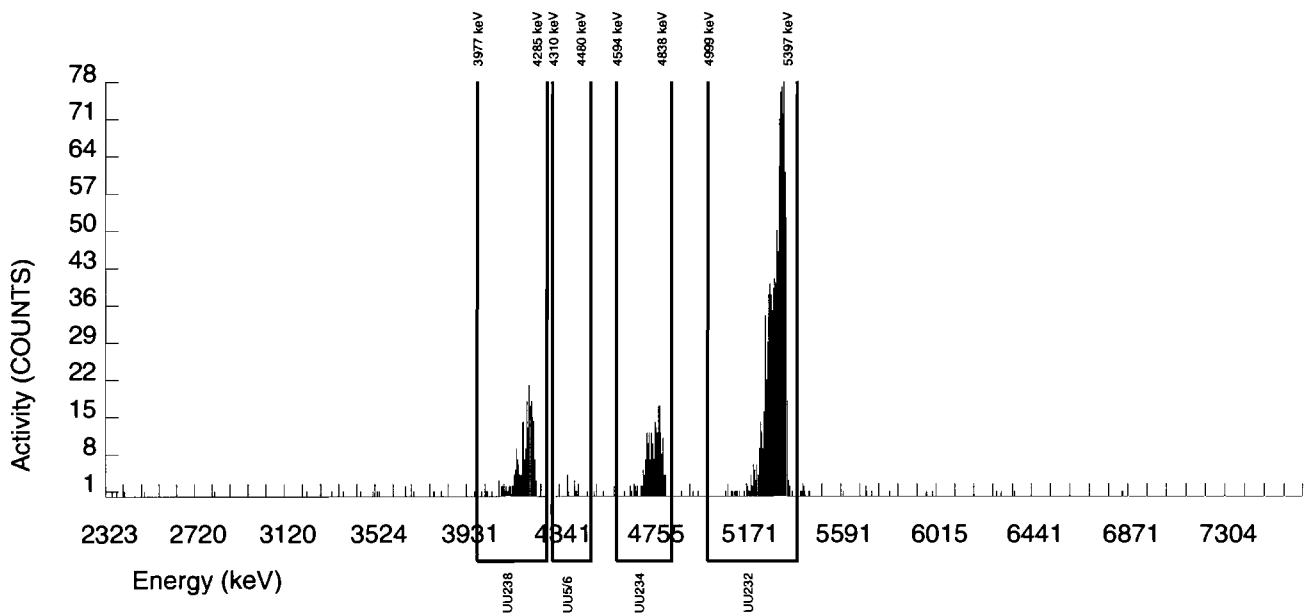

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 121	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248841003_UU	DETECTOR S/N : 75545	BKG FILE : B121.CNF;459
SAMPLE QTY : 0.500 G	AVERAGE %EFFICIENCY : 25.7929	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:43:55	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W121.CNF;121
% YIELD : 86.961		CAL DATE : 19-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9150E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5314.232	48.173	1015.000	1009.000	6.000	2.4495	100.0000	4.06E+00	3.21E-01	2.29E-02	5.67E-02	1.28E-01
U-3/4	4763.020	4766.490	51.181	222.000	219.978	1.000	5.4790	100.0000	8.84E-01	8.77E-02	5.12E-02	1.13E-01	5.98E-02
U-235	4391.000	4384.905	94.064	10.000	10.000	0.000	2.4127	80.90000	4.96E-02	1.61E-02	2.79E-02	6.92E-02	1.57E-02
U-238	4184.730	4197.156	24.672	207.000	206.000	1.000	3.6781	100.0000	8.27E-01	8.34E-02	3.44E-02	7.96E-02	5.79E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

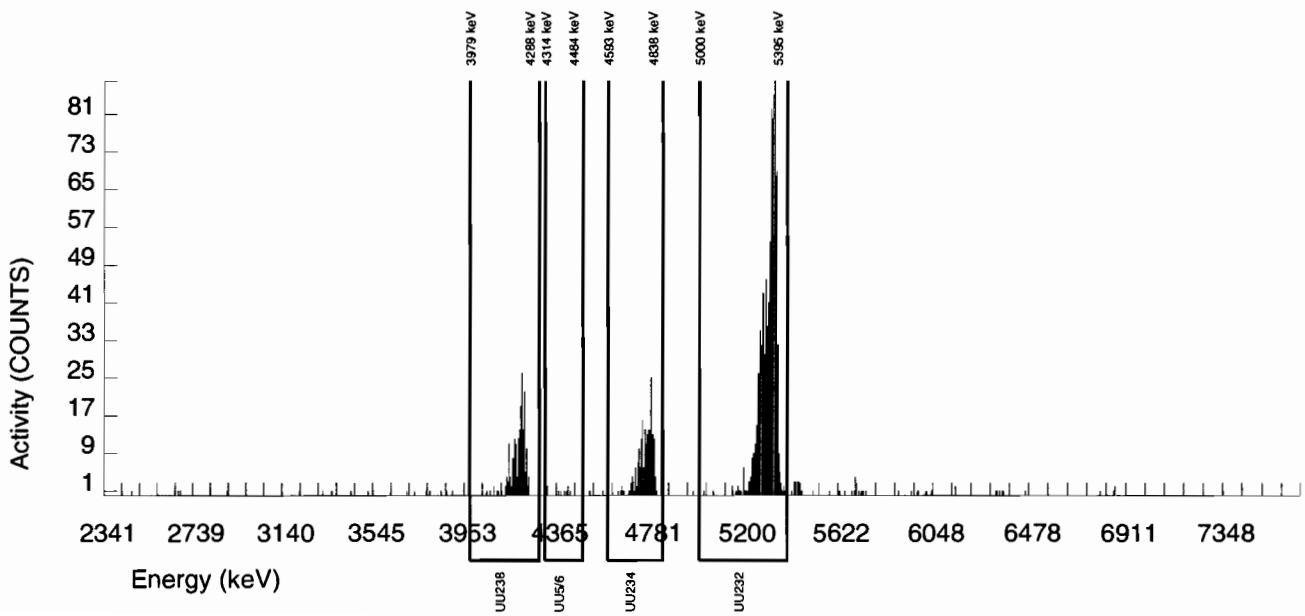

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 122	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248841004_UU	DETECTOR S/N : 75546	BKG FILE : B122.CNF;461
SAMPLE QTY : 0.504 G	AVERAGE %EFFICIENCY : 26.3997	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:43:58	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W122.CNF;124
% YIELD : 99.109		CAL DATE : 19-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4618E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5315.158	37.629	1180.000	1177.000	3.000	1.7321	100.0000	4.02E+00	3.11E-01	1.38E-02	3.68E-02	1.18E-01
U-3/4	4763.020	4769.940	44.567	254.000	250.807	2.000	5.4790	100.0000	8.57E-01	8.20E-02	4.35E-02	9.63E-02	5.45E-02
U-235	4391.000	4408.486	27.075	8.000	8.000	0.000	2.4127	80.90000	3.38E-02	1.22E-02	2.37E-02	5.88E-02	1.19E-02
U-238	4184.730	4201.781	50.118	235.000	235.000	0.000	3.6781	100.0000	8.03E-01	7.77E-02	2.92E-02	6.77E-02	5.24E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

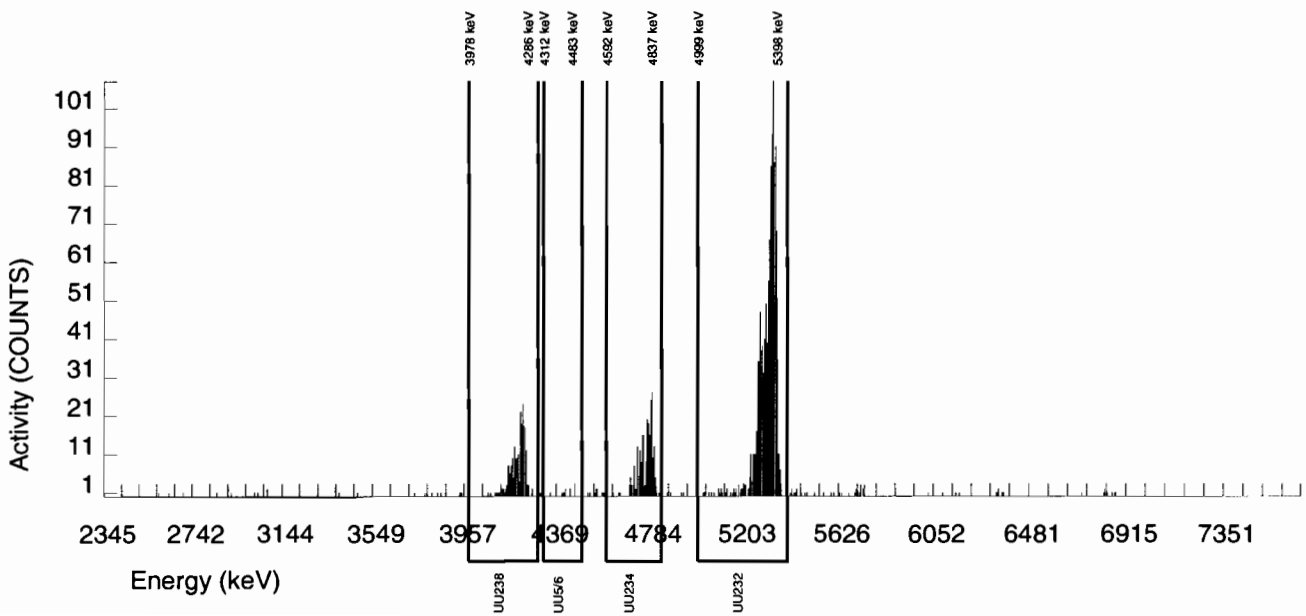

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 123	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248841005_UU	DETECTOR S/N : 45-142V3	BKG FILE : B123.CNF;459
SAMPLE QTY : 0.504 G	AVERAGE %EFFICIENCY : 27.2378	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:44:00	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W123.CNF;120
% YIELD : 82.511		CAL DATE : 19-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.7146E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.222	63.648	1015.000	1011.000	4.000	2.0000	100.0000	4.02E+00	3.18E-01	1.85E-02	4.78E-02	1.27E-01
U-3/4	4763.020	4754.873	64.913	224.000	221.976	1.000	5.4790	100.0000	8.83E-01	8.74E-02	5.07E-02	1.12E-01	5.95E-02
U-235	4391.000	4381.261	4.975	7.000	5.000	2.000	2.4127	80.90000	2.46E-02	1.49E-02	2.76E-02	6.85E-02	1.47E-02
U-238	4184.730	4186.289	87.515	202.000	201.000	1.000	3.6781	100.0000	7.99E-01	8.10E-02	3.40E-02	7.88E-02	5.67E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

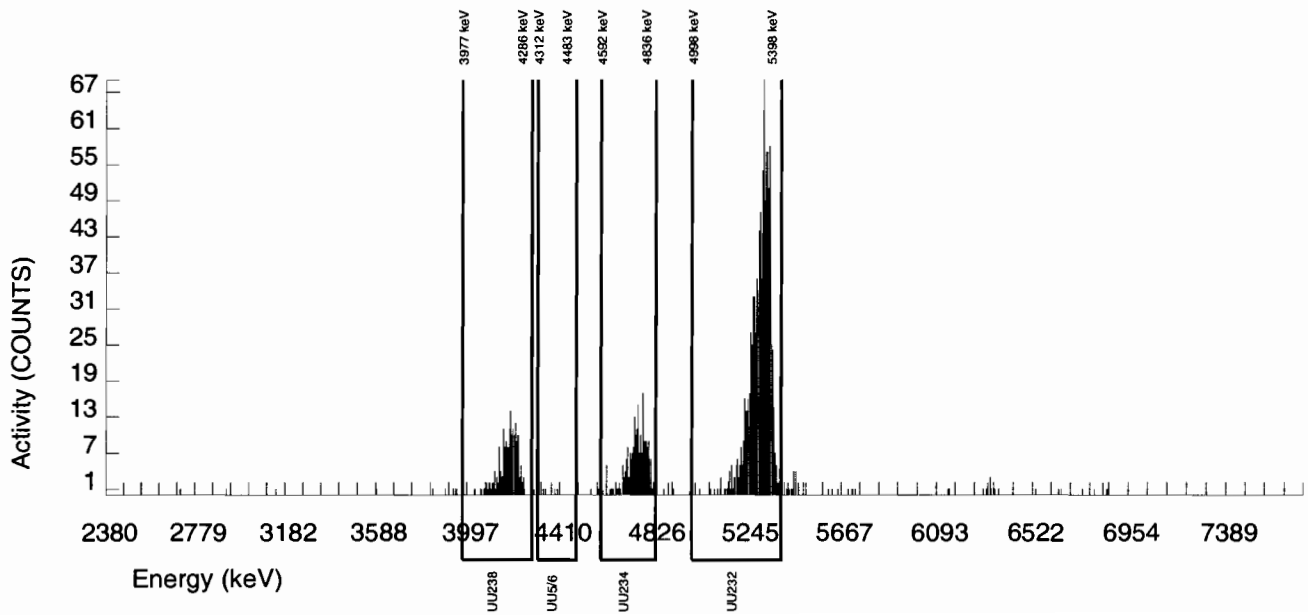

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 124	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248841006_UU	DETECTOR S/N : 45-142V2	BKG FILE : B124.CNF;455
SAMPLE QTY : 0.502 G	AVERAGE %EFFICIENCY : 26.6674	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:44:05	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W124.CNF;116
% YIELD : 95.446		CAL DATE : 19-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.2969E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5311.276	71.357	1148.000	1145.000	3.000	1.7321	100.0000	4.04E+00	3.13E-01	1.42E-02	3.80E-02	1.20E-01
U-3/4	4763.020	4762.202	76.803	253.000	251.840	0.000	5.4790	100.0000	8.88E-01	8.47E-02	4.49E-02	9.94E-02	5.59E-02
U-235	4391.000	4393.624	116.174	10.000	8.000	2.000	2.4127	80.90000	3.49E-02	1.53E-02	2.45E-02	6.07E-02	1.51E-02
U-238	4184.730	4198.331	76.602	234.000	234.000	0.000	3.6781	100.0000	8.25E-01	8.00E-02	3.02E-02	6.99E-02	5.39E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

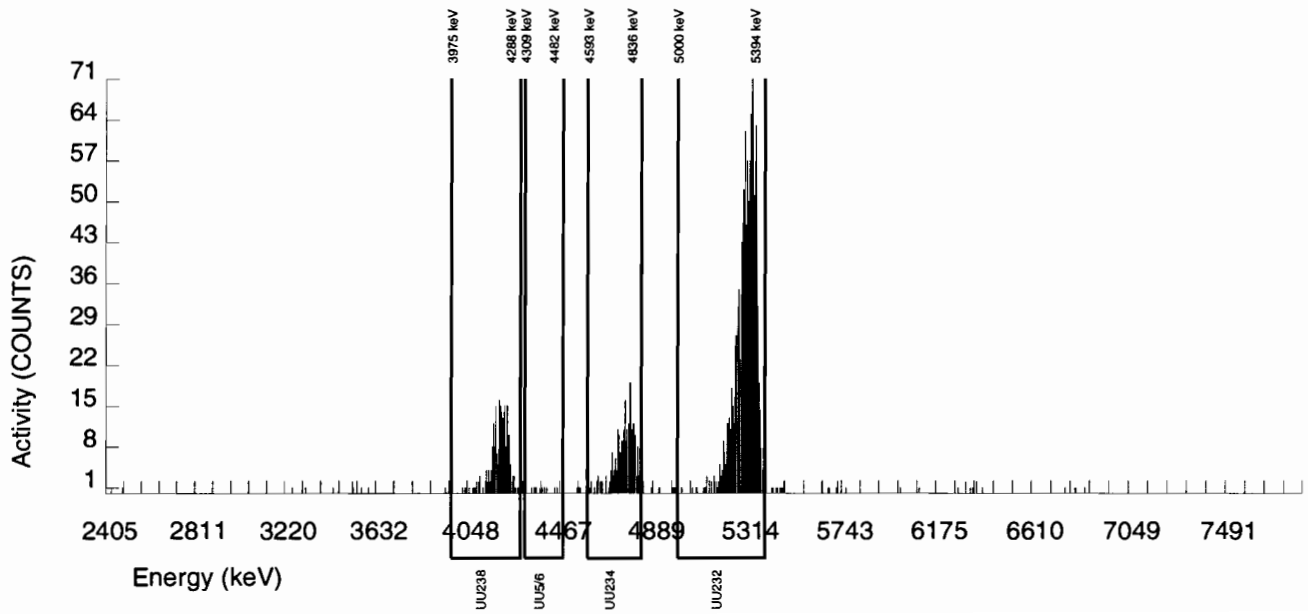

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 125	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248841007_UU	DETECTOR S/N : 75547	BKG FILE : B125.CNF;465
SAMPLE QTY : 0.508 G	AVERAGE %EFFICIENCY : 27.0077	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:44:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W125.CNF;134
% YIELD : 92.680		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.1724E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5308.726	60.303	1133.000	1126.000	7.000	2.6458	100.0000	3.99E+00	3.11E-01	2.18E-02	5.32E-02	1.20E-01
U-3/4	4763.020	4765.554	42.965	250.000	246.859	2.000	5.4790	100.0000	8.74E-01	8.42E-02	4.52E-02	9.99E-02	5.61E-02
U-235	4391.000	4391.968	4.941	13.000	13.000	0.000	2.4127	80.90000	5.69E-02	1.63E-02	2.46E-02	6.10E-02	1.58E-02
U-238	4184.730	4194.285	44.547	221.000	221.000	0.000	3.6781	100.0000	7.83E-01	7.70E-02	3.03E-02	7.02E-02	5.27E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

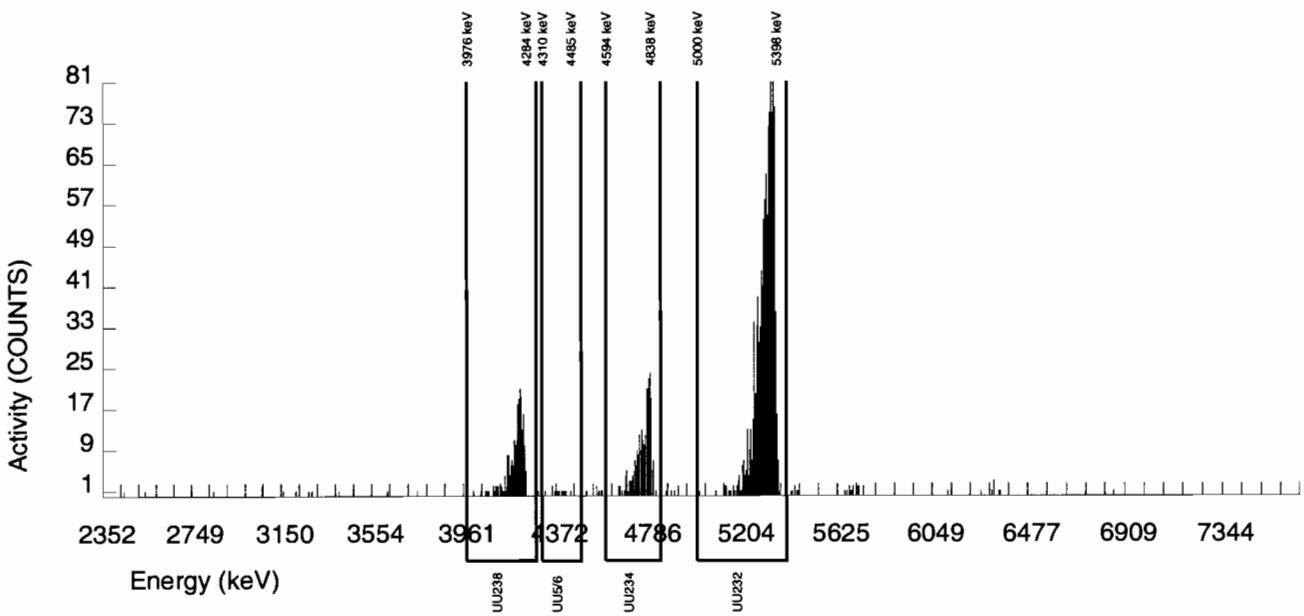

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 126	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248841008_UU	DETECTOR S/N : 75548	BKG FILE : B126.CNF;464
SAMPLE QTY : 0.515 G	AVERAGE %EFFICIENCY : 26.6612	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:44:09	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W126.CNF;136
% YIELD : 95.469		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.2980E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5322.339	43.245	1150.000	1145.000	5.000	2.2361	100.0000	3.94E+00	3.05E-01	1.79E-02	4.51E-02	1.17E-01
U-3/4	4763.020	4776.937	41.010	260.000	258.840	0.000	5.4790	100.0000	8.89E-01	8.44E-02	4.38E-02	9.69E-02	5.53E-02
U-235	4391.000	4411.864	95.646	17.000	16.000	1.000	2.4127	80.90000	6.80E-02	1.87E-02	2.38E-02	5.92E-02	1.80E-02
U-238	4184.730	4203.382	40.819	200.000	200.000	0.000	3.6781	100.0000	6.87E-01	6.92E-02	2.94E-02	6.81E-02	4.86E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

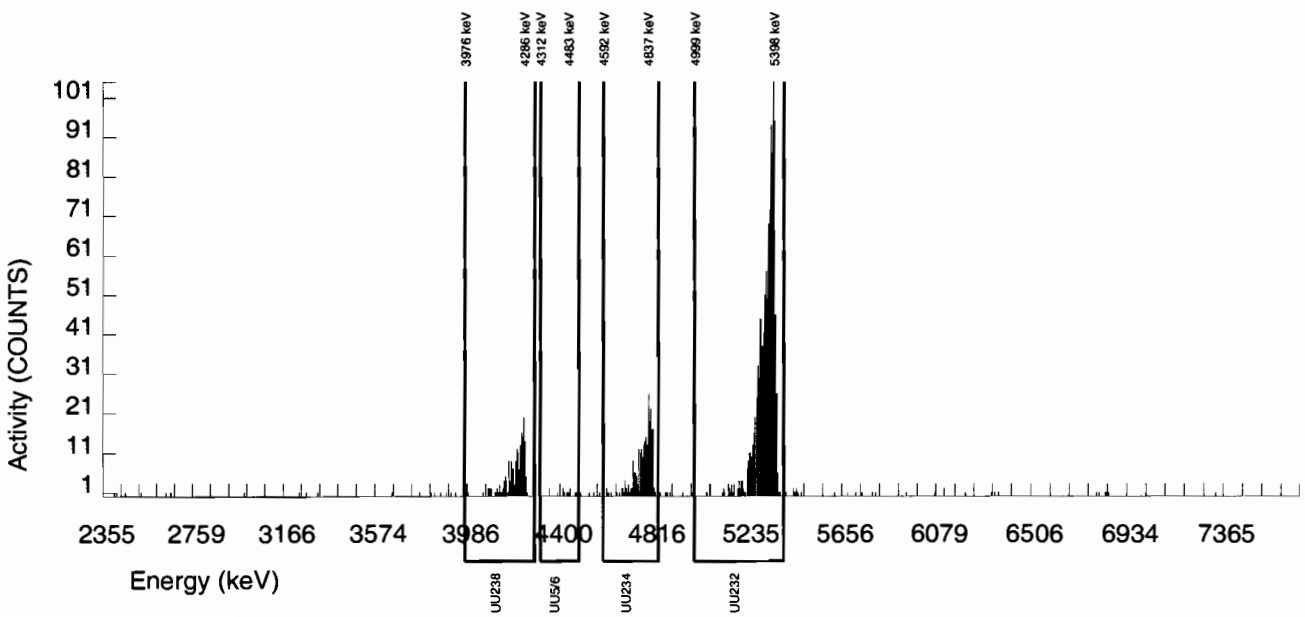

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 127	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248841009_UU	DETECTOR S/N : 78770	BKG FILE : B127.CNF;468
SAMPLE QTY : 0.511 G	AVERAGE %EFFICIENCY : 26.3126	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:44:13	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W127.CNF;127
% YIELD : 93.945		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.2294E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.075	63.534	1113.000	1112.000	1.000	1.0000	100.0000	3.97E+00	3.09E-01	8.30E-03	2.63E-02	1.19E-01
U-3/4	4763.020	4751.976	57.955	228.000	226.873	0.000	5.4790	100.0000	8.09E-01	7.91E-02	4.55E-02	1.01E-01	5.37E-02
U-235	4391.000	4397.599	98.866	6.000	6.000	0.000	2.4127	80.90000	2.64E-02	1.10E-02	2.47E-02	6.14E-02	1.08E-02
U-238	4184.730	4181.592	48.451	231.000	230.000	1.000	3.6781	100.0000	8.20E-01	8.01E-02	3.05E-02	7.07E-02	5.43E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

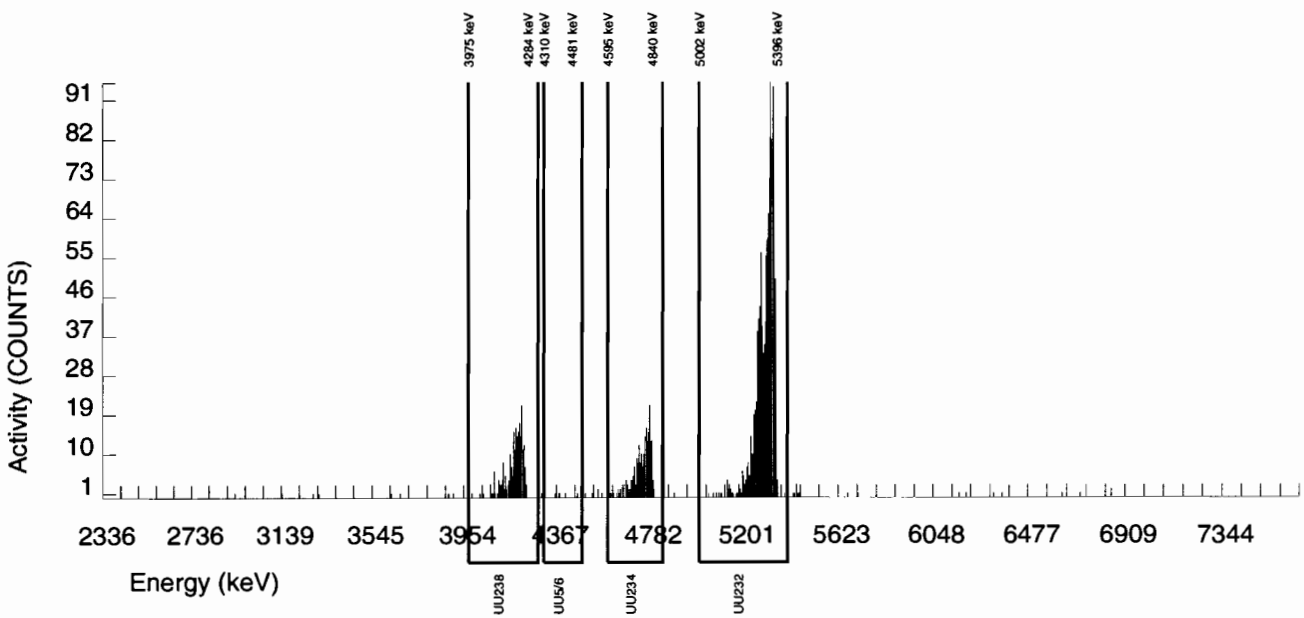

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 128	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248841010_UU	DETECTOR S/N : 75549	BKG FILE : B128.CNF;474
SAMPLE QTY : 0.504 G	AVERAGE %EFFICIENCY : 25.9743	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:44:15	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W128.CNF;137
% YIELD : 104.412		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.7006E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5308.242	55.534	1220.000	1220.000	0.000	0.0000	100.0000	4.02E+00	3.09E-01	0.00E+00	8.93E-03	1.15E-01
U-3/4	4763.020	4759.757	62.170	285.000	283.764	0.000	5.4790	100.0000	9.35E-01	8.67E-02	4.20E-02	9.29E-02	5.55E-02
U-235	4391.000	4416.717	5.006	10.000	10.000	0.000	2.4127	80.90000	4.07E-02	1.32E-02	2.29E-02	5.68E-02	1.29E-02
U-238	4184.730	4194.093	29.978	301.000	301.000	0.000	3.6781	100.0000	9.92E-01	9.09E-02	2.82E-02	6.53E-02	5.72E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

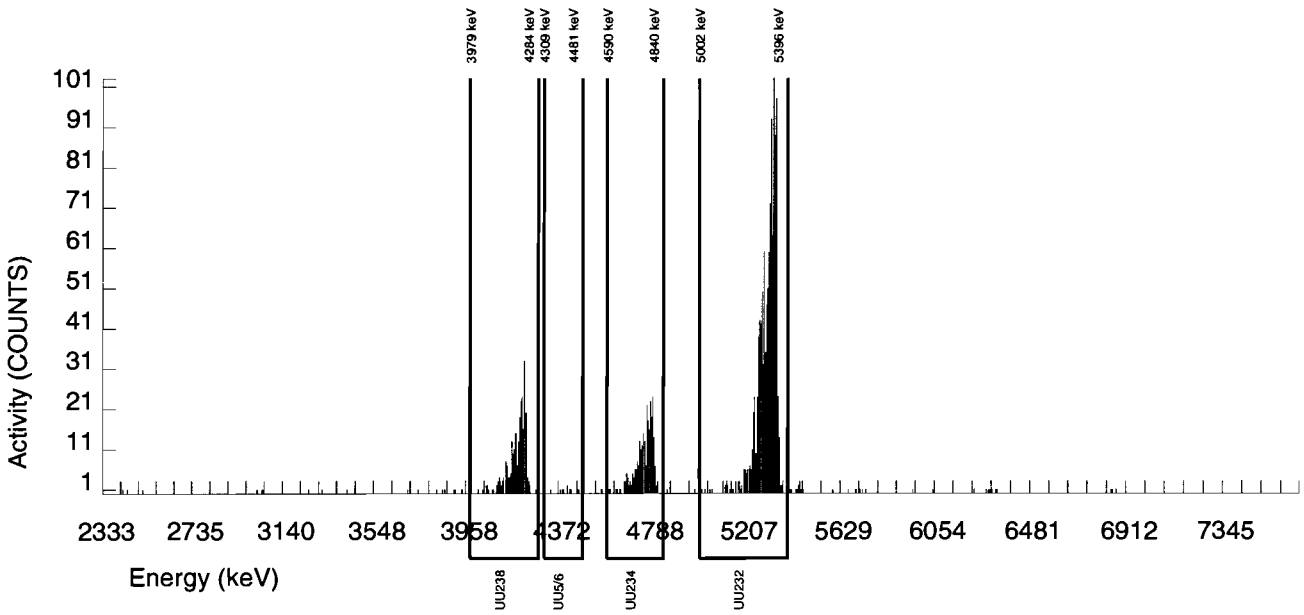

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 129	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248841011_UU	DETECTOR S/N : 76227	BKG FILE : B129.CNF;463
SAMPLE QTY : 0.507 G	AVERAGE %EFFICIENCY : 26.5015	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:44:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W129.CNF;132
% YIELD : 95.625		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3050E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.687	34.017	1145.000	1140.000	5.000	2.2361	100.0000	4.00E+00	3.10E-01	1.82E-02	4.60E-02	1.19E-01
U-3/4	4763.020	4758.634	60.495	212.000	209.845	1.000	5.4790	100.0000	7.36E-01	7.34E-02	4.47E-02	9.89E-02	5.10E-02
U-235	4391.000	4387.151	44.526	12.000	10.000	2.000	2.4127	80.90000	4.33E-02	1.65E-02	2.43E-02	6.04E-02	1.62E-02
U-238	4184.730	4193.561	39.545	236.000	235.000	1.000	3.6781	100.0000	8.24E-01	8.00E-02	3.00E-02	6.95E-02	5.40E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

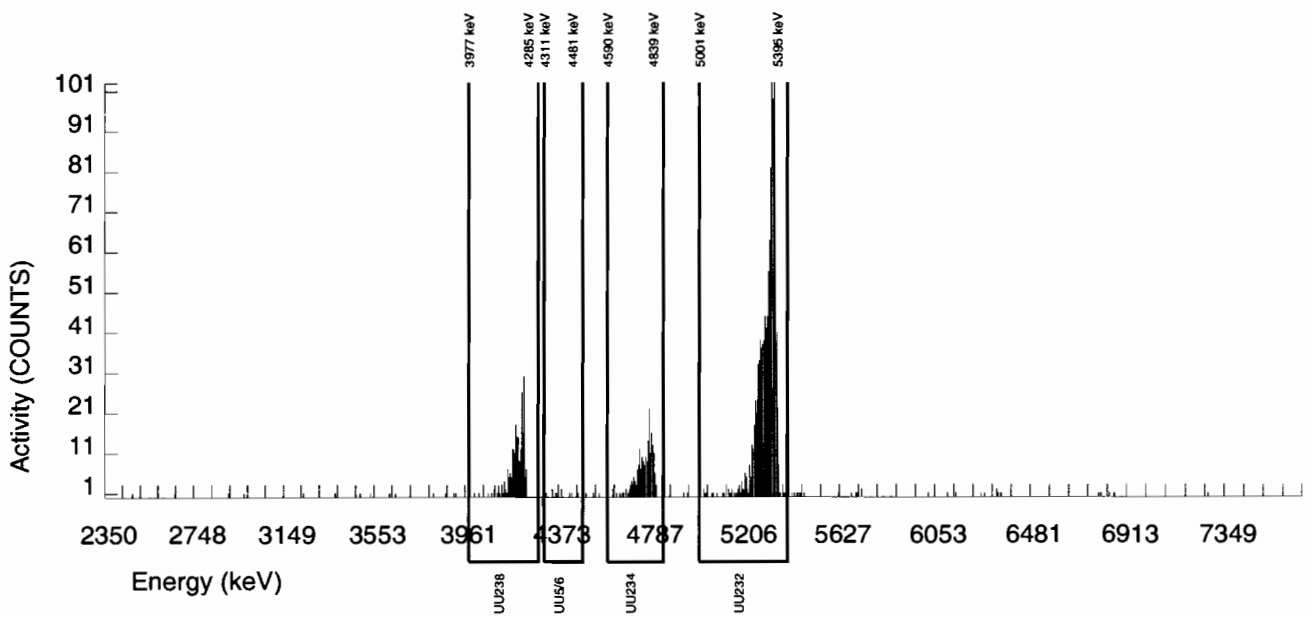

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 130	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202072519_UU	DETECTOR S/N : 76228	BKG FILE : B130.CNF;463
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 25.8660	BKG DATE : 28-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 30-MAR-2010 16:44:20	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W130.CNF;134
% YIELD : 101.154		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4996E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.5515E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.625	63.501	1178.000	1177.000	1.000	1.0000	100.0000	2.03E+00	1.56E-01	4.01E-03	1.27E-02	5.91E-02
U-3/4	4763.020	4703.280	208.412	9.000	7.807	0.000	5.4790	100.0000	1.34E-02	4.90E-03	2.19E-02	4.86E-02	4.81E-03
U-235	4391.000	4365.938	4.977	7.000	6.000	1.000	2.4127	80.90000	1.28E-02	6.09E-03	1.19E-02	2.97E-02	6.02E-03
U-238	4184.730	4213.127	4.977	9.000	9.000	0.000	3.6781	100.0000	1.55E-02	5.28E-03	1.47E-02	3.41E-02	5.16E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

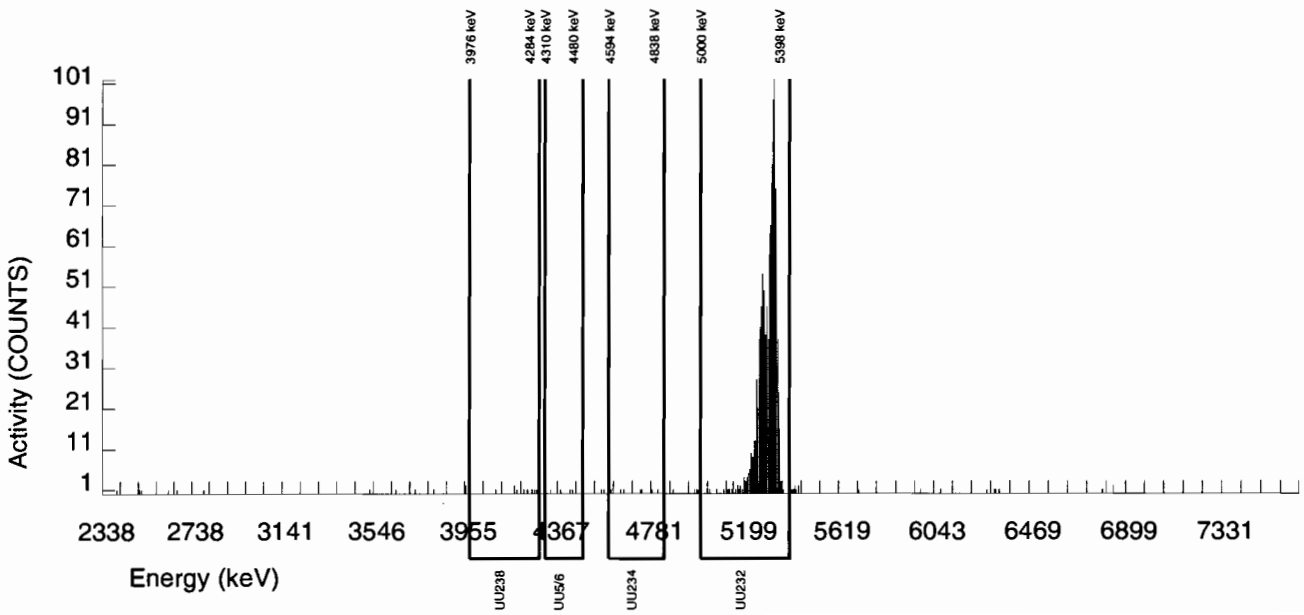

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 131	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202072520_UU	DETECTOR S/N : 80008	BKG FILE : B131.CNF;461
SAMPLE QTY : 0.502 G	AVERAGE %EFFICIENCY : 25.4483	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 30-MAR-2010 16:44:23	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W131.CNF;136
% YIELD : 104.212		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.6916E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.175	42.297	1197.000	1193.000	4.000	2.0000	100.0000	4.04E+00	3.12E-01	1.57E-02	4.07E-02	1.17E-01
U-3/4	4763.020	4758.878	53.878	259.000	257.791	0.000	5.4790	100.0000	8.72E-01	8.27E-02	4.31E-02	9.54E-02	5.43E-02
U-235	4391.000	4396.176	7.292	10.000	10.000	0.000	2.4127	80.90000	4.18E-02	1.36E-02	2.35E-02	5.83E-02	1.32E-02
U-238	4184.730	4181.762	59.027	257.000	257.000	0.000	3.6781	100.0000	8.70E-01	8.25E-02	2.90E-02	6.71E-02	5.42E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

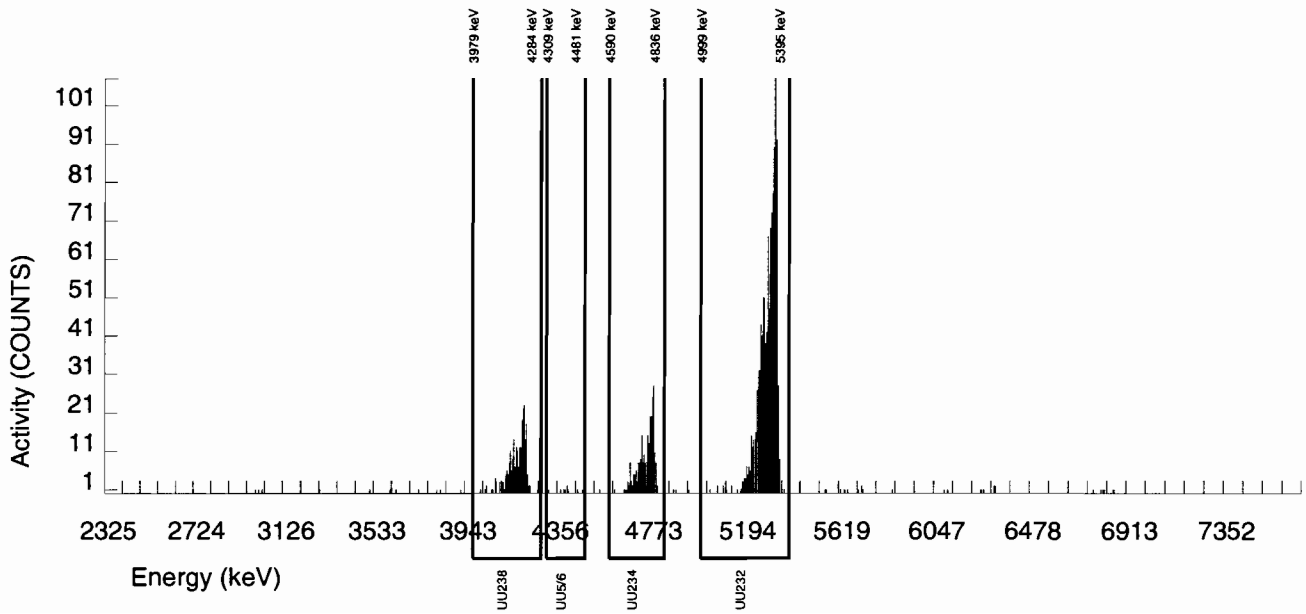

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965810	CHAMBER : 132	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202072521_UU	DETECTOR S/N : 67579	BKG FILE : B132.CNF;457
SAMPLE QTY : 0.103 G	AVERAGE %EFFICIENCY : 26.4369	BKG DATE : 28-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 30-MAR-2010 16:44:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W132.CNF;134
% YIELD : 101.324		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4996E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.5592E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.996	46.228	1208.000	1205.000	3.000	1.7321	100.0000	1.97E+01	1.63E+00	6.58E-02	1.76E-01	5.68E-01
U-3/4	4763.020	4762.833	64.600	335.000	333.779	0.000	5.4790	100.0000	5.45E+00	5.18E-01	2.08E-01	4.60E-01	2.98E-01
U-235	4391.000	4415.090	55.336	15.000	15.000	0.000	2.4127	80.90000	3.03E-01	8.16E-02	1.13E-01	2.81E-01	7.82E-02
U-238	4184.730	4192.496	50.602	338.000	338.000	0.000	3.6781	100.0000	5.52E+00	5.23E-01	1.40E-01	3.24E-01	3.00E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

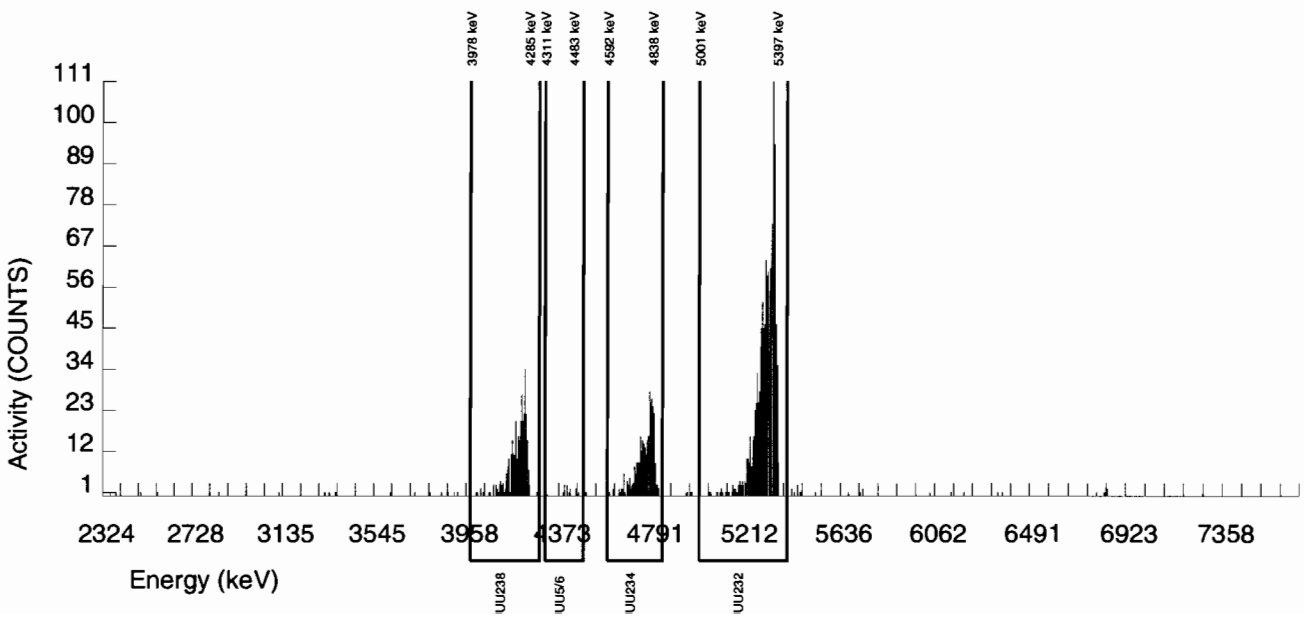

Radiochemistry Batch Checklist, Rev10

Batch# 962629 Product: SS Date: 3/20/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	√		
Instrument source check is within limits. Instrument bkg check is within limits.	√		
Method RDL/ LLD has been met.	√		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	√		
Tracer yield is 15-125%. Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	√		
Sample was run within hold time.	√		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	√		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	√		
Aux data is correct.			NA
Client Special requirements page has been checked.	√		
Raw Data and/ or spectrum are included and properly statused.	√		
QC data entered into QC database and batch is in REVW	√		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	√		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	√		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: J Eulaw 3/20/10

Secondary Review Performed By: M Stamps 3/23/10

LANL

3/26/10

Gamma Spec Que Sheet

I.G. - 3/17/10

03/10/2010

Batch #: 962629 **Analyst:** MXR1 **First Client DueDate** 03/26/2010 **Internal Due Date:** 03/16/2010

Gamma Spike Isotope: Mixed Gamma **Spike Code:** Na **Expiration Date:** Na **Vol:** Na **Nominal Concentration:** Na

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0 mL **Nominal Concentration:** Cs137-5.549 Co60-6.32 Am241-15.90

Initials: MS **Prep Date:** 3/10/10 **Library:** SOLID **Witness:** Na

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Wet/Dry Aliquot (1/B/F)	Detector	Sealing Date/Time (if Applicable)
248788001-1	RE16-10-1108	SAMPLE		LANL010	SOIL	02-MAR-10 12:00:00 CG	Can	120.07	29	3/9/10
248788002-1	RE16-10-1114	SAMPLE		LANL010	SOIL	02-MAR-10 12:00:00 CG		116.16	5	
248788003-1	RE16-10-1113	SAMPLE		LANL010	SOIL	02-MAR-10 12:00:00 CG		116.80	7	
248788004-1	RE16-10-1122	SAMPLE		LANL010	SOIL	02-MAR-10 12:00:00 CG		119.16	11	3/10/10
248788005-1	RE16-10-1109	SAMPLE		LANL010	SOIL	02-MAR-10 12:00:00 CG		124.57	4	3/10/10
248788006-1	RE16-10-1112	SAMPLE		LANL010	SOIL	02-MAR-10 12:00:00 CG		121.21	6	3/9/10
248788007-1	RE16-10-1111	SAMPLE		LANL010	SOIL	02-MAR-10 12:00:00 CG		127.27	15	
248788008-1	RE16-10-1107	SAMPLE		LANL010	SOIL	02-MAR-10 12:00:00 CG		114.63	2	
248841001-1	RE46-10-13867	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 KL		128.57	21	
248841002-1	RE46-10-13864	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 KL		122.45	15	3/10/10
248841003-1	RE46-10-13863	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 KL		111.66	5	3/9/10
248841004-1	RE46-10-13869	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 KL		121.51	18	
248841005-1	RE46-10-13861	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 KL		120.89	25	
248841006-1	RE46-10-13866	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 KL		137.09	29	
248841007-1	RE46-10-13860	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 KL		118.57	5	
248841008-1	RE46-10-13865	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 KL		115.35	15	3/10/10
248841009-1	RE46-10-13868	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 KL		130.03	20	3/10/10
248841010-1	RE46-10-13862	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 MS		145.85	4	3/9/10
248841011-1	RE46-10-13873	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 MS		125.83	5	3/9/10
1202065180-1	MB	MB		QC ACCOUNT	SOIL	3/10/10 MS		145.85	6	3/10/10
1202065181-1	DUP RE16-10-1107(248788008)	DUP		QC ACCOUNT	SOIL	02-MAR-10 12:00:00 MS		111.84	7	3/9/10
1202065182-1	LCS	LCS		QC ACCOUNT	SOIL	3/10/10 KL		155.44	15	3/10/10

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: 3/20/10

Dailies ✓ 3/23/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
962629	248788001	SAMPLE	18-MAR-10		Americium-241	0.2839	0.3114	0.200
					Cerium-139	0.02852	0.06197	0.050
					Sodium-22	0.01844	0.09339	0.080
					Thorium-234	2.713	2.876	2.00
962629	248788002	SAMPLE	18-MAR-10		Cerium-139	-0.00108	0.05968	0.050
					Cesium-134	0.04153	0.1115	0.100
					Sodium-22	0.04521	0.1118	0.080
962629	248788003	SAMPLE	18-MAR-10		Cerium-139	-0.00211	0.05145	0.050
					Sodium-22	0.00446	0.08504	0.080
962629	248788004	SAMPLE	18-MAR-10					
962629	248788005	SAMPLE	18-MAR-10		Americium-241	-0.06421	0.3537	0.200
962629	248788006	SAMPLE	18-MAR-10		Americium-241	0.05939	0.3129	0.200
					Cerium-139	-0.00931	0.05209	0.050
					Cesium-134	0.1047	0.114	0.100
					Sodium-22	0.00235	0.1037	0.080
					Thorium-234	0.3955	2.624	2.00
962629	248788007	SAMPLE	18-MAR-10		Americium-241	-0.1876	0.4926	0.200
					Cerium-139	0.0397	0.06585	0.050
					Cesium-134	0.09002	0.1076	0.100
					Sodium-22	-0.04809	0.0924	0.080
					Thorium-234	-0.1134	3.87	2.00
962629	248788008	SAMPLE	18-MAR-10		Americium-241	-0.00757	0.3443	0.200
					Cerium-139	-0.01064	0.05513	0.050
					Sodium-22	-0.00692	0.09369	0.080
					Thorium-234	-0.03129	3.141	2.00
962629	248841001	SAMPLE	18-MAR-10		Sodium-22	0.07317	0.1168	0.080
962629	248841002	SAMPLE	18-MAR-10		Americium-241	0.1453	0.5148	0.200
					Cerium-139	0.00979	0.0655	0.050
					Cesium-134	0.04941	0.1066	0.100
					Europium-152	0.0659	0.2038	0.200
					Sodium-22	0.00868	0.09198	0.080
					Thorium-234	2.986	4.338	2.00
962629	248841003	SAMPLE	18-MAR-10		Cerium-139	-0.02401	0.06204	0.050
					Cesium-134	0.1023	0.1315	0.100
					Sodium-22	-0.00775	0.09749	0.080
962629	248841004	SAMPLE	18-MAR-10		Americium-241	-0.07968	0.2189	0.200
962629	248841005	SAMPLE	18-MAR-10					
962629	248841006	SAMPLE	18-MAR-10		Americium-241	-0.1279	0.2231	0.200
					Thorium-234	0.6891	2.003	2.00
962629	248841007	SAMPLE	18-MAR-10					
962629	248841008	SAMPLE	18-MAR-10		Americium-241	-0.3053	0.3962	0.200
					Cerium-139	0.01297	0.05164	0.050
					Thorium-234	0.8539	3.264	2.00
962629	248841009	SAMPLE	18-MAR-10					

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
962629	248841010	SAMPLE	19-MAR-10		Americium-241	-0.09323	0.364	0.200
962629	248841011	SAMPLE	19-MAR-10		Cerium-139	0.01775	0.06007	0.050
					Sodium-22	-0.02855	0.09557	0.080
962629	1202065180	MB	19-MAR-10					
962629	1202065181	DUP	19-MAR-10		Cerium-139	0.00282	0.05128	0.050
					Cesium-134	0.08149	0.1002	0.100
					Sodium-22	0.05586	0.09325	0.080
962629	1202065182	LCS	18-MAR-10		Cerium-139	-0.00486	0.09525	0.050
					Cesium-134	0.1255	0.1921	0.100
					Europium-152	-0.03791	0.3797	0.200
					Mercury-203	0.04294	0.1342	0.100
					Ruthenium-106	-0.1446	1.131	0.800
					Sodium-22	0.02663	0.09887	0.080
					Thorium-234	-5.101	6.394	2.00
					Tin-113	0.08537	0.1877	0.100
					Uranium-235	0.06002	0.6616	0.500

Gamma Review Report based on Result > MDA for Batch:962629

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248788001	02-MAR-10 12:00	18-MAR-10 13:15	16.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	ML	1.865	0.2126	pCi/g	0.2618	N	911.2	3	1.877	IDENTIFIED	8.481	☐	
Annihilation Rad.		0.1406	0.03778	pCi/g	0.05529	N	510.7	1	1.523	IDENTIFIED	26.48	☐	
Bismuth-211	INT	3.266	0.2749	pCi/g	0.3803	Y	351.9	2	1.155	IDENTIFIED	6.924	☑ UI	
Bismuth-212	HE	1.883	0.5167	pCi/g	1.296	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.139	0.1033	pCi/g	0.1248	0.200	609.2	2	1.308	IDENTIFIED	7.533	☐	
Cerium-143		1460	231.9	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Gross Gamma		10.11	1.533	pCi/g	3.773	N		0				☐	
Iodine-133	HE	4288	7110	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Iodine-135		1.17E+16	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.499	0.09492	pCi/g	0.1123	0.100	238.6	2	1.063	IDENTIFIED	3.903	☐	
Lead-214	✓	1.185	0.105	pCi/g	0.1445	0.100	351.9	2	1.155	IDENTIFIED	6.924	☐	
Niobium-95	HE	0.1249	0.02746	pCi/g	0.09427	N	0	7	0	NOT_IDENTI	0	☐	
Niobium-95m	HE	0.3248	0.09408	pCi/g	0.2984	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40	✓	42.33	2.535	pCi/g	0.5409	1.00	1461	1	1.798	IDENTIFIED	2.508	☐	
Radium-224	INT	4.024	0.7313	pCi/g	1.202	Y	241.4	1	1.742	IDENTIFIED	17.62	☑ UI	
Radium-226	✓	1.139	0.1033	pCi/g	0.1248	Y	609.2	2	1.308	IDENTIFIED	7.533	☐	
Radium-228	✓	1.865	0.2126	pCi/g	0.2618	0.500	911.2	3	1.877	IDENTIFIED	8.481	☐	
Strontium-85	LA	0.1518	0.02685	pCi/g	0.09057	Y	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.5009	0.04671	pCi/g	0.06771	0.080	583.1	1	1.295	IDENTIFIED	8.064	☐	
Thorium-228	ML	1.499	0.09492	pCi/g	0.1123	N	238.6	2	1.063	IDENTIFIED	3.903	☐	
Thorium-232	ML	1.865	0.2126	pCi/g	0.2618	N	911.2	3	1.877	IDENTIFIED	8.481	☐	
Total Uranium		8.117	3.72E-06	ug/g	4.282	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248788002	02-MAR-10 12:00	18-MAR-10 13:16	16.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	ML	1.721	0.2119	pCi/g	0.2863	N	910.8	3	1.903	IDENTIFIED	10.55	☐	
Annihilation Rad.	HE	0.09036	0.04335	pCi/g	0.06835	N	509.9	1	2.014	IDENTIFIED	47.86	☐	
Bismuth-211	INT	2.849	0.2843	pCi/g	0.3986	Y	351.5	2	1.485	IDENTIFIED	9.16	☑ UI	
Bismuth-212	HE	1.731	0.4691	pCi/g	1.366	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.029	0.09203	pCi/g	0.145	0.200	608.7	2	1.64	IDENTIFIED	7.887	☐	
Cerium-143		1561	243.7	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Gross Gamma		9.223	1.363	pCi/g	3.825	N		0				☐	
Iodine-133	HE	2676	8436	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-210	HE	1.611	0.5343	pCi/g	0.9652	N	46.23	1	1.217	IDENTIFIED	32.93	☐	
Lead-212	✓	1.516	0.1022	pCi/g	0.1074	0.100	238.2	2	1.317	IDENTIFIED	4.017	☐	
Lead-214	✓	1.034	0.107	pCi/g	0.1491	0.100	351.5	2	1.485	IDENTIFIED	9.16	☐	
Neptunium-237	ML	0.6501	0.1307	pCi/g	0.3848	N	86.76	2	0.9703	IDENTIFIED	16.73	☐	
Niobium-95m	LA	1.027	0.1115	pCi/g	0.3555	N	0	5	0	NOT_IDENTI	0	☐	

Potassium-40	✓	39.53	1.715	pCi/g	0.6662	1.00	1460	1	2.054	IDENTIFIED	3.027	☐	
Radium-224	INT	3.789	0.6387	pCi/g	1.151	Y	241.2	1	1.689	IDENTIFIED	16.13	☑	UI
Radium-226	✓	1.029	0.09203	pCi/g	0.145	Y	608.7	2	1.64	IDENTIFIED	7.887	☐	
Radium-228	✓	1.721	0.2119	pCi/g	0.2863	0.500	910.8	3	1.903	IDENTIFIED	10.55	☐	
Sodium-24	HE	2.73E+05	1.09E+06	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4395	0.04989	pCi/g	0.07002	0.080	582.8	1	1.6	IDENTIFIED	10.74	☐	
Thorium-228	NM	1.516	0.1022	pCi/g	0.1074	N	238.2	2	1.317	IDENTIFIED	4.017	☐	
Thorium-232	NM	1.721	0.2119	pCi/g	0.2863	N	910.8	3	1.903	IDENTIFIED	10.55	☐	
Tin-126	NM	0.2179	0.03738	pCi/g	0.1271	N	86.76	2	0.9703	IDENTIFIED	16.73	☐	
Total Uranium		2.6874	1.17E-06	ug/g	2.0417	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248788003	02-MAR-10 12:00	18-MAR-10 13:17	16.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NM	1.516	0.2073	pCi/g	0.2464	N	911.5	3	1.836	IDENTIFIED	12.29	☐	
Annihilation Rad.	HE	0.1143	0.03776	pCi/g	0.04949	N	511.5	1	2.118	IDENTIFIED	32.72	☐	
Barium-137m	NM	0.4646	0.04266	pCi/g	0.06824	N	661.8	2	1.327	IDENTIFIED	8.047	☐	
Bismuth-211	INT	3.487	0.3129	pCi/g	0.3482	Y	351.9	2	1.361	IDENTIFIED	7.774	☑	UI
Bismuth-214	✓	1.206	0.1086	pCi/g	0.1201	0.200	609.5	2	1.25	IDENTIFIED	7.358	☐	
Cadmium-109	INT	2.473	0.6822	pCi/g	1.256	Y	88.27	2	0.9832	IDENTIFIED	27.19	☑	UI
Cerium-143		581.9	149.2	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.4908	0.04509	pCi/g	0.07209	0.100	661.8	2	1.327	IDENTIFIED	8.047	☐	
Gross Gamma		9.831	1.474	pCi/g	3.173	N		0				☐	
Iodine-133	HE	3824	6570	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Iodine-135		3.06E+16	0	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-210	HE	3.251	1.093	pCi/g	2.883	N	46.82	1	1.018	IDENTIFIED	33.32	☐	
Lead-212	✓	1.498	0.09242	pCi/g	0.1019	0.100	238.7	2	1.178	IDENTIFIED	3.869	☐	
Lead-214	✓	1.265	0.1188	pCi/g	0.1266	0.100	351.9	2	1.361	IDENTIFIED	7.774	☐	
Potassium-40	✓	37.91	1.932	pCi/g	0.5736	1.00	1461	1	1.925	IDENTIFIED	2.742	☐	
Radium-224	INT	4.088	0.6111	pCi/g	1.092	Y	241.7	1	1.65	IDENTIFIED	14.34	☑	UI
Radium-226	✓	1.206	0.1086	pCi/g	0.1201	Y	609.5	2	1.25	IDENTIFIED	7.358	☐	
Radium-228	✓	1.516	0.2073	pCi/g	0.2464	0.500	911.5	3	1.836	IDENTIFIED	12.29	☐	
Sodium-24	HE	5.98E+05	1.08E+06	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.09555	0.02446	pCi/g	0.08318	Y	0	5	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208	✓	0.4746	0.0468	pCi/g	0.06009	0.080	583.5	1	1.511	IDENTIFIED	8.626	☐	
Thorium-228	NM	1.498	0.09242	pCi/g	0.1019	N	238.7	2	1.178	IDENTIFIED	3.869	☐	
Thorium-232	NM	1.516	0.2073	pCi/g	0.2464	N	911.5	3	1.836	IDENTIFIED	12.29	☐	
Thorium-234	✓	1.797	0.7836	pCi/g	1.571	2.00	63.25	2	0.9766	IDENTIFIED	42.7	☐	
Tin-126	HE	0.2413	0.06659	pCi/g	0.1229	N	88.27	2	0.9832	IDENTIFIED	27.19	☐	
Total Uranium		5.4448	2.33E-06	ug/g	2.3399	N		0				☐	
Uranium-238	HE	1.797	0.7836	pCi/g	1.571	N	63.25	2	0.9766	IDENTIFIED	42.7	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248788004	02-MAR-10 12:00	18-MAR-10 13:17	16.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NN	1.82	0.1743	pCi/g	0.2072	N	911.8	3	1.582	IDENTIFIED	7.261	☐	
Annihilation Rad.	HE	0.0813	0.03394	pCi/g	0.0468	N	510.8	1	1.657	IDENTIFIED	41.4	☐	
Barium-137m	NN	0.2069	0.03099	pCi/g	0.06198	N	662	2	1.032	IDENTIFIED	14.21	☐	
Bismuth-211	INT	3.467	0.3231	pCi/g	0.2952	Y	352	2	1.129	IDENTIFIED	6.603	☑ UI	
Bismuth-212	LA	2.744	0.4786	pCi/g	1.176	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214	LA	1.041	0.09388	pCi/g	0.1033	0.200	609.7	2	1.193	IDENTIFIED	7.013	☐	
Cadmium-109	INT	1.52	0.3561	pCi/g	1.224	Y	0	5	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Cerium-143	HE	90.72	106	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-137		0.2185	0.03274	pCi/g	0.06548	0.100	662	2	1.032	IDENTIFIED	14.21	☐	
Gross Gamma		9.006	1.325	pCi/g	2.964	N		0				☐	
Iodine-135		2.27E+16	0	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-212		1.48	0.1199	pCi/g	0.09717	0.100	238.7	2	1.052	IDENTIFIED	4.045	☐	
Lead-214		1.258	0.1223	pCi/g	0.1074	0.100	352	2	1.129	IDENTIFIED	6.603	☐	
Potassium-40		35.6	1.839	pCi/g	0.483	1.00	1462	1	1.809	IDENTIFIED	2.827	☐	
Radium-224	INT	2.445	0.4599	pCi/g	1.133	Y	241.9	1	1.568	IDENTIFIED	17.57	☑ UI	
Radium-226		1.041	0.09388	pCi/g	0.1033	Y	609.7	2	1.193	IDENTIFIED	7.013	☐	
Radium-228		1.82	0.1743	pCi/g	0.2072	0.500	911.8	3	1.582	IDENTIFIED	7.261	☐	
Thallium-208		0.4046	0.04166	pCi/g	0.05729	0.080	583.5	1	1.197	IDENTIFIED	8.771	☐	
Thorium-228	NN	1.48	0.1199	pCi/g	0.09717	N	238.7	2	1.052	IDENTIFIED	4.045	☐	
Thorium-232	NN	1.82	0.1743	pCi/g	0.2072	N	911.8	3	1.582	IDENTIFIED	7.261	☐	
Thorium-234	ALNC	1.569	0.8418	pCi/g	1.521	2.00	63.35	2	0.9565	IDENTIFIED	52.89	☑ UI	
Tin-126	HE	0.1978	0.03625	pCi/g	0.1256	N	0	5	0	FAIL_ABUND	0	☐	
Total Uranium		4.6582	2.50E-06	ug/g	2.2648	N		0				☐	
Uranium-238	HE	1.569	0.8418	pCi/g	1.521	N	63.35	2	0.9565	IDENTIFIED	52.89	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248788005	02-MAR-10 12:00	18-MAR-10 13:18	16.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NN	1.652	0.1709	pCi/g	0.2632	N	912.1	3	1.514	IDENTIFIED	8.677	☐	
Annihilation Rad.	HE	0.07445	0.03191	pCi/g	0.04436	N	510.9	1	1.604	IDENTIFIED	42.78	☐	
Barium-137m	NN	0.3449	0.03872	pCi/g	0.06045	N	662.3	2	1.531	IDENTIFIED	10.96	☐	
Bismuth-211	INT	3.262	0.246	pCi/g	0.3421	Y	352.2	2	1.161	IDENTIFIED	6.747	☑ UI	
Bismuth-212	HE	1.997	0.5453	pCi/g	1.143	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214		1	0.07895	pCi/g	0.1175	0.200	609.8	2	1.686	IDENTIFIED	6.968	☐	
Cadmium-109	INT	3.387	0.5107	pCi/g	1.28	Y	87.19	3	1.377	IDENTIFIED	13.84	☑ UI	
Cerium-143		382	115.2	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-137		0.3643	0.04091	pCi/g	0.06386	0.100	662.3	2	1.531	IDENTIFIED	10.96	☐	
Gross Gamma		8.74	1.29	pCi/g	2.86	N		0				☐	
Lead-212		1.349	0.07626	pCi/g	0.08858	0.100	238.8	2	1.089	IDENTIFIED	3.949	☐	
Lead-214		1.184	0.09508	pCi/g	0.1137	0.100	352.2	2	1.161	IDENTIFIED	6.747	☐	
Neptunium-237	NN	0.9864	0.1812	pCi/g	0.4159	N	87.19	3	1.377	IDENTIFIED	13.84	☐	
Potassium-40		29.62	1.436	pCi/g	0.5395	1.00	1462	1	1.901	IDENTIFIED	3.3	☐	
Radium-224	INT	3.888	0.6317	pCi/g	0.9495	Y	241.7	1	1.836	IDENTIFIED	15.9	☑ UI	
Radium-226		1	0.07895	pCi/g	0.1175	Y	609.8	2	1.686	IDENTIFIED	6.968	☐	

Radium-228	✓	1.652	0.1709	pCi/g	0.2632	0.500	912.1	3	1.514	IDENTIFIED	8.677	☐
Sodium-24	HE	1.89E+06	9.64E+05	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐
Technetium-99m		2.19E+17	0	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐
Thallium-208	✓	0.4224	0.04159	pCi/g	0.05125	0.080	583.8	1	1.499	IDENTIFIED	9.335	☐
Thorium-228	MU	1.349	0.07626	pCi/g	0.08858	N	238.8	2	1.089	IDENTIFIED	3.949	☐
Thorium-232	MU	1.652	0.1709	pCi/g	0.2632	N	912.1	3	1.514	IDENTIFIED	8.677	☐
Thorium-234	✓	3.134	1.145	pCi/g	2.831	2.00	62.9	2	1.358	IDENTIFIED	35.11	☐
Tin-126	MU	0.3306	0.04985	pCi/g	0.1259	N	87.19	3	1.377	IDENTIFIED	13.84	☐
Total Uranium		9.3032	3.41E-06	ug/g	4.2143	N	.	0				☐
Uranium-238	HE	3.134	1.145	pCi/g	2.831	N	62.9	2	1.358	IDENTIFIED	35.11	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248788006	02-MAR-10 12:00	18-MAR-10 13:19	16.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	MU	1.508	0.2029	pCi/g	0.2584	N	911.4	3	1.101	IDENTIFIED	12.03	☐	
Annihilation Rad.	HE	0.1192	0.03789	pCi/g	0.05438	N	510.9	1	1.866	IDENTIFIED	31.5	☐	
Bismuth-211	INT	3.254	0.2811	pCi/g	0.3817	Y	352.1	2	1.298	IDENTIFIED	7.257	☑ UI	
Bismuth-212	HE	1.844	0.3762	pCi/g	1.391	N	0	6	0	NOT_IDENTI	0	☐	
Bismuth-214	✓	1.048	0.1021	pCi/g	0.1271	0.200	609.7	2	1.429	IDENTIFIED	8.386	☐	
Cadmium-109	APW	2.892	0.8814	pCi/g	1.478	Y	88.55	1	3.964	IDENTIFIED	29.98	☑ UI	Data rejected due to high peak-width.
Cerium-143		641.7	160.8	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma		8.808	1.356	pCi/g	3.391	N		0				☐	
Iodine-133	HE	320.3	6914	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Iodine-135		5.02E+16	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.354	0.09203	pCi/g	0.1027	0.100	238.7	2	1.153	IDENTIFIED	4.453	☐	
Lead-214	✓	1.181	0.1071	pCi/g	0.1396	0.100	352.1	2	1.298	IDENTIFIED	7.257	☐	
Neptunium-237	HE	0.5391	0.1655	pCi/g	0.4992	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	✓	37.12	2.103	pCi/g	0.6656	1.00	1461	1	2.144	IDENTIFIED	3.145	☐	
Radium-224	INT	3.454	0.6165	pCi/g	1.101	Y	241.6	1	1.609	IDENTIFIED	17.25	☑ UI	
Radium-226	✓	1.048	0.1021	pCi/g	0.1271	Y	609.7	2	1.429	IDENTIFIED	8.386	☐	
Radium-228	✓	1.508	0.2029	pCi/g	0.2584	0.500	911.4	3	1.101	IDENTIFIED	12.03	☐	
Thallium-208	✓	0.3785	0.04434	pCi/g	0.07112	0.080	583.2	1	1.138	IDENTIFIED	10.79	☐	
Thorium-228	MU	1.354	0.09203	pCi/g	0.1027	N	238.7	2	1.153	IDENTIFIED	4.453	☐	
Thorium-232	MU	1.508	0.2029	pCi/g	0.2584	N	911.4	3	1.101	IDENTIFIED	12.03	☐	
Tin-126	HE	0.2823	0.08604	pCi/g	0.1633	N	0	6	0	FAIL_ABUND	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248788007	02-MAR-10 12:00	18-MAR-10 13:20	16.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	MU	1.539	0.228	pCi/g	0.2734	N	911.2	3	1.157	IDENTIFIED	13.52	☐	
Annihilation Rad.	HE	0.08809	0.0404	pCi/g	0.05002	N	511.1	1	2.574	IDENTIFIED	45.66	☐	
Barium-137m	MU	0.405	0.04758	pCi/g	0.06647	N	661.8	2	2.001	IDENTIFIED	11	☐	
Bismuth-211	INT	3.592	0.3487	pCi/g	0.4074	Y	352	2	1.72	IDENTIFIED	8.341	☑ UI	
Bismuth-212	HE	1.681	0.5346	pCi/g	1.383	N	0	3	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.102	0.1049	pCi/g	0.1327	0.200	609.3	2	1.873	IDENTIFIED	8.104	☐	
Cadmium-109	INT	2.143	0.6023	pCi/g	1.72	Y	87.47	3	1.177	IDENTIFIED	27.41	☑ UI	

Cerium-143		923	198	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Cesium-137	V	0.4279	0.05027	pCi/g	0.07022	0.100	661.8	2	2.001	IDENTIFIED	11	☐	
Gross Gamma		8.646	1.258	pCi/g	2.5	N		0				☐	
Lead-212	V	1.538	0.1156	pCi/g	0.1155	0.100	238.7	2	1.598	IDENTIFIED	4.562	☐	
Lead-214	V	1.304	0.1316	pCi/g	0.1481	0.100	352	2	1.72	IDENTIFIED	8.341	☐	
Neptunium-237	HE	0.6242	0.1872	pCi/g	0.5297	N	87.47	3	1.177	IDENTIFIED	27.41	☐	
Potassium-40	V	36.25	2.07	pCi/g	0.515	1.00	1460	1	2.24	IDENTIFIED	2.909	☐	
Radium-224	INT	3.687	0.7091	pCi/g	1.238	Y	241.8	1	1.854	IDENTIFIED	18.42	☑ UI	
Radium-226	V	1.102	0.1049	pCi/g	0.1327	Y	609.3	2	1.873	IDENTIFIED	8.104	☐	
Radium-228	V	1.539	0.228	pCi/g	0.2734	0.500	911.2	3	1.157	IDENTIFIED	13.52	☐	
Strontium-85	LA	0.1541	0.0284	pCi/g	0.0975	Y	0	3	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	V	0.4537	0.04695	pCi/g	0.06706	0.080	583.2	1	1.567	IDENTIFIED	9.282	☐	
Thorium-228	M	1.538	0.1156	pCi/g	0.1155	N	238.7	2	1.598	IDENTIFIED	4.562	☐	
Thorium-232	M	1.539	0.228	pCi/g	0.2734	N	911.2	3	1.157	IDENTIFIED	13.52	☐	
Tin-126	HE	0.2092	0.05879	pCi/g	0.1692	N	87.47	3	1.177	IDENTIFIED	27.41	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248788008	02-MAR-10 12:00	18-MAR-10 13:20	16.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	M	1.573	0.184	pCi/g	0.2652	N	910.3	3	1.693	IDENTIFIED	9.795	☐	
Annihilation Rad.		0.1538	0.0439	pCi/g	0.05761	N	510.4	1	2.208	IDENTIFIED	28.11	☐	
Barium-137m	M	0.312	0.0401	pCi/g	0.07032	N	661.1	2	1.661	IDENTIFIED	12.1	☐	
Bismuth-211	INT	3.526	0.3275	pCi/g	0.4078	Y	351.5	2	1.278	IDENTIFIED	7.283	☑ UI	
Bismuth-212	HE	1.996	0.4246	pCi/g	1.323	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	V	1.025	0.0948	pCi/g	0.1323	0.200	608.9	2	1.415	IDENTIFIED	7.57	☐	
Cadmium-109	INT	3.065	0.4859	pCi/g	1.395	Y	86.93	3	0.8585	IDENTIFIED	15.06	☑ UI	
Cerium-143		1162	212.9	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1063	0.02847	pCi/g	0.1062	0.100	0	4	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Cesium-137	V	0.3296	0.04237	pCi/g	0.07429	0.100	661.1	2	1.661	IDENTIFIED	12.1	☐	
Gross Gamma		8.879	1.281	pCi/g	2.843	N		0				☐	
Iodine-133	HE	7675	7835	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Lead-212	V	1.626	0.1205	pCi/g	0.1077	0.100	238.3	2	1.249	IDENTIFIED	3.893	☐	
Lead-214	V	1.28	0.124	pCi/g	0.1483	0.100	351.5	2	1.278	IDENTIFIED	7.283	☐	
Neptunium-237	M	0.8927	0.1697	pCi/g	0.466	N	86.93	3	0.8585	IDENTIFIED	15.06	☐	
Potassium-40	V	32.69	1.889	pCi/g	0.7895	1.00	1460	1	2.06	IDENTIFIED	3.284	☐	
Radium-224	INT	4.306	0.7881	pCi/g	1.155	Y	241.2	1	1.837	IDENTIFIED	17.32	☑ UI	
Radium-226	V	1.025	0.0948	pCi/g	0.1323	Y	608.9	2	1.415	IDENTIFIED	7.57	☐	
Radium-228	V	1.573	0.184	pCi/g	0.2652	0.500	910.3	3	1.693	IDENTIFIED	9.795	☐	
Thallium-208	V	0.4511	0.04963	pCi/g	0.06808	0.080	582.8	1	1.372	IDENTIFIED	9.799	☐	
Thorium-228	M	1.626	0.1205	pCi/g	0.1077	N	238.3	2	1.249	IDENTIFIED	3.893	☐	
Thorium-232	M	1.573	0.184	pCi/g	0.2652	N	910.3	3	1.693	IDENTIFIED	9.795	☐	
Tin-126	M	0.2992	0.04743	pCi/g	0.1369	N	86.93	3	0.8585	IDENTIFIED	15.06	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248841001	03-MAR-10 12:00	18-MAR-10 16:45	15.2	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	MU	1.428	0.2111	pCi/g	0.2946	N	910.9	3	1.382	IDENTIFIED	13.57	☐	
Annihilation Rad.		0.1718	0.04021	pCi/g	0.05191	N	511	1	1.706	IDENTIFIED	22.91	☐	
Bismuth-211	INT	4.691	0.3326	pCi/g	0.3809	Y	351.8	2	1.086	IDENTIFIED	5.472	☐✓ UI	
Bismuth-212	HE	2.073	0.5619	pCi/g	1.644	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.297	0.1305	pCi/g	0.1455	0.200	609.2	2	1.447	IDENTIFIED	8.125	☐	
Cadmium-109	INT	4.268	0.4398	pCi/g	0.8484	Y	87.23	3	1.14	IDENTIFIED	9.184	☐✓ UI	
Cerium-143		343.9	88.16	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134	KA	0.1342	0.04284	pCi/g	0.13	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		11.03	1.378	pCi/g	3.618	N		0				☐	
Iodine-135	HE	3.10E+15	6.74E+15	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Lead-210	✓	1.619	0.3721	pCi/g	0.6548	N	46.32	1	0.6629	IDENTIFIED	22.5	☐	
Lead-212	✓	2.12	0.1232	pCi/g	0.08659	0.100	238.5	2	0.8448	IDENTIFIED	2.971	☐	
Lead-214	✓	1.702	0.1295	pCi/g	0.1386	0.100	351.8	2	1.086	IDENTIFIED	5.472	☐	
Mercury-203	INT	0.1038	0.03241	pCi/g	0.05717	0.100	277.8	1	1.152	IDENTIFIED	30.89	☐✓ UI	
Neptunium-237	MU	1.245	0.183	pCi/g	0.246	N	87.23	3	1.14	IDENTIFIED	9.184	☐	
Potassium-40	✓	37.27	2.013	pCi/g	0.5066	1.00	1460	1	2.06	IDENTIFIED	3.307	☐	
Radium-224	INT	2.277	0.5208	pCi/g	0.9307	Y	240.8	1	1.168	IDENTIFIED	22.44	☐✓ UI	
Radium-226	✓	1.297	0.1305	pCi/g	0.1455	Y	609.2	2	1.447	IDENTIFIED	8.125	☐	
Radium-228	✓	1.428	0.2111	pCi/g	0.2946	0.500	910.9	3	1.382	IDENTIFIED	13.57	☐	
Thallium-208	✓	0.696	0.065	pCi/g	0.06559	0.080	583	1	1.493	IDENTIFIED	7.59	☐	
Thorium-228	MU	2.12	0.1232	pCi/g	0.08659	N	238.5	2	0.8448	IDENTIFIED	2.971	☐	
Thorium-232	MU	1.428	0.2111	pCi/g	0.2946	N	910.9	3	1.382	IDENTIFIED	13.57	☐	
Thorium-234	✓	1.577	0.4643	pCi/g	0.8611	2.00	63.14	2	0.9011	IDENTIFIED	28.03	☐	
Tin-126	MU	0.4171	0.04298	pCi/g	0.08278	N	87.23	3	1.14	IDENTIFIED	9.184	☐	
Total Uranium		4.7774	1.38E-06	ug/g	1.2837	N		0				☐	
Uranium-238	HE	1.577	0.4643	pCi/g	0.8611	N	63.14	2	0.9011	IDENTIFIED	28.03	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248841002	03-MAR-10 12:00	18-MAR-10 18:24	15.3	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	MU	1.814	0.1917	pCi/g	0.2811	N	911.1	3	1.828	IDENTIFIED	8.663	☐	
Annihilation Rad.	HE	0.1142	0.04044	pCi/g	0.05627	N	510.7	1	1.512	IDENTIFIED	35.15	☐	
Barium-137m	HE	0.08378	0.0365	pCi/g	0.07747	N	661.8	2	1.521	IDENTIFIED	43.37	☐	
Bismuth-211	INT	3.925	0.3456	pCi/g	0.4065	Y	351.9	2	1.357	IDENTIFIED	7.268	☐✓ UI	
Bismuth-212	HE	1.813	0.5227	pCi/g	1.377	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.127	0.1056	pCi/g	0.1348	0.200	609.3	2	1.451	IDENTIFIED	7.935	☐	
Cerium-143		953.1	157.6	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.08851	0.03856	pCi/g	0.08184	0.100	661.8	2	1.521	IDENTIFIED	43.37	☐	
Gross Gamma		8.964	1.524	pCi/g	3.384	N		0				☐	
Lead-212	✓	1.816	0.1323	pCi/g	0.1251	0.100	238.7	2	1.676	IDENTIFIED	4.17	☐	
Lead-214	✓	1.425	0.1314	pCi/g	0.1478	0.100	351.9	2	1.357	IDENTIFIED	7.268	☐	
Neptunium-237	HE	0.8073	0.3133	pCi/g	0.572	N	85.96	1	4.316	IDENTIFIED	36.86	☐	
Niobium-95m	HE	0.4111	0.1012	pCi/g	0.3254	N	0	4	0	NOT_IDENTI	0	☐	
Potassium-40	✓	31.13	1.845	pCi/g	0.7853	1.00	1460	1	2.093	IDENTIFIED	3.315	☐	
Radium-224	INT	4.18	0.6823	pCi/g	1.341	Y	241.9	1	1.686	IDENTIFIED	15.36	☐✓ UI	

Radium-226	✓	1.127	0.1056	pCi/g	0.1348	Y	609.3	2	1.451	IDENTIFIED	7.935	☐	
Radium-228	✓	1.814	0.1917	pCi/g	0.2811	0.500	911.1	3	1.828	IDENTIFIED	8.663	☐	
Strontium-85	LA	0.1224	0.02977	pCi/g	0.09803	Y	0	4	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208	✓	0.5163	0.04984	pCi/g	0.06757	0.080	583.1	1	1.743	IDENTIFIED	8.502	☐	
Thorium-228	✓	1.816	0.1323	pCi/g	0.1251	N	238.7	2	1.676	IDENTIFIED	4.17	☐	
Thorium-232	✓	1.814	0.1917	pCi/g	0.2811	N	911.1	3	1.828	IDENTIFIED	8.663	☐	
Total Uranium		8.8096	4.47E-06	ug/g	6.4571	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248841003	03-MAR-10 12:00	18-MAR-10 20:52	15.4	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	1.657	0.2344	pCi/g	0.3448	N	910.8	3	1.279	IDENTIFIED	12.64	☐	
Annihilation Rad.		0.1687	0.04059	pCi/g	0.06542	N	510.4	1	1.902	IDENTIFIED	23.86	☐	
Bismuth-211	INT	4.517	0.3338	pCi/g	0.4299	Y	351.5	2	1.477	IDENTIFIED	6.242	☑	UI
Bismuth-212	LA	3.111	0.7228	pCi/g	1.579	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.594	0.1327	pCi/g	0.1688	0.200	608.7	2	1.491	IDENTIFIED	7.178	☐	
Cadmium-109	INT	5.18	0.5696	pCi/g	1.132	Y	86.75	3	1.441	IDENTIFIED	10.31	☑	UI
Cerium-143		1847	253.6	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.4356	0.1061	pCi/g	0.3799	N	0	7	0	NOT_IDENTI	0	☐	
Gross Gamma		11.67	1.645	pCi/g	4.195	N		0				☐	
Iodine-135	HE	4.50E+15	8.47E+15	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-210	HE	1.306	0.4299	pCi/g	1.11	N	45.86	1	1.109	IDENTIFIED	32.69	☐	
Lead-212	✓	2.113	0.1359	pCi/g	0.123	0.100	238.2	2	1.252	IDENTIFIED	3.467	☐	
Lead-214	✓	1.639	0.1293	pCi/g	0.1536	0.100	351.5	2	1.477	IDENTIFIED	6.242	☐	
Neptunium-237		1.51	0.2294	pCi/g	0.3287	N	86.75	3	1.441	IDENTIFIED	10.31	☐	
Niobium-95m	LA	1.441	0.137	pCi/g	0.4165	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40	✓	38.23	1.65	pCi/g	0.7203	1.00	1460	1	2.09	IDENTIFIED	2.992	☐	
Radium-224	INT	5.607	0.9266	pCi/g	1.319	Y	241.3	1	1.992	IDENTIFIED	15.78	☑	UI
Radium-226	✓	1.594	0.1327	pCi/g	0.1688	Y	608.7	2	1.491	IDENTIFIED	7.178	☐	
Radium-228	✓	1.657	0.2344	pCi/g	0.3448	0.500	910.8	3	1.279	IDENTIFIED	12.64	☐	
Sodium-24		1.36E+06	6.27E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Technetium-99m		6.73E+15	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.5941	0.06243	pCi/g	0.08139	0.080	582.7	1	1.623	IDENTIFIED	9.846	☐	
Thorium-228		2.113	0.1359	pCi/g	0.123	N	238.2	2	1.252	IDENTIFIED	3.467	☐	
Thorium-232		1.657	0.2344	pCi/g	0.3448	N	910.8	3	1.279	IDENTIFIED	12.64	☐	
Tin-126		0.5061	0.05565	pCi/g	0.1105	N	86.75	3	1.441	IDENTIFIED	10.31	☐	
Total Uranium		3.084	1.74E-06	ug/g	2.038	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248841004	03-MAR-10 12:00	18-MAR-10 22:32	15.4	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228		2.031	0.1756	pCi/g	0.1502	N	910.7	3	1.811	IDENTIFIED	5.371	☐	
Annihilation Rad.		0.1415	0.02358	pCi/g	0.02789	N	510.4	1	2.063	IDENTIFIED	16.34	☐	
Bismuth-211	INT	4.381	0.2084	pCi/g	0.2015	Y	351.8	2	1.348	IDENTIFIED	3.511	☑	UI
Bismuth-212		1.956	0.2865	pCi/g	0.7306	N	0	6	0	FAIL_ABUND	0	☐	

Bismuth-214	✓	1.287	0.07564	pCi/g	0.075	0.200	608.9	2	1.673	IDENTIFIED	3.787	☐	
Cadmium-109	INT	4.904	0.4491	pCi/g	0.8731	Y	87.32	3	1.343	IDENTIFIED	7.922	☑ UI	
Cerium-143		1059	132.6	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.09732	0.02086	pCi/g	0.05485	0.100	0	6	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	LA	0.2968	0.05667	pCi/g	0.1803	N	0	6	0	NOT_IDENTI	0	☐	
Gross Gamma		11.64	1.254	pCi/g	2.385	N		0				☐	
Lead-212	✓	1.917	0.07906	pCi/g	0.06107	0.100	238.7	2	1.206	IDENTIFIED	2.005	☐	
Lead-214	✓	1.59	0.08744	pCi/g	0.07328	0.100	351.8	2	1.348	IDENTIFIED	3.511	☐	
Neptunium-237	MU	1.43	0.199	pCi/g	0.2603	N	87.32	3	1.343	IDENTIFIED	7.922	☐	
Niobium-95	HE	0.07145	0.01542	pCi/g	0.04926	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	✓	38.82	1.59	pCi/g	0.343	1.00	1460	1	2.241	IDENTIFIED	1.539	☐	
Radium-224	INT	4.796	0.4255	pCi/g	0.6537	Y	241.6	1	1.621	IDENTIFIED	8.423	☑ UI	
Radium-226	✓	1.287	0.07564	pCi/g	0.075	Y	608.9	2	1.673	IDENTIFIED	3.787	☐	
Radium-228	✓	2.031	0.1756	pCi/g	0.1502	0.500	910.7	3	1.811	IDENTIFIED	5.371	☐	
Strontium-85	LA	0.06468	0.01373	pCi/g	0.04372	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.5481	0.03412	pCi/g	0.03637	0.080	582.8	1	1.658	IDENTIFIED	4.844	☐	
Thorium-228	MU	1.917	0.07906	pCi/g	0.06107	N	238.7	2	1.206	IDENTIFIED	2.005	☐	
Thorium-232	MU	2.031	0.1756	pCi/g	0.1502	N	910.7	3	1.811	IDENTIFIED	5.371	☐	
Tin-126	MU	0.4791	0.04388	pCi/g	0.08585	N	87.32	3	1.343	IDENTIFIED	7.922	☐	
Total Uranium		4.46	2.17E-06	ug/g	2.7214	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248841005	03-MAR-10 12:00	18-MAR-10 22:32	15.4	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	MU	2.308	0.1981	pCi/g	0.1841	N	911.1	3	1.604	IDENTIFIED	6.028	☐	
Annihilation Rad.		0.146	0.02944	pCi/g	0.03623	N	510.7	1	1.912	IDENTIFIED	19.5	☐	
Bismuth-211	INT	4.717	0.3067	pCi/g	0.2268	Y	351.9	2	1.122	IDENTIFIED	3.819	☑ UI	
Bismuth-212	LA	1.77	0.3748	pCi/g	0.9471	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.437	0.1113	pCi/g	0.08604	0.200	609.2	2	1.397	IDENTIFIED	4.825	☐	
Cadmium-109	INT	4.281	0.3376	pCi/g	0.5558	Y	87.2	3	1.031	IDENTIFIED	5.793	☑ UI	
Cerium-143		740.5	108.9	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1301	0.03022	pCi/g	0.07547	0.100	0	8	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.202	0.06102	pCi/g	0.188	N	0	8	0	NOT_IDENTI	0	☐	
Gross Gamma		12.12	1.283	pCi/g	2.826	N		0				☐	
Iodine-133	HE	1877	3227	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Iodine-135	HE	4.44E+15	7.80E+15	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-210	✓	1.339	0.2513	pCi/g	0.4513	N	46.56	1	0.9536	IDENTIFIED	18.07	☐	
Lead-212	✓	2.06	0.1254	pCi/g	0.06379	0.100	238.6	2	0.9983	IDENTIFIED	2.111	☐	
Lead-214	✓	1.712	0.1209	pCi/g	0.08252	0.100	351.9	2	1.122	IDENTIFIED	3.819	☐	
Neptunium-237	MU	1.248	0.1637	pCi/g	0.1609	N	87.2	3	1.031	IDENTIFIED	5.793	☐	
Niobium-95	HE	0.07674	0.01988	pCi/g	0.06414	N	0	8	0	NOT_IDENTI	0	☐	
Potassium-40	✓	39.49	1.841	pCi/g	0.425	1.00	1461	1	2.168	IDENTIFIED	1.897	☐	
Radium-224	INT	4.741	0.4167	pCi/g	0.6845	Y	241.6	1	1.621	IDENTIFIED	7.041	☑ UI	
Radium-226	✓	1.437	0.1113	pCi/g	0.08604	Y	609.2	2	1.397	IDENTIFIED	4.825	☐	
Radium-228	✓	2.308	0.1981	pCi/g	0.1841	0.500	911.1	3	1.604	IDENTIFIED	6.028	☐	
Technetium-99m		1.92E+16	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	

Thallium-208	✓	0.6295	0.04887	pCi/g	0.0451	0.080	583.2	1	1.258	IDENTIFIED	5.344	☐
Thorium-228	MU	2.06	0.1254	pCi/g	0.06379	N	238.6	2	0.9983	IDENTIFIED	2.111	☐
Thorium-232	MU	2.308	0.1981	pCi/g	0.1841	N	911.1	3	1.604	IDENTIFIED	6.028	☐
Thorium-234	✓	1.345	0.3805	pCi/g	0.5841	2.00	63.22	2	0.8759	IDENTIFIED	26.65	☐
Tin-126	MU	0.4182	0.03298	pCi/g	0.05419	N	87.2	3	1.031	IDENTIFIED	5.793	☐
Total Uranium		4.01	1.13E-06	ug/g	0.87076	N		0				☐
Uranium-238	HE	1.345	0.3805	pCi/g	0.5841	N	63.22	2	0.8759	IDENTIFIED	26.65	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248841006	03-MAR-10 12:00	18-MAR-10 22:33	15.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	MU	1.834	0.1834	pCi/g	0.1626	N	911.2	3	1.538	IDENTIFIED	6.478	☐	
Annihilation Rad.	HE	0.06905	0.0251	pCi/g	0.03655	N	511.1	1	1.7	IDENTIFIED	36.07	☐	
Bismuth-211	INT	3.774	0.2434	pCi/g	0.2707	Y	351.8	2	1.376	IDENTIFIED	4.323	☑ UI	
Bismuth-212	MU	1.934	0.3121	pCi/g	0.5921	N	727.5	1	1.786	IDENTIFIED	14.76	☐	
Bismuth-214	✓	1.222	0.0908	pCi/g	0.08514	0.200	609.2	2	1.345	IDENTIFIED	5.455	☐	
Cadmium-109	INT	2.422	0.2935	pCi/g	1.247	Y	87.18	3	1.051	IDENTIFIED	11.18	☑ UI	
Cerium-143		1127	153	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.08638	0.02664	pCi/g	0.06939	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.3284	0.07481	pCi/g	0.2372	N	0	7	0	NOT_IDENTI	0	☐	
Gross Gamma		10.71	1.343	pCi/g	4.533	N		0				☐	
Iodine-133	HE	2685	3063	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.897	0.1043	pCi/g	0.0745	0.100	238.6	2	1.129	IDENTIFIED	2.319	☐	
Lead-214	✓	1.37	0.09607	pCi/g	0.09881	0.100	351.8	2	1.376	IDENTIFIED	4.323	☐	
Neptunium-237	MU	0.7059	0.1131	pCi/g	0.3435	N	87.18	3	1.051	IDENTIFIED	11.18	☐	
Niobium-95	HE	0.07886	0.0191	pCi/g	0.0615	N	0	7	0	NOT_IDENTI	0	☐	
Niobium-95m	LA	0.5892	0.06748	pCi/g	0.2109	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40	✓	36.71	2.108	pCi/g	0.3775	1.00	1461	1	1.791	IDENTIFIED	1.846	☐	
Radium-224	INT	5.083	0.5638	pCi/g	0.7977	Y	241.6	1	1.824	IDENTIFIED	10.16	☑ UI	
Radium-226	✓	1.222	0.0908	pCi/g	0.08514	Y	609.2	2	1.345	IDENTIFIED	5.455	☐	
Radium-228	✓	1.834	0.1834	pCi/g	0.1626	0.500	911.2	3	1.538	IDENTIFIED	6.478	☐	
Strontium-85	LA	0.1144	0.01748	pCi/g	0.05695	Y	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.5749	0.04184	pCi/g	0.04596	0.080	583.1	1	1.434	IDENTIFIED	5.569	☐	
Thorium-228	MU	1.897	0.1043	pCi/g	0.0745	N	238.6	2	1.129	IDENTIFIED	2.319	☐	
Thorium-232	MU	1.834	0.1834	pCi/g	0.1626	N	911.2	3	1.538	IDENTIFIED	6.478	☐	
Tin-126	MU	0.2366	0.02867	pCi/g	0.1196	N	87.18	3	1.051	IDENTIFIED	11.18	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248841007	03-MAR-10 12:00	18-MAR-10 22:56	15.5	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	MU	1.802	0.1817	pCi/g	0.204	N	910.5	3	1.784	IDENTIFIED	7.829	☐	
Annihilation Rad.		0.1434	0.03311	pCi/g	0.0433	N	510.5	1	2.182	IDENTIFIED	22.87	☐	
Bismuth-211	INT	3.769	0.251	pCi/g	0.2747	Y	351.4	2	1.386	IDENTIFIED	5.355	☑ UI	
Bismuth-212	LA	1.816	0.3175	pCi/g	0.9898	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.299	0.09458	pCi/g	0.104	0.200	608.8	2	1.598	IDENTIFIED	5.932	☐	

Cadmium-109 INT	4.572	0.3789	pCi/g	0.7284	Y	86.71	3	1.429	IDENTIFIED	7.357	☑ UI	
Cerium-143	1429	187.6	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-135	0.47	0.1075	pCi/g	0.2067	N	269.6	1	1.594	IDENTIFIED	22.24	☐	
Europium-155 HE	0.1897	0.04684	pCi/g	0.1338	N	104.9	1	1.744	IDENTIFIED	24.1	☐	
Gross Gamma	10.25	1.252	pCi/g	3.435	N		0				☐	
Iodine-135 HE	7.00E+15	8.26E+15	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Lead-210 HE	0.8233	0.3262	pCi/g	0.696	N	45.86	1	1.171	IDENTIFIED	39.44	☐	
Lead-212	1.686	0.1018	pCi/g	0.07443	0.100	238.2	2	1.19	IDENTIFIED	2.68	☐	
Lead-214	1.368	0.0986	pCi/g	0.09993	0.100	351.4	2	1.386	IDENTIFIED	5.355	☐	
Neptunium-237	1.333	0.1781	pCi/g	0.2114	N	86.71	3	1.429	IDENTIFIED	7.357	☐	
Niobium-95m	1.191	0.09666	pCi/g	0.2654	N	0	4	0	NOT_IDENTI	0	☐	
Potassium-40	34.3	1.318	pCi/g	0.4853	1.00	1460	1	2.157	IDENTIFIED	2.256	☐	
Radium-224 INT	4.681	0.5444	pCi/g	0.7978	Y	241.3	1	1.883	IDENTIFIED	10.55	☑ UI	
Radium-226	1.299	0.09458	pCi/g	0.104	Y	608.8	2	1.598	IDENTIFIED	5.932	☐	
Radium-228	1.802	0.1817	pCi/g	0.204	0.500	910.5	3	1.784	IDENTIFIED	7.829	☐	
Thallium-208	0.49	0.03776	pCi/g	0.05577	0.080	582.7	1	1.576	IDENTIFIED	6.776	☐	
Thorium-228	1.686	0.1018	pCi/g	0.07443	N	238.2	2	1.19	IDENTIFIED	2.68	☐	
Thorium-232	1.802	0.1817	pCi/g	0.204	N	910.5	3	1.784	IDENTIFIED	7.829	☐	
Thorium-234	1.252	0.4057	pCi/g	0.8432	2.00	62.68	2	1.417	IDENTIFIED	31.11	☐	
Tin-126	0.4467	0.03701	pCi/g	0.07107	N	86.71	3	1.429	IDENTIFIED	7.357	☐	
Total Uranium	3.7727	1.21E-06	ug/g	1.2567	N		0				☐	
Uranium-238 HE	1.252	0.4057	pCi/g	0.8432	N	62.68	2	1.417	IDENTIFIED	31.11	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248841008	03-MAR-10 12:00	18-MAR-10 23:10	15.5	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	1.851	0.1836	pCi/g	0.2199	N	911.2	3	1.709	IDENTIFIED	7.85	☐	
Annihilation Rad.	0.1198	0.03336	pCi/g	0.04724	N	510.9	1	2.217	IDENTIFIED	27.52	☐	
Bismuth-211 INT	4.579	0.3158	pCi/g	0.3202	Y	351.9	2	1.475	IDENTIFIED	4.78	☑ UI	
Bismuth-212	2.681	0.4557	pCi/g	0.8077	N	727.6	1	1.403	IDENTIFIED	15.82	☐	
Bismuth-214	1.388	0.1046	pCi/g	0.1072	0.200	609.3	2	1.636	IDENTIFIED	5.656	☐	
Cadmium-109 INT	2.604	0.4847	pCi/g	1.388	Y	87.36	3	0.972	IDENTIFIED	17.56	☑ UI	
Cerium-143	1384	193.4	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-134	0.1287	0.03319	pCi/g	0.09242	0.100	0	6	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135 HE	0.3106	0.09066	pCi/g	0.282	N	0	6	0	NOT_IDENTI	0	☐	
Gross Gamma	11.8	1.408	pCi/g	3.616	N		0				☐	
Lead-212	2.129	0.1394	pCi/g	0.09354	0.100	238.7	2	1.358	IDENTIFIED	2.679	☐	
Lead-214	1.662	0.1234	pCi/g	0.1209	0.100	351.9	2	1.475	IDENTIFIED	4.78	☐	
Neptunium-237 HE	0.7591	0.1622	pCi/g	0.4436	N	87.36	3	0.972	IDENTIFIED	17.56	☐	
Niobium-95m	0.6243	0.08385	pCi/g	0.2552	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	41.39	2.21	pCi/g	0.4622	1.00	1461	1	2.152	IDENTIFIED	2.091	☐	
Radium-224 INT	5.5	0.7378	pCi/g	1.002	Y	241.6	1	1.975	IDENTIFIED	12.23	☑ UI	
Radium-226	1.388	0.1046	pCi/g	0.1072	Y	609.3	2	1.636	IDENTIFIED	5.656	☐	
Radium-228	1.851	0.1836	pCi/g	0.2199	0.500	911.2	3	1.709	IDENTIFIED	7.85	☐	
Sodium-24 HE	5.79E+05	5.20E+05	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Strontium-85	0.186	0.0243	pCi/g	0.07965	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.

Thallium-208	✓	0.6458	0.04868	pCi/g	0.0557	0.080	583.1	1	1.602	IDENTIFIED	5.992	☐
Thorium-228	MU	2.129	0.1394	pCi/g	0.09354	N	238.7	2	1.358	IDENTIFIED	2.679	☐
Thorium-232	MU	1.851	0.1836	pCi/g	0.2199	N	911.2	3	1.709	IDENTIFIED	7.85	☐
Tin-126	MU	0.2544	0.04735	pCi/g	0.1366	N	87.36	3	0.972	IDENTIFIED	17.56	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248841009	03-MAR-10 12:00	18-MAR-10 23:11	15.5	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	MU	1.992	0.1669	pCi/g	0.1509	N	911.6	3	1.516	IDENTIFIED	5.543	☐	
Annihilation Rad.		0.1309	0.02521	pCi/g	0.02978	N	511.3	1	1.806	IDENTIFIED	18.69	☐	
Bismuth-211	INT	3.877	0.2407	pCi/g	0.2163	Y	352.1	2	1.206	IDENTIFIED	3.958	☑ UI	
Bismuth-212	LA	1.923	0.3212	pCi/g	0.8391	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.217	0.08741	pCi/g	0.07683	0.200	609.8	2	1.413	IDENTIFIED	4.517	☐	
Cadmium-109	INT	3.873	0.4054	pCi/g	0.738	Y	87.36	3	1.46	IDENTIFIED	9.359	☑ UI	
Cerium-143		478.5	82.09	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1046	0.03034	pCi/g	0.06317	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		10.5	1.208	pCi/g	2.82	N		0				☐	
Iodine-133	HE	1638	2756	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Iodine-135	HE	3.19E+15	6.42E+15	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.799	0.1042	pCi/g	0.06283	0.100	238.8	2	1.13	IDENTIFIED	2.248	☐	
Lead-214	✓	1.407	0.09558	pCi/g	0.07867	0.100	352.1	2	1.206	IDENTIFIED	3.958	☐	
Mercury-203	INT	0.07109	0.02153	pCi/g	0.0381	0.100	278	1	1.541	IDENTIFIED	29.87	☑ UI	
Neptunium-237	MU	1.129	0.1673	pCi/g	0.2174	N	87.36	3	1.46	IDENTIFIED	9.359	☐	
Potassium-40	✓	36.08	1.702	pCi/g	0.2921	1.00	1462	1	1.873	IDENTIFIED	1.799	☐	
Radium-224	INT	4.138	0.4377	pCi/g	0.6732	Y	241.8	1	1.631	IDENTIFIED	9.406	☑ UI	
Radium-226	✓	1.217	0.08741	pCi/g	0.07683	Y	609.8	2	1.413	IDENTIFIED	4.517	☐	
Radium-228	✓	1.992	0.1669	pCi/g	0.1509	0.500	911.6	3	1.516	IDENTIFIED	5.543	☐	
Strontium-85	LA	0.08452	0.01383	pCi/g	0.04985	Y	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m		2.38E+14	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.564	0.04016	pCi/g	0.03865	0.080	583.6	1	1.418	IDENTIFIED	4.931	☐	
Thorium-228	MU	1.799	0.1042	pCi/g	0.06283	N	238.8	2	1.13	IDENTIFIED	2.248	☐	
Thorium-232	MU	1.992	0.1669	pCi/g	0.1509	N	911.6	3	1.516	IDENTIFIED	5.543	☐	
Thorium-234	✓	1.45	0.5276	pCi/g	1.201	2.00	63.47	2	0.8706	IDENTIFIED	35.29	☐	
Tin-126	MU	0.3784	0.03961	pCi/g	0.07231	N	87.36	3	1.46	IDENTIFIED	9.359	☐	
Total Uranium		4.2875	1.57E-06	ug/g	1.7887	N		0				☐	
Uranium-238	HE	1.45	0.5276	pCi/g	1.201	N	63.47	2	0.8706	IDENTIFIED	35.29	☐	

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248841010	03-MAR-10 12:00	19-MAR-10 12:25	16	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	MU	2.014	0.1944	pCi/g	0.1916	N	912	3	1.459	IDENTIFIED	7.839	☐	
Annihilation Rad.	HE	0.08396	0.03208	pCi/g	0.0435	N	511.3	1	1.608	IDENTIFIED	38.11	☐	
Barium-137m	MU	0.2702	0.03986	pCi/g	0.05651	N	662.3	2	1.404	IDENTIFIED	14.55	☐	
Bismuth-211	INT	4.004	0.2671	pCi/g	0.3049	Y	352.1	2	1.177	IDENTIFIED	5.755	☑ UI	
Bismuth-212	HE	1.83	0.4075	pCi/g	1.136	N	0	7	0	FAIL_ABUND	0	☐	

Bismuth-214	V	1.277	0.0918	pCi/g	0.1026	0.200	609.9	2	1.476	IDENTIFIED	6.162	☐	
Cadmium-109	INT	3.563	0.5344	pCi/g	1.221	Y	87.32	3	1.249	IDENTIFIED	13.76	☑ UI	
Cerium-143		531	117.7	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1353	0.02583	pCi/g	0.1006	0.100	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Cesium-137	V	0.2855	0.04212	pCi/g	0.05969	0.100	662.3	2	1.404	IDENTIFIED	14.55	☐	
Gross Gamma		10.28	1.27	pCi/g	3.335	N		0				☐	
Iodine-133	HE	3692	5423	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Iodine-135		2.68E+16	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212	V	1.672	0.08692	pCi/g	0.09417	0.100	238.8	2	1.128	IDENTIFIED	3.266	☐	
Lead-214	V	1.453	0.1049	pCi/g	0.1109	0.100	352.1	2	1.177	IDENTIFIED	5.755	☐	
Neptunium-237	MU	1.038	0.1899	pCi/g	0.3655	N	87.32	3	1.249	IDENTIFIED	13.76	☐	
Potassium-40	V	31.91	1.475	pCi/g	0.4638	1.00	1462	1	2.021	IDENTIFIED	2.957	☐	
Radium-224	INT	4.887	0.5235	pCi/g	1.009	Y	241.7	1	1.814	IDENTIFIED	10.18	☑ UI	
Radium-226	V	1.277	0.0918	pCi/g	0.1026	Y	609.9	2	1.476	IDENTIFIED	6.162	☐	
Radium-228	V	2.014	0.1944	pCi/g	0.1916	0.500	912	3	1.459	IDENTIFIED	7.839	☐	
Sodium-24	HE	2.58E+05	9.39E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Technetium-99m		2.24E+17	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-208	V	0.5079	0.03948	pCi/g	0.05229	0.080	583.6	1	1.422	IDENTIFIED	7.111	☐	
Thorium-228	MU	1.672	0.08692	pCi/g	0.09417	N	238.8	2	1.128	IDENTIFIED	3.266	☐	
Thorium-232	MU	2.014	0.1944	pCi/g	0.1916	N	912	3	1.459	IDENTIFIED	7.839	☐	
Thorium-234	V	4.584	1.586	pCi/g	2.725	2.00	62.84	2	1.905	IDENTIFIED	33.1	☐	
Tin-126	MU	0.3478	0.05217	pCi/g	0.1202	N	87.32	3	1.249	IDENTIFIED	13.76	☐	
Total Uranium		13.593	4.72E-06	ug/g	4.057	N		0				☐	
Uranium-238	HE	4.584	1.586	pCi/g	2.725	N	62.84	2	1.905	IDENTIFIED	33.1	☐	

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248841011	03-MAR-10 12:00	19-MAR-10 13:01	16	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	MU	1.82	0.2052	pCi/g	0.2788	N	910.6	3	1.608	IDENTIFIED	9.32	☐	
Annihilation Rad.	HE	0.112	0.04076	pCi/g	0.05844	N	510.4	1	1.619	IDENTIFIED	36.26	☐	
Bismuth-211	INT	3.689	0.2992	pCi/g	0.3998	Y	351.4	2	1.495	IDENTIFIED	7.078	☑ UI	
Bismuth-212	HE	2.297	0.4472	pCi/g	1.433	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	V	1.213	0.1133	pCi/g	0.1235	0.200	608.8	2	1.456	IDENTIFIED	8.331	☐	
Cadmium-109	INT	4.25	0.5136	pCi/g	1.102	Y	86.7	3	1.437	IDENTIFIED	11.47	☑ UI	
Cerium-143		2437	351.6	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1624	0.04428	pCi/g	0.118	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.4306	0.1312	pCi/g	0.2883	N	269.3	1	1.631	IDENTIFIED	29.99	☐	
Gross Gamma		10.93	1.632	pCi/g	4.542	N		0				☐	
Lead-210	HE	1.314	0.4555	pCi/g	0.959	N	45.88	1	1.191	IDENTIFIED	34.46	☐	
Lead-212	V	1.975	0.1252	pCi/g	0.1068	0.100	238.2	2	1.25	IDENTIFIED	3.297	☐	
Lead-214	V	1.339	0.1147	pCi/g	0.1404	0.100	351.4	2	1.495	IDENTIFIED	7.078	☐	
Neptunium-237	MU	1.238	0.198	pCi/g	0.3197	N	86.7	3	1.437	IDENTIFIED	11.47	☐	
Niobium-95m	LA	1.309	0.1252	pCi/g	0.3854	N	0	4	0	NOT_IDENTI	0	☐	
Potassium-40	V	35.43	1.502	pCi/g	0.3725	1.00	1460	1	1.904	IDENTIFIED	2.882	☐	
Radium-224	INT	4.642	0.7079	pCi/g	1.145	Y	241.3	1	1.846	IDENTIFIED	14.44	☑ UI	
Radium-226	V	1.213	0.1133	pCi/g	0.1235	Y	608.8	2	1.456	IDENTIFIED	8.331	☐	

Radium-228	✓	1.82	0.2052	pCi/g	0.2788	0.500	910.6	3	1.608	IDENTIFIED	9.32	☐
Thallium-208	✓	0.5542	0.04898	pCi/g	0.07179	0.080	582.7	1	1.629	IDENTIFIED	8.039	☐
Thorium-228	M	1.975	0.1252	pCi/g	0.1068	N	238.2	2	1.25	IDENTIFIED	3.297	☐
Thorium-232	M	1.82	0.2052	pCi/g	0.2788	N	910.6	3	1.608	IDENTIFIED	9.32	☐
Thorium-234	✓	2.52	0.5698	pCi/g	1.227	2.00	62.64	2	1.312	IDENTIFIED	20.71	☐
Tin-126	M	0.4148	0.05013	pCi/g	0.1075	N	86.7	3	1.437	IDENTIFIED	11.47	☐
Total Uranium		7.5288	1.70E-06	ug/g	1.8279	N		0				☐
Uranium-238	M	2.52	0.5698	pCi/g	1.227	N	62.64	2	1.312	IDENTIFIED	20.71	☐

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065180		19-MAR-10 13:01	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Iodine-133	HE	20.66	19.88	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Iodine-135	HE	1.06E+09	1.27E+09	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Sodium-24	HE	304.9	426.1	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	2.46E+09	2.16E+09	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065181	02-MAR-10 12:00	19-MAR-10 13:02	17	DUP	LOAD	1		LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	M	1.789	0.2101	pCi/g	0.2432	N	911.4	3	1.526	IDENTIFIED	10.09	☐	
Annihilation Rad.		0.1307	0.03826	pCi/g	0.04969	N	511.1	1	1.516	IDENTIFIED	28.94	☐	
Barium-137m	M	0.2485	0.04629	pCi/g	0.06589	N	662.2	2	1.547	IDENTIFIED	18.1	☐	
Bismuth-211	INT	3.21	0.262	pCi/g	0.3769	Y	352	2	1.261	IDENTIFIED	6.82	☑ VI	
Bismuth-212	HE	1.502	0.4848	pCi/g	1.247	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.174	0.1035	pCi/g	0.1296	0.200	609.6	2	1.417	IDENTIFIED	7.116	☐	
Cadmium-109	INT	3.207	0.4776	pCi/g	1.16	Y	87.25	3	1.109	IDENTIFIED	14.14	☑ VI	
Cerium-143		1229	258.7	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.2625	0.04891	pCi/g	0.06961	0.100	662.2	2	1.547	IDENTIFIED	18.1	☐	
Gross Gamma		9.348	1.436	pCi/g	3.336	N		0				☐	
Iodine-133	HE	1501	14550	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.544	0.09639	pCi/g	0.09781	0.100	238.8	2	1.099	IDENTIFIED	3.984	☐	
Lead-214	✓	1.165	0.1004	pCi/g	0.1355	0.100	352	2	1.261	IDENTIFIED	6.82	☐	
Neptunium-237	M	0.9328	0.1699	pCi/g	0.3786	N	87.25	3	1.109	IDENTIFIED	14.14	☐	
Potassium-40	✓	34.91	1.824	pCi/g	0.5055	1.00	1461	1	2.064	IDENTIFIED	2.979	☐	
Radium-224	INT	3.627	0.6362	pCi/g	1.049	Y	241.8	1	1.602	IDENTIFIED	17.02	☑ VI	
Radium-226	✓	1.174	0.1035	pCi/g	0.1296	Y	609.6	2	1.417	IDENTIFIED	7.116	☐	
Radium-228	✓	1.789	0.2101	pCi/g	0.2432	0.500	911.4	3	1.526	IDENTIFIED	10.09	☐	
Sodium-24	HE	1.90E+06	3.40E+06	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Technetium-99m		1.12E+18	0	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4874	0.0512	pCi/g	0.0617	0.080	583.4	1	1.551	IDENTIFIED	9.355	☐	
Thorium-228	M	1.544	0.09639	pCi/g	0.09781	N	238.8	2	1.099	IDENTIFIED	3.984	☐	
Thorium-232	M	1.789	0.2101	pCi/g	0.2432	N	911.4	3	1.526	IDENTIFIED	10.09	☐	
Tin-126	M	0.3126	0.04655	pCi/g	0.1133	N	87.25	3	1.109	IDENTIFIED	14.14	☐	
Total Uranium		4.2484	2.17E-06	ug/g	2.4553	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065182		18-MAR-10 22:04	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	HE	0.9475	0.3246	pCi/g	0.842	N	0	7	0	FAIL_ABUND	0	☐	
Americium-241	√	13.1	0.9701	pCi/g	0.9921	0.200	59.66	1	1.285	IDENTIFIED	4.508	☐	82.4 %
Annihilation Rad.	HE	0.1721	0.05992	pCi/g	0.1011	N	511.3	1	2.392	IDENTIFIED	34.55	☐	
Barium-137m		5.445	0.2685	pCi/g	0.1331	N	661.6	2	1.772	IDENTIFIED	2.725	☐	
Bismuth-211		2.234	0.3974	pCi/g	0.8588	Y	352	2	1.266	IDENTIFIED	17.08	☐	
Bismuth-212	HE	2.461	0.893	pCi/g	2.233	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214		0.7332	0.1406	pCi/g	0.2354	0.200	609.6	2	1.695	IDENTIFIED	18.52	☐	
Cadmium-109		25.87	2.257	pCi/g	3.059	Y	88.14	2	1.19	IDENTIFIED	6.142	☐	
Cesium-137	√	5.752	0.2841	pCi/g	0.1406	0.100	661.6	2	1.772	IDENTIFIED	2.725	☐	103.7 %
Cobalt-57		0.3664	0.05501	pCi/g	0.0791	N	122.4	1	1.687	IDENTIFIED	14.15	☐	
Cobalt-60	√	6.589	0.3675	pCi/g	0.1305	0.100	1332	1	2.124	IDENTIFIED	2.831	☐	104.1 %
Gross Gamma		26.87	3.083	pCi/g	4.342	N		0				☐	
Iodine-135	HE	2.82E+08	6.38E+08	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212		1.142	0.1194	pCi/g	0.1991	0.100	238.7	2	1.609	IDENTIFIED	8.575	☐	
Lead-214		0.8109	0.1459	pCi/g	0.2831	0.100	352	2	1.266	IDENTIFIED	17.08	☐	
Neptunium-237		5.838	0.7998	pCi/g	1.468	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40		1.594	0.2843	pCi/g	0.5671	1.00	1460	1	2.125	IDENTIFIED	17.15	☐	
Radium-224		3.655	1.177	pCi/g	2.133	Y	241.7	1	2.04	IDENTIFIED	31.71	☐	
Radium-226		0.7332	0.1406	pCi/g	0.2354	Y	609.6	2	1.695	IDENTIFIED	18.52	☐	
Radium-228		0.9475	0.3246	pCi/g	0.842	0.500	0	7	0	FAIL_ABUND	0	☐	
Silver-110m	HE	0.2987	0.05534	pCi/g	0.1923	N	0	7	0	NOT_IDENTI	0	☐	
Thallium-208		0.3852	0.07491	pCi/g	0.1193	0.080	583.5	1	1.432	IDENTIFIED	18.9	☐	
Thorium-228		1.142	0.1194	pCi/g	0.1991	N	238.7	2	1.609	IDENTIFIED	8.575	☐	
Thorium-232	HE	0.9475	0.3246	pCi/g	0.842	N	0	7	0	FAIL_ABUND	0	☐	
Tin-126		2.552	0.2227	pCi/g	0.3042	N	88.14	2	1.19	IDENTIFIED	6.142	☐	

*** = Number of isotopes identified with a keyline at this energy.

GEL QUALS

Batch ID: 962629

Report run on: March 23, 2010 10:29 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
248788001-1 18-MAR-2010 13:15	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.266			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.024			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1518			
248788002-1 18-MAR-2010 13:16	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.849			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.789			
248788003-1 18-MAR-2010 13:17	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.487			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.473			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.088			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.09555			
248788004-1 18-MAR-2010 13:17	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.487			
	Cadmium-109	UI	UI	UI	Data rejected due to low abundance.		1.52			
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.445			
	Thorium-234	UI	UI	UI	Data rejected due to high counting uncertainty.		1.569		2	2
248788005-1 18-MAR-2010 13:18	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.262			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.387			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.888			
248788006-1 18-MAR-2010 13:19	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.254			
	Cadmium-109	UI	UI	UI	Data rejected due to high peak-width.		2.892			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.454			

GEL QUALS

Batch ID: 962629

Report run on: March 23, 2010 10:29 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
248788007-1 18-MAR-2010 13:20	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.592			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.143			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.687			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1541			
248788008-1 18-MAR-2010 13:20	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.526			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.065			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1063		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.306			
248841001-1 18-MAR-2010 16:45	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.691			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.268			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1342		.1	.1
	Mercury-203	UI	UI	UI	Data rejected due to interference.		.1038		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.277			
248841002-1 18-MAR-2010 18:24	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.925			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.18			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1224			
248841003-1 18-MAR-2010 20:52	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.517			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		5.18			
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.607			

GEL QUALS

Batch ID: 962629

Report run on: March 23, 2010 10:29 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
248841004-1 18-MAR-2010 22:32	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.381			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.904			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.09732		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.796			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.06468			
248841005-1 18-MAR-2010 22:32	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.717			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.281			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1301		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.741			
248841006-1 18-MAR-2010 22:33	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.774			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.422			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.08638		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.083			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1144			
248841007-1 18-MAR-2010 22:56	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.769			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.572			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.681			
248841008-1 18-MAR-2010 23:10	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.579			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.604			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1287		.1	.1

GEL QUALS

Batch ID: 962629

Report run on: March 23, 2010 10:29 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
248841008-1 18-MAR-2010 23:10	Radium-224	UI	UI	UI	Data rejected due to interference.		5.5			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.186			
248841009-1 18-MAR-2010 23:11	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.877			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.873			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1046		.1	.1
	Mercury-203	UI	UI	UI	Data rejected due to interference.		.07109		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.138			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.08452			
248841010-1 19-MAR-2010 12:25	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.004			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.563			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1353		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.887			
248841011-1 19-MAR-2010 13:01	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.689			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.25			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1624		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.642			
1202065181-1 DUP 19-MAR-2010 13:02	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.21			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.207			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.627			

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertanty	Units	DL	RDL
962629	248841011	SAMPLE	19-MAR-10	Radium-226	1.213	0.1133	pCi/g	0.06181	Y
				Radium-228	1.82	0.2052	pCi/g	0.1395	0.500
				Strontium-85	0.07535	0.02574	pCi/g	0.04154	Y
				Thallium-208	0.5542	0.04898	pCi/g	0.03592	0.080
				Thorium-234	2.52	0.5698	pCi/g	0.6137	2.00
962629	1202065180	MB	19-MAR-10	Bismuth-211	0.1381	0.06883	pCi/g	0.1217	Y
				Iodine-133	20.66	19.88	pCi/g	0	N
				Iodine-135	1.06E+09	1.27E+09	pCi/g	0	N
				Lead-214	0.05958	0.02512	pCi/g	0.04495	0.100
				Sodium-24	304.9	426.1	pCi/g	0	N
				Technetium-99m	2.46E+09	2.16E+09	pCi/g	0	N
962629	1202065181	DUP	19-MAR-10	Bismuth-211	3.21	0.262	pCi/g	0.1886	Y
				Bismuth-214	1.174	0.1035	pCi/g	0.06482	0.200
				Cadmium-109	3.207	0.4776	pCi/g	0.5804	Y
				Cerium-143	1229	258.7	pCi/g	0	N
				Cesium-134	0.08149	0.02752	pCi/g	0.05011	0.100
				Cesium-137	0.2625	0.04891	pCi/g	0.03482	0.100
				Gross Gamma	9.348	1.436	pCi/g	1.618	N
				Iodine-133	1501	14550	pCi/g	0	N
				Lead-212	1.544	0.09639	pCi/g	0.04894	0.100
				Lead-214	1.165	0.1004	pCi/g	0.06778	0.100
				Mercury-203	0.04408	0.02156	pCi/g	0.03788	0.100
				Potassium-40	34.91	1.824	pCi/g	0.2529	1.00
				Radium-224	3.627	0.6362	pCi/g	0.5246	Y
				Radium-226	1.174	0.1035	pCi/g	0.06482	Y
				Radium-228	1.789	0.2101	pCi/g	0.1217	0.500
				Sodium-22	0.05586	0.0257	pCi/g	0.04665	0.080
				Sodium-24	1.90E+06	3.40E+06	pCi/g	0	N
				Strontium-85	0.07101	0.02541	pCi/g	0.04173	Y
				Technetium-99m	1.12E+18	0	pCi/g	0	N
				Tellurium-125m	9.437	4.805	pCi/g	8.214	N
				Thallium-208	0.4874	0.0512	pCi/g	0.03087	0.080
				Thorium-234	1.419	0.7279	pCi/g	0.8249	2.00
962629	1202065182	LCS	18-MAR-10	Americium-241	13.1	0.9701	pCi/g	0.4963	0.200
				Barium-137m	5.445	0.2685	pCi/g	0.06661	N
				Bismuth-211	2.234	0.3974	pCi/g	0.4296	Y
				Bismuth-214	0.7332	0.1406	pCi/g	0.1178	0.200

LSE 3/20/10

LSE 3/20/10

VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 15:22:34.59

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248788008.CNF;1
Sample date       : 2-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 13:20:58
Sample ID         : G248788008           Sample quantity  : 1.14630E+02 GRAM
Detector name     : GAM02                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:03.86  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	74.57	276	318	0.98	148.35	141	18	3.83E-02	11.6	2.05E+00
2	2	76.79	482	315	1.09	152.78	141	18	6.70E-02	7.9	
3	5	86.93	177	256	0.86	173.08	170	20	2.45E-02	15.1	5.63E+00
4	5	92.49*	208	368	1.51	184.21	170	20	2.89E-02	20.9	
5	0	143.54*	51	223	0.84	286.36	283	7	7.12E-03	53.6	
6	0	185.23*	132	343	0.97	369.78	364	12	1.84E-02	31.3	
7	0	209.47	83	258	3.04	418.28	414	10	1.15E-02	38.0	
8	6	238.26*	966	138	1.25	475.90	469	22	1.34E-01	3.9	1.49E+00
9	6	241.20	238	227	1.84	481.77	469	22	3.31E-02	17.3	
10	0	294.83	303	201	1.28	589.10	584	12	4.20E-02	11.0	
11	0	299.88	57	109	0.94	599.20	596	7	7.92E-03	33.2	
12	0	337.82	133	175	1.25	675.12	670	10	1.84E-02	20.6	
13	0	351.54*	466	173	1.28	702.57	697	11	6.48E-02	7.3	
14	0	510.40*	119	149	2.21	1020.47	1012	17	1.66E-02	28.1	
15	0	582.80*	268	96	1.37	1165.36	1160	13	3.73E-02	9.8	
16	0	608.88*	315	66	1.41	1217.56	1212	11	4.38E-02	7.6	
17	0	661.06*	177	66	1.66	1321.98	1316	12	2.46E-02	12.1	
18	0	726.75*	78	42	1.84	1453.45	1448	10	1.08E-02	20.3	
19	0	910.26*	195	31	1.69	1820.71	1813	14	2.70E-02	9.8	
20	0	964.13	35	32	0.67	1928.53	1925	8	4.87E-03	32.7	
21	0	968.40*	131	27	1.34	1937.07	1932	12	1.82E-02	12.2	
22	0	1119.79*	80	54	1.65	2240.06	2233	12	1.11E-02	22.1	
23	0	1459.97*	1094	32	2.06	2920.94	2913	17	1.52E-01	3.3	
24	0	1587.41	21	20	2.08	3176.04	3168	16	2.87E-03	53.2	
25	0	1763.50*	47	18	2.53	3528.52	3517	18	6.47E-03	27.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-MAR-2010 15:22:37

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248788008.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 2-MAR-2010 12:00:00 Acquisition date : 18-MAR-2010 13:20:58
Sample ID : G248788008 Sample quantity : 114.63 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA2 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:03.86 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.269E+01	3.777E+00	7.927E-01	7.536E-02	41.236
CD-109	+	88.03	*	3.065E+00	9.719E-01	1.365E+00	1.370E-01	2.246
SN-126		64.28		-8.144E-01	6.400E-01	1.026E+00	1.522E-01	-0.794
	+	86.94		1.244E+00	6.393E-01	5.613E-01	2.338E-01	2.216
	+	87.57	*	2.992E-01	9.487E-02	1.340E-01	1.339E-02	2.234
BA-137M	+	661.66	*	3.120E-01	8.019E-02	7.008E-02	6.038E-03	4.452
CS-137	+	661.66	*	3.296E-01	8.473E-02	7.403E-02	6.391E-03	4.452
TL-208		277.37		5.383E-01	4.542E-01	7.949E-01	1.221E-01	0.677
	+	583.19	*	4.511E-01	9.927E-02	6.777E-02	6.782E-03	6.656
		860.56		4.014E-01	3.928E-01	6.797E-01	7.163E-02	0.591
BI-211		72.87		3.379E+00	3.367E+00	5.875E+00	5.057E-01	0.575
	+	351.06	*	3.526E+00	6.549E-01	4.040E-01	4.662E-02	8.727
PB-212	+	74.82		2.171E+00	5.783E-01	6.143E-01	8.040E-02	3.535
	+	77.11		2.149E+00	3.891E-01	3.485E-01	3.117E-02	6.166
	+	238.63	*	1.626E+00	2.411E-01	1.063E-01	1.342E-02	15.295
	+	300.09		1.501E+00	1.019E+00	1.462E+00	1.989E-01	1.027
BI-214	+	609.32	*	1.025E+00	1.896E-01	1.318E-01	1.399E-02	7.780
	+	1120.29		1.352E+00	6.150E-01	6.196E-01	6.776E-02	2.183
	+	1764.49		1.107E+00	6.128E-01	4.064E-01	3.444E-02	2.723
PB-214	+	74.82		3.848E+00	1.002E+00	1.089E+00	1.286E-01	3.535
	+	77.11		3.788E+00	7.538E-01	6.144E-01	7.475E-02	6.166
	+	242.00		2.435E+00	9.025E-01	6.472E-01	8.519E-02	3.763
	+	295.22		1.410E+00	3.666E-01	2.623E-01	3.636E-02	5.376
	+	351.93	*	1.280E+00	2.479E-01	1.470E-01	1.877E-02	8.708
RA-224	+	240.99	*	4.306E+00	1.576E+00	1.140E+00	1.346E-01	3.776
RA-226	+	609.32	*	1.025E+00	1.896E-01	1.318E-01	1.399E-02	7.780
	+	1120.29		1.352E+00	6.150E-01	6.196E-01	6.776E-02	2.183
	+	1764.49		1.107E+00	6.128E-01	4.064E-01	3.444E-02	2.723
AC-228	+	338.32		1.117E+00	6.600E-01	4.732E-01	2.007E-01	2.360
	+	911.20	*	1.573E+00	3.680E-01	2.651E-01	3.388E-02	5.935
	+	968.97		1.826E+00	6.348E-01	4.101E-01	1.018E-01	4.453
RA-228	+	338.32		1.117E+00	6.600E-01	4.732E-01	2.007E-01	2.360
	+	911.20	*	1.573E+00	3.680E-01	2.651E-01	3.388E-02	5.935
	+	968.97		1.826E+00	6.348E-01	4.101E-01	1.018E-01	4.453

Sample ID : G248788008 Acquisition date : 18-MAR-2010 13:20:58

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	74.82		2.171E+00	5.389E-01	6.143E-01	5.426E-02	3.535
	+	77.11		2.149E+00	3.891E-01	3.485E-01	3.117E-02	6.166
	+	238.63	*	1.626E+00	2.411E-01	1.063E-01	1.342E-02	15.295
	+	300.09		1.501E+00	1.363E+00	1.462E+00	9.039E-01	1.027
TH-232	+	338.32		1.117E+00	4.773E-01	4.732E-01	5.441E-02	2.360
	+	911.20	*	1.573E+00	3.680E-01	2.651E-01	3.388E-02	5.935
	+	968.97		1.826E+00	6.348E-01	4.101E-01	1.018E-01	4.453
U-235		89.96		1.706E+00	9.954E-01	1.604E+00	4.017E-01	1.064
	+	93.35		2.180E+00	1.044E+00	8.341E-01	1.953E-01	2.614
	+	143.76	*	2.538E-01	2.756E-01	3.477E-01	5.984E-02	0.730
		163.33		-1.991E-01	5.251E-01	8.061E-01	1.509E-01	-0.247
	+	185.72		1.430E-01	9.091E-02	7.021E-02	7.493E-03	2.037
		205.31		9.747E-02	6.248E-01	8.854E-01	1.722E-01	0.110
NP-237	+	86.48	*	8.927E-01	3.394E-01	4.557E-01	1.056E-01	1.959
		95.86		-4.584E-01	1.040E+00	1.507E+00	3.649E-01	-0.304
ANH-511	+	511.00	*	1.538E-01	8.779E-02	5.727E-02	5.677E-03	2.685

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.787E-01	3.934E-01	6.567E-01	6.963E-02	0.272
NA-22		1274.54	*	-6.917E-03	5.781E-02	9.395E-02	8.330E-03	-0.074
NA-24		1368.63	*	-1.054E+00	5.781E-02	Half-Life too short		
SC-46		889.28	*	-2.919E-02	5.067E-02	7.731E-02	7.860E-03	-0.378
	+	1120.55		2.306E-01	1.037E-01	1.610E-01	1.391E-02	1.432
V-48		944.13		1.063E-01	1.231E+00	2.003E+00	2.005E-01	0.053
		983.53	*	-3.480E-02	9.593E-02	1.483E-01	1.450E-02	-0.235
		1312.11		2.457E-02	1.019E-01	1.718E-01	1.573E-02	0.143
CR-51		320.08	*	-7.484E-02	4.272E-01	7.027E-01	8.569E-02	-0.107
MN-54		834.85	*	7.191E-04	4.605E-02	7.522E-02	7.390E-03	0.010
CO-56		846.77	*	2.844E-02	4.743E-02	8.158E-02	8.078E-03	0.349
		1037.84		-5.433E-02	3.748E-01	6.189E-01	6.071E-02	-0.088
		1238.28		1.398E-01	1.157E-01	2.077E-01	1.833E-02	0.673
		1771.35		-6.468E-01	3.524E-01	4.011E-01	3.388E-02	-1.613
CO-57		122.06	*	7.693E-03	2.847E-02	4.743E-02	3.965E-03	0.162
		136.47		1.709E-01	2.333E-01	3.933E-01	3.710E-02	0.435
CO-58		810.76	*	1.276E-02	4.880E-02	8.169E-02	7.912E-03	0.156
FE-59		1099.45	*	-5.614E-02	1.153E-01	1.831E-01	1.745E-02	-0.307
		1291.59		5.382E-02	1.663E-01	2.819E-01	2.852E-02	0.191
CO-60		1173.23		-2.000E-02	5.678E-02	9.099E-02	7.328E-03	-0.220
		1332.49	*	-1.492E-02	5.060E-02	7.989E-02	7.443E-03	-0.187
ZN-65		1115.54	*	7.810E-02	1.230E-01	1.909E-01	1.661E-02	0.409
SE-75		121.12		-3.264E-02	1.455E-01	2.370E-01	2.580E-02	-0.138
		136.00		3.051E-02	4.501E-02	7.575E-02	6.705E-03	0.403
		264.66	*	-3.319E-02	5.029E-02	8.141E-02	9.951E-03	-0.408
		279.54		-1.740E-01	1.316E-01	2.023E-01	2.554E-02	-0.861
		400.66		8.646E-02	2.927E-01	4.886E-01	5.968E-02	0.177
SR-85		514.00	*	2.371E-03	5.304E-02	7.457E-02	7.382E-03	0.032

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-88		898.04		6.710E-03	5.308E-02	8.707E-02	8.930E-03	0.077
		1836.06	*	5.235E-03	4.280E-02	7.235E-02	5.901E-03	0.072
Y-91		1204.77	*	2.017E+01	2.891E+01	5.046E+01	4.190E+00	0.400
NB-94		702.65	*	-3.308E-02	4.030E-02	6.193E-02	5.522E-03	-0.534
		871.09		-3.054E-02	4.203E-02	6.295E-02	6.329E-03	-0.485
NB-95		765.81	*	3.397E-02	5.433E-02	9.058E-02	8.481E-03	0.375
NB-95M		235.69	*	1.293E-01	1.582E-01	2.477E-01	3.138E-02	0.522
ZR-95		724.19		9.019E-02	1.336E-01	2.062E-01	2.013E-02	0.437
		756.73	*	1.382E-02	7.958E-02	1.331E-01	1.349E-02	0.104
MO-99		140.51		-2.831E+01	3.570E+01	4.798E+01	1.146E+01	-0.590
		181.07		1.786E+01	2.702E+01	4.015E+01	7.935E+00	0.445
		366.42		1.645E+01	1.518E+02	2.517E+02	2.716E+01	0.065
		739.50	*	-1.000E+01	2.026E+01	3.191E+01	5.128E+00	-0.313
		777.92		7.853E+00	5.335E+01	8.873E+01	8.382E+00	0.089
TC-99M		140.51	*	-5.153E+11	5.335E+01	Half-Life too short		
RU-103		497.08	*	-1.025E-02	4.995E-02	7.899E-02	1.172E-02	-0.130
	+	610.33		1.076E+01	2.423E+00	2.977E+00	4.959E-01	3.614
RH-106		621.93	*	2.958E-01	3.767E-01	6.633E-01	8.995E-02	0.446
		1050.41		2.341E-01	2.974E+00	5.014E+00	4.659E-01	0.047
RU-106		621.93	*	2.958E-01	3.755E-01	6.633E-01	6.023E-02	0.446
		1050.41		2.341E-01	2.974E+00	5.014E+00	4.659E-01	0.047
AG-108M		433.94	*	-2.128E-02	3.503E-02	5.419E-02	5.589E-03	-0.393
		614.28		1.895E-02	4.574E-02	6.955E-02	6.557E-03	0.273
		722.91		2.779E-02	4.860E-02	7.496E-02	6.990E-03	0.371
AG-110M		657.76	*	2.236E-02	4.863E-02	7.382E-02	6.586E-03	0.303
		677.62		1.973E-02	3.391E-01	5.659E-01	5.081E-02	0.035
		706.68		2.510E-03	2.575E-01	4.263E-01	3.916E-02	0.006
		763.94		1.215E-01	2.026E-01	3.370E-01	3.224E-02	0.361
		884.68		3.302E-02	6.040E-02	1.032E-01	1.071E-02	0.320
		937.49		-1.407E-01	1.422E-01	2.046E-01	2.109E-02	-0.688
		1384.29		-1.241E-01	1.829E-01	2.671E-01	2.547E-02	-0.465
		1505.03		-9.268E-02	3.088E-01	4.733E-01	4.366E-02	-0.196
SN-113		391.69	*	-2.757E-02	5.218E-02	8.219E-02	8.410E-03	-0.335
CD-115		260.90		5.938E+00	2.065E+02	3.488E+02	4.233E+01	0.017
		492.35		3.394E+01	6.163E+01	1.035E+02	1.033E+01	0.328
		527.90	*	-7.209E+00	1.980E+01	2.986E+01	2.935E+00	-0.241
SN-117M		156.02		-2.570E+00	2.604E+00	3.995E+00	3.882E-01	-0.643
		158.56	*	1.377E-03	6.231E-02	1.011E-01	9.962E-03	0.014
TE-123M		159.00	*	5.296E-03	3.134E-02	5.122E-02	5.081E-03	0.103
SB-124		602.73		2.144E-02	4.962E-02	7.572E-02	7.023E-03	0.283
		645.85		9.144E-01	5.809E-01	1.076E+00	1.001E-01	0.849
		722.78		2.822E-01	4.935E-01	7.612E-01	7.040E-02	0.371
		1690.97	*	-3.812E-02	8.710E-02	1.319E-01	1.202E-02	-0.289
SB-125		427.87	*	-4.331E-02	1.148E-01	1.818E-01	1.856E-02	-0.238
		463.37		6.226E-01	3.445E-01	6.155E-01	6.534E-02	1.012
		600.60		3.206E-02	2.074E-01	3.515E-01	3.476E-02	0.091
		635.95		1.295E-01	3.155E-01	5.435E-01	5.219E-02	0.238
TE-125M		109.28	*	7.932E+00	1.099E+01	1.871E+01	1.947E+00	0.424
I-126		388.63		-3.266E-02	2.012E-01	3.262E-01	3.296E-02	-0.100

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		666.33	*	2.139E-01	2.785E-01	4.399E-01	3.805E-02	0.486
		753.82		1.743E+00	2.276E+00	3.982E+00	3.695E-01	0.438
SB-126		414.70		2.187E-02	9.465E-02	1.569E-01	1.578E-02	0.139
		666.50		6.278E-02	9.756E-02	1.519E-01	1.314E-02	0.413
		695.00		4.322E-03	1.007E-01	1.674E-01	1.483E-02	0.026
		697.00		7.747E-02	3.612E-01	5.726E-01	5.082E-02	0.135
		720.70	*	1.098E-01	2.072E-01	3.185E-01	2.881E-02	0.345
		856.80		-7.928E-01	6.535E-01	9.340E-01	9.307E-02	-0.849
SB-127		252.40		-2.022E+00	5.794E+00	9.507E+00	4.034E+00	-0.213
		473.00		-1.962E+00	2.335E+00	3.486E+00	4.878E-01	-0.563
		685.70	*	4.431E-01	1.865E+00	3.152E+00	3.712E-01	0.141
		783.70		4.986E-01	5.235E+00	8.653E+00	1.144E+00	0.058
I-131		80.19		2.835E+00	5.334E+00	8.290E+00	7.690E-01	0.342
		284.31		-1.455E+00	1.890E+00	3.020E+00	3.827E-01	-0.482
		364.49	*	-4.011E-02	1.501E-01	2.429E-01	2.725E-02	-0.165
		636.99		1.653E+00	1.875E+00	3.348E+00	3.147E-01	0.494
TE-132		49.72		-1.124E+01	3.740E+01	5.696E+01	6.491E+00	-0.197
		111.76		-4.230E+01	4.622E+01	7.130E+01	7.956E+00	-0.593
		116.30		2.352E+01	3.771E+01	6.386E+01	7.089E+00	0.368
		228.16	*	-8.545E-01	1.066E+00	1.589E+00	2.823E-01	-0.538
BA-133		81.00		-1.347E-01	1.121E-01	1.557E-01	2.476E-02	-0.865
		276.40		4.418E-01	4.272E-01	7.429E-01	1.238E-01	0.595
		302.85		-4.958E-02	1.757E-01	2.519E-01	3.933E-02	-0.197
		356.01	*	-1.019E-03	5.662E-02	8.191E-02	1.204E-02	-0.012
		383.85		2.217E-02	3.562E-01	5.870E-01	7.992E-02	0.038
I-133		529.87	*	7.675E-03	3.562E-01	Half-Life too short		
		875.33		1.558E-01	3.562E-01	Half-Life too short		
		1298.22		5.436E-03	3.562E-01	Half-Life too short		
CS-134		563.25		-1.673E-02	4.322E-01	7.259E-01	7.027E-02	-0.023
		569.33		1.219E-01	2.388E-01	4.156E-01	4.018E-02	0.293
		604.72		-1.947E-02	4.325E-02	5.979E-02	5.545E-03	-0.326
		795.86	*	1.063E-01	5.694E-02	1.060E-01	1.020E-02	1.003
		801.95		-2.708E-01	4.574E-01	6.849E-01	6.610E-02	-0.395
		1365.19		1.117E-01	1.472E+00	2.432E+00	2.357E-01	0.046
CS-135		268.22	*	1.389E-01	1.927E-01	3.338E-01	4.415E-02	0.416
I-135		546.56		1.057E+11	1.927E-01	Half-Life too short		
		836.80		1.348E+11	1.927E-01	Half-Life too short		
		1038.76		-5.056E+10	1.927E-01	Half-Life too short		
		1131.51		-1.087E+11	1.927E-01	Half-Life too short		
		1260.41	*	-4.390E+09	1.927E-01	Half-Life too short		
		1457.56		1.525E+13	1.927E-01	Half-Life too short		
		1678.03		-1.334E+11	1.927E-01	Half-Life too short		
		1791.20		7.838E+10	1.927E-01	Half-Life too short		
CS-136		153.25		8.021E-02	9.985E-01	1.628E+00	1.804E-01	0.049
		176.60		-5.642E-01	6.090E-01	9.285E-01	1.042E-01	-0.608
		273.65		-8.445E-01	6.754E-01	1.052E+00	1.351E-01	-0.803
		340.55		1.014E-01	1.998E-01	3.020E-01	3.532E-02	0.336
		818.51		3.250E-02	9.280E-02	1.567E-01	1.524E-02	0.207
		1048.07	*	2.489E-02	1.300E-01	2.216E-01	2.138E-02	0.112

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1235.36		7.930E-01	7.685E-01	1.363E+00	1.596E-01	0.582
CE-139		165.86	*	-1.064E-02	3.410E-02	5.424E-02	5.564E-03	-0.196
BA-140		162.66		-9.383E-02	1.015E+00	1.584E+00	1.676E-01	-0.059
		304.85		-4.518E-01	1.724E+00	2.609E+00	7.954E-01	-0.173
		423.72		-3.568E-01	2.447E+00	3.939E+00	1.312E+00	-0.091
		537.26	*	-8.630E-02	3.480E-01	5.424E-01	1.857E-01	-0.159
LA-140		328.76		1.922E-01	3.684E-01	6.283E-01	7.582E-02	0.306
		487.02		1.007E-01	1.751E-01	2.945E-01	3.081E-02	0.342
		815.77		4.021E-01	4.293E-01	7.570E-01	8.030E-02	0.531
		1596.21	*	7.363E-02	9.806E-02	1.738E-01	1.572E-02	0.424
CE-141		145.44	*	1.115E-02	7.785E-02	1.143E-01	1.068E-02	0.098
CE-143		57.36		-1.575E-04	7.785E-02	Half-Life too short		
		293.27	*	1.162E-03	7.785E-02	Half-Life too short		
		664.57		1.604E-03	7.785E-02	Half-Life too short		
		721.93		1.898E-03	7.785E-02	Half-Life too short		
CE-144		80.12		1.432E+00	2.667E+00	4.146E+00	3.819E-01	0.345
		133.52	*	-7.705E-02	2.240E-01	3.607E-01	5.530E-02	-0.214
PM-144		476.78		6.978E-02	7.727E-02	1.329E-01	1.419E-02	0.525
		618.01		-8.241E-03	3.996E-02	6.577E-02	6.150E-03	-0.125
		696.49	*	-2.422E-03	4.215E-02	6.949E-02	6.167E-03	-0.035
PR-144		696.51	*	-1.814E-01	3.156E+00	5.203E+00	4.616E-01	-0.035
		1489.16		-9.887E+00	1.242E+01	1.646E+01	1.523E+00	-0.600
PM-146		453.88	*	4.055E-02	5.054E-02	8.643E-02	1.020E-02	0.469
		633.25		-5.316E-01	1.705E+00	2.753E+00	1.054E+00	-0.193
		735.93		-2.563E-02	1.895E-01	3.088E-01	8.706E-02	-0.083
		747.24		-5.714E-02	1.192E-01	1.875E-01	2.804E-02	-0.305
ND-147	+	91.11		1.209E+00	5.198E-01	6.430E-01	6.624E-02	1.880
		319.41		-2.506E+00	4.050E+00	6.460E+00	7.672E-01	-0.388
		531.02	*	4.781E-01	7.337E-01	1.231E+00	1.929E-01	0.388
PM-149		285.90	*	-1.087E+02	1.451E+02	2.309E+02	4.128E+01	-0.471
EU-152		121.78		2.411E-02	8.185E-02	1.365E-01	1.320E-02	0.177
		244.70		4.361E-02	3.886E-01	5.857E-01	6.951E-02	0.074
		344.28	*	-1.094E-01	1.155E-01	1.785E-01	2.097E-02	-0.613
		778.90		2.961E-02	3.148E-01	5.208E-01	4.923E-02	0.057
	+	964.08		5.269E-01	3.481E-01	6.424E-01	6.359E-02	0.820
		1085.87		-2.557E-01	5.247E-01	8.369E-01	7.516E-02	-0.306
		1112.07		-1.702E-01	4.335E-01	6.154E-01	5.370E-02	-0.277
		1408.01		1.784E-01	2.412E-01	4.273E-01	3.981E-02	0.418
GD-153		69.67		6.999E-01	2.167E+00	3.355E+00	2.811E-01	0.209
		97.43	*	-1.552E-03	1.008E-01	1.473E-01	1.338E-02	-0.011
		103.18		-6.836E-02	1.204E-01	1.949E-01	1.706E-02	-0.351
EU-154		123.07		2.712E-02	5.862E-02	9.828E-02	1.097E-02	0.276
		723.31		6.438E-02	2.294E-01	3.420E-01	3.385E-02	0.188
		873.19		-3.384E-01	3.329E-01	4.749E-01	6.166E-02	-0.713
		996.26		-6.286E-01	4.826E-01	6.433E-01	1.160E-01	-0.977
		1004.73		-4.026E-01	2.739E-01	3.890E-01	4.828E-02	-1.035
		1274.44	*	-2.284E-02	1.634E-01	2.650E-01	3.063E-02	-0.086
EU-155	+	86.55		3.629E-01	1.152E-01	2.043E-01	2.034E-02	1.776
		105.31	*	2.636E-02	1.131E-01	1.897E-01	1.662E-02	0.139

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TB-160	+	86.79		9.712E-01	3.080E-01	5.449E-01	5.397E-02	1.782
		197.04		9.390E-02	6.937E-01	1.080E+00	1.179E-01	0.087
		215.65		3.458E-01	9.029E-01	1.463E+00	1.654E-01	0.236
	+	298.57		2.133E-01	1.442E-01	2.329E-01	2.840E-02	0.916
		879.36	*	-4.309E-02	1.659E-01	2.618E-01	2.646E-02	-0.165
		962.29		1.565E+00	7.168E-01	1.250E+00	1.239E-01	1.252
		966.15		1.678E+00	3.609E-01	6.417E-01	6.344E-02	2.615
		1177.93		1.478E-01	4.456E-01	7.603E-01	6.151E-02	0.194
		1271.85		-1.136E+00	9.560E-01	1.366E+00	1.207E-01	-0.831
HO-166M		80.57		-1.366E-01	3.005E-01	4.427E-01	4.097E-02	-0.309
	+	184.41		1.136E-01	7.222E-02	8.230E-02	8.760E-03	1.380
		280.46		-7.883E-02	9.928E-02	1.587E-01	1.967E-02	-0.497
		410.95		1.626E-01	3.084E-01	5.200E-01	5.226E-02	0.313
		711.68	*	2.287E-02	7.014E-02	1.191E-01	1.070E-02	0.192
		752.31		2.030E-01	3.467E-01	5.970E-01	5.534E-02	0.340
		810.29		7.220E-03	7.172E-02	1.184E-01	1.144E-02	0.061
TA-182		67.75		-2.475E-03	1.272E-01	2.156E-01	1.777E-02	-0.011
		100.11		-1.589E-02	1.877E-01	3.112E-01	2.774E-02	-0.051
		152.43		1.847E-01	3.860E-01	6.409E-01	6.109E-02	0.288
		222.11		9.031E-02	4.189E-01	6.719E-01	7.688E-02	0.134
		1121.30		6.053E-01	2.545E-01	4.383E-01	3.783E-02	1.381
		1189.05		1.339E-01	4.018E-01	6.840E-01	5.594E-02	0.196
		1221.41	*	1.833E-02	2.657E-01	4.411E-01	3.721E-02	0.042
		1231.02		-4.277E-01	5.977E-01	9.205E-01	7.835E-02	-0.465
IR-192	+	295.96		1.052E+00	2.650E-01	3.239E-01	3.976E-02	3.248
		308.46		4.769E-02	1.191E-01	2.028E-01	2.451E-02	0.235
		316.51	*	-1.716E-03	4.030E-02	6.691E-02	7.989E-03	-0.026
		468.07		-9.739E-03	8.076E-02	1.293E-01	1.369E-02	-0.075
HG-203		70.83		-8.005E-01	1.688E+00	2.501E+00	3.995E-01	-0.320
		72.87		8.530E-01	8.571E-01	1.483E+00	2.303E-01	0.575
		279.20	*	-5.675E-02	4.667E-02	7.238E-02	9.088E-03	-0.784
BI-207		72.81		1.337E-01	1.911E-01	3.308E-01	2.845E-02	0.404
	+	74.97		6.258E-01	1.552E-01	2.619E-01	2.296E-02	2.390
		569.70		1.750E-02	3.828E-02	6.633E-02	6.339E-03	0.264
		1063.66	*	-1.737E-02	6.267E-02	1.019E-01	9.351E-03	-0.170
		1770.23		-2.144E+00	8.318E-01	8.118E-01	6.860E-02	-2.641
PB-210		46.54	*	3.805E+00	6.319E+00	1.013E+01	9.641E-01	0.375
PB-211		404.85	*	-3.544E-01	8.935E-01	1.394E+00	6.784E-01	-0.254
		427.09		-4.881E-01	1.919E+00	3.047E+00	1.418E+00	-0.160
		832.01		1.025E-01	1.184E+00	1.945E+00	1.013E+00	0.053
BI-212	+	727.33	*	1.996E+00	8.491E-01	1.319E+00	1.688E-01	1.513
		785.37		1.240E+00	3.931E+00	6.614E+00	6.280E-01	0.188
		1620.50		3.404E+00	2.543E+00	5.112E+00	4.591E-01	0.666
RN-219		271.23		3.282E-01	2.927E-01	5.120E-01	6.906E-02	0.641
		401.81	*	1.094E-02	4.625E-01	7.579E-01	1.192E-01	0.014
RA-223		81.07		-2.801E-01	2.492E-01	3.524E-01	3.278E-02	-0.795
		83.79		9.110E-02	1.509E-01	2.295E-01	2.197E-02	0.397
		94.87		1.040E-01	5.062E-01	7.665E-01	7.119E-02	0.136
	+	144.24		8.507E-01	9.162E-01	1.272E+00	1.284E-01	0.669

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		154.21		3.615E-01	4.236E-01	7.132E-01	7.395E-02	0.507
		269.46		3.131E-01	2.308E-01	4.065E-01	5.035E-02	0.770
		323.87	*	-3.570E-01	7.277E-01	1.167E+00	2.230E-01	-0.306
	+	338.28		4.432E+00	1.931E+00	2.603E+00	3.714E-01	1.703
AC-227		79.69		4.767E-01	1.341E+00	2.064E+00	3.615E-01	0.231
		235.96		5.698E-01	2.160E-01	3.500E-01	4.560E-02	1.628
		256.23	*	8.362E-02	2.985E-01	4.966E-01	7.306E-02	0.168
	+	299.98		1.651E+00	1.127E+00	1.774E+00	2.721E-01	0.931
		304.50		-1.041E+00	2.001E+00	2.968E+00	5.517E-01	-0.351
		334.37		4.098E-01	2.299E+00	3.397E+00	5.911E-01	0.121
TH-227		79.80		8.833E-01	1.761E+00	2.720E+00	5.986E-01	0.325
		235.96		5.698E-01	2.151E-01	3.500E-01	4.400E-02	1.628
		256.23	*	8.362E-02	2.985E-01	4.966E-01	7.951E-02	0.168
	+	299.98		1.651E+00	1.127E+00	1.774E+00	2.721E-01	0.931
		304.50		-1.041E+00	2.001E+00	2.968E+00	5.517E-01	-0.351
		334.37		4.098E-01	2.299E+00	3.397E+00	5.911E-01	0.121
TH-229		85.43		2.209E-01	2.471E-01	3.869E-01	3.773E-02	0.571
		88.47		3.287E-01	1.390E-01	2.448E-01	2.443E-02	1.343
		193.51	*	1.232E-01	6.176E-01	9.983E-01	1.082E-01	0.123
	+	210.85		1.985E+00	1.524E+00	1.616E+00	1.812E-01	1.228
PA-231		283.69	*	7.184E-01	1.617E+00	2.771E+00	4.729E-01	0.259
	+	301.36		1.061E+00	7.226E-01	1.148E+00	1.708E-01	0.924
TH-231		81.07		-2.801E-01	2.492E-01	3.524E-01	3.278E-02	-0.795
		83.79		9.110E-02	1.509E-01	2.295E-01	2.197E-02	0.397
		94.87		1.040E-01	5.062E-01	7.665E-01	7.119E-02	0.136
	+	144.24		8.507E-01	9.162E-01	1.272E+00	1.284E-01	0.669
		154.21		3.615E-01	4.236E-01	7.132E-01	7.395E-02	0.507
		269.46		3.131E-01	2.308E-01	4.065E-01	5.035E-02	0.770
		323.87	*	-3.570E-01	7.277E-01	1.167E+00	2.230E-01	-0.306
	+	338.28		4.432E+00	1.931E+00	2.603E+00	3.714E-01	1.703
PA-233	+	300.13		7.472E-01	5.129E-01	8.022E-01	1.375E-01	0.931
		311.90	*	2.923E-02	7.836E-02	1.331E-01	1.622E-02	0.220
		340.48		4.506E-01	8.199E-01	1.234E+00	3.112E-01	0.365
PA-234		94.67		1.423E-01	1.853E-01	2.878E-01	3.709E-02	0.495
		98.44		-5.267E-02	1.053E-01	1.586E-01	8.860E-02	-0.332
		111.00		8.157E-03	2.068E-01	3.352E-01	4.020E-02	0.024
		131.20		-7.357E-02	1.218E-01	1.941E-01	1.672E-02	-0.379
		569.50		2.201E-01	3.332E-01	5.848E-01	5.591E-02	0.376
		733.00		3.124E-01	4.909E-01	8.027E-01	1.798E-01	0.389
		880.51		-2.667E-01	3.495E-01	5.208E-01	5.267E-02	-0.512
		883.24		7.842E-02	3.524E-01	5.784E-01	3.900E-01	0.136
		926.50		-1.150E-03	2.102E-01	3.394E-01	8.763E-02	-0.003
		946.00	*	-8.209E-02	4.068E-01	6.429E-01	1.250E-01	-0.128
		949.00		2.641E-01	5.817E-01	9.782E-01	9.765E-02	0.270
PA-234M		766.42		5.672E+00	1.478E+01	2.379E+01	1.210E+01	0.238
		1001.03	*	4.474E+00	5.921E+00	1.043E+01	1.135E+00	0.429
TH-234		63.29	*	-3.129E-02	1.792E+00	3.063E+00	5.525E-01	-0.010
	+	92.59		2.886E+00	1.369E+00	1.668E+00	3.743E-01	1.730
U-238		63.29	*	-3.129E-02	1.792E+00	3.063E+00	5.525E-01	-0.010

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.59		2.886E+00	1.237E+00	1.668E+00	1.585E-01	1.730
NP-239		99.53		-2.293E-01	1.841E-01	2.772E-01	2.480E-02	-0.827
		103.37		-3.291E-02	1.077E-01	1.765E-01	1.543E-02	-0.187
		106.12		-3.302E-03	9.119E-02	1.510E-01	1.304E-02	-0.022
		117.23	*	-6.337E-02	4.337E-01	7.109E-01	5.959E-02	-0.089
		228.18		-2.060E-01	2.562E-01	3.842E-01	4.442E-02	-0.536
		277.60		2.357E-01	2.063E-01	3.627E-01	4.490E-02	0.650
AM-241		59.54	*	-7.568E-03	1.971E-01	3.356E-01	2.750E-02	-0.023
CM-247		278.00		5.526E-01	8.818E-01	1.522E+00	1.885E-01	0.363
		287.50		6.071E-01	1.473E+00	2.519E+00	3.104E-01	0.241
		402.40	*	-5.218E-04	4.322E-02	7.063E-02	7.085E-03	-0.007
CF-249		252.80		-2.114E-01	1.059E+00	1.770E+00	2.125E-01	-0.119
		333.37		8.569E-02	2.442E-01	3.656E-01	4.242E-02	0.234
		388.16	*	-1.045E-02	4.688E-02	7.568E-02	7.659E-03	-0.138
CF-251		177.52	*	-1.566E-01	1.540E-01	2.336E-01	2.452E-02	-0.670
		227.38		-2.098E-01	4.197E-01	6.437E-01	7.432E-02	-0.326
		285.41		-3.221E+00	2.613E+00	4.033E+00	4.978E-01	-0.799

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248788008       *
* Acquisition date : 18-MAR-2010 13:20:58 Detector SN#    :                 *
* Detector ID      : GAM02                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:03.86     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  2-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248788008           Analyst initials: MXR1            *
* Batch Number     : 962629               Sample Quantity : 1.1463E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 29-OCT-2009 10:28:07 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.269E+01	3.702E+00	7.895E-01	0.000E+00
CD-109	3.065E+00	9.525E-01	1.395E+00	0.000E+00
SN-126	2.992E-01	9.297E-02	1.369E-01	0.000E+00
BA-137M	3.120E-01	7.859E-02	7.032E-02	0.000E+00
CS-137	3.296E-01	8.304E-02	7.429E-02	0.000E+00
TL-208	4.511E-01	9.728E-02	6.808E-02	0.000E+00
BI-211	3.526E+00	6.418E-01	4.078E-01	0.000E+00
PB-212	1.626E+00	2.363E-01	1.077E-01	0.000E+00
BI-214	1.025E+00	1.858E-01	1.323E-01	0.000E+00
PB-214	1.280E+00	2.430E-01	1.483E-01	0.000E+00
RA-224	4.306E+00	1.545E+00	1.155E+00	0.000E+00
RA-226	1.025E+00	1.858E-01	1.323E-01	0.000E+00
AC-228	1.573E+00	3.606E-01	2.652E-01	0.000E+00
RA-228	1.573E+00	3.606E-01	2.652E-01	0.000E+00
TH-228	1.626E+00	2.363E-01	1.077E-01	0.000E+00
TH-232	1.573E+00	3.606E-01	2.652E-01	0.000E+00
U-235	2.538E-01	2.701E-01	3.538E-01	0.000E+00
NP-237	8.927E-01	3.326E-01	4.660E-01	0.000E+00
ANH-511	1.538E-01	8.604E-02	5.761E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.787E-01	3.856E-01	6.610E-01	0.000E+00	NOT IDENT.
NA-22	-6.917E-03	5.666E-02	9.369E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.650E+06	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.919E-02	4.966E-02	7.735E-02	0.000E+00	FAIL ABUN
V-48	-3.480E-02	9.401E-02	1.482E-01	0.000E+00	NOT IDENT.
CR-51	-7.484E-02	4.187E-01	7.099E-01	0.000E+00	NOT IDENT.
MN-54	7.191E-04	4.513E-02	7.531E-02	0.000E+00	NOT IDENT.
CO-56	2.844E-02	4.648E-02	8.167E-02	0.000E+00	NOT IDENT.

CO-57	7.693E-03	2.791E-02	4.834E-02	0.000E+00	NOT IDENT.
CO-58	1.276E-02	4.783E-02	8.181E-02	0.000E+00	NOT IDENT.
FE-59	-5.614E-02	1.130E-01	1.828E-01	0.000E+00	NOT IDENT.
CO-60	-1.492E-02	4.959E-02	7.963E-02	0.000E+00	NOT IDENT.
ZN-65	7.810E-02	1.205E-01	1.906E-01	0.000E+00	NOT IDENT.
SE-75	-3.319E-02	4.929E-02	8.239E-02	0.000E+00	NOT IDENT.
SR-85	2.371E-03	5.198E-02	7.501E-02	0.000E+00	NOT IDENT.
Y-88	5.235E-03	4.195E-02	7.189E-02	0.000E+00	NOT IDENT.
Y-91	2.017E+01	2.833E+01	5.035E+01	0.000E+00	NOT IDENT.
NB-94	-3.308E-02	3.949E-02	6.211E-02	0.000E+00	NOT IDENT.
NB-95	3.397E-02	5.324E-02	9.076E-02	0.000E+00	NOT IDENT.
NB-95M	1.293E-01	1.550E-01	2.510E-01	0.000E+00	NOT IDENT.
ZR-95	1.382E-02	7.799E-02	1.334E-01	0.000E+00	NOT IDENT.
MO-99	-1.000E+01	1.985E+01	3.199E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.446E+17	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.025E-02	4.895E-02	7.947E-02	0.000E+00	FAIL ABUN
RH-106	2.958E-01	3.691E-01	6.660E-01	0.000E+00	NOT IDENT.
RU-106	2.958E-01	3.680E-01	6.660E-01	0.000E+00	NOT IDENT.
AG-108M	-2.128E-02	3.433E-02	5.459E-02	0.000E+00	NOT IDENT.
AG-110M	2.236E-02	4.766E-02	7.408E-02	0.000E+00	NOT IDENT.
SN-113	-2.757E-02	5.114E-02	8.288E-02	0.000E+00	NOT IDENT.
CD-115	-7.209E+00	1.941E+01	3.002E+01	0.000E+00	NOT IDENT.
SN-117M	1.377E-03	6.106E-02	1.028E-01	0.000E+00	NOT IDENT.
TE-123M	5.296E-03	3.071E-02	5.208E-02	0.000E+00	NOT IDENT.
SB-124	-3.812E-02	8.536E-02	1.312E-01	0.000E+00	NOT IDENT.
SB-125	-4.331E-02	1.125E-01	1.831E-01	0.000E+00	NOT IDENT.
TE-125M	7.932E+00	1.077E+01	1.909E+01	0.000E+00	NOT IDENT.
I-126	2.139E-01	2.730E-01	4.414E-01	0.000E+00	NOT IDENT.
SB-126	1.098E-01	2.030E-01	3.193E-01	0.000E+00	NOT IDENT.
SB-127	4.431E-01	1.828E+00	3.162E+00	0.000E+00	NOT IDENT.
I-131	-4.011E-02	1.471E-01	2.451E-01	0.000E+00	NOT IDENT.
TE-132	-8.545E-01	1.045E+00	1.611E+00	0.000E+00	NOT IDENT.
BA-133	-1.019E-03	5.549E-02	8.267E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.536E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.580E-02	1.062E-01	0.000E+00	NOT IDENT.
CS-135	1.389E-01	1.889E-01	3.377E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.419E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.489E-02	1.274E-01	2.213E-01	0.000E+00	NOT IDENT.
CE-139	-1.064E-02	3.342E-02	5.513E-02	0.000E+00	NOT IDENT.
BA-140	-8.630E-02	3.410E-01	5.454E-01	0.000E+00	NOT IDENT.
LA-140	7.363E-02	9.610E-02	1.729E-01	0.000E+00	NOT IDENT.
CE-141	1.115E-02	7.630E-02	1.163E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.174E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-7.705E-02	2.196E-01	3.674E-01	0.000E+00	NOT IDENT.
PM-144	-2.422E-03	4.130E-02	6.969E-02	0.000E+00	NOT IDENT.
PR-144	-1.814E-01	3.093E+00	5.218E+00	0.000E+00	NOT IDENT.
PM-146	4.055E-02	4.953E-02	8.703E-02	0.000E+00	NOT IDENT.
ND-147	4.781E-01	7.190E-01	1.238E+00	0.000E+00	FAIL ABUN
PM-149	-1.087E+02	1.422E+02	2.335E+02	0.000E+00	NOT IDENT.
EU-152	-1.094E-01	1.132E-01	1.802E-01	0.000E+00	FAIL ABUN
GD-153	-1.552E-03	9.881E-02	1.504E-01	0.000E+00	NOT IDENT.
EU-154	-2.284E-02	1.601E-01	2.642E-01	0.000E+00	NOT IDENT.
EU-155	2.636E-02	1.109E-01	1.936E-01	0.000E+00	FAIL ABUN
TB-160	-4.309E-02	1.626E-01	2.620E-01	0.000E+00	FAIL ABUN
HO-166M	2.287E-02	6.874E-02	1.195E-01	0.000E+00	FAIL ABUN
TA-182	1.833E-02	2.604E-01	4.401E-01	0.000E+00	NOT IDENT.
IR-192	-1.716E-03	3.950E-02	6.760E-02	0.000E+00	FAIL ABUN
HG-203	-5.675E-02	4.573E-02	7.321E-02	0.000E+00	NOT IDENT.
BI-207	-1.737E-02	6.142E-02	1.018E-01	0.000E+00	FAIL ABUN
PB-210	3.805E+00	6.193E+00	1.042E+01	0.000E+00	NOT IDENT.
PB-211	-3.544E-01	8.756E-01	1.405E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	8.322E-01	1.323E+00	0.000E+00	FAIL ABUN
RN-219	1.094E-02	4.533E-01	7.641E-01	0.000E+00	NOT IDENT.
RA-223	-3.570E-01	7.131E-01	1.179E+00	0.000E+00	FAIL ABUN
AC-227	8.362E-02	2.925E-01	5.028E-01	0.000E+00	FAIL ABUN
TH-227	8.362E-02	2.925E-01	5.028E-01	0.000E+00	FAIL ABUN
TH-229	1.232E-01	6.053E-01	1.013E+00	0.000E+00	FAIL ABUN
PA-231	7.184E-01	1.585E+00	2.803E+00	0.000E+00	FAIL ABUN
TH-231	-3.570E-01	7.131E-01	1.179E+00	0.000E+00	FAIL ABUN
PA-233	2.923E-02	7.680E-02	1.345E-01	0.000E+00	FAIL ABUN
PA-234	-8.209E-02	3.986E-01	6.429E-01	0.000E+00	NOT IDENT.
PA-234M	4.474E+00	5.803E+00	1.042E+01	0.000E+00	NOT IDENT.
TH-234	-3.129E-02	1.756E+00	3.141E+00	0.000E+00	FAIL ABUN
U-238	-3.129E-02	1.756E+00	3.141E+00	0.000E+00	FAIL ABUN
NP-239	-6.337E-02	4.251E-01	7.248E-01	0.000E+00	NOT IDENT.
AM-241	-7.568E-03	1.932E-01	3.443E-01	0.000E+00	NOT IDENT.
CM-247	-5.218E-04	4.235E-02	7.120E-02	0.000E+00	NOT IDENT.
CF-249	-1.045E-02	4.594E-02	7.632E-02	0.000E+00	NOT IDENT.

CF-251	-1.566E-01	1.509E-01	2.373E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 15:22:35.65

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248788008.CNF;1
Sample date       : 2-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 13:20:58
Sample ID         : G248788008           Sample quantity  : 1.14630E+02 GRAM
Detector name     : GAM02                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:03.86  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1094	10.66*	1.028E+00	3.269E+01	3.269E+01	11.56
CD-109	88.03	177	3.70*	5.225E+00	2.992E+00	3.065E+00	31.71
SN-126	64.28	------	9.60	2.716E+00	------ Line Not Found		------
	86.94	177	8.90	5.225E+00	1.244E+00	1.244E+00	51.40
	87.57	177	37.00*	5.225E+00	2.992E-01	2.992E-01	31.71
BA-137M	661.66	177	89.90*	2.071E+00	3.117E-01	3.120E-01	25.70
CS-137	661.66	177	85.10*	2.071E+00	3.293E-01	3.296E-01	25.70
TL-208	277.37	------	6.60	3.991E+00	------ Line Not Found		------
	583.19	268	85.00*	2.292E+00	4.511E-01	4.511E-01	22.01
	860.56	------	12.50	1.651E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	3.848E+00	------ Line Not Found		------
	351.06	466	12.92*	3.352E+00	3.526E+00	3.526E+00	18.57
PB-212	74.82	276	10.28	4.050E+00	2.171E+00	2.171E+00	26.63
	77.11	482	17.10	4.299E+00	2.149E+00	2.149E+00	18.11
	238.63	966	43.60*	4.459E+00	1.626E+00	1.626E+00	14.82
	300.09	57	3.30	3.768E+00	1.501E+00	1.501E+00	67.85
BI-214	609.32	315	45.49*	2.214E+00	1.025E+00	1.025E+00	18.49
	1120.29	80	14.92	1.298E+00	1.352E+00	1.352E+00	45.47
	1764.49	47	15.30	9.006E-01	1.106E+00	1.107E+00	55.38
PB-214	74.82	276	5.80	4.050E+00	3.848E+00	3.848E+00	26.03
	77.11	482	9.70	4.299E+00	3.788E+00	3.788E+00	19.90
	242.00	238	7.25	4.420E+00	2.435E+00	2.435E+00	37.06
	295.22	303	18.42	3.815E+00	1.410E+00	1.410E+00	26.00
	351.93	466	35.60*	3.352E+00	1.280E+00	1.280E+00	19.38
RA-224	240.99	238	4.10*	4.420E+00	4.306E+00	4.306E+00	36.60
RA-226	609.32	315	45.49*	2.214E+00	1.025E+00	1.025E+00	18.49
	1120.29	80	14.92	1.298E+00	1.352E+00	1.352E+00	45.47
	1764.49	47	15.30	9.006E-01	1.106E+00	1.107E+00	55.38
AC-228	338.32	133	11.27	3.452E+00	1.117E+00	1.117E+00	59.10
	911.20	195	25.80*	1.570E+00	1.573E+00	1.573E+00	23.39
	968.97	131	15.80	1.484E+00	1.826E+00	1.826E+00	34.76
RA-228	338.32	133	11.27	3.452E+00	1.117E+00	1.117E+00	59.10

Sample ID : G248788008 Acquisition date : 18-MAR-2010 13:20:58

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	195	25.80*	1.570E+00	1.573E+00	1.573E+00	23.39
	968.97	131	15.80	1.484E+00	1.826E+00	1.826E+00	34.76
TH-228	74.82	276	10.28	4.050E+00	2.171E+00	2.171E+00	24.82
	77.11	482	17.10	4.299E+00	2.149E+00	2.149E+00	18.11
	238.63	966	43.60*	4.459E+00	1.626E+00	1.626E+00	14.82
	300.09	57	3.30	3.768E+00	1.501E+00	1.501E+00	90.78
TH-232	338.32	133	11.27	3.452E+00	1.117E+00	1.117E+00	42.74
	911.20	195	25.80*	1.570E+00	1.573E+00	1.573E+00	23.39
	968.97	131	15.80	1.484E+00	1.826E+00	1.826E+00	34.76
U-235	89.96	------	3.47	5.433E+00	------ Line Not Found		------
	93.35	208	5.60	5.584E+00	2.180E+00	2.180E+00	47.91
	143.76	51	10.96*	6.033E+00	2.538E-01	2.538E-01	108.60
	163.33	------	5.08	5.697E+00	------ Line Not Found		------
	185.72	132	57.20	5.297E+00	1.430E-01	1.430E-01	63.57
	205.31	------	5.01	4.952E+00	------ Line Not Found		------
NP-237	86.48	177	12.40*	5.225E+00	8.927E-01	8.927E-01	38.01
	95.86	------	2.68	5.755E+00	------ Line Not Found		------
ANH-511	511.00	119	100.00*	2.541E+00	1.538E-01	1.538E-01	57.08

Flag: "*" = Keyline

Sample ID : G248788008 Acquisition date : 18-MAR-2010 13:20:58

Total number of lines in spectrum 25
Number of unidentified lines 1
Number of lines tentatively identified by NID 24 96.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.269E+01	3.269E+01	0.378E+01	11.56	
CD-109	461.40D	1.02	2.992E+00	3.065E+00	0.972E+00	31.71	
SN-126	2.30E+05Y	1.00	2.992E-01	2.992E-01	0.949E-01	31.71	
BA-137M	30.08Y	1.00	3.117E-01	3.120E-01	0.802E-01	25.70	
CS-137	30.08Y	1.00	3.293E-01	3.296E-01	0.847E-01	25.70	
TL-208	1.41E+10Y	1.00	4.511E-01	4.511E-01	0.993E-01	22.01	
BI-211	7.04E+08Y	1.00	3.526E+00	3.526E+00	0.655E+00	18.57	
PB-212	1.41E+10Y	1.00	1.626E+00	1.626E+00	0.241E+00	14.82	
BI-214	1600.00Y	1.00	1.025E+00	1.025E+00	0.190E+00	18.49	
PB-214	1600.00Y	1.00	1.280E+00	1.280E+00	0.248E+00	19.38	
RA-224	1.41E+10Y	1.00	4.306E+00	4.306E+00	1.576E+00	36.60	
RA-226	1600.00Y	1.00	1.025E+00	1.025E+00	0.190E+00	18.49	
AC-228	1.41E+10Y	1.00	1.573E+00	1.573E+00	0.368E+00	23.39	
RA-228	1.41E+10Y	1.00	1.573E+00	1.573E+00	0.368E+00	23.39	
TH-228	1.41E+10Y	1.00	1.626E+00	1.626E+00	0.241E+00	14.82	
TH-232	1.41E+10Y	1.00	1.573E+00	1.573E+00	0.368E+00	23.39	
U-235	7.04E+08Y	1.00	2.538E-01	2.538E-01	2.756E-01	108.60	
NP-237	2.14E+06Y	1.00	8.927E-01	8.927E-01	3.394E-01	38.01	
ANH-511	1.00E+09Y	1.00	1.538E-01	1.538E-01	0.878E-01	57.08	
		Total Activity :	5.751E+01	5.758E+01			

Grand Total Activity : 5.751E+01 5.758E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248788008 Acquisition date : 18-MAR-2010 13:20:58

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.47	83	258	3.04	418.28	414	10	1.15E-02	76.0	4.88E+00	T
0	726.75	78	42	1.84	1453.45	1448	10	1.08E-02	40.6	1.91E+00	T
0	964.13	35	32	0.67	1928.53	1925	8	4.87E-03	65.3	1.49E+00	T
0	1587.41	21	20	2.08	3176.04	3168	16	2.87E-03	****	9.64E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 15:22:39.55

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248788008.CNF;1  *
* Acquisition date : 18-MAR-2010 13:20:58  Detector SN#    :                *
* Detector ID      : GAM02                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:03.86         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 2-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248788008            Analyst initials: MXR1           *
* Batch Number     : 962629                Sample Quantity : 1.14630E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 29-OCT-2009 10:28:07.3MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.269E+01	3.777E+00	7.927E-01	7.536E-02	41.236
CD-109	3.065E+00	9.719E-01	1.365E+00	1.370E-01	2.246
SN-126	2.992E-01	9.487E-02	1.340E-01	1.339E-02	2.234
BA-137M	3.120E-01	8.019E-02	7.008E-02	6.038E-03	4.452
CS-137	3.296E-01	8.473E-02	7.403E-02	6.391E-03	4.452
TL-208	4.511E-01	9.927E-02	6.777E-02	6.782E-03	6.656
BI-211	3.526E+00	6.549E-01	4.040E-01	4.662E-02	8.727
PB-212	1.626E+00	2.411E-01	1.063E-01	1.342E-02	15.295
BI-214	1.025E+00	1.896E-01	1.318E-01	1.399E-02	7.780
PB-214	1.280E+00	2.479E-01	1.470E-01	1.877E-02	8.708
RA-224	4.306E+00	1.576E+00	1.140E+00	1.346E-01	3.776
RA-226	1.025E+00	1.896E-01	1.318E-01	1.399E-02	7.780
AC-228	1.573E+00	3.680E-01	2.651E-01	3.388E-02	5.935
RA-228	1.573E+00	3.680E-01	2.651E-01	3.388E-02	5.935
TH-228	1.626E+00	2.411E-01	1.063E-01	1.342E-02	15.295
TH-232	1.573E+00	3.680E-01	2.651E-01	3.388E-02	5.935
U-235	2.538E-01	2.756E-01	3.477E-01	5.984E-02	0.730
NP-237	8.927E-01	3.394E-01	4.557E-01	1.056E-01	1.959

Sample ID : G248788008 Acquisition date : 18-MAR-2010 13:20:58

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	1.538E-01	8.779E-02	5.727E-02	5.677E-03	2.685

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.787E-01		3.934E-01	6.567E-01	6.963E-02	0.272
NA-22	-6.917E-03		5.781E-02	9.395E-02	8.330E-03	-0.074
NA-24	-1.054E+00		1.352E+00	Half-Life too short		
SC-46	-2.919E-02		5.067E-02	7.731E-02	7.860E-03	-0.378
V-48	-3.480E-02		9.593E-02	1.483E-01	1.450E-02	-0.235
CR-51	-7.484E-02		4.272E-01	7.027E-01	8.569E-02	-0.107
MN-54	7.191E-04		4.605E-02	7.522E-02	7.390E-03	0.010
CO-56	2.844E-02		4.743E-02	8.158E-02	8.078E-03	0.349
CO-57	7.693E-03		2.847E-02	4.743E-02	3.965E-03	0.162
CO-58	1.276E-02		4.880E-02	8.169E-02	7.912E-03	0.156
FE-59	-5.614E-02		1.153E-01	1.831E-01	1.745E-02	-0.307
CO-60	-1.492E-02		5.060E-02	7.989E-02	7.443E-03	-0.187
ZN-65	7.810E-02		1.230E-01	1.909E-01	1.661E-02	0.409
SE-75	-3.319E-02		5.029E-02	8.141E-02	9.951E-03	-0.408
SR-85	2.371E-03		5.304E-02	7.457E-02	7.382E-03	0.032
Y-88	5.235E-03		4.280E-02	7.235E-02	5.901E-03	0.072
Y-91	2.017E+01		2.891E+01	5.046E+01	4.190E+00	0.400
NB-94	-3.308E-02		4.030E-02	6.193E-02	5.522E-03	-0.534
NB-95	3.397E-02		5.433E-02	9.058E-02	8.481E-03	0.375
NB-95M	1.293E-01		1.582E-01	2.477E-01	3.138E-02	0.522
ZR-95	1.382E-02		7.958E-02	1.331E-01	1.349E-02	0.104
MO-99	-1.000E+01		2.026E+01	3.191E+01	5.128E+00	-0.313
TC-99M	-5.153E+11		3.289E+11	Half-Life too short		
RU-103	-1.025E-02		4.995E-02	7.899E-02	1.172E-02	-0.130
RH-106	2.958E-01		3.767E-01	6.633E-01	8.995E-02	0.446
RU-106	2.958E-01		3.755E-01	6.633E-01	6.023E-02	0.446
AG-108M	-2.128E-02		3.503E-02	5.419E-02	5.589E-03	-0.393
AG-110M	2.236E-02		4.863E-02	7.382E-02	6.586E-03	0.303
SN-113	-2.757E-02		5.218E-02	8.219E-02	8.410E-03	-0.335
CD-115	-7.209E+00		1.980E+01	2.986E+01	2.935E+00	-0.241
SN-117M	1.377E-03		6.231E-02	1.011E-01	9.962E-03	0.014
TE-123M	5.296E-03		3.134E-02	5.122E-02	5.081E-03	0.103
SB-124	-3.812E-02		8.710E-02	1.319E-01	1.202E-02	-0.289
SB-125	-4.331E-02		1.148E-01	1.818E-01	1.856E-02	-0.238
TE-125M	7.932E+00		1.099E+01	1.871E+01	1.947E+00	0.424
I-126	2.139E-01		2.785E-01	4.399E-01	3.805E-02	0.486
SB-126	1.098E-01		2.072E-01	3.185E-01	2.881E-02	0.345
SB-127	4.431E-01		1.865E+00	3.152E+00	3.712E-01	0.141
I-131	-4.011E-02		1.501E-01	2.429E-01	2.725E-02	-0.165
TE-132	-8.545E-01		1.066E+00	1.589E+00	2.823E-01	-0.538
BA-133	-1.019E-03		5.662E-02	8.191E-02	1.204E-02	-0.012
I-133	7.675E-03		7.835E-03	Half-Life too short		

Sample ID : G248788008 Acquisition date : 18-MAR-2010 13:20:58

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-134	1.063E-01		5.694E-02	1.060E-01	1.020E-02	1.003
CS-135	1.389E-01		1.927E-01	3.338E-01	4.415E-02	0.416
I-135	-4.390E+09		4.295E+10	Half-Life too short		
CS-136	2.489E-02		1.300E-01	2.216E-01	2.138E-02	0.112
CE-139	-1.064E-02		3.410E-02	5.424E-02	5.564E-03	-0.196
BA-140	-8.630E-02		3.480E-01	5.424E-01	1.857E-01	-0.159
LA-140	7.363E-02		9.806E-02	1.738E-01	1.572E-02	0.424
CE-141	1.115E-02		7.785E-02	1.143E-01	1.068E-02	0.098
CE-143	1.162E-03		2.129E-04	Half-Life too short		
CE-144	-7.705E-02		2.240E-01	3.607E-01	5.530E-02	-0.214
PM-144	-2.422E-03		4.215E-02	6.949E-02	6.167E-03	-0.035
PR-144	-1.814E-01		3.156E+00	5.203E+00	4.616E-01	-0.035
PM-146	4.055E-02		5.054E-02	8.643E-02	1.020E-02	0.469
ND-147	4.781E-01		7.337E-01	1.231E+00	1.929E-01	0.388
PM-149	-1.087E+02		1.451E+02	2.309E+02	4.128E+01	-0.471
EU-152	-1.094E-01		1.155E-01	1.785E-01	2.097E-02	-0.613
GD-153	-1.552E-03		1.008E-01	1.473E-01	1.338E-02	-0.011
EU-154	-2.284E-02		1.634E-01	2.650E-01	3.063E-02	-0.086
EU-155	2.636E-02		1.131E-01	1.897E-01	1.662E-02	0.139
TB-160	-4.309E-02		1.659E-01	2.618E-01	2.646E-02	-0.165
HO-166M	2.287E-02		7.014E-02	1.191E-01	1.070E-02	0.192
TA-182	1.833E-02		2.657E-01	4.411E-01	3.721E-02	0.042
IR-192	-1.716E-03		4.030E-02	6.691E-02	7.989E-03	-0.026
HG-203	-5.675E-02		4.667E-02	7.238E-02	9.088E-03	-0.784
BI-207	-1.737E-02		6.267E-02	1.019E-01	9.351E-03	-0.170
PB-210	3.805E+00		6.319E+00	1.013E+01	9.641E-01	0.375
PB-211	-3.544E-01		8.935E-01	1.394E+00	6.784E-01	-0.254
BI-212	1.996E+00	+	8.491E-01	1.319E+00	1.688E-01	1.513
RN-219	1.094E-02		4.625E-01	7.579E-01	1.192E-01	0.014
RA-223	-3.570E-01		7.277E-01	1.167E+00	2.230E-01	-0.306
AC-227	8.362E-02		2.985E-01	4.966E-01	7.306E-02	0.168
TH-227	8.362E-02		2.985E-01	4.966E-01	7.951E-02	0.168
TH-229	1.232E-01		6.176E-01	9.983E-01	1.082E-01	0.123
PA-231	7.184E-01		1.617E+00	2.771E+00	4.729E-01	0.259
TH-231	-3.570E-01		7.277E-01	1.167E+00	2.230E-01	-0.306
PA-233	2.923E-02		7.836E-02	1.331E-01	1.622E-02	0.220
PA-234	-8.209E-02		4.068E-01	6.429E-01	1.250E-01	-0.128
PA-234M	4.474E+00		5.921E+00	1.043E+01	1.135E+00	0.429
TH-234	-3.129E-02		1.792E+00	3.063E+00	5.525E-01	-0.010
U-238	-3.129E-02		1.792E+00	3.063E+00	5.525E-01	-0.010
NP-239	-6.337E-02		4.337E-01	7.109E-01	5.959E-02	-0.089
AM-241	-7.568E-03		1.971E-01	3.356E-01	2.750E-02	-0.023
CM-247	-5.218E-04		4.322E-02	7.063E-02	7.085E-03	-0.007
CF-249	-1.045E-02		4.688E-02	7.568E-02	7.659E-03	-0.138
CF-251	-1.566E-01		1.540E-01	2.336E-01	2.452E-02	-0.670

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248788008           *
* Acquisition date : 18-MAR-2010 13:20:58 Detector SN#    :                *
* Detector ID      : GAM02                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:03.86     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  2-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G248788008           Analyst initials: MXR1           *
* Batch Number     : 962629               Sample Quantity : 1.1463E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 29-OCT-2009 10:28:07 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.269E+01	3.702E+00	3.950E-01	1.889E+00
CD-109	3.065E+00	9.525E-01	6.979E-01	4.859E-01
SN-126	2.992E-01	9.297E-02	6.851E-02	4.743E-02
BA-137M	3.120E-01	7.859E-02	3.518E-02	4.010E-02
CS-137	3.296E-01	8.304E-02	3.717E-02	4.237E-02
TL-208	4.511E-01	9.728E-02	3.406E-02	4.963E-02
BI-211	3.526E+00	6.418E-01	2.040E-01	3.275E-01
PB-212	1.626E+00	2.363E-01	5.389E-02	1.205E-01
BI-214	1.025E+00	1.858E-01	6.621E-02	9.480E-02
PB-214	1.280E+00	2.430E-01	7.421E-02	1.240E-01
RA-224	4.306E+00	1.545E+00	5.779E-01	7.881E-01
RA-226	1.025E+00	1.858E-01	6.621E-02	9.480E-02
AC-228	1.573E+00	3.606E-01	1.327E-01	1.840E-01
RA-228	1.573E+00	3.606E-01	1.327E-01	1.840E-01
TH-228	1.626E+00	2.363E-01	5.389E-02	1.205E-01
TH-232	1.573E+00	3.606E-01	1.327E-01	1.840E-01
U-235	2.538E-01	2.701E-01	1.770E-01	1.378E-01
NP-237	8.927E-01	3.326E-01	2.331E-01	1.697E-01
ANH-511	1.538E-01	8.604E-02	2.882E-02	4.390E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.787E-01	3.856E-01	3.307E-01	1.967E-01	NOT IDENT.
NA-22	-6.917E-03	5.666E-02	4.687E-02	2.891E-02	NOT IDENT.
NA-24	-1.054E+06	2.650E+06	0.000E+00	1.352E+06	SHORT HLIF
SC-46	-2.919E-02	4.966E-02	3.870E-02	2.533E-02	FAIL ABUN
V-48	-3.480E-02	9.401E-02	7.415E-02	4.797E-02	NOT IDENT.
CR-51	-7.484E-02	4.187E-01	3.552E-01	2.136E-01	NOT IDENT.
MN-54	7.191E-04	4.513E-02	3.768E-02	2.303E-02	NOT IDENT.
CO-56	2.844E-02	4.648E-02	4.086E-02	2.371E-02	NOT IDENT.

CO-57	7.693E-03	2.791E-02	2.419E-02	1.424E-02	NOT IDENT.
CO-58	1.276E-02	4.783E-02	4.093E-02	2.440E-02	NOT IDENT.
FE-59	-5.614E-02	1.130E-01	9.147E-02	5.766E-02	NOT IDENT.
CO-60	-1.492E-02	4.959E-02	3.984E-02	2.530E-02	NOT IDENT.
ZN-65	7.810E-02	1.205E-01	9.535E-02	6.150E-02	NOT IDENT.
SE-75	-3.319E-02	4.929E-02	4.122E-02	2.515E-02	NOT IDENT.
SR-85	2.371E-03	5.198E-02	3.753E-02	2.652E-02	NOT IDENT.
Y-88	5.235E-03	4.195E-02	3.597E-02	2.140E-02	NOT IDENT.
Y-91	2.017E+01	2.833E+01	2.519E+01	1.445E+01	NOT IDENT.
NB-94	-3.308E-02	3.949E-02	3.107E-02	2.015E-02	NOT IDENT.
NB-95	3.397E-02	5.324E-02	4.541E-02	2.716E-02	NOT IDENT.
NB-95M	1.293E-01	1.550E-01	1.256E-01	7.908E-02	NOT IDENT.
ZR-95	1.382E-02	7.799E-02	6.671E-02	3.979E-02	NOT IDENT.
MO-99	-1.000E+01	1.985E+01	1.600E+01	1.013E+01	NOT IDENT.
TC-99M	-5.153E+17	6.446E+17	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.025E-02	4.895E-02	3.976E-02	2.498E-02	FAIL ABUN
RH-106	2.958E-01	3.691E-01	3.332E-01	1.883E-01	NOT IDENT.
RU-106	2.958E-01	3.680E-01	3.332E-01	1.877E-01	NOT IDENT.
AG-108M	-2.128E-02	3.433E-02	2.731E-02	1.752E-02	NOT IDENT.
AG-110M	2.236E-02	4.766E-02	3.706E-02	2.431E-02	NOT IDENT.
SN-113	-2.757E-02	5.114E-02	4.146E-02	2.609E-02	NOT IDENT.
CD-115	-7.209E+00	1.941E+01	1.502E+01	9.902E+00	NOT IDENT.
SN-117M	1.377E-03	6.106E-02	5.144E-02	3.116E-02	NOT IDENT.
TE-123M	5.296E-03	3.071E-02	2.605E-02	1.567E-02	NOT IDENT.
SB-124	-3.812E-02	8.536E-02	6.562E-02	4.355E-02	NOT IDENT.
SB-125	-4.331E-02	1.125E-01	9.161E-02	5.739E-02	NOT IDENT.
TE-125M	7.932E+00	1.077E+01	9.548E+00	5.496E+00	NOT IDENT.
I-126	2.139E-01	2.730E-01	2.208E-01	1.393E-01	NOT IDENT.
SB-126	1.098E-01	2.030E-01	1.598E-01	1.036E-01	NOT IDENT.
SB-127	4.431E-01	1.828E+00	1.582E+00	9.325E-01	NOT IDENT.
I-131	-4.011E-02	1.471E-01	1.226E-01	7.505E-02	NOT IDENT.
TE-132	-8.545E-01	1.045E+00	8.058E-01	5.331E-01	NOT IDENT.
BA-133	-1.019E-03	5.549E-02	4.136E-02	2.831E-02	NOT IDENT.
I-133	7.675E+03	1.536E+04	0.000E+00	7.835E+03	SHORT HLIF
CS-134	1.063E-01	5.580E-02	5.314E-02	2.847E-02	NOT IDENT.
CS-135	1.389E-01	1.889E-01	1.690E-01	9.635E-02	NOT IDENT.
I-135	-4.390E+15	8.419E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.489E-02	1.274E-01	1.107E-01	6.499E-02	NOT IDENT.
CE-139	-1.064E-02	3.342E-02	2.758E-02	1.705E-02	NOT IDENT.
BA-140	-8.630E-02	3.410E-01	2.728E-01	1.740E-01	NOT IDENT.
LA-140	7.363E-02	9.610E-02	8.651E-02	4.903E-02	NOT IDENT.
CE-141	1.115E-02	7.630E-02	5.819E-02	3.893E-02	NOT IDENT.
CE-143	1.162E+03	4.174E+02	0.000E+00	2.129E+02	SHORT HLIF
CE-144	-7.705E-02	2.196E-01	1.838E-01	1.120E-01	NOT IDENT.
PM-144	-2.422E-03	4.130E-02	3.486E-02	2.107E-02	NOT IDENT.
PR-144	-1.814E-01	3.093E+00	2.611E+00	1.578E+00	NOT IDENT.
PM-146	4.055E-02	4.953E-02	4.354E-02	2.527E-02	NOT IDENT.
ND-147	4.781E-01	7.190E-01	6.194E-01	3.668E-01	FAIL ABUN
PM-149	-1.087E+02	1.422E+02	1.168E+02	7.254E+01	NOT IDENT.
EU-152	-1.094E-01	1.132E-01	9.014E-02	5.776E-02	FAIL ABUN
GD-153	-1.552E-03	9.881E-02	7.525E-02	5.041E-02	NOT IDENT.
EU-154	-2.284E-02	1.601E-01	1.322E-01	8.171E-02	NOT IDENT.
EU-155	2.636E-02	1.109E-01	9.684E-02	5.657E-02	FAIL ABUN
TB-160	-4.309E-02	1.626E-01	1.311E-01	8.294E-02	FAIL ABUN
HO-166M	2.287E-02	6.874E-02	5.977E-02	3.507E-02	FAIL ABUN
TA-182	1.833E-02	2.604E-01	2.202E-01	1.328E-01	NOT IDENT.
IR-192	-1.716E-03	3.950E-02	3.382E-02	2.015E-02	FAIL ABUN
HG-203	-5.675E-02	4.573E-02	3.663E-02	2.333E-02	NOT IDENT.
BI-207	-1.737E-02	6.142E-02	5.091E-02	3.134E-02	FAIL ABUN
PB-210	3.805E+00	6.193E+00	5.213E+00	3.160E+00	NOT IDENT.
PB-211	-3.544E-01	8.756E-01	7.030E-01	4.467E-01	NOT IDENT.
BI-212	1.996E+00	8.322E-01	6.618E-01	4.246E-01	FAIL ABUN
RN-219	1.094E-02	4.533E-01	3.823E-01	2.313E-01	NOT IDENT.
RA-223	-3.570E-01	7.131E-01	5.898E-01	3.638E-01	FAIL ABUN
AC-227	8.362E-02	2.925E-01	2.515E-01	1.492E-01	FAIL ABUN
TH-227	8.362E-02	2.925E-01	2.515E-01	1.493E-01	FAIL ABUN
TH-229	1.232E-01	6.053E-01	5.069E-01	3.088E-01	FAIL ABUN
PA-231	7.184E-01	1.585E+00	1.402E+00	8.087E-01	FAIL ABUN
TH-231	-3.570E-01	7.131E-01	5.898E-01	3.638E-01	FAIL ABUN
PA-233	2.923E-02	7.680E-02	6.731E-02	3.918E-02	FAIL ABUN
PA-234	-8.209E-02	3.986E-01	3.217E-01	2.034E-01	NOT IDENT.
PA-234M	4.474E+00	5.803E+00	5.214E+00	2.961E+00	NOT IDENT.
TH-234	-3.129E-02	1.756E+00	1.571E+00	8.960E-01	FAIL ABUN
U-238	-3.129E-02	1.756E+00	1.571E+00	8.960E-01	FAIL ABUN
NP-239	-6.337E-02	4.251E-01	3.626E-01	2.169E-01	NOT IDENT.
AM-241	-7.568E-03	1.932E-01	1.723E-01	9.856E-02	NOT IDENT.
CM-247	-5.218E-04	4.235E-02	3.562E-02	2.161E-02	NOT IDENT.
CF-249	-1.045E-02	4.594E-02	3.818E-02	2.344E-02	NOT IDENT.

CF-251	-1.566E-01	1.509E-01	1.187E-01	7.699E-02 NOT IDENT.

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                 2040 SAVAGE ROAD                          *
*                              CHARLESTON ,SC 29417                         *
*                        GAMMA SPECTROSCOPY BACKGROUND REPORT               *
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ENERGY	MDA COUNTS
46.54	212.2285
49.72	220.8712
57.36	0.0000
59.54	266.2699
63.29	274.4962
63.29	274.4962
64.28	278.7773
67.75	285.9536
69.67	290.5820
70.83	319.4568
72.81	284.5880
72.87	284.6335
72.87	284.6335
74.82	286.1051
74.82	286.1051
74.82	286.1051
74.97	286.2170
77.11	287.8087
77.11	287.8087
77.11	287.8087
79.69	253.3716
79.80	246.6283
80.12	246.8257
80.19	246.8699
80.57	289.4248
81.00	336.2005
81.07	330.7911
81.07	330.7911
83.79	295.8481
83.79	295.8481
85.43	313.5954
86.48	371.1601
86.55	293.6528
86.79	293.8178
86.94	293.9229
87.57	294.3596
88.03	294.6766
88.47	294.9791
89.96	295.9989
91.11	296.7793
92.59	297.7773
92.59	297.7773
93.35	298.2867
94.67	246.9536
94.87	256.9456
94.87	256.9456
95.86	254.6782
97.43	222.9008
98.44	243.7832
99.53	263.3718
100.11	243.7070
103.18	266.3700
103.37	254.0150
105.31	241.5643
106.12	254.4985
109.28	249.3413
111.00	248.2491
111.76	272.9974
116.30	218.3664
117.23	240.4332
121.12	241.2079
121.78	242.4971
122.06	242.6224
123.07	244.0716
131.20	287.0854
133.52	257.8008
136.00	232.4021

136.47	230.5474
140.51	254.2072
140.51	0.0000
143.76	227.6979
144.24	218.5741
144.24	218.5741
145.44	231.4302
152.43	221.9892
153.25	235.9062
154.21	207.9077
154.21	207.9077
156.02	244.2957
158.56	212.4788
159.00	213.6798
162.66	225.5002
163.33	236.3741
165.86	234.0576
176.60	243.1383
177.52	253.2344
181.07	183.4954
184.41	194.2149
185.72	194.5606
193.51	213.2559
197.04	210.8947
205.31	191.1444
210.85	187.3572
215.65	197.5974
222.11	188.7725
227.38	195.7346
228.16	199.3894
228.18	199.3947
235.69	195.0378
235.96	189.4828
235.96	189.4828
238.63	183.8955
238.63	183.8955
240.99	184.3802
242.00	184.5875
244.70	158.7414
252.40	168.8285
252.80	160.8591
256.23	156.9635
256.23	156.9635
260.90	152.3311
264.66	162.8806
268.22	178.0108
269.46	174.6006
269.46	174.6006
271.23	173.0920
273.65	224.6604
276.40	155.6812
277.37	145.7508
277.60	146.6992
278.00	160.5164
279.20	191.0137
279.54	191.9990
280.46	174.7011
283.69	132.8291
284.31	167.0582
285.41	180.1733
285.90	165.4690
287.50	150.9148
293.27	0.0000
295.22	146.2559
295.96	146.3588
298.57	127.2572
299.98	142.4165
299.98	142.4165
300.09	142.4327
300.09	142.4327
300.13	142.4374
301.36	120.0859
302.85	138.2897
304.50	146.7832
304.50	146.7832
304.85	139.3010
308.46	143.5437
311.90	139.2593

316.51	129.3781
319.41	135.4369
320.08	125.9736
323.87	134.0613
323.87	134.0613
328.76	133.6764
333.37	135.9510
334.37	136.0691
334.37	136.0691
338.28	145.8354
338.28	145.8354
338.32	145.8400
338.32	145.8400
338.32	145.8400
340.48	132.1194
340.55	132.1277
344.28	142.2907
351.06	132.3180
351.93	132.4148
356.01	122.8214
364.49	119.9070
366.42	118.1066
383.85	114.7080
388.16	111.0524
388.63	105.0323
391.69	112.3634
400.66	95.8001
401.81	98.9434
402.40	103.0682
404.85	121.6583
410.95	113.9903
414.70	99.8862
423.72	102.6104
427.09	112.2072
427.87	115.3884
433.94	102.3111
453.88	81.4976
463.37	78.8226
468.07	92.9579
473.00	99.6916
476.78	74.1474
477.60	82.7877
487.02	77.8832
492.35	75.9761
497.08	90.3557
511.00	91.1397
514.00	98.5681
527.90	80.9844
529.87	0.0000
531.02	72.2443
537.26	84.7810
546.56	0.0000
563.25	86.0659
569.33	79.9971
569.50	80.0057
569.70	86.3790
583.19	75.1213
600.60	78.6105
602.73	69.4427
604.72	83.4192
609.32	75.8806
609.32	75.8806
610.33	85.2191
614.28	69.8694
618.01	85.8760
621.93	64.5393
621.93	64.5393
633.25	76.2104
635.95	63.1249
636.99	50.9045
645.85	48.2944
657.76	69.8600
661.66	73.1759
661.66	73.1759
664.57	0.0000
666.33	49.4290
666.50	52.6219
677.62	56.7587

685.70	65.6725
695.00	76.6373
696.49	77.6621
696.51	77.6621
697.00	67.9714
702.65	83.7303
706.68	73.1598
711.68	60.6210
720.70	52.3659
721.93	0.0000
722.78	55.6927
722.91	55.6955
723.31	63.8987
724.19	70.4804
727.33	65.6575
733.00	61.7142
735.93	77.1221
739.50	80.2189
747.24	71.5553
752.31	63.7484
753.82	54.8214
756.73	50.8991
763.94	56.0684
765.81	61.1251
766.42	67.1554
777.92	56.4129
778.90	61.4751
783.70	69.6823
785.37	65.6903
795.86	43.6519
801.95	49.8721
810.29	57.1963
810.76	57.2072
815.77	49.1379
818.51	50.2190
832.01	56.6838
834.85	65.0041
836.80	0.0000
846.77	47.6936
856.80	81.1992
860.56	57.3418
871.09	60.7230
873.19	58.6770
875.33	0.0000
879.36	51.4667
880.51	61.9990
883.24	49.4418
884.68	46.3117
889.28	63.2651
898.04	56.0731
911.20	49.6221
911.20	49.6221
911.20	49.6221
926.50	42.7793
937.49	66.5804
944.13	59.2083
946.00	63.5575
949.00	52.8437
962.29	34.3169
964.08	79.5208
966.15	10.8521
968.97	39.8311
968.97	39.8311
968.97	39.8311
983.53	57.8756
996.26	70.2031
1001.03	39.5552
1004.73	74.2615
1037.84	51.0030
1038.76	0.0000
1048.07	43.7374
1050.41	45.6344
1050.41	45.6344
1063.66	51.4484
1085.87	66.9063
1099.45	58.6825
1112.07	61.2981
1115.54	47.2990

1120.29	62.0707
1120.29	62.0707
1120.55	62.0760
1121.30	63.7259
1131.51	0.0000
1173.23	62.0000
1177.93	51.4171
1189.05	58.4058
1204.77	58.6816
1221.41	70.7695
1231.02	71.9544
1235.36	58.2294
1238.28	58.2798
1260.41	0.0000
1271.85	62.8359
1274.44	51.9027
1274.54	51.9048
1291.59	44.1325
1298.22	0.0000
1312.11	34.2988
1332.49	38.5505
1365.19	25.5880
1368.63	0.0000
1384.29	29.8343
1408.01	26.9151
1457.56	0.0000
1460.82	32.5313
1489.16	16.9102
1505.03	20.1597
1596.21	10.4121
1620.50	7.4794
1678.03	0.0000
1690.97	14.2498
1764.49	13.5156
1764.49	13.5156
1770.23	48.3294
1771.35	30.9386
1791.20	0.0000
1836.06	12.7411

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248788008

Total Uranium Activity	2.4358E-02	ug/g
Total Uranium Counting Unc.	5.2263E+00	ug/g
Total Uranium Tpu	2.6665E-06	ug/g
Total Uranium Mda	4.6754E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 962629                   SAMPLE ID  : G248788008         *
*   ANALYST      : MXR1                     DETECTOR   : GAM02              *
*   SAMPLE DATE  :  2-MAR-2010 12:00:00.00  COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 18-MAR-2010 13:20:58.35  SAMPLE ALQT:  114.630 GRAM      *
*                                                                           *
*****************************************************************************
```

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GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.879E+00
GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.281E+00
GROSS GAMMA MDA    (pCi/GRAM  )   : 2.843E+00
GROSS GAMMA DLC    (pCi/GRAM  )   : 1.373E+00
```

VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 18:46:20.72

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841001.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 16:45:19
Sample ID         : G248841001           Sample quantity  : 1.28570E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:25.95  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.32*	173	440	0.66	92.63	89	8	2.40E-02	22.5	
2	0	63.14	163	647	0.90	126.25	123	8	2.27E-02	28.0	
3	3	74.86*	829	417	0.84	149.66	145	17	1.15E-01	5.0	2.47E+00
4	3	77.11*	1205	314	0.74	154.16	145	17	1.67E-01	3.6	
5	5	84.17*	170	389	1.00	168.29	164	19	2.37E-02	19.6	3.01E+00
6	5	87.23	430	420	1.14	174.40	164	19	5.97E-02	9.2	
7	5	89.85	277	336	1.06	179.64	164	19	3.85E-02	12.3	
8	0	93.28*	454	436	1.60	186.49	183	10	6.30E-02	10.0	
9	0	128.81	116	298	0.67	257.53	254	7	1.60E-02	26.5	
10	0	185.81*	191	330	1.05	371.47	368	9	2.66E-02	18.9	
11	0	209.04	132	189	0.97	417.92	415	7	1.83E-02	19.3	
12	2	238.52*	1389	130	0.84	476.86	472	16	1.93E-01	3.0	3.91E+00
13	2	240.80	139	145	1.17	481.41	472	16	1.93E-02	22.4	
14	2	241.89	211	119	1.01	483.60	472	16	2.93E-02	12.0	
15	0	270.40	168	215	1.63	540.59	535	13	2.33E-02	19.8	
16	0	277.80	88	170	1.15	555.39	551	11	1.22E-02	30.9	
17	0	295.09*	366	157	0.95	589.96	585	10	5.08E-02	8.4	
18	0	299.82	92	128	1.39	599.41	595	9	1.28E-02	24.5	
19	0	327.97	62	163	0.95	655.70	652	10	8.60E-03	40.4	
20	0	338.03	236	105	0.93	675.82	671	10	3.27E-02	10.4	
21	0	351.81*	622	154	1.09	703.37	699	9	8.64E-02	5.5	
22	0	462.54	61	68	1.06	924.79	920	9	8.52E-03	27.3	
23	0	510.98*	120	104	1.71	1021.65	1014	15	1.66E-02	22.9	
24	0	582.96*	360	86	1.49	1165.62	1158	13	5.00E-02	7.6	
25	0	609.19*	343	99	1.45	1218.07	1213	12	4.77E-02	8.1	
26	0	727.13	67	68	0.91	1453.97	1450	10	9.34E-03	26.2	
27	0	767.61	42	58	1.36	1534.93	1529	11	5.86E-03	38.1	
28	0	795.05	45	46	1.04	1589.82	1586	10	6.29E-03	31.5	
29	0	910.92	143	56	1.38	1821.62	1816	13	1.99E-02	13.6	
30	0	969.07	85	56	1.89	1937.96	1932	10	1.18E-02	19.9	
31	0	1120.31*	90	39	1.65	2240.55	2233	14	1.25E-02	18.4	
32	0	1460.40*	980	14	2.06	2921.17	2914	14	1.36E-01	3.3	
33	0	1763.81*	51	0	2.43	3528.56	3522	14	7.04E-03	14.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-MAR-2010 18:46:23

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 18-MAR-2010 16:45:19
Sample ID : G248841001 Sample quantity : 128.57 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA21 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:25.95 0.4%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.727E+01	4.025E+00	5.065E-01	4.324E-02	73.581
CD-109	+	88.03	*	4.268E+00	8.796E-01	8.124E-01	7.644E-02	5.254
SN-126	+	64.28		6.077E-01	3.523E-01	3.161E-01	4.683E-02	1.923
	+	86.94		1.734E+00	7.873E-01	3.287E-01	1.364E-01	5.276
	+	87.57	*	4.171E-01	8.597E-02	7.926E-02	7.429E-03	5.263
HG-203		70.83		-7.584E-02	6.675E-01	1.010E+00	1.602E-01	-0.075
		72.87		2.989E-01	4.124E-01	6.430E-01	9.901E-02	0.465
	+	279.20	*	1.038E-01	6.483E-02	5.569E-02	5.084E-03	1.864
TL-208	+	277.37		1.023E+00	6.450E-01	5.445E-01	6.935E-02	1.878
	+	583.19	*	6.960E-01	1.300E-01	6.463E-02	7.035E-03	10.769
		860.56		4.835E-01	4.339E-01	7.872E-01	7.811E-02	0.614
PB-210	+	46.54	*	1.619E+00	7.442E-01	6.212E-01	5.874E-02	2.606
BI-211		72.87		1.199E+00	1.647E+00	2.580E+00	2.159E-01	0.465
	+	351.06	*	4.691E+00	6.652E-01	3.723E-01	3.361E-02	12.598
PB-212	+	74.82		2.845E+00	4.656E-01	2.919E-01	3.767E-02	9.749
	+	77.11		2.490E+00	2.790E-01	1.764E-01	1.522E-02	14.116
	+	238.63	*	2.120E+00	2.464E-01	8.416E-02	8.408E-03	25.190
	+	300.09		2.310E+00	1.160E+00	1.178E+00	1.270E-01	1.961
BI-214	+	609.32	*	1.297E+00	2.609E-01	1.435E-01	1.702E-02	9.039
	+	1120.29		1.901E+00	7.301E-01	6.437E-01	6.944E-02	2.953
	+	1764.49		1.617E+00	4.846E-01	3.954E-01	3.287E-02	4.089
PB-214	+	74.82		5.043E+00	7.747E-01	5.173E-01	6.008E-02	9.749
	+	77.11		4.390E+00	6.107E-01	3.110E-01	3.711E-02	14.116
	+	242.00		1.961E+00	5.133E-01	5.139E-01	5.454E-02	3.815
	+	295.22		1.620E+00	3.247E-01	2.102E-01	2.323E-02	7.709
	+	351.93	*	1.702E+00	2.590E-01	1.355E-01	1.433E-02	12.561
RA-224	+	240.99	*	2.277E+00	1.042E+00	9.046E-01	8.039E-02	2.517
RA-226	+	609.32	*	1.297E+00	2.609E-01	1.435E-01	1.702E-02	9.039
	+	1120.29		1.901E+00	7.301E-01	6.437E-01	6.944E-02	2.953
	+	1764.49		1.617E+00	4.846E-01	3.954E-01	3.287E-02	4.089
AC-228	+	338.32		1.956E+00	9.124E-01	3.688E-01	1.539E-01	5.302
	+	911.20	*	1.428E+00	4.222E-01	2.923E-01	3.418E-02	4.887
	+	968.97		1.467E+00	6.845E-01	5.211E-01	1.272E-01	2.816
RA-228	+	338.32		1.956E+00	9.124E-01	3.688E-01	1.539E-01	5.302

Sample ID : G248841001 Acquisition date : 18-MAR-2010 16:45:19

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	911.20	*	1.428E+00	4.222E-01	2.923E-01	3.418E-02	4.887
	+	968.97		1.467E+00	6.845E-01	5.211E-01	1.272E-01	2.816
TH-228	+	74.82		2.845E+00	3.758E-01	2.919E-01	2.499E-02	9.749
	+	77.11		2.490E+00	2.790E-01	1.764E-01	1.522E-02	14.116
	+	238.63	*	2.120E+00	2.464E-01	8.416E-02	8.408E-03	25.190
	+	300.09		2.310E+00	1.813E+00	1.178E+00	7.215E-01	1.961
TH-229	+	85.43		4.134E-01	1.665E-01	1.979E-01	1.822E-02	2.089
	+	88.47		6.431E-01	1.325E-01	1.226E-01	1.156E-02	5.245
		193.51	*	-4.775E-02	4.587E-01	7.702E-01	6.538E-02	-0.062
		210.85		5.383E-01	8.473E-01	1.329E+00	1.153E-01	0.405
TH-232	+	338.32		1.956E+00	4.420E-01	3.688E-01	3.215E-02	5.302
	+	911.20	*	1.428E+00	4.222E-01	2.923E-01	3.418E-02	4.887
	+	968.97		1.467E+00	6.845E-01	5.211E-01	1.272E-01	2.816
TH-234	+	63.29	*	1.577E+00	9.285E-01	8.205E-01	1.481E-01	1.922
	+	92.59		3.910E+00	1.178E+00	5.690E-01	1.280E-01	6.871
U-235	+	89.96		2.884E+00	1.011E+00	8.531E-01	2.127E-01	3.381
	+	93.35		2.953E+00	9.123E-01	4.312E-01	1.014E-01	6.849
		143.76	*	1.867E-01	1.909E-01	3.081E-01	5.454E-02	0.606
		163.33		-9.593E-02	3.564E-01	6.009E-01	1.072E-01	-0.160
	+	185.72		1.791E-01	6.937E-02	5.939E-02	4.984E-03	3.016
		205.31		5.248E-01	4.856E-01	7.700E-01	1.397E-01	0.682
NP-237	+	86.48	*	1.245E+00	3.659E-01	2.355E-01	5.401E-02	5.285
		95.86		1.926E-01	6.129E-01	9.260E-01	2.263E-01	0.208
U-238	+	63.29	*	1.577E+00	9.285E-01	8.205E-01	1.481E-01	1.922
	+	92.59		3.910E+00	8.699E-01	5.690E-01	5.477E-02	6.871
ANH-511	+	511.00	*	1.718E-01	8.042E-02	5.105E-02	4.894E-03	3.365

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-6.143E-02	3.523E-01	5.822E-01	5.703E-02	-0.106
NA-22		1274.54	*	7.317E-02	6.430E-02	1.166E-01	9.561E-03	0.628
NA-24		1368.63	*	-3.147E-01	6.430E-02	Half-Life too short		
SC-46		889.28	*	-8.118E-03	5.234E-02	8.602E-02	7.649E-03	-0.094
	+	1120.55		3.218E-01	1.217E-01	1.832E-01	1.548E-02	1.757
V-48		944.13		-1.265E-01	1.259E+00	2.069E+00	1.814E-01	-0.061
		983.53	*	-1.777E-02	1.015E-01	1.648E-01	1.441E-02	-0.108
		1312.11		-4.530E-02	1.206E-01	1.836E-01	1.496E-02	-0.247
CR-51		320.08	*	1.268E-01	3.789E-01	6.277E-01	5.831E-02	0.202
MN-54		834.85	*	-1.269E-02	4.794E-02	7.852E-02	7.610E-03	-0.162
CO-56		846.77	*	-6.599E-03	4.929E-02	8.156E-02	7.774E-03	-0.081
		1037.84		-3.827E-04	4.000E-01	6.579E-01	6.002E-02	-0.001
		1238.28		2.251E-01	1.395E-01	2.549E-01	2.163E-02	0.883
		1771.35		-3.489E-01	3.587E-01	4.468E-01	3.712E-02	-0.781
CO-57		122.06	*	-1.694E-02	2.096E-02	3.146E-02	3.614E-03	-0.539
		136.47		-3.114E-02	1.846E-01	2.863E-01	3.169E-02	-0.109
CO-58		810.76	*	-3.468E-02	4.900E-02	7.635E-02	7.640E-03	-0.454
FE-59		1099.45	*	-3.565E-02	1.219E-01	1.924E-01	1.775E-02	-0.185

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1291.59		9.598E-02	1.917E-01	3.260E-01	3.063E-02	0.294
CO-60		1173.23		-6.878E-03	7.061E-02	1.136E-01	9.359E-03	-0.061
		1332.49	*	-3.994E-03	5.383E-02	8.943E-02	7.258E-03	-0.045
ZN-65		1115.54	*	3.446E-02	1.368E-01	2.008E-01	1.702E-02	0.172
SE-75		121.12		-7.782E-03	1.040E-01	1.636E-01	2.188E-02	-0.048
		136.00		1.321E-02	3.457E-02	5.522E-02	5.869E-03	0.239
		264.66	*	-1.184E-02	4.360E-02	6.700E-02	6.016E-03	-0.177
		279.54		9.164E-02	1.056E-01	1.667E-01	1.540E-02	0.550
		400.66		-3.861E-02	2.885E-01	4.519E-01	4.825E-02	-0.085
SR-85		514.00	*	1.637E-02	4.608E-02	7.023E-02	6.758E-03	0.233
Y-88		898.04		2.582E-02	5.347E-02	9.356E-02	8.223E-03	0.276
		1836.06	*	-3.797E-02	5.502E-02	7.456E-02	6.156E-03	-0.509
Y-91		1204.77	*	-1.170E+01	3.601E+01	5.654E+01	4.658E+00	-0.207
NB-94		702.65	*	3.162E-03	4.686E-02	7.622E-02	8.300E-03	0.041
		871.09		-3.411E-02	4.737E-02	7.337E-02	6.734E-03	-0.465
NB-95		765.81	*	6.397E-02	6.646E-02	1.039E-01	1.086E-02	0.616
NB-95M		235.69	*	-7.845E-02	1.317E-01	1.876E-01	1.894E-02	-0.418
ZR-95		724.19		1.682E-01	1.465E-01	2.331E-01	2.648E-02	0.722
		756.73	*	-3.664E-02	1.126E-01	1.750E-01	1.974E-02	-0.209
MO-99		140.51		-3.995E+00	1.984E+01	3.044E+01	7.423E+00	-0.131
		181.07		3.456E+00	1.740E+01	2.848E+01	5.313E+00	0.121
		366.42		7.051E+01	1.067E+02	1.795E+02	1.505E+01	0.393
		739.50	*	-3.155E+00	1.826E+01	2.886E+01	4.895E+00	-0.109
		777.92		-2.483E+01	4.948E+01	7.462E+01	7.715E+00	-0.333
TC-99M		140.51	*	-8.434E+09	4.948E+01	Half-Life too short		
RU-103		497.08	*	1.542E-02	4.330E-02	7.445E-02	1.077E-02	0.207
	+	610.33		1.341E+01	3.200E+00	3.658E+00	6.397E-01	3.665
RH-106		621.93	*	7.830E-02	3.978E-01	6.624E-01	9.747E-02	0.118
		1050.41		3.203E+00	3.761E+00	6.687E+00	5.784E-01	0.479
RU-106		621.93	*	7.830E-02	3.977E-01	6.624E-01	7.107E-02	0.118
		1050.41		3.203E+00	3.761E+00	6.687E+00	5.784E-01	0.479
AG-108M		433.94	*	-4.585E-03	3.197E-02	5.349E-02	4.735E-03	-0.086
		614.28		1.541E-02	4.638E-02	6.946E-02	7.567E-03	0.222
		722.91		2.613E-02	6.149E-02	9.100E-02	1.001E-02	0.287
AG-110M		657.76	*	1.507E-03	4.124E-02	6.737E-02	7.557E-03	0.022
		677.62		-3.498E-02	3.861E-01	6.206E-01	6.946E-02	-0.056
		706.68		-1.789E-02	2.904E-01	4.665E-01	5.162E-02	-0.038
		763.94		-1.624E-01	2.744E-01	3.525E-01	3.758E-02	-0.461
		884.68		-1.365E-02	6.395E-02	1.044E-01	9.641E-03	-0.131
		937.49		-9.581E-02	1.700E-01	2.661E-01	2.414E-02	-0.360
		1384.29		-2.485E-01	2.286E-01	3.206E-01	2.705E-02	-0.775
		1505.03		1.144E-01	3.740E-01	6.501E-01	5.410E-02	0.176
SN-113		391.69	*	-3.501E-03	5.246E-02	8.286E-02	6.824E-03	-0.042
CD-115		260.90		-1.172E+02	1.366E+02	2.120E+02	1.895E+01	-0.553
		492.35		2.557E+00	4.224E+01	7.100E+01	6.644E+00	0.036
		527.90	*	-7.950E+00	1.358E+01	2.135E+01	2.089E+00	-0.372
SN-117M		156.02		-2.715E-01	1.924E+00	3.279E+00	2.960E-01	-0.083
		158.56	*	-3.383E-03	4.559E-02	7.783E-02	6.850E-03	-0.043
TE-123M		159.00	*	-2.472E-03	2.384E-02	4.064E-02	3.582E-03	-0.061

---- Non-Identified Nuclides ----

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SB-124		602.73		-1.415E-02	5.018E-02	7.736E-02	8.169E-03	-0.183
		645.85		-4.996E-01	6.585E-01	1.002E+00	1.135E-01	-0.498
		722.78		2.568E-01	6.178E-01	9.134E-01	9.989E-02	0.281
		1690.97	*	-1.671E-03	9.459E-02	1.541E-01	1.345E-02	-0.011
SB-125		427.87	*	1.050E-01	9.930E-02	1.798E-01	1.556E-02	0.584
	+	463.37		7.590E-01	4.210E-01	6.168E-01	5.925E-02	1.231
		600.60		1.255E-01	2.200E-01	3.783E-01	4.186E-02	0.332
		635.95		2.371E-01	3.782E-01	6.488E-01	7.404E-02	0.365
TE-125M		109.28	*	3.952E+00	7.440E+00	1.215E+01	1.477E+00	0.325
I-126		388.63		2.152E-02	2.037E-01	3.264E-01	2.614E-02	0.066
		666.33	*	1.627E-01	2.909E-01	4.965E-01	5.477E-02	0.328
		753.82		-2.270E-01	2.692E+00	4.286E+00	4.523E-01	-0.053
SB-126		414.70		-2.534E-02	8.492E-02	1.412E-01	1.171E-02	-0.179
		666.50		4.054E-02	1.010E-01	1.701E-01	1.876E-02	0.238
		695.00		4.708E-02	1.140E-01	1.908E-01	2.085E-02	0.247
		697.00		2.072E-01	3.941E-01	6.649E-01	7.260E-02	0.312
		720.70	*	-4.977E-02	2.060E-01	3.244E-01	3.500E-02	-0.153
		856.80		-5.167E-01	6.646E-01	1.030E+00	9.671E-02	-0.502
SB-127		252.40		2.143E+00	4.183E+00	6.966E+00	2.898E+00	0.308
		473.00		-8.442E-01	1.724E+00	2.764E+00	3.627E-01	-0.305
		685.70	*	-8.712E-01	1.645E+00	2.506E+00	3.322E-01	-0.348
		783.70		-3.008E-03	5.149E+00	8.231E+00	1.118E+00	0.000
I-131		80.19		-1.871E+00	3.213E+00	4.092E+00	3.635E-01	-0.457
		284.31		8.032E-01	1.407E+00	2.387E+00	2.232E-01	0.336
		364.49	*	-1.163E-01	1.251E-01	1.834E-01	1.630E-02	-0.634
		636.99		1.113E+00	2.228E+00	3.786E+00	4.259E-01	0.294
TE-132		49.72		1.424E+00	3.032E+00	4.846E+00	5.250E-01	0.294
		111.76		-2.114E+00	2.639E+01	4.180E+01	5.335E+00	-0.051
		116.30		1.760E+01	2.321E+01	3.810E+01	4.964E+00	0.462
		228.16	*	-2.332E-01	6.797E-01	1.109E+00	1.768E-01	-0.210
BA-133		81.00		-4.838E-02	6.668E-02	8.351E-02	1.308E-02	-0.579
	+	276.40		9.452E-01	5.993E-01	6.436E-01	9.203E-02	1.469
		302.85		-2.647E-02	1.487E-01	2.121E-01	2.813E-02	-0.125
		356.01	*	2.781E-02	4.500E-02	6.849E-02	8.830E-03	0.406
		383.85		-2.137E-01	3.160E-01	4.709E-01	5.683E-02	-0.454
I-133		529.87	*	-2.081E-04	3.160E-01	Half-Life too short		
		875.33		2.113E-02	3.160E-01	Half-Life too short		
		1298.22		9.719E-02	3.160E-01	Half-Life too short		
CS-134		563.25		3.771E-01	4.298E-01	7.501E-01	7.684E-02	0.503
		569.33		1.056E-01	2.296E-01	3.939E-01	4.072E-02	0.268
		604.72		-2.051E-02	4.898E-02	6.685E-02	7.083E-03	-0.307
	+	795.86	*	1.342E-01	8.567E-02	1.287E-01	1.314E-02	1.043
		801.95		-9.216E-01	5.544E-01	7.041E-01	7.133E-02	-1.309
		1365.19		4.309E-01	1.319E+00	2.333E+00	2.003E-01	0.185
CS-135		268.22	*	1.373E-01	1.751E-01	2.722E-01	2.787E-02	0.505
I-135		546.56		-3.240E+09	1.751E-01	Half-Life too short		
		836.80		2.048E+10	1.751E-01	Half-Life too short		
		1038.76		-2.177E+09	1.751E-01	Half-Life too short		
		1131.51		-1.612E+09	1.751E-01	Half-Life too short		

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		1260.41	*	3.101E+09	1.751E-01	Half-Life too short		
		1457.56		1.283E+12	1.751E-01	Half-Life too short		
		1678.03		-1.400E+10	1.751E-01	Half-Life too short		
		1791.20		-1.063E+10	1.751E-01	Half-Life too short		
CS-136		153.25		4.437E-01	7.182E-01	1.262E+00	1.364E-01	0.352
		176.60		-5.555E-01	4.385E-01	6.954E-01	6.395E-02	-0.799
		273.65		4.900E-01	5.807E-01	7.559E-01	7.284E-02	0.648
		340.55		-3.256E-02	1.607E-01	2.254E-01	2.034E-02	-0.144
		818.51		1.962E-02	9.846E-02	1.689E-01	1.672E-02	0.116
		1048.07	*	-9.846E-02	1.615E-01	2.480E-01	2.236E-02	-0.397
		1235.36		5.171E-01	9.481E-01	1.600E+00	1.836E-01	0.323
BA-137M		661.66	*	-4.246E-02	4.213E-02	6.051E-02	6.682E-03	-0.702
CS-137		661.66	*	-4.486E-02	4.451E-02	6.392E-02	7.067E-03	-0.702
CE-139		165.86	*	-1.252E-02	2.431E-02	4.045E-02	3.288E-03	-0.310
BA-140		162.66		4.854E-02	6.512E-01	1.117E+00	1.008E-01	0.043
		304.85		3.031E-04	1.421E+00	2.199E+00	6.456E-01	0.000
		423.72		-1.723E+00	2.172E+00	3.336E+00	1.096E+00	-0.516
		537.26	*	-1.133E-02	3.135E-01	5.184E-01	1.776E-01	-0.022
LA-140	+	328.76		6.334E-01	5.151E-01	6.005E-01	5.572E-02	1.055
		487.02		1.636E-01	1.571E-01	2.830E-01	2.770E-02	0.578
		815.77		5.577E-01	4.433E-01	8.227E-01	8.901E-02	0.678
		1596.21	*	-7.383E-03	1.218E-01	1.985E-01	1.660E-02	-0.037
CE-141		145.44	*	-3.038E-02	5.830E-02	8.804E-02	8.827E-03	-0.345
CE-143		57.36		-1.656E-04	5.830E-02	Half-Life too short		
		293.27	*	3.439E-04	5.830E-02	Half-Life too short		
		664.57		2.806E-04	5.830E-02	Half-Life too short		
		721.93		1.096E-03	5.830E-02	Half-Life too short		
CE-144		80.12		-1.026E+00	1.722E+00	2.191E+00	1.934E-01	-0.468
		133.52	*	-2.748E-02	1.701E-01	2.641E-01	4.380E-02	-0.104
PM-144		476.78		-6.984E-04	6.927E-02	1.161E-01	1.145E-02	-0.006
		618.01		1.021E-02	4.021E-02	6.734E-02	7.334E-03	0.152
		696.49	*	1.789E-02	4.875E-02	8.135E-02	8.885E-03	0.220
PR-144		696.51	*	1.382E+00	3.652E+00	6.100E+00	6.661E-01	0.226
		1489.16		-2.992E+00	1.518E+01	2.419E+01	2.010E+00	-0.124
PM-146		453.88	*	7.778E-03	4.784E-02	8.153E-02	8.789E-03	0.095
		633.25		5.741E-01	1.822E+00	3.042E+00	1.179E+00	0.189
		735.93		1.711E-01	2.005E-01	3.402E-01	9.774E-02	0.503
		747.24		1.757E-02	1.380E-01	2.245E-01	3.556E-02	0.078
ND-147	+	91.11		9.387E-01	2.503E-01	2.966E-01	3.027E-02	3.165
		319.41		1.249E+00	3.475E+00	5.767E+00	5.106E-01	0.217
		531.02	*	-1.203E-01	6.483E-01	1.058E+00	1.659E-01	-0.114
PM-149		285.90	*	5.359E+01	9.159E+01	1.549E+02	2.435E+01	0.346
EU-152		121.78		-7.066E-02	6.140E-02	8.975E-02	1.118E-02	-0.787
		244.70		-1.006E-01	3.090E-01	4.455E-01	3.965E-02	-0.226
		344.28	*	-1.630E-02	9.830E-02	1.559E-01	1.429E-02	-0.105
		778.90		4.165E-02	3.345E-01	5.426E-01	5.604E-02	0.077
		964.08		9.109E-01	4.300E-01	7.715E-01	6.759E-02	1.181
		1085.87		-2.009E-01	5.178E-01	8.079E-01	6.916E-02	-0.249
		1112.07		-2.535E-01	4.642E-01	6.624E-01	5.617E-02	-0.383

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		1408.01		-6.837E-02	2.518E-01	4.037E-01	3.322E-02	-0.169
GD-153		69.67		-6.013E-01	8.014E-01	1.278E+00	1.047E-01	-0.471
		97.43	*	-4.965E-02	6.393E-02	8.996E-02	8.887E-03	-0.552
		103.18		-4.306E-02	8.140E-02	1.265E-01	1.291E-02	-0.340
EU-154		123.07		9.889E-03	4.281E-02	6.839E-02	9.305E-03	0.145
		723.31		1.391E-01	2.769E-01	4.133E-01	4.747E-02	0.336
		873.19		-1.790E-01	3.494E-01	5.500E-01	6.755E-02	-0.326
		996.26		-2.598E-01	4.307E-01	6.526E-01	1.144E-01	-0.398
		1004.73		-1.892E-01	2.736E-01	4.128E-01	4.836E-02	-0.458
		1274.44	*	1.834E-01	1.850E-01	3.296E-01	3.646E-02	0.556
EU-155	+	86.55		5.058E-01	1.044E-01	1.320E-01	1.237E-02	3.833
		105.31	*	9.422E-02	7.902E-02	1.328E-01	1.384E-02	0.709
TB-160	+	86.79		1.343E+00	2.768E-01	3.666E-01	3.414E-02	3.663
		197.04		-1.373E-01	5.010E-01	8.331E-01	7.106E-02	-0.165
		215.65		8.467E-02	6.395E-01	1.078E+00	9.397E-02	0.079
	+	298.57		3.255E-01	1.623E-01	2.037E-01	1.818E-02	1.598
		879.36	*	-4.719E-02	1.866E-01	3.039E-01	2.751E-02	-0.155
		962.29		4.012E-01	7.551E-01	1.211E+00	1.061E-01	0.331
		966.15		7.322E-01	3.738E-01	6.384E-01	5.592E-02	1.147
		1177.93		-1.106E-01	5.772E-01	9.195E-01	7.577E-02	-0.120
		1271.85		1.897E-01	1.035E+00	1.704E+00	1.396E-01	0.111
HO-166M		80.57		-5.227E-02	1.840E-01	2.393E-01	2.119E-02	-0.218
	+	184.41		1.423E-01	5.511E-02	5.892E-02	4.935E-03	2.415
		280.46		-7.909E-03	8.444E-02	1.224E-01	1.092E-02	-0.065
		410.95		3.126E-01	2.948E-01	5.026E-01	4.140E-02	0.622
		711.68	*	-6.806E-02	8.249E-02	1.215E-01	1.317E-02	-0.560
		752.31		-6.111E-02	4.149E-01	6.569E-01	6.940E-02	-0.093
		810.29		-9.058E-02	7.737E-02	1.141E-01	1.141E-02	-0.794
TA-182		67.75		1.382E-02	4.902E-02	8.163E-02	6.616E-03	0.169
		100.11		7.000E-02	1.306E-01	2.146E-01	2.153E-02	0.326
		152.43		-2.196E-02	3.185E-01	4.919E-01	4.590E-02	-0.045
		222.11		2.186E-02	3.112E-01	5.215E-01	4.574E-02	0.042
	+	1121.30		8.912E-01	3.371E-01	5.072E-01	4.285E-02	1.757
		1189.05		1.814E-01	4.336E-01	7.344E-01	6.051E-02	0.247
		1221.41	*	1.376E-01	3.230E-01	5.421E-01	4.463E-02	0.254
		1231.02		-1.920E-01	7.688E-01	1.213E+00	9.982E-02	-0.158
IR-192	+	295.96		1.199E+00	2.275E-01	3.195E-01	2.871E-02	3.753
		308.46		3.653E-02	9.695E-02	1.615E-01	1.445E-02	0.226
		316.51	*	-1.080E-02	3.765E-02	5.986E-02	5.320E-03	-0.180
		468.07		-1.577E-02	7.141E-02	1.136E-01	1.096E-02	-0.139
BI-207		72.81		6.520E-02	9.458E-02	1.479E-01	1.238E-02	0.441
	+	74.97		8.200E-01	1.079E-01	1.553E-01	1.319E-02	5.280
		569.70		2.390E-02	3.460E-02	6.053E-02	6.198E-03	0.395
		1063.66	*	-3.347E-02	7.026E-02	1.087E-01	9.366E-03	-0.308
		1770.23		-1.968E-01	6.688E-01	8.217E-01	6.828E-02	-0.239
PB-211		404.85	*	5.246E-01	8.487E-01	1.351E+00	6.527E-01	0.388
		427.09		2.518E-01	1.709E+00	2.916E+00	1.348E+00	0.086
		832.01		-1.995E-02	1.259E+00	2.113E+00	1.100E+00	-0.009
BI-212	+	727.33	*	2.073E+00	1.124E+00	1.626E+00	2.279E-01	1.275

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		785.37		5.195E+00	4.371E+00	7.749E+00	7.955E-01	0.670
		1620.50		5.656E-01	2.852E+00	4.884E+00	4.085E-01	0.116
RN-219	+	271.23		1.163E+00	4.765E-01	4.716E-01	4.962E-02	2.465
		401.81	*	-8.791E-02	4.528E-01	7.049E-01	1.028E-01	-0.125
RA-223		81.07		-1.117E-01	1.505E-01	1.891E-01	1.681E-02	-0.591
	+	83.79		2.460E-01	9.908E-02	1.405E-01	1.277E-02	1.751
		94.87		3.614E-01	3.052E-01	4.824E-01	4.700E-02	0.749
		144.24		7.538E-01	6.268E-01	1.029E+00	1.118E-01	0.732
		154.21		2.990E-01	3.338E-01	5.913E-01	5.888E-02	0.506
	+	269.46		9.034E-01	3.671E-01	3.872E-01	3.524E-02	2.333
		323.87	*	5.312E-02	7.312E-01	1.061E+00	1.850E-01	0.050
	+	338.28		7.760E+00	1.873E+00	2.658E+00	3.228E-01	2.919
AC-227		79.69		-5.983E-01	6.905E-01	1.073E+00	1.858E-01	-0.558
		235.96		-5.952E-02	1.561E-01	2.261E-01	2.384E-02	-0.263
		256.23	*	-6.072E-02	2.515E-01	4.088E-01	5.019E-02	-0.149
	+	299.98		2.541E+00	1.289E+00	1.718E+00	2.218E-01	1.479
		304.50		3.557E-01	1.669E+00	2.626E+00	4.381E-01	0.135
		334.37		-1.197E+00	1.868E+00	2.482E+00	3.887E-01	-0.482
TH-227		79.80		-7.505E-01	1.135E+00	1.424E+00	3.112E-01	-0.527
		235.96		-5.952E-02	1.561E-01	2.261E-01	2.255E-02	-0.263
		256.23	*	-6.072E-02	2.515E-01	4.088E-01	5.644E-02	-0.149
	+	299.98		2.541E+00	1.289E+00	1.718E+00	2.218E-01	1.479
		304.50		3.557E-01	1.669E+00	2.626E+00	4.381E-01	0.135
		334.37		-1.197E+00	1.868E+00	2.482E+00	3.887E-01	-0.482
PA-231		283.69	*	-5.121E-01	1.456E+00	2.203E+00	3.253E-01	-0.232
		301.36		7.500E-01	6.194E-01	9.836E-01	1.216E-01	0.763
TH-231		81.07		-1.117E-01	1.505E-01	1.891E-01	1.681E-02	-0.591
	+	83.79		2.460E-01	9.908E-02	1.405E-01	1.277E-02	1.751
		94.87		3.614E-01	3.052E-01	4.824E-01	4.700E-02	0.749
		144.24		7.538E-01	6.268E-01	1.029E+00	1.118E-01	0.732
		154.21		2.990E-01	3.338E-01	5.913E-01	5.888E-02	0.506
	+	269.46		9.034E-01	3.671E-01	3.872E-01	3.524E-02	2.333
		323.87	*	5.312E-02	7.312E-01	1.061E+00	1.850E-01	0.050
	+	338.28		7.760E+00	1.873E+00	2.658E+00	3.228E-01	2.919
PA-233	+	300.13		1.150E+00	5.899E-01	7.759E-01	1.164E-01	1.482
		311.90	*	-2.538E-02	6.492E-02	1.022E-01	9.327E-03	-0.248
		340.48		-8.550E-02	6.860E-01	9.703E-01	2.338E-01	-0.088
PA-234	+	94.67		1.053E+00	2.525E-01	1.915E-01	2.528E-02	5.500
		98.44		6.853E-02	7.483E-02	1.085E-01	6.076E-02	0.632
		111.00		-5.327E-02	1.468E-01	2.290E-01	3.126E-02	-0.233
		131.20		3.939E-02	9.502E-02	1.410E-01	1.538E-02	0.279
		569.50		2.121E-01	3.071E-01	5.373E-01	5.500E-02	0.395
		733.00		-3.303E-01	5.777E-01	7.353E-01	1.698E-01	-0.449
		880.51		3.942E-02	3.707E-01	6.264E-01	5.659E-02	0.063
		883.24		2.759E-01	4.085E-01	6.556E-01	4.410E-01	0.421
		926.50		-2.083E-01	2.250E-01	3.224E-01	8.165E-02	-0.646
		946.00	*	-1.995E-01	4.593E-01	7.284E-01	1.372E-01	-0.274
		949.00		6.883E-01	6.897E-01	1.241E+00	1.088E-01	0.555
PA-234M	+	766.42		2.861E+01	2.627E+01	2.928E+01	1.496E+01	0.977

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1001.03	*	2.504E+00	5.375E+00	9.357E+00	9.415E-01	0.268
NP-239		99.53		1.688E-01	1.196E-01	2.028E-01	2.027E-02	0.832
		103.37		-4.114E-02	7.404E-02	1.149E-01	1.174E-02	-0.358
		106.12		5.234E-02	6.213E-02	1.031E-01	1.071E-02	0.508
		117.23	*	-5.119E-01	3.313E-01	4.719E-01	5.252E-02	-1.085
		228.18		-6.970E-02	1.975E-01	3.225E-01	2.842E-02	-0.216
	+	277.60		4.674E-01	2.917E-01	3.246E-01	2.895E-02	1.440
AM-241		59.54	*	1.156E-02	5.022E-02	7.826E-02	6.639E-03	0.148
CM-247	+	278.00		1.985E+00	1.239E+00	1.354E+00	1.208E-01	1.466
		287.50		-3.777E-01	1.237E+00	1.979E+00	1.767E-01	-0.191
		402.40	*	-4.218E-03	4.271E-02	6.709E-02	5.441E-03	-0.063
CF-249		252.80		3.118E-01	8.860E-01	1.495E+00	1.334E-01	0.209
		333.37		2.612E-01	2.158E-01	2.932E-01	2.569E-02	0.891
		388.16	*	4.209E-02	4.703E-02	7.970E-02	6.389E-03	0.528
CF-251		177.52	*	-4.700E-02	1.119E-01	1.863E-01	1.543E-02	-0.252
		227.38		-2.600E-01	3.324E-01	5.289E-01	4.659E-02	-0.492
		285.41		7.666E-02	2.151E+00	3.526E+00	3.147E-01	0.022

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841001       *
* Acquisition date : 18-MAR-2010 16:45:19 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:25.95     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248841001           Analyst initials: MXR1            *
* Batch Number     : 962629               Sample Quantity : 1.2857E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.727E+01	3.945E+00	5.066E-01	0.000E+00
CD-109	4.268E+00	8.620E-01	8.484E-01	0.000E+00
SN-126	4.171E-01	8.425E-02	8.278E-02	0.000E+00
HG-203	1.038E-01	6.353E-02	5.717E-02	0.000E+00
TL-208	6.960E-01	1.274E-01	6.559E-02	0.000E+00
PB-210	1.619E+00	7.293E-01	6.548E-01	0.000E+00
BI-211	4.691E+00	6.519E-01	3.809E-01	0.000E+00
PB-212	2.120E+00	2.415E-01	8.659E-02	0.000E+00
BI-214	1.297E+00	2.557E-01	1.455E-01	0.000E+00
PB-214	1.702E+00	2.539E-01	1.386E-01	0.000E+00
RA-224	2.277E+00	1.021E+00	9.307E-01	0.000E+00
RA-226	1.297E+00	2.557E-01	1.455E-01	0.000E+00
AC-228	1.428E+00	4.137E-01	2.946E-01	0.000E+00
RA-228	1.428E+00	4.137E-01	2.946E-01	0.000E+00
TH-228	2.120E+00	2.415E-01	8.659E-02	0.000E+00
TH-229	-4.775E-02	4.496E-01	7.950E-01	0.000E+00
TH-232	1.428E+00	4.137E-01	2.946E-01	0.000E+00
TH-234	1.577E+00	9.100E-01	8.611E-01	0.000E+00
U-235	1.867E-01	1.871E-01	3.194E-01	0.000E+00
NP-237	1.245E+00	3.586E-01	2.460E-01	0.000E+00
U-238	1.577E+00	9.100E-01	8.611E-01	0.000E+00
ANH-511	1.718E-01	7.881E-02	5.191E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-6.143E-02	3.453E-01	5.927E-01	0.000E+00	NOT IDENT.
NA-22	7.317E-02	6.301E-02	1.168E-01	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.876E+05	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-8.118E-03	5.130E-02	8.672E-02	0.000E+00	FAIL ABUN
V-48	-1.777E-02	9.946E-02	1.658E-01	0.000E+00	NOT IDENT.

CR-51	1.268E-01	3.713E-01	6.430E-01	0.000E+00	NOT IDENT.
MN-54	-1.269E-02	4.698E-02	7.924E-02	0.000E+00	NOT IDENT.
CO-56	-6.599E-03	4.830E-02	8.229E-02	0.000E+00	NOT IDENT.
CO-57	-1.694E-02	2.054E-02	3.270E-02	0.000E+00	NOT IDENT.
CO-58	-3.468E-02	4.802E-02	7.708E-02	0.000E+00	NOT IDENT.
FE-59	-3.565E-02	1.195E-01	1.933E-01	0.000E+00	NOT IDENT.
CO-60	-3.994E-03	5.275E-02	8.958E-02	0.000E+00	NOT IDENT.
ZN-65	3.446E-02	1.341E-01	2.017E-01	0.000E+00	NOT IDENT.
SE-75	-1.184E-02	4.273E-02	6.883E-02	0.000E+00	NOT IDENT.
SR-85	1.637E-02	4.516E-02	7.141E-02	0.000E+00	NOT IDENT.
Y-88	-3.797E-02	5.392E-02	7.430E-02	0.000E+00	NOT IDENT.
Y-91	-1.170E+01	3.529E+01	5.673E+01	0.000E+00	NOT IDENT.
NB-94	3.162E-03	4.592E-02	7.713E-02	0.000E+00	NOT IDENT.
NB-95	6.397E-02	6.513E-02	1.050E-01	0.000E+00	NOT IDENT.
NB-95M	-7.845E-02	1.290E-01	1.930E-01	0.000E+00	NOT IDENT.
ZR-95	-3.664E-02	1.103E-01	1.769E-01	0.000E+00	NOT IDENT.
MO-99	-3.155E+00	1.789E+01	2.918E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.107E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.542E-02	4.243E-02	7.575E-02	0.000E+00	FAIL ABUN
RH-106	7.830E-02	3.898E-01	6.716E-01	0.000E+00	NOT IDENT.
RU-106	7.830E-02	3.897E-01	6.716E-01	0.000E+00	NOT IDENT.
AG-108M	-4.585E-03	3.133E-02	5.453E-02	0.000E+00	NOT IDENT.
AG-110M	1.507E-03	4.042E-02	6.824E-02	0.000E+00	NOT IDENT.
SN-113	-3.501E-03	5.141E-02	8.461E-02	0.000E+00	NOT IDENT.
CD-115	-7.950E+00	1.331E+01	2.170E+01	0.000E+00	NOT IDENT.
SN-117M	-3.383E-03	4.468E-02	8.057E-02	0.000E+00	NOT IDENT.
TE-123M	-2.472E-03	2.336E-02	4.207E-02	0.000E+00	NOT IDENT.
SB-124	-1.671E-03	9.270E-02	1.538E-01	0.000E+00	NOT IDENT.
SB-125	1.050E-01	9.732E-02	1.834E-01	0.000E+00	FAIL ABUN
TE-125M	3.952E+00	7.291E+00	1.265E+01	0.000E+00	NOT IDENT.
I-126	1.627E-01	2.851E-01	5.028E-01	0.000E+00	NOT IDENT.
SB-126	-4.977E-02	2.018E-01	3.281E-01	0.000E+00	NOT IDENT.
SB-127	-8.712E-01	1.612E+00	2.537E+00	0.000E+00	NOT IDENT.
I-131	-1.163E-01	1.226E-01	1.875E-01	0.000E+00	NOT IDENT.
TE-132	-2.332E-01	6.661E-01	1.142E+00	0.000E+00	NOT IDENT.
BA-133	2.781E-02	4.410E-02	7.004E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	6.976E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.396E-02	1.300E-01	0.000E+00	FAIL ABUN
CS-135	1.373E-01	1.716E-01	2.796E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.321E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-9.846E-02	1.583E-01	2.494E-01	0.000E+00	NOT IDENT.
BA-137M	-4.246E-02	4.129E-02	6.128E-02	0.000E+00	NOT IDENT.
CS-137	-4.486E-02	4.362E-02	6.474E-02	0.000E+00	NOT IDENT.
CE-139	-1.252E-02	2.382E-02	4.185E-02	0.000E+00	NOT IDENT.
BA-140	-1.133E-02	3.072E-01	5.268E-01	0.000E+00	NOT IDENT.
LA-140	-7.383E-03	1.194E-01	1.982E-01	0.000E+00	FAIL ABUN
CE-141	-3.038E-02	5.714E-02	9.127E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.728E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.748E-02	1.667E-01	2.742E-01	0.000E+00	NOT IDENT.
PM-144	1.789E-02	4.777E-02	8.233E-02	0.000E+00	NOT IDENT.
PR-144	1.382E+00	3.579E+00	6.173E+00	0.000E+00	NOT IDENT.
PM-146	7.778E-03	4.688E-02	8.307E-02	0.000E+00	NOT IDENT.
ND-147	-1.203E-01	6.353E-01	1.076E+00	0.000E+00	FAIL ABUN
PM-149	5.359E+01	8.976E+01	1.590E+02	0.000E+00	NOT IDENT.
EU-152	-1.630E-02	9.633E-02	1.595E-01	0.000E+00	NOT IDENT.
GD-153	-4.965E-02	6.266E-02	9.381E-02	0.000E+00	NOT IDENT.
EU-154	1.834E-01	1.813E-01	3.304E-01	0.000E+00	NOT IDENT.
EU-155	9.422E-02	7.744E-02	1.383E-01	0.000E+00	FAIL ABUN
TB-160	-4.719E-02	1.829E-01	3.065E-01	0.000E+00	FAIL ABUN
HO-166M	-6.806E-02	8.084E-02	1.229E-01	0.000E+00	FAIL ABUN
TA-182	1.376E-01	3.165E-01	5.438E-01	0.000E+00	FAIL ABUN
IR-192	-1.080E-02	3.690E-02	6.133E-02	0.000E+00	FAIL ABUN
BI-207	-3.347E-02	6.885E-02	1.093E-01	0.000E+00	FAIL ABUN
PB-211	5.246E-01	8.317E-01	1.379E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.101E+00	1.644E+00	0.000E+00	FAIL ABUN
RN-219	-8.791E-02	4.438E-01	7.195E-01	0.000E+00	FAIL ABUN
RA-223	5.312E-02	7.166E-01	1.087E+00	0.000E+00	FAIL ABUN
AC-227	-6.072E-02	2.464E-01	4.202E-01	0.000E+00	FAIL ABUN
TH-227	-6.072E-02	2.465E-01	4.202E-01	0.000E+00	FAIL ABUN
PA-231	-5.121E-01	1.426E+00	2.261E+00	0.000E+00	NOT IDENT.
TH-231	5.312E-02	7.166E-01	1.087E+00	0.000E+00	FAIL ABUN
PA-233	-2.538E-02	6.362E-02	1.047E-01	0.000E+00	FAIL ABUN
PA-234	-1.995E-01	4.501E-01	7.336E-01	0.000E+00	FAIL ABUN
PA-234M	2.504E+00	5.267E+00	9.416E+00	0.000E+00	FAIL ABUN
NP-239	-5.119E-01	3.247E-01	4.908E-01	0.000E+00	FAIL ABUN
AM-241	1.156E-02	4.921E-02	8.221E-02	0.000E+00	NOT IDENT.
CM-247	-4.218E-03	4.186E-02	6.848E-02	0.000E+00	FAIL ABUN
CF-249	4.209E-02	4.609E-02	8.139E-02	0.000E+00	NOT IDENT.

CF-251	-4.700E-02	1.097E-01	1.925E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 18:46:21.60

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841001.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 16:45:19
Sample ID         : G248841001           Sample quantity  : 1.28570E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:25.95  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	980	10.66*	7.204E-01	3.727E+01	3.727E+01	10.80
CD-109	88.03	430	3.70*	8.136E+00	4.171E+00	4.268E+00	20.61
SN-126	64.28	163	9.60	8.178E+00	6.077E-01	6.077E-01	57.97
	86.94	430	8.90	8.136E+00	1.734E+00	1.734E+00	45.40
	87.57	430	37.00*	8.136E+00	4.171E-01	4.171E-01	20.61
HG-203	70.83	------	3.69	8.273E+00	------ Line Not Found		------
	72.87	------	6.19	8.278E+00	------ Line Not Found		------
	279.20	88	81.56*	3.795E+00	8.275E-02	1.038E-01	62.45
TL-208	277.37	88	6.60	3.795E+00	1.023E+00	1.023E+00	63.08
	583.19	360	85.00*	1.778E+00	6.960E-01	6.960E-01	18.68
	860.56	------	12.50	1.201E+00	------ Line Not Found		------
PB-210	46.54	173	4.25*	7.333E+00	1.617E+00	1.619E+00	45.98
BI-211	72.87	------	1.23	8.278E+00	------ Line Not Found		------
	351.06	622	12.92*	2.997E+00	4.691E+00	4.691E+00	14.18
PB-212	74.82	829	10.28	8.275E+00	2.845E+00	2.845E+00	16.36
	77.11	1205	17.10	8.264E+00	2.490E+00	2.490E+00	11.20
	238.63	1389	43.60*	4.387E+00	2.120E+00	2.120E+00	11.62
	300.09	92	3.30	3.521E+00	2.310E+00	2.310E+00	50.24
BI-214	609.32	343	45.49*	1.699E+00	1.297E+00	1.297E+00	20.12
	1120.29	90	14.92	9.295E-01	1.901E+00	1.901E+00	38.41
	1764.49	51	15.30	5.985E-01	1.617E+00	1.617E+00	29.98
PB-214	74.82	829	5.80	8.275E+00	5.043E+00	5.043E+00	15.36
	77.11	1205	9.70	8.264E+00	4.390E+00	4.390E+00	13.91
	242.00	211	7.25	4.330E+00	1.961E+00	1.961E+00	26.18
	295.22	366	18.42	3.577E+00	1.620E+00	1.620E+00	20.04
	351.93	622	35.60*	2.997E+00	1.702E+00	1.702E+00	15.22
RA-224	240.99	139	4.10*	4.348E+00	2.277E+00	2.277E+00	45.74
RA-226	609.32	343	45.49*	1.699E+00	1.297E+00	1.297E+00	20.12
	1120.29	90	14.92	9.295E-01	1.901E+00	1.901E+00	38.41
	1764.49	51	15.30	5.985E-01	1.617E+00	1.617E+00	29.98
AC-228	338.32	236	11.27	3.121E+00	1.956E+00	1.956E+00	46.66
	911.20	143	25.80*	1.136E+00	1.428E+00	1.428E+00	29.56

Sample ID : G248841001 Acquisition date : 18-MAR-2010 16:45:19

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	85	15.80	1.069E+00	1.467E+00	1.467E+00	46.65
RA-228	338.32	236	11.27	3.121E+00	1.956E+00	1.956E+00	46.66
	911.20	143	25.80*	1.136E+00	1.428E+00	1.428E+00	29.56
	968.97	85	15.80	1.069E+00	1.467E+00	1.467E+00	46.65
TH-228	74.82	829	10.28	8.275E+00	2.845E+00	2.845E+00	13.21
	77.11	1205	17.10	8.264E+00	2.490E+00	2.490E+00	11.20
	238.63	1389	43.60*	4.387E+00	2.120E+00	2.120E+00	11.62
	300.09	92	3.30	3.521E+00	2.310E+00	2.310E+00	78.49
TH-229	85.43	170	14.70	8.186E+00	4.134E-01	4.134E-01	40.27
	88.47	430	24.00	8.136E+00	6.431E-01	6.431E-01	20.61
	193.51	------	4.41*	5.271E+00	------ Line Not Found		------
	210.85	------	2.80	4.900E+00	------ Line Not Found		------
TH-232	338.32	236	11.27	3.121E+00	1.956E+00	1.956E+00	22.60
	911.20	143	25.80*	1.136E+00	1.428E+00	1.428E+00	29.56
	968.97	85	15.80	1.069E+00	1.467E+00	1.467E+00	46.65
TH-234	63.29	163	3.70*	8.178E+00	1.577E+00	1.577E+00	58.89
	92.59	454	4.23	8.013E+00	3.910E+00	3.910E+00	30.14
U-235	89.96	277	3.47	8.086E+00	2.884E+00	2.884E+00	35.07
	93.35	454	5.60	8.013E+00	2.953E+00	2.953E+00	30.89
	143.76	------	10.96*	6.567E+00	------ Line Not Found		------
	163.33	------	5.08	6.017E+00	------ Line Not Found		------
	185.72	191	57.20	5.449E+00	1.791E-01	1.791E-01	38.73
	205.31	------	5.01	5.015E+00	------ Line Not Found		------
NP-237	86.48	430	12.40*	8.136E+00	1.245E+00	1.245E+00	29.40
	95.86	------	2.68	7.953E+00	------ Line Not Found		------
U-238	63.29	163	3.70*	8.178E+00	1.577E+00	1.577E+00	58.89
	92.59	454	4.23	8.013E+00	3.910E+00	3.910E+00	22.25
ANH-511	511.00	120	100.00*	2.037E+00	1.718E-01	1.718E-01	46.82

Flag: "*" = Keyline

Sample ID : G248841001 Acquisition date : 18-MAR-2010 16:45:19

Total number of lines in spectrum 33
Number of unidentified lines 2
Number of lines tentatively identified by NID 31 93.94%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.727E+01	3.727E+01	0.403E+01	10.80	
CD-109	461.40D	1.02	4.171E+00	4.268E+00	0.880E+00	20.61	
SN-126	2.30E+05Y	1.00	4.171E-01	4.171E-01	0.860E-01	20.61	
HG-203	46.59D	1.25	8.275E-02	1.038E-01	0.648E-01	62.45	
TL-208	1.41E+10Y	1.00	6.960E-01	6.960E-01	1.300E-01	18.68	
PB-210	22.20Y	1.00	1.617E+00	1.619E+00	0.744E+00	45.98	
BI-211	7.04E+08Y	1.00	4.691E+00	4.691E+00	0.665E+00	14.18	
PB-212	1.41E+10Y	1.00	2.120E+00	2.120E+00	0.246E+00	11.62	
BI-214	1600.00Y	1.00	1.297E+00	1.297E+00	0.261E+00	20.12	
PB-214	1600.00Y	1.00	1.702E+00	1.702E+00	0.259E+00	15.22	
RA-224	1.41E+10Y	1.00	2.277E+00	2.277E+00	1.042E+00	45.74	
RA-226	1600.00Y	1.00	1.297E+00	1.297E+00	0.261E+00	20.12	
AC-228	1.41E+10Y	1.00	1.428E+00	1.428E+00	0.422E+00	29.56	
RA-228	1.41E+10Y	1.00	1.428E+00	1.428E+00	0.422E+00	29.56	
TH-228	1.41E+10Y	1.00	2.120E+00	2.120E+00	0.246E+00	11.62	
TH-229	7340.00Y	1.00	6.431E-01	6.431E-01	1.325E-01	20.61	K
TH-232	1.41E+10Y	1.00	1.428E+00	1.428E+00	0.422E+00	29.56	
TH-234	4.47E+09Y	1.00	1.577E+00	1.577E+00	0.929E+00	58.89	
U-235	7.04E+08Y	1.00	1.791E-01	1.791E-01	0.694E-01	38.73	K
NP-237	2.14E+06Y	1.00	1.245E+00	1.245E+00	0.366E+00	29.40	
U-238	4.47E+09Y	1.00	1.577E+00	1.577E+00	0.929E+00	58.89	
ANH-511	1.00E+09Y	1.00	1.718E-01	1.718E-01	0.804E-01	46.82	
	Total Activity :		6.943E+01	6.955E+01			

Grand Total Activity : 6.943E+01 6.955E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248841001 Acquisition date : 18-MAR-2010 16:45:19

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.81	116	298	0.67	257.53	254	7	1.60E-02	52.9	7.01E+00	
0	209.04	132	189	0.97	417.92	415	7	1.83E-02	38.6	4.94E+00	
0	270.40	168	215	1.63	540.59	535	13	2.33E-02	39.6	3.90E+00	T
0	327.97	62	163	0.95	655.70	652	10	8.60E-03	80.8	3.22E+00	T
0	462.54	61	68	1.06	924.79	920	9	8.52E-03	54.6	2.26E+00	T
0	727.13	67	68	0.91	1453.97	1450	10	9.34E-03	52.4	1.42E+00	T
0	767.61	42	58	1.36	1534.93	1529	11	5.86E-03	76.3	1.34E+00	T
0	795.05	45	46	1.04	1589.82	1586	10	6.29E-03	63.0	1.30E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 18:46:25.79

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841001.CNF;1  *
* Acquisition date : 18-MAR-2010 16:45:19  Detector SN#    :                *
* Detector ID      : GAM21                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:25.95         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248841001            Analyst initials: MXR1           *
* Batch Number     : 962629                Sample Quantity : 1.28570E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.727E+01	4.025E+00	5.065E-01	4.324E-02	73.581
CD-109	4.268E+00	8.796E-01	8.124E-01	7.644E-02	5.254
SN-126	4.171E-01	8.597E-02	7.926E-02	7.429E-03	5.263
HG-203	1.038E-01	6.483E-02	5.569E-02	5.084E-03	1.864
TL-208	6.960E-01	1.300E-01	6.463E-02	7.035E-03	10.769
PB-210	1.619E+00	7.442E-01	6.212E-01	5.874E-02	2.606
BI-211	4.691E+00	6.652E-01	3.723E-01	3.361E-02	12.598
PB-212	2.120E+00	2.464E-01	8.416E-02	8.408E-03	25.190
BI-214	1.297E+00	2.609E-01	1.435E-01	1.702E-02	9.039
PB-214	1.702E+00	2.590E-01	1.355E-01	1.433E-02	12.561
RA-224	2.277E+00	1.042E+00	9.046E-01	8.039E-02	2.517
RA-226	1.297E+00	2.609E-01	1.435E-01	1.702E-02	9.039
AC-228	1.428E+00	4.222E-01	2.923E-01	3.418E-02	4.887
RA-228	1.428E+00	4.222E-01	2.923E-01	3.418E-02	4.887
TH-228	2.120E+00	2.464E-01	8.416E-02	8.408E-03	25.190
TH-229	6.431E-01	1.325E-01	7.702E-01	6.538E-02	0.835
TH-232	1.428E+00	4.222E-01	2.923E-01	3.418E-02	4.887
TH-234	1.577E+00	9.285E-01	8.205E-01	1.481E-01	1.922

Sample ID : G248841001 Acquisition date : 18-MAR-2010 16:45:19

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	1.791E-01	6.937E-02	3.081E-01	5.454E-02	0.581
NP-237	1.245E+00	3.659E-01	2.355E-01	5.401E-02	5.285
U-238	1.577E+00	9.285E-01	8.205E-01	1.481E-01	1.922
ANH-511	1.718E-01	8.042E-02	5.105E-02	4.894E-03	3.365

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.143E-02		3.523E-01	5.822E-01	5.703E-02	-0.106
NA-22	7.317E-02		6.430E-02	1.166E-01	9.561E-03	0.628
NA-24	-3.147E-01		4.018E-01	Half-Life too short		
SC-46	-8.118E-03		5.234E-02	8.602E-02	7.649E-03	-0.094
V-48	-1.777E-02		1.015E-01	1.648E-01	1.441E-02	-0.108
CR-51	1.268E-01		3.789E-01	6.277E-01	5.831E-02	0.202
MN-54	-1.269E-02		4.794E-02	7.852E-02	7.610E-03	-0.162
CO-56	-6.599E-03		4.929E-02	8.156E-02	7.774E-03	-0.081
CO-57	-1.694E-02		2.096E-02	3.146E-02	3.614E-03	-0.539
CO-58	-3.468E-02		4.900E-02	7.635E-02	7.640E-03	-0.454
FE-59	-3.565E-02		1.219E-01	1.924E-01	1.775E-02	-0.185
CO-60	-3.994E-03		5.383E-02	8.943E-02	7.258E-03	-0.045
ZN-65	3.446E-02		1.368E-01	2.008E-01	1.702E-02	0.172
SE-75	-1.184E-02		4.360E-02	6.700E-02	6.016E-03	-0.177
SR-85	1.637E-02		4.608E-02	7.023E-02	6.758E-03	0.233
Y-88	-3.797E-02		5.502E-02	7.456E-02	6.156E-03	-0.509
Y-91	-1.170E+01		3.601E+01	5.654E+01	4.658E+00	-0.207
NB-94	3.162E-03		4.686E-02	7.622E-02	8.300E-03	0.041
NB-95	6.397E-02		6.646E-02	1.039E-01	1.086E-02	0.616
NB-95M	-7.845E-02		1.317E-01	1.876E-01	1.894E-02	-0.418
ZR-95	-3.664E-02		1.126E-01	1.750E-01	1.974E-02	-0.209
MO-99	-3.155E+00		1.826E+01	2.886E+01	4.895E+00	-0.109
TC-99M	-8.434E+09		2.095E+10	Half-Life too short		
RU-103	1.542E-02		4.330E-02	7.445E-02	1.077E-02	0.207
RH-106	7.830E-02		3.978E-01	6.624E-01	9.747E-02	0.118
RU-106	7.830E-02		3.977E-01	6.624E-01	7.107E-02	0.118
AG-108M	-4.585E-03		3.197E-02	5.349E-02	4.735E-03	-0.086
AG-110M	1.507E-03		4.124E-02	6.737E-02	7.557E-03	0.022
SN-113	-3.501E-03		5.246E-02	8.286E-02	6.824E-03	-0.042
CD-115	-7.950E+00		1.358E+01	2.135E+01	2.089E+00	-0.372
SN-117M	-3.383E-03		4.559E-02	7.783E-02	6.850E-03	-0.043
TE-123M	-2.472E-03		2.384E-02	4.064E-02	3.582E-03	-0.061
SB-124	-1.671E-03		9.459E-02	1.541E-01	1.345E-02	-0.011
SB-125	1.050E-01		9.930E-02	1.798E-01	1.556E-02	0.584
TE-125M	3.952E+00		7.440E+00	1.215E+01	1.477E+00	0.325
I-126	1.627E-01		2.909E-01	4.965E-01	5.477E-02	0.328
SB-126	-4.977E-02		2.060E-01	3.244E-01	3.500E-02	-0.153
SB-127	-8.712E-01		1.645E+00	2.506E+00	3.322E-01	-0.348
I-131	-1.163E-01		1.251E-01	1.834E-01	1.630E-02	-0.634

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-132	-2.332E-01		6.797E-01	1.109E+00	1.768E-01	-0.210
BA-133	2.781E-02		4.500E-02	6.849E-02	8.830E-03	0.406
I-133	-2.081E-04		3.559E-03	Half-Life too short		
CS-134	1.342E-01	+	8.567E-02	1.287E-01	1.314E-02	1.043
CS-135	1.373E-01		1.751E-01	2.722E-01	2.787E-02	0.505
I-135	3.101E+09		6.739E+09	Half-Life too short		
CS-136	-9.846E-02		1.615E-01	2.480E-01	2.236E-02	-0.397
BA-137M	-4.246E-02		4.213E-02	6.051E-02	6.682E-03	-0.702
CS-137	-4.486E-02		4.451E-02	6.392E-02	7.067E-03	-0.702
CE-139	-1.252E-02		2.431E-02	4.045E-02	3.288E-03	-0.310
BA-140	-1.133E-02		3.135E-01	5.184E-01	1.776E-01	-0.022
LA-140	-7.383E-03		1.218E-01	1.985E-01	1.660E-02	-0.037
CE-141	-3.038E-02		5.830E-02	8.804E-02	8.827E-03	-0.345
CE-143	3.439E-04		8.816E-05	Half-Life too short		
CE-144	-2.748E-02		1.701E-01	2.641E-01	4.380E-02	-0.104
PM-144	1.789E-02		4.875E-02	8.135E-02	8.885E-03	0.220
PR-144	1.382E+00		3.652E+00	6.100E+00	6.661E-01	0.226
PM-146	7.778E-03		4.784E-02	8.153E-02	8.789E-03	0.095
ND-147	-1.203E-01		6.483E-01	1.058E+00	1.659E-01	-0.114
PM-149	5.359E+01		9.159E+01	1.549E+02	2.435E+01	0.346
EU-152	-1.630E-02		9.830E-02	1.559E-01	1.429E-02	-0.105
GD-153	-4.965E-02		6.393E-02	8.996E-02	8.887E-03	-0.552
EU-154	1.834E-01		1.850E-01	3.296E-01	3.646E-02	0.556
EU-155	9.422E-02		7.902E-02	1.328E-01	1.384E-02	0.709
TB-160	-4.719E-02		1.866E-01	3.039E-01	2.751E-02	-0.155
HO-166M	-6.806E-02		8.249E-02	1.215E-01	1.317E-02	-0.560
TA-182	1.376E-01		3.230E-01	5.421E-01	4.463E-02	0.254
IR-192	-1.080E-02		3.765E-02	5.986E-02	5.320E-03	-0.180
BI-207	-3.347E-02		7.026E-02	1.087E-01	9.366E-03	-0.308
PB-211	5.246E-01		8.487E-01	1.351E+00	6.527E-01	0.388
BI-212	2.073E+00	+	1.124E+00	1.626E+00	2.279E-01	1.275
RN-219	-8.791E-02		4.528E-01	7.049E-01	1.028E-01	-0.125
RA-223	5.312E-02		7.312E-01	1.061E+00	1.850E-01	0.050
AC-227	-6.072E-02		2.515E-01	4.088E-01	5.019E-02	-0.149
TH-227	-6.072E-02		2.515E-01	4.088E-01	5.644E-02	-0.149
PA-231	-5.121E-01		1.456E+00	2.203E+00	3.253E-01	-0.232
TH-231	5.312E-02		7.312E-01	1.061E+00	1.850E-01	0.050
PA-233	-2.538E-02		6.492E-02	1.022E-01	9.327E-03	-0.248
PA-234	-1.995E-01		4.593E-01	7.284E-01	1.372E-01	-0.274
PA-234M	2.504E+00		5.375E+00	9.357E+00	9.415E-01	0.268
NP-239	-5.119E-01		3.313E-01	4.719E-01	5.252E-02	-1.085
AM-241	1.156E-02		5.022E-02	7.826E-02	6.639E-03	0.148
CM-247	-4.218E-03		4.271E-02	6.709E-02	5.441E-03	-0.063
CF-249	4.209E-02		4.703E-02	7.970E-02	6.389E-03	0.528
CF-251	-4.700E-02		1.119E-01	1.863E-01	1.543E-02	-0.252

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248841001            *
* Acquisition date : 18-MAR-2010 16:45:19 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:25.95     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248841001           Analyst initials: MXR1            *
* Batch Number     : 962629               Sample Quantity : 1.2857E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.727E+01	3.945E+00	2.534E-01	2.013E+00
CD-109	4.268E+00	8.620E-01	4.245E-01	4.398E-01
SN-126	4.171E-01	8.425E-02	4.142E-02	4.298E-02
HG-203	1.038E-01	6.353E-02	2.860E-02	3.241E-02
TL-208	6.960E-01	1.274E-01	3.282E-02	6.500E-02
PB-210	1.619E+00	7.293E-01	3.276E-01	3.721E-01
BI-211	4.691E+00	6.519E-01	1.905E-01	3.326E-01
PB-212	2.120E+00	2.415E-01	4.332E-02	1.232E-01
BI-214	1.297E+00	2.557E-01	7.282E-02	1.305E-01
PB-214	1.702E+00	2.539E-01	6.936E-02	1.295E-01
RA-224	2.277E+00	1.021E+00	4.656E-01	5.208E-01
RA-226	1.297E+00	2.557E-01	7.282E-02	1.305E-01
AC-228	1.428E+00	4.137E-01	1.474E-01	2.111E-01
RA-228	1.428E+00	4.137E-01	1.474E-01	2.111E-01
TH-228	2.120E+00	2.415E-01	4.332E-02	1.232E-01
TH-229	-4.775E-02	4.496E-01	3.978E-01	2.294E-01
TH-232	1.428E+00	4.137E-01	1.474E-01	2.111E-01
TH-234	1.577E+00	9.100E-01	4.308E-01	4.643E-01
U-235	1.867E-01	1.871E-01	1.598E-01	9.547E-02
NP-237	1.245E+00	3.586E-01	1.231E-01	1.830E-01
U-238	1.577E+00	9.100E-01	4.308E-01	4.643E-01
ANH-511	1.718E-01	7.881E-02	2.597E-02	4.021E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-6.143E-02	3.453E-01	2.965E-01	1.762E-01	NOT IDENT.
NA-22	7.317E-02	6.301E-02	5.845E-02	3.215E-02	NOT IDENT.
NA-24	-3.147E+05	7.876E+05	0.000E+00	4.018E+05	SHORT HLIF
SC-46	-8.118E-03	5.130E-02	4.339E-02	2.617E-02	FAIL ABUN
V-48	-1.777E-02	9.946E-02	8.297E-02	5.075E-02	NOT IDENT.

CR-51	1.268E-01	3.713E-01	3.217E-01	1.894E-01	NOT IDENT.
MN-54	-1.269E-02	4.698E-02	3.965E-02	2.397E-02	NOT IDENT.
CO-56	-6.599E-03	4.830E-02	4.117E-02	2.464E-02	NOT IDENT.
CO-57	-1.694E-02	2.054E-02	1.636E-02	1.048E-02	NOT IDENT.
CO-58	-3.468E-02	4.802E-02	3.856E-02	2.450E-02	NOT IDENT.
FE-59	-3.565E-02	1.195E-01	9.671E-02	6.095E-02	NOT IDENT.
CO-60	-3.994E-03	5.275E-02	4.482E-02	2.691E-02	NOT IDENT.
ZN-65	3.446E-02	1.341E-01	1.009E-01	6.840E-02	NOT IDENT.
SE-75	-1.184E-02	4.273E-02	3.443E-02	2.180E-02	NOT IDENT.
SR-85	1.637E-02	4.516E-02	3.573E-02	2.304E-02	NOT IDENT.
Y-88	-3.797E-02	5.392E-02	3.717E-02	2.751E-02	NOT IDENT.
Y-91	-1.170E+01	3.529E+01	2.838E+01	1.800E+01	NOT IDENT.
NB-94	3.162E-03	4.592E-02	3.859E-02	2.343E-02	NOT IDENT.
NB-95	6.397E-02	6.513E-02	5.254E-02	3.323E-02	NOT IDENT.
NB-95M	-7.845E-02	1.290E-01	9.658E-02	6.583E-02	NOT IDENT.
ZR-95	-3.664E-02	1.103E-01	8.852E-02	5.628E-02	NOT IDENT.
MO-99	-3.155E+00	1.789E+01	1.460E+01	9.129E+00	NOT IDENT.
TC-99M	-8.434E+15	4.107E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.542E-02	4.243E-02	3.790E-02	2.165E-02	FAIL ABUN
RH-106	7.830E-02	3.898E-01	3.360E-01	1.989E-01	NOT IDENT.
RU-106	7.830E-02	3.897E-01	3.360E-01	1.988E-01	NOT IDENT.
AG-108M	-4.585E-03	3.133E-02	2.728E-02	1.599E-02	NOT IDENT.
AG-110M	1.507E-03	4.042E-02	3.414E-02	2.062E-02	NOT IDENT.
SN-113	-3.501E-03	5.141E-02	4.233E-02	2.623E-02	NOT IDENT.
CD-115	-7.950E+00	1.331E+01	1.086E+01	6.792E+00	NOT IDENT.
SN-117M	-3.383E-03	4.468E-02	4.031E-02	2.279E-02	NOT IDENT.
TE-123M	-2.472E-03	2.336E-02	2.105E-02	1.192E-02	NOT IDENT.
SB-124	-1.671E-03	9.270E-02	7.695E-02	4.730E-02	NOT IDENT.
SB-125	1.050E-01	9.732E-02	9.175E-02	4.965E-02	FAIL ABUN
TE-125M	3.952E+00	7.291E+00	6.330E+00	3.720E+00	NOT IDENT.
I-126	1.627E-01	2.851E-01	2.515E-01	1.454E-01	NOT IDENT.
SB-126	-4.977E-02	2.018E-01	1.642E-01	1.030E-01	NOT IDENT.
SB-127	-8.712E-01	1.612E+00	1.269E+00	8.225E-01	NOT IDENT.
I-131	-1.163E-01	1.226E-01	9.379E-02	6.256E-02	NOT IDENT.
TE-132	-2.332E-01	6.661E-01	5.713E-01	3.399E-01	NOT IDENT.
BA-133	2.781E-02	4.410E-02	3.504E-02	2.250E-02	FAIL ABUN
I-133	-2.081E+02	6.976E+03	0.000E+00	3.559E+03	SHORT HLIF
CS-134	1.342E-01	8.396E-02	6.502E-02	4.284E-02	FAIL ABUN
CS-135	1.373E-01	1.716E-01	1.399E-01	8.753E-02	NOT IDENT.
I-135	3.101E+15	1.321E+16	0.000E+00	6.739E+15	SHORT HLIF
CS-136	-9.846E-02	1.583E-01	1.248E-01	8.077E-02	NOT IDENT.
BA-137M	-4.246E-02	4.129E-02	3.066E-02	2.107E-02	NOT IDENT.
CS-137	-4.486E-02	4.362E-02	3.239E-02	2.225E-02	NOT IDENT.
CE-139	-1.252E-02	2.382E-02	2.094E-02	1.215E-02	NOT IDENT.
BA-140	-1.133E-02	3.072E-01	2.635E-01	1.567E-01	NOT IDENT.
LA-140	-7.383E-03	1.194E-01	9.917E-02	6.090E-02	FAIL ABUN
CE-141	-3.038E-02	5.714E-02	4.566E-02	2.915E-02	NOT IDENT.
CE-143	3.439E+02	1.728E+02	0.000E+00	8.816E+01	SHORT HLIF
CE-144	-2.748E-02	1.667E-01	1.372E-01	8.504E-02	NOT IDENT.
PM-144	1.789E-02	4.777E-02	4.119E-02	2.437E-02	NOT IDENT.
PR-144	1.382E+00	3.579E+00	3.089E+00	1.826E+00	NOT IDENT.
PM-146	7.778E-03	4.688E-02	4.156E-02	2.392E-02	NOT IDENT.
ND-147	-1.203E-01	6.353E-01	5.382E-01	3.241E-01	FAIL ABUN
PM-149	5.359E+01	8.976E+01	7.953E+01	4.579E+01	NOT IDENT.
EU-152	-1.630E-02	9.633E-02	7.980E-02	4.915E-02	NOT IDENT.
GD-153	-4.965E-02	6.266E-02	4.693E-02	3.197E-02	NOT IDENT.
EU-154	1.834E-01	1.813E-01	1.653E-01	9.248E-02	NOT IDENT.
EU-155	9.422E-02	7.744E-02	6.920E-02	3.951E-02	FAIL ABUN
TB-160	-4.719E-02	1.829E-01	1.533E-01	9.332E-02	FAIL ABUN
HO-166M	-6.806E-02	8.084E-02	6.149E-02	4.124E-02	FAIL ABUN
TA-182	1.376E-01	3.165E-01	2.720E-01	1.615E-01	FAIL ABUN
IR-192	-1.080E-02	3.690E-02	3.068E-02	1.883E-02	FAIL ABUN
BI-207	-3.347E-02	6.885E-02	5.466E-02	3.513E-02	FAIL ABUN
PB-211	5.246E-01	8.317E-01	6.898E-01	4.244E-01	NOT IDENT.
BI-212	2.073E+00	1.101E+00	8.227E-01	5.619E-01	FAIL ABUN
RN-219	-8.791E-02	4.438E-01	3.600E-01	2.264E-01	FAIL ABUN
RA-223	5.312E-02	7.166E-01	5.438E-01	3.656E-01	FAIL ABUN
AC-227	-6.072E-02	2.464E-01	2.102E-01	1.257E-01	FAIL ABUN
TH-227	-6.072E-02	2.465E-01	2.102E-01	1.257E-01	FAIL ABUN
PA-231	-5.121E-01	1.426E+00	1.131E+00	7.278E-01	NOT IDENT.
TH-231	5.312E-02	7.166E-01	5.438E-01	3.656E-01	FAIL ABUN
PA-233	-2.538E-02	6.362E-02	5.239E-02	3.246E-02	FAIL ABUN
PA-234	-1.995E-01	4.501E-01	3.670E-01	2.297E-01	FAIL ABUN
PA-234M	2.504E+00	5.267E+00	4.711E+00	2.687E+00	FAIL ABUN
NP-239	-5.119E-01	3.247E-01	2.455E-01	1.656E-01	FAIL ABUN
AM-241	1.156E-02	4.921E-02	4.113E-02	2.511E-02	NOT IDENT.
CM-247	-4.218E-03	4.186E-02	3.426E-02	2.136E-02	FAIL ABUN
CF-249	4.209E-02	4.609E-02	4.072E-02	2.352E-02	NOT IDENT.

CF-251	-4.700E-02	1.097E-01	9.632E-02	5.597E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	203.8168
49.72	204.0129
57.36	0.0000
59.54	268.2230
63.29	334.6942
63.29	334.6942
64.28	336.0320
67.75	332.7162
69.67	364.0894
70.83	333.9462
72.81	332.3523
72.87	332.4239
72.87	332.4239
74.82	334.4293
74.82	334.4293
74.82	334.4293
74.97	334.6100
77.11	337.1402
77.11	337.1402
77.11	337.1402
79.69	340.1472
79.80	341.3095
80.12	341.6796
80.19	341.7602
80.57	319.3874
81.00	342.6942
81.07	342.7748
81.07	342.7748
83.79	304.6509
83.79	304.6509
85.43	306.2764
86.48	307.3076
86.55	307.3763
86.79	307.6092
86.94	307.7600
87.57	308.3743
88.03	308.8222
88.47	309.2480
89.96	310.6873
91.11	229.5514
92.59	202.5713
92.59	202.5713
93.35	203.0360
94.67	203.8393
94.87	203.9612
94.87	203.9612
95.86	197.3040
97.43	249.2237
98.44	209.3908
99.53	206.7481
100.11	230.2234
103.18	236.6625
103.37	236.7876
105.31	197.8219
106.12	199.3795
109.28	210.1171
111.00	241.7132
111.76	224.0012
116.30	192.1165
117.23	249.0677
121.12	192.1043
121.78	236.7283
122.06	224.0537
123.07	204.7163
131.20	197.1482
133.52	210.9792
136.00	201.3092

136.47	223.2415
140.51	206.9722
140.51	0.0000
143.76	220.6851
144.24	208.6375
144.24	208.6375
145.44	241.1599
152.43	212.2250
153.25	202.5742
154.21	205.4730
154.21	205.4730
156.02	217.9574
158.56	198.8393
159.00	203.2261
162.66	179.2010
163.33	193.0391
165.86	191.4131
176.60	217.9209
177.52	195.5807
181.07	215.0990
184.41	208.1443
185.72	186.0294
193.51	177.7416
197.04	192.3314
205.31	157.8635
210.85	155.0955
215.65	145.0900
222.11	148.3918
227.38	175.1105
228.16	158.2528
228.18	158.2579
235.69	191.1124
235.96	182.5615
235.96	182.5615
238.63	140.4454
238.63	140.4454
240.99	140.9103
242.00	141.1093
244.70	125.1446
252.40	119.5998
252.80	119.6644
256.23	145.8320
256.23	145.8320
260.90	140.7837
264.66	120.7488
268.22	129.1076
269.46	123.2978
269.46	123.2978
271.23	123.5731
273.65	81.6262
276.40	121.3452
277.37	101.2410
277.60	101.2716
278.00	101.3204
279.20	101.4709
279.54	85.2715
280.46	102.1378
283.69	116.3147
284.31	98.0234
285.41	116.5582
285.90	103.3281
287.50	124.0279
293.27	0.0000
295.22	103.9657
295.96	90.0781
298.57	90.3542
299.98	101.4236
299.98	101.4236
300.09	101.4375
300.09	101.4375
300.13	101.4415
301.36	98.4606
302.85	104.8920
304.50	102.8964
304.50	102.8964
304.85	110.4684
308.46	98.7390
311.90	107.5594

316.51	112.3533
319.41	98.8901
320.08	96.8356
323.87	100.9773
323.87	100.9773
328.76	110.6424
333.37	58.2935
334.37	98.8793
334.37	98.8793
338.28	91.1487
338.28	91.1487
338.32	91.1521
338.32	91.1521
338.32	91.1521
340.48	101.1473
340.55	101.1549
344.28	91.7195
351.06	113.2472
351.93	113.3478
356.01	67.9576
364.49	98.0619
366.42	75.9189
383.85	89.6867
388.16	84.3490
388.63	101.4921
391.69	96.0620
400.66	87.6292
401.81	85.4119
402.40	88.9232
404.85	77.5451
410.95	81.4587
414.70	94.5725
423.72	90.0235
427.09	82.3187
427.87	65.5438
433.94	77.4578
453.88	76.0340
463.37	74.4281
468.07	64.8717
473.00	66.1750
476.78	63.6052
477.60	68.2571
487.02	54.8183
492.35	58.7731
497.08	56.1740
511.00	58.6501
514.00	63.7080
527.90	67.9882
529.87	0.0000
531.02	62.3816
537.26	62.6573
546.56	0.0000
563.25	45.1409
569.33	54.1943
569.50	48.2867
569.70	48.2927
583.19	51.7080
600.60	58.3257
602.73	71.3523
604.72	77.4328
609.32	66.7372
609.32	66.7372
610.33	66.7795
614.28	51.9328
618.01	56.9331
621.93	57.0715
621.93	57.0715
633.25	54.3910
635.95	60.6475
636.99	63.7710
645.85	63.0775
657.76	48.9435
661.66	59.4927
661.66	59.4927
664.57	0.0000
666.33	53.3751
666.50	56.5214
677.62	51.6169

685.70	53.9712
695.00	68.0840
696.49	64.9465
696.51	64.9484
697.00	67.0952
702.65	66.2383
706.68	63.1736
711.68	67.6412
720.70	66.8967
721.93	0.0000
722.78	63.9460
722.91	63.9515
723.31	62.2371
724.19	53.6173
727.33	71.4664
733.00	59.0850
735.93	43.5132
739.50	63.2127
747.24	56.9052
752.31	68.0282
753.82	64.7869
756.73	73.6841
763.94	74.1788
765.81	51.2683
766.42	58.3575
777.92	54.4760
778.90	44.4922
783.70	60.2095
785.37	42.4056
795.86	35.8975
801.95	61.8834
810.29	59.6514
810.76	50.6256
815.77	36.2490
818.51	45.3711
832.01	46.5798
834.85	53.0439
836.80	0.0000
846.77	43.2271
856.80	62.8336
860.56	50.9099
871.09	54.8775
873.19	42.8274
875.33	0.0000
879.36	46.6821
880.51	42.0359
883.24	32.7347
884.68	43.0509
889.28	45.0152
898.04	36.7187
911.20	39.7739
911.20	39.7739
911.20	39.7739
926.50	44.8061
937.49	61.3016
944.13	48.0273
946.00	58.6395
949.00	45.2398
962.29	44.2489
964.08	30.6740
966.15	54.9373
968.97	42.0606
968.97	42.0606
968.97	42.0606
983.53	46.8703
996.26	37.2986
1001.03	28.5200
1004.73	43.3361
1037.84	35.9244
1038.76	0.0000
1048.07	54.1028
1050.41	38.1058
1050.41	38.1058
1063.66	42.3322
1085.87	40.6563
1099.45	40.8613
1112.07	50.0330
1115.54	39.3927

1120.29	43.2346
1120.29	43.2346
1120.55	43.2387
1121.30	44.6240
1131.51	0.0000
1173.23	56.6473
1177.93	59.8917
1189.05	41.1366
1204.77	68.9324
1221.41	60.7907
1231.02	68.4750
1235.36	66.4320
1238.28	45.0454
1260.41	0.0000
1271.85	35.7860
1274.44	30.3885
1274.54	28.2191
1291.59	34.9219
1298.22	0.0000
1312.11	36.2500
1332.49	27.6379
1365.19	12.0970
1368.63	0.0000
1384.29	33.6943
1408.01	25.4498
1457.56	0.0000
1460.82	8.2042
1489.16	13.5084
1505.03	15.5065
1596.21	16.8872
1620.50	9.9972
1678.03	0.0000
1690.97	8.1426
1764.49	7.1060
1764.49	7.1060
1770.23	8.8947
1771.35	16.6081
1791.20	0.0000
1836.06	14.7554

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248841001

Total Uranium Activity	4.7774E+00	ug/g
Total Uranium Counting Unc.	2.7085E+00	ug/g
Total Uranium Tpu	1.3819E-06	ug/g
Total Uranium Mda	1.2837E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962629                    SAMPLE ID  : G248841001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM21            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 18-MAR-2010 16:45:19.08    SAMPLE ALQT:  128.570 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.103E+01
GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.378E+00
GROSS GAMMA MDA    (pCi/GRAM  )   : 3.618E+00
GROSS GAMMA DLC    (pCi/GRAM  )   : 1.752E+00
```

VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 20:24:46.46

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841002.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 18:24:13
Sample ID         : G248841002           Sample quantity  : 1.22450E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.22  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.47*	66	305	1.62	125.86	122	8	9.21E-03	49.3	
2	6	74.93*	205	439	1.48	148.79	144	16	2.84E-02	20.3	9.82E-01
3	6	77.36*	399	414	1.48	153.64	144	16	5.54E-02	11.1	
4	0	85.96	142	607	4.32	170.85	164	13	1.97E-02	36.9	
5	0	186.46*	175	464	1.59	371.83	366	15	2.43E-02	28.8	
6	0	209.97*	109	240	1.34	418.85	415	11	1.51E-02	29.9	
7	1	238.70*	1063	212	1.68	476.31	469	22	1.48E-01	4.2	1.87E+00
8	1	241.90	228	240	1.69	482.69	469	22	3.17E-02	15.4	
9	0	278.05	44	182	1.04	555.00	550	10	6.11E-03	59.6	
10	1	295.40*	283	146	1.74	589.71	584	32	3.93E-02	10.3	1.55E+00
11	0	338.51	179	199	1.31	675.92	671	12	2.49E-02	17.5	
12	0	351.94*	520	176	1.36	702.77	695	15	7.22E-02	7.3	
13	0	463.97	56	127	2.11	926.85	919	12	7.83E-03	42.4	
14	0	510.74*	90	146	1.51	1020.38	1014	15	1.25E-02	35.2	
15	0	583.07*	314	75	1.74	1165.06	1157	15	4.36E-02	8.5	
16	0	609.32*	354	81	1.45	1217.55	1210	15	4.92E-02	7.9	
17	0	661.79	49	99	1.52	1322.51	1317	12	6.75E-03	43.4	
18	0	727.63*	72	70	1.37	1454.19	1448	14	1.00E-02	28.1	
19	0	795.23	21	44	0.92	1589.41	1585	8	2.87E-03	59.8	
20	0	860.70	71	36	1.12	1720.36	1714	15	9.83E-03	22.2	
21	0	911.14*	228	31	1.83	1821.26	1814	14	3.17E-02	8.7	
22	1	964.57	58	54	2.20	1928.14	1919	32	8.06E-03	28.0	1.77E+00
23	1	968.80*	131	47	2.18	1936.60	1919	32	1.82E-02	14.4	
24	0	1120.77*	104	38	2.08	2240.62	2233	19	1.45E-02	17.8	
25	0	1460.41	1046	30	2.09	2920.08	2912	17	1.45E-01	3.3	
26	0	1764.37*	40	14	1.60	3528.22	3520	13	5.60E-03	26.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-MAR-2010 20:24:49

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 18-MAR-2010 18:24:13
Sample ID : G248841002 Sample quantity : 122.45 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.22 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.113E+01	3.690E+00	7.866E-01	7.730E-02	39.574
BA-137M	+	661.66	*	8.378E-02	7.300E-02	7.680E-02	6.314E-03	1.091
CS-137	+	661.66	*	8.851E-02	7.712E-02	8.113E-02	6.684E-03	1.091
HG-203		70.83		-6.705E-01	2.404E+00	3.427E+00	6.074E-01	-0.196
		72.87		2.240E+00	1.422E+00	2.130E+00	3.677E-01	1.052
	+	279.20	*	5.616E-02	6.725E-02	8.362E-02	9.189E-03	0.672
TL-208	+	277.37		5.527E-01	6.636E-01	8.022E-01	1.134E-01	0.689
	+	583.19	*	5.163E-01	9.969E-02	6.688E-02	6.117E-03	7.720
	+	860.56		1.101E+00	5.016E-01	5.249E-01	5.131E-02	2.098
BI-211		72.87		8.976E+00	5.581E+00	8.534E+00	9.775E-01	1.052
	+	351.06	*	3.925E+00	6.912E-01	3.997E-01	3.981E-02	9.821
PB-212	+	74.82		1.883E+00	8.147E-01	8.243E-01	1.242E-01	2.285
	+	77.11		2.036E+00	5.100E-01	4.598E-01	5.329E-02	4.427
	+	238.63	*	1.816E+00	2.645E-01	1.224E-01	1.463E-02	14.828
		300.09		2.145E+00	1.119E+00	1.941E+00	2.364E-01	1.105
BI-214	+	609.32	*	1.127E+00	2.113E-01	1.335E-01	1.330E-02	8.445
	+	1120.29		1.744E+00	6.493E-01	5.321E-01	5.762E-02	3.279
	+	1764.49		9.439E-01	4.994E-01	4.073E-01	3.572E-02	2.317
PB-214	+	74.82		3.338E+00	1.432E+00	1.461E+00	2.041E-01	2.285
	+	77.11		3.588E+00	9.465E-01	8.105E-01	1.153E-01	4.427
	+	242.00		2.364E+00	7.837E-01	7.444E-01	9.273E-02	3.176
	+	295.22		1.328E+00	3.192E-01	2.730E-01	3.402E-02	4.866
	+	351.93	*	1.425E+00	2.629E-01	1.453E-01	1.652E-02	9.802
RA-224	+	240.99	*	4.180E+00	1.365E+00	1.312E+00	1.447E-01	3.186
RA-226	+	609.32	*	1.127E+00	2.113E-01	1.335E-01	1.330E-02	8.445
	+	1120.29		1.744E+00	6.493E-01	5.321E-01	5.762E-02	3.279
	+	1764.49		9.439E-01	4.994E-01	4.073E-01	3.572E-02	2.317
AC-228	+	338.32		1.511E+00	8.254E-01	4.822E-01	2.025E-01	3.132
	+	911.20	*	1.814E+00	3.834E-01	2.798E-01	3.389E-02	6.482
	+	968.97		1.802E+00	6.815E-01	4.199E-01	1.032E-01	4.290
RA-228	+	338.32		1.511E+00	8.254E-01	4.822E-01	2.025E-01	3.132
	+	911.20	*	1.814E+00	3.834E-01	2.798E-01	3.389E-02	6.482
	+	968.97		1.802E+00	6.815E-01	4.199E-01	1.032E-01	4.290
TH-228	+	74.82		1.883E+00	7.942E-01	8.243E-01	9.531E-02	2.285

Sample ID : G248841002 Acquisition date : 18-MAR-2010 18:24:13

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		2.036E+00	5.100E-01	4.598E-01	5.329E-02	4.427
	+	238.63	*	1.816E+00	2.645E-01	1.224E-01	1.463E-02	14.828
		300.09		2.145E+00	1.711E+00	1.941E+00	1.194E+00	1.105
TH-232	+	338.32		1.511E+00	5.487E-01	4.822E-01	4.754E-02	3.132
	+	911.20	*	1.814E+00	3.834E-01	2.798E-01	3.389E-02	6.482
	+	968.97		1.802E+00	6.815E-01	4.199E-01	1.032E-01	4.290
NP-237	+	86.48	*	8.073E-01	6.265E-01	5.527E-01	1.343E-01	1.461
		95.86		-4.531E+00	1.794E+00	2.011E+00	5.035E-01	-2.253
ANH-511	+	511.00	*	1.142E-01	8.089E-02	5.560E-02	4.804E-03	2.054

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-3.063E-01	4.176E-01	6.434E-01	5.980E-02	-0.476
NA-22		1274.54	*	8.677E-03	5.598E-02	9.197E-02	8.355E-03	0.094
NA-24		1368.63	*	-1.410E-01	5.598E-02	Half-Life too short		
SC-46		889.28	*	9.598E-03	5.065E-02	7.865E-02	7.309E-03	0.122
	+	1120.55		2.954E-01	1.082E-01	1.476E-01	1.255E-02	2.002
V-48		944.13		-3.380E-01	1.122E+00	1.794E+00	1.659E-01	-0.188
		983.53	*	2.003E-02	8.374E-02	1.408E-01	1.287E-02	0.142
		1312.11		4.273E-02	1.006E-01	1.704E-01	1.606E-02	0.251
CR-51		320.08	*	3.251E-01	4.665E-01	8.020E-01	8.511E-02	0.405
MN-54		834.85	*	-2.380E-02	4.733E-02	7.515E-02	6.820E-03	-0.317
CO-56		846.77	*	-1.635E-02	4.721E-02	7.566E-02	6.904E-03	-0.216
		1037.84		-2.728E-01	3.540E-01	5.274E-01	4.945E-02	-0.517
		1238.28		9.866E-02	1.208E-01	2.079E-01	1.868E-02	0.475
		1771.35		-7.988E-01	4.046E-01	4.464E-01	3.900E-02	-1.789
CO-57		122.06	*	-6.571E-04	3.252E-02	5.281E-02	5.319E-03	-0.012
		136.47		-2.451E-01	2.724E-01	4.222E-01	4.486E-02	-0.580
CO-58		810.76	*	-4.360E-02	5.041E-02	7.483E-02	6.727E-03	-0.583
FE-59		1099.45	*	-6.545E-02	1.283E-01	1.992E-01	1.859E-02	-0.328
		1291.59		7.550E-02	1.463E-01	2.505E-01	2.588E-02	0.301
CO-60		1173.23		-3.482E-02	6.309E-02	9.731E-02	7.921E-03	-0.358
		1332.49	*	-6.018E-02	4.889E-02	6.418E-02	6.170E-03	-0.938
ZN-65		1115.54	*	7.173E-02	1.183E-01	1.797E-01	1.535E-02	0.399
SE-75		121.12		4.778E-02	1.704E-01	2.802E-01	3.431E-02	0.171
		136.00		-2.713E-02	5.150E-02	8.140E-02	8.241E-03	-0.333
		264.66	*	-7.286E-02	5.851E-02	8.997E-02	9.866E-03	-0.810
	+	279.54		1.595E-01	1.910E-01	2.447E-01	2.710E-02	0.652
		400.66		-9.310E-02	3.273E-01	5.283E-01	5.788E-02	-0.176
SR-85		514.00	*	1.224E-01	5.954E-02	9.687E-02	8.369E-03	1.263
Y-88		898.04		-4.856E-02	5.078E-02	7.569E-02	7.088E-03	-0.642
		1836.06	*	3.313E-02	3.847E-02	7.362E-02	6.200E-03	0.450
Y-91		1204.77	*	-9.091E+00	2.879E+01	4.532E+01	3.820E+00	-0.201
NB-94		702.65	*	2.901E-02	4.128E-02	7.242E-02	6.114E-03	0.401
		871.09		-4.962E-04	4.476E-02	7.395E-02	6.820E-03	-0.007
NB-95		765.81	*	4.134E-02	5.694E-02	9.929E-02	8.699E-03	0.416
NB-95M		235.69	*	4.111E-01	2.024E-01	3.183E-01	3.835E-02	1.291

Sample ID : G248841002 Acquisition date : 18-MAR-2010 18:24:13

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95		724.19		1.077E-02	1.370E-01	1.988E-01	1.847E-02	0.054
		756.73	*	1.298E-02	9.118E-02	1.515E-01	1.456E-02	0.086
MO-99		140.51		-1.318E+01	2.976E+01	4.696E+01	1.143E+01	-0.281
		181.07		7.731E+00	2.654E+01	3.776E+01	7.506E+00	0.205
		366.42		-8.258E+01	1.292E+02	2.044E+02	1.873E+01	-0.404
		739.50	*	6.601E+00	1.588E+01	2.730E+01	4.304E+00	0.242
		777.92		1.560E+01	4.533E+01	7.752E+01	6.837E+00	0.201
TC-99M		140.51	*	-3.306E+10	4.533E+01	Half-Life too short		
RU-103		497.08	*	-1.208E-02	4.974E-02	7.941E-02	1.110E-02	-0.152
	+	610.33		1.167E+01	2.651E+00	3.129E+00	5.086E-01	3.729
RH-106		621.93	*	9.300E-02	3.842E-01	6.305E-01	8.270E-02	0.147
		1050.41		-2.705E-01	3.509E+00	5.700E+00	5.064E-01	-0.047
RU-106		621.93	*	9.300E-02	3.841E-01	6.305E-01	5.299E-02	0.147
		1050.41		-2.705E-01	3.509E+00	5.700E+00	5.064E-01	-0.047
AG-108M		433.94	*	-7.678E-03	3.706E-02	5.982E-02	5.287E-03	-0.128
		614.28		2.401E-02	4.331E-02	6.436E-02	5.614E-03	0.373
		722.91		-7.452E-03	5.204E-02	7.372E-02	6.507E-03	-0.101
CD-109		88.03	*	1.813E+00	1.366E+00	2.051E+00	2.546E-01	0.884
AG-110M		657.76	*	3.922E-02	4.846E-02	7.610E-02	6.476E-03	0.515
		677.62		-2.378E-01	3.640E-01	5.767E-01	4.940E-02	-0.412
		706.68		-7.737E-03	2.532E-01	4.225E-01	3.682E-02	-0.018
		763.94		-2.415E-01	2.200E-01	3.354E-01	3.014E-02	-0.720
		884.68		-2.862E-02	5.699E-02	8.926E-02	8.509E-03	-0.321
		937.49		-1.755E-01	1.426E-01	2.055E-01	1.962E-02	-0.854
		1384.29		-2.348E-02	1.780E-01	2.921E-01	2.875E-02	-0.080
		1505.03		-1.498E-01	3.533E-01	5.521E-01	5.276E-02	-0.271
SN-113		391.69	*	2.716E-02	5.525E-02	9.365E-02	8.133E-03	0.290
CD-115		260.90		1.630E+02	1.863E+02	3.232E+02	3.541E+01	0.504
		492.35		-1.415E+01	5.119E+01	8.161E+01	7.051E+00	-0.173
		527.90	*	-8.682E+00	1.500E+01	2.318E+01	2.001E+00	-0.374
SN-117M		156.02		-2.854E+00	2.932E+00	4.496E+00	4.686E-01	-0.635
		158.56	*	-4.271E-03	6.986E-02	1.122E-01	1.177E-02	-0.038
TE-123M		159.00	*	-6.489E-03	3.616E-02	5.778E-02	6.089E-03	-0.112
SB-124		602.73		2.998E-02	5.596E-02	8.219E-02	6.965E-03	0.365
		645.85		-4.325E-02	6.376E-01	1.018E+00	8.969E-02	-0.042
		722.78		-3.664E-02	5.264E-01	7.521E-01	6.578E-02	-0.049
		1690.97	*	-2.484E-02	8.736E-02	1.356E-01	1.277E-02	-0.183
SB-125		427.87	*	3.864E-02	1.160E-01	1.942E-01	1.690E-02	0.199
	+	463.37		6.376E-01	5.436E-01	6.719E-01	6.225E-02	0.949
		600.60		2.162E-01	2.391E-01	3.904E-01	3.563E-02	0.554
		635.95		4.126E-02	3.231E-01	5.251E-01	4.761E-02	0.079
TE-125M		109.28	*	-2.897E+00	1.282E+01	2.070E+01	2.459E+00	-0.140
I-126		388.63		-5.783E-02	2.244E-01	3.637E-01	3.095E-02	-0.159
		666.33	*	2.696E-01	2.922E-01	4.651E-01	3.836E-02	0.580
		753.82		-1.558E-01	2.133E+00	3.533E+00	3.075E-01	-0.044
SB-126		414.70		-6.680E-02	1.007E-01	1.581E-01	1.344E-02	-0.423
		666.50		8.261E-02	9.955E-02	1.572E-01	1.297E-02	0.526
		695.00		-4.972E-02	9.535E-02	1.531E-01	1.287E-02	-0.325
		697.00		-1.761E-01	3.204E-01	5.127E-01	4.313E-02	-0.344

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		720.70	*	1.335E-02	2.241E-01	3.248E-01	2.772E-02	0.041
		856.80		6.681E-01	5.602E-01	9.290E-01	8.515E-02	0.719
SN-126	+	64.28		1.151E+00	1.151E+00	1.505E+00	2.548E-01	0.765
	+	86.94		1.125E+00	9.557E-01	8.080E-01	3.416E-01	1.392
		87.57	*	7.734E-02	1.341E-01	1.972E-01	2.441E-02	0.392
SB-127		252.40		7.864E-01	6.002E+00	1.010E+01	4.252E+00	0.078
		473.00		-4.291E-01	2.203E+00	3.544E+00	4.541E-01	-0.121
		685.70	*	1.563E-01	1.681E+00	2.836E+00	3.180E-01	0.055
		783.70		3.009E+00	4.470E+00	7.797E+00	9.787E-01	0.386
I-131		80.19		4.977E+00	9.905E+00	1.075E+01	1.269E+00	0.463
		284.31		1.456E+00	2.030E+00	3.323E+00	3.694E-01	0.438
		364.49	*	-1.399E-01	1.484E-01	2.294E-01	2.215E-02	-0.610
		636.99		4.505E-01	1.925E+00	3.156E+00	2.794E-01	0.143
TE-132		49.72		2.178E+01	5.719E+01	9.641E+01	1.470E+01	0.226
		111.76		2.830E+01	4.427E+01	7.378E+01	9.087E+00	0.384
		116.30		8.386E-01	3.811E+01	6.208E+01	7.599E+00	0.014
		228.16	*	-7.130E-01	1.006E+00	1.628E+00	2.813E-01	-0.438
BA-133		81.00		2.601E-02	1.920E-01	2.021E-01	3.535E-02	0.129
		276.40		-2.396E-02	5.449E-01	7.888E-01	1.228E-01	-0.030
		302.85		1.349E-01	1.772E-01	3.046E-01	4.382E-02	0.443
		356.01	*	1.307E-03	6.119E-02	8.784E-02	1.187E-02	0.015
		383.85		-1.175E-01	3.977E-01	6.434E-01	8.011E-02	-0.183
I-133		529.87	*	-2.687E-03	3.977E-01	Half-Life too short		
		875.33		9.988E-02	3.977E-01	Half-Life too short		
		1298.22		-4.707E-01	3.977E-01	Half-Life too short		
CS-134		563.25		-1.186E-01	4.639E-01	7.352E-01	6.369E-02	-0.161
		569.33		3.091E-03	2.691E-01	4.276E-01	3.714E-02	0.007
		604.72		-1.349E-02	5.091E-02	6.865E-02	5.827E-03	-0.197
	+	795.86	*	4.941E-02	5.923E-02	1.059E-01	9.492E-03	0.467
		801.95		-8.562E-01	5.654E-01	7.451E-01	6.689E-02	-1.149
		1365.19		-7.469E-02	1.342E+00	2.227E+00	2.224E-01	-0.034
CS-135		268.22	*	1.950E-01	2.083E-01	3.606E-01	4.327E-02	0.541
I-135		546.56		4.236E+09	2.083E-01	Half-Life too short		
		836.80		-2.777E+10	2.083E-01	Half-Life too short		
		1038.76		-2.268E+10	2.083E-01	Half-Life too short		
		1131.51		-1.382E+10	2.083E-01	Half-Life too short		
		1260.41	*	-1.646E+10	2.083E-01	Half-Life too short		
		1457.56		1.713E+12	2.083E-01	Half-Life too short		
		1678.03		-1.170E+10	2.083E-01	Half-Life too short		
		1791.20		8.930E+09	2.083E-01	Half-Life too short		
CS-136		153.25		3.930E-01	1.082E+00	1.772E+00	2.084E-01	0.222
		176.60		-2.307E-01	6.605E-01	1.042E+00	1.197E-01	-0.221
		273.65		-1.640E+00	8.784E-01	1.094E+00	1.253E-01	-1.499
		340.55		6.524E-01	2.354E-01	3.867E-01	3.905E-02	1.687
		818.51		-3.606E-02	9.708E-02	1.560E-01	1.406E-02	-0.231
		1048.07	*	-2.509E-05	1.484E-01	2.427E-01	2.245E-02	0.000
		1235.36		3.595E-01	8.105E-01	1.357E+00	1.605E-01	0.265
CE-139		165.86	*	9.793E-03	3.924E-02	6.380E-02	6.811E-03	0.153
BA-140		162.66		-5.040E-01	1.077E+00	1.696E+00	1.876E-01	-0.297

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		304.85		3.447E-01	1.683E+00	2.825E+00	8.439E-01	0.122
		423.72		-4.021E-02	2.451E+00	4.014E+00	1.319E+00	-0.010
		537.26	*	-1.888E-01	3.372E-01	5.118E-01	1.736E-01	-0.369
LA-140		328.76		1.008E+00	4.105E-01	7.386E-01	7.745E-02	1.365
		487.02		9.497E-02	1.829E-01	3.083E-01	2.827E-02	0.308
		815.77		-1.823E-01	4.049E-01	6.444E-01	6.422E-02	-0.283
		1596.21	*	2.216E-02	9.958E-02	1.706E-01	1.599E-02	0.130
CE-141		145.44	*	1.513E-02	8.428E-02	1.354E-01	1.400E-02	0.112
CE-143		57.36		-1.316E-03	8.428E-02	Half-Life too short		
		293.27	*	9.531E-04	8.428E-02	Half-Life too short		
		664.57		2.232E-03	8.428E-02	Half-Life too short		
		721.93		-3.367E-04	8.428E-02	Half-Life too short		
CE-144		80.12		3.287E+00	5.312E+00	5.819E+00	6.839E-01	0.565
		133.52	*	2.571E-02	2.588E-01	4.211E-01	6.794E-02	0.061
PM-144		476.78		-4.527E-02	8.324E-02	1.302E-01	1.221E-02	-0.348
		618.01		-1.474E-02	4.099E-02	6.197E-02	5.370E-03	-0.238
		696.49	*	-3.438E-02	4.197E-02	6.566E-02	5.524E-03	-0.524
PR-144		696.51	*	-2.329E+00	3.123E+00	4.918E+00	4.136E-01	-0.473
		1489.16		-1.391E+01	1.456E+01	2.015E+01	1.930E+00	-0.690
PM-146		453.88	*	6.004E-04	5.314E-02	8.693E-02	9.193E-03	0.007
		633.25		-7.169E-01	1.679E+00	2.554E+00	9.738E-01	-0.281
		735.93		-1.415E-01	1.933E-01	2.700E-01	7.568E-02	-0.524
		747.24		-8.085E-02	1.157E-01	1.804E-01	2.637E-02	-0.448
ND-147		91.11		4.653E-01	4.603E-01	6.842E-01	8.473E-02	0.680
		319.41		3.863E+00	4.220E+00	7.328E+00	7.506E-01	0.527
		531.02	*	2.838E-01	7.031E-01	1.174E+00	1.756E-01	0.242
PM-149		285.90	*	-3.953E+01	1.214E+02	1.988E+02	3.343E+01	-0.199
EU-152		121.78		-5.024E-03	9.428E-02	1.529E-01	1.710E-02	-0.033
		244.70		6.636E-01	5.020E-01	7.828E-01	8.628E-02	0.848
		344.28	*	6.590E-02	1.687E-01	2.003E-01	2.039E-02	0.329
		778.90		1.450E-01	3.110E-01	5.369E-01	4.737E-02	0.270
	+	964.08		8.598E-01	4.882E-01	6.579E-01	6.051E-02	1.307
		1085.87		-6.677E-01	4.958E-01	6.872E-01	5.983E-02	-0.972
		1112.07		2.707E-01	3.820E-01	6.260E-01	5.357E-02	0.432
		1408.01		2.336E-02	2.090E-01	3.539E-01	3.410E-02	0.066
GD-153		69.67		-1.171E+00	3.183E+00	4.520E+00	5.160E-01	-0.259
		97.43	*	-3.073E-01	1.252E-01	1.760E-01	1.942E-02	-1.746
		103.18		-9.626E-02	1.446E-01	2.291E-01	2.422E-02	-0.420
EU-154		123.07		1.608E-02	6.599E-02	1.083E-01	1.351E-02	0.148
		723.31		-1.307E-01	2.440E-01	3.296E-01	3.108E-02	-0.396
		873.19		3.381E-01	3.597E-01	6.384E-01	7.881E-02	0.530
		996.26		-5.877E-01	4.740E-01	6.634E-01	1.175E-01	-0.886
		1004.73		-2.754E-01	2.921E-01	4.346E-01	5.204E-02	-0.634
		1274.44	*	3.119E-02	1.575E-01	2.599E-01	3.048E-02	0.120
EU-155	+	86.55		3.281E-01	2.452E-01	2.376E-01	2.931E-02	1.381
		105.31	*	4.525E-02	1.361E-01	2.251E-01	2.371E-02	0.201
TB-160	+	86.79		8.717E-01	6.513E-01	6.239E-01	7.671E-02	1.397
		197.04		2.258E-01	7.546E-01	1.222E+00	1.333E-01	0.185
		215.65		1.021E-01	1.050E+00	1.551E+00	1.706E-01	0.066

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		298.57		4.657E-01	1.622E-01	2.906E-01	3.075E-02	1.602
		879.36	*	-1.005E-01	1.735E-01	2.708E-01	2.506E-02	-0.371
		962.29		1.056E+00	7.421E-01	1.199E+00	1.104E-01	0.881
		966.15		1.354E+00	3.298E-01	6.357E-01	5.843E-02	2.131
		1177.93		6.731E-01	4.529E-01	8.308E-01	6.799E-02	0.810
		1271.85		-6.152E-01	9.113E-01	1.357E+00	1.228E-01	-0.453
HO-166M		80.57		2.099E-01	5.548E-01	5.969E-01	7.033E-02	0.352
		184.41		1.104E-01	5.616E-02	8.763E-02	9.476E-03	1.260
		280.46		5.012E-03	1.256E-01	1.828E-01	1.974E-02	0.027
		410.95		3.596E-01	3.146E-01	5.497E-01	4.666E-02	0.654
		711.68	*	-4.064E-02	7.608E-02	1.219E-01	1.035E-02	-0.333
		752.31		8.850E-03	3.195E-01	5.338E-01	4.642E-02	0.017
		810.29		-5.542E-02	7.557E-02	1.137E-01	1.020E-02	-0.487
TA-182		67.75		-1.951E-02	2.151E-01	3.089E-01	3.525E-02	-0.063
		100.11		2.037E-01	2.326E-01	3.882E-01	4.190E-02	0.525
		152.43		-7.166E-04	4.488E-01	7.241E-01	7.488E-02	-0.001
		222.11		-2.136E-01	4.421E-01	7.277E-01	8.020E-02	-0.294
	+	1121.30		8.182E-01	2.996E-01	4.090E-01	3.477E-02	2.000
		1189.05		-1.746E-01	4.028E-01	6.263E-01	5.189E-02	-0.279
		1221.41	*	1.060E-01	2.532E-01	4.255E-01	3.652E-02	0.249
		1231.02		-1.172E-01	6.711E-01	1.071E+00	9.287E-02	-0.109
IR-192	+	295.96		9.835E-01	2.277E-01	3.466E-01	3.697E-02	2.838
		308.46		-1.031E-01	1.432E-01	1.944E-01	2.035E-02	-0.531
		316.51	*	-3.172E-02	4.536E-02	7.225E-02	7.449E-03	-0.439
		468.07		1.220E-02	9.840E-02	1.405E-01	1.300E-02	0.087
BI-207		72.81		4.749E-01	3.197E-01	4.876E-01	5.584E-02	0.974
	+	74.97		5.428E-01	2.288E-01	3.280E-01	3.775E-02	1.655
		569.70		1.231E-02	4.090E-02	6.634E-02	5.682E-03	0.186
		1063.66	*	5.398E-02	7.140E-02	1.243E-01	1.096E-02	0.434
		1770.23		-2.300E+00	8.977E-01	8.766E-01	7.663E-02	-2.624
PB-210		46.54	*	8.664E-01	1.254E+01	2.073E+01	2.552E+00	0.042
PB-211		404.85	*	-1.118E-01	9.342E-01	1.521E+00	7.358E-01	-0.073
		427.09		-1.813E-02	1.955E+00	3.203E+00	1.482E+00	-0.006
		832.01		4.062E-01	1.330E+00	2.230E+00	1.158E+00	0.182
BI-212	+	727.33	*	1.813E+00	1.045E+00	1.367E+00	1.698E-01	1.327
		785.37		2.377E+00	3.953E+00	6.870E+00	6.082E-01	0.346
		1620.50		6.537E-01	2.777E+00	4.765E+00	4.435E-01	0.137
RN-219		271.23		6.233E-01	3.446E-01	5.798E-01	7.085E-02	1.075
		401.81	*	-5.084E-02	5.277E-01	8.622E-01	1.274E-01	-0.059
RA-223		81.07		4.711E-02	4.341E-01	4.560E-01	5.387E-02	0.103
		83.79		1.295E-01	2.182E-01	2.751E-01	3.308E-02	0.471
		94.87		4.682E-01	6.636E-01	1.108E+00	1.255E-01	0.422
		144.24		-5.065E-02	9.010E-01	1.434E+00	1.584E-01	-0.035
		154.21		1.922E-01	4.904E-01	8.038E-01	8.902E-02	0.239
		269.46		5.722E-01	2.512E-01	4.473E-01	4.936E-02	1.279
		323.87	*	-1.893E+00	9.095E-01	1.220E+00	2.214E-01	-1.551
	+	338.28		5.994E+00	2.236E+00	2.866E+00	3.722E-01	2.091
AC-227		79.69		4.593E+00	2.795E+00	3.176E+00	6.028E-01	1.446
		235.96		9.188E-01	2.754E-01	4.303E-01	5.347E-02	2.135

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		256.23	*	-1.576E-01	3.422E-01	5.600E-01	7.750E-02	-0.281
		299.98		2.461E+00	1.251E+00	2.150E+00	3.030E-01	1.145
		304.50		5.209E-01	2.016E+00	3.397E+00	5.971E-01	0.153
		334.37		6.653E-01	2.561E+00	3.752E+00	6.137E-01	0.177
TH-227		79.80		4.069E+00	3.667E+00	4.055E+00	9.404E-01	1.003
		235.96		9.188E-01	2.736E-01	4.303E-01	5.139E-02	2.135
		256.23	*	-1.576E-01	3.424E-01	5.600E-01	8.519E-02	-0.281
		299.98		2.461E+00	1.251E+00	2.150E+00	3.030E-01	1.145
		304.50		5.209E-01	2.016E+00	3.397E+00	5.971E-01	0.153
		334.37		6.653E-01	2.561E+00	3.752E+00	6.137E-01	0.177
TH-229	+	85.43		6.810E-01	5.088E-01	4.962E-01	6.036E-02	1.372
		88.47		4.738E-02	2.149E-01	3.117E-01	3.842E-02	0.152
		193.51	*	1.171E-02	8.204E-01	1.145E+00	1.246E-01	0.010
	+	210.85		2.656E+00	1.614E+00	1.998E+00	2.193E-01	1.330
PA-231		283.69	*	2.231E+00	2.038E+00	3.262E+00	5.202E-01	0.684
		301.36		1.191E+00	7.727E-01	1.327E+00	1.802E-01	0.897
TH-231		81.07		4.711E-02	4.341E-01	4.560E-01	5.387E-02	0.103
		83.79		1.295E-01	2.182E-01	2.751E-01	3.308E-02	0.471
		94.87		4.682E-01	6.636E-01	1.108E+00	1.255E-01	0.422
		144.24		-5.065E-02	9.010E-01	1.434E+00	1.584E-01	-0.035
		154.21		1.922E-01	4.904E-01	8.038E-01	8.902E-02	0.239
		269.46		5.722E-01	2.512E-01	4.473E-01	4.936E-02	1.279
		323.87	*	-1.893E+00	9.095E-01	1.220E+00	2.214E-01	-1.551
	+	338.28		5.994E+00	2.236E+00	2.866E+00	3.722E-01	2.091
PA-233		300.13		1.051E+00	5.667E-01	9.639E-01	1.546E-01	1.090
		311.90	*	3.457E-02	8.992E-02	1.394E-01	1.475E-02	0.248
		340.48		2.951E+00	1.206E+00	1.664E+00	4.079E-01	1.774
PA-234		94.67		5.656E-01	2.493E-01	4.161E-01	6.004E-02	1.359
		98.44		1.575E-02	1.222E-01	1.984E-01	1.115E-01	0.079
		111.00		1.273E-01	2.355E-01	3.913E-01	5.195E-02	0.325
		131.20		-1.042E-02	1.395E-01	2.254E-01	2.263E-02	-0.046
		569.50		5.887E-02	3.671E-01	5.896E-01	5.050E-02	0.100
		733.00		-2.458E-01	4.872E-01	6.499E-01	1.442E-01	-0.378
		880.51		-1.461E-01	3.366E-01	5.325E-01	4.931E-02	-0.274
		883.24		1.799E-01	3.475E-01	5.672E-01	3.818E-01	0.317
		926.50		1.313E-02	2.147E-01	3.496E-01	8.918E-02	0.038
		946.00	*	1.756E-01	3.751E-01	6.417E-01	1.223E-01	0.274
		949.00		3.523E-01	5.514E-01	9.590E-01	8.856E-02	0.367
PA-234M		766.42		7.864E+00	1.562E+01	2.604E+01	1.322E+01	0.302
		1001.03	*	7.546E+00	6.334E+00	1.120E+01	1.162E+00	0.674
TH-234	+	63.29	*	2.986E+00	3.003E+00	4.175E+00	8.279E-01	0.715
		92.59		1.329E+00	1.085E+00	1.727E+00	4.046E-01	0.770
U-235		89.96		-4.932E+00	2.027E+00	1.956E+00	5.089E-01	-2.521
		93.35		1.402E+00	8.183E-01	1.291E+00	3.140E-01	1.086
		143.76	*	-1.576E-01	2.734E-01	4.237E-01	7.539E-02	-0.372
		163.33		-1.017E-02	5.753E-01	9.253E-01	1.757E-01	-0.011
	+	185.72		1.934E-01	1.133E-01	1.154E-01	1.249E-02	1.677
		205.31		4.099E-01	7.477E-01	1.070E+00	2.073E-01	0.383
U-238	+	63.29	*	2.986E+00	3.003E+00	4.175E+00	8.279E-01	0.715

Sample ID : G248841002 Acquisition date : 18-MAR-2010 18:24:13

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		92.59		1.329E+00	1.051E+00	1.727E+00	2.008E-01	0.770
NP-239		99.53		2.891E-01	2.159E-01	3.647E-01	3.954E-02	0.793
		103.37		-1.125E-01	1.321E-01	2.072E-01	2.189E-02	-0.543
		106.12		6.638E-02	1.074E-01	1.793E-01	1.866E-02	0.370
		117.23	*	-7.724E-02	5.196E-01	8.400E-01	8.478E-02	-0.092
		228.18		-2.021E-01	2.872E-01	4.673E-01	5.155E-02	-0.433
	+	277.60		2.526E-01	3.024E-01	3.944E-01	4.271E-02	0.640
AM-241		59.54	*	1.453E-01	3.324E-01	4.951E-01	5.812E-02	0.293
CM-247	+	278.00		1.073E+00	1.285E+00	1.654E+00	1.791E-01	0.648
		287.50		-7.951E-01	1.616E+00	2.549E+00	2.733E-01	-0.312
		402.40	*	3.003E-03	4.705E-02	7.764E-02	6.566E-03	0.039
CF-249		252.80		8.798E-01	1.278E+00	2.201E+00	2.421E-01	0.400
		333.37		-3.719E-01	2.925E-01	3.770E-01	3.757E-02	-0.986
		388.16	*	-1.685E-02	5.305E-02	8.565E-02	7.301E-03	-0.197
CF-251		177.52	*	-9.026E-02	1.700E-01	2.656E-01	2.858E-02	-0.340
		227.38		-3.095E-01	4.682E-01	7.637E-01	8.424E-02	-0.405
		285.41		1.087E-01	2.758E+00	4.608E+00	4.952E-01	0.024

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841002      *
* Acquisition date : 18-MAR-2010 18:24:13 Detector SN#    :                 *
* Detector ID      : GAM15                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.22     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248841002           Analyst initials: MXR1            *
* Batch Number     : 962629               Sample Quantity : 1.2245E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.113E+01	3.616E+00	7.853E-01	0.000E+00
BA-137M	8.378E-02	7.154E-02	7.747E-02	0.000E+00
CS-137	8.851E-02	7.558E-02	8.184E-02	0.000E+00
HG-203	5.616E-02	6.591E-02	8.529E-02	0.000E+00
TL-208	5.163E-01	9.769E-02	6.757E-02	0.000E+00
BI-211	3.925E+00	6.774E-01	4.065E-01	0.000E+00
PB-212	1.816E+00	2.592E-01	1.251E-01	0.000E+00
BI-214	1.127E+00	2.070E-01	1.348E-01	0.000E+00
PB-214	1.425E+00	2.576E-01	1.478E-01	0.000E+00
RA-224	4.180E+00	1.337E+00	1.341E+00	0.000E+00
RA-226	1.127E+00	2.070E-01	1.348E-01	0.000E+00
AC-228	1.814E+00	3.757E-01	2.811E-01	0.000E+00
RA-228	1.814E+00	3.757E-01	2.811E-01	0.000E+00
TH-228	1.816E+00	2.592E-01	1.251E-01	0.000E+00
TH-232	1.814E+00	3.757E-01	2.811E-01	0.000E+00
NP-237	8.073E-01	6.140E-01	5.720E-01	0.000E+00
ANH-511	1.142E-01	7.927E-02	5.627E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-3.063E-01	4.092E-01	6.517E-01	0.000E+00	NOT IDENT.
NA-22	8.677E-03	5.486E-02	9.198E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.753E+05	0.000E+00	0.000E+00	SHORT HLIF
SC-46	9.598E-03	4.963E-02	7.903E-02	0.000E+00	FAIL ABUN
V-48	2.003E-02	8.207E-02	1.413E-01	0.000E+00	NOT IDENT.
CR-51	3.251E-01	4.572E-01	8.165E-01	0.000E+00	NOT IDENT.
MN-54	-2.380E-02	4.639E-02	7.558E-02	0.000E+00	NOT IDENT.
CO-56	-1.635E-02	4.626E-02	7.607E-02	0.000E+00	NOT IDENT.
CO-57	-6.571E-04	3.187E-02	5.442E-02	0.000E+00	NOT IDENT.
CO-58	-4.360E-02	4.941E-02	7.528E-02	0.000E+00	NOT IDENT.

FE-59	-6.545E-02	1.257E-01	1.997E-01	0.000E+00	NOT IDENT.
CO-60	-6.018E-02	4.791E-02	6.415E-02	0.000E+00	NOT IDENT.
ZN-65	7.173E-02	1.159E-01	1.800E-01	0.000E+00	NOT IDENT.
SE-75	-7.286E-02	5.734E-02	9.183E-02	0.000E+00	FAIL ABUN
SR-85	0.000E+00	5.835E-02	9.803E-02	0.000E+00	NOT IDENT.
Y-88	3.313E-02	3.770E-02	7.327E-02	0.000E+00	NOT IDENT.
Y-91	-9.091E+00	2.821E+01	4.536E+01	0.000E+00	NOT IDENT.
NB-94	2.901E-02	4.045E-02	7.300E-02	0.000E+00	NOT IDENT.
NB-95	4.134E-02	5.581E-02	9.997E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.984E-01	3.254E-01	0.000E+00	NOT IDENT.
ZR-95	1.298E-02	8.936E-02	1.525E-01	0.000E+00	NOT IDENT.
MO-99	6.601E+00	1.557E+01	2.750E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	7.334E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.208E-02	4.875E-02	8.040E-02	0.000E+00	FAIL ABUN
RH-106	9.300E-02	3.765E-01	6.366E-01	0.000E+00	NOT IDENT.
RU-106	9.300E-02	3.764E-01	6.366E-01	0.000E+00	NOT IDENT.
AG-108M	-7.678E-03	3.631E-02	6.067E-02	0.000E+00	NOT IDENT.
CD-109	1.813E+00	1.338E+00	2.122E+00	0.000E+00	NOT IDENT.
AG-110M	3.922E-02	4.749E-02	7.677E-02	0.000E+00	NOT IDENT.
SN-113	2.716E-02	5.414E-02	9.511E-02	0.000E+00	NOT IDENT.
CD-115	-8.682E+00	1.470E+01	2.345E+01	0.000E+00	NOT IDENT.
SN-117M	-4.271E-03	6.846E-02	1.153E-01	0.000E+00	NOT IDENT.
TE-123M	-6.489E-03	3.544E-02	5.935E-02	0.000E+00	NOT IDENT.
SB-124	-2.484E-02	8.561E-02	1.351E-01	0.000E+00	NOT IDENT.
SB-125	3.864E-02	1.137E-01	1.970E-01	0.000E+00	FAIL ABUN
TE-125M	-2.897E+00	1.256E+01	2.137E+01	0.000E+00	NOT IDENT.
I-126	2.696E-01	2.864E-01	4.691E-01	0.000E+00	NOT IDENT.
SB-126	1.335E-02	2.196E-01	3.273E-01	0.000E+00	NOT IDENT.
SN-126	7.734E-02	1.314E-01	2.041E-01	0.000E+00	FAIL ABUN
SB-127	1.563E-01	1.648E+00	2.859E+00	0.000E+00	NOT IDENT.
I-131	-1.399E-01	1.455E-01	2.332E-01	0.000E+00	NOT IDENT.
TE-132	-7.130E-01	9.855E-01	1.665E+00	0.000E+00	NOT IDENT.
BA-133	1.307E-03	5.996E-02	8.932E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	8.367E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	4.941E-02	5.805E-02	1.066E-01	0.000E+00	FAIL ABUN
CS-135	1.950E-01	2.042E-01	3.680E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.284E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.509E-05	1.454E-01	2.434E-01	0.000E+00	NOT IDENT.
CE-139	9.793E-03	3.845E-02	6.550E-02	0.000E+00	NOT IDENT.
BA-140	-1.888E-01	3.305E-01	5.177E-01	0.000E+00	NOT IDENT.
LA-140	2.216E-02	9.759E-02	1.701E-01	0.000E+00	NOT IDENT.
CE-141	1.513E-02	8.259E-02	1.392E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.088E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	2.571E-02	2.536E-01	4.334E-01	0.000E+00	NOT IDENT.
PM-144	-3.438E-02	4.113E-02	6.619E-02	0.000E+00	NOT IDENT.
PR-144	-2.329E+00	3.061E+00	4.958E+00	0.000E+00	NOT IDENT.
PM-146	6.004E-04	5.208E-02	8.812E-02	0.000E+00	NOT IDENT.
ND-147	2.838E-01	6.891E-01	1.188E+00	0.000E+00	NOT IDENT.
PM-149	-3.953E+01	1.190E+02	2.027E+02	0.000E+00	NOT IDENT.
EU-152	6.590E-02	1.654E-01	2.038E-01	0.000E+00	FAIL ABUN
GD-153	-3.073E-01	1.227E-01	1.819E-01	0.000E+00	NOT IDENT.
EU-154	3.119E-02	1.543E-01	2.599E-01	0.000E+00	NOT IDENT.
EU-155	4.525E-02	1.334E-01	2.324E-01	0.000E+00	FAIL ABUN
TB-160	-1.005E-01	1.700E-01	2.722E-01	0.000E+00	FAIL ABUN
HO-166M	-4.064E-02	7.456E-02	1.228E-01	0.000E+00	NOT IDENT.
TA-182	1.060E-01	2.481E-01	4.258E-01	0.000E+00	FAIL ABUN
IR-192	-3.172E-02	4.445E-02	7.357E-02	0.000E+00	FAIL ABUN
BI-207	5.398E-02	6.997E-02	1.246E-01	0.000E+00	FAIL ABUN
PB-210	8.664E-01	1.228E+01	2.162E+01	0.000E+00	NOT IDENT.
PB-211	-1.118E-01	9.155E-01	1.544E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.024E+00	1.377E+00	0.000E+00	FAIL ABUN
RN-219	-5.084E-02	5.171E-01	8.753E-01	0.000E+00	NOT IDENT.
RA-223	-1.893E+00	8.913E-01	1.242E+00	0.000E+00	FAIL ABUN
AC-227	-1.576E-01	3.354E-01	5.718E-01	0.000E+00	NOT IDENT.
TH-227	-1.576E-01	3.355E-01	5.718E-01	0.000E+00	NOT IDENT.
TH-229	1.171E-02	8.040E-01	1.173E+00	0.000E+00	FAIL ABUN
PA-231	2.231E+00	1.997E+00	3.326E+00	0.000E+00	NOT IDENT.
TH-231	-1.893E+00	8.913E-01	1.242E+00	0.000E+00	FAIL ABUN
PA-233	3.457E-02	8.812E-02	1.420E-01	0.000E+00	NOT IDENT.
PA-234	1.756E-01	3.676E-01	6.443E-01	0.000E+00	NOT IDENT.
PA-234M	7.546E+00	6.207E+00	1.124E+01	0.000E+00	NOT IDENT.
TH-234	2.986E+00	2.943E+00	4.338E+00	0.000E+00	FAIL ABUN
U-235	-1.576E-01	2.679E-01	4.358E-01	0.000E+00	FAIL ABUN
U-238	2.986E+00	2.943E+00	4.338E+00	0.000E+00	FAIL ABUN
NP-239	-7.724E-02	5.092E-01	8.661E-01	0.000E+00	FAIL ABUN
AM-241	1.453E-01	3.258E-01	5.148E-01	0.000E+00	NOT IDENT.
CM-247	3.003E-03	4.611E-02	7.883E-02	0.000E+00	FAIL ABUN
CF-249	-1.685E-02	5.199E-02	8.699E-02	0.000E+00	NOT IDENT.

CF-251	-9.026E-02	1.666E-01	2.724E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 20:24:47.38

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841002.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 18:24:13
Sample ID         : G248841002           Sample quantity  : 1.22450E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.22  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1046	10.66*	9.663E-01	3.113E+01	3.113E+01	11.85
BA-137M	661.66	49	89.90*	1.981E+00	8.370E-02	8.378E-02	87.14
CS-137	661.66	49	85.10*	1.981E+00	8.842E-02	8.851E-02	87.14
HG-203	70.83	------	3.69	2.755E+00	------	Line Not Found	------
	72.87	------	6.19	3.001E+00	------	Line Not Found	------
	279.20	44	81.56*	3.699E+00	4.472E-02	5.616E-02	119.75
TL-208	277.37	44	6.60	3.699E+00	5.527E-01	5.527E-01	120.08
	583.19	314	85.00*	2.191E+00	5.163E-01	5.163E-01	19.31
	860.56	71	12.50	1.576E+00	1.101E+00	1.101E+00	45.54
BI-211	72.87	------	1.23	3.001E+00	------	Line Not Found	------
	351.06	520	12.92*	3.141E+00	3.925E+00	3.925E+00	17.61
PB-212	74.82	205	10.28	3.241E+00	1.883E+00	1.883E+00	43.26
	77.11	399	17.10	3.512E+00	2.036E+00	2.036E+00	25.05
	238.63	1063	43.60*	4.115E+00	1.816E+00	1.816E+00	14.57
	300.09	------	3.30	3.507E+00	------	Line Not Found	------
BI-214	609.32	354	45.49*	2.117E+00	1.127E+00	1.127E+00	18.74
	1120.29	104	14.92	1.226E+00	1.744E+00	1.744E+00	37.22
	1764.49	40	15.30	8.554E-01	9.439E-01	9.439E-01	52.91
PB-214	74.82	205	5.80	3.241E+00	3.338E+00	3.338E+00	42.89
	77.11	399	9.70	3.512E+00	3.588E+00	3.588E+00	26.38
	242.00	228	7.25	4.077E+00	2.364E+00	2.364E+00	33.16
	295.22	283	18.42	3.546E+00	1.328E+00	1.328E+00	24.03
	351.93	520	35.60*	3.141E+00	1.425E+00	1.425E+00	18.45
RA-224	240.99	228	4.10*	4.077E+00	4.180E+00	4.180E+00	32.65
RA-226	609.32	354	45.49*	2.117E+00	1.127E+00	1.127E+00	18.74
	1120.29	104	14.92	1.226E+00	1.744E+00	1.744E+00	37.22
	1764.49	40	15.30	8.554E-01	9.439E-01	9.439E-01	52.91
AC-228	338.32	179	11.27	3.226E+00	1.511E+00	1.511E+00	54.64
	911.20	228	25.80*	1.494E+00	1.814E+00	1.814E+00	21.14
	968.97	131	15.80	1.410E+00	1.802E+00	1.802E+00	37.82
RA-228	338.32	179	11.27	3.226E+00	1.511E+00	1.511E+00	54.64
	911.20	228	25.80*	1.494E+00	1.814E+00	1.814E+00	21.14

Sample ID : G248841002 Acquisition date : 18-MAR-2010 18:24:13

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	131	15.80	1.410E+00	1.802E+00	1.802E+00	37.82
TH-228	74.82	205	10.28	3.241E+00	1.883E+00	1.883E+00	42.17
	77.11	399	17.10	3.512E+00	2.036E+00	2.036E+00	25.05
	238.63	1063	43.60*	4.115E+00	1.816E+00	1.816E+00	14.57
	300.09	------	3.30	3.507E+00	------ Line Not Found		------
TH-232	338.32	179	11.27	3.226E+00	1.511E+00	1.511E+00	36.32
	911.20	228	25.80*	1.494E+00	1.814E+00	1.814E+00	21.14
	968.97	131	15.80	1.410E+00	1.802E+00	1.802E+00	37.82
NP-237	86.48	142	12.40*	4.337E+00	8.073E-01	8.073E-01	77.61
	95.86	------	2.68	5.004E+00	------ Line Not Found		------
ANH-511	511.00	90	100.00*	2.419E+00	1.142E-01	1.142E-01	70.83

Flag: "*" = Keyline

Sample ID : G248841002 Acquisition date : 18-MAR-2010 18:24:13

Total number of lines in spectrum 26
Number of unidentified lines 0
Number of lines tentatively identified by NID 26 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.113E+01	3.113E+01	0.369E+01	11.85	
BA-137M	30.08Y	1.00	8.370E-02	8.378E-02	7.300E-02	87.14	
CS-137	30.08Y	1.00	8.842E-02	8.851E-02	7.712E-02	87.14	
HG-203	46.59D	1.26	4.472E-02	5.616E-02	6.725E-02	119.75	
TL-208	1.41E+10Y	1.00	5.163E-01	5.163E-01	0.997E-01	19.31	
BI-211	7.04E+08Y	1.00	3.925E+00	3.925E+00	0.691E+00	17.61	
PB-212	1.41E+10Y	1.00	1.816E+00	1.816E+00	0.265E+00	14.57	
BI-214	1600.00Y	1.00	1.127E+00	1.127E+00	0.211E+00	18.74	
PB-214	1600.00Y	1.00	1.425E+00	1.425E+00	0.263E+00	18.45	
RA-224	1.41E+10Y	1.00	4.180E+00	4.180E+00	1.365E+00	32.65	
RA-226	1600.00Y	1.00	1.127E+00	1.127E+00	0.211E+00	18.74	
AC-228	1.41E+10Y	1.00	1.814E+00	1.814E+00	0.383E+00	21.14	
RA-228	1.41E+10Y	1.00	1.814E+00	1.814E+00	0.383E+00	21.14	
TH-228	1.41E+10Y	1.00	1.816E+00	1.816E+00	0.265E+00	14.57	
TH-232	1.41E+10Y	1.00	1.814E+00	1.814E+00	0.383E+00	21.14	
NP-237	2.14E+06Y	1.00	8.073E-01	8.073E-01	6.265E-01	77.61	
ANH-511	1.00E+09Y	1.00	1.142E-01	1.142E-01	0.809E-01	70.83	
			---	---			
	Total Activity :		5.364E+01	5.365E+01			

Grand Total Activity : 5.364E+01 5.365E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248841002 Acquisition date : 18-MAR-2010 18:24:13

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	63.47	66	305	1.62	125.86	122	8	9.21E-03	98.6	1.84E+00	T
0	186.46	175	464	1.59	371.83	366	15	2.43E-02	57.5	4.85E+00	T
0	209.97	109	240	1.34	418.85	415	11	1.51E-02	59.8	4.49E+00	T
0	463.97	56	127	2.11	926.85	919	12	7.83E-03	84.7	2.59E+00	T
0	727.63	72	70	1.37	1454.19	1448	14	1.00E-02	56.3	1.83E+00	T
0	795.23	21	44	0.92	1589.41	1585	8	2.87E-03	****	1.69E+00	T
1	964.57	58	54	2.20	1928.14	1919	32	8.06E-03	56.0	1.42E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 20:24:51.56

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841002.CNF;1  *
* Acquisition date : 18-MAR-2010 18:24:13  Detector SN#    :                *
* Detector ID      : GAM15                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.22         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248841002            Analyst initials: MXR1           *
* Batch Number     : 962629                Sample Quantity : 1.22450E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.113E+01	3.690E+00	7.866E-01	7.730E-02	39.574
BA-137M	8.378E-02	7.300E-02	7.680E-02	6.314E-03	1.091
CS-137	8.851E-02	7.712E-02	8.113E-02	6.684E-03	1.091
HG-203	5.616E-02	6.725E-02	8.362E-02	9.189E-03	0.672
TL-208	5.163E-01	9.969E-02	6.688E-02	6.117E-03	7.720
BI-211	3.925E+00	6.912E-01	3.997E-01	3.981E-02	9.821
PB-212	1.816E+00	2.645E-01	1.224E-01	1.463E-02	14.828
BI-214	1.127E+00	2.113E-01	1.335E-01	1.330E-02	8.445
PB-214	1.425E+00	2.629E-01	1.453E-01	1.652E-02	9.802
RA-224	4.180E+00	1.365E+00	1.312E+00	1.447E-01	3.186
RA-226	1.127E+00	2.113E-01	1.335E-01	1.330E-02	8.445
AC-228	1.814E+00	3.834E-01	2.798E-01	3.389E-02	6.482
RA-228	1.814E+00	3.834E-01	2.798E-01	3.389E-02	6.482
TH-228	1.816E+00	2.645E-01	1.224E-01	1.463E-02	14.828
TH-232	1.814E+00	3.834E-01	2.798E-01	3.389E-02	6.482
NP-237	8.073E-01	6.265E-01	5.527E-01	1.343E-01	1.461
ANH-511	1.142E-01	8.089E-02	5.560E-02	4.804E-03	2.054

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.063E-01		4.176E-01	6.434E-01	5.980E-02	-0.476

Sample ID : G248841002 Acquisition date : 18-MAR-2010 18:24:13

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	8.677E-03		5.598E-02	9.197E-02	8.355E-03	0.094
NA-24	-1.410E-01		4.466E-01	Half-Life too short		
SC-46	9.598E-03		5.065E-02	7.865E-02	7.309E-03	0.122
V-48	2.003E-02		8.374E-02	1.408E-01	1.287E-02	0.142
CR-51	3.251E-01		4.665E-01	8.020E-01	8.511E-02	0.405
MN-54	-2.380E-02		4.733E-02	7.515E-02	6.820E-03	-0.317
CO-56	-1.635E-02		4.721E-02	7.566E-02	6.904E-03	-0.216
CO-57	-6.571E-04		3.252E-02	5.281E-02	5.319E-03	-0.012
CO-58	-4.360E-02		5.041E-02	7.483E-02	6.727E-03	-0.583
FE-59	-6.545E-02		1.283E-01	1.992E-01	1.859E-02	-0.328
CO-60	-6.018E-02		4.889E-02	6.418E-02	6.170E-03	-0.938
ZN-65	7.173E-02		1.183E-01	1.797E-01	1.535E-02	0.399
SE-75	-7.286E-02		5.851E-02	8.997E-02	9.866E-03	-0.810
SR-85	1.224E-01		5.954E-02	9.687E-02	8.369E-03	1.263
Y-88	3.313E-02		3.847E-02	7.362E-02	6.200E-03	0.450
Y-91	-9.091E+00		2.879E+01	4.532E+01	3.820E+00	-0.201
NB-94	2.901E-02		4.128E-02	7.242E-02	6.114E-03	0.401
NB-95	4.134E-02		5.694E-02	9.929E-02	8.699E-03	0.416
NB-95M	4.111E-01		2.024E-01	3.183E-01	3.835E-02	1.291
ZR-95	1.298E-02		9.118E-02	1.515E-01	1.456E-02	0.086
MO-99	6.601E+00		1.588E+01	2.730E+01	4.304E+00	0.242
TC-99M	-3.306E+10		3.742E+10	Half-Life too short		
RU-103	-1.208E-02		4.974E-02	7.941E-02	1.110E-02	-0.152
RH-106	9.300E-02		3.842E-01	6.305E-01	8.270E-02	0.147
RU-106	9.300E-02		3.841E-01	6.305E-01	5.299E-02	0.147
AG-108M	-7.678E-03		3.706E-02	5.982E-02	5.287E-03	-0.128
CD-109	1.813E+00		1.366E+00	2.051E+00	2.546E-01	0.884
AG-110M	3.922E-02		4.846E-02	7.610E-02	6.476E-03	0.515
SN-113	2.716E-02		5.525E-02	9.365E-02	8.133E-03	0.290
CD-115	-8.682E+00		1.500E+01	2.318E+01	2.001E+00	-0.374
SN-117M	-4.271E-03		6.986E-02	1.122E-01	1.177E-02	-0.038
TE-123M	-6.489E-03		3.616E-02	5.778E-02	6.089E-03	-0.112
SB-124	-2.484E-02		8.736E-02	1.356E-01	1.277E-02	-0.183
SB-125	3.864E-02		1.160E-01	1.942E-01	1.690E-02	0.199
TE-125M	-2.897E+00		1.282E+01	2.070E+01	2.459E+00	-0.140
I-126	2.696E-01		2.922E-01	4.651E-01	3.836E-02	0.580
SB-126	1.335E-02		2.241E-01	3.248E-01	2.772E-02	0.041
SN-126	7.734E-02		1.341E-01	1.972E-01	2.441E-02	0.392
SB-127	1.563E-01		1.681E+00	2.836E+00	3.180E-01	0.055
I-131	-1.399E-01		1.484E-01	2.294E-01	2.215E-02	-0.610
TE-132	-7.130E-01		1.006E+00	1.628E+00	2.813E-01	-0.438
BA-133	1.307E-03		6.119E-02	8.784E-02	1.187E-02	0.015
I-133	-2.687E-03		4.269E-03	Half-Life too short		
CS-134	4.941E-02	+	5.923E-02	1.059E-01	9.492E-03	0.467
CS-135	1.950E-01		2.083E-01	3.606E-01	4.327E-02	0.541
I-135	-1.646E+10		6.553E+09	Half-Life too short		
CS-136	-2.509E-05		1.484E-01	2.427E-01	2.245E-02	0.000
CE-139	9.793E-03		3.924E-02	6.380E-02	6.811E-03	0.153

Sample ID : G248841002 Acquisition date : 18-MAR-2010 18:24:13

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-140	-1.888E-01		3.372E-01	5.118E-01	1.736E-01	-0.369
LA-140	2.216E-02		9.958E-02	1.706E-01	1.599E-02	0.130
CE-141	1.513E-02		8.428E-02	1.354E-01	1.400E-02	0.112
CE-143	9.531E-04		1.576E-04	Half-Life too short		
CE-144	2.571E-02		2.588E-01	4.211E-01	6.794E-02	0.061
PM-144	-3.438E-02		4.197E-02	6.566E-02	5.524E-03	-0.524
PR-144	-2.329E+00		3.123E+00	4.918E+00	4.136E-01	-0.473
PM-146	6.004E-04		5.314E-02	8.693E-02	9.193E-03	0.007
ND-147	2.838E-01		7.031E-01	1.174E+00	1.756E-01	0.242
PM-149	-3.953E+01		1.214E+02	1.988E+02	3.343E+01	-0.199
EU-152	6.590E-02		1.687E-01	2.003E-01	2.039E-02	0.329
GD-153	-3.073E-01		1.252E-01	1.760E-01	1.942E-02	-1.746
EU-154	3.119E-02		1.575E-01	2.599E-01	3.048E-02	0.120
EU-155	4.525E-02		1.361E-01	2.251E-01	2.371E-02	0.201
TB-160	-1.005E-01		1.735E-01	2.708E-01	2.506E-02	-0.371
HO-166M	-4.064E-02		7.608E-02	1.219E-01	1.035E-02	-0.333
TA-182	1.060E-01		2.532E-01	4.255E-01	3.652E-02	0.249
IR-192	-3.172E-02		4.536E-02	7.225E-02	7.449E-03	-0.439
BI-207	5.398E-02		7.140E-02	1.243E-01	1.096E-02	0.434
PB-210	8.664E-01		1.254E+01	2.073E+01	2.552E+00	0.042
PB-211	-1.118E-01		9.342E-01	1.521E+00	7.358E-01	-0.073
BI-212	1.813E+00	+	1.045E+00	1.367E+00	1.698E-01	1.327
RN-219	-5.084E-02		5.277E-01	8.622E-01	1.274E-01	-0.059
RA-223	-1.893E+00		9.095E-01	1.220E+00	2.214E-01	-1.551
AC-227	-1.576E-01		3.422E-01	5.600E-01	7.750E-02	-0.281
TH-227	-1.576E-01		3.424E-01	5.600E-01	8.519E-02	-0.281
TH-229	1.171E-02		8.204E-01	1.145E+00	1.246E-01	0.010
PA-231	2.231E+00		2.038E+00	3.262E+00	5.202E-01	0.684
TH-231	-1.893E+00		9.095E-01	1.220E+00	2.214E-01	-1.551
PA-233	3.457E-02		8.992E-02	1.394E-01	1.475E-02	0.248
PA-234	1.756E-01		3.751E-01	6.417E-01	1.223E-01	0.274
PA-234M	7.546E+00		6.334E+00	1.120E+01	1.162E+00	0.674
TH-234	2.986E+00	+	3.003E+00	4.175E+00	8.279E-01	0.715
U-235	-1.576E-01		2.734E-01	4.237E-01	7.539E-02	-0.372
U-238	2.986E+00	+	3.003E+00	4.175E+00	8.279E-01	0.715
NP-239	-7.724E-02		5.196E-01	8.400E-01	8.478E-02	-0.092
AM-241	1.453E-01		3.324E-01	4.951E-01	5.812E-02	0.293
CM-247	3.003E-03		4.705E-02	7.764E-02	6.566E-03	0.039
CF-249	-1.685E-02		5.305E-02	8.565E-02	7.301E-03	-0.197
CF-251	-9.026E-02		1.700E-01	2.656E-01	2.858E-02	-0.340

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248841002           *
* Acquisition date  : 18-MAR-2010 18:24:13 Detector SN#    :                *
* Detector ID       : GAM15                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.22      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  3-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248841002           Analyst initials: MXR1           *
* Batch Number      : 962629               Sample Quantity : 1.2245E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.113E+01	3.616E+00	3.929E-01	1.845E+00
BA-137M	8.378E-02	7.154E-02	3.876E-02	3.650E-02
CS-137	8.851E-02	7.558E-02	4.094E-02	3.856E-02
HG-203	5.616E-02	6.591E-02	4.267E-02	3.363E-02
TL-208	5.163E-01	9.769E-02	3.381E-02	4.984E-02
BI-211	3.925E+00	6.774E-01	2.034E-01	3.456E-01
PB-212	1.816E+00	2.592E-01	6.260E-02	1.323E-01
BI-214	1.127E+00	2.070E-01	6.744E-02	1.056E-01
PB-214	1.425E+00	2.576E-01	7.395E-02	1.314E-01
RA-224	4.180E+00	1.337E+00	6.707E-01	6.823E-01
RA-226	1.127E+00	2.070E-01	6.744E-02	1.056E-01
AC-228	1.814E+00	3.757E-01	1.406E-01	1.917E-01
RA-228	1.814E+00	3.757E-01	1.406E-01	1.917E-01
TH-228	1.816E+00	2.592E-01	6.260E-02	1.323E-01
TH-232	1.814E+00	3.757E-01	1.406E-01	1.917E-01
NP-237	8.073E-01	6.140E-01	2.862E-01	3.133E-01
ANH-511	1.142E-01	7.927E-02	2.815E-02	4.044E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-3.063E-01	4.092E-01	3.261E-01	2.088E-01	NOT IDENT.
NA-22	8.677E-03	5.486E-02	4.602E-02	2.799E-02	NOT IDENT.
NA-24	-1.410E+05	8.753E+05	0.000E+00	4.466E+05	SHORT HLIF
SC-46	9.598E-03	4.963E-02	3.954E-02	2.532E-02	FAIL ABUN
V-48	2.003E-02	8.207E-02	7.070E-02	4.187E-02	NOT IDENT.
CR-51	3.251E-01	4.572E-01	4.085E-01	2.333E-01	NOT IDENT.
MN-54	-2.380E-02	4.639E-02	3.781E-02	2.367E-02	NOT IDENT.
CO-56	-1.635E-02	4.626E-02	3.806E-02	2.360E-02	NOT IDENT.
CO-57	-6.571E-04	3.187E-02	2.723E-02	1.626E-02	NOT IDENT.
CO-58	-4.360E-02	4.941E-02	3.766E-02	2.521E-02	NOT IDENT.

FE-59	-6.545E-02	1.257E-01	9.989E-02	6.413E-02	NOT IDENT.
CO-60	-6.018E-02	4.791E-02	3.209E-02	2.444E-02	NOT IDENT.
ZN-65	7.173E-02	1.159E-01	9.007E-02	5.916E-02	NOT IDENT.
SE-75	-7.286E-02	5.734E-02	4.594E-02	2.925E-02	FAIL ABUN
SR-85	1.224E-01	5.835E-02	4.905E-02	2.977E-02	NOT IDENT.
Y-88	3.313E-02	3.770E-02	3.666E-02	1.924E-02	NOT IDENT.
Y-91	-9.091E+00	2.821E+01	2.269E+01	1.440E+01	NOT IDENT.
NB-94	2.901E-02	4.045E-02	3.652E-02	2.064E-02	NOT IDENT.
NB-95	4.134E-02	5.581E-02	5.001E-02	2.847E-02	NOT IDENT.
NB-95M	4.111E-01	1.984E-01	1.628E-01	1.012E-01	NOT IDENT.
ZR-95	1.298E-02	8.936E-02	7.632E-02	4.559E-02	NOT IDENT.
MO-99	6.601E+00	1.557E+01	1.376E+01	7.942E+00	NOT IDENT.
TC-99M	-3.306E+16	7.334E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.208E-02	4.875E-02	4.022E-02	2.487E-02	FAIL ABUN
RH-106	9.300E-02	3.765E-01	3.185E-01	1.921E-01	NOT IDENT.
RU-106	9.300E-02	3.764E-01	3.185E-01	1.921E-01	NOT IDENT.
AG-108M	-7.678E-03	3.631E-02	3.035E-02	1.853E-02	NOT IDENT.
CD-109	1.813E+00	1.338E+00	1.062E+00	6.829E-01	NOT IDENT.
AG-110M	3.922E-02	4.749E-02	3.841E-02	2.423E-02	NOT IDENT.
SN-113	2.716E-02	5.414E-02	4.758E-02	2.762E-02	NOT IDENT.
CD-115	-8.682E+00	1.470E+01	1.173E+01	7.500E+00	NOT IDENT.
SN-117M	-4.271E-03	6.846E-02	5.769E-02	3.493E-02	NOT IDENT.
TE-123M	-6.489E-03	3.544E-02	2.969E-02	1.808E-02	NOT IDENT.
SB-124	-2.484E-02	8.561E-02	6.761E-02	4.368E-02	NOT IDENT.
SB-125	3.864E-02	1.137E-01	9.856E-02	5.800E-02	FAIL ABUN
TE-125M	-2.897E+00	1.256E+01	1.069E+01	6.410E+00	NOT IDENT.
I-126	2.696E-01	2.864E-01	2.347E-01	1.461E-01	NOT IDENT.
SB-126	1.335E-02	2.196E-01	1.637E-01	1.120E-01	NOT IDENT.
SN-126	7.734E-02	1.314E-01	1.021E-01	6.704E-02	FAIL ABUN
SB-127	1.563E-01	1.648E+00	1.431E+00	8.407E-01	NOT IDENT.
I-131	-1.399E-01	1.455E-01	1.167E-01	7.421E-02	NOT IDENT.
TE-132	-7.130E-01	9.855E-01	8.330E-01	5.028E-01	NOT IDENT.
BA-133	1.307E-03	5.996E-02	4.468E-02	3.059E-02	NOT IDENT.
I-133	-2.687E+03	8.367E+03	0.000E+00	4.269E+03	SHORT HLIF
CS-134	4.941E-02	5.805E-02	5.332E-02	2.962E-02	FAIL ABUN
CS-135	1.950E-01	2.042E-01	1.841E-01	1.042E-01	NOT IDENT.
I-135	-1.646E+16	1.284E+16	0.000E+00	6.553E+15	SHORT HLIF
CS-136	-2.509E-05	1.454E-01	1.218E-01	7.418E-02	NOT IDENT.
CE-139	9.793E-03	3.845E-02	3.277E-02	1.962E-02	NOT IDENT.
BA-140	-1.888E-01	3.305E-01	2.590E-01	1.686E-01	NOT IDENT.
LA-140	2.216E-02	9.759E-02	8.509E-02	4.979E-02	NOT IDENT.
CE-141	1.513E-02	8.259E-02	6.966E-02	4.214E-02	NOT IDENT.
CE-143	9.531E+02	3.088E+02	0.000E+00	1.576E+02	SHORT HLIF
CE-144	2.571E-02	2.536E-01	2.169E-01	1.294E-01	NOT IDENT.
PM-144	-3.438E-02	4.113E-02	3.312E-02	2.098E-02	NOT IDENT.
PR-144	-2.329E+00	3.061E+00	2.480E+00	1.562E+00	NOT IDENT.
PM-146	6.004E-04	5.208E-02	4.408E-02	2.657E-02	NOT IDENT.
ND-147	2.838E-01	6.891E-01	5.942E-01	3.516E-01	NOT IDENT.
PM-149	-3.953E+01	1.190E+02	1.014E+02	6.072E+01	NOT IDENT.
EU-152	6.590E-02	1.654E-01	1.020E-01	8.436E-02	FAIL ABUN
GD-153	-3.073E-01	1.227E-01	9.098E-02	6.261E-02	NOT IDENT.
EU-154	3.119E-02	1.543E-01	1.300E-01	7.873E-02	NOT IDENT.
EU-155	4.525E-02	1.334E-01	1.163E-01	6.807E-02	FAIL ABUN
TB-160	-1.005E-01	1.700E-01	1.362E-01	8.676E-02	FAIL ABUN
HO-166M	-4.064E-02	7.456E-02	6.145E-02	3.804E-02	NOT IDENT.
TA-182	1.060E-01	2.481E-01	2.130E-01	1.266E-01	FAIL ABUN
IR-192	-3.172E-02	4.445E-02	3.681E-02	2.268E-02	FAIL ABUN
BI-207	5.398E-02	6.997E-02	6.232E-02	3.570E-02	FAIL ABUN
PB-210	8.664E-01	1.228E+01	1.082E+01	6.268E+00	NOT IDENT.
PB-211	-1.118E-01	9.155E-01	7.726E-01	4.671E-01	NOT IDENT.
BI-212	1.813E+00	1.024E+00	6.888E-01	5.227E-01	FAIL ABUN
RN-219	-5.084E-02	5.171E-01	4.379E-01	2.638E-01	NOT IDENT.
RA-223	-1.893E+00	8.913E-01	6.214E-01	4.547E-01	FAIL ABUN
AC-227	-1.576E-01	3.354E-01	2.861E-01	1.711E-01	NOT IDENT.
TH-227	-1.576E-01	3.355E-01	2.861E-01	1.712E-01	NOT IDENT.
TH-229	1.171E-02	8.040E-01	5.871E-01	4.102E-01	FAIL ABUN
PA-231	2.231E+00	1.997E+00	1.664E+00	1.019E+00	NOT IDENT.
TH-231	-1.893E+00	8.913E-01	6.214E-01	4.547E-01	FAIL ABUN
PA-233	3.457E-02	8.812E-02	7.104E-02	4.496E-02	NOT IDENT.
PA-234	1.756E-01	3.676E-01	3.223E-01	1.876E-01	NOT IDENT.
PA-234M	7.546E+00	6.207E+00	5.623E+00	3.167E+00	NOT IDENT.
TH-234	2.986E+00	2.943E+00	2.170E+00	1.502E+00	FAIL ABUN
U-235	-1.576E-01	2.679E-01	2.180E-01	1.367E-01	FAIL ABUN
U-238	2.986E+00	2.943E+00	2.170E+00	1.502E+00	FAIL ABUN
NP-239	-7.724E-02	5.092E-01	4.333E-01	2.598E-01	FAIL ABUN
AM-241	1.453E-01	3.258E-01	2.576E-01	1.662E-01	NOT IDENT.
CM-247	3.003E-03	4.611E-02	3.944E-02	2.352E-02	FAIL ABUN
CF-249	-1.685E-02	5.199E-02	4.352E-02	2.653E-02	NOT IDENT.

CF-251	-9.026E-02	1.666E-01	1.363E-01	8.498E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	244.4683
49.72	255.3669
57.36	0.0000
59.54	268.9087
63.29	338.0111
63.29	338.0111
64.28	383.4992
67.75	366.5185
69.67	391.1570
70.83	396.5169
72.81	380.1563
72.87	380.1863
72.87	380.1863
74.82	368.2686
74.82	368.2686
74.82	368.2686
74.97	368.3422
77.11	369.3725
77.11	369.3725
77.11	369.3725
79.69	339.6304
79.80	359.6594
80.12	359.8050
80.19	359.8366
80.57	340.0091
81.00	340.1933
81.07	340.2231
81.07	340.2231
83.79	348.0711
83.79	348.0711
85.43	442.6704
86.48	443.2344
86.55	443.2730
86.79	503.0562
86.94	503.1495
87.57	480.9360
88.03	452.1357
88.47	549.3104
89.96	747.7356
91.11	502.4066
92.59	425.5789
92.59	425.5789
93.35	387.9425
94.67	369.2078
94.87	436.4363
94.87	436.4363
95.86	556.0913
97.43	437.7046
98.44	315.6269
99.53	268.9664
100.11	280.3958
103.18	331.6534
103.37	338.9114
105.31	301.5426
106.12	289.4431
109.28	331.7525
111.00	293.0043
111.76	295.3076
116.30	299.8026
117.23	309.4615
121.12	289.7392
121.78	301.4407
122.06	296.2894
123.07	288.1970
131.20	332.6904
133.52	308.0064
136.00	316.1362

136.47	334.3150
140.51	323.8210
140.51	0.0000
143.76	337.5799
144.24	315.2786
144.24	315.2786
145.44	304.9130
152.43	299.2288
153.25	276.8174
154.21	278.1208
154.21	278.1208
156.02	313.0943
158.56	275.8927
159.00	280.3212
162.66	307.2231
163.33	297.6159
165.86	282.9884
176.60	284.3088
177.52	284.5103
181.07	255.5483
184.41	261.4986
185.72	274.1373
193.51	281.0614
197.04	274.2050
205.31	263.7207
210.85	271.9475
215.65	231.8898
222.11	247.7262
227.38	269.5399
228.16	271.5012
228.18	271.5049
235.69	262.4599
235.96	262.5054
235.96	262.5054
238.63	237.5769
238.63	237.5769
240.99	237.9341
242.00	238.0874
244.70	217.9286
252.40	223.9106
252.80	204.5302
256.23	232.7840
256.23	232.7840
260.90	176.7102
264.66	205.0737
268.22	197.1016
269.46	173.8755
269.46	173.8755
271.23	190.6674
273.65	301.4408
276.40	217.4477
277.37	189.3948
277.60	191.6136
278.00	200.1113
279.20	197.4313
279.54	194.3353
280.46	189.7346
283.69	156.1966
284.31	163.8302
285.41	174.5463
285.90	179.3148
287.50	185.7746
293.27	0.0000
295.22	156.5365
295.96	156.6010
298.57	156.8286
299.98	156.9494
299.98	156.9494
300.09	156.9595
300.09	156.9595
300.13	156.9635
301.36	157.0682
302.85	157.1971
304.50	157.3381
304.50	157.3381
304.85	157.3683
308.46	175.1961
311.90	150.4463

316.51	175.6326
319.41	132.6481
320.08	138.4629
323.87	210.9987
323.87	210.9987
328.76	131.3649
333.37	216.2342
334.37	163.0668
334.37	163.0668
338.28	151.4202
338.28	151.4202
338.32	151.4240
338.32	151.4240
338.32	151.4240
340.48	140.9006
340.55	140.9051
344.28	123.3206
351.06	129.9250
351.93	129.9802
356.01	140.3606
364.49	145.5303
366.42	140.7447
383.85	151.8346
388.16	146.1728
388.63	146.2033
391.69	113.5422
400.66	134.0098
401.81	134.0785
402.40	124.1059
404.85	136.2673
410.95	111.5217
414.70	141.8985
423.72	114.1711
427.09	118.3854
427.87	111.3401
433.94	112.6463
453.88	107.4584
463.37	94.1810
468.07	106.3708
473.00	114.4918
476.78	113.6335
477.60	117.8032
487.02	99.5766
492.35	102.9046
497.08	97.8876
511.00	88.9932
514.00	99.5766
527.90	96.9392
529.87	0.0000
531.02	82.2847
537.26	94.1062
546.56	0.0000
563.25	98.2015
569.33	98.4148
569.50	94.1424
569.70	89.8693
583.19	76.3215
600.60	79.7566
602.73	84.7744
604.72	106.4910
609.32	81.3483
609.32	81.3483
610.33	74.1440
614.28	57.9453
618.01	84.6099
621.93	72.9803
621.93	72.9803
633.25	72.1617
635.95	67.8473
636.99	68.9662
645.85	82.3407
657.76	69.2748
661.66	91.9556
661.66	91.9556
664.57	0.0000
666.33	61.5700
666.50	61.5741
677.62	78.5583

685.70	77.8306
695.00	87.3466
696.49	92.0350
696.51	90.1757
697.00	83.6810
702.65	73.5803
706.68	76.4696
711.68	87.7922
720.70	89.9063
721.93	0.0000
722.78	78.7158
722.91	78.7192
723.31	88.3698
724.19	90.0000
727.33	61.9327
733.00	66.0659
735.93	77.7708
739.50	67.8076
747.24	74.5688
752.31	64.2813
753.82	66.2004
756.73	65.3108
763.94	110.0268
765.81	86.3604
766.42	90.1719
777.92	62.8512
778.90	60.0110
783.70	64.8623
785.37	67.7557
795.86	57.4280
801.95	89.7400
810.29	72.0734
810.76	74.0047
815.77	67.3696
818.51	73.1998
832.01	72.5021
834.85	80.2965
836.80	0.0000
846.77	62.1146
856.80	33.3650
860.56	52.6014
871.09	65.4460
873.19	50.8215
875.33	0.0000
879.36	64.6089
880.51	58.7524
883.24	43.1156
884.68	54.8949
889.28	50.0537
898.04	66.8877
911.20	57.2436
911.20	57.2436
911.20	57.2436
926.50	50.5289
937.49	74.5117
944.13	60.7021
946.00	50.7738
949.00	48.8196
962.29	46.2650
964.08	43.0000
966.15	43.0210
968.97	43.0507
968.97	43.0507
968.97	43.0507
983.53	45.2115
996.26	72.5581
1001.03	47.4179
1004.73	76.7422
1037.84	50.8789
1038.76	0.0000
1048.07	63.2387
1050.41	64.2946
1050.41	64.2946
1063.66	53.2272
1085.87	66.8673
1099.45	72.2274
1112.07	40.0087
1115.54	42.6027

1120.29	46.6443
1120.29	46.6443
1120.55	46.6479
1121.30	46.6553
1131.51	0.0000
1173.23	76.5288
1177.93	39.8771
1189.05	66.2659
1204.77	69.6470
1221.41	59.2972
1231.02	81.6934
1235.36	78.5798
1238.28	69.0625
1260.41	0.0000
1271.85	52.4134
1274.44	43.8778
1274.54	44.9497
1291.59	32.2144
1298.22	0.0000
1312.11	33.4219
1332.49	42.2119
1365.19	23.3372
1368.63	0.0000
1384.29	26.2305
1408.01	25.4048
1457.56	0.0000
1460.82	32.2983
1489.16	24.8230
1505.03	28.7214
1596.21	17.5028
1620.50	16.5968
1678.03	0.0000
1690.97	13.8247
1764.49	13.9854
1764.49	13.9854
1770.23	56.9901
1771.35	43.0000
1791.20	0.0000
1836.06	7.0691

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248841002

Total Uranium Activity	8.8096E+00	ug/g
Total Uranium Counting Unc.	8.7568E+00	ug/g
Total Uranium Tpu	4.4678E-06	ug/g
Total Uranium Mda	6.4571E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962629                    SAMPLE ID  : G248841002       *
*   ANALYST       : MXR1                      DETECTOR   : GAM15            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 18-MAR-2010 18:24:13.62    SAMPLE ALQT:  122.450 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.964E+00
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.524E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 3.384E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 1.641E+00
```

VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 22:53:06.04

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841003.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 20:52:38
Sample ID         : G248841003           Sample quantity  : 1.11660E+02 GRAM
Detector name     : GAM05                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.85  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	45.86*	125	407	1.11	92.70	89	8	1.74E-02	32.7	
2	0	62.80*	95	743	0.98	126.58	123	9	1.32E-02	53.6	
3	2	74.29*	848	645	1.60	149.55	141	24	1.18E-01	7.3	3.47E+00
4	2	76.67*	1177	507	1.26	154.31	141	24	1.63E-01	4.6	
5	4	83.60	206	508	1.87	168.18	164	29	2.85E-02	20.6	7.01E-01
6	4	86.75	438	487	1.44	174.47	164	29	6.09E-02	10.3	
7	4	89.47	260	413	1.40	179.92	164	29	3.62E-02	15.3	
8	4	92.48*	389	491	1.59	185.93	164	29	5.40E-02	12.7	
9	0	128.33	96	256	0.96	257.63	255	7	1.33E-02	29.4	
10	0	185.30*	205	392	1.60	371.55	365	12	2.84E-02	21.1	
11	0	208.79	105	277	1.33	418.53	415	9	1.46E-02	30.2	
12	3	238.24*	1310	206	1.25	477.41	471	18	1.82E-01	3.5	1.98E+00
13	3	241.26	324	274	1.99	483.44	471	18	4.50E-02	15.8	
14	2	294.75*	408	157	1.64	590.41	585	20	5.66E-02	7.7	8.52E-01
15	2	299.55	116	136	1.79	600.00	585	20	1.62E-02	20.2	
16	0	327.68	109	156	2.29	656.24	650	11	1.51E-02	24.4	
17	0	337.75*	234	219	1.27	676.38	670	12	3.25E-02	14.4	
18	0	351.47*	611	203	1.48	703.81	698	12	8.49E-02	6.2	
19	0	510.38*	128	119	1.90	1021.50	1015	15	1.77E-02	23.9	
20	0	582.73*	340	149	1.62	1166.14	1160	15	4.72E-02	9.8	
21	0	608.74*	469	128	1.49	1218.13	1210	16	6.51E-02	7.2	
22	0	726.66	114	95	1.90	1453.83	1444	19	1.59E-02	22.5	
23	0	769.42	81	60	1.03	1539.29	1533	15	1.12E-02	24.2	
24	0	795.04*	39	77	1.20	1590.50	1586	12	5.47E-03	49.5	
25	0	860.48*	46	60	3.27	1721.29	1712	15	6.46E-03	39.6	
26	0	910.77*	192	88	1.28	1821.80	1816	13	2.67E-02	12.6	
27	0	969.73	72	165	1.59	1939.61	1929	17	1.01E-02	43.2	
28	0	1119.81*	128	41	1.23	2239.52	2232	15	1.78E-02	14.3	
29	0	1379.60	55	36	1.22	2758.55	2747	24	7.64E-03	31.9	
30	0	1460.02*	1217	17	2.09	2919.20	2911	17	1.69E-01	3.0	
31	0	1763.81	84	9	1.98	3525.96	3519	16	1.17E-02	13.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-MAR-2010 22:53:09

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841003.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 18-MAR-2010 20:52:38
Sample ID : G248841003 Sample quantity : 111.66 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA5 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.85 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.823E+01	3.300E+00	7.240E-01	4.503E-02	52.809
CD-109	+	88.03	*	5.180E+00	1.139E+00	1.113E+00	8.473E-02	4.655
SN-126	+	64.28		4.143E-01	4.487E-01	5.062E-01	7.544E-02	0.818
	+	86.94		2.104E+00	9.687E-01	4.506E-01	1.855E-01	4.670
	+	87.57	*	5.061E-01	1.113E-01	1.086E-01	8.269E-03	4.661
TL-208		277.37		9.019E-01	5.206E-01	9.118E-01	1.187E-01	0.989
	+	583.19	*	5.941E-01	1.249E-01	8.119E-02	5.963E-03	7.317
	+	860.56		7.867E-01	6.281E-01	6.250E-01	6.341E-02	1.259
PB-210	+	46.54	*	1.306E+00	8.598E-01	1.085E+00	8.370E-02	1.203
BI-211	+	72.87		2.882E+01	4.784E+00	3.723E+00	2.931E-01	7.743
	+	351.06	*	4.517E+00	6.677E-01	4.271E-01	3.385E-02	10.576
PB-212	+	74.82		3.449E+00	6.635E-01	4.469E-01	5.580E-02	7.717
	+	77.11		2.885E+00	3.478E-01	2.699E-01	2.100E-02	10.691
	+	238.63	*	2.113E+00	2.717E-01	1.219E-01	1.319E-02	17.340
	+	300.09		2.959E+00	1.239E+00	1.537E+00	1.651E-01	1.925
BI-214	+	609.32	*	1.594E+00	2.655E-01	1.685E-01	1.422E-02	9.463
	+	1120.29		2.289E+00	6.888E-01	6.913E-01	6.641E-02	3.312
	+	1764.49		2.147E+00	5.837E-01	4.727E-01	2.732E-02	4.542
PB-214	+	74.82		6.113E+00	1.124E+00	7.921E-01	8.828E-02	7.717
	+	77.11		5.086E+00	7.429E-01	4.758E-01	5.395E-02	10.691
	+	242.00		3.171E+00	1.064E+00	6.429E-01	7.306E-02	4.932
	+	295.22		1.831E+00	3.469E-01	2.824E-01	3.131E-02	6.482
	+	351.93	*	1.639E+00	2.586E-01	1.526E-01	1.470E-02	10.745
RA-224	+	240.99	*	5.607E+00	1.853E+00	1.306E+00	1.278E-01	4.293
RA-226	+	609.32	*	1.594E+00	2.655E-01	1.685E-01	1.422E-02	9.463
	+	1120.29		2.289E+00	6.888E-01	6.913E-01	6.641E-02	3.312
	+	1764.49		2.147E+00	5.837E-01	4.727E-01	2.732E-02	4.542
AC-228	+	338.32		1.918E+00	9.706E-01	4.918E-01	2.044E-01	3.901
	+	911.20	*	1.657E+00	4.689E-01	3.452E-01	4.381E-02	4.801
	+	968.97		1.079E+00	9.686E-01	6.835E-01	1.684E-01	1.578
RA-228	+	338.32		1.918E+00	9.706E-01	4.918E-01	2.044E-01	3.901
	+	911.20	*	1.657E+00	4.689E-01	3.452E-01	4.381E-02	4.801
	+	968.97		1.079E+00	9.686E-01	6.835E-01	1.684E-01	1.578
TH-228	+	74.82		3.449E+00	5.738E-01	4.469E-01	3.538E-02	7.717

Sample ID : G248841003 Acquisition date : 18-MAR-2010 20:52:38

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		2.885E+00	3.478E-01	2.699E-01	2.100E-02	10.691
	+	238.63	*	2.113E+00	2.717E-01	1.219E-01	1.319E-02	17.340
	+	300.09		2.959E+00	2.172E+00	1.537E+00	9.417E-01	1.925
TH-229	+	85.43		1.274E+00	2.802E-01	2.716E-01	2.077E-02	4.690
	+	88.47		4.666E-01	1.477E-01	1.678E-01	1.291E-02	2.780
		193.51	*	-8.133E-01	7.125E-01	1.076E+00	1.074E-01	-0.756
		210.85		1.841E+00	1.318E+00	1.971E+00	1.964E-01	0.934
TH-232	+	338.32		1.918E+00	5.736E-01	4.918E-01	3.856E-02	3.901
	+	911.20	*	1.657E+00	4.689E-01	3.452E-01	4.381E-02	4.801
	+	968.97		1.079E+00	9.686E-01	6.835E-01	1.684E-01	1.578
TH-234	+	63.29	*	1.075E+00	1.170E+00	1.341E+00	2.433E-01	0.802
	+	92.59		3.986E+00	1.338E+00	9.644E-01	2.122E-01	4.133
U-235	+	89.96		3.227E+00	1.264E+00	1.166E+00	2.843E-01	2.767
	+	93.35		3.011E+00	1.031E+00	7.303E-01	1.685E-01	4.123
		143.76	*	-2.458E-01	2.700E-01	4.101E-01	7.822E-02	-0.599
		163.33		3.978E-01	5.650E-01	9.287E-01	1.743E-01	0.428
	+	185.72		2.122E-01	9.224E-02	8.155E-02	8.139E-03	2.603
		205.31		9.214E-02	7.246E-01	1.017E+00	1.914E-01	0.091
NP-237	+	86.48	*	1.510E+00	4.589E-01	3.230E-01	7.206E-02	4.676
		95.86		-1.093E+00	1.155E+00	1.538E+00	3.710E-01	-0.710
U-238	+	63.29	*	1.075E+00	1.170E+00	1.341E+00	2.433E-01	0.802
	+	92.59		3.986E+00	1.065E+00	9.644E-01	8.104E-02	4.133
ANH-511	+	511.00	*	1.687E-01	8.119E-02	6.520E-02	4.173E-03	2.587

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-3.075E-01	4.337E-01	6.715E-01	4.808E-02	-0.458
NA-22		1274.54	*	-7.749E-03	6.129E-02	9.787E-02	5.701E-03	-0.079
NA-24		1368.63	*	1.362E+00	6.129E-02	Half-Life too short		
SC-46		889.28	*	1.076E-02	5.720E-02	9.610E-02	9.652E-03	0.112
	+	1120.55		3.881E-01	1.138E-01	1.761E-01	1.211E-02	2.204
V-48		944.13		-2.206E-01	1.338E+00	2.175E+00	2.104E-01	-0.101
		983.53	*	1.984E-02	1.053E-01	1.760E-01	1.612E-02	0.113
		1312.11		1.097E-01	1.150E-01	2.047E-01	1.187E-02	0.536
CR-51		320.08	*	-1.345E-01	5.180E-01	7.994E-01	7.064E-02	-0.168
MN-54		834.85	*	1.667E-02	5.590E-02	9.476E-02	8.681E-03	0.176
CO-56		846.77	*	1.359E-02	5.319E-02	9.014E-02	8.430E-03	0.151
		1037.84		-1.449E-01	4.569E-01	7.271E-01	6.407E-02	-0.199
		1238.28		1.220E-01	1.355E-01	2.331E-01	1.441E-02	0.523
		1771.35		4.575E-02	3.190E-01	4.682E-01	2.704E-02	0.098
CO-57		122.06	*	-2.415E-02	3.149E-02	4.937E-02	7.005E-03	-0.489
		136.47		-2.011E-02	2.668E-01	4.311E-01	5.773E-02	-0.047
CO-58		810.76	*	3.152E-02	5.489E-02	9.533E-02	8.391E-03	0.331
FE-59		1099.45	*	-1.450E-01	1.350E-01	1.972E-01	1.596E-02	-0.735
		1291.59		-1.574E-01	1.907E-01	2.814E-01	2.090E-02	-0.559
CO-60		1173.23		1.810E-02	7.127E-02	1.183E-01	6.864E-03	0.153
		1332.49	*	-1.397E-02	5.671E-02	8.880E-02	5.139E-03	-0.157

---- Non-Identified Nuclides ----

Nuclide	Line Energy Ided (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZN-65	1115.54	*	1.256E-01	1.433E-01	2.225E-01	1.555E-02	0.564
SE-75	121.12		-1.540E-01	1.634E-01	2.529E-01	3.952E-02	-0.609
	136.00		-1.124E-02	5.117E-02	8.220E-02	1.072E-02	-0.137
	264.66	*	-9.676E-02	5.913E-02	9.022E-02	8.614E-03	-1.073
	279.54		1.357E-01	1.471E-01	2.547E-01	2.440E-02	0.533
	400.66		-2.330E-01	3.571E-01	5.646E-01	5.148E-02	-0.413
SR-85	514.00	*	8.416E-02	5.890E-02	9.315E-02	5.971E-03	0.904
Y-88	898.04		3.247E-02	6.315E-02	1.085E-01	1.109E-02	0.299
	1836.06	*	-6.627E-03	5.129E-02	8.233E-02	4.711E-03	-0.080
Y-91	1204.77	*	-2.998E+00	3.401E+01	5.484E+01	3.187E+00	-0.055
NB-94	702.65	*	6.075E-02	4.857E-02	8.765E-02	6.272E-03	0.693
	871.09		2.388E-02	5.026E-02	8.635E-02	8.415E-03	0.277
NB-95	765.81	*	9.922E-02	6.699E-02	1.101E-01	8.905E-03	0.901
NB-95M	235.69	*	1.441E+00	2.740E-01	4.125E-01	4.519E-02	3.493
ZR-95	724.19		1.934E-01	1.627E-01	2.588E-01	2.147E-02	0.747
	756.73	*	4.676E-02	1.052E-01	1.810E-01	1.615E-02	0.258
MO-99	140.51		2.073E+00	3.075E+01	4.914E+01	1.251E+01	0.042
	181.07		1.565E+01	2.787E+01	4.010E+01	7.798E+00	0.390
	366.42		-7.037E+01	1.444E+02	2.320E+02	1.592E+01	-0.303
	739.50	*	6.090E+00	1.786E+01	3.058E+01	4.669E+00	0.199
	777.92		4.446E+01	5.856E+01	9.668E+01	7.999E+00	0.460
TC-99M	140.51	*	6.734E+09	5.856E+01	Half-Life too short		
RU-103	497.08	*	-7.966E-03	5.459E-02	8.801E-02	1.117E-02	-0.091
	610.33		1.395E+01	2.891E+00	3.757E+00	5.775E-01	3.715
RH-106	621.93	*	-1.622E-01	4.756E-01	7.457E-01	8.976E-02	-0.218
	1050.41		-2.173E-01	3.881E+00	6.326E+00	5.151E-01	-0.034
RU-106	621.93	*	-1.622E-01	4.753E-01	7.457E-01	4.916E-02	-0.218
	1050.41		-2.173E-01	3.881E+00	6.326E+00	5.151E-01	-0.034
AG-108M	433.94	*	-1.561E-02	3.963E-02	6.330E-02	4.087E-03	-0.247
	614.28		3.996E-02	5.875E-02	8.724E-02	6.068E-03	0.458
	722.91		-2.667E-03	6.052E-02	8.689E-02	6.750E-03	-0.031
AG-110M	657.76	*	-5.654E-02	5.225E-02	7.634E-02	5.277E-03	-0.741
	677.62		-2.569E-01	4.163E-01	6.650E-01	4.729E-02	-0.386
	706.68		9.120E-02	3.153E-01	5.379E-01	4.039E-02	0.170
	763.94		-3.359E-02	2.422E-01	3.424E-01	2.846E-02	-0.098
	884.68		-5.726E-02	7.011E-02	1.070E-01	1.093E-02	-0.535
	937.49		-1.169E-01	1.766E-01	2.752E-01	2.760E-02	-0.425
	1384.29		2.761E-01	2.479E-01	4.188E-01	2.582E-02	0.659
	1505.03		3.359E-01	3.125E-01	6.023E-01	3.541E-02	0.558
SN-113	391.69	*	-6.884E-02	6.049E-02	9.258E-02	5.743E-03	-0.744
CD-115	260.90		-1.675E+01	1.906E+02	3.180E+02	3.041E+01	-0.053
	492.35		-4.239E+01	5.667E+01	8.727E+01	5.528E+00	-0.486
	527.90	*	-1.282E+01	1.800E+01	2.772E+01	1.789E+00	-0.463
SN-117M	156.02		-2.281E+00	3.046E+00	4.750E+00	5.238E-01	-0.480
	158.56	*	9.125E-03	7.255E-02	1.176E-01	1.264E-02	0.078
TE-123M	159.00	*	3.274E-03	3.734E-02	6.043E-02	6.493E-03	0.054
SB-124	602.73		-3.168E-02	6.143E-02	8.042E-02	5.296E-03	-0.394
	645.85		-1.473E-01	6.856E-01	1.082E+00	7.816E-02	-0.136
	722.78		-1.465E-02	5.994E-01	8.625E-01	6.620E-02	-0.017

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1690.97	*	-5.372E-02	9.915E-02	1.461E-01	9.290E-03	-0.368
SB-125		427.87	*	7.097E-02	1.259E-01	2.135E-01	1.337E-02	0.332
		463.37		7.278E-01	4.399E-01	7.509E-01	5.321E-02	0.969
		600.60		-2.926E-01	2.867E-01	3.753E-01	2.776E-02	-0.780
		635.95		5.413E-02	3.950E-01	6.423E-01	4.806E-02	0.084
TE-125M		109.28	*	1.446E+00	1.231E+01	1.968E+01	2.553E+00	0.073
I-126		388.63		1.537E-01	2.362E-01	4.029E-01	2.398E-02	0.381
		666.33	*	-6.573E-02	3.295E-01	5.204E-01	3.456E-02	-0.126
		753.82		3.015E+00	2.674E+00	4.798E+00	3.794E-01	0.628
SB-126		414.70		5.157E-02	1.002E-01	1.698E-01	1.012E-02	0.304
		666.50		-2.664E-02	1.129E-01	1.778E-01	1.181E-02	-0.150
		695.00		-1.299E-02	1.110E-01	1.846E-01	1.301E-02	-0.070
		697.00		-5.287E-01	3.919E-01	5.906E-01	4.178E-02	-0.895
		720.70	*	3.688E-03	2.427E-01	3.507E-01	2.601E-02	0.011
		856.80		2.705E-01	7.380E-01	1.100E+00	1.046E-01	0.246
SB-127		252.40		1.836E+00	5.756E+00	9.704E+00	4.054E+00	0.189
		473.00		1.788E+00	2.331E+00	3.986E+00	4.537E-01	0.449
		685.70	*	9.358E-01	1.980E+00	3.426E+00	3.501E-01	0.273
		783.70		2.459E+00	4.948E+00	8.546E+00	1.046E+00	0.288
I-131		80.19		6.765E+00	5.812E+00	6.589E+00	5.133E-01	1.027
		284.31		-3.600E+00	1.945E+00	2.872E+00	2.758E-01	-1.253
		364.49	*	-8.619E-02	1.612E-01	2.582E-01	1.938E-02	-0.334
		636.99		1.334E+00	2.283E+00	3.840E+00	2.775E-01	0.347
TE-132		49.72		-4.362E-01	5.860E+00	8.542E+00	8.481E-01	-0.051
		111.76		-1.008E+01	4.410E+01	7.129E+01	9.902E+00	-0.141
		116.30		4.719E+00	3.714E+01	6.077E+01	8.936E+00	0.078
		228.16	*	-7.454E-02	9.717E-01	1.631E+00	2.705E-01	-0.046
BA-133		81.00		1.523E-01	1.207E-01	1.359E-01	2.043E-02	1.121
		276.40		6.569E-01	4.828E-01	8.375E-01	1.219E-01	0.784
		302.85		-2.633E-02	1.975E-01	2.829E-01	3.731E-02	-0.093
		356.01	*	-3.450E-02	6.388E-02	8.745E-02	1.057E-02	-0.394
		383.85		-3.540E-02	4.211E-01	6.913E-01	7.509E-02	-0.051
I-133		529.87	*	-1.515E-03	4.211E-01	Half-Life too short		
		875.33		1.485E-01	4.211E-01	Half-Life too short		
		1298.22		3.608E-01	4.211E-01	Half-Life too short		
CS-134		563.25		-2.349E-02	5.446E-01	8.639E-01	5.739E-02	-0.027
		569.33		-1.343E-01	3.071E-01	4.713E-01	3.157E-02	-0.285
		604.72		7.549E-02	5.057E-02	8.106E-02	5.361E-03	0.931
	+	795.86	*	1.023E-01	1.016E-01	1.315E-01	1.133E-02	0.778
		801.95		3.443E-01	6.949E-01	1.061E+00	9.222E-02	0.325
		1365.19		-7.627E-01	1.714E+00	2.591E+00	1.655E-01	-0.294
CS-135		268.22	*	4.356E-01	2.122E-01	3.766E-01	4.029E-02	1.157
I-135		546.56		8.367E+09	2.122E-01	Half-Life too short		
		836.80		1.147E+11	2.122E-01	Half-Life too short		
		1038.76		1.081E+10	2.122E-01	Half-Life too short		
		1131.51		1.780E+10	2.122E-01	Half-Life too short		
		1260.41	*	4.504E+09	2.122E-01	Half-Life too short		
		1457.56		3.196E+12	2.122E-01	Half-Life too short		
		1678.03		2.938E+10	2.122E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1791.20		2.501E+10	2.122E-01	Half-Life too short		
CS-136		153.25		8.698E-01	1.144E+00	1.893E+00	2.389E-01	0.459
		176.60		-4.739E-01	6.641E-01	1.031E+00	1.107E-01	-0.460
		273.65		-1.691E+00	7.318E-01	1.066E+00	1.072E-01	-1.585
		340.55		4.538E-01	2.223E-01	3.599E-01	2.926E-02	1.261
		818.51		3.330E-02	1.104E-01	1.877E-01	1.673E-02	0.177
		1048.07	*	-1.049E-01	1.583E-01	2.428E-01	2.079E-02	-0.432
		1235.36		5.529E-01	9.053E-01	1.533E+00	1.517E-01	0.361
BA-137M		661.66	*	1.389E-02	5.235E-02	8.574E-02	5.638E-03	0.162
CS-137		661.66	*	1.467E-02	5.530E-02	9.058E-02	5.976E-03	0.162
CE-139		165.86	*	-2.401E-02	3.914E-02	6.127E-02	6.083E-03	-0.392
BA-140		162.66		8.508E-01	1.073E+00	1.778E+00	1.917E-01	0.479
		304.85		8.826E-02	1.947E+00	2.826E+00	8.282E-01	0.031
		423.72		1.423E+00	2.758E+00	4.604E+00	1.488E+00	0.309
		537.26	*	1.113E-01	3.923E-01	6.466E-01	2.162E-01	0.172
LA-140	+	328.76		1.116E+00	5.530E-01	7.254E-01	6.275E-02	1.539
		487.02		2.197E-01	1.954E-01	3.413E-01	2.397E-02	0.644
		815.77		5.480E-02	4.727E-01	7.929E-01	7.807E-02	0.069
		1596.21	*	-1.264E-01	1.088E-01	1.438E-01	8.454E-03	-0.879
CE-141		145.44	*	3.884E-02	8.075E-02	1.328E-01	1.624E-02	0.292
CE-143		57.36		-4.972E-05	8.075E-02	Half-Life too short		
	+	293.27	*	1.847E-03	8.075E-02	Half-Life too short		
		664.57		2.545E-04	8.075E-02	Half-Life too short		
		721.93		-4.152E-04	8.075E-02	Half-Life too short		
CE-144		80.12		3.594E+00	3.073E+00	3.486E+00	2.694E-01	1.031
		133.52	*	-2.670E-03	2.693E-01	4.034E-01	7.375E-02	-0.007
PM-144		476.78		-7.381E-02	8.822E-02	1.353E-01	9.825E-03	-0.546
		618.01		-3.048E-02	4.979E-02	7.484E-02	5.167E-03	-0.407
		696.49	*	-8.331E-02	5.029E-02	7.376E-02	5.215E-03	-1.130
PR-144		696.51	*	-6.274E+00	3.762E+00	5.511E+00	3.895E-01	-1.138
		1489.16		-1.183E+01	1.715E+01	2.564E+01	1.506E+00	-0.461
PM-146		453.88	*	1.565E-02	5.858E-02	9.747E-02	8.493E-03	0.161
		633.25		5.606E-01	2.085E+00	3.408E+00	1.288E+00	0.165
		735.93		-2.602E-02	2.146E-01	3.387E-01	9.396E-02	-0.077
		747.24		3.834E-02	1.361E-01	2.319E-01	3.275E-02	0.165
ND-147	+	91.11		1.599E+00	4.310E-01	6.000E-01	5.340E-02	2.665
		319.41		-1.675E+00	4.431E+00	7.215E+00	6.055E-01	-0.232
		531.02	*	2.714E-01	8.712E-01	1.366E+00	1.887E-01	0.199
PM-149		285.90	*	-5.006E+01	1.219E+02	1.988E+02	3.151E+01	-0.252
EU-152		121.78		-7.829E-02	9.038E-02	1.408E-01	2.103E-02	-0.556
		244.70		1.126E-01	4.368E-01	6.492E-01	6.329E-02	0.173
		344.28	*	-1.445E-01	1.469E-01	1.936E-01	1.591E-02	-0.746
		778.90		4.875E-01	3.788E-01	6.762E-01	5.604E-02	0.721
		964.08		4.562E-01	4.938E-01	7.637E-01	7.195E-02	0.597
		1085.87		2.700E-01	5.773E-01	9.823E-01	7.395E-02	0.275
		1112.07		4.204E-01	4.665E-01	7.327E-01	5.159E-02	0.574
		1408.01		4.263E-01	2.549E-01	4.987E-01	2.914E-02	0.855
GD-153		69.67		-1.634E+00	1.471E+00	2.027E+00	1.612E-01	-0.806
		97.43	*	1.051E-01	1.029E-01	1.543E-01	1.430E-02	0.681

Sample ID : G248841003 Acquisition date : 18-MAR-2010 20:52:38

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		103.18		-1.528E-01	1.270E-01	1.967E-01	2.034E-02	-0.777
EU-154		123.07		2.987E-02	6.545E-02	1.045E-01	1.664E-02	0.286
		723.31		5.977E-02	2.815E-01	4.147E-01	3.504E-02	0.144
		873.19		4.404E-01	4.151E-01	7.392E-01	9.432E-02	0.596
		996.26		-2.115E-01	5.942E-01	8.923E-01	1.575E-01	-0.237
		1004.73		-3.713E-01	3.489E-01	5.181E-01	6.121E-02	-0.717
		1274.44	*	-1.852E-02	1.740E-01	2.784E-01	2.626E-02	-0.067
EU-155	+	86.55		6.137E-01	1.352E-01	1.952E-01	1.509E-02	3.143
		105.31	*	3.836E-03	1.215E-01	1.987E-01	2.151E-02	0.019
TB-160	+	86.79		1.632E+00	3.590E-01	5.201E-01	3.966E-02	3.138
		197.04		1.803E-01	7.821E-01	1.243E+00	1.242E-01	0.145
		215.65		3.801E-03	9.344E-01	1.536E+00	1.528E-01	0.002
	+	298.57		4.177E-01	1.731E-01	2.708E-01	2.410E-02	1.542
		879.36	*	-1.023E-01	1.991E-01	3.143E-01	3.106E-02	-0.326
		962.29		4.343E-01	9.427E-01	1.397E+00	1.319E-01	0.311
		966.15		1.308E+00	4.494E-01	7.575E-01	7.116E-02	1.727
		1177.93		4.356E-01	5.654E-01	9.674E-01	5.613E-02	0.450
		1271.85		1.635E-01	1.019E+00	1.676E+00	9.739E-02	0.098
HO-166M		80.57		4.007E-01	3.369E-01	3.825E-01	2.953E-02	1.047
	+	184.41		1.686E-01	7.328E-02	8.852E-02	8.833E-03	1.905
		280.46		3.115E-02	1.111E-01	1.879E-01	1.740E-02	0.166
		410.95		6.008E-02	3.410E-01	5.662E-01	3.361E-02	0.106
		711.68	*	-1.797E-02	8.410E-02	1.386E-01	1.010E-02	-0.130
		752.31		2.038E-01	3.998E-01	6.911E-01	5.449E-02	0.295
		810.29		5.204E-02	8.344E-02	1.453E-01	1.275E-02	0.358
TA-182		67.75		1.117E-02	1.197E-01	1.262E-01	1.010E-02	0.089
		100.11		1.299E-01	1.985E-01	3.314E-01	3.235E-02	0.392
		152.43		3.705E-01	4.591E-01	7.614E-01	8.685E-02	0.487
		222.11		-1.049E-01	4.509E-01	7.525E-01	7.463E-02	-0.139
	+	1121.30		1.075E+00	3.151E-01	4.880E-01	3.349E-02	2.202
		1189.05		2.921E-01	4.741E-01	8.092E-01	4.699E-02	0.361
		1221.41	*	-3.527E-02	2.973E-01	4.777E-01	2.778E-02	-0.074
		1231.02		-8.085E-01	7.766E-01	1.154E+00	6.710E-02	-0.701
IR-192	+	295.96		1.357E+00	2.418E-01	3.628E-01	3.271E-02	3.741
		308.46		-8.003E-02	1.238E-01	1.987E-01	1.731E-02	-0.403
		316.51	*	-3.185E-02	4.562E-02	7.294E-02	6.191E-03	-0.437
		468.07		-1.487E-01	9.604E-02	1.397E-01	9.887E-03	-1.064
HG-203		70.83		9.545E-01	1.134E+00	1.680E+00	2.637E-01	0.568
	+	72.87		7.203E+00	1.515E+00	1.412E+00	2.136E-01	5.102
		279.20	*	4.570E-02	5.231E-02	9.040E-02	8.574E-03	0.506
BI-207	+	72.81		1.658E+00	2.752E-01	3.229E-01	2.543E-02	5.134
	+	74.97		9.939E-01	1.650E-01	2.525E-01	1.976E-02	3.937
		569.70		-3.391E-02	4.792E-02	7.203E-02	4.714E-03	-0.471
		1063.66	*	5.008E-02	8.347E-02	1.432E-01	1.134E-02	0.350
		1770.23		8.409E-02	6.247E-01	9.146E-01	5.282E-02	0.092
PB-211		404.85	*	-8.209E-01	1.072E+00	1.561E+00	7.490E-01	-0.526
		427.09		1.097E+00	2.158E+00	3.552E+00	1.629E+00	0.309
		832.01		-1.882E+00	1.733E+00	2.116E+00	1.099E+00	-0.890
BI-212	+	727.33	*	3.111E+00	1.446E+00	1.578E+00	1.850E-01	1.972

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		785.37		-4.669E+00	4.265E+00	6.428E+00	5.391E-01	-0.726
		1620.50		2.403E+00	3.437E+00	6.222E+00	3.651E-01	0.386
RN-219		271.23		2.289E-01	3.186E-01	5.472E-01	5.980E-02	0.418
		401.81	*	-4.237E-01	5.627E-01	8.801E-01	1.186E-01	-0.481
RA-223		81.07		3.514E-01	2.701E-01	3.087E-01	2.381E-02	1.138
	+	83.79		3.531E-01	1.480E-01	2.082E-01	1.597E-02	1.696
		94.87		6.365E-01	5.494E-01	8.251E-01	7.267E-02	0.771
		144.24		-4.272E-01	8.905E-01	1.395E+00	1.808E-01	-0.306
		154.21		1.774E-01	5.110E-01	8.353E-01	9.911E-02	0.212
		269.46		6.318E-01	2.486E-01	4.464E-01	4.283E-02	1.415
		323.87	*	6.159E-01	9.739E-01	1.460E+00	2.506E-01	0.422
	+	338.28		7.613E+00	2.366E+00	3.157E+00	3.639E-01	2.411
AC-227		79.69		6.177E-03	1.218E+00	1.759E+00	2.956E-01	0.004
		235.96		2.774E+00	4.341E-01	5.791E-01	6.583E-02	4.790
		256.23	*	9.817E-02	3.218E-01	5.463E-01	6.985E-02	0.180
	+	299.98		3.255E+00	1.383E+00	2.054E+00	2.644E-01	1.585
		304.50		6.198E-01	2.298E+00	3.388E+00	5.626E-01	0.183
		334.37		1.281E+00	2.718E+00	3.827E+00	5.830E-01	0.335
TH-227		79.80		2.406E+00	2.069E+00	2.287E+00	4.903E-01	1.052
		235.96		2.774E+00	4.236E-01	5.791E-01	6.276E-02	4.790
		256.23	*	9.817E-02	3.218E-01	5.463E-01	7.791E-02	0.180
	+	299.98		3.255E+00	1.383E+00	2.054E+00	2.644E-01	1.585
		304.50		6.198E-01	2.298E+00	3.388E+00	5.626E-01	0.183
		334.37		1.281E+00	2.718E+00	3.827E+00	5.830E-01	0.335
PA-231		283.69	*	-3.530E+00	1.913E+00	2.757E+00	4.118E-01	-1.280
		301.36		1.276E+00	8.367E-01	1.311E+00	1.614E-01	0.973
TH-231		81.07		3.514E-01	2.701E-01	3.087E-01	2.381E-02	1.138
	+	83.79		3.531E-01	1.480E-01	2.082E-01	1.597E-02	1.696
		94.87		6.365E-01	5.494E-01	8.251E-01	7.267E-02	0.771
		144.24		-4.272E-01	8.905E-01	1.395E+00	1.808E-01	-0.306
		154.21		1.774E-01	5.110E-01	8.353E-01	9.911E-02	0.212
		269.46		6.318E-01	2.486E-01	4.464E-01	4.283E-02	1.415
		323.87	*	6.159E-01	9.739E-01	1.460E+00	2.506E-01	0.422
	+	338.28		7.613E+00	2.366E+00	3.157E+00	3.639E-01	2.411
PA-233	+	300.13		1.473E+00	6.357E-01	9.313E-01	1.394E-01	1.581
		311.90	*	3.295E-02	8.283E-02	1.405E-01	1.241E-02	0.235
		340.48		2.139E+00	1.063E+00	1.549E+00	3.683E-01	1.381
PA-234		94.67		3.767E-01	2.071E-01	3.127E-01	3.912E-02	1.204
		98.44		2.226E-01	1.665E-01	1.740E-01	9.733E-02	1.279
		111.00		-7.551E-02	2.384E-01	3.750E-01	5.468E-02	-0.201
		131.20		5.161E-04	1.486E-01	2.109E-01	2.831E-02	0.002
		569.50		-2.076E-01	4.218E-01	6.444E-01	4.217E-02	-0.322
		733.00		1.908E-01	5.972E-01	8.889E-01	1.940E-01	0.215
		880.51		1.414E-02	3.985E-01	6.616E-01	6.549E-02	0.021
		883.24		8.584E-02	3.966E-01	6.619E-01	4.461E-01	0.130
		926.50		-1.031E-01	2.561E-01	4.053E-01	1.043E-01	-0.254
		946.00	*	3.865E-02	4.538E-01	7.532E-01	1.451E-01	0.051
		949.00		5.341E-01	6.355E-01	1.119E+00	1.076E-01	0.477
PA-234M		766.42		2.167E+01	2.089E+01	2.872E+01	1.455E+01	0.755

Sample ID : G248841003 Acquisition date : 18-MAR-2010 20:52:38

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1001.03	*	3.789E+00	7.274E+00	1.232E+01	1.259E+00	0.308
NP-239		99.53		2.568E-01	1.891E-01	3.117E-01	3.009E-02	0.824
		103.37		-1.195E-01	1.151E-01	1.798E-01	1.866E-02	-0.665
		106.12		3.221E-02	9.839E-02	1.624E-01	1.771E-02	0.198
		117.23	*	1.411E-01	4.791E-01	7.884E-01	1.037E-01	0.179
		228.18		-2.091E-02	2.725E-01	4.573E-01	4.519E-02	-0.046
		277.60		4.015E-01	2.331E-01	4.133E-01	3.847E-02	0.972
AM-241		59.54	*	9.712E-02	8.798E-02	1.332E-01	1.191E-02	0.729
CM-247		278.00		1.462E+00	9.842E-01	1.735E+00	1.613E-01	0.843
		287.50		8.691E-01	1.588E+00	2.581E+00	2.356E-01	0.337
		402.40	*	-1.167E-02	5.108E-02	8.293E-02	4.879E-03	-0.141
CF-249		252.80		-4.768E-01	1.216E+00	2.001E+00	1.934E-01	-0.238
		333.37		2.917E-01	3.149E-01	3.958E-01	3.163E-02	0.737
		388.16	*	6.185E-02	5.636E-02	9.817E-02	5.863E-03	0.630
CF-251		177.52	*	3.207E-02	1.698E-01	2.749E-01	2.739E-02	0.117
		227.38		-7.967E-02	4.432E-01	7.404E-01	7.321E-02	-0.108
		285.41		-3.315E+00	2.763E+00	4.283E+00	3.926E-01	-0.774

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841003      *
* Acquisition date : 18-MAR-2010 20:52:38 Detector SN#    :                 *
* Detector ID        : GAM05               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.85      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        :  3-MAR-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G248841003           Analyst initials: MXR1          *
* Batch Number       : 962629               Sample Quantity : 1.1166E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.823E+01	3.234E+00	7.203E-01	0.000E+00
CD-109	5.180E+00	1.116E+00	1.132E+00	0.000E+00
SN-126	5.061E-01	1.091E-01	1.105E-01	0.000E+00
TL-208	5.941E-01	1.224E-01	8.139E-02	0.000E+00
PB-210	1.306E+00	8.426E-01	1.110E+00	0.000E+00
BI-211	4.517E+00	6.543E-01	4.299E-01	0.000E+00
PB-212	2.113E+00	2.663E-01	1.230E-01	0.000E+00
BI-214	1.594E+00	2.602E-01	1.688E-01	0.000E+00
PB-214	1.639E+00	2.535E-01	1.536E-01	0.000E+00
RA-224	5.607E+00	1.816E+00	1.319E+00	0.000E+00
RA-226	1.594E+00	2.602E-01	1.688E-01	0.000E+00
AC-228	1.657E+00	4.595E-01	3.448E-01	0.000E+00
RA-228	1.657E+00	4.595E-01	3.448E-01	0.000E+00
TH-228	2.113E+00	2.663E-01	1.230E-01	0.000E+00
TH-229	-8.133E-01	6.983E-01	1.088E+00	0.000E+00
TH-232	1.657E+00	4.595E-01	3.448E-01	0.000E+00
TH-234	1.075E+00	1.146E+00	1.368E+00	0.000E+00
U-235	-2.458E-01	2.646E-01	4.157E-01	0.000E+00
NP-237	1.510E+00	4.497E-01	3.287E-01	0.000E+00
U-238	1.075E+00	1.146E+00	1.368E+00	0.000E+00
ANH-511	1.687E-01	7.957E-02	6.542E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-3.075E-01	4.250E-01	6.742E-01	0.000E+00	NOT IDENT.
NA-22	-7.749E-03	6.006E-02	9.749E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.230E+06	0.000E+00	0.000E+00	SHORT HLIF
SC-46	1.076E-02	5.606E-02	9.600E-02	0.000E+00	FAIL ABUN
V-48	1.984E-02	1.032E-01	1.757E-01	0.000E+00	NOT IDENT.
CR-51	-1.345E-01	5.076E-01	8.052E-01	0.000E+00	NOT IDENT.

MN-54	1.667E-02	5.478E-02	9.471E-02	0.000E+00	NOT IDENT.
CO-56	1.359E-02	5.213E-02	9.009E-02	0.000E+00	NOT IDENT.
CO-57	-2.415E-02	3.086E-02	5.011E-02	0.000E+00	NOT IDENT.
CO-58	3.152E-02	5.379E-02	9.531E-02	0.000E+00	NOT IDENT.
FE-59	-1.450E-01	1.323E-01	1.966E-01	0.000E+00	NOT IDENT.
CO-60	-1.397E-02	5.557E-02	8.842E-02	0.000E+00	NOT IDENT.
ZN-65	1.256E-01	1.404E-01	2.219E-01	0.000E+00	NOT IDENT.
SE-75	-9.676E-02	5.795E-02	9.101E-02	0.000E+00	NOT IDENT.
SR-85	8.416E-02	5.772E-02	9.346E-02	0.000E+00	NOT IDENT.
Y-88	-6.627E-03	5.027E-02	8.177E-02	0.000E+00	NOT IDENT.
Y-91	-2.998E+00	3.333E+01	5.465E+01	0.000E+00	NOT IDENT.
NB-94	6.075E-02	4.760E-02	8.773E-02	0.000E+00	NOT IDENT.
NB-95	9.922E-02	6.565E-02	1.101E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.686E-01	4.165E-01	0.000E+00	NOT IDENT.
ZR-95	4.676E-02	1.031E-01	1.811E-01	0.000E+00	NOT IDENT.
MO-99	6.090E+00	1.750E+01	3.059E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	9.789E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-7.966E-03	5.350E-02	8.833E-02	0.000E+00	NOT IDENT.
RH-106	-1.622E-01	4.661E-01	7.471E-01	0.000E+00	NOT IDENT.
RU-106	-1.622E-01	4.658E-01	7.471E-01	0.000E+00	NOT IDENT.
AG-108M	-1.561E-02	3.884E-02	6.360E-02	0.000E+00	NOT IDENT.
AG-110M	-5.654E-02	5.121E-02	7.645E-02	0.000E+00	NOT IDENT.
SN-113	-6.884E-02	5.928E-02	9.310E-02	0.000E+00	NOT IDENT.
CD-115	-1.282E+01	1.764E+01	2.781E+01	0.000E+00	NOT IDENT.
SN-117M	9.125E-03	7.110E-02	1.191E-01	0.000E+00	NOT IDENT.
TE-123M	3.274E-03	3.659E-02	6.120E-02	0.000E+00	NOT IDENT.
SB-124	-5.372E-02	9.717E-02	1.452E-01	0.000E+00	NOT IDENT.
SB-125	7.097E-02	1.234E-01	2.145E-01	0.000E+00	NOT IDENT.
TE-125M	1.446E+00	1.206E+01	1.999E+01	0.000E+00	NOT IDENT.
I-126	-6.573E-02	3.229E-01	5.211E-01	0.000E+00	NOT IDENT.
SB-126	3.688E-03	2.378E-01	3.510E-01	0.000E+00	NOT IDENT.
SB-127	9.358E-01	1.941E+00	3.429E+00	0.000E+00	NOT IDENT.
I-131	-8.619E-02	1.580E-01	2.598E-01	0.000E+00	NOT IDENT.
TE-132	-7.454E-02	9.523E-01	1.647E+00	0.000E+00	NOT IDENT.
BA-133	-3.450E-02	6.261E-02	8.801E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.113E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.023E-01	9.957E-02	1.315E-01	0.000E+00	FAIL ABUN
CS-135	0.000E+00	2.080E-01	3.799E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.660E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.049E-01	1.551E-01	2.423E-01	0.000E+00	NOT IDENT.
BA-137M	1.389E-02	5.130E-02	8.586E-02	0.000E+00	NOT IDENT.
CS-137	1.467E-02	5.420E-02	9.071E-02	0.000E+00	NOT IDENT.
CE-139	-2.401E-02	3.835E-02	6.204E-02	0.000E+00	NOT IDENT.
BA-140	1.113E-01	3.845E-01	6.485E-01	0.000E+00	NOT IDENT.
LA-140	-1.264E-01	1.066E-01	1.430E-01	0.000E+00	FAIL ABUN
CE-141	3.884E-02	7.914E-02	1.346E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.970E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.670E-03	2.639E-01	4.091E-01	0.000E+00	NOT IDENT.
PM-144	-8.331E-02	4.928E-02	7.383E-02	0.000E+00	NOT IDENT.
PR-144	-6.274E+00	3.686E+00	5.516E+00	0.000E+00	NOT IDENT.
PM-146	1.565E-02	5.741E-02	9.790E-02	0.000E+00	NOT IDENT.
ND-147	2.714E-01	8.538E-01	1.370E+00	0.000E+00	FAIL ABUN
PM-149	-5.006E+01	1.195E+02	2.004E+02	0.000E+00	NOT IDENT.
EU-152	-1.445E-01	1.439E-01	1.949E-01	0.000E+00	NOT IDENT.
GD-153	1.051E-01	1.008E-01	1.569E-01	0.000E+00	NOT IDENT.
EU-154	-1.852E-02	1.705E-01	2.773E-01	0.000E+00	NOT IDENT.
EU-155	3.836E-03	1.191E-01	2.019E-01	0.000E+00	FAIL ABUN
TB-160	-1.023E-01	1.952E-01	3.140E-01	0.000E+00	FAIL ABUN
HO-166M	-1.797E-02	8.242E-02	1.387E-01	0.000E+00	FAIL ABUN
TA-182	-3.527E-02	2.913E-01	4.760E-01	0.000E+00	FAIL ABUN
IR-192	-3.185E-02	4.471E-02	7.348E-02	0.000E+00	FAIL ABUN
HG-203	4.570E-02	5.127E-02	9.115E-02	0.000E+00	FAIL ABUN
BI-207	5.008E-02	8.180E-02	1.428E-01	0.000E+00	FAIL ABUN
PB-211	-8.209E-01	1.050E+00	1.569E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.417E+00	1.579E+00	0.000E+00	FAIL ABUN
RN-219	-4.237E-01	5.514E-01	8.848E-01	0.000E+00	NOT IDENT.
RA-223	6.159E-01	9.544E-01	1.471E+00	0.000E+00	FAIL ABUN
AC-227	9.817E-02	3.153E-01	5.512E-01	0.000E+00	FAIL ABUN
TH-227	9.817E-02	3.154E-01	5.512E-01	0.000E+00	FAIL ABUN
PA-231	-3.530E+00	1.875E+00	2.780E+00	0.000E+00	NOT IDENT.
TH-231	6.159E-01	9.544E-01	1.471E+00	0.000E+00	FAIL ABUN
PA-233	3.295E-02	8.117E-02	1.416E-01	0.000E+00	FAIL ABUN
PA-234	3.865E-02	4.447E-01	7.521E-01	0.000E+00	NOT IDENT.
PA-234M	3.789E+00	7.128E+00	1.230E+01	0.000E+00	NOT IDENT.
NP-239	1.411E-01	4.696E-01	8.004E-01	0.000E+00	NOT IDENT.
AM-241	9.712E-02	8.622E-02	1.359E-01	0.000E+00	NOT IDENT.
CM-247	-1.167E-02	5.006E-02	8.338E-02	0.000E+00	NOT IDENT.
CF-249	6.185E-02	5.523E-02	9.873E-02	0.000E+00	NOT IDENT.

CF-251	3.207E-02	1.664E-01	2.782E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 22:53:07.07

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841003.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 20:52:38
Sample ID         : G248841003           Sample quantity  : 1.11660E+02 GRAM
Detector name     : GAM05                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.85  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1217	10.66*	1.004E+00	3.823E+01	3.823E+01	8.63
CD-109	88.03	438	3.70*	7.868E+00	5.061E+00	5.180E+00	21.99
SN-126	64.28	95	9.60	8.062E+00	4.143E-01	4.143E-01	108.32
	86.94	438	8.90	7.868E+00	2.104E+00	2.104E+00	46.04
	87.57	438	37.00*	7.868E+00	5.061E-01	5.061E-01	21.99
TL-208	277.37	------	6.60	4.261E+00	------ Line Not Found		------
	583.19	340	85.00*	2.261E+00	5.941E-01	5.941E-01	21.02
	860.56	46	12.50	1.590E+00	7.867E-01	7.867E-01	79.84
PB-210	46.54	125	4.25*	7.597E+00	1.304E+00	1.306E+00	65.83
BI-211	72.87	848	1.23	8.041E+00	2.882E+01	2.882E+01	16.60
	351.06	611	12.92*	3.519E+00	4.517E+00	4.517E+00	14.78
PB-212	74.82	848	10.28	8.041E+00	3.449E+00	3.449E+00	19.24
	77.11	1177	17.10	8.017E+00	2.885E+00	2.885E+00	12.06
	238.63	1310	43.60*	4.778E+00	2.113E+00	2.113E+00	12.86
	300.09	116	3.30	4.011E+00	2.959E+00	2.959E+00	41.88
BI-214	609.32	469	45.49*	2.173E+00	1.594E+00	1.594E+00	16.65
	1120.29	128	14.92	1.258E+00	2.289E+00	2.289E+00	30.08
	1764.49	84	15.30	8.614E-01	2.147E+00	2.147E+00	27.19
PB-214	74.82	848	5.80	8.041E+00	6.112E+00	6.113E+00	18.40
	77.11	1177	9.70	8.017E+00	5.086E+00	5.086E+00	14.61
	242.00	324	7.25	4.735E+00	3.171E+00	3.171E+00	33.55
	295.22	408	18.42	4.063E+00	1.831E+00	1.831E+00	18.95
	351.93	611	35.60*	3.519E+00	1.639E+00	1.639E+00	15.78
RA-224	240.99	324	4.10*	4.735E+00	5.607E+00	5.607E+00	33.05
RA-226	609.32	469	45.49*	2.173E+00	1.594E+00	1.594E+00	16.65
	1120.29	128	14.92	1.258E+00	2.289E+00	2.289E+00	30.08
	1764.49	84	15.30	8.614E-01	2.147E+00	2.147E+00	27.19
AC-228	338.32	234	11.27	3.638E+00	1.918E+00	1.918E+00	50.60
	911.20	192	25.80*	1.511E+00	1.657E+00	1.657E+00	28.29
	968.97	72	15.80	1.428E+00	1.079E+00	1.079E+00	89.78
RA-228	338.32	234	11.27	3.638E+00	1.918E+00	1.918E+00	50.60
	911.20	192	25.80*	1.511E+00	1.657E+00	1.657E+00	28.29

Sample ID : G248841003 Acquisition date : 18-MAR-2010 20:52:38

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	72	15.80	1.428E+00	1.079E+00	1.079E+00	89.78
TH-228	74.82	848	10.28	8.041E+00	3.449E+00	3.449E+00	16.64
	77.11	1177	17.10	8.017E+00	2.885E+00	2.885E+00	12.06
	238.63	1310	43.60*	4.778E+00	2.113E+00	2.113E+00	12.86
	300.09	116	3.30	4.011E+00	2.959E+00	2.959E+00	73.42
TH-229	85.43	438	14.70	7.868E+00	1.274E+00	1.274E+00	21.99
	88.47	260	24.00	7.817E+00	4.666E-01	4.666E-01	31.65
	193.51	------	4.41*	5.516E+00	------	Line Not Found	------
	210.85	------	2.80	5.209E+00	------	Line Not Found	------
TH-232	338.32	234	11.27	3.638E+00	1.918E+00	1.918E+00	29.90
	911.20	192	25.80*	1.511E+00	1.657E+00	1.657E+00	28.29
	968.97	72	15.80	1.428E+00	1.079E+00	1.079E+00	89.78
TH-234	63.29	95	3.70*	8.062E+00	1.075E+00	1.075E+00	108.81
	92.59	389	4.23	7.758E+00	3.986E+00	3.986E+00	33.57
U-235	89.96	260	3.47	7.817E+00	3.227E+00	3.227E+00	39.16
	93.35	389	5.60	7.758E+00	3.011E+00	3.011E+00	34.25
	143.76	------	10.96*	6.557E+00	------	Line Not Found	------
	163.33	------	5.08	6.119E+00	------	Line Not Found	------
	185.72	205	57.20	5.671E+00	2.122E-01	2.122E-01	43.46
	205.31	------	5.01	5.304E+00	------	Line Not Found	------
NP-237	86.48	438	12.40*	7.868E+00	1.510E+00	1.510E+00	30.39
	95.86	------	2.68	7.688E+00	------	Line Not Found	------
U-238	63.29	95	3.70*	8.062E+00	1.075E+00	1.075E+00	108.81
	92.59	389	4.23	7.758E+00	3.986E+00	3.986E+00	26.71
ANH-511	511.00	128	100.00*	2.546E+00	1.687E-01	1.687E-01	48.14

Flag: "*" = Keyline

Sample ID : G248841003 Acquisition date : 18-MAR-2010 20:52:38

Total number of lines in spectrum 31
Number of unidentified lines 4
Number of lines tentatively identified by NID 27 87.10%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.823E+01	3.823E+01	0.330E+01	8.63	
CD-109	461.40D	1.02	5.061E+00	5.180E+00	1.139E+00	21.99	
SN-126	2.30E+05Y	1.00	5.061E-01	5.061E-01	1.113E-01	21.99	
TL-208	1.41E+10Y	1.00	5.941E-01	5.941E-01	1.249E-01	21.02	
PB-210	22.20Y	1.00	1.304E+00	1.306E+00	0.860E+00	65.83	
BI-211	7.04E+08Y	1.00	4.517E+00	4.517E+00	0.668E+00	14.78	
PB-212	1.41E+10Y	1.00	2.113E+00	2.113E+00	0.272E+00	12.86	
BI-214	1600.00Y	1.00	1.594E+00	1.594E+00	0.265E+00	16.65	
PB-214	1600.00Y	1.00	1.639E+00	1.639E+00	0.259E+00	15.78	
RA-224	1.41E+10Y	1.00	5.607E+00	5.607E+00	1.853E+00	33.05	
RA-226	1600.00Y	1.00	1.594E+00	1.594E+00	0.265E+00	16.65	
AC-228	1.41E+10Y	1.00	1.657E+00	1.657E+00	0.469E+00	28.29	
RA-228	1.41E+10Y	1.00	1.657E+00	1.657E+00	0.469E+00	28.29	
TH-228	1.41E+10Y	1.00	2.113E+00	2.113E+00	0.272E+00	12.86	
TH-229	7340.00Y	1.00	4.666E-01	4.666E-01	1.477E-01	31.65	K
TH-232	1.41E+10Y	1.00	1.657E+00	1.657E+00	0.469E+00	28.29	
TH-234	4.47E+09Y	1.00	1.075E+00	1.075E+00	1.170E+00	108.81	
U-235	7.04E+08Y	1.00	2.122E-01	2.122E-01	0.922E-01	43.46	K
NP-237	2.14E+06Y	1.00	1.510E+00	1.510E+00	0.459E+00	30.39	
U-238	4.47E+09Y	1.00	1.075E+00	1.075E+00	1.170E+00	108.81	
ANH-511	1.00E+09Y	1.00	1.687E-01	1.687E-01	0.812E-01	48.14	
			---	---			
	Total Activity :		7.436E+01	7.448E+01			

Grand Total Activity : 7.436E+01 7.448E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248841003 Acquisition date : 18-MAR-2010 20:52:38

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	83.60	206	508	1.87	168.18	164	29	2.85E-02	41.2	7.92E+00	T
0	128.33	96	256	0.96	257.63	255	7	1.33E-02	58.9	6.92E+00	
0	208.79	105	277	1.33	418.53	415	9	1.46E-02	60.4	5.24E+00	
0	327.68	109	156	2.29	656.24	650	11	1.51E-02	48.8	3.73E+00	T
0	726.66	114	95	1.90	1453.83	1444	19	1.59E-02	45.0	1.85E+00	T
0	769.42	81	60	1.03	1539.29	1533	15	1.12E-02	48.4	1.76E+00	
0	795.04	39	77	1.20	1590.50	1586	12	5.47E-03	99.0	1.71E+00	T
0	1379.60	55	36	1.22	2758.55	2747	24	7.64E-03	63.7	1.05E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 22:53:11.38

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841003.CNF;1 *
* Acquisition date  : 18-MAR-2010 20:52:38  Detector SN#     :             *
* Detector ID       : GAM05                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.85          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID        *
* Sample ID         : G248841003            Analyst initials: MXR1         *
* Batch Number      : 962629                Sample Quantity : 1.11660E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00.5MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.823E+01	3.300E+00	7.240E-01	4.503E-02	52.809
CD-109	5.180E+00	1.139E+00	1.113E+00	8.473E-02	4.655
SN-126	5.061E-01	1.113E-01	1.086E-01	8.269E-03	4.661
TL-208	5.941E-01	1.249E-01	8.119E-02	5.963E-03	7.317
PB-210	1.306E+00	8.598E-01	1.085E+00	8.370E-02	1.203
BI-211	4.517E+00	6.677E-01	4.271E-01	3.385E-02	10.576
PB-212	2.113E+00	2.717E-01	1.219E-01	1.319E-02	17.340
BI-214	1.594E+00	2.655E-01	1.685E-01	1.422E-02	9.463
PB-214	1.639E+00	2.586E-01	1.526E-01	1.470E-02	10.745
RA-224	5.607E+00	1.853E+00	1.306E+00	1.278E-01	4.293
RA-226	1.594E+00	2.655E-01	1.685E-01	1.422E-02	9.463
AC-228	1.657E+00	4.689E-01	3.452E-01	4.381E-02	4.801
RA-228	1.657E+00	4.689E-01	3.452E-01	4.381E-02	4.801
TH-228	2.113E+00	2.717E-01	1.219E-01	1.319E-02	17.340
TH-229	4.666E-01	1.477E-01	1.076E+00	1.074E-01	0.434
TH-232	1.657E+00	4.689E-01	3.452E-01	4.381E-02	4.801
TH-234	1.075E+00	1.170E+00	1.341E+00	2.433E-01	0.802
U-235	2.122E-01	9.224E-02	4.101E-01	7.822E-02	0.518

Sample ID : G248841003 Acquisition date : 18-MAR-2010 20:52:38

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	1.510E+00	4.589E-01	3.230E-01	7.206E-02	4.676
U-238	1.075E+00	1.170E+00	1.341E+00	2.433E-01	0.802
ANH-511	1.687E-01	8.119E-02	6.520E-02	4.173E-03	2.587

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.075E-01		4.337E-01	6.715E-01	4.808E-02	-0.458
NA-22	-7.749E-03		6.129E-02	9.787E-02	5.701E-03	-0.079
NA-24	1.362E+00		6.274E-01	Half-Life too short		
SC-46	1.076E-02		5.720E-02	9.610E-02	9.652E-03	0.112
V-48	1.984E-02		1.053E-01	1.760E-01	1.612E-02	0.113
CR-51	-1.345E-01		5.180E-01	7.994E-01	7.064E-02	-0.168
MN-54	1.667E-02		5.590E-02	9.476E-02	8.681E-03	0.176
CO-56	1.359E-02		5.319E-02	9.014E-02	8.430E-03	0.151
CO-57	-2.415E-02		3.149E-02	4.937E-02	7.005E-03	-0.489
CO-58	3.152E-02		5.489E-02	9.533E-02	8.391E-03	0.331
FE-59	-1.450E-01		1.350E-01	1.972E-01	1.596E-02	-0.735
CO-60	-1.397E-02		5.671E-02	8.880E-02	5.139E-03	-0.157
ZN-65	1.256E-01		1.433E-01	2.225E-01	1.555E-02	0.564
SE-75	-9.676E-02		5.913E-02	9.022E-02	8.614E-03	-1.073
SR-85	8.416E-02		5.890E-02	9.315E-02	5.971E-03	0.904
Y-88	-6.627E-03		5.129E-02	8.233E-02	4.711E-03	-0.080
Y-91	-2.998E+00		3.401E+01	5.484E+01	3.187E+00	-0.055
NB-94	6.075E-02		4.857E-02	8.765E-02	6.272E-03	0.693
NB-95	9.922E-02		6.699E-02	1.101E-01	8.905E-03	0.901
NB-95M	1.441E+00		2.740E-01	4.125E-01	4.519E-02	3.493
ZR-95	4.676E-02		1.052E-01	1.810E-01	1.615E-02	0.258
MO-99	6.090E+00		1.786E+01	3.058E+01	4.669E+00	0.199
TC-99M	6.734E+09		4.994E+10	Half-Life too short		
RU-103	-7.966E-03		5.459E-02	8.801E-02	1.117E-02	-0.091
RH-106	-1.622E-01		4.756E-01	7.457E-01	8.976E-02	-0.218
RU-106	-1.622E-01		4.753E-01	7.457E-01	4.916E-02	-0.218
AG-108M	-1.561E-02		3.963E-02	6.330E-02	4.087E-03	-0.247
AG-110M	-5.654E-02		5.225E-02	7.634E-02	5.277E-03	-0.741
SN-113	-6.884E-02		6.049E-02	9.258E-02	5.743E-03	-0.744
CD-115	-1.282E+01		1.800E+01	2.772E+01	1.789E+00	-0.463
SN-117M	9.125E-03		7.255E-02	1.176E-01	1.264E-02	0.078
TE-123M	3.274E-03		3.734E-02	6.043E-02	6.493E-03	0.054
SB-124	-5.372E-02		9.915E-02	1.461E-01	9.290E-03	-0.368
SB-125	7.097E-02		1.259E-01	2.135E-01	1.337E-02	0.332
TE-125M	1.446E+00		1.231E+01	1.968E+01	2.553E+00	0.073
I-126	-6.573E-02		3.295E-01	5.204E-01	3.456E-02	-0.126
SB-126	3.688E-03		2.427E-01	3.507E-01	2.601E-02	0.011
SB-127	9.358E-01		1.980E+00	3.426E+00	3.501E-01	0.273
I-131	-8.619E-02		1.612E-01	2.582E-01	1.938E-02	-0.334
TE-132	-7.454E-02		9.717E-01	1.631E+00	2.705E-01	-0.046

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-133	-3.450E-02		6.388E-02	8.745E-02	1.057E-02	-0.394
I-133	-1.515E-03		5.679E-03	Half-Life too short		
CS-134	1.023E-01	+	1.016E-01	1.315E-01	1.133E-02	0.778
CS-135	4.356E-01		2.122E-01	3.766E-01	4.029E-02	1.157
I-135	4.504E+09		8.468E+09	Half-Life too short		
CS-136	-1.049E-01		1.583E-01	2.428E-01	2.079E-02	-0.432
BA-137M	1.389E-02		5.235E-02	8.574E-02	5.638E-03	0.162
CS-137	1.467E-02		5.530E-02	9.058E-02	5.976E-03	0.162
CE-139	-2.401E-02		3.914E-02	6.127E-02	6.083E-03	-0.392
BA-140	1.113E-01		3.923E-01	6.466E-01	2.162E-01	0.172
LA-140	-1.264E-01		1.088E-01	1.438E-01	8.454E-03	-0.879
CE-141	3.884E-02		8.075E-02	1.328E-01	1.624E-02	0.292
CE-143	1.847E-03	+	2.536E-04	Half-Life too short		
CE-144	-2.670E-03		2.693E-01	4.034E-01	7.375E-02	-0.007
PM-144	-8.331E-02		5.029E-02	7.376E-02	5.215E-03	-1.130
PR-144	-6.274E+00		3.762E+00	5.511E+00	3.895E-01	-1.138
PM-146	1.565E-02		5.858E-02	9.747E-02	8.493E-03	0.161
ND-147	2.714E-01		8.712E-01	1.366E+00	1.887E-01	0.199
PM-149	-5.006E+01		1.219E+02	1.988E+02	3.151E+01	-0.252
EU-152	-1.445E-01		1.469E-01	1.936E-01	1.591E-02	-0.746
GD-153	1.051E-01		1.029E-01	1.543E-01	1.430E-02	0.681
EU-154	-1.852E-02		1.740E-01	2.784E-01	2.626E-02	-0.067
EU-155	3.836E-03		1.215E-01	1.987E-01	2.151E-02	0.019
TB-160	-1.023E-01		1.991E-01	3.143E-01	3.106E-02	-0.326
HO-166M	-1.797E-02		8.410E-02	1.386E-01	1.010E-02	-0.130
TA-182	-3.527E-02		2.973E-01	4.777E-01	2.778E-02	-0.074
IR-192	-3.185E-02		4.562E-02	7.294E-02	6.191E-03	-0.437
HG-203	4.570E-02		5.231E-02	9.040E-02	8.574E-03	0.506
BI-207	5.008E-02		8.347E-02	1.432E-01	1.134E-02	0.350
PB-211	-8.209E-01		1.072E+00	1.561E+00	7.490E-01	-0.526
BI-212	3.111E+00	+	1.446E+00	1.578E+00	1.850E-01	1.972
RN-219	-4.237E-01		5.627E-01	8.801E-01	1.186E-01	-0.481
RA-223	6.159E-01		9.739E-01	1.460E+00	2.506E-01	0.422
AC-227	9.817E-02		3.218E-01	5.463E-01	6.985E-02	0.180
TH-227	9.817E-02		3.218E-01	5.463E-01	7.791E-02	0.180
PA-231	-3.530E+00		1.913E+00	2.757E+00	4.118E-01	-1.280
TH-231	6.159E-01		9.739E-01	1.460E+00	2.506E-01	0.422
PA-233	3.295E-02		8.283E-02	1.405E-01	1.241E-02	0.235
PA-234	3.865E-02		4.538E-01	7.532E-01	1.451E-01	0.051
PA-234M	3.789E+00		7.274E+00	1.232E+01	1.259E+00	0.308
NP-239	1.411E-01		4.791E-01	7.884E-01	1.037E-01	0.179
AM-241	9.712E-02		8.798E-02	1.332E-01	1.191E-02	0.729
CM-247	-1.167E-02		5.108E-02	8.293E-02	4.879E-03	-0.141
CF-249	6.185E-02		5.636E-02	9.817E-02	5.863E-03	0.630
CF-251	3.207E-02		1.698E-01	2.749E-01	2.739E-02	0.117

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248841003            *
* Acquisition date : 18-MAR-2010 20:52:38 Detector SN#    :                 *
* Detector ID      : GAM05                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.85     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248841003           Analyst initials: MXR1            *
* Batch Number     : 962629               Sample Quantity : 1.1166E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.823E+01	3.234E+00	3.604E-01	1.650E+00
CD-109	5.180E+00	1.116E+00	5.664E-01	5.696E-01
SN-126	5.061E-01	1.091E-01	5.528E-02	5.565E-02
TL-208	5.941E-01	1.224E-01	4.072E-02	6.243E-02
PB-210	1.306E+00	8.426E-01	5.552E-01	4.299E-01
BI-211	4.517E+00	6.543E-01	2.151E-01	3.338E-01
PB-212	2.113E+00	2.663E-01	6.156E-02	1.359E-01
BI-214	1.594E+00	2.602E-01	8.445E-02	1.327E-01
PB-214	1.639E+00	2.535E-01	7.683E-02	1.293E-01
RA-224	5.607E+00	1.816E+00	6.598E-01	9.266E-01
RA-226	1.594E+00	2.602E-01	8.445E-02	1.327E-01
AC-228	1.657E+00	4.595E-01	1.725E-01	2.344E-01
RA-228	1.657E+00	4.595E-01	1.725E-01	2.344E-01
TH-228	2.113E+00	2.663E-01	6.156E-02	1.359E-01
TH-229	-8.133E-01	6.983E-01	5.442E-01	3.563E-01
TH-232	1.657E+00	4.595E-01	1.725E-01	2.344E-01
TH-234	1.075E+00	1.146E+00	6.843E-01	5.848E-01
U-235	-2.458E-01	2.646E-01	2.080E-01	1.350E-01
NP-237	1.510E+00	4.497E-01	1.644E-01	2.294E-01
U-238	1.075E+00	1.146E+00	6.843E-01	5.848E-01
ANH-511	1.687E-01	7.957E-02	3.273E-02	4.059E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-3.075E-01	4.250E-01	3.373E-01	2.169E-01	NOT IDENT.
NA-22	-7.749E-03	6.006E-02	4.877E-02	3.064E-02	NOT IDENT.
NA-24	1.362E+06	1.230E+06	0.000E+00	6.274E+05	SHORT HLIF
SC-46	1.076E-02	5.606E-02	4.803E-02	2.860E-02	FAIL ABUN
V-48	1.984E-02	1.032E-01	8.790E-02	5.265E-02	NOT IDENT.
CR-51	-1.345E-01	5.076E-01	4.028E-01	2.590E-01	NOT IDENT.

MN-54	1.667E-02	5.478E-02	4.739E-02	2.795E-02	NOT IDENT.
CO-56	1.359E-02	5.213E-02	4.507E-02	2.660E-02	NOT IDENT.
CO-57	-2.415E-02	3.086E-02	2.507E-02	1.575E-02	NOT IDENT.
CO-58	3.152E-02	5.379E-02	4.768E-02	2.745E-02	NOT IDENT.
FE-59	-1.450E-01	1.323E-01	9.837E-02	6.749E-02	NOT IDENT.
CO-60	-1.397E-02	5.557E-02	4.424E-02	2.835E-02	NOT IDENT.
ZN-65	1.256E-01	1.404E-01	1.110E-01	7.163E-02	NOT IDENT.
SE-75	-9.676E-02	5.795E-02	4.553E-02	2.957E-02	NOT IDENT.
SR-85	8.416E-02	5.772E-02	4.676E-02	2.945E-02	NOT IDENT.
Y-88	-6.627E-03	5.027E-02	4.091E-02	2.565E-02	NOT IDENT.
Y-91	-2.998E+00	3.333E+01	2.734E+01	1.700E+01	NOT IDENT.
NB-94	6.075E-02	4.760E-02	4.389E-02	2.429E-02	NOT IDENT.
NB-95	9.922E-02	6.565E-02	5.509E-02	3.349E-02	NOT IDENT.
NB-95M	1.441E+00	2.686E-01	2.084E-01	1.370E-01	NOT IDENT.
ZR-95	4.676E-02	1.031E-01	9.060E-02	5.260E-02	NOT IDENT.
MO-99	6.090E+00	1.750E+01	1.530E+01	8.928E+00	NOT IDENT.
TC-99M	6.734E+15	9.789E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-7.966E-03	5.350E-02	4.419E-02	2.729E-02	NOT IDENT.
RH-106	-1.622E-01	4.661E-01	3.738E-01	2.378E-01	NOT IDENT.
RU-106	-1.622E-01	4.658E-01	3.738E-01	2.377E-01	NOT IDENT.
AG-108M	-1.561E-02	3.884E-02	3.182E-02	1.982E-02	NOT IDENT.
AG-110M	-5.654E-02	5.121E-02	3.825E-02	2.613E-02	NOT IDENT.
SN-113	-6.884E-02	5.928E-02	4.658E-02	3.025E-02	NOT IDENT.
CD-115	-1.282E+01	1.764E+01	1.391E+01	9.001E+00	NOT IDENT.
SN-117M	9.125E-03	7.110E-02	5.958E-02	3.627E-02	NOT IDENT.
TE-123M	3.274E-03	3.659E-02	3.062E-02	1.867E-02	NOT IDENT.
SB-124	-5.372E-02	9.717E-02	7.265E-02	4.958E-02	NOT IDENT.
SB-125	7.097E-02	1.234E-01	1.073E-01	6.294E-02	NOT IDENT.
TE-125M	1.446E+00	1.206E+01	1.000E+01	6.155E+00	NOT IDENT.
I-126	-6.573E-02	3.229E-01	2.607E-01	1.647E-01	NOT IDENT.
SB-126	3.688E-03	2.378E-01	1.756E-01	1.213E-01	NOT IDENT.
SB-127	9.358E-01	1.941E+00	1.716E+00	9.902E-01	NOT IDENT.
I-131	-8.619E-02	1.580E-01	1.300E-01	8.060E-02	NOT IDENT.
TE-132	-7.454E-02	9.523E-01	8.238E-01	4.859E-01	NOT IDENT.
BA-133	-3.450E-02	6.261E-02	4.403E-02	3.194E-02	NOT IDENT.
I-133	-1.515E+03	1.113E+04	0.000E+00	5.679E+03	SHORT HLIF
CS-134	1.023E-01	9.957E-02	6.579E-02	5.080E-02	FAIL ABUN
CS-135	4.356E-01	2.080E-01	1.901E-01	1.061E-01	NOT IDENT.
I-135	4.504E+15	1.660E+16	0.000E+00	8.468E+15	SHORT HLIF
CS-136	-1.049E-01	1.551E-01	1.212E-01	7.916E-02	NOT IDENT.
BA-137M	1.389E-02	5.130E-02	4.296E-02	2.617E-02	NOT IDENT.
CS-137	1.467E-02	5.420E-02	4.538E-02	2.765E-02	NOT IDENT.
CE-139	-2.401E-02	3.835E-02	3.104E-02	1.957E-02	NOT IDENT.
BA-140	1.113E-01	3.845E-01	3.245E-01	1.962E-01	NOT IDENT.
LA-140	-1.264E-01	1.066E-01	7.155E-02	5.441E-02	FAIL ABUN
CE-141	3.884E-02	7.914E-02	6.735E-02	4.038E-02	NOT IDENT.
CE-143	1.847E+03	4.970E+02	0.000E+00	2.536E+02	SHORT HLIF
CE-144	-2.670E-03	2.639E-01	2.047E-01	1.347E-01	NOT IDENT.
PM-144	-8.331E-02	4.928E-02	3.694E-02	2.514E-02	NOT IDENT.
PR-144	-6.274E+00	3.686E+00	2.760E+00	1.881E+00	NOT IDENT.
PM-146	1.565E-02	5.741E-02	4.898E-02	2.929E-02	NOT IDENT.
ND-147	2.714E-01	8.538E-01	6.853E-01	4.356E-01	FAIL ABUN
PM-149	-5.006E+01	1.195E+02	1.003E+02	6.096E+01	NOT IDENT.
EU-152	-1.445E-01	1.439E-01	9.749E-02	7.344E-02	NOT IDENT.
GD-153	1.051E-01	1.008E-01	7.849E-02	5.145E-02	NOT IDENT.
EU-154	-1.852E-02	1.705E-01	1.387E-01	8.698E-02	NOT IDENT.
EU-155	3.836E-03	1.191E-01	1.010E-01	6.075E-02	FAIL ABUN
TB-160	-1.023E-01	1.952E-01	1.571E-01	9.957E-02	FAIL ABUN
HO-166M	-1.797E-02	8.242E-02	6.938E-02	4.205E-02	FAIL ABUN
TA-182	-3.527E-02	2.913E-01	2.382E-01	1.486E-01	FAIL ABUN
IR-192	-3.185E-02	4.471E-02	3.676E-02	2.281E-02	FAIL ABUN
HG-203	4.570E-02	5.127E-02	4.560E-02	2.616E-02	FAIL ABUN
BI-207	5.008E-02	8.180E-02	7.145E-02	4.173E-02	FAIL ABUN
PB-211	-8.209E-01	1.050E+00	7.851E-01	5.359E-01	NOT IDENT.
BI-212	3.111E+00	1.417E+00	7.899E-01	7.228E-01	FAIL ABUN
RN-219	-4.237E-01	5.514E-01	4.427E-01	2.813E-01	NOT IDENT.
RA-223	6.159E-01	9.544E-01	7.358E-01	4.869E-01	FAIL ABUN
AC-227	9.817E-02	3.153E-01	2.758E-01	1.609E-01	FAIL ABUN
TH-227	9.817E-02	3.154E-01	2.758E-01	1.609E-01	FAIL ABUN
PA-231	-3.530E+00	1.875E+00	1.391E+00	9.567E-01	NOT IDENT.
TH-231	6.159E-01	9.544E-01	7.358E-01	4.869E-01	FAIL ABUN
PA-233	3.295E-02	8.117E-02	7.082E-02	4.141E-02	FAIL ABUN
PA-234	3.865E-02	4.447E-01	3.763E-01	2.269E-01	NOT IDENT.
PA-234M	3.789E+00	7.128E+00	6.152E+00	3.637E+00	NOT IDENT.
NP-239	1.411E-01	4.696E-01	4.004E-01	2.396E-01	NOT IDENT.
AM-241	9.712E-02	8.622E-02	6.799E-02	4.399E-02	NOT IDENT.
CM-247	-1.167E-02	5.006E-02	4.171E-02	2.554E-02	NOT IDENT.
CF-249	6.185E-02	5.523E-02	4.939E-02	2.818E-02	NOT IDENT.

CF-251	3.207E-02	1.664E-01	1.392E-01	8.490E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	505.8626
49.72	517.7571
57.36	0.0000
59.54	519.6140
63.29	655.0503
63.29	655.0503
64.28	629.4298
67.75	588.5605
69.67	662.5045
70.83	564.2499
72.81	556.2627
72.87	556.3078
72.87	556.3078
74.82	557.7365
74.82	557.7365
74.82	557.7365
74.97	557.8439
77.11	559.3887
77.11	559.3887
77.11	559.3887
79.69	561.2234
79.80	430.5432
80.12	430.7162
80.19	430.7542
80.57	430.9585
81.00	431.1892
81.07	431.2271
81.07	431.2271
83.79	405.4315
83.79	405.4315
85.43	406.2376
86.48	406.7503
86.55	406.7843
86.79	406.9001
86.94	406.9742
87.57	407.2784
88.03	407.5008
88.47	407.7123
89.96	408.4258
91.11	408.9739
92.59	409.6719
92.59	409.6719
93.35	410.0286
94.67	451.2223
94.87	452.9476
94.87	452.9476
95.86	477.8326
97.43	372.8434
98.44	337.4022
99.53	369.5136
100.11	389.8690
103.18	434.1769
103.37	428.1206
105.31	395.1382
106.12	396.5046
109.28	415.3386
111.00	439.8228
111.76	439.1324
116.30	373.6821
117.23	348.0540
121.12	377.5478
121.78	379.8767
122.06	379.9808
123.07	337.9576
131.20	355.4856
133.52	351.7456
136.00	369.1111

136.47	367.1520
140.51	358.9265
140.51	0.0000
143.76	392.9690
144.24	377.1513
144.24	377.1513
145.44	344.4862
152.43	337.9704
153.25	342.4981
154.21	351.3693
154.21	351.3693
156.02	377.7283
158.56	333.2302
159.00	335.5081
162.66	310.5430
163.33	304.2159
165.86	341.7170
176.60	329.2922
177.52	304.3446
181.07	295.0685
184.41	298.2319
185.72	285.5250
193.51	339.0135
197.04	296.5596
205.31	291.3724
210.85	258.3984
215.65	260.0441
222.11	282.9704
227.38	261.2742
228.16	261.4078
228.18	261.4113
235.69	278.1859
235.96	278.2343
235.96	278.2343
238.63	263.1726
238.63	263.1726
240.99	263.5646
242.00	198.4092
244.70	206.3892
252.40	213.8226
252.80	230.4688
256.23	213.3965
256.23	213.3965
260.90	215.8492
264.66	257.1853
268.22	193.5273
269.46	185.2872
269.46	185.2872
271.23	236.7421
273.65	316.4097
276.40	207.5369
277.37	193.6228
277.60	190.8416
278.00	194.6268
279.20	215.3611
279.54	209.7840
280.46	210.8304
283.69	221.5439
284.31	215.9872
285.41	202.0270
285.90	187.0435
287.50	165.8088
293.27	0.0000
295.22	182.3464
295.96	182.4218
298.57	182.6833
299.98	168.9290
299.98	168.9290
300.09	168.9399
300.09	168.9399
300.13	168.9443
301.36	173.7974
302.85	178.6822
304.50	167.7622
304.50	167.7622
304.85	174.1264
308.46	187.4698
311.90	165.8862

316.51	190.1820
319.41	181.8568
320.08	181.9194
323.87	169.4874
323.87	169.4874
328.76	181.1375
333.37	138.1805
334.37	169.7588
334.37	169.7588
338.28	165.9060
338.28	165.9060
338.32	165.9102
338.32	165.9102
338.32	165.9102
340.48	151.5777
340.55	151.5834
344.28	179.3294
351.06	154.6446
351.93	149.1968
356.01	167.3666
364.49	166.4224
366.42	168.5356
383.85	168.9314
388.16	140.5595
388.63	145.5411
391.69	165.5730
400.66	165.2502
401.81	162.3493
402.40	151.4322
404.85	167.5550
410.95	150.0092
414.70	119.2034
423.72	127.7162
427.09	124.8810
427.87	124.9233
433.94	128.2774
453.88	121.2036
463.37	120.6533
468.07	153.6639
473.00	101.6200
476.78	124.3898
477.60	119.2880
487.02	95.9925
492.35	116.8802
497.08	107.7692
511.00	112.5127
514.00	99.0820
527.90	120.5675
529.87	0.0000
531.02	94.4670
537.26	104.1506
546.56	0.0000
563.25	108.3177
569.33	113.8730
569.50	113.8782
569.70	119.2078
583.19	99.4528
600.60	119.8728
602.73	102.2734
604.72	71.8197
609.32	113.2903
609.32	113.2903
610.33	127.7197
614.28	93.6660
618.01	110.3747
621.93	106.1826
621.93	106.1826
633.25	88.0915
635.95	88.1686
636.99	78.3984
645.85	84.0834
657.76	110.7129
661.66	91.0953
661.66	91.0953
664.57	0.0000
666.33	97.8239
666.50	97.8283
677.62	87.3240

685.70	83.8573
695.00	94.2616
696.49	122.9666
696.51	122.9666
697.00	115.5879
702.65	79.6609
706.68	96.4526
711.68	87.3103
720.70	89.4082
721.93	0.0000
722.78	86.2697
722.91	89.4668
723.31	91.0763
724.19	92.6984
727.33	87.7177
733.00	75.3128
735.93	81.9539
739.50	70.2393
747.24	75.0911
752.31	78.9619
753.82	70.5322
756.73	79.0627
763.94	74.3746
765.81	66.3261
766.42	71.1915
777.92	68.1782
778.90	61.9975
783.70	67.3411
785.37	87.2982
795.86	91.3613
801.95	73.5393
810.29	64.0175
810.76	63.0701
815.77	69.8544
818.51	70.8640
832.01	93.2287
834.85	83.6812
836.80	0.0000
846.77	59.8254
856.80	59.7079
860.56	63.0873
871.09	64.0933
873.19	56.3551
875.33	0.0000
879.36	71.0425
880.51	64.2490
883.24	57.4755
884.68	73.0896
889.28	65.3697
898.04	68.4491
911.20	74.0045
911.20	74.0045
911.20	74.0045
926.50	69.9267
937.49	88.8794
944.13	71.2207
946.00	69.2737
949.00	53.4792
962.29	85.1615
964.08	76.6783
966.15	93.7659
968.97	97.5255
968.97	97.5255
968.97	97.5255
983.53	61.9142
996.26	77.1269
1001.03	66.1826
1004.73	94.3423
1037.84	66.7493
1038.76	0.0000
1048.07	68.9324
1050.41	67.9542
1050.41	67.9542
1063.66	66.1241
1085.87	58.2733
1099.45	75.8789
1112.07	44.0674
1115.54	52.9206

1120.29	68.8675
1120.29	68.8675
1120.55	68.8703
1121.30	56.5179
1131.51	0.0000
1173.23	76.0446
1177.93	63.6062
1189.05	67.9331
1204.77	82.8317
1221.41	79.9583
1231.02	108.5741
1235.36	84.4043
1238.28	73.8965
1260.41	0.0000
1271.85	49.9490
1274.44	51.0371
1274.54	51.0371
1291.59	64.0112
1298.22	0.0000
1312.11	34.2747
1332.49	41.9342
1365.19	34.6198
1368.63	0.0000
1384.29	24.4290
1408.01	20.5628
1457.56	0.0000
1460.82	24.5328
1489.16	28.4483
1505.03	11.4107
1596.21	27.0391
1620.50	19.3910
1678.03	0.0000
1690.97	16.6703
1764.49	15.8705
1764.49	15.8705
1770.23	10.4242
1771.35	10.4260
1791.20	0.0000
1836.06	17.0457

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248841003

Total Uranium Activity	3.0840E+00	ug/g
Total Uranium Counting Unc.	3.4120E+00	ug/g
Total Uranium Tpu	1.7408E-06	ug/g
Total Uranium Mda	2.0380E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                               GROSS GAMMA REPORT                          *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 962629                    SAMPLE ID  : G248841003        *
*   ANALYST      : MXR1                      DETECTOR   : GAM05             *
*   SAMPLE DATE  :  3-MAR-2010 12:00:00.00  COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 18-MAR-2010 20:52:38.71  SAMPLE ALQT:  111.660 GRAM      *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.167E+01
GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.645E+00
GROSS GAMMA MDA    (pCi/GRAM  )   : 4.195E+00
GROSS GAMMA DLC    (pCi/GRAM  )   : 2.043E+00
```

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 02:32:31.46

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841004.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 22:32:06
Sample ID         : G248841004           Sample quantity  : 1.21510E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:03.65  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.39*	111	917	0.79	125.90	123	7	7.69E-03	47.9	
2	3	74.93*	943	985	1.23	148.97	143	15	6.55E-02	6.5	2.53E+00
3	3	77.23	1461	814	1.05	153.58	143	15	1.01E-01	4.2	
4	4	84.32*	333	815	1.47	167.76	164	27	2.31E-02	15.5	1.34E+00
5	4	87.32	740	889	1.34	173.74	164	27	5.14E-02	7.9	
6	4	90.04	470	956	1.49	179.19	164	27	3.27E-02	13.2	
7	4	92.97*	754	907	1.50	185.05	164	27	5.24E-02	8.9	
8	0	129.52	214	1150	1.40	258.12	254	11	1.49E-02	31.4	
9	0	186.05*	520	853	1.19	371.13	367	10	3.61E-02	12.1	
10	0	209.31	319	729	1.36	417.65	413	9	2.22E-02	16.3	
11	4	238.67*	3676	571	1.21	476.35	472	19	2.55E-01	2.0	2.20E+00
12	4	241.61*	859	652	1.62	482.22	472	19	5.97E-02	8.4	
13	0	270.21*	315	713	1.53	539.40	534	13	2.18E-02	18.8	
14	0	277.14	197	691	1.17	553.26	548	12	1.37E-02	27.5	
15	0	295.14*	1134	664	1.27	589.24	582	13	7.87E-02	5.7	
16	0	300.04	263	595	1.40	599.03	595	12	1.83E-02	19.5	
17	0	328.19	130	586	1.57	655.33	649	11	9.00E-03	37.2	
18	0	338.23*	746	660	1.28	675.41	669	14	5.18E-02	8.3	
19	0	351.76*	1998	614	1.35	702.46	695	14	1.39E-01	3.5	
20	0	409.56	78	391	1.20	818.02	812	10	5.45E-03	48.6	
21	0	462.89	242	360	1.37	924.65	918	13	1.68E-02	17.4	
22	0	510.41*	395	505	2.06	1019.65	1011	19	2.74E-02	16.3	
23	0	582.83*	1187	398	1.66	1164.45	1155	16	8.24E-02	4.8	
24	0	608.95*	1446	312	1.67	1216.68	1210	13	1.00E-01	3.8	
25	0	726.72	282	262	1.87	1452.15	1446	13	1.96E-02	13.3	
26	0	768.91	259	311	5.55	1536.52	1528	20	1.80E-02	17.8	
27	0	794.41	149	191	1.47	1587.51	1582	13	1.03E-02	20.9	
28	0	834.94	50	169	0.80	1668.56	1665	9	3.50E-03	48.4	
29	0	860.32*	218	295	3.16	1719.29	1707	22	1.51E-02	21.6	
30	0	910.68*	943	261	1.81	1820.00	1811	19	6.55E-02	5.4	
31	2	964.34	204	148	2.24	1927.30	1922	22	1.42E-02	13.4	1.41E+00
32	2	968.48*	531	133	1.86	1935.58	1922	22	3.69E-02	6.6	
33	0	1119.47	400	221	1.88	2237.50	2228	20	2.78E-02	10.4	
34	0	1236.86*	179	272	2.71	2472.26	2466	18	1.24E-02	22.9	
35	0	1378.14	115	83	1.83	2754.78	2748	17	7.98E-03	21.6	
36	0	1407.16*	58	73	1.34	2812.82	2806	14	4.01E-03	36.1	
37	0	1459.74*	5074	138	2.24	2917.97	2906	24	3.52E-01	1.5	
38	0	1589.20	46	117	2.45	3176.86	3164	15	3.18E-03	53.5	

Sample ID : G248841004 Acquisition date : 18-MAR-2010 22:32:06

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1631.45	41	55	1.60	3261.37	3250	17	2.84E-03	45.7	
40	0	1729.60	58	47	1.11	3457.66	3451	17	4.06E-03	30.7	
41	0	1763.54*	291	70	2.34	3525.54	3513	26	2.02E-02	10.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 19-MAR-2010 02:32:35

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841004.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 18-MAR-2010 22:32:06
Sample ID : G248841004 Sample quantity : 121.51 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA18 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:00:03.65 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.882E+01	3.180E+00	3.437E-01	2.608E-02	112.960
MN-54	+	834.85	*	2.694E-02	2.623E-02	4.187E-02	4.289E-03	0.644
CD-109	+	88.03	*	4.904E+00	8.982E-01	8.450E-01	7.812E-02	5.803
SN-126	+	64.28		5.753E-01	5.578E-01	6.565E-01	9.704E-02	0.876
	+	86.94		1.992E+00	8.844E-01	3.485E-01	1.445E-01	5.715
	+	87.57	*	4.791E-01	8.775E-02	8.308E-02	7.655E-03	5.766
TL-208	+	277.37		7.381E-01	4.142E-01	3.788E-01	4.064E-02	1.948
	+	583.19	*	5.481E-01	6.825E-02	3.602E-02	2.819E-03	15.217
	+	860.56		9.232E-01	4.114E-01	2.733E-01	3.057E-02	3.378
BI-211		72.87		3.191E+00	2.617E+00	4.002E+00	3.304E-01	0.797
	+	351.06	*	4.381E+00	4.169E-01	1.984E-01	1.274E-02	22.089
PB-212	+	74.82		2.878E+00	5.267E-01	4.163E-01	5.338E-02	6.912
	+	77.11		2.514E+00	3.002E-01	2.356E-01	1.997E-02	10.670
	+	238.63	*	1.917E+00	1.581E-01	5.982E-02	4.313E-03	32.042
	+	300.09		2.057E+00	8.218E-01	7.269E-01	6.071E-02	2.830
BI-214	+	609.32	*	1.287E+00	1.513E-01	7.432E-02	6.679E-03	17.324
	+	1120.29		1.774E+00	4.056E-01	2.853E-01	2.747E-02	6.217
	+	1764.49		1.732E+00	3.700E-01	1.996E-01	1.214E-02	8.674
PB-214	+	74.82		5.101E+00	8.882E-01	7.379E-01	8.500E-02	6.912
	+	77.11		4.432E+00	6.432E-01	4.154E-01	4.912E-02	10.670
	+	242.00		2.712E+00	5.062E-01	3.632E-01	2.920E-02	7.467
	+	295.22		1.574E+00	2.253E-01	1.410E-01	1.224E-02	11.165
	+	351.93	*	1.590E+00	1.749E-01	7.212E-02	6.105E-03	22.047
RA-224	+	240.99	*	4.796E+00	8.510E-01	6.404E-01	3.568E-02	7.488
RA-226	+	609.32	*	1.287E+00	1.513E-01	7.432E-02	6.679E-03	17.324
	+	1120.29		1.774E+00	4.056E-01	2.853E-01	2.747E-02	6.217
	+	1764.49		1.732E+00	3.700E-01	1.996E-01	1.214E-02	8.674
AC-228	+	338.32		1.832E+00	8.143E-01	2.215E-01	9.130E-02	8.274
	+	911.20	*	2.031E+00	3.512E-01	1.496E-01	2.027E-02	13.572
	+	968.97		1.968E+00	5.561E-01	2.275E-01	5.675E-02	8.651
RA-228	+	338.32		1.832E+00	8.143E-01	2.215E-01	9.130E-02	8.274
	+	911.20	*	2.031E+00	3.512E-01	1.496E-01	2.027E-02	13.572
	+	968.97		1.968E+00	5.561E-01	2.275E-01	5.675E-02	8.651
TH-228	+	74.82		2.878E+00	4.474E-01	4.163E-01	3.511E-02	6.912

Sample ID : G248841004 Acquisition date : 18-MAR-2010 22:32:06

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		2.514E+00	3.002E-01	2.356E-01	1.997E-02	10.670
	+	238.63	*	1.917E+00	1.581E-01	5.982E-02	4.313E-03	32.042
	+	300.09		2.057E+00	1.488E+00	7.269E-01	4.425E-01	2.830
TH-229	+	85.43		5.701E-01	1.844E-01	2.159E-01	1.952E-02	2.641
	+	88.47		7.386E-01	1.353E-01	1.265E-01	1.159E-02	5.838
		193.51	*	1.021E-01	3.334E-01	5.619E-01	3.008E-02	0.182
		210.85		1.853E+00	6.507E-01	1.033E+00	5.618E-02	1.793
TH-232	+	338.32		1.832E+00	3.218E-01	2.215E-01	1.281E-02	8.274
	+	911.20	*	2.031E+00	3.512E-01	1.496E-01	2.027E-02	13.572
	+	968.97		1.968E+00	5.561E-01	2.275E-01	5.675E-02	8.651
TH-234	+	63.29	*	1.493E+00	1.455E+00	1.762E+00	3.175E-01	0.847
	+	92.59		3.957E+00	1.121E+00	6.835E-01	1.505E-01	5.790
U-235	+	89.96		3.121E+00	1.131E+00	8.585E-01	2.121E-01	3.635
	+	93.35		2.989E+00	8.709E-01	5.122E-01	1.178E-01	5.836
		143.76	*	4.117E-02	1.415E-01	2.194E-01	3.421E-02	0.188
		163.33		1.805E-01	2.757E-01	4.709E-01	7.820E-02	0.383
	+	185.72		1.836E-01	4.537E-02	4.264E-02	2.268E-03	4.306
		205.31		1.424E-02	3.484E-01	5.112E-01	8.619E-02	0.028
NP-237	+	86.48	*	1.430E+00	3.980E-01	2.518E-01	5.759E-02	5.676
		95.86		6.915E-02	6.744E-01	9.845E-01	2.341E-01	0.070
U-238	+	63.29	*	1.493E+00	1.455E+00	1.762E+00	3.175E-01	0.847
	+	92.59		3.957E+00	7.812E-01	6.835E-01	5.787E-02	5.790
ANH-511	+	511.00	*	1.415E-01	4.715E-02	2.758E-02	1.821E-03	5.130

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-7.869E-03	1.877E-01	3.090E-01	2.238E-02	-0.025
NA-22		1274.54	*	-3.306E-02	2.953E-02	4.551E-02	3.097E-03	-0.726
NA-24		1368.63	*	-8.400E-01	2.953E-02	Half-Life too short		
SC-46		889.28	*	-1.050E-02	2.453E-02	3.914E-02	4.366E-03	-0.268
	+	1120.55		3.009E-01	6.580E-02	8.015E-02	5.536E-03	3.754
V-48		944.13		-3.708E-01	5.934E-01	9.314E-01	9.858E-02	-0.398
		983.53	*	1.559E-02	4.700E-02	7.737E-02	7.652E-03	0.201
		1312.11		4.672E-02	5.182E-02	8.908E-02	6.489E-03	0.524
CR-51		320.08	*	1.310E-01	2.280E-01	3.749E-01	2.410E-02	0.349
CO-56		846.77	*	4.807E-03	2.494E-02	4.131E-02	4.313E-03	0.116
		1037.84		-1.444E-01	2.008E-01	3.239E-01	2.998E-02	-0.446
	+	1238.28		2.209E-01	1.023E-01	1.154E-01	7.694E-03	1.914
		1771.35		1.178E-01	1.495E-01	2.333E-01	1.410E-02	0.505
CO-57		122.06	*	-3.040E-02	1.761E-02	2.667E-02	1.579E-03	-1.140
		136.47		-9.591E-02	1.418E-01	2.211E-01	1.444E-02	-0.434
CO-58		810.76	*	-2.424E-02	2.381E-02	3.702E-02	3.655E-03	-0.655
FE-59		1099.45	*	-3.660E-03	5.717E-02	9.489E-02	7.806E-03	-0.039
		1291.59		-6.442E-03	8.232E-02	1.344E-01	1.130E-02	-0.048
CO-60		1173.23		-1.017E-02	2.915E-02	4.745E-02	2.623E-03	-0.214
		1332.49	*	-1.256E-02	2.506E-02	3.965E-02	2.995E-03	-0.317
ZN-65		1115.54	*	1.884E-02	6.765E-02	9.800E-02	6.903E-03	0.192

Sample ID : G248841004 Acquisition date : 18-MAR-2010 22:32:06

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SE-75		121.12		-7.192E-02	9.093E-02	1.422E-01	1.305E-02	-0.506
		136.00		1.633E-03	2.704E-02	4.315E-02	2.459E-03	0.038
		264.66	*	-1.994E-02	3.126E-02	4.338E-02	2.482E-03	-0.460
		279.54		4.786E-02	8.047E-02	1.176E-01	7.274E-03	0.407
		400.66		1.355E-01	1.548E-01	2.660E-01	2.414E-02	0.509
SR-85		514.00	*	6.468E-02	2.746E-02	4.323E-02	2.864E-03	1.496
Y-88		898.04		-3.019E-02	2.679E-02	4.084E-02	4.629E-03	-0.739
		1836.06	*	-1.303E-02	2.266E-02	3.508E-02	1.998E-03	-0.372
Y-91		1204.77	*	-8.061E-01	1.440E+01	2.372E+01	1.402E+00	-0.034
NB-94		702.65	*	1.372E-02	2.097E-02	3.587E-02	2.942E-03	0.383
		871.09		-2.435E-04	2.179E-02	3.566E-02	3.868E-03	-0.007
NB-95		765.81	*	7.145E-02	3.085E-02	4.896E-02	4.478E-03	1.460
NB-95M		235.69	*	1.327E-01	9.193E-02	1.393E-01	1.025E-02	0.953
ZR-95		724.19		2.320E-01	7.353E-02	1.183E-01	1.095E-02	1.960
		756.73	*	3.688E-02	4.564E-02	7.811E-02	7.713E-03	0.472
MO-99		140.51		-7.851E+00	1.752E+01	2.636E+01	6.012E+00	-0.298
		181.07		-1.145E+01	1.411E+01	2.007E+01	3.516E+00	-0.570
		366.42		-7.990E+01	6.303E+01	1.010E+02	5.837E+00	-0.791
		739.50	*	-5.371E+00	8.695E+00	1.399E+01	2.215E+00	-0.384
		777.92		-3.258E+01	2.986E+01	3.914E+01	3.654E+00	-0.832
TC-99M		140.51	*	-3.346E+10	2.986E+01	Half-Life too short		
RU-103		497.08	*	6.858E-03	2.303E-02	3.833E-02	4.895E-03	0.179
	+	610.33		1.337E+01	2.328E+00	1.784E+00	2.798E-01	7.497
RH-106		621.93	*	-1.399E-02	2.024E-01	3.252E-01	4.056E-02	-0.043
		1050.41		2.709E-01	1.680E+00	2.830E+00	2.419E-01	0.096
RU-106		621.93	*	-1.399E-02	2.024E-01	3.252E-01	2.393E-02	-0.043
		1050.41		2.709E-01	1.680E+00	2.830E+00	2.419E-01	0.096
AG-108M		433.94	*	-3.226E-02	1.729E-02	2.632E-02	1.697E-03	-1.225
		614.28		-9.927E-03	2.648E-02	3.596E-02	2.747E-03	-0.276
		722.91		2.717E-02	2.645E-02	4.016E-02	3.526E-03	0.677
AG-110M		657.76	*	6.006E-03	1.989E-02	3.383E-02	2.668E-03	0.178
		677.62		4.389E-02	1.915E-01	3.237E-01	2.628E-02	0.136
		706.68		-8.595E-02	1.332E-01	2.160E-01	1.841E-02	-0.398
		763.94		9.146E-02	1.109E-01	1.661E-01	1.552E-02	0.551
		884.68		-2.379E-03	3.122E-02	5.085E-02	5.743E-03	-0.047
		937.49		-5.884E-02	7.439E-02	1.158E-01	1.267E-02	-0.508
		1384.29		5.866E-02	1.048E-01	1.540E-01	1.192E-02	0.381
		1505.03		1.360E-01	1.636E-01	2.889E-01	2.074E-02	0.471
SN-113		391.69	*	-9.105E-03	2.635E-02	4.359E-02	2.674E-03	-0.209
CD-115		260.90		2.115E+01	9.648E+01	1.590E+02	8.977E+00	0.133
		492.35		-1.554E+01	2.463E+01	3.935E+01	2.547E+00	-0.395
		527.90	*	-4.928E-01	7.649E+00	1.247E+01	8.384E-01	-0.040
SN-117M		156.02		3.717E-01	1.451E+00	2.475E+00	1.322E-01	0.150
		158.56	*	-1.343E-02	3.667E-02	5.865E-02	3.117E-03	-0.229
TE-123M		159.00	*	-1.541E-02	1.884E-02	2.977E-02	1.606E-03	-0.518
SB-124		602.73		-2.727E-03	3.004E-02	3.977E-02	2.877E-03	-0.069
		645.85		-8.788E-02	3.100E-01	4.910E-01	3.968E-02	-0.179
		722.78		2.288E-01	2.648E-01	3.988E-01	3.470E-02	0.574
		1690.97	*	-5.009E-03	4.333E-02	7.071E-02	4.897E-03	-0.071

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-125		427.87	*	2.469E-02	5.409E-02	9.154E-02	5.713E-03	0.270
	+	463.37		7.769E-01	2.764E-01	3.393E-01	2.421E-02	2.289
		600.60		-6.371E-02	1.279E-01	1.829E-01	1.457E-02	-0.348
		635.95		-8.983E-03	1.782E-01	2.859E-01	2.359E-02	-0.031
TE-125M		109.28	*	5.490E+00	6.935E+00	1.142E+01	1.024E+00	0.481
I-126		388.63		-7.094E-03	1.029E-01	1.722E-01	9.897E-03	-0.041
		666.33	*	7.266E-02	1.338E-01	2.292E-01	1.762E-02	0.317
		753.82		8.976E-01	1.148E+00	1.964E+00	1.761E-01	0.457
SB-126		414.70		1.894E-02	4.965E-02	7.674E-02	4.539E-03	0.247
		666.50		2.567E-02	4.601E-02	7.885E-02	6.064E-03	0.326
		695.00		7.952E-03	4.825E-02	8.117E-02	6.569E-03	0.098
		697.00		-7.369E-02	1.716E-01	2.814E-01	2.286E-02	-0.262
		720.70	*	4.745E-04	1.054E-01	1.513E-01	1.281E-02	0.003
		856.80		6.142E-01	3.589E-01	5.540E-01	5.876E-02	1.109
SB-127		252.40		-2.018E+00	2.982E+00	4.595E+00	1.886E+00	-0.439
		473.00		2.204E-02	1.014E+00	1.676E+00	1.920E-01	0.013
		685.70	*	-2.755E-02	8.229E-01	1.374E+00	1.510E-01	-0.020
		783.70		3.876E+00	2.586E+00	4.375E+00	5.698E-01	0.886
I-131		80.19		1.145E+00	4.541E+00	5.359E+00	4.674E-01	0.214
		284.31		-5.776E-01	1.028E+00	1.579E+00	1.005E-01	-0.366
		364.49	*	5.226E-02	7.035E-02	1.214E-01	7.839E-03	0.430
		636.99		-9.576E-02	1.070E+00	1.714E+00	1.376E-01	-0.056
TE-132		49.72		-8.475E+00	1.968E+01	3.280E+01	3.435E+00	-0.258
		111.76		-2.534E+01	2.566E+01	4.010E+01	3.839E+00	-0.632
		116.30		-1.036E+01	2.171E+01	3.444E+01	3.228E+00	-0.301
		228.16	*	5.717E-02	4.906E-01	8.137E-01	1.175E-01	0.070
BA-133		81.00		6.278E-02	8.789E-02	1.056E-01	1.644E-02	0.595
	+	276.40		6.823E-01	3.855E-01	4.152E-01	5.207E-02	1.643
		302.85		8.063E-02	9.764E-02	1.430E-01	1.627E-02	0.564
		356.01	*	1.644E-02	3.040E-02	4.344E-02	4.895E-03	0.378
		383.85		3.740E-02	1.758E-01	2.971E-01	3.161E-02	0.126
I-133		529.87	*	-3.041E-03	1.758E-01	Half-Life too short		
		875.33		-3.556E-02	1.758E-01	Half-Life too short		
		1298.22		2.208E-01	1.758E-01	Half-Life too short		
CS-134		563.25		9.006E-02	2.239E-01	3.702E-01	2.616E-02	0.243
		569.33		-3.428E-02	1.305E-01	2.004E-01	1.433E-02	-0.171
		604.72		2.159E-02	2.448E-02	3.584E-02	2.605E-03	0.602
	+	795.86	*	9.732E-02	4.171E-02	5.454E-02	5.275E-03	1.784
		801.95		-4.871E-01	3.151E-01	4.040E-01	3.941E-02	-1.206
		1365.19		6.929E-03	7.328E-01	1.196E+00	9.522E-02	0.006
CS-135		268.22	*	2.968E-01	1.133E-01	1.769E-01	1.337E-02	1.678
I-135		546.56		4.115E+09	1.133E-01	Half-Life too short		
		836.80		3.231E+10	1.133E-01	Half-Life too short		
		1038.76		-2.354E+10	1.133E-01	Half-Life too short		
		1131.51		7.068E+09	1.133E-01	Half-Life too short		
		1260.41	*	-4.004E+09	1.133E-01	Half-Life too short		
		1457.56		4.843E+12	1.133E-01	Half-Life too short		
		1678.03		2.567E+09	1.133E-01	Half-Life too short		
		1791.20		-9.585E+09	1.133E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-136		153.25		3.237E-01	5.571E-01	9.578E-01	7.416E-02	0.338
		176.60		7.371E-02	3.190E-01	5.399E-01	3.582E-02	0.137
		273.65		-9.174E-02	5.024E-01	5.078E-01	3.423E-02	-0.181
		340.55		6.304E-01	1.162E-01	1.906E-01	1.194E-02	3.308
		818.51		1.068E-02	4.550E-02	7.579E-02	7.568E-03	0.141
		1048.07	*	4.154E-02	7.097E-02	1.217E-01	1.091E-02	0.341
		1235.36		9.408E-01	4.856E-01	7.433E-01	7.571E-02	1.266
BA-137M		661.66	*	-9.802E-03	2.086E-02	3.427E-02	2.613E-03	-0.286
CS-137		661.66	*	-1.035E-02	2.204E-02	3.621E-02	2.767E-03	-0.286
CE-139		165.86	*	7.410E-03	1.881E-02	3.208E-02	1.684E-03	0.231
BA-140		162.66		1.307E-01	5.193E-01	8.838E-01	5.461E-02	0.148
		304.85		-3.697E-01	9.647E-01	1.328E+00	3.793E-01	-0.278
		423.72		1.342E-01	1.169E+00	1.954E+00	6.313E-01	0.069
		537.26	*	7.006E-02	1.661E-01	2.735E-01	9.160E-02	0.256
LA-140	+	328.76		4.034E-01	3.016E-01	3.613E-01	2.346E-02	1.116
		487.02		5.233E-02	8.229E-02	1.390E-01	9.917E-03	0.376
		815.77		1.731E-01	1.974E-01	3.380E-01	3.658E-02	0.512
		1596.21	*	-2.665E-02	5.228E-02	7.611E-02	5.222E-03	-0.350
CE-141		145.44	*	3.336E-02	4.374E-02	6.865E-02	3.920E-03	0.486
CE-143		57.36		3.158E-04	4.374E-02	Half-Life too short		
		293.27	*	1.059E-03	4.374E-02	Half-Life too short		
		664.57		-4.741E-04	4.374E-02	Half-Life too short		
		721.93		-4.942E-05	4.374E-02	Half-Life too short		
CE-144		80.12		5.709E-01	2.382E+00	2.809E+00	2.433E-01	0.203
		133.52	*	-2.236E-03	1.510E-01	2.141E-01	2.960E-02	-0.010
PM-144		476.78		-1.510E-02	3.824E-02	6.201E-02	4.552E-03	-0.244
		618.01		-3.303E-03	2.115E-02	3.388E-02	2.580E-03	-0.097
		696.49	*	-1.698E-02	2.164E-02	3.491E-02	2.834E-03	-0.487
PR-144		696.51	*	-1.277E+00	1.619E+00	2.612E+00	2.120E-01	-0.489
		1489.16		-9.686E+00	7.529E+00	1.067E+01	7.707E-01	-0.908
PM-146		453.88	*	4.165E-03	2.617E-02	4.360E-02	3.809E-03	0.096
		633.25		2.794E-01	9.033E-01	1.465E+00	5.557E-01	0.191
		735.93		1.842E-02	8.999E-02	1.507E-01	4.227E-02	0.122
		747.24		-4.339E-02	6.229E-02	9.970E-02	1.469E-02	-0.435
ND-147	+	91.11		1.034E+00	2.914E-01	3.623E-01	3.409E-02	2.854
		319.41		-4.701E-01	2.117E+00	3.381E+00	1.953E-01	-0.139
		531.02	*	3.102E-02	3.411E-01	5.599E-01	7.811E-02	0.055
PM-149		285.90	*	-4.441E+01	6.694E+01	1.059E+02	1.498E+01	-0.419
EU-152		121.78		-6.184E-02	4.967E-02	7.639E-02	5.864E-03	-0.810
		244.70		1.750E-01	2.193E-01	3.270E-01	1.826E-02	0.535
		344.28	*	-3.381E-02	7.975E-02	9.003E-02	5.870E-03	-0.376
		778.90		-8.849E-02	1.800E-01	2.681E-01	2.507E-02	-0.330
	+	964.08		8.137E-01	2.330E-01	3.755E-01	3.846E-02	2.167
		1085.87		-1.498E-01	2.598E-01	4.210E-01	3.261E-02	-0.356
		1112.07		1.277E-01	2.162E-01	3.207E-01	2.283E-02	0.398
	+	1408.01		2.182E-01	1.582E-01	2.198E-01	1.633E-02	0.992
GD-153		69.67		-8.320E-01	1.560E+00	2.181E+00	1.770E-01	-0.382
		97.43	*	-2.020E-02	6.521E-02	9.365E-02	7.322E-03	-0.216
		103.18		-4.027E-02	7.651E-02	1.222E-01	8.812E-03	-0.330

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-154		123.07		-1.020E-02	3.521E-02	5.596E-02	5.285E-03	-0.182
		723.31		2.103E-01	1.240E-01	1.931E-01	1.813E-02	1.089
		873.19		-2.758E-02	1.796E-01	2.917E-01	3.974E-02	-0.095
		996.26		-1.090E-01	2.275E-01	3.568E-01	6.423E-02	-0.306
		1004.73		-1.050E-01	1.376E-01	2.122E-01	2.609E-02	-0.495
		1274.44	*	-9.171E-02	8.381E-02	1.289E-01	1.297E-02	-0.712
EU-155	+	86.55		5.810E-01	1.067E-01	1.382E-01	1.273E-02	4.205
		105.31	*	7.297E-02	7.395E-02	1.227E-01	8.767E-03	0.595
TB-160	+	86.79		1.547E+00	2.833E-01	3.695E-01	3.380E-02	4.186
		197.04		-2.088E-01	3.672E-01	5.795E-01	3.112E-02	-0.360
		215.65		-2.994E-03	4.833E-01	8.020E-01	4.378E-02	-0.004
	+	298.57		2.907E-01	1.148E-01	1.300E-01	7.465E-03	2.237
		879.36	*	2.291E-02	8.900E-02	1.474E-01	1.619E-02	0.155
		962.29		1.240E+00	4.164E-01	6.574E-01	6.753E-02	1.886
		966.15		1.776E+00	2.627E-01	3.744E-01	3.820E-02	4.744
		1177.93		2.359E-02	2.337E-01	3.884E-01	2.169E-02	0.061
		1271.85		-5.259E-02	4.686E-01	7.651E-01	5.170E-02	-0.069
HO-166M		80.57		2.004E-01	2.526E-01	3.058E-01	2.657E-02	0.655
		184.41		9.014E-02	2.807E-02	4.442E-02	2.360E-03	2.029
		280.46		6.358E-03	6.055E-02	8.666E-02	4.942E-03	0.073
	+	410.95		2.176E-01	2.117E-01	2.669E-01	1.571E-02	0.815
		711.68	*	1.331E-03	3.746E-02	6.255E-02	5.214E-03	0.021
		752.31		9.922E-02	1.695E-01	2.881E-01	2.576E-02	0.344
		810.29		-3.428E-02	3.556E-02	5.547E-02	5.462E-03	-0.618
TA-182		67.75		-9.054E-02	9.644E-02	1.434E-01	1.152E-02	-0.632
		100.11		1.069E-01	1.224E-01	2.032E-01	1.528E-02	0.526
		152.43		-1.125E-01	2.418E-01	3.767E-01	2.026E-02	-0.299
		222.11		-1.358E-01	2.222E-01	3.614E-01	1.984E-02	-0.376
		1121.30		6.262E-01	1.288E-01	2.178E-01	1.500E-02	2.875
		1189.05		-3.286E-02	2.056E-01	3.374E-01	1.929E-02	-0.097
		1221.41	*	5.178E-02	1.258E-01	2.111E-01	1.291E-02	0.245
		1231.02		6.073E-02	3.567E-01	5.071E-01	3.163E-02	0.120
IR-192	+	295.96		1.168E+00	1.493E-01	1.901E-01	1.109E-02	6.142
		308.46		3.448E-02	5.934E-02	9.784E-02	5.701E-03	0.352
		316.51	*	-1.703E-02	2.180E-02	3.407E-02	1.976E-03	-0.500
		468.07		-2.793E-03	4.392E-02	6.268E-02	4.472E-03	-0.045
HG-203		70.83		-1.305E-01	1.179E+00	1.671E+00	2.644E-01	-0.078
		72.87		7.987E-01	6.631E-01	1.002E+00	1.536E-01	0.797
		279.20	*	3.560E-02	2.893E-02	4.328E-02	2.609E-03	0.822
BI-207		72.81		1.458E-01	1.497E-01	2.278E-01	1.880E-02	0.640
	+	74.97		8.295E-01	1.286E-01	1.738E-01	1.453E-02	4.773
		569.70		-1.081E-02	2.045E-02	3.104E-02	2.175E-03	-0.348
		1063.66	*	3.174E-02	3.429E-02	5.952E-02	4.913E-03	0.533
		1770.23		3.531E-01	2.741E-01	4.586E-01	2.774E-02	0.770
PB-210		46.54	*	-3.341E-01	4.040E+00	6.302E+00	4.831E-01	-0.053
PB-211		404.85	*	-1.684E-01	5.152E-01	7.274E-01	3.490E-01	-0.232
		427.09		4.528E-01	9.255E-01	1.530E+00	7.014E-01	0.296
		832.01		9.685E-01	8.499E-01	1.061E+00	5.530E-01	0.913
BI-212	+	727.33	*	1.956E+00	5.730E-01	7.256E-01	9.014E-02	2.695

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		785.37		1.109E+00	2.162E+00	3.580E+00	3.383E-01	0.310
		1620.50		2.077E+00	1.685E+00	2.758E+00	1.865E-01	0.753
RN-219	+	271.23		7.085E-01	2.724E-01	2.928E-01	2.326E-02	2.420
		401.81	*	2.422E-01	2.541E-01	4.255E-01	5.721E-02	0.569
RA-223		81.07		1.341E-01	1.979E-01	2.383E-01	2.079E-02	0.563
	+	83.79		3.393E-01	1.098E-01	1.533E-01	1.366E-02	2.214
		94.87		1.103E+00	3.470E-01	5.418E-01	4.412E-02	2.036
		144.24		1.504E-01	4.738E-01	7.358E-01	5.117E-02	0.204
		154.21		2.400E-01	2.461E-01	4.264E-01	2.817E-02	0.563
	+	269.46		5.505E-01	2.097E-01	2.281E-01	1.353E-02	2.413
		323.87	*	-4.507E-02	4.563E-01	6.375E-01	1.027E-01	-0.071
	+	338.28		7.272E+00	1.417E+00	1.559E+00	1.597E-01	4.664
AC-227		79.69		-1.794E-01	1.049E+00	1.401E+00	2.415E-01	-0.128
		235.96		4.652E-01	1.244E-01	1.937E-01	1.543E-02	2.402
		256.23	*	1.117E-01	1.630E-01	2.722E-01	2.757E-02	0.410
	+	299.98		2.263E+00	9.182E-01	1.044E+00	1.144E-01	2.168
		304.50		-3.264E-02	1.124E+00	1.586E+00	2.416E-01	-0.021
		334.37		-1.464E+00	1.375E+00	1.654E+00	2.351E-01	-0.885
TH-227		79.80		3.047E-01	1.569E+00	1.846E+00	4.023E-01	0.165
		235.96		4.652E-01	1.234E-01	1.937E-01	1.393E-02	2.402
		256.23	*	1.117E-01	1.632E-01	2.722E-01	3.249E-02	0.410
	+	299.98		2.263E+00	9.182E-01	1.044E+00	1.144E-01	2.168
		304.50		-3.264E-02	1.124E+00	1.586E+00	2.416E-01	-0.021
		334.37		-1.464E+00	1.375E+00	1.654E+00	2.351E-01	-0.885
PA-231		283.69	*	-4.143E-01	1.011E+00	1.491E+00	1.950E-01	-0.278
	+	301.36		1.454E+00	5.874E-01	6.607E-01	6.816E-02	2.200
TH-231		81.07		1.341E-01	1.979E-01	2.383E-01	2.079E-02	0.563
	+	83.79		3.393E-01	1.098E-01	1.533E-01	1.366E-02	2.214
		94.87		1.103E+00	3.470E-01	5.418E-01	4.412E-02	2.036
		144.24		1.504E-01	4.738E-01	7.358E-01	5.117E-02	0.204
		154.21		2.400E-01	2.461E-01	4.264E-01	2.817E-02	0.563
	+	269.46		5.505E-01	2.097E-01	2.281E-01	1.353E-02	2.413
		323.87	*	-4.507E-02	4.563E-01	6.375E-01	1.027E-01	-0.071
	+	338.28		7.272E+00	1.417E+00	1.559E+00	1.597E-01	4.664
PA-233	+	300.13		1.024E+00	4.228E-01	4.718E-01	6.305E-02	2.170
		311.90	*	-1.923E-02	4.048E-02	6.417E-02	3.932E-03	-0.300
		340.48		2.882E+00	8.141E-01	8.181E-01	1.898E-01	3.523
PA-234		94.67		5.262E-01	1.399E-01	2.061E-01	2.493E-02	2.553
		98.44		6.916E-02	7.592E-02	1.047E-01	5.829E-02	0.660
		111.00		-1.101E-01	1.312E-01	2.062E-01	2.212E-02	-0.534
		131.20		9.509E-02	8.082E-02	1.196E-01	6.806E-03	0.795
		569.50		-9.872E-02	1.814E-01	2.752E-01	1.928E-02	-0.359
		733.00		1.069E-01	2.664E-01	3.898E-01	8.657E-02	0.274
		880.51		7.135E-02	1.797E-01	2.995E-01	3.296E-02	0.238
		883.24		-1.643E-02	1.815E-01	2.949E-01	1.993E-01	-0.056
		926.50		-8.361E-02	1.144E-01	1.756E-01	4.588E-02	-0.476
		946.00	*	-4.249E-02	1.991E-01	3.197E-01	6.307E-02	-0.133
		949.00		3.387E-01	2.968E-01	5.055E-01	5.308E-02	0.670
PA-234M		766.42		1.598E+01	1.152E+01	1.297E+01	6.591E+00	1.232

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1001.03	*	1.767E-01	3.065E+00	4.844E+00	5.225E-01	0.036
NP-239		99.53		7.768E-02	1.134E-01	1.876E-01	1.422E-02	0.414
		103.37		-1.282E-02	6.922E-02	1.117E-01	8.034E-03	-0.115
		106.12		4.026E-03	5.920E-02	9.603E-02	6.676E-03	0.042
		117.23	*	-2.111E-01	2.766E-01	4.347E-01	2.685E-02	-0.486
		228.18		1.517E-02	1.343E-01	2.227E-01	1.229E-02	0.068
	+	277.60		3.374E-01	1.868E-01	2.053E-01	1.169E-02	1.643
AM-241		59.54	*	-7.968E-02	1.433E-01	2.109E-01	1.749E-02	-0.378
CM-247	+	278.00		1.433E+00	7.935E-01	8.693E-01	4.952E-02	1.648
		287.50		6.110E-01	8.187E-01	1.318E+00	7.537E-02	0.464
		402.40	*	2.064E-02	2.381E-02	3.891E-02	2.266E-03	0.530
CF-249		252.80		-1.162E-01	5.976E-01	9.743E-01	5.472E-02	-0.119
		333.37		-5.633E-02	1.845E-01	1.796E-01	1.039E-02	-0.314
		388.16	*	7.148E-03	2.398E-02	4.063E-02	2.336E-03	0.176
CF-251		177.52	*	3.551E-02	8.187E-02	1.392E-01	7.355E-03	0.255
		227.38		9.759E-02	2.204E-01	3.689E-01	2.034E-02	0.265
		285.41		-9.999E-01	1.403E+00	2.224E+00	1.271E-01	-0.450

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841004       *
* Acquisition date : 18-MAR-2010 22:32:06 Detector SN#    :                 *
* Detector ID      : GAM18                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:03.65     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248841004           Analyst initials: MXR1            *
* Batch Number     : 962629               Sample Quantity : 1.2151E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.882E+01	3.117E+00	3.430E-01	0.000E+00
MN-54	2.694E-02	2.570E-02	4.209E-02	0.000E+00
CD-109	4.904E+00	8.803E-01	8.731E-01	0.000E+00
SN-126	4.791E-01	8.600E-02	8.585E-02	0.000E+00
TL-208	5.481E-01	6.688E-02	3.637E-02	0.000E+00
BI-211	4.381E+00	4.085E-01	2.015E-01	0.000E+00
PB-212	1.917E+00	1.550E-01	6.107E-02	0.000E+00
BI-214	1.287E+00	1.483E-01	7.500E-02	0.000E+00
PB-214	1.590E+00	1.714E-01	7.328E-02	0.000E+00
RA-224	4.796E+00	8.339E-01	6.537E-01	0.000E+00
RA-226	1.287E+00	1.483E-01	7.500E-02	0.000E+00
AC-228	2.031E+00	3.442E-01	1.502E-01	0.000E+00
RA-228	2.031E+00	3.442E-01	1.502E-01	0.000E+00
TH-228	1.917E+00	1.550E-01	6.107E-02	0.000E+00
TH-229	1.021E-01	3.267E-01	5.751E-01	0.000E+00
TH-232	2.031E+00	3.442E-01	1.502E-01	0.000E+00
TH-234	1.493E+00	1.426E+00	1.828E+00	0.000E+00
U-235	4.117E-02	1.386E-01	2.253E-01	0.000E+00
NP-237	1.430E+00	3.900E-01	2.603E-01	0.000E+00
U-238	1.493E+00	1.426E+00	1.828E+00	0.000E+00
ANH-511	1.415E-01	4.621E-02	2.789E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-7.869E-03	1.839E-01	3.128E-01	0.000E+00	NOT IDENT.
NA-22	-3.306E-02	2.894E-02	4.550E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.317E+05	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-1.050E-02	2.404E-02	3.931E-02	0.000E+00	FAIL ABUN
V-48	1.559E-02	4.606E-02	7.760E-02	0.000E+00	NOT IDENT.
CR-51	1.310E-01	2.234E-01	3.814E-01	0.000E+00	NOT IDENT.

CO-56	4.807E-03	2.444E-02	4.152E-02	0.000E+00	FAIL ABUN
CO-57	-3.040E-02	1.726E-02	2.744E-02	0.000E+00	NOT IDENT.
CO-58	-2.424E-02	2.334E-02	3.723E-02	0.000E+00	NOT IDENT.
FE-59	-3.660E-03	5.602E-02	9.505E-02	0.000E+00	NOT IDENT.
CO-60	-1.256E-02	2.456E-02	3.961E-02	0.000E+00	NOT IDENT.
ZN-65	1.884E-02	6.629E-02	9.815E-02	0.000E+00	NOT IDENT.
SE-75	-1.994E-02	3.063E-02	4.423E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	2.691E-02	4.372E-02	0.000E+00	NOT IDENT.
Y-88	-1.303E-02	2.221E-02	3.490E-02	0.000E+00	NOT IDENT.
Y-91	-8.061E-01	1.412E+01	2.373E+01	0.000E+00	NOT IDENT.
NB-94	1.372E-02	2.055E-02	3.613E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	3.023E-02	4.926E-02	0.000E+00	NOT IDENT.
NB-95M	1.327E-01	9.009E-02	1.422E-01	0.000E+00	NOT IDENT.
ZR-95	3.688E-02	4.473E-02	7.861E-02	0.000E+00	NOT IDENT.
MO-99	-5.371E+00	8.521E+00	1.409E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	7.341E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	6.858E-03	2.257E-02	3.878E-02	0.000E+00	FAIL ABUN
RH-106	-1.399E-02	1.983E-01	3.281E-01	0.000E+00	NOT IDENT.
RU-106	-1.399E-02	1.983E-01	3.281E-01	0.000E+00	NOT IDENT.
AG-108M	-3.226E-02	1.695E-02	2.668E-02	0.000E+00	NOT IDENT.
AG-110M	6.006E-03	1.950E-02	3.410E-02	0.000E+00	NOT IDENT.
SN-113	-9.105E-03	2.582E-02	4.423E-02	0.000E+00	NOT IDENT.
CD-115	-4.928E-01	7.496E+00	1.261E+01	0.000E+00	NOT IDENT.
SN-117M	-1.343E-02	3.593E-02	6.017E-02	0.000E+00	NOT IDENT.
TE-123M	-1.541E-02	1.847E-02	3.054E-02	0.000E+00	NOT IDENT.
SB-124	-5.009E-03	4.246E-02	7.044E-02	0.000E+00	NOT IDENT.
SB-125	2.469E-02	5.301E-02	9.278E-02	0.000E+00	FAIL ABUN
TE-125M	5.490E+00	6.796E+00	1.177E+01	0.000E+00	NOT IDENT.
I-126	7.266E-02	1.311E-01	2.310E-01	0.000E+00	NOT IDENT.
SB-126	4.745E-04	1.033E-01	1.523E-01	0.000E+00	NOT IDENT.
SB-127	-2.755E-02	8.064E-01	1.385E+00	0.000E+00	NOT IDENT.
I-131	5.226E-02	6.894E-02	1.233E-01	0.000E+00	NOT IDENT.
TE-132	5.717E-02	4.808E-01	8.311E-01	0.000E+00	NOT IDENT.
BA-133	1.644E-02	2.979E-02	4.413E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	4.741E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.088E-02	5.485E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.111E-01	1.803E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.086E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	4.154E-02	6.955E-02	1.220E-01	0.000E+00	NOT IDENT.
BA-137M	-9.802E-03	2.044E-02	3.455E-02	0.000E+00	NOT IDENT.
CS-137	-1.035E-02	2.160E-02	3.650E-02	0.000E+00	NOT IDENT.
CE-139	7.410E-03	1.844E-02	3.290E-02	0.000E+00	NOT IDENT.
BA-140	7.006E-02	1.627E-01	2.764E-01	0.000E+00	NOT IDENT.
LA-140	-2.665E-02	5.124E-02	7.587E-02	0.000E+00	FAIL ABUN
CE-141	3.336E-02	4.286E-02	7.051E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.598E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.236E-03	1.480E-01	2.201E-01	0.000E+00	NOT IDENT.
PM-144	-1.698E-02	2.120E-02	3.517E-02	0.000E+00	NOT IDENT.
PR-144	-1.277E+00	1.587E+00	2.632E+00	0.000E+00	NOT IDENT.
PM-146	4.165E-03	2.565E-02	4.416E-02	0.000E+00	NOT IDENT.
ND-147	3.102E-02	3.343E-01	5.659E-01	0.000E+00	FAIL ABUN
PM-149	-4.441E+01	6.560E+01	1.079E+02	0.000E+00	NOT IDENT.
EU-152	-3.381E-02	7.815E-02	9.149E-02	0.000E+00	FAIL ABUN
GD-153	-2.020E-02	6.391E-02	9.665E-02	0.000E+00	NOT IDENT.
EU-154	-9.171E-02	8.213E-02	1.289E-01	0.000E+00	NOT IDENT.
EU-155	7.297E-02	7.247E-02	1.265E-01	0.000E+00	FAIL ABUN
TB-160	2.291E-02	8.722E-02	1.481E-01	0.000E+00	FAIL ABUN
HO-166M	1.331E-03	3.671E-02	6.300E-02	0.000E+00	FAIL ABUN
TA-182	5.178E-02	1.232E-01	2.112E-01	0.000E+00	NOT IDENT.
IR-192	-1.703E-02	2.136E-02	3.467E-02	0.000E+00	FAIL ABUN
HG-203	3.560E-02	2.835E-02	4.410E-02	0.000E+00	NOT IDENT.
BI-207	3.174E-02	3.360E-02	5.964E-02	0.000E+00	FAIL ABUN
PB-210	-3.341E-01	3.959E+00	6.561E+00	0.000E+00	NOT IDENT.
PB-211	-1.684E-01	5.049E-01	7.378E-01	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.615E-01	7.306E-01	0.000E+00	FAIL ABUN
RN-219	2.422E-01	2.490E-01	4.316E-01	0.000E+00	FAIL ABUN
RA-223	-4.507E-02	4.471E-01	6.483E-01	0.000E+00	FAIL ABUN
AC-227	1.117E-01	1.598E-01	2.776E-01	0.000E+00	FAIL ABUN
TH-227	1.117E-01	1.599E-01	2.776E-01	0.000E+00	FAIL ABUN
PA-231	-4.143E-01	9.903E-01	1.519E+00	0.000E+00	FAIL ABUN
TH-231	-4.507E-02	4.471E-01	6.483E-01	0.000E+00	FAIL ABUN
PA-233	-1.923E-02	3.967E-02	6.529E-02	0.000E+00	FAIL ABUN
PA-234	-4.249E-02	1.951E-01	3.208E-01	0.000E+00	NOT IDENT.
PA-234M	1.767E-01	3.003E+00	4.857E+00	0.000E+00	NOT IDENT.
NP-239	-2.111E-01	2.711E-01	4.476E-01	0.000E+00	FAIL ABUN
AM-241	-7.968E-02	1.405E-01	2.189E-01	0.000E+00	NOT IDENT.
CM-247	2.064E-02	2.334E-02	3.947E-02	0.000E+00	FAIL ABUN
CF-249	7.148E-03	2.350E-02	4.123E-02	0.000E+00	NOT IDENT.

CF-251	3.551E-02	8.023E-02	1.426E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 02:32:33.04

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841004.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 22:32:06
Sample ID         : G248841004           Sample quantity  : 1.21510E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:03.65  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	5074	10.66*	1.894E+00	3.882E+01	3.882E+01	8.19
MN-54	834.85	50	99.98*	2.988E+00	2.603E-02	2.694E-02	97.34
CD-109	88.03	740	3.70*	6.449E+00	4.791E+00	4.904E+00	18.32
SN-126	64.28	111	9.60	3.097E+00	5.753E-01	5.753E-01	96.95
	86.94	740	8.90	6.449E+00	1.992E+00	1.992E+00	44.40
	87.57	740	37.00*	6.449E+00	4.791E-01	4.791E-01	18.32
TL-208	277.37	197	6.60	6.261E+00	7.381E-01	7.381E-01	56.12
	583.19	1187	85.00*	3.935E+00	5.481E-01	5.481E-01	12.45
	860.56	218	12.50	2.915E+00	9.232E-01	9.232E-01	44.57
BI-211	72.87	------	1.23	4.622E+00	------ Line Not Found		------
	351.06	1998	12.92*	5.452E+00	4.381E+00	4.381E+00	9.51
PB-212	74.82	943	10.28	4.926E+00	2.878E+00	2.878E+00	18.30
	77.11	1461	17.10	5.250E+00	2.514E+00	2.514E+00	11.94
	238.63	3676	43.60*	6.793E+00	1.917E+00	1.917E+00	8.25
	300.09	263	3.30	5.985E+00	2.057E+00	2.057E+00	39.95
BI-214	609.32	1446	45.49*	3.813E+00	1.287E+00	1.287E+00	11.75
	1120.29	400	14.92	2.335E+00	1.774E+00	1.774E+00	22.87
	1764.49	291	15.30	1.695E+00	1.732E+00	1.732E+00	21.37
PB-214	74.82	943	5.80	4.926E+00	5.101E+00	5.101E+00	17.41
	77.11	1461	9.70	5.250E+00	4.432E+00	4.432E+00	14.51
	242.00	859	7.25	6.749E+00	2.712E+00	2.712E+00	18.67
	295.22	1134	18.42	6.042E+00	1.574E+00	1.574E+00	14.31
	351.93	1998	35.60*	5.452E+00	1.590E+00	1.590E+00	11.00
RA-224	240.99	859	4.10*	6.749E+00	4.796E+00	4.796E+00	17.74
RA-226	609.32	1446	45.49*	3.813E+00	1.287E+00	1.287E+00	11.75
	1120.29	400	14.92	2.335E+00	1.774E+00	1.774E+00	22.87
	1764.49	291	15.30	1.695E+00	1.732E+00	1.732E+00	21.37
AC-228	338.32	746	11.27	5.581E+00	1.832E+00	1.832E+00	44.43
	911.20	943	25.80*	2.780E+00	2.031E+00	2.031E+00	17.29
	968.97	531	15.80	2.640E+00	1.968E+00	1.968E+00	28.26
RA-228	338.32	746	11.27	5.581E+00	1.832E+00	1.832E+00	44.43
	911.20	943	25.80*	2.780E+00	2.031E+00	2.031E+00	17.29

Sample ID : G248841004 Acquisition date : 18-MAR-2010 22:32:06

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	531	15.80	2.640E+00	1.968E+00	1.968E+00	28.26
TH-228	74.82	943	10.28	4.926E+00	2.878E+00	2.878E+00	15.55
	77.11	1461	17.10	5.250E+00	2.514E+00	2.514E+00	11.94
	238.63	3676	43.60*	6.793E+00	1.917E+00	1.917E+00	8.25
	300.09	263	3.30	5.985E+00	2.057E+00	2.057E+00	72.33
TH-229	85.43	333	14.70	6.132E+00	5.701E-01	5.701E-01	32.35
	88.47	740	24.00	6.449E+00	7.386E-01	7.386E-01	18.32
	193.51	------	4.41*	7.521E+00	------	Line Not Found	------
	210.85	------	2.80	7.232E+00	------	Line Not Found	------
TH-232	338.32	746	11.27	5.581E+00	1.832E+00	1.832E+00	17.56
	911.20	943	25.80*	2.780E+00	2.031E+00	2.031E+00	17.29
	968.97	531	15.80	2.640E+00	1.968E+00	1.968E+00	28.26
TH-234	63.29	111	3.70*	3.097E+00	1.493E+00	1.493E+00	97.50
	92.59	754	4.23	6.960E+00	3.957E+00	3.957E+00	28.34
U-235	89.96	470	3.47	6.709E+00	3.121E+00	3.121E+00	36.23
	93.35	754	5.60	6.960E+00	2.989E+00	2.989E+00	29.14
	143.76	------	10.96*	8.222E+00	------	Line Not Found	------
	163.33	------	5.08	8.005E+00	------	Line Not Found	------
	185.72	520	57.20	7.646E+00	1.836E-01	1.836E-01	24.71
	205.31	------	5.01	7.323E+00	------	Line Not Found	------
NP-237	86.48	740	12.40*	6.449E+00	1.430E+00	1.430E+00	27.84
	95.86	------	2.68	7.180E+00	------	Line Not Found	------
U-238	63.29	111	3.70*	3.097E+00	1.493E+00	1.493E+00	97.50
	92.59	754	4.23	6.960E+00	3.957E+00	3.957E+00	19.74
ANH-511	511.00	395	100.00*	4.312E+00	1.415E-01	1.415E-01	33.33

Flag: "*" = Keyline

Sample ID : G248841004 Acquisition date : 18-MAR-2010 22:32:06

Total number of lines in spectrum 41
Number of unidentified lines 7
Number of lines tentatively identified by NID 34 82.93%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.882E+01	3.882E+01	0.318E+01	8.19	
MN-54	312.05D	1.04	2.603E-02	2.694E-02	2.623E-02	97.34	
CD-109	461.40D	1.02	4.791E+00	4.904E+00	0.898E+00	18.32	
SN-126	2.30E+05Y	1.00	4.791E-01	4.791E-01	0.878E-01	18.32	
TL-208	1.41E+10Y	1.00	5.481E-01	5.481E-01	0.682E-01	12.45	
BI-211	7.04E+08Y	1.00	4.381E+00	4.381E+00	0.417E+00	9.51	
PB-212	1.41E+10Y	1.00	1.917E+00	1.917E+00	0.158E+00	8.25	
BI-214	1600.00Y	1.00	1.287E+00	1.287E+00	0.151E+00	11.75	
PB-214	1600.00Y	1.00	1.590E+00	1.590E+00	0.175E+00	11.00	
RA-224	1.41E+10Y	1.00	4.796E+00	4.796E+00	0.851E+00	17.74	
RA-226	1600.00Y	1.00	1.287E+00	1.287E+00	0.151E+00	11.75	
AC-228	1.41E+10Y	1.00	2.031E+00	2.031E+00	0.351E+00	17.29	
RA-228	1.41E+10Y	1.00	2.031E+00	2.031E+00	0.351E+00	17.29	
TH-228	1.41E+10Y	1.00	1.917E+00	1.917E+00	0.158E+00	8.25	
TH-229	7340.00Y	1.00	7.386E-01	7.386E-01	1.353E-01	18.32	K
TH-232	1.41E+10Y	1.00	2.031E+00	2.031E+00	0.351E+00	17.29	
TH-234	4.47E+09Y	1.00	1.493E+00	1.493E+00	1.455E+00	97.50	
U-235	7.04E+08Y	1.00	1.836E-01	1.836E-01	0.454E-01	24.71	K
NP-237	2.14E+06Y	1.00	1.430E+00	1.430E+00	0.398E+00	27.84	
U-238	4.47E+09Y	1.00	1.493E+00	1.493E+00	1.455E+00	97.50	
ANH-511	1.00E+09Y	1.00	1.415E-01	1.415E-01	0.472E-01	33.33	
			---	---			
	Total Activity :		7.341E+01	7.353E+01			

Grand Total Activity : 7.341E+01 7.353E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248841004 Acquisition date : 18-MAR-2010 22:32:06

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.52	214	1150	1.40	258.12	254	11	1.49E-02	62.9	8.25E+00	
0	209.31	319	729	1.36	417.65	413	9	2.22E-02	32.5	7.26E+00	
0	270.21	315	713	1.53	539.40	534	13	2.18E-02	37.6	6.35E+00	T
0	328.19	130	586	1.57	655.33	649	11	9.00E-03	74.5	5.68E+00	T
0	409.56	78	391	1.20	818.02	812	10	5.45E-03	97.1	4.97E+00	T
0	462.89	242	360	1.37	924.65	918	13	1.68E-02	34.9	4.60E+00	T
0	726.72	282	262	1.87	1452.15	1446	13	1.96E-02	26.5	3.34E+00	T
0	768.91	259	311	5.55	1536.52	1528	20	1.80E-02	35.5	3.19E+00	
0	794.41	149	191	1.47	1587.51	1582	13	1.03E-02	41.8	3.11E+00	T
2	964.34	204	148	2.24	1927.30	1922	22	1.42E-02	26.7	2.65E+00	T
0	1236.86	179	272	2.71	2472.26	2466	18	1.24E-02	45.8	2.15E+00	T
0	1378.14	115	83	1.83	2754.78	2748	17	7.98E-03	43.1	1.97E+00	
0	1407.16	58	73	1.34	2812.82	2806	14	4.01E-03	72.1	1.94E+00	T
0	1589.20	46	117	2.45	3176.86	3164	15	3.18E-03	****	1.79E+00	
0	1631.45	41	55	1.60	3261.37	3250	17	2.84E-03	91.4	1.76E+00	
0	1729.60	58	47	1.11	3457.66	3451	17	4.06E-03	61.3	1.71E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 02:32:38.04

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841004.CNF;1  *
* Acquisition date : 18-MAR-2010 22:32:06  Detector SN#    :                *
* Detector ID      : GAM18                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 04:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 04:00:03.65         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248841004            Analyst initials: MXR1           *
* Batch Number     : 962629                Sample Quantity : 1.21510E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23.2MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.882E+01	3.180E+00	3.437E-01	2.608E-02	112.960
MN-54	2.694E-02	2.623E-02	4.187E-02	4.289E-03	0.644
CD-109	4.904E+00	8.982E-01	8.450E-01	7.812E-02	5.803
SN-126	4.791E-01	8.775E-02	8.308E-02	7.655E-03	5.766
TL-208	5.481E-01	6.825E-02	3.602E-02	2.819E-03	15.217
BI-211	4.381E+00	4.169E-01	1.984E-01	1.274E-02	22.089
PB-212	1.917E+00	1.581E-01	5.982E-02	4.313E-03	32.042
BI-214	1.287E+00	1.513E-01	7.432E-02	6.679E-03	17.324
PB-214	1.590E+00	1.749E-01	7.212E-02	6.105E-03	22.047
RA-224	4.796E+00	8.510E-01	6.404E-01	3.568E-02	7.488
RA-226	1.287E+00	1.513E-01	7.432E-02	6.679E-03	17.324
AC-228	2.031E+00	3.512E-01	1.496E-01	2.027E-02	13.572
RA-228	2.031E+00	3.512E-01	1.496E-01	2.027E-02	13.572
TH-228	1.917E+00	1.581E-01	5.982E-02	4.313E-03	32.042
TH-229	7.386E-01	1.353E-01	5.619E-01	3.008E-02	1.315
TH-232	2.031E+00	3.512E-01	1.496E-01	2.027E-02	13.572
TH-234	1.493E+00	1.455E+00	1.762E+00	3.175E-01	0.847
U-235	1.836E-01	4.537E-02	2.194E-01	3.421E-02	0.837

Sample ID : G248841004 Acquisition date : 18-MAR-2010 22:32:06

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	1.430E+00	3.980E-01	2.518E-01	5.759E-02	5.676
U-238	1.493E+00	1.455E+00	1.762E+00	3.175E-01	0.847
ANH-511	1.415E-01	4.715E-02	2.758E-02	1.821E-03	5.130

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-7.869E-03		1.877E-01	3.090E-01	2.238E-02	-0.025
NA-22	-3.306E-02		2.953E-02	4.551E-02	3.097E-03	-0.726
NA-24	-8.400E-01		3.733E-01	Half-Life too short		
SC-46	-1.050E-02		2.453E-02	3.914E-02	4.366E-03	-0.268
V-48	1.559E-02		4.700E-02	7.737E-02	7.652E-03	0.201
CR-51	1.310E-01		2.280E-01	3.749E-01	2.410E-02	0.349
CO-56	4.807E-03		2.494E-02	4.131E-02	4.313E-03	0.116
CO-57	-3.040E-02		1.761E-02	2.667E-02	1.579E-03	-1.140
CO-58	-2.424E-02		2.381E-02	3.702E-02	3.655E-03	-0.655
FE-59	-3.660E-03		5.717E-02	9.489E-02	7.806E-03	-0.039
CO-60	-1.256E-02		2.506E-02	3.965E-02	2.995E-03	-0.317
ZN-65	1.884E-02		6.765E-02	9.800E-02	6.903E-03	0.192
SE-75	-1.994E-02		3.126E-02	4.338E-02	2.482E-03	-0.460
SR-85	6.468E-02		2.746E-02	4.323E-02	2.864E-03	1.496
Y-88	-1.303E-02		2.266E-02	3.508E-02	1.998E-03	-0.372
Y-91	-8.061E-01		1.440E+01	2.372E+01	1.402E+00	-0.034
NB-94	1.372E-02		2.097E-02	3.587E-02	2.942E-03	0.383
NB-95	7.145E-02		3.085E-02	4.896E-02	4.478E-03	1.460
NB-95M	1.327E-01		9.193E-02	1.393E-01	1.025E-02	0.953
ZR-95	3.688E-02		4.564E-02	7.811E-02	7.713E-03	0.472
MO-99	-5.371E+00		8.695E+00	1.399E+01	2.215E+00	-0.384
TC-99M	-3.346E+10		3.746E+10	Half-Life too short		
RU-103	6.858E-03		2.303E-02	3.833E-02	4.895E-03	0.179
RH-106	-1.399E-02		2.024E-01	3.252E-01	4.056E-02	-0.043
RU-106	-1.399E-02		2.024E-01	3.252E-01	2.393E-02	-0.043
AG-108M	-3.226E-02		1.729E-02	2.632E-02	1.697E-03	-1.225
AG-110M	6.006E-03		1.989E-02	3.383E-02	2.668E-03	0.178
SN-113	-9.105E-03		2.635E-02	4.359E-02	2.674E-03	-0.209
CD-115	-4.928E-01		7.649E+00	1.247E+01	8.384E-01	-0.040
SN-117M	-1.343E-02		3.667E-02	5.865E-02	3.117E-03	-0.229
TE-123M	-1.541E-02		1.884E-02	2.977E-02	1.606E-03	-0.518
SB-124	-5.009E-03		4.333E-02	7.071E-02	4.897E-03	-0.071
SB-125	2.469E-02		5.409E-02	9.154E-02	5.713E-03	0.270
TE-125M	5.490E+00		6.935E+00	1.142E+01	1.024E+00	0.481
I-126	7.266E-02		1.338E-01	2.292E-01	1.762E-02	0.317
SB-126	4.745E-04		1.054E-01	1.513E-01	1.281E-02	0.003
SB-127	-2.755E-02		8.229E-01	1.374E+00	1.510E-01	-0.020
I-131	5.226E-02		7.035E-02	1.214E-01	7.839E-03	0.430
TE-132	5.717E-02		4.906E-01	8.137E-01	1.175E-01	0.070
BA-133	1.644E-02		3.040E-02	4.344E-02	4.895E-03	0.378

Sample ID : G248841004 Acquisition date : 18-MAR-2010 22:32:06

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	-3.041E-03		2.419E-03	Half-Life too short		
CS-134	9.732E-02	+	4.171E-02	5.454E-02	5.275E-03	1.784
CS-135	2.968E-01		1.133E-01	1.769E-01	1.337E-02	1.678
I-135	-4.004E+09		5.539E+09	Half-Life too short		
CS-136	4.154E-02		7.097E-02	1.217E-01	1.091E-02	0.341
BA-137M	-9.802E-03		2.086E-02	3.427E-02	2.613E-03	-0.286
CS-137	-1.035E-02		2.204E-02	3.621E-02	2.767E-03	-0.286
CE-139	7.410E-03		1.881E-02	3.208E-02	1.684E-03	0.231
BA-140	7.006E-02		1.661E-01	2.735E-01	9.160E-02	0.256
LA-140	-2.665E-02		5.228E-02	7.611E-02	5.222E-03	-0.350
CE-141	3.336E-02		4.374E-02	6.865E-02	3.920E-03	0.486
CE-143	1.059E-03		1.326E-04	Half-Life too short		
CE-144	-2.236E-03		1.510E-01	2.141E-01	2.960E-02	-0.010
PM-144	-1.698E-02		2.164E-02	3.491E-02	2.834E-03	-0.487
PR-144	-1.277E+00		1.619E+00	2.612E+00	2.120E-01	-0.489
PM-146	4.165E-03		2.617E-02	4.360E-02	3.809E-03	0.096
ND-147	3.102E-02		3.411E-01	5.599E-01	7.811E-02	0.055
PM-149	-4.441E+01		6.694E+01	1.059E+02	1.498E+01	-0.419
EU-152	-3.381E-02		7.975E-02	9.003E-02	5.870E-03	-0.376
GD-153	-2.020E-02		6.521E-02	9.365E-02	7.322E-03	-0.216
EU-154	-9.171E-02		8.381E-02	1.289E-01	1.297E-02	-0.712
EU-155	7.297E-02		7.395E-02	1.227E-01	8.767E-03	0.595
TB-160	2.291E-02		8.900E-02	1.474E-01	1.619E-02	0.155
HO-166M	1.331E-03		3.746E-02	6.255E-02	5.214E-03	0.021
TA-182	5.178E-02		1.258E-01	2.111E-01	1.291E-02	0.245
IR-192	-1.703E-02		2.180E-02	3.407E-02	1.976E-03	-0.500
HG-203	3.560E-02		2.893E-02	4.328E-02	2.609E-03	0.822
BI-207	3.174E-02		3.429E-02	5.952E-02	4.913E-03	0.533
PB-210	-3.341E-01		4.040E+00	6.302E+00	4.831E-01	-0.053
PB-211	-1.684E-01		5.152E-01	7.274E-01	3.490E-01	-0.232
BI-212	1.956E+00	+	5.730E-01	7.256E-01	9.014E-02	2.695
RN-219	2.422E-01		2.541E-01	4.255E-01	5.721E-02	0.569
RA-223	-4.507E-02		4.563E-01	6.375E-01	1.027E-01	-0.071
AC-227	1.117E-01		1.630E-01	2.722E-01	2.757E-02	0.410
TH-227	1.117E-01		1.632E-01	2.722E-01	3.249E-02	0.410
PA-231	-4.143E-01		1.011E+00	1.491E+00	1.950E-01	-0.278
TH-231	-4.507E-02		4.563E-01	6.375E-01	1.027E-01	-0.071
PA-233	-1.923E-02		4.048E-02	6.417E-02	3.932E-03	-0.300
PA-234	-4.249E-02		1.991E-01	3.197E-01	6.307E-02	-0.133
PA-234M	1.767E-01		3.065E+00	4.844E+00	5.225E-01	0.036
NP-239	-2.111E-01		2.766E-01	4.347E-01	2.685E-02	-0.486
AM-241	-7.968E-02		1.433E-01	2.109E-01	1.749E-02	-0.378
CM-247	2.064E-02		2.381E-02	3.891E-02	2.266E-03	0.530
CF-249	7.148E-03		2.398E-02	4.063E-02	2.336E-03	0.176
CF-251	3.551E-02		8.187E-02	1.392E-01	7.355E-03	0.255

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248841004            *
* Acquisition date : 18-MAR-2010 22:32:06 Detector SN#    :                 *
* Detector ID      : GAM18                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:03.65     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248841004           Analyst initials: MXR1            *
* Batch Number     : 962629               Sample Quantity : 1.2151E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.882E+01	3.117E+00	1.716E-01	1.590E+00
MN-54	2.694E-02	2.570E-02	2.106E-02	1.311E-02
CD-109	4.904E+00	8.803E-01	4.368E-01	4.491E-01
SN-126	4.791E-01	8.600E-02	4.295E-02	4.388E-02
TL-208	5.481E-01	6.688E-02	1.819E-02	3.412E-02
BI-211	4.381E+00	4.085E-01	1.008E-01	2.084E-01
PB-212	1.917E+00	1.550E-01	3.056E-02	7.906E-02
BI-214	1.287E+00	1.483E-01	3.752E-02	7.564E-02
PB-214	1.590E+00	1.714E-01	3.666E-02	8.744E-02
RA-224	4.796E+00	8.339E-01	3.271E-01	4.255E-01
RA-226	1.287E+00	1.483E-01	3.752E-02	7.564E-02
AC-228	2.031E+00	3.442E-01	7.517E-02	1.756E-01
RA-228	2.031E+00	3.442E-01	7.517E-02	1.756E-01
TH-228	1.917E+00	1.550E-01	3.056E-02	7.906E-02
TH-229	1.021E-01	3.267E-01	2.877E-01	1.667E-01
TH-232	2.031E+00	3.442E-01	7.517E-02	1.756E-01
TH-234	1.493E+00	1.426E+00	9.146E-01	7.277E-01
U-235	4.117E-02	1.386E-01	1.127E-01	7.073E-02
NP-237	1.430E+00	3.900E-01	1.302E-01	1.990E-01
U-238	1.493E+00	1.426E+00	9.146E-01	7.277E-01
ANH-511	1.415E-01	4.621E-02	1.395E-02	2.358E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-7.869E-03	1.839E-01	1.565E-01	9.385E-02	NOT IDENT.
NA-22	-3.306E-02	2.894E-02	2.276E-02	1.477E-02	NOT IDENT.
NA-24	-8.400E+05	7.317E+05	0.000E+00	3.733E+05	SHORT HLIF
SC-46	-1.050E-02	2.404E-02	1.967E-02	1.226E-02	FAIL ABUN
V-48	1.559E-02	4.606E-02	3.883E-02	2.350E-02	NOT IDENT.
CR-51	1.310E-01	2.234E-01	1.908E-01	1.140E-01	NOT IDENT.

CO-56	4.807E-03	2.444E-02	2.077E-02	1.247E-02	FAIL ABUN
CO-57	-3.040E-02	1.726E-02	1.373E-02	8.805E-03	NOT IDENT.
CO-58	-2.424E-02	2.334E-02	1.863E-02	1.191E-02	NOT IDENT.
FE-59	-3.660E-03	5.602E-02	4.755E-02	2.858E-02	NOT IDENT.
CO-60	-1.256E-02	2.456E-02	1.982E-02	1.253E-02	NOT IDENT.
ZN-65	1.884E-02	6.629E-02	4.910E-02	3.382E-02	NOT IDENT.
SE-75	-1.994E-02	3.063E-02	2.213E-02	1.563E-02	NOT IDENT.
SR-85	6.468E-02	2.691E-02	2.187E-02	1.373E-02	NOT IDENT.
Y-88	-1.303E-02	2.221E-02	1.746E-02	1.133E-02	NOT IDENT.
Y-91	-8.061E-01	1.412E+01	1.187E+01	7.202E+00	NOT IDENT.
NB-94	1.372E-02	2.055E-02	1.807E-02	1.048E-02	NOT IDENT.
NB-95	7.145E-02	3.023E-02	2.464E-02	1.542E-02	NOT IDENT.
NB-95M	1.327E-01	9.009E-02	7.115E-02	4.596E-02	NOT IDENT.
ZR-95	3.688E-02	4.473E-02	3.933E-02	2.282E-02	NOT IDENT.
MO-99	-5.371E+00	8.521E+00	7.047E+00	4.348E+00	NOT IDENT.
TC-99M	-3.346E+16	7.341E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	6.858E-03	2.257E-02	1.940E-02	1.152E-02	FAIL ABUN
RH-106	-1.399E-02	1.983E-01	1.641E-01	1.012E-01	NOT IDENT.
RU-106	-1.399E-02	1.983E-01	1.641E-01	1.012E-01	NOT IDENT.
AG-108M	-3.226E-02	1.695E-02	1.335E-02	8.646E-03	NOT IDENT.
AG-110M	6.006E-03	1.950E-02	1.706E-02	9.947E-03	NOT IDENT.
SN-113	-9.105E-03	2.582E-02	2.213E-02	1.317E-02	NOT IDENT.
CD-115	-4.928E-01	7.496E+00	6.309E+00	3.825E+00	NOT IDENT.
SN-117M	-1.343E-02	3.593E-02	3.010E-02	1.833E-02	NOT IDENT.
TE-123M	-1.541E-02	1.847E-02	1.528E-02	9.421E-03	NOT IDENT.
SB-124	-5.009E-03	4.246E-02	3.524E-02	2.166E-02	NOT IDENT.
SB-125	2.469E-02	5.301E-02	4.642E-02	2.705E-02	FAIL ABUN
TE-125M	5.490E+00	6.796E+00	5.887E+00	3.468E+00	NOT IDENT.
I-126	7.266E-02	1.311E-01	1.156E-01	6.691E-02	NOT IDENT.
SB-126	4.745E-04	1.033E-01	7.622E-02	5.271E-02	NOT IDENT.
SB-127	-2.755E-02	8.064E-01	6.929E-01	4.114E-01	NOT IDENT.
I-131	5.226E-02	6.894E-02	6.171E-02	3.517E-02	NOT IDENT.
TE-132	5.717E-02	4.808E-01	4.158E-01	2.453E-01	NOT IDENT.
BA-133	1.644E-02	2.979E-02	2.208E-02	1.520E-02	FAIL ABUN
I-133	-3.041E+03	4.741E+03	0.000E+00	2.419E+03	SHORT HLIF
CS-134	9.732E-02	4.088E-02	2.744E-02	2.086E-02	FAIL ABUN
CS-135	2.968E-01	1.111E-01	9.021E-02	5.667E-02	NOT IDENT.
I-135	-4.004E+15	1.086E+16	0.000E+00	5.539E+15	SHORT HLIF
CS-136	4.154E-02	6.955E-02	6.103E-02	3.548E-02	NOT IDENT.
BA-137M	-9.802E-03	2.044E-02	1.728E-02	1.043E-02	NOT IDENT.
CS-137	-1.035E-02	2.160E-02	1.826E-02	1.102E-02	NOT IDENT.
CE-139	7.410E-03	1.844E-02	1.646E-02	9.406E-03	NOT IDENT.
BA-140	7.006E-02	1.627E-01	1.383E-01	8.303E-02	NOT IDENT.
LA-140	-2.665E-02	5.124E-02	3.796E-02	2.614E-02	FAIL ABUN
CE-141	3.336E-02	4.286E-02	3.528E-02	2.187E-02	NOT IDENT.
CE-143	1.059E+03	2.598E+02	0.000E+00	1.326E+02	SHORT HLIF
CE-144	-2.236E-03	1.480E-01	1.101E-01	7.551E-02	NOT IDENT.
PM-144	-1.698E-02	2.120E-02	1.759E-02	1.082E-02	NOT IDENT.
PR-144	-1.277E+00	1.587E+00	1.317E+00	8.096E-01	NOT IDENT.
PM-146	4.165E-03	2.565E-02	2.209E-02	1.309E-02	NOT IDENT.
ND-147	3.102E-02	3.343E-01	2.831E-01	1.706E-01	FAIL ABUN
PM-149	-4.441E+01	6.560E+01	5.397E+01	3.347E+01	NOT IDENT.
EU-152	-3.381E-02	7.815E-02	4.577E-02	3.987E-02	FAIL ABUN
GD-153	-2.020E-02	6.391E-02	4.835E-02	3.261E-02	NOT IDENT.
EU-154	-9.171E-02	8.213E-02	6.447E-02	4.190E-02	NOT IDENT.
EU-155	7.297E-02	7.247E-02	6.329E-02	3.698E-02	FAIL ABUN
TB-160	2.291E-02	8.722E-02	7.408E-02	4.450E-02	FAIL ABUN
HO-166M	1.331E-03	3.671E-02	3.152E-02	1.873E-02	FAIL ABUN
TA-182	5.178E-02	1.232E-01	1.057E-01	6.288E-02	NOT IDENT.
IR-192	-1.703E-02	2.136E-02	1.734E-02	1.090E-02	FAIL ABUN
HG-203	3.560E-02	2.835E-02	2.206E-02	1.446E-02	NOT IDENT.
BI-207	3.174E-02	3.360E-02	2.984E-02	1.714E-02	FAIL ABUN
PB-210	-3.341E-01	3.959E+00	3.283E+00	2.020E+00	NOT IDENT.
PB-211	-1.684E-01	5.049E-01	3.691E-01	2.576E-01	NOT IDENT.
BI-212	1.956E+00	5.615E-01	3.655E-01	2.865E-01	FAIL ABUN
RN-219	2.422E-01	2.490E-01	2.159E-01	1.271E-01	FAIL ABUN
RA-223	-4.507E-02	4.471E-01	3.244E-01	2.281E-01	FAIL ABUN
AC-227	1.117E-01	1.598E-01	1.389E-01	8.152E-02	FAIL ABUN
TH-227	1.117E-01	1.599E-01	1.389E-01	8.160E-02	FAIL ABUN
PA-231	-4.143E-01	9.903E-01	7.601E-01	5.053E-01	FAIL ABUN
TH-231	-4.507E-02	4.471E-01	3.244E-01	2.281E-01	FAIL ABUN
PA-233	-1.923E-02	3.967E-02	3.267E-02	2.024E-02	FAIL ABUN
PA-234	-4.249E-02	1.951E-01	1.605E-01	9.954E-02	NOT IDENT.
PA-234M	1.767E-01	3.003E+00	2.430E+00	1.532E+00	NOT IDENT.
NP-239	-2.111E-01	2.711E-01	2.240E-01	1.383E-01	FAIL ABUN
AM-241	-7.968E-02	1.405E-01	1.095E-01	7.166E-02	NOT IDENT.
CM-247	2.064E-02	2.334E-02	1.975E-02	1.191E-02	FAIL ABUN
CF-249	7.148E-03	2.350E-02	2.063E-02	1.199E-02	NOT IDENT.

CF-251	3.551E-02	8.023E-02	7.134E-02	4.093E-02 NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	609.7003
49.72	625.7430
57.36	0.0000
59.54	718.0655
63.29	782.0998
63.29	782.0998
64.28	810.7253
67.75	871.9420
69.67	859.6523
70.83	841.0115
72.81	885.5341
72.87	885.6962
72.87	885.6962
74.82	856.1744
74.82	856.1744
74.82	856.1744
74.97	856.5572
77.11	861.9778
77.11	861.9778
77.11	861.9778
79.69	841.6208
79.80	804.1580
80.12	804.8914
80.19	805.0479
80.57	752.1894
81.00	744.1353
81.07	744.2834
81.07	744.2834
83.79	759.9724
83.79	759.9724
85.43	763.3799
86.48	765.5438
86.55	765.6901
86.79	766.1752
86.94	766.4871
87.57	767.7770
88.03	768.7164
88.47	769.6097
89.96	772.6245
91.11	774.9347
92.59	777.8879
92.59	777.8879
93.35	779.3933
94.67	641.5054
94.87	641.8276
94.87	641.8276
95.86	686.9324
97.43	720.8105
98.44	658.1549
99.53	683.7382
100.11	666.8983
103.18	724.5284
103.37	707.9718
105.31	688.9323
106.12	739.0717
109.28	724.0988
111.00	790.2506
111.76	798.0402
116.30	729.9670
117.23	723.8092
121.12	706.7465
121.78	713.2141
122.06	757.6133
123.07	689.7819
131.20	682.1390
133.52	691.9876
136.00	694.1728

136.47	733.2715
140.51	748.0098
140.51	0.0000
143.76	688.2874
144.24	686.5953
144.24	686.5953
145.44	634.0222
152.43	763.1605
153.25	714.9623
154.21	683.7259
154.21	683.7259
156.02	694.6674
158.56	667.6716
159.00	693.7984
162.66	677.6331
163.33	663.2598
165.86	665.1453
176.60	653.9690
177.52	650.3582
181.07	732.7087
184.41	702.5735
185.72	675.1867
193.51	651.3023
197.04	655.5792
205.31	678.6685
210.85	605.8481
215.65	652.5192
222.11	627.0644
227.38	561.9753
228.16	569.3851
228.18	569.3984
235.69	649.5024
235.96	679.7590
235.96	679.7590
238.63	608.6597
238.63	608.6597
240.99	610.4305
242.00	611.1846
244.70	479.3738
252.40	525.1379
252.80	511.2704
256.23	509.2821
256.23	509.2821
260.90	479.4734
264.66	480.9297
268.22	435.2444
269.46	455.5825
269.46	455.5825
271.23	456.4887
273.65	495.7251
276.40	474.0296
277.37	474.5324
277.60	474.6511
278.00	474.8606
279.20	498.7573
279.54	498.9404
280.46	477.8032
283.69	503.9733
284.31	509.8846
285.41	509.4417
285.90	512.8491
287.50	457.7086
293.27	0.0000
295.22	476.9077
295.96	414.6577
298.57	415.7822
299.98	399.3910
299.98	399.3910
300.09	399.4369
300.09	399.4369
300.13	399.4484
301.36	399.9532
302.85	412.4989
304.50	420.0198
304.50	420.0198
304.85	435.5420
308.46	389.9937
311.90	433.2668

316.51	433.0930
319.41	408.3342
320.08	376.0844
323.87	417.7266
323.87	417.7266
328.76	444.1775
333.37	452.2721
334.37	479.0704
334.37	479.0704
338.28	376.0595
338.28	376.0595
338.32	376.0751
338.32	376.0751
338.32	376.0751
340.48	332.4102
340.55	332.4286
344.28	369.6544
351.06	379.3924
351.93	379.6881
356.01	374.8070
364.49	332.4668
366.42	380.0867
383.85	352.7438
388.16	352.1749
388.63	367.0714
391.69	354.1347
400.66	336.2562
401.81	334.6030
402.40	335.7993
404.85	387.8669
410.95	330.2842
414.70	316.2403
423.72	315.9069
427.09	304.3672
427.87	307.4020
433.94	343.2543
453.88	326.0824
463.37	273.6152
468.07	274.5381
473.00	277.4698
476.78	293.0083
477.60	275.4103
487.02	254.3688
492.35	269.2650
497.08	249.1246
511.00	273.6812
514.00	295.1363
527.90	261.4063
529.87	0.0000
531.02	254.7691
537.26	256.8176
546.56	0.0000
563.25	272.4952
569.33	277.7001
569.50	290.3022
569.70	290.3428
583.19	281.0729
600.60	294.1569
602.73	276.1127
604.72	287.1285
609.32	321.8628
609.32	321.8628
610.33	307.7397
614.28	312.0190
618.01	294.3481
621.93	272.3089
621.93	272.3089
633.25	246.8459
635.95	272.2595
636.99	276.7769
645.85	252.9382
657.76	222.2469
661.66	256.7604
661.66	256.7604
664.57	0.0000
666.33	241.7125
666.50	241.7338
677.62	247.7920

685.70	227.3997
695.00	257.5215
696.49	298.9522
696.51	298.9587
697.00	288.7187
702.65	261.3489
706.68	287.3151
711.68	254.0373
720.70	253.6904
721.93	0.0000
722.78	236.0498
722.91	236.0650
723.31	234.4821
724.19	237.8407
727.33	247.9966
733.00	230.6937
735.93	232.2521
739.50	268.0770
747.24	266.1966
752.31	223.4945
753.82	222.6909
756.73	225.8972
763.94	217.5353
765.81	214.4031
766.42	236.0790
777.92	270.7816
778.90	256.2272
783.70	228.7679
785.37	260.2527
795.86	222.4646
801.95	251.3840
810.29	219.6740
810.76	222.6929
815.77	171.6097
818.51	189.6943
832.01	176.4134
834.85	283.0979
836.80	0.0000
846.77	210.1566
856.80	190.4321
860.56	192.1840
871.09	205.2343
873.19	208.4659
875.33	0.0000
879.36	197.7890
880.51	196.8638
883.24	201.1723
884.68	200.2708
889.28	201.6773
898.04	230.1478
911.20	223.1235
911.20	223.1235
911.20	223.1235
926.50	213.0662
937.49	239.0495
944.13	222.9280
946.00	215.7610
949.00	189.8011
962.29	189.7266
964.08	189.8584
966.15	174.1779
968.97	174.3658
968.97	174.3658
968.97	174.3658
983.53	191.2756
996.26	199.6691
1001.03	189.3301
1004.73	213.1541
1037.84	220.2450
1038.76	0.0000
1048.07	194.9462
1050.41	210.0429
1050.41	210.0429
1063.66	189.4666
1085.87	229.7025
1099.45	195.6396
1112.07	178.6033
1115.54	225.6042

1120.29	191.2946
1120.29	191.2946
1120.55	191.3156
1121.30	204.2815
1131.51	0.0000
1173.23	231.6665
1177.93	221.2997
1189.05	243.6157
1204.77	248.7733
1221.41	228.3333
1231.02	242.8979
1235.36	271.0291
1238.28	243.4534
1260.41	0.0000
1271.85	186.7330
1274.44	216.0123
1274.54	217.0246
1291.59	176.7334
1298.22	0.0000
1312.11	131.0696
1332.49	140.0294
1365.19	96.9834
1368.63	0.0000
1384.29	83.5042
1408.01	100.5032
1457.56	0.0000
1460.82	93.2146
1489.16	87.5140
1505.03	73.1440
1596.21	72.9338
1620.50	64.8744
1678.03	0.0000
1690.97	48.1073
1764.49	51.9238
1764.49	51.9238
1770.23	28.4392
1771.35	37.3368
1791.20	0.0000
1836.06	65.9422

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248841004

Total Uranium Activity	4.4600E+00	ug/g
Total Uranium Counting Unc.	4.2438E+00	ug/g
Total Uranium Tpu	2.1652E-06	ug/g
Total Uranium Mda	2.7214E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962629                    SAMPLE ID  : G248841004       *
*   ANALYST       : MXR1                      DETECTOR   : GAM18            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 04:00:00.00 *
*   ANALYSIS DATE: 18-MAR-2010 22:32:06.81    SAMPLE ALQT:  121.510 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.164E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.254E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 2.385E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.168E+00
```

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 02:33:30.44

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841005.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 22:32:36
Sample ID         : G248841005           Sample quantity  : 1.20890E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:04.13  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.56*	336	988	0.95	92.68	89	8	2.34E-02	18.1	
2	0	63.22*	313	1809	0.88	126.00	121	10	2.18E-02	26.6	
3	4	72.71	117	984	1.14	144.97	143	18	8.14E-03	40.2	3.00E+00
4	4	74.78*	1858	1128	0.93	149.12	143	18	1.29E-01	3.7	
5	4	77.04*	2827	854	0.85	153.65	143	18	1.96E-01	2.5	
6	5	84.10*	385	961	1.16	167.75	164	27	2.67E-02	14.5	4.04E+00
7	5	87.20*	937	784	1.03	173.95	164	27	6.51E-02	5.8	
8	5	89.88	678	750	1.06	179.31	164	27	4.71E-02	7.5	
9	5	92.69*	894	943	1.27	184.94	164	27	6.21E-02	7.6	
10	0	99.33*	123	799	1.12	198.21	194	8	8.54E-03	41.7	
11	0	128.69	233	942	1.05	256.92	252	10	1.62E-02	25.5	
12	0	185.94*	423	714	1.08	371.42	367	9	2.94E-02	13.1	
13	0	209.36	312	599	0.96	418.25	414	10	2.17E-02	15.8	
14	6	238.59*	3088	371	1.00	476.71	472	15	2.14E-01	2.1	4.37E+00
15	6	241.57*	662	405	1.62	482.67	472	15	4.60E-02	7.0	
16	0	270.11	320	399	1.50	539.75	535	10	2.22E-02	13.0	
17	0	277.49	139	399	0.75	554.51	551	9	9.66E-03	27.3	
18	0	295.16*	921	429	1.12	589.84	584	11	6.40E-02	5.6	
19	0	299.90	232	373	1.00	599.31	595	10	1.61E-02	16.9	
20	0	327.70	124	323	1.04	654.92	650	9	8.64E-03	27.5	
21	0	338.34	535	405	1.18	676.20	672	9	3.71E-02	8.0	
22	0	351.89*	1525	419	1.12	703.30	697	13	1.06E-01	3.8	
23	0	409.05	109	282	1.38	817.60	813	11	7.60E-03	31.2	
24	0	462.86	149	212	1.21	925.22	921	10	1.03E-02	20.0	
25	0	510.67*	264	357	1.91	1020.85	1014	17	1.83E-02	19.5	
26	0	583.17*	860	270	1.26	1165.84	1160	13	5.97E-02	5.3	
27	0	609.24*	1011	255	1.40	1217.96	1210	16	7.02E-02	4.8	
28	0	727.69	156	200	1.57	1454.86	1448	12	1.08E-02	20.0	
29	0	768.37	171	235	3.58	1536.23	1530	19	1.19E-02	22.6	
30	0	794.46	120	147	1.79	1588.41	1582	13	8.36E-03	22.6	
31	0	860.56	142	103	1.93	1720.61	1715	11	9.86E-03	16.3	
32	0	911.14*	643	163	1.60	1821.77	1815	16	4.47E-02	6.0	
33	3	964.82	146	128	2.39	1929.12	1921	23	1.02E-02	20.0	2.26E+00
34	3	968.87*	328	113	1.60	1937.23	1921	23	2.28E-02	8.3	
35	0	1120.83*	160	219	1.64	2241.14	2234	16	1.11E-02	22.7	
36	0	1238.13*	132	230	2.45	2475.76	2469	18	9.17E-03	28.6	
37	0	1377.98	62	61	1.28	2755.47	2749	12	4.32E-03	28.8	
38	0	1460.69	3006	44	2.17	2920.92	2911	18	2.09E-01	1.9	

Sample ID : G248841005 Acquisition date : 18-MAR-2010 22:32:36

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1588.05	43	69	1.27	3175.64	3164	17	2.96E-03	48.1	
40	0	1764.33*	193	8	2.26	3528.24	3519	16	1.34E-02	8.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 19-MAR-2010 02:33:33

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841005.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 18-MAR-2010 22:32:36
Sample ID : G248841005 Sample quantity : 120.89 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA25 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:00:04.13 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.949E+01	3.682E+00	4.259E-01	3.627E-02	92.735
CD-109	+	88.03	*	4.281E+00	6.752E-01	5.384E-01	5.786E-02	7.951
SN-126	+	64.28		5.184E-01	2.884E-01	2.176E-01	3.467E-02	2.383
	+	86.94		1.739E+00	7.549E-01	2.176E-01	9.104E-02	7.990
	+	87.57	*	4.182E-01	6.597E-02	5.249E-02	5.628E-03	7.968
TL-208	+	277.37		6.909E-01	3.903E-01	4.280E-01	6.151E-02	1.614
	+	583.19	*	6.295E-01	9.775E-02	4.469E-02	5.034E-03	14.086
	+	860.56		9.988E-01	3.411E-01	3.970E-01	4.148E-02	2.516
PB-210	+	46.54	*	1.339E+00	5.027E-01	4.340E-01	4.444E-02	3.085
BI-211	+	72.87		1.521E+00	1.233E+00	1.814E+00	1.831E-01	0.839
	+	351.06	*	4.717E+00	6.133E-01	2.234E-01	2.354E-02	21.120
PB-212	+	74.82		2.894E+00	4.594E-01	2.184E-01	3.072E-02	13.250
	+	77.11		2.659E+00	3.029E-01	1.324E-01	1.356E-02	20.092
	+	238.63	*	2.060E+00	2.509E-01	6.253E-02	7.144E-03	32.939
	+	300.09		2.457E+00	8.836E-01	8.223E-01	1.032E-01	2.988
BI-214	+	609.32	*	1.437E+00	2.225E-01	8.529E-02	1.033E-02	16.848
	+	1120.29		1.188E+00	5.553E-01	4.035E-01	4.399E-02	2.945
	+	1764.49		2.079E+00	3.884E-01	1.735E-01	1.429E-02	11.986
PB-214	+	74.82		5.129E+00	7.613E-01	3.871E-01	4.990E-02	13.250
	+	77.11		4.688E+00	6.593E-01	2.333E-01	3.069E-02	20.092
	+	242.00		2.681E+00	4.962E-01	3.477E-01	4.178E-02	7.712
	+	295.22		1.724E+00	2.924E-01	1.460E-01	1.872E-02	11.803
	+	351.93	*	1.712E+00	2.418E-01	8.127E-02	9.653E-03	21.067
RA-224	+	240.99	*	4.741E+00	8.334E-01	6.711E-01	7.052E-02	7.065
RA-226	+	609.32	*	1.437E+00	2.225E-01	8.529E-02	1.033E-02	16.848
	+	1120.29		1.188E+00	5.553E-01	4.035E-01	4.399E-02	2.945
	+	1764.49		2.079E+00	3.884E-01	1.735E-01	1.429E-02	11.986
AC-228	+	338.32		1.833E+00	8.267E-01	2.841E-01	1.197E-01	6.453
	+	911.20	*	2.308E+00	3.962E-01	1.835E-01	2.243E-02	12.578
	+	968.97		2.027E+00	6.025E-01	3.229E-01	7.947E-02	6.278
RA-228	+	338.32		1.833E+00	8.267E-01	2.841E-01	1.197E-01	6.453
	+	911.20	*	2.308E+00	3.962E-01	1.835E-01	2.243E-02	12.578
	+	968.97		2.027E+00	6.025E-01	3.229E-01	7.947E-02	6.278
TH-228	+	74.82		2.894E+00	3.647E-01	2.184E-01	2.234E-02	13.250

Sample ID : G248841005 Acquisition date : 18-MAR-2010 22:32:36

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		2.659E+00	3.029E-01	1.324E-01	1.356E-02	20.092
	+	238.63	*	2.060E+00	2.509E-01	6.253E-02	7.144E-03	32.939
	+	300.09		2.457E+00	1.725E+00	8.223E-01	5.065E-01	2.988
TH-229	+	85.43		4.285E-01	1.322E-01	1.309E-01	1.389E-02	3.274
	+	88.47		6.448E-01	1.017E-01	8.125E-02	8.749E-03	7.936
		193.51	*	1.111E-02	3.442E-01	5.627E-01	5.367E-02	0.020
	+	210.85		2.936E+00	9.729E-01	8.778E-01	8.699E-02	3.345
TH-232	+	338.32		1.833E+00	3.515E-01	2.841E-01	2.961E-02	6.453
	+	911.20	*	2.308E+00	3.962E-01	1.835E-01	2.243E-02	12.578
	+	968.97		2.027E+00	6.025E-01	3.229E-01	7.947E-02	6.278
TH-234	+	63.29	*	1.345E+00	7.610E-01	5.636E-01	1.070E-01	2.387
	+	92.59		3.550E+00	9.816E-01	4.790E-01	1.107E-01	7.412
U-235	+	89.96		3.254E+00	9.618E-01	5.658E-01	1.442E-01	5.752
	+	93.35		2.682E+00	7.634E-01	3.631E-01	8.751E-02	7.386
		143.76	*	1.766E-02	1.297E-01	2.099E-01	3.856E-02	0.084
		163.33		5.975E-02	2.756E-01	4.585E-01	8.361E-02	0.130
	+	185.72		1.789E-01	4.977E-02	4.259E-02	3.988E-03	4.201
		205.31		-1.068E-02	3.459E-01	5.011E-01	9.387E-02	-0.021
NP-237	+	86.48	*	1.248E+00	3.274E-01	1.559E-01	3.667E-02	8.006
		95.86		2.688E-01	5.536E-01	6.993E-01	1.750E-01	0.384
U-238	+	63.29	*	1.345E+00	7.610E-01	5.636E-01	1.070E-01	2.387
	+	92.59		3.550E+00	6.652E-01	4.790E-01	5.263E-02	7.412
ANH-511	+	511.00	*	1.460E-01	5.889E-02	3.584E-02	3.689E-03	4.073

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	2.434E-02	2.380E-01	3.899E-01	4.127E-02	0.062
NA-22		1274.54	*	-1.395E-02	3.876E-02	6.218E-02	5.099E-03	-0.224
NA-24		1368.63	*	-1.503E-01	3.876E-02	Half-Life too short		
SC-46		889.28	*	-6.570E-03	3.223E-02	5.171E-02	4.952E-03	-0.127
	+	1120.55		2.016E-01	9.323E-02	1.062E-01	9.134E-03	1.898
V-48		944.13		3.019E-01	7.772E-01	1.288E+00	1.208E-01	0.234
		983.53	*	-1.735E-02	6.345E-02	1.003E-01	9.293E-03	-0.173
		1312.11		-1.909E-03	6.766E-02	1.107E-01	9.019E-03	-0.017
CR-51		320.08	*	2.351E-02	2.544E-01	4.303E-01	4.776E-02	0.055
MN-54		834.85	*	-3.219E-03	3.175E-02	5.167E-02	5.243E-03	-0.062
CO-56		846.77	*	4.178E-03	3.221E-02	5.308E-02	5.326E-03	0.079
		1037.84		5.951E-02	2.616E-01	4.445E-01	4.214E-02	0.134
	+	1238.28		2.750E-01	1.590E-01	1.637E-01	1.388E-02	1.680
		1771.35		-1.588E+00	3.406E-01	2.473E-01	2.036E-02	-6.421
CO-57		122.06	*	-9.852E-04	1.429E-02	2.405E-02	3.102E-03	-0.041
		136.47		-7.672E-02	1.230E-01	2.016E-01	2.470E-02	-0.381
CO-58		810.76	*	-1.426E-02	3.212E-02	5.122E-02	5.314E-03	-0.278
FE-59		1099.45	*	-8.399E-02	8.103E-02	1.242E-01	1.170E-02	-0.676
		1291.59		-3.444E-02	1.077E-01	1.727E-01	1.622E-02	-0.199
CO-60		1173.23		3.459E-02	4.365E-02	7.510E-02	6.182E-03	0.461
		1332.49	*	-2.311E-03	3.231E-02	5.257E-02	4.269E-03	-0.044

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZN-65		1115.54	*	2.933E-03	8.723E-02	1.255E-01	1.084E-02	0.023
SE-75		121.12		-1.424E-02	7.525E-02	1.263E-01	1.843E-02	-0.113
		136.00		-1.305E-02	2.341E-02	3.848E-02	4.565E-03	-0.339
		264.66	*	7.325E-04	3.115E-02	4.721E-02	5.174E-03	0.016
		279.54		8.869E-02	8.333E-02	1.237E-01	1.412E-02	0.717
		400.66		-6.566E-02	1.806E-01	2.935E-01	3.388E-02	-0.224
SR-85		514.00	*	3.814E-02	3.224E-02	4.903E-02	5.058E-03	0.778
Y-88		898.04		1.085E-02	3.651E-02	6.039E-02	5.744E-03	0.180
		1836.06	*	2.052E-02	2.761E-02	4.980E-02	4.069E-03	0.412
Y-91		1204.77	*	-1.257E+01	2.090E+01	3.343E+01	2.751E+00	-0.376
NB-94		702.65	*	2.267E-02	2.827E-02	4.868E-02	5.345E-03	0.466
		871.09		5.829E-03	2.783E-02	4.598E-02	4.497E-03	0.127
NB-95		765.81	*	7.674E-02	3.976E-02	6.377E-02	6.812E-03	1.203
NB-95M		235.69	*	7.024E-02	9.378E-02	1.385E-01	1.590E-02	0.507
ZR-95		724.19		3.736E-02	8.761E-02	1.299E-01	1.492E-02	0.288
		756.73	*	3.908E-02	6.140E-02	1.046E-01	1.201E-02	0.374
MO-99		140.51		4.505E+00	1.498E+01	2.518E+01	6.272E+00	0.179
		181.07		-2.081E+00	1.375E+01	2.003E+01	3.824E+00	-0.104
		366.42		1.457E+01	7.640E+01	1.284E+02	1.258E+01	0.113
		739.50	*	-7.961E+00	1.108E+01	1.745E+01	2.978E+00	-0.456
		777.92		3.818E-01	3.526E+01	5.039E+01	5.344E+00	0.008
TC-99M		140.51	*	1.922E+10	3.526E+01	Half-Life too short		
RU-103		497.08	*	1.220E-02	3.173E-02	5.244E-02	7.855E-03	0.233
	+	610.33		1.493E+01	3.003E+00	2.310E+00	4.079E-01	6.462
RH-106		621.93	*	1.347E-01	2.482E-01	4.272E-01	6.356E-02	0.315
		1050.41		8.501E-01	2.189E+00	3.748E+00	3.370E-01	0.227
RU-106		621.93	*	1.347E-01	2.478E-01	4.272E-01	4.678E-02	0.315
		1050.41		8.501E-01	2.189E+00	3.748E+00	3.370E-01	0.227
AG-108M		433.94	*	6.488E-03	2.194E-02	3.655E-02	3.591E-03	0.177
		614.28		7.359E-03	2.963E-02	4.424E-02	4.930E-03	0.166
		722.91		-1.928E-03	3.419E-02	4.902E-02	5.454E-03	-0.039
AG-110M		657.76	*	-5.802E-02	2.992E-02	4.385E-02	4.941E-03	-1.323
		677.62		-8.038E-03	2.428E-01	4.045E-01	4.548E-02	-0.020
		706.68		-1.353E-01	1.783E-01	2.837E-01	3.168E-02	-0.477
		763.94		9.979E-03	1.517E-01	2.182E-01	2.375E-02	0.046
		884.68		-1.175E-02	4.094E-02	6.534E-02	6.454E-03	-0.180
		937.49		-1.500E-01	9.761E-02	1.399E-01	1.354E-02	-1.072
		1384.29		2.777E-02	1.470E-01	2.104E-01	1.774E-02	0.132
		1505.03		-2.151E-01	2.423E-01	3.549E-01	2.943E-02	-0.606
SN-113		391.69	*	7.247E-03	3.309E-02	5.535E-02	5.170E-03	0.131
CD-115		260.90		-1.896E+01	1.075E+02	1.700E+02	1.847E+01	-0.112
		492.35		-3.425E+01	3.195E+01	4.846E+01	4.913E+00	-0.707
		527.90	*	-3.897E+00	1.016E+01	1.604E+01	1.672E+00	-0.243
SN-117M		156.02		-9.455E-01	1.485E+00	2.413E+00	2.406E-01	-0.392
		158.56	*	-1.919E-02	3.476E-02	5.654E-02	5.489E-03	-0.339
TE-123M		159.00	*	-1.779E-03	1.769E-02	2.921E-02	2.836E-03	-0.061
SB-124		602.73		-2.454E-02	3.373E-02	4.683E-02	5.090E-03	-0.524
		645.85		1.814E-01	3.712E-01	6.377E-01	7.286E-02	0.284
		722.78		-1.294E-02	3.452E-01	4.957E-01	5.484E-02	-0.026

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1690.97	*	2.888E-02	5.689E-02	1.006E-01	8.720E-03	0.287
SB-125		427.87	*	4.783E-03	6.538E-02	1.079E-01	1.042E-02	0.044
	+	463.37		7.226E-01	2.985E-01	4.071E-01	4.252E-02	1.775
		600.60		9.330E-02	1.381E-01	2.344E-01	2.666E-02	0.398
		635.95		-8.361E-02	2.128E-01	3.494E-01	4.039E-02	-0.239
TE-125M		109.28	*	3.879E+00	5.238E+00	9.029E+00	1.210E+00	0.430
I-126		388.63		3.166E-02	1.259E-01	2.110E-01	1.938E-02	0.150
		666.33	*	-1.360E-01	1.893E-01	3.042E-01	3.368E-02	-0.447
		753.82		2.634E-01	1.558E+00	2.599E+00	2.794E-01	0.101
SB-126		414.70		6.309E-02	6.674E-02	1.018E-01	9.531E-03	0.620
		666.50		-7.633E-04	6.311E-02	1.054E-01	1.167E-02	-0.007
		695.00		1.086E-02	6.587E-02	1.106E-01	1.217E-02	0.098
		697.00		-7.950E-02	2.250E-01	3.676E-01	4.043E-02	-0.216
		720.70	*	-7.629E-02	1.404E-01	1.933E-01	2.110E-02	-0.395
		856.80		4.989E-01	4.440E-01	6.849E-01	6.802E-02	0.728
SB-127		252.40		-1.181E+00	3.038E+00	4.708E+00	1.979E+00	-0.251
		473.00		-4.292E-01	1.302E+00	2.084E+00	2.876E-01	-0.206
		685.70	*	7.374E-01	1.135E+00	1.950E+00	2.609E-01	0.378
		783.70		2.998E+00	3.170E+00	5.443E+00	7.548E-01	0.551
I-131		80.19		1.153E+00	2.430E+00	3.120E+00	3.251E-01	0.370
		284.31		-2.622E-01	1.118E+00	1.711E+00	1.963E-01	-0.153
		364.49	*	8.695E-03	8.482E-02	1.421E-01	1.458E-02	0.061
		636.99		-8.863E-01	1.233E+00	1.980E+00	2.257E-01	-0.448
TE-132		49.72		1.959E-01	2.310E+00	3.449E+00	4.078E-01	0.057
		111.76		-5.999E+00	2.056E+01	3.318E+01	4.658E+00	-0.181
		116.30		-8.244E+00	1.713E+01	2.854E+01	4.084E+00	-0.289
		228.16	*	-4.445E-01	5.347E-01	8.262E-01	1.391E-01	-0.538
BA-133		81.00		-2.402E-03	4.866E-02	6.101E-02	1.011E-02	-0.039
	+	276.40		6.387E-01	3.632E-01	4.505E-01	7.101E-02	1.418
		302.85		-1.391E-03	1.034E-01	1.545E-01	2.273E-02	-0.009
		356.01	*	-7.791E-04	3.277E-02	4.813E-02	6.713E-03	-0.016
		383.85		-3.155E-01	2.140E-01	3.249E-01	4.198E-02	-0.971
I-133		529.87	*	1.877E-03	2.140E-01	Half-Life too short		
		875.33		6.233E-04	2.140E-01	Half-Life too short		
		1298.22		-3.219E-01	2.140E-01	Half-Life too short		
CS-134		563.25		2.289E-01	2.953E-01	4.920E-01	5.277E-02	0.465
		569.33		5.491E-02	1.554E-01	2.539E-01	2.739E-02	0.216
		604.72		-7.639E-03	2.802E-02	4.035E-02	4.396E-03	-0.189
	+	795.86	*	1.301E-01	6.045E-02	7.507E-02	7.902E-03	1.733
		801.95		-3.735E-01	3.813E-01	5.451E-01	5.707E-02	-0.685
		1365.19		-1.739E-02	9.821E-01	1.601E+00	1.374E-01	-0.011
CS-135		268.22	*	2.020E-01	1.220E-01	1.845E-01	2.227E-02	1.094
I-135		546.56		-2.919E+10	1.220E-01	Half-Life too short		
		836.80		3.931E+10	1.220E-01	Half-Life too short		
		1038.76		1.132E+10	1.220E-01	Half-Life too short		
		1131.51		1.549E+09	1.220E-01	Half-Life too short		
		1260.41	*	4.442E+09	1.220E-01	Half-Life too short		
		1457.56		2.592E+12	1.220E-01	Half-Life too short		
		1678.03		-1.942E+10	1.220E-01	Half-Life too short		

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1791.20		1.002E+10	1.220E-01	Half-Life too short		
CS-136		153.25		2.870E-01	5.874E-01	9.466E-01	1.105E-01	0.303
		176.60		2.144E-01	3.187E-01	5.345E-01	5.345E-02	0.401
		273.65		1.917E-01	4.732E-01	5.419E-01	6.314E-02	0.354
		340.55		3.685E-01	1.270E-01	2.043E-01	2.177E-02	1.804
		818.51		4.643E-02	5.959E-02	1.022E-01	1.053E-02	0.454
		1048.07	*	3.623E-02	9.302E-02	1.593E-01	1.490E-02	0.227
		1235.36		9.381E-01	6.709E-01	1.027E+00	1.179E-01	0.913
BA-137M		661.66	*	-1.445E-02	3.324E-02	5.485E-02	6.076E-03	-0.263
CS-137		661.66	*	-1.526E-02	3.512E-02	5.794E-02	6.426E-03	-0.263
CE-139		165.86	*	-3.125E-03	1.870E-02	3.073E-02	2.740E-03	-0.102
BA-140		162.66		1.300E-01	5.228E-01	8.713E-01	8.549E-02	0.149
		304.85		2.497E-01	1.020E+00	1.539E+00	4.623E-01	0.162
		423.72		-7.697E-01	1.435E+00	2.262E+00	7.493E-01	-0.340
		537.26	*	-1.133E-01	2.113E-01	3.241E-01	1.116E-01	-0.350
LA-140	+	328.76		5.360E-01	3.007E-01	4.049E-01	4.454E-02	1.324
		487.02		6.709E-02	1.042E-01	1.749E-01	1.845E-02	0.384
		815.77		8.263E-02	2.602E-01	4.353E-01	4.864E-02	0.190
		1596.21	*	-3.903E-02	7.553E-02	1.111E-01	9.235E-03	-0.351
CE-141		145.44	*	-4.735E-02	4.062E-02	6.246E-02	6.947E-03	-0.758
CE-143		57.36		8.091E-05	4.062E-02	Half-Life too short		
		293.27	*	7.405E-04	4.062E-02	Half-Life too short		
		664.57		-1.355E-03	4.062E-02	Half-Life too short		
		721.93		-2.737E-04	4.062E-02	Half-Life too short		
CE-144		80.12		5.902E-01	1.272E+00	1.633E+00	1.693E-01	0.361
		133.52	*	-5.643E-03	1.207E-01	1.931E-01	3.366E-02	-0.029
PM-144		476.78		-2.171E-02	4.858E-02	7.721E-02	8.221E-03	-0.281
		618.01		-1.790E-03	2.478E-02	4.154E-02	4.621E-03	-0.043
		696.49	*	-8.374E-03	2.818E-02	4.617E-02	5.081E-03	-0.181
PR-144		696.51	*	-6.404E-01	2.109E+00	3.454E+00	3.800E-01	-0.185
		1489.16		-5.940E-01	8.504E+00	1.363E+01	1.129E+00	-0.044
PM-146		453.88	*	4.467E-02	3.228E-02	5.564E-02	6.429E-03	0.803
		633.25		1.384E+00	1.243E+00	1.997E+00	7.748E-01	0.693
		735.93		4.625E-02	1.185E-01	1.993E-01	5.737E-02	0.232
		747.24		-5.267E-02	8.053E-02	1.275E-01	2.035E-02	-0.413
ND-147	+	91.11		1.078E+00	2.031E-01	2.649E-01	3.042E-02	4.070
		319.41		8.600E-02	2.340E+00	3.950E+00	4.244E-01	0.022
		531.02	*	3.463E-01	4.561E-01	7.607E-01	1.223E-01	0.455
PM-149		285.90	*	2.769E+01	7.391E+01	1.186E+02	2.022E+01	0.234
EU-152		121.78		1.239E-03	4.108E-02	6.937E-02	9.548E-03	0.018
		244.70		2.201E-01	2.233E-01	3.346E-01	3.540E-02	0.658
		344.28	*	-3.182E-02	7.081E-02	1.123E-01	1.206E-02	-0.283
		778.90		-5.083E-02	2.156E-01	3.292E-01	3.488E-02	-0.154
	+	964.08		9.753E-01	4.005E-01	5.022E-01	4.684E-02	1.942
		1085.87		-1.108E-01	3.270E-01	5.344E-01	4.705E-02	-0.207
		1112.07		2.953E-02	2.659E-01	4.261E-01	3.686E-02	0.069
		1408.01		1.018E-01	1.657E-01	2.824E-01	2.320E-02	0.360
GD-153		69.67		1.376E-01	6.538E-01	9.569E-01	9.568E-02	0.144
		97.43	*	-4.416E-03	5.457E-02	6.618E-02	7.453E-03	-0.067

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		103.18		-7.849E-02	6.413E-02	9.323E-02	1.082E-02	-0.842
EU-154		123.07		-4.793E-03	2.931E-02	4.918E-02	7.278E-03	-0.097
		723.31		-4.364E-02	1.587E-01	2.236E-01	2.595E-02	-0.195
		873.19		1.653E-02	2.389E-01	3.910E-01	4.983E-02	0.042
		996.26		-2.393E-01	3.182E-01	4.812E-01	8.553E-02	-0.497
		1004.73		-8.976E-02	1.876E-01	2.914E-01	3.516E-02	-0.308
		1274.44	*	-3.167E-02	1.094E-01	1.763E-01	1.949E-02	-0.180
EU-155	+	86.55		5.072E-01	8.024E-02	9.769E-02	1.049E-02	5.192
		105.31	*	6.817E-02	5.596E-02	9.729E-02	1.150E-02	0.701
TB-160	+	86.79		1.350E+00	2.130E-01	2.660E-01	2.841E-02	5.076
		197.04		-1.010E-01	3.711E-01	5.994E-01	5.763E-02	-0.168
		215.65		1.097E-01	5.143E-01	8.060E-01	8.068E-02	0.136
	+	298.57		3.472E-01	1.231E-01	1.421E-01	1.563E-02	2.444
		879.36	*	4.098E-02	1.227E-01	2.038E-01	1.975E-02	0.201
		962.29		9.566E-01	5.307E-01	8.344E-01	7.787E-02	1.146
	+	966.15		6.837E-01	2.807E-01	4.370E-01	4.074E-02	1.564
		1177.93		-5.977E-03	3.296E-01	5.455E-01	4.490E-02	-0.011
		1271.85		-4.284E-01	6.476E-01	1.018E+00	8.336E-02	-0.421
HO-166M		80.57		-4.580E-02	1.418E-01	1.755E-01	1.824E-02	-0.261
		184.41		5.336E-02	2.821E-02	4.415E-02	4.121E-03	1.209
		280.46		-1.149E-03	6.491E-02	9.123E-02	1.017E-02	-0.013
		410.95		1.636E-01	2.113E-01	3.195E-01	2.977E-02	0.512
		711.68	*	-2.881E-02	4.882E-02	7.832E-02	8.576E-03	-0.368
		752.31		-9.431E-02	2.331E-01	3.764E-01	4.051E-02	-0.251
		810.29		-2.640E-02	4.900E-02	7.765E-02	8.046E-03	-0.340
TA-182		67.75		-6.848E-03	3.718E-02	5.776E-02	5.747E-03	-0.119
	+	100.11		1.648E-01	1.388E-01	1.561E-01	1.782E-02	1.056
		152.43		-2.487E-01	2.377E-01	3.643E-01	3.764E-02	-0.683
		222.11		-1.886E-01	2.337E-01	3.648E-01	3.700E-02	-0.517
	+	1121.30		5.581E-01	2.581E-01	2.970E-01	2.552E-02	1.879
		1189.05		2.488E-01	2.960E-01	5.099E-01	4.197E-02	0.488
		1221.41	*	1.600E-01	1.890E-01	3.245E-01	2.668E-02	0.493
		1231.02		3.887E-01	5.107E-01	7.636E-01	6.277E-02	0.509
IR-192	+	295.96		1.279E+00	2.008E-01	2.215E-01	2.454E-02	5.775
		308.46		2.195E-02	6.697E-02	1.145E-01	1.251E-02	0.192
		316.51	*	2.657E-03	2.376E-02	4.025E-02	4.347E-03	0.066
		468.07		1.442E-02	5.610E-02	8.164E-02	8.546E-03	0.177
HG-203		70.83		4.388E-01	5.262E-01	7.771E-01	1.310E-01	0.565
	+	72.87		3.808E-01	3.125E-01	5.006E-01	8.210E-02	0.761
		279.20	*	3.514E-02	3.020E-02	4.496E-02	5.095E-03	0.782
BI-207	+	72.81		8.750E-02	7.092E-02	1.131E-01	1.141E-02	0.774
	+	74.97		8.340E-01	1.046E-01	1.092E-01	1.110E-02	7.639
		569.70		2.987E-03	2.382E-02	3.846E-02	4.113E-03	0.078
		1063.66	*	2.454E-02	4.548E-02	7.836E-02	6.994E-03	0.313
		1770.23		-2.892E-01	3.814E-01	4.399E-01	3.622E-02	-0.657
PB-211		404.85	*	1.625E-01	5.874E-01	8.601E-01	4.172E-01	0.189
		427.09		2.974E-01	1.094E+00	1.810E+00	8.404E-01	0.164
		832.01		-5.943E-01	8.808E-01	1.290E+00	6.728E-01	-0.461
BI-212	+	727.33	*	1.770E+00	7.496E-01	9.410E-01	1.329E-01	1.881

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		785.37		4.173E+00	2.731E+00	4.796E+00	5.061E-01	0.870
		1620.50		1.929E+00	2.064E+00	3.727E+00	3.098E-01	0.518
RN-219	+	271.23		9.498E-01	2.727E-01	3.216E-01	3.973E-02	2.953
		401.81	*	1.083E-01	2.937E-01	4.931E-01	7.507E-02	0.220
RA-223		81.07		-7.112E-03	1.103E-01	1.382E-01	1.439E-02	-0.051
	+	83.79		2.550E-01	7.868E-02	1.018E-01	1.073E-02	2.505
		94.87		6.009E-01	2.763E-01	3.715E-01	4.129E-02	1.617
		144.24		1.356E-01	4.353E-01	7.075E-01	8.422E-02	0.192
		154.21		3.872E-01	2.648E-01	4.337E-01	4.712E-02	0.893
	+	269.46		7.380E-01	2.083E-01	2.556E-01	2.847E-02	2.888
		323.87	*	-3.498E-01	4.977E-01	7.038E-01	1.298E-01	-0.497
	+	338.28		7.274E+00	1.524E+00	1.866E+00	2.505E-01	3.898
AC-227		79.69		-4.065E-03	5.591E-01	8.046E-01	1.461E-01	-0.005
		235.96		1.739E-01	1.165E-01	1.755E-01	2.084E-02	0.991
		256.23	*	2.023E-02	1.701E-01	2.730E-01	3.735E-02	0.074
	+	299.98		2.703E+00	9.908E-01	1.190E+00	1.716E-01	2.271
		304.50		6.583E-02	1.208E+00	1.809E+00	3.229E-01	0.036
		334.37		1.591E-01	1.339E+00	1.995E+00	3.332E-01	0.080
TH-227		79.80		3.388E-01	8.333E-01	1.064E+00	2.396E-01	0.318
		235.96		1.739E-01	1.164E-01	1.755E-01	1.996E-02	0.991
		256.23	*	2.023E-02	1.701E-01	2.730E-01	4.114E-02	0.074
	+	299.98		2.703E+00	9.908E-01	1.190E+00	1.716E-01	2.271
		304.50		6.583E-02	1.208E+00	1.809E+00	3.229E-01	0.036
		334.37		1.591E-01	1.339E+00	1.995E+00	3.332E-01	0.080
PA-231		283.69	*	-7.448E-01	1.056E+00	1.571E+00	2.544E-01	-0.474
	+	301.36		1.736E+00	6.332E-01	7.361E-01	1.025E-01	2.359
TH-231		81.07		-7.112E-03	1.103E-01	1.382E-01	1.439E-02	-0.051
	+	83.79		2.550E-01	7.868E-02	1.018E-01	1.073E-02	2.505
		94.87		6.009E-01	2.763E-01	3.715E-01	4.129E-02	1.617
		144.24		1.356E-01	4.353E-01	7.075E-01	8.422E-02	0.192
		154.21		3.872E-01	2.648E-01	4.337E-01	4.712E-02	0.893
	+	269.46		7.380E-01	2.083E-01	2.556E-01	2.847E-02	2.888
		323.87	*	-3.498E-01	4.977E-01	7.038E-01	1.298E-01	-0.497
	+	338.28		7.274E+00	1.524E+00	1.866E+00	2.505E-01	3.898
PA-233	+	300.13		1.223E+00	4.580E-01	5.370E-01	8.763E-02	2.278
		311.90	*	-1.342E-02	4.544E-02	7.584E-02	8.377E-03	-0.177
		340.48		1.763E+00	6.736E-01	8.792E-01	2.176E-01	2.006
PA-234		94.67		2.990E-01	9.788E-02	1.415E-01	2.015E-02	2.112
	+	98.44		8.328E-02	8.383E-02	7.811E-02	4.395E-02	1.066
		111.00		-3.300E-02	9.981E-02	1.677E-01	2.480E-02	-0.197
		131.20		-1.568E-02	6.702E-02	1.001E-01	1.222E-02	-0.157
		569.50		5.308E-02	2.129E-01	3.460E-01	3.700E-02	0.153
		733.00		1.581E-01	3.422E-01	5.076E-01	1.176E-01	0.311
		880.51		1.014E-01	2.374E-01	3.967E-01	3.839E-02	0.256
		883.24		-1.336E-02	2.406E-01	3.901E-01	2.627E-01	-0.034
		926.50		-1.383E-02	1.398E-01	2.249E-01	5.749E-02	-0.061
		946.00	*	-1.025E-01	2.678E-01	4.212E-01	8.055E-02	-0.243
		949.00		-4.235E-02	3.946E-01	6.334E-01	5.935E-02	-0.067
PA-234M		766.42		2.091E+01	1.510E+01	1.738E+01	8.885E+00	1.203

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1001.03	*	4.413E-01	4.454E+00	6.703E+00	7.021E-01	0.066
NP-239	+	99.53		1.511E-01	1.273E-01	1.453E-01	1.655E-02	1.039
		103.37		-3.674E-02	5.368E-02	8.544E-02	9.929E-03	-0.430
		106.12		6.692E-03	4.435E-02	7.578E-02	8.939E-03	0.088
		117.23	*	-8.394E-02	2.225E-01	3.720E-01	4.666E-02	-0.226
		228.18		-1.217E-01	1.455E-01	2.262E-01	2.321E-02	-0.538
	+	277.60		3.158E-01	1.761E-01	2.255E-01	2.511E-02	1.400
AM-241		59.54	*	-1.947E-02	4.045E-02	5.732E-02	5.956E-03	-0.340
CM-247	+	278.00		1.341E+00	7.478E-01	9.525E-01	1.061E-01	1.408
		287.50		5.521E-01	8.878E-01	1.438E+00	1.597E-01	0.384
		402.40	*	2.394E-02	2.705E-02	4.635E-02	4.271E-03	0.517
CF-249		252.80		-1.506E-01	6.201E-01	9.802E-01	1.051E-01	-0.154
		333.37		-2.563E-02	1.420E-01	2.082E-01	2.190E-02	-0.123
		388.16	*	7.666E-03	2.958E-02	4.960E-02	4.561E-03	0.155
CF-251		177.52	*	3.280E-02	8.292E-02	1.380E-01	1.266E-02	0.238
		227.38		-1.981E-01	2.420E-01	3.769E-01	3.862E-02	-0.526
		285.41		-4.246E-01	1.560E+00	2.437E+00	2.709E-01	-0.174

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841005       *
* Acquisition date : 18-MAR-2010 22:32:36 Detector SN#    :                 *
* Detector ID      : GAM25                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:04.13     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248841005           Analyst initials: MXR1            *
* Batch Number     : 962629               Sample Quantity : 1.2089E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.949E+01	3.609E+00	4.250E-01	0.000E+00
CD-109	4.281E+00	6.617E-01	5.558E-01	0.000E+00
SN-126	4.182E-01	6.465E-02	5.419E-02	0.000E+00
TL-208	6.295E-01	9.579E-02	4.510E-02	0.000E+00
PB-210	1.339E+00	4.926E-01	4.513E-01	0.000E+00
BI-211	4.717E+00	6.010E-01	2.268E-01	0.000E+00
PB-212	2.060E+00	2.458E-01	6.379E-02	0.000E+00
BI-214	1.437E+00	2.181E-01	8.604E-02	0.000E+00
PB-214	1.712E+00	2.370E-01	8.252E-02	0.000E+00
RA-224	4.741E+00	8.167E-01	6.845E-01	0.000E+00
RA-226	1.437E+00	2.181E-01	8.604E-02	0.000E+00
AC-228	2.308E+00	3.883E-01	1.841E-01	0.000E+00
RA-228	2.308E+00	3.883E-01	1.841E-01	0.000E+00
TH-228	2.060E+00	2.458E-01	6.379E-02	0.000E+00
TH-229	1.111E-02	3.373E-01	5.755E-01	0.000E+00
TH-232	2.308E+00	3.883E-01	1.841E-01	0.000E+00
TH-234	1.345E+00	7.458E-01	5.841E-01	0.000E+00
U-235	1.766E-02	1.271E-01	2.155E-01	0.000E+00
NP-237	1.248E+00	3.209E-01	1.609E-01	0.000E+00
U-238	1.345E+00	7.458E-01	5.841E-01	0.000E+00
ANH-511	1.460E-01	5.771E-02	3.623E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	2.434E-02	2.333E-01	3.945E-01	0.000E+00	NOT IDENT.
NA-22	-1.395E-02	3.798E-02	6.216E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.916E+05	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-6.570E-03	3.159E-02	5.192E-02	0.000E+00	FAIL ABUN
V-48	-1.735E-02	6.218E-02	1.006E-01	0.000E+00	NOT IDENT.
CR-51	2.351E-02	2.493E-01	4.374E-01	0.000E+00	NOT IDENT.

MN-54	-3.219E-03	3.111E-02	5.192E-02	0.000E+00	NOT IDENT.
CO-56	4.178E-03	3.157E-02	5.333E-02	0.000E+00	FAIL ABUN
CO-57	-9.852E-04	1.400E-02	2.473E-02	0.000E+00	NOT IDENT.
CO-58	-1.426E-02	3.148E-02	5.148E-02	0.000E+00	NOT IDENT.
FE-59	-8.399E-02	7.941E-02	1.244E-01	0.000E+00	NOT IDENT.
CO-60	-2.311E-03	3.166E-02	5.252E-02	0.000E+00	NOT IDENT.
ZN-65	2.933E-03	8.549E-02	1.257E-01	0.000E+00	NOT IDENT.
SE-75	7.325E-04	3.052E-02	4.810E-02	0.000E+00	NOT IDENT.
SR-85	3.814E-02	3.159E-02	4.956E-02	0.000E+00	NOT IDENT.
Y-88	2.052E-02	2.705E-02	4.955E-02	0.000E+00	NOT IDENT.
Y-91	-1.257E+01	2.048E+01	3.344E+01	0.000E+00	NOT IDENT.
NB-94	2.267E-02	2.770E-02	4.901E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	3.896E-02	6.414E-02	0.000E+00	NOT IDENT.
NB-95M	7.024E-02	9.190E-02	1.413E-01	0.000E+00	NOT IDENT.
ZR-95	3.908E-02	6.017E-02	1.053E-01	0.000E+00	NOT IDENT.
MO-99	-7.961E+00	1.086E+01	1.756E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.272E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.220E-02	3.110E-02	5.303E-02	0.000E+00	FAIL ABUN
RH-106	1.347E-01	2.432E-01	4.308E-01	0.000E+00	NOT IDENT.
RU-106	1.347E-01	2.428E-01	4.308E-01	0.000E+00	NOT IDENT.
AG-108M	6.488E-03	2.150E-02	3.702E-02	0.000E+00	NOT IDENT.
AG-110M	-5.802E-02	2.932E-02	4.419E-02	0.000E+00	NOT IDENT.
SN-113	7.247E-03	3.242E-02	5.614E-02	0.000E+00	NOT IDENT.
CD-115	-3.897E+00	9.959E+00	1.621E+01	0.000E+00	NOT IDENT.
SN-117M	-1.919E-02	3.407E-02	5.796E-02	0.000E+00	NOT IDENT.
TE-123M	-1.779E-03	1.733E-02	2.995E-02	0.000E+00	NOT IDENT.
SB-124	2.888E-02	5.575E-02	1.002E-01	0.000E+00	NOT IDENT.
SB-125	4.783E-03	6.407E-02	1.094E-01	0.000E+00	FAIL ABUN
TE-125M	3.879E+00	5.133E+00	9.297E+00	0.000E+00	NOT IDENT.
I-126	-1.360E-01	1.855E-01	3.065E-01	0.000E+00	NOT IDENT.
SB-126	-7.629E-02	1.376E-01	1.946E-01	0.000E+00	NOT IDENT.
SB-127	7.374E-01	1.112E+00	1.964E+00	0.000E+00	NOT IDENT.
I-131	8.695E-03	8.312E-02	1.442E-01	0.000E+00	NOT IDENT.
TE-132	-4.445E-01	5.240E-01	8.433E-01	0.000E+00	NOT IDENT.
BA-133	-7.791E-04	3.211E-02	4.887E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	6.324E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.924E-02	7.547E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.196E-01	1.880E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.528E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.623E-02	9.116E-02	1.596E-01	0.000E+00	NOT IDENT.
BA-137M	-1.445E-02	3.258E-02	5.527E-02	0.000E+00	NOT IDENT.
CS-137	-1.526E-02	3.442E-02	5.839E-02	0.000E+00	NOT IDENT.
CE-139	-3.125E-03	1.833E-02	3.149E-02	0.000E+00	NOT IDENT.
BA-140	-1.133E-01	2.071E-01	3.274E-01	0.000E+00	NOT IDENT.
LA-140	-3.903E-02	7.402E-02	1.107E-01	0.000E+00	FAIL ABUN
CE-141	-4.735E-02	3.981E-02	6.410E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.135E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-5.643E-03	1.183E-01	1.984E-01	0.000E+00	NOT IDENT.
PM-144	-8.374E-03	2.762E-02	4.650E-02	0.000E+00	NOT IDENT.
PR-144	-6.404E-01	2.067E+00	3.478E+00	0.000E+00	NOT IDENT.
PM-146	4.467E-02	3.164E-02	5.632E-02	0.000E+00	NOT IDENT.
ND-147	3.463E-01	4.470E-01	7.686E-01	0.000E+00	FAIL ABUN
PM-149	2.769E+01	7.243E+01	1.207E+02	0.000E+00	NOT IDENT.
EU-152	-3.182E-02	6.939E-02	1.141E-01	0.000E+00	FAIL ABUN
GD-153	-4.416E-03	5.348E-02	6.824E-02	0.000E+00	NOT IDENT.
EU-154	-3.167E-02	1.072E-01	1.762E-01	0.000E+00	NOT IDENT.
EU-155	6.817E-02	5.484E-02	1.002E-01	0.000E+00	FAIL ABUN
TB-160	4.098E-02	1.202E-01	2.046E-01	0.000E+00	FAIL ABUN
HO-166M	-2.881E-02	4.785E-02	7.885E-02	0.000E+00	NOT IDENT.
TA-182	1.600E-01	1.852E-01	3.245E-01	0.000E+00	FAIL ABUN
IR-192	2.657E-03	2.329E-02	4.092E-02	0.000E+00	FAIL ABUN
HG-203	3.514E-02	2.960E-02	4.578E-02	0.000E+00	FAIL ABUN
BI-207	2.454E-02	4.457E-02	7.850E-02	0.000E+00	FAIL ABUN
PB-211	1.625E-01	5.757E-01	8.719E-01	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.346E-01	9.471E-01	0.000E+00	FAIL ABUN
RN-219	1.083E-01	2.878E-01	4.999E-01	0.000E+00	FAIL ABUN
RA-223	-3.498E-01	4.878E-01	7.154E-01	0.000E+00	FAIL ABUN
AC-227	2.023E-02	1.667E-01	2.783E-01	0.000E+00	FAIL ABUN
TH-227	2.023E-02	1.667E-01	2.783E-01	0.000E+00	FAIL ABUN
PA-231	-7.448E-01	1.035E+00	1.599E+00	0.000E+00	FAIL ABUN
TH-231	-3.498E-01	4.878E-01	7.154E-01	0.000E+00	FAIL ABUN
PA-233	-1.342E-02	4.453E-02	7.713E-02	0.000E+00	FAIL ABUN
PA-234	-1.025E-01	2.625E-01	4.226E-01	0.000E+00	FAIL ABUN
PA-234M	4.413E-01	4.364E+00	6.720E+00	0.000E+00	NOT IDENT.
NP-239	-8.394E-02	2.181E-01	3.827E-01	0.000E+00	FAIL ABUN
AM-241	-1.947E-02	3.964E-02	5.944E-02	0.000E+00	NOT IDENT.
CM-247	2.394E-02	2.651E-02	4.699E-02	0.000E+00	FAIL ABUN
CF-249	7.666E-03	2.899E-02	5.030E-02	0.000E+00	NOT IDENT.

CF-251	3.280E-02	8.126E-02	1.412E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 02:33:31.50

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841005.CNF;1
Sample date      : 3-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 22:32:36
Sample ID        : G248841005           Sample quantity  : 1.20890E+02 GRAM
Detector name    : GAM25                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:04.13  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 962629               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	3006	10.66*	1.108E+00	3.949E+01	3.949E+01	9.32
CD-109	88.03	937	3.70*	9.405E+00	4.182E+00	4.281E+00	15.77
SN-126	64.28	313	9.60	9.778E+00	5.184E-01	5.184E-01	55.62
	86.94	937	8.90	9.405E+00	1.739E+00	1.739E+00	43.42
	87.57	937	37.00*	9.405E+00	4.182E-01	4.182E-01	15.77
TL-208	277.37	139	6.60	4.736E+00	6.909E-01	6.909E-01	56.49
	583.19	860	85.00*	2.496E+00	6.295E-01	6.295E-01	15.53
	860.56	142	12.50	1.765E+00	9.988E-01	9.988E-01	34.15
PB-210	46.54	336	4.25*	9.192E+00	1.337E+00	1.339E+00	37.55
BI-211	72.87	117	1.23	9.727E+00	1.521E+00	1.521E+00	81.05
	351.06	1525	12.92*	3.886E+00	4.717E+00	4.717E+00	13.00
PB-212	74.82	1858	10.28	9.695E+00	2.894E+00	2.894E+00	15.88
	77.11	2827	17.10	9.653E+00	2.659E+00	2.659E+00	11.39
	238.63	3088	43.60*	5.339E+00	2.060E+00	2.060E+00	12.18
	300.09	232	3.30	4.445E+00	2.457E+00	2.457E+00	35.96
BI-214	609.32	1011	45.49*	2.401E+00	1.437E+00	1.437E+00	15.48
	1120.29	160	14.92	1.397E+00	1.188E+00	1.188E+00	46.73
	1764.49	193	15.30	9.413E-01	2.079E+00	2.079E+00	18.68
PB-214	74.82	1858	5.80	9.695E+00	5.129E+00	5.129E+00	14.84
	77.11	2827	9.70	9.653E+00	4.688E+00	4.688E+00	14.06
	242.00	662	7.25	5.288E+00	2.681E+00	2.681E+00	18.51
	295.22	921	18.42	4.503E+00	1.724E+00	1.724E+00	16.96
	351.93	1525	35.60*	3.886E+00	1.712E+00	1.712E+00	14.12
RA-224	240.99	662	4.10*	5.288E+00	4.741E+00	4.741E+00	17.58
RA-226	609.32	1011	45.49*	2.401E+00	1.437E+00	1.437E+00	15.48
	1120.29	160	14.92	1.397E+00	1.188E+00	1.188E+00	46.73
	1764.49	193	15.30	9.413E-01	2.079E+00	2.079E+00	18.68
AC-228	338.32	535	11.27	4.018E+00	1.833E+00	1.833E+00	45.10
	911.20	643	25.80*	1.678E+00	2.308E+00	2.308E+00	17.17
	968.97	328	15.80	1.589E+00	2.027E+00	2.027E+00	29.72
RA-228	338.32	535	11.27	4.018E+00	1.833E+00	1.833E+00	45.10
	911.20	643	25.80*	1.678E+00	2.308E+00	2.308E+00	17.17

Sample ID : G248841005 Acquisition date : 18-MAR-2010 22:32:36

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	328	15.80	1.589E+00	2.027E+00	2.027E+00	29.72
TH-228	74.82	1858	10.28	9.695E+00	2.894E+00	2.894E+00	12.60
	77.11	2827	17.10	9.653E+00	2.659E+00	2.659E+00	11.39
	238.63	3088	43.60*	5.339E+00	2.060E+00	2.060E+00	12.18
	300.09	232	3.30	4.445E+00	2.457E+00	2.457E+00	70.21
TH-229	85.43	385	14.70	9.490E+00	4.285E-01	4.285E-01	30.85
	88.47	937	24.00	9.405E+00	6.448E-01	6.448E-01	15.77
	193.51	------	4.41*	6.239E+00	------ Line Not Found		------
	210.85	312	2.80	5.894E+00	2.936E+00	2.936E+00	33.13
TH-232	338.32	535	11.27	4.018E+00	1.833E+00	1.833E+00	19.18
	911.20	643	25.80*	1.678E+00	2.308E+00	2.308E+00	17.17
	968.97	328	15.80	1.589E+00	2.027E+00	2.027E+00	29.72
TH-234	63.29	313	3.70*	9.778E+00	1.345E+00	1.345E+00	56.57
	92.59	894	4.23	9.243E+00	3.550E+00	3.550E+00	27.65
U-235	89.96	678	3.47	9.328E+00	3.254E+00	3.254E+00	29.55
	93.35	894	5.60	9.243E+00	2.682E+00	2.682E+00	28.46
	143.76	------	10.96*	7.568E+00	------ Line Not Found		------
	163.33	------	5.08	6.998E+00	------ Line Not Found		------
	185.72	423	57.20	6.417E+00	1.789E-01	1.789E-01	27.82
	205.31	------	5.01	5.979E+00	------ Line Not Found		------
NP-237	86.48	937	12.40*	9.405E+00	1.248E+00	1.248E+00	26.24
	95.86	------	2.68	9.143E+00	------ Line Not Found		------
U-238	63.29	313	3.70*	9.778E+00	1.345E+00	1.345E+00	56.57
	92.59	894	4.23	9.243E+00	3.550E+00	3.550E+00	18.74
ANH-511	511.00	264	100.00*	2.809E+00	1.460E-01	1.460E-01	40.34

Flag: "*" = Keyline

Sample ID : G248841005 Acquisition date : 18-MAR-2010 22:32:36

Total number of lines in spectrum 40
Number of unidentified lines 5
Number of lines tentatively identified by NID 35 87.50%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.949E+01	3.949E+01	0.368E+01	9.32	
CD-109	461.40D	1.02	4.182E+00	4.281E+00	0.675E+00	15.77	
SN-126	2.30E+05Y	1.00	4.182E-01	4.182E-01	0.660E-01	15.77	
TL-208	1.41E+10Y	1.00	6.295E-01	6.295E-01	0.977E-01	15.53	
PB-210	22.20Y	1.00	1.337E+00	1.339E+00	0.503E+00	37.55	
BI-211	7.04E+08Y	1.00	4.717E+00	4.717E+00	0.613E+00	13.00	
PB-212	1.41E+10Y	1.00	2.060E+00	2.060E+00	0.251E+00	12.18	
BI-214	1600.00Y	1.00	1.437E+00	1.437E+00	0.223E+00	15.48	
PB-214	1600.00Y	1.00	1.712E+00	1.712E+00	0.242E+00	14.12	
RA-224	1.41E+10Y	1.00	4.741E+00	4.741E+00	0.833E+00	17.58	
RA-226	1600.00Y	1.00	1.437E+00	1.437E+00	0.223E+00	15.48	
AC-228	1.41E+10Y	1.00	2.308E+00	2.308E+00	0.396E+00	17.17	
RA-228	1.41E+10Y	1.00	2.308E+00	2.308E+00	0.396E+00	17.17	
TH-228	1.41E+10Y	1.00	2.060E+00	2.060E+00	0.251E+00	12.18	
TH-229	7340.00Y	1.00	6.448E-01	6.448E-01	1.017E-01	15.77	K
TH-232	1.41E+10Y	1.00	2.308E+00	2.308E+00	0.396E+00	17.17	
TH-234	4.47E+09Y	1.00	1.345E+00	1.345E+00	0.761E+00	56.57	
U-235	7.04E+08Y	1.00	1.789E-01	1.789E-01	0.498E-01	27.82	K
NP-237	2.14E+06Y	1.00	1.248E+00	1.248E+00	0.327E+00	26.24	
U-238	4.47E+09Y	1.00	1.345E+00	1.345E+00	0.761E+00	56.57	
ANH-511	1.00E+09Y	1.00	1.460E-01	1.460E-01	0.589E-01	40.34	
	Total Activity :		7.606E+01	7.616E+01			

Grand Total Activity : 7.606E+01 7.616E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248841005 Acquisition date : 18-MAR-2010 22:32:36

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	99.33	123	799	1.12	198.21	194	8	8.54E-03	83.5	9.03E+00	T
0	128.69	233	942	1.05	256.92	252	10	1.62E-02	51.0	8.05E+00	
0	270.11	320	399	1.50	539.75	535	10	2.22E-02	25.9	4.84E+00	T
0	327.70	124	323	1.04	654.92	650	9	8.64E-03	55.0	4.13E+00	T
0	409.05	109	282	1.38	817.60	813	11	7.60E-03	62.3	3.41E+00	
0	462.86	149	212	1.21	925.22	921	10	1.03E-02	40.0	3.06E+00	T
0	727.69	156	200	1.57	1454.86	1448	12	1.08E-02	39.9	2.05E+00	T
0	768.37	171	235	3.58	1536.23	1530	19	1.19E-02	45.2	1.95E+00	
0	794.46	120	147	1.79	1588.41	1582	13	8.36E-03	45.3	1.90E+00	T
3	964.82	146	128	2.39	1929.12	1921	23	1.02E-02	40.0	1.59E+00	T
0	1238.13	132	230	2.45	2475.76	2469	18	9.17E-03	57.2	1.28E+00	T
0	1377.98	62	61	1.28	2755.47	2749	12	4.32E-03	57.6	1.17E+00	
0	1588.05	43	69	1.27	3175.64	3164	17	2.96E-03	96.1	1.03E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 02:33:36.19

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841005.CNF;1  *
* Acquisition date : 18-MAR-2010 22:32:36  Detector SN#    :                *
* Detector ID      : GAM25                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 04:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 04:00:04.13         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248841005            Analyst initials: MXR1           *
* Batch Number     : 962629                Sample Quantity : 1.20890E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 7-OCT-2009 09:38:43.34MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.949E+01	3.682E+00	4.259E-01	3.627E-02	92.735
CD-109	4.281E+00	6.752E-01	5.384E-01	5.786E-02	7.951
SN-126	4.182E-01	6.597E-02	5.249E-02	5.628E-03	7.968
TL-208	6.295E-01	9.775E-02	4.469E-02	5.034E-03	14.086
PB-210	1.339E+00	5.027E-01	4.340E-01	4.444E-02	3.085
BI-211	4.717E+00	6.133E-01	2.234E-01	2.354E-02	21.120
PB-212	2.060E+00	2.509E-01	6.253E-02	7.144E-03	32.939
BI-214	1.437E+00	2.225E-01	8.529E-02	1.033E-02	16.848
PB-214	1.712E+00	2.418E-01	8.127E-02	9.653E-03	21.067
RA-224	4.741E+00	8.334E-01	6.711E-01	7.052E-02	7.065
RA-226	1.437E+00	2.225E-01	8.529E-02	1.033E-02	16.848
AC-228	2.308E+00	3.962E-01	1.835E-01	2.243E-02	12.578
RA-228	2.308E+00	3.962E-01	1.835E-01	2.243E-02	12.578
TH-228	2.060E+00	2.509E-01	6.253E-02	7.144E-03	32.939
TH-229	6.448E-01	1.017E-01	5.627E-01	5.367E-02	1.146
TH-232	2.308E+00	3.962E-01	1.835E-01	2.243E-02	12.578
TH-234	1.345E+00	7.610E-01	5.636E-01	1.070E-01	2.387
U-235	1.789E-01	4.977E-02	2.099E-01	3.856E-02	0.852

Sample ID : G248841005 Acquisition date : 18-MAR-2010 22:32:36

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	1.248E+00	3.274E-01	1.559E-01	3.667E-02	8.006
U-238	1.345E+00	7.610E-01	5.636E-01	1.070E-01	2.387
ANH-511	1.460E-01	5.889E-02	3.584E-02	3.689E-03	4.073

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.434E-02		2.380E-01	3.899E-01	4.127E-02	0.062
NA-22	-1.395E-02		3.876E-02	6.218E-02	5.099E-03	-0.224
NA-24	-1.503E-01		4.549E-01	Half-Life too short		
SC-46	-6.570E-03		3.223E-02	5.171E-02	4.952E-03	-0.127
V-48	-1.735E-02		6.345E-02	1.003E-01	9.293E-03	-0.173
CR-51	2.351E-02		2.544E-01	4.303E-01	4.776E-02	0.055
MN-54	-3.219E-03		3.175E-02	5.167E-02	5.243E-03	-0.062
CO-56	4.178E-03		3.221E-02	5.308E-02	5.326E-03	0.079
CO-57	-9.852E-04		1.429E-02	2.405E-02	3.102E-03	-0.041
CO-58	-1.426E-02		3.212E-02	5.122E-02	5.314E-03	-0.278
FE-59	-8.399E-02		8.103E-02	1.242E-01	1.170E-02	-0.676
CO-60	-2.311E-03		3.231E-02	5.257E-02	4.269E-03	-0.044
ZN-65	2.933E-03		8.723E-02	1.255E-01	1.084E-02	0.023
SE-75	7.325E-04		3.115E-02	4.721E-02	5.174E-03	0.016
SR-85	3.814E-02		3.224E-02	4.903E-02	5.058E-03	0.778
Y-88	2.052E-02		2.761E-02	4.980E-02	4.069E-03	0.412
Y-91	-1.257E+01		2.090E+01	3.343E+01	2.751E+00	-0.376
NB-94	2.267E-02		2.827E-02	4.868E-02	5.345E-03	0.466
NB-95	7.674E-02		3.976E-02	6.377E-02	6.812E-03	1.203
NB-95M	7.024E-02		9.378E-02	1.385E-01	1.590E-02	0.507
ZR-95	3.908E-02		6.140E-02	1.046E-01	1.201E-02	0.374
MO-99	-7.961E+00		1.108E+01	1.745E+01	2.978E+00	-0.456
TC-99M	1.922E+10		3.200E+10	Half-Life too short		
RU-103	1.220E-02		3.173E-02	5.244E-02	7.855E-03	0.233
RH-106	1.347E-01		2.482E-01	4.272E-01	6.356E-02	0.315
RU-106	1.347E-01		2.478E-01	4.272E-01	4.678E-02	0.315
AG-108M	6.488E-03		2.194E-02	3.655E-02	3.591E-03	0.177
AG-110M	-5.802E-02		2.992E-02	4.385E-02	4.941E-03	-1.323
SN-113	7.247E-03		3.309E-02	5.535E-02	5.170E-03	0.131
CD-115	-3.897E+00		1.016E+01	1.604E+01	1.672E+00	-0.243
SN-117M	-1.919E-02		3.476E-02	5.654E-02	5.489E-03	-0.339
TE-123M	-1.779E-03		1.769E-02	2.921E-02	2.836E-03	-0.061
SB-124	2.888E-02		5.689E-02	1.006E-01	8.720E-03	0.287
SB-125	4.783E-03		6.538E-02	1.079E-01	1.042E-02	0.044
TE-125M	3.879E+00		5.238E+00	9.029E+00	1.210E+00	0.430
I-126	-1.360E-01		1.893E-01	3.042E-01	3.368E-02	-0.447
SB-126	-7.629E-02		1.404E-01	1.933E-01	2.110E-02	-0.395
SB-127	7.374E-01		1.135E+00	1.950E+00	2.609E-01	0.378
I-131	8.695E-03		8.482E-02	1.421E-01	1.458E-02	0.061
TE-132	-4.445E-01		5.347E-01	8.262E-01	1.391E-01	-0.538

Sample ID : G248841005 Acquisition date : 18-MAR-2010 22:32:36

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-133	-7.791E-04		3.277E-02	4.813E-02	6.713E-03	-0.016
I-133	1.877E-03		3.227E-03	Half-Life too short		
CS-134	1.301E-01	+	6.045E-02	7.507E-02	7.902E-03	1.733
CS-135	2.020E-01		1.220E-01	1.845E-01	2.227E-02	1.094
I-135	4.442E+09		7.797E+09	Half-Life too short		
CS-136	3.623E-02		9.302E-02	1.593E-01	1.490E-02	0.227
BA-137M	-1.445E-02		3.324E-02	5.485E-02	6.076E-03	-0.263
CS-137	-1.526E-02		3.512E-02	5.794E-02	6.426E-03	-0.263
CE-139	-3.125E-03		1.870E-02	3.073E-02	2.740E-03	-0.102
BA-140	-1.133E-01		2.113E-01	3.241E-01	1.116E-01	-0.350
LA-140	-3.903E-02		7.553E-02	1.111E-01	9.235E-03	-0.351
CE-141	-4.735E-02		4.062E-02	6.246E-02	6.947E-03	-0.758
CE-143	7.405E-04		1.089E-04	Half-Life too short		
CE-144	-5.643E-03		1.207E-01	1.931E-01	3.366E-02	-0.029
PM-144	-8.374E-03		2.818E-02	4.617E-02	5.081E-03	-0.181
PR-144	-6.404E-01		2.109E+00	3.454E+00	3.800E-01	-0.185
PM-146	4.467E-02		3.228E-02	5.564E-02	6.429E-03	0.803
ND-147	3.463E-01		4.561E-01	7.607E-01	1.223E-01	0.455
PM-149	2.769E+01		7.391E+01	1.186E+02	2.022E+01	0.234
EU-152	-3.182E-02		7.081E-02	1.123E-01	1.206E-02	-0.283
GD-153	-4.416E-03		5.457E-02	6.618E-02	7.453E-03	-0.067
EU-154	-3.167E-02		1.094E-01	1.763E-01	1.949E-02	-0.180
EU-155	6.817E-02		5.596E-02	9.729E-02	1.150E-02	0.701
TB-160	4.098E-02		1.227E-01	2.038E-01	1.975E-02	0.201
HO-166M	-2.881E-02		4.882E-02	7.832E-02	8.576E-03	-0.368
TA-182	1.600E-01		1.890E-01	3.245E-01	2.668E-02	0.493
IR-192	2.657E-03		2.376E-02	4.025E-02	4.347E-03	0.066
HG-203	3.514E-02		3.020E-02	4.496E-02	5.095E-03	0.782
BI-207	2.454E-02		4.548E-02	7.836E-02	6.994E-03	0.313
PB-211	1.625E-01		5.874E-01	8.601E-01	4.172E-01	0.189
BI-212	1.770E+00	+	7.496E-01	9.410E-01	1.329E-01	1.881
RN-219	1.083E-01		2.937E-01	4.931E-01	7.507E-02	0.220
RA-223	-3.498E-01		4.977E-01	7.038E-01	1.298E-01	-0.497
AC-227	2.023E-02		1.701E-01	2.730E-01	3.735E-02	0.074
TH-227	2.023E-02		1.701E-01	2.730E-01	4.114E-02	0.074
PA-231	-7.448E-01		1.056E+00	1.571E+00	2.544E-01	-0.474
TH-231	-3.498E-01		4.977E-01	7.038E-01	1.298E-01	-0.497
PA-233	-1.342E-02		4.544E-02	7.584E-02	8.377E-03	-0.177
PA-234	-1.025E-01		2.678E-01	4.212E-01	8.055E-02	-0.243
PA-234M	4.413E-01		4.454E+00	6.703E+00	7.021E-01	0.066
NP-239	-8.394E-02		2.225E-01	3.720E-01	4.666E-02	-0.226
AM-241	-1.947E-02		4.045E-02	5.732E-02	5.956E-03	-0.340
CM-247	2.394E-02		2.705E-02	4.635E-02	4.271E-03	0.517
CF-249	7.666E-03		2.958E-02	4.960E-02	4.561E-03	0.155
CF-251	3.280E-02		8.292E-02	1.380E-01	1.266E-02	0.238

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248841005           *
* Acquisition date  : 18-MAR-2010 22:32:36 Detector SN#    :                *
* Detector ID       : GAM25                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 04:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 04:00:04.13      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  3-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248841005           Analyst initials: MXR1           *
* Batch Number      : 962629               Sample Quantity : 1.2089E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.949E+01	3.609E+00	2.126E-01	1.841E+00
CD-109	4.281E+00	6.617E-01	2.780E-01	3.376E-01
SN-126	4.182E-01	6.465E-02	2.711E-02	3.298E-02
TL-208	6.295E-01	9.579E-02	2.256E-02	4.887E-02
PB-210	1.339E+00	4.926E-01	2.258E-01	2.513E-01
BI-211	4.717E+00	6.010E-01	1.135E-01	3.067E-01
PB-212	2.060E+00	2.458E-01	3.191E-02	1.254E-01
BI-214	1.437E+00	2.181E-01	4.304E-02	1.113E-01
PB-214	1.712E+00	2.370E-01	4.129E-02	1.209E-01
RA-224	4.741E+00	8.167E-01	3.425E-01	4.167E-01
RA-226	1.437E+00	2.181E-01	4.304E-02	1.113E-01
AC-228	2.308E+00	3.883E-01	9.212E-02	1.981E-01
RA-228	2.308E+00	3.883E-01	9.212E-02	1.981E-01
TH-228	2.060E+00	2.458E-01	3.191E-02	1.254E-01
TH-229	1.111E-02	3.373E-01	2.879E-01	1.721E-01
TH-232	2.308E+00	3.883E-01	9.212E-02	1.981E-01
TH-234	1.345E+00	7.458E-01	2.922E-01	3.805E-01
U-235	1.766E-02	1.271E-01	1.078E-01	6.486E-02
NP-237	1.248E+00	3.209E-01	8.051E-02	1.637E-01
U-238	1.345E+00	7.458E-01	2.922E-01	3.805E-01
ANH-511	1.460E-01	5.771E-02	1.813E-02	2.944E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	2.434E-02	2.333E-01	1.973E-01	1.190E-01	NOT IDENT.
NA-22	-1.395E-02	3.798E-02	3.110E-02	1.938E-02	NOT IDENT.
NA-24	-1.503E+05	8.916E+05	0.000E+00	4.549E+05	SHORT HLIF
SC-46	-6.570E-03	3.159E-02	2.598E-02	1.612E-02	FAIL ABUN
V-48	-1.735E-02	6.218E-02	5.031E-02	3.172E-02	NOT IDENT.
CR-51	2.351E-02	2.493E-01	2.188E-01	1.272E-01	NOT IDENT.

MN-54	-3.219E-03	3.111E-02	2.597E-02	1.587E-02	NOT IDENT.
CO-56	4.178E-03	3.157E-02	2.668E-02	1.611E-02	FAIL ABUN
CO-57	-9.852E-04	1.400E-02	1.237E-02	7.143E-03	NOT IDENT.
CO-58	-1.426E-02	3.148E-02	2.576E-02	1.606E-02	NOT IDENT.
FE-59	-8.399E-02	7.941E-02	6.224E-02	4.052E-02	NOT IDENT.
CO-60	-2.311E-03	3.166E-02	2.627E-02	1.615E-02	NOT IDENT.
ZN-65	2.933E-03	8.549E-02	6.287E-02	4.362E-02	NOT IDENT.
SE-75	7.325E-04	3.052E-02	2.407E-02	1.557E-02	NOT IDENT.
SR-85	3.814E-02	3.159E-02	2.479E-02	1.612E-02	NOT IDENT.
Y-88	2.052E-02	2.705E-02	2.479E-02	1.380E-02	NOT IDENT.
Y-91	-1.257E+01	2.048E+01	1.673E+01	1.045E+01	NOT IDENT.
NB-94	2.267E-02	2.770E-02	2.452E-02	1.413E-02	NOT IDENT.
NB-95	7.674E-02	3.896E-02	3.209E-02	1.988E-02	NOT IDENT.
NB-95M	7.024E-02	9.190E-02	7.072E-02	4.689E-02	NOT IDENT.
ZR-95	3.908E-02	6.017E-02	5.267E-02	3.070E-02	NOT IDENT.
MO-99	-7.961E+00	1.086E+01	8.786E+00	5.541E+00	NOT IDENT.
TC-99M	1.922E+16	6.272E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.220E-02	3.110E-02	2.653E-02	1.586E-02	FAIL ABUN
RH-106	1.347E-01	2.432E-01	2.155E-01	1.241E-01	NOT IDENT.
RU-106	1.347E-01	2.428E-01	2.155E-01	1.239E-01	NOT IDENT.
AG-108M	6.488E-03	2.150E-02	1.852E-02	1.097E-02	NOT IDENT.
AG-110M	-5.802E-02	2.932E-02	2.211E-02	1.496E-02	NOT IDENT.
SN-113	7.247E-03	3.242E-02	2.808E-02	1.654E-02	NOT IDENT.
CD-115	-3.897E+00	9.959E+00	8.111E+00	5.081E+00	NOT IDENT.
SN-117M	-1.919E-02	3.407E-02	2.900E-02	1.738E-02	NOT IDENT.
TE-123M	-1.779E-03	1.733E-02	1.498E-02	8.843E-03	NOT IDENT.
SB-124	2.888E-02	5.575E-02	5.015E-02	2.844E-02	NOT IDENT.
SB-125	4.783E-03	6.407E-02	5.471E-02	3.269E-02	FAIL ABUN
TE-125M	3.879E+00	5.133E+00	4.651E+00	2.619E+00	NOT IDENT.
I-126	-1.360E-01	1.855E-01	1.534E-01	9.466E-02	NOT IDENT.
SB-126	-7.629E-02	1.376E-01	9.734E-02	7.018E-02	NOT IDENT.
SB-127	7.374E-01	1.112E+00	9.825E-01	5.676E-01	NOT IDENT.
I-131	8.695E-03	8.312E-02	7.214E-02	4.241E-02	NOT IDENT.
TE-132	-4.445E-01	5.240E-01	4.219E-01	2.674E-01	NOT IDENT.
BA-133	-7.791E-04	3.211E-02	2.445E-02	1.638E-02	FAIL ABUN
I-133	1.877E+03	6.324E+03	0.000E+00	3.227E+03	SHORT HLIF
CS-134	1.301E-01	5.924E-02	3.776E-02	3.022E-02	FAIL ABUN
CS-135	2.020E-01	1.196E-01	9.405E-02	6.102E-02	NOT IDENT.
I-135	4.442E+15	1.528E+16	0.000E+00	7.797E+15	SHORT HLIF
CS-136	3.623E-02	9.116E-02	7.985E-02	4.651E-02	NOT IDENT.
BA-137M	-1.445E-02	3.258E-02	2.765E-02	1.662E-02	NOT IDENT.
CS-137	-1.526E-02	3.442E-02	2.921E-02	1.756E-02	NOT IDENT.
CE-139	-3.125E-03	1.833E-02	1.575E-02	9.352E-03	NOT IDENT.
BA-140	-1.133E-01	2.071E-01	1.638E-01	1.057E-01	NOT IDENT.
LA-140	-3.903E-02	7.402E-02	5.538E-02	3.777E-02	FAIL ABUN
CE-141	-4.735E-02	3.981E-02	3.207E-02	2.031E-02	NOT IDENT.
CE-143	7.405E+02	2.135E+02	0.000E+00	1.089E+02	SHORT HLIF
CE-144	-5.643E-03	1.183E-01	9.924E-02	6.036E-02	NOT IDENT.
PM-144	-8.374E-03	2.762E-02	2.326E-02	1.409E-02	NOT IDENT.
PR-144	-6.404E-01	2.067E+00	1.740E+00	1.054E+00	NOT IDENT.
PM-146	4.467E-02	3.164E-02	2.818E-02	1.614E-02	NOT IDENT.
ND-147	3.463E-01	4.470E-01	3.845E-01	2.280E-01	FAIL ABUN
PM-149	2.769E+01	7.243E+01	6.039E+01	3.695E+01	NOT IDENT.
EU-152	-3.182E-02	6.939E-02	5.708E-02	3.540E-02	FAIL ABUN
GD-153	-4.416E-03	5.348E-02	3.414E-02	2.729E-02	NOT IDENT.
EU-154	-3.167E-02	1.072E-01	8.817E-02	5.469E-02	NOT IDENT.
EU-155	6.817E-02	5.484E-02	5.014E-02	2.798E-02	FAIL ABUN
TB-160	4.098E-02	1.202E-01	1.024E-01	6.134E-02	FAIL ABUN
HO-166M	-2.881E-02	4.785E-02	3.945E-02	2.441E-02	NOT IDENT.
TA-182	1.600E-01	1.852E-01	1.623E-01	9.451E-02	FAIL ABUN
IR-192	2.657E-03	2.329E-02	2.047E-02	1.188E-02	FAIL ABUN
HG-203	3.514E-02	2.960E-02	2.290E-02	1.510E-02	FAIL ABUN
BI-207	2.454E-02	4.457E-02	3.927E-02	2.274E-02	FAIL ABUN
PB-211	1.625E-01	5.757E-01	4.362E-01	2.937E-01	NOT IDENT.
BI-212	1.770E+00	7.346E-01	4.738E-01	3.748E-01	FAIL ABUN
RN-219	1.083E-01	2.878E-01	2.501E-01	1.469E-01	FAIL ABUN
RA-223	-3.498E-01	4.878E-01	3.579E-01	2.489E-01	FAIL ABUN
AC-227	2.023E-02	1.667E-01	1.392E-01	8.507E-02	FAIL ABUN
TH-227	2.023E-02	1.667E-01	1.392E-01	8.507E-02	FAIL ABUN
PA-231	-7.448E-01	1.035E+00	8.000E-01	5.279E-01	FAIL ABUN
TH-231	-3.498E-01	4.878E-01	3.579E-01	2.489E-01	FAIL ABUN
PA-233	-1.342E-02	4.453E-02	3.859E-02	2.272E-02	FAIL ABUN
PA-234	-1.025E-01	2.625E-01	2.114E-01	1.339E-01	FAIL ABUN
PA-234M	4.413E-01	4.364E+00	3.362E+00	2.227E+00	NOT IDENT.
NP-239	-8.394E-02	2.181E-01	1.915E-01	1.113E-01	FAIL ABUN
AM-241	-1.947E-02	3.964E-02	2.974E-02	2.022E-02	NOT IDENT.
CM-247	2.394E-02	2.651E-02	2.351E-02	1.353E-02	FAIL ABUN
CF-249	7.666E-03	2.899E-02	2.517E-02	1.479E-02	NOT IDENT.

CF-251	3.280E-02	8.126E-02	7.066E-02	4.146E-02 NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	549.8326
49.72	539.0175
57.36	0.0000
59.54	798.3220
63.29	797.8955
63.29	797.8955
64.28	800.7953
67.75	847.9069
69.67	876.5548
70.83	864.3943
72.81	902.8112
72.87	902.9921
72.87	902.9921
74.82	908.8052
74.82	908.8052
74.82	908.8052
74.97	909.2488
77.11	915.5405
77.11	915.5405
77.11	915.5405
79.69	797.9271
79.80	757.9677
80.12	758.7200
80.19	758.8829
80.57	810.5869
81.00	760.7802
81.07	760.9431
81.07	760.9431
83.79	631.6321
83.79	631.6321
85.43	634.7205
86.48	636.6809
86.55	636.8110
86.79	637.2528
86.94	637.5368
87.57	638.7043
88.03	639.5524
88.47	640.3650
89.96	643.0945
91.11	645.1890
92.59	673.3392
92.59	673.3392
93.35	674.7577
94.67	520.9302
94.87	519.5327
94.87	519.5327
95.86	520.9315
97.43	523.1349
98.44	521.1480
99.53	522.6501
100.11	516.6263
103.18	629.0178
103.37	593.2144
105.31	541.7111
106.12	580.9067
109.28	544.4575
111.00	582.6665
111.76	571.4462
116.30	546.5696
117.23	545.9756
121.12	532.9166
121.78	515.7411
122.06	517.8633
123.07	525.3428
131.20	524.1831
133.52	510.9916
136.00	527.1631

136.47	538.8068
140.51	560.0880
140.51	0.0000
143.76	545.8504
144.24	537.8915
144.24	537.8915
145.44	561.8254
152.43	599.1016
153.25	537.7220
154.21	498.3623
154.21	498.3623
156.02	572.3075
158.56	513.0439
159.00	495.0468
162.66	497.3672
163.33	496.0110
165.86	486.4790
176.60	431.6221
177.52	455.3055
181.07	478.6344
184.41	496.4377
185.72	469.5985
193.51	457.9912
197.04	483.2201
205.31	434.4229
210.85	398.4565
215.65	400.1675
222.11	424.1982
227.38	434.8574
228.16	420.1979
228.18	420.2098
235.69	419.0391
235.96	419.1875
235.96	419.1875
238.63	406.4341
238.63	406.4341
240.99	407.6947
242.00	340.0119
244.70	283.2318
252.40	320.0401
252.80	312.3938
256.23	322.7007
256.23	322.7007
260.90	339.2190
264.66	298.8853
268.22	295.0577
269.46	297.2040
269.46	297.2040
271.23	309.8123
273.65	281.5197
276.40	334.0947
277.37	343.6687
277.60	343.7599
278.00	343.9181
279.20	291.9902
279.54	278.2763
280.46	304.5303
283.69	319.5574
284.31	309.3543
285.41	325.9868
285.90	309.9138
287.50	303.5017
293.27	0.0000
295.22	281.5039
295.96	239.4775
298.57	240.1665
299.98	278.7386
299.98	278.7386
300.09	278.7723
300.09	278.7723
300.13	278.7867
301.36	290.4984
302.85	298.0657
304.50	291.4844
304.50	291.4844
304.85	284.4824
308.46	296.3005
311.90	317.0908

316.51	281.7267
319.41	283.4845
320.08	280.0671
323.87	300.3926
323.87	300.3926
328.76	298.9767
333.37	303.2985
334.37	291.8683
334.37	291.8683
338.28	317.4836
338.28	317.4836
338.32	317.4941
338.32	317.4941
338.32	317.4941
340.48	267.0811
340.55	267.0987
344.28	288.8104
351.06	242.2583
351.93	242.4606
356.01	253.1410
364.49	246.2925
366.42	242.0078
383.85	274.6797
388.16	250.6610
388.63	249.8036
391.69	248.5413
400.66	234.8845
401.81	228.2871
402.40	217.6646
404.85	226.9236
410.95	243.8298
414.70	227.2359
423.72	219.5972
427.09	199.2767
427.87	206.3809
433.94	208.3967
453.88	183.1970
463.37	205.0354
468.07	189.3036
473.00	200.3289
476.78	201.9299
477.60	184.4371
487.02	167.9769
492.35	196.9072
497.08	193.3718
511.00	194.2211
514.00	182.0776
527.90	192.1978
529.87	0.0000
531.02	167.8542
537.26	180.4495
546.56	0.0000
563.25	176.9536
569.33	171.0213
569.50	171.0402
569.70	171.0591
583.19	172.5160
600.60	167.0000
602.73	196.7559
604.72	180.4492
609.32	166.4760
609.32	166.4760
610.33	166.5748
614.28	161.8279
618.01	170.9763
621.93	161.3440
621.93	161.3440
633.25	144.0636
635.95	170.0229
636.99	165.5288
645.85	139.5681
657.76	227.0522
661.66	167.8623
661.66	167.8623
664.57	0.0000
666.33	206.6318
666.50	182.3412
677.62	154.2945

685.70	149.3054
695.00	179.4946
696.49	184.3900
696.51	184.3947
697.00	186.3436
702.65	171.6460
706.68	195.9011
711.68	171.5052
720.70	178.0896
721.93	0.0000
722.78	163.8284
722.91	163.8408
723.31	175.1203
724.19	173.5928
727.33	162.2824
733.00	140.4723
735.93	143.5918
739.50	164.2634
747.24	165.8828
752.31	172.1715
753.82	160.5566
756.73	150.9847
763.94	162.3453
765.81	131.3086
766.42	142.8406
777.92	130.4355
778.90	137.5204
783.70	144.0477
785.37	139.1934
795.86	139.8906
801.95	165.3505
810.29	147.8900
810.76	141.8847
815.77	114.9825
818.51	108.0606
832.01	155.4803
834.85	160.7696
836.80	0.0000
846.77	126.8548
856.80	111.3273
860.56	147.1964
871.09	116.8568
873.19	129.3854
875.33	0.0000
879.36	132.8500
880.51	121.4932
883.24	126.8341
884.68	126.9146
889.28	122.9983
898.04	134.9713
911.20	120.9971
911.20	120.9971
911.20	120.9971
926.50	111.1857
937.49	159.5581
944.13	122.6620
946.00	141.9684
949.00	137.8687
962.29	128.9414
964.08	125.8064
966.15	125.9121
968.97	126.0535
968.97	126.0535
968.97	126.0535
983.53	132.2014
996.26	142.6640
1001.03	121.1082
1004.73	138.7636
1037.84	121.7144
1038.76	0.0000
1048.07	121.2560
1050.41	123.2155
1050.41	123.2155
1063.66	122.8906
1085.87	128.5824
1099.45	144.2966
1112.07	125.0498
1115.54	138.2139

1120.29	135.8663
1120.29	135.8663
1120.55	135.8779
1121.30	135.9128
1131.51	0.0000
1173.23	162.5518
1177.93	157.9593
1189.05	159.5223
1204.77	195.5566
1221.41	172.0449
1231.02	167.3663
1235.36	191.3023
1238.28	172.9848
1260.41	0.0000
1271.85	133.8746
1274.44	121.9851
1274.54	123.9849
1291.59	109.5677
1298.22	0.0000
1312.11	88.0054
1332.49	77.3545
1365.19	60.6373
1368.63	0.0000
1384.29	60.2376
1408.01	72.8398
1457.56	0.0000
1460.82	48.5830
1489.16	31.9312
1505.03	67.3451
1596.21	52.5508
1620.50	40.6004
1678.03	0.0000
1690.97	22.0976
1764.49	11.9770
1764.49	11.9770
1770.23	27.4121
1771.35	23.9916
1791.20	0.0000
1836.06	20.8704

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248841005

Total Uranium Activity	4.0100E+00	ug/g
Total Uranium Counting Unc.	2.2195E+00	ug/g
Total Uranium Tpu	1.1324E-06	ug/g
Total Uranium Mda	8.7076E-01	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962629                    SAMPLE ID  : G248841005       *
*   ANALYST       : MXR1                      DETECTOR   : GAM25            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 04:00:00.00 *
*   ANALYSIS DATE: 18-MAR-2010 22:32:36.51    SAMPLE ALQT:  120.890 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.212E+01
GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.283E+00
GROSS GAMMA MDA    (pCi/GRAM  )   : 2.826E+00
GROSS GAMMA DLC    (pCi/GRAM  )   : 1.383E+00
```

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 02:35:29.76

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841006.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 22:33:04
Sample ID         : G248841006           Sample quantity  : 1.33090E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:01:59.51  0.8%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	74.68*	953	1561	1.62	149.56	142	18	6.62E-02	9.0	7.66E+00
2	2	77.15*	1421	1054	1.09	154.49	142	18	9.87E-02	4.8	
3	4	87.18*	365	597	1.05	174.53	172	12	2.53E-02	11.2	4.85E+00
4	4	89.92	206	929	1.06	180.00	172	12	1.43E-02	24.1	
5	0	92.90*	388	1184	1.27	185.96	183	10	2.70E-02	18.6	
6	0	129.01	174	957	1.07	258.10	254	10	1.21E-02	34.2	
7	0	185.94*	373	956	1.31	371.82	367	13	2.59E-02	18.7	
8	0	209.19	243	697	1.17	418.27	413	10	1.69E-02	21.3	
9	3	238.58*	2927	475	1.13	476.98	472	17	2.03E-01	2.3	3.25E+00
10	3	241.57	732	656	1.82	482.96	472	17	5.08E-02	10.2	
11	0	270.00	296	675	1.79	539.77	534	14	2.06E-02	19.4	
12	0	277.47	107	468	0.90	554.69	551	9	7.43E-03	37.7	
13	4	295.22	855	289	1.24	590.14	586	23	5.94E-02	4.7	1.63E+00
14	4	299.85	260	407	1.79	599.41	586	23	1.81E-02	16.5	
15	0	327.89	209	530	1.56	655.43	649	14	1.45E-02	24.3	
16	0	338.25*	581	450	1.28	676.12	670	12	4.03E-02	8.6	
17	0	351.84*	1330	447	1.38	703.29	698	12	9.24E-02	4.3	
18	0	409.05	83	354	1.19	817.61	813	12	5.76E-03	46.6	
19	0	462.82	205	238	1.35	925.06	920	12	1.43E-02	16.6	
20	0	511.07*	144	358	1.70	1021.50	1015	15	9.97E-03	36.1	
21	0	583.10*	917	305	1.43	1165.47	1157	16	6.37E-02	5.6	
22	0	609.17*	1007	370	1.35	1217.57	1210	16	6.99E-02	5.5	
23	0	727.49*	202	152	1.79	1454.12	1449	12	1.40E-02	14.8	
24	0	767.57	105	155	2.41	1534.24	1529	11	7.32E-03	24.8	
25	0	795.32	95	172	1.48	1589.73	1582	13	6.58E-03	30.4	
26	0	860.44	122	90	1.58	1719.95	1715	9	8.50E-03	16.6	
27	0	911.17*	606	179	1.54	1821.40	1815	16	4.21E-02	6.5	
28	0	934.58	92	182	0.95	1868.21	1860	16	6.36E-03	34.7	
29	0	964.84	85	138	1.69	1928.72	1924	9	5.93E-03	27.0	
30	0	969.03*	298	183	1.46	1937.10	1933	12	2.07E-02	11.0	
31	0	1119.92*	238	124	1.49	2238.92	2231	14	1.65E-02	12.6	
32	0	1237.99*	75	210	1.40	2475.11	2467	15	5.23E-03	44.4	
33	0	1378.26	68	94	1.05	2755.79	2745	17	4.75E-03	34.6	
34	0	1408.53	37	53	1.78	2816.36	2812	11	2.57E-03	41.9	
35	0	1460.95*	3358	81	1.79	2921.27	2912	17	2.33E-01	1.8	
36	0	1508.98	54	32	4.24	3017.40	3008	21	3.72E-03	29.6	
37	1	1588.00*	74	17	2.53	3175.57	3170	24	5.13E-03	17.1	2.11E+00
38	0	1620.64	34	14	0.97	3240.91	3234	14	2.34E-03	29.2	

Sample ID : G248841006 Acquisition date : 18-MAR-2010 22:33:04

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1632.70	21	32	1.16	3265.05	3255	13	1.44E-03	60.6	
40	0	1639.27	17	27	1.55	3278.19	3269	12	1.20E-03	64.7	
41	0	1729.85*	40	19	1.63	3459.54	3455	11	2.79E-03	29.2	
42	0	1764.81*	186	24	2.04	3529.55	3521	16	1.29E-02	10.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 19-MAR-2010 02:35:33

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841006.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 18-MAR-2010 22:33:04
Sample ID : G248841006 Sample quantity : 133.09 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAM29 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:01:59.51 0.8%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.671E+01	4.216E+00	3.769E-01	4.099E-02	97.398
CD-109	+	88.03	*	2.422E+00	5.870E-01	1.186E+00	1.120E-01	2.042
SN-126		64.28		5.284E-01	4.428E-01	7.150E-01	1.060E-01	0.739
	+	86.94		9.835E-01	4.638E-01	4.705E-01	1.953E-01	2.090
	+	87.57	*	2.366E-01	5.735E-02	1.137E-01	1.069E-02	2.081
TL-208	+	277.37		5.055E-01	3.867E-01	4.861E-01	6.250E-02	1.040
	+	583.19	*	5.749E-01	8.368E-02	4.514E-02	4.230E-03	12.736
	+	860.56		7.256E-01	2.588E-01	3.390E-01	4.348E-02	2.140
BI-211		72.87		1.426E+01	3.021E+00	4.974E+00	4.110E-01	2.867
	+	351.06	*	3.774E+00	4.868E-01	2.636E-01	2.524E-02	14.318
BI-212	+	727.33	*	1.934E+00	6.243E-01	5.838E-01	7.627E-02	3.313
		785.37		3.090E+00	2.519E+00	4.305E+00	4.601E-01	0.718
	+	1620.50		2.863E+00	1.696E+00	2.307E+00	2.304E-01	1.241
PB-212	+	74.82		2.706E+00	5.994E-01	4.737E-01	6.080E-02	5.713
	+	77.11		2.307E+00	2.967E-01	2.722E-01	2.318E-02	8.477
	+	238.63	*	1.897E+00	2.086E-01	7.205E-02	7.185E-03	26.324
	+	300.09		2.589E+00	8.988E-01	9.943E-01	1.092E-01	2.604
BI-214	+	609.32	*	1.222E+00	1.816E-01	8.368E-02	8.452E-03	14.597
	+	1120.29		1.498E+00	4.152E-01	4.156E-01	4.851E-02	3.604
	+	1764.49		1.586E+00	3.566E-01	2.187E-01	1.986E-02	7.254
PB-214	+	74.82		4.797E+00	1.028E+00	8.397E-01	9.683E-02	5.713
	+	77.11		4.068E+00	6.215E-01	4.799E-01	5.689E-02	8.477
	+	242.00		2.875E+00	6.590E-01	4.377E-01	4.641E-02	6.568
	+	295.22		1.509E+00	2.206E-01	1.827E-01	2.053E-02	8.257
	+	351.93	*	1.370E+00	1.921E-01	9.620E-02	1.063E-02	14.237
RA-224	+	240.99	*	5.083E+00	1.128E+00	7.716E-01	6.846E-02	6.588
RA-226	+	609.32	*	1.222E+00	1.816E-01	8.368E-02	8.452E-03	14.597
	+	1120.29		1.498E+00	4.152E-01	4.156E-01	4.851E-02	3.604
	+	1764.49		1.586E+00	3.566E-01	2.187E-01	1.986E-02	7.254
AC-228	+	338.32		1.838E+00	8.312E-01	2.914E-01	1.219E-01	6.307
	+	911.20	*	1.834E+00	3.667E-01	1.610E-01	2.453E-02	11.390
	+	968.97		1.556E+00	5.294E-01	3.440E-01	8.916E-02	4.522
RA-228	+	338.32		1.838E+00	8.312E-01	2.914E-01	1.219E-01	6.307
	+	911.20	*	1.834E+00	3.667E-01	1.610E-01	2.453E-02	11.390

Sample ID : G248841006 Acquisition date : 18-MAR-2010 22:33:04

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		1.556E+00	5.294E-01	3.440E-01	8.916E-02	4.522
TH-228	+	74.82		2.706E+00	5.394E-01	4.737E-01	4.004E-02	5.713
	+	77.11		2.307E+00	2.967E-01	2.722E-01	2.318E-02	8.477
	+	238.63	*	1.897E+00	2.086E-01	7.205E-02	7.185E-03	26.324
	+	300.09		2.589E+00	1.802E+00	9.943E-01	6.094E-01	2.604
TH-232	+	338.32		1.838E+00	3.583E-01	2.914E-01	2.676E-02	6.307
	+	911.20	*	1.834E+00	3.667E-01	1.610E-01	2.453E-02	11.390
	+	968.97		1.556E+00	5.294E-01	3.440E-01	8.916E-02	4.522
U-235	+	89.96		1.387E+00	7.514E-01	9.386E-01	2.334E-01	1.478
	+	93.35		1.582E+00	6.946E-01	5.788E-01	1.348E-01	2.733
		143.76	*	-1.059E-01	1.766E-01	2.711E-01	4.581E-02	-0.391
		163.33		5.626E-02	3.736E-01	5.823E-01	1.034E-01	0.097
	+	185.72		1.588E-01	6.081E-02	5.448E-02	4.549E-03	2.915
		205.31		-1.462E-01	4.305E-01	6.148E-01	1.114E-01	-0.238
NP-237	+	86.48	*	7.059E-01	2.263E-01	3.266E-01	7.491E-02	2.161
		95.86		-5.179E-01	8.660E-01	1.201E+00	2.899E-01	-0.431
ANH-511	+	511.00	*	6.905E-02	5.020E-02	3.582E-02	3.242E-03	1.928

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.582E-01	2.450E-01	3.854E-01	3.752E-02	-0.410
NA-22		1274.54	*	-1.786E-02	3.449E-02	5.588E-02	5.578E-03	-0.320
NA-24		1368.63	*	-6.220E-01	3.449E-02	Half-Life too short		
SC-46		889.28	*	1.221E-02	3.021E-02	5.080E-02	6.633E-03	0.240
	+	1120.55		2.541E-01	6.836E-02	9.629E-02	9.197E-03	2.639
V-48		944.13		-6.352E-02	7.138E-01	1.139E+00	1.446E-01	-0.056
		983.53	*	-7.944E-03	5.830E-02	9.463E-02	1.148E-02	-0.084
		1312.11		5.645E-02	6.504E-02	1.139E-01	1.209E-02	0.496
CR-51		320.08	*	1.132E-01	2.957E-01	4.689E-01	4.508E-02	0.241
MN-54		834.85	*	-6.910E-03	2.727E-02	4.441E-02	5.234E-03	-0.156
CO-56		846.77	*	-1.183E-02	2.859E-02	4.599E-02	5.546E-03	-0.257
		1037.84		-1.902E-01	2.535E-01	3.934E-01	4.552E-02	-0.483
	+	1238.28		1.323E-01	1.182E-01	1.333E-01	1.280E-02	0.993
		1771.35		-3.138E-02	1.744E-01	2.345E-01	2.117E-02	-0.134
CO-57		122.06	*	-1.231E-03	2.126E-02	3.441E-02	3.109E-03	-0.036
		136.47		-7.814E-02	1.734E-01	2.766E-01	2.569E-02	-0.283
CO-58		810.76	*	-1.328E-02	2.924E-02	4.710E-02	5.304E-03	-0.282
FE-59		1099.45	*	-2.430E-02	7.452E-02	1.187E-01	1.260E-02	-0.205
		1291.59		-2.977E-02	9.347E-02	1.530E-01	1.723E-02	-0.195
CO-60		1173.23		-1.762E-02	3.869E-02	6.101E-02	5.072E-03	-0.289
		1332.49	*	-4.041E-02	2.773E-02	4.029E-02	4.419E-03	-1.003
ZN-65		1115.54	*	9.488E-02	7.301E-02	1.126E-01	1.089E-02	0.843
SE-75		121.12		-1.015E-02	1.115E-01	1.804E-01	2.055E-02	-0.056
		136.00		1.298E-02	3.317E-02	5.409E-02	4.721E-03	0.240
		264.66	*	-1.199E-02	3.967E-02	5.671E-02	5.142E-03	-0.211
		279.54		8.850E-02	1.007E-01	1.506E-01	1.417E-02	0.588
		400.66		-4.713E-02	1.876E-01	3.042E-01	3.469E-02	-0.155

Sample ID : G248841006 Acquisition date : 18-MAR-2010 22:33:04

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SR-85		514.00	*	1.144E-01	3.496E-02	5.581E-02	5.049E-03	2.049
Y-88		898.04		-5.415E-05	3.216E-02	5.289E-02	7.031E-03	-0.001
		1836.06	*	7.973E-03	2.471E-02	4.191E-02	3.584E-03	0.190
Y-91		1204.77	*	1.908E+00	1.788E+01	2.906E+01	2.563E+00	0.066
NB-94		702.65	*	8.420E-03	2.545E-02	4.306E-02	3.868E-03	0.196
		871.09		-6.238E-03	2.580E-02	4.189E-02	5.289E-03	-0.149
NB-95		765.81	*	7.886E-02	3.819E-02	6.070E-02	6.234E-03	1.299
NB-95M		235.69	*	5.892E-01	1.350E-01	2.039E-01	2.053E-02	2.890
ZR-95		724.19		6.234E-02	8.051E-02	1.211E-01	1.221E-02	0.515
		756.73	*	-1.220E-02	5.496E-02	9.024E-02	9.801E-03	-0.135
MO-99		140.51		-9.848E+00	2.035E+01	3.221E+01	7.642E+00	-0.306
		181.07		-1.232E+01	1.902E+01	2.555E+01	4.763E+00	-0.482
		366.42		-1.757E+01	8.282E+01	1.352E+02	1.232E+01	-0.130
		739.50	*	3.936E+00	1.006E+01	1.702E+01	2.789E+00	0.231
		777.92		-5.757E+01	3.088E+01	4.509E+01	4.748E+00	-1.277
TC-99M		140.51	*	-4.210E+10	3.088E+01	Half-Life too short		
RU-103		497.08	*	1.248E-02	3.262E-02	5.119E-02	7.297E-03	0.244
	+	610.33		1.269E+01	2.493E+00	2.118E+00	3.461E-01	5.990
RH-106		621.93	*	1.510E-01	2.348E-01	4.039E-01	5.329E-02	0.374
		1050.41		-6.022E-01	1.982E+00	3.167E+00	3.480E-01	-0.190
RU-106		621.93	*	1.510E-01	2.343E-01	4.039E-01	3.443E-02	0.374
		1050.41		-6.022E-01	1.982E+00	3.167E+00	3.480E-01	-0.190
AG-108M		433.94	*	-1.961E-02	2.230E-02	3.487E-02	3.262E-03	-0.563
		614.28		2.471E-02	2.868E-02	4.382E-02	3.884E-03	0.564
		722.91		-8.739E-03	3.073E-02	4.311E-02	4.156E-03	-0.203
AG-110M		657.76	*	8.143E-03	2.642E-02	4.480E-02	3.809E-03	0.182
		677.62		-1.819E-01	2.288E-01	3.661E-01	3.203E-02	-0.497
		706.68		-5.528E-02	1.626E-01	2.667E-01	2.480E-02	-0.207
		763.94		1.080E-01	1.349E-01	2.034E-01	2.122E-02	0.531
		884.68		-1.625E-02	3.812E-02	6.113E-02	8.028E-03	-0.266
		937.49		1.155E-01	9.606E-02	1.473E-01	1.915E-02	0.784
		1384.29		-8.281E-02	1.315E-01	1.722E-01	1.905E-02	-0.481
		1505.03		2.113E-01	1.933E-01	3.163E-01	3.329E-02	0.668
SN-113		391.69	*	1.129E-02	3.401E-02	5.650E-02	5.225E-03	0.200
CD-115		260.90		5.063E+01	1.214E+02	2.050E+02	1.846E+01	0.247
		492.35		-1.485E+01	3.335E+01	5.295E+01	4.812E+00	-0.281
		527.90	*	-2.147E+00	9.547E+00	1.526E+01	1.375E+00	-0.141
SN-117M		156.02		2.158E+00	1.949E+00	3.211E+00	2.667E-01	0.672
		158.56	*	-4.935E-02	4.744E-02	7.380E-02	6.100E-03	-0.669
TE-123M		159.00	*	-1.677E-02	2.386E-02	3.753E-02	3.120E-03	-0.447
SB-124		602.73		-8.732E-03	3.326E-02	4.508E-02	3.903E-03	-0.194
		645.85		1.613E-01	3.666E-01	6.262E-01	5.541E-02	0.258
		722.78		-8.120E-02	3.103E-01	4.361E-01	4.171E-02	-0.186
		1690.97	*	-5.257E-03	4.917E-02	7.964E-02	7.886E-03	-0.066
SB-125		427.87	*	1.446E-02	7.094E-02	1.169E-01	1.079E-02	0.124
	+	463.37		8.772E-01	3.036E-01	4.000E-01	3.891E-02	2.193
		600.60		3.747E-02	1.418E-01	2.175E-01	2.024E-02	0.172
		635.95		3.086E-02	2.031E-01	3.429E-01	3.131E-02	0.090
TE-125M		109.28	*	2.753E+00	8.045E+00	1.319E+01	1.407E+00	0.209

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-126		388.63		1.020E-01	1.300E-01	2.193E-01	1.976E-02	0.465
		666.33	*	3.762E-02	1.725E-01	2.911E-01	2.412E-02	0.129
		753.82		7.719E-01	1.398E+00	2.383E+00	2.387E-01	0.324
SB-126		414.70		6.776E-03	6.600E-02	9.400E-02	8.514E-03	0.072
		666.50		3.811E-02	5.843E-02	1.004E-01	8.322E-03	0.379
		695.00		3.624E-02	5.968E-02	1.022E-01	9.028E-03	0.355
		697.00		-8.096E-02	2.090E-01	3.422E-01	3.036E-02	-0.237
		720.70	*	8.204E-02	1.172E-01	1.828E-01	1.708E-02	0.449
		856.80		3.750E-02	3.918E-01	5.598E-01	6.880E-02	0.067
SB-127		252.40		-1.933E-01	3.525E+00	5.880E+00	2.448E+00	-0.033
		473.00		-6.004E-01	1.289E+00	2.046E+00	2.699E-01	-0.294
		685.70	*	-3.896E-01	1.054E+00	1.727E+00	1.987E-01	-0.226
		783.70		4.237E+00	2.953E+00	5.131E+00	7.152E-01	0.826
I-131		80.19		-7.170E+00	4.565E+00	6.212E+00	5.465E-01	-1.154
		284.31		-6.745E-01	1.250E+00	1.985E+00	1.894E-01	-0.340
		364.49	*	4.942E-02	9.041E-02	1.517E-01	1.451E-02	0.326
		636.99		-1.186E-01	1.202E+00	2.006E+00	1.788E-01	-0.059
TE-132		49.72		-3.142E+01	1.688E+01	2.620E+01	2.917E+00	-1.199
		111.76		-1.655E+01	2.997E+01	4.795E+01	5.417E+00	-0.345
		116.30		-4.027E+00	2.628E+01	4.249E+01	4.818E+00	-0.095
		228.16	*	9.789E-02	6.264E-01	1.055E+00	1.684E-01	0.093
BA-133		81.00		-1.663E-01	9.443E-02	1.238E-01	1.934E-02	-1.343
	+	276.40		4.673E-01	3.588E-01	5.011E-01	7.216E-02	0.932
		302.85		2.601E-03	1.226E-01	1.768E-01	2.375E-02	0.015
		356.01	*	1.519E-02	3.610E-02	5.263E-02	7.006E-03	0.289
		383.85		5.341E-02	2.251E-01	3.729E-01	4.743E-02	0.143
I-133		529.87	*	2.685E-03	2.251E-01	Half-Life too short		
		875.33		-1.440E-02	2.251E-01	Half-Life too short		
		1298.22		1.363E-01	2.251E-01	Half-Life too short		
CS-134		563.25		3.169E-01	2.785E-01	4.709E-01	4.217E-02	0.673
		569.33		4.647E-02	1.507E-01	2.463E-01	2.207E-02	0.189
		604.72		1.180E-03	2.870E-02	3.979E-02	3.447E-03	0.030
	+	795.86	*	8.638E-02	5.329E-02	6.853E-02	7.515E-03	1.260
		801.95		-1.360E-01	3.693E-01	5.306E-01	5.884E-02	-0.256
		1365.19		-3.614E-01	9.035E-01	1.456E+00	1.636E-01	-0.248
CS-135		268.22	*	3.284E-01	1.496E-01	2.299E-01	2.376E-02	1.429
I-135		546.56		1.615E+10	1.496E-01	Half-Life too short		
		836.80		2.065E+10	1.496E-01	Half-Life too short		
		1038.76		-1.065E+10	1.496E-01	Half-Life too short		
		1131.51		-2.037E+10	1.496E-01	Half-Life too short		
		1260.41	*	-4.113E+09	1.496E-01	Half-Life too short		
		1457.56		2.455E+12	1.496E-01	Half-Life too short		
		1678.03		3.078E+09	1.496E-01	Half-Life too short		
		1791.20		-5.962E+09	1.496E-01	Half-Life too short		
CS-136		153.25		-7.888E-02	7.434E-01	1.193E+00	1.198E-01	-0.066
		176.60		1.075E-01	4.301E-01	6.931E-01	6.363E-02	0.155
		273.65		-7.858E-02	6.884E-01	6.613E-01	6.461E-02	-0.119
		340.55		7.252E-01	1.552E-01	2.416E-01	2.292E-02	3.002
		818.51		8.030E-03	5.458E-02	9.101E-02	1.040E-02	0.088

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1048.07	*	-2.767E-02	8.719E-02	1.393E-01	1.577E-02	-0.199
		1235.36		6.163E-01	5.668E-01	8.361E-01	1.027E-01	0.737
BA-137M		661.66	*	-1.282E-02	2.721E-02	4.450E-02	3.648E-03	-0.288
CS-137		661.66	*	-1.354E-02	2.874E-02	4.701E-02	3.862E-03	-0.288
CE-139		165.86	*	5.981E-03	2.471E-02	3.991E-02	3.252E-03	0.150
BA-140		162.66		3.065E-01	7.055E-01	1.108E+00	9.757E-02	0.277
		304.85		6.435E-01	1.196E+00	1.745E+00	5.138E-01	0.369
		423.72		-1.540E-01	1.559E+00	2.537E+00	8.376E-01	-0.061
		537.26	*	-2.538E-02	2.162E-01	3.470E-01	1.180E-01	-0.073
LA-140	+	328.76		8.372E-01	4.149E-01	4.378E-01	4.227E-02	1.912
		487.02		-1.797E-02	1.088E-01	1.752E-01	1.682E-02	-0.103
		815.77		-3.378E-02	2.407E-01	3.948E-01	4.794E-02	-0.086
		1596.21	*	9.013E-02	6.651E-02	1.110E-01	1.123E-02	0.812
CE-141		145.44	*	6.161E-02	5.305E-02	8.759E-02	7.572E-03	0.703
CE-143		57.36		-1.790E-04	5.305E-02	Half-Life too short		
		293.27	*	1.127E-03	5.305E-02	Half-Life too short		
		664.57		3.521E-04	5.305E-02	Half-Life too short		
		721.93		-9.163E-05	5.305E-02	Half-Life too short		
CE-144		80.12		-1.392E+00	2.323E+00	3.279E+00	2.864E-01	-0.425
		133.52	*	2.673E-02	1.865E-01	2.647E-01	4.062E-02	0.101
PM-144		476.78		-3.483E-02	4.874E-02	7.637E-02	7.494E-03	-0.456
		618.01		-1.692E-02	2.498E-02	3.855E-02	3.390E-03	-0.439
		696.49	*	3.673E-03	2.575E-02	4.325E-02	3.834E-03	0.085
PR-144		696.51	*	4.107E-01	1.922E+00	3.237E+00	2.869E-01	0.127
		1489.16		-4.483E+00	9.517E+00	1.507E+01	1.595E+00	-0.298
PM-146		453.88	*	2.728E-02	3.321E-02	5.575E-02	6.128E-03	0.489
		633.25		9.738E-01	1.107E+00	1.823E+00	6.956E-01	0.534
		735.93		-3.636E-03	1.226E-01	1.813E-01	5.142E-02	-0.020
		747.24		-3.861E-02	7.375E-02	1.189E-01	1.827E-02	-0.325
ND-147	+	91.11		4.597E-01	2.259E-01	4.381E-01	4.344E-02	1.049
		319.41		9.756E-01	2.554E+00	4.283E+00	3.937E-01	0.228
		531.02	*	2.064E-01	4.416E-01	7.281E-01	1.105E-01	0.283
PM-149		285.90	*	1.838E+00	8.128E+01	1.353E+02	2.141E+01	0.014
EU-152		121.78		8.227E-03	6.114E-02	9.944E-02	1.020E-02	0.083
		244.70		3.061E-01	2.750E-01	4.169E-01	3.711E-02	0.734
		344.28	*	-6.135E-02	9.171E-02	1.185E-01	1.144E-02	-0.518
		778.90		-2.660E-01	1.995E-01	3.040E-01	3.207E-02	-0.875
	+	964.08		4.798E-01	2.659E-01	4.333E-01	5.382E-02	1.107
		1085.87		-2.198E-03	3.130E-01	5.088E-01	5.237E-02	-0.004
		1112.07		-1.983E-01	2.819E-01	3.659E-01	3.563E-02	-0.542
	+	1408.01		2.000E-01	1.690E-01	2.593E-01	2.808E-02	0.771
GD-153		69.67		5.905E-01	1.633E+00	2.380E+00	1.933E-01	0.248
		97.43	*	2.629E-02	7.953E-02	1.148E-01	1.031E-02	0.229
		103.18		-1.211E-01	9.249E-02	1.448E-01	1.285E-02	-0.837
EU-154		123.07		-6.239E-03	4.486E-02	6.988E-02	8.135E-03	-0.089
		723.31		-6.079E-02	1.403E-01	1.944E-01	1.983E-02	-0.313
		873.19		2.809E-02	2.056E-01	3.414E-01	5.154E-02	0.082
		996.26		-3.493E-01	2.869E-01	4.209E-01	8.132E-02	-0.830
		1004.73		2.428E-02	1.675E-01	2.759E-01	3.903E-02	0.088

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1274.44	*	-5.301E-02	9.764E-02	1.578E-01	1.962E-02	-0.336
EU-155	+	86.55		2.869E-01	6.964E-02	1.497E-01	1.404E-02	1.916
		105.31	*	3.752E-02	8.577E-02	1.410E-01	1.263E-02	0.266
TB-160	+	86.79		7.638E-01	1.851E-01	3.950E-01	3.682E-02	1.934
		197.04		4.116E-01	4.476E-01	7.502E-01	6.353E-02	0.549
		215.65		-2.539E-01	5.972E-01	9.657E-01	8.358E-02	-0.263
	+	298.57		3.659E-01	1.251E-01	1.649E-01	1.511E-02	2.219
		879.36	*	5.634E-02	1.049E-01	1.777E-01	2.279E-02	0.317
		962.29		4.911E-01	5.018E-01	7.489E-01	9.321E-02	0.656
	+	966.15		3.363E-01	1.864E-01	3.925E-01	4.863E-02	0.857
		1177.93		1.904E-01	3.094E-01	5.165E-01	4.332E-02	0.369
		1271.85		-3.561E-01	5.582E-01	8.970E-01	8.906E-02	-0.397
HO-166M		80.57		-4.220E-01	2.601E-01	3.531E-01	3.096E-02	-1.195
		184.41		9.147E-02	3.567E-02	5.405E-02	4.506E-03	1.692
		280.46		-1.014E-02	7.601E-02	1.092E-01	9.943E-03	-0.093
		410.95		2.506E-01	2.176E-01	3.261E-01	2.951E-02	0.768
		711.68	*	1.992E-02	4.554E-02	7.741E-02	7.091E-03	0.257
		752.31		1.307E-01	2.091E-01	3.575E-01	3.570E-02	0.366
		810.29		-2.292E-02	4.387E-02	7.035E-02	7.903E-03	-0.326
TA-182		67.75		-1.977E-02	1.070E-01	1.538E-01	1.239E-02	-0.129
		100.11		2.448E-01	1.510E-01	2.454E-01	2.188E-02	0.998
		152.43		1.561E-01	2.961E-01	4.825E-01	4.036E-02	0.324
		222.11		4.804E-02	2.776E-01	4.681E-01	4.079E-02	0.103
	+	1121.30		7.035E-01	1.892E-01	2.672E-01	2.548E-02	2.633
		1189.05		4.553E-02	2.528E-01	4.128E-01	3.536E-02	0.110
		1221.41	*	4.567E-02	1.725E-01	2.821E-01	2.565E-02	0.162
		1231.02		-2.024E-01	4.768E-01	6.352E-01	5.874E-02	-0.319
IR-192	+	295.96		1.119E+00	1.470E-01	2.151E-01	1.982E-02	5.205
		308.46		7.001E-02	7.740E-02	1.251E-01	1.153E-02	0.560
		316.51	*	2.077E-03	2.541E-02	4.221E-02	3.886E-03	0.049
		468.07		7.781E-03	5.550E-02	7.872E-02	7.639E-03	0.099
HG-203		70.83		1.802E+00	1.280E+00	1.872E+00	2.962E-01	0.962
		72.87		3.570E+00	8.859E-01	1.245E+00	1.910E-01	2.867
		279.20	*	4.213E-02	3.580E-02	5.401E-02	5.027E-03	0.780
BI-207		72.81		7.611E-01	1.711E-01	2.833E-01	2.340E-02	2.687
	+	74.97		7.800E-01	1.552E-01	1.960E-01	1.642E-02	3.980
		569.70		4.973E-03	2.357E-02	3.834E-02	3.390E-03	0.130
		1063.66	*	-2.828E-02	4.373E-02	6.618E-02	7.106E-03	-0.427
		1770.23		-2.056E-01	3.767E-01	4.706E-01	4.254E-02	-0.437
PB-210		46.54	*	1.217E-01	3.006E+00	4.773E+00	4.554E-01	0.025
PB-211		404.85	*	3.608E-01	6.280E-01	8.851E-01	4.290E-01	0.408
		427.09		4.505E-01	1.207E+00	1.972E+00	9.143E-01	0.228
		832.01		-2.431E-01	7.510E-01	1.201E+00	6.300E-01	-0.202
RN-219	+	271.23		8.404E-01	3.389E-01	3.568E-01	3.793E-02	2.355
		401.81	*	-3.390E-02	3.122E-01	4.954E-01	7.487E-02	-0.068
RA-223		81.07		-3.743E-01	2.083E-01	2.806E-01	2.472E-02	-1.334
		83.79		4.130E-02	1.217E-01	1.720E-01	1.555E-02	0.240
		94.87		1.289E+00	4.384E-01	6.585E-01	5.971E-02	1.957
		144.24		-2.255E-01	5.892E-01	9.137E-01	8.701E-02	-0.247

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		154.21		2.854E-01	3.297E-01	5.405E-01	4.965E-02	0.528
	+	269.46		6.530E-01	2.610E-01	2.789E-01	2.571E-02	2.341
		323.87	*	1.596E-01	5.619E-01	8.168E-01	1.440E-01	0.195
	+	338.28		7.292E+00	1.550E+00	1.814E+00	2.264E-01	4.020
AC-227		79.69		6.054E-01	1.185E+00	1.722E+00	2.974E-01	0.352
		235.96		1.371E+00	2.149E-01	2.877E-01	3.027E-02	4.764
		256.23	*	4.489E-02	1.988E-01	3.341E-01	4.112E-02	0.134
	+	299.98		2.848E+00	1.009E+00	1.237E+00	1.618E-01	2.302
		304.50		5.617E-01	1.393E+00	2.040E+00	3.432E-01	0.275
		334.37		1.953E-01	2.229E+00	2.151E+00	3.423E-01	0.091
TH-227		79.80		3.591E-01	1.550E+00	2.241E+00	4.888E-01	0.160
		235.96		1.371E+00	2.097E-01	2.877E-01	2.862E-02	4.764
		256.23	*	4.489E-02	1.988E-01	3.341E-01	4.622E-02	0.134
	+	299.98		2.848E+00	1.009E+00	1.237E+00	1.618E-01	2.302
		304.50		5.617E-01	1.393E+00	2.040E+00	3.432E-01	0.275
		334.37		1.953E-01	2.229E+00	2.151E+00	3.423E-01	0.091
TH-229		85.43		5.822E-01	2.141E-01	3.121E-01	2.868E-02	1.866
	+	88.47		3.647E-01	8.841E-02	1.936E-01	1.822E-02	1.884
		193.51	*	-6.423E-01	4.837E-01	6.728E-01	5.674E-02	-0.955
		210.85		1.994E+00	8.211E-01	1.276E+00	1.098E-01	1.563
PA-231		283.69	*	-1.196E-01	1.250E+00	1.883E+00	2.802E-01	-0.064
		301.36		1.033E+00	4.758E-01	8.089E-01	1.015E-01	1.277
TH-231		81.07		-3.743E-01	2.083E-01	2.806E-01	2.472E-02	-1.334
		83.79		4.130E-02	1.217E-01	1.720E-01	1.555E-02	0.240
		94.87		1.289E+00	4.384E-01	6.585E-01	5.971E-02	1.957
		144.24		-2.255E-01	5.892E-01	9.137E-01	8.701E-02	-0.247
		154.21		2.854E-01	3.297E-01	5.405E-01	4.965E-02	0.528
	+	269.46		6.530E-01	2.610E-01	2.789E-01	2.571E-02	2.341
		323.87	*	1.596E-01	5.619E-01	8.168E-01	1.440E-01	0.195
	+	338.28		7.292E+00	1.550E+00	1.814E+00	2.264E-01	4.020
PA-233	+	300.13		1.289E+00	4.671E-01	5.617E-01	8.511E-02	2.295
		311.90	*	-2.191E-02	4.783E-02	7.788E-02	7.334E-03	-0.281
		340.48		3.306E+00	9.947E-01	1.032E+00	2.505E-01	3.204
PA-234		94.67		6.121E-01	1.744E-01	2.481E-01	3.157E-02	2.467
		98.44		9.587E-02	1.005E-01	1.259E-01	7.032E-02	0.761
		111.00		1.647E-02	1.516E-01	2.470E-01	3.028E-02	0.067
		131.20		2.502E-02	1.000E-01	1.426E-01	1.251E-02	0.175
		569.50		3.845E-02	2.089E-01	3.395E-01	3.002E-02	0.113
		733.00		-4.068E-02	3.196E-01	4.534E-01	1.024E-01	-0.090
		880.51		8.528E-02	2.104E-01	3.542E-01	4.550E-02	0.241
		883.24		-5.817E-02	2.253E-01	3.598E-01	2.443E-01	-0.162
		926.50		2.303E-02	1.522E-01	2.172E-01	5.875E-02	0.106
		946.00	*	-1.444E-01	2.415E-01	3.792E-01	7.940E-02	-0.381
		949.00		3.229E-01	3.405E-01	5.848E-01	7.388E-02	0.552
PA-234M	+	766.42		2.208E+01	1.572E+01	1.606E+01	8.196E+00	1.375
		1001.03	*	4.803E+00	3.793E+00	6.365E+00	8.188E-01	0.755
TH-234		63.29	*	6.891E-01	1.176E+00	1.895E+00	3.423E-01	0.364
	+	92.59		2.094E+00	9.086E-01	1.039E+00	2.318E-01	2.015
U-238		63.29	*	6.891E-01	1.176E+00	1.895E+00	3.423E-01	0.364

Sample ID : G248841006 Acquisition date : 18-MAR-2010 22:33:04

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.59		2.094E+00	8.027E-01	1.039E+00	9.527E-02	2.015
NP-239		99.53		3.314E-01	1.449E-01	2.287E-01	2.042E-02	1.449
		103.37		-9.295E-02	8.330E-02	1.313E-01	1.164E-02	-0.708
		106.12		6.057E-02	6.822E-02	1.131E-01	1.001E-02	0.535
		117.23	*	-7.833E-02	3.390E-01	5.469E-01	4.884E-02	-0.143
		228.18		2.551E-02	1.714E-01	2.886E-01	2.530E-02	0.088
	+	277.60		2.310E-01	1.755E-01	2.465E-01	2.241E-02	0.937
AM-241		59.54	*	-1.279E-01	1.307E-01	2.108E-01	1.819E-02	-0.607
CM-247	+	278.00		9.813E-01	7.454E-01	1.047E+00	9.523E-02	0.937
		287.50		-2.831E-01	9.875E-01	1.627E+00	1.485E-01	-0.174
		402.40	*	-1.657E-03	2.944E-02	4.534E-02	4.093E-03	-0.037
CF-249		252.80		9.002E-02	7.356E-01	1.234E+00	1.105E-01	0.073
		333.37		-9.147E-03	2.339E-01	2.230E-01	2.049E-02	-0.041
		388.16	*	2.154E-02	3.065E-02	5.157E-02	4.648E-03	0.418
CF-251		177.52	*	1.598E-02	1.102E-01	1.771E-01	1.463E-02	0.090
		227.38		3.302E-02	2.806E-01	4.722E-01	4.137E-02	0.070
		285.41		-4.841E-01	1.721E+00	2.836E+00	2.587E-01	-0.171

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841006       *
* Acquisition date : 18-MAR-2010 22:33:04 Detector SN#    :                 *
* Detector ID      : GAM29                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:01:59.51     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248841006           Analyst initials: MXR1            *
* Batch Number     : 962629               Sample Quantity : 1.3309E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.671E+01	4.132E+00	3.775E-01	0.000E+00
CD-109	2.422E+00	5.753E-01	1.247E+00	0.000E+00
SN-126	2.366E-01	5.620E-02	1.196E-01	0.000E+00
TL-208	5.749E-01	8.201E-02	4.596E-02	0.000E+00
BI-211	3.774E+00	4.771E-01	2.707E-01	0.000E+00
BI-212	1.934E+00	6.118E-01	5.921E-01	0.000E+00
PB-212	1.897E+00	2.044E-01	7.450E-02	0.000E+00
BI-214	1.222E+00	1.780E-01	8.514E-02	0.000E+00
PB-214	1.370E+00	1.883E-01	9.881E-02	0.000E+00
RA-224	5.083E+00	1.105E+00	7.977E-01	0.000E+00
RA-226	1.222E+00	1.780E-01	8.514E-02	0.000E+00
AC-228	1.834E+00	3.594E-01	1.626E-01	0.000E+00
RA-228	1.834E+00	3.594E-01	1.626E-01	0.000E+00
TH-228	1.897E+00	2.044E-01	7.450E-02	0.000E+00
TH-232	1.834E+00	3.594E-01	1.626E-01	0.000E+00
U-235	-1.059E-01	1.731E-01	2.827E-01	0.000E+00
NP-237	7.059E-01	2.217E-01	3.435E-01	0.000E+00
ANH-511	6.905E-02	4.919E-02	3.655E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-1.582E-01	2.401E-01	3.938E-01	0.000E+00	NOT IDENT.
NA-22	-1.786E-02	3.380E-02	5.611E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.884E+05	0.000E+00	0.000E+00	SHORT HLIF
SC-46	1.221E-02	2.961E-02	5.134E-02	0.000E+00	FAIL ABUN
V-48	-7.944E-03	5.713E-02	9.546E-02	0.000E+00	NOT IDENT.
CR-51	1.132E-01	2.898E-01	4.824E-01	0.000E+00	NOT IDENT.
MN-54	-6.910E-03	2.672E-02	4.493E-02	0.000E+00	NOT IDENT.
CO-56	-1.183E-02	2.802E-02	4.652E-02	0.000E+00	FAIL ABUN
CO-57	-1.231E-03	2.083E-02	3.598E-02	0.000E+00	NOT IDENT.

CO-58	-1.328E-02	2.866E-02	4.768E-02	0.000E+00	NOT IDENT.
FE-59	-2.430E-02	7.303E-02	1.195E-01	0.000E+00	NOT IDENT.
CO-60	-4.041E-02	2.718E-02	4.042E-02	0.000E+00	NOT IDENT.
ZN-65	9.488E-02	7.155E-02	1.133E-01	0.000E+00	NOT IDENT.
SE-75	-1.199E-02	3.887E-02	5.854E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.426E-02	5.695E-02	0.000E+00	NOT IDENT.
Y-88	7.973E-03	2.421E-02	4.181E-02	0.000E+00	NOT IDENT.
Y-91	1.908E+00	1.753E+01	2.921E+01	0.000E+00	NOT IDENT.
NB-94	8.420E-03	2.494E-02	4.370E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	3.743E-02	6.150E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.323E-01	2.109E-01	0.000E+00	NOT IDENT.
ZR-95	-1.220E-02	5.387E-02	9.146E-02	0.000E+00	NOT IDENT.
MO-99	3.936E+00	9.854E+00	1.726E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.558E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.248E-02	3.196E-02	5.227E-02	0.000E+00	FAIL ABUN
RH-106	1.510E-01	2.301E-01	4.108E-01	0.000E+00	NOT IDENT.
RU-106	1.510E-01	2.296E-01	4.108E-01	0.000E+00	NOT IDENT.
AG-108M	-1.961E-02	2.185E-02	3.569E-02	0.000E+00	NOT IDENT.
AG-110M	8.143E-03	2.589E-02	4.552E-02	0.000E+00	NOT IDENT.
SN-113	1.129E-02	3.333E-02	5.793E-02	0.000E+00	NOT IDENT.
CD-115	-2.147E+00	9.356E+00	1.556E+01	0.000E+00	NOT IDENT.
SN-117M	-4.935E-02	4.649E-02	7.685E-02	0.000E+00	NOT IDENT.
TE-123M	-1.677E-02	2.338E-02	3.907E-02	0.000E+00	NOT IDENT.
SB-124	-5.257E-03	4.819E-02	7.955E-02	0.000E+00	NOT IDENT.
SB-125	1.446E-02	6.952E-02	1.196E-01	0.000E+00	FAIL ABUN
TE-125M	2.753E+00	7.884E+00	1.381E+01	0.000E+00	NOT IDENT.
I-126	3.762E-02	1.690E-01	2.957E-01	0.000E+00	NOT IDENT.
SB-126	8.204E-02	1.148E-01	1.854E-01	0.000E+00	NOT IDENT.
SB-127	-3.896E-01	1.033E+00	1.754E+00	0.000E+00	NOT IDENT.
I-131	4.942E-02	8.861E-02	1.558E-01	0.000E+00	NOT IDENT.
TE-132	9.789E-02	6.138E-01	1.091E+00	0.000E+00	NOT IDENT.
BA-133	1.519E-02	3.538E-02	5.405E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	6.004E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.222E-02	6.939E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.466E-01	2.372E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.395E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.767E-02	8.545E-02	1.404E-01	0.000E+00	NOT IDENT.
BA-137M	-1.282E-02	2.666E-02	4.521E-02	0.000E+00	NOT IDENT.
CS-137	-1.354E-02	2.817E-02	4.776E-02	0.000E+00	NOT IDENT.
CE-139	5.981E-03	2.422E-02	4.152E-02	0.000E+00	NOT IDENT.
BA-140	-2.538E-02	2.118E-01	3.538E-01	0.000E+00	NOT IDENT.
LA-140	9.013E-02	6.518E-02	1.110E-01	0.000E+00	FAIL ABUN
CE-141	6.161E-02	5.199E-02	9.133E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.998E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	2.673E-02	1.828E-01	2.764E-01	0.000E+00	NOT IDENT.
PM-144	3.673E-03	2.524E-02	4.390E-02	0.000E+00	NOT IDENT.
PR-144	4.107E-01	1.883E+00	3.286E+00	0.000E+00	NOT IDENT.
PM-146	2.728E-02	3.255E-02	5.701E-02	0.000E+00	NOT IDENT.
ND-147	2.064E-01	4.327E-01	7.426E-01	0.000E+00	FAIL ABUN
PM-149	1.838E+00	7.965E+01	1.394E+02	0.000E+00	NOT IDENT.
EU-152	-6.135E-02	8.987E-02	1.218E-01	0.000E+00	FAIL ABUN
GD-153	2.629E-02	7.794E-02	1.205E-01	0.000E+00	NOT IDENT.
EU-154	-5.301E-02	9.569E-02	1.585E-01	0.000E+00	NOT IDENT.
EU-155	3.752E-02	8.405E-02	1.479E-01	0.000E+00	FAIL ABUN
TB-160	5.634E-02	1.028E-01	1.797E-01	0.000E+00	FAIL ABUN
HO-166M	1.992E-02	4.463E-02	7.854E-02	0.000E+00	NOT IDENT.
TA-182	4.567E-02	1.691E-01	2.835E-01	0.000E+00	FAIL ABUN
IR-192	2.077E-03	2.490E-02	4.343E-02	0.000E+00	FAIL ABUN
HG-203	4.213E-02	3.508E-02	5.570E-02	0.000E+00	NOT IDENT.
BI-207	-2.828E-02	4.286E-02	6.667E-02	0.000E+00	FAIL ABUN
PB-210	1.217E-01	2.946E+00	5.071E+00	0.000E+00	NOT IDENT.
PB-211	3.608E-01	6.155E-01	9.070E-01	0.000E+00	NOT IDENT.
RN-219	-3.390E-02	3.059E-01	5.077E-01	0.000E+00	FAIL ABUN
RA-223	1.596E-01	5.507E-01	8.402E-01	0.000E+00	FAIL ABUN
AC-227	4.489E-02	1.948E-01	3.450E-01	0.000E+00	FAIL ABUN
TH-227	4.489E-02	1.949E-01	3.450E-01	0.000E+00	FAIL ABUN
TH-229	-6.423E-01	4.740E-01	6.982E-01	0.000E+00	FAIL ABUN
PA-231	-1.196E-01	1.225E+00	1.941E+00	0.000E+00	NOT IDENT.
TH-231	1.596E-01	5.507E-01	8.402E-01	0.000E+00	FAIL ABUN
PA-233	-2.191E-02	4.688E-02	8.017E-02	0.000E+00	FAIL ABUN
PA-234	-1.444E-01	2.366E-01	3.828E-01	0.000E+00	NOT IDENT.
PA-234M	4.803E+00	3.717E+00	6.419E+00	0.000E+00	FAIL ABUN
TH-234	6.891E-01	1.152E+00	2.003E+00	0.000E+00	FAIL ABUN
U-238	6.891E-01	1.152E+00	2.003E+00	0.000E+00	FAIL ABUN
NP-239	-7.833E-02	3.322E-01	5.723E-01	0.000E+00	FAIL ABUN
AM-241	-1.279E-01	1.281E-01	2.231E-01	0.000E+00	NOT IDENT.
CM-247	-1.657E-03	2.885E-02	4.647E-02	0.000E+00	FAIL ABUN
CF-249	2.154E-02	3.004E-02	5.288E-02	0.000E+00	NOT IDENT.

CF-251	1.598E-02	1.080E-01	1.840E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 02:35:30.82

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841006.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 22:33:04
Sample ID         : G248841006           Sample quantity  : 1.33090E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:01:59.51  0.8%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	3358	10.66*	1.210E+00	3.671E+01	3.671E+01	11.49
CD-109	88.03	365	3.70*	5.875E+00	2.366E+00	2.422E+00	24.24
SN-126	64.28	------	9.60	3.540E+00	------ Line Not Found		------
	86.94	365	8.90	5.875E+00	9.835E-01	9.835E-01	47.16
	87.57	365	37.00*	5.875E+00	2.366E-01	2.366E-01	24.24
TL-208	277.37	107	6.60	4.523E+00	5.055E-01	5.055E-01	76.51
	583.19	917	85.00*	2.646E+00	5.749E-01	5.749E-01	14.56
	860.56	122	12.50	1.903E+00	7.256E-01	7.256E-01	35.66
BI-211	72.87	------	1.23	4.632E+00	------ Line Not Found		------
	351.06	1330	12.92*	3.847E+00	3.774E+00	3.774E+00	12.90
BI-212	727.33	202	6.67*	2.203E+00	1.934E+00	1.934E+00	32.28
	785.37	------	1.10	2.062E+00	------ Line Not Found		------
	1620.50	34	1.47	1.130E+00	2.863E+00	2.863E+00	59.25
PB-212	74.82	953	10.28	4.830E+00	2.706E+00	2.706E+00	22.15
	77.11	1421	17.10	5.080E+00	2.307E+00	2.307E+00	12.86
	238.63	2927	43.60*	4.991E+00	1.897E+00	1.897E+00	11.00
	300.09	260	3.30	4.294E+00	2.589E+00	2.589E+00	34.71
BI-214	609.32	1007	45.49*	2.555E+00	1.222E+00	1.222E+00	14.87
	1120.29	238	14.92	1.503E+00	1.498E+00	1.498E+00	27.72
	1764.49	186	15.30	1.081E+00	1.586E+00	1.586E+00	22.48
PB-214	74.82	953	5.80	4.830E+00	4.797E+00	4.797E+00	21.42
	77.11	1421	9.70	5.080E+00	4.068E+00	4.068E+00	15.28
	242.00	732	7.25	4.951E+00	2.875E+00	2.875E+00	22.93
	295.22	855	18.42	4.339E+00	1.509E+00	1.509E+00	14.62
	351.93	1330	35.60*	3.847E+00	1.370E+00	1.370E+00	14.03
RA-224	240.99	732	4.10*	4.951E+00	5.083E+00	5.083E+00	22.18
RA-226	609.32	1007	45.49*	2.555E+00	1.222E+00	1.222E+00	14.87
	1120.29	238	14.92	1.503E+00	1.498E+00	1.498E+00	27.72
	1764.49	186	15.30	1.081E+00	1.586E+00	1.586E+00	22.48
AC-228	338.32	581	11.27	3.954E+00	1.838E+00	1.838E+00	45.24
	911.20	606	25.80*	1.808E+00	1.834E+00	1.834E+00	20.00
	968.97	298	15.80	1.711E+00	1.556E+00	1.556E+00	34.03

Sample ID : G248841006 Acquisition date : 18-MAR-2010 22:33:04

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	581	11.27	3.954E+00	1.838E+00	1.838E+00	45.24
	911.20	606	25.80*	1.808E+00	1.834E+00	1.834E+00	20.00
	968.97	298	15.80	1.711E+00	1.556E+00	1.556E+00	34.03
TH-228	74.82	953	10.28	4.830E+00	2.706E+00	2.706E+00	19.93
	77.11	1421	17.10	5.080E+00	2.307E+00	2.307E+00	12.86
	238.63	2927	43.60*	4.991E+00	1.897E+00	1.897E+00	11.00
	300.09	260	3.30	4.294E+00	2.589E+00	2.589E+00	69.58
TH-232	338.32	581	11.27	3.954E+00	1.838E+00	1.838E+00	19.50
	911.20	606	25.80*	1.808E+00	1.834E+00	1.834E+00	20.00
	968.97	298	15.80	1.711E+00	1.556E+00	1.556E+00	34.03
U-235	89.96	206	3.47	6.034E+00	1.387E+00	1.387E+00	54.17
	93.35	388	5.60	6.183E+00	1.582E+00	1.582E+00	43.91
	143.76	------	10.96*	6.480E+00	------ Line Not Found		------
	163.33	------	5.08	6.173E+00	------ Line Not Found		------
	185.72	373	57.20	5.789E+00	1.588E-01	1.588E-01	38.29
	205.31	------	5.01	5.473E+00	------ Line Not Found		------
NP-237	86.48	365	12.40*	5.875E+00	7.059E-01	7.059E-01	32.05
	95.86	------	2.68	6.306E+00	------ Line Not Found		------
ANH-511	511.00	144	100.00*	2.933E+00	6.905E-02	6.905E-02	72.70

Flag: "*" = Keyline

Sample ID : G248841006 Acquisition date : 18-MAR-2010 22:33:04

Total number of lines in spectrum	42	
Number of unidentified lines	10	
Number of lines tentatively identified by NID	32	76.19%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.671E+01	3.671E+01	0.422E+01	11.49	
CD-109	461.40D	1.02	2.366E+00	2.422E+00	0.587E+00	24.24	
SN-126	2.30E+05Y	1.00	2.366E-01	2.366E-01	0.573E-01	24.24	
TL-208	1.41E+10Y	1.00	5.749E-01	5.749E-01	0.837E-01	14.56	
BI-211	7.04E+08Y	1.00	3.774E+00	3.774E+00	0.487E+00	12.90	
BI-212	1.41E+10Y	1.00	1.934E+00	1.934E+00	0.624E+00	32.28	
PB-212	1.41E+10Y	1.00	1.897E+00	1.897E+00	0.209E+00	11.00	
BI-214	1600.00Y	1.00	1.222E+00	1.222E+00	0.182E+00	14.87	
PB-214	1600.00Y	1.00	1.370E+00	1.370E+00	0.192E+00	14.03	
RA-224	1.41E+10Y	1.00	5.083E+00	5.083E+00	1.128E+00	22.18	
RA-226	1600.00Y	1.00	1.222E+00	1.222E+00	0.182E+00	14.87	
AC-228	1.41E+10Y	1.00	1.834E+00	1.834E+00	0.367E+00	20.00	
RA-228	1.41E+10Y	1.00	1.834E+00	1.834E+00	0.367E+00	20.00	
TH-228	1.41E+10Y	1.00	1.897E+00	1.897E+00	0.209E+00	11.00	
TH-232	1.41E+10Y	1.00	1.834E+00	1.834E+00	0.367E+00	20.00	
U-235	7.04E+08Y	1.00	1.588E-01	1.588E-01	0.608E-01	38.29	K
NP-237	2.14E+06Y	1.00	7.059E-01	7.059E-01	2.263E-01	32.05	
ANH-511	1.00E+09Y	1.00	6.905E-02	6.905E-02	5.020E-02	72.70	
		Total Activity :	6.472E+01	6.477E+01			
		Grand Total Activity :	6.472E+01	6.477E+01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248841006 Acquisition date : 18-MAR-2010 22:33:04

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.01	174	957	1.07	258.10	254	10	1.21E-02	68.3	6.64E+00	
0	209.19	243	697	1.17	418.27	413	10	1.69E-02	42.6	5.41E+00	
0	270.00	296	675	1.79	539.77	534	14	2.06E-02	38.9	4.61E+00	T
0	327.89	209	530	1.56	655.43	649	14	1.45E-02	48.6	4.04E+00	T
0	409.05	83	354	1.19	817.61	813	12	5.76E-03	93.3	3.46E+00	
0	462.82	205	238	1.35	925.06	920	12	1.43E-02	33.2	3.16E+00	T
0	767.57	105	155	2.41	1534.24	1529	11	7.32E-03	49.6	2.10E+00	T
0	795.32	95	172	1.48	1589.73	1582	13	6.58E-03	60.7	2.04E+00	T
0	934.58	92	182	0.95	1868.21	1860	16	6.36E-03	69.4	1.77E+00	
0	964.84	85	138	1.69	1928.72	1924	9	5.93E-03	54.0	1.72E+00	T
0	1237.99	75	210	1.40	2475.11	2467	15	5.23E-03	88.8	1.38E+00	T
0	1378.26	68	94	1.05	2755.79	2745	17	4.75E-03	69.1	1.26E+00	
0	1408.53	37	53	1.78	2816.36	2812	11	2.57E-03	83.8	1.24E+00	T
0	1508.98	54	32	4.24	3017.40	3008	21	3.72E-03	59.2	1.18E+00	
1	1588.00	74	17	2.53	3175.57	3170	24	5.13E-03	34.1	1.14E+00	
0	1632.70	21	32	1.16	3265.05	3255	13	1.44E-03	****	1.13E+00	
0	1639.27	17	27	1.55	3278.19	3269	12	1.20E-03	****	1.12E+00	
0	1729.85	40	19	1.63	3459.54	3455	11	2.79E-03	58.3	1.09E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 02:35:35.54

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841006.CNF;1  *
* Acquisition date : 18-MAR-2010 22:33:04  Detector SN#    :                *
* Detector ID      : GAM29                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 04:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 04:01:59.51         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248841006            Analyst initials: MXR1           *
* Batch Number     : 962629                Sample Quantity : 1.33090E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.671E+01	4.216E+00	3.769E-01	4.099E-02	97.398
CD-109	2.422E+00	5.870E-01	1.186E+00	1.120E-01	2.042
SN-126	2.366E-01	5.735E-02	1.137E-01	1.069E-02	2.081
TL-208	5.749E-01	8.368E-02	4.514E-02	4.230E-03	12.736
BI-211	3.774E+00	4.868E-01	2.636E-01	2.524E-02	14.318
BI-212	1.934E+00	6.243E-01	5.838E-01	7.627E-02	3.313
PB-212	1.897E+00	2.086E-01	7.205E-02	7.185E-03	26.324
BI-214	1.222E+00	1.816E-01	8.368E-02	8.452E-03	14.597
PB-214	1.370E+00	1.921E-01	9.620E-02	1.063E-02	14.237
RA-224	5.083E+00	1.128E+00	7.716E-01	6.846E-02	6.588
RA-226	1.222E+00	1.816E-01	8.368E-02	8.452E-03	14.597
AC-228	1.834E+00	3.667E-01	1.610E-01	2.453E-02	11.390
RA-228	1.834E+00	3.667E-01	1.610E-01	2.453E-02	11.390
TH-228	1.897E+00	2.086E-01	7.205E-02	7.185E-03	26.324
TH-232	1.834E+00	3.667E-01	1.610E-01	2.453E-02	11.390
U-235	1.588E-01	6.081E-02	2.711E-01	4.581E-02	0.586
NP-237	7.059E-01	2.263E-01	3.266E-01	7.491E-02	2.161
ANH-511	6.905E-02	5.020E-02	3.582E-02	3.242E-03	1.928

Sample ID : G248841006 Acquisition date : 18-MAR-2010 22:33:04

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.582E-01		2.450E-01	3.854E-01	3.752E-02	-0.410
NA-22	-1.786E-02		3.449E-02	5.588E-02	5.578E-03	-0.320
NA-24	-6.220E-01		4.533E-01	Half-Life too short		
SC-46	1.221E-02		3.021E-02	5.080E-02	6.633E-03	0.240
V-48	-7.944E-03		5.830E-02	9.463E-02	1.148E-02	-0.084
CR-51	1.132E-01		2.957E-01	4.689E-01	4.508E-02	0.241
MN-54	-6.910E-03		2.727E-02	4.441E-02	5.234E-03	-0.156
CO-56	-1.183E-02		2.859E-02	4.599E-02	5.546E-03	-0.257
CO-57	-1.231E-03		2.126E-02	3.441E-02	3.109E-03	-0.036
CO-58	-1.328E-02		2.924E-02	4.710E-02	5.304E-03	-0.282
FE-59	-2.430E-02		7.452E-02	1.187E-01	1.260E-02	-0.205
CO-60	-4.041E-02		2.773E-02	4.029E-02	4.419E-03	-1.003
ZN-65	9.488E-02		7.301E-02	1.126E-01	1.089E-02	0.843
SE-75	-1.199E-02		3.967E-02	5.671E-02	5.142E-03	-0.211
SR-85	1.144E-01		3.496E-02	5.581E-02	5.049E-03	2.049
Y-88	7.973E-03		2.471E-02	4.191E-02	3.584E-03	0.190
Y-91	1.908E+00		1.788E+01	2.906E+01	2.563E+00	0.066
NB-94	8.420E-03		2.545E-02	4.306E-02	3.868E-03	0.196
NB-95	7.886E-02		3.819E-02	6.070E-02	6.234E-03	1.299
NB-95M	5.892E-01		1.350E-01	2.039E-01	2.053E-02	2.890
ZR-95	-1.220E-02		5.496E-02	9.024E-02	9.801E-03	-0.135
MO-99	3.936E+00		1.006E+01	1.702E+01	2.789E+00	0.231
TC-99M	-4.210E+10		4.367E+10	Half-Life too short		
RU-103	1.248E-02		3.262E-02	5.119E-02	7.297E-03	0.244
RH-106	1.510E-01		2.348E-01	4.039E-01	5.329E-02	0.374
RU-106	1.510E-01		2.343E-01	4.039E-01	3.443E-02	0.374
AG-108M	-1.961E-02		2.230E-02	3.487E-02	3.262E-03	-0.563
AG-110M	8.143E-03		2.642E-02	4.480E-02	3.809E-03	0.182
SN-113	1.129E-02		3.401E-02	5.650E-02	5.225E-03	0.200
CD-115	-2.147E+00		9.547E+00	1.526E+01	1.375E+00	-0.141
SN-117M	-4.935E-02		4.744E-02	7.380E-02	6.100E-03	-0.669
TE-123M	-1.677E-02		2.386E-02	3.753E-02	3.120E-03	-0.447
SB-124	-5.257E-03		4.917E-02	7.964E-02	7.886E-03	-0.066
SB-125	1.446E-02		7.094E-02	1.169E-01	1.079E-02	0.124
TE-125M	2.753E+00		8.045E+00	1.319E+01	1.407E+00	0.209
I-126	3.762E-02		1.725E-01	2.911E-01	2.412E-02	0.129
SB-126	8.204E-02		1.172E-01	1.828E-01	1.708E-02	0.449
SB-127	-3.896E-01		1.054E+00	1.727E+00	1.987E-01	-0.226
I-131	4.942E-02		9.041E-02	1.517E-01	1.451E-02	0.326
TE-132	9.789E-02		6.264E-01	1.055E+00	1.684E-01	0.093
BA-133	1.519E-02		3.610E-02	5.263E-02	7.006E-03	0.289
I-133	2.685E-03		3.063E-03	Half-Life too short		
CS-134	8.638E-02	+	5.329E-02	6.853E-02	7.515E-03	1.260
CS-135	3.284E-01		1.496E-01	2.299E-01	2.376E-02	1.429
I-135	-4.113E+09		7.117E+09	Half-Life too short		
CS-136	-2.767E-02		8.719E-02	1.393E-01	1.577E-02	-0.199
BA-137M	-1.282E-02		2.721E-02	4.450E-02	3.648E-03	-0.288
CS-137	-1.354E-02		2.874E-02	4.701E-02	3.862E-03	-0.288

Sample ID : G248841006 Acquisition date : 18-MAR-2010 22:33:04

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-139	5.981E-03		2.471E-02	3.991E-02	3.252E-03	0.150
BA-140	-2.538E-02		2.162E-01	3.470E-01	1.180E-01	-0.073
LA-140	9.013E-02		6.651E-02	1.110E-01	1.123E-02	0.812
CE-141	6.161E-02		5.305E-02	8.759E-02	7.572E-03	0.703
CE-143	1.127E-03		1.530E-04	Half-Life too short		
CE-144	2.673E-02		1.865E-01	2.647E-01	4.062E-02	0.101
PM-144	3.673E-03		2.575E-02	4.325E-02	3.834E-03	0.085
PR-144	4.107E-01		1.922E+00	3.237E+00	2.869E-01	0.127
PM-146	2.728E-02		3.321E-02	5.575E-02	6.128E-03	0.489
ND-147	2.064E-01		4.416E-01	7.281E-01	1.105E-01	0.283
PM-149	1.838E+00		8.128E+01	1.353E+02	2.141E+01	0.014
EU-152	-6.135E-02		9.171E-02	1.185E-01	1.144E-02	-0.518
GD-153	2.629E-02		7.953E-02	1.148E-01	1.031E-02	0.229
EU-154	-5.301E-02		9.764E-02	1.578E-01	1.962E-02	-0.336
EU-155	3.752E-02		8.577E-02	1.410E-01	1.263E-02	0.266
TB-160	5.634E-02		1.049E-01	1.777E-01	2.279E-02	0.317
HO-166M	1.992E-02		4.554E-02	7.741E-02	7.091E-03	0.257
TA-182	4.567E-02		1.725E-01	2.821E-01	2.565E-02	0.162
IR-192	2.077E-03		2.541E-02	4.221E-02	3.886E-03	0.049
HG-203	4.213E-02		3.580E-02	5.401E-02	5.027E-03	0.780
BI-207	-2.828E-02		4.373E-02	6.618E-02	7.106E-03	-0.427
PB-210	1.217E-01		3.006E+00	4.773E+00	4.554E-01	0.025
PB-211	3.608E-01		6.280E-01	8.851E-01	4.290E-01	0.408
RN-219	-3.390E-02		3.122E-01	4.954E-01	7.487E-02	-0.068
RA-223	1.596E-01		5.619E-01	8.168E-01	1.440E-01	0.195
AC-227	4.489E-02		1.988E-01	3.341E-01	4.112E-02	0.134
TH-227	4.489E-02		1.988E-01	3.341E-01	4.622E-02	0.134
TH-229	-6.423E-01		4.837E-01	6.728E-01	5.674E-02	-0.955
PA-231	-1.196E-01		1.250E+00	1.883E+00	2.802E-01	-0.064
TH-231	1.596E-01		5.619E-01	8.168E-01	1.440E-01	0.195
PA-233	-2.191E-02		4.783E-02	7.788E-02	7.334E-03	-0.281
PA-234	-1.444E-01		2.415E-01	3.792E-01	7.940E-02	-0.381
PA-234M	4.803E+00		3.793E+00	6.365E+00	8.188E-01	0.755
TH-234	6.891E-01		1.176E+00	1.895E+00	3.423E-01	0.364
U-238	6.891E-01		1.176E+00	1.895E+00	3.423E-01	0.364
NP-239	-7.833E-02		3.390E-01	5.469E-01	4.884E-02	-0.143
AM-241	-1.279E-01		1.307E-01	2.108E-01	1.819E-02	-0.607
CM-247	-1.657E-03		2.944E-02	4.534E-02	4.093E-03	-0.037
CF-249	2.154E-02		3.065E-02	5.157E-02	4.648E-03	0.418
CF-251	1.598E-02		1.102E-01	1.771E-01	1.463E-02	0.090

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248841006            *
* Acquisition date : 18-MAR-2010 22:33:04 Detector SN#    :                 *
* Detector ID      : GAM29                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:01:59.51     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248841006           Analyst initials: MXR1            *
* Batch Number     : 962629               Sample Quantity : 1.3309E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.671E+01	4.132E+00	1.889E-01	2.108E+00
CD-109	2.422E+00	5.753E-01	6.239E-01	2.935E-01
SN-126	2.366E-01	5.620E-02	5.982E-02	2.867E-02
TL-208	5.749E-01	8.201E-02	2.299E-02	4.184E-02
BI-211	3.774E+00	4.771E-01	1.355E-01	2.434E-01
BI-212	1.934E+00	6.118E-01	2.962E-01	3.121E-01
PB-212	1.897E+00	2.044E-01	3.727E-02	1.043E-01
BI-214	1.222E+00	1.780E-01	4.259E-02	9.080E-02
PB-214	1.370E+00	1.883E-01	4.944E-02	9.607E-02
RA-224	5.083E+00	1.105E+00	3.991E-01	5.638E-01
RA-226	1.222E+00	1.780E-01	4.259E-02	9.080E-02
AC-228	1.834E+00	3.594E-01	8.137E-02	1.834E-01
RA-228	1.834E+00	3.594E-01	8.137E-02	1.834E-01
TH-228	1.897E+00	2.044E-01	3.727E-02	1.043E-01
TH-232	1.834E+00	3.594E-01	8.137E-02	1.834E-01
U-235	-1.059E-01	1.731E-01	1.414E-01	8.830E-02
NP-237	7.059E-01	2.217E-01	1.719E-01	1.131E-01
ANH-511	6.905E-02	4.919E-02	1.829E-02	2.510E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.582E-01	2.401E-01	1.970E-01	1.225E-01	NOT IDENT.
NA-22	-1.786E-02	3.380E-02	2.807E-02	1.724E-02	NOT IDENT.
NA-24	-6.220E+05	8.884E+05	0.000E+00	4.533E+05	SHORT HLIF
SC-46	1.221E-02	2.961E-02	2.568E-02	1.511E-02	FAIL ABUN
V-48	-7.944E-03	5.713E-02	4.776E-02	2.915E-02	NOT IDENT.
CR-51	1.132E-01	2.898E-01	2.414E-01	1.479E-01	NOT IDENT.
MN-54	-6.910E-03	2.672E-02	2.248E-02	1.363E-02	NOT IDENT.
CO-56	-1.183E-02	2.802E-02	2.327E-02	1.430E-02	FAIL ABUN
CO-57	-1.231E-03	2.083E-02	1.800E-02	1.063E-02	NOT IDENT.

CO-58	-1.328E-02	2.866E-02	2.386E-02	1.462E-02	NOT IDENT.
FE-59	-2.430E-02	7.303E-02	5.979E-02	3.726E-02	NOT IDENT.
CO-60	-4.041E-02	2.718E-02	2.022E-02	1.387E-02	NOT IDENT.
ZN-65	9.488E-02	7.155E-02	5.668E-02	3.651E-02	NOT IDENT.
SE-75	-1.199E-02	3.887E-02	2.929E-02	1.983E-02	NOT IDENT.
SR-85	1.144E-01	3.426E-02	2.849E-02	1.748E-02	NOT IDENT.
Y-88	7.973E-03	2.421E-02	2.092E-02	1.235E-02	NOT IDENT.
Y-91	1.908E+00	1.753E+01	1.461E+01	8.942E+00	NOT IDENT.
NB-94	8.420E-03	2.494E-02	2.186E-02	1.272E-02	NOT IDENT.
NB-95	7.886E-02	3.743E-02	3.077E-02	1.910E-02	NOT IDENT.
NB-95M	5.892E-01	1.323E-01	1.055E-01	6.748E-02	NOT IDENT.
ZR-95	-1.220E-02	5.387E-02	4.576E-02	2.748E-02	NOT IDENT.
MO-99	3.936E+00	9.854E+00	8.633E+00	5.028E+00	NOT IDENT.
TC-99M	-4.210E+16	8.558E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.248E-02	3.196E-02	2.615E-02	1.631E-02	FAIL ABUN
RH-106	1.510E-01	2.301E-01	2.055E-01	1.174E-01	NOT IDENT.
RU-106	1.510E-01	2.296E-01	2.055E-01	1.171E-01	NOT IDENT.
AG-108M	-1.961E-02	2.185E-02	1.785E-02	1.115E-02	NOT IDENT.
AG-110M	8.143E-03	2.589E-02	2.277E-02	1.321E-02	NOT IDENT.
SN-113	1.129E-02	3.333E-02	2.898E-02	1.700E-02	NOT IDENT.
CD-115	-2.147E+00	9.356E+00	7.786E+00	4.773E+00	NOT IDENT.
SN-117M	-4.935E-02	4.649E-02	3.845E-02	2.372E-02	NOT IDENT.
TE-123M	-1.677E-02	2.338E-02	1.955E-02	1.193E-02	NOT IDENT.
SB-124	-5.257E-03	4.819E-02	3.980E-02	2.459E-02	NOT IDENT.
SB-125	1.446E-02	6.952E-02	5.985E-02	3.547E-02	FAIL ABUN
TE-125M	2.753E+00	7.884E+00	6.911E+00	4.023E+00	NOT IDENT.
I-126	3.762E-02	1.690E-01	1.480E-01	8.623E-02	NOT IDENT.
SB-126	8.204E-02	1.148E-01	9.277E-02	5.858E-02	NOT IDENT.
SB-127	-3.896E-01	1.033E+00	8.774E-01	5.272E-01	NOT IDENT.
I-131	4.942E-02	8.861E-02	7.793E-02	4.521E-02	NOT IDENT.
TE-132	9.789E-02	6.138E-01	5.460E-01	3.132E-01	NOT IDENT.
BA-133	1.519E-02	3.538E-02	2.704E-02	1.805E-02	FAIL ABUN
I-133	2.685E+03	6.004E+03	0.000E+00	3.063E+03	SHORT HLIF
CS-134	8.638E-02	5.222E-02	3.472E-02	2.664E-02	FAIL ABUN
CS-135	3.284E-01	1.466E-01	1.187E-01	7.481E-02	NOT IDENT.
I-135	-4.113E+15	1.395E+16	0.000E+00	7.117E+15	SHORT HLIF
CS-136	-2.767E-02	8.545E-02	7.023E-02	4.360E-02	NOT IDENT.
BA-137M	-1.282E-02	2.666E-02	2.262E-02	1.360E-02	NOT IDENT.
CS-137	-1.354E-02	2.817E-02	2.389E-02	1.437E-02	NOT IDENT.
CE-139	5.981E-03	2.422E-02	2.077E-02	1.236E-02	NOT IDENT.
BA-140	-2.538E-02	2.118E-01	1.770E-01	1.081E-01	NOT IDENT.
LA-140	9.013E-02	6.518E-02	5.553E-02	3.325E-02	FAIL ABUN
CE-141	6.161E-02	5.199E-02	4.569E-02	2.652E-02	NOT IDENT.
CE-143	1.127E+03	2.998E+02	0.000E+00	1.530E+02	SHORT HLIF
CE-144	2.673E-02	1.828E-01	1.383E-01	9.327E-02	NOT IDENT.
PM-144	3.673E-03	2.524E-02	2.196E-02	1.288E-02	NOT IDENT.
PR-144	4.107E-01	1.883E+00	1.644E+00	9.608E-01	NOT IDENT.
PM-146	2.728E-02	3.255E-02	2.852E-02	1.660E-02	NOT IDENT.
ND-147	2.064E-01	4.327E-01	3.715E-01	2.208E-01	FAIL ABUN
PM-149	1.838E+00	7.965E+01	6.975E+01	4.064E+01	NOT IDENT.
EU-152	-6.135E-02	8.987E-02	6.092E-02	4.585E-02	FAIL ABUN
GD-153	2.629E-02	7.794E-02	6.029E-02	3.976E-02	NOT IDENT.
EU-154	-5.301E-02	9.569E-02	7.928E-02	4.882E-02	NOT IDENT.
EU-155	3.752E-02	8.405E-02	7.397E-02	4.288E-02	FAIL ABUN
TB-160	5.634E-02	1.028E-01	8.989E-02	5.246E-02	FAIL ABUN
HO-166M	1.992E-02	4.463E-02	3.929E-02	2.277E-02	NOT IDENT.
TA-182	4.567E-02	1.691E-01	1.418E-01	8.625E-02	FAIL ABUN
IR-192	2.077E-03	2.490E-02	2.173E-02	1.271E-02	FAIL ABUN
HG-203	4.213E-02	3.508E-02	2.787E-02	1.790E-02	NOT IDENT.
BI-207	-2.828E-02	4.286E-02	3.336E-02	2.187E-02	FAIL ABUN
PB-210	1.217E-01	2.946E+00	2.537E+00	1.503E+00	NOT IDENT.
PB-211	3.608E-01	6.155E-01	4.538E-01	3.140E-01	NOT IDENT.
RN-219	-3.390E-02	3.059E-01	2.540E-01	1.561E-01	FAIL ABUN
RA-223	1.596E-01	5.507E-01	4.204E-01	2.810E-01	FAIL ABUN
AC-227	4.489E-02	1.948E-01	1.726E-01	9.940E-02	FAIL ABUN
TH-227	4.489E-02	1.949E-01	1.726E-01	9.941E-02	FAIL ABUN
TH-229	-6.423E-01	4.740E-01	3.493E-01	2.418E-01	FAIL ABUN
PA-231	-1.196E-01	1.225E+00	9.711E-01	6.248E-01	NOT IDENT.
TH-231	1.596E-01	5.507E-01	4.204E-01	2.810E-01	FAIL ABUN
PA-233	-2.191E-02	4.688E-02	4.011E-02	2.392E-02	FAIL ABUN
PA-234	-1.444E-01	2.366E-01	1.915E-01	1.207E-01	NOT IDENT.
PA-234M	4.803E+00	3.717E+00	3.211E+00	1.896E+00	FAIL ABUN
TH-234	6.891E-01	1.152E+00	1.002E+00	5.878E-01	FAIL ABUN
U-238	6.891E-01	1.152E+00	1.002E+00	5.878E-01	FAIL ABUN
NP-239	-7.833E-02	3.322E-01	2.863E-01	1.695E-01	FAIL ABUN
AM-241	-1.279E-01	1.281E-01	1.116E-01	6.537E-02	NOT IDENT.
CM-247	-1.657E-03	2.885E-02	2.325E-02	1.472E-02	FAIL ABUN
CF-249	2.154E-02	3.004E-02	2.646E-02	1.532E-02	NOT IDENT.

CF-251	1.598E-02	1.080E-01	9.207E-02	5.511E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	886.6444
49.72	1042.0786
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59.54	1177.3528
63.29	1150.4973
63.29	1150.4973
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81.07	1432.0170
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83.79	1229.3489
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88.47	1502.3250
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92.59	901.5717
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94.87	956.5701
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228.18	622.8286
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235.96	634.3651
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238.63	571.4543
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256.23	517.8116
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269.46	464.5467
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295.96	459.9675
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299.98	461.0024
299.98	461.0024
300.09	461.0258
300.09	461.0258
300.13	461.0375
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304.50	398.7970
304.85	398.8727
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323.87	391.6152
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334.37	397.0404
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338.28	391.9474
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338.32	391.9522
338.32	391.9522
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340.55	352.4063
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351.06	400.4269
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388.63	305.0713
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404.85	282.3391
410.95	300.0703
414.70	286.9892
423.72	317.1256
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427.87	299.2572
433.94	295.9383
453.88	270.4848
463.37	251.7899
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473.00	254.8775
476.78	266.7788
477.60	268.9622
487.02	260.5302
492.35	264.2425
497.08	240.4771
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514.00	215.8816
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537.26	250.6416
546.56	0.0000
563.25	207.6281
569.33	222.1718
569.50	227.6060
569.70	227.6213
583.19	239.6099
600.60	215.0461
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604.72	223.1206
609.32	219.8096
609.32	219.8096
610.33	219.8877
614.28	191.8717
618.01	228.1801
621.93	196.8372
621.93	196.8372
633.25	180.0433
635.95	201.4611
636.99	203.3765
645.85	190.9917
657.76	206.6300
661.66	231.1175
661.66	231.1175
664.57	0.0000
666.33	218.3990
666.50	202.5457
677.62	205.1387

685.70	202.8428
695.00	196.8432
696.49	206.3551
696.51	203.5283
697.00	225.2392
702.65	207.6957
706.68	220.2388
711.68	188.3925
720.70	165.1782
721.93	0.0000
722.78	187.2641
722.91	187.2721
723.31	192.1821
724.19	197.1188
727.33	171.2146
733.00	182.9414
735.93	173.9465
739.50	170.8862
747.24	194.2443
752.31	175.3676
753.82	175.4457
756.73	189.9877
763.94	166.4887
765.81	171.5282
766.42	191.3523
777.92	219.1581
778.90	205.6981
783.70	165.3675
785.37	172.0407
795.86	181.3258
801.95	189.5529
810.29	168.5617
810.76	167.6083
815.77	149.3020
818.51	142.5781
832.01	171.5357
834.85	172.6484
836.80	0.0000
846.77	152.5403
856.80	140.4070
860.56	151.1323
871.09	152.5462
873.19	136.7731
875.33	0.0000
879.36	136.0022
880.51	138.0272
883.24	158.9941
884.68	160.0501
889.28	144.3156
898.04	156.6167
911.20	131.1226
911.20	131.1226
911.20	131.1226
926.50	136.0843
937.49	120.9155
944.13	151.9452
946.00	168.6309
949.00	128.3358
962.29	185.9662
964.08	166.9219
966.15	200.9326
968.97	201.0696
968.97	201.0696
968.97	201.0696
983.53	158.9802
996.26	169.6914
1001.03	123.8310
1004.73	149.5496
1037.84	168.2662
1038.76	0.0000
1048.07	154.1777
1050.41	145.9800
1050.41	145.9800
1063.66	157.8447
1085.87	150.2930
1099.45	162.2656
1112.07	161.9699
1115.54	108.0636

1120.29	201.9297
1120.29	201.9297
1120.55	201.9453
1121.30	187.5497
1131.51	0.0000
1173.23	195.7396
1177.93	173.5722
1189.05	168.6465
1204.77	178.8373
1221.41	206.3203
1231.02	215.9554
1235.36	188.4325
1238.28	171.9099
1260.41	0.0000
1271.85	144.2313
1274.44	145.2380
1274.54	145.2380
1291.59	120.5101
1298.22	0.0000
1312.11	104.1128
1332.49	99.8149
1365.19	80.5413
1368.63	0.0000
1384.29	79.8809
1408.01	69.7283
1457.56	0.0000
1460.82	54.9722
1489.16	64.9436
1505.03	32.3199
1596.21	32.8302
1620.50	34.1647
1678.03	0.0000
1690.97	30.0858
1764.49	30.4374
1764.49	30.4374
1770.23	39.0962
1771.35	30.2159
1791.20	0.0000
1836.06	31.7990

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248841006

Total Uranium Activity	2.0010E+00	ug/g
Total Uranium Counting Unc.	3.4281E+00	ug/g
Total Uranium Tpu	1.7490E-06	ug/g
Total Uranium Mda	2.9818E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 962629                    SAMPLE ID  : G248841006        *
*   ANALYST      : MXR1                      DETECTOR   : GAM29             *
*   SAMPLE DATE  :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 04:00:00.00 *
*   ANALYSIS DATE: 18-MAR-2010 22:33:04.26   SAMPLE ALQT:  133.090 GRAM     *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.071E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.343E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 4.533E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 2.231E+00
```

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 02:56:43.18

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841007.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 22:56:17
Sample ID         : G248841007           Sample quantity  : 1.18570E+02 GRAM
Detector name     : GAM05                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:03.55  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	45.86*	168	1035	1.17	92.71	88	9	1.16E-02	39.4	
2	0	62.68*	236	1385	1.42	126.33	122	10	1.64E-02	31.1	
3	4	74.33*	1303	1177	1.28	149.64	145	21	9.05E-02	5.5	2.92E+00
4	4	76.62*	2027	882	1.19	154.21	145	21	1.41E-01	3.5	
5	3	83.87	403	791	1.59	168.72	165	37	2.80E-02	12.8	3.57E+00
6	3	86.71	821	850	1.43	174.40	165	37	5.70E-02	7.4	
7	3	89.37	583	717	1.33	179.72	165	37	4.05E-02	9.3	
8	3	92.35*	794	844	1.70	185.68	165	37	5.52E-02	8.5	
9	0	104.86	188	620	1.74	210.68	207	8	1.31E-02	24.1	
10	0	128.42	112	691	1.09	257.81	254	8	7.81E-03	41.6	
11	0	185.47*	314	604	1.51	371.88	368	9	2.18E-02	16.2	
12	0	209.08	199	578	1.02	419.09	415	10	1.38E-02	23.9	
13	4	238.20*	2219	385	1.19	477.34	472	18	1.54E-01	2.7	2.15E+00
14	4	241.26	574	511	1.88	483.45	472	18	3.99E-02	10.6	
15	0	269.56	207	481	1.59	540.03	535	12	1.44E-02	22.2	
16	0	294.84*	673	456	1.23	590.58	584	12	4.67E-02	7.6	
17	0	299.56	169	289	1.37	600.02	596	9	1.17E-02	19.7	
18	0	327.84	107	386	0.73	656.56	652	10	7.42E-03	35.8	
19	0	337.79*	425	359	1.52	676.45	672	10	2.95E-02	9.9	
20	0	351.37*	1083	468	1.39	703.60	697	15	7.52E-02	5.4	
21	0	462.75*	111	198	1.24	926.29	922	10	7.69E-03	28.4	
22	0	510.54*	231	327	2.18	1021.82	1014	19	1.60E-02	22.9	
23	0	582.71*	595	218	1.58	1166.09	1161	12	4.13E-02	6.8	
24	0	608.79*	811	270	1.60	1218.22	1210	17	5.63E-02	5.9	
25	0	726.65	142	115	1.77	1453.81	1449	10	9.84E-03	16.5	
26	0	768.07	69	147	0.83	1536.59	1529	12	4.77E-03	37.6	
27	0	794.50*	41	102	0.73	1589.43	1585	9	2.82E-03	51.8	
28	0	861.34	71	148	1.65	1723.01	1716	15	4.90E-03	39.9	
29	0	910.49*	444	143	1.78	1821.23	1813	16	3.08E-02	7.8	
30	0	933.29	49	80	1.85	1866.81	1862	11	3.37E-03	38.4	
31	1	963.61	81	138	2.19	1927.40	1920	28	5.61E-03	31.3	3.90E+00
32	1	968.47	309	117	2.06	1937.11	1920	28	2.15E-02	8.8	
33	0	1119.76*	173	162	1.58	2239.41	2231	17	1.20E-02	18.8	
34	0	1460.12*	2318	57	2.16	2919.39	2910	21	1.61E-01	2.3	
35	4	1586.79	49	19	3.24	3172.41	3166	22	3.43E-03	24.4	3.54E+00
36	0	1728.84	36	11	2.13	3456.11	3451	11	2.50E-03	24.4	
37	0	1763.76	133	15	2.05	3525.85	3519	12	9.26E-03	10.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 19-MAR-2010 02:56:46

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841007.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 18-MAR-2010 22:56:17
Sample ID : G248841007 Sample quantity : 118.57 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA5 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:00:03.55 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.430E+01	2.636E+00	4.867E-01	3.027E-02	70.478
CD-109	+	88.03	*	4.572E+00	7.577E-01	7.081E-01	5.392E-02	6.456
SN-126		64.28		5.781E-01	2.499E-01	3.629E-01	5.408E-02	1.593
	+	86.94		1.857E+00	8.117E-01	2.867E-01	1.180E-01	6.477
	+	87.57	*	4.467E-01	7.402E-02	6.909E-02	5.261E-03	6.465
CS-135	+	268.22	*	4.700E-01	2.150E-01	2.034E-01	2.176E-02	2.311
EU-155	+	86.55		5.417E-01	9.002E-02	8.354E-02	6.457E-03	6.484
	+	105.31	*	1.897E-01	9.369E-02	1.304E-01	1.412E-02	1.455
TL-208		277.37		4.320E-01	3.394E-01	5.690E-01	7.405E-02	0.759
	+	583.19	*	4.900E-01	7.552E-02	5.536E-02	4.066E-03	8.851
	+	860.56		5.632E-01	4.534E-01	4.345E-01	4.408E-02	1.296
PB-210	+	46.54	*	8.233E-01	6.525E-01	6.721E-01	5.183E-02	1.225
BI-211	+	72.87		2.086E+01	2.828E+00	2.646E+00	2.083E-01	7.884
	+	351.06	*	3.769E+00	5.020E-01	2.711E-01	2.149E-02	13.901
PB-212	+	74.82		2.496E+00	4.164E-01	3.092E-01	3.861E-02	8.072
	+	77.11		2.340E+00	2.442E-01	1.867E-01	1.453E-02	12.535
	+	238.63	*	1.686E+00	2.037E-01	7.315E-02	7.919E-03	23.046
	+	300.09		2.022E+00	8.264E-01	1.043E+00	1.120E-01	1.940
BI-214	+	609.32	*	1.299E+00	1.892E-01	1.033E-01	8.716E-03	12.580
	+	1120.29		1.454E+00	5.638E-01	4.556E-01	4.377E-02	3.192
	+	1764.49		1.602E+00	3.463E-01	2.654E-01	1.534E-02	6.035
PB-214	+	74.82		4.424E+00	6.948E-01	5.480E-01	6.108E-02	8.072
	+	77.11		4.126E+00	5.488E-01	3.292E-01	3.733E-02	12.535
	+	242.00		2.647E+00	6.346E-01	4.105E-01	4.664E-02	6.449
	+	295.22		1.423E+00	2.682E-01	1.752E-01	1.943E-02	8.122
	+	351.93	*	1.368E+00	1.972E-01	9.863E-02	9.501E-03	13.870
RA-224	+	240.99	*	4.681E+00	1.089E+00	7.841E-01	7.672E-02	5.970
RA-226	+	609.32	*	1.299E+00	1.892E-01	1.033E-01	8.716E-03	12.580
	+	1120.29		1.454E+00	5.638E-01	4.556E-01	4.377E-02	3.192
	+	1764.49		1.602E+00	3.463E-01	2.654E-01	1.534E-02	6.035
AC-228	+	338.32		1.643E+00	7.560E-01	3.243E-01	1.348E-01	5.065
	+	911.20	*	1.802E+00	3.633E-01	2.035E-01	2.583E-02	8.854
	+	968.97		2.164E+00	6.544E-01	3.591E-01	8.845E-02	6.026
RA-228	+	338.32		1.643E+00	7.560E-01	3.243E-01	1.348E-01	5.065

Sample ID : G248841007 Acquisition date : 18-MAR-2010 22:56:17

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	911.20	*	1.802E+00	3.633E-01	2.035E-01	2.583E-02	8.854
	+	968.97		2.164E+00	6.544E-01	3.591E-01	8.845E-02	6.026
TH-228	+	74.82		2.496E+00	3.396E-01	3.092E-01	2.448E-02	8.072
	+	77.11		2.340E+00	2.442E-01	1.867E-01	1.453E-02	12.535
	+	238.63	*	1.686E+00	2.037E-01	7.315E-02	7.919E-03	23.046
	+	300.09		2.022E+00	1.473E+00	1.043E+00	6.387E-01	1.940
TH-229	+	85.43		1.124E+00	1.863E-01	1.728E-01	1.321E-02	6.505
	+	88.47		4.921E-01	9.894E-02	1.068E-01	8.212E-03	4.608
		193.51	*	-1.350E-01	4.560E-01	7.230E-01	7.221E-02	-0.187
		210.85		1.877E+00	8.535E-01	1.274E+00	1.270E-01	1.473
TH-232	+	338.32		1.643E+00	3.495E-01	3.243E-01	2.542E-02	5.065
	+	911.20	*	1.802E+00	3.633E-01	2.035E-01	2.583E-02	8.854
	+	968.97		2.164E+00	6.544E-01	3.591E-01	8.845E-02	6.026
TH-234	+	63.29	*	1.252E+00	8.114E-01	8.168E-01	1.482E-01	1.533
	+	92.59		3.830E+00	1.063E+00	6.137E-01	1.350E-01	6.241
U-235	+	89.96		3.404E+00	1.041E+00	7.419E-01	1.809E-01	4.587
	+	93.35		2.893E+00	8.264E-01	4.647E-01	1.072E-01	6.226
		143.76	*	1.046E-01	1.794E-01	2.838E-01	5.412E-02	0.369
		163.33		1.736E-01	3.666E-01	5.967E-01	1.120E-01	0.291
	+	185.72		1.535E-01	5.205E-02	5.609E-02	5.598E-03	2.738
		205.31		5.333E-03	4.811E-01	6.702E-01	1.262E-01	0.008
NP-237	+	86.48	*	1.333E+00	3.562E-01	2.055E-01	4.585E-02	6.485
		95.86		9.552E-01	7.402E-01	1.057E+00	2.550E-01	0.904
U-238	+	63.29	*	1.252E+00	8.114E-01	8.168E-01	1.482E-01	1.533
	+	92.59		3.830E+00	7.234E-01	6.137E-01	5.157E-02	6.241
ANH-511	+	511.00	*	1.434E-01	6.621E-02	4.291E-02	2.746E-03	3.341

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	8.352E-02	2.958E-01	4.892E-01	3.503E-02	0.171
NA-22		1274.54	*	-4.341E-02	4.227E-02	6.305E-02	3.672E-03	-0.688
NA-24		1368.63	*	-8.415E-01	4.227E-02	Half-Life too short		
SC-46		889.28	*	-1.281E-02	3.420E-02	5.510E-02	5.535E-03	-0.233
	+	1120.55		2.468E-01	9.422E-02	1.135E-01	7.807E-03	2.175
V-48		944.13		-6.409E-01	8.211E-01	1.279E+00	1.237E-01	-0.501
		983.53	*	1.681E-02	6.759E-02	1.129E-01	1.034E-02	0.149
		1312.11		-8.716E-03	7.805E-02	1.250E-01	7.245E-03	-0.070
CR-51		320.08	*	-2.642E-01	3.185E-01	5.111E-01	4.516E-02	-0.517
MN-54		834.85	*	3.249E-02	3.619E-02	6.269E-02	5.743E-03	0.518
CO-56		846.77	*	8.187E-03	3.489E-02	5.870E-02	5.489E-03	0.139
		1037.84		-1.280E-01	2.877E-01	4.570E-01	4.027E-02	-0.280
		1238.28		1.550E-01	9.640E-02	1.657E-01	1.024E-02	0.935
		1771.35		-7.081E-01	2.753E-01	3.107E-01	1.794E-02	-2.279
CO-57		122.06	*	7.467E-03	2.058E-02	3.375E-02	4.789E-03	0.221
		136.47		2.866E-02	1.723E-01	2.805E-01	3.756E-02	0.102
CO-58		810.76	*	-9.529E-03	3.656E-02	5.985E-02	5.267E-03	-0.159
FE-59		1099.45	*	-1.036E-02	9.074E-02	1.472E-01	1.191E-02	-0.070

Sample ID : G248841007 Acquisition date : 18-MAR-2010 22:56:17

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1291.59		-7.907E-02	1.250E-01	1.926E-01	1.430E-02	-0.411
CO-60		1173.23		1.761E-03	4.498E-02	7.336E-02	4.255E-03	0.024
		1332.49	*	2.375E-02	3.835E-02	6.494E-02	3.758E-03	0.366
ZN-65		1115.54	*	7.710E-02	9.659E-02	1.447E-01	1.011E-02	0.533
SE-75		121.12		-1.215E-01	1.100E-01	1.707E-01	2.667E-02	-0.712
		136.00		1.853E-02	3.302E-02	5.423E-02	7.072E-03	0.342
		264.66	*	-2.296E-03	4.155E-02	6.035E-02	5.762E-03	-0.038
		279.54		3.896E-02	9.137E-02	1.547E-01	1.482E-02	0.252
		400.66		-1.860E-02	2.196E-01	3.602E-01	3.284E-02	-0.052
SR-85		514.00	*	3.848E-02	4.085E-02	6.074E-02	3.893E-03	0.633
Y-88		898.04		-2.703E-02	3.787E-02	5.955E-02	6.089E-03	-0.454
		1836.06	*	5.692E-03	2.957E-02	4.990E-02	2.855E-03	0.114
Y-91		1204.77	*	1.252E+01	2.266E+01	3.793E+01	2.204E+00	0.330
NB-94		702.65	*	3.546E-02	3.102E-02	5.466E-02	3.911E-03	0.649
		871.09		5.947E-03	3.132E-02	5.248E-02	5.114E-03	0.113
NB-95		765.81	*	7.265E-02	4.587E-02	7.283E-02	5.891E-03	0.998
NB-95M		235.69	*	1.191E+00	1.933E-01	2.608E-01	2.857E-02	4.565
ZR-95		724.19		1.856E-01	9.710E-02	1.573E-01	1.305E-02	1.180
		756.73	*	1.823E-02	6.563E-02	1.112E-01	9.917E-03	0.164
MO-99		140.51		-4.435E+01	2.421E+01	3.137E+01	7.983E+00	-1.414
		181.07		5.479E+00	1.887E+01	2.671E+01	5.195E+00	0.205
		366.42		-2.505E+01	9.158E+01	1.495E+02	1.026E+01	-0.168
		739.50	*	-1.843E+00	1.242E+01	2.058E+01	3.143E+00	-0.090
		777.92		-1.063E+01	3.670E+01	6.014E+01	4.976E+00	-0.177
TC-99M		140.51	*	-1.972E+11	3.670E+01	Half-Life too short		
RU-103		497.08	*	-2.829E-02	3.720E-02	5.802E-02	7.364E-03	-0.488
		610.33		1.276E+01	2.278E+00	2.356E+00	3.622E-01	5.415
RH-106		621.93	*	-3.119E-02	3.001E-01	4.805E-01	5.783E-02	-0.065
		1050.41		-1.252E+00	2.325E+00	3.662E+00	2.982E-01	-0.342
RU-106		621.93	*	-3.119E-02	3.000E-01	4.805E-01	3.167E-02	-0.065
		1050.41		-1.252E+00	2.325E+00	3.662E+00	2.982E-01	-0.342
AG-108M		433.94	*	-2.127E-02	2.699E-02	4.261E-02	2.751E-03	-0.499
		614.28		-5.628E-03	3.686E-02	5.057E-02	3.518E-03	-0.111
		722.91		1.761E-02	3.696E-02	5.530E-02	4.296E-03	0.319
AG-110M		657.76	*	-2.407E-02	3.330E-02	5.116E-02	3.537E-03	-0.470
		677.62		1.369E-01	2.951E-01	5.062E-01	3.600E-02	0.270
		706.68		-1.408E-01	1.963E-01	3.162E-01	2.374E-02	-0.445
		763.94		8.295E-02	1.646E-01	2.459E-01	2.044E-02	0.337
		884.68		7.124E-03	4.354E-02	7.280E-02	7.432E-03	0.098
		937.49		7.806E-02	1.108E-01	1.674E-01	1.679E-02	0.466
		1384.29		3.633E-02	1.305E-01	2.237E-01	1.379E-02	0.162
		1505.03		-2.254E-01	2.253E-01	3.326E-01	1.955E-02	-0.678
SN-113		391.69	*	1.188E-02	3.985E-02	6.645E-02	4.122E-03	0.179
CD-115		260.90		-4.265E+01	1.301E+02	2.154E+02	2.060E+01	-0.198
		492.35		2.165E+00	3.912E+01	6.395E+01	4.050E+00	0.034
		527.90	*	2.469E+00	1.127E+01	1.853E+01	1.195E+00	0.133
SN-117M		156.02		5.769E-01	1.971E+00	3.205E+00	3.534E-01	0.180
		158.56	*	-3.872E-02	4.748E-02	7.440E-02	7.999E-03	-0.520
TE-123M		159.00	*	-1.546E-02	2.413E-02	3.808E-02	4.091E-03	-0.406

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-124		602.73		9.298E-03	4.148E-02	5.867E-02	3.864E-03	0.158
		645.85		1.198E-01	4.544E-01	7.416E-01	5.358E-02	0.162
		722.78		4.893E-02	3.800E-01	5.537E-01	4.250E-02	0.088
		1690.97	*	2.459E-02	5.821E-02	1.021E-01	6.489E-03	0.241
SB-125		427.87	*	-2.485E-02	7.908E-02	1.278E-01	8.006E-03	-0.194
	+	463.37		6.039E-01	3.453E-01	4.577E-01	3.244E-02	1.319
		600.60		-1.638E-02	1.885E-01	2.735E-01	2.023E-02	-0.060
		635.95		3.597E-03	2.541E-01	4.091E-01	3.061E-02	0.009
TE-125M		109.28	*	2.095E+00	8.952E+00	1.234E+01	1.601E+00	0.170
I-126		388.63		3.432E-02	1.535E-01	2.552E-01	1.519E-02	0.134
		666.33	*	-1.838E-02	2.186E-01	3.492E-01	2.319E-02	-0.053
		753.82		1.182E+00	1.694E+00	2.928E+00	2.315E-01	0.404
SB-126		414.70		-3.743E-02	6.839E-02	1.096E-01	6.531E-03	-0.341
		666.50		-6.958E-03	7.508E-02	1.199E-01	7.962E-03	-0.058
		695.00		4.291E-02	7.486E-02	1.288E-01	9.077E-03	0.333
		697.00		-2.271E-01	2.613E-01	4.184E-01	2.960E-02	-0.543
		720.70	*	-4.509E-02	1.545E-01	2.178E-01	1.615E-02	-0.207
		856.80		5.086E-01	5.136E-01	7.900E-01	7.516E-02	0.644
SB-127		252.40		-6.614E-01	3.707E+00	6.164E+00	2.576E+00	-0.107
		473.00		-3.776E-01	1.531E+00	2.468E+00	2.818E-01	-0.153
		685.70	*	-5.857E-01	1.320E+00	2.162E+00	2.219E-01	-0.271
		783.70		3.339E+00	3.339E+00	5.827E+00	7.156E-01	0.573
I-131		80.19		-5.886E+00	3.178E+00	4.281E+00	3.336E-01	-1.375
		284.31		-5.211E-01	1.282E+00	2.058E+00	1.977E-01	-0.253
		364.49	*	1.062E-01	9.897E-02	1.704E-01	1.280E-02	0.623
		636.99		-4.766E-01	1.531E+00	2.418E+00	1.748E-01	-0.197
TE-132		49.72		-4.533E+00	3.836E+00	5.358E+00	5.342E-01	-0.846
		111.76		-2.424E+01	2.870E+01	4.543E+01	6.323E+00	-0.534
		116.30		2.746E+01	2.561E+01	4.236E+01	6.240E+00	0.648
		228.16	*	1.641E-01	6.353E-01	1.077E+00	1.789E-01	0.152
BA-133		81.00		1.249E-01	7.667E-02	8.513E-02	1.280E-02	1.468
		276.40		4.345E-01	3.353E-01	5.281E-01	7.686E-02	0.823
		302.85		8.861E-03	1.275E-01	1.853E-01	2.443E-02	0.048
		356.01	*	1.906E-02	3.847E-02	5.678E-02	6.861E-03	0.336
		383.85		-1.221E-01	2.627E-01	4.243E-01	4.609E-02	-0.288
I-133		529.87	*	-5.294E-04	2.627E-01	Half-Life too short		
		875.33		-3.493E-02	2.627E-01	Half-Life too short		
		1298.22		-6.264E-02	2.627E-01	Half-Life too short		
CS-134		563.25		4.632E-02	3.580E-01	5.557E-01	3.691E-02	0.083
		569.33		-2.075E-02	2.023E-01	3.031E-01	2.031E-02	-0.068
		604.72		4.483E-02	3.578E-02	5.410E-02	3.578E-03	0.829
	+	795.86	*	4.962E-02	5.161E-02	7.702E-02	6.633E-03	0.644
		801.95		-3.096E-01	3.960E-01	6.016E-01	5.229E-02	-0.515
		1365.19		-2.810E-01	9.569E-01	1.489E+00	9.516E-02	-0.189
I-135		546.56		6.102E+09	9.569E-01	Half-Life too short		
		836.80		1.329E+11	9.569E-01	Half-Life too short		
		1038.76		-1.624E+10	9.569E-01	Half-Life too short		
		1131.51		-5.193E+09	9.569E-01	Half-Life too short		
		1260.41	*	7.003E+09	9.569E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1457.56		3.763E+12	9.569E-01	Half-Life too short		
		1678.03		1.856E+10	9.569E-01	Half-Life too short		
		1791.20		-8.461E+09	9.569E-01	Half-Life too short		
CS-136		153.25		6.718E-01	7.443E-01	1.225E+00	1.545E-01	0.549
		176.60		1.449E-01	4.313E-01	6.997E-01	7.514E-02	0.207
		273.65		-8.248E-01	5.356E-01	7.147E-01	7.182E-02	-1.154
		340.55		4.439E-01	1.524E-01	2.435E-01	1.980E-02	1.823
		818.51		1.208E-02	6.601E-02	1.109E-01	9.884E-03	0.109
		1048.07	*	-2.459E-02	1.001E-01	1.612E-01	1.380E-02	-0.153
		1235.36		8.536E-01	6.397E-01	1.098E+00	1.086E-01	0.778
BA-137M		661.66	*	1.825E-02	3.453E-02	5.700E-02	3.748E-03	0.320
CS-137		661.66	*	1.928E-02	3.647E-02	6.022E-02	3.973E-03	0.320
CE-139		165.86	*	2.171E-03	2.537E-02	4.096E-02	4.067E-03	0.053
BA-140		162.66		4.010E-01	6.962E-01	1.139E+00	1.228E-01	0.352
		304.85		-5.933E-02	1.301E+00	1.877E+00	5.501E-01	-0.032
		423.72		-2.246E-01	1.707E+00	2.783E+00	8.990E-01	-0.081
		537.26	*	1.399E-01	2.449E-01	4.023E-01	1.345E-01	0.348
LA-140	+	328.76		5.201E-01	3.750E-01	4.959E-01	4.289E-02	1.049
		487.02		7.238E-02	1.298E-01	2.171E-01	1.525E-02	0.333
		815.77		7.584E-02	2.954E-01	4.985E-01	4.908E-02	0.152
		1596.21	*	-5.570E-03	8.410E-02	1.179E-01	6.929E-03	-0.047
CE-141		145.44	*	4.939E-02	5.445E-02	8.970E-02	1.097E-02	0.551
CE-143		57.36		2.859E-04	5.445E-02	Half-Life too short		
		293.27	*	1.429E-03	5.445E-02	Half-Life too short		
		664.57		3.432E-04	5.445E-02	Half-Life too short		
		721.93		-3.777E-04	5.445E-02	Half-Life too short		
CE-144		80.12		-2.973E+00	1.663E+00	2.247E+00	1.737E-01	-1.323
		133.52	*	-3.856E-02	1.792E-01	2.663E-01	4.869E-02	-0.145
PM-144		476.78		-2.084E-02	5.880E-02	9.432E-02	6.849E-03	-0.221
		618.01		8.814E-03	3.260E-02	4.932E-02	3.405E-03	0.179
		696.49	*	-1.265E-02	3.284E-02	5.399E-02	3.818E-03	-0.234
PR-144		696.51	*	-9.955E-01	2.456E+00	4.033E+00	2.850E-01	-0.247
		1489.16		4.171E+00	1.082E+01	1.873E+01	1.100E+00	0.223
PM-146		453.88	*	-1.274E-02	3.810E-02	6.136E-02	5.346E-03	-0.208
		633.25		5.305E-01	1.371E+00	2.231E+00	8.429E-01	0.238
		735.93		-2.310E-03	1.293E-01	2.159E-01	5.990E-02	-0.011
		747.24		-2.686E-02	8.782E-02	1.440E-01	2.033E-02	-0.187
ND-147	+	91.11		1.549E+00	2.977E-01	3.963E-01	3.527E-02	3.907
		319.41		-8.181E-01	2.855E+00	4.691E+00	3.936E-01	-0.174
		531.02	*	-2.506E-01	5.959E-01	8.178E-01	1.130E-01	-0.306
PM-149		285.90	*	3.086E+01	8.327E+01	1.406E+02	2.229E+01	0.219
EU-152		121.78		8.274E-04	5.919E-02	9.630E-02	1.439E-02	0.009
		244.70		1.063E-01	2.824E-01	4.200E-01	4.095E-02	0.253
		344.28	*	-4.635E-02	1.022E-01	1.345E-01	1.106E-02	-0.345
		778.90		-5.987E-02	2.399E-01	3.941E-01	3.266E-02	-0.152
	+	964.08		6.095E-01	3.853E-01	5.064E-01	4.771E-02	1.204
		1085.87		-1.579E-02	3.797E-01	6.191E-01	4.661E-02	-0.026
		1112.07		9.549E-02	3.360E-01	4.826E-01	3.398E-02	0.198
		1408.01		6.972E-02	1.545E-01	2.683E-01	1.568E-02	0.260

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153		69.67		7.060E-02	9.633E-01	1.385E+00	1.101E-01	0.051
		97.43	*	7.436E-02	6.832E-02	1.012E-01	9.383E-03	0.735
		103.18		1.701E-01	1.265E-01	1.404E-01	1.452E-02	1.212
EU-154		123.07		1.669E-02	4.535E-02	6.889E-02	1.097E-02	0.242
		723.31		1.311E-01	1.704E-01	2.599E-01	2.196E-02	0.505
		873.19		-2.595E-02	2.562E-01	4.215E-01	5.379E-02	-0.062
		996.26		-1.343E-01	3.878E-01	5.429E-01	9.583E-02	-0.247
		1004.73		-9.998E-02	1.963E-01	3.108E-01	3.672E-02	-0.322
		1274.44	*	-1.262E-01	1.199E-01	1.778E-01	1.677E-02	-0.710
TB-160	+	86.79		1.442E+00	2.390E-01	3.373E-01	2.572E-02	4.276
		197.04		-1.618E-01	5.156E-01	7.712E-01	7.702E-02	-0.210
		215.65		-4.514E-01	6.472E-01	1.005E+00	9.998E-02	-0.449
	+	298.57		2.858E-01	1.155E-01	1.739E-01	1.548E-02	1.643
		879.36	*	8.872E-02	1.249E-01	2.155E-01	2.129E-02	0.412
	+	962.29		1.149E+00	7.263E-01	9.380E-01	8.858E-02	1.225
		966.15		1.510E+00	2.816E-01	4.966E-01	4.665E-02	3.042
		1177.93		-1.830E-01	3.783E-01	5.794E-01	3.362E-02	-0.316
		1271.85		9.342E-02	6.424E-01	1.052E+00	6.111E-02	0.089
HO-166M		80.57		3.450E-01	2.124E-01	2.409E-01	1.860E-02	1.432
	+	184.41		1.220E-01	4.135E-02	5.716E-02	5.704E-03	2.134
		280.46		-6.091E-02	7.117E-02	1.150E-01	1.065E-02	-0.529
		410.95		2.195E-01	2.128E-01	3.645E-01	2.163E-02	0.602
		711.68	*	-2.735E-02	5.387E-02	8.764E-02	6.385E-03	-0.312
		752.31		1.320E-01	2.469E-01	4.239E-01	3.342E-02	0.311
		810.29		-5.807E-03	5.480E-02	9.054E-02	7.944E-03	-0.064
TA-182		67.75		-3.282E-02	5.894E-02	8.406E-02	6.730E-03	-0.390
		100.11		1.465E-01	1.931E-01	2.087E-01	2.038E-02	0.702
		152.43		2.572E-01	2.998E-01	4.934E-01	5.628E-02	0.521
		222.11		2.346E-01	2.951E-01	5.068E-01	5.026E-02	0.463
		1121.30		6.045E-01	1.885E-01	3.129E-01	2.148E-02	1.932
		1189.05		2.067E-02	3.088E-01	5.041E-01	2.927E-02	0.041
		1221.41	*	1.615E-01	2.012E-01	3.410E-01	1.983E-02	0.474
		1231.02		-3.194E-01	5.192E-01	8.136E-01	4.731E-02	-0.393
IR-192	+	295.96		1.056E+00	1.871E-01	2.339E-01	2.109E-02	4.514
		308.46		-3.630E-03	8.177E-02	1.359E-01	1.184E-02	-0.027
		316.51	*	-1.618E-02	2.922E-02	4.749E-02	4.031E-03	-0.341
		468.07		3.543E-02	6.527E-02	9.575E-02	6.775E-03	0.370
HG-203		70.83		3.036E-01	7.703E-01	1.115E+00	1.750E-01	0.272
	+	72.87		5.223E+00	9.782E-01	9.000E-01	1.362E-01	5.803
		279.20	*	2.543E-02	3.287E-02	5.616E-02	5.327E-03	0.453
BI-207		72.81		9.453E-01	1.433E-01	2.058E-01	1.620E-02	4.593
	+	74.97		7.193E-01	9.752E-02	1.602E-01	1.254E-02	4.491
		569.70		-3.071E-03	3.121E-02	4.672E-02	3.057E-03	-0.066
		1063.66	*	1.178E-02	5.323E-02	8.830E-02	6.993E-03	0.133
		1770.23		-2.657E+00	6.717E-01	6.257E-01	3.614E-02	-4.247
PB-211		404.85	*	-7.369E-01	7.262E-01	9.910E-01	4.755E-01	-0.744
		427.09		-9.423E-01	1.389E+00	2.094E+00	9.602E-01	-0.450
		832.01		-2.229E-01	9.624E-01	1.566E+00	8.132E-01	-0.142
BI-212	+	727.33	*	1.816E+00	6.349E-01	9.848E-01	1.154E-01	1.844

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		785.37		1.476E+00	2.840E+00	4.861E+00	4.077E-01	0.304
		1620.50		3.044E+00	2.091E+00	3.963E+00	2.326E-01	0.768
RN-219		271.23		5.182E-01	2.440E-01	3.772E-01	4.123E-02	1.374
		401.81	*	1.500E-01	3.490E-01	5.841E-01	7.869E-02	0.257
RA-223		81.07		2.924E-01	1.702E-01	1.937E-01	1.494E-02	1.510
	+	83.79		3.259E-01	8.701E-02	1.323E-01	1.015E-02	2.463
		94.87		1.218E+00	3.628E-01	5.534E-01	4.874E-02	2.200
		144.24		6.910E-01	5.941E-01	9.490E-01	1.230E-01	0.728
		154.21		2.818E-01	3.347E-01	5.503E-01	6.529E-02	0.512
	+	269.46		5.410E-01	2.462E-01	2.944E-01	2.825E-02	1.838
		323.87	*	4.097E-01	6.314E-01	9.361E-01	1.606E-01	0.438
	+	338.28		6.518E+00	1.492E+00	2.025E+00	2.334E-01	3.219
AC-227		79.69		-1.035E+00	8.421E-01	1.145E+00	1.925E-01	-0.903
		235.96		2.319E+00	3.247E-01	3.660E-01	4.161E-02	6.335
		256.23	*	-2.805E-02	2.074E-01	3.461E-01	4.425E-02	-0.081
	+	299.98		2.225E+00	9.227E-01	1.329E+00	1.711E-01	1.674
		304.50		-3.596E-01	1.554E+00	2.220E+00	3.686E-01	-0.162
		334.37		-1.422E-01	1.952E+00	2.444E+00	3.723E-01	-0.058
TH-227		79.80		-1.627E+00	1.138E+00	1.493E+00	3.202E-01	-1.090
		235.96		2.319E+00	3.148E-01	3.660E-01	3.967E-02	6.335
		256.23	*	-2.805E-02	2.074E-01	3.461E-01	4.936E-02	-0.081
	+	299.98		2.225E+00	9.227E-01	1.329E+00	1.711E-01	1.674
		304.50		-3.596E-01	1.554E+00	2.220E+00	3.686E-01	-0.162
		334.37		-1.422E-01	1.952E+00	2.444E+00	3.723E-01	-0.058
PA-231		283.69	*	-8.119E-01	1.218E+00	1.928E+00	2.879E-01	-0.421
		301.36		9.956E-01	5.417E-01	8.338E-01	1.026E-01	1.194
TH-231		81.07		2.924E-01	1.702E-01	1.937E-01	1.494E-02	1.510
	+	83.79		3.259E-01	8.701E-02	1.323E-01	1.015E-02	2.463
		94.87		1.218E+00	3.628E-01	5.534E-01	4.874E-02	2.200
		144.24		6.910E-01	5.941E-01	9.490E-01	1.230E-01	0.728
		154.21		2.818E-01	3.347E-01	5.503E-01	6.529E-02	0.512
	+	269.46		5.410E-01	2.462E-01	2.944E-01	2.825E-02	1.838
		323.87	*	4.097E-01	6.314E-01	9.361E-01	1.606E-01	0.438
	+	338.28		6.518E+00	1.492E+00	2.025E+00	2.334E-01	3.219
PA-233	+	300.13		1.007E+00	4.245E-01	6.035E-01	9.035E-02	1.668
		311.90	*	-2.197E-02	5.371E-02	8.790E-02	7.764E-03	-0.250
		340.48		2.048E+00	7.924E-01	1.038E+00	2.469E-01	1.972
PA-234		94.67		5.452E-01	1.447E-01	2.076E-01	2.597E-02	2.626
		98.44		6.437E-02	8.114E-02	1.076E-01	6.016E-02	0.598
		111.00		-9.177E-02	1.547E-01	2.329E-01	3.396E-02	-0.394
		131.20		2.618E-02	9.865E-02	1.413E-01	1.897E-02	0.185
		569.50		-4.554E-02	2.780E-01	4.149E-01	2.715E-02	-0.110
		733.00		-4.332E-02	3.643E-01	5.414E-01	1.181E-01	-0.080
		880.51		2.369E-01	2.489E-01	4.350E-01	4.306E-02	0.545
		883.24		1.075E-01	2.603E-01	4.253E-01	2.867E-01	0.253
		926.50		7.857E-03	1.592E-01	2.363E-01	6.082E-02	0.033
		946.00	*	3.186E-02	2.752E-01	4.569E-01	8.800E-02	0.070
		949.00		-3.221E-02	4.212E-01	6.908E-01	6.640E-02	-0.047
PA-234M		766.42		1.994E+01	1.567E+01	1.926E+01	9.758E+00	1.035

Sample ID : G248841007 Acquisition date : 18-MAR-2010 22:56:17

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1001.03	*	-5.696E-01	4.450E+00	6.957E+00	7.109E-01	-0.082
NP-239		99.53		7.487E-02	1.544E-01	1.906E-01	1.840E-02	0.393
	+	103.37		1.792E-01	8.846E-02	1.285E-01	1.333E-02	1.394
	+	106.12		1.512E-01	7.467E-02	1.080E-01	1.177E-02	1.401
		117.23	*	8.207E-02	3.230E-01	5.292E-01	6.959E-02	0.155
		228.18		4.303E-02	1.732E-01	2.936E-01	2.901E-02	0.147
		277.60		1.549E-01	1.542E-01	2.586E-01	2.407E-02	0.599
AM-241		59.54	*	4.906E-02	5.517E-02	8.223E-02	7.358E-03	0.597
CM-247		278.00		7.272E-01	6.325E-01	1.090E+00	1.014E-01	0.667
		287.50		-3.755E-01	1.112E+00	1.662E+00	1.517E-01	-0.226
		402.40	*	2.507E-02	3.178E-02	5.403E-02	3.179E-03	0.464
CF-249		252.80		-6.624E-01	7.775E-01	1.262E+00	1.220E-01	-0.525
		333.37		-1.297E-02	2.629E-01	2.520E-01	2.014E-02	-0.051
		388.16	*	2.255E-03	3.607E-02	5.960E-02	3.559E-03	0.038
CF-251		177.52	*	6.416E-02	1.107E-01	1.808E-01	1.801E-02	0.355
		227.38		-1.346E-01	2.879E-01	4.774E-01	4.720E-02	-0.282
		285.41		-1.220E+00	1.839E+00	2.921E+00	2.677E-01	-0.418

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841007       *
* Acquisition date : 18-MAR-2010 22:56:17 Detector SN#    :                 *
* Detector ID       : GAM05                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 04:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 04:00:03.55      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  3-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248841007           Analyst initials: MXR1           *
* Batch Number      : 962629               Sample Quantity : 1.1857E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.430E+01	2.583E+00	4.853E-01	0.000E+00
CD-109	4.572E+00	7.426E-01	7.284E-01	0.000E+00
SN-126	4.467E-01	7.254E-02	7.107E-02	0.000E+00
CS-135	4.700E-01	2.107E-01	2.067E-01	0.000E+00
EU-155	1.897E-01	9.181E-02	1.338E-01	0.000E+00
TL-208	4.900E-01	7.401E-02	5.577E-02	0.000E+00
PB-210	8.233E-01	6.394E-01	6.960E-01	0.000E+00
BI-211	3.769E+00	4.919E-01	2.747E-01	0.000E+00
PB-212	1.686E+00	1.996E-01	7.443E-02	0.000E+00
BI-214	1.299E+00	1.854E-01	1.040E-01	0.000E+00
PB-214	1.368E+00	1.932E-01	9.993E-02	0.000E+00
RA-224	4.681E+00	1.067E+00	7.978E-01	0.000E+00
RA-226	1.299E+00	1.854E-01	1.040E-01	0.000E+00
AC-228	1.802E+00	3.561E-01	2.040E-01	0.000E+00
RA-228	1.802E+00	3.561E-01	2.040E-01	0.000E+00
TH-228	1.686E+00	1.996E-01	7.443E-02	0.000E+00
TH-229	-1.350E-01	4.469E-01	7.374E-01	0.000E+00
TH-232	1.802E+00	3.561E-01	2.040E-01	0.000E+00
TH-234	1.252E+00	7.951E-01	8.432E-01	0.000E+00
U-235	1.046E-01	1.758E-01	2.903E-01	0.000E+00
NP-237	1.333E+00	3.491E-01	2.114E-01	0.000E+00
U-238	1.252E+00	7.951E-01	8.432E-01	0.000E+00
ANH-511	1.434E-01	6.489E-02	4.330E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	8.352E-02		2.898E-01	4.940E-01	0.000E+00	NOT IDENT.
NA-22	-4.341E-02		4.142E-02	6.297E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		9.304E+05	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-1.281E-02		3.352E-02	5.525E-02	0.000E+00	FAIL ABUN

V-48	1.681E-02	6.624E-02	1.131E-01	0.000E+00	NOT IDENT.
CR-51	-2.642E-01	3.121E-01	5.184E-01	0.000E+00	NOT IDENT.
MN-54	3.249E-02	3.546E-02	6.290E-02	0.000E+00	NOT IDENT.
CO-56	8.187E-03	3.419E-02	5.889E-02	0.000E+00	NOT IDENT.
CO-57	7.467E-03	2.016E-02	3.459E-02	0.000E+00	NOT IDENT.
CO-58	-9.529E-03	3.583E-02	6.007E-02	0.000E+00	NOT IDENT.
FE-59	-1.036E-02	8.892E-02	1.472E-01	0.000E+00	NOT IDENT.
CO-60	2.375E-02	3.759E-02	6.483E-02	0.000E+00	NOT IDENT.
ZN-65	7.710E-02	9.466E-02	1.447E-01	0.000E+00	NOT IDENT.
SE-75	-2.296E-03	4.072E-02	6.134E-02	0.000E+00	NOT IDENT.
SR-85	3.848E-02	4.004E-02	6.128E-02	0.000E+00	NOT IDENT.
Y-88	5.692E-03	2.898E-02	4.963E-02	0.000E+00	NOT IDENT.
Y-91	1.252E+01	2.220E+01	3.791E+01	0.000E+00	NOT IDENT.
NB-94	3.546E-02	3.040E-02	5.496E-02	0.000E+00	NOT IDENT.
NB-95	7.265E-02	4.495E-02	7.316E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.895E-01	2.654E-01	0.000E+00	NOT IDENT.
ZR-95	1.823E-02	6.432E-02	1.117E-01	0.000E+00	NOT IDENT.
MO-99	-1.843E+00	1.217E+01	2.068E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.111E+17	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.829E-02	3.646E-02	5.856E-02	0.000E+00	NOT IDENT.
RH-106	-3.119E-02	2.941E-01	4.837E-01	0.000E+00	NOT IDENT.
RU-106	-3.119E-02	2.940E-01	4.837E-01	0.000E+00	NOT IDENT.
AG-108M	-2.127E-02	2.645E-02	4.308E-02	0.000E+00	NOT IDENT.
AG-110M	-2.407E-02	3.264E-02	5.148E-02	0.000E+00	NOT IDENT.
SN-113	1.188E-02	3.905E-02	6.725E-02	0.000E+00	NOT IDENT.
CD-115	2.469E+00	1.105E+01	1.869E+01	0.000E+00	NOT IDENT.
SN-117M	-3.872E-02	4.653E-02	7.604E-02	0.000E+00	NOT IDENT.
TE-123M	-1.546E-02	2.365E-02	3.892E-02	0.000E+00	NOT IDENT.
SB-124	2.459E-02	5.705E-02	1.016E-01	0.000E+00	NOT IDENT.
SB-125	-2.485E-02	7.749E-02	1.293E-01	0.000E+00	FAIL ABUN
TE-125M	2.095E+00	8.773E+00	1.266E+01	0.000E+00	NOT IDENT.
I-126	-1.838E-02	2.143E-01	3.513E-01	0.000E+00	NOT IDENT.
SB-126	-4.509E-02	1.514E-01	2.189E-01	0.000E+00	NOT IDENT.
SB-127	-5.857E-01	1.294E+00	2.175E+00	0.000E+00	NOT IDENT.
I-131	1.062E-01	9.699E-02	1.726E-01	0.000E+00	NOT IDENT.
TE-132	1.641E-01	6.226E-01	1.096E+00	0.000E+00	NOT IDENT.
BA-133	1.906E-02	3.770E-02	5.752E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	8.152E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	4.962E-02	5.058E-02	7.733E-02	0.000E+00	FAIL ABUN
I-135	0.000E+00	1.618E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.459E-02	9.810E-02	1.614E-01	0.000E+00	NOT IDENT.
BA-137M	1.825E-02	3.384E-02	5.735E-02	0.000E+00	NOT IDENT.
CS-137	1.928E-02	3.575E-02	6.058E-02	0.000E+00	NOT IDENT.
CE-139	2.171E-03	2.487E-02	4.185E-02	0.000E+00	NOT IDENT.
BA-140	1.399E-01	2.400E-01	4.057E-01	0.000E+00	NOT IDENT.
LA-140	-5.570E-03	8.242E-02	1.174E-01	0.000E+00	FAIL ABUN
CE-141	4.939E-02	5.336E-02	9.177E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.678E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.856E-02	1.756E-01	2.727E-01	0.000E+00	NOT IDENT.
PM-144	-1.265E-02	3.218E-02	5.429E-02	0.000E+00	NOT IDENT.
PR-144	-9.955E-01	2.407E+00	4.056E+00	0.000E+00	NOT IDENT.
PM-146	-1.274E-02	3.734E-02	6.199E-02	0.000E+00	NOT IDENT.
ND-147	-2.506E-01	5.840E-01	8.248E-01	0.000E+00	FAIL ABUN
PM-149	3.086E+01	8.160E+01	1.428E+02	0.000E+00	NOT IDENT.
EU-152	-4.635E-02	1.002E-01	1.364E-01	0.000E+00	FAIL ABUN
GD-153	7.436E-02	6.696E-02	1.040E-01	0.000E+00	NOT IDENT.
EU-154	-1.262E-01	1.175E-01	1.776E-01	0.000E+00	NOT IDENT.
TB-160	8.872E-02	1.224E-01	2.161E-01	0.000E+00	FAIL ABUN
HO-166M	-2.735E-02	5.280E-02	8.810E-02	0.000E+00	FAIL ABUN
TA-182	1.615E-01	1.972E-01	3.407E-01	0.000E+00	NOT IDENT.
IR-192	-1.618E-02	2.863E-02	4.818E-02	0.000E+00	FAIL ABUN
HG-203	2.543E-02	3.221E-02	5.704E-02	0.000E+00	FAIL ABUN
BI-207	1.178E-02	5.217E-02	8.837E-02	0.000E+00	FAIL ABUN
PB-211	-7.369E-01	7.117E-01	1.003E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.222E-01	9.898E-01	0.000E+00	FAIL ABUN
RN-219	1.500E-01	3.420E-01	5.909E-01	0.000E+00	NOT IDENT.
RA-223	4.097E-01	6.187E-01	9.493E-01	0.000E+00	FAIL ABUN
AC-227	-2.805E-02	2.033E-01	3.519E-01	0.000E+00	FAIL ABUN
TH-227	-2.805E-02	2.033E-01	3.519E-01	0.000E+00	FAIL ABUN
PA-231	-8.119E-01	1.193E+00	1.958E+00	0.000E+00	NOT IDENT.
TH-231	4.097E-01	6.187E-01	9.493E-01	0.000E+00	FAIL ABUN
PA-233	-2.197E-02	5.263E-02	8.918E-02	0.000E+00	FAIL ABUN
PA-234	3.186E-02	2.697E-01	4.579E-01	0.000E+00	NOT IDENT.
PA-234M	-5.696E-01	4.361E+00	6.966E+00	0.000E+00	NOT IDENT.
NP-239	8.207E-02	3.165E-01	5.427E-01	0.000E+00	FAIL ABUN
AM-241	4.906E-02	5.406E-02	8.494E-02	0.000E+00	NOT IDENT.
CM-247	2.507E-02	3.115E-02	5.466E-02	0.000E+00	NOT IDENT.
CF-249	2.255E-03	3.535E-02	6.033E-02	0.000E+00	NOT IDENT.

CF-251	6.416E-02	1.085E-01	1.845E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 02:56:44.24

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841007.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 22:56:17
Sample ID         : G248841007           Sample quantity  : 1.18570E+02 GRAM
Detector name     : GAM05                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:03.55  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	2318	10.66*	1.004E+00	3.430E+01	3.430E+01	7.68
CD-109	88.03	821	3.70*	7.868E+00	4.467E+00	4.572E+00	16.57
SN-126	64.28	------	9.60	8.070E+00	------ Line Not Found		------
	86.94	821	8.90	7.868E+00	1.857E+00	1.857E+00	43.71
	87.57	821	37.00*	7.868E+00	4.467E-01	4.467E-01	16.57
CS-135	268.22	207	16.00*	4.356E+00	4.700E-01	4.700E-01	45.75
EU-155	86.55	821	30.70	7.868E+00	5.383E-01	5.417E-01	16.62
	105.31	188	21.10*	7.486E+00	1.885E-01	1.897E-01	49.39
TL-208	277.37	------	6.60	4.261E+00	------ Line Not Found		------
	583.19	595	85.00*	2.261E+00	4.900E-01	4.900E-01	15.41
	860.56	71	12.50	1.588E+00	5.632E-01	5.632E-01	80.52
PB-210	46.54	168	4.25*	7.597E+00	8.222E-01	8.233E-01	79.25
BI-211	72.87	1303	1.23	8.040E+00	2.086E+01	2.086E+01	13.56
	351.06	1083	12.92*	3.520E+00	3.769E+00	3.769E+00	13.32
PB-212	74.82	1303	10.28	8.040E+00	2.496E+00	2.496E+00	16.69
	77.11	2027	17.10	8.017E+00	2.340E+00	2.340E+00	10.44
	238.63	2219	43.60*	4.779E+00	1.686E+00	1.686E+00	12.08
	300.09	169	3.30	4.011E+00	2.022E+00	2.022E+00	40.87
BI-214	609.32	811	45.49*	2.173E+00	1.299E+00	1.299E+00	14.56
	1120.29	173	14.92	1.258E+00	1.454E+00	1.454E+00	38.76
	1764.49	133	15.30	8.614E-01	1.602E+00	1.602E+00	21.62
PB-214	74.82	1303	5.80	8.040E+00	4.423E+00	4.424E+00	15.71
	77.11	2027	9.70	8.017E+00	4.126E+00	4.126E+00	13.30
	242.00	574	7.25	4.734E+00	2.647E+00	2.647E+00	23.97
	295.22	673	18.42	4.062E+00	1.423E+00	1.423E+00	18.85
	351.93	1083	35.60*	3.520E+00	1.368E+00	1.368E+00	14.42
RA-224	240.99	574	4.10*	4.734E+00	4.681E+00	4.681E+00	23.26
RA-226	609.32	811	45.49*	2.173E+00	1.299E+00	1.299E+00	14.56
	1120.29	173	14.92	1.258E+00	1.454E+00	1.454E+00	38.76
	1764.49	133	15.30	8.614E-01	1.602E+00	1.602E+00	21.62
AC-228	338.32	425	11.27	3.637E+00	1.643E+00	1.643E+00	46.03
	911.20	444	25.80*	1.511E+00	1.802E+00	1.802E+00	20.16

Sample ID : G248841007 Acquisition date : 18-MAR-2010 22:56:17

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	309	15.80	1.430E+00	2.164E+00	2.164E+00	30.24
RA-228	338.32	425	11.27	3.637E+00	1.643E+00	1.643E+00	46.03
	911.20	444	25.80*	1.511E+00	1.802E+00	1.802E+00	20.16
	968.97	309	15.80	1.430E+00	2.164E+00	2.164E+00	30.24
TH-228	74.82	1303	10.28	8.040E+00	2.496E+00	2.496E+00	13.61
	77.11	2027	17.10	8.017E+00	2.340E+00	2.340E+00	10.44
	238.63	2219	43.60*	4.779E+00	1.686E+00	1.686E+00	12.08
	300.09	169	3.30	4.011E+00	2.022E+00	2.022E+00	72.84
TH-229	85.43	821	14.70	7.868E+00	1.124E+00	1.124E+00	16.57
	88.47	583	24.00	7.819E+00	4.921E-01	4.921E-01	20.11
	193.51	------	4.41*	5.516E+00	------	Line Not Found	------
	210.85	------	2.80	5.209E+00	------	Line Not Found	------
TH-232	338.32	425	11.27	3.637E+00	1.643E+00	1.643E+00	21.28
	911.20	444	25.80*	1.511E+00	1.802E+00	1.802E+00	20.16
	968.97	309	15.80	1.430E+00	2.164E+00	2.164E+00	30.24
TH-234	63.29	236	3.70*	8.061E+00	1.252E+00	1.252E+00	64.81
	92.59	794	4.23	7.761E+00	3.830E+00	3.830E+00	27.75
U-235	89.96	583	3.47	7.819E+00	3.404E+00	3.404E+00	30.59
	93.35	794	5.60	7.761E+00	2.893E+00	2.893E+00	28.56
	143.76	------	10.96*	6.557E+00	------	Line Not Found	------
	163.33	------	5.08	6.119E+00	------	Line Not Found	------
	185.72	314	57.20	5.668E+00	1.535E-01	1.535E-01	33.90
	205.31	------	5.01	5.304E+00	------	Line Not Found	------
NP-237	86.48	821	12.40*	7.868E+00	1.333E+00	1.333E+00	26.73
	95.86	------	2.68	7.688E+00	------	Line Not Found	------
U-238	63.29	236	3.70*	8.061E+00	1.252E+00	1.252E+00	64.81
	92.59	794	4.23	7.761E+00	3.830E+00	3.830E+00	18.89
ANH-511	511.00	231	100.00*	2.545E+00	1.434E-01	1.434E-01	46.18

Flag: "*" = Keyline

Sample ID : G248841007 Acquisition date : 18-MAR-2010 22:56:17

Total number of lines in spectrum 37
Number of unidentified lines 6
Number of lines tentatively identified by NID 31 83.78%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.430E+01	3.430E+01	0.264E+01	7.68	
CD-109	461.40D	1.02	4.467E+00	4.572E+00	0.758E+00	16.57	
SN-126	2.30E+05Y	1.00	4.467E-01	4.467E-01	0.740E-01	16.57	
CS-135	2.30E+06Y	1.00	4.700E-01	4.700E-01	2.150E-01	45.75	
EU-155	4.75Y	1.01	1.885E-01	1.897E-01	0.937E-01	49.39	
TL-208	1.41E+10Y	1.00	4.900E-01	4.900E-01	0.755E-01	15.41	
PB-210	22.20Y	1.00	8.222E-01	8.233E-01	6.525E-01	79.25	
BI-211	7.04E+08Y	1.00	3.769E+00	3.769E+00	0.502E+00	13.32	
PB-212	1.41E+10Y	1.00	1.686E+00	1.686E+00	0.204E+00	12.08	
BI-214	1600.00Y	1.00	1.299E+00	1.299E+00	0.189E+00	14.56	
PB-214	1600.00Y	1.00	1.368E+00	1.368E+00	0.197E+00	14.42	
RA-224	1.41E+10Y	1.00	4.681E+00	4.681E+00	1.089E+00	23.26	
RA-226	1600.00Y	1.00	1.299E+00	1.299E+00	0.189E+00	14.56	
AC-228	1.41E+10Y	1.00	1.802E+00	1.802E+00	0.363E+00	20.16	
RA-228	1.41E+10Y	1.00	1.802E+00	1.802E+00	0.363E+00	20.16	
TH-228	1.41E+10Y	1.00	1.686E+00	1.686E+00	0.204E+00	12.08	
TH-229	7340.00Y	1.00	4.921E-01	4.921E-01	0.989E-01	20.11	K
TH-232	1.41E+10Y	1.00	1.802E+00	1.802E+00	0.363E+00	20.16	
TH-234	4.47E+09Y	1.00	1.252E+00	1.252E+00	0.811E+00	64.81	
U-235	7.04E+08Y	1.00	1.535E-01	1.535E-01	0.521E-01	33.90	K
NP-237	2.14E+06Y	1.00	1.333E+00	1.333E+00	0.356E+00	26.73	
U-238	4.47E+09Y	1.00	1.252E+00	1.252E+00	0.811E+00	64.81	
ANH-511	1.00E+09Y	1.00	1.434E-01	1.434E-01	0.662E-01	46.18	
			---	---			
	Total Activity :		6.701E+01	6.711E+01			

Grand Total Activity : 6.701E+01 6.711E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248841007 Acquisition date : 18-MAR-2010 22:56:17

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	83.87	403	791	1.59	168.72	165	37	2.80E-02	25.6	7.92E+00	T
0	128.42	112	691	1.09	257.81	254	8	7.81E-03	83.2	6.92E+00	
0	209.08	199	578	1.02	419.09	415	10	1.38E-02	47.9	5.24E+00	
0	327.84	107	386	0.73	656.56	652	10	7.42E-03	71.6	3.73E+00	T
0	462.75	111	198	1.24	926.29	922	10	7.69E-03	56.7	2.78E+00	T
0	726.65	142	115	1.77	1453.81	1449	10	9.84E-03	32.9	1.85E+00	T
0	768.07	69	147	0.83	1536.59	1529	12	4.77E-03	75.2	1.76E+00	
0	794.50	41	102	0.73	1589.43	1585	9	2.82E-03	****	1.71E+00	T
0	933.29	49	80	1.85	1866.81	1862	11	3.37E-03	76.8	1.48E+00	
1	963.61	81	138	2.19	1927.40	1920	28	5.61E-03	62.5	1.44E+00	T
4	1586.79	49	19	3.24	3172.41	3166	22	3.43E-03	48.7	9.37E-01	
0	1728.84	36	11	2.13	3456.11	3451	11	2.50E-03	48.8	8.75E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 02:56:48.74

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*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                 DETECTOR DATA                               *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841007.CNF;1    *
* Acquisition date : 18-MAR-2010 22:56:17  Detector SN#    :                  *
* Detector ID      : GAM05                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 04:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 04:00:03.55         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                  SAMPLE DATA                                *
*                                                                             *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID             *
* Sample ID        : G248841007            Analyst initials: MXR1              *
* Batch Number     : 962629                Sample Quantity : 1.18570E+02 GRAM  *
*******************************************************************************
*                                                                             *
*                                    QC DATA                                  *
*                                                                             *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00.5MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.430E+01	2.636E+00	4.867E-01	3.027E-02	70.478
CD-109	4.572E+00	7.577E-01	7.081E-01	5.392E-02	6.456
SN-126	4.467E-01	7.402E-02	6.909E-02	5.261E-03	6.465
CS-135	4.700E-01	2.150E-01	2.034E-01	2.176E-02	2.311
EU-155	1.897E-01	9.369E-02	1.304E-01	1.412E-02	1.455
TL-208	4.900E-01	7.552E-02	5.536E-02	4.066E-03	8.851
PB-210	8.233E-01	6.525E-01	6.721E-01	5.183E-02	1.225
BI-211	3.769E+00	5.020E-01	2.711E-01	2.149E-02	13.901
PB-212	1.686E+00	2.037E-01	7.315E-02	7.919E-03	23.046
BI-214	1.299E+00	1.892E-01	1.033E-01	8.716E-03	12.580
PB-214	1.368E+00	1.972E-01	9.863E-02	9.501E-03	13.870
RA-224	4.681E+00	1.089E+00	7.841E-01	7.672E-02	5.970
RA-226	1.299E+00	1.892E-01	1.033E-01	8.716E-03	12.580
AC-228	1.802E+00	3.633E-01	2.035E-01	2.583E-02	8.854
RA-228	1.802E+00	3.633E-01	2.035E-01	2.583E-02	8.854
TH-228	1.686E+00	2.037E-01	7.315E-02	7.919E-03	23.046
TH-229	4.921E-01	9.894E-02	7.230E-01	7.221E-02	0.681
TH-232	1.802E+00	3.633E-01	2.035E-01	2.583E-02	8.854

Sample ID : G248841007 Acquisition date : 18-MAR-2010 22:56:17

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234	1.252E+00	8.114E-01	8.168E-01	1.482E-01	1.533
U-235	1.535E-01	5.205E-02	2.838E-01	5.412E-02	0.541
NP-237	1.333E+00	3.562E-01	2.055E-01	4.585E-02	6.485
U-238	1.252E+00	8.114E-01	8.168E-01	1.482E-01	1.533
ANH-511	1.434E-01	6.621E-02	4.291E-02	2.746E-03	3.341

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	8.352E-02		2.958E-01	4.892E-01	3.503E-02	0.171
NA-22	-4.341E-02		4.227E-02	6.305E-02	3.672E-03	-0.688
NA-24	-8.415E-01		4.747E-01	Half-Life too short		
SC-46	-1.281E-02		3.420E-02	5.510E-02	5.535E-03	-0.233
V-48	1.681E-02		6.759E-02	1.129E-01	1.034E-02	0.149
CR-51	-2.642E-01		3.185E-01	5.111E-01	4.516E-02	-0.517
MN-54	3.249E-02		3.619E-02	6.269E-02	5.743E-03	0.518
CO-56	8.187E-03		3.489E-02	5.870E-02	5.489E-03	0.139
CO-57	7.467E-03		2.058E-02	3.375E-02	4.789E-03	0.221
CO-58	-9.529E-03		3.656E-02	5.985E-02	5.267E-03	-0.159
FE-59	-1.036E-02		9.074E-02	1.472E-01	1.191E-02	-0.070
CO-60	2.375E-02		3.835E-02	6.494E-02	3.758E-03	0.366
ZN-65	7.710E-02		9.659E-02	1.447E-01	1.011E-02	0.533
SE-75	-2.296E-03		4.155E-02	6.035E-02	5.762E-03	-0.038
SR-85	3.848E-02		4.085E-02	6.074E-02	3.893E-03	0.633
Y-88	5.692E-03		2.957E-02	4.990E-02	2.855E-03	0.114
Y-91	1.252E+01		2.266E+01	3.793E+01	2.204E+00	0.330
NB-94	3.546E-02		3.102E-02	5.466E-02	3.911E-03	0.649
NB-95	7.265E-02		4.587E-02	7.283E-02	5.891E-03	0.998
NB-95M	1.191E+00		1.933E-01	2.608E-01	2.857E-02	4.565
ZR-95	1.823E-02		6.563E-02	1.112E-01	9.917E-03	0.164
MO-99	-1.843E+00		1.242E+01	2.058E+01	3.143E+00	-0.090
TC-99M	-1.972E+11		5.667E+10	Half-Life too short		
RU-103	-2.829E-02		3.720E-02	5.802E-02	7.364E-03	-0.488
RH-106	-3.119E-02		3.001E-01	4.805E-01	5.783E-02	-0.065
RU-106	-3.119E-02		3.000E-01	4.805E-01	3.167E-02	-0.065
AG-108M	-2.127E-02		2.699E-02	4.261E-02	2.751E-03	-0.499
AG-110M	-2.407E-02		3.330E-02	5.116E-02	3.537E-03	-0.470
SN-113	1.188E-02		3.985E-02	6.645E-02	4.122E-03	0.179
CD-115	2.469E+00		1.127E+01	1.853E+01	1.195E+00	0.133
SN-117M	-3.872E-02		4.748E-02	7.440E-02	7.999E-03	-0.520
TE-123M	-1.546E-02		2.413E-02	3.808E-02	4.091E-03	-0.406
SB-124	2.459E-02		5.821E-02	1.021E-01	6.489E-03	0.241
SB-125	-2.485E-02		7.908E-02	1.278E-01	8.006E-03	-0.194
TE-125M	2.095E+00		8.952E+00	1.234E+01	1.601E+00	0.170
I-126	-1.838E-02		2.186E-01	3.492E-01	2.319E-02	-0.053
SB-126	-4.509E-02		1.545E-01	2.178E-01	1.615E-02	-0.207
SB-127	-5.857E-01		1.320E+00	2.162E+00	2.219E-01	-0.271

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-131	1.062E-01		9.897E-02	1.704E-01	1.280E-02	0.623
TE-132	1.641E-01		6.353E-01	1.077E+00	1.789E-01	0.152
BA-133	1.906E-02		3.847E-02	5.678E-02	6.861E-03	0.336
I-133	-5.294E-04		4.159E-03	Half-Life too short		
CS-134	4.962E-02	+	5.161E-02	7.702E-02	6.633E-03	0.644
I-135	7.003E+09		8.255E+09	Half-Life too short		
CS-136	-2.459E-02		1.001E-01	1.612E-01	1.380E-02	-0.153
BA-137M	1.825E-02		3.453E-02	5.700E-02	3.748E-03	0.320
CS-137	1.928E-02		3.647E-02	6.022E-02	3.973E-03	0.320
CE-139	2.171E-03		2.537E-02	4.096E-02	4.067E-03	0.053
BA-140	1.399E-01		2.449E-01	4.023E-01	1.345E-01	0.348
LA-140	-5.570E-03		8.410E-02	1.179E-01	6.929E-03	-0.047
CE-141	4.939E-02		5.445E-02	8.970E-02	1.097E-02	0.551
CE-143	1.429E-03		1.876E-04	Half-Life too short		
CE-144	-3.856E-02		1.792E-01	2.663E-01	4.869E-02	-0.145
PM-144	-1.265E-02		3.284E-02	5.399E-02	3.818E-03	-0.234
PR-144	-9.955E-01		2.456E+00	4.033E+00	2.850E-01	-0.247
PM-146	-1.274E-02		3.810E-02	6.136E-02	5.346E-03	-0.208
ND-147	-2.506E-01		5.959E-01	8.178E-01	1.130E-01	-0.306
PM-149	3.086E+01		8.327E+01	1.406E+02	2.229E+01	0.219
EU-152	-4.635E-02		1.022E-01	1.345E-01	1.106E-02	-0.345
GD-153	7.436E-02		6.832E-02	1.012E-01	9.383E-03	0.735
EU-154	-1.262E-01		1.199E-01	1.778E-01	1.677E-02	-0.710
TB-160	8.872E-02		1.249E-01	2.155E-01	2.129E-02	0.412
HO-166M	-2.735E-02		5.387E-02	8.764E-02	6.385E-03	-0.312
TA-182	1.615E-01		2.012E-01	3.410E-01	1.983E-02	0.474
IR-192	-1.618E-02		2.922E-02	4.749E-02	4.031E-03	-0.341
HG-203	2.543E-02		3.287E-02	5.616E-02	5.327E-03	0.453
BI-207	1.178E-02		5.323E-02	8.830E-02	6.993E-03	0.133
PB-211	-7.369E-01		7.262E-01	9.910E-01	4.755E-01	-0.744
BI-212	1.816E+00	+	6.349E-01	9.848E-01	1.154E-01	1.844
RN-219	1.500E-01		3.490E-01	5.841E-01	7.869E-02	0.257
RA-223	4.097E-01		6.314E-01	9.361E-01	1.606E-01	0.438
AC-227	-2.805E-02		2.074E-01	3.461E-01	4.425E-02	-0.081
TH-227	-2.805E-02		2.074E-01	3.461E-01	4.936E-02	-0.081
PA-231	-8.119E-01		1.218E+00	1.928E+00	2.879E-01	-0.421
TH-231	4.097E-01		6.314E-01	9.361E-01	1.606E-01	0.438
PA-233	-2.197E-02		5.371E-02	8.790E-02	7.764E-03	-0.250
PA-234	3.186E-02		2.752E-01	4.569E-01	8.800E-02	0.070
PA-234M	-5.696E-01		4.450E+00	6.957E+00	7.109E-01	-0.082
NP-239	8.207E-02		3.230E-01	5.292E-01	6.959E-02	0.155
AM-241	4.906E-02		5.517E-02	8.223E-02	7.358E-03	0.597
CM-247	2.507E-02		3.178E-02	5.403E-02	3.179E-03	0.464
CF-249	2.255E-03		3.607E-02	5.960E-02	3.559E-03	0.038
CF-251	6.416E-02		1.107E-01	1.808E-01	1.801E-02	0.355

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248841007           *
* Acquisition date  : 18-MAR-2010 22:56:17 Detector SN#     :               *
* Detector ID       : GAM05                 Sensitivity     : 5.000         *
* Geometry          : CAN                   Energy tolerance: 1.500         *
* Elapsed live time:    0 04:00:00.00       Abundance limit : 75.000        *
* Elapsed real time:    0 04:00:03.55       Half life ratio : 8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  3-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248841007           Analyst initials: MXR1           *
* Batch Number      : 962629               Sample Quantity : 1.1857E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.430E+01	2.583E+00	2.428E-01	1.318E+00
CD-109	4.572E+00	7.426E-01	3.644E-01	3.789E-01
SN-126	4.467E-01	7.254E-02	3.555E-02	3.701E-02
CS-135	4.700E-01	2.107E-01	1.034E-01	1.075E-01
EU-155	1.897E-01	9.181E-02	6.695E-02	4.684E-02
TL-208	4.900E-01	7.401E-02	2.790E-02	3.776E-02
PB-210	8.233E-01	6.394E-01	3.482E-01	3.262E-01
BI-211	3.769E+00	4.919E-01	1.374E-01	2.510E-01
PB-212	1.686E+00	1.996E-01	3.724E-02	1.018E-01
BI-214	1.299E+00	1.854E-01	5.203E-02	9.458E-02
PB-214	1.368E+00	1.932E-01	4.999E-02	9.860E-02
RA-224	4.681E+00	1.067E+00	3.991E-01	5.444E-01
RA-226	1.299E+00	1.854E-01	5.203E-02	9.458E-02
AC-228	1.802E+00	3.561E-01	1.021E-01	1.817E-01
RA-228	1.802E+00	3.561E-01	1.021E-01	1.817E-01
TH-228	1.686E+00	1.996E-01	3.724E-02	1.018E-01
TH-229	-1.350E-01	4.469E-01	3.689E-01	2.280E-01
TH-232	1.802E+00	3.561E-01	1.021E-01	1.817E-01
TH-234	1.252E+00	7.951E-01	4.218E-01	4.057E-01
U-235	1.046E-01	1.758E-01	1.453E-01	8.969E-02
NP-237	1.333E+00	3.491E-01	1.058E-01	1.781E-01
U-238	1.252E+00	7.951E-01	4.218E-01	4.057E-01
ANH-511	1.434E-01	6.489E-02	2.166E-02	3.311E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	8.352E-02	2.898E-01	2.471E-01	1.479E-01	NOT IDENT.
NA-22	-4.341E-02	4.142E-02	3.150E-02	2.113E-02	NOT IDENT.
NA-24	-8.415E+05	9.304E+05	0.000E+00	4.747E+05	SHORT HLIF
SC-46	-1.281E-02	3.352E-02	2.764E-02	1.710E-02	FAIL ABUN

V-48	1.681E-02	6.624E-02	5.658E-02	3.379E-02	NOT IDENT.
CR-51	-2.642E-01	3.121E-01	2.594E-01	1.592E-01	NOT IDENT.
MN-54	3.249E-02	3.546E-02	3.147E-02	1.809E-02	NOT IDENT.
CO-56	8.187E-03	3.419E-02	2.946E-02	1.744E-02	NOT IDENT.
CO-57	7.467E-03	2.016E-02	1.731E-02	1.029E-02	NOT IDENT.
CO-58	-9.529E-03	3.583E-02	3.005E-02	1.828E-02	NOT IDENT.
FE-59	-1.036E-02	8.892E-02	7.365E-02	4.537E-02	NOT IDENT.
CO-60	2.375E-02	3.759E-02	3.243E-02	1.918E-02	NOT IDENT.
ZN-65	7.710E-02	9.466E-02	7.242E-02	4.829E-02	NOT IDENT.
SE-75	-2.296E-03	4.072E-02	3.069E-02	2.077E-02	NOT IDENT.
SR-85	3.848E-02	4.004E-02	3.066E-02	2.043E-02	NOT IDENT.
Y-88	5.692E-03	2.898E-02	2.483E-02	1.479E-02	NOT IDENT.
Y-91	1.252E+01	2.220E+01	1.897E+01	1.133E+01	NOT IDENT.
NB-94	3.546E-02	3.040E-02	2.750E-02	1.551E-02	NOT IDENT.
NB-95	7.265E-02	4.495E-02	3.660E-02	2.293E-02	NOT IDENT.
NB-95M	1.191E+00	1.895E-01	1.328E-01	9.666E-02	NOT IDENT.
ZR-95	1.823E-02	6.432E-02	5.587E-02	3.282E-02	NOT IDENT.
MO-99	-1.843E+00	1.217E+01	1.035E+01	6.212E+00	NOT IDENT.
TC-99M	-1.972E+17	1.111E+17	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.829E-02	3.646E-02	2.930E-02	1.860E-02	NOT IDENT.
RH-106	-3.119E-02	2.941E-01	2.420E-01	1.500E-01	NOT IDENT.
RU-106	-3.119E-02	2.940E-01	2.420E-01	1.500E-01	NOT IDENT.
AG-108M	-2.127E-02	2.645E-02	2.155E-02	1.349E-02	NOT IDENT.
AG-110M	-2.407E-02	3.264E-02	2.575E-02	1.665E-02	NOT IDENT.
SN-113	1.188E-02	3.905E-02	3.364E-02	1.993E-02	NOT IDENT.
CD-115	2.469E+00	1.105E+01	9.349E+00	5.636E+00	NOT IDENT.
SN-117M	-3.872E-02	4.653E-02	3.804E-02	2.374E-02	NOT IDENT.
TE-123M	-1.546E-02	2.365E-02	1.947E-02	1.207E-02	NOT IDENT.
SB-124	2.459E-02	5.705E-02	5.083E-02	2.910E-02	NOT IDENT.
SB-125	-2.485E-02	7.749E-02	6.466E-02	3.954E-02	FAIL ABUN
TE-125M	2.095E+00	8.773E+00	6.334E+00	4.476E+00	NOT IDENT.
I-126	-1.838E-02	2.143E-01	1.757E-01	1.093E-01	NOT IDENT.
SB-126	-4.509E-02	1.514E-01	1.095E-01	7.727E-02	NOT IDENT.
SB-127	-5.857E-01	1.294E+00	1.088E+00	6.602E-01	NOT IDENT.
I-131	1.062E-01	9.699E-02	8.636E-02	4.948E-02	NOT IDENT.
TE-132	1.641E-01	6.226E-01	5.484E-01	3.177E-01	NOT IDENT.
BA-133	1.906E-02	3.770E-02	2.878E-02	1.923E-02	NOT IDENT.
I-133	-5.294E+02	8.152E+03	0.000E+00	4.159E+03	SHORT HLIF
CS-134	4.962E-02	5.058E-02	3.869E-02	2.580E-02	FAIL ABUN
I-135	7.003E+15	1.618E+16	0.000E+00	8.255E+15	SHORT HLIF
CS-136	-2.459E-02	9.810E-02	8.072E-02	5.005E-02	NOT IDENT.
BA-137M	1.825E-02	3.384E-02	2.869E-02	1.726E-02	NOT IDENT.
CS-137	1.928E-02	3.575E-02	3.031E-02	1.824E-02	NOT IDENT.
CE-139	2.171E-03	2.487E-02	2.094E-02	1.269E-02	NOT IDENT.
BA-140	1.399E-01	2.400E-01	2.030E-01	1.224E-01	NOT IDENT.
LA-140	-5.570E-03	8.242E-02	5.876E-02	4.205E-02	FAIL ABUN
CE-141	4.939E-02	5.336E-02	4.591E-02	2.723E-02	NOT IDENT.
CE-143	1.429E+03	3.678E+02	0.000E+00	1.876E+02	SHORT HLIF
CE-144	-3.856E-02	1.756E-01	1.364E-01	8.960E-02	NOT IDENT.
PM-144	-1.265E-02	3.218E-02	2.716E-02	1.642E-02	NOT IDENT.
PR-144	-9.955E-01	2.407E+00	2.029E+00	1.228E+00	NOT IDENT.
PM-146	-1.274E-02	3.734E-02	3.101E-02	1.905E-02	NOT IDENT.
ND-147	-2.506E-01	5.840E-01	4.127E-01	2.979E-01	FAIL ABUN
PM-149	3.086E+01	8.160E+01	7.144E+01	4.163E+01	NOT IDENT.
EU-152	-4.635E-02	1.002E-01	6.822E-02	5.112E-02	FAIL ABUN
GD-153	7.436E-02	6.696E-02	5.203E-02	3.416E-02	NOT IDENT.
EU-154	-1.262E-01	1.175E-01	8.884E-02	5.995E-02	NOT IDENT.
TB-160	8.872E-02	1.224E-01	1.081E-01	6.245E-02	FAIL ABUN
HO-166M	-2.735E-02	5.280E-02	4.408E-02	2.694E-02	FAIL ABUN
TA-182	1.615E-01	1.972E-01	1.705E-01	1.006E-01	NOT IDENT.
IR-192	-1.618E-02	2.863E-02	2.410E-02	1.461E-02	FAIL ABUN
HG-203	2.543E-02	3.221E-02	2.854E-02	1.644E-02	FAIL ABUN
BI-207	1.178E-02	5.217E-02	4.421E-02	2.662E-02	FAIL ABUN
PB-211	-7.369E-01	7.117E-01	5.016E-01	3.631E-01	NOT IDENT.
BI-212	1.816E+00	6.222E-01	4.952E-01	3.175E-01	FAIL ABUN
RN-219	1.500E-01	3.420E-01	2.956E-01	1.745E-01	NOT IDENT.
RA-223	4.097E-01	6.187E-01	4.749E-01	3.157E-01	FAIL ABUN
AC-227	-2.805E-02	2.033E-01	1.760E-01	1.037E-01	FAIL ABUN
TH-227	-2.805E-02	2.033E-01	1.760E-01	1.037E-01	FAIL ABUN
PA-231	-8.119E-01	1.193E+00	9.796E-01	6.088E-01	NOT IDENT.
TH-231	4.097E-01	6.187E-01	4.749E-01	3.157E-01	FAIL ABUN
PA-233	-2.197E-02	5.263E-02	4.462E-02	2.685E-02	FAIL ABUN
PA-234	3.186E-02	2.697E-01	2.291E-01	1.376E-01	NOT IDENT.
PA-234M	-5.696E-01	4.361E+00	3.485E+00	2.225E+00	NOT IDENT.
NP-239	8.207E-02	3.165E-01	2.715E-01	1.615E-01	FAIL ABUN
AM-241	4.906E-02	5.406E-02	4.249E-02	2.758E-02	NOT IDENT.
CM-247	2.507E-02	3.115E-02	2.735E-02	1.589E-02	NOT IDENT.
CF-249	2.255E-03	3.535E-02	3.018E-02	1.804E-02	NOT IDENT.

CF-251	6.416E-02	1.085E-01	9.233E-02	5.537E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	875.0056
49.72	975.9493
57.36	0.0000
59.54	947.7138
63.29	1096.6244
63.29	1096.6244
64.28	1176.0812
67.75	1258.7346
69.67	1195.9702
70.83	1204.1533
72.81	1267.3939
72.87	1267.4967
72.87	1267.4967
74.82	1204.2039
74.82	1204.2039
74.82	1204.2039
74.97	1204.4358
77.11	1207.7710
77.11	1207.7710
77.11	1207.7710
79.69	1211.7324
79.80	1211.8994
80.12	1212.3865
80.19	1212.4932
80.57	766.1484
81.00	766.5586
81.07	766.6260
81.07	766.6260
83.79	748.3658
83.79	748.3658
85.43	741.8253
86.48	742.7615
86.55	742.8235
86.79	743.0350
86.94	743.1703
87.57	743.7258
88.03	744.1319
88.47	744.5182
89.96	745.8210
91.11	746.8220
92.59	748.0966
92.59	748.0966
93.35	748.7479
94.67	749.8730
94.87	750.0422
94.87	750.0422
95.86	750.8797
97.43	752.1994
98.44	723.7032
99.53	709.8858
100.11	673.5956
103.18	675.8414
103.37	660.9581
105.31	770.7760
106.12	741.2376
109.28	722.2562
111.00	778.4656
111.76	804.9039
116.30	704.8060
117.23	720.0042
121.12	755.0956
121.78	701.3108
122.06	684.8006
123.07	682.6823
131.20	697.4930
133.52	707.7122
136.00	657.8427

136.47	680.3422
140.51	789.0010
140.51	0.0000
143.76	690.0919
144.24	638.1741
144.24	638.1741
145.44	687.9058
152.43	657.7010
153.25	647.4181
154.21	660.8322
154.21	660.8322
156.02	660.7555
158.56	665.3820
159.00	654.8340
162.66	601.6094
163.33	600.8534
165.86	617.2603
176.60	576.5349
177.52	571.4672
181.07	591.8933
184.41	603.9471
185.72	609.1641
193.51	591.6118
197.04	550.9122
205.31	584.5325
210.85	464.7583
215.65	547.9679
222.11	505.3689
227.38	503.4972
228.16	464.7250
228.18	464.7313
235.69	519.8884
235.96	519.9789
235.96	519.9789
238.63	427.6555
238.63	427.6555
240.99	428.2925
242.00	364.7677
244.70	388.3174
252.40	404.6040
252.80	432.3594
256.23	416.6313
256.23	416.6313
260.90	424.2874
264.66	383.7663
268.22	373.7187
269.46	395.7138
269.46	395.7138
271.23	422.5319
273.65	528.9050
276.40	395.3084
277.37	395.9758
277.60	406.4219
278.00	392.0606
279.20	394.2044
279.54	389.5988
280.46	423.5348
283.69	362.3556
284.31	350.2749
285.41	363.6487
285.90	338.3701
287.50	369.5840
293.27	0.0000
295.22	316.5079
295.96	316.6388
298.57	317.0927
299.98	350.4883
299.98	350.4883
300.09	350.5109
300.09	350.5109
300.13	350.5199
301.36	328.6351
302.85	330.4829
304.50	360.8469
304.50	360.8469
304.85	348.2528
308.46	346.3910
311.90	339.3994

316.51	341.1808
319.41	329.2566
320.08	357.1366
323.87	326.1833
323.87	326.1833
328.76	360.6720
333.37	342.2379
334.37	356.8793
334.37	356.8793
338.28	325.3691
338.28	325.3691
338.32	325.3773
338.32	325.3773
338.32	325.3773
340.48	306.3804
340.55	306.3920
344.28	329.5784
351.06	281.0835
351.93	281.2035
356.01	250.2375
364.49	234.9492
366.42	278.2798
383.85	304.2741
388.16	295.9669
388.63	290.0922
391.69	279.5903
400.66	264.7986
401.81	250.9941
402.40	239.1035
404.85	307.1841
410.95	244.0149
414.70	276.4717
423.72	241.3535
427.09	253.7903
427.87	245.8169
433.94	272.7158
453.88	246.4814
463.37	252.5539
468.07	192.9336
473.00	216.5841
476.78	232.3314
477.60	222.1225
487.02	210.5643
492.35	209.9707
497.08	234.1908
511.00	219.8166
514.00	238.1445
527.90	176.1334
529.87	0.0000
531.02	181.5866
537.26	171.4803
546.56	0.0000
563.25	193.2728
569.33	189.4335
569.50	189.4422
569.70	186.2622
583.19	208.5300
600.60	210.5458
602.73	193.7813
604.72	179.5491
609.32	192.0540
609.32	192.0540
610.33	158.3005
614.28	183.7295
618.01	168.3274
621.93	184.1943
621.93	184.1943
633.25	169.6576
635.95	167.6292
636.99	176.3965
645.85	156.1549
657.76	189.6369
661.66	175.6055
661.66	175.6055
664.57	0.0000
666.33	187.9539
666.50	187.9622
677.62	170.9711

685.70	181.5372
695.00	175.5853
696.49	200.6296
696.51	200.6296
697.00	208.9829
702.65	157.4693
706.68	189.1956
711.68	165.3323
720.70	166.0438
721.93	0.0000
722.78	153.3683
722.91	142.1883
723.31	142.2069
724.19	139.0477
727.33	139.1751
733.00	145.8184
735.93	145.0098
739.50	155.4629
747.24	152.9982
752.31	138.1833
753.82	141.0645
756.73	144.0071
763.94	143.8987
765.81	148.8294
766.42	147.2371
777.92	154.3479
778.90	153.4438
783.70	125.1975
785.37	139.4873
795.86	125.6218
801.95	151.8327
810.29	141.4118
810.76	144.2967
815.77	119.6136
818.51	115.8722
832.01	158.5849
834.85	148.1254
836.80	0.0000
846.77	117.7209
856.80	121.0743
860.56	137.5192
871.09	119.4465
873.19	122.4265
875.33	0.0000
879.36	104.1308
880.51	98.3205
883.24	103.2611
884.68	109.1471
889.28	114.1531
898.04	132.0090
911.20	116.0525
911.20	116.0525
911.20	116.0525
926.50	91.5942
937.49	96.4976
944.13	127.6038
946.00	114.7964
949.00	126.7656
962.29	117.5228
964.08	121.2653
966.15	121.3274
968.97	121.4093
968.97	121.4093
968.97	121.4093
983.53	113.8423
996.26	125.2060
1001.03	115.3182
1004.73	124.4516
1037.84	119.3396
1038.76	0.0000
1048.07	113.5358
1050.41	116.6378
1050.41	116.6378
1063.66	131.2308
1085.87	124.7253
1099.45	132.2754
1112.07	118.1006
1115.54	114.6613

1120.29	134.9392
1120.29	134.9392
1120.55	134.9445
1121.30	128.9314
1131.51	0.0000
1173.23	141.6722
1177.93	150.1523
1189.05	143.1822
1204.77	153.0814
1221.41	147.2917
1231.02	202.3906
1235.36	176.1940
1238.28	158.3496
1260.41	0.0000
1271.85	90.3333
1274.44	121.2131
1274.54	121.2131
1291.59	116.2871
1298.22	0.0000
1312.11	89.9712
1332.49	74.1913
1365.19	46.5203
1368.63	0.0000
1384.29	52.1152
1408.01	53.2765
1457.56	0.0000
1460.82	50.0091
1489.16	38.8794
1505.03	51.3482
1596.21	38.8687
1620.50	27.1475
1678.03	0.0000
1690.97	18.6316
1764.49	22.5659
1764.49	22.5659
1770.23	124.0976
1771.35	75.4646
1791.20	0.0000
1836.06	23.0618

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248841007

Total Uranium Activity	3.7727E+00	ug/g
Total Uranium Counting Unc.	2.3669E+00	ug/g
Total Uranium Tpu	1.2076E-06	ug/g
Total Uranium Mda	1.2567E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962629                    SAMPLE ID  : G248841007       *
*   ANALYST       : MXR1                      DETECTOR   : GAM05            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 04:00:00.00 *
*   ANALYSIS DATE: 18-MAR-2010 22:56:17.31    SAMPLE ALQT:  118.570 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.025E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.252E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.435E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.685E+00
```

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 03:11:24.97

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841008.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 23:10:49
Sample ID         : G248841008           Sample quantity  : 1.15350E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:02.67  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	4	74.96*	565	894	1.40	148.85	144	16	3.92E-02	10.7	1.76E+00
2	4	77.22*	869	863	1.27	153.37	144	16	6.03E-02	7.2	
3	6	87.36	257	782	0.97	173.65	169	22	1.79E-02	17.6	3.70E+00
4	6	90.14	205	795	1.19	179.20	169	22	1.42E-02	23.7	
5	6	93.09*	339	875	1.56	185.10	169	22	2.36E-02	19.1	
6	0	128.93	125	768	1.39	256.78	253	9	8.71E-03	40.8	
7	0	185.98*	378	813	1.58	370.86	364	13	2.62E-02	17.2	
8	0	209.42*	292	645	1.43	417.75	413	12	2.03E-02	18.7	
9	3	238.72*	2348	387	1.36	476.35	468	22	1.63E-01	2.7	3.35E+00
10	3	241.64	565	552	1.98	482.17	468	22	3.93E-02	12.2	
11	0	270.17	190	399	1.64	539.25	535	10	1.32E-02	20.9	
12	0	295.25*	797	335	1.37	589.40	584	11	5.54E-02	5.9	
13	0	300.09*	172	368	1.49	599.08	595	10	1.19E-02	23.0	
14	0	338.58	471	466	1.26	676.07	670	13	3.27E-02	10.6	
15	0	351.94*	1142	385	1.48	702.79	695	13	7.93E-02	4.8	
16	0	462.67	179	245	1.68	924.25	918	13	1.24E-02	19.5	
17	0	510.86*	178	325	2.22	1020.62	1013	16	1.24E-02	27.5	
18	0	583.13*	739	235	1.60	1165.18	1159	15	5.13E-02	6.0	
19	0	609.27*	822	254	1.64	1217.46	1211	15	5.71E-02	5.7	
20	0	727.62*	201	160	1.40	1454.19	1448	14	1.40E-02	15.8	
21	0	786.03	51	138	0.94	1571.00	1566	13	3.51E-03	50.1	
22	0	795.30	102	140	1.26	1589.55	1583	12	7.05E-03	25.4	
23	0	860.47	116	133	1.67	1719.91	1713	14	8.06E-03	23.0	
24	0	911.23*	439	152	1.71	1821.44	1814	14	3.05E-02	7.9	
25	2	964.46	97	71	2.20	1927.92	1923	20	6.73E-03	19.2	8.73E-01
26	2	968.92*	306	110	1.99	1936.85	1923	20	2.12E-02	9.1	
27	0	1119.86*	189	112	1.66	2238.79	2233	14	1.31E-02	14.4	
28	0	1237.60	62	124	1.26	2474.33	2471	9	4.30E-03	34.6	
29	0	1460.50*	2620	60	2.15	2920.26	2909	19	1.82E-01	2.1	
30	0	1508.39	37	40	1.33	3016.07	3009	16	2.54E-03	42.1	
31	0	1590.49	67	49	5.69	3180.34	3168	22	4.63E-03	29.6	
32	0	1764.27*	165	20	2.11	3528.02	3518	20	1.15E-02	10.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 19-MAR-2010 03:11:27

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841008.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 18-MAR-2010 23:10:49
Sample ID : G248841008 Sample quantity : 115.35 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:00:02.67 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	4.139E+01	4.420E+00	4.640E-01	4.560E-02	89.196
CD-109	+	88.03	*	2.604E+00	9.695E-01	1.356E+00	1.683E-01	1.921
SN-126		64.28		7.139E-01	7.538E-01	1.182E+00	2.001E-01	0.604
	+	86.94		1.058E+00	5.814E-01	5.608E-01	2.371E-01	1.886
	+	87.57	*	2.544E-01	9.471E-02	1.335E-01	1.652E-02	1.906
TL-208		277.37		3.363E-01	4.005E-01	6.656E-01	9.411E-02	0.505
	+	583.19	*	6.458E-01	9.736E-02	5.541E-02	5.068E-03	11.654
	+	860.56		9.581E-01	4.514E-01	4.204E-01	4.111E-02	2.279
BI-211		72.87		1.350E+01	4.648E+00	6.935E+00	7.942E-01	1.947
	+	351.06	*	4.579E+00	6.315E-01	3.170E-01	3.157E-02	14.444
BI-212	+	727.33	*	2.681E+00	9.114E-01	8.053E-01	1.001E-01	3.330
	+	785.37		4.373E+00	4.403E+00	4.738E+00	4.195E-01	0.923
		1620.50		1.756E+00	2.265E+00	4.034E+00	3.755E-01	0.435
PB-212	+	74.82		2.754E+00	7.211E-01	6.516E-01	9.817E-02	4.226
	+	77.11		2.364E+00	4.359E-01	3.635E-01	4.213E-02	6.503
	+	238.63	*	2.129E+00	2.788E-01	9.226E-02	1.102E-02	23.078
	+	300.09		2.417E+00	1.151E+00	1.275E+00	1.553E-01	1.895
BI-214	+	609.32	*	1.388E+00	2.093E-01	1.067E-01	1.063E-02	13.015
	+	1120.29		1.682E+00	5.176E-01	4.781E-01	5.178E-02	3.518
	+	1764.49		2.054E+00	4.812E-01	2.889E-01	2.533E-02	7.111
PB-214	+	74.82		4.881E+00	1.248E+00	1.155E+00	1.614E-01	4.226
	+	77.11		4.167E+00	8.419E-01	6.408E-01	9.115E-02	6.503
	+	242.00		3.111E+00	8.537E-01	5.609E-01	6.987E-02	5.546
	+	295.22		1.986E+00	3.410E-01	2.232E-01	2.782E-02	8.897
	+	351.93	*	1.662E+00	2.468E-01	1.197E-01	1.360E-02	13.889
RA-224	+	240.99	*	5.500E+00	1.476E+00	9.886E-01	1.090E-01	5.563
RA-226	+	609.32	*	1.388E+00	2.093E-01	1.067E-01	1.063E-02	13.015
	+	1120.29		1.682E+00	5.176E-01	4.781E-01	5.178E-02	3.518
	+	1764.49		2.054E+00	4.812E-01	2.889E-01	2.533E-02	7.111
AC-228	+	338.32		2.107E+00	9.905E-01	3.867E-01	1.624E-01	5.448
	+	911.20	*	1.851E+00	3.671E-01	2.197E-01	2.662E-02	8.425
	+	968.97		2.233E+00	6.827E-01	3.670E-01	9.016E-02	6.086
RA-228	+	338.32		2.107E+00	9.905E-01	3.867E-01	1.624E-01	5.448
	+	911.20	*	1.851E+00	3.671E-01	2.197E-01	2.662E-02	8.425

Sample ID : G248841008 Acquisition date : 18-MAR-2010 23:10:49

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		2.233E+00	6.827E-01	3.670E-01	9.016E-02	6.086
TH-228	+	74.82		2.754E+00	6.703E-01	6.516E-01	7.535E-02	4.226
	+	77.11		2.364E+00	4.359E-01	3.635E-01	4.213E-02	6.503
	+	238.63	*	2.129E+00	2.788E-01	9.226E-02	1.102E-02	23.078
	+	300.09		2.417E+00	1.857E+00	1.275E+00	7.845E-01	1.895
TH-232	+	338.32		2.107E+00	4.917E-01	3.867E-01	3.812E-02	5.448
	+	911.20	*	1.851E+00	3.671E-01	2.197E-01	2.662E-02	8.425
	+	968.97		2.233E+00	6.827E-01	3.670E-01	9.016E-02	6.086
U-235	+	89.96		2.064E+00	1.117E+00	1.371E+00	3.566E-01	1.506
	+	93.35		2.035E+00	9.203E-01	8.126E-01	1.977E-01	2.505
		143.76	*	-3.651E-02	2.083E-01	3.229E-01	5.745E-02	-0.113
		163.33		3.793E-02	4.495E-01	7.252E-01	1.377E-01	0.052
	+	185.72		2.212E-01	7.987E-02	6.654E-02	7.201E-03	3.324
		205.31		6.405E-02	5.615E-01	7.848E-01	1.520E-01	0.082
NP-237	+	86.48	*	7.591E-01	3.243E-01	4.333E-01	1.053E-01	1.752
		95.86		3.003E-01	1.121E+00	1.619E+00	4.053E-01	0.186
ANH-511	+	511.00	*	1.198E-01	6.673E-02	4.694E-02	4.055E-03	2.551

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-8.235E-02	3.171E-01	5.103E-01	4.743E-02	-0.161
NA-22		1274.54	*	5.140E-03	4.479E-02	7.298E-02	6.629E-03	0.070
NA-24		1368.63	*	5.785E-01	4.479E-02	Half-Life too short		
SC-46		889.28	*	-3.448E-03	4.316E-02	6.186E-02	5.748E-03	-0.056
	+	1120.55		2.854E-01	8.572E-02	1.235E-01	1.050E-02	2.312
V-48		944.13		-3.368E-02	9.180E-01	1.508E+00	1.394E-01	-0.022
		983.53	*	-1.574E-03	7.317E-02	1.200E-01	1.097E-02	-0.013
		1312.11		-5.317E-02	8.663E-02	1.328E-01	1.251E-02	-0.401
CR-51		320.08	*	3.439E-03	3.730E-01	6.194E-01	6.573E-02	0.006
MN-54		834.85	*	2.542E-02	3.779E-02	6.473E-02	5.874E-03	0.393
CO-56		846.77	*	-2.940E-02	3.959E-02	6.255E-02	5.708E-03	-0.470
		1037.84		8.416E-02	3.009E-01	5.016E-01	4.703E-02	0.168
	+	1238.28		1.551E-01	1.083E-01	1.774E-01	1.594E-02	0.874
		1771.35		7.874E-02	2.339E-01	3.504E-01	3.061E-02	0.225
CO-57		122.06	*	1.295E-02	2.540E-02	4.183E-02	4.213E-03	0.310
		136.47		5.182E-02	2.108E-01	3.436E-01	3.651E-02	0.151
CO-58		810.76	*	-2.126E-02	3.820E-02	5.722E-02	5.145E-03	-0.371
FE-59		1099.45	*	-6.744E-02	9.536E-02	1.480E-01	1.381E-02	-0.456
		1291.59		-1.105E-01	1.256E-01	1.878E-01	1.940E-02	-0.588
CO-60		1173.23		-5.151E-04	4.787E-02	7.771E-02	6.326E-03	-0.007
		1332.49	*	7.537E-03	4.267E-02	6.970E-02	6.700E-03	0.108
ZN-65		1115.54	*	-1.263E-01	1.146E-01	1.434E-01	1.225E-02	-0.880
SE-75		121.12		4.474E-02	1.326E-01	2.175E-01	2.664E-02	0.206
		136.00		2.033E-02	4.053E-02	6.649E-02	6.731E-03	0.306
		264.66	*	-5.514E-02	5.318E-02	7.172E-02	7.864E-03	-0.769
		279.54		1.444E-01	1.118E-01	1.925E-01	2.131E-02	0.750
		400.66		-2.700E-01	2.588E-01	4.037E-01	4.423E-02	-0.669

Sample ID : G248841008 Acquisition date : 18-MAR-2010 23:10:49

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SR-85		514.00	*	1.860E-01	4.860E-02	7.915E-02	6.838E-03	2.350
Y-88		898.04		-3.072E-02	4.300E-02	6.781E-02	6.350E-03	-0.453
		1836.06	*	-2.391E-02	2.581E-02	3.493E-02	2.942E-03	-0.684
Y-91		1204.77	*	1.186E+00	2.448E+01	3.981E+01	3.355E+00	0.030
NB-94		702.65	*	-1.964E-02	3.076E-02	4.964E-02	4.191E-03	-0.396
		871.09		1.719E-02	3.297E-02	5.620E-02	5.183E-03	0.306
NB-95		765.81	*	4.149E-02	4.173E-02	7.263E-02	6.363E-03	0.571
NB-95M		235.69	*	6.243E-01	1.677E-01	2.517E-01	3.032E-02	2.481
ZR-95		724.19		1.257E-01	1.049E-01	1.627E-01	1.511E-02	0.772
		756.73	*	-2.913E-02	7.127E-02	1.105E-01	1.062E-02	-0.264
MO-99		140.51		-1.838E+01	2.519E+01	3.926E+01	9.553E+00	-0.468
		181.07		-4.591E+00	2.290E+01	3.173E+01	6.307E+00	-0.145
		366.42		4.717E+01	1.020E+02	1.715E+02	1.572E+01	0.275
		739.50	*	2.905E-01	1.346E+01	2.248E+01	3.543E+00	0.013
		777.92		-3.022E+01	3.983E+01	5.995E+01	5.287E+00	-0.504
TC-99M		140.51	*	-8.379E+10	3.983E+01	Half-Life too short		
RU-103		497.08	*	-2.465E-02	3.857E-02	6.040E-02	8.443E-03	-0.408
	+	610.33		1.443E+01	2.858E+00	2.637E+00	4.287E-01	5.471
RH-106		621.93	*	-2.611E-01	2.990E-01	4.522E-01	5.931E-02	-0.577
		1050.41		9.106E-01	2.594E+00	4.337E+00	3.853E-01	0.210
RU-106		621.93	*	-2.611E-01	2.978E-01	4.522E-01	3.800E-02	-0.577
		1050.41		9.106E-01	2.594E+00	4.337E+00	3.853E-01	0.210
AG-108M		433.94	*	2.692E-02	3.013E-02	5.113E-02	4.519E-03	0.527
		614.28		1.556E-02	3.660E-02	5.253E-02	4.582E-03	0.296
		722.91		-2.062E-02	4.106E-02	5.677E-02	5.011E-03	-0.363
AG-110M		657.76	*	-8.486E-03	3.256E-02	5.391E-02	4.588E-03	-0.157
		677.62		-6.020E-02	2.879E-01	4.770E-01	4.086E-02	-0.126
		706.68		-1.614E-02	1.966E-01	3.274E-01	2.854E-02	-0.049
		763.94		-1.592E-01	1.585E-01	2.489E-01	2.236E-02	-0.640
		884.68		-1.956E-02	4.538E-02	7.275E-02	6.936E-03	-0.269
		937.49		-9.704E-02	1.119E-01	1.737E-01	1.659E-02	-0.559
		1384.29		-1.407E-01	1.535E-01	2.351E-01	2.314E-02	-0.598
		1505.03		2.449E-03	2.967E-01	4.223E-01	4.035E-02	0.006
SN-113		391.69	*	-4.491E-02	4.592E-02	7.221E-02	6.271E-03	-0.622
CD-115		260.90		-1.455E+01	1.572E+02	2.623E+02	2.874E+01	-0.055
		492.35		-2.340E+01	4.087E+01	6.442E+01	5.566E+00	-0.363
		527.90	*	1.179E+00	1.286E+01	2.095E+01	1.809E+00	0.056
SN-117M		156.02		-5.782E-01	2.397E+00	3.837E+00	3.999E-01	-0.151
		158.56	*	-1.185E-02	5.770E-02	9.239E-02	9.686E-03	-0.128
TE-123M		159.00	*	7.385E-03	2.931E-02	4.756E-02	5.012E-03	0.155
SB-124		602.73		6.607E-03	4.444E-02	6.239E-02	5.288E-03	0.106
		645.85		-1.925E-01	4.739E-01	7.414E-01	6.534E-02	-0.260
		722.78		-1.978E-01	4.148E-01	5.747E-01	5.027E-02	-0.344
		1690.97	*	2.247E-02	6.998E-02	1.202E-01	1.132E-02	0.187
SB-125		427.87	*	-4.657E-02	9.240E-02	1.479E-01	1.287E-02	-0.315
	+	463.37		1.075E+00	4.299E-01	5.347E-01	4.954E-02	2.010
		600.60		2.660E-02	1.841E-01	2.907E-01	2.654E-02	0.091
		635.95		1.209E-01	2.529E-01	4.177E-01	3.787E-02	0.290
TE-125M		109.28	*	3.179E+00	1.029E+01	1.690E+01	2.007E+00	0.188

Sample ID : G248841008 Acquisition date : 18-MAR-2010 23:10:49

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-126		388.63		9.493E-02	1.732E-01	2.912E-01	2.478E-02	0.326
		666.33	*	3.442E-02	2.132E-01	3.604E-01	2.972E-02	0.095
		753.82		1.407E+00	1.694E+00	2.947E+00	2.564E-01	0.478
SB-126		414.70		-8.925E-02	8.012E-02	1.246E-01	1.059E-02	-0.716
		666.50		8.474E-03	7.305E-02	1.233E-01	1.017E-02	0.069
		695.00		5.563E-02	7.952E-02	1.373E-01	1.154E-02	0.405
		697.00		1.556E-01	2.699E-01	4.637E-01	3.901E-02	0.336
		720.70	*	8.862E-02	1.641E-01	2.458E-01	2.098E-02	0.361
		856.80		1.873E-01	5.248E-01	7.699E-01	7.057E-02	0.243
SB-127		252.40		6.968E-01	4.585E+00	7.704E+00	3.245E+00	0.090
		473.00		-4.723E-01	1.724E+00	2.772E+00	3.569E-01	-0.170
		685.70	*	1.844E-02	1.340E+00	2.246E+00	2.535E-01	0.008
		783.70		3.437E+00	4.106E+00	6.242E+00	7.875E-01	0.551
I-131		80.19		-3.026E+00	6.020E+00	8.520E+00	1.005E+00	-0.355
		284.31		-1.582E+00	1.560E+00	2.495E+00	2.774E-01	-0.634
		364.49	*	-1.462E-01	1.169E-01	1.811E-01	1.748E-02	-0.807
		636.99		6.410E-01	1.540E+00	2.534E+00	2.243E-01	0.253
TE-132		49.72		-1.282E+01	4.749E+01	7.826E+01	1.197E+01	-0.164
		111.76		-2.327E+01	3.747E+01	5.984E+01	7.406E+00	-0.389
		116.30		4.721E-01	3.180E+01	5.178E+01	6.370E+00	0.009
		228.16	*	8.283E-01	8.400E-01	1.430E+00	2.477E-01	0.579
BA-133		81.00		-2.746E-01	1.397E-01	1.616E-01	2.827E-02	-1.699
		276.40		5.781E-01	3.962E-01	6.227E-01	9.694E-02	0.928
		302.85		2.205E-01	1.642E-01	2.484E-01	3.574E-02	0.888
		356.01	*	-1.497E-02	4.875E-02	6.858E-02	9.266E-03	-0.218
		383.85		-2.782E-01	3.011E-01	4.735E-01	5.896E-02	-0.587
I-133		529.87	*	-4.285E-04	3.011E-01	Half-Life too short		
		875.33		7.416E-02	3.011E-01	Half-Life too short		
		1298.22		2.233E-01	3.011E-01	Half-Life too short		
CS-134		563.25		1.380E-01	3.653E-01	6.017E-01	5.212E-02	0.229
		569.33		2.030E-01	2.057E-01	3.332E-01	2.893E-02	0.609
		604.72		-6.204E-03	3.921E-02	5.380E-02	4.567E-03	-0.115
	+	795.86	*	1.287E-01	6.639E-02	9.222E-02	8.266E-03	1.396
		801.95		1.713E-01	4.510E-01	6.624E-01	5.947E-02	0.259
		1365.19		4.687E-01	1.122E+00	1.943E+00	1.941E-01	0.241
CS-135		268.22	*	3.106E-01	1.813E-01	2.784E-01	3.341E-02	1.115
I-135		546.56		3.074E+10	1.813E-01	Half-Life too short		
		836.80		1.077E+11	1.813E-01	Half-Life too short		
		1038.76		2.726E+10	1.813E-01	Half-Life too short		
		1131.51		1.246E+09	1.813E-01	Half-Life too short		
		1260.41	*	-2.150E+09	1.813E-01	Half-Life too short		
		1457.56		3.769E+12	1.813E-01	Half-Life too short		
		1678.03		-1.569E+10	1.813E-01	Half-Life too short		
		1791.20		-4.124E+09	1.813E-01	Half-Life too short		
CS-136		153.25		1.512E-01	9.101E-01	1.475E+00	1.735E-01	0.103
		176.60		9.390E-02	5.356E-01	8.642E-01	9.920E-02	0.109
		273.65		-1.155E+00	6.385E-01	8.295E-01	9.499E-02	-1.393
		340.55		8.515E-01	2.072E-01	3.230E-01	3.262E-02	2.636
		818.51		-2.433E-03	6.994E-02	1.158E-01	1.044E-02	-0.021

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1048.07	*	-6.097E-02	1.123E-01	1.770E-01	1.637E-02	-0.345
		1235.36		1.478E+00	7.476E-01	1.163E+00	1.376E-01	1.270
BA-137M		661.66	*	-7.720E-04	3.291E-02	5.516E-02	4.535E-03	-0.014
CS-137		661.66	*	-8.156E-04	3.476E-02	5.827E-02	4.801E-03	-0.014
CE-139		165.86	*	1.297E-02	3.120E-02	5.076E-02	5.419E-03	0.255
BA-140		162.66		4.075E-02	8.554E-01	1.379E+00	1.526E-01	0.030
		304.85		1.241E+00	1.569E+00	2.296E+00	6.860E-01	0.540
		423.72		1.126E-01	2.006E+00	3.297E+00	1.084E+00	0.034
		537.26	*	1.120E-01	2.626E-01	4.310E-01	1.462E-01	0.260
LA-140		328.76		4.837E-01	3.268E-01	5.619E-01	5.893E-02	0.861
		487.02		4.519E-02	1.359E-01	2.250E-01	2.063E-02	0.201
		815.77		1.279E-01	3.048E-01	5.185E-01	5.167E-02	0.247
		1596.21	*	5.342E-02	8.767E-02	1.361E-01	1.276E-02	0.393
CE-141		145.44	*	2.668E-03	6.709E-02	1.048E-01	1.083E-02	0.025
CE-143		57.36		1.192E-03	6.709E-02	Half-Life too short		
		293.27	*	1.384E-03	6.709E-02	Half-Life too short		
		664.57		-4.576E-04	6.709E-02	Half-Life too short		
		721.93		-7.280E-04	6.709E-02	Half-Life too short		
CE-144		80.12		-1.141E+00	3.159E+00	4.497E+00	5.286E-01	-0.254
		133.52	*	1.496E-02	2.334E-01	3.315E-01	5.349E-02	0.045
PM-144		476.78		7.346E-03	6.312E-02	1.035E-01	9.703E-03	0.071
		618.01		1.573E-03	3.147E-02	4.780E-02	4.142E-03	0.033
		696.49	*	1.745E-02	3.389E-02	5.807E-02	4.885E-03	0.301
PR-144		696.51	*	1.731E+00	2.517E+00	4.345E+00	3.655E-01	0.398
		1489.16		-1.517E+01	1.094E+01	1.495E+01	1.432E+00	-1.015
PM-146		453.88	*	1.401E-03	4.178E-02	6.840E-02	7.233E-03	0.020
		633.25		-5.471E-01	1.373E+00	2.128E+00	8.115E-01	-0.257
		735.93		-4.876E-02	1.519E-01	2.292E-01	6.422E-02	-0.213
		747.24		-1.659E-02	9.269E-02	1.530E-01	2.236E-02	-0.108
ND-147	+	91.11		6.851E-01	3.364E-01	5.616E-01	6.954E-02	1.220
		319.41		3.976E-01	3.456E+00	5.761E+00	5.901E-01	0.069
		531.02	*	3.935E-01	5.568E-01	9.317E-01	1.393E-01	0.422
PM-149		285.90	*	-6.080E+00	1.054E+02	1.754E+02	2.950E+01	-0.035
EU-152		121.78		3.649E-02	7.327E-02	1.206E-01	1.349E-02	0.303
		244.70		1.041E+00	3.684E-01	5.775E-01	6.366E-02	1.803
		344.28	*	8.699E-02	1.321E-01	1.577E-01	1.605E-02	0.552
		778.90		-1.812E-01	2.608E-01	3.813E-01	3.364E-02	-0.475
	+	964.08		7.618E-01	3.012E-01	5.189E-01	4.773E-02	1.468
		1085.87		-2.234E-01	4.051E-01	6.367E-01	5.544E-02	-0.351
		1112.07		4.780E-01	3.432E-01	5.671E-01	4.853E-02	0.843
		1408.01		1.459E-01	1.779E-01	3.155E-01	3.040E-02	0.463
GD-153		69.67		-3.472E-01	2.489E+00	3.587E+00	4.094E-01	-0.097
		97.43	*	5.421E-02	1.016E-01	1.462E-01	1.613E-02	0.371
		103.18		-1.949E-01	1.180E-01	1.810E-01	1.913E-02	-1.077
EU-154		123.07		-3.323E-02	5.431E-02	8.327E-02	1.039E-02	-0.399
		723.31		-8.361E-02	1.901E-01	2.643E-01	2.493E-02	-0.316
		873.19		-1.111E-04	2.739E-01	4.529E-01	5.591E-02	0.000
		996.26		-2.308E-01	3.823E-01	6.006E-01	1.064E-01	-0.384
		1004.73		-1.695E-01	2.138E-01	3.310E-01	3.963E-02	-0.512

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1274.44	*	4.512E-03	1.281E-01	2.076E-01	2.434E-02	0.022
EU-155	+	86.55		3.085E-01	1.149E-01	2.043E-01	2.520E-02	1.510
		105.31	*	1.304E-02	1.097E-01	1.796E-01	1.892E-02	0.073
TB-160	+	86.79		8.215E-01	3.058E-01	5.380E-01	6.615E-02	1.527
		197.04		-4.109E-01	5.888E-01	9.179E-01	1.001E-01	-0.448
		215.65		1.534E-01	8.711E-01	1.288E+00	1.417E-01	0.119
		298.57		5.257E-01	1.816E-01	2.161E-01	2.286E-02	2.433
		879.36	*	-1.730E-03	1.285E-01	2.122E-01	1.964E-02	-0.008
		962.29		1.084E+00	6.293E-01	9.648E-01	8.878E-02	1.123
		966.15		1.419E+00	2.813E-01	5.025E-01	4.619E-02	2.825
		1177.93		-8.843E-02	3.743E-01	5.986E-01	4.898E-02	-0.148
		1271.85		6.399E-01	7.423E-01	1.268E+00	1.148E-01	0.505
HO-166M		80.57		-5.389E-01	3.502E-01	4.703E-01	5.542E-02	-1.146
		184.41		9.165E-02	4.605E-02	6.779E-02	7.330E-03	1.352
		280.46		-4.675E-02	8.512E-02	1.392E-01	1.503E-02	-0.336
		410.95		3.726E-01	2.579E-01	4.444E-01	3.772E-02	0.838
		711.68	*	9.489E-05	5.784E-02	9.671E-02	8.211E-03	0.001
		752.31		1.520E-01	2.557E-01	4.396E-01	3.822E-02	0.346
		810.29		-2.810E-02	5.732E-02	8.632E-02	7.741E-03	-0.326
TA-182		67.75		-1.752E-01	1.543E-01	2.390E-01	2.728E-02	-0.733
		100.11		1.873E-01	1.905E-01	3.113E-01	3.360E-02	0.602
		152.43		2.324E-01	3.607E-01	5.914E-01	6.116E-02	0.393
		222.11		-1.476E-02	3.618E-01	6.083E-01	6.704E-02	-0.024
	+	1121.30		7.901E-01	2.373E-01	3.417E-01	2.904E-02	2.312
		1189.05		-3.463E-02	3.431E-01	5.535E-01	4.586E-02	-0.063
		1221.41	*	2.129E-02	2.103E-01	3.428E-01	2.942E-02	0.062
		1231.02		-3.143E-03	5.657E-01	8.167E-01	7.082E-02	-0.004
IR-192	+	295.96		1.474E+00	2.347E-01	2.862E-01	3.053E-02	5.150
		308.46		-3.987E-02	9.553E-02	1.562E-01	1.635E-02	-0.255
		316.51	*	6.158E-03	3.505E-02	5.858E-02	6.040E-03	0.105
		468.07		1.750E-02	7.423E-02	1.064E-01	9.843E-03	0.164
HG-203		70.83		1.001E+00	1.873E+00	2.748E+00	4.871E-01	0.364
		72.87		3.382E+00	1.243E+00	1.737E+00	2.999E-01	1.947
		279.20	*	5.781E-02	3.977E-02	6.861E-02	7.539E-03	0.843
BI-207		72.81		7.221E-01	2.649E-01	3.960E-01	4.535E-02	1.824
	+	74.97		7.937E-01	1.930E-01	2.756E-01	3.172E-02	2.880
		569.70		2.290E-02	3.193E-02	5.111E-02	4.378E-03	0.448
		1063.66	*	2.139E-02	5.119E-02	8.594E-02	7.582E-03	0.249
		1770.23		1.428E-01	4.569E-01	6.816E-01	5.958E-02	0.210
PB-210		46.54	*	-4.894E+00	1.034E+01	1.648E+01	2.029E+00	-0.297
PB-211		404.85	*	-3.388E-01	7.832E-01	1.236E+00	5.979E-01	-0.274
		427.09		-1.313E-01	1.529E+00	2.494E+00	1.154E+00	-0.053
		832.01		-2.929E-01	1.018E+00	1.641E+00	8.524E-01	-0.178
RN-219	+	271.23		7.591E-01	3.309E-01	4.424E-01	5.406E-02	1.716
		401.81	*	-2.318E-01	4.105E-01	6.562E-01	9.697E-02	-0.353
RA-223		81.07		-6.241E-01	3.058E-01	3.655E-01	4.319E-02	-1.707
		83.79		1.587E-02	1.864E-01	2.269E-01	2.727E-02	0.070
		94.87		1.974E+00	6.028E-01	8.930E-01	1.011E-01	2.210
		144.24		-4.522E-01	7.186E-01	1.099E+00	1.214E-01	-0.411

---- Non-Identified Nuclides ----

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		154.21		2.969E-01	4.005E-01	6.574E-01	7.280E-02	0.452
	+	269.46		5.898E-01	2.552E-01	3.398E-01	3.750E-02	1.736
		323.87	*	-7.360E-01	6.820E-01	1.066E+00	1.934E-01	-0.691
	+	338.28		8.360E+00	2.075E+00	2.345E+00	3.045E-01	3.565
AC-227		79.69		2.993E+00	1.674E+00	2.411E+00	4.577E-01	1.241
		235.96		1.251E+00	2.469E-01	3.397E-01	4.221E-02	3.684
		256.23	*	1.227E-01	2.593E-01	4.398E-01	6.086E-02	0.279
	+	299.98		2.659E+00	1.280E+00	1.659E+00	2.338E-01	1.603
		304.50		1.603E+00	1.826E+00	2.726E+00	4.792E-01	0.588
		334.37		-3.038E-01	2.041E+00	2.911E+00	4.761E-01	-0.104
TH-227		79.80		5.854E-01	2.116E+00	3.073E+00	7.125E-01	0.191
		235.96		1.251E+00	2.432E-01	3.397E-01	4.057E-02	3.684
		256.23	*	1.227E-01	2.595E-01	4.398E-01	6.690E-02	0.279
	+	299.98		2.659E+00	1.280E+00	1.659E+00	2.338E-01	1.603
		304.50		1.603E+00	1.826E+00	2.726E+00	4.792E-01	0.588
		334.37		-3.038E-01	2.041E+00	2.911E+00	4.761E-01	-0.104
TH-229		85.43		1.019E+00	2.863E-01	4.160E-01	5.061E-02	2.450
	+	88.47		3.922E-01	1.460E-01	2.591E-01	3.193E-02	1.514
		193.51	*	4.623E-01	5.528E-01	9.038E-01	9.833E-02	0.512
	+	210.85		3.772E+00	1.470E+00	1.647E+00	1.809E-01	2.290
PA-231		283.69	*	-3.725E-01	1.454E+00	2.402E+00	3.830E-01	-0.155
	+	301.36		1.708E+00	8.197E-01	1.081E+00	1.469E-01	1.579
TH-231		81.07		-6.241E-01	3.058E-01	3.655E-01	4.319E-02	-1.707
		83.79		1.587E-02	1.864E-01	2.269E-01	2.727E-02	0.070
		94.87		1.974E+00	6.028E-01	8.930E-01	1.011E-01	2.210
		144.24		-4.522E-01	7.186E-01	1.099E+00	1.214E-01	-0.411
		154.21		2.969E-01	4.005E-01	6.574E-01	7.280E-02	0.452
	+	269.46		5.898E-01	2.552E-01	3.398E-01	3.750E-02	1.736
		323.87	*	-7.360E-01	6.820E-01	1.066E+00	1.934E-01	-0.691
	+	338.28		8.360E+00	2.075E+00	2.345E+00	3.045E-01	3.565
PA-233	+	300.13		1.203E+00	5.863E-01	7.547E-01	1.210E-01	1.594
		311.90	*	-1.419E-02	6.332E-02	1.043E-01	1.104E-02	-0.136
		340.48		3.843E+00	1.234E+00	1.376E+00	3.374E-01	2.793
PA-234		94.67		9.291E-01	2.429E-01	3.324E-01	4.797E-02	2.795
		98.44		1.392E-01	1.348E-01	1.624E-01	9.124E-02	0.857
		111.00		-2.681E-02	1.907E-01	3.095E-01	4.109E-02	-0.087
		131.20		1.009E-01	1.260E-01	1.834E-01	1.841E-02	0.550
		569.50		1.958E-01	2.851E-01	4.559E-01	3.905E-02	0.429
		733.00		1.922E-02	4.054E-01	5.855E-01	1.299E-01	0.033
		880.51		-5.095E-02	2.561E-01	4.177E-01	3.867E-02	-0.122
		883.24		-1.852E-01	2.926E-01	4.168E-01	2.806E-01	-0.444
		926.50		-7.103E-02	1.751E-01	2.689E-01	6.859E-02	-0.264
		946.00	*	-8.691E-03	3.108E-01	5.107E-01	9.733E-02	-0.017
		949.00		4.363E-01	4.526E-01	7.846E-01	7.245E-02	0.556
PA-234M		766.42		1.248E+01	1.283E+01	1.959E+01	9.942E+00	0.637
		1001.03	*	5.044E-01	4.821E+00	7.602E+00	7.883E-01	0.066
TH-234		63.29	*	8.539E-01	2.039E+00	3.179E+00	6.304E-01	0.269
	+	92.59		2.695E+00	1.205E+00	1.389E+00	3.252E-01	1.940
U-238		63.29	*	8.539E-01	2.039E+00	3.179E+00	6.304E-01	0.269

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.59		2.695E+00	1.073E+00	1.389E+00	1.614E-01	1.940
NP-239		99.53		2.629E-01	1.816E-01	2.898E-01	3.142E-02	0.907
		103.37		-1.282E-01	1.056E-01	1.652E-01	1.745E-02	-0.776
		106.12		3.449E-02	8.790E-02	1.448E-01	1.507E-02	0.238
		117.23	*	-2.428E-01	4.042E-01	6.451E-01	6.510E-02	-0.376
		228.18		2.248E-01	2.266E-01	3.892E-01	4.294E-02	0.577
		277.60		1.548E-01	1.822E-01	3.038E-01	3.290E-02	0.510
AM-241		59.54	*	-3.053E-01	2.439E-01	3.857E-01	4.527E-02	-0.791
CM-247		278.00		6.090E-01	7.583E-01	1.293E+00	1.400E-01	0.471
		287.50		6.677E-01	1.282E+00	2.119E+00	2.272E-01	0.315
		402.40	*	-5.518E-03	3.721E-02	6.077E-02	5.139E-03	-0.091
CF-249		252.80		2.968E-01	9.486E-01	1.604E+00	1.764E-01	0.185
		333.37		-1.034E-01	2.230E-01	3.130E-01	3.119E-02	-0.330
		388.16	*	2.575E-02	4.051E-02	6.832E-02	5.824E-03	0.377
CF-251		177.52	*	1.511E-02	1.359E-01	2.188E-01	2.355E-02	0.069
		227.38		2.405E-01	3.699E-01	6.317E-01	6.968E-02	0.381
		285.41		-9.697E-01	2.200E+00	3.609E+00	3.878E-01	-0.269

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841008       *
* Acquisition date : 18-MAR-2010 23:10:49 Detector SN#    :                 *
* Detector ID       : GAM15                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 04:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 04:00:02.67      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  3-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248841008           Analyst initials: MXR1           *
* Batch Number      : 962629               Sample Quantity : 1.1535E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	4.139E+01	4.332E+00	4.622E-01	0.000E+00
CD-109	2.604E+00	9.501E-01	1.388E+00	0.000E+00
SN-126	2.544E-01	9.281E-02	1.366E-01	0.000E+00
TL-208	6.458E-01	9.541E-02	5.570E-02	0.000E+00
BI-211	4.579E+00	6.189E-01	3.202E-01	0.000E+00
BI-212	2.681E+00	8.931E-01	8.077E-01	0.000E+00
PB-212	2.129E+00	2.732E-01	9.354E-02	0.000E+00
BI-214	1.388E+00	2.051E-01	1.072E-01	0.000E+00
PB-214	1.662E+00	2.419E-01	1.209E-01	0.000E+00
RA-224	5.500E+00	1.446E+00	1.002E+00	0.000E+00
RA-226	1.388E+00	2.051E-01	1.072E-01	0.000E+00
AC-228	1.851E+00	3.598E-01	2.199E-01	0.000E+00
RA-228	1.851E+00	3.598E-01	2.199E-01	0.000E+00
TH-228	2.129E+00	2.732E-01	9.354E-02	0.000E+00
TH-232	1.851E+00	3.598E-01	2.199E-01	0.000E+00
U-235	-3.651E-02	2.041E-01	3.289E-01	0.000E+00
NP-237	7.591E-01	3.178E-01	4.436E-01	0.000E+00
ANH-511	1.198E-01	6.540E-02	4.724E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-8.235E-02		3.108E-01	5.140E-01	0.000E+00	NOT IDENT.
NA-22	5.140E-03		4.390E-02	7.279E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		1.018E+06	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-3.448E-03		4.229E-02	6.192E-02	0.000E+00	FAIL ABUN
V-48	-1.574E-03		7.171E-02	1.200E-01	0.000E+00	NOT IDENT.
CR-51	3.439E-03		3.655E-01	6.262E-01	0.000E+00	NOT IDENT.
MN-54	2.542E-02		3.703E-02	6.483E-02	0.000E+00	NOT IDENT.
CO-56	-2.940E-02		3.880E-02	6.265E-02	0.000E+00	FAIL ABUN
CO-57	1.295E-02		2.489E-02	4.267E-02	0.000E+00	NOT IDENT.

CO-58	-2.126E-02	3.743E-02	5.733E-02	0.000E+00	NOT IDENT.
FE-59	-6.744E-02	9.345E-02	1.479E-01	0.000E+00	NOT IDENT.
CO-60	7.537E-03	4.182E-02	6.949E-02	0.000E+00	NOT IDENT.
ZN-65	-1.263E-01	1.123E-01	1.432E-01	0.000E+00	NOT IDENT.
SE-75	-5.514E-02	5.212E-02	7.264E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.762E-02	7.965E-02	0.000E+00	NOT IDENT.
Y-88	-2.391E-02	2.529E-02	3.472E-02	0.000E+00	NOT IDENT.
Y-91	1.186E+00	2.399E+01	3.973E+01	0.000E+00	NOT IDENT.
NB-94	-1.964E-02	3.015E-02	4.980E-02	0.000E+00	NOT IDENT.
NB-95	4.149E-02	4.090E-02	7.281E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.644E-01	2.552E-01	0.000E+00	NOT IDENT.
ZR-95	-2.913E-02	6.984E-02	1.108E-01	0.000E+00	NOT IDENT.
MO-99	2.905E-01	1.319E+01	2.254E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.135E+17	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.465E-02	3.779E-02	6.080E-02	0.000E+00	FAIL ABUN
RH-106	-2.611E-01	2.930E-01	4.542E-01	0.000E+00	NOT IDENT.
RU-106	-2.611E-01	2.919E-01	4.542E-01	0.000E+00	NOT IDENT.
AG-108M	2.692E-02	2.953E-02	5.154E-02	0.000E+00	NOT IDENT.
AG-110M	-8.486E-03	3.191E-02	5.412E-02	0.000E+00	NOT IDENT.
SN-113	-4.491E-02	4.501E-02	7.286E-02	0.000E+00	NOT IDENT.
CD-115	1.179E+00	1.260E+01	2.108E+01	0.000E+00	NOT IDENT.
SN-117M	-1.185E-02	5.655E-02	9.404E-02	0.000E+00	NOT IDENT.
TE-123M	7.385E-03	2.872E-02	4.840E-02	0.000E+00	NOT IDENT.
SB-124	2.247E-02	6.858E-02	1.195E-01	0.000E+00	NOT IDENT.
SB-125	-4.657E-02	9.055E-02	1.491E-01	0.000E+00	FAIL ABUN
TE-125M	3.179E+00	1.008E+01	1.726E+01	0.000E+00	NOT IDENT.
I-126	3.442E-02	2.089E-01	3.618E-01	0.000E+00	NOT IDENT.
SB-126	8.862E-02	1.609E-01	2.465E-01	0.000E+00	NOT IDENT.
SB-127	1.844E-02	1.313E+00	2.254E+00	0.000E+00	NOT IDENT.
I-131	-1.462E-01	1.146E-01	1.829E-01	0.000E+00	NOT IDENT.
TE-132	8.283E-01	8.232E-01	1.451E+00	0.000E+00	NOT IDENT.
BA-133	-1.497E-02	4.777E-02	6.926E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	8.006E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.506E-02	9.242E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.777E-01	2.820E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.880E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.097E-02	1.101E-01	1.769E-01	0.000E+00	NOT IDENT.
BA-137M	-7.720E-04	3.225E-02	5.537E-02	0.000E+00	NOT IDENT.
CS-137	-8.156E-04	3.407E-02	5.850E-02	0.000E+00	NOT IDENT.
CE-139	1.297E-02	3.058E-02	5.164E-02	0.000E+00	NOT IDENT.
BA-140	1.120E-01	2.574E-01	4.335E-01	0.000E+00	NOT IDENT.
LA-140	5.342E-02	8.592E-02	1.354E-01	0.000E+00	NOT IDENT.
CE-141	2.668E-03	6.575E-02	1.067E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.790E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.496E-02	2.288E-01	3.380E-01	0.000E+00	NOT IDENT.
PM-144	1.745E-02	3.321E-02	5.826E-02	0.000E+00	NOT IDENT.
PR-144	1.731E+00	2.466E+00	4.360E+00	0.000E+00	NOT IDENT.
PM-146	1.401E-03	4.095E-02	6.892E-02	0.000E+00	NOT IDENT.
ND-147	3.935E-01	5.457E-01	9.373E-01	0.000E+00	FAIL ABUN
PM-149	-6.080E+00	1.033E+02	1.776E+02	0.000E+00	NOT IDENT.
EU-152	8.699E-02	1.294E-01	1.594E-01	0.000E+00	FAIL ABUN
GD-153	5.421E-02	9.956E-02	1.494E-01	0.000E+00	NOT IDENT.
EU-154	4.512E-03	1.256E-01	2.070E-01	0.000E+00	NOT IDENT.
EU-155	1.304E-02	1.075E-01	1.835E-01	0.000E+00	FAIL ABUN
TB-160	-1.730E-03	1.259E-01	2.125E-01	0.000E+00	FAIL ABUN
HO-166M	9.489E-05	5.668E-02	9.702E-02	0.000E+00	NOT IDENT.
TA-182	2.129E-02	2.061E-01	3.420E-01	0.000E+00	FAIL ABUN
IR-192	6.158E-03	3.435E-02	5.923E-02	0.000E+00	FAIL ABUN
HG-203	5.781E-02	3.897E-02	6.945E-02	0.000E+00	NOT IDENT.
BI-207	2.139E-02	5.016E-02	8.587E-02	0.000E+00	FAIL ABUN
PB-210	-4.894E+00	1.013E+01	1.696E+01	0.000E+00	NOT IDENT.
PB-211	-3.388E-01	7.675E-01	1.247E+00	0.000E+00	NOT IDENT.
RN-219	-2.318E-01	4.023E-01	6.619E-01	0.000E+00	FAIL ABUN
RA-223	-7.360E-01	6.683E-01	1.077E+00	0.000E+00	FAIL ABUN
AC-227	1.227E-01	2.542E-01	4.456E-01	0.000E+00	FAIL ABUN
TH-227	1.227E-01	2.543E-01	4.456E-01	0.000E+00	FAIL ABUN
TH-229	4.623E-01	5.418E-01	9.181E-01	0.000E+00	FAIL ABUN
PA-231	-3.725E-01	1.425E+00	2.431E+00	0.000E+00	FAIL ABUN
TH-231	-7.360E-01	6.683E-01	1.077E+00	0.000E+00	FAIL ABUN
PA-233	-1.419E-02	6.205E-02	1.055E-01	0.000E+00	FAIL ABUN
PA-234	-8.691E-03	3.046E-01	5.109E-01	0.000E+00	NOT IDENT.
PA-234M	5.044E-01	4.724E+00	7.601E+00	0.000E+00	NOT IDENT.
TH-234	8.539E-01	1.998E+00	3.264E+00	0.000E+00	FAIL ABUN
U-238	8.539E-01	1.998E+00	3.264E+00	0.000E+00	FAIL ABUN
NP-239	-2.428E-01	3.961E-01	6.584E-01	0.000E+00	NOT IDENT.
AM-241	-3.053E-01	2.390E-01	3.962E-01	0.000E+00	NOT IDENT.
CM-247	-5.518E-03	3.647E-02	6.130E-02	0.000E+00	NOT IDENT.
CF-249	2.575E-02	3.970E-02	6.894E-02	0.000E+00	NOT IDENT.

CF-251	1.511E-02	1.332E-01	2.225E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 03:11:25.77

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841008.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 23:10:49
Sample ID         : G248841008           Sample quantity  : 1.15350E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:02.67  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	2620	10.66*	9.663E-01	4.139E+01	4.139E+01	10.68
CD-109	88.03	257	3.70*	4.449E+00	2.544E+00	2.604E+00	37.23
SN-126	64.28	------	9.60	1.941E+00	------ Line Not Found		------
	86.94	257	8.90	4.449E+00	1.058E+00	1.058E+00	54.97
	87.57	257	37.00*	4.449E+00	2.544E-01	2.544E-01	37.23
TL-208	277.37	------	6.60	3.705E+00	------ Line Not Found		------
	583.19	739	85.00*	2.191E+00	6.458E-01	6.458E-01	15.08
	860.56	116	12.50	1.576E+00	9.581E-01	9.581E-01	47.11
BI-211	72.87	------	1.23	3.001E+00	------ Line Not Found		------
	351.06	1142	12.92*	3.141E+00	4.579E+00	4.579E+00	13.79
BI-212	727.33	201	6.67*	1.830E+00	2.681E+00	2.681E+00	33.99
	785.37	51	1.10	1.711E+00	4.373E+00	4.373E+00	100.69
	1620.50	------	1.47	8.965E-01	------ Line Not Found		------
PB-212	74.82	565	10.28	3.244E+00	2.754E+00	2.754E+00	26.18
	77.11	869	17.10	3.497E+00	2.364E+00	2.364E+00	18.44
	238.63	2348	43.60*	4.115E+00	2.129E+00	2.129E+00	13.09
	300.09	172	3.30	3.507E+00	2.417E+00	2.417E+00	47.60
BI-214	609.32	822	45.49*	2.117E+00	1.388E+00	1.388E+00	15.07
	1120.29	189	14.92	1.227E+00	1.682E+00	1.682E+00	30.77
	1764.49	165	15.30	8.554E-01	2.054E+00	2.054E+00	23.42
PB-214	74.82	565	5.80	3.244E+00	4.881E+00	4.881E+00	25.57
	77.11	869	9.70	3.497E+00	4.167E+00	4.167E+00	20.20
	242.00	565	7.25	4.080E+00	3.110E+00	3.111E+00	27.45
	295.22	797	18.42	3.547E+00	1.986E+00	1.986E+00	17.17
	351.93	1142	35.60*	3.141E+00	1.662E+00	1.662E+00	14.85
RA-224	240.99	565	4.10*	4.080E+00	5.500E+00	5.500E+00	26.83
RA-226	609.32	822	45.49*	2.117E+00	1.388E+00	1.388E+00	15.07
	1120.29	189	14.92	1.227E+00	1.682E+00	1.682E+00	30.77
	1764.49	165	15.30	8.554E-01	2.054E+00	2.054E+00	23.42
AC-228	338.32	471	11.27	3.226E+00	2.107E+00	2.107E+00	47.02
	911.20	439	25.80*	1.494E+00	1.851E+00	1.851E+00	19.83
	968.97	306	15.80	1.410E+00	2.233E+00	2.233E+00	30.57

Sample ID : G248841008 Acquisition date : 18-MAR-2010 23:10:49

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	471	11.27	3.226E+00	2.107E+00	2.107E+00	47.02
	911.20	439	25.80*	1.494E+00	1.851E+00	1.851E+00	19.83
	968.97	306	15.80	1.410E+00	2.233E+00	2.233E+00	30.57
TH-228	74.82	565	10.28	3.244E+00	2.754E+00	2.754E+00	24.34
	77.11	869	17.10	3.497E+00	2.364E+00	2.364E+00	18.44
	238.63	2348	43.60*	4.115E+00	2.129E+00	2.129E+00	13.09
	300.09	172	3.30	3.507E+00	2.417E+00	2.417E+00	76.83
TH-232	338.32	471	11.27	3.226E+00	2.107E+00	2.107E+00	23.34
	911.20	439	25.80*	1.494E+00	1.851E+00	1.851E+00	19.83
	968.97	306	15.80	1.410E+00	2.233E+00	2.233E+00	30.57
U-235	89.96	205	3.47	4.654E+00	2.064E+00	2.064E+00	54.13
	93.35	339	5.60	4.846E+00	2.035E+00	2.035E+00	45.21
	143.76	------	10.96*	5.506E+00	------	Line Not Found	------
	163.33	------	5.08	5.224E+00	------	Line Not Found	------
	185.72	378	57.20	4.857E+00	2.212E-01	2.212E-01	36.11
	205.31	------	5.01	4.560E+00	------	Line Not Found	------
NP-237	86.48	257	12.40*	4.449E+00	7.591E-01	7.591E-01	42.73
	95.86	------	2.68	5.004E+00	------	Line Not Found	------
ANH-511	511.00	178	100.00*	2.419E+00	1.198E-01	1.198E-01	55.72

Flag: "*" = Keyline

Sample ID : G248841008 Acquisition date : 18-MAR-2010 23:10:49

Total number of lines in spectrum 32
Number of unidentified lines 3
Number of lines tentatively identified by NID 29 90.63%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	4.139E+01	4.139E+01	0.442E+01	10.68	
CD-109	461.40D	1.02	2.544E+00	2.604E+00	0.969E+00	37.23	
SN-126	2.30E+05Y	1.00	2.544E-01	2.544E-01	0.947E-01	37.23	
TL-208	1.41E+10Y	1.00	6.458E-01	6.458E-01	0.974E-01	15.08	
BI-211	7.04E+08Y	1.00	4.579E+00	4.579E+00	0.632E+00	13.79	
BI-212	1.41E+10Y	1.00	2.681E+00	2.681E+00	0.911E+00	33.99	
PB-212	1.41E+10Y	1.00	2.129E+00	2.129E+00	0.279E+00	13.09	
BI-214	1600.00Y	1.00	1.388E+00	1.388E+00	0.209E+00	15.07	
PB-214	1600.00Y	1.00	1.662E+00	1.662E+00	0.247E+00	14.85	
RA-224	1.41E+10Y	1.00	5.500E+00	5.500E+00	1.476E+00	26.83	
RA-226	1600.00Y	1.00	1.388E+00	1.388E+00	0.209E+00	15.07	
AC-228	1.41E+10Y	1.00	1.851E+00	1.851E+00	0.367E+00	19.83	
RA-228	1.41E+10Y	1.00	1.851E+00	1.851E+00	0.367E+00	19.83	
TH-228	1.41E+10Y	1.00	2.129E+00	2.129E+00	0.279E+00	13.09	
TH-232	1.41E+10Y	1.00	1.851E+00	1.851E+00	0.367E+00	19.83	
U-235	7.04E+08Y	1.00	2.212E-01	2.212E-01	0.799E-01	36.11	K
NP-237	2.14E+06Y	1.00	7.591E-01	7.591E-01	3.243E-01	42.73	
ANH-511	1.00E+09Y	1.00	1.198E-01	1.198E-01	0.667E-01	55.72	
			---	---			
	Total Activity :		7.295E+01	7.301E+01			

Grand Total Activity : 7.295E+01 7.301E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248841008 Acquisition date : 18-MAR-2010 23:10:49

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.93	125	768	1.39	256.78	253	9	8.71E-03	81.6	5.63E+00	
0	209.42	292	645	1.43	417.75	413	12	2.03E-02	37.4	4.50E+00	T
0	270.17	190	399	1.64	539.25	535	10	1.32E-02	41.8	3.77E+00	T
0	462.67	179	245	1.68	924.25	918	13	1.24E-02	38.9	2.60E+00	T
0	795.30	102	140	1.26	1589.55	1583	12	7.05E-03	50.8	1.69E+00	T
2	964.46	97	71	2.20	1927.92	1923	20	6.73E-03	38.5	1.42E+00	T
0	1237.60	62	124	1.26	2474.33	2471	9	4.30E-03	69.2	1.12E+00	T
0	1508.39	37	40	1.33	3016.07	3009	16	2.54E-03	84.2	9.42E-01	
0	1590.49	67	49	5.69	3180.34	3168	22	4.63E-03	59.1	9.08E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 03:11:29.88

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                 DETECTOR DATA                               *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841008.CNF;1    *
* Acquisition date : 18-MAR-2010 23:10:49  Detector SN#    :                  *
* Detector ID      : GAM15                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 04:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 04:00:02.67         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                  SAMPLE DATA                                *
*                                                                             *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID            *
* Sample ID        : G248841008            Analyst initials: MXR1             *
* Batch Number     : 962629                Sample Quantity : 1.15350E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                    QC DATA                                  *
*                                                                             *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	4.139E+01	4.420E+00	4.640E-01	4.560E-02	89.196
CD-109	2.604E+00	9.695E-01	1.356E+00	1.683E-01	1.921
SN-126	2.544E-01	9.471E-02	1.335E-01	1.652E-02	1.906
TL-208	6.458E-01	9.736E-02	5.541E-02	5.068E-03	11.654
BI-211	4.579E+00	6.315E-01	3.170E-01	3.157E-02	14.444
BI-212	2.681E+00	9.114E-01	8.053E-01	1.001E-01	3.330
PB-212	2.129E+00	2.788E-01	9.226E-02	1.102E-02	23.078
BI-214	1.388E+00	2.093E-01	1.067E-01	1.063E-02	13.015
PB-214	1.662E+00	2.468E-01	1.197E-01	1.360E-02	13.889
RA-224	5.500E+00	1.476E+00	9.886E-01	1.090E-01	5.563
RA-226	1.388E+00	2.093E-01	1.067E-01	1.063E-02	13.015
AC-228	1.851E+00	3.671E-01	2.197E-01	2.662E-02	8.425
RA-228	1.851E+00	3.671E-01	2.197E-01	2.662E-02	8.425
TH-228	2.129E+00	2.788E-01	9.226E-02	1.102E-02	23.078
TH-232	1.851E+00	3.671E-01	2.197E-01	2.662E-02	8.425
U-235	2.212E-01	7.987E-02	3.229E-01	5.745E-02	0.685
NP-237	7.591E-01	3.243E-01	4.333E-01	1.053E-01	1.752
ANH-511	1.198E-01	6.673E-02	4.694E-02	4.055E-03	2.551

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-8.235E-02		3.171E-01	5.103E-01	4.743E-02	-0.161
NA-22	5.140E-03		4.479E-02	7.298E-02	6.629E-03	0.070
NA-24	5.785E-01		5.196E-01	Half-Life too short		
SC-46	-3.448E-03		4.316E-02	6.186E-02	5.748E-03	-0.056
V-48	-1.574E-03		7.317E-02	1.200E-01	1.097E-02	-0.013
CR-51	3.439E-03		3.730E-01	6.194E-01	6.573E-02	0.006
MN-54	2.542E-02		3.779E-02	6.473E-02	5.874E-03	0.393
CO-56	-2.940E-02		3.959E-02	6.255E-02	5.708E-03	-0.470
CO-57	1.295E-02		2.540E-02	4.183E-02	4.213E-03	0.310
CO-58	-2.126E-02		3.820E-02	5.722E-02	5.145E-03	-0.371
FE-59	-6.744E-02		9.536E-02	1.480E-01	1.381E-02	-0.456
CO-60	7.537E-03		4.267E-02	6.970E-02	6.700E-03	0.108
ZN-65	-1.263E-01		1.146E-01	1.434E-01	1.225E-02	-0.880
SE-75	-5.514E-02		5.318E-02	7.172E-02	7.864E-03	-0.769
SR-85	1.860E-01		4.860E-02	7.915E-02	6.838E-03	2.350
Y-88	-2.391E-02		2.581E-02	3.493E-02	2.942E-03	-0.684
Y-91	1.186E+00		2.448E+01	3.981E+01	3.355E+00	0.030
NB-94	-1.964E-02		3.076E-02	4.964E-02	4.191E-03	-0.396
NB-95	4.149E-02		4.173E-02	7.263E-02	6.363E-03	0.571
NB-95M	6.243E-01		1.677E-01	2.517E-01	3.032E-02	2.481
ZR-95	-2.913E-02		7.127E-02	1.105E-01	1.062E-02	-0.264
MO-99	2.905E-01		1.346E+01	2.248E+01	3.543E+00	0.013
TC-99M	-8.379E+10		5.792E+10	Half-Life too short		
RU-103	-2.465E-02		3.857E-02	6.040E-02	8.443E-03	-0.408
RH-106	-2.611E-01		2.990E-01	4.522E-01	5.931E-02	-0.577
RU-106	-2.611E-01		2.978E-01	4.522E-01	3.800E-02	-0.577
AG-108M	2.692E-02		3.013E-02	5.113E-02	4.519E-03	0.527
AG-110M	-8.486E-03		3.256E-02	5.391E-02	4.588E-03	-0.157
SN-113	-4.491E-02		4.592E-02	7.221E-02	6.271E-03	-0.622
CD-115	1.179E+00		1.286E+01	2.095E+01	1.809E+00	0.056
SN-117M	-1.185E-02		5.770E-02	9.239E-02	9.686E-03	-0.128
TE-123M	7.385E-03		2.931E-02	4.756E-02	5.012E-03	0.155
SB-124	2.247E-02		6.998E-02	1.202E-01	1.132E-02	0.187
SB-125	-4.657E-02		9.240E-02	1.479E-01	1.287E-02	-0.315
TE-125M	3.179E+00		1.029E+01	1.690E+01	2.007E+00	0.188
I-126	3.442E-02		2.132E-01	3.604E-01	2.972E-02	0.095
SB-126	8.862E-02		1.641E-01	2.458E-01	2.098E-02	0.361
SB-127	1.844E-02		1.340E+00	2.246E+00	2.535E-01	0.008
I-131	-1.462E-01		1.169E-01	1.811E-01	1.748E-02	-0.807
TE-132	8.283E-01		8.400E-01	1.430E+00	2.477E-01	0.579
BA-133	-1.497E-02		4.875E-02	6.858E-02	9.266E-03	-0.218
I-133	-4.285E-04		4.085E-03	Half-Life too short		
CS-134	1.287E-01	+	6.639E-02	9.222E-02	8.266E-03	1.396
CS-135	3.106E-01		1.813E-01	2.784E-01	3.341E-02	1.115
I-135	-2.150E+09		9.590E+09	Half-Life too short		
CS-136	-6.097E-02		1.123E-01	1.770E-01	1.637E-02	-0.345
BA-137M	-7.720E-04		3.291E-02	5.516E-02	4.535E-03	-0.014
CS-137	-8.156E-04		3.476E-02	5.827E-02	4.801E-03	-0.014

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-139	1.297E-02		3.120E-02	5.076E-02	5.419E-03	0.255
BA-140	1.120E-01		2.626E-01	4.310E-01	1.462E-01	0.260
LA-140	5.342E-02		8.767E-02	1.361E-01	1.276E-02	0.393
CE-141	2.668E-03		6.709E-02	1.048E-01	1.083E-02	0.025
CE-143	1.384E-03		1.934E-04	Half-Life too short		
CE-144	1.496E-02		2.334E-01	3.315E-01	5.349E-02	0.045
PM-144	1.745E-02		3.389E-02	5.807E-02	4.885E-03	0.301
PR-144	1.731E+00		2.517E+00	4.345E+00	3.655E-01	0.398
PM-146	1.401E-03		4.178E-02	6.840E-02	7.233E-03	0.020
ND-147	3.935E-01		5.568E-01	9.317E-01	1.393E-01	0.422
PM-149	-6.080E+00		1.054E+02	1.754E+02	2.950E+01	-0.035
EU-152	8.699E-02		1.321E-01	1.577E-01	1.605E-02	0.552
GD-153	5.421E-02		1.016E-01	1.462E-01	1.613E-02	0.371
EU-154	4.512E-03		1.281E-01	2.076E-01	2.434E-02	0.022
EU-155	1.304E-02		1.097E-01	1.796E-01	1.892E-02	0.073
TB-160	-1.730E-03		1.285E-01	2.122E-01	1.964E-02	-0.008
HO-166M	9.489E-05		5.784E-02	9.671E-02	8.211E-03	0.001
TA-182	2.129E-02		2.103E-01	3.428E-01	2.942E-02	0.062
IR-192	6.158E-03		3.505E-02	5.858E-02	6.040E-03	0.105
HG-203	5.781E-02		3.977E-02	6.861E-02	7.539E-03	0.843
BI-207	2.139E-02		5.119E-02	8.594E-02	7.582E-03	0.249
PB-210	-4.894E+00		1.034E+01	1.648E+01	2.029E+00	-0.297
PB-211	-3.388E-01		7.832E-01	1.236E+00	5.979E-01	-0.274
RN-219	-2.318E-01		4.105E-01	6.562E-01	9.697E-02	-0.353
RA-223	-7.360E-01		6.820E-01	1.066E+00	1.934E-01	-0.691
AC-227	1.227E-01		2.593E-01	4.398E-01	6.086E-02	0.279
TH-227	1.227E-01		2.595E-01	4.398E-01	6.690E-02	0.279
TH-229	4.623E-01		5.528E-01	9.038E-01	9.833E-02	0.512
PA-231	-3.725E-01		1.454E+00	2.402E+00	3.830E-01	-0.155
TH-231	-7.360E-01		6.820E-01	1.066E+00	1.934E-01	-0.691
PA-233	-1.419E-02		6.332E-02	1.043E-01	1.104E-02	-0.136
PA-234	-8.691E-03		3.108E-01	5.107E-01	9.733E-02	-0.017
PA-234M	5.044E-01		4.821E+00	7.602E+00	7.883E-01	0.066
TH-234	8.539E-01		2.039E+00	3.179E+00	6.304E-01	0.269
U-238	8.539E-01		2.039E+00	3.179E+00	6.304E-01	0.269
NP-239	-2.428E-01		4.042E-01	6.451E-01	6.510E-02	-0.376
AM-241	-3.053E-01		2.439E-01	3.857E-01	4.527E-02	-0.791
CM-247	-5.518E-03		3.721E-02	6.077E-02	5.139E-03	-0.091
CF-249	2.575E-02		4.051E-02	6.832E-02	5.824E-03	0.377
CF-251	1.511E-02		1.359E-01	2.188E-01	2.355E-02	0.069

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248841008           *
* Acquisition date : 18-MAR-2010 23:10:49 Detector SN#    :                *
* Detector ID      : GAM15                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 04:00:02.67     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G248841008           Analyst initials: MXR1           *
* Batch Number     : 962629               Sample Quantity : 1.1535E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	4.139E+01	4.332E+00	2.313E-01	2.210E+00
CD-109	2.604E+00	9.501E-01	6.942E-01	4.847E-01
SN-126	2.544E-01	9.281E-02	6.834E-02	4.735E-02
TL-208	6.458E-01	9.541E-02	2.786E-02	4.868E-02
BI-211	4.579E+00	6.189E-01	1.602E-01	3.158E-01
BI-212	2.681E+00	8.931E-01	4.041E-01	4.557E-01
PB-212	2.129E+00	2.732E-01	4.680E-02	1.394E-01
BI-214	1.388E+00	2.051E-01	5.362E-02	1.046E-01
PB-214	1.662E+00	2.419E-01	6.047E-02	1.234E-01
RA-224	5.500E+00	1.446E+00	5.014E-01	7.378E-01
RA-226	1.388E+00	2.051E-01	5.362E-02	1.046E-01
AC-228	1.851E+00	3.598E-01	1.100E-01	1.836E-01
RA-228	1.851E+00	3.598E-01	1.100E-01	1.836E-01
TH-228	2.129E+00	2.732E-01	4.680E-02	1.394E-01
TH-232	1.851E+00	3.598E-01	1.100E-01	1.836E-01
U-235	-3.651E-02	2.041E-01	1.646E-01	1.041E-01
NP-237	7.591E-01	3.178E-01	2.219E-01	1.622E-01
ANH-511	1.198E-01	6.540E-02	2.363E-02	3.336E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-8.235E-02	3.108E-01	2.571E-01	1.586E-01	NOT IDENT.
NA-22	5.140E-03	4.390E-02	3.642E-02	2.240E-02	NOT IDENT.
NA-24	5.785E+05	1.018E+06	0.000E+00	5.196E+05	SHORT HLIF
SC-46	-3.448E-03	4.229E-02	3.098E-02	2.158E-02	FAIL ABUN
V-48	-1.574E-03	7.171E-02	6.003E-02	3.659E-02	NOT IDENT.
CR-51	3.439E-03	3.655E-01	3.133E-01	1.865E-01	NOT IDENT.
MN-54	2.542E-02	3.703E-02	3.243E-02	1.889E-02	NOT IDENT.
CO-56	-2.940E-02	3.880E-02	3.134E-02	1.979E-02	FAIL ABUN
CO-57	1.295E-02	2.489E-02	2.135E-02	1.270E-02	NOT IDENT.

CO-58	-2.126E-02	3.743E-02	2.868E-02	1.910E-02	NOT IDENT.
FE-59	-6.744E-02	9.345E-02	7.398E-02	4.768E-02	NOT IDENT.
CO-60	7.537E-03	4.182E-02	3.477E-02	2.133E-02	NOT IDENT.
ZN-65	-1.263E-01	1.123E-01	7.166E-02	5.728E-02	NOT IDENT.
SE-75	-5.514E-02	5.212E-02	3.634E-02	2.659E-02	NOT IDENT.
SR-85	1.860E-01	4.762E-02	3.985E-02	2.430E-02	NOT IDENT.
Y-88	-2.391E-02	2.529E-02	1.737E-02	1.290E-02	NOT IDENT.
Y-91	1.186E+00	2.399E+01	1.988E+01	1.224E+01	NOT IDENT.
NB-94	-1.964E-02	3.015E-02	2.492E-02	1.538E-02	NOT IDENT.
NB-95	4.149E-02	4.090E-02	3.643E-02	2.087E-02	NOT IDENT.
NB-95M	6.243E-01	1.644E-01	1.277E-01	8.385E-02	NOT IDENT.
ZR-95	-2.913E-02	6.984E-02	5.541E-02	3.563E-02	NOT IDENT.
MO-99	2.905E-01	1.319E+01	1.128E+01	6.728E+00	NOT IDENT.
TC-99M	-8.379E+16	1.135E+17	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.465E-02	3.779E-02	3.042E-02	1.928E-02	FAIL ABUN
RH-106	-2.611E-01	2.930E-01	2.272E-01	1.495E-01	NOT IDENT.
RU-106	-2.611E-01	2.919E-01	2.272E-01	1.489E-01	NOT IDENT.
AG-108M	2.692E-02	2.953E-02	2.578E-02	1.506E-02	NOT IDENT.
AG-110M	-8.486E-03	3.191E-02	2.708E-02	1.628E-02	NOT IDENT.
SN-113	-4.491E-02	4.501E-02	3.645E-02	2.296E-02	NOT IDENT.
CD-115	1.179E+00	1.260E+01	1.055E+01	6.428E+00	NOT IDENT.
SN-117M	-1.185E-02	5.655E-02	4.705E-02	2.885E-02	NOT IDENT.
TE-123M	7.385E-03	2.872E-02	2.422E-02	1.466E-02	NOT IDENT.
SB-124	2.247E-02	6.858E-02	5.979E-02	3.499E-02	NOT IDENT.
SB-125	-4.657E-02	9.055E-02	7.460E-02	4.620E-02	FAIL ABUN
TE-125M	3.179E+00	1.008E+01	8.635E+00	5.144E+00	NOT IDENT.
I-126	3.442E-02	2.089E-01	1.810E-01	1.066E-01	NOT IDENT.
SB-126	8.862E-02	1.609E-01	1.233E-01	8.207E-02	NOT IDENT.
SB-127	1.844E-02	1.313E+00	1.128E+00	6.699E-01	NOT IDENT.
I-131	-1.462E-01	1.146E-01	9.149E-02	5.845E-02	NOT IDENT.
TE-132	8.283E-01	8.232E-01	7.257E-01	4.200E-01	NOT IDENT.
BA-133	-1.497E-02	4.777E-02	3.465E-02	2.437E-02	NOT IDENT.
I-133	-4.285E+02	8.006E+03	0.000E+00	4.085E+03	SHORT HLIF
CS-134	1.287E-01	6.506E-02	4.623E-02	3.319E-02	FAIL ABUN
CS-135	3.106E-01	1.777E-01	1.411E-01	9.066E-02	NOT IDENT.
I-135	-2.150E+15	1.880E+16	0.000E+00	9.590E+15	SHORT HLIF
CS-136	-6.097E-02	1.101E-01	8.848E-02	5.615E-02	NOT IDENT.
BA-137M	-7.720E-04	3.225E-02	2.770E-02	1.645E-02	NOT IDENT.
CS-137	-8.156E-04	3.407E-02	2.927E-02	1.738E-02	NOT IDENT.
CE-139	1.297E-02	3.058E-02	2.584E-02	1.560E-02	NOT IDENT.
BA-140	1.120E-01	2.574E-01	2.169E-01	1.313E-01	NOT IDENT.
LA-140	5.342E-02	8.592E-02	6.776E-02	4.384E-02	NOT IDENT.
CE-141	2.668E-03	6.575E-02	5.340E-02	3.355E-02	NOT IDENT.
CE-143	1.384E+03	3.790E+02	0.000E+00	1.934E+02	SHORT HLIF
CE-144	1.496E-02	2.288E-01	1.691E-01	1.167E-01	NOT IDENT.
PM-144	1.745E-02	3.321E-02	2.915E-02	1.694E-02	NOT IDENT.
PR-144	1.731E+00	2.466E+00	2.181E+00	1.258E+00	NOT IDENT.
PM-146	1.401E-03	4.095E-02	3.448E-02	2.089E-02	NOT IDENT.
ND-147	3.935E-01	5.457E-01	4.689E-01	2.784E-01	FAIL ABUN
PM-149	-6.080E+00	1.033E+02	8.883E+01	5.271E+01	NOT IDENT.
EU-152	8.699E-02	1.294E-01	7.973E-02	6.604E-02	FAIL ABUN
GD-153	5.421E-02	9.956E-02	7.477E-02	5.079E-02	NOT IDENT.
EU-154	4.512E-03	1.256E-01	1.036E-01	6.406E-02	NOT IDENT.
EU-155	1.304E-02	1.075E-01	9.181E-02	5.485E-02	FAIL ABUN
TB-160	-1.730E-03	1.259E-01	1.063E-01	6.426E-02	FAIL ABUN
HO-166M	9.489E-05	5.668E-02	4.854E-02	2.892E-02	NOT IDENT.
TA-182	2.129E-02	2.061E-01	1.711E-01	1.051E-01	FAIL ABUN
IR-192	6.158E-03	3.435E-02	2.963E-02	1.753E-02	FAIL ABUN
HG-203	5.781E-02	3.897E-02	3.475E-02	1.988E-02	NOT IDENT.
BI-207	2.139E-02	5.016E-02	4.296E-02	2.559E-02	FAIL ABUN
PB-210	-4.894E+00	1.013E+01	8.487E+00	5.170E+00	NOT IDENT.
PB-211	-3.388E-01	7.675E-01	6.239E-01	3.916E-01	NOT IDENT.
RN-219	-2.318E-01	4.023E-01	3.312E-01	2.052E-01	FAIL ABUN
RA-223	-7.360E-01	6.683E-01	5.389E-01	3.410E-01	FAIL ABUN
AC-227	1.227E-01	2.542E-01	2.229E-01	1.297E-01	FAIL ABUN
TH-227	1.227E-01	2.543E-01	2.229E-01	1.297E-01	FAIL ABUN
TH-229	4.623E-01	5.418E-01	4.593E-01	2.764E-01	FAIL ABUN
PA-231	-3.725E-01	1.425E+00	1.216E+00	7.268E-01	FAIL ABUN
TH-231	-7.360E-01	6.683E-01	5.389E-01	3.410E-01	FAIL ABUN
PA-233	-1.419E-02	6.205E-02	5.277E-02	3.166E-02	FAIL ABUN
PA-234	-8.691E-03	3.046E-01	2.556E-01	1.554E-01	NOT IDENT.
PA-234M	5.044E-01	4.724E+00	3.803E+00	2.410E+00	NOT IDENT.
TH-234	8.539E-01	1.998E+00	1.633E+00	1.019E+00	FAIL ABUN
U-238	8.539E-01	1.998E+00	1.633E+00	1.019E+00	FAIL ABUN
NP-239	-2.428E-01	3.961E-01	3.294E-01	2.021E-01	NOT IDENT.
AM-241	-3.053E-01	2.390E-01	1.982E-01	1.219E-01	NOT IDENT.
CM-247	-5.518E-03	3.647E-02	3.067E-02	1.861E-02	NOT IDENT.
CF-249	2.575E-02	3.970E-02	3.449E-02	2.025E-02	NOT IDENT.

CF-251	1.511E-02	1.332E-01	1.113E-01	6.794E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	592.6216
49.72	592.9869
57.36	0.0000
59.54	721.8177
63.29	717.0524
63.29	717.0524
64.28	718.0828
67.75	862.2230
69.67	834.3632
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72.81	837.9277
72.87	837.9940
72.87	837.9940
74.82	816.9408
74.82	816.9408
74.82	816.9408
74.97	817.1040
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77.11	819.3896
77.11	819.3896
79.69	816.7111
79.80	909.5388
80.12	909.9069
80.19	909.9868
80.57	971.2260
81.00	1020.5798
81.07	1020.6693
81.07	1020.6693
83.79	934.4370
83.79	934.4370
85.43	808.0748
86.48	967.0569
86.55	967.1411
86.79	967.4158
86.94	848.6616
87.57	849.3040
88.03	849.7730
88.47	850.2194
89.96	851.7227
91.11	852.8757
92.59	854.3469
92.59	854.3469
93.35	855.0984
94.67	717.6666
94.87	763.4075
94.87	763.4075
95.86	798.4901
97.43	680.7377
98.44	656.9942
99.53	640.4937
100.11	664.1490
103.18	787.5484
103.37	759.9832
105.31	710.1174
106.12	711.7621
109.28	728.6153
111.00	721.6395
111.76	736.7148
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117.23	676.2307
121.12	623.4100
121.78	623.8148
122.06	619.7997
123.07	676.7014
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133.52	682.4828
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140.51	0.0000
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144.24	702.1627
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154.21	650.0266
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158.56	655.6508
159.00	633.1579
162.66	645.9285
163.33	640.8517
165.86	631.2819
176.60	623.5034
177.52	616.2560
181.07	618.6032
184.41	636.0776
185.72	598.0173
193.51	563.6793
197.04	625.3212
205.31	552.5577
210.85	559.8036
215.65	563.1609
222.11	564.4164
227.38	540.9011
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228.18	526.6100
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235.96	503.6441
235.96	503.6441
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238.63	478.8228
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242.00	479.8520
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256.23	439.6000
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269.46	367.6937
269.46	367.6937
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273.65	532.5974
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277.37	412.1816
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279.54	383.6555
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284.31	425.2514
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285.90	401.0989
287.50	379.9458
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299.98	366.2153
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300.09	380.5078
300.13	380.5176
301.36	380.7715
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304.50	327.3904
304.85	327.4533
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311.90	339.8718

316.51	340.7081
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320.08	339.4264
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323.87	409.4724
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334.37	381.0273
334.37	381.0273
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338.28	345.5486
338.32	345.5573
338.32	345.5573
338.32	345.5573
340.48	338.4854
340.55	338.4961
344.28	266.1130
351.06	290.1333
351.93	312.7344
356.01	323.1559
364.49	302.8604
366.42	245.0729
383.85	317.5625
388.16	275.4412
388.63	278.4824
391.69	318.7148
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401.81	296.1734
402.40	281.2401
404.85	332.6525
410.95	272.2736
414.70	311.9753
423.72	262.6946
427.09	258.0194
427.87	273.2893
433.94	235.4409
453.88	235.3850
463.37	227.7468
468.07	212.7415
473.00	227.9521
476.78	213.8377
477.60	224.2395
487.02	198.1159
492.35	203.7304
497.08	211.3956
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514.00	195.6593
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529.87	0.0000
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537.26	176.5813
546.56	0.0000
563.25	200.6725
569.33	171.1563
569.50	180.7962
569.70	177.5989
583.19	185.9665
600.60	203.0714
602.73	200.2119
604.72	220.2017
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609.32	184.3894
610.33	184.4558
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618.01	156.3773
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621.93	176.4598
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636.99	148.8795
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657.76	173.5807
661.66	169.1982
661.66	169.1982
664.57	0.0000
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666.50	174.0652
677.62	160.8134

685.70	163.0736
695.00	179.3394
696.49	178.4922
696.51	171.9847
697.00	176.6599
702.65	175.1025
706.68	164.1299
711.68	166.2449
720.70	158.9414
721.93	0.0000
722.78	178.3154
722.91	178.3232
723.31	184.7733
724.19	165.5357
727.33	168.9075
733.00	151.4681
735.93	163.0678
739.50	164.8102
747.24	155.7449
752.31	136.1250
753.82	127.6721
756.73	142.9265
763.94	193.4954
765.81	163.2306
766.42	167.0553
777.92	159.9849
778.90	151.1388
783.70	135.7203
785.37	139.0559
795.86	141.1087
801.95	129.4327
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810.76	129.7485
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832.01	164.3382
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836.80	0.0000
846.77	157.2275
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860.56	119.8144
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875.33	0.0000
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880.51	114.5673
883.24	124.4472
884.68	118.6121
889.28	121.6992
898.04	156.3992
911.20	125.3438
911.20	125.3438
911.20	125.3438
926.50	121.8639
937.49	148.0300
944.13	134.3408
946.00	137.3879
949.00	116.5692
962.29	119.9463
964.08	133.7143
966.15	126.0615
968.97	116.7090
968.97	116.7090
968.97	116.7090
983.53	126.5922
996.26	151.1627
1001.03	118.0402
1004.73	138.3379
1037.84	107.8633
1038.76	0.0000
1048.07	133.6172
1050.41	117.3631
1050.41	117.3631
1063.66	106.4544
1085.87	135.7920
1099.45	140.3275
1112.07	110.3689
1115.54	173.9609

1120.29	133.7136
1120.29	133.7136
1120.55	133.7241
1121.30	151.0742
1131.51	0.0000
1173.23	143.6226
1177.93	139.5699
1189.05	159.8796
1204.77	167.7859
1221.41	154.5963
1231.02	159.1431
1235.36	140.1694
1238.28	134.9375
1260.41	0.0000
1271.85	95.1999
1274.44	107.0190
1274.54	103.8124
1291.59	106.3074
1298.22	0.0000
1312.11	103.5000
1332.49	86.5885
1365.19	52.2754
1368.63	0.0000
1384.29	76.8178
1408.01	57.3960
1457.56	0.0000
1460.82	39.8979
1489.16	49.6459
1505.03	46.9116
1596.21	32.3315
1620.50	35.1462
1678.03	0.0000
1690.97	25.6745
1764.49	24.9738
1764.49	24.9738
1770.23	22.7460
1771.35	22.7500
1791.20	0.0000
1836.06	23.2270

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248841008

Total Uranium Activity	2.5234E+00	ug/g
Total Uranium Counting Unc.	5.9454E+00	ug/g
Total Uranium Tpu	3.0334E-06	ug/g
Total Uranium Mda	4.8581E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962629                    SAMPLE ID  : G248841008       *
*   ANALYST       : MXR1                      DETECTOR   : GAM15            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 04:00:00.00 *
*   ANALYSIS DATE: 18-MAR-2010 23:10:49.16    SAMPLE ALQT:  115.350 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.180E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.408E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.616E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.774E+00
```

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 03:12:51.67

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841009.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 23:11:14
Sample ID         : G248841009           Sample quantity  : 1.30030E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:01:07.30  0.5%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.47*	173	1098	0.87	126.93	123	8	1.20E-02	35.3	
2	3	74.98*	1126	1188	1.28	149.90	144	21	7.82E-02	6.1	3.55E+00
3	3	77.29	1704	785	1.04	154.53	144	21	1.18E-01	3.7	
4	5	84.46*	340	1152	1.63	168.83	164	29	2.36E-02	19.2	1.74E+00
5	5	87.36*	673	967	1.46	174.62	164	29	4.68E-02	9.4	
6	5	90.10	477	700	1.25	180.10	164	29	3.31E-02	10.6	
7	5	92.89*	589	722	1.37	185.67	164	29	4.09E-02	10.2	
8	0	128.86	81	653	0.75	257.51	255	7	5.65E-03	53.2	
9	0	186.14*	427	758	1.37	371.90	367	11	2.97E-02	14.0	
10	0	209.38	321	611	0.99	418.32	414	10	2.23E-02	15.4	
11	3	238.77*	2851	378	1.13	477.02	469	20	1.98E-01	2.2	2.69E+00
12	3	241.80	611	479	1.63	483.09	469	20	4.25E-02	9.4	
13	5	270.40	241	346	1.41	540.21	535	12	1.67E-02	14.7	3.65E+00
14	5	272.30	48	268	1.50	544.00	535	12	3.34E-03	65.5	
15	0	278.02	150	459	1.54	555.44	550	12	1.04E-02	29.9	
16	0	295.36	759	358	1.11	590.08	585	9	5.27E-02	5.8	
17	0	300.59	206	385	1.28	600.53	596	11	1.43E-02	19.8	
18	0	328.37	139	348	1.53	656.02	651	10	9.63E-03	26.6	
19	0	338.46	587	339	1.19	676.19	672	10	4.08E-02	7.1	
20	0	352.12	1377	378	1.21	703.48	696	13	9.56E-02	4.0	
21	0	409.95*	81	266	1.16	819.02	815	11	5.63E-03	41.5	
22	0	463.22	162	259	1.25	925.47	921	10	1.12E-02	20.1	
23	0	511.32*	271	312	1.81	1021.59	1015	17	1.88E-02	18.7	
24	0	583.55*	895	214	1.42	1165.96	1158	14	6.22E-02	4.9	
25	0	609.81*	998	226	1.41	1218.44	1213	13	6.93E-02	4.5	
26	0	727.73	200	183	1.46	1454.19	1448	12	1.39E-02	15.3	
27	0	768.97	79	111	1.35	1536.64	1533	8	5.46E-03	26.1	
28	0	772.99	42	118	1.41	1544.68	1541	11	2.93E-03	52.2	
29	0	795.16	115	192	1.58	1589.01	1581	16	7.97E-03	28.6	
30	0	861.81*	140	173	1.61	1722.30	1715	16	9.74E-03	23.0	
31	0	911.62*	662	121	1.52	1821.91	1813	17	4.60E-02	5.5	
32	1	965.54	76	135	1.73	1929.75	1924	27	5.24E-03	29.4	1.31E+00
33	1	969.73*	326	102	1.63	1938.15	1924	27	2.27E-02	8.5	
34	0	1121.03	194	115	1.83	2240.82	2236	11	1.35E-02	12.9	
35	0	1239.23	82	113	1.36	2477.35	2474	8	5.69E-03	25.1	
36	0	1378.53	60	56	1.53	2756.18	2749	14	4.15E-03	29.5	
37	0	1461.70	3337	49	1.87	2922.67	2913	17	2.32E-01	1.8	
38	0	1730.77	46	16	1.80	3461.52	3456	13	3.21E-03	23.2	

Sample ID : G248841009 Acquisition date : 18-MAR-2010 23:11:14

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1765.70*	163	33	2.34	3531.50	3521	18	1.13E-02	11.8	
40	0	1848.58	39	25	1.62	3697.53	3689	17	2.74E-03	33.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 19-MAR-2010 03:12:54

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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841009.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 3-MAR-2010 12:00:00  Acquisition date : 18-MAR-2010 23:11:14
Sample ID         : G248841009           Sample quantity  : 130.03 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA20              Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:01:07.30   0.5%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.608E+01	3.404E+00	2.919E-01	2.545E-02	123.604
CD-109	+	88.03	*	3.873E+00	8.109E-01	7.051E-01	6.667E-02	5.493
SN-126	+	64.28		5.587E-01	4.025E-01	4.506E-01	6.524E-02	1.240
	+	86.94		1.573E+00	7.164E-01	2.883E-01	1.197E-01	5.455
	+	87.57	*	3.784E-01	7.921E-02	6.908E-02	6.497E-03	5.477
HG-203		70.83		4.135E-01	8.524E-01	1.262E+00	1.969E-01	0.328
		72.87		1.168E+00	5.504E-01	8.103E-01	1.227E-01	1.442
	+	279.20	*	7.109E-02	4.307E-02	3.706E-02	3.761E-03	1.918
TL-208	+	277.37		6.970E-01	4.268E-01	3.732E-01	5.028E-02	1.868
	+	583.19	*	5.640E-01	8.032E-02	3.804E-02	3.907E-03	14.827
	+	860.56		8.298E-01	3.920E-01	2.930E-01	3.105E-02	2.832
BI-211		72.87		4.665E+00	2.113E+00	3.236E+00	2.555E-01	1.442
	+	351.06	*	3.877E+00	4.813E-01	2.112E-01	2.024E-02	18.358
PB-212	+	74.82		2.611E+00	4.604E-01	3.230E-01	4.081E-02	8.082
	+	77.11		2.294E+00	2.552E-01	1.880E-01	1.555E-02	12.204
	+	238.63	*	1.799E+00	2.084E-01	6.096E-02	6.510E-03	29.505
	+	300.09		2.023E+00	8.344E-01	7.974E-01	9.198E-02	2.537
BI-214	+	609.32	*	1.217E+00	1.748E-01	7.568E-02	8.454E-03	16.076
	+	1120.29		1.207E+00	3.377E-01	3.232E-01	3.512E-02	3.736
	+	1764.49		1.398E+00	3.482E-01	2.139E-01	1.757E-02	6.535
PB-214	+	74.82		4.627E+00	7.732E-01	5.725E-01	6.475E-02	8.082
	+	77.11		4.045E+00	5.600E-01	3.314E-01	3.871E-02	12.204
	+	242.00		2.340E+00	5.133E-01	3.707E-01	4.180E-02	6.314
	+	295.22		1.319E+00	2.178E-01	1.478E-01	1.746E-02	8.921
	+	351.93	*	1.407E+00	1.912E-01	7.681E-02	8.483E-03	18.319
RA-224	+	240.99	*	4.138E+00	8.754E-01	6.533E-01	6.315E-02	6.334
RA-226	+	609.32	*	1.217E+00	1.748E-01	7.568E-02	8.454E-03	16.076
	+	1120.29		1.207E+00	3.377E-01	3.232E-01	3.512E-02	3.736
	+	1764.49		1.398E+00	3.482E-01	2.139E-01	1.757E-02	6.535
AC-228	+	338.32		1.840E+00	8.143E-01	2.382E-01	9.977E-02	7.725
	+	911.20	*	1.992E+00	3.338E-01	1.496E-01	1.880E-02	13.315
	+	968.97		1.691E+00	5.069E-01	2.447E-01	6.052E-02	6.910
RA-228	+	338.32		1.840E+00	8.143E-01	2.382E-01	9.977E-02	7.725
	+	911.20	*	1.992E+00	3.338E-01	1.496E-01	1.880E-02	13.315

Sample ID : G248841009 Acquisition date : 18-MAR-2010 23:11:14

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		1.691E+00	5.069E-01	2.447E-01	6.052E-02	6.910
TH-228	+	74.82		2.611E+00	3.852E-01	3.230E-01	2.631E-02	8.082
	+	77.11		2.294E+00	2.552E-01	1.880E-01	1.555E-02	12.204
	+	238.63	*	1.799E+00	2.084E-01	6.096E-02	6.510E-03	29.505
	+	300.09		2.023E+00	1.478E+00	7.974E-01	4.895E-01	2.537
TH-229	+	85.43		4.928E-01	1.941E-01	1.764E-01	1.614E-02	2.793
	+	88.47		5.833E-01	1.221E-01	1.059E-01	9.977E-03	5.507
		193.51	*	-2.503E-01	3.336E-01	5.517E-01	5.024E-02	-0.454
	+	210.85		2.891E+00	9.315E-01	9.011E-01	8.408E-02	3.209
TH-232	+	338.32		1.840E+00	3.143E-01	2.382E-01	2.232E-02	7.725
	+	911.20	*	1.992E+00	3.338E-01	1.496E-01	1.880E-02	13.315
	+	968.97		1.691E+00	5.069E-01	2.447E-01	6.052E-02	6.910
TH-234	+	63.29	*	1.450E+00	1.055E+00	1.142E+00	2.029E-01	1.270
	+	92.59		2.804E+00	8.478E-01	5.888E-01	1.312E-01	4.762
U-235	+	89.96		2.808E+00	9.185E-01	7.266E-01	1.806E-01	3.865
	+	93.35		2.118E+00	6.563E-01	4.434E-01	1.032E-01	4.776
		143.76	*	-5.479E-02	1.421E-01	2.207E-01	3.724E-02	-0.248
		163.33		7.304E-02	2.921E-01	4.673E-01	8.406E-02	0.156
	+	185.72		1.747E-01	5.151E-02	4.347E-02	3.912E-03	4.019
		205.31		-3.415E-02	3.498E-01	5.094E-01	9.404E-02	-0.067
NP-237	+	86.48	*	1.129E+00	3.345E-01	2.076E-01	4.760E-02	5.438
		95.86		-1.248E-01	6.362E-01	9.120E-01	2.199E-01	-0.137
U-238	+	63.29	*	1.450E+00	1.055E+00	1.142E+00	2.029E-01	1.270
	+	92.59		2.804E+00	6.275E-01	5.888E-01	5.374E-02	4.762
ANH-511	+	511.00	*	1.309E-01	5.042E-02	2.925E-02	2.726E-03	4.474

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.822E-01	2.209E-01	3.417E-01	3.320E-02	-0.533
NA-22		1274.54	*	-7.820E-03	3.005E-02	4.745E-02	3.931E-03	-0.165
NA-24		1368.63	*	-8.847E-02	3.005E-02	Half-Life too short		
SC-46		889.28	*	3.487E-03	2.606E-02	4.342E-02	4.329E-03	0.080
	+	1120.55		2.049E-01	5.564E-02	8.617E-02	7.370E-03	2.378
V-48		944.13		4.650E-01	5.777E-01	9.993E-01	9.750E-02	0.465
		983.53	*	1.758E-02	4.863E-02	8.169E-02	7.808E-03	0.215
		1312.11		1.185E-03	5.616E-02	9.046E-02	7.548E-03	0.013
CR-51		320.08	*	3.647E-02	2.373E-01	3.958E-01	3.965E-02	0.092
MN-54		834.85	*	1.542E-03	2.620E-02	4.360E-02	4.404E-03	0.035
CO-56		846.77	*	9.905E-03	2.431E-02	4.133E-02	4.166E-03	0.240
		1037.84		-1.333E-01	2.115E-01	3.301E-01	3.182E-02	-0.404
	+	1238.28		1.421E-01	7.236E-02	1.291E-01	1.092E-02	1.101
		1771.35		3.727E-02	1.315E-01	1.988E-01	1.631E-02	0.187
CO-57		122.06	*	-8.707E-03	1.649E-02	2.603E-02	2.173E-03	-0.335
		136.47		-5.892E-03	1.385E-01	2.212E-01	2.001E-02	-0.027
CO-58		810.76	*	4.676E-03	2.586E-02	4.344E-02	4.411E-03	0.108
FE-59		1099.45	*	3.404E-02	6.822E-02	1.144E-01	1.079E-02	0.297
		1291.59		2.288E-02	8.713E-02	1.430E-01	1.360E-02	0.160

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-60		1173.23		-2.666E-02	3.422E-02	5.270E-02	4.237E-03	-0.506
		1332.49	*	7.466E-03	2.613E-02	4.303E-02	3.605E-03	0.173
ZN-65		1115.54	*	2.689E-02	6.909E-02	1.006E-01	8.661E-03	0.267
SE-75		121.12		-3.725E-02	8.638E-02	1.368E-01	1.488E-02	-0.272
		136.00		8.717E-03	2.630E-02	4.250E-02	3.592E-03	0.205
		264.66	*	-1.296E-02	3.005E-02	4.567E-02	4.522E-03	-0.284
		279.54		9.195E-02	7.557E-02	1.172E-01	1.200E-02	0.785
		400.66		6.157E-02	1.693E-01	2.817E-01	3.084E-02	0.219
SR-85		514.00	*	8.452E-02	2.766E-02	4.896E-02	4.572E-03	1.726
Y-88		898.04		7.390E-04	2.862E-02	4.733E-02	4.723E-03	0.016
		1836.06	*	1.167E-02	2.204E-02	3.869E-02	3.122E-03	0.302
Y-91		1204.77	*	3.361E+00	1.584E+01	2.596E+01	2.108E+00	0.129
NB-94		702.65	*	1.843E-02	2.230E-02	3.883E-02	3.928E-03	0.475
		871.09		1.796E-04	2.367E-02	3.772E-02	3.780E-03	0.005
NB-95		765.81	*	7.877E-03	3.118E-02	4.609E-02	4.684E-03	0.171
NB-95M		235.69	*	1.025E-01	9.084E-02	1.399E-01	1.506E-02	0.733
ZR-95		724.19		-1.176E-02	6.555E-02	9.403E-02	1.013E-02	-0.125
		756.73	*	5.177E-02	4.766E-02	8.380E-02	9.166E-03	0.618
MO-99		140.51		5.218E-02	1.733E+01	2.655E+01	6.287E+00	0.002
		181.07		9.365E+00	1.473E+01	2.113E+01	4.000E+00	0.443
		366.42		8.544E-01	6.893E+01	1.135E+02	1.009E+01	0.008
		739.50	*	-7.351E+00	8.612E+00	1.350E+01	2.247E+00	-0.544
		777.92		-1.167E+01	3.002E+01	4.199E+01	4.266E+00	-0.278
TC-99M		140.51	*	2.383E+08	3.002E+01	Half-Life too short		
RU-103		497.08	*	1.988E-02	2.511E-02	4.222E-02	6.058E-03	0.471
	+	610.33		1.264E+01	2.437E+00	2.002E+00	3.409E-01	6.316
RH-106		621.93	*	7.658E-02	2.084E-01	3.399E-01	4.799E-02	0.225
		1050.41		-4.929E-01	1.901E+00	3.054E+00	2.787E-01	-0.161
RU-106		621.93	*	7.658E-02	2.082E-01	3.399E-01	3.364E-02	0.225
		1050.41		-4.929E-01	1.901E+00	3.054E+00	2.787E-01	-0.161
AG-108M		433.94	*	-4.888E-03	1.832E-02	2.945E-02	2.654E-03	-0.166
		614.28		2.200E-02	2.656E-02	3.936E-02	3.981E-03	0.559
		722.91		8.373E-03	2.560E-02	3.828E-02	3.973E-03	0.219
AG-110M		657.76	*	-1.834E-02	2.262E-02	3.627E-02	3.717E-03	-0.506
		677.62		-5.701E-03	1.991E-01	3.341E-01	3.436E-02	-0.017
		706.68		-3.507E-02	1.425E-01	2.356E-01	2.435E-02	-0.149
		763.94		5.601E-02	1.154E-01	1.738E-01	1.801E-02	0.322
		884.68		-6.145E-03	3.230E-02	5.271E-02	5.388E-03	-0.117
		937.49		-2.928E-02	7.824E-02	1.257E-01	1.265E-02	-0.233
		1384.29		-7.697E-02	1.214E-01	1.614E-01	1.399E-02	-0.477
		1505.03		-2.183E-01	1.690E-01	2.401E-01	2.035E-02	-0.909
SN-113		391.69	*	1.587E-02	2.945E-02	4.944E-02	4.265E-03	0.321
CD-115		260.90		-1.303E+01	9.788E+01	1.630E+02	1.603E+01	-0.080
		492.35		-1.010E+01	2.841E+01	4.508E+01	4.144E+00	-0.224
		527.90	*	-1.943E+00	8.794E+00	1.401E+01	1.320E+00	-0.139
SN-117M		156.02		-1.028E-01	1.556E+00	2.470E+00	2.124E-01	-0.042
		158.56	*	-2.930E-03	3.779E-02	5.993E-02	5.172E-03	-0.049
TE-123M		159.00	*	8.822E-03	1.905E-02	3.073E-02	2.670E-03	0.287
SB-124		602.73		-2.889E-02	2.891E-02	4.042E-02	3.969E-03	-0.715

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		645.85		-3.784E-01	3.081E-01	4.783E-01	4.982E-02	-0.791
		722.78		1.047E-01	2.595E-01	3.903E-01	4.024E-02	0.268
		1690.97	*	-8.087E-03	4.535E-02	7.306E-02	6.365E-03	-0.111
SB-125		427.87	*	3.726E-02	5.920E-02	9.948E-02	8.800E-03	0.375
	+	463.37		6.933E-01	2.871E-01	3.874E-01	3.721E-02	1.790
		600.60		3.518E-02	1.196E-01	1.945E-01	2.018E-02	0.181
		635.95		-1.476E-01	1.787E-01	2.869E-01	3.031E-02	-0.515
TE-125M		109.28	*	2.051E+00	6.440E+00	1.048E+01	1.088E+00	0.196
I-126		388.63		2.123E-02	1.177E-01	1.946E-01	1.639E-02	0.109
		666.33	*	-2.467E-02	1.520E-01	2.535E-01	2.547E-02	-0.097
		753.82		2.522E-01	1.218E+00	2.057E+00	2.090E-01	0.123
SB-126		414.70		-1.783E-02	5.852E-02	8.211E-02	7.035E-03	-0.217
		666.50		-1.139E-02	5.206E-02	8.657E-02	8.698E-03	-0.132
		695.00		5.513E-02	5.143E-02	9.058E-02	9.153E-03	0.609
		697.00		6.211E-02	1.766E-01	3.016E-01	3.049E-02	0.206
		720.70	*	-6.194E-02	1.025E-01	1.489E-01	1.510E-02	-0.416
		856.80		-7.889E-02	3.548E-01	4.992E-01	5.021E-02	-0.158
SB-127		252.40		-6.623E-01	2.994E+00	4.958E+00	2.073E+00	-0.134
		473.00		6.514E-01	1.087E+00	1.817E+00	2.392E-01	0.358
		685.70	*	1.093E-01	8.925E-01	1.509E+00	1.905E-01	0.072
		783.70		-1.146E+00	2.643E+00	4.291E+00	5.823E-01	-0.267
I-131		80.19		-1.798E+00	3.077E+00	4.386E+00	3.787E-01	-0.410
		284.31		-5.872E-01	1.042E+00	1.565E+00	1.614E-01	-0.375
		364.49	*	-8.693E-03	7.262E-02	1.189E-01	1.115E-02	-0.073
		636.99		-8.278E-01	1.068E+00	1.721E+00	1.788E-01	-0.481
TE-132		49.72		-8.833E+00	8.283E+00	1.319E+01	1.389E+00	-0.670
		111.76		-8.390E+00	2.407E+01	3.838E+01	4.215E+00	-0.219
		116.30		1.105E+01	2.059E+01	3.361E+01	3.676E+00	0.329
		228.16	*	-2.790E-01	5.212E-01	8.593E-01	1.410E-01	-0.325
BA-133		81.00		9.542E-02	6.976E-02	8.443E-02	1.312E-02	1.130
		276.40		5.193E-01	3.476E-01	4.101E-01	6.133E-02	1.266
		302.85		9.339E-02	9.571E-02	1.462E-01	2.027E-02	0.639
		356.01	*	-5.579E-03	2.854E-02	4.074E-02	5.404E-03	-0.137
		383.85		-8.700E-02	1.948E-01	3.129E-01	3.869E-02	-0.278
I-133		529.87	*	1.638E-03	1.948E-01	Half-Life too short		
		875.33		-2.982E-03	1.948E-01	Half-Life too short		
		1298.22		-3.526E-01	1.948E-01	Half-Life too short		
CS-134		563.25		1.139E-01	2.349E-01	3.877E-01	3.761E-02	0.294
		569.33		-8.831E-02	1.328E-01	2.045E-01	1.996E-02	-0.432
		604.72		8.093E-03	2.443E-02	3.498E-02	3.444E-03	0.231
	+	795.86	*	1.046E-01	6.068E-02	6.249E-02	6.376E-03	1.673
		801.95		1.210E-01	2.999E-01	4.477E-01	4.560E-02	0.270
		1365.19		-2.122E-01	7.598E-01	1.243E+00	1.096E-01	-0.171
CS-135		268.22	*	1.185E-01	1.143E-01	1.755E-01	1.945E-02	0.675
I-135		546.56		3.860E+09	1.143E-01	Half-Life too short		
		836.80		9.641E+09	1.143E-01	Half-Life too short		
		1038.76		-1.619E+10	1.143E-01	Half-Life too short		
		1131.51		8.707E+09	1.143E-01	Half-Life too short		
		1260.41	*	3.187E+09	1.143E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1457.56		2.565E+11	1.143E-01	Half-Life too short		
		1678.03		-4.369E+09	1.143E-01	Half-Life too short		
		1791.20		2.797E+10	1.143E-01	Half-Life too short		
CS-136		153.25		3.616E-01	5.899E-01	9.556E-01	9.766E-02	0.378
		176.60		-1.200E-01	3.418E-01	5.340E-01	5.201E-02	-0.225
	+	273.65		2.966E-01	3.900E-01	5.213E-01	5.508E-02	0.569
		340.55		4.491E-01	1.280E-01	2.046E-01	1.972E-02	2.195
		818.51		-2.353E-02	4.746E-02	7.614E-02	7.715E-03	-0.309
		1048.07	*	9.404E-02	7.920E-02	1.382E-01	1.311E-02	0.681
		1235.36		3.094E-01	5.068E-01	7.381E-01	8.455E-02	0.419
BA-137M		661.66	*	1.462E-03	2.374E-02	4.007E-02	4.021E-03	0.036
CS-137		661.66	*	1.544E-03	2.508E-02	4.233E-02	4.254E-03	0.036
CE-139		165.86	*	-1.487E-02	2.061E-02	3.186E-02	2.781E-03	-0.467
BA-140		162.66		-3.997E-02	5.548E-01	8.791E-01	8.141E-02	-0.045
		304.85		-6.124E-02	9.455E-01	1.376E+00	4.076E-01	-0.045
		423.72		-7.622E-01	1.360E+00	2.123E+00	6.986E-01	-0.359
		537.26	*	-1.229E-01	1.960E-01	2.891E-01	9.870E-02	-0.425
LA-140	+	328.76		5.499E-01	2.977E-01	3.740E-01	3.722E-02	1.470
		487.02		1.596E-02	9.421E-02	1.540E-01	1.488E-02	0.104
		815.77		-6.944E-02	2.127E-01	3.458E-01	3.805E-02	-0.201
		1596.21	*	-7.100E-03	6.166E-02	9.657E-02	8.153E-03	-0.074
CE-141		145.44	*	1.796E-02	4.362E-02	7.043E-02	6.081E-03	0.255
CE-143		57.36		-6.211E-04	4.362E-02	Half-Life too short		
		293.27	*	4.785E-04	4.362E-02	Half-Life too short		
		664.57		5.703E-04	4.362E-02	Half-Life too short		
		721.93		2.009E-05	4.362E-02	Half-Life too short		
CE-144		80.12		-9.218E-01	1.610E+00	2.296E+00	1.967E-01	-0.401
		133.52	*	-1.391E-01	1.534E-01	2.083E-01	3.155E-02	-0.668
PM-144		476.78		-1.565E-02	4.341E-02	6.906E-02	6.760E-03	-0.227
		618.01		-1.351E-02	2.161E-02	3.311E-02	3.342E-03	-0.408
		696.49	*	1.880E-02	2.232E-02	3.895E-02	3.938E-03	0.483
PR-144		696.51	*	1.397E+00	1.670E+00	2.914E+00	2.945E-01	0.480
		1489.16		1.012E+00	6.870E+00	1.166E+01	9.883E-01	0.087
PM-146		453.88	*	2.305E-02	2.726E-02	4.610E-02	4.989E-03	0.500
		633.25		5.466E-01	9.992E-01	1.611E+00	6.204E-01	0.339
		735.93		-2.779E-02	9.120E-02	1.491E-01	4.255E-02	-0.186
		747.24		-6.742E-02	6.543E-02	1.013E-01	1.575E-02	-0.665
ND-147	+	91.11		9.322E-01	2.188E-01	3.296E-01	3.262E-02	2.828
		319.41		-7.957E-01	2.183E+00	3.561E+00	3.426E-01	-0.223
		531.02	*	-1.825E-01	4.068E-01	6.264E-01	9.672E-02	-0.291
PM-149		285.90	*	4.294E+00	6.459E+01	1.079E+02	1.759E+01	0.040
EU-152		121.78		-9.301E-03	4.723E-02	7.540E-02	7.286E-03	-0.123
		244.70		1.736E-01	2.237E-01	3.422E-01	3.319E-02	0.507
		344.28	*	3.074E-03	7.364E-02	1.070E-01	1.044E-02	0.029
		778.90		-7.615E-02	1.993E-01	2.791E-01	2.835E-02	-0.273
	+	964.08		4.213E-01	2.508E-01	3.868E-01	3.737E-02	1.089
		1085.87		2.239E-01	2.670E-01	4.584E-01	4.059E-02	0.488
		1112.07		-2.160E-02	2.139E-01	3.459E-01	2.985E-02	-0.062
		1408.01		1.199E-01	1.131E-01	2.055E-01	1.736E-02	0.583

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153		69.67		-1.113E+00	1.121E+00	1.584E+00	1.212E-01	-0.703
		97.43	*	-1.351E-02	6.076E-02	8.555E-02	7.588E-03	-0.158
		103.18		-7.736E-02	7.128E-02	1.110E-01	9.603E-03	-0.697
EU-154		123.07		-1.495E-02	3.383E-02	5.352E-02	5.962E-03	-0.279
		723.31		-2.294E-02	1.188E-01	1.702E-01	1.855E-02	-0.135
		873.19		5.815E-02	1.919E-01	3.112E-01	4.027E-02	0.187
		996.26		5.870E-02	2.438E-01	4.058E-01	7.269E-02	0.145
		1004.73		-8.261E-02	1.377E-01	2.154E-01	2.638E-02	-0.384
		1274.44	*	-4.028E-03	8.403E-02	1.349E-01	1.500E-02	-0.030
EU-155	+	86.55		4.589E-01	9.623E-02	1.183E-01	1.108E-02	3.880
		105.31	*	1.831E-02	6.892E-02	1.122E-01	9.747E-03	0.163
TB-160	+	86.79		1.222E+00	2.558E-01	3.148E-01	2.931E-02	3.881
		197.04		3.377E-01	3.554E-01	6.157E-01	5.635E-02	0.549
		215.65		2.325E-01	4.902E-01	8.123E-01	7.627E-02	0.286
		298.57		1.086E-01	1.143E-01	1.308E-01	1.285E-02	0.831
		879.36	*	-2.874E-03	8.627E-02	1.423E-01	1.423E-02	-0.020
		962.29		1.118E-01	3.766E-01	5.505E-01	5.323E-02	0.203
	+	966.15		2.954E-01	1.759E-01	2.805E-01	2.707E-02	1.053
		1177.93		-2.371E-02	2.669E-01	4.302E-01	3.464E-02	-0.055
		1271.85		-1.031E-01	4.956E-01	7.862E-01	6.501E-02	-0.131
HO-166M		80.57		-1.540E-01	1.745E-01	2.457E-01	2.116E-02	-0.627
		184.41		3.834E-02	2.713E-02	4.261E-02	3.827E-03	0.900
		280.46		-2.931E-03	5.752E-02	8.419E-02	8.377E-03	-0.035
	+	410.95		2.949E-01	2.462E-01	2.843E-01	2.426E-02	1.038
		711.68	*	6.851E-03	3.959E-02	6.694E-02	6.781E-03	0.102
		752.31		-1.597E-01	1.825E-01	2.882E-01	2.928E-02	-0.554
		810.29		7.446E-04	3.809E-02	6.338E-02	6.425E-03	0.012
TA-182		67.75		-2.576E-02	7.176E-02	1.028E-01	7.730E-03	-0.251
		100.11		8.314E-03	1.144E-01	1.855E-01	1.625E-02	0.045
		152.43		-1.268E-01	2.385E-01	3.729E-01	3.190E-02	-0.340
		222.11		-9.534E-02	2.274E-01	3.780E-01	3.578E-02	-0.252
	+	1121.30		5.671E-01	1.540E-01	2.368E-01	2.024E-02	2.395
		1189.05		-8.557E-02	2.273E-01	3.594E-01	2.904E-02	-0.238
		1221.41	*	1.398E-02	1.529E-01	2.484E-01	2.027E-02	0.056
		1231.02		-8.733E-03	3.739E-01	6.034E-01	4.937E-02	-0.014
IR-192	+	295.96		9.787E-01	1.489E-01	1.948E-01	1.929E-02	5.025
		308.46		-1.532E-02	6.098E-02	1.002E-01	9.796E-03	-0.153
		316.51	*	9.167E-03	2.219E-02	3.738E-02	3.615E-03	0.245
		468.07		5.526E-03	4.742E-02	6.798E-02	6.536E-03	0.081
BI-207		72.81		2.380E-01	1.207E-01	1.843E-01	1.454E-02	1.292
	+	74.97		7.524E-01	1.107E-01	1.425E-01	1.151E-02	5.280
		569.70		-1.194E-02	2.050E-02	3.174E-02	3.066E-03	-0.376
		1063.66	*	1.596E-02	3.645E-02	6.119E-02	5.525E-03	0.261
		1770.23		2.633E-01	2.732E-01	4.659E-01	3.822E-02	0.565
PB-210		46.54	*	5.618E-01	1.392E+00	2.262E+00	2.079E-01	0.248
PB-211		404.85	*	1.477E-01	5.597E-01	8.097E-01	3.916E-01	0.182
		427.09		2.906E-01	1.013E+00	1.662E+00	7.690E-01	0.175
		832.01		-2.092E-01	6.900E-01	1.110E+00	5.788E-01	-0.188
BI-212	+	727.33	*	1.923E+00	6.423E-01	8.289E-01	1.124E-01	2.321

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		785.37		2.521E+00	2.218E+00	3.888E+00	3.949E-01	0.648
		1620.50		6.795E-01	1.442E+00	2.513E+00	2.116E-01	0.270
RN-219	+	271.23		6.699E-01	2.116E-01	3.017E-01	3.428E-02	2.220
		401.81	*	1.199E-01	2.726E-01	4.544E-01	6.713E-02	0.264
RA-223		81.07		2.084E-01	1.553E-01	1.906E-01	1.652E-02	1.093
	+	83.79		2.933E-01	1.155E-01	1.304E-01	1.169E-02	2.249
		94.87		8.629E-01	3.237E-01	4.967E-01	4.468E-02	1.737
		144.24		1.745E-02	4.744E-01	7.478E-01	7.091E-02	0.023
		154.21		4.454E-01	2.617E-01	4.337E-01	4.078E-02	1.027
	+	269.46		5.205E-01	1.621E-01	2.324E-01	2.335E-02	2.240
		323.87	*	-1.294E-01	4.762E-01	6.815E-01	1.215E-01	-0.190
	+	338.28		7.303E+00	1.392E+00	1.690E+00	2.133E-01	4.320
AC-227		79.69		-1.304E-02	8.104E-01	1.179E+00	2.027E-01	-0.011
		235.96		1.751E-01	1.149E-01	1.779E-01	1.990E-02	0.984
		256.23	*	4.689E-02	1.643E-01	2.777E-01	3.588E-02	0.169
	+	299.98		2.225E+00	9.313E-01	1.073E+00	1.453E-01	2.075
		304.50		-2.222E-02	1.114E+00	1.625E+00	2.789E-01	-0.014
		334.37		1.191E-01	1.264E+00	1.721E+00	2.762E-01	0.069
TH-227		79.80		-4.290E-01	1.064E+00	1.523E+00	3.311E-01	-0.282
		235.96		1.751E-01	1.147E-01	1.779E-01	1.894E-02	0.984
		256.23	*	4.689E-02	1.644E-01	2.777E-01	3.994E-02	0.169
	+	299.98		2.225E+00	9.313E-01	1.073E+00	1.453E-01	2.075
		304.50		-2.222E-02	1.114E+00	1.625E+00	2.789E-01	-0.014
		334.37		1.191E-01	1.264E+00	1.721E+00	2.762E-01	0.069
PA-231		283.69	*	-2.640E-01	1.022E+00	1.476E+00	2.273E-01	-0.179
	+	301.36		1.429E+00	5.959E-01	6.926E-01	9.017E-02	2.064
TH-231		81.07		2.084E-01	1.553E-01	1.906E-01	1.652E-02	1.093
	+	83.79		2.933E-01	1.155E-01	1.304E-01	1.169E-02	2.249
		94.87		8.629E-01	3.237E-01	4.967E-01	4.468E-02	1.737
		144.24		1.745E-02	4.744E-01	7.478E-01	7.091E-02	0.023
		154.21		4.454E-01	2.617E-01	4.337E-01	4.078E-02	1.027
	+	269.46		5.205E-01	1.621E-01	2.324E-01	2.335E-02	2.240
		323.87	*	-1.294E-01	4.762E-01	6.815E-01	1.215E-01	-0.190
	+	338.28		7.303E+00	1.392E+00	1.690E+00	2.133E-01	4.320
PA-233	+	300.13		1.007E+00	4.284E-01	4.868E-01	7.572E-02	2.068
		311.90	*	-1.396E-02	4.156E-02	6.800E-02	6.748E-03	-0.205
		340.48		2.139E+00	7.299E-01	8.811E-01	2.144E-01	2.428
PA-234		94.67		4.225E-01	1.299E-01	1.908E-01	2.418E-02	2.215
		98.44		8.193E-02	8.002E-02	9.766E-02	5.451E-02	0.839
		111.00		1.097E-02	1.212E-01	1.959E-01	2.346E-02	0.056
		131.20		-2.052E-03	7.944E-02	1.132E-01	9.457E-03	-0.018
		569.50		-1.233E-01	1.829E-01	2.814E-01	2.719E-02	-0.438
		733.00		9.032E-02	2.687E-01	4.008E-01	9.152E-02	0.225
		880.51		-1.284E-02	1.753E-01	2.884E-01	2.883E-02	-0.045
		883.24		1.492E-02	1.875E-01	3.111E-01	2.097E-01	0.048
		926.50		8.861E-02	1.152E-01	1.959E-01	5.037E-02	0.452
		946.00	*	-3.005E-01	2.211E-01	3.188E-01	6.156E-02	-0.943
		949.00		2.322E-01	3.162E-01	5.422E-01	5.278E-02	0.428
PA-234M		766.42		4.940E+00	8.978E+00	1.303E+01	6.647E+00	0.379

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1001.03	*	5.974E-01	3.193E+00	5.249E+00	5.614E-01	0.114
NP-239		99.53		6.954E-02	1.084E-01	1.743E-01	1.530E-02	0.399
		103.37		-4.252E-02	6.424E-02	1.016E-01	8.785E-03	-0.418
		106.12		4.995E-02	5.486E-02	9.064E-02	7.765E-03	0.551
		117.23	*	-1.289E-01	2.632E-01	4.168E-01	3.491E-02	-0.309
		228.18		-1.135E-01	1.427E-01	2.336E-01	2.227E-02	-0.486
	+	277.60		3.186E-01	1.929E-01	2.054E-01	2.043E-02	1.551
AM-241		59.54	*	6.343E-02	8.404E-02	1.267E-01	9.913E-03	0.501
CM-247	+	278.00		1.353E+00	8.193E-01	8.697E-01	8.654E-02	1.556
		287.50		1.411E-01	7.836E-01	1.314E+00	1.302E-01	0.107
		402.40	*	-1.491E-03	2.532E-02	4.137E-02	3.497E-03	-0.036
CF-249		252.80		-1.180E-01	6.161E-01	1.025E+00	1.002E-01	-0.115
		333.37		4.083E-02	1.713E-01	1.845E-01	1.741E-02	0.221
		388.16	*	1.552E-02	2.741E-02	4.603E-02	3.882E-03	0.337
CF-251		177.52	*	-6.191E-02	8.849E-02	1.363E-01	1.211E-02	-0.454
		227.38		1.152E-01	2.337E-01	3.988E-01	3.799E-02	0.289
		285.41		-2.239E-01	1.355E+00	2.243E+00	2.226E-01	-0.100

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
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*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841009       *
* Acquisition date : 18-MAR-2010 23:11:14 Detector SN#    :                 *
* Detector ID       : GAM20               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:01:07.30     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  3-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248841009           Analyst initials: MXR1           *
* Batch Number      : 962629               Sample Quantity : 1.3003E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.608E+01	3.335E+00	2.921E-01	0.000E+00
CD-109	3.873E+00	7.947E-01	7.380E-01	0.000E+00
SN-126	3.784E-01	7.763E-02	7.231E-02	0.000E+00
HG-203	7.109E-02	4.221E-02	3.810E-02	0.000E+00
TL-208	5.640E-01	7.871E-02	3.865E-02	0.000E+00
BI-211	3.877E+00	4.717E-01	2.163E-01	0.000E+00
PB-212	1.799E+00	2.042E-01	6.283E-02	0.000E+00
BI-214	1.217E+00	1.713E-01	7.683E-02	0.000E+00
PB-214	1.407E+00	1.873E-01	7.867E-02	0.000E+00
RA-224	4.138E+00	8.579E-01	6.732E-01	0.000E+00
RA-226	1.217E+00	1.713E-01	7.683E-02	0.000E+00
AC-228	1.992E+00	3.271E-01	1.509E-01	0.000E+00
RA-228	1.992E+00	3.271E-01	1.509E-01	0.000E+00
TH-228	1.799E+00	2.042E-01	6.283E-02	0.000E+00
TH-229	-2.503E-01	3.269E-01	5.705E-01	0.000E+00
TH-232	1.992E+00	3.271E-01	1.509E-01	0.000E+00
TH-234	1.450E+00	1.034E+00	1.201E+00	0.000E+00
U-235	-5.479E-02	1.393E-01	2.293E-01	0.000E+00
NP-237	1.129E+00	3.278E-01	2.174E-01	0.000E+00
U-238	1.450E+00	1.034E+00	1.201E+00	0.000E+00
ANH-511	1.309E-01	4.942E-02	2.978E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-1.822E-01	2.164E-01	3.483E-01	0.000E+00	NOT IDENT.
NA-22	-7.820E-03	2.945E-02	4.759E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.838E+05	0.000E+00	0.000E+00	SHORT HLIF
SC-46	3.487E-03	2.554E-02	4.381E-02	0.000E+00	FAIL ABUN
V-48	1.758E-02	4.766E-02	8.229E-02	0.000E+00	NOT IDENT.
CR-51	3.647E-02	2.326E-01	4.060E-01	0.000E+00	NOT IDENT.

MN-54	1.542E-03	2.567E-02	4.404E-02	0.000E+00	NOT IDENT.
CO-56	9.905E-03	2.382E-02	4.174E-02	0.000E+00	FAIL ABUN
CO-57	-8.707E-03	1.616E-02	2.711E-02	0.000E+00	NOT IDENT.
CO-58	4.676E-03	2.534E-02	4.389E-02	0.000E+00	NOT IDENT.
FE-59	3.404E-02	6.686E-02	1.150E-01	0.000E+00	NOT IDENT.
CO-60	7.466E-03	2.561E-02	4.313E-02	0.000E+00	NOT IDENT.
ZN-65	2.689E-02	6.771E-02	1.011E-01	0.000E+00	NOT IDENT.
SE-75	-1.296E-02	2.945E-02	4.699E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	2.711E-02	4.985E-02	0.000E+00	NOT IDENT.
Y-88	1.167E-02	2.160E-02	3.857E-02	0.000E+00	NOT IDENT.
Y-91	3.361E+00	1.552E+01	2.606E+01	0.000E+00	NOT IDENT.
NB-94	1.843E-02	2.185E-02	3.933E-02	0.000E+00	NOT IDENT.
NB-95	7.877E-03	3.055E-02	4.662E-02	0.000E+00	NOT IDENT.
NB-95M	1.025E-01	8.902E-02	1.442E-01	0.000E+00	NOT IDENT.
ZR-95	5.177E-02	4.671E-02	8.477E-02	0.000E+00	NOT IDENT.
MO-99	-7.351E+00	8.440E+00	1.366E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	7.756E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.988E-02	2.461E-02	4.301E-02	0.000E+00	FAIL ABUN
RH-106	7.658E-02	2.042E-01	3.449E-01	0.000E+00	NOT IDENT.
RU-106	7.658E-02	2.040E-01	3.449E-01	0.000E+00	NOT IDENT.
AG-108M	-4.888E-03	1.795E-02	3.006E-02	0.000E+00	NOT IDENT.
AG-110M	-1.834E-02	2.216E-02	3.678E-02	0.000E+00	NOT IDENT.
SN-113	1.587E-02	2.887E-02	5.055E-02	0.000E+00	NOT IDENT.
CD-115	-1.943E+00	8.618E+00	1.425E+01	0.000E+00	NOT IDENT.
SN-117M	-2.930E-03	3.703E-02	6.216E-02	0.000E+00	NOT IDENT.
TE-123M	8.822E-03	1.867E-02	3.187E-02	0.000E+00	NOT IDENT.
SB-124	-8.087E-03	4.444E-02	7.293E-02	0.000E+00	NOT IDENT.
SB-125	3.726E-02	5.802E-02	1.016E-01	0.000E+00	FAIL ABUN
TE-125M	2.051E+00	6.311E+00	1.093E+01	0.000E+00	NOT IDENT.
I-126	-2.467E-02	1.489E-01	2.570E-01	0.000E+00	NOT IDENT.
SB-126	-6.194E-02	1.005E-01	1.507E-01	0.000E+00	NOT IDENT.
SB-127	1.093E-01	8.747E-01	1.529E+00	0.000E+00	NOT IDENT.
I-131	-8.693E-03	7.117E-02	1.217E-01	0.000E+00	NOT IDENT.
TE-132	-2.790E-01	5.107E-01	8.862E-01	0.000E+00	NOT IDENT.
BA-133	-5.579E-03	2.797E-02	4.172E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.401E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.947E-02	6.317E-02	0.000E+00	FAIL ABUN
CS-135	1.185E-01	1.120E-01	1.805E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.258E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	9.404E-02	7.762E-02	1.390E-01	0.000E+00	FAIL ABUN
BA-137M	1.462E-03	2.327E-02	4.063E-02	0.000E+00	NOT IDENT.
CS-137	1.544E-03	2.458E-02	4.292E-02	0.000E+00	NOT IDENT.
CE-139	-1.487E-02	2.020E-02	3.302E-02	0.000E+00	NOT IDENT.
BA-140	-1.229E-01	1.921E-01	2.941E-01	0.000E+00	NOT IDENT.
LA-140	-7.100E-03	6.043E-02	9.649E-02	0.000E+00	FAIL ABUN
CE-141	1.796E-02	4.275E-02	7.315E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.609E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.391E-01	1.504E-01	2.166E-01	0.000E+00	NOT IDENT.
PM-144	1.880E-02	2.188E-02	3.946E-02	0.000E+00	NOT IDENT.
PR-144	1.397E+00	1.637E+00	2.952E+00	0.000E+00	NOT IDENT.
PM-146	2.305E-02	2.672E-02	4.702E-02	0.000E+00	NOT IDENT.
ND-147	-1.825E-01	3.986E-01	6.374E-01	0.000E+00	FAIL ABUN
PM-149	4.294E+00	6.330E+01	1.109E+02	0.000E+00	NOT IDENT.
EU-152	3.074E-03	7.216E-02	1.096E-01	0.000E+00	FAIL ABUN
GD-153	-1.351E-02	5.954E-02	8.941E-02	0.000E+00	NOT IDENT.
EU-154	-4.028E-03	8.235E-02	1.353E-01	0.000E+00	NOT IDENT.
EU-155	1.831E-02	6.754E-02	1.171E-01	0.000E+00	FAIL ABUN
TB-160	-2.874E-03	8.455E-02	1.436E-01	0.000E+00	FAIL ABUN
HO-166M	6.851E-03	3.880E-02	6.779E-02	0.000E+00	FAIL ABUN
TA-182	1.398E-02	1.498E-01	2.494E-01	0.000E+00	FAIL ABUN
IR-192	9.167E-03	2.175E-02	3.836E-02	0.000E+00	FAIL ABUN
BI-207	1.596E-02	3.572E-02	6.156E-02	0.000E+00	FAIL ABUN
PB-210	5.618E-01	1.364E+00	2.391E+00	0.000E+00	NOT IDENT.
PB-211	1.477E-01	5.485E-01	8.275E-01	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.295E-01	8.391E-01	0.000E+00	FAIL ABUN
RN-219	1.199E-01	2.671E-01	4.644E-01	0.000E+00	FAIL ABUN
RA-223	-1.294E-01	4.667E-01	6.990E-01	0.000E+00	FAIL ABUN
AC-227	4.689E-02	1.610E-01	2.859E-01	0.000E+00	FAIL ABUN
TH-227	4.689E-02	1.611E-01	2.859E-01	0.000E+00	FAIL ABUN
PA-231	-2.640E-01	1.001E+00	1.517E+00	0.000E+00	FAIL ABUN
TH-231	-1.294E-01	4.667E-01	6.990E-01	0.000E+00	FAIL ABUN
PA-233	-1.396E-02	4.073E-02	6.978E-02	0.000E+00	FAIL ABUN
PA-234	-3.005E-01	2.167E-01	3.213E-01	0.000E+00	NOT IDENT.
PA-234M	5.974E-01	3.129E+00	5.285E+00	0.000E+00	NOT IDENT.
NP-239	-1.289E-01	2.580E-01	4.344E-01	0.000E+00	FAIL ABUN
AM-241	6.343E-02	8.236E-02	1.334E-01	0.000E+00	NOT IDENT.
CM-247	-1.491E-03	2.482E-02	4.228E-02	0.000E+00	FAIL ABUN
CF-249	1.552E-02	2.686E-02	4.707E-02	0.000E+00	NOT IDENT.

CF-251	-6.191E-02	8.672E-02	1.411E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 03:12:52.71

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841009.CNF;1
Sample date      : 3-MAR-2010 12:00:00. Acquisition date : 18-MAR-2010 23:11:14
Sample ID        : G248841009           Sample quantity  : 1.30030E+02 GRAM
Detector name    : GAM20                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:01:07.30  0.5%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 962629               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	3337	10.66*	1.252E+00	3.608E+01	3.608E+01	9.43
CD-109	88.03	673	3.70*	6.942E+00	3.784E+00	3.873E+00	20.94
SN-126	64.28	173	9.60	4.662E+00	5.587E-01	5.587E-01	72.05
	86.94	673	8.90	6.942E+00	1.573E+00	1.573E+00	45.55
	87.57	673	37.00*	6.942E+00	3.784E-01	3.784E-01	20.94
HG-203	70.83	------	3.69	5.621E+00	------	Line Not Found	------
	72.87	------	6.19	5.845E+00	------	Line Not Found	------
	279.20	150	81.56*	4.713E+00	5.640E-02	7.109E-02	60.59
TL-208	277.37	150	6.60	4.713E+00	6.970E-01	6.970E-01	61.24
	583.19	895	85.00*	2.695E+00	5.640E-01	5.640E-01	14.24
	860.56	140	12.50	1.951E+00	8.298E-01	8.298E-01	47.24
BI-211	72.87	------	1.23	5.845E+00	------	Line Not Found	------
	351.06	1377	12.92*	3.968E+00	3.877E+00	3.877E+00	12.42
PB-212	74.82	1126	10.28	6.057E+00	2.611E+00	2.611E+00	17.63
	77.11	1704	17.10	6.268E+00	2.294E+00	2.294E+00	11.12
	238.63	2851	43.60*	5.247E+00	1.799E+00	1.799E+00	11.59
	300.09	206	3.30	4.455E+00	2.023E+00	2.023E+00	41.25
BI-214	609.32	998	45.49*	2.602E+00	1.217E+00	1.217E+00	14.37
	1120.29	194	14.92	1.556E+00	1.207E+00	1.207E+00	27.97
	1764.49	163	15.30	1.100E+00	1.398E+00	1.398E+00	24.91
PB-214	74.82	1126	5.80	6.057E+00	4.627E+00	4.627E+00	16.71
	77.11	1704	9.70	6.268E+00	4.045E+00	4.045E+00	13.84
	242.00	611	7.25	5.201E+00	2.340E+00	2.340E+00	21.93
	295.22	759	18.42	4.513E+00	1.319E+00	1.319E+00	16.52
	351.93	1377	35.60*	3.968E+00	1.407E+00	1.407E+00	13.59
RA-224	240.99	611	4.10*	5.201E+00	4.138E+00	4.138E+00	21.15
RA-226	609.32	998	45.49*	2.602E+00	1.217E+00	1.217E+00	14.37
	1120.29	194	14.92	1.556E+00	1.207E+00	1.207E+00	27.97
	1764.49	163	15.30	1.100E+00	1.398E+00	1.398E+00	24.91
AC-228	338.32	587	11.27	4.085E+00	1.840E+00	1.840E+00	44.25
	911.20	662	25.80*	1.860E+00	1.992E+00	1.992E+00	16.76
	968.97	326	15.80	1.763E+00	1.691E+00	1.691E+00	29.98

Sample ID : G248841009 Acquisition date : 18-MAR-2010 23:11:14

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	587	11.27	4.085E+00	1.840E+00	1.840E+00	44.25
	911.20	662	25.80*	1.860E+00	1.992E+00	1.992E+00	16.76
	968.97	326	15.80	1.763E+00	1.691E+00	1.691E+00	29.98
TH-228	74.82	1126	10.28	6.057E+00	2.611E+00	2.611E+00	14.76
	77.11	1704	17.10	6.268E+00	2.294E+00	2.294E+00	11.12
	238.63	2851	43.60*	5.247E+00	1.799E+00	1.799E+00	11.59
	300.09	206	3.30	4.455E+00	2.023E+00	2.023E+00	73.06
TH-229	85.43	340	14.70	6.785E+00	4.928E-01	4.928E-01	39.38
	88.47	673	24.00	6.942E+00	5.833E-01	5.833E-01	20.94
	193.51	------	4.41*	6.026E+00	------ Line Not Found		------
	210.85	321	2.80	5.731E+00	2.891E+00	2.891E+00	32.22
TH-232	338.32	587	11.27	4.085E+00	1.840E+00	1.840E+00	17.08
	911.20	662	25.80*	1.860E+00	1.992E+00	1.992E+00	16.76
	968.97	326	15.80	1.763E+00	1.691E+00	1.691E+00	29.98
TH-234	63.29	173	3.70*	4.662E+00	1.450E+00	1.450E+00	72.78
	92.59	589	4.23	7.171E+00	2.804E+00	2.804E+00	30.24
U-235	89.96	477	3.47	7.066E+00	2.808E+00	2.808E+00	32.71
	93.35	589	5.60	7.171E+00	2.118E+00	2.118E+00	30.99
	143.76	------	10.96*	7.037E+00	------ Line Not Found		------
	163.33	------	5.08	6.638E+00	------ Line Not Found		------
	185.72	427	57.20	6.170E+00	1.747E-01	1.747E-01	29.48
	205.31	------	5.01	5.804E+00	------ Line Not Found		------
NP-237	86.48	673	12.40*	6.942E+00	1.129E+00	1.129E+00	29.63
	95.86	------	2.68	7.260E+00	------ Line Not Found		------
U-238	63.29	173	3.70*	4.662E+00	1.450E+00	1.450E+00	72.78
	92.59	589	4.23	7.171E+00	2.804E+00	2.804E+00	22.38
ANH-511	511.00	271	100.00*	2.991E+00	1.309E-01	1.309E-01	38.53

Flag: "*" = Keyline

Sample ID : G248841009 Acquisition date : 18-MAR-2010 23:11:14

Total number of lines in spectrum 40
Number of unidentified lines 6
Number of lines tentatively identified by NID 34 85.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.608E+01	3.608E+01	0.340E+01	9.43	
CD-109	461.40D	1.02	3.784E+00	3.873E+00	0.811E+00	20.94	
SN-126	2.30E+05Y	1.00	3.784E-01	3.784E-01	0.792E-01	20.94	
HG-203	46.59D	1.26	5.640E-02	7.109E-02	4.307E-02	60.59	
TL-208	1.41E+10Y	1.00	5.640E-01	5.640E-01	0.803E-01	14.24	
BI-211	7.04E+08Y	1.00	3.877E+00	3.877E+00	0.481E+00	12.42	
PB-212	1.41E+10Y	1.00	1.799E+00	1.799E+00	0.208E+00	11.59	
BI-214	1600.00Y	1.00	1.217E+00	1.217E+00	0.175E+00	14.37	
PB-214	1600.00Y	1.00	1.407E+00	1.407E+00	0.191E+00	13.59	
RA-224	1.41E+10Y	1.00	4.138E+00	4.138E+00	0.875E+00	21.15	
RA-226	1600.00Y	1.00	1.217E+00	1.217E+00	0.175E+00	14.37	
AC-228	1.41E+10Y	1.00	1.992E+00	1.992E+00	0.334E+00	16.76	
RA-228	1.41E+10Y	1.00	1.992E+00	1.992E+00	0.334E+00	16.76	
TH-228	1.41E+10Y	1.00	1.799E+00	1.799E+00	0.208E+00	11.59	
TH-229	7340.00Y	1.00	5.833E-01	5.833E-01	1.221E-01	20.94	K
TH-232	1.41E+10Y	1.00	1.992E+00	1.992E+00	0.334E+00	16.76	
TH-234	4.47E+09Y	1.00	1.450E+00	1.450E+00	1.055E+00	72.78	
U-235	7.04E+08Y	1.00	1.747E-01	1.747E-01	0.515E-01	29.48	K
NP-237	2.14E+06Y	1.00	1.129E+00	1.129E+00	0.335E+00	29.63	
U-238	4.47E+09Y	1.00	1.450E+00	1.450E+00	1.055E+00	72.78	
ANH-511	1.00E+09Y	1.00	1.309E-01	1.309E-01	0.504E-01	38.53	
	Total Activity :		6.721E+01	6.731E+01			

Grand Total Activity : 6.721E+01 6.731E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248841009 Acquisition date : 18-MAR-2010 23:11:14

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.86	81	653	0.75	257.51	255	7	5.65E-03	****	7.29E+00	
5	270.40	241	346	1.41	540.21	535	12	1.67E-02	29.5	4.81E+00	T
5	272.30	48	268	1.50	544.00	535	12	3.34E-03	****	4.78E+00	T
0	328.37	139	348	1.53	656.02	651	10	9.63E-03	53.2	4.18E+00	T
0	409.95	81	266	1.16	819.02	815	11	5.63E-03	83.0	3.54E+00	T
0	463.22	162	259	1.25	925.47	921	10	1.12E-02	40.3	3.23E+00	T
0	727.73	200	183	1.46	1454.19	1448	12	1.39E-02	30.5	2.25E+00	T
0	768.97	79	111	1.35	1536.64	1533	8	5.46E-03	52.2	2.15E+00	
0	772.99	42	118	1.41	1544.68	1541	11	2.93E-03	****	2.14E+00	
0	795.16	115	192	1.58	1589.01	1581	16	7.97E-03	57.1	2.09E+00	T
1	965.54	76	135	1.73	1929.75	1924	27	5.24E-03	58.7	1.77E+00	T
0	1239.23	82	113	1.36	2477.35	2474	8	5.69E-03	50.2	1.43E+00	T
0	1378.53	60	56	1.53	2756.18	2749	14	4.15E-03	59.1	1.31E+00	
0	1730.77	46	16	1.80	3461.52	3456	13	3.21E-03	46.3	1.11E+00	
0	1848.58	39	25	1.62	3697.53	3689	17	2.74E-03	66.6	1.07E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 03:12:56.78

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841009.CNF;1  *
* Acquisition date : 18-MAR-2010 23:11:14  Detector SN#    :                *
* Detector ID      : GAM20                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 04:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 04:01:07.30         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248841009            Analyst initials: MXR1           *
* Batch Number     : 962629                Sample Quantity : 1.30030E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11.7MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.608E+01	3.404E+00	2.919E-01	2.545E-02	123.604
CD-109	3.873E+00	8.109E-01	7.051E-01	6.667E-02	5.493
SN-126	3.784E-01	7.921E-02	6.908E-02	6.497E-03	5.477
HG-203	7.109E-02	4.307E-02	3.706E-02	3.761E-03	1.918
TL-208	5.640E-01	8.032E-02	3.804E-02	3.907E-03	14.827
BI-211	3.877E+00	4.813E-01	2.112E-01	2.024E-02	18.358
PB-212	1.799E+00	2.084E-01	6.096E-02	6.510E-03	29.505
BI-214	1.217E+00	1.748E-01	7.568E-02	8.454E-03	16.076
PB-214	1.407E+00	1.912E-01	7.681E-02	8.483E-03	18.319
RA-224	4.138E+00	8.754E-01	6.533E-01	6.315E-02	6.334
RA-226	1.217E+00	1.748E-01	7.568E-02	8.454E-03	16.076
AC-228	1.992E+00	3.338E-01	1.496E-01	1.880E-02	13.315
RA-228	1.992E+00	3.338E-01	1.496E-01	1.880E-02	13.315
TH-228	1.799E+00	2.084E-01	6.096E-02	6.510E-03	29.505
TH-229	5.833E-01	1.221E-01	5.517E-01	5.024E-02	1.057
TH-232	1.992E+00	3.338E-01	1.496E-01	1.880E-02	13.315
TH-234	1.450E+00	1.055E+00	1.142E+00	2.029E-01	1.270
U-235	1.747E-01	5.151E-02	2.207E-01	3.724E-02	0.792

Sample ID : G248841009 Acquisition date : 18-MAR-2010 23:11:14

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	1.129E+00	3.345E-01	2.076E-01	4.760E-02	5.438
U-238	1.450E+00	1.055E+00	1.142E+00	2.029E-01	1.270
ANH-511	1.309E-01	5.042E-02	2.925E-02	2.726E-03	4.474

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.822E-01		2.209E-01	3.417E-01	3.320E-02	-0.533
NA-22	-7.820E-03		3.005E-02	4.745E-02	3.931E-03	-0.165
NA-24	-8.847E-02		3.489E-01	Half-Life too short		
SC-46	3.487E-03		2.606E-02	4.342E-02	4.329E-03	0.080
V-48	1.758E-02		4.863E-02	8.169E-02	7.808E-03	0.215
CR-51	3.647E-02		2.373E-01	3.958E-01	3.965E-02	0.092
MN-54	1.542E-03		2.620E-02	4.360E-02	4.404E-03	0.035
CO-56	9.905E-03		2.431E-02	4.133E-02	4.166E-03	0.240
CO-57	-8.707E-03		1.649E-02	2.603E-02	2.173E-03	-0.335
CO-58	4.676E-03		2.586E-02	4.344E-02	4.411E-03	0.108
FE-59	3.404E-02		6.822E-02	1.144E-01	1.079E-02	0.297
CO-60	7.466E-03		2.613E-02	4.303E-02	3.605E-03	0.173
ZN-65	2.689E-02		6.909E-02	1.006E-01	8.661E-03	0.267
SE-75	-1.296E-02		3.005E-02	4.567E-02	4.522E-03	-0.284
SR-85	8.452E-02		2.766E-02	4.896E-02	4.572E-03	1.726
Y-88	1.167E-02		2.204E-02	3.869E-02	3.122E-03	0.302
Y-91	3.361E+00		1.584E+01	2.596E+01	2.108E+00	0.129
NB-94	1.843E-02		2.230E-02	3.883E-02	3.928E-03	0.475
NB-95	7.877E-03		3.118E-02	4.609E-02	4.684E-03	0.171
NB-95M	1.025E-01		9.084E-02	1.399E-01	1.506E-02	0.733
ZR-95	5.177E-02		4.766E-02	8.380E-02	9.166E-03	0.618
MO-99	-7.351E+00		8.612E+00	1.350E+01	2.247E+00	-0.544
TC-99M	2.383E+08		3.957E+10	Half-Life too short		
RU-103	1.988E-02		2.511E-02	4.222E-02	6.058E-03	0.471
RH-106	7.658E-02		2.084E-01	3.399E-01	4.799E-02	0.225
RU-106	7.658E-02		2.082E-01	3.399E-01	3.364E-02	0.225
AG-108M	-4.888E-03		1.832E-02	2.945E-02	2.654E-03	-0.166
AG-110M	-1.834E-02		2.262E-02	3.627E-02	3.717E-03	-0.506
SN-113	1.587E-02		2.945E-02	4.944E-02	4.265E-03	0.321
CD-115	-1.943E+00		8.794E+00	1.401E+01	1.320E+00	-0.139
SN-117M	-2.930E-03		3.779E-02	5.993E-02	5.172E-03	-0.049
TE-123M	8.822E-03		1.905E-02	3.073E-02	2.670E-03	0.287
SB-124	-8.087E-03		4.535E-02	7.306E-02	6.365E-03	-0.111
SB-125	3.726E-02		5.920E-02	9.948E-02	8.800E-03	0.375
TE-125M	2.051E+00		6.440E+00	1.048E+01	1.088E+00	0.196
I-126	-2.467E-02		1.520E-01	2.535E-01	2.547E-02	-0.097
SB-126	-6.194E-02		1.025E-01	1.489E-01	1.510E-02	-0.416
SB-127	1.093E-01		8.925E-01	1.509E+00	1.905E-01	0.072
I-131	-8.693E-03		7.262E-02	1.189E-01	1.115E-02	-0.073
TE-132	-2.790E-01		5.212E-01	8.593E-01	1.410E-01	-0.325

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-133	-5.579E-03		2.854E-02	4.074E-02	5.404E-03	-0.137
I-133	1.638E-03		2.756E-03	Half-Life too short		
CS-134	1.046E-01	+	6.068E-02	6.249E-02	6.376E-03	1.673
CS-135	1.185E-01		1.143E-01	1.755E-01	1.945E-02	0.675
I-135	3.187E+09		6.416E+09	Half-Life too short		
CS-136	9.404E-02		7.920E-02	1.382E-01	1.311E-02	0.681
BA-137M	1.462E-03		2.374E-02	4.007E-02	4.021E-03	0.036
CS-137	1.544E-03		2.508E-02	4.233E-02	4.254E-03	0.036
CE-139	-1.487E-02		2.061E-02	3.186E-02	2.781E-03	-0.467
BA-140	-1.229E-01		1.960E-01	2.891E-01	9.870E-02	-0.425
LA-140	-7.100E-03		6.166E-02	9.657E-02	8.153E-03	-0.074
CE-141	1.796E-02		4.362E-02	7.043E-02	6.081E-03	0.255
CE-143	4.785E-04		8.209E-05	Half-Life too short		
CE-144	-1.391E-01		1.534E-01	2.083E-01	3.155E-02	-0.668
PM-144	1.880E-02		2.232E-02	3.895E-02	3.938E-03	0.483
PR-144	1.397E+00		1.670E+00	2.914E+00	2.945E-01	0.480
PM-146	2.305E-02		2.726E-02	4.610E-02	4.989E-03	0.500
ND-147	-1.825E-01		4.068E-01	6.264E-01	9.672E-02	-0.291
PM-149	4.294E+00		6.459E+01	1.079E+02	1.759E+01	0.040
EU-152	3.074E-03		7.364E-02	1.070E-01	1.044E-02	0.029
GD-153	-1.351E-02		6.076E-02	8.555E-02	7.588E-03	-0.158
EU-154	-4.028E-03		8.403E-02	1.349E-01	1.500E-02	-0.030
EU-155	1.831E-02		6.892E-02	1.122E-01	9.747E-03	0.163
TB-160	-2.874E-03		8.627E-02	1.423E-01	1.423E-02	-0.020
HO-166M	6.851E-03		3.959E-02	6.694E-02	6.781E-03	0.102
TA-182	1.398E-02		1.529E-01	2.484E-01	2.027E-02	0.056
IR-192	9.167E-03		2.219E-02	3.738E-02	3.615E-03	0.245
BI-207	1.596E-02		3.645E-02	6.119E-02	5.525E-03	0.261
PB-210	5.618E-01		1.392E+00	2.262E+00	2.079E-01	0.248
PB-211	1.477E-01		5.597E-01	8.097E-01	3.916E-01	0.182
BI-212	1.923E+00	+	6.423E-01	8.289E-01	1.124E-01	2.321
RN-219	1.199E-01		2.726E-01	4.544E-01	6.713E-02	0.264
RA-223	-1.294E-01		4.762E-01	6.815E-01	1.215E-01	-0.190
AC-227	4.689E-02		1.643E-01	2.777E-01	3.588E-02	0.169
TH-227	4.689E-02		1.644E-01	2.777E-01	3.994E-02	0.169
PA-231	-2.640E-01		1.022E+00	1.476E+00	2.273E-01	-0.179
TH-231	-1.294E-01		4.762E-01	6.815E-01	1.215E-01	-0.190
PA-233	-1.396E-02		4.156E-02	6.800E-02	6.748E-03	-0.205
PA-234	-3.005E-01		2.211E-01	3.188E-01	6.156E-02	-0.943
PA-234M	5.974E-01		3.193E+00	5.249E+00	5.614E-01	0.114
NP-239	-1.289E-01		2.632E-01	4.168E-01	3.491E-02	-0.309
AM-241	6.343E-02		8.404E-02	1.267E-01	9.913E-03	0.501
CM-247	-1.491E-03		2.532E-02	4.137E-02	3.497E-03	-0.036
CF-249	1.552E-02		2.741E-02	4.603E-02	3.882E-03	0.337
CF-251	-6.191E-02		8.849E-02	1.363E-01	1.211E-02	-0.454

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248841009            *
* Acquisition date : 18-MAR-2010 23:11:14 Detector SN#    :                 *
* Detector ID      : GAM20                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:01:07.30     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248841009           Analyst initials: MXR1            *
* Batch Number     : 962629               Sample Quantity : 1.3003E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.608E+01	3.335E+00	1.461E-01	1.702E+00
CD-109	3.873E+00	7.947E-01	3.692E-01	4.054E-01
SN-126	3.784E-01	7.763E-02	3.618E-02	3.961E-02
HG-203	7.109E-02	4.221E-02	1.906E-02	2.153E-02
TL-208	5.640E-01	7.871E-02	1.934E-02	4.016E-02
BI-211	3.877E+00	4.717E-01	1.082E-01	2.407E-01
PB-212	1.799E+00	2.042E-01	3.143E-02	1.042E-01
BI-214	1.217E+00	1.713E-01	3.844E-02	8.741E-02
PB-214	1.407E+00	1.873E-01	3.936E-02	9.558E-02
RA-224	4.138E+00	8.579E-01	3.368E-01	4.377E-01
RA-226	1.217E+00	1.713E-01	3.844E-02	8.741E-02
AC-228	1.992E+00	3.271E-01	7.547E-02	1.669E-01
RA-228	1.992E+00	3.271E-01	7.547E-02	1.669E-01
TH-228	1.799E+00	2.042E-01	3.143E-02	1.042E-01
TH-229	-2.503E-01	3.269E-01	2.854E-01	1.668E-01
TH-232	1.992E+00	3.271E-01	7.547E-02	1.669E-01
TH-234	1.450E+00	1.034E+00	6.010E-01	5.276E-01
U-235	-5.479E-02	1.393E-01	1.147E-01	7.106E-02
NP-237	1.129E+00	3.278E-01	1.087E-01	1.673E-01
U-238	1.450E+00	1.034E+00	6.010E-01	5.276E-01
ANH-511	1.309E-01	4.942E-02	1.490E-02	2.521E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.822E-01	2.164E-01	1.742E-01	1.104E-01	NOT IDENT.
NA-22	-7.820E-03	2.945E-02	2.381E-02	1.502E-02	NOT IDENT.
NA-24	-8.847E+04	6.838E+05	0.000E+00	3.489E+05	SHORT HLIF
SC-46	3.487E-03	2.554E-02	2.192E-02	1.303E-02	FAIL ABUN
V-48	1.758E-02	4.766E-02	4.117E-02	2.431E-02	NOT IDENT.
CR-51	3.647E-02	2.326E-01	2.031E-01	1.187E-01	NOT IDENT.

MN-54	1.542E-03	2.567E-02	2.203E-02	1.310E-02	NOT IDENT.
CO-56	9.905E-03	2.382E-02	2.088E-02	1.215E-02	FAIL ABUN
CO-57	-8.707E-03	1.616E-02	1.356E-02	8.247E-03	NOT IDENT.
CO-58	4.676E-03	2.534E-02	2.196E-02	1.293E-02	NOT IDENT.
FE-59	3.404E-02	6.686E-02	5.755E-02	3.411E-02	NOT IDENT.
CO-60	7.466E-03	2.561E-02	2.158E-02	1.307E-02	NOT IDENT.
ZN-65	2.689E-02	6.771E-02	5.060E-02	3.455E-02	NOT IDENT.
SE-75	-1.296E-02	2.945E-02	2.351E-02	1.502E-02	NOT IDENT.
SR-85	8.452E-02	2.711E-02	2.494E-02	1.383E-02	NOT IDENT.
Y-88	1.167E-02	2.160E-02	1.930E-02	1.102E-02	NOT IDENT.
Y-91	3.361E+00	1.552E+01	1.304E+01	7.920E+00	NOT IDENT.
NB-94	1.843E-02	2.185E-02	1.968E-02	1.115E-02	NOT IDENT.
NB-95	7.877E-03	3.055E-02	2.332E-02	1.559E-02	NOT IDENT.
NB-95M	1.025E-01	8.902E-02	7.214E-02	4.542E-02	NOT IDENT.
ZR-95	5.177E-02	4.671E-02	4.241E-02	2.383E-02	NOT IDENT.
MO-99	-7.351E+00	8.440E+00	6.835E+00	4.306E+00	NOT IDENT.
TC-99M	2.383E+14	7.756E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.988E-02	2.461E-02	2.152E-02	1.256E-02	FAIL ABUN
RH-106	7.658E-02	2.042E-01	1.726E-01	1.042E-01	NOT IDENT.
RU-106	7.658E-02	2.040E-01	1.726E-01	1.041E-01	NOT IDENT.
AG-108M	-4.888E-03	1.795E-02	1.504E-02	9.158E-03	NOT IDENT.
AG-110M	-1.834E-02	2.216E-02	1.840E-02	1.131E-02	NOT IDENT.
SN-113	1.587E-02	2.887E-02	2.529E-02	1.473E-02	NOT IDENT.
CD-115	-1.943E+00	8.618E+00	7.131E+00	4.397E+00	NOT IDENT.
SN-117M	-2.930E-03	3.703E-02	3.110E-02	1.889E-02	NOT IDENT.
TE-123M	8.822E-03	1.867E-02	1.595E-02	9.527E-03	NOT IDENT.
SB-124	-8.087E-03	4.444E-02	3.649E-02	2.267E-02	NOT IDENT.
SB-125	3.726E-02	5.802E-02	5.082E-02	2.960E-02	FAIL ABUN
TE-125M	2.051E+00	6.311E+00	5.469E+00	3.220E+00	NOT IDENT.
I-126	-2.467E-02	1.489E-01	1.286E-01	7.598E-02	NOT IDENT.
SB-126	-6.194E-02	1.005E-01	7.542E-02	5.126E-02	NOT IDENT.
SB-127	1.093E-01	8.747E-01	7.648E-01	4.463E-01	NOT IDENT.
I-131	-8.693E-03	7.117E-02	6.088E-02	3.631E-02	NOT IDENT.
TE-132	-2.790E-01	5.107E-01	4.434E-01	2.606E-01	NOT IDENT.
BA-133	-5.579E-03	2.797E-02	2.087E-02	1.427E-02	NOT IDENT.
I-133	1.638E+03	5.401E+03	0.000E+00	2.756E+03	SHORT HLIF
CS-134	1.046E-01	5.947E-02	3.160E-02	3.034E-02	FAIL ABUN
CS-135	1.185E-01	1.120E-01	9.032E-02	5.717E-02	NOT IDENT.
I-135	3.187E+15	1.258E+16	0.000E+00	6.416E+15	SHORT HLIF
CS-136	9.404E-02	7.762E-02	6.956E-02	3.960E-02	FAIL ABUN
BA-137M	1.462E-03	2.327E-02	2.032E-02	1.187E-02	NOT IDENT.
CS-137	1.544E-03	2.458E-02	2.147E-02	1.254E-02	NOT IDENT.
CE-139	-1.487E-02	2.020E-02	1.652E-02	1.031E-02	NOT IDENT.
BA-140	-1.229E-01	1.921E-01	1.471E-01	9.799E-02	NOT IDENT.
LA-140	-7.100E-03	6.043E-02	4.827E-02	3.083E-02	FAIL ABUN
CE-141	1.796E-02	4.275E-02	3.660E-02	2.181E-02	NOT IDENT.
CE-143	4.785E+02	1.609E+02	0.000E+00	8.209E+01	SHORT HLIF
CE-144	-1.391E-01	1.504E-01	1.084E-01	7.672E-02	NOT IDENT.
PM-144	1.880E-02	2.188E-02	1.974E-02	1.116E-02	NOT IDENT.
PR-144	1.397E+00	1.637E+00	1.477E+00	8.352E-01	NOT IDENT.
PM-146	2.305E-02	2.672E-02	2.353E-02	1.363E-02	NOT IDENT.
ND-147	-1.825E-01	3.986E-01	3.189E-01	2.034E-01	FAIL ABUN
PM-149	4.294E+00	6.330E+01	5.547E+01	3.229E+01	NOT IDENT.
EU-152	3.074E-03	7.216E-02	5.486E-02	3.682E-02	FAIL ABUN
GD-153	-1.351E-02	5.954E-02	4.473E-02	3.038E-02	NOT IDENT.
EU-154	-4.028E-03	8.235E-02	6.770E-02	4.202E-02	NOT IDENT.
EU-155	1.831E-02	6.754E-02	5.857E-02	3.446E-02	FAIL ABUN
TB-160	-2.874E-03	8.455E-02	7.185E-02	4.314E-02	FAIL ABUN
HO-166M	6.851E-03	3.880E-02	3.392E-02	1.980E-02	FAIL ABUN
TA-182	1.398E-02	1.498E-01	1.248E-01	7.645E-02	FAIL ABUN
IR-192	9.167E-03	2.175E-02	1.919E-02	1.109E-02	FAIL ABUN
BI-207	1.596E-02	3.572E-02	3.080E-02	1.823E-02	FAIL ABUN
PB-210	5.618E-01	1.364E+00	1.196E+00	6.958E-01	NOT IDENT.
PB-211	1.477E-01	5.485E-01	4.140E-01	2.799E-01	NOT IDENT.
BI-212	1.923E+00	6.295E-01	4.198E-01	3.212E-01	FAIL ABUN
RN-219	1.199E-01	2.671E-01	2.323E-01	1.363E-01	FAIL ABUN
RA-223	-1.294E-01	4.667E-01	3.497E-01	2.381E-01	FAIL ABUN
AC-227	4.689E-02	1.610E-01	1.430E-01	8.216E-02	FAIL ABUN
TH-227	4.689E-02	1.611E-01	1.430E-01	8.218E-02	FAIL ABUN
PA-231	-2.640E-01	1.001E+00	7.590E-01	5.108E-01	FAIL ABUN
TH-231	-1.294E-01	4.667E-01	3.497E-01	2.381E-01	FAIL ABUN
PA-233	-1.396E-02	4.073E-02	3.491E-02	2.078E-02	FAIL ABUN
PA-234	-3.005E-01	2.167E-01	1.608E-01	1.106E-01	NOT IDENT.
PA-234M	5.974E-01	3.129E+00	2.644E+00	1.597E+00	NOT IDENT.
NP-239	-1.289E-01	2.580E-01	2.173E-01	1.316E-01	FAIL ABUN
AM-241	6.343E-02	8.236E-02	6.673E-02	4.202E-02	NOT IDENT.
CM-247	-1.491E-03	2.482E-02	2.115E-02	1.266E-02	FAIL ABUN
CF-249	1.552E-02	2.686E-02	2.355E-02	1.371E-02	NOT IDENT.

CF-251	-6.191E-02	8.672E-02	7.061E-02	4.424E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	598.1523
49.72	661.9321
57.36	0.0000
59.54	691.8192
63.29	851.3792
63.29	851.3792
64.28	948.5497
67.75	922.4156
69.67	995.5819
70.83	910.4515
72.81	968.6276
72.87	968.7240
72.87	968.7240
74.82	893.3930
74.82	893.3930
74.82	893.3930
74.97	893.6102
77.11	896.6821
77.11	896.6821
77.11	896.6821
79.69	900.3301
79.80	900.4853
80.12	900.9330
80.19	901.0305
80.57	901.5624
81.00	639.7423
81.07	639.8115
81.07	639.8115
83.79	653.3864
83.79	653.3864
85.43	698.7683
86.48	699.8562
86.55	699.9312
86.79	700.1768
86.94	700.3337
87.57	700.9816
88.03	701.4556
88.47	701.9058
89.96	703.4268
91.11	704.5898
92.59	706.0767
92.59	706.0767
93.35	706.8372
94.67	708.1501
94.87	681.4086
94.87	681.4086
95.86	715.6707
97.43	667.9235
98.44	609.9241
99.53	646.4484
100.11	674.6214
103.18	689.1476
103.37	666.8784
105.31	655.7223
106.12	627.4569
109.28	651.5548
111.00	649.7401
111.76	676.2913
116.30	592.1132
117.23	622.1542
121.12	590.1114
121.78	576.3580
122.06	590.7733
123.07	595.8633
131.20	625.2692
133.52	646.8633
136.00	563.6136

136.47	591.7136
140.51	614.4419
140.51	0.0000
143.76	642.3809
144.24	622.5232
144.24	622.5232
145.44	618.8268
152.43	616.5734
153.25	567.2690
154.21	512.2933
154.21	512.2933
156.02	574.5518
158.56	558.9481
159.00	527.3040
162.66	546.3712
163.33	534.1493
165.86	584.7745
176.60	521.2875
177.52	543.7602
181.07	499.0206
184.41	539.0470
185.72	523.9161
193.51	523.1504
197.04	473.4353
205.31	477.6899
210.85	459.8505
215.65	443.7937
222.11	472.5802
227.38	450.9674
228.16	473.0347
228.18	487.5699
235.69	455.9039
235.96	489.6104
235.96	489.6104
238.63	432.0317
238.63	432.0317
240.99	432.8059
242.00	433.1372
244.70	351.6293
252.40	383.7876
252.80	381.1264
256.23	370.0260
256.23	370.0260
260.90	345.2198
264.66	343.3491
268.22	345.7104
269.46	329.5327
269.46	329.5327
271.23	329.9409
273.65	304.2098
276.40	304.7882
277.37	300.1498
277.60	300.1984
278.00	300.2812
279.20	281.9975
279.54	282.0659
280.46	300.3535
283.69	316.1380
284.31	329.1334
285.41	313.2874
285.90	306.7657
287.50	315.6224
293.27	0.0000
295.22	335.3496
295.96	282.1340
298.57	336.0854
299.98	336.3970
299.98	336.3970
300.09	305.8350
300.09	305.8350
300.13	305.8447
301.36	306.0889
302.85	258.8926
304.50	279.1052
304.50	279.1052
304.85	280.7013
308.46	292.1157
311.90	302.3860

316.51	272.3613
319.41	290.2679
320.08	276.8399
323.87	307.3737
323.87	307.3737
328.76	289.6124
333.37	257.6353
334.37	259.7453
334.37	259.7453
338.28	267.2056
338.28	267.2056
338.32	267.2139
338.32	267.2139
338.32	267.2139
340.48	296.3738
340.55	296.3830
344.28	289.1846
351.06	261.3406
351.93	261.4740
356.01	227.8723
364.49	217.6533
366.42	234.8044
383.85	259.1928
388.16	252.7541
388.63	264.9062
391.69	231.0441
400.66	235.1967
401.81	238.3814
402.40	256.7215
404.85	251.9734
410.95	238.5096
414.70	238.5688
423.72	243.1658
427.09	211.7208
427.87	198.4393
433.94	191.8267
453.88	178.1024
463.37	223.9104
468.07	174.4945
473.00	159.7675
476.78	205.3278
477.60	221.2088
487.02	187.2658
492.35	186.6643
497.08	147.7405
511.00	170.0596
514.00	170.2864
527.90	184.2602
529.87	0.0000
531.02	186.6687
537.26	180.6788
546.56	0.0000
563.25	155.3298
569.33	186.4252
569.50	186.4355
569.70	183.1608
583.19	168.7352
600.60	168.8013
602.73	196.8909
604.72	158.4009
609.32	178.2959
609.32	178.2959
610.33	178.3691
614.28	150.0598
618.01	168.8382
621.93	143.3398
621.93	143.3398
633.25	147.3350
635.95	172.9313
636.99	172.1005
645.85	160.9214
657.76	170.7192
661.66	168.2389
661.66	168.2389
664.57	0.0000
666.33	176.7266
666.50	176.7361
677.62	145.4369

685.70	137.6074
695.00	135.3039
696.49	141.8221
696.51	141.8221
697.00	149.2132
702.65	149.5138
706.68	169.1320
711.68	147.2109
720.70	149.9284
721.93	0.0000
722.78	125.4716
722.91	125.4781
723.31	139.4385
724.19	147.2276
727.33	141.4943
733.00	125.9132
735.93	132.5738
739.50	142.0807
747.24	161.1996
752.31	158.6562
753.82	139.0102
756.73	120.3438
763.94	128.7990
765.81	146.1677
766.42	155.6301
777.92	140.4386
778.90	145.2174
783.70	169.7922
785.37	140.4627
795.86	121.8938
801.95	125.6298
810.29	121.4965
810.76	123.4287
815.77	120.7490
818.51	117.9761
832.01	147.3708
834.85	156.1781
836.80	0.0000
846.77	100.6307
856.80	122.9372
860.56	113.6837
871.09	115.0212
873.19	106.3149
875.33	0.0000
879.36	100.6488
880.51	103.6140
883.24	110.5474
884.68	114.5092
889.28	112.7034
898.04	125.7688
911.20	114.4141
911.20	114.4141
911.20	114.4141
926.50	94.1140
937.49	136.1471
944.13	92.5958
946.00	150.4212
949.00	116.6515
962.29	116.7521
964.08	125.1526
966.15	103.1836
968.97	103.2640
968.97	103.2640
968.97	103.2640
983.53	105.6921
996.26	112.1192
1001.03	103.1604
1004.73	113.3863
1037.84	120.5179
1038.76	0.0000
1048.07	105.4794
1050.41	137.3042
1050.41	137.3042
1063.66	108.9864
1085.87	99.2672
1099.45	126.5810
1112.07	124.8984
1115.54	114.5923

1120.29	125.1563
1120.29	125.1563
1120.55	121.6854
1121.30	126.2288
1131.51	0.0000
1173.23	163.7490
1177.93	143.8359
1189.05	149.5165
1204.77	142.6171
1221.41	169.8847
1231.02	182.0361
1235.36	166.1406
1238.28	170.5368
1260.41	0.0000
1271.85	103.7531
1274.44	97.3257
1274.54	102.7327
1291.59	92.2673
1298.22	0.0000
1312.11	83.9593
1332.49	66.8081
1365.19	58.8229
1368.63	0.0000
1384.29	72.7670
1408.01	46.3684
1457.56	0.0000
1460.82	33.7456
1489.16	31.1080
1505.03	56.7358
1596.21	48.1120
1620.50	32.8642
1678.03	0.0000
1690.97	26.4342
1764.49	28.7605
1764.49	28.7605
1770.23	13.6144
1771.35	15.3193
1791.20	0.0000
1836.06	23.0889

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248841009

Total Uranium Activity	4.2875E+00	ug/g
Total Uranium Counting Unc.	3.0769E+00	ug/g
Total Uranium Tpu	1.5698E-06	ug/g
Total Uranium Mda	1.7887E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 962629                    SAMPLE ID  : G248841009        *
*   ANALYST      : MXR1                      DETECTOR   : GAM20             *
*   SAMPLE DATE  :  3-MAR-2010 12:00:00.00  COUNT TIME :    0 04:00:00.00   *
*   ANALYSIS DATE: 18-MAR-2010 23:11:14.64  SAMPLE ALQT:  130.030 GRAM      *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.050E+01
GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.208E+00
GROSS GAMMA MDA    (pCi/GRAM  )   : 2.820E+00
GROSS GAMMA DLC    (pCi/GRAM  )   : 1.381E+00
```

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 14:26:10.42

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841010.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 19-MAR-2010 12:25:40
Sample ID         : G248841010           Sample quantity  : 1.45850E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.44  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.84	132	474	1.91	125.71	120	11	1.84E-02	33.1	
2	3	74.80	368	415	1.22	149.65	143	16	5.12E-02	10.7	2.40E+00
3	3	77.20*	515	391	0.95	154.44	143	16	7.15E-02	7.5	
4	4	87.32	251	354	1.25	174.67	165	30	3.49E-02	13.8	1.30E+00
5	4	89.87	168	296	0.92	179.78	165	30	2.33E-02	18.0	
6	4	92.92*	290	384	1.39	185.88	165	30	4.02E-02	13.5	
7	0	186.10*	191	421	1.00	372.27	367	11	2.66E-02	22.5	
8	0	209.51*	141	332	1.05	419.09	414	9	1.95E-02	25.2	
9	5	238.81*	1366	221	1.13	477.70	473	15	1.90E-01	3.3	3.93E+00
10	5	241.67	372	216	1.81	483.41	473	15	5.17E-02	10.2	
11	0	270.34	155	259	1.48	540.75	535	12	2.15E-02	22.2	
12	0	295.38*	426	150	1.15	590.84	587	9	5.91E-02	7.2	
13	0	300.19	74	193	1.06	600.46	597	9	1.03E-02	35.5	
14	0	338.39	324	176	1.37	676.86	671	11	4.50E-02	9.7	
15	0	352.09*	729	235	1.18	704.27	698	13	1.01E-01	5.8	
16	0	462.63	92	123	1.40	925.35	921	12	1.28E-02	26.0	
17	0	511.31*	89	183	1.61	1022.72	1016	15	1.24E-02	38.1	
18	0	583.56*	412	105	1.42	1167.22	1160	12	5.72E-02	7.1	
19	0	609.88*	534	113	1.48	1219.85	1214	14	7.41E-02	6.2	
20	0	662.27*	208	143	1.40	1324.63	1317	15	2.89E-02	14.5	
21	0	727.80	96	86	0.90	1455.69	1451	12	1.34E-02	21.6	
22	0	861.40	98	62	2.13	1722.86	1715	17	1.36E-02	21.3	
23	0	912.02*	333	70	1.46	1824.10	1817	15	4.63E-02	7.8	
24	3	965.38	92	43	2.26	1930.81	1925	29	1.28E-02	17.3	1.90E+00
25	3	969.80*	195	38	1.75	1939.64	1925	29	2.71E-02	9.5	
26	0	1121.57*	116	46	1.55	2243.15	2237	12	1.61E-02	15.5	
27	0	1238.33	83	66	4.34	2476.64	2469	14	1.15E-02	23.6	
28	0	1461.98*	1419	54	2.02	2923.84	2914	20	1.97E-01	3.0	
29	0	1632.21	15	5	1.01	3264.22	3258	10	2.07E-03	38.3	
30	0	1730.89	23	7	2.80	3461.52	3455	14	3.19E-03	32.1	
31	0	1765.85	108	4	2.11	3531.42	3524	13	1.50E-02	10.2	
32	0	1849.15	25	0	1.41	3697.96	3691	13	3.47E-03	20.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 19-MAR-2010 14:26:13

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841010.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 19-MAR-2010 12:25:40
Sample ID : G248841010 Sample quantity : 145.85 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA4 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.44 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.191E+01	2.950E+00	4.612E-01	3.278E-02	69.187
CD-109	+	88.03	*	3.563E+00	1.069E+00	1.140E+00	1.370E-01	-3.124
SN-126	+	64.28		1.767E+00	1.209E+00	9.570E-01	1.648E-01	1.846
	+	86.94		1.446E+00	7.281E-01	4.713E-01	1.988E-01	3.067
	+	87.57	*	3.478E-01	1.043E-01	1.122E-01	1.345E-02	3.101
BA-137M	+	661.66	*	2.702E-01	7.973E-02	5.515E-02	2.690E-03	4.899
CS-137	+	661.66	*	2.855E-01	8.424E-02	5.827E-02	2.859E-03	4.899
TL-208		277.37		4.630E-01	3.668E-01	6.467E-01	7.285E-02	0.716
	+	583.19	*	5.079E-01	7.895E-02	5.089E-02	3.194E-03	9.980
	+	860.56		1.154E+00	5.001E-01	3.487E-01	2.908E-02	3.311
BI-211		72.87		1.206E+00	3.390E+00	5.760E+00	6.603E-01	0.209
	+	351.06	*	4.004E+00	5.342E-01	2.933E-01	1.982E-02	13.652
PB-212	+	74.82		2.535E+00	6.646E-01	6.264E-01	9.412E-02	4.047
	+	77.11		1.968E+00	3.717E-01	3.498E-01	4.013E-02	5.626
	+	238.63	*	1.672E+00	1.738E-01	8.983E-02	7.266E-03	18.613
	+	300.09		1.420E+00	1.017E+00	1.216E+00	1.087E-01	1.168
BI-214	+	609.32	*	1.277E+00	1.836E-01	9.993E-02	7.409E-03	12.775
	+	1120.29		1.477E+00	4.775E-01	4.864E-01	4.559E-02	3.037
	+	1764.49		1.913E+00	4.080E-01	2.901E-01	1.768E-02	6.597
PB-214	+	74.82		4.493E+00	1.150E+00	1.110E+00	1.547E-01	4.047
	+	77.11		3.469E+00	7.150E-01	6.166E-01	8.713E-02	5.626
	+	242.00		2.764E+00	6.134E-01	5.153E-01	4.552E-02	5.363
	+	295.22		1.440E+00	2.456E-01	2.036E-01	1.887E-02	7.071
	+	351.93	*	1.453E+00	2.098E-01	1.067E-01	9.299E-03	13.622
RA-224	+	240.99	*	4.887E+00	1.047E+00	9.631E-01	6.421E-02	5.074
RA-226	+	609.32	*	1.277E+00	1.836E-01	9.993E-02	7.409E-03	12.775
	+	1120.29		1.477E+00	4.775E-01	4.864E-01	4.559E-02	3.037
	+	1764.49		1.913E+00	4.080E-01	2.901E-01	1.768E-02	6.597
AC-228	+	338.32		1.983E+00	9.044E-01	3.558E-01	1.469E-01	5.574
	+	911.20	*	2.014E+00	3.888E-01	1.884E-01	2.122E-02	10.691
	+	968.97		2.042E+00	6.255E-01	3.803E-01	9.165E-02	5.369
RA-228	+	338.32		1.983E+00	9.044E-01	3.558E-01	1.469E-01	5.574
	+	911.20	*	2.014E+00	3.888E-01	1.884E-01	2.122E-02	10.691
	+	968.97		2.042E+00	6.255E-01	3.803E-01	9.165E-02	5.369

Sample ID : G248841010 Acquisition date : 19-MAR-2010 12:25:40

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	74.82		2.535E+00	6.179E-01	6.264E-01	7.211E-02	4.047
	+	77.11		1.968E+00	3.717E-01	3.498E-01	4.013E-02	5.626
	+	238.63	*	1.672E+00	1.738E-01	8.983E-02	7.266E-03	18.613
	+	300.09		1.420E+00	1.330E+00	1.216E+00	7.414E-01	1.168
TH-232	+	338.32		1.983E+00	4.035E-01	3.558E-01	2.237E-02	5.574
	+	911.20	*	2.014E+00	3.888E-01	1.884E-01	2.122E-02	10.691
	+	968.97		2.042E+00	6.255E-01	3.803E-01	9.165E-02	5.369
TH-234	+	63.29	*	4.584E+00	3.172E+00	2.527E+00	5.085E-01	1.814
	+	92.59		3.218E+00	1.143E+00	9.120E-01	2.100E-01	3.528
U-235	+	89.96		2.372E+00	1.051E+00	1.152E+00	2.966E-01	2.059
	+	93.35		2.430E+00	8.789E-01	6.825E-01	1.633E-01	3.561
		143.76	*	-9.749E-02	1.905E-01	2.973E-01	4.754E-02	-0.328
		163.33		6.918E-02	4.104E-01	6.599E-01	1.121E-01	0.105
	+	185.72		1.513E-01	6.869E-02	5.964E-02	3.846E-03	2.537
		205.31		1.192E-01	5.103E-01	7.357E-01	1.270E-01	0.162
NP-237	+	86.48	*	1.038E+00	3.798E-01	3.411E-01	8.224E-02	3.043
		95.86		1.076E-01	9.124E-01	1.367E+00	3.359E-01	0.079
U-238	+	63.29	*	4.584E+00	3.172E+00	2.527E+00	5.085E-01	1.814
	+	92.59		3.218E+00	9.372E-01	9.120E-01	9.858E-02	3.528
ANH-511	+	511.00	*	8.396E-02	6.416E-02	4.221E-02	2.360E-03	1.989

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.257E-01	3.133E-01	5.075E-01	3.360E-02	0.248
NA-22		1274.54	*	2.088E-02	4.033E-02	7.085E-02	4.632E-03	0.295
NA-24		1368.63	*	2.579E-01	4.033E-02	Half-Life too short		
SC-46		889.28	*	-1.759E-02	3.975E-02	6.285E-02	5.083E-03	-0.280
	+	1120.55		2.517E-01	7.960E-02	1.294E-01	8.475E-03	1.945
V-48		944.13		5.891E-01	8.312E-01	1.454E+00	1.162E-01	0.405
		983.53	*	2.154E-03	7.341E-02	1.202E-01	9.315E-03	0.018
		1312.11		-3.206E-02	8.390E-02	1.345E-01	9.065E-03	-0.238
CR-51		320.08	*	-2.534E-01	3.309E-01	5.286E-01	3.718E-02	-0.479
MN-54		834.85	*	2.534E-02	3.526E-02	6.162E-02	4.459E-03	0.411
CO-56		846.77	*	9.561E-03	3.740E-02	6.318E-02	4.687E-03	0.151
		1037.84		-8.761E-02	3.039E-01	4.781E-01	3.758E-02	-0.183
	+	1238.28		2.971E-01	1.418E-01	1.921E-01	1.279E-02	1.547
		1771.35		1.974E-02	1.611E-01	2.364E-01	1.436E-02	0.083
CO-57		122.06	*	1.548E-02	2.277E-02	3.845E-02	2.670E-03	0.402
		136.47		1.046E-01	1.850E-01	3.094E-01	2.298E-02	0.338
CO-58		810.76	*	-2.954E-03	3.707E-02	6.106E-02	4.215E-03	-0.048
FE-59		1099.45	*	-6.162E-02	9.343E-02	1.411E-01	1.078E-02	-0.437
		1291.59		-1.398E-01	1.189E-01	1.726E-01	1.395E-02	-0.810
CO-60		1173.23		1.929E-02	4.506E-02	7.543E-02	4.486E-03	0.256
		1332.49	*	4.551E-02	3.987E-02	7.389E-02	5.063E-03	0.616
ZN-65		1115.54	*	-6.076E-02	1.139E-01	1.479E-01	9.786E-03	-0.411
SE-75		121.12		8.175E-03	1.200E-01	1.979E-01	1.957E-02	0.041
		136.00		3.635E-02	3.561E-02	6.059E-02	4.062E-03	0.600

Sample ID : G248841010 Acquisition date : 19-MAR-2010 12:25:40

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		264.66	*	1.096E-02	4.375E-02	6.616E-02	4.451E-03	0.166
		279.54		-6.843E-02	1.031E-01	1.683E-01	1.189E-02	-0.407
		400.66		2.110E-02	2.382E-01	3.951E-01	3.545E-02	0.053
SR-85		514.00	*	6.259E-02	4.271E-02	6.812E-02	3.805E-03	0.919
Y-88		898.04		8.142E-03	3.919E-02	6.571E-02	5.436E-03	0.124
		1836.06	*	2.278E-03	2.279E-02	3.800E-02	2.217E-03	0.060
Y-91		1204.77	*	1.409E+00	2.336E+01	3.771E+01	2.311E+00	0.037
NB-94		702.65	*	1.691E-02	3.295E-02	5.713E-02	3.078E-03	0.296
		871.09		5.170E-03	2.924E-02	4.907E-02	3.826E-03	0.105
NB-95		765.81	*	-3.109E-02	4.458E-02	7.060E-02	4.400E-03	-0.440
NB-95M		235.69	*	-8.080E-02	1.337E-01	1.805E-01	1.485E-02	-0.448
ZR-95		724.19		1.505E-02	7.775E-02	1.160E-01	7.799E-03	0.130
		756.73	*	3.267E-02	6.663E-02	1.154E-01	8.450E-03	0.283
MO-99		140.51		1.354E+01	2.473E+01	4.051E+01	9.349E+00	0.334
		181.07		1.700E+01	2.229E+01	3.316E+01	5.932E+00	0.513
		366.42		-1.065E+02	1.126E+02	1.756E+02	1.050E+01	-0.606
		739.50	*	-1.726E+00	1.427E+01	2.359E+01	3.407E+00	-0.073
		777.92		-2.123E+01	3.986E+01	6.314E+01	4.043E+00	-0.336
TC-99M		140.51	*	2.238E+11	3.986E+01	Half-Life too short		
RU-103		497.08	*	2.007E-02	3.904E-02	6.565E-02	8.104E-03	0.306
	+	610.33		1.339E+01	2.582E+00	2.907E+00	4.312E-01	4.605
RH-106		621.93	*	1.831E-01	2.929E-01	4.921E-01	5.563E-02	0.372
		1050.41		-6.832E-01	2.658E+00	4.213E+00	3.046E-01	-0.162
RU-106		621.93	*	1.831E-01	2.923E-01	4.921E-01	2.528E-02	0.372
		1050.41		-6.832E-01	2.658E+00	4.213E+00	3.046E-01	-0.162
AG-108M		433.94	*	-1.315E-02	2.662E-02	4.214E-02	2.565E-03	-0.312
		614.28		3.637E-02	3.475E-02	5.437E-02	3.066E-03	0.669
		722.91		-6.608E-03	3.116E-02	4.398E-02	2.667E-03	-0.150
AG-110M		657.76	*	-3.754E-03	3.755E-02	5.453E-02	2.914E-03	-0.069
		677.62		1.414E-01	2.625E-01	4.600E-01	2.522E-02	0.307
		706.68		6.657E-02	2.076E-01	3.555E-01	2.070E-02	0.187
		763.94		-1.088E-01	1.616E-01	2.556E-01	1.669E-02	-0.426
		884.68		1.962E-02	4.808E-02	8.202E-02	6.816E-03	0.239
		937.49		-2.122E-02	1.140E-01	1.839E-01	1.538E-02	-0.115
		1384.29		-2.250E-01	1.623E-01	2.216E-01	1.582E-02	-1.015
		1505.03		4.344E-02	2.535E-01	4.288E-01	2.894E-02	0.101
SN-113		391.69	*	-7.801E-03	4.125E-02	6.735E-02	4.058E-03	-0.116
CD-115		260.90		-5.014E+01	1.581E+02	2.636E+02	1.760E+01	-0.190
		492.35		-2.457E+01	4.931E+01	7.729E+01	4.351E+00	-0.318
		527.90	*	-1.911E+00	1.347E+01	2.155E+01	1.196E+00	-0.089
SN-117M		156.02		1.480E-02	2.268E+00	3.682E+00	2.362E-01	0.004
		158.56	*	-4.399E-02	5.334E-02	8.325E-02	5.325E-03	-0.528
TE-123M		159.00	*	-1.969E-02	2.641E-02	4.136E-02	2.673E-03	-0.476
SB-124		602.73		-8.749E-03	3.602E-02	5.441E-02	2.855E-03	-0.161
		645.85		3.490E-04	4.226E-01	7.126E-01	4.134E-02	0.000
		722.78		-1.018E-01	3.231E-01	4.495E-01	2.673E-02	-0.226
		1690.97	*	3.666E-02	6.577E-02	1.192E-01	8.133E-03	0.308
SB-125		427.87	*	2.884E-02	8.374E-02	1.407E-01	8.316E-03	0.205
	+	463.37		7.691E-01	4.039E-01	5.081E-01	3.359E-02	1.514

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		600.60		7.894E-03	1.608E-01	2.588E-01	1.617E-02	0.031
		635.95		-2.537E-01	2.485E-01	3.570E-01	2.203E-02	-0.711
TE-125M		109.28	*	3.625E+00	9.401E+00	1.556E+01	1.570E+00	0.233
I-126		388.63		1.169E-02	1.605E-01	2.666E-01	1.512E-02	0.044
		666.33	*	4.987E-02	2.295E-01	3.444E-01	1.699E-02	0.145
		753.82		5.755E-01	1.704E+00	2.919E+00	1.771E-01	0.197
SB-126		414.70		-9.244E-02	7.767E-02	1.179E-01	6.674E-03	-0.784
		666.50		3.334E-02	7.688E-02	1.181E-01	5.829E-03	0.282
		695.00		2.323E-02	7.566E-02	1.297E-01	6.862E-03	0.179
		697.00		2.814E-02	2.693E-01	4.515E-01	2.400E-02	0.062
		720.70	*	3.111E-03	1.183E-01	1.933E-01	1.087E-02	0.016
		856.80		2.142E-01	4.793E-01	7.277E-01	5.512E-02	0.294
SB-127		252.40		3.766E+00	4.776E+00	7.950E+00	3.279E+00	0.474
		473.00		-2.061E+00	1.755E+00	2.580E+00	2.906E-01	-0.799
		685.70	*	-3.904E-01	1.337E+00	2.190E+00	2.053E-01	-0.178
		783.70		2.443E+00	4.130E+00	7.150E+00	8.042E-01	0.342
I-131		80.19		-1.512E+00	6.942E+00	8.160E+00	9.468E-01	-0.185
		284.31		-1.126E+00	1.431E+00	2.311E+00	1.665E-01	-0.487
		364.49	*	2.272E-02	1.086E-01	1.827E-01	1.217E-02	0.124
		636.99		-8.342E-01	1.538E+00	2.328E+00	1.364E-01	-0.358
TE-132		49.72		-4.466E+01	4.195E+01	6.727E+01	9.619E+00	-0.664
		111.76		-6.055E+00	3.835E+01	6.290E+01	6.726E+00	-0.096
		116.30		-1.627E+01	3.107E+01	4.996E+01	5.183E+00	-0.326
		228.16	*	-5.455E-01	8.531E-01	1.304E+00	1.959E-01	-0.418
BA-133		81.00		9.539E-02	1.185E-01	1.492E-01	2.587E-02	0.639
		276.40		5.032E-01	3.643E-01	6.045E-01	7.862E-02	0.832
		302.85		4.764E-02	1.429E-01	2.164E-01	2.554E-02	0.220
		356.01	*	8.646E-03	4.219E-02	6.272E-02	7.171E-03	0.138
		383.85		3.577E-02	2.552E-01	4.260E-01	4.529E-02	0.084
I-133		529.87	*	3.692E-03	2.552E-01	Half-Life too short		
		875.33		2.151E-01	2.552E-01	Half-Life too short		
		1298.22		5.467E-01	2.552E-01	Half-Life too short		
CS-134		563.25		6.003E-02	3.437E-01	5.612E-01	3.119E-02	0.107
		569.33		2.094E-01	1.816E-01	3.179E-01	1.777E-02	0.659
		604.72		1.908E-03	3.309E-02	4.656E-02	2.454E-03	0.041
		795.86	*	1.353E-01	5.167E-02	9.864E-02	6.648E-03	1.372
		801.95		-2.849E-01	3.915E-01	6.103E-01	4.156E-02	-0.467
		1365.19		-5.837E-01	1.279E+00	2.014E+00	1.480E-01	-0.290
CS-135		268.22	*	1.027E-01	1.523E-01	2.373E-01	1.978E-02	0.433
I-135		546.56		1.849E+11	1.523E-01	Half-Life too short		
		836.80		5.712E+10	1.523E-01	Half-Life too short		
		1038.76		-8.226E+10	1.523E-01	Half-Life too short		
		1131.51		-2.247E+10	1.523E-01	Half-Life too short		
		1260.41	*	2.682E+10	1.523E-01	Half-Life too short		
		1457.56		9.007E+11	1.523E-01	Half-Life too short		
		1678.03		-8.101E+10	1.523E-01	Half-Life too short		
		1791.20		3.619E+10	1.523E-01	Half-Life too short		
CS-136		153.25		1.306E-02	8.616E-01	1.396E+00	1.189E-01	0.009
		176.60		-2.618E-01	4.832E-01	7.590E-01	5.736E-02	-0.345

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		273.65		-5.549E-01	5.742E-01	8.011E-01	6.075E-02	-0.693
		340.55		4.671E-01	1.722E-01	2.915E-01	1.956E-02	1.602
		818.51		5.551E-02	7.608E-02	1.334E-01	9.342E-03	0.416
		1048.07	*	2.276E-02	1.105E-01	1.832E-01	1.407E-02	0.124
		1235.36		1.473E-01	7.140E-01	1.056E+00	1.076E-01	0.139
CE-139		165.86	*	-1.141E-02	2.775E-02	4.405E-02	2.799E-03	-0.259
BA-140		162.66		1.534E-01	7.995E-01	1.288E+00	9.188E-02	0.119
		304.85		1.044E+00	1.410E+00	2.152E+00	6.181E-01	0.485
		423.72		-1.538E-02	1.929E+00	3.169E+00	1.022E+00	-0.005
		537.26	*	9.426E-02	2.642E-01	4.361E-01	1.451E-01	0.216
LA-140		328.76		2.557E-01	3.143E-01	5.420E-01	3.807E-02	0.472
		487.02		4.838E-02	1.347E-01	2.250E-01	1.446E-02	0.215
		815.77		4.778E-02	3.256E-01	5.464E-01	4.465E-02	0.087
		1596.21	*	-2.882E-02	9.409E-02	1.479E-01	9.739E-03	-0.195
CE-141		145.44	*	4.507E-02	5.938E-02	9.780E-02	6.566E-03	0.461
CE-143		57.36		2.895E-03	5.938E-02	Half-Life too short		
		293.27	*	5.310E-04	5.938E-02	Half-Life too short		
		664.57		7.883E-03	5.938E-02	Half-Life too short		
		721.93		1.969E-04	5.938E-02	Half-Life too short		
CE-144		80.12		-7.628E-01	3.482E+00	4.094E+00	4.730E-01	-0.186
		133.52	*	-1.069E-01	1.823E-01	2.899E-01	4.138E-02	-0.369
PM-144		476.78		2.821E-02	6.259E-02	1.017E-01	6.851E-03	0.277
		618.01		-6.425E-03	2.940E-02	4.612E-02	2.561E-03	-0.139
		696.49	*	3.894E-03	3.270E-02	5.489E-02	2.917E-03	0.071
PR-144		696.51	*	2.878E-01	2.448E+00	4.109E+00	2.181E-01	0.070
		1489.16		-9.967E+00	1.293E+01	1.893E+01	1.282E+00	-0.526
PM-146		453.88	*	7.196E-04	3.821E-02	6.261E-02	5.239E-03	0.011
		633.25		-6.072E-01	1.316E+00	1.980E+00	7.435E-01	-0.307
		735.93		-3.275E-02	1.350E-01	2.145E-01	5.854E-02	-0.153
		747.24		-1.445E-02	8.799E-02	1.448E-01	1.911E-02	-0.100
ND-147	+	91.11		8.130E-01	3.092E-01	4.824E-01	5.659E-02	1.685
		319.41		-1.409E+00	3.089E+00	5.034E+00	3.246E-01	-0.280
		531.02	*	-3.281E-01	5.397E-01	8.263E-01	1.108E-01	-0.397
PM-149		285.90	*	-1.089E+02	1.086E+02	1.715E+02	2.493E+01	-0.635
EU-152		121.78		4.909E-02	6.567E-02	1.111E-01	9.438E-03	0.442
		244.70		-1.075E-01	3.494E-01	4.796E-01	3.200E-02	-0.224
		344.28	*	2.552E-02	9.326E-02	1.527E-01	1.056E-02	0.167
		778.90		-1.745E-01	2.398E-01	3.735E-01	2.397E-02	-0.467
	+	964.08		1.039E+00	3.687E-01	5.372E-01	4.230E-02	1.934
		1085.87		2.571E-01	3.969E-01	6.814E-01	4.704E-02	0.377
		1112.07		4.315E-02	3.287E-01	5.377E-01	3.570E-02	0.080
		1408.01		2.101E-01	1.906E-01	3.523E-01	2.410E-02	0.596
GD-153		69.67		6.628E-01	2.082E+00	3.197E+00	3.692E-01	0.207
		97.43	*	-4.834E-02	8.811E-02	1.271E-01	1.248E-02	-0.380
		103.18		-1.521E-01	1.027E-01	1.582E-01	1.408E-02	-0.961
EU-154		123.07		-2.237E-02	4.723E-02	7.596E-02	7.678E-03	-0.295
		723.31		-5.053E-02	1.460E-01	2.023E-01	1.399E-02	-0.250
		873.19		3.758E-02	2.525E-01	4.222E-01	4.786E-02	0.089
		996.26		1.048E-01	3.627E-01	6.067E-01	1.032E-01	0.173

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1004.73		-4.087E-02	2.150E-01	3.443E-01	3.753E-02	-0.119
		1274.44	*	4.898E-02	1.143E-01	1.992E-01	1.969E-02	0.246
EU-155	+	86.55		4.218E-01	1.267E-01	1.782E-01	2.135E-02	2.367
		105.31	*	7.092E-02	9.571E-02	1.628E-01	1.418E-02	0.436
TB-160	+	86.79		1.128E+00	3.386E-01	4.785E-01	5.710E-02	2.358
		197.04		-5.359E-01	5.657E-01	8.496E-01	5.528E-02	-0.631
		215.65		-1.069E-01	7.101E-01	1.123E+00	7.407E-02	-0.095
		298.57		6.404E-02	1.536E-01	1.741E-01	1.145E-02	0.368
		879.36	*	5.126E-03	1.265E-01	2.093E-01	1.659E-02	0.024
		962.29		5.062E-02	5.864E-01	8.388E-01	6.614E-02	0.060
	+	966.15		7.320E-01	2.597E-01	3.984E-01	3.132E-02	1.838
		1177.93		-2.649E-01	3.785E-01	5.676E-01	3.391E-02	-0.467
		1271.85		-3.691E-01	6.543E-01	1.030E+00	6.706E-02	-0.358
HO-166M		80.57		-6.241E-02	3.754E-01	4.430E-01	5.126E-02	-0.141
		184.41		5.732E-02	3.631E-02	5.619E-02	3.619E-03	1.020
		280.46		-7.629E-02	8.033E-02	1.292E-01	8.583E-03	-0.591
		410.95		4.191E-01	2.437E-01	4.378E-01	2.476E-02	0.957
		711.68	*	-3.052E-02	5.445E-02	8.705E-02	4.791E-03	-0.351
		752.31		-1.341E-01	2.483E-01	3.951E-01	2.389E-02	-0.339
		810.29		-1.273E-02	5.705E-02	9.284E-02	6.378E-03	-0.137
TA-182		67.75		-2.137E-02	1.311E-01	2.097E-01	2.439E-02	-0.102
		100.11		1.859E-01	1.728E-01	2.852E-01	2.669E-02	0.652
		152.43		-3.469E-01	3.384E-01	5.235E-01	3.372E-02	-0.663
		222.11		2.418E-02	3.223E-01	5.148E-01	3.407E-02	0.047
	+	1121.30		6.959E-01	2.201E-01	3.566E-01	2.333E-02	1.951
		1189.05		2.864E-01	3.148E-01	5.473E-01	3.304E-02	0.523
		1221.41	*	7.058E-03	2.081E-01	3.503E-01	2.180E-02	0.020
		1231.02		1.197E-01	5.988E-01	8.852E-01	5.557E-02	0.135
IR-192	+	295.96		1.074E+00	1.696E-01	2.762E-01	1.842E-02	3.888
		308.46		-2.682E-02	8.696E-02	1.434E-01	9.433E-03	-0.187
		316.51	*	1.363E-02	3.063E-02	5.254E-02	3.411E-03	0.259
		468.07		3.231E-02	6.832E-02	1.023E-01	6.727E-03	0.316
HG-203		70.83		1.711E+00	1.593E+00	2.490E+00	4.426E-01	0.687
		72.87		3.044E-01	8.562E-01	1.453E+00	2.511E-01	0.209
		279.20	*	-4.663E-03	3.673E-02	6.161E-02	4.270E-03	-0.076
BI-207		72.81		4.736E-02	1.945E-01	3.295E-01	3.778E-02	0.144
	+	74.97		7.306E-01	1.779E-01	2.460E-01	2.818E-02	2.970
		569.70		3.731E-02	2.765E-02	4.912E-02	2.653E-03	0.760
		1063.66	*	1.901E-02	5.261E-02	8.830E-02	6.280E-03	0.215
		1770.23		4.090E-01	3.973E-01	7.269E-01	4.417E-02	0.563
PB-210		46.54	*	1.164E+00	7.852E+00	1.329E+01	1.159E+00	0.088
PB-211		404.85	*	-2.603E-02	6.702E-01	1.102E+00	5.286E-01	-0.024
		427.09		-4.699E-01	1.427E+00	2.266E+00	1.038E+00	-0.207
		832.01		-7.775E-01	9.930E-01	1.387E+00	7.161E-01	-0.561
BI-212	+	727.33	*	1.830E+00	8.150E-01	1.111E+00	1.184E-01	1.647
		785.37		5.570E+00	3.223E+00	5.967E+00	3.883E-01	0.933
		1620.50		-5.348E-01	1.967E+00	3.064E+00	2.000E-01	-0.175
RN-219	+	271.23		8.383E-01	3.797E-01	4.380E-01	3.800E-02	1.914
		401.81	*	1.544E-01	3.717E-01	6.281E-01	8.398E-02	0.246

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-223		81.07		1.978E-01	2.659E-01	3.353E-01	3.887E-02	0.590
		83.79		1.782E-01	1.203E-01	2.051E-01	2.406E-02	0.869
		94.87		4.221E-01	4.161E-01	7.137E-01	7.360E-02	0.591
		144.24		-7.681E-02	6.278E-01	9.988E-01	7.789E-02	-0.077
		154.21		5.529E-01	3.689E-01	6.294E-01	4.719E-02	0.878
	+	269.46		6.513E-01	2.930E-01	3.336E-01	2.298E-02	1.953
		323.87	*	-2.603E-01	6.078E-01	9.914E-01	1.621E-01	-0.263
	+	338.28		7.869E+00	1.734E+00	2.357E+00	2.482E-01	3.339
AC-227		79.69		3.528E-01	1.472E+00	2.052E+00	3.871E-01	0.172
		235.96		-3.679E-02	1.583E-01	2.194E-01	1.925E-02	-0.168
		256.23	*	-6.539E-02	2.259E-01	3.776E-01	4.058E-02	-0.173
	+	299.98		1.562E+00	1.124E+00	1.497E+00	1.708E-01	1.044
		304.50		5.552E-01	1.662E+00	2.515E+00	3.909E-01	0.221
		334.37		2.092E-01	1.716E+00	2.545E+00	3.675E-01	0.082
TH-227		79.80		5.310E-01	1.942E+00	2.709E+00	6.255E-01	0.196
		235.96		-3.679E-02	1.583E-01	2.194E-01	1.772E-02	-0.168
		256.23	*	-6.539E-02	2.259E-01	3.776E-01	4.707E-02	-0.173
	+	299.98		1.562E+00	1.124E+00	1.497E+00	1.708E-01	1.044
		304.50		5.552E-01	1.662E+00	2.515E+00	3.909E-01	0.221
		334.37		2.092E-01	1.716E+00	2.545E+00	3.675E-01	0.082
TH-229		85.43		3.415E-01	1.934E-01	3.357E-01	3.973E-02	1.017
	+	88.47		5.361E-01	1.609E-01	2.214E-01	2.631E-02	2.422
		193.51	*	-2.018E-01	4.945E-01	7.776E-01	5.046E-02	-0.259
	+	210.85		2.448E+00	1.243E+00	1.492E+00	9.806E-02	1.641
PA-231		283.69	*	1.075E-02	1.252E+00	2.111E+00	2.851E-01	0.005
	+	301.36		1.003E+00	7.214E-01	9.788E-01	1.056E-01	1.025
TH-231		81.07		1.978E-01	2.659E-01	3.353E-01	3.887E-02	0.590
		83.79		1.782E-01	1.203E-01	2.051E-01	2.406E-02	0.869
		94.87		4.221E-01	4.161E-01	7.137E-01	7.360E-02	0.591
		144.24		-7.681E-02	6.278E-01	9.988E-01	7.789E-02	-0.077
		154.21		5.529E-01	3.689E-01	6.294E-01	4.719E-02	0.878
	+	269.46		6.513E-01	2.930E-01	3.336E-01	2.298E-02	1.953
		323.87	*	-2.603E-01	6.078E-01	9.914E-01	1.621E-01	-0.263
	+	338.28		7.869E+00	1.734E+00	2.357E+00	2.482E-01	3.339
PA-233	+	300.13		7.068E-01	5.117E-01	6.800E-01	9.342E-02	1.039
		311.90	*	-1.533E-02	5.700E-02	9.412E-02	6.420E-03	-0.163
		340.48		2.136E+00	8.590E-01	1.219E+00	2.844E-01	1.752
PA-234		94.67		2.483E-01	1.577E-01	2.706E-01	3.697E-02	0.918
		98.44		4.092E-02	9.656E-02	1.428E-01	7.988E-02	0.287
		111.00		1.029E-02	1.760E-01	2.877E-01	3.342E-02	0.036
		131.20		-3.533E-03	9.653E-02	1.579E-01	1.059E-02	-0.022
		569.50		3.589E-01	2.444E-01	4.377E-01	2.364E-02	0.820
		733.00		1.265E-01	3.858E-01	5.805E-01	1.234E-01	0.218
		880.51		1.795E-04	2.519E-01	4.152E-01	3.299E-02	0.000
		883.24		1.108E-01	2.808E-01	4.627E-01	3.107E-01	0.239
		926.50		2.938E-02	1.509E-01	2.524E-01	6.337E-02	0.116
		946.00	*	-2.786E-01	2.942E-01	4.295E-01	7.937E-02	-0.649
		949.00		1.833E-01	4.228E-01	7.202E-01	5.737E-02	0.254
PA-234M		766.42		4.541E+00	1.195E+01	1.982E+01	9.988E+00	0.229

Sample ID : G248841010 Acquisition date : 19-MAR-2010 12:25:40

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1001.03	*	2.304E+00	4.606E+00	7.839E+00	7.147E-01	0.294
NP-239		99.53		2.413E-01	1.659E-01	2.632E-01	2.488E-02	0.917
		103.37		-8.224E-02	9.079E-02	1.442E-01	1.279E-02	-0.570
		106.12		3.349E-02	7.811E-02	1.313E-01	1.117E-02	0.255
		117.23	*	-3.010E-01	3.547E-01	5.614E-01	4.120E-02	-0.536
		228.18		-1.335E-01	2.071E-01	3.176E-01	2.108E-02	-0.420
		277.60		1.779E-01	1.672E-01	2.946E-01	1.959E-02	0.604
AM-241		59.54	*	-9.323E-02	2.265E-01	3.370E-01	4.255E-02	-0.277
CM-247		278.00		4.921E-01	7.163E-01	1.244E+00	8.270E-02	0.396
		287.50		4.528E-01	1.090E+00	1.874E+00	1.241E-01	0.242
		402.40	*	4.728E-03	3.482E-02	5.792E-02	3.269E-03	0.082
CF-249		252.80		2.898E-02	8.675E-01	1.474E+00	9.844E-02	0.020
		333.37		6.241E-02	1.790E-01	2.700E-01	1.710E-02	0.231
		388.16	*	2.070E-02	3.588E-02	6.142E-02	3.488E-03	0.337
CF-251		177.52	*	-1.404E-01	1.200E-01	1.823E-01	1.167E-02	-0.770
		227.38		-2.071E-01	3.437E-01	5.287E-01	3.508E-02	-0.392
		285.41		-2.477E+00	1.911E+00	2.988E+00	1.981E-01	-0.829

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841010      *
* Acquisition date : 19-MAR-2010 12:25:40 Detector SN#    :                 *
* Detector ID        : GAM04               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.44      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        :  3-MAR-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G248841010           Analyst initials: MXR1          *
* Batch Number       : 962629               Sample Quantity : 1.4585E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.191E+01	2.891E+00	4.638E-01	0.000E+00
CD-109	3.563E+00	1.048E+00	1.221E+00	0.000E+00
SN-126	3.478E-01	1.023E-01	1.202E-01	0.000E+00
BA-137M	2.702E-01	7.813E-02	5.651E-02	0.000E+00
CS-137	2.855E-01	8.255E-02	5.969E-02	0.000E+00
TL-208	5.079E-01	7.737E-02	5.229E-02	0.000E+00
BI-211	4.004E+00	5.236E-01	3.049E-01	0.000E+00
PB-212	1.672E+00	1.704E-01	9.417E-02	0.000E+00
BI-214	1.277E+00	1.799E-01	1.026E-01	0.000E+00
PB-214	1.453E+00	2.056E-01	1.109E-01	0.000E+00
RA-224	4.887E+00	1.026E+00	1.009E+00	0.000E+00
RA-226	1.277E+00	1.799E-01	1.026E-01	0.000E+00
AC-228	2.014E+00	3.810E-01	1.916E-01	0.000E+00
RA-228	2.014E+00	3.810E-01	1.916E-01	0.000E+00
TH-228	1.672E+00	1.704E-01	9.417E-02	0.000E+00
TH-232	2.014E+00	3.810E-01	1.916E-01	0.000E+00
TH-234	4.584E+00	3.109E+00	2.725E+00	0.000E+00
U-235	-9.749E-02	1.867E-01	3.152E-01	0.000E+00
NP-237	1.038E+00	3.722E-01	3.655E-01	0.000E+00
U-238	4.584E+00	3.109E+00	2.725E+00	0.000E+00
ANH-511	8.396E-02	6.288E-02	4.350E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.257E-01	3.070E-01	5.238E-01	0.000E+00	NOT IDENT.
NA-22	2.088E-02	3.952E-02	7.148E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.841E+06	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-1.759E-02	3.896E-02	6.395E-02	0.000E+00	FAIL ABUN
V-48	2.154E-03	7.194E-02	1.221E-01	0.000E+00	NOT IDENT.
CR-51	-2.534E-01	3.242E-01	5.506E-01	0.000E+00	NOT IDENT.

MN-54	2.534E-02	3.455E-02	6.279E-02	0.000E+00	NOT IDENT.
CO-56	9.561E-03	3.665E-02	6.436E-02	0.000E+00	FAIL ABUN
CO-57	1.548E-02	2.232E-02	4.091E-02	0.000E+00	NOT IDENT.
CO-58	-2.954E-03	3.633E-02	6.226E-02	0.000E+00	NOT IDENT.
FE-59	-6.162E-02	9.157E-02	1.428E-01	0.000E+00	NOT IDENT.
CO-60	4.551E-02	3.907E-02	7.447E-02	0.000E+00	NOT IDENT.
ZN-65	-6.076E-02	1.116E-01	1.497E-01	0.000E+00	NOT IDENT.
SE-75	1.096E-02	4.288E-02	6.920E-02	0.000E+00	NOT IDENT.
SR-85	6.259E-02	4.186E-02	7.019E-02	0.000E+00	NOT IDENT.
Y-88	2.278E-03	2.234E-02	3.800E-02	0.000E+00	NOT IDENT.
Y-91	1.409E+00	2.289E+01	3.810E+01	0.000E+00	NOT IDENT.
NB-94	1.691E-02	3.229E-02	5.844E-02	0.000E+00	NOT IDENT.
NB-95	-3.109E-02	4.368E-02	7.209E-02	0.000E+00	NOT IDENT.
NB-95M	-8.080E-02	1.311E-01	1.892E-01	0.000E+00	NOT IDENT.
ZR-95	3.267E-02	6.530E-02	1.178E-01	0.000E+00	NOT IDENT.
MO-99	-1.726E+00	1.399E+01	2.411E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.029E+17	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.007E-02	3.826E-02	6.771E-02	0.000E+00	FAIL ABUN
RH-106	1.831E-01	2.870E-01	5.049E-01	0.000E+00	NOT IDENT.
RU-106	1.831E-01	2.864E-01	5.049E-01	0.000E+00	NOT IDENT.
AG-108M	-1.315E-02	2.609E-02	4.359E-02	0.000E+00	NOT IDENT.
AG-110M	-3.754E-03	3.680E-02	5.587E-02	0.000E+00	NOT IDENT.
SN-113	-7.801E-03	4.042E-02	6.983E-02	0.000E+00	NOT IDENT.
CD-115	-1.911E+00	1.320E+01	2.219E+01	0.000E+00	NOT IDENT.
SN-117M	-4.399E-02	5.227E-02	8.805E-02	0.000E+00	NOT IDENT.
TE-123M	-1.969E-02	2.588E-02	4.374E-02	0.000E+00	NOT IDENT.
SB-124	3.666E-02	6.446E-02	1.195E-01	0.000E+00	NOT IDENT.
SB-125	2.884E-02	8.207E-02	1.456E-01	0.000E+00	FAIL ABUN
TE-125M	3.625E+00	9.213E+00	1.660E+01	0.000E+00	NOT IDENT.
I-126	4.987E-02	2.249E-01	3.528E-01	0.000E+00	NOT IDENT.
SB-126	3.111E-03	1.159E-01	1.976E-01	0.000E+00	NOT IDENT.
SB-127	-3.904E-01	1.310E+00	2.241E+00	0.000E+00	NOT IDENT.
I-131	2.272E-02	1.065E-01	1.897E-01	0.000E+00	NOT IDENT.
TE-132	-5.455E-01	8.360E-01	1.368E+00	0.000E+00	NOT IDENT.
BA-133	8.646E-03	4.134E-02	6.517E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.063E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.063E-02	1.006E-01	0.000E+00	NOT IDENT.
CS-135	1.027E-01	1.493E-01	2.481E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.300E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.276E-02	1.083E-01	1.857E-01	0.000E+00	NOT IDENT.
CE-139	-1.141E-02	2.719E-02	4.655E-02	0.000E+00	NOT IDENT.
BA-140	9.426E-02	2.589E-01	4.490E-01	0.000E+00	NOT IDENT.
LA-140	-2.882E-02	9.221E-02	1.484E-01	0.000E+00	NOT IDENT.
CE-141	4.507E-02	5.820E-02	1.036E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.307E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.069E-01	1.786E-01	3.078E-01	0.000E+00	NOT IDENT.
PM-144	3.894E-03	3.205E-02	5.617E-02	0.000E+00	NOT IDENT.
PR-144	2.878E-01	2.399E+00	4.204E+00	0.000E+00	NOT IDENT.
PM-146	7.196E-04	3.745E-02	6.470E-02	0.000E+00	NOT IDENT.
ND-147	-3.281E-01	5.289E-01	8.508E-01	0.000E+00	FAIL ABUN
PM-149	-1.089E+02	1.064E+02	1.791E+02	0.000E+00	NOT IDENT.
EU-152	2.552E-02	9.140E-02	1.588E-01	0.000E+00	FAIL ABUN
GD-153	-4.834E-02	8.635E-02	1.359E-01	0.000E+00	NOT IDENT.
EU-154	4.898E-02	1.121E-01	2.009E-01	0.000E+00	NOT IDENT.
EU-155	7.092E-02	9.380E-02	1.737E-01	0.000E+00	FAIL ABUN
TB-160	5.126E-03	1.240E-01	2.130E-01	0.000E+00	FAIL ABUN
HO-166M	-3.052E-02	5.336E-02	8.903E-02	0.000E+00	NOT IDENT.
TA-182	7.058E-03	2.039E-01	3.537E-01	0.000E+00	FAIL ABUN
IR-192	1.363E-02	3.002E-02	5.474E-02	0.000E+00	FAIL ABUN
HG-203	-4.663E-03	3.600E-02	6.437E-02	0.000E+00	NOT IDENT.
BI-207	1.901E-02	5.156E-02	8.947E-02	0.000E+00	FAIL ABUN
PB-210	1.164E+00	7.695E+00	1.442E+01	0.000E+00	NOT IDENT.
PB-211	-2.603E-02	6.568E-01	1.142E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.987E-01	1.136E+00	0.000E+00	FAIL ABUN
RN-219	1.544E-01	3.643E-01	6.509E-01	0.000E+00	FAIL ABUN
RA-223	-2.603E-01	5.956E-01	1.032E+00	0.000E+00	FAIL ABUN
AC-227	-6.539E-02	2.213E-01	3.952E-01	0.000E+00	FAIL ABUN
TH-227	-6.539E-02	2.214E-01	3.952E-01	0.000E+00	FAIL ABUN
TH-229	-2.018E-01	4.846E-01	8.190E-01	0.000E+00	FAIL ABUN
PA-231	1.075E-02	1.227E+00	2.204E+00	0.000E+00	FAIL ABUN
TH-231	-2.603E-01	5.956E-01	1.032E+00	0.000E+00	FAIL ABUN
PA-233	-1.533E-02	5.586E-02	9.808E-02	0.000E+00	FAIL ABUN
PA-234	-2.786E-01	2.883E-01	4.364E-01	0.000E+00	NOT IDENT.
PA-234M	2.304E+00	4.514E+00	7.954E+00	0.000E+00	NOT IDENT.
NP-239	-3.010E-01	3.476E-01	5.977E-01	0.000E+00	NOT IDENT.
AM-241	-9.323E-02	2.220E-01	3.640E-01	0.000E+00	NOT IDENT.
CM-247	4.728E-03	3.413E-02	6.002E-02	0.000E+00	NOT IDENT.
CF-249	2.070E-02	3.516E-02	6.369E-02	0.000E+00	NOT IDENT.

CF-251	-1.404E-01	1.176E-01	1.923E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 14:26:11.39

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841010.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 19-MAR-2010 12:25:40
Sample ID         : G248841010           Sample quantity  : 1.45850E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.44  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1419	10.66*	1.074E+00	3.191E+01	3.191E+01	9.25
CD-109	88.03	251	3.70*	5.023E+00	3.478E+00	3.563E+00	30.00
SN-126	64.28	132	9.60	2.006E+00	1.767E+00	1.767E+00	68.43
	86.94	251	8.90	5.023E+00	1.446E+00	1.446E+00	50.36
	87.57	251	37.00*	5.023E+00	3.478E-01	3.478E-01	30.00
BA-137M	661.66	208	89.90*	2.206E+00	2.699E-01	2.702E-01	29.51
CS-137	661.66	208	85.10*	2.206E+00	2.852E-01	2.855E-01	29.51
TL-208	277.37	------	6.60	4.326E+00	------ Line Not Found		------
	583.19	412	85.00*	2.453E+00	5.079E-01	5.079E-01	15.54
	860.56	98	12.50	1.742E+00	1.154E+00	1.154E+00	43.32
BI-211	72.87	------	1.23	3.384E+00	------ Line Not Found		------
	351.06	729	12.92*	3.625E+00	4.004E+00	4.004E+00	13.34
PB-212	74.82	368	10.28	3.637E+00	2.535E+00	2.535E+00	26.22
	77.11	515	17.10	3.939E+00	1.968E+00	1.968E+00	18.89
	238.63	1366	43.60*	4.823E+00	1.672E+00	1.672E+00	10.40
	300.09	74	3.30	4.081E+00	1.420E+00	1.420E+00	71.64
BI-214	609.32	534	45.49*	2.366E+00	1.277E+00	1.277E+00	14.38
	1120.29	116	14.92	1.356E+00	1.477E+00	1.477E+00	32.33
	1764.49	108	15.30	9.526E-01	1.913E+00	1.913E+00	21.32
PB-214	74.82	368	5.80	3.637E+00	4.493E+00	4.493E+00	25.61
	77.11	515	9.70	3.939E+00	3.469E+00	3.469E+00	20.61
	242.00	372	7.25	4.782E+00	2.763E+00	2.764E+00	22.20
	295.22	426	18.42	4.130E+00	1.440E+00	1.440E+00	17.05
	351.93	729	35.60*	3.625E+00	1.453E+00	1.453E+00	14.44
RA-224	240.99	372	4.10*	4.782E+00	4.887E+00	4.887E+00	21.43
RA-226	609.32	534	45.49*	2.366E+00	1.277E+00	1.277E+00	14.38
	1120.29	116	14.92	1.356E+00	1.477E+00	1.477E+00	32.33
	1764.49	108	15.30	9.526E-01	1.913E+00	1.913E+00	21.32
AC-228	338.32	324	11.27	3.734E+00	1.983E+00	1.983E+00	45.61
	911.20	333	25.80*	1.651E+00	2.014E+00	2.014E+00	19.30
	968.97	195	15.80	1.558E+00	2.042E+00	2.042E+00	30.63
RA-228	338.32	324	11.27	3.734E+00	1.983E+00	1.983E+00	45.61

Sample ID : G248841010 Acquisition date : 19-MAR-2010 12:25:40

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	333	25.80*	1.651E+00	2.014E+00	2.014E+00	19.30
	968.97	195	15.80	1.558E+00	2.042E+00	2.042E+00	30.63
TH-228	74.82	368	10.28	3.637E+00	2.535E+00	2.535E+00	24.38
	77.11	515	17.10	3.939E+00	1.968E+00	1.968E+00	18.89
	238.63	1366	43.60*	4.823E+00	1.672E+00	1.672E+00	10.40
	300.09	74	3.30	4.081E+00	1.420E+00	1.420E+00	93.64
TH-232	338.32	324	11.27	3.734E+00	1.983E+00	1.983E+00	20.35
	911.20	333	25.80*	1.651E+00	2.014E+00	2.014E+00	19.30
	968.97	195	15.80	1.558E+00	2.042E+00	2.042E+00	30.63
TH-234	63.29	132	3.70*	2.006E+00	4.584E+00	4.584E+00	69.21
	92.59	290	4.23	5.479E+00	3.218E+00	3.218E+00	35.52
U-235	89.96	168	3.47	5.244E+00	2.372E+00	2.372E+00	44.32
	93.35	290	5.60	5.479E+00	2.430E+00	2.430E+00	36.16
	143.76	------	10.96*	6.399E+00	------	Line Not Found	------
	163.33	------	5.08	6.104E+00	------	Line Not Found	------
	185.72	191	57.20	5.693E+00	1.513E-01	1.513E-01	45.41
	205.31	------	5.01	5.352E+00	------	Line Not Found	------
NP-237	86.48	251	12.40*	5.023E+00	1.038E+00	1.038E+00	36.60
	95.86	------	2.68	5.677E+00	------	Line Not Found	------
U-238	63.29	132	3.70*	2.006E+00	4.584E+00	4.584E+00	69.21
	92.59	290	4.23	5.479E+00	3.218E+00	3.218E+00	29.13
ANH-511	511.00	89	100.00*	2.729E+00	8.396E-02	8.396E-02	76.42

Flag: "*" = Keyline

Sample ID : G248841010 Acquisition date : 19-MAR-2010 12:25:40

Total number of lines in spectrum 32
Number of unidentified lines 3
Number of lines tentatively identified by NID 29 90.63%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.191E+01	3.191E+01	0.295E+01	9.25	
CD-109	461.40D	1.02	3.478E+00	3.563E+00	1.069E+00	30.00	
SN-126	2.30E+05Y	1.00	3.478E-01	3.478E-01	1.043E-01	30.00	
BA-137M	30.08Y	1.00	2.699E-01	2.702E-01	0.797E-01	29.51	
CS-137	30.08Y	1.00	2.852E-01	2.855E-01	0.842E-01	29.51	
TL-208	1.41E+10Y	1.00	5.079E-01	5.079E-01	0.790E-01	15.54	
BI-211	7.04E+08Y	1.00	4.004E+00	4.004E+00	0.534E+00	13.34	
PB-212	1.41E+10Y	1.00	1.672E+00	1.672E+00	0.174E+00	10.40	
BI-214	1600.00Y	1.00	1.277E+00	1.277E+00	0.184E+00	14.38	
PB-214	1600.00Y	1.00	1.453E+00	1.453E+00	0.210E+00	14.44	
RA-224	1.41E+10Y	1.00	4.887E+00	4.887E+00	1.047E+00	21.43	
RA-226	1600.00Y	1.00	1.277E+00	1.277E+00	0.184E+00	14.38	
AC-228	1.41E+10Y	1.00	2.014E+00	2.014E+00	0.389E+00	19.30	
RA-228	1.41E+10Y	1.00	2.014E+00	2.014E+00	0.389E+00	19.30	
TH-228	1.41E+10Y	1.00	1.672E+00	1.672E+00	0.174E+00	10.40	
TH-232	1.41E+10Y	1.00	2.014E+00	2.014E+00	0.389E+00	19.30	
TH-234	4.47E+09Y	1.00	4.584E+00	4.584E+00	3.172E+00	69.21	
U-235	7.04E+08Y	1.00	1.513E-01	1.513E-01	0.687E-01	45.41	K
NP-237	2.14E+06Y	1.00	1.038E+00	1.038E+00	0.380E+00	36.60	
U-238	4.47E+09Y	1.00	4.584E+00	4.584E+00	3.172E+00	69.21	
ANH-511	1.00E+09Y	1.00	8.396E-02	8.396E-02	6.416E-02	76.42	
	Total Activity :		6.953E+01	6.961E+01			

Grand Total Activity : 6.953E+01 6.961E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248841010 Acquisition date : 19-MAR-2010 12:25:40

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.51	141	332	1.05	419.09	414	9	1.95E-02	50.4	5.28E+00	T
0	270.34	155	259	1.48	540.75	535	12	2.15E-02	44.5	4.41E+00	T
0	462.63	92	123	1.40	925.35	921	12	1.28E-02	52.1	2.95E+00	T
0	727.80	96	86	0.90	1455.69	1451	12	1.34E-02	43.2	2.03E+00	T
3	965.38	92	43	2.26	1930.81	1925	29	1.28E-02	34.6	1.56E+00	T
0	1238.33	83	66	4.34	2476.64	2469	14	1.15E-02	47.2	1.24E+00	T
0	1632.21	15	5	1.01	3264.22	3258	10	2.07E-03	76.5	9.94E-01	
0	1730.89	23	7	2.80	3461.52	3455	14	3.19E-03	64.2	9.62E-01	
0	1849.15	25	0	1.41	3697.96	3691	13	3.47E-03	40.0	9.35E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 14:26:15.55

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841010.CNF;1  *
* Acquisition date : 19-MAR-2010 12:25:40  Detector SN#    :                *
* Detector ID      : GAM04                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.44         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248841010            Analyst initials: MXR1           *
* Batch Number     : 962629                Sample Quantity : 1.45850E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 5-MAY-2009 14:25:41.36MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.191E+01	2.950E+00	4.612E-01	3.278E-02	69.187
CD-109	3.563E+00	1.069E+00	1.140E+00	1.370E-01	3.124
SN-126	3.478E-01	1.043E-01	1.122E-01	1.345E-02	3.101
BA-137M	2.702E-01	7.973E-02	5.515E-02	2.690E-03	4.899
CS-137	2.855E-01	8.424E-02	5.827E-02	2.859E-03	4.899
TL-208	5.079E-01	7.895E-02	5.089E-02	3.194E-03	9.980
BI-211	4.004E+00	5.342E-01	2.933E-01	1.982E-02	13.652
PB-212	1.672E+00	1.738E-01	8.983E-02	7.266E-03	18.613
BI-214	1.277E+00	1.836E-01	9.993E-02	7.409E-03	12.775
PB-214	1.453E+00	2.098E-01	1.067E-01	9.299E-03	13.622
RA-224	4.887E+00	1.047E+00	9.631E-01	6.421E-02	5.074
RA-226	1.277E+00	1.836E-01	9.993E-02	7.409E-03	12.775
AC-228	2.014E+00	3.888E-01	1.884E-01	2.122E-02	10.691
RA-228	2.014E+00	3.888E-01	1.884E-01	2.122E-02	10.691
TH-228	1.672E+00	1.738E-01	8.983E-02	7.266E-03	18.613
TH-232	2.014E+00	3.888E-01	1.884E-01	2.122E-02	10.691
TH-234	4.584E+00	3.172E+00	2.527E+00	5.085E-01	1.814
U-235	1.513E-01	6.869E-02	2.973E-01	4.754E-02	0.509

Sample ID : G248841010 Acquisition date : 19-MAR-2010 12:25:40

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	1.038E+00	3.798E-01	3.411E-01	8.224E-02	3.043
U-238	4.584E+00	3.172E+00	2.527E+00	5.085E-01	1.814
ANH-511	8.396E-02	6.416E-02	4.221E-02	2.360E-03	1.989

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.257E-01		3.133E-01	5.075E-01	3.360E-02	0.248
NA-22	2.088E-02		4.033E-02	7.085E-02	4.632E-03	0.295
NA-24	2.579E-01		9.393E-01	Half-Life too short		
SC-46	-1.759E-02		3.975E-02	6.285E-02	5.083E-03	-0.280
V-48	2.154E-03		7.341E-02	1.202E-01	9.315E-03	0.018
CR-51	-2.534E-01		3.309E-01	5.286E-01	3.718E-02	-0.479
MN-54	2.534E-02		3.526E-02	6.162E-02	4.459E-03	0.411
CO-56	9.561E-03		3.740E-02	6.318E-02	4.687E-03	0.151
CO-57	1.548E-02		2.277E-02	3.845E-02	2.670E-03	0.402
CO-58	-2.954E-03		3.707E-02	6.106E-02	4.215E-03	-0.048
FE-59	-6.162E-02		9.343E-02	1.411E-01	1.078E-02	-0.437
CO-60	4.551E-02		3.987E-02	7.389E-02	5.063E-03	0.616
ZN-65	-6.076E-02		1.139E-01	1.479E-01	9.786E-03	-0.411
SE-75	1.096E-02		4.375E-02	6.616E-02	4.451E-03	0.166
SR-85	6.259E-02		4.271E-02	6.812E-02	3.805E-03	0.919
Y-88	2.278E-03		2.279E-02	3.800E-02	2.217E-03	0.060
Y-91	1.409E+00		2.336E+01	3.771E+01	2.311E+00	0.037
NB-94	1.691E-02		3.295E-02	5.713E-02	3.078E-03	0.296
NB-95	-3.109E-02		4.458E-02	7.060E-02	4.400E-03	-0.440
NB-95M	-8.080E-02		1.337E-01	1.805E-01	1.485E-02	-0.448
ZR-95	3.267E-02		6.663E-02	1.154E-01	8.450E-03	0.283
MO-99	-1.726E+00		1.427E+01	2.359E+01	3.407E+00	-0.073
TC-99M	2.238E+11		2.056E+11	Half-Life too short		
RU-103	2.007E-02		3.904E-02	6.565E-02	8.104E-03	0.306
RH-106	1.831E-01		2.929E-01	4.921E-01	5.563E-02	0.372
RU-106	1.831E-01		2.923E-01	4.921E-01	2.528E-02	0.372
AG-108M	-1.315E-02		2.662E-02	4.214E-02	2.565E-03	-0.312
AG-110M	-3.754E-03		3.755E-02	5.453E-02	2.914E-03	-0.069
SN-113	-7.801E-03		4.125E-02	6.735E-02	4.058E-03	-0.116
CD-115	-1.911E+00		1.347E+01	2.155E+01	1.196E+00	-0.089
SN-117M	-4.399E-02		5.334E-02	8.325E-02	5.325E-03	-0.528
TE-123M	-1.969E-02		2.641E-02	4.136E-02	2.673E-03	-0.476
SB-124	3.666E-02		6.577E-02	1.192E-01	8.133E-03	0.308
SB-125	2.884E-02		8.374E-02	1.407E-01	8.316E-03	0.205
TE-125M	3.625E+00		9.401E+00	1.556E+01	1.570E+00	0.233
I-126	4.987E-02		2.295E-01	3.444E-01	1.699E-02	0.145
SB-126	3.111E-03		1.183E-01	1.933E-01	1.087E-02	0.016
SB-127	-3.904E-01		1.337E+00	2.190E+00	2.053E-01	-0.178
I-131	2.272E-02		1.086E-01	1.827E-01	1.217E-02	0.124
TE-132	-5.455E-01		8.531E-01	1.304E+00	1.959E-01	-0.418

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-133	8.646E-03		4.219E-02	6.272E-02	7.171E-03	0.138
I-133	3.692E-03		5.423E-03	Half-Life too short		
CS-134	1.353E-01		5.167E-02	9.864E-02	6.648E-03	1.372
CS-135	1.027E-01		1.523E-01	2.373E-01	1.978E-02	0.433
I-135	2.682E+10		3.214E+10	Half-Life too short		
CS-136	2.276E-02		1.105E-01	1.832E-01	1.407E-02	0.124
CE-139	-1.141E-02		2.775E-02	4.405E-02	2.799E-03	-0.259
BA-140	9.426E-02		2.642E-01	4.361E-01	1.451E-01	0.216
LA-140	-2.882E-02		9.409E-02	1.479E-01	9.739E-03	-0.195
CE-141	4.507E-02		5.938E-02	9.780E-02	6.566E-03	0.461
CE-143	5.310E-04		1.177E-04	Half-Life too short		
CE-144	-1.069E-01		1.823E-01	2.899E-01	4.138E-02	-0.369
PM-144	3.894E-03		3.270E-02	5.489E-02	2.917E-03	0.071
PR-144	2.878E-01		2.448E+00	4.109E+00	2.181E-01	0.070
PM-146	7.196E-04		3.821E-02	6.261E-02	5.239E-03	0.011
ND-147	-3.281E-01		5.397E-01	8.263E-01	1.108E-01	-0.397
PM-149	-1.089E+02		1.086E+02	1.715E+02	2.493E+01	-0.635
EU-152	2.552E-02		9.326E-02	1.527E-01	1.056E-02	0.167
GD-153	-4.834E-02		8.811E-02	1.271E-01	1.248E-02	-0.380
EU-154	4.898E-02		1.143E-01	1.992E-01	1.969E-02	0.246
EU-155	7.092E-02		9.571E-02	1.628E-01	1.418E-02	0.436
TB-160	5.126E-03		1.265E-01	2.093E-01	1.659E-02	0.024
HO-166M	-3.052E-02		5.445E-02	8.705E-02	4.791E-03	-0.351
TA-182	7.058E-03		2.081E-01	3.503E-01	2.180E-02	0.020
IR-192	1.363E-02		3.063E-02	5.254E-02	3.411E-03	0.259
HG-203	-4.663E-03		3.673E-02	6.161E-02	4.270E-03	-0.076
BI-207	1.901E-02		5.261E-02	8.830E-02	6.280E-03	0.215
PB-210	1.164E+00		7.852E+00	1.329E+01	1.159E+00	0.088
PB-211	-2.603E-02		6.702E-01	1.102E+00	5.286E-01	-0.024
BI-212	1.830E+00	+	8.150E-01	1.111E+00	1.184E-01	1.647
RN-219	1.544E-01		3.717E-01	6.281E-01	8.398E-02	0.246
RA-223	-2.603E-01		6.078E-01	9.914E-01	1.621E-01	-0.263
AC-227	-6.539E-02		2.259E-01	3.776E-01	4.058E-02	-0.173
TH-227	-6.539E-02		2.259E-01	3.776E-01	4.707E-02	-0.173
TH-229	-2.018E-01		4.945E-01	7.776E-01	5.046E-02	-0.259
PA-231	1.075E-02		1.252E+00	2.111E+00	2.851E-01	0.005
TH-231	-2.603E-01		6.078E-01	9.914E-01	1.621E-01	-0.263
PA-233	-1.533E-02		5.700E-02	9.412E-02	6.420E-03	-0.163
PA-234	-2.786E-01		2.942E-01	4.295E-01	7.937E-02	-0.649
PA-234M	2.304E+00		4.606E+00	7.839E+00	7.147E-01	0.294
NP-239	-3.010E-01		3.547E-01	5.614E-01	4.120E-02	-0.536
AM-241	-9.323E-02		2.265E-01	3.370E-01	4.255E-02	-0.277
CM-247	4.728E-03		3.482E-02	5.792E-02	3.269E-03	0.082
CF-249	2.070E-02		3.588E-02	6.142E-02	3.488E-03	0.337
CF-251	-1.404E-01		1.200E-01	1.823E-01	1.167E-02	-0.770

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248841010            *
* Acquisition date : 19-MAR-2010 12:25:40 Detector SN#    :                 *
* Detector ID      : GAM04                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.44     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248841010           Analyst initials: MXR1            *
* Batch Number     : 962629               Sample Quantity : 1.4585E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.191E+01	2.891E+00	2.320E-01	1.475E+00
CD-109	3.563E+00	1.048E+00	6.111E-01	5.344E-01
SN-126	3.478E-01	1.023E-01	6.011E-02	5.217E-02
BA-137M	2.702E-01	7.813E-02	2.827E-02	3.986E-02
CS-137	2.855E-01	8.255E-02	2.986E-02	4.212E-02
TL-208	5.079E-01	7.737E-02	2.616E-02	3.948E-02
BI-211	4.004E+00	5.236E-01	1.525E-01	2.671E-01
PB-212	1.672E+00	1.704E-01	4.711E-02	8.692E-02
BI-214	1.277E+00	1.799E-01	5.132E-02	9.180E-02
PB-214	1.453E+00	2.056E-01	5.547E-02	1.049E-01
RA-224	4.887E+00	1.026E+00	5.050E-01	5.235E-01
RA-226	1.277E+00	1.799E-01	5.132E-02	9.180E-02
AC-228	2.014E+00	3.810E-01	9.586E-02	1.944E-01
RA-228	2.014E+00	3.810E-01	9.586E-02	1.944E-01
TH-228	1.672E+00	1.704E-01	4.711E-02	8.692E-02
TH-232	2.014E+00	3.810E-01	9.586E-02	1.944E-01
TH-234	4.584E+00	3.109E+00	1.363E+00	1.586E+00
U-235	-9.749E-02	1.867E-01	1.577E-01	9.525E-02
NP-237	1.038E+00	3.722E-01	1.828E-01	1.899E-01
U-238	4.584E+00	3.109E+00	1.363E+00	1.586E+00
ANH-511	8.396E-02	6.288E-02	2.176E-02	3.208E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.257E-01	3.070E-01	2.621E-01	1.567E-01	NOT IDENT.
NA-22	2.088E-02	3.952E-02	3.576E-02	2.017E-02	NOT IDENT.
NA-24	2.579E+05	1.841E+06	0.000E+00	9.393E+05	SHORT HLIF
SC-46	-1.759E-02	3.896E-02	3.199E-02	1.988E-02	FAIL ABUN
V-48	2.154E-03	7.194E-02	6.106E-02	3.670E-02	NOT IDENT.
CR-51	-2.534E-01	3.242E-01	2.754E-01	1.654E-01	NOT IDENT.

MN-54	2.534E-02	3.455E-02	3.141E-02	1.763E-02	NOT IDENT.
CO-56	9.561E-03	3.665E-02	3.220E-02	1.870E-02	FAIL ABUN
CO-57	1.548E-02	2.232E-02	2.047E-02	1.139E-02	NOT IDENT.
CO-58	-2.954E-03	3.633E-02	3.115E-02	1.853E-02	NOT IDENT.
FE-59	-6.162E-02	9.157E-02	7.146E-02	4.672E-02	NOT IDENT.
CO-60	4.551E-02	3.907E-02	3.726E-02	1.994E-02	NOT IDENT.
ZN-65	-6.076E-02	1.116E-01	7.491E-02	5.694E-02	NOT IDENT.
SE-75	1.096E-02	4.288E-02	3.462E-02	2.188E-02	NOT IDENT.
SR-85	6.259E-02	4.186E-02	3.512E-02	2.136E-02	NOT IDENT.
Y-88	2.278E-03	2.234E-02	1.901E-02	1.140E-02	NOT IDENT.
Y-91	1.409E+00	2.289E+01	1.906E+01	1.168E+01	NOT IDENT.
NB-94	1.691E-02	3.229E-02	2.924E-02	1.647E-02	NOT IDENT.
NB-95	-3.109E-02	4.368E-02	3.606E-02	2.229E-02	NOT IDENT.
NB-95M	-8.080E-02	1.311E-01	9.467E-02	6.687E-02	NOT IDENT.
ZR-95	3.267E-02	6.530E-02	5.894E-02	3.332E-02	NOT IDENT.
MO-99	-1.726E+00	1.399E+01	1.206E+01	7.135E+00	NOT IDENT.
TC-99M	2.238E+17	4.029E+17	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.007E-02	3.826E-02	3.387E-02	1.952E-02	FAIL ABUN
RH-106	1.831E-01	2.870E-01	2.526E-01	1.464E-01	NOT IDENT.
RU-106	1.831E-01	2.864E-01	2.526E-01	1.461E-01	NOT IDENT.
AG-108M	-1.315E-02	2.609E-02	2.181E-02	1.331E-02	NOT IDENT.
AG-110M	-3.754E-03	3.680E-02	2.795E-02	1.878E-02	NOT IDENT.
SN-113	-7.801E-03	4.042E-02	3.494E-02	2.062E-02	NOT IDENT.
CD-115	-1.911E+00	1.320E+01	1.110E+01	6.736E+00	NOT IDENT.
SN-117M	-4.399E-02	5.227E-02	4.405E-02	2.667E-02	NOT IDENT.
TE-123M	-1.969E-02	2.588E-02	2.188E-02	1.320E-02	NOT IDENT.
SB-124	3.666E-02	6.446E-02	5.977E-02	3.289E-02	NOT IDENT.
SB-125	2.884E-02	8.207E-02	7.282E-02	4.187E-02	FAIL ABUN
TE-125M	3.625E+00	9.213E+00	8.302E+00	4.700E+00	NOT IDENT.
I-126	4.987E-02	2.249E-01	1.765E-01	1.147E-01	NOT IDENT.
SB-126	3.111E-03	1.159E-01	9.887E-02	5.914E-02	NOT IDENT.
SB-127	-3.904E-01	1.310E+00	1.121E+00	6.683E-01	NOT IDENT.
I-131	2.272E-02	1.065E-01	9.493E-02	5.432E-02	NOT IDENT.
TE-132	-5.455E-01	8.360E-01	6.844E-01	4.266E-01	NOT IDENT.
BA-133	8.646E-03	4.134E-02	3.260E-02	2.109E-02	NOT IDENT.
I-133	3.692E+03	1.063E+04	0.000E+00	5.423E+03	SHORT HLIF
CS-134	1.353E-01	5.063E-02	5.034E-02	2.583E-02	NOT IDENT.
CS-135	1.027E-01	1.493E-01	1.241E-01	7.615E-02	NOT IDENT.
I-135	2.682E+16	6.300E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.276E-02	1.083E-01	9.290E-02	5.527E-02	NOT IDENT.
CE-139	-1.141E-02	2.719E-02	2.329E-02	1.387E-02	NOT IDENT.
BA-140	9.426E-02	2.589E-01	2.246E-01	1.321E-01	NOT IDENT.
LA-140	-2.882E-02	9.221E-02	7.423E-02	4.705E-02	NOT IDENT.
CE-141	4.507E-02	5.820E-02	5.185E-02	2.969E-02	NOT IDENT.
CE-143	5.310E+02	2.307E+02	0.000E+00	1.177E+02	SHORT HLIF
CE-144	-1.069E-01	1.786E-01	1.540E-01	9.115E-02	NOT IDENT.
PM-144	3.894E-03	3.205E-02	2.810E-02	1.635E-02	NOT IDENT.
PR-144	2.878E-01	2.399E+00	2.103E+00	1.224E+00	NOT IDENT.
PM-146	7.196E-04	3.745E-02	3.237E-02	1.911E-02	NOT IDENT.
ND-147	-3.281E-01	5.289E-01	4.257E-01	2.699E-01	FAIL ABUN
PM-149	-1.089E+02	1.064E+02	8.959E+01	5.430E+01	NOT IDENT.
EU-152	2.552E-02	9.140E-02	7.945E-02	4.663E-02	FAIL ABUN
GD-153	-4.834E-02	8.635E-02	6.797E-02	4.406E-02	NOT IDENT.
EU-154	4.898E-02	1.121E-01	1.005E-01	5.717E-02	NOT IDENT.
EU-155	7.092E-02	9.380E-02	8.690E-02	4.786E-02	FAIL ABUN
TB-160	5.126E-03	1.240E-01	1.066E-01	6.325E-02	FAIL ABUN
HO-166M	-3.052E-02	5.336E-02	4.454E-02	2.723E-02	NOT IDENT.
TA-182	7.058E-03	2.039E-01	1.770E-01	1.041E-01	FAIL ABUN
IR-192	1.363E-02	3.002E-02	2.738E-02	1.532E-02	FAIL ABUN
HG-203	-4.663E-03	3.600E-02	3.220E-02	1.837E-02	NOT IDENT.
BI-207	1.901E-02	5.156E-02	4.476E-02	2.631E-02	FAIL ABUN
PB-210	1.164E+00	7.695E+00	7.215E+00	3.926E+00	NOT IDENT.
PB-211	-2.603E-02	6.568E-01	5.713E-01	3.351E-01	NOT IDENT.
BI-212	1.830E+00	7.987E-01	5.682E-01	4.075E-01	FAIL ABUN
RN-219	1.544E-01	3.643E-01	3.256E-01	1.859E-01	FAIL ABUN
RA-223	-2.603E-01	5.956E-01	5.164E-01	3.039E-01	FAIL ABUN
AC-227	-6.539E-02	2.213E-01	1.977E-01	1.129E-01	FAIL ABUN
TH-227	-6.539E-02	2.214E-01	1.977E-01	1.129E-01	FAIL ABUN
TH-229	-2.018E-01	4.846E-01	4.097E-01	2.472E-01	FAIL ABUN
PA-231	1.075E-02	1.227E+00	1.103E+00	6.258E-01	FAIL ABUN
TH-231	-2.603E-01	5.956E-01	5.164E-01	3.039E-01	FAIL ABUN
PA-233	-1.533E-02	5.586E-02	4.907E-02	2.850E-02	FAIL ABUN
PA-234	-2.786E-01	2.883E-01	2.183E-01	1.471E-01	NOT IDENT.
PA-234M	2.304E+00	4.514E+00	3.979E+00	2.303E+00	NOT IDENT.
NP-239	-3.010E-01	3.476E-01	2.990E-01	1.773E-01	NOT IDENT.
AM-241	-9.323E-02	2.220E-01	1.821E-01	1.132E-01	NOT IDENT.
CM-247	4.728E-03	3.413E-02	3.003E-02	1.741E-02	NOT IDENT.
CF-249	2.070E-02	3.516E-02	3.187E-02	1.794E-02	NOT IDENT.

CF-251	-1.404E-01	1.176E-01	9.622E-02	6.002E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	211.6857
49.72	235.2085
57.36	0.0000
59.54	272.0662
63.29	260.7903
63.29	260.7903
64.28	286.0416
67.75	317.4000
69.67	314.1989
70.83	293.2121
72.81	381.7443
72.87	381.7953
72.87	381.7953
74.82	383.4494
74.82	383.4494
74.82	383.4494
74.97	383.5749
77.11	385.3650
77.11	385.3650
77.11	385.3650
79.69	352.2646
79.80	352.3458
80.12	384.1294
80.19	384.1852
80.57	381.7065
81.00	290.0228
81.07	290.0641
81.07	290.0641
83.79	303.8494
83.79	303.8494
85.43	304.8594
86.48	305.5024
86.55	305.5454
86.79	305.6892
86.94	305.7818
87.57	306.1653
88.03	306.4430
88.47	306.7092
89.96	307.6035
91.11	308.2878
92.59	309.1639
92.59	309.1639
93.35	309.6103
94.67	310.3822
94.87	310.4996
94.87	310.4996
95.86	295.7588
97.43	318.2186
98.44	288.5147
99.53	251.5069
100.11	270.8710
103.18	332.6930
103.37	306.6072
105.31	271.6322
106.12	296.3895
109.28	301.9248
111.00	310.6719
111.76	327.8020
116.30	287.6252
117.23	292.0336
121.12	278.8680
121.78	261.1487
122.06	261.2642
123.07	300.7813
131.20	307.6018
133.52	309.6870
136.00	254.5852

136.47	267.0375
140.51	258.3101
140.51	0.0000
143.76	320.5011
144.24	301.0617
144.24	301.0617
145.44	271.5148
152.43	345.2808
153.25	318.4294
154.21	268.4948
154.21	268.4948
156.02	317.5080
158.56	309.0800
159.00	302.9259
162.66	273.6158
163.33	274.9135
165.86	290.7123
176.60	280.5928
177.52	292.7894
181.07	239.2496
184.41	282.6851
185.72	264.0277
193.51	273.0210
197.04	292.9034
205.31	259.3464
210.85	240.7059
215.65	245.8820
222.11	216.8840
227.38	252.3052
228.16	245.6499
228.18	245.6543
235.69	265.9235
235.96	255.6306
235.96	255.6306
238.63	249.3743
238.63	249.3743
240.99	249.9478
242.00	222.3945
244.70	222.9746
252.40	178.9856
252.80	201.8729
256.23	199.8789
256.23	199.8789
260.90	182.1706
264.66	160.4346
268.22	169.4966
269.46	183.5882
269.46	183.5882
271.23	183.8774
273.65	239.0188
276.40	184.1220
277.37	186.6719
277.60	192.9935
278.00	204.7324
279.20	207.6448
279.54	215.7971
280.46	222.2721
283.69	162.4329
284.31	185.9928
285.41	188.8801
285.90	186.2474
287.50	159.3416
293.27	0.0000
295.22	167.6737
295.96	145.8936
298.57	168.1398
299.98	131.7415
299.98	131.7415
300.09	187.3844
300.09	187.3844
300.13	187.3906
301.36	187.5781
302.85	165.8005
304.50	161.6162
304.50	161.6162
304.85	139.6171
308.46	160.2947
311.90	153.3504

316.51	135.3712
319.41	149.6207
320.08	155.2782
323.87	178.1211
323.87	178.1211
328.76	175.0528
333.37	141.2914
334.37	147.4163
334.37	147.4163
338.28	156.5267
338.28	156.5267
338.32	156.5318
338.32	156.5318
338.32	156.5318
340.48	146.5870
340.55	146.5941
344.28	146.1378
351.06	132.3211
351.93	132.4038
356.01	128.4035
364.49	114.3861
366.42	144.3832
383.85	112.0485
388.16	112.3784
388.63	125.1211
391.69	129.2990
400.66	126.1348
401.81	116.3705
402.40	126.2813
404.85	130.4370
410.95	116.0770
414.70	153.1588
423.72	121.0351
427.09	119.2905
427.87	107.3135
433.94	111.7503
453.88	101.9135
463.37	116.8423
468.07	90.4452
473.00	113.3838
476.78	92.9718
477.60	93.0171
487.02	92.4820
492.35	111.5242
497.08	95.1004
511.00	92.6796
514.00	102.9591
527.90	82.9036
529.87	0.0000
531.02	91.5587
537.26	80.1132
546.56	0.0000
563.25	89.8618
569.33	70.5919
569.50	62.9950
569.70	65.1727
583.19	78.7368
600.60	81.6172
602.73	84.5398
604.72	77.8014
609.32	80.8529
609.32	80.8529
610.33	80.8930
614.28	62.1711
618.01	78.9650
621.93	69.0821
621.93	69.0821
633.25	77.2902
635.95	82.9948
636.99	76.3008
645.85	68.5002
657.76	86.0891
661.66	83.5165
661.66	83.5165
664.57	0.0000
666.33	71.2592
666.50	65.1999
677.62	58.5125

685.70	70.6479
695.00	78.3013
696.49	78.3521
696.51	78.3531
697.00	79.2917
702.65	85.9523
706.68	85.1741
711.68	79.7894
720.70	51.7388
721.93	0.0000
722.78	54.3742
722.91	51.2698
723.31	55.9395
724.19	49.7422
727.33	45.1379
733.00	65.5259
735.93	70.8112
739.50	72.2721
747.24	69.6749
752.31	74.5370
753.82	63.2525
756.73	63.3278
763.94	98.5842
765.81	111.9387
766.42	91.0898
777.92	67.6771
778.90	76.2852
783.70	75.4724
785.37	63.0948
795.86	62.3927
801.95	83.7056
810.29	71.4255
810.76	65.6459
815.77	62.8704
818.51	59.0625
832.01	72.9858
834.85	62.3469
836.80	0.0000
846.77	59.6880
856.80	47.4672
860.56	40.3203
871.09	46.3964
873.19	51.3716
875.33	0.0000
879.36	52.4747
880.51	52.4967
883.24	53.5386
884.68	56.5422
889.28	70.5441
898.04	55.8127
911.20	45.0549
911.20	45.0549
911.20	45.0549
926.50	44.2868
937.49	69.7092
944.13	43.5396
946.00	67.8833
949.00	51.7247
962.29	69.6113
964.08	78.1472
966.15	61.1997
968.97	61.2568
968.97	61.2568
968.97	61.2568
983.53	58.4723
996.26	58.7145
1001.03	57.7719
1004.73	64.0374
1037.84	55.3162
1038.76	0.0000
1048.07	53.3981
1050.41	64.9638
1050.41	64.9638
1063.66	53.6546
1085.87	51.8974
1099.45	65.9325
1112.07	67.2482
1115.54	81.9188

1120.29	67.7648
1120.29	67.7648
1120.55	60.6372
1121.30	59.9375
1131.51	0.0000
1173.23	56.4916
1177.93	73.9699
1189.05	53.4669
1204.77	72.3325
1221.41	79.8173
1231.02	85.1509
1235.36	82.0915
1238.28	81.1035
1260.41	0.0000
1271.85	49.2842
1274.44	40.9438
1274.54	40.0133
1291.59	55.1469
1298.22	0.0000
1312.11	48.8621
1332.49	30.2259
1365.19	39.9971
1368.63	0.0000
1384.29	47.8414
1408.01	27.9085
1457.56	0.0000
1460.82	19.4906
1489.16	31.3906
1505.03	21.6598
1596.21	29.1369
1620.50	17.1702
1678.03	0.0000
1690.97	9.2260
1764.49	12.4868
1764.49	12.4868
1770.23	5.3576
1771.35	5.3586
1791.20	0.0000
1836.06	6.3315

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248841010

Total Uranium Activity	1.3593E+01	ug/g
Total Uranium Counting Unc.	9.2498E+00	ug/g
Total Uranium Tpu	4.7193E-06	ug/g
Total Uranium Mda	4.0570E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962629                    SAMPLE ID  : G248841010       *
*   ANALYST       : MXR1                      DETECTOR   : GAM04            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 19-MAR-2010 12:25:40.27    SAMPLE ALQT:  145.850 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.028E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.270E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 3.335E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.616E+00
```

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 15:01:41.80

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841011.CNF;1
Sample date      : 3-MAR-2010 12:00:00. Acquisition date : 19-MAR-2010 13:01:12
Sample ID        : G248841011           Sample quantity  : 1.25830E+02 GRAM
Detector name    : GAM05                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:01.82  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 962629               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	45.88*	142	551	1.19	92.75	88	10	1.97E-02	34.5	
2	0	62.64*	252	671	1.31	126.26	121	10	3.50E-02	20.7	
3	3	74.33*	796	695	1.51	149.63	143	18	1.11E-01	7.1	5.93E+00
4	3	76.65*	1022	520	1.18	154.28	143	18	1.42E-01	5.0	
5	2	83.70	176	573	1.44	168.38	163	30	2.44E-02	24.9	1.65E+00
6	2	86.70	405	538	1.44	174.38	163	30	5.62E-02	11.5	
7	2	89.43	256	507	1.50	179.84	163	30	3.56E-02	17.9	
8	2	92.47*	377	471	1.49	185.92	163	30	5.23E-02	12.7	
9	0	128.45	101	437	0.96	257.87	253	10	1.40E-02	40.0	
10	0	185.67*	216	435	1.46	372.28	365	13	3.01E-02	21.5	
11	0	208.74	96	267	1.08	418.41	415	9	1.34E-02	32.2	
12	2	238.23*	1379	190	1.25	477.38	469	29	1.92E-01	3.3	2.22E+00
13	2	241.31	302	211	1.85	483.54	469	29	4.19E-02	14.4	
14	0	269.26	101	221	1.63	539.43	536	11	1.40E-02	30.0	
15	0	277.00	41	169	1.27	554.91	551	8	5.65E-03	57.6	
16	0	294.73*	432	213	1.38	590.37	583	14	6.00E-02	8.8	
17	0	337.99*	311	233	1.25	676.85	670	14	4.31E-02	12.0	
18	0	351.44*	562	222	1.50	703.76	696	14	7.81E-02	7.1	
19	0	409.07	69	112	2.03	818.97	814	10	9.60E-03	31.1	
20	0	462.99*	63	126	1.37	926.77	920	12	8.70E-03	39.9	
21	0	510.45*	96	171	1.62	1021.64	1014	16	1.33E-02	36.3	
22	0	582.65*	357	100	1.63	1165.98	1160	13	4.96E-02	8.0	
23	0	608.84*	402	147	1.46	1218.33	1210	15	5.58E-02	8.3	
24	0	726.58	95	58	1.31	1453.66	1448	11	1.32E-02	18.6	
25	0	767.42	34	56	0.57	1535.31	1531	9	4.66E-03	43.9	
26	0	794.48*	70	61	2.01	1589.38	1584	14	9.79E-03	26.9	
27	0	839.10	90	115	6.96	1678.56	1661	30	1.25E-02	37.0	
28	0	860.08*	108	32	1.88	1720.50	1713	16	1.50E-02	15.4	
29	0	910.60*	238	59	1.61	1821.45	1816	12	3.30E-02	9.3	
30	0	963.08	97	58	4.78	1926.33	1918	15	1.34E-02	20.2	
31	0	968.34	153	63	1.92	1936.84	1932	10	2.13E-02	12.6	
32	0	1119.80*	59	95	1.48	2239.50	2232	14	8.26E-03	37.4	
33	0	1460.01*	1271	10	1.90	2919.18	2909	18	1.76E-01	2.9	
34	0	1586.46	27	11	1.12	3171.75	3162	16	3.70E-03	34.8	
35	0	1764.18	79	16	1.60	3526.69	3518	16	1.10E-02	15.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 19-MAR-2010 15:01:44

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841011.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 3-MAR-2010 12:00:00  Acquisition date : 19-MAR-2010 13:01:12
Sample ID         : G248841011           Sample quantity  : 125.83 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA5               Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.82   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.543E+01	3.004E+00	3.727E-01	2.318E-02	95.061
CD-109	+	88.03	*	4.250E+00	1.027E+00	1.060E+00	8.070E-02	4.010
SN-126		64.28		9.034E-01	3.496E-01	5.153E-01	7.679E-02	1.753
	+	86.94		1.725E+00	8.126E-01	4.287E-01	1.765E-01	4.023
	+	87.57	*	4.148E-01	1.003E-01	1.033E-01	7.867E-03	4.016
CS-135	+	268.22	*	4.306E-01	2.623E-01	2.815E-01	3.012E-02	1.529
TL-208	+	277.37		4.312E-01	5.002E-01	6.949E-01	9.044E-02	0.620
	+	583.19	*	5.542E-01	9.795E-02	7.088E-02	5.206E-03	7.819
	+	860.56		1.622E+00	5.251E-01	5.410E-01	5.490E-02	2.998
PB-210	+	46.54	*	1.314E+00	9.110E-01	9.141E-01	7.050E-02	1.437
BI-211	+	72.87		2.402E+01	3.888E+00	3.413E+00	2.687E-01	7.037
	+	351.06	*	3.689E+00	5.983E-01	3.919E-01	3.106E-02	9.413
PB-212	+	74.82		2.874E+00	5.428E-01	4.098E-01	5.117E-02	7.014
	+	77.11		2.224E+00	2.825E-01	2.475E-01	1.926E-02	8.987
	+	238.63	*	1.975E+00	2.503E-01	1.041E-01	1.127E-02	18.964
		300.09		2.128E+00	1.028E+00	1.656E+00	1.779E-01	1.285
BI-214	+	609.32	*	1.213E+00	2.265E-01	1.221E-01	1.030E-02	9.936
	+	1120.29		9.451E-01	7.123E-01	6.589E-01	6.330E-02	1.434
	+	1764.49		1.795E+00	5.803E-01	2.774E-01	1.604E-02	6.471
PB-214	+	74.82		5.094E+00	9.183E-01	7.263E-01	8.094E-02	7.014
	+	77.11		3.920E+00	5.937E-01	4.362E-01	4.947E-02	8.987
	+	242.00		2.625E+00	8.150E-01	6.334E-01	7.197E-02	4.145
	+	295.22		1.722E+00	3.569E-01	2.676E-01	2.967E-02	6.435
	+	351.93	*	1.339E+00	2.294E-01	1.376E-01	1.325E-02	9.732
RA-224	+	240.99	*	4.642E+00	1.416E+00	1.116E+00	1.092E-01	4.159
RA-226	+	609.32	*	1.213E+00	2.265E-01	1.221E-01	1.030E-02	9.936
	+	1120.29		9.451E-01	7.123E-01	6.589E-01	6.330E-02	1.434
	+	1764.49		1.795E+00	5.803E-01	2.774E-01	1.604E-02	6.471
AC-228	+	338.32		2.262E+00	1.086E+00	4.652E-01	1.933E-01	4.863
	+	911.20	*	1.820E+00	4.104E-01	2.771E-01	3.517E-02	6.568
	+	968.97		2.022E+00	7.124E-01	5.074E-01	1.250E-01	3.985
RA-228	+	338.32		2.262E+00	1.086E+00	4.652E-01	1.933E-01	4.863
	+	911.20	*	1.820E+00	4.104E-01	2.771E-01	3.517E-02	6.568
	+	968.97		2.022E+00	7.124E-01	5.074E-01	1.250E-01	3.985

Sample ID : G248841011 Acquisition date : 19-MAR-2010 13:01:12

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	74.82		2.874E+00	4.664E-01	4.098E-01	3.244E-02	7.014
	+	77.11		2.224E+00	2.825E-01	2.475E-01	1.926E-02	8.987
	+	238.63	*	1.975E+00	2.503E-01	1.041E-01	1.127E-02	18.964
		300.09		2.128E+00	1.644E+00	1.656E+00	1.014E+00	1.285
TH-229	+	85.43		1.044E+00	2.524E-01	2.584E-01	1.976E-02	4.040
	+	88.47		4.072E-01	1.493E-01	1.597E-01	1.228E-02	2.550
		193.51	*	-3.723E-01	6.171E-01	9.597E-01	9.585E-02	-0.388
		210.85		3.069E-01	1.243E+00	1.753E+00	1.747E-01	0.175
TH-232	+	338.32		2.262E+00	5.719E-01	4.652E-01	3.647E-02	4.863
	+	911.20	*	1.820E+00	4.104E-01	2.771E-01	3.517E-02	6.568
	+	968.97		2.022E+00	7.124E-01	5.074E-01	1.250E-01	3.985
TH-234	+	63.29	*	2.520E+00	1.140E+00	1.174E+00	2.131E-01	2.146
	+	92.59		3.425E+00	1.150E+00	9.176E-01	2.019E-01	3.732
U-235	+	89.96		2.816E+00	1.220E+00	1.109E+00	2.705E-01	2.539
	+	93.35		2.587E+00	8.863E-01	6.948E-01	1.603E-01	3.723
		143.76	*	7.040E-02	2.320E-01	3.748E-01	7.149E-02	0.188
		163.33		2.427E-01	5.081E-01	8.311E-01	1.560E-01	0.292
	+	185.72		1.993E-01	8.802E-02	7.602E-02	7.587E-03	2.622
		205.31		-1.759E-01	6.541E-01	8.945E-01	1.684E-01	-0.197
NP-237	+	86.48	*	1.238E+00	3.961E-01	3.073E-01	6.856E-02	4.028
		95.86		6.334E-02	1.008E+00	1.451E+00	3.500E-01	0.044
U-238	+	63.29	*	2.520E+00	1.140E+00	1.174E+00	2.131E-01	2.146
	+	92.59		3.425E+00	9.156E-01	9.176E-01	7.711E-02	3.732
ANH-511	+	511.00	*	1.120E-01	8.152E-02	5.759E-02	3.686E-03	1.945

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	6.817E-02	3.797E-01	6.276E-01	4.494E-02	0.109
NA-22		1274.54	*	-2.855E-02	6.168E-02	9.543E-02	5.559E-03	-0.299
NA-24		1368.63	*	-2.050E+00	6.168E-02	Half-Life too short		
SC-46		889.28	*	-2.763E-02	5.084E-02	7.999E-02	8.034E-03	-0.345
	+	1120.55		1.611E-01	1.209E-01	1.544E-01	1.062E-02	1.043
V-48		944.13		1.799E-02	1.233E+00	2.035E+00	1.968E-01	0.009
		983.53	*	-1.964E-02	9.204E-02	1.483E-01	1.359E-02	-0.132
		1312.11		3.598E-03	9.268E-02	1.505E-01	8.724E-03	0.024
CR-51		320.08	*	-3.088E-02	4.223E-01	6.989E-01	6.176E-02	-0.044
MN-54		834.85	*	4.290E-02	4.669E-02	8.262E-02	7.569E-03	0.519
CO-56		846.77	*	9.020E-03	5.375E-02	7.837E-02	7.329E-03	0.115
		1037.84		7.177E-02	3.682E-01	6.152E-01	5.421E-02	0.117
		1238.28		1.194E-01	1.274E-01	2.190E-01	1.353E-02	0.545
		1771.35		-7.596E-01	3.544E-01	3.510E-01	2.027E-02	-2.164
CO-57		122.06	*	1.082E-02	2.965E-02	4.719E-02	6.695E-03	0.229
		136.47		2.942E-02	2.486E-01	4.046E-01	5.418E-02	0.073
CO-58		810.76	*	-2.219E-02	4.735E-02	7.548E-02	6.643E-03	-0.294
FE-59		1099.45	*	-5.517E-02	1.252E-01	1.965E-01	1.590E-02	-0.281
		1291.59		-5.744E-02	1.687E-01	2.632E-01	1.955E-02	-0.218
CO-60		1173.23		1.928E-02	6.054E-02	1.011E-01	5.867E-03	0.191

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1332.49	*	-6.606E-03	4.891E-02	7.762E-02	4.492E-03	-0.085
ZN-65		1115.54	*	3.708E-02	1.425E-01	2.054E-01	1.435E-02	0.181
SE-75		121.12		5.255E-02	1.501E-01	2.469E-01	3.857E-02	0.213
		136.00		2.169E-02	4.801E-02	7.897E-02	1.030E-02	0.275
		264.66	*	3.382E-02	5.524E-02	8.374E-02	7.995E-03	0.404
		279.54		1.442E-01	1.332E-01	2.071E-01	1.984E-02	0.696
		400.66		-1.049E-01	3.133E-01	5.053E-01	4.608E-02	-0.208
SR-85		514.00	*	7.535E-02	5.148E-02	8.182E-02	5.245E-03	0.921
Y-88		898.04		-1.723E-02	5.347E-02	8.590E-02	8.783E-03	-0.201
		1836.06	*	-1.608E-02	2.777E-02	3.720E-02	2.128E-03	-0.432
Y-91		1204.77	*	7.109E+00	2.981E+01	4.936E+01	2.868E+00	0.144
NB-94		702.65	*	-2.374E-02	4.260E-02	6.854E-02	4.904E-03	-0.346
		871.09		1.076E-02	4.238E-02	7.169E-02	6.987E-03	0.150
NB-95		765.81	*	4.770E-02	6.139E-02	9.506E-02	7.689E-03	0.502
NB-95M		235.69	*	1.309E+00	2.504E-01	3.756E-01	4.115E-02	3.486
ZR-95		724.19		2.190E-01	1.433E-01	2.337E-01	1.939E-02	0.937
		756.73	*	-2.634E-02	9.284E-02	1.516E-01	1.352E-02	-0.174
MO-99		140.51		-7.057E+00	3.355E+01	5.304E+01	1.350E+01	-0.133
		181.07		6.062E+00	3.011E+01	4.263E+01	8.291E+00	0.142
		366.42		2.558E+00	1.388E+02	2.296E+02	1.575E+01	0.011
		739.50	*	-1.427E+01	1.927E+01	3.011E+01	4.599E+00	-0.474
		777.92		-2.726E+00	5.558E+01	9.225E+01	7.632E+00	-0.030
TC-99M		140.51	*	-1.241E+11	5.558E+01	Half-Life too short		
RU-103		497.08	*	5.208E-02	4.917E-02	8.520E-02	1.081E-02	0.611
	+	610.33		1.272E+01	2.884E+00	3.263E+00	5.016E-01	3.899
RH-106		621.93	*	-1.477E-01	3.871E-01	6.031E-01	7.260E-02	-0.245
		1050.41		1.408E+00	3.352E+00	5.691E+00	4.634E-01	0.247
RU-106		621.93	*	-1.477E-01	3.868E-01	6.031E-01	3.976E-02	-0.245
		1050.41		1.408E+00	3.352E+00	5.691E+00	4.634E-01	0.247
AG-108M		433.94	*	-2.028E-02	3.813E-02	6.049E-02	3.905E-03	-0.335
		614.28		-2.665E-02	4.976E-02	6.481E-02	4.508E-03	-0.411
		722.91		1.574E-03	5.348E-02	7.738E-02	6.011E-03	0.020
AG-110M		657.76	*	-9.796E-03	4.411E-02	6.953E-02	4.807E-03	-0.141
		677.62		2.306E-01	3.687E-01	6.465E-01	4.597E-02	0.357
		706.68		1.290E-01	2.694E-01	4.656E-01	3.496E-02	0.277
		763.94		7.097E-02	2.155E-01	3.213E-01	2.671E-02	0.221
		884.68		2.555E-02	6.041E-02	1.036E-01	1.057E-02	0.247
		937.49		-1.477E-01	1.539E-01	2.324E-01	2.330E-02	-0.636
		1384.29		4.496E-03	1.816E-01	3.049E-01	1.879E-02	0.015
		1505.03		1.630E-01	3.240E-01	5.752E-01	3.382E-02	0.283
SN-113		391.69	*	-2.122E-02	5.591E-02	9.011E-02	5.589E-03	-0.236
CD-115		260.90		-7.843E+01	2.025E+02	3.327E+02	3.181E+01	-0.236
		492.35		-1.254E+01	6.331E+01	1.018E+02	6.447E+00	-0.123
		527.90	*	-5.213E+00	1.913E+01	3.046E+01	1.965E+00	-0.171
SN-117M		156.02		-1.486E+00	2.860E+00	4.513E+00	4.977E-01	-0.329
		158.56	*	-4.215E-02	6.635E-02	1.039E-01	1.117E-02	-0.406
TE-123M		159.00	*	-3.037E-02	3.323E-02	5.128E-02	5.510E-03	-0.592
SB-124		602.73		3.989E-02	5.347E-02	8.028E-02	5.287E-03	0.497
		645.85		5.794E-01	6.704E-01	1.145E+00	8.269E-02	0.506

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		722.78		-2.227E-03	5.368E-01	7.740E-01	5.941E-02	-0.003
		1690.97	*	7.632E-03	9.287E-02	1.557E-01	9.897E-03	0.049
SB-125		427.87	*	7.934E-03	1.133E-01	1.868E-01	1.170E-02	0.042
	+	463.37		6.444E-01	5.159E-01	6.459E-01	4.577E-02	0.998
		600.60		1.600E-01	2.330E-01	3.627E-01	2.683E-02	0.441
		635.95		2.179E-01	3.549E-01	5.972E-01	4.469E-02	0.365
TE-125M		109.28	*	-9.233E+00	1.104E+01	1.694E+01	2.198E+00	-0.545
I-126		388.63		-3.015E-02	2.177E-01	3.560E-01	2.119E-02	-0.085
		666.33	*	-3.847E-02	2.904E-01	4.610E-01	3.061E-02	-0.083
		753.82		1.953E+00	2.418E+00	4.262E+00	3.370E-01	0.458
SB-126		414.70		9.782E-02	1.076E-01	1.650E-01	9.828E-03	0.593
		666.50		-1.075E-02	1.001E-01	1.592E-01	1.058E-02	-0.067
		695.00		5.155E-02	1.041E-01	1.801E-01	1.269E-02	0.286
		697.00		3.103E-01	3.601E-01	6.367E-01	4.504E-02	0.487
		720.70	*	-1.299E-02	2.206E-01	3.162E-01	2.346E-02	-0.041
		856.80		8.781E-01	6.887E-01	1.123E+00	1.068E-01	0.782
SB-127		252.40		4.174E+00	6.148E+00	9.695E+00	4.056E+00	0.431
		473.00		-3.581E-01	2.301E+00	3.716E+00	4.305E-01	-0.096
		685.70	*	-5.071E-01	1.963E+00	3.231E+00	3.375E-01	-0.157
		783.70		1.137E+00	5.123E+00	8.673E+00	1.078E+00	0.131
I-131		80.19		2.629E+00	5.856E+00	6.302E+00	4.913E-01	0.417
		284.31		-1.568E+00	1.795E+00	2.840E+00	2.729E-01	-0.552
		364.49	*	-9.446E-02	1.416E-01	2.242E-01	1.685E-02	-0.421
		636.99		1.608E+00	2.174E+00	3.695E+00	2.672E-01	0.435
TE-132		49.72		-4.227E+00	5.898E+00	8.331E+00	8.450E-01	-0.507
		111.76		-3.878E+00	4.394E+01	7.141E+01	1.003E+01	-0.054
		116.30		-1.467E+00	3.873E+01	6.299E+01	9.354E+00	-0.023
		228.16	*	-6.206E-01	1.027E+00	1.678E+00	2.804E-01	-0.370
BA-133		81.00		4.935E-02	1.130E-01	1.213E-01	1.823E-02	0.407
	+	276.40		3.986E-01	4.631E-01	7.009E-01	1.020E-01	0.569
		302.85		-1.334E-01	1.678E-01	2.674E-01	3.526E-02	-0.499
		356.01	*	-1.728E-02	5.640E-02	7.887E-02	9.531E-03	-0.219
		383.85		5.009E-02	3.694E-01	6.136E-01	6.665E-02	0.082
I-133		529.87	*	-6.391E-03	3.694E-01	Half-Life too short		
		875.33		2.444E-01	3.694E-01	Half-Life too short		
		1298.22		5.466E-01	3.694E-01	Half-Life too short		
CS-134		563.25		-4.177E-02	4.665E-01	7.365E-01	4.892E-02	-0.057
		569.33		5.832E-02	2.612E-01	4.196E-01	2.810E-02	0.139
		604.72		2.144E-02	4.717E-02	6.870E-02	4.544E-03	0.312
	+	795.86	*	1.624E-01	8.856E-02	1.170E-01	1.008E-02	1.388
		801.95		-3.574E-01	5.317E-01	7.091E-01	6.163E-02	-0.504
		1365.19		1.417E-02	1.419E+00	2.290E+00	1.463E-01	0.006
I-135		546.56		-1.051E+11	1.419E+00	Half-Life too short		
		836.80		2.981E+11	1.419E+00	Half-Life too short		
		1038.76		4.687E+10	1.419E+00	Half-Life too short		
		1131.51		-6.695E+10	1.419E+00	Half-Life too short		
		1260.41	*	-6.635E+10	1.419E+00	Half-Life too short		
		1457.56		1.599E+13	1.419E+00	Half-Life too short		
		1678.03		7.746E+10	1.419E+00	Half-Life too short		

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		1791.20		-6.166E+10	1.419E+00	Half-Life too short		
CS-136		153.25		1.764E+00	1.090E+00	1.828E+00	2.307E-01	0.965
		176.60		2.075E-01	6.130E-01	9.984E-01	1.072E-01	0.208
		273.65		-6.815E-01	1.064E+00	9.477E-01	9.523E-02	-0.719
		340.55		4.905E-01	2.178E-01	3.531E-01	2.872E-02	1.389
		818.51		-1.951E-03	9.874E-02	1.638E-01	1.460E-02	-0.012
		1048.07	*	-5.327E-02	1.538E-01	2.442E-01	2.092E-02	-0.218
		1235.36		1.285E+00	8.630E-01	1.532E+00	1.516E-01	0.839
BA-137M		661.66	*	-1.181E-02	4.329E-02	6.788E-02	4.464E-03	-0.174
CS-137		661.66	*	-1.248E-02	4.573E-02	7.171E-02	4.731E-03	-0.174
CE-139		165.86	*	1.775E-02	3.551E-02	5.826E-02	5.784E-03	0.305
BA-140		162.66		-1.571E-01	9.963E-01	1.595E+00	1.720E-01	-0.099
		304.85		-1.715E+00	1.729E+00	2.614E+00	7.661E-01	-0.656
		423.72		-3.167E-01	2.405E+00	3.911E+00	1.264E+00	-0.081
		537.26	*	-1.966E-01	3.559E-01	5.441E-01	1.819E-01	-0.361
LA-140		328.76		3.808E-01	3.876E-01	6.703E-01	5.798E-02	0.568
		487.02		-5.540E-02	1.763E-01	2.811E-01	1.974E-02	-0.197
		815.77		5.048E-01	4.176E-01	7.571E-01	7.454E-02	0.667
		1596.21	*	-3.986E-02	1.115E-01	1.714E-01	1.007E-02	-0.233
CE-141		145.44	*	-2.861E-02	7.472E-02	1.189E-01	1.454E-02	-0.241
CE-143		57.36		-8.628E-05	7.472E-02	Half-Life too short		
	+	293.27	*	2.437E-03	7.472E-02	Half-Life too short		
		664.57		-3.677E-04	7.472E-02	Half-Life too short		
		721.93		-2.770E-05	7.472E-02	Half-Life too short		
CE-144		80.12		1.462E+00	2.929E+00	3.164E+00	2.445E-01	0.462
		133.52	*	1.848E-01	2.748E-01	3.998E-01	7.309E-02	0.462
PM-144		476.78		-5.268E-02	7.703E-02	1.195E-01	8.677E-03	-0.441
		618.01		3.550E-02	4.038E-02	6.781E-02	4.681E-03	0.524
		696.49	*	3.116E-02	4.376E-02	7.671E-02	5.424E-03	0.406
PR-144		696.51	*	2.328E+00	3.276E+00	5.743E+00	4.059E-01	0.405
		1489.16		4.375E-01	1.371E+01	2.295E+01	1.349E+00	0.019
PM-146		453.88	*	4.274E-02	5.245E-02	8.996E-02	7.838E-03	0.475
		633.25		2.028E-01	1.821E+00	2.954E+00	1.116E+00	0.069
		735.93		-8.995E-02	1.795E-01	2.852E-01	7.912E-02	-0.315
		747.24		-1.071E-01	1.260E-01	1.953E-01	2.757E-02	-0.548
ND-147	+	91.11		1.433E+00	3.866E-01	5.568E-01	4.956E-02	2.574
		319.41		-1.750E-02	3.933E+00	6.535E+00	5.485E-01	-0.003
		531.02	*	1.780E-01	7.910E-01	1.230E+00	1.700E-01	0.145
PM-149		285.90	*	1.055E+02	1.328E+02	2.287E+02	3.625E+01	0.461
EU-152		121.78		4.427E-02	8.460E-02	1.353E-01	2.021E-02	0.327
		244.70		5.113E-02	3.658E-01	6.178E-01	6.023E-02	0.083
		344.28	*	-1.300E-01	2.131E-01	1.859E-01	1.528E-02	-0.699
		778.90		1.705E-01	3.124E-01	5.423E-01	4.494E-02	0.314
	+	964.08		1.371E+00	5.686E-01	7.779E-01	7.329E-02	1.763
		1085.87		1.236E-01	5.383E-01	8.971E-01	6.753E-02	0.138
		1112.07		-1.389E-01	5.071E-01	6.856E-01	4.828E-02	-0.203
		1408.01		2.259E-01	2.281E-01	4.210E-01	2.460E-02	0.536
GD-153		69.67		-6.561E-01	1.322E+00	1.875E+00	1.491E-01	-0.350
		97.43	*	1.141E-01	9.214E-02	1.392E-01	1.291E-02	0.820

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		103.18		1.287E-02	1.129E-01	1.853E-01	1.916E-02	0.069
EU-154		123.07		3.831E-02	6.604E-02	9.639E-02	1.535E-02	0.397
		723.31		1.173E-01	2.433E-01	3.681E-01	3.111E-02	0.319
		873.19		-1.294E-01	3.566E-01	5.713E-01	7.290E-02	-0.227
		996.26		-1.623E-01	4.795E-01	7.095E-01	1.252E-01	-0.229
		1004.73		-1.562E-01	2.628E-01	4.061E-01	4.797E-02	-0.385
		1274.44	*	-7.782E-02	1.750E-01	2.712E-01	2.558E-02	-0.287
EU-155	+	86.55		5.032E-01	1.218E-01	1.739E-01	1.344E-02	2.894
		105.31	*	8.089E-02	1.097E-01	1.832E-01	1.984E-02	0.442
TB-160	+	86.79		1.346E+00	3.254E-01	4.658E-01	3.552E-02	2.890
		197.04		-4.168E-01	6.916E-01	1.058E+00	1.057E-01	-0.394
		215.65		3.143E-01	8.872E-01	1.479E+00	1.471E-01	0.213
		298.57		1.921E-01	1.483E-01	2.316E-01	2.061E-02	0.829
		879.36	*	-1.265E-02	1.766E-01	2.905E-01	2.870E-02	-0.044
	+	962.29		2.598E+00	1.077E+00	1.494E+00	1.411E-01	1.739
		966.15		2.231E+00	4.837E-01	7.497E-01	7.042E-02	2.975
		1177.93		5.591E-03	5.147E-01	8.301E-01	4.817E-02	0.007
		1271.85		4.315E-01	1.033E+00	1.733E+00	1.007E-01	0.249
HO-166M		80.57		1.239E-01	3.197E-01	3.425E-01	2.644E-02	0.362
	+	184.41		1.583E-01	6.993E-02	7.864E-02	7.847E-03	2.013
		280.46		2.244E-03	1.055E-01	1.535E-01	1.421E-02	0.015
		410.95		3.002E-01	3.554E-01	5.390E-01	3.199E-02	0.557
		711.68	*	-5.760E-02	7.638E-02	1.206E-01	8.787E-03	-0.478
		752.31		3.455E-01	3.508E-01	6.249E-01	4.927E-02	0.553
		810.29		-8.509E-03	6.916E-02	1.138E-01	9.980E-03	-0.075
TA-182		67.75		-1.885E-02	8.615E-02	1.152E-01	9.223E-03	-0.164
		100.11		1.653E-02	1.765E-01	2.897E-01	2.828E-02	0.057
		152.43		2.573E-01	4.219E-01	6.953E-01	7.931E-02	0.370
		222.11		-2.353E-01	3.954E-01	6.491E-01	6.437E-02	-0.363
	+	1121.30		4.454E-01	3.343E-01	4.240E-01	2.910E-02	1.050
		1189.05		3.373E-01	4.171E-01	7.226E-01	4.196E-02	0.467
		1221.41	*	2.981E-01	2.752E-01	4.830E-01	2.808E-02	0.617
		1231.02		-2.548E-01	7.011E-01	1.106E+00	6.430E-02	-0.230
IR-192	+	295.96		1.285E+00	2.530E-01	3.270E-01	2.948E-02	3.928
		308.46		1.209E-03	1.131E-01	1.882E-01	1.640E-02	0.006
		316.51	*	-1.232E-02	3.967E-02	6.484E-02	5.503E-03	-0.190
		468.07		4.594E-02	8.780E-02	1.305E-01	9.233E-03	0.352
HG-203		70.83		5.437E-01	1.043E+00	1.534E+00	2.407E-01	0.354
	+	72.87		6.064E+00	1.256E+00	1.243E+00	1.881E-01	4.879
		279.20	*	6.115E-02	4.874E-02	7.633E-02	7.240E-03	0.801
BI-207		72.81		1.072E+00	1.776E-01	2.818E-01	2.219E-02	3.803
	+	74.97		8.284E-01	1.341E-01	2.171E-01	1.699E-02	3.816
		569.70		1.246E-02	4.113E-02	6.646E-02	4.349E-03	0.188
		1063.66	*	3.809E-02	6.982E-02	1.196E-01	9.470E-03	0.319
		1770.23		1.216E-01	4.685E-01	7.196E-01	4.156E-02	0.169
PB-211		404.85	*	7.977E-01	1.054E+00	1.493E+00	7.164E-01	0.534
		427.09		-1.683E-01	1.871E+00	3.051E+00	1.399E+00	-0.055
		832.01		1.681E-01	1.480E+00	2.139E+00	1.111E+00	0.079
BI-212	+	727.33	*	2.297E+00	8.945E-01	1.419E+00	1.663E-01	1.619

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		785.37		-8.141E-01	3.969E+00	6.506E+00	5.456E-01	-0.125
		1620.50		2.529E+00	2.859E+00	5.320E+00	3.122E-01	0.475
RN-219		271.23		5.202E-01	3.967E-01	5.070E-01	5.541E-02	1.026
		401.81	*	3.467E-02	5.030E-01	8.093E-01	1.090E-01	0.043
RA-223		81.07		1.165E-01	2.558E-01	2.753E-01	2.123E-02	0.423
	+	83.79		2.679E-01	1.349E-01	1.866E-01	1.431E-02	1.436
		94.87		8.667E-01	5.094E-01	7.756E-01	6.831E-02	1.117
		144.24		9.627E-03	7.969E-01	1.276E+00	1.653E-01	0.008
		154.21		9.843E-01	4.684E-01	7.921E-01	9.398E-02	1.243
	+	269.46		4.956E-01	3.011E-01	3.866E-01	3.710E-02	1.282
		323.87	*	-1.015E+00	7.853E-01	1.185E+00	2.034E-01	-0.856
	+	338.28		8.976E+00	2.393E+00	2.917E+00	3.363E-01	3.077
AC-227		79.69		1.257E+00	1.474E+00	1.617E+00	2.718E-01	0.777
		235.96		2.528E+00	3.951E-01	5.239E-01	5.956E-02	4.824
		256.23	*	-4.584E-02	2.795E-01	4.648E-01	5.943E-02	-0.099
		299.98		2.340E+00	1.143E+00	1.821E+00	2.345E-01	1.285
		304.50		-2.511E+00	1.985E+00	3.027E+00	5.027E-01	-0.830
		334.37		5.467E-01	2.395E+00	3.501E+00	5.333E-01	0.156
TH-227		79.80		1.397E+00	1.944E+00	2.110E+00	4.524E-01	0.662
		235.96		2.528E+00	3.854E-01	5.239E-01	5.678E-02	4.824
		256.23	*	-4.584E-02	2.795E-01	4.648E-01	6.629E-02	-0.099
		299.98		2.340E+00	1.143E+00	1.821E+00	2.345E-01	1.285
		304.50		-2.511E+00	1.985E+00	3.027E+00	5.027E-01	-0.830
		334.37		5.467E-01	2.395E+00	3.501E+00	5.333E-01	0.156
PA-231		283.69	*	-1.987E+00	1.632E+00	2.498E+00	3.731E-01	-0.795
		301.36		1.274E+00	7.240E-01	1.184E+00	1.457E-01	1.076
TH-231		81.07		1.165E-01	2.558E-01	2.753E-01	2.123E-02	0.423
	+	83.79		2.679E-01	1.349E-01	1.866E-01	1.431E-02	1.436
		94.87		8.667E-01	5.094E-01	7.756E-01	6.831E-02	1.117
		144.24		9.627E-03	7.969E-01	1.276E+00	1.653E-01	0.008
		154.21		9.843E-01	4.684E-01	7.921E-01	9.398E-02	1.243
	+	269.46		4.956E-01	3.011E-01	3.866E-01	3.710E-02	1.282
		323.87	*	-1.015E+00	7.853E-01	1.185E+00	2.034E-01	-0.856
	+	338.28		8.976E+00	2.393E+00	2.917E+00	3.363E-01	3.077
PA-233		300.13		1.059E+00	5.237E-01	8.245E-01	1.234E-01	1.285
		311.90	*	7.885E-02	7.681E-02	1.336E-01	1.180E-02	0.590
		340.48		2.263E+00	1.033E+00	1.472E+00	3.501E-01	1.537
PA-234		94.67		4.624E-01	1.933E-01	2.921E-01	3.654E-02	1.583
		98.44		1.264E-01	1.223E-01	1.519E-01	8.494E-02	0.832
		111.00		5.413E-03	2.037E-01	3.240E-01	4.725E-02	0.017
		131.20		-6.485E-02	1.467E-01	2.032E-01	2.728E-02	-0.319
		569.50		1.043E-01	3.613E-01	5.831E-01	3.816E-02	0.179
		733.00		4.040E-01	4.894E-01	7.846E-01	1.712E-01	0.515
		880.51		-1.727E-01	3.483E-01	5.501E-01	5.446E-02	-0.314
		883.24		-1.600E-01	3.681E-01	5.584E-01	3.764E-01	-0.287
		926.50		7.049E-02	2.222E-01	3.756E-01	9.665E-02	0.188
		946.00	*	-5.980E-02	4.005E-01	6.515E-01	1.255E-01	-0.092
		949.00		-1.124E-01	5.972E-01	9.684E-01	9.309E-02	-0.116
PA-234M	+	766.42		1.774E+01	1.798E+01	2.495E+01	1.264E+01	0.711

Sample ID : G248841011 Acquisition date : 19-MAR-2010 13:01:12

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1001.03	*	-6.530E-01	5.720E+00	9.197E+00	9.398E-01	-0.071
NP-239		99.53		7.139E-02	1.667E-01	2.675E-01	2.583E-02	0.267
		103.37		9.227E-02	1.011E-01	1.699E-01	1.763E-02	0.543
		106.12		9.407E-02	8.738E-02	1.471E-01	1.604E-02	0.639
		117.23	*	-3.497E-01	4.446E-01	6.986E-01	9.187E-02	-0.501
		228.18		-1.531E-01	2.480E-01	4.063E-01	4.015E-02	-0.377
	+	277.60		1.971E-01	2.279E-01	3.468E-01	3.228E-02	0.568
AM-241		59.54	*	9.097E-02	7.435E-02	1.132E-01	1.013E-02	0.804
CM-247	+	278.00		8.370E-01	9.679E-01	1.470E+00	1.367E-01	0.570
		287.50		1.950E+00	1.473E+00	2.330E+00	2.126E-01	0.837
		402.40	*	5.568E-02	4.848E-02	7.844E-02	4.615E-03	0.710
CF-249		252.80		6.104E-01	1.086E+00	1.821E+00	1.759E-01	0.335
		333.37		-3.719E-03	2.562E-01	3.685E-01	2.945E-02	-0.010
		388.16	*	-3.192E-03	4.927E-02	8.090E-02	4.831E-03	-0.039
CF-251		177.52	*	1.553E-01	1.550E-01	2.581E-01	2.571E-02	0.602
		227.38		-4.015E-02	4.021E-01	6.742E-01	6.667E-02	-0.060
		285.41		-1.073E+00	2.446E+00	3.973E+00	3.642E-01	-0.270

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841011       *
* Acquisition date : 19-MAR-2010 13:01:12 Detector SN#    :                 *
* Detector ID      : GAM05                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.82     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248841011           Analyst initials: MXR1            *
* Batch Number     : 962629               Sample Quantity : 1.2583E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.543E+01	2.944E+00	3.725E-01	0.000E+00
CD-109	4.250E+00	1.007E+00	1.102E+00	0.000E+00
SN-126	4.148E-01	9.826E-02	1.075E-01	0.000E+00
CS-135	4.306E-01	2.571E-01	2.883E-01	0.000E+00
TL-208	5.542E-01	9.599E-02	7.179E-02	0.000E+00
PB-210	1.314E+00	8.928E-01	9.590E-01	0.000E+00
BI-211	3.689E+00	5.863E-01	3.998E-01	0.000E+00
PB-212	1.975E+00	2.453E-01	1.068E-01	0.000E+00
BI-214	1.213E+00	2.220E-01	1.235E-01	0.000E+00
PB-214	1.339E+00	2.248E-01	1.404E-01	0.000E+00
RA-224	4.642E+00	1.387E+00	1.145E+00	0.000E+00
RA-226	1.213E+00	2.220E-01	1.235E-01	0.000E+00
AC-228	1.820E+00	4.022E-01	2.788E-01	0.000E+00
RA-228	1.820E+00	4.022E-01	2.788E-01	0.000E+00
TH-228	1.975E+00	2.453E-01	1.068E-01	0.000E+00
TH-229	-3.723E-01	6.047E-01	9.874E-01	0.000E+00
TH-232	1.820E+00	4.022E-01	2.788E-01	0.000E+00
TH-234	2.520E+00	1.117E+00	1.227E+00	0.000E+00
U-235	7.040E-02	2.274E-01	3.872E-01	0.000E+00
NP-237	1.238E+00	3.881E-01	3.197E-01	0.000E+00
U-238	2.520E+00	1.117E+00	1.227E+00	0.000E+00
ANH-511	1.120E-01	7.989E-02	5.844E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	6.817E-02	3.721E-01	6.375E-01	0.000E+00	NOT IDENT.
NA-22	-2.855E-02	6.045E-02	9.557E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.379E+06	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.763E-02	4.982E-02	8.052E-02	0.000E+00	FAIL ABUN
V-48	-1.964E-02	9.020E-02	1.491E-01	0.000E+00	NOT IDENT.

CR-51	-3.088E-02	4.138E-01	7.140E-01	0.000E+00	NOT IDENT.
MN-54	4.290E-02	4.576E-02	8.325E-02	0.000E+00	NOT IDENT.
CO-56	9.020E-03	5.267E-02	7.895E-02	0.000E+00	NOT IDENT.
CO-57	1.082E-02	2.906E-02	4.886E-02	0.000E+00	NOT IDENT.
CO-58	-2.219E-02	4.641E-02	7.609E-02	0.000E+00	NOT IDENT.
FE-59	-5.517E-02	1.227E-01	1.972E-01	0.000E+00	NOT IDENT.
CO-60	-6.606E-03	4.793E-02	7.768E-02	0.000E+00	NOT IDENT.
ZN-65	3.708E-02	1.396E-01	2.061E-01	0.000E+00	NOT IDENT.
SE-75	3.382E-02	5.414E-02	8.578E-02	0.000E+00	NOT IDENT.
SR-85	7.535E-02	5.045E-02	8.303E-02	0.000E+00	NOT IDENT.
Y-88	-1.608E-02	2.722E-02	3.705E-02	0.000E+00	NOT IDENT.
Y-91	7.109E+00	2.921E+01	4.947E+01	0.000E+00	NOT IDENT.
NB-94	-2.374E-02	4.175E-02	6.923E-02	0.000E+00	NOT IDENT.
NB-95	4.770E-02	6.016E-02	9.590E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.454E-01	3.854E-01	0.000E+00	NOT IDENT.
ZR-95	-2.634E-02	9.098E-02	1.529E-01	0.000E+00	NOT IDENT.
MO-99	-1.427E+01	1.888E+01	3.040E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.787E+17	0.000E+00	0.000E+00	SHORT HLIF
RU-103	5.208E-02	4.819E-02	8.650E-02	0.000E+00	FAIL ABUN
RH-106	-1.477E-01	3.793E-01	6.103E-01	0.000E+00	NOT IDENT.
RU-106	-1.477E-01	3.791E-01	6.103E-01	0.000E+00	NOT IDENT.
AG-108M	-2.028E-02	3.737E-02	6.153E-02	0.000E+00	NOT IDENT.
AG-110M	-9.796E-03	4.322E-02	7.030E-02	0.000E+00	NOT IDENT.
SN-113	-2.122E-02	5.479E-02	9.179E-02	0.000E+00	NOT IDENT.
CD-115	-5.213E+00	1.875E+01	3.090E+01	0.000E+00	NOT IDENT.
SN-117M	-4.215E-02	6.503E-02	1.072E-01	0.000E+00	NOT IDENT.
TE-123M	-3.037E-02	3.257E-02	5.291E-02	0.000E+00	NOT IDENT.
SB-124	7.632E-03	9.101E-02	1.552E-01	0.000E+00	NOT IDENT.
SB-125	7.934E-03	1.111E-01	1.900E-01	0.000E+00	FAIL ABUN
TE-125M	-9.233E+00	1.082E+01	1.757E+01	0.000E+00	NOT IDENT.
I-126	-3.847E-02	2.846E-01	4.660E-01	0.000E+00	NOT IDENT.
SB-126	-1.299E-02	2.161E-01	3.193E-01	0.000E+00	NOT IDENT.
SB-127	-5.071E-01	1.924E+00	3.265E+00	0.000E+00	NOT IDENT.
I-131	-9.446E-02	1.388E-01	2.286E-01	0.000E+00	NOT IDENT.
TE-132	-6.206E-01	1.006E+00	1.722E+00	0.000E+00	NOT IDENT.
BA-133	-1.728E-02	5.527E-02	8.046E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.647E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.679E-02	1.180E-01	0.000E+00	FAIL ABUN
I-135	0.000E+00	9.236E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.327E-02	1.507E-01	2.453E-01	0.000E+00	NOT IDENT.
BA-137M	-1.181E-02	4.242E-02	6.863E-02	0.000E+00	NOT IDENT.
CS-137	-1.248E-02	4.482E-02	7.250E-02	0.000E+00	NOT IDENT.
CE-139	1.775E-02	3.480E-02	6.007E-02	0.000E+00	NOT IDENT.
BA-140	-1.966E-01	3.488E-01	5.518E-01	0.000E+00	NOT IDENT.
LA-140	-3.986E-02	1.092E-01	1.711E-01	0.000E+00	NOT IDENT.
CE-141	-2.861E-02	7.323E-02	1.229E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	6.892E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.848E-01	2.693E-01	4.135E-01	0.000E+00	NOT IDENT.
PM-144	3.116E-02	4.288E-02	7.750E-02	0.000E+00	NOT IDENT.
PR-144	2.328E+00	3.211E+00	5.802E+00	0.000E+00	NOT IDENT.
PM-146	4.274E-02	5.140E-02	9.144E-02	0.000E+00	NOT IDENT.
ND-147	1.780E-01	7.752E-01	1.248E+00	0.000E+00	FAIL ABUN
PM-149	1.055E+02	1.301E+02	2.340E+02	0.000E+00	NOT IDENT.
EU-152	-1.300E-01	2.088E-01	1.897E-01	0.000E+00	FAIL ABUN
GD-153	1.141E-01	9.029E-02	1.446E-01	0.000E+00	NOT IDENT.
EU-154	-7.782E-02	1.715E-01	2.716E-01	0.000E+00	NOT IDENT.
EU-155	8.089E-02	1.075E-01	1.901E-01	0.000E+00	FAIL ABUN
TB-160	-1.265E-02	1.731E-01	2.925E-01	0.000E+00	FAIL ABUN
HO-166M	-5.760E-02	7.485E-02	1.218E-01	0.000E+00	FAIL ABUN
TA-182	2.981E-01	2.697E-01	4.839E-01	0.000E+00	FAIL ABUN
IR-192	-1.232E-02	3.888E-02	6.625E-02	0.000E+00	FAIL ABUN
HG-203	6.115E-02	4.776E-02	7.813E-02	0.000E+00	FAIL ABUN
BI-207	3.809E-02	6.842E-02	1.201E-01	0.000E+00	FAIL ABUN
PB-211	7.977E-01	1.033E+00	1.520E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	8.766E-01	1.433E+00	0.000E+00	FAIL ABUN
RN-219	3.467E-02	4.930E-01	8.241E-01	0.000E+00	NOT IDENT.
RA-223	-1.015E+00	7.696E-01	1.210E+00	0.000E+00	FAIL ABUN
AC-227	-4.584E-02	2.739E-01	4.763E-01	0.000E+00	NOT IDENT.
TH-227	-4.584E-02	2.739E-01	4.763E-01	0.000E+00	NOT IDENT.
PA-231	-1.987E+00	1.599E+00	2.557E+00	0.000E+00	NOT IDENT.
TH-231	-1.015E+00	7.696E-01	1.210E+00	0.000E+00	FAIL ABUN
PA-233	7.885E-02	7.527E-02	1.365E-01	0.000E+00	NOT IDENT.
PA-234	-5.980E-02	3.925E-01	6.553E-01	0.000E+00	NOT IDENT.
PA-234M	-6.530E-01	5.605E+00	9.243E+00	0.000E+00	FAIL ABUN
NP-239	-3.497E-01	4.357E-01	7.238E-01	0.000E+00	FAIL ABUN
AM-241	9.097E-02	7.287E-02	1.184E-01	0.000E+00	NOT IDENT.
CM-247	5.568E-02	4.751E-02	7.987E-02	0.000E+00	FAIL ABUN
CF-249	-3.192E-03	4.828E-02	8.242E-02	0.000E+00	NOT IDENT.

CF-251	1.553E-01	1.519E-01	2.658E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 15:01:42.70

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841011.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 19-MAR-2010 13:01:12
Sample ID         : G248841011           Sample quantity  : 1.25830E+02 GRAM
Detector name     : GAM05                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.82  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1271	10.66*	1.004E+00	3.543E+01	3.543E+01	8.48
CD-109	88.03	405	3.70*	7.868E+00	4.148E+00	4.250E+00	24.17
SN-126	64.28	------	9.60	8.070E+00	------ Line Not Found		------
	86.94	405	8.90	7.868E+00	1.725E+00	1.725E+00	47.12
	87.57	405	37.00*	7.868E+00	4.148E-01	4.148E-01	24.17
CS-135	268.22	101	16.00*	4.360E+00	4.306E-01	4.306E-01	60.93
TL-208	277.37	41	6.60	4.266E+00	4.312E-01	4.312E-01	116.00
	583.19	357	85.00*	2.261E+00	5.542E-01	5.542E-01	17.67
	860.56	108	12.50	1.590E+00	1.622E+00	1.622E+00	32.37
PB-210	46.54	142	4.25*	7.598E+00	1.312E+00	1.314E+00	69.35
BI-211	72.87	796	1.23	8.040E+00	2.402E+01	2.402E+01	16.19
	351.06	562	12.92*	3.519E+00	3.689E+00	3.689E+00	16.22
PB-212	74.82	796	10.28	8.040E+00	2.874E+00	2.874E+00	18.88
	77.11	1022	17.10	8.017E+00	2.224E+00	2.224E+00	12.70
	238.63	1379	43.60*	4.778E+00	1.975E+00	1.975E+00	12.68
	300.09	------	3.30	4.005E+00	------ Line Not Found		------
BI-214	609.32	402	45.49*	2.173E+00	1.213E+00	1.213E+00	18.68
	1120.29	59	14.92	1.258E+00	9.451E-01	9.451E-01	75.37
	1764.49	79	15.30	8.613E-01	1.795E+00	1.795E+00	32.33
PB-214	74.82	796	5.80	8.040E+00	5.094E+00	5.094E+00	18.03
	77.11	1022	9.70	8.017E+00	3.920E+00	3.920E+00	15.14
	242.00	302	7.25	4.734E+00	2.625E+00	2.625E+00	31.04
	295.22	432	18.42	4.063E+00	1.722E+00	1.722E+00	20.72
	351.93	562	35.60*	3.519E+00	1.339E+00	1.339E+00	17.13
RA-224	240.99	302	4.10*	4.734E+00	4.642E+00	4.642E+00	30.50
RA-226	609.32	402	45.49*	2.173E+00	1.213E+00	1.213E+00	18.68
	1120.29	59	14.92	1.258E+00	9.451E-01	9.451E-01	75.37
	1764.49	79	15.30	8.613E-01	1.795E+00	1.795E+00	32.33
AC-228	338.32	311	11.27	3.636E+00	2.262E+00	2.262E+00	48.01
	911.20	238	25.80*	1.511E+00	1.820E+00	1.820E+00	22.55
	968.97	153	15.80	1.430E+00	2.022E+00	2.022E+00	35.24
RA-228	338.32	311	11.27	3.636E+00	2.262E+00	2.262E+00	48.01

Sample ID : G248841011 Acquisition date : 19-MAR-2010 13:01:12

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	238	25.80*	1.511E+00	1.820E+00	1.820E+00	22.55
	968.97	153	15.80	1.430E+00	2.022E+00	2.022E+00	35.24
TH-228	74.82	796	10.28	8.040E+00	2.874E+00	2.874E+00	16.23
	77.11	1022	17.10	8.017E+00	2.224E+00	2.224E+00	12.70
	238.63	1379	43.60*	4.778E+00	1.975E+00	1.975E+00	12.68
	300.09	------	3.30	4.005E+00	------ Line Not Found		------
TH-229	85.43	405	14.70	7.868E+00	1.044E+00	1.044E+00	24.17
	88.47	256	24.00	7.818E+00	4.072E-01	4.072E-01	36.68
	193.51	------	4.41*	5.516E+00	------ Line Not Found		------
	210.85	------	2.80	5.209E+00	------ Line Not Found		------
TH-232	338.32	311	11.27	3.636E+00	2.262E+00	2.262E+00	25.28
	911.20	238	25.80*	1.511E+00	1.820E+00	1.820E+00	22.55
	968.97	153	15.80	1.430E+00	2.022E+00	2.022E+00	35.24
TH-234	63.29	252	3.70*	8.061E+00	2.520E+00	2.520E+00	45.23
	92.59	377	4.23	7.758E+00	3.425E+00	3.425E+00	33.59
U-235	89.96	256	3.47	7.818E+00	2.816E+00	2.816E+00	43.32
	93.35	377	5.60	7.758E+00	2.587E+00	2.587E+00	34.27
	143.76	------	10.96*	6.557E+00	------ Line Not Found		------
	163.33	------	5.08	6.119E+00	------ Line Not Found		------
	185.72	216	57.20	5.664E+00	1.993E-01	1.993E-01	44.16
	205.31	------	5.01	5.304E+00	------ Line Not Found		------
NP-237	86.48	405	12.40*	7.868E+00	1.238E+00	1.238E+00	32.00
	95.86	------	2.68	7.688E+00	------ Line Not Found		------
U-238	63.29	252	3.70*	8.061E+00	2.520E+00	2.520E+00	45.23
	92.59	377	4.23	7.758E+00	3.425E+00	3.425E+00	26.74
ANH-511	511.00	96	100.00*	2.546E+00	1.120E-01	1.120E-01	72.80

Flag: "*" = Keyline

Sample ID : G248841011 Acquisition date : 19-MAR-2010 13:01:12

Total number of lines in spectrum 35
Number of unidentified lines 5
Number of lines tentatively identified by NID 30 85.71%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.543E+01	3.543E+01	0.300E+01	8.48	
CD-109	461.40D	1.02	4.148E+00	4.250E+00	1.027E+00	24.17	
SN-126	2.30E+05Y	1.00	4.148E-01	4.148E-01	1.003E-01	24.17	
CS-135	2.30E+06Y	1.00	4.306E-01	4.306E-01	2.623E-01	60.93	
TL-208	1.41E+10Y	1.00	5.542E-01	5.542E-01	0.980E-01	17.67	
PB-210	22.20Y	1.00	1.312E+00	1.314E+00	0.911E+00	69.35	
BI-211	7.04E+08Y	1.00	3.689E+00	3.689E+00	0.598E+00	16.22	
PB-212	1.41E+10Y	1.00	1.975E+00	1.975E+00	0.250E+00	12.68	
BI-214	1600.00Y	1.00	1.213E+00	1.213E+00	0.227E+00	18.68	
PB-214	1600.00Y	1.00	1.339E+00	1.339E+00	0.229E+00	17.13	
RA-224	1.41E+10Y	1.00	4.642E+00	4.642E+00	1.416E+00	30.50	
RA-226	1600.00Y	1.00	1.213E+00	1.213E+00	0.227E+00	18.68	
AC-228	1.41E+10Y	1.00	1.820E+00	1.820E+00	0.410E+00	22.55	
RA-228	1.41E+10Y	1.00	1.820E+00	1.820E+00	0.410E+00	22.55	
TH-228	1.41E+10Y	1.00	1.975E+00	1.975E+00	0.250E+00	12.68	
TH-229	7340.00Y	1.00	4.072E-01	4.072E-01	1.493E-01	36.68	K
TH-232	1.41E+10Y	1.00	1.820E+00	1.820E+00	0.410E+00	22.55	
TH-234	4.47E+09Y	1.00	2.520E+00	2.520E+00	1.140E+00	45.23	
U-235	7.04E+08Y	1.00	1.993E-01	1.993E-01	0.880E-01	44.16	K
NP-237	2.14E+06Y	1.00	1.238E+00	1.238E+00	0.396E+00	32.00	
U-238	4.47E+09Y	1.00	2.520E+00	2.520E+00	1.140E+00	45.23	
ANH-511	1.00E+09Y	1.00	1.120E-01	1.120E-01	0.815E-01	72.80	
		Total Activity :	7.079E+01	7.089E+01			

Grand Total Activity : 7.079E+01 7.089E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248841011 Acquisition date : 19-MAR-2010 13:01:12

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	83.70	176	573	1.44	168.38	163	30	2.44E-02	49.8	7.92E+00	T
0	128.45	101	437	0.96	257.87	253	10	1.40E-02	80.0	6.92E+00	
0	208.74	96	267	1.08	418.41	415	9	1.34E-02	64.4	5.24E+00	
0	409.07	69	112	2.03	818.97	814	10	9.60E-03	62.2	3.09E+00	
0	462.99	63	126	1.37	926.77	920	12	8.70E-03	79.7	2.78E+00	T
0	726.58	95	58	1.31	1453.66	1448	11	1.32E-02	37.1	1.85E+00	T
0	767.42	34	56	0.57	1535.31	1531	9	4.66E-03	87.8	1.76E+00	T
0	794.48	70	61	2.01	1589.38	1584	14	9.79E-03	53.8	1.71E+00	T
0	839.10	90	115	6.96	1678.56	1661	30	1.25E-02	74.1	1.63E+00	
0	963.08	97	58	4.78	1926.33	1918	15	1.34E-02	40.4	1.44E+00	T
0	1586.46	27	11	1.12	3171.75	3162	16	3.70E-03	69.7	9.38E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 15:01:46.97

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248841011.CNF;1  *
* Acquisition date : 19-MAR-2010 13:01:12  Detector SN#    :                *
* Detector ID      : GAM05                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.82         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248841011            Analyst initials: MXR1           *
* Batch Number     : 962629                Sample Quantity : 1.25830E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00.5MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.543E+01	3.004E+00	3.727E-01	2.318E-02	95.061
CD-109	4.250E+00	1.027E+00	1.060E+00	8.070E-02	4.010
SN-126	4.148E-01	1.003E-01	1.033E-01	7.867E-03	4.016
CS-135	4.306E-01	2.623E-01	2.815E-01	3.012E-02	1.529
TL-208	5.542E-01	9.795E-02	7.088E-02	5.206E-03	7.819
PB-210	1.314E+00	9.110E-01	9.141E-01	7.050E-02	1.437
BI-211	3.689E+00	5.983E-01	3.919E-01	3.106E-02	9.413
PB-212	1.975E+00	2.503E-01	1.041E-01	1.127E-02	18.964
BI-214	1.213E+00	2.265E-01	1.221E-01	1.030E-02	9.936
PB-214	1.339E+00	2.294E-01	1.376E-01	1.325E-02	9.732
RA-224	4.642E+00	1.416E+00	1.116E+00	1.092E-01	4.159
RA-226	1.213E+00	2.265E-01	1.221E-01	1.030E-02	9.936
AC-228	1.820E+00	4.104E-01	2.771E-01	3.517E-02	6.568
RA-228	1.820E+00	4.104E-01	2.771E-01	3.517E-02	6.568
TH-228	1.975E+00	2.503E-01	1.041E-01	1.127E-02	18.964
TH-229	4.072E-01	1.493E-01	9.597E-01	9.585E-02	0.424
TH-232	1.820E+00	4.104E-01	2.771E-01	3.517E-02	6.568
TH-234	2.520E+00	1.140E+00	1.174E+00	2.131E-01	2.146

Sample ID : G248841011 Acquisition date : 19-MAR-2010 13:01:12

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	1.993E-01	8.802E-02	3.748E-01	7.149E-02	0.532
NP-237	1.238E+00	3.961E-01	3.073E-01	6.856E-02	4.028
U-238	2.520E+00	1.140E+00	1.174E+00	2.131E-01	2.146
ANH-511	1.120E-01	8.152E-02	5.759E-02	3.686E-03	1.945

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	6.817E-02		3.797E-01	6.276E-01	4.494E-02	0.109
NA-22	-2.855E-02		6.168E-02	9.543E-02	5.559E-03	-0.299
NA-24	-2.050E+00		1.214E+00	Half-Life too short		
SC-46	-2.763E-02		5.084E-02	7.999E-02	8.034E-03	-0.345
V-48	-1.964E-02		9.204E-02	1.483E-01	1.359E-02	-0.132
CR-51	-3.088E-02		4.223E-01	6.989E-01	6.176E-02	-0.044
MN-54	4.290E-02		4.669E-02	8.262E-02	7.569E-03	0.519
CO-56	9.020E-03		5.375E-02	7.837E-02	7.329E-03	0.115
CO-57	1.082E-02		2.965E-02	4.719E-02	6.695E-03	0.229
CO-58	-2.219E-02		4.735E-02	7.548E-02	6.643E-03	-0.294
FE-59	-5.517E-02		1.252E-01	1.965E-01	1.590E-02	-0.281
CO-60	-6.606E-03		4.891E-02	7.762E-02	4.492E-03	-0.085
ZN-65	3.708E-02		1.425E-01	2.054E-01	1.435E-02	0.181
SE-75	3.382E-02		5.524E-02	8.374E-02	7.995E-03	0.404
SR-85	7.535E-02		5.148E-02	8.182E-02	5.245E-03	0.921
Y-88	-1.608E-02		2.777E-02	3.720E-02	2.128E-03	-0.432
Y-91	7.109E+00		2.981E+01	4.936E+01	2.868E+00	0.144
NB-94	-2.374E-02		4.260E-02	6.854E-02	4.904E-03	-0.346
NB-95	4.770E-02		6.139E-02	9.506E-02	7.689E-03	0.502
NB-95M	1.309E+00		2.504E-01	3.756E-01	4.115E-02	3.486
ZR-95	-2.634E-02		9.284E-02	1.516E-01	1.352E-02	-0.174
MO-99	-1.427E+01		1.927E+01	3.011E+01	4.599E+00	-0.474
TC-99M	-1.241E+11		2.953E+11	Half-Life too short		
RU-103	5.208E-02		4.917E-02	8.520E-02	1.081E-02	0.611
RH-106	-1.477E-01		3.871E-01	6.031E-01	7.260E-02	-0.245
RU-106	-1.477E-01		3.868E-01	6.031E-01	3.976E-02	-0.245
AG-108M	-2.028E-02		3.813E-02	6.049E-02	3.905E-03	-0.335
AG-110M	-9.796E-03		4.411E-02	6.953E-02	4.807E-03	-0.141
SN-113	-2.122E-02		5.591E-02	9.011E-02	5.589E-03	-0.236
CD-115	-5.213E+00		1.913E+01	3.046E+01	1.965E+00	-0.171
SN-117M	-4.215E-02		6.635E-02	1.039E-01	1.117E-02	-0.406
TE-123M	-3.037E-02		3.323E-02	5.128E-02	5.510E-03	-0.592
SB-124	7.632E-03		9.287E-02	1.557E-01	9.897E-03	0.049
SB-125	7.934E-03		1.133E-01	1.868E-01	1.170E-02	0.042
TE-125M	-9.233E+00		1.104E+01	1.694E+01	2.198E+00	-0.545
I-126	-3.847E-02		2.904E-01	4.610E-01	3.061E-02	-0.083
SB-126	-1.299E-02		2.206E-01	3.162E-01	2.346E-02	-0.041
SB-127	-5.071E-01		1.963E+00	3.231E+00	3.375E-01	-0.157
I-131	-9.446E-02		1.416E-01	2.242E-01	1.685E-02	-0.421

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-132	-6.206E-01		1.027E+00	1.678E+00	2.804E-01	-0.370
BA-133	-1.728E-02		5.640E-02	7.887E-02	9.531E-03	-0.219
I-133	-6.391E-03		8.401E-03	Half-Life too short		
CS-134	1.624E-01	+	8.856E-02	1.170E-01	1.008E-02	1.388
I-135	-6.635E+10		4.712E+10	Half-Life too short		
CS-136	-5.327E-02		1.538E-01	2.442E-01	2.092E-02	-0.218
BA-137M	-1.181E-02		4.329E-02	6.788E-02	4.464E-03	-0.174
CS-137	-1.248E-02		4.573E-02	7.171E-02	4.731E-03	-0.174
CE-139	1.775E-02		3.551E-02	5.826E-02	5.784E-03	0.305
BA-140	-1.966E-01		3.559E-01	5.441E-01	1.819E-01	-0.361
LA-140	-3.986E-02		1.115E-01	1.714E-01	1.007E-02	-0.233
CE-141	-2.861E-02		7.472E-02	1.189E-01	1.454E-02	-0.241
CE-143	2.437E-03	+	3.516E-04	Half-Life too short		
CE-144	1.848E-01		2.748E-01	3.998E-01	7.309E-02	0.462
PM-144	3.116E-02		4.376E-02	7.671E-02	5.424E-03	0.406
PR-144	2.328E+00		3.276E+00	5.743E+00	4.059E-01	0.405
PM-146	4.274E-02		5.245E-02	8.996E-02	7.838E-03	0.475
ND-147	1.780E-01		7.910E-01	1.230E+00	1.700E-01	0.145
PM-149	1.055E+02		1.328E+02	2.287E+02	3.625E+01	0.461
EU-152	-1.300E-01		2.131E-01	1.859E-01	1.528E-02	-0.699
GD-153	1.141E-01		9.214E-02	1.392E-01	1.291E-02	0.820
EU-154	-7.782E-02		1.750E-01	2.712E-01	2.558E-02	-0.287
EU-155	8.089E-02		1.097E-01	1.832E-01	1.984E-02	0.442
TB-160	-1.265E-02		1.766E-01	2.905E-01	2.870E-02	-0.044
HO-166M	-5.760E-02		7.638E-02	1.206E-01	8.787E-03	-0.478
TA-182	2.981E-01		2.752E-01	4.830E-01	2.808E-02	0.617
IR-192	-1.232E-02		3.967E-02	6.484E-02	5.503E-03	-0.190
HG-203	6.115E-02		4.874E-02	7.633E-02	7.240E-03	0.801
BI-207	3.809E-02		6.982E-02	1.196E-01	9.470E-03	0.319
PB-211	7.977E-01		1.054E+00	1.493E+00	7.164E-01	0.534
BI-212	2.297E+00	+	8.945E-01	1.419E+00	1.663E-01	1.619
RN-219	3.467E-02		5.030E-01	8.093E-01	1.090E-01	0.043
RA-223	-1.015E+00		7.853E-01	1.185E+00	2.034E-01	-0.856
AC-227	-4.584E-02		2.795E-01	4.648E-01	5.943E-02	-0.099
TH-227	-4.584E-02		2.795E-01	4.648E-01	6.629E-02	-0.099
PA-231	-1.987E+00		1.632E+00	2.498E+00	3.731E-01	-0.795
TH-231	-1.015E+00		7.853E-01	1.185E+00	2.034E-01	-0.856
PA-233	7.885E-02		7.681E-02	1.336E-01	1.180E-02	0.590
PA-234	-5.980E-02		4.005E-01	6.515E-01	1.255E-01	-0.092
PA-234M	-6.530E-01		5.720E+00	9.197E+00	9.398E-01	-0.071
NP-239	-3.497E-01		4.446E-01	6.986E-01	9.187E-02	-0.501
AM-241	9.097E-02		7.435E-02	1.132E-01	1.013E-02	0.804
CM-247	5.568E-02		4.848E-02	7.844E-02	4.615E-03	0.710
CF-249	-3.192E-03		4.927E-02	8.090E-02	4.831E-03	-0.039
CF-251	1.553E-01		1.550E-01	2.581E-01	2.571E-02	0.602

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248841011           *
* Acquisition date  : 19-MAR-2010 13:01:12 Detector SN#    :                *
* Detector ID       : GAM05                 Sensitivity     : 5.000         *
* Geometry          : CAN                   Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00       Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.82       Half life ratio : 8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  3-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248841011            Analyst initials: MXR1          *
* Batch Number      : 962629                Sample Quantity : 1.2583E+02 GRAM *
* Recovery          :    1.00000            Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00 MS Isotope      :                 *
* MSD DPM          :    0.000              MSD Isotope     :                *
* LCS DPM          :    0.000              LCS Isotope     :                *
* LCSD DPM         :    0.000              LCSD Isotope    :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.543E+01	2.944E+00	1.863E-01	1.502E+00
CD-109	4.250E+00	1.007E+00	5.514E-01	5.136E-01
SN-126	4.148E-01	9.826E-02	5.376E-02	5.013E-02
CS-135	4.306E-01	2.571E-01	1.442E-01	1.312E-01
TL-208	5.542E-01	9.599E-02	3.592E-02	4.898E-02
PB-210	1.314E+00	8.928E-01	4.798E-01	4.555E-01
BI-211	3.689E+00	5.863E-01	2.000E-01	2.992E-01
PB-212	1.975E+00	2.453E-01	5.344E-02	1.252E-01
BI-214	1.213E+00	2.220E-01	6.181E-02	1.133E-01
PB-214	1.339E+00	2.248E-01	7.022E-02	1.147E-01
RA-224	4.642E+00	1.387E+00	5.727E-01	7.079E-01
RA-226	1.213E+00	2.220E-01	6.181E-02	1.133E-01
AC-228	1.820E+00	4.022E-01	1.395E-01	2.052E-01
RA-228	1.820E+00	4.022E-01	1.395E-01	2.052E-01
TH-228	1.975E+00	2.453E-01	5.344E-02	1.252E-01
TH-229	-3.723E-01	6.047E-01	4.940E-01	3.085E-01
TH-232	1.820E+00	4.022E-01	1.395E-01	2.052E-01
TH-234	2.520E+00	1.117E+00	6.137E-01	5.698E-01
U-235	7.040E-02	2.274E-01	1.937E-01	1.160E-01
NP-237	1.238E+00	3.881E-01	1.599E-01	1.980E-01
U-238	2.520E+00	1.117E+00	6.137E-01	5.698E-01
ANH-511	1.120E-01	7.989E-02	2.924E-02	4.076E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	6.817E-02	3.721E-01	3.189E-01	1.898E-01	NOT IDENT.
NA-22	-2.855E-02	6.045E-02	4.781E-02	3.084E-02	NOT IDENT.
NA-24	-2.050E+06	2.379E+06	0.000E+00	1.214E+06	SHORT HLIF
SC-46	-2.763E-02	4.982E-02	4.029E-02	2.542E-02	FAIL ABUN
V-48	-1.964E-02	9.020E-02	7.460E-02	4.602E-02	NOT IDENT.

CR-51	-3.088E-02	4.138E-01	3.572E-01	2.111E-01	NOT IDENT.
MN-54	4.290E-02	4.576E-02	4.165E-02	2.335E-02	NOT IDENT.
CO-56	9.020E-03	5.267E-02	3.950E-02	2.687E-02	NOT IDENT.
CO-57	1.082E-02	2.906E-02	2.444E-02	1.483E-02	NOT IDENT.
CO-58	-2.219E-02	4.641E-02	3.807E-02	2.368E-02	NOT IDENT.
FE-59	-5.517E-02	1.227E-01	9.864E-02	6.261E-02	NOT IDENT.
CO-60	-6.606E-03	4.793E-02	3.886E-02	2.445E-02	NOT IDENT.
ZN-65	3.708E-02	1.396E-01	1.031E-01	7.124E-02	NOT IDENT.
SE-75	3.382E-02	5.414E-02	4.291E-02	2.762E-02	NOT IDENT.
SR-85	7.535E-02	5.045E-02	4.154E-02	2.574E-02	NOT IDENT.
Y-88	-1.608E-02	2.722E-02	1.853E-02	1.389E-02	NOT IDENT.
Y-91	7.109E+00	2.921E+01	2.475E+01	1.490E+01	NOT IDENT.
NB-94	-2.374E-02	4.175E-02	3.464E-02	2.130E-02	NOT IDENT.
NB-95	4.770E-02	6.016E-02	4.798E-02	3.069E-02	NOT IDENT.
NB-95M	1.309E+00	2.454E-01	1.928E-01	1.252E-01	NOT IDENT.
ZR-95	-2.634E-02	9.098E-02	7.652E-02	4.642E-02	NOT IDENT.
MO-99	-1.427E+01	1.888E+01	1.521E+01	9.635E+00	NOT IDENT.
TC-99M	-1.241E+17	5.787E+17	0.000E+00	0.000E+00	SHORT HLIF
RU-103	5.208E-02	4.819E-02	4.327E-02	2.459E-02	FAIL ABUN
RH-106	-1.477E-01	3.793E-01	3.054E-01	1.935E-01	NOT IDENT.
RU-106	-1.477E-01	3.791E-01	3.054E-01	1.934E-01	NOT IDENT.
AG-108M	-2.028E-02	3.737E-02	3.078E-02	1.907E-02	NOT IDENT.
AG-110M	-9.796E-03	4.322E-02	3.517E-02	2.205E-02	NOT IDENT.
SN-113	-2.122E-02	5.479E-02	4.592E-02	2.795E-02	NOT IDENT.
CD-115	-5.213E+00	1.875E+01	1.546E+01	9.566E+00	NOT IDENT.
SN-117M	-4.215E-02	6.503E-02	5.365E-02	3.318E-02	NOT IDENT.
TE-123M	-3.037E-02	3.257E-02	2.647E-02	1.662E-02	NOT IDENT.
SB-124	7.632E-03	9.101E-02	7.766E-02	4.644E-02	NOT IDENT.
SB-125	7.934E-03	1.111E-01	9.507E-02	5.667E-02	FAIL ABUN
TE-125M	-9.233E+00	1.082E+01	8.788E+00	5.521E+00	NOT IDENT.
I-126	-3.847E-02	2.846E-01	2.331E-01	1.452E-01	NOT IDENT.
SB-126	-1.299E-02	2.161E-01	1.598E-01	1.103E-01	NOT IDENT.
SB-127	-5.071E-01	1.924E+00	1.633E+00	9.816E-01	NOT IDENT.
I-131	-9.446E-02	1.388E-01	1.144E-01	7.079E-02	NOT IDENT.
TE-132	-6.206E-01	1.006E+00	8.615E-01	5.134E-01	NOT IDENT.
BA-133	-1.728E-02	5.527E-02	4.025E-02	2.820E-02	FAIL ABUN
I-133	-6.391E+03	1.647E+04	0.000E+00	8.401E+03	SHORT HLIF
CS-134	1.624E-01	8.679E-02	5.904E-02	4.428E-02	FAIL ABUN
I-135	-6.635E+16	9.236E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.327E-02	1.507E-01	1.227E-01	7.690E-02	NOT IDENT.
BA-137M	-1.181E-02	4.242E-02	3.433E-02	2.164E-02	NOT IDENT.
CS-137	-1.248E-02	4.482E-02	3.627E-02	2.287E-02	NOT IDENT.
CE-139	1.775E-02	3.480E-02	3.005E-02	1.776E-02	NOT IDENT.
BA-140	-1.966E-01	3.488E-01	2.760E-01	1.780E-01	NOT IDENT.
LA-140	-3.986E-02	1.092E-01	8.558E-02	5.573E-02	NOT IDENT.
CE-141	-2.861E-02	7.323E-02	6.146E-02	3.736E-02	NOT IDENT.
CE-143	2.437E+03	6.892E+02	0.000E+00	3.516E+02	SHORT HLIF
CE-144	1.848E-01	2.693E-01	2.069E-01	1.374E-01	NOT IDENT.
PM-144	3.116E-02	4.288E-02	3.877E-02	2.188E-02	NOT IDENT.
PR-144	2.328E+00	3.211E+00	2.903E+00	1.638E+00	NOT IDENT.
PM-146	4.274E-02	5.140E-02	4.575E-02	2.623E-02	NOT IDENT.
ND-147	1.780E-01	7.752E-01	6.242E-01	3.955E-01	FAIL ABUN
PM-149	1.055E+02	1.301E+02	1.171E+02	6.640E+01	NOT IDENT.
EU-152	-1.300E-01	2.088E-01	9.491E-02	1.065E-01	FAIL ABUN
GD-153	1.141E-01	9.029E-02	7.235E-02	4.607E-02	NOT IDENT.
EU-154	-7.782E-02	1.715E-01	1.359E-01	8.752E-02	NOT IDENT.
EU-155	8.089E-02	1.075E-01	9.509E-02	5.483E-02	FAIL ABUN
TB-160	-1.265E-02	1.731E-01	1.463E-01	8.831E-02	FAIL ABUN
HO-166M	-5.760E-02	7.485E-02	6.094E-02	3.819E-02	FAIL ABUN
TA-182	2.981E-01	2.697E-01	2.421E-01	1.376E-01	FAIL ABUN
IR-192	-1.232E-02	3.888E-02	3.314E-02	1.983E-02	FAIL ABUN
HG-203	6.115E-02	4.776E-02	3.909E-02	2.437E-02	FAIL ABUN
BI-207	3.809E-02	6.842E-02	6.007E-02	3.491E-02	FAIL ABUN
PB-211	7.977E-01	1.033E+00	7.605E-01	5.268E-01	NOT IDENT.
BI-212	2.297E+00	8.766E-01	7.168E-01	4.472E-01	FAIL ABUN
RN-219	3.467E-02	4.930E-01	4.123E-01	2.515E-01	NOT IDENT.
RA-223	-1.015E+00	7.696E-01	6.056E-01	3.927E-01	FAIL ABUN
AC-227	-4.584E-02	2.739E-01	2.383E-01	1.397E-01	NOT IDENT.
TH-227	-4.584E-02	2.739E-01	2.383E-01	1.397E-01	NOT IDENT.
PA-231	-1.987E+00	1.599E+00	1.279E+00	8.159E-01	NOT IDENT.
TH-231	-1.015E+00	7.696E-01	6.056E-01	3.927E-01	FAIL ABUN
PA-233	7.885E-02	7.527E-02	6.831E-02	3.840E-02	NOT IDENT.
PA-234	-5.980E-02	3.925E-01	3.279E-01	2.003E-01	NOT IDENT.
PA-234M	-6.530E-01	5.605E+00	4.624E+00	2.860E+00	FAIL ABUN
NP-239	-3.497E-01	4.357E-01	3.621E-01	2.223E-01	FAIL ABUN
AM-241	9.097E-02	7.287E-02	5.921E-02	3.718E-02	NOT IDENT.
CM-247	5.568E-02	4.751E-02	3.996E-02	2.424E-02	FAIL ABUN
CF-249	-3.192E-03	4.828E-02	4.124E-02	2.463E-02	NOT IDENT.

CF-251	1.553E-01	1.519E-01	1.330E-01	7.752E-02	NOT IDENT.

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                 2040 SAVAGE ROAD                          *
*                              CHARLESTON ,SC 29417                         *
*                        GAMMA SPECTROSCOPY BACKGROUND REPORT               *
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ENERGY	MDA COUNTS
46.54	455.7321
49.72	513.1752
57.36	0.0000
59.54	465.3259
63.29	637.8942
63.29	637.8942
64.28	593.5071
67.75	647.4166
69.67	660.9309
70.83	613.1095
72.81	593.9263
72.87	593.9745
72.87	593.9745
74.82	595.4999
74.82	595.4999
74.82	595.4999
74.97	595.6146
77.11	597.2639
77.11	597.2639
77.11	597.2639
79.69	514.1891
79.80	514.2599
80.12	514.4666
80.19	514.5119
80.57	514.7560
81.00	515.0316
81.07	515.0768
81.07	515.0768
83.79	466.0594
83.79	466.0594
85.43	466.9860
86.48	467.5753
86.55	467.6143
86.79	467.7475
86.94	467.8327
87.57	468.1824
88.03	468.4380
88.47	468.6812
89.96	469.5013
91.11	470.1315
92.59	470.9338
92.59	470.9338
93.35	471.3438
94.67	462.5840
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94.87	474.0527
95.86	459.9544
97.43	371.2153
98.44	368.3715
99.53	396.3238
100.11	406.1985
103.18	403.4568
103.37	366.6678
105.31	385.9012
106.12	370.8243
109.28	441.1040
111.00	396.4600
111.76	410.2013
116.30	390.2902
117.23	407.2751
121.12	372.3330
121.78	360.1970
122.06	369.8400
123.07	356.1094
131.20	449.8324
133.52	391.7039
136.00	389.2059

136.47	397.8362
140.51	395.0315
140.51	0.0000
143.76	345.0460
144.24	371.8243
144.24	371.8243
145.44	388.2135
152.43	366.9392
153.25	331.7615
154.21	304.0903
154.21	304.0903
156.02	389.5659
158.56	348.3280
159.00	357.0841
162.66	343.0039
163.33	321.5378
165.86	326.5296
176.60	307.4124
177.52	298.8708
181.07	323.1702
184.41	314.7392
185.72	315.0469
193.51	313.5321
197.04	309.8881
205.31	309.2480
210.85	324.7925
215.65	285.0483
222.11	282.0664
227.38	271.2534
228.16	286.8225
228.18	286.8263
235.69	297.9478
235.96	297.9996
235.96	297.9996
238.63	243.9830
238.63	243.9830
240.99	244.3464
242.00	244.5012
244.70	244.9151
252.40	195.8504
252.80	201.7882
256.23	214.3203
256.23	214.3203
260.90	209.3645
264.66	177.9561
268.22	201.5910
269.46	201.7365
269.46	201.7365
271.23	211.2659
273.65	242.6741
276.40	215.0157
277.37	198.5076
277.60	199.5729
278.00	173.1055
279.20	168.5435
279.54	160.7719
280.46	187.4048
283.69	200.8914
284.31	193.4494
285.41	187.9321
285.90	159.7859
287.50	139.5460
293.27	0.0000
295.22	207.8560
295.96	275.6805
298.57	182.9988
299.98	154.7201
299.98	154.7201
300.09	154.7300
300.09	154.7300
300.13	154.7340
301.36	173.3460
302.85	228.6499
304.50	233.6009
304.50	233.6009
304.85	218.4495
308.46	183.6633
311.90	167.7930

316.51	173.9353
319.41	160.7997
320.08	163.7275
323.87	215.8566
323.87	215.8566
328.76	191.3966
333.37	204.0573
334.37	192.9077
334.37	192.9077
338.28	188.4564
338.28	188.4564
338.32	188.4611
338.32	188.4611
338.32	188.4611
340.48	169.3155
340.55	169.3219
344.28	203.5631
351.06	165.3433
351.93	154.0619
356.01	162.4919
364.49	147.8222
366.42	133.2607
383.85	161.0282
388.16	157.3871
388.63	160.3923
391.69	164.5815
400.66	155.2954
401.81	143.8679
402.40	120.9750
404.85	129.6556
410.95	145.0089
414.70	116.8661
423.72	127.7162
427.09	135.9591
427.87	137.0127
433.94	152.5188
453.88	114.0740
463.37	115.8817
468.07	95.6131
473.00	112.9111
476.78	118.2217
477.60	101.8061
487.02	113.5396
492.35	113.7772
497.08	89.1169
511.00	111.4710
514.00	93.8672
527.90	107.9865
529.87	0.0000
531.02	91.3181
537.26	110.4628
546.56	0.0000
563.25	100.8842
569.33	93.6525
569.50	93.6568
569.70	95.7920
583.19	96.2446
600.60	81.4520
602.73	82.5365
604.72	93.3656
609.32	75.5269
609.32	75.5269
610.33	80.9491
614.28	99.0698
618.01	71.4189
621.93	89.9302
621.93	89.9302
633.25	88.0915
635.95	83.8146
636.99	78.3984
645.85	85.1754
657.76	89.8857
661.66	85.6077
661.66	85.6077
664.57	0.0000
666.33	89.0308
666.50	89.0347
677.62	70.7784

685.70	92.1509
695.00	88.7168
696.49	85.9841
696.51	85.9841
697.00	84.1480
702.65	103.7445
706.68	86.2509
711.68	98.4563
720.70	87.8116
721.93	0.0000
722.78	86.2697
722.91	87.8692
723.31	83.0872
724.19	84.7072
727.33	87.9843
733.00	61.6924
735.93	83.2637
739.50	87.0967
747.24	95.7412
752.31	70.5017
753.82	72.4131
756.73	86.5925
763.94	69.5241
765.81	79.2678
766.42	82.1130
777.92	73.8597
778.90	64.4085
783.70	75.8773
785.37	84.4515
795.86	66.8895
801.95	63.7341
810.29	64.0175
810.76	70.7149
815.77	50.7162
818.51	70.8640
832.01	75.7912
834.85	65.4060
836.80	0.0000
846.77	57.8955
856.80	51.4151
860.56	60.0436
871.09	60.2088
873.19	69.9580
875.33	0.0000
879.36	65.2034
880.51	68.1429
883.24	66.2430
884.68	55.5481
889.28	73.1750
898.04	71.3826
911.20	60.5491
911.20	60.5491
911.20	60.5491
926.50	59.0930
937.49	88.8794
944.13	70.2315
946.00	71.2529
949.00	73.2864
962.29	66.4260
964.08	35.7832
966.15	35.8015
968.97	68.2394
968.97	68.2394
968.97	68.2394
983.53	60.9156
996.26	62.1022
1001.03	57.1577
1004.73	65.2367
1037.84	49.5563
1038.76	0.0000
1048.07	72.9873
1050.41	58.8260
1050.41	58.8260
1063.66	59.0030
1085.87	67.4744
1099.45	73.8281
1112.07	81.0840
1115.54	74.0889

1120.29	79.4625
1120.29	79.4625
1120.55	79.4657
1121.30	88.3092
1131.51	0.0000
1173.23	68.7527
1177.93	76.1189
1189.05	63.7526
1204.77	75.4922
1221.41	70.4896
1231.02	102.2494
1235.36	77.0189
1238.28	82.3418
1260.41	0.0000
1271.85	61.6392
1274.44	69.1127
1274.54	69.1127
1291.59	57.6101
1298.22	0.0000
1312.11	33.2037
1332.49	38.7085
1365.19	27.0467
1368.63	0.0000
1384.29	29.7801
1408.01	27.1056
1457.56	0.0000
1460.82	8.2562
1489.16	18.9655
1505.03	20.9196
1596.21	25.9991
1620.50	15.5128
1678.03	0.0000
1690.97	14.7091
1764.49	6.9434
1764.49	6.9434
1770.23	6.9495
1771.35	37.7323
1791.20	0.0000
1836.06	8.0215

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248841011

Total Uranium Activity	7.5288E+00	ug/g
Total Uranium Counting Unc.	3.3241E+00	ug/g
Total Uranium Tpu	1.6960E-06	ug/g
Total Uranium Mda	1.8279E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962629                    SAMPLE ID  : G248841011       *
*   ANALYST       : MXR1                      DETECTOR   : GAM05            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 19-MAR-2010 13:01:12.70    SAMPLE ALQT:  125.830 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.093E+01
GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.632E+00
GROSS GAMMA MDA    (pCi/GRAM  )   : 4.542E+00
GROSS GAMMA DLC    (pCi/GRAM  )   : 2.215E+00
```

```
VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 15:02:31.30

*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065180.CNF;1
Sample date      : 10-MAR-2010 00:00:00 Acquisition date : 19-MAR-2010 13:01:44
Sample ID        : G1202065180          Sample quantity  : 1.45850E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:00.47  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 962629               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
No peaks were found
```

VMS Nuclide Identification Report V3.1 Generated 19-MAR-2010 15:02:34

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065180.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 10-MAR-2010 00:00:00 Acquisition date : 19-MAR-2010 13:01:44
Sample ID         : G1202065180          Sample quantity  : 145.85 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA6               Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.47   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-2.145E-01	1.690E-01	2.356E-01	2.201E-02	-0.911
NA-22		1274.54	*	1.762E-02	1.942E-02	3.848E-02	3.381E-03	0.458
NA-24		1368.63	*	3.049E-04	1.942E-02	Half-Life too short		
K-40		1460.82	*	-1.407E-01	2.565E-01	4.119E-01	3.883E-02	-0.342
SC-46		889.28	*	2.281E-02	2.245E-02	4.223E-02	3.903E-03	0.540
		1120.55		-3.742E-03	2.464E-02	3.963E-02	3.356E-03	-0.094
V-48		944.13		-4.426E-01	3.579E-01	4.382E-01	4.032E-02	-1.010
		983.53	*	2.142E-02	2.620E-02	5.063E-02	4.607E-03	0.423
		1312.11		-3.895E-05	2.505E-02	4.091E-02	3.689E-03	-0.001
CR-51		320.08	*	-2.109E-02	1.933E-01	3.133E-01	3.016E-02	-0.067
MN-54		834.85	*	2.930E-03	1.719E-02	2.881E-02	2.596E-03	0.102
CO-56		846.77	*	-1.275E-02	2.095E-02	2.975E-02	2.696E-03	-0.429
		1037.84		9.886E-03	1.551E-01	2.615E-01	2.442E-02	0.038
		1238.28		1.869E-02	3.012E-02	5.682E-02	4.996E-03	0.329
		1771.35		-1.750E-02	1.684E-01	2.711E-01	2.330E-02	-0.065
CO-57		122.06	*	-2.079E-03	1.148E-02	1.814E-02	1.528E-03	-0.115
		136.47		4.654E-02	1.109E-01	1.835E-01	1.648E-02	0.254
CO-58		810.76	*	-1.736E-02	1.618E-02	1.847E-02	1.647E-03	-0.940
FE-59		1099.45	*	3.757E-02	4.637E-02	8.739E-02	8.123E-03	0.430
		1291.59		5.665E-04	5.436E-02	8.917E-02	8.936E-03	0.006
CO-60		1173.23		2.868E-03	1.773E-02	3.042E-02	2.466E-03	0.094
		1332.49	*	-1.098E-02	2.221E-02	3.165E-02	2.895E-03	-0.347
ZN-65		1115.54	*	-1.221E-02	5.262E-02	8.377E-02	7.127E-03	-0.146
SE-75		121.12		1.119E-02	5.810E-02	9.527E-02	1.043E-02	0.117
		136.00		1.271E-02	2.066E-02	3.472E-02	2.912E-03	0.366
		264.66	*	-4.203E-03	2.454E-02	4.004E-02	3.736E-03	-0.105
		279.54		-4.053E-02	6.078E-02	9.373E-02	9.015E-03	-0.432
		400.66		-7.521E-02	1.627E-01	2.487E-01	2.733E-02	-0.302
SR-85		514.00	*	-2.843E-02	3.211E-02	5.015E-02	4.351E-03	-0.567
Y-88		898.04		2.467E-02	2.147E-02	4.171E-02	3.885E-03	0.592
		1836.06	*	1.369E-02	1.672E-02	3.547E-02	2.965E-03	0.386
Y-91		1204.77	*	-6.040E+00	8.028E+00	1.041E+01	8.657E-01	-0.580
NB-94		702.65	*	-1.423E-03	1.916E-02	3.110E-02	2.592E-03	-0.046
		871.09		1.130E-02	1.783E-02	3.231E-02	2.962E-03	0.350

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	-4.321E-03	1.765E-02	2.733E-02	2.371E-03	-0.158
NB-95M		235.69	*	-3.173E-02	6.604E-02	1.059E-01	1.098E-02	-0.300
ZR-95		724.19		-2.210E-02	4.442E-02	6.634E-02	6.099E-03	-0.333
		756.73	*	1.824E-02	3.077E-02	5.596E-02	5.333E-03	0.326
MO-99		140.51		1.715E+00	3.013E+00	4.991E+00	1.180E+00	0.344
		181.07		-7.868E-02	2.233E+00	3.771E+00	7.088E-01	-0.021
		366.42		-9.101E+00	1.525E+01	2.307E+01	2.029E+00	-0.395
		739.50	*	-1.644E+00	1.404E+00	1.619E+00	2.544E-01	-1.015
		777.92		-1.322E+00	4.530E+00	6.958E+00	6.081E-01	-0.190
TC-99M		140.51	*	2.462E+03	4.530E+00	Half-Life too short		
RU-103		497.08	*	2.321E-03	1.827E-02	3.126E-02	4.379E-03	0.074
		610.33		6.989E-03	4.221E-01	6.903E-01	1.120E-01	0.010
RH-106		621.93	*	1.029E-02	1.897E-01	3.164E-01	4.137E-02	0.033
		1050.41		-6.605E-01	1.285E+00	1.906E+00	1.686E-01	-0.347
RU-106		621.93	*	1.029E-02	1.897E-01	3.164E-01	2.638E-02	0.033
		1050.41		-6.605E-01	1.285E+00	1.906E+00	1.686E-01	-0.347
AG-108M		433.94	*	-3.151E-03	1.629E-02	2.542E-02	2.259E-03	-0.124
		614.28		-1.639E-02	1.943E-02	2.804E-02	2.431E-03	-0.585
		722.91		1.051E-02	1.730E-02	3.136E-02	2.738E-03	0.335
CD-109		88.03	*	-7.140E-02	3.195E-01	5.118E-01	5.694E-02	-0.140
AG-110M		657.76	*	9.401E-03	1.887E-02	3.337E-02	2.801E-03	0.282
		677.62		2.530E-02	1.552E-01	2.624E-01	2.217E-02	0.096
		706.68		-8.067E-02	1.292E-01	1.922E-01	1.655E-02	-0.420
		763.94		-6.469E-02	7.947E-02	1.085E-01	9.662E-03	-0.596
		884.68		1.466E-03	2.893E-02	4.706E-02	4.462E-03	0.031
		937.49		6.384E-03	5.627E-02	9.638E-02	9.162E-03	0.066
		1384.29		-2.649E-02	9.463E-02	1.431E-01	1.346E-02	-0.185
		1505.03		-3.229E-02	1.598E-01	2.426E-01	2.225E-02	-0.133
SN-113		391.69	*	-2.258E-03	2.761E-02	4.424E-02	3.859E-03	-0.051
CD-115		260.90		8.323E-01	1.415E+01	2.362E+01	2.192E+00	0.035
		492.35		-1.196E+00	3.765E+00	5.712E+00	4.961E-01	-0.209
		527.90	*	-9.842E-01	1.197E+00	1.784E+00	1.545E-01	-0.552
SN-117M		156.02		-1.914E-01	9.368E-01	1.461E+00	1.225E-01	-0.131
		158.56	*	1.621E-03	2.242E-02	3.581E-02	3.010E-03	0.045
TE-123M		159.00	*	-4.819E-03	1.556E-02	2.400E-02	2.030E-03	-0.201
SB-124		602.73		3.699E-03	2.043E-02	3.471E-02	2.928E-03	0.107
		645.85		-2.410E-02	2.099E-01	3.392E-01	2.957E-02	-0.071
		722.78		9.510E-02	1.622E-01	2.933E-01	2.536E-02	0.324
		1690.97	*	-5.672E-03	4.198E-02	6.659E-02	6.127E-03	-0.085
SB-125		427.87	*	3.061E-02	5.148E-02	8.909E-02	7.797E-03	0.344
		463.37		2.170E-02	1.446E-01	2.362E-01	2.199E-02	0.092
		600.60		4.457E-05	1.157E-01	1.820E-01	1.655E-02	0.000
		635.95		-1.002E-01	1.500E-01	2.210E-01	1.986E-02	-0.454
TE-125M		109.28	*	1.203E+00	4.708E+00	7.535E+00	8.104E-01	0.160
I-126		388.63		-2.201E-02	7.725E-02	1.208E-01	1.027E-02	-0.182
		666.33	*	-5.789E-02	9.430E-02	1.407E-01	1.142E-02	-0.411
		753.82		-9.574E-02	6.392E-01	1.012E+00	8.721E-02	-0.095
SB-126		414.70		-1.220E-02	2.694E-02	4.024E-02	3.440E-03	-0.303
		666.50		-2.038E-02	3.181E-02	4.721E-02	3.834E-03	-0.432

Sample ID : G1202065180 Acquisition date : 19-MAR-2010 13:01:44

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		695.00		2.021E-02	3.371E-02	5.989E-02	4.964E-03	0.338
		697.00		1.306E-02	1.151E-01	1.921E-01	1.594E-02	0.068
		720.70	*	-1.908E-02	5.441E-02	8.353E-02	7.046E-03	-0.228
		856.80		-5.075E-02	2.062E-01	3.188E-01	2.904E-02	-0.159
SN-126		64.28		-2.147E-01	2.582E-01	3.750E-01	5.805E-02	-0.573
		86.94		-9.826E-02	1.415E-01	2.073E-01	8.690E-02	-0.474
		87.57	*	-1.992E-02	3.294E-02	5.094E-02	5.642E-03	-0.391
SB-127		252.40		2.832E-03	9.093E-01	1.513E+00	6.247E-01	0.002
		473.00		3.649E-01	3.526E-01	6.366E-01	7.364E-02	0.573
		685.70	*	-2.789E-01	2.720E-01	3.662E-01	3.525E-02	-0.762
		783.70		-5.398E-03	6.769E-01	1.100E+00	1.230E-01	-0.005
I-131		80.19		-2.837E-02	1.018E+00	1.665E+00	1.707E-01	-0.017
		284.31		6.152E-01	5.998E-01	1.069E+00	1.036E-01	0.575
		364.49	*	9.338E-03	4.247E-02	7.076E-02	6.539E-03	0.132
		636.99		1.466E-01	5.157E-01	8.897E-01	7.771E-02	0.165
TE-132		49.72		6.234E-01	3.149E+00	5.350E+00	5.579E-01	0.117
		111.76		5.504E-01	4.768E+00	7.783E+00	7.655E-01	0.071
		116.30		6.404E+00	4.158E+00	7.523E+00	7.259E-01	0.851
		228.16	*	1.809E-02	1.276E-01	2.157E-01	3.277E-02	0.084
BA-133		81.00		-2.629E-02	3.591E-02	5.441E-02	8.988E-03	-0.483
		276.40		-1.440E-02	1.787E-01	2.931E-01	4.262E-02	-0.049
		302.85		2.088E-02	8.121E-02	1.368E-01	1.849E-02	0.153
		356.01	*	-2.605E-02	2.563E-02	3.643E-02	4.790E-03	-0.715
		383.85		9.194E-03	1.674E-01	2.729E-01	3.381E-02	0.034
I-133		529.87	*	2.066E-05	1.674E-01	Half-Life too short		
		875.33		-5.009E-05	1.674E-01	Half-Life too short		
		1298.22		-5.501E-04	1.674E-01	Half-Life too short		
CS-134		563.25		1.484E-01	1.958E-01	3.582E-01	3.104E-02	0.414
		569.33		-5.317E-02	1.089E-01	1.549E-01	1.345E-02	-0.343
		604.72		-1.519E-02	1.939E-02	2.868E-02	2.423E-03	-0.529
		795.86	*	-1.804E-03	2.551E-02	4.097E-02	3.642E-03	-0.044
		801.95		6.537E-02	2.282E-01	3.882E-01	3.457E-02	0.168
		1365.19		-5.173E-01	7.704E-01	1.035E+00	9.884E-02	-0.500
CS-135		268.22	*	-3.573E-02	8.296E-02	1.314E-01	1.388E-02	-0.272
I-135		546.56		-1.004E+03	8.296E-02	Half-Life too short		
		836.80		-8.606E+03	8.296E-02	Half-Life too short		
		1038.76		8.842E+01	8.296E-02	Half-Life too short		
		1131.51		1.528E+03	8.296E-02	Half-Life too short		
		1260.41	*	1.063E+03	8.296E-02	Half-Life too short		
		1457.56		-4.484E+03	8.296E-02	Half-Life too short		
		1678.03		-1.783E+03	8.296E-02	Half-Life too short		
		1791.20		8.922E+01	8.296E-02	Half-Life too short		
CS-136		153.25		1.032E-02	3.312E-01	5.281E-01	5.310E-02	0.020
		176.60		-1.993E-01	1.945E-01	3.018E-01	2.857E-02	-0.660
		273.65		-4.375E-02	1.982E-01	3.206E-01	3.201E-02	-0.136
		340.55		-3.859E-02	6.356E-02	9.699E-02	9.084E-03	-0.398
		818.51		-1.044E-03	3.264E-02	5.263E-02	4.705E-03	-0.020
		1048.07	*	9.868E-03	4.367E-02	7.565E-02	6.965E-03	0.130
		1235.36		-1.199E-01	1.866E-01	2.603E-01	3.042E-02	-0.461

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-137M		661.66	*	1.335E-02	2.084E-02	3.732E-02	3.020E-03	0.358
CS-137		661.66	*	1.411E-02	2.202E-02	3.942E-02	3.197E-03	0.358
CE-139		165.86	*	-4.310E-03	1.616E-02	2.494E-02	2.110E-03	-0.173
BA-140		162.66		1.623E-01	3.286E-01	5.430E-01	4.900E-02	0.299
		304.85		-5.552E-01	6.551E-01	9.562E-01	2.818E-01	-0.581
		423.72		7.135E-01	8.803E-01	1.506E+00	4.952E-01	0.474
		537.26	*	-5.109E-02	9.618E-02	1.446E-01	4.903E-02	-0.353
LA-140		328.76		-3.222E-02	1.330E-01	2.123E-01	2.041E-02	-0.152
		487.02		-9.928E-03	5.247E-02	8.609E-02	7.931E-03	-0.115
		815.77		5.736E-02	1.258E-01	2.214E-01	2.192E-02	0.259
		1596.21	*	2.356E-03	3.211E-02	5.478E-02	4.964E-03	0.043
CE-141		145.44	*	-4.001E-03	2.813E-02	4.426E-02	3.762E-03	-0.090
CE-143		57.36		6.685E+00	3.242E+01	5.483E+01	5.903E+00	0.122
		293.27	*	2.718E-01	4.242E+00	7.033E+00	1.525E+00	0.039
		664.57		-2.507E+01	4.280E+01	6.345E+01	1.893E+01	-0.395
		721.93		2.739E+01	3.674E+01	6.683E+01	1.866E+01	0.410
CE-144		80.12		-1.276E-03	8.807E-01	1.445E+00	1.477E-01	-0.001
		133.52	*	-3.998E-02	1.051E-01	1.625E-01	2.457E-02	-0.246
PM-144		476.78		-4.390E-02	3.694E-02	5.250E-02	4.944E-03	-0.836
		618.01		2.185E-02	1.785E-02	3.423E-02	2.946E-03	0.638
		696.49	*	6.745E-03	1.975E-02	3.401E-02	2.822E-03	0.198
PR-144		696.51	*	5.076E-01	1.474E+00	2.539E+00	2.107E-01	0.200
		1489.16		1.111E+01	8.618E+00	1.784E+01	1.639E+00	0.623
PM-146		453.88	*	-1.293E-02	2.319E-02	3.388E-02	3.597E-03	-0.381
		633.25		-1.739E-01	7.642E-01	1.214E+00	4.626E-01	-0.143
		735.93		-2.500E-02	7.402E-02	1.128E-01	3.158E-02	-0.222
		747.24		-3.928E-02	4.754E-02	6.358E-02	9.258E-03	-0.618
ND-147		91.11		4.189E-02	8.622E-02	1.455E-01	1.633E-02	0.288
		319.41		5.548E-02	1.389E+00	2.287E+00	2.106E-01	0.024
		531.02	*	4.201E-01	2.268E-01	4.492E-01	6.724E-02	0.935
PM-149		285.90	*	1.352E+00	1.016E+01	1.696E+01	2.701E+00	0.080
EU-152		121.78		-1.046E-02	3.372E-02	5.256E-02	5.116E-03	-0.199
		244.70		-2.587E-02	1.888E-01	3.109E-01	2.865E-02	-0.083
		344.28	*	4.593E-02	5.651E-02	9.988E-02	9.503E-03	0.460
		778.90		-2.299E-02	1.313E-01	2.065E-01	1.805E-02	-0.111
		964.08		-8.343E-02	1.444E-01	2.171E-01	1.987E-02	-0.384
		1085.87		-1.151E-01	1.911E-01	2.825E-01	2.449E-02	-0.407
		1112.07		8.696E-02	1.692E-01	3.051E-01	2.599E-02	0.285
		1408.01		6.425E-03	1.193E-01	1.961E-01	1.804E-02	0.033
GD-153		69.67		7.297E-01	7.619E-01	1.345E+00	1.265E-01	0.542
		97.43	*	-2.276E-02	3.836E-02	5.894E-02	5.816E-03	-0.386
		103.18		-6.711E-03	5.128E-02	8.221E-02	7.698E-03	-0.082
EU-154		123.07		-1.401E-02	2.463E-02	3.734E-02	4.177E-03	-0.375
		723.31		1.519E-02	8.306E-02	1.403E-01	1.311E-02	0.108
		873.19		1.655E-01	1.496E-01	2.890E-01	3.556E-02	0.573
		996.26		1.627E-02	2.032E-01	3.442E-01	6.089E-02	0.047
		1004.73		1.054E-02	8.680E-02	1.491E-01	1.780E-02	0.071
		1274.44	*	4.425E-02	5.739E-02	1.103E-01	1.268E-02	0.401
EU-155		86.55		-3.331E-02	4.075E-02	6.170E-02	6.798E-03	-0.540

Sample ID : G1202065180 Acquisition date : 19-MAR-2010 13:01:44

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		105.31	*	-1.118E-04	4.886E-02	7.917E-02	7.368E-03	-0.001
TB-160		86.79		-8.966E-02	1.020E-01	1.534E-01	1.684E-02	-0.585
		197.04		-1.152E-01	3.374E-01	5.261E-01	4.638E-02	-0.219
		215.65		-2.500E-01	3.776E-01	5.969E-01	5.374E-02	-0.419
		298.57		-3.192E-02	6.155E-02	9.610E-02	8.929E-03	-0.332
		879.36	*	1.337E-02	6.608E-02	1.111E-01	1.023E-02	0.120
		962.29		5.556E-03	2.470E-01	4.154E-01	3.804E-02	0.013
		966.15		6.054E-02	8.899E-02	1.660E-01	1.518E-02	0.365
		1177.93		-1.265E-01	1.492E-01	1.912E-01	1.557E-02	-0.662
		1271.85		-6.136E-02	3.333E-01	5.219E-01	4.572E-02	-0.118
HO-166M		80.57		-1.011E-01	1.045E-01	1.550E-01	1.592E-02	-0.652
		184.41		3.941E-02	1.924E-02	3.623E-02	3.142E-03	1.088
		280.46		-3.861E-02	5.239E-02	8.055E-02	7.502E-03	-0.479
		410.95		-1.185E-01	1.527E-01	2.077E-01	1.772E-02	-0.571
		711.68	*	3.687E-04	3.708E-02	6.088E-02	5.105E-03	0.006
		752.31		3.503E-02	1.264E-01	2.176E-01	1.872E-02	0.161
		810.29		-2.752E-02	2.575E-02	2.946E-02	2.621E-03	-0.934
TA-182		67.75		-2.696E-02	5.229E-02	7.965E-02	7.407E-03	-0.338
		100.11		-4.307E-02	7.649E-02	1.174E-01	1.129E-02	-0.367
		152.43		3.410E-02	1.748E-01	2.828E-01	2.367E-02	0.121
		222.11		-5.531E-02	2.000E-01	3.277E-01	2.969E-02	-0.169
		1121.30		1.847E-02	6.485E-02	1.133E-01	9.585E-03	0.163
		1189.05		-7.391E-02	1.310E-01	1.857E-01	1.525E-02	-0.398
		1221.41	*	5.569E-02	9.478E-02	1.726E-01	1.455E-02	0.323
		1231.02		2.501E-02	2.033E-01	3.427E-01	2.911E-02	0.073
IR-192		295.96		1.059E-03	6.314E-02	9.641E-02	9.020E-03	0.011
		308.46		4.964E-02	5.769E-02	1.020E-01	9.483E-03	0.487
		316.51	*	3.267E-03	1.987E-02	3.313E-02	3.061E-03	0.099
		468.07		-1.199E-02	3.348E-02	5.038E-02	4.682E-03	-0.238
HG-203		70.83		3.834E-01	5.308E-01	9.195E-01	1.520E-01	0.417
		72.87		-4.080E-01	3.135E-01	4.484E-01	7.222E-02	-0.910
		279.20	*	-1.830E-03	1.974E-02	3.234E-02	3.078E-03	-0.057
BI-207		72.81		-1.018E-01	7.772E-02	1.129E-01	1.085E-02	-0.901
		74.97		1.400E-02	4.084E-02	6.909E-02	6.748E-03	0.203
		569.70		-9.878E-03	1.709E-02	2.393E-02	2.049E-03	-0.413
		1063.66	*	3.785E-03	2.825E-02	4.813E-02	4.227E-03	0.079
		1770.23		-8.043E-02	3.591E-01	5.603E-01	4.818E-02	-0.144
TL-208		277.37		-1.167E-01	2.071E-01	3.220E-01	4.191E-02	-0.362
		583.19	*	2.148E-02	2.548E-02	4.353E-02	3.975E-03	0.493
		860.56		1.118E-01	1.560E-01	2.833E-01	2.754E-02	0.395
PB-210		46.54	*	7.437E-01	2.360E+00	3.669E+00	3.529E-01	0.203
BI-211		72.87		-1.780E+00	1.348E+00	1.957E+00	1.881E-01	-0.910
		351.06	*	1.381E-01	1.377E-01	2.341E-01	2.197E-02	0.590
PB-211		404.85	*	4.018E-02	4.706E-01	7.658E-01	3.705E-01	0.052
		427.09		1.062E-01	8.900E-01	1.451E+00	6.712E-01	0.073
		832.01		-5.683E-03	4.792E-01	7.742E-01	4.020E-01	-0.007
BI-212		727.33	*	-1.400E-01	2.876E-01	4.328E-01	5.348E-02	-0.324
		785.37		6.821E-01	1.513E+00	2.668E+00	2.342E-01	0.256
		1620.50		1.120E-01	1.375E+00	2.344E+00	2.113E-01	0.048

---- Non-Identified Nuclides ----

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PB-212		74.82		-7.439E-03	1.486E-01	2.435E-01	3.354E-02	-0.031
		77.11		2.159E-02	8.629E-02	1.417E-01	1.410E-02	0.152
		238.63	*	-2.331E-02	3.947E-02	5.857E-02	6.012E-03	-0.398
		300.09		1.557E-01	4.463E-01	7.587E-01	8.414E-02	0.205
BI-214		609.32	*	3.002E-02	4.489E-02	7.888E-02	7.827E-03	0.381
		1120.29		-4.427E-02	1.592E-01	2.499E-01	2.700E-02	-0.177
		1764.49		-9.428E-02	1.927E-01	2.846E-01	2.454E-02	-0.331
PB-214		74.82		-1.319E-02	2.634E-01	4.316E-01	5.426E-02	-0.031
		77.11		3.806E-02	1.522E-01	2.499E-01	3.228E-02	0.152
		242.00		-7.090E-02	2.083E-01	3.377E-01	3.672E-02	-0.210
		295.22		1.394E-02	8.749E-02	1.349E-01	1.532E-02	0.103
		351.93	*	5.958E-02	5.023E-02	8.645E-02	9.405E-03	0.689
RN-219		271.23		6.726E-03	1.204E-01	2.006E-01	2.174E-02	0.034
		401.81	*	-5.871E-02	2.685E-01	4.228E-01	6.258E-02	-0.139
RA-223		81.07		-6.163E-02	8.088E-02	1.227E-01	1.266E-02	-0.502
		83.79		1.316E-02	5.299E-02	8.431E-02	8.952E-03	0.156
		94.87		-1.674E-01	2.275E-01	3.486E-01	3.537E-02	-0.480
		144.24		-1.933E-01	3.548E-01	5.376E-01	5.036E-02	-0.359
		154.21		-7.249E-02	2.105E-01	3.240E-01	2.989E-02	-0.224
		269.46		-2.312E-02	9.673E-02	1.564E-01	1.480E-02	-0.148
		323.87	*	-4.837E-01	4.095E-01	5.734E-01	1.010E-01	-0.843
		338.28		-2.292E-01	6.277E-01	9.699E-01	1.203E-01	-0.236
RA-224		240.99	*	-5.961E-02	3.630E-01	5.973E-01	5.492E-02	-0.100
RA-226		609.32	*	3.002E-02	4.489E-02	7.888E-02	7.827E-03	0.381
		1120.29		-4.427E-02	1.592E-01	2.499E-01	2.700E-02	-0.177
		1764.49		-9.428E-02	1.927E-01	2.846E-01	2.454E-02	-0.331
AC-227		79.69		-3.660E-01	4.843E-01	7.319E-01	1.322E-01	-0.500
		235.96		-3.947E-02	8.403E-02	1.349E-01	1.456E-02	-0.293
		256.23	*	-6.570E-02	1.493E-01	2.379E-01	2.979E-02	-0.276
		299.98		8.235E-02	4.960E-01	8.291E-01	1.092E-01	0.099
		304.50		-5.573E-01	1.019E+00	1.582E+00	2.669E-01	-0.352
		334.37		-3.249E-01	1.062E+00	1.681E+00	2.667E-01	-0.193
TH-227		79.80		-4.700E-01	6.418E-01	9.680E-01	2.173E-01	-0.486
		235.96		-3.947E-02	8.401E-02	1.349E-01	1.381E-02	-0.293
		256.23	*	-6.570E-02	1.493E-01	2.379E-01	3.336E-02	-0.276
		299.98		8.235E-02	4.960E-01	8.291E-01	1.092E-01	0.099
		304.50		-5.573E-01	1.019E+00	1.582E+00	2.669E-01	-0.352
		334.37		-3.249E-01	1.062E+00	1.681E+00	2.667E-01	-0.193
AC-228		338.32		-5.946E-02	1.598E-01	2.439E-01	1.020E-01	-0.244
		911.20	*	-5.338E-02	9.346E-02	1.373E-01	1.658E-02	-0.389
		968.97		-1.538E-01	1.594E-01	2.030E-01	4.982E-02	-0.758
RA-228		338.32		-5.946E-02	1.598E-01	2.439E-01	1.020E-01	-0.244
		911.20	*	-5.338E-02	9.346E-02	1.373E-01	1.658E-02	-0.389
		968.97		-1.538E-01	1.594E-01	2.030E-01	4.982E-02	-0.758
TH-228		74.82		-7.439E-03	1.486E-01	2.435E-01	2.392E-02	-0.031
		77.11		2.159E-02	8.629E-02	1.417E-01	1.410E-02	0.152
		238.63	*	-2.331E-02	3.947E-02	5.857E-02	6.012E-03	-0.398
		300.09		1.557E-01	4.561E-01	7.587E-01	4.652E-01	0.205
TH-229		85.43		3.252E-02	8.401E-02	1.348E-01	1.457E-02	0.241

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		88.47		-6.030E-03	4.766E-02	7.698E-02	8.507E-03	-0.078
		193.51	*	1.758E-02	2.959E-01	5.015E-01	4.401E-02	0.035
		210.85		1.504E-01	4.522E-01	7.796E-01	6.984E-02	0.193
PA-231		283.69	*	9.775E-01	9.635E-01	1.704E+00	2.556E-01	0.574
		301.36		6.525E-02	3.242E-01	5.434E-01	6.864E-02	0.120
TH-231		81.07		-6.163E-02	8.088E-02	1.227E-01	1.266E-02	-0.502
		83.79		1.316E-02	5.299E-02	8.431E-02	8.952E-03	0.156
		94.87		-1.674E-01	2.275E-01	3.486E-01	3.537E-02	-0.480
		144.24		-1.933E-01	3.548E-01	5.376E-01	5.036E-02	-0.359
		154.21		-7.249E-02	2.105E-01	3.240E-01	2.989E-02	-0.224
		269.46		-2.312E-02	9.673E-02	1.564E-01	1.480E-02	-0.148
		323.87	*	-4.837E-01	4.095E-01	5.734E-01	1.010E-01	-0.843
		338.28		-2.292E-01	6.277E-01	9.699E-01	1.203E-01	-0.236
TH-232		338.32		-5.946E-02	1.580E-01	2.439E-01	2.214E-02	-0.244
		911.20	*	-5.338E-02	9.346E-02	1.373E-01	1.658E-02	-0.389
		968.97		-1.538E-01	1.594E-01	2.030E-01	4.982E-02	-0.758
PA-233		300.13		7.749E-02	2.223E-01	3.777E-01	5.751E-02	0.205
		311.90	*	-4.803E-02	4.182E-02	6.038E-02	5.721E-03	-0.795
		340.48		-1.513E-01	3.608E-01	5.600E-01	1.357E-01	-0.270
PA-234		94.67		-4.190E-02	8.384E-02	1.312E-01	1.774E-02	-0.319
		98.44		-1.562E-03	3.945E-02	6.387E-02	3.575E-02	-0.024
		111.00		5.669E-02	9.289E-02	1.525E-01	1.871E-02	0.372
		131.20		3.652E-02	5.166E-02	8.787E-02	7.324E-03	0.416
		569.50		-7.732E-02	1.503E-01	2.126E-01	1.821E-02	-0.364
		733.00		1.010E-01	2.208E-01	3.842E-01	8.510E-02	0.263
		880.51		-6.576E-03	1.463E-01	2.336E-01	2.150E-02	-0.028
		883.24		-1.548E-01	2.044E-01	2.346E-01	1.579E-01	-0.660
		926.50		-8.260E-03	9.729E-02	1.534E-01	3.912E-02	-0.054
		946.00	*	-3.476E-02	1.472E-01	2.352E-01	4.477E-02	-0.148
		949.00		2.622E-01	2.328E-01	4.615E-01	4.241E-02	0.568
PA-234M		766.42		-6.468E-01	6.163E+00	8.636E+00	4.383E+00	-0.075
		1001.03	*	-9.019E-01	2.393E+00	3.764E+00	3.889E-01	-0.240
TH-234		63.29	*	-2.394E-01	7.084E-01	1.084E+00	2.016E-01	-0.221
		92.59		-2.779E-01	3.825E-01	5.846E-01	1.336E-01	-0.475
U-235		89.96		-7.414E-01	4.425E-01	5.603E-01	1.427E-01	-1.323
		93.35		-1.047E-01	2.843E-01	4.496E-01	1.069E-01	-0.233
		143.76	*	-5.598E-02	1.053E-01	1.593E-01	2.677E-02	-0.351
		163.33		2.055E-02	2.409E-01	3.845E-01	6.870E-02	0.053
		185.72		1.544E-02	2.782E-02	4.810E-02	4.178E-03	0.321
		205.31		2.712E-02	2.539E-01	4.307E-01	7.874E-02	0.063
NP-237		86.48	*	-3.745E-02	9.738E-02	1.533E-01	3.625E-02	-0.244
		95.86		-6.376E-01	4.944E-01	6.800E-01	1.668E-01	-0.938
U-238		63.29	*	-2.394E-01	7.084E-01	1.084E+00	2.016E-01	-0.221
		92.59		-2.779E-01	3.783E-01	5.846E-01	6.098E-02	-0.475
NP-239		99.53		1.321E-02	7.084E-02	1.171E-01	1.132E-02	0.113
		103.37		-5.462E-03	4.745E-02	7.617E-02	7.122E-03	-0.072
		106.12		-2.253E-02	4.052E-02	6.230E-02	5.705E-03	-0.362
		117.23	*	2.464E-01	1.921E-01	3.427E-01	2.943E-02	0.719
		228.18		7.387E-03	1.271E-01	2.136E-01	1.946E-02	0.035

Sample ID : G1202065180 Acquisition date : 19-MAR-2010 13:01:44

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		277.60		-2.967E-02	9.131E-02	1.458E-01	1.358E-02	-0.203
AM-241		59.54	*	-1.963E-02	7.649E-02	1.243E-01	1.180E-02	-0.158
CM-247		278.00		-2.502E-01	3.881E-01	5.969E-01	5.559E-02	-0.419
		287.50		-3.830E-01	7.472E-01	1.171E+00	1.091E-01	-0.327
		402.40	*	1.193E-02	2.384E-02	4.057E-02	3.448E-03	0.294
CF-249		252.80		1.483E-01	5.563E-01	9.461E-01	8.756E-02	0.157
		333.37		3.193E-02	1.072E-01	1.805E-01	1.645E-02	0.177
		388.16	*	-1.463E-02	2.567E-02	3.879E-02	3.299E-03	-0.377
CF-251		177.52	*	-4.221E-02	6.573E-02	1.055E-01	9.065E-03	-0.400
		227.38		1.327E-01	2.022E-01	3.551E-01	3.232E-02	0.374
		285.41		9.372E-01	1.407E+00	2.448E+00	2.280E-01	0.383
ANH-511		511.00	*	-3.186E-02	3.531E-02	6.258E-02	5.431E-03	-0.509

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065180      *
* Acquisition date : 19-MAR-2010 13:01:44 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:00.47     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 10-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065180          Analyst initials: MXR1            *
* Batch Number     : 962629               Sample Quantity : 1.4585E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)	
BE-7	-2.145E-01	1.657E-01	2.432E-01	0.000E+00 NOT IDENT.
NA-22	1.762E-02	1.904E-02	3.882E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	8.352E+02	0.000E+00	0.000E+00 SHORT HLIF
K-40	-1.407E-01	2.513E-01	4.142E-01	0.000E+00 NOT IDENT.
SC-46	2.281E-02	2.200E-02	4.297E-02	0.000E+00 NOT IDENT.
V-48	2.142E-02	2.567E-02	5.139E-02	0.000E+00 NOT IDENT.
CR-51	-2.109E-02	1.894E-01	3.263E-01	0.000E+00 NOT IDENT.
MN-54	2.930E-03	1.685E-02	2.935E-02	0.000E+00 NOT IDENT.
CO-56	-1.275E-02	2.053E-02	3.030E-02	0.000E+00 NOT IDENT.
CO-57	-2.079E-03	1.125E-02	1.930E-02	0.000E+00 NOT IDENT.
CO-58	-1.736E-02	1.586E-02	1.883E-02	0.000E+00 NOT IDENT.
FE-59	3.757E-02	4.544E-02	8.847E-02	0.000E+00 NOT IDENT.
CO-60	-1.098E-02	2.176E-02	3.190E-02	0.000E+00 NOT IDENT.
ZN-65	-1.221E-02	5.156E-02	8.478E-02	0.000E+00 NOT IDENT.
SE-75	-4.203E-03	2.405E-02	4.188E-02	0.000E+00 NOT IDENT.
SR-85	-2.843E-02	3.147E-02	5.168E-02	0.000E+00 NOT IDENT.
Y-88	1.369E-02	1.638E-02	3.548E-02	0.000E+00 NOT IDENT.
Y-91	-6.040E+00	7.867E+00	1.051E+01	0.000E+00 NOT IDENT.
NB-94	-1.423E-03	1.878E-02	3.182E-02	0.000E+00 NOT IDENT.
NB-95	-4.321E-03	1.729E-02	2.790E-02	0.000E+00 NOT IDENT.
NB-95M	-3.173E-02	6.472E-02	1.111E-01	0.000E+00 NOT IDENT.
ZR-95	1.824E-02	3.015E-02	5.715E-02	0.000E+00 NOT IDENT.
MO-99	-1.644E+00	1.376E+00	1.654E+00	0.000E+00 NOT IDENT.
TC-99M	0.000E+00	4.226E+09	0.000E+00	0.000E+00 SHORT HLIF
RU-103	2.321E-03	1.790E-02	3.224E-02	0.000E+00 NOT IDENT.
RH-106	1.029E-02	1.859E-01	3.246E-01	0.000E+00 NOT IDENT.

RU-106	1.029E-02	1.859E-01	3.246E-01	0.000E+00	NOT IDENT.
AG-108M	-3.151E-03	1.596E-02	2.629E-02	0.000E+00	NOT IDENT.
CD-109	-7.140E-02	3.131E-01	5.482E-01	0.000E+00	NOT IDENT.
AG-110M	9.401E-03	1.849E-02	3.420E-02	0.000E+00	NOT IDENT.
SN-113	-2.258E-03	2.706E-02	4.587E-02	0.000E+00	NOT IDENT.
CD-115	-9.842E-01	1.173E+00	1.837E+00	0.000E+00	NOT IDENT.
SN-117M	1.621E-03	2.198E-02	3.788E-02	0.000E+00	NOT IDENT.
TE-123M	-4.819E-03	1.525E-02	2.538E-02	0.000E+00	NOT IDENT.
SB-124	-5.672E-03	4.114E-02	6.673E-02	0.000E+00	NOT IDENT.
SB-125	3.061E-02	5.045E-02	9.219E-02	0.000E+00	NOT IDENT.
TE-125M	1.203E+00	4.614E+00	8.035E+00	0.000E+00	NOT IDENT.
I-126	-5.789E-02	9.241E-02	1.441E-01	0.000E+00	NOT IDENT.
SB-126	-1.908E-02	5.332E-02	8.540E-02	0.000E+00	NOT IDENT.
SN-126	-1.992E-02	3.229E-02	5.457E-02	0.000E+00	NOT IDENT.
SB-127	-2.789E-01	2.665E-01	3.749E-01	0.000E+00	NOT IDENT.
I-131	9.338E-03	4.162E-02	7.348E-02	0.000E+00	NOT IDENT.
TE-132	1.809E-02	1.250E-01	2.264E-01	0.000E+00	NOT IDENT.
BA-133	-2.605E-02	2.512E-02	3.785E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.896E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-1.804E-03	2.500E-02	4.179E-02	0.000E+00	NOT IDENT.
CS-135	-3.573E-02	8.130E-02	1.374E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.481E+09	0.000E+00	0.000E+00	SHORT HLIF
CS-136	9.868E-03	4.280E-02	7.668E-02	0.000E+00	NOT IDENT.
BA-137M	1.335E-02	2.043E-02	3.823E-02	0.000E+00	NOT IDENT.
CS-137	1.411E-02	2.158E-02	4.039E-02	0.000E+00	NOT IDENT.
CE-139	-4.310E-03	1.584E-02	2.636E-02	0.000E+00	NOT IDENT.
BA-140	-5.109E-02	9.426E-02	1.488E-01	0.000E+00	NOT IDENT.
LA-140	2.356E-03	3.146E-02	5.497E-02	0.000E+00	NOT IDENT.
CE-141	-4.001E-03	2.757E-02	4.690E-02	0.000E+00	NOT IDENT.
CE-143	2.718E-01	4.157E+00	7.340E+00	0.000E+00	NOT IDENT.
CE-144	-3.998E-02	1.030E-01	1.725E-01	0.000E+00	NOT IDENT.
PM-144	6.745E-03	1.935E-02	3.480E-02	0.000E+00	NOT IDENT.
PR-144	5.076E-01	1.445E+00	2.599E+00	0.000E+00	NOT IDENT.
PM-146	-1.293E-02	2.273E-02	3.501E-02	0.000E+00	NOT IDENT.
ND-147	4.201E-01	2.223E-01	4.625E-01	0.000E+00	NOT IDENT.
PM-149	1.352E+00	9.956E+00	1.771E+01	0.000E+00	NOT IDENT.
EU-152	4.593E-02	5.538E-02	1.039E-01	0.000E+00	NOT IDENT.
GD-153	-2.276E-02	3.759E-02	6.300E-02	0.000E+00	NOT IDENT.
EU-154	4.425E-02	5.624E-02	1.112E-01	0.000E+00	NOT IDENT.
EU-155	-1.118E-04	4.788E-02	8.448E-02	0.000E+00	NOT IDENT.
TB-160	1.337E-02	6.476E-02	1.131E-01	0.000E+00	NOT IDENT.
HO-166M	3.687E-04	3.634E-02	6.227E-02	0.000E+00	NOT IDENT.
TA-182	5.569E-02	9.288E-02	1.743E-01	0.000E+00	NOT IDENT.
IR-192	3.267E-03	1.947E-02	3.451E-02	0.000E+00	NOT IDENT.
HG-203	-1.830E-03	1.935E-02	3.378E-02	0.000E+00	NOT IDENT.
BI-207	3.785E-03	2.768E-02	4.876E-02	0.000E+00	NOT IDENT.
TL-208	2.148E-02	2.497E-02	4.473E-02	0.000E+00	NOT IDENT.
PB-210	7.437E-01	2.313E+00	3.982E+00	0.000E+00	NOT IDENT.
BI-211	1.381E-01	1.349E-01	2.433E-01	0.000E+00	NOT IDENT.
PB-211	4.018E-02	4.612E-01	7.934E-01	0.000E+00	NOT IDENT.
BI-212	-1.400E-01	2.818E-01	4.424E-01	0.000E+00	NOT IDENT.
PB-212	-2.331E-02	3.868E-02	6.141E-02	0.000E+00	NOT IDENT.
BI-214	3.002E-02	4.399E-02	8.097E-02	0.000E+00	NOT IDENT.
PB-214	5.958E-02	4.923E-02	8.985E-02	0.000E+00	NOT IDENT.
RN-219	-5.871E-02	2.631E-01	4.381E-01	0.000E+00	NOT IDENT.
RA-223	-4.837E-01	4.013E-01	5.971E-01	0.000E+00	NOT IDENT.
RA-224	-5.961E-02	3.557E-01	6.260E-01	0.000E+00	NOT IDENT.
RA-226	3.002E-02	4.399E-02	8.097E-02	0.000E+00	NOT IDENT.
AC-227	-6.570E-02	1.463E-01	2.490E-01	0.000E+00	NOT IDENT.
TH-227	-6.570E-02	1.463E-01	2.490E-01	0.000E+00	NOT IDENT.
AC-228	-5.338E-02	9.159E-02	1.397E-01	0.000E+00	NOT IDENT.
RA-228	-5.338E-02	9.159E-02	1.397E-01	0.000E+00	NOT IDENT.
TH-228	-2.331E-02	3.868E-02	6.141E-02	0.000E+00	NOT IDENT.
TH-229	1.758E-02	2.900E-01	5.282E-01	0.000E+00	NOT IDENT.
PA-231	9.775E-01	9.443E-01	1.779E+00	0.000E+00	NOT IDENT.
TH-231	-4.837E-01	4.013E-01	5.971E-01	0.000E+00	NOT IDENT.
TH-232	-5.338E-02	9.159E-02	1.397E-01	0.000E+00	NOT IDENT.
PA-233	-4.803E-02	4.098E-02	6.293E-02	0.000E+00	NOT IDENT.
PA-234	-3.476E-02	1.443E-01	2.390E-01	0.000E+00	NOT IDENT.
PA-234M	-9.019E-01	2.345E+00	3.819E+00	0.000E+00	NOT IDENT.
TH-234	-2.394E-01	6.942E-01	1.170E+00	0.000E+00	NOT IDENT.
U-235	-5.598E-02	1.032E-01	1.688E-01	0.000E+00	NOT IDENT.
NP-237	-3.745E-02	9.544E-02	1.643E-01	0.000E+00	NOT IDENT.
U-238	-2.394E-01	6.942E-01	1.170E+00	0.000E+00	NOT IDENT.
NP-239	2.464E-01	1.883E-01	3.649E-01	0.000E+00	NOT IDENT.
AM-241	-1.963E-02	7.496E-02	1.342E-01	0.000E+00	NOT IDENT.
CM-247	1.193E-02	2.336E-02	4.204E-02	0.000E+00	NOT IDENT.
CF-249	-1.463E-02	2.516E-02	4.022E-02	0.000E+00	NOT IDENT.

CF-251	-4.221E-02	6.442E-02	1.114E-01	0.000E+00	NOT IDENT.
ANH-511	-3.186E-02	3.461E-02	6.450E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 15:02:32.34

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065180.CNF;1
Sample date       : 10-MAR-2010 00:00:00 Acquisition date : 19-MAR-2010 13:01:44
Sample ID         : G1202065180          Sample quantity  : 1.45850E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.47  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962629                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202065180 Acquisition date : 19-MAR-2010 13:01:44

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

None

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 15:02:36.43

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065180.CNF;1 *
* Acquisition date : 19-MAR-2010 13:01:44  Detector SN#    :                *
* Detector ID      : GAM06                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:00.47         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 10-MAR-2010 00:00:00  Nuclide Library : SOLID          *
* Sample ID        : G1202065180           Analyst initials: MXR1           *
* Batch Number     : 962629                Sample Quantity : 1.45850E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04.7MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.145E-01		1.690E-01	2.356E-01	2.201E-02	-0.911
NA-22	1.762E-02		1.942E-02	3.848E-02	3.381E-03	0.458
NA-24	3.049E-04		4.261E-04	Half-Life too short		
K-40	-1.407E-01		2.565E-01	4.119E-01	3.883E-02	-0.342
SC-46	2.281E-02		2.245E-02	4.223E-02	3.903E-03	0.540
V-48	2.142E-02		2.620E-02	5.063E-02	4.607E-03	0.423
CR-51	-2.109E-02		1.933E-01	3.133E-01	3.016E-02	-0.067
MN-54	2.930E-03		1.719E-02	2.881E-02	2.596E-03	0.102
CO-56	-1.275E-02		2.095E-02	2.975E-02	2.696E-03	-0.429
CO-57	-2.079E-03		1.148E-02	1.814E-02	1.528E-03	-0.115
CO-58	-1.736E-02		1.618E-02	1.847E-02	1.647E-03	-0.940
FE-59	3.757E-02		4.637E-02	8.739E-02	8.123E-03	0.430
CO-60	-1.098E-02		2.221E-02	3.165E-02	2.895E-03	-0.347
ZN-65	-1.221E-02		5.262E-02	8.377E-02	7.127E-03	-0.146
SE-75	-4.203E-03		2.454E-02	4.004E-02	3.736E-03	-0.105
SR-85	-2.843E-02		3.211E-02	5.015E-02	4.351E-03	-0.567
Y-88	1.369E-02		1.672E-02	3.547E-02	2.965E-03	0.386

Sample ID : G1202065180 Acquisition date : 19-MAR-2010 13:01:44

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	-6.040E+00		8.028E+00	1.041E+01	8.657E-01	-0.580
NB-94	-1.423E-03		1.916E-02	3.110E-02	2.592E-03	-0.046
NB-95	-4.321E-03		1.765E-02	2.733E-02	2.371E-03	-0.158
NB-95M	-3.173E-02		6.604E-02	1.059E-01	1.098E-02	-0.300
ZR-95	1.824E-02		3.077E-02	5.596E-02	5.333E-03	0.326
MO-99	-1.644E+00		1.404E+00	1.619E+00	2.544E-01	-1.015
TC-99M	2.462E+03		2.156E+03	Half-Life too short		
RU-103	2.321E-03		1.827E-02	3.126E-02	4.379E-03	0.074
RH-106	1.029E-02		1.897E-01	3.164E-01	4.137E-02	0.033
RU-106	1.029E-02		1.897E-01	3.164E-01	2.638E-02	0.033
AG-108M	-3.151E-03		1.629E-02	2.542E-02	2.259E-03	-0.124
CD-109	-7.140E-02		3.195E-01	5.118E-01	5.694E-02	-0.140
AG-110M	9.401E-03		1.887E-02	3.337E-02	2.801E-03	0.282
SN-113	-2.258E-03		2.761E-02	4.424E-02	3.859E-03	-0.051
CD-115	-9.842E-01		1.197E+00	1.784E+00	1.545E-01	-0.552
SN-117M	1.621E-03		2.242E-02	3.581E-02	3.010E-03	0.045
TE-123M	-4.819E-03		1.556E-02	2.400E-02	2.030E-03	-0.201
SB-124	-5.672E-03		4.198E-02	6.659E-02	6.127E-03	-0.085
SB-125	3.061E-02		5.148E-02	8.909E-02	7.797E-03	0.344
TE-125M	1.203E+00		4.708E+00	7.535E+00	8.104E-01	0.160
I-126	-5.789E-02		9.430E-02	1.407E-01	1.142E-02	-0.411
SB-126	-1.908E-02		5.441E-02	8.353E-02	7.046E-03	-0.228
SN-126	-1.992E-02		3.294E-02	5.094E-02	5.642E-03	-0.391
SB-127	-2.789E-01		2.720E-01	3.662E-01	3.525E-02	-0.762
I-131	9.338E-03		4.247E-02	7.076E-02	6.539E-03	0.132
TE-132	1.809E-02		1.276E-01	2.157E-01	3.277E-02	0.084
BA-133	-2.605E-02		2.563E-02	3.643E-02	4.790E-03	-0.715
I-133	2.066E-05		1.988E-05	Half-Life too short		
CS-134	-1.804E-03		2.551E-02	4.097E-02	3.642E-03	-0.044
CS-135	-3.573E-02		8.296E-02	1.314E-01	1.388E-02	-0.272
I-135	1.063E+03		1.266E+03	Half-Life too short		
CS-136	9.868E-03		4.367E-02	7.565E-02	6.965E-03	0.130
BA-137M	1.335E-02		2.084E-02	3.732E-02	3.020E-03	0.358
CS-137	1.411E-02		2.202E-02	3.942E-02	3.197E-03	0.358
CE-139	-4.310E-03		1.616E-02	2.494E-02	2.110E-03	-0.173
BA-140	-5.109E-02		9.618E-02	1.446E-01	4.903E-02	-0.353
LA-140	2.356E-03		3.211E-02	5.478E-02	4.964E-03	0.043
CE-141	-4.001E-03		2.813E-02	4.426E-02	3.762E-03	-0.090
CE-143	2.718E-01		4.242E+00	7.033E+00	1.525E+00	0.039
CE-144	-3.998E-02		1.051E-01	1.625E-01	2.457E-02	-0.246
PM-144	6.745E-03		1.975E-02	3.401E-02	2.822E-03	0.198
PR-144	5.076E-01		1.474E+00	2.539E+00	2.107E-01	0.200
PM-146	-1.293E-02		2.319E-02	3.388E-02	3.597E-03	-0.381
ND-147	4.201E-01		2.268E-01	4.492E-01	6.724E-02	0.935
PM-149	1.352E+00		1.016E+01	1.696E+01	2.701E+00	0.080
EU-152	4.593E-02		5.651E-02	9.988E-02	9.503E-03	0.460
GD-153	-2.276E-02		3.836E-02	5.894E-02	5.816E-03	-0.386
EU-154	4.425E-02		5.739E-02	1.103E-01	1.268E-02	0.401

Sample ID : G1202065180 Acquisition date : 19-MAR-2010 13:01:44

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	-1.118E-04		4.886E-02	7.917E-02	7.368E-03	-0.001
TB-160	1.337E-02		6.608E-02	1.111E-01	1.023E-02	0.120
HO-166M	3.687E-04		3.708E-02	6.088E-02	5.105E-03	0.006
TA-182	5.569E-02		9.478E-02	1.726E-01	1.455E-02	0.323
IR-192	3.267E-03		1.987E-02	3.313E-02	3.061E-03	0.099
HG-203	-1.830E-03		1.974E-02	3.234E-02	3.078E-03	-0.057
BI-207	3.785E-03		2.825E-02	4.813E-02	4.227E-03	0.079
TL-208	2.148E-02		2.548E-02	4.353E-02	3.975E-03	0.493
PB-210	7.437E-01		2.360E+00	3.669E+00	3.529E-01	0.203
BI-211	1.381E-01		1.377E-01	2.341E-01	2.197E-02	0.590
PB-211	4.018E-02		4.706E-01	7.658E-01	3.705E-01	0.052
BI-212	-1.400E-01		2.876E-01	4.328E-01	5.348E-02	-0.324
PB-212	-2.331E-02		3.947E-02	5.857E-02	6.012E-03	-0.398
BI-214	3.002E-02		4.489E-02	7.888E-02	7.827E-03	0.381
PB-214	5.958E-02		5.023E-02	8.645E-02	9.405E-03	0.689
RN-219	-5.871E-02		2.685E-01	4.228E-01	6.258E-02	-0.139
RA-223	-4.837E-01		4.095E-01	5.734E-01	1.010E-01	-0.843
RA-224	-5.961E-02		3.630E-01	5.973E-01	5.492E-02	-0.100
RA-226	3.002E-02		4.489E-02	7.888E-02	7.827E-03	0.381
AC-227	-6.570E-02		1.493E-01	2.379E-01	2.979E-02	-0.276
TH-227	-6.570E-02		1.493E-01	2.379E-01	3.336E-02	-0.276
AC-228	-5.338E-02		9.346E-02	1.373E-01	1.658E-02	-0.389
RA-228	-5.338E-02		9.346E-02	1.373E-01	1.658E-02	-0.389
TH-228	-2.331E-02		3.947E-02	5.857E-02	6.012E-03	-0.398
TH-229	1.758E-02		2.959E-01	5.015E-01	4.401E-02	0.035
PA-231	9.775E-01		9.635E-01	1.704E+00	2.556E-01	0.574
TH-231	-4.837E-01		4.095E-01	5.734E-01	1.010E-01	-0.843
TH-232	-5.338E-02		9.346E-02	1.373E-01	1.658E-02	-0.389
PA-233	-4.803E-02		4.182E-02	6.038E-02	5.721E-03	-0.795
PA-234	-3.476E-02		1.472E-01	2.352E-01	4.477E-02	-0.148
PA-234M	-9.019E-01		2.393E+00	3.764E+00	3.889E-01	-0.240
TH-234	-2.394E-01		7.084E-01	1.084E+00	2.016E-01	-0.221
U-235	-5.598E-02		1.053E-01	1.593E-01	2.677E-02	-0.351
NP-237	-3.745E-02		9.738E-02	1.533E-01	3.625E-02	-0.244
U-238	-2.394E-01		7.084E-01	1.084E+00	2.016E-01	-0.221
NP-239	2.464E-01		1.921E-01	3.427E-01	2.943E-02	0.719
AM-241	-1.963E-02		7.649E-02	1.243E-01	1.180E-02	-0.158
CM-247	1.193E-02		2.384E-02	4.057E-02	3.448E-03	0.294
CF-249	-1.463E-02		2.567E-02	3.879E-02	3.299E-03	-0.377
CF-251	-4.221E-02		6.573E-02	1.055E-01	9.065E-03	-0.400
ANH-511	-3.186E-02		3.531E-02	6.258E-02	5.431E-03	-0.509

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065180          *
* Acquisition date : 19-MAR-2010 13:01:44 Detector SN#    :                *
* Detector ID      : GAM06                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:00.47     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 10-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202065180          Analyst initials: MXR1           *
* Batch Number     : 962629               Sample Quantity : 1.4585E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                *
* LCS DPM          :    0.000             LCS Isotope     :                *
* LCSD DPM         :    0.000             LCSD Isotope    :                *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act Error	DLC (pCi/GRAM)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-2.145E-01	1.657E-01	1.217E-01	8.452E-02 NOT IDENT.
NA-22	1.762E-02	1.904E-02	1.942E-02	9.712E-03 NOT IDENT.
NA-24	3.049E+02	8.352E+02	0.000E+00	4.261E+02 SHORT HLIF
K-40	-1.407E-01	2.513E-01	2.072E-01	1.282E-01 NOT IDENT.
SC-46	2.281E-02	2.200E-02	2.150E-02	1.122E-02 NOT IDENT.
V-48	2.142E-02	2.567E-02	2.571E-02	1.310E-02 NOT IDENT.
CR-51	-2.109E-02	1.894E-01	1.632E-01	9.665E-02 NOT IDENT.
MN-54	2.930E-03	1.685E-02	1.469E-02	8.596E-03 NOT IDENT.
CO-56	-1.275E-02	2.053E-02	1.516E-02	1.048E-02 NOT IDENT.
CO-57	-2.079E-03	1.125E-02	9.655E-03	5.742E-03 NOT IDENT.
CO-58	-1.736E-02	1.586E-02	9.421E-03	8.092E-03 NOT IDENT.
FE-59	3.757E-02	4.544E-02	4.426E-02	2.318E-02 NOT IDENT.
CO-60	-1.098E-02	2.176E-02	1.596E-02	1.110E-02 NOT IDENT.
ZN-65	-1.221E-02	5.156E-02	4.241E-02	2.631E-02 NOT IDENT.
SE-75	-4.203E-03	2.405E-02	2.095E-02	1.227E-02 NOT IDENT.
SR-85	-2.843E-02	3.147E-02	2.586E-02	1.605E-02 NOT IDENT.
Y-88	1.369E-02	1.638E-02	1.775E-02	8.358E-03 NOT IDENT.
Y-91	-6.040E+00	7.867E+00	5.260E+00	4.014E+00 NOT IDENT.
NB-94	-1.423E-03	1.878E-02	1.592E-02	9.582E-03 NOT IDENT.
NB-95	-4.321E-03	1.729E-02	1.396E-02	8.824E-03 NOT IDENT.
NB-95M	-3.173E-02	6.472E-02	5.558E-02	3.302E-02 NOT IDENT.
ZR-95	1.824E-02	3.015E-02	2.859E-02	1.538E-02 NOT IDENT.
MO-99	-1.644E+00	1.376E+00	8.277E-01	7.019E-01 NOT IDENT.
TC-99M	2.462E+09	4.226E+09	0.000E+00	2.156E+09 SHORT HLIF
RU-103	2.321E-03	1.790E-02	1.613E-02	9.135E-03 NOT IDENT.
RH-106	1.029E-02	1.859E-01	1.624E-01	9.484E-02 NOT IDENT.

RU-106	1.029E-02	1.859E-01	1.624E-01	9.484E-02	NOT IDENT.
AG-108M	-3.151E-03	1.596E-02	1.315E-02	8.143E-03	NOT IDENT.
CD-109	-7.140E-02	3.131E-01	2.742E-01	1.598E-01	NOT IDENT.
AG-110M	9.401E-03	1.849E-02	1.711E-02	9.433E-03	NOT IDENT.
SN-113	-2.258E-03	2.706E-02	2.295E-02	1.381E-02	NOT IDENT.
CD-115	-9.842E-01	1.173E+00	9.192E-01	5.987E-01	NOT IDENT.
SN-117M	1.621E-03	2.198E-02	1.895E-02	1.121E-02	NOT IDENT.
TE-123M	-4.819E-03	1.525E-02	1.270E-02	7.780E-03	NOT IDENT.
SB-124	-5.672E-03	4.114E-02	3.338E-02	2.099E-02	NOT IDENT.
SB-125	3.061E-02	5.045E-02	4.612E-02	2.574E-02	NOT IDENT.
TE-125M	1.203E+00	4.614E+00	4.020E+00	2.354E+00	NOT IDENT.
I-126	-5.789E-02	9.241E-02	7.210E-02	4.715E-02	NOT IDENT.
SB-126	-1.908E-02	5.332E-02	4.273E-02	2.720E-02	NOT IDENT.
SN-126	-1.992E-02	3.229E-02	2.730E-02	1.647E-02	NOT IDENT.
SB-127	-2.789E-01	2.665E-01	1.876E-01	1.360E-01	NOT IDENT.
I-131	9.338E-03	4.162E-02	3.676E-02	2.124E-02	NOT IDENT.
TE-132	1.809E-02	1.250E-01	1.133E-01	6.379E-02	NOT IDENT.
BA-133	-2.605E-02	2.512E-02	1.894E-02	1.282E-02	NOT IDENT.
I-133	2.066E+01	3.896E+01	0.000E+00	1.988E+01	SHORT HLIF
CS-134	-1.804E-03	2.500E-02	2.091E-02	1.276E-02	NOT IDENT.
CS-135	-3.573E-02	8.130E-02	6.875E-02	4.148E-02	NOT IDENT.
I-135	1.063E+09	2.481E+09	0.000E+00	1.266E+09	SHORT HLIF
CS-136	9.868E-03	4.280E-02	3.836E-02	2.184E-02	NOT IDENT.
BA-137M	1.335E-02	2.043E-02	1.913E-02	1.042E-02	NOT IDENT.
CS-137	1.411E-02	2.158E-02	2.021E-02	1.101E-02	NOT IDENT.
CE-139	-4.310E-03	1.584E-02	1.319E-02	8.080E-03	NOT IDENT.
BA-140	-5.109E-02	9.426E-02	7.445E-02	4.809E-02	NOT IDENT.
LA-140	2.356E-03	3.146E-02	2.750E-02	1.605E-02	NOT IDENT.
CE-141	-4.001E-03	2.757E-02	2.346E-02	1.407E-02	NOT IDENT.
CE-143	2.718E-01	4.157E+00	3.672E+00	2.121E+00	NOT IDENT.
CE-144	-3.998E-02	1.030E-01	8.631E-02	5.256E-02	NOT IDENT.
PM-144	6.745E-03	1.935E-02	1.741E-02	9.875E-03	NOT IDENT.
PR-144	5.076E-01	1.445E+00	1.300E+00	7.372E-01	NOT IDENT.
PM-146	-1.293E-02	2.273E-02	1.752E-02	1.160E-02	NOT IDENT.
ND-147	4.201E-01	2.223E-01	2.314E-01	1.134E-01	NOT IDENT.
PM-149	1.352E+00	9.956E+00	8.861E+00	5.080E+00	NOT IDENT.
EU-152	4.593E-02	5.538E-02	5.196E-02	2.825E-02	NOT IDENT.
GD-153	-2.276E-02	3.759E-02	3.152E-02	1.918E-02	NOT IDENT.
EU-154	4.425E-02	5.624E-02	5.565E-02	2.870E-02	NOT IDENT.
EU-155	-1.118E-04	4.788E-02	4.227E-02	2.443E-02	NOT IDENT.
TB-160	1.337E-02	6.476E-02	5.659E-02	3.304E-02	NOT IDENT.
HO-166M	3.687E-04	3.634E-02	3.115E-02	1.854E-02	NOT IDENT.
TA-182	5.569E-02	9.288E-02	8.722E-02	4.739E-02	NOT IDENT.
IR-192	3.267E-03	1.947E-02	1.727E-02	9.934E-03	NOT IDENT.
HG-203	-1.830E-03	1.935E-02	1.690E-02	9.870E-03	NOT IDENT.
BI-207	3.785E-03	2.768E-02	2.440E-02	1.412E-02	NOT IDENT.
TL-208	2.148E-02	2.497E-02	2.238E-02	1.274E-02	NOT IDENT.
PB-210	7.437E-01	2.313E+00	1.992E+00	1.180E+00	NOT IDENT.
BI-211	1.381E-01	1.349E-01	1.217E-01	6.883E-02	NOT IDENT.
PB-211	4.018E-02	4.612E-01	3.970E-01	2.353E-01	NOT IDENT.
BI-212	-1.400E-01	2.818E-01	2.213E-01	1.438E-01	NOT IDENT.
PB-212	-2.331E-02	3.868E-02	3.072E-02	1.974E-02	NOT IDENT.
BI-214	3.002E-02	4.399E-02	4.051E-02	2.244E-02	NOT IDENT.
PB-214	5.958E-02	4.923E-02	4.495E-02	2.512E-02	NOT IDENT.
RN-219	-5.871E-02	2.631E-01	2.192E-01	1.343E-01	NOT IDENT.
RA-223	-4.837E-01	4.013E-01	2.987E-01	2.048E-01	NOT IDENT.
RA-224	-5.961E-02	3.557E-01	3.132E-01	1.815E-01	NOT IDENT.
RA-226	3.002E-02	4.399E-02	4.051E-02	2.244E-02	NOT IDENT.
AC-227	-6.570E-02	1.463E-01	1.246E-01	7.463E-02	NOT IDENT.
TH-227	-6.570E-02	1.463E-01	1.246E-01	7.465E-02	NOT IDENT.
AC-228	-5.338E-02	9.159E-02	6.987E-02	4.673E-02	NOT IDENT.
RA-228	-5.338E-02	9.159E-02	6.987E-02	4.673E-02	NOT IDENT.
TH-228	-2.331E-02	3.868E-02	3.072E-02	1.974E-02	NOT IDENT.
TH-229	1.758E-02	2.900E-01	2.643E-01	1.480E-01	NOT IDENT.
PA-231	9.775E-01	9.443E-01	8.902E-01	4.818E-01	NOT IDENT.
TH-231	-4.837E-01	4.013E-01	2.987E-01	2.048E-01	NOT IDENT.
TH-232	-5.338E-02	9.159E-02	6.987E-02	4.673E-02	NOT IDENT.
PA-233	-4.803E-02	4.098E-02	3.148E-02	2.091E-02	NOT IDENT.
PA-234	-3.476E-02	1.443E-01	1.196E-01	7.362E-02	NOT IDENT.
PA-234M	-9.019E-01	2.345E+00	1.911E+00	1.196E+00	NOT IDENT.
TH-234	-2.394E-01	6.942E-01	5.852E-01	3.542E-01	NOT IDENT.
U-235	-5.598E-02	1.032E-01	8.447E-02	5.266E-02	NOT IDENT.
NP-237	-3.745E-02	9.544E-02	8.217E-02	4.869E-02	NOT IDENT.
U-238	-2.394E-01	6.942E-01	5.852E-01	3.542E-01	NOT IDENT.
NP-239	2.464E-01	1.883E-01	1.825E-01	9.606E-02	NOT IDENT.
AM-241	-1.963E-02	7.496E-02	6.713E-02	3.824E-02	NOT IDENT.
CM-247	1.193E-02	2.336E-02	2.103E-02	1.192E-02	NOT IDENT.
CF-249	-1.463E-02	2.516E-02	2.012E-02	1.284E-02	NOT IDENT.

CF-251	-4.221E-02	6.442E-02	5.571E-02	3.287E-02 NOT IDENT.
ANH-511	-3.186E-02	3.461E-02	3.227E-02	1.766E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	55.6100
49.72	59.8774
57.36	62.1095
59.54	73.0340
63.29	73.7283
63.29	73.7283
64.28	77.7980
67.75	72.5664
69.67	64.0287
70.83	64.1999
72.81	95.2466
72.87	95.2598
72.87	95.2598
74.82	75.7429
74.82	75.7429
74.82	75.7429
74.97	64.8016
77.11	62.1012
77.11	62.1012
77.11	62.1012
79.69	72.5182
79.80	72.5350
80.12	55.4465
80.19	55.4546
80.57	74.6715
81.00	69.6893
81.07	69.6994
81.07	69.6994
83.79	60.9512
83.79	60.9512
85.43	54.0206
86.48	75.5849
86.55	85.8115
86.79	85.8525
86.94	80.7668
87.57	81.8921
88.03	71.7211
88.47	68.7073
89.96	128.5617
91.11	86.5874
92.59	83.7335
92.59	83.7335
93.35	77.6440
94.67	105.8609
94.87	105.9008
94.87	105.9008
95.86	110.2592
97.43	76.1557
98.44	60.6202
99.53	57.5997
100.11	69.1928
103.18	70.6307
103.37	70.6545
105.31	66.6648
106.12	78.4161
109.28	63.9294
111.00	54.4996
111.76	68.4795
116.30	48.5149
117.23	50.7484
121.12	55.4142
121.78	63.0864
122.06	60.9381
123.07	69.7552
131.20	60.7029
133.52	84.1733
136.00	71.1432

136.47	75.6423
140.51	78.3256
140.51	0.0000
143.76	83.1868
144.24	84.3681
144.24	84.3681
145.44	72.1159
152.43	69.4025
153.25	71.7575
154.21	82.1155
154.21	82.1155
156.02	81.1714
158.56	73.4167
159.00	83.7892
162.66	69.1986
163.33	75.0300
165.86	78.7488
176.60	85.3901
177.52	75.7913
181.07	73.4628
184.41	63.9816
185.72	68.5305
193.51	79.0336
197.04	80.2536
205.31	68.2554
210.85	62.2590
215.65	72.7022
222.11	79.6815
227.38	61.4832
228.16	70.8551
228.18	72.7209
235.69	81.7264
235.96	80.8087
235.96	80.8087
238.63	72.5429
238.63	72.5429
240.99	76.4881
242.00	80.3444
244.70	69.1827
252.40	59.1912
252.80	57.3038
256.23	66.1115
256.23	66.1115
260.90	56.7754
264.66	56.0061
268.22	54.2491
269.46	53.3400
269.46	53.3400
271.23	46.6252
273.65	50.6202
276.40	44.8882
277.37	55.6702
277.60	49.8203
278.00	52.7698
279.20	52.8250
279.54	61.6474
280.46	70.5114
283.69	55.9780
284.31	54.0433
285.41	57.0451
285.90	61.0048
287.50	62.0743
293.27	51.4882
295.22	45.6217
295.96	50.6125
298.57	60.6686
299.98	50.7821
299.98	50.7821
300.09	47.7993
300.09	47.7993
300.13	47.8008
301.36	51.8373
302.85	48.9065
304.50	63.9648
304.50	63.9648
304.85	69.9818
308.46	46.1235
311.90	69.3790

316.51	47.4332
319.41	46.5306
320.08	49.5914
323.87	65.9819
323.87	65.9819
328.76	55.0250
333.37	46.0169
334.37	56.2865
334.37	56.2865
338.28	50.2957
338.28	50.2957
338.32	50.2972
338.32	50.2972
338.32	50.2972
340.48	53.4639
340.55	56.5509
344.28	35.0568
351.06	33.1616
351.93	31.1087
356.01	54.0836
364.49	37.6727
366.42	50.2998
383.85	35.0061
388.16	50.0049
388.63	44.6993
391.69	44.7929
400.66	50.4280
401.81	48.3192
402.40	38.6708
404.85	45.1890
410.95	36.7289
414.70	27.0725
423.72	27.2301
427.09	31.6550
427.87	26.2101
433.94	29.5992
453.88	31.0749
463.37	25.6718
468.07	26.8630
473.00	21.3283
476.78	40.5011
477.60	39.6199
487.02	25.3500
492.35	22.7029
497.08	21.8534
511.00	38.5419
514.00	95.5938
527.90	35.1936
529.87	0.0000
531.02	11.1325
537.26	22.3389
546.56	0.0000
563.25	18.8696
569.33	21.7675
569.50	21.7697
569.70	22.7180
583.19	14.2954
600.60	23.0695
602.73	25.0180
604.72	34.6737
609.32	13.5140
609.32	13.5140
610.33	19.3149
614.28	29.9949
618.01	14.5397
621.93	26.2202
621.93	26.2202
633.25	21.4785
635.95	25.4154
636.99	17.6036
645.85	14.7297
657.76	17.7719
661.66	19.7813
661.66	19.7813
664.57	29.7107
666.33	27.7519
666.50	27.7546
677.62	15.9383

685.70	26.9914
695.00	20.0747
696.49	21.0920
696.51	21.0923
697.00	23.1061
702.65	23.1623
706.68	30.2637
711.68	24.2625
720.70	19.2811
721.93	10.1533
722.78	11.1727
722.91	11.1732
723.31	15.2388
724.19	21.3420
727.33	24.4230
733.00	18.3604
735.93	17.3615
739.50	18.4100
747.24	18.4685
752.31	11.3096
753.82	14.4026
756.73	9.2698
763.94	20.6597
765.81	14.4727
766.42	13.4421
777.92	16.6199
778.90	15.5874
783.70	16.6578
785.37	11.4598
795.86	18.8292
801.95	16.7766
810.29	14.7267
810.76	14.7294
815.77	11.5951
818.51	17.9384
832.01	12.7271
834.85	11.6789
836.80	0.0000
846.77	19.1958
856.80	20.3369
860.56	11.7901
871.09	9.6833
873.19	7.5371
875.33	0.0000
879.36	10.7913
880.51	12.9548
883.24	22.6929
884.68	16.2177
889.28	10.8296
898.04	7.6041
911.20	15.2783
911.20	15.2783
911.20	15.2783
926.50	14.2622
937.49	12.8476
944.13	19.3149
946.00	12.8846
949.00	7.3701
962.29	14.8060
964.08	19.4444
966.15	10.1921
968.97	18.5482
968.97	18.5482
968.97	18.5482
983.53	6.5231
996.26	14.9717
1001.03	10.3089
1004.73	7.5062
1037.84	12.3261
1038.76	0.0000
1048.07	12.3658
1050.41	14.2786
1050.41	14.2786
1063.66	12.4250
1085.87	11.5469
1099.45	9.6615
1112.07	11.6372
1115.54	19.4157

1120.29	16.5262
1120.29	16.5262
1120.55	14.5831
1121.30	10.6965
1131.51	0.0000
1173.23	6.9094
1177.93	12.8487
1189.05	11.8975
1204.77	10.9535
1221.41	10.0037
1231.02	10.0297
1235.36	14.0581
1238.28	5.0246
1260.41	0.0000
1271.85	10.1400
1274.44	5.0734
1274.54	4.0588
1291.59	8.1540
1298.22	0.0000
1312.11	5.1233
1332.49	11.3303
1365.19	12.4624
1368.63	0.0000
1384.29	10.4346
1408.01	10.4948
1457.56	0.0000
1460.82	6.3770
1489.16	3.2096
1505.03	7.5164
1596.21	4.6966
1620.50	5.6656
1678.03	0.0000
1690.97	4.7921
1764.49	13.6206
1764.49	13.6206
1770.23	8.7661
1771.35	7.7941
1791.20	0.0000
1836.06	0.9867

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065180

Total Uranium Activity	-7.3810E-01	ug/g
Total Uranium Counting Unc.	2.0658E+00	ug/g
Total Uranium Tpu	1.0540E-06	ug/g
Total Uranium Mda	1.7414E+00	ug/g

THERE ARE NO PEAKS !

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 15:03:16.38

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065181.CNF;1
Sample date       : 2-MAR-2010 12:00:00. Acquisition date : 19-MAR-2010 13:02:10
Sample ID         : G1202065181          Sample quantity  : 1.11840E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.21  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.38*	75	432	1.07	126.41	123	8	1.04E-02	50.5	
2	2	74.87*	375	397	0.96	149.40	145	14	5.20E-02	10.0	1.78E+00
3	2	77.15*	613	361	0.97	153.95	145	14	8.51E-02	6.6	
4	4	87.25*	236	329	1.11	174.14	171	21	3.27E-02	14.1	3.41E+00
5	4	90.15	187	307	1.17	179.95	171	21	2.60E-02	17.1	
6	4	92.86*	247	322	1.31	185.35	171	21	3.43E-02	15.5	
7	0	186.15*	156	321	1.15	371.92	366	12	2.17E-02	25.1	
8	0	209.45	153	268	0.93	418.50	413	11	2.12E-02	22.4	
9	4	238.77*	984	172	1.10	477.14	472	17	1.37E-01	4.0	1.04E+00
10	4	241.77	216	196	1.60	483.13	472	17	2.99E-02	17.0	
11	0	295.36	290	152	1.63	590.30	586	10	4.03E-02	9.9	
12	0	300.26	78	145	1.20	600.09	596	9	1.09E-02	29.9	
13	0	328.97	48	170	1.39	657.50	651	12	6.61E-03	56.8	
14	0	338.68	203	202	1.13	676.92	670	14	2.83E-02	16.5	
15	0	352.03*	455	127	1.26	703.61	699	11	6.32E-02	6.8	
16	0	463.47	40	123	0.92	926.45	920	11	5.56E-03	56.0	
17	0	511.08*	107	126	1.52	1021.66	1015	16	1.49E-02	28.9	
18	0	583.40*	306	111	1.55	1166.29	1161	13	4.24E-02	9.4	
19	0	609.64*	380	74	1.42	1218.76	1213	13	5.28E-02	7.1	
20	0	662.21	148	122	1.55	1323.88	1317	15	2.06E-02	18.1	
21	0	727.52*	62	71	1.62	1454.48	1447	13	8.54E-03	31.6	
22	0	770.04	64	70	5.01	1539.51	1533	17	8.90E-03	32.8	
23	0	861.03	38	62	1.01	1721.47	1717	12	5.23E-03	45.2	
24	0	911.38	233	58	1.53	1822.15	1813	18	3.24E-02	10.1	
25	0	969.33*	115	33	2.04	1938.05	1934	13	1.59E-02	14.2	
26	0	1120.28	73	63	1.97	2239.91	2231	15	1.02E-02	26.4	
27	0	1379.27	39	26	8.20	2757.84	2747	21	5.42E-03	36.5	
28	0	1461.21*	1252	20	2.06	2921.71	2913	20	1.74E-01	3.0	
29	0	1764.99	47	18	3.24	3529.23	3522	14	6.60E-03	23.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 19-MAR-2010 15:03:18

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065181.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 2-MAR-2010 12:00:00 Acquisition date : 19-MAR-2010 13:02:10
Sample ID : G1202065181 Sample quantity : 111.84 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA7 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.21 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.491E+01	3.649E+00	5.080E-01	4.363E-02	68.715
CD-109	+	88.03	*	3.207E+00	9.552E-01	1.140E+00	1.074E-01	2.814
SN-126	+	64.28		5.468E-01	5.582E-01	6.192E-01	8.981E-02	0.883
	+	86.94		1.300E+00	6.528E-01	5.169E-01	2.146E-01	2.514
	+	87.57	*	3.126E-01	9.310E-02	1.113E-01	1.043E-02	2.808
BA-137M	+	661.66	*	2.485E-01	9.259E-02	6.579E-02	5.822E-03	3.777
CS-137	+	661.66	*	2.625E-01	9.782E-02	6.950E-02	6.162E-03	3.777
TL-208		277.37		3.985E-01	4.385E-01	7.555E-01	9.398E-02	0.527
	+	583.19	*	4.874E-01	1.024E-01	6.155E-02	5.880E-03	7.920
	+	860.56		5.670E-01	5.153E-01	4.704E-01	4.597E-02	1.206
BI-211		72.87		1.692E+00	2.939E+00	4.431E+00	3.497E-01	0.382
	+	351.06	*	3.210E+00	5.241E-01	3.744E-01	3.360E-02	8.573
PB-212	+	74.82		2.013E+00	4.746E-01	4.770E-01	6.024E-02	4.220
	+	77.11		1.922E+00	2.988E-01	2.790E-01	2.302E-02	6.890
	+	238.63	*	1.544E+00	1.928E-01	9.687E-02	9.312E-03	15.939
	+	300.09		1.917E+00	1.164E+00	1.213E+00	1.271E-01	1.580
BI-214	+	609.32	*	1.174E+00	2.069E-01	1.293E-01	1.344E-02	9.083
	+	1120.29		1.168E+00	6.290E-01	6.014E-01	6.487E-02	1.942
	+	1764.49		1.060E+00	5.089E-01	4.596E-01	3.780E-02	2.306
PB-214	+	74.82		3.568E+00	8.168E-01	8.455E-01	9.555E-02	4.220
	+	77.11		3.388E+00	5.963E-01	4.918E-01	5.738E-02	6.890
	+	242.00		2.051E+00	7.293E-01	5.893E-01	6.043E-02	3.481
	+	295.22		1.257E+00	2.832E-01	2.461E-01	2.644E-02	5.109
	+	351.93	*	1.165E+00	2.008E-01	1.346E-01	1.417E-02	8.656
RA-224	+	240.99	*	3.627E+00	1.272E+00	1.038E+00	8.782E-02	3.493
RA-226	+	609.32	*	1.174E+00	2.069E-01	1.293E-01	1.344E-02	9.083
	+	1120.29		1.168E+00	6.290E-01	6.014E-01	6.487E-02	1.942
	+	1764.49		1.060E+00	5.089E-01	4.596E-01	3.780E-02	2.306
AC-228	+	338.32		1.599E+00	8.503E-01	3.904E-01	1.628E-01	4.094
	+	911.20	*	1.789E+00	4.201E-01	2.435E-01	2.918E-02	7.350
	+	968.97		1.516E+00	5.680E-01	6.332E-01	1.552E-01	2.394
RA-228	+	338.32		1.599E+00	8.503E-01	3.904E-01	1.628E-01	4.094
	+	911.20	*	1.789E+00	4.201E-01	2.435E-01	2.918E-02	7.350
	+	968.97		1.516E+00	5.680E-01	6.332E-01	1.552E-01	2.394

Sample ID : G1202065181 Acquisition date : 19-MAR-2010 13:02:10

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	74.82		2.013E+00	4.329E-01	4.770E-01	3.881E-02	4.220
	+	77.11		1.922E+00	2.988E-01	2.790E-01	2.302E-02	6.890
	+	238.63	*	1.544E+00	1.928E-01	9.687E-02	9.312E-03	15.939
	+	300.09		1.917E+00	1.640E+00	1.213E+00	7.423E-01	1.580
TH-232	+	338.32		1.599E+00	5.452E-01	3.904E-01	3.342E-02	4.094
	+	911.20	*	1.789E+00	4.201E-01	2.435E-01	2.918E-02	7.350
	+	968.97		1.516E+00	5.680E-01	6.332E-01	1.552E-01	2.394
TH-234	+	63.29	*	1.419E+00	1.456E+00	1.616E+00	2.874E-01	0.878
	+	92.59		2.789E+00	1.067E+00	9.553E-01	2.130E-01	2.920
U-235	+	89.96		2.603E+00	1.101E+00	1.175E+00	2.920E-01	2.216
	+	93.35		2.107E+00	8.182E-01	7.201E-01	1.677E-01	2.926
		143.76	*	5.901E-02	2.151E-01	3.452E-01	5.784E-02	0.171
		163.33		1.832E-01	4.601E-01	7.427E-01	1.310E-01	0.247
	+	185.72		1.577E-01	8.013E-02	6.335E-02	5.128E-03	2.489
		205.31		3.382E-01	5.483E-01	8.421E-01	1.514E-01	0.402
NP-237	+	86.48	*	9.328E-01	3.397E-01	3.719E-01	8.522E-02	2.508
		95.86		-3.277E-01	9.352E-01	1.323E+00	3.192E-01	-0.248
U-238	+	63.29	*	1.419E+00	1.456E+00	1.616E+00	2.874E-01	0.878
	+	92.59		2.789E+00	9.034E-01	9.553E-01	8.741E-02	2.920
ANH-511	+	511.00	*	1.307E-01	7.651E-02	4.951E-02	4.399E-03	2.639

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	3.181E-02	3.835E-01	6.189E-01	5.839E-02	0.051
NA-22		1274.54	*	5.586E-02	5.139E-02	9.361E-02	7.684E-03	0.597
NA-24		1368.63	*	1.900E+00	5.139E-02	Half-Life too short		
SC-46		889.28	*	1.145E-02	4.745E-02	7.883E-02	7.224E-03	0.145
	+	1120.55		2.007E-01	1.073E-01	1.376E-01	1.163E-02	1.458
V-48		944.13		-7.094E-01	1.150E+00	1.735E+00	1.577E-01	-0.409
		983.53	*	5.696E-02	8.534E-02	1.472E-01	1.325E-02	0.387
		1312.11		8.141E-02	9.825E-02	1.767E-01	1.448E-02	0.461
CR-51		320.08	*	-4.286E-02	4.285E-01	7.003E-01	6.324E-02	-0.061
MN-54		834.85	*	-3.670E-04	4.124E-02	6.721E-02	6.169E-03	-0.005
CO-56		846.77	*	3.676E-02	4.506E-02	7.897E-02	7.250E-03	0.466
		1037.84		1.223E-01	3.387E-01	5.883E-01	5.453E-02	0.208
		1238.28		1.258E-01	1.139E-01	2.033E-01	1.718E-02	0.619
		1771.35		-2.213E-03	2.392E-01	3.413E-01	2.804E-02	-0.006
CO-57		122.06	*	9.385E-03	2.559E-02	4.188E-02	3.603E-03	0.224
		136.47		-2.530E-01	2.234E-01	3.354E-01	3.016E-02	-0.754
CO-58		810.76	*	-4.941E-03	4.444E-02	7.185E-02	6.601E-03	-0.069
FE-59		1099.45	*	-1.160E-01	1.092E-01	1.626E-01	1.506E-02	-0.714
		1291.59		-6.302E-02	1.538E-01	2.427E-01	2.285E-02	-0.260
CO-60		1173.23		-8.549E-02	5.467E-02	7.673E-02	6.244E-03	-1.114
		1332.49	*	-4.366E-02	4.503E-02	6.449E-02	5.283E-03	-0.677
ZN-65		1115.54	*	1.053E-02	1.181E-01	1.720E-01	1.460E-02	0.061
SE-75		121.12		-4.898E-02	1.333E-01	2.103E-01	2.328E-02	-0.233
		136.00		-1.729E-02	4.177E-02	6.540E-02	5.499E-03	-0.264

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		264.66	*	-1.528E-03	4.490E-02	7.450E-02	6.363E-03	-0.021
		279.54		4.689E-02	1.206E-01	2.040E-01	1.800E-02	0.230
		400.66		-1.282E-01	2.724E-01	4.254E-01	4.639E-02	-0.301
SR-85		514.00	*	7.101E-02	5.082E-02	8.312E-02	7.391E-03	0.854
Y-88		898.04		3.404E-02	4.799E-02	8.316E-02	7.647E-03	0.409
		1836.06	*	4.465E-03	3.030E-02	5.425E-02	4.403E-03	0.082
Y-91		1204.77	*	-9.545E+00	2.942E+01	4.756E+01	3.884E+00	-0.201
NB-94		702.65	*	-9.858E-04	3.741E-02	6.166E-02	5.537E-03	-0.016
		871.09		-2.734E-02	3.837E-02	5.744E-02	5.271E-03	-0.476
NB-95		765.81	*	7.881E-02	5.514E-02	9.070E-02	8.268E-03	0.869
NB-95M		235.69	*	6.161E-02	1.468E-01	2.220E-01	2.160E-02	0.277
ZR-95		724.19		2.837E-02	1.099E-01	1.621E-01	1.578E-02	0.175
		756.73	*	3.935E-02	8.734E-02	1.443E-01	1.437E-02	0.273
MO-99		140.51		5.163E+00	3.898E+01	6.188E+01	1.462E+01	0.083
		181.07		-3.278E+01	3.257E+01	4.434E+01	8.218E+00	-0.739
		366.42		-1.877E+01	1.699E+02	2.749E+02	2.329E+01	-0.068
		739.50	*	-3.175E+00	2.167E+01	3.516E+01	5.628E+00	-0.090
		777.92		-5.010E+01	7.633E+01	9.820E+01	8.970E+00	-0.510
TC-99M		140.51	*	1.120E+12	7.633E+01	Half-Life too short		
RU-103		497.08	*	-9.581E-04	4.444E-02	7.092E-02	1.000E-02	-0.014
	+	610.33		1.254E+01	2.735E+00	3.216E+00	5.314E-01	3.899
RH-106		621.93	*	1.300E-01	3.423E-01	5.871E-01	7.905E-02	0.221
		1050.41		8.322E-01	2.799E+00	4.828E+00	4.239E-01	0.172
RU-106		621.93	*	1.300E-01	3.421E-01	5.871E-01	5.247E-02	0.221
		1050.41		8.322E-01	2.799E+00	4.828E+00	4.239E-01	0.172
AG-108M		433.94	*	2.076E-02	3.452E-02	5.804E-02	5.145E-03	0.358
		614.28		1.487E-02	4.176E-02	6.299E-02	5.808E-03	0.236
		722.91		7.497E-03	4.151E-02	6.079E-02	5.651E-03	0.123
AG-110M		657.76	*	-2.537E-02	4.639E-02	6.238E-02	5.684E-03	-0.407
		677.62		3.307E-01	3.472E-01	6.179E-01	5.650E-02	0.535
		706.68		-9.331E-02	2.458E-01	3.928E-01	3.624E-02	-0.238
		763.94		1.890E-01	2.018E-01	3.190E-01	2.979E-02	0.592
		884.68		1.448E-02	5.679E-02	9.460E-02	8.918E-03	0.153
		937.49		7.485E-02	1.379E-01	2.340E-01	2.199E-02	0.320
		1384.29		1.063E-01	1.938E-01	3.029E-01	2.576E-02	0.351
		1505.03		9.785E-02	2.546E-01	4.442E-01	3.713E-02	0.220
SN-113		391.69	*	-3.424E-02	4.722E-02	7.224E-02	6.210E-03	-0.474
CD-115		260.90		-5.645E+01	2.558E+02	4.201E+02	3.569E+01	-0.134
		492.35		1.203E+01	7.398E+01	1.201E+02	1.060E+01	0.100
		527.90	*	-3.536E-01	2.188E+01	3.680E+01	3.283E+00	-0.010
SN-117M		156.02		-1.296E+00	2.652E+00	4.105E+00	3.306E-01	-0.316
		158.56	*	3.309E-02	6.293E-02	1.026E-01	8.223E-03	0.323
TE-123M		159.00	*	1.111E-02	3.023E-02	4.888E-02	3.943E-03	0.227
SB-124		602.73		6.540E-03	4.809E-02	7.400E-02	6.631E-03	0.088
		645.85		2.858E-01	5.678E-01	9.804E-01	9.189E-02	0.292
		722.78		6.744E-02	4.254E-01	6.213E-01	5.728E-02	0.109
		1690.97	*	-1.515E-02	6.315E-02	9.457E-02	8.211E-03	-0.160
SB-125		427.87	*	-4.220E-02	9.939E-02	1.550E-01	1.351E-02	-0.272
	+	463.37		4.327E-01	4.865E-01	5.943E-01	5.568E-02	0.728

Sample ID : G1202065181 Acquisition date : 19-MAR-2010 13:02:10

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		600.60		2.040E-01	1.978E-01	3.534E-01	3.385E-02	0.577
		635.95		-9.794E-02	2.827E-01	4.554E-01	4.368E-02	-0.215
TE-125M		109.28	*	9.437E+00	9.610E+00	1.616E+01	1.701E+00	0.584
I-126		388.63		-6.398E-02	1.947E-01	3.084E-01	2.573E-02	-0.207
		666.33	*	-1.978E-01	3.367E-01	4.514E-01	4.002E-02	-0.438
		753.82		2.779E-01	2.261E+00	3.756E+00	3.416E-01	0.074
SB-126		414.70		-7.754E-02	9.236E-02	1.394E-01	1.181E-02	-0.556
		666.50		-6.120E-02	1.166E-01	1.576E-01	1.398E-02	-0.388
		695.00		-4.145E-02	9.547E-02	1.518E-01	1.360E-02	-0.273
		697.00		-7.256E-02	3.300E-01	5.352E-01	4.797E-02	-0.136
		720.70	*	-1.067E-02	1.813E-01	2.569E-01	2.319E-02	-0.042
		856.80		-6.638E-01	6.866E-01	8.199E-01	7.526E-02	-0.810
SB-127		252.40		-6.541E-01	6.194E+00	1.025E+01	4.272E+00	-0.064
		473.00		3.110E-01	2.474E+00	4.010E+00	5.367E-01	0.078
		685.70	*	7.514E-01	2.016E+00	3.440E+00	4.189E-01	0.218
		783.70		6.051E+00	5.236E+00	9.398E+00	1.245E+00	0.644
I-131		80.19		1.254E+00	4.930E+00	7.309E+00	6.301E-01	0.172
		284.31		-2.433E+00	1.862E+00	2.817E+00	2.526E-01	-0.864
		364.49	*	-1.944E-02	1.432E-01	2.313E-01	2.074E-02	-0.084
		636.99		2.153E-01	1.902E+00	3.195E+00	3.004E-01	0.067
TE-132		49.72		-1.688E+01	1.597E+01	2.521E+01	2.790E+00	-0.670
		111.76		5.483E+00	4.962E+01	8.052E+01	9.323E+00	0.068
		116.30		1.377E+01	4.365E+01	7.136E+01	8.246E+00	0.193
		228.16	*	7.057E-01	1.222E+00	2.093E+00	3.369E-01	0.337
BA-133		81.00		-1.084E-01	9.376E-02	1.267E-01	1.967E-02	-0.855
		276.40		3.361E-01	4.059E-01	6.965E-01	9.774E-02	0.483
		302.85		1.993E-02	1.686E-01	2.466E-01	3.212E-02	0.081
		356.01	*	-4.053E-02	5.377E-02	7.106E-02	9.155E-03	-0.570
		383.85		1.507E-01	3.190E-01	5.352E-01	6.559E-02	0.282
I-133		529.87	*	1.501E-03	3.190E-01	Half-Life too short		
		875.33		4.280E-01	3.190E-01	Half-Life too short		
		1298.22		7.160E-01	3.190E-01	Half-Life too short		
CS-134		563.25		-1.615E-01	3.761E-01	6.085E-01	5.503E-02	-0.265
		569.33		-1.949E-01	2.250E-01	3.504E-01	3.182E-02	-0.556
		604.72		1.451E-02	3.976E-02	6.002E-02	5.390E-03	0.242
		795.86	*	8.149E-02	5.504E-02	1.002E-01	9.228E-03	0.814
		801.95		-1.228E-01	4.491E-01	7.153E-01	6.586E-02	-0.172
		1365.19		-5.694E-01	1.257E+00	1.918E+00	1.660E-01	-0.297
CS-135		268.22	*	4.281E-02	1.671E-01	2.813E-01	2.774E-02	0.152
I-135		546.56		-1.234E+11	1.671E-01	Half-Life too short		
		836.80		1.969E+12	1.671E-01	Half-Life too short		
		1038.76		9.143E+11	1.671E-01	Half-Life too short		
		1131.51		-3.216E+10	1.671E-01	Half-Life too short		
		1260.41	*	-4.569E+11	1.671E-01	Half-Life too short		
		1457.56		6.231E+13	1.671E-01	Half-Life too short		
		1678.03		2.608E+11	1.671E-01	Half-Life too short		
		1791.20		8.909E+11	1.671E-01	Half-Life too short		
CS-136		153.25		1.045E+00	9.766E-01	1.628E+00	1.601E-01	0.642
		176.60		-5.970E-02	5.321E-01	8.984E-01	8.052E-02	-0.066

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		273.65		-1.141E+00	6.810E-01	1.022E+00	9.438E-02	-1.117
		340.55		4.753E-01	1.999E-01	3.341E-01	2.970E-02	1.422
		818.51		-4.089E-02	8.940E-02	1.389E-01	1.276E-02	-0.294
		1048.07	*	5.145E-02	1.311E-01	2.280E-01	2.085E-02	0.226
		1235.36		-6.635E-02	8.227E-01	1.361E+00	1.559E-01	-0.049
CE-139		165.86	*	2.823E-03	3.182E-02	5.063E-02	4.005E-03	0.056
BA-140		162.66		1.915E-01	9.624E-01	1.541E+00	1.323E-01	0.124
		304.85		3.997E-01	1.737E+00	2.559E+00	7.485E-01	0.156
		423.72		8.576E-01	2.397E+00	3.951E+00	1.299E+00	0.217
		537.26	*	-3.131E-02	2.728E-01	4.539E-01	1.543E-01	-0.069
LA-140	+	328.76		5.139E-01	5.860E-01	6.646E-01	6.026E-02	0.773
		487.02		1.685E-02	1.635E-01	2.641E-01	2.466E-02	0.064
		815.77		-4.640E-02	3.854E-01	6.217E-01	6.296E-02	-0.075
		1596.21	*	-3.069E-02	8.729E-02	1.310E-01	1.096E-02	-0.234
CE-141		145.44	*	-3.306E-02	7.061E-02	1.088E-01	9.112E-03	-0.304
CE-143		57.36		-6.189E-04	7.061E-02	Half-Life too short		
		293.27	*	1.229E-03	7.061E-02	Half-Life too short		
		664.57		6.691E-03	7.061E-02	Half-Life too short		
		721.93		-6.262E-04	7.061E-02	Half-Life too short		
CE-144		80.12		5.433E-01	2.266E+00	3.357E+00	2.867E-01	0.162
		133.52	*	7.476E-02	2.061E-01	3.353E-01	5.081E-02	0.223
PM-144		476.78		-6.560E-02	7.780E-02	1.159E-01	1.103E-02	-0.566
		618.01		3.220E-04	3.501E-02	5.839E-02	5.358E-03	0.006
		696.49	*	-9.660E-03	3.714E-02	5.998E-02	5.377E-03	-0.161
PR-144		696.51	*	-7.139E-01	2.783E+00	4.496E+00	4.029E-01	-0.159
		1489.16		-1.274E+00	9.452E+00	1.490E+01	1.245E+00	-0.085
PM-146		453.88	*	4.069E-02	4.834E-02	8.237E-02	8.767E-03	0.494
		633.25		-5.607E-01	1.502E+00	2.392E+00	9.151E-01	-0.234
		735.93		7.498E-02	1.539E-01	2.625E-01	7.393E-02	0.286
		747.24		-4.850E-02	1.027E-01	1.606E-01	2.387E-02	-0.302
ND-147	+	91.11		9.521E-01	3.391E-01	5.405E-01	5.352E-02	1.761
		319.41		-1.719E+00	4.199E+00	6.729E+00	5.772E-01	-0.255
		531.02	*	-3.588E-02	6.482E-01	1.086E+00	1.644E-01	-0.033
PM-149		285.90	*	-6.711E+00	1.784E+02	2.946E+02	4.564E+01	-0.023
EU-152		121.78		2.108E-02	7.283E-02	1.188E-01	1.174E-02	0.178
		244.70		1.246E-02	3.527E-01	5.197E-01	4.401E-02	0.024
		344.28	*	-1.485E-01	1.238E-01	1.564E-01	1.417E-02	-0.950
		778.90		-1.931E-01	3.094E-01	4.221E-01	3.856E-02	-0.458
		964.08		4.007E-01	4.029E-01	6.250E-01	5.656E-02	0.641
		1085.87		1.720E-01	4.257E-01	7.397E-01	6.380E-02	0.233
		1112.07		-4.408E-02	4.383E-01	6.228E-01	5.291E-02	-0.071
		1408.01		-3.906E-02	2.057E-01	3.285E-01	2.723E-02	-0.119
GD-153		69.67		-1.959E-01	1.525E+00	2.381E+00	1.824E-01	-0.082
		97.43	*	-1.138E-01	9.313E-02	1.234E-01	1.103E-02	-0.922
		103.18		-6.064E-02	1.067E-01	1.681E-01	1.475E-02	-0.361
EU-154		123.07		4.210E-02	5.179E-02	8.620E-02	9.756E-03	0.488
		723.31		2.193E-02	1.961E-01	2.844E-01	2.807E-02	0.077
		873.19		6.767E-02	3.213E-01	5.333E-01	6.561E-02	0.127
		996.26		-4.031E-01	4.421E-01	6.326E-01	1.116E-01	-0.637

Sample ID : G1202065181 Acquisition date : 19-MAR-2010 13:02:10

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1004.73		-2.041E-01	2.634E-01	3.873E-01	4.600E-02	-0.527
		1274.44	*	1.441E-01	1.458E-01	2.629E-01	2.909E-02	0.548
EU-155	+	86.55		3.793E-01	1.131E-01	1.713E-01	1.598E-02	2.214
		105.31	*	4.055E-02	1.003E-01	1.653E-01	1.460E-02	0.245
TB-160	+	86.79		1.024E+00	3.051E-01	4.643E-01	4.307E-02	2.206
		197.04		4.253E-01	5.919E-01	1.002E+00	8.211E-02	0.424
		215.65		-6.522E-01	7.697E-01	1.189E+00	9.905E-02	-0.549
		298.57		2.278E-01	1.791E-01	2.202E-01	1.883E-02	1.034
		879.36	*	-9.057E-02	1.656E-01	2.534E-01	2.324E-02	-0.357
		962.29		2.956E-01	7.115E-01	1.157E+00	1.048E-01	0.255
		966.15		5.193E-01	3.126E-01	5.077E-01	4.592E-02	1.023
		1177.93		1.422E-01	4.429E-01	7.566E-01	6.161E-02	0.188
		1271.85		1.943E-02	8.347E-01	1.383E+00	1.134E-01	0.014
HO-166M		80.57		-7.681E-03	2.500E-01	3.651E-01	3.136E-02	-0.021
		184.41		5.938E-02	3.922E-02	6.411E-02	5.182E-03	0.926
		280.46		-2.084E-02	9.286E-02	1.520E-01	1.290E-02	-0.137
		410.95		5.055E-02	2.707E-01	4.441E-01	3.752E-02	0.114
		711.68	*	4.812E-03	6.756E-02	1.122E-01	1.010E-02	0.043
		752.31		1.218E-01	3.048E-01	5.187E-01	4.716E-02	0.235
		810.29		1.109E-02	6.432E-02	1.069E-01	9.803E-03	0.104
TA-182		67.75		5.297E-02	1.030E-01	1.552E-01	1.170E-02	0.341
		100.11		2.270E-01	1.724E-01	2.941E-01	2.604E-02	0.772
		152.43		1.123E-01	3.606E-01	5.826E-01	4.723E-02	0.193
		222.11		-2.160E-01	3.587E-01	5.830E-01	4.880E-02	-0.371
	+	1121.30		5.536E-01	2.959E-01	3.806E-01	3.215E-02	1.455
		1189.05		1.475E-02	3.851E-01	6.420E-01	5.234E-02	0.023
		1221.41	*	-2.214E-01	2.498E-01	3.820E-01	3.124E-02	-0.580
		1231.02		-1.072E-02	6.314E-01	1.045E+00	8.552E-02	-0.010
IR-192	+	295.96		9.466E-01	2.044E-01	3.068E-01	2.641E-02	3.085
		308.46		-4.250E-02	1.067E-01	1.715E-01	1.477E-02	-0.248
		316.51	*	6.640E-03	3.852E-02	6.406E-02	5.506E-03	0.104
		468.07		1.308E-02	8.327E-02	1.187E-01	1.112E-02	0.110
HG-203		70.83		-6.371E-01	1.296E+00	1.856E+00	2.896E-01	-0.343
		72.87		4.335E-01	7.551E-01	1.135E+00	1.719E-01	0.382
		279.20	*	4.408E-02	4.313E-02	7.508E-02	6.540E-03	0.587
BI-207		72.81		8.078E-02	1.686E-01	2.533E-01	1.998E-02	0.319
	+	74.97		5.803E-01	1.246E-01	2.046E-01	1.650E-02	2.836
		569.70		-2.107E-02	3.478E-02	5.542E-02	4.969E-03	-0.380
		1063.66	*	-3.383E-03	6.618E-02	1.104E-01	9.633E-03	-0.031
		1770.23		2.381E-01	4.685E-01	7.800E-01	6.408E-02	0.305
PB-210		46.54	*	1.096E+00	1.841E+00	3.141E+00	2.920E-01	0.349
PB-211		404.85	*	-2.649E-01	8.275E-01	1.295E+00	6.262E-01	-0.205
		427.09		-5.384E-01	1.680E+00	2.615E+00	1.210E+00	-0.206
		832.01		-7.637E-01	1.124E+00	1.584E+00	8.228E-01	-0.482
BI-212	+	727.33	*	1.502E+00	9.695E-01	1.246E+00	1.590E-01	1.205
		785.37		1.390E+00	3.174E+00	5.422E+00	4.957E-01	0.256
		1620.50		1.781E+00	2.569E+00	4.648E+00	3.884E-01	0.383
RN-219		271.23		4.380E-01	2.690E-01	4.756E-01	4.828E-02	0.921
		401.81	*	6.170E-02	4.365E-01	7.151E-01	1.054E-01	0.086

Sample ID : G1202065181 Acquisition date : 19-MAR-2010 13:02:10

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-223		81.07		-2.507E-01	2.099E-01	2.863E-01	2.474E-02	-0.876
		83.79		5.298E-02	1.222E-01	1.822E-01	1.627E-02	0.291
		94.87		1.102E+00	4.647E-01	7.451E-01	6.738E-02	1.479
		144.24		-2.038E-01	7.172E-01	1.120E+00	1.039E-01	-0.182
		154.21		4.422E-01	4.005E-01	6.691E-01	5.992E-02	0.661
		269.46		2.567E-01	2.040E-01	3.577E-01	3.102E-02	0.718
		323.87	*	-6.108E-02	8.236E-01	1.180E+00	2.042E-01	-0.052
	+	338.28		6.343E+00	2.229E+00	2.563E+00	3.083E-01	2.475
AC-227		79.69		6.422E-01	1.129E+00	1.694E+00	2.909E-01	0.379
		235.96		5.978E-02	1.794E-01	2.698E-01	2.749E-02	0.222
		256.23	*	-3.480E-03	2.563E-01	4.265E-01	5.100E-02	-0.008
	+	299.98		2.108E+00	1.289E+00	1.796E+00	2.274E-01	1.174
		304.50		5.436E-01	1.888E+00	2.799E+00	4.618E-01	0.194
		334.37		-7.216E-01	3.100E+00	3.096E+00	4.817E-01	-0.233
TH-227		79.80		6.983E-01	1.484E+00	2.214E+00	4.813E-01	0.315
		235.96		5.978E-02	1.794E-01	2.698E-01	2.589E-02	0.222
		256.23	*	-3.480E-03	2.563E-01	4.265E-01	5.768E-02	-0.008
	+	299.98		2.108E+00	1.289E+00	1.796E+00	2.274E-01	1.174
		304.50		5.436E-01	1.888E+00	2.799E+00	4.618E-01	0.194
		334.37		-7.216E-01	3.100E+00	3.096E+00	4.817E-01	-0.233
TH-229		85.43		2.665E-01	2.066E-01	3.185E-01	2.903E-02	0.837
	+	88.47		4.819E-01	1.435E-01	2.211E-01	2.076E-02	2.179
		193.51	*	-3.274E-01	5.171E-01	8.465E-01	6.911E-02	-0.387
	+	210.85		3.403E+00	1.550E+00	1.760E+00	1.461E-01	1.933
PA-231		283.69	*	-1.101E+00	1.504E+00	2.366E+00	3.435E-01	-0.465
	+	301.36		1.354E+00	8.266E-01	1.166E+00	1.411E-01	1.162
TH-231		81.07		-2.507E-01	2.099E-01	2.863E-01	2.474E-02	-0.876
		83.79		5.298E-02	1.222E-01	1.822E-01	1.627E-02	0.291
		94.87		1.102E+00	4.647E-01	7.451E-01	6.738E-02	1.479
		144.24		-2.038E-01	7.172E-01	1.120E+00	1.039E-01	-0.182
		154.21		4.422E-01	4.005E-01	6.691E-01	5.992E-02	0.661
		269.46		2.567E-01	2.040E-01	3.577E-01	3.102E-02	0.718
		323.87	*	-6.108E-02	8.236E-01	1.180E+00	2.042E-01	-0.052
	+	338.28		6.343E+00	2.229E+00	2.563E+00	3.083E-01	2.475
PA-233	+	300.13		9.540E-01	5.879E-01	8.109E-01	1.199E-01	1.176
		311.90	*	-2.583E-02	6.988E-02	1.124E-01	9.914E-03	-0.230
		340.48		2.047E+00	9.094E-01	1.324E+00	3.183E-01	1.547
PA-234		94.67		5.301E-01	1.810E-01	2.839E-01	3.608E-02	1.867
		98.44		3.472E-02	1.002E-01	1.445E-01	8.068E-02	0.240
		111.00		5.400E-02	1.809E-01	2.961E-01	3.585E-02	0.182
		131.20		-2.004E-01	1.176E-01	1.685E-01	1.419E-02	-1.189
		569.50		-2.517E-01	3.107E-01	4.865E-01	4.363E-02	-0.517
		733.00		-1.230E-02	4.408E-01	6.265E-01	1.402E-01	-0.020
		880.51		-2.169E-01	3.308E-01	5.000E-01	4.585E-02	-0.434
		883.24		-9.906E-02	3.365E-01	5.191E-01	3.493E-01	-0.191
		926.50		4.291E-02	2.001E-01	3.306E-01	8.415E-02	0.130
		946.00	*	1.141E-01	3.525E-01	5.872E-01	1.115E-01	0.194
		949.00		2.492E-01	5.112E-01	8.663E-01	7.868E-02	0.288
PA-234M		766.42		2.014E+01	1.804E+01	2.431E+01	1.236E+01	0.828

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1001.03	*	2.117E+00	5.541E+00	9.230E+00	9.465E-01	0.229
NP-239		99.53		1.869E-01	1.587E-01	2.663E-01	2.363E-02	0.702
		103.37		-1.562E-02	9.474E-02	1.523E-01	1.336E-02	-0.103
		106.12		8.815E-03	8.042E-02	1.308E-01	1.140E-02	0.067
		117.23	*	2.141E-01	3.923E-01	6.481E-01	5.576E-02	0.330
		228.18		1.384E-01	2.378E-01	4.086E-01	3.433E-02	0.339
		277.60		2.106E-01	1.989E-01	3.460E-01	2.938E-02	0.609
AM-241		59.54	*	3.983E-02	1.181E-01	1.782E-01	1.413E-02	0.223
CM-247		278.00		8.063E-01	8.451E-01	1.464E+00	1.243E-01	0.551
		287.50		1.060E+00	1.320E+00	2.279E+00	1.941E-01	0.465
		402.40	*	1.622E-02	4.019E-02	6.704E-02	5.627E-03	0.242
CF-249		252.80		-3.175E-01	9.725E-01	1.591E+00	1.350E-01	-0.200
		333.37		-8.477E-02	3.256E-01	3.240E-01	2.776E-02	-0.262
		388.16	*	-8.592E-03	4.233E-02	6.775E-02	5.654E-03	-0.127
CF-251		177.52	*	4.107E-02	1.251E-01	2.154E-01	1.727E-02	0.191
		227.38		6.849E-02	3.852E-01	6.509E-01	5.468E-02	0.105
		285.41		-1.058E+00	2.301E+00	3.702E+00	3.151E-01	-0.286

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065181      *
* Acquisition date : 19-MAR-2010 13:02:10 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.21     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  2-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065181          Analyst initials: MXR1            *
* Batch Number     : 962629               Sample Quantity : 1.1184E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.491E+01	3.576E+00	5.055E-01	0.000E+00
CD-109	3.207E+00	9.361E-01	1.160E+00	0.000E+00
SN-126	3.126E-01	9.123E-02	1.133E-01	0.000E+00
BA-137M	2.485E-01	9.074E-02	6.589E-02	0.000E+00
CS-137	2.625E-01	9.587E-02	6.961E-02	0.000E+00
TL-208	4.874E-01	1.003E-01	6.170E-02	0.000E+00
BI-211	3.210E+00	5.136E-01	3.769E-01	0.000E+00
PB-212	1.544E+00	1.889E-01	9.781E-02	0.000E+00
BI-214	1.174E+00	2.028E-01	1.296E-01	0.000E+00
PB-214	1.165E+00	1.967E-01	1.355E-01	0.000E+00
RA-224	3.627E+00	1.247E+00	1.049E+00	0.000E+00
RA-226	1.174E+00	2.028E-01	1.296E-01	0.000E+00
AC-228	1.789E+00	4.117E-01	2.432E-01	0.000E+00
RA-228	1.789E+00	4.117E-01	2.432E-01	0.000E+00
TH-228	1.544E+00	1.889E-01	9.781E-02	0.000E+00
TH-232	1.789E+00	4.117E-01	2.432E-01	0.000E+00
TH-234	1.419E+00	1.427E+00	1.649E+00	0.000E+00
U-235	5.901E-02	2.108E-01	3.500E-01	0.000E+00
NP-237	9.328E-01	3.329E-01	3.786E-01	0.000E+00
U-238	1.419E+00	1.427E+00	1.649E+00	0.000E+00
ANH-511	1.307E-01	7.498E-02	4.969E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	3.181E-02		3.759E-01	6.215E-01	0.000E+00	NOT IDENT.
NA-22	5.586E-02		5.037E-02	9.325E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		6.672E+06	0.000E+00	0.000E+00	SHORT HLIF
SC-46	1.145E-02		4.650E-02	7.876E-02	0.000E+00	FAIL ABUN
V-48	5.696E-02		8.363E-02	1.470E-01	0.000E+00	NOT IDENT.
CR-51	-4.286E-02		4.199E-01	7.055E-01	0.000E+00	NOT IDENT.

MN-54	-3.670E-04	4.041E-02	6.718E-02	0.000E+00	NOT IDENT.
CO-56	3.676E-02	4.416E-02	7.893E-02	0.000E+00	NOT IDENT.
CO-57	9.385E-03	2.508E-02	4.251E-02	0.000E+00	NOT IDENT.
CO-58	-4.941E-03	4.355E-02	7.184E-02	0.000E+00	NOT IDENT.
FE-59	-1.160E-01	1.070E-01	1.622E-01	0.000E+00	NOT IDENT.
CO-60	-4.366E-02	4.413E-02	6.422E-02	0.000E+00	NOT IDENT.
ZN-65	1.053E-02	1.158E-01	1.716E-01	0.000E+00	NOT IDENT.
SE-75	-1.528E-03	4.400E-02	7.516E-02	0.000E+00	NOT IDENT.
SR-85	7.101E-02	4.981E-02	8.341E-02	0.000E+00	NOT IDENT.
Y-88	4.465E-03	2.970E-02	5.388E-02	0.000E+00	NOT IDENT.
Y-91	-9.545E+00	2.883E+01	4.740E+01	0.000E+00	NOT IDENT.
NB-94	-9.858E-04	3.666E-02	6.173E-02	0.000E+00	NOT IDENT.
NB-95	7.881E-02	5.403E-02	9.072E-02	0.000E+00	NOT IDENT.
NB-95M	6.161E-02	1.438E-01	2.242E-01	0.000E+00	NOT IDENT.
ZR-95	3.935E-02	8.559E-02	1.444E-01	0.000E+00	NOT IDENT.
MO-99	-3.175E+00	2.123E+01	3.518E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.294E+18	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-9.581E-04	4.356E-02	7.119E-02	0.000E+00	FAIL ABUN
RH-106	1.300E-01	3.355E-01	5.883E-01	0.000E+00	NOT IDENT.
RU-106	1.300E-01	3.352E-01	5.883E-01	0.000E+00	NOT IDENT.
AG-108M	2.076E-02	3.383E-02	5.833E-02	0.000E+00	NOT IDENT.
AG-110M	-2.537E-02	4.546E-02	6.248E-02	0.000E+00	NOT IDENT.
SN-113	-3.424E-02	4.627E-02	7.266E-02	0.000E+00	NOT IDENT.
CD-115	-3.536E-01	2.144E+01	3.692E+01	0.000E+00	NOT IDENT.
SN-117M	3.309E-02	6.167E-02	1.039E-01	0.000E+00	NOT IDENT.
TE-123M	1.111E-02	2.962E-02	4.951E-02	0.000E+00	NOT IDENT.
SB-124	-1.515E-02	6.188E-02	9.398E-02	0.000E+00	NOT IDENT.
SB-125	-4.220E-02	9.740E-02	1.558E-01	0.000E+00	FAIL ABUN
TE-125M	9.437E+00	9.418E+00	1.642E+01	0.000E+00	NOT IDENT.
I-126	-1.978E-01	3.300E-01	4.521E-01	0.000E+00	NOT IDENT.
SB-126	-1.067E-02	1.777E-01	2.571E-01	0.000E+00	NOT IDENT.
SB-127	7.514E-01	1.975E+00	3.444E+00	0.000E+00	NOT IDENT.
I-131	-1.944E-02	1.403E-01	2.328E-01	0.000E+00	NOT IDENT.
TE-132	7.057E-01	1.197E+00	2.114E+00	0.000E+00	NOT IDENT.
BA-133	-4.053E-02	5.270E-02	7.153E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.852E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.149E-02	5.394E-02	1.002E-01	0.000E+00	NOT IDENT.
CS-135	4.281E-02	1.638E-01	2.838E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.037E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.145E-02	1.285E-01	2.275E-01	0.000E+00	NOT IDENT.
CE-139	2.823E-03	3.118E-02	5.128E-02	0.000E+00	NOT IDENT.
BA-140	-3.131E-02	2.674E-01	4.554E-01	0.000E+00	NOT IDENT.
LA-140	-3.069E-02	8.554E-02	1.302E-01	0.000E+00	FAIL ABUN
CE-141	-3.306E-02	6.920E-02	1.103E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.070E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	7.476E-02	2.019E-01	3.401E-01	0.000E+00	NOT IDENT.
PM-144	-9.660E-03	3.639E-02	6.004E-02	0.000E+00	NOT IDENT.
PR-144	-7.139E-01	2.727E+00	4.501E+00	0.000E+00	NOT IDENT.
PM-146	4.069E-02	4.737E-02	8.275E-02	0.000E+00	NOT IDENT.
ND-147	-3.588E-02	6.353E-01	1.090E+00	0.000E+00	FAIL ABUN
PM-149	-6.711E+00	1.748E+02	2.971E+02	0.000E+00	NOT IDENT.
EU-152	-1.485E-01	1.214E-01	1.575E-01	0.000E+00	NOT IDENT.
GD-153	-1.138E-01	9.126E-02	1.255E-01	0.000E+00	NOT IDENT.
EU-154	1.441E-01	1.429E-01	2.619E-01	0.000E+00	NOT IDENT.
EU-155	4.055E-02	9.826E-02	1.680E-01	0.000E+00	FAIL ABUN
TB-160	-9.057E-02	1.622E-01	2.532E-01	0.000E+00	FAIL ABUN
HO-166M	4.812E-03	6.621E-02	1.123E-01	0.000E+00	NOT IDENT.
TA-182	-2.214E-01	2.448E-01	3.807E-01	0.000E+00	FAIL ABUN
IR-192	6.640E-03	3.775E-02	6.454E-02	0.000E+00	FAIL ABUN
HG-203	4.408E-02	4.226E-02	7.572E-02	0.000E+00	NOT IDENT.
BI-207	-3.383E-03	6.485E-02	1.101E-01	0.000E+00	FAIL ABUN
PB-210	1.096E+00	1.804E+00	3.213E+00	0.000E+00	NOT IDENT.
PB-211	-2.649E-01	8.109E-01	1.302E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	9.501E-01	1.247E+00	0.000E+00	FAIL ABUN
RN-219	6.170E-02	4.278E-01	7.191E-01	0.000E+00	NOT IDENT.
RA-223	-6.108E-02	8.072E-01	1.188E+00	0.000E+00	FAIL ABUN
AC-227	-3.480E-03	2.511E-01	4.304E-01	0.000E+00	FAIL ABUN
TH-227	-3.480E-03	2.511E-01	4.304E-01	0.000E+00	FAIL ABUN
TH-229	-3.274E-01	5.068E-01	8.562E-01	0.000E+00	FAIL ABUN
PA-231	-1.101E+00	1.474E+00	2.386E+00	0.000E+00	FAIL ABUN
TH-231	-6.108E-02	8.072E-01	1.188E+00	0.000E+00	FAIL ABUN
PA-233	-2.583E-02	6.849E-02	1.133E-01	0.000E+00	FAIL ABUN
PA-234	1.141E-01	3.454E-01	5.864E-01	0.000E+00	NOT IDENT.
PA-234M	2.117E+00	5.430E+00	9.213E+00	0.000E+00	NOT IDENT.
NP-239	2.141E-01	3.844E-01	6.582E-01	0.000E+00	NOT IDENT.
AM-241	3.983E-02	1.158E-01	1.820E-01	0.000E+00	NOT IDENT.
CM-247	1.622E-02	3.938E-02	6.741E-02	0.000E+00	NOT IDENT.
CF-249	-8.592E-03	4.149E-02	6.815E-02	0.000E+00	NOT IDENT.

CF-251	4.107E-02	1.226E-01	2.180E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 15:03:17.38

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065181.CNF;1
Sample date       : 2-MAR-2010 12:00:00. Acquisition date : 19-MAR-2010 13:02:10
Sample ID         : G1202065181          Sample quantity  : 1.11840E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.21  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1252	10.66*	1.129E+00	3.491E+01	3.491E+01	10.45
CD-109	88.03	236	3.70*	6.837E+00	3.126E+00	3.207E+00	29.78
SN-126	64.28	75	9.60	4.809E+00	5.468E-01	5.468E-01	102.08
	86.94	236	8.90	6.837E+00	1.300E+00	1.300E+00	50.23
	87.57	236	37.00*	6.837E+00	3.126E-01	3.126E-01	29.78
BA-137M	661.66	148	89.90*	2.230E+00	2.482E-01	2.485E-01	37.26
CS-137	661.66	148	85.10*	2.230E+00	2.622E-01	2.625E-01	37.26
TL-208	277.37	------	6.60	4.401E+00	------ Line Not Found		------
	583.19	306	85.00*	2.476E+00	4.874E-01	4.874E-01	21.01
	860.56	38	12.50	1.782E+00	5.670E-01	5.670E-01	90.88
BI-211	72.87	------	1.23	5.899E+00	------ Line Not Found		------
	351.06	455	12.92*	3.680E+00	3.210E+00	3.210E+00	16.33
PB-212	74.82	375	10.28	6.078E+00	2.013E+00	2.013E+00	23.57
	77.11	613	17.10	6.261E+00	1.922E+00	1.922E+00	15.54
	238.63	984	43.60*	4.908E+00	1.544E+00	1.544E+00	12.49
	300.09	78	3.30	4.149E+00	1.917E+00	1.917E+00	60.73
BI-214	609.32	380	45.49*	2.388E+00	1.174E+00	1.174E+00	17.62
	1120.29	73	14.92	1.414E+00	1.168E+00	1.168E+00	53.86
	1764.49	47	15.30	9.831E-01	1.060E+00	1.060E+00	48.03
PB-214	74.82	375	5.80	6.078E+00	3.568E+00	3.568E+00	22.89
	77.11	613	9.70	6.261E+00	3.388E+00	3.388E+00	17.60
	242.00	216	7.25	4.864E+00	2.051E+00	2.051E+00	35.55
	295.22	290	18.42	4.201E+00	1.257E+00	1.257E+00	22.53
	351.93	455	35.60*	3.680E+00	1.165E+00	1.165E+00	17.23
RA-224	240.99	216	4.10*	4.864E+00	3.627E+00	3.627E+00	35.08
RA-226	609.32	380	45.49*	2.388E+00	1.174E+00	1.174E+00	17.62
	1120.29	73	14.92	1.414E+00	1.168E+00	1.168E+00	53.86
	1764.49	47	15.30	9.831E-01	1.060E+00	1.060E+00	48.03
AC-228	338.32	203	11.27	3.790E+00	1.599E+00	1.599E+00	53.19
	911.20	233	25.80*	1.696E+00	1.789E+00	1.789E+00	23.48
	968.97	115	15.80	1.606E+00	1.516E+00	1.516E+00	37.47
RA-228	338.32	203	11.27	3.790E+00	1.599E+00	1.599E+00	53.19

Sample ID : G1202065181 Acquisition date : 19-MAR-2010 13:02:10

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	233	25.80*	1.696E+00	1.789E+00	1.789E+00	23.48
	968.97	115	15.80	1.606E+00	1.516E+00	1.516E+00	37.47
TH-228	74.82	375	10.28	6.078E+00	2.013E+00	2.013E+00	21.51
	77.11	613	17.10	6.261E+00	1.922E+00	1.922E+00	15.54
	238.63	984	43.60*	4.908E+00	1.544E+00	1.544E+00	12.49
	300.09	78	3.30	4.149E+00	1.917E+00	1.917E+00	85.58
TH-232	338.32	203	11.27	3.790E+00	1.599E+00	1.599E+00	34.11
	911.20	233	25.80*	1.696E+00	1.789E+00	1.789E+00	23.48
	968.97	115	15.80	1.606E+00	1.516E+00	1.516E+00	37.47
TH-234	63.29	75	3.70*	4.809E+00	1.419E+00	1.419E+00	102.60
	92.59	247	4.23	7.020E+00	2.789E+00	2.789E+00	38.24
U-235	89.96	187	3.47	6.942E+00	2.603E+00	2.603E+00	42.27
	93.35	247	5.60	7.020E+00	2.107E+00	2.107E+00	38.84
	143.76	------	10.96*	6.691E+00	------	Line Not Found	------
	163.33	------	5.08	6.279E+00	------	Line Not Found	------
	185.72	156	57.20	5.811E+00	1.577E-01	1.577E-01	50.81
	205.31	------	5.01	5.451E+00	------	Line Not Found	------
NP-237	86.48	236	12.40*	6.837E+00	9.328E-01	9.328E-01	36.42
	95.86	------	2.68	7.087E+00	------	Line Not Found	------
U-238	63.29	75	3.70*	4.809E+00	1.419E+00	1.419E+00	102.60
	92.59	247	4.23	7.020E+00	2.789E+00	2.789E+00	32.39
ANH-511	511.00	107	100.00*	2.755E+00	1.307E-01	1.307E-01	58.55

Flag: "*" = Keyline

Sample ID : G1202065181 Acquisition date : 19-MAR-2010 13:02:10

Total number of lines in spectrum 29
Number of unidentified lines 2
Number of lines tentatively identified by NID 27 93.10%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.491E+01	3.491E+01	0.365E+01	10.45	
CD-109	461.40D	1.03	3.126E+00	3.207E+00	0.955E+00	29.78	
SN-126	2.30E+05Y	1.00	3.126E-01	3.126E-01	0.931E-01	29.78	
BA-137M	30.08Y	1.00	2.482E-01	2.485E-01	0.926E-01	37.26	
CS-137	30.08Y	1.00	2.622E-01	2.625E-01	0.978E-01	37.26	
TL-208	1.41E+10Y	1.00	4.874E-01	4.874E-01	1.024E-01	21.01	
BI-211	7.04E+08Y	1.00	3.210E+00	3.210E+00	0.524E+00	16.33	
PB-212	1.41E+10Y	1.00	1.544E+00	1.544E+00	0.193E+00	12.49	
BI-214	1600.00Y	1.00	1.174E+00	1.174E+00	0.207E+00	17.62	
PB-214	1600.00Y	1.00	1.165E+00	1.165E+00	0.201E+00	17.23	
RA-224	1.41E+10Y	1.00	3.627E+00	3.627E+00	1.272E+00	35.08	
RA-226	1600.00Y	1.00	1.174E+00	1.174E+00	0.207E+00	17.62	
AC-228	1.41E+10Y	1.00	1.789E+00	1.789E+00	0.420E+00	23.48	
RA-228	1.41E+10Y	1.00	1.789E+00	1.789E+00	0.420E+00	23.48	
TH-228	1.41E+10Y	1.00	1.544E+00	1.544E+00	0.193E+00	12.49	
TH-232	1.41E+10Y	1.00	1.789E+00	1.789E+00	0.420E+00	23.48	
TH-234	4.47E+09Y	1.00	1.419E+00	1.419E+00	1.456E+00	102.60	
U-235	7.04E+08Y	1.00	1.577E-01	1.577E-01	0.801E-01	50.81	K
NP-237	2.14E+06Y	1.00	9.328E-01	9.328E-01	3.397E-01	36.42	
U-238	4.47E+09Y	1.00	1.419E+00	1.419E+00	1.456E+00	102.60	
ANH-511	1.00E+09Y	1.00	1.307E-01	1.307E-01	0.765E-01	58.55	
			---	---			
	Total Activity :		6.221E+01	6.229E+01			

Grand Total Activity : 6.221E+01 6.229E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065181 Acquisition date : 19-MAR-2010 13:02:10

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.45	153	268	0.93	418.50	413	11	2.12E-02	44.8	5.38E+00	T
0	328.97	48	170	1.39	657.50	651	12	6.61E-03	****	3.87E+00	T
0	463.47	40	123	0.92	926.45	920	11	5.56E-03	****	2.98E+00	T
0	727.52	62	71	1.62	1454.48	1447	13	8.54E-03	63.3	2.06E+00	T
0	770.04	64	70	5.01	1539.51	1533	17	8.90E-03	65.5	1.96E+00	
0	1379.27	39	26	8.20	2757.84	2747	21	5.42E-03	73.0	1.18E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 19-MAR-2010 15:03:20.82

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065181.CNF;1 *
* Acquisition date : 19-MAR-2010 13:02:10  Detector SN#    :                *
* Detector ID      : GAM07                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.21         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 2-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G1202065181           Analyst initials: MXR1           *
* Batch Number     : 962629                Sample Quantity : 1.11840E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58.0MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.491E+01	3.649E+00	5.080E-01	4.363E-02	68.715
CD-109	3.207E+00	9.552E-01	1.140E+00	1.074E-01	2.814
SN-126	3.126E-01	9.310E-02	1.113E-01	1.043E-02	2.808
BA-137M	2.485E-01	9.259E-02	6.579E-02	5.822E-03	3.777
CS-137	2.625E-01	9.782E-02	6.950E-02	6.162E-03	3.777
TL-208	4.874E-01	1.024E-01	6.155E-02	5.880E-03	7.920
BI-211	3.210E+00	5.241E-01	3.744E-01	3.360E-02	8.573
PB-212	1.544E+00	1.928E-01	9.687E-02	9.312E-03	15.939
BI-214	1.174E+00	2.069E-01	1.293E-01	1.344E-02	9.083
PB-214	1.165E+00	2.008E-01	1.346E-01	1.417E-02	8.656
RA-224	3.627E+00	1.272E+00	1.038E+00	8.782E-02	3.493
RA-226	1.174E+00	2.069E-01	1.293E-01	1.344E-02	9.083
AC-228	1.789E+00	4.201E-01	2.435E-01	2.918E-02	7.350
RA-228	1.789E+00	4.201E-01	2.435E-01	2.918E-02	7.350
TH-228	1.544E+00	1.928E-01	9.687E-02	9.312E-03	15.939
TH-232	1.789E+00	4.201E-01	2.435E-01	2.918E-02	7.350
TH-234	1.419E+00	1.456E+00	1.616E+00	2.874E-01	0.878
U-235	1.577E-01	8.013E-02	3.452E-01	5.784E-02	0.457

Sample ID : G1202065181 Acquisition date : 19-MAR-2010 13:02:10

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	9.328E-01	3.397E-01	3.719E-01	8.522E-02	2.508
U-238	1.419E+00	1.456E+00	1.616E+00	2.874E-01	0.878
ANH-511	1.307E-01	7.651E-02	4.951E-02	4.399E-03	2.639

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	3.181E-02		3.835E-01	6.189E-01	5.839E-02	0.051
NA-22	5.586E-02		5.139E-02	9.361E-02	7.684E-03	0.597
NA-24	1.900E+00		3.404E+00	Half-Life too short		
SC-46	1.145E-02		4.745E-02	7.883E-02	7.224E-03	0.145
V-48	5.696E-02		8.534E-02	1.472E-01	1.325E-02	0.387
CR-51	-4.286E-02		4.285E-01	7.003E-01	6.324E-02	-0.061
MN-54	-3.670E-04		4.124E-02	6.721E-02	6.169E-03	-0.005
CO-56	3.676E-02		4.506E-02	7.897E-02	7.250E-03	0.466
CO-57	9.385E-03		2.559E-02	4.188E-02	3.603E-03	0.224
CO-58	-4.941E-03		4.444E-02	7.185E-02	6.601E-03	-0.069
FE-59	-1.160E-01		1.092E-01	1.626E-01	1.506E-02	-0.714
CO-60	-4.366E-02		4.503E-02	6.449E-02	5.283E-03	-0.677
ZN-65	1.053E-02		1.181E-01	1.720E-01	1.460E-02	0.061
SE-75	-1.528E-03		4.490E-02	7.450E-02	6.363E-03	-0.021
SR-85	7.101E-02		5.082E-02	8.312E-02	7.391E-03	0.854
Y-88	4.465E-03		3.030E-02	5.425E-02	4.403E-03	0.082
Y-91	-9.545E+00		2.942E+01	4.756E+01	3.884E+00	-0.201
NB-94	-9.858E-04		3.741E-02	6.166E-02	5.537E-03	-0.016
NB-95	7.881E-02		5.514E-02	9.070E-02	8.268E-03	0.869
NB-95M	6.161E-02		1.468E-01	2.220E-01	2.160E-02	0.277
ZR-95	3.935E-02		8.734E-02	1.443E-01	1.437E-02	0.273
MO-99	-3.175E+00		2.167E+01	3.516E+01	5.628E+00	-0.090
TC-99M	1.120E+12		4.231E+12	Half-Life too short		
RU-103	-9.581E-04		4.444E-02	7.092E-02	1.000E-02	-0.014
RH-106	1.300E-01		3.423E-01	5.871E-01	7.905E-02	0.221
RU-106	1.300E-01		3.421E-01	5.871E-01	5.247E-02	0.221
AG-108M	2.076E-02		3.452E-02	5.804E-02	5.145E-03	0.358
AG-110M	-2.537E-02		4.639E-02	6.238E-02	5.684E-03	-0.407
SN-113	-3.424E-02		4.722E-02	7.224E-02	6.210E-03	-0.474
CD-115	-3.536E-01		2.188E+01	3.680E+01	3.283E+00	-0.010
SN-117M	3.309E-02		6.293E-02	1.026E-01	8.223E-03	0.323
TE-123M	1.111E-02		3.023E-02	4.888E-02	3.943E-03	0.227
SB-124	-1.515E-02		6.315E-02	9.457E-02	8.211E-03	-0.160
SB-125	-4.220E-02		9.939E-02	1.550E-01	1.351E-02	-0.272
TE-125M	9.437E+00		9.610E+00	1.616E+01	1.701E+00	0.584
I-126	-1.978E-01		3.367E-01	4.514E-01	4.002E-02	-0.438
SB-126	-1.067E-02		1.813E-01	2.569E-01	2.319E-02	-0.042
SB-127	7.514E-01		2.016E+00	3.440E+00	4.189E-01	0.218
I-131	-1.944E-02		1.432E-01	2.313E-01	2.074E-02	-0.084
TE-132	7.057E-01		1.222E+00	2.093E+00	3.369E-01	0.337

Sample ID : G1202065181 Acquisition date : 19-MAR-2010 13:02:10

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-133	-4.053E-02		5.377E-02	7.106E-02	9.155E-03	-0.570
I-133	1.501E-03		1.455E-02	Half-Life too short		
CS-134	8.149E-02		5.504E-02	1.002E-01	9.228E-03	0.814
CS-135	4.281E-02		1.671E-01	2.813E-01	2.774E-02	0.152
I-135	-4.569E+11		5.292E+11	Half-Life too short		
CS-136	5.145E-02		1.311E-01	2.280E-01	2.085E-02	0.226
CE-139	2.823E-03		3.182E-02	5.063E-02	4.005E-03	0.056
BA-140	-3.131E-02		2.728E-01	4.539E-01	1.543E-01	-0.069
LA-140	-3.069E-02		8.729E-02	1.310E-01	1.096E-02	-0.234
CE-141	-3.306E-02		7.061E-02	1.088E-01	9.112E-03	-0.304
CE-143	1.229E-03		2.587E-04	Half-Life too short		
CE-144	7.476E-02		2.061E-01	3.353E-01	5.081E-02	0.223
PM-144	-9.660E-03		3.714E-02	5.998E-02	5.377E-03	-0.161
PR-144	-7.139E-01		2.783E+00	4.496E+00	4.029E-01	-0.159
PM-146	4.069E-02		4.834E-02	8.237E-02	8.767E-03	0.494
ND-147	-3.588E-02		6.482E-01	1.086E+00	1.644E-01	-0.033
PM-149	-6.711E+00		1.784E+02	2.946E+02	4.564E+01	-0.023
EU-152	-1.485E-01		1.238E-01	1.564E-01	1.417E-02	-0.950
GD-153	-1.138E-01		9.313E-02	1.234E-01	1.103E-02	-0.922
EU-154	1.441E-01		1.458E-01	2.629E-01	2.909E-02	0.548
EU-155	4.055E-02		1.003E-01	1.653E-01	1.460E-02	0.245
TB-160	-9.057E-02		1.656E-01	2.534E-01	2.324E-02	-0.357
HO-166M	4.812E-03		6.756E-02	1.122E-01	1.010E-02	0.043
TA-182	-2.214E-01		2.498E-01	3.820E-01	3.124E-02	-0.580
IR-192	6.640E-03		3.852E-02	6.406E-02	5.506E-03	0.104
HG-203	4.408E-02		4.313E-02	7.508E-02	6.540E-03	0.587
BI-207	-3.383E-03		6.618E-02	1.104E-01	9.633E-03	-0.031
PB-210	1.096E+00		1.841E+00	3.141E+00	2.920E-01	0.349
PB-211	-2.649E-01		8.275E-01	1.295E+00	6.262E-01	-0.205
BI-212	1.502E+00	+	9.695E-01	1.246E+00	1.590E-01	1.205
RN-219	6.170E-02		4.365E-01	7.151E-01	1.054E-01	0.086
RA-223	-6.108E-02		8.236E-01	1.180E+00	2.042E-01	-0.052
AC-227	-3.480E-03		2.563E-01	4.265E-01	5.100E-02	-0.008
TH-227	-3.480E-03		2.563E-01	4.265E-01	5.768E-02	-0.008
TH-229	-3.274E-01		5.171E-01	8.465E-01	6.911E-02	-0.387
PA-231	-1.101E+00		1.504E+00	2.366E+00	3.435E-01	-0.465
TH-231	-6.108E-02		8.236E-01	1.180E+00	2.042E-01	-0.052
PA-233	-2.583E-02		6.988E-02	1.124E-01	9.914E-03	-0.230
PA-234	1.141E-01		3.525E-01	5.872E-01	1.115E-01	0.194
PA-234M	2.117E+00		5.541E+00	9.230E+00	9.465E-01	0.229
NP-239	2.141E-01		3.923E-01	6.481E-01	5.576E-02	0.330
AM-241	3.983E-02		1.181E-01	1.782E-01	1.413E-02	0.223
CM-247	1.622E-02		4.019E-02	6.704E-02	5.627E-03	0.242
CF-249	-8.592E-03		4.233E-02	6.775E-02	5.654E-03	-0.127
CF-251	4.107E-02		1.251E-01	2.154E-01	1.727E-02	0.191

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065181           *
* Acquisition date : 19-MAR-2010 13:02:10 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.21     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  2-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065181          Analyst initials: MXR1            *
* Batch Number     : 962629               Sample Quantity : 1.1184E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.491E+01	3.576E+00	2.529E-01	1.824E+00
CD-109	3.207E+00	9.361E-01	5.804E-01	4.776E-01
SN-126	3.126E-01	9.123E-02	5.669E-02	4.655E-02
BA-137M	2.485E-01	9.074E-02	3.296E-02	4.629E-02
CS-137	2.625E-01	9.587E-02	3.482E-02	4.891E-02
TL-208	4.874E-01	1.003E-01	3.087E-02	5.120E-02
BI-211	3.210E+00	5.136E-01	1.886E-01	2.620E-01
PB-212	1.544E+00	1.889E-01	4.894E-02	9.639E-02
BI-214	1.174E+00	2.028E-01	6.482E-02	1.035E-01
PB-214	1.165E+00	1.967E-01	6.778E-02	1.004E-01
RA-224	3.627E+00	1.247E+00	5.246E-01	6.362E-01
RA-226	1.174E+00	2.028E-01	6.482E-02	1.035E-01
AC-228	1.789E+00	4.117E-01	1.217E-01	2.101E-01
RA-228	1.789E+00	4.117E-01	1.217E-01	2.101E-01
TH-228	1.544E+00	1.889E-01	4.894E-02	9.639E-02
TH-232	1.789E+00	4.117E-01	1.217E-01	2.101E-01
TH-234	1.419E+00	1.427E+00	8.249E-01	7.279E-01
U-235	5.901E-02	2.108E-01	1.751E-01	1.075E-01
NP-237	9.328E-01	3.329E-01	1.894E-01	1.699E-01
U-238	1.419E+00	1.427E+00	8.249E-01	7.279E-01
ANH-511	1.307E-01	7.498E-02	2.486E-02	3.826E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	3.181E-02	3.759E-01	3.109E-01	1.918E-01	NOT IDENT.
NA-22	5.586E-02	5.037E-02	4.665E-02	2.570E-02	NOT IDENT.
NA-24	1.900E+06	6.672E+06	0.000E+00	3.404E+06	SHORT HLIF
SC-46	1.145E-02	4.650E-02	3.940E-02	2.372E-02	FAIL ABUN
V-48	5.696E-02	8.363E-02	7.352E-02	4.267E-02	NOT IDENT.
CR-51	-4.286E-02	4.199E-01	3.530E-01	2.142E-01	NOT IDENT.

MN-54	-3.670E-04	4.041E-02	3.361E-02	2.062E-02	NOT IDENT.
CO-56	3.676E-02	4.416E-02	3.949E-02	2.253E-02	NOT IDENT.
CO-57	9.385E-03	2.508E-02	2.127E-02	1.280E-02	NOT IDENT.
CO-58	-4.941E-03	4.355E-02	3.594E-02	2.222E-02	NOT IDENT.
FE-59	-1.160E-01	1.070E-01	8.113E-02	5.458E-02	NOT IDENT.
CO-60	-4.366E-02	4.413E-02	3.213E-02	2.252E-02	NOT IDENT.
ZN-65	1.053E-02	1.158E-01	8.584E-02	5.907E-02	NOT IDENT.
SE-75	-1.528E-03	4.400E-02	3.760E-02	2.245E-02	NOT IDENT.
SR-85	7.101E-02	4.981E-02	4.173E-02	2.541E-02	NOT IDENT.
Y-88	4.465E-03	2.970E-02	2.696E-02	1.515E-02	NOT IDENT.
Y-91	-9.545E+00	2.883E+01	2.371E+01	1.471E+01	NOT IDENT.
NB-94	-9.858E-04	3.666E-02	3.088E-02	1.871E-02	NOT IDENT.
NB-95	7.881E-02	5.403E-02	4.539E-02	2.757E-02	NOT IDENT.
NB-95M	6.161E-02	1.438E-01	1.122E-01	7.339E-02	NOT IDENT.
ZR-95	3.935E-02	8.559E-02	7.223E-02	4.367E-02	NOT IDENT.
MO-99	-3.175E+00	2.123E+01	1.760E+01	1.083E+01	NOT IDENT.
TC-99M	1.120E+18	8.294E+18	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-9.581E-04	4.356E-02	3.561E-02	2.222E-02	FAIL ABUN
RH-106	1.300E-01	3.355E-01	2.943E-01	1.712E-01	NOT IDENT.
RU-106	1.300E-01	3.352E-01	2.943E-01	1.710E-01	NOT IDENT.
AG-108M	2.076E-02	3.383E-02	2.918E-02	1.726E-02	NOT IDENT.
AG-110M	-2.537E-02	4.546E-02	3.126E-02	2.319E-02	NOT IDENT.
SN-113	-3.424E-02	4.627E-02	3.635E-02	2.361E-02	NOT IDENT.
CD-115	-3.536E-01	2.144E+01	1.847E+01	1.094E+01	NOT IDENT.
SN-117M	3.309E-02	6.167E-02	5.198E-02	3.147E-02	NOT IDENT.
TE-123M	1.111E-02	2.962E-02	2.477E-02	1.511E-02	NOT IDENT.
SB-124	-1.515E-02	6.188E-02	4.702E-02	3.157E-02	NOT IDENT.
SB-125	-4.220E-02	9.740E-02	7.794E-02	4.969E-02	FAIL ABUN
TE-125M	9.437E+00	9.418E+00	8.214E+00	4.805E+00	NOT IDENT.
I-126	-1.978E-01	3.300E-01	2.262E-01	1.684E-01	NOT IDENT.
SB-126	-1.067E-02	1.777E-01	1.286E-01	9.065E-02	NOT IDENT.
SB-127	7.514E-01	1.975E+00	1.723E+00	1.008E+00	NOT IDENT.
I-131	-1.944E-02	1.403E-01	1.165E-01	7.159E-02	NOT IDENT.
TE-132	7.057E-01	1.197E+00	1.058E+00	6.109E-01	NOT IDENT.
BA-133	-4.053E-02	5.270E-02	3.578E-02	2.689E-02	NOT IDENT.
I-133	1.501E+03	2.852E+04	0.000E+00	1.455E+04	SHORT HLIF
CS-134	8.149E-02	5.394E-02	5.011E-02	2.752E-02	NOT IDENT.
CS-135	4.281E-02	1.638E-01	1.420E-01	8.357E-02	NOT IDENT.
I-135	-4.569E+17	1.037E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.145E-02	1.285E-01	1.138E-01	6.555E-02	NOT IDENT.
CE-139	2.823E-03	3.118E-02	2.565E-02	1.591E-02	NOT IDENT.
BA-140	-3.131E-02	2.674E-01	2.278E-01	1.364E-01	NOT IDENT.
LA-140	-3.069E-02	8.554E-02	6.515E-02	4.364E-02	FAIL ABUN
CE-141	-3.306E-02	6.920E-02	5.520E-02	3.530E-02	NOT IDENT.
CE-143	1.229E+03	5.070E+02	0.000E+00	2.587E+02	SHORT HLIF
CE-144	7.476E-02	2.019E-01	1.702E-01	1.030E-01	NOT IDENT.
PM-144	-9.660E-03	3.639E-02	3.004E-02	1.857E-02	NOT IDENT.
PR-144	-7.139E-01	2.727E+00	2.252E+00	1.391E+00	NOT IDENT.
PM-146	4.069E-02	4.737E-02	4.140E-02	2.417E-02	NOT IDENT.
ND-147	-3.588E-02	6.353E-01	5.453E-01	3.241E-01	FAIL ABUN
PM-149	-6.711E+00	1.748E+02	1.486E+02	8.919E+01	NOT IDENT.
EU-152	-1.485E-01	1.214E-01	7.880E-02	6.192E-02	NOT IDENT.
GD-153	-1.138E-01	9.126E-02	6.277E-02	4.656E-02	NOT IDENT.
EU-154	1.441E-01	1.429E-01	1.310E-01	7.292E-02	NOT IDENT.
EU-155	4.055E-02	9.826E-02	8.405E-02	5.013E-02	FAIL ABUN
TB-160	-9.057E-02	1.622E-01	1.267E-01	8.278E-02	FAIL ABUN
HO-166M	4.812E-03	6.621E-02	5.617E-02	3.378E-02	NOT IDENT.
TA-182	-2.214E-01	2.448E-01	1.904E-01	1.249E-01	FAIL ABUN
IR-192	6.640E-03	3.775E-02	3.229E-02	1.926E-02	FAIL ABUN
HG-203	4.408E-02	4.226E-02	3.788E-02	2.156E-02	NOT IDENT.
BI-207	-3.383E-03	6.485E-02	5.510E-02	3.309E-02	FAIL ABUN
PB-210	1.096E+00	1.804E+00	1.608E+00	9.203E-01	NOT IDENT.
PB-211	-2.649E-01	8.109E-01	6.514E-01	4.137E-01	NOT IDENT.
BI-212	1.502E+00	9.501E-01	6.241E-01	4.848E-01	FAIL ABUN
RN-219	6.170E-02	4.278E-01	3.598E-01	2.183E-01	NOT IDENT.
RA-223	-6.108E-02	8.072E-01	5.945E-01	4.118E-01	FAIL ABUN
AC-227	-3.480E-03	2.511E-01	2.153E-01	1.281E-01	FAIL ABUN
TH-227	-3.480E-03	2.511E-01	2.153E-01	1.281E-01	FAIL ABUN
TH-229	-3.274E-01	5.068E-01	4.283E-01	2.586E-01	FAIL ABUN
PA-231	-1.101E+00	1.474E+00	1.194E+00	7.519E-01	FAIL ABUN
TH-231	-6.108E-02	8.072E-01	5.945E-01	4.118E-01	FAIL ABUN
PA-233	-2.583E-02	6.849E-02	5.666E-02	3.494E-02	FAIL ABUN
PA-234	1.141E-01	3.454E-01	2.934E-01	1.762E-01	NOT IDENT.
PA-234M	2.117E+00	5.430E+00	4.609E+00	2.770E+00	NOT IDENT.
NP-239	2.141E-01	3.844E-01	3.293E-01	1.961E-01	NOT IDENT.
AM-241	3.983E-02	1.158E-01	9.104E-02	5.906E-02	NOT IDENT.
CM-247	1.622E-02	3.938E-02	3.372E-02	2.009E-02	NOT IDENT.
CF-249	-8.592E-03	4.149E-02	3.409E-02	2.117E-02	NOT IDENT.

CF-251	4.107E-02	1.226E-01	1.091E-01	6.257E-02 NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	236.3351
49.72	295.3407
57.36	0.0000
59.54	286.0851
63.29	337.6395
63.29	337.6395
64.28	352.6541
67.75	353.8641
69.67	391.7522
70.83	407.0765
72.81	387.7165
72.87	387.7657
72.87	387.7657
74.82	364.1634
74.82	364.1634
74.82	364.1634
74.97	364.2739
77.11	365.8390
77.11	365.8390
77.11	365.8390
79.69	307.7683
79.80	307.8346
80.12	315.6501
80.19	315.6927
80.57	332.7115
81.00	395.6136
81.07	395.6670
81.07	395.6670
83.79	327.0809
83.79	327.0809
85.43	314.2209
86.48	404.3438
86.55	404.3958
86.79	404.5717
86.94	404.6856
87.57	326.8015
88.03	327.0755
88.47	327.3383
89.96	328.2187
91.11	328.8943
92.59	329.7552
92.59	329.7552
93.35	330.1954
94.67	231.7739
94.87	236.5538
94.87	236.5538
95.86	277.7590
97.43	297.3875
98.44	252.1887
99.53	225.2808
100.11	231.8220
103.18	266.8938
103.37	248.9668
105.31	235.9371
106.12	245.8229
109.28	222.4621
111.00	244.5114
111.76	248.0212
116.30	235.6965
117.23	218.7039
121.12	237.3952
121.78	224.5455
122.06	225.7282
123.07	212.9559
131.20	311.5500
133.52	231.6425
136.00	247.9986

136.47	278.2033
140.51	239.4352
140.51	0.0000
143.76	234.8443
144.24	243.9881
144.24	243.9881
145.44	256.7551
152.43	217.0161
153.25	203.5910
154.21	201.5575
154.21	201.5575
156.02	245.3809
158.56	207.2227
159.00	214.2061
162.66	224.3619
163.33	213.0274
165.86	215.9791
176.60	201.7273
177.52	191.4020
181.07	220.0206
184.41	176.9516
185.72	182.5210
193.51	208.1858
197.04	186.5433
205.31	189.5918
210.85	167.3705
215.65	192.1934
222.11	192.2238
227.38	200.5899
228.16	195.1869
228.18	195.1917
235.69	192.2812
235.96	208.7285
235.96	208.7285
238.63	176.5473
238.63	176.5473
240.99	176.9279
242.00	177.0909
244.70	147.2775
252.40	151.3159
252.80	155.1539
256.23	147.0792
256.23	147.0792
260.90	146.7225
264.66	135.7229
268.22	160.0994
269.46	157.3885
269.46	157.3885
271.23	153.7769
273.65	240.7608
276.40	166.0214
277.37	163.2546
277.60	158.4546
278.00	160.4402
279.20	141.2481
279.54	153.8687
280.46	163.6672
283.69	148.5619
284.31	163.2089
285.41	148.7674
285.90	142.9894
287.50	129.5378
293.27	0.0000
295.22	148.9524
295.96	149.0382
298.57	117.9016
299.98	113.3103
299.98	113.3103
300.09	113.3191
300.09	113.3191
300.13	113.3227
301.36	138.6365
302.85	137.2204
304.50	121.6021
304.50	121.6021
304.85	121.6341
308.46	140.5829
311.90	136.9787

316.51	127.4922
319.41	141.7422
320.08	134.8208
323.87	142.6086
323.87	142.6086
328.76	140.7050
333.37	149.2421
334.37	149.3482
334.37	149.3482
338.28	114.3484
338.28	114.3484
338.32	114.3518
338.32	114.3518
338.32	114.3518
340.48	100.5396
340.55	100.5457
344.28	143.0838
351.06	130.6914
351.93	127.7046
356.01	122.9407
364.49	102.0107
366.42	104.2056
383.85	97.0571
388.16	101.5128
388.63	101.5439
391.69	104.8889
400.66	102.3195
401.81	97.1155
402.40	93.9840
404.85	117.3938
410.95	102.9752
414.70	109.5962
423.72	90.9377
427.09	96.4819
427.87	97.5984
433.94	93.6442
453.88	82.7551
463.37	85.8278
468.07	79.0280
473.00	77.0432
476.78	108.0847
477.60	90.4795
487.02	73.1986
492.35	70.0723
497.08	74.7095
511.00	76.3817
514.00	90.0006
527.90	73.4221
529.87	0.0000
531.02	69.9072
537.26	57.3768
546.56	0.0000
563.25	76.5622
569.33	87.8889
569.50	87.8959
569.70	84.2039
583.19	68.9125
600.60	66.6561
602.73	80.5476
604.72	68.9756
609.32	81.0596
609.32	81.0596
610.33	81.0974
614.28	64.5530
618.01	70.0236
621.93	63.5110
621.93	63.5110
633.25	65.7370
635.95	63.9068
636.99	57.2563
645.85	64.1849
657.76	80.2429
661.66	71.3731
661.66	71.3731
664.57	0.0000
666.33	88.5895
666.50	88.5962
677.62	54.3771

685.70	57.4832
695.00	73.3539
696.49	68.5046
696.51	68.5046
697.00	71.4548
702.65	70.6395
706.68	77.6345
711.68	64.9897
720.70	51.0599
721.93	0.0000
722.78	49.4531
722.91	49.4556
723.31	54.4105
724.19	56.0787
727.33	48.5514
733.00	52.9635
735.93	48.7165
739.50	58.7407
747.24	58.9179
752.31	56.0314
753.82	61.0700
756.73	54.1226
763.94	51.9265
765.81	51.9631
766.42	58.6823
777.92	65.6729
778.90	60.6431
783.70	41.5145
785.37	45.5922
795.86	50.8557
801.95	61.1631
810.29	50.1018
810.76	55.2234
815.77	49.1777
818.51	54.3535
832.01	57.7090
834.85	57.7664
836.80	0.0000
846.77	44.5432
856.80	64.1041
860.56	45.1043
871.09	56.4113
873.19	49.1343
875.33	0.0000
879.36	58.6660
880.51	60.7853
883.24	54.5479
884.68	48.2775
889.28	52.5574
898.04	44.2784
911.20	46.5899
911.20	46.5899
911.20	46.5899
926.50	46.8252
937.49	53.4009
944.13	59.9361
946.00	48.1926
949.00	45.0229
962.29	72.9637
964.08	61.0370
966.15	64.6699
968.97	106.0804
968.97	106.0804
968.97	106.0804
983.53	37.9301
996.26	64.1913
1001.03	46.8517
1004.73	64.3584
1037.84	41.3159
1038.76	0.0000
1048.07	43.2841
1050.41	43.3128
1050.41	43.3128
1063.66	61.9865
1085.87	41.9000
1099.45	63.5618
1112.07	62.7167
1115.54	54.7306

1120.29	66.0873
1120.29	66.0873
1120.55	66.0902
1121.30	59.6553
1131.51	0.0000
1173.23	78.2297
1177.93	57.3145
1189.05	64.1920
1204.77	81.7765
1221.41	82.1362
1231.02	81.3716
1235.36	83.4035
1238.28	65.9967
1260.41	0.0000
1271.85	44.0497
1274.44	36.2427
1274.54	35.2632
1291.59	49.1862
1298.22	0.0000
1312.11	28.6731
1332.49	40.7414
1365.19	25.0376
1368.63	0.0000
1384.29	20.6961
1408.01	29.3375
1457.56	0.0000
1460.82	15.3589
1489.16	9.2739
1505.03	12.4087
1596.21	14.7622
1620.50	12.7173
1678.03	0.0000
1690.97	7.5252
1764.49	19.6311
1764.49	19.6311
1770.23	6.5508
1771.35	8.1903
1791.20	0.0000
1836.06	4.7377

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065181

Total Uranium Activity	4.2484E+00	ug/g
Total Uranium Counting Unc.	4.2454E+00	ug/g
Total Uranium Tpu	2.1660E-06	ug/g
Total Uranium Mda	2.4553E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 962629                    SAMPLE ID  : G1202065181       *
*   ANALYST      : MXR1                      DETECTOR   : GAM07             *
*   SAMPLE DATE  :  2-MAR-2010 12:00:00.00  COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 19-MAR-2010 13:02:10.80  SAMPLE ALQT:  111.840 GRAM      *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.348E+00
GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.436E+00
GROSS GAMMA MDA    (pCi/GRAM  )   : 3.336E+00
GROSS GAMMA DLC    (pCi/GRAM  )   : 1.618E+00
```

VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 23:04:30.62

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065182.CNF;1
Sample date       : 10-MAR-2010 00:00:00 Acquisition date : 18-MAR-2010 22:04:01
Sample ID         : G1202065182          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.28  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.66	1348	582	1.28	118.24	112	12	3.75E-01	4.5	
2	0	76.44*	214	563	2.93	151.81	146	13	5.94E-02	24.0	
3	0	88.14	882	545	1.19	175.20	170	11	2.45E-01	6.1	
4	0	122.45	358	400	1.69	243.81	235	18	9.94E-02	14.1	
5	0	185.76*	83	300	1.32	370.43	365	11	2.29E-02	43.1	
6	3	238.66*	424	247	1.61	476.23	469	23	1.18E-01	8.6	1.34E+00
7	3	241.71	127	268	2.04	482.33	469	23	3.52E-02	31.7	
8	0	295.31*	128	193	1.84	589.53	584	12	3.57E-02	23.5	
9	0	338.21	77	185	1.98	675.32	670	11	2.14E-02	36.0	
10	0	352.03*	188	217	1.27	702.95	697	11	5.21E-02	17.1	
11	0	511.28*	86	140	2.39	1021.46	1014	16	2.39E-02	34.6	
12	0	583.46*	148	132	1.43	1165.84	1160	14	4.12E-02	18.9	
13	0	609.62*	146	118	1.69	1218.16	1211	15	4.06E-02	18.5	
14	0	661.64	2007	172	1.77	1322.21	1313	19	5.58E-01	2.7	
15	0	726.94*	62	94	1.13	1452.82	1446	14	1.73E-02	35.7	
16	0	911.42*	76	133	1.71	1821.82	1814	13	2.10E-02	33.7	
17	0	1173.04	1531	70	1.83	2345.17	2336	19	4.25E-01	2.9	
18	0	1332.25	1419	30	2.12	2663.67	2655	21	3.94E-01	2.8	
19	0	1459.95	34	0	2.13	2919.15	2914	11	9.44E-03	17.1	
20	0	1763.94*	24	3	1.94	3527.36	3520	13	6.71E-03	27.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-MAR-2010 23:04:33

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065182.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 10-MAR-2010 00:00:00 Acquisition date : 18-MAR-2010 22:04:01
Sample ID         : G1202065182          Sample quantity  : 155.44 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA15              Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.28   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	1.594E+00	5.686E-01	5.623E-01	5.526E-02	2.834
CO-57	+	122.06	*	3.664E-01	1.100E-01	7.344E-02	7.398E-03	4.989
		136.47		2.525E-01	3.946E-01	6.556E-01	6.966E-02	0.385
CO-60	+	1173.23		6.331E+00	6.310E-01	1.306E-01	1.063E-02	48.480
	+	1332.49	*	6.589E+00	7.350E-01	1.290E-01	1.240E-02	51.065
CD-109	+	88.03	*	2.587E+01	4.514E+00	2.818E+00	3.498E-01	9.181
SN-126		64.28		1.685E+00	1.476E+00	2.237E+00	3.787E-01	0.753
	+	86.94		1.061E+01	4.674E+00	1.195E+00	5.051E-01	8.882
	+	87.57	*	2.552E+00	4.453E-01	2.801E-01	3.466E-02	9.112
BA-137M	+	661.66	*	5.445E+00	5.371E-01	1.291E-01	1.062E-02	42.163
CS-137	+	661.66	*	5.752E+00	5.682E-01	1.364E-01	1.124E-02	42.163
TL-208		277.37		9.577E-01	8.086E-01	1.403E+00	1.984E-01	0.682
	+	583.19	*	3.852E-01	1.498E-01	1.153E-01	1.054E-02	3.341
		860.56		2.843E-01	6.423E-01	1.096E+00	1.072E-01	0.259
BI-211		72.87		-2.252E+00	8.049E+00	1.147E+01	1.313E+00	-0.196
	+	351.06	*	2.234E+00	7.947E-01	8.191E-01	8.157E-02	2.728
PB-212		74.82		1.988E+00	9.837E-01	1.491E+00	2.246E-01	1.333
	+	77.11		1.771E+00	8.749E-01	7.026E-01	8.144E-02	2.521
	+	238.63	*	1.142E+00	2.387E-01	1.880E-01	2.246E-02	6.076
		300.09		5.773E-01	1.854E+00	2.743E+00	3.340E-01	0.210
BI-214	+	609.32	*	7.332E-01	2.812E-01	2.278E-01	2.270E-02	3.218
		1120.29		4.575E-01	7.088E-01	1.218E+00	1.319E-01	0.376
	+	1764.49		8.914E-01	4.937E-01	5.558E-01	4.873E-02	1.604
PB-214		74.82		3.523E+00	1.732E+00	2.642E+00	3.692E-01	1.333
	+	77.11		3.122E+00	1.564E+00	1.239E+00	1.762E-01	2.521
	+	242.00		2.067E+00	1.336E+00	1.143E+00	1.424E-01	1.809
	+	295.22		9.501E-01	4.627E-01	4.852E-01	6.047E-02	1.958
	+	351.93	*	8.109E-01	2.919E-01	2.701E-01	3.070E-02	3.002
RA-224	+	240.99	*	3.655E+00	2.353E+00	2.015E+00	2.222E-01	1.814
RA-226	+	609.32	*	7.332E-01	2.812E-01	2.278E-01	2.270E-02	3.218
		1120.29		4.575E-01	7.088E-01	1.218E+00	1.319E-01	0.376
	+	1764.49		8.914E-01	4.937E-01	5.558E-01	4.873E-02	1.604
TH-228		74.82		1.988E+00	9.648E-01	1.491E+00	1.724E-01	1.333
	+	77.11		1.771E+00	8.749E-01	7.026E-01	8.144E-02	2.521

Sample ID : G1202065182 Acquisition date : 18-MAR-2010 22:04:01

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	1.142E+00	2.387E-01	1.880E-01	2.246E-02	6.076
		300.09		5.773E-01	1.886E+00	2.743E+00	1.688E+00	0.210
AM-241	+	59.54	*	1.310E+01	1.940E+00	9.051E-01	1.062E-01	14.474
ANH-511	+	511.00	*	1.721E-01	1.198E-01	9.736E-02	8.413E-03	1.767

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	2.881E-01	7.265E-01	1.211E+00	1.125E-01	0.238
NA-22		1274.54	*	2.663E-02	5.611E-02	9.766E-02	8.871E-03	0.273
NA-24		1368.63	*	-3.344E-04	5.611E-02	Half-Life too short		
SC-46		889.28	*	-3.443E-02	9.801E-02	1.561E-01	1.451E-02	-0.221
		1120.55		6.220E-02	1.142E-01	1.951E-01	1.660E-02	0.319
V-48		944.13		-1.863E-01	1.961E+00	3.208E+00	2.966E-01	-0.058
		983.53	*	-2.859E-02	1.420E-01	2.296E-01	2.099E-02	-0.124
		1312.11		-5.288E-02	8.849E-02	1.274E-01	1.201E-02	-0.415
CR-51		320.08	*	1.254E-01	7.056E-01	1.181E+00	1.254E-01	0.106
MN-54		834.85	*	2.188E-02	8.085E-02	1.366E-01	1.240E-02	0.160
CO-56		846.77	*	-7.844E-03	9.312E-02	1.533E-01	1.399E-02	-0.051
		1037.84		-5.346E-01	6.948E-01	1.060E+00	9.940E-02	-0.504
		1238.28		1.793E-01	1.197E-01	2.256E-01	2.028E-02	0.795
		1771.35		-5.424E-01	4.388E-01	5.311E-01	4.639E-02	-1.021
CO-58		810.76	*	8.841E-02	8.631E-02	1.523E-01	1.369E-02	0.580
FE-59		1099.45	*	-1.918E-01	2.174E-01	3.290E-01	3.070E-02	-0.583
		1291.59		7.824E-02	1.557E-01	2.711E-01	2.801E-02	0.289
ZN-65		1115.54	*	-2.122E-01	2.250E-01	3.391E-01	2.897E-02	-0.626
SE-75	+	121.12		1.877E+00	5.786E-01	5.264E-01	6.447E-02	3.565
		136.00		6.802E-02	7.391E-02	1.240E-01	1.256E-02	0.548
		264.66	*	5.673E-02	9.429E-02	1.618E-01	1.774E-02	0.351
		279.54		1.366E-01	2.206E-01	3.780E-01	4.185E-02	0.361
		400.66		5.124E-01	5.944E-01	1.016E+00	1.113E-01	0.504
SR-85		514.00	*	9.691E-02	8.978E-02	1.371E-01	1.184E-02	0.707
Y-88		898.04		3.053E-02	1.068E-01	1.796E-01	1.682E-02	0.170
		1836.06	*	-5.230E-03	5.118E-02	8.182E-02	6.891E-03	-0.064
Y-91		1204.77	*	-4.313E+00	3.272E+01	5.224E+01	4.403E+00	-0.083
NB-94		702.65	*	-4.868E-02	6.879E-02	1.091E-01	9.208E-03	-0.446
		871.09		3.160E-02	8.769E-02	1.485E-01	1.370E-02	0.213
NB-95		765.81	*	6.985E-02	8.842E-02	1.543E-01	1.352E-02	0.453
NB-95M		235.69	*	3.145E-01	2.709E-01	4.186E-01	5.044E-02	0.751
ZR-95		724.19		1.269E-01	2.001E-01	3.062E-01	2.844E-02	0.414
		756.73	*	-2.513E-02	1.437E-01	2.367E-01	2.275E-02	-0.106
MO-99		140.51		-4.641E+00	9.092E+00	1.427E+01	3.471E+00	-0.325
		181.07		8.930E+00	8.321E+00	1.219E+01	2.422E+00	0.733
		366.42		-2.481E+01	4.301E+01	6.847E+01	6.273E+00	-0.362
		739.50	*	6.909E+00	5.738E+00	1.018E+01	1.605E+00	0.679
		777.92		-4.000E+00	1.571E+01	2.563E+01	2.261E+00	-0.156
TC-99M		140.51	*	-1.324E+03	1.571E+01	Half-Life too short		
RU-103		497.08	*	-3.615E-02	8.202E-02	1.294E-01	1.809E-02	-0.279

Sample ID : G1202065182 Acquisition date : 18-MAR-2010 22:04:01

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	610.33		6.780E+00	2.743E+00	3.372E+00	5.482E-01	2.011
RH-106		621.93	*	-1.446E-01	6.922E-01	1.096E+00	1.437E-01	-0.132
		1050.41		4.556E+00	6.408E+00	1.102E+01	9.791E-01	0.413
RU-106		621.93	*	-1.446E-01	6.921E-01	1.096E+00	9.207E-02	-0.132
		1050.41		4.556E+00	6.408E+00	1.102E+01	9.791E-01	0.413
AG-108M		433.94	*	4.475E-02	7.423E-02	1.253E-01	1.107E-02	0.357
		614.28		-2.988E-02	8.691E-02	1.160E-01	1.012E-02	-0.258
		722.91		7.367E-02	8.144E-02	1.285E-01	1.134E-02	0.573
AG-110M		657.76	*	2.987E-01	1.107E-01	1.865E-01	1.587E-02	1.602
		677.62		4.752E-02	5.724E-01	9.655E-01	8.270E-02	0.049
		706.68		1.997E-01	4.207E-01	7.266E-01	6.333E-02	0.275
		763.94		1.029E-02	3.613E-01	6.030E-01	5.418E-02	0.017
		884.68		7.507E-02	1.266E-01	2.173E-01	2.071E-02	0.346
		937.49		-4.443E-02	3.027E-01	4.936E-01	4.715E-02	-0.090
		1384.29		1.073E-01	2.253E-01	4.043E-01	3.980E-02	0.265
		1505.03		-7.175E-02	3.952E-01	6.340E-01	6.059E-02	-0.113
SN-113		391.69	*	8.537E-02	1.051E-01	1.796E-01	1.559E-02	0.475
CD-115		260.90		-6.364E+01	4.451E+01	6.872E+01	7.530E+00	-0.926
		492.35		-3.765E-01	1.316E+01	2.138E+01	1.847E+00	-0.018
		527.90	*	-3.002E+00	3.967E+00	6.103E+00	5.267E-01	-0.492
SN-117M		156.02		8.377E-01	2.998E+00	4.896E+00	5.103E-01	0.171
		158.56	*	1.562E-02	7.311E-02	1.190E-01	1.248E-02	0.131
TE-123M		159.00	*	1.497E-02	5.027E-02	8.214E-02	8.656E-03	0.182
SB-124		602.73		-1.414E-02	9.502E-02	1.300E-01	1.102E-02	-0.109
		645.85		1.520E-02	1.000E+00	1.607E+00	1.417E-01	0.009
		722.78		6.679E-01	7.599E-01	1.196E+00	1.046E-01	0.558
		1690.97	*	1.236E-02	9.874E-02	1.680E-01	1.582E-02	0.074
SB-125		427.87	*	-6.267E-02	2.256E-01	3.642E-01	3.170E-02	-0.172
		463.37		1.572E-01	7.118E-01	1.175E+00	1.089E-01	0.134
		600.60		5.380E-01	4.056E-01	6.922E-01	6.319E-02	0.777
		635.95		3.785E-01	5.807E-01	9.784E-01	8.871E-02	0.387
TE-125M		109.28	*	-4.608E+00	1.692E+01	2.723E+01	3.231E+00	-0.169
I-126		388.63		6.897E-02	2.821E-01	4.702E-01	4.001E-02	0.147
		666.33	*	4.371E-01	3.616E-01	5.840E-01	4.816E-02	0.749
		753.82		-1.723E+00	2.777E+00	4.410E+00	3.838E-01	-0.391
SB-126		414.70		-1.030E-02	1.256E-01	2.052E-01	1.745E-02	-0.050
		666.50		1.217E-01	1.203E-01	1.915E-01	1.579E-02	0.635
		695.00		-4.364E-02	1.135E-01	1.847E-01	1.552E-02	-0.236
		697.00		1.847E-01	3.829E-01	6.618E-01	5.567E-02	0.279
		720.70	*	1.950E-02	2.361E-01	3.431E-01	2.929E-02	0.057
		856.80		-3.383E-01	7.615E-01	1.218E+00	1.116E-01	-0.278
SB-127		252.40		-2.693E+00	3.231E+00	4.875E+00	2.033E+00	-0.552
		473.00		-1.038E+00	1.377E+00	2.142E+00	2.446E-01	-0.484
		685.70	*	4.964E-01	8.619E-01	1.501E+00	1.440E-01	0.331
		783.70		1.754E+00	2.425E+00	4.229E+00	4.706E-01	0.415
I-131		80.19		-5.138E+00	6.537E+00	8.997E+00	1.059E+00	-0.571
		284.31		-1.106E+00	1.853E+00	2.994E+00	3.319E-01	-0.369
		364.49	*	5.149E-05	1.367E-01	2.257E-01	2.171E-02	0.000
		636.99		4.595E-01	1.980E+00	3.238E+00	2.854E-01	0.142

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-132		49.72		5.328E+00	2.652E+01	4.438E+01	6.295E+00	0.120
		111.76		-3.230E+00	1.653E+01	2.669E+01	2.927E+00	-0.121
		116.30		-8.252E+00	1.614E+01	2.219E+01	2.415E+00	-0.372
		228.16	*	1.853E-01	3.891E-01	6.654E-01	1.088E-01	0.278
BA-133		81.00		-3.342E-01	2.417E-01	3.132E-01	5.478E-02	-1.067
		276.40		6.449E-01	7.405E-01	1.274E+00	1.984E-01	0.506
		302.85		-2.460E-01	3.021E-01	4.645E-01	6.683E-02	-0.530
		356.01	*	9.746E-02	1.035E-01	1.579E-01	2.134E-02	0.617
		383.85		-9.550E-02	6.474E-01	1.057E+00	1.316E-01	-0.090
I-133		529.87	*	-5.665E-05	6.474E-01	Half-Life too short		
		875.33		1.578E-03	6.474E-01	Half-Life too short		
		1298.22		-1.303E-03	6.474E-01	Half-Life too short		
CS-134		563.25		-1.949E-01	7.382E-01	1.169E+00	1.013E-01	-0.167
		569.33		2.043E-01	4.096E-01	6.842E-01	5.942E-02	0.299
		604.72		-2.725E-02	8.481E-02	1.139E-01	9.666E-03	-0.239
		795.86	*	1.255E-01	1.050E-01	1.873E-01	1.679E-02	0.670
		801.95		-4.616E-01	8.932E-01	1.427E+00	1.281E-01	-0.324
		1365.19		3.715E-01	1.764E+00	3.051E+00	3.047E-01	0.122
CS-135		268.22	*	-1.984E-01	3.419E-01	5.556E-01	6.667E-02	-0.357
I-135		546.56		1.703E+03	3.419E-01	Half-Life too short		
		836.80		2.971E+03	3.419E-01	Half-Life too short		
		1038.76		-4.793E+03	3.419E-01	Half-Life too short		
		1131.51		-1.005E+03	3.419E-01	Half-Life too short		
		1260.41	*	2.815E+02	3.419E-01	Half-Life too short		
		1457.56		8.250E+03	3.419E-01	Half-Life too short		
		1678.03		-2.192E+03	3.419E-01	Half-Life too short		
		1791.20		-8.647E+02	3.419E-01	Half-Life too short		
CS-136		153.25		-4.476E-01	1.126E+00	1.779E+00	2.093E-01	-0.252
		176.60		-4.301E-01	7.260E-01	1.130E+00	1.297E-01	-0.381
		273.65		-1.219E+00	7.821E-01	1.190E+00	1.362E-01	-1.025
		340.55		3.274E-01	2.537E-01	3.943E-01	3.980E-02	0.830
		818.51		2.192E-02	1.217E-01	2.045E-01	1.842E-02	0.107
		1048.07	*	-6.433E-02	2.057E-01	3.285E-01	3.036E-02	-0.196
		1235.36		2.318E-01	6.153E-01	1.039E+00	1.229E-01	0.223
CE-139		165.86	*	-4.864E-03	5.563E-02	8.912E-02	9.513E-03	-0.055
BA-140		162.66		-2.736E-01	1.057E+00	1.679E+00	1.858E-01	-0.163
		304.85		-1.938E-01	1.976E+00	3.269E+00	9.767E-01	-0.059
		423.72		-1.218E+00	3.448E+00	5.509E+00	1.811E+00	-0.221
		537.26	*	-9.045E-02	4.361E-01	6.952E-01	2.358E-01	-0.130
LA-140		328.76		1.489E-01	4.658E-01	7.839E-01	8.221E-02	0.190
		487.02		5.710E-02	2.345E-01	3.875E-01	3.554E-02	0.147
		815.77		-8.901E-01	5.473E-01	7.816E-01	7.789E-02	-1.139
		1596.21	*	-3.657E-02	9.395E-02	1.436E-01	1.346E-02	-0.255
CE-141		145.44	*	7.015E-03	1.036E-01	1.678E-01	1.734E-02	0.042
CE-143		57.36		1.229E+03	2.967E+02	4.309E+02	5.609E+01	2.853
		293.27	*	1.888E+01	1.336E+01	2.022E+01	4.487E+00	0.934
		664.57		3.248E+03	1.000E+03	5.474E+02	1.631E+02	5.933
		721.93		6.018E+01	1.283E+02	1.926E+02	5.369E+01	0.313
CE-144		80.12		-4.524E+00	5.962E+00	8.222E+00	9.664E-01	-0.550

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		133.52	*	-3.916E-01	3.863E-01	5.889E-01	9.503E-02	-0.665
PM-144		476.78		-1.295E-02	1.590E-01	2.580E-01	2.418E-02	-0.050
		618.01		2.392E-02	7.388E-02	1.149E-01	9.957E-03	0.208
		696.49	*	-2.531E-02	7.092E-02	1.157E-01	9.733E-03	-0.219
PR-144		696.51	*	-2.112E-01	5.180E+00	8.645E+00	7.271E-01	-0.024
		1489.16		5.389E+00	1.864E+01	3.265E+01	3.127E+00	0.165
PM-146		453.88	*	-3.756E-02	1.074E-01	1.721E-01	1.820E-02	-0.218
		633.25		-9.628E-01	3.122E+00	4.860E+00	1.854E+00	-0.198
		735.93		-7.698E-02	3.310E-01	5.301E-01	1.485E-01	-0.145
		747.24		-1.162E-01	2.044E-01	3.250E-01	4.750E-02	-0.358
ND-147		91.11		6.337E-01	4.218E-01	6.395E-01	7.918E-02	0.991
		319.41		1.421E+00	5.010E+00	8.431E+00	8.636E-01	0.168
		531.02	*	-1.403E-01	8.734E-01	1.401E+00	2.095E-01	-0.100
PM-149		285.90	*	2.326E+01	2.792E+01	4.793E+01	8.051E+00	0.485
EU-152	+	121.78		1.071E+00	3.257E-01	3.054E-01	3.416E-02	3.506
		244.70		2.898E-01	7.667E-01	1.145E+00	1.262E-01	0.253
		344.28	*	-3.791E-02	2.549E-01	3.620E-01	3.684E-02	-0.105
		778.90		5.389E-02	5.452E-01	9.139E-01	8.064E-02	0.059
		964.08		-1.788E-01	8.106E-01	1.315E+00	1.210E-01	-0.136
		1085.87		1.056E+00	1.032E+00	1.801E+00	1.569E-01	0.586
		1112.07		7.003E-01	7.523E-01	1.309E+00	1.120E-01	0.535
		1408.01		1.676E-01	2.573E-01	4.734E-01	4.561E-02	0.354
GD-153		69.67		-3.876E+00	4.270E+00	6.509E+00	7.430E-01	-0.595
		97.43	*	-1.392E-01	1.561E-01	2.435E-01	2.687E-02	-0.572
		103.18		5.455E-02	1.995E-01	3.296E-01	3.485E-02	0.165
EU-154	+	123.07		7.565E-01	2.339E-01	2.160E-01	2.696E-02	3.502
		723.31		2.938E-01	3.773E-01	5.872E-01	5.537E-02	0.500
		873.19		2.132E-02	7.387E-01	1.224E+00	1.511E-01	0.017
		996.26		-4.187E-02	9.254E-01	1.513E+00	2.680E-01	-0.028
		1004.73		-5.938E-02	5.380E-01	8.750E-01	1.048E-01	-0.068
		1274.44	*	7.361E-02	1.592E-01	2.765E-01	3.243E-02	0.266
EU-155		86.55		2.481E+00	4.302E-01	5.554E-01	6.850E-02	4.468
		105.31	*	1.951E-02	1.953E-01	3.202E-01	3.373E-02	0.061
TB-160	+	86.79		7.736E+00	1.350E+00	1.451E+00	1.784E-01	5.330
		197.04		-3.637E-01	1.076E+00	1.691E+00	1.844E-01	-0.215
		215.65		5.743E-01	1.445E+00	2.472E+00	2.720E-01	0.232
		298.57		3.770E-01	2.444E-01	3.863E-01	4.087E-02	0.976
		879.36	*	-8.377E-02	3.433E-01	5.577E-01	5.162E-02	-0.150
		962.29		-5.008E-01	1.402E+00	2.248E+00	2.069E-01	-0.223
		966.15		5.920E-01	5.291E-01	9.203E-01	8.459E-02	0.643
		1177.93		1.101E+00	6.930E-01	1.179E+00	9.648E-02	0.934
		1271.85		-6.099E-01	9.436E-01	1.359E+00	1.230E-01	-0.449
HO-166M		80.57		-8.021E-01	6.720E-01	8.991E-01	1.059E-01	-0.892
	+	184.41		1.140E-01	9.910E-02	1.200E-01	1.298E-02	0.950
		280.46		-1.153E-02	1.824E-01	3.036E-01	3.279E-02	-0.038
		410.95		7.259E-02	5.857E-01	9.680E-01	8.216E-02	0.075
		711.68	*	3.138E-02	1.278E-01	2.173E-01	1.845E-02	0.144
		752.31		3.424E-01	5.794E-01	1.006E+00	8.743E-02	0.341
		810.29		1.327E-01	1.388E-01	2.440E-01	2.188E-02	0.544

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TA-182		67.75		-5.562E-02	2.659E-01	4.349E-01	4.963E-02	-0.128
		100.11		-2.458E-01	3.070E-01	4.802E-01	5.183E-02	-0.512
		152.43		6.675E-02	6.069E-01	9.844E-01	1.018E-01	0.068
		222.11		-3.254E-01	6.765E-01	1.114E+00	1.228E-01	-0.292
		1121.30		1.870E-01	3.169E-01	5.389E-01	4.580E-02	0.347
		1189.05		5.009E-01	5.518E-01	9.739E-01	8.069E-02	0.514
		1221.41	*	2.613E-02	2.135E-01	3.529E-01	3.029E-02	0.074
		1231.02		-5.031E-01	6.256E-01	8.939E-01	7.752E-02	-0.563
IR-192	+	295.96		6.627E-01	3.199E-01	4.038E-01	4.307E-02	1.641
		308.46		7.851E-03	1.988E-01	3.312E-01	3.466E-02	0.024
		316.51	*	-1.738E-02	7.419E-02	1.218E-01	1.256E-02	-0.143
		468.07		-2.256E-03	1.685E-01	2.748E-01	2.541E-02	-0.008
HG-203		70.83		3.640E+00	3.061E+00	4.623E+00	8.194E-01	0.787
		72.87		-5.111E-01	1.828E+00	2.603E+00	4.494E-01	-0.196
		279.20	*	4.294E-02	7.443E-02	1.273E-01	1.399E-02	0.337
BI-207		72.81		-1.670E-01	4.629E-01	6.563E-01	7.516E-02	-0.254
	+	74.97		8.488E-01	4.193E-01	4.328E-01	4.981E-02	1.961
		569.70		2.127E-02	6.454E-02	1.066E-01	9.127E-03	0.200
		1063.66	*	1.222E-01	1.390E-01	2.408E-01	2.125E-02	0.508
		1770.23		-2.223E+00	1.097E+00	1.083E+00	9.467E-02	-2.053
PB-210		46.54	*	2.817E+00	2.186E+01	3.660E+01	4.505E+00	0.077
PB-211		404.85	*	-8.635E-01	1.764E+00	2.741E+00	1.326E+00	-0.315
		427.09		-3.899E-01	3.797E+00	6.182E+00	2.859E+00	-0.063
		832.01		2.544E-01	2.220E+00	3.704E+00	1.924E+00	0.069
BI-212	+	727.33	*	2.461E+00	1.786E+00	2.172E+00	2.698E-01	1.133
		785.37		4.730E-01	6.899E+00	1.153E+01	1.021E+00	0.041
		1620.50		9.474E-01	3.275E+00	5.747E+00	5.349E-01	0.165
RN-219		271.23		1.073E-02	4.909E-01	8.211E-01	1.003E-01	0.013
		401.81	*	1.512E-01	9.693E-01	1.606E+00	2.373E-01	0.094
RA-223		81.07		-7.562E-01	5.389E-01	7.097E-01	8.386E-02	-1.065
		83.79		4.648E-02	3.240E-01	4.379E-01	5.265E-02	0.106
		94.87		2.450E-01	8.820E-01	1.459E+00	1.652E-01	0.168
		144.24		1.763E-01	1.256E+00	2.042E+00	2.256E-01	0.086
		154.21		-1.076E-01	7.108E-01	1.138E+00	1.260E-01	-0.095
		269.46		3.695E-01	3.837E-01	6.650E-01	7.338E-02	0.556
		323.87	*	-1.006E+00	1.460E+00	2.321E+00	4.212E-01	-0.434
	+	338.28		4.057E+00	2.968E+00	3.826E+00	4.968E-01	1.060
AC-227		79.69		-4.744E-01	3.002E+00	4.293E+00	8.148E-01	-0.110
		235.96		6.998E-01	3.671E-01	5.770E-01	7.170E-02	1.213
		256.23	*	5.889E-01	5.421E-01	9.408E-01	1.302E-01	0.626
		299.98		7.256E-01	2.044E+00	3.032E+00	4.273E-01	0.239
		304.50		-1.406E+00	3.413E+00	5.544E+00	9.746E-01	-0.254
		334.37		9.087E-01	4.161E+00	6.076E+00	9.939E-01	0.150
TH-227		79.80		-2.544E+00	4.043E+00	5.578E+00	1.293E+00	-0.456
		235.96		6.998E-01	3.663E-01	5.770E-01	6.892E-02	1.213
		256.23	*	5.889E-01	5.434E-01	9.408E-01	1.431E-01	0.626
		299.98		7.256E-01	2.044E+00	3.032E+00	4.273E-01	0.239
		304.50		-1.406E+00	3.413E+00	5.544E+00	9.746E-01	-0.254
		334.37		9.087E-01	4.161E+00	6.076E+00	9.939E-01	0.150

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-228	+	338.32		1.022E+00	8.521E-01	9.635E-01	4.046E-01	1.061
	+	911.20	*	9.475E-01	6.492E-01	8.240E-01	9.980E-02	1.150
		968.97		5.456E-01	7.515E-01	1.270E+00	3.120E-01	0.430
RA-228	+	338.32		1.022E+00	8.521E-01	9.635E-01	4.046E-01	1.061
	+	911.20	*	9.475E-01	6.492E-01	8.240E-01	9.980E-02	1.150
		968.97		5.456E-01	7.515E-01	1.270E+00	3.120E-01	0.430
TH-229		85.43		1.260E+00	5.372E-01	8.233E-01	1.002E-01	1.531
	+	88.47		3.935E+00	6.866E-01	7.413E-01	9.136E-02	5.308
		193.51	*	-2.471E-02	1.089E+00	1.741E+00	1.894E-01	-0.014
		210.85		2.812E+00	1.882E+00	3.297E+00	3.621E-01	0.853
PA-231		283.69	*	-2.335E+00	3.111E+00	4.963E+00	7.915E-01	-0.470
		301.36		-2.674E-01	1.327E+00	1.895E+00	2.573E-01	-0.141
TH-231		81.07		-7.562E-01	5.389E-01	7.097E-01	8.386E-02	-1.065
		83.79		4.648E-02	3.240E-01	4.379E-01	5.265E-02	0.106
		94.87		2.450E-01	8.820E-01	1.459E+00	1.652E-01	0.168
		144.24		1.763E-01	1.256E+00	2.042E+00	2.256E-01	0.086
		154.21		-1.076E-01	7.108E-01	1.138E+00	1.260E-01	-0.095
		269.46		3.695E-01	3.837E-01	6.650E-01	7.338E-02	0.556
		323.87	*	-1.006E+00	1.460E+00	2.321E+00	4.212E-01	-0.434
	+	338.28		4.057E+00	2.968E+00	3.826E+00	4.968E-01	1.060
TH-232	+	338.32		1.022E+00	7.430E-01	9.635E-01	9.499E-02	1.061
	+	911.20	*	9.475E-01	6.492E-01	8.240E-01	9.980E-02	1.150
		968.97		5.456E-01	7.515E-01	1.270E+00	3.120E-01	0.430
PA-233		300.13		2.725E-01	9.224E-01	1.363E+00	2.186E-01	0.200
		311.90	*	1.359E-01	1.460E-01	2.522E-01	2.668E-02	0.539
		340.48		2.033E+00	1.574E+00	2.349E+00	5.761E-01	0.865
PA-234		94.67		3.245E-01	3.307E-01	5.398E-01	7.790E-02	0.601
		98.44		-1.686E-01	1.929E-01	2.617E-01	1.471E-01	-0.644
		111.00		-4.088E-02	3.486E-01	5.650E-01	7.501E-02	-0.072
		131.20		4.994E-02	1.958E-01	3.210E-01	3.222E-02	0.156
		569.50		2.466E-01	5.712E-01	9.497E-01	8.135E-02	0.260
		733.00		-4.784E-01	9.747E-01	1.323E+00	2.936E-01	-0.362
		880.51		-2.965E-01	7.475E-01	1.201E+00	1.112E-01	-0.247
		883.24		2.879E-01	7.705E-01	1.264E+00	8.511E-01	0.228
		926.50		2.116E-01	4.980E-01	8.371E-01	2.136E-01	0.253
		946.00	*	3.608E-01	8.700E-01	1.465E+00	2.792E-01	0.246
		949.00		-4.543E-01	1.317E+00	2.118E+00	1.956E-01	-0.214
PA-234M		766.42		2.021E+01	2.705E+01	4.382E+01	2.224E+01	0.461
		1001.03	*	5.057E+00	1.135E+01	1.923E+01	1.994E+00	0.263
TH-234		63.29	*	-5.101E+00	4.411E+00	5.842E+00	1.159E+00	-0.873
		92.59		8.251E-01	1.463E+00	2.203E+00	5.158E-01	0.375
U-235		89.96		1.538E+01	4.689E+00	4.301E+00	1.119E+00	3.576
		93.35		1.115E+00	1.081E+00	1.633E+00	3.972E-01	0.683
		143.76	*	6.002E-02	3.791E-01	6.168E-01	1.098E-01	0.097
		163.33		1.179E-01	8.091E-01	1.311E+00	2.489E-01	0.090
	+	185.72		1.434E-01	1.247E-01	1.529E-01	1.655E-02	0.938
		205.31		-7.246E-01	1.052E+00	1.611E+00	3.119E-01	-0.450
NP-237		86.48	*	5.838E+00	1.600E+00	1.351E+00	3.283E-01	4.320
		95.86		-1.933E+00	1.873E+00	2.830E+00	7.085E-01	-0.683

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-238		63.29	*	-5.101E+00	4.411E+00	5.842E+00	1.159E+00	-0.873
		92.59		8.251E-01	1.453E+00	2.203E+00	2.560E-01	0.375
NP-239		99.53		-2.920E-01	2.978E-01	4.609E-01	4.997E-02	-0.634
		103.37		1.001E-01	1.832E-01	3.061E-01	3.232E-02	0.327
		106.12		-2.227E-02	1.567E-01	2.541E-01	2.644E-02	-0.088
		117.23	*	-1.071E+00	8.811E-01	1.146E+00	1.156E-01	-0.935
		228.18		2.090E-01	4.425E-01	7.578E-01	8.359E-02	0.276
		277.60		3.954E-01	3.707E-01	6.444E-01	6.978E-02	0.614
CM-247		278.00		1.968E+00	1.546E+00	2.707E+00	2.930E-01	0.727
		287.50		2.044E+00	2.684E+00	4.515E+00	4.842E-01	0.453
		402.40	*	-1.174E-02	8.932E-02	1.458E-01	1.233E-02	-0.081
CF-249		252.80		-1.890E+00	2.066E+00	3.303E+00	3.632E-01	-0.572
		333.37		-3.416E-01	4.578E-01	6.204E-01	6.182E-02	-0.551
		388.16	*	-1.486E-02	9.446E-02	1.542E-01	1.315E-02	-0.096
CF-251		177.52	*	-3.246E-01	2.679E-01	4.015E-01	4.320E-02	-0.808
		227.38		4.905E-02	7.298E-01	1.231E+00	1.358E-01	0.040
		285.41		5.172E-01	4.656E+00	7.806E+00	8.389E-01	0.066

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065182      *
* Acquisition date : 18-MAR-2010 22:04:01 Detector SN#    :                 *
* Detector ID       : GAM15                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:01.28      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 10-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202065182          Analyst initials: MXR1           *
* Batch Number      : 962629               Sample Quantity : 1.5544E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.594E+00	5.573E-01	5.671E-01	0.000E+00
CO-57	3.664E-01	1.078E-01	7.910E-02	0.000E+00
CO-60	6.589E+00	7.203E-01	1.305E-01	0.000E+00
CD-109	2.587E+01	4.423E+00	3.059E+00	0.000E+00
SN-126	2.552E+00	4.364E-01	3.042E-01	0.000E+00
BA-137M	5.445E+00	5.263E-01	1.331E-01	0.000E+00
CS-137	5.752E+00	5.568E-01	1.406E-01	0.000E+00
TL-208	3.852E-01	1.468E-01	1.193E-01	0.000E+00
BI-211	2.234E+00	7.788E-01	8.588E-01	0.000E+00
PB-212	1.142E+00	2.340E-01	1.991E-01	0.000E+00
BI-214	7.332E-01	2.756E-01	2.354E-01	0.000E+00
PB-214	8.109E-01	2.860E-01	2.831E-01	0.000E+00
RA-224	3.655E+00	2.306E+00	2.133E+00	0.000E+00
RA-226	7.332E-01	2.756E-01	2.354E-01	0.000E+00
TH-228	1.142E+00	2.340E-01	1.991E-01	0.000E+00
AM-241	1.310E+01	1.901E+00	9.921E-01	0.000E+00
ANH-511	1.721E-01	1.175E-01	1.011E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	2.881E-01	7.120E-01	1.259E+00	0.000E+00	NOT IDENT.
NA-22	2.663E-02	5.498E-02	9.887E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.159E+03	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-3.443E-02	9.605E-02	1.596E-01	0.000E+00	NOT IDENT.
V-48	-2.859E-02	1.391E-01	2.342E-01	0.000E+00	NOT IDENT.
CR-51	1.254E-01	6.915E-01	1.242E+00	0.000E+00	NOT IDENT.
MN-54	2.188E-02	7.924E-02	1.399E-01	0.000E+00	NOT IDENT.
CO-56	-7.844E-03	9.126E-02	1.570E-01	0.000E+00	NOT IDENT.
CO-58	8.841E-02	8.458E-02	1.562E-01	0.000E+00	NOT IDENT.
FE-59	-1.918E-01	2.130E-01	3.345E-01	0.000E+00	NOT IDENT.

ZN-65	-2.122E-01	2.205E-01	3.446E-01	0.000E+00	NOT IDENT.
SE-75	5.673E-02	9.240E-02	1.709E-01	0.000E+00	FAIL ABUN
SR-85	9.691E-02	8.799E-02	1.423E-01	0.000E+00	NOT IDENT.
Y-88	-5.230E-03	5.015E-02	8.198E-02	0.000E+00	NOT IDENT.
Y-91	-4.313E+00	3.206E+01	5.297E+01	0.000E+00	NOT IDENT.
NB-94	-4.868E-02	6.742E-02	1.122E-01	0.000E+00	NOT IDENT.
NB-95	6.985E-02	8.665E-02	1.585E-01	0.000E+00	NOT IDENT.
NB-95M	3.145E-01	2.655E-01	4.435E-01	0.000E+00	NOT IDENT.
ZR-95	-2.513E-02	1.409E-01	2.432E-01	0.000E+00	NOT IDENT.
MO-99	6.909E+00	5.624E+00	1.046E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.534E+09	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-3.615E-02	8.038E-02	1.344E-01	0.000E+00	FAIL ABUN
RH-106	-1.446E-01	6.784E-01	1.131E+00	0.000E+00	NOT IDENT.
RU-106	-1.446E-01	6.782E-01	1.131E+00	0.000E+00	NOT IDENT.
AG-108M	4.475E-02	7.275E-02	1.306E-01	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	1.085E-01	1.923E-01	0.000E+00	NOT IDENT.
SN-113	8.537E-02	1.030E-01	1.877E-01	0.000E+00	NOT IDENT.
CD-115	-3.002E+00	3.888E+00	6.330E+00	0.000E+00	NOT IDENT.
SN-117M	1.562E-02	7.165E-02	1.273E-01	0.000E+00	NOT IDENT.
TE-123M	1.497E-02	4.927E-02	8.788E-02	0.000E+00	NOT IDENT.
SB-124	1.236E-02	9.676E-02	1.687E-01	0.000E+00	NOT IDENT.
SB-125	-6.267E-02	2.211E-01	3.798E-01	0.000E+00	NOT IDENT.
TE-125M	-4.608E+00	1.658E+01	2.941E+01	0.000E+00	NOT IDENT.
I-126	4.371E-01	3.544E-01	6.019E-01	0.000E+00	NOT IDENT.
SB-126	1.950E-02	2.314E-01	3.529E-01	0.000E+00	NOT IDENT.
SB-127	4.964E-01	8.447E-01	1.546E+00	0.000E+00	NOT IDENT.
I-131	5.149E-05	1.340E-01	2.364E-01	0.000E+00	NOT IDENT.
TE-132	1.853E-01	3.813E-01	7.055E-01	0.000E+00	NOT IDENT.
BA-133	9.746E-02	1.015E-01	1.655E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	9.487E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.255E-01	1.029E-01	1.921E-01	0.000E+00	NOT IDENT.
CS-135	-1.984E-01	3.351E-01	5.866E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.250E+09	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.433E-02	2.015E-01	3.344E-01	0.000E+00	NOT IDENT.
CE-139	-4.864E-03	5.451E-02	9.525E-02	0.000E+00	NOT IDENT.
BA-140	-9.045E-02	4.274E-01	7.207E-01	0.000E+00	NOT IDENT.
LA-140	-3.657E-02	9.208E-02	1.444E-01	0.000E+00	NOT IDENT.
CE-141	7.015E-03	1.015E-01	1.799E-01	0.000E+00	NOT IDENT.
CE-143	1.888E+01	1.309E+01	2.129E+01	0.000E+00	NOT IDENT.
CE-144	-3.916E-01	3.786E-01	6.329E-01	0.000E+00	NOT IDENT.
PM-144	-2.531E-02	6.950E-02	1.191E-01	0.000E+00	NOT IDENT.
PR-144	-2.112E-01	5.076E+00	8.900E+00	0.000E+00	NOT IDENT.
PM-146	-3.756E-02	1.053E-01	1.792E-01	0.000E+00	NOT IDENT.
ND-147	-1.403E-01	8.560E-01	1.453E+00	0.000E+00	NOT IDENT.
PM-149	2.326E+01	2.736E+01	5.052E+01	0.000E+00	NOT IDENT.
EU-152	-3.791E-02	2.498E-01	3.797E-01	0.000E+00	FAIL ABUN
GD-153	-1.392E-01	1.530E-01	2.637E-01	0.000E+00	NOT IDENT.
EU-154	7.361E-02	1.560E-01	2.800E-01	0.000E+00	FAIL ABUN
EU-155	1.951E-02	1.914E-01	3.461E-01	0.000E+00	NOT IDENT.
TB-160	-8.377E-02	3.364E-01	5.705E-01	0.000E+00	FAIL ABUN
HO-166M	3.138E-02	1.253E-01	2.236E-01	0.000E+00	FAIL ABUN
TA-182	2.613E-02	2.092E-01	3.577E-01	0.000E+00	NOT IDENT.
IR-192	-1.738E-02	7.271E-02	1.280E-01	0.000E+00	FAIL ABUN
HG-203	4.294E-02	7.295E-02	1.342E-01	0.000E+00	NOT IDENT.
BI-207	1.222E-01	1.362E-01	2.450E-01	0.000E+00	FAIL ABUN
PB-210	2.817E+00	2.142E+01	4.035E+01	0.000E+00	NOT IDENT.
PB-211	-8.635E-01	1.729E+00	2.863E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.750E+00	2.233E+00	0.000E+00	FAIL ABUN
RN-219	1.512E-01	9.499E-01	1.678E+00	0.000E+00	NOT IDENT.
RA-223	-1.006E+00	1.431E+00	2.439E+00	0.000E+00	FAIL ABUN
AC-227	5.889E-01	5.313E-01	9.945E-01	0.000E+00	NOT IDENT.
TH-227	5.889E-01	5.325E-01	9.945E-01	0.000E+00	NOT IDENT.
AC-228	0.000E+00	6.362E-01	8.420E-01	0.000E+00	FAIL ABUN
RA-228	0.000E+00	6.362E-01	8.420E-01	0.000E+00	FAIL ABUN
TH-229	-2.471E-02	1.068E+00	1.854E+00	0.000E+00	FAIL ABUN
PA-231	-2.335E+00	3.049E+00	5.233E+00	0.000E+00	NOT IDENT.
TH-231	-1.006E+00	1.431E+00	2.439E+00	0.000E+00	FAIL ABUN
TH-232	0.000E+00	6.362E-01	8.420E-01	0.000E+00	FAIL ABUN
PA-233	1.359E-01	1.431E-01	2.653E-01	0.000E+00	NOT IDENT.
PA-234	3.608E-01	8.526E-01	1.495E+00	0.000E+00	NOT IDENT.
PA-234M	5.057E+00	1.112E+01	1.960E+01	0.000E+00	NOT IDENT.
TH-234	-5.101E+00	4.323E+00	6.394E+00	0.000E+00	NOT IDENT.
U-235	6.002E-02	3.715E-01	6.616E-01	0.000E+00	FAIL ABUN
NP-237	0.000E+00	1.568E+00	1.468E+00	0.000E+00	NOT IDENT.
U-238	-5.101E+00	4.323E+00	6.394E+00	0.000E+00	NOT IDENT.
NP-239	-1.071E+00	8.635E-01	1.235E+00	0.000E+00	NOT IDENT.
CM-247	-1.174E-02	8.754E-02	1.523E-01	0.000E+00	NOT IDENT.
CF-249	-1.486E-02	9.257E-02	1.613E-01	0.000E+00	NOT IDENT.

CF-251	-3.246E-01	2.625E-01	4.284E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 23:04:31.66

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065182.CNF;1
Sample date       : 10-MAR-2010 00:00:00 Acquisition date : 18-MAR-2010 22:04:01
Sample ID         : G1202065182          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.28  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962629               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	34	10.66*	9.666E-01	1.594E+00	1.594E+00	35.68
CO-57	122.06	358	85.60*	5.636E+00	3.581E-01	3.664E-01	30.03
	136.47	------	10.68	5.583E+00	------ Line Not Found		------
CO-60	1173.23	1531	99.85	1.174E+00	6.310E+00	6.331E+00	9.97
	1332.49	1419	99.98*	1.044E+00	6.568E+00	6.589E+00	11.15
CD-109	88.03	882	3.70*	4.509E+00	2.552E+01	2.587E+01	17.45
SN-126	64.28	------	9.60	1.941E+00	------ Line Not Found		------
	86.94	882	8.90	4.509E+00	1.061E+01	1.061E+01	44.05
	87.57	882	37.00*	4.509E+00	2.552E+00	2.552E+00	17.45
BA-137M	661.66	2007	89.90*	1.982E+00	5.442E+00	5.445E+00	9.86
CS-137	661.66	2007	85.10*	1.982E+00	5.749E+00	5.752E+00	9.88
TL-208	277.37	------	6.60	3.705E+00	------ Line Not Found		------
	583.19	148	85.00*	2.190E+00	3.852E-01	3.852E-01	38.89
	860.56	------	12.50	1.576E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	3.001E+00	------ Line Not Found		------
	351.06	188	12.92*	3.140E+00	2.234E+00	2.234E+00	35.57
PB-212	74.82	------	10.28	3.228E+00	------ Line Not Found		------
	77.11	214	17.10	3.411E+00	1.771E+00	1.771E+00	49.40
	238.63	424	43.60*	4.115E+00	1.142E+00	1.142E+00	20.90
	300.09	------	3.30	3.507E+00	------ Line Not Found		------
BI-214	609.32	146	45.49*	2.116E+00	7.332E-01	7.332E-01	38.36
	1120.29	------	14.92	1.226E+00	------ Line Not Found		------
	1764.49	24	15.30	8.555E-01	8.914E-01	8.914E-01	55.39
PB-214	74.82	------	5.80	3.228E+00	------ Line Not Found		------
	77.11	214	9.70	3.411E+00	3.122E+00	3.122E+00	50.08
	242.00	127	7.25	4.079E+00	2.067E+00	2.067E+00	64.64
	295.22	128	18.42	3.546E+00	9.500E-01	9.501E-01	48.70
	351.93	188	35.60*	3.140E+00	8.109E-01	8.109E-01	35.99
RA-224	240.99	127	4.10*	4.079E+00	3.655E+00	3.655E+00	64.38
RA-226	609.32	146	45.49*	2.116E+00	7.332E-01	7.332E-01	38.36
	1120.29	------	14.92	1.226E+00	------ Line Not Found		------
	1764.49	24	15.30	8.555E-01	8.914E-01	8.914E-01	55.39

Sample ID : G1202065182 Acquisition date : 18-MAR-2010 22:04:01

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	------	10.28	3.228E+00	------ Line Not Found		------
	77.11	214	17.10	3.411E+00	1.771E+00	1.771E+00	49.40
	238.63	424	43.60*	4.115E+00	1.142E+00	1.142E+00	20.90
	300.09	------	3.30	3.507E+00	------ Line Not Found		------
AM-241	59.54	1348	35.90*	1.385E+00	1.310E+01	1.310E+01	14.81
ANH-511	511.00	86	100.00*	2.418E+00	1.721E-01	1.721E-01	69.65

Flag: "*" = Keyline

Sample ID : G1202065182 Acquisition date : 18-MAR-2010 22:04:01

Total number of lines in spectrum 20
Number of unidentified lines 0
Number of lines tentatively identified by NID 20 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	1.594E+00	1.594E+00	0.569E+00	35.68	
CO-57	271.74D	1.02	3.581E-01	3.664E-01	1.100E-01	30.03	
CO-60	5.27Y	1.00	6.568E+00	6.589E+00	0.735E+00	11.15	
CD-109	461.40D	1.01	2.552E+01	2.587E+01	0.451E+01	17.45	
SN-126	2.30E+05Y	1.00	2.552E+00	2.552E+00	0.445E+00	17.45	
BA-137M	30.08Y	1.00	5.442E+00	5.445E+00	0.537E+00	9.86	
CS-137	30.08Y	1.00	5.749E+00	5.752E+00	0.568E+00	9.88	
TL-208	1.41E+10Y	1.00	3.852E-01	3.852E-01	1.498E-01	38.89	
BI-211	7.04E+08Y	1.00	2.234E+00	2.234E+00	0.795E+00	35.57	
PB-212	1.41E+10Y	1.00	1.142E+00	1.142E+00	0.239E+00	20.90	
BI-214	1600.00Y	1.00	7.332E-01	7.332E-01	2.812E-01	38.36	
PB-214	1600.00Y	1.00	8.109E-01	8.109E-01	2.919E-01	35.99	
RA-224	1.41E+10Y	1.00	3.655E+00	3.655E+00	2.353E+00	64.38	
RA-226	1600.00Y	1.00	7.332E-01	7.332E-01	2.812E-01	38.36	
TH-228	1.41E+10Y	1.00	1.142E+00	1.142E+00	0.239E+00	20.90	
AM-241	432.60Y	1.00	1.310E+01	1.310E+01	0.194E+01	14.81	
ANH-511	1.00E+09Y	1.00	1.721E-01	1.721E-01	1.198E-01	69.65	
	Total Activity :		7.190E+01	7.228E+01			

Grand Total Activity : 7.190E+01 7.228E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065182 Acquisition date : 18-MAR-2010 22:04:01

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	185.76	83	300	1.32	370.43	365	11	2.29E-02	86.3	4.86E+00	T
0	338.21	77	185	1.98	675.32	670	11	2.14E-02	72.0	3.23E+00	T
0	726.94	62	94	1.13	1452.82	1446	14	1.73E-02	71.5	1.83E+00	T
0	911.42	76	133	1.71	1821.82	1814	13	2.10E-02	67.4	1.49E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 18-MAR-2010 23:04:35.72

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065182.CNF;1  *
* Acquisition date : 18-MAR-2010 22:04:01  Detector SN#    :                *
* Detector ID      : GAM15                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 01:00:01.28         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 10-MAR-2010 00:00:00  Nuclide Library : SOLID          *
* Sample ID        : G1202065182           Analyst initials: MXR1           *
* Batch Number     : 962629                Sample Quantity : 1.55440E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.594E+00	5.686E-01	5.623E-01	5.526E-02	2.834
CO-57	3.664E-01	1.100E-01	7.344E-02	7.398E-03	4.989
CO-60	6.589E+00	7.350E-01	1.290E-01	1.240E-02	51.065
CD-109	2.587E+01	4.514E+00	2.818E+00	3.498E-01	9.181
SN-126	2.552E+00	4.453E-01	2.801E-01	3.466E-02	9.112
BA-137M	5.445E+00	5.371E-01	1.291E-01	1.062E-02	42.163
CS-137	5.752E+00	5.682E-01	1.364E-01	1.124E-02	42.163
TL-208	3.852E-01	1.498E-01	1.153E-01	1.054E-02	3.341
BI-211	2.234E+00	7.947E-01	8.191E-01	8.157E-02	2.728
PB-212	1.142E+00	2.387E-01	1.880E-01	2.246E-02	6.076
BI-214	7.332E-01	2.812E-01	2.278E-01	2.270E-02	3.218
PB-214	8.109E-01	2.919E-01	2.701E-01	3.070E-02	3.002
RA-224	3.655E+00	2.353E+00	2.015E+00	2.222E-01	1.814
RA-226	7.332E-01	2.812E-01	2.278E-01	2.270E-02	3.218
TH-228	1.142E+00	2.387E-01	1.880E-01	2.246E-02	6.076
AM-241	1.310E+01	1.940E+00	9.051E-01	1.062E-01	14.474
ANH-511	1.721E-01	1.198E-01	9.736E-02	8.413E-03	1.767

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.881E-01		7.265E-01	1.211E+00	1.125E-01	0.238

Sample ID : G1202065182 Acquisition date : 18-MAR-2010 22:04:01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	2.663E-02		5.611E-02	9.766E-02	8.871E-03	0.273
NA-24	-3.344E-04		5.915E-04	Half-Life too short		
SC-46	-3.443E-02		9.801E-02	1.561E-01	1.451E-02	-0.221
V-48	-2.859E-02		1.420E-01	2.296E-01	2.099E-02	-0.124
CR-51	1.254E-01		7.056E-01	1.181E+00	1.254E-01	0.106
MN-54	2.188E-02		8.085E-02	1.366E-01	1.240E-02	0.160
CO-56	-7.844E-03		9.312E-02	1.533E-01	1.399E-02	-0.051
CO-58	8.841E-02		8.631E-02	1.523E-01	1.369E-02	0.580
FE-59	-1.918E-01		2.174E-01	3.290E-01	3.070E-02	-0.583
ZN-65	-2.122E-01		2.250E-01	3.391E-01	2.897E-02	-0.626
SE-75	5.673E-02		9.429E-02	1.618E-01	1.774E-02	0.351
SR-85	9.691E-02		8.978E-02	1.371E-01	1.184E-02	0.707
Y-88	-5.230E-03		5.118E-02	8.182E-02	6.891E-03	-0.064
Y-91	-4.313E+00		3.272E+01	5.224E+01	4.403E+00	-0.083
NB-94	-4.868E-02		6.879E-02	1.091E-01	9.208E-03	-0.446
NB-95	6.985E-02		8.842E-02	1.543E-01	1.352E-02	0.453
NB-95M	3.145E-01		2.709E-01	4.186E-01	5.044E-02	0.751
ZR-95	-2.513E-02		1.437E-01	2.367E-01	2.275E-02	-0.106
MO-99	6.909E+00		5.738E+00	1.018E+01	1.605E+00	0.679
TC-99M	-1.324E+03		1.293E+03	Half-Life too short		
RU-103	-3.615E-02		8.202E-02	1.294E-01	1.809E-02	-0.279
RH-106	-1.446E-01		6.922E-01	1.096E+00	1.437E-01	-0.132
RU-106	-1.446E-01		6.921E-01	1.096E+00	9.207E-02	-0.132
AG-108M	4.475E-02		7.423E-02	1.253E-01	1.107E-02	0.357
AG-110M	2.987E-01		1.107E-01	1.865E-01	1.587E-02	1.602
SN-113	8.537E-02		1.051E-01	1.796E-01	1.559E-02	0.475
CD-115	-3.002E+00		3.967E+00	6.103E+00	5.267E-01	-0.492
SN-117M	1.562E-02		7.311E-02	1.190E-01	1.248E-02	0.131
TE-123M	1.497E-02		5.027E-02	8.214E-02	8.656E-03	0.182
SB-124	1.236E-02		9.874E-02	1.680E-01	1.582E-02	0.074
SB-125	-6.267E-02		2.256E-01	3.642E-01	3.170E-02	-0.172
TE-125M	-4.608E+00		1.692E+01	2.723E+01	3.231E+00	-0.169
I-126	4.371E-01		3.616E-01	5.840E-01	4.816E-02	0.749
SB-126	1.950E-02		2.361E-01	3.431E-01	2.929E-02	0.057
SB-127	4.964E-01		8.619E-01	1.501E+00	1.440E-01	0.331
I-131	5.149E-05		1.367E-01	2.257E-01	2.171E-02	0.000
TE-132	1.853E-01		3.891E-01	6.654E-01	1.088E-01	0.278
BA-133	9.746E-02		1.035E-01	1.579E-01	2.134E-02	0.617
I-133	-5.665E-05		4.840E-05	Half-Life too short		
CS-134	1.255E-01		1.050E-01	1.873E-01	1.679E-02	0.670
CS-135	-1.984E-01		3.419E-01	5.556E-01	6.667E-02	-0.357
I-135	2.815E+02		6.376E+02	Half-Life too short		
CS-136	-6.433E-02		2.057E-01	3.285E-01	3.036E-02	-0.196
CE-139	-4.864E-03		5.563E-02	8.912E-02	9.513E-03	-0.055
BA-140	-9.045E-02		4.361E-01	6.952E-01	2.358E-01	-0.130
LA-140	-3.657E-02		9.395E-02	1.436E-01	1.346E-02	-0.255
CE-141	7.015E-03		1.036E-01	1.678E-01	1.734E-02	0.042
CE-143	1.888E+01		1.336E+01	2.022E+01	4.487E+00	0.934

Sample ID : G1202065182 Acquisition date : 18-MAR-2010 22:04:01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-144	-3.916E-01		3.863E-01	5.889E-01	9.503E-02	-0.665
PM-144	-2.531E-02		7.092E-02	1.157E-01	9.733E-03	-0.219
PR-144	-2.112E-01		5.180E+00	8.645E+00	7.271E-01	-0.024
PM-146	-3.756E-02		1.074E-01	1.721E-01	1.820E-02	-0.218
ND-147	-1.403E-01		8.734E-01	1.401E+00	2.095E-01	-0.100
PM-149	2.326E+01		2.792E+01	4.793E+01	8.051E+00	0.485
EU-152	-3.791E-02		2.549E-01	3.620E-01	3.684E-02	-0.105
GD-153	-1.392E-01		1.561E-01	2.435E-01	2.687E-02	-0.572
EU-154	7.361E-02		1.592E-01	2.765E-01	3.243E-02	0.266
EU-155	1.951E-02		1.953E-01	3.202E-01	3.373E-02	0.061
TB-160	-8.377E-02		3.433E-01	5.577E-01	5.162E-02	-0.150
HO-166M	3.138E-02		1.278E-01	2.173E-01	1.845E-02	0.144
TA-182	2.613E-02		2.135E-01	3.529E-01	3.029E-02	0.074
IR-192	-1.738E-02		7.419E-02	1.218E-01	1.256E-02	-0.143
HG-203	4.294E-02		7.443E-02	1.273E-01	1.399E-02	0.337
BI-207	1.222E-01		1.390E-01	2.408E-01	2.125E-02	0.508
PB-210	2.817E+00		2.186E+01	3.660E+01	4.505E+00	0.077
PB-211	-8.635E-01		1.764E+00	2.741E+00	1.326E+00	-0.315
BI-212	2.461E+00	+	1.786E+00	2.172E+00	2.698E-01	1.133
RN-219	1.512E-01		9.693E-01	1.606E+00	2.373E-01	0.094
RA-223	-1.006E+00		1.460E+00	2.321E+00	4.212E-01	-0.434
AC-227	5.889E-01		5.421E-01	9.408E-01	1.302E-01	0.626
TH-227	5.889E-01		5.434E-01	9.408E-01	1.431E-01	0.626
AC-228	9.475E-01	+	6.492E-01	8.240E-01	9.980E-02	1.150
RA-228	9.475E-01	+	6.492E-01	8.240E-01	9.980E-02	1.150
TH-229	-2.471E-02		1.089E+00	1.741E+00	1.894E-01	-0.014
PA-231	-2.335E+00		3.111E+00	4.963E+00	7.915E-01	-0.470
TH-231	-1.006E+00		1.460E+00	2.321E+00	4.212E-01	-0.434
TH-232	9.475E-01	+	6.492E-01	8.240E-01	9.980E-02	1.150
PA-233	1.359E-01		1.460E-01	2.522E-01	2.668E-02	0.539
PA-234	3.608E-01		8.700E-01	1.465E+00	2.792E-01	0.246
PA-234M	5.057E+00		1.135E+01	1.923E+01	1.994E+00	0.263
TH-234	-5.101E+00		4.411E+00	5.842E+00	1.159E+00	-0.873
U-235	6.002E-02		3.791E-01	6.168E-01	1.098E-01	0.097
NP-237	5.838E+00		1.600E+00	1.351E+00	3.283E-01	4.320
U-238	-5.101E+00		4.411E+00	5.842E+00	1.159E+00	-0.873
NP-239	-1.071E+00		8.811E-01	1.146E+00	1.156E-01	-0.935
CM-247	-1.174E-02		8.932E-02	1.458E-01	1.233E-02	-0.081
CF-249	-1.486E-02		9.446E-02	1.542E-01	1.315E-02	-0.096
CF-251	-3.246E-01		2.679E-01	4.015E-01	4.320E-02	-0.808

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065182          *
* Acquisition date : 18-MAR-2010 22:04:01 Detector SN#    :                *
* Detector ID      : GAM15                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:01.28     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 10-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202065182          Analyst initials: MXR1           *
* Batch Number     : 962629               Sample Quantity : 1.5544E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.594E+00	5.573E-01	2.837E-01	2.843E-01
CO-57	3.664E-01	1.078E-01	3.957E-02	5.501E-02
CO-60	6.589E+00	7.203E-01	6.527E-02	3.675E-01
CD-109	2.587E+01	4.423E+00	1.530E+00	2.257E+00
SN-126	2.552E+00	4.364E-01	1.522E-01	2.227E-01
BA-137M	5.445E+00	5.263E-01	6.661E-02	2.685E-01
CS-137	5.752E+00	5.568E-01	7.036E-02	2.841E-01
TL-208	3.852E-01	1.468E-01	5.967E-02	7.491E-02
BI-211	2.234E+00	7.788E-01	4.296E-01	3.974E-01
PB-212	1.142E+00	2.340E-01	9.961E-02	1.194E-01
BI-214	7.332E-01	2.756E-01	1.178E-01	1.406E-01
PB-214	8.109E-01	2.860E-01	1.417E-01	1.459E-01
RA-224	3.655E+00	2.306E+00	1.067E+00	1.177E+00
RA-226	7.332E-01	2.756E-01	1.178E-01	1.406E-01
TH-228	1.142E+00	2.340E-01	9.961E-02	1.194E-01
AM-241	1.310E+01	1.901E+00	4.963E-01	9.701E-01
ANH-511	1.721E-01	1.175E-01	5.057E-02	5.992E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	2.881E-01	7.120E-01	6.299E-01	3.632E-01	NOT IDENT.
NA-22	2.663E-02	5.498E-02	4.946E-02	2.805E-02	NOT IDENT.
NA-24	-3.344E+02	1.159E+03	0.000E+00	5.915E+02	SHORT HLIF
SC-46	-3.443E-02	9.605E-02	7.986E-02	4.900E-02	NOT IDENT.
V-48	-2.859E-02	1.391E-01	1.172E-01	7.098E-02	NOT IDENT.
CR-51	1.254E-01	6.915E-01	6.211E-01	3.528E-01	NOT IDENT.
MN-54	2.188E-02	7.924E-02	7.000E-02	4.043E-02	NOT IDENT.
CO-56	-7.844E-03	9.126E-02	7.856E-02	4.656E-02	NOT IDENT.
CO-58	8.841E-02	8.458E-02	7.812E-02	4.316E-02	NOT IDENT.
FE-59	-1.918E-01	2.130E-01	1.674E-01	1.087E-01	NOT IDENT.

ZN-65	-2.122E-01	2.205E-01	1.724E-01	1.125E-01	NOT IDENT.
SE-75	5.673E-02	9.240E-02	8.549E-02	4.714E-02	FAIL ABUN
SR-85	9.691E-02	8.799E-02	7.117E-02	4.489E-02	NOT IDENT.
Y-88	-5.230E-03	5.015E-02	4.102E-02	2.559E-02	NOT IDENT.
Y-91	-4.313E+00	3.206E+01	2.650E+01	1.636E+01	NOT IDENT.
NB-94	-4.868E-02	6.742E-02	5.616E-02	3.440E-02	NOT IDENT.
NB-95	6.985E-02	8.665E-02	7.928E-02	4.421E-02	NOT IDENT.
NB-95M	3.145E-01	2.655E-01	2.219E-01	1.355E-01	NOT IDENT.
ZR-95	-2.513E-02	1.409E-01	1.217E-01	7.187E-02	NOT IDENT.
MO-99	6.909E+00	5.624E+00	5.234E+00	2.869E+00	NOT IDENT.
TC-99M	-1.324E+09	2.534E+09	0.000E+00	1.293E+09	SHORT HLIF
RU-103	-3.615E-02	8.038E-02	6.725E-02	4.101E-02	FAIL ABUN
RH-106	-1.446E-01	6.784E-01	5.660E-01	3.461E-01	NOT IDENT.
RU-106	-1.446E-01	6.782E-01	5.660E-01	3.460E-01	NOT IDENT.
AG-108M	4.475E-02	7.275E-02	6.535E-02	3.711E-02	NOT IDENT.
AG-110M	2.987E-01	1.085E-01	9.620E-02	5.534E-02	NOT IDENT.
SN-113	8.537E-02	1.030E-01	9.391E-02	5.255E-02	NOT IDENT.
CD-115	-3.002E+00	3.888E+00	3.167E+00	1.983E+00	NOT IDENT.
SN-117M	1.562E-02	7.165E-02	6.371E-02	3.656E-02	NOT IDENT.
TE-123M	1.497E-02	4.927E-02	4.397E-02	2.514E-02	NOT IDENT.
SB-124	1.236E-02	9.676E-02	8.441E-02	4.937E-02	NOT IDENT.
SB-125	-6.267E-02	2.211E-01	1.900E-01	1.128E-01	NOT IDENT.
TE-125M	-4.608E+00	1.658E+01	1.471E+01	8.458E+00	NOT IDENT.
I-126	4.371E-01	3.544E-01	3.011E-01	1.808E-01	NOT IDENT.
SB-126	1.950E-02	2.314E-01	1.766E-01	1.180E-01	NOT IDENT.
SB-127	4.964E-01	8.447E-01	7.736E-01	4.310E-01	NOT IDENT.
I-131	5.149E-05	1.340E-01	1.183E-01	6.836E-02	NOT IDENT.
TE-132	1.853E-01	3.813E-01	3.530E-01	1.946E-01	NOT IDENT.
BA-133	9.746E-02	1.015E-01	8.279E-02	5.177E-02	NOT IDENT.
I-133	-5.665E+01	9.487E+01	0.000E+00	4.840E+01	SHORT HLIF
CS-134	1.255E-01	1.029E-01	9.612E-02	5.251E-02	NOT IDENT.
CS-135	-1.984E-01	3.351E-01	2.935E-01	1.710E-01	NOT IDENT.
I-135	2.815E+08	1.250E+09	0.000E+00	6.376E+08	SHORT HLIF
CS-136	-6.433E-02	2.015E-01	1.673E-01	1.028E-01	NOT IDENT.
CE-139	-4.864E-03	5.451E-02	4.765E-02	2.781E-02	NOT IDENT.
BA-140	-9.045E-02	4.274E-01	3.606E-01	2.181E-01	NOT IDENT.
LA-140	-3.657E-02	9.208E-02	7.227E-02	4.698E-02	NOT IDENT.
CE-141	7.015E-03	1.015E-01	9.002E-02	5.178E-02	NOT IDENT.
CE-143	1.888E+01	1.309E+01	1.065E+01	6.681E+00	NOT IDENT.
CE-144	-3.916E-01	3.786E-01	3.166E-01	1.931E-01	NOT IDENT.
PM-144	-2.531E-02	6.950E-02	5.960E-02	3.546E-02	NOT IDENT.
PR-144	-2.112E-01	5.076E+00	4.452E+00	2.590E+00	NOT IDENT.
PM-146	-3.756E-02	1.053E-01	8.966E-02	5.371E-02	NOT IDENT.
ND-147	-1.403E-01	8.560E-01	7.268E-01	4.367E-01	NOT IDENT.
PM-149	2.326E+01	2.736E+01	2.528E+01	1.396E+01	NOT IDENT.
EU-152	-3.791E-02	2.498E-01	1.900E-01	1.275E-01	FAIL ABUN
GD-153	-1.392E-01	1.530E-01	1.319E-01	7.804E-02	NOT IDENT.
EU-154	7.361E-02	1.560E-01	1.401E-01	7.961E-02	FAIL ABUN
EU-155	1.951E-02	1.914E-01	1.732E-01	9.766E-02	NOT IDENT.
TB-160	-8.377E-02	3.364E-01	2.854E-01	1.716E-01	FAIL ABUN
HO-166M	3.138E-02	1.253E-01	1.118E-01	6.391E-02	FAIL ABUN
TA-182	2.613E-02	2.092E-01	1.790E-01	1.068E-01	NOT IDENT.
IR-192	-1.738E-02	7.271E-02	6.404E-02	3.710E-02	FAIL ABUN
HG-203	4.294E-02	7.295E-02	6.716E-02	3.722E-02	NOT IDENT.
BI-207	1.222E-01	1.362E-01	1.226E-01	6.948E-02	FAIL ABUN
PB-210	2.817E+00	2.142E+01	2.019E+01	1.093E+01	NOT IDENT.
PB-211	-8.635E-01	1.729E+00	1.433E+00	8.821E-01	NOT IDENT.
BI-212	2.461E+00	1.750E+00	1.117E+00	8.930E-01	FAIL ABUN
RN-219	1.512E-01	9.499E-01	8.394E-01	4.847E-01	NOT IDENT.
RA-223	-1.006E+00	1.431E+00	1.220E+00	7.300E-01	FAIL ABUN
AC-227	5.889E-01	5.313E-01	4.975E-01	2.711E-01	NOT IDENT.
TH-227	5.889E-01	5.325E-01	4.975E-01	2.717E-01	NOT IDENT.
AC-228	9.475E-01	6.362E-01	4.213E-01	3.246E-01	FAIL ABUN
RA-228	9.475E-01	6.362E-01	4.213E-01	3.246E-01	FAIL ABUN
TH-229	-2.471E-02	1.068E+00	9.273E-01	5.447E-01	FAIL ABUN
PA-231	-2.335E+00	3.049E+00	2.618E+00	1.555E+00	NOT IDENT.
TH-231	-1.006E+00	1.431E+00	1.220E+00	7.300E-01	FAIL ABUN
TH-232	9.475E-01	6.362E-01	4.213E-01	3.246E-01	FAIL ABUN
PA-233	1.359E-01	1.431E-01	1.327E-01	7.302E-02	NOT IDENT.
PA-234	3.608E-01	8.526E-01	7.482E-01	4.350E-01	NOT IDENT.
PA-234M	5.057E+00	1.112E+01	9.806E+00	5.673E+00	NOT IDENT.
TH-234	-5.101E+00	4.323E+00	3.199E+00	2.206E+00	NOT IDENT.
U-235	6.002E-02	3.715E-01	3.310E-01	1.896E-01	FAIL ABUN
NP-237	5.838E+00	1.568E+00	7.343E-01	7.998E-01	NOT IDENT.
U-238	-5.101E+00	4.323E+00	3.199E+00	2.206E+00	NOT IDENT.
NP-239	-1.071E+00	8.635E-01	6.180E-01	4.405E-01	NOT IDENT.
CM-247	-1.174E-02	8.754E-02	7.620E-02	4.466E-02	NOT IDENT.
CF-249	-1.486E-02	9.257E-02	8.068E-02	4.723E-02	NOT IDENT.

CF-251	-3.246E-01	2.625E-01	2.143E-01	1.340E-01 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	316.7625
49.72	356.7486
57.36	416.7398
59.54	393.4538
63.29	365.7553
63.29	365.7553
64.28	267.6668
67.75	326.4060
69.67	368.3996
70.83	268.5573
72.81	372.2363
72.87	372.2657
72.87	372.2657
74.82	338.2909
74.82	338.2909
74.82	338.2909
74.97	338.3585
77.11	347.4690
77.11	347.4690
77.11	347.4690
79.69	369.1982
79.80	390.0307
80.12	390.1885
80.19	390.2228
80.57	416.0111
81.00	432.2455
81.07	432.2834
81.07	432.2834
83.79	389.5719
83.79	389.5719
85.43	370.2335
86.48	410.9992
86.55	411.0350
86.79	411.1517
86.94	437.0305
87.57	424.6520
88.03	424.8865
88.47	425.1097
89.96	438.6068
91.11	356.5466
92.59	316.5751
92.59	316.5751
93.35	281.1060
94.67	295.2500
94.87	320.4602
94.87	320.4602
95.86	339.1546
97.43	280.5799
98.44	272.7261
99.53	261.8076
100.11	252.7655
103.18	245.4030
103.37	235.1840
105.31	256.2598
106.12	265.7520
109.28	272.8432
111.00	274.3680
111.76	281.8375
116.30	271.4879
117.23	291.7482
121.12	237.4397
121.78	237.5939
122.06	237.6597
123.07	237.8935
131.20	256.6469
133.52	303.7726
136.00	248.2412

136.47	258.9615
140.51	303.5822
140.51	0.0000
143.76	259.5946
144.24	253.2916
144.24	253.2916
145.44	256.7688
152.43	235.7234
153.25	252.0438
154.21	246.8592
154.21	246.8592
156.02	229.9624
158.56	227.2057
159.00	225.1228
162.66	235.5739
163.33	233.5307
165.86	251.4243
176.60	275.5270
177.52	296.5938
181.07	225.5875
184.41	270.3330
185.72	267.5050
193.51	263.4951
197.04	267.5171
205.31	302.7406
210.85	262.0421
215.65	255.6811
222.11	252.2633
227.38	248.5959
228.16	234.1470
228.18	234.1502
235.69	242.6228
235.96	242.6649
235.96	242.6649
238.63	225.6521
238.63	225.6521
240.99	225.9915
242.00	226.1371
244.70	227.1369
252.40	250.7428
252.80	249.8785
256.23	197.5418
256.23	197.5418
260.90	263.2052
264.66	206.0059
268.22	250.3471
269.46	201.9199
269.46	201.9199
271.23	219.9109
273.65	253.9599
276.40	191.4791
277.37	185.0121
277.60	191.6136
278.00	178.5031
279.20	199.3116
279.54	191.8277
280.46	215.4506
283.69	217.7327
284.31	212.1542
285.41	199.0772
285.90	179.3148
287.50	180.5267
293.27	165.8441
295.22	199.2283
295.96	226.2014
298.57	158.4127
299.98	180.7296
299.98	180.7296
300.09	180.7412
300.09	180.7412
300.13	180.7458
301.36	193.5588
302.85	206.4205
304.50	194.5271
304.50	194.5271
304.85	181.2120
308.46	190.1674
311.90	180.9458

316.51	203.4651
319.41	184.5539
320.08	188.4634
323.87	215.8160
323.87	215.8160
328.76	193.1836
333.37	206.5521
334.37	174.3684
334.37	174.3684
338.28	185.3926
338.28	185.3926
338.32	185.3973
338.32	185.3973
338.32	185.3973
340.48	163.5743
340.55	163.5794
344.28	193.0942
351.06	219.7980
351.93	180.7996
356.01	145.2569
364.49	134.7139
366.42	154.5239
383.85	159.7736
388.16	182.9646
388.63	174.0515
391.69	174.2972
400.66	167.0122
401.81	177.1037
402.40	184.1572
404.85	192.3773
410.95	180.8459
414.70	170.0769
423.72	185.9069
427.09	181.1195
427.87	184.2172
433.94	165.4175
453.88	184.2144
463.37	194.1841
468.07	192.4968
473.00	186.6938
476.78	161.1530
477.60	147.7707
487.02	137.9550
492.35	139.2851
497.08	136.4178
511.00	109.9328
514.00	122.2871
527.90	144.3551
529.87	0.0000
531.02	124.4819
537.26	123.7126
546.56	0.0000
563.25	101.4037
569.33	90.9268
569.50	93.0726
569.70	95.2187
583.19	91.3708
600.60	93.7253
602.73	124.4561
604.72	120.9304
609.32	95.4486
609.32	95.4486
610.33	95.4830
614.28	106.8367
618.01	96.5460
621.93	104.5688
621.93	104.5688
633.25	99.4957
635.95	82.0734
636.99	88.6709
645.85	93.3195
657.76	118.0821
661.66	104.8293
661.66	104.8293
664.57	82.0480
666.33	72.6210
666.50	72.6258
677.62	72.0887

685.70	75.0509
695.00	99.4265
696.49	101.3315
696.51	92.9647
697.00	83.6810
702.65	102.4536
706.68	81.1324
711.68	88.7262
720.70	81.8789
721.93	75.4849
722.78	65.8643
722.91	65.8671
723.31	70.6959
724.19	81.9643
727.33	97.5910
733.00	104.7386
735.93	98.5249
739.50	75.3418
747.24	91.5591
752.31	77.5156
753.82	96.4634
756.73	86.1345
763.94	107.1813
765.81	95.8505
766.42	95.8670
777.92	83.8016
778.90	80.0146
783.70	76.3086
785.37	91.6133
795.86	82.3134
801.95	94.9173
810.29	78.8002
810.76	76.8880
815.77	111.6410
818.51	82.8313
832.01	86.0359
834.85	86.1011
836.80	0.0000
846.77	103.8478
856.80	95.3682
860.56	80.8504
871.09	95.7271
873.19	105.5522
875.33	0.0000
879.36	107.6815
880.51	113.5881
883.24	97.0100
884.68	94.1055
889.28	106.9775
898.04	106.2334
911.20	116.7431
911.20	116.7431
911.20	116.7431
926.50	108.9840
937.49	118.2253
944.13	124.3896
946.00	114.4899
949.00	133.5066
962.29	148.9333
964.08	155.0000
966.15	127.0620
968.97	130.1534
968.97	130.1534
968.97	130.1534
983.53	98.4606
996.26	95.7364
1001.03	81.7202
1004.73	92.8984
1037.84	85.4766
1038.76	0.0000
1048.07	99.9579
1050.41	77.5617
1050.41	77.5617
1063.66	81.8880
1085.87	79.2120
1099.45	105.2456
1112.07	72.4296
1115.54	110.7966

1120.29	75.6674
1120.29	75.6674
1120.55	77.7466
1121.30	78.7956
1131.51	0.0000
1173.23	46.1270
1177.93	30.5825
1189.05	41.0217
1204.77	41.1550
1221.41	19.0598
1231.02	36.0724
1235.36	35.0424
1238.28	22.3125
1260.41	0.0000
1271.85	26.7415
1274.44	16.0529
1274.54	16.0535
1291.59	17.1810
1298.22	0.0000
1312.11	23.7188
1332.49	35.7178
1365.19	14.9358
1368.63	0.0000
1384.29	14.0520
1408.01	12.2319
1457.56	0.0000
1460.82	6.6497
1489.16	11.4568
1505.03	14.3607
1596.21	15.5580
1620.50	8.7866
1678.03	0.0000
1690.97	6.9124
1764.49	10.4890
1764.49	10.4890
1770.23	34.9939
1771.35	22.0000
1791.20	0.0000
1836.06	9.0888

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065182

Total Uranium Activity	-1.5149E+01	ug/g
Total Uranium Counting Unc.	1.2862E+01	ug/g
Total Uranium Tpu	6.5624E-06	ug/g
Total Uranium Mda	9.5182E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962629                    SAMPLE ID  : G1202065182      *
*   ANALYST       : MXR1                      DETECTOR   : GAM15            *
*   SAMPLE DATE   : 10-MAR-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 18-MAR-2010 22:04:01.61    SAMPLE ALQT:  155.440 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.687E+01
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 3.083E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 4.342E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 2.106E+00
```

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W040.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:11 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.306790 through 0.340520

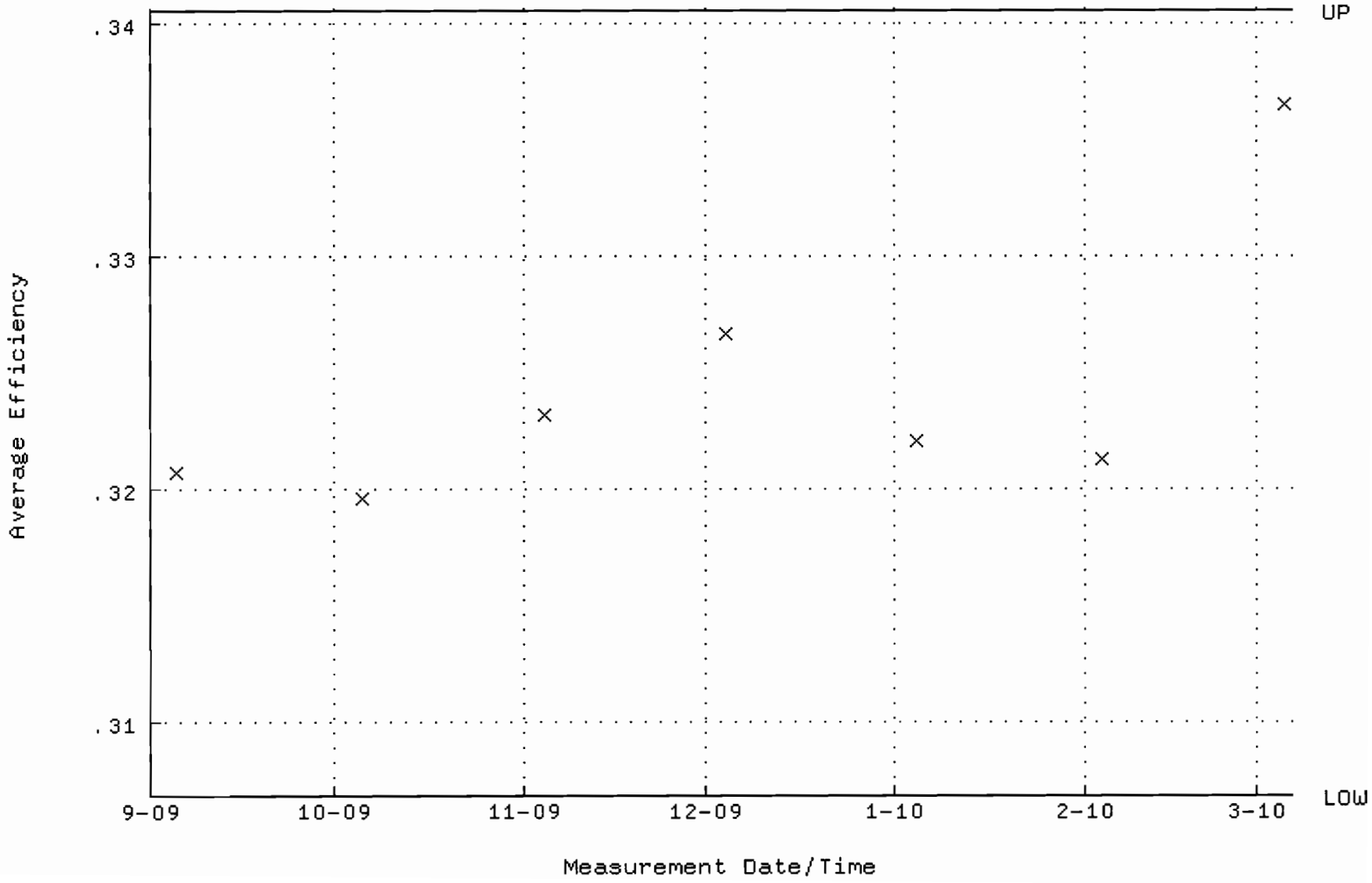

QA filename : DKA100:[ENV_ALPHA.QA.W]W040.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:11 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 83.5423 through 90.9959

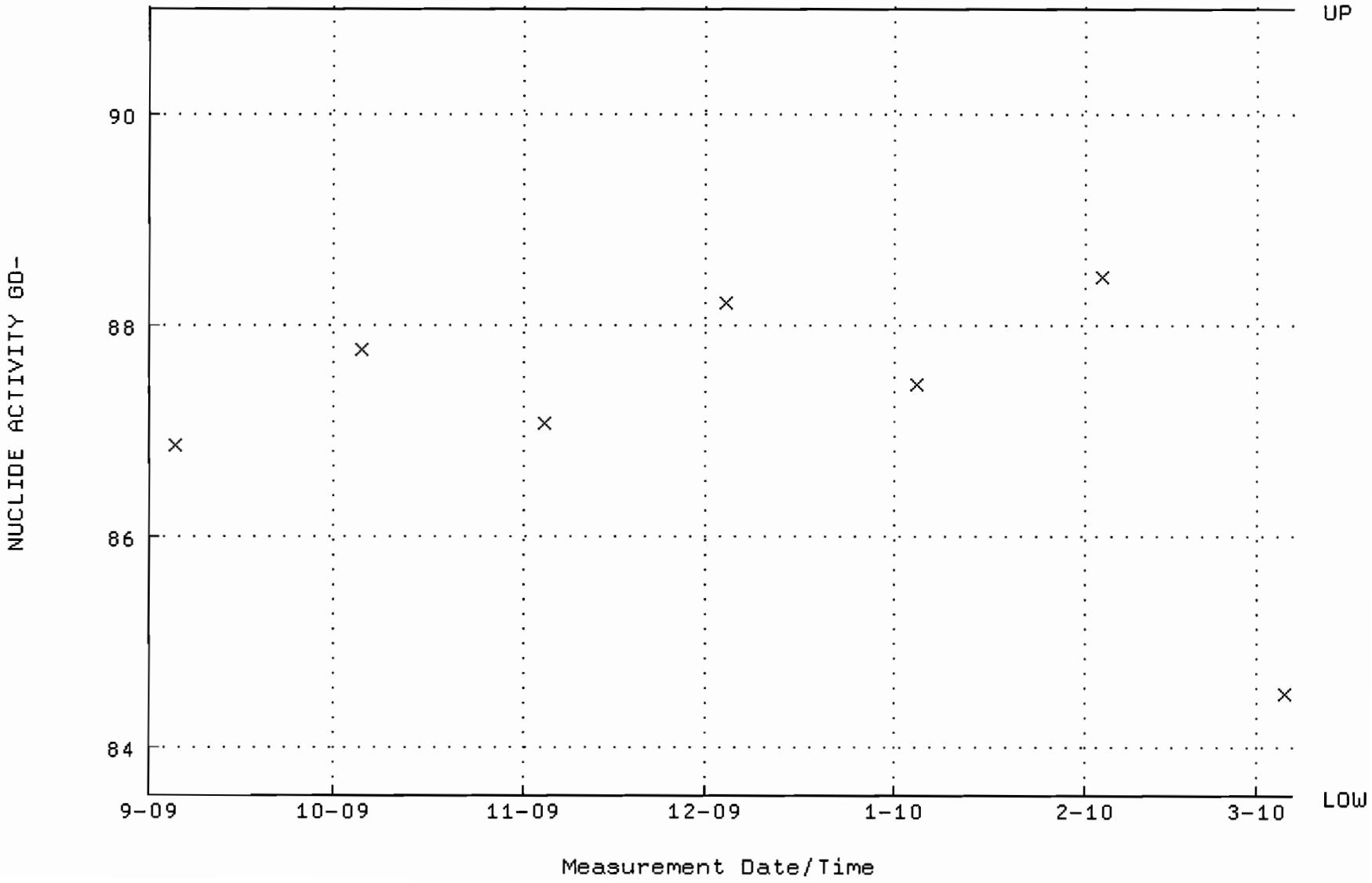

QA filename : DKA100:[ENV_ALPHA.QA.B]B040.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:05 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

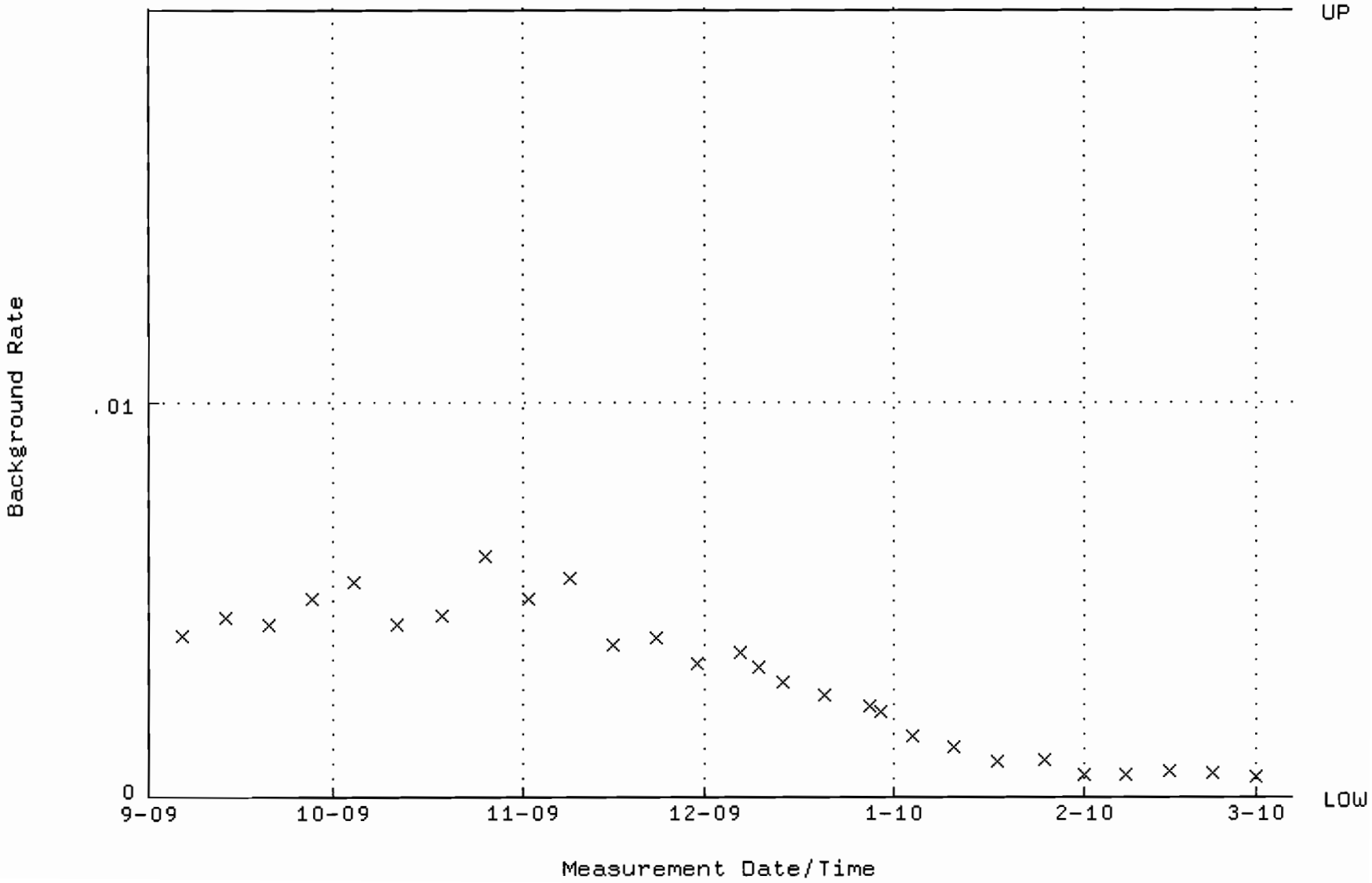

QA filename : DKA100:[ENV_ALPHA.QA.W]W041.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:11 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.312659 through 0.351485

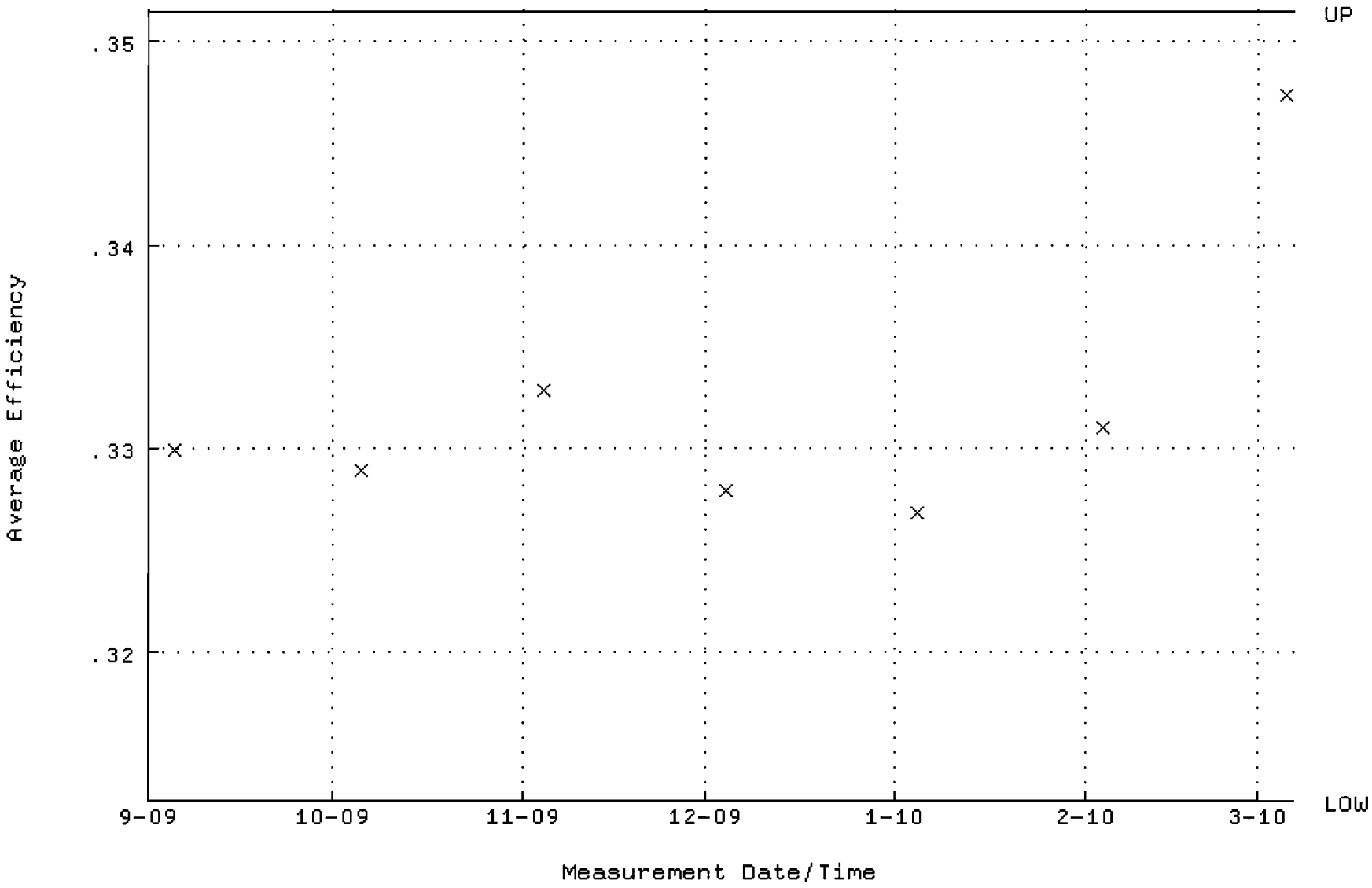

QA filename : DKA100:[ENV_ALPHA.QA.W]W041.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:11 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 84.8316 through 95.0248

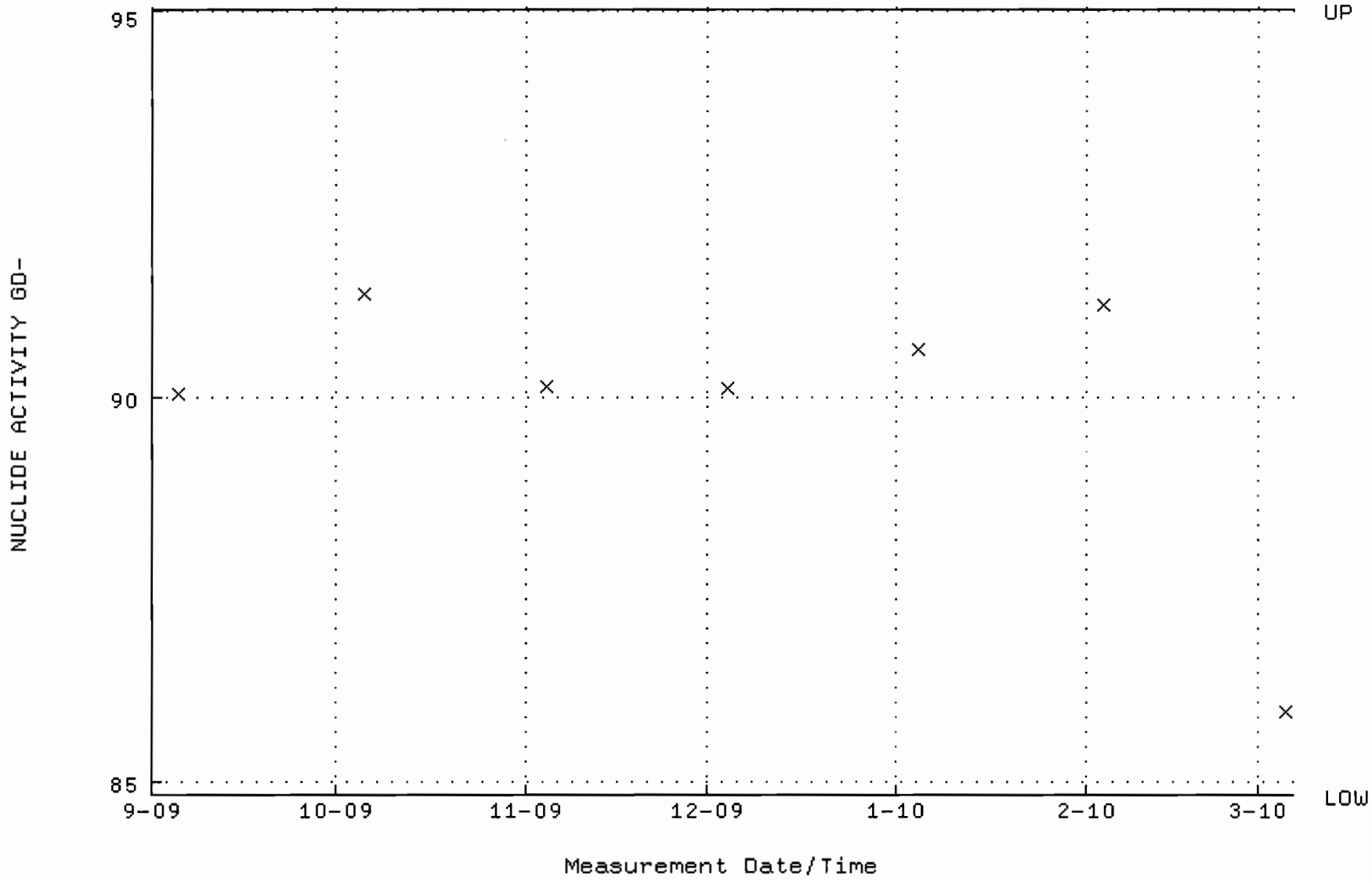

QA filename : DKA100:[ENV_ALPHA.QA.B]B041.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:05 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

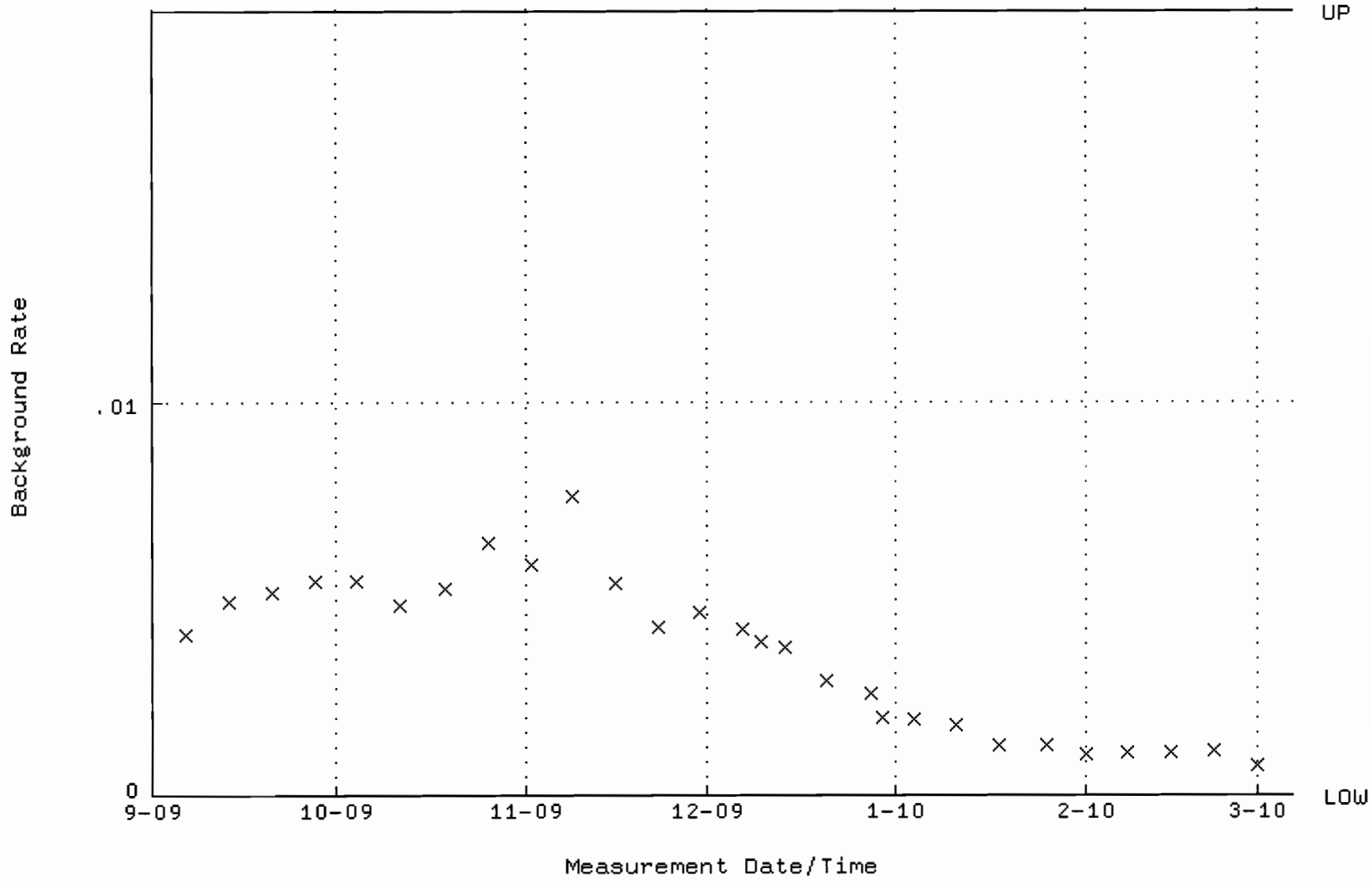

QA filename : DKA100:[ENV_ALPHA.QA.W]W042.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:11 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.314079 through 0.353023

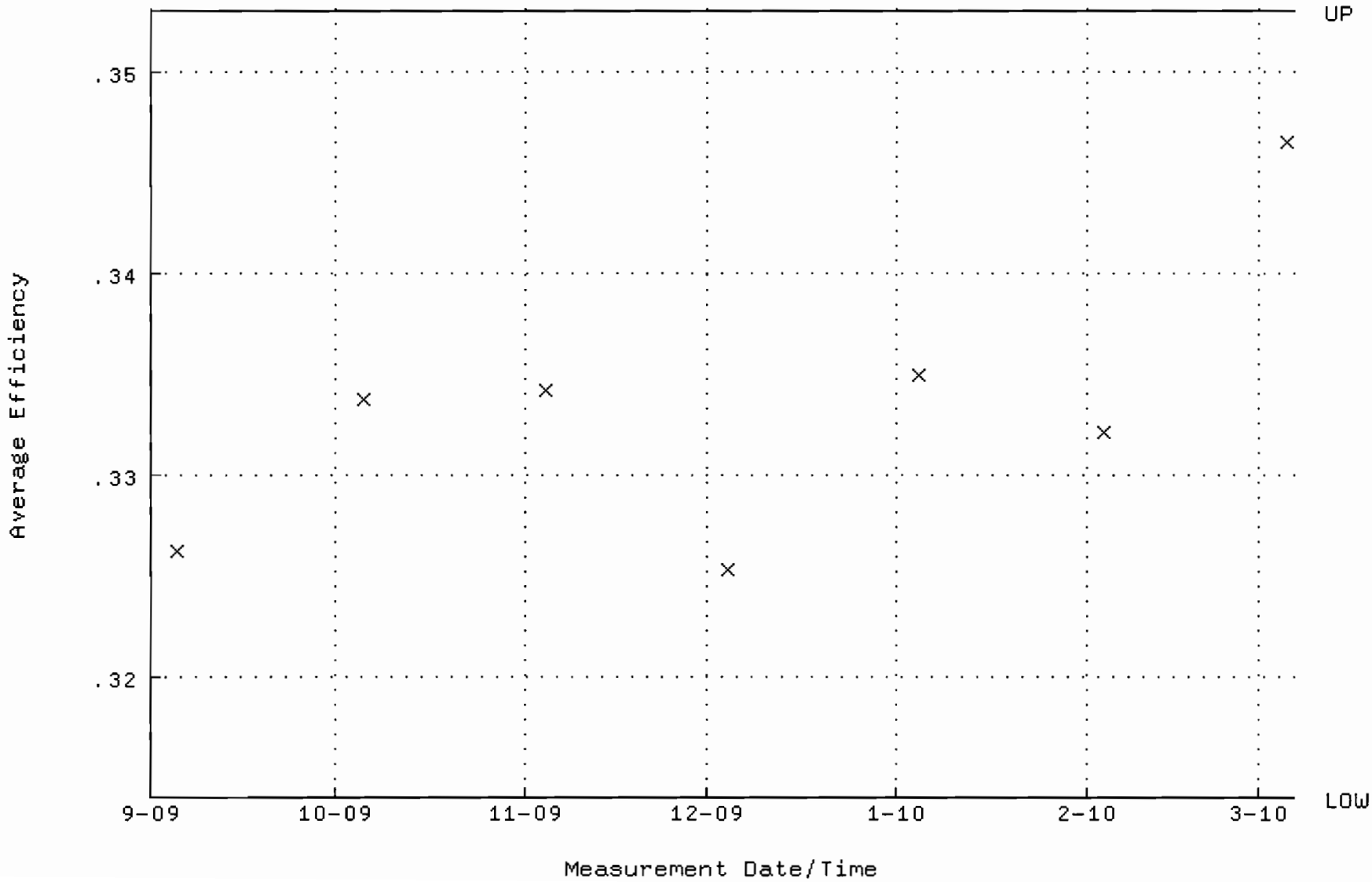

QA filename : DKA100:[ENV_ALPHA.QA.W]W042.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:11 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 78.2587 through 90.0439

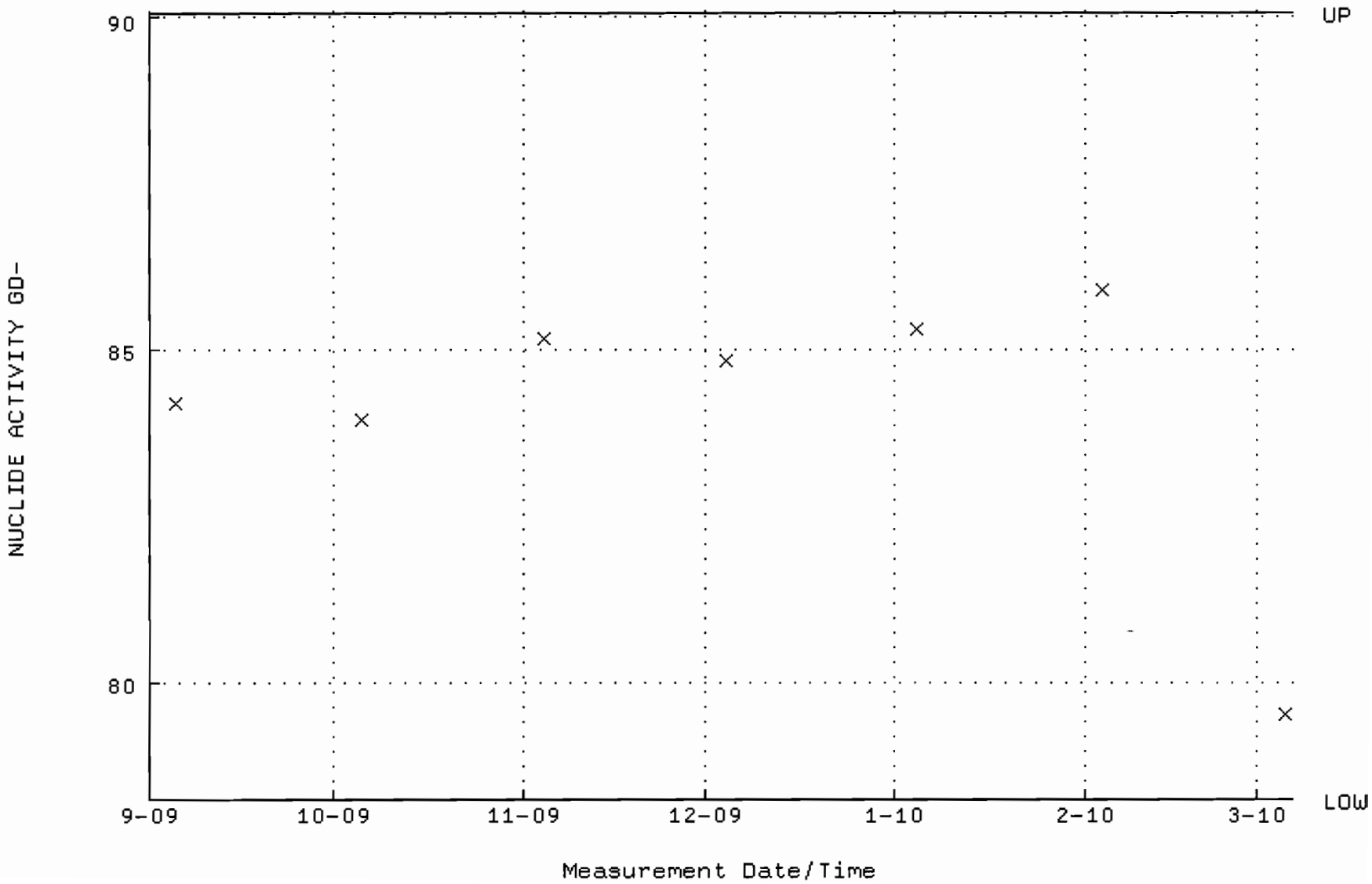

QA filename : DKA100:[ENV_ALPHA.QA.B]B042.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:05 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

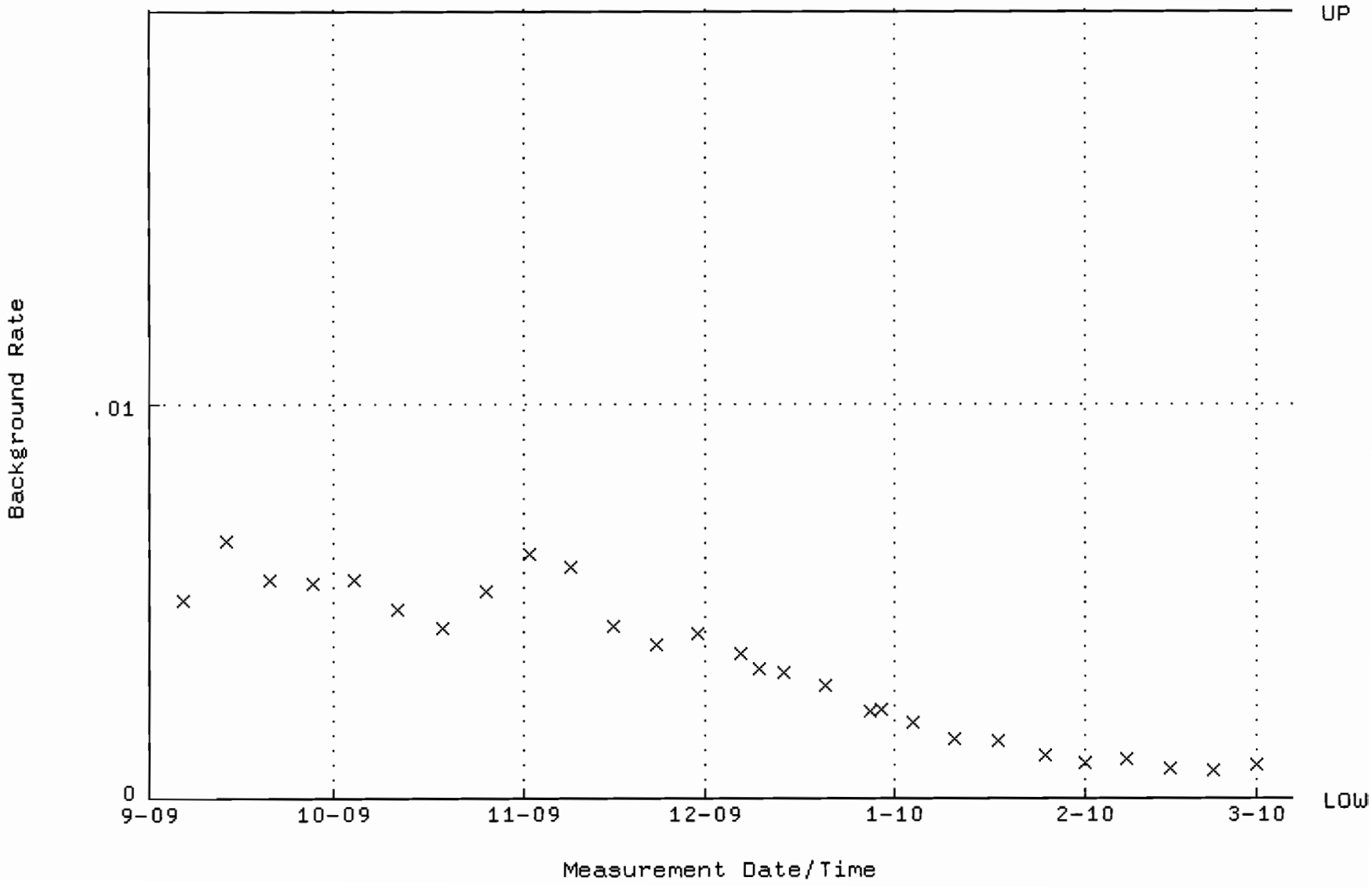

QA filename : DKA100:[ENV_ALPHA.QA.W]W089.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.285061 through 0.309915

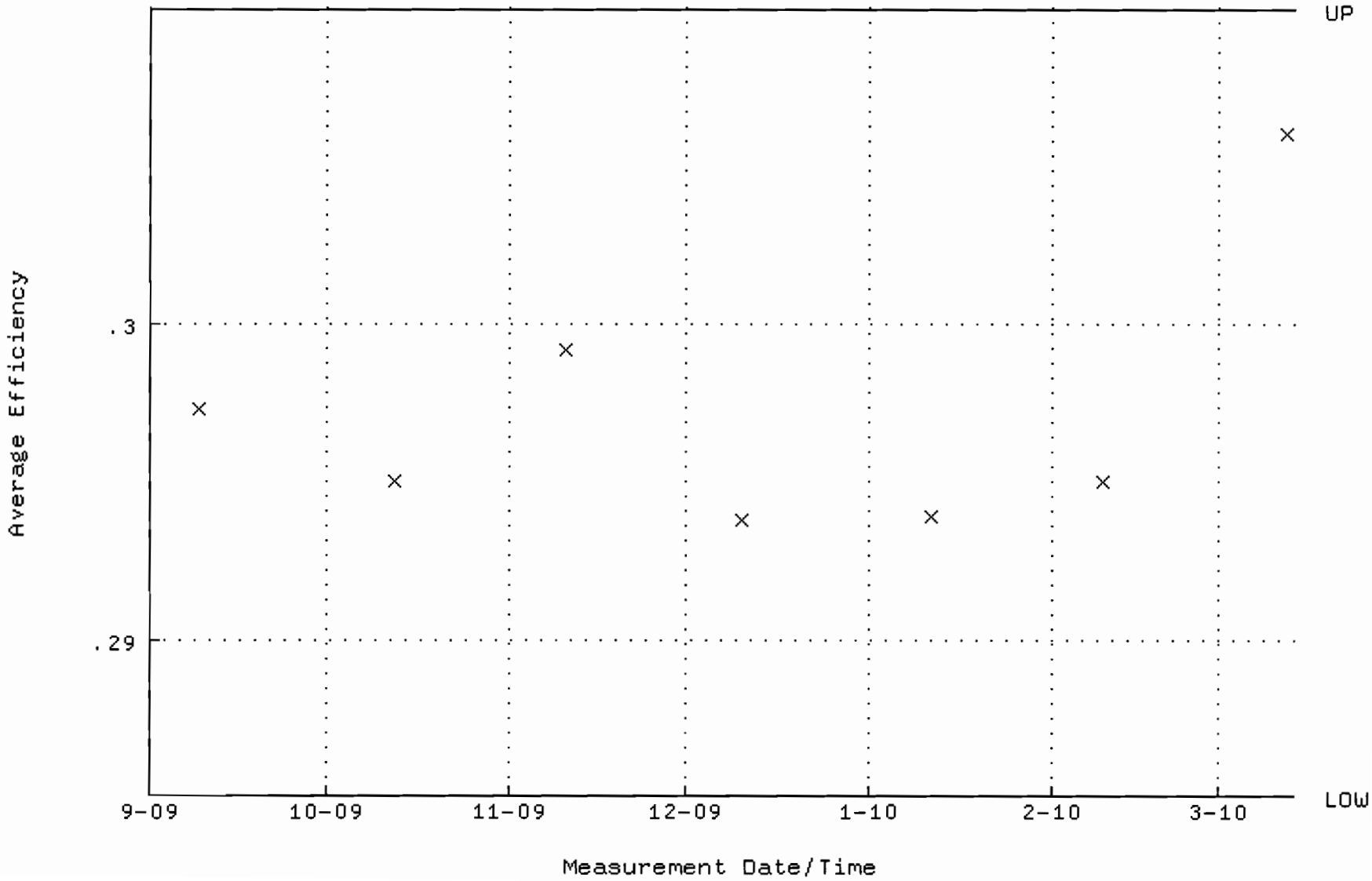

QA filename : DKA100:[ENV_ALPHA.QA.W]W089.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 84.7074 through 92.5526

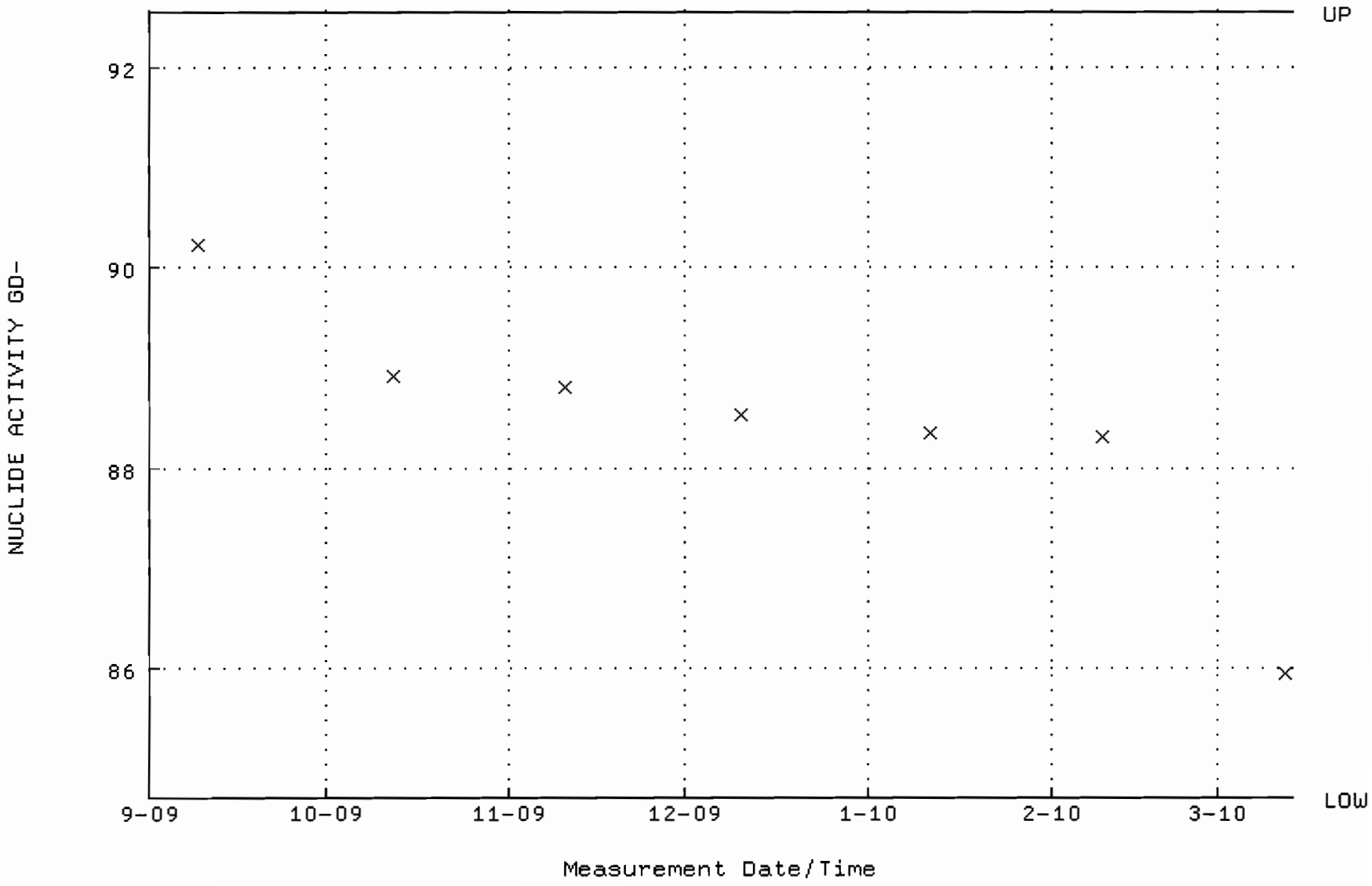

QA filename : DKA100:[ENV_ALPHA.QA.B]B089.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:10 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

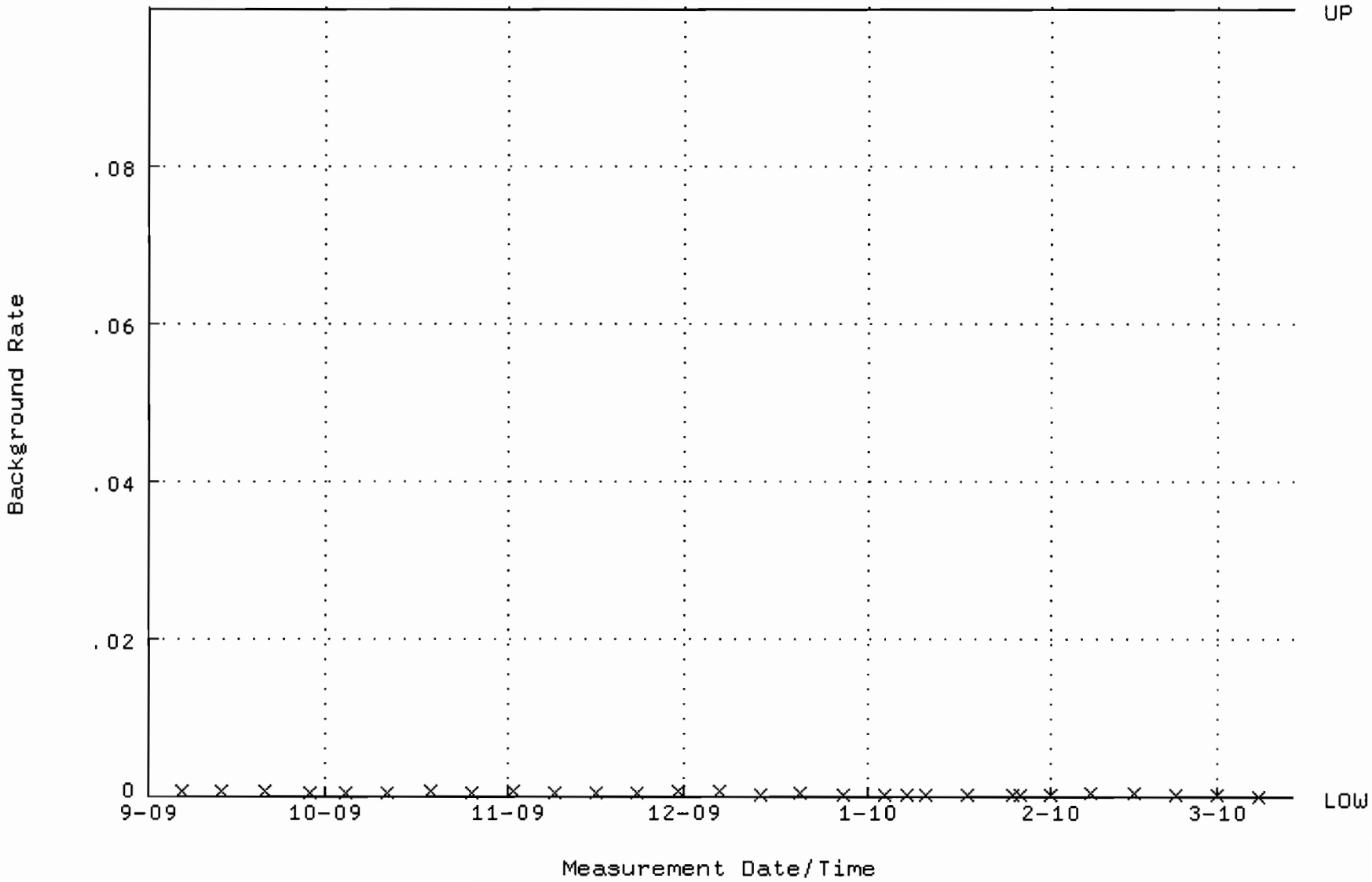

QA filename : DKA100:[ENV_ALPHA.QA.W]W090.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.305824 through 0.352694

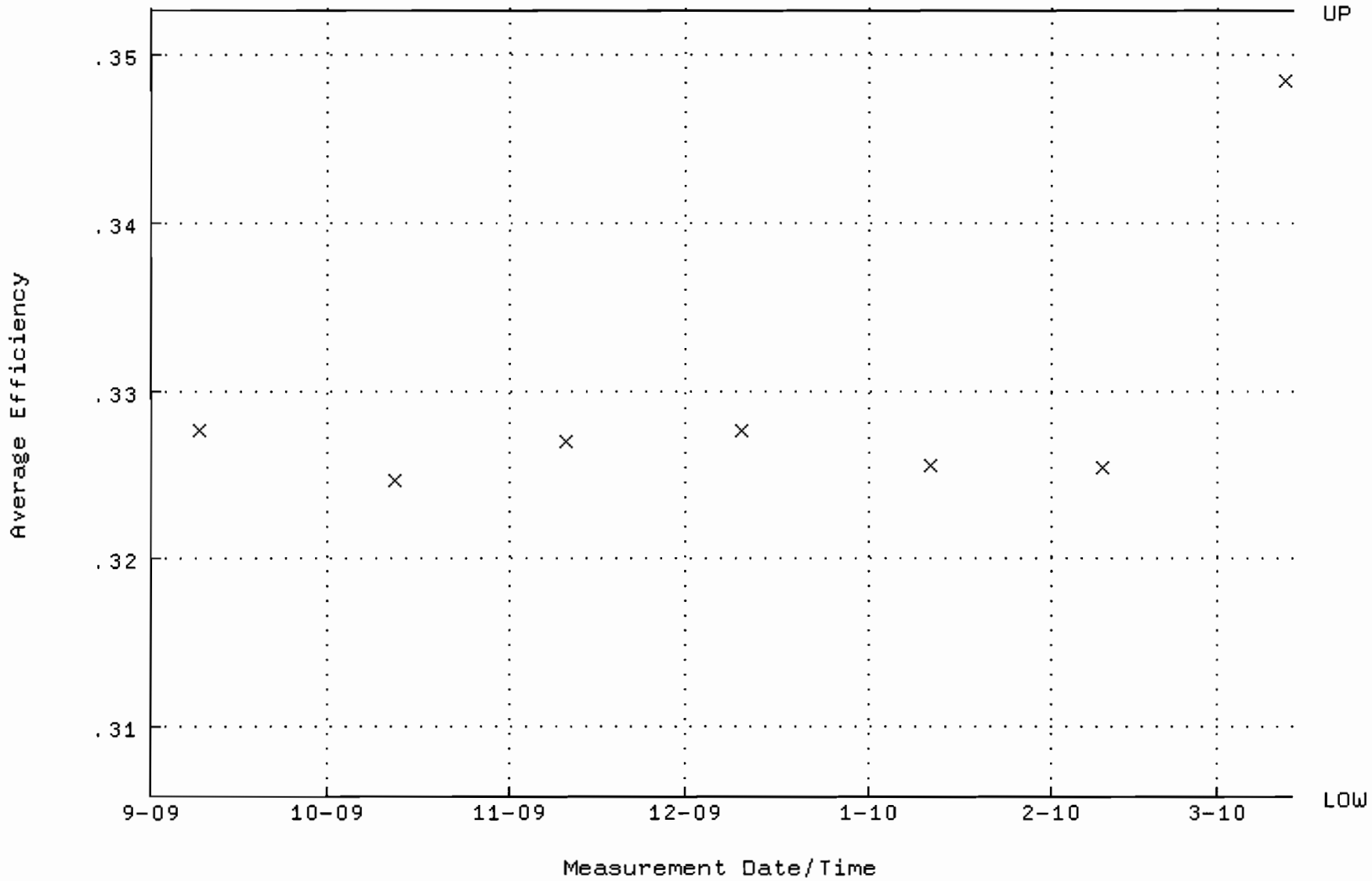

QA filename : DKA100:[ENV_ALPHA.QA.W]W090.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 87.7860 through 91.1302

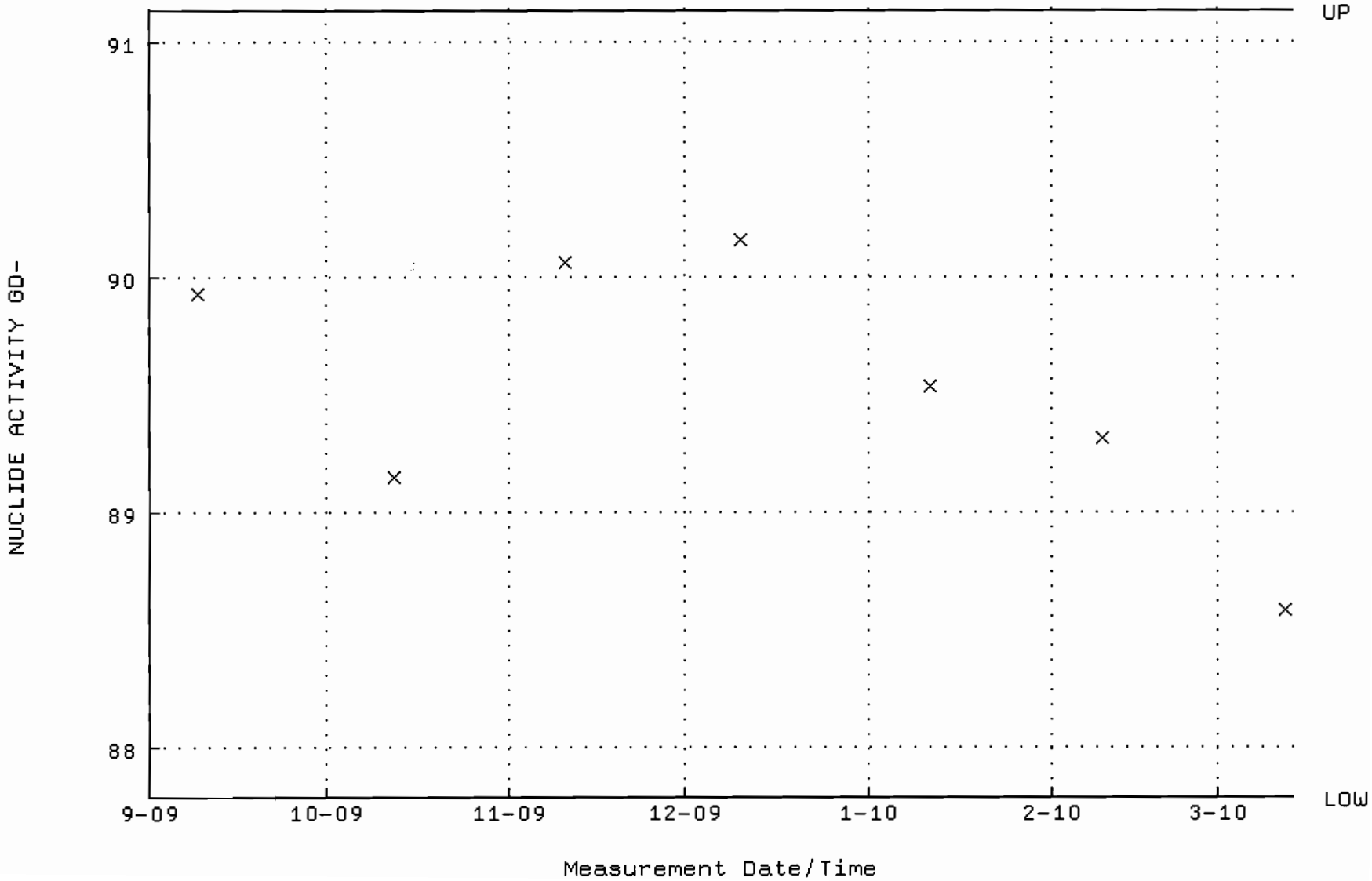

QA filename : DKA100:[ENV_ALPHA.QA.B]B090.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:10 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

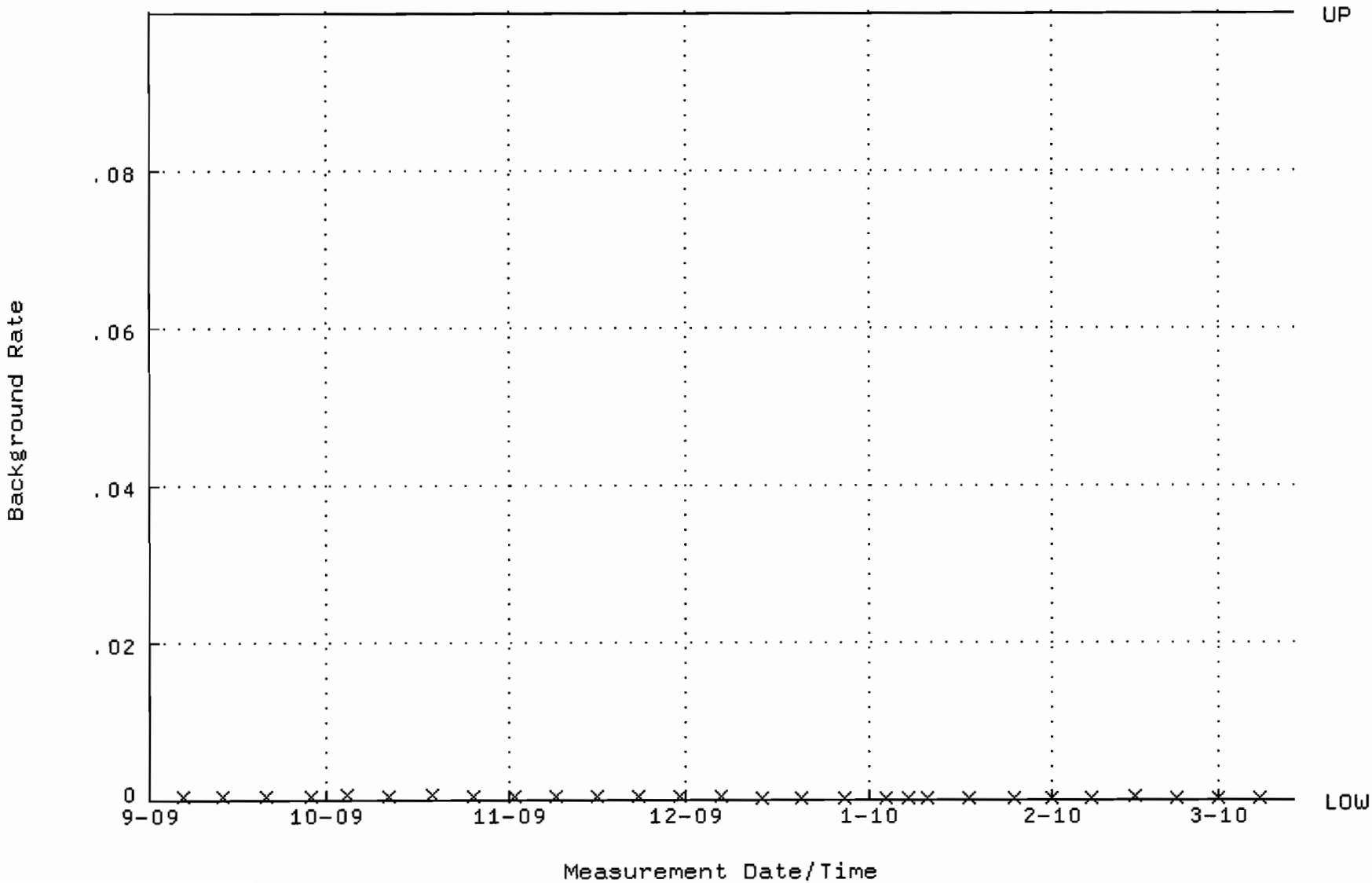

QA filename : DKA100:[ENV_ALPHA.QA.W]W091.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.333733 through 0.359273

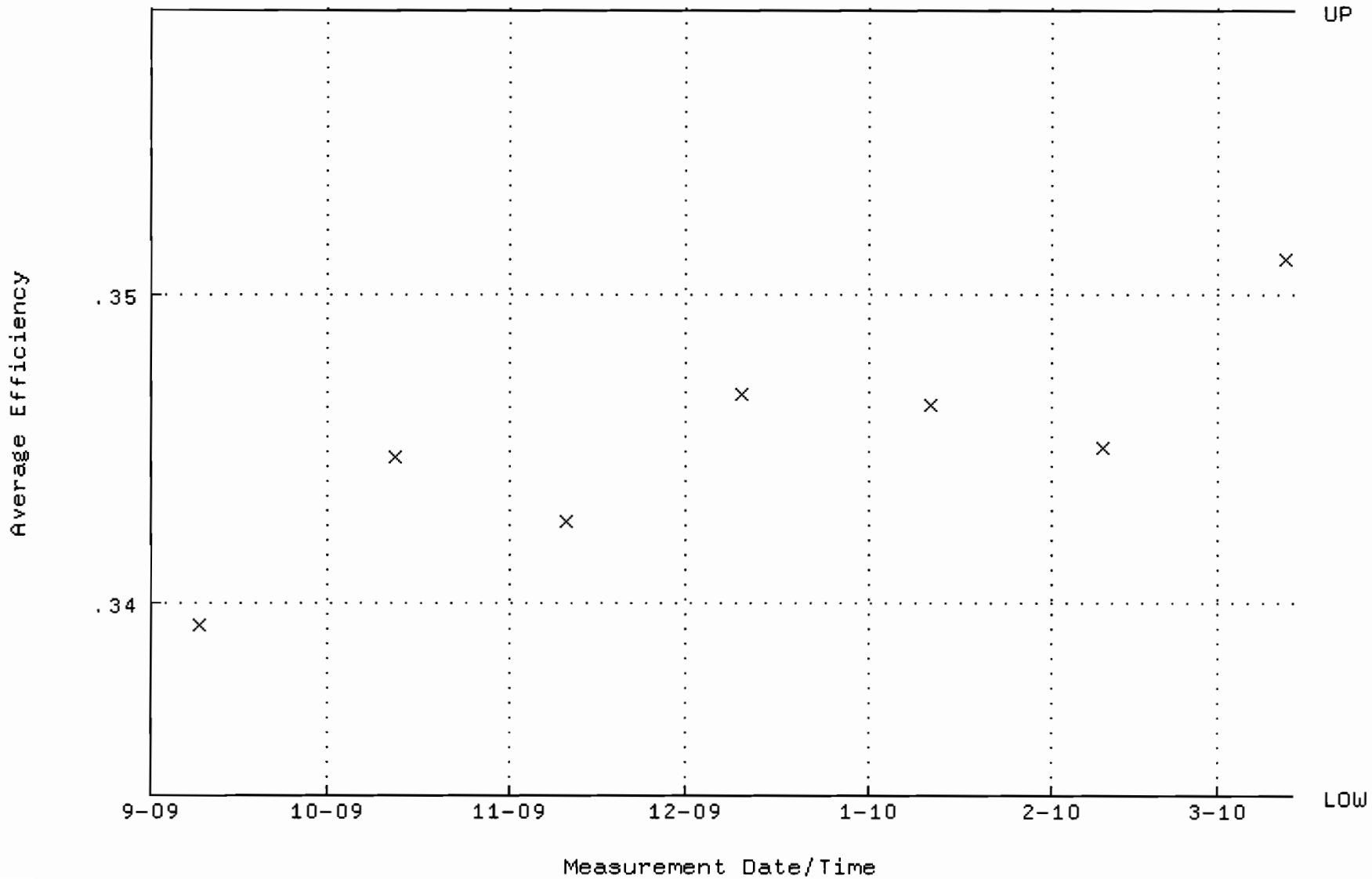

QA filename : DKA100:[ENV_ALPHA.QA.W]W091.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 83.2831 through 87.0563

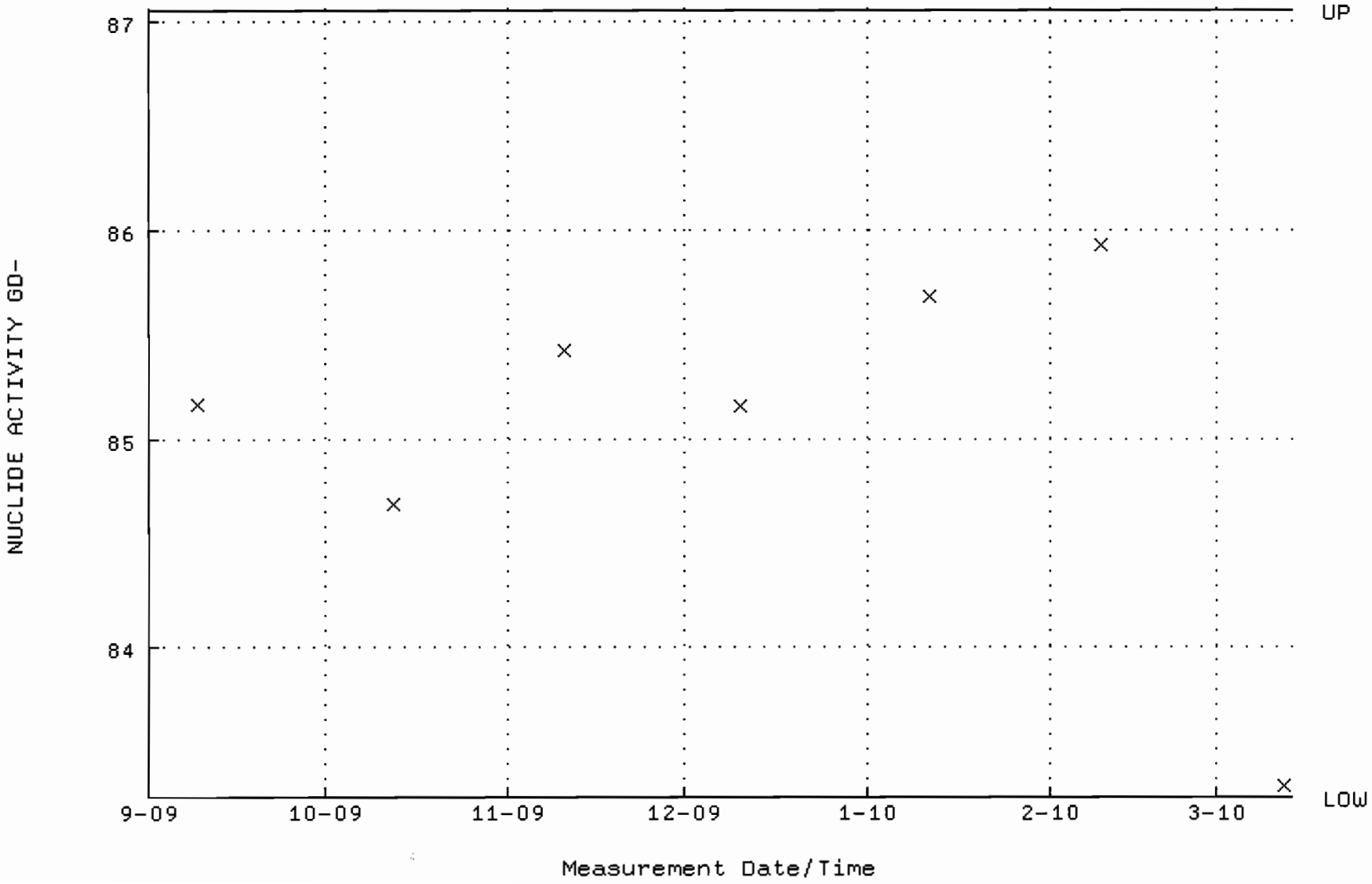

QA filename : DKA100:[ENV_ALPHA.QA.B]B091.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:10 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

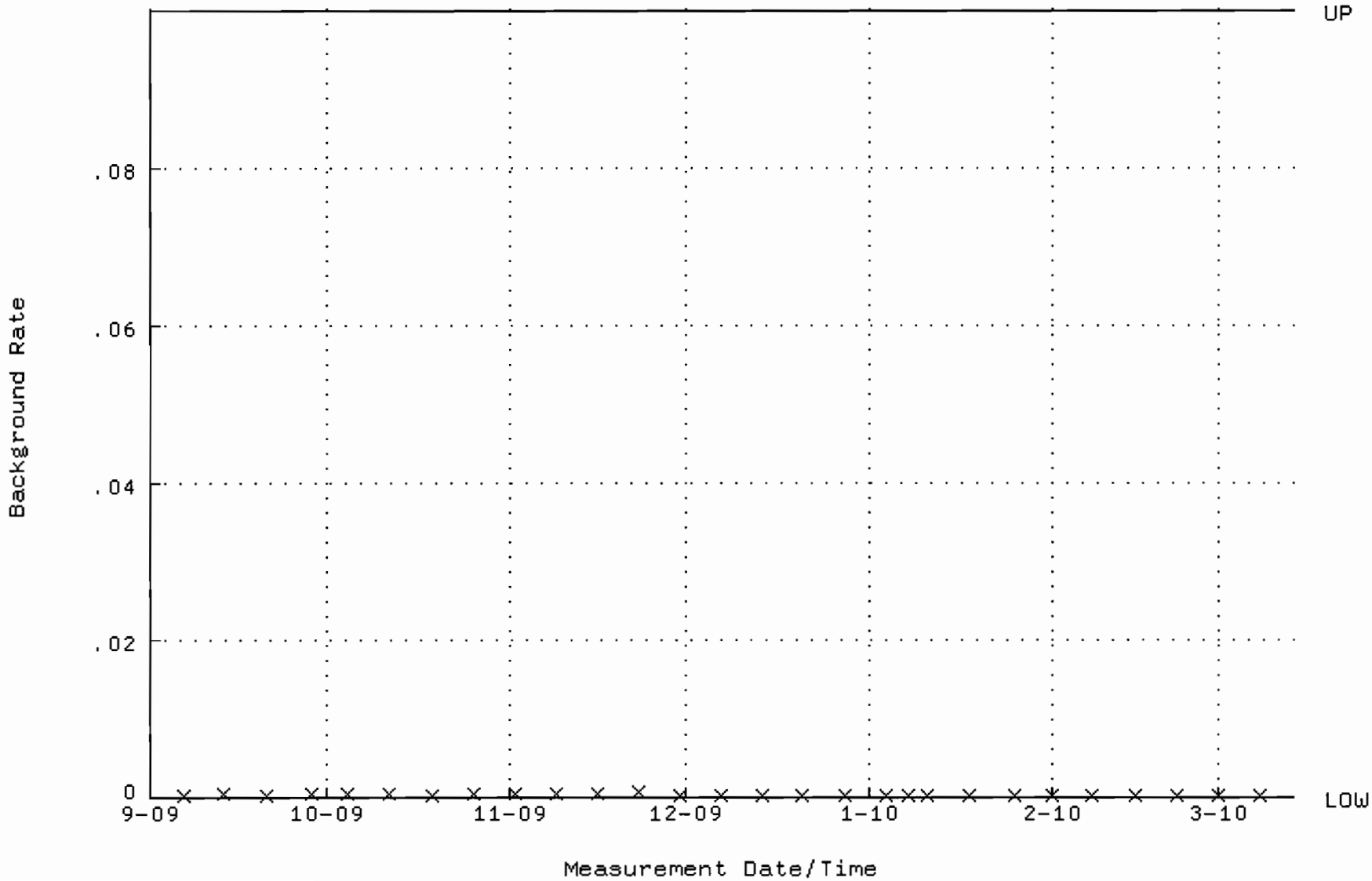

QA filename : DKA100:[ENV_ALPHA.QA.W]W093.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.334257 through 0.354343

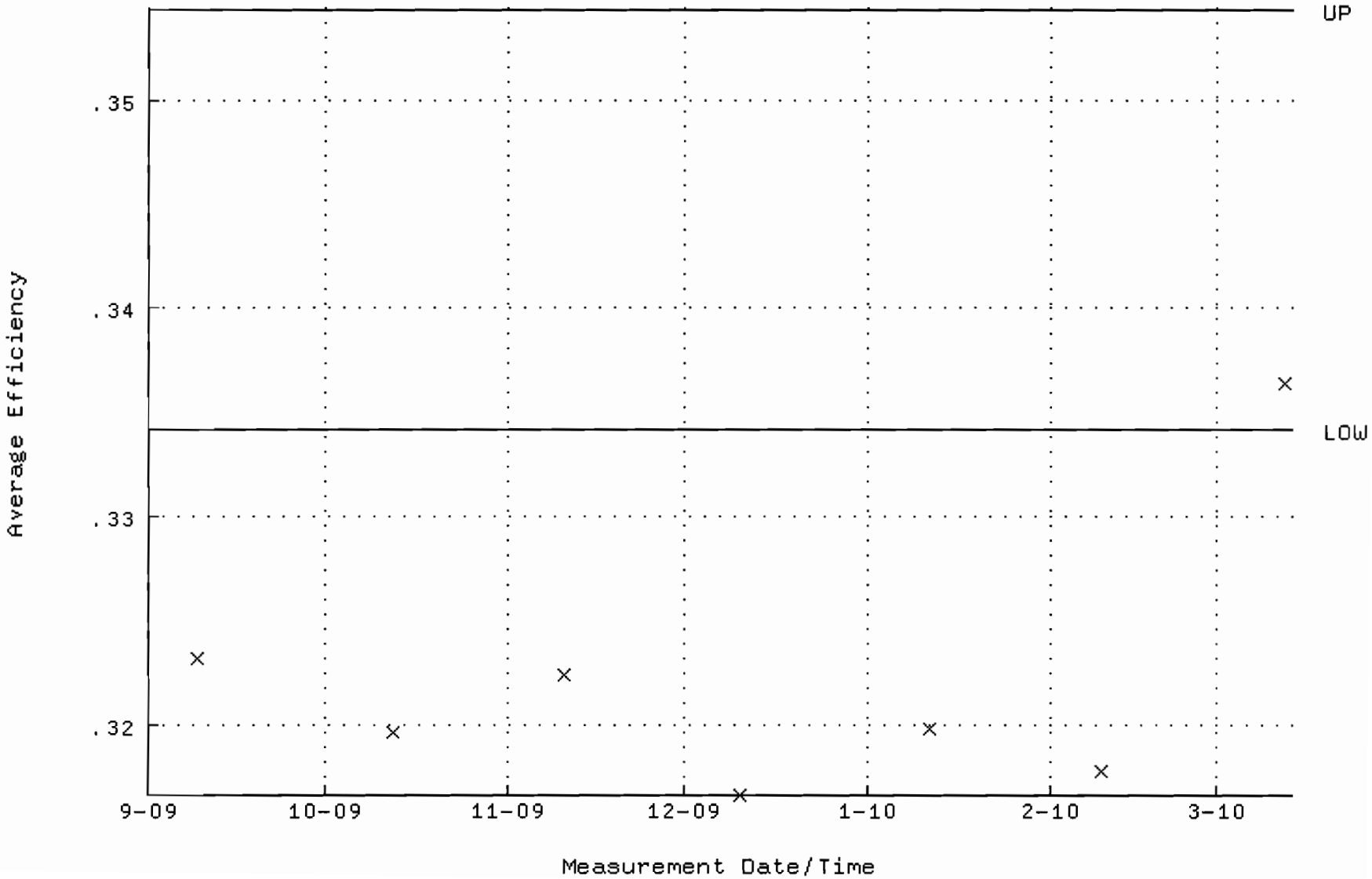

QA filename : DKA100:[ENV_ALPHA.QA.W]W093.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: -1.071934E+06 through 1.284428E+06

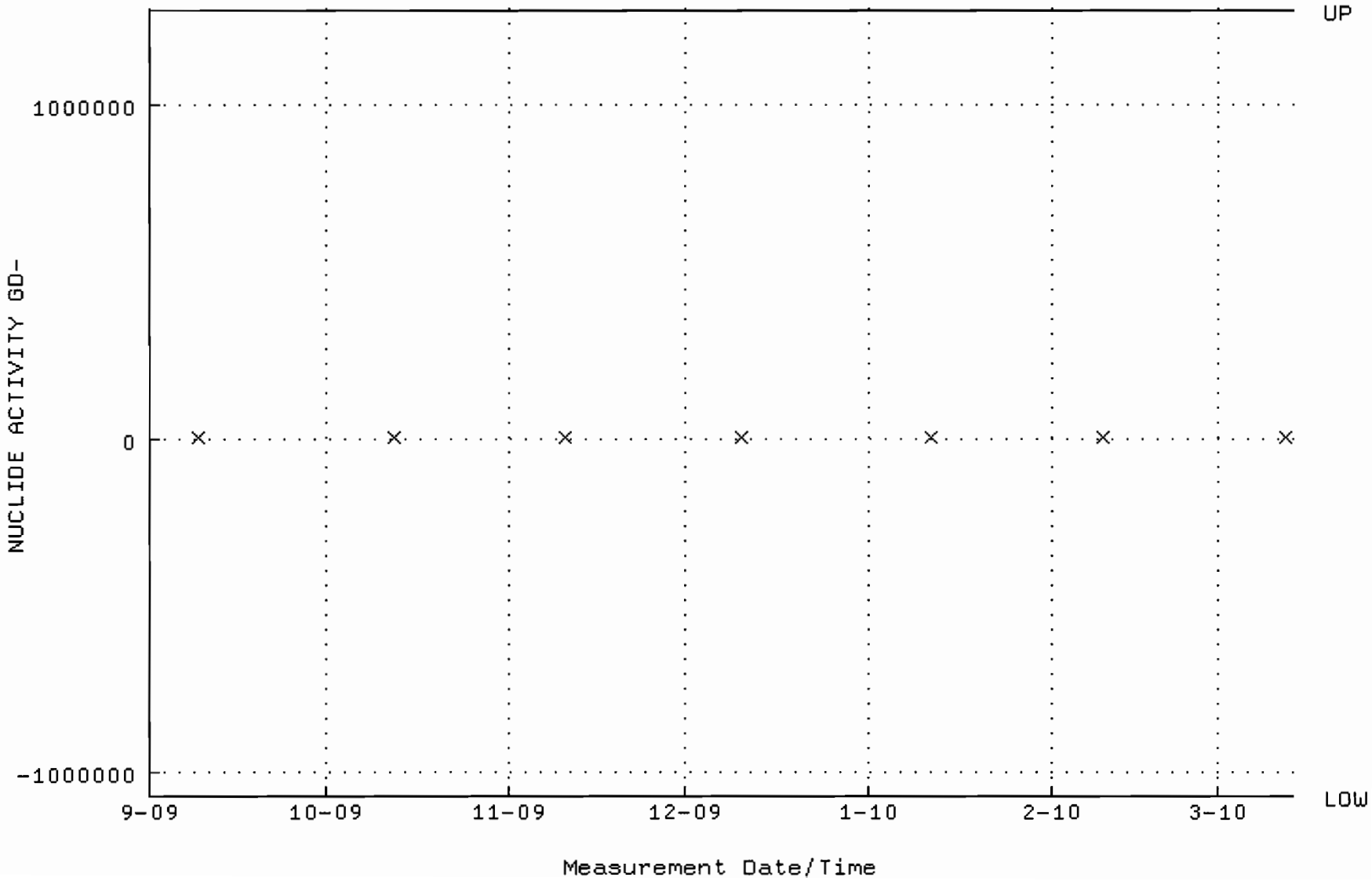

QA filename : DKA100:[ENV_ALPHA.QA.B]B093.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:10 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: -1.00000 through 0.100000

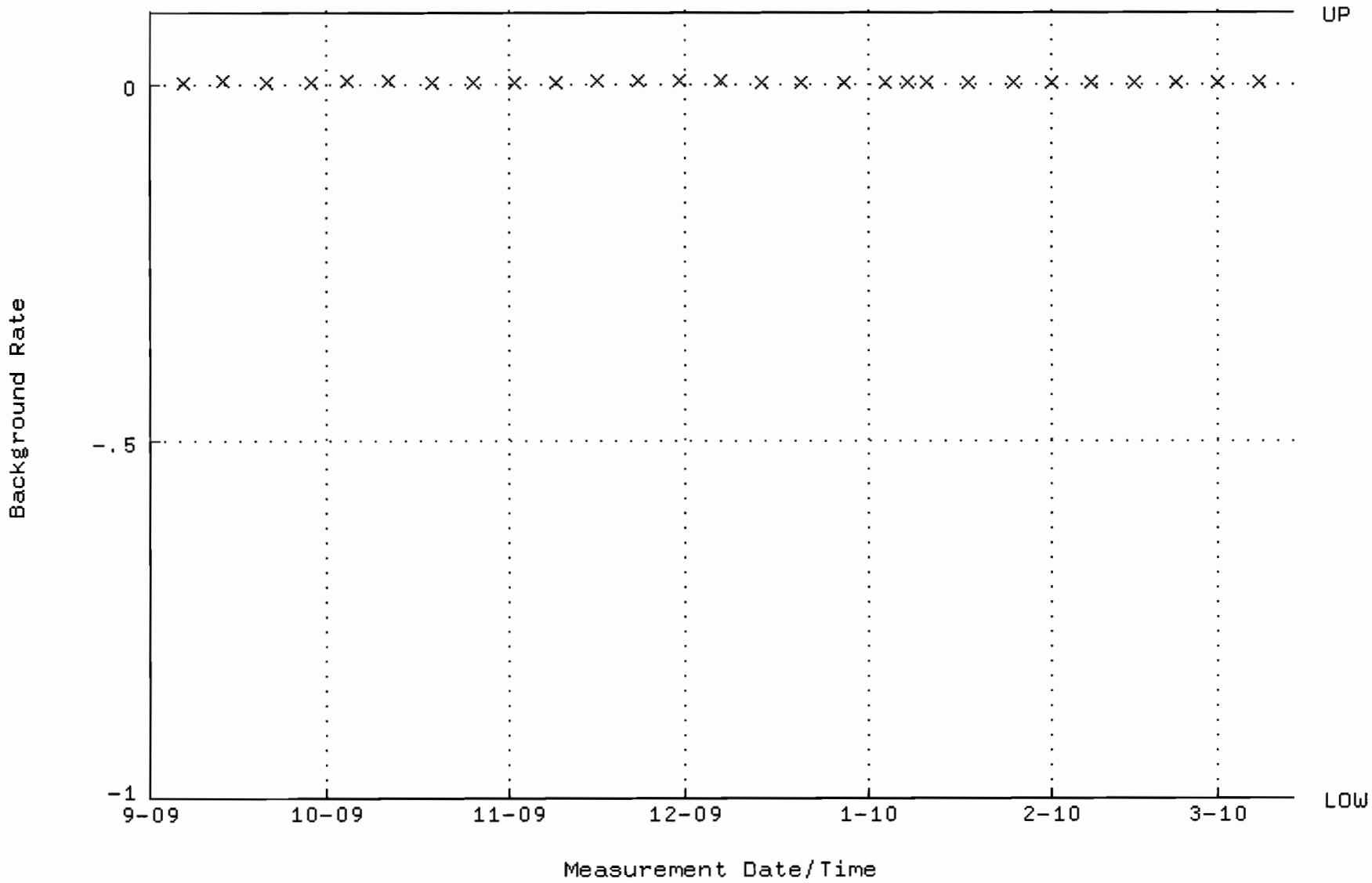

QA filename : DKA100:[ENV_ALPHA.QA.W]W094.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.276224 through 0.344338

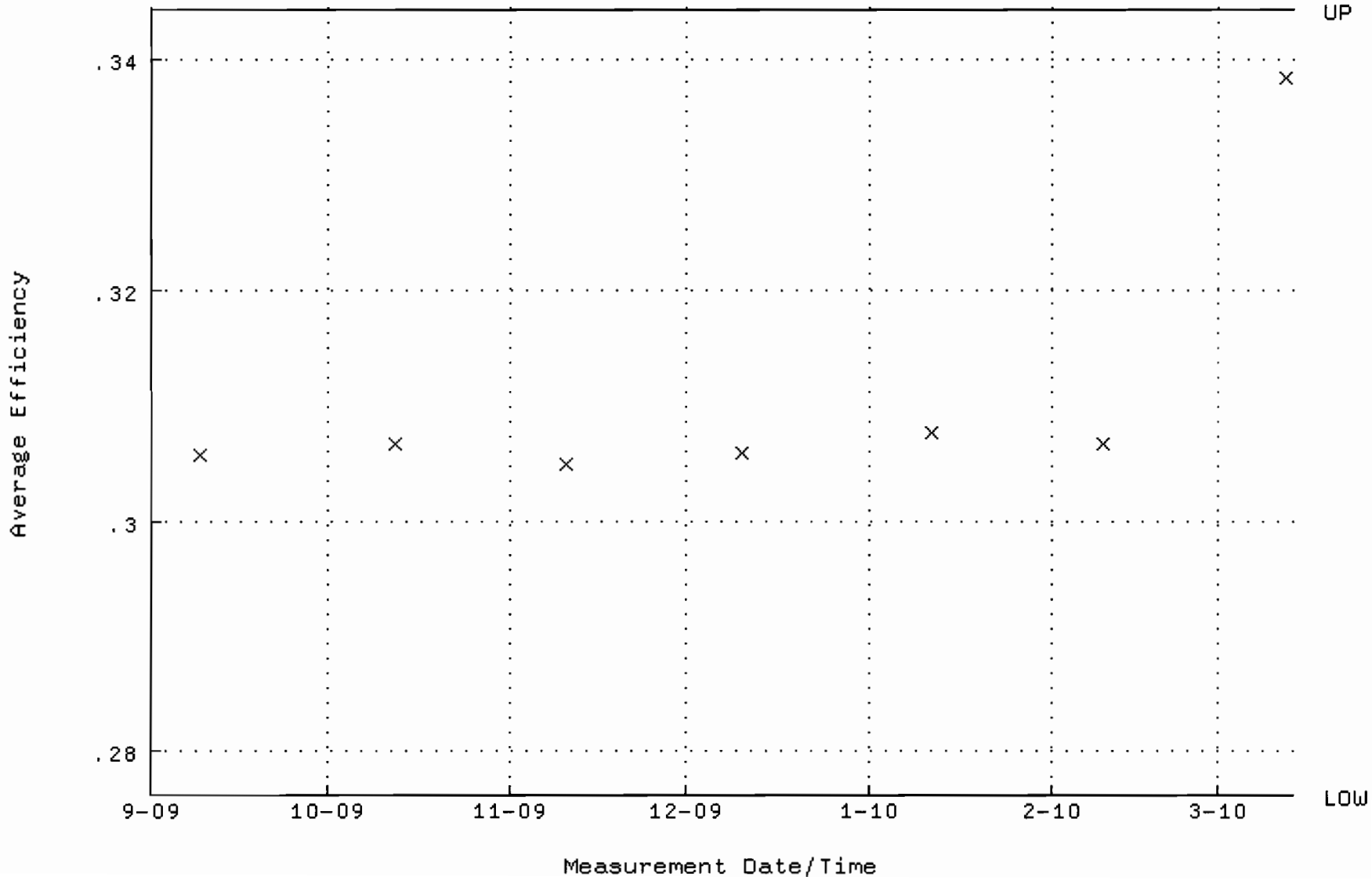

QA filename : DKA100:[ENV_ALPHA.QA.W]W094.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 85.1305 through 90.3863

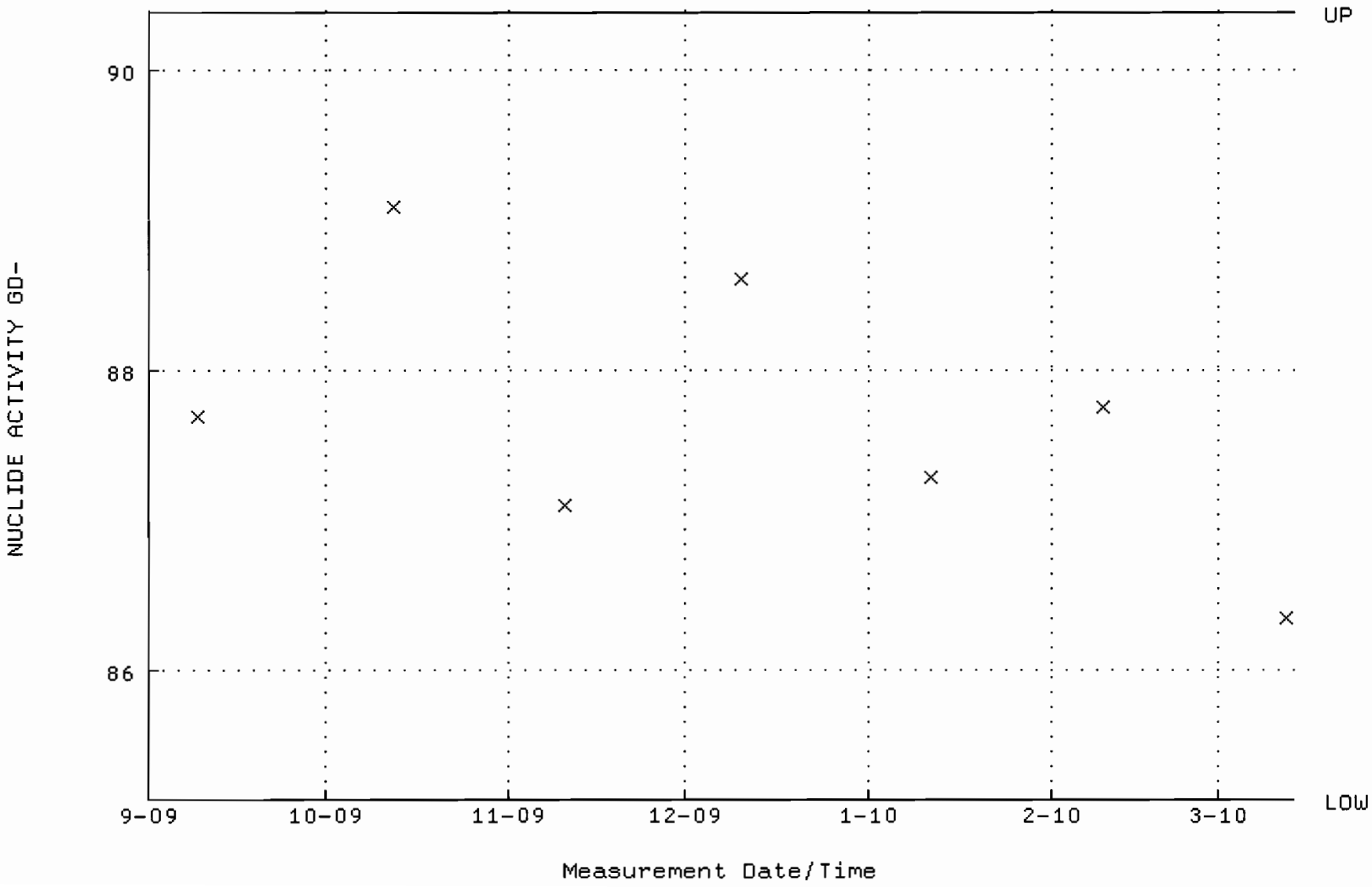

QA filename : DKA100:[ENV_ALPHA.QA.B]B094.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:10 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

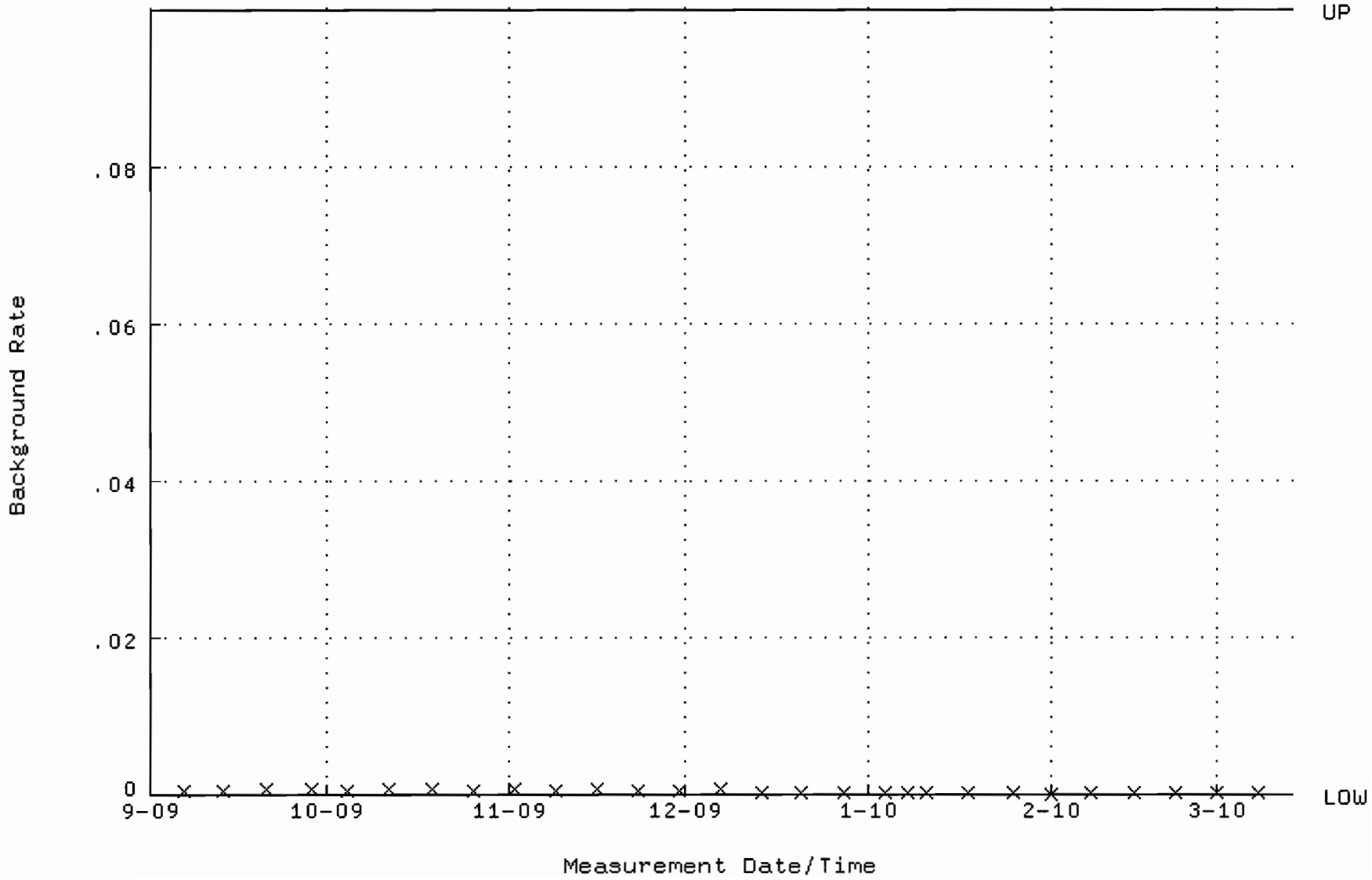

QA filename : DKA100:[ENV_ALPHA.QA.W]W096.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.317970 through 0.337970

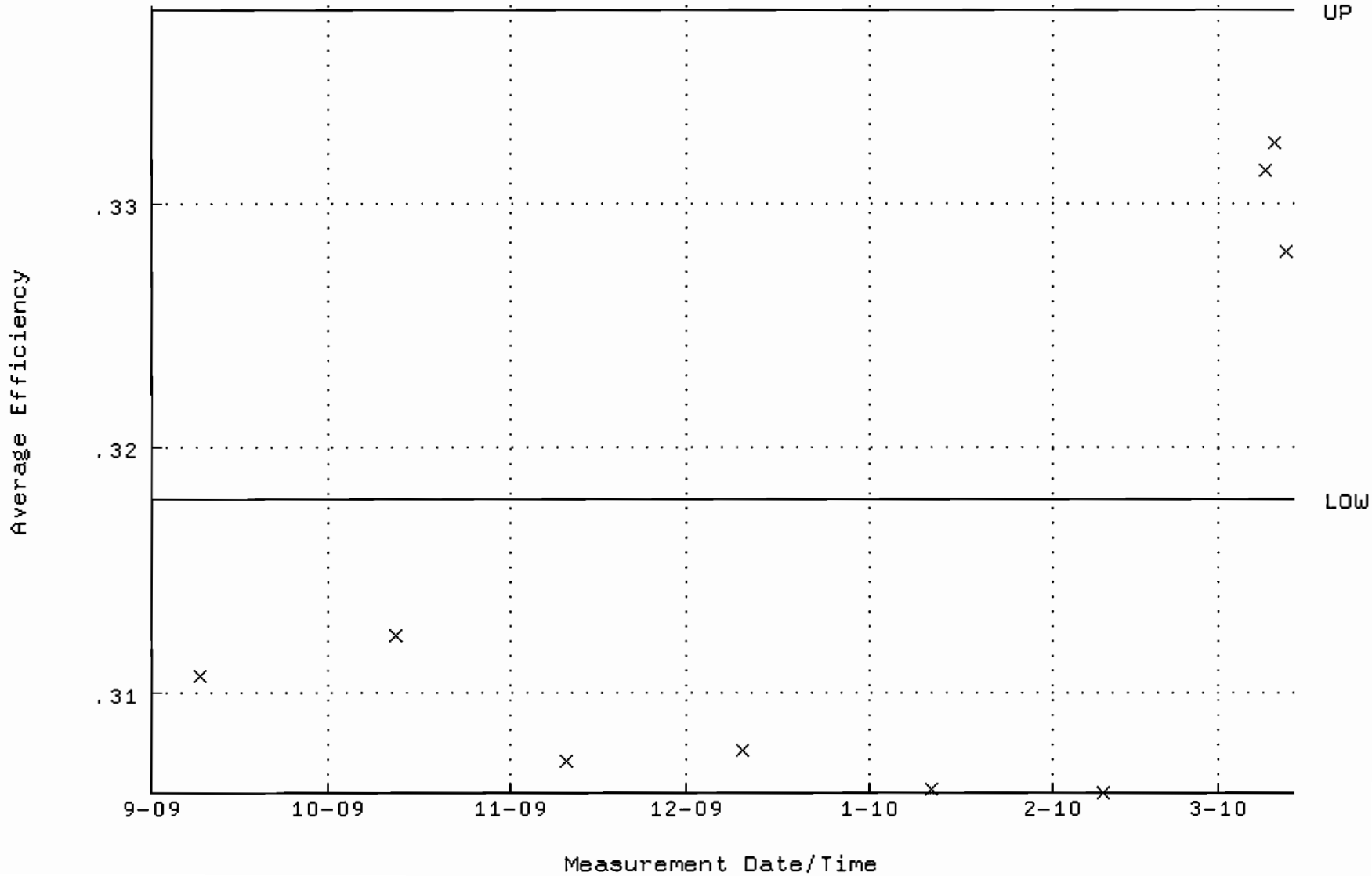

QA filename : DKA100:[ENV_ALPHA.QA.W]W096.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 62.4466 through 69.0200

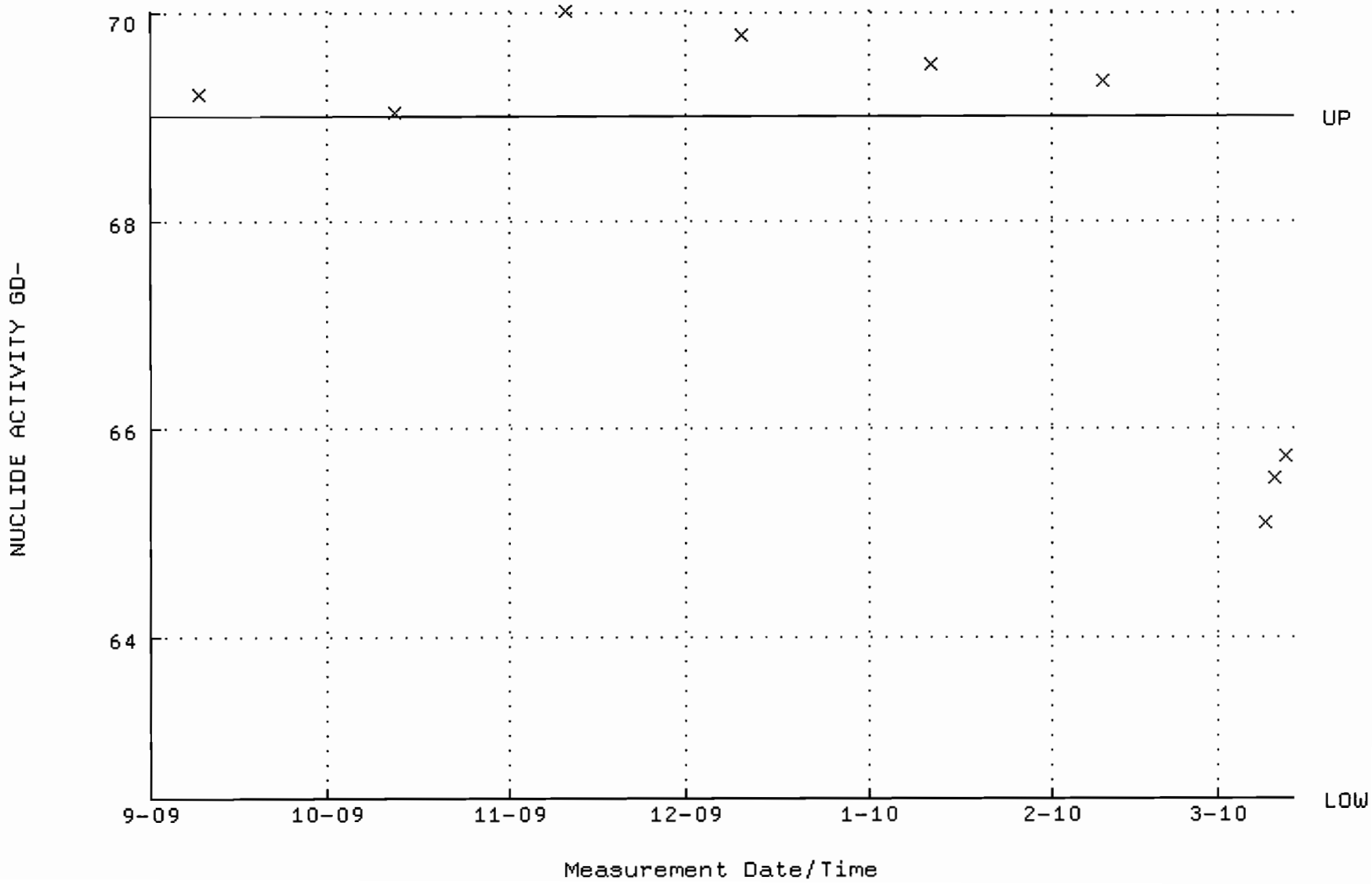

QA filename : DKA100:[ENV_ALPHA.QA.B]B096.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

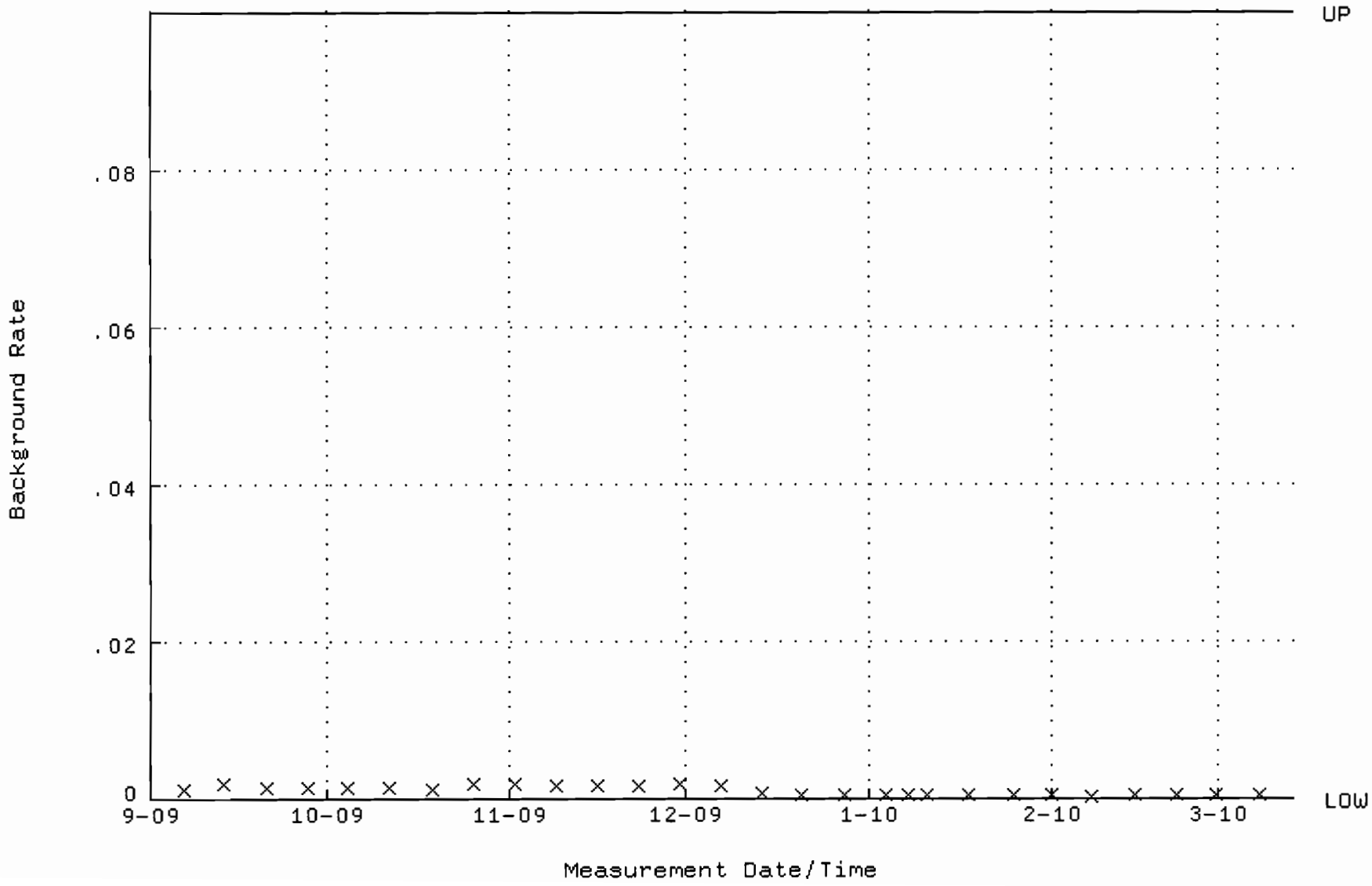

QA filename : DKA100:[ENV_ALPHA.QA.W]W097.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.338442 through 0.349972

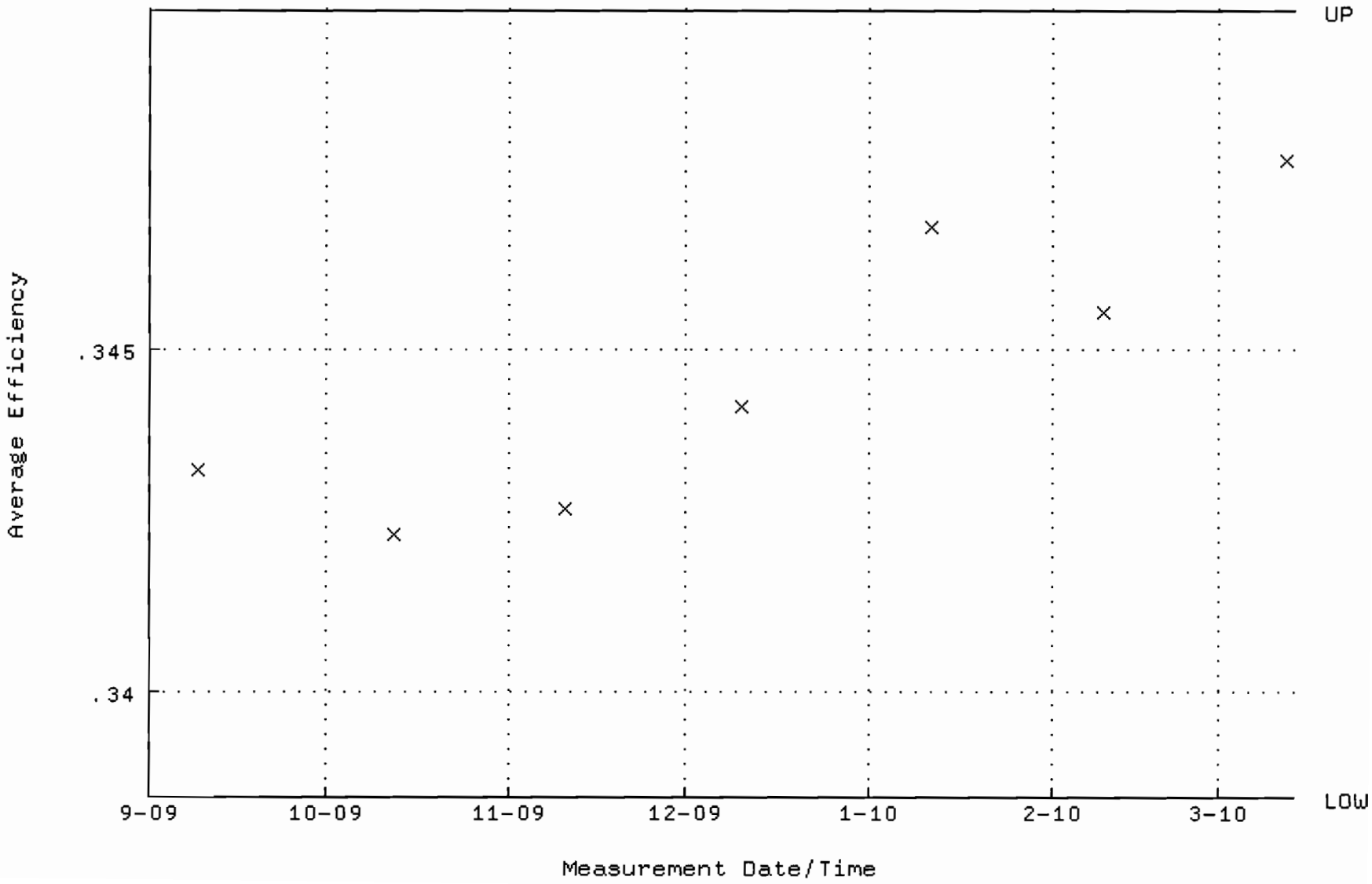

QA filename : DKA100:[ENV_ALPHA.QA.W]W097.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 66.0956 through 69.6464

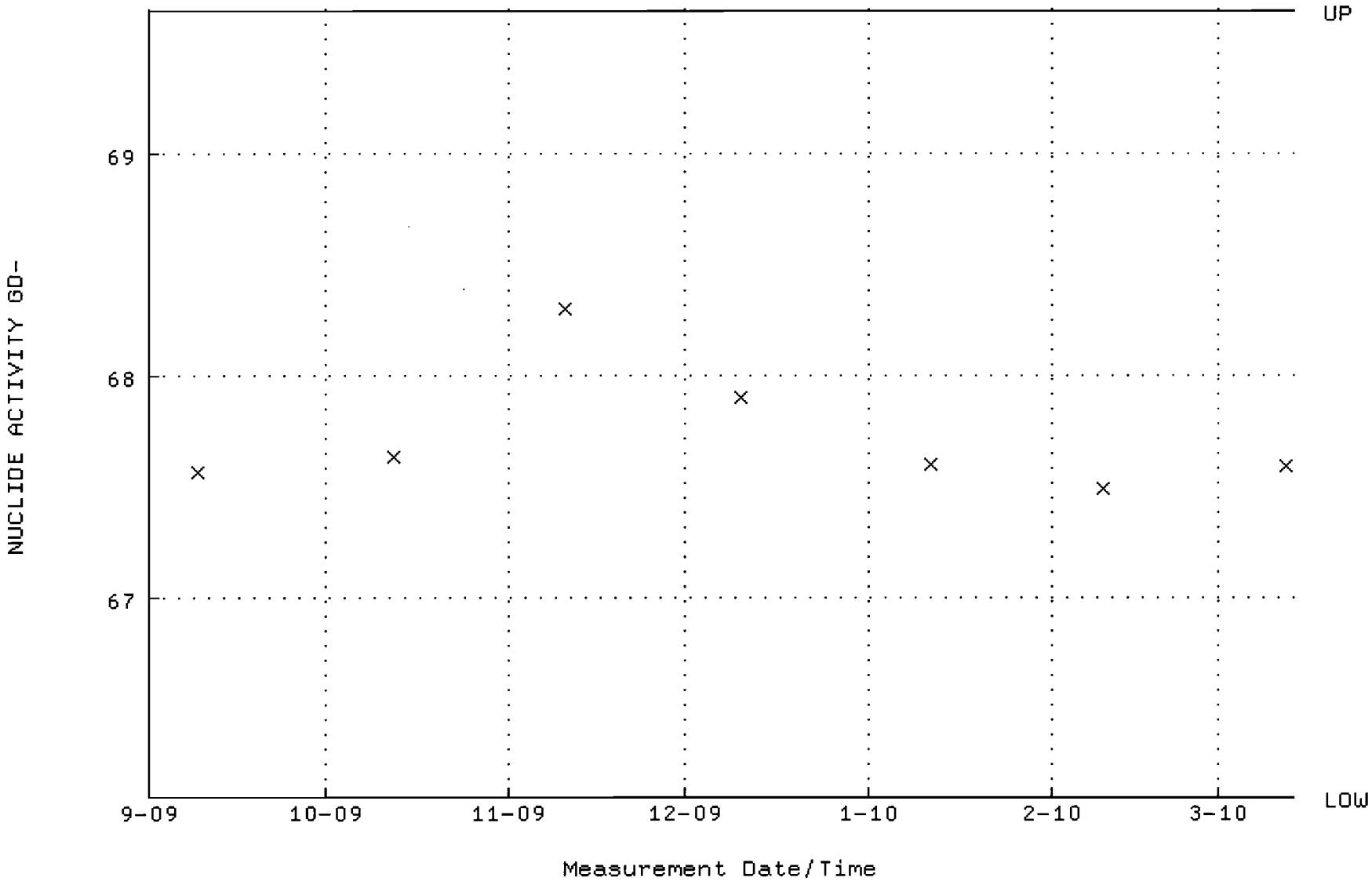

QA filename : DKA100:[ENV_ALPHA.QA.B]B097.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

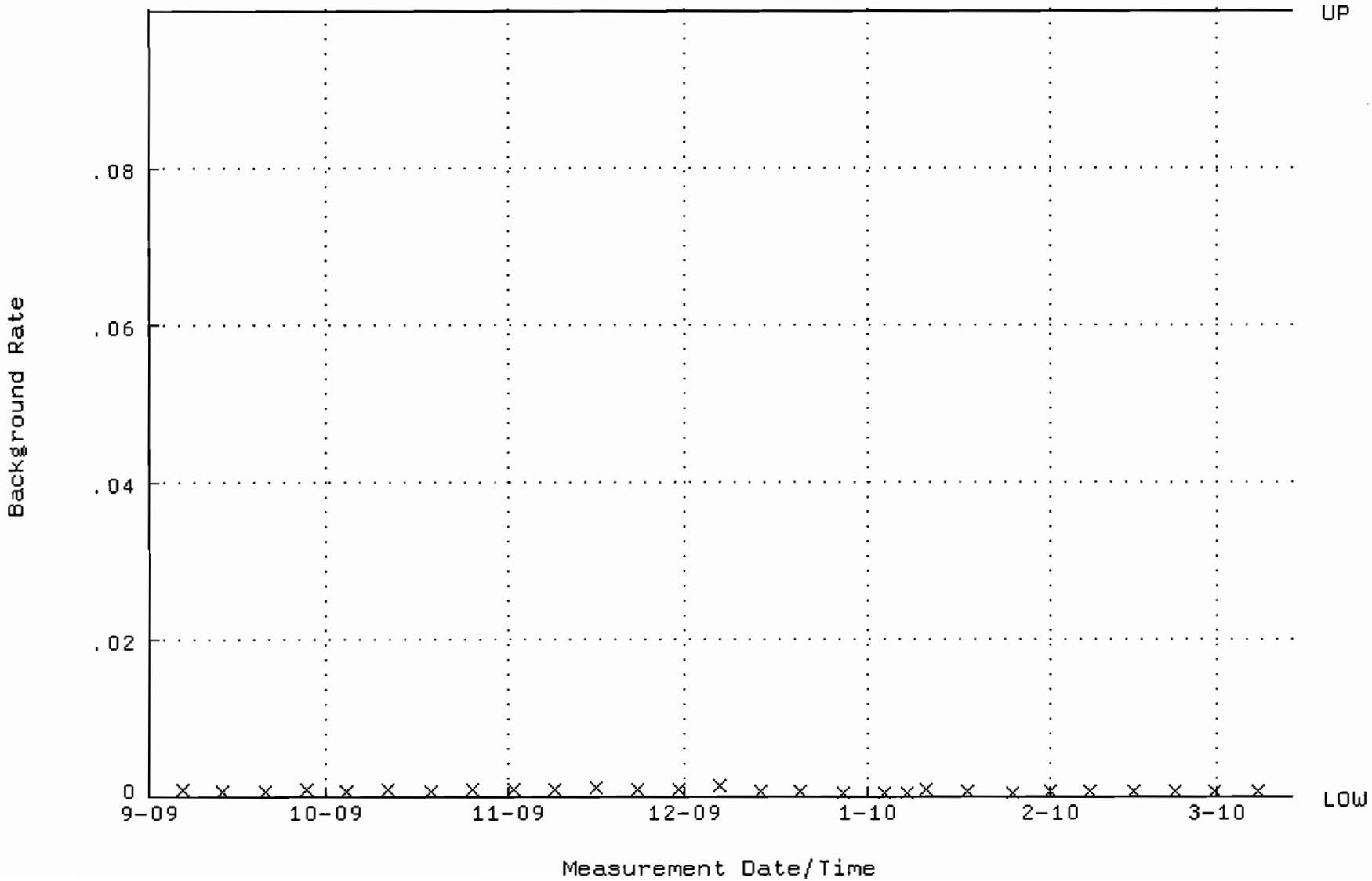

QA filename : DKA100:[ENV_ALPHA.QA.W]W098.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.346488 through 0.366488

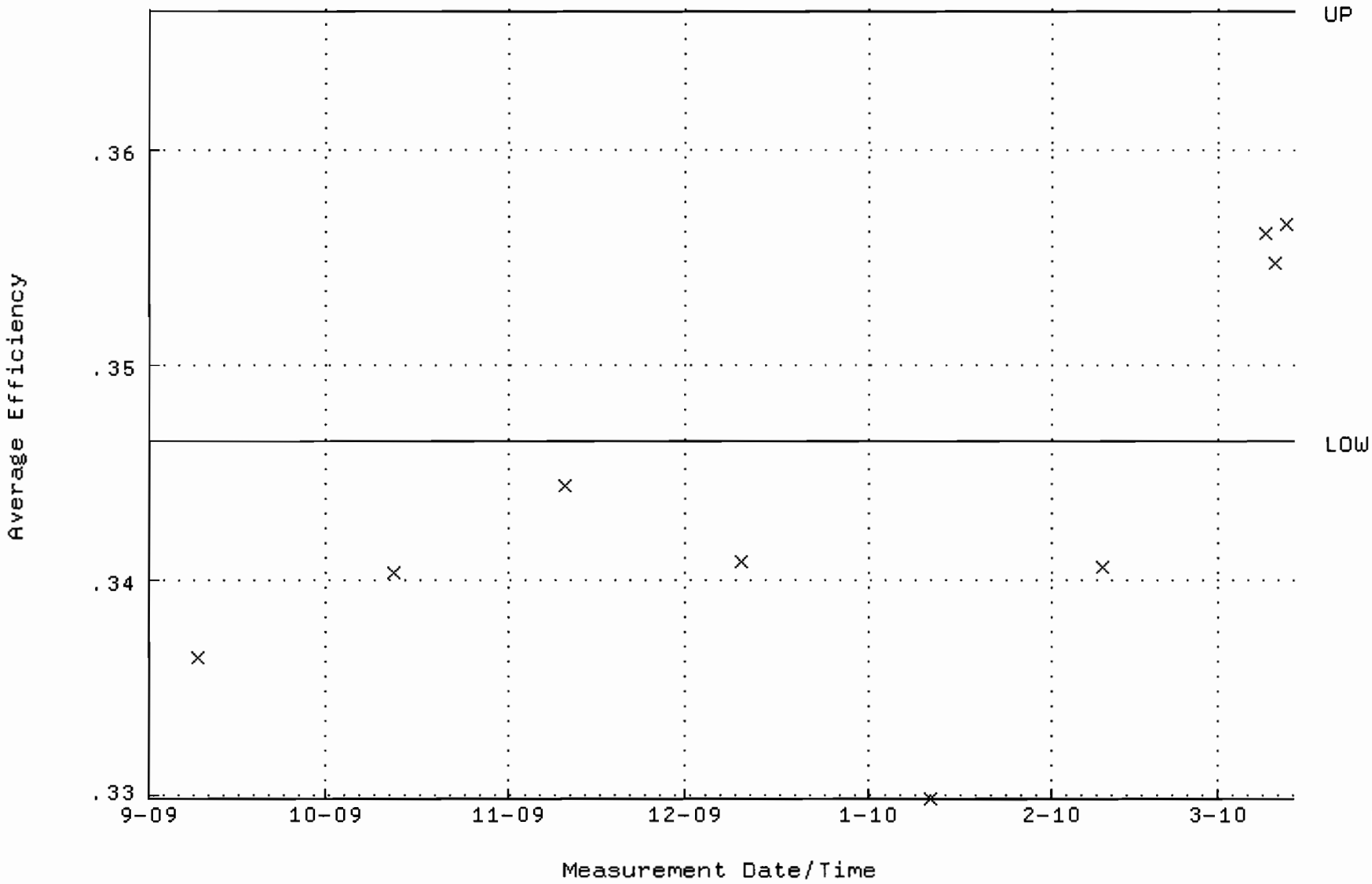

QA filename : DKA100:[ENV_ALPHA.QA.W]W098.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 62.6847 through 69.2831

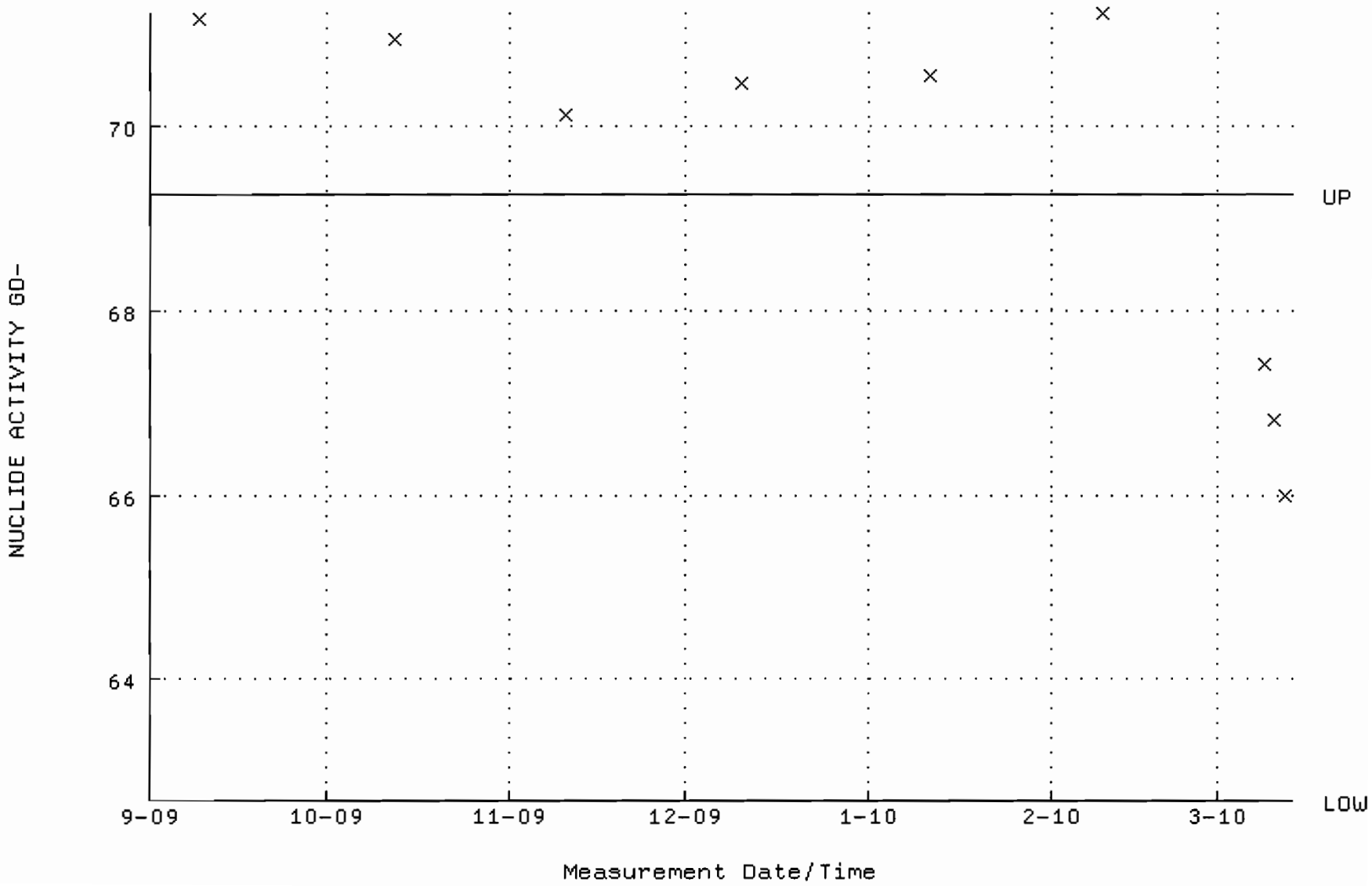

QA filename : DKA100:[ENV_ALPHA.QA.B]B098.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

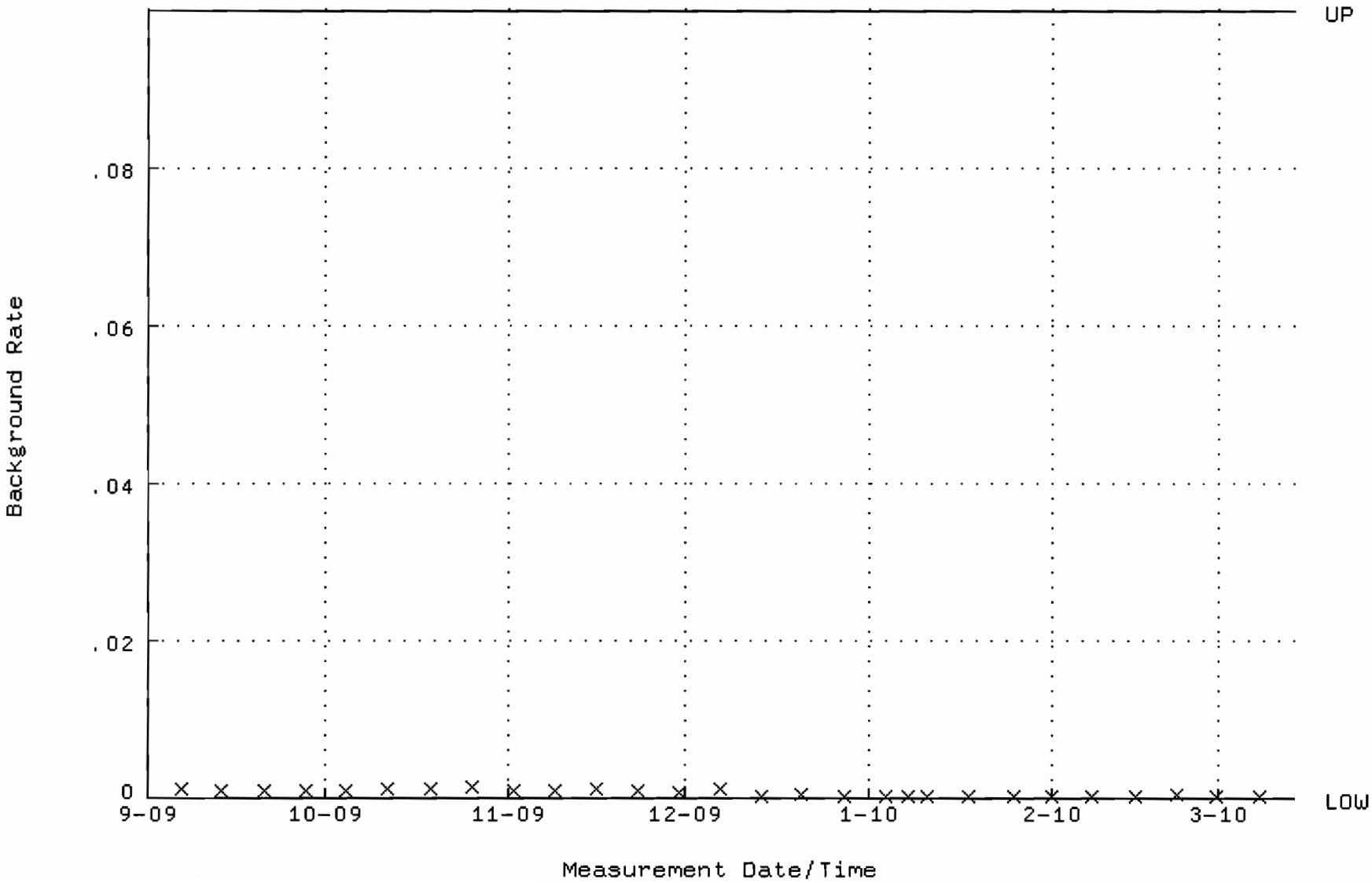

QA filename : DKA100:[ENV_ALPHA.QA.W]W099.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.331877 through 0.354429

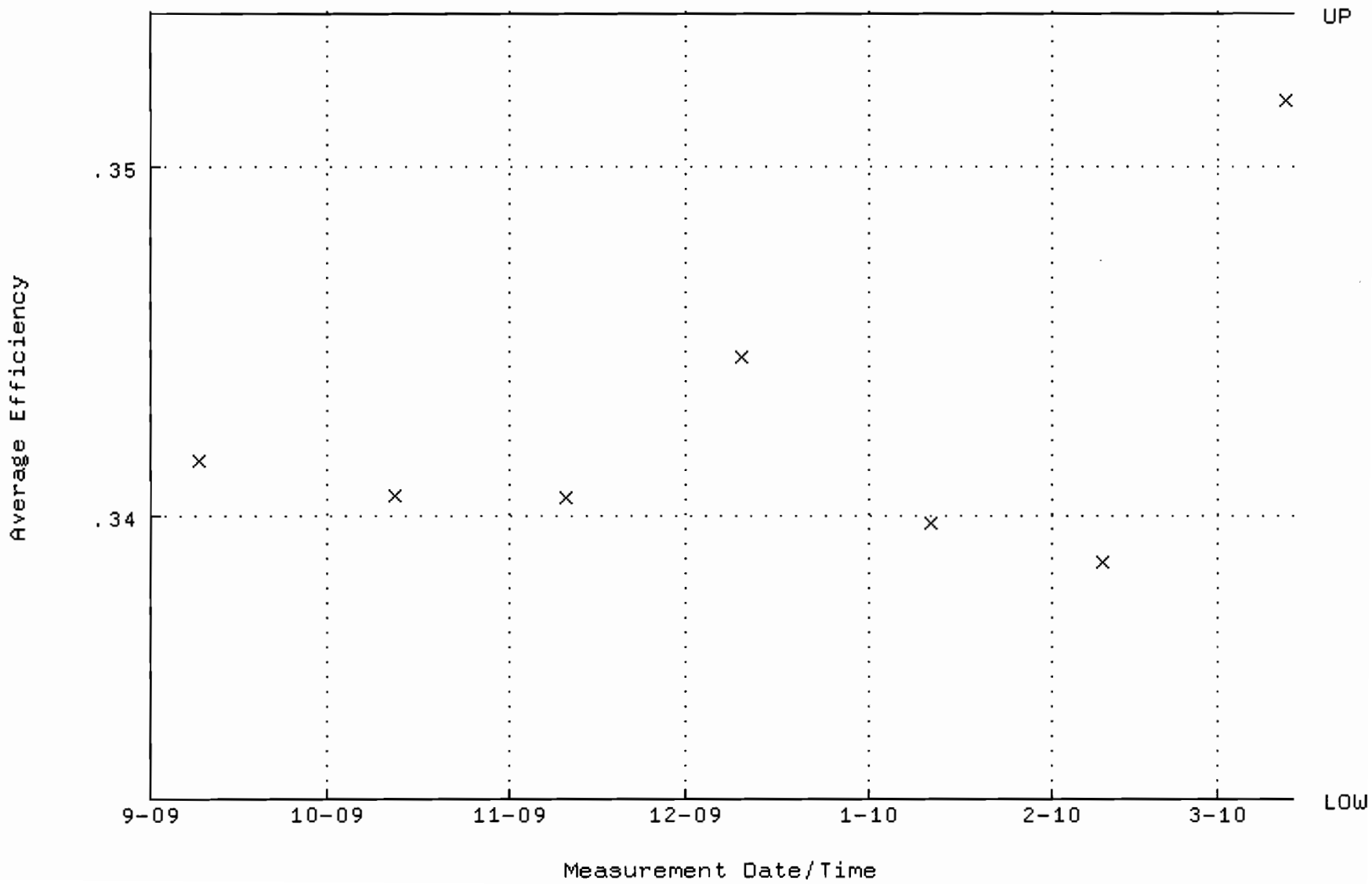

QA filename : DKA100:[ENV_ALPHA.QA.W]W099.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 68.7313 through 73.6359

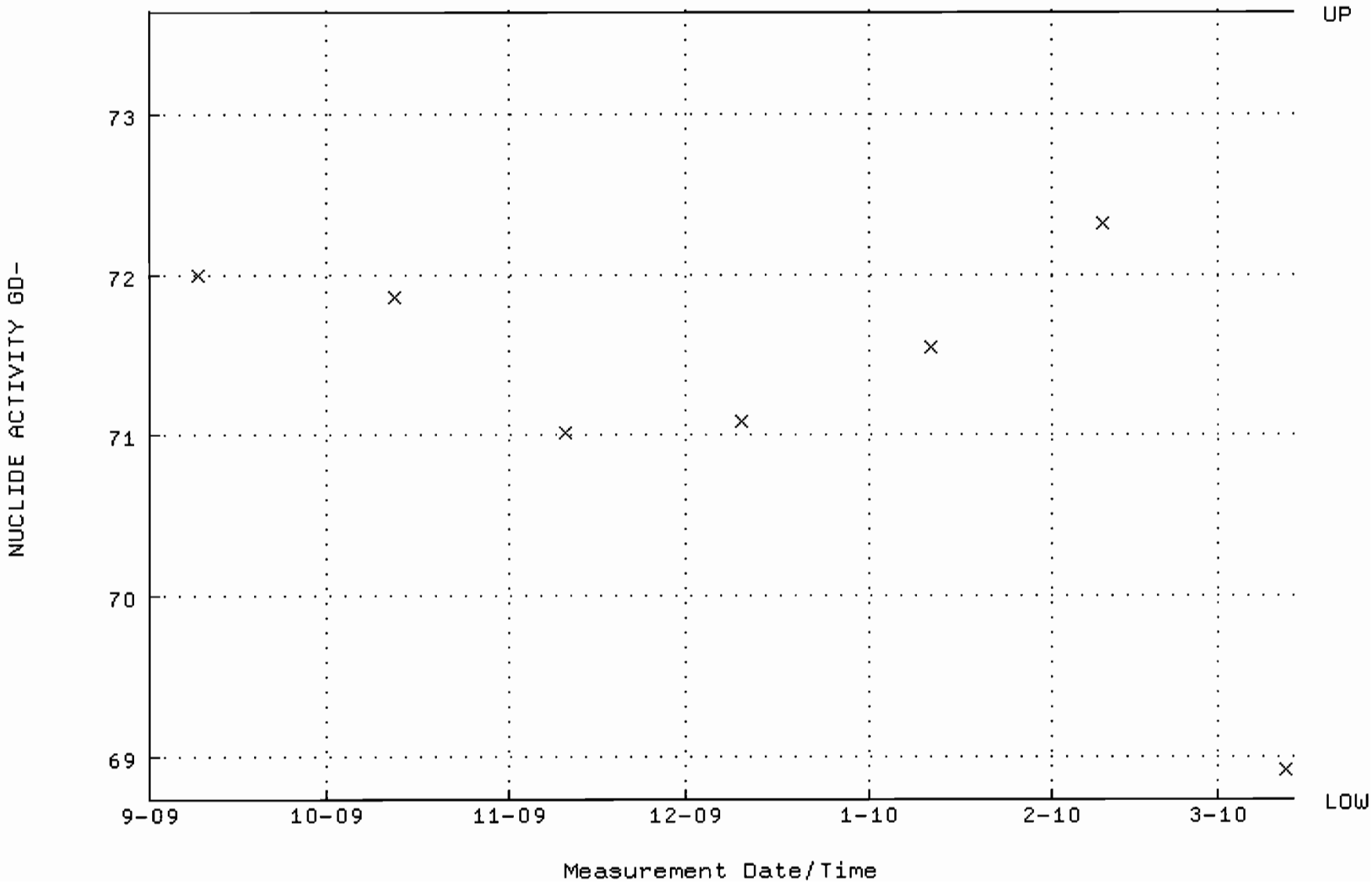

QA filename : DKA100:[ENV_ALPHA.QA.W]W100.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.328134 through 0.359116

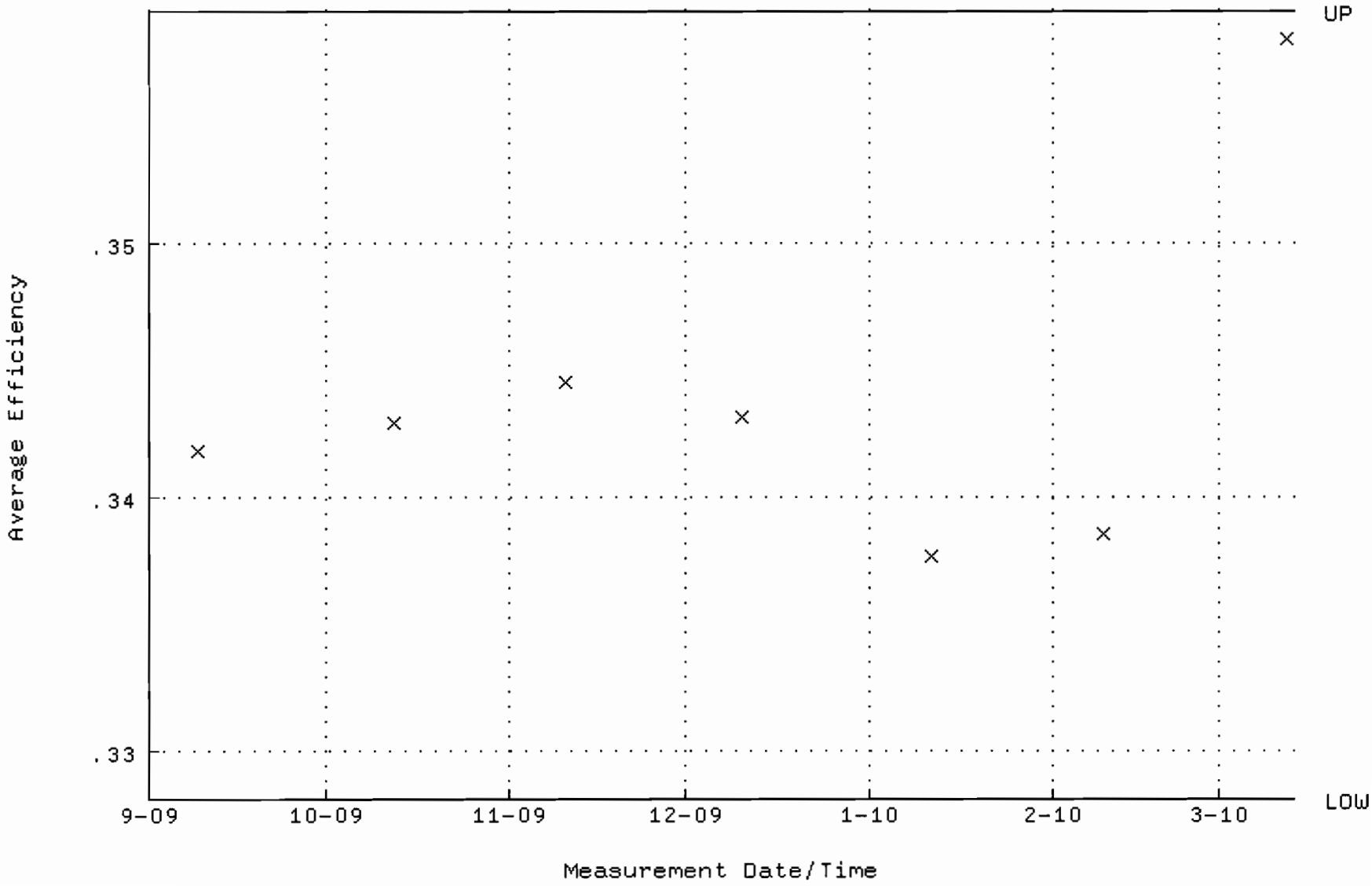

QA filename : DKA100:[ENV_ALPHA.QA.W]W100.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 65.9445 through 71.5395

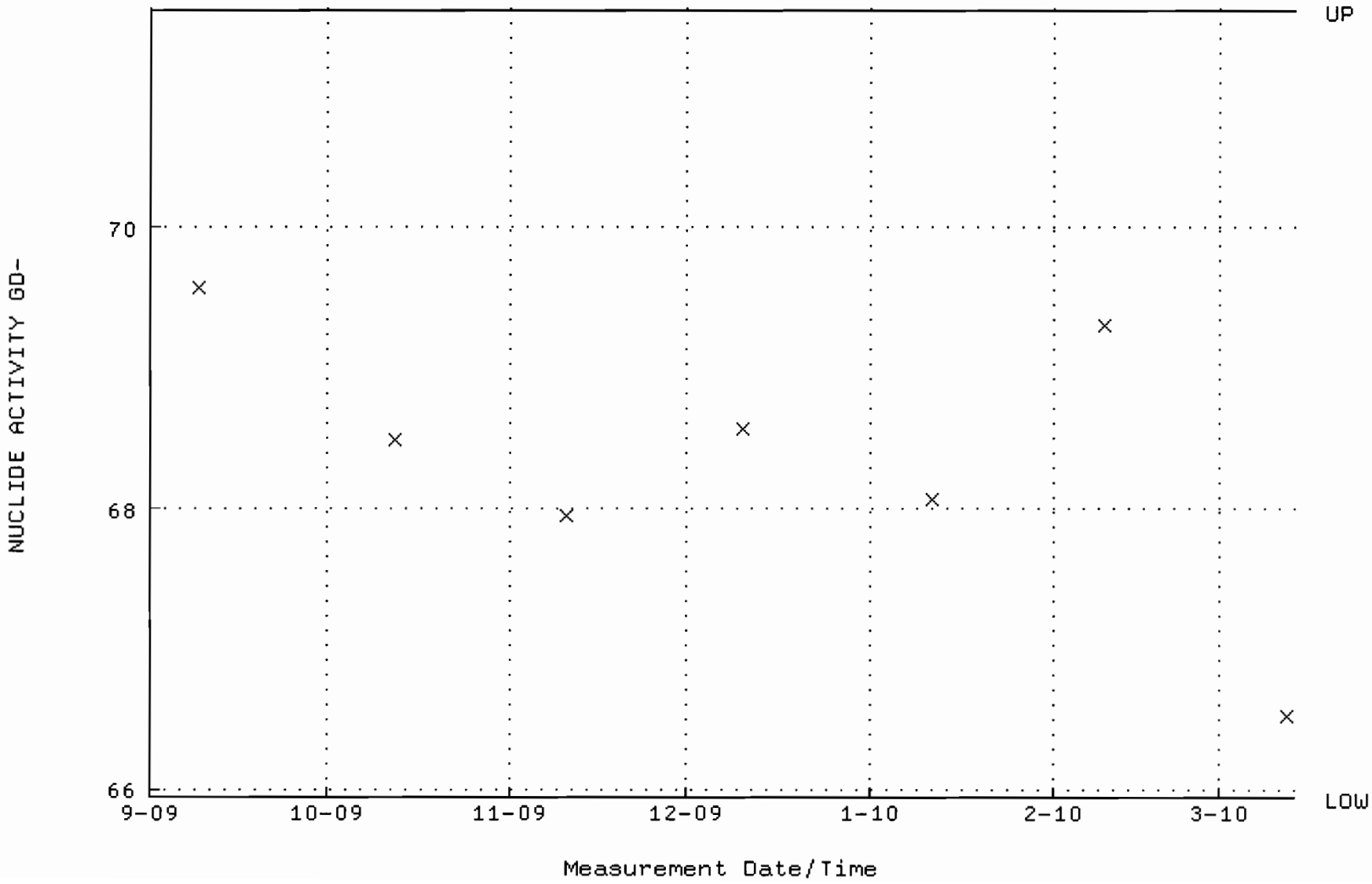

QA filename : DKA100:[ENV_ALPHA.QA.B]B100.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

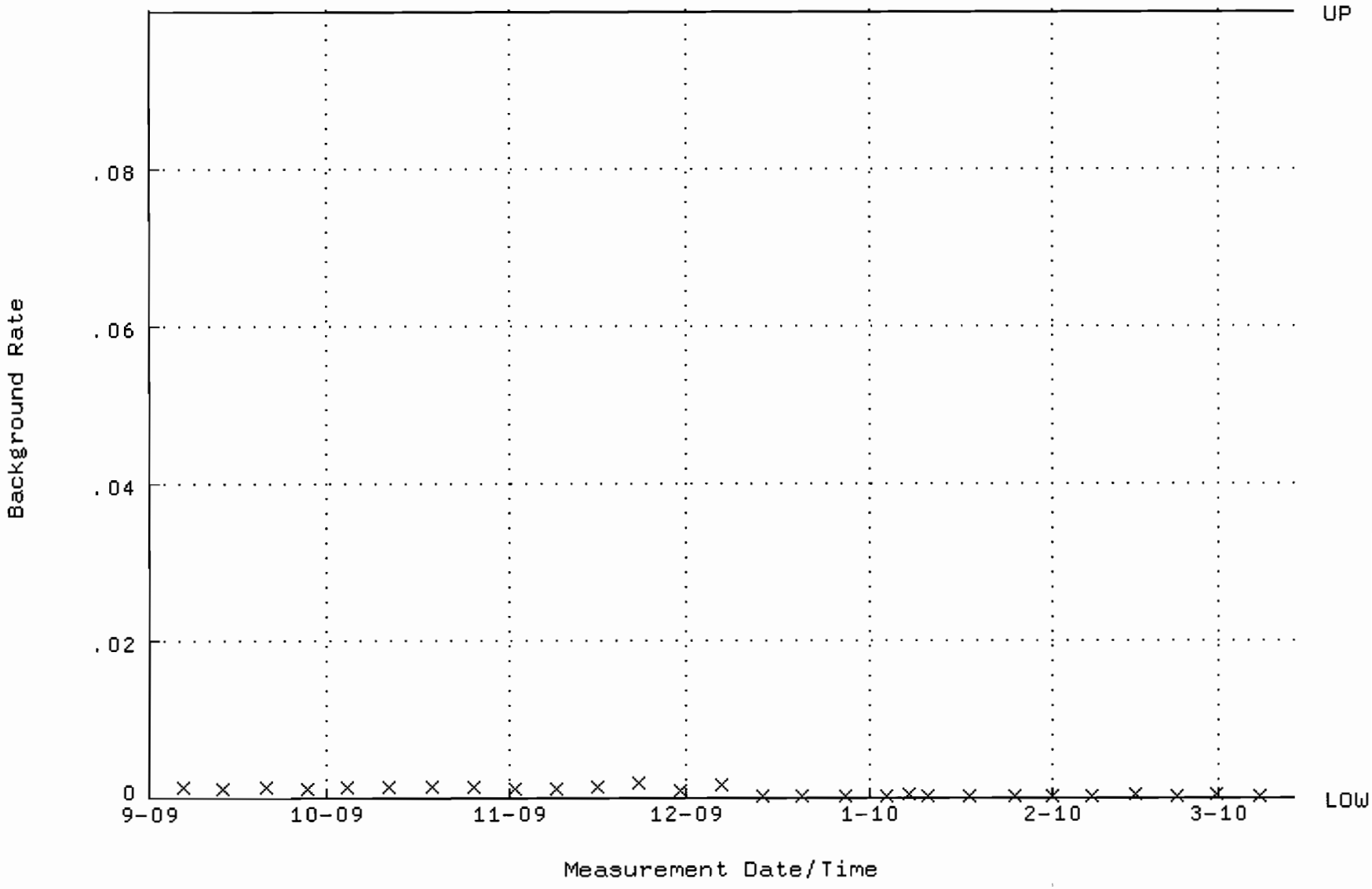

QA filename : DKA100:[ENV_ALPHA.QA.W]W109.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.343718 through 0.368808

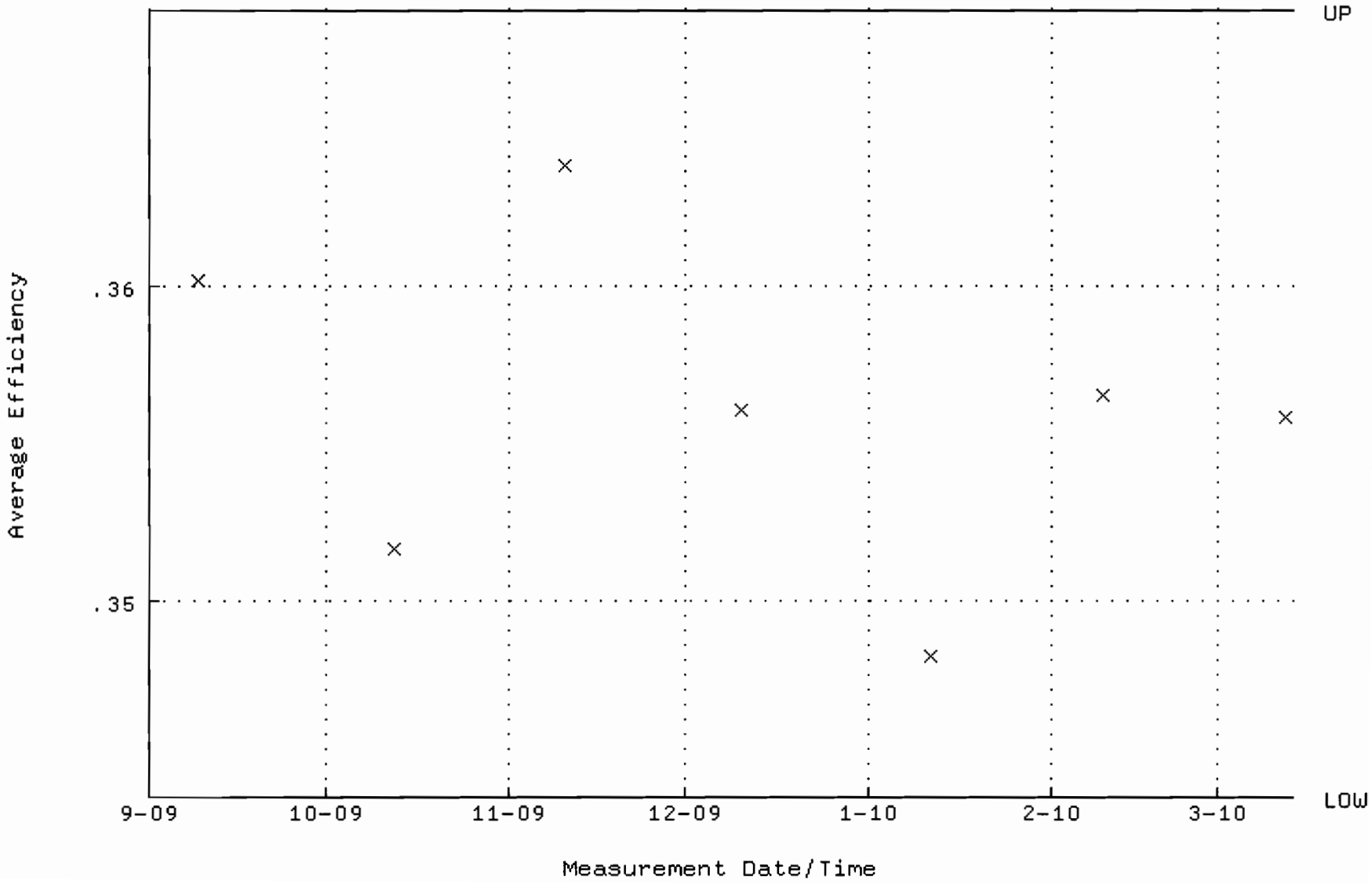

QA filename : DKA100:[ENV_ALPHA.QA.W]W109.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 65.4511 through 67.8527

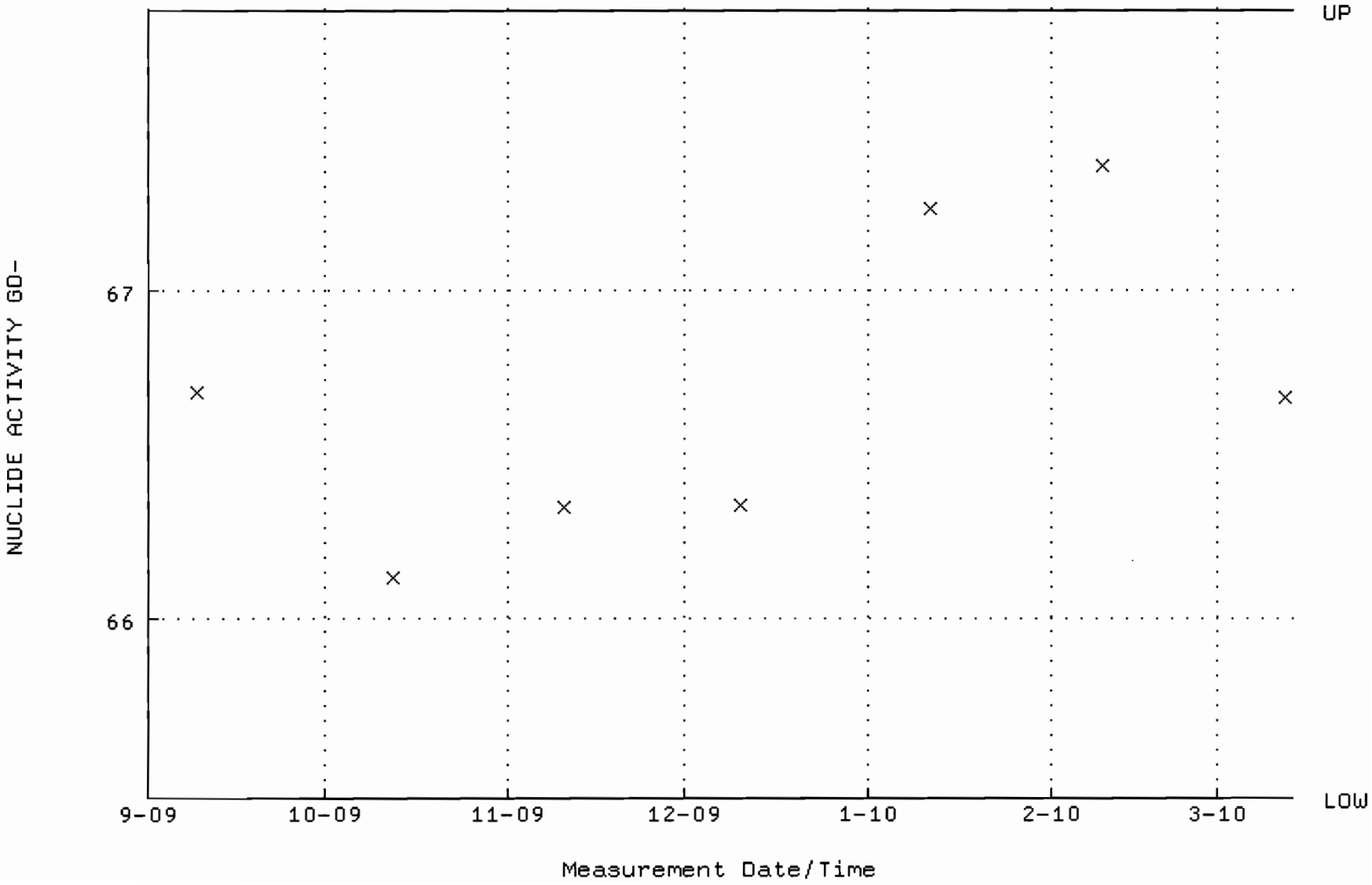

QA filename : DKA100:[ENV_ALPHA.QA.B]B109.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:12 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

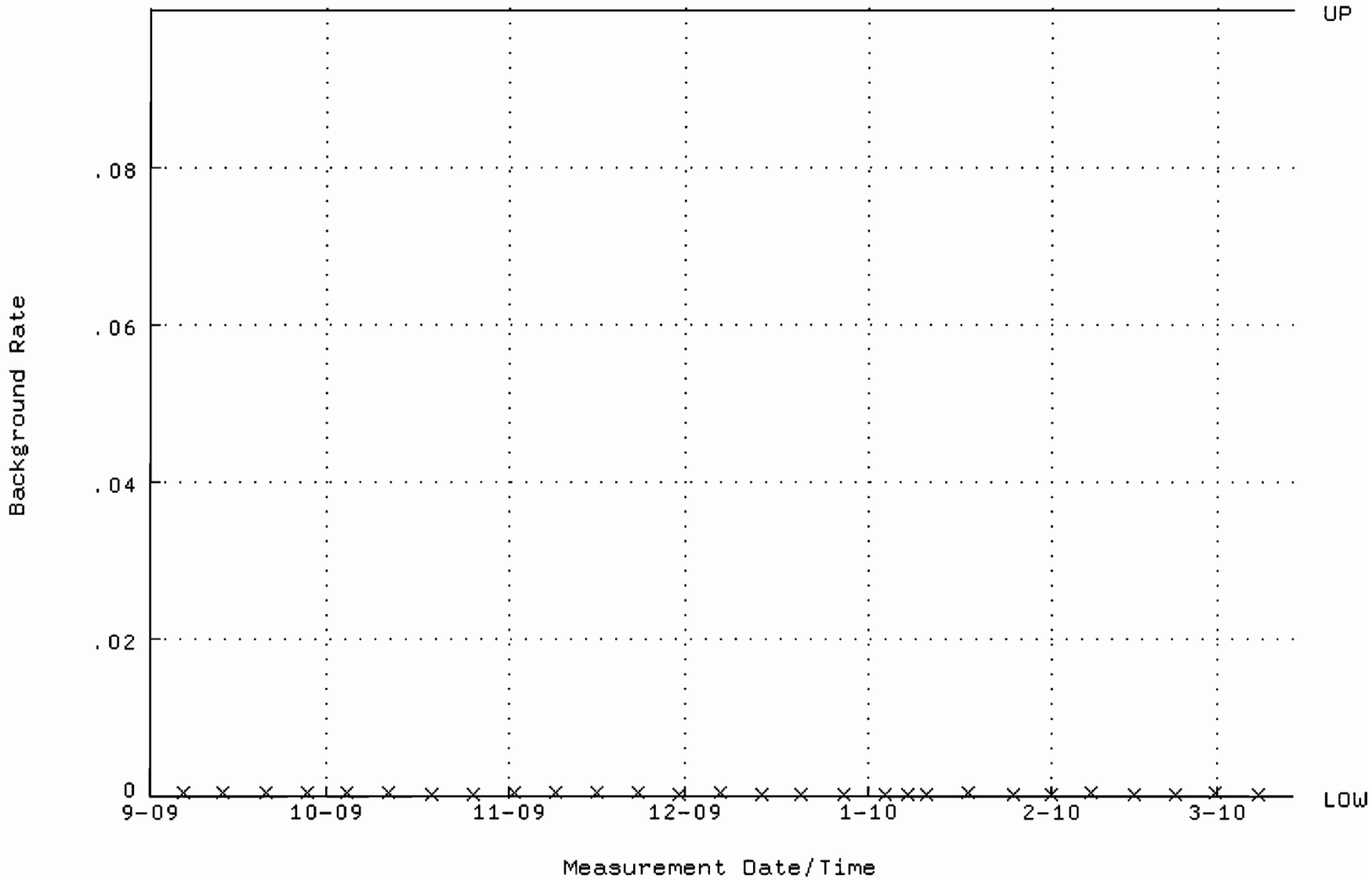

QA filename : DKA100:[ENV_ALPHA.QA.W]W119.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 06:21:52 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.251416 through 0.261570

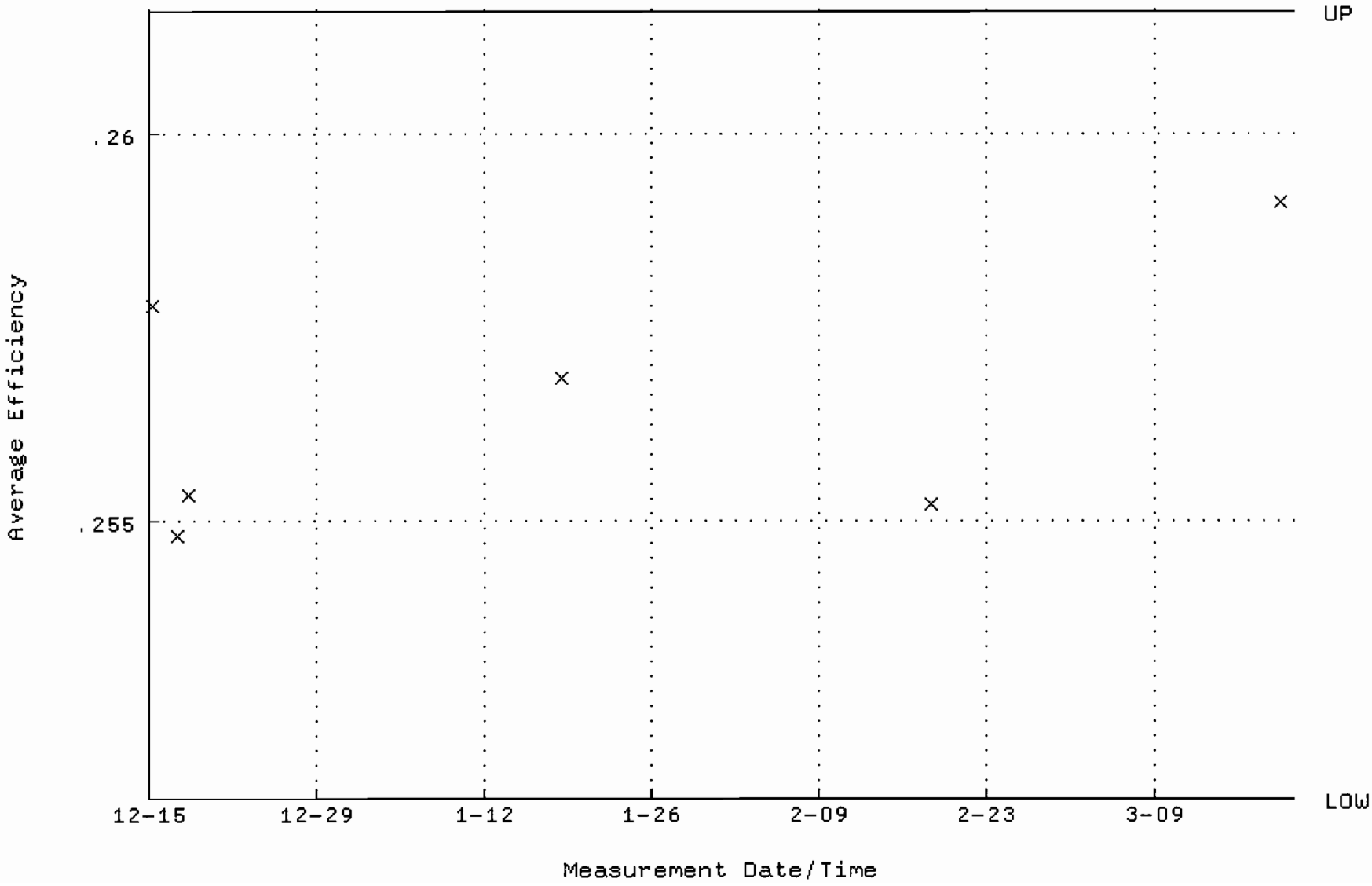

QA filename : DKA100:[ENV_ALPHA.QA.W]W119.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 06:21:52 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 90.4178 through 94.0134

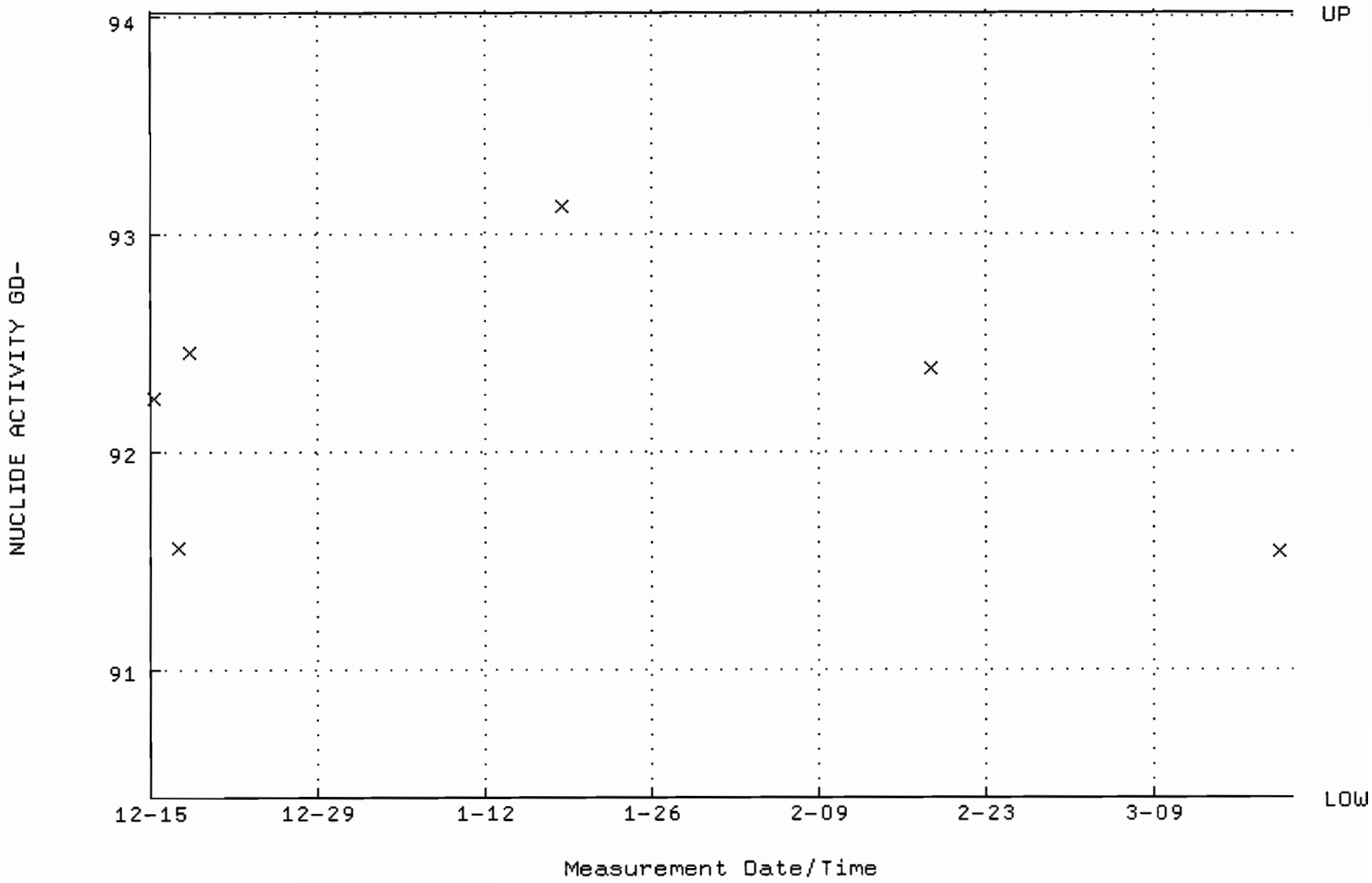

QA filename : DKA100:[ENV_ALPHA.QA.B]B119.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:34 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

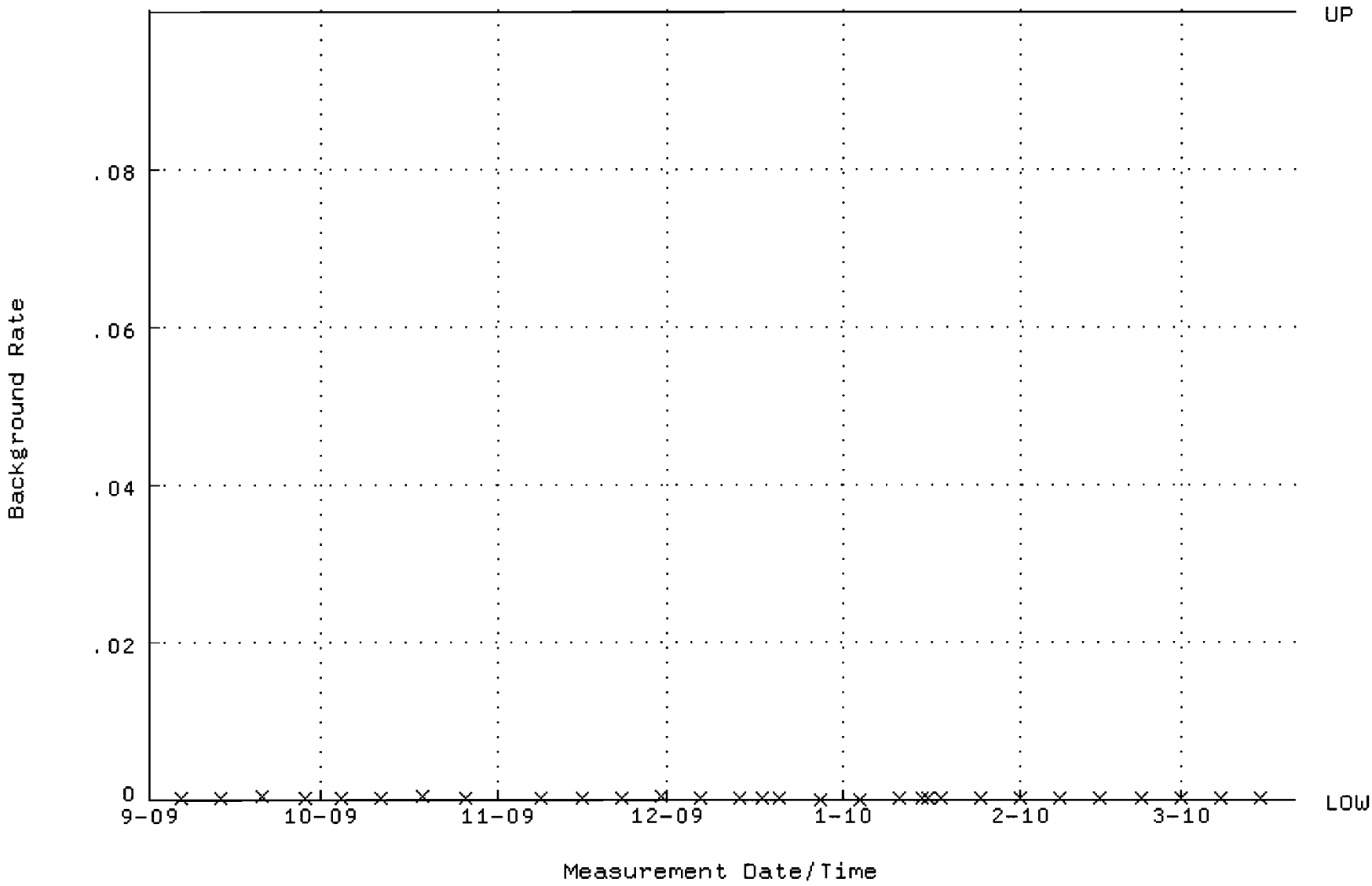

QA filename : DKA100:[ENV_ALPHA.QA.W]W120.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:23:19 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.236163 through 0.280493

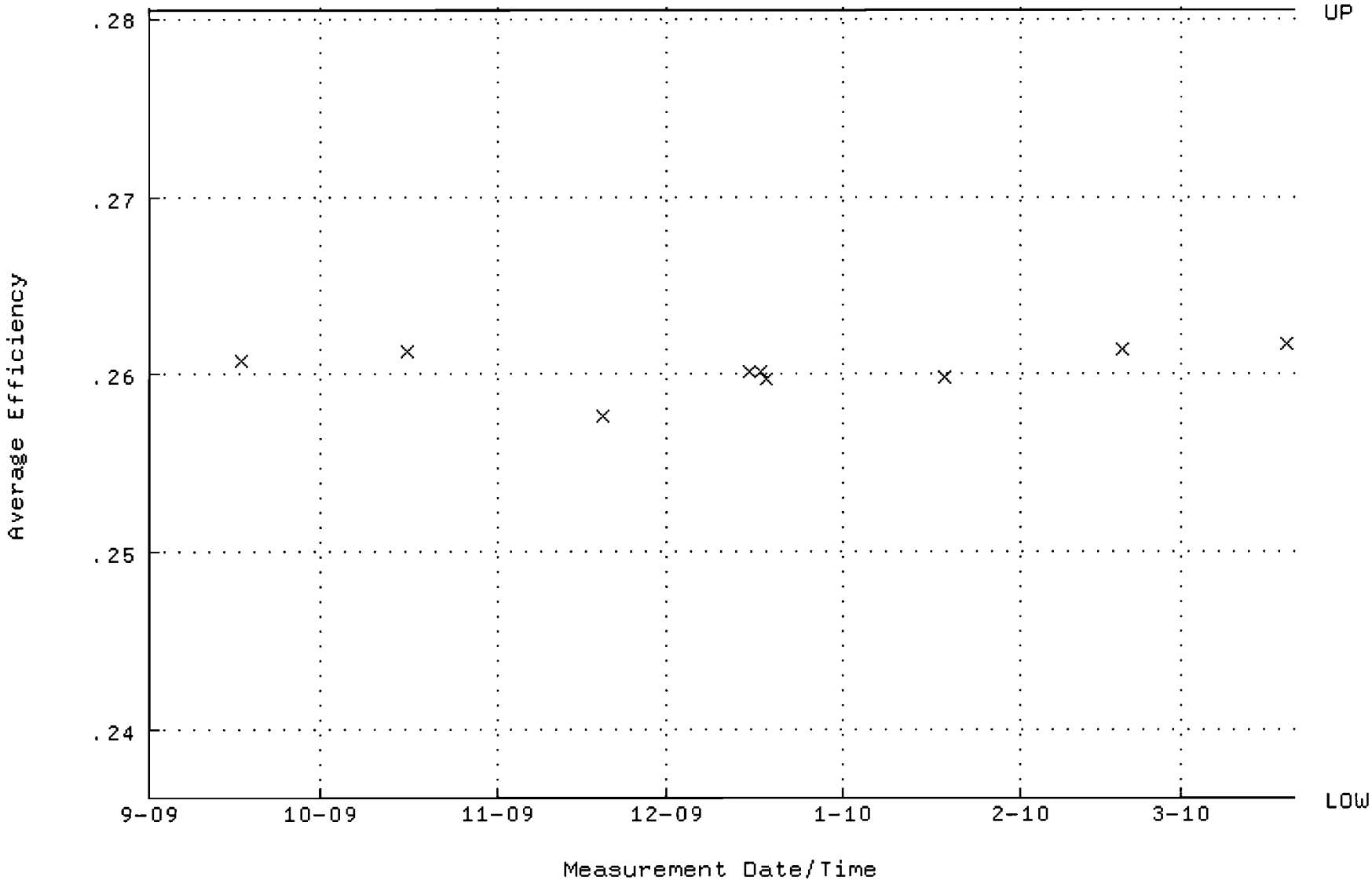

QA filename : DKA100:[ENV_ALPHA.QA.W]W120.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:23:19 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 89.2737 through 91.7767

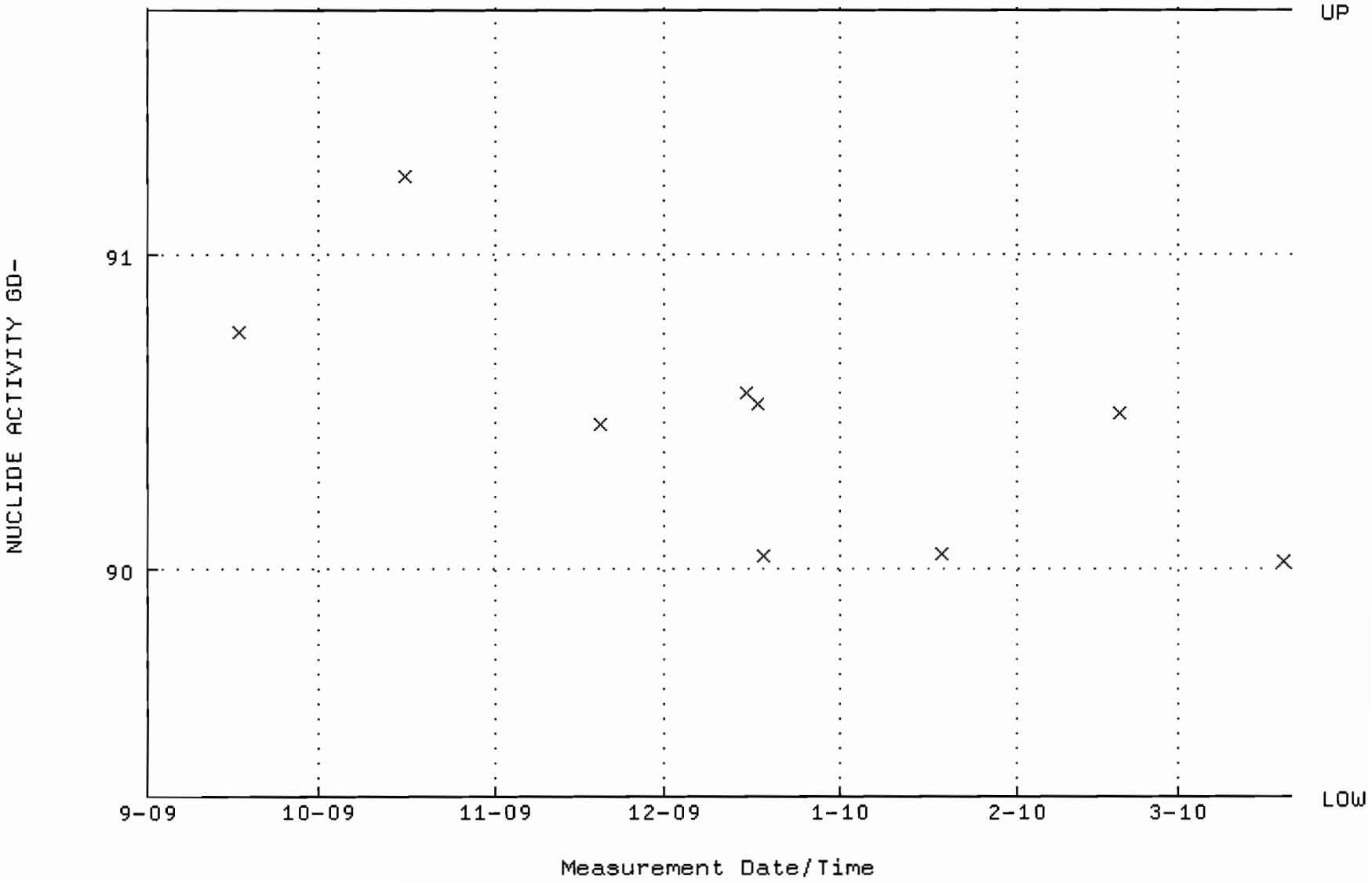

QA filename : DKA100:[ENV_ALPHA.QA.B]B120.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:39 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

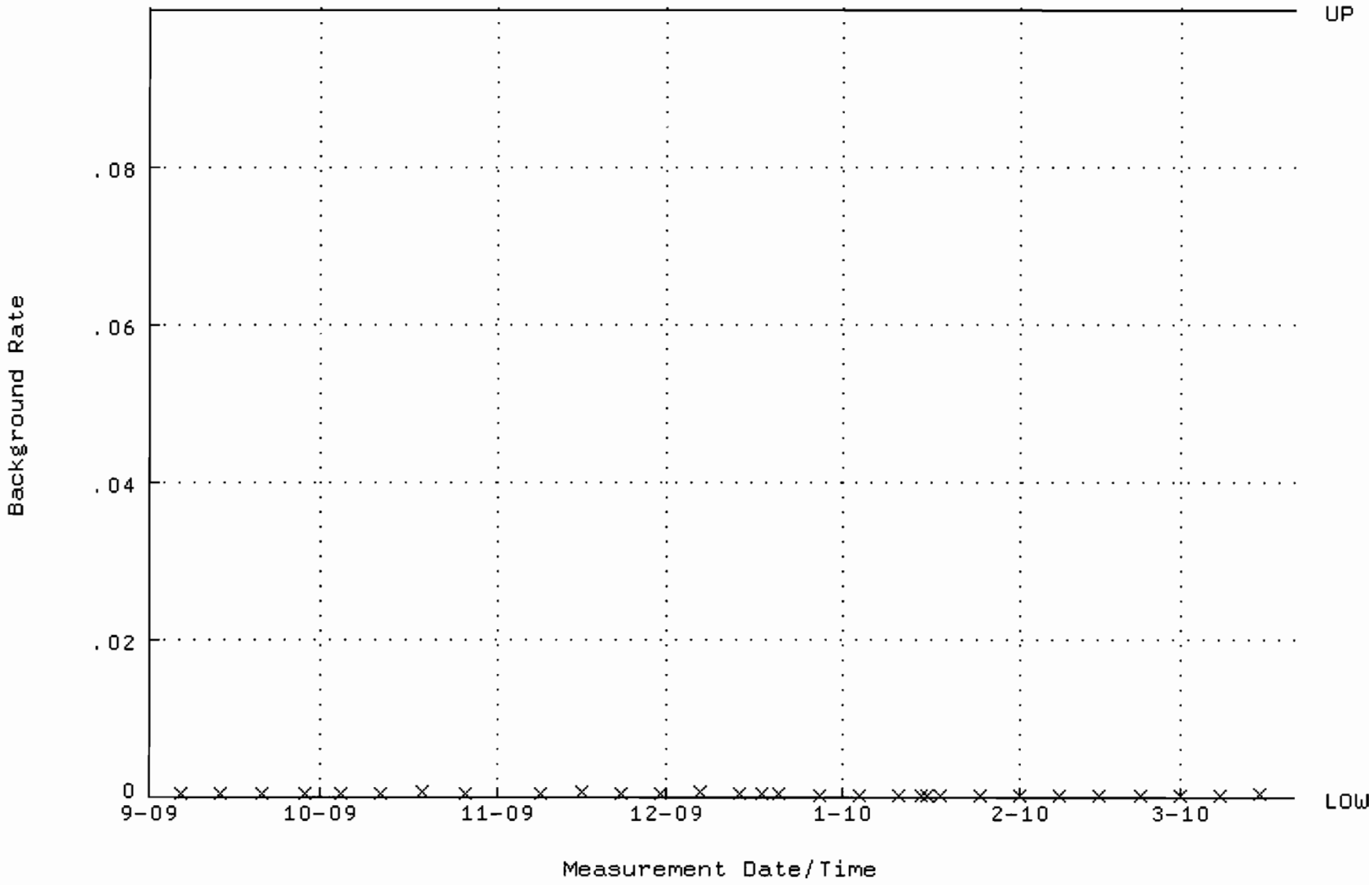

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:23:26 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.235679 through 0.260639

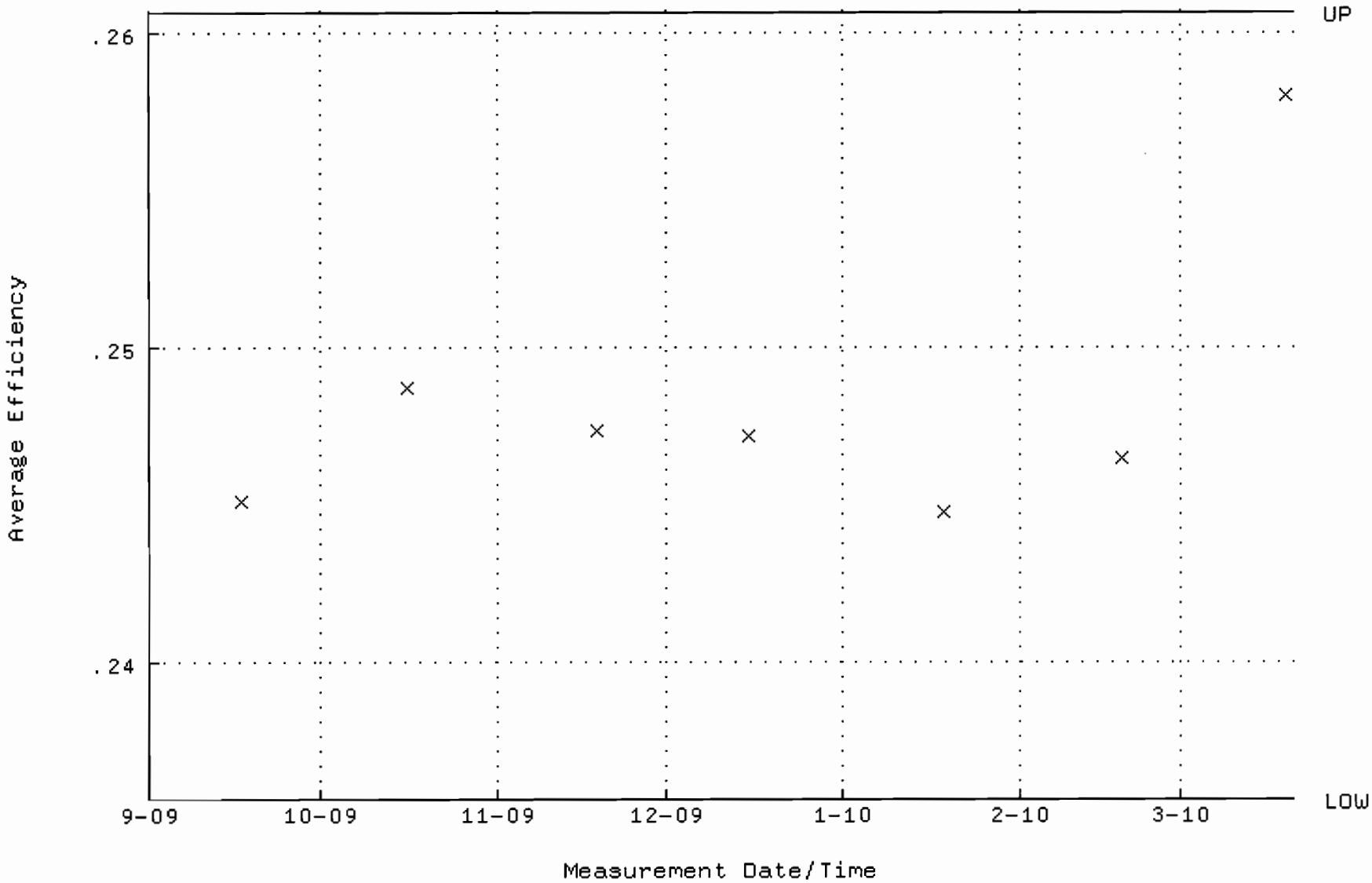

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:23:26 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 88.9962 through 98.1012

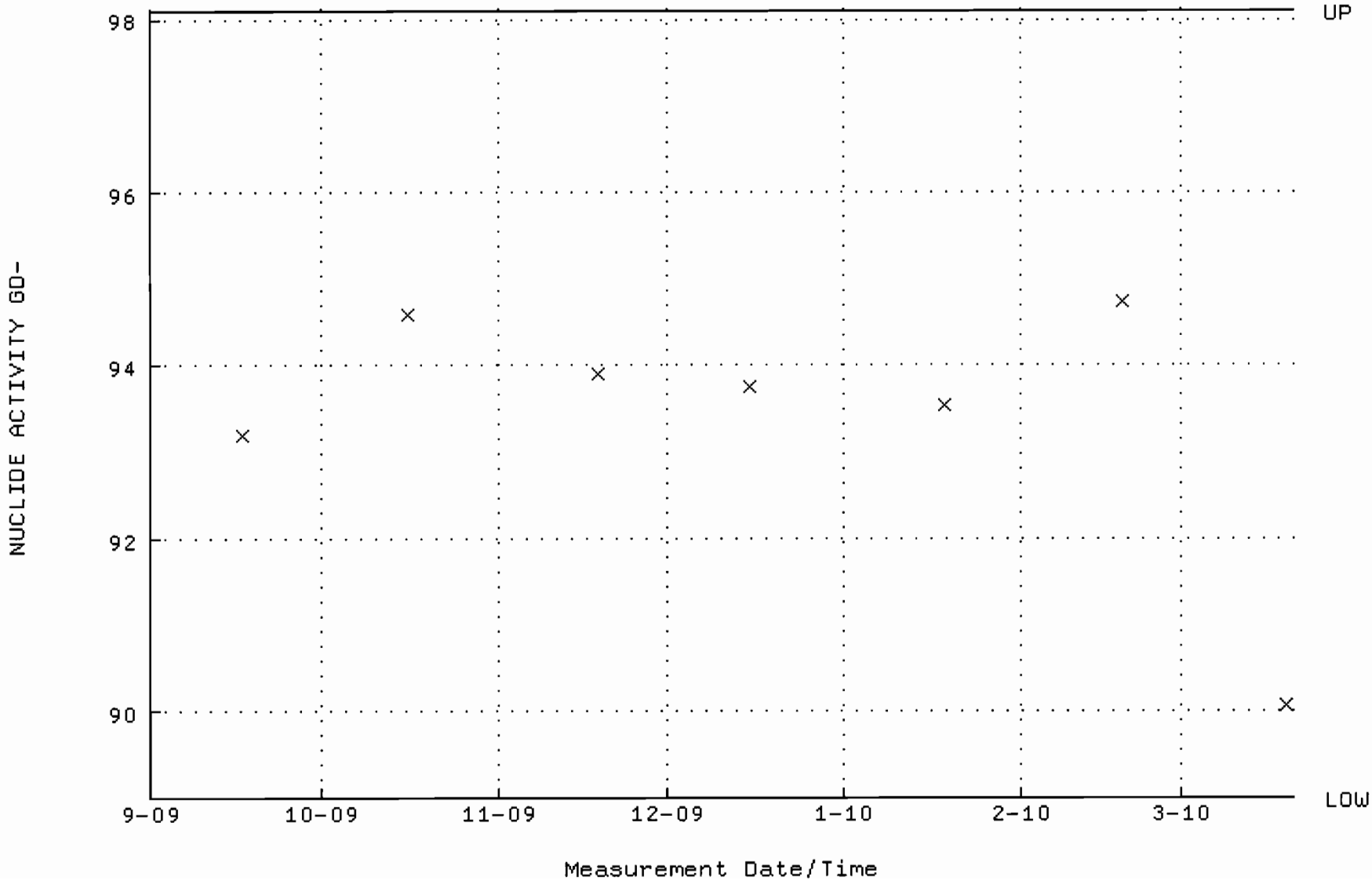

QA filename : DKA100:[ENV_ALPHA.QA.B]B121.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:43 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

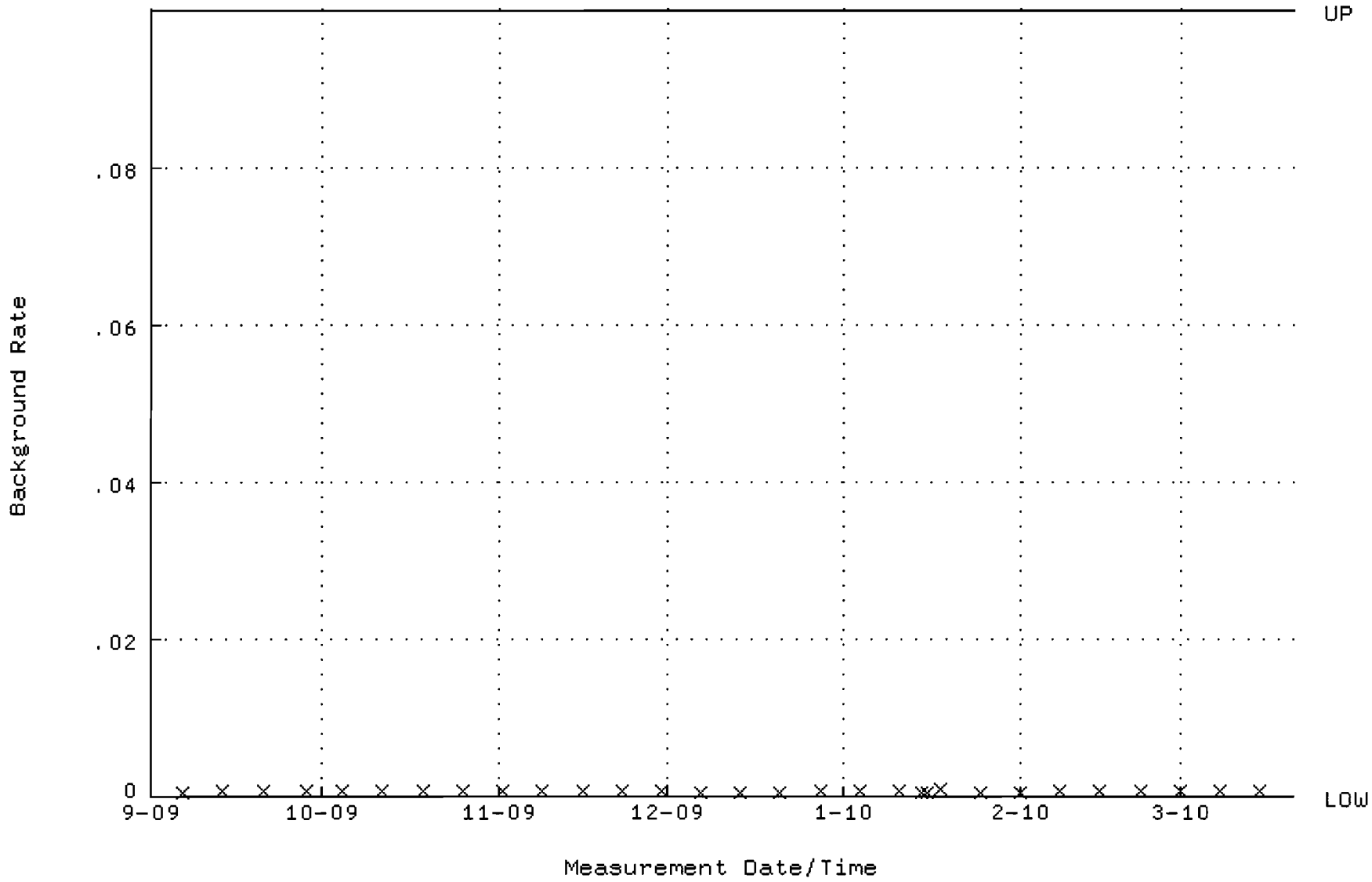

QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:23:33 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.239412 through 0.267828

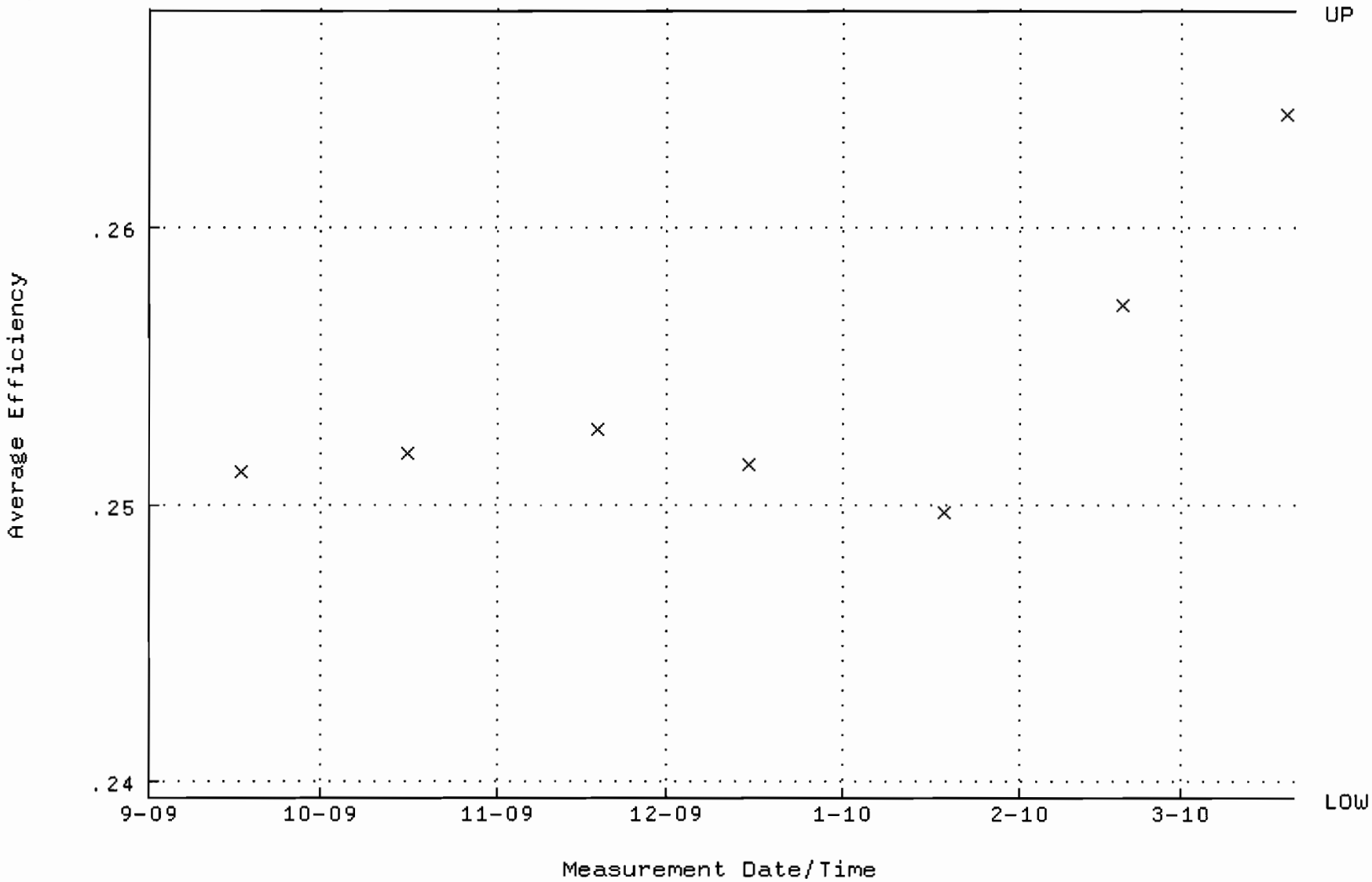

QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:23:33 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 90.1506 through 99.5122

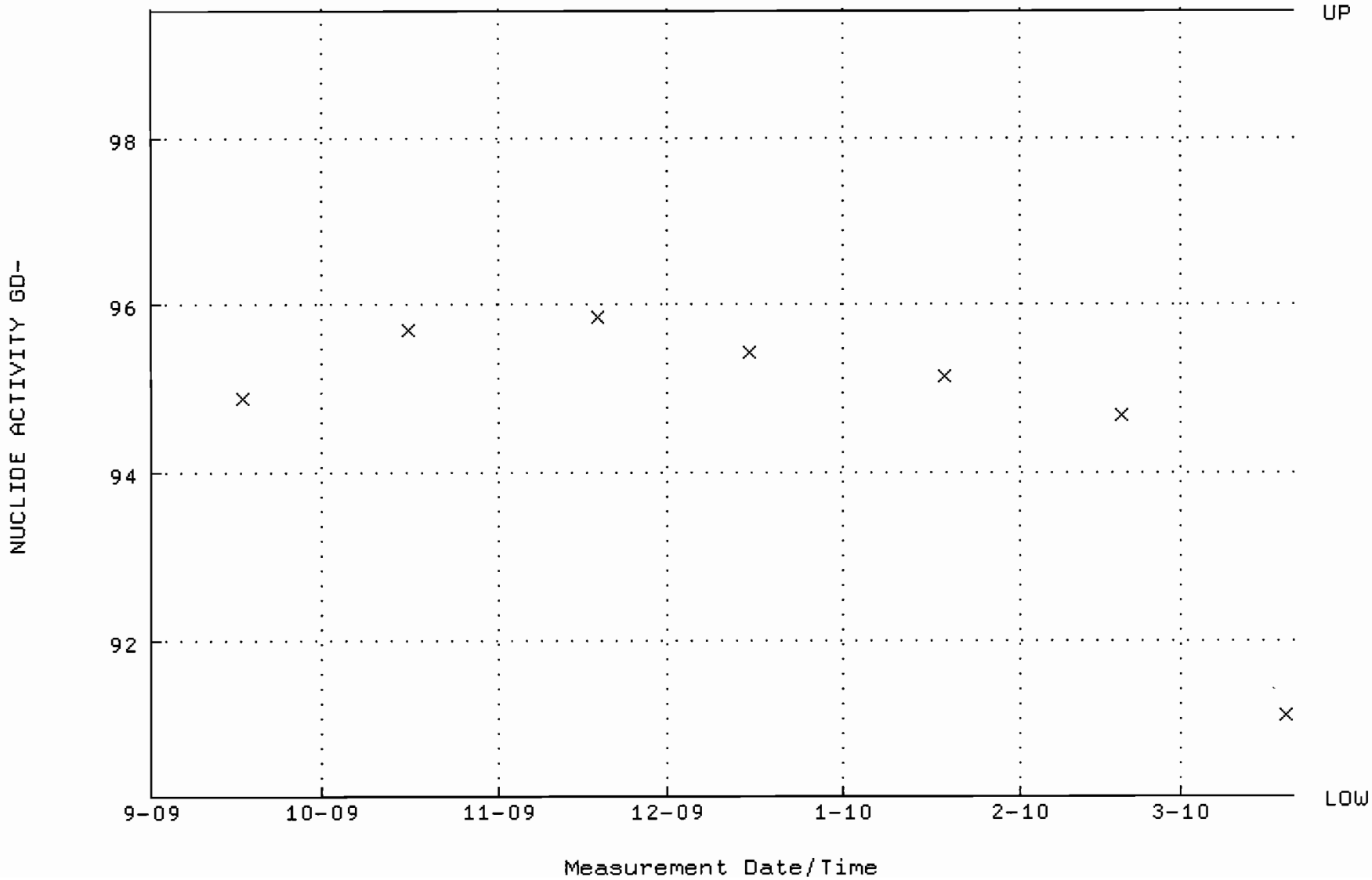

QA filename : DKA100:[ENV_ALPHA.QA.B]B122.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:48 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

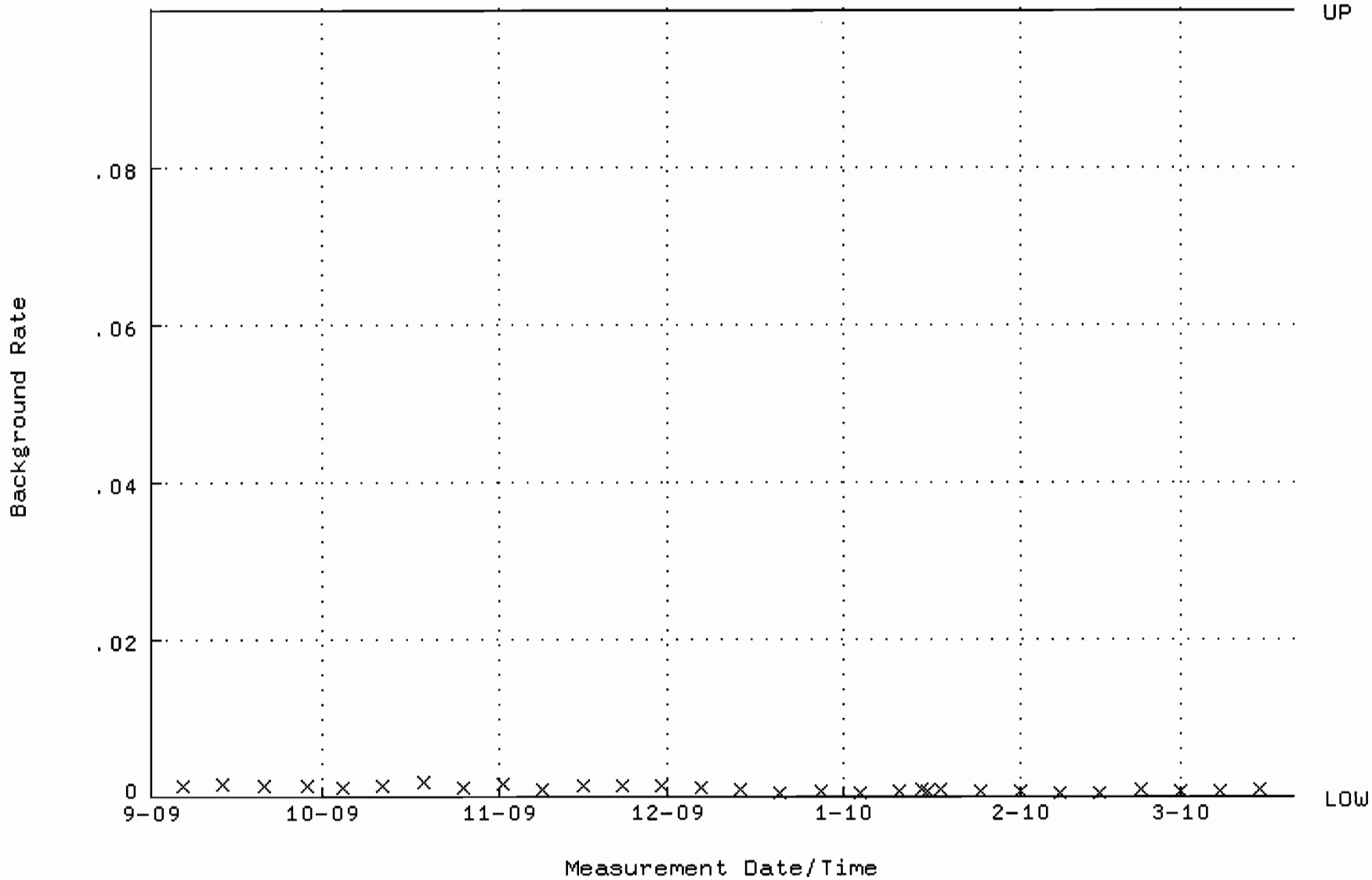

QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:23:40 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.246718 through 0.275204

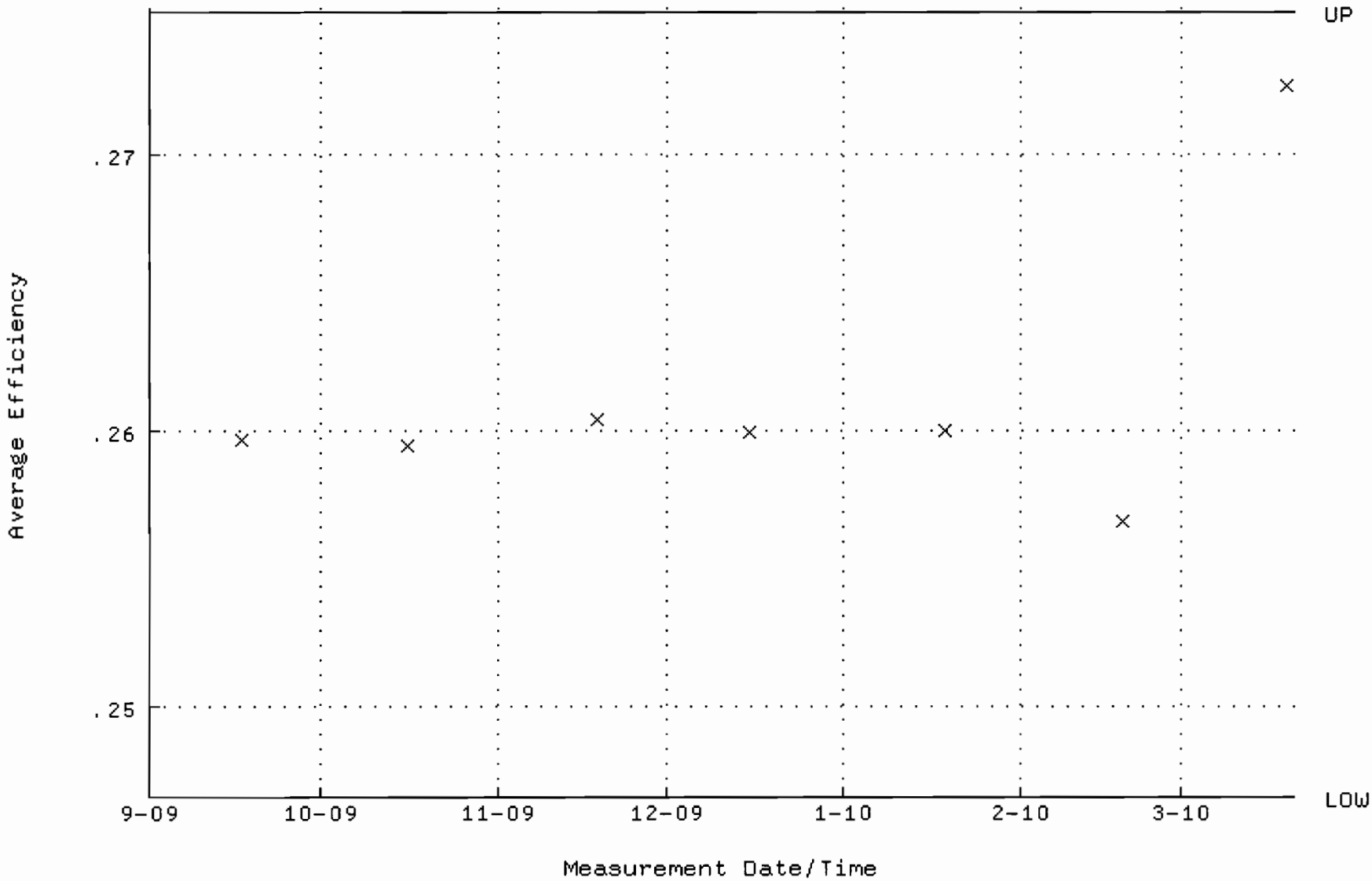

QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:23:40 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 85.2791 through 95.8339

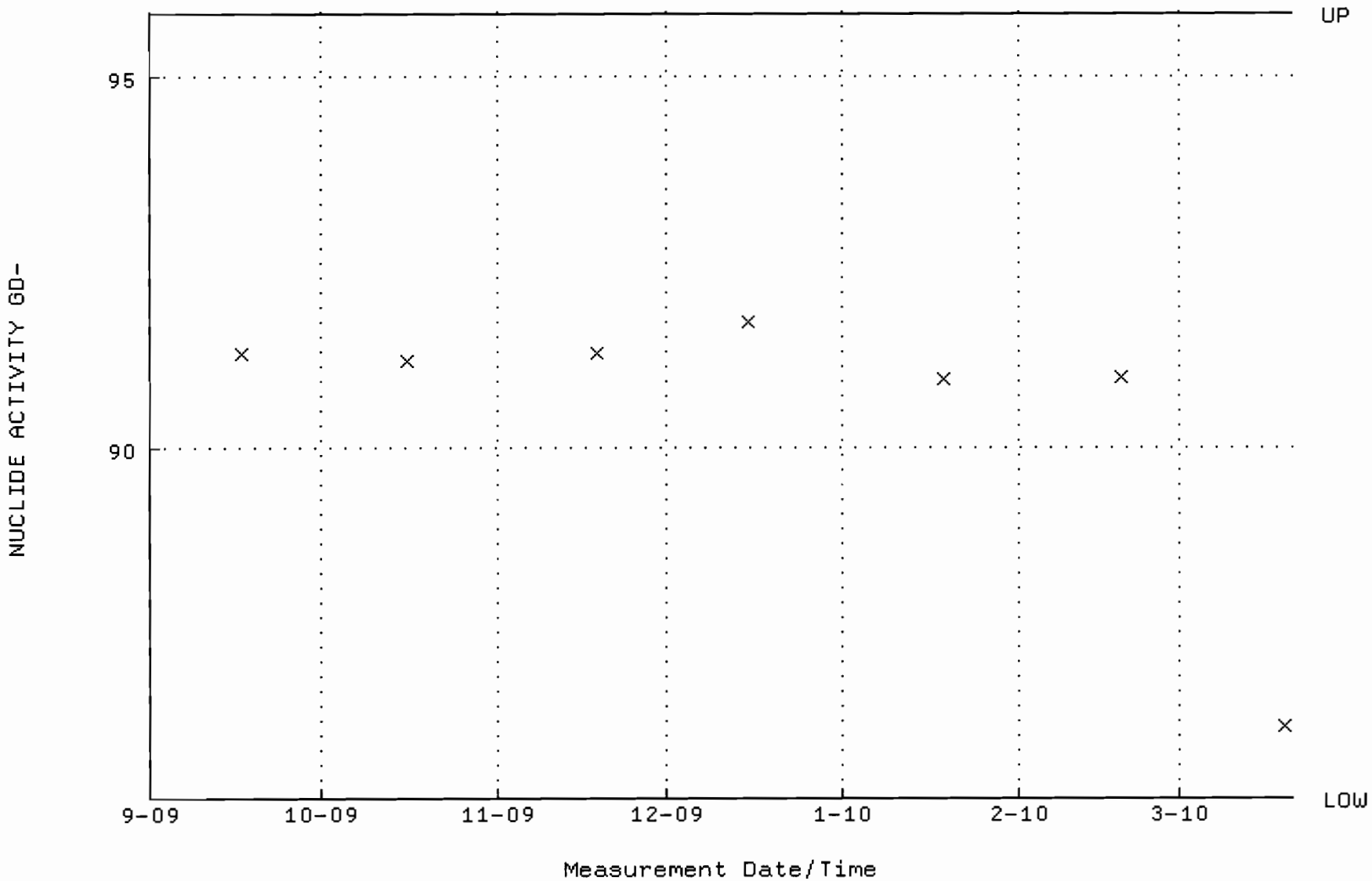

QA filename : DKA100:[ENV_ALPHA.QA.B]B123.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:52 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

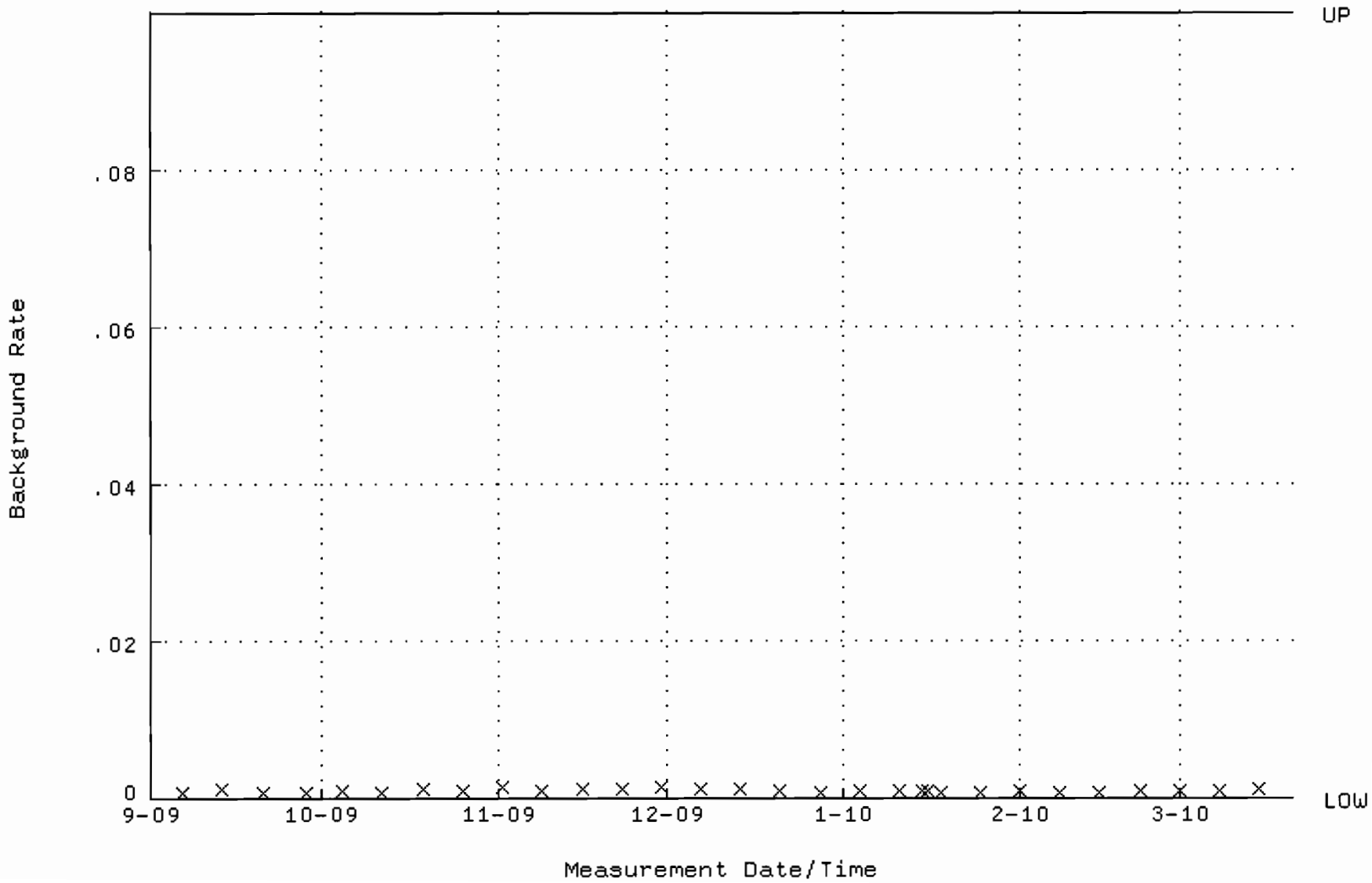

QA filename : DKA100:[ENV_ALPHA.QA.W]W124.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:23:47 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.252448 through 0.267830

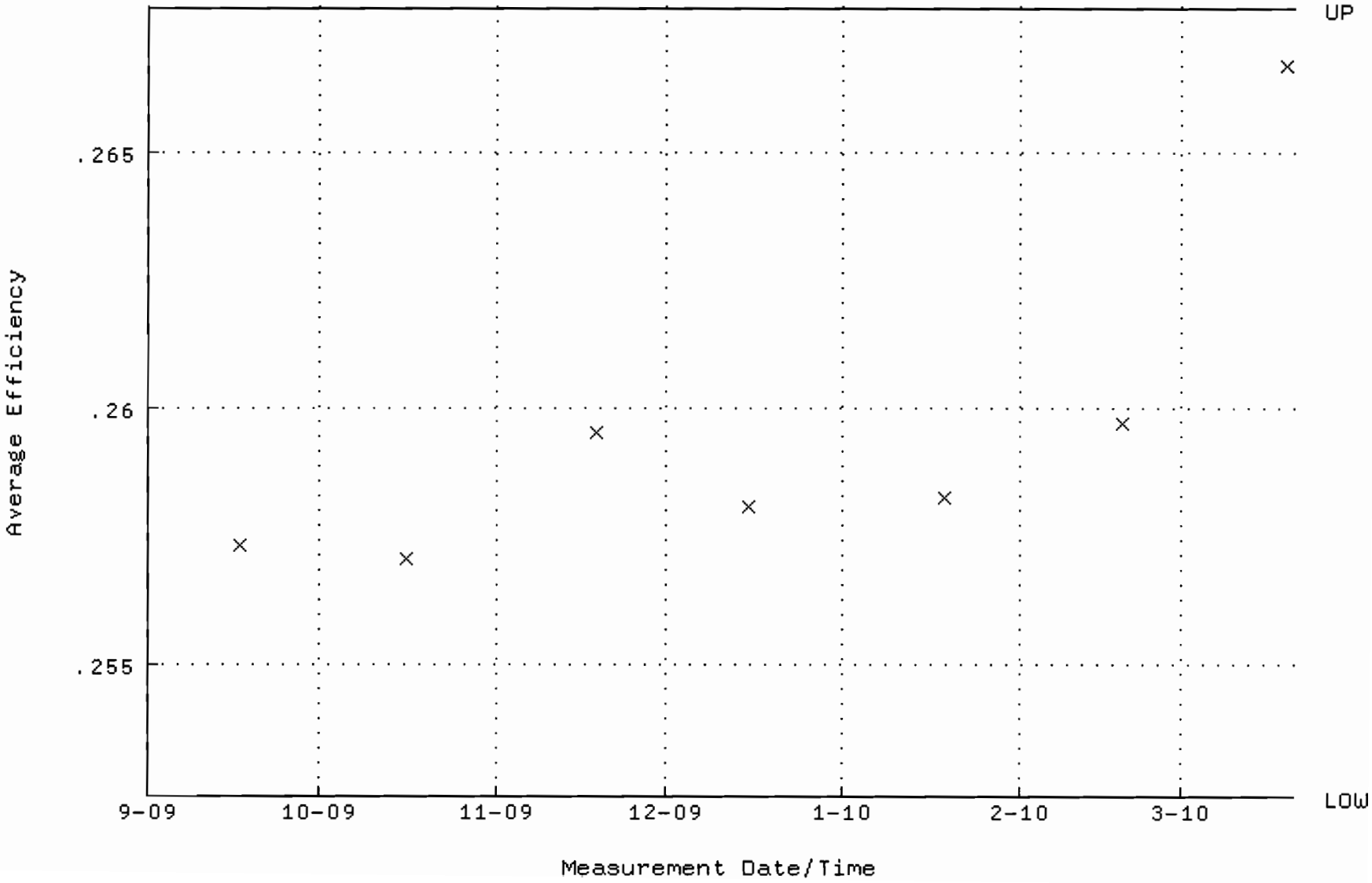

QA filename : DKA100:[ENV_ALPHA.QA.W]W124.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:23:47 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 89.1805 through 95.4483

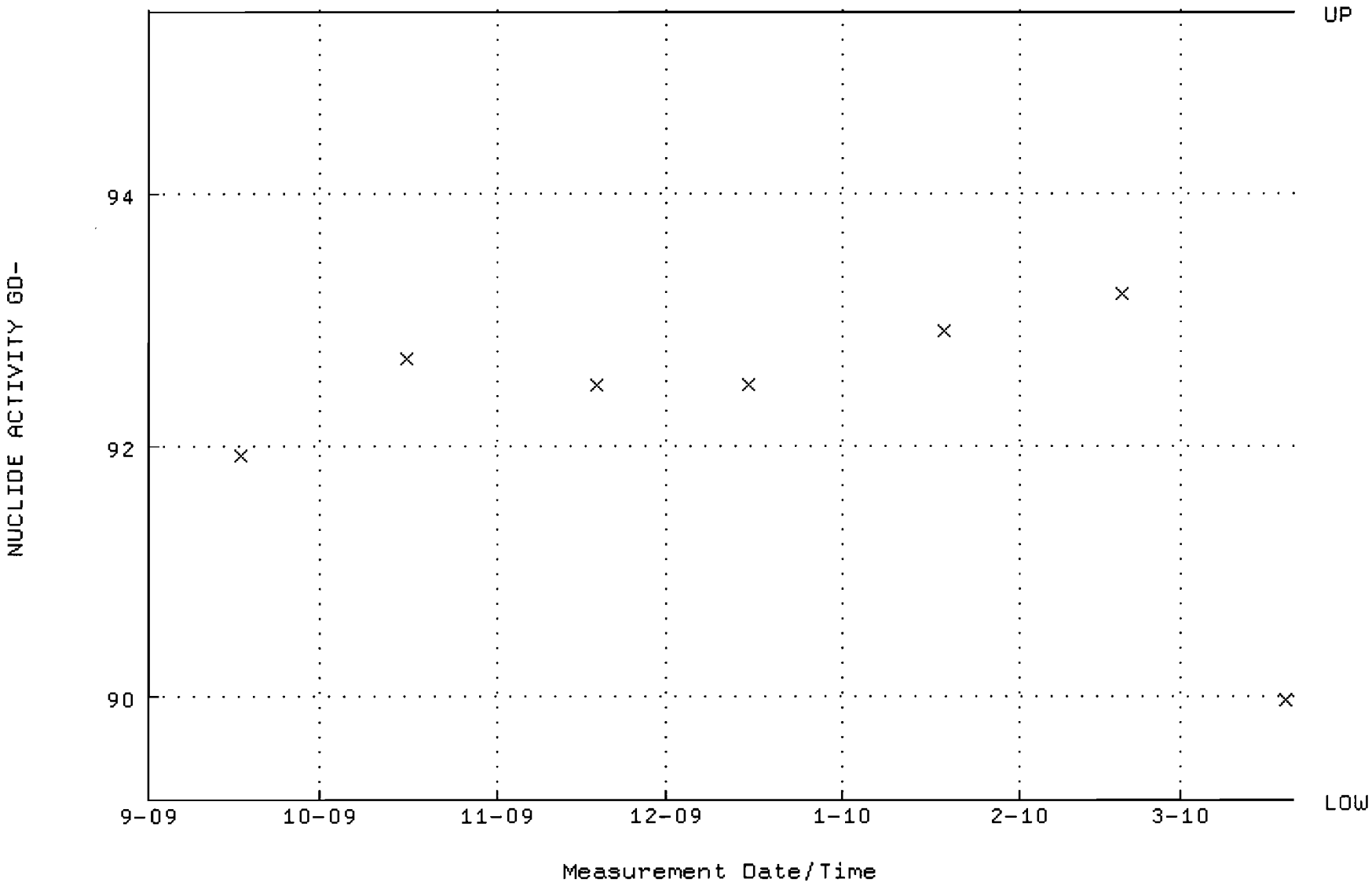

QA filename : DKA100:[ENV_ALPHA.QA.B]B124.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:56 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

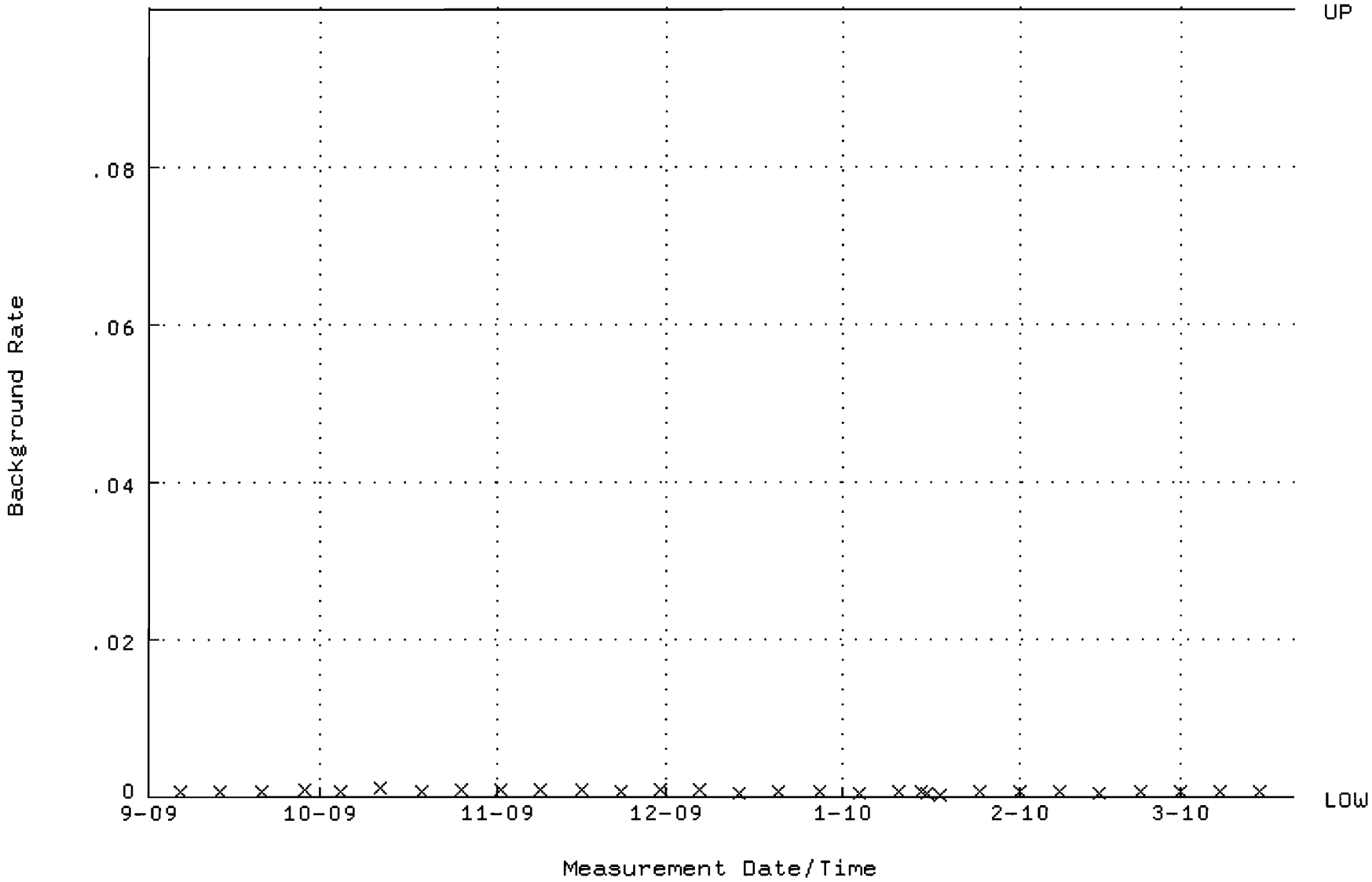

QA filename : DKA100:[ENV_ALPHA.QA.W]W125.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:23:54 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.244676 through 0.275622

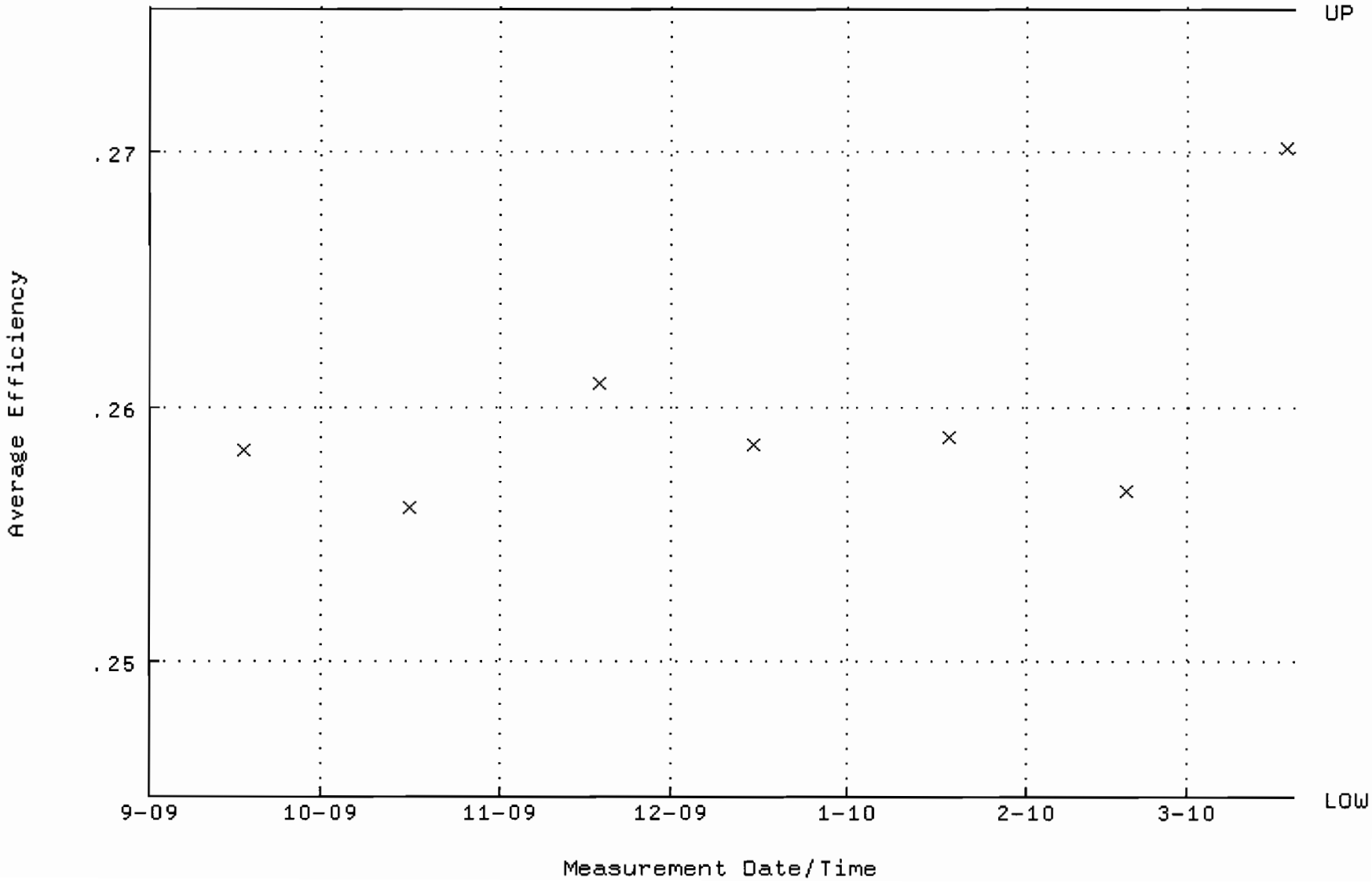

QA filename : DKA100:[ENV_ALPHA.QA.W]W125.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:23:54 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 85.5532 through 97.9632

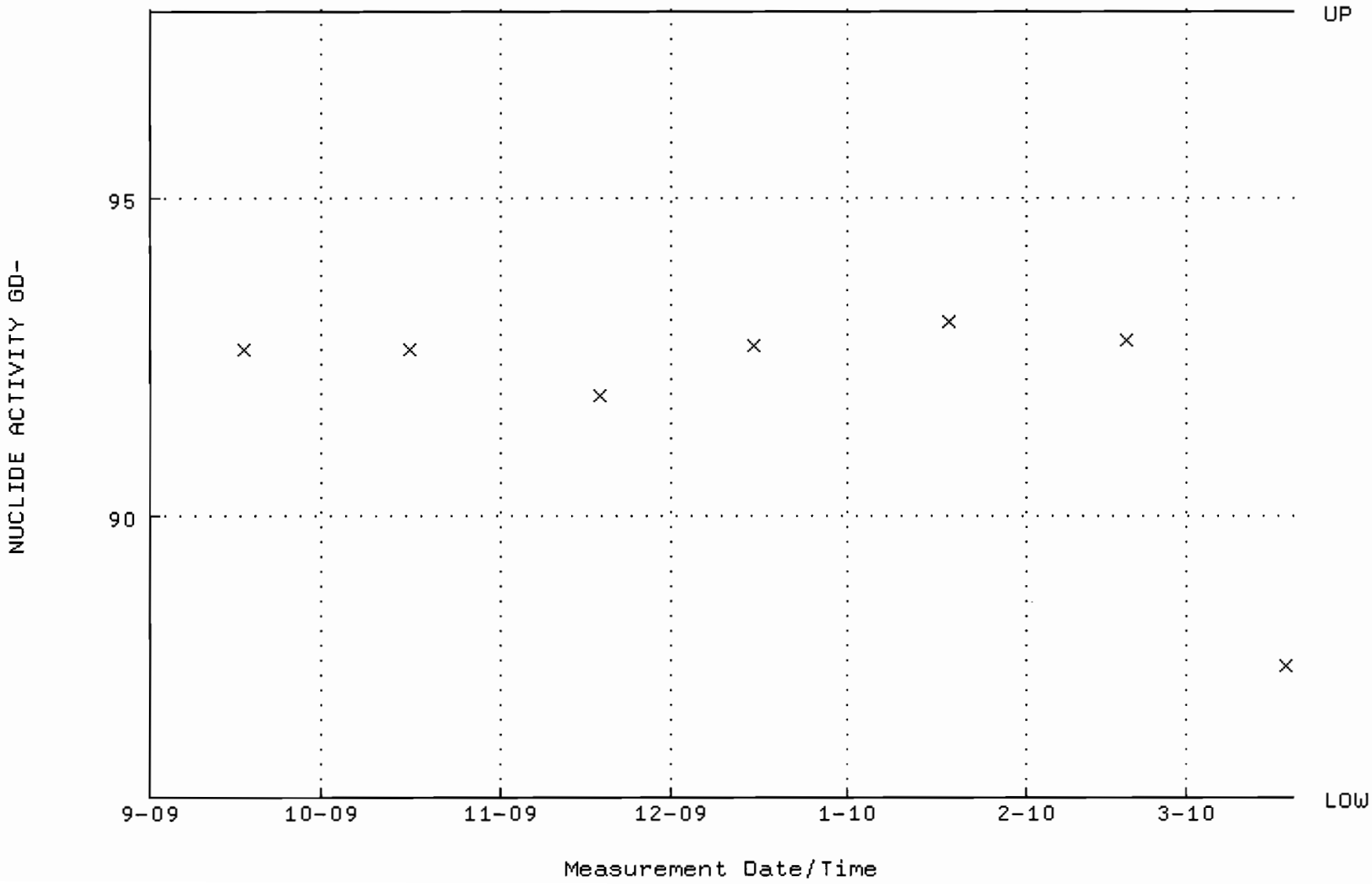

QA filename : DKA100:[ENV_ALPHA.QA.B]B125.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:01 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

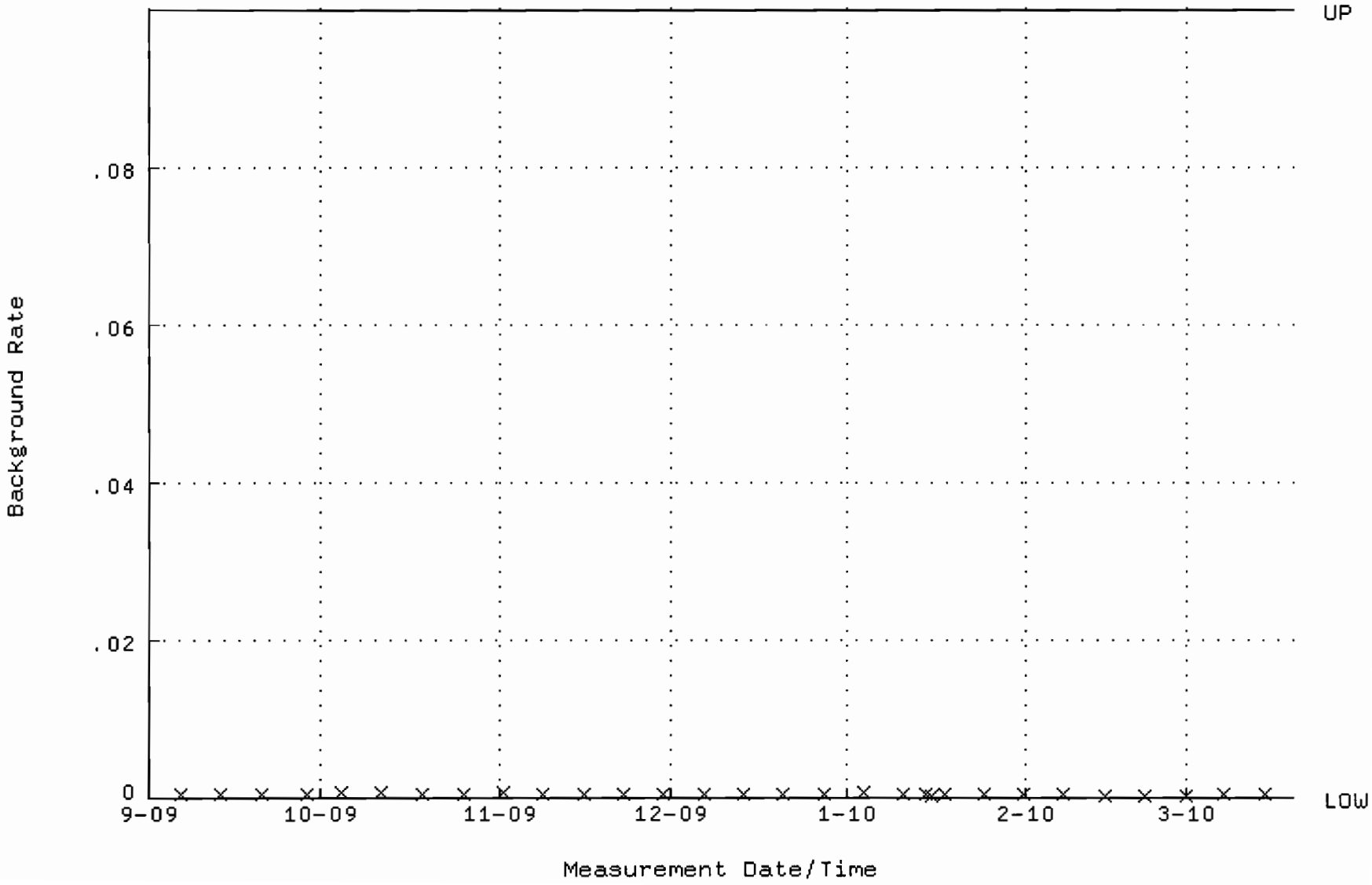

QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:03 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.233045 through 0.273065

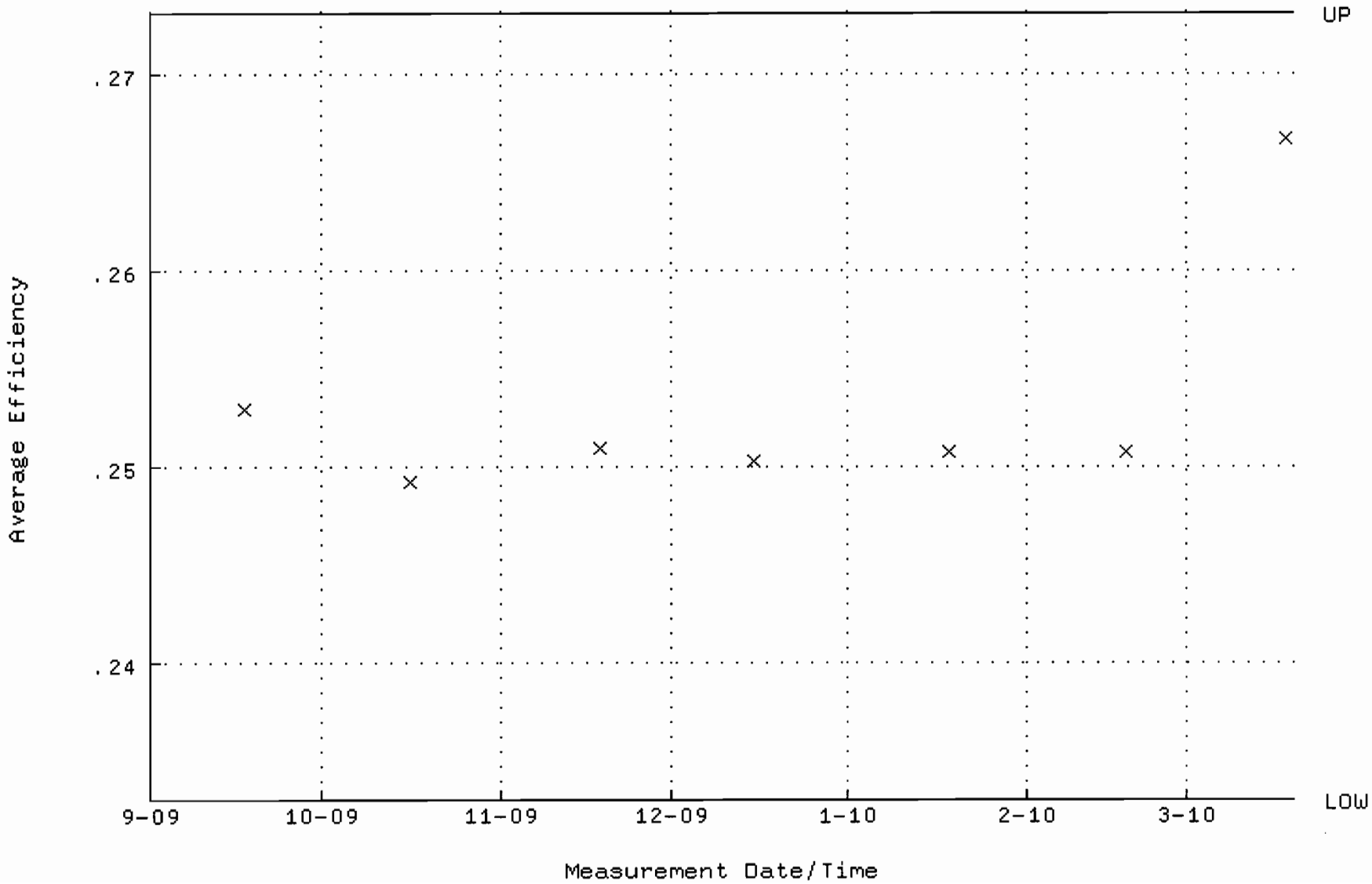

QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:03 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 83.3533 through 93.4269

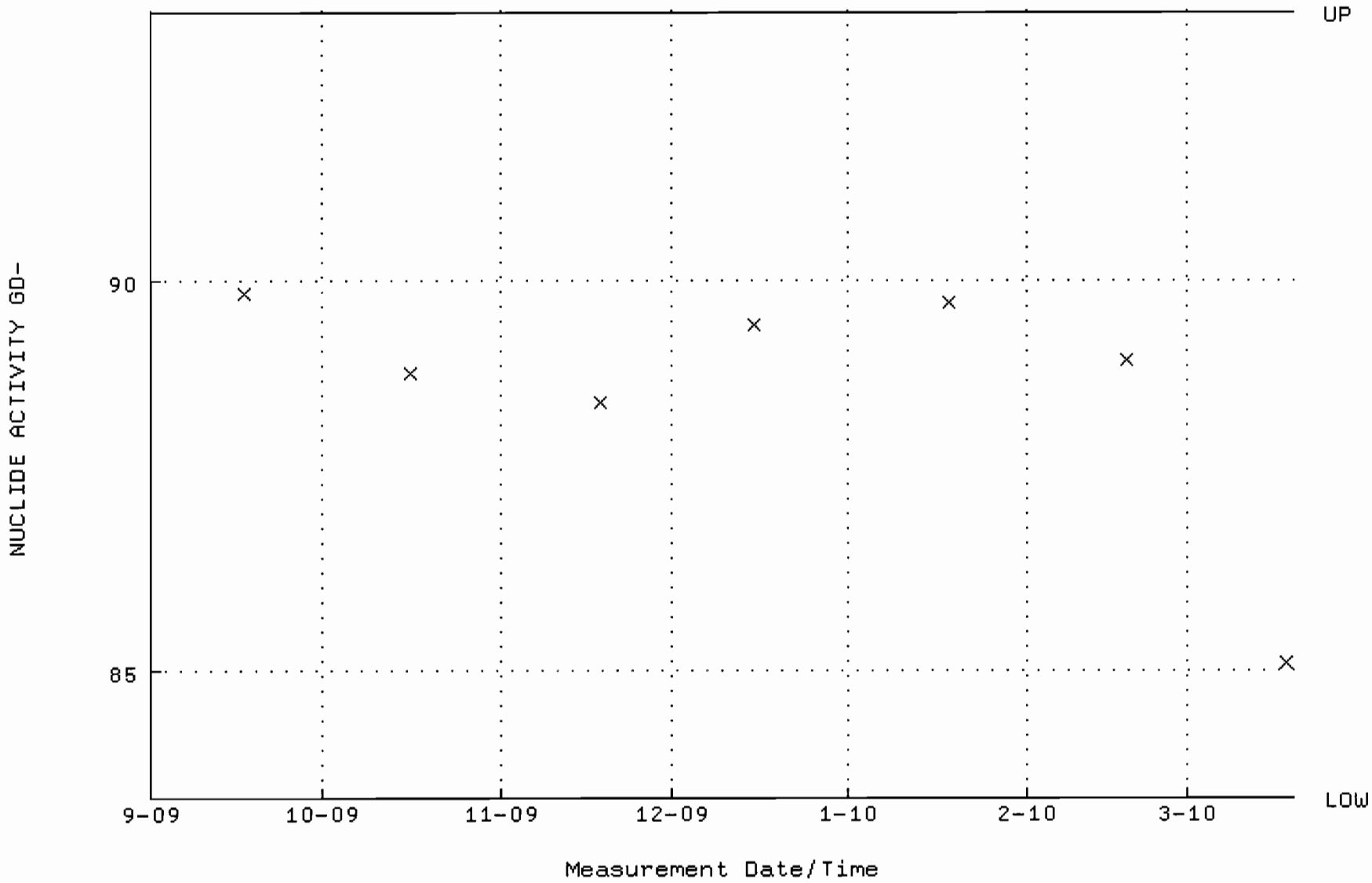

QA filename : DKA100:[ENV_ALPHA.QA.B]B126.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:05 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

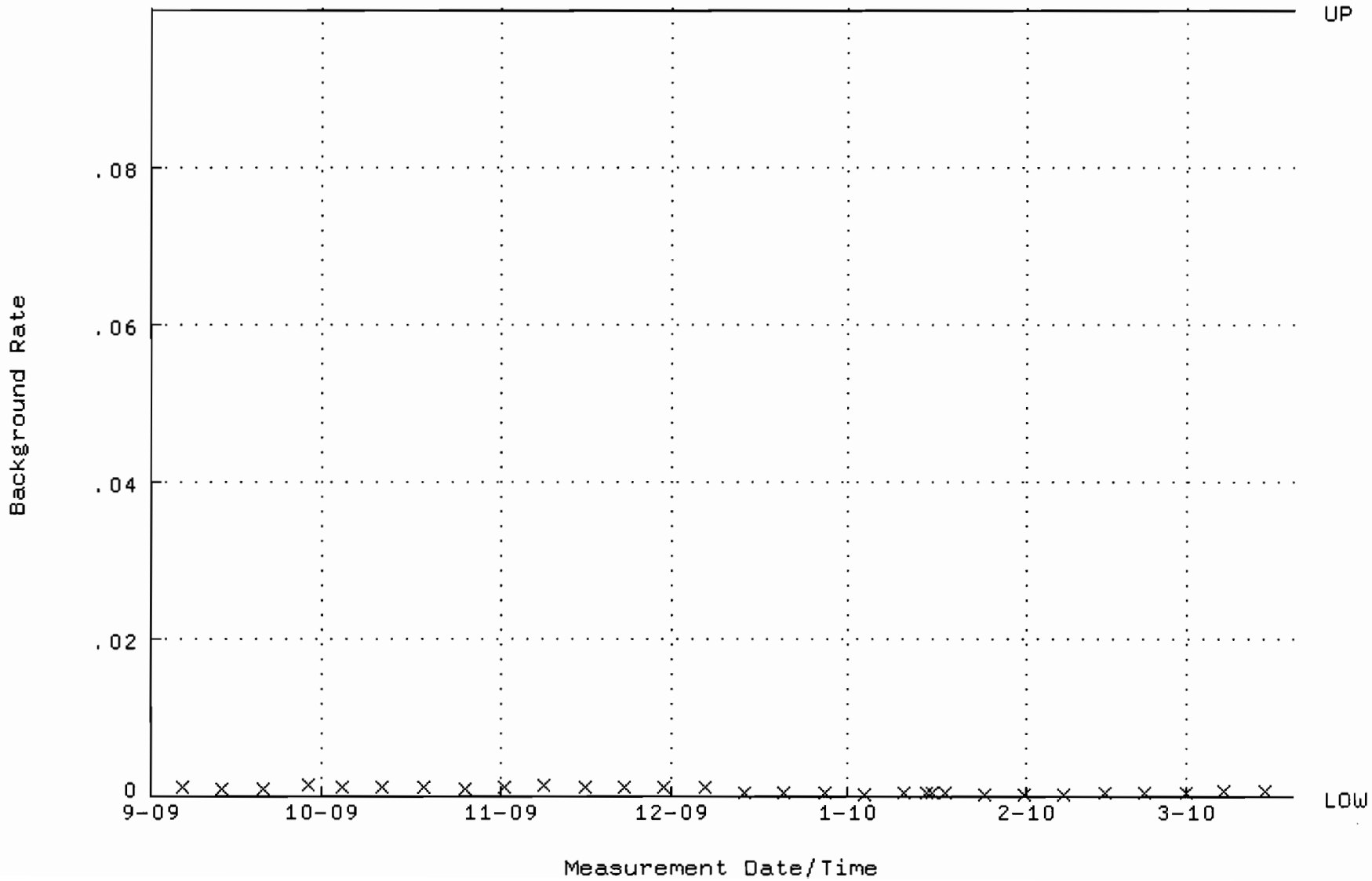

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:09 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.227212 through 0.270396

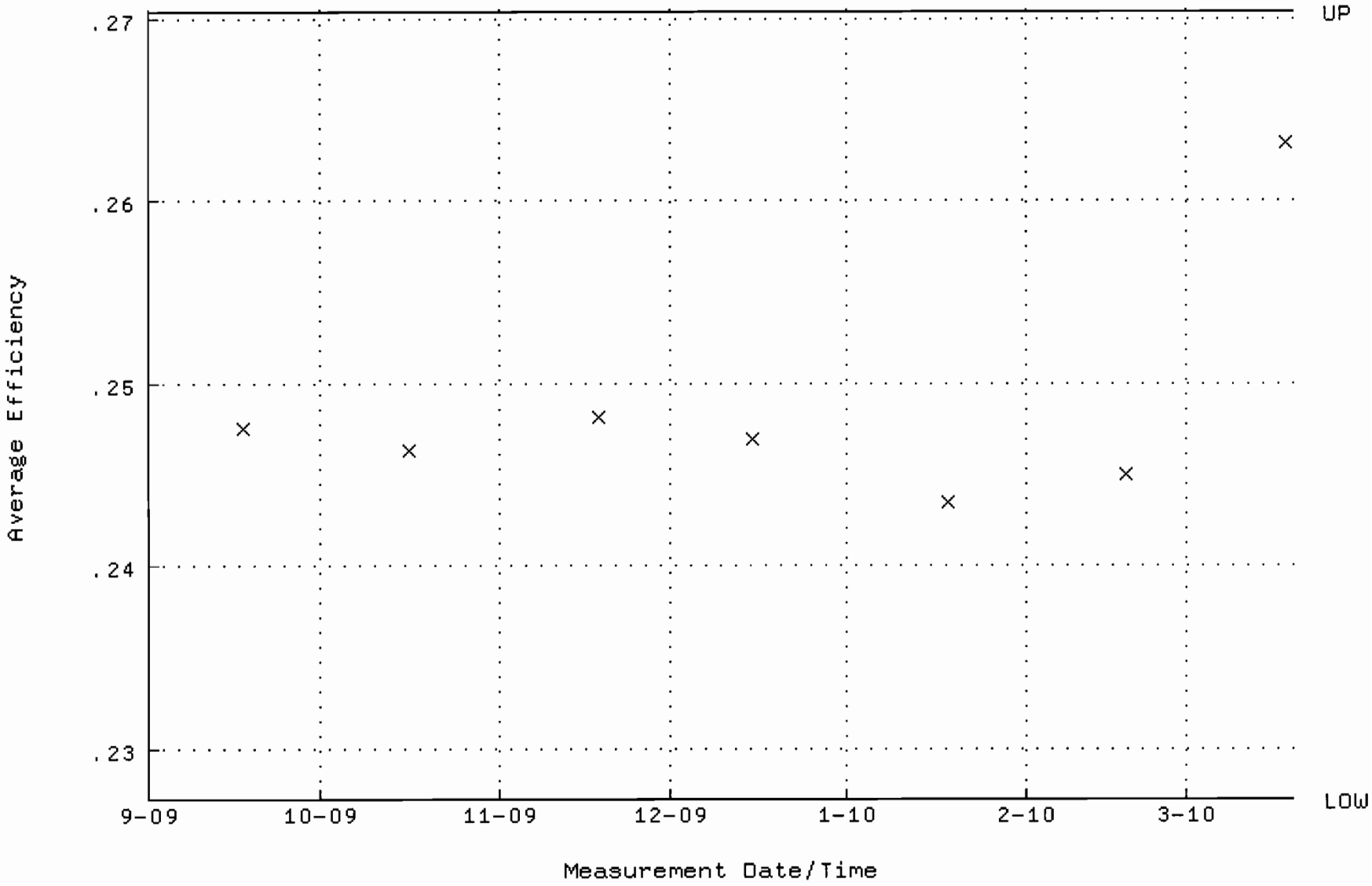

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:09 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 88.4641 through 101.145

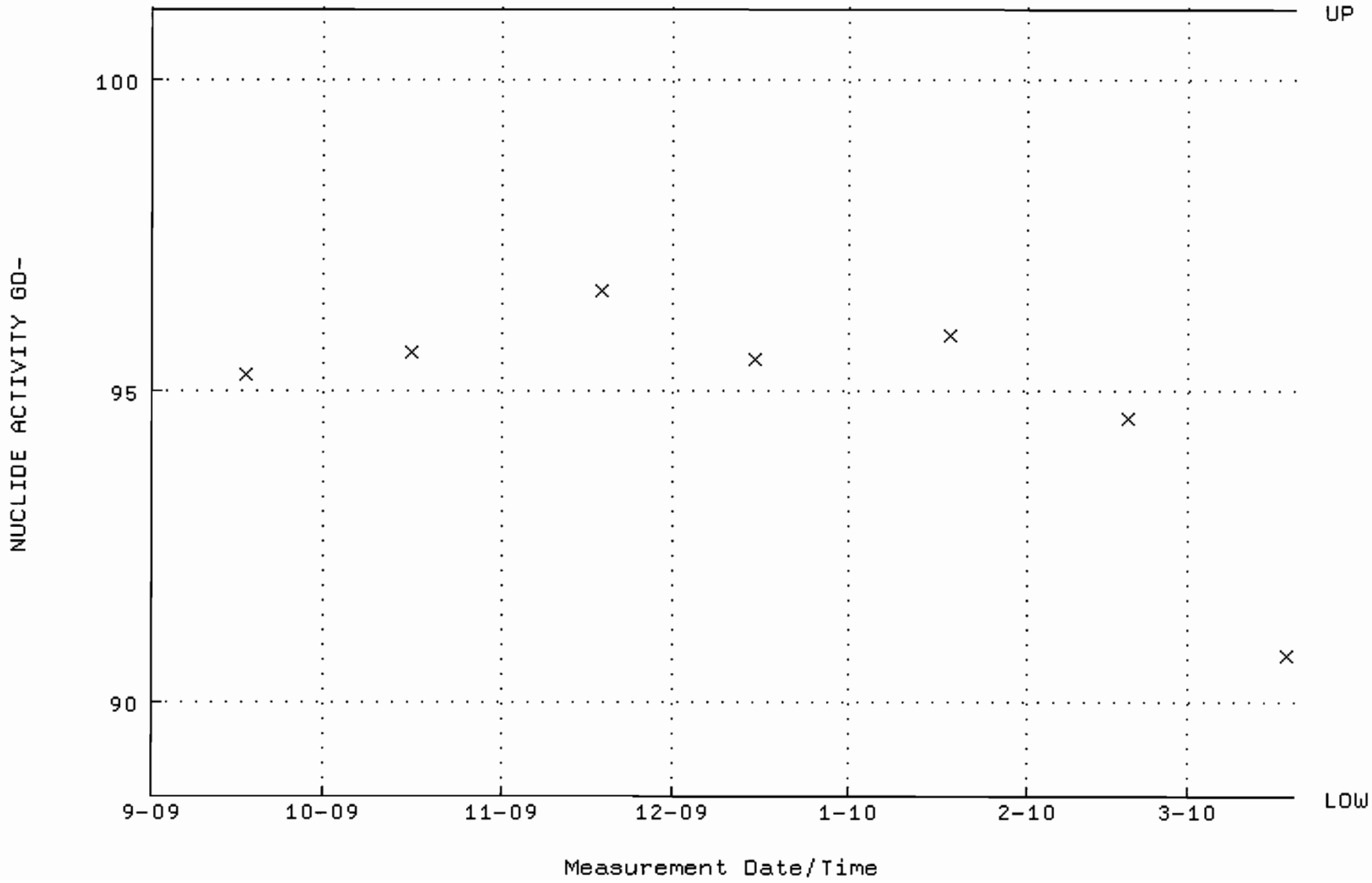

QA filename : DKA100:[ENV_ALPHA.QA.B]B127.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:09 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

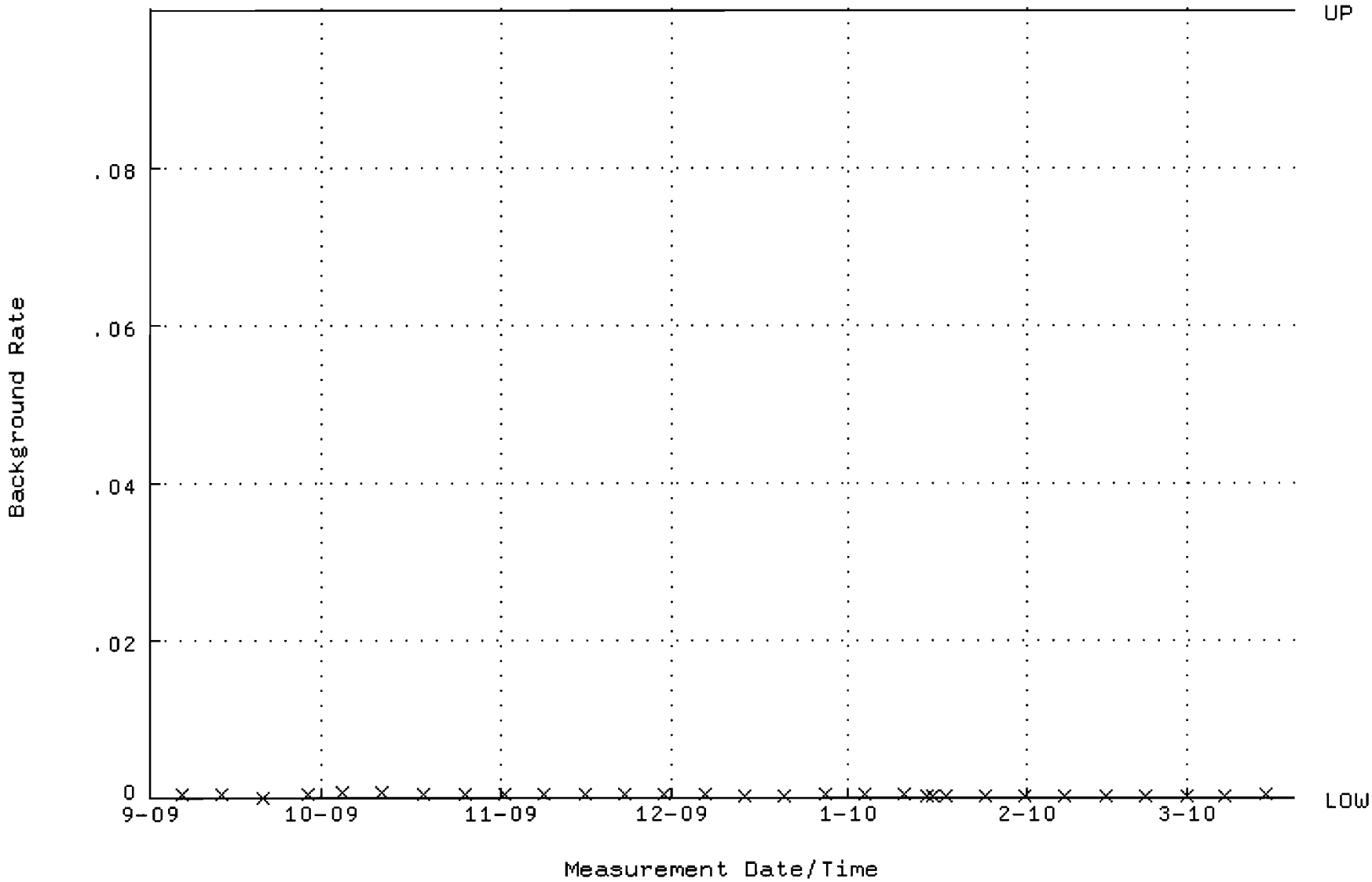

QA filename : DKA100:[ENV_ALPHA.QA.W]W128.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:16 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250562 through 0.262084

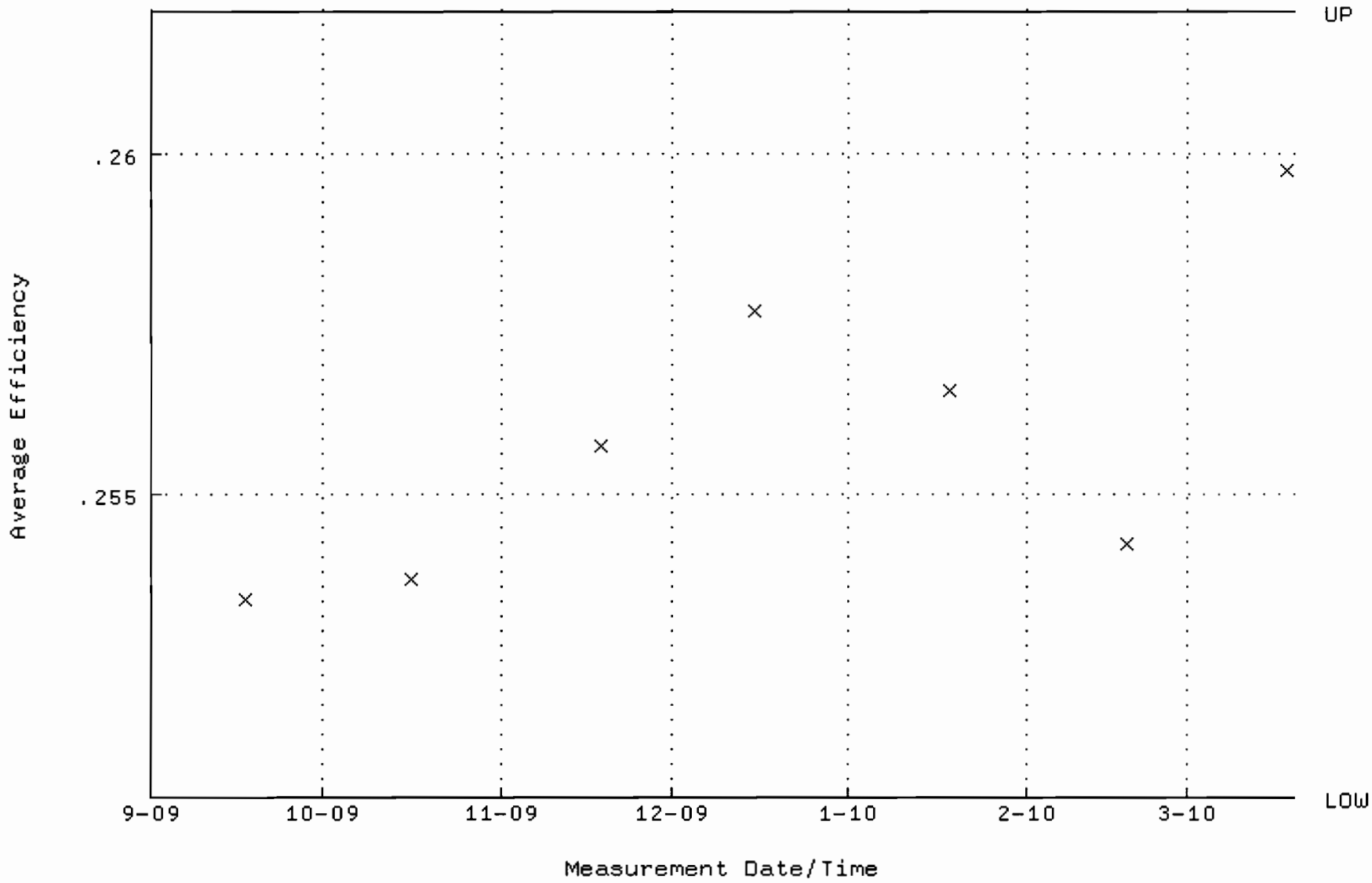

QA filename : DKA100:[ENV_ALPHA.QA.W]W128.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:16 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 87.7731 through 93.0795

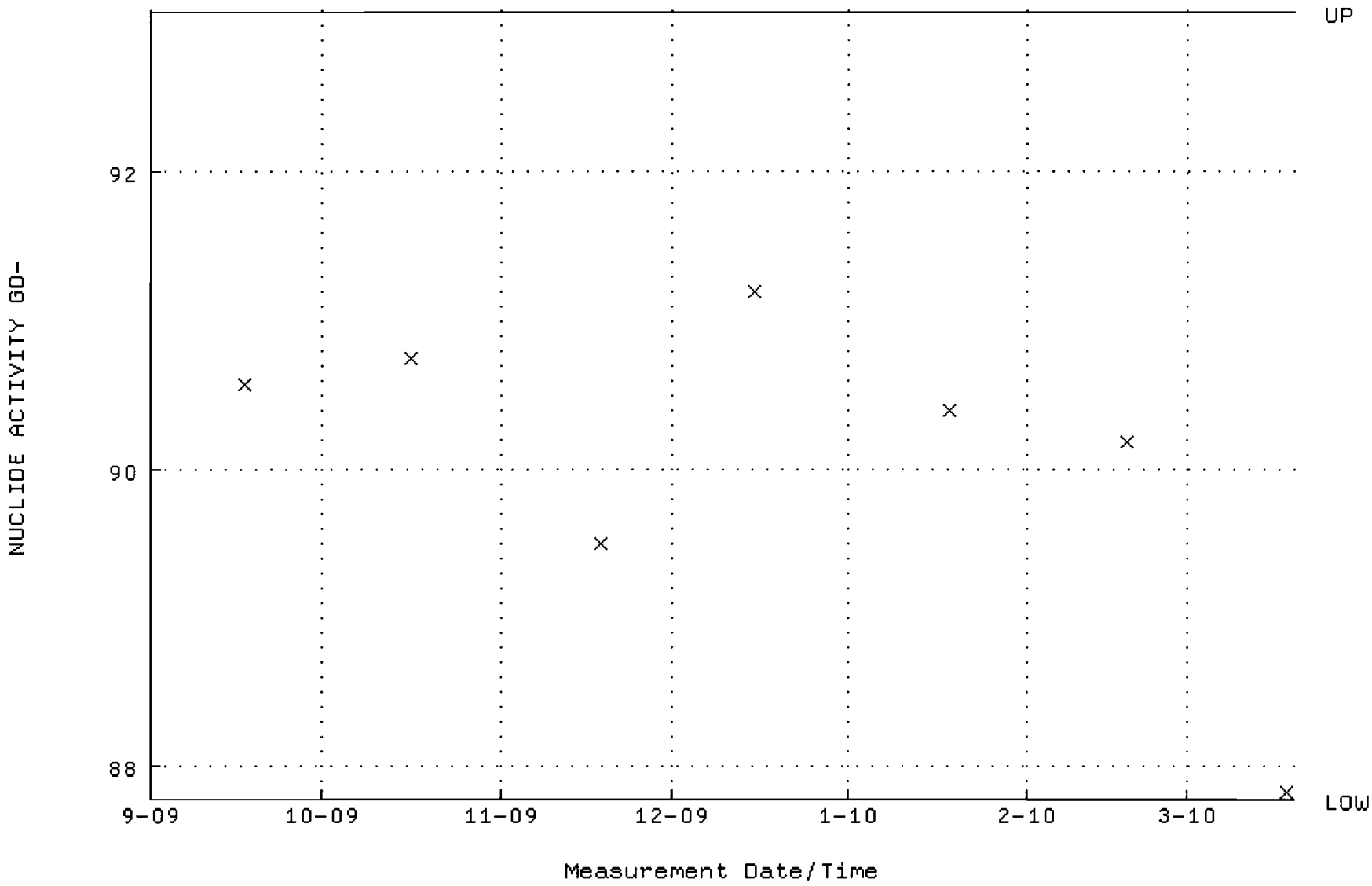

QA filename : DKA100:[ENV_ALPHA.QA.B]B128.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:14 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

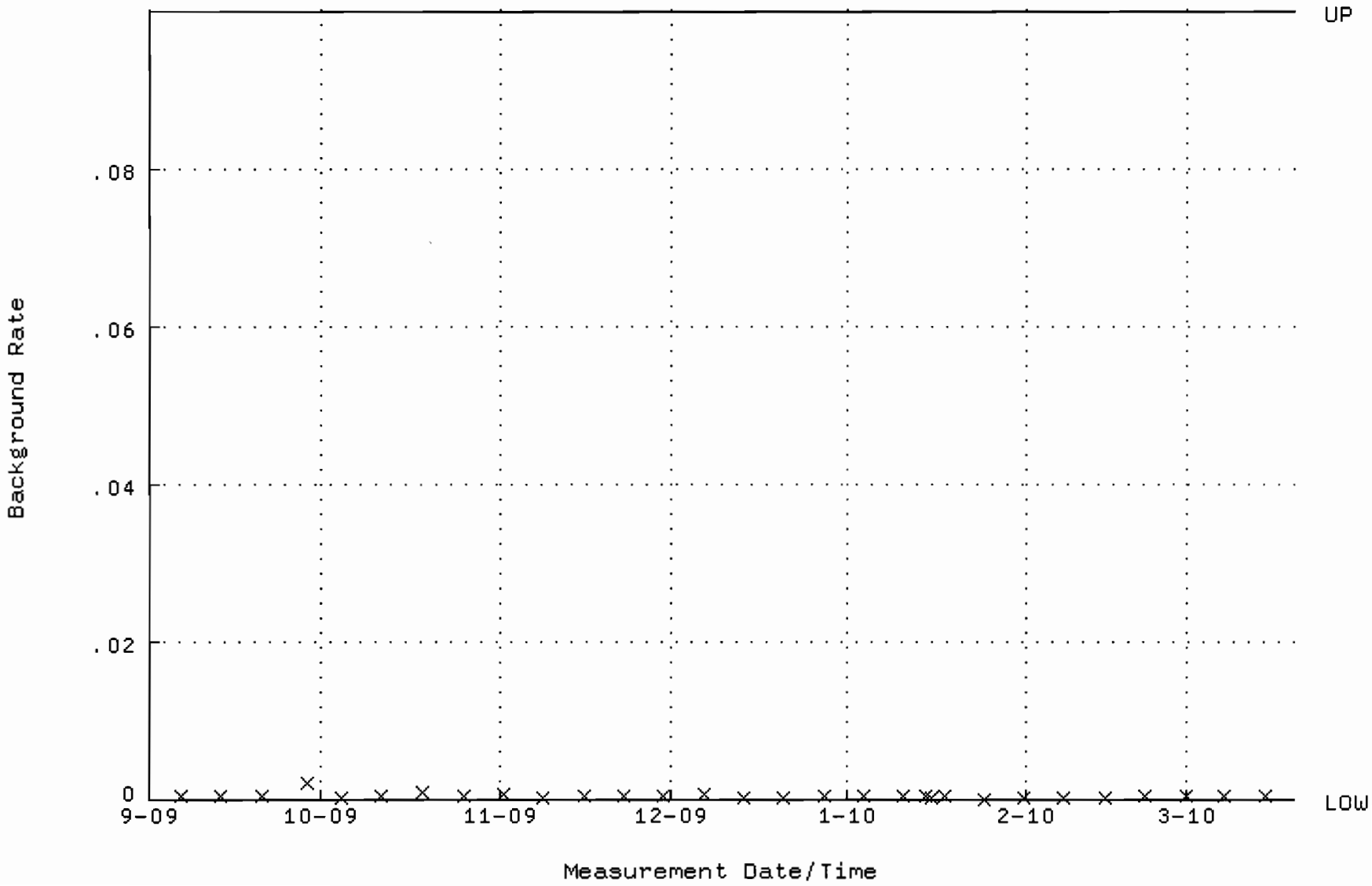

QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:21 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.259560 through 0.269146

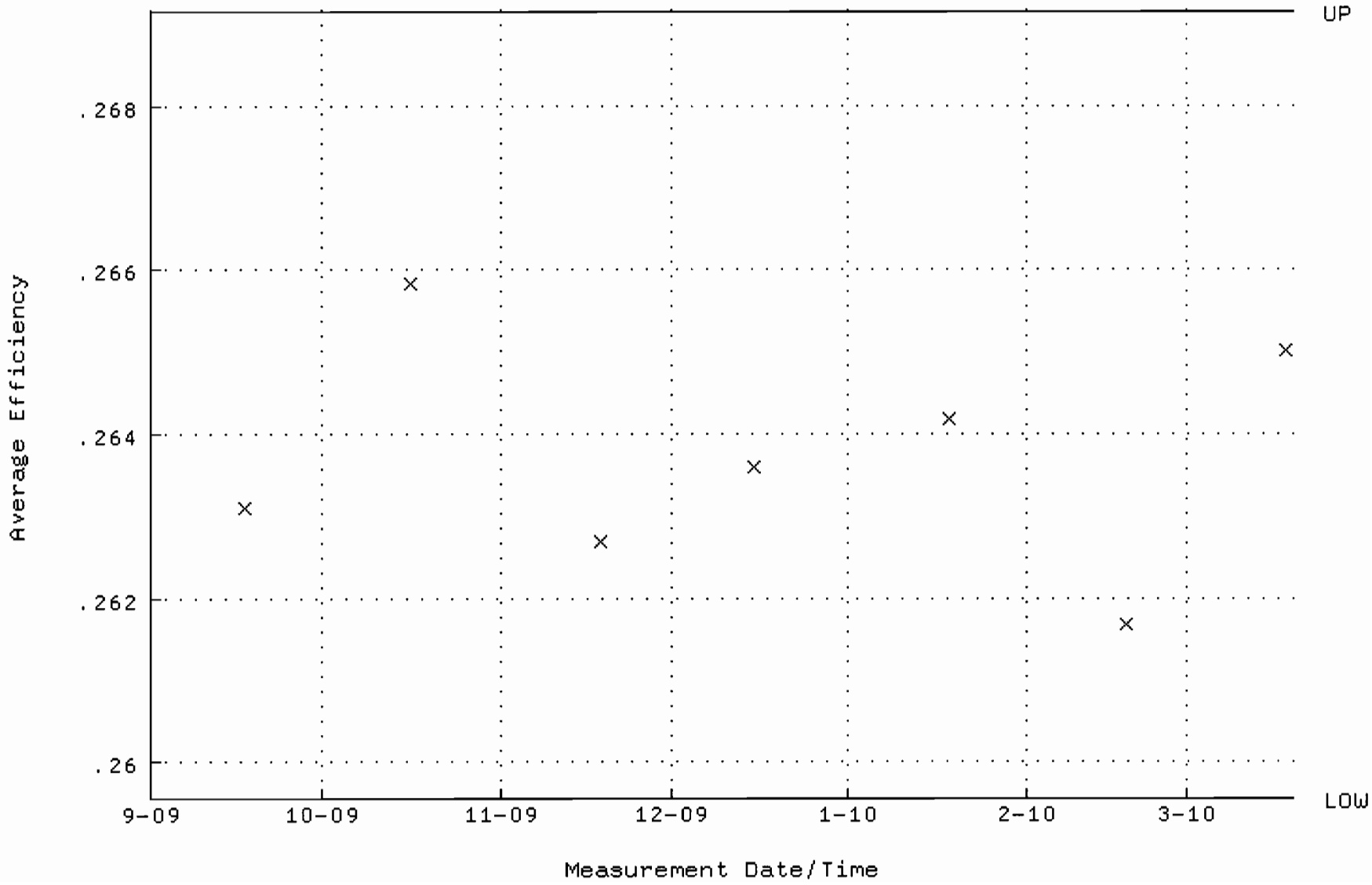

QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:21 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 89.1401 through 92.8201

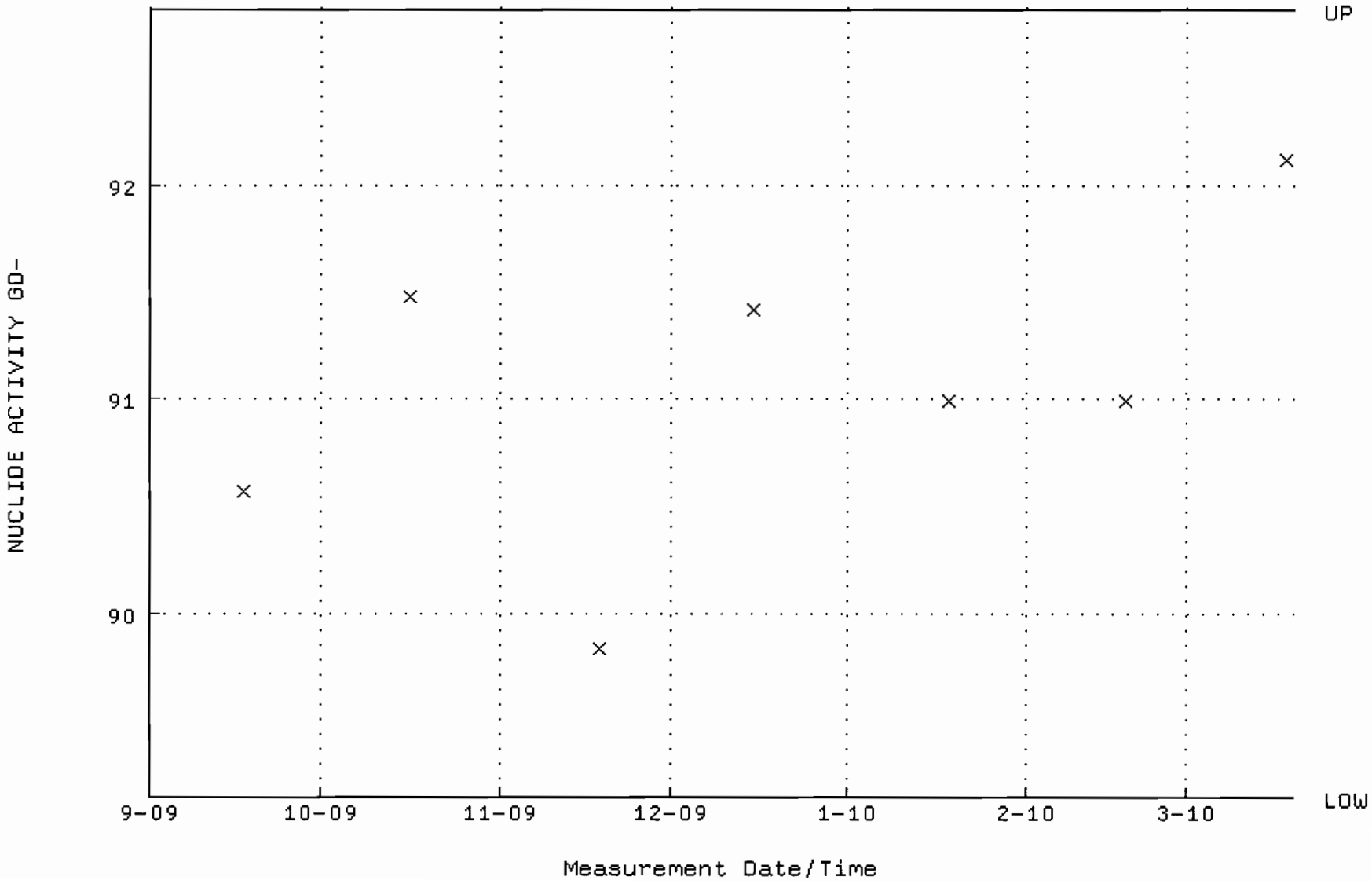

QA filename : DKA100:[ENV_ALPHA.QA.B]B129.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:19 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

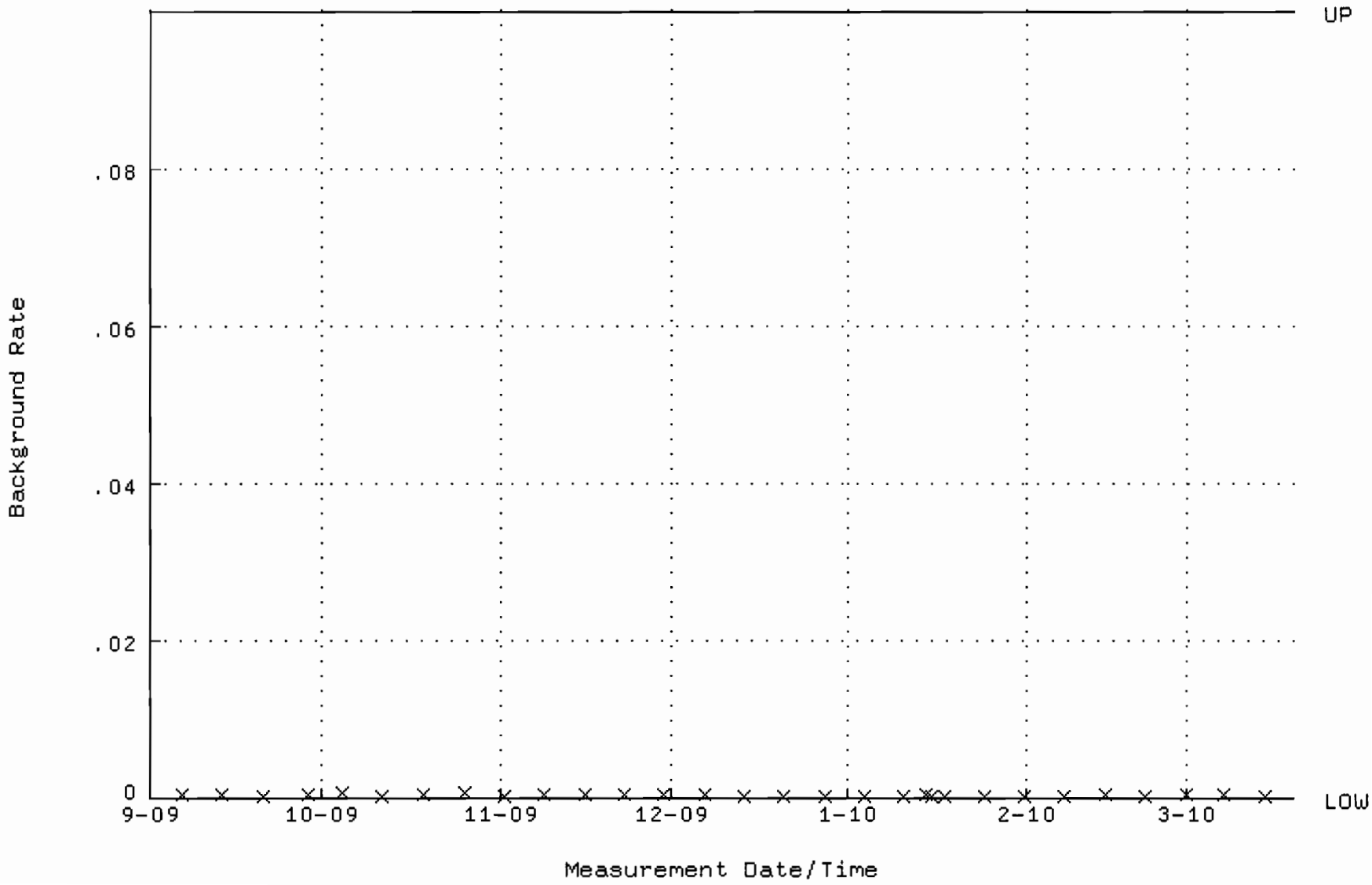

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:25 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.235120 through 0.263192

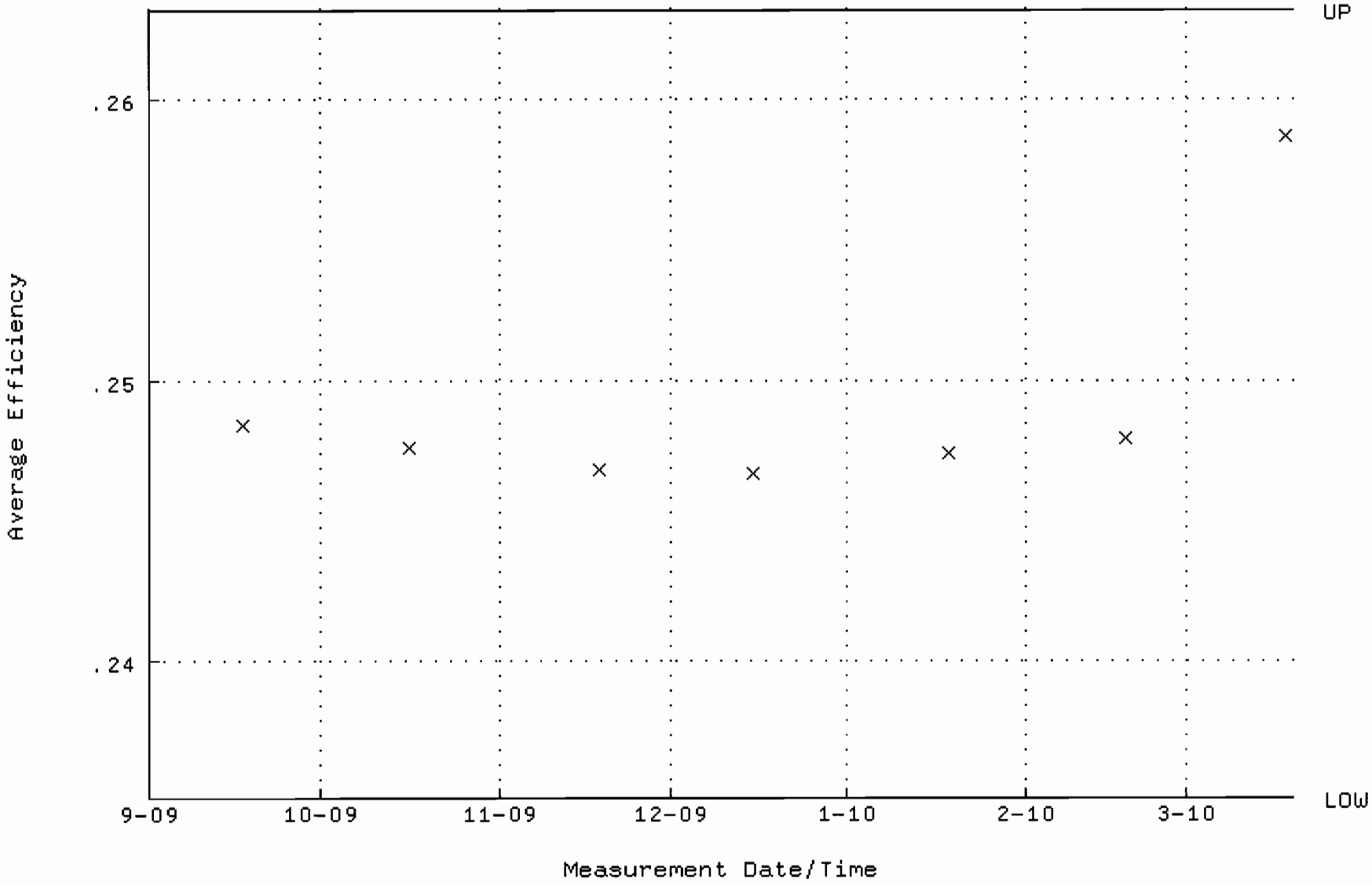

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:25 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 86.8592 through 96.7952

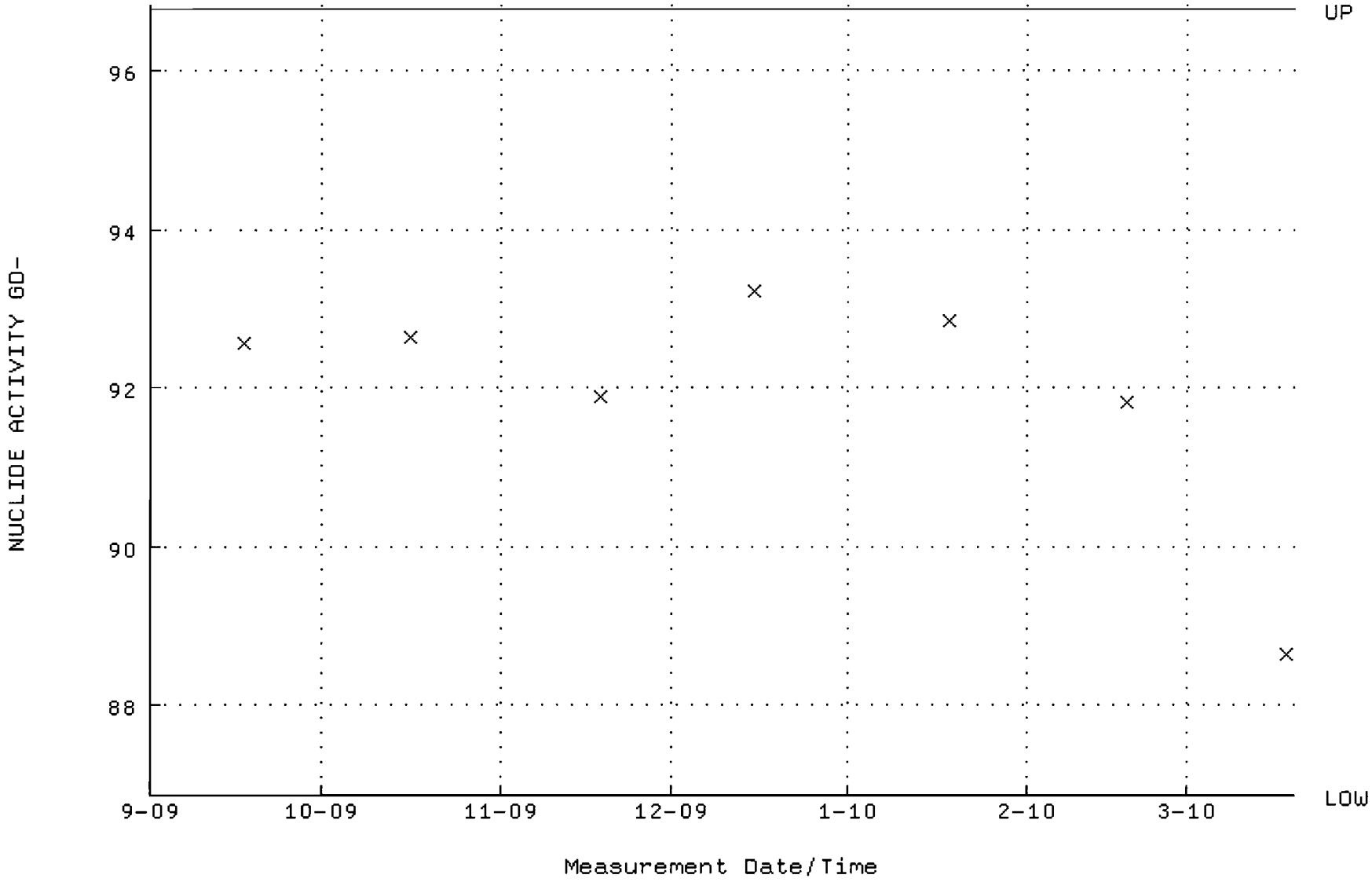

QA filename : DKA100:[ENV_ALPHA.QA.B]B130.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:24 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

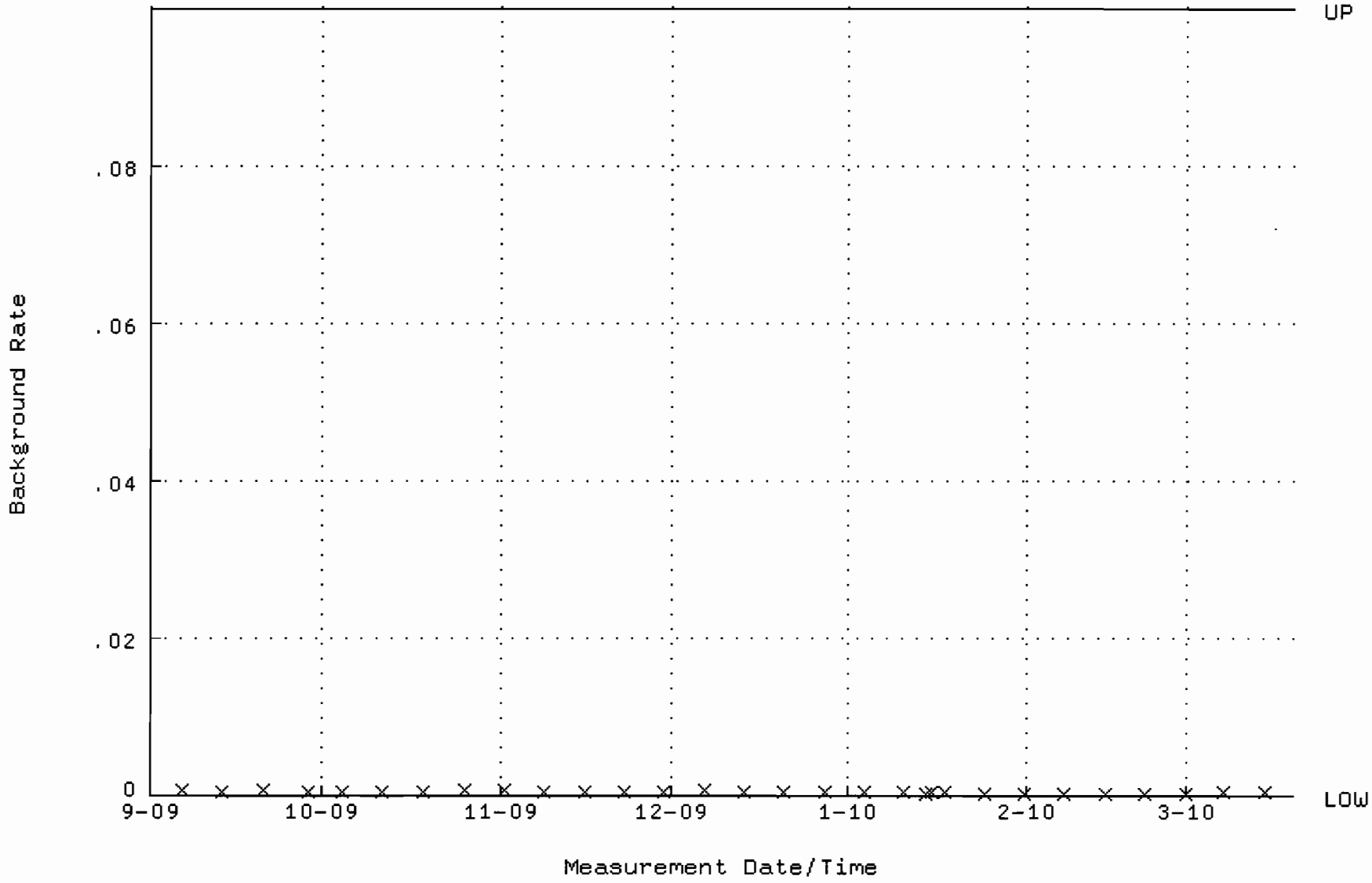

QA filename : DKA100:[ENV_ALPHA.QA.W]W131.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:30 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.251694 through 0.260714

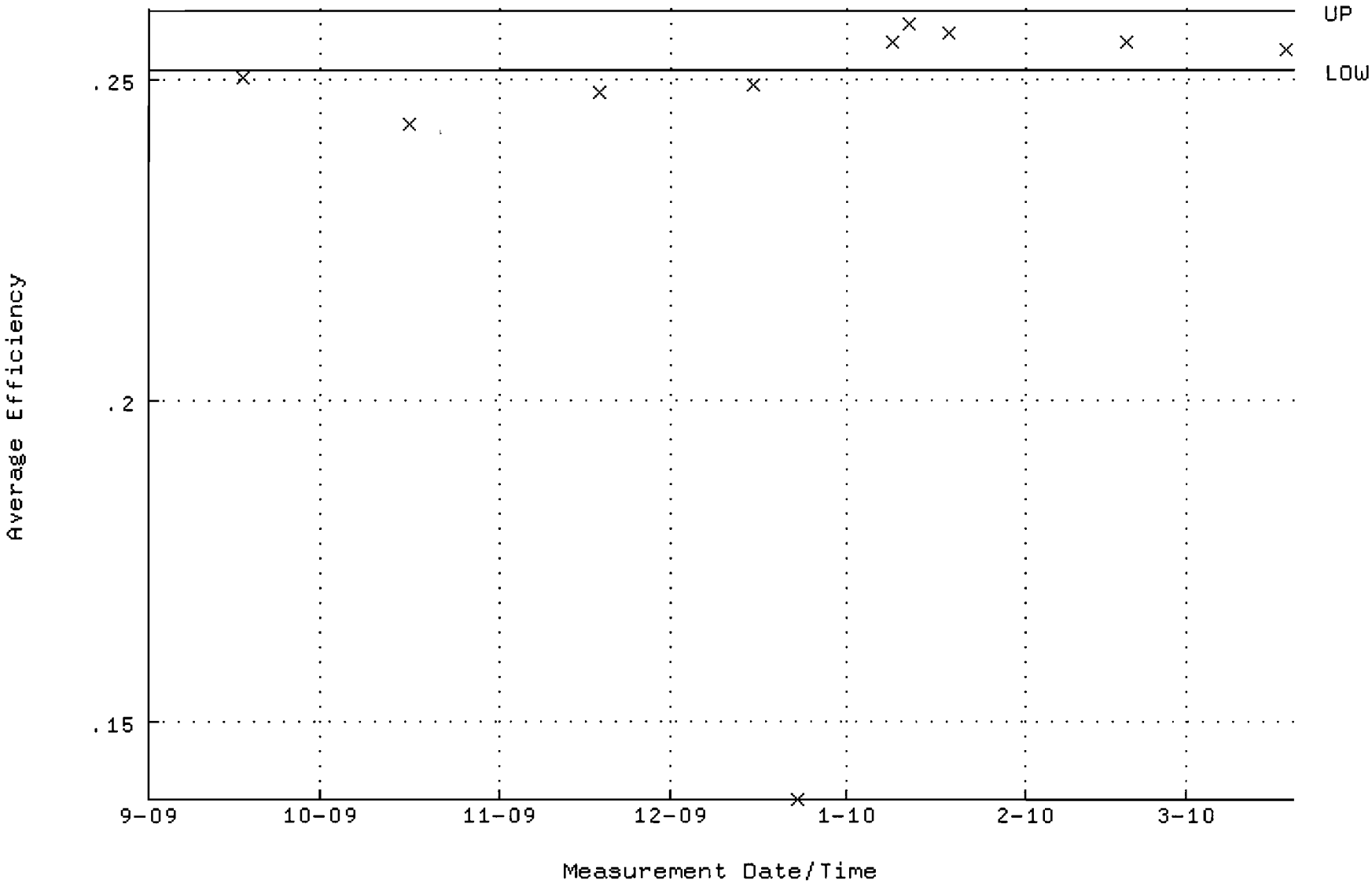

QA filename : DKA100:[ENV_ALPHA.QA.W]W131.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:30 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 88.4061 through 94.3891

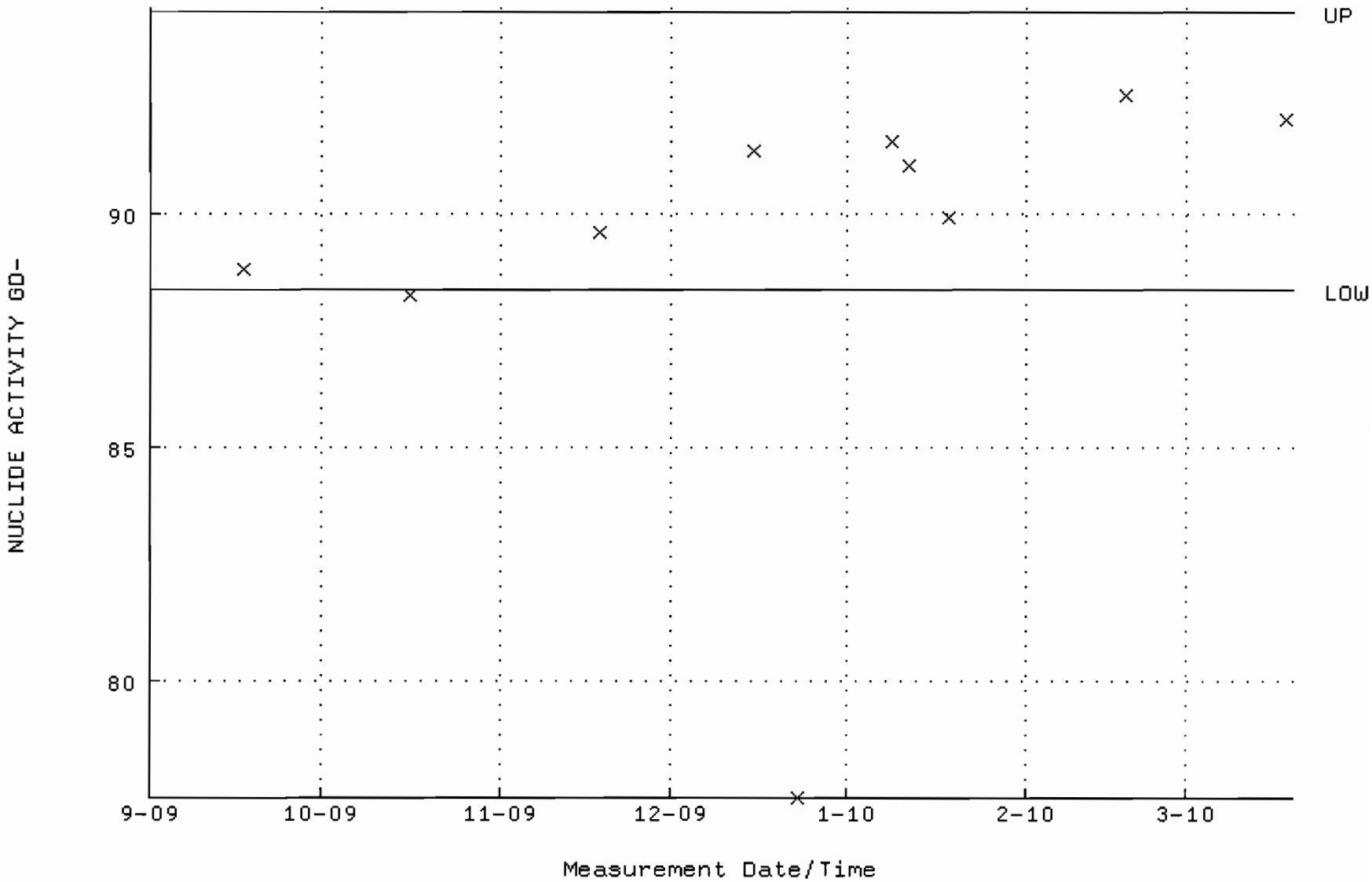

QA filename : DKA100:[ENV_ALPHA.QA.B]B131.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:28 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

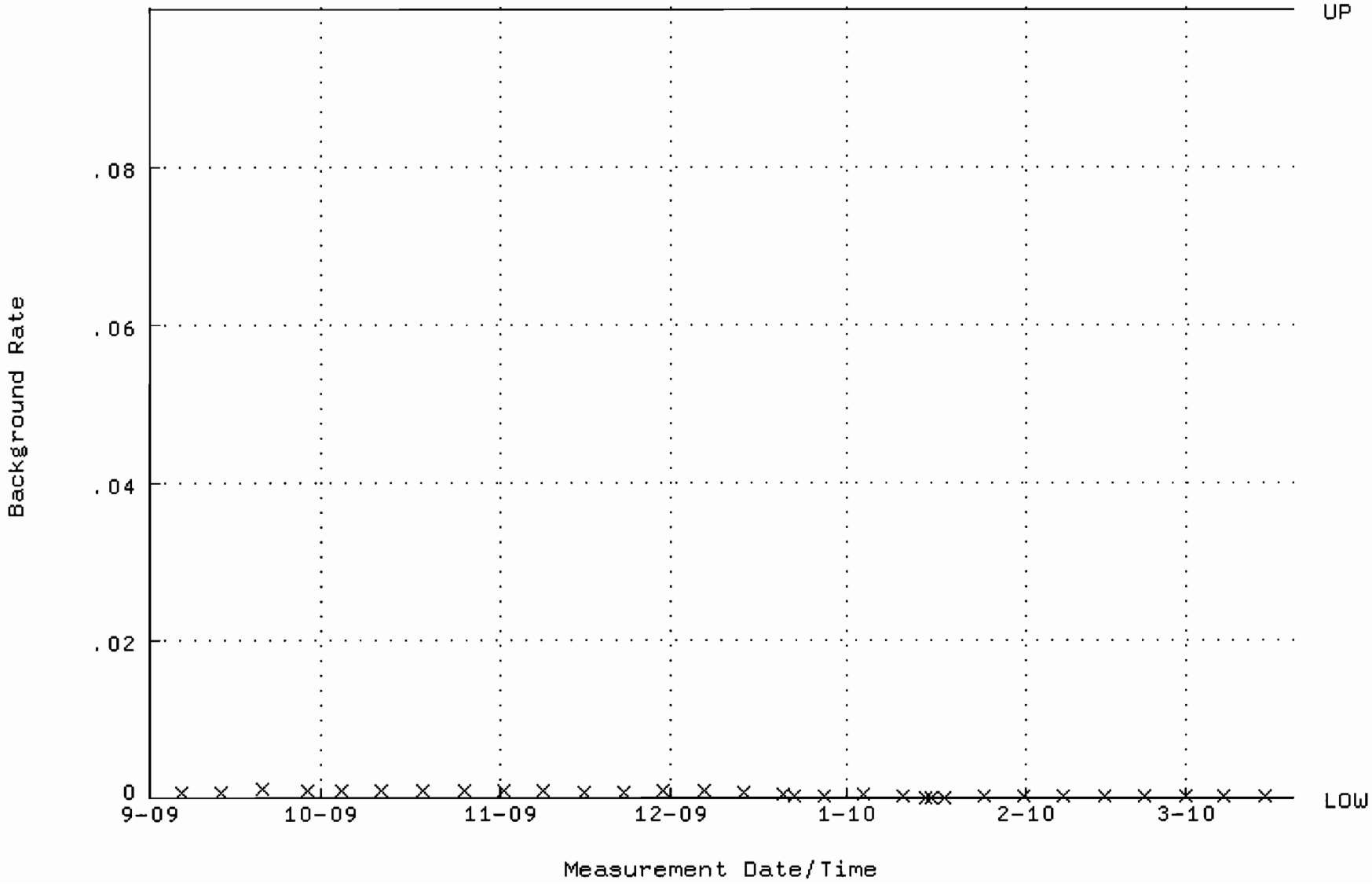

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:36 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.233719 through 0.270221

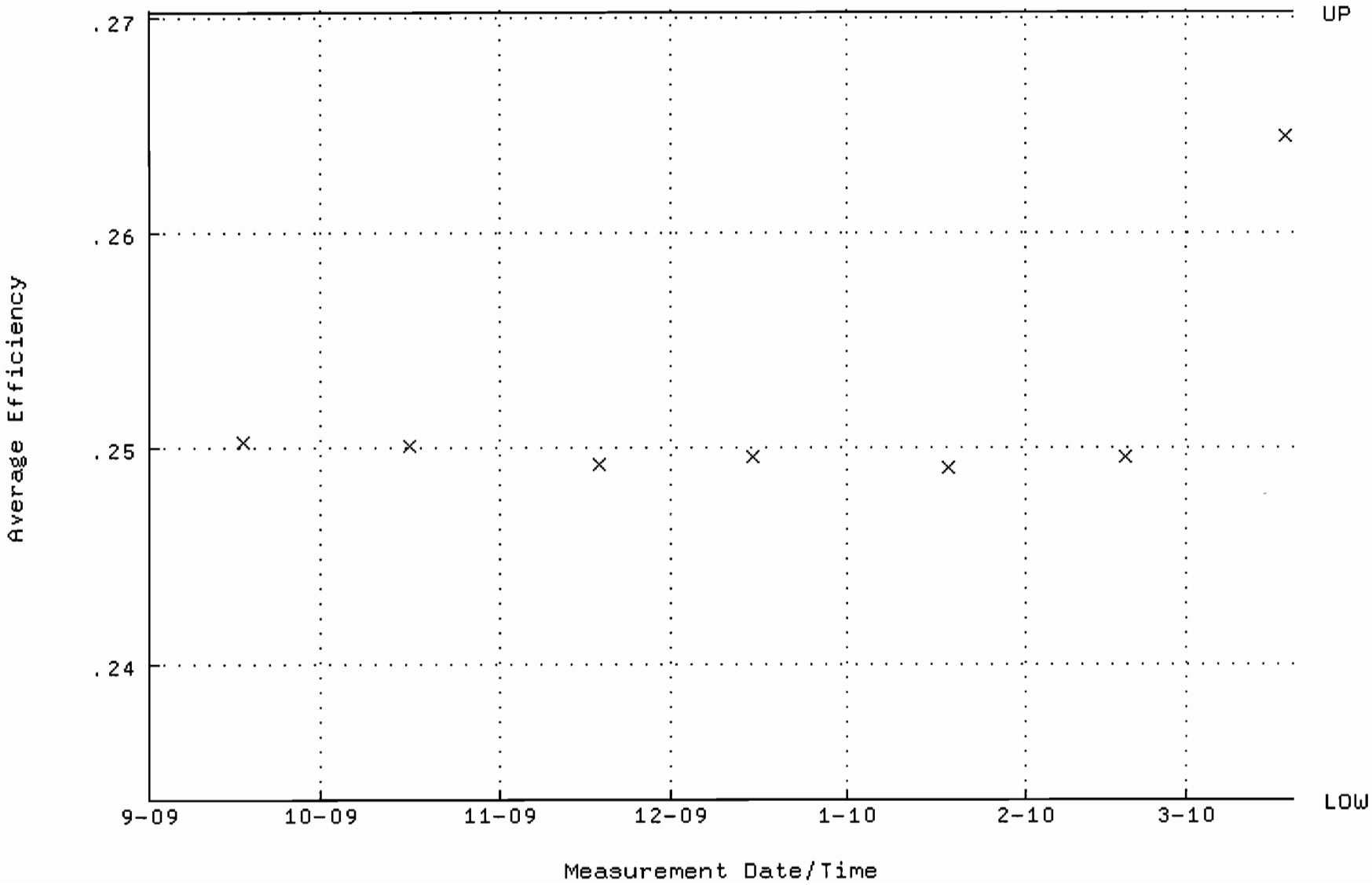

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:36 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 88.2311 through 95.5107

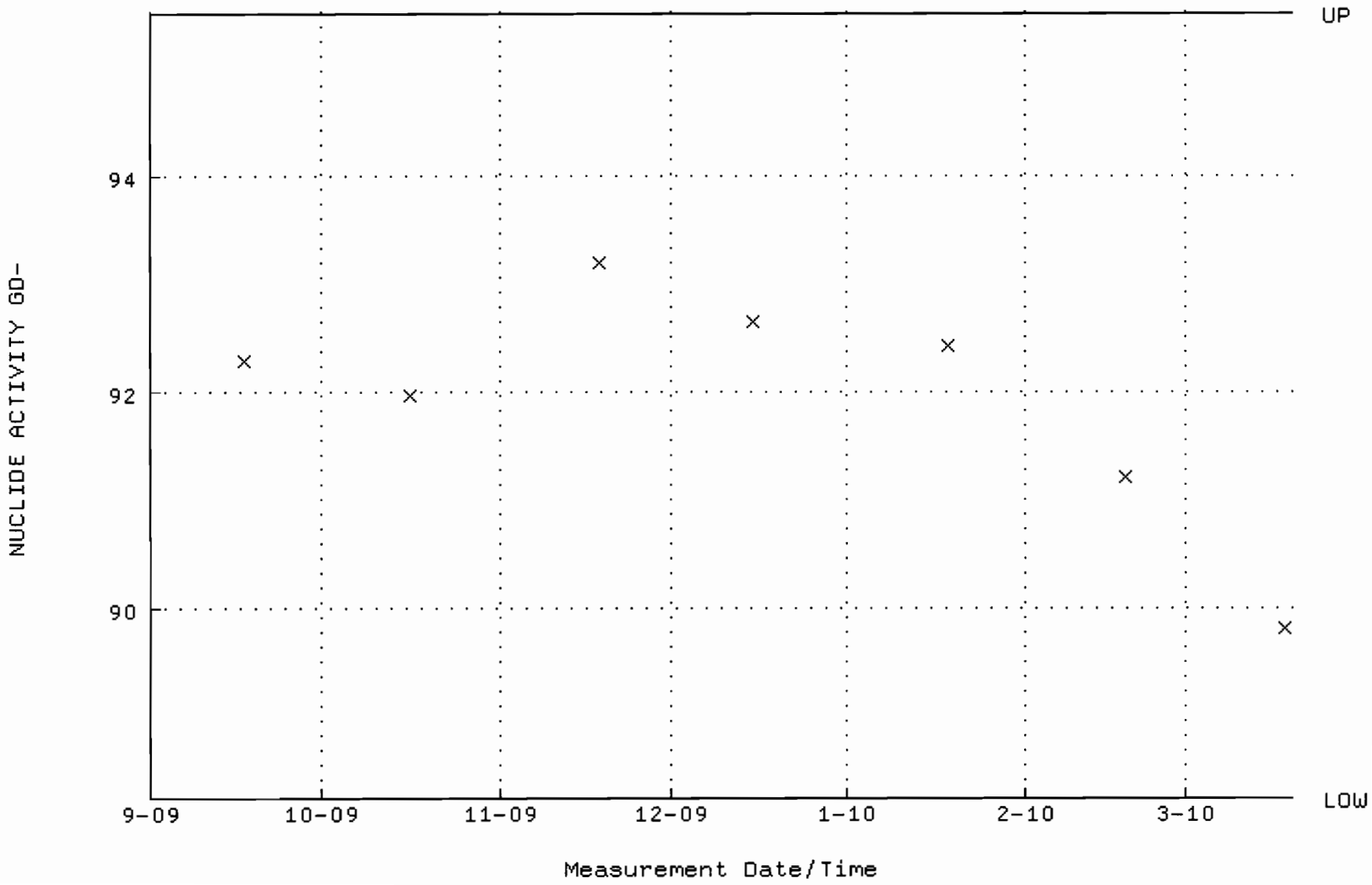

QA filename : DKA100:[ENV_ALPHA.QA.B]B132.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:32 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

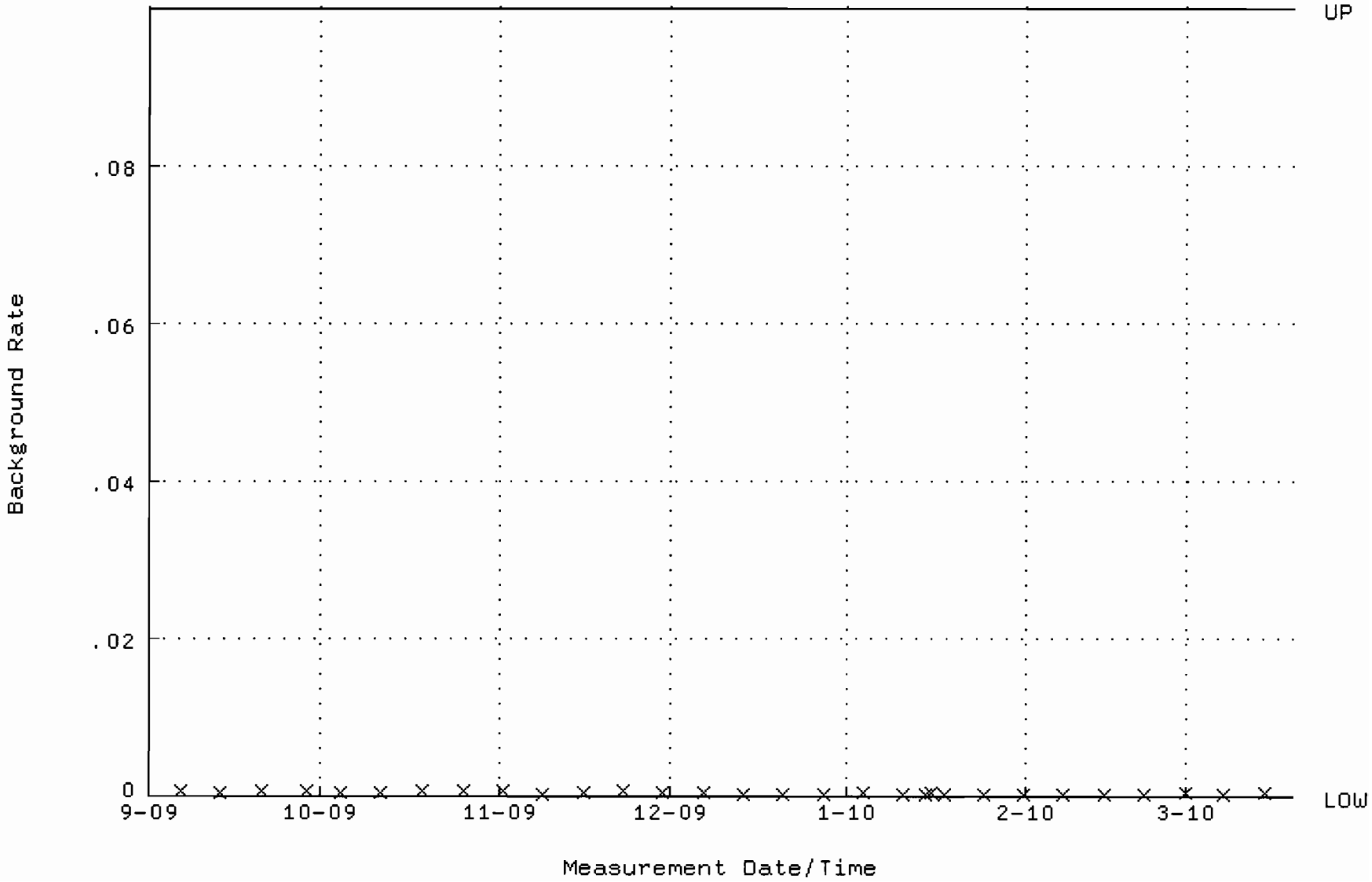

QA filename : DKA100:[ENV_ALPHA.QA.W]W209.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:36:24 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.341431 through 0.395023

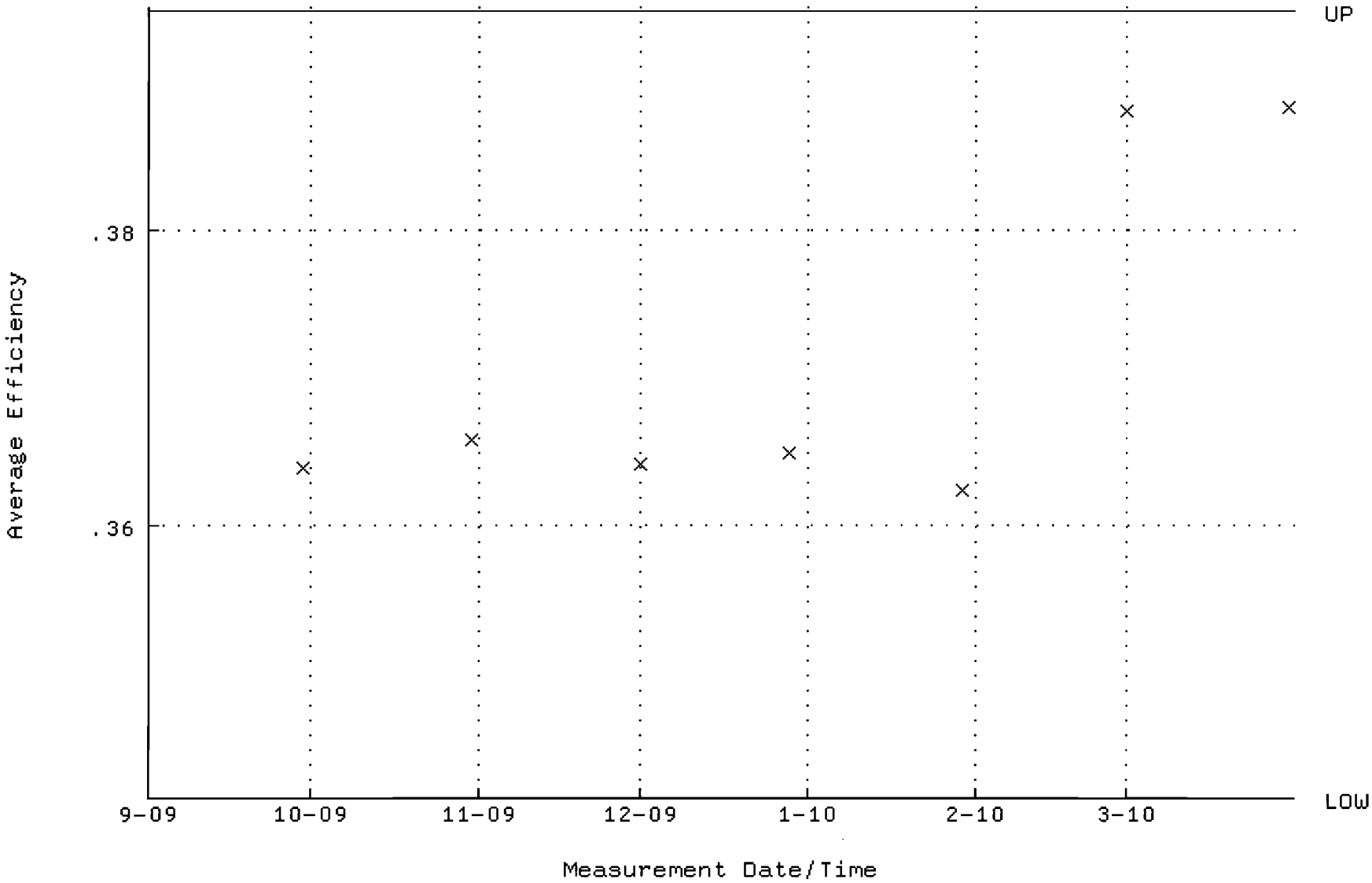

QA filename : DKA100:[ENV_ALPHA.QA.W]W209.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:36:24 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 82.4748 through 97.2344

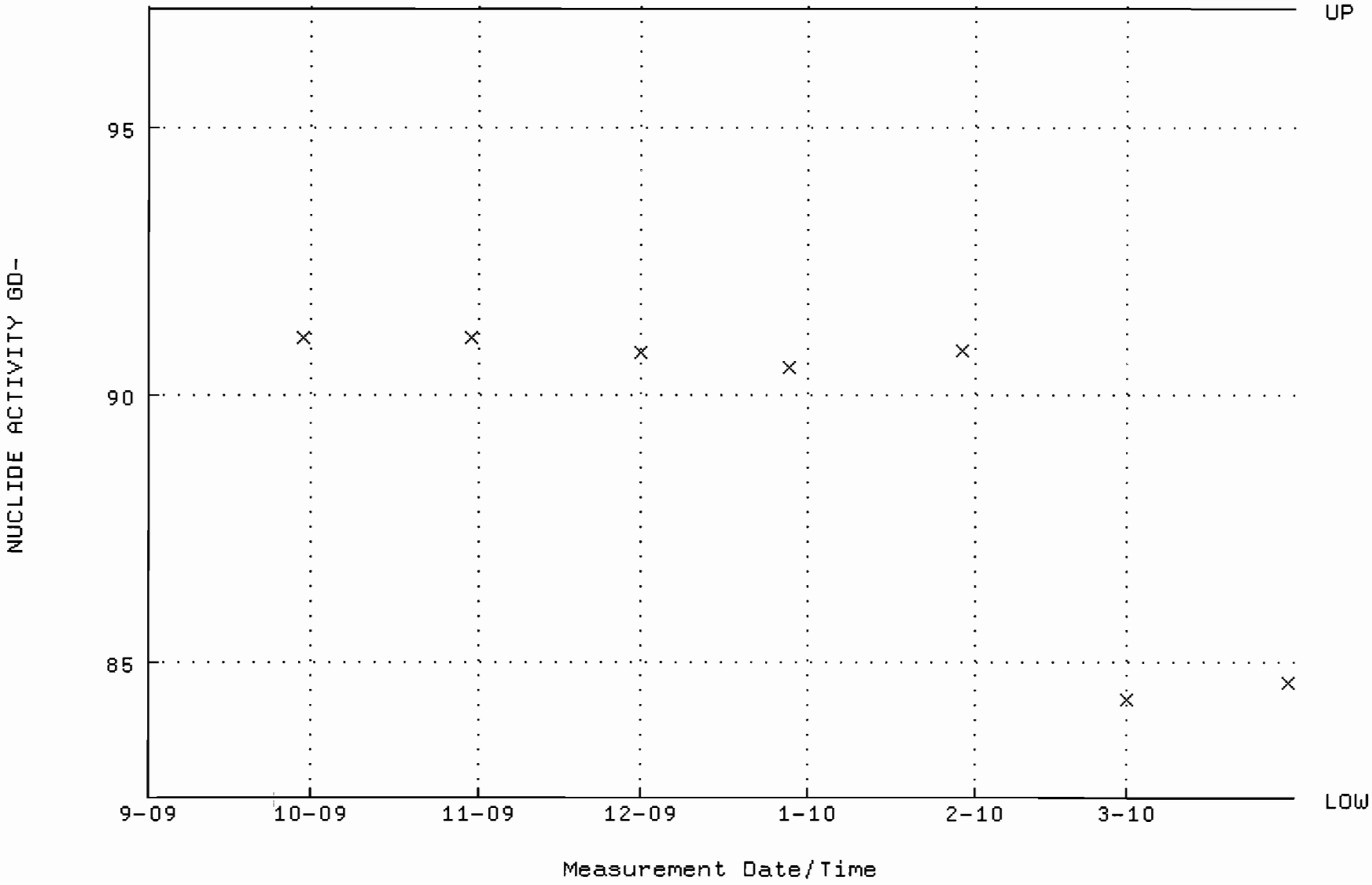

QA filename : DKA100:[ENV_ALPHA.QA.B]B209.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:48:22 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

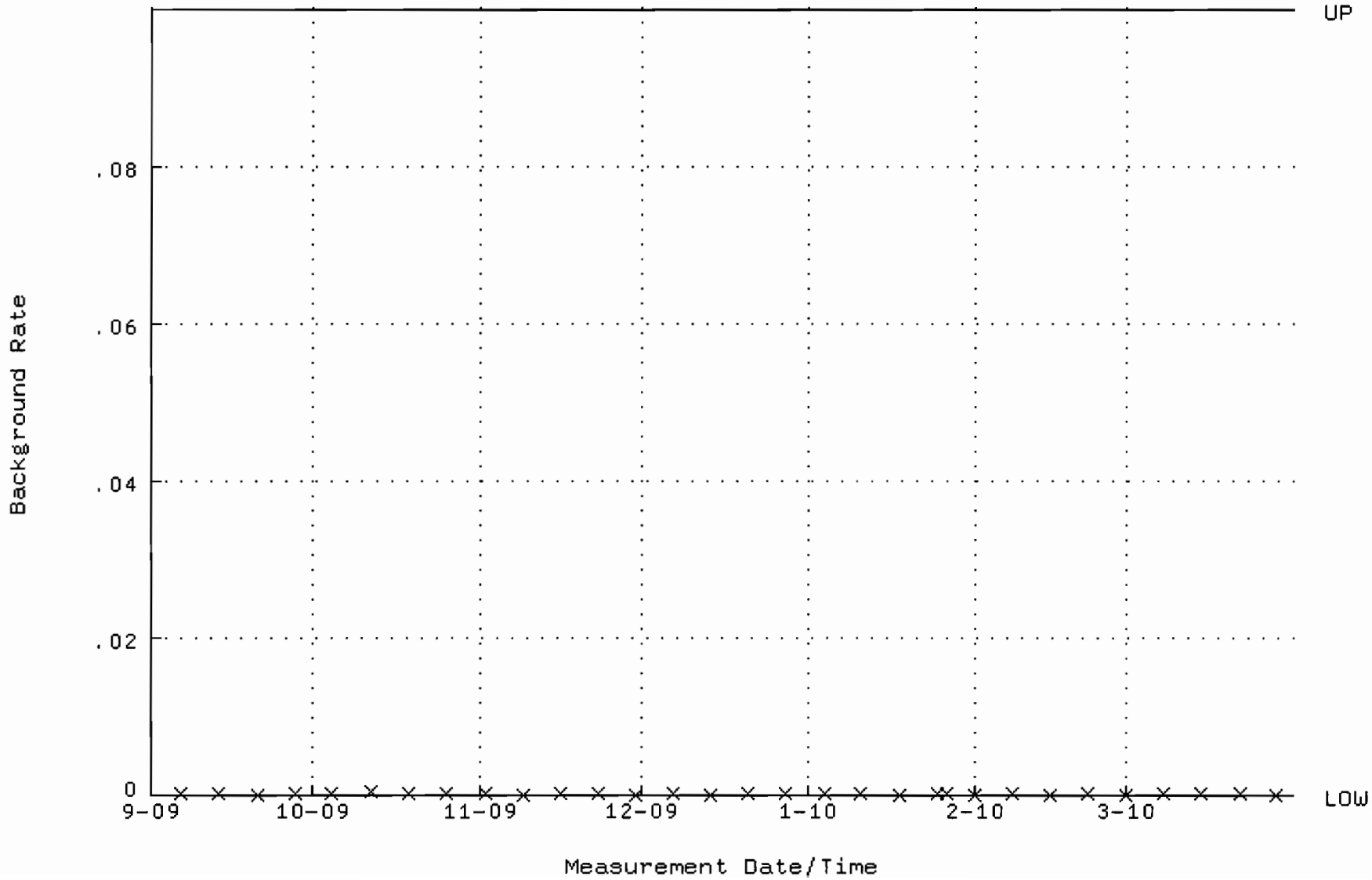

QA filename : DKA100:[ENV_ALPHA.QA.W]W210.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:36:29 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.371205 through 0.402649

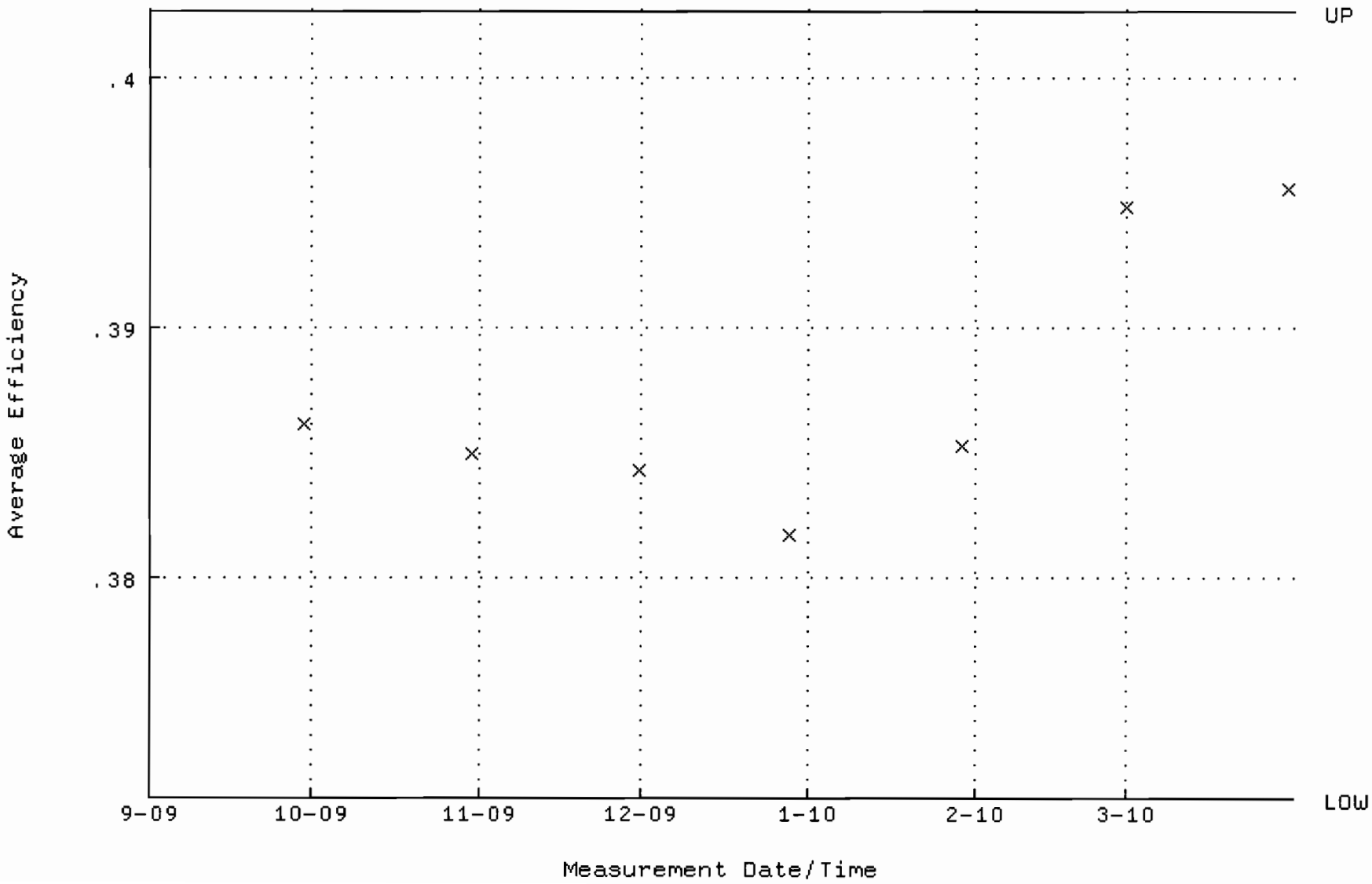

QA filename : DKA100:[ENV_ALPHA.QA.W]W210.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:36:29 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 84.5109 through 94.3421

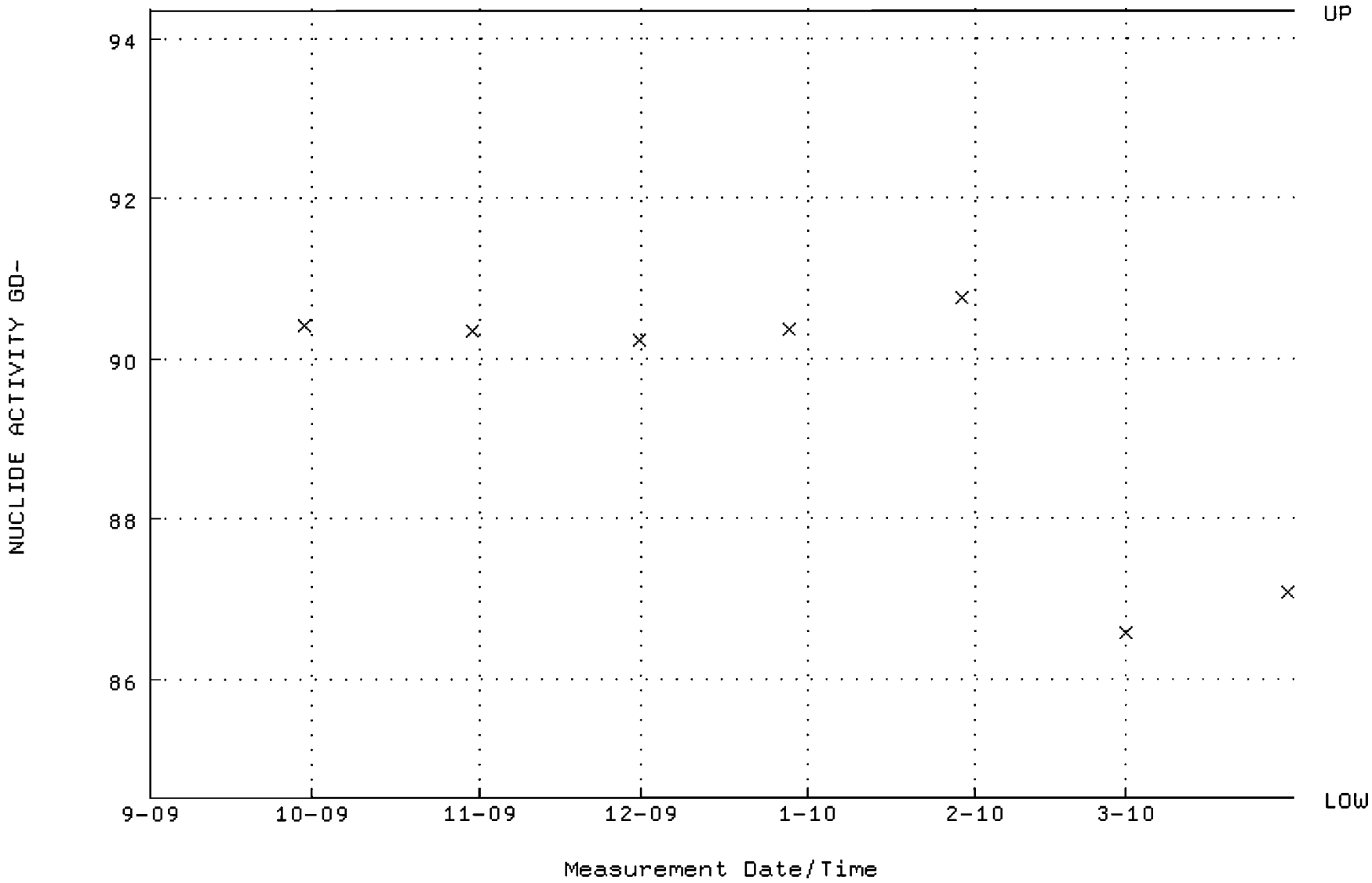

QA filename : DKA100:[ENV_ALPHA.QA.B]B210.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:48:26 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

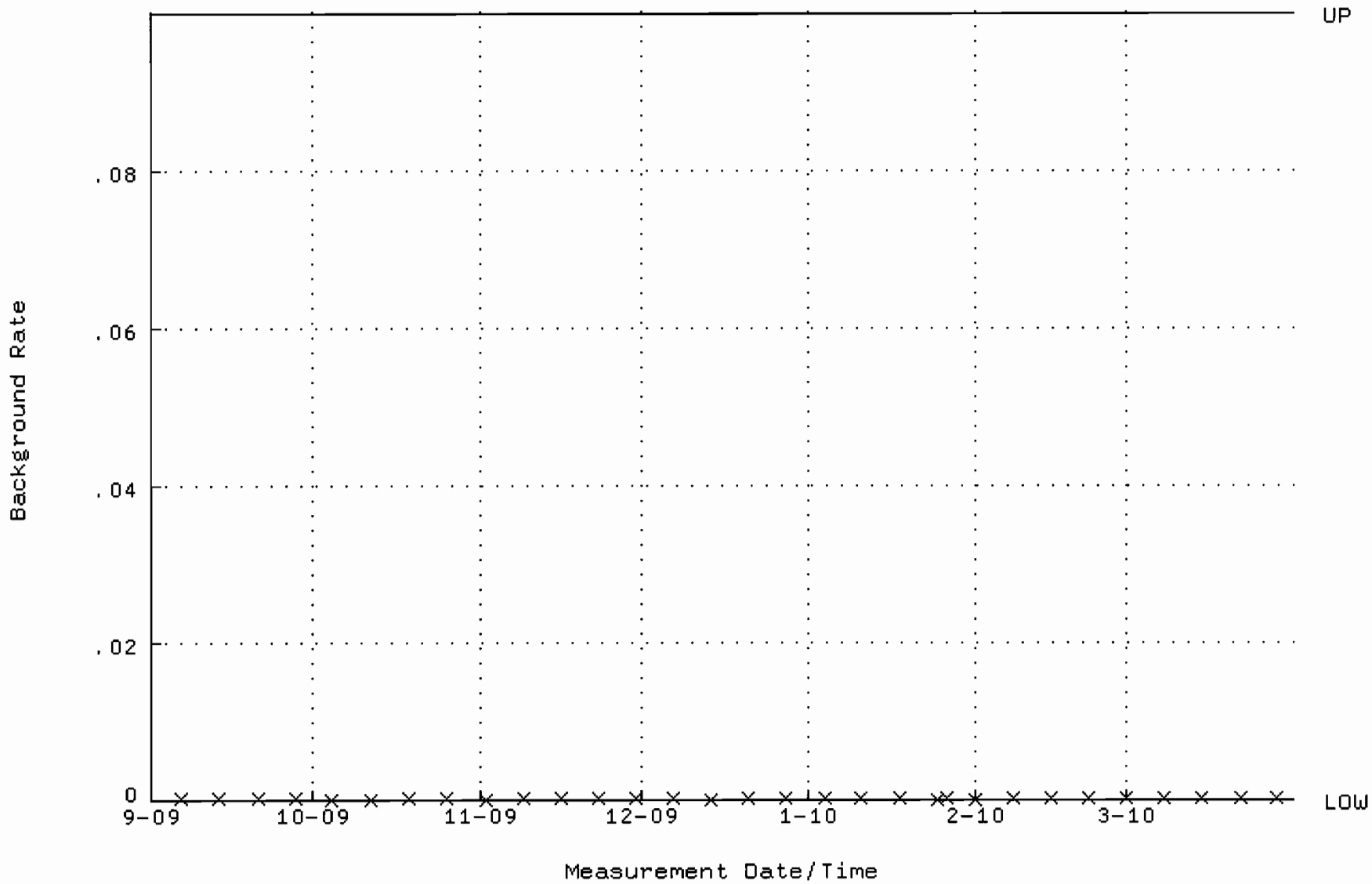

QA filename : DKA100:[ENV_ALPHA.QA.W]W211.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:36:34 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.367181 through 0.403915

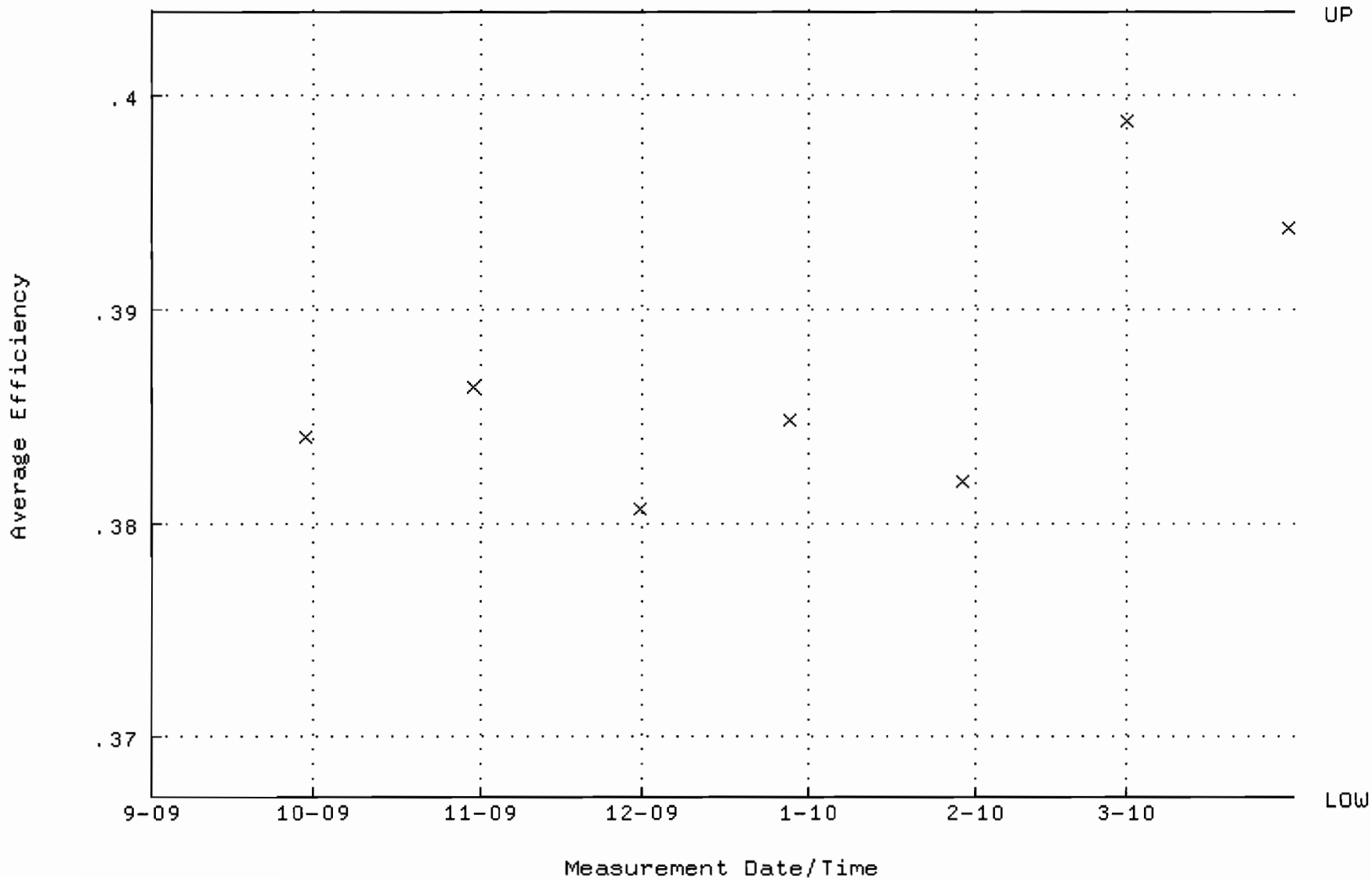

QA filename : DKA100:[ENV_ALPHA.QA.W]W211.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:36:34 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 83.8443 through 92.1557

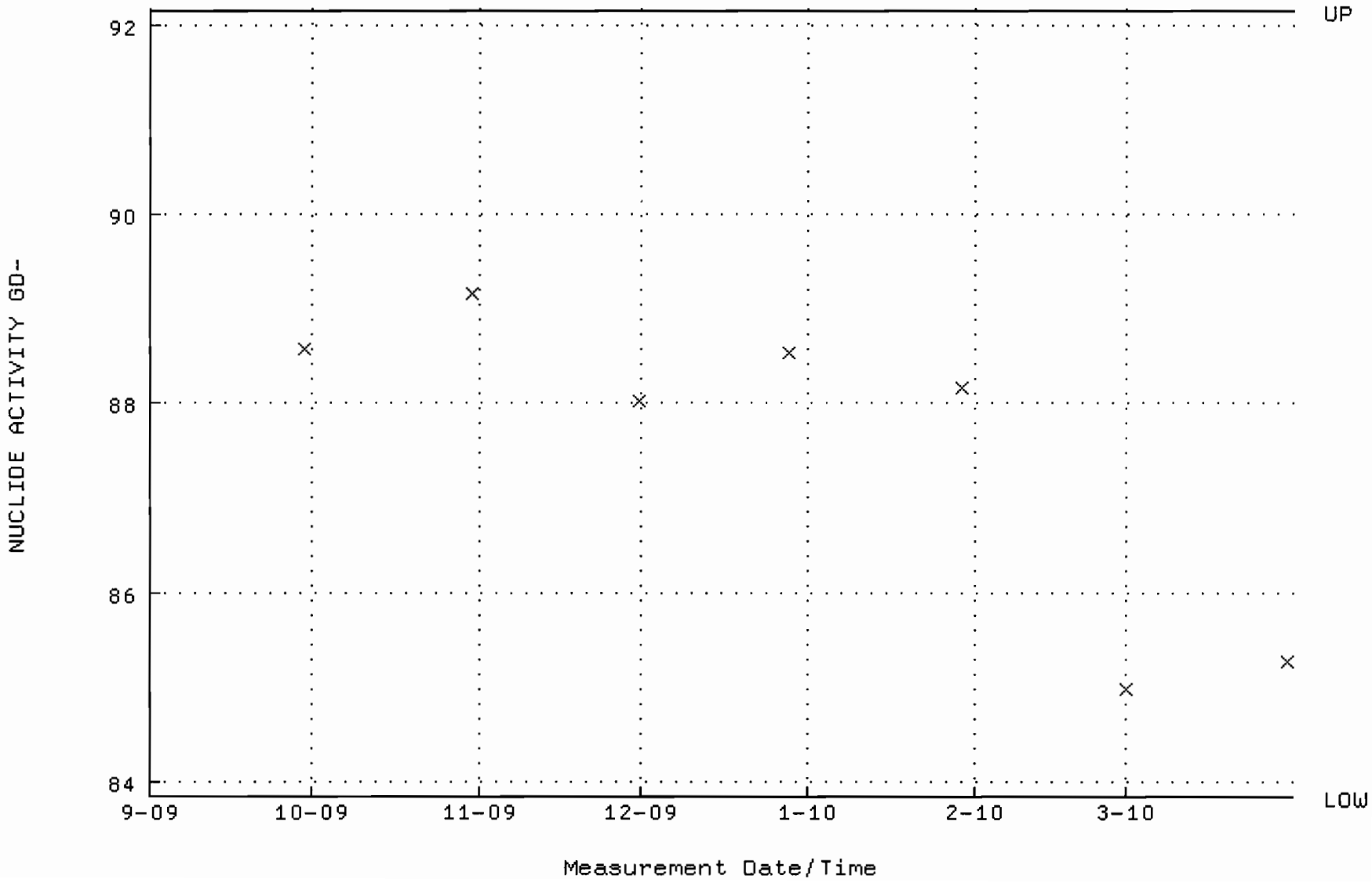

QA filename : DKA100:[ENV_ALPHA.QA.B]B211.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:48:31 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

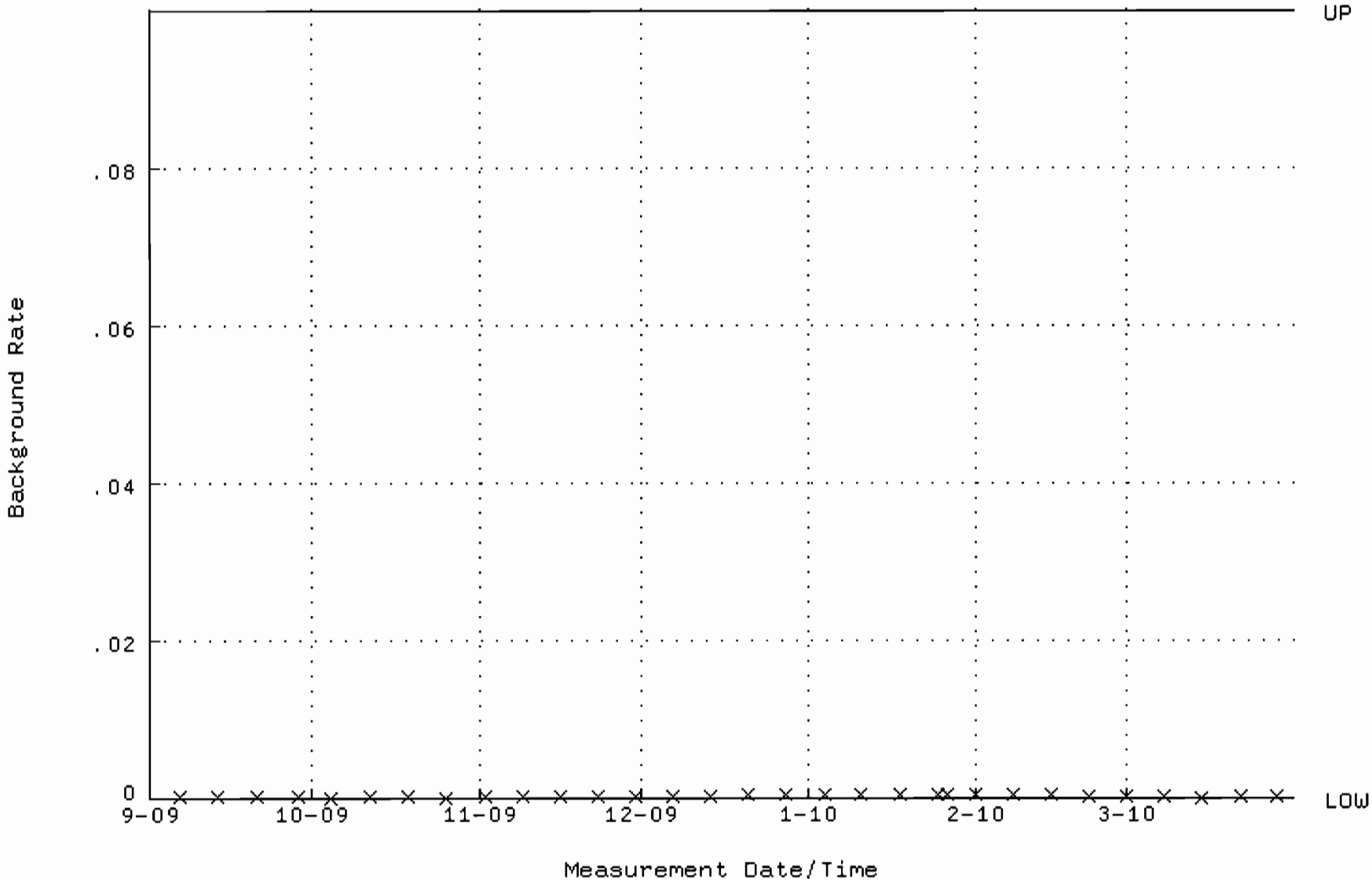

QA filename : DKA100:[ENV_ALPHA.QA.W]W212.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:36:39 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.363681 through 0.399037

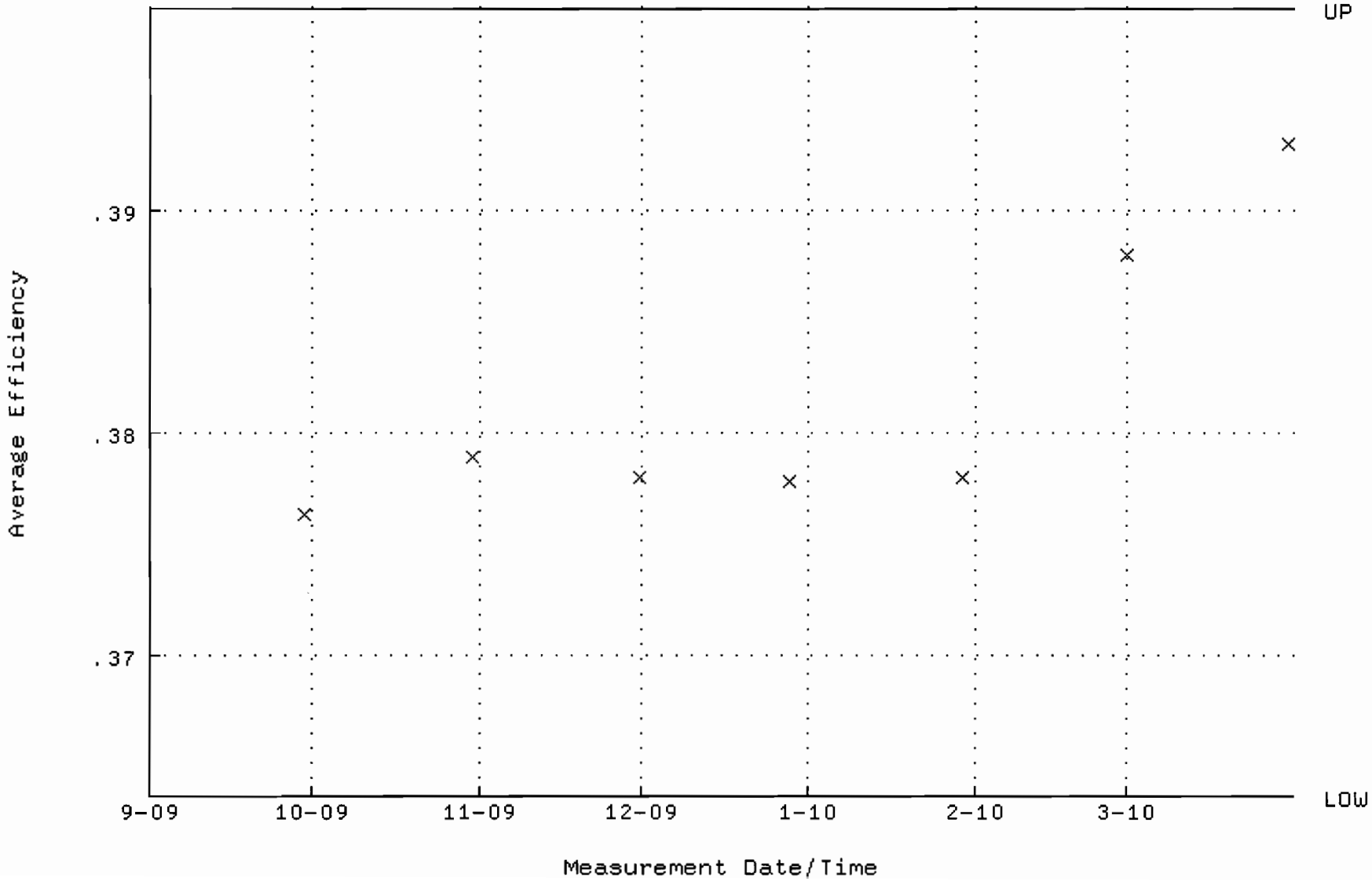

QA filename : DKA100:[ENV_ALPHA.QA.W]W212.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:36:39 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 85.9643 through 95.0571

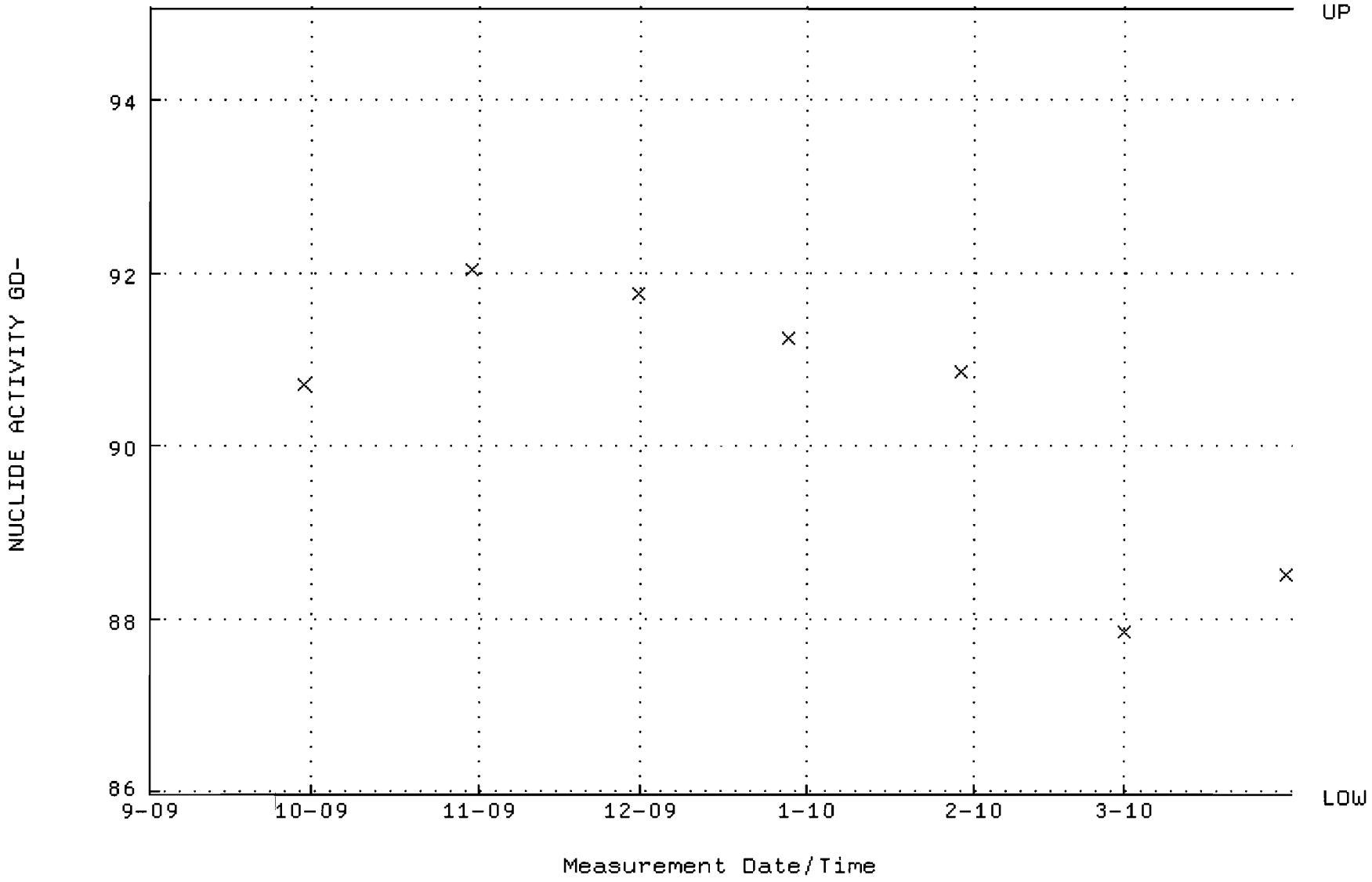

QA filename : DKA100:[ENV_ALPHA.QA.B]B212.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:48:35 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

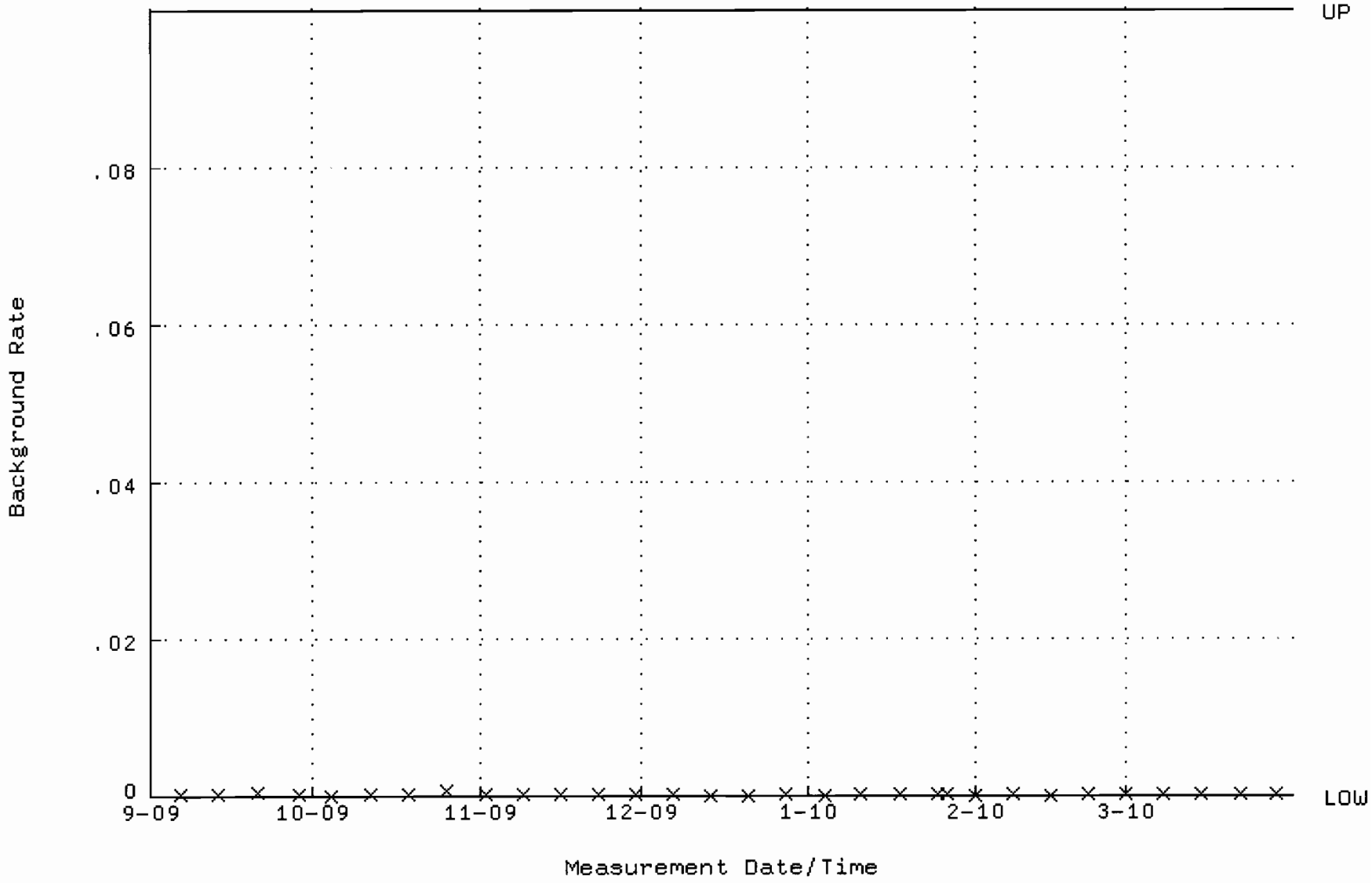

QA filename : DKA100:[ENV_ALPHA.QA.W]W213.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:36:44 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.363867 through 0.385287

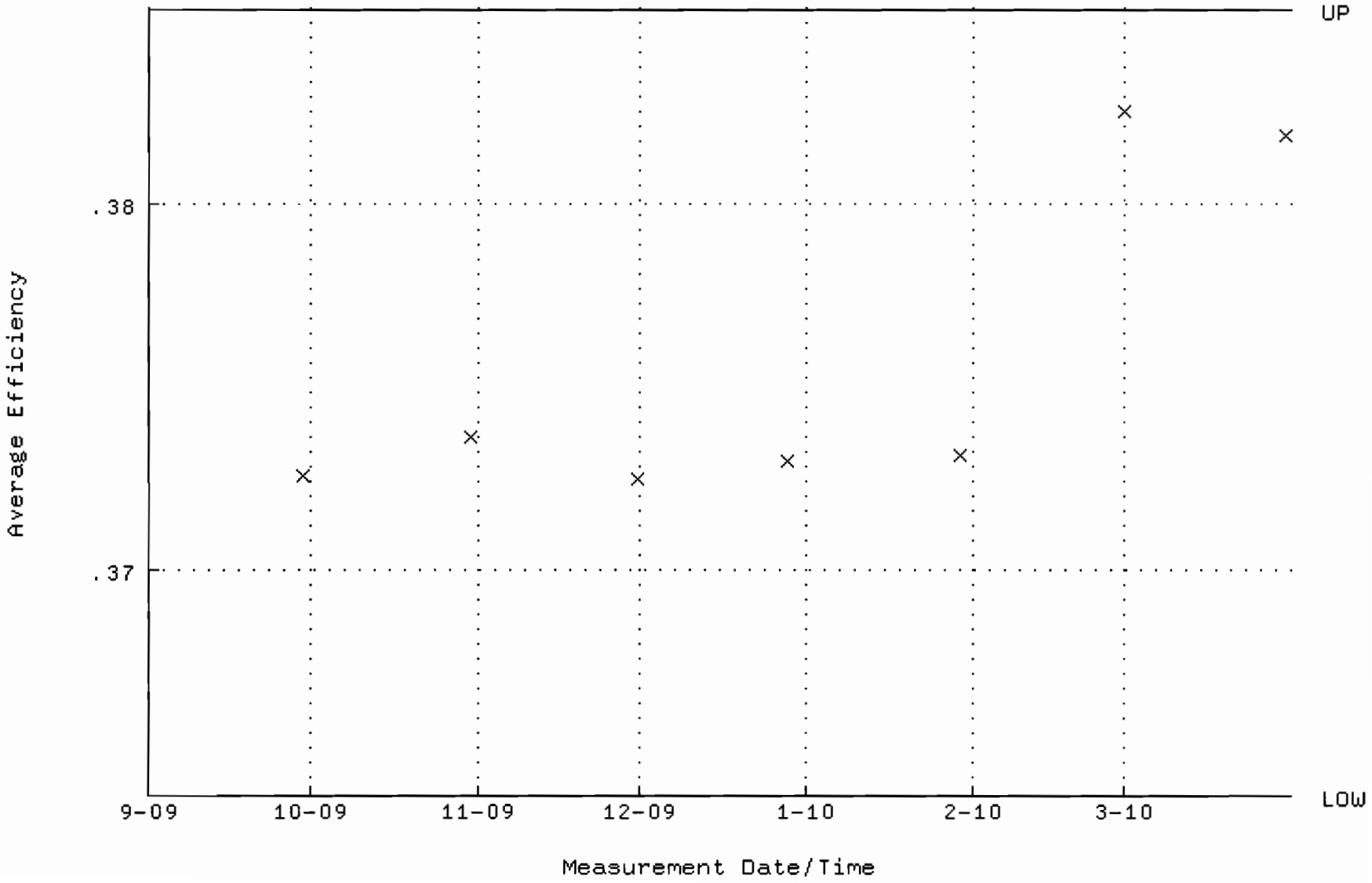

QA filename : DKA100:[ENV_ALPHA.QA.W]W213.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:36:44 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 85.8876 through 92.2476

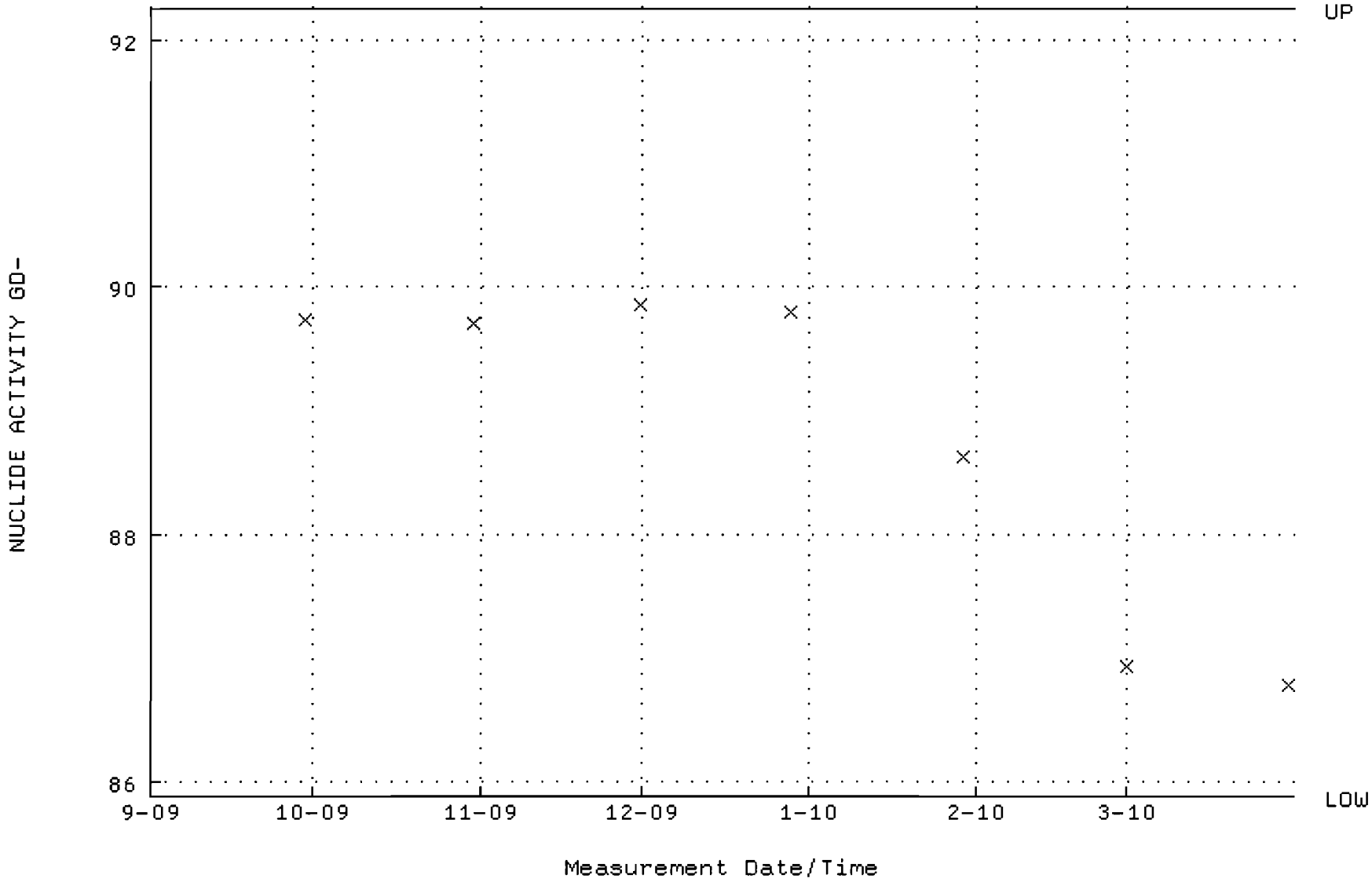

QA filename : DKA100:[ENV_ALPHA.QA.B]B213.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:48:40 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

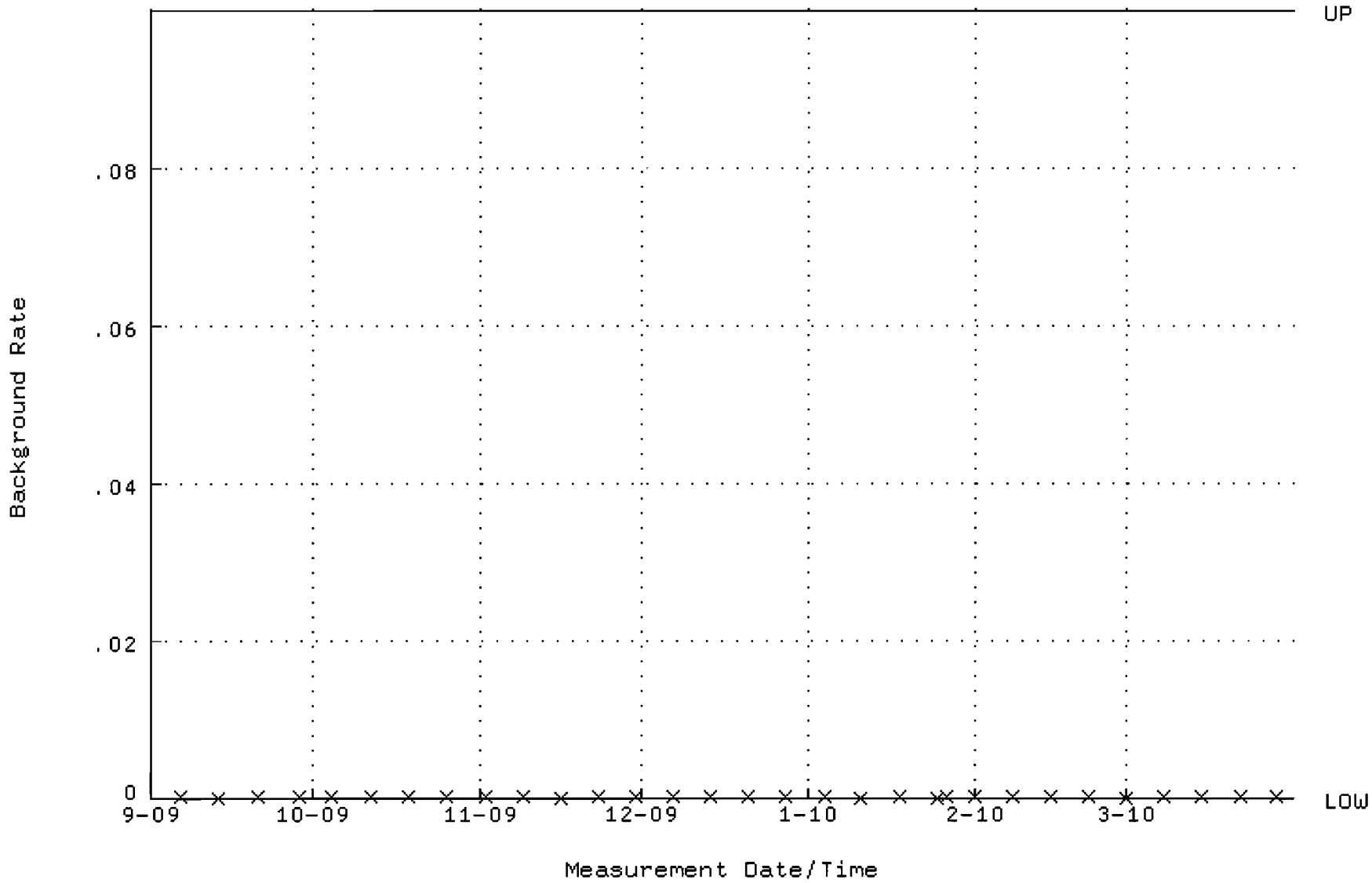

QA filename : DKA100:[ENV_ALPHA.QA.W]W214.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:36:49 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.381077 through 0.386057

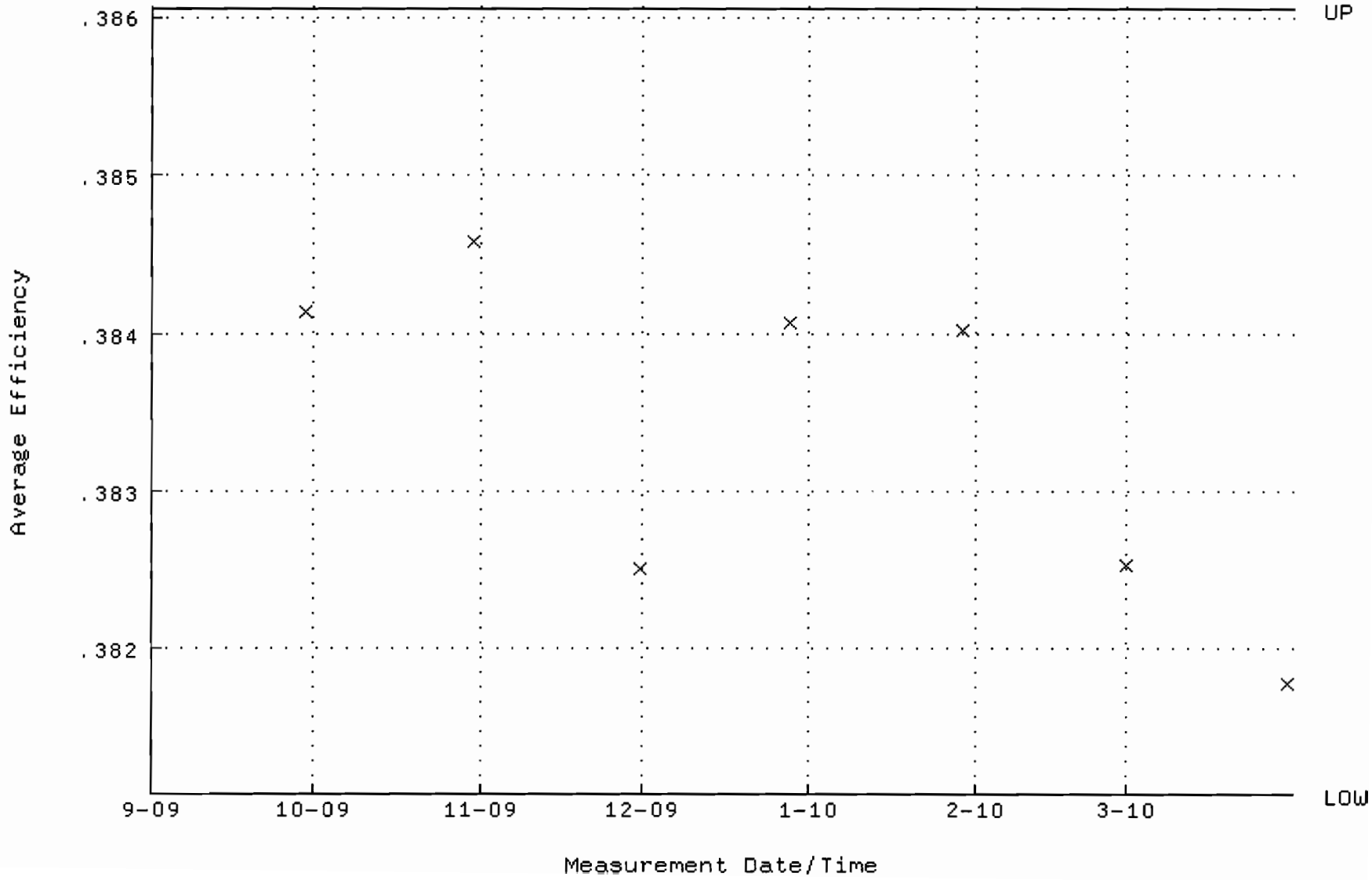

QA filename : DKA100:[ENV_ALPHA.QA.W]W214.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:36:49 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 89.1239 through 90.8865

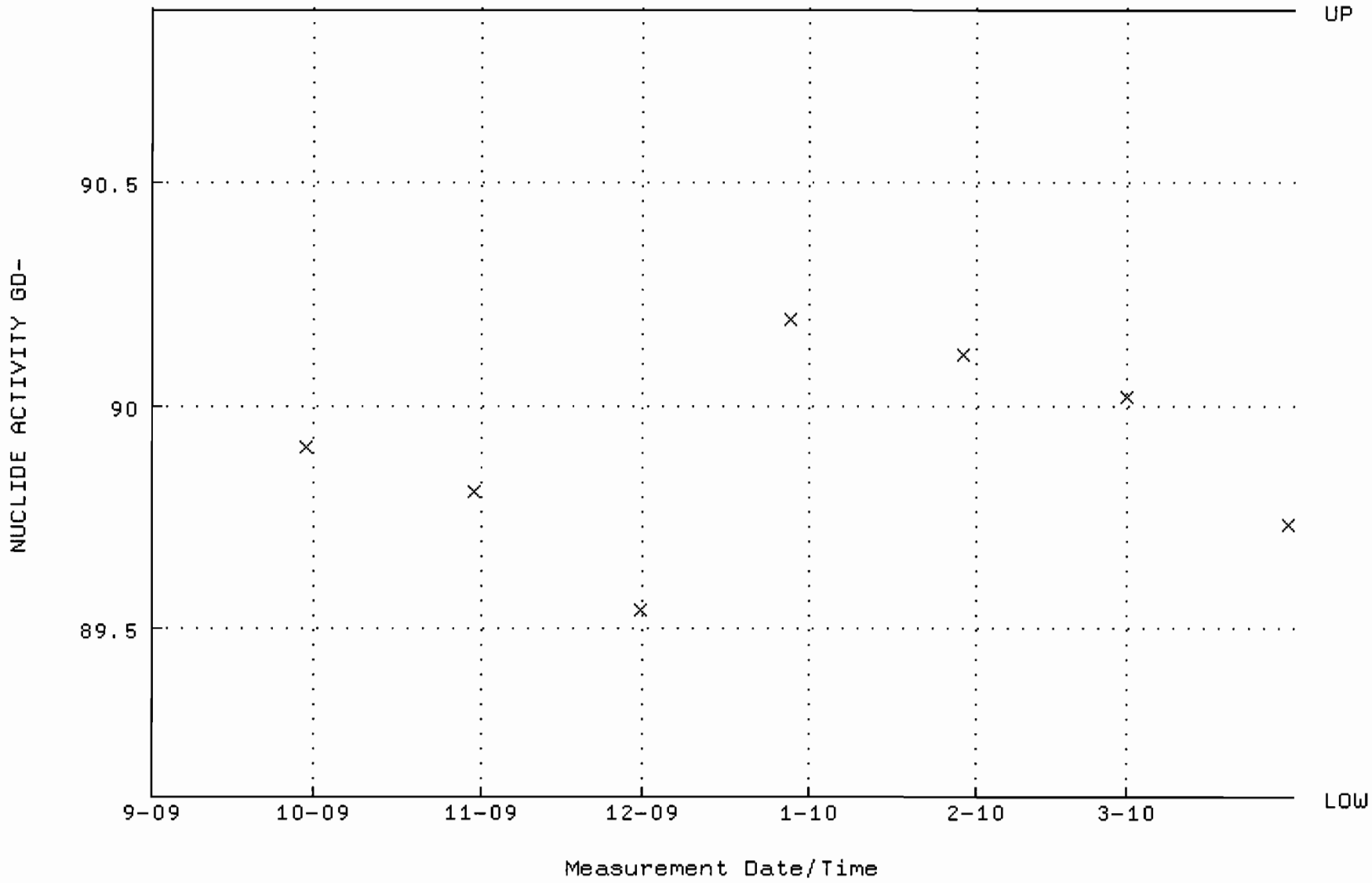

QA filename : DKA100:[ENV_ALPHA.QA.B]B214.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:48:44 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

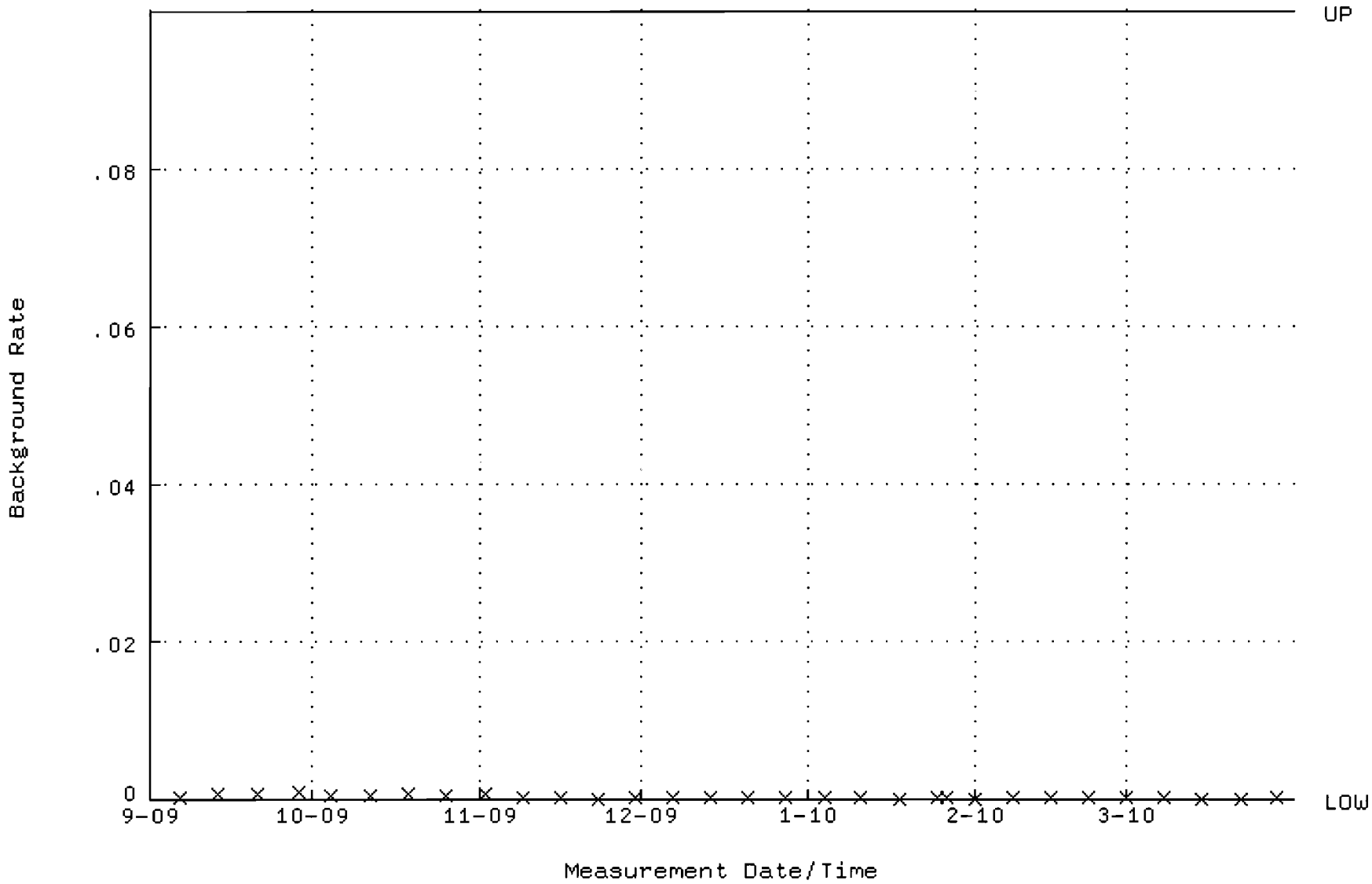

QA filename : DKA100:[ENV_ALPHA.QA.W]W215.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 26-SEP-2009 07:30:03 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.368657 through 0.384643

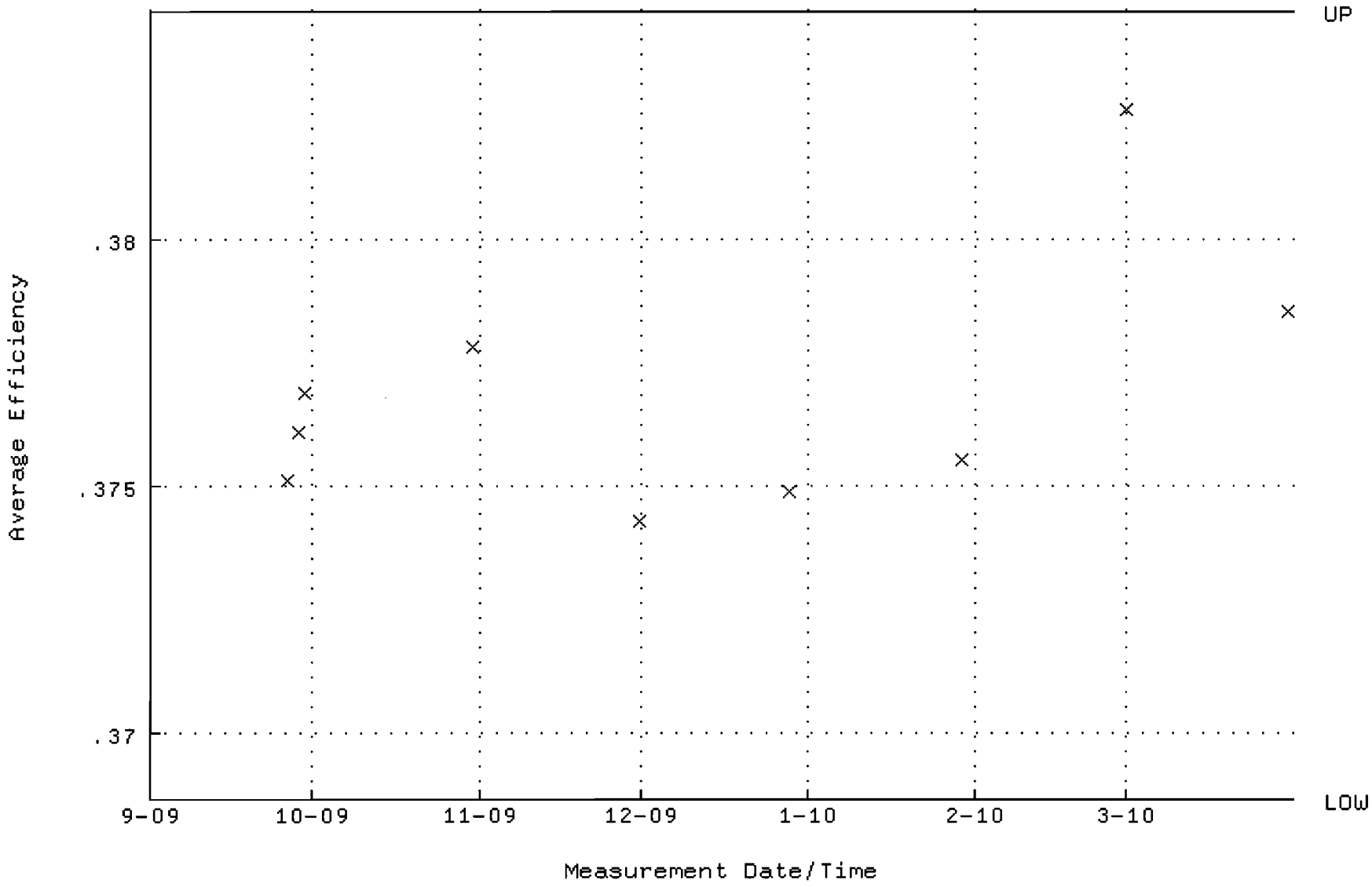

QA filename : DKA100:[ENV_ALPHA.QA.W]W215.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 26-SEP-2009 07:30:03 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 88.3773 through 92.9481

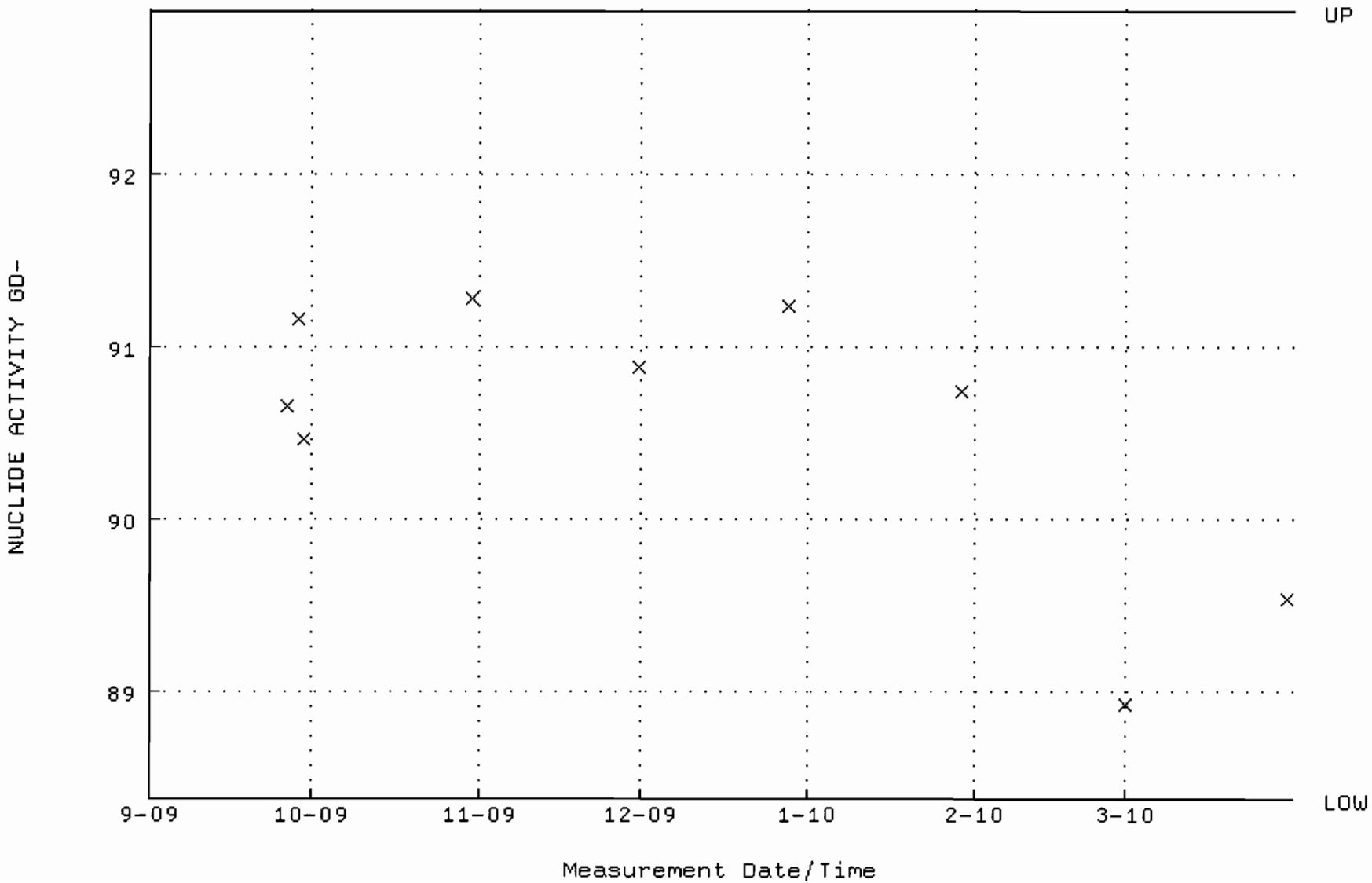

QA filename : DKA100:[ENV_ALPHA.QA.B]B215.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:48:49 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

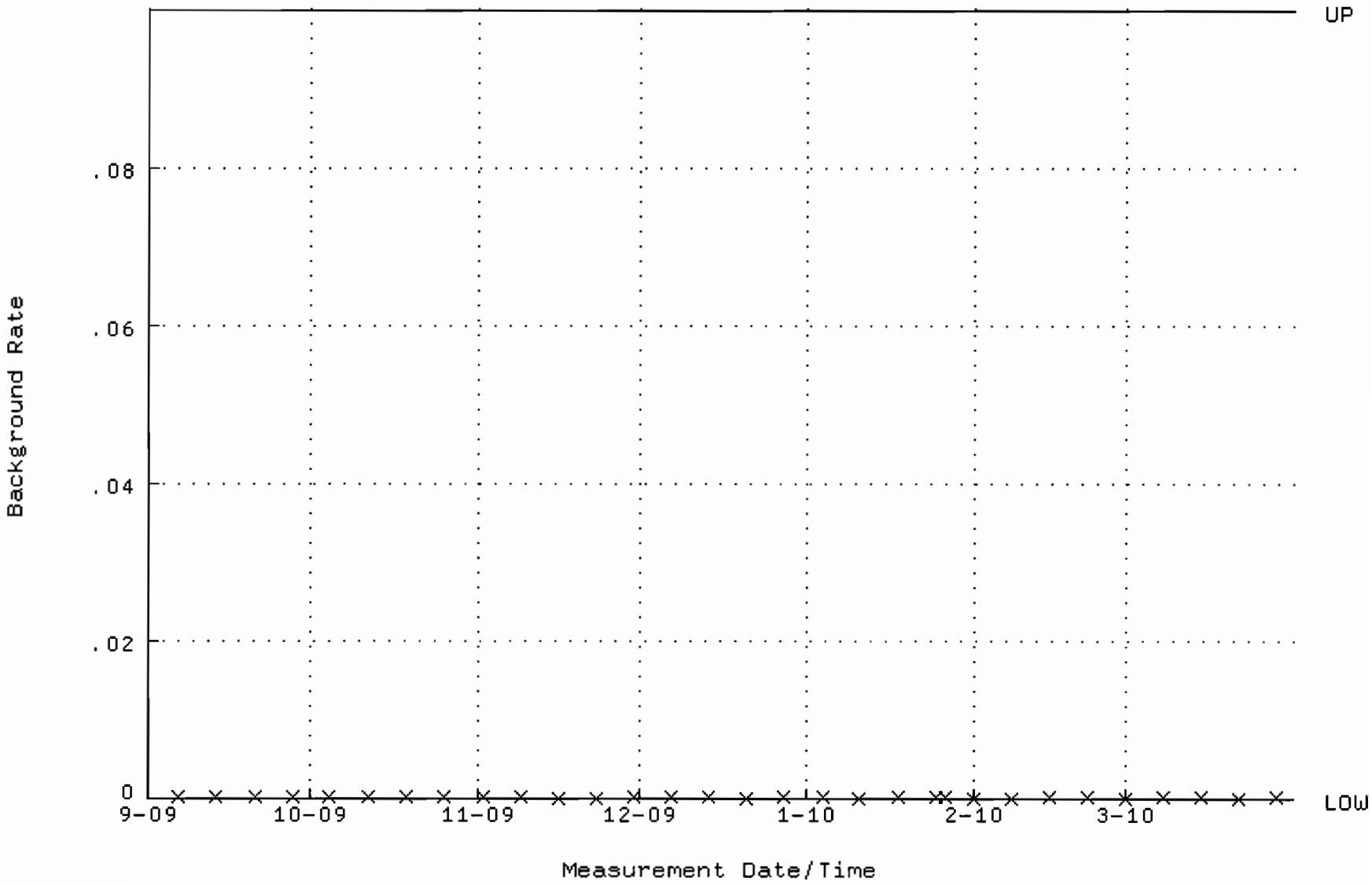

QA filename : DKA100:[ENV_ALPHA.QA.W]W216.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:37:00 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.375142 through 0.396434

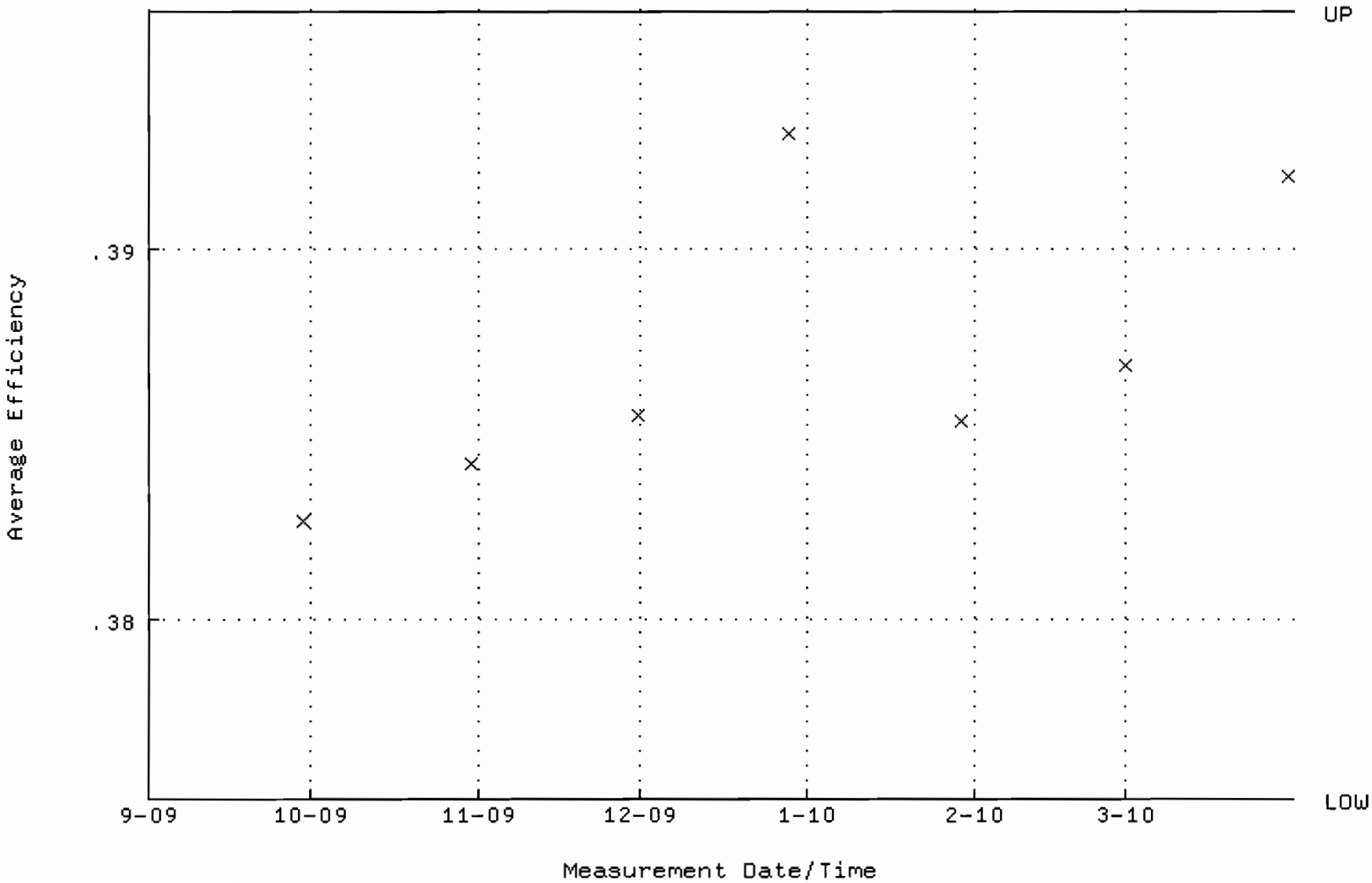

QA filename : DKA100:[ENV_ALPHA.QA.W]W216.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:37:00 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 87.7466 through 90.4082

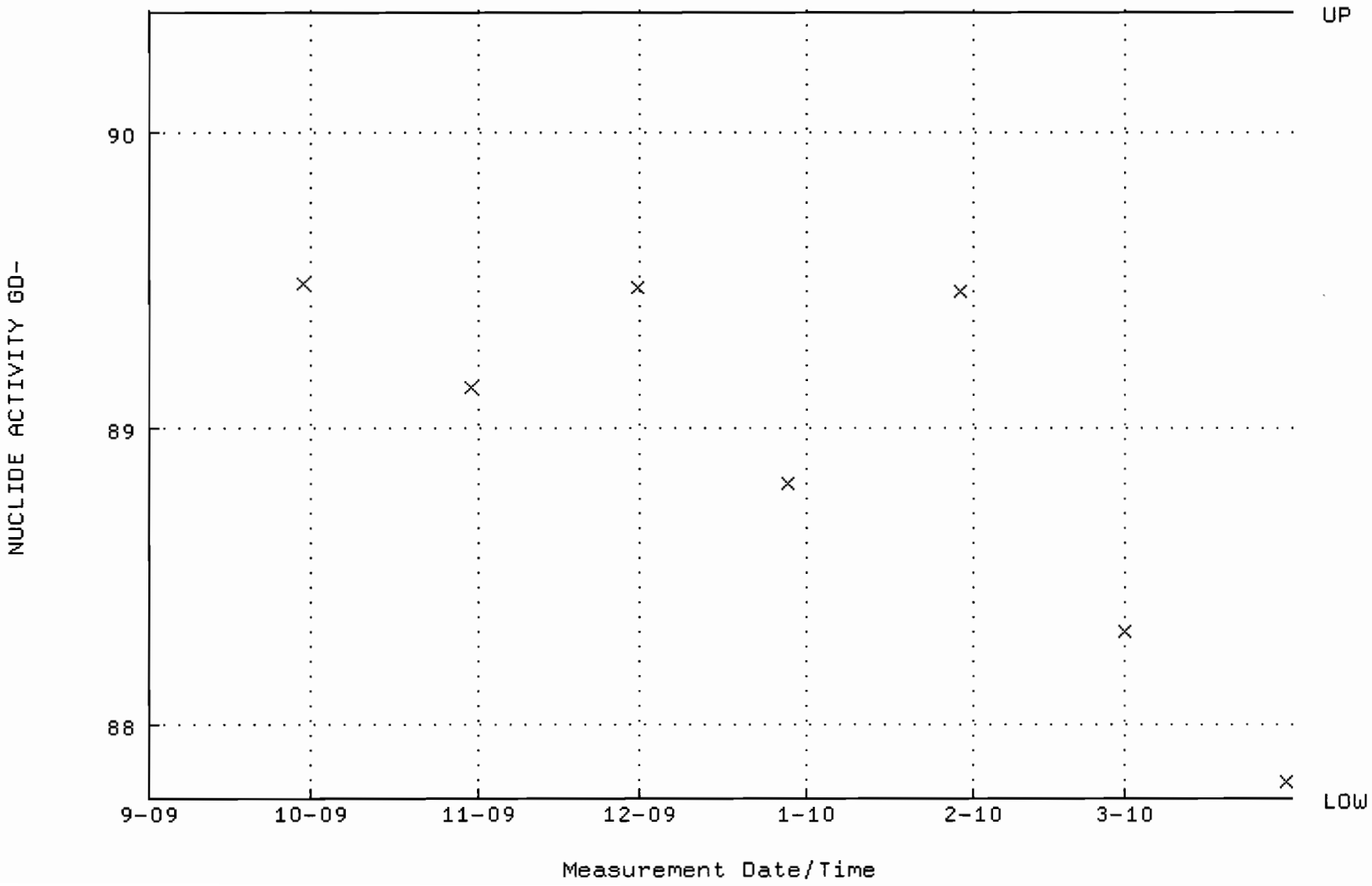

QA filename : DKA100:[ENV_ALPHA.QA.B]B216.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:48:53 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

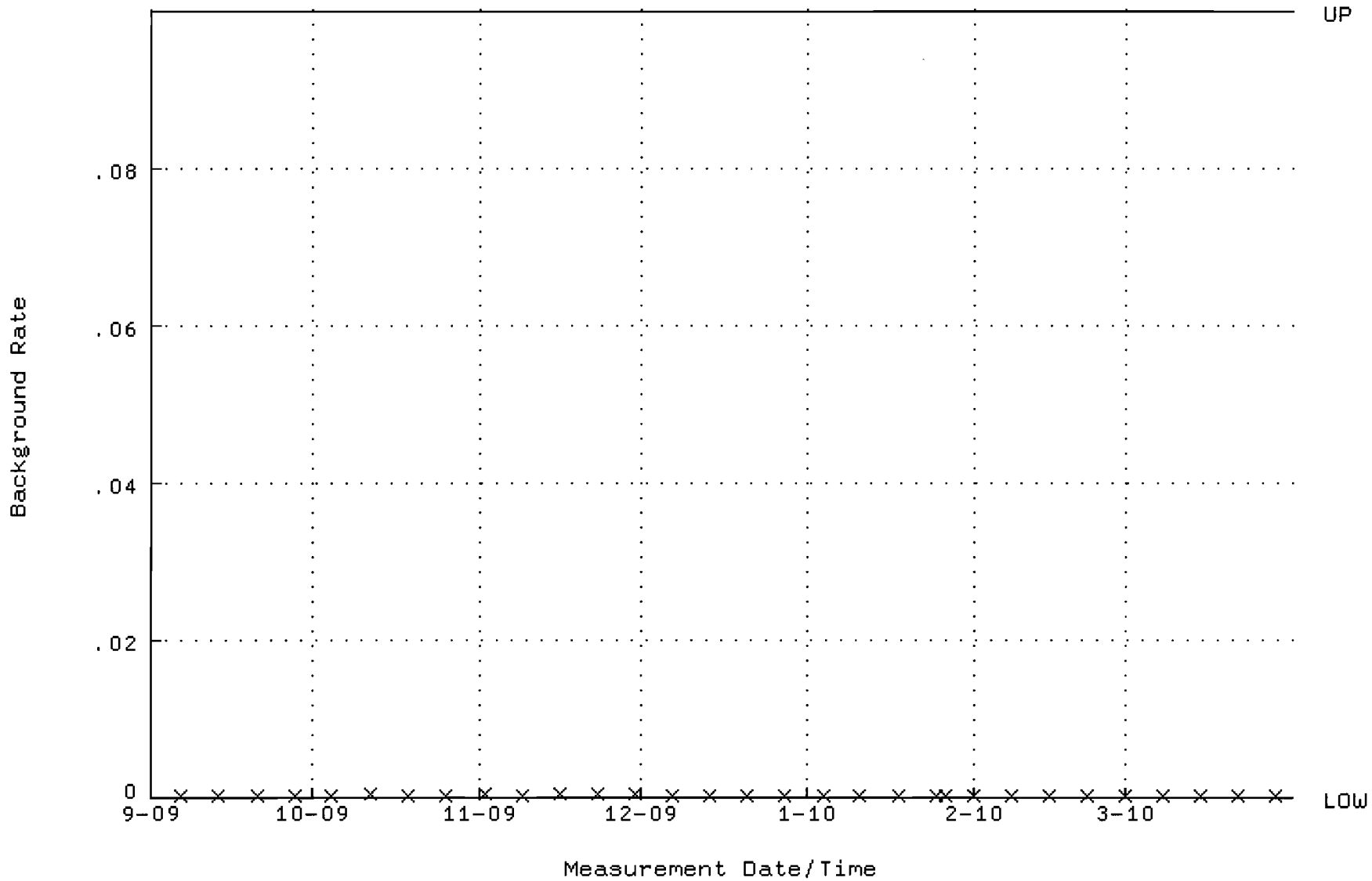

QA filename : DKA100:[ENV_ALPHA.QA.W]W217.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:37:06 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.347554 through 0.390494

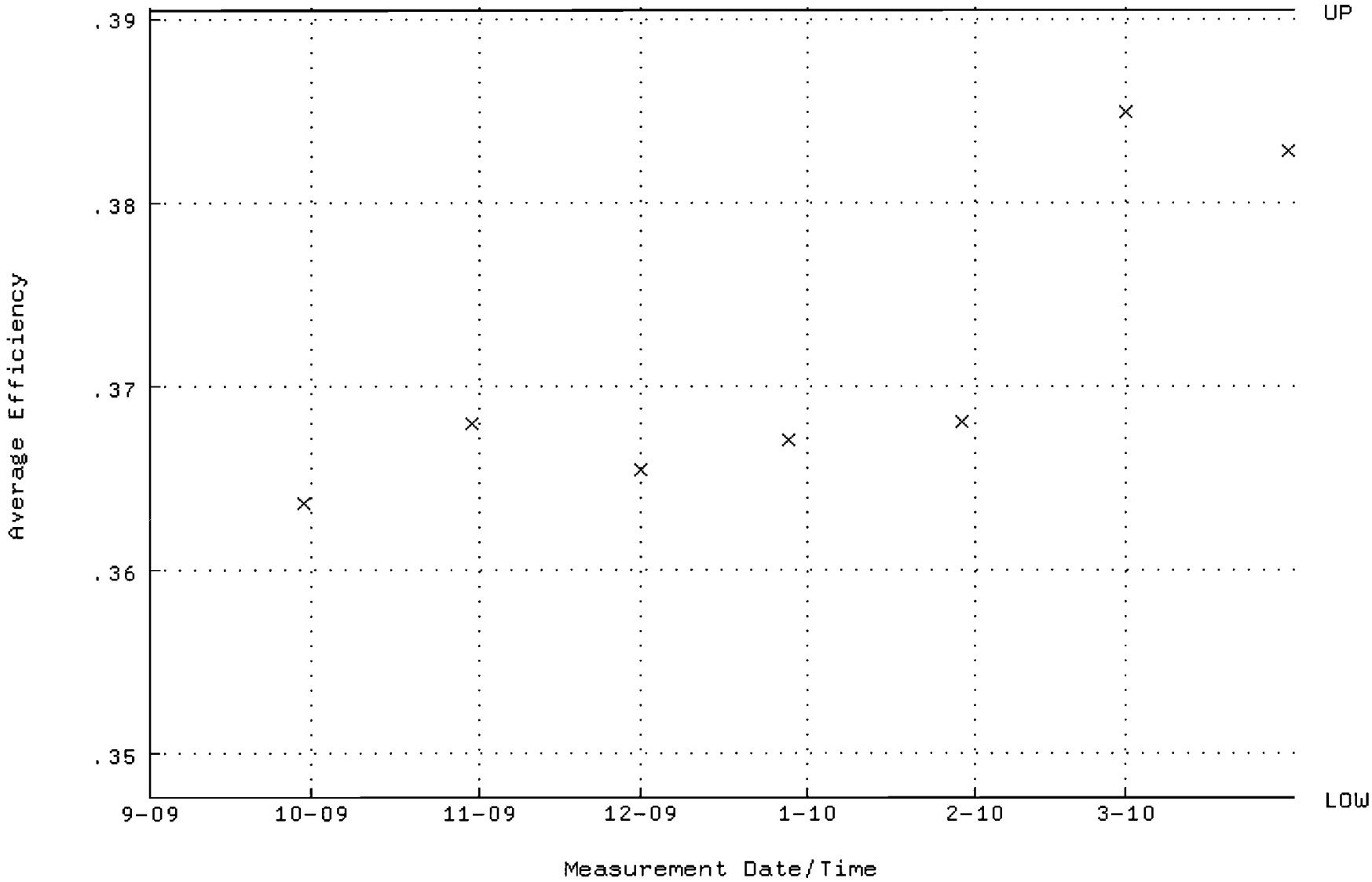

QA filename : DKA100:[ENV_ALPHA.QA.W]W217.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:37:06 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 87.2610 through 97.5406

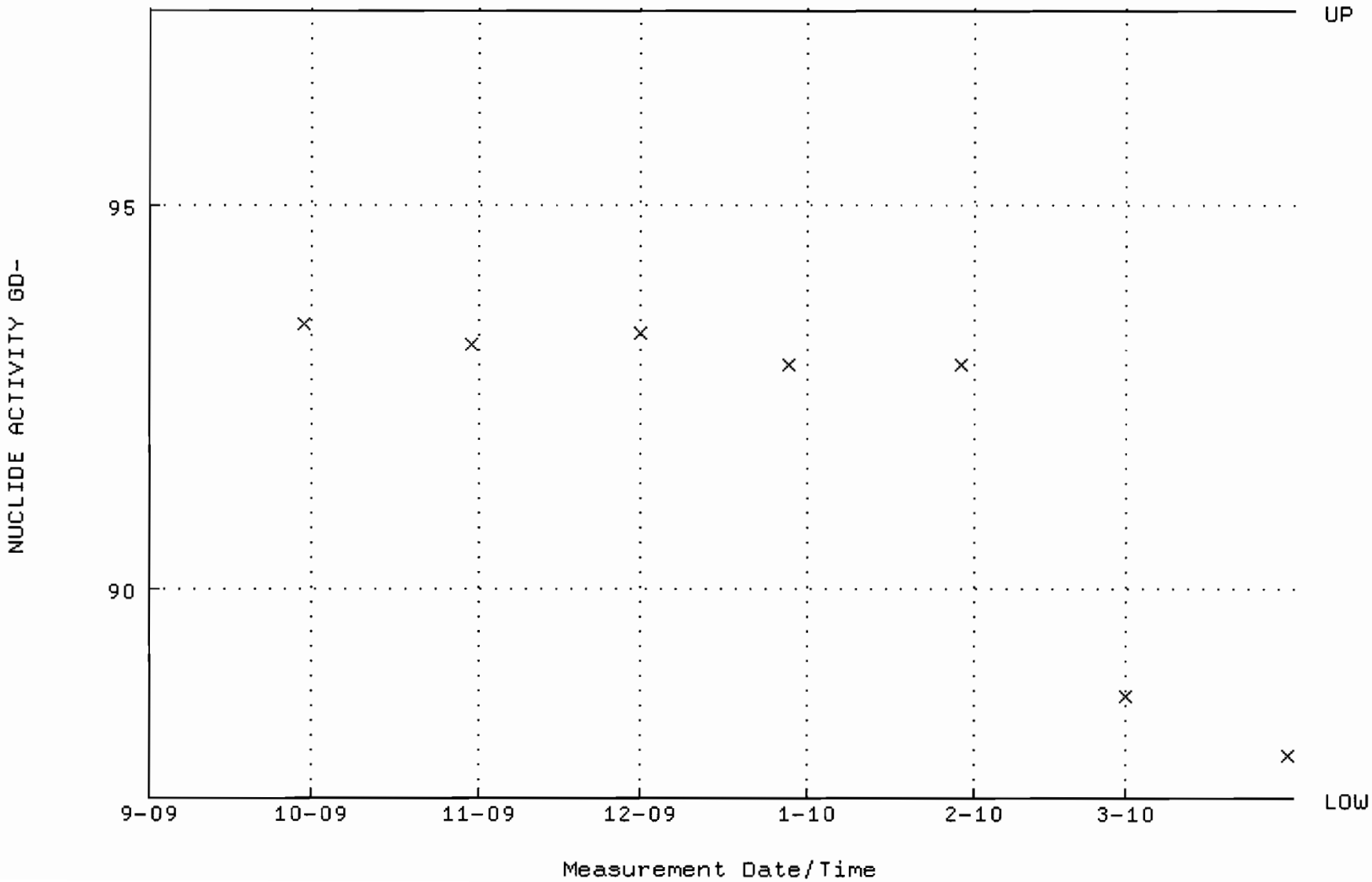

QA filename : DKA100:[ENV_ALPHA.QA.B]B217.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:48:58 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

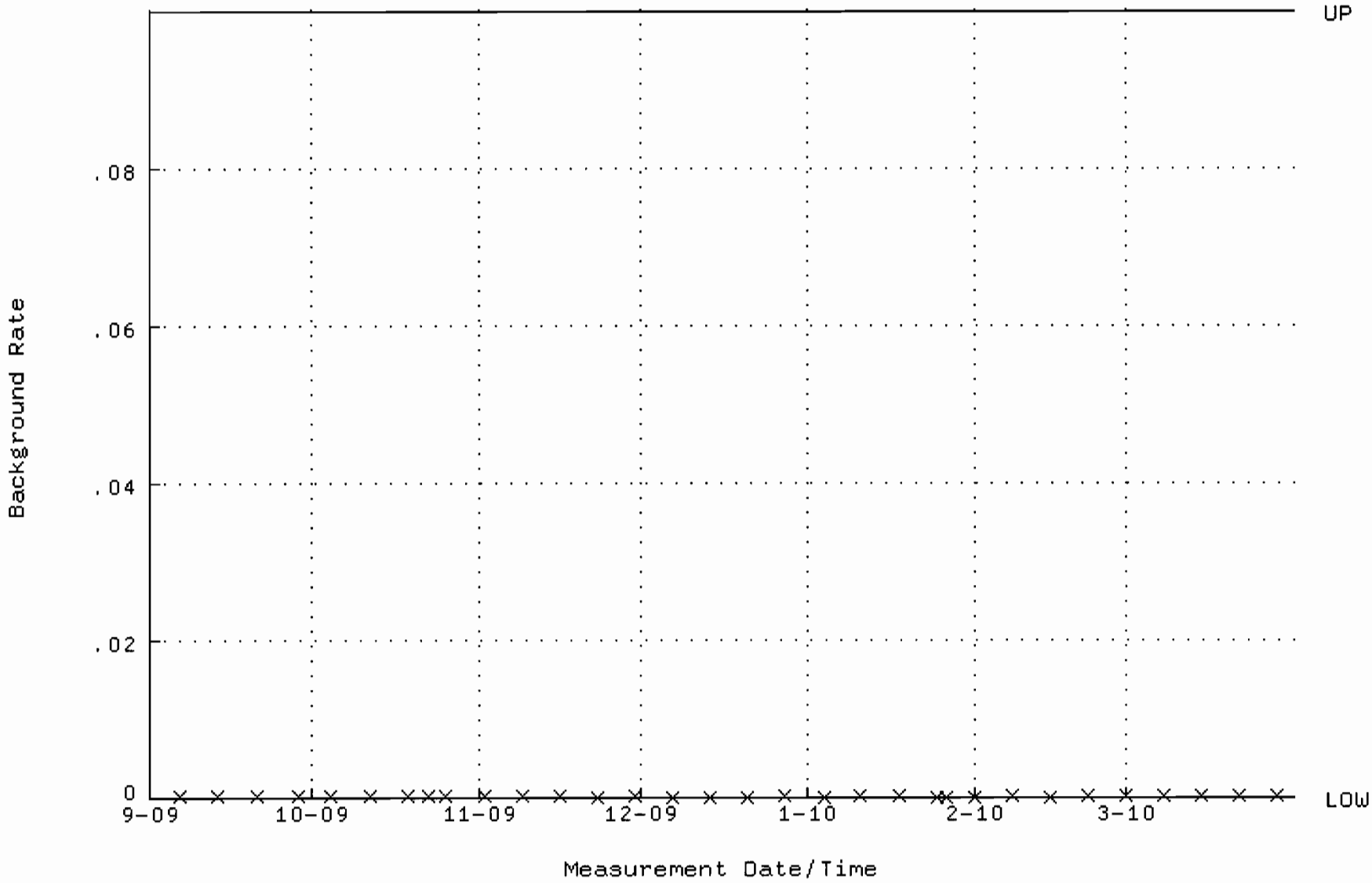

QA filename : DKA100:[ENV_ALPHA.QA.W]W229.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:15 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.360663 through 0.390815

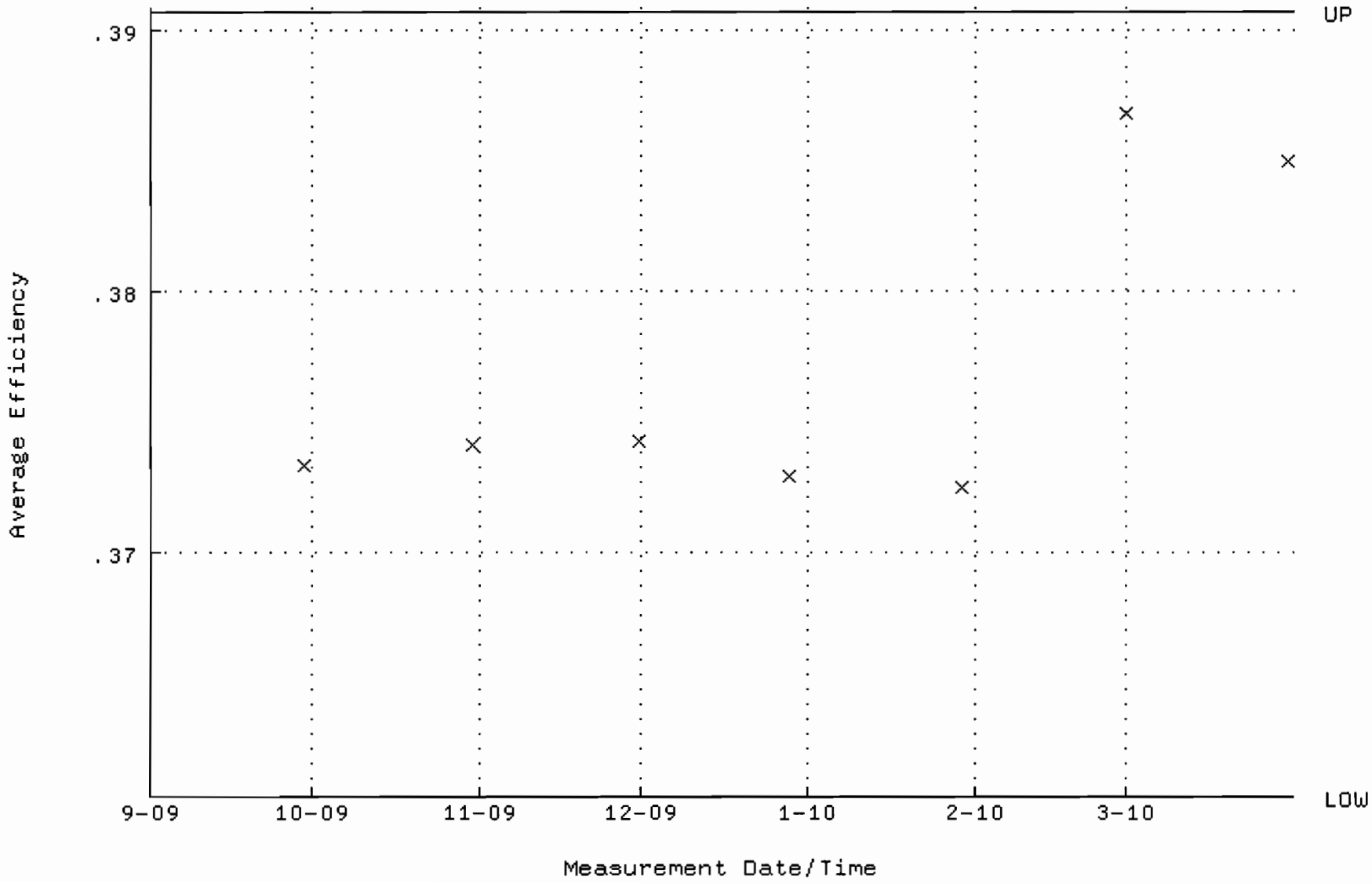

QA filename : DKA100:[ENV_ALPHA.QA.W]W229.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:15 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 87.5648 through 97.3078

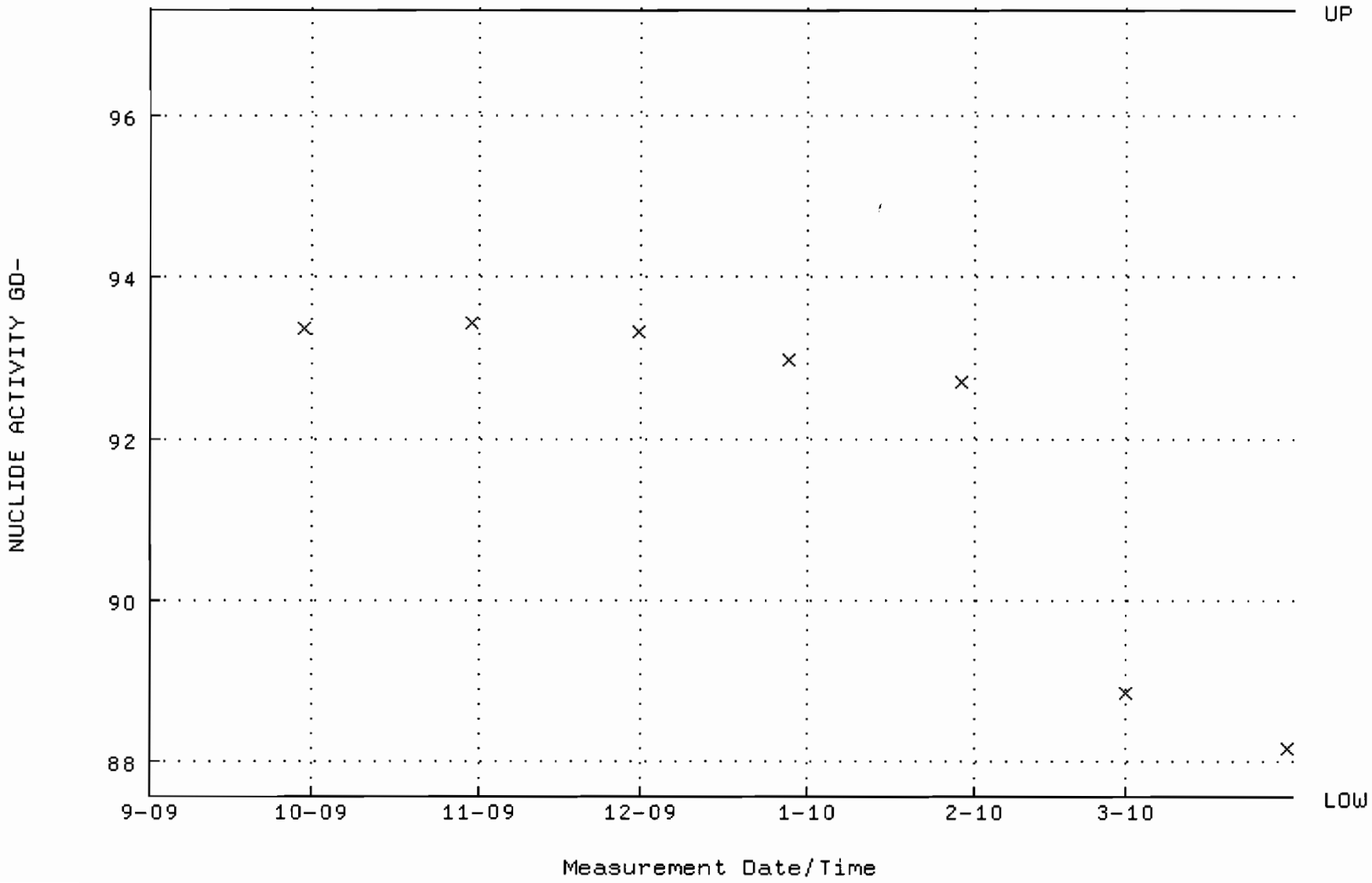

QA filename : DKA100:[ENV_ALPHA.QA.B]B229.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:49:53 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

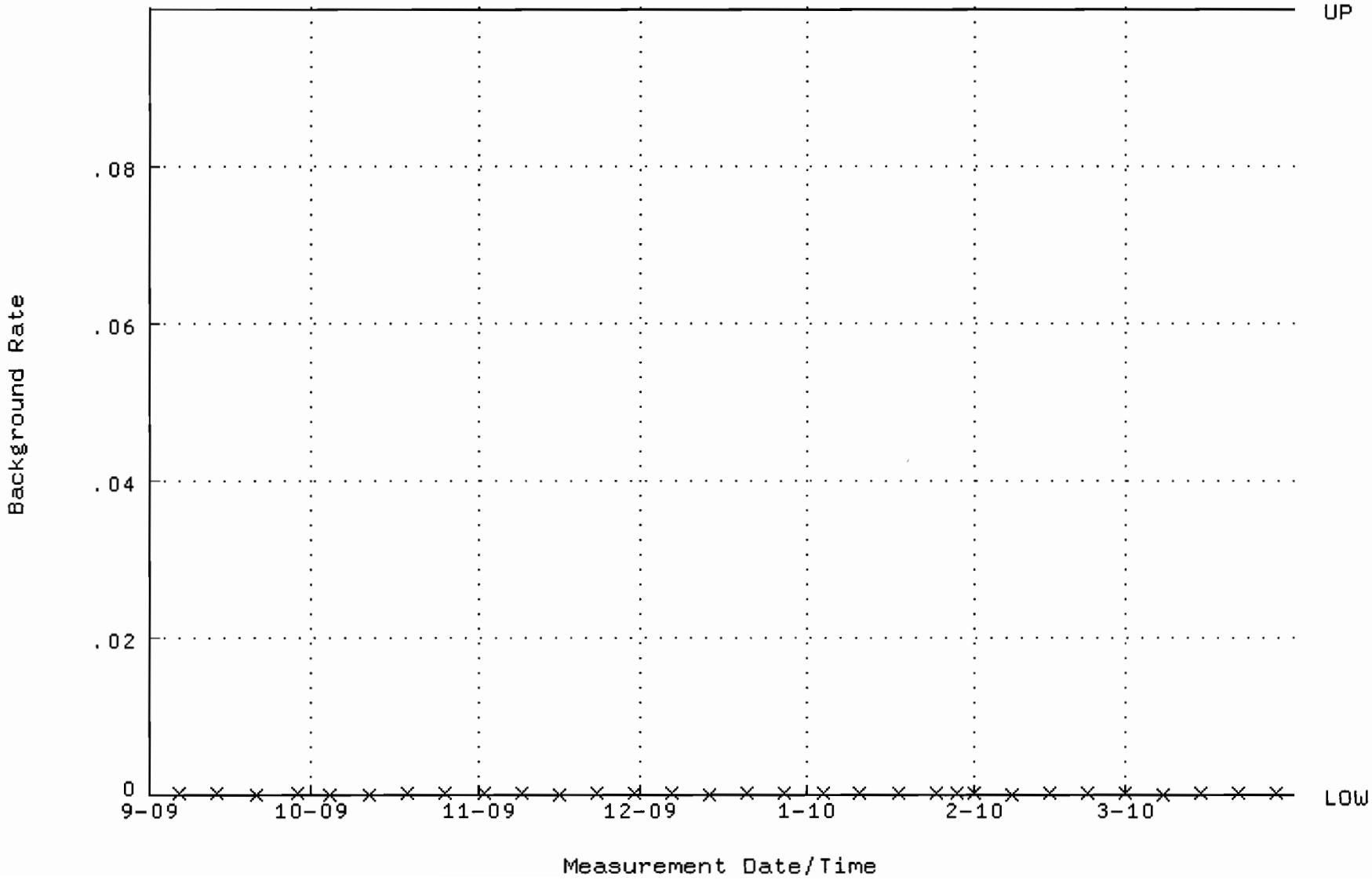

QA filename : DKA100:[ENV_ALPHA.QA.W]W230.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:20 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.368869 through 0.386247

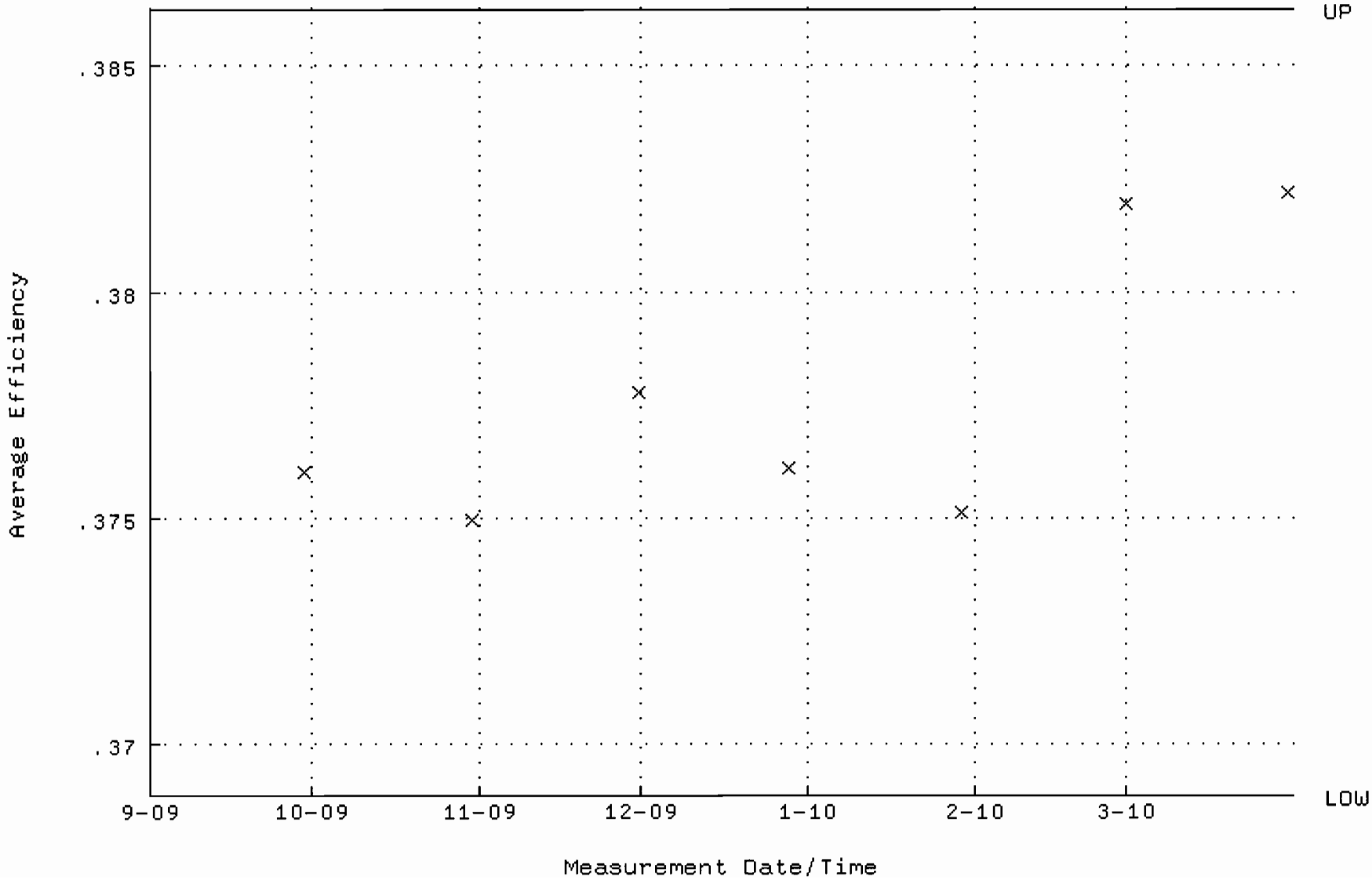

QA filename : DKA100:[ENV_ALPHA.QA.W]W230.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:20 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 87.2030 through 93.2176

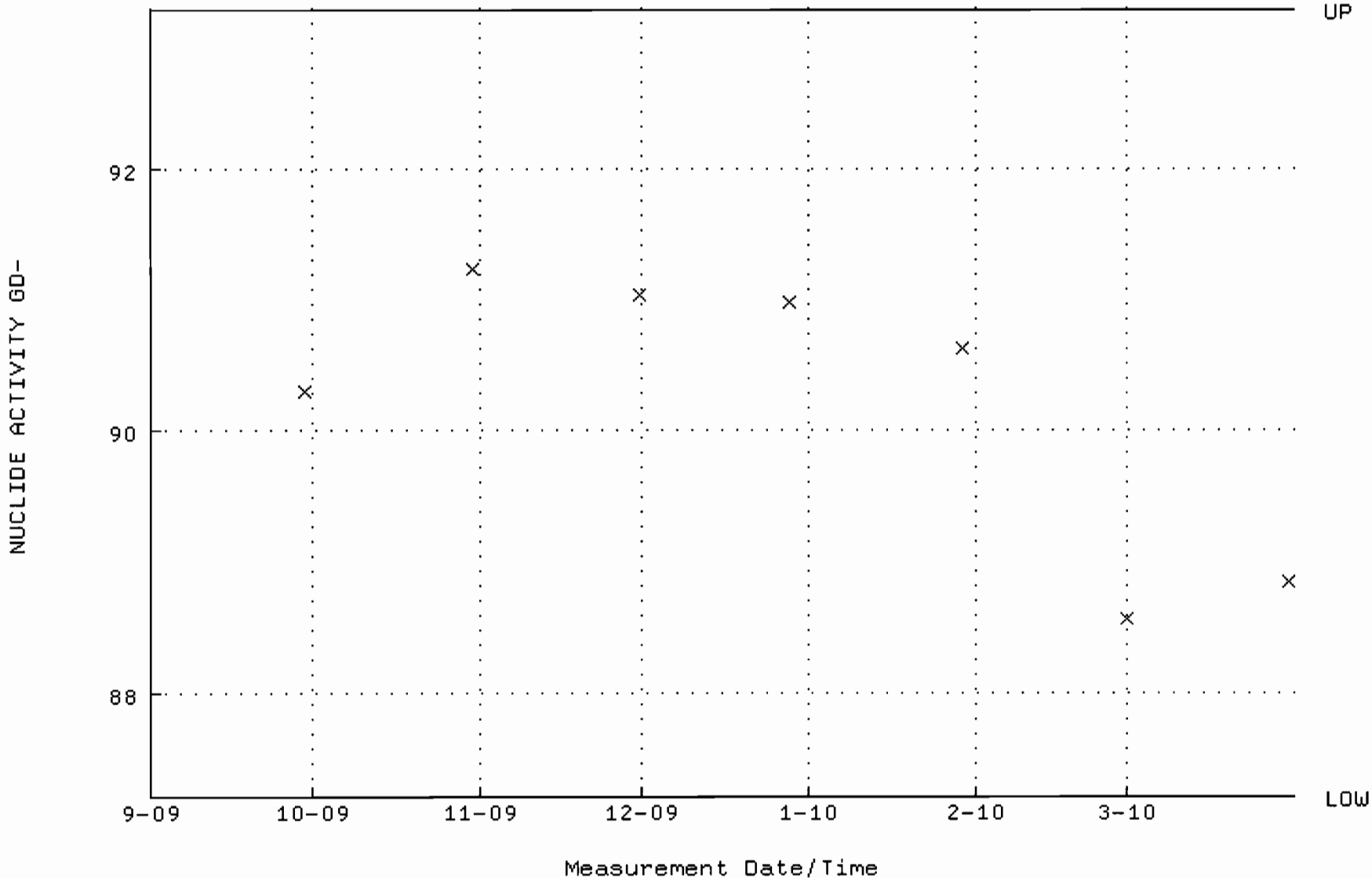

QA filename : DKA100:[ENV_ALPHA.QA.B]B230.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:49:58 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

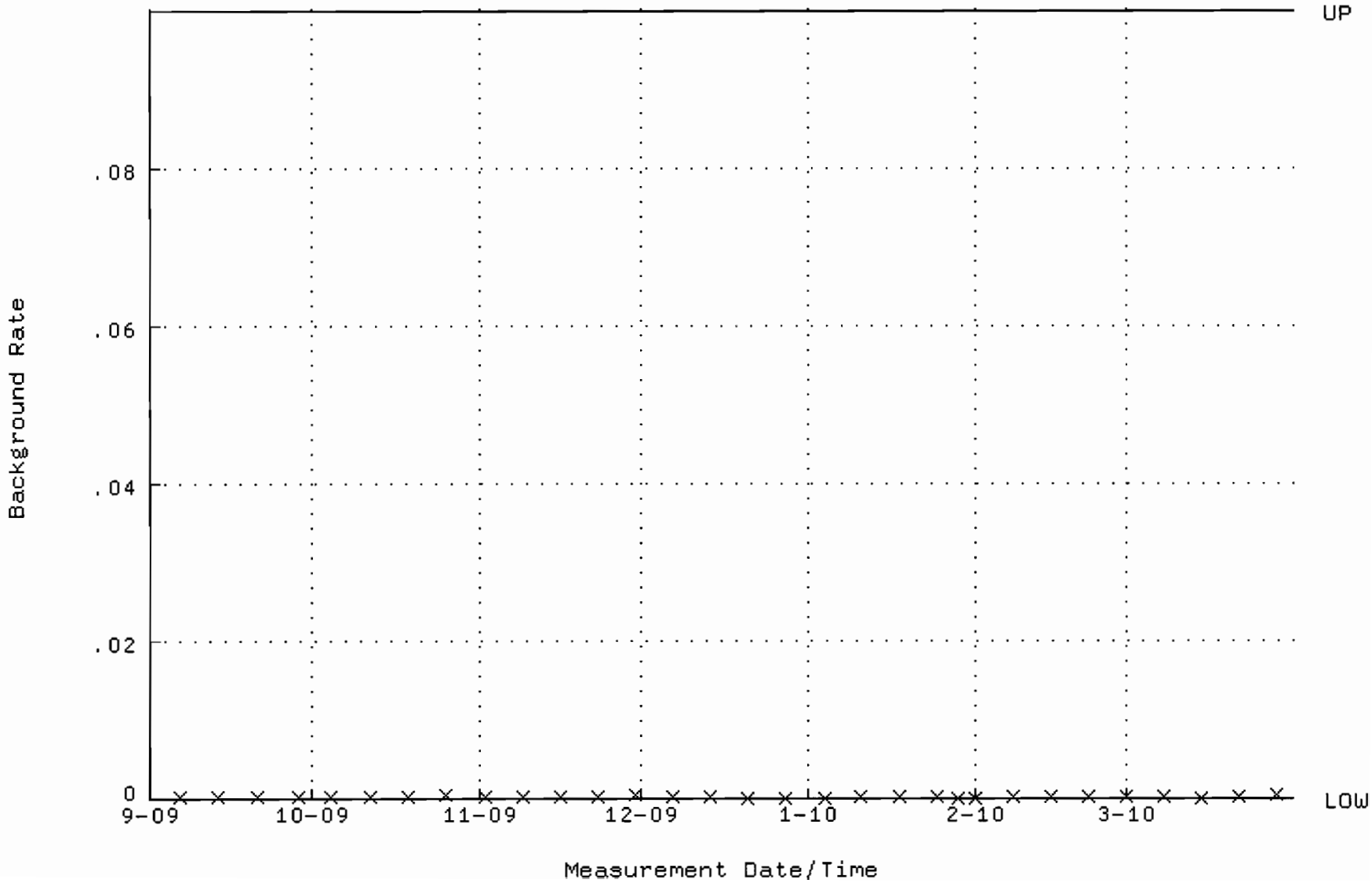

QA filename : DKA100:[ENV_ALPHA.QA.W]W247.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:55 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.352698 through 0.404942

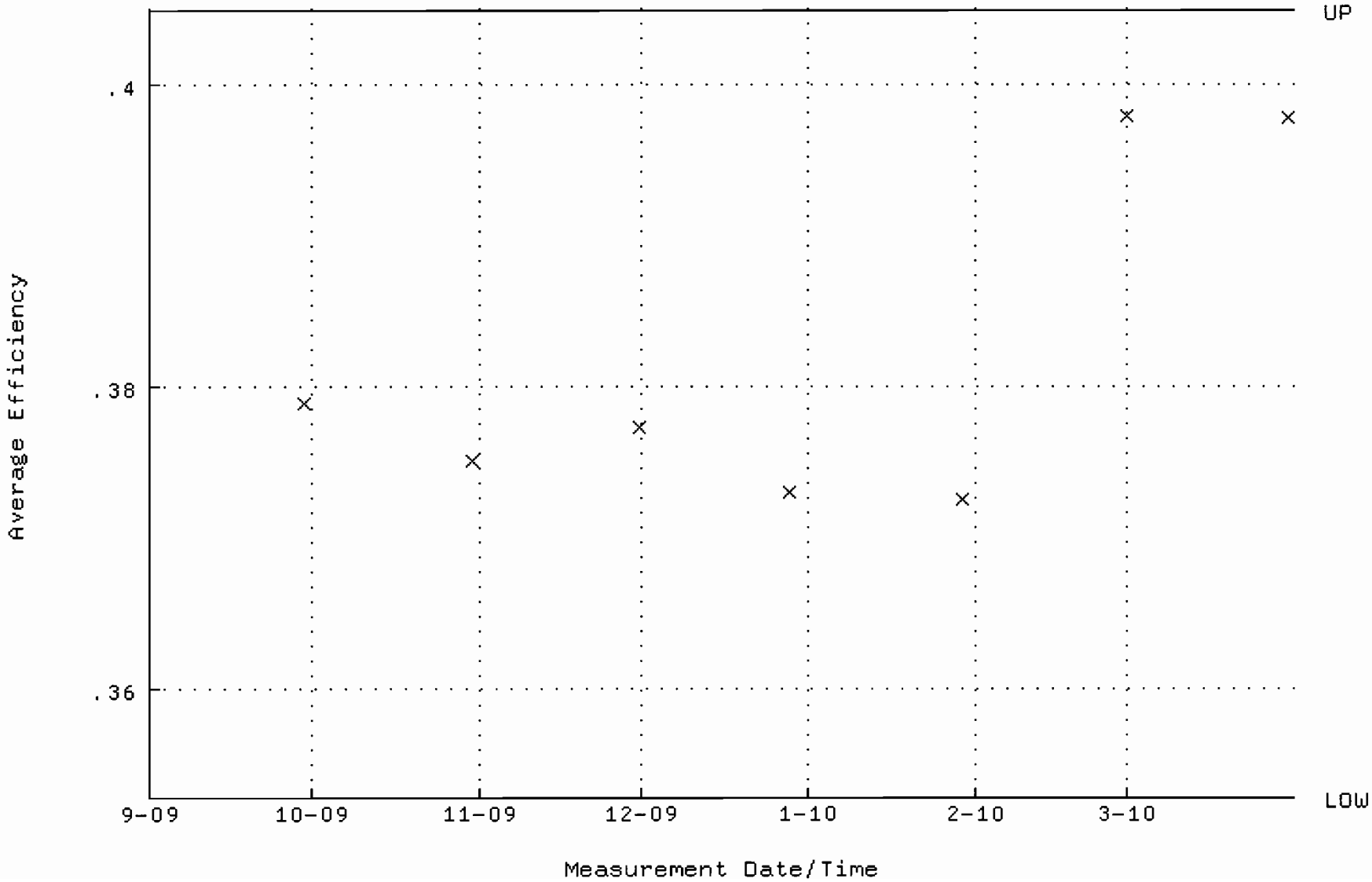

QA filename : DKA100:[ENV_ALPHA.QA.W]W247.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:55 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.8318 through 94.4164

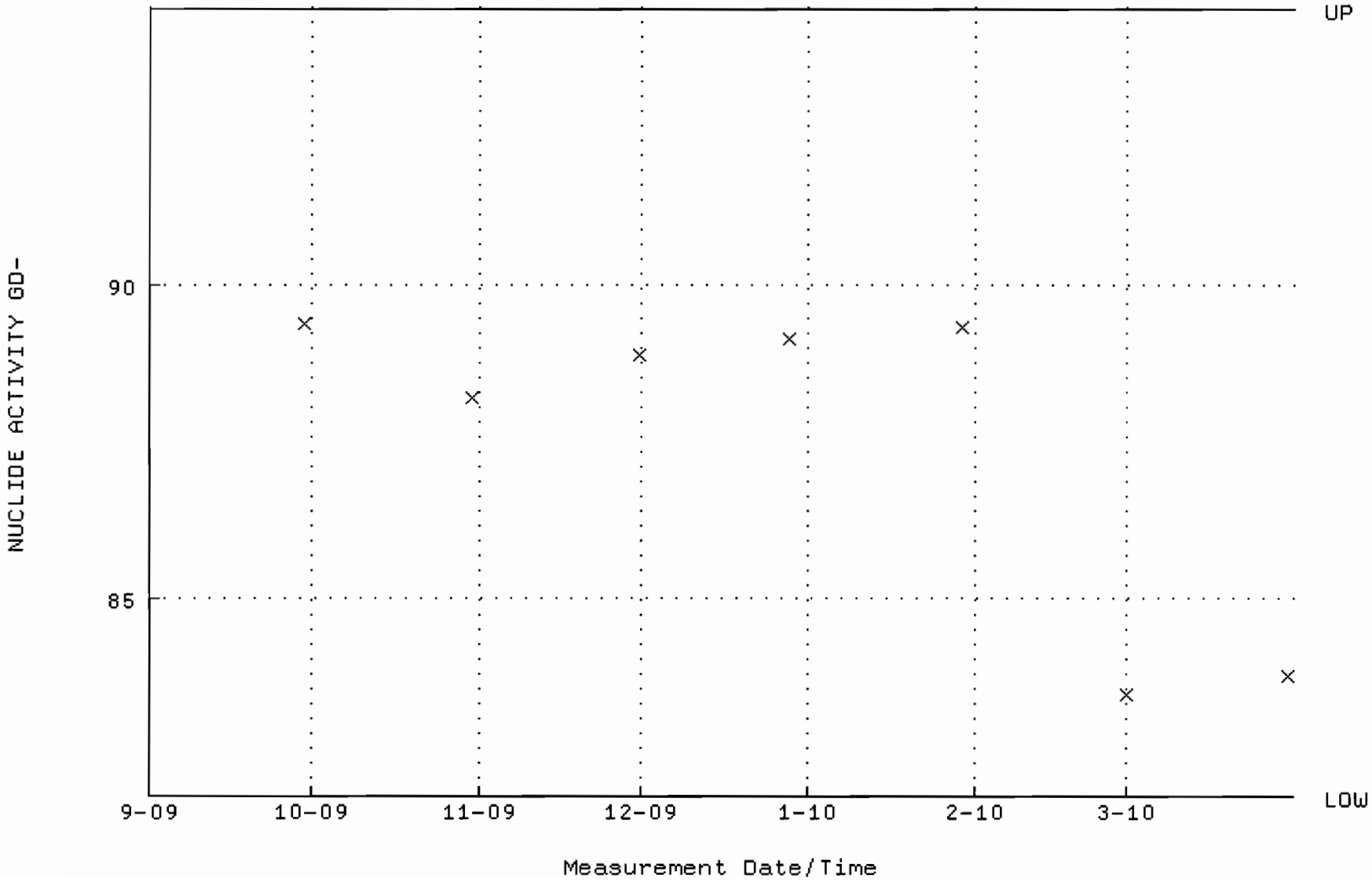

QA filename : DKA100:[ENV_ALPHA.QA.B]B247.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:16 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

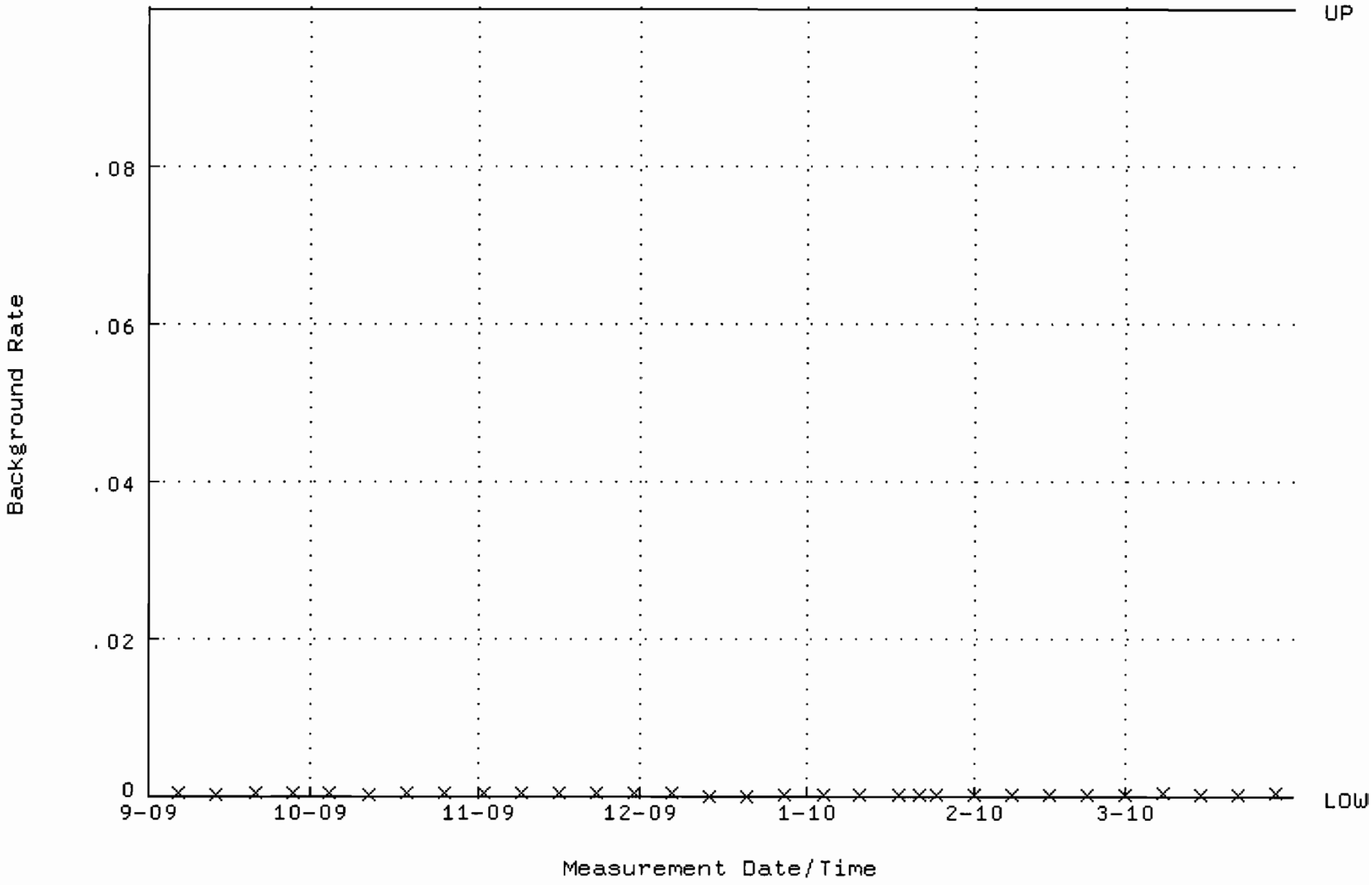

QA filename : DKA100:[ENV_ALPHA.QA.W]W248.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:40:01 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.376481 through 0.408807

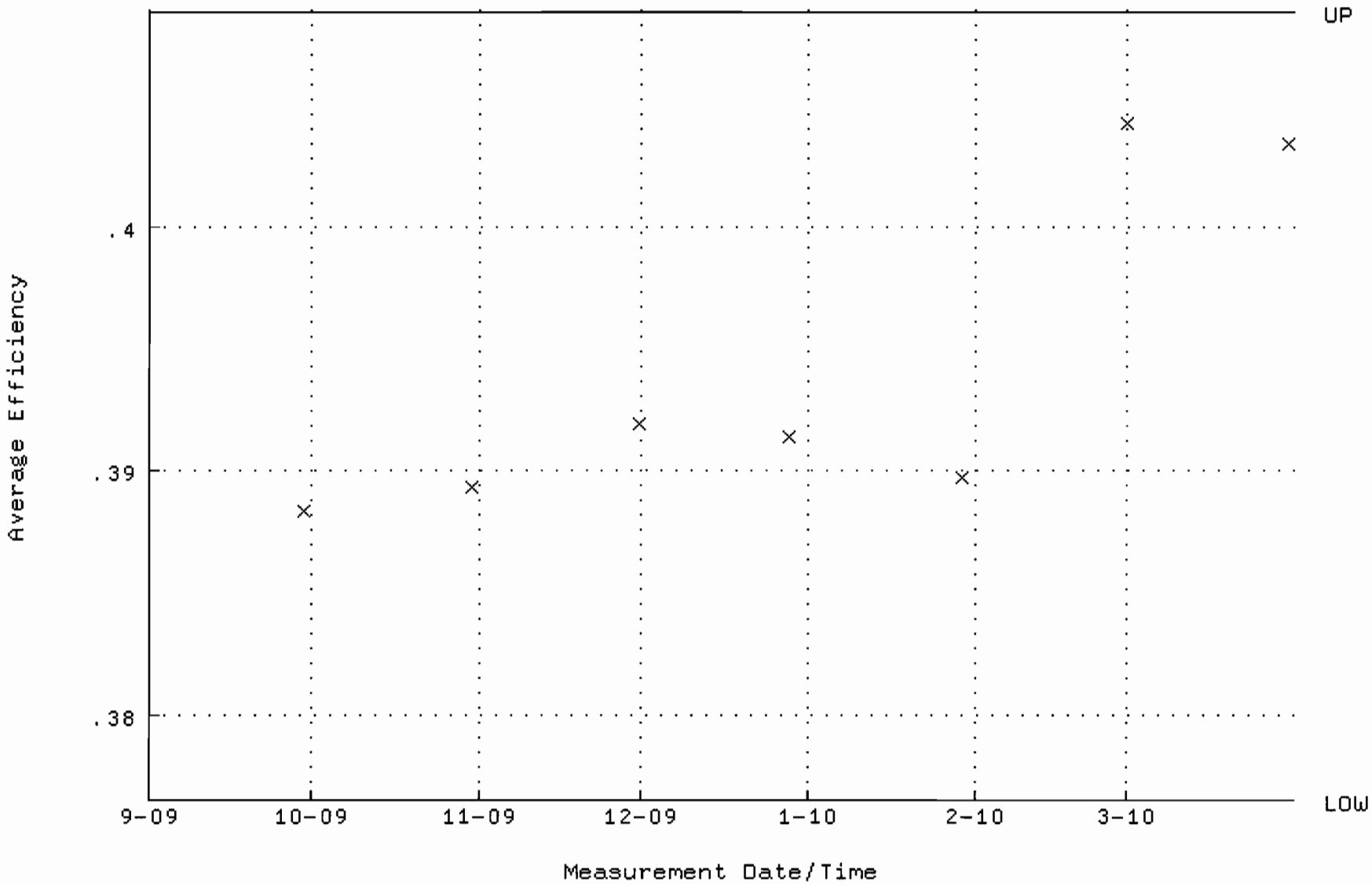

QA filename : DKA100:[ENV_ALPHA.QA.W]W248.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:40:01 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.4745 through 90.2275

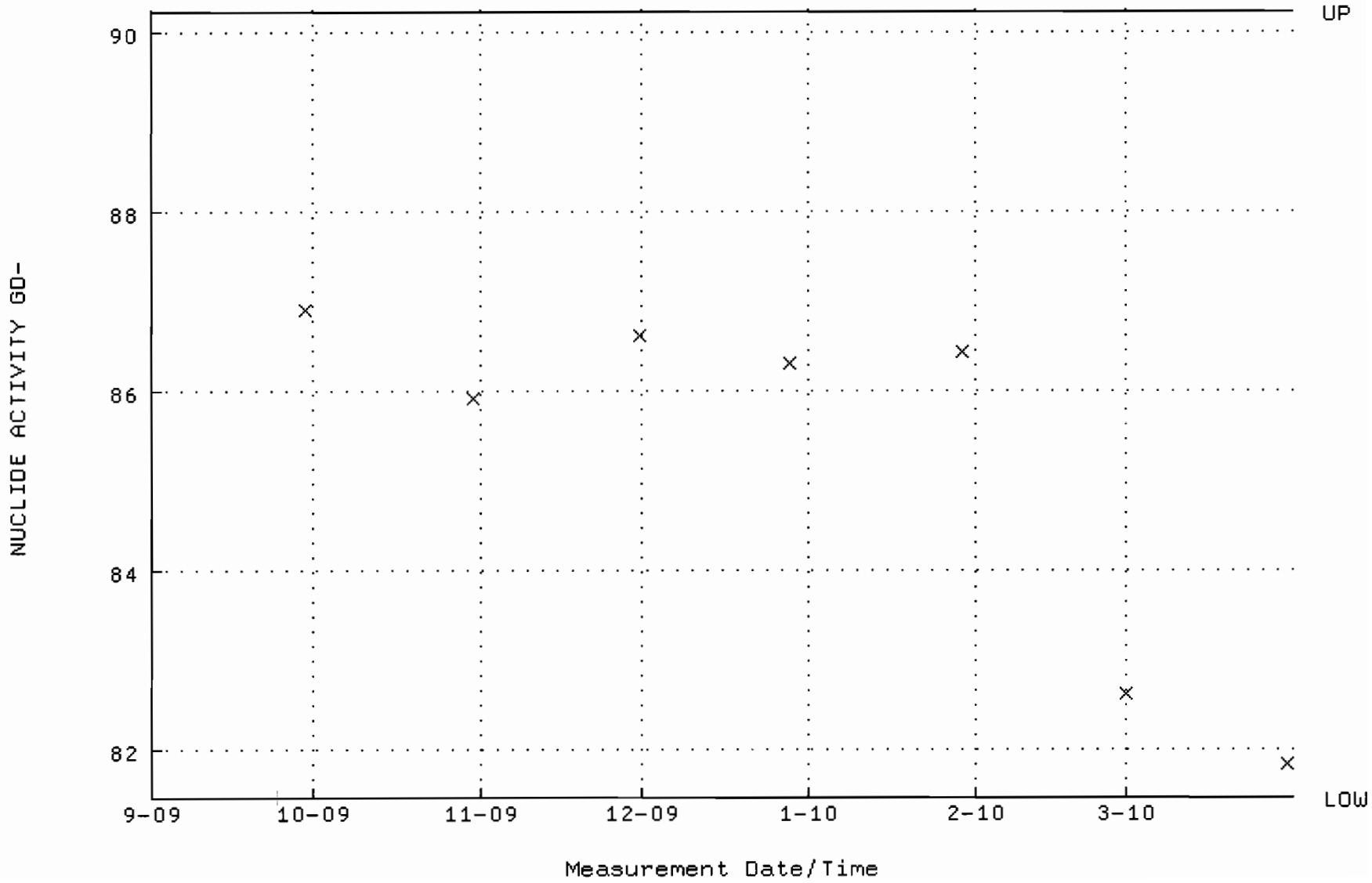

QA filename : DKA100:[ENV_ALPHA.QA.B]B248.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:21 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

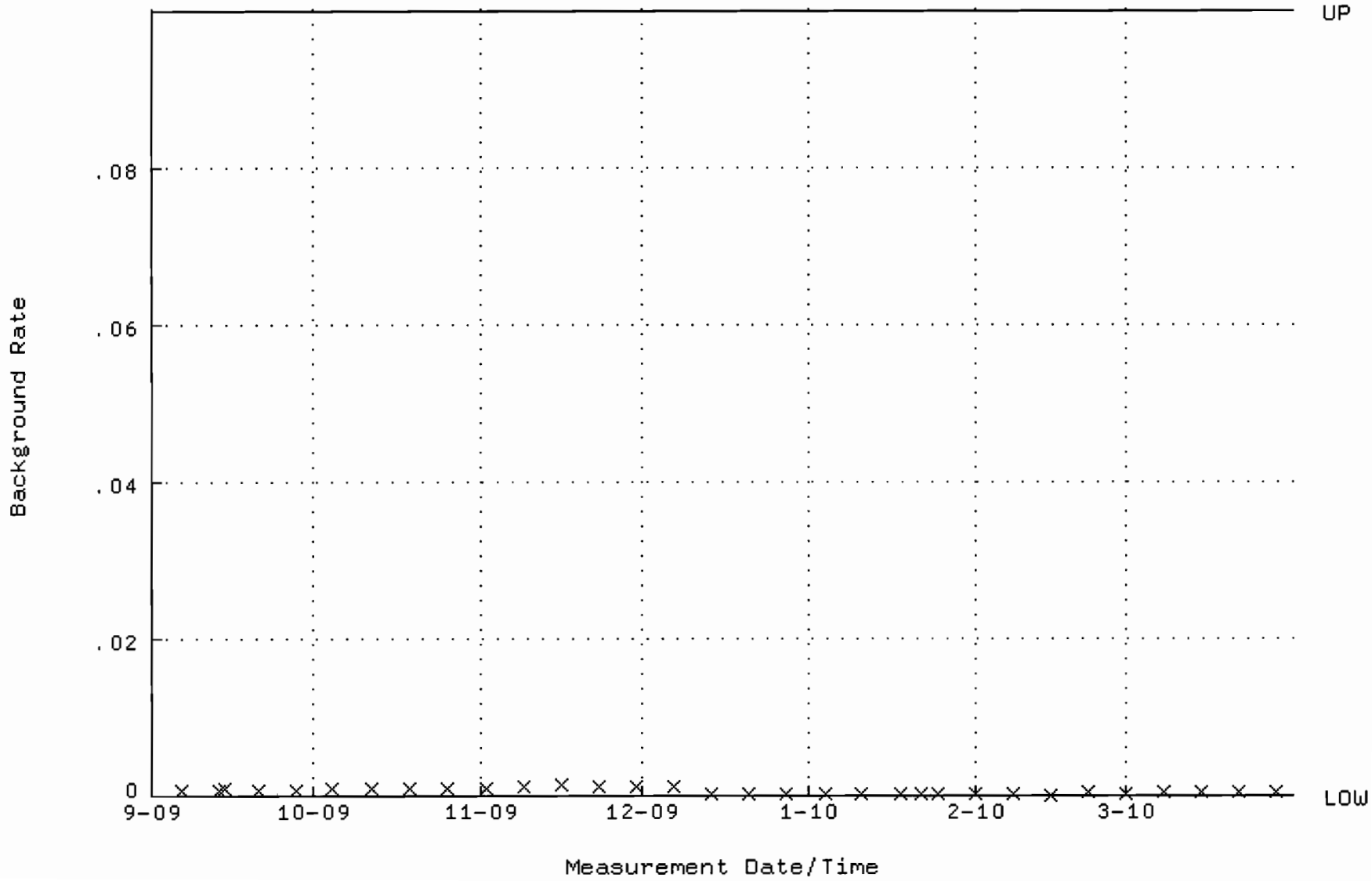

QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:40:43 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.355610 through 0.410626

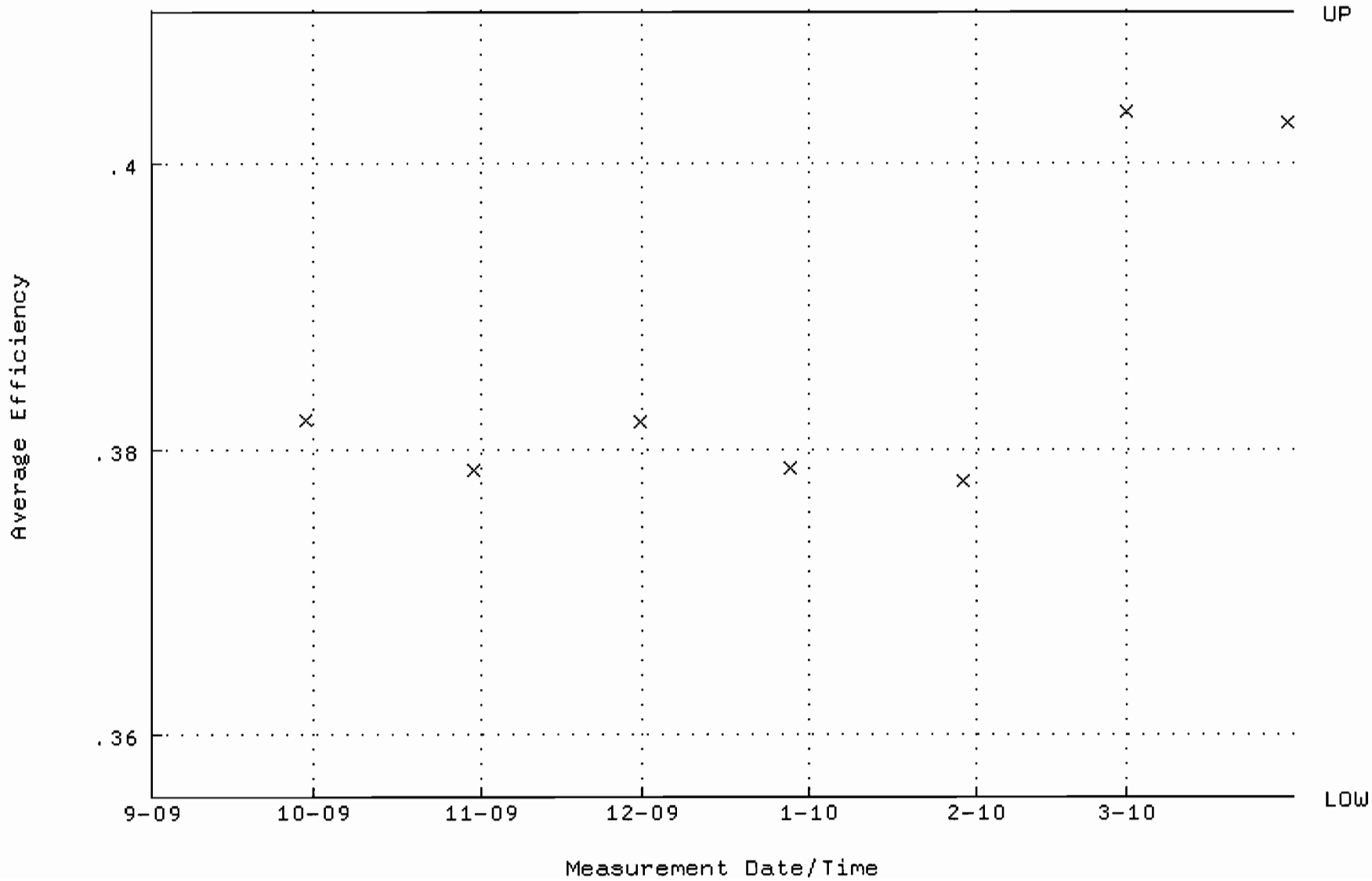

QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:40:43 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 78.3575 through 89.6335

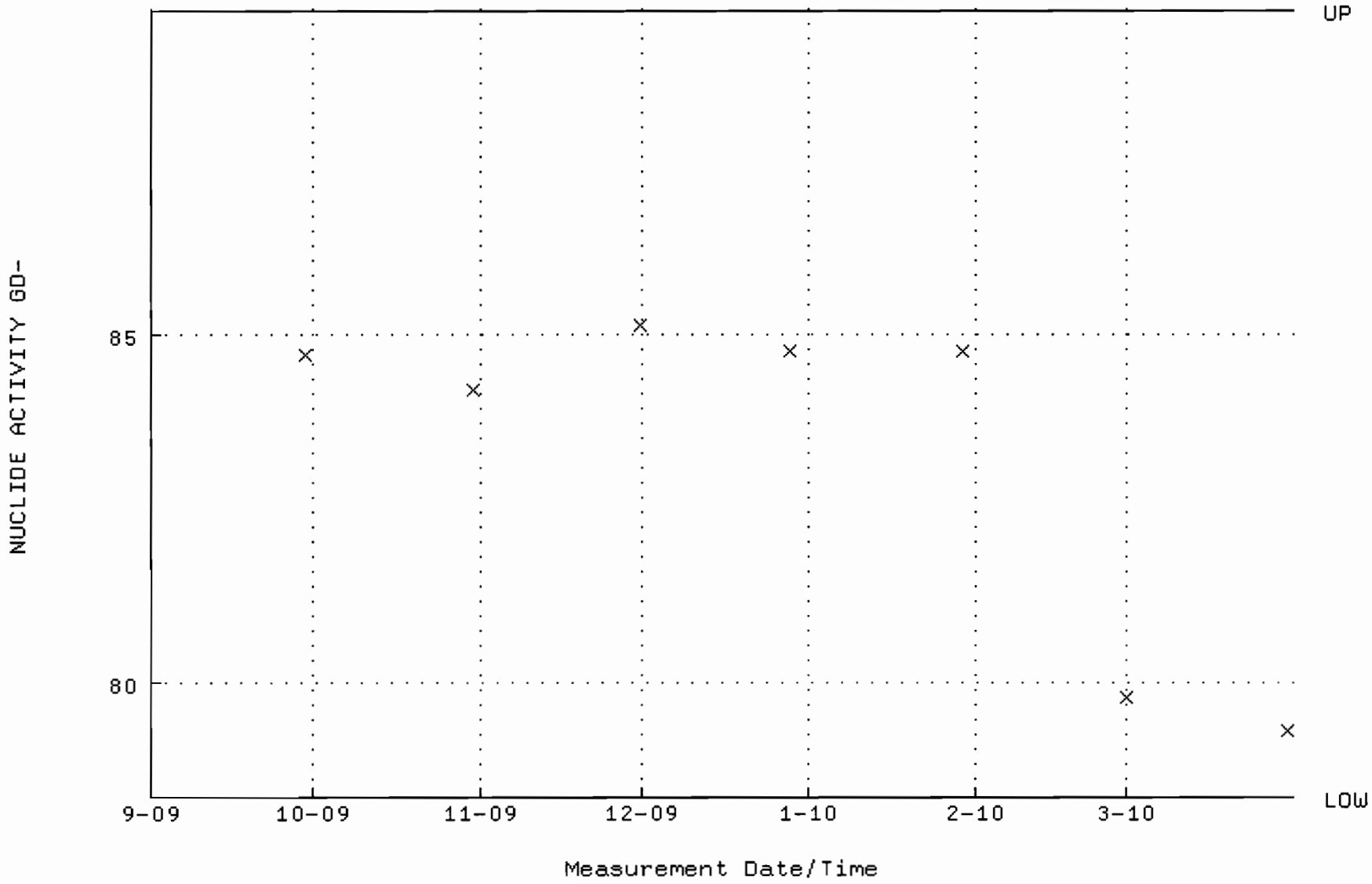

QA filename : DKA100:[ENV_ALPHA.QA.B]B256.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:59 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

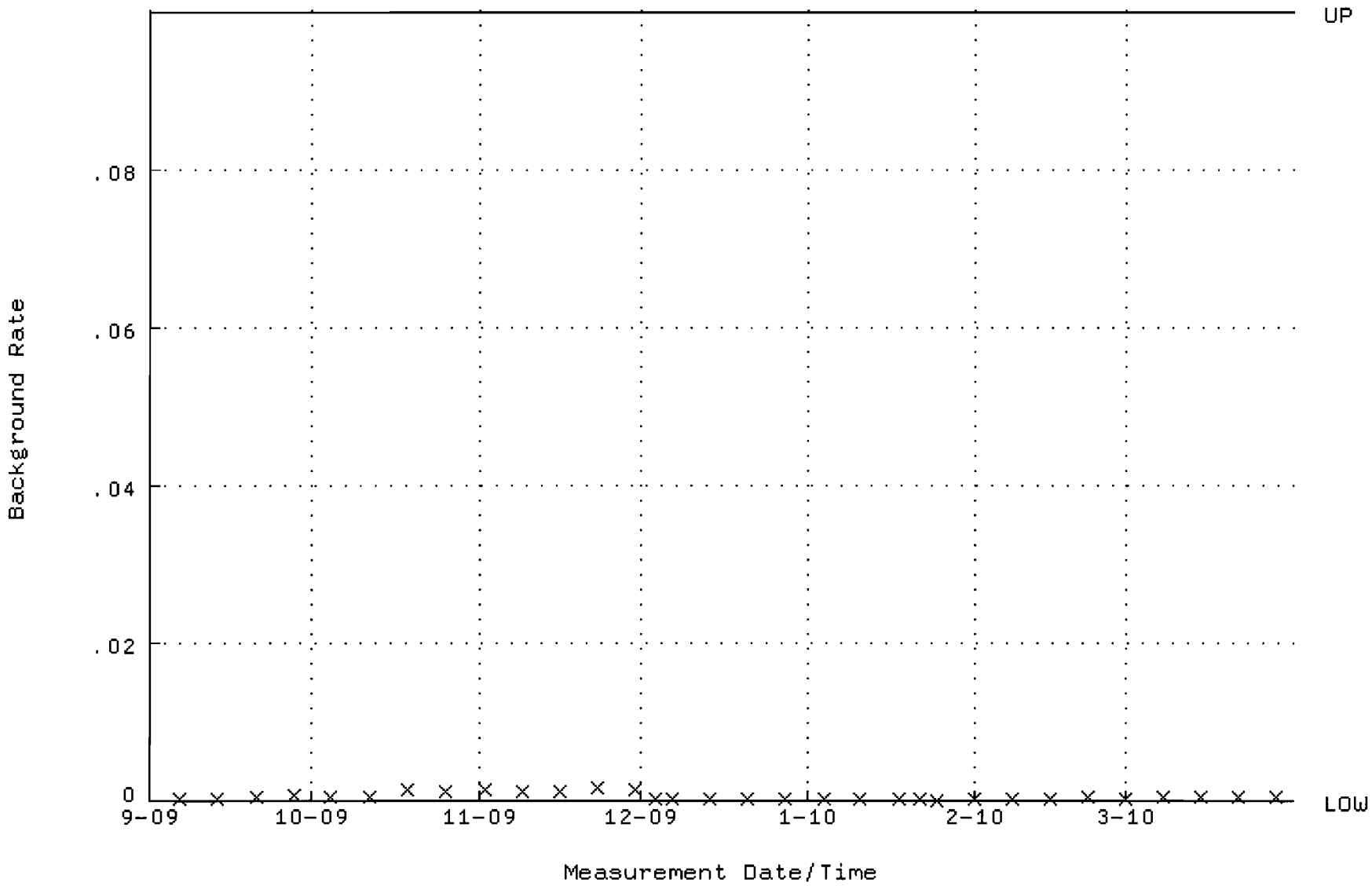

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM02_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:40:02 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

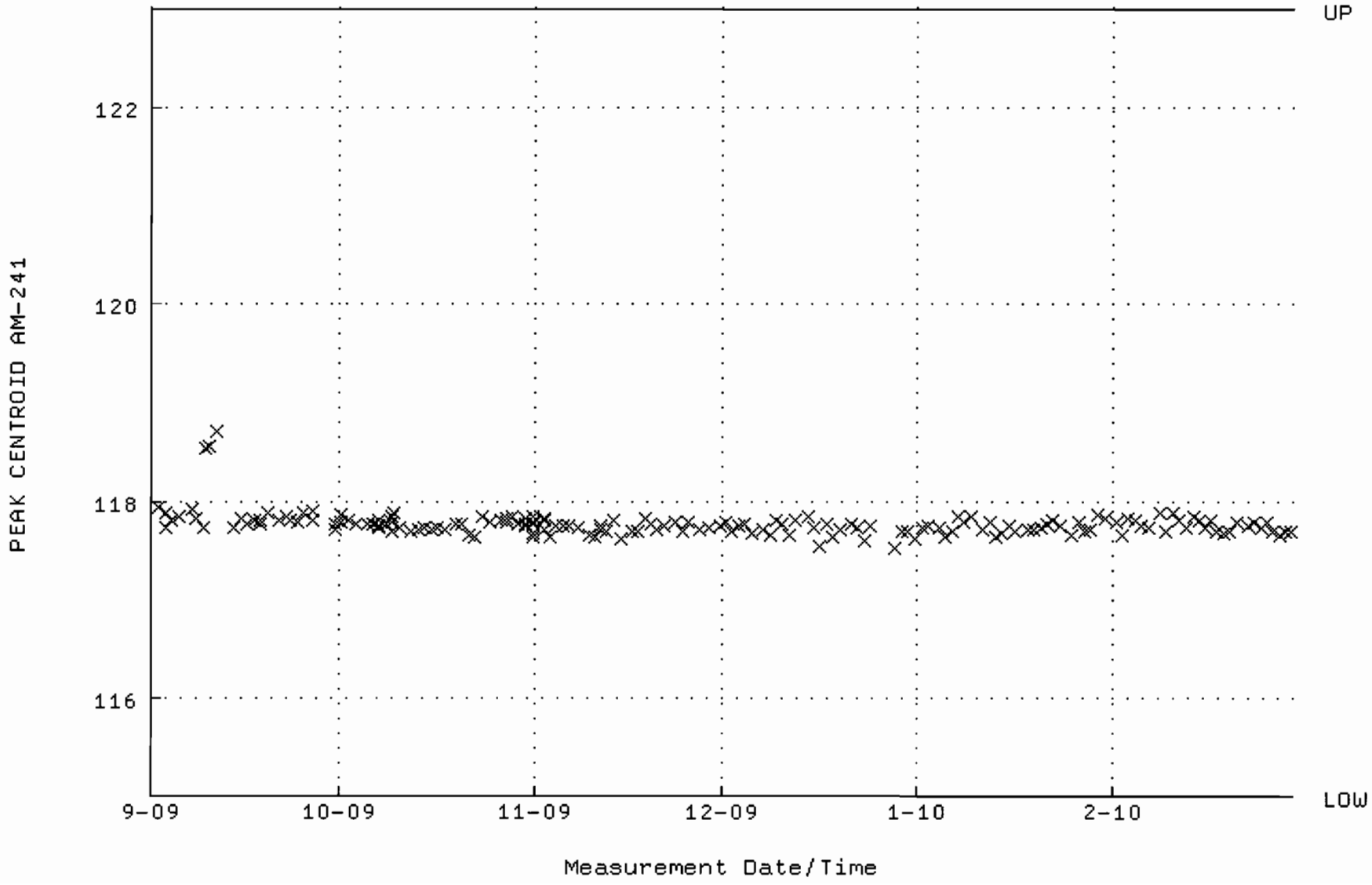

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM02.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:37:17 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 2.00226 +- 2.139827E-02 (1.07 %)

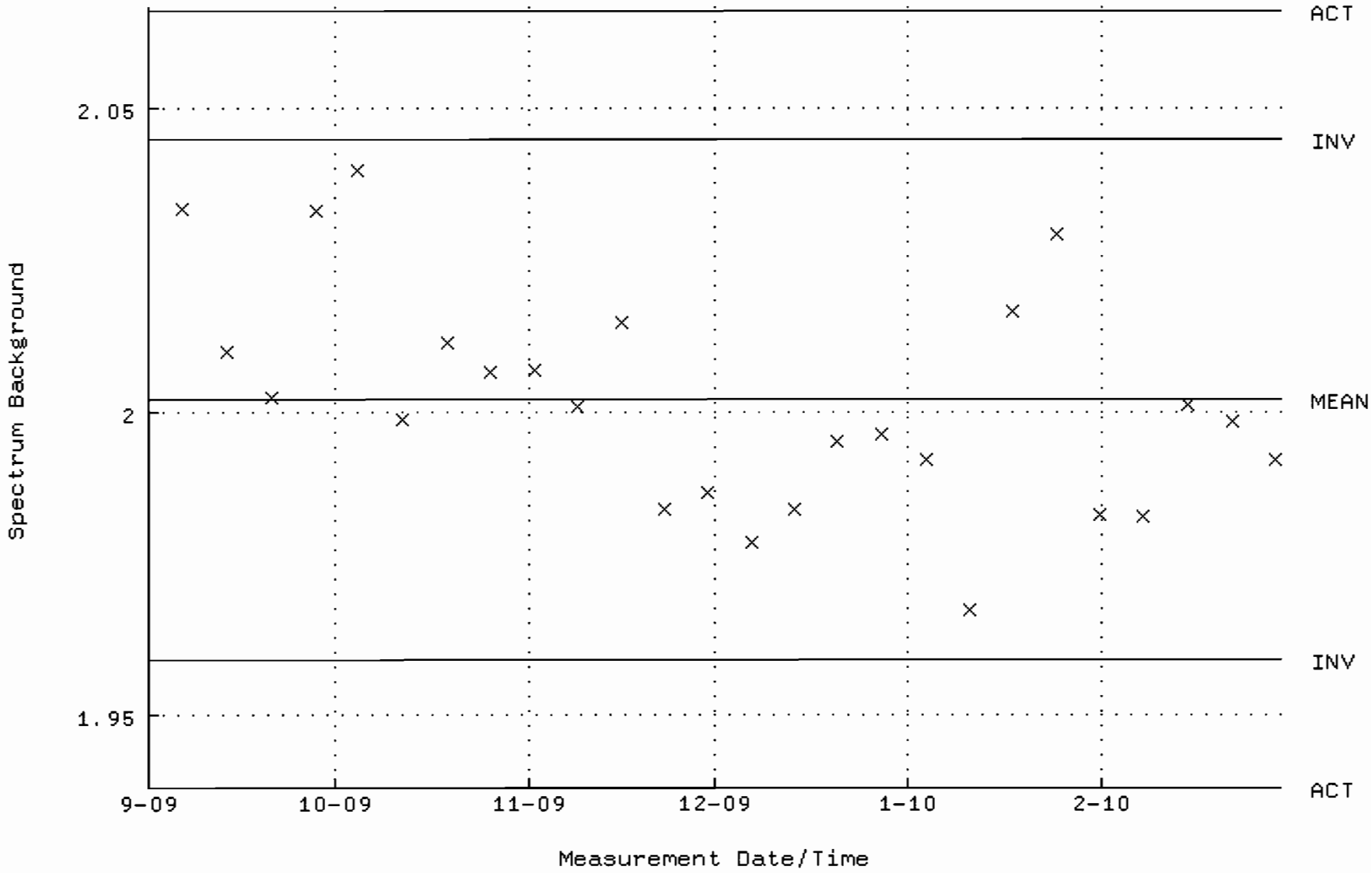

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM04_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 05:22:58 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

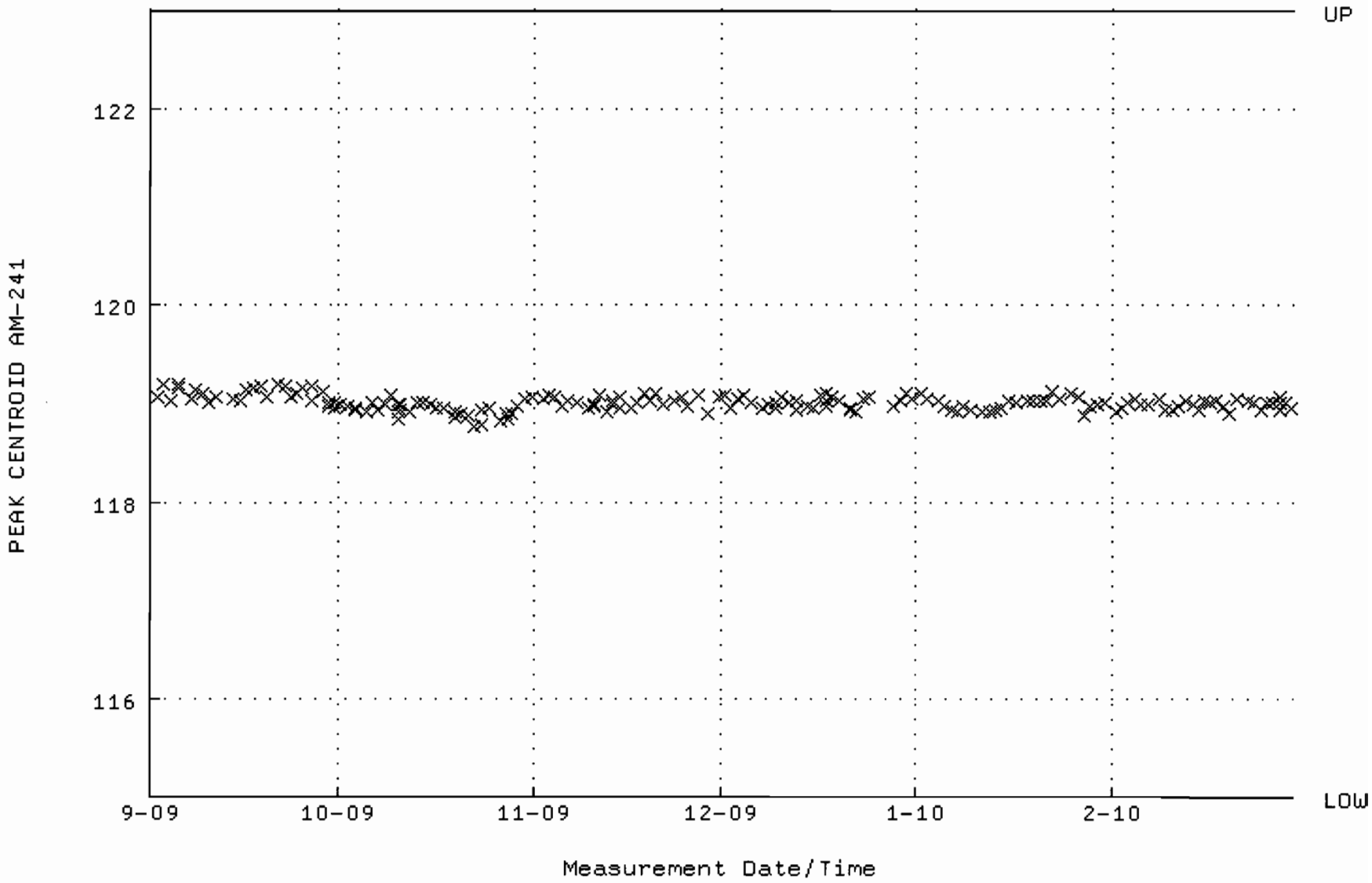

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM04.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:38:33 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.32050 +- 2.495234E-02 (1.89 %)

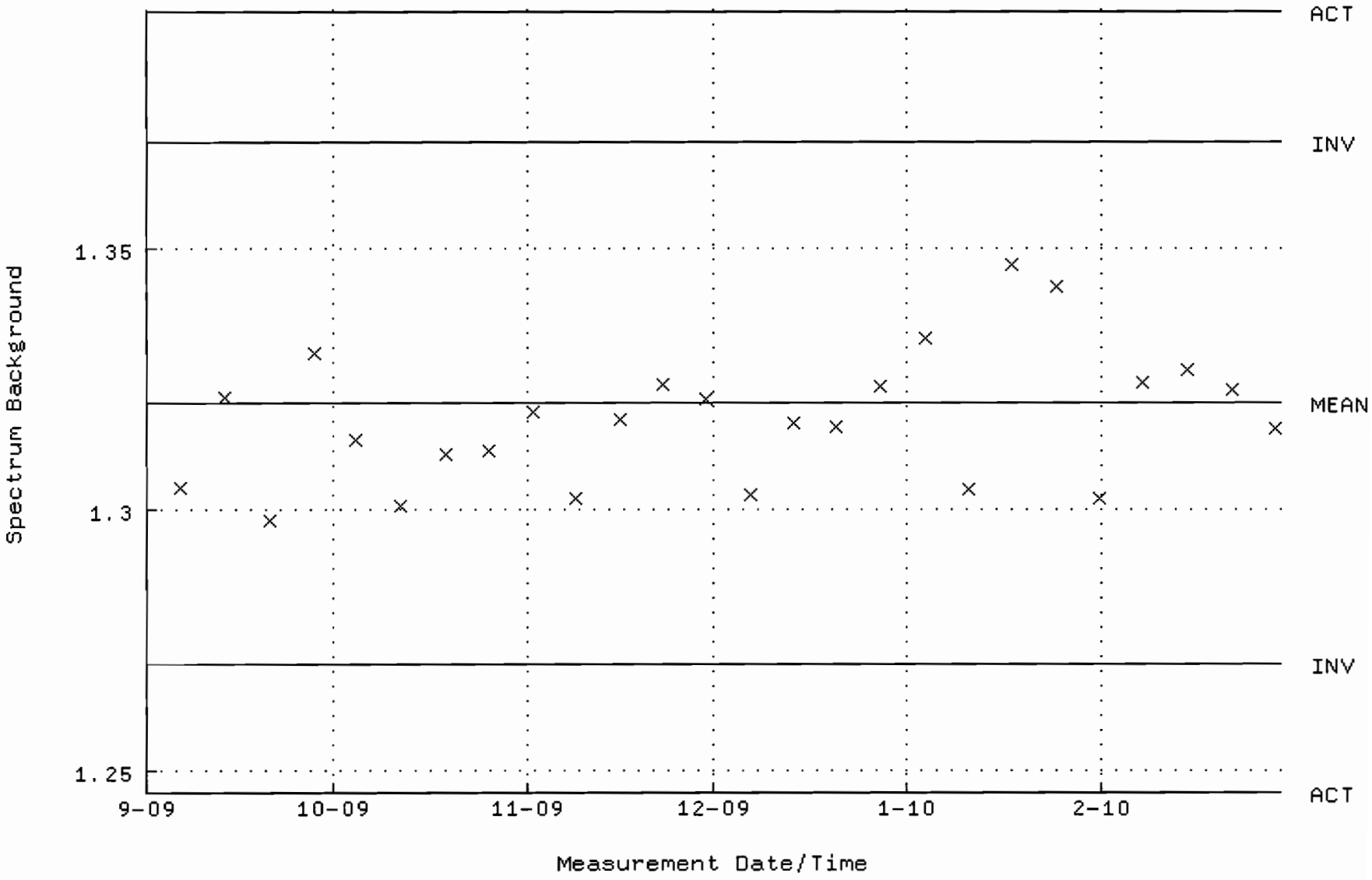

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM05_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-SEP-2009 14:54:46 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

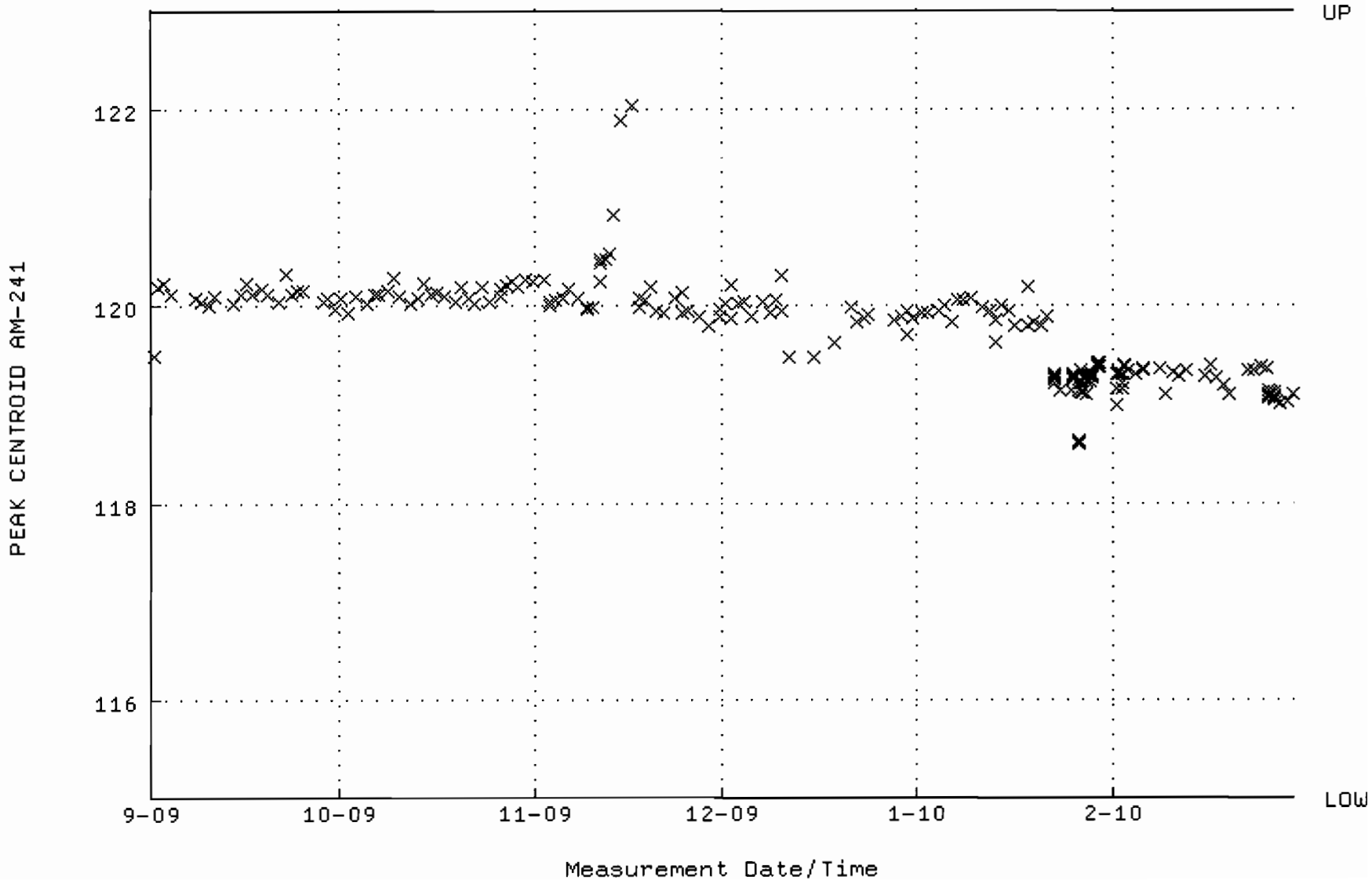

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM05.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:39:04 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.64719 +- 2.547087E-02 (1.55 %)

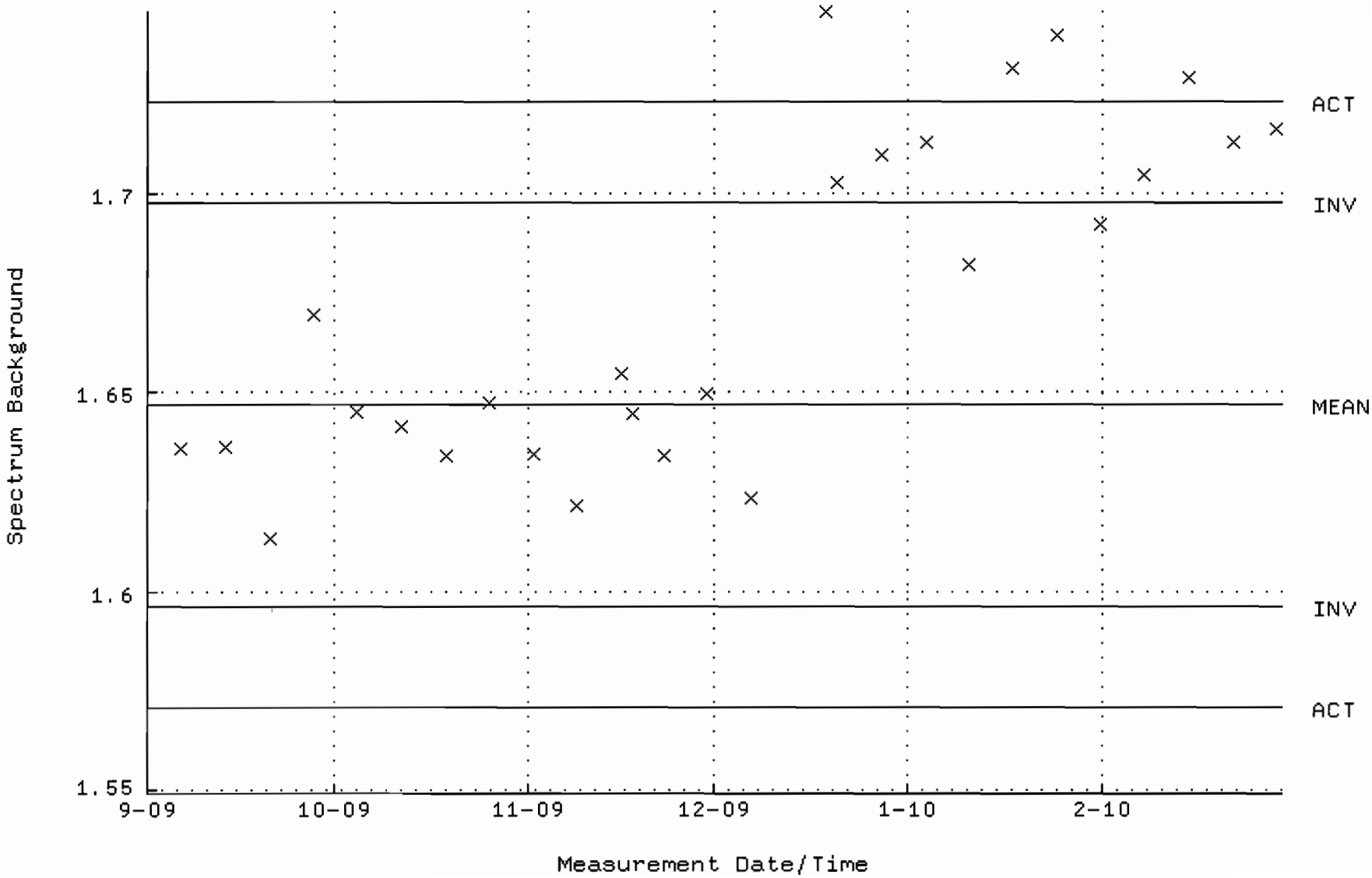

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM06_500MLMB.QAF;1
Parameter Name : PSCENTRO-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:40:19 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

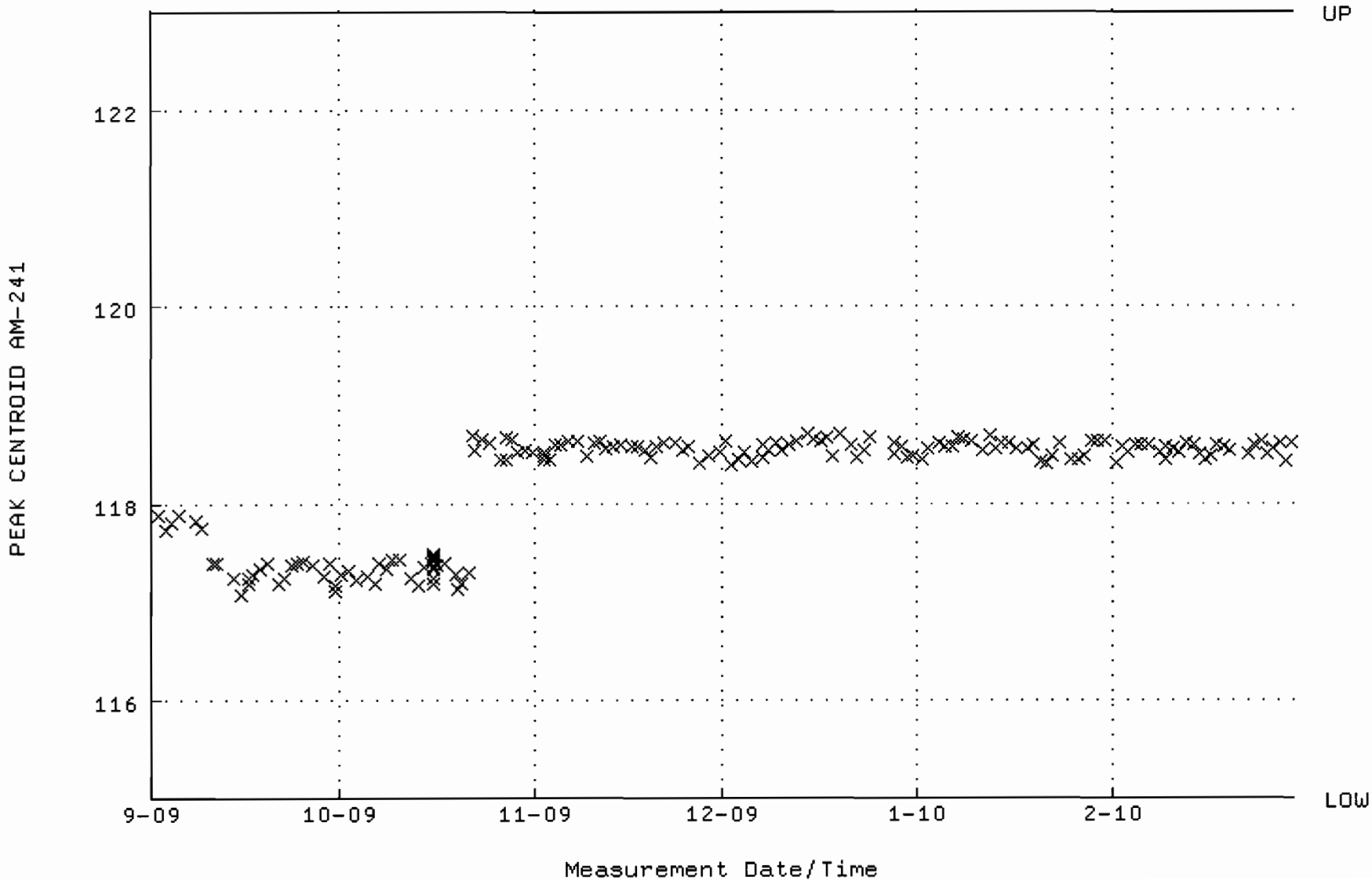

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM06.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:39:28 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.52603 +- 1.215987E-02 (0.80 %)

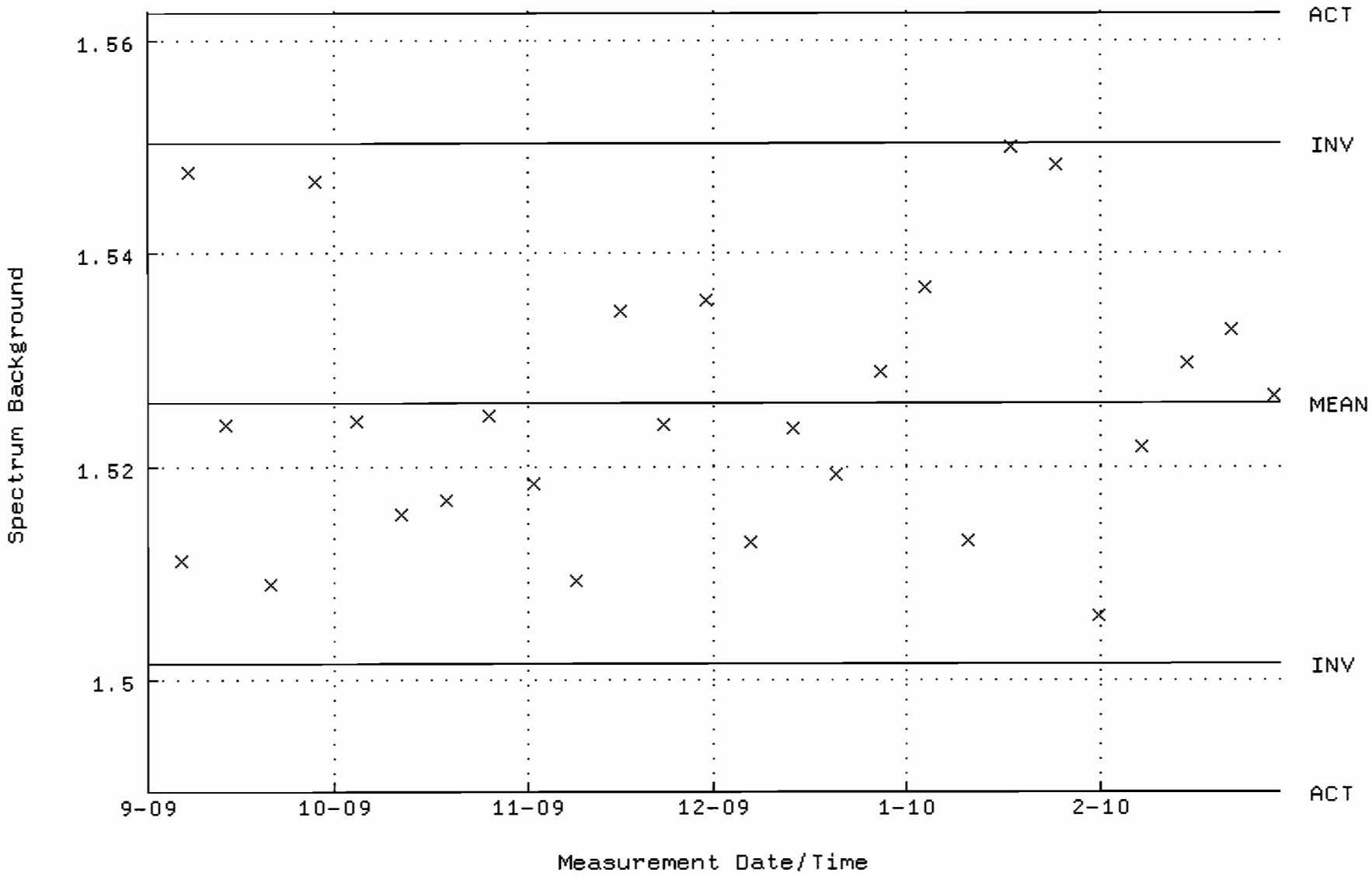

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM07_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:09:02 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

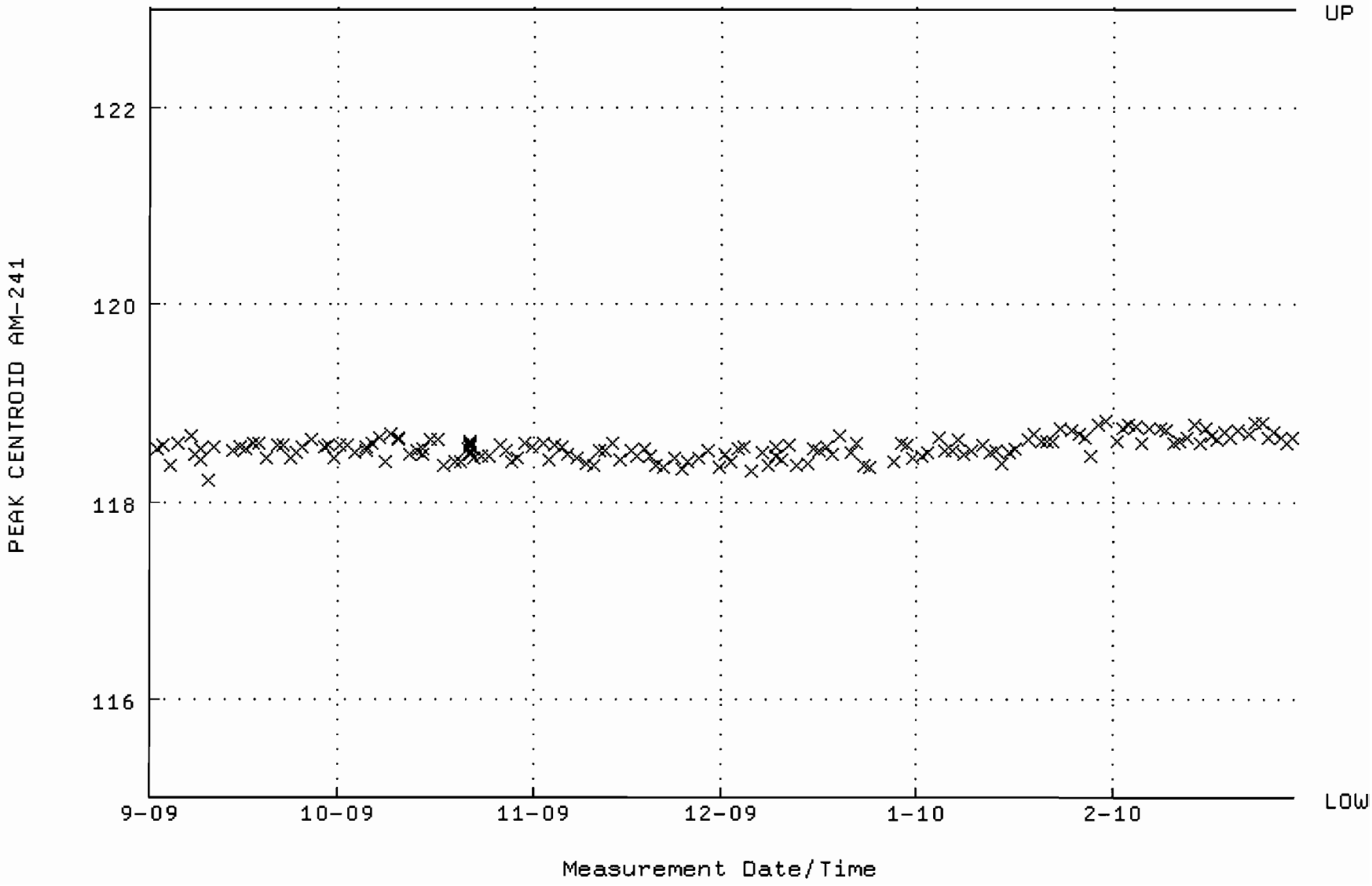

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM07.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:39:54 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.51715 +- 2.726376E-02 (1.80 %)

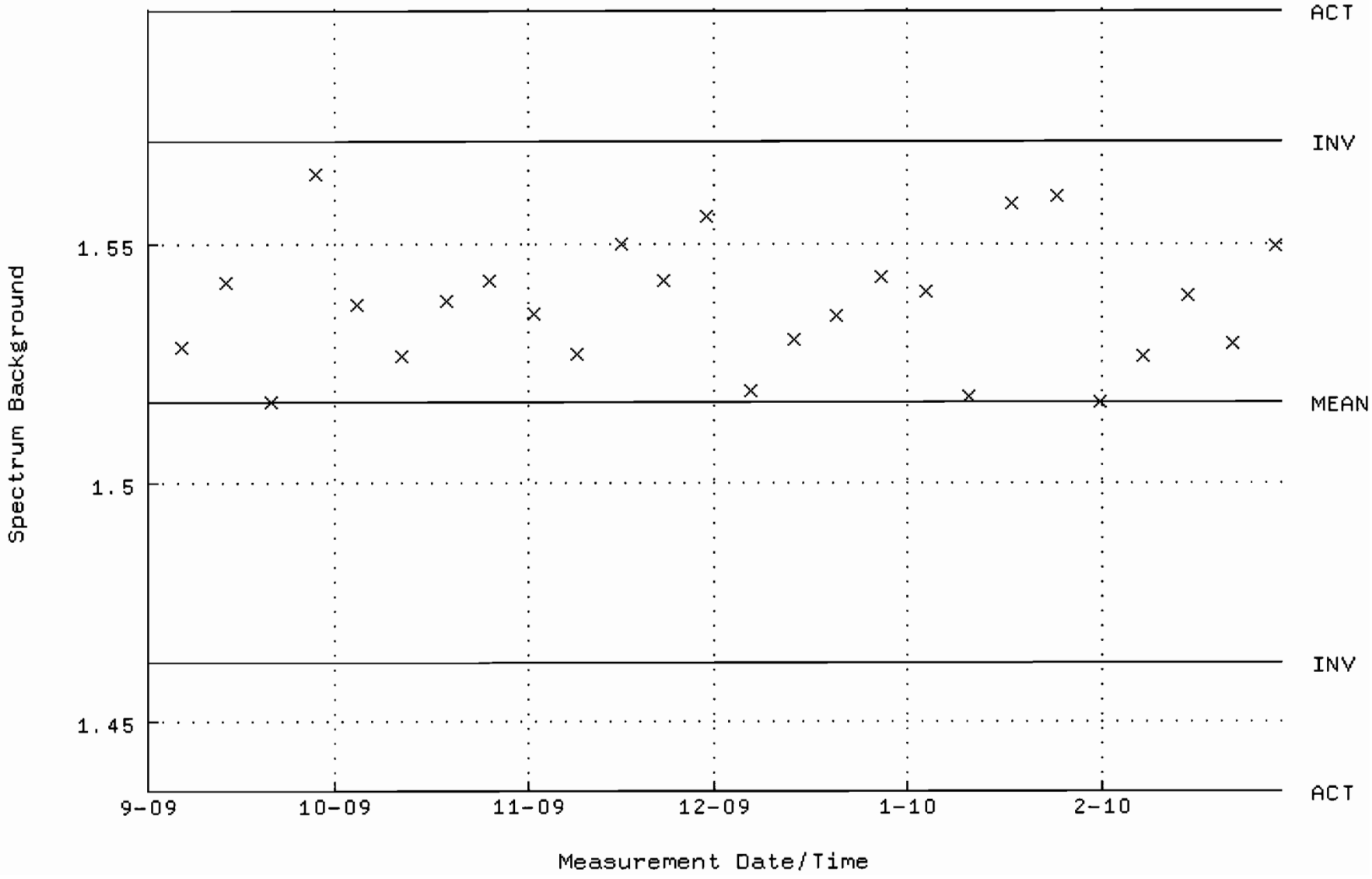

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:32:23 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

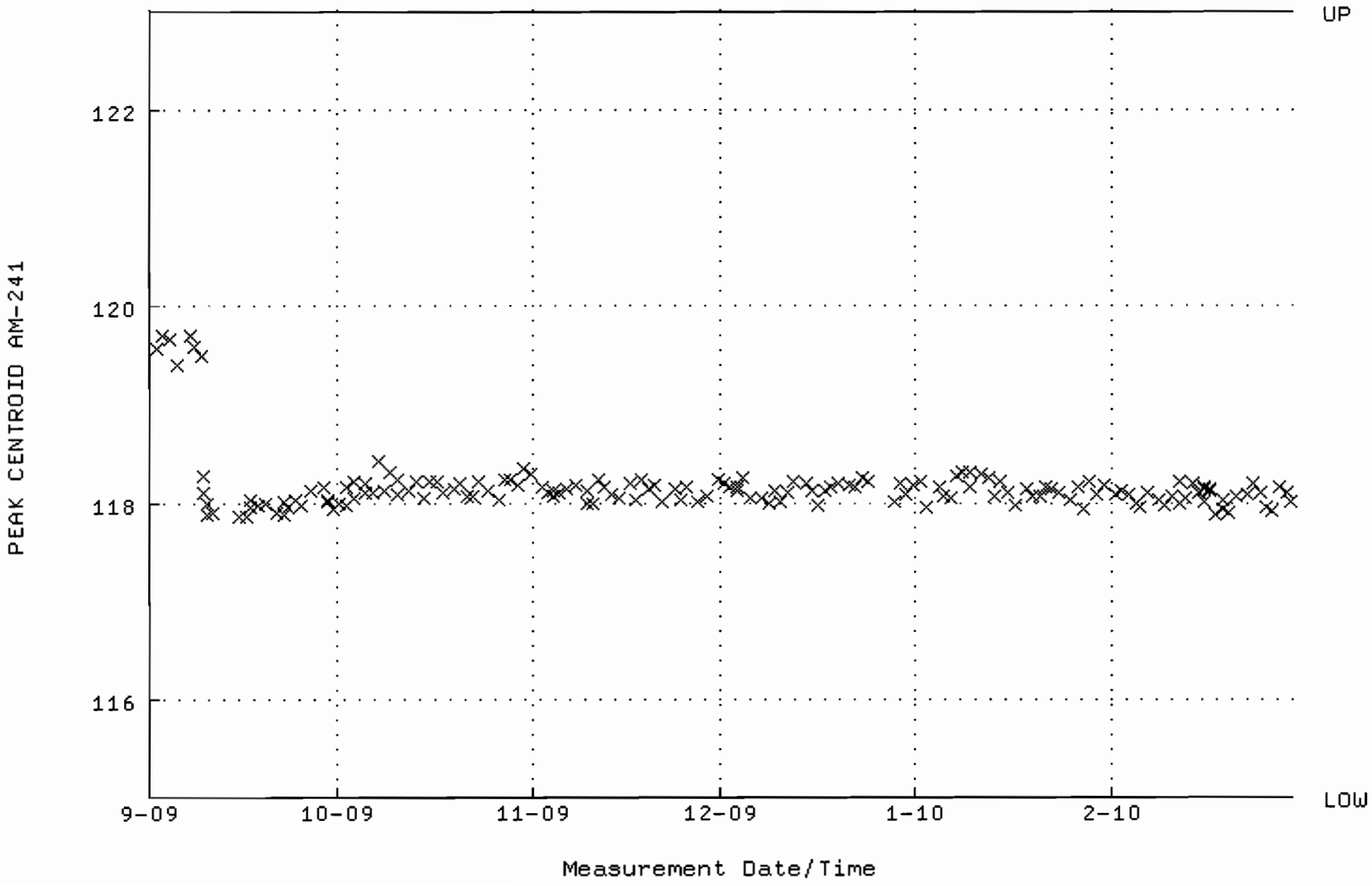

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:43:44 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)

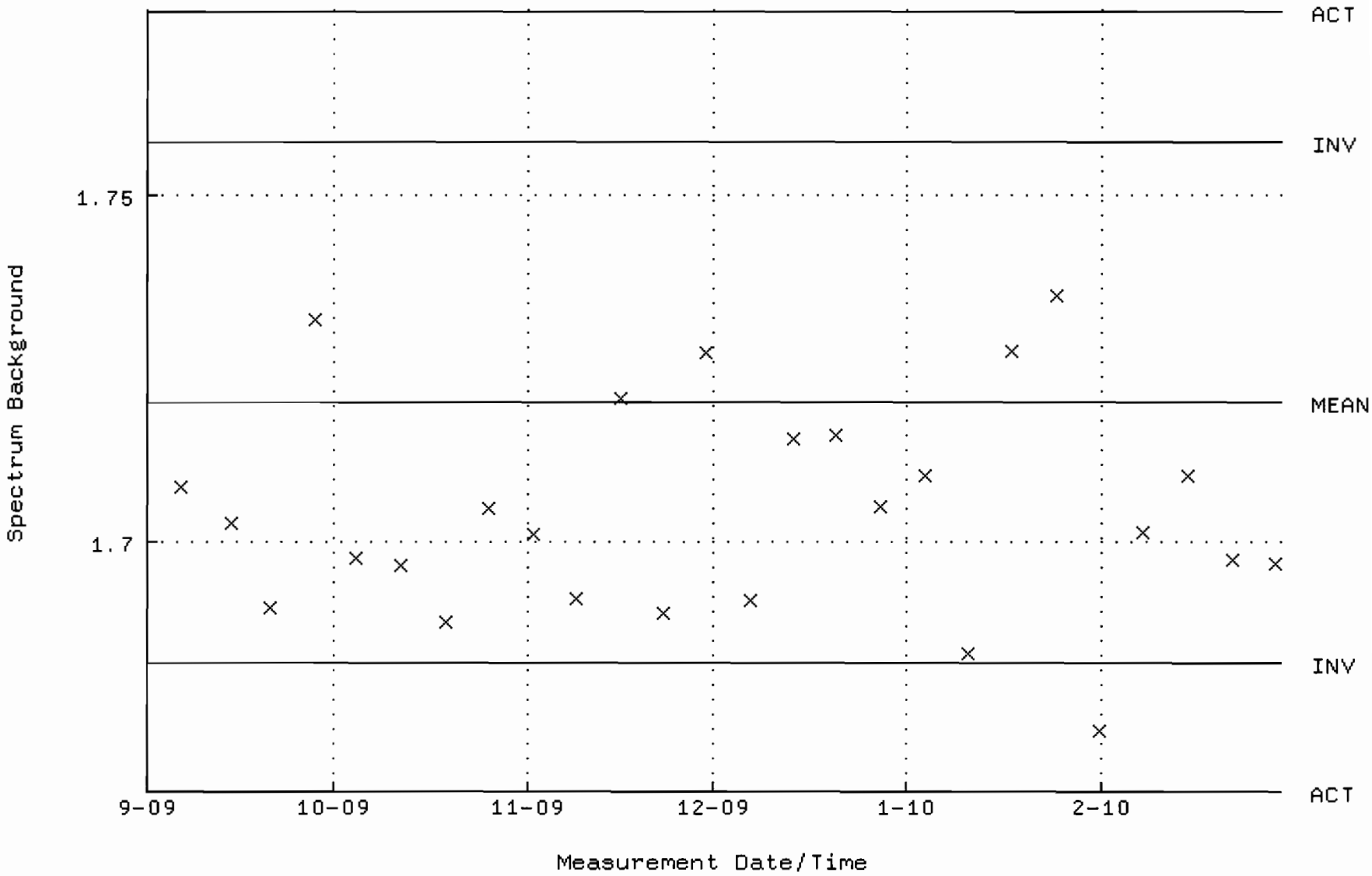

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:13:07 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

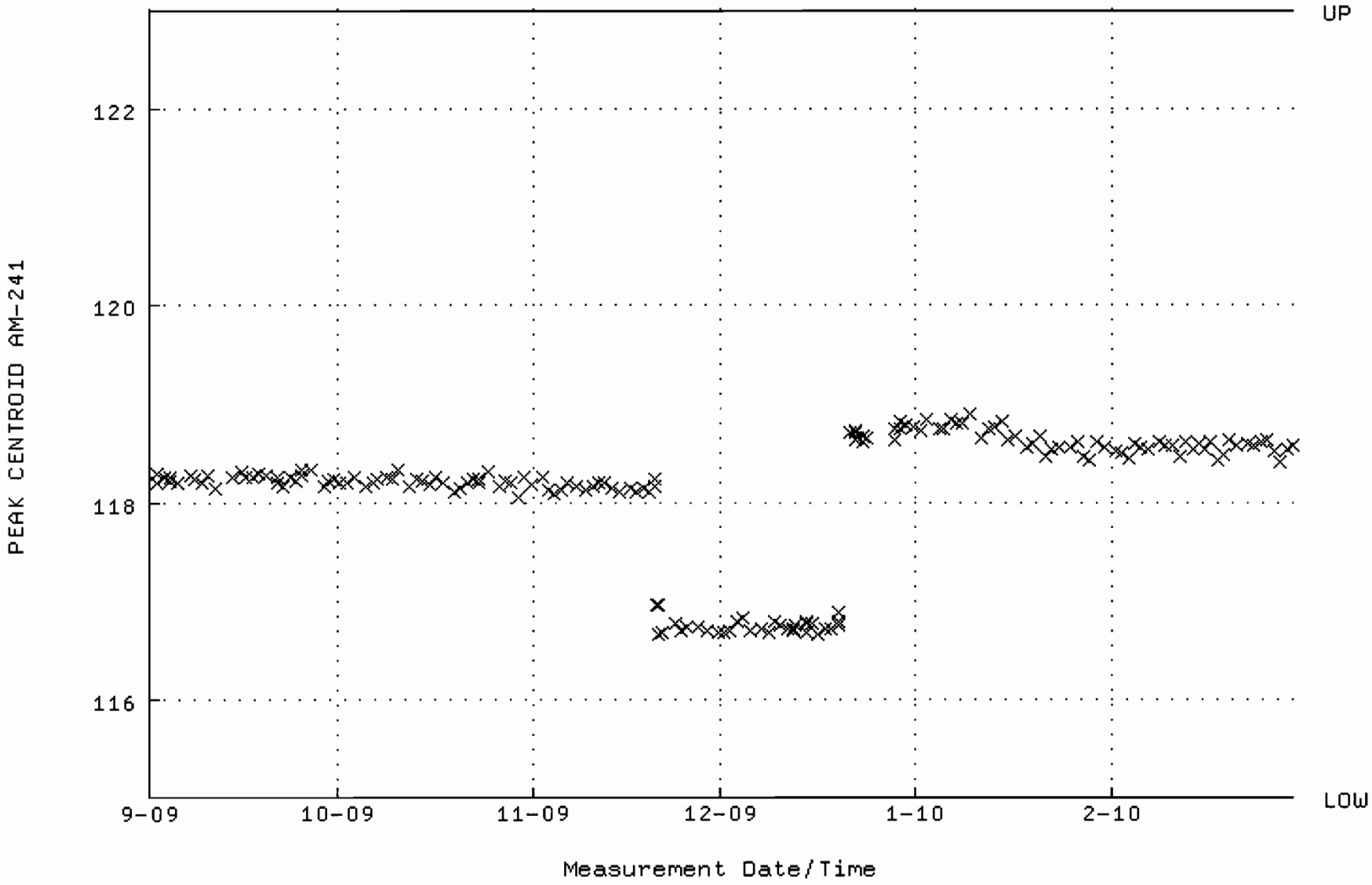

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM18.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:45:03 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)

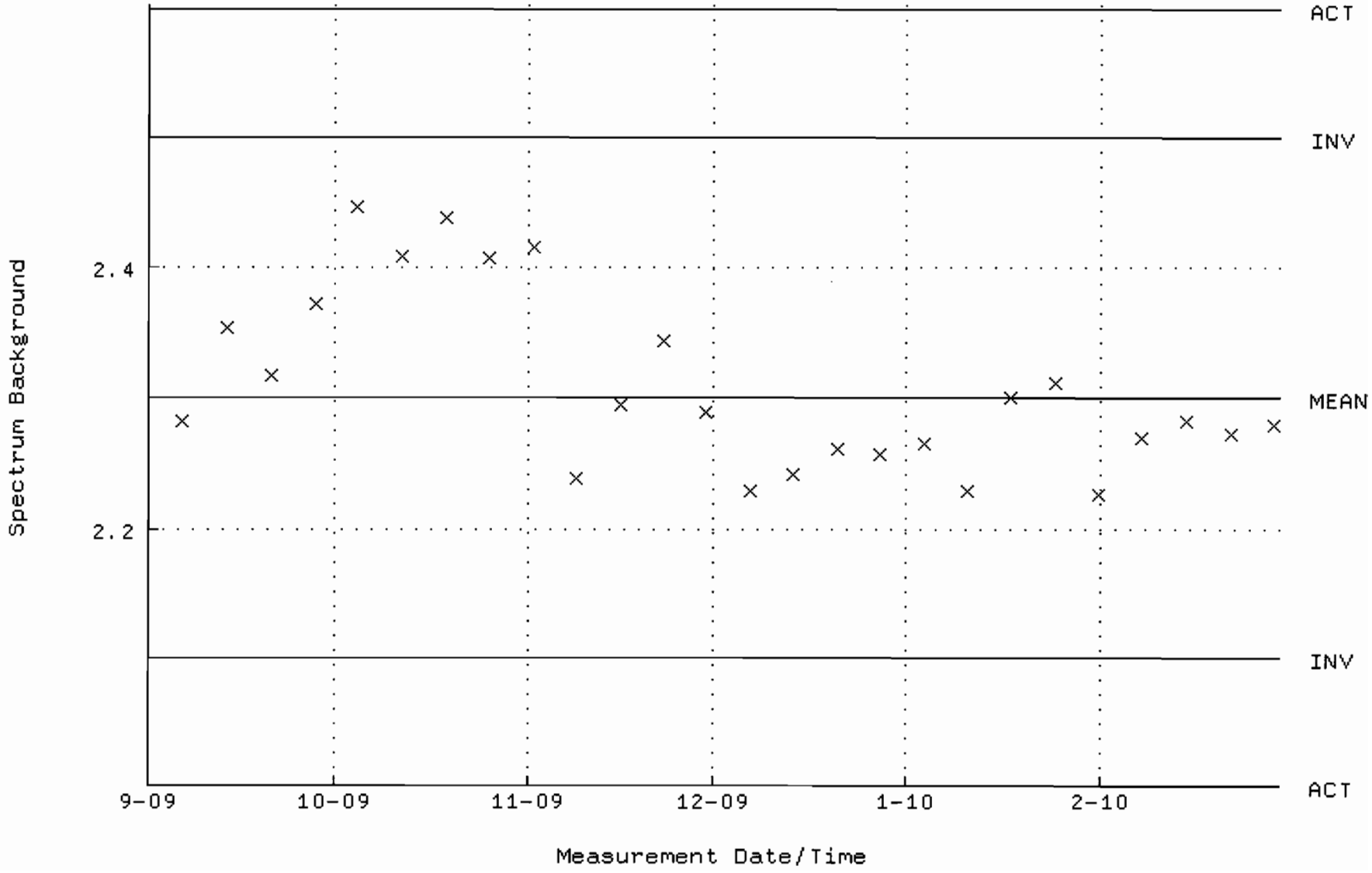

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM20_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:53:11 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

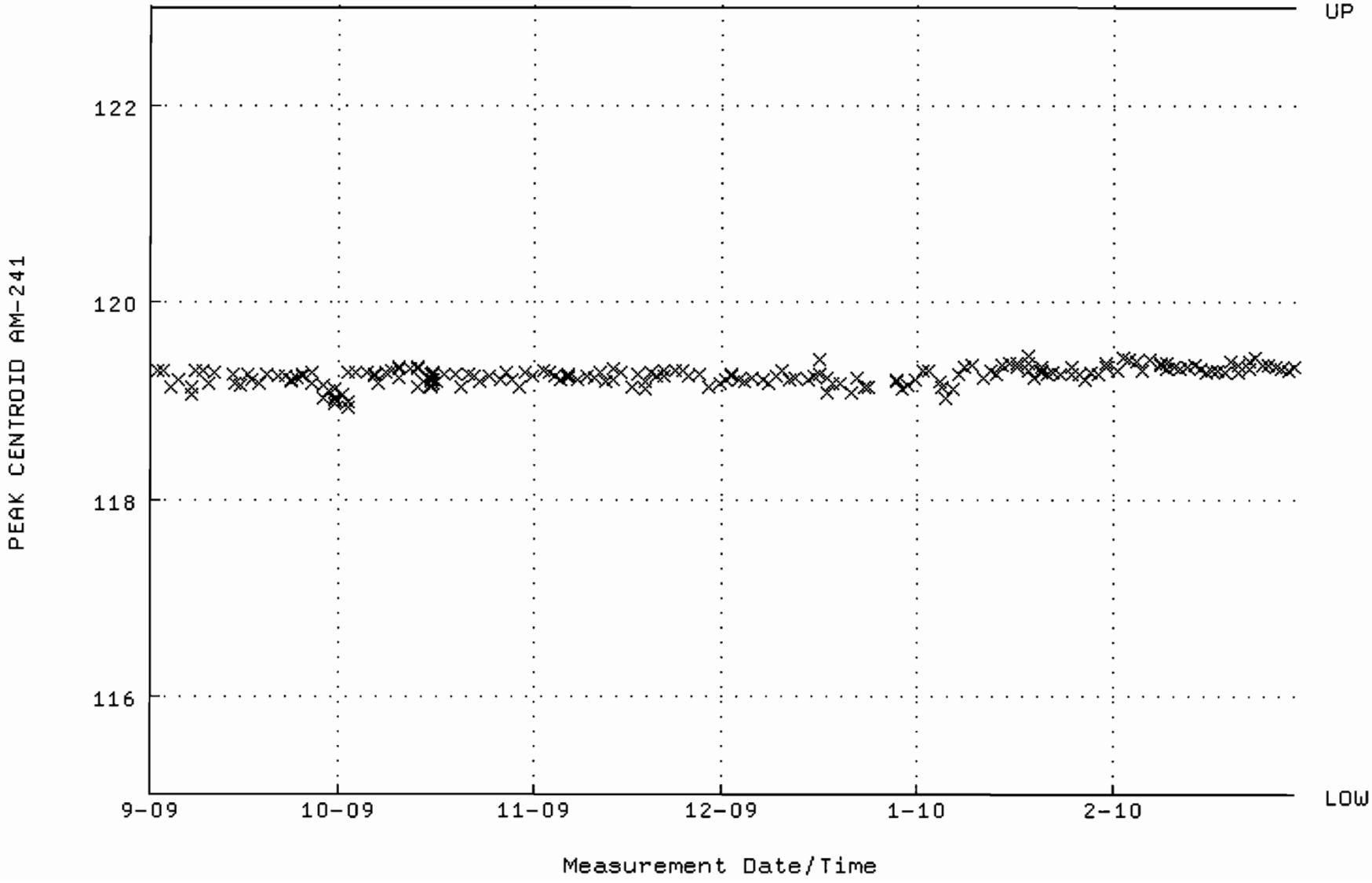

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM20.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:46:04 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.48527 +- 2.388665E-02 (1.61 %)

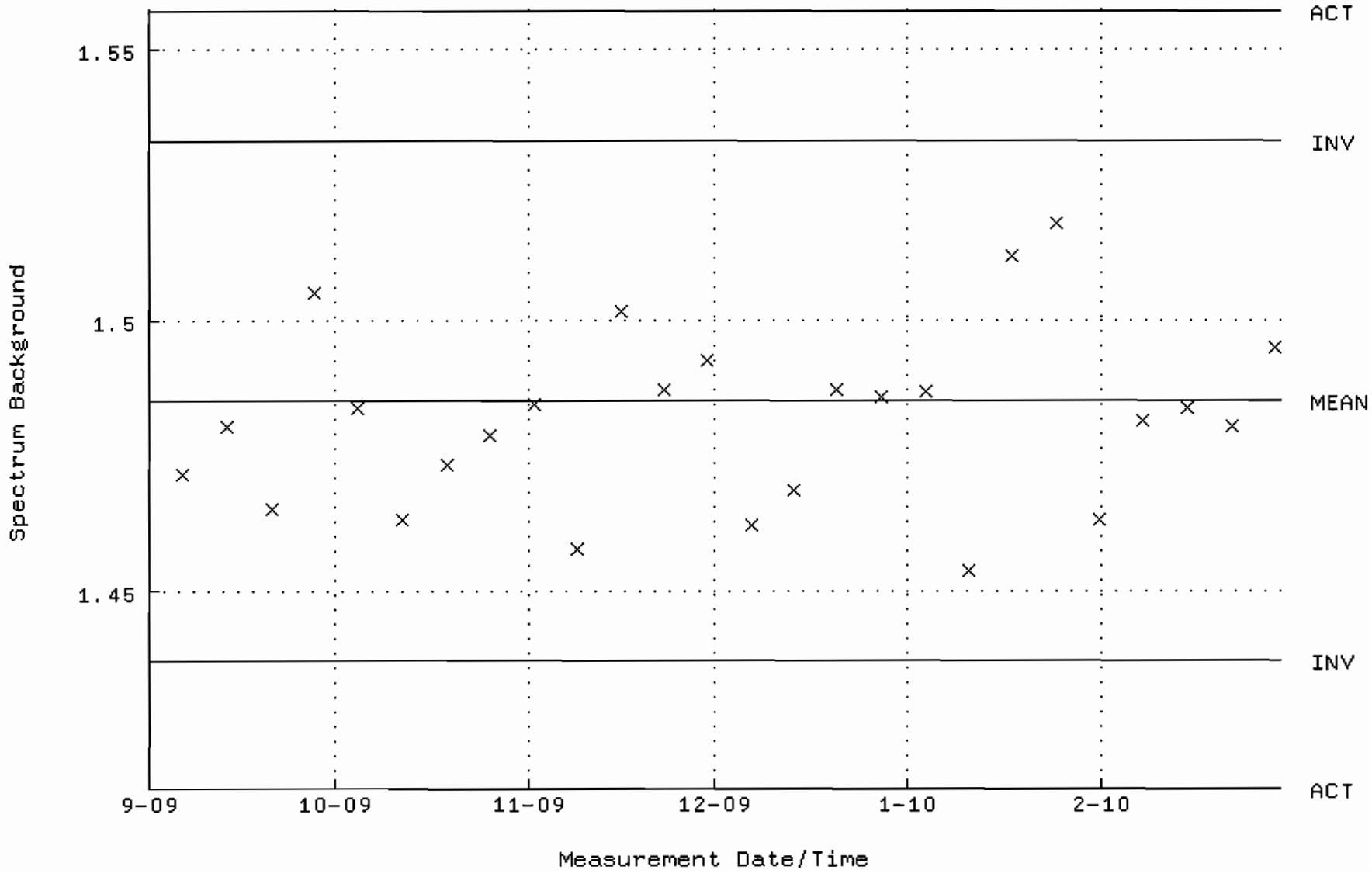

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM21_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-DEC-2009 13:07:42 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

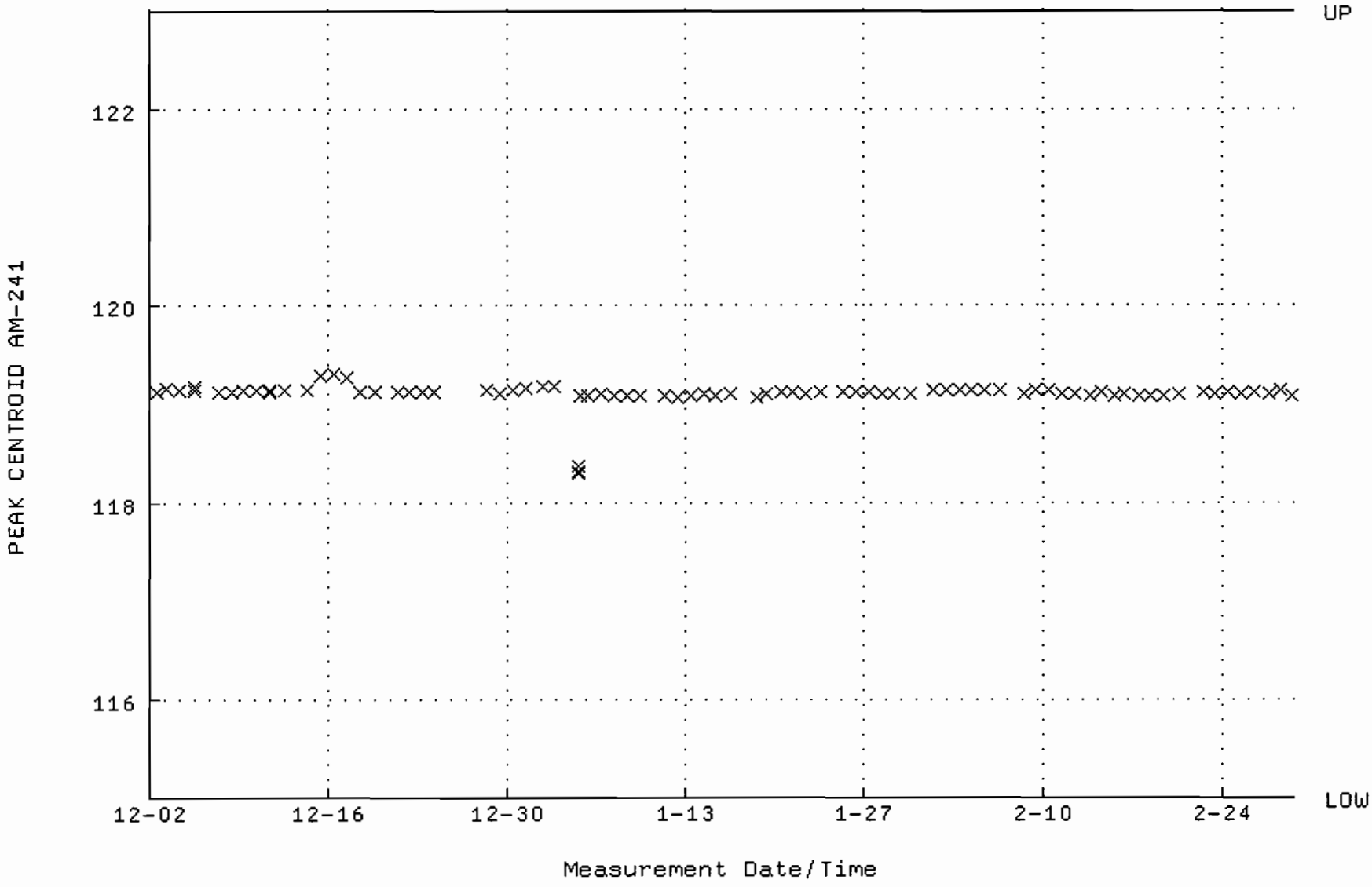

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM21.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-DEC-2009 15:25:38 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.04443 +- 1.452671E-02 (1.39 %)

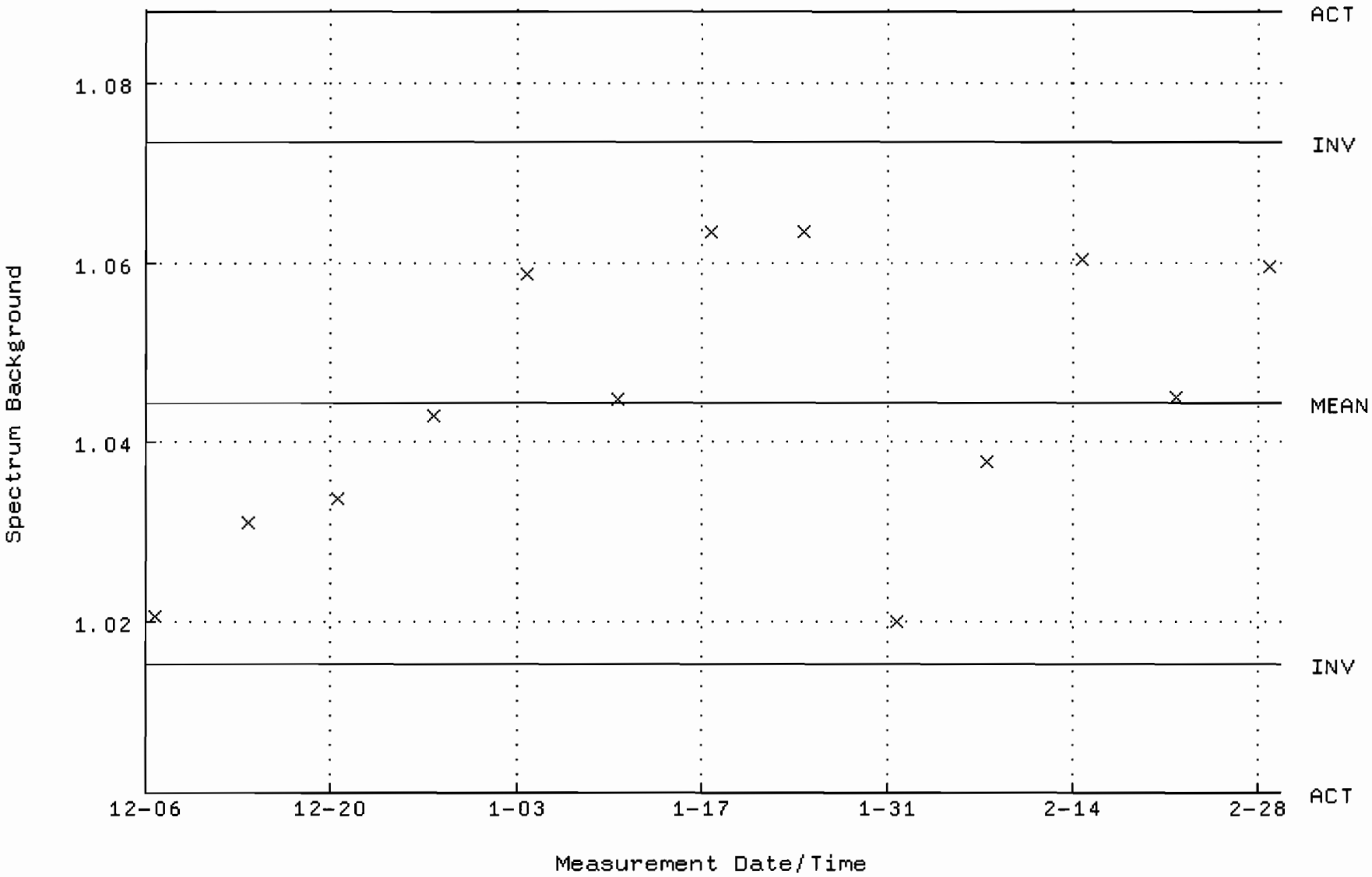

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM25_2LMB.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 9-SEP-2009 16:18:34 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

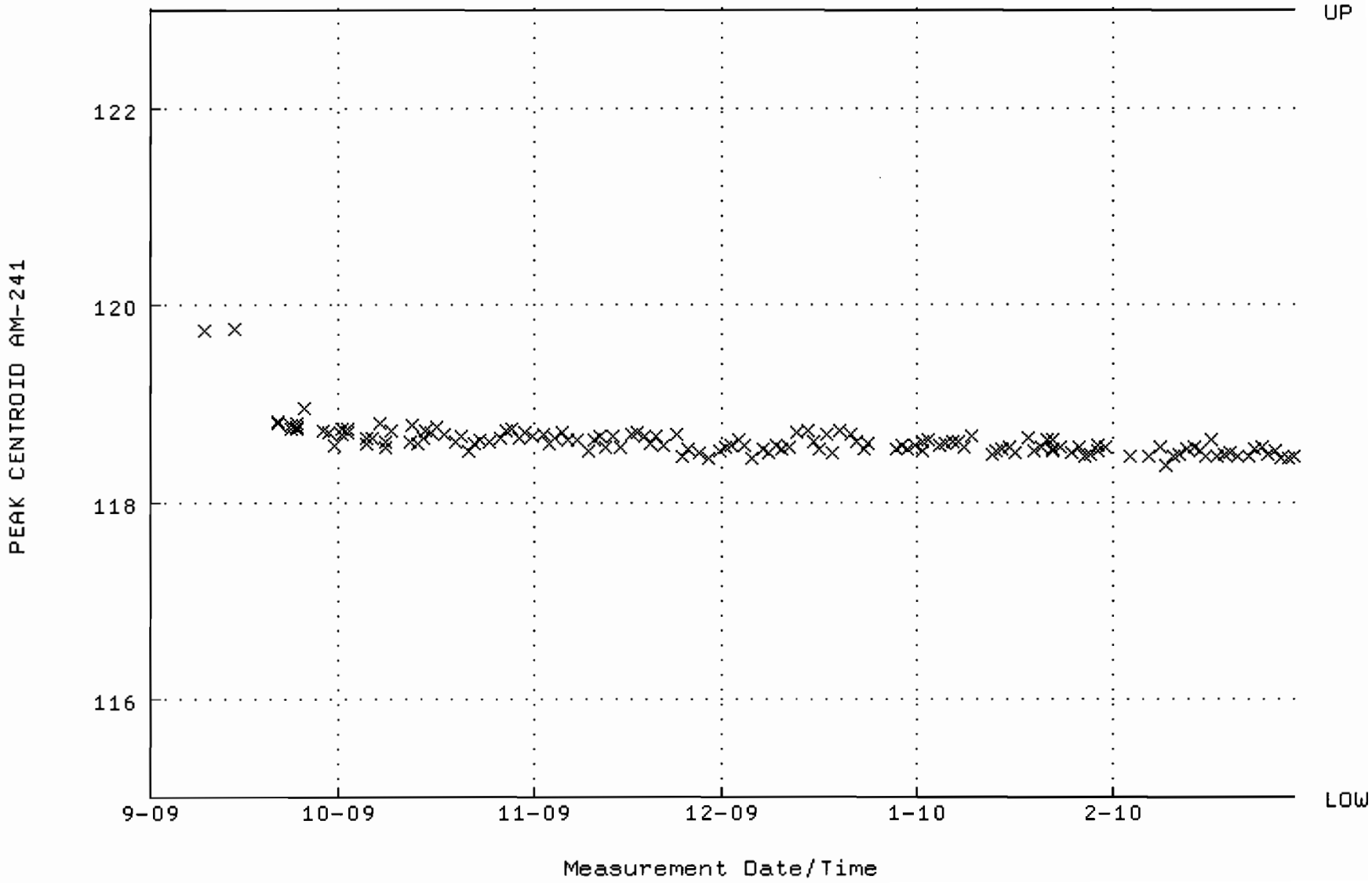

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM25.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:47:27 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.62502 +- 9.370414E-03 (0.58 %)

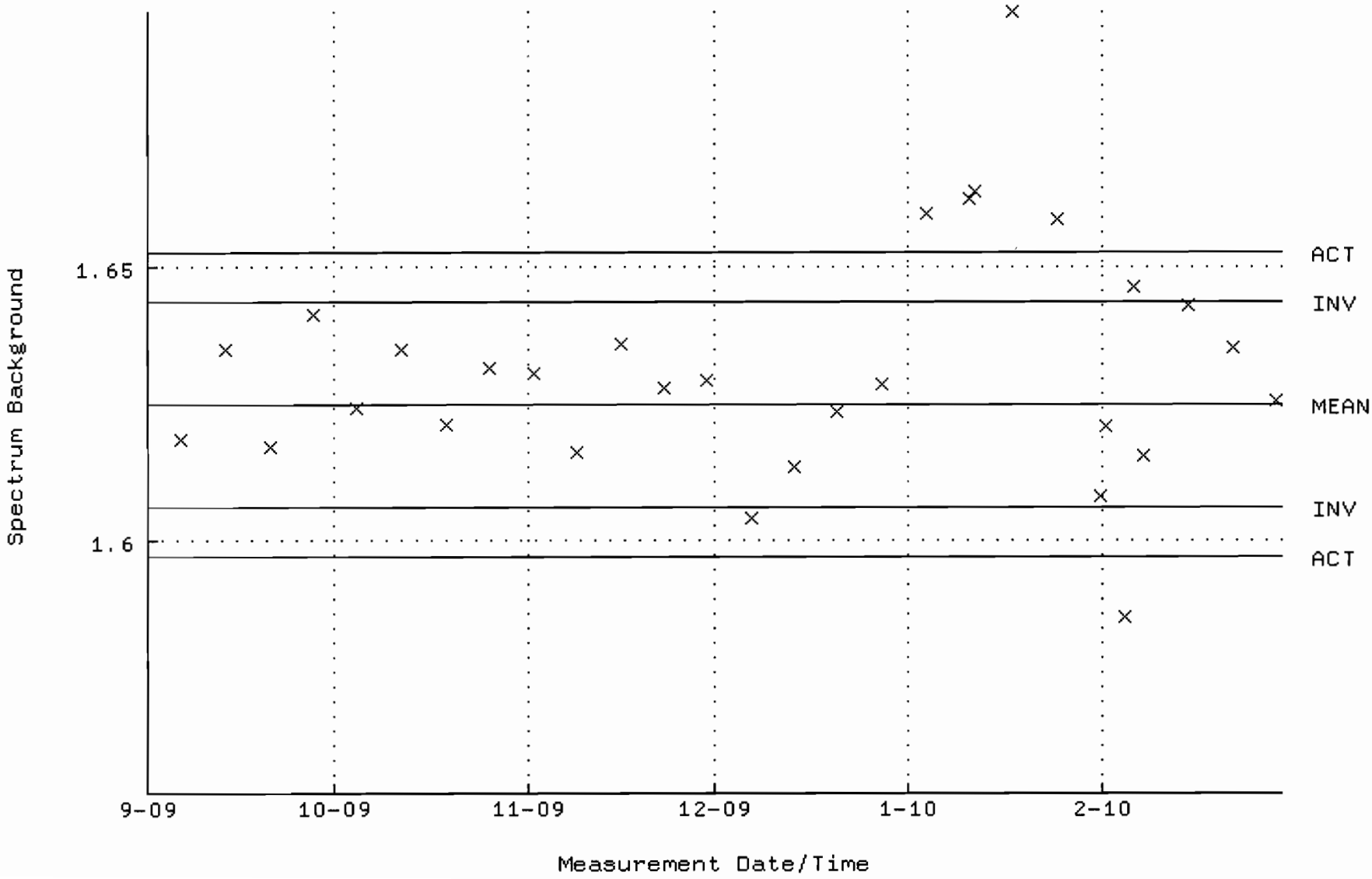

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM29_CAN.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 2-MAR-2010 08:30:43 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

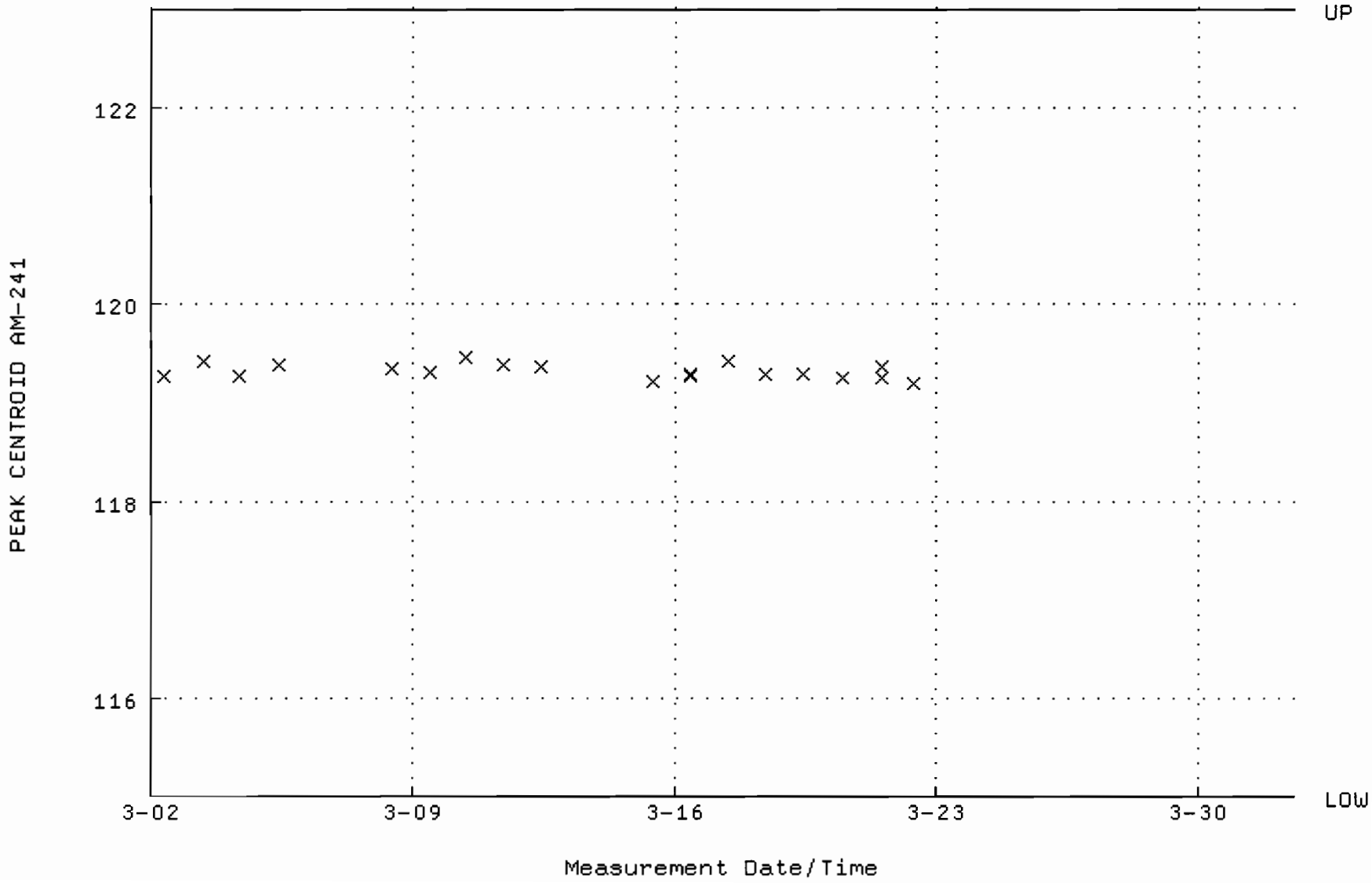

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM29.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 7-MAR-2010 16:47:12 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 1.94193 through 2.37347

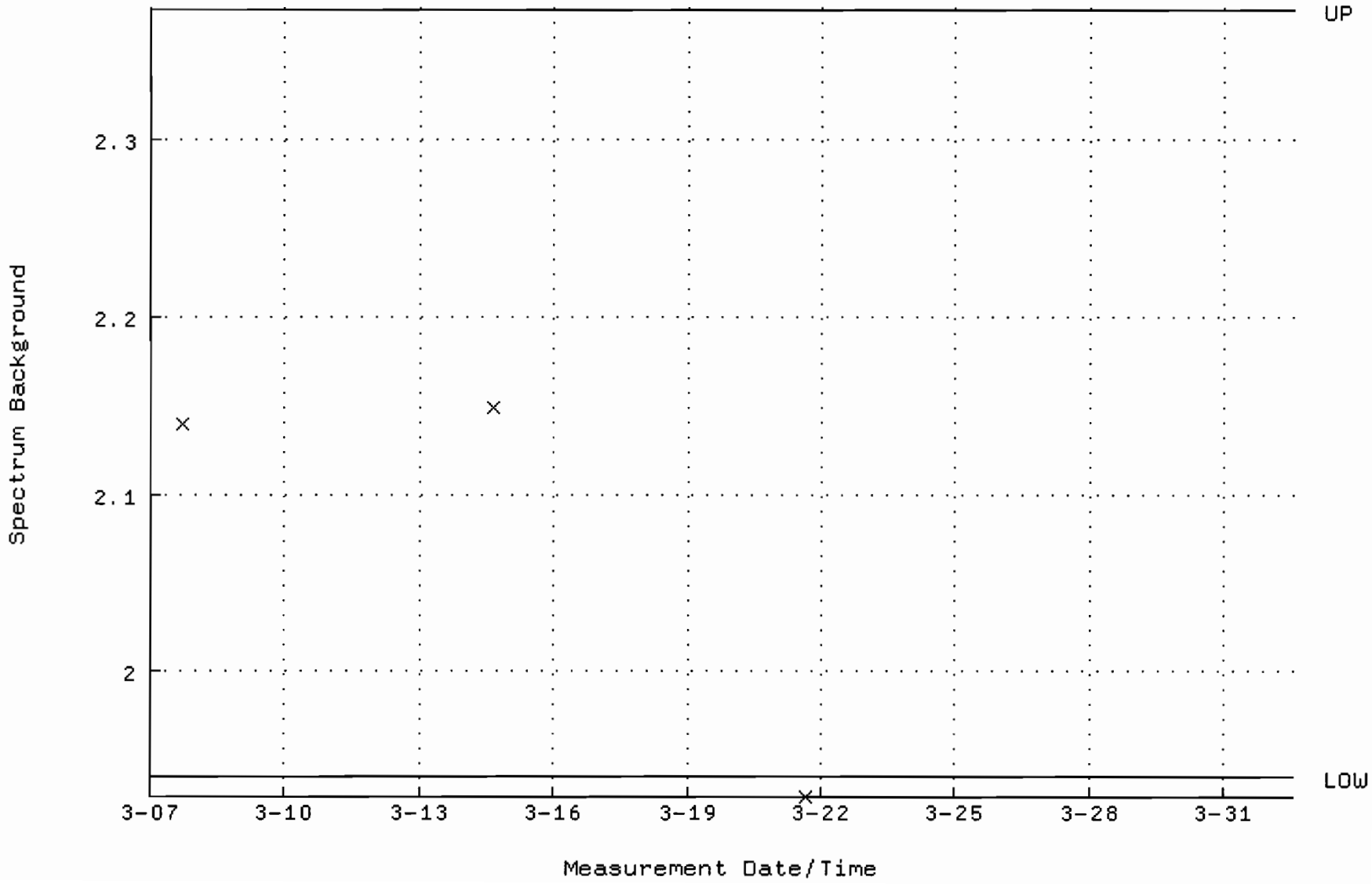

STANDARDS DATA

ANALYTICS
Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

Corporate Office
24937 Avenue Tibbitts, Valencia, California 91355

Laboratory
1380 Seaboard Industrial Blvd., Atlanta, Georgia 30318

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER. JAR-1
	Mixed Gamma N2	2510	pCi/L	- VER. JAR-3
	Mixed Gamma N3	2413	pCi/L	- VER. JAR. 5

Mean Value (Counting) =	2485.67	**100.00**	**Pass**
Stdev =	64.065		**Rule 3 (Pass/Fail)**

Certificate Value =	2485.68018	pCi/L
Lower Limit =	2357.536524	pCi/L
Upper Limit =	2613.796809	pCi/L
Rule 1 (Pass/Fail)	**Pass**	
Two sigma =	128.1301422	
10 % of Mean =	248.56666667	
Rule 2 (Pass/Fail)	**Pass**	

M. Stamps 12/2/09 initial/Date 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result	
	Mixed Gamma N1	1572	pCi/L - VER-JAR-5
	Mixed Gamma N2	1495	pCi/L - VER-JAR-2
	Mixed Gamma N3	1501	pCi/L - VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**
Stdev =	42.829	**Rule 3 (Pass/Fail)**	
Certificate Value =	1545.8378	pCi/L	
Lower Limit =	1437.008431	pCi/L	
Upper Limit =	1608.324902	pCi/L	
Rule 1 (Pass/Fail)	**Pass**		
Two sigma =	85.65823564		
10 % of Mean =	152.26666667		
Rule 2 (Pass/Fail)	**Pass**		

M. Stamps 12/2/09 [illegible] 12/2/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATE 4/14/2000 Jeff C Neff 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 bottles of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM–1	TRM–2	TRM–3	TRM–4
U–238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U–234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th–230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra–226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb–210	485 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized rad materials being sent to GEL on behalf of Hank Hinton
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date
QC limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	[signature]	DEP	Weston / 7577 / 845-0867

1. Relinquished by	[signature]	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
[illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726 794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized rad materials being sent to GEL per behalf of Hank Mintzer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date
QC Limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry		DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. WESTON	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Kuen

QUALITY CONTROL

Jan 3, 1994

Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ 1. STANDARD WIPE TEST

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 2. SOAK TEST

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 3. SOAK TEST -- BERYLLIUM WINDOW

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 4. GAS SOURCE TEST (Radioactive Gas)

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ 5. OTHER LEAK TEST

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 6. LEAK TEST NOT APPLICABLE

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	03/09/2010
Expiration Date:	03/09/2011
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Tara Sides	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/14/2009	09/14/2010
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/09/2010	Ashley Drochter	.011	1000	445-96-2-VV	22.7878 dpm/mL	03/09/2010	03/09/2011
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
03/23/2010	Ashley Drochter	.0163	1000	445-96-2-WW	33.7674 dpm/mL	03/23/2010	03/23/2011
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-VV*

A.Drochter 3/15/2010	Isotope	Value	Uncertainty
	445-96-2-VV #1	1.040	0.1630
	445-96-2-VV #2	0.964	0.1480
	445-96-2-VV #3	0.970	0.1550

Mean Value (Counting) =	0.991	96.72	**Pass**
Stdev =	0.042253205		**Rule 3 (Pass/Fail)**

Target =	1.025
Lower Limit =	0.906826923
Upper Limit =	1.075839743
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.08450641
10 % of Mean =	0.099133333
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-VV*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

3/15/10

3/16/10

1430

NATIONAL PHYSICAL LABORATORY

Teddington Middlesex UK TW11 0LW Telephone +44 20 8977 3222

Certificate of Calibration

UKAS CALIBRATION 0478

PLUTONIUM-236 SOLUTION
R37-02

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

FOR:	GEL Laboratories LLC 2040 Savage Road Charleston, SC 29407 USA
FOR THE ATTENTION OF:	Mr Tim Winters
NPL PRODUCT CODE:	R37-02
IDENTIFICATION:	A09881
DESCRIPTION:	An aqueous solution of ^{236}Pu also containing 2 mol dm^{-3} of nitric acid. The solution is contained in a flame sealed ampoule of type Q and nominal volume 5 ml (squat) as defined in BS 795:1983.
DATE(S) OF CALIBRATION:	26 June 2009 to 1 July 2009
INTENDED USE:	Calibration of instruments for response to ^{236}Pu
STORAGE:	The material may be stored at room temperature in a suitably sealed container. Flame-sealed glass ampoules are recommended for long-term storage. Regulatory conditions may apply to the manner in which this material is stored.

RECEIVED 12/11 AMS.

MEASUREMENTS

The samples were prepared by gravimetric dilution of a ^{236}Pu solution, which had been previously standardised using liquid scintillation counting. The accuracy of the dilution factor was checked using liquid scintillation counting.

Reference: 2009100356

Date of Issue: 4 November 2009

Checked by:

Signed:

Name: Dr Arvic Harms

(Authorised Signatory)

for Managing Director

RESULTS

Principal radionuclide:	^{236}Pu
Reference time:	2009-07-01 12:00 UTC
Activity concentration of principal radionuclide:	170.8 Bq g^{-1}
Expanded uncertainty:	±0.6 Bq g^{-1} (±0.36 %)
Contaminants present:	^{226}Ra, ^{232}U, ^{228}Th, ^{237}Np
Activity concentration of ^{226}Ra:	11.0 mBq g^{-1}
Expanded uncertainty:	±4.0 mBq g^{-1} (±36 %)
Activity concentration of ^{232}U:	0.67 Bq g^{-1}
Expanded uncertainty:	±0.12 Bq g^{-1} (±18 %)
Activity concentration of ^{228}Th:	11.38 mBq g^{-1}
Expanded uncertainty:	±0.46 mBq g^{-1} (±4 %)
Activity concentration of ^{237}Np:	5.00 mBq g^{-1}
Expanded uncertainty:	±0.34 mBq g^{-1} (±8 %)
Sample Mass:	4.97 g ± 0.02 g

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

NOTES

[1]. The reported reference time is stated consistent with the format given in ISO 8601:2004. UTC is the abbreviation for Universal Time, Coordinated. The date is stated in the format YYYY-MM-DD such that 2008-09-01 represents 1 September 2008.

[2]. The recommended half life of ^{236}Pu is 1044 (6) days and is taken from the evaluations published in *Nuclear Data Sheets*.

[3]. The recommended half life of ^{226}Ra is 5.844 (50) × 10^5 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[4]. The recommended half life of ^{232}U is 25800 (800) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[5]. The recommended half life of ^{237}Np is 7.83 (6) × 10^8 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[6]. The recommended half life of ^{228}Th is 698.60 (46) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1430
Prepared By:	Ashley Drochter
Carrier Conc:	2 M HNO3
Reference Date:	07/01/2009
Ampoule Mass (g):	4.97 g
Uncertainty:	+/- .36 %
LogBook No:	RC-S-051-149

A Solution Material Info	
Isotope:	Plutonium-236
Prepared By:	Ashley Drochter
Prep Date:	01/27/2010
Verification Date:	01/27/2010
Expiration Date:	01/27/2011
Primary Code:	1430-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8051 g
Density(g/mL):	1.0610
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (100 mL) = 492.4266 dpm/mL
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (1.0610 g/mL) / (100 mL) = 464.1156 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/27/2010	Bethany Fiem	33.0429	200	1430-B	76.6786262 dpm/mL	01/27/2010	01/27/2011
03/04/2010	Ashley Drochter	15.2331	200	1430-C	35.3496 dpm/mL	03/04/2010	03/04/2011
03/17/2010	Ashley Drochter	15.0683	200	1430-D	34.9672 dpm/mL	03/17/2010	03/17/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-236 Standard 1430-C

	Isotope	Value	Uncertainty
A. Drochter	1430-C	2.760	0.4480
3/4/2010	1430-C	2.770	0.4520
	1430-C	2.950	0.4850
Mean Value (Counting) =	2.827	104.54659	% of Known Value
Stdev =	0.106926766		
Target =	2.70		
Lower Limit =	2.612813134		
Upper Limit =	3.040520199		
Rule 1 Pass/Fail	Pass	Pass	Pass
Two sigma =	0.213853532		
10 % of Mean =	0.282666667		
Rule 2 (Pass/Fail)	Pass		

The analyst prepared three standard verification sources for standard 1430-B using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. After approximately ten minutes, two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-236 were calculated by comparison to Pu-239 certified values.

3/5/10

3/5/10

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-05

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter AMS 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 962629**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status		Geometry	Calibration Date
248788001	SAMPLE	MXR1	GAM29	18-MAR-10 13:15	DONE	CAN		23-FEB-10 00:00
248788002	SAMPLE	MXR1	GAM05	18-MAR-10 13:16	DONE	CAN		11-JUN-09 00:00
248788003	SAMPLE	MXR1	GAM07	18-MAR-10 13:17	DONE	CAN		20-JUL-09 00:00
248788004	SAMPLE	MXR1	GAM11	18-MAR-10 13:17	DONE	CAN		18-NOV-09 00:00
248788005	SAMPLE	MXR1	GAM04	18-MAR-10 13:18	DONE	CAN		05-MAY-09 00:00
248788006	SAMPLE	MXR1	GAM06	18-MAR-10 13:19	DONE	CAN		16-FEB-10 00:00
248788007	SAMPLE	MXR1	GAM15	18-MAR-10 13:20	DONE	CAN		03-FEB-10 00:00
248788008	SAMPLE	MXR1	GAM02	18-MAR-10 13:20	DONE	CAN		29-OCT-09 00:00
248841001	SAMPLE	MXR1	GAM21	18-MAR-10 16:45	DONE	CAN		28-JUL-09 00:00
248841002	SAMPLE	MXR1	GAM15	18-MAR-10 18:24	DONE	CAN		03-FEB-10 00:00
248841003	SAMPLE	MXR1	GAM05	18-MAR-10 20:52	DONE	CAN		11-JUN-09 00:00
1202065182	LCS	MXR1	GAM15	18-MAR-10 22:04	DONE	CAN		03-FEB-10 00:00
248841004	SAMPLE	MXR1	GAM18	18-MAR-10 22:32	DONE	CAN		23-APR-09 00:00
248841005	SAMPLE	MXR1	GAM25	18-MAR-10 22:32	DONE	CAN		07-OCT-09 00:00
248841006	SAMPLE	MXR1	GAM29	18-MAR-10 22:33	DONE	CAN		23-FEB-10 00:00
248841007	SAMPLE	MXR1	GAM05	18-MAR-10 22:56	DONE	CAN		11-JUN-09 00:00
248841008	SAMPLE	MXR1	GAM15	18-MAR-10 23:10	DONE	CAN		03-FEB-10 00:00
248841009	SAMPLE	MXR1	GAM20	18-MAR-10 23:11	DONE	CAN		26-AUG-09 00:00
248841010	SAMPLE	MXR1	GAM04	19-MAR-10 12:25	DONE	CAN		05-MAY-09 00:00
248841011	SAMPLE	MXR1	GAM05	19-MAR-10 13:01	DONE	CAN		11-JUN-09 00:00
1202065180	MB	MXR1	GAM06	19-MAR-10 13:01	DONE	CAN		16-FEB-10 00:00
1202065181	DUP	MXR1	GAM07	19-MAR-10 13:02	DONE	CAN		20-JUL-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965807**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248818001	SAMPLE	JXH2	1220	26-MAR-10 07:44	DONE		
248841003	SAMPLE	JXH2	1209	29-MAR-10 11:40	DONE		
248841004	SAMPLE	JXH2	1210	29-MAR-10 11:40	DONE		
248841005	SAMPLE	JXH2	1211	29-MAR-10 11:40	DONE		
248841006	SAMPLE	JXH2	1212	29-MAR-10 11:40	DONE		
248841007	SAMPLE	JXH2	1213	29-MAR-10 11:41	DONE		
248841008	SAMPLE	JXH2	1214	29-MAR-10 11:41	DONE		
248841009	SAMPLE	JXH2	1215	29-MAR-10 11:41	DONE		
248841010	SAMPLE	JXH2	1216	29-MAR-10 11:41	DONE		
248841011	SAMPLE	JXH2	1217	29-MAR-10 11:41	DONE		
248818002	SAMPLE	JXH2	1221	29-MAR-10 11:41	DONE		
248818003	SAMPLE	JXH2	1222	29-MAR-10 11:41	DONE		
248818004	SAMPLE	JXH2	1223	29-MAR-10 11:41	DONE		
248818005	SAMPLE	JXH2	1224	29-MAR-10 11:41	DONE		
248818006	SAMPLE	JXH2	1225	29-MAR-10 11:41	DONE		
248818007	SAMPLE	JXH2	1226	29-MAR-10 11:41	DONE		
248818008	SAMPLE	JXH2	1227	29-MAR-10 11:41	DONE		
248818009	SAMPLE	JXH2	1228	29-MAR-10 11:41	DONE		
248841001	SAMPLE	JXH2	1229	29-MAR-10 11:41	DONE		
248841002	SAMPLE	JXH2	1230	29-MAR-10 11:41	DONE		
1202072510	MB	JXH2	1247	30-MAR-10 19:03	DONE		
1202072511	DUP	JXH2	1248	30-MAR-10 19:03	DONE		
1202072512	LCS	JXH2	1256	30-MAR-10 19:03	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965808**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248818001	SAMPLE	JXH2	1025	27-MAR-10 13:40	DUSE		
248818002	SAMPLE	JXH2	1026	27-MAR-10 13:40	DONE		
248818003	SAMPLE	JXH2	1027	27-MAR-10 13:40	DONE		
248818004	SAMPLE	JXH2	1028	27-MAR-10 13:40	DONE		
248818005	SAMPLE	JXH2	1029	27-MAR-10 13:40	DONE		
248818006	SAMPLE	JXH2	1030	27-MAR-10 13:40	DONE		
248818007	SAMPLE	JXH2	1037	27-MAR-10 13:40	DONE		
248818008	SAMPLE	JXH2	1038	27-MAR-10 13:40	DONE		
248818009	SAMPLE	JXH2	1039	27-MAR-10 13:40	DUSE		
248841001	SAMPLE	JXH2	1040	27-MAR-10 13:40	DONE		
248841002	SAMPLE	JXH2	1041	27-MAR-10 13:40	DONE		
248841003	SAMPLE	JXH2	1042	27-MAR-10 13:40	DONE		
248841004	SAMPLE	JXH2	1089	27-MAR-10 13:40	DONE		
248841005	SAMPLE	JXH2	1090	27-MAR-10 13:40	DONE		
248841006	SAMPLE	JXH2	1091	27-MAR-10 13:40	DONE		
248841007	SAMPLE	JXH2	1093	27-MAR-10 13:40	DONE		
248841008	SAMPLE	JXH2	1094	27-MAR-10 13:40	DONE		
248841009	SAMPLE	JXH2	1095	27-MAR-10 13:40	DUSE		
248841010	SAMPLE	JXH2	1096	27-MAR-10 13:40	DONE		
248841011	SAMPLE	JXH2	1097	27-MAR-10 13:40	DONE		
1202072513	MB	JXH2	1098	27-MAR-10 13:40	DONE		
1202072514	DUP	JXH2	1099	27-MAR-10 13:40	DONE		
1202072515	LCS	JXH2	1100	27-MAR-10 13:40	DONE		
248818001	SAMPLE	JXH2	1107	30-MAR-10 08:02	DONE		
248818009	SAMPLE	JXH2	1108	30-MAR-10 08:02	DONE		
248841009	SAMPLE	JXH2	1109	30-MAR-10 08:02	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965810**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248818008	SAMPLE	JXH2	1113	30-MAR-10 16:43	DONE		
248818009	SAMPLE	JXH2	1114	30-MAR-10 16:43	DONE		
248841001	SAMPLE	JXH2	1119	30-MAR-10 16:43	DONE		
248841002	SAMPLE	JXH2	1120	30-MAR-10 16:43	DONE		
248841003	SAMPLE	JXH2	1121	30-MAR-10 16:43	DONE		
248841004	SAMPLE	JXH2	1122	30-MAR-10 16:43	DONE		
248841005	SAMPLE	JXH2	1123	30-MAR-10 16:44	DONE		
248841006	SAMPLE	JXH2	1124	30-MAR-10 16:44	DONE		
248841007	SAMPLE	JXH2	1125	30-MAR-10 16:44	DONE		
248841008	SAMPLE	JXH2	1126	30-MAR-10 16:44	DONE		
248841009	SAMPLE	JXH2	1127	30-MAR-10 16:44	DONE		
248841010	SAMPLE	JXH2	1128	30-MAR-10 16:44	DONE		
248841011	SAMPLE	JXH2	1129	30-MAR-10 16:44	DONE		
1202072519	MB	JXH2	1130	30-MAR-10 16:44	DONE		
1202072520	DUP	JXH2	1131	30-MAR-10 16:44	DONE		
1202072521	LCS	JXH2	1132	30-MAR-10 16:44	DONE		
248818001	SAMPLE	JXH2	1001	30-MAR-10 16:45	DONE		
248818002	SAMPLE	JXH2	1006	30-MAR-10 16:45	DONE		
248818003	SAMPLE	JXH2	1007	30-MAR-10 16:45	DONE		
248818004	SAMPLE	JXH2	1008	30-MAR-10 16:45	DONE		
248818005	SAMPLE	JXH2	1009	30-MAR-10 16:45	DONE		
248818006	SAMPLE	JXH2	1010	30-MAR-10 16:45	DONE		
248818007	SAMPLE	JXH2	1011	30-MAR-10 16:45	DONE		

Thursday, March 04, 2010

REQUEST NUMBER: 10-2299

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2299

Per Agreement Number:126310011

Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE46-10-13860	S	3/3/2010	Plus Cesium Metals
		1	RE46-10-13861	S	3/3/2010	Plus Cesium Metals
		1	RE46-10-13862	S	3/3/2010	Plus Cesium Metals
		1	RE46-10-13863	S	3/3/2010	Plus Cesium Metals
		1	RE46-10-13864	S	3/3/2010	Plus Cesium Metals
		1	RE46-10-13865	S	3/3/2010	Plus Cesium Metals

	1	RE46-10-13866	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13867	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13868	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13869	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13872	W	3/3/2010	Plus Cesium Metal
	1	RE46-10-13873	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13875	W	3/3/2010	Plus Cesium Metal
SW-846:6020	1	RE46-10-13872	W	3/3/2010	Plus Cesium Metal
	1	RE46-10-13875	W	3/3/2010	Plus Cesium Metal
SW-846:6850	1	RE46-10-13872	W	3/3/2010	
	1	RE46-10-13875	W	3/3/2010	
SW-846:9012A	1	RE46-10-13860	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13861	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13862	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13863	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13864	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13865	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13866	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13867	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13868	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13869	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13872	W	3/3/2010	
	1	RE46-10-13873	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13875	W	3/3/2010	

Final Page of REQUEST NUMBER 10-2299

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2299C

REQUEST NUMBER: 10-2299

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13867	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13864	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13863	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13869	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13861	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13866	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13860	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13865	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13868	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13862	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13872	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-13872	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-13875	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-13875	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-13872	1	POLY	SW-846:6850	Ice	W
RE46-10-13875	1	POLY	SW-846:6850	Ice	W
RE46-10-13873	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	3/4/10	1400	Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13860 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1337	SUB-MEDIA:	SOIL	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611754	OK	FIELD QC TYPE:	NA	—
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	—
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	—
BOTTOM DEPTH:	0	1	SCREEN/PORT DESC:		13A
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: fill & brown tuff (7.5YR 5/2)

SAMPLE COMMENTS: tuff @ 3" sampled beneath asphalt

LOCATION DESC: 7-1

FIELD SCREENING/MEASUREMENT RESULTS:
PID: 0.5 ppm Background
α: 12
β: 827 dpm
Samples < MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) Sherri Sherwood	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13861 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	~~ALLH~~ RA 3/3/10	Qbt3
TIME COLLECTED (HH:MM)		1357	SUB-MEDIA:	SOIL	N
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611754		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	2	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	3	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R RA 3/3/10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: gray tuff (5YR 5/1)

SAMPLE COMMENTS: Sampled beneath asphalt

LOCATION DESC: 7-1

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.4 ppm Background α: 12 β 827 dpm Samples < MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) [signature]	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13862 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	~~ALLH~~ RA 3/3/10	Qbt3
TIME COLLECTED (HH:MM)		1349	SUB-MEDIA:	SOIL	N
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611755	OK	FIELD QC TYPE:	NA	✓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	✓
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R RA 3/3/10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ 1 ISOPU+ISOU	LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: Dark Reddish gray tuff (5YR 4/2)

SAMPLE COMMENTS: Sample beneath asphalt

LOCATION DESC: 7-2

FIELD SCREENING/MEASUREMENT RESULTS: Background: α: 12 dpm β: 827 Samples <MDA

PID: 4.6 ppm

COLLECTED BY (PRINT) JRamos **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) Sherri Sherwood	1632
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13863 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1340	SUB-MEDIA:	SOIL	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611755	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ 1 ISOPU+ISOU	LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: brown tuff (7.5 YR 4/2), coarse sediment

SAMPLE COMMENTS: tuff @ 6", sampled beneath asphalt

LOCATION DESC: 7-2

FIELD SCREENING/MEASUREMENT RESULTS: PID: 6.6 ppm Background: α: 12 dpm β: 827 Samples < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) Sherri Sherwood	1632
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13864 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		03-03-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1335	SUB-MEDIA:	SOIL	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611756	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING: YES / NO / NA**

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: brown coarse grained silty sand (7.5YR 4/3)

SAMPLE COMMENTS: tuff @ 10", ~~Sampled beneath asphalt~~ 3/3/10

LOCATION DESC: 7-3

FIELD SCREENING/MEASUREMENT RESULTS: PID: 6.1 ppm

Background screening α: 12 β: 827 dpm Samples < MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) Sherri Sherwood	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13865 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	~~ALLH~~ RA 3/3/10	QST3
TIME COLLECTED (HH:MM)		1352	SUB-MEDIA:	SOIL	N
PRS ID:	46-007	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	46-611756	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ RA 3/3/10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: gray tuff (5YR 6/1)

SAMPLE COMMENTS:

LOCATION DESC: 7-3, ~~sampled beneath asphalt~~ 3/3/10

FIELD SCREENING/MEASUREMENT RESULTS: PID: 5.7 ppm

Background Screening α: 12 ppm β: 827

Samples < MDA

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) [signature]	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13866 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1443	SUB-MEDIA:	SOIL	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611757		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: Reddish brown Coarse Sandy Sediment w/gravel (5YR 4/3)

SAMPLE COMMENTS: Sampled under asphalt

LOCATION DESC: 7-~~2~~4 MW 3-3-10

FIELD SCREENING/MEASUREMENT RESULTS:
PID • 0.6ppm Background α: 12 dpm β: 827 Samples < MDA

COLLECTED BY (PRINT) J. Ranero **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature)	1632	(Signature) Sherri Sherwood	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13867 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	~~ALLH~~ 3/3/10	QST3
TIME COLLECTED (HH:MM)		1502	SUB-MEDIA:	SOIL	N
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611757		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	2	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	SR 3/3/10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: pale red tuff (2.5 YR 6/2)

SAMPLE COMMENTS: Sampled under asphalt

LOCATION DESC: 7-~~2~~ 4 MW 3-3-10

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.6ppm Background α: 12 β: 827 dpm Samples < MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) Sherri Sherwood	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13868 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1442	SUB-MEDIA:	SOIL	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611758		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: coarse sandy sediment w/ gravel (2.5 YR 6/1)

SAMPLE COMMENTS: Sample under asphalt, tuff @ 6"

LOCATION DESC: 7-~~3~~ 5 3-3-10

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.8ppm Background α: 12 β: 827 dpm Samples < MDA

COLLECTED BY (PRINT) M. Shenda **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) [signature]	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13869 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	~~ALLH~~ Rd 3/3/10	Qbt3
TIME COLLECTED (HH:MM)		1505	SUB-MEDIA:	SOIL	N
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611758		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	2	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	3	SCREEN/PORT DESC:		12A
FIELD MATRIX:	~~S~~ R RA 3/3/10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION:

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: reddish gray tuff (2.5 YR 6/1)

SAMPLE COMMENTS: sampled under asphalt

LOCATION DESC: 7-~~35~~ 35 MW 3-3-10

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.7ppm Background α: 12 β: 827 dpm Samples < MDA

COLLECTED BY (PRINT) M. Shenda **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) Sherri Sherwood	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13872 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		3/3/10 1415 3/3/10 1409 1415	SUB-MEDIA:	OTHER	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611757	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	Plus Cesium Metal pH <2
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH >12
1		SW-846:6850	250 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13866

SAMPLE COMMENTS: NA

LOCATION DESC: 7-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Sheado

REVIEWED BY (PRINT) Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature)	1632	(Signature)	1632
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13873 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1443	SUB-MEDIA:	SOIL	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	46-611757	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: QC Sample of RE46-10-13866

SAMPLE COMMENTS: NA

LOCATION DESC: 7-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) [signature]	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13874 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1443	SUB-MEDIA:	OTHER	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611757	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ____ COMPOSITE TIME INTERVAL: ____ WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: ____ BOREHOLE DIRECTION: ____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 ~~2~~		8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

3/10

SAMPLE DESC: QC Sample of RE46-10-13866

SAMPLE COMMENTS: NA

LOCATION DESC: 7-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Andress

REVIEWED BY (PRINT) ~~Lane Andress~~ M. Nauck 3/3/10

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature)	3/3/10 1632	(Printed Name) Sherri Sherwood (Signature)	3/3/10 1632
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13875 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		3/3/10 ~~1415~~ 1409	SUB-MEDIA:	OTHER	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611757	FIELD QC TYPE:	FB	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING: YES / NO (NA)**

BOREHOLE: YES / NO / (NA) **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	Plus Cesium Metal pH <2
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH >12
1		SW-846:6850	250 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13866

SAMPLE COMMENTS: NA

LOCATION DESC: 7-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) [signature]	1632
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2299 VALIDATION DATE: 6/13/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from a different RN. Also, the raw data for the parent sample was not provided in the data package. No sample data were qualified.

Reviewed By: Charissa Lewis **Level:** I **Date:** 6/14/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/13/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☐	☒	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☐	☒	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13867

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834001

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 92.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.543	2.17	0.543	ug/kg	U	1	27-MAR-10 15:51	per0327015a
	Perchlorate Isotope Ratio						1	27-MAR-10 15:51	per0327015a
14797-73-0	Perchlorate-101	.543	2.17	0.543	ug/kg	U	1	27-MAR-10 15:51	per0327015a
	Perchlorate-O(18)			5.56	ug/kg		1	27-MAR-10 15:51	per0327015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

ETM
6/12/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13864

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834002

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.582	2.33	0.582	ug/kg	U	1	27-MAR-10 16:00	per0327016a
	Perchlorate Isotope Ratio						1	27-MAR-10 16:00	per0327016a
14797-73-0	Perchlorate-101	.582	2.33	0.582	ug/kg	U	1	27-MAR-10 16:00	per0327016a
	Perchlorate-O(18)			5.58	ug/kg		1	27-MAR-10 16:00	per0327016a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

ETM
6/13/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13863

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834003

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.565	2.26	0.565	ug/kg	U	1	27-MAR-10 16:10	per0327017a
	Perchlorate Isotope Ratio						1	27-MAR-10 16:10	per0327017a
14797-73-0	Perchlorate-101	.565	2.26	0.565	ug/kg	U	1	27-MAR-10 16:10	per0327017a
	Perchlorate-O(18)			5.39	ug/kg		1	27-MAR-10 16:10	per0327017a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

ETM
6/13/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13869

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834004

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 92

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.543	2.17	0.543	ug/kg	U	1	27-MAR-10 16:20	per0327018a
	Perchlorate Isotope Ratio						1	27-MAR-10 16:20	per0327018a
14797-73-0	Perchlorate-101	.543	2.17	0.543	ug/kg	U	1	27-MAR-10 16:20	per0327018a
	Perchlorate-O(18)			5.60	ug/kg		1	27-MAR-10 16:20	per0327018a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

ETM
6/13/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13861

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834005

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.569	2.27	0.569	ug/kg	U	1	27-MAR-10 16:29	per0327019a
	Perchlorate Isotope Ratio						1	27-MAR-10 16:29	per0327019a
14797-73-0	Perchlorate-101	.569	2.27	0.569	ug/kg	U	1	27-MAR-10 16:29	per0327019a
	Perchlorate-O(18)			5.61	ug/kg		1	27-MAR-10 16:29	per0327019a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13866

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834006

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 92.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.538	2.15	0.538	ug/kg	U	1	27-MAR-10 16:39	per0327020a
	Perchlorate Isotope Ratio						1	27-MAR-10 16:39	per0327020a
14797-73-0	Perchlorate-101	.538	2.15	0.538	ug/kg	U	1	27-MAR-10 16:39	per0327020a
	Perchlorate-O(18)			5.51	ug/kg		1	27-MAR-10 16:39	per0327020a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

ETM

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13860

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834007

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 90.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.553	2.21	0.553	ug/kg	U	1	27-MAR-10 16:48	per0327021a
	Perchlorate Isotope Ratio						1	27-MAR-10 16:48	per0327021a
14797-73-0	Perchlorate-101	.553	2.21	0.553	ug/kg	U	1	27-MAR-10 16:48	per0327021a
	Perchlorate-O(18)			5.84	ug/kg		1	27-MAR-10 16:48	per0327021a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

ETM
6/12/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13865

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834008

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 91.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.546	2.18	0.546	ug/kg	U	1	27-MAR-10 17:27	per0327025a
	Perchlorate Isotope Ratio						1	27-MAR-10 17:27	per0327025a
14797-73-0	Perchlorate-101	.546	2.18	0.546	ug/kg	U	1	27-MAR-10 17:27	per0327025a
	Perchlorate-O(18)			5.65	ug/kg		1	27-MAR-10 17:27	per0327025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

ETM
6/13/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13868

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834009

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 92.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.542	2.17	0.542	ug/kg	U	1	27-MAR-10 17:36	per0327026a
	Perchlorate Isotope Ratio						1	27-MAR-10 17:36	per0327026a
14797-73-0	Perchlorate-101	.542	2.17	0.542	ug/kg	U	1	27-MAR-10 17:36	per0327026a
	Perchlorate-O(18)			5.18	ug/kg		1	27-MAR-10 17:36	per0327026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

ETM
6/12/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13862

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834010

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.564	2.26	0.564	ug/kg	U	1	27-MAR-10 17:46	per0327027a
	Perchlorate Isotope Ratio						1	27-MAR-10 17:46	per0327027a
14797-73-0	Perchlorate-101	.564	2.26	0.564	ug/kg	U	1	27-MAR-10 17:46	per0327027a
	Perchlorate-O(18)			5.77	ug/kg		1	27-MAR-10 17:46	per0327027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

ETM
6/13/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13873

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834011

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 92.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.538	2.15	0.538	ug/kg	U	1	27-MAR-10 17:55	per0327028a
	Perchlorate Isotope Ratio						1	27-MAR-10 17:55	per0327028a
14797-73-0	Perchlorate-101	.538	2.15	0.538	ug/kg	U	1	27-MAR-10 17:55	per0327028a
	Perchlorate-O(18)			5.41	ug/kg		1	27-MAR-10 17:55	per0327028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

ETM
6/13/1

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2299 VALIDATION DATE: 6/13/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the aqueous MB, K was detected. The associated sample results were NDs and, thus, were not qualified.
2. In the soil ICB, Tl was detected. The associated results for samples RE46-10-13867 and -13864 were detects ≤5X the blank concentration and, thus, were qualified U,I4b. All the other associated sample results were NDs and, thus, were not qualified.
3. In the FR blank, sample -13872, associated with all the soil samples, Mn and Na were detected. All the associated sample results were detects >5X the blank concentrations and, thus, were not qualified.
4. The soil LCS %R was < the laboratory's LAL but ≥10% for Sb. The associated sample results were NDs and, thus, were qualified UJ,I12a.
5. The soil MS %Rs were > the laboratory's UAL for Al, Ca, Mn, K and Na. The associated sample results were detects and, thus, were qualified J+,I6b. The MS %R was also < the laboratory's LAL but ≥10% for Fe. However,

DATA VALIDATION COVER SHEET

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Data Validation Cover Sheet

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the associated parent sample concentration was >4X the spike concentration. Thus, the associated sample results were not qualified, based on professional judgment.

6. The soil duplicate RPDs were >35% for Ba, Mg, Mn, K and Zn, and both the parent sample and duplicate results were ≥5X the PQLs. The associated results were detects and, thus, were qualified J,I10a.
7. It should be noted that the aqueous ICP and CVAA matrix QC analyses were performed on LANL samples from different RNs and that the raw data for the parent sample were not included in the data package. No sample data were qualified.

Reviewed By: Charissa Lewis **Level:** I **Date:** 6/14/10

VALIDATOR'S SIGNATURE: Eric T. Mik DATE: 6/13/10

Form 5118-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☒	☐	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834001 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13867 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 92.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum J+,I6b	1070000	ug/kg	*N	7200	21200	21200	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-36-0	Antimony UJ,I12a	1060	ug/kg	U	349	1060	1060	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-38-2	Arsenic	440	ug/kg	J	216	1080	1080	2	MS	RMJ	05/11/10 10:32	100510-2	963995
7440-39-3	Barium J,I10a	11600	ug/kg	*	106	529	529	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-41-7	Beryllium	356	ug/kg		21.6	108	108	2	MS	RMJ	05/12/10 07:49	100511-3	963995
7440-43-9	Cadmium	529	ug/kg	U	106	529	529	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-70-2	Calcium J+,I6b	365000	ug/kg	*N	8470	26500	26500	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-46-2	Cesium	132	ug/kg		20.4	102	102	2	MS	PRB	05/26/10 15:36	100526-5	983926
7440-47-3	Chromium	14400	ug/kg	*	159	529	529	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-48-4	Cobalt	568	ug/kg		159	529	529	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-50-8	Copper	1130	ug/kg		317	1060	1060	1	P	HSC	03/31/10 23:05	033110B-1	963993
7439-89-6	Iron	5420000	ug/kg	*	8470	26500	26500	1	P	HSC	03/31/10 23:05	033110B-1	963993
7439-92-1	Lead	2760	ug/kg	*	265	1060	1060	1	P	HSC	03/31/10 23:05	033110B-1	963993
7439-95-4	Magnesium J,I10a	175000	ug/kg	*N	8990	31700	31700	1	P	HSC	03/31/10 23:05	033110B-1	963993
7439-96-5	Manganese J+,I6b	204000	ug/kg	*N	212	1060	1060	1	P	HSC	03/31/10 23:05	033110B-1	963993
7439-97-6	Mercury	12.9	ug/kg	U	4.39	12.9	12.9	1	AV	JXL1	03/24/10 09:47	032410S1-6	967600
7440-02-0	Nickel	1580	ug/kg		108	433	433	2	MS	RMJ	05/11/10 10:32	100510-2	963995
7440-09-7	Potassium J+,I6b	387000	ug/kg	*N	6770	26500	26500	1	P	HSC	03/31/10 23:05	033110B-1	963993
7782-49-2	Selenium	1080	ug/kg	U	541	1080	1080	2	MS	RMJ	05/13/10 02:54	100512-4	963995
7440-22-4	Silver	529	ug/kg	U	106	529	529	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-23-5	Sodium J+,I6b	390000	ug/kg	*N	7410	26500	26500	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-28-0	Thallium U,I4b	83.3	ug/kg	J	64.9	216	216	2	MS	RMJ	05/11/10 10:32	100510-2	963995
7440-62-2	Vanadium	1730	ug/kg	*	106	529	529	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-66-6	Zinc J,I10a	23900	ug/kg	*	349	1060	1060	1	P	HSC	03/31/10 23:05	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.513	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.502	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.504	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.532	g	50	mL	05/13/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834002 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13864 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	J+,I6b	3410000	ug/kg	*N	7130	21000	21000	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-36-0	Antimony	UJ,I12a	1050	ug/kg	U	346	1050	1050	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-38-2	Arsenic		1490	ug/kg		220	1100	1100	2	MS	RMJ	05/11/10 10:54	100510-2	963995
7440-39-3	Barium	J,I10a	31800	ug/kg	*	105	524	524	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-41-7	Beryllium		578	ug/kg		22	110	110	2	MS	RMJ	05/12/10 08:10	100511-3	963995
7440-43-9	Cadmium		524	ug/kg	U	105	524	524	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-70-2	Calcium	J+,I6b	733000	ug/kg	*N	8390	26200	26200	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-46-2	Cesium		1210	ug/kg		21	105	105	2	MS	PRB	05/26/10 15:40	100526-5	983926
7440-47-3	Chromium		3730	ug/kg	*	157	524	524	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-48-4	Cobalt		1140	ug/kg		157	524	524	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-50-8	Copper		9190	ug/kg		314	1050	1050	1	P	HSC	03/31/10 23:23	033110B-1	963993
7439-89-6	Iron		6640000	ug/kg	*	8390	26200	26200	1	P	HSC	03/31/10 23:23	033110B-1	963993
7439-92-1	Lead		11200	ug/kg	*	262	1050	1050	1	P	HSC	03/31/10 23:23	033110B-1	963993
7439-95-4	Magnesium	J,I10a	630000	ug/kg	*N	8910	31400	31400	1	P	HSC	03/31/10 23:23	033110B-1	963993
7439-96-5	Manganese	J+,I6b	156000	ug/kg	*N	210	1050	1050	1	P	HSC	03/31/10 23:23	033110B-1	963993
7439-97-6	Mercury		766	ug/kg		9.27	27.3	27.3	2	AV	JXL1	03/24/10 14:00	032410S1-6	967600
7440-02-0	Nickel		3900	ug/kg		110	440	440	2	MS	RMJ	05/11/10 10:54	100510-2	963995
7440-09-7	Potassium	J+,I6b	473000	ug/kg	*N	6710	26200	26200	1	P	HSC	03/31/10 23:23	033110B-1	963993
7782-49-2	Selenium		1100	ug/kg	U	550	1100	1100	2	MS	RMJ	05/13/10 03:15	100512-4	963995
7440-22-4	Silver		524	ug/kg	U	105	524	524	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-23-5	Sodium	J+,I6b	465000	ug/kg	*N	7340	26200	26200	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-28-0	Thallium	U,I4b	91.3	ug/kg	J	66	220	220	2	MS	RMJ	05/11/10 10:54	100510-2	963995
7440-62-2	Vanadium		6870	ug/kg	*	105	524	524	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-66-6	Zinc	J,I10a	24600	ug/kg	*	346	1050	1050	1	P	HSC	03/31/10 23:23	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.555	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.529	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.512	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.555	g	50	mL	05/13/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834003 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13863 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	J+,I6b	772000	ug/kg	*N	7490	22000	22000	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-36-0	Antimony	UJ,I12a	1100	ug/kg	U	363	1100	1100	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-38-2	Arsenic		292	ug/kg	J	224	1120	1120	2	MS	RMJ	05/11/10 10:58	100510-2	963995
7440-39-3	Barium	J,I10a	7180	ug/kg	*	110	551	551	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-41-7	Beryllium		147	ug/kg		22.4	112	112	2	MS	RMJ	05/12/10 08:14	100511-3	963995
7440-43-9	Cadmium		551	ug/kg	U	110	551	551	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-70-2	Calcium	J+,I6b	236000	ug/kg	*N	8810	27500	27500	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-46-2	Cesium		123	ug/kg		21.4	107	107	2	MS	PRB	05/26/10 15:43	100526-5	983926
7440-47-3	Chromium		2800	ug/kg	*	165	551	551	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-48-4	Cobalt		562	ug/kg		165	551	551	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-50-8	Copper		1990	ug/kg		330	1100	1100	1	P	HSC	03/31/10 23:25	033110B-1	963993
7439-89-6	Iron		5690000	ug/kg	*	8810	27500	27500	1	P	HSC	03/31/10 23:25	033110B-1	963993
7439-92-1	Lead		1760	ug/kg	*	275	1100	1100	1	P	HSC	03/31/10 23:25	033110B-1	963993
7439-95-4	Magnesium	J,I10a	94600	ug/kg	*N	9360	33000	33000	1	P	HSC	03/31/10 23:25	033110B-1	963993
7439-96-5	Manganese	J+,I6b	177000	ug/kg	*N	220	1100	1100	1	P	HSC	03/31/10 23:25	033110B-1	963993
7439-97-6	Mercury		20.8	ug/kg		4.41	13	13	1	AV	JXL1	03/24/10 09:57	032410S1-6	967600
7440-02-0	Nickel		939	ug/kg		112	448	448	2	MS	RMJ	05/11/10 10:58	100510-2	963995
7440-09-7	Potassium	J+,I6b	311000	ug/kg	*N	7050	27500	27500	1	P	HSC	03/31/10 23:25	033110B-1	963993
7782-49-2	Selenium		1120	ug/kg	U	560	1120	1120	2	MS	RMJ	05/13/10 03:20	100512-4	963995
7440-22-4	Silver		551	ug/kg	U	110	551	551	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-23-5	Sodium	J+,I6b	324000	ug/kg	*N	7710	27500	27500	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-28-0	Thallium		224	ug/kg	U	67.2	224	224	2	MS	RMJ	05/11/10 10:58	100510-2	963995
7440-62-2	Vanadium		1540	ug/kg	*	110	551	551	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-66-6	Zinc	J,I10a	18400	ug/kg	*	363	1100	1100	1	P	HSC	03/31/10 23:25	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.513	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.504	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.522	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.527	g	50	mL	05/13/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834004 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13869 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 92

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	J+,I6b	774000	ug/kg	*N	7300	21500	21500	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-36-0	Antimony	UJ,I12a	1070	ug/kg	U	354	1070	1070	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-38-2	Arsenic		597	ug/kg	J	214	1070	1070	2	MS	RMJ	05/11/10 11:03	100510-2	963995
7440-39-3	Barium	J,I10a	10000	ug/kg	*	107	537	537	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-41-7	Beryllium		348	ug/kg		21.4	107	107	2	MS	RMJ	05/12/10 08:19	100511-3	963995
7440-43-9	Cadmium		537	ug/kg	U	107	537	537	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-70-2	Calcium	J+,I6b	365000	ug/kg	*N	8590	26800	26800	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-46-2	Cesium		108	ug/kg		21.3	106	106	2	MS	PRB	05/26/10 15:44	100526-5	983926
7440-47-3	Chromium		4080	ug/kg	*	161	537	537	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-48-4	Cobalt		371	ug/kg	J	161	537	537	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-50-8	Copper		903	ug/kg	J	322	1070	1070	1	P	HSC	03/31/10 23:27	033110B-1	963993
7439-89-6	Iron		5050000	ug/kg	*	8590	26800	26800	1	P	HSC	03/31/10 23:27	033110B-1	963993
7439-92-1	Lead		1890	ug/kg	*	268	1070	1070	1	P	HSC	03/31/10 23:27	033110B-1	963993
7439-95-4	Magnesium	J,I10a	121000	ug/kg	*N	9130	32200	32200	1	P	HSC	03/31/10 23:27	033110B-1	963993
7439-96-5	Manganese	J+,I6b	231000	ug/kg	*N	215	1070	1070	1	P	HSC	03/31/10 23:27	033110B-1	963993
7439-97-6	Mercury		13	ug/kg	U	4.41	13	13	1	AV	JXL1	03/24/10 09:59	032410S1-6	967600
7440-02-0	Nickel		1210	ug/kg		107	427	427	2	MS	RMJ	05/11/10 11:03	100510-2	963995
7440-09-7	Potassium	J+,I6b	358000	ug/kg	*N	6870	26800	26800	1	P	HSC	03/31/10 23:27	033110B-1	963993
7782-49-2	Selenium		1070	ug/kg	U	534	1070	1070	2	MS	RMJ	05/13/10 03:24	100512-4	963995
7440-22-4	Silver		537	ug/kg	U	107	537	537	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-23-5	Sodium	J+,I6b	768000	ug/kg	*N	7520	26800	26800	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-28-0	Thallium		214	ug/kg	U	64.1	214	214	2	MS	RMJ	05/11/10 11:03	100510-2	963995
7440-62-2	Vanadium		1170	ug/kg	*	107	537	537	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-66-6	Zinc	J,I10a	24900	ug/kg	*	354	1070	1070	1	P	HSC	03/31/10 23:27	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.506	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.509	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.503	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.511	g	50	mL	05/13/10	AXG2

ETM
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834005 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13861 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum J+,I6b	1110000	ug/kg	*N	7480	22000	22000	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-36-0	Antimony UJ,I12a	1100	ug/kg	U	363	1100	1100	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-38-2	Arsenic	294	ug/kg	J	225	1120	1120	2	MS	RMJ	05/11/10 11:16	100510-2	963995
7440-39-3	Barium J,I10a	11500	ug/kg	*	110	550	550	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-41-7	Beryllium	284	ug/kg		22.5	112	112	2	MS	RMJ	05/12/10 08:31	100511-3	963995
7440-43-9	Cadmium	550	ug/kg	U	110	550	550	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-70-2	Calcium J+,I6b	236000	ug/kg	*N	8800	27500	27500	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-46-2	Cesium	229	ug/kg		21.3	107	107	2	MS	PRB	05/26/10 15:45	100526-5	983926
7440-47-3	Chromium	20300	ug/kg	*	165	550	550	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-48-4	Cobalt	751	ug/kg		165	550	550	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-50-8	Copper	1350	ug/kg		330	1100	1100	1	P	HSC	03/31/10 23:29	033110B-1	963993
7439-89-6	Iron	5390000	ug/kg	*	8800	27500	27500	1	P	HSC	03/31/10 23:29	033110B-1	963993
7439-92-1	Lead	2510	ug/kg	*	275	1100	1100	1	P	HSC	03/31/10 23:29	033110B-1	963993
7439-95-4	Magnesium J,I10a	139000	ug/kg	*N	9350	33000	33000	1	P	HSC	03/31/10 23:29	033110B-1	963993
7439-96-5	Manganese J+,I6b	225000	ug/kg	*N	220	1100	1100	1	P	HSC	03/31/10 23:29	033110B-1	963993
7439-97-6	Mercury	355	ug/kg		4.11	12.1	12.1	1	AV	JXL1	03/24/10 10:04	032410S1-6	967600
7440-02-0	Nickel	1630	ug/kg		112	449	449	2	MS	RMJ	05/11/10 11:16	100510-2	963995
7440-09-7	Potassium J+,I6b	420000	ug/kg	*N	7040	27500	27500	1	P	HSC	03/31/10 23:29	033110B-1	963993
7782-49-2	Selenium	1120	ug/kg	U	562	1120	1120	2	MS	RMJ	05/13/10 03:37	100512-4	963995
7440-22-4	Silver	550	ug/kg	U	110	550	550	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-23-5	Sodium J+,I6b	459000	ug/kg	*N	7700	27500	27500	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-28-0	Thallium	225	ug/kg	U	67.4	225	225	2	MS	RMJ	05/11/10 11:16	100510-2	963995
7440-62-2	Vanadium	2070	ug/kg	*	110	550	550	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-66-6	Zinc J,I10a	20600	ug/kg	*	363	1100	1100	1	P	HSC	03/31/10 23:29	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.517	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.506	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.565	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.533	g	50	mL	05/13/10	AXG2

ETM
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834006 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13866 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 92.9

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	J+,I6b	5050000	ug/kg	*N	7300	21500	21500	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-36-0	Antimony	UJ,I12a	1070	ug/kg	U	354	1070	1070	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-38-2	Arsenic		704	ug/kg	J	213	1060	1060	2	MS	RMJ	05/11/10 11:20	100510-2	963995
7440-39-3	Barium	J,I10a	47200	ug/kg	*	107	537	537	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-41-7	Beryllium		515	ug/kg		21.3	106	106	2	MS	RMJ	05/12/10 08:36	100511-3	963995
7440-43-9	Cadmium		537	ug/kg	U	107	537	537	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-70-2	Calcium	J+,I6b	833000	ug/kg	*N	8590	26900	26900	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-46-2	Cesium		704	ug/kg		20	99.8	99.8	2	MS	PRB	05/26/10 15:46	100526-5	983926
7440-47-3	Chromium		6920	ug/kg	*	161	537	537	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-48-4	Cobalt		1790	ug/kg		161	537	537	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-50-8	Copper		3100	ug/kg		322	1070	1070	1	P	HSC	03/31/10 23:32	033110B-1	963993
7439-89-6	Iron		8800000	ug/kg	*	8590	26900	26900	1	P	HSC	03/31/10 23:32	033110B-1	963993
7439-92-1	Lead		6420	ug/kg	*	269	1070	1070	1	P	HSC	03/31/10 23:32	033110B-1	963993
7439-95-4	Magnesium	J,I10a	657000	ug/kg	*N	9130	32200	32200	1	P	HSC	03/31/10 23:32	033110B-1	963993
7439-96-5	Manganese	J+,I6b	240000	ug/kg	*N	215	1070	1070	1	P	HSC	03/31/10 23:32	033110B-1	963993
7439-97-6	Mercury		8.48	ug/kg	J	4.09	12	12	1	AV	JXL1	03/24/10 10:06	032410S1-6	967600
7440-02-0	Nickel		3060	ug/kg		106	425	425	2	MS	RMJ	05/11/10 11:20	100510-2	963995
7440-09-7	Potassium	J+,I6b	491000	ug/kg	*N	6870	26900	26900	1	P	HSC	03/31/10 23:32	033110B-1	963993
7782-49-2	Selenium		1060	ug/kg	U	532	1060	1060	2	MS	RMJ	05/13/10 03:41	100512-4	963995
7440-22-4	Silver		537	ug/kg	U	107	537	537	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-23-5	Sodium	J+,I6b	392000	ug/kg	*N	7520	26900	26900	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-28-0	Thallium		213	ug/kg	U	63.8	213	213	2	MS	RMJ	05/11/10 11:20	100510-2	963995
7440-62-2	Vanadium		8370	ug/kg	*	107	537	537	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-66-6	Zinc	J,I10a	26600	ug/kg	*	354	1070	1070	1	P	HSC	03/31/10 23:32	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.501	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.506	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.537	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.539	g	50	mL	05/13/10	AXG2

ETM
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834007 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13860 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 90.5

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	J+,I6b	1870000	ug/kg	*N	7380	21700	21700	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-36-0	Antimony	UJ,I12a	1090	ug/kg	U	358	1090	1090	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-38-2	Arsenic		490	ug/kg	J	218	1090	1090	2	MS	RMJ	05/11/10 11:25	100510-2	963995
7440-39-3	Barium	J,I10a	22500	ug/kg	*	109	543	543	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-41-7	Beryllium		294	ug/kg		21.8	109	109	2	MS	RMJ	05/12/10 08:40	100511-3	963995
7440-43-9	Cadmium		116	ug/kg	J	109	543	543	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-70-2	Calcium	J+,I6b	629000	ug/kg	*N	8690	27100	27100	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-46-2	Cesium		995	ug/kg		20.9	104	104	2	MS	PRB	05/26/10 15:47	100526-5	983926
7440-47-3	Chromium		7470	ug/kg	*	163	543	543	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-48-4	Cobalt		1390	ug/kg		163	543	543	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-50-8	Copper		4860	ug/kg		326	1090	1090	1	P	HSC	03/31/10 23:34	033110B-1	963993
7439-89-6	Iron		7150000	ug/kg	*	8690	27100	27100	1	P	HSC	03/31/10 23:34	033110B-1	963993
7439-92-1	Lead		9380	ug/kg	*	271	1090	1090	1	P	HSC	03/31/10 23:34	033110B-1	963993
7439-95-4	Magnesium	J,I10a	281000	ug/kg	*N	9230	32600	32600	1	P	HSC	03/31/10 23:34	033110B-1	963993
7439-96-5	Manganese	J+,I6b	243000	ug/kg	*N	217	1090	1090	1	P	HSC	03/31/10 23:34	033110B-1	963993
7439-97-6	Mercury		7710	ug/kg		191	561	561	50	AV	JXL1	03/24/10 14:01	032410S1-6	967600
7440-02-0	Nickel		2270	ug/kg		109	436	436	2	MS	RMJ	05/11/10 11:25	100510-2	963995
7440-09-7	Potassium	J+,I6b	645000	ug/kg	*N	6950	27100	27100	1	P	HSC	03/31/10 23:34	033110B-1	963993
7782-49-2	Selenium		1090	ug/kg	U	545	1090	1090	2	MS	RMJ	05/13/10 03:45	100512-4	963995
7440-22-4	Silver		543	ug/kg	U	109	543	543	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-23-5	Sodium	J+,I6b	476000	ug/kg	*N	7600	27100	27100	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-28-0	Thallium		218	ug/kg	U	65.4	218	218	2	MS	RMJ	05/11/10 11:25	100510-2	963995
7440-62-2	Vanadium		6300	ug/kg	*	109	543	543	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-66-6	Zinc	J,I10a	29600	ug/kg	*	358	1090	1090	1	P	HSC	03/31/10 23:34	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.509	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.507	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.591	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.529	g	50	mL	05/13/10	AXG2

ETM
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834008 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13865 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 91.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum J+,I6b	919000	ug/kg	*N	7430	21800	21800	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-36-0	Antimony UJ,I12a	1090	ug/kg	U	360	1090	1090	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-38-2	Arsenic	409	ug/kg	J	216	1080	1080	2	MS	RMJ	05/11/10 11:29	100510-2	963995
7440-39-3	Barium J,I10a	10400	ug/kg	*	109	546	546	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-41-7	Beryllium	250	ug/kg		21.6	108	108	2	MS	RMJ	05/12/10 08:44	100511-3	963995
7440-43-9	Cadmium	546	ug/kg	U	109	546	546	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-70-2	Calcium J+,I6b	608000	ug/kg	*N	8740	27300	27300	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-46-2	Cesium	134	ug/kg		21.5	107	107	2	MS	PRB	05/26/10 15:48	100526-5	983926
7440-47-3	Chromium	2040	ug/kg	*	164	546	546	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-48-4	Cobalt	484	ug/kg	J	164	546	546	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-50-8	Copper	1190	ug/kg		328	1090	1090	1	P	HSC	03/31/10 23:35	033110B-1	963993
7439-89-6	Iron	5340000	ug/kg	*	8740	27300	27300	1	P	HSC	03/31/10 23:35	033110B-1	963993
7439-92-1	Lead	8770	ug/kg	*	273	1090	1090	1	P	HSC	03/31/10 23:35	033110B-1	963993
7439-95-4	Magnesium J,I10a	161000	ug/kg	*N	9280	32800	32800	1	P	HSC	03/31/10 23:35	033110B-1	963993
7439-96-5	Manganese J+,I6b	268000	ug/kg	*N	218	1090	1090	1	P	HSC	03/31/10 23:35	033110B-1	963993
7439-97-6	Mercury	22.7	ug/kg		3.76	11.1	11.1	1	AV	JXL1	03/24/10 10:09	032410S1-6	967600
7440-02-0	Nickel	797	ug/kg		108	433	433	2	MS	RMJ	05/11/10 11:29	100510-2	963995
7440-09-7	Potassium J+,I6b	336000	ug/kg	*N	6990	27300	27300	1	P	HSC	03/31/10 23:35	033110B-1	963993
7782-49-2	Selenium	1080	ug/kg	U	541	1080	1080	2	MS	RMJ	05/13/10 03:49	100512-4	963995
7440-22-4	Silver	546	ug/kg	U	109	546	546	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-23-5	Sodium J+,I6b	405000	ug/kg	*N	7650	27300	27300	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-28-0	Thallium	216	ug/kg	U	64.9	216	216	2	MS	RMJ	05/11/10 11:29	100510-2	963995
7440-62-2	Vanadium	1410	ug/kg	*	109	546	546	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-66-6	Zinc J,I10a	21200	ug/kg	*	360	1090	1090	1	P	HSC	03/31/10 23:35	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.5	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.505	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.593	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.509	g	50	mL	05/13/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834009 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13868 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 92.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum J+,I6b	2360000	ug/kg	*N	7210	21200	21200	1	P	HSC	03/31/10 23:38	033110B-1	963993
7440-36-0	Antimony UJ,I12a	1060	ug/kg	U	350	1060	1060	1	P	HSC	03/31/10 23:38	033110B-1	963993
7440-38-2	Arsenic	599	ug/kg	J	190	949	949	2	MS	RMJ	05/11/10 11:33	100510-2	963995
7440-39-3	Barium J,I10a	22900	ug/kg	*	106	530	530	1	P	HSC	03/31/10 23:38	033110B-1	963993
7440-41-7	Beryllium	353	ug/kg		19	94.9	94.9	2	MS	RMJ	05/12/10 08:48	100511-3	963995
7440-43-9	Cadmium	530	ug/kg	U	106	530	530	1	P	HSC	03/31/10 23:38	033110B-1	963993
7440-70-2	Calcium J+,I6b	275000	ug/kg	*N	8480	26500	26500	1	P	HSC	03/31/10 23:38	033110B-1	963993
7440-46-2	Cesium	313	ug/kg		20.8	104	104	2	MS	PRB	05/26/10 15:49	100526-5	983926
7440-47-3	Chromium	2460	ug/kg	*	159	530	530	1	P	HSC	03/31/10 23:38	033110B-1	963993
7440-48-4	Cobalt	1460	ug/kg		159	530	530	1	P	HSC	03/31/10 23:38	033110B-1	963993
7440-50-8	Copper	2340	ug/kg		318	1060	1060	1	P	HSC	03/31/10 23:38	033110B-1	963993
7439-89-6	Iron	7350000	ug/kg	*	8480	26500	26500	1	P	HSC	03/31/10 23:38	033110B-1	963993
7439-92-1	Lead	5260	ug/kg	*	265	1060	1060	1	P	HSC	03/31/10 23:38	033110B-1	963993
7439-95-4	Magnesium J,I10a	258000	ug/kg	*N	9010	31800	31800	1	P	HSC	03/31/10 23:38	033110B-1	963993
7439-96-5	Manganese J+,I6b	278000	ug/kg	*N	212	1060	1060	1	P	HSC	03/31/10 23:38	033110B-1	963993
7439-97-6	Mercury	5.68	ug/kg	J	4.34	12.8	12.8	1	AV	JXL1	03/24/10 10:11	032410S1-6	967600
7440-02-0	Nickel	1940	ug/kg		94.9	380	380	2	MS	RMJ	05/11/10 11:33	100510-2	963995
7440-09-7	Potassium J+,I6b	496000	ug/kg	*N	6790	26500	26500	1	P	HSC	03/31/10 23:38	033110B-1	963993
7782-49-2	Selenium	949	ug/kg	U	474	949	949	2	MS	RMJ	05/13/10 03:54	100512-4	963995
7440-22-4	Silver	530	ug/kg	U	106	530	530	1	P	HSC	03/31/10 23:38	033110B-1	963993
7440-23-5	Sodium J+,I6b	355000	ug/kg	*N	7420	26500	26500	1	P	HSC	03/31/10 23:38	033110B-1	963993
7440-28-0	Thallium	190	ug/kg	U	56.9	190	190	2	MS	RMJ	05/11/10 11:33	100510-2	963995
7440-62-2	Vanadium	5380	ug/kg	*	106	530	530	1	P	HSC	03/31/10 23:38	033110B-1	963993
7440-66-6	Zinc J,I10a	30900	ug/kg	*	350	1060	1060	1	P	HSC	03/31/10 23:38	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.511	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.571	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.509	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.522	g	50	mL	05/13/10	AXG2

ETM
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834010 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13862 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	J+,I6b	1880000	ug/kg	*N	7550	22200	22200	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-36-0	Antimony	UJ,I12a	1110	ug/kg	U	366	1110	1110	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-38-2	Arsenic		515	ug/kg	J	203	1010	1010	2	MS	RMJ	05/11/10 11:38	100510-2	963995
7440-39-3	Barium	J,I10a	21900	ug/kg	*	111	555	555	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-41-7	Beryllium		332	ug/kg		20.3	101	101	2	MS	RMJ	05/12/10 08:53	100511-3	963995
7440-43-9	Cadmium		555	ug/kg	U	111	555	555	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-70-2	Calcium	J+,I6b	705000	ug/kg	*N	8880	27800	27800	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-46-2	Cesium		3110	ug/kg		20.5	103	103	2	MS	PRB	05/26/10 15:50	100526-5	983926
7440-47-3	Chromium		2600	ug/kg	*	167	555	555	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-48-4	Cobalt		1200	ug/kg		167	555	555	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-50-8	Copper		8320	ug/kg		333	1110	1110	1	P	HSC	03/31/10 23:40	033110B-1	963993
7439-89-6	Iron		7250000	ug/kg	*	8880	27800	27800	1	P	HSC	03/31/10 23:40	033110B-1	963993
7439-92-1	Lead		15900	ug/kg	*	278	1110	1110	1	P	HSC	03/31/10 23:40	033110B-1	963993
7439-95-4	Magnesium	J,I10a	387000	ug/kg	*N	9440	33300	33300	1	P	HSC	03/31/10 23:40	033110B-1	963993
7439-96-5	Manganese	J+,I6b	196000	ug/kg	*N	222	1110	1110	1	P	HSC	03/31/10 23:40	033110B-1	963993
7439-97-6	Mercury		1200	ug/kg		40.9	120	120	10	AV	JXL1	03/24/10 14:03	032410S1-6	967600
7440-02-0	Nickel		3040	ug/kg		101	406	406	2	MS	RMJ	05/11/10 11:38	100510-2	963995
7440-09-7	Potassium	J+,I6b	362000	ug/kg	*N	7100	27800	27800	1	P	HSC	03/31/10 23:40	033110B-1	963993
7782-49-2	Selenium		1010	ug/kg	U	507	1010	1010	2	MS	RMJ	05/13/10 03:58	100512-4	963995
7440-22-4	Silver		555	ug/kg	U	111	555	555	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-23-5	Sodium	J+,I6b	300000	ug/kg	*N	7770	27800	27800	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-28-0	Thallium		203	ug/kg	U	60.9	203	203	2	MS	RMJ	05/11/10 11:38	100510-2	963995
7440-62-2	Vanadium		4500	ug/kg	*	111	555	555	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-66-6	Zinc	J,I10a	31100	ug/kg	*	366	1110	1110	1	P	HSC	03/31/10 23:40	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.508	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.556	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.563	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.549	g	50	mL	05/13/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834011 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13873 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 92.9

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum J+,I6b	5390000	ug/kg	*N	7260	21400	21400	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-36-0	Antimony UJ,I12a	1070	ug/kg	U	352	1070	1070	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-38-2	Arsenic	872	ug/kg	J	211	1060	1060	2	MS	RMJ	05/11/10 11:42	100510-2	963995
7440-39-3	Barium J,I10a	48500	ug/kg	*	107	534	534	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-41-7	Beryllium	565	ug/kg		21.1	106	106	2	MS	RMJ	05/12/10 08:57	100511-3	963995
7440-43-9	Cadmium	534	ug/kg	U	107	534	534	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-70-2	Calcium J+,I6b	978000	ug/kg	*N	8540	26700	26700	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-46-2	Cesium	932	ug/kg		19.4	96.8	96.8	2	MS	PRB	05/26/10 15:51	100526-5	983926
7440-47-3	Chromium	6220	ug/kg	*	160	534	534	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-48-4	Cobalt	2030	ug/kg		160	534	534	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-50-8	Copper	3540	ug/kg		320	1070	1070	1	P	HSC	03/31/10 23:42	033110B-1	963993
7439-89-6	Iron	9240000	ug/kg	*	8540	26700	26700	1	P	HSC	03/31/10 23:42	033110B-1	963993
7439-92-1	Lead	6160	ug/kg	*	267	1070	1070	1	P	HSC	03/31/10 23:42	033110B-1	963993
7439-95-4	Magnesium J,I10a	603000	ug/kg	*N	9070	32000	32000	1	P	HSC	03/31/10 23:42	033110B-1	963993
7439-96-5	Manganese J+,I6b	230000	ug/kg	*N	214	1070	1070	1	P	HSC	03/31/10 23:42	033110B-1	963993
7439-97-6	Mercury	8.94	ug/kg	J	3.82	11.2	11.2	1	AV	JXL1	03/24/10 10:14	032410S1-6	967600
7440-02-0	Nickel	3810	ug/kg		106	423	423	2	MS	RMJ	05/11/10 11:42	100510-2	963995
7440-09-7	Potassium J+,I6b	458000	ug/kg	*N	6830	26700	26700	1	P	HSC	03/31/10 23:42	033110B-1	963993
7782-49-2	Selenium	1060	ug/kg	U	529	1060	1060	2	MS	RMJ	05/13/10 04:02	100512-4	963995
7440-22-4	Silver	534	ug/kg	U	107	534	534	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-23-5	Sodium J+,I6b	402000	ug/kg	*N	7470	26700	26700	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-28-0	Thallium	211	ug/kg	U	63.4	211	211	2	MS	RMJ	05/11/10 11:42	100510-2	963995
7440-62-2	Vanadium	10400	ug/kg	*	107	534	534	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-66-6	Zinc J,I10a	26300	ug/kg	*	352	1070	1070	1	P	HSC	03/31/10 23:42	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.504	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.509	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.574	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.556	g	50	mL	05/13/10	AXG2

ETM
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248839001 **BASIS:** As Received **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13872 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	RMJ	05/11/10 08:18	100510-2	962984
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	RMJ	05/11/10 08:18	100510-2	962984
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	RMJ	05/11/10 08:18	100510-2	962984
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-46-2	Cesium	0.50	ug/L	U	0.102	0.5	0.5	1	MS	PRB	05/26/10 16:03	100526-4	987939
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	03/31/10 19:35	033110B-1	962982
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	03/31/10 19:35	033110B-1	962982
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	RMJ	05/12/10 03:00	100511-3	962984
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/31/10 19:35	033110B-1	962982
7439-96-5	Manganese	1.17	ug/L	J	1	5	5	1	MS	RMJ	05/12/10 03:00	100511-3	962984
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/13/10 09:12	031310W1-5	964665
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	03/31/10 19:35	033110B-1	962982
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-23-5	Sodium	122	ug/L	J	100	300	300	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	RMJ	05/11/10 08:18	100510-2	962984
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	03/31/10 19:35	033110B-1	962982

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
962982	962981	SW846 3005A	50	mL	50	mL	03/13/10	LYH1
962984	962983	SW846 3005A	50	mL	50	mL	03/13/10	LYH1
964665	964663	SW846 7470A Prep	20	mL	20	mL	03/12/10	TXB3
987939	987937	SW846 3005A	25	mL	25	mL	05/25/10	AXG2

ETM
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248839002 **BASIS:** As Received **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13875 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	RMJ	05/11/10 08:22	100510-2	962984
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	RMJ	05/11/10 08:22	100510-2	962984
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	RMJ	05/11/10 08:22	100510-2	962984
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-46-2	Cesium	0.50	ug/L	U	0.102	0.5	0.5	1	MS	PRB	05/26/10 15:56	100526-4	987387
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	03/31/10 19:38	033110B-1	962982
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	03/31/10 19:38	033110B-1	962982
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	RMJ	05/12/10 03:04	100511-3	962984
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/31/10 19:38	033110B-1	962982
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	RMJ	05/12/10 03:04	100511-3	962984
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/13/10 09:14	031310W1-5	964665
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	03/31/10 19:38	033110B-1	962982
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	RMJ	05/11/10 08:22	100510-2	962984
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	03/31/10 19:38	033110B-1	962982

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
962982	962981	SW846 3005A	50	mL	50	mL	03/13/10	LYH1
962984	962983	SW846 3005A	50	mL	50	mL	03/13/10	LYH1
964665	964663	SW846 7470A Prep	20	mL	20	mL	03/12/10	TXB3
987387	987386	SW846 3005A	25	mL	25	mL	05/24/10	BXA1

ETM
6/13/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2299 VALIDATION DATE: 6/13/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Total CN only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that all the matrix QC analyses were performed on LANL samples from different RNs. No sample data were qualified.

Reviewed By: Charissa Lewis **Level:** I **Date:** 6/14/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/13/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13864	Project:	LANL01004
Sample ID:	248834002	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	14%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	J	71.7	68.2	251	ug/kg	1	AXC2 03/16/10	2106	962262	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

ETM
6/13/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13863	Project:	LANL01004
Sample ID:	248834003	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	11.5%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	73.9	272	ug/kg	1	AXC2 03/16/10	2106	962262	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

ETM
6/13/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13869	Project:	LANL01004
Sample ID:	248834004	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	7.99%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	68.4	252	ug/kg	1	AXC2 03/16/10	2107	962262	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

ETM
6/13/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13861	Project:	LANL01004
Sample ID:	248834005	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	12.1%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
'012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	71.6	263	ug/kg	1	AXC2 03/16/10	2108	962262	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

ETM
6/13/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13866	Project:	LANL01004
Sample ID:	248834006	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	7.09%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	65.3	240	ug/kg	1	AXC2 03/16/10	2109	962262	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

ETM
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13860	Project:	LANL01004
Sample ID:	248834007	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	9.53%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	64.8	238	ug/kg	1	AXC2 03/16/10	2110	962262	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

ETM
6/13/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13865	Project:	LANL01004
Sample ID:	248834008	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	8.45%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	67.5	248	ug/kg	1	AXC2 03/16/10	2111	962262	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

ETM
6/13/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13868	Project:	LANL01004
Sample ID:	248834009	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	7.71%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	70.8	260	ug/kg	1	AXC2 03/16/10	2112	962262	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

ETM
6/13/10

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13862	Project:	LANL01004
Sample ID:	248834010	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	11.3%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	75.2	276	ug/kg	1	AXC2 03/16/10	2113	962262	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

ETM
6/13/10

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13873	Project:	LANL01004
Sample ID:	248834011	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	7.07%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	63.1	232	ug/kg	1	AXC2 03/16/10	2114	962262	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

ETM
6/13/10

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13867	Project:	LANL01004
Sample ID:	248834001	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	7.9%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	73.8	271	ug/kg	1	AXC2 03/16/10	2101	962262	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

ETM
6/13/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2299-1

Client Sample ID:	RE46-10-13872	Project:	LANL01004
Sample ID:	248839001	Client ID:	LANL010
Matrix:	W		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "As Received"										
nide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/11/10	1839	962268	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/11/10	1416	962267

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

ETM
6/13/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2299-1

Client Sample ID: RE46-10-13875
Sample ID: 248839002
Matrix: W
Collect Date: 03-MAR-10 12:00
Receive Date: 05-MAR-10
Collector: Client

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
'012A Cyanide, Total "As Received"										
nide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/11/10	1840	962268	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/11/10	1416	962267

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

ETM
6/13/10

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2299

REQUEST NUMBER: 10-2299

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 248834, 248839

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13867	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13864	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13863	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13869	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13861	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13866	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13860	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13865	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13868	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13862	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13872	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-13872	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-13875	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-13875	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-13872	1	POLY	SW-846:6850	Ice	W
RE46-10-13875	1	POLY	SW-846:6850	Ice	W
RE46-10-13873	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
Jeff Wy	3/4/10	1400	Patricia Dover-Dent P. Dover-Dent	3/5/10	10:20
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: Date Time **Remarks:**

Printed Name Signature

Hard Copy Required

Thursday, March 04, 2010

REQUEST NUMBER: 10-2299

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2299
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010
TURNAROUND/REPORT DUE: 4/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE46-10-13860	S	3/3/2010	Plus Cesium Metals
		1	RE46-10-13861	S	3/3/2010	Plus Cesium Metals
		1	RE46-10-13862	S	3/3/2010	Plus Cesium Metals
		1	RE46-10-13863	S	3/3/2010	Plus Cesium Metals
		1	RE46-10-13864	S	3/3/2010	Plus Cesium Metals
		1	RE46-10-13865	S	3/3/2010	Plus Cesium Metals

	1	RE46-10-13866	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13867	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13868	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13869	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13872	W	3/3/2010	Plus Cesium Metal
	1	RE46-10-13873	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13875	W	3/3/2010	Plus Cesium Metal
SW-846:6020	1	RE46-10-13872	W	3/3/2010	Plus Cesium Metal
	1	RE46-10-13875	W	3/3/2010	Plus Cesium Metal
SW-846:6850	1	RE46-10-13872	W	3/3/2010	
	1	RE46-10-13875	W	3/3/2010	
SW-846:9012A	1	RE46-10-13860	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13861	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13862	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13863	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13864	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13865	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13866	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13867	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13868	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13869	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13872	W	3/3/2010	
	1	RE46-10-13873	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13875	W	3/3/2010	

Final Page of REQUEST NUMBER 10-2299

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

March 12, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Orders: 248834 248839
SDG: 10-2299

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 05, 2010, and analyzed for General Chemistry, Metals and Perchlorates by LCMSMS. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2299
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 248834 and 248839
SDG: 10-2299

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- Sample Data Summary 1027
- Quality Control Summary 1040
- Instrument QC Data Summary 1043
- Cyanide, Total 1045
- Miscellaneous 1061

General Chemistry Analysis **1063**
- Case Narrative 1064
- Sample Data Summary 1069

Quality Control Summary 1073
Instrument QC Data Summary 1076
Cyanide, Total 1078
Miscellaneous 1092

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 248834 and 248839
SDG # : 10-2299

March 12, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 05, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
248834001	RE46-10-13867
248834002	RE46-10-13864
248834003	RE46-10-13863
248834004	RE46-10-13869
248834005	RE46-10-13861
248834006	RE46-10-13866
248834007	RE46-10-13860
248834008	RE46-10-13865
248834009	RE46-10-13868
248834010	RE46-10-13862
248834011	RE46-10-13873
248839001	RE46-10-13872
248839002	RE46-10-13875

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Perchlorates by LCMSMS.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 12 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2299C

REQUEST NUMBER: 10-2299

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 248834, 248839

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RE46-10-13875	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-13872	1	POLY	SW-846:6850	Ice	W
RE46-10-13875	1	POLY	SW-846:6850	Ice	W
RE46-10-13873	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	3/4/10	1400	Patricia Dover-Dent / P. Dover-Dent	3/5/10	10:20
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Thursday, March 04, 2010

REQUEST NUMBER: 10-2299

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2299
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010
TURNAROUND/REPORT DUE: 4/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE46-10-13860	S	3/3/2010	Plus Cesium Metals
		1	RE46-10-13861	S	3/3/2010	Plus Cesium Metals
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		1	RE46-10-13864	S	3/3/2010	Plus Cesium Metals
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	1	RE46-10-13863	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13864	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13865	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13866	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13867	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13868	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13869	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13872	W	3/3/2010	
	1	RE46-10-13873	S	3/3/2010	Plus Cesium Metals
	1	RE46-10-13875	W	3/3/2010	

Final Page of REQUEST NUMBER 10-2299

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order:10-2299**
Received By:Patricia Dover-Dent	**Date Received: 3/5/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **1-5 13,15**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:

7209 7850 3587 1C	**7209 7850 3668 4C**
7209 7850 3613 2C	**7209 7850 3657 5C**
7209 7850 3598 2C	**7209 7850 3565 13C**
7209 7850 3602 3C	**7209 7850 3543 13C**
7209 7850 3635 3C	**7209 7850 3554 15C**
7209 7850 3576 3C	
7209 7850 3646 3C	
7209 7850 3624 3C	

PM (or PMA) review: Initials MS Date 3/8/10

N ID: SAFA (505) 665-9968
NE VALDEZ
LAMOS NATL LAB.
BLDG 1237 DPU 03

LAMOS, NM 87545
ED STATES US

ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
) 556-8171
F: 6B010AMR3A0223KY10

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PRIORITY OVERNIGHT

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
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LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

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ACTWGT: 44.0 LB MAN
CAD: 0014176/CAFE2450

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE24

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
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(843) 556-8171
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LOS ALAMOS NATL LAB
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LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2450

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TO VALERIE DAVIS
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(843) 556-8171
REF: 6B010AMR1A015AGWMO

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2450

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

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ACTWGT: 66.0 LB MAN
CAD: 0014176/CAFE2450

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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TRK# 0201 7209 7850 3624

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PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
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IGIN ID: SAFA (505) 665-9968
YLENE VALDEZ
S ALAMOS NATL LAB.
00 BLDG 1237 DPU 03

S ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
43) 556-8171
EF: 6B010AMR1A015AGWM0

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PRIORITY OVERNIGHT

7209 7850 3668

X CHSA

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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3 of 3
MPS# 0263 7209 7850 3657
Mstr# 7209 7850 3635 0201

FRI - 05MAR A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
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CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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1 of 2
7209 7850 3565
MASTER ##

FRI - 05MAR A1
PRIORITY OVERNIGHT

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29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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SHIP DATE: 04MAR10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2299

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	964119
Prep Batch Number:	964118

Sample Analysis

Sample ID	**Client ID**
248834001	RE46-10-13867
248834002	RE46-10-13864
248834003	RE46-10-13863
248834004	RE46-10-13869
248834005	RE46-10-13861
248834006	RE46-10-13866
248834007	RE46-10-13860
248834008	RE46-10-13865
248834009	RE46-10-13868
248834010	RE46-10-13862
248834011	RE46-10-13873
1202068346	Interference Check Sample (ICS)
1202068342	Method Blank (MB)
1202068343	Laboratory Control Sample (LCS)
1202068344	248793001(RE16-10-3792) Matrix Spike (MS)
1202068345	248793001(RE16-10-3792) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

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Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 248793001 (RE16-10-3792) from SDG 10-2287-1 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

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Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
In the initial analysis of the 1202068346 (ICS), the recoveries of Perchlorate and Perchlorate-101 were just outside the acceptance range of 70-130%. It was re-analyzed and passed acceptance criteria. The re-analysis is reported.

Samples 248834001 (RE46-10-13867), 248834002 (RE46-10-13864), 248834003 (RE46-10-13863), 248834004 (RE46-10-13869), 248834005 (RE46-10-13861), 248834006 (RE46-10-13866), 248834007 (RE46-10-13860), 248834008 (RE46-10-13865) and 248834009 (RE46-10-13868) required re-analysis due to bracketing CCV failure. The re-analysis passed acceptance criteria and is reported.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

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Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather M Maier **Date:** 03/31/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13867

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834001

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 92.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.543	2.17	0.543	ug/kg	U	1	27-MAR-10 15:51	per0327015a
	Perchlorate Isotope Ratio						1	27-MAR-10 15:51	per0327015a
14797-73-0	Perchlorate-101	.543	2.17	0.543	ug/kg	U	1	27-MAR-10 15:51	per0327015a
	Perchlorate-O(18)			5.56	ug/kg		1	27-MAR-10 15:51	per0327015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13864

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834002

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.582	2.33	0.582	ug/kg	U	1	27-MAR-10 16:00	per0327016a
	Perchlorate Isotope Ratio						1	27-MAR-10 16:00	per0327016a
14797-73-0	Perchlorate-101	.582	2.33	0.582	ug/kg	U	1	27-MAR-10 16:00	per0327016a
	Perchlorate-O(18)			5.58	ug/kg		1	27-MAR-10 16:00	per0327016a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13863

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834003

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.565	2.26	0.565	ug/kg	U	1	27-MAR-10 16:10	per0327017a
	Perchlorate Isotope Ratio						1	27-MAR-10 16:10	per0327017a
14797-73-0	Perchlorate-101	.565	2.26	0.565	ug/kg	U	1	27-MAR-10 16:10	per0327017a
	Perchlorate-O(18)			5.39	ug/kg		1	27-MAR-10 16:10	per0327017a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13869

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834004

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 92

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.543	2.17	0.543	ug/kg	U	1	27-MAR-10 16:20	per0327018a
	Perchlorate Isotope Ratio						1	27-MAR-10 16:20	per0327018a
14797-73-0	Perchlorate-101	.543	2.17	0.543	ug/kg	U	1	27-MAR-10 16:20	per0327018a
	Perchlorate-O(18)			5.60	ug/kg		1	27-MAR-10 16:20	per0327018a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13861

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834005

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.569	2.27	0.569	ug/kg	U	1	27-MAR-10 16:29	per0327019a
	Perchlorate Isotope Ratio						1	27-MAR-10 16:29	per0327019a
14797-73-0	Perchlorate-101	.569	2.27	0.569	ug/kg	U	1	27-MAR-10 16:29	per0327019a
	Perchlorate-O(18)			5.61	ug/kg		1	27-MAR-10 16:29	per0327019a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13866

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834006

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 92.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.538	2.15	0.538	ug/kg	U	1	27-MAR-10 16:39	per0327020a
	Perchlorate Isotope Ratio						1	27-MAR-10 16:39	per0327020a
14797-73-0	Perchlorate-101	.538	2.15	0.538	ug/kg	U	1	27-MAR-10 16:39	per0327020a
	Perchlorate-O(18)			5.51	ug/kg		1	27-MAR-10 16:39	per0327020a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13860

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834007

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 90.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.553	2.21	0.553	ug/kg	U	1	27-MAR-10 16:48	per0327021a
	Perchlorate Isotope Ratio						1	27-MAR-10 16:48	per0327021a
14797-73-0	Perchlorate-101	.553	2.21	0.553	ug/kg	U	1	27-MAR-10 16:48	per0327021a
	Perchlorate-O(18)			5.84	ug/kg		1	27-MAR-10 16:48	per0327021a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13865

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834008

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 91.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.546	2.18	0.546	ug/kg	U	1	27-MAR-10 17:27	per0327025a
	Perchlorate Isotope Ratio						1	27-MAR-10 17:27	per0327025a
14797-73-0	Perchlorate-101	.546	2.18	0.546	ug/kg	U	1	27-MAR-10 17:27	per0327025a
	Perchlorate-O(18)			5.65	ug/kg		1	27-MAR-10 17:27	per0327025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13868

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834009

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 92.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.542	2.17	0.542	ug/kg	U	1	27-MAR-10 17:36	per0327026a
	Perchlorate Isotope Ratio						1	27-MAR-10 17:36	per0327026a
14797-73-0	Perchlorate-101	.542	2.17	0.542	ug/kg	U	1	27-MAR-10 17:36	per0327026a
	Perchlorate-O(18)			5.18	ug/kg		1	27-MAR-10 17:36	per0327026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13862

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834010

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.564	2.26	0.564	ug/kg	U	1	27-MAR-10 17:46	per0327027a
	Perchlorate Isotope Ratio						1	27-MAR-10 17:46	per0327027a
14797-73-0	Perchlorate-101	.564	2.26	0.564	ug/kg	U	1	27-MAR-10 17:46	per0327027a
	Perchlorate-O(18)			5.77	ug/kg		1	27-MAR-10 17:46	per0327027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13873

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834011

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 92.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.538	2.15	0.538	ug/kg	U	1	27-MAR-10 17:55	per0327028a
	Perchlorate Isotope Ratio						1	27-MAR-10 17:55	per0327028a
14797-73-0	Perchlorate-101	.538	2.15	0.538	ug/kg	U	1	27-MAR-10 17:55	per0327028a
	Perchlorate-O(18)			5.41	ug/kg		1	27-MAR-10 17:55	per0327028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Form 5

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2299

Extract Batch Code: 964118

Date Filtered: 18–MAR–10

Matrix: SOIL

Sample ID: 1202068343

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.77	ug/kg	88.3		70 – 130
Perchlorate Isotope Ratio		3.29				–
Perchlorate–101	2.00	1.85	ug/kg	92.3		70 – 130
Perchlorate–O(18)		4.38	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2299

Extract Batch Code: 964118

Date Filtered: 18–MAR–10

Matrix: SOIL

Sample ID: 1202068346

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.35	ug/kg	118		70 – 130
Perchlorate Isotope Ratio		3.55				
Perchlorate–101	2.00	2.11	ug/kg	105		70 – 130
Perchlorate–O(18)		5.14	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327013a
Date: 27-Mar-2010
Time: 15:31:45
ID: 1202068346
Vial: 1:3,B

| LANL | 964119 | 50120 | 215 | 1 | 2A

CW 03-28-10

Perchlorate

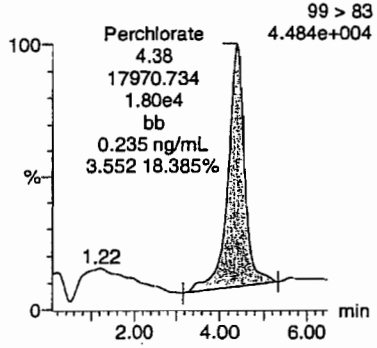

Perchlorate

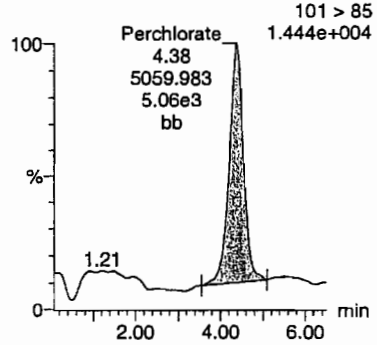

Perchlorate-101

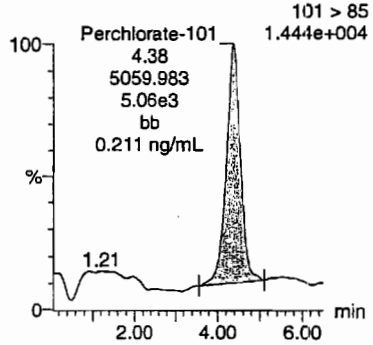

Perchlorate-O(18)

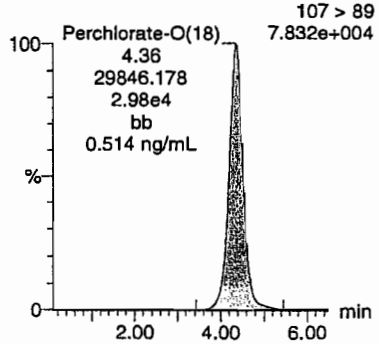

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068346	Perchlorate	99 > 83	4.38	17970.734	17970.734	bb			0.2354	117.69	17.69	249.370	3.55
1202068346	Perchlorate-101	101 > 85	4.38	5059.983	5059.983	bb			0.2109	105.45	5.45	152.487	
1202068346	Perchlorate-O(18)	107 > 89	4.36	29846.178	29846.178	bb			0.5141	102.83	2.83	3414.5...	

MMT 3/30/10

$$\frac{17970.734}{76347.5} = 0.2354$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–2299

Extract Batch Code: 964118

Date Extracted: 18–MAR–10

GEL MS/PS ID: 1202068344

Client ID: RE16–10–3792

GEL MSD/PSD ID: 1202068345

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.09	0.00	ug/kg	1.73	82.9	1.87	89.8	8	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.04		3.44		0		–
Perchlorate–101	2.09	0.00	ug/kg	1.96	93.8	1.87	89.8	4.31	30	75 – 125
Perchlorate–O(18)	0	4.62	ug/kg	4.73		4.52		4.5		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2299

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	26–MAR–10	per0326001a	IPB001
Perchlorate–101	0.00	0	NA	26–MAR–10	per0326001a	IPB001
Perchlorate	0.00	0	NA	26–MAR–10	per0326002a	IPB001
Perchlorate–101	0.00	0	NA	26–MAR–10	per0326002a	IPB001
Perchlorate	0.00	0	NA	27–MAR–10	per0327001a	IPB001
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327001a	IPB001
Perchlorate	0.00	0	NA	27–MAR–10	per0327002a	IPB001
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327002a	IPB001

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032610a.mdb 27 Mar 2010 09:40:09
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032610a.cdb 27 Mar 2010 09:40:32

Name: per0326001a
Date: 26-Mar-2010
Time: 18:12:50
D: IPB001
Vial: 1:1,A

CWW
03-27-10

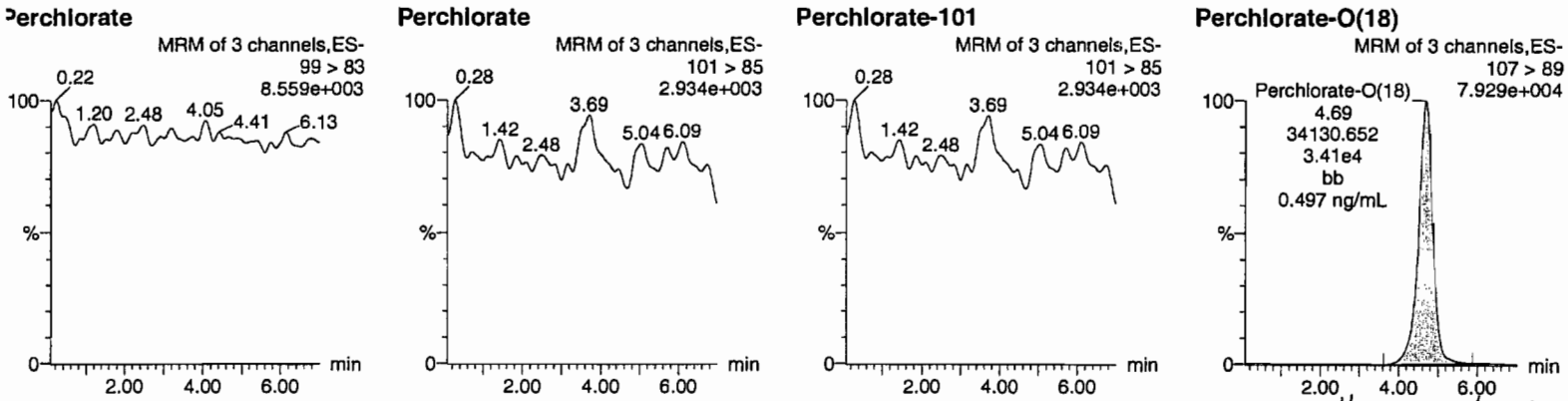

Hmm 03/27/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB001	Perchlorate	99 > 83											0.00
PB001	Perchlorate-101	101 > 85											
PB001	Perchlorate-O(18)	107 > 89	4.69	34130.652	34130.652	bb			0.4965	99.30	-0.70	2414.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326002a
Date: 26-Mar-2010
Time: 18:23:00
ID: IPB001
Vial: 1:1,A

CWW 03-27-10

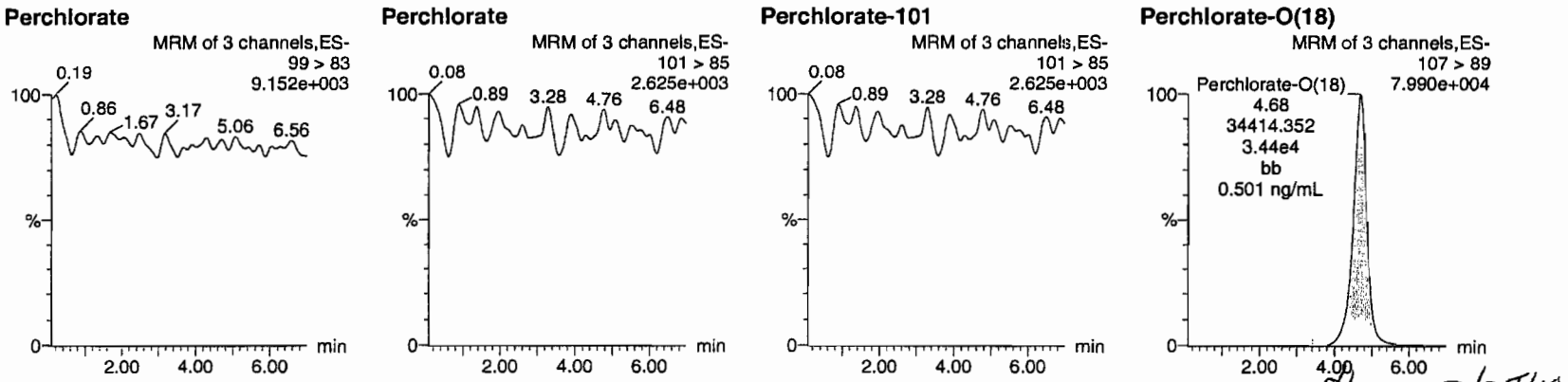

Anne 03/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB001	Perchlorate	99 > 83											0.00
PB001	Perchlorate-101	101 > 85											
PB001	Perchlorate-O(18)	107 > 89	4.68	34414.352	34414.352	bb			0.5006	100.13	0.13	1995.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032710a.mdb 28 Mar 2010 10:15:37
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032710a.cdb 28 Mar 2010 10:33:56

Name: per0327001a
Date: 27-Mar-2010
Time: 13:35:19
ID: IPB001
Vial: 1:1,A

03-28-10

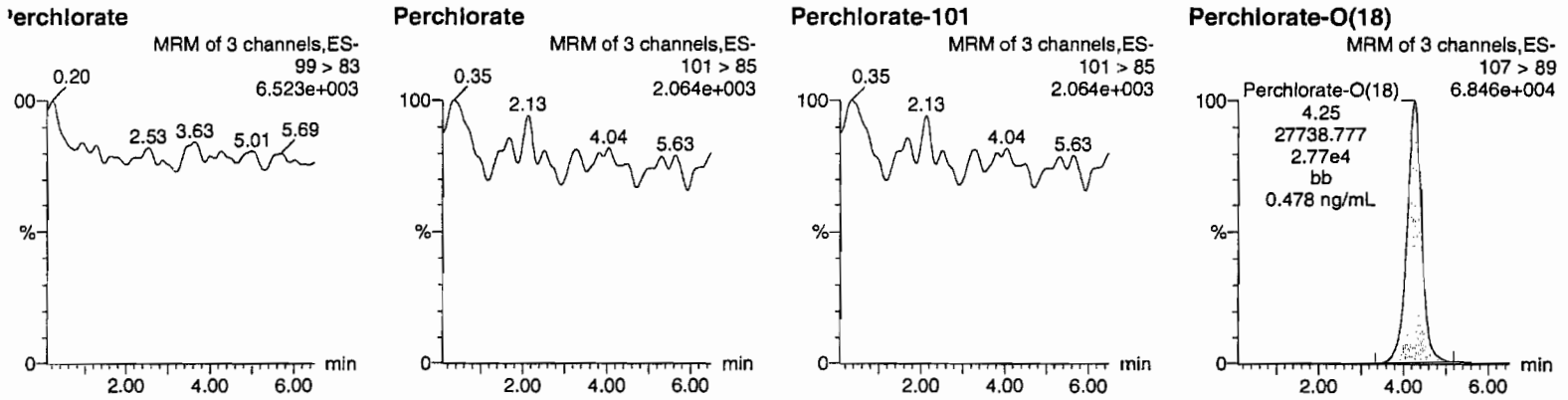

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IB001	Perchlorate	99 > 83											0.00
IB001	Perchlorate-101	101 > 85											
IB001	Perchlorate-O(18)	107 > 89	4.25	27738.777	27738.777	bb			0.4778	95.57	-4.43	3497.0...	

MMT 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

ast Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
rinted: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

ame: per0327002a
ate: 27-Mar-2010
ime: 13:44:59
): IPB001
ial: 1:1,A

CWW
03-28-10

erchlorate

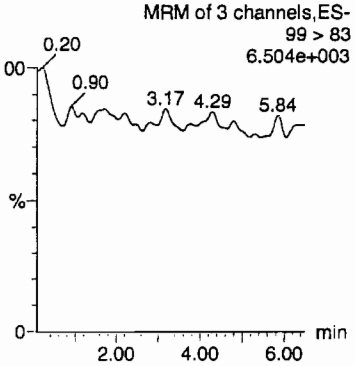

Perchlorate

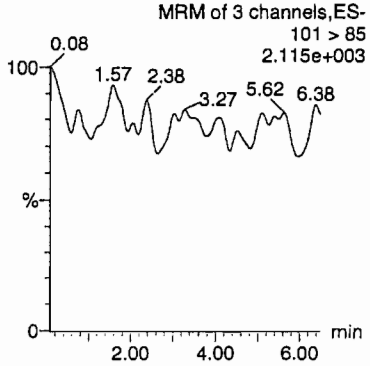

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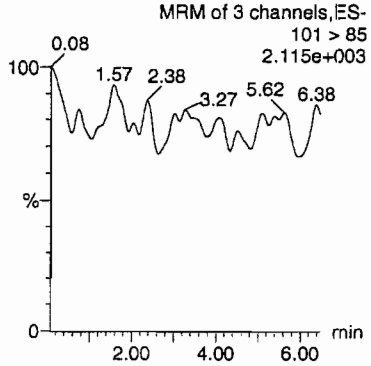

Perchlorate-O(18)

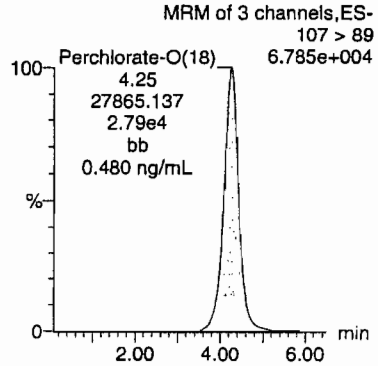

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'B001	Perchlorate	99 > 83											0.00
'B001	Perchlorate-101	101 > 85											
'B001	Perchlorate-O(18)	107 > 89	4.25	27865.137	27865.137	bb			0.4800	96.00	-4.00	9932.1...	

3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2299

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	26–MAR–10	per0326008a	IPB002
Perchlorate–101	0.00	0	NA	26–MAR–10	per0326008a	IPB002
Perchlorate	0.00	0	NA	26–MAR–10	per0326010a	IPB003
Perchlorate–101	0.00	0	NA	26–MAR–10	per0326010a	IPB003
Perchlorate	0.00	0	NA	26–MAR–10	per0326013a	IPB004
Perchlorate–101	0.00	0	NA	26–MAR–10	per0326013a	IPB004
Perchlorate	0.00	0	NA	26–MAR–10	per0326023a	IPB005
Perchlorate–101	0.00	0	NA	26–MAR–10	per0326023a	IPB005
Perchlorate	0.00	0	NA	26–MAR–10	per0326029a	IPB006
Perchlorate–101	0.00	0	NA	26–MAR–10	per0326029a	IPB006
Perchlorate	0.00	0	NA	27–MAR–10	per0326036a	IPB007
Perchlorate–101	0.00	0	NA	27–MAR–10	per0326036a	IPB007
Perchlorate	0.00	0	NA	27–MAR–10	per0326048a	IPB008

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-2299

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	27-MAR-10	per0326048a	IPB008
Perchlorate	0.00	0	NA	27-MAR-10	per0326058a	IPB009
Perchlorate-101	0.00	0	NA	27-MAR-10	per0326058a	IPB009
Perchlorate	0.00	0	NA	27-MAR-10	per0326071a	IPB010
Perchlorate-101	0.00	0	NA	27-MAR-10	per0326071a	IPB010
Perchlorate	0.00	0	NA	27-MAR-10	per0327008a	IPB002
Perchlorate-101	0.00	0	NA	27-MAR-10	per0327008a	IPB002
Perchlorate	0.00	0	NA	27-MAR-10	per0327010a	IPB003
Perchlorate-101	0.00	0	NA	27-MAR-10	per0327010a	IPB003
Perchlorate	0.00	0	NA	27-MAR-10	per0327023a	IPB004
Perchlorate-101	0.00	0	NA	27-MAR-10	per0327023a	IPB004
Perchlorate	0.00	0	NA	27-MAR-10	per0327029a	IPB005
Perchlorate-101	0.00	0	NA	27-MAR-10	per0327029a	IPB005

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2299

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	27-MAR-10	per0327036a	IPB006
Perchlorate-101	0.00	0	NA	27-MAR-10	per0327036a	IPB006

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326008a
Date: 26-Mar-2010
Time: 19:24:10
ID: IPB002
Vial: 1:1,A

CW 03-27-10

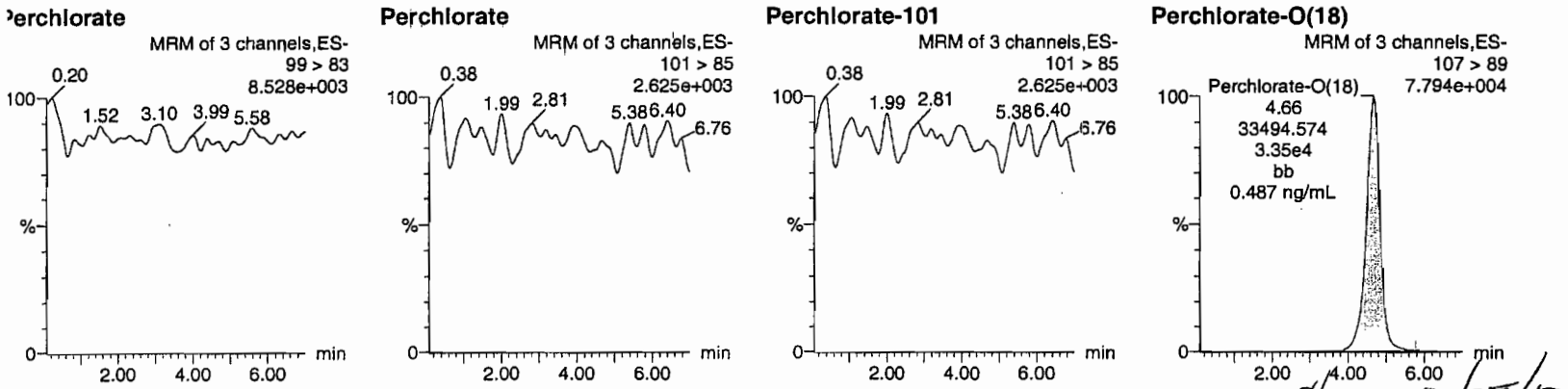

03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB002	Perchlorate	99 > 83											0.00
PB002	Perchlorate-101	101 > 85											
PB002	Perchlorate-O(18)	107 > 89	4.66	33494.574	33494.574	bb			0.4873	97.45	-2.55	2589.0...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326010a
Date: 26-Mar-2010
Time: 19:44:29
ID: IPB003
Vial: 1:1,A

CWO 03-27-10

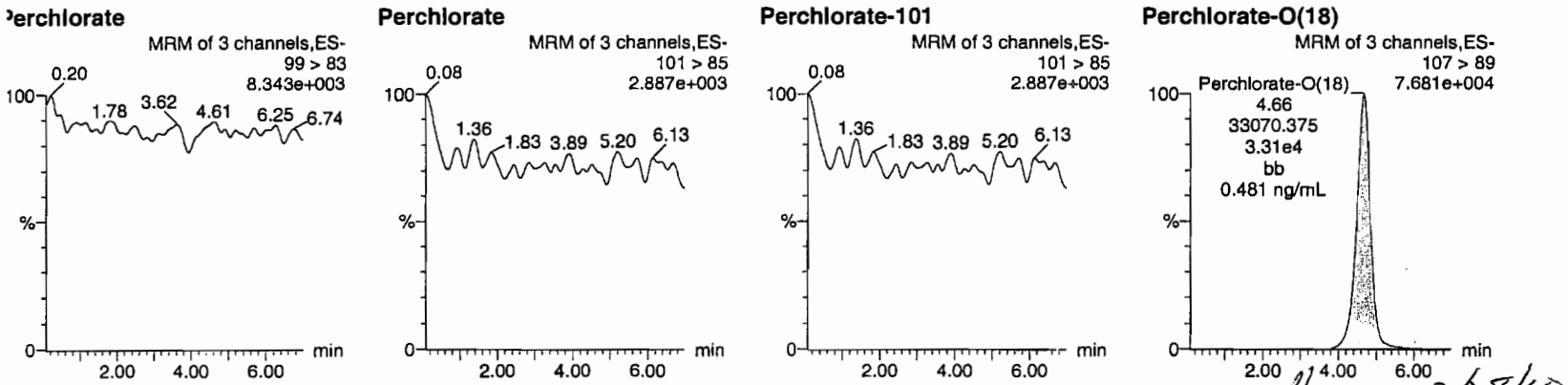

AM 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB003	Perchlorate	99 > 83											0.00
PB003	Perchlorate-101	101 > 85											
PB003	Perchlorate-O(18)	107 > 89	4.66	33070.375	33070.375	bb			0.4811	96.22	-3.78	2830.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326013a
Date: 26-Mar-2010
Time: 20:14:44
ID: IPB004
Vial: 1:1,A

CWW
03-27-10

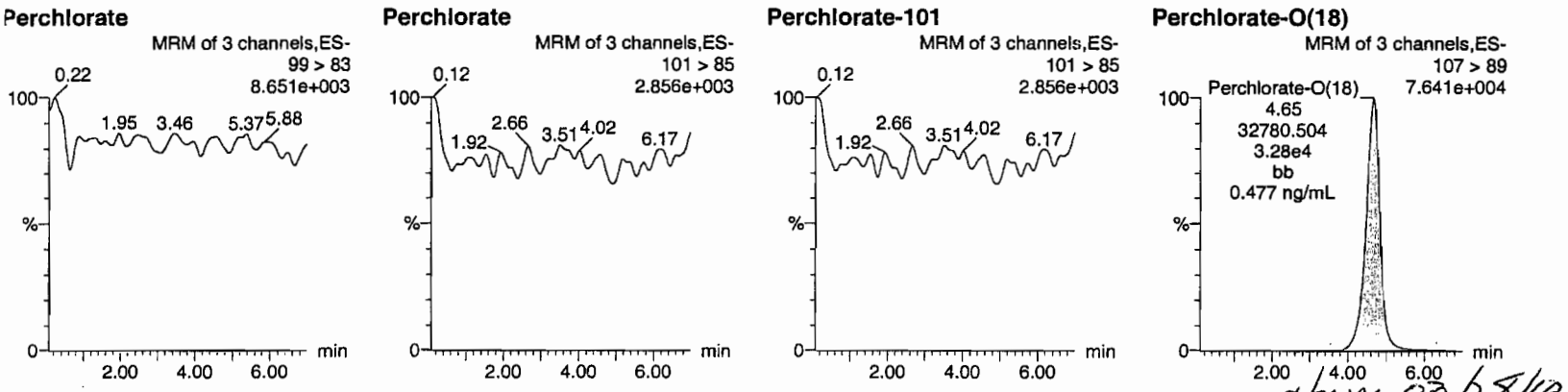

HMW 03/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB004	Perchlorate	99 > 83											0.00
PB004	Perchlorate-101	101 > 85											
PB004	Perchlorate-O(18)	107 > 89	4.65	32780.504	32780.504	bb			0.4769	95.37	-4.63	1828.6...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326023a
Date: 26-Mar-2010
Time: 21:55:59
ID: IPB005
Vial: 1:1,A

CWO
03-27-10

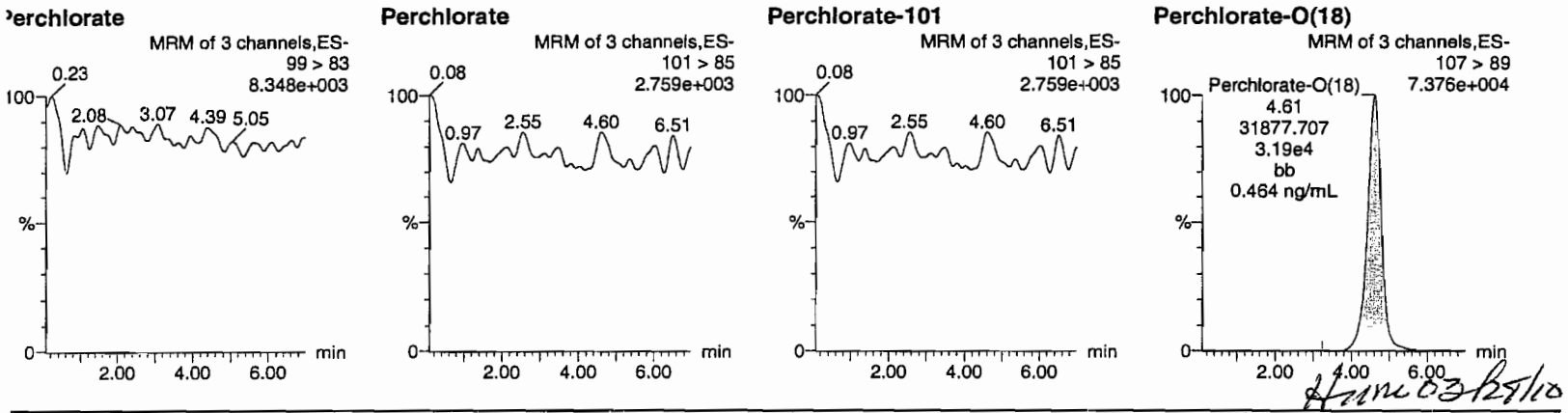

Hume 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB005	Perchlorate	99 > 83											0.00
PB005	Perchlorate-101	101 > 85											
PB005	Perchlorate-O(18)	107 > 89	4.61	31877.707	31877.707	bb			0.4637	92.75	-7.25	3230.6...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326029a
Date: 26-Mar-2010
Time: 22:56:12
ID: IPB006
Vial: 1:1,A

CWW 03-27-10

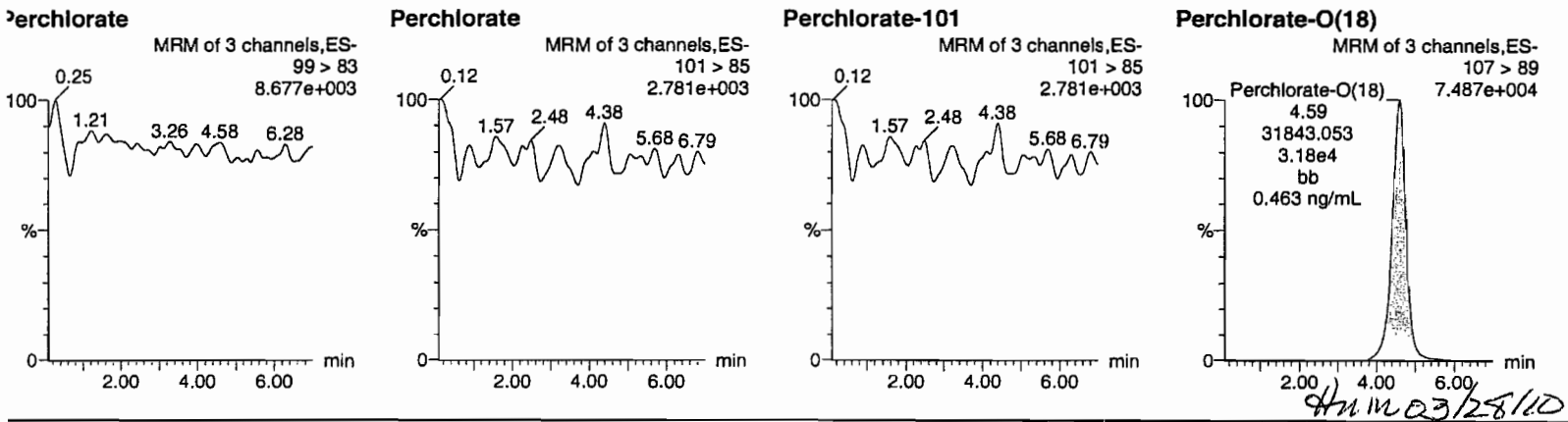

HM 03/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB006	Perchlorate	99 > 83											0.00
PB006	Perchlorate-101	101 > 85											
PB006	Perchlorate-O(18)	107 > 89	4.59	31843.053	31843.053	bb			0.4632	92.65	-7.35	4856.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326036a
Date: 27-Mar-2010
Time: 00:07:36
ID: IPB007
Vial: 1:1,A

CWW 03-27-10

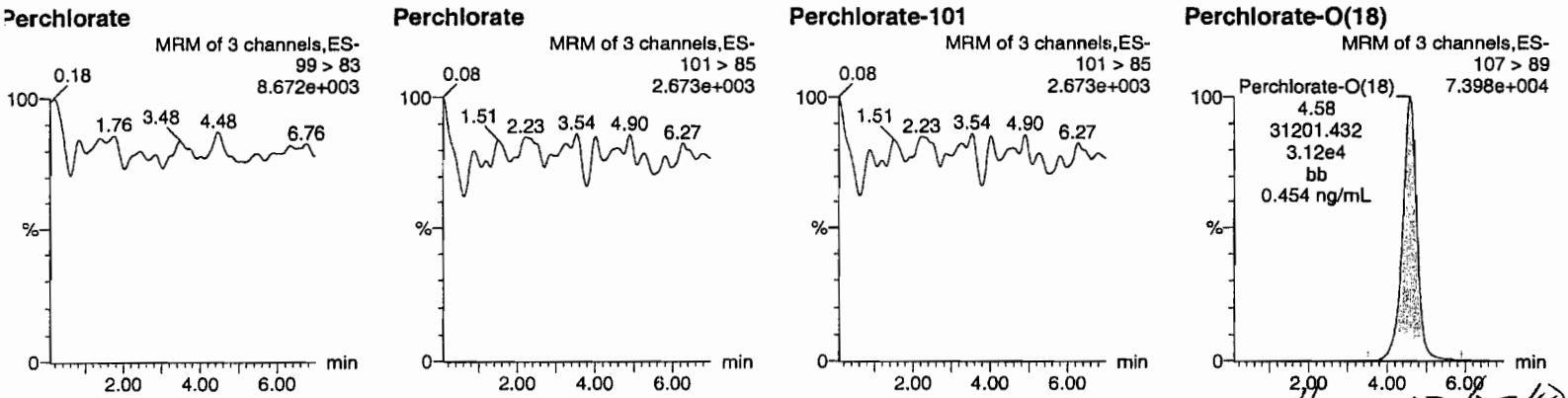

HMM 03/29/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB007	Perchlorate	99 > 83											0.00
PB007	Perchlorate-101	101 > 85											
PB007	Perchlorate-O(18)	107 > 89	4.58	31201.432	31201.432	bb			0.4539	90.78	-9.22	4965.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

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Date: 27-Mar-2010
Time: 02:08:42
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CWW 03-27-10

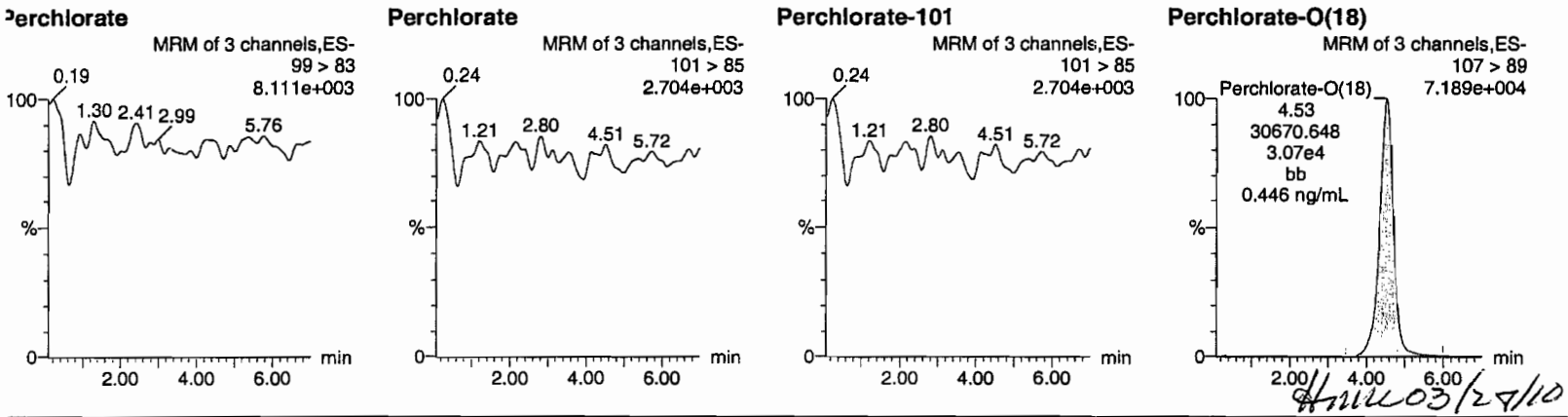

03/27/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB008	Perchlorate	99 > 83											0.00
PB008	Perchlorate-101	101 > 85											
PB008	Perchlorate-O(18)	107 > 89	4.53	30670.648	30670.648	bb			0.4462	89.24	-10.76	372.208	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326058a
Date: 27-Mar-2010
Time: 03:49:46
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WW 03-27-10

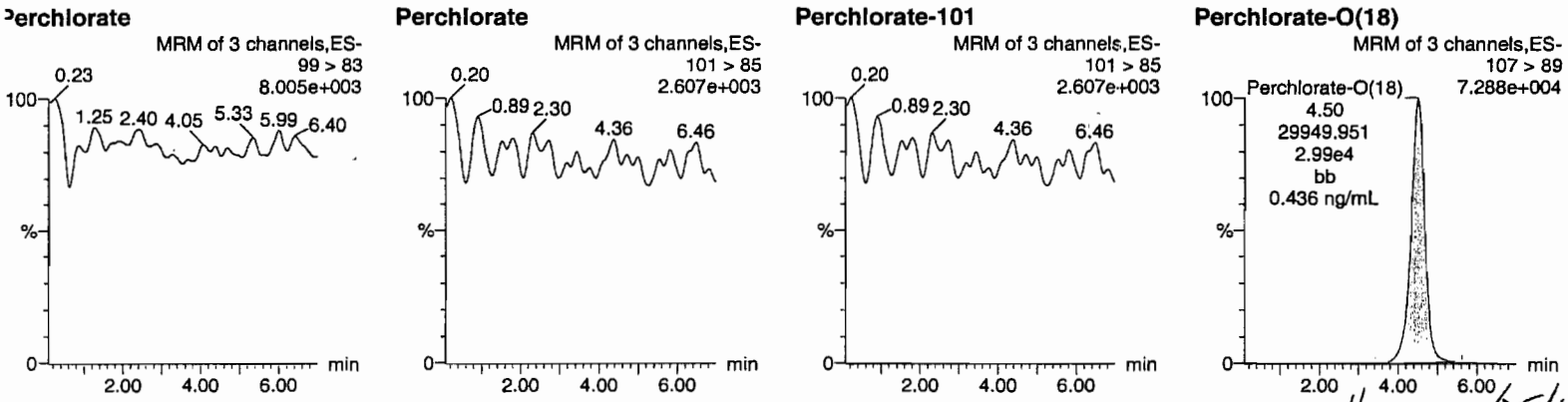

HMM 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB009	Perchlorate	99 > 83											0.00
PB009	Perchlorate-101	101 > 85											
PB009	Perchlorate-O(18)	107 > 89	4.50	29949.951	29949.951	bb			0.4357	87.14	-12.86	1961.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

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Date: 27-Mar-2010
Time: 06:01:39
ID: IPB010
Vial: 1:1,A

CWW 03-27-10

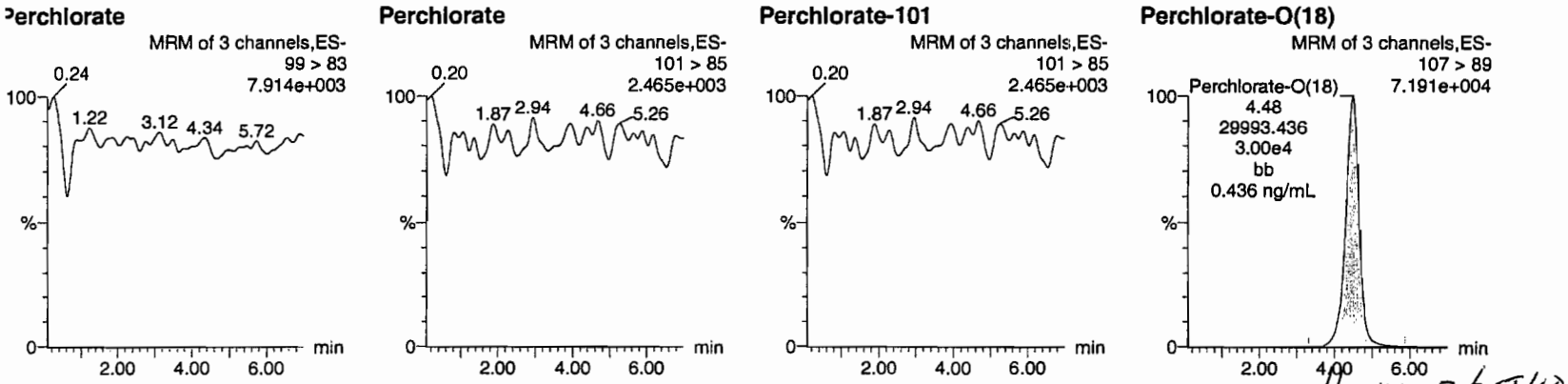

AMK 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB010	Perchlorate	99 > 83											0.00
PB010	Perchlorate-101	101 > 85											
PB010	Perchlorate-O(18)	107 > 89	4.48	29993.436	29993.436	bb			0.4363	87.27	-12.73	3487.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

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Date: 27-Mar-2010
Time: 14:42:58
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Vial: 1:1,A

03-28-10

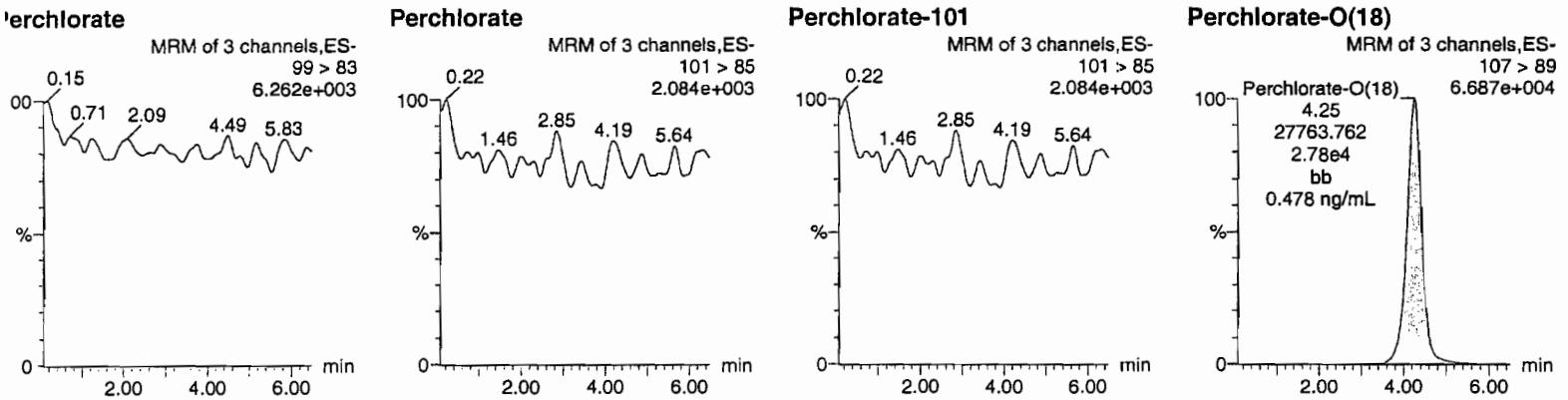

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'B002	Perchlorate	99 > 83											0.00
'B002	Perchlorate-101	101 > 85											
'B002	Perchlorate-O(18)	107 > 89	4.25	27763.762	27763.762	bb			0.4783	95.66	-4.34	688.538	

:L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

ast Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
rinted: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

ame: per0327010a
ate: 27-Mar-2010
ime: 15:02:11
): IPB003
ial: 1:1,A

CWW
03-28-10

erchlorate

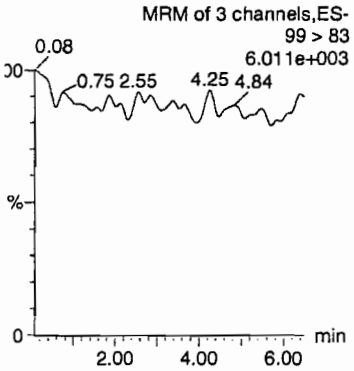

Perchlorate

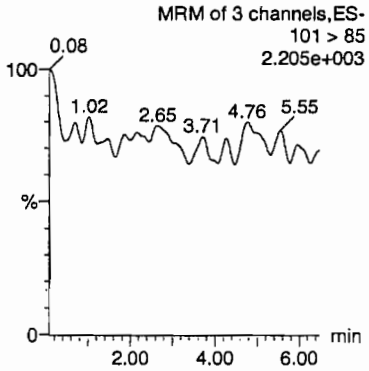

Perchlorate-101

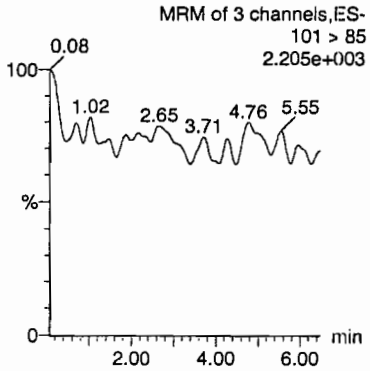

Perchlorate-O(18)

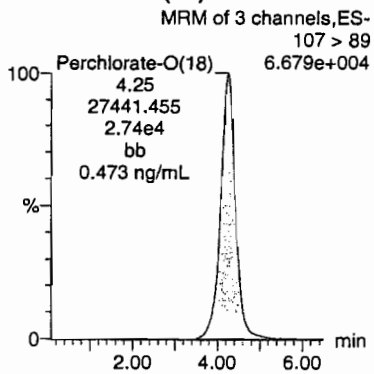

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B003	Perchlorate	99 > 83											0.00
B003	Perchlorate-101	101 > 85											
B003	Perchlorate-O(18)	107 > 89	4.25	27441.455	27441.455	bb			0.4727	94.54	-5.46	2478.5...	

MWT
3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327023a
Date: 27-Mar-2010
Time: 17:07:55
ID: IPB004
Vial: 1:1,A

cw
03-28-10

Perchlorate

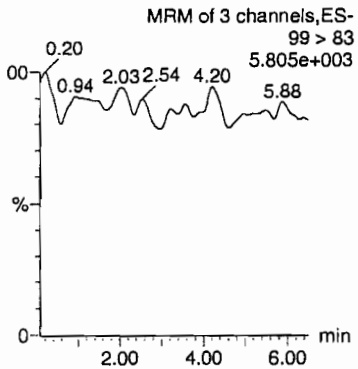

Perchlorate

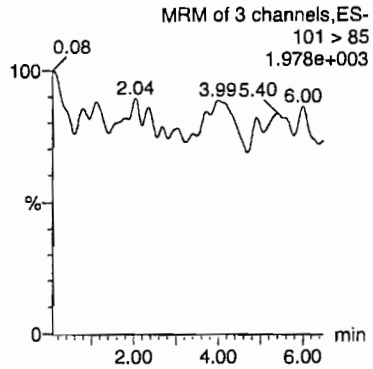

Perchlorate-101

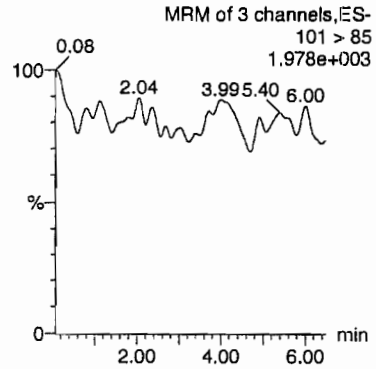

Perchlorate-O(18)

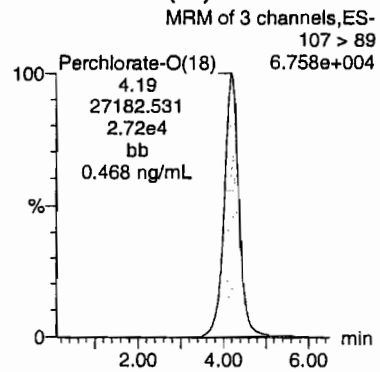

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B004	Perchlorate	99 > 83											0.00
B004	Perchlorate-101	101 > 85											
B004	Perchlorate-O(18)	107 > 89	4.19	27182.531	27182.531	bb			0.4683	93.65	-6.35	2906.6...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

ast Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
rinted: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

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ate: 27-Mar-2010
ime: 18:05:34
): IPB005
ial: 1:1,A

CWW
03-28-10

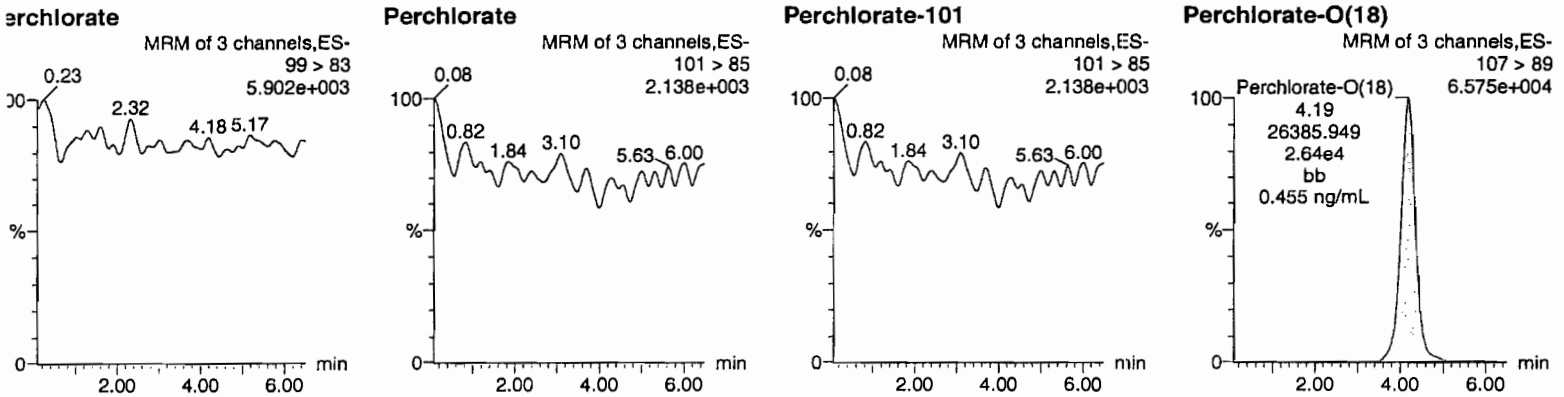

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B005	Perchlorate	99 > 83											0.00
B005	Perchlorate-101	101 > 85											
B005	Perchlorate-O(18)	107 > 89	4.19	26385.949	26385.949	bb			0.4545	90.91	-9.09	3499.5...	

MM 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

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Date: 27-Mar-2010
Time: 19:13:50
ID: IPB006
Vial: 1:1,A

CWW 03-28-10

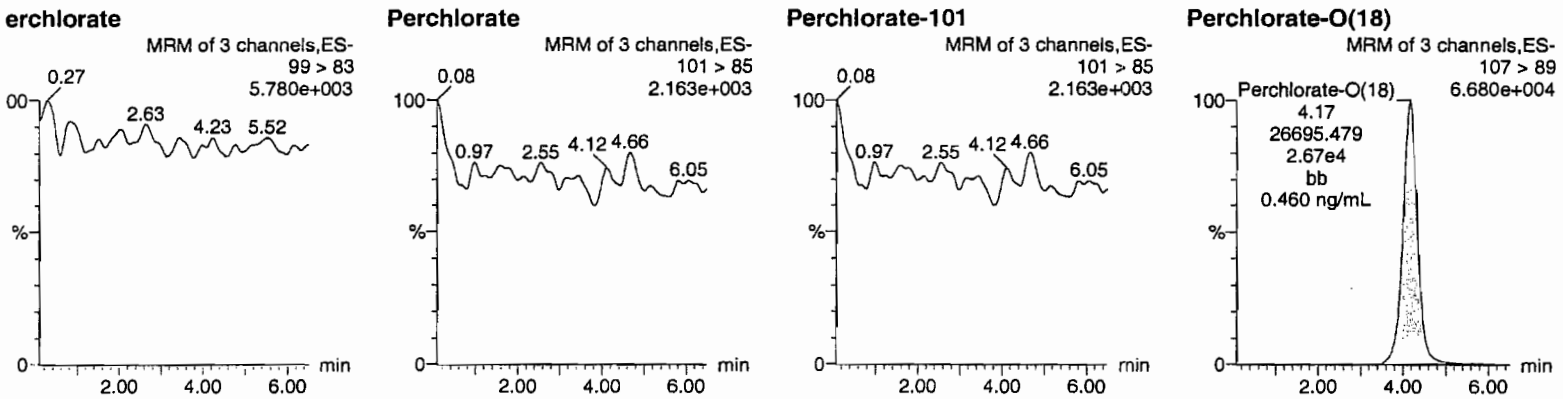

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B006	Perchlorate	99 > 83											0.00
B006	Perchlorate-101	101 > 85											
B006	Perchlorate-O(18)	107 > 89	4.17	26695.479	26695.479	bb			0.4599	91.97	-8.03	2433.7...	

LMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.rcf

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWJ 01-09-08

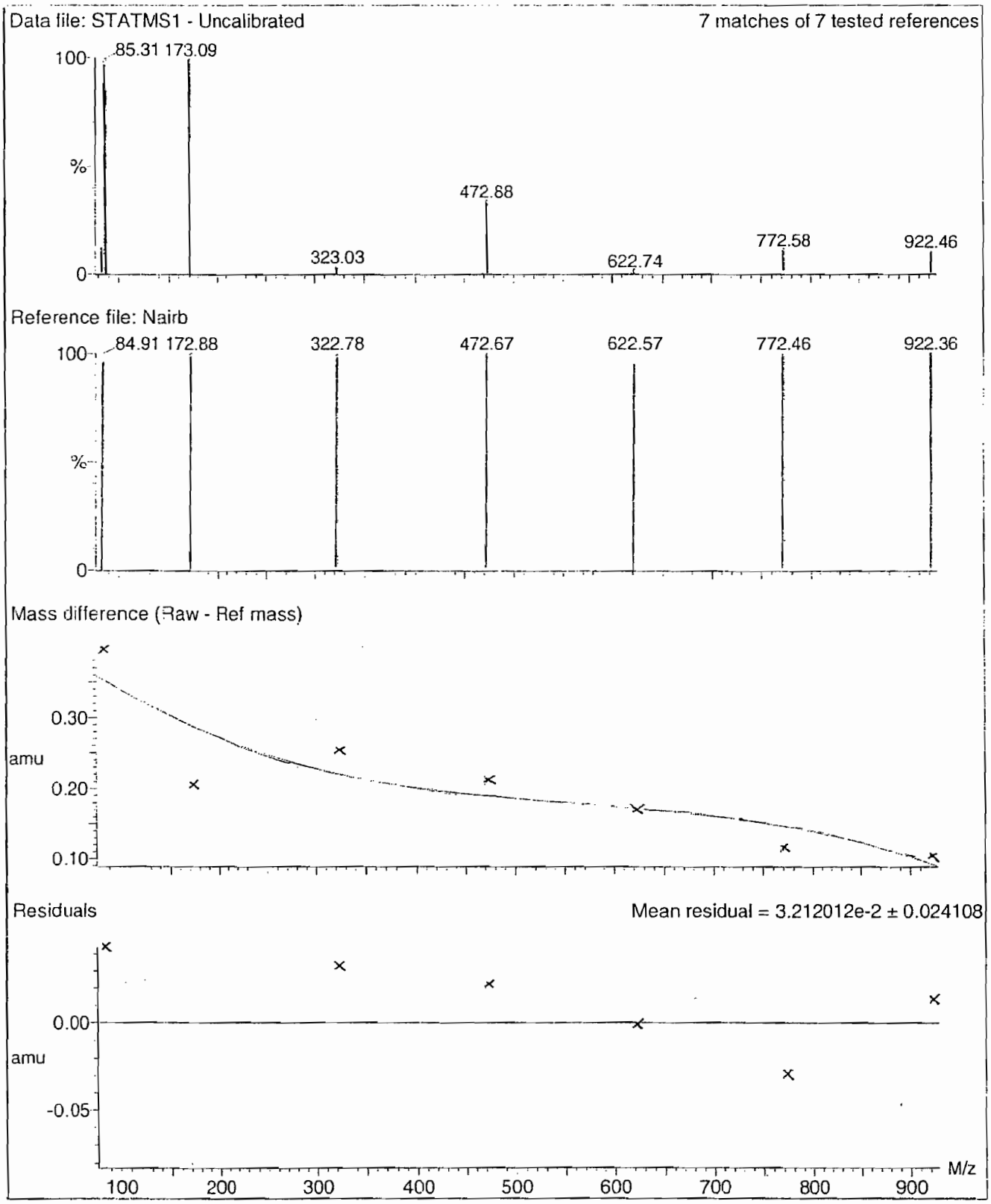

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

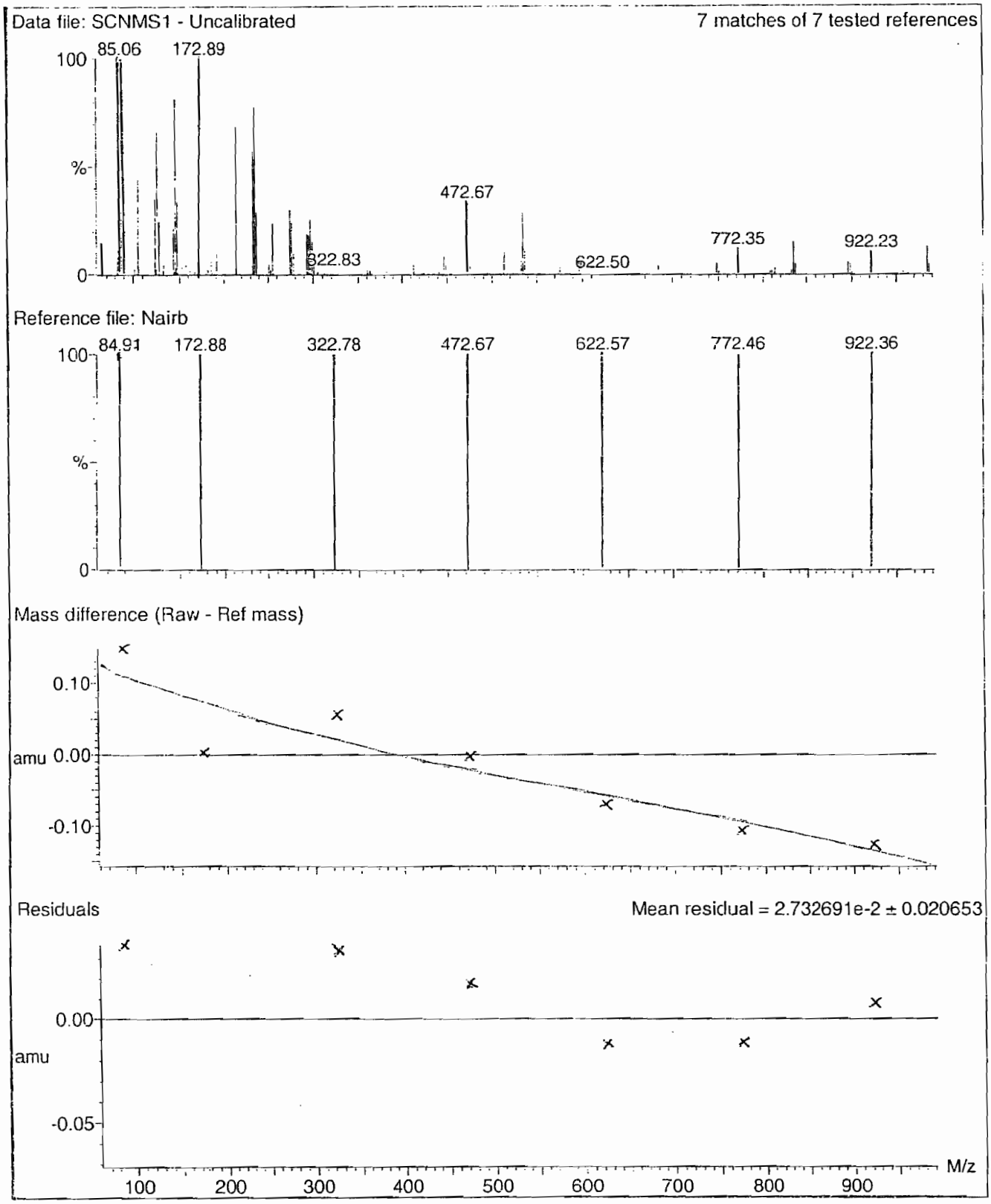

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Printed: Tue Jan 08 12:21:04 2008

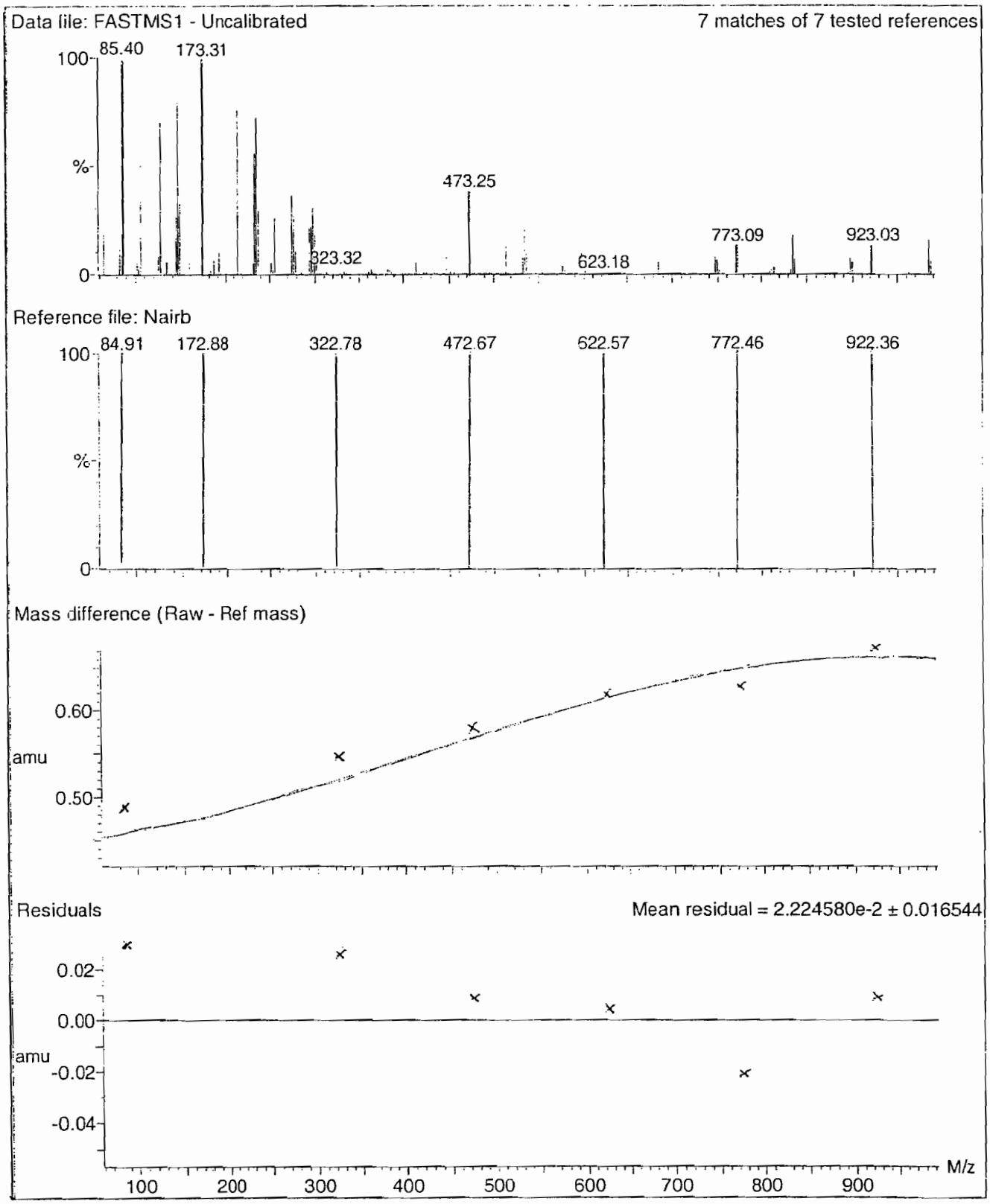

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Printed: Tue Jan 08 12:23:51 2008

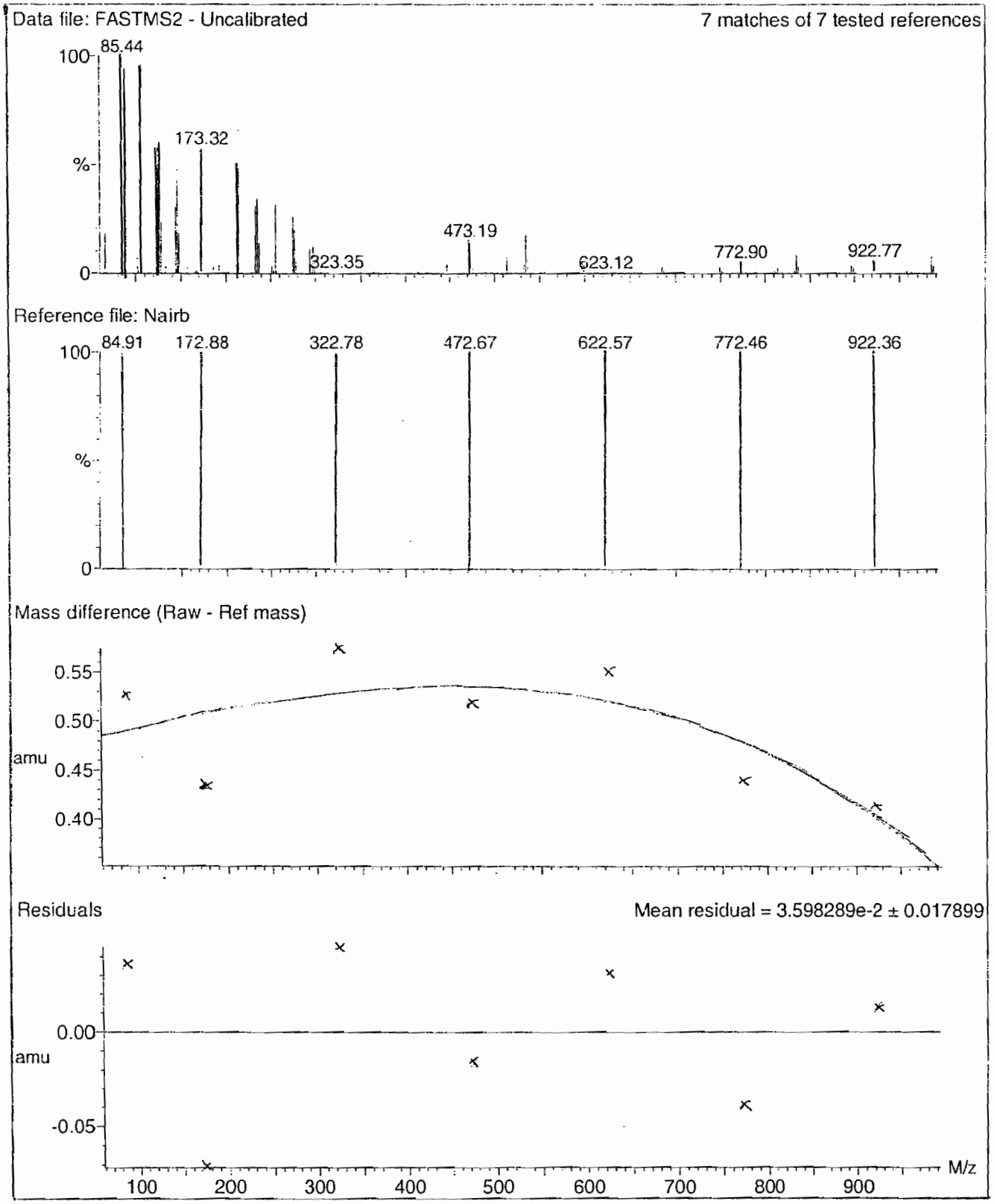

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

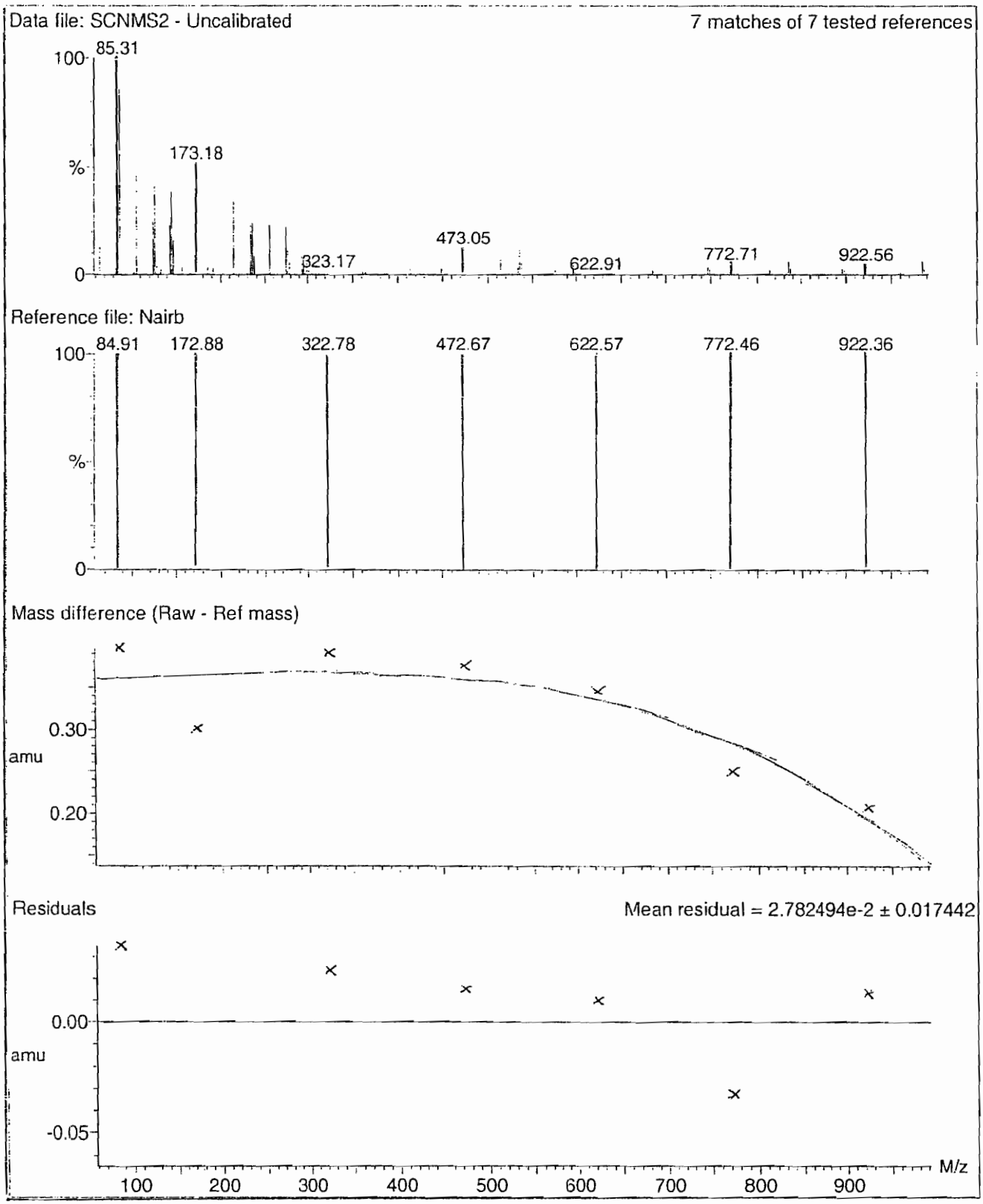

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Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

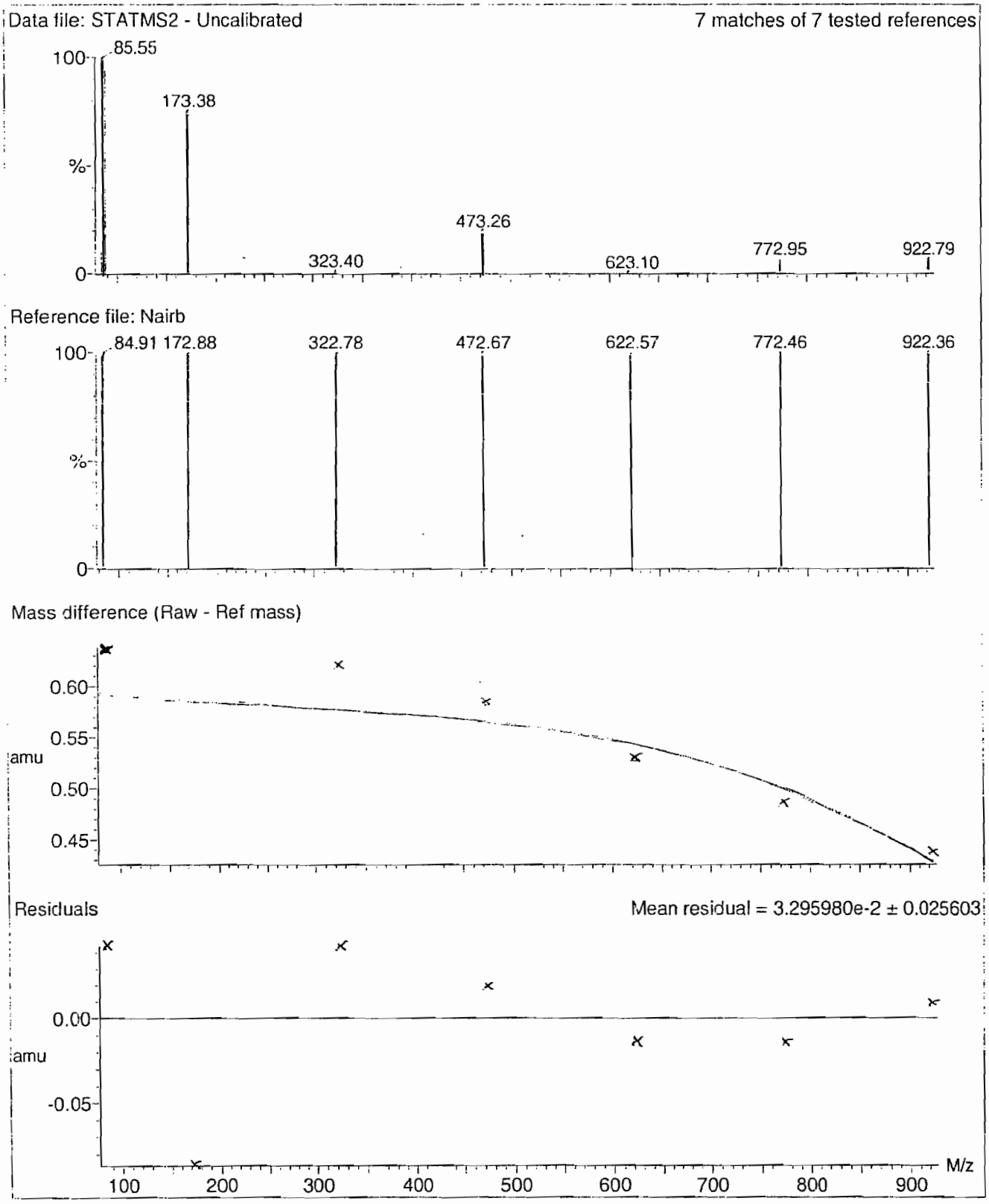

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Friday, March 26, 2010 16:27:14 Eastern Standard Time

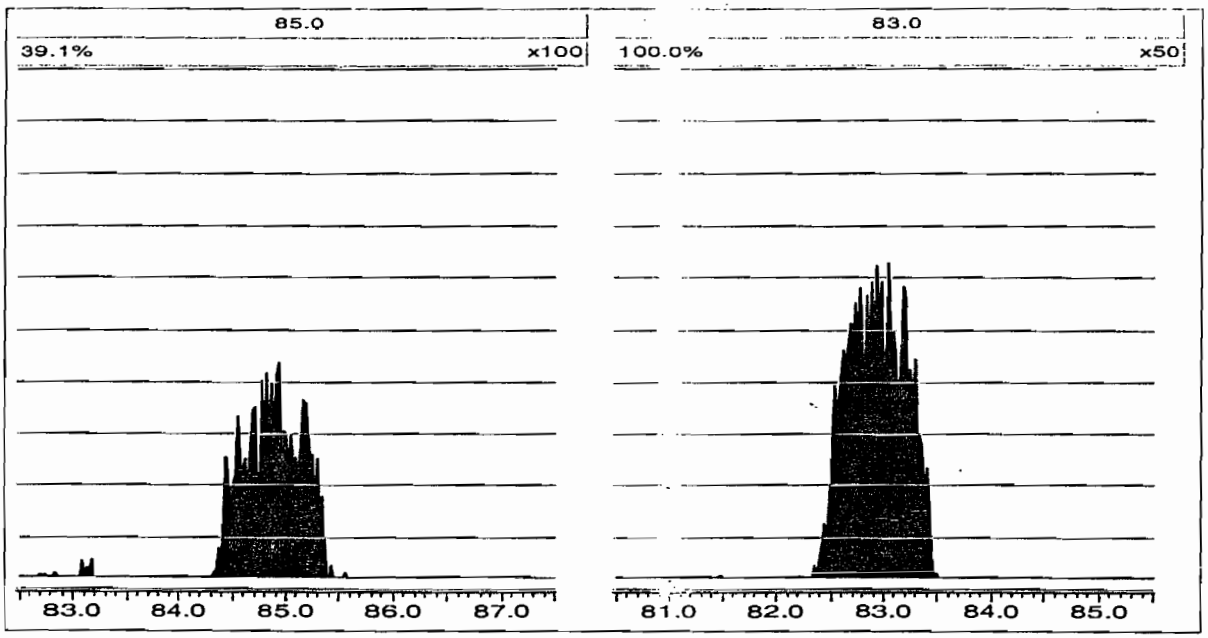

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File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Saturday, March 27, 2010 08:39:45 Eastern Standard Time

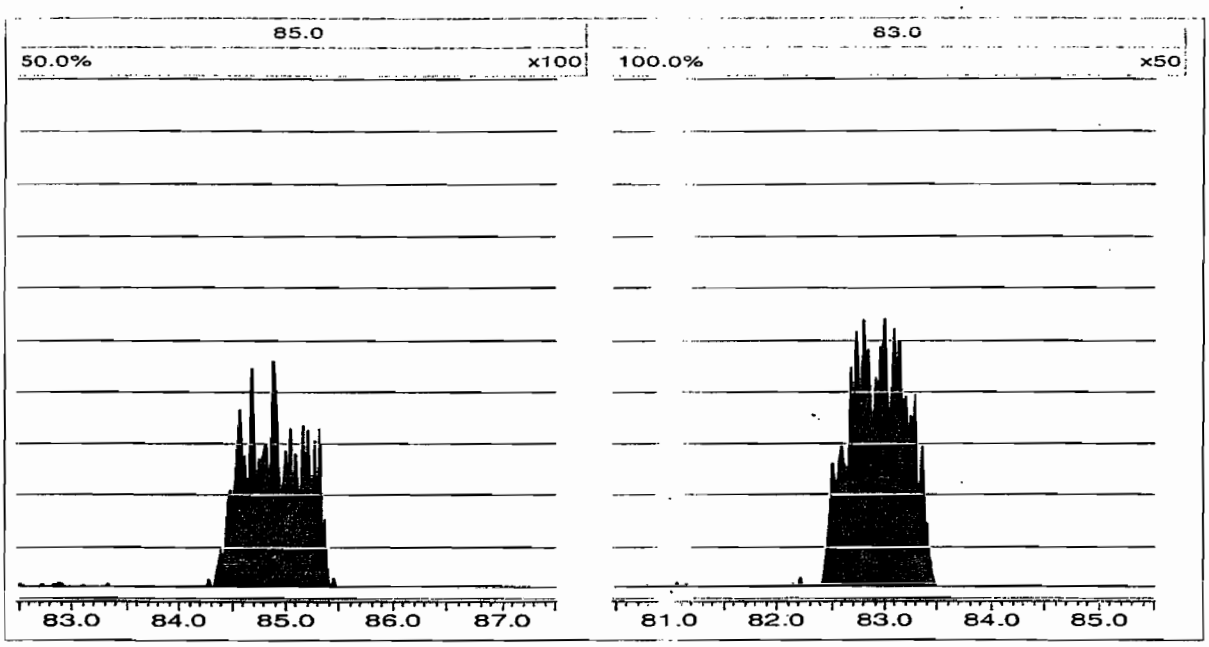

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2299

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0326006a**	**26–MAR–10**	**34622.5**				
Lower Area Limit			**17311.25**				
Upper Area Limit			**69245**				
1202068342	per0326060a	27–MAR–10 04:09	29375.8	4.5			
1202068343	per0326061a	27–MAR–10 04:20	30118.9	4.49	4.514	1.005	

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0327006a**	**27–MAR–10**	**29367.8**				
Lower Area Limit			**14683.9**				
Upper Area Limit			**58735.6**				
1202068346	per0327013a	27–MAR–10 15:31	29846.2	4.36	4.37723	1.004	

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-2299

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	**per0327006a**	**27-MAR-10**	**29367.8**				
Lower Area Limit			**14683.9**				
Upper Area Limit			**58735.6**				
248834001	per0327015a	27-MAR-10 15:51	29718	4.23			
248834002	per0327016a	27-MAR-10 16:00	27848.2	4.23	4.2282	1	
248834003	per0327017a	27-MAR-10 16:10	27704.3	4.22			
248834004	per0327018a	27-MAR-10 16:20	29914.1	4.23			
248834005	per0327019a	27-MAR-10 16:29	28660.3	4.22			
248834006	per0327020a	27-MAR-10 16:39	29735.9	4.22			
248834007	per0327021a	27-MAR-10 16:48	30660.9	4.19			
248834008	per0327025a	27-MAR-10 17:27	30018.9	4.2			

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2299

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0327006a**	**27–MAR–10**	**29367.8**				
Lower Area Limit			**14683.9**				
Upper Area Limit			**58735.6**				
248834009	per0327026a	27–MAR–10 17:36	27740.2	4.19			
248834010	per0327027a	27–MAR–10 17:46	29678.8	4.18			
248834011	per0327028a	27–MAR–10 17:55	29202.5	4.19			

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SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13867

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834001

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 92.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.543	2.17	0.543	ug/kg	U	1	27-MAR-10 15:51	per0327015a
	Perchlorate Isotope Ratio						1	27-MAR-10 15:51	per0327015a
14797-73-0	Perchlorate-101	.543	2.17	0.543	ug/kg	U	1	27-MAR-10 15:51	per0327015a
	Perchlorate-O(18)			5.56	ug/kg		1	27-MAR-10 15:51	per0327015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327015a
Date: 27-Mar-2010
Time: 15:51:15
ID: 248834001
Vial: 1:3,D

|LANL| 964119 |SOLID|1| QA

Perchlorate

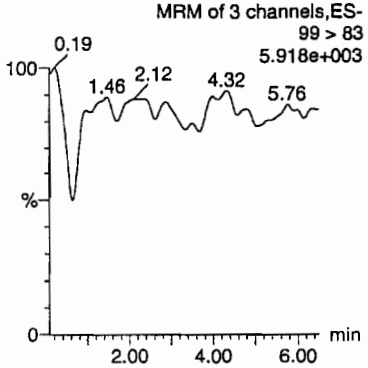

Perchlorate

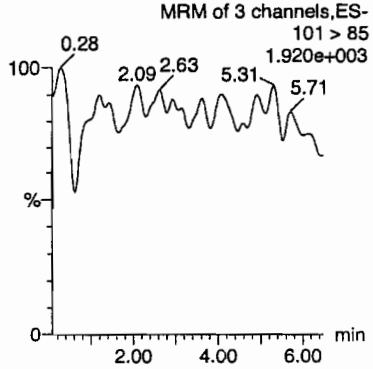

Perchlorate-101

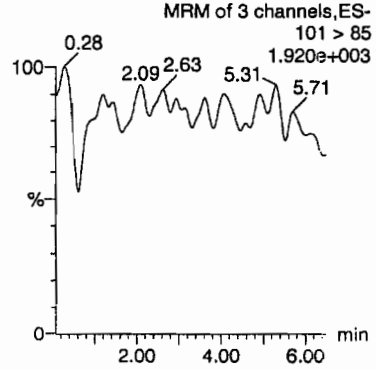

Perchlorate-O(18)

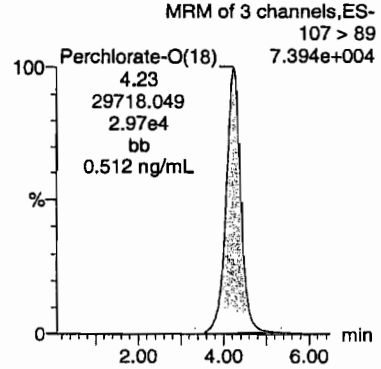

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248834001	Perchlorate	99 > 83											0.00
248834001	Perchlorate-101	101 > 85											
248834001	Perchlorate-O(18)	107 > 89	4.23	29718.049	29718.049	bb			0.5119	102.39	2.39	4640.6...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13864

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834002

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.582	2.33	0.582	ug/kg	U	1	27-MAR-10 16:00	per0327016a
	Perchlorate Isotope Ratio						1	27-MAR-10 16:00	per0327016a
14797-73-0	Perchlorate-101	.582	2.33	0.582	ug/kg	U	1	27-MAR-10 16:00	per0327016a
	Perchlorate-O(18)			5.58	ug/kg		1	27-MAR-10 16:00	per0327016a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327016a
Date: 27-Mar-2010
Time: 16:00:46
ID: 248834002
Vial: 1:3,E

|LANL|964119|50620|1|NA

03-28-10

Perchlorate
MRM of 3 channels,ES-
99 > 83
6.132e+003

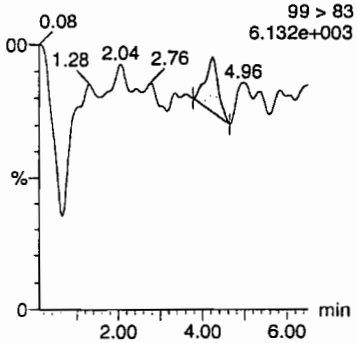

Perchlorate
MRM of 3 channels,ES-
101 > 85
2.146e+003

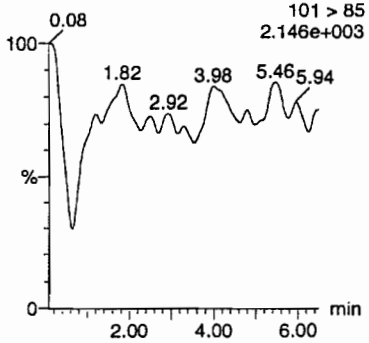

Perchlorate-101
MRM of 3 channels,ES-
101 > 85
2.146e+003

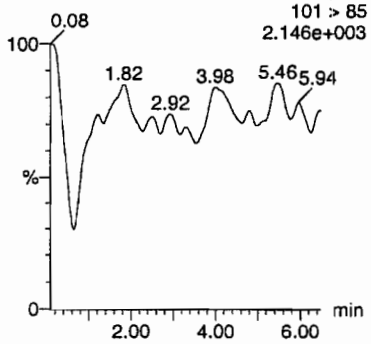

Perchlorate-O(18)
MRM of 3 channels,ES-
107 > 89
6.882e+004

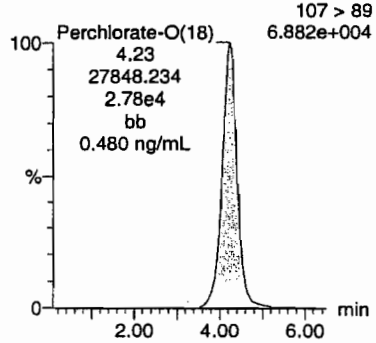

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248834002	Perchlorate	99 > 83	4.23	456.980	456.980	bb			0.0060			5.498	0.00
248834002	Perchlorate-101	101 > 85											
248834002	Perchlorate-O(18)	107 > 89	4.23	27848.234	27848.234	bb			0.4797	95.95	-4.05	5033.0...	

MATT 3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13863

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834003

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.565	2.26	0.565	ug/kg	U	1	27-MAR-10 16:10	per0327017a
	Perchlorate Isotope Ratio						1	27-MAR-10 16:10	per0327017a
14797-73-0	Perchlorate-101	.565	2.26	0.565	ug/kg	U	1	27-MAR-10 16:10	per0327017a
	Perchlorate-O(18)			5.39	ug/kg		1	27-MAR-10 16:10	per0327017a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327017a
Date: 27-Mar-2010
Time: 16:10:33
ID: 248834003
Vial: 1:3,F

LCMS | 964119 | 50120 | 1 | NA

03-28-10

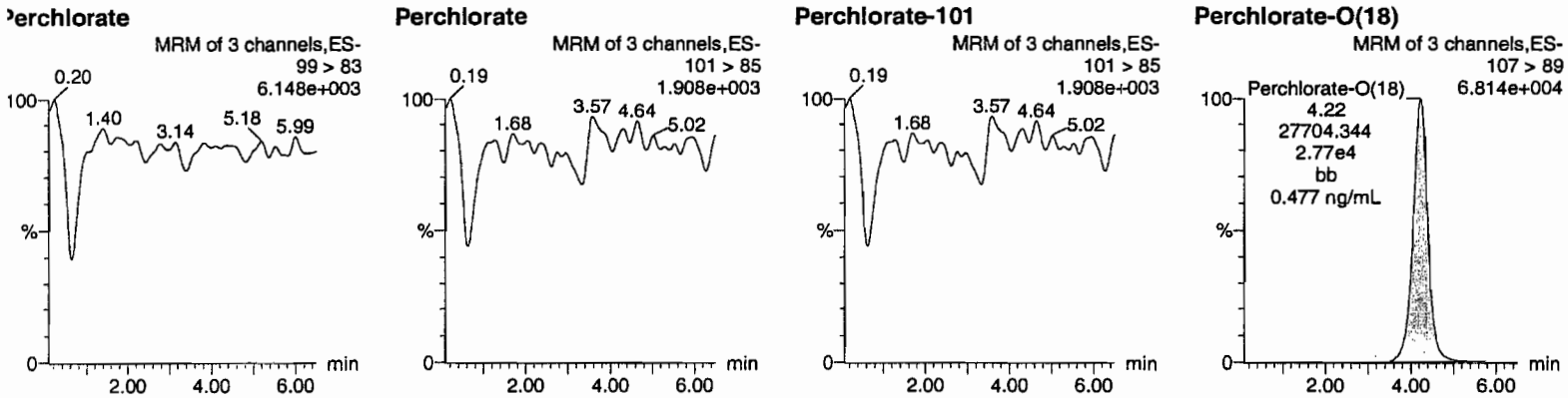

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248834003	Perchlorate	99 > 83											0.00
248834003	Perchlorate-101	101 > 85											
248834003	Perchlorate-O(18)	107 > 89	4.22	27704.344	27704.344	bb			0.4773	95.45	-4.55	2241.1...	

MM 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13869

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834004

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 92

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.543	2.17	0.543	ug/kg	U	1	27-MAR-10 16:20	per0327018a
	Perchlorate Isotope Ratio						1	27-MAR-10 16:20	per0327018a
14797-73-0	Perchlorate-101	.543	2.17	0.543	ug/kg	U	1	27-MAR-10 16:20	per0327018a
	Perchlorate-O(18)			5.60	ug/kg		1	27-MAR-10 16:20	per0327018a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327018a
Date: 27-Mar-2010
Time: 16:20:04
ID: 248834004
Vial: 1:4,A

|LANL|964119|50120|1|

CW 03-28-10

Perchlorate

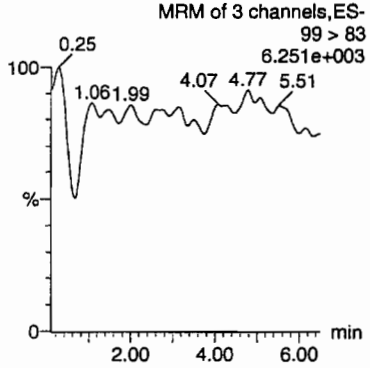

Perchlorate

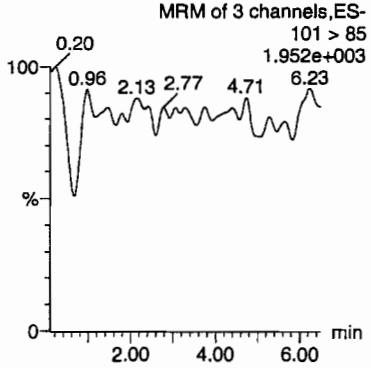

Perchlorate-101

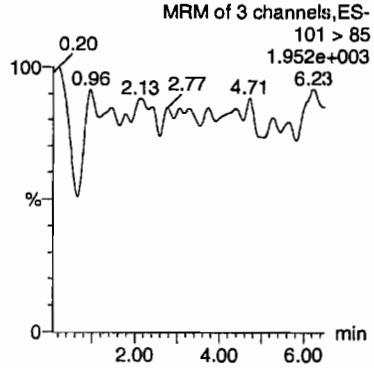

Perchlorate-O(18)

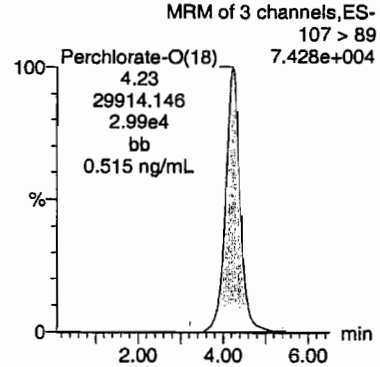

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248834004	Perchlorate	99 > 83											0.00
248834004	Perchlorate-101	101 > 85											
248834004	Perchlorate-O(18)	107 > 89	4.23	29914.146	29914.146	bb			0.5153	103.06	3.06	545.035	

MWT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13861

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834005

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.569	2.27	0.569	ug/kg	U	1	27-MAR-10 16:29	per0327019a
	Perchlorate Isotope Ratio						1	27-MAR-10 16:29	per0327019a
14797-73-0	Perchlorate-101	.569	2.27	0.569	ug/kg	U	1	27-MAR-10 16:29	per0327019a
	Perchlorate-O(18)			5.61	ug/kg		1	27-MAR-10 16:29	per0327019a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327019a
Date: 27-Mar-2010
Time: 16:29:37
ID: 248834005
Vial: 1:4,B

|LANL|964119|50620|1|RA

03-28-10

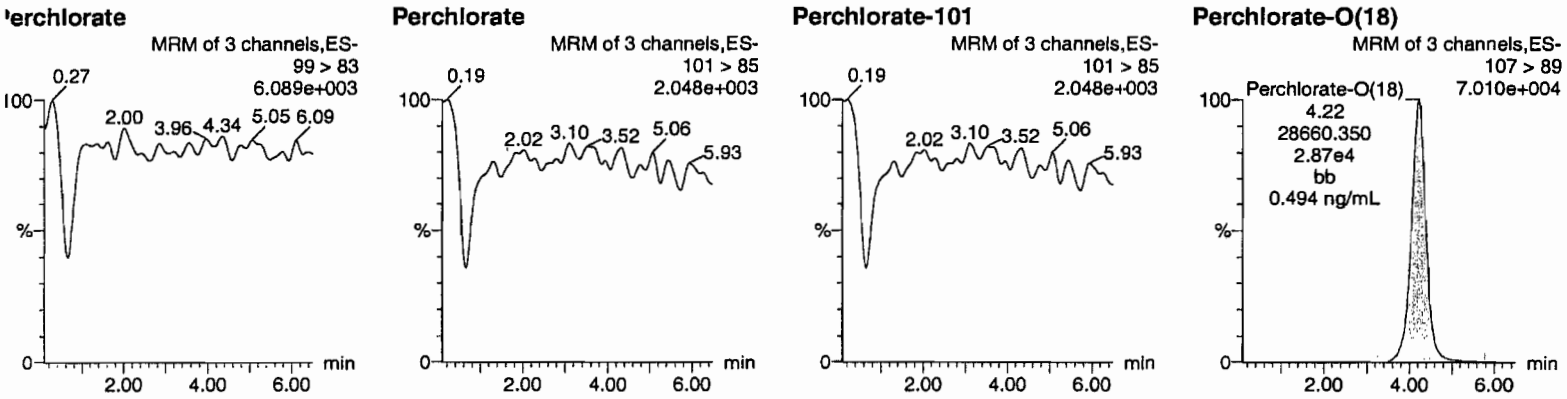

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248834005	Perchlorate	99 > 83											0.00
248834005	Perchlorate-101	101 > 85											
248834005	Perchlorate-O(18)	107 > 89	4.22	28660.350	28660.350	bb			0.4937	98.74	-1.26	2108.7...	

MM 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13866

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834006

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 92.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.538	2.15	0.538	ug/kg	U	1	27-MAR-10 16:39	per0327020a
	Perchlorate Isotope Ratio						1	27-MAR-10 16:39	per0327020a
14797-73-0	Perchlorate-101	.538	2.15	0.538	ug/kg	U	1	27-MAR-10 16:39	per0327020a
	Perchlorate-O(18)			5.51	ug/kg		1	27-MAR-10 16:39	per0327020a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327020a
Date: 27-Mar-2010
Time: 16:39:10
ID: 248834006
Vial: 1:4,C

|LANL|964119|SOL20|1|NA

AWW 03-28-10

Perchlorate

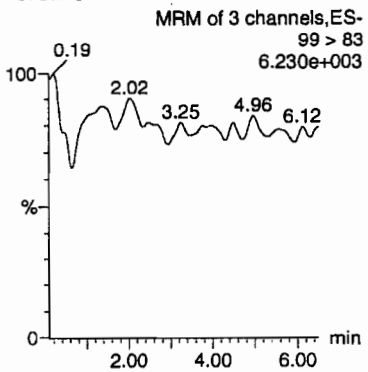

Perchlorate

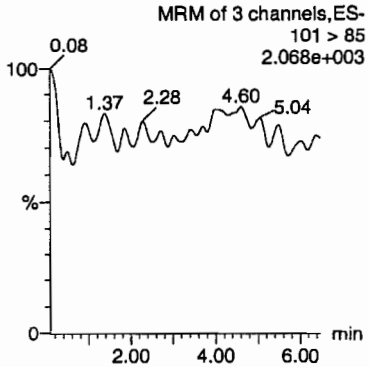

Perchlorate-101

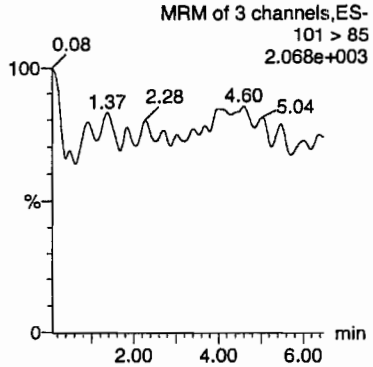

Perchlorate-O(18)

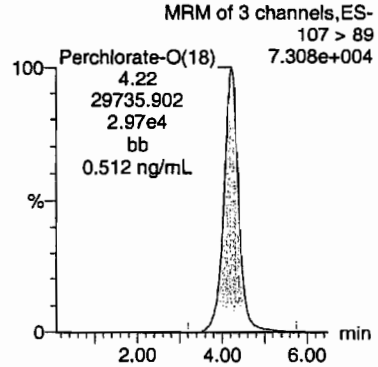

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248834006	Perchlorate	99 > 83											0.00
248834006	Perchlorate-101	101 > 85											
248834006	Perchlorate-O(18)	107 > 89	4.22	29735.902	29735.902	bb			0.5123	102.45	2.45	4099.5...	

3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13860

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834007

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 90.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.553	2.21	0.553	ug/kg	U	1	27-MAR-10 16:48	per0327021a
	Perchlorate Isotope Ratio						1	27-MAR-10 16:48	per0327021a
14797-73-0	Perchlorate-101	.553	2.21	0.553	ug/kg	U	1	27-MAR-10 16:48	per0327021a
	Perchlorate-O(18)			5.84	ug/kg		1	27-MAR-10 16:48	per0327021a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327021a
Date: 27-Mar-2010
Time: 16:48:42
ID: 248834007
Vial: 1:4,D

|LANL|964119|50120|1|NA

CWW 03-28-10

Perchlorate

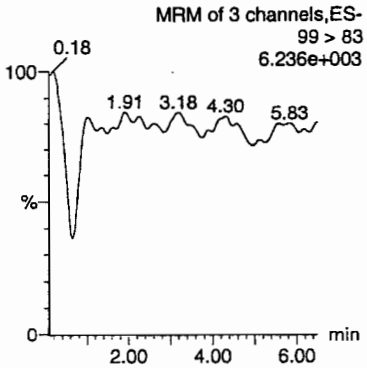

Perchlorate

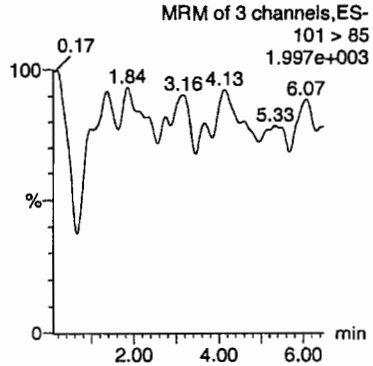

Perchlorate-101

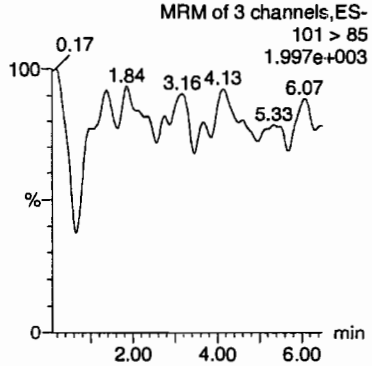

Perchlorate-O(18)

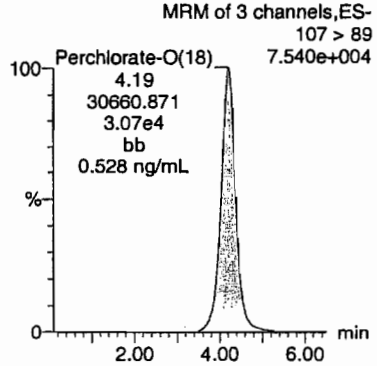

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248834007	Perchlorate	99 > 83											0.00
248834007	Perchlorate-101	101 > 85											
248834007	Perchlorate-O(18)	107 > 89	4.19	30660.871	30660.871	bb			0.5282	105.64	5.64	3594.7...	

MATT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13865

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834008

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 91.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.546	2.18	0.546	ug/kg	U	1	27-MAR-10 17:27	per0327025a
	Perchlorate Isotope Ratio						1	27-MAR-10 17:27	per0327025a
14797-73-0	Perchlorate-101	.546	2.18	0.546	ug/kg	U	1	27-MAR-10 17:27	per0327025a
	Perchlorate-O(18)			5.65	ug/kg		1	27-MAR-10 17:27	per0327025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327025a
Date: 27-Mar-2010
Time: 17:27:15
ID: 248834008
Vial: 1:4,E

|LANL|964119|50120|1|

CWW 03-28-10

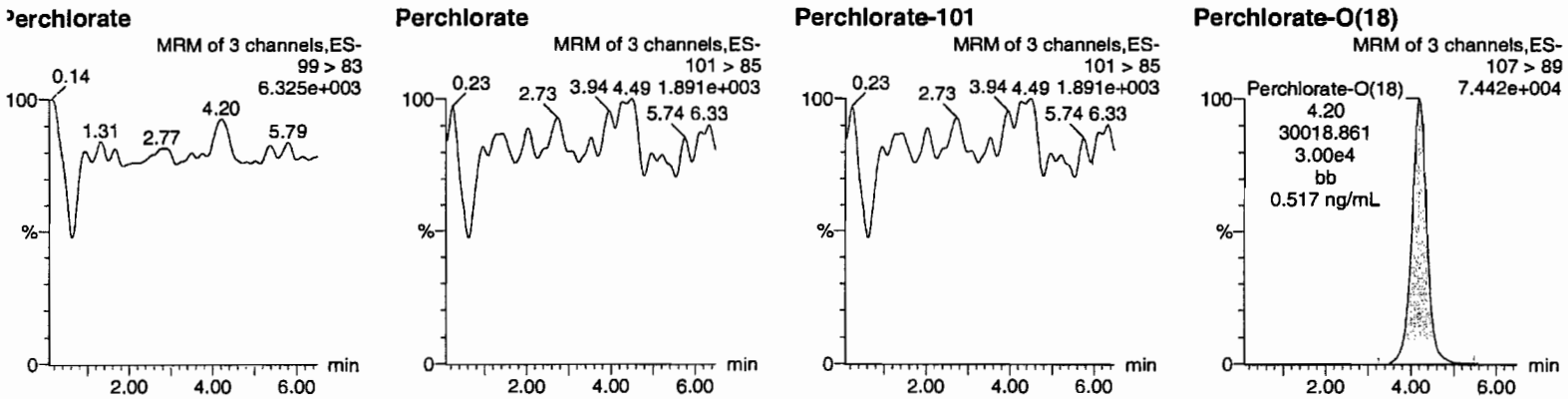

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248834008	Perchlorate	99 > 83											0.00
248834008	Perchlorate-101	101 > 85											
248834008	Perchlorate-O(18)	107 > 89	4.20	30018.861	30018.861	bb			0.5171	103.42	3.42	3800.2...	

MAT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13868

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834009

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 92.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.542	2.17	0.542	ug/kg	U	1	27-MAR-10 17:36	per0327026a
	Perchlorate Isotope Ratio						1	27-MAR-10 17:36	per0327026a
14797-73-0	Perchlorate-101	.542	2.17	0.542	ug/kg	U	1	27-MAR-10 17:36	per0327026a
	Perchlorate-O(18)			5.18	ug/kg		1	27-MAR-10 17:36	per0327026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327026a
Date: 27-Mar-2010
Time: 17:36:46
ID: 248834009
Vial: 1:4,F

LANL | 964119 | 50125 | 1 |

CWW 03-28-10

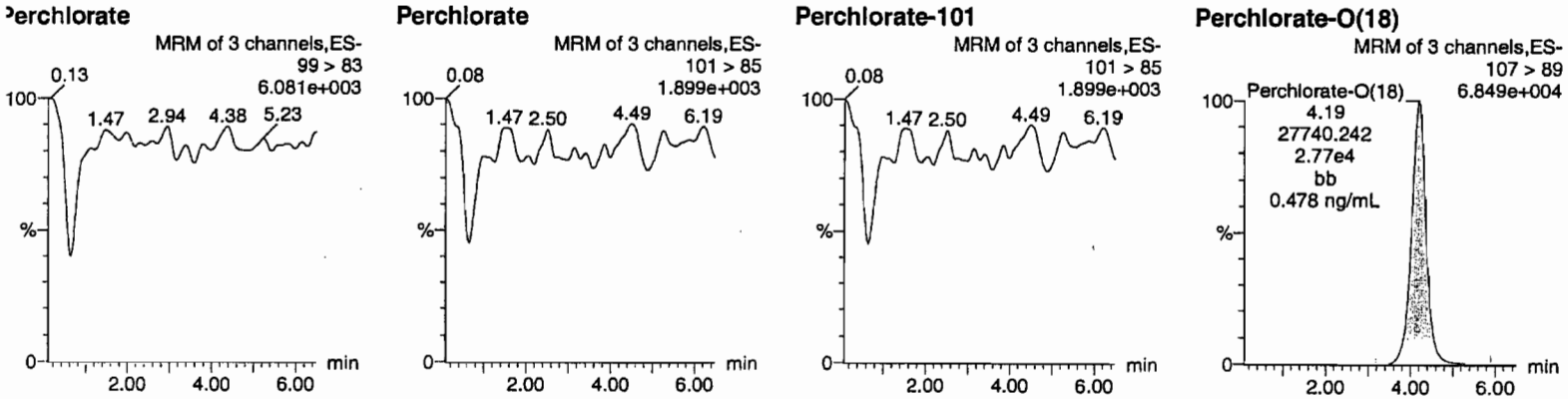

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248834009	Perchlorate	99 > 83											0.00
248834009	Perchlorate-101	101 > 85											
248834009	Perchlorate-O(18)	107 > 89	4.19	27740.242	27740.242	bb			0.4779	95.57	-4.43	4452.2...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13862

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834010

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.564	2.26	0.564	ug/kg	U	1	27-MAR-10 17:46	per0327027a
	Perchlorate Isotope Ratio						1	27-MAR-10 17:46	per0327027a
14797-73-0	Perchlorate-101	.564	2.26	0.564	ug/kg	U	1	27-MAR-10 17:46	per0327027a
	Perchlorate-O(18)			5.77	ug/kg		1	27-MAR-10 17:46	per0327027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327027a
Date: 27-Mar-2010
Time: 17:46:18
ID: 248834010
Vial: 1:5,A

|LANL|964119|SOLZD|1|RA

CWW 03-28-10

Perchlorate

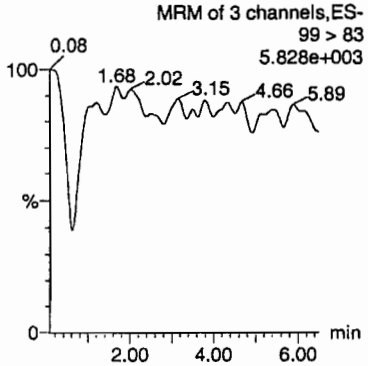

Perchlorate

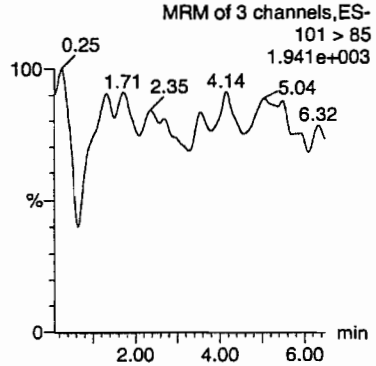

Perchlorate-101

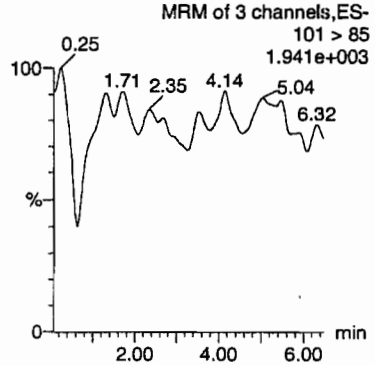

Perchlorate-O(18)

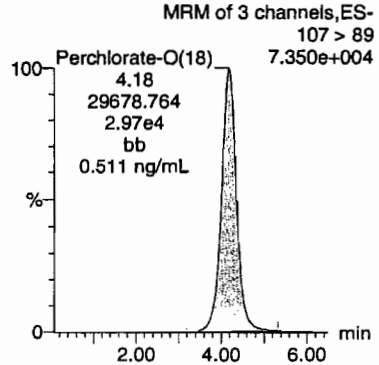

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248834010	Perchlorate	99 > 83											0.00
248834010	Perchlorate-101	101 > 85											
248834010	Perchlorate-O(18)	107 > 89	4.18	29678.764	29678.764	bb			0.5113	102.25	2.25	4094.4...	

MAT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13873

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 248834011

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 92.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.538	2.15	0.538	ug/kg	U	1	27-MAR-10 17:55	per0327028a
	Perchlorate Isotope Ratio						1	27-MAR-10 17:55	per0327028a
14797-73-0	Perchlorate-101	.538	2.15	0.538	ug/kg	U	1	27-MAR-10 17:55	per0327028a
	Perchlorate-O(18)			5.41	ug/kg		1	27-MAR-10 17:55	per0327028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327028a
Date: 27-Mar-2010
Time: 17:55:52
ID: 248834011
Vial: 1:5,B

ILANL | 964119 | 50120 | 1 | 09

CWW 03-28-10

Perchlorate

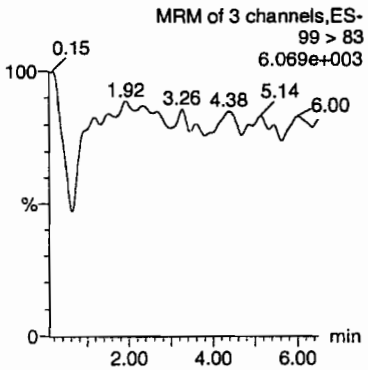

Perchlorate

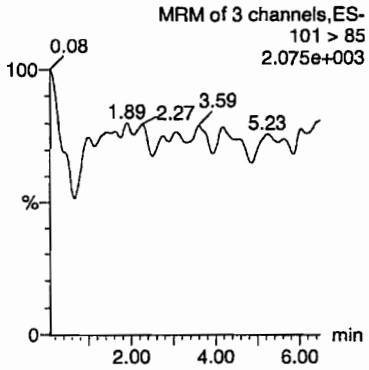

Perchlorate-101

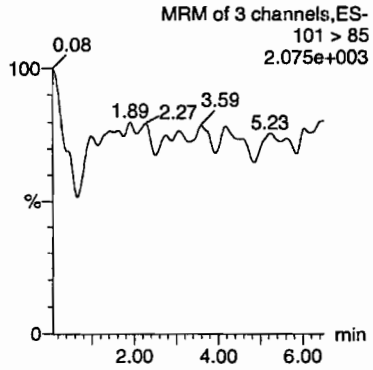

Perchlorate-O(18)

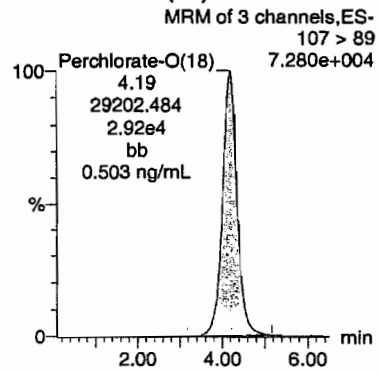

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248834011	Perchlorate	99 > 83											0.00
248834011	Perchlorate-101	101 > 85											
248834011	Perchlorate-O(18)	107 > 89	4.19	29202.484	29202.484	bb			0.5031	100.61	0.61	3391.1...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2299

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 26–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 90680.54

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2299

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 26–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 26371.22

Response Type: External Standard

Curve Type: RF

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

uantify Calibration Report MassLynx 4.0 SP4
ne GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

ast Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
rinted: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

ethod: C:\MassLynx\Perchlorate.PRO\MethDB\per032610a.mdb 27 Mar 2010 09:40:09
alibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032610a.cdb 27 Mar 2010 09:40:32

ompound name: Perchlorate
esponse Factor: 90680.5
RF SD: 9014.57, % Relative SD: 9.94103
esponse type: External Std, Area
urve type: RF

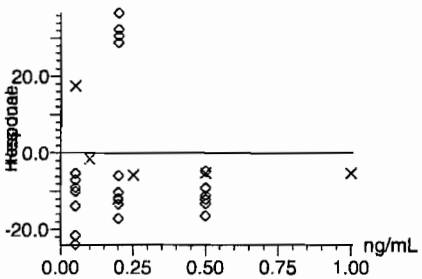

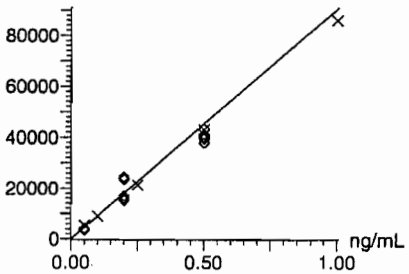

ompound name: Perchlorate-101
esponse Factor: 26371.2
RF SD: 1470.92, % Relative SD: 5.57775
esponse type: External Std, Area
urve type: RF

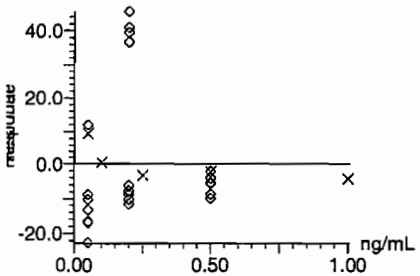

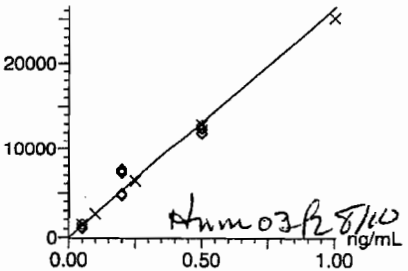

Hmm 03/28/10

CMJ
05-27-10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 68740.9
IRF SD: 1495.52, % Relative SD: 2.17559
Response type: External Std, Area
Curve type: RF

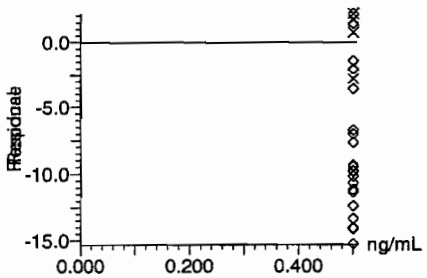

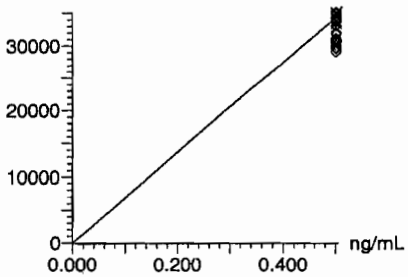

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2299

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 27–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 76347.46

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2299

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 27–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 23991.9

Response Type: External Standard

Curve Type: RF

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ıantify Calibration Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

:taset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

st Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
nted: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

ethod: C:\MassLynx\Perchlorate.PRO\MethDB\per032710a.mdb 28 Mar 2010 10:15:37
libration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032710a.cdb 28 Mar 2010 10:33:56

mpound name: Perchlorate
sponse Factor: 76347.5
IF SD: 11462.3, % Relative SD: 15.0133
sponse type: External Std, Area
rve type: RF

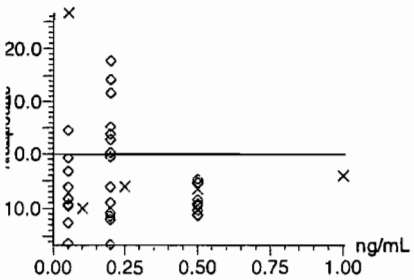

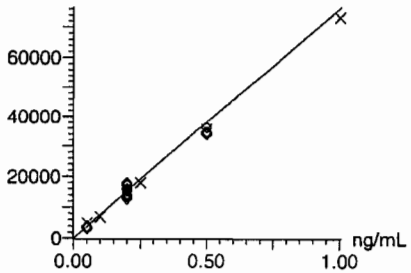

03-28-10

mpound name: Perchlorate-101
sponse Factor: 23991.9
:F SD: 3203.85, % Relative SD: 13.3539
sponse type: External Std. Area
rve type: RF

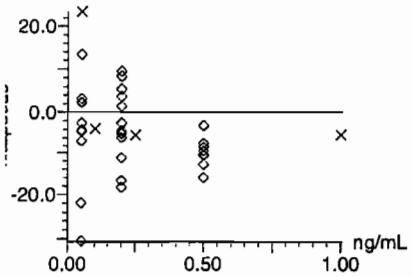

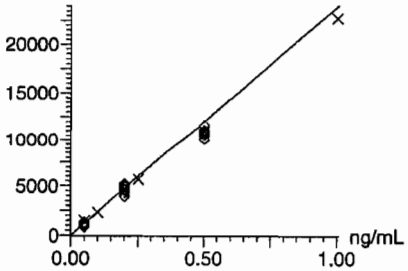

MH
3/30/10

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ıantify Calibration Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

st Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
nted: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

mpound name: Perchlorate-O(18)
sponse Factor: 58049.6
lF SD: 736.924, % Relative SD: 1.26947
sponse type: External Std, Area
rve type: RF

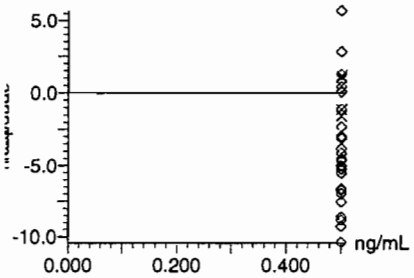

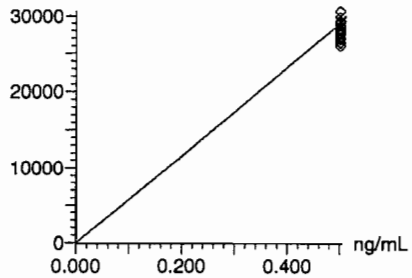

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2299

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.48	95.31	26–MAR–10 19:34	per0326009a
Perchlorate Isotope Ratio		3.35		26–MAR–10 19:34	per0326009a
Perchlorate–101	.5	.49	97.77	26–MAR–10 19:34	per0326009a
Perchlorate	.5	.48	95.3	27–MAR–10 14:52	per0327009a
Perchlorate Isotope Ratio		3.13		27–MAR–10 14:52	per0327009a
Perchlorate–101	.5	.48	96.92	27–MAR–10 14:52	per0327009a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

ast Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
rinted: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

ame: per0326009a
ate: 26-Mar-2010
ime: 19:34:19
): WCL100326-06ICV
ial: 1:2,A

Perch
cmo
03-27-10

erchlorate

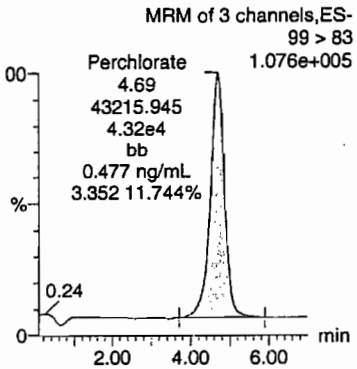

Perchlorate

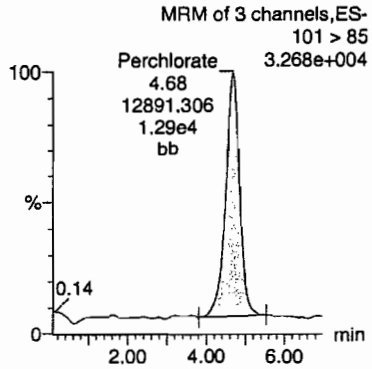

Perchlorate-101

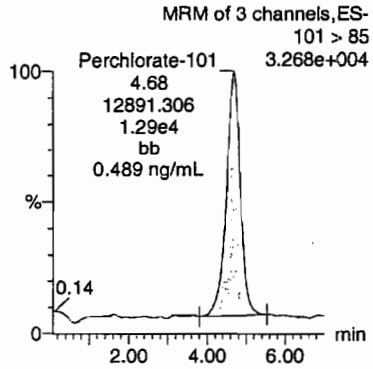

Perchlorate-O(18)

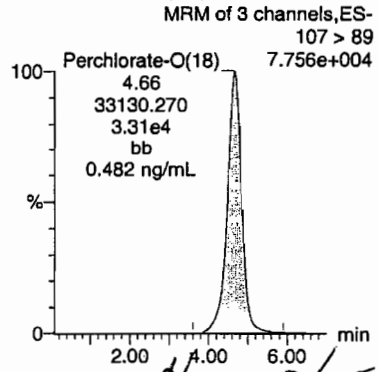

AHW 03/28/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'CL100326-06ICV	Perchlorate	99 > 83	4.69	43215.945	43215.945	bb			0.4766	95.31	-4.69	531.890	3.35
'CL100326-06ICV	Perchlorate-101	101 > 85	4.68	12891.306	12891.306	bb			0.4888	97.77	-2.23	212.978	
'CL100326-06ICV	Perchlorate-O(18)	107 > 89	4.66	33130.270	33130.270	bb			0.4820	96.39	-3.61	2714.5...	

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uantify Sample Report MassLynx 4.0 SP4
ie GEL Group, LLC Analyst: Charlers W. Wilson

ıtaset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

st Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
inted: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

ıme: per0327009a
ıte: 27-Mar-2010
ne: 14:52:39
: WCL100326-06ICV
al: 1:2,A

Pass
aw
03-28-10

rchlorate

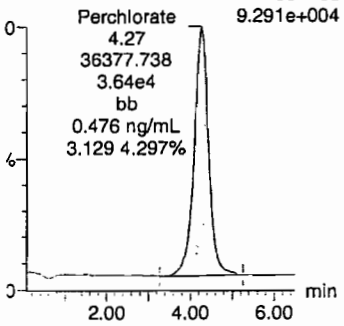

Perchlorate

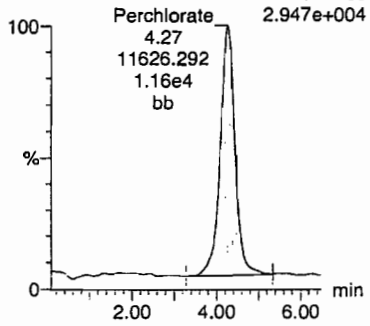

Perchlorate-101

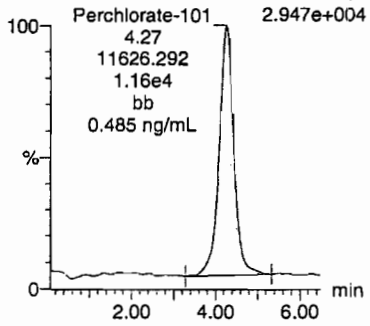

Perchlorate-O(18)

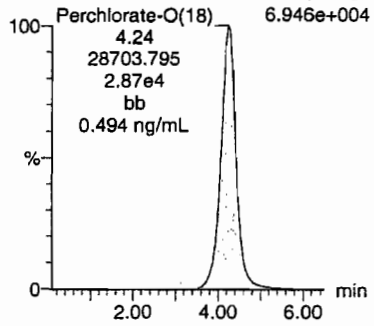

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-06ICV	Perchlorate	99 > 83	4.27	36377.738	36377.738	bb			0.4765	95.30	-4.70	650.248	3.13
CL100326-06ICV	Perchlorate-101	101 > 85	4.27	11626.292	11626.292	bb			0.4846	96.92	-3.08	275.524	
CL100326-06ICV	Perchlorate-O(18)	107 > 89	4.24	28703.795	28703.795	bb			0.4945	98.89	-1.11	789.224	

MATT 3/30/10

$$\frac{36377.738}{76347.5} = 0.4765$$

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2299

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.46	91.09	26–MAR–10 21:45	per0326022a
Perchlorate Isotope Ratio		3.27		26–MAR–10 21:45	per0326022a
Perchlorate–101	.5	.48	95.83	26–MAR–10 21:45	per0326022a
Perchlorate	.5	.45	90.79	26–MAR–10 23:57	per0326035a
Perchlorate Isotope Ratio		3.31		26–MAR–10 23:57	per0326035a
Perchlorate–101	.5	.47	94.31	26–MAR–10 23:57	per0326035a
Perchlorate	.5	.44	88.87	27–MAR–10 01:58	per0326047a
Perchlorate Isotope Ratio		3.35		27–MAR–10 01:58	per0326047a
Perchlorate–101	.5	.46	91.25	27–MAR–10 01:58	per0326047a
Perchlorate	.5	.43	86.68	27–MAR–10 03:39	per0326057a
Perchlorate Isotope Ratio		3.31		27–MAR–10 03:39	per0326057a
Perchlorate–101	.5	.45	90.12	27–MAR–10 03:39	per0326057a
Perchlorate	.5	.44	87.83	27–MAR–10 05:51	per0326070a

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2299

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.19		27–MAR–10 05:51	per0326070a
Perchlorate–101	.5	.47	94.67	27–MAR–10 05:51	per0326070a
Perchlorate	.5	.47	94.68	27–MAR–10 16:58	per0327022a
Perchlorate Isotope Ratio		3.33		27–MAR–10 16:58	per0327022a
Perchlorate–101	.5	.45	90.53	27–MAR–10 16:58	per0327022a
Perchlorate	.5	.44	88.7	27–MAR–10 19:04	per0327035a
Perchlorate Isotope Ratio		3.08		27–MAR–10 19:04	per0327035a
Perchlorate–101	.5	.46	91.61	27–MAR–10 19:04	per0327035a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326022a
Date: 26-Mar-2010
Time: 21:45:57
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
ana
03-27-10

Perchlorate

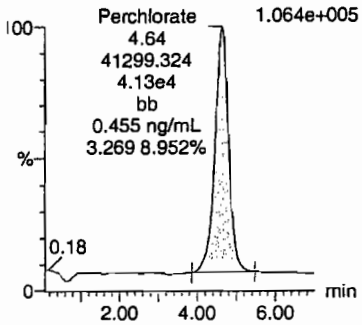

Perchlorate

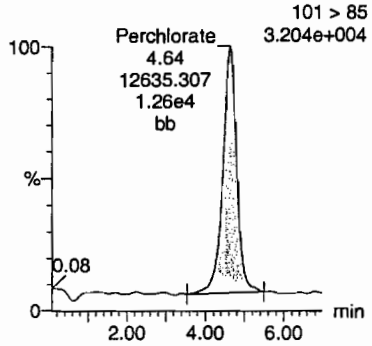

Perchlorate-101

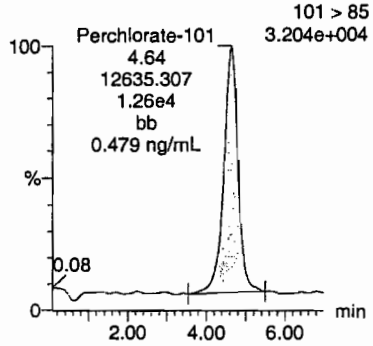

Perchlorate-O(18)

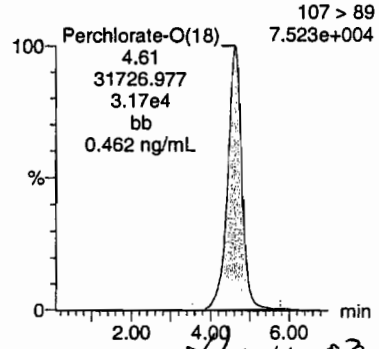

HMM 03/28/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100326-06CCV	Perchlorate	99 > 83	4.64	41299.324	41299.324	bb			0.4554	91.09	-8.91	790.293	3.27
/CL100326-06CCV	Perchlorate-101	101 > 85	4.64	12635.307	12635.307	bb			0.4791	95.83	-4.17	272.586	
/CL100326-06CCV	Perchlorate-O(18)	107 > 89	4.61	31726.977	31726.977	bb			0.4615	92.31	-7.69	2870.3...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326035a
Date: 26-Mar-2010
Time: 23:57:19
ID: WCL100326-06CCV
Vial: 1:2,A

Perch
CWJ
03.27.10

Perchlorate

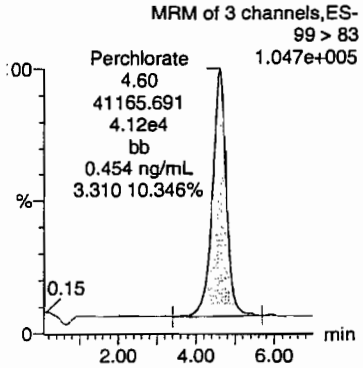

Perchlorate

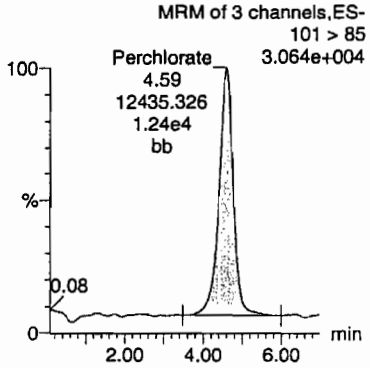

Perchlorate-101

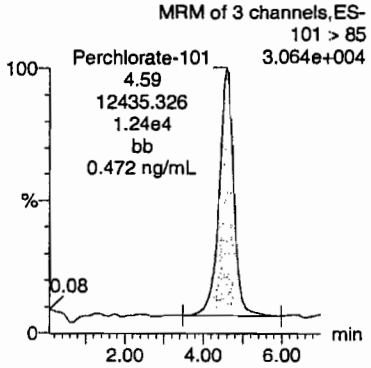

Perchlorate-O(18)

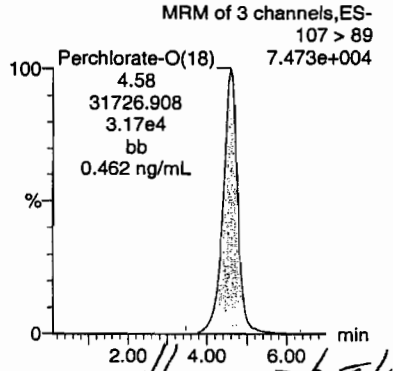

Hume 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100326-06CCV	Perchlorate	99 > 83	4.60	41165.691	41165.691	bb			0.4540	90.79	-9.21	481.358	3.31
VCL100326-06CCV	Perchlorate-101	101 > 85	4.59	12435.326	12435.326	bb			0.4715	94.31	-5.69	314.552	
VCL100326-06CCV	Perchlorate-O(18)	107 > 89	4.58	31726.908	31726.908	bb			0.4615	92.31	-7.69	5456.3...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326047a
Date: 27-Mar-2010
Time: 01:58:25
ID: WCL100326-06CCV
Vial: 1:2,A

Perchlorate
MRM of 3 channels,ES-
99 > 83
1.035e+005
Perchlorate
4.55
40294.277
4.03e4
bb
0.444 ng/mL
3.349 11.633%

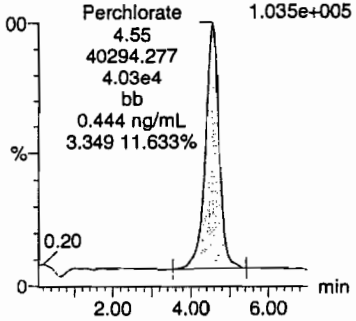

Perchlorate
MRM of 3 channels,ES-
101 > 85
3.088e+004
Perchlorate
4.54
12031.771
1.20e4
bb

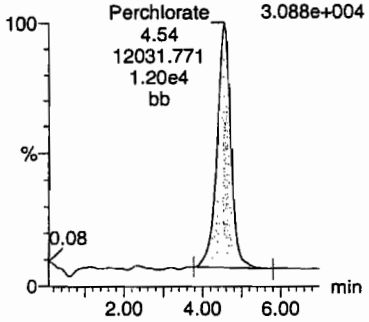

Perchlorate-101
MRM of 3 channels,ES-
101 > 85
3.088e+004
Perchlorate-101
4.54
12031.771
1.20e4
bb
0.456 ng/mL

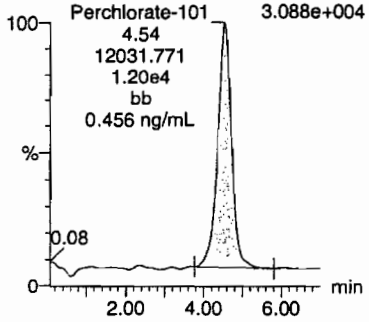

Perchlorate-O(18)
MRM of 3 channels,ES-
107 > 89
7.399e+004
Perchlorate-O(18)
4.54
31019.805
3.10e4
bb
0.451 ng/mL

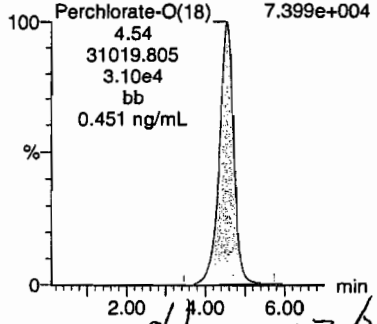

Perchlorate
ANO
03-27-10

Anne 03/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100326-06CCV	Perchlorate	99 > 83	4.55	40294.277	40294.277	bb			0.4444	88.87	-11.13	522.774	3.35
/CL100326-06CCV	Perchlorate-101	101 > 85	4.54	12031.771	12031.771	bb			0.4562	91.25	-8.75	192.131	
/CL100326-06CCV	Perchlorate-O(18)	107 > 89	4.54	31019.805	31019.805	bb			0.4513	90.25	-9.75	3100.7...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326057a
Date: 27-Mar-2010
Time: 03:39:21
ID: WCL100326-06CCV
Vial: 1:2,A

Pw 03-27-10

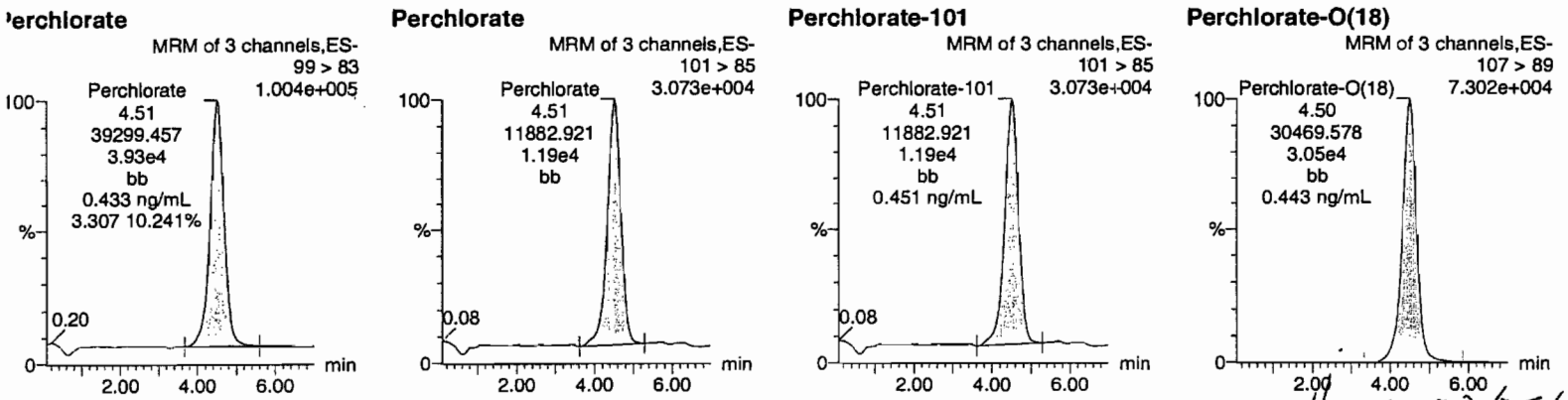

Anne 03/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	4.51	39299.457	39299.457	bb			0.4334	86.68	-13.32	643.039	3.31
WCL100326-06CCV	Perchlorate-101	101 > 85	4.51	11882.921	11882.921	bb			0.4506	90.12	-9.88	348.592	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	4.50	30469.578	30469.578	bb			0.4433	88.65	-11.35	3369.8...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326070a
Date: 27-Mar-2010
Time: 05:51:23
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
03-27-10

Perchlorate

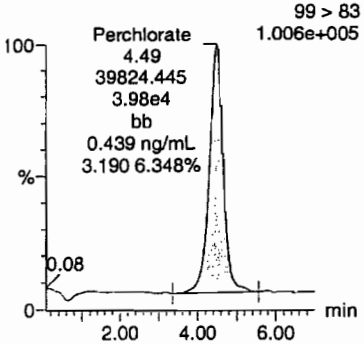

Perchlorate

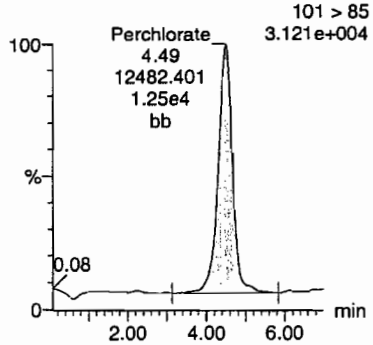

Perchlorate-101

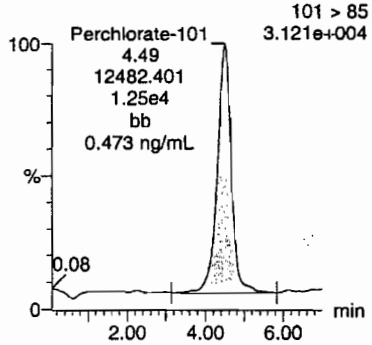

Perchlorate-O(18)

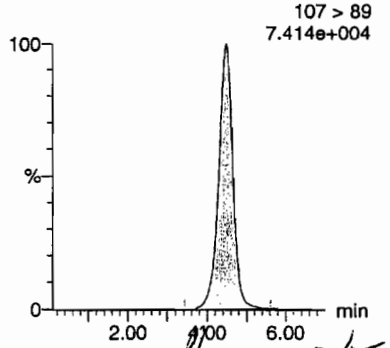

AMM 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100326-06CCV	Perchlorate	99 > 83	4.49	39824.445	39824.445	bb			0.4392	87.83	-12.17	306.428	3.19
VCL100326-06CCV	Perchlorate-101	101 > 85	4.49	12482.401	12482.401	bb			0.4733	94.67	-5.33	642.957	
VCL100326-06CCV	Perchlorate-O(18)	107 > 89	4.46	30537.795	30537.795	bb			0.4442	88.85	-11.15	746.332	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

ast Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
rinted: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

ame: per0327022a
ate: 27-Mar-2010
ime: 16:58:15
): WCL100326-06CCV
ial: 1:2,A

Pam
aw
03-28-10

erchlorate

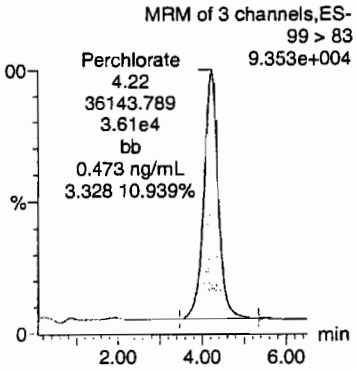

Perchlorate

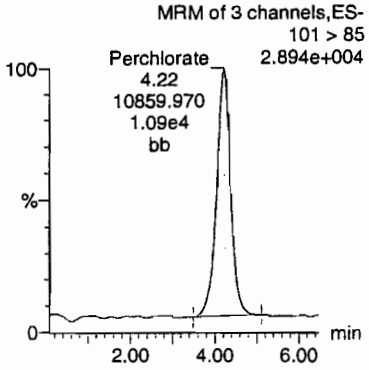

Perchlorate-101

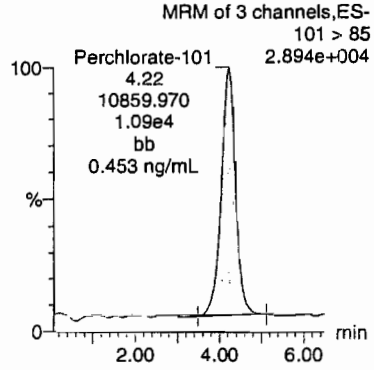

Perchlorate-O(18)

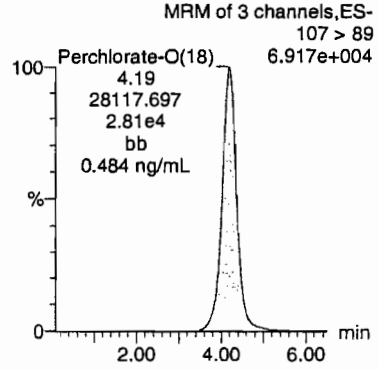

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-06CCV	Perchlorate	99 > 83	4.22	36143.789	36143.789	bb			0.4734	94.68	-5.32	718.874	3.33
CL100326-06CCV	Perchlorate-101	101 > 85	4.22	10859.970	10859.970	bb			0.4527	90.53	-9.47	307.369	
CL100326-06CCV	Perchlorate-O(18)	107 > 89	4.19	28117.697	28117.697	bb			0.4844	96.87	-3.13	3566.7...	

MM
3/26/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327035a
Date: 27-Mar-2010
Time: 19:04:03
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
03-28-10

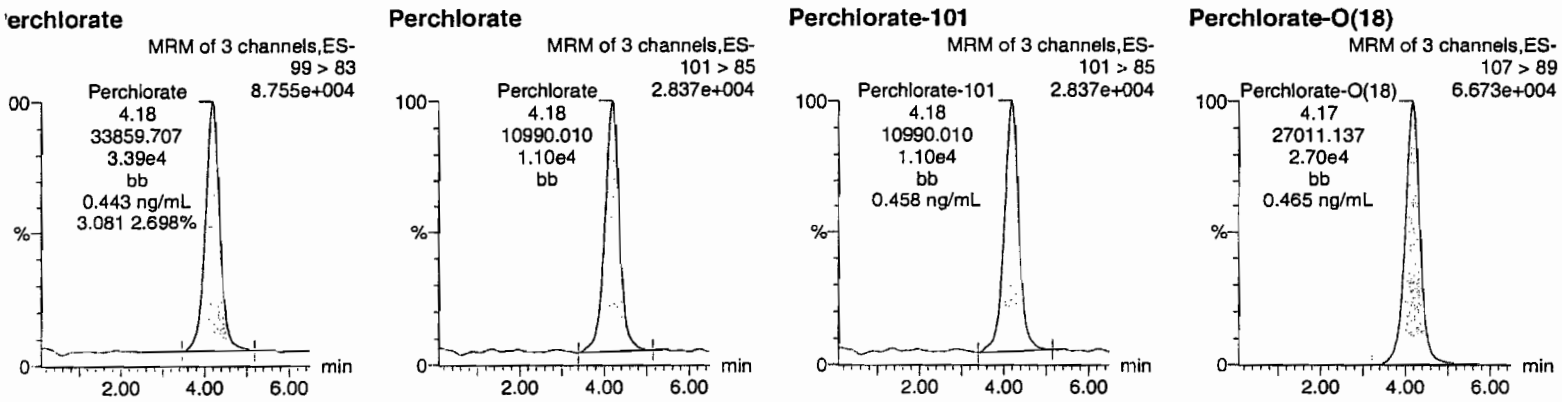

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-06CCV	Perchlorate	99 > 83	4.18	33859.707	33859.707	bb			0.4435	88.70	-11.30	753.004	3.08
CL100326-06CCV	Perchlorate-101	101 > 85	4.18	10990.010	10990.010	bb			0.4581	91.61	-8.39	388.310	
CL100326-06CCV	Perchlorate-O(18)	107 > 89	4.17	27011.137	27011.137	bb			0.4653	93.06	-6.94	2854.5...	

LHT 3/30/10

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2299

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	91.11	26–MAR–10 19:54	per0326011a
Perchlorate Isotope Ratio		2.8		26–MAR–10 19:54	per0326011a
Perchlorate–101	.05	.06	111.94	26–MAR–10 19:54	per0326011a
Perchlorate	.05	.04	76.13	26–MAR–10 22:06	per0326024a
Perchlorate Isotope Ratio		2.92		26–MAR–10 22:06	per0326024a
Perchlorate–101	.05	.04	89.75	26–MAR–10 22:06	per0326024a
Perchlorate	.05	.05	94.78	27–MAR–10 00:17	per0326037a
Perchlorate Isotope Ratio		3.76		27–MAR–10 00:17	per0326037a
Perchlorate–101	.05	.04	86.76	27–MAR–10 00:17	per0326037a
Perchlorate	.05	.04	86.09	27–MAR–10 02:18	per0326049a
Perchlorate Isotope Ratio		3.57		27–MAR–10 02:18	per0326049a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2299

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate–101	.05	.04	82.97	27–MAR–10 02:18	per0326049a
Perchlorate	.05	.05	90.03	27–MAR–10 03:59	per0326059a
Perchlorate Isotope Ratio		3.71		27–MAR–10 03:59	per0326059a
Perchlorate–101	.05	.04	83.49	27–MAR–10 03:59	per0326059a
Perchlorate	.05	.05	93.04	27–MAR–10 06:11	per0326072a
Perchlorate Isotope Ratio		3.51		27–MAR–10 06:11	per0326072a
Perchlorate–101	.05	.05	91.16	27–MAR–10 06:11	per0326072a
Perchlorate	.05	.04	87.45	27–MAR–10 15:12	per0327011a
Perchlorate Isotope Ratio		2.72		27–MAR–10 15:12	per0327011a
Perchlorate–101	.05	.05	102.42	27–MAR–10 15:12	per0327011a
Perchlorate	.05	.05	104.5	27–MAR–10 17:17	per0327024a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2299

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.46		27–MAR–10 17:17	per0327024a
Perchlorate–101	.05	.05	95.98	27–MAR–10 17:17	per0327024a
Perchlorate	.05	.05	90.39	27–MAR–10 19:23	per0327037a
Perchlorate Isotope Ratio		2.54		27–MAR–10 19:23	per0327037a
Perchlorate–101	.05	.06	113.42	27–MAR–10 19:23	per0327037a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326011a
Date: 26-Mar-2010
Time: 19:54:39
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
AMO
03-27-10

Perchlorate

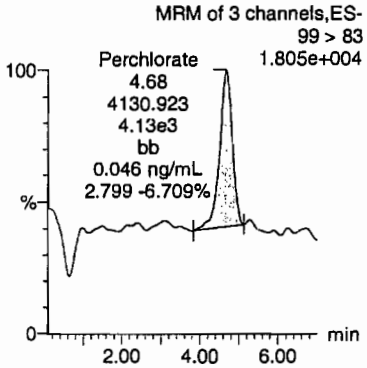

Perchlorate

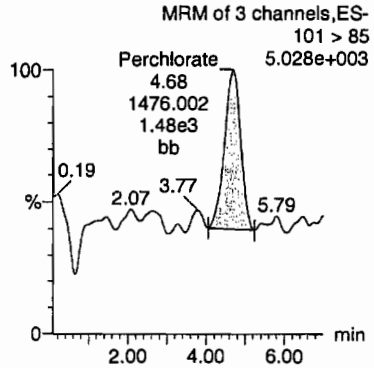

Perchlorate-101

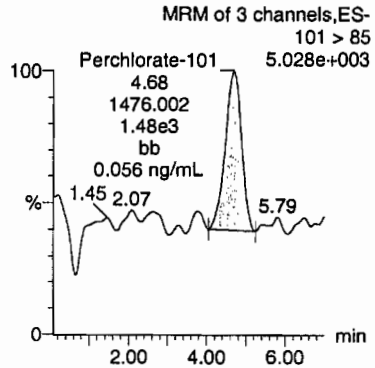

Perchlorate-O(18)

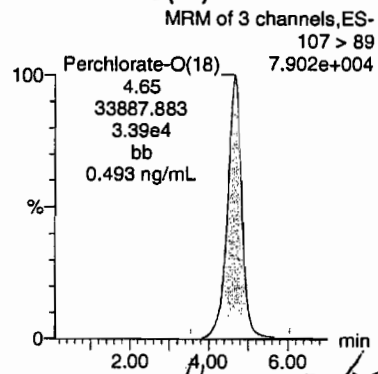

Hym 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100326-07CRI	Perchlorate	99 > 83	4.68	4130.923	4130.923	bb			0.0456	91.11	-8.89	80.633	2.80
VCL100326-07CRI	Perchlorate-101	101 > 85	4.68	1476.002 ✓	1476.002	bb			0.0560	111.94	11.94	14.788	
VCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.65	33887.883	33887.883	bb			0.4930	98.60	-1.40	2942.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326024a
Date: 26-Mar-2010
Time: 22:06:01
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
aw
03-27-10

Perchlorate

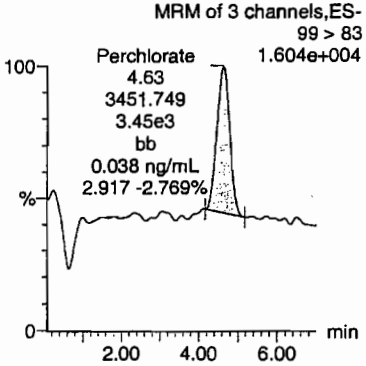

Perchlorate

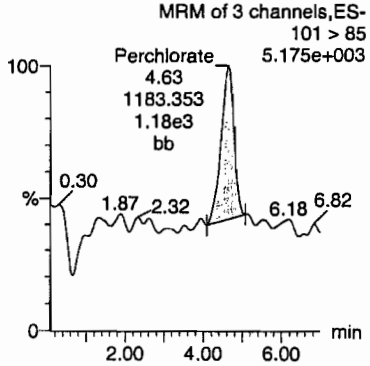

Perchlorate-101

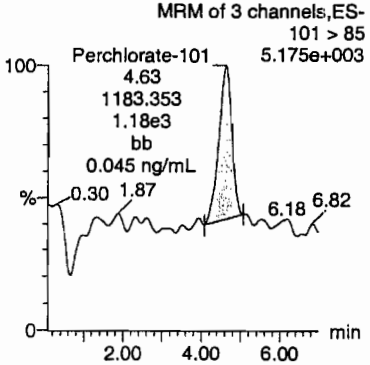

Perchlorate-O(18)

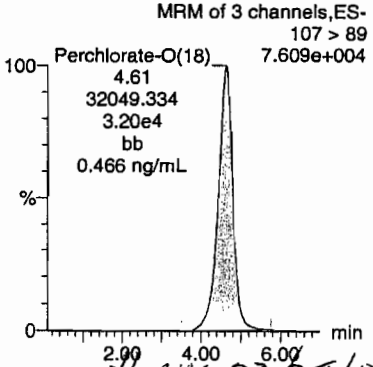

HMC 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	4.63	3451.749	3451.749	bb			0.0381	76.13	-23.87	81.944	2.92
WCL100326-07CRI	Perchlorate-101	101 > 85	4.63	1183.353	1183.353	bb			0.0449	89.75	-10.25	22.996	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.61	32049.334	32049.334	bb			0.4662	93.25	-6.75	3395.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326037a
Date: 27-Mar-2010
Time: 00:17:37
ID: WCL100326-07CRI
Vial: 1:2,B

Pwo
03-27-10

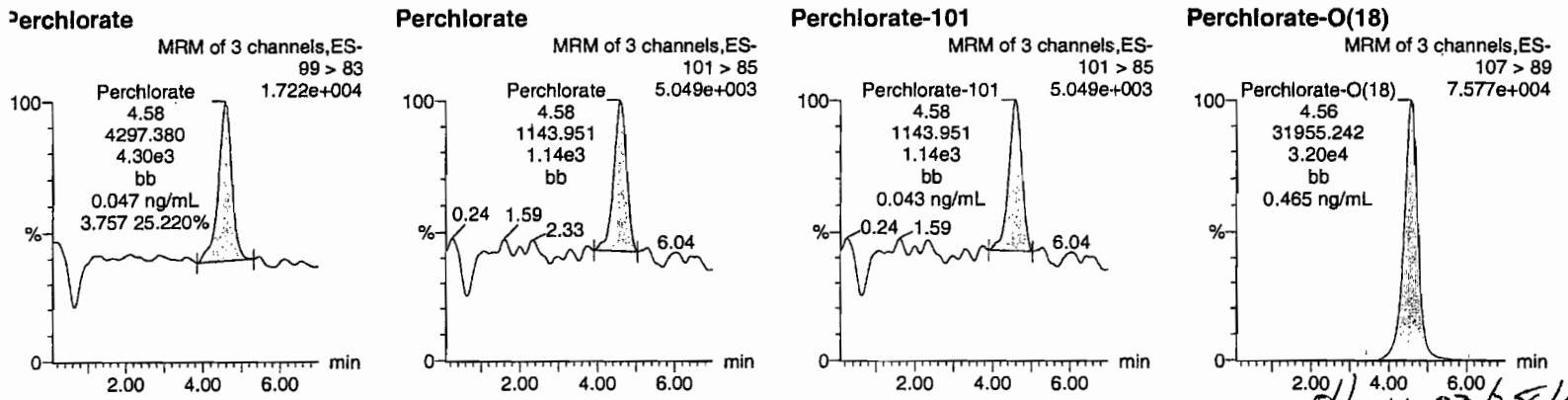

HMM 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100326-07CRI	Perchlorate	99 > 83	4.58	4297.380	4297.380	bb			0.0474	94.78	-5.22	60.556	3.76
VCL100326-07CRI	Perchlorate-101	101 > 85	4.58	1143.951	1143.951	bb			0.0434	86.76	-13.24	28.899	
VCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.56	31955.242	31955.242	bb			0.4649	92.97	-7.03	3054.1...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326049a
Date: 27-Mar-2010
Time: 02:18:44
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
CWJ
03-27-10

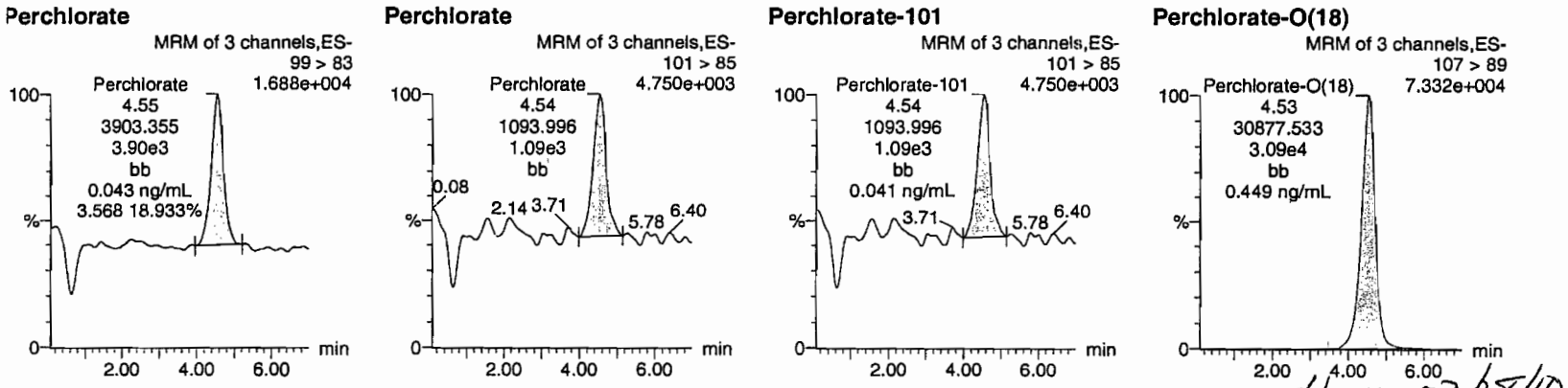

HMK 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	4.55	3903.355	3903.355	bb			0.0430	86.09	-13.91	73.342	3.57
WCL100326-07CRI	Perchlorate-101	101 > 85	4.54	1093.996	1093.996	bb			0.0415	82.97	-17.03	27.530	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.53	30877.533	30877.533	bb			0.4492	89.84	-10.16	745.296	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326059a
Date: 27-Mar-2010
Time: 03:59:48
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
aw
03-27-10

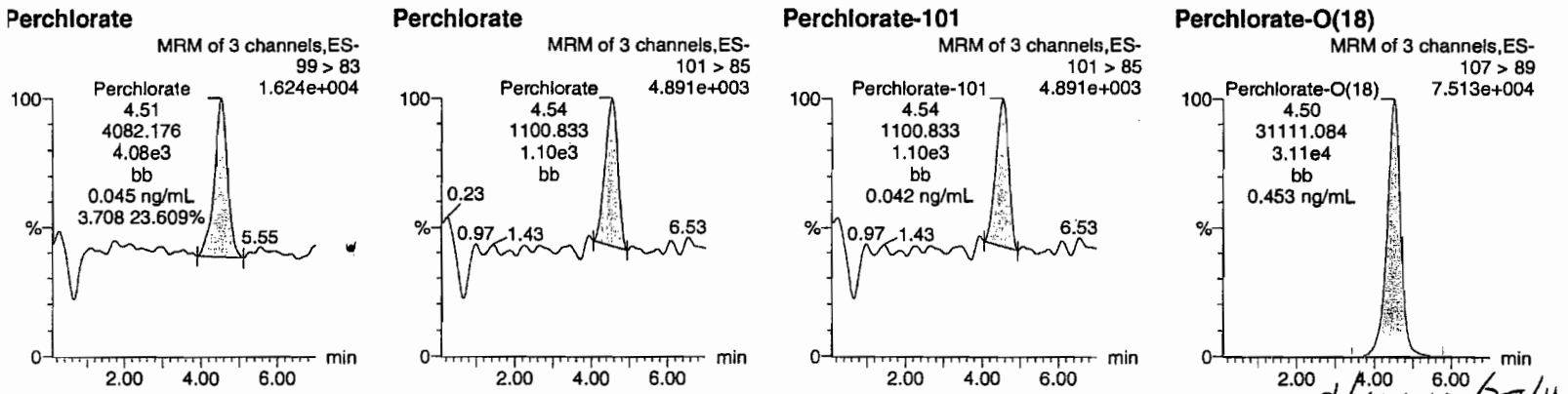

HMR 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	4.51	4082.176	4082.176	bb			0.0450	90.03	-9.97	60.533	3.71
WCL100326-07CRI	Perchlorate-101	101 > 85	4.54	1100.833	1100.833	bb			0.0417	83.49	-16.51	29.768	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.50	31111.084	31111.084	bb			0.4526	90.52	-9.48	2434.9...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326072a
Date: 27-Mar-2010
Time: 06:11:41
ID: WCL100326-07CRI
Vial: 1:2,B

Perc
and
03-27-10

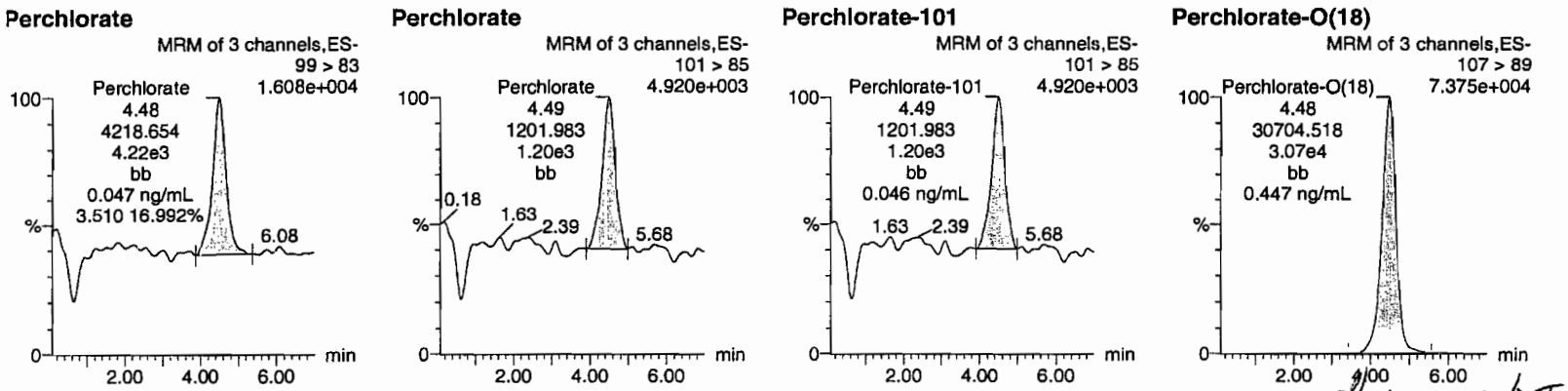

AMW 03/28/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	4.48	4218.654	4218.654	bb			0.0465	93.04	-6.96	47.315	3.51
WCL100326-07CRI	Perchlorate-101	101 > 85	4.49	1201.983	1201.983	bb			0.0456	91.16	-8.84	48.276	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.48	30704.518	30704.518	bb			0.4467	89.33	-10.67	1806.4...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327011a
Date: 27-Mar-2010
Time: 15:12:07
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
03-28-10

Perchlorate

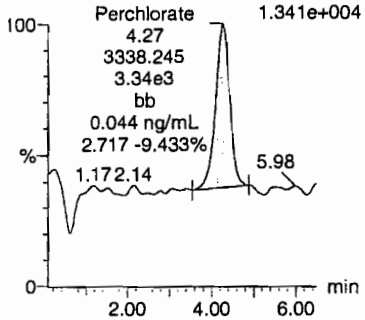

Perchlorate

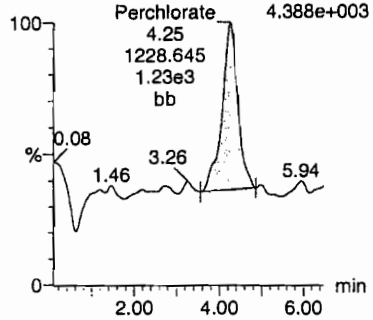

Perchlorate-101

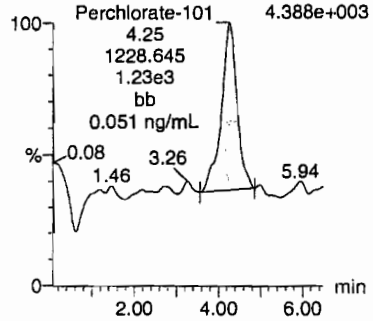

Perchlorate-O(18)

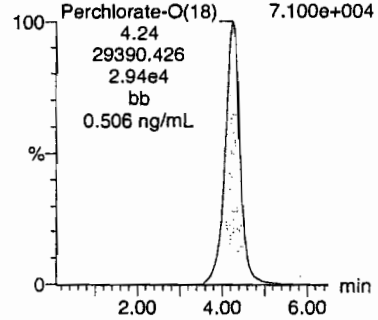

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100326-07CRI	Perchlorate	99 > 83	4.27	3338.245	3338.245	bb			0.0437	87.45	-12.55	57.023	2.72
/CL100326-07CRI	Perchlorate-101	101 > 85	4.25	1228.645	1228.645	bb			0.0512	102.42	2.42	37.113	
/CL100326-07CRI	Perchlorate-O(18)	107 > 89	4.24	29390.426	29390.426	bb			0.5063	101.26	1.26	1326.3...	

MMT 3/30/10

$$\frac{3338.245}{76347.5} = 0.0437$$

$$\frac{3338.245}{1228.645} = 2.7170$$

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327024a
Date: 27-Mar-2010
Time: 17:17:35
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
ana
03-28-10

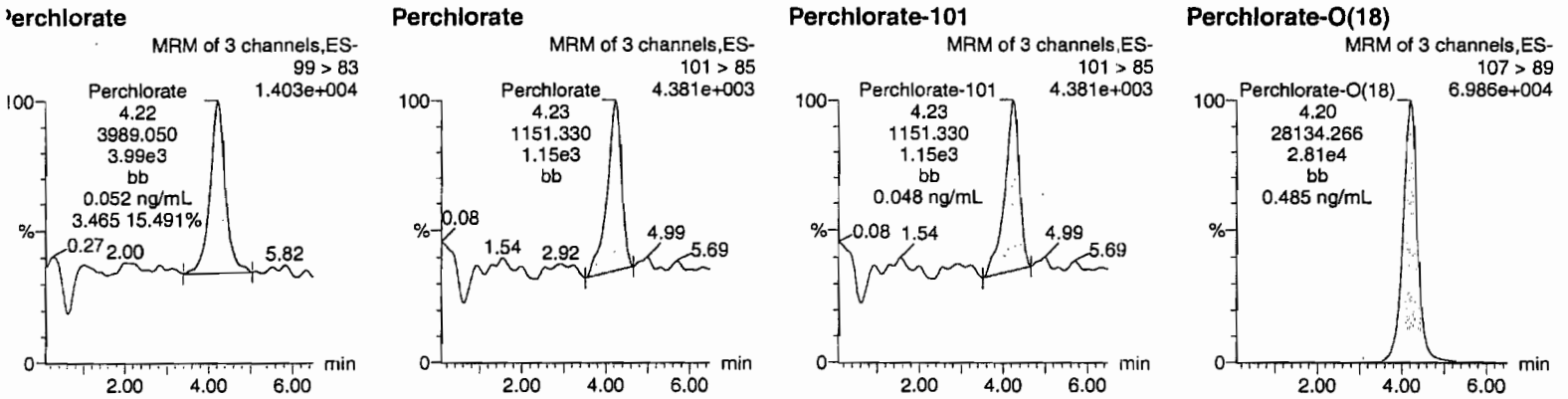

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'CL100326-07CRI	Perchlorate	99 > 83	4.22	3989.050	3989.050	bb			0.0522	104.50	4.50	91.832	3.46
'CL100326-07CRI	Perchlorate-101	101 > 85	4.23	1151.330	1151.330	bb			0.0480	95.98	-4.02	17.575	
'CL100326-07CRI	Perchlorate-O(18)	107 > 89	4.20	28134.266	28134.266	bb			0.4847	96.93	-3.07	731.209	

MAT
3/30/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327037a
Date: 27-Mar-2010
Time: 19:23:31
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
ano
03-28-10

Perchlorate

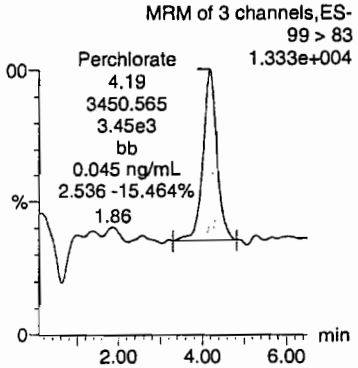

Perchlorate

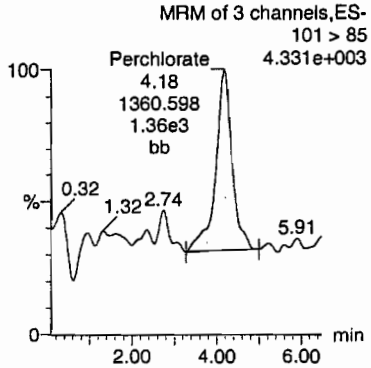

Perchlorate-101

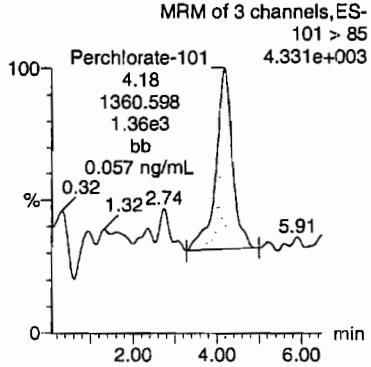

Perchlorate-O(18)

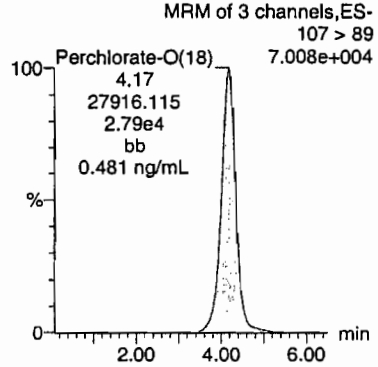

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100326-07CRI	Perchlorate	99 > 83	4.19	3450.565	3450.565	bb			0.0452	90.39	-9.61	50.782	2.54
CL100326-07CRI	Perchlorate-101	101 > 85	4.18	1360.598	1360.598	bb			0.0567	113.42	13.42	19.748	
CL100326-07CRI	Perchlorate-O(18)	107 > 89	4.17	27916.115	27916.115	bb			0.4809	96.18	-3.82	3292.0...	

MHT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 18-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 1202068342

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	27-MAR-10 04:09	per0326060a
	Perchlorate Isotope Ratio						1	27-MAR-10 04:09	per0326060a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	27-MAR-10 04:09	per0326060a
	Perchlorate-O(18)			4.27	ug/kg		1	27-MAR-10 04:09	per0326060a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326060a
Date: 27-Mar-2010
Time: 04:09:50
ID: 1202068342
Vial: 2:5,A

|LANL|9641191|50120|MB|1|

CWJ 03-27-10

Perchlorate

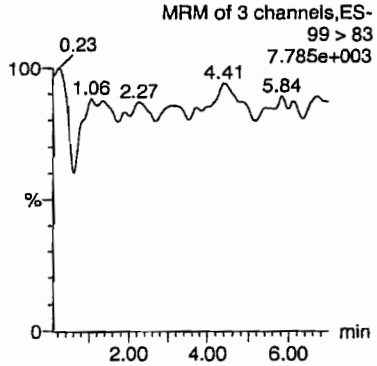

Perchlorate

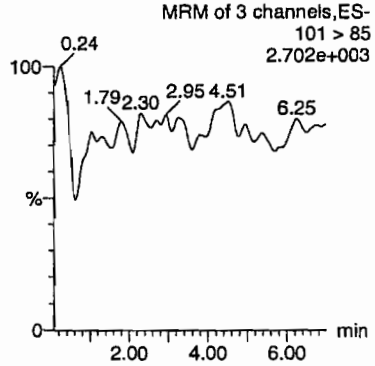

Perchlorate-101

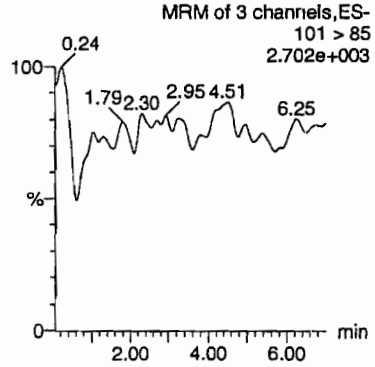

Perchlorate-O(18)

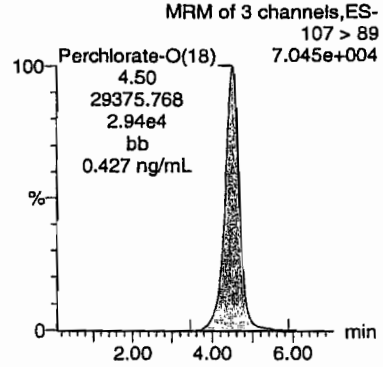

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068342	Perchlorate	99 > 83											0.00
1202068342	Perchlorate-101	101 > 85											
1202068342	Perchlorate-O(18)	107 > 89	4.50	29375.768	29375.768	bb			0.4273	85.47	-14.53	1939.2...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964118

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 18-MAR-10

GEL Job No (SDG): 10-2299

GEL Sample ID: 1202068343

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	1.77	ug/kg	J	1	27-MAR-10 04:20	per0326061a
	Perchlorate Isotope Ratio			3.29			1	27-MAR-10 04:20	per0326061a
14797-73-0	Perchlorate-101	.5	2	1.85	ug/kg	J	1	27-MAR-10 04:20	per0326061a
	Perchlorate-O(18)			4.38	ug/kg		1	27-MAR-10 04:20	per0326061a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326061a
Date: 27-Mar-2010
Time: 04:20:15
ID: 1202068343
Vial: 2:5,B

|LAVL|964119|30120|LCS|1|

CWO
03.27.10

Perchlorate

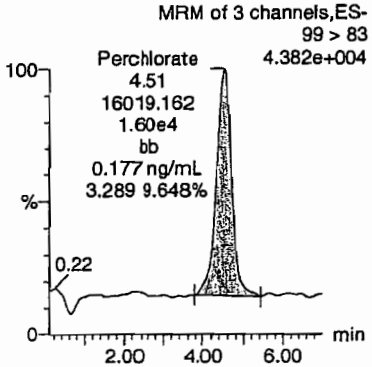

Perchlorate

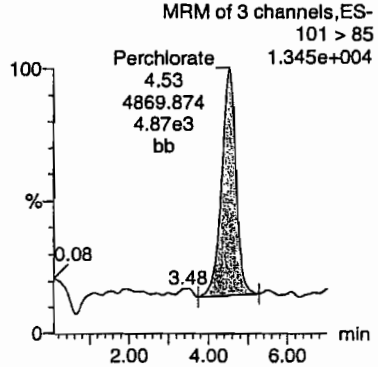

Perchlorate-101

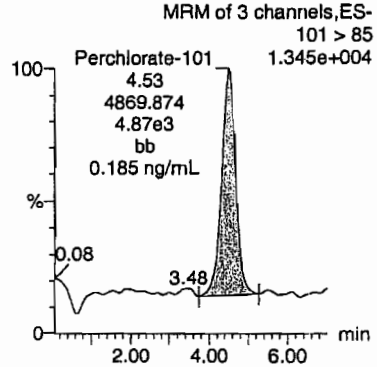

Perchlorate-O(18)

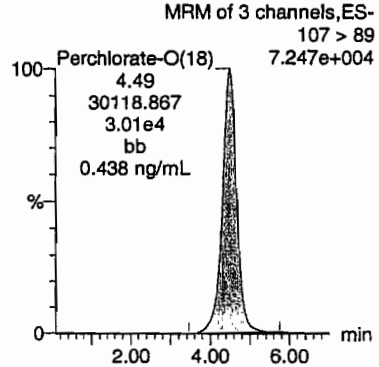

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068343	Perchlorate	99 > 83	4.51	16019.162	16019.162	bb			0.1767	88.33	-11.67	100.594	3.29
1202068343	Perchlorate-101	101 > 85	4.53	4869.874	4869.874	bb			0.1847	92.33	-7.67	131.591	
1202068343	Perchlorate-O(18)	107 > 89	4.49	30118.867	30118.867	bb			0.4382	87.63	-12.37	1518.6...	

MAT 3/30/10

$$\frac{16019.162}{90680.5} = 0.1767$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 964118 **Verified by:** _____

Analyst: Kaylie Westmoreland **Lab SOP:** GL-OA-E-067 REV# 6

Method: SW846 6850 Modified **Instrument:** MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202068342 MB	18-MAR-2010 16:01:00	2	20	10
1202068343 LCS	18-MAR-2010 16:01:00	2	20	10
248793001	18-MAR-2010 16:01:00	2	20	10
1202068344 MS (248793001)	18-MAR-2010 16:01:00	2	20	10
1202068345 MSD (248793001)	18-MAR-2010 16:01:00	2	20	10
248793002	18-MAR-2010 16:01:00	2	20	10
248793003	18-MAR-2010 16:01:00	2	20	10
248793004	18-MAR-2010 16:01:00	2	20	10
248824001	18-MAR-2010 16:01:00	2	20	10
248824002	18-MAR-2010 16:01:00	2	20	10
248834001	18-MAR-2010 16:01:00	2	20	10
248834002	18-MAR-2010 16:01:00	2	20	10
248834003	18-MAR-2010 16:01:00	2	20	10
248834004	18-MAR-2010 16:01:00	2	20	10
248834005	18-MAR-2010 16:01:00	2	20	10
248834006	18-MAR-2010 16:01:00	2	20	10
248834007	18-MAR-2010 16:01:00	2	20	10
248834008	18-MAR-2010 16:01:00	2	20	10
248834009	18-MAR-2010 16:01:00	2	20	10
248834010	18-MAR-2010 16:01:00	2	20	10
248834011	18-MAR-2010 16:01:00	2	20	10
1202068346 ICS	18-MAR-2010 16:01:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202068346	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
LCS	1202068343	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
MS	1202068344	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
MSD	1202068345	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL

Comments:

Desalting Cartridges used: 100224-1-Ba & 100216-1-H

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/26/10
Extr. Injection Volume: 20uL
Sequence Number: per032610a
Initial Calibration Date: 03/26/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1284736
Standard-Samp Reagent Lot#:: 1284736

Reviewed BY: MH
Date: 3/30/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100326-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0326001a	IPB001	CWW	3/26/2010 18:12			1		USE	B
per0326002a	IPB001	CWW	3/26/2010 18:23			1		USE	B
per0326003a	WCLICAL-01	CWW	3/26/2010 18:33			1		USE	I
per0326004a	WCLICAL-02	CWW	3/26/2010 18:43			1		USE	I
per0326005a	WCLICAL-03	CWW	3/26/2010 18:53			1		USE	I
per0326006a	WCLICAL-04	CWW	3/26/2010 19:04			1		USE	I
per0326007a	WCLICAL-05	CWW	3/26/2010 19:14			1		USE	I
per0326008a	IPB002	CWW	3/26/2010 19:24			1		USE	B
per0326009a	WCLICV	CWW	3/26/2010 19:34			1		USE	C
per0326010a	IPB003	CWW	3/26/2010 19:44			1		USE	B
per0326011a	WCLCRI	CWW	3/26/2010 19:54			1		USE	C
per0326012a	248623009	CWW	3/26/2010 20:04	964107	10-2237	1	LANL	USE	S
per0326013a	IPB004	CWW	3/26/2010 20:14			1		USE	B
per0326014a	248635004	CWW	3/26/2010 20:25	964110	10-2234	1	LANL	USE	S
per0326015a	248635005	CWW	3/26/2010 20:35	964110	10-2234	1	LANL	USE	S
per0326016a	248635006	CWW	3/26/2010 20:45	964110	10-2234	1	LANL	USE	S
per0326017a	248635007	CWW	3/26/2010 20:55	964110	10-2234	1	LANL	USE	S
per0326018a	248635008	CWW	3/26/2010 21:05	964110	10-2234	1	LANL	USE	S
per0326019a	248635009	CWW	3/26/2010 21:15	964110	10-2234	1	LANL	USE	S
per0326020a	248635010	CWW	3/26/2010 21:25	964110	10-2234	1	LANL	USE	S
per0326021a	248635011	CWW	3/26/2010 21:35	964110	10-2234	1	LANL	USE	S
per0326022a	WCLCCV	CWW	3/26/2010 21:45			1		USE	C
per0326023a	IPB005	CWW	3/26/2010 21:55			1		USE	B
per0326024a	WCLCRI	CWW	3/26/2010 22:06			1		USE	C
per0326025a	248635012	CWW	3/26/2010 22:16	964110	10-2234	1	LANL	USE	S
per0326026a	248635013	CWW	3/26/2010 22:26	964110	10-2234	1	LANL	USE	S
per0326027a	1202068326	CWW	3/26/2010 22:36	964107	VARIOUS	1	LANL	DUSE	S
per0326028a	1202068331	CWW	3/26/2010 22:46	964110	VARIOUS	1	LANL	DUSE	S
per0326029a	IPB006	CWW	3/26/2010 22:56			1		USE	B

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per0326030a	1202068332	CWW	3/26/2010 23:06	964113	VARIOUS	1	LANL	USE	S
per0326031a	1202068333	CWW	3/26/2010 23:16	964113	VARIOUS	1	LANL	USE	S
per0326032a	1202068336	CWW	3/26/2010 23:27	964113	VARIOUS	1	LANL	DUSE-RA	S
per0326033a	248647001	CWW	3/26/2010 23:37	964113	10-2237	1	LANL	USE	S
per0326034a	248647002	CWW	3/26/2010 23:47	964113	10-2240	1	LANL	USE	S
per0326035a	WCLCCV	CWW	3/26/2010 23:57			1		USE	C
per0326036a	IPB007	CWW	3/27/2010 0:07			1		USE	B
per0326037a	WCLCRI	CWW	3/27/2010 0:17			1		USE	C
per0326038a	248647003	CWW	3/27/2010 0:27	964113	10-2240	1	LANL	USE	S
per0326039a	248647004	CWW	3/27/2010 0:37	964113	10-2240	1	LANL	USE	S
per0326040a	248647005	CWW	3/27/2010 0:47	964113	10-2240	1	LANL	USE	S
per0326041a	248647006	CWW	3/27/2010 0:57	964113	10-2240	1	LANL	USE	S
per0326042a	248647007	CWW	3/27/2010 1:07	964113	10-2240	1	LANL	USE	S
per0326043a	248647008	CWW	3/27/2010 1:18	964113	10-2240	1	LANL	USE	S
per0326044a	248660002	CWW	3/27/2010 1:28	964113	10-2244	1	LANL	USE	S
per0326045a	248702001	CWW	3/27/2010 1:38	964113	10-2264	1	LANL	USE	S
per0326046a	248702002	CWW	3/27/2010 1:48	964113	10-2264	1	LANL	USE	S
per0326047a	WCLCCV	CWW	3/27/2010 1:58			1		USE	C
per0326048a	IPB008	CWW	3/27/2010 2:08			1		USE	B
per0326049a	WCLCRI	CWW	3/27/2010 2:18			1		USE	C
per0326050a	248776001	CWW	3/27/2010 2:28	964113	10-2281	1	LANL	USE	S
per0326051a	1202068334	CWW	3/27/2010 2:39	964113	10-2281	1	LANL	USE	S
per0326052a	1202068335	CWW	3/27/2010 2:49	964113	10-2281	1	LANL	USE	S
per0326053a	248776002	CWW	3/27/2010 2:59	964113	10-2281	1	LANL	USE	S
per0326054a	248776003	CWW	3/27/2010 3:09	964113	10-2281	1	LANL	USE	S
per0326055a	248776004	CWW	3/27/2010 3:19	964113	10-2281	1	LANL	USE	S
per0326056a	248776005	CWW	3/27/2010 3:29	964113	10-2281	1	LANL	USE	S
per0326057a	WCLCCV	CWW	3/27/2010 3:39			1		USE	C
per0326058a	IPB009	CWW	3/27/2010 3:49			1		USE	B
per0326059a	WCLCRI	CWW	3/27/2010 3:59			1		USE	C
per0326060a	1202068342	CWW	3/27/2010 4:09	964119	VARIOUS	1	LANL	USE	S
per0326061a	1202068343	CWW	3/27/2010 4:20	964119	VARIOUS	1	LANL	USE	S
per0326062a	1202068346	CWW	3/27/2010 4:30	964119	VARIOUS	1	LANL	DUSE-RA	S
per0326063a	248793001	CWW	3/27/2010 4:40	964119	10-2287-1	1	LANL	USE	S
per0326064a	1202068344	CWW	3/27/2010 4:50	964119	10-2287-1	1	LANL	USE	S
per0326065a	1202068345	CWW	3/27/2010 5:00	964119	10-2287-1	1	LANL	USE	S
per0326066a	248793002	CWW	3/27/2010 5:10	964119	10-2287-1	1	LANL	USE	S

per0326067a	248793003	CWW	3/27/2010 5:21	964119	10-2287-1	1	LANL	USE	S
per0326068a	248793004	CWW	3/27/2010 5:31	964119	10-2287-1	1	LANL	USE	S
per0326069a	248824001	CWW	3/27/2010 5:41	964119	10-2305	1	LANL	USE	S
per0326070a	WCLCCV	CWW	3/27/2010 5:51			1		USE	C
per0326071a	IPB010	CWW	3/27/2010 6:01			1		USE	B
per0326072a	WCLCRI	CWW	3/27/2010 6:11			1		USE	C
per0326073a	248824002	CWW	3/27/2010 6:21	964119	10-2305	1	LANL	DUSE-RA	S
per0326074a	248834001	CWW	3/27/2010 6:31	964119	10-2299	1	LANL	DUSE-RA	S
per0326075a	248834002	CWW	3/27/2010 6:42	964119	10-2299	1	LANL	DUSE-RA	S
per0326076a	248834003	CWW	3/27/2010 6:52	964119	10-2299	1	LANL	DUSE-RA	S
per0326077a	248834004	CWW	3/27/2010 7:02	964119	10-2299	1	LANL	DUSE-RA	S
per0326078a	248834005	CWW	3/27/2010 7:12	964119	10-2299	1	LANL	DUSE-RA	S
per0326079a	248834006	CWW	3/27/2010 7:22	964119	10-2299	1	LANL	DUSE-RA	S
per0326080a	248834007	CWW	3/27/2010 7:32	964119	10-2299	1	LANL	DUSE-RA	S
per0326081a	248834008	CWW	3/27/2010 7:42	964119	10-2299	1	LANL	DUSE-RA	S
per0326082a	248834009	CWW	3/27/2010 7:52	964119	10-2299	1	LANL	DUSE-RA	S
per0326083a	WCLCCV	CWW	3/27/2010 8:02			1		DUSE	C
per0326084a	IPB011	CWW	3/27/2010 8:13			1		DUSE	B
per0326085a	WCLCRI	CWW	3/27/2010 8:23			1		DUSE	C

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/27/10
Extr. Injection Volume: 20uL
Sequence Number: per032710a
Initial Calibration Date: 03/27/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1284736
Standard-Samp Reagent Lot#:: 1284736

Reviewed BY: MAP
Date: 3/30/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100326-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0327001a	IPB001	CWW	3/27/2010 13:35			1		USE	B
per0327002a	IPB001	CWW	3/27/2010 13:44			1		USE	B
per0327003a	WCLICAL-01	CWW	3/27/2010 13:54			1		USE	I
per0327004a	WCLICAL-02	CWW	3/27/2010 14:04			1		USE	I
per0327005a	WCLICAL-03	CWW	3/27/2010 14:14			1		USE	I
per0327006a	WCLICAL-04	CWW	3/27/2010 14:23			1		USE	I
per0327007a	WCLICAL-05	CWW	3/27/2010 14:33			1		USE	I
per0327008a	IPB002	CWW	3/27/2010 14:42			1		USE	B
per0327009a	WCLICV	CWW	3/27/2010 14:52			1		USE	C
per0327010a	IPB003	CWW	3/27/2010 15:02			1		USE	B
per0327011a	WCLCRI	CWW	3/27/2010 15:12			1		USE	C
per0327012a	1202068336	CWW	3/27/2010 15:21	964113	VARIOUS	1	LANL	USE	S
per0327013a	1202068346	CWW	3/27/2010 15:31	964119	VARIOUS	1	LANL	USE	S
per0327014a	248824002	CWW	3/27/2010 15:41	964119	10-2305	1	LANL	USE	S
per0327015a	248834001	CWW	3/27/2010 15:51	964119	10-2299	1	LANL	USE	S
per0327016a	248834002	CWW	3/27/2010 16:00	964119	10-2299	1	LANL	USE	S
per0327017a	248834003	CWW	3/27/2010 16:10	964119	10-2299	1	LANL	USE	S
per0327018a	248834004	CWW	3/27/2010 16:20	964119	10-2299	1	LANL	USE	S
per0327019a	248834005	CWW	3/27/2010 16:29	964119	10-2299	1	LANL	USE	S
per0327020a	248834006	CWW	3/27/2010 16:39	964119	10-2299	1	LANL	USE	S
per0327021a	248834007	CWW	3/27/2010 16:48	964119	10-2299	1	LANL	USE	S
per0327022a	WCLCCV	CWW	3/27/2010 16:58			1		USE	C
per0327023a	IPB004	CWW	3/27/2010 17:07			1		USE	B
per0327024a	WCLCRI	CWW	3/27/2010 17:17			1		USE	C
per0327025a	248834008	CWW	3/27/2010 17:27	964119	10-2299	1	LANL	USE	S
per0327026a	248834009	CWW	3/27/2010 17:36	964119	10-2299	1	LANL	USE	S
per0327027a	248834010	CWW	3/27/2010 17:46	964119	10-2299	1	LANL	USE	S
per0327028a	248834011	CWW	3/27/2010 17:55	964119	10-2299	1	LANL	USE	S
per0327029a	IPB005	CWW	3/27/2010 18:05			1		USE	B

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per0327030a	1202068337	CWW	3/27/2010 18:15	964116	VARIOUS	1	LANL	USE	S
per0327031a	1202068338	CWW	3/27/2010 18:25	964116	VARIOUS	1	LANL	USE	S
per0327032a	1202068341	CWW	3/27/2010 18:34	964116	VARIOUS	1	LANL	USE	S
per0327033a	248784001	CWW	3/27/2010 18:44	964116	10-2284-1	1	LANL	USE	S
per0327034a	248784002	CWW	3/27/2010 18:54	964116	10-2284-1	1	LANL	USE	S
per0327035a	WCLCCV	CWW	3/27/2010 19:04			1		USE	C
per0327036a	IPB006	CWW	3/27/2010 19:13			1		USE	B
per0327037a	WCLCRI	CWW	3/27/2010 19:23			1		USE	C
per0327038a	248784003	CWW	3/27/2010 19:33	964116	10-2284-1	1	LANL	USE	S
per0327039a	248784004	CWW	3/27/2010 19:42	964116	10-2284-1	1	LANL	USE	S
per0327040a	248784005	CWW	3/27/2010 19:52	964116	10-2284-1	1	LANL	USE	S
per0327041a	248784006	CWW	3/27/2010 20:02	964116	10-2284-1	1	LANL	USE	S
per0327042a	248784007	CWW	3/27/2010 20:11	964116	10-2284-1	1	LANL	USE	S
per0327043a	248784008	CWW	3/27/2010 20:21	964116	10-2284-1	1	LANL	USE	S
per0327044a	248798001	CWW	3/27/2010 20:30	964116	10-2289	1	LANL	USE	S
per0327045a	1202068339	CWW	3/27/2010 20:40	964116	10-2289	1	LANL	USE	S
per0327046a	1202068340	CWW	3/27/2010 20:49	964116	10-2289	1	LANL	USE	S
per0327047a	248798002	CWW	3/27/2010 20:59	964116	10-2289	1	LANL	USE	S
per0327048a	WCLCCV	CWW	3/27/2010 21:08			1		USE	C
per0327049a	IPB007	CWW	3/27/2010 21:18			1		USE	B
per0327050a	WCLCRI	CWW	3/27/2010 21:28			1		USE	C
per0327051a	248798003	CWW	3/27/2010 21:37	964116	10-2289	1	LANL	USE	S
per0327052a	248798004	CWW	3/27/2010 21:47	964116	10-2289	1	LANL	USE	S
per0327053a	248798005	CWW	3/27/2010 21:57	964116	10-2289	1	LANL	USE	S
per0327054a	248798006	CWW	3/27/2010 22:06	964116	10-2289	1	LANL	USE	S
per0327055a	248798007	CWW	3/27/2010 22:16	964116	10-2289	1	LANL	USE	S
per0327056a	248798008	CWW	3/27/2010 22:25	964116	10-2289	1	LANL	USE	S
per0327057a	248798009	CWW	3/27/2010 22:35	964116	10-2289	1	LANL	USE	S
per0327058a	248798010	CWW	3/27/2010 22:45	964116	10-2289	1	LANL	USE	S
per0327059a	248798011	CWW	3/27/2010 22:54	964116	10-2289	1	LANL	USE	S
per0327060a	248798012	CWW	3/27/2010 23:04	964116	10-2289	1	LANL	USE	S
per0327061a	WCLCCV	CWW	3/27/2010 23:13			1		USE	C
per0327062a	IPB008	CWW	3/27/2010 23:23			1		USE	B
per0327063a	WCLCRI	CWW	3/27/2010 23:33			1		USE	C
per0327064a	1202074284	CWW	3/27/2010 23:42	966566	VARIOUS	1	LANL	USE	S
per0327065a	1202074285	CWW	3/27/2010 23:52	966566	VARIOUS	1	LANL	USE	S
per0327066a	1202074288	CWW	3/28/2010 0:02	966566	VARIOUS	1	LANL	USE	S

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per0327067a	249057004	CWW	3/28/2010 0:11	966566	10-2350	1	LANL	USE	S
per0327068a	249064001	CWW	3/28/2010 0:21	966566	10-2353	1	LANL	USE	S
per0327069a	249072001	CWW	3/28/2010 0:30	966566	10-2355	1	LANL	USE	S
per0327070a	249076001	CWW	3/28/2010 0:40	966566	10-2357	1	LANL	USE	S
per0327071a	249076002	CWW	3/28/2010 0:49	966566	10-2357	1	LANL	USE	S
per0327072a	249097001	CWW	3/28/2010 0:59	966566	10-2360	1	LANL	USE	S
per0327073a	249102001	CWW	3/28/2010 1:09	966566	10-2367	1	LANL	USE	S
per0327074a	WCLCCV	CWW	3/28/2010 1:18			1		USE	C
per0327075a	IPB009	CWW	3/28/2010 1:28			1		USE	B
per0327076a	WCLCRI	CWW	3/28/2010 1:38			1		USE	C
per0327077a	249248005	CWW	3/28/2010 1:48	966566	10-2417	1	LANL	USE	S
per0327078a	249250002	CWW	3/28/2010 1:57	966566	10-2418	1	LANL	USE	S
per0327079a	249328001	CWW	3/28/2010 2:07	966566	10-2429	1	LANL	USE	S
per0327080a	249328002	CWW	3/28/2010 2:17	966566	10-2429	1	LANL	USE	S
per0327081a	IPB010	CWW	3/28/2010 2:26			1		USE	B
per0327082a	249333001	CWW	3/28/2010 2:36	966566	10-2434	1	LANL	USE	S
per0327083a	1202074286	CWW	3/28/2010 2:46	966566	10-2434	1	LANL	USE	S
per0327084a	1202074287	CWW	3/28/2010 2:56	966566	10-2434	1	LANL	USE	S
per0327085a	249333002	CWW	3/28/2010 3:05	966566	10-2434	1	LANL	USE	S
per0327086a	249373001	CWW	3/28/2010 3:15	966566	10-2353	1	LANL	USE	S
per0327087a	WCLCCV	CWW	3/28/2010 3:25			1		USE	C
per0327088a	IPB011	CWW	3/28/2010 3:35			1		USE	B
per0327089a	WCLCRI	CWW	3/28/2010 3:44			1		USE	C
per0327090a	249376001	CWW	3/28/2010 3:54	966566	10-2446	1	LANL	DUSE-RA	S
per0327091a	249376004	CWW	3/28/2010 4:04	966566	10-2446	1	LANL	DUSE-RA	S
per0327092a	IPB012	CWW	3/28/2010 4:13			1		DUSE	B
per0327093a	1202069098	CWW	3/28/2010 4:23	964450	VARIOUS	1	LANL	DUSE-RA	S
per0327094a	1202069099	CWW	3/28/2010 4:33	964450	VARIOUS	1	LANL	DUSE-RA	S
per0327095a	1202069102	CWW	3/28/2010 4:43	964450	VARIOUS	1	LANL	DUSE-RA	S
per0327096a	248863001	CWW	3/28/2010 4:52	964450	10-2315	1	LANL	DUSE-RA	S
per0327097a	248863002	CWW	3/28/2010 5:02	964450	10-2315	1	LANL	DUSE-RA	S
per0327098a	1202069100	CWW	3/28/2010 5:11	964450	10-2315	1	LANL	DUSE-RA	S
per0327099a	1202069101	CWW	3/28/2010 5:21	964450	10-2315	1	LANL	DUSE-RA	S
per0327100a	WCLCCV	CWW	3/28/2010 5:30			1		DUSE	C
per0327101a	IPB013	CWW	3/28/2010 5:40			1		DUSE	B
per0327102a	WCLCRI	CWW	3/28/2010 5:50			1		DUSE	C
per0327103a	248863003	CWW	3/28/2010 5:59	964450	10-2315	1	LANL	DUSE-RA	S

per0327104a	248863004	CWW	3/28/2010 6:09	964450	10-2315	1	LANL	DUSE-RA	S
per0327105a	248865001	CWW	3/28/2010 6:18	964450	10-2318	1	LANL	DUSE-RA	S
per0327106a	248866001	CWW	3/28/2010 6:28	964450	10-2319	1	LANL	DUSE-RA	S
per0327107a	248866002	CWW	3/28/2010 6:37	964450	10-2319	1	LANL	DUSE-RA	S
per0327108a	248867001	CWW	3/28/2010 6:47	964450	10-2320	1	LANL	DUSE-RA	S
per0327109a	248867002	CWW	3/28/2010 6:57	964450	10-2320	1	LANL	DUSE-RA	S
per0327110a	248867003	CWW	3/28/2010 7:06	964450	10-2320	1	LANL	DUSE-RA	S
per0327111a	248867004	CWW	3/28/2010 7:16	964450	10-2320	1	LANL	DUSE-RA	S
per0327112a	249055001	CWW	3/28/2010 7:25	964450	10-2349	1	LANL	DUSE-RA	S
per0327113a	WCLCCV	CWW	3/28/2010 7:35			1		USE	C
per0327114a	IPB014	CWW	3/28/2010 7:44			1		USE	B
per0327115a	WCLCRI	CWW	3/28/2010 7:54			1		USE	C
per0327116a	249055002	CWW	3/28/2010 8:03	964450	10-2349	1	LANL	USE	S
per0327117a	249057002	CWW	3/28/2010 8:13	964450	10-2350	1	LANL	USE	S
per0327118a	249057003	CWW	3/28/2010 8:23	964450	10-2350	1	LANL	USE	S
per0327119a	249064002	CWW	3/28/2010 8:32	964450	10-2353	1	LANL	USE	S
per0327120a	249064003	CWW	3/28/2010 8:42	964450	10-2353	1	LANL	USE	S
per0327121a	249064004	CWW	3/28/2010 8:51	964450	10-2353	1	LANL	USE	S
per0327122a	249064005	CWW	3/28/2010 9:01	964450	10-2353	1	LANL	USE	S
per0327123a	WCLCCV	CWW	3/28/2010 9:10			1		USE	C
per0327124a	IPB015	CWW	3/28/2010 9:20			1		USE	B
per0327125a	WCLCRI	CWW	3/28/2010 9:30			1		USE	C

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326064a
Date: 27-Mar-2010
Time: 04:50:48
ID: 1202068344
Vial: 2:5,E

|LRW|964114|50120|MS|1|

LW 03-27-10

Perchlorate

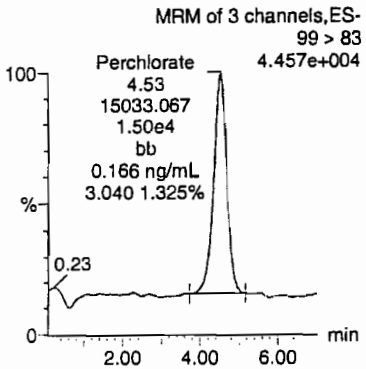

Perchlorate

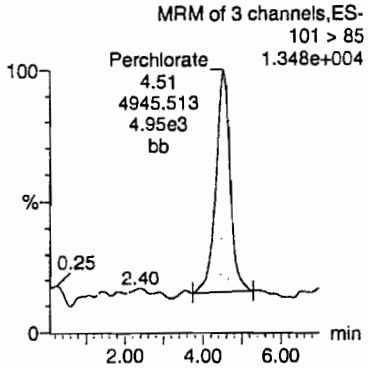

Perchlorate-101

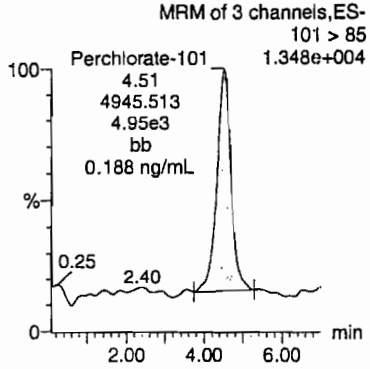

Perchlorate-O(18)

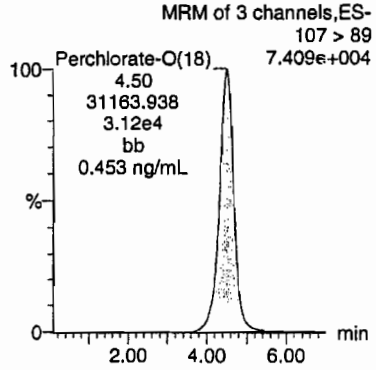

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068344	Perchlorate	99 > 83	4.53	15033.067	15033.067	bb			0.1658	82.89	-17.11	322.402	3.04
1202068344	Perchlorate-101	101 > 85	4.51	4945.513	4945.513	bb			0.1875	93.77	-6.23	144.956	
1202068344	Perchlorate-O(18)	107 > 89	4.50	31163.938	31163.938	bb			0.4534	90.67	-9.33	895.856	

MMT 3/30/10

$$\frac{15033.067}{4945.513} = 3.0397$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032610a.qld

Last Altered: Saturday, March 27, 2010 9:40:33 AM Eastern Standard Time
Printed: Saturday, March 27, 2010 9:48:13 AM Eastern Standard Time

Name: per0326065a
Date: 27-Mar-2010
Time: 05:00:50
ID: 1202068345
Vial: 2:5,F

|LAJOC|964115|3625|1|

03.27.10

Perchlorate

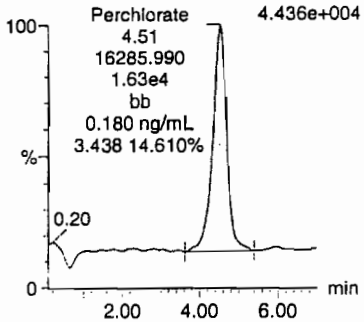

Perchlorate

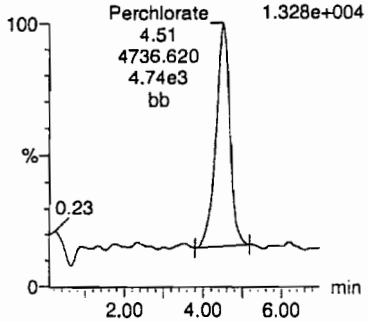

Perchlorate-101

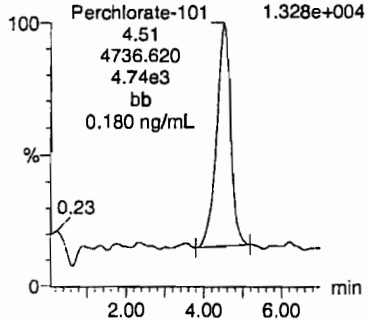

Perchlorate-O(18)

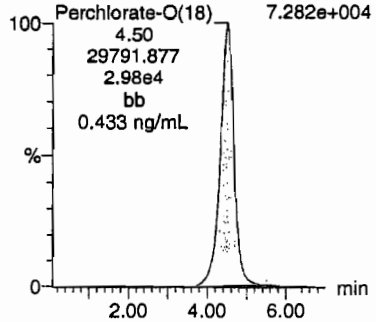

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068345	Perchlorate	99 > 83	4.51	16285.990	16285.990	bb			0.1796	89.80	-10.20	221.344	3.44
1202068345	Perchlorate-101	101 > 85	4.51	4736.620	4736.620	bb			0.1796	89.81	-10.19	41.054	
1202068345	Perchlorate-O(18)	107 > 89	4.50	29791.877	29791.877	bb			0.4334	86.68	-13.32	1634.5...	

MMT 3/30/10

$$\frac{16285.990 \mid 10 \mid 100}{90680.5 \mid \mid 95.83} = 1.87$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2299

Sample Analysis

Sample ID	Client ID
248834001	RE46-10-13867
248834002	RE46-10-13864
248834003	RE46-10-13863
248834004	RE46-10-13869
248834005	RE46-10-13861
248834006	RE46-10-13866
248834007	RE46-10-13860
248834008	RE46-10-13865
248834009	RE46-10-13868
248834010	RE46-10-13862
248834011	RE46-10-13873
1202068047	Method Blank (MB) **ICP**
1202068052	Laboratory Control Sample (LCS)
1202068049	248834001(RE46-10-13867L) Serial Dilution (SD)
1202068048	248834001(RE46-10-13867D) Sample Duplicate (DUP)
1202068050	248834001(RE46-10-13867S) Matrix Spike (MS)
1202068051	248834001(RE46-10-13867SD) Matrix Spike Duplicate (MSD)
1202068053	Method Blank (MB) **ICP-MS**
1202116481	Method Blank (MB) **ICP-MS**
1202068058	Laboratory Control Sample (LCS)

1202116482	Laboratory Control Sample (LCS)
1202068055	248834001(RE46-10-13867L) Serial Dilution (SD)
1202068054	248834001(RE46-10-13867D) Sample Duplicate (DUP)
1202068056	248834001(RE46-10-13867S) Matrix Spike (MS)
1202068057	248834001(RE46-10-13867SD) Matrix Spike Duplicate (MSD)
1202076821	Method Blank (MB) **CVAA**
1202076822	Laboratory Control Sample (LCS)
1202076831	248834001(RE46-10-13867L) Serial Dilution (SD)
1202076823	248834001(RE46-10-13867D) Sample Duplicate (DUP)
1202076824	248834001(RE46-10-13867S) Matrix Spike (MS)
1202076832	248834001(RE46-10-13867SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	963993, 963995, 983926 and 967600
Prep Batch :	963992, 963994, 983925 and 967599
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21, GL-MA-E-009 REV# 20 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and

auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits with the exception of mercury, which recovered outside of the advisory limits of 70-130%.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The laboratory control sample (LCS) met the recommended acceptance criteria for percent recovery (%R) for all elements of interest, with the exception of antimony. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 248834001 (RE46-10-13867).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, calcium, manganese, potassium and sodium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, calcium, magnesium, manganese, potassium and sodium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of aluminum, barium, calcium, chromium, iron, lead, magnesium, manganese, potassium, sodium, vanadium and zinc, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS. Samples 248834007 and 248834010 required dilutions for mercury in order to bring over range target analyte concentrations into the linear calibration range of the instrument.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 814415 and 831626. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 5/26/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834001 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13867 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 92.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1070000	ug/kg	*N	7200	21200	21200	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-36-0	Antimony	1060	ug/kg	U	349	1060	1060	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-38-2	Arsenic	440	ug/kg	J	216	1080	1080	2	MS	RMJ	05/11/10 10:32	100510-2	963995
7440-39-3	Barium	11600	ug/kg	*	106	529	529	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-41-7	Beryllium	356	ug/kg		21.6	108	108	2	MS	RMJ	05/12/10 07:49	100511-3	963995
7440-43-9	Cadmium	529	ug/kg	U	106	529	529	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-70-2	Calcium	365000	ug/kg	*N	8470	26500	26500	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-46-2	Cesium	132	ug/kg		20.4	102	102	2	MS	PRB	05/26/10 15:36	100526-5	983926
7440-47-3	Chromium	14400	ug/kg	*	159	529	529	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-48-4	Cobalt	568	ug/kg		159	529	529	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-50-8	Copper	1130	ug/kg		317	1060	1060	1	P	HSC	03/31/10 23:05	033110B-1	963993
7439-89-6	Iron	5420000	ug/kg	*	8470	26500	26500	1	P	HSC	03/31/10 23:05	033110B-1	963993
7439-92-1	Lead	2760	ug/kg	*	265	1060	1060	1	P	HSC	03/31/10 23:05	033110B-1	963993
7439-95-4	Magnesium	175000	ug/kg	*N	8990	31700	31700	1	P	HSC	03/31/10 23:05	033110B-1	963993
7439-96-5	Manganese	204000	ug/kg	*N	212	1060	1060	1	P	HSC	03/31/10 23:05	033110B-1	963993
7439-97-6	Mercury	12.9	ug/kg	U	4.39	12.9	12.9	1	AV	JXL1	03/24/10 09:47	032410S1-6	967600
7440-02-0	Nickel	1580	ug/kg		108	433	433	2	MS	RMJ	05/11/10 10:32	100510-2	963995
7440-09-7	Potassium	387000	ug/kg	*N	6770	26500	26500	1	P	HSC	03/31/10 23:05	033110B-1	963993
7782-49-2	Selenium	1080	ug/kg	U	541	1080	1080	2	MS	RMJ	05/13/10 02:54	100512-4	963995
7440-22-4	Silver	529	ug/kg	U	106	529	529	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-23-5	Sodium	390000	ug/kg	*N	7410	26500	26500	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-28-0	Thallium	83.3	ug/kg	J	64.9	216	216	2	MS	RMJ	05/11/10 10:32	100510-2	963995
7440-62-2	Vanadium	1730	ug/kg	*	106	529	529	1	P	HSC	03/31/10 23:05	033110B-1	963993
7440-66-6	Zinc	23900	ug/kg	*	349	1060	1060	1	P	HSC	03/31/10 23:05	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.513	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.502	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.504	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.532	g	50	mL	05/13/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834002 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13864 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3410000	ug/kg	*N	7130	21000	21000	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-36-0	Antimony	1050	ug/kg	U	346	1050	1050	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-38-2	Arsenic	1490	ug/kg		220	1100	1100	2	MS	RMJ	05/11/10 10:54	100510-2	963995
7440-39-3	Barium	31800	ug/kg	*	105	524	524	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-41-7	Beryllium	578	ug/kg		22	110	110	2	MS	RMJ	05/12/10 08:10	100511-3	963995
7440-43-9	Cadmium	524	ug/kg	U	105	524	524	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-70-2	Calcium	733000	ug/kg	*N	8390	26200	26200	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-46-2	Cesium	1210	ug/kg		21	105	105	2	MS	PRB	05/26/10 15:40	100526-5	983926
7440-47-3	Chromium	3730	ug/kg	*	157	524	524	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-48-4	Cobalt	1140	ug/kg		157	524	524	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-50-8	Copper	9190	ug/kg		314	1050	1050	1	P	HSC	03/31/10 23:23	033110B-1	963993
7439-89-6	Iron	6640000	ug/kg	*	8390	26200	26200	1	P	HSC	03/31/10 23:23	033110B-1	963993
7439-92-1	Lead	11200	ug/kg	*	262	1050	1050	1	P	HSC	03/31/10 23:23	033110B-1	963993
7439-95-4	Magnesium	630000	ug/kg	*N	8910	31400	31400	1	P	HSC	03/31/10 23:23	033110B-1	963993
7439-96-5	Manganese	156000	ug/kg	*N	210	1050	1050	1	P	HSC	03/31/10 23:23	033110B-1	963993
7439-97-6	Mercury	766	ug/kg		9.27	27.3	27.3	2	AV	JXL1	03/24/10 14:00	032410S1-6	967600
7440-02-0	Nickel	3900	ug/kg		110	440	440	2	MS	RMJ	05/11/10 10:54	100510-2	963995
7440-09-7	Potassium	473000	ug/kg	*N	6710	26200	26200	1	P	HSC	03/31/10 23:23	033110B-1	963993
7782-49-2	Selenium	1100	ug/kg	U	550	1100	1100	2	MS	RMJ	05/13/10 03:15	100512-4	963995
7440-22-4	Silver	524	ug/kg	U	105	524	524	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-23-5	Sodium	465000	ug/kg	*N	7340	26200	26200	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-28-0	Thallium	91.3	ug/kg	J	66	220	220	2	MS	RMJ	05/11/10 10:54	100510-2	963995
7440-62-2	Vanadium	6870	ug/kg	*	105	524	524	1	P	HSC	03/31/10 23:23	033110B-1	963993
7440-66-6	Zinc	24600	ug/kg	*	346	1050	1050	1	P	HSC	03/31/10 23:23	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.555	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.529	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.512	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.555	g	50	mL	05/13/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834003 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13863 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	772000	ug/kg	*N	7490	22000	22000	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-36-0	Antimony	1100	ug/kg	U	363	1100	1100	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-38-2	Arsenic	292	ug/kg	J	224	1120	1120	2	MS	RMJ	05/11/10 10:58	100510-2	963995
7440-39-3	Barium	7180	ug/kg	*	110	551	551	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-41-7	Beryllium	147	ug/kg		22.4	112	112	2	MS	RMJ	05/12/10 08:14	100511-3	963995
7440-43-9	Cadmium	551	ug/kg	U	110	551	551	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-70-2	Calcium	236000	ug/kg	*N	8810	27500	27500	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-46-2	Cesium	123	ug/kg		21.4	107	107	2	MS	PRB	05/26/10 15:43	100526-5	983926
7440-47-3	Chromium	2800	ug/kg	*	165	551	551	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-48-4	Cobalt	562	ug/kg		165	551	551	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-50-8	Copper	1990	ug/kg		330	1100	1100	1	P	HSC	03/31/10 23:25	033110B-1	963993
7439-89-6	Iron	5690000	ug/kg	*	8810	27500	27500	1	P	HSC	03/31/10 23:25	033110B-1	963993
7439-92-1	Lead	1760	ug/kg	*	275	1100	1100	1	P	HSC	03/31/10 23:25	033110B-1	963993
7439-95-4	Magnesium	94600	ug/kg	*N	9360	33000	33000	1	P	HSC	03/31/10 23:25	033110B-1	963993
7439-96-5	Manganese	177000	ug/kg	*N	220	1100	1100	1	P	HSC	03/31/10 23:25	033110B-1	963993
7439-97-6	Mercury	20.8	ug/kg		4.41	13	13	1	AV	JXL1	03/24/10 09:57	032410S1-6	967600
7440-02-0	Nickel	939	ug/kg		112	448	448	2	MS	RMJ	05/11/10 10:58	100510-2	963995
7440-09-7	Potassium	311000	ug/kg	*N	7050	27500	27500	1	P	HSC	03/31/10 23:25	033110B-1	963993
7782-49-2	Selenium	1120	ug/kg	U	560	1120	1120	2	MS	RMJ	05/13/10 03:20	100512-4	963995
7440-22-4	Silver	551	ug/kg	U	110	551	551	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-23-5	Sodium	324000	ug/kg	*N	7710	27500	27500	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-28-0	Thallium	224	ug/kg	U	67.2	224	224	2	MS	RMJ	05/11/10 10:58	100510-2	963995
7440-62-2	Vanadium	1540	ug/kg	*	110	551	551	1	P	HSC	03/31/10 23:25	033110B-1	963993
7440-66-6	Zinc	18400	ug/kg	*	363	1100	1100	1	P	HSC	03/31/10 23:25	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.513	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.504	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.522	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.527	g	50	mL	05/13/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834004 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13869 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 92

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	774000	ug/kg	*N	7300	21500	21500	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-36-0	Antimony	1070	ug/kg	U	354	1070	1070	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-38-2	Arsenic	597	ug/kg	J	214	1070	1070	2	MS	RMJ	05/11/10 11:03	100510-2	963995
7440-39-3	Barium	10000	ug/kg	*	107	537	537	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-41-7	Beryllium	348	ug/kg		21.4	107	107	2	MS	RMJ	05/12/10 08:19	100511-3	963995
7440-43-9	Cadmium	537	ug/kg	U	107	537	537	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-70-2	Calcium	365000	ug/kg	*N	8590	26800	26800	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-46-2	Cesium	108	ug/kg		21.3	106	106	2	MS	PRB	05/26/10 15:44	100526-5	983926
7440-47-3	Chromium	4080	ug/kg	*	161	537	537	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-48-4	Cobalt	371	ug/kg	J	161	537	537	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-50-8	Copper	903	ug/kg	J	322	1070	1070	1	P	HSC	03/31/10 23:27	033110B-1	963993
7439-89-6	Iron	5050000	ug/kg	*	8590	26800	26800	1	P	HSC	03/31/10 23:27	033110B-1	963993
7439-92-1	Lead	1890	ug/kg	*	268	1070	1070	1	P	HSC	03/31/10 23:27	033110B-1	963993
7439-95-4	Magnesium	121000	ug/kg	*N	9130	32200	32200	1	P	HSC	03/31/10 23:27	033110B-1	963993
7439-96-5	Manganese	231000	ug/kg	*N	215	1070	1070	1	P	HSC	03/31/10 23:27	033110B-1	963993
7439-97-6	Mercury	13	ug/kg	U	4.41	13	13	1	AV	JXL1	03/24/10 09:59	032410S1-6	967600
7440-02-0	Nickel	1210	ug/kg		107	427	427	2	MS	RMJ	05/11/10 11:03	100510-2	963995
7440-09-7	Potassium	358000	ug/kg	*N	6870	26800	26800	1	P	HSC	03/31/10 23:27	033110B-1	963993
7782-49-2	Selenium	1070	ug/kg	U	534	1070	1070	2	MS	RMJ	05/13/10 03:24	100512-4	963995
7440-22-4	Silver	537	ug/kg	U	107	537	537	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-23-5	Sodium	768000	ug/kg	*N	7520	26800	26800	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-28-0	Thallium	214	ug/kg	U	64.1	214	214	2	MS	RMJ	05/11/10 11:03	100510-2	963995
7440-62-2	Vanadium	1170	ug/kg	*	107	537	537	1	P	HSC	03/31/10 23:27	033110B-1	963993
7440-66-6	Zinc	24900	ug/kg	*	354	1070	1070	1	P	HSC	03/31/10 23:27	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.506	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.509	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.503	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.511	g	50	mL	05/13/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834005 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13861 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1110000	ug/kg	*N	7480	22000	22000	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-36-0	Antimony	1100	ug/kg	U	363	1100	1100	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-38-2	Arsenic	294	ug/kg	J	225	1120	1120	2	MS	RMJ	05/11/10 11:16	100510-2	963995
7440-39-3	Barium	11500	ug/kg	*	110	550	550	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-41-7	Beryllium	284	ug/kg		22.5	112	112	2	MS	RMJ	05/12/10 08:31	100511-3	963995
7440-43-9	Cadmium	550	ug/kg	U	110	550	550	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-70-2	Calcium	236000	ug/kg	*N	8800	27500	27500	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-46-2	Cesium	229	ug/kg		21.3	107	107	2	MS	PRB	05/26/10 15:45	100526-5	983926
7440-47-3	Chromium	20300	ug/kg	*	165	550	550	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-48-4	Cobalt	751	ug/kg		165	550	550	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-50-8	Copper	1350	ug/kg		330	1100	1100	1	P	HSC	03/31/10 23:29	033110B-1	963993
7439-89-6	Iron	5390000	ug/kg	*	8800	27500	27500	1	P	HSC	03/31/10 23:29	033110B-1	963993
7439-92-1	Lead	2510	ug/kg	*	275	1100	1100	1	P	HSC	03/31/10 23:29	033110B-1	963993
7439-95-4	Magnesium	139000	ug/kg	*N	9350	33000	33000	1	P	HSC	03/31/10 23:29	033110B-1	963993
7439-96-5	Manganese	225000	ug/kg	*N	220	1100	1100	1	P	HSC	03/31/10 23:29	033110B-1	963993
7439-97-6	Mercury	355	ug/kg		4.11	12.1	12.1	1	AV	JXL1	03/24/10 10:04	032410S1-6	967600
7440-02-0	Nickel	1630	ug/kg		112	449	449	2	MS	RMJ	05/11/10 11:16	100510-2	963995
7440-09-7	Potassium	420000	ug/kg	*N	7040	27500	27500	1	P	HSC	03/31/10 23:29	033110B-1	963993
7782-49-2	Selenium	1120	ug/kg	U	562	1120	1120	2	MS	RMJ	05/13/10 03:37	100512-4	963995
7440-22-4	Silver	550	ug/kg	U	110	550	550	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-23-5	Sodium	459000	ug/kg	*N	7700	27500	27500	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-28-0	Thallium	225	ug/kg	U	67.4	225	225	2	MS	RMJ	05/11/10 11:16	100510-2	963995
7440-62-2	Vanadium	2070	ug/kg	*	110	550	550	1	P	HSC	03/31/10 23:29	033110B-1	963993
7440-66-6	Zinc	20600	ug/kg	*	363	1100	1100	1	P	HSC	03/31/10 23:29	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.517	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.506	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.565	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.533	g	50	mL	05/13/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834006 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13866 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 92.9

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5050000	ug/kg	*N	7300	21500	21500	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-36-0	Antimony	1070	ug/kg	U	354	1070	1070	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-38-2	Arsenic	704	ug/kg	J	213	1060	1060	2	MS	RMJ	05/11/10 11:20	100510-2	963995
7440-39-3	Barium	47200	ug/kg	*	107	537	537	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-41-7	Beryllium	515	ug/kg		21.3	106	106	2	MS	RMJ	05/12/10 08:36	100511-3	963995
7440-43-9	Cadmium	537	ug/kg	U	107	537	537	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-70-2	Calcium	833000	ug/kg	*N	8590	26900	26900	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-46-2	Cesium	704	ug/kg		20	99.8	99.8	2	MS	PRB	05/26/10 15:46	100526-5	983926
7440-47-3	Chromium	6920	ug/kg	*	161	537	537	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-48-4	Cobalt	1790	ug/kg		161	537	537	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-50-8	Copper	3100	ug/kg		322	1070	1070	1	P	HSC	03/31/10 23:32	033110B-1	963993
7439-89-6	Iron	8800000	ug/kg	*	8590	26900	26900	1	P	HSC	03/31/10 23:32	033110B-1	963993
7439-92-1	Lead	6420	ug/kg	*	269	1070	1070	1	P	HSC	03/31/10 23:32	033110B-1	963993
7439-95-4	Magnesium	657000	ug/kg	*N	9130	32200	32200	1	P	HSC	03/31/10 23:32	033110B-1	963993
7439-96-5	Manganese	240000	ug/kg	*N	215	1070	1070	1	P	HSC	03/31/10 23:32	033110B-1	963993
7439-97-6	Mercury	8.48	ug/kg	J	4.09	12	12	1	AV	JXL1	03/24/10 10:06	032410S1-6	967600
7440-02-0	Nickel	3060	ug/kg		106	425	425	2	MS	RMJ	05/11/10 11:20	100510-2	963995
7440-09-7	Potassium	491000	ug/kg	*N	6870	26900	26900	1	P	HSC	03/31/10 23:32	033110B-1	963993
7782-49-2	Selenium	1060	ug/kg	U	532	1060	1060	2	MS	RMJ	05/13/10 03:41	100512-4	963995
7440-22-4	Silver	537	ug/kg	U	107	537	537	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-23-5	Sodium	392000	ug/kg	*N	7520	26900	26900	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-28-0	Thallium	213	ug/kg	U	63.8	213	213	2	MS	RMJ	05/11/10 11:20	100510-2	963995
7440-62-2	Vanadium	8370	ug/kg	*	107	537	537	1	P	HSC	03/31/10 23:32	033110B-1	963993
7440-66-6	Zinc	26600	ug/kg	*	354	1070	1070	1	P	HSC	03/31/10 23:32	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.501	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.506	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.537	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.539	g	50	mL	05/13/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834007 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13860 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 90.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1870000	ug/kg	*N	7380	21700	21700	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-36-0	Antimony	1090	ug/kg	U	358	1090	1090	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-38-2	Arsenic	490	ug/kg	J	218	1090	1090	2	MS	RMJ	05/11/10 11:25	100510-2	963995
7440-39-3	Barium	22500	ug/kg	*	109	543	543	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-41-7	Beryllium	294	ug/kg		21.8	109	109	2	MS	RMJ	05/12/10 08:40	100511-3	963995
7440-43-9	Cadmium	116	ug/kg	J	109	543	543	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-70-2	Calcium	629000	ug/kg	*N	8690	27100	27100	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-46-2	Cesium	995	ug/kg		20.9	104	104	2	MS	PRB	05/26/10 15:47	100526-5	983926
7440-47-3	Chromium	7470	ug/kg	*	163	543	543	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-48-4	Cobalt	1390	ug/kg		163	543	543	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-50-8	Copper	4860	ug/kg		326	1090	1090	1	P	HSC	03/31/10 23:34	033110B-1	963993
7439-89-6	Iron	7150000	ug/kg	*	8690	27100	27100	1	P	HSC	03/31/10 23:34	033110B-1	963993
7439-92-1	Lead	9380	ug/kg	*	271	1090	1090	1	P	HSC	03/31/10 23:34	033110B-1	963993
7439-95-4	Magnesium	281000	ug/kg	*N	9230	32600	32600	1	P	HSC	03/31/10 23:34	033110B-1	963993
7439-96-5	Manganese	243000	ug/kg	*N	217	1090	1090	1	P	HSC	03/31/10 23:34	033110B-1	963993
7439-97-6	Mercury	7710	ug/kg		191	561	561	50	AV	JXL1	03/24/10 14:01	032410S1-6	967600
7440-02-0	Nickel	2270	ug/kg		109	436	436	2	MS	RMJ	05/11/10 11:25	100510-2	963995
7440-09-7	Potassium	645000	ug/kg	*N	6950	27100	27100	1	P	HSC	03/31/10 23:34	033110B-1	963993
7782-49-2	Selenium	1090	ug/kg	U	545	1090	1090	2	MS	RMJ	05/13/10 03:45	100512-4	963995
7440-22-4	Silver	543	ug/kg	U	109	543	543	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-23-5	Sodium	476000	ug/kg	*N	7600	27100	27100	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-28-0	Thallium	218	ug/kg	U	65.4	218	218	2	MS	RMJ	05/11/10 11:25	100510-2	963995
7440-62-2	Vanadium	6300	ug/kg	*	109	543	543	1	P	HSC	03/31/10 23:34	033110B-1	963993
7440-66-6	Zinc	29600	ug/kg	*	358	1090	1090	1	P	HSC	03/31/10 23:34	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.509	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.507	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.591	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.529	g	50	mL	05/13/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834008 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13865 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 91.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	919000	ug/kg	*N	7430	21800	21800	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-36-0	Antimony	1090	ug/kg	U	360	1090	1090	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-38-2	Arsenic	409	ug/kg	J	216	1080	1080	2	MS	RMJ	05/11/10 11:29	100510-2	963995
7440-39-3	Barium	10400	ug/kg	*	109	546	546	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-41-7	Beryllium	250	ug/kg		21.6	108	108	2	MS	RMJ	05/12/10 08:44	100511-3	963995
7440-43-9	Cadmium	546	ug/kg	U	109	546	546	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-70-2	Calcium	608000	ug/kg	*N	8740	27300	27300	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-46-2	Cesium	134	ug/kg		21.5	107	107	2	MS	PRB	05/26/10 15:48	100526-5	983926
7440-47-3	Chromium	2040	ug/kg	*	164	546	546	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-48-4	Cobalt	484	ug/kg	J	164	546	546	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-50-8	Copper	1190	ug/kg		328	1090	1090	1	P	HSC	03/31/10 23:35	033110B-1	963993
7439-89-6	Iron	5340000	ug/kg	*	8740	27300	27300	1	P	HSC	03/31/10 23:35	033110B-1	963993
7439-92-1	Lead	8770	ug/kg	*	273	1090	1090	1	P	HSC	03/31/10 23:35	033110B-1	963993
7439-95-4	Magnesium	161000	ug/kg	*N	9280	32800	32800	1	P	HSC	03/31/10 23:35	033110B-1	963993
7439-96-5	Manganese	268000	ug/kg	*N	218	1090	1090	1	P	HSC	03/31/10 23:35	033110B-1	963993
7439-97-6	Mercury	22.7	ug/kg		3.76	11.1	11.1	1	AV	JXL1	03/24/10 10:09	032410S1-6	967600
7440-02-0	Nickel	797	ug/kg		108	433	433	2	MS	RMJ	05/11/10 11:29	100510-2	963995
7440-09-7	Potassium	336000	ug/kg	*N	6990	27300	27300	1	P	HSC	03/31/10 23:35	033110B-1	963993
7782-49-2	Selenium	1080	ug/kg	U	541	1080	1080	2	MS	RMJ	05/13/10 03:49	100512-4	963995
7440-22-4	Silver	546	ug/kg	U	109	546	546	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-23-5	Sodium	405000	ug/kg	*N	7650	27300	27300	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-28-0	Thallium	216	ug/kg	U	64.9	216	216	2	MS	RMJ	05/11/10 11:29	100510-2	963995
7440-62-2	Vanadium	1410	ug/kg	*	109	546	546	1	P	HSC	03/31/10 23:35	033110B-1	963993
7440-66-6	Zinc	21200	ug/kg	*	360	1090	1090	1	P	HSC	03/31/10 23:35	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.5	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.505	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.593	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.509	g	50	mL	05/13/10	AXG2

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834009 **BASIS:** Dry Weight **DATE COLLECTED** 03–MAR–10

CLIENT ID: RE46–10–13868 **LEVEL:** Low **DATE RECEIVED** 05–MAR–10

MATRIX: SOIL **%SOLIDS:** 92.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429–90–5	Aluminum	2360000	ug/kg	*N	7210	21200	21200	1	P	HSC	03/31/10 23:38	033110B–1	963993
7440–36–0	Antimony	1060	ug/kg	U	350	1060	1060	1	P	HSC	03/31/10 23:38	033110B–1	963993
7440–38–2	Arsenic	599	ug/kg	J	190	949	949	2	MS	RMJ	05/11/10 11:33	100510–2	963995
7440–39–3	Barium	22900	ug/kg	*	106	530	530	1	P	HSC	03/31/10 23:38	033110B–1	963993
7440–41–7	Beryllium	353	ug/kg		19	94.9	94.9	2	MS	RMJ	05/12/10 08:48	100511–3	963995
7440–43–9	Cadmium	530	ug/kg	U	106	530	530	1	P	HSC	03/31/10 23:38	033110B–1	963993
7440–70–2	Calcium	275000	ug/kg	*N	8480	26500	26500	1	P	HSC	03/31/10 23:38	033110B–1	963993
7440–46–2	Cesium	313	ug/kg		20.8	104	104	2	MS	PRB	05/26/10 15:49	100526–5	983926
7440–47–3	Chromium	2460	ug/kg	*	159	530	530	1	P	HSC	03/31/10 23:38	033110B–1	963993
7440–48–4	Cobalt	1460	ug/kg		159	530	530	1	P	HSC	03/31/10 23:38	033110B–1	963993
7440–50–8	Copper	2340	ug/kg		318	1060	1060	1	P	HSC	03/31/10 23:38	033110B–1	963993
7439–89–6	Iron	7350000	ug/kg	*	8480	26500	26500	1	P	HSC	03/31/10 23:38	033110B–1	963993
7439–92–1	Lead	5260	ug/kg	*	265	1060	1060	1	P	HSC	03/31/10 23:38	033110B–1	963993
7439–95–4	Magnesium	258000	ug/kg	*N	9010	31800	31800	1	P	HSC	03/31/10 23:38	033110B–1	963993
7439–96–5	Manganese	278000	ug/kg	*N	212	1060	1060	1	P	HSC	03/31/10 23:38	033110B–1	963993
7439–97–6	Mercury	5.68	ug/kg	J	4.34	12.8	12.8	1	AV	JXL1	03/24/10 10:11	032410S1–6	967600
7440–02–0	Nickel	1940	ug/kg		94.9	380	380	2	MS	RMJ	05/11/10 11:33	100510–2	963995
7440–09–7	Potassium	496000	ug/kg	*N	6790	26500	26500	1	P	HSC	03/31/10 23:38	033110B–1	963993
7782–49–2	Selenium	949	ug/kg	U	474	949	949	2	MS	RMJ	05/13/10 03:54	100512–4	963995
7440–22–4	Silver	530	ug/kg	U	106	530	530	1	P	HSC	03/31/10 23:38	033110B–1	963993
7440–23–5	Sodium	355000	ug/kg	*N	7420	26500	26500	1	P	HSC	03/31/10 23:38	033110B–1	963993
7440–28–0	Thallium	190	ug/kg	U	56.9	190	190	2	MS	RMJ	05/11/10 11:33	100510–2	963995
7440–62–2	Vanadium	5380	ug/kg	*	106	530	530	1	P	HSC	03/31/10 23:38	033110B–1	963993
7440–66–6	Zinc	30900	ug/kg	*	350	1060	1060	1	P	HSC	03/31/10 23:38	033110B–1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.511	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.571	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.509	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.522	g	50	mL	05/13/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834010 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13862 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1880000	ug/kg	*N	7550	22200	22200	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-36-0	Antimony	1110	ug/kg	U	366	1110	1110	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-38-2	Arsenic	515	ug/kg	J	203	1010	1010	2	MS	RMJ	05/11/10 11:38	100510-2	963995
7440-39-3	Barium	21900	ug/kg	*	111	555	555	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-41-7	Beryllium	332	ug/kg		20.3	101	101	2	MS	RMJ	05/12/10 08:53	100511-3	963995
7440-43-9	Cadmium	555	ug/kg	U	111	555	555	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-70-2	Calcium	705000	ug/kg	*N	8880	27800	27800	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-46-2	Cesium	3110	ug/kg		20.5	103	103	2	MS	PRB	05/26/10 15:50	100526-5	983926
7440-47-3	Chromium	2600	ug/kg	*	167	555	555	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-48-4	Cobalt	1200	ug/kg		167	555	555	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-50-8	Copper	8320	ug/kg		333	1110	1110	1	P	HSC	03/31/10 23:40	033110B-1	963993
7439-89-6	Iron	7250000	ug/kg	*	8880	27800	27800	1	P	HSC	03/31/10 23:40	033110B-1	963993
7439-92-1	Lead	15900	ug/kg	*	278	1110	1110	1	P	HSC	03/31/10 23:40	033110B-1	963993
7439-95-4	Magnesium	387000	ug/kg	*N	9440	33300	33300	1	P	HSC	03/31/10 23:40	033110B-1	963993
7439-96-5	Manganese	196000	ug/kg	*N	222	1110	1110	1	P	HSC	03/31/10 23:40	033110B-1	963993
7439-97-6	Mercury	1200	ug/kg		40.9	120	120	10	AV	JXL1	03/24/10 14:03	032410S1-6	967600
7440-02-0	Nickel	3040	ug/kg		101	406	406	2	MS	RMJ	05/11/10 11:38	100510-2	963995
7440-09-7	Potassium	362000	ug/kg	*N	7100	27800	27800	1	P	HSC	03/31/10 23:40	033110B-1	963993
7782-49-2	Selenium	1010	ug/kg	U	507	1010	1010	2	MS	RMJ	05/13/10 03:58	100512-4	963995
7440-22-4	Silver	555	ug/kg	U	111	555	555	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-23-5	Sodium	300000	ug/kg	*N	7770	27800	27800	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-28-0	Thallium	203	ug/kg	U	60.9	203	203	2	MS	RMJ	05/11/10 11:38	100510-2	963995
7440-62-2	Vanadium	4500	ug/kg	*	111	555	555	1	P	HSC	03/31/10 23:40	033110B-1	963993
7440-66-6	Zinc	31100	ug/kg	*	366	1110	1110	1	P	HSC	03/31/10 23:40	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.508	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.556	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.563	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.549	g	50	mL	05/13/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248834011 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13873 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: SOIL **%SOLIDS:** 92.9

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5390000	ug/kg	*N	7260	21400	21400	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-36-0	Antimony	1070	ug/kg	U	352	1070	1070	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-38-2	Arsenic	872	ug/kg	J	211	1060	1060	2	MS	RMJ	05/11/10 11:42	100510-2	963995
7440-39-3	Barium	48500	ug/kg	*	107	534	534	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-41-7	Beryllium	565	ug/kg		21.1	106	106	2	MS	RMJ	05/12/10 08:57	100511-3	963995
7440-43-9	Cadmium	534	ug/kg	U	107	534	534	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-70-2	Calcium	978000	ug/kg	*N	8540	26700	26700	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-46-2	Cesium	932	ug/kg		19.4	96.8	96.8	2	MS	PRB	05/26/10 15:51	100526-5	983926
7440-47-3	Chromium	6220	ug/kg	*	160	534	534	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-48-4	Cobalt	2030	ug/kg		160	534	534	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-50-8	Copper	3540	ug/kg		320	1070	1070	1	P	HSC	03/31/10 23:42	033110B-1	963993
7439-89-6	Iron	9240000	ug/kg	*	8540	26700	26700	1	P	HSC	03/31/10 23:42	033110B-1	963993
7439-92-1	Lead	6160	ug/kg	*	267	1070	1070	1	P	HSC	03/31/10 23:42	033110B-1	963993
7439-95-4	Magnesium	603000	ug/kg	*N	9070	32000	32000	1	P	HSC	03/31/10 23:42	033110B-1	963993
7439-96-5	Manganese	230000	ug/kg	*N	214	1070	1070	1	P	HSC	03/31/10 23:42	033110B-1	963993
7439-97-6	Mercury	8.94	ug/kg	J	3.82	11.2	11.2	1	AV	JXL1	03/24/10 10:14	032410S1-6	967600
7440-02-0	Nickel	3810	ug/kg		106	423	423	2	MS	RMJ	05/11/10 11:42	100510-2	963995
7440-09-7	Potassium	458000	ug/kg	*N	6830	26700	26700	1	P	HSC	03/31/10 23:42	033110B-1	963993
7782-49-2	Selenium	1060	ug/kg	U	529	1060	1060	2	MS	RMJ	05/13/10 04:02	100512-4	963995
7440-22-4	Silver	534	ug/kg	U	107	534	534	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-23-5	Sodium	402000	ug/kg	*N	7470	26700	26700	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-28-0	Thallium	211	ug/kg	U	63.4	211	211	2	MS	RMJ	05/11/10 11:42	100510-2	963995
7440-62-2	Vanadium	10400	ug/kg	*	107	534	534	1	P	HSC	03/31/10 23:42	033110B-1	963993
7440-66-6	Zinc	26300	ug/kg	*	352	1070	1070	1	P	HSC	03/31/10 23:42	033110B-1	963993

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
963993	963992	SW846 3050B	0.504	g	50	mL	03/13/10	AXG2
963995	963994	SW846 3050B	0.509	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.574	g	30	mL	03/23/10	TXB3
983926	983925	SW846 3050B	0.556	g	50	mL	05/13/10	AXG2

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2299

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.12	ug/L	5	ug/L	102.4	90.0 – 110.0	AV	24-MAR-10 09:36	032410S1-6
	Aluminum	5150	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Antimony	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Barium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Cadmium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Calcium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Chromium	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Cobalt	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Copper	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Lead	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Magnesium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Manganese	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Potassium	2520	ug/L	2500	ug/L	100.7	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Silver	258	ug/L	250	ug/L	103.3	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Sodium	2510	ug/L	2500	ug/L	100.5	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Arsenic	53.9	ug/L	50	ug/L	107.8	90.0 – 110.0	MS	11-MAY-10 09:35	100510-2
	Nickel	53.2	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	11-MAY-10 09:35	100510-2
	Thallium	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	11-MAY-10 09:35	100510-2
	Beryllium	54	ug/L	50	ug/L	107.9	90.0 – 110.0	MS	12-MAY-10 06:54	100511-3
	Selenium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	13-MAY-10 01:59	100512-4
	Cesium	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	26-MAY-10 15:27	100526-5
CCV01										
	Mercury	5.03	ug/L	5	ug/L	100.6	80.0 – 120.0	AV	24-MAR-10 09:41	032410S1-6
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Antimony	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Barium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Cadmium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2299

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Magnesium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Manganese	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Potassium	5700	ug/L	5000	ug/L	113.9	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Vanadium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Arsenic	54.8	ug/L	50	ug/L	109.5	90.0 – 110.0	MS	11–MAY–10 09:57	100510–2
	Nickel	53.5	ug/L	50	ug/L	106.9	90.0 – 110.0	MS	11–MAY–10 09:57	100510–2
	Thallium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	11–MAY–10 09:57	100510–2
	Beryllium	54.5	ug/L	50	ug/L	109	90.0 – 110.0	MS	12–MAY–10 07:15	100511–3
	Selenium	49.6	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	13–MAY–10 02:20	100512–4
	Cesium	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	26–MAY–10 15:32	100526–5
CCV02										
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 – 120.0	AV	24–MAR–10 10:01	032410S1–6
	Aluminum	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Antimony	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Barium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Cadmium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Calcium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Chromium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Iron	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2299

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Magnesium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Potassium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Silver	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Zinc	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Arsenic	52.4	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	11-MAY-10 10:23	100510-2
	Nickel	53.8	ug/L	50	ug/L	107.6	90.0 – 110.0	MS	11-MAY-10 10:23	100510-2
	Thallium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	11-MAY-10 10:23	100510-2
	Beryllium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	12-MAY-10 07:40	100511-3
	Selenium	49.6	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	13-MAY-10 02:46	100512-4
	Cesium	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	26-MAY-10 15:41	100526-5
CCV03										
	Mercury	5.29	ug/L	5	ug/L	105.7	80.0 – 120.0	AV	24-MAR-10 10:21	032410S1-6
	Aluminum	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Antimony	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Barium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Cadmium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Chromium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Cobalt	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Iron	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Lead	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Potassium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2299

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Vanadium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Zinc	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 19:27	033110B–1
	Arsenic	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	11–MAY–10 11:07	100510–2
	Nickel	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	11–MAY–10 11:07	100510–2
	Thallium	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	11–MAY–10 11:07	100510–2
	Beryllium	52.2	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	12–MAY–10 08:23	100511–3
	Selenium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	13–MAY–10 03:28	100512–4
	Cesium	51.7	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	26–MAY–10 15:52	100526–5
CCV04										
	Mercury	4.88	ug/L	5	ug/L	97.6	80.0 – 120.0	AV	24–MAR–10 10:41	032410S1–6
	Aluminum	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Antimony	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Barium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Cadmium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Chromium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Copper	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Iron	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Magnesium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Potassium	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Silver	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Sodium	9730	ug/L	10000	ug/L	97.3	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Vanadium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Zinc	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 19:48	033110B–1
	Arsenic	53.1	ug/L	50	ug/L	106.2	90.0 – 110.0	MS	11–MAY–10 11:51	100510–2
	Nickel	52.5	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	11–MAY–10 11:51	100510–2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2299

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Thallium	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	11-MAY-10 11:51	100510-2
	Beryllium	52.8	ug/L	50	ug/L	105.6	90.0 – 110.0	MS	12-MAY-10 09:05	100511-3
	Selenium	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	13-MAY-10 04:11	100512-4
CCV05										
	Mercury	5.19	ug/L	5	ug/L	103.7	80.0 – 120.0	AV	24-MAR-10 11:01	032410S1-6
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Antimony	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Barium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Cadmium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Calcium	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Chromium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Copper	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Iron	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Lead	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Magnesium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Manganese	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Potassium	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Silver	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Sodium	9760	ug/L	10000	ug/L	97.6	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Vanadium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
	Zinc	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1
CCV06										
	Mercury	5.2	ug/L	5	ug/L	104	80.0 – 120.0	AV	24-MAR-10 11:21	032410S1-6
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Antimony	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Barium	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Cadmium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Calcium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Chromium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2299

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Copper	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Iron	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Lead	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Manganese	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Potassium	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Silver	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Sodium	9750	ug/L	10000	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Vanadium	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Zinc	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
CCV07										
	Mercury	5.11	ug/L	5	ug/L	102.2	80.0 – 120.0	AV	24–MAR–10 11:41	032410S1–6
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Antimony	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Barium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Cadmium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Calcium	4910	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Chromium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Copper	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Iron	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Manganese	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Silver	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Sodium	9770	ug/L	10000	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Vanadium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1
	Zinc	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 21:16	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2299

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV08										
	Mercury	5.36	ug/L	5	ug/L	107.2	80.0 – 120.0	AV	24–MAR–10 12:01	032410S1–6
	Aluminum	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Antimony	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Barium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Cadmium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Calcium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Chromium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Cobalt	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Copper	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Iron	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Manganese	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Potassium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Silver	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Sodium	9710	ug/L	10000	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Vanadium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Zinc	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
CCV09										
	Mercury	5.29	ug/L	5	ug/L	105.8	80.0 – 120.0	AV	24–MAR–10 12:22	032410S1–6
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Antimony	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Barium	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Cadmium	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Calcium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Chromium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Cobalt	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Iron	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Lead	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2299

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Manganese	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Potassium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Silver	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Sodium	9660	ug/L	10000	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Vanadium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Zinc	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
CCV10										
	Mercury	5.38	ug/L	5	ug/L	107.6	80.0 – 120.0	AV	24–MAR–10 12:42	032410S1–6
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Antimony	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Cadmium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Calcium	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Chromium	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Cobalt	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Copper	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Iron	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Lead	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Magnesium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Manganese	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Silver	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Sodium	9610	ug/L	10000	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Vanadium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
	Zinc	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 22:12	033110B–1
CCV11										
	Mercury	5.36	ug/L	5	ug/L	107.1	80.0 – 120.0	AV	24–MAR–10 13:02	032410S1–6
	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Antimony	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2299

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Cadmium	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Calcium	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Chromium	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Cobalt	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Copper	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Iron	4800	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Lead	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Magnesium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Manganese	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Potassium	4800	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Silver	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Sodium	9560	ug/L	10000	ug/L	95.6	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Vanadium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
	Zinc	472	ug/L	500	ug/L	94.5	90.0 – 110.0	P	31–MAR–10 22:35	033110B–1
CCV12										
	Mercury	5.32	ug/L	5	ug/L	106.4	80.0 – 120.0	AV	24–MAR–10 13:23	032410S1–6
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Antimony	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Barium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Cadmium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Calcium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Chromium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Cobalt	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Copper	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Lead	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Magnesium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Manganese	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2299

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silver	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Sodium	9590	ug/L	10000	ug/L	95.9	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Vanadium	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
	Zinc	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31–MAR–10 22:56	033110B–1
CCV13										
	Mercury	5.44	ug/L	5	ug/L	108.8	80.0 – 120.0	AV	24–MAR–10 13:43	032410S1–6
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Antimony	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Cadmium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Calcium	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Chromium	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Iron	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Lead	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Magnesium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Manganese	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Potassium	4800	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Silver	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Sodium	9620	ug/L	10000	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Vanadium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Zinc	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
CCV14										
	Mercury	5.12	ug/L	5	ug/L	102.4	80.0 – 120.0	AV	24–MAR–10 14:17	032410S1–6
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Antimony	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Barium	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Cadmium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Calcium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2299

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	477	ug/L	500	ug/L	95.3	90.0 - 110.0	P	31-MAR-10 23:44	033110B-1
	Cobalt	480	ug/L	500	ug/L	96	90.0 - 110.0	P	31-MAR-10 23:44	033110B-1
	Copper	478	ug/L	500	ug/L	95.7	90.0 - 110.0	P	31-MAR-10 23:44	033110B-1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 - 110.0	P	31-MAR-10 23:44	033110B-1
	Lead	482	ug/L	500	ug/L	96.3	90.0 - 110.0	P	31-MAR-10 23:44	033110B-1
	Magnesium	4910	ug/L	5000	ug/L	98.2	90.0 - 110.0	P	31-MAR-10 23:44	033110B-1
	Manganese	482	ug/L	500	ug/L	96.5	90.0 - 110.0	P	31-MAR-10 23:44	033110B-1
	Potassium	4790	ug/L	5000	ug/L	95.9	90.0 - 110.0	P	31-MAR-10 23:44	033110B-1
	Silver	480	ug/L	500	ug/L	96.1	90.0 - 110.0	P	31-MAR-10 23:44	033110B-1
	Sodium	9600	ug/L	10000	ug/L	96	90.0 - 110.0	P	31-MAR-10 23:44	033110B-1
	Vanadium	482	ug/L	500	ug/L	96.3	90.0 - 110.0	P	31-MAR-10 23:44	033110B-1
	Zinc	476	ug/L	500	ug/L	95.3	90.0 - 110.0	P	31-MAR-10 23:44	033110B-1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2299

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.129	ug/L	.2	ug/L	64.5	70.0 – 130.0	AV	24–MAR–10 09:39	032410S1–6
	Nickel	2.15	ug/L	2	ug/L	107.7	70.0 – 130.0	MS	11–MAY–10 09:43	100510–2
	Thallium	1.14	ug/L	1	ug/L	113.6	70.0 – 130.0	MS	11–MAY–10 09:43	100510–2
	Arsenic	4.36	ug/L	5	ug/L	87.1	70.0 – 130.0	MS	11–MAY–10 09:43	100510–2
	Beryllium	.595	ug/L	.5	ug/L	119	70.0 – 130.0	MS	12–MAY–10 07:02	100511–3
	Selenium	5.9	ug/L	5	ug/L	117.9	70.0 – 130.0	MS	13–MAY–10 02:08	100512–4
	Cesium	.379	ug/L	.5	ug/L	75.8	70.0 – 130.0	MS	26–MAY–10 15:29	100526–5
PQL01										
	Aluminum	204	ug/L	200	ug/L	101.9	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Iron	102	ug/L	100	ug/L	102.4	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Lead	11.2	ug/L	10	ug/L	112	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Magnesium	311	ug/L	300	ug/L	103.7	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Manganese	10.3	ug/L	10	ug/L	103.1	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Potassium	150	ug/L	150	ug/L	99.9	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Silver	4.61	ug/L	5	ug/L	92.3	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Sodium	280	ug/L	300	ug/L	93.3	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Antimony	9.66	ug/L	10	ug/L	96.6	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Barium	4.99	ug/L	5	ug/L	99.9	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Cadmium	5.05	ug/L	5	ug/L	101	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Chromium	4.91	ug/L	5	ug/L	98.3	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Cobalt	5.18	ug/L	5	ug/L	103.6	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Copper	10	ug/L	10	ug/L	100	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Vanadium	4.74	ug/L	5	ug/L	94.8	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Zinc	10.1	ug/L	10	ug/L	101	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1
	Calcium	212	ug/L	200	ug/L	106.2	70.0 – 130.0	P	31–MAR–10 18:51	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2299

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	-0.078	+/-.2	J	0.068	0.2	SOL	AV	24-MAR-10 09:37	032410S1-6
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 18:48	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 18:48	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 18:48	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 18:48	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 18:48	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 18:48	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 18:48	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 18:48	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 18:48	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 18:48	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 18:48	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 18:48	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 18:48	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 18:48	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 18:48	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 18:48	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 18:48	033110B-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	11-MAY-10 09:39	100510-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	11-MAY-10 09:39	100510-2
	Thallium	0.347	+/-1	J	0.3	1.0	SOL	MS	11-MAY-10 09:39	100510-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	12-MAY-10 06:58	100511-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-MAY-10 02:03	100512-4
	Cesium	0.1	+/-.5	U	0.1	0.5	SOL	MS	26-MAY-10 15:28	100526-5
CCB01										
	Mercury	-0.081	+/-.2	J	0.068	0.2	SOL	AV	24-MAR-10 09:42	032410S1-6
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 19:01	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 19:01	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:01	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:01	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 19:01	033110B-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2299

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:01	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:01	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Potassium	298.29	+/–250		64.0	250	SOL	P	31–MAR–10 19:01	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Sodium	140.13	+/–250	J	70.0	250	SOL	P	31–MAR–10 19:01	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	11–MAY–10 10:01	100510–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	11–MAY–10 10:01	100510–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	11–MAY–10 10:01	100510–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	12–MAY–10 07:19	100511–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–MAY–10 02:25	100512–4
	Cesium	0.1	+/–.5	U	0.1	0.5	SOL	MS	26–MAY–10 15:33	100526–5
CCB02										
	Mercury	–0.081	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 10:02	032410S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:08	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:08	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:08	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:08	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2299

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Potassium	98.66	+/–250	J	64.0	250	SOL	P	31–MAR–10 19:08	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 19:08	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	11–MAY–10 10:27	100510–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	11–MAY–10 10:27	100510–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	11–MAY–10 10:27	100510–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	12–MAY–10 07:45	100511–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–MAY–10 02:50	100512–4
	Cesium	0.1	+/–.5	U	0.1	0.5	SOL	MS	26–MAY–10 15:42	100526–5
CCB03										
	Mercury	–0.077	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 10:22	032410S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:29	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:29	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:29	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:29	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:29	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 19:29	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 19:29	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:29	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:29	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2299

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	11–MAY–10 11:11	100510–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	11–MAY–10 11:11	100510–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	11–MAY–10 11:11	100510–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	12–MAY–10 08:27	100511–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–MAY–10 03:32	100512–4
	Cesium	0.1	+/–.5	U	0.1	0.5	SOL	MS	26–MAY–10 15:53	100526–5
CCB04										
	Mercury	–0.083	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 10:42	032410S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:50	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:50	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	11–MAY–10 11:55	100510–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	11–MAY–10 11:55	100510–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	11–MAY–10 11:55	100510–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	12–MAY–10 09:10	100511–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–MAY–10 04:15	100512–4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2299

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB05										
	Mercury	–0.084	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 11:03	032410S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 20:21	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 20:21	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Silver	–1.07	+/–5	J	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:21	033110B–1
CCB06										
	Mercury	–0.09	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 11:23	032410S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 20:48	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 20:48	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2299

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:48	033110B–1
CCB07										
	Mercury	–0.088	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 11:43	032410S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 21:18	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:18	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:18	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 21:18	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 21:18	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 21:18	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:18	033110B–1
CCB08										
	Mercury	–0.086	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 12:03	032410S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 21:41	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2299

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:41	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:41	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 21:41	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 21:41	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 21:41	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:41	033110B–1
CCB09										
	Mercury	–0.088	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 12:23	032410S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 21:57	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 21:57	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2299

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:57	033110B–1
CCB10										
	Mercury	–0.092	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 12:44	032410S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 22:14	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:14	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:14	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 22:14	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 22:14	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 22:14	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:14	033110B–1
CCB11										
	Mercury	–0.092	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 13:04	032410S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 22:37	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:37	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:37	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2299

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 22:37	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 22:37	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 22:37	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:37	033110B–1
CCB12										
	Mercury	–0.092	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 13:24	032410S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 22:58	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 22:58	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:58	033110B–1
CCB13										
	Mercury	–0.096	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 13:45	032410S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 23:20	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 23:20	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2299

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 23:20	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 23:20	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 23:20	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 23:20	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 23:20	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 23:20	033110B–1
CCB14										
	Mercury	–0.091	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 14:18	032410S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 23:46	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 23:46	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 23:46	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 23:46	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 23:46	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 23:46	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 23:46	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 23:46	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 23:46	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:46	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2299

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 23:46	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 23:46	033110B–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2299

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202068047								
	Aluminum	6590	ug/kg	+/–19400	U	P	6590	19400
	Antimony	320	ug/kg	+/–969	U	P	320	969
	Barium	96.9	ug/kg	+/–484	U	P	96.9	484
	Cadmium	96.9	ug/kg	+/–484	U	P	96.9	484
	Chromium	145	ug/kg	+/–484	U	P	145	484
	Copper	291	ug/kg	+/–969	U	P	291	969
	Lead	242	ug/kg	+/–969	U	P	242	969
	Manganese	194	ug/kg	+/–969	U	P	194	969
	Silver	96.9	ug/kg	+/–484	U	P	96.9	484
	Zinc	320	ug/kg	+/–969	U	P	320	969
	Vanadium	96.9	ug/kg	+/–484	U	P	96.9	484
	Sodium	6780	ug/kg	+/–24200	U	P	6780	24200
	Potassium	6200	ug/kg	+/–24200	U	P	6200	24200
	Magnesium	8240	ug/kg	+/–29100	U	P	8240	29100
	Iron	7750	ug/kg	+/–24200	U	P	7750	24200
	Cobalt	145	ug/kg	+/–484	U	P	145	484
	Calcium	7750	ug/kg	+/–24200	U	P	7750	24200
1202068053								
	Arsenic	200	ug/kg	+/–1000	U	MS	200	1000
	Beryllium	20	ug/kg	+/–100	U	MS	20	100
	Nickel	100	ug/kg	+/–400	U	MS	100	400
	Thallium	60	ug/kg	+/–200	U	MS	60	200
	Selenium	500	ug/kg	+/–1000	U	MS	500	1000
1202076821								
	Mercury	–4.62	ug/kg	+/–11.1	J	AV	3.78	11.1
1202116481								
	Cesium	18.8	ug/kg	+/–93.8	U	MS	18.8	93.8

METALS
–4–
Interference Check Sample

SDG No: 10–2299

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	502000	ug/L	500000	ug/L	100	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Antimony	0.296	ug/L					31–MAR–10 18:53	033110B–1
	Barium	0.205	ug/L					31–MAR–10 18:53	033110B–1
	Cadmium	–1.97	ug/L					31–MAR–10 18:53	033110B–1
	Calcium	480000	ug/L	500000	ug/L	96	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Chromium	1.07	ug/L					31–MAR–10 18:53	033110B–1
	Cobalt	–6.06	ug/L					31–MAR–10 18:53	033110B–1
	Copper	4.63	ug/L					31–MAR–10 18:53	033110B–1
	Iron	190000	ug/L	200000	ug/L	95	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Lead	–4.1	ug/L					31–MAR–10 18:53	033110B–1
	Magnesium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Manganese	3.58	ug/L					31–MAR–10 18:53	033110B–1
	Potassium	–119.0	ug/L					31–MAR–10 18:53	033110B–1
	Silver	–2.44	ug/L					31–MAR–10 18:53	033110B–1
	Sodium	38.8	ug/L					31–MAR–10 18:53	033110B–1
	Vanadium	–0.082	ug/L					31–MAR–10 18:53	033110B–1
	Zinc	8.58	ug/L					31–MAR–10 18:53	033110B–1
ICSAB01									
	Aluminum	507000	ug/L	500000	ug/L	101	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Antimony	504	ug/L	500	ug/L	101	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Barium	499	ug/L	500	ug/L	99.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Cadmium	476	ug/L	500	ug/L	95.3	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Calcium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Chromium	484	ug/L	500	ug/L	96.7	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Cobalt	442	ug/L	500	ug/L	88.5	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Copper	542	ug/L	500	ug/L	108	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Iron	192000	ug/L	200000	ug/L	96	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Lead	464	ug/L	500	ug/L	92.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Magnesium	485000	ug/L	500000	ug/L	97	80.0 – 120.0	31–MAR–10 18:55	033110B–1

METALS
–4–
Interference Check Sample

SDG No: 10–2299

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Manganese	486	ug/L	500	ug/L	97.2	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Potassium	5550	ug/L	5000	ug/L	111	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Silver	267	ug/L	250	ug/L	107	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Sodium	5330	ug/L	5000	ug/L	107	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Vanadium	513	ug/L	500	ug/L	103	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Zinc	494	ug/L	500	ug/L	98.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1

METALS
–4–
Interference Check Sample

SDG No: 10–2299

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.807	ug/L					11–MAY–10 09:48	100510–2
	Nickel	2.52	ug/L					11–MAY–10 09:48	100510–2
	Thallium	0.019	ug/L					11–MAY–10 09:48	100510–2
ICSAB01									
	Arsenic	19.0	ug/L	20	ug/L	94.9	80.0 – 120.0	11–MAY–10 09:52	100510–2
	Nickel	21.0	ug/L	23.31	ug/L	89.9	80.0 – 120.0	11–MAY–10 09:52	100510–2
	Thallium	16.9	ug/L	20	ug/L	84.5	80.0 – 120.0	11–MAY–10 09:52	100510–2

METALS
–4–
Interference Check Sample

SDG No: 10–2299

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.117	ug/L					12–MAY–10 07:07	100511–3
ICSAB01									
	Beryllium	20.5	ug/L	20	ug/L	102	80.0 – 120.0	12–MAY–10 07:11	100511–3

METALS
-4-
Interference Check Sample

SDG No: 10-2299

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Selenium	-2.06	ug/L					13-MAY-10 02:12	100512-4
ICSAB01									
	Selenium	17.9	ug/L	20	ug/L	89.3	80.0 - 120.0	13-MAY-10 02:16	100512-4

METALS
–4–
Interference Check Sample

SDG No: 10–2299

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS7

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Cesium	0.079	ug/L					26–MAY–10 15:30	100526–5
ICSAB01									
	Cesium	18.4	ug/L	20	ug/L	92.2	80.0 – 120.0	26–MAY–10 15:31	100526–5

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2299 **Client ID** RE46–10–13867S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.1

Sample ID: 248834001 **Spike ID:** 1202068050

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/kg	75–125	48800		349	U	54300	90		P
Barium	ug/kg	75–125	62100		11600		54300	93.2		P
Cadmium	ug/kg	75–125	51400		106	U	54300	94.7		P
Aluminum	ug/kg	75–125	2120000		1070000		543000	194	N	P
Calcium	ug/kg	75–125	1070000		365000		543000	131	N	P
Chromium	ug/kg	75–125	63000		14400		54300	89.5		P
Cobalt	ug/kg	75–125	50800		568		54300	92.5		P
Copper	ug/kg	75–125	54800		1130		54300	98.9		P
Iron	ug/kg		5560000		5420000		543000	26.1	N/A	P
Lead	ug/kg	75–125	54000		2760		54300	94.4		P
Magnesium	ug/kg	75–125	762000		175000		543000	108		P
Manganese	ug/kg	75–125	283000		204000		54300	146	N	P
Potassium	ug/kg	75–125	1190000		387000		543000	147	N	P
Silver	ug/kg	75–125	50600		106	U	54300	93.2		P
Sodium	ug/kg	75–125	1150000		390000		543000	140	N	P
Vanadium	ug/kg	75–125	52000		1730		54300	92.5		P
Zinc	ug/kg	75–125	74600		23900		54300	93.3		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2299 **Client ID** RE46–10–13867SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.1

Sample ID: 248834001 **Spike ID:** 1202068051

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg	75–125	2410000		1070000		537000	251	N	P
Antimony	ug/kg	75–125	48800		349	U	53700	90.8		P
Barium	ug/kg	75–125	66600		11600		53700	102		P
Cadmium	ug/kg	75–125	52000		106	U	53700	96.7		P
Calcium	ug/kg	75–125	1180000		365000		537000	152	N	P
Chromium	ug/kg	75–125	63900		14400		53700	92.1		P
Cobalt	ug/kg	75–125	51500		568		53700	94.7		P
Copper	ug/kg	75–125	55900		1130		53700	102		P
Iron	ug/kg		6340000		5420000		537000	172	N/A	P
Lead	ug/kg	75–125	55000		2760		53700	97.3		P
Magnesium	ug/kg	75–125	859000		175000		537000	127	N	P
Manganese	ug/kg	75–125	322000		204000		53700	221	N	P
Potassium	ug/kg	75–125	1270000		387000		537000	165	N	P
Silver	ug/kg	75–125	51300		106	U	53700	95.4		P
Sodium	ug/kg	75–125	1200000		390000		537000	151	N	P
Vanadium	ug/kg	75–125	53200		1730		53700	95.8		P
Zinc	ug/kg	75–125	79200		23900		53700	103		P

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–2299 **Client ID** RE46–10–13867S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.1

Sample ID: 248834001 **Spike ID:** 1202068056

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	ug/kg	75–125	6470		356		5330	115		MS
Cesium	ug/kg	75–125	5330		132		5100	102		MS
Nickel	ug/kg	75–125	6710		1580		5330	96.1		MS
Selenium	ug/kg	75–125	1750		541	U	2130	76.9		MS
Arsenic	ug/kg	75–125	8550		440	J	8530	95.1		MS
Thallium	ug/kg	75–125	9280		83.3	J	10700	86.2		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2299 **Client ID** RE46–10–13867SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.1

Sample ID: 248834001 **Spike ID:** 1202068057

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	8420		440	J	8650	92.2		MS
Beryllium	ug/kg	75–125	5970		356		5410	104		MS
Cesium	ug/kg	75–125	5090		132		5220	95		MS
Nickel	ug/kg	75–125	6370		1580		5410	88.5		MS
Selenium	ug/kg	75–125	1780		541	U	2160	77.1		MS
Thallium	ug/kg	75–125	9150		83.3	J	10800	83.8		MS

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-2299 **Client ID** RE46-10-13867S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.1

Sample ID: 248834001 **Spike ID:** 1202076824

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	123		4.39	U	121	101		AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2299 **Client ID** RE46–10–13867SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.1

Sample ID: 248834001 **Spike ID:** 1202076832

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	137		4.39	U	128	107		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2299

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13867D

Sample ID: 248834001 **Duplicate ID:** 1202068048 **Percent Solids for Dup:** 92.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	1070000		1400000		27.2	*	P
Antimony	ug/kg		349	U	344	U			P
Barium	ug/kg	+/–20%	11600		18000		43.3	*	P
Cadmium	ug/kg		106	U	104	U			P
Calcium	ug/kg	+/–20%	365000		453000		21.5	*	P
Chromium	ug/kg	+/–20%	14400		11600		21.6	*	P
Cobalt	ug/kg	+/–521	568		641		12.1		P
Copper	ug/kg	+/–1040	1130		1490		27		P
Iron	ug/kg	+/–20%	5420000		6710000		21.4	*	P
Lead	ug/kg	+/–1040	2760		4270		42.7	*	P
Magnesium	ug/kg	+/–20%	175000		599000		110	*	P
Manganese	ug/kg	+/–20%	204000		297000		37.3	*	P
Potassium	ug/kg	+/–20%	387000		643000		49.6	*	P
Silver	ug/kg		106	U	104	U			P
Sodium	ug/kg	+/–20%	390000		537000		31.6	*	P
Vanadium	ug/kg	+/–521	1730		3670		71.9	*	P
Zinc	ug/kg	+/–20%	23900		43200		57.4	*	P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2299

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13867SD

Sample ID: 1202068050 **Duplicate ID:** 1202068051 **Percent Solids for Dup:** 92.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	2120000		2410000		12.9		P
Antimony	ug/kg	+/–20	48800		48800		.0857		P
Barium	ug/kg	+/–20	62100		66600		6.93		P
Cadmium	ug/kg	+/–20	51400		52000		1.12		P
Calcium	ug/kg	+/–20	1070000		1180000		9.66		P
Chromium	ug/kg	+/–20	63000		63900		1.43		P
Cobalt	ug/kg	+/–20	50800		51500		1.31		P
Copper	ug/kg	+/–20	54800		55900		1.92		P
Iron	ug/kg	+/–20	5560000		6340000		13.2		P
Lead	ug/kg	+/–20	54000		55000		1.91		P
Magnesium	ug/kg	+/–20	762000		859000		11.9		P
Manganese	ug/kg	+/–20	283000		322000		12.9		P
Potassium	ug/kg	+/–20	1190000		1270000		7		P
Silver	ug/kg	+/–20	50600		51300		1.31		P
Sodium	ug/kg	+/–20	1150000		1200000		4.43		P
Vanadium	ug/kg	+/–20	52000		53200		2.42		P
Zinc	ug/kg	+/–20	74600		79200		5.99		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2299

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13867D

Sample ID: 248834001 **Duplicate ID:** 1202068054 **Percent Solids for Dup:** 92.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–1060	440	J	366	J	18.3		MS
Beryllium	ug/kg	+/–106	356		381		6.69		MS
Cesium	ug/kg	+/–103	132		96	J	31.5		MS
Nickel	ug/kg	+/–424	1580		1830		14.8		MS
Selenium	ug/kg		541	U	530	U			MS
Thallium	ug/kg	+/–212	83.3	J	65.5	J	23.8		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2299

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13867SD

Sample ID: 1202068056 **Duplicate ID:** 1202068057 **Percent Solids for Dup:** 92.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	8550		8420		1.58		MS
Beryllium	ug/kg	+/–20	6470		5970		8.07		MS
Cesium	ug/kg	+/–20	5330		5090		4.58		MS
Nickel	ug/kg	+/–20	6710		6370		5.18		MS
Selenium	ug/kg	+/–20	1750		1780		1.59		MS
Thallium	ug/kg	+/–20	9280		9150		1.42		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2299

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13867D

Sample ID: 248834001 **Duplicate ID:** 1202076823 **Percent Solids for Dup:** 92.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg		4.39	U	3.83	U			AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2299

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13867SD

Sample ID: 1202076824 **Duplicate ID:** 1202076832 **Percent Solids for Dup:** 92.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	123		137		11.3		AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2299

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202068052								
	Antimony	ug/kg	173000	121000		69.9	71–130	P
	Barium	ug/kg	198000	191000		96.7	80–120	P
	Cadmium	ug/kg	60700	59600		98.1	81–120	P
	Calcium	ug/kg	9870000	9650000		97.8	83–117	P
	Chromium	ug/kg	236000	248000		105	80–120	P
	Cobalt	ug/kg	91200	94400		103	81–120	P
	Copper	ug/kg	174000	182000		105	81–118	P
	Iron	ug/kg	18000000	17400000		96.5	51–149	P
	Lead	ug/kg	86000	77800		90.4	79–121	P
	Magnesium	ug/kg	4000000	3730000		93.2	79–122	P
	Manganese	ug/kg	558000	542000		97.1	81–119	P
	Potassium	ug/kg	4300000	4020000		93.4	74–127	P
	Silver	ug/kg	30100	29300		97.4	66–134	P
	Sodium	ug/kg	1020000	1000000		98.4	74–127	P
	Vanadium	ug/kg	115000	121000		105	79–121	P
	Zinc	ug/kg	594000	585000		98.4	80–121	P
	Aluminum	ug/kg	10500000	9050000		86.2	56–144	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2299

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202068058								
	Arsenic	ug/kg	104000	109000		105	78–123	MS
	Beryllium	ug/kg	77600	88500		114	84–116	MS
	Nickel	ug/kg	134000	148000		110	78–123	MS
	Selenium	ug/kg	286000	256000		89.4	77–123	MS
	Thallium	ug/kg	121000	118000		97.2	78–122	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2299

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202076822								
	Mercury	ug/kg	5150	4660		90.5	71.6–128.3	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2299

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** O2SI

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202116482								
	Cesium	ug/kg	5000	5110		102	75.2–125	MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2299 **Client ID** RE46–10–13867L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248834001 **Serial Dilution ID:** 1202068049

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	10100		10200		.495		10	P
Antimony	3.3	U	16.5	U				P
Barium	109		108		1.38		10	P
Cadmium	1	U	5	U				P
Calcium	3450		3440		.29			P
Chromium	136		133		2.57		10	P
Cobalt	5.36		7.5	U	100			P
Copper	10.7		15	U	100			P
Iron	51200		50500		1.37		10	P
Lead	26.1		22.7	J	13			P
Magnesium	1650		1700		3.03			P
Manganese	1920		1920		0		10	P
Potassium	3660		3590		2.05		10	P
Silver	1	U	5	U				P
Sodium	3690		3680		.271		10	P
Vanadium	16.3		16.7	J	2.15			P
Zinc	226		212		6.42		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2299 **Client ID** RE46–10–13867L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248834001 **Serial Dilution ID:** 1202068055

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	2.04	J	5	U	100			MS
Beryllium	1.65		1.73	J	4.85			MS
Cesium	.646		.65	J	.619			MS
Nickel	7.31		6.95	J	4.92			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.385	J	1.5	U	100			MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2299 **Client ID** RE46–10–13867L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248834001 **Serial Dilution ID:** 1202076831

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.068	U	.34	U				AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2299 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 963992							
1202068047	MB for batch 963992	MB	S	13-MAR-10	.516g	50mL	
1202068052	LCS for batch 963992	LCS	S	13-MAR-10	.508g	50mL	
1202068050	RE46-10-13867S	MS	S	13-MAR-10	.5g	50mL	
1202068051	RE46-10-13867SD	MSD	S	13-MAR-10	.505g	50mL	
1202068048	RE46-10-13867D	DUP	S	13-MAR-10	.521g	50mL	
248834001	RE46-10-13867	SAMPLE	S	13-MAR-10	.513g	50mL	
248834002	RE46-10-13864	SAMPLE	S	13-MAR-10	.555g	50mL	
248834003	RE46-10-13863	SAMPLE	S	13-MAR-10	.513g	50mL	
248834004	RE46-10-13869	SAMPLE	S	13-MAR-10	.506g	50mL	
248834005	RE46-10-13861	SAMPLE	S	13-MAR-10	.517g	50mL	
248834006	RE46-10-13866	SAMPLE	S	13-MAR-10	.501g	50mL	
248834007	RE46-10-13860	SAMPLE	S	13-MAR-10	.509g	50mL	
248834008	RE46-10-13865	SAMPLE	S	13-MAR-10	.5g	50mL	
248834009	RE46-10-13868	SAMPLE	S	13-MAR-10	.511g	50mL	
248834010	RE46-10-13862	SAMPLE	S	13-MAR-10	.508g	50mL	
248834011	RE46-10-13873	SAMPLE	S	13-MAR-10	.504g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2299 **Method Type**: MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 963994							
1202068053	MB for batch 963994	MB	S	13-MAR-10	.5g	50mL	
1202068058	LCS for batch 963994	LCS	S	13-MAR-10	.501g	50mL	
1202068056	RE46-10-13867S	MS	S	13-MAR-10	.509g	50mL	
1202068057	RE46-10-13867SD	MSD	S	13-MAR-10	.502g	50mL	
1202068054	RE46-10-13867D	DUP	S	13-MAR-10	.512g	50mL	
248834001	RE46-10-13867	SAMPLE	S	13-MAR-10	.502g	50mL	
248834002	RE46-10-13864	SAMPLE	S	13-MAR-10	.529g	50mL	
248834003	RE46-10-13863	SAMPLE	S	13-MAR-10	.504g	50mL	
248834004	RE46-10-13869	SAMPLE	S	13-MAR-10	.509g	50mL	
248834005	RE46-10-13861	SAMPLE	S	13-MAR-10	.506g	50mL	
248834006	RE46-10-13866	SAMPLE	S	13-MAR-10	.506g	50mL	
248834007	RE46-10-13860	SAMPLE	S	13-MAR-10	.507g	50mL	
248834008	RE46-10-13865	SAMPLE	S	13-MAR-10	.505g	50mL	
248834009	RE46-10-13868	SAMPLE	S	13-MAR-10	.571g	50mL	
248834010	RE46-10-13862	SAMPLE	S	13-MAR-10	.556g	50mL	
248834011	RE46-10-13873	SAMPLE	S	13-MAR-10	.509g	50mL	
Batch Number 983925							
1202116481	MB for batch 983925	MB	S	13-MAY-10	.533g	50mL	
1202116482	LCS for batch 983925	LCS	S	13-MAY-10	.5g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2299 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
1202068056	RE46-10-13867S	MS	S	13-MAY-10	.532g	50mL	
1202068057	RE46-10-13867SD	MSD	S	13-MAY-10	.52g	50mL	
1202068054	RE46-10-13867D	DUP	S	13-MAY-10	.527g	50mL	
248834001	RE46-10-13867	SAMPLE	S	13-MAY-10	.532g	50mL	
248834002	RE46-10-13864	SAMPLE	S	13-MAY-10	.555g	50mL	
248834003	RE46-10-13863	SAMPLE	S	13-MAY-10	.527g	50mL	
248834004	RE46-10-13869	SAMPLE	S	13-MAY-10	.511g	50mL	
248834005	RE46-10-13861	SAMPLE	S	13-MAY-10	.533g	50mL	
248834006	RE46-10-13866	SAMPLE	S	13-MAY-10	.539g	50mL	
248834007	RE46-10-13860	SAMPLE	S	13-MAY-10	.529g	50mL	
248834008	RE46-10-13865	SAMPLE	S	13-MAY-10	.509g	50mL	
248834009	RE46-10-13868	SAMPLE	S	13-MAY-10	.522g	50mL	
248834010	RE46-10-13862	SAMPLE	S	13-MAY-10	.549g	50mL	
248834011	RE46-10-13873	SAMPLE	S	13-MAY-10	.556g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2299 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	967599						
1202076821	MB for batch 967599	MB	S	23-MAR-10	.539g	30mL	
1202076822	LCS for batch 967599	LCS	S	23-MAR-10	.203g	30mL	
1202076824	RE46-10-13867S	MS	S	23-MAR-10	.538g	30mL	
1202076832	RE46-10-13867SD	MSD	S	23-MAR-10	.51g	30mL	
1202076823	RE46-10-13867D	DUP	S	23-MAR-10	.578g	30mL	
248834001	RE46-10-13867	SAMPLE	S	23-MAR-10	.504g	30mL	
248834002	RE46-10-13864	SAMPLE	S	23-MAR-10	.512g	30mL	
248834003	RE46-10-13863	SAMPLE	S	23-MAR-10	.522g	30mL	
248834004	RE46-10-13869	SAMPLE	S	23-MAR-10	.503g	30mL	
248834005	RE46-10-13861	SAMPLE	S	23-MAR-10	.565g	30mL	
248834006	RE46-10-13866	SAMPLE	S	23-MAR-10	.537g	30mL	
248834007	RE46-10-13860	SAMPLE	S	23-MAR-10	.591g	30mL	
248834008	RE46-10-13865	SAMPLE	S	23-MAR-10	.593g	30mL	
248834009	RE46-10-13868	SAMPLE	S	23-MAR-10	.509g	30mL	
248834010	RE46-10-13862	SAMPLE	S	23-MAR-10	.563g	30mL	
248834011	RE46-10-13873	SAMPLE	S	23-MAR-10	.574g	30mL	

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 11-MAY-10 **End Date:** 11-MAY-10

Client Sdg: 10-2299
Method MS
Data File: 100510-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	09:22:00			X														X					X		
S10	1	09:26:00			X														X					X		
S100	1	09:30:00			X														X					X		
ICV01	1	09:35:00			X														X					X		
ICB01	1	09:39:00			X														X					X		
CRDL01	1	09:43:00			X														X					X		
ICSA01	1	09:48:00			X														X					X		
ICSAB01	1	09:52:00			X														X					X		
CCV01	1	09:57:00			X														X					X		
CCB01	1	10:01:00			X														X					X		
1202068053	2	10:05:00			X														X					X		
1202068058	40	10:10:00			X														X					X		
ZZZZZZ	2	10:14:00																								
ZZZZZZ	2	10:19:00																								
CCV02	1	10:23:00			X														X					X		
CCB02	1	10:27:00			X														X					X		
248834001	2	10:32:00			X														X					X		
1202068054	2	10:36:00			X														X					X		
1202068056	2	10:41:00			X														X					X		
1202068057	2	10:45:00			X														X					X		
1202068055	10	10:49:00			X														X					X		
248834002	2	10:54:00			X														X					X		
248834003	2	10:58:00			X														X					X		
248834004	2	11:03:00			X														X					X		
CCV03	1	11:07:00			X														X					X		
CCB03	1	11:11:00			X														X					X		
248834005	2	11:16:00			X														X					X		
248834006	2	11:20:00			X														X					X		
248834007	2	11:25:00			X														X					X		
248834008	2	11:29:00			X														X					X		
248834009	2	11:33:00			X														X					X		
248834010	2	11:38:00			X														X					X		
248834011	2	11:42:00			X														X					X		
ZZZZZZ	5	11:47:00																								
CCV04	1	11:51:00			X														X					X		
CCB04	1	11:55:00			X														X					X		

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 12–MAY–10 **End Date:** 12–MAY–10

Client Sdg: 10–2299
Method MS
Data File: 100511–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	06:41:00					X																			
S10	1	06:45:00					X																			
S100	1	06:50:00					X																			
ICV01	1	06:54:00					X																			
ICB01	1	06:58:00					X																			
CRDL01	1	07:02:00					X																			
ICSA01	1	07:07:00					X																			
ICSAB01	1	07:11:00					X																			
CCV01	1	07:15:00					X																			
CCB01	1	07:19:00					X																			
1202068053	2	07:23:00					X																			
1202068058	40	07:28:00					X																			
ZZZZZZ	2	07:32:00																								
ZZZZZZ	2	07:36:00																								
CCV02	1	07:40:00					X																			
CCB02	1	07:45:00					X																			
248834001	2	07:49:00					X																			
1202068054	2	07:53:00					X																			
1202068056	2	07:57:00					X																			
1202068057	2	08:02:00					X																			
1202068055	10	08:06:00					X																			
248834002	2	08:10:00					X																			
248834003	2	08:14:00					X																			
248834004	2	08:19:00					X																			
CCV03	1	08:23:00					X																			
CCB03	1	08:27:00					X																			
248834005	2	08:31:00					X																			
248834006	2	08:36:00					X																			
248834007	2	08:40:00					X																			
248834008	2	08:44:00					X																			
248834009	2	08:48:00					X																			
248834010	2	08:53:00					X																			
248834011	2	08:57:00					X																			
ZZZZZZ	5	09:01:00																								
CCV04	1	09:05:00					X																			
CCB04	1	09:10:00					X																			

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 13–MAY–10 **End Date:** 13–MAY–10

Client Sdg: 10–2299
Method MS
Data File: 100512–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	01:47:00																			X					
S10	1	01:51:00																			X					
S100	1	01:55:00																			X					
ICV01	1	01:59:00																			X					
ICB01	1	02:03:00																			X					
CRDL01	1	02:08:00																			X					
ICSA01	1	02:12:00																			X					
ICSAB01	1	02:16:00																			X					
CCV01	1	02:20:00																			X					
CCB01	1	02:25:00																			X					
1202068053	2	02:29:00																			X					
1202068058	40	02:33:00																			X					
ZZZZZZ	2	02:37:00																								
ZZZZZZ	2	02:42:00																								
CCV02	1	02:46:00																			X					
CCB02	1	02:50:00																			X					
248834001	2	02:54:00																			X					
1202068054	2	02:58:00																			X					
1202068056	2	03:03:00																			X					
1202068057	2	03:07:00																			X					
1202068055	10	03:11:00																			X					
248834002	2	03:15:00																			X					
248834003	2	03:20:00																			X					
248834004	2	03:24:00																			X					
CCV03	1	03:28:00																			X					
CCB03	1	03:32:00																			X					
248834005	2	03:37:00																			X					
248834006	2	03:41:00																			X					
248834007	2	03:45:00																			X					
248834008	2	03:49:00																			X					
248834009	2	03:54:00																			X					
248834010	2	03:58:00																			X					
248834011	2	04:02:00																			X					
ZZZZZZ	5	04:07:00																								
CCV04	1	04:11:00																			X					
CCB04	1	04:15:00																			X					

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 24–MAR–10 **End Date:** 24–MAR–10

Client Sdg: 10–2299
Method AV
Data File: 032410S1–6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	09:26:00																X								
S0.2	1	09:27:00																X								
S0.5	1	09:29:00																X								
S2.0	1	09:31:00																X								
S5.0	1	09:32:00																X								
S10.0	1	09:34:00																X								
ICV01	1	09:36:00																X								
ICB01	1	09:37:00																X								
CRDL01	1	09:39:00																X								
CCV01	1	09:41:00																X								
CCB01	1	09:42:00																X								
1202076821	1	09:44:00																X								
1202076822	10	09:46:00																X								
248834001	1	09:47:00																X								
1202076823	1	09:49:00																X								
1202076824	1	09:51:00																X								
1202076832	1	09:52:00																X								
1202076831	5	09:54:00																X								
ZZZZZZ	1	09:56:00																								
248834003	1	09:57:00																X								
248834004	1	09:59:00																X								
CCV02	1	10:01:00																X								
CCB02	1	10:02:00																X								
248834005	1	10:04:00																X								
248834006	1	10:06:00																X								
ZZZZZZ	1	10:07:00																								
248834008	1	10:09:00																X								
248834009	1	10:11:00																X								
ZZZZZZ	1	10:12:00																								
248834011	1	10:14:00																X								
ZZZZZZ	1	10:16:00																								
ZZZZZZ	1	10:17:00																								
ZZZZZZ	10	10:19:00																								
CCV03	1	10:21:00																X								
CCB03	1	10:22:00																X								
ZZZZZZ	1	10:24:00																								
ZZZZZZ	1	10:26:00																								
ZZZZZZ	1	10:27:00																								
ZZZZZZ	1	10:29:00																								
ZZZZZZ	1	10:31:00																								

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	10:32:00																							
ZZZZZZ	1	10:34:00																							
ZZZZZZ	1	10:36:00																							
ZZZZZZ	5	10:37:00																							
ZZZZZZ	1	10:39:00																							
CCV04	1	10:41:00														X									
CCB04	1	10:42:00														X									
ZZZZZZ	1	10:44:00																							
ZZZZZZ	1	10:46:00																							
ZZZZZZ	1	10:47:00																							
ZZZZZZ	1	10:49:00																							
ZZZZZZ	10	10:51:00																							
ZZZZZZ	1	10:52:00																							
ZZZZZZ	1	10:54:00																							
ZZZZZZ	1	10:56:00																							
ZZZZZZ	1	10:58:00																							
ZZZZZZ	1	10:59:00																							
CCV05	1	11:01:00														X									
CCB05	1	11:03:00														X									
ZZZZZZ	1	11:04:00																							
ZZZZZZ	1	11:06:00																							
ZZZZZZ	1	11:08:00																							
ZZZZZZ	1	11:09:00																							
ZZZZZZ	1	11:11:00																							
ZZZZZZ	1	11:13:00																							
ZZZZZZ	1	11:14:00																							
ZZZZZZ	1	11:16:00																							
ZZZZZZ	1	11:18:00																							
ZZZZZZ	1	11:19:00																							
CCV06	1	11:21:00														X									
CCB06	1	11:23:00														X									
ZZZZZZ	1	11:24:00																							
ZZZZZZ	1	11:26:00																							
ZZZZZZ	1	11:28:00																							
ZZZZZZ	1	11:29:00																							
ZZZZZZ	5	11:31:00																							
ZZZZZZ	1	11:33:00																							
ZZZZZZ	1	11:34:00																							
ZZZZZZ	1	11:36:00																							
ZZZZZZ	1	11:38:00																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	11:39:00																								
CCV07	1	11:41:00																X								
CCB07	1	11:43:00																X								
ZZZZZZ	1	11:44:00																								
ZZZZZZ	1	11:46:00																								
ZZZZZZ	1	11:48:00																								
ZZZZZZ	1	11:50:00																								
ZZZZZZ	5	11:51:00																								
ZZZZZZ	1	11:53:00																								
ZZZZZZ	1	11:55:00																								
ZZZZZZ	1	11:56:00																								
ZZZZZZ	1	11:58:00																								
ZZZZZZ	1	12:00:00																								
CCV08	1	12:01:00																X								
CCB08	1	12:03:00																X								
ZZZZZZ	1	12:05:00																								
ZZZZZZ	1	12:06:00																								
ZZZZZZ	1	12:08:00																								
ZZZZZZ	1	12:10:00																								
ZZZZZZ	1	12:11:00																								
ZZZZZZ	1	12:13:00																								
ZZZZZZ	1	12:15:00																								
ZZZZZZ	1	12:17:00																								
ZZZZZZ	1	12:18:00																								
ZZZZZZ	1	12:20:00																								
CCV09	1	12:22:00																X								
CCB09	1	12:23:00																X								
ZZZZZZ	1	12:25:00																								
ZZZZZZ	5	12:27:00																								
ZZZZZZ	1	12:28:00																								
ZZZZZZ	1	12:30:00																								
ZZZZZZ	1	12:32:00																								
ZZZZZZ	1	12:33:00																								
ZZZZZZ	1	12:35:00																								
ZZZZZZ	1	12:37:00																								
ZZZZZZ	1	12:39:00																								
ZZZZZZ	1	12:40:00																								
CCV10	1	12:42:00																X								
CCB10	1	12:44:00																X								
ZZZZZZ	1	12:45:00																								

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	12:47:00																							
ZZZZZZ	1	12:49:00																							
ZZZZZZ	1	12:50:00																							
ZZZZZZ	1	12:52:00																							
ZZZZZZ	5	12:54:00																							
ZZZZZZ	1	12:55:00																							
ZZZZZZ	1	12:57:00																							
ZZZZZZ	1	12:59:00																							
ZZZZZZ	1	13:01:00																							
CCV11	1	13:02:00														X									
CCB11	1	13:04:00														X									
ZZZZZZ	1	13:06:00																							
ZZZZZZ	1	13:07:00																							
ZZZZZZ	1	13:09:00																							
ZZZZZZ	1	13:11:00																							
ZZZZZZ	1	13:12:00																							
ZZZZZZ	1	13:14:00																							
ZZZZZZ	1	13:16:00																							
ZZZZZZ	1	13:18:00																							
ZZZZZZ	1	13:19:00																							
ZZZZZZ	1	13:21:00																							
CCV12	1	13:23:00														X									
CCB12	1	13:24:00														X									
ZZZZZZ	1	13:26:00																							
ZZZZZZ	1	13:28:00																							
ZZZZZZ	1	13:29:00																							
ZZZZZZ	1	13:31:00																							
ZZZZZZ	1	13:33:00																							
ZZZZZZ	1	13:35:00																							
ZZZZZZ	1	13:36:00																							
ZZZZZZ	1	13:38:00																							
ZZZZZZ	5	13:40:00																							
ZZZZZZ	1	13:41:00																							
CCV13	1	13:43:00														X									
CCB13	1	13:45:00														X									
ZZZZZZ	1	13:47:00																							
ZZZZZZ	100	13:48:00																							
248834002	2	14:00:00														X									
248834007	50	14:01:00														X									
248834010	10	14:03:00														X									

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	2	14:05:00																								
ZZZZZZ	2	14:06:00																								
ZZZZZZ	1	14:08:00																								
ZZZZZZ	1	14:10:00																								
ZZZZZZ	1	14:12:00																								
ZZZZZZ	1	14:13:00																								
ZZZZZZ	5	14:15:00																								
CCV14	1	14:17:00																X								
CCB14	1	14:18:00																X								

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 31–MAR–10 **End Date:** 31–MAR–10

Client Sdg: 10–2299
Method P
Data File: 033110B–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	18:36:30	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
S0.1	1	18:39:45		X		X		X			X	X	X		X		X			X		X			X	X
S0.5	1	18:41:56	X	X		X		X	X		X	X	X		X	X	X			X		X			X	X
SCAL	1	18:43:55	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
S10	1	18:45:59	X						X					X		X							X			
ICV01	1	18:47:03	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ICB01	1	18:48:09	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
PQL01	1	18:51:18	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ICSA01	1	18:53:20	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ICSAB01	1	18:55:20	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
LR01	1	18:56:26	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
LR02	1	18:57:44	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCV01	1	18:59:11	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB01	1	19:01:26	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCV02	1	19:06:03	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB02	1	19:08:04	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:11:15																								
ZZZZZZ	1	19:14:12																								
ZZZZZZ	1	19:16:26																								
ZZZZZZ	1	19:19:36																								
ZZZZZZ	1	19:22:32																								
ZZZZZZ	5	19:24:31																								
CCV03	1	19:27:41	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB03	1	19:29:42	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:32:54																								
ZZZZZZ	1	19:35:52																								
ZZZZZZ	1	19:38:50																								
ZZZZZZ	1	19:41:46																								
ZZZZZZ	1	19:44:56																								
CCV04	1	19:48:07	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB04	1	19:50:08	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:53:03																								
ZZZZZZ	1	19:56:16																								
ZZZZZZ	1	19:58:29																								
ZZZZZZ	1	20:01:35																								
ZZZZZZ	1	20:04:41																								
ZZZZZZ	1	20:06:41																								
ZZZZZZ	5	20:09:37																								
ZZZZZZ	1	20:12:33																								
ZZZZZZ	1	20:15:43																								

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																								
CCV05	1	20:18:48	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB05	1	20:21:03	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	20:23:58																								
ZZZZZZ	1	20:27:11																								
ZZZZZZ	1	20:29:10																								
ZZZZZZ	1	20:31:22																								
ZZZZZZ	1	20:33:33																								
ZZZZZZ	5	20:35:32																								
ZZZZZZ	1	20:37:44																								
ZZZZZZ	1	20:40:49																								
ZZZZZZ	1	20:43:41																								
CCV06	1	20:46:32	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB06	1	20:48:32	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	20:51:27																								
ZZZZZZ	1	20:54:35																								
ZZZZZZ	1	20:56:32																								
ZZZZZZ	1	20:59:23																								
ZZZZZZ	1	21:02:28																								
ZZZZZZ	1	21:04:25																								
ZZZZZZ	1	21:06:36																								
ZZZZZZ	1	21:08:29																								
ZZZZZZ	1	21:11:20																								
ZZZZZZ	1	21:13:18																								
CCV07	1	21:16:09	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB07	1	21:18:10	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	21:21:05																								
ZZZZZZ	1	21:24:03																								
ZZZZZZ	1	21:25:25																								
ZZZZZZ	1	21:27:23																								
ZZZZZZ	1	21:29:21																								
ZZZZZZ	1	21:31:35																								
ZZZZZZ	1	21:33:49																								
ZZZZZZ	5	21:36:00																								
ZZZZZZ	1	21:37:59																								
CCV08	1	21:39:57	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB08	1	21:41:59	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	21:45:10																								
ZZZZZZ	1	21:47:26																								
ZZZZZZ	1	21:49:39																								
ZZZZZZ	1	21:51:37																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	21:53:37																								
CCV09	1	21:55:36	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB09	1	21:57:52	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	22:00:49																								
ZZZZZZ	1	22:03:08																								
ZZZZZZ	1	22:04:17																								
ZZZZZZ	1	22:06:21																								
ZZZZZZ	1	22:08:25																								
ZZZZZZ	1	22:09:31																								
ZZZZZZ	5	22:10:38																								
CCV10	1	22:12:55	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB10	1	22:14:56	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	22:17:55																								
ZZZZZZ	1	22:20:16																								
ZZZZZZ	1	22:22:28																								
ZZZZZZ	1	22:24:31																								
ZZZZZZ	1	22:26:43																								
ZZZZZZ	1	22:28:56																								
ZZZZZZ	1	22:31:00																								
ZZZZZZ	1	22:33:18																								
CCV11	1	22:35:22	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB11	1	22:37:38	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	22:40:36																								
ZZZZZZ	1	22:42:56																								
ZZZZZZ	1	22:45:10																								
ZZZZZZ	1	22:47:27																								
ZZZZZZ	1	22:49:44																								
ZZZZZZ	1	22:52:02																								
ZZZZZZ	1	22:54:05																								
CCV12	1	22:56:09	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB12	1	22:58:10	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
1202068047	1	23:01:21	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
1202068052	1	23:04:20	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
248834001	1	23:05:42	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
1202068048	1	23:07:45	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
1202068050	1	23:09:49	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
1202068051	1	23:10:55	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
1202068049	5	23:12:15	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	23:14:18																								
ZZZZZZ	1	23:16:21																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
CCV13	1	23:18:25	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB13	1	23:20:27	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
248834002	1	23:23:24	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
248834003	1	23:25:39	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
248834004	1	23:27:42	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
248834005	1	23:29:46	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
248834006	1	23:32:03	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
248834007	1	23:34:01	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
248834008	1	23:35:59	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
248834009	1	23:38:03	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
248834010	1	23:40:15	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
248834011	1	23:42:14	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCV14	1	23:44:28	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X
CCB14	1	23:46:45	X	X		X		X	X		X	X	X	X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS7
Start Date: 26–MAY–10 **End Date:** 26–MAY–10

Client Sdg: 10–2299
Method MS
Data File: 100526–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	15:24:50								X																
S10	1	15:25:45								X																
S100	1	15:26:41								X																
ICV01	1	15:27:37								X																
ICB01	1	15:28:34								X																
CRDL01	1	15:29:30								X																
ICSA01	1	15:30:27								X																
ICSAB01	1	15:31:23								X																
CCV01	1	15:32:19								X																
CCB01	1	15:33:17								X																
1202116481	2	15:34:14								X																
1202116482	2	15:35:10								X																
248834001	2	15:36:06								X																
1202068054	2	15:37:03								X																
1202068056	2	15:38:00								X																
1202068057	2	15:38:56								X																
1202068055	10	15:39:53								X																
248834002	2	15:40:50								X																
CCV02	1	15:41:46								X																
CCB02	1	15:42:44								X																
248834003	2	15:43:41								X																
248834004	2	15:44:37								X																
248834005	2	15:45:34								X																
248834006	2	15:46:31								X																
248834007	2	15:47:28								X																
248834008	2	15:48:25								X																
248834009	2	15:49:22								X																
248834010	2	15:50:18								X																
248834011	2	15:51:15								X																
CCV03	1	15:52:12								X																
CCB03	1	15:53:10								X																

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2299

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Cesium		0.1	.5
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2299

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2299

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2299
Effective Dates: 22-MAR-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2299
Effective Dates: 22-MAR-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2299
Effective Dates: 22-MAR-10

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2299
Effective Dates: 22-MAR-10

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2299
Effective Dates: 22-MAR-10

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2299
Contract: LANL01004
Instrument: OPTIMA4
Effective Dates: 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–2299

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Cesium	1000	100	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2299

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2299

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS7

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Cesium	1000	100	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 052610

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

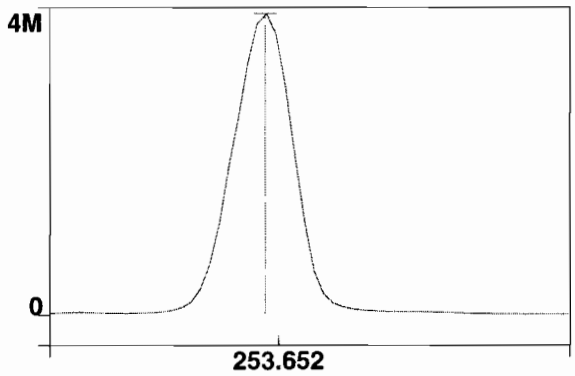

Intensity: 4315801.5 cps
Conc:

1

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Analysis Begun

Start Time: 3/31/2010 18:36:27 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/31/2010 18:36:30**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	146983.1	146983.1	101	%	18:37:03
1	Al 396.153Radial†	-46.6	-46.3	[0.00]	µg/L	18:37:23
1	Ca 317.933Radial†	562.9	558.9	[0.00]	µg/L	18:37:23
1	Fe 238.204 Radial†	148.8	147.8	[0.00]	µg/L	18:37:23
1	K 766.490 Radial†	1565.6	1554.3	[0.00]	µg/L	18:37:03
1	Mg 279.077 IEC†	207.4	205.9	[0.00]	µg/L	18:37:23
1	Na 589.592 Radial†	1216.0	1207.3	[0.00]	µg/L	18:37:03
1	Sr 421.552†	-110.9	-110.1	[0.00]	µg/L	18:37:03
1	Sc 361.383	1704607.6	1704607.6	99.208	%	18:38:25
1	Y 371.029	1018376.3	1018376.3	99.190	%	18:38:25
1	Ag 328.068†	3963.8	3995.4	[0.00]	µg/L	18:38:27
1	As 188.979†	-17.7	-17.9	[0.00]	µg/L	18:38:48
1	B 249.677†	3489.7	3517.5	[0.00]	µg/L	18:38:27
1	Ba 233.527†	-145.9	-147.0	[0.00]	µg/L	18:38:48
1	Be 313.107†	-965.4	-973.1	[0.00]	µg/L	18:38:27
1	Cd 226.502†	-106.0	-106.8	[0.00]	µg/L	18:38:48
1	Co 228.616†	-174.9	-176.3	[0.00]	µg/L	18:38:48
1	Cr 267.716†	129.8	130.8	[0.00]	µg/L	18:38:48
1	Cu 324.752†	2846.5	2869.3	[0.00]	µg/L	18:38:27
1	Mn 257.610†	253.9	255.9	[0.00]	µg/L	18:38:48
1	Mo 202.031†	-24.9	-25.1	[0.00]	µg/L	18:38:48
1	Ni 231.604†	-72.6	-73.1	[0.00]	µg/L	18:38:48
1	P 214.914†	-29.6	-29.8	[0.00]	µg/L	18:38:48
1	Pb 220.353†	106.5	107.4	[0.00]	µg/L	18:38:48
1	S 181.975 Axial†	102.6	103.4	[0.00]	µg/L	18:38:48
1	Sb 206.836†	81.9	82.6	[0.00]	µg/L	18:38:48
1	Se 196.026†	14.5	14.6	[0.00]	µg/L	18:38:48
1	SiO2†	1812.7	1827.1	[0.00]	µg/L	18:38:27
1	Si 251.611†	747.0	752.9	[0.00]	µg/L	18:38:27
1	Sn 189.927†	-6.9	-6.9	[0.00]	µg/L	18:38:48
1	Ti 334.940†	920.6	928.0	[0.00]	µg/L	18:38:27
1	Tl 190.801†	-108.2	-109.0	[0.00]	µg/L	18:38:48
1	U 409.014†	-161.2	-162.4	[0.00]	µg/L	18:38:27
1	V 292.402†	343.5	346.2	[0.00]	µg/L	18:38:27
1	Zn 213.857†	560.7	565.2	[0.00]	µg/L	18:38:48
2	Sc RADIAL	145077.9	145077.9	99.4	%	18:37:25
2	Al 396.153Radial†	-80.7	-81.2	[0.00]	µg/L	18:37:45
2	Ca 317.933Radial†	555.7	559.0	[0.00]	µg/L	18:37:45
2	Fe 238.204 Radial†	152.0	152.9	[0.00]	µg/L	18:37:45
2	K 766.490 Radial†	1581.8	1591.1	[0.00]	µg/L	18:37:25
2	Mg 279.077 IEC†	207.4	208.6	[0.00]	µg/L	18:37:45
2	Na 589.592 Radial†	1309.5	1317.2	[0.00]	µg/L	18:37:25
2	Sr 421.552†	-50.0	-50.3	[0.00]	µg/L	18:37:25
2	Sc 361.383	1730517.4	1730517.4	100.72	%	18:38:50
2	Y 371.029	1034150.1	1034150.1	100.73	%	18:38:50
2	Ag 328.068†	4314.8	4284.1	[0.00]	µg/L	18:38:52
2	As 188.979†	-23.3	-23.2	[0.00]	µg/L	18:39:12

2	B 249.677†	3487.4	3462.6	[0.00]	µg/L	18:38:52
2	Ba 233.527†	-138.3	-137.3	[0.00]	µg/L	18:39:12
2	Be 313.107†	-1181.9	-1173.5	[0.00]	µg/L	18:38:52
2	Cd 226.502†	-128.3	-127.3	[0.00]	µg/L	18:39:12
2	Co 228.616†	-207.1	-205.6	[0.00]	µg/L	18:39:12
2	Cr 267.716†	187.0	185.7	[0.00]	µg/L	18:39:12
2	Cu 324.752†	3037.7	3016.1	[0.00]	µg/L	18:38:52
2	Mn 257.610†	235.4	233.7	[0.00]	µg/L	18:39:12
2	Mo 202.031†	-14.8	-14.7	[0.00]	µg/L	18:39:12
2	Ni 231.604†	-77.5	-77.0	[0.00]	µg/L	18:39:12
2	P 214.914†	-7.1	-7.0	[0.00]	µg/L	18:39:12
2	Pb 220.353†	82.7	82.1	[0.00]	µg/L	18:39:12
2	S 181.975 Axial†	101.1	100.4	[0.00]	µg/L	18:39:12
2	Sb 206.836†	84.6	84.0	[0.00]	µg/L	18:39:12
2	Se 196.026†	9.6	9.5	[0.00]	µg/L	18:39:12
2	SiO2†	1764.6	1752.0	[0.00]	µg/L	18:38:52
2	Si 251.611†	909.0	902.5	[0.00]	µg/L	18:38:52
2	Sn 189.927†	4.1	4.0	[0.00]	µg/L	18:39:12
2	Ti 334.940†	1042.4	1035.0	[0.00]	µg/L	18:38:52
2	Tl 190.801†	-124.1	-123.3	[0.00]	µg/L	18:39:12
2	U 409.014†	-390.5	-387.7	[0.00]	µg/L	18:38:52
2	V 292.402†	355.1	352.6	[0.00]	µg/L	18:38:52
2	Zn 213.857†	564.8	560.8	[0.00]	µg/L	18:39:12
3	Sc RADIAL	145728.3	145728.3	99.9	%	18:37:47
3	Al 396.153Radial†	-62.0	-62.1	[0.00]	µg/L	18:38:07
3	Ca 317.933Radial†	563.1	563.9	[0.00]	µg/L	18:38:07
3	Fe 238.204 Radial†	143.5	143.7	[0.00]	µg/L	18:38:07
3	K 766.490 Radial†	1486.8	1488.8	[0.00]	µg/L	18:37:47
3	Mg 279.077 IEC†	157.4	157.6	[0.00]	µg/L	18:38:07
3	Na 589.592 Radial†	1346.0	1347.9	[0.00]	µg/L	18:37:47
3	Sr 421.552†	-245.1	-245.5	[0.00]	µg/L	18:37:47
3	Sc 361.383	1719527.8	1719527.8	100.08	%	18:39:14
3	Y 371.029	1027539.8	1027539.8	100.08	%	18:39:14
3	Ag 328.068†	3997.7	3994.6	[0.00]	µg/L	18:39:16
3	As 188.979†	-20.0	-20.0	[0.00]	µg/L	18:39:36
3	B 249.677†	3540.3	3537.6	[0.00]	µg/L	18:39:16
3	Ba 233.527†	-123.3	-123.2	[0.00]	µg/L	18:39:36
3	Be 313.107†	-1048.2	-1047.4	[0.00]	µg/L	18:39:16
3	Cd 226.502†	-120.5	-120.4	[0.00]	µg/L	18:39:36
3	Co 228.616†	-189.2	-189.0	[0.00]	µg/L	18:39:36
3	Cr 267.716†	219.3	219.2	[0.00]	µg/L	18:39:36
3	Cu 324.752†	3033.6	3031.3	[0.00]	µg/L	18:39:16
3	Mn 257.610†	222.3	222.2	[0.00]	µg/L	18:39:36
3	Mo 202.031†	-20.4	-20.4	[0.00]	µg/L	18:39:36
3	Ni 231.604†	-79.5	-79.4	[0.00]	µg/L	18:39:36
3	P 214.914†	-17.1	-17.1	[0.00]	µg/L	18:39:36
3	Pb 220.353†	69.7	69.7	[0.00]	µg/L	18:39:36
3	S 181.975 Axial†	111.4	111.3	[0.00]	µg/L	18:39:36
3	Sb 206.836†	76.0	76.0	[0.00]	µg/L	18:39:36
3	Se 196.026†	21.7	21.7	[0.00]	µg/L	18:39:36
3	SiO2†	1748.3	1747.0	[0.00]	µg/L	18:39:16
3	Si 251.611†	854.9	854.3	[0.00]	µg/L	18:39:16
3	Sn 189.927†	-0.5	-0.5	[0.00]	µg/L	18:39:36
3	Ti 334.940†	895.3	894.7	[0.00]	µg/L	18:39:16
3	Tl 190.801†	-117.8	-117.8	[0.00]	µg/L	18:39:36
3	U 409.014†	-259.7	-259.5	[0.00]	µg/L	18:39:16
3	V 292.402†	512.9	512.6	[0.00]	µg/L	18:39:16
3	Zn 213.857†	567.7	567.3	[0.00]	µg/L	18:39:36

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1718217.6	13004.50	0.76%	100.00	%
Sc RADIAL	145929.8	968.46	0.66%	100	%
Y 371.029	1026688.7	7921.26	0.77%	100.000	%
Ag 328.068†	4091.4	166.92	4.08%	[0.00]	µg/L
Al 396.153Radial†	-63.2	17.46	27.63%	[0.00]	µg/L
As 188.979†	-20.4	2.68	13.16%	[0.00]	µg/L
B 249.677†	3505.9	38.80	1.11%	[0.00]	µg/L
Ba 233.527†	-135.9	11.99	8.83%	[0.00]	µg/L

Be 313.107†	-1064.7	101.30	9.51%	[0.00]	µg/L
Ca 317.933Radial†	560.6	2.89	0.52%	[0.00]	µg/L
Cd 226.502†	-118.2	10.43	8.83%	[0.00]	µg/L
Co 228.616†	-190.3	14.72	7.73%	[0.00]	µg/L
Cr 267.716†	178.6	44.62	24.99%	[0.00]	µg/L
Cu 324.752†	2972.2	89.48	3.01%	[0.00]	µg/L
Fe 238.204 Radial†	148.1	4.61	3.11%	[0.00]	µg/L
K 766.490 Radial†	1544.8	51.81	3.35%	[0.00]	µg/L
Mg 279.077 IEC†	190.7	28.69	15.04%	[0.00]	µg/L
Mn 257.610†	237.3	17.14	7.23%	[0.00]	µg/L
Mo 202.031†	-20.1	5.18	25.80%	[0.00]	µg/L
Na 589.592 Radial†	1290.8	73.89	5.72%	[0.00]	µg/L
Ni 231.604†	-76.5	3.18	4.16%	[0.00]	µg/L
P 214.914†	-18.0	11.42	63.61%	[0.00]	µg/L
Pb 220.353†	86.4	19.23	22.27%	[0.00]	µg/L
S 181.975 Axial†	105.1	5.63	5.36%	[0.00]	µg/L
Sb 206.836†	80.8	4.27	5.29%	[0.00]	µg/L
Se 196.026†	15.3	6.14	40.18%	[0.00]	µg/L
SiO2†	1775.4	44.90	2.53%	[0.00]	µg/L
Si 251.611†	836.6	76.33	9.12%	[0.00]	µg/L
Sn 189.927†	-1.1	5.51	492.60%	[0.00]	µg/L
Sr 421.552†	-135.3	99.98	73.90%	[0.00]	µg/L
Ti 334.940†	952.5	73.33	7.70%	[0.00]	µg/L
Tl 190.801†	-116.7	7.17	6.15%	[0.00]	µg/L
U 409.014†	-269.9	113.01	41.87%	[0.00]	µg/L
V 292.402†	403.8	94.24	23.34%	[0.00]	µg/L
Zn 213.857†	564.4	3.32	0.59%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/31/2010 18:39:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	144945.8	144945.8	99.3	%	18:40:16
1	K 766.490 Radial†	4177.9	2661.5	[1000]	µg/L	18:40:16
1	Sr 421.552†	48790.2	49256.8	[100]	µg/L	18:40:16
1	Sc 361.383	1738207.5	1738207.5	101.16	%	18:40:38
1	Y 371.029	1035658.2	1035658.2	100.87	%	18:40:38
1	Ag 328.068†	31505.9	27052.2	[100]	µg/L	18:40:40
1	As 188.979†	319.4	336.1	[100]	µg/L	18:41:00
1	B 249.677†	10182.7	6559.7	[100]	µg/L	18:40:40
1	Ba 233.527†	25238.0	25083.6	[100]	µg/L	18:40:40
1	Be 313.107†	372065.7	368851.5	[100]	µg/L	18:40:38
1	Cd 226.502†	16206.1	16137.9	[100]	µg/L	18:40:40
1	Co 228.616†	8180.0	8276.3	[100]	µg/L	18:41:00
1	Cr 267.716†	13182.1	12852.0	[100]	µg/L	18:40:40
1	Cu 324.752†	28766.5	25463.5	[100]	µg/L	18:40:40
1	Mn 257.610†	84629.1	83418.6	[100]	µg/L	18:40:40
1	Mo 202.031†	3388.6	3369.7	[100]	µg/L	18:41:00
1	Ni 231.604†	8784.7	8760.2	[100]	µg/L	18:40:40
1	P 214.914†	2330.2	2321.4	[500]	µg/L	18:41:00
1	Pb 220.353†	1931.7	1823.1	[100]	µg/L	18:41:00
1	S 181.975 Axial†	386.6	277.1	[200]	µg/L	18:41:00
1	Sb 206.836†	932.6	841.0	[100]	µg/L	18:41:00
1	Se 196.026†	288.8	270.2	[100]	µg/L	18:41:00
1	SiO2†	12629.3	10708.7	[1069.5]	µg/L	18:40:40
1	Si 251.611†	34601.6	33367.1	[500]	µg/L	18:40:40
1	Sn 189.927†	1637.3	1619.6	[100]	µg/L	18:41:00
1	Ti 334.940†	108213.7	106016.7	[100]	µg/L	18:40:40
1	Tl 190.801†	724.1	832.5	[100]	µg/L	18:41:00
1	U 409.014†	1714.9	1965.0	[100]	µg/L	18:40:40
1	V 292.402†	20866.1	20222.4	[100]	µg/L	18:40:40
1	Zn 213.857†	18689.8	17910.4	[100]	µg/L	18:40:40
2	Sc RADIAL	144384.1	144384.1	98.9	%	18:40:18
2	K 766.490 Radial†	4099.7	2598.8	[1000]	µg/L	18:40:18
2	Sr 421.552†	48913.4	49572.3	[100]	µg/L	18:40:18
2	Sc 361.383	1718136.8	1718136.8	99.995	%	18:41:02
2	Y 371.029	1023615.0	1023615.0	99.701	%	18:41:02
2	Ag 328.068†	31474.0	27384.1	[100]	µg/L	18:41:04
2	As 188.979†	316.2	336.6	[100]	µg/L	18:41:24
2	B 249.677†	10249.3	6743.9	[100]	µg/L	18:41:04
2	Ba 233.527†	25403.3	25540.3	[100]	µg/L	18:41:04
2	Be 313.107†	368011.0	369093.1	[100]	µg/L	18:41:02
2	Cd 226.502†	16403.0	16522.0	[100]	µg/L	18:41:04
2	Co 228.616†	8194.1	8384.8	[100]	µg/L	18:41:24
2	Cr 267.716†	13299.6	13121.6	[100]	µg/L	18:41:04
2	Cu 324.752†	29042.8	26072.0	[100]	µg/L	18:41:04
2	Mn 257.610†	85481.9	85248.7	[100]	µg/L	18:41:04
2	Mo 202.031†	3415.9	3436.2	[100]	µg/L	18:41:24
2	Ni 231.604†	9104.3	9181.2	[100]	µg/L	18:41:04
2	P 214.914†	2327.9	2346.0	[500]	µg/L	18:41:24
2	Pb 220.353†	1943.3	1857.0	[100]	µg/L	18:41:24
2	S 181.975 Axial†	382.9	277.8	[200]	µg/L	18:41:24
2	Sb 206.836†	933.1	852.4	[100]	µg/L	18:41:24
2	Se 196.026†	282.7	267.4	[100]	µg/L	18:41:24
2	SiO2†	12728.6	10953.9	[1069.5]	µg/L	18:41:04
2	Si 251.611†	35105.7	34270.8	[500]	µg/L	18:41:04
2	Sn 189.927†	1643.4	1644.6	[100]	µg/L	18:41:24
2	Ti 334.940†	109258.0	108310.6	[100]	µg/L	18:41:04
2	Tl 190.801†	742.2	858.9	[100]	µg/L	18:41:24
2	U 409.014†	1747.4	2017.4	[100]	µg/L	18:41:04
2	V 292.402†	20863.1	20460.2	[100]	µg/L	18:41:04

2	Zn 213.857†	18913.1	18349.6	[100]	µg/L	18:41:04
3	Sc RADIAL	144888.2	144888.2	99.3	%	18:40:20
3	K 766.490 Radial†	4194.1	2679.5	[1000]	µg/L	18:40:20
3	Sr 421.552†	48878.7	49365.4	[100]	µg/L	18:40:20
3	Sc 361.383	1720712.1	1720712.1	100.15	%	18:41:26
3	Y 371.029	1025149.2	1025149.2	99.850	%	18:41:26
3	Ag 328.068†	30653.6	26517.7	[100]	µg/L	18:41:28
3	As 188.979†	311.4	331.3	[100]	µg/L	18:41:48
3	B 249.677†	10032.3	6511.9	[100]	µg/L	18:41:28
3	Ba 233.527†	24571.6	24671.8	[100]	µg/L	18:41:28
3	Be 313.107†	369363.0	369892.2	[100]	µg/L	18:41:26
3	Cd 226.502†	15800.2	15895.5	[100]	µg/L	18:41:28
3	Co 228.616†	7941.4	8120.2	[100]	µg/L	18:41:48
3	Cr 267.716†	12878.6	12681.3	[100]	µg/L	18:41:28
3	Cu 324.752†	28237.0	25223.9	[100]	µg/L	18:41:28
3	Mn 257.610†	82709.3	82352.2	[100]	µg/L	18:41:28
3	Mo 202.031†	3317.5	3332.8	[100]	µg/L	18:41:48
3	Ni 231.604†	8579.1	8643.1	[100]	µg/L	18:41:28
3	P 214.914†	2246.6	2261.3	[500]	µg/L	18:41:48
3	Pb 220.353†	1888.8	1799.7	[100]	µg/L	18:41:48
3	S 181.975 Axial†	370.3	264.7	[200]	µg/L	18:41:48
3	Sb 206.836†	914.8	832.6	[100]	µg/L	18:41:48
3	Se 196.026†	294.0	278.3	[100]	µg/L	18:41:48
3	SiO2†	12365.6	10572.3	[1069.5]	µg/L	18:41:28
3	Si 251.611†	33612.6	32727.3	[500]	µg/L	18:41:28
3	Sn 189.927†	1589.9	1588.8	[100]	µg/L	18:41:48
3	Ti 334.940†	106005.7	104899.5	[100]	µg/L	18:41:28
3	Tl 190.801†	699.9	815.6	[100]	µg/L	18:41:48
3	U 409.014†	1493.0	1760.7	[100]	µg/L	18:41:28
3	V 292.402†	20303.9	19870.7	[100]	µg/L	18:41:28
3	Zn 213.857†	18249.8	17659.0	[100]	µg/L	18:41:28

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1725685.5	10920.55	0.63%	100.43	%
Sc RADIAL	144739.3	309.02	0.21%	99.2	%
Y 371.029	1028140.8	6555.30	0.64%	100.14	%
Ag 328.068†	26984.7	437.11	1.62%	[100]	µg/L
As 188.979†	334.7	2.93	0.88%	[100]	µg/L
B 249.677†	6605.2	122.52	1.85%	[100]	µg/L
Ba 233.527†	25098.6	434.45	1.73%	[100]	µg/L
Be 313.107†	369278.9	544.69	0.15%	[100]	µg/L
Cd 226.502†	16185.1	315.91	1.95%	[100]	µg/L
Co 228.616†	8260.4	133.02	1.61%	[100]	µg/L
Cr 267.716†	12885.0	222.00	1.72%	[100]	µg/L
Cu 324.752†	25586.4	437.23	1.71%	[100]	µg/L
K 766.490 Radial†	2646.6	42.33	1.60%	[1000]	µg/L
Mn 257.610†	83673.1	1464.94	1.75%	[100]	µg/L
Mo 202.031†	3379.6	52.39	1.55%	[100]	µg/L
Ni 231.604†	8861.5	282.97	3.19%	[100]	µg/L
P 214.914†	2309.6	43.55	1.89%	[500]	µg/L
Pb 220.353†	1826.6	28.83	1.58%	[100]	µg/L
S 181.975 Axial†	273.2	7.39	2.70%	[200]	µg/L
Sb 206.836†	842.0	9.91	1.18%	[100]	µg/L
Se 196.026†	272.0	5.61	2.06%	[100]	µg/L
SiO2†	10744.9	193.37	1.80%	[1069.5]	µg/L
Si 251.611†	33455.1	775.50	2.32%	[500]	µg/L
Sn 189.927†	1617.7	27.99	1.73%	[100]	µg/L
Sr 421.552†	49398.1	160.32	0.32%	[100]	µg/L
Ti 334.940†	106408.9	1739.07	1.63%	[100]	µg/L
Tl 190.801†	835.7	21.85	2.61%	[100]	µg/L
U 409.014†	1914.4	135.63	7.09%	[100]	µg/L
V 292.402†	20184.4	296.62	1.47%	[100]	µg/L
Zn 213.857†	17973.0	349.52	1.94%	[100]	µg/L

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Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/31/2010 18:41:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139976.0	139976.0	95.9	%	18:42:27
1	Al 396.153Radial†	25919.4	27085.0	[5000]	µg/L	18:42:27
1	Ca 317.933Radial†	87385.1	90541.3	[5000]	µg/L	18:42:27
1	K 766.490 Radial†	14430.7	13499.7	[5000]	µg/L	18:42:27
1	Mg 279.077 IEC†	13338.9	13715.6	[5000]	µg/L	18:42:27
1	Sr 421.552†	229015.2	238891.4	[500]	µg/L	18:42:25
1	Sc 361.383	1645400.7	1645400.7	95.762	%	18:42:40
1	Y 371.029	975342.9	975342.9	94.999	%	18:42:40
1	Ag 328.068†	131294.3	133013.3	[500]	µg/L	18:42:40
1	As 188.979†	1571.6	1661.5	[500]	µg/L	18:43:00
1	B 249.677†	35172.1	33222.7	[500]	µg/L	18:42:40
1	Ba 233.527†	117348.5	122677.6	[500]	µg/L	18:42:40
1	Be 313.107†	1744827.1	1823108.9	[500]	µg/L	18:42:40
1	Cd 226.502†	75312.3	78763.4	[500]	µg/L	18:42:40
1	Co 228.616†	38245.0	40127.8	[500]	µg/L	18:42:40
1	Cr 267.716†	60545.4	63046.3	[500]	µg/L	18:42:40
1	Cu 324.752†	123884.9	126395.2	[500]	µg/L	18:42:40
1	Mn 257.610†	385575.1	402401.4	[500]	µg/L	18:42:40
1	Mo 202.031†	16410.2	17156.5	[500]	µg/L	18:43:00
1	Ni 231.604†	41126.2	43022.7	[500]	µg/L	18:42:40
1	P 214.914†	11303.9	11822.1	[2500]	µg/L	18:43:00
1	Pb 220.353†	8787.6	9090.2	[500]	µg/L	18:43:00
1	S 181.975 Axial†	1381.6	1337.7	[1000]	µg/L	18:43:00
1	Sb 206.836†	4130.5	4232.5	[500]	µg/L	18:43:00
1	Se 196.026†	1340.7	1384.8	[500]	µg/L	18:43:00
1	SiO2†	54250.1	54875.6	[5347.5]	µg/L	18:42:40
1	Si 251.611†	163679.1	170086.1	[2500]	µg/L	18:42:40
1	Sn 189.927†	7746.5	8090.4	[500]	µg/L	18:43:00
1	Ti 334.940†	510093.6	531715.2	[500]	µg/L	18:42:40
1	Tl 190.801†	3808.0	4093.2	[500]	µg/L	18:43:00
1	U 409.014†	6985.6	7564.6	[500]	µg/L	18:42:40
1	V 292.402†	96986.0	100874.3	[500]	µg/L	18:42:40
1	Zn 213.857†	84527.8	87704.2	[500]	µg/L	18:42:40
2	Sc RADIAL	141210.3	141210.3	96.8	%	18:42:31
2	Al 396.153Radial†	26176.8	27114.9	[5000]	µg/L	18:42:31
2	Ca 317.933Radial†	88277.8	90667.6	[5000]	µg/L	18:42:31
2	K 766.490 Radial†	14658.6	13603.8	[5000]	µg/L	18:42:31
2	Mg 279.077 IEC†	13508.7	13769.5	[5000]	µg/L	18:42:31
2	Sr 421.552†	232944.0	240864.6	[500]	µg/L	18:42:29
2	Sc 361.383	1687203.1	1687203.1	98.195	%	18:43:03
2	Y 371.029	998510.1	998510.1	97.255	%	18:43:03
2	Ag 328.068†	134607.0	132990.0	[500]	µg/L	18:43:03
2	As 188.979†	1586.5	1636.0	[500]	µg/L	18:43:23
2	B 249.677†	36433.6	33597.5	[500]	µg/L	18:43:03
2	Ba 233.527†	121232.8	123597.1	[500]	µg/L	18:43:03
2	Be 313.107†	1799842.1	1833991.9	[500]	µg/L	18:43:03
2	Cd 226.502†	78158.8	79713.7	[500]	µg/L	18:43:03
2	Co 228.616†	39721.5	40642.0	[500]	µg/L	18:43:03
2	Cr 267.716†	62227.1	63192.4	[500]	µg/L	18:43:03
2	Cu 324.752†	127576.9	126949.9	[500]	µg/L	18:43:03
2	Mn 257.610†	397913.1	404990.4	[500]	µg/L	18:43:03
2	Mo 202.031†	16475.5	16798.5	[500]	µg/L	18:43:23
2	Ni 231.604†	42320.9	43175.4	[500]	µg/L	18:43:03
2	P 214.914†	11321.5	11547.6	[2500]	µg/L	18:43:23
2	Pb 220.353†	8841.9	8918.0	[500]	µg/L	18:43:23
2	S 181.975 Axial†	1404.5	1325.2	[1000]	µg/L	18:43:23
2	Sb 206.836†	4150.6	4146.1	[500]	µg/L	18:43:23
2	Se 196.026†	1352.6	1362.2	[500]	µg/L	18:43:23
2	SiO2†	55913.1	55165.5	[5347.5]	µg/L	18:43:03

2	Si 251.611†	169027.8	171298.3	[2500]	µg/L	18:43:03
2	Sn 189.927†	7793.7	7938.1	[500]	µg/L	18:43:23
2	Ti 334.940†	524282.8	532967.8	[500]	µg/L	18:43:03
2	Tl 190.801†	3829.1	4016.1	[500]	µg/L	18:43:23
2	U 409.014†	7204.4	7606.8	[500]	µg/L	18:43:03
2	V 292.402†	99476.3	100901.1	[500]	µg/L	18:43:03
2	Zn 213.857†	87574.3	88619.7	[500]	µg/L	18:43:03
3	Sc RADIAL	139845.9	139845.9	95.8	%	18:42:35
3	Al 396.153Radial†	25970.7	27163.8	[5000]	µg/L	18:42:35
3	Ca 317.933Radial†	87048.7	90275.0	[5000]	µg/L	18:42:35
3	K 766.490 Radial†	14322.7	13401.0	[5000]	µg/L	18:42:35
3	Mg 279.077 IEC†	13177.9	13560.5	[5000]	µg/L	18:42:35
3	Sr 421.552†	232490.3	242739.9	[500]	µg/L	18:42:33
3	Sc 361.383	1671427.9	1671427.9	97.277	%	18:43:26
3	Y 371.029	990579.4	990579.4	96.483	%	18:43:26
3	Ag 328.068†	132744.3	132368.9	[500]	µg/L	18:43:26
3	As 188.979†	1563.8	1627.9	[500]	µg/L	18:43:46
3	B 249.677†	35824.9	33321.9	[500]	µg/L	18:43:26
3	Ba 233.527†	119283.9	122759.0	[500]	µg/L	18:43:26
3	Be 313.107†	1775117.0	1825874.0	[500]	µg/L	18:43:26
3	Cd 226.502†	77044.3	79319.2	[500]	µg/L	18:43:26
3	Co 228.616†	39106.1	40391.2	[500]	µg/L	18:43:26
3	Cr 267.716†	61510.3	63053.6	[500]	µg/L	18:43:26
3	Cu 324.752†	125724.5	126271.8	[500]	µg/L	18:43:26
3	Mn 257.610†	391730.1	402458.9	[500]	µg/L	18:43:26
3	Mo 202.031†	16447.7	16928.2	[500]	µg/L	18:43:46
3	Ni 231.604†	41833.4	43081.0	[500]	µg/L	18:43:26
3	P 214.914†	11306.9	11641.3	[2500]	µg/L	18:43:46
3	Pb 220.353†	8817.9	8978.4	[500]	µg/L	18:43:46
3	S 181.975 Axial†	1403.6	1337.8	[1000]	µg/L	18:43:46
3	Sb 206.836†	4107.1	4141.3	[500]	µg/L	18:43:46
3	Se 196.026†	1356.4	1379.1	[500]	µg/L	18:43:46
3	SiO2†	55098.9	54865.9	[5347.5]	µg/L	18:43:26
3	Si 251.611†	166541.0	170366.5	[2500]	µg/L	18:43:26
3	Sn 189.927†	7776.3	7995.1	[500]	µg/L	18:43:46
3	Ti 334.940†	517688.6	531228.1	[500]	µg/L	18:43:26
3	Tl 190.801†	3841.1	4065.3	[500]	µg/L	18:43:46
3	U 409.014†	7259.9	7733.0	[500]	µg/L	18:43:26
3	V 292.402†	98243.7	100590.2	[500]	µg/L	18:43:26
3	Zn 213.857†	86383.4	88237.2	[500]	µg/L	18:43:26

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1668010.6	21109.69	1.27%	97.078	%
Sc RADIAL	140344.1	753.01	0.54%	96.2	%
Y 371.029	988144.1	11774.03	1.19%	96.246	%
Ag 328.068†	132790.8	365.49	0.28%	[500]	µg/L
Al 396.153Radial†	27121.2	39.74	0.15%	[5000]	µg/L
As 188.979†	1641.8	17.55	1.07%	[500]	µg/L
B 249.677†	33380.7	194.18	0.58%	[500]	µg/L
Ba 233.527†	123011.2	509.04	0.41%	[500]	µg/L
Be 313.107†	1827658.3	5656.67	0.31%	[500]	µg/L
Ca 317.933Radial†	90494.7	200.40	0.22%	[5000]	µg/L
Cd 226.502†	79265.5	477.42	0.60%	[500]	µg/L
Co 228.616†	40387.0	257.10	0.64%	[500]	µg/L
Cr 267.716†	63097.4	82.35	0.13%	[500]	µg/L
Cu 324.752†	126538.9	361.18	0.29%	[500]	µg/L
K 766.490 Radial†	13501.5	101.39	0.75%	[5000]	µg/L
Mg 279.077 IEC†	13681.9	108.49	0.79%	[5000]	µg/L
Mn 257.610†	403283.6	1478.44	0.37%	[500]	µg/L
Mo 202.031†	16961.0	181.25	1.07%	[500]	µg/L
Ni 231.604†	43093.0	77.04	0.18%	[500]	µg/L
P 214.914†	11670.4	139.54	1.20%	[2500]	µg/L
Pb 220.353†	8995.5	87.32	0.97%	[500]	µg/L
S 181.975 Axial†	1333.6	7.24	0.54%	[1000]	µg/L
Sb 206.836†	4173.3	51.32	1.23%	[500]	µg/L
Se 196.026†	1375.4	11.73	0.85%	[500]	µg/L
SiO2†	54969.0	170.25	0.31%	[5347.5]	µg/L
Si 251.611†	170583.6	634.61	0.37%	[2500]	µg/L

Sn 189.927†	8007.9	76.96	0.96%	[500] µg/L
Sr 421.552†	240832.0	1924.44	0.80%	[500] µg/L
Ti 334.940†	531970.4	897.45	0.17%	[500] µg/L
Tl 190.801†	4058.2	39.03	0.96%	[500] µg/L
U 409.014†	7634.8	87.65	1.15%	[500] µg/L
V 292.402†	100788.5	172.29	0.17%	[500] µg/L
Zn 213.857†	88187.0	459.83	0.52%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/31/2010 18:43:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	140246.3	140246.3	96.1	%	18:44:26
1	Al 396.153Radial†	52689.3	54887.7	[10000]	µg/L	18:44:26
1	Ca 317.933Radial†	176157.7	182735.9	[10000]	µg/L	18:44:26
1	Fe 238.204 Radial†	157034.9	163250.7	[10000]	µg/L	18:44:26
1	K 766.490 Radial†	27864.8	27449.2	[10000]	µg/L	18:44:26
1	Mg 279.077 IEC†	26628.7	27517.1	[10000]	µg/L	18:44:26
1	Na 589.592 Radial†	71367.5	72968.9	[10000]	µg/L	18:44:26
1	Sr 421.552†	465887.4	484902.9	[1000]	µg/L	18:44:24
1	Sc 361.383	1660058.9	1660058.9	96.615	%	18:44:39
1	Y 371.029	978012.9	978012.9	95.259	%	18:44:39
1	Ag 328.068†	268618.1	273937.5	[1000]	µg/L	18:44:41
1	As 188.979†	3193.8	3326.1	[1000]	µg/L	18:45:01
1	B 249.677†	69762.5	68700.7	[1000]	µg/L	18:44:41
1	Ba 233.527†	242316.3	250941.5	[1000]	µg/L	18:44:41
1	Be 313.107†	3555578.2	3681209.5	[1000]	µg/L	18:44:39
1	Cd 226.502†	156604.8	162209.5	[1000]	µg/L	18:44:41
1	Co 228.616†	78951.1	81907.4	[1000]	µg/L	18:44:41
1	Cr 267.716†	125005.7	129206.6	[1000]	µg/L	18:44:41
1	Cu 324.752†	255303.1	261275.2	[1000]	µg/L	18:44:41
1	Mn 257.610†	781879.7	809034.9	[1000]	µg/L	18:44:39
1	Mo 202.031†	33228.9	34413.1	[1000]	µg/L	18:44:41
1	Ni 231.604†	84765.4	87811.6	[1000]	µg/L	18:44:41
1	P 214.914†	22636.2	23447.2	[5000]	µg/L	18:45:01
1	Pb 220.353†	17407.6	17931.0	[1000]	µg/L	18:45:01
1	S 181.975 Axial†	2706.2	2696.0	[2000]	µg/L	18:45:01
1	Sb 206.836†	8264.7	8473.4	[1000]	µg/L	18:45:01
1	Se 196.026†	2709.4	2789.0	[1000]	µg/L	18:45:01
1	SiO2†	108329.2	110349.0	[10695]	µg/L	18:44:41
1	Si 251.611†	331285.5	342055.2	[5000]	µg/L	18:44:41
1	Sn 189.927†	15541.6	16087.2	[1000]	µg/L	18:45:01
1	Ti 334.940†	1037686.9	1073088.8	[1000]	µg/L	18:44:39
1	Tl 190.801†	7778.7	8167.9	[1000]	µg/L	18:45:01
1	U 409.014†	16858.3	17718.8	[1000]	µg/L	18:44:41
1	V 292.402†	201478.5	208133.3	[1000]	µg/L	18:44:41
1	Zn 213.857†	174510.7	180060.2	[1000]	µg/L	18:44:41
2	Sc RADIAL	138844.4	138844.4	95.1	%	18:44:30
2	Al 396.153Radial†	52161.3	54886.4	[10000]	µg/L	18:44:30
2	Ca 317.933Radial†	173493.6	181786.6	[10000]	µg/L	18:44:30
2	Fe 238.204 Radial†	154887.4	162643.3	[10000]	µg/L	18:44:30
2	K 766.490 Radial†	27455.0	27311.3	[10000]	µg/L	18:44:30
2	Mg 279.077 IEC†	26420.5	27578.1	[10000]	µg/L	18:44:30
2	Na 589.592 Radial†	70508.9	72816.3	[10000]	µg/L	18:44:30
2	Sr 421.552†	460810.9	484461.8	[1000]	µg/L	18:44:28
2	Sc 361.383	1689699.6	1689699.6	98.340	%	18:45:04
2	Y 371.029	993860.1	993860.1	96.802	%	18:45:04
2	Ag 328.068†	266910.5	267323.9	[1000]	µg/L	18:45:06
2	As 188.979†	3218.4	3293.1	[1000]	µg/L	18:45:26
2	B 249.677†	69508.7	67175.9	[1000]	µg/L	18:45:06
2	Ba 233.527†	241134.5	245340.1	[1000]	µg/L	18:45:06
2	Be 313.107†	3627090.7	3689371.8	[1000]	µg/L	18:45:04
2	Cd 226.502†	155509.2	158252.0	[1000]	µg/L	18:45:06
2	Co 228.616†	78490.7	80005.8	[1000]	µg/L	18:45:06
2	Cr 267.716†	124369.4	126289.8	[1000]	µg/L	18:45:06
2	Cu 324.752†	253180.3	254481.2	[1000]	µg/L	18:45:06
2	Mn 257.610†	797903.6	811133.0	[1000]	µg/L	18:45:04
2	Mo 202.031†	33052.4	33630.3	[1000]	µg/L	18:45:06
2	Ni 231.604†	84350.1	85850.2	[1000]	µg/L	18:45:06
2	P 214.914†	22849.9	23253.5	[5000]	µg/L	18:45:26
2	Pb 220.353†	17581.2	17791.6	[1000]	µg/L	18:45:26

2	S 181.975 Axial†	2749.5	2690.8	[2000]	µg/L	18:45:26
2	Sb 206.836†	8294.0	8353.2	[1000]	µg/L	18:45:26
2	Se 196.026†	2710.1	2740.6	[1000]	µg/L	18:45:26
2	SiO2†	107785.0	107828.8	[10695]	µg/L	18:45:06
2	Si 251.611†	329317.5	334039.0	[5000]	µg/L	18:45:06
2	Sn 189.927†	15680.3	15946.1	[1000]	µg/L	18:45:26
2	Ti 334.940†	1057357.1	1074250.2	[1000]	µg/L	18:45:04
2	Tl 190.801†	7829.0	8077.8	[1000]	µg/L	18:45:26
2	U 409.014†	16641.8	17192.5	[1000]	µg/L	18:45:06
2	V 292.402†	200063.6	203036.4	[1000]	µg/L	18:45:06
2	Zn 213.857†	173774.1	176142.5	[1000]	µg/L	18:45:06
3	Sc RADIAL	142431.7	142431.7	97.6	%	18:44:34
3	Al 396.153Radial†	53146.2	54514.7	[10000]	µg/L	18:44:34
3	Ca 317.933Radial†	178392.5	182213.1	[10000]	µg/L	18:44:34
3	Fe 238.204 Radial†	159216.9	162979.1	[10000]	µg/L	18:44:34
3	K 766.490 Radial†	28289.6	27439.6	[10000]	µg/L	18:44:34
3	Mg 279.077 IEC†	27285.4	27764.8	[10000]	µg/L	18:44:34
3	Na 589.592 Radial†	72542.7	73033.5	[10000]	µg/L	18:44:34
3	Sr 421.552†	461335.7	472801.1	[1000]	µg/L	18:44:32
3	Sc 361.383	1671450.9	1671450.9	97.278	%	18:45:29
3	Y 371.029	984698.6	984698.6	95.910	%	18:45:29
3	Ag 328.068†	268839.9	272270.6	[1000]	µg/L	18:45:31
3	As 188.979†	3207.1	3317.1	[1000]	µg/L	18:45:51
3	B 249.677†	69920.1	68370.5	[1000]	µg/L	18:45:31
3	Ba 233.527†	242785.5	249714.4	[1000]	µg/L	18:45:31
3	Be 313.107†	3559181.4	3659831.0	[1000]	µg/L	18:45:29
3	Cd 226.502†	156473.3	160969.5	[1000]	µg/L	18:45:31
3	Co 228.616†	79020.9	81422.2	[1000]	µg/L	18:45:31
3	Cr 267.716†	125294.1	128621.2	[1000]	µg/L	18:45:31
3	Cu 324.752†	255275.0	259445.3	[1000]	µg/L	18:45:31
3	Mn 257.610†	783171.7	804847.3	[1000]	µg/L	18:45:29
3	Mo 202.031†	33174.1	34122.4	[1000]	µg/L	18:45:31
3	Ni 231.604†	84877.1	87328.4	[1000]	µg/L	18:45:31
3	P 214.914†	22811.2	23467.5	[5000]	µg/L	18:45:51
3	Pb 220.353†	17557.7	17962.6	[1000]	µg/L	18:45:51
3	S 181.975 Axial†	2739.9	2711.5	[2000]	µg/L	18:45:51
3	Sb 206.836†	8307.3	8458.9	[1000]	µg/L	18:45:51
3	Se 196.026†	2720.6	2781.4	[1000]	µg/L	18:45:51
3	SiO2†	108495.7	109756.0	[10695]	µg/L	18:45:31
3	Si 251.611†	331529.5	339969.0	[5000]	µg/L	18:45:31
3	Sn 189.927†	15666.1	16105.6	[1000]	µg/L	18:45:51
3	Ti 334.940†	1040566.4	1068728.6	[1000]	µg/L	18:45:29
3	Tl 190.801†	7842.2	8178.3	[1000]	µg/L	18:45:51
3	U 409.014†	16964.7	17709.3	[1000]	µg/L	18:45:31
3	V 292.402†	201223.5	206449.9	[1000]	µg/L	18:45:31
3	Zn 213.857†	174624.2	178945.7	[1000]	µg/L	18:45:31

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1673736.5	14951.98	0.89%	97.411	%
Sc RADIAL	140507.5	1807.88	1.29%	96.3	%
Y 371.029	985523.8	7955.77	0.81%	95.991	%
Ag 328.068†	271177.3	3439.65	1.27%	[1000]	µg/L
Al 396.153Radial†	54762.9	214.99	0.39%	[10000]	µg/L
As 188.979†	3312.1	17.04	0.51%	[1000]	µg/L
B 249.677†	68082.4	802.18	1.18%	[1000]	µg/L
Ba 233.527†	248665.4	2944.35	1.18%	[1000]	µg/L
Be 313.107†	3676804.1	15255.21	0.41%	[1000]	µg/L
Ca 317.933Radial†	182245.2	475.46	0.26%	[10000]	µg/L
Cd 226.502†	160477.0	2024.24	1.26%	[1000]	µg/L
Co 228.616†	81111.8	988.08	1.22%	[1000]	µg/L
Cr 267.716†	128039.2	1543.01	1.21%	[1000]	µg/L
Cu 324.752†	258400.5	3515.45	1.36%	[1000]	µg/L
Fe 238.204 Radial†	162957.7	304.26	0.19%	[10000]	µg/L
K 766.490 Radial†	27400.1	77.00	0.28%	[10000]	µg/L
Mg 279.077 IEC†	27620.0	129.06	0.47%	[10000]	µg/L
Mn 257.610†	808338.4	3200.20	0.40%	[1000]	µg/L
Mo 202.031†	34055.3	395.69	1.16%	[1000]	µg/L
Na 589.592 Radial†	72939.6	111.55	0.15%	[10000]	µg/L

Ni 231.604†	86996.7	1021.87	1.17%	[1000]	µg/L
P 214.914†	23389.4	118.12	0.51%	[5000]	µg/L
Pb 220.353†	17895.1	91.02	0.51%	[1000]	µg/L
S 181.975 Axial†	2699.4	10.77	0.40%	[2000]	µg/L
Sb 206.836†	8428.5	65.64	0.78%	[1000]	µg/L
Se 196.026†	2770.3	26.05	0.94%	[1000]	µg/L
SiO2†	109311.3	1317.66	1.21%	[10695]	µg/L
Si 251.611†	338687.7	4158.85	1.23%	[5000]	µg/L
Sn 189.927†	16046.3	87.25	0.54%	[1000]	µg/L
Sr 421.552†	480721.9	6863.20	1.43%	[1000]	µg/L
Ti 334.940†	1072022.5	2911.16	0.27%	[1000]	µg/L
Tl 190.801†	8141.3	55.30	0.68%	[1000]	µg/L
U 409.014†	17540.2	301.14	1.72%	[1000]	µg/L
V 292.402†	205873.2	2596.95	1.26%	[1000]	µg/L
Zn 213.857†	178382.8	2018.56	1.13%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/31/2010 18:45:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139343.3	139343.3	95.5	%	18:46:28
1	Al 396.153Radial†	256543.2	268732.8	[50000]	µg/L	18:46:28
1	Ca 317.933Radial†	856588.9	896517.6	[50000]	µg/L	18:46:28
1	Fe 238.204 Radial†	309603.0	324089.2	[20000]	µg/L	18:46:28
1	Mg 279.077 IEC†	128261.6	134133.6	[50000]	µg/L	18:46:28
1	Na 589.592 Radial†	141053.4	146429.9	[20000]	µg/L	18:46:28
1	Sc 361.383	1636602.8	1636602.8	95.250	%	18:46:50
1	Y 371.029	965973.5	965973.5	94.086	%	18:46:50
2	Sc RADIAL	137624.0	137624.0	94.3	%	18:46:30
2	Al 396.153Radial†	254363.4	269777.6	[50000]	µg/L	18:46:30
2	Ca 317.933Radial†	846244.8	896755.8	[50000]	µg/L	18:46:30
2	Fe 238.204 Radial†	305781.9	324087.9	[20000]	µg/L	18:46:30
2	Mg 279.077 IEC†	126264.9	133694.4	[50000]	µg/L	18:46:30
2	Na 589.592 Radial†	139489.2	146616.7	[20000]	µg/L	18:46:30
2	Sc 361.383	1622381.6	1622381.6	94.422	%	18:46:53
2	Y 371.029	956849.7	956849.7	93.198	%	18:46:53
3	Sc RADIAL	137980.0	137980.0	94.6	%	18:46:32
3	Al 396.153Radial†	255245.7	270015.0	[50000]	µg/L	18:46:32
3	Ca 317.933Radial†	849307.2	897679.9	[50000]	µg/L	18:46:32
3	Fe 238.204 Radial†	306725.7	324249.8	[20000]	µg/L	18:46:32
3	Mg 279.077 IEC†	127087.0	134218.4	[50000]	µg/L	18:46:32
3	Na 589.592 Radial†	139780.8	146543.6	[20000]	µg/L	18:46:32
3	Sc 361.383	1649813.3	1649813.3	96.019	%	18:46:56
3	Y 371.029	972430.3	972430.3	94.715	%	18:46:56

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1636265.9	13718.97	0.84%	95.230	%
Sc RADIAL	138315.8	907.47	0.66%	94.8	%
Y 371.029	965084.5	7828.26	0.81%	94.000	%
Al 396.153Radial†	269508.5	682.17	0.25%	[50000]	µg/L
Ca 317.933Radial†	896984.4	613.95	0.07%	[50000]	µg/L
Fe 238.204 Radial†	324142.3	93.07	0.03%	[20000]	µg/L
Mg 279.077 IEC†	134015.5	281.29	0.21%	[50000]	µg/L
Na 589.592 Radial†	146530.1	94.09	0.06%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	270.1	0.00000	0.999966	
Al 396.153Radial	3	Lin Thru 0	0.0	5.394	0.00000	0.999995	
As 188.979	3	Lin Thru 0	0.0	3.307	0.00000	0.999994	
B 249.677	3	Lin Thru 0	0.0	67.80	0.00000	0.999967	
Ba 233.527	3	Lin Thru 0	0.0	248.2	0.00000	0.999990	
Be 313.107	3	Lin Thru 0	0.0	3673	0.00000	0.999997	
Ca 317.933Radial	3	Lin Thru 0	0.0	17.95	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	160.1	0.00000	0.999988	
Co 228.616	3	Lin Thru 0	0.0	81.06	0.00000	0.999997	
Cr 267.716	3	Lin Thru 0	0.0	127.7	0.00000	0.999983	
Cu 324.752	3	Lin Thru 0	0.0	257.3	0.00000	0.999966	
Fe 238.204 Radia	2	Lin Thru 0	0.0	16.22	0.00000	0.999998	
K 766.490 Radial	3	Lin Thru 0	0.0	2.731	0.00000	0.999979	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.684	0.00000	0.999981	
Mn 257.610	3	Lin Thru 0	0.0	808.2	0.00000	0.999995	
Mo 202.031	3	Lin Thru 0	0.0	34.03	0.00000	0.999999	
Na 589.592 Radia	2	Lin Thru 0	0.0	7.320	0.00000	0.999998	

Ni 231.604	3	Lin Thru 0	0.0	86.85	0.00000	0.999991
P 214.914	3	Lin Thru 0	0.0	4.675	0.00000	0.999999
Pb 220.353	3	Lin Thru 0	0.0	17.92	0.00000	0.999996
S 181.975 Axial	3	Lin Thru 0	0.0	1.347	0.00000	0.999988
Sb 206.836	3	Lin Thru 0	0.0	8.412	0.00000	0.999992
Se 196.026	3	Lin Thru 0	0.0	2.766	0.00000	0.999995
SiO2	3	Lin Thru 0	0.0	10.23	0.00000	0.999996
Si 251.611	3	Lin Thru 0	0.0	67.83	0.00000	0.999995
Sn 189.927	3	Lin Thru 0	0.0	16.04	0.00000	0.999999
Sr 421.552	3	Lin Thru 0	0.0	481.0	0.00000	0.999997
Ti 334.940	3	Lin Thru 0	0.0	1070	0.00000	0.999995
Tl 190.801	3	Lin Thru 0	0.0	8.138	0.00000	0.999996
U 409.014	3	Lin Thru 0	0.0	17.10	0.00000	0.998547
V 292.402	3	Lin Thru 0	0.0	205.0	0.00000	0.999964
Zn 213.857	3	Lin Thru 0	0.0	178.0	0.00000	0.999990

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/31/2010 18:47:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142728.0	142728.0	97.8	%			18:47:35
1	Al 396.153Radial†	27196.1	27869.4	5141.6	µg/L	5141.6	ppb	18:47:35
1	Ca 317.933Radial†	89393.1	90837.9	5060.0	µg/L	5060.0	ppb	18:47:35
1	Fe 238.204 Radial†	80412.9	82068.7	5058.2	µg/L	5058.2	ppb	18:47:35
1	K 766.490 Radial†	8352.4	6995.0	2558.1	µg/L	2558.1	ppb	18:47:35
1	Mg 279.077 IEC†	14148.2	14274.9	5327.6	µg/L	5327.6	ppb	18:47:35
1	Na 589.592 Radial†	19150.9	18289.7	2496.3	µg/L	2496.3	ppb	18:47:35
1	Sr 421.552†	250356.1	256107.6	532.39	µg/L	532.39	ppb	18:47:33
1	Sc 361.383	1677195.1	1677195.1	97.612	%			18:47:48
1	Y 371.029	995806.6	995806.6	96.992	%			18:47:48
1	Ag 328.068†	70215.3	67841.3	257.54	µg/L	257.54	ppb	18:47:48
1	As 188.979†	1526.8	1584.5	486.58	µg/L	486.58	ppb	18:47:50
1	B 249.677†	37075.8	34476.8	506.67	µg/L	506.67	ppb	18:47:48
1	Ba 233.527†	122696.8	125833.7	507.50	µg/L	507.50	ppb	18:47:48
1	Be 313.107†	933729.3	957632.1	260.88	µg/L	260.88	ppb	18:47:48
1	Cd 226.502†	77657.9	79675.5	497.37	µg/L	497.37	ppb	18:47:48
1	Co 228.616†	40998.4	42191.5	520.85	µg/L	520.85	ppb	18:47:50
1	Cr 267.716†	62225.7	63569.1	497.75	µg/L	497.75	ppb	18:47:50
1	Cu 324.752†	130541.7	130762.4	509.73	µg/L	509.73	ppb	18:47:48
1	Mn 257.610†	407677.2	417411.4	516.24	µg/L	516.24	ppb	18:47:48
1	Mo 202.031†	18097.1	18559.8	545.92	µg/L	545.92	ppb	18:47:50
1	Ni 231.604†	43663.1	44807.6	515.93	µg/L	515.93	ppb	18:47:50
1	P 214.914†	11760.6	12066.2	2571.9	µg/L	2571.9	ppb	18:47:50
1	Pb 220.353†	9089.2	9225.1	516.68	µg/L	516.68	ppb	18:47:50
1	S 181.975 Axial†	3477.6	3457.6	2572.2	µg/L	2572.2	ppb	18:47:50
1	Sb 206.836†	4253.6	4276.8	510.30	µg/L	510.30	ppb	18:47:50
1	Se 196.026†	6905.2	7058.8	2550	µg/L	2550	ppb	18:47:50
1	SiO2†	106599.4	107431.3	10477	µg/L	10477	ppb	18:47:48
1	Si 251.611†	325209.4	332327.1	4888.6	µg/L	4888.6	ppb	18:47:48
1	Sn 189.927†	8509.6	8718.8	545.19	µg/L	545.19	ppb	18:47:50
1	Ti 334.940†	517306.5	529006.8	493.58	µg/L	493.58	ppb	18:47:48
1	Tl 190.801†	4208.4	4428.0	551.50	µg/L	551.50	ppb	18:47:50
1	U 409.014†	7246.7	7693.8	480.75	µg/L	480.75	ppb	18:47:48
1	V 292.402†	101371.8	103447.4	511.74	µg/L	511.74	ppb	18:47:48
1	Zn 213.857†	89039.6	90653.0	505.19	µg/L	505.19	ppb	18:47:48
2	Sc RADIAL	141472.3	141472.3	96.9	%			18:47:39
2	Al 396.153Radial†	26888.4	27798.8	5129.2	µg/L	5129.2	ppb	18:47:39
2	Ca 317.933Radial†	88063.7	90277.8	5028.8	µg/L	5028.8	ppb	18:47:39
2	Fe 238.204 Radial†	79583.4	81942.8	5050.5	µg/L	5050.5	ppb	18:47:39
2	K 766.490 Radial†	8113.5	6824.4	2495.6	µg/L	2495.6	ppb	18:47:39
2	Mg 279.077 IEC†	13969.8	14219.3	5306.5	µg/L	5306.5	ppb	18:47:39
2	Na 589.592 Radial†	19176.1	18489.5	2523.7	µg/L	2523.7	ppb	18:47:39
2	Sr 421.552†	244831.9	252681.3	525.27	µg/L	525.27	ppb	18:47:37
2	Sc 361.383	1698788.6	1698788.6	98.869	%			18:47:53
2	Y 371.029	1007373.3	1007373.3	98.119	%			18:47:53
2	Ag 328.068†	71291.0	68014.9	258.16	µg/L	258.16	ppb	18:47:53
2	As 188.979†	1532.9	1570.8	482.29	µg/L	482.29	ppb	18:47:55
2	B 249.677†	37726.0	34651.6	509.29	µg/L	509.29	ppb	18:47:53
2	Ba 233.527†	124221.9	125778.5	507.27	µg/L	507.27	ppb	18:47:53
2	Be 313.107†	946768.4	958661.3	261.16	µg/L	261.16	ppb	18:47:53
2	Cd 226.502†	78878.8	79899.1	498.76	µg/L	498.76	ppb	18:47:53
2	Co 228.616†	40427.2	41079.9	507.13	µg/L	507.13	ppb	18:47:55
2	Cr 267.716†	61613.4	62139.5	486.55	µg/L	486.55	ppb	18:47:55
2	Cu 324.752†	131991.8	130529.2	508.81	µg/L	508.81	ppb	18:47:53
2	Mn 257.610†	413215.3	417704.0	516.60	µg/L	516.60	ppb	18:47:53
2	Mo 202.031†	17824.6	18048.5	530.89	µg/L	530.89	ppb	18:47:55
2	Ni 231.604†	43042.2	43611.0	502.15	µg/L	502.15	ppb	18:47:55
2	P 214.914†	11581.1	11731.5	2500.3	µg/L	2500.3	ppb	18:47:55
2	Pb 220.353†	8959.4	8975.5	502.70	µg/L	502.70	ppb	18:47:55

2	S 181.975 Axial†	3387.2	3320.9	2470.5 µg/L	2470.5 ppb	18:47:55
2	Sb 206.836†	4183.4	4150.4	495.20 µg/L	495.20 ppb	18:47:55
2	Se 196.026†	6756.5	6818.5	2470 µg/L	2470 ppb	18:47:55
2	SiO2†	108026.4	107486.5	10483 µg/L	10483 ppb	18:47:53
2	Si 251.611†	330001.8	332939.4	4897.9 µg/L	4897.9 ppb	18:47:53
2	Sn 189.927†	8332.5	8429.0	527.12 µg/L	527.12 ppb	18:47:55
2	Ti 334.940†	523598.9	528634.8	493.24 µg/L	493.24 ppb	18:47:53
2	Tl 190.801†	4130.1	4294.0	535.11 µg/L	535.11 ppb	18:47:55
2	U 409.014†	7323.1	7676.7	479.70 µg/L	479.70 ppb	18:47:53
2	V 292.402†	102428.7	103196.4	510.32 µg/L	510.32 ppb	18:47:53
2	Zn 213.857†	90500.4	90971.0	507.07 µg/L	507.07 ppb	18:47:53
3	Sc RADIAL	141074.5	141074.5	96.7 %		18:47:43
3	Al 396.153Radial†	27024.0	28017.2	5169.9 µg/L	5169.9 ppb	18:47:43
3	Ca 317.933Radial†	88402.3	90884.2	5062.6 µg/L	5062.6 ppb	18:47:43
3	Fe 238.204 Radial†	79763.1	82360.1	5076.2 µg/L	5076.2 ppb	18:47:43
3	K 766.490 Radial†	8103.8	6838.0	2500.5 µg/L	2500.5 ppb	18:47:43
3	Mg 279.077 IEC†	14069.6	14363.2	5360.0 µg/L	5360.0 ppb	18:47:43
3	Na 589.592 Radial†	19066.5	18431.9	2515.8 µg/L	2515.8 ppb	18:47:43
3	Sr 421.552†	247012.7	255649.2	531.44 µg/L	531.44 ppb	18:47:41
3	Sc 361.383	1692022.5	1692022.5	98.475 %		18:47:58
3	Y 371.029	1004104.0	1004104.0	97.800 %		18:47:58
3	Ag 328.068†	71156.1	68166.3	258.74 µg/L	258.74 ppb	18:47:58
3	As 188.979†	1530.4	1574.5	483.34 µg/L	483.34 ppb	18:48:00
3	B 249.677†	37553.2	34628.7	508.97 µg/L	508.97 ppb	18:47:58
3	Ba 233.527†	123711.5	125762.6	507.21 µg/L	507.21 ppb	18:47:58
3	Be 313.107†	941930.7	957578.0	260.87 µg/L	260.87 ppb	18:47:58
3	Cd 226.502†	78415.4	79747.6	497.81 µg/L	497.81 ppb	18:47:58
3	Co 228.616†	39781.6	40587.8	501.06 µg/L	501.06 ppb	18:48:00
3	Cr 267.716†	60612.6	61372.4	480.54 µg/L	480.54 ppb	18:48:00
3	Cu 324.752†	131599.2	130664.3	509.34 µg/L	509.34 ppb	18:47:58
3	Mn 257.610†	411605.2	417740.2	516.64 µg/L	516.64 ppb	18:47:58
3	Mo 202.031†	17622.4	17915.3	526.98 µg/L	526.98 ppb	18:48:00
3	Ni 231.604†	42378.9	43111.5	496.40 µg/L	496.40 ppb	18:48:00
3	P 214.914†	11404.8	11599.3	2472.0 µg/L	2472.0 ppb	18:48:00
3	Pb 220.353†	8867.2	8918.1	499.49 µg/L	499.49 ppb	18:48:00
3	S 181.975 Axial†	3288.2	3234.1	2406.0 µg/L	2406.0 ppb	18:48:00
3	Sb 206.836†	4104.8	4087.6	487.75 µg/L	487.75 ppb	18:48:00
3	Se 196.026†	6722.3	6811.1	2460 µg/L	2460 ppb	18:48:00
3	SiO2†	107577.1	107467.2	10482 µg/L	10482 ppb	18:47:58
3	Si 251.611†	328691.1	332943.1	4898.1 µg/L	4898.1 ppb	18:47:58
3	Sn 189.927†	8196.6	8324.7	520.62 µg/L	520.62 ppb	18:48:00
3	Ti 334.940†	522557.7	529695.2	494.23 µg/L	494.23 ppb	18:47:58
3	Tl 190.801†	3987.3	4165.7	519.39 µg/L	519.39 ppb	18:48:00
3	U 409.014†	7372.3	7756.3	484.40 µg/L	484.40 ppb	18:47:58
3	V 292.402†	102179.3	103357.4	511.03 µg/L	511.03 ppb	18:47:58
3	Zn 213.857†	89790.3	90616.0	505.12 µg/L	505.12 ppb	18:47:58

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1689335.4	98.319	%	0.6428				0.65%
Sc RADIAL	141758.3	97.1	%	0.59				0.61%
Y 371.029	1002428.0	97.637	%	0.5808				0.59%
Ag 328.068†	68007.5	258.15	µg/L	0.601	258.15	ppb	0.601	0.23%
QC value within limits for Ag 328.068 Recovery = 103.26%								
Al 396.153Radial†	27895.2	5146.9	µg/L	20.85	5146.9	ppb	20.85	0.41%
QC value within limits for Al 396.153Radial Recovery = 102.94%								
As 188.979†	1576.6	484.07	µg/L	2.239	484.07	ppb	2.239	0.46%
QC value within limits for As 188.979 Recovery = 96.81%								
B 249.677†	34585.7	508.31	µg/L	1.434	508.31	ppb	1.434	0.28%
QC value within limits for B 249.677 Recovery = 101.66%								
Ba 233.527†	125791.6	507.32	µg/L	0.154	507.32	ppb	0.154	0.03%
QC value within limits for Ba 233.527 Recovery = 101.46%								
Be 313.107†	957957.1	260.97	µg/L	0.166	260.97	ppb	0.166	0.06%
QC value within limits for Be 313.107 Recovery = 104.39%								
Ca 317.933Radial†	90666.6	5050.5	µg/L	18.80	5050.5	ppb	18.80	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.01%								
Cd 226.502†	79774.1	497.98	µg/L	0.711	497.98	ppb	0.711	0.14%
QC value within limits for Cd 226.502 Recovery = 99.60%								
Co 228.616†	41286.4	509.68	µg/L	10.138	509.68	ppb	10.138	1.99%

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   QC value within limits for Co 228.616  Recovery = 101.94%
Cr 267.716†            62360.3      488.28 µg/L         8.733      488.28 ppb          8.733   1.79%
   QC value within limits for Cr 267.716  Recovery = 97.66%
Cu 324.752†           130652.0      509.29 µg/L         0.460      509.29 ppb          0.460   0.09%
   QC value within limits for Cu 324.752  Recovery = 101.86%
Fe 238.204 Radial†     82123.9      5061.6 µg/L         13.19      5061.6 ppb          13.19   0.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.23%
K 766.490 Radial†       6885.8      2518.1 µg/L         34.72      2518.1 ppb          34.72   1.38%
   QC value within limits for K 766.490 Radial  Recovery = 100.72%
Mg 279.077 IEC†        14285.8      5331.4 µg/L         26.95      5331.4 ppb          26.95   0.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.63%
Mn 257.610†           417618.5      516.49 µg/L         0.223      516.49 ppb          0.223   0.04%
   QC value within limits for Mn 257.610  Recovery = 103.30%
Mo 202.031†            18174.5      534.59 µg/L         9.999      534.59 ppb          9.999   1.87%
   QC value within limits for Mo 202.031  Recovery = 106.92%
Na 589.592 Radial†     18403.7      2511.9 µg/L         14.08      2511.9 ppb          14.08   0.56%
   QC value within limits for Na 589.592 Radial  Recovery = 100.48%
Ni 231.604†            43843.4      504.82 µg/L        10.036      504.82 ppb         10.036   1.99%
   QC value within limits for Ni 231.604  Recovery = 100.96%
P 214.914†             11799.0      2514.8 µg/L         51.47      2514.8 ppb          51.47   2.05%
   QC value within limits for P 214.914  Recovery = 100.59%
Pb 220.353†             9039.6      506.29 µg/L         9.140      506.29 ppb          9.140   1.81%
   QC value within limits for Pb 220.353  Recovery = 101.26%
S 181.975 Axial†        3337.5      2482.9 µg/L         83.76      2482.9 ppb          83.76   3.37%
   QC value within limits for S 181.975 Axial  Recovery = 99.32%
Sb 206.836†             4171.6      497.75 µg/L        11.489      497.75 ppb         11.489   2.31%
   QC value within limits for Sb 206.836  Recovery = 99.55%
Se 196.026†             6896.1        2500 µg/L          50.9        2500 ppb           50.9   2.04%
   QC value within limits for Se 196.026  Recovery = 99.81%
SiO2†                 107461.7       10481 µg/L           3.1       10481 ppb            3.1   0.03%
   QC value within limits for SiO2  Recovery = 98.00%
Si 251.611†           332736.6      4894.9 µg/L          5.44      4894.9 ppb          5.44   0.11%
   QC value within limits for Si 251.611  Recovery = 97.90%
Sn 189.927†             8490.8      530.98 µg/L        12.731      530.98 ppb         12.731   2.40%
   QC value within limits for Sn 189.927  Recovery = 106.20%
Sr 421.552†           254812.7      529.70 µg/L         3.867      529.70 ppb          3.867   0.73%
   QC value within limits for Sr 421.552  Recovery = 105.94%
Ti 334.940†           529112.2      493.68 µg/L         0.501      493.68 ppb          0.501   0.10%
   QC value within limits for Ti 334.940  Recovery = 98.74%
Tl 190.801†             4295.9      535.33 µg/L        16.060      535.33 ppb         16.060   3.00%
   QC value within limits for Tl 190.801  Recovery = 107.07%
U 409.014†              7709.0      481.62 µg/L         2.468      481.62 ppb          2.468   0.51%
   QC value within limits for U 409.014  Recovery = 96.32%
V 292.402†            103333.7      511.03 µg/L         0.714      511.03 ppb          0.714   0.14%
   QC value within limits for V 292.402  Recovery = 102.21%
Zn 213.857†            90746.7      505.79 µg/L         1.109      505.79 ppb          1.109   0.22%
   QC value within limits for Zn 213.857  Recovery = 101.16%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/31/2010 18:48:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141820.7	141820.7	97.2	%			18:48:38
1	Al 396.153Radial†	-23.3	39.2	7.2759	µg/L	7.2759	ppb	18:48:58
1	Ca 317.933Radial†	601.1	58.0	3.2284	µg/L	3.2284	ppb	18:48:58
1	Fe 238.204 Radial†	172.3	29.2	1.7975	µg/L	1.7975	ppb	18:48:58
1	K 766.490 Radial†	1651.6	154.7	56.635	µg/L	56.635	ppb	18:48:38
1	Mg 279.077 IEC†	178.4	-7.1	-2.6584	µg/L	-2.6584	ppb	18:48:58
1	Na 589.592 Radial†	1421.8	172.2	23.470	µg/L	23.470	ppb	18:48:38
1	Sr 421.552†	-137.1	-5.8	-0.0120	µg/L	-0.0120	ppb	18:48:38
1	Sc 361.383	1683915.8	1683915.8	98.004	%			18:50:00
1	Y 371.029	1008438.2	1008438.2	98.222	%			18:50:00
1	Ag 328.068†	3988.4	-21.8	-0.0966	µg/L	-0.0966	ppb	18:50:02
1	As 188.979†	-16.6	3.4	1.0196	µg/L	1.0196	ppb	18:50:22
1	B 249.677†	3689.5	258.8	3.8157	µg/L	3.8157	ppb	18:50:02
1	Ba 233.527†	-144.6	-11.7	-0.0475	µg/L	-0.0475	ppb	18:50:22
1	Be 313.107†	-835.0	212.7	0.0556	µg/L	0.0556	ppb	18:50:02
1	Cd 226.502†	-86.3	30.1	0.1877	µg/L	0.1877	ppb	18:50:22
1	Co 228.616†	-156.6	30.5	0.3761	µg/L	0.3761	ppb	18:50:22
1	Cr 267.716†	188.6	13.8	0.1142	µg/L	0.1142	ppb	18:50:22
1	Cu 324.752†	2866.9	-46.9	-0.1882	µg/L	-0.1882	ppb	18:50:02
1	Mn 257.610†	237.6	5.2	0.0065	µg/L	0.0065	ppb	18:50:22
1	Mo 202.031†	-20.5	-0.8	-0.0238	µg/L	-0.0238	ppb	18:50:22
1	Ni 231.604†	-85.2	-10.4	-0.1202	µg/L	-0.1202	ppb	18:50:22
1	P 214.914†	-19.5	-2.0	-0.4133	µg/L	-0.4133	ppb	18:50:22
1	Pb 220.353†	104.1	19.8	1.1130	µg/L	1.1130	ppb	18:50:22
1	S 181.975 Axial†	94.9	-8.2	-6.0991	µg/L	-6.0991	ppb	18:50:22
1	Sb 206.836†	83.0	3.9	0.4581	µg/L	0.4581	ppb	18:50:22
1	Se 196.026†	16.9	2.0	0.709	µg/L	0.709	ppb	18:50:22
1	SiO2†	1750.1	10.4	1.0001	µg/L	1.0001	ppb	18:50:22
1	Si 251.611†	692.5	-130.0	-1.9216	µg/L	-1.9216	ppb	18:50:02
1	Sn 189.927†	12.8	14.2	0.8842	µg/L	0.8842	ppb	18:50:22
1	Ti 334.940†	967.2	34.4	0.0355	µg/L	0.0355	ppb	18:50:02
1	Tl 190.801†	-113.3	1.1	0.1286	µg/L	0.1286	ppb	18:50:22
1	U 409.014†	-392.4	-130.5	-7.6641	µg/L	-7.6641	ppb	18:50:02
1	V 292.402†	288.2	-109.7	-0.5404	µg/L	-0.5404	ppb	18:50:02
1	Zn 213.857†	580.6	28.0	0.1584	µg/L	0.1584	ppb	18:50:22
2	Sc RADIAL	141475.5	141475.5	96.9	%			18:49:00
2	Al 396.153Radial†	-59.5	1.9	0.3293	µg/L	0.3293	ppb	18:49:20
2	Ca 317.933Radial†	582.6	40.4	2.2485	µg/L	2.2485	ppb	18:49:20
2	Fe 238.204 Radial†	177.4	34.9	2.1506	µg/L	2.1506	ppb	18:49:20
2	K 766.490 Radial†	1678.4	186.4	68.259	µg/L	68.259	ppb	18:49:00
2	Mg 279.077 IEC†	195.6	11.1	4.1266	µg/L	4.1266	ppb	18:49:20
2	Na 589.592 Radial†	1313.4	64.0	8.6800	µg/L	8.6800	ppb	18:49:00
2	Sr 421.552†	-263.2	-136.2	-0.2832	µg/L	-0.2832	ppb	18:49:00
2	Sc 361.383	1681105.0	1681105.0	97.840	%			18:50:24
2	Y 371.029	1006809.9	1006809.9	98.064	%			18:50:24
2	Ag 328.068†	3899.5	-105.8	-0.4010	µg/L	-0.4010	ppb	18:50:26
2	As 188.979†	-14.2	5.9	1.7810	µg/L	1.7810	ppb	18:50:47
2	B 249.677†	3479.7	50.7	0.7461	µg/L	0.7461	ppb	18:50:26
2	Ba 233.527†	-126.1	7.0	0.0284	µg/L	0.0284	ppb	18:50:47
2	Be 313.107†	-932.6	111.6	0.0281	µg/L	0.0281	ppb	18:50:26
2	Cd 226.502†	-94.6	21.5	0.1342	µg/L	0.1342	ppb	18:50:47
2	Co 228.616†	-159.1	27.7	0.3416	µg/L	0.3416	ppb	18:50:47
2	Cr 267.716†	205.7	31.7	0.2541	µg/L	0.2541	ppb	18:50:47
2	Cu 324.752†	2760.4	-150.9	-0.5921	µg/L	-0.5921	ppb	18:50:26
2	Mn 257.610†	248.9	17.1	0.0210	µg/L	0.0210	ppb	18:50:47
2	Mo 202.031†	-6.8	13.1	0.3848	µg/L	0.3848	ppb	18:50:47
2	Ni 231.604†	-77.1	-2.3	-0.0264	µg/L	-0.0264	ppb	18:50:47
2	P 214.914†	-8.5	9.3	1.9937	µg/L	1.9937	ppb	18:50:47
2	Pb 220.353†	88.9	4.5	0.2582	µg/L	0.2582	ppb	18:50:47

2	S 181.975 Axial†	97.2	-5.7	-4.2111 µg/L	-4.2111 ppb	18:50:47
2	Sb 206.836†	84.7	5.7	0.6836 µg/L	0.6836 ppb	18:50:47
2	Se 196.026†	31.5	16.9	6.11 µg/L	6.11 ppb	18:50:47
2	SiO2†	1754.7	18.0	1.7515 µg/L	1.7515 ppb	18:50:47
2	Si 251.611†	708.6	-112.3	-1.6605 µg/L	-1.6605 ppb	18:50:26
2	Sn 189.927†	-0.8	0.3	0.0171 µg/L	0.0171 ppb	18:50:47
2	Ti 334.940†	917.4	-14.9	-0.0112 µg/L	-0.0112 ppb	18:50:26
2	Tl 190.801†	-109.7	4.5	0.5537 µg/L	0.5537 ppb	18:50:47
2	U 409.014†	-392.0	-130.8	-7.6468 µg/L	-7.6468 ppb	18:50:26
2	V 292.402†	396.5	1.4	0.0068 µg/L	0.0068 ppb	18:50:26
2	Zn 213.857†	557.8	5.7	0.0323 µg/L	0.0323 ppb	18:50:47
3	Sc RADIAL	140788.0	140788.0	96.5 %		18:49:22
3	Al 396.153Radial†	-53.3	8.0	1.4950 µg/L	1.4950 ppb	18:49:42
3	Ca 317.933Radial†	570.5	30.7	1.7106 µg/L	1.7106 ppb	18:49:42
3	Fe 238.204 Radial†	153.8	11.4	0.7002 µg/L	0.7002 ppb	18:49:42
3	K 766.490 Radial†	1509.3	19.7	7.1988 µg/L	7.1988 ppb	18:49:22
3	Mg 279.077 IEC†	187.5	3.6	1.3339 µg/L	1.3339 ppb	18:49:42
3	Na 589.592 Radial†	1241.2	-4.3	-0.5891 µg/L	-0.5891 ppb	18:49:22
3	Sr 421.552†	-62.3	70.7	0.1469 µg/L	0.1469 ppb	18:49:22
3	Sc 361.383	1702475.2	1702475.2	99.084 %		18:50:49
3	Y 371.029	1019278.2	1019278.2	99.278 %		18:50:49
3	Ag 328.068†	3893.2	-162.2	-0.6047 µg/L	-0.6047 ppb	18:50:51
3	As 188.979†	-11.0	9.3	2.8073 µg/L	2.8073 ppb	18:51:11
3	B 249.677†	3493.6	20.0	0.2957 µg/L	0.2957 ppb	18:50:51
3	Ba 233.527†	-155.1	-20.7	-0.0837 µg/L	-0.0837 ppb	18:51:11
3	Be 313.107†	-918.7	137.5	0.0367 µg/L	0.0367 ppb	18:50:51
3	Cd 226.502†	-90.2	27.2	0.1697 µg/L	0.1697 ppb	18:51:11
3	Co 228.616†	-191.5	-3.0	-0.0369 µg/L	-0.0369 ppb	18:51:11
3	Cr 267.716†	192.8	16.1	0.1277 µg/L	0.1277 ppb	18:51:11
3	Cu 324.752†	2902.8	-42.6	-0.1675 µg/L	-0.1675 ppb	18:50:51
3	Mn 257.610†	221.1	-14.1	-0.0175 µg/L	-0.0175 ppb	18:51:11
3	Mo 202.031†	-27.6	-7.7	-0.2274 µg/L	-0.2274 ppb	18:51:11
3	Ni 231.604†	-80.3	-4.5	-0.0519 µg/L	-0.0519 ppb	18:51:11
3	P 214.914†	-10.6	7.3	1.5639 µg/L	1.5639 ppb	18:51:11
3	Pb 220.353†	87.5	1.9	0.1068 µg/L	0.1068 ppb	18:51:11
3	S 181.975 Axial†	108.2	4.2	3.0845 µg/L	3.0845 ppb	18:51:11
3	Sb 206.836†	65.7	-14.5	-1.7326 µg/L	-1.7326 ppb	18:51:11
3	Se 196.026†	1.4	-13.8	-5.00 µg/L	-5.00 ppb	18:51:11
3	SiO2†	1771.9	13.0	1.2622 µg/L	1.2622 ppb	18:51:11
3	Si 251.611†	804.4	-24.7	-0.3658 µg/L	-0.3658 ppb	18:50:51
3	Sn 189.927†	10.9	12.2	0.7583 µg/L	0.7583 ppb	18:51:11
3	Ti 334.940†	1048.8	105.9	0.0999 µg/L	0.0999 ppb	18:50:51
3	Tl 190.801†	-119.3	-3.7	-0.4558 µg/L	-0.4558 ppb	18:51:11
3	U 409.014†	-309.5	-42.5	-2.4891 µg/L	-2.4891 ppb	18:50:51
3	V 292.402†	382.0	-18.2	-0.0926 µg/L	-0.0926 ppb	18:50:51
3	Zn 213.857†	566.8	7.7	0.0435 µg/L	0.0435 ppb	18:51:11

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1689165.4	98.309	%	0.6758				0.69%
Sc RADIAL	141361.4	96.9	%	0.36				0.37%
Y 371.029	1011508.8	98.521	%	0.6601				0.67%
Ag 328.068†	-96.6	-0.3674	µg/L	0.25571	-0.3674	ppb	0.25571	69.60%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	16.4	3.0334	µg/L	3.72004	3.0334	ppb	3.72004	122.63%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	1.8693	µg/L	0.89713	1.8693	ppb	0.89713	47.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	109.8	1.6192	µg/L	1.91554	1.6192	ppb	1.91554	118.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.5	-0.0343	µg/L	0.05718	-0.0343	ppb	0.05718	166.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	153.9	0.0401	µg/L	0.01409	0.0401	ppb	0.01409	35.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	43.0	2.3958	µg/L	0.76955	2.3958	ppb	0.76955	32.12%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	26.3	0.1639	µg/L	0.02723	0.1639	ppb	0.02723	16.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.4	0.2269	µg/L	0.22917	0.2269	ppb	0.22917	100.99%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                20.5      0.1654 µg/L       0.07718      0.1654 ppb        0.07718  46.67%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -80.1     -0.3159 µg/L       0.23936     -0.3159 ppb        0.23936  75.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         25.1      1.5494 µg/L       0.75637      1.5494 ppb        0.75637  48.82%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         120.3      44.031 µg/L       32.4227      44.031 ppb        32.4227  73.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.5      0.9341 µg/L       3.41013      0.9341 ppb        3.41013 365.09%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                2.7      0.0033 µg/L       0.01944      0.0033 ppb        0.01944 582.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.5      0.0446 µg/L       0.31176      0.0446 ppb        0.31176 699.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         77.3      10.520 µg/L       12.1345      10.520 ppb        12.1345 115.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.7     -0.0661 µg/L       0.04849     -0.0661 ppb        0.04849  73.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 4.9      1.0481 µg/L       1.28372      1.0481 ppb        1.28372 122.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                8.7      0.4927 µg/L       0.54252      0.4927 ppb        0.54252 110.12%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.2     -2.4085 µg/L       4.84991     -2.4085 ppb        4.84991 201.36%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -1.6     -0.1970 µg/L       1.33468     -0.1970 ppb        1.33468 677.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.7       0.603 µg/L        5.5558       0.603 ppb         5.5558 920.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     13.8      1.3380 µg/L       0.38138      1.3380 ppb        0.38138  28.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -89.0     -1.3160 µg/L       0.83316     -1.3160 ppb        0.83316  63.31%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                8.9      0.5532 µg/L       0.46851      0.5532 ppb        0.46851  84.69%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -23.8     -0.0494 µg/L       0.21749     -0.0494 ppb        0.21749 439.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               41.8      0.0414 µg/L       0.05575      0.0414 ppb        0.05575 134.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.6      0.0755 µg/L       0.50686      0.0755 ppb        0.50686 671.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -101.3     -5.9334 µg/L       2.98281     -5.9334 ppb        2.98281  50.27%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -42.2     -0.2088 µg/L       0.29151     -0.2088 ppb        0.29151 139.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               13.8      0.0780 µg/L       0.06978      0.0780 ppb        0.06978  89.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 3/31/2010 18:51:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140861.4	140861.4	96.5	%			18:51:48
1	Al 396.153Radial†	987.6	1086.3	200.96	µg/L	200.96	ppb	18:51:50
1	Ca 317.933Radial†	4191.0	3781.2	210.63	µg/L	210.63	ppb	18:51:50
1	Fe 238.204 Radial†	1792.5	1708.9	105.32	µg/L	105.32	ppb	18:51:50
1	K 766.490 Radial†	1849.3	371.1	135.70	µg/L	135.70	ppb	18:51:48
1	Mg 279.077 IEC†	1004.6	850.0	316.85	µg/L	316.85	ppb	18:51:50
1	Na 589.592 Radial†	3218.7	2043.7	279.07	µg/L	279.07	ppb	18:51:50
1	Sr 421.552†	2356.1	2576.2	5.3541	µg/L	5.3541	ppb	18:51:50
1	Sc 361.383	1696993.3	1696993.3	98.765	%			18:52:02
1	Y 371.029	1016566.5	1016566.5	99.014	%			18:52:02
1	Ag 328.068†	5094.4	1066.7	4.0516	µg/L	4.0516	ppb	18:52:04
1	As 188.979†	82.8	104.2	31.603	µg/L	31.603	ppb	18:52:24
1	B 249.677†	6532.0	3107.8	45.816	µg/L	45.816	ppb	18:52:04
1	Ba 233.527†	1080.9	1230.2	4.9619	µg/L	4.9619	ppb	18:52:24
1	Be 313.107†	16638.5	17911.3	4.8913	µg/L	4.8913	ppb	18:52:04
1	Cd 226.502†	682.8	809.6	5.0479	µg/L	5.0479	ppb	18:52:24
1	Co 228.616†	230.9	424.1	5.2325	µg/L	5.2325	ppb	18:52:24
1	Cr 267.716†	759.8	590.7	4.5885	µg/L	4.5885	ppb	18:52:24
1	Cu 324.752†	5375.4	2470.4	9.6665	µg/L	9.6665	ppb	18:52:04
1	Mn 257.610†	8461.3	8329.9	10.294	µg/L	10.294	ppb	18:52:04
1	Mo 202.031†	297.2	321.0	9.4457	µg/L	9.4457	ppb	18:52:24
1	Ni 231.604†	359.2	440.2	5.0686	µg/L	5.0686	ppb	18:52:24
1	P 214.914†	662.2	688.4	147.09	µg/L	147.09	ppb	18:52:24
1	Pb 220.353†	275.6	192.6	10.753	µg/L	10.753	ppb	18:52:24
1	S 181.975 Axial†	231.8	129.7	96.360	µg/L	96.360	ppb	18:52:24
1	Sb 206.836†	150.3	71.3	8.5656	µg/L	8.5656	ppb	18:52:24
1	Se 196.026†	92.5	78.4	28.4	µg/L	28.4	ppb	18:52:24
1	SiO2†	3882.7	2155.9	210.31	µg/L	210.31	ppb	18:52:04
1	Si 251.611†	7564.5	6822.6	100.39	µg/L	100.39	ppb	18:52:04
1	Sn 189.927†	162.8	165.9	10.360	µg/L	10.360	ppb	18:52:24
1	Ti 334.940†	6150.6	5275.0	4.8870	µg/L	4.8870	ppb	18:52:04
1	Tl 190.801†	46.5	163.8	20.204	µg/L	20.204	ppb	18:52:24
1	U 409.014†	536.3	812.9	47.827	µg/L	47.827	ppb	18:52:04
1	V 292.402†	1270.3	882.4	4.4384	µg/L	4.4384	ppb	18:52:04
1	Zn 213.857†	2321.2	1785.9	9.9841	µg/L	9.9841	ppb	18:52:24
2	Sc RADIAL	140936.7	140936.7	96.6	%			18:51:52
2	Al 396.153Radial†	972.6	1070.3	198.01	µg/L	198.01	ppb	18:51:54
2	Ca 317.933Radial†	4253.2	3843.3	214.09	µg/L	214.09	ppb	18:51:54
2	Fe 238.204 Radial†	1742.6	1656.2	102.08	µg/L	102.08	ppb	18:51:54
2	K 766.490 Radial†	1908.6	431.4	157.79	µg/L	157.79	ppb	18:51:52
2	Mg 279.077 IEC†	969.9	813.6	303.26	µg/L	303.26	ppb	18:51:54
2	Na 589.592 Radial†	3291.7	2117.5	289.13	µg/L	289.13	ppb	18:51:54
2	Sr 421.552†	2245.5	2460.3	5.1132	µg/L	5.1132	ppb	18:51:54
2	Sc 361.383	1687966.3	1687966.3	98.239	%			18:52:26
2	Y 371.029	1011019.5	1011019.5	98.474	%			18:52:26
2	Ag 328.068†	5292.9	1296.4	4.8998	µg/L	4.8998	ppb	18:52:28
2	As 188.979†	83.0	104.8	31.803	µg/L	31.803	ppb	18:52:48
2	B 249.677†	6698.9	3313.0	48.843	µg/L	48.843	ppb	18:52:28
2	Ba 233.527†	1087.4	1242.7	5.0120	µg/L	5.0120	ppb	18:52:48
2	Be 313.107†	16507.3	17867.9	4.8796	µg/L	4.8796	ppb	18:52:28
2	Cd 226.502†	680.2	810.6	5.0545	µg/L	5.0545	ppb	18:52:48
2	Co 228.616†	236.4	430.9	5.3167	µg/L	5.3167	ppb	18:52:48
2	Cr 267.716†	835.7	672.2	5.2260	µg/L	5.2260	ppb	18:52:48
2	Cu 324.752†	5528.6	2655.4	10.385	µg/L	10.385	ppb	18:52:28
2	Mn 257.610†	8398.7	8312.0	10.272	µg/L	10.272	ppb	18:52:28
2	Mo 202.031†	283.2	308.3	9.0728	µg/L	9.0728	ppb	18:52:48
2	Ni 231.604†	357.6	440.5	5.0722	µg/L	5.0722	ppb	18:52:48
2	P 214.914†	662.1	691.9	147.84	µg/L	147.84	ppb	18:52:48
2	Pb 220.353†	294.5	213.4	11.913	µg/L	11.913	ppb	18:52:48

2	S 181.975 Axial†	239.0	138.2	102.73 µg/L	102.73 ppb		18:52:48
2	Sb 206.836†	162.6	84.7	10.140 µg/L	10.140 ppb		18:52:48
2	Se 196.026†	98.4	84.9	30.8 µg/L	30.8 ppb		18:52:48
2	SiO2†	3912.9	2207.6	215.37 µg/L	215.37 ppb		18:52:28
2	Si 251.611†	7475.2	6772.6	99.658 µg/L	99.658 ppb		18:52:28
2	Sn 189.927†	165.0	169.0	10.554 µg/L	10.554 ppb		18:52:48
2	Ti 334.940†	5906.4	5059.7	4.6867 µg/L	4.6867 ppb		18:52:28
2	Tl 190.801†	41.0	158.5	19.548 µg/L	19.548 ppb		18:52:48
2	U 409.014†	539.0	818.5	48.142 µg/L	48.142 ppb		18:52:28
2	V 292.402†	1219.4	837.5	4.2189 µg/L	4.2189 ppb		18:52:28
2	Zn 213.857†	2338.9	1816.4	10.155 µg/L	10.155 ppb		18:52:48
3	Sc RADIAL	141853.7	141853.7	97.2 %			18:51:56
3	Al 396.153Radial†	1054.0	1147.5	212.32 µg/L	212.32 ppb		18:51:58
3	Ca 317.933Radial†	4255.4	3817.1	212.63 µg/L	212.63 ppb		18:51:58
3	Fe 238.204 Radial†	1716.2	1617.5	99.690 µg/L	99.690 ppb		18:51:58
3	K 766.490 Radial†	1916.0	426.3	155.92 µg/L	155.92 ppb		18:51:56
3	Mg 279.077 IEC†	1001.3	839.3	312.86 µg/L	312.86 ppb		18:51:58
3	Na 589.592 Radial†	3186.5	1987.3	271.34 µg/L	271.34 ppb		18:51:58
3	Sr 421.552†	2248.0	2447.8	5.0873 µg/L	5.0873 ppb		18:51:58
3	Sc 361.383	1703589.6	1703589.6	99.149 %			18:52:50
3	Y 371.029	1020076.1	1020076.1	99.356 %			18:52:50
3	Ag 328.068†	5329.5	1283.9	4.8863 µg/L	4.8863 ppb		18:52:52
3	As 188.979†	68.9	89.8	27.263 µg/L	27.263 ppb		18:53:13
3	B 249.677†	6826.1	3378.8	49.814 µg/L	49.814 ppb		18:52:52
3	Ba 233.527†	1095.4	1240.7	5.0047 µg/L	5.0047 ppb		18:53:13
3	Be 313.107†	16765.5	17974.2	4.9127 µg/L	4.9127 ppb		18:52:52
3	Cd 226.502†	685.3	809.4	5.0473 µg/L	5.0473 ppb		18:53:13
3	Co 228.616†	212.4	404.5	4.9910 µg/L	4.9910 ppb		18:53:13
3	Cr 267.716†	807.3	635.7	4.9297 µg/L	4.9297 ppb		18:53:13
3	Cu 324.752†	5461.8	2536.5	9.9340 µg/L	9.9340 ppb		18:52:52
3	Mn 257.610†	8558.8	8395.0	10.374 µg/L	10.374 ppb		18:52:52
3	Mo 202.031†	286.1	308.6	9.0804 µg/L	9.0804 ppb		18:53:13
3	Ni 231.604†	341.2	420.7	4.8437 µg/L	4.8437 ppb		18:53:13
3	P 214.914†	668.0	691.7	147.81 µg/L	147.81 ppb		18:53:13
3	Pb 220.353†	280.1	196.2	10.941 µg/L	10.941 ppb		18:53:13
3	S 181.975 Axial†	229.3	126.2	93.811 µg/L	93.811 ppb		18:53:13
3	Sb 206.836†	165.2	85.8	10.280 µg/L	10.280 ppb		18:53:13
3	Se 196.026†	109.6	95.3	34.5 µg/L	34.5 ppb		18:53:13
3	SiO2†	3891.1	2149.2	209.66 µg/L	209.66 ppb		18:52:52
3	Si 251.611†	7576.0	6804.5	100.13 µg/L	100.13 ppb		18:52:52
3	Sn 189.927†	163.2	165.7	10.345 µg/L	10.345 ppb		18:53:13
3	Ti 334.940†	6177.6	5278.1	4.8843 µg/L	4.8843 ppb		18:52:52
3	Tl 190.801†	27.8	144.7	17.868 µg/L	17.868 ppb		18:53:13
3	U 409.014†	779.2	1055.8	62.094 µg/L	62.094 ppb		18:52:52
3	V 292.402†	1501.4	1110.5	5.5591 µg/L	5.5591 ppb		18:52:52
3	Zn 213.857†	2359.0	1814.8	10.149 µg/L	10.149 ppb		18:53:13

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1696183.1	98.718	%	0.4565				0.46%
Sc RADIAL	141217.3	96.8	%	0.38				0.39%
Y 371.029	1015887.4	98.948	%	0.4448				0.45%
Ag 328.068†	1215.7	4.6126	µg/L	0.48588	4.6126	ppb	0.48588	10.53%
QC value within limits for Ag 328.068 Recovery = 92.25%								
Al 396.153Radial†	1101.4	203.76	µg/L	7.553	203.76	ppb	7.553	3.71%
QC value within limits for Al 396.153Radial Recovery = 101.88%								
As 188.979†	99.6	30.223	µg/L	2.5657	30.223	ppb	2.5657	8.49%
QC value within limits for As 188.979 Recovery = 100.74%								
B 249.677†	3266.5	48.158	µg/L	2.0851	48.158	ppb	2.0851	4.33%
QC value within limits for B 249.677 Recovery = 96.32%								
Ba 233.527†	1237.9	4.9928	µg/L	0.02706	4.9928	ppb	0.02706	0.54%
QC value within limits for Ba 233.527 Recovery = 99.86%								
Be 313.107†	17917.8	4.8945	µg/L	0.01680	4.8945	ppb	0.01680	0.34%
QC value within limits for Be 313.107 Recovery = 97.89%								
Ca 317.933Radial†	3813.9	212.45	µg/L	1.736	212.45	ppb	1.736	0.82%
QC value within limits for Ca 317.933Radial Recovery = 106.22%								
Cd 226.502†	809.8	5.0499	µg/L	0.00397	5.0499	ppb	0.00397	0.08%
QC value within limits for Cd 226.502 Recovery = 101.00%								
Co 228.616†	419.8	5.1801	µg/L	0.16905	5.1801	ppb	0.16905	3.26%

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   QC value within limits for Co 228.616  Recovery = 103.60%
Cr 267.716†              632.8      4.9147 µg/L       0.31903      4.9147 ppb        0.31903   6.49%
   QC value within limits for Cr 267.716  Recovery = 98.29%
Cu 324.752†             2554.1      9.9952 µg/L       0.36319      9.9952 ppb        0.36319   3.63%
   QC value within limits for Cu 324.752  Recovery = 99.95%
Fe 238.204 Radial†      1660.8      102.36 µg/L         2.828      102.36 ppb          2.828   2.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.36%
K 766.490 Radial†        409.6      149.80 µg/L        12.246      149.80 ppb         12.246   8.17%
   QC value within limits for K 766.490 Radial  Recovery = 99.87%
Mg 279.077 IEC†          834.3      310.99 µg/L         6.984      310.99 ppb          6.984   2.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.66%
Mn 257.610†             8345.6      10.313 µg/L        0.0539      10.313 ppb         0.0539   0.52%
   QC value within limits for Mn 257.610  Recovery = 103.13%
Mo 202.031†              312.7      9.1996 µg/L       0.21314      9.1996 ppb        0.21314   2.32%
   QC value within limits for Mo 202.031  Recovery = 92.00%
Na 589.592 Radial†      2049.5      279.85 µg/L         8.919      279.85 ppb          8.919   3.19%
   QC value within limits for Na 589.592 Radial  Recovery = 93.28%
Ni 231.604†              433.8      4.9948 µg/L       0.13089      4.9948 ppb        0.13089   2.62%
   QC value within limits for Ni 231.604  Recovery = 99.90%
P 214.914†               690.7      147.58 µg/L         0.423      147.58 ppb          0.423   0.29%
   QC value within limits for P 214.914  Recovery = 98.39%
Pb 220.353†              200.7      11.202 µg/L        0.6223      11.202 ppb         0.6223   5.56%
   QC value within limits for Pb 220.353  Recovery = 112.02%
S 181.975 Axial†         131.4      97.634 µg/L        4.5940      97.634 ppb         4.5940   4.71%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†               80.6      9.6618 µg/L       0.95194      9.6618 ppb        0.95194   9.85%
   QC value within limits for Sb 206.836  Recovery = 96.62%
Se 196.026†               86.2        31.2 µg/L          3.09        31.2 ppb           3.09   9.88%
   QC value within limits for Se 196.026  Recovery = 104.17%
SiO2†                   2170.9      211.78 µg/L         3.127      211.78 ppb          3.127   1.48%
   QC value within limits for SiO2  Recovery = 99.43%
Si 251.611†             6799.9      100.06 µg/L         0.371      100.06 ppb          0.371   0.37%
   QC value within limits for Si 251.611  Recovery = 100.06%
Sn 189.927†              166.9      10.420 µg/L        0.1167      10.420 ppb         0.1167   1.12%
   QC value within limits for Sn 189.927  Recovery = 104.20%
Sr 421.552†             2494.8      5.1849 µg/L       0.14714      5.1849 ppb        0.14714   2.84%
   QC value within limits for Sr 421.552  Recovery = 103.70%
Ti 334.940†             5204.3      4.8193 µg/L       0.11489      4.8193 ppb        0.11489   2.38%
   QC value within limits for Ti 334.940  Recovery = 96.39%
Tl 190.801†              155.6      19.207 µg/L        1.2048      19.207 ppb         1.2048   6.27%
   QC value within limits for Tl 190.801  Recovery = 96.03%
U 409.014†               895.8      52.688 µg/L        8.1477      52.688 ppb         8.1477  15.46%
   QC value within limits for U 409.014  Recovery = 105.38%
V 292.402†               943.5      4.7388 µg/L       0.71883      4.7388 ppb        0.71883  15.17%
   QC value within limits for V 292.402  Recovery = 94.78%
Zn 213.857†             1805.7      10.096 µg/L        0.0971      10.096 ppb         0.0971   0.96%
   QC value within limits for Zn 213.857  Recovery = 100.96%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 3/31/2010 18:53:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	132242.6	132242.6	90.6	%			18:53:53
1	Al 396.153Radial†	2422897.8	2673731.8	495710	µg/L	495710	ppb	18:53:51
1	Ca 317.933Radial†	7691621.4	8487146.3	472770	µg/L	472770	ppb	18:53:51
1	Fe 238.204 Radial†	2755313.8	3040341.6	187390	µg/L	187390	ppb	18:53:51
1	K 766.490 Radial†	1640.2	265.2	-138.93	µg/L	-138.93	ppb	18:53:53
1	Mg 279.077 IEC†	1160629.2	1280564.0	476960	µg/L	476960	ppb	18:53:51
1	Na 589.592 Radial†	1484.0	346.8	47.294	µg/L	47.294	ppb	18:53:53
1	Sr 421.552†	1473.7	1761.6	-0.0382	µg/L	-0.0382	ppb	18:53:53
1	Sc 361.383	1517022.4	1517022.4	88.290	%			18:54:06
1	Y 371.029	894868.4	894868.4	87.161	%			18:54:06
1	Ag 328.068†	6255.0	2993.2	-1.9729	µg/L	-1.9729	ppb	18:54:06
1	As 188.979†	-100.1	-93.0	13.877	µg/L	13.877	ppb	18:54:26
1	B 249.677†	3380.9	323.4	4.7554	µg/L	4.7554	ppb	18:54:06
1	Ba 233.527†	434.1	627.6	0.1345	µg/L	0.1345	ppb	18:54:26
1	Be 313.107†	-1147.6	-235.1	-0.0621	µg/L	-0.0621	ppb	18:54:06
1	Cd 226.502†	2412.4	2850.5	-1.8998	µg/L	-1.8998	ppb	18:54:26
1	Co 228.616†	123.8	330.6	-5.6944	µg/L	-5.6944	ppb	18:54:26
1	Cr 267.716†	198.7	46.5	1.0479	µg/L	1.0479	ppb	18:54:26
1	Cu 324.752†	-5619.3	-9336.8	3.9046	µg/L	3.9046	ppb	18:54:06
1	Mn 257.610†	16860.5	18859.4	3.9217	µg/L	3.9217	ppb	18:54:06
1	Mo 202.031†	-556.1	-609.8	-1.7911	µg/L	-1.7911	ppb	18:54:26
1	Ni 231.604†	185.4	286.5	3.2984	µg/L	3.2984	ppb	18:54:26
1	P 214.914†	178.3	219.9	29.959	µg/L	29.959	ppb	18:54:26
1	Pb 220.353†	-392.3	-530.7	-4.9340	µg/L	-4.9340	ppb	18:54:26
1	S 181.975 Axial†	184.5	103.9	77.024	µg/L	77.024	ppb	18:54:26
1	Sb 206.836†	109.1	42.8	-0.8364	µg/L	-0.8364	ppb	18:54:26
1	Se 196.026†	-143.5	-177.8	0.756	µg/L	0.756	ppb	18:54:26
1	SiO2†	1661.3	106.3	10.857	µg/L	10.857	ppb	18:54:26
1	Si 251.611†	457.4	-318.5	-4.4771	µg/L	-4.4771	ppb	18:54:26
1	Sn 189.927†	41.8	48.5	3.1002	µg/L	3.1002	ppb	18:54:26
1	Ti 334.940†	22402.5	24421.1	-3.7208	µg/L	-3.7208	ppb	18:54:06
1	Tl 190.801†	-159.3	-63.8	-7.4175	µg/L	-7.4175	ppb	18:54:26
1	U 409.014†	-141.4	109.7	-14.558	µg/L	-14.558	ppb	18:54:06
1	V 292.402†	4081.9	4219.5	0.6141	µg/L	0.6141	ppb	18:54:06
1	Zn 213.857†	4369.0	4384.0	8.5615	µg/L	8.5615	ppb	18:54:26
2	Sc RADIAL	132040.0	132040.0	90.5	%			18:53:58
2	Al 396.153Radial†	2444947.4	2702202.7	500990	µg/L	500990	ppb	18:53:56
2	Ca 317.933Radial†	7800125.3	8620085.6	480170	µg/L	480170	ppb	18:53:56
2	Fe 238.204 Radial†	2791790.4	3085319.9	190160	µg/L	190160	ppb	18:53:56
2	K 766.490 Radial†	1740.8	379.1	-100.42	µg/L	-100.42	ppb	18:53:58
2	Mg 279.077 IEC†	1178560.0	1302345.9	485070	µg/L	485070	ppb	18:53:56
2	Na 589.592 Radial†	1410.4	267.9	36.479	µg/L	36.479	ppb	18:53:58
2	Sr 421.552†	1434.5	1720.7	-0.1811	µg/L	-0.1811	ppb	18:53:58
2	Sc 361.383	1500109.7	1500109.7	87.306	%			18:54:29
2	Y 371.029	884042.0	884042.0	86.106	%			18:54:29
2	Ag 328.068†	6203.9	3014.6	-2.1211	µg/L	-2.1211	ppb	18:54:29
2	As 188.979†	-119.9	-117.0	7.2444	µg/L	7.2444	ppb	18:54:49
2	B 249.677†	3505.1	508.8	7.4908	µg/L	7.4908	ppb	18:54:29
2	Ba 233.527†	482.5	688.5	0.3435	µg/L	0.3435	ppb	18:54:49
2	Be 313.107†	-1215.4	-327.4	-0.0902	µg/L	-0.0902	ppb	18:54:29
2	Cd 226.502†	2441.6	2914.8	-1.7901	µg/L	-1.7901	ppb	18:54:49
2	Co 228.616†	105.8	311.5	-6.0736	µg/L	-6.0736	ppb	18:54:49
2	Cr 267.716†	217.8	70.9	1.2432	µg/L	1.2432	ppb	18:54:49
2	Cu 324.752†	-5483.5	-9253.0	4.8451	µg/L	4.8451	ppb	18:54:29
2	Mn 257.610†	16639.0	18821.0	3.5450	µg/L	3.5450	ppb	18:54:29
2	Mo 202.031†	-590.4	-656.1	-2.8945	µg/L	-2.8945	ppb	18:54:49
2	Ni 231.604†	122.0	216.3	2.4904	µg/L	2.4904	ppb	18:54:49
2	P 214.914†	170.4	213.2	27.815	µg/L	27.815	ppb	18:54:49
2	Pb 220.353†	-391.2	-534.5	-4.9028	µg/L	-4.9028	ppb	18:54:49

2	S 181.975 Axial†	176.5	97.2	71.982 µg/L	71.982 ppb	18:54:49
2	Sb 206.836†	116.0	52.0	0.1714 µg/L	0.1714 ppb	18:54:49
2	Se 196.026†	-172.4	-212.7	-10.9 µg/L	-10.9 ppb	18:54:49
2	SiO2†	1633.2	95.3	9.7946 µg/L	9.7946 ppb	18:54:49
2	Si 251.611†	508.3	-254.3	-3.5215 µg/L	-3.5215 ppb	18:54:49
2	Sn 189.927†	60.8	70.8	4.4873 µg/L	4.4873 ppb	18:54:49
2	Ti 334.940†	21754.3	23964.7	-4.6112 µg/L	-4.6112 ppb	18:54:29
2	Tl 190.801†	-183.8	-93.9	-11.124 µg/L	-11.124 ppb	18:54:49
2	U 409.014†	-286.0	-57.7	-24.699 µg/L	-24.699 ppb	18:54:29
2	V 292.402†	3918.7	4084.7	-0.3553 µg/L	-0.3553 ppb	18:54:29
2	Zn 213.857†	4368.9	4439.7	8.6032 µg/L	8.6032 ppb	18:54:49
3	Sc RADIAL	128528.5	128528.5	88.1 %		18:54:02
3	Al 396.153Radial†	2425420.2	2753857.9	510560 µg/L	510560 ppb	18:54:00
3	Ca 317.933Radial†	7690261.2	8730875.1	486340 µg/L	486340 ppb	18:54:00
3	Fe 238.204 Radial†	2749581.2	3121695.4	192400 µg/L	192400 ppb	18:54:00
3	K 766.490 Radial†	1659.5	339.4	-118.61 µg/L	-118.61 ppb	18:54:02
3	Mg 279.077 IEC†	1158065.5	1314663.8	489660 µg/L	489660 ppb	18:54:00
3	Na 589.592 Radial†	1347.0	238.6	32.485 µg/L	32.485 ppb	18:54:02
3	Sr 421.552†	1492.5	1829.9	-0.0025 µg/L	-0.0025 ppb	18:54:02
3	Sc 361.383	1514195.4	1514195.4	88.126 %		18:54:52
3	Y 371.029	891947.3	891947.3	86.876 %		18:54:52
3	Ag 328.068†	6032.7	2754.1	-3.2379 µg/L	-3.2379 ppb	18:54:52
3	As 188.979†	-108.0	-102.2	12.211 µg/L	12.211 ppb	18:55:12
3	B 249.677†	3436.5	393.7	5.7936 µg/L	5.7936 ppb	18:54:52
3	Ba 233.527†	448.2	644.5	0.1380 µg/L	0.1380 ppb	18:55:12
3	Be 313.107†	-1158.8	-250.2	-0.0644 µg/L	-0.0644 ppb	18:54:52
3	Cd 226.502†	2438.6	2885.4	-2.2095 µg/L	-2.2095 ppb	18:55:12
3	Co 228.616†	90.0	292.5	-6.4255 µg/L	-6.4255 ppb	18:55:12
3	Cr 267.716†	181.2	27.0	0.9095 µg/L	0.9095 ppb	18:55:12
3	Cu 324.752†	-5570.7	-9293.5	5.1506 µg/L	5.1506 ppb	18:54:52
3	Mn 257.610†	16733.6	18751.0	3.2706 µg/L	3.2706 ppb	18:54:52
3	Mo 202.031†	-556.7	-611.6	-1.4146 µg/L	-1.4146 ppb	18:55:12
3	Ni 231.604†	136.4	231.3	2.6634 µg/L	2.6634 ppb	18:55:12
3	P 214.914†	188.3	231.6	32.331 µg/L	32.331 ppb	18:55:12
3	Pb 220.353†	-364.7	-500.2	-2.4766 µg/L	-2.4766 ppb	18:55:12
3	S 181.975 Axial†	176.2	94.9	70.345 µg/L	70.345 ppb	18:55:12
3	Sb 206.836†	127.8	64.2	1.5521 µg/L	1.5521 ppb	18:55:12
3	Se 196.026†	-157.0	-193.4	-3.16 µg/L	-3.16 ppb	18:55:12
3	SiO2†	1710.0	165.0	16.582 µg/L	16.582 ppb	18:55:12
3	Si 251.611†	438.9	-338.5	-4.7759 µg/L	-4.7759 ppb	18:55:12
3	Sn 189.927†	52.5	60.6	3.8554 µg/L	3.8554 ppb	18:55:12
3	Ti 334.940†	21892.4	23889.7	-4.9005 µg/L	-4.9005 ppb	18:54:52
3	Tl 190.801†	-161.6	-66.7	-7.7840 µg/L	-7.7840 ppb	18:55:12
3	U 409.014†	-54.1	208.5	-9.3710 µg/L	-9.3710 ppb	18:54:52
3	V 292.402†	3967.3	4098.1	-0.5042 µg/L	-0.5042 ppb	18:54:52
3	Zn 213.857†	4428.1	4460.3	8.5816 µg/L	8.5816 ppb	18:55:12

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1510442.5	87.908	%	0.5273				0.60%
Sc RADIAL	130937.0	89.7	%	1.43				1.59%
Y 371.029	890285.9	86.714	%	0.5456				0.63%
Ag 328.068†	2920.6	-2.4440	µg/L	0.69159	-2.4440	ppb	0.69159	28.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2709930.8	502420	µg/L	7530.6	502420	ppb	7530.6	1.50%
QC value within limits for Al 396.153Radial Recovery = 100.48%								
As 188.979†	-104.0	11.111	µg/L	3.4505	11.111	ppb	3.4505	31.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	408.6	6.0133	µg/L	1.38084	6.0133	ppb	1.38084	22.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	653.5	0.2053	µg/L	0.11966	0.2053	ppb	0.11966	58.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-270.9	-0.0722	µg/L	0.01558	-0.0722	ppb	0.01558	21.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8612702.4	479760	µg/L	6797.7	479760	ppb	6797.7	1.42%
QC value within limits for Ca 317.933Radial Recovery = 95.95%								
Cd 226.502†	2883.6	-1.9665	µg/L	0.21751	-1.9665	ppb	0.21751	11.06%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	311.5	-6.0645	µg/L	0.36562	-6.0645	ppb	0.36562	6.03%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              48.1      1.0668 µg/L      0.16765      1.0668 ppb       0.16765  15.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -9294.4      4.6334 µg/L      0.64943      4.6334 ppb       0.64943  14.02%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†  3082452.3      189980 µg/L       2511.7      189980 ppb        2511.7   1.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.99%
K 766.490 Radial†        327.9     -119.32 µg/L       19.263     -119.32 ppb        19.263  16.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1299191.2      483900 µg/L       6431.4      483900 ppb        6431.4   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.78%
Mn 257.610†           18810.4      3.5791 µg/L      0.32691      3.5791 ppb       0.32691   9.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -625.9     -2.0334 µg/L      0.76912     -2.0334 ppb       0.76912  37.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       284.5      38.753 µg/L       7.6619      38.753 ppb        7.6619  19.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              244.7      2.8174 µg/L      0.42544      2.8174 ppb       0.42544  15.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               221.6      30.035 µg/L       2.2592      30.035 ppb        2.2592   7.52%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -521.8     -4.1045 µg/L      1.40989     -4.1045 ppb       1.40989  34.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          98.7      73.117 µg/L       3.4814      73.117 ppb        3.4814   4.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               53.0      0.2957 µg/L      1.19909      0.2957 ppb       1.19909 405.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -194.6       -4.44 µg/L        5.948       -4.44 ppb         5.948 133.85%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    122.2      12.411 µg/L       3.6511      12.411 ppb        3.6511  29.42%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            -303.8     -4.2582 µg/L      0.65524     -4.2582 ppb       0.65524  15.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               60.0      3.8143 µg/L      0.69446      3.8143 ppb       0.69446  18.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            1770.7     -0.0740 µg/L      0.09453     -0.0740 ppb       0.09453 127.80%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           24091.8     -4.4108 µg/L      0.61484     -4.4108 ppb       0.61484  13.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -74.8     -8.7751 µg/L      2.04236     -8.7751 ppb       2.04236  23.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                86.8     -16.209 µg/L       7.7964     -16.209 ppb        7.7964  48.10%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†            4134.1     -0.0818 µg/L      0.60724     -0.0818 ppb       0.60724 742.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†           4428.0      8.5821 µg/L      0.02081      8.5821 ppb       0.02081   0.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 3/31/2010 18:55:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128923.7	128923.7	88.3	%			18:55:52
1	Al 396.153Radial†	2441585.6	2763714.4	512370	µg/L	512370	ppb	18:55:50
1	Ca 317.933Radial†	7758514.8	8781367.4	489160	µg/L	489160	ppb	18:55:50
1	Fe 238.204 Radial†	2782554.2	3149448.4	194110	µg/L	194110	ppb	18:55:50
1	K 766.490 Radial†	15194.3	15653.8	5486.8	µg/L	5486.8	ppb	18:55:52
1	Mg 279.077 IEC†	1148118.0	1299373.7	483970	µg/L	483970	ppb	18:55:52
1	Na 589.592 Radial†	35618.0	39025.6	5326.3	µg/L	5326.3	ppb	18:55:52
1	Sr 421.552†	218553.1	247517.3	510.75	µg/L	510.75	ppb	18:55:52
1	Sc 361.383	1501848.4	1501848.4	87.407	%			18:56:05
1	Y 371.029	885934.6	885934.6	86.290	%			18:56:05
1	Ag 328.068†	68208.1	73943.4	266.87	µg/L	266.87	ppb	18:56:05
1	As 188.979†	1287.3	1493.1	500.98	µg/L	500.98	ppb	18:56:07
1	B 249.677†	33851.7	35222.8	517.92	µg/L	517.92	ppb	18:56:05
1	Ba 233.527†	108371.1	124119.8	498.16	µg/L	498.16	ppb	18:56:05
1	Be 313.107†	784555.4	898650.0	244.84	µg/L	244.84	ppb	18:56:05
1	Cd 226.502†	69032.6	79096.3	473.84	µg/L	473.84	ppb	18:56:05
1	Co 228.616†	31520.5	36252.0	437.70	µg/L	437.70	ppb	18:56:07
1	Cr 267.716†	53782.3	61352.1	481.07	µg/L	481.07	ppb	18:56:07
1	Cu 324.752†	114717.9	128272.9	540.53	µg/L	540.53	ppb	18:56:05
1	Mn 257.610†	356699.6	407851.6	484.93	µg/L	484.93	ppb	18:56:05
1	Mo 202.031†	13953.9	15984.3	486.45	µg/L	486.45	ppb	18:56:07
1	Ni 231.604†	34191.5	39194.0	451.29	µg/L	451.29	ppb	18:56:07
1	P 214.914†	10448.2	11971.4	2535.7	µg/L	2535.7	ppb	18:56:07
1	Pb 220.353†	6755.9	7642.9	453.53	µg/L	453.53	ppb	18:56:07
1	S 181.975 Axial†	3250.1	3613.3	2687.1	µg/L	2687.1	ppb	18:56:07
1	Sb 206.836†	3785.3	4249.8	500.40	µg/L	500.40	ppb	18:56:07
1	Se 196.026†	5624.0	6419.0	2390	µg/L	2390	ppb	18:56:07
1	SiO2†	99846.0	112455.3	10971	µg/L	10971	ppb	18:56:05
1	Si 251.611†	306352.4	349651.7	5145.5	µg/L	5145.5	ppb	18:56:05
1	Sn 189.927†	6636.1	7593.3	475.14	µg/L	475.14	ppb	18:56:07
1	Ti 334.940†	496139.0	566664.5	502.37	µg/L	502.37	ppb	18:56:05
1	Tl 190.801†	3058.5	3615.8	452.56	µg/L	452.56	ppb	18:56:07
1	U 409.014†	7410.9	8748.5	521.43	µg/L	521.43	ppb	18:56:05
1	V 292.402†	94726.2	107969.5	513.01	µg/L	513.01	ppb	18:56:05
1	Zn 213.857†	80178.7	91165.5	492.35	µg/L	492.35	ppb	18:56:05
2	Sc RADIAL	130306.5	130306.5	89.3	%			18:55:57
2	Al 396.153Radial†	2425762.3	2716664.8	503640	µg/L	503640	ppb	18:55:54
2	Ca 317.933Radial†	7696197.0	8618379.7	480080	µg/L	480080	ppb	18:55:54
2	Fe 238.204 Radial†	2760250.1	3091044.9	190510	µg/L	190510	ppb	18:55:54
2	K 766.490 Radial†	15576.4	15899.2	5580.2	µg/L	5580.2	ppb	18:55:57
2	Mg 279.077 IEC†	1163916.5	1303274.7	485430	µg/L	485430	ppb	18:55:57
2	Na 589.592 Radial†	35962.5	38983.4	5320.4	µg/L	5320.4	ppb	18:55:57
2	Sr 421.552†	221063.2	247703.0	511.20	µg/L	511.20	ppb	18:55:57
2	Sc 361.383	1503774.7	1503774.7	87.519	%			18:56:10
2	Y 371.029	887039.9	887039.9	86.398	%			18:56:10
2	Ag 328.068†	68293.1	73940.5	267.10	µg/L	267.10	ppb	18:56:10
2	As 188.979†	1349.3	1562.1	521.08	µg/L	521.08	ppb	18:56:12
2	B 249.677†	33920.1	35251.3	518.32	µg/L	518.32	ppb	18:56:10
2	Ba 233.527†	108643.6	124272.4	498.82	µg/L	498.82	ppb	18:56:10
2	Be 313.107†	786963.6	900251.8	245.27	µg/L	245.27	ppb	18:56:10
2	Cd 226.502†	69426.5	79445.1	476.40	µg/L	476.40	ppb	18:56:10
2	Co 228.616†	32044.4	36804.3	444.70	µg/L	444.70	ppb	18:56:12
2	Cr 267.716†	54375.8	61951.4	485.63	µg/L	485.63	ppb	18:56:12
2	Cu 324.752†	115372.1	128852.4	542.29	µg/L	542.29	ppb	18:56:10
2	Mn 257.610†	357810.4	408598.0	485.80	µg/L	485.80	ppb	18:56:10
2	Mo 202.031†	14059.7	16084.7	489.29	µg/L	489.29	ppb	18:56:12
2	Ni 231.604†	34695.4	39719.6	457.34	µg/L	457.34	ppb	18:56:12
2	P 214.914†	10657.1	12194.8	2584.0	µg/L	2584.0	ppb	18:56:12
2	Pb 220.353†	7007.7	7920.6	468.62	µg/L	468.62	ppb	18:56:12

2	S 181.975 Axial†	3226.8	3581.8	2663.8 µg/L	2663.8 ppb	18:56:12
2	Sb 206.836†	3801.0	4262.2	501.96 µg/L	501.96 ppb	18:56:12
2	Se 196.026†	5730.0	6531.8	2430 µg/L	2430 ppb	18:56:12
2	SiO2†	100449.1	112998.1	11024 µg/L	11024 ppb	18:56:10
2	Si 251.611†	307929.3	351004.4	5165.3 µg/L	5165.3 ppb	18:56:10
2	Sn 189.927†	6796.2	7766.5	485.94 µg/L	485.94 ppb	18:56:12
2	Ti 334.940†	498020.9	568087.6	503.35 µg/L	503.35 ppb	18:56:10
2	Tl 190.801†	3159.1	3726.2	466.12 µg/L	466.12 ppb	18:56:12
2	U 409.014†	7207.8	8505.6	507.68 µg/L	507.68 ppb	18:56:10
2	V 292.402†	94912.3	108043.3	513.79 µg/L	513.79 ppb	18:56:10
2	Zn 213.857†	80541.8	91462.8	494.31 µg/L	494.31 ppb	18:56:10
3	Sc RADIAL	130048.3	130048.3	89.1 %		18:56:01
3	Al 396.153Radial†	2433855.1	2731140.9	506330 µg/L	506330 ppb	18:55:59
3	Ca 317.933Radial†	7718645.4	8660686.5	482430 µg/L	482430 ppb	18:55:59
3	Fe 238.204 Radial†	2766938.5	3104689.2	191350 µg/L	191350 ppb	18:55:59
3	K 766.490 Radial†	15537.1	15889.7	5575.7 µg/L	5575.7 ppb	18:56:01
3	Mg 279.077 IEC†	1162812.5	1304624.6	485930 µg/L	485930 ppb	18:56:01
3	Na 589.592 Radial†	36095.8	39213.0	5351.8 µg/L	5351.8 ppb	18:56:01
3	Sr 421.552†	220343.8	247387.5	510.53 µg/L	510.53 ppb	18:56:01
3	Sc 361.383	1505253.1	1505253.1	87.605 %		18:56:15
3	Y 371.029	887796.9	887796.9	86.472 %		18:56:15
3	Ag 328.068†	68315.0	73888.9	266.85 µg/L	266.85 ppb	18:56:15
3	As 188.979†	1427.8	1650.2	547.91 µg/L	547.91 ppb	18:56:17
3	B 249.677†	34091.4	35408.8	520.64 µg/L	520.64 ppb	18:56:15
3	Ba 233.527†	108923.3	124469.7	499.60 µg/L	499.60 ppb	18:56:15
3	Be 313.107†	788697.2	901347.5	245.57 µg/L	245.57 ppb	18:56:15
3	Cd 226.502†	69816.9	79812.9	478.61 µg/L	478.61 ppb	18:56:15
3	Co 228.616†	32104.8	36837.3	445.06 µg/L	445.06 ppb	18:56:17
3	Cr 267.716†	54241.6	61737.2	483.97 µg/L	483.97 ppb	18:56:17
3	Cu 324.752†	115315.5	128658.2	541.67 µg/L	541.67 ppb	18:56:15
3	Mn 257.610†	358650.2	409155.1	486.47 µg/L	486.47 ppb	18:56:15
3	Mo 202.031†	13985.2	15983.9	486.37 µg/L	486.37 ppb	18:56:17
3	Ni 231.604†	34565.9	39532.8	455.19 µg/L	455.19 ppb	18:56:17
3	P 214.914†	10680.3	12209.4	2587.2 µg/L	2587.2 ppb	18:56:17
3	Pb 220.353†	7037.5	7946.8	470.21 µg/L	470.21 ppb	18:56:17
3	S 181.975 Axial†	3275.8	3634.2	2702.6 µg/L	2702.6 ppb	18:56:17
3	Sb 206.836†	3858.4	4323.5	509.22 µg/L	509.22 ppb	18:56:17
3	Se 196.026†	5760.2	6559.9	2440 µg/L	2440 ppb	18:56:17
3	SiO2†	100355.9	112779.0	11003 µg/L	11003 ppb	18:56:15
3	Si 251.611†	307749.7	350453.9	5157.2 µg/L	5157.2 ppb	18:56:15
3	Sn 189.927†	6900.6	7878.0	492.90 µg/L	492.90 ppb	18:56:17
3	Ti 334.940†	498757.3	568369.4	503.63 µg/L	503.63 ppb	18:56:15
3	Tl 190.801†	3121.0	3679.2	460.34 µg/L	460.34 ppb	18:56:17
3	U 409.014†	7255.1	8551.4	510.28 µg/L	510.28 ppb	18:56:15
3	V 292.402†	95008.3	108046.4	513.68 µg/L	513.68 ppb	18:56:15
3	Zn 213.857†	80688.3	91539.7	494.68 µg/L	494.68 ppb	18:56:15

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1503625.4	87.511	%	0.0994				0.11%
Sc RADIAL	129759.5	88.9	%	0.50				0.57%
Y 371.029	886923.8	86.387	%	0.0912				0.11%
Ag 328.068†	73924.3	266.94	µg/L	0.141	266.94	ppb	0.141	0.05%
QC value within limits for Ag 328.068 Recovery = 106.78%								
Al 396.153Radial†	2737173.4	507450	µg/L	4467.8	507450	ppb	4467.8	0.88%
QC value within limits for Al 396.153Radial Recovery = 101.49%								
As 188.979†	1568.5	523.32	µg/L	23.543	523.32	ppb	23.543	4.50%
QC value within limits for As 188.979 Recovery = 104.66%								
B 249.677†	35294.3	518.96	µg/L	1.468	518.96	ppb	1.468	0.28%
QC value within limits for B 249.677 Recovery = 103.79%								
Ba 233.527†	124287.3	498.86	µg/L	0.724	498.86	ppb	0.724	0.15%
QC value within limits for Ba 233.527 Recovery = 99.77%								
Be 313.107†	900083.1	245.23	µg/L	0.367	245.23	ppb	0.367	0.15%
QC value within limits for Be 313.107 Recovery = 98.09%								
Ca 317.933Radial†	8686811.2	483890	µg/L	4711.2	483890	ppb	4711.2	0.97%
QC value within limits for Ca 317.933Radial Recovery = 96.78%								
Cd 226.502†	79451.4	476.29	µg/L	2.386	476.29	ppb	2.386	0.50%
QC value within limits for Cd 226.502 Recovery = 95.26%								
Co 228.616†	36631.2	442.49	µg/L	4.152	442.49	ppb	4.152	0.94%

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   QC value within limits for Co 228.616  Recovery = 88.50%
Cr 267.716†            61680.2      483.56 µg/L         2.310      483.56 ppb          2.310   0.48%
   QC value within limits for Cr 267.716  Recovery = 96.71%
Cu 324.752†           128594.5      541.50 µg/L         0.893      541.50 ppb          0.893   0.16%
   QC value within limits for Cu 324.752  Recovery = 108.30%
Fe 238.204 Radial†   3115060.8      191990 µg/L        1883.0      191990 ppb         1883.0   0.98%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.00%
K 766.490 Radial†      15814.2      5547.6 µg/L         52.66      5547.6 ppb          52.66   0.95%
   QC value within limits for K 766.490 Radial  Recovery = 110.95%
Mg 279.077 IEC†      1302424.3      485110 µg/L        1017.4      485110 ppb         1017.4   0.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.02%
Mn 257.610†           408534.9      485.73 µg/L         0.774      485.73 ppb          0.774   0.16%
   QC value within limits for Mn 257.610  Recovery = 97.15%
Mo 202.031†            16017.6      487.37 µg/L         1.662      487.37 ppb          1.662   0.34%
   QC value within limits for Mo 202.031  Recovery = 97.47%
Na 589.592 Radial†     39074.0      5332.8 µg/L         16.68      5332.8 ppb          16.68   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 106.66%
Ni 231.604†            39482.1      454.61 µg/L         3.068      454.61 ppb          3.068   0.67%
   QC value within limits for Ni 231.604  Recovery = 90.92%
P 214.914†             12125.2      2569.0 µg/L         28.88      2569.0 ppb          28.88   1.12%
   QC value within limits for P 214.914  Recovery = 102.76%
Pb 220.353†             7836.8      464.12 µg/L         9.210      464.12 ppb          9.210   1.98%
   QC value within limits for Pb 220.353  Recovery = 92.82%
S 181.975 Axial†        3609.8      2684.5 µg/L         19.56      2684.5 ppb          19.56   0.73%
   QC value within limits for S 181.975 Axial  Recovery = 107.38%
Sb 206.836†             4278.5      503.86 µg/L         4.707      503.86 ppb          4.707   0.93%
   QC value within limits for Sb 206.836  Recovery = 100.77%
Se 196.026†             6503.6        2420 µg/L          26.4        2420 ppb           26.4   1.09%
   QC value within limits for Se 196.026  Recovery = 96.73%
SiO2†                 112744.1       10999 µg/L          26.6       10999 ppb           26.6   0.24%
   QC value within limits for SiO2  Recovery = 102.85%
Si 251.611†           350370.0      5156.0 µg/L          9.97      5156.0 ppb          9.97   0.19%
   QC value within limits for Si 251.611  Recovery = 103.12%
Sn 189.927†             7745.9      484.66 µg/L         8.948      484.66 ppb          8.948   1.85%
   QC value within limits for Sn 189.927  Recovery = 96.93%
Sr 421.552†           247536.0      510.83 µg/L         0.344      510.83 ppb          0.344   0.07%
   QC value within limits for Sr 421.552  Recovery = 102.17%
Ti 334.940†           567707.2      503.12 µg/L         0.662      503.12 ppb          0.662   0.13%
   QC value within limits for Ti 334.940  Recovery = 100.62%
Tl 190.801†             3673.7      459.67 µg/L         6.804      459.67 ppb          6.804   1.48%
   QC value within limits for Tl 190.801  Recovery = 91.93%
U 409.014†              8601.8      513.13 µg/L         7.307      513.13 ppb          7.307   1.42%
   QC value within limits for U 409.014  Recovery = 102.63%
V 292.402†            108019.7      513.49 µg/L         0.422      513.49 ppb          0.422   0.08%
   QC value within limits for V 292.402  Recovery = 102.70%
Zn 213.857†            91389.3      493.78 µg/L         1.251      493.78 ppb          1.251   0.25%
   QC value within limits for Zn 213.857  Recovery = 98.76%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 3/31/2010 18:56:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128043.7	128043.7	87.7	%			18:56:58
1	Al 396.153Radial†	2381304.8	2714005.3	503180	µg/L	503180	ppb	18:56:56
1	Ca 317.933Radial†	7611014.0	8673613.0	483150	µg/L	483150	ppb	18:56:56
1	Fe 238.204 Radial†	6523125.5	7434173.2	458200	µg/L	458200	ppb	18:56:56
1	K 766.490 Radial†	2256.7	1027.2	53.040	µg/L	53.040	ppb	18:56:58
1	Mg 279.077 IEC†	1139739.5	1298755.6	483500	µg/L	483500	ppb	18:56:56
1	Na 589.592 Radial†	3271680.6	3727401.1	509210	µg/L	509210	ppb	18:56:56
1	Sr 421.552†	5079.9	5924.8	8.5355	µg/L	8.5355	ppb	18:56:58
1	Sc 361.383	1451583.4	1451583.4	84.482	%			18:57:26
1	Y 371.029	852879.4	852879.4	83.071	%			18:57:26
1	Ag 328.068†	2264.1	-1411.5	-0.2309	µg/L	-0.2309	ppb	18:57:26
1	As 188.979†	-305.1	-340.8	-0.3436	µg/L	-0.3436	ppb	18:57:28
1	B 249.677†	4415.2	1720.3	25.330	µg/L	25.330	ppb	18:57:26
1	Ba 233.527†	738.1	1009.5	-1.7895	µg/L	-1.7895	ppb	18:57:28
1	Be 313.107†	-15542.1	-17332.3	0.1527	µg/L	0.1527	ppb	18:57:26
1	Cd 226.502†	6136.8	7382.3	-2.0728	µg/L	-2.0728	ppb	18:57:28
1	Co 228.616†	663.9	976.1	-11.855	µg/L	-11.855	ppb	18:57:28
1	Cr 267.716†	326.4	207.8	-1.0531	µg/L	-1.0531	ppb	18:57:28
1	Cu 324.752†	-15976.1	-21882.9	8.0863	µg/L	8.0863	ppb	18:57:26
1	Mn 257.610†	18213.2	21321.4	5.9920	µg/L	5.9920	ppb	18:57:26
1	Mo 202.031†	-937.6	-1089.8	-5.0578	µg/L	-5.0578	ppb	18:57:26
1	Ni 231.604†	147.8	251.5	2.8954	µg/L	2.8954	ppb	18:57:28
1	P 214.914†	945.2	1136.8	44.272	µg/L	44.272	ppb	18:57:28
1	Pb 220.353†	-112.1	-219.1	-7.8626	µg/L	-7.8626	ppb	18:57:28
1	S 181.975 Axial†	176.1	103.3	76.471	µg/L	76.471	ppb	18:57:28
1	Sb 206.836†	186.9	140.4	7.1485	µg/L	7.1485	ppb	18:57:28
1	Se 196.026†	-404.8	-494.4	-4.21	µg/L	-4.21	ppb	18:57:28
1	SiO2†	1963.2	548.4	54.447	µg/L	54.447	ppb	18:57:28
1	Si 251.611†	-2032.7	-3242.6	-47.410	µg/L	-47.410	ppb	18:57:28
1	Sn 189.927†	64.2	77.1	4.9002	µg/L	4.9002	ppb	18:57:28
1	Ti 334.940†	26623.1	30560.8	-4.8606	µg/L	-4.8606	ppb	18:57:26
1	Tl 190.801†	-158.4	-70.8	-8.1165	µg/L	-8.1165	ppb	18:57:28
1	U 409.014†	232638.7	275640.9	16036	µg/L	16036	ppb	18:57:26
1	V 292.402†	7227.0	8150.7	1.9065	µg/L	1.9065	ppb	18:57:28
1	Zn 213.857†	8608.4	9625.2	9.4603	µg/L	9.4603	ppb	18:57:28
2	Sc RADIAL	127587.1	127587.1	87.4	%			18:57:03
2	Al 396.153Radial†	2344707.9	2681859.2	497220	µg/L	497220	ppb	18:57:01
2	Ca 317.933Radial†	7463583.8	8536029.3	475490	µg/L	475490	ppb	18:57:01
2	Fe 238.204 Radial†	6391908.1	7310696.0	450590	µg/L	450590	ppb	18:57:01
2	K 766.490 Radial†	2390.9	1189.8	117.32	µg/L	117.32	ppb	18:57:03
2	Mg 279.077 IEC†	1114206.6	1274200.4	474360	µg/L	474360	ppb	18:57:01
2	Na 589.592 Radial†	3209939.6	3670127.4	501380	µg/L	501380	ppb	18:57:01
2	Sr 421.552†	5135.8	6009.4	8.7715	µg/L	8.7715	ppb	18:57:03
2	Sc 361.383	1456448.3	1456448.3	84.765	%			18:57:30
2	Y 371.029	856251.9	856251.9	83.399	%			18:57:30
2	Ag 328.068†	2013.8	-1715.7	-1.0926	µg/L	-1.0926	ppb	18:57:30
2	As 188.979†	-237.9	-260.3	22.297	µg/L	22.297	ppb	18:57:32
2	B 249.677†	4229.1	1483.4	21.834	µg/L	21.834	ppb	18:57:30
2	Ba 233.527†	835.0	1121.0	-1.2428	µg/L	-1.2428	ppb	18:57:32
2	Be 313.107†	-15397.0	-17099.7	0.2214	µg/L	0.2214	ppb	18:57:30
2	Cd 226.502†	6036.4	7239.5	-2.1644	µg/L	-2.1644	ppb	18:57:32
2	Co 228.616†	696.8	1012.4	-11.010	µg/L	-11.010	ppb	18:57:32
2	Cr 267.716†	355.9	241.2	-0.9572	µg/L	-0.9572	ppb	18:57:32
2	Cu 324.752†	-16236.3	-22126.7	5.7984	µg/L	5.7984	ppb	18:57:30
2	Mn 257.610†	18248.7	21291.3	6.3374	µg/L	6.3374	ppb	18:57:30
2	Mo 202.031†	-933.0	-1080.6	-5.2559	µg/L	-5.2559	ppb	18:57:30
2	Ni 231.604†	134.2	234.9	2.7046	µg/L	2.7046	ppb	18:57:32
2	P 214.914†	1061.2	1269.9	76.619	µg/L	76.619	ppb	18:57:32
2	Pb 220.353†	-99.7	-204.1	-7.1629	µg/L	-7.1629	ppb	18:57:32

2	S 181.975 Axial†	67.9	-24.9	-18.790	µg/L	-18.790 ppb	18:57:32
2	Sb 206.836†	102.8	40.5	-4.5964	µg/L	-4.5964 ppb	18:57:32
2	Se 196.026†	-406.6	-495.0	-7.05	µg/L	-7.05 ppb	18:57:32
2	SiO2†	1830.8	384.5	38.395	µg/L	38.395 ppb	18:57:32
2	Si 251.611†	-1934.6	-3118.9	-45.598	µg/L	-45.598 ppb	18:57:32
2	Sn 189.927†	82.4	98.3	6.2185	µg/L	6.2185 ppb	18:57:32
2	Ti 334.940†	25364.2	28970.4	-5.8085	µg/L	-5.8085 ppb	18:57:30
2	Tl 190.801†	-211.8	-133.2	-15.794	µg/L	-15.794 ppb	18:57:32
2	U 409.014†	233675.5	275944.1	16055	µg/L	16055 ppb	18:57:30
2	V 292.402†	7224.5	8119.2	2.5727	µg/L	2.5727 ppb	18:57:32
2	Zn 213.857†	8699.2	9698.3	10.651	µg/L	10.651 ppb	18:57:32
3	Sc RADIAL	127845.5	127845.5	87.6	%		18:57:07
3	Al 396.153Radial†	2359012.1	2692767.9	499240	µg/L	499240 ppb	18:57:05
3	Ca 317.933Radial†	7510342.6	8572152.9	477500	µg/L	477500 ppb	18:57:05
3	Fe 238.204 Radial†	6434548.4	7344595.4	452680	µg/L	452680 ppb	18:57:05
3	K 766.490 Radial†	2440.5	1241.0	134.70	µg/L	134.70 ppb	18:57:07
3	Mg 279.077 IEC†	1121897.2	1280403.8	476670	µg/L	476670 ppb	18:57:05
3	Na 589.592 Radial†	3229732.0	3685301.0	503460	µg/L	503460 ppb	18:57:05
3	Sr 421.552†	4859.4	5682.0	8.0751	µg/L	8.0751 ppb	18:57:07
3	Sc 361.383	1472435.6	1472435.6	85.696	%		18:57:35
3	Y 371.029	865581.1	865581.1	84.308	%		18:57:35
3	Ag 328.068†	2006.5	-1749.9	-1.2878	µg/L	-1.2878 ppb	18:57:35
3	As 188.979†	-242.4	-262.5	22.088	µg/L	22.088 ppb	18:57:37
3	B 249.677†	4311.3	1525.1	22.443	µg/L	22.443 ppb	18:57:35
3	Ba 233.527†	597.3	832.8	-2.4315	µg/L	-2.4315 ppb	18:57:37
3	Be 313.107†	-15503.1	-17026.2	0.2432	µg/L	0.2432 ppb	18:57:35
3	Cd 226.502†	5998.3	7117.7	-3.1440	µg/L	-3.1440 ppb	18:57:37
3	Co 228.616†	825.0	1153.0	-9.3850	µg/L	-9.3850 ppb	18:57:37
3	Cr 267.716†	265.1	130.8	-1.7837	µg/L	-1.7837 ppb	18:57:37
3	Cu 324.752†	-16427.6	-22141.9	6.1120	µg/L	6.1120 ppb	18:57:35
3	Mn 257.610†	18616.4	21486.6	6.4820	µg/L	6.4820 ppb	18:57:35
3	Mo 202.031†	-951.0	-1089.6	-5.3968	µg/L	-5.3968 ppb	18:57:35
3	Ni 231.604†	238.5	354.9	4.0862	µg/L	4.0862 ppb	18:57:37
3	P 214.914†	1053.2	1246.9	70.775	µg/L	70.775 ppb	18:57:37
3	Pb 220.353†	-34.4	-126.5	-2.7794	µg/L	-2.7794 ppb	18:57:37
3	S 181.975 Axial†	188.2	114.6	84.800	µg/L	84.800 ppb	18:57:37
3	Sb 206.836†	165.1	111.8	3.8601	µg/L	3.8601 ppb	18:57:37
3	Se 196.026†	-442.3	-531.4	-19.5	µg/L	-19.5 ppb	18:57:37
3	SiO2†	1893.1	433.7	43.156	µg/L	43.156 ppb	18:57:37
3	Si 251.611†	-1908.7	-3063.9	-44.810	µg/L	-44.810 ppb	18:57:37
3	Sn 189.927†	139.3	163.7	10.296	µg/L	10.296 ppb	18:57:37
3	Ti 334.940†	26025.3	29416.9	-5.5292	µg/L	-5.5292 ppb	18:57:35
3	Tl 190.801†	-218.6	-138.4	-16.446	µg/L	-16.446 ppb	18:57:37
3	U 409.014†	236329.7	276048.2	16061	µg/L	16061 ppb	18:57:35
3	V 292.402†	7144.2	7933.0	1.4413	µg/L	1.4413 ppb	18:57:37
3	Zn 213.857†	8714.2	9604.4	9.9077	µg/L	9.9077 ppb	18:57:37

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1460155.8	84.981	%	0.6349				0.75%
Sc RADIAL	127825.4	87.6	%	0.16				0.18%
Y 371.029	858237.5	83.593	%	0.6409				0.77%
Ag 328.068†	-1625.7	-0.8704	µg/L	0.56237	-0.8704	ppb	0.56237	64.61%
Al 396.153Radial†	2696210.8	499880	µg/L	3030.8	499880	ppb	3030.8	0.61%
QC value within limits for Al 396.153Radial Recovery = 99.98%								
As 188.979†	-287.9	14.680	µg/L	13.0115	14.680	ppb	13.0115	88.63%
B 249.677†	1576.2	23.202	µg/L	1.8679	23.202	ppb	1.8679	8.05%
Ba 233.527†	987.8	-1.8213	µg/L	0.59497	-1.8213	ppb	0.59497	32.67%
Be 313.107†	-17152.7	0.2058	µg/L	0.04725	0.2058	ppb	0.04725	22.96%
Ca 317.933Radial†	8593931.8	478720	µg/L	3973.4	478720	ppb	3973.4	0.83%
QC value within limits for Ca 317.933Radial Recovery = 95.74%								
Cd 226.502†	7246.5	-2.4604	µg/L	0.59380	-2.4604	ppb	0.59380	24.13%
Co 228.616†	1047.2	-10.750	µg/L	1.2554	-10.750	ppb	1.2554	11.68%
Cr 267.716†	193.3	-1.2647	µg/L	0.45201	-1.2647	ppb	0.45201	35.74%
Cu 324.752†	-22050.5	6.6655	µg/L	1.24035	6.6655	ppb	1.24035	18.61%
Fe 238.204 Radial†	7363154.9	453820	µg/L	3932.0	453820	ppb	3932.0	0.87%
QC value within limits for Fe 238.204 Radial Recovery = 90.76%								
K 766.490 Radial†	1152.7	101.69	µg/L	43.017	101.69	ppb	43.017	42.30%
Mg 279.077 IEC†	1284453.2	478180	µg/L	4754.0	478180	ppb	4754.0	0.99%

QC value within limits for Mg 279.077 IEC Recovery = 95.64%

Mn 257.610†	21366.4	6.2705 µg/L	0.25177	6.2705 ppb	0.25177	4.02%
Mo 202.031†	-1086.7	-5.2368 µg/L	0.17026	-5.2368 ppb	0.17026	3.25%
Na 589.592 Radial†	3694276.5	504680 µg/L	4053.7	504680 ppb	4053.7	0.80%

QC value within limits for Na 589.592 Radial Recovery = 100.94%

Ni 231.604†	280.4	3.2287 µg/L	0.74869	3.2287 ppb	0.74869	23.19%
P 214.914†	1217.9	63.889 µg/L	17.2380	63.889 ppb	17.2380	26.98%
Pb 220.353†	-183.2	-5.9350 µg/L	2.75510	-5.9350 ppb	2.75510	46.42%
S 181.975 Axial†	64.3	47.494 µg/L	57.5543	47.494 ppb	57.5543	121.18%
Sb 206.836†	97.6	2.1374 µg/L	6.05903	2.1374 ppb	6.05903	283.48%
Se 196.026†	-506.9	-10.3 µg/L	8.13	-10.3 ppb	8.13	79.29%
SiO2†	455.6	45.333 µg/L	8.2442	45.333 ppb	8.2442	18.19%
Si 251.611†	-3141.8	-45.939 µg/L	1.3330	-45.939 ppb	1.3330	2.90%
Sn 189.927†	113.0	7.1383 µg/L	2.81321	7.1383 ppb	2.81321	39.41%
Sr 421.552†	5872.1	8.4607 µg/L	0.35414	8.4607 ppb	0.35414	4.19%
Ti 334.940†	29649.4	-5.3994 µg/L	0.48710	-5.3994 ppb	0.48710	9.02%
Tl 190.801†	-114.1	-13.452 µg/L	4.6323	-13.452 ppb	4.6323	34.44%
U 409.014†	275877.8	16051 µg/L	13.0	16051 ppb	13.0	0.08%

QC value within limits for U 409.014 Recovery = 107.00%

V 292.402†	8067.6	1.9735 µg/L	0.56868	1.9735 ppb	0.56868	28.82%
Zn 213.857†	9642.6	10.006 µg/L	0.6012	10.006 ppb	0.6012	6.01%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 3/31/2010 18:57:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138428.5	138428.5	94.9	%			18:58:18
1	Al 396.153Radial†	2589.6	2793.1	65.979	µg/L	65.979	ppb	18:58:20
1	Ca 317.933Radial†	2182.0	1739.6	96.903	µg/L	96.903	ppb	18:58:20
1	Fe 238.204 Radial†	-202.3	-361.4	-22.274	µg/L	-22.274	ppb	18:58:20
1	K 766.490 Radial†	763320.3	803139.1	294040	µg/L	294040	ppb	18:58:18
1	Mg 279.077 IEC†	-318.7	-526.7	41.787	µg/L	41.787	ppb	18:58:20
1	Na 589.592 Radial†	4722.3	3687.4	242.24	µg/L	242.24	ppb	18:58:18
1	Sr 421.552†	4464241.5	4706289.3	9784.1	µg/L	9784.1	ppb	18:58:15
1	Sc 361.383	1644054.1	1644054.1	95.684	%			18:58:42
1	Y 371.029	958940.9	958940.9	93.401	%			18:58:42
1	Ag 328.068†	-28181.7	-33544.4	-7.2060	µg/L	-7.2060	ppb	18:58:44
1	As 188.979†	32117.0	33586.2	10409	µg/L	10409	ppb	18:58:44
1	B 249.677†	322787.1	333842.2	4891.3	µg/L	4891.3	ppb	18:58:42
1	Ba 233.527†	3263599.9	3410957.3	13754	µg/L	13754	ppb	18:58:42
1	Be 313.107†	10059777.2	10514640.1	2862.8	µg/L	2862.8	ppb	18:58:38
1	Cd 226.502†	1463937.1	1530093.7	9561.7	µg/L	9561.7	ppb	18:58:42
1	Co 228.616†	720309.4	752993.0	9307.6	µg/L	9307.6	ppb	18:58:42
1	Cr 267.716†	2891693.7	3021959.9	23671	µg/L	23671	ppb	18:58:42
1	Cu 324.752†	4894436.4	5112253.1	19872	µg/L	19872	ppb	18:58:42
1	Mn 257.610†	7191165.6	7515323.1	9298.7	µg/L	9298.7	ppb	18:58:42
1	Mo 202.031†	316742.4	331050.8	9732.5	µg/L	9732.5	ppb	18:58:44
1	Ni 231.604†	799875.1	836034.2	9626.3	µg/L	9626.3	ppb	18:58:42
1	P 214.914†	68547.5	71657.7	15093	µg/L	15093	ppb	18:58:44
1	Pb 220.353†	401154.4	419164.2	23428	µg/L	23428	ppb	18:58:42
1	S 181.975 Axial†	67316.5	70248.1	52247	µg/L	52247	ppb	18:58:44
1	Sb 206.836†	80773.2	84336.1	9841.1	µg/L	9841.1	ppb	18:58:44
1	Se 196.026†	26033.9	27193.0	9830	µg/L	9830	ppb	18:58:44
1	SiO2†	974638.1	1016828.8	98967	µg/L	98967	ppb	18:58:42
1	Si 251.611†	3010622.9	3145596.0	46180	µg/L	46180	ppb	18:58:42
1	Sn 189.927†	151635.6	158477.0	9912.7	µg/L	9912.7	ppb	18:58:44
1	Ti 334.940†	10132846.9	10588988.8	9885.3	µg/L	9885.3	ppb	18:58:38
1	Tl 190.801†	74051.0	77508.1	9673.9	µg/L	9673.9	ppb	18:58:44
1	U 409.014†	-10469.2	-10671.6	-21.061	µg/L	-21.061	ppb	18:58:44
1	V 292.402†	1944343.2	2031649.1	10104	µg/L	10104	ppb	18:58:42
1	Zn 213.857†	2422227.0	2530929.6	14143	µg/L	14143	ppb	18:58:42
2	Sc RADIAL	138489.8	138489.8	94.9	%			18:58:24
2	Al 396.153Radial†	2632.4	2837.1	80.052	µg/L	80.052	ppb	18:58:26
2	Ca 317.933Radial†	2111.9	1664.8	92.734	µg/L	92.734	ppb	18:58:26
2	Fe 238.204 Radial†	-168.1	-325.2	-20.046	µg/L	-20.046	ppb	18:58:26
2	K 766.490 Radial†	768501.7	808242.3	295910	µg/L	295910	ppb	18:58:24
2	Mg 279.077 IEC†	-343.1	-552.3	29.128	µg/L	29.128	ppb	18:58:26
2	Na 589.592 Radial†	4657.2	3616.6	230.89	µg/L	230.89	ppb	18:58:24
2	Sr 421.552†	4443237.9	4682072.2	9733.8	µg/L	9733.8	ppb	18:58:22
2	Sc 361.383	1654174.4	1654174.4	96.273	%			18:58:52
2	Y 371.029	964160.7	964160.7	93.910	%			18:58:52
2	Ag 328.068†	-27980.3	-33155.0	-5.4230	µg/L	-5.4230	ppb	18:58:54
2	As 188.979†	31657.2	32903.2	10204	µg/L	10204	ppb	18:58:54
2	B 249.677†	326358.6	335488.1	4915.4	µg/L	4915.4	ppb	18:58:52
2	Ba 233.527†	3296633.7	3424402.5	13809	µg/L	13809	ppb	18:58:52
2	Be 313.107†	10113068.4	10505672.2	2860.3	µg/L	2860.3	ppb	18:58:48
2	Cd 226.502†	1483425.3	1540976.0	9629.7	µg/L	9629.7	ppb	18:58:52
2	Co 228.616†	729085.8	757503.5	9363.3	µg/L	9363.3	ppb	18:58:52
2	Cr 267.716†	2922280.8	3035241.6	23775	µg/L	23775	ppb	18:58:52
2	Cu 324.752†	4934401.1	5122469.9	19912	µg/L	19912	ppb	18:58:52
2	Mn 257.610†	7264987.1	7546022.1	9336.7	µg/L	9336.7	ppb	18:58:52
2	Mo 202.031†	314514.5	326711.4	9605.0	µg/L	9605.0	ppb	18:58:54
2	Ni 231.604†	809217.8	840624.1	9679.2	µg/L	9679.2	ppb	18:58:52
2	P 214.914†	67979.1	70628.9	14873	µg/L	14873	ppb	18:58:54
2	Pb 220.353†	406432.6	422081.8	23591	µg/L	23591	ppb	18:58:52

2	S 181.975 Axial†	66600.5	69074.0	51374 µg/L	51374 ppb	18:58:54
2	Sb 206.836†	80074.2	83093.5	9689.8 µg/L	9689.8 ppb	18:58:54
2	Se 196.026†	25686.7	26665.9	9640 µg/L	9640 ppb	18:58:54
2	SiO2†	986400.6	1022814.9	99557 µg/L	99557 ppb	18:58:52
2	Si 251.611†	3046941.6	3164070.8	46455 µg/L	46455 ppb	18:58:52
2	Sn 189.927†	150469.1	156295.8	9776.7 µg/L	9776.7 ppb	18:58:54
2	Ti 334.940†	10189195.0	10582728.8	9879.4 µg/L	9879.4 ppb	18:58:48
2	Tl 190.801†	73611.8	76578.5	9559.6 µg/L	9559.6 ppb	18:58:54
2	U 409.014†	-10364.3	-10495.7	-9.0352 µg/L	-9.0352 ppb	18:58:54
2	V 292.402†	1961854.5	2037406.1	10131 µg/L	10131 ppb	18:58:52
2	Zn 213.857†	2448683.7	2542922.9	14210 µg/L	14210 ppb	18:58:52
3	Sc RADIAL	137437.4	137437.4	94.2 %		18:58:31
3	Al 396.153Radial†	2618.6	2843.6	77.986 µg/L	77.986 ppb	18:58:33
3	Ca 317.933Radial†	2227.5	1804.6	100.52 µg/L	100.52 ppb	18:58:33
3	Fe 238.204 Radial†	-164.9	-323.2	-19.923 µg/L	-19.923 ppb	18:58:33
3	K 766.490 Radial†	765491.4	811247.2	297010 µg/L	297010 ppb	18:58:31
3	Mg 279.077 IEC†	-295.0	-503.9	48.881 µg/L	48.881 ppb	18:58:33
3	Na 589.592 Radial†	4456.0	3440.6	205.87 µg/L	205.87 ppb	18:58:31
3	Sr 421.552†	4441067.4	4715621.3	9803.5 µg/L	9803.5 ppb	18:58:29
3	Sc 361.383	1660837.4	1660837.4	96.660 %		18:59:01
3	Y 371.029	967825.2	967825.2	94.267 %		18:59:01
3	Ag 328.068†	-28451.9	-33526.3	-6.5821 µg/L	-6.5821 ppb	18:59:04
3	As 188.979†	32300.2	33436.5	10365 µg/L	10365 ppb	18:59:04
3	B 249.677†	328722.2	336573.4	4931.3 µg/L	4931.3 ppb	18:59:01
3	Ba 233.527†	3317615.9	3432372.0	13841 µg/L	13841 ppb	18:59:01
3	Be 313.107†	10133998.6	10485182.6	2854.7 µg/L	2854.7 ppb	18:58:58
3	Cd 226.502†	1494854.9	1546618.8	9664.9 µg/L	9664.9 ppb	18:59:01
3	Co 228.616†	734092.5	759645.0	9389.8 µg/L	9389.8 ppb	18:59:01
3	Cr 267.716†	2940364.9	3041773.0	23826 µg/L	23826 ppb	18:59:01
3	Cu 324.752†	4964197.6	5132733.3	19952 µg/L	19952 ppb	18:59:01
3	Mn 257.610†	7309991.3	7562306.7	9356.8 µg/L	9356.8 ppb	18:59:01
3	Mo 202.031†	318101.3	329111.4	9675.5 µg/L	9675.5 ppb	18:59:04
3	Ni 231.604†	815203.0	843443.9	9711.6 µg/L	9711.6 ppb	18:59:01
3	P 214.914†	69129.8	71536.1	15067 µg/L	15067 ppb	18:59:04
3	Pb 220.353†	409679.7	423747.3	23684 µg/L	23684 ppb	18:59:01
3	S 181.975 Axial†	67967.3	70210.4	52219 µg/L	52219 ppb	18:59:04
3	Sb 206.836†	81066.4	83786.4	9772.6 µg/L	9772.6 ppb	18:59:04
3	Se 196.026†	26138.8	27026.6	9770 µg/L	9770 ppb	18:59:04
3	SiO2†	993772.6	1026331.1	99898 µg/L	99898 ppb	18:59:01
3	Si 251.611†	3070650.4	3175901.7	46628 µg/L	46628 ppb	18:59:01
3	Sn 189.927†	152708.7	157985.7	9882.0 µg/L	9882.0 ppb	18:59:04
3	Ti 334.940†	10211863.8	10563720.7	9861.6 µg/L	9861.6 ppb	18:58:58
3	Tl 190.801†	74486.4	77176.5	9633.0 µg/L	9633.0 ppb	18:59:04
3	U 409.014†	-10678.1	-10777.2	-24.287 µg/L	-24.287 ppb	18:59:04
3	V 292.402†	1973672.0	2041456.5	10152 µg/L	10152 ppb	18:59:01
3	Zn 213.857†	2465384.0	2549996.1	14250 µg/L	14250 ppb	18:59:01

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1653021.9	96.206	%	0.4918				0.51%
Sc RADIAL	138118.6	94.6	%	0.40				0.43%
Y 371.029	963642.3	93.859	%	0.4349				0.46%
Ag 328.068†	-33408.6	-6.4037	µg/L	0.90480	-6.4037	ppb	0.90480	14.13%
Al 396.153Radial†	2824.6	74.672	µg/L	7.5994	74.672	ppb	7.5994	10.18%
As 188.979†	33308.6	10326	µg/L	108.5	10326	ppb	108.5	1.05%
QC value within limits for As 188.979 Recovery = 103.26%								
B 249.677†	335301.2	4912.7	µg/L	20.14	4912.7	ppb	20.14	0.41%
QC value within limits for B 249.677 Recovery = 98.25%								
Ba 233.527†	3422577.3	13801	µg/L	43.6	13801	ppb	43.6	0.32%
QC value within limits for Ba 233.527 Recovery = 92.01%								
Be 313.107†	10501831.6	2859.3	µg/L	4.11	2859.3	ppb	4.11	0.14%
QC value within limits for Be 313.107 Recovery = 95.31%								
Ca 317.933Radial†	1736.3	96.720	µg/L	3.8970	96.720	ppb	3.8970	4.03%
Cd 226.502†	1539229.5	9618.8	µg/L	52.49	9618.8	ppb	52.49	0.55%
QC value within limits for Cd 226.502 Recovery = 96.19%								
Co 228.616†	756713.8	9353.6	µg/L	41.95	9353.6	ppb	41.95	0.45%
QC value within limits for Co 228.616 Recovery = 93.54%								
Cr 267.716†	3032991.5	23758	µg/L	79.1	23758	ppb	79.1	0.33%
QC value within limits for Cr 267.716 Recovery = 95.03%								

Cu 324.752†	5122485.4	19912 µg/L	39.8	19912 ppb	39.8	0.20%
QC value within limits for Cu 324.752 Recovery = 99.56%						
Fe 238.204 Radial†	-336.6	-20.748 µg/L	1.3234	-20.748 ppb	1.3234	6.38%
K 766.490 Radial†	807542.9	295650 µg/L	1500.7	295650 ppb	1500.7	0.51%
QC value within limits for K 766.490 Radial Recovery = 98.55%						
Mg 279.077 IEC†	-527.6	39.932 µg/L	10.0061	39.932 ppb	10.0061	25.06%
Mn 257.610†	7541217.3	9330.7 µg/L	29.52	9330.7 ppb	29.52	0.32%
QC value within limits for Mn 257.610 Recovery = 93.31%						
Mo 202.031†	328957.9	9671.0 µg/L	63.88	9671.0 ppb	63.88	0.66%
QC value within limits for Mo 202.031 Recovery = 96.71%						
Na 589.592 Radial†	3581.5	226.33 µg/L	18.607	226.33 ppb	18.607	8.22%
Ni 231.604†	840034.1	9672.4 µg/L	43.06	9672.4 ppb	43.06	0.45%
QC value within limits for Ni 231.604 Recovery = 96.72%						
P 214.914†	71274.3	15011 µg/L	120.3	15011 ppb	120.3	0.80%
QC value within limits for P 214.914 Recovery = 100.07%						
Pb 220.353†	421664.4	23568 µg/L	129.3	23568 ppb	129.3	0.55%
QC value within limits for Pb 220.353 Recovery = 94.27%						
S 181.975 Axial†	69844.2	51947 µg/L	496.0	51947 ppb	496.0	0.95%
QC value within limits for S 181.975 Axial Recovery = 103.89%						
Sb 206.836†	83738.7	9767.8 µg/L	75.75	9767.8 ppb	75.75	0.78%
QC value within limits for Sb 206.836 Recovery = 97.68%						
Se 196.026†	26961.8	9750 µg/L	97.4	9750 ppb	97.4	1.00%
QC value within limits for Se 196.026 Recovery = 97.47%						
SiO2†	1021991.6	99474 µg/L	471.0	99474 ppb	471.0	0.47%
QC value within limits for SiO2 Recovery = 92.97%						
Si 251.611†	3161856.2	46421 µg/L	225.8	46421 ppb	225.8	0.49%
QC value within limits for Si 251.611 Recovery = 92.84%						
Sn 189.927†	157586.2	9857.1 µg/L	71.32	9857.1 ppb	71.32	0.72%
QC value within limits for Sn 189.927 Recovery = 98.57%						
Sr 421.552†	4701327.6	9773.8 µg/L	36.00	9773.8 ppb	36.00	0.37%
QC value within limits for Sr 421.552 Recovery = 97.74%						
Ti 334.940†	10578479.4	9875.4 µg/L	12.32	9875.4 ppb	12.32	0.12%
QC value within limits for Ti 334.940 Recovery = 98.75%						
Tl 190.801†	77087.7	9622.1 µg/L	57.90	9622.1 ppb	57.90	0.60%
QC value within limits for Tl 190.801 Recovery = 96.22%						
U 409.014†	-10648.1	-18.128 µg/L	8.0380	-18.128 ppb	8.0380	44.34%
V 292.402†	2036837.3	10129 µg/L	24.0	10129 ppb	24.0	0.24%
QC value within limits for V 292.402 Recovery = 101.29%						
Zn 213.857†	2541282.9	14201 µg/L	53.8	14201 ppb	53.8	0.38%
QC value within limits for Zn 213.857 Recovery = 94.68%						

All analyte(s) passed QC.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 18:59:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142139.5	142139.5	97.4	%			18:59:45
1	Al 396.153Radial†	26433.8	27201.9	5020.1	µg/L	5020.1	ppb	18:59:45
1	Ca 317.933Radial†	88689.7	90494.1	5040.9	µg/L	5040.9	ppb	18:59:45
1	Fe 238.204 Radial†	79307.5	81274.2	5009.2	µg/L	5009.2	ppb	18:59:45
1	K 766.490 Radial†	16771.4	15673.9	5734.3	µg/L	5734.3	ppb	18:59:45
1	Mg 279.077 IEC†	13660.1	13833.7	5162.1	µg/L	5162.1	ppb	18:59:45
1	Na 589.592 Radial†	73293.1	73956.7	10098	µg/L	10098	ppb	18:59:45
1	Sr 421.552†	230485.0	236766.3	492.18	µg/L	492.18	ppb	18:59:42
1	Sc 361.383	1685039.5	1685039.5	98.069	%			19:00:11
1	Y 371.029	998501.4	998501.4	97.255	%			19:00:11
1	Ag 328.068†	132676.3	131197.3	491.97	µg/L	491.97	ppb	19:00:11
1	As 188.979†	1601.0	1652.9	507.06	µg/L	507.06	ppb	19:00:31
1	B 249.677†	36255.7	33463.6	491.81	µg/L	491.81	ppb	19:00:11
1	Ba 233.527†	119950.7	122448.3	493.83	µg/L	493.83	ppb	19:00:11
1	Be 313.107†	1777442.6	1813504.8	493.92	µg/L	493.92	ppb	19:00:11
1	Cd 226.502†	77121.2	78757.9	491.64	µg/L	491.64	ppb	19:00:11
1	Co 228.616†	39140.7	40101.7	495.05	µg/L	495.05	ppb	19:00:11
1	Cr 267.716†	61794.1	62832.3	491.97	µg/L	491.97	ppb	19:00:11
1	Cu 324.752†	126997.2	126525.5	493.24	µg/L	493.24	ppb	19:00:11
1	Mn 257.610†	392842.9	400340.6	495.12	µg/L	495.12	ppb	19:00:11
1	Mo 202.031†	16539.5	16885.3	496.69	µg/L	496.69	ppb	19:00:31
1	Ni 231.604†	41890.8	42792.1	492.72	µg/L	492.72	ppb	19:00:11
1	P 214.914†	11336.8	11578.0	2467.8	µg/L	2467.8	ppb	19:00:31
1	Pb 220.353†	8936.3	9025.8	505.42	µg/L	505.42	ppb	19:00:31
1	S 181.975 Axial†	1440.2	1363.5	1016.7	µg/L	1016.7	ppb	19:00:31
1	Sb 206.836†	4150.3	4151.2	494.66	µg/L	494.66	ppb	19:00:31
1	Se 196.026†	1355.8	1367.2	496	µg/L	496	ppb	19:00:31
1	SiO2†	55729.4	55051.3	5359.5	µg/L	5359.5	ppb	19:00:11
1	Si 251.611†	167770.7	170237.6	2499.9	µg/L	2499.9	ppb	19:00:11
1	Sn 189.927†	7832.4	7987.8	499.62	µg/L	499.62	ppb	19:00:31
1	Ti 334.940†	519447.4	528722.7	493.33	µg/L	493.33	ppb	19:00:11
1	Tl 190.801†	3833.0	4025.2	501.97	µg/L	501.97	ppb	19:00:31
1	U 409.014†	7396.5	7812.0	486.67	µg/L	486.67	ppb	19:00:11
1	V 292.402†	98795.4	100336.9	496.05	µg/L	496.05	ppb	19:00:11
1	Zn 213.857†	87637.0	88798.1	494.94	µg/L	494.94	ppb	19:00:11
2	Sc RADIAL	141405.1	141405.1	96.9	%			18:59:49
2	Al 396.153Radial†	26316.7	27222.0	5023.9	µg/L	5023.9	ppb	18:59:49
2	Ca 317.933Radial†	88132.2	90391.6	5035.2	µg/L	5035.2	ppb	18:59:49
2	Fe 238.204 Radial†	78428.2	80789.6	4979.4	µg/L	4979.4	ppb	18:59:49
2	K 766.490 Radial†	16577.4	15563.0	5693.7	µg/L	5693.7	ppb	18:59:49
2	Mg 279.077 IEC†	13417.4	13656.1	5095.9	µg/L	5095.9	ppb	18:59:49
2	Na 589.592 Radial†	72730.8	73767.2	10072	µg/L	10072	ppb	18:59:49
2	Sr 421.552†	231214.8	238748.4	496.30	µg/L	496.30	ppb	18:59:47
2	Sc 361.383	1693366.2	1693366.2	98.554	%			19:00:35
2	Y 371.029	1002117.3	1002117.3	97.607	%			19:00:35
2	Ag 328.068†	134028.3	131903.9	494.57	µg/L	494.57	ppb	19:00:35
2	As 188.979†	1592.6	1636.4	502.08	µg/L	502.08	ppb	19:00:55
2	B 249.677†	36515.2	33545.2	493.02	µg/L	493.02	ppb	19:00:35
2	Ba 233.527†	120680.2	122587.1	494.39	µg/L	494.39	ppb	19:00:35
2	Be 313.107†	1789722.9	1817053.1	494.89	µg/L	494.89	ppb	19:00:35
2	Cd 226.502†	77769.6	79029.1	493.33	µg/L	493.33	ppb	19:00:35
2	Co 228.616†	39338.4	40106.1	495.11	µg/L	495.11	ppb	19:00:35
2	Cr 267.716†	62316.9	63052.8	493.70	µg/L	493.70	ppb	19:00:35
2	Cu 324.752†	127673.8	126575.3	493.42	µg/L	493.42	ppb	19:00:35
2	Mn 257.610†	395604.2	401172.7	496.16	µg/L	496.16	ppb	19:00:35
2	Mo 202.031†	16605.0	16868.7	496.20	µg/L	496.20	ppb	19:00:55
2	Ni 231.604†	42250.6	42947.2	494.51	µg/L	494.51	ppb	19:00:35
2	P 214.914†	11392.0	11577.2	2467.6	µg/L	2467.6	ppb	19:00:55
2	Pb 220.353†	8993.4	9039.0	506.15	µg/L	506.15	ppb	19:00:55

2	S 181.975 Axial†	1441.0	1357.1	1011.9 µg/L	1011.9 ppb		19:00:55
2	Sb 206.836†	4173.3	4153.7	494.93 µg/L	494.93 ppb		19:00:55
2	Se 196.026†	1369.6	1374.4	499 µg/L	499 ppb		19:00:55
2	SiO2†	55740.1	54782.8	5333.3 µg/L	5333.3 ppb		19:00:35
2	Si 251.611†	168764.7	170404.9	2502.4 µg/L	2502.4 ppb		19:00:35
2	Sn 189.927†	7855.7	7972.1	498.64 µg/L	498.64 ppb		19:00:55
2	Ti 334.940†	522510.2	529225.9	493.80 µg/L	493.80 ppb		19:00:35
2	Tl 190.801†	3874.1	4047.6	504.73 µg/L	504.73 ppb		19:00:55
2	U 409.014†	7341.8	7719.4	481.23 µg/L	481.23 ppb		19:00:35
2	V 292.402†	99158.5	100210.0	495.43 µg/L	495.43 ppb		19:00:35
2	Zn 213.857†	88086.4	88814.8	495.03 µg/L	495.03 ppb		19:00:35
3	Sc RADIAL	143105.8	143105.8	98.1 %			18:59:53
3	Al 396.153Radial†	26546.6	27133.7	5007.7 µg/L	5007.7 ppb		18:59:53
3	Ca 317.933Radial†	89145.0	90343.6	5032.5 µg/L	5032.5 ppb		18:59:53
3	Fe 238.204 Radial†	79321.5	80738.7	4976.2 µg/L	4976.2 ppb		18:59:53
3	K 766.490 Radial†	16684.6	15469.1	5659.4 µg/L	5659.4 ppb		18:59:53
3	Mg 279.077 IEC†	13656.7	13735.5	5125.4 µg/L	5125.4 ppb		18:59:53
3	Na 589.592 Radial†	73452.5	73611.2	10051 µg/L	10051 ppb		18:59:53
3	Sr 421.552†	233202.1	237939.3	494.62 µg/L	494.62 ppb		18:59:51
3	Sc 361.383	1698557.6	1698557.6	98.856 %			19:00:58
3	Y 371.029	1005300.2	1005300.2	97.917 %			19:00:58
3	Ag 328.068†	134027.1	131487.0	493.03 µg/L	493.03 ppb		19:00:58
3	As 188.979†	1600.3	1639.2	502.90 µg/L	502.90 ppb		19:01:18
3	B 249.677†	36626.1	33544.1	493.00 µg/L	493.00 ppb		19:00:58
3	Ba 233.527†	120865.6	122400.4	493.64 µg/L	493.64 ppb		19:00:58
3	Be 313.107†	1794818.7	1816657.7	494.78 µg/L	494.78 ppb		19:00:58
3	Cd 226.502†	77952.7	78973.1	492.98 µg/L	492.98 ppb		19:00:58
3	Co 228.616†	39410.3	40056.7	494.50 µg/L	494.50 ppb		19:00:58
3	Cr 267.716†	62267.5	62809.6	491.79 µg/L	491.79 ppb		19:00:58
3	Cu 324.752†	127710.6	126216.6	492.03 µg/L	492.03 ppb		19:00:58
3	Mn 257.610†	396581.9	400934.9	495.86 µg/L	495.86 ppb		19:00:58
3	Mo 202.031†	16557.8	16769.5	493.29 µg/L	493.29 ppb		19:01:18
3	Ni 231.604†	42318.2	42884.5	493.78 µg/L	493.78 ppb		19:00:58
3	P 214.914†	11368.7	11518.2	2455.0 µg/L	2455.0 ppb		19:01:18
3	Pb 220.353†	8920.7	8937.6	500.48 µg/L	500.48 ppb		19:01:18
3	S 181.975 Axial†	1449.3	1361.0	1014.8 µg/L	1014.8 ppb		19:01:18
3	Sb 206.836†	4163.9	4131.2	492.23 µg/L	492.23 ppb		19:01:18
3	Se 196.026†	1367.7	1368.2	497 µg/L	497 ppb		19:01:18
3	SiO2†	55966.4	54838.9	5338.9 µg/L	5338.9 ppb		19:00:58
3	Si 251.611†	169027.1	170146.9	2498.6 µg/L	2498.6 ppb		19:00:58
3	Sn 189.927†	7816.0	7907.6	494.62 µg/L	494.62 ppb		19:01:18
3	Ti 334.940†	523522.3	528629.3	493.24 µg/L	493.24 ppb		19:00:58
3	Tl 190.801†	3828.1	3989.1	497.54 µg/L	497.54 ppb		19:01:18
3	U 409.014†	7431.2	7787.1	485.18 µg/L	485.18 ppb		19:00:58
3	V 292.402†	99434.0	100181.1	495.25 µg/L	495.25 ppb		19:00:58
3	Zn 213.857†	87848.2	88300.5	492.15 µg/L	492.15 ppb		19:00:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1692321.1	98.493	%	0.3969				0.40%
Sc RADIAL	142216.8	97.5	%	0.58				0.60%
Y 371.029	1001973.0	97.593	%	0.3313				0.34%
Ag 328.068†	131529.4	493.19	µg/L	1.309	493.19	ppb	1.309	0.27%
QC value within limits for Ag 328.068 Recovery = 98.64%								
Al 396.153Radial†	27185.9	5017.2	µg/L	8.50	5017.2	ppb	8.50	0.17%
QC value within limits for Al 396.153Radial Recovery = 100.34%								
As 188.979†	1642.8	504.02	µg/L	2.669	504.02	ppb	2.669	0.53%
QC value within limits for As 188.979 Recovery = 100.80%								
B 249.677†	33517.6	492.61	µg/L	0.690	492.61	ppb	0.690	0.14%
QC value within limits for B 249.677 Recovery = 98.52%								
Ba 233.527†	122478.6	493.95	µg/L	0.391	493.95	ppb	0.391	0.08%
QC value within limits for Ba 233.527 Recovery = 98.79%								
Be 313.107†	1815738.5	494.53	µg/L	0.529	494.53	ppb	0.529	0.11%
QC value within limits for Be 313.107 Recovery = 98.91%								
Ca 317.933Radial†	90409.8	5036.2	µg/L	4.28	5036.2	ppb	4.28	0.09%
QC value within limits for Ca 317.933Radial Recovery = 100.72%								
Cd 226.502†	78920.1	492.65	µg/L	0.896	492.65	ppb	0.896	0.18%
QC value within limits for Cd 226.502 Recovery = 98.53%								
Co 228.616†	40088.2	494.89	µg/L	0.337	494.89	ppb	0.337	0.07%

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   QC value within limits for Co 228.616  Recovery = 98.98%
Cr 267.716†            62898.2      492.49 µg/L         1.054      492.49 ppb          1.054   0.21%
   QC value within limits for Cr 267.716  Recovery = 98.50%
Cu 324.752†           126439.1      492.90 µg/L         0.756      492.90 ppb          0.756   0.15%
   QC value within limits for Cu 324.752  Recovery = 98.58%
Fe 238.204 Radial†     80934.2      4988.3 µg/L         18.22      4988.3 ppb          18.22   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.77%
K 766.490 Radial†      15568.7      5695.8 µg/L         37.52      5695.8 ppb          37.52   0.66%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 113.92%
Mg 279.077 IEC†        13741.8      5127.8 µg/L         33.15      5127.8 ppb          33.15   0.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.56%
Mn 257.610†           400816.1      495.71 µg/L         0.532      495.71 ppb          0.532   0.11%
   QC value within limits for Mn 257.610  Recovery = 99.14%
Mo 202.031†            16841.2      495.39 µg/L         1.841      495.39 ppb          1.841   0.37%
   QC value within limits for Mo 202.031  Recovery = 99.08%
Na 589.592 Radial†     73778.4       10074 µg/L          23.6       10074 ppb           23.6   0.23%
   QC value within limits for Na 589.592 Radial  Recovery = 100.74%
Ni 231.604†            42874.6      493.67 µg/L         0.898      493.67 ppb          0.898   0.18%
   QC value within limits for Ni 231.604  Recovery = 98.73%
P 214.914†             11557.8      2463.5 µg/L          7.33      2463.5 ppb           7.33   0.30%
   QC value within limits for P 214.914  Recovery = 98.54%
Pb 220.353†             9000.8      504.02 µg/L         3.083      504.02 ppb          3.083   0.61%
   QC value within limits for Pb 220.353  Recovery = 100.80%
S 181.975 Axial†        1360.5      1014.5 µg/L          2.43      1014.5 ppb           2.43   0.24%
   QC value within limits for S 181.975 Axial  Recovery = 101.45%
Sb 206.836†             4145.4      493.94 µg/L         1.484      493.94 ppb          1.484   0.30%
   QC value within limits for Sb 206.836  Recovery = 98.79%
Se 196.026†             1370.0         497 µg/L           1.4         497 ppb            1.4   0.28%
   QC value within limits for Se 196.026  Recovery = 99.49%
SiO2†                  54891.0      5343.9 µg/L         13.80      5343.9 ppb          13.80   0.26%
   QC value within limits for SiO2  Recovery = 99.93%
Si 251.611†           170263.1      2500.3 µg/L          1.90      2500.3 ppb           1.90   0.08%
   QC value within limits for Si 251.611  Recovery = 100.01%
Sn 189.927†             7955.8      497.63 µg/L         2.649      497.63 ppb          2.649   0.53%
   QC value within limits for Sn 189.927  Recovery = 99.53%
Sr 421.552†           237818.0      494.37 µg/L         2.072      494.37 ppb          2.072   0.42%
   QC value within limits for Sr 421.552  Recovery = 98.87%
Ti 334.940†           528859.3      493.46 µg/L         0.302      493.46 ppb          0.302   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.69%
Tl 190.801†             4020.6      501.41 µg/L         3.629      501.41 ppb          3.629   0.72%
   QC value within limits for Tl 190.801  Recovery = 100.28%
U 409.014†              7772.9      484.36 µg/L         2.811      484.36 ppb          2.811   0.58%
   QC value within limits for U 409.014  Recovery = 96.87%
V 292.402†            100242.7      495.58 µg/L         0.417      495.58 ppb          0.417   0.08%
   QC value within limits for V 292.402  Recovery = 99.12%
Zn 213.857†            88637.8      494.04 µg/L         1.641      494.04 ppb          1.641   0.33%
   QC value within limits for Zn 213.857  Recovery = 98.81%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:01:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142576.4	142576.4	97.7	%			19:01:55
1	Al 396.153Radial†	57.6	122.1	22.616	µg/L	22.616	ppb	19:02:15
1	Ca 317.933Radial†	950.3	412.1	22.954	µg/L	22.954	ppb	19:02:15
1	Fe 238.204 Radial†	408.4	269.9	16.636	µg/L	16.636	ppb	19:02:15
1	K 766.490 Radial†	2351.3	861.8	315.49	µg/L	315.49	ppb	19:01:55
1	Mg 279.077 IEC†	256.3	71.6	26.675	µg/L	26.675	ppb	19:02:15
1	Na 589.592 Radial†	2324.7	1088.6	148.44	µg/L	148.44	ppb	19:01:55
1	Sr 421.552†	-47.4	86.8	0.1802	µg/L	0.1802	ppb	19:01:55
1	Sc 361.383	1712993.6	1712993.6	99.696	%			19:03:03
1	Y 371.029	1024574.5	1024574.5	99.794	%			19:03:03
1	Ag 328.068†	3862.6	-217.0	-0.8055	µg/L	-0.8055	ppb	19:03:05
1	As 188.979†	-11.7	8.6	2.6096	µg/L	2.6096	ppb	19:03:25
1	B 249.677†	3681.1	186.4	2.7486	µg/L	2.7486	ppb	19:03:05
1	Ba 233.527†	-102.8	32.7	0.1316	µg/L	0.1316	ppb	19:03:25
1	Be 313.107†	-845.8	216.4	0.0592	µg/L	0.0592	ppb	19:03:05
1	Cd 226.502†	-69.1	48.9	0.3038	µg/L	0.3038	ppb	19:03:25
1	Co 228.616†	-171.2	18.6	0.2289	µg/L	0.2289	ppb	19:03:25
1	Cr 267.716†	235.5	57.6	0.4508	µg/L	0.4508	ppb	19:03:25
1	Cu 324.752†	3139.9	177.3	0.6930	µg/L	0.6930	ppb	19:03:05
1	Mn 257.610†	387.8	151.7	0.1866	µg/L	0.1866	ppb	19:03:25
1	Mo 202.031†	-0.9	19.2	0.5643	µg/L	0.5643	ppb	19:03:25
1	Ni 231.604†	-84.9	-8.7	-0.0996	µg/L	-0.0996	ppb	19:03:25
1	P 214.914†	-24.3	-6.5	-1.3891	µg/L	-1.3891	ppb	19:03:25
1	Pb 220.353†	141.3	55.4	3.0911	µg/L	3.0911	ppb	19:03:25
1	S 181.975 Axial†	113.5	8.8	6.5060	µg/L	6.5060	ppb	19:03:25
1	Sb 206.836†	76.0	-4.6	-0.5451	µg/L	-0.5451	ppb	19:03:25
1	Se 196.026†	20.7	5.5	2.01	µg/L	2.01	ppb	19:03:25
1	SiO2†	1808.7	38.9	3.7615	µg/L	3.7615	ppb	19:03:25
1	Si 251.611†	1158.0	325.0	4.7734	µg/L	4.7734	ppb	19:03:05
1	Sn 189.927†	23.2	24.4	1.5199	µg/L	1.5199	ppb	19:03:25
1	Ti 334.940†	1109.4	160.3	0.1476	µg/L	0.1476	ppb	19:03:05
1	Tl 190.801†	-105.0	11.4	1.4002	µg/L	1.4002	ppb	19:03:25
1	U 409.014†	-251.8	17.3	0.9993	µg/L	0.9993	ppb	19:03:05
1	V 292.402†	359.4	-43.3	-0.2046	µg/L	-0.2046	ppb	19:03:05
1	Zn 213.857†	837.7	275.9	1.5483	µg/L	1.5483	ppb	19:03:25
2	Sc RADIAL	143802.6	143802.6	98.5	%			19:02:17
2	Al 396.153Radial†	-23.6	39.2	7.2646	µg/L	7.2646	ppb	19:02:37
2	Ca 317.933Radial†	724.5	174.6	9.7279	µg/L	9.7279	ppb	19:02:37
2	Fe 238.204 Radial†	241.4	96.9	5.9704	µg/L	5.9704	ppb	19:02:37
2	K 766.490 Radial†	2344.6	834.5	305.50	µg/L	305.50	ppb	19:02:17
2	Mg 279.077 IEC†	184.0	-4.0	-1.5026	µg/L	-1.5026	ppb	19:02:37
2	Na 589.592 Radial†	2222.6	964.7	131.52	µg/L	131.52	ppb	19:02:17
2	Sr 421.552†	-22.7	112.3	0.2333	µg/L	0.2333	ppb	19:02:17
2	Sc 361.383	1715539.4	1715539.4	99.844	%			19:03:27
2	Y 371.029	1025697.2	1025697.2	99.903	%			19:03:27
2	Ag 328.068†	4157.7	72.8	0.2757	µg/L	0.2757	ppb	19:03:30
2	As 188.979†	-16.7	3.7	1.1138	µg/L	1.1138	ppb	19:03:50
2	B 249.677†	3652.6	152.4	2.2465	µg/L	2.2465	ppb	19:03:30
2	Ba 233.527†	-103.8	31.9	0.1289	µg/L	0.1289	ppb	19:03:50
2	Be 313.107†	-800.4	263.0	0.0711	µg/L	0.0711	ppb	19:03:30
2	Cd 226.502†	-101.0	17.0	0.1059	µg/L	0.1059	ppb	19:03:50
2	Co 228.616†	-175.3	14.7	0.1813	µg/L	0.1813	ppb	19:03:50
2	Cr 267.716†	251.6	73.5	0.5772	µg/L	0.5772	ppb	19:03:50
2	Cu 324.752†	3073.4	105.9	0.4112	µg/L	0.4112	ppb	19:03:30
2	Mn 257.610†	351.3	114.6	0.1418	µg/L	0.1418	ppb	19:03:50
2	Mo 202.031†	-12.8	7.2	0.2126	µg/L	0.2126	ppb	19:03:50
2	Ni 231.604†	-67.1	9.3	0.1072	µg/L	0.1072	ppb	19:03:50
2	P 214.914†	-27.6	-9.7	-2.0622	µg/L	-2.0622	ppb	19:03:50
2	Pb 220.353†	95.6	9.4	0.5244	µg/L	0.5244	ppb	19:03:50

2	S 181.975 Axial†	105.7	0.8	0.6240	µg/L	0.6240 ppb	19:03:50
2	Sb 206.836†	85.0	4.3	0.5093	µg/L	0.5093 ppb	19:03:50
2	Se 196.026†	19.1	3.9	1.40	µg/L	1.40 ppb	19:03:50
2	SiO2†	1782.4	9.8	0.9335	µg/L	0.9335 ppb	19:03:50
2	Si 251.611†	944.9	109.8	1.6073	µg/L	1.6073 ppb	19:03:30
2	Sn 189.927†	21.6	22.8	1.4197	µg/L	1.4197 ppb	19:03:50
2	Ti 334.940†	960.9	9.8	0.0100	µg/L	0.0100 ppb	19:03:30
2	Tl 190.801†	-107.7	8.8	1.0828	µg/L	1.0828 ppb	19:03:50
2	U 409.014†	-298.4	-28.9	-1.6511	µg/L	-1.6511 ppb	19:03:30
2	V 292.402†	549.1	146.2	0.7161	µg/L	0.7161 ppb	19:03:30
2	Zn 213.857†	814.7	251.5	1.4114	µg/L	1.4114 ppb	19:03:50
3	Sc RADIAL	143637.2	143637.2	98.4	%		19:02:39
3	Al 396.153Radial†	-43.2	19.4	3.5840	µg/L	3.5840 ppb	19:03:00
3	Ca 317.933Radial†	715.6	166.4	9.2706	µg/L	9.2706 ppb	19:03:00
3	Fe 238.204 Radial†	242.5	98.3	6.0580	µg/L	6.0580 ppb	19:03:00
3	K 766.490 Radial†	2256.9	748.2	273.88	µg/L	273.88 ppb	19:02:39
3	Mg 279.077 IEC†	205.1	17.7	6.5824	µg/L	6.5824 ppb	19:03:00
3	Na 589.592 Radial†	2284.1	1029.7	140.43	µg/L	140.43 ppb	19:02:39
3	Sr 421.552†	11.7	147.2	0.3060	µg/L	0.3060 ppb	19:02:39
3	Sc 361.383	1722456.3	1722456.3	100.25	%		19:03:52
3	Y 371.029	1029533.6	1029533.6	100.28	%		19:03:52
3	Ag 328.068†	4007.1	-94.2	-0.3350	µg/L	-0.3350 ppb	19:03:54
3	As 188.979†	-18.8	1.6	0.4750	µg/L	0.4750 ppb	19:04:14
3	B 249.677†	3639.8	125.0	1.8421	µg/L	1.8421 ppb	19:03:54
3	Ba 233.527†	-117.1	19.1	0.0776	µg/L	0.0776 ppb	19:04:14
3	Be 313.107†	-721.4	345.0	0.0939	µg/L	0.0939 ppb	19:03:54
3	Cd 226.502†	-93.0	25.4	0.1581	µg/L	0.1581 ppb	19:04:14
3	Co 228.616†	-173.2	17.6	0.2167	µg/L	0.2167 ppb	19:04:14
3	Cr 267.716†	211.6	32.5	0.2552	µg/L	0.2552 ppb	19:04:14
3	Cu 324.752†	3092.5	112.7	0.4392	µg/L	0.4392 ppb	19:03:54
3	Mn 257.610†	342.1	104.0	0.1284	µg/L	0.1284 ppb	19:04:14
3	Mo 202.031†	-15.6	4.5	0.1336	µg/L	0.1336 ppb	19:04:14
3	Ni 231.604†	-90.2	-13.4	-0.1547	µg/L	-0.1547 ppb	19:04:14
3	P 214.914†	-22.3	-4.2	-0.9047	µg/L	-0.9047 ppb	19:04:14
3	Pb 220.353†	117.3	30.6	1.7079	µg/L	1.7079 ppb	19:04:14
3	S 181.975 Axial†	114.1	8.7	6.4890	µg/L	6.4890 ppb	19:04:14
3	Sb 206.836†	80.1	-1.0	-0.1107	µg/L	-0.1107 ppb	19:04:14
3	Se 196.026†	9.2	-6.1	-2.20	µg/L	-2.20 ppb	19:04:14
3	SiO2†	1811.5	31.7	3.0742	µg/L	3.0742 ppb	19:04:14
3	Si 251.611†	907.7	68.9	1.0043	µg/L	1.0043 ppb	19:03:54
3	Sn 189.927†	22.3	23.4	1.4577	µg/L	1.4577 ppb	19:04:14
3	Ti 334.940†	846.3	-108.3	-0.1015	µg/L	-0.1015 ppb	19:03:54
3	Tl 190.801†	-114.4	2.6	0.3215	µg/L	0.3215 ppb	19:04:14
3	U 409.014†	-270.6	-0.0	0.0667	µg/L	0.0667 ppb	19:03:54
3	V 292.402†	646.7	241.3	1.1790	µg/L	1.1790 ppb	19:03:54
3	Zn 213.857†	803.7	237.3	1.3332	µg/L	1.3332 ppb	19:04:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716996.5	99.929	%	0.2850				0.29%
Sc RADIAL	143338.8	98.2	%	0.46				0.46%
Y 371.029	1026601.8	99.992	%	0.2533				0.25%
Ag 328.068†	-79.5	-0.2883	µg/L	0.54213	-0.2883	ppb	0.54213	188.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	60.2	11.155	µg/L	10.0946	11.155	ppb	10.0946	90.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.6	1.3995	µg/L	1.09560	1.3995	ppb	1.09560	78.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	154.6	2.2791	µg/L	0.45415	2.2791	ppb	0.45415	19.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	27.9	0.1127	µg/L	0.03047	0.1127	ppb	0.03047	27.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	274.8	0.0748	µg/L	0.01765	0.0748	ppb	0.01765	23.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	251.0	13.984	µg/L	7.7715	13.984	ppb	7.7715	55.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	30.5	0.1893	µg/L	0.10254	0.1893	ppb	0.10254	54.18%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.0	0.2090	µg/L	0.02473	0.2090	ppb	0.02473	11.83%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              54.5      0.4277 µg/L       0.16226      0.4277 ppb        0.16226  37.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             132.0      0.5144 µg/L       0.15523      0.5144 ppb        0.15523  30.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      155.0      9.5549 µg/L       6.13280      9.5549 ppb        6.13280  64.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       814.8      298.29 µg/L        21.721      298.29 ppb         21.721   7.28%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          28.4      10.585 µg/L       14.5091      10.585 ppb        14.5091 137.07%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             123.4      0.1523 µg/L       0.03051      0.1523 ppb        0.03051  20.04%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.3      0.3035 µg/L       0.22930      0.3035 ppb        0.22930  75.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     1027.7      140.13 µg/L         8.461      140.13 ppb          8.461   6.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.3     -0.0490 µg/L       0.13810     -0.0490 ppb        0.13810 281.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -6.8     -1.4520 µg/L       0.58130     -1.4520 ppb        0.58130  40.03%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              31.8      1.7745 µg/L       1.28462      1.7745 ppb        1.28462  72.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.1      4.5397 µg/L       3.39110      4.5397 ppb        3.39110  74.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.4     -0.0489 µg/L       0.52991     -0.0489 ppb        0.52991 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.1       0.402 µg/L        2.2740       0.402 ppb         2.2740 564.97%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    26.8      2.5897 µg/L       1.47490      2.5897 ppb        1.47490  56.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             167.9      2.4617 µg/L       2.02458      2.4617 ppb        2.02458  82.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              23.5      1.4657 µg/L       0.05055      1.4657 ppb        0.05055   3.45%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             115.4      0.2398 µg/L       0.06313      0.2398 ppb        0.06313  26.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              20.6      0.0187 µg/L       0.12478      0.0187 ppb        0.12478 667.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.6      0.9348 µg/L       0.55437      0.9348 ppb        0.55437  59.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -3.9     -0.1950 µg/L       1.34448     -0.1950 ppb        1.34448 689.39%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              114.7      0.5635 µg/L       0.70433      0.5635 ppb        0.70433 125.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             254.9      1.4310 µg/L       0.10892      1.4310 ppb        0.10892   7.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

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Analysis Begun

Start Time: 3/31/2010 19:06:02 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 3/31/2010 18:15:19**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/31/2010 19:06:03**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142053.7	142053.7	97.3	%			19:06:36
1	Al 396.153Radial†	26187.8	26965.5	4976.4	µg/L	4976.4	ppb	19:06:36
1	Ca 317.933Radial†	87895.1	89732.8	4998.5	µg/L	4998.5	ppb	19:06:36
1	Fe 238.204 Radial†	78245.6	80232.5	4945.0	µg/L	4945.0	ppb	19:06:36

1	K 766.490 Radial†	15026.3	13891.5	5081.8 µg/L	5081.8 ppb	19:06:36
1	Mg 279.077 IEC†	13439.2	13615.2	5080.7 µg/L	5080.7 ppb	19:06:36
1	Na 589.592 Radial†	71676.4	72341.3	9878.2 µg/L	9878.2 ppb	19:06:36
1	Sr 421.552†	230855.8	237290.2	493.27 µg/L	493.27 ppb	19:06:34
1	Sc 361.383	1692635.7	1692635.7	98.511 %		19:06:49
1	Y 371.029	1002740.0	1002740.0	97.667 %		19:06:49
1	Ag 328.068†	133490.2	131416.3	492.76 µg/L	492.76 ppb	19:06:49
1	As 188.979†	1592.7	1637.1	502.26 µg/L	502.26 ppb	19:07:09
1	B 249.677†	36019.4	33057.9	485.83 µg/L	485.83 ppb	19:06:49
1	Ba 233.527†	119977.2	121926.4	491.73 µg/L	491.73 ppb	19:06:49
1	Be 313.107†	1788795.8	1816895.8	494.84 µg/L	494.84 ppb	19:06:49
1	Cd 226.502†	77305.4	78591.9	490.61 µg/L	490.61 ppb	19:06:49
1	Co 228.616†	39248.1	40031.6	494.19 µg/L	494.19 ppb	19:06:49
1	Cr 267.716†	61675.1	62428.6	488.81 µg/L	488.81 ppb	19:06:49
1	Cu 324.752†	126554.7	125495.2	489.22 µg/L	489.22 ppb	19:06:49
1	Mn 257.610†	394217.2	399938.0	494.63 µg/L	494.63 ppb	19:06:49
1	Mo 202.031†	16588.6	16859.4	495.93 µg/L	495.93 ppb	19:07:09
1	Ni 231.604†	41959.1	42669.8	491.31 µg/L	491.31 ppb	19:06:49
1	P 214.914†	11467.5	11658.8	2485.2 µg/L	2485.2 ppb	19:07:09
1	Pb 220.353†	8908.4	8956.6	501.56 µg/L	501.56 ppb	19:07:09
1	S 181.975 Axial†	1431.0	1347.6	1004.9 µg/L	1004.9 ppb	19:07:09
1	Sb 206.836†	4198.6	4181.2	498.27 µg/L	498.27 ppb	19:07:09
1	Se 196.026†	1378.4	1384.0	502 µg/L	502 ppb	19:07:09
1	SiO2†	55424.9	54487.2	5304.4 µg/L	5304.4 ppb	19:06:49
1	Si 251.611†	167452.8	169147.1	2483.8 µg/L	2483.8 ppb	19:06:49
1	Sn 189.927†	7877.5	7997.7	500.23 µg/L	500.23 ppb	19:07:09
1	Ti 334.940†	520670.2	527586.9	492.28 µg/L	492.28 ppb	19:06:49
1	Tl 190.801†	3872.9	4048.2	504.78 µg/L	504.78 ppb	19:07:09
1	U 409.014†	7291.5	7671.6	478.40 µg/L	478.40 ppb	19:06:49
1	V 292.402†	98968.4	100060.4	494.68 µg/L	494.68 ppb	19:06:49
1	Zn 213.857†	86928.5	87677.9	488.67 µg/L	488.67 ppb	19:06:49
2	Sc RADIAL	141682.9	141682.9	97.1 %		19:06:40
2	Al 396.153Radial†	26223.0	27072.3	4996.3 µg/L	4996.3 ppb	19:06:40
2	Ca 317.933Radial†	87546.1	89609.7	4991.6 µg/L	4991.6 ppb	19:06:40
2	Fe 238.204 Radial†	78166.5	80361.4	4953.0 µg/L	4953.0 ppb	19:06:40
2	K 766.490 Radial†	14890.1	13791.7	5045.3 µg/L	5045.3 ppb	19:06:40
2	Mg 279.077 IEC†	13407.1	13618.3	5081.7 µg/L	5081.7 ppb	19:06:40
2	Na 589.592 Radial†	71442.4	72293.1	9871.6 µg/L	9871.6 ppb	19:06:40
2	Sr 421.552†	234429.9	241592.0	502.22 µg/L	502.22 ppb	19:06:38
2	Sc 361.383	1693933.2	1693933.2	98.587 %		19:07:12
2	Y 371.029	1002754.3	1002754.3	97.669 %		19:07:12
2	Ag 328.068†	133887.2	131715.3	493.86 µg/L	493.86 ppb	19:07:12
2	As 188.979†	1584.7	1627.8	499.44 µg/L	499.44 ppb	19:07:32
2	B 249.677†	36086.4	33097.9	486.42 µg/L	486.42 ppb	19:07:12
2	Ba 233.527†	120244.1	122103.7	492.44 µg/L	492.44 ppb	19:07:12
2	Be 313.107†	1788194.1	1814894.6	494.30 µg/L	494.30 ppb	19:07:12
2	Cd 226.502†	77647.5	78878.9	492.40 µg/L	492.40 ppb	19:07:12
2	Co 228.616†	39316.5	40070.5	494.67 µg/L	494.67 ppb	19:07:12
2	Cr 267.716†	61922.8	62632.0	490.40 µg/L	490.40 ppb	19:07:12
2	Cu 324.752†	126725.3	125569.8	489.51 µg/L	489.51 ppb	19:07:12
2	Mn 257.610†	394218.9	399633.2	494.25 µg/L	494.25 ppb	19:07:12
2	Mo 202.031†	16463.2	16719.3	491.81 µg/L	491.81 ppb	19:07:32
2	Ni 231.604†	42154.2	42835.0	493.21 µg/L	493.21 ppb	19:07:12
2	P 214.914†	11314.3	11494.4	2450.0 µg/L	2450.0 ppb	19:07:32
2	Pb 220.353†	8825.1	8865.3	496.44 µg/L	496.44 ppb	19:07:32
2	S 181.975 Axial†	1411.2	1326.4	989.11 µg/L	989.11 ppb	19:07:32
2	Sb 206.836†	4167.4	4146.3	494.02 µg/L	494.02 ppb	19:07:32
2	Se 196.026†	1363.3	1367.5	497 µg/L	497 ppb	19:07:32
2	SiO2†	55444.1	54463.6	5302.3 µg/L	5302.3 ppb	19:07:12
2	Si 251.611†	167875.0	169445.1	2488.3 µg/L	2488.3 ppb	19:07:12
2	Sn 189.927†	7786.1	7898.8	494.07 µg/L	494.07 ppb	19:07:32
2	Ti 334.940†	520698.2	527210.5	491.92 µg/L	491.92 ppb	19:07:12
2	Tl 190.801†	3845.2	4017.0	500.93 µg/L	500.93 ppb	19:07:32
2	U 409.014†	7348.6	7723.9	481.39 µg/L	481.39 ppb	19:07:12
2	V 292.402†	98856.0	99869.4	493.71 µg/L	493.71 ppb	19:07:12
2	Zn 213.857†	87044.0	87727.5	488.93 µg/L	488.93 ppb	19:07:12
3	Sc RADIAL	140290.8	140290.8	96.1 %		19:06:44
3	Al 396.153Radial†	26121.4	27234.6	5026.5 µg/L	5026.5 ppb	19:06:44
3	Ca 317.933Radial†	86648.1	89570.3	4989.4 µg/L	4989.4 ppb	19:06:44
3	Fe 238.204 Radial†	77524.7	80492.7	4961.1 µg/L	4961.1 ppb	19:06:44
3	K 766.490 Radial†	14881.5	13934.9	5097.7 µg/L	5097.7 ppb	19:06:44

3	Mg 279.077 IEC†	13262.2	13604.5	5076.6 µg/L	5076.6 ppb	19:06:44
3	Na 589.592 Radial†	70817.9	72373.6	9882.6 µg/L	9882.6 ppb	19:06:44
3	Sr 421.552†	230738.3	240148.1	499.21 µg/L	499.21 ppb	19:06:42
3	Sc 361.383	1701566.9	1701566.9	99.031 %		19:07:35
3	Y 371.029	1007094.6	1007094.6	98.092 %		19:07:35
3	Ag 328.068†	134475.4	131699.9	493.82 µg/L	493.82 ppb	19:07:35
3	As 188.979†	1593.4	1629.4	499.91 µg/L	499.91 ppb	19:07:55
3	B 249.677†	36488.9	33340.1	489.99 µg/L	489.99 ppb	19:07:35
3	Ba 233.527†	120822.0	122140.2	492.59 µg/L	492.59 ppb	19:07:35
3	Be 313.107†	1801771.9	1820467.8	495.82 µg/L	495.82 ppb	19:07:35
3	Cd 226.502†	78139.4	79022.2	493.29 µg/L	493.29 ppb	19:07:35
3	Co 228.616†	39662.8	40241.2	496.77 µg/L	496.77 ppb	19:07:35
3	Cr 267.716†	62197.1	62627.2	490.36 µg/L	490.36 ppb	19:07:35
3	Cu 324.752†	127822.8	126101.4	491.58 µg/L	491.58 ppb	19:07:35
3	Mn 257.610†	397277.8	400928.1	495.85 µg/L	495.85 ppb	19:07:35
3	Mo 202.031†	16490.8	16672.2	490.43 µg/L	490.43 ppb	19:07:55
3	Ni 231.604†	42326.5	42817.2	493.01 µg/L	493.01 ppb	19:07:35
3	P 214.914†	11342.9	11471.9	2445.2 µg/L	2445.2 ppb	19:07:55
3	Pb 220.353†	8843.5	8843.7	495.23 µg/L	495.23 ppb	19:07:55
3	S 181.975 Axial†	1419.8	1328.6	990.72 µg/L	990.72 ppb	19:07:55
3	Sb 206.836†	4178.4	4138.4	493.07 µg/L	493.07 ppb	19:07:55
3	Se 196.026†	1363.2	1361.3	494 µg/L	494 ppb	19:07:55
3	SiO2†	56222.5	54997.3	5354.5 µg/L	5354.5 ppb	19:07:35
3	Si 251.611†	169502.3	170324.4	2501.3 µg/L	2501.3 ppb	19:07:35
3	Sn 189.927†	7808.9	7886.4	493.30 µg/L	493.30 ppb	19:07:55
3	Ti 334.940†	523661.8	527833.6	492.50 µg/L	492.50 ppb	19:07:35
3	Tl 190.801†	3856.9	4011.4	500.25 µg/L	500.25 ppb	19:07:55
3	U 409.014†	7413.7	7756.2	483.37 µg/L	483.37 ppb	19:07:35
3	V 292.402†	99576.3	100146.9	495.05 µg/L	495.05 ppb	19:07:35
3	Zn 213.857†	87808.2	88103.1	491.04 µg/L	491.04 ppb	19:07:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1696045.3	98.710	%	0.2809				0.28%
Sc RADIAL	141342.5	96.9	%	0.64				0.66%
Y 371.029	1004196.3	97.809	%	0.2445				0.25%
Ag 328.068†	131610.5	493.48	µg/L	0.624	493.48	ppb	0.624	0.13%
QC value within limits for Ag 328.068 Recovery = 98.70%								
Al 396.153Radial†	27090.8	4999.7	µg/L	25.24	4999.7	ppb	25.24	0.50%
QC value within limits for Al 396.153Radial Recovery = 99.99%								
As 188.979†	1631.4	500.54	µg/L	1.508	500.54	ppb	1.508	0.30%
QC value within limits for As 188.979 Recovery = 100.11%								
B 249.677†	33165.3	487.41	µg/L	2.247	487.41	ppb	2.247	0.46%
QC value within limits for B 249.677 Recovery = 97.48%								
Ba 233.527†	122056.8	492.25	µg/L	0.460	492.25	ppb	0.460	0.09%
QC value within limits for Ba 233.527 Recovery = 98.45%								
Be 313.107†	1817419.4	494.99	µg/L	0.769	494.99	ppb	0.769	0.16%
QC value within limits for Be 313.107 Recovery = 99.00%								
Ca 317.933Radial†	89637.6	4993.2	µg/L	4.72	4993.2	ppb	4.72	0.09%
QC value within limits for Ca 317.933Radial Recovery = 99.86%								
Cd 226.502†	78831.0	492.10	µg/L	1.368	492.10	ppb	1.368	0.28%
QC value within limits for Cd 226.502 Recovery = 98.42%								
Co 228.616†	40114.4	495.21	µg/L	1.376	495.21	ppb	1.376	0.28%
QC value within limits for Co 228.616 Recovery = 99.04%								
Cr 267.716†	62562.6	489.86	µg/L	0.907	489.86	ppb	0.907	0.19%
QC value within limits for Cr 267.716 Recovery = 97.97%								
Cu 324.752†	125722.1	490.10	µg/L	1.288	490.10	ppb	1.288	0.26%
QC value within limits for Cu 324.752 Recovery = 98.02%								
Fe 238.204 Radial†	80362.2	4953.0	µg/L	8.02	4953.0	ppb	8.02	0.16%
QC value within limits for Fe 238.204 Radial Recovery = 99.06%								
K 766.490 Radial†	13872.7	5074.9	µg/L	26.88	5074.9	ppb	26.88	0.53%
QC value within limits for K 766.490 Radial Recovery = 101.50%								
Mg 279.077 IEC†	13612.7	5079.7	µg/L	2.74	5079.7	ppb	2.74	0.05%
QC value within limits for Mg 279.077 IEC Recovery = 101.59%								
Mn 257.610†	400166.4	494.91	µg/L	0.838	494.91	ppb	0.838	0.17%
QC value within limits for Mn 257.610 Recovery = 98.98%								
Mo 202.031†	16750.3	492.72	µg/L	2.861	492.72	ppb	2.861	0.58%
QC value within limits for Mo 202.031 Recovery = 98.54%								
Na 589.592 Radial†	72336.0	9877.5	µg/L	5.51	9877.5	ppb	5.51	0.06%

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   QC value within limits for Na 589.592 Radial  Recovery = 98.77%
Ni 231.604†            42774.0      492.51 µg/L         1.044      492.51 ppb          1.044   0.21%
   QC value within limits for Ni 231.604  Recovery = 98.50%
P 214.914†             11541.7      2460.1 µg/L         21.83      2460.1 ppb          21.83   0.89%
   QC value within limits for P 214.914  Recovery = 98.40%
Pb 220.353†             8888.5      497.74 µg/L         3.356      497.74 ppb          3.356   0.67%
   QC value within limits for Pb 220.353  Recovery = 99.55%
S 181.975 Axial†        1334.2      994.90 µg/L         8.662      994.90 ppb          8.662   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 99.49%
Sb 206.836†             4155.3      495.12 µg/L         2.767      495.12 ppb          2.767   0.56%
   QC value within limits for Sb 206.836  Recovery = 99.02%
Se 196.026†             1370.9         498 µg/L           4.2         498 ppb            4.2   0.85%
   QC value within limits for Se 196.026  Recovery = 99.56%
SiO2†                  54649.4      5320.4 µg/L         29.56      5320.4 ppb          29.56   0.56%
   QC value within limits for SiO2  Recovery = 99.49%
Si 251.611†           169638.9      2491.1 µg/L          9.08      2491.1 ppb           9.08   0.36%
   QC value within limits for Si 251.611  Recovery = 99.65%
Sn 189.927†             7927.7      495.87 µg/L         3.802      495.87 ppb          3.802   0.77%
   QC value within limits for Sn 189.927  Recovery = 99.17%
Sr 421.552†           239676.8      498.23 µg/L         4.551      498.23 ppb          4.551   0.91%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           527543.7      492.23 µg/L         0.293      492.23 ppb          0.293   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.45%
Tl 190.801†             4025.5      501.99 µg/L         2.440      501.99 ppb          2.440   0.49%
   QC value within limits for Tl 190.801  Recovery = 100.40%
U 409.014†              7717.2      481.05 µg/L         2.502      481.05 ppb          2.502   0.52%
   QC value within limits for U 409.014  Recovery = 96.21%
V 292.402†            100025.5      494.48 µg/L         0.691      494.48 ppb          0.691   0.14%
   QC value within limits for V 292.402  Recovery = 98.90%
Zn 213.857†            87836.2      489.55 µg/L         1.301      489.55 ppb          1.301   0.27%
   QC value within limits for Zn 213.857  Recovery = 97.91%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:08:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143606.3	143606.3	98.4	%			19:08:33
1	Al 396.153Radial†	-40.6	21.9	4.0709	µg/L	4.0709	ppb	19:08:53
1	Ca 317.933Radial†	593.8	42.8	2.3863	µg/L	2.3863	ppb	19:08:53
1	Fe 238.204 Radial†	181.2	36.0	2.2211	µg/L	2.2211	ppb	19:08:53
1	K 766.490 Radial†	1807.5	291.9	106.87	µg/L	106.87	ppb	19:08:33
1	Mg 279.077 IEC†	167.1	-20.9	-7.7799	µg/L	-7.7799	ppb	19:08:53
1	Na 589.592 Radial†	1829.3	568.1	77.508	µg/L	77.508	ppb	19:08:33
1	Sr 421.552†	-159.2	-26.5	-0.0550	µg/L	-0.0550	ppb	19:08:33
1	Sc 361.383	1699498.0	1699498.0	98.911	%			19:09:55
1	Y 371.029	1016806.2	1016806.2	99.037	%			19:09:55
1	Ag 328.068†	3769.0	-280.8	-1.0378	µg/L	-1.0378	ppb	19:09:57
1	As 188.979†	-4.4	15.9	4.8042	µg/L	4.8042	ppb	19:10:17
1	B 249.677†	3588.4	122.0	1.7978	µg/L	1.7978	ppb	19:09:57
1	Ba 233.527†	-115.2	19.4	0.0783	µg/L	0.0783	ppb	19:10:17
1	Be 313.107†	-954.3	99.8	0.0273	µg/L	0.0273	ppb	19:09:57
1	Cd 226.502†	-91.5	25.7	0.1602	µg/L	0.1602	ppb	19:10:17
1	Co 228.616†	-158.7	29.9	0.3690	µg/L	0.3690	ppb	19:10:17
1	Cr 267.716†	173.6	-3.0	-0.0236	µg/L	-0.0236	ppb	19:10:17
1	Cu 324.752†	3195.6	258.6	1.0054	µg/L	1.0054	ppb	19:09:57
1	Mn 257.610†	286.5	52.4	0.0651	µg/L	0.0651	ppb	19:10:17
1	Mo 202.031†	-26.1	-6.3	-0.1854	µg/L	-0.1854	ppb	19:10:17
1	Ni 231.604†	-117.6	-42.4	-0.4885	µg/L	-0.4885	ppb	19:10:17
1	P 214.914†	-30.3	-12.6	-2.7014	µg/L	-2.7014	ppb	19:10:17
1	Pb 220.353†	88.8	3.4	0.1879	µg/L	0.1879	ppb	19:10:17
1	S 181.975 Axial†	97.0	-6.9	-5.1546	µg/L	-5.1546	ppb	19:10:17
1	Sb 206.836†	72.1	-8.0	-0.9474	µg/L	-0.9474	ppb	19:10:17
1	Se 196.026†	15.9	0.8	0.281	µg/L	0.281	ppb	19:10:17
1	SiO2†	1782.8	27.1	2.6348	µg/L	2.6348	ppb	19:09:57
1	Si 251.611†	842.6	15.3	0.2204	µg/L	0.2204	ppb	19:09:57
1	Sn 189.927†	17.4	18.7	1.1657	µg/L	1.1657	ppb	19:10:17
1	Ti 334.940†	982.6	40.9	0.0388	µg/L	0.0388	ppb	19:09:57
1	Tl 190.801†	-115.4	-0.0	-0.0031	µg/L	-0.0031	ppb	19:10:17
1	U 409.014†	-263.1	3.9	0.2381	µg/L	0.2381	ppb	19:09:57
1	V 292.402†	432.1	33.1	0.1592	µg/L	0.1592	ppb	19:09:57
1	Zn 213.857†	662.7	105.6	0.5956	µg/L	0.5956	ppb	19:10:17
2	Sc RADIAL	143906.0	143906.0	98.6	%			19:08:55
2	Al 396.153Radial†	-30.9	31.9	5.9210	µg/L	5.9210	ppb	19:09:15
2	Ca 317.933Radial†	576.5	24.0	1.3374	µg/L	1.3374	ppb	19:09:15
2	Fe 238.204 Radial†	194.8	49.4	3.0451	µg/L	3.0451	ppb	19:09:15
2	K 766.490 Radial†	1821.8	302.6	110.79	µg/L	110.79	ppb	19:08:55
2	Mg 279.077 IEC†	181.6	-6.5	-2.4285	µg/L	-2.4285	ppb	19:09:15
2	Na 589.592 Radial†	1674.8	407.6	55.585	µg/L	55.585	ppb	19:08:55
2	Sr 421.552†	-76.3	57.9	0.1204	µg/L	0.1204	ppb	19:08:55
2	Sc 361.383	1701303.0	1701303.0	99.016	%			19:10:20
2	Y 371.029	1018421.2	1018421.2	99.195	%			19:10:20
2	Ag 328.068†	4174.8	124.9	0.4507	µg/L	0.4507	ppb	19:10:22
2	As 188.979†	-9.4	10.9	3.3020	µg/L	3.3020	ppb	19:10:42
2	B 249.677†	3516.0	45.1	0.6647	µg/L	0.6647	ppb	19:10:22
2	Ba 233.527†	-149.1	-14.7	-0.0595	µg/L	-0.0595	ppb	19:10:42
2	Be 313.107†	-839.9	216.4	0.0569	µg/L	0.0569	ppb	19:10:22
2	Cd 226.502†	-102.1	15.1	0.0939	µg/L	0.0939	ppb	19:10:42
2	Co 228.616†	-188.6	-0.1	-0.0019	µg/L	-0.0019	ppb	19:10:42
2	Cr 267.716†	211.4	34.9	0.2788	µg/L	0.2788	ppb	19:10:42
2	Cu 324.752†	2916.8	-26.4	-0.1080	µg/L	-0.1080	ppb	19:10:22
2	Mn 257.610†	284.4	50.0	0.0619	µg/L	0.0619	ppb	19:10:42
2	Mo 202.031†	-25.0	-5.2	-0.1530	µg/L	-0.1530	ppb	19:10:42
2	Ni 231.604†	-103.9	-28.5	-0.3278	µg/L	-0.3278	ppb	19:10:42
2	P 214.914†	-33.0	-15.3	-3.2711	µg/L	-3.2711	ppb	19:10:42
2	Pb 220.353†	114.7	29.5	1.6503	µg/L	1.6503	ppb	19:10:42

2	S 181.975 Axial†	99.7	-4.4	-3.2387 µg/L	-3.2387 ppb	19:10:42
2	Sb 206.836†	76.2	-3.9	-0.4635 µg/L	-0.4635 ppb	19:10:42
2	Se 196.026†	16.5	1.4	0.491 µg/L	0.491 ppb	19:10:42
2	SiO2†	1763.9	6.1	0.5919 µg/L	0.5919 ppb	19:10:22
2	Si 251.611†	911.5	84.0	1.2359 µg/L	1.2359 ppb	19:10:22
2	Sn 189.927†	8.3	9.5	0.5950 µg/L	0.5950 ppb	19:10:42
2	Ti 334.940†	886.7	-57.0	-0.0503 µg/L	-0.0503 ppb	19:10:22
2	Tl 190.801†	-114.1	1.5	0.1759 µg/L	0.1759 ppb	19:10:42
2	U 409.014†	-383.3	-117.2	-6.8703 µg/L	-6.8703 ppb	19:10:22
2	V 292.402†	344.9	-55.5	-0.2761 µg/L	-0.2761 ppb	19:10:22
2	Zn 213.857†	648.7	90.7	0.5114 µg/L	0.5114 ppb	19:10:42
3	Sc RADIAL	142315.2	142315.2	97.5 %		19:09:17
3	Al 396.153Radial†	-52.2	9.6	1.7667 µg/L	1.7667 ppb	19:09:37
3	Ca 317.933Radial†	577.3	31.3	1.7458 µg/L	1.7458 ppb	19:09:37
3	Fe 238.204 Radial†	193.7	50.5	3.1105 µg/L	3.1105 ppb	19:09:37
3	K 766.490 Radial†	1715.2	213.9	78.318 µg/L	78.318 ppb	19:09:17
3	Mg 279.077 IEC†	194.2	8.4	3.1563 µg/L	3.1563 ppb	19:09:37
3	Na 589.592 Radial†	1682.9	434.8	59.332 µg/L	59.332 ppb	19:09:17
3	Sr 421.552†	-204.0	-73.9	-0.1537 µg/L	-0.1537 ppb	19:09:17
3	Sc 361.383	1707432.2	1707432.2	99.372 %		19:10:44
3	Y 371.029	1021900.0	1021900.0	99.534 %		19:10:44
3	Ag 328.068†	4053.2	-12.6	-0.0528 µg/L	-0.0528 ppb	19:10:46
3	As 188.979†	-2.3	18.1	5.4690 µg/L	5.4690 ppb	19:11:06
3	B 249.677†	3514.8	31.1	0.4591 µg/L	0.4591 ppb	19:10:46
3	Ba 233.527†	-138.9	-3.9	-0.0159 µg/L	-0.0159 ppb	19:11:06
3	Be 313.107†	-1076.7	-18.8	-0.0056 µg/L	-0.0056 ppb	19:10:46
3	Cd 226.502†	-100.3	17.3	0.1074 µg/L	0.1074 ppb	19:11:06
3	Co 228.616†	-200.8	-11.7	-0.1450 µg/L	-0.1450 ppb	19:11:06
3	Cr 267.716†	180.7	3.3	0.0269 µg/L	0.0269 ppb	19:11:06
3	Cu 324.752†	3029.2	76.1	0.2948 µg/L	0.2948 ppb	19:10:46
3	Mn 257.610†	296.9	61.5	0.0760 µg/L	0.0760 ppb	19:11:06
3	Mo 202.031†	-3.7	16.3	0.4802 µg/L	0.4802 ppb	19:11:06
3	Ni 231.604†	-90.5	-14.6	-0.1676 µg/L	-0.1676 ppb	19:11:06
3	P 214.914†	-14.2	3.7	0.7799 µg/L	0.7799 ppb	19:11:06
3	Pb 220.353†	92.0	6.2	0.3485 µg/L	0.3485 ppb	19:11:06
3	S 181.975 Axial†	108.0	3.6	2.6796 µg/L	2.6796 ppb	19:11:06
3	Sb 206.836†	87.9	7.6	0.9107 µg/L	0.9107 ppb	19:11:06
3	Se 196.026†	15.0	-0.2	-0.060 µg/L	-0.060 ppb	19:11:06
3	SiO2†	1735.7	-28.7	-2.8190 µg/L	-2.8190 ppb	19:10:46
3	Si 251.611†	790.1	-41.5	-0.6182 µg/L	-0.6182 ppb	19:10:46
3	Sn 189.927†	-1.2	-0.1	-0.0053 µg/L	-0.0053 ppb	19:11:06
3	Ti 334.940†	766.5	-181.2	-0.1688 µg/L	-0.1688 ppb	19:10:46
3	Tl 190.801†	-101.0	15.0	1.8436 µg/L	1.8436 ppb	19:11:06
3	U 409.014†	-295.6	-27.6	-1.6324 µg/L	-1.6324 ppb	19:10:46
3	V 292.402†	332.8	-68.9	-0.3322 µg/L	-0.3322 ppb	19:10:46
3	Zn 213.857†	625.3	64.8	0.3648 µg/L	0.3648 ppb	19:11:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1702744.4	99.099	%	0.2420				0.24%
Sc RADIAL	143275.8	98.2	%	0.58				0.59%
Y 371.029	1019042.5	99.255	%	0.2535				0.26%
Ag 328.068†	-56.2	-0.2133	µg/L	0.75716	-0.2133	ppb	0.75716	354.96%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	21.2	3.9195	µg/L	2.08128	3.9195	ppb	2.08128	53.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	15.0	4.5251	µg/L	1.11017	4.5251	ppb	1.11017	24.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	66.0	0.9738	µg/L	0.72094	0.9738	ppb	0.72094	74.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.3	0.0009	µg/L	0.07043	0.0009	ppb	0.07043	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	99.2	0.0262	µg/L	0.03124	0.0262	ppb	0.03124	119.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	32.7	1.8232	µg/L	0.52869	1.8232	ppb	0.52869	29.00%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.4	0.1205	µg/L	0.03504	0.1205	ppb	0.03504	29.08%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.0	0.0740	µg/L	0.26530	0.0740	ppb	0.26530	358.50%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              11.7      0.0940 µg/L       0.16198      0.0940 ppb        0.16198 172.24%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             102.8      0.3974 µg/L       0.56376      0.3974 ppb        0.56376 141.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       45.3      2.7923 µg/L       0.49571      2.7923 ppb        0.49571  17.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       269.5      98.660 µg/L       17.7254      98.660 ppb        17.7254  17.97%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -6.3     -2.3507 µg/L       5.46855     -2.3507 ppb        5.46855 232.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              54.6      0.0677 µg/L       0.00738      0.0677 ppb        0.00738  10.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.6      0.0473 µg/L       0.37526      0.0473 ppb        0.37526 793.90%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      470.2      64.142 µg/L       11.7262      64.142 ppb        11.7262  18.28%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -28.5     -0.3280 µg/L       0.16046     -0.3280 ppb        0.16046  48.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.1     -1.7309 µg/L       2.19296     -1.7309 ppb        2.19296 126.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              13.0      0.7289 µg/L       0.80200      0.7289 ppb        0.80200 110.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.6     -1.9046 µg/L       4.08395     -1.9046 ppb        4.08395 214.43%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.4     -0.1667 µg/L       0.96394     -0.1667 ppb        0.96394 578.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.7      0.238 µg/L        0.2782       0.238 ppb         0.2782 117.02%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     1.5      0.1359 µg/L       2.75534      0.1359 ppb        2.75534 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              19.3      0.2794 µg/L       0.92845      0.2794 ppb        0.92845 332.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.4      0.5851 µg/L       0.58554      0.5851 ppb        0.58554 100.07%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -14.1     -0.0294 µg/L       0.13885     -0.0294 ppb        0.13885 471.87%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -65.8     -0.0601 µg/L       0.10414     -0.0601 ppb        0.10414 173.25%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.5      0.6721 µg/L       1.01847      0.6721 ppb        1.01847 151.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -47.0     -2.7549 µg/L       3.68475     -2.7549 ppb        3.68475 133.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -30.4     -0.1497 µg/L       0.26898     -0.1497 ppb        0.26898 179.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              87.0      0.4906 µg/L       0.11682      0.4906 ppb        0.11682  23.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 19:27:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144745.8	144745.8	99.2	%			19:28:15
1	Al 396.153Radial†	26764.4	27046.5	4991.6	µg/L	4991.6	ppb	19:28:15
1	Ca 317.933Radial†	89467.8	89639.1	4993.2	µg/L	4993.2	ppb	19:28:15
1	Fe 238.204 Radial†	79722.2	80226.2	4944.7	µg/L	4944.7	ppb	19:28:15
1	K 766.490 Radial†	14982.5	13560.3	4960.6	µg/L	4960.6	ppb	19:28:15
1	Mg 279.077 IEC†	13759.9	13681.8	5105.4	µg/L	5105.4	ppb	19:28:15
1	Na 589.592 Radial†	72591.2	71894.2	9817.2	µg/L	9817.2	ppb	19:28:15
1	Sr 421.552†	234529.9	236583.6	491.80	µg/L	491.80	ppb	19:28:12
1	Sc 361.383	1725305.4	1725305.4	100.41	%			19:28:27
1	Y 371.029	1020728.0	1020728.0	99.419	%			19:28:27
1	Ag 328.068†	136300.1	131648.8	493.59	µg/L	493.59	ppb	19:28:27
1	As 188.979†	1633.4	1647.0	505.23	µg/L	505.23	ppb	19:28:47
1	B 249.677†	36849.8	33192.5	487.82	µg/L	487.82	ppb	19:28:27
1	Ba 233.527†	122221.5	121855.2	491.44	µg/L	491.44	ppb	19:28:27
1	Be 313.107†	1820741.4	1814326.2	494.14	µg/L	494.14	ppb	19:28:27
1	Cd 226.502†	78844.9	78639.2	490.90	µg/L	490.90	ppb	19:28:27
1	Co 228.616†	39847.3	39874.0	492.24	µg/L	492.24	ppb	19:28:27
1	Cr 267.716†	62843.9	62407.1	488.65	µg/L	488.65	ppb	19:28:27
1	Cu 324.752†	129009.2	125507.0	489.26	µg/L	489.26	ppb	19:28:27
1	Mn 257.610†	401352.4	399466.3	494.04	µg/L	494.04	ppb	19:28:27
1	Mo 202.031†	16754.7	16705.9	491.42	µg/L	491.42	ppb	19:28:47
1	Ni 231.604†	42787.5	42688.2	491.52	µg/L	491.52	ppb	19:28:27
1	P 214.914†	11575.7	11546.1	2461.1	µg/L	2461.1	ppb	19:28:47
1	Pb 220.353†	8987.5	8864.2	496.39	µg/L	496.39	ppb	19:28:47
1	S 181.975 Axial†	1425.3	1314.4	980.21	µg/L	980.21	ppb	19:28:47
1	Sb 206.836†	4236.7	4138.5	493.11	µg/L	493.11	ppb	19:28:47
1	Se 196.026†	1383.3	1362.3	495	µg/L	495	ppb	19:28:47
1	SiO2†	56481.4	54474.0	5303.3	µg/L	5303.3	ppb	19:28:27
1	Si 251.611†	170572.5	169035.2	2482.3	µg/L	2482.3	ppb	19:28:27
1	Sn 189.927†	7932.0	7900.5	494.17	µg/L	494.17	ppb	19:28:47
1	Ti 334.940†	529379.1	526251.8	491.03	µg/L	491.03	ppb	19:28:27
1	Tl 190.801†	3920.2	4020.8	501.40	µg/L	501.40	ppb	19:28:47
1	U 409.014†	7328.3	7568.1	472.22	µg/L	472.22	ppb	19:28:27
1	V 292.402†	100463.2	99646.7	492.61	µg/L	492.61	ppb	19:28:27
1	Zn 213.857†	88617.6	87689.1	488.73	µg/L	488.73	ppb	19:28:27
2	Sc RADIAL	143128.0	143128.0	98.1	%			19:28:19
2	Al 396.153Radial†	26390.4	26970.3	4977.5	µg/L	4977.5	ppb	19:28:19
2	Ca 317.933Radial†	88547.9	89720.6	4997.8	µg/L	4997.8	ppb	19:28:19
2	Fe 238.204 Radial†	78967.6	80365.3	4953.2	µg/L	4953.2	ppb	19:28:19
2	K 766.490 Radial†	14857.2	13603.3	4976.3	µg/L	4976.3	ppb	19:28:19
2	Mg 279.077 IEC†	13593.0	13668.4	5100.4	µg/L	5100.4	ppb	19:28:19
2	Na 589.592 Radial†	71676.1	71788.4	9802.7	µg/L	9802.7	ppb	19:28:19
2	Sr 421.552†	234348.1	239070.9	496.98	µg/L	496.98	ppb	19:28:17
2	Sc 361.383	1734628.6	1734628.6	100.96	%			19:28:51
2	Y 371.029	1025716.4	1025716.4	99.905	%			19:28:51
2	Ag 328.068†	136816.4	131430.6	492.82	µg/L	492.82	ppb	19:28:51
2	As 188.979†	1631.9	1636.9	502.17	µg/L	502.17	ppb	19:29:11
2	B 249.677†	37069.7	33213.1	488.12	µg/L	488.12	ppb	19:28:51
2	Ba 233.527†	122992.1	121964.3	491.88	µg/L	491.88	ppb	19:28:51
2	Be 313.107†	1838526.2	1822196.9	496.29	µg/L	496.29	ppb	19:28:51
2	Cd 226.502†	79892.7	79255.0	494.75	µg/L	494.75	ppb	19:28:51
2	Co 228.616†	40292.1	40101.3	495.05	µg/L	495.05	ppb	19:28:51
2	Cr 267.716†	63389.6	62611.4	490.23	µg/L	490.23	ppb	19:28:51
2	Cu 324.752†	129959.6	125757.9	490.25	µg/L	490.25	ppb	19:28:51
2	Mn 257.610†	404701.1	400635.0	495.49	µg/L	495.49	ppb	19:28:51
2	Mo 202.031†	16826.1	16687.0	490.86	µg/L	490.86	ppb	19:29:11
2	Ni 231.604†	43211.3	42879.0	493.72	µg/L	493.72	ppb	19:28:51
2	P 214.914†	11647.2	11554.9	2462.9	µg/L	2462.9	ppb	19:29:11
2	Pb 220.353†	9025.0	8853.2	495.76	µg/L	495.76	ppb	19:29:11

2	S 181.975 Axial†	1448.9	1330.1	991.87 µg/L	991.87 ppb	19:29:11
2	Sb 206.836†	4260.0	4138.9	493.13 µg/L	493.13 ppb	19:29:11
2	Se 196.026†	1384.1	1355.7	492 µg/L	492 ppb	19:29:11
2	SiO2†	56922.3	54608.4	5316.4 µg/L	5316.4 ppb	19:28:51
2	Si 251.611†	172250.5	169784.3	2493.3 µg/L	2493.3 ppb	19:28:51
2	Sn 189.927†	7982.8	7908.4	494.67 µg/L	494.67 ppb	19:29:11
2	Ti 334.940†	533116.5	527120.2	491.83 µg/L	491.83 ppb	19:28:51
2	Tl 190.801†	3941.1	4020.5	501.37 µg/L	501.37 ppb	19:29:11
2	U 409.014†	7625.6	7823.4	487.25 µg/L	487.25 ppb	19:28:51
2	V 292.402†	101346.4	99983.8	494.26 µg/L	494.26 ppb	19:28:51
2	Zn 213.857†	89423.9	88013.5	490.54 µg/L	490.54 ppb	19:28:51
3	Sc RADIAL	145496.7	145496.7	99.7 %		19:28:23
3	Al 396.153Radial†	26858.9	27002.0	4983.3 µg/L	4983.3 ppb	19:28:23
3	Ca 317.933Radial†	90156.6	89864.4	5005.8 µg/L	5005.8 ppb	19:28:23
3	Fe 238.204 Radial†	80315.1	80406.1	4955.7 µg/L	4955.7 ppb	19:28:23
3	K 766.490 Radial†	15083.0	13583.2	4968.9 µg/L	4968.9 ppb	19:28:23
3	Mg 279.077 IEC†	13878.0	13728.6	5122.9 µg/L	5122.9 ppb	19:28:23
3	Na 589.592 Radial†	72879.8	71805.9	9805.1 µg/L	9805.1 ppb	19:28:23
3	Sr 421.552†	234221.7	235054.0	488.62 µg/L	488.62 ppb	19:28:21
3	Sc 361.383	1725210.5	1725210.5	100.41 %		19:29:14
3	Y 371.029	1019973.4	1019973.4	99.346 %		19:29:14
3	Ag 328.068†	135997.1	131354.5	492.51 µg/L	492.51 ppb	19:29:14
3	As 188.979†	1616.1	1629.9	500.07 µg/L	500.07 ppb	19:29:34
3	B 249.677†	36719.7	33065.0	485.94 µg/L	485.94 ppb	19:29:14
3	Ba 233.527†	122082.7	121723.7	490.91 µg/L	490.91 ppb	19:29:14
3	Be 313.107†	1823924.9	1817596.6	495.03 µg/L	495.03 ppb	19:29:14
3	Cd 226.502†	79138.6	78936.0	492.75 µg/L	492.75 ppb	19:29:14
3	Co 228.616†	39917.6	39946.1	493.13 µg/L	493.13 ppb	19:29:14
3	Cr 267.716†	63023.3	62589.2	490.08 µg/L	490.08 ppb	19:29:14
3	Cu 324.752†	129255.3	125759.2	490.24 µg/L	490.24 ppb	19:29:14
3	Mn 257.610†	401870.3	400004.1	494.71 µg/L	494.71 ppb	19:29:14
3	Mo 202.031†	16781.3	16733.4	492.23 µg/L	492.23 ppb	19:29:34
3	Ni 231.604†	42953.4	42855.8	493.45 µg/L	493.45 ppb	19:29:14
3	P 214.914†	11608.1	11579.0	2468.1 µg/L	2468.1 ppb	19:29:34
3	Pb 220.353†	9009.0	8886.1	497.61 µg/L	497.61 ppb	19:29:34
3	S 181.975 Axial†	1440.9	1330.0	991.78 µg/L	991.78 ppb	19:29:34
3	Sb 206.836†	4230.2	4132.2	492.36 µg/L	492.36 ppb	19:29:34
3	Se 196.026†	1386.3	1365.4	496 µg/L	496 ppb	19:29:34
3	SiO2†	56734.1	54728.8	5328.1 µg/L	5328.1 ppb	19:29:14
3	Si 251.611†	171053.5	169523.6	2489.4 µg/L	2489.4 ppb	19:29:14
3	Sn 189.927†	7957.3	7926.1	495.77 µg/L	495.77 ppb	19:29:34
3	Ti 334.940†	529976.9	526876.1	491.61 µg/L	491.61 ppb	19:29:14
3	Tl 190.801†	3905.9	4006.8	499.68 µg/L	499.68 ppb	19:29:34
3	U 409.014†	7243.0	7483.6	467.35 µg/L	467.35 ppb	19:29:14
3	V 292.402†	100691.8	99879.9	493.76 µg/L	493.76 ppb	19:29:14
3	Zn 213.857†	88689.8	87765.9	489.15 µg/L	489.15 ppb	19:29:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1728381.5	100.59	%	0.315				0.31%
Sc RADIAL	144456.8	99.0	%	0.83				0.84%
Y 371.029	1022139.3	99.557	%	0.3040				0.31%
Ag 328.068†	131478.0	492.97	µg/L	0.557	492.97	ppb	0.557	0.11%
QC value within limits for Ag 328.068 Recovery = 98.59%								
Al 396.153Radial†	27006.3	4984.1	µg/L	7.09	4984.1	ppb	7.09	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.68%								
As 188.979†	1637.9	502.49	µg/L	2.596	502.49	ppb	2.596	0.52%
QC value within limits for As 188.979 Recovery = 100.50%								
B 249.677†	33156.9	487.29	µg/L	1.181	487.29	ppb	1.181	0.24%
QC value within limits for B 249.677 Recovery = 97.46%								
Ba 233.527†	121847.7	491.41	µg/L	0.486	491.41	ppb	0.486	0.10%
QC value within limits for Ba 233.527 Recovery = 98.28%								
Be 313.107†	1818039.9	495.15	µg/L	1.079	495.15	ppb	1.079	0.22%
QC value within limits for Be 313.107 Recovery = 99.03%								
Ca 317.933Radial†	89741.4	4998.9	µg/L	6.35	4998.9	ppb	6.35	0.13%
QC value within limits for Ca 317.933Radial Recovery = 99.98%								
Cd 226.502†	78943.4	492.80	µg/L	1.924	492.80	ppb	1.924	0.39%
QC value within limits for Cd 226.502 Recovery = 98.56%								
Co 228.616†	39973.8	493.47	µg/L	1.433	493.47	ppb	1.433	0.29%

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   QC value within limits for Co 228.616  Recovery = 98.69%
Cr 267.716†            62535.9      489.65 µg/L         0.875      489.65 ppb          0.875   0.18%
   QC value within limits for Cr 267.716  Recovery = 97.93%
Cu 324.752†           125674.7      489.91 µg/L         0.568      489.91 ppb          0.568   0.12%
   QC value within limits for Cu 324.752  Recovery = 97.98%
Fe 238.204 Radial†     80332.5      4951.2 µg/L          5.81      4951.2 ppb           5.81   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.02%
K 766.490 Radial†      13582.3      4968.6 µg/L          7.88      4968.6 ppb           7.88   0.16%
   QC value within limits for K 766.490 Radial  Recovery = 99.37%
Mg 279.077 IEC†        13692.9      5109.5 µg/L         11.80      5109.5 ppb          11.80   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.19%
Mn 257.610†           400035.1      494.75 µg/L         0.724      494.75 ppb          0.724   0.15%
   QC value within limits for Mn 257.610  Recovery = 98.95%
Mo 202.031†            16708.8      491.50 µg/L         0.686      491.50 ppb          0.686   0.14%
   QC value within limits for Mo 202.031  Recovery = 98.30%
Na 589.592 Radial†     71829.5      9808.4 µg/L          7.75      9808.4 ppb           7.75   0.08%
   QC value within limits for Na 589.592 Radial  Recovery = 98.08%
Ni 231.604†            42807.7      492.90 µg/L         1.199      492.90 ppb          1.199   0.24%
   QC value within limits for Ni 231.604  Recovery = 98.58%
P 214.914†             11560.0      2464.0 µg/L          3.63      2464.0 ppb           3.63   0.15%
   QC value within limits for P 214.914  Recovery = 98.56%
Pb 220.353†             8867.8      496.59 µg/L         0.942      496.59 ppb          0.942   0.19%
   QC value within limits for Pb 220.353  Recovery = 99.32%
S 181.975 Axial†        1324.9      987.95 µg/L         6.702      987.95 ppb          6.702   0.68%
   QC value within limits for S 181.975 Axial  Recovery = 98.80%
Sb 206.836†             4136.5      492.87 µg/L         0.436      492.87 ppb          0.436   0.09%
   QC value within limits for Sb 206.836  Recovery = 98.57%
Se 196.026†             1361.2         494 µg/L           1.8         494 ppb            1.8   0.36%
   QC value within limits for Se 196.026  Recovery = 98.85%
SiO2†                  54603.7      5315.9 µg/L         12.44      5315.9 ppb          12.44   0.23%
   QC value within limits for SiO2  Recovery = 99.41%
Si 251.611†           169447.7      2488.3 µg/L          5.61      2488.3 ppb           5.61   0.23%
   QC value within limits for Si 251.611  Recovery = 99.53%
Sn 189.927†             7911.7      494.87 µg/L         0.819      494.87 ppb          0.819   0.17%
   QC value within limits for Sn 189.927  Recovery = 98.97%
Sr 421.552†           236902.8      492.47 µg/L         4.215      492.47 ppb          4.215   0.86%
   QC value within limits for Sr 421.552  Recovery = 98.49%
Ti 334.940†           526749.4      491.49 µg/L         0.416      491.49 ppb          0.416   0.08%
   QC value within limits for Ti 334.940  Recovery = 98.30%
Tl 190.801†             4016.0      500.82 µg/L         0.981      500.82 ppb          0.981   0.20%
   QC value within limits for Tl 190.801  Recovery = 100.16%
U 409.014†              7625.0      475.61 µg/L        10.374      475.61 ppb         10.374   2.18%
   QC value within limits for U 409.014  Recovery = 95.12%
V 292.402†             99836.8      493.54 µg/L         0.847      493.54 ppb          0.847   0.17%
   QC value within limits for V 292.402  Recovery = 98.71%
Zn 213.857†            87822.9      489.47 µg/L         0.946      489.47 ppb          0.946   0.19%
   QC value within limits for Zn 213.857  Recovery = 97.89%
All analyte(s) passed QC.
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Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:29:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145475.6	145475.6	99.7	%			19:30:11
1	Al 396.153Radial†	-75.1	-12.2	-2.2232	µg/L	-2.2232	ppb	19:30:31
1	Ca 317.933Radial†	587.7	29.0	1.6154	µg/L	1.6154	ppb	19:30:31
1	Fe 238.204 Radial†	164.7	17.2	1.0571	µg/L	1.0571	ppb	19:30:31
1	K 766.490 Radial†	1612.2	72.5	26.524	µg/L	26.524	ppb	19:30:11
1	Mg 279.077 IEC†	187.3	-2.8	-1.0689	µg/L	-1.0689	ppb	19:30:31
1	Na 589.592 Radial†	1489.8	203.6	27.794	µg/L	27.794	ppb	19:30:11
1	Sr 421.552†	-307.3	-173.0	-0.3597	µg/L	-0.3597	ppb	19:30:11
1	Sc 361.383	1698492.9	1698492.9	98.852	%			19:31:33
1	Y 371.029	1016683.6	1016683.6	99.025	%			19:31:33
1	Ag 328.068†	3801.1	-246.1	-0.8975	µg/L	-0.8975	ppb	19:31:35
1	As 188.979†	-17.7	2.5	0.7531	µg/L	0.7531	ppb	19:31:55
1	B 249.677†	3427.3	-38.8	-0.5719	µg/L	-0.5719	ppb	19:31:35
1	Ba 233.527†	-135.5	-1.2	-0.0047	µg/L	-0.0047	ppb	19:31:55
1	Be 313.107†	-787.7	267.8	0.0745	µg/L	0.0745	ppb	19:31:35
1	Cd 226.502†	-126.1	-9.3	-0.0586	µg/L	-0.0586	ppb	19:31:55
1	Co 228.616†	-187.3	0.8	0.0098	µg/L	0.0098	ppb	19:31:55
1	Cr 267.716†	185.7	9.3	0.0694	µg/L	0.0694	ppb	19:31:55
1	Cu 324.752†	2920.3	-18.0	-0.0655	µg/L	-0.0655	ppb	19:31:35
1	Mn 257.610†	272.9	38.8	0.0481	µg/L	0.0481	ppb	19:31:55
1	Mo 202.031†	-42.5	-22.9	-0.6735	µg/L	-0.6735	ppb	19:31:55
1	Ni 231.604†	-89.8	-14.3	-0.1646	µg/L	-0.1646	ppb	19:31:55
1	P 214.914†	-7.3	10.6	2.2741	µg/L	2.2741	ppb	19:31:55
1	Pb 220.353†	105.5	20.3	1.1296	µg/L	1.1296	ppb	19:31:55
1	S 181.975 Axial†	107.5	3.7	2.7631	µg/L	2.7631	ppb	19:31:55
1	Sb 206.836†	82.4	2.5	0.2868	µg/L	0.2868	ppb	19:31:55
1	Se 196.026†	15.9	0.8	0.284	µg/L	0.284	ppb	19:31:55
1	SiO2†	1750.8	-4.2	-0.4021	µg/L	-0.4021	ppb	19:31:55
1	Si 251.611†	831.1	4.2	0.0667	µg/L	0.0667	ppb	19:31:35
1	Sn 189.927†	9.7	11.0	0.6833	µg/L	0.6833	ppb	19:31:55
1	Ti 334.940†	1069.9	129.8	0.1193	µg/L	0.1193	ppb	19:31:35
1	Tl 190.801†	-107.7	7.8	0.9584	µg/L	0.9584	ppb	19:31:55
1	U 409.014†	-179.0	88.9	5.2323	µg/L	5.2323	ppb	19:31:35
1	V 292.402†	528.0	130.3	0.6323	µg/L	0.6323	ppb	19:31:35
1	Zn 213.857†	590.7	33.1	0.1869	µg/L	0.1869	ppb	19:31:55
2	Sc RADIAL	144319.0	144319.0	98.9	%			19:30:33
2	Al 396.153Radial†	-78.7	-16.4	-3.0556	µg/L	-3.0556	ppb	19:30:53
2	Ca 317.933Radial†	611.2	57.5	3.2020	µg/L	3.2020	ppb	19:30:53
2	Fe 238.204 Radial†	171.3	25.1	1.5453	µg/L	1.5453	ppb	19:30:53
2	K 766.490 Radial†	1571.9	44.7	16.347	µg/L	16.347	ppb	19:30:33
2	Mg 279.077 IEC†	180.9	-7.8	-2.8873	µg/L	-2.8873	ppb	19:30:53
2	Na 589.592 Radial†	1390.8	115.6	15.771	µg/L	15.771	ppb	19:30:33
2	Sr 421.552†	-219.7	-86.8	-0.1805	µg/L	-0.1805	ppb	19:30:33
2	Sc 361.383	1734133.7	1734133.7	100.93	%			19:31:58
2	Y 371.029	1037702.6	1037702.6	101.07	%			19:31:58
2	Ag 328.068†	3823.7	-302.8	-1.1204	µg/L	-1.1204	ppb	19:32:00
2	As 188.979†	-14.9	5.6	1.6918	µg/L	1.6918	ppb	19:32:20
2	B 249.677†	3536.1	-2.3	-0.0340	µg/L	-0.0340	ppb	19:32:00
2	Ba 233.527†	-136.5	0.6	0.0024	µg/L	0.0024	ppb	19:32:20
2	Be 313.107†	-795.6	276.4	0.0756	µg/L	0.0756	ppb	19:32:00
2	Cd 226.502†	-86.6	32.4	0.2024	µg/L	0.2024	ppb	19:32:20
2	Co 228.616†	-173.2	18.7	0.2305	µg/L	0.2305	ppb	19:32:20
2	Cr 267.716†	178.6	-1.6	-0.0131	µg/L	-0.0131	ppb	19:32:20
2	Cu 324.752†	2720.4	-276.8	-1.0746	µg/L	-1.0746	ppb	19:32:00
2	Mn 257.610†	233.8	-5.6	-0.0068	µg/L	-0.0068	ppb	19:32:20
2	Mo 202.031†	-11.0	9.2	0.2711	µg/L	0.2711	ppb	19:32:20
2	Ni 231.604†	-67.5	9.6	0.1106	µg/L	0.1106	ppb	19:32:20
2	P 214.914†	-23.6	-5.5	-1.1584	µg/L	-1.1584	ppb	19:32:20
2	Pb 220.353†	95.4	8.1	0.4532	µg/L	0.4532	ppb	19:32:20

2	S 181.975 Axial†	102.0	-4.0	-2.9595 µg/L	-2.9595 ppb	19:32:20
2	Sb 206.836†	80.5	-1.1	-0.1231 µg/L	-0.1231 ppb	19:32:20
2	Se 196.026†	11.1	-4.2	-1.53 µg/L	-1.53 ppb	19:32:20
2	SiO2†	1780.0	-11.7	-1.1573 µg/L	-1.1573 ppb	19:32:20
2	Si 251.611†	833.5	-10.8	-0.1648 µg/L	-0.1648 ppb	19:32:00
2	Sn 189.927†	4.9	6.0	0.3748 µg/L	0.3748 ppb	19:32:20
2	Ti 334.940†	959.8	-1.5	-0.0015 µg/L	-0.0015 ppb	19:32:00
2	Tl 190.801†	-121.4	-3.6	-0.4439 µg/L	-0.4439 ppb	19:32:20
2	U 409.014†	-253.2	19.1	1.1109 µg/L	1.1109 ppb	19:32:00
2	V 292.402†	396.6	-10.8	-0.0495 µg/L	-0.0495 ppb	19:32:00
2	Zn 213.857†	608.7	38.7	0.2171 µg/L	0.2171 ppb	19:32:20
3	Sc RADIAL	143412.5	143412.5	98.3 %		19:30:55
3	Al 396.153Radial†	-61.2	0.9	0.1676 µg/L	0.1676 ppb	19:31:15
3	Ca 317.933Radial†	592.5	42.3	2.3561 µg/L	2.3561 ppb	19:31:15
3	Fe 238.204 Radial†	168.4	23.2	1.4324 µg/L	1.4324 ppb	19:31:15
3	K 766.490 Radial†	1616.9	100.5	36.805 µg/L	36.805 ppb	19:30:55
3	Mg 279.077 IEC†	171.0	-16.7	-6.2040 µg/L	-6.2040 ppb	19:31:15
3	Na 589.592 Radial†	1303.8	35.9	4.8761 µg/L	4.8761 ppb	19:30:55
3	Sr 421.552†	-236.1	-105.0	-0.2183 µg/L	-0.2183 ppb	19:30:55
3	Sc 361.383	1715805.0	1715805.0	99.860 %		19:32:22
3	Y 371.029	1026242.1	1026242.1	99.956 %		19:32:22
3	Ag 328.068†	4010.0	-75.8	-0.2851 µg/L	-0.2851 ppb	19:32:24
3	As 188.979†	-13.5	6.8	2.0688 µg/L	2.0688 ppb	19:32:44
3	B 249.677†	3513.5	12.5	0.1850 µg/L	0.1850 ppb	19:32:24
3	Ba 233.527†	-128.9	6.8	0.0274 µg/L	0.0274 ppb	19:32:44
3	Be 313.107†	-697.9	365.9	0.0986 µg/L	0.0986 ppb	19:32:24
3	Cd 226.502†	-106.1	12.0	0.0747 µg/L	0.0747 ppb	19:32:44
3	Co 228.616†	-189.4	0.6	0.0078 µg/L	0.0078 ppb	19:32:44
3	Cr 267.716†	196.4	18.1	0.1446 µg/L	0.1446 ppb	19:32:44
3	Cu 324.752†	2902.2	-65.9	-0.2591 µg/L	-0.2591 ppb	19:32:24
3	Mn 257.610†	273.8	36.9	0.0459 µg/L	0.0459 ppb	19:32:44
3	Mo 202.031†	-16.2	3.9	0.1137 µg/L	0.1137 ppb	19:32:44
3	Ni 231.604†	-88.7	-12.3	-0.1412 µg/L	-0.1412 ppb	19:32:44
3	P 214.914†	-24.0	-6.1	-1.2988 µg/L	-1.2988 ppb	19:32:44
3	Pb 220.353†	103.9	17.7	0.9897 µg/L	0.9897 ppb	19:32:44
3	S 181.975 Axial†	107.4	2.5	1.8491 µg/L	1.8491 ppb	19:32:44
3	Sb 206.836†	83.4	2.7	0.3244 µg/L	0.3244 ppb	19:32:44
3	Se 196.026†	19.7	4.5	1.61 µg/L	1.61 ppb	19:32:44
3	SiO2†	1808.2	35.4	3.4538 µg/L	3.4538 ppb	19:32:44
3	Si 251.611†	977.1	141.9	2.0894 µg/L	2.0894 ppb	19:32:24
3	Sn 189.927†	2.2	3.3	0.2061 µg/L	0.2061 ppb	19:32:44
3	Ti 334.940†	999.8	48.7	0.0474 µg/L	0.0474 ppb	19:32:24
3	Tl 190.801†	-111.5	5.0	0.6198 µg/L	0.6198 ppb	19:32:44
3	U 409.014†	-328.9	-59.4	-3.4761 µg/L	-3.4761 ppb	19:32:24
3	V 292.402†	400.2	-3.0	-0.0153 µg/L	-0.0153 ppb	19:32:24
3	Zn 213.857†	599.5	35.9	0.2028 µg/L	0.2028 ppb	19:32:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716143.9	99.879	%	1.0373				1.04%
Sc RADIAL	144402.4	99.0	%	0.71				0.72%
Y 371.029	1026876.1	100.02	%	1.025				1.02%
Ag 328.068†	-208.2	-0.7677	µg/L	0.43252	-0.7677	ppb	0.43252	56.34%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.2	-1.7037	µg/L	1.67317	-1.7037	ppb	1.67317	98.21%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.0	1.5046	µg/L	0.67750	1.5046	ppb	0.67750	45.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-9.5	-0.1403	µg/L	0.38951	-0.1403	ppb	0.38951	277.57%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0084	µg/L	0.01681	0.0084	ppb	0.01681	200.54%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	303.4	0.0829	µg/L	0.01359	0.0829	ppb	0.01359	16.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	42.9	2.3912	µg/L	0.79388	2.3912	ppb	0.79388	33.20%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.7	0.0728	µg/L	0.13050	0.0728	ppb	0.13050	179.15%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.7	0.0827	µg/L	0.12800	0.0827	ppb	0.12800	154.81%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.6      0.0669 µg/L       0.07889      0.0669 ppb        0.07889 117.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -120.3     -0.4664 µg/L       0.53553     -0.4664 ppb        0.53553 114.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         21.8      1.3449 µg/L       0.25554      1.3449 ppb        0.25554  19.00%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          72.5      26.559 µg/L       10.2293      26.559 ppb        10.2293  38.52%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -9.1     -3.3867 µg/L       2.60377     -3.3867 ppb        2.60377  76.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                23.4      0.0291 µg/L       0.03107      0.0291 ppb        0.03107 106.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.3     -0.0962 µg/L       0.50606     -0.0962 ppb        0.50606 525.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        118.4      16.147 µg/L       11.4636      16.147 ppb        11.4636  70.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.7     -0.0651 µg/L       0.15260     -0.0651 ppb        0.15260 234.56%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.3     -0.0611 µg/L       2.02349     -0.0611 ppb        2.02349 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.4      0.8575 µg/L       0.35710      0.8575 ppb        0.35710  41.64%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.7      0.5509 µg/L       3.07426      0.5509 ppb        3.07426 558.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.4      0.1627 µg/L       0.24819      0.1627 ppb        0.24819 152.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.3       0.122 µg/L        1.5761       0.122 ppb         1.5761 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       6.5      0.6315 µg/L       2.47323      0.6315 ppb        2.47323 391.67%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                45.1      0.6638 µg/L       1.24006      0.6638 ppb        1.24006 186.82%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.8      0.4214 µg/L       0.24200      0.4214 ppb        0.24200  57.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -121.6     -0.2528 µg/L       0.09445     -0.2528 ppb        0.09445  37.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                59.0      0.0550 µg/L       0.06076      0.0550 ppb        0.06076 110.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.1      0.3781 µg/L       0.73174      0.3781 ppb        0.73174 193.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 16.2      0.9557 µg/L       4.35630      0.9557 ppb        4.35630 455.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 38.8      0.1892 µg/L       0.38415      0.1892 ppb        0.38415 203.07%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                35.9      0.2023 µg/L       0.01507      0.2023 ppb        0.01507   7.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 19:48:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142074.6	142074.6	97.4	%			19:48:41
1	Al 396.153Radial†	26307.3	27084.3	4998.9	µg/L	4998.9	ppb	19:48:41
1	Ca 317.933Radial†	86883.3	88680.2	4939.8	µg/L	4939.8	ppb	19:48:41
1	Fe 238.204 Radial†	77361.0	79312.1	4888.3	µg/L	4888.3	ppb	19:48:41
1	K 766.490 Radial†	14600.0	13451.4	4920.7	µg/L	4920.7	ppb	19:48:41
1	Mg 279.077 IEC†	13319.4	13490.1	5033.8	µg/L	5033.8	ppb	19:48:41
1	Na 589.592 Radial†	70751.2	71380.2	9747.0	µg/L	9747.0	ppb	19:48:41
1	Sr 421.552†	226373.4	232651.3	483.63	µg/L	483.63	ppb	19:48:39
1	Sc 361.383	1707292.7	1707292.7	99.364	%			19:48:54
1	Y 371.029	1010159.7	1010159.7	98.390	%			19:48:54
1	Ag 328.068†	133110.0	129870.3	486.98	µg/L	486.98	ppb	19:48:54
1	As 188.979†	1576.3	1606.7	492.97	µg/L	492.97	ppb	19:49:14
1	B 249.677†	35756.1	32479.0	477.32	µg/L	477.32	ppb	19:48:54
1	Ba 233.527†	119643.5	120545.0	486.15	µg/L	486.15	ppb	19:48:54
1	Be 313.107†	1782114.7	1794583.1	488.77	µg/L	488.77	ppb	19:48:54
1	Cd 226.502†	76871.1	77481.2	483.67	µg/L	483.67	ppb	19:48:54
1	Co 228.616†	39104.8	39545.3	488.18	µg/L	488.18	ppb	19:48:54
1	Cr 267.716†	61488.3	61703.2	483.11	µg/L	483.11	ppb	19:48:54
1	Cu 324.752†	126677.7	124516.1	485.41	µg/L	485.41	ppb	19:48:54
1	Mn 257.610†	392328.2	394601.4	488.03	µg/L	488.03	ppb	19:48:54
1	Mo 202.031†	16345.9	16470.5	484.49	µg/L	484.49	ppb	19:49:14
1	Ni 231.604†	41875.3	42219.8	486.13	µg/L	486.13	ppb	19:48:54
1	P 214.914†	11193.1	11282.7	2404.8	µg/L	2404.8	ppb	19:49:14
1	Pb 220.353†	8730.4	8699.9	487.18	µg/L	487.18	ppb	19:49:14
1	S 181.975 Axial†	1383.4	1287.2	959.96	µg/L	959.96	ppb	19:49:14
1	Sb 206.836†	4107.0	4052.4	482.84	µg/L	482.84	ppb	19:49:14
1	Se 196.026†	1342.1	1335.4	485	µg/L	485	ppb	19:49:14
1	SiO2†	55335.6	53914.4	5248.9	µg/L	5248.9	ppb	19:48:54
1	Si 251.611†	167076.9	167309.4	2457.0	µg/L	2457.0	ppb	19:48:54
1	Sn 189.927†	7693.0	7743.4	484.36	µg/L	484.36	ppb	19:49:14
1	Ti 334.940†	519233.7	521603.7	486.68	µg/L	486.68	ppb	19:48:54
1	Tl 190.801†	3814.7	3955.8	493.34	µg/L	493.34	ppb	19:49:14
1	U 409.014†	7610.9	7929.5	493.08	µg/L	493.08	ppb	19:48:54
1	V 292.402†	98525.0	98751.7	488.17	µg/L	488.17	ppb	19:48:54
1	Zn 213.857†	86407.4	86395.9	481.51	µg/L	481.51	ppb	19:48:54
2	Sc RADIAL	141314.4	141314.4	96.8	%			19:48:45
2	Al 396.153Radial†	26070.1	26984.8	4980.3	µg/L	4980.3	ppb	19:48:45
2	Ca 317.933Radial†	86198.1	88452.8	4927.2	µg/L	4927.2	ppb	19:48:45
2	Fe 238.204 Radial†	76905.6	79269.3	4885.7	µg/L	4885.7	ppb	19:48:45
2	K 766.490 Radial†	14469.9	13397.8	4901.1	µg/L	4901.1	ppb	19:48:45
2	Mg 279.077 IEC†	13056.5	13292.2	4960.2	µg/L	4960.2	ppb	19:48:45
2	Na 589.592 Radial†	70248.5	71252.1	9729.5	µg/L	9729.5	ppb	19:48:45
2	Sr 421.552†	230623.8	238291.3	495.36	µg/L	495.36	ppb	19:48:43
2	Sc 361.383	1705432.9	1705432.9	99.256	%			19:49:17
2	Y 371.029	1009468.8	1009468.8	98.323	%			19:49:17
2	Ag 328.068†	133787.0	130698.5	490.05	µg/L	490.05	ppb	19:49:17
2	As 188.979†	1570.4	1602.5	491.73	µg/L	491.73	ppb	19:49:37
2	B 249.677†	35970.0	32733.8	481.06	µg/L	481.06	ppb	19:49:17
2	Ba 233.527†	120220.9	121258.0	489.03	µg/L	489.03	ppb	19:49:17
2	Be 313.107†	1787251.2	1801714.0	490.71	µg/L	490.71	ppb	19:49:17
2	Cd 226.502†	77339.1	78037.0	487.14	µg/L	487.14	ppb	19:49:17
2	Co 228.616†	39270.6	39755.3	490.78	µg/L	490.78	ppb	19:49:17
2	Cr 267.716†	61757.1	62041.5	485.78	µg/L	485.78	ppb	19:49:17
2	Cu 324.752†	126820.0	124798.5	486.50	µg/L	486.50	ppb	19:49:17
2	Mn 257.610†	394508.1	397228.3	491.28	µg/L	491.28	ppb	19:49:17
2	Mo 202.031†	16426.8	16570.0	487.42	µg/L	487.42	ppb	19:49:37
2	Ni 231.604†	41982.9	42374.1	487.91	µg/L	487.91	ppb	19:49:17
2	P 214.914†	11261.9	11364.3	2422.2	µg/L	2422.2	ppb	19:49:37
2	Pb 220.353†	8823.1	8802.9	492.95	µg/L	492.95	ppb	19:49:37

2	S 181.975 Axial†	1396.0	1301.4	970.49 µg/L	970.49 ppb	19:49:37
2	Sb 206.836†	4148.9	4099.2	488.41 µg/L	488.41 ppb	19:49:37
2	Se 196.026†	1355.8	1350.7	490 µg/L	490 ppb	19:49:37
2	SiO2†	55442.9	54083.1	5265.3 µg/L	5265.3 ppb	19:49:17
2	Si 251.611†	167481.5	167900.5	2465.6 µg/L	2465.6 ppb	19:49:17
2	Sn 189.927†	7735.0	7794.1	487.53 µg/L	487.53 ppb	19:49:37
2	Ti 334.940†	520412.2	523360.9	488.34 µg/L	488.34 ppb	19:49:17
2	Tl 190.801†	3830.1	3975.4	495.78 µg/L	495.78 ppb	19:49:37
2	U 409.014†	7376.5	7701.7	479.90 µg/L	479.90 ppb	19:49:17
2	V 292.402†	98853.0	99190.2	490.34 µg/L	490.34 ppb	19:49:17
2	Zn 213.857†	86774.5	86860.6	484.11 µg/L	484.11 ppb	19:49:17
3	Sc RADIAL	143116.0	143116.0	98.1 %		19:48:49
3	Al 396.153Radial†	26236.6	26815.6	4949.0 µg/L	4949.0 ppb	19:48:49
3	Ca 317.933Radial†	87307.0	88462.9	4927.7 µg/L	4927.7 ppb	19:48:49
3	Fe 238.204 Radial†	77796.7	79178.1	4880.1 µg/L	4880.1 ppb	19:48:49
3	K 766.490 Radial†	14380.3	13118.2	4798.8 µg/L	4798.8 ppb	19:48:49
3	Mg 279.077 IEC†	13346.6	13418.3	5007.1 µg/L	5007.1 ppb	19:48:49
3	Na 589.592 Radial†	71057.8	71164.1	9717.6 µg/L	9717.6 ppb	19:48:49
3	Sr 421.552†	230412.2	235077.6	488.67 µg/L	488.67 ppb	19:48:47
3	Sc 361.383	1721387.2	1721387.2	100.18 %		19:49:40
3	Y 371.029	1018897.4	1018897.4	99.241 %		19:49:40
3	Ag 328.068†	134640.8	130301.5	488.57 µg/L	488.57 ppb	19:49:40
3	As 188.979†	1609.9	1627.2	499.20 µg/L	499.20 ppb	19:50:00
3	B 249.677†	36341.2	32768.4	481.57 µg/L	481.57 ppb	19:49:40
3	Ba 233.527†	121012.1	120925.1	487.69 µg/L	487.69 ppb	19:49:40
3	Be 313.107†	1805276.3	1803016.9	491.06 µg/L	491.06 ppb	19:49:40
3	Cd 226.502†	78051.9	78026.4	487.08 µg/L	487.08 ppb	19:49:40
3	Co 228.616†	39637.9	39755.2	490.78 µg/L	490.78 ppb	19:49:40
3	Cr 267.716†	62404.8	62111.3	486.33 µg/L	486.33 ppb	19:49:40
3	Cu 324.752†	128037.0	124829.0	486.61 µg/L	486.61 ppb	19:49:40
3	Mn 257.610†	397828.4	396858.6	490.82 µg/L	490.82 ppb	19:49:40
3	Mo 202.031†	16520.4	16510.1	485.66 µg/L	485.66 ppb	19:50:00
3	Ni 231.604†	42275.1	42273.8	486.75 µg/L	486.75 ppb	19:49:40
3	P 214.914†	11329.3	11326.4	2414.1 µg/L	2414.1 ppb	19:50:00
3	Pb 220.353†	8851.7	8749.0	489.94 µg/L	489.94 ppb	19:50:00
3	S 181.975 Axial†	1397.8	1290.2	962.16 µg/L	962.16 ppb	19:50:00
3	Sb 206.836†	4164.3	4075.8	485.60 µg/L	485.60 ppb	19:50:00
3	Se 196.026†	1362.5	1344.7	488 µg/L	488 ppb	19:50:00
3	SiO2†	55884.7	54006.4	5257.8 µg/L	5257.8 ppb	19:49:40
3	Si 251.611†	169043.3	167895.4	2465.6 µg/L	2465.6 ppb	19:49:40
3	Sn 189.927†	7803.9	7790.6	487.31 µg/L	487.31 ppb	19:50:00
3	Ti 334.940†	525263.4	523343.7	488.32 µg/L	488.32 ppb	19:49:40
3	Tl 190.801†	3853.4	3963.0	494.25 µg/L	494.25 ppb	19:50:00
3	U 409.014†	7327.8	7584.2	473.02 µg/L	473.02 ppb	19:49:40
3	V 292.402†	99734.3	99146.8	490.11 µg/L	490.11 ppb	19:49:40
3	Zn 213.857†	87677.5	86951.6	484.63 µg/L	484.63 ppb	19:49:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1711370.9	99.602	%	0.5077				0.51%
Sc RADIAL	142168.3	97.4	%	0.62				0.64%
Y 371.029	1012841.9	98.651	%	0.5119				0.52%
Ag 328.068†	130290.1	488.54	µg/L	1.538	488.54	ppb	1.538	0.31%
QC value within limits for Ag 328.068 Recovery = 97.71%								
Al 396.153Radial†	26961.6	4976.1	µg/L	25.20	4976.1	ppb	25.20	0.51%
QC value within limits for Al 396.153Radial Recovery = 99.52%								
As 188.979†	1612.2	494.63	µg/L	4.004	494.63	ppb	4.004	0.81%
QC value within limits for As 188.979 Recovery = 98.93%								
B 249.677†	32660.4	479.98	µg/L	2.326	479.98	ppb	2.326	0.48%
QC value within limits for B 249.677 Recovery = 96.00%								
Ba 233.527†	120909.3	487.62	µg/L	1.439	487.62	ppb	1.439	0.30%
QC value within limits for Ba 233.527 Recovery = 97.52%								
Be 313.107†	1799771.3	490.18	µg/L	1.233	490.18	ppb	1.233	0.25%
QC value within limits for Be 313.107 Recovery = 98.04%								
Ca 317.933Radial†	88532.0	4931.6	µg/L	7.16	4931.6	ppb	7.16	0.15%
QC value within limits for Ca 317.933Radial Recovery = 98.63%								
Cd 226.502†	77848.2	485.96	µg/L	1.986	485.96	ppb	1.986	0.41%
QC value within limits for Cd 226.502 Recovery = 97.19%								
Co 228.616†	39685.3	489.91	µg/L	1.497	489.91	ppb	1.497	0.31%

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   QC value within limits for Co 228.616  Recovery = 97.98%
Cr 267.716†            61952.0      485.07 µg/L         1.718      485.07 ppb          1.718   0.35%
   QC value within limits for Cr 267.716  Recovery = 97.01%
Cu 324.752†           124714.6      486.17 µg/L         0.662      486.17 ppb          0.662   0.14%
   QC value within limits for Cu 324.752  Recovery = 97.23%
Fe 238.204 Radial†     79253.2      4884.7 µg/L          4.22      4884.7 ppb           4.22   0.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.69%
K 766.490 Radial†      13322.5      4873.5 µg/L         65.48      4873.5 ppb          65.48   1.34%
   QC value within limits for K 766.490 Radial  Recovery = 97.47%
Mg 279.077 IEC†        13400.2      5000.4 µg/L         37.28      5000.4 ppb          37.28   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.01%
Mn 257.610†           396229.4      490.04 µg/L         1.761      490.04 ppb          1.761   0.36%
   QC value within limits for Mn 257.610  Recovery = 98.01%
Mo 202.031†            16516.9      485.86 µg/L         1.472      485.86 ppb          1.472   0.30%
   QC value within limits for Mo 202.031  Recovery = 97.17%
Na 589.592 Radial†     71265.4      9731.4 µg/L         14.79      9731.4 ppb          14.79   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 97.31%
Ni 231.604†            42289.2      486.93 µg/L         0.902      486.93 ppb          0.902   0.19%
   QC value within limits for Ni 231.604  Recovery = 97.39%
P 214.914†             11324.5      2413.7 µg/L          8.72      2413.7 ppb           8.72   0.36%
   QC value within limits for P 214.914  Recovery = 96.55%
Pb 220.353†             8750.6      490.02 µg/L         2.885      490.02 ppb          2.885   0.59%
   QC value within limits for Pb 220.353  Recovery = 98.00%
S 181.975 Axial†        1292.9      964.20 µg/L         5.551      964.20 ppb          5.551   0.58%
   QC value within limits for S 181.975 Axial  Recovery = 96.42%
Sb 206.836†             4075.8      485.62 µg/L         2.784      485.62 ppb          2.784   0.57%
   QC value within limits for Sb 206.836  Recovery = 97.12%
Se 196.026†             1343.6         488 µg/L           2.8         488 ppb            2.8   0.57%
   QC value within limits for Se 196.026  Recovery = 97.58%
SiO2†                  54001.3      5257.4 µg/L          8.20      5257.4 ppb           8.20   0.16%
   QC value within limits for SiO2  Recovery = 98.31%
Si 251.611†           167701.8      2462.7 µg/L          4.98      2462.7 ppb           4.98   0.20%
   QC value within limits for Si 251.611  Recovery = 98.51%
Sn 189.927†             7776.0      486.40 µg/L         1.771      486.40 ppb          1.771   0.36%
   QC value within limits for Sn 189.927  Recovery = 97.28%
Sr 421.552†           235340.1      489.22 µg/L         5.882      489.22 ppb          5.882   1.20%
   QC value within limits for Sr 421.552  Recovery = 97.84%
Ti 334.940†           522769.4      487.78 µg/L         0.949      487.78 ppb          0.949   0.19%
   QC value within limits for Ti 334.940  Recovery = 97.56%
Tl 190.801†             3964.8      494.46 µg/L         1.233      494.46 ppb          1.233   0.25%
   QC value within limits for Tl 190.801  Recovery = 98.89%
U 409.014†              7738.5      482.00 µg/L        10.196      482.00 ppb         10.196   2.12%
   QC value within limits for U 409.014  Recovery = 96.40%
V 292.402†             99029.6      489.54 µg/L         1.192      489.54 ppb          1.192   0.24%
   QC value within limits for V 292.402  Recovery = 97.91%
Zn 213.857†            86736.0      483.41 µg/L         1.671      483.41 ppb          1.671   0.35%
   QC value within limits for Zn 213.857  Recovery = 96.68%
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:50:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143600.6	143600.6	98.4	%			19:50:37
1	Al 396.153Radial†	-51.1	11.3	2.1044	µg/L	2.1044	ppb	19:50:57
1	Ca 317.933Radial†	586.6	35.5	1.9797	µg/L	1.9797	ppb	19:50:57
1	Fe 238.204 Radial†	144.0	-1.8	-0.1088	µg/L	-0.1088	ppb	19:50:57
1	K 766.490 Radial†	1486.8	-33.9	-12.412	µg/L	-12.412	ppb	19:50:37
1	Mg 279.077 IEC†	173.5	-14.4	-5.3870	µg/L	-5.3870	ppb	19:50:57
1	Na 589.592 Radial†	1458.3	191.2	26.130	µg/L	26.130	ppb	19:50:37
1	Sr 421.552†	-289.3	-158.8	-0.3301	µg/L	-0.3301	ppb	19:50:37
1	Sc 361.383	1727301.6	1727301.6	100.53	%			19:51:45
1	Y 371.029	1033229.5	1033229.5	100.64	%			19:51:45
1	Ag 328.068†	3918.0	-194.0	-0.7232	µg/L	-0.7232	ppb	19:51:47
1	As 188.979†	-11.4	9.0	2.7325	µg/L	2.7325	ppb	19:52:07
1	B 249.677†	3507.2	-17.2	-0.2546	µg/L	-0.2546	ppb	19:52:07
1	Ba 233.527†	-159.6	-22.9	-0.0923	µg/L	-0.0923	ppb	19:52:07
1	Be 313.107†	-960.5	109.3	0.0290	µg/L	0.0290	ppb	19:51:47
1	Cd 226.502†	-87.8	30.8	0.1926	µg/L	0.1926	ppb	19:52:07
1	Co 228.616†	-159.6	31.5	0.3887	µg/L	0.3887	ppb	19:52:07
1	Cr 267.716†	221.5	41.8	0.3292	µg/L	0.3292	ppb	19:52:07
1	Cu 324.752†	2909.7	-77.8	-0.3046	µg/L	-0.3046	ppb	19:51:47
1	Mn 257.610†	275.7	37.0	0.0460	µg/L	0.0460	ppb	19:52:07
1	Mo 202.031†	-30.5	-10.3	-0.3033	µg/L	-0.3033	ppb	19:52:07
1	Ni 231.604†	-82.7	-5.8	-0.0664	µg/L	-0.0664	ppb	19:52:07
1	P 214.914†	-17.8	0.3	0.0611	µg/L	0.0611	ppb	19:52:07
1	Pb 220.353†	92.7	5.8	0.3254	µg/L	0.3254	ppb	19:52:07
1	S 181.975 Axial†	92.1	-13.5	-10.016	µg/L	-10.016	ppb	19:52:07
1	Sb 206.836†	70.2	-11.0	-1.3187	µg/L	-1.3187	ppb	19:52:07
1	Se 196.026†	23.8	8.4	3.03	µg/L	3.03	ppb	19:52:07
1	SiO2†	1746.0	-38.6	-3.7620	µg/L	-3.7620	ppb	19:52:07
1	Si 251.611†	804.0	-36.7	-0.5381	µg/L	-0.5381	ppb	19:51:47
1	Sn 189.927†	-0.2	0.9	0.0546	µg/L	0.0546	ppb	19:52:07
1	Ti 334.940†	954.9	-2.7	-0.0011	µg/L	-0.0011	ppb	19:51:47
1	Tl 190.801†	-118.5	-1.2	-0.1445	µg/L	-0.1445	ppb	19:52:07
1	U 409.014†	-315.9	-44.3	-2.6009	µg/L	-2.6009	ppb	19:51:47
1	V 292.402†	377.6	-28.1	-0.1408	µg/L	-0.1408	ppb	19:51:47
1	Zn 213.857†	598.1	30.5	0.1719	µg/L	0.1719	ppb	19:52:07
2	Sc RADIAL	143131.7	143131.7	98.1	%			19:50:59
2	Al 396.153Radial†	-32.2	30.3	5.6296	µg/L	5.6296	ppb	19:51:19
2	Ca 317.933Radial†	576.7	27.4	1.5269	µg/L	1.5269	ppb	19:51:19
2	Fe 238.204 Radial†	158.7	13.7	0.8423	µg/L	0.8423	ppb	19:51:19
2	K 766.490 Radial†	1675.4	163.4	59.819	µg/L	59.819	ppb	19:50:59
2	Mg 279.077 IEC†	212.3	25.7	9.5785	µg/L	9.5785	ppb	19:51:19
2	Na 589.592 Radial†	1429.9	167.0	22.764	µg/L	22.764	ppb	19:50:59
2	Sr 421.552†	-273.0	-143.1	-0.2975	µg/L	-0.2975	ppb	19:50:59
2	Sc 361.383	1718494.8	1718494.8	100.02	%			19:52:09
2	Y 371.029	1028699.8	1028699.8	100.20	%			19:52:09
2	Ag 328.068†	4047.8	-44.2	-0.1507	µg/L	-0.1507	ppb	19:52:11
2	As 188.979†	-18.3	2.1	0.6206	µg/L	0.6206	ppb	19:52:32
2	B 249.677†	3519.8	13.3	0.1962	µg/L	0.1962	ppb	19:52:32
2	Ba 233.527†	-147.0	-11.2	-0.0449	µg/L	-0.0449	ppb	19:52:32
2	Be 313.107†	-767.5	297.4	0.0836	µg/L	0.0836	ppb	19:52:11
2	Cd 226.502†	-96.5	21.7	0.1357	µg/L	0.1357	ppb	19:52:32
2	Co 228.616†	-176.2	14.1	0.1739	µg/L	0.1739	ppb	19:52:32
2	Cr 267.716†	180.3	1.7	0.0063	µg/L	0.0063	ppb	19:52:32
2	Cu 324.752†	2889.0	-83.7	-0.3176	µg/L	-0.3176	ppb	19:52:11
2	Mn 257.610†	264.9	27.6	0.0338	µg/L	0.0338	ppb	19:52:32
2	Mo 202.031†	-22.6	-2.5	-0.0728	µg/L	-0.0728	ppb	19:52:32
2	Ni 231.604†	-57.5	19.1	0.2195	µg/L	0.2195	ppb	19:52:32
2	P 214.914†	4.9	22.9	4.9039	µg/L	4.9039	ppb	19:52:32
2	Pb 220.353†	90.9	4.5	0.2430	µg/L	0.2430	ppb	19:52:32

2	S 181.975 Axial†	92.8	-12.3	-9.1413 µg/L	-9.1413 ppb	19:52:32
2	Sb 206.836†	91.0	10.1	1.2060 µg/L	1.2060 ppb	19:52:32
2	Se 196.026†	23.4	8.1	2.95 µg/L	2.95 ppb	19:52:32
2	SiO2†	1770.3	-5.4	-0.5347 µg/L	-0.5347 ppb	19:52:32
2	Si 251.611†	816.5	-20.2	-0.3025 µg/L	-0.3025 ppb	19:52:11
2	Sn 189.927†	13.1	14.3	0.8887 µg/L	0.8887 ppb	19:52:32
2	Ti 334.940†	824.8	-127.9	-0.1238 µg/L	-0.1238 ppb	19:52:11
2	Tl 190.801†	-110.8	5.9	0.7247 µg/L	0.7247 ppb	19:52:32
2	U 409.014†	-118.9	151.0	8.8426 µg/L	8.8426 ppb	19:52:11
2	V 292.402†	441.7	37.8	0.1896 µg/L	0.1896 ppb	19:52:11
2	Zn 213.857†	569.1	4.5	0.0243 µg/L	0.0243 ppb	19:52:32
3	Sc RADIAL	142404.0	142404.0	97.6 %		19:51:21
3	Al 396.153Radial†	-37.8	24.5	4.5543 µg/L	4.5543 ppb	19:51:41
3	Ca 317.933Radial†	603.4	57.8	3.2194 µg/L	3.2194 ppb	19:51:41
3	Fe 238.204 Radial†	154.3	10.0	0.6188 µg/L	0.6188 ppb	19:51:41
3	K 766.490 Radial†	1584.3	78.7	28.824 µg/L	28.824 ppb	19:51:21
3	Mg 279.077 IEC†	168.4	-18.1	-6.7588 µg/L	-6.7588 ppb	19:51:41
3	Na 589.592 Radial†	1217.4	-43.3	-5.9413 µg/L	-5.9413 ppb	19:51:21
3	Sr 421.552†	-213.0	-83.0	-0.1726 µg/L	-0.1726 ppb	19:51:21
3	Sc 361.383	1725113.7	1725113.7	100.40 %		19:52:34
3	Y 371.029	1032434.0	1032434.0	100.56 %		19:52:34
3	Ag 328.068†	4136.4	28.4	0.1103 µg/L	0.1103 ppb	19:52:36
3	As 188.979†	-21.2	-0.8	-0.2286 µg/L	-0.2286 ppb	19:52:56
3	B 249.677†	3487.8	-32.0	-0.4730 µg/L	-0.4730 ppb	19:52:56
3	Ba 233.527†	-148.1	-11.7	-0.0471 µg/L	-0.0471 ppb	19:52:56
3	Be 313.107†	-958.9	109.7	0.0307 µg/L	0.0307 ppb	19:52:36
3	Cd 226.502†	-100.1	18.5	0.1156 µg/L	0.1156 ppb	19:52:56
3	Co 228.616†	-181.7	9.3	0.1151 µg/L	0.1151 ppb	19:52:56
3	Cr 267.716†	179.3	-0.0	-0.0022 µg/L	-0.0022 ppb	19:52:56
3	Cu 324.752†	2944.1	-39.9	-0.1527 µg/L	-0.1527 ppb	19:52:36
3	Mn 257.610†	258.6	20.3	0.0254 µg/L	0.0254 ppb	19:52:56
3	Mo 202.031†	-33.3	-13.1	-0.3839 µg/L	-0.3839 ppb	19:52:56
3	Ni 231.604†	-89.6	-12.8	-0.1471 µg/L	-0.1471 ppb	19:52:56
3	P 214.914†	-5.5	12.5	2.6899 µg/L	2.6899 ppb	19:52:56
3	Pb 220.353†	86.1	-0.6	-0.0367 µg/L	-0.0367 ppb	19:52:56
3	S 181.975 Axial†	105.1	-0.4	-0.3195 µg/L	-0.3195 ppb	19:52:56
3	Sb 206.836†	78.4	-2.7	-0.3234 µg/L	-0.3234 ppb	19:52:56
3	Se 196.026†	32.5	17.1	6.18 µg/L	6.18 ppb	19:52:56
3	SiO2†	1714.4	-67.8	-6.6340 µg/L	-6.6340 ppb	19:52:56
3	Si 251.611†	948.1	107.7	1.5850 µg/L	1.5850 ppb	19:52:36
3	Sn 189.927†	18.5	19.5	1.2178 µg/L	1.2178 ppb	19:52:56
3	Ti 334.940†	1054.7	98.0	0.0910 µg/L	0.0910 ppb	19:52:36
3	Tl 190.801†	-105.2	11.9	1.4675 µg/L	1.4675 ppb	19:52:56
3	U 409.014†	-221.6	49.1	2.8801 µg/L	2.8801 ppb	19:52:36
3	V 292.402†	431.8	26.3	0.1262 µg/L	0.1262 ppb	19:52:36
3	Zn 213.857†	567.6	1.0	0.0065 µg/L	0.0065 ppb	19:52:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1723636.7	100.32	%	0.267				0.27%
Sc RADIAL	143045.4	98.0	%	0.41				0.42%
Y 371.029	1031454.4	100.46	%	0.236				0.23%
Ag 328.068†	-69.9	-0.2546	µg/L	0.42634	-0.2546	ppb	0.42634	167.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	22.0	4.0961	µg/L	1.80672	4.0961	ppb	1.80672	44.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.4	1.0415	µg/L	1.52480	1.0415	ppb	1.52480	146.41%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-12.0	-0.1771	µg/L	0.34126	-0.1771	ppb	0.34126	192.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-15.2	-0.0614	µg/L	0.02676	-0.0614	ppb	0.02676	43.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	172.1	0.0478	µg/L	0.03107	0.0478	ppb	0.03107	65.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	40.2	2.2420	µg/L	0.87622	2.2420	ppb	0.87622	39.08%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.7	0.1480	µg/L	0.03996	0.1480	ppb	0.03996	27.01%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.3	0.2259	µg/L	0.14405	0.2259	ppb	0.14405	63.76%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.5      0.1111 µg/L       0.18892      0.1111 ppb        0.18892 170.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -67.1     -0.2583 µg/L       0.09167     -0.2583 ppb        0.09167  35.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        7.3      0.4508 µg/L       0.49733      0.4508 ppb        0.49733 110.33%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        69.4      25.411 µg/L       36.2364      25.411 ppb        36.2364 142.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.3     -0.8557 µg/L       9.06232     -0.8557 ppb        9.06232 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              28.3      0.0350 µg/L       0.01036      0.0350 ppb        0.01036  29.56%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -8.6     -0.2533 µg/L       0.16143     -0.2533 ppb        0.16143  63.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      105.0      14.318 µg/L       17.6253      14.318 ppb        17.6253 123.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.2      0.0020 µg/L       0.19262      0.0020 ppb        0.19262 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               11.9      2.5516 µg/L       2.42435      2.5516 ppb        2.42435  95.01%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               3.2      0.1772 µg/L       0.18975      0.1772 ppb        0.18975 107.07%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -8.7     -6.4924 µg/L       5.36374     -6.4924 ppb        5.36374  82.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.2     -0.1454 µg/L       1.27176     -0.1454 ppb        1.27176 874.71%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              11.2        4.05 µg/L         1.843        4.05 ppb          1.843  45.47%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -37.2     -3.6436 µg/L       3.05138     -3.6436 ppb        3.05138  83.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              16.9      0.2481 µg/L       1.16372      0.2481 ppb        1.16372 469.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              11.6      0.7204 µg/L       0.59961      0.7204 ppb        0.59961  83.23%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -128.3     -0.2667 µg/L       0.08309     -0.2667 ppb        0.08309  31.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -10.9     -0.0113 µg/L       0.10776     -0.0113 ppb        0.10776 953.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.6      0.6826 µg/L       0.80682      0.6826 ppb        0.80682 118.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               51.9      3.0406 µg/L       5.72342      3.0406 ppb        5.72342 188.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               12.0      0.0584 µg/L       0.17533      0.0584 ppb        0.17533 300.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              12.0      0.0676 µg/L       0.09081      0.0676 ppb        0.09081 134.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 20:18:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143153.1	143153.1	98.1	%			20:19:22
1	Al 396.153Radial†	26168.1	26738.9	4934.8	µg/L	4934.8	ppb	20:19:22
1	Ca 317.933Radial†	87812.2	88954.8	4955.1	µg/L	4955.1	ppb	20:19:22
1	Fe 238.204 Radial†	78188.9	79557.4	4903.4	µg/L	4903.4	ppb	20:19:22
1	K 766.490 Radial†	14678.9	13418.9	4908.8	µg/L	4908.8	ppb	20:19:22
1	Mg 279.077 IEC†	13438.9	13508.9	5040.9	µg/L	5040.9	ppb	20:19:22
1	Na 589.592 Radial†	71303.4	71395.6	9749.1	µg/L	9749.1	ppb	20:19:22
1	Sr 421.552†	231815.5	236447.2	491.52	µg/L	491.52	ppb	20:19:20
1	Sc 361.383	1733210.9	1733210.9	100.87	%			20:19:49
1	Y 371.029	1024566.6	1024566.6	99.793	%			20:19:49
1	Ag 328.068†	135811.2	130544.9	489.48	µg/L	489.48	ppb	20:19:49
1	As 188.979†	1620.4	1626.8	499.06	µg/L	499.06	ppb	20:20:09
1	B 249.677†	36886.7	33061.7	485.90	µg/L	485.90	ppb	20:19:49
1	Ba 233.527†	122122.4	121201.8	488.80	µg/L	488.80	ppb	20:19:49
1	Be 313.107†	1820796.8	1806110.5	491.91	µg/L	491.91	ppb	20:19:49
1	Cd 226.502†	79174.4	78607.7	490.71	µg/L	490.71	ppb	20:19:49
1	Co 228.616†	39967.4	39811.9	491.48	µg/L	491.48	ppb	20:19:49
1	Cr 267.716†	62802.0	62080.2	486.08	µg/L	486.08	ppb	20:19:49
1	Cu 324.752†	129193.6	125103.8	487.69	µg/L	487.69	ppb	20:19:49
1	Mn 257.610†	400949.3	397243.5	491.30	µg/L	491.30	ppb	20:19:49
1	Mo 202.031†	16640.3	16516.4	485.85	µg/L	485.85	ppb	20:20:09
1	Ni 231.604†	42932.4	42637.5	490.94	µg/L	490.94	ppb	20:19:49
1	P 214.914†	11516.5	11434.8	2437.3	µg/L	2437.3	ppb	20:20:09
1	Pb 220.353†	8939.2	8775.5	491.41	µg/L	491.41	ppb	20:20:09
1	S 181.975 Axial†	1432.0	1314.6	980.26	µg/L	980.26	ppb	20:20:09
1	Sb 206.836†	4200.0	4082.8	486.45	µg/L	486.45	ppb	20:20:09
1	Se 196.026†	1380.3	1353.0	491	µg/L	491	ppb	20:20:09
1	SiO2†	56585.0	54320.2	5288.5	µg/L	5288.5	ppb	20:19:49
1	Si 251.611†	171480.3	169160.3	2484.2	µg/L	2484.2	ppb	20:19:49
1	Sn 189.927†	7899.9	7832.7	489.93	µg/L	489.93	ppb	20:20:09
1	Ti 334.940†	528670.3	523144.4	488.13	µg/L	488.13	ppb	20:19:49
1	Tl 190.801†	3879.4	3962.5	494.19	µg/L	494.19	ppb	20:20:09
1	U 409.014†	7456.1	7661.5	477.56	µg/L	477.56	ppb	20:19:49
1	V 292.402†	100505.8	99232.6	490.53	µg/L	490.53	ppb	20:19:49
1	Zn 213.857†	88711.3	87379.4	487.00	µg/L	487.00	ppb	20:19:49
2	Sc RADIAL	145636.2	145636.2	99.8	%			20:19:26
2	Al 396.153Radial†	26516.1	26632.7	4915.0	µg/L	4915.0	ppb	20:19:26
2	Ca 317.933Radial†	89356.1	88975.7	4956.3	µg/L	4956.3	ppb	20:19:26
2	Fe 238.204 Radial†	79820.2	79833.0	4920.4	µg/L	4920.4	ppb	20:19:26
2	K 766.490 Radial†	14884.7	13369.9	4890.9	µg/L	4890.9	ppb	20:19:26
2	Mg 279.077 IEC†	13655.2	13492.0	5034.7	µg/L	5034.7	ppb	20:19:26
2	Na 589.592 Radial†	72574.2	71429.7	9753.8	µg/L	9753.8	ppb	20:19:26
2	Sr 421.552†	229556.2	230154.3	478.44	µg/L	478.44	ppb	20:19:24
2	Sc 361.383	1728845.1	1728845.1	100.62	%			20:20:12
2	Y 371.029	1022537.6	1022537.6	99.596	%			20:20:12
2	Ag 328.068†	135255.7	130332.9	488.71	µg/L	488.71	ppb	20:20:12
2	As 188.979†	1619.6	1630.0	500.04	µg/L	500.04	ppb	20:20:32
2	B 249.677†	36772.6	33040.7	485.59	µg/L	485.59	ppb	20:20:12
2	Ba 233.527†	121898.2	121284.8	489.14	µg/L	489.14	ppb	20:20:12
2	Be 313.107†	1814391.8	1804303.2	491.42	µg/L	491.42	ppb	20:20:12
2	Cd 226.502†	79019.6	78652.0	490.98	µg/L	490.98	ppb	20:20:12
2	Co 228.616†	39865.2	39810.5	491.46	µg/L	491.46	ppb	20:20:12
2	Cr 267.716†	62636.0	62072.4	486.01	µg/L	486.01	ppb	20:20:12
2	Cu 324.752†	128465.8	124703.9	486.15	µg/L	486.15	ppb	20:20:12
2	Mn 257.610†	400168.4	397471.3	491.58	µg/L	491.58	ppb	20:20:12
2	Mo 202.031†	16701.4	16618.8	488.86	µg/L	488.86	ppb	20:20:32
2	Ni 231.604†	42806.4	42619.8	490.74	µg/L	490.74	ppb	20:20:12
2	P 214.914†	11559.5	11506.4	2452.7	µg/L	2452.7	ppb	20:20:32
2	Pb 220.353†	8967.3	8825.8	494.22	µg/L	494.22	ppb	20:20:32

2	S 181.975 Axial†	1438.1	1324.2	987.46 µg/L	987.46 ppb	20:20:32
2	Sb 206.836†	4222.2	4115.5	490.38 µg/L	490.38 ppb	20:20:32
2	Se 196.026†	1378.4	1354.7	492 µg/L	492 ppb	20:20:32
2	SiO2†	56546.5	54423.5	5298.4 µg/L	5298.4 ppb	20:20:12
2	Si 251.611†	170798.4	168911.9	2480.5 µg/L	2480.5 ppb	20:20:12
2	Sn 189.927†	7975.7	7927.8	495.86 µg/L	495.86 ppb	20:20:32
2	Ti 334.940†	527695.2	523498.9	488.46 µg/L	488.46 ppb	20:20:12
2	Tl 190.801†	3917.6	4010.2	500.05 µg/L	500.05 ppb	20:20:32
2	U 409.014†	7647.3	7870.2	489.74 µg/L	489.74 ppb	20:20:12
2	V 292.402†	100177.9	99158.3	490.21 µg/L	490.21 ppb	20:20:12
2	Zn 213.857†	88577.4	87468.5	487.50 µg/L	487.50 ppb	20:20:12
3	Sc RADIAL	145946.5	145946.5	100 %		20:19:30
3	Al 396.153Radial†	26926.1	26986.3	4980.6 µg/L	4980.6 ppb	20:19:30
3	Ca 317.933Radial†	89888.2	89317.4	4975.3 µg/L	4975.3 ppb	20:19:30
3	Fe 238.204 Radial†	79999.4	79842.2	4921.0 µg/L	4921.0 ppb	20:19:30
3	K 766.490 Radial†	15067.7	13521.2	4946.3 µg/L	4946.3 ppb	20:19:30
3	Mg 279.077 IEC†	13820.0	13627.7	5085.2 µg/L	5085.2 ppb	20:19:30
3	Na 589.592 Radial†	72903.4	71604.2	9777.6 µg/L	9777.6 ppb	20:19:30
3	Sr 421.552†	233932.9	234041.4	486.52 µg/L	486.52 ppb	20:19:28
3	Sc 361.383	1729036.7	1729036.7	100.63 %		20:20:35
3	Y 371.029	1022141.3	1022141.3	99.557 %		20:20:35
3	Ag 328.068†	135415.2	130476.4	489.24 µg/L	489.24 ppb	20:20:35
3	As 188.979†	1624.2	1634.3	501.36 µg/L	501.36 ppb	20:20:55
3	B 249.677†	36712.7	32977.1	484.65 µg/L	484.65 ppb	20:20:35
3	Ba 233.527†	121713.3	121087.6	488.34 µg/L	488.34 ppb	20:20:35
3	Be 313.107†	1816122.4	1805823.1	491.83 µg/L	491.83 ppb	20:20:35
3	Cd 226.502†	78922.7	78547.0	490.33 µg/L	490.33 ppb	20:20:35
3	Co 228.616†	39794.6	39735.9	490.54 µg/L	490.54 ppb	20:20:35
3	Cr 267.716†	62716.2	62145.2	486.58 µg/L	486.58 ppb	20:20:35
3	Cu 324.752†	128635.8	124858.6	486.75 µg/L	486.75 ppb	20:20:35
3	Mn 257.610†	399725.7	396987.2	490.98 µg/L	490.98 ppb	20:20:35
3	Mo 202.031†	16642.9	16558.8	487.09 µg/L	487.09 ppb	20:20:55
3	Ni 231.604†	42654.8	42464.4	488.95 µg/L	488.95 ppb	20:20:35
3	P 214.914†	11489.1	11435.1	2437.4 µg/L	2437.4 ppb	20:20:55
3	Pb 220.353†	8938.2	8795.9	492.55 µg/L	492.55 ppb	20:20:55
3	S 181.975 Axial†	1425.7	1311.7	978.16 µg/L	978.16 ppb	20:20:55
3	Sb 206.836†	4196.0	4088.9	487.18 µg/L	487.18 ppb	20:20:55
3	Se 196.026†	1380.4	1356.5	493 µg/L	493 ppb	20:20:55
3	SiO2†	56405.9	54277.6	5284.2 µg/L	5284.2 ppb	20:20:35
3	Si 251.611†	170675.9	168771.4	2478.4 µg/L	2478.4 ppb	20:20:35
3	Sn 189.927†	7906.9	7858.6	491.55 µg/L	491.55 ppb	20:20:55
3	Ti 334.940†	526963.4	522713.5	487.72 µg/L	487.72 ppb	20:20:35
3	Tl 190.801†	3898.2	3990.5	497.62 µg/L	497.62 ppb	20:20:55
3	U 409.014†	7622.6	7844.8	488.24 µg/L	488.24 ppb	20:20:35
3	V 292.402†	100122.2	99092.0	489.87 µg/L	489.87 ppb	20:20:35
3	Zn 213.857†	88619.8	87500.9	487.69 µg/L	487.69 ppb	20:20:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1730364.2	100.71	%	0.144				0.14%
Sc RADIAL	144911.9	99.3	%	1.05				1.06%
Y 371.029	1023081.8	99.649	%	0.1267				0.13%
Ag 328.068†	130451.4	489.14	µg/L	0.396	489.14	ppb	0.396	0.08%
QC value within limits for Ag 328.068 Recovery = 97.83%								
Al 396.153Radial†	26786.0	4943.5	µg/L	33.66	4943.5	ppb	33.66	0.68%
QC value within limits for Al 396.153Radial Recovery = 98.87%								
As 188.979†	1630.4	500.15	µg/L	1.155	500.15	ppb	1.155	0.23%
QC value within limits for As 188.979 Recovery = 100.03%								
B 249.677†	33026.5	485.38	µg/L	0.648	485.38	ppb	0.648	0.13%
QC value within limits for B 249.677 Recovery = 97.08%								
Ba 233.527†	121191.4	488.76	µg/L	0.399	488.76	ppb	0.399	0.08%
QC value within limits for Ba 233.527 Recovery = 97.75%								
Be 313.107†	1805412.3	491.72	µg/L	0.263	491.72	ppb	0.263	0.05%
QC value within limits for Be 313.107 Recovery = 98.34%								
Ca 317.933Radial†	89082.6	4962.3	µg/L	11.34	4962.3	ppb	11.34	0.23%
QC value within limits for Ca 317.933Radial Recovery = 99.25%								
Cd 226.502†	78602.2	490.67	µg/L	0.330	490.67	ppb	0.330	0.07%
QC value within limits for Cd 226.502 Recovery = 98.13%								
Co 228.616†	39786.1	491.16	µg/L	0.537	491.16	ppb	0.537	0.11%

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   QC value within limits for Co 228.616  Recovery = 98.23%
Cr 267.716†            62099.2      486.22 µg/L         0.311      486.22 ppb          0.311   0.06%
   QC value within limits for Cr 267.716  Recovery = 97.24%
Cu 324.752†           124888.8      486.86 µg/L         0.777      486.86 ppb          0.777   0.16%
   QC value within limits for Cu 324.752  Recovery = 97.37%
Fe 238.204 Radial†     79744.2      4914.9 µg/L          9.97      4914.9 ppb           9.97   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.30%
K 766.490 Radial†      13436.7      4915.3 µg/L         28.26      4915.3 ppb          28.26   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 98.31%
Mg 279.077 IEC†        13542.9      5053.6 µg/L         27.54      5053.6 ppb          27.54   0.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.07%
Mn 257.610†           397234.0      491.28 µg/L         0.301      491.28 ppb          0.301   0.06%
   QC value within limits for Mn 257.610  Recovery = 98.26%
Mo 202.031†            16564.7      487.26 µg/L         1.512      487.26 ppb          1.512   0.31%
   QC value within limits for Mo 202.031  Recovery = 97.45%
Na 589.592 Radial†     71476.5      9760.2 µg/L         15.27      9760.2 ppb          15.27   0.16%
   QC value within limits for Na 589.592 Radial  Recovery = 97.60%
Ni 231.604†            42573.9      490.21 µg/L         1.097      490.21 ppb          1.097   0.22%
   QC value within limits for Ni 231.604  Recovery = 98.04%
P 214.914†             11458.8      2442.5 µg/L          8.83      2442.5 ppb           8.83   0.36%
   QC value within limits for P 214.914  Recovery = 97.70%
Pb 220.353†             8799.1      492.73 µg/L         1.412      492.73 ppb          1.412   0.29%
   QC value within limits for Pb 220.353  Recovery = 98.55%
S 181.975 Axial†        1316.8      981.96 µg/L         4.877      981.96 ppb          4.877   0.50%
   QC value within limits for S 181.975 Axial  Recovery = 98.20%
Sb 206.836†             4095.7      488.00 µg/L         2.090      488.00 ppb          2.090   0.43%
   QC value within limits for Sb 206.836  Recovery = 97.60%
Se 196.026†             1354.7         492 µg/L           0.6         492 ppb            0.6   0.13%
   QC value within limits for Se 196.026  Recovery = 98.38%
SiO2†                  54340.4      5290.4 µg/L          7.26      5290.4 ppb           7.26   0.14%
   QC value within limits for SiO2  Recovery = 98.93%
Si 251.611†           168947.8      2481.0 µg/L          2.92      2481.0 ppb           2.92   0.12%
   QC value within limits for Si 251.611  Recovery = 99.24%
Sn 189.927†             7873.0      492.45 µg/L         3.064      492.45 ppb          3.064   0.62%
   QC value within limits for Sn 189.927  Recovery = 98.49%
Sr 421.552†           233547.6      485.49 µg/L         6.601      485.49 ppb          6.601   1.36%
   QC value within limits for Sr 421.552  Recovery = 97.10%
Ti 334.940†           523118.9      488.10 µg/L         0.369      488.10 ppb          0.369   0.08%
   QC value within limits for Ti 334.940  Recovery = 97.62%
Tl 190.801†             3987.7      497.29 µg/L         2.942      497.29 ppb          2.942   0.59%
   QC value within limits for Tl 190.801  Recovery = 99.46%
U 409.014†              7792.1      485.18 µg/L         6.641      485.18 ppb          6.641   1.37%
   QC value within limits for U 409.014  Recovery = 97.04%
V 292.402†             99160.9      490.20 µg/L         0.333      490.20 ppb          0.333   0.07%
   QC value within limits for V 292.402  Recovery = 98.04%
Zn 213.857†            87449.6      487.40 µg/L         0.359      487.40 ppb          0.359   0.07%
   QC value within limits for Zn 213.857  Recovery = 97.48%
All analyte(s) passed QC.
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Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 20:21:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146174.9	146174.9	100	%			20:21:32
1	Al 396.153Radial†	-79.4	-16.1	-2.9762	µg/L	-2.9762	ppb	20:21:52
1	Ca 317.933Radial†	607.9	46.3	2.5767	µg/L	2.5767	ppb	20:21:52
1	Fe 238.204 Radial†	175.5	27.1	1.6726	µg/L	1.6726	ppb	20:21:52
1	K 766.490 Radial†	1577.3	29.9	10.948	µg/L	10.948	ppb	20:21:32
1	Mg 279.077 IEC†	206.8	15.8	5.8733	µg/L	5.8733	ppb	20:21:52
1	Na 589.592 Radial†	1475.9	182.7	24.946	µg/L	24.946	ppb	20:21:32
1	Sr 421.552†	-270.2	-134.5	-0.2796	µg/L	-0.2796	ppb	20:21:32
1	Sc 361.383	1719316.1	1719316.1	100.06	%			20:22:40
1	Y 371.029	1027520.1	1027520.1	100.08	%			20:22:40
1	Ag 328.068†	3648.5	-445.2	-1.6556	µg/L	-1.6556	ppb	20:22:42
1	As 188.979†	-10.6	9.8	2.9605	µg/L	2.9605	ppb	20:23:02
1	B 249.677†	3416.1	-91.9	-1.3568	µg/L	-1.3568	ppb	20:22:42
1	Ba 233.527†	-134.2	1.8	0.0069	µg/L	0.0069	ppb	20:23:02
1	Be 313.107†	-785.4	279.8	0.0750	µg/L	0.0750	ppb	20:22:42
1	Cd 226.502†	-108.1	10.2	0.0635	µg/L	0.0635	ppb	20:23:02
1	Co 228.616†	-170.8	19.6	0.2418	µg/L	0.2418	ppb	20:23:02
1	Cr 267.716†	211.4	32.7	0.2593	µg/L	0.2593	ppb	20:23:02
1	Cu 324.752†	2952.3	-21.8	-0.0873	µg/L	-0.0873	ppb	20:22:42
1	Mn 257.610†	205.0	-32.4	-0.0403	µg/L	-0.0403	ppb	20:23:02
1	Mo 202.031†	-26.7	-6.6	-0.1949	µg/L	-0.1949	ppb	20:23:02
1	Ni 231.604†	-85.9	-9.3	-0.1075	µg/L	-0.1075	ppb	20:23:02
1	P 214.914†	-27.5	-9.5	-2.0307	µg/L	-2.0307	ppb	20:23:02
1	Pb 220.353†	49.6	-36.9	-2.0549	µg/L	-2.0549	ppb	20:23:02
1	S 181.975 Axial†	90.7	-14.4	-10.672	µg/L	-10.672	ppb	20:23:02
1	Sb 206.836†	90.3	9.4	1.1175	µg/L	1.1175	ppb	20:23:02
1	Se 196.026†	14.0	-1.3	-0.483	µg/L	-0.483	ppb	20:23:02
1	SiO2†	1815.4	38.8	3.7882	µg/L	3.7882	ppb	20:22:42
1	Si 251.611†	978.4	141.2	2.0787	µg/L	2.0787	ppb	20:22:42
1	Sn 189.927†	12.7	13.8	0.8612	µg/L	0.8612	ppb	20:23:02
1	Ti 334.940†	944.8	-8.3	-0.0067	µg/L	-0.0067	ppb	20:22:42
1	Tl 190.801†	-123.6	-6.9	-0.8478	µg/L	-0.8478	ppb	20:23:02
1	U 409.014†	-334.8	-64.7	-3.7948	µg/L	-3.7948	ppb	20:22:42
1	V 292.402†	364.6	-39.5	-0.1962	µg/L	-0.1962	ppb	20:22:42
1	Zn 213.857†	609.9	45.1	0.2536	µg/L	0.2536	ppb	20:23:02
2	Sc RADIAL	146261.6	146261.6	100	%			20:21:54
2	Al 396.153Radial†	-54.4	8.9	1.6620	µg/L	1.6620	ppb	20:22:14
2	Ca 317.933Radial†	618.8	56.9	3.1671	µg/L	3.1671	ppb	20:22:14
2	Fe 238.204 Radial†	170.1	21.6	1.3318	µg/L	1.3318	ppb	20:22:14
2	K 766.490 Radial†	1690.5	141.9	51.938	µg/L	51.938	ppb	20:21:54
2	Mg 279.077 IEC†	158.6	-32.4	-12.093	µg/L	-12.093	ppb	20:22:14
2	Na 589.592 Radial†	1436.5	142.5	19.415	µg/L	19.415	ppb	20:21:54
2	Sr 421.552†	-283.2	-147.2	-0.3061	µg/L	-0.3061	ppb	20:21:54
2	Sc 361.383	1736802.1	1736802.1	101.08	%			20:23:04
2	Y 371.029	1037454.3	1037454.3	101.05	%			20:23:04
2	Ag 328.068†	3948.2	-185.4	-0.6882	µg/L	-0.6882	ppb	20:23:06
2	As 188.979†	-24.7	-4.1	-1.2374	µg/L	-1.2374	ppb	20:23:27
2	B 249.677†	3576.8	32.6	0.4812	µg/L	0.4812	ppb	20:23:06
2	Ba 233.527†	-102.2	34.7	0.1396	µg/L	0.1396	ppb	20:23:27
2	Be 313.107†	-962.5	112.5	0.0317	µg/L	0.0317	ppb	20:23:06
2	Cd 226.502†	-108.2	11.1	0.0694	µg/L	0.0694	ppb	20:23:27
2	Co 228.616†	-196.2	-3.8	-0.0464	µg/L	-0.0464	ppb	20:23:27
2	Cr 267.716†	207.6	26.8	0.2073	µg/L	0.2073	ppb	20:23:27
2	Cu 324.752†	2974.7	-29.3	-0.1113	µg/L	-0.1113	ppb	20:23:06
2	Mn 257.610†	216.8	-22.8	-0.0277	µg/L	-0.0277	ppb	20:23:27
2	Mo 202.031†	-26.2	-5.9	-0.1726	µg/L	-0.1726	ppb	20:23:27
2	Ni 231.604†	-83.0	-5.6	-0.0648	µg/L	-0.0648	ppb	20:23:27
2	P 214.914†	-18.2	-0.1	-0.0033	µg/L	-0.0033	ppb	20:23:27
2	Pb 220.353†	96.9	9.5	0.5245	µg/L	0.5245	ppb	20:23:27

2	S 181.975 Axial†	101.1	-5.0	-3.7428 µg/L	-3.7428 ppb	20:23:27
2	Sb 206.836†	77.7	-4.0	-0.4743 µg/L	-0.4743 ppb	20:23:27
2	Se 196.026†	10.0	-5.3	-1.93 µg/L	-1.93 ppb	20:23:27
2	SiO2†	1822.3	27.5	2.6742 µg/L	2.6742 ppb	20:23:06
2	Si 251.611†	856.2	10.5	0.1497 µg/L	0.1497 ppb	20:23:06
2	Sn 189.927†	15.8	16.8	1.0464 µg/L	1.0464 ppb	20:23:27
2	Ti 334.940†	965.6	2.7	0.0021 µg/L	0.0021 ppb	20:23:06
2	Tl 190.801†	-105.1	12.7	1.5599 µg/L	1.5599 ppb	20:23:27
2	U 409.014†	-213.8	58.4	3.3839 µg/L	3.3839 ppb	20:23:06
2	V 292.402†	306.8	-100.3	-0.4881 µg/L	-0.4881 ppb	20:23:06
2	Zn 213.857†	601.0	30.1	0.1695 µg/L	0.1695 ppb	20:23:27
3	Sc RADIAL	145163.3	145163.3	99.5 %		20:22:16
3	Al 396.153Radial†	-66.5	-3.7	-0.6680 µg/L	-0.6680 ppb	20:22:36
3	Ca 317.933Radial†	599.5	42.1	2.3456 µg/L	2.3456 ppb	20:22:36
3	Fe 238.204 Radial†	160.3	13.1	0.8047 µg/L	0.8047 ppb	20:22:36
3	K 766.490 Radial†	1445.8	-91.3	-33.426 µg/L	-33.426 ppb	20:22:16
3	Mg 279.077 IEC†	163.3	-26.5	-9.9007 µg/L	-9.9007 ppb	20:22:36
3	Na 589.592 Radial†	1438.5	155.3	21.242 µg/L	21.242 ppb	20:22:16
3	Sr 421.552†	-217.7	-83.6	-0.1738 µg/L	-0.1738 ppb	20:22:16
3	Sc 361.383	1747018.8	1747018.8	101.68 %		20:23:29
3	Y 371.029	1043372.0	1043372.0	101.62 %		20:23:29
3	Ag 328.068†	3928.6	-227.6	-0.8550 µg/L	-0.8550 ppb	20:23:31
3	As 188.979†	-14.6	6.0	1.8114 µg/L	1.8114 ppb	20:23:51
3	B 249.677†	3628.2	62.5	0.9207 µg/L	0.9207 ppb	20:23:31
3	Ba 233.527†	-150.3	-11.9	-0.0482 µg/L	-0.0482 ppb	20:23:51
3	Be 313.107†	-1063.0	19.3	0.0023 µg/L	0.0023 ppb	20:23:31
3	Cd 226.502†	-104.1	15.8	0.0984 µg/L	0.0984 ppb	20:23:51
3	Co 228.616†	-183.5	9.9	0.1217 µg/L	0.1217 ppb	20:23:51
3	Cr 267.716†	179.0	-2.6	-0.0122 µg/L	-0.0122 ppb	20:23:51
3	Cu 324.752†	3108.9	85.4	0.3239 µg/L	0.3239 ppb	20:23:31
3	Mn 257.610†	215.7	-25.1	-0.0307 µg/L	-0.0307 ppb	20:23:51
3	Mo 202.031†	-32.3	-11.7	-0.3450 µg/L	-0.3450 ppb	20:23:51
3	Ni 231.604†	-84.7	-6.8	-0.0779 µg/L	-0.0779 ppb	20:23:51
3	P 214.914†	-27.0	-8.6	-1.8417 µg/L	-1.8417 ppb	20:23:51
3	Pb 220.353†	93.1	5.2	0.2966 µg/L	0.2966 ppb	20:23:51
3	S 181.975 Axial†	107.7	0.8	0.6238 µg/L	0.6238 ppb	20:23:51
3	Sb 206.836†	73.2	-8.8	-1.0551 µg/L	-1.0551 ppb	20:23:51
3	Se 196.026†	-3.4	-18.6	-6.74 µg/L	-6.74 ppb	20:23:51
3	SiO2†	1790.0	-14.9	-1.4424 µg/L	-1.4424 ppb	20:23:31
3	Si 251.611†	917.7	66.0	0.9787 µg/L	0.9787 ppb	20:23:31
3	Sn 189.927†	-2.4	-1.3	-0.0792 µg/L	-0.0792 ppb	20:23:51
3	Ti 334.940†	1230.7	257.8	0.2458 µg/L	0.2458 ppb	20:23:31
3	Tl 190.801†	-121.9	-3.2	-0.3892 µg/L	-0.3892 ppb	20:23:51
3	U 409.014†	-444.6	-167.4	-9.7866 µg/L	-9.7866 ppb	20:23:31
3	V 292.402†	407.2	-3.3	-0.0267 µg/L	-0.0267 ppb	20:23:31
3	Zn 213.857†	572.9	-1.0	-0.0054 µg/L	-0.0054 ppb	20:23:51

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1734379.0	100.94	%	0.815				0.81%
Sc RADIAL	145866.6	100.0	%	0.42				0.42%
Y 371.029	1036115.5	100.92	%	0.780				0.77%
Ag 328.068†	-286.1	-1.0663	µg/L	0.51712	-1.0663	ppb	0.51712	48.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.6	-0.6608	µg/L	2.31909	-0.6608	ppb	2.31909	350.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.9	1.1781	µg/L	2.16942	1.1781	ppb	2.16942	184.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1.0	0.0150	µg/L	1.20824	0.0150	ppb	1.20824	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.2	0.0328	µg/L	0.09650	0.0328	ppb	0.09650	294.60%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	137.2	0.0363	µg/L	0.03660	0.0363	ppb	0.03660	100.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	48.4	2.6965	µg/L	0.42361	2.6965	ppb	0.42361	15.71%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	12.4	0.0771	µg/L	0.01869	0.0771	ppb	0.01869	24.25%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.6	0.1057	µg/L	0.14474	0.1057	ppb	0.14474	136.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.0      0.1515 µg/L       0.14414      0.1515 ppb        0.14414  95.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              11.4      0.0418 µg/L       0.24463      0.0418 ppb        0.24463 585.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       20.6      1.2697 µg/L       0.43727      1.2697 ppb        0.43727  34.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        26.8      9.8201 µg/L      42.69298      9.8201 ppb       42.69298 434.75%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -14.4     -5.3735 µg/L       9.80148     -5.3735 ppb        9.80148 182.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -26.8     -0.0329 µg/L       0.00657     -0.0329 ppb        0.00657  19.97%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -8.1     -0.2375 µg/L       0.09374     -0.2375 ppb        0.09374  39.47%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      160.1      21.868 µg/L        2.8179      21.868 ppb         2.8179  12.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -7.2     -0.0834 µg/L       0.02187     -0.0834 ppb        0.02187  26.22%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -6.1     -1.2919 µg/L       1.11996     -1.2919 ppb        1.11996  86.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -7.4     -0.4112 µg/L       1.42800     -0.4112 ppb        1.42800 347.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -6.2     -4.5969 µg/L       5.69602     -4.5969 ppb        5.69602 123.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.1     -0.1373 µg/L       1.12485     -0.1373 ppb        1.12485 819.31%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -8.4      -3.05 µg/L         3.277       -3.05 ppb          3.277 107.40%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    17.1      1.6733 µg/L       2.75522      1.6733 ppb        2.75522 164.66%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              72.6      1.0690 µg/L       0.96766      1.0690 ppb        0.96766  90.52%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.8      0.6095 µg/L       0.60356      0.6095 ppb        0.60356  99.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -121.8     -0.2532 µg/L       0.06998     -0.2532 ppb        0.06998  27.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              84.1      0.0804 µg/L       0.14329      0.0804 ppb        0.14329 178.21%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.9      0.1076 µg/L       1.27840      0.1076 ppb        1.27840 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -57.9     -3.3992 µg/L       6.59417     -3.3992 ppb        6.59417 193.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -47.7     -0.2370 µg/L       0.23337     -0.2370 ppb        0.23337  98.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              24.7      0.1393 µg/L       0.13213      0.1393 ppb        0.13213  94.89%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 38
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 20:46:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142658.3	142658.3	97.8	%			20:47:06
1	Al 396.153Radial†	26173.0	26836.4	4953.1	µg/L	4953.1	ppb	20:47:06
1	Ca 317.933Radial†	86811.8	88242.0	4915.4	µg/L	4915.4	ppb	20:47:06
1	Fe 238.204 Radial†	77308.1	78932.9	4864.9	µg/L	4864.9	ppb	20:47:06
1	K 766.490 Radial†	14453.8	13240.4	4843.5	µg/L	4843.5	ppb	20:47:06
1	Mg 279.077 IEC†	13219.2	13331.7	4974.8	µg/L	4974.8	ppb	20:47:06
1	Na 589.592 Radial†	70981.3	71318.3	9738.6	µg/L	9738.6	ppb	20:47:06
1	Sr 421.552†	229479.6	234877.4	488.26	µg/L	488.26	ppb	20:47:04
1	Sc 361.383	1717986.8	1717986.8	99.987	%			20:47:18
1	Y 371.029	1016974.2	1016974.2	99.054	%			20:47:18
1	Ag 328.068†	133861.9	129788.4	486.66	µg/L	486.66	ppb	20:47:18
1	As 188.979†	1570.9	1591.4	488.31	µg/L	488.31	ppb	20:47:39
1	B 249.677†	35888.7	32387.7	475.97	µg/L	475.97	ppb	20:47:18
1	Ba 233.527†	120089.3	120241.3	484.93	µg/L	484.93	ppb	20:47:18
1	Be 313.107†	1788228.5	1789533.4	487.39	µg/L	487.39	ppb	20:47:18
1	Cd 226.502†	77187.6	77316.2	482.64	µg/L	482.64	ppb	20:47:18
1	Co 228.616†	39259.0	39454.6	487.07	µg/L	487.07	ppb	20:47:18
1	Cr 267.716†	61734.0	61563.8	482.03	µg/L	482.03	ppb	20:47:18
1	Cu 324.752†	127051.0	124095.8	483.76	µg/L	483.76	ppb	20:47:18
1	Mn 257.610†	394153.9	393969.6	487.25	µg/L	487.25	ppb	20:47:18
1	Mo 202.031†	16323.5	16345.7	480.82	µg/L	480.82	ppb	20:47:39
1	Ni 231.604†	42025.4	42107.6	484.84	µg/L	484.84	ppb	20:47:18
1	P 214.914†	11165.4	11184.8	2383.9	µg/L	2383.9	ppb	20:47:39
1	Pb 220.353†	8721.1	8635.9	483.61	µg/L	483.61	ppb	20:47:39
1	S 181.975 Axial†	1384.6	1279.7	954.32	µg/L	954.32	ppb	20:47:39
1	Sb 206.836†	4121.5	4041.3	481.48	µg/L	481.48	ppb	20:47:39
1	Se 196.026†	1330.1	1315.0	478	µg/L	478	ppb	20:47:39
1	SiO2†	55658.0	53890.1	5246.7	µg/L	5246.7	ppb	20:47:18
1	Si 251.611†	168475.5	167661.6	2462.2	µg/L	2462.2	ppb	20:47:18
1	Sn 189.927†	7694.7	7696.9	481.46	µg/L	481.46	ppb	20:47:39
1	Ti 334.940†	521521.0	520638.5	485.79	µg/L	485.79	ppb	20:47:18
1	Tl 190.801†	3795.7	3912.8	488.05	µg/L	488.05	ppb	20:47:39
1	U 409.014†	7470.6	7741.5	482.06	µg/L	482.06	ppb	20:47:18
1	V 292.402†	99032.8	98642.4	487.59	µg/L	487.59	ppb	20:47:18
1	Zn 213.857†	86847.2	86294.4	480.95	µg/L	480.95	ppb	20:47:18
2	Sc RADIAL	142003.0	142003.0	97.3	%			20:47:10
2	Al 396.153Radial†	25928.5	26708.7	4929.4	µg/L	4929.4	ppb	20:47:10
2	Ca 317.933Radial†	86471.0	88301.6	4918.7	µg/L	4918.7	ppb	20:47:10
2	Fe 238.204 Radial†	76877.1	78854.9	4860.1	µg/L	4860.1	ppb	20:47:10
2	K 766.490 Radial†	14481.3	13337.0	4878.8	µg/L	4878.8	ppb	20:47:10
2	Mg 279.077 IEC†	13250.2	13425.9	5009.9	µg/L	5009.9	ppb	20:47:10
2	Na 589.592 Radial†	70794.9	71461.8	9758.2	µg/L	9758.2	ppb	20:47:10
2	Sr 421.552†	230824.3	237342.5	493.38	µg/L	493.38	ppb	20:47:08
2	Sc 361.383	1705978.0	1705978.0	99.288	%			20:47:42
2	Y 371.029	1010151.3	1010151.3	98.389	%			20:47:42
2	Ag 328.068†	132428.5	129287.2	484.78	µg/L	484.78	ppb	20:47:42
2	As 188.979†	1571.4	1603.0	491.82	µg/L	491.82	ppb	20:48:02
2	B 249.677†	35678.8	32428.9	476.59	µg/L	476.59	ppb	20:47:42
2	Ba 233.527†	119061.0	120051.1	484.16	µg/L	484.16	ppb	20:47:42
2	Be 313.107†	1771852.0	1785628.8	486.33	µg/L	486.33	ppb	20:47:42
2	Cd 226.502†	76647.7	77315.8	482.64	µg/L	482.64	ppb	20:47:42
2	Co 228.616†	38849.5	39318.5	485.39	µg/L	485.39	ppb	20:47:42
2	Cr 267.716†	61408.7	61670.7	482.88	µg/L	482.88	ppb	20:47:42
2	Cu 324.752†	125575.7	123504.5	481.46	µg/L	481.46	ppb	20:47:42
2	Mn 257.610†	390410.2	392973.9	486.01	µg/L	486.01	ppb	20:47:42
2	Mo 202.031†	16220.6	16357.1	481.16	µg/L	481.16	ppb	20:48:02
2	Ni 231.604†	41645.6	42020.9	483.84	µg/L	483.84	ppb	20:47:42
2	P 214.914†	11149.7	11247.7	2397.4	µg/L	2397.4	ppb	20:48:02
2	Pb 220.353†	8713.0	8689.1	486.58	µg/L	486.58	ppb	20:48:02

2	S 181.975 Axial†	1386.6	1291.5	963.10 µg/L	963.10 ppb	20:48:02
2	Sb 206.836†	4077.2	4025.7	479.62 µg/L	479.62 ppb	20:48:02
2	Se 196.026†	1343.8	1338.2	486 µg/L	486 ppb	20:48:02
2	SiO2†	55264.2	53885.3	5246.2 µg/L	5246.2 ppb	20:47:42
2	Si 251.611†	166831.6	167191.9	2455.3 µg/L	2455.3 ppb	20:47:42
2	Sn 189.927†	7685.8	7742.0	484.27 µg/L	484.27 ppb	20:48:02
2	Ti 334.940†	517135.3	519893.0	485.10 µg/L	485.10 ppb	20:47:42
2	Tl 190.801†	3798.0	3941.9	491.62 µg/L	491.62 ppb	20:48:02
2	U 409.014†	7240.4	7562.3	471.53 µg/L	471.53 ppb	20:47:42
2	V 292.402†	98205.8	98506.6	486.93 µg/L	486.93 ppb	20:47:42
2	Zn 213.857†	85981.0	86033.4	479.49 µg/L	479.49 ppb	20:47:42
3	Sc RADIAL	143540.2	143540.2	98.4 %		20:47:14
3	Al 396.153Radial†	26297.7	26798.6	4945.9 µg/L	4945.9 ppb	20:47:14
3	Ca 317.933Radial†	87479.0	88374.7	4922.8 µg/L	4922.8 ppb	20:47:14
3	Fe 238.204 Radial†	77829.6	78977.1	4867.7 µg/L	4867.7 ppb	20:47:14
3	K 766.490 Radial†	14541.2	13238.5	4842.8 µg/L	4842.8 ppb	20:47:14
3	Mg 279.077 IEC†	13331.1	13362.3	4986.3 µg/L	4986.3 ppb	20:47:14
3	Na 589.592 Radial†	71517.8	71417.6	9752.2 µg/L	9752.2 ppb	20:47:14
3	Sr 421.552†	229529.4	233485.7	485.36 µg/L	485.36 ppb	20:47:12
3	Sc 361.383	1697774.9	1697774.9	98.810 %		20:48:05
3	Y 371.029	1005288.7	1005288.7	97.916 %		20:48:05
3	Ag 328.068†	132337.3	129839.4	486.83 µg/L	486.83 ppb	20:48:05
3	As 188.979†	1566.3	1605.5	492.60 µg/L	492.60 ppb	20:48:25
3	B 249.677†	35561.4	32483.7	477.39 µg/L	477.39 ppb	20:48:05
3	Ba 233.527†	118631.6	120195.8	484.75 µg/L	484.75 ppb	20:48:05
3	Be 313.107†	1768996.7	1791361.7	487.89 µg/L	487.89 ppb	20:48:05
3	Cd 226.502†	76298.6	77335.5	482.76 µg/L	482.76 ppb	20:48:05
3	Co 228.616†	38681.6	39337.6	485.62 µg/L	485.62 ppb	20:48:05
3	Cr 267.716†	61122.4	61679.8	482.95 µg/L	482.95 ppb	20:48:05
3	Cu 324.752†	125325.9	123862.7	482.85 µg/L	482.85 ppb	20:48:05
3	Mn 257.610†	389691.1	394146.1	487.47 µg/L	487.47 ppb	20:48:05
3	Mo 202.031†	16294.8	16511.0	485.68 µg/L	485.68 ppb	20:48:25
3	Ni 231.604†	41366.1	41940.7	482.92 µg/L	482.92 ppb	20:48:05
3	P 214.914†	11228.3	11381.4	2426.0 µg/L	2426.0 ppb	20:48:25
3	Pb 220.353†	8735.3	8754.1	490.22 µg/L	490.22 ppb	20:48:25
3	S 181.975 Axial†	1387.1	1298.7	968.51 µg/L	968.51 ppb	20:48:25
3	Sb 206.836†	4142.3	4111.4	489.88 µg/L	489.88 ppb	20:48:25
3	Se 196.026†	1325.9	1326.6	482 µg/L	482 ppb	20:48:25
3	SiO2†	55019.2	53906.4	5248.0 µg/L	5248.0 ppb	20:48:05
3	Si 251.611†	166054.7	167217.6	2455.6 µg/L	2455.6 ppb	20:48:05
3	Sn 189.927†	7713.9	7807.9	488.38 µg/L	488.38 ppb	20:48:25
3	Ti 334.940†	515323.4	520575.8	485.74 µg/L	485.74 ppb	20:48:05
3	Tl 190.801†	3789.8	3952.1	492.88 µg/L	492.88 ppb	20:48:25
3	U 409.014†	7240.2	7597.3	473.61 µg/L	473.61 ppb	20:48:05
3	V 292.402†	97793.8	98567.5	487.28 µg/L	487.28 ppb	20:48:05
3	Zn 213.857†	85880.1	86349.8	481.27 µg/L	481.27 ppb	20:48:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1707246.6	99.361	%	0.5916				0.60%
Sc RADIAL	142733.8	97.8	%	0.53				0.54%
Y 371.029	1010804.8	98.453	%	0.5717				0.58%
Ag 328.068†	129638.4	486.09	µg/L	1.137	486.09	ppb	1.137	0.23%
QC value within limits for Ag 328.068 Recovery = 97.22%								
Al 396.153Radial†	26781.2	4942.8	µg/L	12.14	4942.8	ppb	12.14	0.25%
QC value within limits for Al 396.153Radial Recovery = 98.86%								
As 188.979†	1600.0	490.91	µg/L	2.283	490.91	ppb	2.283	0.47%
QC value within limits for As 188.979 Recovery = 98.18%								
B 249.677†	32433.4	476.65	µg/L	0.713	476.65	ppb	0.713	0.15%
QC value within limits for B 249.677 Recovery = 95.33%								
Ba 233.527†	120162.7	484.61	µg/L	0.401	484.61	ppb	0.401	0.08%
QC value within limits for Ba 233.527 Recovery = 96.92%								
Be 313.107†	1788841.3	487.20	µg/L	0.798	487.20	ppb	0.798	0.16%
QC value within limits for Be 313.107 Recovery = 97.44%								
Ca 317.933Radial†	88306.1	4919.0	µg/L	3.70	4919.0	ppb	3.70	0.08%
QC value within limits for Ca 317.933Radial Recovery = 98.38%								
Cd 226.502†	77322.5	482.68	µg/L	0.070	482.68	ppb	0.070	0.01%
QC value within limits for Cd 226.502 Recovery = 96.54%								
Co 228.616†	39370.2	486.02	µg/L	0.909	486.02	ppb	0.909	0.19%

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   QC value within limits for Co 228.616  Recovery = 97.20%
Cr 267.716†            61638.1      482.62 µg/L         0.509      482.62 ppb          0.509   0.11%
   QC value within limits for Cr 267.716  Recovery = 96.52%
Cu 324.752†           123821.0      482.69 µg/L         1.162      482.69 ppb          1.162   0.24%
   QC value within limits for Cu 324.752  Recovery = 96.54%
Fe 238.204 Radial†     78921.6      4864.2 µg/L          3.82      4864.2 ppb           3.82   0.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.28%
K 766.490 Radial†      13272.0      4855.1 µg/L         20.61      4855.1 ppb          20.61   0.42%
   QC value within limits for K 766.490 Radial  Recovery = 97.10%
Mg 279.077 IEC†        13373.3      4990.3 µg/L         17.90      4990.3 ppb          17.90   0.36%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.81%
Mn 257.610†           393696.5      486.91 µg/L         0.783      486.91 ppb          0.783   0.16%
   QC value within limits for Mn 257.610  Recovery = 97.38%
Mo 202.031†            16404.6      482.56 µg/L         2.714      482.56 ppb          2.714   0.56%
   QC value within limits for Mo 202.031  Recovery = 96.51%
Na 589.592 Radial†     71399.2      9749.7 µg/L         10.02      9749.7 ppb          10.02   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 97.50%
Ni 231.604†            42023.1      483.87 µg/L         0.961      483.87 ppb          0.961   0.20%
   QC value within limits for Ni 231.604  Recovery = 96.77%
P 214.914†             11271.3      2402.4 µg/L         21.48      2402.4 ppb          21.48   0.89%
   QC value within limits for P 214.914  Recovery = 96.10%
Pb 220.353†             8693.1      486.80 µg/L         3.313      486.80 ppb          3.313   0.68%
   QC value within limits for Pb 220.353  Recovery = 97.36%
S 181.975 Axial†        1290.0      961.98 µg/L         7.160      961.98 ppb          7.160   0.74%
   QC value within limits for S 181.975 Axial  Recovery = 96.20%
Sb 206.836†             4059.4      483.66 µg/L         5.466      483.66 ppb          5.466   1.13%
   QC value within limits for Sb 206.836  Recovery = 96.73%
Se 196.026†             1326.6         482 µg/L           4.2         482 ppb            4.2   0.87%
   QC value within limits for Se 196.026  Recovery = 96.34%
SiO2†                  53893.9      5247.0 µg/L          0.96      5247.0 ppb           0.96   0.02%
   QC value within limits for SiO2  Recovery = 98.12%
Si 251.611†           167357.0      2457.7 µg/L          3.93      2457.7 ppb           3.93   0.16%
   QC value within limits for Si 251.611  Recovery = 98.31%
Sn 189.927†             7748.9      484.70 µg/L         3.480      484.70 ppb          3.480   0.72%
   QC value within limits for Sn 189.927  Recovery = 96.94%
Sr 421.552†           235235.2      489.00 µg/L         4.060      489.00 ppb          4.060   0.83%
   QC value within limits for Sr 421.552  Recovery = 97.80%
Ti 334.940†           520369.1      485.54 µg/L         0.386      485.54 ppb          0.386   0.08%
   QC value within limits for Ti 334.940  Recovery = 97.11%
Tl 190.801†             3935.6      490.85 µg/L         2.502      490.85 ppb          2.502   0.51%
   QC value within limits for Tl 190.801  Recovery = 98.17%
U 409.014†              7633.7      475.73 µg/L         5.576      475.73 ppb          5.576   1.17%
   QC value within limits for U 409.014  Recovery = 95.15%
V 292.402†             98572.2      487.27 µg/L         0.331      487.27 ppb          0.331   0.07%
   QC value within limits for V 292.402  Recovery = 97.45%
Zn 213.857†            86225.9      480.57 µg/L         0.949      480.57 ppb          0.949   0.20%
   QC value within limits for Zn 213.857  Recovery = 96.11%
All analyte(s) passed QC.
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Sequence No.: 39 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/31/2010 20:48:32**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143100.4	143100.4	98.1	%			20:49:01
1	Al 396.153Radial†	-68.2	-6.4	-1.1706	µg/L	-1.1706	ppb	20:49:21
1	Ca 317.933Radial†	633.3	85.2	4.7476	µg/L	4.7476	ppb	20:49:21
1	Fe 238.204 Radial†	162.0	17.1	1.0551	µg/L	1.0551	ppb	20:49:21
1	K 766.490 Radial†	1505.7	-9.3	-3.4148	µg/L	-3.4148	ppb	20:49:01
1	Mg 279.077 IEC†	188.6	1.6	0.6053	µg/L	0.6053	ppb	20:49:21
1	Na 589.592 Radial†	1635.8	377.3	51.550	µg/L	51.550	ppb	20:49:01
1	Sr 421.552†	-135.1	-2.5	-0.0052	µg/L	-0.0052	ppb	20:49:01
1	Sc 361.383	1714287.6	1714287.6	99.771	%			20:50:09
1	Y 371.029	1025603.7	1025603.7	99.894	%			20:50:09
1	Ag 328.068†	3929.0	-153.4	-0.5739	µg/L	-0.5739	ppb	20:50:11
1	As 188.979†	-14.7	5.7	1.7126	µg/L	1.7126	ppb	20:50:31
1	B 249.677†	3483.3	-14.6	-0.2161	µg/L	-0.2161	ppb	20:50:31
1	Ba 233.527†	-124.6	11.0	0.0445	µg/L	0.0445	ppb	20:50:31
1	Be 313.107†	-819.1	243.7	0.0640	µg/L	0.0640	ppb	20:50:11
1	Cd 226.502†	-96.3	21.7	0.1352	µg/L	0.1352	ppb	20:50:31
1	Co 228.616†	-181.4	8.5	0.1049	µg/L	0.1049	ppb	20:50:31
1	Cr 267.716†	159.9	-18.3	-0.1371	µg/L	-0.1371	ppb	20:50:31
1	Cu 324.752†	2837.6	-128.1	-0.5041	µg/L	-0.5041	ppb	20:50:11
1	Mn 257.610†	255.9	19.2	0.0238	µg/L	0.0238	ppb	20:50:31
1	Mo 202.031†	-30.3	-10.3	-0.3020	µg/L	-0.3020	ppb	20:50:31
1	Ni 231.604†	-89.5	-13.2	-0.1520	µg/L	-0.1520	ppb	20:50:31
1	P 214.914†	-14.0	3.9	0.8495	µg/L	0.8495	ppb	20:50:31
1	Pb 220.353†	127.8	41.7	2.3324	µg/L	2.3324	ppb	20:50:31
1	S 181.975 Axial†	105.4	0.6	0.4193	µg/L	0.4193	ppb	20:50:31
1	Sb 206.836†	61.7	-18.9	-2.2534	µg/L	-2.2534	ppb	20:50:31
1	Se 196.026†	16.8	1.6	0.564	µg/L	0.564	ppb	20:50:31
1	SiO2†	1750.1	-21.3	-2.0737	µg/L	-2.0737	ppb	20:50:31
1	Si 251.611†	904.3	69.8	1.0310	µg/L	1.0310	ppb	20:50:11
1	Sn 189.927†	3.7	4.9	0.3040	µg/L	0.3040	ppb	20:50:31
1	Ti 334.940†	1043.2	93.0	0.0902	µg/L	0.0902	ppb	20:50:11
1	Tl 190.801†	-125.6	-9.3	-1.1347	µg/L	-1.1347	ppb	20:50:31
1	U 409.014†	-400.9	-131.9	-7.6954	µg/L	-7.6954	ppb	20:50:11
1	V 292.402†	469.6	66.9	0.3171	µg/L	0.3171	ppb	20:50:11
1	Zn 213.857†	595.1	32.0	0.1811	µg/L	0.1811	ppb	20:50:31
2	Sc RADIAL	142884.5	142884.5	97.9	%			20:49:23
2	Al 396.153Radial†	-69.1	-7.4	-1.3818	µg/L	-1.3818	ppb	20:49:43
2	Ca 317.933Radial†	615.2	67.8	3.7747	µg/L	3.7747	ppb	20:49:43
2	Fe 238.204 Radial†	156.5	11.7	0.7231	µg/L	0.7231	ppb	20:49:43
2	K 766.490 Radial†	1609.8	99.3	36.354	µg/L	36.354	ppb	20:49:23
2	Mg 279.077 IEC†	180.2	-6.7	-2.4821	µg/L	-2.4821	ppb	20:49:43
2	Na 589.592 Radial†	1524.3	266.0	36.311	µg/L	36.311	ppb	20:49:23
2	Sr 421.552†	-167.8	-36.0	-0.0750	µg/L	-0.0750	ppb	20:49:23
2	Sc 361.383	1705708.0	1705708.0	99.272	%			20:50:33
2	Y 371.029	1021576.7	1021576.7	99.502	%			20:50:33
2	Ag 328.068†	3789.2	-274.4	-1.0230	µg/L	-1.0230	ppb	20:50:35
2	As 188.979†	-3.7	16.6	5.0206	µg/L	5.0206	ppb	20:50:56
2	B 249.677†	3504.5	24.3	0.3589	µg/L	0.3589	ppb	20:50:56
2	Ba 233.527†	-135.1	-0.3	-0.0007	µg/L	-0.0007	ppb	20:50:56
2	Be 313.107†	-1027.1	30.1	0.0056	µg/L	0.0056	ppb	20:50:35
2	Cd 226.502†	-117.9	-0.5	-0.0035	µg/L	-0.0035	ppb	20:50:56
2	Co 228.616†	-184.4	4.6	0.0565	µg/L	0.0565	ppb	20:50:56
2	Cr 267.716†	197.3	20.1	0.1648	µg/L	0.1648	ppb	20:50:56
2	Cu 324.752†	2986.4	36.0	0.1330	µg/L	0.1330	ppb	20:50:35
2	Mn 257.610†	208.3	-27.5	-0.0339	µg/L	-0.0339	ppb	20:50:56
2	Mo 202.031†	-10.1	9.9	0.2925	µg/L	0.2925	ppb	20:50:56
2	Ni 231.604†	-71.6	4.4	0.0504	µg/L	0.0504	ppb	20:50:56
2	P 214.914†	-25.7	-7.9	-1.7048	µg/L	-1.7048	ppb	20:50:56
2	Pb 220.353†	88.5	2.8	0.1610	µg/L	0.1610	ppb	20:50:56

2	S 181.975 Axial†	98.5	-5.8	-4.3120 µg/L	-4.3120 ppb	20:50:56
2	Sb 206.836†	86.1	5.9	0.7055 µg/L	0.7055 ppb	20:50:56
2	Se 196.026†	6.1	-9.2	-3.32 µg/L	-3.32 ppb	20:50:56
2	SiO2†	1800.3	38.1	3.7206 µg/L	3.7206 ppb	20:50:56
2	Si 251.611†	941.5	111.8	1.6453 µg/L	1.6453 ppb	20:50:35
2	Sn 189.927†	-2.9	-1.8	-0.1151 µg/L	-0.1151 ppb	20:50:56
2	Ti 334.940†	825.1	-121.4	-0.1096 µg/L	-0.1096 ppb	20:50:35
2	Tl 190.801†	-103.9	12.0	1.4793 µg/L	1.4793 ppb	20:50:56
2	U 409.014†	-414.7	-147.9	-8.6275 µg/L	-8.6275 ppb	20:50:35
2	V 292.402†	468.7	68.3	0.3311 µg/L	0.3311 ppb	20:50:35
2	Zn 213.857†	586.6	26.4	0.1479 µg/L	0.1479 ppb	20:50:56
3	Sc RADIAL	143556.4	143556.4	98.4 %		20:49:45
3	Al 396.153Radial†	-49.6	12.8	2.3684 µg/L	2.3684 ppb	20:50:05
3	Ca 317.933Radial†	619.9	69.5	3.8728 µg/L	3.8728 ppb	20:50:05
3	Fe 238.204 Radial†	160.9	15.5	0.9527 µg/L	0.9527 ppb	20:50:05
3	K 766.490 Radial†	1716.2	199.8	73.139 µg/L	73.139 ppb	20:49:45
3	Mg 279.077 IEC†	179.3	-8.5	-3.1618 µg/L	-3.1618 ppb	20:50:05
3	Na 589.592 Radial†	1571.2	306.3	41.786 µg/L	41.786 ppb	20:49:45
3	Sr 421.552†	-111.1	22.4	0.0465 µg/L	0.0465 ppb	20:49:45
3	Sc 361.383	1721625.0	1721625.0	100.20 %		20:50:58
3	Y 371.029	1030085.4	1030085.4	100.33 %		20:50:58
3	Ag 328.068†	3859.6	-239.4	-0.8861 µg/L	-0.8861 ppb	20:51:00
3	As 188.979†	-27.5	-7.1	-2.1453 µg/L	-2.1453 ppb	20:51:20
3	B 249.677†	3491.5	-21.3	-0.3158 µg/L	-0.3158 ppb	20:51:20
3	Ba 233.527†	-142.3	-6.2	-0.0248 µg/L	-0.0248 ppb	20:51:20
3	Be 313.107†	-950.3	116.3	0.0315 µg/L	0.0315 ppb	20:51:00
3	Cd 226.502†	-122.0	-3.6	-0.0224 µg/L	-0.0224 ppb	20:51:20
3	Co 228.616†	-167.0	23.7	0.2921 µg/L	0.2921 ppb	20:51:20
3	Cr 267.716†	146.9	-32.0	-0.2498 µg/L	-0.2498 ppb	20:51:20
3	Cu 324.752†	3019.8	41.6	0.1616 µg/L	0.1616 ppb	20:51:00
3	Mn 257.610†	238.8	1.0	0.0014 µg/L	0.0014 ppb	20:51:20
3	Mo 202.031†	-20.4	-0.3	-0.0095 µg/L	-0.0095 ppb	20:51:20
3	Ni 231.604†	-92.9	-16.2	-0.1861 µg/L	-0.1861 ppb	20:51:20
3	P 214.914†	-16.8	1.2	0.2638 µg/L	0.2638 ppb	20:51:20
3	Pb 220.353†	96.5	9.9	0.5545 µg/L	0.5545 ppb	20:51:20
3	S 181.975 Axial†	97.9	-7.4	-5.4692 µg/L	-5.4692 ppb	20:51:20
3	Sb 206.836†	70.1	-10.9	-1.2853 µg/L	-1.2853 ppb	20:51:20
3	Se 196.026†	24.0	8.7	3.13 µg/L	3.13 ppb	20:51:20
3	SiO2†	1761.3	-17.6	-1.7243 µg/L	-1.7243 ppb	20:51:20
3	Si 251.611†	890.7	52.3	0.7682 µg/L	0.7682 ppb	20:51:00
3	Sn 189.927†	7.5	8.6	0.5361 µg/L	0.5361 ppb	20:51:20
3	Ti 334.940†	901.9	-52.4	-0.0483 µg/L	-0.0483 ppb	20:51:00
3	Tl 190.801†	-111.0	5.9	0.7212 µg/L	0.7212 ppb	20:51:20
3	U 409.014†	-279.5	-9.1	-0.5238 µg/L	-0.5238 ppb	20:51:00
3	V 292.402†	424.3	19.7	0.0944 µg/L	0.0944 ppb	20:51:00
3	Zn 213.857†	577.4	11.9	0.0677 µg/L	0.0677 ppb	20:51:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1713873.5	99.747	%	0.4637				0.46%
Sc RADIAL	143180.4	98.1	%	0.24				0.24%
Y 371.029	1025755.3	99.909	%	0.4146				0.41%
Ag 328.068†	-222.4	-0.8276	µg/L	0.23017	-0.8276	ppb	0.23017	27.81%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.3	-0.0614	µg/L	2.10685	-0.0614	ppb	2.10685	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.1	1.5293	µg/L	3.58647	1.5293	ppb	3.58647	234.51%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-3.9	-0.0576	µg/L	0.36418	-0.0576	ppb	0.36418	631.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.5	0.0063	µg/L	0.03518	0.0063	ppb	0.03518	557.71%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	130.0	0.0337	µg/L	0.02929	0.0337	ppb	0.02929	86.91%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	74.2	4.1317	µg/L	0.53563	4.1317	ppb	0.53563	12.96%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.9	0.0364	µg/L	0.08602	0.0364	ppb	0.08602	236.18%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.3	0.1512	µg/L	0.12445	0.1512	ppb	0.12445	82.31%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -10.0     -0.0740 µg/L       0.21436     -0.0740 ppb        0.21436 289.62%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -16.8     -0.0698 µg/L       0.37636     -0.0698 ppb        0.37636 538.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        14.8      0.9103 µg/L       0.16999      0.9103 ppb        0.16999  18.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         96.6      35.359 µg/L       38.2865      35.359 ppb        38.2865 108.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -4.5     -1.6795 µg/L       2.00766     -1.6795 ppb        2.00766 119.54%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -2.4     -0.0029 µg/L       0.02906     -0.0029 ppb        0.02906 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.2     -0.0064 µg/L       0.29725     -0.0064 ppb        0.29725 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       316.6      43.216 µg/L        7.7194      43.216 ppb         7.7194  17.86%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -8.3     -0.0959 µg/L       0.12783     -0.0959 ppb        0.12783 133.28%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.9     -0.1972 µg/L       1.33806     -0.1972 ppb        1.33806 678.62%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               18.1      1.0159 µg/L       1.15693      1.0159 ppb        1.15693 113.88%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.2     -3.1206 µg/L       3.11977     -3.1206 ppb        3.11977  99.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -8.0     -0.9444 µg/L       1.50862     -0.9444 ppb        1.50862 159.74%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.4       0.124 µg/L        3.2508       0.124 ppb         3.2508 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -0.2     -0.0258 µg/L       3.24918     -0.0258 ppb        3.24918 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               78.0      1.1482 µg/L       0.45012      1.1482 ppb        0.45012  39.20%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.9      0.2417 µg/L       0.33003      0.2417 ppb        0.33003 136.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -5.4     -0.0112 µg/L       0.06093     -0.0112 ppb        0.06093 542.16%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -26.9     -0.0226 µg/L       0.10236     -0.0226 ppb        0.10236 453.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.9      0.3552 µg/L       1.34488      0.3552 ppb        1.34488 378.59%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -96.3     -5.6156 µg/L       4.43418     -5.6156 ppb        4.43418  78.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                51.6      0.2475 µg/L       0.13284      0.2475 ppb        0.13284  53.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               23.4      0.1323 µg/L       0.05829      0.1323 ppb        0.05829  44.08%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 50
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 21:16:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140518.4	140518.4	96.3	%			21:16:42
1	Al 396.153Radial†	25783.9	26840.0	4953.4	µg/L	4953.4	ppb	21:16:42
1	Ca 317.933Radial†	85524.3	88257.2	4916.3	µg/L	4916.3	ppb	21:16:42
1	Fe 238.204 Radial†	76323.1	79114.2	4876.1	µg/L	4876.1	ppb	21:16:42
1	K 766.490 Radial†	14404.9	13414.9	4907.4	µg/L	4907.4	ppb	21:16:42
1	Mg 279.077 IEC†	13081.5	13394.6	4998.4	µg/L	4998.4	ppb	21:16:42
1	Na 589.592 Radial†	70242.3	71656.5	9784.8	µg/L	9784.8	ppb	21:16:42
1	Sr 421.552†	226316.6	235167.3	488.86	µg/L	488.86	ppb	21:16:40
1	Sc 361.383	1669103.9	1669103.9	97.142	%			21:16:55
1	Y 371.029	989417.5	989417.5	96.370	%			21:16:55
1	Ag 328.068†	129569.0	129290.2	484.77	µg/L	484.77	ppb	21:16:55
1	As 188.979†	1551.4	1617.4	496.19	µg/L	496.19	ppb	21:17:15
1	B 249.677†	34680.4	32195.0	473.14	µg/L	473.14	ppb	21:16:55
1	Ba 233.527†	116237.8	119794.0	483.13	µg/L	483.13	ppb	21:16:55
1	Be 313.107†	1725182.2	1777010.7	483.98	µg/L	483.98	ppb	21:16:55
1	Cd 226.502†	74430.6	76738.9	479.03	µg/L	479.03	ppb	21:16:55
1	Co 228.616†	37838.5	39142.2	483.21	µg/L	483.21	ppb	21:16:55
1	Cr 267.716†	59798.9	61379.9	480.59	µg/L	480.59	ppb	21:16:55
1	Cu 324.752†	122989.1	123635.9	481.97	µg/L	481.97	ppb	21:16:55
1	Mn 257.610†	381507.5	392496.1	485.42	µg/L	485.42	ppb	21:16:55
1	Mo 202.031†	16149.2	16644.5	489.61	µg/L	489.61	ppb	21:17:15
1	Ni 231.604†	40427.6	41693.7	480.07	µg/L	480.07	ppb	21:16:55
1	P 214.914†	11040.4	11383.2	2426.3	µg/L	2426.3	ppb	21:17:15
1	Pb 220.353†	8616.0	8783.1	491.85	µg/L	491.85	ppb	21:17:15
1	S 181.975 Axial†	1370.2	1305.5	973.53	µg/L	973.53	ppb	21:17:15
1	Sb 206.836†	4075.4	4114.5	490.34	µg/L	490.34	ppb	21:17:15
1	Se 196.026†	1325.8	1349.6	490	µg/L	490	ppb	21:17:15
1	SiO2†	53789.9	53597.3	5217.7	µg/L	5217.7	ppb	21:16:55
1	Si 251.611†	162739.1	166691.2	2447.8	µg/L	2447.8	ppb	21:16:55
1	Sn 189.927†	7604.8	7829.7	489.73	µg/L	489.73	ppb	21:17:15
1	Ti 334.940†	504929.9	518835.1	484.11	µg/L	484.11	ppb	21:16:55
1	Tl 190.801†	3752.3	3979.4	496.21	µg/L	496.21	ppb	21:17:15
1	U 409.014†	7197.9	7679.6	478.26	µg/L	478.26	ppb	21:16:55
1	V 292.402†	95634.0	98044.3	484.76	µg/L	484.76	ppb	21:16:55
1	Zn 213.857†	83598.9	85494.4	476.49	µg/L	476.49	ppb	21:16:55
2	Sc RADIAL	141583.7	141583.7	97.0	%			21:16:47
2	Al 396.153Radial†	25881.7	26739.3	4934.9	µg/L	4934.9	ppb	21:16:47
2	Ca 317.933Radial†	85790.3	87863.1	4894.3	µg/L	4894.3	ppb	21:16:47
2	Fe 238.204 Radial†	76348.3	78543.7	4841.0	µg/L	4841.0	ppb	21:16:47
2	K 766.490 Radial†	14349.6	13245.3	4845.3	µg/L	4845.3	ppb	21:16:47
2	Mg 279.077 IEC†	13161.7	13375.0	4991.0	µg/L	4991.0	ppb	21:16:47
2	Na 589.592 Radial†	70371.9	71241.2	9728.1	µg/L	9728.1	ppb	21:16:47
2	Sr 421.552†	225549.9	232608.6	483.54	µg/L	483.54	ppb	21:16:44
2	Sc 361.383	1700896.9	1700896.9	98.992	%			21:17:18
2	Y 371.029	1006820.6	1006820.6	98.065	%			21:17:18
2	Ag 328.068†	132249.7	129505.0	485.59	µg/L	485.59	ppb	21:17:18
2	As 188.979†	1564.2	1600.5	491.07	µg/L	491.07	ppb	21:17:38
2	B 249.677†	35612.0	32468.8	477.17	µg/L	477.17	ppb	21:17:18
2	Ba 233.527†	119305.1	120655.9	486.60	µg/L	486.60	ppb	21:17:18
2	Be 313.107†	1771257.8	1790359.7	487.62	µg/L	487.62	ppb	21:17:18
2	Cd 226.502†	76605.7	77504.0	483.82	µg/L	483.82	ppb	21:17:18
2	Co 228.616†	38857.8	39443.8	486.94	µg/L	486.94	ppb	21:17:18
2	Cr 267.716†	61346.5	61792.6	483.83	µg/L	483.83	ppb	21:17:18
2	Cu 324.752†	126079.4	124391.1	484.90	µg/L	484.90	ppb	21:17:18
2	Mn 257.610†	390683.2	394424.4	487.81	µg/L	487.81	ppb	21:17:18
2	Mo 202.031†	16315.1	16501.3	485.39	µg/L	485.39	ppb	21:17:38
2	Ni 231.604†	41564.0	42063.8	484.33	µg/L	484.33	ppb	21:17:18
2	P 214.914†	11170.5	11302.2	2409.0	µg/L	2409.0	ppb	21:17:38
2	Pb 220.353†	8716.3	8718.6	488.24	µg/L	488.24	ppb	21:17:38

2	S 181.975 Axial†	1376.8	1285.7	958.84 µg/L	958.84 ppb	21:17:38
2	Sb 206.836†	4095.5	4056.4	483.32 µg/L	483.32 ppb	21:17:38
2	Se 196.026†	1341.9	1340.3	487 µg/L	487 ppb	21:17:38
2	SiO2†	55368.1	54156.5	5272.5 µg/L	5272.5 ppb	21:17:18
2	Si 251.611†	166631.9	167492.1	2459.6 µg/L	2459.6 ppb	21:17:18
2	Sn 189.927†	7705.9	7785.5	486.98 µg/L	486.98 ppb	21:17:38
2	Ti 334.940†	516370.1	520675.9	485.83 µg/L	485.83 ppb	21:17:18
2	Tl 190.801†	3799.4	3954.7	493.19 µg/L	493.19 ppb	21:17:38
2	U 409.014†	7223.0	7566.5	471.79 µg/L	471.79 ppb	21:17:18
2	V 292.402†	97908.7	98501.9	486.96 µg/L	486.96 ppb	21:17:18
2	Zn 213.857†	86115.5	86428.0	481.70 µg/L	481.70 ppb	21:17:18
3	Sc RADIAL	140610.0	140610.0	96.4 %		21:16:51
3	Al 396.153Radial†	25934.1	26978.5	4979.2 µg/L	4979.2 ppb	21:16:51
3	Ca 317.933Radial†	85400.8	88071.2	4905.9 µg/L	4905.9 ppb	21:16:51
3	Fe 238.204 Radial†	76011.3	78739.0	4853.0 µg/L	4853.0 ppb	21:16:51
3	K 766.490 Radial†	14473.0	13475.8	4929.7 µg/L	4929.7 ppb	21:16:51
3	Mg 279.077 IEC†	13077.3	13381.4	4993.4 µg/L	4993.4 ppb	21:16:51
3	Na 589.592 Radial†	70342.7	71713.3	9792.5 µg/L	9792.5 ppb	21:16:51
3	Sr 421.552†	223908.2	232514.8	483.35 µg/L	483.35 ppb	21:16:49
3	Sc 361.383	1690270.1	1690270.1	98.373 %		21:17:42
3	Y 371.029	1001275.7	1001275.7	97.525 %		21:17:42
3	Ag 328.068†	131972.5	130063.1	487.66 µg/L	487.66 ppb	21:17:42
3	As 188.979†	1560.3	1606.5	492.89 µg/L	492.89 ppb	21:18:02
3	B 249.677†	35493.5	32574.4	478.72 µg/L	478.72 ppb	21:17:42
3	Ba 233.527†	118281.0	120372.5	485.46 µg/L	485.46 ppb	21:17:42
3	Be 313.107†	1758207.7	1788343.2	487.07 µg/L	487.07 ppb	21:17:42
3	Cd 226.502†	76039.5	77415.0	483.26 µg/L	483.26 ppb	21:17:42
3	Co 228.616†	38697.3	39527.5	487.97 µg/L	487.97 ppb	21:17:42
3	Cr 267.716†	61022.9	61853.3	484.31 µg/L	484.31 ppb	21:17:42
3	Cu 324.752†	124975.7	124069.9	483.65 µg/L	483.65 ppb	21:17:42
3	Mn 257.610†	388217.6	394399.3	487.78 µg/L	487.78 ppb	21:17:42
3	Mo 202.031†	16264.5	16553.5	486.93 µg/L	486.93 ppb	21:18:02
3	Ni 231.604†	41303.6	42063.1	484.33 µg/L	484.33 ppb	21:17:42
3	P 214.914†	11171.7	11374.3	2424.5 µg/L	2424.5 ppb	21:18:02
3	Pb 220.353†	8697.8	8755.2	490.29 µg/L	490.29 ppb	21:18:02
3	S 181.975 Axial†	1394.3	1312.3	978.61 µg/L	978.61 ppb	21:18:02
3	Sb 206.836†	4104.7	4091.7	487.54 µg/L	487.54 ppb	21:18:02
3	Se 196.026†	1335.6	1342.4	487 µg/L	487 ppb	21:18:02
3	SiO2†	54853.9	53985.5	5255.7 µg/L	5255.7 ppb	21:17:42
3	Si 251.611†	165452.6	167351.7	2457.5 µg/L	2457.5 ppb	21:17:42
3	Sn 189.927†	7688.5	7816.7	488.93 µg/L	488.93 ppb	21:18:02
3	Ti 334.940†	512939.3	520467.8	485.64 µg/L	485.64 ppb	21:17:42
3	Tl 190.801†	3797.1	3976.5	495.87 µg/L	495.87 ppb	21:18:02
3	U 409.014†	7116.8	7504.3	468.21 µg/L	468.21 ppb	21:17:42
3	V 292.402†	97506.3	98714.7	488.01 µg/L	488.01 ppb	21:17:42
3	Zn 213.857†	85518.8	86368.4	481.37 µg/L	481.37 ppb	21:17:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1686757.0	98.169	%	0.9420				0.96%
Sc RADIAL	140904.0	96.6	%	0.40				0.42%
Y 371.029	999171.3	97.320	%	0.8659				0.89%
Ag 328.068†	129619.5	486.01	µg/L	1.489	486.01	ppb	1.489	0.31%
QC value within limits for Ag 328.068 Recovery = 97.20%								
Al 396.153Radial†	26852.6	4955.8	µg/L	22.23	4955.8	ppb	22.23	0.45%
QC value within limits for Al 396.153Radial Recovery = 99.12%								
As 188.979†	1608.1	493.38	µg/L	2.596	493.38	ppb	2.596	0.53%
QC value within limits for As 188.979 Recovery = 98.68%								
B 249.677†	32412.8	476.35	µg/L	2.879	476.35	ppb	2.879	0.60%
QC value within limits for B 249.677 Recovery = 95.27%								
Ba 233.527†	120274.1	485.06	µg/L	1.771	485.06	ppb	1.771	0.37%
QC value within limits for Ba 233.527 Recovery = 97.01%								
Be 313.107†	1785237.9	486.22	µg/L	1.958	486.22	ppb	1.958	0.40%
QC value within limits for Be 313.107 Recovery = 97.24%								
Ca 317.933Radial†	88063.9	4905.5	µg/L	10.98	4905.5	ppb	10.98	0.22%
QC value within limits for Ca 317.933Radial Recovery = 98.11%								
Cd 226.502†	77219.3	482.04	µg/L	2.617	482.04	ppb	2.617	0.54%
QC value within limits for Cd 226.502 Recovery = 96.41%								
Co 228.616†	39371.2	486.04	µg/L	2.502	486.04	ppb	2.502	0.51%

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   QC value within limits for Co 228.616  Recovery = 97.21%
Cr 267.716†            61675.3      482.91 µg/L         2.021      482.91 ppb          2.021   0.42%
   QC value within limits for Cr 267.716  Recovery = 96.58%
Cu 324.752†           124032.3      483.51 µg/L         1.468      483.51 ppb          1.468   0.30%
   QC value within limits for Cu 324.752  Recovery = 96.70%
Fe 238.204 Radial†     78799.0      4856.7 µg/L         17.87      4856.7 ppb          17.87   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.13%
K 766.490 Radial†      13378.7      4894.1 µg/L         43.71      4894.1 ppb          43.71   0.89%
   QC value within limits for K 766.490 Radial  Recovery = 97.88%
Mg 279.077 IEC†        13383.7      4994.3 µg/L          3.76      4994.3 ppb           3.76   0.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.89%
Mn 257.610†           393773.3      487.00 µg/L         1.369      487.00 ppb          1.369   0.28%
   QC value within limits for Mn 257.610  Recovery = 97.40%
Mo 202.031†            16566.4      487.31 µg/L         2.131      487.31 ppb          2.131   0.44%
   QC value within limits for Mo 202.031  Recovery = 97.46%
Na 589.592 Radial†     71537.0      9768.5 µg/L         35.17      9768.5 ppb          35.17   0.36%
   QC value within limits for Na 589.592 Radial  Recovery = 97.68%
Ni 231.604†            41940.2      482.91 µg/L         2.458      482.91 ppb          2.458   0.51%
   QC value within limits for Ni 231.604  Recovery = 96.58%
P 214.914†             11353.2      2419.9 µg/L          9.51      2419.9 ppb           9.51   0.39%
   QC value within limits for P 214.914  Recovery = 96.80%
Pb 220.353†             8752.3      490.13 µg/L         1.809      490.13 ppb          1.809   0.37%
   QC value within limits for Pb 220.353  Recovery = 98.03%
S 181.975 Axial†        1301.2      970.33 µg/L        10.267      970.33 ppb         10.267   1.06%
   QC value within limits for S 181.975 Axial  Recovery = 97.03%
Sb 206.836†             4087.6      487.07 µg/L         3.532      487.07 ppb          3.532   0.73%
   QC value within limits for Sb 206.836  Recovery = 97.41%
Se 196.026†             1344.1         488 µg/L           1.8         488 ppb            1.8   0.36%
   QC value within limits for Se 196.026  Recovery = 97.61%
SiO2†                  53913.1      5248.7 µg/L         28.09      5248.7 ppb          28.09   0.54%
   QC value within limits for SiO2  Recovery = 98.15%
Si 251.611†           167178.3      2455.0 µg/L          6.34      2455.0 ppb           6.34   0.26%
   QC value within limits for Si 251.611  Recovery = 98.20%
Sn 189.927†             7810.6      488.55 µg/L         1.414      488.55 ppb          1.414   0.29%
   QC value within limits for Sn 189.927  Recovery = 97.71%
Sr 421.552†           233430.2      485.25 µg/L         3.129      485.25 ppb          3.129   0.64%
   QC value within limits for Sr 421.552  Recovery = 97.05%
Ti 334.940†           519992.9      485.19 µg/L         0.943      485.19 ppb          0.943   0.19%
   QC value within limits for Ti 334.940  Recovery = 97.04%
Tl 190.801†             3970.2      495.09 µg/L         1.653      495.09 ppb          1.653   0.33%
   QC value within limits for Tl 190.801  Recovery = 99.02%
U 409.014†              7583.5      472.76 µg/L         5.091      472.76 ppb          5.091   1.08%
   QC value within limits for U 409.014  Recovery = 94.55%
V 292.402†             98420.3      486.58 µg/L         1.660      486.58 ppb          1.660   0.34%
   QC value within limits for V 292.402  Recovery = 97.32%
Zn 213.857†            86097.0      479.85 µg/L         2.921      479.85 ppb          2.921   0.61%
   QC value within limits for Zn 213.857  Recovery = 95.97%
All analyte(s) passed QC.
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Sequence No.: 51
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 21:18:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142340.5	142340.5	97.5	%			21:18:39
1	Al 396.153Radial†	-77.4	-16.2	-2.9808	µg/L	-2.9808	ppb	21:18:59
1	Ca 317.933Radial†	613.3	68.2	3.7996	µg/L	3.7996	ppb	21:18:59
1	Fe 238.204 Radial†	174.0	30.3	1.8673	µg/L	1.8673	ppb	21:18:59
1	K 766.490 Radial†	1617.0	113.0	41.366	µg/L	41.366	ppb	21:18:39
1	Mg 279.077 IEC†	173.7	-12.6	-4.7201	µg/L	-4.7201	ppb	21:18:59
1	Na 589.592 Radial†	1689.2	441.0	60.210	µg/L	60.210	ppb	21:18:39
1	Sr 421.552†	-87.4	45.7	0.0949	µg/L	0.0949	ppb	21:18:39
1	Sc 361.383	1691761.1	1691761.1	98.460	%			21:19:47
1	Y 371.029	1013835.9	1013835.9	98.748	%			21:19:47
1	Ag 328.068†	3999.1	-29.8	-0.1074	µg/L	-0.1074	ppb	21:19:49
1	As 188.979†	-10.2	10.0	3.0117	µg/L	3.0117	ppb	21:20:09
1	B 249.677†	3413.6	-39.0	-0.5756	µg/L	-0.5756	ppb	21:19:49
1	Ba 233.527†	-138.5	-4.8	-0.0197	µg/L	-0.0197	ppb	21:20:09
1	Be 313.107†	-974.4	75.0	0.0212	µg/L	0.0212	ppb	21:19:49
1	Cd 226.502†	-119.6	-3.3	-0.0208	µg/L	-0.0208	ppb	21:20:09
1	Co 228.616†	-162.5	25.3	0.3117	µg/L	0.3117	ppb	21:20:09
1	Cr 267.716†	206.6	31.2	0.2430	µg/L	0.2430	ppb	21:20:09
1	Cu 324.752†	2962.7	36.8	0.1452	µg/L	0.1452	ppb	21:19:49
1	Mn 257.610†	261.8	28.6	0.0356	µg/L	0.0356	ppb	21:20:09
1	Mo 202.031†	-32.6	-13.1	-0.3839	µg/L	-0.3839	ppb	21:20:09
1	Ni 231.604†	-104.8	-29.9	-0.3447	µg/L	-0.3447	ppb	21:20:09
1	P 214.914†	-11.4	6.4	1.3624	µg/L	1.3624	ppb	21:20:09
1	Pb 220.353†	75.5	-9.7	-0.5434	µg/L	-0.5434	ppb	21:20:09
1	S 181.975 Axial†	111.4	8.1	5.9955	µg/L	5.9955	ppb	21:20:09
1	Sb 206.836†	80.6	1.0	0.1122	µg/L	0.1122	ppb	21:20:09
1	Se 196.026†	3.3	-12.0	-4.33	µg/L	-4.33	ppb	21:20:09
1	SiO2†	1809.6	62.5	6.1130	µg/L	6.1130	ppb	21:20:09
1	Si 251.611†	946.2	124.4	1.8365	µg/L	1.8365	ppb	21:19:49
1	Sn 189.927†	4.9	6.1	0.3820	µg/L	0.3820	ppb	21:20:09
1	Ti 334.940†	770.9	-169.6	-0.1590	µg/L	-0.1590	ppb	21:19:49
1	Tl 190.801†	-120.5	-5.8	-0.7102	µg/L	-0.7102	ppb	21:20:09
1	U 409.014†	-225.3	41.0	2.4000	µg/L	2.4000	ppb	21:19:49
1	V 292.402†	398.1	0.6	0.0014	µg/L	0.0014	ppb	21:19:49
1	Zn 213.857†	596.3	41.2	0.2333	µg/L	0.2333	ppb	21:20:09
2	Sc RADIAL	140388.8	140388.8	96.2	%			21:19:01
2	Al 396.153Radial†	-40.1	21.6	4.0106	µg/L	4.0106	ppb	21:19:21
2	Ca 317.933Radial†	583.2	45.7	2.5430	µg/L	2.5430	ppb	21:19:21
2	Fe 238.204 Radial†	163.9	22.3	1.3738	µg/L	1.3738	ppb	21:19:21
2	K 766.490 Radial†	1756.0	280.5	102.70	µg/L	102.70	ppb	21:19:01
2	Mg 279.077 IEC†	185.4	2.0	0.7420	µg/L	0.7420	ppb	21:19:21
2	Na 589.592 Radial†	1757.4	535.9	73.122	µg/L	73.122	ppb	21:19:01
2	Sr 421.552†	-150.8	-21.5	-0.0447	µg/L	-0.0447	ppb	21:19:01
2	Sc 361.383	1725840.2	1725840.2	100.44	%			21:20:11
2	Y 371.029	1031661.1	1031661.1	100.48	%			21:20:11
2	Ag 328.068†	4128.5	18.9	0.0653	µg/L	0.0653	ppb	21:20:13
2	As 188.979†	-6.9	13.5	4.0841	µg/L	4.0841	ppb	21:20:34
2	B 249.677†	3476.1	-45.2	-0.6676	µg/L	-0.6676	ppb	21:20:13
2	Ba 233.527†	-122.5	13.9	0.0557	µg/L	0.0557	ppb	21:20:34
2	Be 313.107†	-1003.4	65.7	0.0171	µg/L	0.0171	ppb	21:20:13
2	Cd 226.502†	-100.9	17.7	0.1106	µg/L	0.1106	ppb	21:20:34
2	Co 228.616†	-165.4	25.6	0.3157	µg/L	0.3157	ppb	21:20:34
2	Cr 267.716†	175.4	-3.9	-0.0289	µg/L	-0.0289	ppb	21:20:34
2	Cu 324.752†	2951.3	-34.0	-0.1338	µg/L	-0.1338	ppb	21:20:13
2	Mn 257.610†	228.4	-9.9	-0.0123	µg/L	-0.0123	ppb	21:20:34
2	Mo 202.031†	-29.3	-9.0	-0.2659	µg/L	-0.2659	ppb	21:20:34
2	Ni 231.604†	-82.5	-5.6	-0.0645	µg/L	-0.0645	ppb	21:20:34
2	P 214.914†	-14.3	3.8	0.8123	µg/L	0.8123	ppb	21:20:34
2	Pb 220.353†	82.1	-4.7	-0.2595	µg/L	-0.2595	ppb	21:20:34

2	S 181.975 Axial†	91.3	-14.1	-10.498 µg/L	-10.498 ppb	21:20:34
2	Sb 206.836†	71.7	-9.4	-1.1204 µg/L	-1.1204 ppb	21:20:34
2	Se 196.026†	16.3	0.9	0.337 µg/L	0.337 ppb	21:20:34
2	SiO2†	1744.2	-38.9	-3.7990 µg/L	-3.7990 ppb	21:20:34
2	Si 251.611†	837.7	-2.5	-0.0368 µg/L	-0.0368 ppb	21:20:13
2	Sn 189.927†	6.2	7.3	0.4532 µg/L	0.4532 ppb	21:20:34
2	Ti 334.940†	756.2	-199.7	-0.1855 µg/L	-0.1855 ppb	21:20:13
2	Tl 190.801†	-123.1	-5.9	-0.7309 µg/L	-0.7309 ppb	21:20:34
2	U 409.014†	-314.2	-43.0	-2.5195 µg/L	-2.5195 ppb	21:20:13
2	V 292.402†	382.0	-23.5	-0.1192 µg/L	-0.1192 ppb	21:20:13
2	Zn 213.857†	586.1	19.1	0.1074 µg/L	0.1074 ppb	21:20:34
3	Sc RADIAL	142445.8	142445.8	97.6 %		21:19:23
3	Al 396.153Radial†	-90.2	-29.2	-5.4175 µg/L	-5.4175 ppb	21:19:43
3	Ca 317.933Radial†	593.8	47.8	2.6599 µg/L	2.6599 ppb	21:19:43
3	Fe 238.204 Radial†	167.0	23.0	1.4166 µg/L	1.4166 ppb	21:19:43
3	K 766.490 Radial†	1597.6	91.9	33.647 µg/L	33.647 ppb	21:19:23
3	Mg 279.077 IEC†	184.4	-1.8	-0.6658 µg/L	-0.6658 ppb	21:19:43
3	Na 589.592 Radial†	1758.3	510.5	69.717 µg/L	69.717 ppb	21:19:23
3	Sr 421.552†	-153.0	-21.4	-0.0445 µg/L	-0.0445 ppb	21:19:23
3	Sc 361.383	1713474.3	1713474.3	99.724 %		21:20:36
3	Y 371.029	1024068.4	1024068.4	99.745 %		21:20:36
3	Ag 328.068†	4150.2	70.3	0.2535 µg/L	0.2535 ppb	21:20:38
3	As 188.979†	-9.9	10.5	3.1681 µg/L	3.1681 ppb	21:20:58
3	B 249.677†	3600.1	104.2	1.5371 µg/L	1.5371 ppb	21:20:38
3	Ba 233.527†	-126.3	9.2	0.0373 µg/L	0.0373 ppb	21:20:58
3	Be 313.107†	-965.7	96.3	0.0240 µg/L	0.0240 ppb	21:20:38
3	Cd 226.502†	-105.6	12.3	0.0767 µg/L	0.0767 ppb	21:20:58
3	Co 228.616†	-193.8	-4.0	-0.0492 µg/L	-0.0492 ppb	21:20:58
3	Cr 267.716†	191.2	13.1	0.1087 µg/L	0.1087 ppb	21:20:58
3	Cu 324.752†	2975.4	11.4	0.0383 µg/L	0.0383 ppb	21:20:38
3	Mn 257.610†	236.4	-0.2	-0.0002 µg/L	-0.0002 ppb	21:20:58
3	Mo 202.031†	-19.1	0.9	0.0276 µg/L	0.0276 ppb	21:20:58
3	Ni 231.604†	-66.0	10.3	0.1188 µg/L	0.1188 ppb	21:20:58
3	P 214.914†	-5.2	12.7	2.7193 µg/L	2.7193 ppb	21:20:58
3	Pb 220.353†	57.4	-28.8	-1.6039 µg/L	-1.6039 ppb	21:20:58
3	S 181.975 Axial†	102.3	-2.4	-1.8005 µg/L	-1.8005 ppb	21:20:58
3	Sb 206.836†	78.7	-1.9	-0.2267 µg/L	-0.2267 ppb	21:20:58
3	Se 196.026†	18.0	2.8	0.995 µg/L	0.995 ppb	21:20:58
3	SiO2†	1745.8	-24.7	-2.4280 µg/L	-2.4280 ppb	21:20:58
3	Si 251.611†	1027.5	193.7	2.8516 µg/L	2.8516 ppb	21:20:38
3	Sn 189.927†	9.3	10.4	0.6506 µg/L	0.6506 ppb	21:20:58
3	Ti 334.940†	1090.0	140.5	0.1344 µg/L	0.1344 ppb	21:20:38
3	Tl 190.801†	-127.7	-11.4	-1.3953 µg/L	-1.3953 ppb	21:20:58
3	U 409.014†	-395.2	-126.4	-7.3813 µg/L	-7.3813 ppb	21:20:38
3	V 292.402†	441.4	38.8	0.1850 µg/L	0.1850 ppb	21:20:38
3	Zn 213.857†	582.7	19.9	0.1107 µg/L	0.1107 ppb	21:20:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1710358.5	99.543	%	1.0041				1.01%
Sc RADIAL	141725.0	97.1	%	0.79				0.82%
Y 371.029	1023188.4	99.659	%	0.8713				0.87%
Ag 328.068†	19.8	0.0705	µg/L	0.18052	0.0705	ppb	0.18052	256.19%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.9	-1.4626	µg/L	4.89399	-1.4626	ppb	4.89399	334.61%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.3	3.4213	µg/L	0.57932	3.4213	ppb	0.57932	16.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	6.7	0.0980	µg/L	1.24716	0.0980	ppb	1.24716	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.1	0.0244	µg/L	0.03927	0.0244	ppb	0.03927	160.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	79.0	0.0208	µg/L	0.00345	0.0208	ppb	0.00345	16.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	53.9	3.0008	µg/L	0.69420	3.0008	ppb	0.69420	23.13%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.9	0.0555	µg/L	0.06825	0.0555	ppb	0.06825	123.01%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	15.6	0.1927	µg/L	0.20954	0.1927	ppb	0.20954	108.73%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                13.5      0.1076 µg/L       0.13596      0.1076 ppb        0.13596 126.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 4.7      0.0166 µg/L       0.14075      0.0166 ppb        0.14075 850.04%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         25.2      1.5526 µg/L       0.27342      1.5526 ppb        0.27342  17.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         161.8      59.237 µg/L       37.8362      59.237 ppb        37.8362  63.87%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -4.1     -1.5480 µg/L       2.83593     -1.5480 ppb        2.83593 183.20%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 6.2      0.0077 µg/L       0.02490      0.0077 ppb        0.02490 322.21%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -7.1     -0.2074 µg/L       0.21190     -0.2074 ppb        0.21190 102.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       495.8      67.683 µg/L        6.6920      67.683 ppb         6.6920   9.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -8.4     -0.0968 µg/L       0.23339     -0.0968 ppb        0.23339 241.07%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 7.6      1.6313 µg/L       0.98157      1.6313 ppb        0.98157  60.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -14.4     -0.8023 µg/L       0.70858     -0.8023 ppb        0.70858  88.32%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.8     -2.1010 µg/L       8.25080     -2.1010 ppb        8.25080 392.71%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -3.4     -0.4117 µg/L       0.63677     -0.4117 ppb        0.63677 154.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.8      -0.998 µg/L        2.9005      -0.998 ppb         2.9005 290.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -0.4     -0.0380 µg/L       5.37088     -0.0380 ppb        5.37088 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              105.2      1.5504 µg/L       1.46530      1.5504 ppb        1.46530  94.51%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.9      0.4953 µg/L       0.13914      0.4953 ppb        0.13914  28.09%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 0.9      0.0019 µg/L       0.08056      0.0019 ppb        0.08056 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -76.2     -0.0700 µg/L       0.17755     -0.0700 ppb        0.17755 253.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -7.7     -0.9455 µg/L       0.38970     -0.9455 ppb        0.38970  41.22%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -42.8     -2.5003 µg/L       4.89065     -2.5003 ppb        4.89065 195.61%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 5.3      0.0224 µg/L       0.15317      0.0224 ppb        0.15317 684.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               26.7      0.1505 µg/L       0.07173      0.1505 ppb        0.07173  47.67%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 61
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 21:39:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143665.7	143665.7	98.4	%			21:40:31
1	Al 396.153Radial†	26354.7	26833.2	4952.4	µg/L	4952.4	ppb	21:40:31
1	Ca 317.933Radial†	87317.1	88132.5	4909.3	µg/L	4909.3	ppb	21:40:31
1	Fe 238.204 Radial†	78178.3	79262.3	4885.2	µg/L	4885.2	ppb	21:40:31
1	K 766.490 Radial†	14683.9	13370.5	4891.1	µg/L	4891.1	ppb	21:40:31
1	Mg 279.077 IEC†	13397.8	13418.2	5007.1	µg/L	5007.1	ppb	21:40:31
1	Na 589.592 Radial†	71164.9	70995.6	9694.5	µg/L	9694.5	ppb	21:40:31
1	Sr 421.552†	233220.3	237030.9	492.73	µg/L	492.73	ppb	21:40:29
1	Sc 361.383	1721068.9	1721068.9	100.17	%			21:40:44
1	Y 371.029	1018507.5	1018507.5	99.203	%			21:40:44
1	Ag 328.068†	133737.4	129424.5	485.29	µg/L	485.29	ppb	21:40:44
1	As 188.979†	1607.1	1624.8	498.43	µg/L	498.43	ppb	21:41:04
1	B 249.677†	35997.3	32431.8	476.62	µg/L	476.62	ppb	21:40:44
1	Ba 233.527†	120429.2	120365.5	485.43	µg/L	485.43	ppb	21:40:44
1	Be 313.107†	1795349.9	1793440.3	488.46	µg/L	488.46	ppb	21:40:44
1	Cd 226.502†	77524.8	77514.6	483.88	µg/L	483.88	ppb	21:40:44
1	Co 228.616†	39299.3	39424.5	486.69	µg/L	486.69	ppb	21:40:44
1	Cr 267.716†	61864.3	61583.2	482.19	µg/L	482.19	ppb	21:40:44
1	Cu 324.752†	127127.0	123944.2	483.17	µg/L	483.17	ppb	21:40:44
1	Mn 257.610†	395346.6	394454.4	487.85	µg/L	487.85	ppb	21:40:44
1	Mo 202.031†	16480.7	16473.5	484.58	µg/L	484.58	ppb	21:41:04
1	Ni 231.604†	41947.7	41954.7	483.08	µg/L	483.08	ppb	21:40:44
1	P 214.914†	11320.1	11319.3	2412.7	µg/L	2412.7	ppb	21:41:04
1	Pb 220.353†	8845.0	8744.0	489.65	µg/L	489.65	ppb	21:41:04
1	S 181.975 Axial†	1407.4	1300.0	969.45	µg/L	969.45	ppb	21:41:04
1	Sb 206.836†	4164.4	4076.7	485.74	µg/L	485.74	ppb	21:41:04
1	Se 196.026†	1354.0	1336.4	485	µg/L	485	ppb	21:41:04
1	SiO2†	55679.1	53811.5	5238.8	µg/L	5238.8	ppb	21:40:44
1	Si 251.611†	168734.5	167618.4	2461.5	µg/L	2461.5	ppb	21:40:44
1	Sn 189.927†	7779.1	7767.4	485.85	µg/L	485.85	ppb	21:41:04
1	Ti 334.940†	522596.2	520777.9	485.92	µg/L	485.92	ppb	21:40:44
1	Tl 190.801†	3874.4	3984.7	496.88	µg/L	496.88	ppb	21:41:04
1	U 409.014†	7407.3	7664.9	477.49	µg/L	477.49	ppb	21:40:44
1	V 292.402†	98914.4	98346.8	486.18	µg/L	486.18	ppb	21:40:44
1	Zn 213.857†	87152.2	86443.4	481.80	µg/L	481.80	ppb	21:40:44
2	Sc RADIAL	145456.2	145456.2	99.7	%			21:40:35
2	Al 396.153Radial†	26834.6	26985.2	4980.5	µg/L	4980.5	ppb	21:40:35
2	Ca 317.933Radial†	88881.4	88610.2	4935.9	µg/L	4935.9	ppb	21:40:35
2	Fe 238.204 Radial†	79662.0	79773.3	4916.7	µg/L	4916.7	ppb	21:40:35
2	K 766.490 Radial†	14845.0	13348.6	4883.1	µg/L	4883.1	ppb	21:40:35
2	Mg 279.077 IEC†	13510.7	13364.0	4986.9	µg/L	4986.9	ppb	21:40:35
2	Na 589.592 Radial†	72176.6	71120.8	9711.6	µg/L	9711.6	ppb	21:40:35
2	Sr 421.552†	230930.1	231817.3	481.90	µg/L	481.90	ppb	21:40:33
2	Sc 361.383	1718468.2	1718468.2	100.01	%			21:41:07
2	Y 371.029	1016391.1	1016391.1	98.997	%			21:41:07
2	Ag 328.068†	133896.2	129785.3	486.62	µg/L	486.62	ppb	21:41:07
2	As 188.979†	1611.9	1632.1	500.64	µg/L	500.64	ppb	21:41:27
2	B 249.677†	36060.3	32549.2	478.36	µg/L	478.36	ppb	21:41:07
2	Ba 233.527†	120340.6	120458.9	485.81	µg/L	485.81	ppb	21:41:07
2	Be 313.107†	1792650.3	1793453.6	488.45	µg/L	488.45	ppb	21:41:07
2	Cd 226.502†	77583.4	77690.3	484.97	µg/L	484.97	ppb	21:41:07
2	Co 228.616†	39213.4	39398.0	486.37	µg/L	486.37	ppb	21:41:07
2	Cr 267.716†	61991.1	61803.5	483.93	µg/L	483.93	ppb	21:41:07
2	Cu 324.752†	127061.9	124071.2	483.66	µg/L	483.66	ppb	21:41:07
2	Mn 257.610†	395040.3	394745.5	488.21	µg/L	488.21	ppb	21:41:07
2	Mo 202.031†	16505.0	16522.7	486.03	µg/L	486.03	ppb	21:41:27
2	Ni 231.604†	42190.5	42260.9	486.60	µg/L	486.60	ppb	21:41:07
2	P 214.914†	11360.6	11376.9	2425.0	µg/L	2425.0	ppb	21:41:27
2	Pb 220.353†	8840.9	8753.2	490.18	µg/L	490.18	ppb	21:41:27

2	S 181.975 Axial†	1398.8	1293.6	964.68 µg/L	964.68 ppb	21:41:27
2	Sb 206.836†	4174.1	4092.7	487.64 µg/L	487.64 ppb	21:41:27
2	Se 196.026†	1355.3	1339.8	486 µg/L	486 ppb	21:41:27
2	SiO2†	55809.3	54025.8	5259.7 µg/L	5259.7 ppb	21:41:07
2	Si 251.611†	168475.9	167614.8	2461.4 µg/L	2461.4 ppb	21:41:07
2	Sn 189.927†	7806.2	7806.1	488.27 µg/L	488.27 ppb	21:41:27
2	Ti 334.940†	521521.1	520492.6	485.66 µg/L	485.66 ppb	21:41:07
2	Tl 190.801†	3825.2	3941.3	491.55 µg/L	491.55 ppb	21:41:27
2	U 409.014†	7087.5	7356.3	459.54 µg/L	459.54 ppb	21:41:07
2	V 292.402†	99089.1	98670.9	487.77 µg/L	487.77 ppb	21:41:07
2	Zn 213.857†	87415.4	86838.2	483.99 µg/L	483.99 ppb	21:41:07
3	Sc RADIAL	143191.9	143191.9	98.1 %		21:40:39
3	Al 396.153Radial†	26557.8	27128.8	5007.1 µg/L	5007.1 ppb	21:40:39
3	Ca 317.933Radial†	87348.5	88458.0	4927.5 µg/L	4927.5 ppb	21:40:39
3	Fe 238.204 Radial†	78236.9	79584.7	4905.1 µg/L	4905.1 ppb	21:40:39
3	K 766.490 Radial†	14659.9	13395.4	4900.3 µg/L	4900.3 ppb	21:40:39
3	Mg 279.077 IEC†	13262.5	13325.4	4972.5 µg/L	4972.5 ppb	21:40:39
3	Na 589.592 Radial†	71088.0	71156.4	9716.5 µg/L	9716.5 ppb	21:40:39
3	Sr 421.552†	229311.5	233831.2	486.08 µg/L	486.08 ppb	21:40:37
3	Sc 361.383	1712233.1	1712233.1	99.652 %		21:41:30
3	Y 371.029	1012145.6	1012145.6	98.583 %		21:41:30
3	Ag 328.068†	133864.3	130240.8	488.35 µg/L	488.35 ppb	21:41:30
3	As 188.979†	1597.0	1622.9	497.89 µg/L	497.89 ppb	21:41:50
3	B 249.677†	36087.2	32707.4	480.68 µg/L	480.68 ppb	21:41:30
3	Ba 233.527†	120029.4	120584.8	486.32 µg/L	486.32 ppb	21:41:30
3	Be 313.107†	1789689.6	1797009.6	489.43 µg/L	489.43 ppb	21:41:30
3	Cd 226.502†	77607.6	77997.0	486.89 µg/L	486.89 ppb	21:41:30
3	Co 228.616†	39237.2	39564.7	488.42 µg/L	488.42 ppb	21:41:30
3	Cr 267.716†	61895.9	61933.7	484.93 µg/L	484.93 ppb	21:41:30
3	Cu 324.752†	126699.8	124170.4	484.06 µg/L	484.06 ppb	21:41:30
3	Mn 257.610†	394236.6	395377.2	488.99 µg/L	488.99 ppb	21:41:30
3	Mo 202.031†	16435.8	16513.3	485.75 µg/L	485.75 ppb	21:41:50
3	Ni 231.604†	42100.7	42324.4	487.33 µg/L	487.33 ppb	21:41:30
3	P 214.914†	11331.6	11389.1	2427.6 µg/L	2427.6 ppb	21:41:50
3	Pb 220.353†	8803.4	8747.8	489.86 µg/L	489.86 ppb	21:41:50
3	S 181.975 Axial†	1399.9	1299.7	969.26 µg/L	969.26 ppb	21:41:50
3	Sb 206.836†	4147.7	4081.4	486.29 µg/L	486.29 ppb	21:41:50
3	Se 196.026†	1361.2	1350.7	490 µg/L	490 ppb	21:41:50
3	SiO2†	55566.3	53985.2	5255.7 µg/L	5255.7 ppb	21:41:30
3	Si 251.611†	168537.6	168290.1	2471.4 µg/L	2471.4 ppb	21:41:30
3	Sn 189.927†	7783.2	7811.5	488.60 µg/L	488.60 ppb	21:41:50
3	Ti 334.940†	520012.8	520877.8	486.02 µg/L	486.02 ppb	21:41:30
3	Tl 190.801†	3855.0	3985.2	496.95 µg/L	496.95 ppb	21:41:50
3	U 409.014†	7438.0	7733.9	481.69 µg/L	481.69 ppb	21:41:30
3	V 292.402†	98978.3	98920.4	489.01 µg/L	489.01 ppb	21:41:30
3	Zn 213.857†	86968.8	86708.3	483.25 µg/L	483.25 ppb	21:41:30

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1717256.7	99.944	%	0.2643				0.26%
Sc RADIAL	144104.6	98.7	%	0.82				0.83%
Y 371.029	1015681.4	98.928	%	0.3156				0.32%
Ag 328.068†	129816.8	486.75	µg/L	1.535	486.75	ppb	1.535	0.32%
QC value within limits for Ag 328.068 Recovery = 97.35%								
Al 396.153Radial†	26982.4	4980.0	µg/L	27.38	4980.0	ppb	27.38	0.55%
QC value within limits for Al 396.153Radial Recovery = 99.60%								
As 188.979†	1626.6	498.99	µg/L	1.460	498.99	ppb	1.460	0.29%
QC value within limits for As 188.979 Recovery = 99.80%								
B 249.677†	32562.8	478.55	µg/L	2.037	478.55	ppb	2.037	0.43%
QC value within limits for B 249.677 Recovery = 95.71%								
Ba 233.527†	120469.8	485.85	µg/L	0.444	485.85	ppb	0.444	0.09%
QC value within limits for Ba 233.527 Recovery = 97.17%								
Be 313.107†	1794634.5	488.78	µg/L	0.562	488.78	ppb	0.562	0.12%
QC value within limits for Be 313.107 Recovery = 97.76%								
Ca 317.933Radial†	88400.3	4924.2	µg/L	13.59	4924.2	ppb	13.59	0.28%
QC value within limits for Ca 317.933Radial Recovery = 98.48%								
Cd 226.502†	77734.0	485.25	µg/L	1.525	485.25	ppb	1.525	0.31%
QC value within limits for Cd 226.502 Recovery = 97.05%								
Co 228.616†	39462.4	487.16	µg/L	1.106	487.16	ppb	1.106	0.23%

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   QC value within limits for Co 228.616  Recovery = 97.43%
Cr 267.716†            61773.5      483.68 µg/L        1.389      483.68 ppb          1.389   0.29%
   QC value within limits for Cr 267.716  Recovery = 96.74%
Cu 324.752†           124061.9      483.63 µg/L        0.443      483.63 ppb          0.443   0.09%
   QC value within limits for Cu 324.752  Recovery = 96.73%
Fe 238.204 Radial†     79540.1      4902.4 µg/L        15.93      4902.4 ppb          15.93   0.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.05%
K 766.490 Radial†      13371.5      4891.5 µg/L         8.58      4891.5 ppb           8.58   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 97.83%
Mg 279.077 IEC†        13369.2      4988.8 µg/L        17.36      4988.8 ppb          17.36   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.78%
Mn 257.610†           394859.0      488.35 µg/L        0.584      488.35 ppb          0.584   0.12%
   QC value within limits for Mn 257.610  Recovery = 97.67%
Mo 202.031†            16503.2      485.45 µg/L        0.769      485.45 ppb          0.769   0.16%
   QC value within limits for Mo 202.031  Recovery = 97.09%
Na 589.592 Radial†     71090.9      9707.5 µg/L        11.54      9707.5 ppb          11.54   0.12%
   QC value within limits for Na 589.592 Radial  Recovery = 97.08%
Ni 231.604†            42180.0      485.67 µg/L        2.276      485.67 ppb          2.276   0.47%
   QC value within limits for Ni 231.604  Recovery = 97.13%
P 214.914†             11361.8      2421.7 µg/L         7.97      2421.7 ppb           7.97   0.33%
   QC value within limits for P 214.914  Recovery = 96.87%
Pb 220.353†             8748.3      489.90 µg/L        0.268      489.90 ppb          0.268   0.05%
   QC value within limits for Pb 220.353  Recovery = 97.98%
S 181.975 Axial†        1297.8      967.80 µg/L        2.698      967.80 ppb          2.698   0.28%
   QC value within limits for S 181.975 Axial  Recovery = 96.78%
Sb 206.836†             4083.6      486.56 µg/L        0.979      486.56 ppb          0.979   0.20%
   QC value within limits for Sb 206.836  Recovery = 97.31%
Se 196.026†             1342.3         487 µg/L          2.7         487 ppb            2.7   0.55%
   QC value within limits for Se 196.026  Recovery = 97.48%
SiO2†                  53940.8      5251.4 µg/L        11.08      5251.4 ppb          11.08   0.21%
   QC value within limits for SiO2  Recovery = 98.20%
Si 251.611†           167841.1      2464.8 µg/L         5.72      2464.8 ppb           5.72   0.23%
   QC value within limits for Si 251.611  Recovery = 98.59%
Sn 189.927†             7795.0      487.58 µg/L        1.501      487.58 ppb          1.501   0.31%
   QC value within limits for Sn 189.927  Recovery = 97.52%
Sr 421.552†           234226.5      486.90 µg/L        5.466      486.90 ppb          5.466   1.12%
   QC value within limits for Sr 421.552  Recovery = 97.38%
Ti 334.940†           520716.1      485.87 µg/L        0.182      485.87 ppb          0.182   0.04%
   QC value within limits for Ti 334.940  Recovery = 97.17%
Tl 190.801†             3970.4      495.13 µg/L        3.095      495.13 ppb          3.095   0.63%
   QC value within limits for Tl 190.801  Recovery = 99.03%
U 409.014†              7585.0      472.91 µg/L       11.768      472.91 ppb         11.768   2.49%
   QC value within limits for U 409.014  Recovery = 94.58%
V 292.402†             98646.0      487.65 µg/L        1.415      487.65 ppb          1.415   0.29%
   QC value within limits for V 292.402  Recovery = 97.53%
Zn 213.857†            86663.3      483.01 µg/L        1.115      483.01 ppb          1.115   0.23%
   QC value within limits for Zn 213.857  Recovery = 96.60%
All analyte(s) passed QC.
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Sequence No.: 62
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 21:41:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143435.3	143435.3	98.3	%			21:42:30
1	Al 396.153Radial†	-56.2	6.0	1.1301	µg/L	1.1301	ppb	21:42:50
1	Ca 317.933Radial†	581.9	31.5	1.7535	µg/L	1.7535	ppb	21:42:50
1	Fe 238.204 Radial†	220.1	75.9	4.6750	µg/L	4.6750	ppb	21:42:50
1	K 766.490 Radial†	1630.1	113.7	41.604	µg/L	41.604	ppb	21:42:30
1	Mg 279.077 IEC†	185.9	-1.6	-0.5986	µg/L	-0.5986	ppb	21:42:50
1	Na 589.592 Radial†	1456.5	191.1	26.064	µg/L	26.064	ppb	21:42:30
1	Sr 421.552†	-303.2	-173.2	-0.3600	µg/L	-0.3600	ppb	21:42:30
1	Sc 361.383	1716104.0	1716104.0	99.877	%			21:43:52
1	Y 371.029	1026337.9	1026337.9	99.966	%			21:43:52
1	Ag 328.068†	4103.4	17.0	0.0542	µg/L	0.0542	ppb	21:43:54
1	As 188.979†	-11.9	8.5	2.5574	µg/L	2.5574	ppb	21:44:14
1	B 249.677†	3527.0	25.5	0.3738	µg/L	0.3738	ppb	21:43:54
1	Ba 233.527†	-143.0	-7.3	-0.0298	µg/L	-0.0298	ppb	21:44:14
1	Be 313.107†	-770.0	293.7	0.0782	µg/L	0.0782	ppb	21:43:54
1	Cd 226.502†	-77.7	40.4	0.2520	µg/L	0.2520	ppb	21:44:14
1	Co 228.616†	-153.6	36.5	0.4505	µg/L	0.4505	ppb	21:44:14
1	Cr 267.716†	176.1	-2.3	-0.0133	µg/L	-0.0133	ppb	21:44:14
1	Cu 324.752†	3046.8	78.3	0.3006	µg/L	0.3006	ppb	21:43:54
1	Mn 257.610†	328.7	91.9	0.1137	µg/L	0.1137	ppb	21:44:14
1	Mo 202.031†	-27.4	-7.4	-0.2173	µg/L	-0.2173	ppb	21:44:14
1	Ni 231.604†	-77.8	-1.3	-0.0154	µg/L	-0.0154	ppb	21:44:14
1	P 214.914†	-3.8	14.1	3.0202	µg/L	3.0202	ppb	21:44:14
1	Pb 220.353†	91.6	5.4	0.3025	µg/L	0.3025	ppb	21:44:14
1	S 181.975 Axial†	84.3	-20.7	-15.370	µg/L	-15.370	ppb	21:44:14
1	Sb 206.836†	85.3	4.6	0.5436	µg/L	0.5436	ppb	21:44:14
1	Se 196.026†	18.7	3.4	1.24	µg/L	1.24	ppb	21:44:14
1	SiO2†	1789.6	16.4	1.6035	µg/L	1.6035	ppb	21:44:14
1	Si 251.611†	934.5	99.0	1.4600	µg/L	1.4600	ppb	21:43:54
1	Sn 189.927†	6.5	7.6	0.4757	µg/L	0.4757	ppb	21:44:14
1	Ti 334.940†	967.5	16.2	0.0175	µg/L	0.0175	ppb	21:43:54
1	Tl 190.801†	-127.3	-10.8	-1.3305	µg/L	-1.3305	ppb	21:44:14
1	U 409.014†	-367.5	-98.1	-5.7438	µg/L	-5.7438	ppb	21:43:54
1	V 292.402†	375.1	-28.2	-0.1442	µg/L	-0.1442	ppb	21:43:54
1	Zn 213.857†	580.1	16.4	0.0915	µg/L	0.0915	ppb	21:44:14
2	Sc RADIAL	141870.3	141870.3	97.2	%			21:42:52
2	Al 396.153Radial†	-65.2	-3.9	-0.6977	µg/L	-0.6977	ppb	21:43:12
2	Ca 317.933Radial†	617.6	74.7	4.1593	µg/L	4.1593	ppb	21:43:12
2	Fe 238.204 Radial†	216.5	74.5	4.5946	µg/L	4.5946	ppb	21:43:12
2	K 766.490 Radial†	1775.2	281.2	102.95	µg/L	102.95	ppb	21:42:52
2	Mg 279.077 IEC†	182.1	-3.4	-1.2877	µg/L	-1.2877	ppb	21:43:12
2	Na 589.592 Radial†	1482.8	234.5	31.940	µg/L	31.940	ppb	21:42:52
2	Sr 421.552†	-167.3	-36.8	-0.0764	µg/L	-0.0764	ppb	21:42:52
2	Sc 361.383	1723490.8	1723490.8	100.31	%			21:44:16
2	Y 371.029	1031447.1	1031447.1	100.46	%			21:44:16
2	Ag 328.068†	4201.6	97.3	0.3501	µg/L	0.3501	ppb	21:44:18
2	As 188.979†	-15.3	5.1	1.5573	µg/L	1.5573	ppb	21:44:38
2	B 249.677†	3665.3	148.2	2.1841	µg/L	2.1841	ppb	21:44:18
2	Ba 233.527†	-146.0	-9.7	-0.0400	µg/L	-0.0400	ppb	21:44:38
2	Be 313.107†	-1050.7	17.2	0.0045	µg/L	0.0045	ppb	21:44:18
2	Cd 226.502†	-111.8	6.7	0.0414	µg/L	0.0414	ppb	21:44:38
2	Co 228.616†	-164.6	26.2	0.3234	µg/L	0.3234	ppb	21:44:38
2	Cr 267.716†	226.4	47.1	0.3695	µg/L	0.3695	ppb	21:44:38
2	Cu 324.752†	2823.9	-156.9	-0.6096	µg/L	-0.6096	ppb	21:44:18
2	Mn 257.610†	284.0	45.8	0.0568	µg/L	0.0568	ppb	21:44:38
2	Mo 202.031†	-36.4	-16.2	-0.4763	µg/L	-0.4763	ppb	21:44:38
2	Ni 231.604†	-100.6	-23.8	-0.2736	µg/L	-0.2736	ppb	21:44:38
2	P 214.914†	-35.6	-17.5	-3.7362	µg/L	-3.7362	ppb	21:44:38
2	Pb 220.353†	84.0	-2.6	-0.1459	µg/L	-0.1459	ppb	21:44:38

2	S 181.975 Axial†	89.5	-15.8	-11.745 µg/L	-11.745 ppb	21:44:38
2	Sb 206.836†	89.4	8.3	0.9755 µg/L	0.9755 ppb	21:44:38
2	Se 196.026†	9.9	-5.4	-1.96 µg/L	-1.96 ppb	21:44:38
2	SiO2†	1777.4	-3.4	-0.3192 µg/L	-0.3192 ppb	21:44:38
2	Si 251.611†	834.3	-4.8	-0.0658 µg/L	-0.0658 ppb	21:44:18
2	Sn 189.927†	1.7	2.8	0.1770 µg/L	0.1770 ppb	21:44:38
2	Ti 334.940†	895.6	-59.6	-0.0554 µg/L	-0.0554 ppb	21:44:18
2	Tl 190.801†	-122.5	-5.4	-0.6750 µg/L	-0.6750 ppb	21:44:38
2	U 409.014†	-282.1	-11.3	-0.7096 µg/L	-0.7096 ppb	21:44:18
2	V 292.402†	242.6	-162.0	-0.7943 µg/L	-0.7943 ppb	21:44:18
2	Zn 213.857†	573.6	7.4	0.0434 µg/L	0.0434 ppb	21:44:38
3	Sc RADIAL	144958.5	144958.5	99.3 %		21:43:14
3	Al 396.153Radial†	-37.5	25.5	4.7369 µg/L	4.7369 ppb	21:43:34
3	Ca 317.933Radial†	583.6	27.0	1.5021 µg/L	1.5021 ppb	21:43:34
3	Fe 238.204 Radial†	192.7	45.8	2.8253 µg/L	2.8253 ppb	21:43:34
3	K 766.490 Radial†	1497.6	-37.2	-13.616 µg/L	-13.616 ppb	21:43:14
3	Mg 279.077 IEC†	178.6	-10.9	-4.0718 µg/L	-4.0718 ppb	21:43:34
3	Na 589.592 Radial†	1440.0	158.8	21.708 µg/L	21.708 ppb	21:43:14
3	Sr 421.552†	-197.6	-63.6	-0.1322 µg/L	-0.1322 ppb	21:43:14
3	Sc 361.383	1740188.5	1740188.5	101.28 %		21:44:40
3	Y 371.029	1039891.9	1039891.9	101.29 %		21:44:40
3	Ag 328.068†	3928.5	-212.5	-0.7881 µg/L	-0.7881 ppb	21:44:42
3	As 188.979†	-8.6	11.9	3.6004 µg/L	3.6004 ppb	21:45:02
3	B 249.677†	3552.8	2.1	0.0294 µg/L	0.0294 ppb	21:44:42
3	Ba 233.527†	-133.9	3.6	0.0140 µg/L	0.0140 ppb	21:45:02
3	Be 313.107†	-962.7	114.2	0.0329 µg/L	0.0329 ppb	21:44:42
3	Cd 226.502†	-89.8	29.5	0.1840 µg/L	0.1840 ppb	21:45:02
3	Co 228.616†	-162.5	29.8	0.3679 µg/L	0.3679 ppb	21:45:02
3	Cr 267.716†	179.3	-1.5	-0.0165 µg/L	-0.0165 ppb	21:45:02
3	Cu 324.752†	2942.1	-67.2	-0.2559 µg/L	-0.2559 ppb	21:44:42
3	Mn 257.610†	335.1	93.6	0.1159 µg/L	0.1159 ppb	21:45:02
3	Mo 202.031†	-28.8	-8.4	-0.2468 µg/L	-0.2468 ppb	21:45:02
3	Ni 231.604†	-82.6	-5.1	-0.0583 µg/L	-0.0583 ppb	21:45:02
3	P 214.914†	-27.4	-9.1	-1.9410 µg/L	-1.9410 ppb	21:45:02
3	Pb 220.353†	64.5	-22.7	-1.2712 µg/L	-1.2712 ppb	21:45:02
3	S 181.975 Axial†	101.1	-5.2	-3.8697 µg/L	-3.8697 ppb	21:45:02
3	Sb 206.836†	85.4	3.5	0.4065 µg/L	0.4065 ppb	21:45:02
3	Se 196.026†	13.5	-2.0	-0.710 µg/L	-0.710 ppb	21:45:02
3	SiO2†	1812.3	14.0	1.3744 µg/L	1.3744 ppb	21:45:02
3	Si 251.611†	970.3	121.4	1.7924 µg/L	1.7924 ppb	21:44:42
3	Sn 189.927†	1.9	3.0	0.1856 µg/L	0.1856 ppb	21:45:02
3	Ti 334.940†	941.7	-22.7	-0.0233 µg/L	-0.0233 ppb	21:44:42
3	Tl 190.801†	-117.2	1.0	0.1129 µg/L	0.1129 ppb	21:45:02
3	U 409.014†	-171.3	100.7	5.8492 µg/L	5.8492 ppb	21:44:42
3	V 292.402†	265.0	-142.2	-0.6925 µg/L	-0.6925 ppb	21:44:42
3	Zn 213.857†	580.1	8.4	0.0472 µg/L	0.0472 ppb	21:45:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726594.5	100.49	%	0.718				0.71%
Sc RADIAL	143421.3	98.3	%	1.06				1.08%
Y 371.029	1032559.0	100.57	%	0.667				0.66%
Ag 328.068†	-32.7	-0.1280	µg/L	0.59056	-0.1280	ppb	0.59056	461.54%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.2	1.7231	µg/L	2.76540	1.7231	ppb	2.76540	160.49%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.5	2.5717	µg/L	1.02165	2.5717	ppb	1.02165	39.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	58.6	0.8625	µg/L	1.15748	0.8625	ppb	1.15748	134.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.5	-0.0186	µg/L	0.02870	-0.0186	ppb	0.02870	154.38%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	141.7	0.0385	µg/L	0.03721	0.0385	ppb	0.03721	96.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	44.4	2.4716	µg/L	1.46699	2.4716	ppb	1.46699	59.35%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	25.6	0.1591	µg/L	0.10748	0.1591	ppb	0.10748	67.54%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	30.9	0.3806	µg/L	0.06452	0.3806	ppb	0.06452	16.95%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.5      0.1132 µg/L       0.22191      0.1132 ppb        0.22191 195.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -48.6     -0.1883 µg/L       0.45884     -0.1883 ppb        0.45884 243.64%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       65.4      4.0316 µg/L       1.04544      4.0316 ppb        1.04544  25.93%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       119.2     43.647 µg/L       58.3112     43.647 ppb        58.3112 133.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -5.3     -1.9860 µg/L       1.83888     -1.9860 ppb        1.83888  92.59%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              77.1      0.0955 µg/L       0.03352      0.0955 ppb        0.03352  35.12%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -10.7     -0.3135 µg/L       0.14177     -0.3135 ppb        0.14177  45.22%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      194.8     26.570 µg/L        5.1349     26.570 ppb         5.1349  19.33%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -10.1     -0.1158 µg/L       0.13833     -0.1158 ppb        0.13833 119.49%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.2     -0.8857 µg/L       3.49964     -0.8857 ppb        3.49964 395.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.6     -0.3715 µg/L       0.81072     -0.3715 ppb        0.81072 218.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -13.9     -10.328 µg/L        5.8795     -10.328 ppb         5.8795  56.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.5      0.6419 µg/L       0.29695      0.6419 ppb        0.29695  46.26%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.3      -0.475 µg/L        1.6120      -0.475 ppb         1.6120 339.40%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     9.0      0.8862 µg/L       1.05021      0.8862 ppb        1.05021 118.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              71.9      1.0622 µg/L       0.99095      1.0622 ppb        0.99095  93.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.5      0.2794 µg/L       0.17000      0.2794 ppb        0.17000  60.84%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -91.2     -0.1896 µg/L       0.15021     -0.1896 ppb        0.15021  79.25%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -22.1     -0.0204 µg/L       0.03654     -0.0204 ppb        0.03654 179.40%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -5.1     -0.6309 µg/L       0.72270     -0.6309 ppb        0.72270 114.55%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -2.9     -0.2014 µg/L       5.81317     -0.2014 ppb        5.81317 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -110.8     -0.5437 µg/L       0.34967     -0.5437 ppb        0.34967  64.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              10.7      0.0607 µg/L       0.02675      0.0607 ppb        0.02675  44.07%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 68
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 21:55:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142583.3	142583.3	97.7	%			21:56:11
1	Al 396.153Radial†	26125.5	26801.9	4946.6	µg/L	4946.6	ppb	21:56:11
1	Ca 317.933Radial†	86256.4	87720.3	4886.4	µg/L	4886.4	ppb	21:56:11
1	Fe 238.204 Radial†	77373.7	79041.6	4871.6	µg/L	4871.6	ppb	21:56:11
1	K 766.490 Radial†	14581.9	13379.4	4894.4	µg/L	4894.4	ppb	21:56:11
1	Mg 279.077 IEC†	13220.1	13339.7	4977.8	µg/L	4977.8	ppb	21:56:11
1	Na 589.592 Radial†	70221.6	70578.9	9637.6	µg/L	9637.6	ppb	21:56:11
1	Sr 421.552†	231094.9	236654.1	491.95	µg/L	491.95	ppb	21:56:08
1	Sc 361.383	1721792.2	1721792.2	100.21	%			21:56:38
1	Y 371.029	1018476.9	1018476.9	99.200	%			21:56:38
1	Ag 328.068†	132257.1	127891.1	479.55	µg/L	479.55	ppb	21:56:38
1	As 188.979†	1611.5	1628.5	499.47	µg/L	499.47	ppb	21:56:58
1	B 249.677†	35480.1	31900.5	468.81	µg/L	468.81	ppb	21:56:38
1	Ba 233.527†	119040.9	118929.6	479.64	µg/L	479.64	ppb	21:56:38
1	Be 313.107†	1767471.5	1764866.8	480.67	µg/L	480.67	ppb	21:56:38
1	Cd 226.502†	76426.9	76386.5	476.83	µg/L	476.83	ppb	21:56:38
1	Co 228.616†	38708.1	38818.0	479.20	µg/L	479.20	ppb	21:56:38
1	Cr 267.716†	61091.8	60786.4	475.95	µg/L	475.95	ppb	21:56:38
1	Cu 324.752†	125542.2	122309.4	476.81	µg/L	476.81	ppb	21:56:38
1	Mn 257.610†	389445.6	388399.8	480.36	µg/L	480.36	ppb	21:56:38
1	Mo 202.031†	16429.4	16415.4	482.87	µg/L	482.87	ppb	21:56:58
1	Ni 231.604†	41557.9	41548.1	478.40	µg/L	478.40	ppb	21:56:38
1	P 214.914†	11328.9	11323.4	2413.6	µg/L	2413.6	ppb	21:56:58
1	Pb 220.353†	8812.2	8707.5	487.61	µg/L	487.61	ppb	21:56:58
1	S 181.975 Axial†	1392.1	1284.2	957.66	µg/L	957.66	ppb	21:56:58
1	Sb 206.836†	4144.5	4055.1	483.24	µg/L	483.24	ppb	21:56:58
1	Se 196.026†	1364.7	1346.6	489	µg/L	489	ppb	21:56:58
1	SiO2†	55188.2	53298.2	5188.7	µg/L	5188.7	ppb	21:56:38
1	Si 251.611†	166961.4	165778.2	2434.4	µg/L	2434.4	ppb	21:56:38
1	Sn 189.927†	7776.6	7761.6	485.47	µg/L	485.47	ppb	21:56:58
1	Ti 334.940†	514606.5	512585.6	478.27	µg/L	478.27	ppb	21:56:38
1	Tl 190.801†	3826.9	3935.6	490.75	µg/L	490.75	ppb	21:56:58
1	U 409.014†	7289.4	7544.1	470.15	µg/L	470.15	ppb	21:56:38
1	V 292.402†	98070.8	97463.4	481.83	µg/L	481.83	ppb	21:56:38
1	Zn 213.857†	85920.7	85177.9	474.72	µg/L	474.72	ppb	21:56:38
2	Sc RADIAL	143543.2	143543.2	98.4	%			21:56:15
2	Al 396.153Radial†	26329.4	26830.4	4951.8	µg/L	4951.8	ppb	21:56:15
2	Ca 317.933Radial†	87214.1	88103.5	4907.7	µg/L	4907.7	ppb	21:56:15
2	Fe 238.204 Radial†	78175.0	79326.6	4889.2	µg/L	4889.2	ppb	21:56:15
2	K 766.490 Radial†	14759.5	13460.1	4923.9	µg/L	4923.9	ppb	21:56:15
2	Mg 279.077 IEC†	13306.4	13336.9	4976.8	µg/L	4976.8	ppb	21:56:15
2	Na 589.592 Radial†	70918.2	70806.4	9668.6	µg/L	9668.6	ppb	21:56:15
2	Sr 421.552†	232565.2	236567.1	491.77	µg/L	491.77	ppb	21:56:13
2	Sc 361.383	1725354.7	1725354.7	100.42	%			21:57:01
2	Y 371.029	1021259.3	1021259.3	99.471	%			21:57:01
2	Ag 328.068†	133310.0	128667.2	482.44	µg/L	482.44	ppb	21:57:01
2	As 188.979†	1621.3	1635.0	501.47	µg/L	501.47	ppb	21:57:21
2	B 249.677†	36007.3	32352.4	475.47	µg/L	475.47	ppb	21:57:01
2	Ba 233.527†	119720.2	119360.8	481.38	µg/L	481.38	ppb	21:57:01
2	Be 313.107†	1782951.5	1776640.9	483.88	µg/L	483.88	ppb	21:57:01
2	Cd 226.502†	77092.6	76891.9	479.99	µg/L	479.99	ppb	21:57:01
2	Co 228.616†	39093.6	39122.2	482.96	µg/L	482.96	ppb	21:57:01
2	Cr 267.716†	61575.2	61141.9	478.73	µg/L	478.73	ppb	21:57:01
2	Cu 324.752†	126592.7	123096.8	479.87	µg/L	479.87	ppb	21:57:01
2	Mn 257.610†	393017.2	391154.2	483.76	µg/L	483.76	ppb	21:57:01
2	Mo 202.031†	16523.6	16475.3	484.63	µg/L	484.63	ppb	21:57:21
2	Ni 231.604†	41848.9	41752.3	480.75	µg/L	480.75	ppb	21:57:01
2	P 214.914†	11396.2	11367.0	2422.9	µg/L	2422.9	ppb	21:57:21
2	Pb 220.353†	8867.2	8744.1	489.65	µg/L	489.65	ppb	21:57:21

2	S 181.975 Axial†	1408.6	1297.7	967.74 µg/L	967.74 ppb	21:57:21
2	Sb 206.836†	4160.8	4062.8	484.14 µg/L	484.14 ppb	21:57:21
2	Se 196.026†	1350.1	1329.2	483 µg/L	483 ppb	21:57:21
2	SiO2†	55415.3	53410.7	5199.6 µg/L	5199.6 ppb	21:57:01
2	Si 251.611†	167453.3	165924.1	2436.5 µg/L	2436.5 ppb	21:57:01
2	Sn 189.927†	7843.1	7811.7	488.60 µg/L	488.60 ppb	21:57:21
2	Ti 334.940†	518046.3	514950.8	480.48 µg/L	480.48 ppb	21:57:01
2	Tl 190.801†	3874.0	3974.7	495.58 µg/L	495.58 ppb	21:57:21
2	U 409.014†	7327.0	7566.6	471.56 µg/L	471.56 ppb	21:57:01
2	V 292.402†	98567.7	97756.1	483.29 µg/L	483.29 ppb	21:57:01
2	Zn 213.857†	86827.5	85903.9	478.78 µg/L	478.78 ppb	21:57:01
3	Sc RADIAL	146360.8	146360.8	100 %		21:56:19
3	Al 396.153Radial†	26877.7	26861.7	4957.8 µg/L	4957.8 ppb	21:56:19
3	Ca 317.933Radial†	89496.1	88672.0	4939.4 µg/L	4939.4 ppb	21:56:19
3	Fe 238.204 Radial†	80024.7	79640.9	4908.6 µg/L	4908.6 ppb	21:56:19
3	K 766.490 Radial†	15000.5	13411.5	4906.1 µg/L	4906.1 ppb	21:56:19
3	Mg 279.077 IEC†	13753.4	13522.1	5045.7 µg/L	5045.7 ppb	21:56:19
3	Na 589.592 Radial†	72413.6	70909.6	9682.7 µg/L	9682.7 ppb	21:56:19
3	Sr 421.552†	230747.3	230203.0	478.54 µg/L	478.54 ppb	21:56:17
3	Sc 361.383	1718966.4	1718966.4	100.04 %		21:57:24
3	Y 371.029	1017028.5	1017028.5	99.059 %		21:57:24
3	Ag 328.068†	132653.9	128504.7	481.80 µg/L	481.80 ppb	21:57:24
3	As 188.979†	1590.5	1610.2	493.94 µg/L	493.94 ppb	21:57:44
3	B 249.677†	35824.6	32303.1	474.74 µg/L	474.74 ppb	21:57:24
3	Ba 233.527†	119070.9	119154.9	480.55 µg/L	480.55 ppb	21:57:24
3	Be 313.107†	1772306.3	1772598.9	482.78 µg/L	482.78 ppb	21:57:24
3	Cd 226.502†	76616.2	76701.1	478.79 µg/L	478.79 ppb	21:57:24
3	Co 228.616†	38830.3	39003.7	481.49 µg/L	481.49 ppb	21:57:24
3	Cr 267.716†	61234.2	61029.0	477.86 µg/L	477.86 ppb	21:57:24
3	Cu 324.752†	125521.6	122494.7	477.53 µg/L	477.53 ppb	21:57:24
3	Mn 257.610†	389961.8	389554.7	481.78 µg/L	481.78 ppb	21:57:24
3	Mo 202.031†	16335.5	16348.5	480.91 µg/L	480.91 ppb	21:57:44
3	Ni 231.604†	41630.1	41688.5	480.01 µg/L	480.01 ppb	21:57:24
3	P 214.914†	11241.7	11254.8	2398.9 µg/L	2398.9 ppb	21:57:44
3	Pb 220.353†	8795.7	8705.5	487.50 µg/L	487.50 ppb	21:57:44
3	S 181.975 Axial†	1388.4	1282.7	956.57 µg/L	956.57 ppb	21:57:44
3	Sb 206.836†	4126.6	4043.9	481.85 µg/L	481.85 ppb	21:57:44
3	Se 196.026†	1345.6	1329.7	483 µg/L	483 ppb	21:57:44
3	SiO2†	54983.2	53183.9	5177.6 µg/L	5177.6 ppb	21:57:24
3	Si 251.611†	166469.4	165560.3	2431.2 µg/L	2431.2 ppb	21:57:24
3	Sn 189.927†	7725.1	7722.8	483.05 µg/L	483.05 ppb	21:57:44
3	Ti 334.940†	514909.1	513732.3	479.34 µg/L	479.34 ppb	21:57:24
3	Tl 190.801†	3822.2	3937.2	490.94 µg/L	490.94 ppb	21:57:44
3	U 409.014†	7179.0	7445.8	464.34 µg/L	464.34 ppb	21:57:24
3	V 292.402†	97706.1	97259.8	480.82 µg/L	480.82 ppb	21:57:24
3	Zn 213.857†	86111.6	85509.7	476.57 µg/L	476.57 ppb	21:57:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1722037.8	100.22	%	0.186				0.19%
Sc RADIAL	144162.4	98.8	%	1.35				1.36%
Y 371.029	1018921.6	99.243	%	0.2094				0.21%
Ag 328.068†	128354.3	481.26	µg/L	1.519	481.26	ppb	1.519	0.32%
QC value within limits for Ag 328.068 Recovery = 96.25%								
Al 396.153Radial†	26831.3	4952.1	µg/L	5.59	4952.1	ppb	5.59	0.11%
QC value within limits for Al 396.153Radial Recovery = 99.04%								
As 188.979†	1624.5	498.29	µg/L	3.898	498.29	ppb	3.898	0.78%
QC value within limits for As 188.979 Recovery = 99.66%								
B 249.677†	32185.3	473.01	µg/L	3.650	473.01	ppb	3.650	0.77%
QC value within limits for B 249.677 Recovery = 94.60%								
Ba 233.527†	119148.4	480.52	µg/L	0.870	480.52	ppb	0.870	0.18%
QC value within limits for Ba 233.527 Recovery = 96.10%								
Be 313.107†	1771368.9	482.44	µg/L	1.629	482.44	ppb	1.629	0.34%
QC value within limits for Be 313.107 Recovery = 96.49%								
Ca 317.933Radial†	88165.3	4911.2	µg/L	26.67	4911.2	ppb	26.67	0.54%
QC value within limits for Ca 317.933Radial Recovery = 98.22%								
Cd 226.502†	76659.8	478.54	µg/L	1.594	478.54	ppb	1.594	0.33%
QC value within limits for Cd 226.502 Recovery = 95.71%								
Co 228.616†	38981.3	481.22	µg/L	1.892	481.22	ppb	1.892	0.39%

```
   QC value within limits for Co 228.616  Recovery = 96.24%
Cr 267.716†            60985.7      477.51 µg/L         1.423      477.51 ppb          1.423   0.30%
   QC value within limits for Cr 267.716  Recovery = 95.50%
Cu 324.752†           122633.6      478.07 µg/L         1.603      478.07 ppb          1.603   0.34%
   QC value within limits for Cu 324.752  Recovery = 95.61%
Fe 238.204 Radial†     79336.4      4889.8 µg/L         18.48      4889.8 ppb          18.48   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.80%
K 766.490 Radial†      13417.0      4908.2 µg/L         14.87      4908.2 ppb          14.87   0.30%
   QC value within limits for K 766.490 Radial  Recovery = 98.16%
Mg 279.077 IEC†        13399.6      5000.1 µg/L         39.49      5000.1 ppb          39.49   0.79%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.00%
Mn 257.610†           389702.9      481.97 µg/L         1.712      481.97 ppb          1.712   0.36%
   QC value within limits for Mn 257.610  Recovery = 96.39%
Mo 202.031†            16413.1      482.80 µg/L         1.864      482.80 ppb          1.864   0.39%
   QC value within limits for Mo 202.031  Recovery = 96.56%
Na 589.592 Radial†     70765.0      9663.0 µg/L         23.10      9663.0 ppb          23.10   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 96.63%
Ni 231.604†            41663.0      479.72 µg/L         1.203      479.72 ppb          1.203   0.25%
   QC value within limits for Ni 231.604  Recovery = 95.94%
P 214.914†             11315.0      2411.8 µg/L         12.10      2411.8 ppb          12.10   0.50%
   QC value within limits for P 214.914  Recovery = 96.47%
Pb 220.353†             8719.0      488.25 µg/L         1.215      488.25 ppb          1.215   0.25%
   QC value within limits for Pb 220.353  Recovery = 97.65%
S 181.975 Axial†        1288.2      960.66 µg/L         6.158      960.66 ppb          6.158   0.64%
   QC value within limits for S 181.975 Axial  Recovery = 96.07%
Sb 206.836†             4053.9      483.08 µg/L         1.155      483.08 ppb          1.155   0.24%
   QC value within limits for Sb 206.836  Recovery = 96.62%
Se 196.026†             1335.2         485 µg/L           3.6         485 ppb            3.6   0.74%
   QC value within limits for Se 196.026  Recovery = 96.96%
SiO2†                  53297.6      5188.7 µg/L         10.99      5188.7 ppb          10.99   0.21%
   QC value within limits for SiO2  Recovery = 97.03%
Si 251.611†           165754.2      2434.1 µg/L          2.66      2434.1 ppb           2.66   0.11%
   QC value within limits for Si 251.611  Recovery = 97.36%
Sn 189.927†             7765.4      485.71 µg/L         2.782      485.71 ppb          2.782   0.57%
   QC value within limits for Sn 189.927  Recovery = 97.14%
Sr 421.552†           234474.7      487.42 µg/L         7.692      487.42 ppb          7.692   1.58%
   QC value within limits for Sr 421.552  Recovery = 97.48%
Ti 334.940†           513756.2      479.37 µg/L         1.105      479.37 ppb          1.105   0.23%
   QC value within limits for Ti 334.940  Recovery = 95.87%
Tl 190.801†             3949.2      492.42 µg/L         2.733      492.42 ppb          2.733   0.56%
   QC value within limits for Tl 190.801  Recovery = 98.48%
U 409.014†              7518.8      468.68 µg/L         3.825      468.68 ppb          3.825   0.82%
   QC value within limits for U 409.014  Recovery = 93.74%
V 292.402†             97493.1      481.98 µg/L         1.241      481.98 ppb          1.241   0.26%
   QC value within limits for V 292.402  Recovery = 96.40%
Zn 213.857†            85530.5      476.69 µg/L         2.032      476.69 ppb          2.032   0.43%
   QC value within limits for Zn 213.857  Recovery = 95.34%
All analyte(s) passed QC.
```

Sequence No.: 69
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 21:57:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143488.6	143488.6	98.3	%			21:58:23
1	Al 396.153Radial†	-31.2	31.5	5.8461	µg/L	5.8461	ppb	21:58:43
1	Ca 317.933Radial†	626.0	76.1	4.2401	µg/L	4.2401	ppb	21:58:43
1	Fe 238.204 Radial†	255.1	111.3	6.8602	µg/L	6.8602	ppb	21:58:43
1	K 766.490 Radial†	1658.0	141.4	51.764	µg/L	51.764	ppb	21:58:23
1	Mg 279.077 IEC†	183.2	-4.4	-1.6504	µg/L	-1.6504	ppb	21:58:43
1	Na 589.592 Radial†	1420.1	153.5	20.919	µg/L	20.919	ppb	21:58:23
1	Sr 421.552†	-123.6	9.6	0.0200	µg/L	0.0200	ppb	21:58:23
1	Sc 361.383	1741228.6	1741228.6	101.34	%			21:59:30
1	Y 371.029	1041005.9	1041005.9	101.39	%			21:59:30
1	Ag 328.068†	3951.0	-192.6	-0.7198	µg/L	-0.7198	ppb	21:59:33
1	As 188.979†	-17.3	3.3	0.9894	µg/L	0.9894	ppb	21:59:53
1	B 249.677†	3598.6	45.2	0.6651	µg/L	0.6651	ppb	21:59:33
1	Ba 233.527†	-97.3	39.9	0.1606	µg/L	0.1606	ppb	21:59:53
1	Be 313.107†	-658.8	414.6	0.1114	µg/L	0.1114	ppb	21:59:33
1	Cd 226.502†	-98.4	21.1	0.1311	µg/L	0.1311	ppb	21:59:53
1	Co 228.616†	-161.8	30.7	0.3780	µg/L	0.3780	ppb	21:59:53
1	Cr 267.716†	182.4	1.5	0.0155	µg/L	0.0155	ppb	21:59:53
1	Cu 324.752†	3144.1	130.4	0.5038	µg/L	0.5038	ppb	21:59:33
1	Mn 257.610†	336.5	94.8	0.1174	µg/L	0.1174	ppb	21:59:53
1	Mo 202.031†	-24.2	-3.8	-0.1104	µg/L	-0.1104	ppb	21:59:53
1	Ni 231.604†	-79.3	-1.7	-0.0200	µg/L	-0.0200	ppb	21:59:53
1	P 214.914†	-16.3	1.8	0.3858	µg/L	0.3858	ppb	21:59:53
1	Pb 220.353†	84.1	-3.4	-0.1849	µg/L	-0.1849	ppb	21:59:53
1	S 181.975 Axial†	105.7	-0.8	-0.5879	µg/L	-0.5879	ppb	21:59:53
1	Sb 206.836†	91.1	9.1	1.0753	µg/L	1.0753	ppb	21:59:53
1	Se 196.026†	16.7	1.2	0.419	µg/L	0.419	ppb	21:59:53
1	SiO2†	1811.1	11.8	1.1639	µg/L	1.1639	ppb	21:59:53
1	Si 251.611†	939.6	90.6	1.3388	µg/L	1.3388	ppb	21:59:33
1	Sn 189.927†	-4.7	-3.6	-0.2217	µg/L	-0.2217	ppb	21:59:53
1	Ti 334.940†	1178.8	210.6	0.1990	µg/L	0.1990	ppb	21:59:33
1	Tl 190.801†	-99.6	18.4	2.2591	µg/L	2.2591	ppb	21:59:53
1	U 409.014†	-357.9	-83.3	-4.8719	µg/L	-4.8719	ppb	21:59:33
1	V 292.402†	400.4	-8.7	-0.0477	µg/L	-0.0477	ppb	21:59:33
1	Zn 213.857†	586.5	14.3	0.0794	µg/L	0.0794	ppb	21:59:53
2	Sc RADIAL	142543.2	142543.2	97.7	%			21:58:45
2	Al 396.153Radial†	-54.4	7.5	1.4064	µg/L	1.4064	ppb	21:59:05
2	Ca 317.933Radial†	611.6	65.6	3.6535	µg/L	3.6535	ppb	21:59:05
2	Fe 238.204 Radial†	253.5	111.4	6.8653	µg/L	6.8653	ppb	21:59:05
2	K 766.490 Radial†	1678.4	173.5	63.518	µg/L	63.518	ppb	21:58:45
2	Mg 279.077 IEC†	176.5	-10.0	-3.7286	µg/L	-3.7286	ppb	21:59:05
2	Na 589.592 Radial†	1442.2	185.7	25.313	µg/L	25.313	ppb	21:58:45
2	Sr 421.552†	-245.0	-115.6	-0.2403	µg/L	-0.2403	ppb	21:58:45
2	Sc 361.383	1719454.2	1719454.2	100.07	%			21:59:55
2	Y 371.029	1027865.1	1027865.1	100.11	%			21:59:55
2	Ag 328.068†	4168.7	74.3	0.2835	µg/L	0.2835	ppb	21:59:57
2	As 188.979†	-13.3	7.1	2.1498	µg/L	2.1498	ppb	22:00:17
2	B 249.677†	3486.4	-22.0	-0.3249	µg/L	-0.3249	ppb	21:59:57
2	Ba 233.527†	-114.3	21.7	0.0871	µg/L	0.0871	ppb	22:00:17
2	Be 313.107†	-912.6	152.8	0.0438	µg/L	0.0438	ppb	21:59:57
2	Cd 226.502†	-107.0	11.3	0.0695	µg/L	0.0695	ppb	22:00:17
2	Co 228.616†	-180.3	10.1	0.1246	µg/L	0.1246	ppb	22:00:17
2	Cr 267.716†	201.1	22.4	0.1701	µg/L	0.1701	ppb	22:00:17
2	Cu 324.752†	3016.0	41.6	0.1688	µg/L	0.1688	ppb	21:59:57
2	Mn 257.610†	311.1	73.6	0.0912	µg/L	0.0912	ppb	22:00:17
2	Mo 202.031†	-34.1	-14.0	-0.4113	µg/L	-0.4113	ppb	22:00:17
2	Ni 231.604†	-98.0	-21.4	-0.2463	µg/L	-0.2463	ppb	22:00:17
2	P 214.914†	-36.4	-18.4	-3.9363	µg/L	-3.9363	ppb	22:00:17
2	Pb 220.353†	83.9	-2.5	-0.1482	µg/L	-0.1482	ppb	22:00:17

2	S 181.975 Axial†	99.2	-5.9	-4.3840 µg/L	-4.3840 ppb	22:00:17
2	Sb 206.836†	64.9	-16.0	-1.9121 µg/L	-1.9121 ppb	22:00:17
2	Se 196.026†	15.3	0.0	0.021 µg/L	0.021 ppb	22:00:17
2	SiO2†	1788.3	11.6	1.1476 µg/L	1.1476 ppb	22:00:17
2	Si 251.611†	930.7	93.5	1.3835 µg/L	1.3835 ppb	21:59:57
2	Sn 189.927†	-0.8	0.3	0.0189 µg/L	0.0189 ppb	22:00:17
2	Ti 334.940†	1073.2	119.9	0.1093 µg/L	0.1093 ppb	21:59:57
2	Tl 190.801†	-128.3	-11.5	-1.4187 µg/L	-1.4187 ppb	22:00:17
2	U 409.014†	-143.3	126.7	7.4052 µg/L	7.4052 ppb	21:59:57
2	V 292.402†	396.1	-8.0	-0.0385 µg/L	-0.0385 ppb	21:59:57
2	Zn 213.857†	572.5	7.7	0.0442 µg/L	0.0442 ppb	22:00:17
3	Sc RADIAL	144454.1	144454.1	99.0 %		21:59:07
3	Al 396.153Radial†	-50.8	11.9	2.2219 µg/L	2.2219 ppb	21:59:27
3	Ca 317.933Radial†	619.6	65.3	3.6394 µg/L	3.6394 ppb	21:59:27
3	Fe 238.204 Radial†	231.3	85.6	5.2750 µg/L	5.2750 ppb	21:59:27
3	K 766.490 Radial†	1512.1	-17.2	-6.3033 µg/L	-6.3033 ppb	21:59:07
3	Mg 279.077 IEC†	192.0	3.2	1.1976 µg/L	1.1976 ppb	21:59:27
3	Na 589.592 Radial†	1347.2	70.1	9.5868 µg/L	9.5868 ppb	21:59:07
3	Sr 421.552†	-129.4	4.5	0.0094 µg/L	0.0094 ppb	21:59:07
3	Sc 361.383	1726759.9	1726759.9	100.50 %		22:00:19
3	Y 371.029	1032580.6	1032580.6	100.57 %		22:00:19
3	Ag 328.068†	4194.8	82.6	0.3040 µg/L	0.3040 ppb	22:00:21
3	As 188.979†	-19.7	0.7	0.2129 µg/L	0.2129 ppb	22:00:41
3	B 249.677†	3651.6	127.6	1.8815 µg/L	1.8815 ppb	22:00:21
3	Ba 233.527†	-116.8	19.7	0.0794 µg/L	0.0794 ppb	22:00:41
3	Be 313.107†	-870.8	198.2	0.0524 µg/L	0.0524 ppb	22:00:21
3	Cd 226.502†	-85.6	33.0	0.2057 µg/L	0.2057 ppb	22:00:41
3	Co 228.616†	-171.1	20.1	0.2475 µg/L	0.2475 ppb	22:00:41
3	Cr 267.716†	156.8	-22.6	-0.1724 µg/L	-0.1724 ppb	22:00:41
3	Cu 324.752†	2930.7	-56.0	-0.2209 µg/L	-0.2209 ppb	22:00:21
3	Mn 257.610†	308.3	69.5	0.0859 µg/L	0.0859 ppb	22:00:41
3	Mo 202.031†	-28.4	-8.1	-0.2389 µg/L	-0.2389 ppb	22:00:41
3	Ni 231.604†	-67.6	9.2	0.1060 µg/L	0.1060 ppb	22:00:41
3	P 214.914†	-14.4	3.6	0.7813 µg/L	0.7813 ppb	22:00:41
3	Pb 220.353†	81.9	-4.8	-0.2670 µg/L	-0.2670 ppb	22:00:41
3	S 181.975 Axial†	100.0	-5.5	-4.1081 µg/L	-4.1081 ppb	22:00:41
3	Sb 206.836†	58.7	-22.4	-2.6589 µg/L	-2.6589 ppb	22:00:41
3	Se 196.026†	9.4	-5.9	-2.14 µg/L	-2.14 ppb	22:00:41
3	SiO2†	1781.8	-2.4	-0.2353 µg/L	-0.2353 ppb	22:00:41
3	Si 251.611†	974.4	133.0	1.9607 µg/L	1.9607 ppb	22:00:21
3	Sn 189.927†	6.8	7.8	0.4886 µg/L	0.4886 ppb	22:00:41
3	Ti 334.940†	1012.5	55.0	0.0535 µg/L	0.0535 ppb	22:00:21
3	Tl 190.801†	-115.8	1.4	0.1780 µg/L	0.1780 ppb	22:00:41
3	U 409.014†	-360.3	-88.6	-5.1619 µg/L	-5.1619 ppb	22:00:21
3	V 292.402†	483.1	77.0	0.3681 µg/L	0.3681 ppb	22:00:21
3	Zn 213.857†	572.8	5.5	0.0300 µg/L	0.0300 ppb	22:00:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729147.6	100.64	%	0.645				0.64%
Sc RADIAL	143495.3	98.3	%	0.65				0.67%
Y 371.029	1033817.2	100.69	%	0.648				0.64%
Ag 328.068†	-11.9	-0.0441	µg/L	0.58526	-0.0441	ppb	0.58526	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	17.0	3.1581	µg/L	2.36331	3.1581	ppb	2.36331	74.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.7	1.1173	µg/L	0.97478	1.1173	ppb	0.97478	87.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.3	0.7405	µg/L	1.10513	0.7405	ppb	1.10513	149.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	27.1	0.1090	µg/L	0.04480	0.1090	ppb	0.04480	41.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	255.2	0.0692	µg/L	0.03680	0.0692	ppb	0.03680	53.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	69.0	3.8443	µg/L	0.34280	3.8443	ppb	0.34280	8.92%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	21.8	0.1354	µg/L	0.06821	0.1354	ppb	0.06821	50.36%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.3	0.2500	µg/L	0.12669	0.2500	ppb	0.12669	50.67%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.4      0.0044 µg/L       0.17156      0.0044 ppb        0.17156 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               38.7      0.1505 µg/L       0.36269      0.1505 ppb        0.36269 240.92%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       102.8      6.3335 µg/L       0.91666      6.3335 ppb        0.91666  14.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         99.2      36.326 µg/L       37.3832      36.326 ppb        37.3832 102.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -3.7     -1.3938 µg/L       2.47310     -1.3938 ppb        2.47310 177.43%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               79.3      0.0982 µg/L       0.01685      0.0982 ppb        0.01685  17.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -8.6     -0.2535 µg/L       0.15099     -0.2535 ppb        0.15099  59.56%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       136.4      18.606 µg/L        8.1142      18.606 ppb         8.1142  43.61%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -4.6     -0.0534 µg/L       0.17854     -0.0534 ppb        0.17854 334.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.3     -0.9231 µg/L       2.61701     -0.9231 ppb        2.61701 283.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -3.6     -0.2000 µg/L       0.06080     -0.2000 ppb        0.06080  30.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.1     -3.0267 µg/L       2.11654     -3.0267 ppb        2.11654  69.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -9.8     -1.1652 µg/L       1.97594     -1.1652 ppb        1.97594 169.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -1.6      -0.566 µg/L        1.3761      -0.566 ppb         1.3761 243.25%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      7.0      0.6921 µg/L       0.80317      0.6921 ppb        0.80317 116.05%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              105.7      1.5610 µg/L       0.34690      1.5610 ppb        0.34690  22.22%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.5      0.0953 µg/L       0.36125      0.0953 ppb        0.36125 379.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -33.8     -0.0703 µg/L       0.14733     -0.0703 ppb        0.14733 209.53%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              128.5      0.1206 µg/L       0.07341      0.1206 ppb        0.07341  60.86%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.8      0.3394 µg/L       1.84422      0.3394 ppb        1.84422 543.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -15.1     -0.8762 µg/L       7.17337     -0.8762 ppb        7.17337 818.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                20.1      0.0940 µg/L       0.23744      0.0940 ppb        0.23744 252.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                9.2      0.0512 µg/L       0.02545      0.0512 ppb        0.02545  49.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 77
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 22:12:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144265.2	144265.2	98.9	%			22:13:29
1	Al 396.153Radial†	26382.4	26750.0	4937.0	µg/L	4937.0	ppb	22:13:29
1	Ca 317.933Radial†	86791.9	87232.7	4859.2	µg/L	4859.2	ppb	22:13:29
1	Fe 238.204 Radial†	77447.1	78192.6	4819.3	µg/L	4819.3	ppb	22:13:29
1	K 766.490 Radial†	14619.5	13243.4	4844.7	µg/L	4844.7	ppb	22:13:29
1	Mg 279.077 IEC†	13211.3	13173.0	4915.8	µg/L	4915.8	ppb	22:13:29
1	Na 589.592 Radial†	70822.8	70349.2	9606.2	µg/L	9606.2	ppb	22:13:29
1	Sr 421.552†	230249.1	233041.1	484.44	µg/L	484.44	ppb	22:13:27
1	Sc 361.383	1718218.3	1718218.3	100.00	%			22:13:42
1	Y 371.029	1017558.5	1017558.5	99.111	%			22:13:42
1	Ag 328.068†	131861.6	127770.2	479.08	µg/L	479.08	ppb	22:13:42
1	As 188.979†	1610.7	1631.1	500.23	µg/L	500.23	ppb	22:14:02
1	B 249.677†	35422.2	31916.3	469.05	µg/L	469.05	ppb	22:13:42
1	Ba 233.527†	118202.1	118337.9	477.26	µg/L	477.26	ppb	22:13:42
1	Be 313.107†	1762457.8	1763521.9	480.31	µg/L	480.31	ppb	22:13:42
1	Cd 226.502†	75826.8	75945.0	474.08	µg/L	474.08	ppb	22:13:42
1	Co 228.616†	38510.6	38700.9	477.76	µg/L	477.76	ppb	22:13:42
1	Cr 267.716†	60814.9	60636.3	474.77	µg/L	474.77	ppb	22:13:42
1	Cu 324.752†	125406.1	122433.9	477.29	µg/L	477.29	ppb	22:13:42
1	Mn 257.610†	388459.2	388221.8	480.14	µg/L	480.14	ppb	22:13:42
1	Mo 202.031†	16438.1	16458.2	484.12	µg/L	484.12	ppb	22:14:02
1	Ni 231.604†	41348.4	41424.9	476.98	µg/L	476.98	ppb	22:13:42
1	P 214.914†	11268.3	11286.3	2405.7	µg/L	2405.7	ppb	22:14:02
1	Pb 220.353†	8791.6	8705.2	487.48	µg/L	487.48	ppb	22:14:02
1	S 181.975 Axial†	1392.6	1287.6	960.21	µg/L	960.21	ppb	22:14:02
1	Sb 206.836†	4153.0	4072.2	485.30	µg/L	485.30	ppb	22:14:02
1	Se 196.026†	1350.2	1334.9	485	µg/L	485	ppb	22:14:02
1	SiO2†	54803.6	53028.2	5162.3	µg/L	5162.3	ppb	22:13:42
1	Si 251.611†	165311.8	164475.2	2415.2	µg/L	2415.2	ppb	22:13:42
1	Sn 189.927†	7742.7	7743.8	484.36	µg/L	484.36	ppb	22:14:02
1	Ti 334.940†	513691.3	512738.5	478.42	µg/L	478.42	ppb	22:13:42
1	Tl 190.801†	3841.3	3958.0	493.49	µg/L	493.49	ppb	22:14:02
1	U 409.014†	7369.5	7639.3	475.58	µg/L	475.58	ppb	22:13:42
1	V 292.402†	97334.2	96930.4	479.25	µg/L	479.25	ppb	22:13:42
1	Zn 213.857†	85434.2	84869.8	473.01	µg/L	473.01	ppb	22:13:42
2	Sc RADIAL	145847.8	145847.8	99.9	%			22:13:33
2	Al 396.153Radial†	26431.3	26509.4	4892.7	µg/L	4892.7	ppb	22:13:33
2	Ca 317.933Radial†	87616.4	87105.0	4852.1	µg/L	4852.1	ppb	22:13:33
2	Fe 238.204 Radial†	78290.7	78186.6	4818.9	µg/L	4818.9	ppb	22:13:33
2	K 766.490 Radial†	14711.5	13175.0	4819.6	µg/L	4819.6	ppb	22:13:33
2	Mg 279.077 IEC†	13383.0	13199.9	4925.6	µg/L	4925.6	ppb	22:13:33
2	Na 589.592 Radial†	71537.8	70287.2	9597.8	µg/L	9597.8	ppb	22:13:33
2	Sr 421.552†	230007.1	230271.7	478.68	µg/L	478.68	ppb	22:13:31
2	Sc 361.383	1739608.4	1739608.4	101.24	%			22:14:05
2	Y 371.029	1028848.9	1028848.9	100.21	%			22:14:05
2	Ag 328.068†	134324.7	128581.6	482.14	µg/L	482.14	ppb	22:14:05
2	As 188.979†	1606.6	1607.2	493.02	µg/L	493.02	ppb	22:14:25
2	B 249.677†	36291.4	32339.3	475.28	µg/L	475.28	ppb	22:14:05
2	Ba 233.527†	120672.3	119324.3	481.23	µg/L	481.23	ppb	22:14:05
2	Be 313.107†	1801555.4	1780467.6	484.92	µg/L	484.92	ppb	22:14:05
2	Cd 226.502†	77540.6	76705.4	478.83	µg/L	478.83	ppb	22:14:05
2	Co 228.616†	39324.4	39031.1	481.84	µg/L	481.84	ppb	22:14:05
2	Cr 267.716†	61962.6	61022.1	477.79	µg/L	477.79	ppb	22:14:05
2	Cu 324.752†	127723.3	123180.5	480.19	µg/L	480.19	ppb	22:14:05
2	Mn 257.610†	396691.5	391576.4	484.29	µg/L	484.29	ppb	22:14:05
2	Mo 202.031†	16408.8	16227.1	477.33	µg/L	477.33	ppb	22:14:25
2	Ni 231.604†	42066.6	41625.8	479.29	µg/L	479.29	ppb	22:14:05
2	P 214.914†	11256.1	11135.6	2373.5	µg/L	2373.5	ppb	22:14:25
2	Pb 220.353†	8760.6	8566.5	479.72	µg/L	479.72	ppb	22:14:25

2	S 181.975 Axial†	1379.1	1257.1	937.49 µg/L	937.49 ppb	22:14:25
2	Sb 206.836†	4126.7	3995.1	476.00 µg/L	476.00 ppb	22:14:25
2	Se 196.026†	1344.9	1313.1	477 µg/L	477 ppb	22:14:25
2	SiO2†	55878.0	53415.5	5200.4 µg/L	5200.4 ppb	22:14:05
2	Si 251.611†	168787.2	165875.2	2436.0 µg/L	2436.0 ppb	22:14:05
2	Sn 189.927†	7780.5	7685.9	480.76 µg/L	480.76 ppb	22:14:25
2	Ti 334.940†	523148.0	515762.7	481.24 µg/L	481.24 ppb	22:14:05
2	Tl 190.801†	3840.1	3909.5	487.59 µg/L	487.59 ppb	22:14:25
2	U 409.014†	7476.8	7654.7	476.77 µg/L	476.77 ppb	22:14:05
2	V 292.402†	99532.4	97904.8	483.95 µg/L	483.95 ppb	22:14:05
2	Zn 213.857†	87491.3	85851.1	478.50 µg/L	478.50 ppb	22:14:05
3	Sc RADIAL	145510.3	145510.3	99.7 %		22:13:37
3	Al 396.153Radial†	26649.3	26789.4	4944.6 µg/L	4944.6 ppb	22:13:37
3	Ca 317.933Radial†	87905.2	87598.0	4879.6 µg/L	4879.6 ppb	22:13:37
3	Fe 238.204 Radial†	78514.4	78592.6	4844.0 µg/L	4844.0 ppb	22:13:37
3	K 766.490 Radial†	14626.3	13123.7	4800.8 µg/L	4800.8 ppb	22:13:37
3	Mg 279.077 IEC†	13367.9	13215.7	4931.5 µg/L	4931.5 ppb	22:13:37
3	Na 589.592 Radial†	71662.6	70578.3	9637.6 µg/L	9637.6 ppb	22:13:37
3	Sr 421.552†	228923.8	229719.0	477.53 µg/L	477.53 ppb	22:13:35
3	Sc 361.383	1738267.6	1738267.6	101.17 %		22:14:28
3	Y 371.029	1027936.3	1027936.3	100.12 %		22:14:28
3	Ag 328.068†	134212.1	128572.7	482.09 µg/L	482.09 ppb	22:14:28
3	As 188.979†	1598.1	1600.0	490.84 µg/L	490.84 ppb	22:14:48
3	B 249.677†	36163.6	32240.6	473.82 µg/L	473.82 ppb	22:14:28
3	Ba 233.527†	120556.5	119301.7	481.14 µg/L	481.14 ppb	22:14:28
3	Be 313.107†	1796851.1	1777190.1	484.03 µg/L	484.03 ppb	22:14:28
3	Cd 226.502†	77464.7	76689.4	478.73 µg/L	478.73 ppb	22:14:28
3	Co 228.616†	39399.0	39134.9	483.12 µg/L	483.12 ppb	22:14:28
3	Cr 267.716†	61725.8	60835.3	476.33 µg/L	476.33 ppb	22:14:28
3	Cu 324.752†	127349.1	122907.9	479.13 µg/L	479.13 ppb	22:14:28
3	Mn 257.610†	395160.9	390365.7	482.79 µg/L	482.79 ppb	22:14:28
3	Mo 202.031†	16361.5	16192.8	476.33 µg/L	476.33 ppb	22:14:48
3	Ni 231.604†	41980.9	41573.2	478.68 µg/L	478.68 ppb	22:14:28
3	P 214.914†	11184.1	11073.0	2360.1 µg/L	2360.1 ppb	22:14:48
3	Pb 220.353†	8741.7	8554.5	479.05 µg/L	479.05 ppb	22:14:48
3	S 181.975 Axial†	1393.5	1272.4	948.88 µg/L	948.88 ppb	22:14:48
3	Sb 206.836†	4119.1	3990.8	475.48 µg/L	475.48 ppb	22:14:48
3	Se 196.026†	1344.8	1314.0	477 µg/L	477 ppb	22:14:48
3	SiO2†	55631.5	53214.4	5180.9 µg/L	5180.9 ppb	22:14:28
3	Si 251.611†	168426.4	165647.1	2432.6 µg/L	2432.6 ppb	22:14:28
3	Sn 189.927†	7707.1	7619.3	476.60 µg/L	476.60 ppb	22:14:48
3	Ti 334.940†	521295.0	514329.6	479.91 µg/L	479.91 ppb	22:14:28
3	Tl 190.801†	3816.8	3889.5	485.09 µg/L	485.09 ppb	22:14:48
3	U 409.014†	7397.3	7581.9	472.42 µg/L	472.42 ppb	22:14:28
3	V 292.402†	99170.7	97623.1	482.55 µg/L	482.55 ppb	22:14:28
3	Zn 213.857†	87280.4	85709.2	477.71 µg/L	477.71 ppb	22:14:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732031.4	100.80	%	0.697				0.69%
Sc RADIAL	145207.8	99.5	%	0.57				0.57%
Y 371.029	1024781.2	99.814	%	0.6109				0.61%
Ag 328.068†	128308.2	481.10	µg/L	1.752	481.10	ppb	1.752	0.36%
QC value within limits for Ag 328.068 Recovery = 96.22%								
Al 396.153Radial†	26682.9	4924.7	µg/L	28.05	4924.7	ppb	28.05	0.57%
QC value within limits for Al 396.153Radial Recovery = 98.49%								
As 188.979†	1612.8	494.70	µg/L	4.918	494.70	ppb	4.918	0.99%
QC value within limits for As 188.979 Recovery = 98.94%								
B 249.677†	32165.4	472.71	µg/L	3.255	472.71	ppb	3.255	0.69%
QC value within limits for B 249.677 Recovery = 94.54%								
Ba 233.527†	118988.0	479.88	µg/L	2.269	479.88	ppb	2.269	0.47%
QC value within limits for Ba 233.527 Recovery = 95.98%								
Be 313.107†	1773726.5	483.09	µg/L	2.447	483.09	ppb	2.447	0.51%
QC value within limits for Be 313.107 Recovery = 96.62%								
Ca 317.933Radial†	87311.9	4863.6	µg/L	14.25	4863.6	ppb	14.25	0.29%
QC value within limits for Ca 317.933Radial Recovery = 97.27%								
Cd 226.502†	76446.6	477.21	µg/L	2.714	477.21	ppb	2.714	0.57%
QC value within limits for Cd 226.502 Recovery = 95.44%								
Co 228.616†	38955.6	480.91	µg/L	2.798	480.91	ppb	2.798	0.58%

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   QC value within limits for Co 228.616  Recovery = 96.18%
Cr 267.716†            60831.2      476.30 µg/L         1.512      476.30 ppb          1.512   0.32%
   QC value within limits for Cr 267.716  Recovery = 95.26%
Cu 324.752†           122840.8      478.87 µg/L         1.470      478.87 ppb          1.470   0.31%
   QC value within limits for Cu 324.752  Recovery = 95.77%
Fe 238.204 Radial†     78324.0      4827.4 µg/L         14.34      4827.4 ppb          14.34   0.30%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.55%
K 766.490 Radial†      13180.7      4821.7 µg/L         21.99      4821.7 ppb          21.99   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 96.43%
Mg 279.077 IEC†        13196.2      4924.3 µg/L          7.93      4924.3 ppb           7.93   0.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.49%
Mn 257.610†           390054.6      482.41 µg/L         2.102      482.41 ppb          2.102   0.44%
   QC value within limits for Mn 257.610  Recovery = 96.48%
Mo 202.031†            16292.7      479.26 µg/L         4.241      479.26 ppb          4.241   0.88%
   QC value within limits for Mo 202.031  Recovery = 95.85%
Na 589.592 Radial†     70404.9      9613.9 µg/L         20.97      9613.9 ppb          20.97   0.22%
   QC value within limits for Na 589.592 Radial  Recovery = 96.14%
Ni 231.604†            41541.3      478.32 µg/L         1.200      478.32 ppb          1.200   0.25%
   QC value within limits for Ni 231.604  Recovery = 95.66%
P 214.914†             11165.0      2379.7 µg/L         23.45      2379.7 ppb          23.45   0.99%
   QC value within limits for P 214.914  Recovery = 95.19%
Pb 220.353†             8608.8      482.08 µg/L         4.685      482.08 ppb          4.685   0.97%
   QC value within limits for Pb 220.353  Recovery = 96.42%
S 181.975 Axial†        1272.4      948.86 µg/L        11.360      948.86 ppb         11.360   1.20%
   QC value within limits for S 181.975 Axial  Recovery = 94.89%
Sb 206.836†             4019.3      478.92 µg/L         5.524      478.92 ppb          5.524   1.15%
   QC value within limits for Sb 206.836  Recovery = 95.78%
Se 196.026†             1320.7         480 µg/L           4.5         480 ppb            4.5   0.93%
   QC value within limits for Se 196.026  Recovery = 95.91%
SiO2†                  53219.4      5181.2 µg/L         19.05      5181.2 ppb          19.05   0.37%
   QC value within limits for SiO2  Recovery = 96.89%
Si 251.611†           165332.5      2427.9 µg/L         11.15      2427.9 ppb          11.15   0.46%
   QC value within limits for Si 251.611  Recovery = 97.12%
Sn 189.927†             7683.0      480.57 µg/L         3.879      480.57 ppb          3.879   0.81%
   QC value within limits for Sn 189.927  Recovery = 96.11%
Sr 421.552†           231010.6      480.22 µg/L         3.701      480.22 ppb          3.701   0.77%
   QC value within limits for Sr 421.552  Recovery = 96.04%
Ti 334.940†           514276.9      479.86 µg/L         1.412      479.86 ppb          1.412   0.29%
   QC value within limits for Ti 334.940  Recovery = 95.97%
Tl 190.801†             3919.0      488.72 µg/L         4.311      488.72 ppb          4.311   0.88%
   QC value within limits for Tl 190.801  Recovery = 97.74%
U 409.014†              7625.3      474.92 µg/L         2.247      474.92 ppb          2.247   0.47%
   QC value within limits for U 409.014  Recovery = 94.98%
V 292.402†             97486.1      481.92 µg/L         2.411      481.92 ppb          2.411   0.50%
   QC value within limits for V 292.402  Recovery = 96.38%
Zn 213.857†            85476.7      476.40 µg/L         2.970      476.40 ppb          2.970   0.62%
   QC value within limits for Zn 213.857  Recovery = 95.28%
All analyte(s) passed QC.
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Sequence No.: 78
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 22:14:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144616.5	144616.5	99.1	%			22:15:27
1	Al 396.153Radial†	-140.4	-78.5	-14.533	µg/L	-14.533	ppb	22:15:27
1	Ca 317.933Radial†	605.1	50.0	2.7853	µg/L	2.7853	ppb	22:15:47
1	Fe 238.204 Radial†	190.6	44.2	2.7255	µg/L	2.7255	ppb	22:15:47
1	K 766.490 Radial†	1690.5	161.1	58.992	µg/L	58.992	ppb	22:15:27
1	Mg 279.077 IEC†	189.8	0.8	0.2999	µg/L	0.2999	ppb	22:15:47
1	Na 589.592 Radial†	1316.3	37.4	5.0628	µg/L	5.0628	ppb	22:15:27
1	Sr 421.552†	-196.7	-63.2	-0.1315	µg/L	-0.1315	ppb	22:15:27
1	Sc 361.383	1731481.4	1731481.4	100.77	%			22:16:34
1	Y 371.029	1035707.2	1035707.2	100.88	%			22:16:34
1	Ag 328.068†	4207.6	84.0	0.3025	µg/L	0.3025	ppb	22:16:37
1	As 188.979†	-21.2	-0.7	-0.1971	µg/L	-0.1971	ppb	22:16:57
1	B 249.677†	3625.9	92.2	1.3590	µg/L	1.3590	ppb	22:16:37
1	Ba 233.527†	-157.7	-20.7	-0.0841	µg/L	-0.0841	ppb	22:16:57
1	Be 313.107†	-910.7	160.9	0.0444	µg/L	0.0444	ppb	22:16:37
1	Cd 226.502†	-114.4	4.7	0.0290	µg/L	0.0290	ppb	22:16:57
1	Co 228.616†	-176.3	15.4	0.1898	µg/L	0.1898	ppb	22:16:57
1	Cr 267.716†	195.1	15.0	0.1155	µg/L	0.1155	ppb	22:16:57
1	Cu 324.752†	2860.5	-133.6	-0.5170	µg/L	-0.5170	ppb	22:16:37
1	Mn 257.610†	321.7	82.0	0.1014	µg/L	0.1014	ppb	22:16:57
1	Mo 202.031†	-34.6	-14.3	-0.4198	µg/L	-0.4198	ppb	22:16:57
1	Ni 231.604†	-65.6	11.4	0.1312	µg/L	0.1312	ppb	22:16:57
1	P 214.914†	-28.4	-10.2	-2.1783	µg/L	-2.1783	ppb	22:16:57
1	Pb 220.353†	66.3	-20.6	-1.1536	µg/L	-1.1536	ppb	22:16:57
1	S 181.975 Axial†	101.3	-4.5	-3.3505	µg/L	-3.3505	ppb	22:16:57
1	Sb 206.836†	79.6	-1.9	-0.2288	µg/L	-0.2288	ppb	22:16:57
1	Se 196.026†	12.5	-2.8	-1.02	µg/L	-1.02	ppb	22:16:57
1	SiO2†	1786.4	-2.7	-0.2591	µg/L	-0.2591	ppb	22:16:57
1	Si 251.611†	1082.1	237.2	3.4988	µg/L	3.4988	ppb	22:16:37
1	Sn 189.927†	9.2	10.2	0.6390	µg/L	0.6390	ppb	22:16:57
1	Ti 334.940†	1075.1	114.3	0.1060	µg/L	0.1060	ppb	22:16:37
1	Tl 190.801†	-105.3	12.2	1.4953	µg/L	1.4953	ppb	22:16:57
1	U 409.014†	-238.6	33.2	1.8871	µg/L	1.8871	ppb	22:16:37
1	V 292.402†	220.7	-184.8	-0.9046	µg/L	-0.9046	ppb	22:16:37
1	Zn 213.857†	605.7	36.6	0.2048	µg/L	0.2048	ppb	22:16:57
2	Sc RADIAL	144344.2	144344.2	98.9	%			22:15:49
2	Al 396.153Radial†	-228.5	-167.8	-31.103	µg/L	-31.103	ppb	22:15:49
2	Ca 317.933Radial†	612.9	59.1	3.2922	µg/L	3.2922	ppb	22:16:09
2	Fe 238.204 Radial†	199.9	54.0	3.3254	µg/L	3.3254	ppb	22:16:09
2	K 766.490 Radial†	1458.2	-70.5	-25.815	µg/L	-25.815	ppb	22:15:49
2	Mg 279.077 IEC†	169.1	-19.8	-7.3659	µg/L	-7.3659	ppb	22:16:09
2	Na 589.592 Radial†	1297.4	20.8	2.8708	µg/L	2.8708	ppb	22:15:49
2	Sr 421.552†	-320.5	-188.8	-0.3925	µg/L	-0.3925	ppb	22:15:49
2	Sc 361.383	1722284.8	1722284.8	100.24	%			22:16:59
2	Y 371.029	1030621.8	1030621.8	100.38	%			22:16:59
2	Ag 328.068†	3896.9	-203.7	-0.7475	µg/L	-0.7475	ppb	22:17:01
2	As 188.979†	-7.9	12.5	3.7833	µg/L	3.7833	ppb	22:17:21
2	B 249.677†	3506.6	-7.6	-0.1120	µg/L	-0.1120	ppb	22:17:01
2	Ba 233.527†	-125.5	10.7	0.0428	µg/L	0.0428	ppb	22:17:21
2	Be 313.107†	-756.3	310.2	0.0866	µg/L	0.0866	ppb	22:17:01
2	Cd 226.502†	-110.8	7.7	0.0475	µg/L	0.0475	ppb	22:17:21
2	Co 228.616†	-191.9	-1.2	-0.0145	µg/L	-0.0145	ppb	22:17:21
2	Cr 267.716†	200.7	21.6	0.1639	µg/L	0.1639	ppb	22:17:21
2	Cu 324.752†	2989.4	10.2	0.0458	µg/L	0.0458	ppb	22:17:01
2	Mn 257.610†	314.3	76.3	0.0947	µg/L	0.0947	ppb	22:17:21
2	Mo 202.031†	-21.3	-1.1	-0.0337	µg/L	-0.0337	ppb	22:17:21
2	Ni 231.604†	-74.0	2.7	0.0313	µg/L	0.0313	ppb	22:17:21
2	P 214.914†	-16.7	1.3	0.2808	µg/L	0.2808	ppb	22:17:21
2	Pb 220.353†	91.3	4.7	0.2555	µg/L	0.2555	ppb	22:17:21

2	S 181.975 Axial†	95.8	-9.5	-7.0189 µg/L	-7.0189 ppb	22:17:21
2	Sb 206.836†	59.0	-22.0	-2.6184 µg/L	-2.6184 ppb	22:17:21
2	Se 196.026†	19.9	4.6	1.68 µg/L	1.68 ppb	22:17:21
2	SiO2†	1789.5	9.9	0.9655 µg/L	0.9655 ppb	22:17:21
2	Si 251.611†	1004.6	165.6	2.4397 µg/L	2.4397 ppb	22:17:01
2	Sn 189.927†	5.2	6.3	0.3919 µg/L	0.3919 ppb	22:17:21
2	Ti 334.940†	826.1	-128.4	-0.1222 µg/L	-0.1222 ppb	22:17:01
2	Tl 190.801†	-126.0	-9.1	-1.1150 µg/L	-1.1150 ppb	22:17:21
2	U 409.014†	-147.1	123.1	7.1898 µg/L	7.1898 ppb	22:17:01
2	V 292.402†	373.1	-31.5	-0.1489 µg/L	-0.1489 ppb	22:17:01
2	Zn 213.857†	593.5	27.6	0.1540 µg/L	0.1540 ppb	22:17:21
3	Sc RADIAL	145056.9	145056.9	99.4 %		22:16:11
3	Al 396.153Radial†	-231.1	-169.3	-31.367 µg/L	-31.367 ppb	22:16:11
3	Ca 317.933Radial†	599.6	42.6	2.3739 µg/L	2.3739 ppb	22:16:31
3	Fe 238.204 Radial†	195.6	48.6	2.9983 µg/L	2.9983 ppb	22:16:31
3	K 766.490 Radial†	1826.4	292.6	107.12 µg/L	107.12 ppb	22:16:11
3	Mg 279.077 IEC†	196.4	6.8	2.5372 µg/L	2.5372 ppb	22:16:31
3	Na 589.592 Radial†	1266.4	-16.8	-2.3909 µg/L	-2.3909 ppb	22:16:11
3	Sr 421.552†	-165.7	-31.4	-0.0654 µg/L	-0.0654 ppb	22:16:11
3	Sc 361.383	1742676.0	1742676.0	101.42 %		22:17:23
3	Y 371.029	1041139.7	1041139.7	101.41 %		22:17:23
3	Ag 328.068†	4264.5	113.3	0.4163 µg/L	0.4163 ppb	22:17:25
3	As 188.979†	-11.3	9.2	2.7834 µg/L	2.7834 ppb	22:17:45
3	B 249.677†	3554.8	-1.0	-0.0144 µg/L	-0.0144 ppb	22:17:25
3	Ba 233.527†	-135.5	2.2	0.0087 µg/L	0.0087 ppb	22:17:45
3	Be 313.107†	-714.6	360.1	0.0972 µg/L	0.0972 ppb	22:17:25
3	Cd 226.502†	-111.8	8.0	0.0493 µg/L	0.0493 ppb	22:17:45
3	Co 228.616†	-185.9	7.0	0.0867 µg/L	0.0867 ppb	22:17:45
3	Cr 267.716†	198.7	17.4	0.1382 µg/L	0.1382 ppb	22:17:45
3	Cu 324.752†	2855.8	-156.5	-0.6100 µg/L	-0.6100 ppb	22:17:25
3	Mn 257.610†	318.4	76.7	0.0948 µg/L	0.0948 ppb	22:17:45
3	Mo 202.031†	-37.1	-16.5	-0.4859 µg/L	-0.4859 ppb	22:17:45
3	Ni 231.604†	-94.7	-16.9	-0.1940 µg/L	-0.1940 ppb	22:17:45
3	P 214.914†	-18.0	0.2	0.0565 µg/L	0.0565 ppb	22:17:45
3	Pb 220.353†	70.5	-16.9	-0.9439 µg/L	-0.9439 ppb	22:17:45
3	S 181.975 Axial†	101.6	-4.9	-3.6429 µg/L	-3.6429 ppb	22:17:45
3	Sb 206.836†	72.7	-9.2	-1.0967 µg/L	-1.0967 ppb	22:17:45
3	Se 196.026†	9.5	-5.9	-2.14 µg/L	-2.14 ppb	22:17:45
3	SiO2†	1777.4	-22.9	-2.2297 µg/L	-2.2297 ppb	22:17:45
3	Si 251.611†	827.6	-20.5	-0.2986 µg/L	-0.2986 ppb	22:17:25
3	Sn 189.927†	4.4	5.4	0.3390 µg/L	0.3390 ppb	22:17:45
3	Ti 334.940†	1103.2	135.2	0.1273 µg/L	0.1273 ppb	22:17:25
3	Tl 190.801†	-112.8	5.5	0.6715 µg/L	0.6715 ppb	22:17:45
3	U 409.014†	-323.3	-48.8	-2.8536 µg/L	-2.8536 ppb	22:17:25
3	V 292.402†	418.1	8.4	0.0344 µg/L	0.0344 ppb	22:17:25
3	Zn 213.857†	602.9	30.0	0.1695 µg/L	0.1695 ppb	22:17:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732147.4	100.81	%	0.594				0.59%
Sc RADIAL	144672.5	99.1	%	0.25				0.25%
Y 371.029	1035822.9	100.89	%	0.512				0.51%
Ag 328.068†	-2.2	-0.0096	µg/L	0.64157	-0.0096	ppb	0.64157	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-138.5	-25.667	µg/L	9.6439	-25.667	ppb	9.6439	37.57%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	2.1232	µg/L	2.07069	2.1232	ppb	2.07069	97.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	27.9	0.4109	µg/L	0.82253	0.4109	ppb	0.82253	200.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.6	-0.0109	µg/L	0.06567	-0.0109	ppb	0.06567	605.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	277.1	0.0761	µg/L	0.02793	0.0761	ppb	0.02793	36.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	50.6	2.8171	µg/L	0.45995	2.8171	ppb	0.45995	16.33%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.8	0.0420	µg/L	0.01123	0.0420	ppb	0.01123	26.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.1	0.0873	µg/L	0.10216	0.0873	ppb	0.10216	116.98%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              18.0      0.1392 µg/L       0.02421      0.1392 ppb        0.02421  17.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -93.3     -0.3604 µg/L       0.35483     -0.3604 ppb        0.35483  98.44%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       48.9      3.0164 µg/L       0.30037      3.0164 ppb        0.30037   9.96%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       127.7     46.766 µg/L       67.3062     46.766 ppb        67.3062 143.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -4.0     -1.5096 µg/L       5.19362     -1.5096 ppb        5.19362 344.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              78.3      0.0969 µg/L       0.00386      0.0969 ppb        0.00386   3.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -10.7     -0.3132 µg/L       0.24424     -0.3132 ppb        0.24424  77.99%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       13.8      1.8476 µg/L       3.83078      1.8476 ppb        3.83078 207.34%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -0.9     -0.0105 µg/L       0.16660     -0.0105 ppb        0.16660 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.9     -0.6137 µg/L       1.35968     -0.6137 ppb        1.35968 221.57%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -10.9     -0.6140 µg/L       0.76029     -0.6140 ppb        0.76029 123.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -6.3     -4.6708 µg/L       2.03882     -4.6708 ppb        2.03882  43.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -11.0     -1.3147 µg/L       1.20959     -1.3147 ppb        1.20959  92.01%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.4      -0.495 µg/L        1.9625      -0.495 ppb         1.9625 396.16%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -5.2     -0.5078 µg/L       1.61206     -0.5078 ppb        1.61206 317.46%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             127.4      1.8800 µg/L       1.95958      1.8800 ppb        1.95958 104.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.3      0.4566 µg/L       0.16011      0.4566 ppb        0.16011  35.06%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -94.5     -0.1965 µg/L       0.17296     -0.1965 ppb        0.17296  88.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              40.4      0.0370 µg/L       0.13834      0.0370 ppb        0.13834 373.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.9      0.3506 µg/L       1.33442      0.3506 ppb        1.33442 380.62%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               35.8      2.0744 µg/L       5.02435      2.0744 ppb        5.02435 242.20%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -69.3     -0.3397 µg/L       0.49772     -0.3397 ppb        0.49772 146.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              31.4      0.1761 µg/L       0.02602      0.1761 ppb        0.02602  14.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 87
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 22:35:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146768.4	146768.4	101	%			22:35:57
1	Al 396.153Radial†	26541.6	26453.2	4882.0	µg/L	4882.0	ppb	22:35:57
1	Ca 317.933Radial†	87649.0	86587.6	4823.3	µg/L	4823.3	ppb	22:35:57
1	Fe 238.204 Radial†	78561.3	77964.3	4805.2	µg/L	4805.2	ppb	22:35:57
1	K 766.490 Radial†	14622.8	12994.5	4753.5	µg/L	4753.5	ppb	22:35:57
1	Mg 279.077 IEC†	13408.4	13141.1	4903.8	µg/L	4903.8	ppb	22:35:57
1	Na 589.592 Radial†	71672.4	69972.1	9554.8	µg/L	9554.8	ppb	22:35:57
1	Sr 421.552†	232413.6	231220.9	480.66	µg/L	480.66	ppb	22:35:55
1	Sc 361.383	1722923.1	1722923.1	100.27	%			22:36:24
1	Y 371.029	1019811.3	1019811.3	99.330	%			22:36:24
1	Ag 328.068†	132254.4	127801.8	479.17	µg/L	479.17	ppb	22:36:24
1	As 188.979†	1604.2	1620.1	496.89	µg/L	496.89	ppb	22:36:44
1	B 249.677†	35283.6	31681.3	465.60	µg/L	465.60	ppb	22:36:24
1	Ba 233.527†	118323.2	118135.9	476.44	µg/L	476.44	ppb	22:36:24
1	Be 313.107†	1761219.9	1757474.5	478.66	µg/L	478.66	ppb	22:36:24
1	Cd 226.502†	75730.6	75642.0	472.19	µg/L	472.19	ppb	22:36:24
1	Co 228.616†	38400.5	38485.9	475.11	µg/L	475.11	ppb	22:36:24
1	Cr 267.716†	60661.3	60317.0	472.27	µg/L	472.27	ppb	22:36:24
1	Cu 324.752†	125755.4	122439.8	477.30	µg/L	477.30	ppb	22:36:24
1	Mn 257.610†	387911.3	386614.6	478.15	µg/L	478.15	ppb	22:36:24
1	Mo 202.031†	16408.6	16383.8	481.94	µg/L	481.94	ppb	22:36:44
1	Ni 231.604†	41320.9	41284.6	475.36	µg/L	475.36	ppb	22:36:24
1	P 214.914†	11214.8	11202.1	2387.7	µg/L	2387.7	ppb	22:36:44
1	Pb 220.353†	8739.6	8629.4	483.24	µg/L	483.24	ppb	22:36:44
1	S 181.975 Axial†	1375.5	1266.7	944.65	µg/L	944.65	ppb	22:36:44
1	Sb 206.836†	4120.0	4027.9	480.04	µg/L	480.04	ppb	22:36:44
1	Se 196.026†	1343.5	1324.5	481	µg/L	481	ppb	22:36:44
1	SiO2†	54771.8	52846.8	5144.7	µg/L	5144.7	ppb	22:36:24
1	Si 251.611†	165253.5	163965.6	2407.7	µg/L	2407.7	ppb	22:36:24
1	Sn 189.927†	7717.2	7697.3	481.45	µg/L	481.45	ppb	22:36:44
1	Ti 334.940†	514309.0	511951.9	477.69	µg/L	477.69	ppb	22:36:24
1	Tl 190.801†	3827.4	3933.6	490.49	µg/L	490.49	ppb	22:36:44
1	U 409.014†	7235.3	7485.4	466.50	µg/L	466.50	ppb	22:36:24
1	V 292.402†	97370.2	96700.5	478.09	µg/L	478.09	ppb	22:36:24
1	Zn 213.857†	85150.2	84353.3	470.11	µg/L	470.11	ppb	22:36:24
2	Sc RADIAL	145116.2	145116.2	99.4	%			22:36:01
2	Al 396.153Radial†	26297.2	26507.8	4892.7	µg/L	4892.7	ppb	22:36:01
2	Ca 317.933Radial†	86940.1	86866.9	4838.8	µg/L	4838.8	ppb	22:36:01
2	Fe 238.204 Radial†	77803.3	78091.3	4813.1	µg/L	4813.1	ppb	22:36:01
2	K 766.490 Radial†	14545.6	13082.4	4785.7	µg/L	4785.7	ppb	22:36:01
2	Mg 279.077 IEC†	13274.5	13158.2	4909.9	µg/L	4909.9	ppb	22:36:01
2	Na 589.592 Radial†	70981.1	70088.2	9570.6	µg/L	9570.6	ppb	22:36:01
2	Sr 421.552†	232627.8	234067.2	486.57	µg/L	486.57	ppb	22:35:59
2	Sc 361.383	1750269.1	1750269.1	101.87	%			22:36:47
2	Y 371.029	1035573.7	1035573.7	100.87	%			22:36:47
2	Ag 328.068†	134676.3	128118.7	480.37	µg/L	480.37	ppb	22:36:47
2	As 188.979†	1582.5	1573.9	482.89	µg/L	482.89	ppb	22:37:07
2	B 249.677†	35971.3	31806.7	467.44	µg/L	467.44	ppb	22:36:47
2	Ba 233.527†	120638.2	118564.9	478.17	µg/L	478.17	ppb	22:36:47
2	Be 313.107†	1795938.6	1764115.6	480.47	µg/L	480.47	ppb	22:36:47
2	Cd 226.502†	77211.3	75915.5	473.90	µg/L	473.90	ppb	22:36:47
2	Co 228.616†	39183.6	38656.4	477.21	µg/L	477.21	ppb	22:36:47
2	Cr 267.716†	61805.5	60495.1	473.67	µg/L	473.67	ppb	22:36:47
2	Cu 324.752†	127636.0	122326.5	476.86	µg/L	476.86	ppb	22:36:47
2	Mn 257.610†	395566.1	388085.1	479.97	µg/L	479.97	ppb	22:36:47
2	Mo 202.031†	16264.4	15986.6	470.26	µg/L	470.26	ppb	22:37:07
2	Ni 231.604†	42110.5	41415.9	476.87	µg/L	476.87	ppb	22:36:47
2	P 214.914†	11123.1	10937.4	2331.1	µg/L	2331.1	ppb	22:37:07
2	Pb 220.353†	8695.2	8449.6	473.18	µg/L	473.18	ppb	22:37:07

2	S 181.975 Axial†	1380.2	1249.8	932.06 µg/L	932.06 ppb	22:37:07
2	Sb 206.836†	4108.8	3952.7	470.89 µg/L	470.89 ppb	22:37:07
2	Se 196.026†	1336.5	1296.8	471 µg/L	471 ppb	22:37:07
2	SiO2†	55876.6	53078.0	5167.8 µg/L	5167.8 ppb	22:36:47
2	Si 251.611†	168292.8	164374.4	2414.0 µg/L	2414.0 ppb	22:36:47
2	Sn 189.927†	7640.8	7502.0	469.28 µg/L	469.28 ppb	22:37:07
2	Ti 334.940†	522795.1	512268.9	477.98 µg/L	477.98 ppb	22:36:47
2	Tl 190.801†	3793.4	3840.6	479.07 µg/L	479.07 ppb	22:37:07
2	U 409.014†	7388.2	7522.7	468.79 µg/L	468.79 ppb	22:36:47
2	V 292.402†	99257.8	97036.4	479.62 µg/L	479.62 ppb	22:36:47
2	Zn 213.857†	87026.0	84867.9	472.99 µg/L	472.99 ppb	22:36:47
3	Sc RADIAL	145049.2	145049.2	99.4 %		22:36:05
3	Al 396.153Radial†	26335.5	26558.6	4901.9 µg/L	4901.9 ppb	22:36:05
3	Ca 317.933Radial†	86672.0	86637.6	4826.1 µg/L	4826.1 ppb	22:36:05
3	Fe 238.204 Radial†	77423.0	77745.0	4791.7 µg/L	4791.7 ppb	22:36:05
3	K 766.490 Radial†	14708.1	13252.7	4848.1 µg/L	4848.1 ppb	22:36:05
3	Mg 279.077 IEC†	13164.0	13053.2	4870.9 µg/L	4870.9 ppb	22:36:05
3	Na 589.592 Radial†	70826.5	69965.7	9553.9 µg/L	9553.9 ppb	22:36:05
3	Sr 421.552†	229385.5	230913.4	480.02 µg/L	480.02 ppb	22:36:03
3	Sc 361.383	1736886.0	1736886.0	101.09 %		22:37:10
3	Y 371.029	1026663.5	1026663.5	99.998 %		22:37:10
3	Ag 328.068†	133353.0	127828.3	479.31 µg/L	479.31 ppb	22:37:10
3	As 188.979†	1594.0	1597.2	489.96 µg/L	489.96 ppb	22:37:30
3	B 249.677†	35849.9	31958.7	469.68 µg/L	469.68 ppb	22:37:10
3	Ba 233.527†	119879.0	118726.4	478.82 µg/L	478.82 ppb	22:37:10
3	Be 313.107†	1785527.0	1767400.4	481.37 µg/L	481.37 ppb	22:37:10
3	Cd 226.502†	76637.4	75931.9	474.00 µg/L	474.00 ppb	22:37:10
3	Co 228.616†	38956.3	38727.9	478.10 µg/L	478.10 ppb	22:37:10
3	Cr 267.716†	61487.6	60648.2	474.86 µg/L	474.86 ppb	22:37:10
3	Cu 324.752†	126940.5	122603.9	477.95 µg/L	477.95 ppb	22:37:10
3	Mn 257.610†	392870.7	388410.8	480.37 µg/L	480.37 ppb	22:37:10
3	Mo 202.031†	16306.3	16151.1	475.10 µg/L	475.10 ppb	22:37:30
3	Ni 231.604†	41574.5	41204.2	474.44 µg/L	474.44 ppb	22:37:10
3	P 214.914†	11178.5	11076.3	2360.8 µg/L	2360.8 ppb	22:37:30
3	Pb 220.353†	8729.7	8549.5	478.76 µg/L	478.76 ppb	22:37:30
3	S 181.975 Axial†	1377.2	1257.3	937.66 µg/L	937.66 ppb	22:37:30
3	Sb 206.836†	4126.4	4001.2	476.72 µg/L	476.72 ppb	22:37:30
3	Se 196.026†	1332.7	1303.1	473 µg/L	473 ppb	22:37:30
3	SiO2†	55324.3	52954.3	5155.5 µg/L	5155.5 ppb	22:37:10
3	Si 251.611†	167461.4	164825.0	2420.5 µg/L	2420.5 ppb	22:37:10
3	Sn 189.927†	7692.4	7610.8	476.07 µg/L	476.07 ppb	22:37:30
3	Ti 334.940†	518784.6	512256.1	477.97 µg/L	477.97 ppb	22:37:10
3	Tl 190.801†	3813.8	3889.5	485.08 µg/L	485.08 ppb	22:37:30
3	U 409.014†	7519.5	7708.6	479.68 µg/L	479.68 ppb	22:37:10
3	V 292.402†	98557.8	97094.7	479.97 µg/L	479.97 ppb	22:37:10
3	Zn 213.857†	86550.8	85056.1	474.07 µg/L	474.07 ppb	22:37:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1736692.7	101.08	%	0.796				0.79%
Sc RADIAL	145644.6	99.8	%	0.67				0.67%
Y 371.029	1027349.5	100.06	%	0.770				0.77%
Ag 328.068†	127916.2	479.62	µg/L	0.654	479.62	ppb	0.654	0.14%
QC value within limits for Ag 328.068 Recovery = 95.92%								
Al 396.153Radial†	26506.5	4892.2	µg/L	9.94	4892.2	ppb	9.94	0.20%
QC value within limits for Al 396.153Radial Recovery = 97.84%								
As 188.979†	1597.1	489.91	µg/L	7.000	489.91	ppb	7.000	1.43%
QC value within limits for As 188.979 Recovery = 97.98%								
B 249.677†	31815.6	467.57	µg/L	2.043	467.57	ppb	2.043	0.44%
QC value within limits for B 249.677 Recovery = 93.51%								
Ba 233.527†	118475.7	477.81	µg/L	1.229	477.81	ppb	1.229	0.26%
QC value within limits for Ba 233.527 Recovery = 95.56%								
Be 313.107†	1762996.8	480.17	µg/L	1.379	480.17	ppb	1.379	0.29%
QC value within limits for Be 313.107 Recovery = 96.03%								
Ca 317.933Radial†	86697.4	4829.4	µg/L	8.30	4829.4	ppb	8.30	0.17%
QC value within limits for Ca 317.933Radial Recovery = 96.59%								
Cd 226.502†	75829.8	473.36	µg/L	1.017	473.36	ppb	1.017	0.21%
QC value within limits for Cd 226.502 Recovery = 94.67%								
Co 228.616†	38623.4	476.81	µg/L	1.535	476.81	ppb	1.535	0.32%

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   QC value within limits for Co 228.616  Recovery = 95.36%
Cr 267.716†            60486.8      473.60 µg/L         1.293      473.60 ppb          1.293   0.27%
   QC value within limits for Cr 267.716  Recovery = 94.72%
Cu 324.752†           122456.7      477.37 µg/L         0.545      477.37 ppb          0.545   0.11%
   QC value within limits for Cu 324.752  Recovery = 95.47%
Fe 238.204 Radial†     77933.5      4803.3 µg/L         10.80      4803.3 ppb          10.80   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.07%
K 766.490 Radial†      13109.8      4795.8 µg/L         48.06      4795.8 ppb          48.06   1.00%
   QC value within limits for K 766.490 Radial  Recovery = 95.92%
Mg 279.077 IEC†        13117.5      4894.9 µg/L         20.99      4894.9 ppb          20.99   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.90%
Mn 257.610†           387703.5      479.50 µg/L         1.185      479.50 ppb          1.185   0.25%
   QC value within limits for Mn 257.610  Recovery = 95.90%
Mo 202.031†            16173.9      475.77 µg/L         5.865      475.77 ppb          5.865   1.23%
   QC value within limits for Mo 202.031  Recovery = 95.15%
Na 589.592 Radial†     70008.7      9559.8 µg/L          9.43      9559.8 ppb           9.43   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 95.60%
Ni 231.604†            41301.6      475.56 µg/L         1.231      475.56 ppb          1.231   0.26%
   QC value within limits for Ni 231.604  Recovery = 95.11%
P 214.914†             11071.9      2359.9 µg/L         28.31      2359.9 ppb          28.31   1.20%
   QC value within limits for P 214.914  Recovery = 94.39%
Pb 220.353†             8542.8      478.39 µg/L         5.044      478.39 ppb          5.044   1.05%
   QC value within limits for Pb 220.353  Recovery = 95.68%
S 181.975 Axial†        1257.9      938.13 µg/L         6.311      938.13 ppb          6.311   0.67%
   QC value within limits for S 181.975 Axial  Recovery = 93.81%
Sb 206.836†             3994.0      475.89 µg/L         4.631      475.89 ppb          4.631   0.97%
   QC value within limits for Sb 206.836  Recovery = 95.18%
Se 196.026†             1308.1         475 µg/L           5.3         475 ppb            5.3   1.11%
   QC value within limits for Se 196.026  Recovery = 95.00%
SiO2†                  52959.7      5156.0 µg/L         11.56      5156.0 ppb          11.56   0.22%
   QC value within limits for SiO2  Recovery = 96.42%
Si 251.611†           164388.3      2414.1 µg/L          6.40      2414.1 ppb           6.40   0.27%
   QC value within limits for Si 251.611  Recovery = 96.56%
Sn 189.927†             7603.3      475.60 µg/L         6.099      475.60 ppb          6.099   1.28%
   QC value within limits for Sn 189.927  Recovery = 95.12%
Sr 421.552†           232067.2      482.42 µg/L         3.615      482.42 ppb          3.615   0.75%
   QC value within limits for Sr 421.552  Recovery = 96.48%
Ti 334.940†           512159.0      477.88 µg/L         0.166      477.88 ppb          0.166   0.03%
   QC value within limits for Ti 334.940  Recovery = 95.58%
Tl 190.801†             3887.9      484.88 µg/L         5.710      484.88 ppb          5.710   1.18%
   QC value within limits for Tl 190.801  Recovery = 96.98%
U 409.014†              7572.3      471.66 µg/L         7.041      471.66 ppb          7.041   1.49%
   QC value within limits for U 409.014  Recovery = 94.33%
V 292.402†             96943.8      479.22 µg/L         0.996      479.22 ppb          0.996   0.21%
   QC value within limits for V 292.402  Recovery = 95.84%
Zn 213.857†            84759.1      472.39 µg/L         2.045      472.39 ppb          2.045   0.43%
   QC value within limits for Zn 213.857  Recovery = 94.48%
All analyte(s) passed QC.
```

Sequence No.: 88
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 22:37:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146107.1	146107.1	100	%			22:38:09
1	Al 396.153Radial†	-28.6	34.6	6.4326	µg/L	6.4326	ppb	22:38:29
1	Ca 317.933Radial†	565.6	4.4	0.2431	µg/L	0.2431	ppb	22:38:29
1	Fe 238.204 Radial†	221.6	73.2	4.5130	µg/L	4.5130	ppb	22:38:29
1	K 766.490 Radial†	1670.7	123.9	45.355	µg/L	45.355	ppb	22:38:09
1	Mg 279.077 IEC†	188.3	-2.7	-1.0050	µg/L	-1.0050	ppb	22:38:29
1	Na 589.592 Radial†	1308.8	16.4	2.2067	µg/L	2.2067	ppb	22:38:09
1	Sr 421.552†	-138.0	-2.6	-0.0053	µg/L	-0.0053	ppb	22:38:09
1	Sc 361.383	1751605.7	1751605.7	101.94	%			22:39:16
1	Y 371.029	1046872.7	1046872.7	101.97	%			22:39:16
1	Ag 328.068†	3943.9	-222.7	-0.8222	µg/L	-0.8222	ppb	22:39:19
1	As 188.979†	-21.0	-0.2	-0.0602	µg/L	-0.0602	ppb	22:39:39
1	B 249.677†	3436.3	-135.1	-1.9931	µg/L	-1.9931	ppb	22:39:19
1	Ba 233.527†	-130.5	7.8	0.0313	µg/L	0.0313	ppb	22:39:39
1	Be 313.107†	-714.8	363.6	0.1002	µg/L	0.1002	ppb	22:39:19
1	Cd 226.502†	-97.0	23.1	0.1438	µg/L	0.1438	ppb	22:39:39
1	Co 228.616†	-170.5	23.0	0.2839	µg/L	0.2839	ppb	22:39:39
1	Cr 267.716†	208.7	26.1	0.2018	µg/L	0.2018	ppb	22:39:39
1	Cu 324.752†	2943.0	-85.3	-0.3274	µg/L	-0.3274	ppb	22:39:19
1	Mn 257.610†	329.7	86.2	0.1066	µg/L	0.1066	ppb	22:39:39
1	Mo 202.031†	-31.9	-11.2	-0.3304	µg/L	-0.3304	ppb	22:39:39
1	Ni 231.604†	-81.9	-3.9	-0.0443	µg/L	-0.0443	ppb	22:39:39
1	P 214.914†	-23.2	-4.8	-1.0060	µg/L	-1.0060	ppb	22:39:39
1	Pb 220.353†	102.8	14.4	0.8016	µg/L	0.8016	ppb	22:39:39
1	S 181.975 Axial†	97.2	-9.7	-7.2332	µg/L	-7.2332	ppb	22:39:39
1	Sb 206.836†	61.0	-21.0	-2.4992	µg/L	-2.4992	ppb	22:39:39
1	Se 196.026†	8.3	-7.1	-2.58	µg/L	-2.58	ppb	22:39:39
1	SiO2†	1795.0	-14.6	-1.4272	µg/L	-1.4272	ppb	22:39:39
1	Si 251.611†	1014.2	158.3	2.3344	µg/L	2.3344	ppb	22:39:19
1	Sn 189.927†	9.8	10.8	0.6712	µg/L	0.6712	ppb	22:39:39
1	Ti 334.940†	912.7	-57.2	-0.0550	µg/L	-0.0550	ppb	22:39:19
1	Tl 190.801†	-104.8	13.9	1.7060	µg/L	1.7060	ppb	22:39:39
1	U 409.014†	-207.3	66.5	3.8783	µg/L	3.8783	ppb	22:39:19
1	V 292.402†	371.1	-39.7	-0.1942	µg/L	-0.1942	ppb	22:39:19
1	Zn 213.857†	603.0	27.1	0.1525	µg/L	0.1525	ppb	22:39:39
2	Sc RADIAL	143516.2	143516.2	98.3	%			22:38:31
2	Al 396.153Radial†	-59.7	2.6	0.4739	µg/L	0.4739	ppb	22:38:51
2	Ca 317.933Radial†	574.3	23.4	1.3043	µg/L	1.3043	ppb	22:38:51
2	Fe 238.204 Radial†	211.6	67.1	4.1330	µg/L	4.1330	ppb	22:38:51
2	K 766.490 Radial†	1530.2	11.2	4.0876	µg/L	4.0876	ppb	22:38:31
2	Mg 279.077 IEC†	186.7	-0.9	-0.3295	µg/L	-0.3295	ppb	22:38:51
2	Na 589.592 Radial†	1309.3	40.6	5.5370	µg/L	5.5370	ppb	22:38:31
2	Sr 421.552†	-195.1	-63.1	-0.1312	µg/L	-0.1312	ppb	22:38:31
2	Sc 361.383	1725150.1	1725150.1	100.40	%			22:39:41
2	Y 371.029	1031944.0	1031944.0	100.51	%			22:39:41
2	Ag 328.068†	3865.7	-241.3	-0.8900	µg/L	-0.8900	ppb	22:39:43
2	As 188.979†	-15.4	5.0	1.5151	µg/L	1.5151	ppb	22:40:03
2	B 249.677†	3665.2	144.6	2.1317	µg/L	2.1317	ppb	22:39:43
2	Ba 233.527†	-135.5	0.9	0.0032	µg/L	0.0032	ppb	22:40:03
2	Be 313.107†	-881.3	187.0	0.0526	µg/L	0.0526	ppb	22:39:43
2	Cd 226.502†	-123.0	-4.3	-0.0274	µg/L	-0.0274	ppb	22:40:03
2	Co 228.616†	-162.8	28.2	0.3479	µg/L	0.3479	ppb	22:40:03
2	Cr 267.716†	195.8	16.5	0.1246	µg/L	0.1246	ppb	22:40:03
2	Cu 324.752†	2834.1	-149.5	-0.5757	µg/L	-0.5757	ppb	22:39:43
2	Mn 257.610†	312.2	73.7	0.0911	µg/L	0.0911	ppb	22:40:03
2	Mo 202.031†	-20.8	-0.7	-0.0196	µg/L	-0.0196	ppb	22:40:03
2	Ni 231.604†	-63.9	12.8	0.1478	µg/L	0.1478	ppb	22:40:03
2	P 214.914†	-29.3	-11.2	-2.4036	µg/L	-2.4036	ppb	22:40:03
2	Pb 220.353†	74.7	-12.0	-0.6719	µg/L	-0.6719	ppb	22:40:03

2	S 181.975 Axial†	114.1	8.6	6.4080 µg/L	6.4080 ppb	22:40:03
2	Sb 206.836†	83.7	2.5	0.2984 µg/L	0.2984 ppb	22:40:03
2	Se 196.026†	7.4	-7.9	-2.83 µg/L	-2.83 ppb	22:40:03
2	SiO2†	1757.4	-25.0	-2.4389 µg/L	-2.4389 ppb	22:40:03
2	Si 251.611†	1016.3	175.6	2.5912 µg/L	2.5912 ppb	22:39:43
2	Sn 189.927†	-5.9	-4.8	-0.2983 µg/L	-0.2983 ppb	22:40:03
2	Ti 334.940†	1008.8	52.2	0.0465 µg/L	0.0465 ppb	22:39:43
2	Tl 190.801†	-108.8	8.3	1.0191 µg/L	1.0191 ppb	22:40:03
2	U 409.014†	-175.4	95.2	5.5468 µg/L	5.5468 ppb	22:39:43
2	V 292.402†	347.2	-58.0	-0.2792 µg/L	-0.2792 ppb	22:39:43
2	Zn 213.857†	581.3	14.6	0.0808 µg/L	0.0808 ppb	22:40:03
3	Sc RADIAL	142981.4	142981.4	98.0 %		22:38:53
3	Al 396.153Radial†	-63.0	-1.1	-0.2113 µg/L	-0.2113 ppb	22:39:13
3	Ca 317.933Radial†	581.1	32.5	1.8108 µg/L	1.8108 ppb	22:39:13
3	Fe 238.204 Radial†	194.5	50.4	3.1050 µg/L	3.1050 ppb	22:39:13
3	K 766.490 Radial†	1679.9	169.7	62.139 µg/L	62.139 ppb	22:38:53
3	Mg 279.077 IEC†	195.7	9.0	3.3615 µg/L	3.3615 ppb	22:39:13
3	Na 589.592 Radial†	1209.6	-56.3	-7.7449 µg/L	-7.7449 ppb	22:38:53
3	Sr 421.552†	-420.0	-293.4	-0.6100 µg/L	-0.6100 ppb	22:38:53
3	Sc 361.383	1753013.9	1753013.9	102.03 %		22:40:05
3	Y 371.029	1047401.1	1047401.1	102.02 %		22:40:05
3	Ag 328.068†	4060.3	-111.6	-0.4113 µg/L	-0.4113 ppb	22:40:07
3	As 188.979†	-11.1	9.5	2.8753 µg/L	2.8753 ppb	22:40:27
3	B 249.677†	3619.9	42.1	0.6207 µg/L	0.6207 ppb	22:40:07
3	Ba 233.527†	-139.2	-0.6	-0.0023 µg/L	-0.0023 ppb	22:40:27
3	Be 313.107†	-869.8	212.1	0.0585 µg/L	0.0585 ppb	22:40:07
3	Cd 226.502†	-85.5	34.4	0.2145 µg/L	0.2145 ppb	22:40:27
3	Co 228.616†	-181.0	12.9	0.1588 µg/L	0.1588 ppb	22:40:27
3	Cr 267.716†	175.3	-6.8	-0.0550 µg/L	-0.0550 ppb	22:40:27
3	Cu 324.752†	3044.4	11.7	0.0483 µg/L	0.0483 ppb	22:40:07
3	Mn 257.610†	307.5	64.2	0.0793 µg/L	0.0793 ppb	22:40:27
3	Mo 202.031†	-12.0	8.3	0.2441 µg/L	0.2441 ppb	22:40:27
3	Ni 231.604†	-69.0	8.9	0.1028 µg/L	0.1028 ppb	22:40:27
3	P 214.914†	-27.3	-8.8	-1.8805 µg/L	-1.8805 ppb	22:40:27
3	Pb 220.353†	81.8	-6.2	-0.3453 µg/L	-0.3453 ppb	22:40:27
3	S 181.975 Axial†	99.7	-7.4	-5.4573 µg/L	-5.4573 ppb	22:40:27
3	Sb 206.836†	92.0	9.3	1.1113 µg/L	1.1113 ppb	22:40:27
3	Se 196.026†	22.0	6.3	2.27 µg/L	2.27 ppb	22:40:27
3	SiO2†	1796.0	-15.0	-1.4822 µg/L	-1.4822 ppb	22:40:27
3	Si 251.611†	1008.2	151.7	2.2299 µg/L	2.2299 ppb	22:40:07
3	Sn 189.927†	5.8	6.8	0.4238 µg/L	0.4238 ppb	22:40:27
3	Ti 334.940†	774.2	-193.7	-0.1822 µg/L	-0.1822 ppb	22:40:07
3	Tl 190.801†	-131.2	-12.0	-1.4719 µg/L	-1.4719 ppb	22:40:27
3	U 409.014†	-231.1	43.4	2.5310 µg/L	2.5310 ppb	22:40:07
3	V 292.402†	394.8	-16.8	-0.0781 µg/L	-0.0781 ppb	22:40:07
3	Zn 213.857†	584.2	8.2	0.0446 µg/L	0.0446 ppb	22:40:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1743256.5	101.46	%	0.914				0.90%
Sc RADIAL	144201.5	98.8	%	1.15				1.16%
Y 371.029	1042072.6	101.50	%	0.855				0.84%
Ag 328.068†	-191.9	-0.7079	µg/L	0.25904	-0.7079	ppb	0.25904	36.59%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.0	2.2317	µg/L	3.65416	2.2317	ppb	3.65416	163.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.8	1.4434	µg/L	1.46904	1.4434	ppb	1.46904	101.78%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	17.2	0.2531	µg/L	2.08681	0.2531	ppb	2.08681	824.51%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.7	0.0107	µg/L	0.01797	0.0107	ppb	0.01797	167.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	254.2	0.0704	µg/L	0.02593	0.0704	ppb	0.02593	36.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	20.1	1.1194	µg/L	0.80006	1.1194	ppb	0.80006	71.47%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.7	0.1103	µg/L	0.12437	0.1103	ppb	0.12437	112.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	21.4	0.2635	µg/L	0.09616	0.2635	ppb	0.09616	36.49%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              11.9      0.0905 µg/L       0.13175      0.0905 ppb        0.13175 145.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -74.4     -0.2849 µg/L       0.31418     -0.2849 ppb        0.31418 110.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       63.6      3.9170 µg/L       0.72840      3.9170 ppb        0.72840  18.60%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       101.6     37.194 µg/L       29.8738     37.194 ppb        29.8738  80.32%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.8      0.6757 µg/L       2.35038      0.6757 ppb        2.35038 347.86%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              74.7      0.0923 µg/L       0.01373      0.0923 ppb        0.01373  14.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -1.2     -0.0353 µg/L       0.28757     -0.0353 ppb        0.28757 814.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        0.2     -0.0004 µg/L       6.91054     -0.0004 ppb        6.91054 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               6.0      0.0687 µg/L       0.10050      0.0687 ppb        0.10050 146.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.3     -1.7634 µg/L       0.70616     -1.7634 ppb        0.70616  40.05%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -1.2     -0.0719 µg/L       0.77383     -0.0719 ppb        0.77383 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.8     -2.0942 µg/L       7.41644     -2.0942 ppb        7.41644 354.14%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.0     -0.3632 µg/L       1.89399     -0.3632 ppb        1.89399 521.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.9      -1.05 µg/L         2.877       -1.05 ppb          2.877 275.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -18.2     -1.7828 µg/L       0.56893     -1.7828 ppb        0.56893  31.91%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             161.9      2.3852 µg/L       0.18594      2.3852 ppb        0.18594   7.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.3      0.2656 µg/L       0.50378      0.2656 ppb        0.50378 189.70%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -119.7     -0.2488 µg/L       0.31901     -0.2488 ppb        0.31901 128.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -66.2     -0.0636 µg/L       0.11461     -0.0636 ppb        0.11461 180.26%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.4      0.4177 µg/L       1.67214      0.4177 ppb        1.67214 400.28%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               68.3      3.9854 µg/L       1.51076      3.9854 ppb        1.51076  37.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -38.2     -0.1839 µg/L       0.10096     -0.1839 ppb        0.10096  54.91%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              16.6      0.0927 µg/L       0.05489      0.0927 ppb        0.05489  59.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 96
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 22:56:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145631.0	145631.0	99.8	%			22:56:43
1	Al 396.153Radial†	26317.9	26435.1	4879.0	µg/L	4879.0	ppb	22:56:43
1	Ca 317.933Radial†	87097.4	86715.5	4830.4	µg/L	4830.4	ppb	22:56:43
1	Fe 238.204 Radial†	78015.7	78027.6	4809.1	µg/L	4809.1	ppb	22:56:43
1	K 766.490 Radial†	14649.7	13135.0	4805.0	µg/L	4805.0	ppb	22:56:43
1	Mg 279.077 IEC†	13278.4	13115.0	4893.9	µg/L	4893.9	ppb	22:56:43
1	Na 589.592 Radial†	71207.1	70062.4	9567.1	µg/L	9567.1	ppb	22:56:43
1	Sr 421.552†	231874.1	232485.1	483.29	µg/L	483.29	ppb	22:56:41
1	Sc 361.383	1757611.7	1757611.7	102.29	%			22:56:56
1	Y 371.029	1039190.8	1039190.8	101.22	%			22:56:56
1	Ag 328.068†	134897.1	127782.2	479.15	µg/L	479.15	ppb	22:56:56
1	As 188.979†	1621.9	1605.9	492.61	µg/L	492.61	ppb	22:57:16
1	B 249.677†	36392.3	32070.7	471.32	µg/L	471.32	ppb	22:56:56
1	Ba 233.527†	121741.3	119148.6	480.52	µg/L	480.52	ppb	22:56:56
1	Be 313.107†	1813624.8	1774040.0	483.17	µg/L	483.17	ppb	22:56:56
1	Cd 226.502†	78396.2	76757.2	479.15	µg/L	479.15	ppb	22:56:56
1	Co 228.616†	39678.3	38979.3	481.20	µg/L	481.20	ppb	22:56:56
1	Cr 267.716†	62522.7	60942.8	477.17	µg/L	477.17	ppb	22:56:56
1	Cu 324.752†	128539.8	122686.5	478.27	µg/L	478.27	ppb	22:56:56
1	Mn 257.610†	399485.0	390293.9	482.70	µg/L	482.70	ppb	22:56:56
1	Mo 202.031†	16513.7	16163.7	475.47	µg/L	475.47	ppb	22:57:16
1	Ni 231.604†	42651.4	41771.9	480.97	µg/L	480.97	ppb	22:56:56
1	P 214.914†	11360.0	11123.4	2370.9	µg/L	2370.9	ppb	22:57:16
1	Pb 220.353†	8842.6	8558.1	479.24	µg/L	479.24	ppb	22:57:16
1	S 181.975 Axial†	1375.6	1239.7	924.58	µg/L	924.58	ppb	22:57:16
1	Sb 206.836†	4166.7	3992.4	475.65	µg/L	475.65	ppb	22:57:16
1	Se 196.026†	1353.0	1307.4	475	µg/L	475	ppb	22:57:16
1	SiO2†	56776.4	53728.4	5231.1	µg/L	5231.1	ppb	22:56:56
1	Si 251.611†	171826.2	167138.4	2454.6	µg/L	2454.6	ppb	22:56:56
1	Sn 189.927†	7798.3	7624.6	476.93	µg/L	476.93	ppb	22:57:16
1	Ti 334.940†	526436.4	513684.7	479.31	µg/L	479.31	ppb	22:56:56
1	Tl 190.801†	3828.8	3859.7	481.43	µg/L	481.43	ppb	22:57:16
1	U 409.014†	7470.8	7573.2	471.86	µg/L	471.86	ppb	22:56:56
1	V 292.402†	100068.8	97422.2	481.57	µg/L	481.57	ppb	22:56:56
1	Zn 213.857†	87978.3	85442.0	476.19	µg/L	476.19	ppb	22:56:56
2	Sc RADIAL	144482.4	144482.4	99.0	%			22:56:47
2	Al 396.153Radial†	26344.0	26671.1	4922.7	µg/L	4922.7	ppb	22:56:47
2	Ca 317.933Radial†	86633.5	86940.8	4842.9	µg/L	4842.9	ppb	22:56:47
2	Fe 238.204 Radial†	77683.1	78313.2	4826.7	µg/L	4826.7	ppb	22:56:47
2	K 766.490 Radial†	14601.3	13202.8	4829.8	µg/L	4829.8	ppb	22:56:47
2	Mg 279.077 IEC†	13248.2	13190.2	4922.0	µg/L	4922.0	ppb	22:56:47
2	Na 589.592 Radial†	70771.3	70189.4	9584.4	µg/L	9584.4	ppb	22:56:47
2	Sr 421.552†	233206.6	235678.1	489.92	µg/L	489.92	ppb	22:56:45
2	Sc 361.383	1751539.4	1751539.4	101.94	%			22:57:19
2	Y 371.029	1035412.0	1035412.0	100.85	%			22:57:19
2	Ag 328.068†	134751.3	128096.4	480.32	µg/L	480.32	ppb	22:57:19
2	As 188.979†	1631.1	1620.5	497.03	µg/L	497.03	ppb	22:57:39
2	B 249.677†	36471.6	32271.9	474.29	µg/L	474.29	ppb	22:57:19
2	Ba 233.527†	121221.0	119050.7	480.13	µg/L	480.13	ppb	22:57:19
2	Be 313.107†	1805248.5	1771969.6	482.61	µg/L	482.61	ppb	22:57:19
2	Cd 226.502†	78107.8	76740.0	479.04	µg/L	479.04	ppb	22:57:19
2	Co 228.616†	39424.5	38864.8	479.79	µg/L	479.79	ppb	22:57:19
2	Cr 267.716†	62345.8	60981.1	477.48	µg/L	477.48	ppb	22:57:19
2	Cu 324.752†	127964.1	122557.5	477.76	µg/L	477.76	ppb	22:57:19
2	Mn 257.610†	398107.9	390296.9	482.71	µg/L	482.71	ppb	22:57:19
2	Mo 202.031†	16505.0	16211.0	476.86	µg/L	476.86	ppb	22:57:39
2	Ni 231.604†	42337.4	41608.5	479.09	µg/L	479.09	ppb	22:57:19
2	P 214.914†	11365.0	11166.7	2380.1	µg/L	2380.1	ppb	22:57:39
2	Pb 220.353†	8862.8	8607.8	482.03	µg/L	482.03	ppb	22:57:39

2	S 181.975 Axial†	1404.8	1273.1	949.37 µg/L	949.37 ppb	22:57:39
2	Sb 206.836†	4167.5	4007.4	477.45 µg/L	477.45 ppb	22:57:39
2	Se 196.026†	1357.3	1316.2	478 µg/L	478 ppb	22:57:39
2	SiO2†	56527.9	53677.1	5226.0 µg/L	5226.0 ppb	22:57:19
2	Si 251.611†	170943.4	166854.8	2450.4 µg/L	2450.4 ppb	22:57:19
2	Sn 189.927†	7812.4	7664.9	479.44 µg/L	479.44 ppb	22:57:39
2	Ti 334.940†	524724.5	513789.4	479.40 µg/L	479.40 ppb	22:57:19
2	Tl 190.801†	3882.8	3925.7	489.55 µg/L	489.55 ppb	22:57:39
2	U 409.014†	7388.4	7517.7	468.65 µg/L	468.65 ppb	22:57:19
2	V 292.402†	99869.4	97565.6	482.28 µg/L	482.28 ppb	22:57:19
2	Zn 213.857†	87691.1	85458.4	476.30 µg/L	476.30 ppb	22:57:19
3	Sc RADIAL	144138.2	144138.2	98.8 %		22:56:51
3	Al 396.153Radial†	26172.1	26560.6	4902.1 µg/L	4902.1 ppb	22:56:51
3	Ca 317.933Radial†	86609.0	87124.9	4853.2 µg/L	4853.2 ppb	22:56:51
3	Fe 238.204 Radial†	77490.8	78305.8	4826.3 µg/L	4826.3 ppb	22:56:51
3	K 766.490 Radial†	14542.9	13178.9	4821.0 µg/L	4821.0 ppb	22:56:51
3	Mg 279.077 IEC†	13135.4	13108.0	4891.4 µg/L	4891.4 ppb	22:56:51
3	Na 589.592 Radial†	70800.9	70390.1	9611.9 µg/L	9611.9 ppb	22:56:51
3	Sr 421.552†	232137.5	235158.2	488.84 µg/L	488.84 ppb	22:56:49
3	Sc 361.383	1748212.6	1748212.6	101.75 %		22:57:42
3	Y 371.029	1033770.3	1033770.3	100.69 %		22:57:42
3	Ag 328.068†	134805.9	128401.6	481.45 µg/L	481.45 ppb	22:57:42
3	As 188.979†	1610.5	1603.2	491.81 µg/L	491.81 ppb	22:58:02
3	B 249.677†	36492.0	32359.9	475.58 µg/L	475.58 ppb	22:57:42
3	Ba 233.527†	121511.9	119562.9	482.19 µg/L	482.19 ppb	22:57:42
3	Be 313.107†	1811861.4	1781839.1	485.29 µg/L	485.29 ppb	22:57:42
3	Cd 226.502†	78364.1	77137.8	481.53 µg/L	481.53 ppb	22:57:42
3	Co 228.616†	39460.6	38973.8	481.13 µg/L	481.13 ppb	22:57:42
3	Cr 267.716†	62297.9	61050.5	478.02 µg/L	478.02 ppb	22:57:42
3	Cu 324.752†	128147.5	122976.6	479.39 µg/L	479.39 ppb	22:57:42
3	Mn 257.610†	398765.2	391686.1	484.43 µg/L	484.43 ppb	22:57:42
3	Mo 202.031†	16552.7	16288.7	479.14 µg/L	479.14 ppb	22:58:02
3	Ni 231.604†	42492.4	41839.9	481.76 µg/L	481.76 ppb	22:57:42
3	P 214.914†	11389.8	11212.3	2389.9 µg/L	2389.9 ppb	22:58:02
3	Pb 220.353†	8877.9	8639.2	483.79 µg/L	483.79 ppb	22:58:02
3	S 181.975 Axial†	1392.1	1263.1	942.01 µg/L	942.01 ppb	22:58:02
3	Sb 206.836†	4168.0	4015.6	478.46 µg/L	478.46 ppb	22:58:02
3	Se 196.026†	1374.8	1335.9	485 µg/L	485 ppb	22:58:02
3	SiO2†	56586.5	53840.3	5241.9 µg/L	5241.9 ppb	22:57:42
3	Si 251.611†	171481.5	167702.7	2462.9 µg/L	2462.9 ppb	22:57:42
3	Sn 189.927†	7818.8	7685.8	480.75 µg/L	480.75 ppb	22:58:02
3	Ti 334.940†	524855.7	514897.9	480.44 µg/L	480.44 ppb	22:57:42
3	Tl 190.801†	3874.8	3925.0	489.48 µg/L	489.48 ppb	22:58:02
3	U 409.014†	7274.8	7419.8	462.99 µg/L	462.99 ppb	22:57:42
3	V 292.402†	99852.2	97735.2	483.13 µg/L	483.13 ppb	22:57:42
3	Zn 213.857†	87879.4	85807.2	478.24 µg/L	478.24 ppb	22:57:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1752454.6	101.99	%	0.277				0.27%
Sc RADIAL	144750.5	99.2	%	0.54				0.54%
Y 371.029	1036124.4	100.92	%	0.271				0.27%
Ag 328.068†	128093.4	480.30	µg/L	1.150	480.30	ppb	1.150	0.24%
QC value within limits for Ag 328.068 Recovery = 96.06%								
Al 396.153Radial†	26555.6	4901.2	µg/L	21.86	4901.2	ppb	21.86	0.45%
QC value within limits for Al 396.153Radial Recovery = 98.02%								
As 188.979†	1609.8	493.81	µg/L	2.810	493.81	ppb	2.810	0.57%
QC value within limits for As 188.979 Recovery = 98.76%								
B 249.677†	32234.2	473.73	µg/L	2.187	473.73	ppb	2.187	0.46%
QC value within limits for B 249.677 Recovery = 94.75%								
Ba 233.527†	119254.1	480.95	µg/L	1.096	480.95	ppb	1.096	0.23%
QC value within limits for Ba 233.527 Recovery = 96.19%								
Be 313.107†	1775949.6	483.69	µg/L	1.416	483.69	ppb	1.416	0.29%
QC value within limits for Be 313.107 Recovery = 96.74%								
Ca 317.933Radial†	86927.1	4842.2	µg/L	11.42	4842.2	ppb	11.42	0.24%
QC value within limits for Ca 317.933Radial Recovery = 96.84%								
Cd 226.502†	76878.3	479.91	µg/L	1.404	479.91	ppb	1.404	0.29%
QC value within limits for Cd 226.502 Recovery = 95.98%								
Co 228.616†	38939.3	480.71	µg/L	0.798	480.71	ppb	0.798	0.17%

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   QC value within limits for Co 228.616  Recovery = 96.14%
Cr 267.716†            60991.5      477.56 µg/L        0.432      477.56 ppb          0.432   0.09%
   QC value within limits for Cr 267.716  Recovery = 95.51%
Cu 324.752†           122740.2      478.47 µg/L        0.832      478.47 ppb          0.832   0.17%
   QC value within limits for Cu 324.752  Recovery = 95.69%
Fe 238.204 Radial†     78215.5      4820.7 µg/L        10.03      4820.7 ppb          10.03   0.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.41%
K 766.490 Radial†      13172.2      4818.6 µg/L        12.58      4818.6 ppb          12.58   0.26%
   QC value within limits for K 766.490 Radial  Recovery = 96.37%
Mg 279.077 IEC†        13137.7      4902.4 µg/L        16.98      4902.4 ppb          16.98   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.05%
Mn 257.610†           390759.0      483.28 µg/L        0.994      483.28 ppb          0.994   0.21%
   QC value within limits for Mn 257.610  Recovery = 96.66%
Mo 202.031†            16221.2      477.16 µg/L        1.856      477.16 ppb          1.856   0.39%
   QC value within limits for Mo 202.031  Recovery = 95.43%
Na 589.592 Radial†     70214.0      9587.8 µg/L        22.57      9587.8 ppb          22.57   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 95.88%
Ni 231.604†            41740.1      480.61 µg/L        1.369      480.61 ppb          1.369   0.28%
   QC value within limits for Ni 231.604  Recovery = 96.12%
P 214.914†             11167.5      2380.3 µg/L         9.50      2380.3 ppb           9.50   0.40%
   QC value within limits for P 214.914  Recovery = 95.21%
Pb 220.353†             8601.7      481.69 µg/L        2.292      481.69 ppb          2.292   0.48%
   QC value within limits for Pb 220.353  Recovery = 96.34%
S 181.975 Axial†        1258.6      938.65 µg/L       12.730      938.65 ppb         12.730   1.36%
   QC value within limits for S 181.975 Axial  Recovery = 93.87%
Sb 206.836†             4005.1      477.19 µg/L        1.420      477.19 ppb          1.420   0.30%
   QC value within limits for Sb 206.836  Recovery = 95.44%
Se 196.026†             1319.8         479 µg/L          5.3         479 ppb            5.3   1.10%
   QC value within limits for Se 196.026  Recovery = 95.85%
SiO2†                  53748.6      5233.0 µg/L         8.10      5233.0 ppb           8.10   0.15%
   QC value within limits for SiO2  Recovery = 97.86%
Si 251.611†           167232.0      2456.0 µg/L         6.34      2456.0 ppb           6.34   0.26%
   QC value within limits for Si 251.611  Recovery = 98.24%
Sn 189.927†             7658.4      479.04 µg/L        1.940      479.04 ppb          1.940   0.41%
   QC value within limits for Sn 189.927  Recovery = 95.81%
Sr 421.552†           234440.5      487.35 µg/L        3.562      487.35 ppb          3.562   0.73%
   QC value within limits for Sr 421.552  Recovery = 97.47%
Ti 334.940†           514124.0      479.72 µg/L        0.631      479.72 ppb          0.631   0.13%
   QC value within limits for Ti 334.940  Recovery = 95.94%
Tl 190.801†             3903.4      486.82 µg/L        4.666      486.82 ppb          4.666   0.96%
   QC value within limits for Tl 190.801  Recovery = 97.36%
U 409.014†              7503.6      467.83 µg/L        4.493      467.83 ppb          4.493   0.96%
   QC value within limits for U 409.014  Recovery = 93.57%
V 292.402†             97574.3      482.33 µg/L        0.781      482.33 ppb          0.781   0.16%
   QC value within limits for V 292.402  Recovery = 96.47%
Zn 213.857†            85569.2      476.91 µg/L        1.152      476.91 ppb          1.152   0.24%
   QC value within limits for Zn 213.857  Recovery = 95.38%
All analyte(s) passed QC.
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Sequence No.: 97
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 22:58:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141781.4	141781.4	97.2	%			22:58:41
1	Al 396.153Radial†	-65.9	-4.6	-0.8469	µg/L	-0.8469	ppb	22:59:01
1	Ca 317.933Radial†	606.5	63.7	3.5473	µg/L	3.5473	ppb	22:59:01
1	Fe 238.204 Radial†	221.5	79.9	4.9227	µg/L	4.9227	ppb	22:59:01
1	K 766.490 Radial†	1686.2	190.7	69.835	µg/L	69.835	ppb	22:58:41
1	Mg 279.077 IEC†	181.6	-3.8	-1.4362	µg/L	-1.4362	ppb	22:59:01
1	Na 589.592 Radial†	1287.3	34.2	4.6057	µg/L	4.6057	ppb	22:58:41
1	Sr 421.552†	-190.2	-60.5	-0.1257	µg/L	-0.1257	ppb	22:58:41
1	Sc 361.383	1743048.5	1743048.5	101.45	%			23:00:02
1	Y 371.029	1041073.0	1041073.0	101.40	%			23:00:02
1	Ag 328.068†	4154.9	4.3	0.0197	µg/L	0.0197	ppb	23:00:05
1	As 188.979†	-19.4	1.2	0.3644	µg/L	0.3644	ppb	23:00:25
1	B 249.677†	3572.5	15.7	0.2315	µg/L	0.2315	ppb	23:00:05
1	Ba 233.527†	-115.3	22.2	0.0893	µg/L	0.0893	ppb	23:00:25
1	Be 313.107†	-922.1	155.7	0.0428	µg/L	0.0428	ppb	23:00:05
1	Cd 226.502†	-111.2	8.6	0.0533	µg/L	0.0533	ppb	23:00:25
1	Co 228.616†	-179.8	13.1	0.1612	µg/L	0.1612	ppb	23:00:25
1	Cr 267.716†	180.6	-0.5	-0.0052	µg/L	-0.0052	ppb	23:00:25
1	Cu 324.752†	2865.9	-147.1	-0.5698	µg/L	-0.5698	ppb	23:00:05
1	Mn 257.610†	329.0	87.1	0.1078	µg/L	0.1078	ppb	23:00:25
1	Mo 202.031†	-23.8	-3.4	-0.1000	µg/L	-0.1000	ppb	23:00:25
1	Ni 231.604†	-90.2	-12.4	-0.1430	µg/L	-0.1430	ppb	23:00:25
1	P 214.914†	-18.9	-0.7	-0.1360	µg/L	-0.1360	ppb	23:00:25
1	Pb 220.353†	97.7	10.0	0.5542	µg/L	0.5542	ppb	23:00:25
1	S 181.975 Axial†	106.4	-0.2	-0.1288	µg/L	-0.1288	ppb	23:00:25
1	Sb 206.836†	101.1	18.9	2.2415	µg/L	2.2415	ppb	23:00:25
1	Se 196.026†	15.2	-0.3	-0.115	µg/L	-0.115	ppb	23:00:25
1	SiO2†	1920.2	117.5	11.486	µg/L	11.486	ppb	23:00:25
1	Si 251.611†	1352.7	496.8	7.3252	µg/L	7.3252	ppb	23:00:05
1	Sn 189.927†	0.5	1.6	0.0974	µg/L	0.0974	ppb	23:00:25
1	Ti 334.940†	839.4	-125.1	-0.1173	µg/L	-0.1173	ppb	23:00:05
1	Tl 190.801†	-111.8	6.4	0.7917	µg/L	0.7917	ppb	23:00:25
1	U 409.014†	-248.6	24.8	1.4614	µg/L	1.4614	ppb	23:00:05
1	V 292.402†	448.0	37.9	0.1842	µg/L	0.1842	ppb	23:00:05
1	Zn 213.857†	592.5	19.7	0.1113	µg/L	0.1113	ppb	23:00:25
2	Sc RADIAL	145003.3	145003.3	99.4	%			22:59:03
2	Al 396.153Radial†	-37.6	25.3	4.6756	µg/L	4.6756	ppb	22:59:23
2	Ca 317.933Radial†	575.8	18.9	1.0553	µg/L	1.0553	ppb	22:59:23
2	Fe 238.204 Radial†	212.8	66.1	4.0710	µg/L	4.0710	ppb	22:59:23
2	K 766.490 Radial†	1744.9	211.3	77.353	µg/L	77.353	ppb	22:59:03
2	Mg 279.077 IEC†	193.4	3.9	1.4593	µg/L	1.4593	ppb	22:59:23
2	Na 589.592 Radial†	1264.0	-18.7	-2.6277	µg/L	-2.6277	ppb	22:59:03
2	Sr 421.552†	-251.3	-117.6	-0.2446	µg/L	-0.2446	ppb	22:59:03
2	Sc 361.383	1760622.4	1760622.4	102.47	%			23:00:27
2	Y 371.029	1051993.8	1051993.8	102.46	%			23:00:27
2	Ag 328.068†	3995.9	-191.7	-0.7159	µg/L	-0.7159	ppb	23:00:29
2	As 188.979†	-7.1	13.4	4.0498	µg/L	4.0498	ppb	23:00:49
2	B 249.677†	3525.8	-65.0	-0.9588	µg/L	-0.9588	ppb	23:00:29
2	Ba 233.527†	-156.5	-16.9	-0.0684	µg/L	-0.0684	ppb	23:00:49
2	Be 313.107†	-952.5	135.1	0.0377	µg/L	0.0377	ppb	23:00:29
2	Cd 226.502†	-136.2	-14.7	-0.0924	µg/L	-0.0924	ppb	23:00:49
2	Co 228.616†	-206.8	-11.5	-0.1422	µg/L	-0.1422	ppb	23:00:49
2	Cr 267.716†	203.7	20.2	0.1559	µg/L	0.1559	ppb	23:00:49
2	Cu 324.752†	2945.2	-98.0	-0.3777	µg/L	-0.3777	ppb	23:00:29
2	Mn 257.610†	295.4	51.0	0.0631	µg/L	0.0631	ppb	23:00:49
2	Mo 202.031†	-5.0	15.2	0.4464	µg/L	0.4464	ppb	23:00:49
2	Ni 231.604†	-100.3	-21.4	-0.2461	µg/L	-0.2461	ppb	23:00:49
2	P 214.914†	-24.8	-6.2	-1.3412	µg/L	-1.3412	ppb	23:00:49
2	Pb 220.353†	104.7	15.8	0.8832	µg/L	0.8832	ppb	23:00:49

2	S 181.975 Axial†	95.9	-11.5	-8.5333 µg/L	-8.5333 ppb	23:00:49
2	Sb 206.836†	88.7	5.7	0.6835 µg/L	0.6835 ppb	23:00:49
2	Se 196.026†	21.7	5.9	2.15 µg/L	2.15 ppb	23:00:49
2	SiO2†	1898.9	77.8	7.5925 µg/L	7.5925 ppb	23:00:49
2	Si 251.611†	1381.8	512.0	7.5445 µg/L	7.5445 ppb	23:00:29
2	Sn 189.927†	-7.0	-5.7	-0.3531 µg/L	-0.3531 ppb	23:00:49
2	Ti 334.940†	1192.4	211.2	0.1959 µg/L	0.1959 ppb	23:00:29
2	Tl 190.801†	-124.7	-5.0	-0.6143 µg/L	-0.6143 ppb	23:00:49
2	U 409.014†	-223.7	51.6	2.9674 µg/L	2.9674 ppb	23:00:29
2	V 292.402†	244.3	-165.3	-0.7998 µg/L	-0.7998 ppb	23:00:29
2	Zn 213.857†	583.4	4.9	0.0292 µg/L	0.0292 ppb	23:00:49
3	Sc RADIAL	144406.4	144406.4	99.0 %		22:59:25
3	Al 396.153Radial†	-65.2	-2.7	-0.5137 µg/L	-0.5137 ppb	22:59:45
3	Ca 317.933Radial†	603.1	48.9	2.7231 µg/L	2.7231 ppb	22:59:45
3	Fe 238.204 Radial†	209.2	63.3	3.9000 µg/L	3.9000 ppb	22:59:45
3	K 766.490 Radial†	1469.9	-59.4	-21.748 µg/L	-21.748 ppb	22:59:25
3	Mg 279.077 IEC†	181.9	-6.9	-2.5712 µg/L	-2.5712 ppb	22:59:45
3	Na 589.592 Radial†	1182.1	-96.2	-13.128 µg/L	-13.128 ppb	22:59:25
3	Sr 421.552†	-255.8	-123.2	-0.2561 µg/L	-0.2561 ppb	22:59:25
3	Sc 361.383	1746264.7	1746264.7	101.63 %		23:00:51
3	Y 371.029	1044189.6	1044189.6	101.70 %		23:00:51
3	Ag 328.068†	4224.2	64.9	0.2383 µg/L	0.2383 ppb	23:00:53
3	As 188.979†	-13.6	7.0	2.1128 µg/L	2.1128 ppb	23:01:13
3	B 249.677†	3523.5	-39.0	-0.5757 µg/L	-0.5757 ppb	23:00:53
3	Ba 233.527†	-133.8	4.2	0.0170 µg/L	0.0170 ppb	23:01:13
3	Be 313.107†	-788.4	289.0	0.0783 µg/L	0.0783 ppb	23:00:53
3	Cd 226.502†	-90.0	29.6	0.1844 µg/L	0.1844 ppb	23:01:13
3	Co 228.616†	-170.7	22.4	0.2760 µg/L	0.2760 ppb	23:01:13
3	Cr 267.716†	211.8	29.8	0.2347 µg/L	0.2347 ppb	23:01:13
3	Cu 324.752†	2885.9	-132.7	-0.5161 µg/L	-0.5161 ppb	23:00:53
3	Mn 257.610†	381.2	137.9	0.1707 µg/L	0.1707 ppb	23:01:13
3	Mo 202.031†	-12.3	8.0	0.2345 µg/L	0.2345 ppb	23:01:13
3	Ni 231.604†	-88.3	-10.3	-0.1190 µg/L	-0.1190 ppb	23:01:13
3	P 214.914†	-16.7	1.5	0.3230 µg/L	0.3230 ppb	23:01:13
3	Pb 220.353†	101.8	13.8	0.7699 µg/L	0.7699 ppb	23:01:13
3	S 181.975 Axial†	95.5	-11.1	-8.2190 µg/L	-8.2190 ppb	23:01:13
3	Sb 206.836†	89.0	6.7	0.8032 µg/L	0.8032 ppb	23:01:13
3	Se 196.026†	12.4	-3.0	-1.09 µg/L	-1.09 ppb	23:01:13
3	SiO2†	1870.7	65.3	6.3610 µg/L	6.3610 ppb	23:01:13
3	Si 251.611†	1192.8	337.1	4.9610 µg/L	4.9610 ppb	23:00:53
3	Sn 189.927†	11.3	12.3	0.7657 µg/L	0.7657 ppb	23:01:13
3	Ti 334.940†	1019.6	50.7	0.0482 µg/L	0.0482 ppb	23:00:53
3	Tl 190.801†	-120.0	-1.4	-0.1679 µg/L	-0.1679 ppb	23:01:13
3	U 409.014†	-299.5	-24.8	-1.4500 µg/L	-1.4500 ppb	23:00:53
3	V 292.402†	406.4	-3.9	-0.0172 µg/L	-0.0172 ppb	23:00:53
3	Zn 213.857†	589.9	16.1	0.0909 µg/L	0.0909 ppb	23:01:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1749978.5	101.85	%	0.545				0.53%
Sc RADIAL	143730.4	98.5	%	1.17				1.19%
Y 371.029	1045752.1	101.86	%	0.548				0.54%
Ag 328.068†	-40.8	-0.1526	µg/L	0.49988	-0.1526	ppb	0.49988	327.49%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.0	1.1050	µg/L	3.09673	1.1050	ppb	3.09673	280.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.2	2.1757	µg/L	1.84349	2.1757	ppb	1.84349	84.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-29.4	-0.4343	µg/L	0.60762	-0.4343	ppb	0.60762	139.91%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.2	0.0126	µg/L	0.07891	0.0126	ppb	0.07891	623.91%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.3	0.0529	µg/L	0.02208	0.0529	ppb	0.02208	41.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	43.8	2.4419	µg/L	1.26955	2.4419	ppb	1.26955	51.99%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.8	0.0484	µg/L	0.13846	0.0484	ppb	0.13846	286.00%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.0	0.0983	µg/L	0.21607	0.0983	ppb	0.21607	219.74%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              16.5      0.1285 µg/L       0.12227      0.1285 ppb        0.12227  95.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -125.9     -0.4879 µg/L       0.09911     -0.4879 ppb        0.09911  20.31%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       69.7      4.2979 µg/L       0.54779      4.2979 ppb        0.54779  12.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       114.2     41.813 µg/L       55.1735     41.813 ppb        55.1735 131.95%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.3     -0.8494 µg/L       2.07835     -0.8494 ppb        2.07835 244.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              92.0      0.1138 µg/L       0.05404      0.1138 ppb        0.05404  47.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.6      0.1936 µg/L       0.27547      0.1936 ppb        0.27547 142.26%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -26.9     -3.7166 µg/L       8.91683     -3.7166 ppb        8.91683 239.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -14.7     -0.1693 µg/L       0.06752     -0.1693 ppb        0.06752  39.87%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.8     -0.3847 µg/L       0.85955     -0.3847 ppb        0.85955 223.42%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              13.2      0.7358 µg/L       0.16715      0.7358 ppb        0.16715  22.72%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -7.6     -5.6270 µg/L       4.76418     -5.6270 ppb        4.76418  84.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              10.4      1.2427 µg/L       0.86705      1.2427 ppb        0.86705  69.77%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.9       0.315 µg/L        1.6662       0.315 ppb         1.6662 528.34%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    86.8      8.4797 µg/L       2.67504      8.4797 ppb        2.67504  31.55%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             448.6      6.6103 µg/L       1.43246      6.6103 ppb        1.43246  21.67%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.7      0.1700 µg/L       0.56292      0.1700 ppb        0.56292 331.12%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -100.4     -0.2088 µg/L       0.07220     -0.2088 ppb        0.07220  34.57%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              45.6      0.0423 µg/L       0.15668      0.0423 ppb        0.15668 370.64%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.0      0.0032 µg/L       0.71841      0.0032 ppb        0.71841 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               17.2      0.9930 µg/L       2.24566      0.9930 ppb        2.24566 226.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -43.8     -0.2109 µg/L       0.51982     -0.2109 ppb        0.51982 246.42%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              13.5      0.0771 µg/L       0.04274      0.0771 ppb        0.04274  55.43%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 98
Sample ID: 1202068047|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 228
Date Collected: 3/31/2010 23:01:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068047|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144522.0	144522.0	99.0	%			23:01:53
1	Al 396.153Radial†	-100.6	-38.4	-7.0917	µg/L	-7.0917	ppb	23:01:53
1	Ca 317.933Radial†	1167.9	618.7	34.463	µg/L	34.463	ppb	23:02:13
1	Fe 238.204 Radial†	631.9	490.0	30.198	µg/L	30.198	ppb	23:02:13
1	K 766.490 Radial†	1688.7	160.4	58.702	µg/L	58.702	ppb	23:01:53
1	Mg 279.077 IEC†	195.6	6.8	2.4933	µg/L	2.4933	ppb	23:02:13
1	Na 589.592 Radial†	1394.3	117.1	15.939	µg/L	15.939	ppb	23:01:53
1	Sr 421.552†	-324.3	-192.2	-0.3998	µg/L	-0.3998	ppb	23:01:53
1	Sc 361.383	1748691.4	1748691.4	101.77	%			23:03:01
1	Y 371.029	1043637.1	1043637.1	101.65	%			23:03:01
1	Ag 328.068†	4241.4	76.1	0.2753	µg/L	0.2753	ppb	23:03:03
1	As 188.979†	-8.9	11.6	3.5186	µg/L	3.5186	ppb	23:03:23
1	B 249.677†	3598.8	30.2	0.4449	µg/L	0.4449	ppb	23:03:03
1	Ba 233.527†	-67.1	69.9	0.2806	µg/L	0.2806	ppb	23:03:23
1	Be 313.107†	-1113.2	-29.1	-0.0071	µg/L	-0.0071	ppb	23:03:03
1	Cd 226.502†	-112.2	8.0	0.0469	µg/L	0.0469	ppb	23:03:23
1	Co 228.616†	-182.5	11.0	0.1348	µg/L	0.1348	ppb	23:03:23
1	Cr 267.716†	200.3	18.2	0.1407	µg/L	0.1407	ppb	23:03:23
1	Cu 324.752†	3113.6	87.1	0.3456	µg/L	0.3456	ppb	23:03:03
1	Mn 257.610†	901.3	648.3	0.8020	µg/L	0.8020	ppb	23:03:23
1	Mo 202.031†	-38.7	-18.0	-0.5276	µg/L	-0.5276	ppb	23:03:23
1	Ni 231.604†	-40.9	36.3	0.4185	µg/L	0.4185	ppb	23:03:23
1	P 214.914†	0.0	18.0	3.8255	µg/L	3.8255	ppb	23:03:23
1	Pb 220.353†	93.2	5.2	0.2850	µg/L	0.2850	ppb	23:03:23
1	S 181.975 Axial†	110.5	3.5	2.5803	µg/L	2.5803	ppb	23:03:23
1	Sb 206.836†	80.5	-1.7	-0.2163	µg/L	-0.2163	ppb	23:03:23
1	Se 196.026†	12.7	-2.8	-0.996	µg/L	-0.996	ppb	23:03:23
1	SiO2†	2365.4	548.8	53.658	µg/L	53.658	ppb	23:03:03
1	Si 251.611†	2557.1	1676.0	24.717	µg/L	24.717	ppb	23:03:03
1	Sn 189.927†	-2.5	-1.3	-0.0830	µg/L	-0.0830	ppb	23:03:23
1	Ti 334.940†	1124.3	152.2	0.1417	µg/L	0.1417	ppb	23:03:03
1	Tl 190.801†	-109.7	8.9	1.0873	µg/L	1.0873	ppb	23:03:23
1	U 409.014†	-224.1	49.7	2.8619	µg/L	2.8619	ppb	23:03:03
1	V 292.402†	260.4	-147.9	-0.7279	µg/L	-0.7279	ppb	23:03:03
1	Zn 213.857†	1045.9	463.3	2.5961	µg/L	2.5961	ppb	23:03:23
2	Sc RADIAL	142748.1	142748.1	97.8	%			23:02:15
2	Al 396.153Radial†	-85.8	-24.5	-4.5220	µg/L	-4.5220	ppb	23:02:15
2	Ca 317.933Radial†	1164.5	629.9	35.089	µg/L	35.089	ppb	23:02:35
2	Fe 238.204 Radial†	633.6	499.6	30.794	µg/L	30.794	ppb	23:02:35
2	K 766.490 Radial†	1594.3	85.1	31.146	µg/L	31.146	ppb	23:02:15
2	Mg 279.077 IEC†	194.5	8.2	3.0083	µg/L	3.0083	ppb	23:02:35
2	Na 589.592 Radial†	1293.0	31.1	4.2170	µg/L	4.2170	ppb	23:02:15
2	Sr 421.552†	-245.6	-115.8	-0.2410	µg/L	-0.2410	ppb	23:02:15
2	Sc 361.383	1726467.8	1726467.8	100.48	%			23:03:25
2	Y 371.029	1030781.8	1030781.8	100.40	%			23:03:25
2	Ag 328.068†	3960.3	-150.0	-0.5731	µg/L	-0.5731	ppb	23:03:27
2	As 188.979†	-12.6	7.8	2.3560	µg/L	2.3560	ppb	23:03:47
2	B 249.677†	3587.3	64.2	0.9469	µg/L	0.9469	ppb	23:03:27
2	Ba 233.527†	-84.4	51.8	0.2078	µg/L	0.2078	ppb	23:03:47
2	Be 313.107†	-1173.0	-102.7	-0.0299	µg/L	-0.0299	ppb	23:03:27
2	Cd 226.502†	-114.2	4.5	0.0251	µg/L	0.0251	ppb	23:03:47
2	Co 228.616†	-178.0	13.1	0.1606	µg/L	0.1606	ppb	23:03:47
2	Cr 267.716†	200.2	20.7	0.1676	µg/L	0.1676	ppb	23:03:47
2	Cu 324.752†	3239.3	251.6	0.9772	µg/L	0.9772	ppb	23:03:27
2	Mn 257.610†	895.3	653.7	0.8087	µg/L	0.8087	ppb	23:03:47
2	Mo 202.031†	-30.4	-10.1	-0.2969	µg/L	-0.2969	ppb	23:03:47
2	Ni 231.604†	-72.9	4.0	0.0459	µg/L	0.0459	ppb	23:03:47
2	P 214.914†	-12.2	5.8	1.2249	µg/L	1.2249	ppb	23:03:47
2	Pb 220.353†	59.5	-27.2	-1.5146	µg/L	-1.5146	ppb	23:03:47

2	S 181.975 Axial†	107.4	1.8	1.3476 µg/L	1.3476 ppb	23:03:47
2	Sb 206.836†	69.0	-12.1	-1.4479 µg/L	-1.4479 ppb	23:03:47
2	Se 196.026†	8.1	-7.2	-2.60 µg/L	-2.60 ppb	23:03:47
2	SiO2†	2467.1	680.0	66.453 µg/L	66.453 ppb	23:03:27
2	Si 251.611†	2753.9	1904.2	28.070 µg/L	28.070 ppb	23:03:27
2	Sn 189.927†	17.8	18.8	1.1731 µg/L	1.1731 ppb	23:03:47
2	Ti 334.940†	1010.6	53.2	0.0530 µg/L	0.0530 ppb	23:03:27
2	Tl 190.801†	-108.8	8.4	1.0283 µg/L	1.0283 ppb	23:03:47
2	U 409.014†	-381.5	-109.8	-6.4623 µg/L	-6.4623 ppb	23:03:27
2	V 292.402†	258.2	-146.9	-0.7264 µg/L	-0.7264 ppb	23:03:27
2	Zn 213.857†	1051.0	481.6	2.7007 µg/L	2.7007 ppb	23:03:47
3	Sc RADIAL	144431.5	144431.5	99.0 %		23:02:37
3	Al 396.153Radial†	-37.1	25.7	4.7950 µg/L	4.7950 ppb	23:02:37
3	Ca 317.933Radial†	1157.7	609.1	33.931 µg/L	33.931 ppb	23:02:57
3	Fe 238.204 Radial†	614.9	473.2	29.165 µg/L	29.165 ppb	23:02:57
3	K 766.490 Radial†	1671.2	143.8	52.641 µg/L	52.641 ppb	23:02:37
3	Mg 279.077 IEC†	218.1	29.6	10.995 µg/L	10.995 ppb	23:02:57
3	Na 589.592 Radial†	1357.7	81.0	11.016 µg/L	11.016 ppb	23:02:37
3	Sr 421.552†	-217.8	-84.8	-0.1765 µg/L	-0.1765 ppb	23:02:37
3	Sc 361.383	1718046.7	1718046.7	99.990 %		23:03:50
3	Y 371.029	1026149.3	1026149.3	99.947 %		23:03:50
3	Ag 328.068†	4094.4	3.4	-0.0146 µg/L	-0.0146 ppb	23:03:52
3	As 188.979†	-10.8	9.6	2.8978 µg/L	2.8978 ppb	23:04:12
3	B 249.677†	3619.7	114.1	1.6830 µg/L	1.6830 ppb	23:03:52
3	Ba 233.527†	-71.2	64.6	0.2596 µg/L	0.2596 ppb	23:04:12
3	Be 313.107†	-1011.9	52.7	0.0086 µg/L	0.0086 ppb	23:03:52
3	Cd 226.502†	-96.5	21.6	0.1321 µg/L	0.1321 ppb	23:04:12
3	Co 228.616†	-181.5	8.8	0.1076 µg/L	0.1076 ppb	23:04:12
3	Cr 267.716†	218.5	39.9	0.3285 µg/L	0.3285 ppb	23:04:12
3	Cu 324.752†	3274.6	302.7	1.1652 µg/L	1.1652 ppb	23:03:52
3	Mn 257.610†	915.0	677.8	0.8382 µg/L	0.8382 ppb	23:04:12
3	Mo 202.031†	-42.1	-22.0	-0.6457 µg/L	-0.6457 ppb	23:04:12
3	Ni 231.604†	-77.4	-0.9	-0.0099 µg/L	-0.0099 ppb	23:04:12
3	P 214.914†	-1.7	16.2	3.4554 µg/L	3.4554 ppb	23:04:12
3	Pb 220.353†	61.5	-24.9	-1.3776 µg/L	-1.3776 ppb	23:04:12
3	S 181.975 Axial†	110.9	5.8	4.3137 µg/L	4.3137 ppb	23:04:12
3	Sb 206.836†	83.4	2.6	0.2993 µg/L	0.2993 ppb	23:04:12
3	Se 196.026†	14.6	-0.7	-0.262 µg/L	-0.262 ppb	23:04:12
3	SiO2†	2317.2	542.0	52.984 µg/L	52.984 ppb	23:03:52
3	Si 251.611†	2663.8	1827.5	26.945 µg/L	26.945 ppb	23:03:52
3	Sn 189.927†	13.4	14.5	0.9050 µg/L	0.9050 ppb	23:04:12
3	Ti 334.940†	1148.8	196.4	0.1912 µg/L	0.1912 ppb	23:03:52
3	Tl 190.801†	-124.1	-7.5	-0.9150 µg/L	-0.9150 ppb	23:04:12
3	U 409.014†	-596.6	-326.8	-19.118 µg/L	-19.118 ppb	23:03:52
3	V 292.402†	362.0	-41.8	-0.2254 µg/L	-0.2254 ppb	23:03:52
3	Zn 213.857†	1036.8	472.4	2.6501 µg/L	2.6501 ppb	23:04:12

Mean Data: 1202068047|963993|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1731068.6	100.75	%	0.921				0.91%
Sc RADIAL	143900.5	98.6	%	0.68				0.69%
Y 371.029	1033522.7	100.67	%	0.882				0.88%
Ag 328.068†	-23.5	-0.1041	µg/L	0.43123	-0.1041	ppb	0.43123	414.11%
Al 396.153Radial†	-12.4	-2.2729	µg/L	6.25435	-2.2729	ppb	6.25435	275.17%
As 188.979†	9.6	2.9241	µg/L	0.58175	2.9241	ppb	0.58175	19.89%
B 249.677†	69.5	1.0249	µg/L	0.62270	1.0249	ppb	0.62270	60.76%
Ba 233.527†	62.1	0.2493	µg/L	0.03746	0.2493	ppb	0.03746	15.02%
Be 313.107†	-26.3	-0.0095	µg/L	0.01935	-0.0095	ppb	0.01935	204.68%
Ca 317.933Radial†	619.2	34.494	µg/L	0.5794	34.494	ppb	0.5794	1.68%
Cd 226.502†	11.4	0.0680	µg/L	0.05658	0.0680	ppb	0.05658	83.17%
Co 228.616†	11.0	0.1343	µg/L	0.02651	0.1343	ppb	0.02651	19.74%
Cr 267.716†	26.3	0.2122	µg/L	0.10153	0.2122	ppb	0.10153	47.84%
Cu 324.752†	213.8	0.8293	µg/L	0.42937	0.8293	ppb	0.42937	51.77%
Fe 238.204 Radial†	487.6	30.052	µg/L	0.8245	30.052	ppb	0.8245	2.74%
K 766.490 Radial†	129.8	47.496	µg/L	14.4803	47.496	ppb	14.4803	30.49%
Mg 279.077 IEC†	14.9	5.4987	µg/L	4.76654	5.4987	ppb	4.76654	86.68%
Mn 257.610†	660.0	0.8163	µg/L	0.01926	0.8163	ppb	0.01926	2.36%
Mo 202.031†	-16.7	-0.4900	µg/L	0.17743	-0.4900	ppb	0.17743	36.21%
Na 589.592 Radial†	76.4	10.390	µg/L	5.8858	10.390	ppb	5.8858	56.65%

Ni 231.604†	13.2	0.1515	µg/L	0.23291	0.1515	ppb	0.23291 153.71%
P 214.914†	13.3	2.8353	µg/L	1.40681	2.8353	ppb	1.40681 49.62%
Pb 220.353†	-15.6	-0.8691	µg/L	1.00176	-0.8691	ppb	1.00176 115.27%
S 181.975 Axial†	3.7	2.7472	µg/L	1.49007	2.7472	ppb	1.49007 54.24%
Sb 206.836†	-3.7	-0.4550	µg/L	0.89773	-0.4550	ppb	0.89773 197.32%
Se 196.026†	-3.6	-1.29	µg/L	1.198	-1.29	ppb	1.198 93.07%
SiO2†	590.3	57.698	µg/L	7.5893	57.698	ppb	7.5893 13.15%
Si 251.611†	1802.6	26.577	µg/L	1.7065	26.577	ppb	1.7065 6.42%
Sn 189.927†	10.7	0.6650	µg/L	0.66155	0.6650	ppb	0.66155 99.48%
Sr 421.552†	-130.9	-0.2724	µg/L	0.11494	-0.2724	ppb	0.11494 42.19%
Ti 334.940†	133.9	0.1286	µg/L	0.07001	0.1286	ppb	0.07001 54.44%
Tl 190.801†	3.3	0.4002	µg/L	1.13934	0.4002	ppb	1.13934 284.70%
U 409.014†	-129.0	-7.5729	µg/L	11.03204	-7.5729	ppb	11.03204 145.68%
V 292.402†	-112.2	-0.5599	µg/L	0.28971	-0.5599	ppb	0.28971 51.74%
Zn 213.857†	472.4	2.6489	µg/L	0.05231	2.6489	ppb	0.05231 1.97%

Sequence No.: 99
Sample ID: 1202068052|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 229
Date Collected: 3/31/2010 23:04:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068052|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	148414.0	148414.0	102	%			23:04:52
1	Al 396.153Radial†	503634.6	495267.8	91798	µg/L	91798	ppb	23:04:52
1	Ca 317.933Radial†	1800106.2	1769414.8	98563	µg/L	98563	ppb	23:04:50
1	Fe 238.204 Radial†	2927871.3	2878715.4	177430	µg/L	177430	ppb	23:04:50
1	K 766.490 Radial†	114687.8	111223.3	40677	µg/L	40677	ppb	23:04:52
1	Mg 279.077 IEC†	103803.4	101875.2	37818	µg/L	37818	ppb	23:04:52
1	Na 589.592 Radial†	77340.8	74755.4	10176	µg/L	10176	ppb	23:04:52
1	Sr 421.552†	1147388.6	1128318.5	2344.9	µg/L	2344.9	ppb	23:04:50
1	Sc 361.383	1743418.7	1743418.7	101.47	%			23:05:21
1	Y 371.029	1124610.0	1124610.0	109.54	%			23:05:21
1	Ag 328.068†	83181.3	77887.5	297.82	µg/L	297.82	ppb	23:05:21
1	As 188.979†	3454.2	3424.6	1100.8	µg/L	1100.8	ppb	23:05:23
1	B 249.677†	108347.6	103275.6	1519.8	µg/L	1519.8	ppb	23:05:21
1	Ba 233.527†	490604.6	483648.8	1947.6	µg/L	1947.6	ppb	23:05:21
1	Be 313.107†	2964617.6	2922828.9	795.74	µg/L	795.74	ppb	23:05:21
1	Cd 226.502†	101171.2	99827.0	605.55	µg/L	605.55	ppb	23:05:21
1	Co 228.616†	79339.7	78383.2	960.14	µg/L	960.14	ppb	23:05:21
1	Cr 267.716†	325745.4	320858.2	2518.1	µg/L	2518.1	ppb	23:05:21
1	Cu 324.752†	479050.9	469154.0	1850.4	µg/L	1850.4	ppb	23:05:21
1	Mn 257.610†	4521221.8	4455630.5	5511.0	µg/L	5511.0	ppb	23:05:21
1	Mo 202.031†	17816.1	17578.7	524.74	µg/L	524.74	ppb	23:05:23
1	Ni 231.604†	124513.1	122789.8	1413.8	µg/L	1413.8	ppb	23:05:21
1	P 214.914†	37168.2	36648.8	7721.7	µg/L	7721.7	ppb	23:05:23
1	Pb 220.353†	14367.8	14073.7	794.15	µg/L	794.15	ppb	23:05:23
1	S 181.975 Axial†	5776.9	5588.4	4154.2	µg/L	4154.2	ppb	23:05:23
1	Sb 206.836†	10781.3	10544.6	1224.1	µg/L	1224.1	ppb	23:05:23
1	Se 196.026†	8126.7	7993.9	2950	µg/L	2950	ppb	23:05:23
1	SiO2†	898016.6	883260.4	86302	µg/L	86302	ppb	23:05:21
1	Si 251.611†	2767379.4	2726540.4	40183	µg/L	40183	ppb	23:05:21
1	Sn 189.927†	16585.5	16346.9	1038.5	µg/L	1038.5	ppb	23:05:23
1	Ti 334.940†	6273407.8	6181773.5	5774.2	µg/L	5774.2	ppb	23:05:21
1	Tl 190.801†	9394.3	9375.1	1228.5	µg/L	1228.5	ppb	23:05:23
1	U 409.014†	-5740.1	-5387.3	-247.01	µg/L	-247.01	ppb	23:05:21
1	V 292.402†	258138.1	254003.0	1231.0	µg/L	1231.0	ppb	23:05:21
1	Zn 213.857†	1078924.5	1062764.3	5944.6	µg/L	5944.6	ppb	23:05:21
2	Sc RADIAL	149297.3	149297.3	102	%			23:04:56
2	Al 396.153Radial†	507802.5	496411.8	92011	µg/L	92011	ppb	23:04:56
2	Ca 317.933Radial†	1799873.7	1758715.6	97967	µg/L	97967	ppb	23:04:54
2	Fe 238.204 Radial†	2926411.7	2860256.2	176290	µg/L	176290	ppb	23:04:54
2	K 766.490 Radial†	115972.8	111812.2	40892	µg/L	40892	ppb	23:04:56
2	Mg 279.077 IEC†	104671.9	102120.3	37910	µg/L	37910	ppb	23:04:56
2	Na 589.592 Radial†	77915.5	74867.2	10191	µg/L	10191	ppb	23:04:56
2	Sr 421.552†	1146459.1	1120735.1	2329.2	µg/L	2329.2	ppb	23:04:54
2	Sc 361.383	1740268.9	1740268.9	101.28	%			23:05:27
2	Y 371.029	1121415.7	1121415.7	109.23	%			23:05:27
2	Ag 328.068†	83115.5	77970.9	298.16	µg/L	298.16	ppb	23:05:27
2	As 188.979†	3453.7	3430.3	1102.2	µg/L	1102.2	ppb	23:05:29
2	B 249.677†	108259.7	103382.0	1521.4	µg/L	1521.4	ppb	23:05:27
2	Ba 233.527†	489084.7	483023.2	1945.1	µg/L	1945.1	ppb	23:05:27
2	Be 313.107†	2957631.7	2921219.6	795.30	µg/L	795.30	ppb	23:05:27
2	Cd 226.502†	100932.5	99771.7	605.32	µg/L	605.32	ppb	23:05:27
2	Co 228.616†	79132.4	78320.0	959.42	µg/L	959.42	ppb	23:05:27
2	Cr 267.716†	324962.0	320665.8	2516.6	µg/L	2516.6	ppb	23:05:27
2	Cu 324.752†	478581.4	469545.0	1851.8	µg/L	1851.8	ppb	23:05:27
2	Mn 257.610†	4511709.9	4454303.8	5509.3	µg/L	5509.3	ppb	23:05:27
2	Mo 202.031†	17547.6	17345.3	517.84	µg/L	517.84	ppb	23:05:29
2	Ni 231.604†	124336.5	122837.5	1414.4	µg/L	1414.4	ppb	23:05:27
2	P 214.914†	36729.4	36282.0	7644.0	µg/L	7644.0	ppb	23:05:29
2	Pb 220.353†	14045.1	13780.8	777.82	µg/L	777.82	ppb	23:05:29

2	S 181.975 Axial†	5645.5	5468.9	4065.4 µg/L	4065.4 ppb	23:05:29
2	Sb 206.836†	10749.0	10532.0	1222.5 µg/L	1222.5 ppb	23:05:29
2	Se 196.026†	8013.7	7896.9	2920 µg/L	2920 ppb	23:05:29
2	SiO2†	896001.0	882872.3	86265 µg/L	86265 ppb	23:05:27
2	Si 251.611†	2761119.7	2725296.4	40165 µg/L	40165 ppb	23:05:27
2	Sn 189.927†	16288.2	16083.0	1022.1 µg/L	1022.1 ppb	23:05:29
2	Ti 334.940†	6256695.5	6176463.0	5769.2 µg/L	5769.2 ppb	23:05:27
2	Tl 190.801†	9410.5	9408.0	1232.5 µg/L	1232.5 ppb	23:05:29
2	U 409.014†	-5496.8	-5157.2	-233.38 µg/L	-233.38 ppb	23:05:27
2	V 292.402†	257481.8	253815.4	1230.1 µg/L	1230.1 ppb	23:05:27
2	Zn 213.857†	1076322.7	1062120.0	5941.1 µg/L	5941.1 ppb	23:05:27
3	Sc RADIAL	147974.2	147974.2	101 %		23:05:01
3	Al 396.153Radial†	503654.4	496759.2	92075 µg/L	92075 ppb	23:05:01
3	Ca 317.933Radial†	1779316.2	1754172.8	97714 µg/L	97714 ppb	23:04:59
3	Fe 238.204 Radial†	2893673.3	2853546.5	175880 µg/L	175880 ppb	23:04:59
3	K 766.490 Radial†	114847.9	111716.4	40857 µg/L	40857 ppb	23:05:01
3	Mg 279.077 IEC†	103739.8	102115.9	37909 µg/L	37909 ppb	23:05:01
3	Na 589.592 Radial†	77458.9	75097.9	10223 µg/L	10223 ppb	23:05:01
3	Sr 421.552†	1138030.5	1122442.9	2332.7 µg/L	2332.7 ppb	23:04:59
3	Sc 361.383	1744340.6	1744340.6	101.52 %		23:05:33
3	Y 371.029	1124577.6	1124577.6	109.53 %		23:05:33
3	Ag 328.068†	83164.8	77827.9	297.59 µg/L	297.59 ppb	23:05:33
3	As 188.979†	3537.8	3505.2	1124.7 µg/L	1124.7 ppb	23:05:35
3	B 249.677†	108369.4	103240.6	1519.3 µg/L	1519.3 ppb	23:05:33
3	Ba 233.527†	489898.3	482697.5	1943.8 µg/L	1943.8 ppb	23:05:33
3	Be 313.107†	2959338.3	2916084.4	793.90 µg/L	793.90 ppb	23:05:33
3	Cd 226.502†	101072.6	99677.1	604.78 µg/L	604.78 ppb	23:05:33
3	Co 228.616†	79140.0	78145.2	957.28 µg/L	957.28 ppb	23:05:33
3	Cr 267.716†	325115.7	320068.2	2511.9 µg/L	2511.9 ppb	23:05:33
3	Cu 324.752†	478575.8	468436.5	1847.4 µg/L	1847.4 ppb	23:05:33
3	Mn 257.610†	4514543.1	4446696.7	5499.9 µg/L	5499.9 ppb	23:05:33
3	Mo 202.031†	17749.5	17503.8	522.48 µg/L	522.48 ppb	23:05:35
3	Ni 231.604†	124614.1	122824.4	1414.2 µg/L	1414.2 ppb	23:05:33
3	P 214.914†	37414.0	36871.7	7770.6 µg/L	7770.6 ppb	23:05:35
3	Pb 220.353†	14441.8	14139.1	797.85 µg/L	797.85 ppb	23:05:35
3	S 181.975 Axial†	5825.6	5633.3	4187.5 µg/L	4187.5 ppb	23:05:35
3	Sb 206.836†	10901.3	10657.2	1237.6 µg/L	1237.6 ppb	23:05:35
3	Se 196.026†	8250.7	8111.8	2990 µg/L	2990 ppb	23:05:35
3	SiO2†	896411.1	881211.2	86102 µg/L	86102 ppb	23:05:33
3	Si 251.611†	2764278.5	2722044.5	40117 µg/L	40117 ppb	23:05:33
3	Sn 189.927†	16700.3	16451.3	1045.0 µg/L	1045.0 ppb	23:05:35
3	Ti 334.940†	6264730.7	6169958.6	5763.1 µg/L	5763.1 ppb	23:05:33
3	Tl 190.801†	9386.8	9362.9	1226.9 µg/L	1226.9 ppb	23:05:35
3	U 409.014†	-5726.5	-5370.8	-245.99 µg/L	-245.99 ppb	23:05:33
3	V 292.402†	257553.8	253292.9	1227.6 µg/L	1227.6 ppb	23:05:33
3	Zn 213.857†	1077107.1	1060412.1	5931.5 µg/L	5931.5 ppb	23:05:33

Mean Data: 1202068052|963993|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1742676.1	101.42	%	0.124				0.12%
Sc RADIAL	148561.8	102	%	0.5				0.45%
Y 371.029	1123534.5	109.43	%	0.179				0.16%
Ag 328.068†	77895.4	297.86	µg/L	0.284	297.86	ppb	0.284	0.10%
Al 396.153Radial†	496146.3	91961	µg/L	144.8	91961	ppb	144.8	0.16%
As 188.979†	3453.4	1109.3	µg/L	13.43	1109.3	ppb	13.43	1.21%
B 249.677†	103299.4	1520.1	µg/L	1.08	1520.1	ppb	1.08	0.07%
Ba 233.527†	483123.2	1945.5	µg/L	1.94	1945.5	ppb	1.94	0.10%
Be 313.107†	2920044.3	794.98	µg/L	0.960	794.98	ppb	0.960	0.12%
Ca 317.933Radial†	1760767.8	98082	µg/L	435.9	98082	ppb	435.9	0.44%
Cd 226.502†	99758.6	605.22	µg/L	0.397	605.22	ppb	0.397	0.07%
Co 228.616†	78282.8	958.95	µg/L	1.487	958.95	ppb	1.487	0.16%
Cr 267.716†	320530.7	2515.5	µg/L	3.25	2515.5	ppb	3.25	0.13%
Cu 324.752†	469045.2	1849.8	µg/L	2.24	1849.8	ppb	2.24	0.12%
Fe 238.204 Radial†	2864172.7	176530	µg/L	803.3	176530	ppb	803.3	0.46%
K 766.490 Radial†	111584.0	40809	µg/L	115.7	40809	ppb	115.7	0.28%
Mg 279.077 IEC†	102037.1	37879	µg/L	52.8	37879	ppb	52.8	0.14%
Mn 257.610†	4452210.3	5506.7	µg/L	5.96	5506.7	ppb	5.96	0.11%
Mo 202.031†	17475.9	521.69	µg/L	3.518	521.69	ppb	3.518	0.67%
Na 589.592 Radial†	74906.9	10197	µg/L	23.8	10197	ppb	23.8	0.23%

Ni 231.604†	122817.2	1414.2 µg/L	0.28	1414.2 ppb	0.28	0.02%
P 214.914†	36600.8	7712.1 µg/L	63.85	7712.1 ppb	63.85	0.83%
Pb 220.353†	13997.9	789.94 µg/L	10.659	789.94 ppb	10.659	1.35%
S 181.975 Axial†	5563.5	4135.7 µg/L	63.12	4135.7 ppb	63.12	1.53%
Sb 206.836†	10577.9	1228.0 µg/L	8.28	1228.0 ppb	8.28	0.67%
Se 196.026†	8000.9	2950 µg/L	38.8	2950 ppb	38.8	1.31%
SiO2†	882448.0	86223 µg/L	106.5	86223 ppb	106.5	0.12%
Si 251.611†	2724627.1	40155 µg/L	34.3	40155 ppb	34.3	0.09%
Sn 189.927†	16293.7	1035.2 µg/L	11.83	1035.2 ppb	11.83	1.14%
Sr 421.552†	1123832.2	2335.6 µg/L	8.27	2335.6 ppb	8.27	0.35%
Ti 334.940†	6176065.0	5768.8 µg/L	5.54	5768.8 ppb	5.54	0.10%
Tl 190.801†	9382.0	1229.3 µg/L	2.90	1229.3 ppb	2.90	0.24%
U 409.014†	-5305.1	-242.13 µg/L	7.590	-242.13 ppb	7.590	3.13%
Concentration less than lower limit for U 409.014.						
V 292.402†	253703.8	1229.6 µg/L	1.73	1229.6 ppb	1.73	0.14%
Zn 213.857†	1061765.5	5939.0 µg/L	6.75	5939.0 ppb	6.75	0.11%

Sequence No.: 100
Sample ID: 248834001|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 230
Date Collected: 3/31/2010 23:05:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248834001|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143903.8	143903.8	98.6	%			23:06:12
1	Al 396.153Radial†	54208.0	55034.4	10203	µg/L	10203	ppb	23:06:14
1	Ca 317.933Radial†	62205.1	62520.3	3482.6	µg/L	3482.6	ppb	23:06:14
1	Fe 238.204 Radial†	819440.6	830829.0	51207	µg/L	51207	ppb	23:06:12
1	K 766.490 Radial†	11496.1	10113.2	3698.9	µg/L	3698.9	ppb	23:06:14
1	Mg 279.077 IEC†	4723.7	4599.5	1670.0	µg/L	1670.0	ppb	23:06:14
1	Na 589.592 Radial†	28242.4	27349.2	3732.9	µg/L	3732.9	ppb	23:06:14
1	Sr 421.552†	13640.8	13968.2	29.012	µg/L	29.012	ppb	23:06:14
1	Sc 361.383	1765513.6	1765513.6	102.75	%			23:06:26
1	Y 371.029	1350512.8	1350512.8	131.54	%			23:06:26
1	Ag 328.068†	3732.7	-458.7	-2.7811	µg/L	-2.7811	ppb	23:06:28
1	As 188.979†	2.9	23.2	19.804	µg/L	19.804	ppb	23:06:48
1	B 249.677†	3887.6	277.6	4.0668	µg/L	4.0668	ppb	23:06:28
1	Ba 233.527†	27961.8	27348.6	109.57	µg/L	109.57	ppb	23:06:28
1	Be 313.107†	13859.2	14552.6	3.8615	µg/L	3.8615	ppb	23:06:28
1	Cd 226.502†	736.9	835.4	-0.1341	µg/L	-0.1341	ppb	23:06:48
1	Co 228.616†	449.4	627.7	5.2056	µg/L	5.2056	ppb	23:06:48
1	Cr 267.716†	17762.0	17107.6	135.53	µg/L	135.53	ppb	23:06:28
1	Cu 324.752†	4051.3	970.5	11.005	µg/L	11.005	ppb	23:06:28
1	Mn 257.610†	1597653.2	1554616.8	1923.3	µg/L	1923.3	ppb	23:06:26
1	Mo 202.031†	288.7	301.1	10.912	µg/L	10.912	ppb	23:06:48
1	Ni 231.604†	5992.1	5908.1	68.028	µg/L	68.028	ppb	23:06:28
1	P 214.914†	2616.6	2564.5	515.86	µg/L	515.86	ppb	23:06:48
1	Pb 220.353†	543.4	442.5	25.575	µg/L	25.575	ppb	23:06:48
1	S 181.975 Axial†	164.9	55.4	41.203	µg/L	41.203	ppb	23:06:48
1	Sb 206.836†	94.9	11.6	-1.1690	µg/L	-1.1690	ppb	23:06:48
1	Se 196.026†	-26.2	-40.7	2.72	µg/L	2.72	ppb	23:06:48
1	SiO2†	474791.0	460296.6	44990	µg/L	44990	ppb	23:06:26
1	Si 251.611†	1462447.1	1422433.3	20971	µg/L	20971	ppb	23:06:26
1	Sn 189.927†	126.2	124.0	11.864	µg/L	11.864	ppb	23:06:48
1	Ti 334.940†	1349920.8	1312805.5	1226.6	µg/L	1226.6	ppb	23:06:26
1	Tl 190.801†	-287.3	-162.9	-2.6073	µg/L	-2.6073	ppb	23:06:48
1	U 409.014†	-6140.8	-5706.4	-331.53	µg/L	-331.53	ppb	23:06:26
1	V 292.402†	5211.9	4668.5	16.678	µg/L	16.678	ppb	23:06:28
1	Zn 213.857†	43062.1	41344.1	227.11	µg/L	227.11	ppb	23:06:28
2	Sc RADIAL	145790.5	145790.5	99.9	%			23:06:16
2	Al 396.153Radial†	54607.7	54723.0	10145	µg/L	10145	ppb	23:06:18
2	Ca 317.933Radial†	62925.3	62424.8	3477.3	µg/L	3477.3	ppb	23:06:18
2	Fe 238.204 Radial†	828053.6	828696.2	51076	µg/L	51076	ppb	23:06:16
2	K 766.490 Radial†	11680.0	10146.4	3711.1	µg/L	3711.1	ppb	23:06:18
2	Mg 279.077 IEC†	4785.4	4599.3	1670.0	µg/L	1670.0	ppb	23:06:18
2	Na 589.592 Radial†	28467.1	27203.5	3713.0	µg/L	3713.0	ppb	23:06:18
2	Sr 421.552†	13703.1	13851.4	28.769	µg/L	28.769	ppb	23:06:18
2	Sc 361.383	1761190.7	1761190.7	102.50	%			23:06:51
2	Y 371.029	1346920.7	1346920.7	131.19	%			23:06:51
2	Ag 328.068†	3948.1	-239.7	-1.9647	µg/L	-1.9647	ppb	23:06:53
2	As 188.979†	15.7	35.7	23.556	µg/L	23.556	ppb	23:07:13
2	B 249.677†	3852.3	252.4	3.6943	µg/L	3.6943	ppb	23:06:53
2	Ba 233.527†	27688.0	27148.2	108.76	µg/L	108.76	ppb	23:06:53
2	Be 313.107†	13904.1	14629.5	3.8855	µg/L	3.8855	ppb	23:06:53
2	Cd 226.502†	724.8	825.3	-0.1836	µg/L	-0.1836	ppb	23:07:13
2	Co 228.616†	477.9	656.5	5.5676	µg/L	5.5676	ppb	23:07:13
2	Cr 267.716†	17761.6	17149.6	135.85	µg/L	135.85	ppb	23:06:53
2	Cu 324.752†	3851.2	785.0	10.273	µg/L	10.273	ppb	23:06:53
2	Mn 257.610†	1596625.8	1557430.8	1926.8	µg/L	1926.8	ppb	23:06:51
2	Mo 202.031†	286.9	300.0	10.875	µg/L	10.875	ppb	23:07:13
2	Ni 231.604†	5956.2	5887.4	67.789	µg/L	67.789	ppb	23:06:53
2	P 214.914†	2603.0	2557.5	514.46	µg/L	514.46	ppb	23:07:13
2	Pb 220.353†	571.4	471.1	27.164	µg/L	27.164	ppb	23:07:13

2	S 181.975 Axial†	180.8	71.3	53.029	µg/L	53.029 ppb	23:07:13
2	Sb 206.836†	85.3	2.3	-2.2691	µg/L	-2.2691 ppb	23:07:13
2	Se 196.026†	-34.5	-49.0	-0.298	µg/L	-0.298 ppb	23:07:13
2	SiO2†	474551.1	461196.7	45078	µg/L	45078 ppb	23:06:51
2	Si 251.611†	1460145.8	1423681.7	20989	µg/L	20989 ppb	23:06:51
2	Sn 189.927†	138.9	136.7	12.657	µg/L	12.657 ppb	23:07:13
2	Ti 334.940†	1347027.8	1313207.7	1226.9	µg/L	1226.9 ppb	23:06:51
2	Tl 190.801†	-304.6	-180.5	-4.7582	µg/L	-4.7582 ppb	23:07:13
2	U 409.014†	-5949.8	-5534.8	-321.48	µg/L	-321.48 ppb	23:06:51
2	V 292.402†	5077.2	4549.5	16.119	µg/L	16.119 ppb	23:06:53
2	Zn 213.857†	42620.7	41016.4	225.29	µg/L	225.29 ppb	23:06:53
3	Sc RADIAL	146163.6	146163.6	100	%		23:06:20
3	Al 396.153Radial†	53327.1	53305.0	9882.3	µg/L	9882.3 ppb	23:06:22
3	Ca 317.933Radial†	61518.4	60859.4	3390.1	µg/L	3390.1 ppb	23:06:22
3	Fe 238.204 Radial†	832669.7	831189.4	51229	µg/L	51229 ppb	23:06:20
3	K 766.490 Radial†	11333.4	9770.5	3573.6	µg/L	3573.6 ppb	23:06:22
3	Mg 279.077 IEC†	4668.1	4469.9	1621.7	µg/L	1621.7 ppb	23:06:22
3	Na 589.592 Radial†	27861.7	26526.4	3620.6	µg/L	3620.6 ppb	23:06:22
3	Sr 421.552†	13471.3	13585.0	28.216	µg/L	28.216 ppb	23:06:22
3	Sc 361.383	1740485.7	1740485.7	101.30	%		23:07:15
3	Y 371.029	1331857.3	1331857.3	129.72	%		23:07:15
3	Ag 328.068†	4159.9	15.2	-1.0309	µg/L	-1.0309 ppb	23:07:17
3	As 188.979†	12.9	33.1	22.801	µg/L	22.801 ppb	23:07:37
3	B 249.677†	3897.3	341.6	5.0101	µg/L	5.0101 ppb	23:07:17
3	Ba 233.527†	27557.0	27340.2	109.53	µg/L	109.53 ppb	23:07:17
3	Be 313.107†	14159.7	15043.2	3.9948	µg/L	3.9948 ppb	23:07:17
3	Cd 226.502†	710.8	819.9	-0.2327	µg/L	-0.2327 ppb	23:07:37
3	Co 228.616†	452.5	637.1	5.3203	µg/L	5.3203 ppb	23:07:37
3	Cr 267.716†	17676.3	17271.6	136.82	µg/L	136.82 ppb	23:07:17
3	Cu 324.752†	3957.9	935.0	10.868	µg/L	10.868 ppb	23:07:17
3	Mn 257.610†	1572351.8	1551997.6	1920.1	µg/L	1920.1 ppb	23:07:15
3	Mo 202.031†	283.5	299.9	10.878	µg/L	10.878 ppb	23:07:37
3	Ni 231.604†	6036.5	6035.8	69.497	µg/L	69.497 ppb	23:07:17
3	P 214.914†	2555.7	2541.0	510.76	µg/L	510.76 ppb	23:07:37
3	Pb 220.353†	537.0	443.7	25.622	µg/L	25.622 ppb	23:07:37
3	S 181.975 Axial†	179.4	72.0	53.573	µg/L	53.573 ppb	23:07:37
3	Sb 206.836†	102.1	20.0	-0.1858	µg/L	-0.1858 ppb	23:07:37
3	Se 196.026†	-27.3	-42.2	2.18	µg/L	2.18 ppb	23:07:37
3	SiO2†	467156.1	459403.9	44903	µg/L	44903 ppb	23:07:15
3	Si 251.611†	1437218.1	1417993.5	20905	µg/L	20905 ppb	23:07:15
3	Sn 189.927†	129.0	128.5	12.143	µg/L	12.143 ppb	23:07:37
3	Ti 334.940†	1329462.0	1311500.1	1225.3	µg/L	1225.3 ppb	23:07:15
3	Tl 190.801†	-305.4	-184.8	-5.3205	µg/L	-5.3205 ppb	23:07:37
3	U 409.014†	-6074.8	-5727.2	-332.81	µg/L	-332.81 ppb	23:07:15
3	V 292.402†	5026.7	4558.6	16.145	µg/L	16.145 ppb	23:07:17
3	Zn 213.857†	42286.2	41180.8	226.18	µg/L	226.18 ppb	23:07:17

Mean Data: 248834001|963993|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1755730.0	102.18	%	0.779				0.76%
Sc RADIAL	145286.0	99.6	%	0.83				0.83%
Y 371.029	1343096.9	130.82	%	0.964				0.74%
Ag 328.068†	-227.7	-1.9256	µg/L	0.87574	-1.9256	ppb	0.87574	45.48%
Al 396.153Radial†	54354.1	10077	µg/L	170.9	10077	ppb	170.9	1.70%
As 188.979†	30.7	22.053	µg/L	1.9846	22.053	ppb	1.9846	9.00%
B 249.677†	290.5	4.2571	µg/L	0.67820	4.2571	ppb	0.67820	15.93%
Ba 233.527†	27279.0	109.29	µg/L	0.456	109.29	ppb	0.456	0.42%
Be 313.107†	14741.8	3.9139	µg/L	0.07101	3.9139	ppb	0.07101	1.81%
Ca 317.933Radial†	61934.8	3450.0	µg/L	51.95	3450.0	ppb	51.95	1.51%
Cd 226.502†	826.9	-0.1835	µg/L	0.04927	-0.1835	ppb	0.04927	26.86%
Co 228.616†	640.4	5.3645	µg/L	0.18497	5.3645	ppb	0.18497	3.45%
Cr 267.716†	17176.3	136.07	µg/L	0.671	136.07	ppb	0.671	0.49%
Cu 324.752†	896.9	10.715	µg/L	0.3889	10.715	ppb	0.3889	3.63%
Fe 238.204 Radial†	830238.2	51171	µg/L	83.1	51171	ppb	83.1	0.16%
K 766.490 Radial†	10010.0	3661.2	µg/L	76.14	3661.2	ppb	76.14	2.08%
Mg 279.077 IEC†	4556.2	1653.9	µg/L	27.89	1653.9	ppb	27.89	1.69%
Mn 257.610†	1554681.7	1923.4	µg/L	3.36	1923.4	ppb	3.36	0.17%
Mo 202.031†	300.3	10.888	µg/L	0.0207	10.888	ppb	0.0207	0.19%
Na 589.592 Radial†	27026.3	3688.9	µg/L	59.92	3688.9	ppb	59.92	1.62%

Ni 231.604†	5943.8	68.438	µg/L	0.9250	68.438	ppb	0.9250	1.35%
P 214.914†	2554.3	513.70	µg/L	2.635	513.70	ppb	2.635	0.51%
Pb 220.353†	452.4	26.120	µg/L	0.9045	26.120	ppb	0.9045	3.46%
S 181.975 Axial†	66.2	49.268	µg/L	6.9901	49.268	ppb	6.9901	14.19%
Sb 206.836†	11.3	-1.2080	µg/L	1.04221	-1.2080	ppb	1.04221	86.28%
Se 196.026†	-44.0	1.53	µg/L	1.608	1.53	ppb	1.608	104.91%
SiO2†	460299.1	44990	µg/L	87.6	44990	ppb	87.6	0.19%
Si 251.611†	1421369.5	20955	µg/L	44.1	20955	ppb	44.1	0.21%
Sn 189.927†	129.7	12.221	µg/L	0.4022	12.221	ppb	0.4022	3.29%
Sr 421.552†	13801.5	28.666	µg/L	0.4079	28.666	ppb	0.4079	1.42%
Ti 334.940†	1312504.5	1226.3	µg/L	0.83	1226.3	ppb	0.83	0.07%
Tl 190.801†	-176.1	-4.2287	µg/L	1.43202	-4.2287	ppb	1.43202	33.86%
U 409.014†	-5656.1	-328.61	µg/L	6.206	-328.61	ppb	6.206	1.89%
Concentration less than lower limit for U 409.014.								
V 292.402†	4592.2	16.314	µg/L	0.3156	16.314	ppb	0.3156	1.93%
Zn 213.857†	41180.4	226.19	µg/L	0.913	226.19	ppb	0.913	0.40%

Sequence No.: 101
Sample ID: 1202068048|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 231
Date Collected: 3/31/2010 23:07:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068048|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144871.7	144871.7	99.3	%			23:08:17
1	Al 396.153Radial†	71715.7	72302.6	13404	µg/L	13404	ppb	23:08:17
1	Ca 317.933Radial†	78066.0	78075.5	4349.1	µg/L	4349.1	ppb	23:08:17
1	Fe 238.204 Radial†	1051049.5	1058577.4	65244	µg/L	65244	ppb	23:08:15
1	K 766.490 Radial†	18280.5	16869.2	6171.0	µg/L	6171.0	ppb	23:08:17
1	Mg 279.077 IEC†	15658.5	15582.2	5749.9	µg/L	5749.9	ppb	23:08:17
1	Na 589.592 Radial†	38718.4	37710.4	5146.2	µg/L	5146.2	ppb	23:08:17
1	Sr 421.552†	27881.1	28220.0	58.634	µg/L	58.634	ppb	23:08:17
1	Sc 361.383	1753933.3	1753933.3	102.08	%			23:08:29
1	Y 371.029	1390319.3	1390319.3	135.42	%			23:08:29
1	Ag 328.068†	3973.2	-199.1	-2.0113	µg/L	-2.0113	ppb	23:08:31
1	As 188.979†	12.5	32.6	25.541	µg/L	25.541	ppb	23:08:51
1	B 249.677†	3914.1	328.5	4.8137	µg/L	4.8137	ppb	23:08:31
1	Ba 233.527†	43095.8	42354.1	169.87	µg/L	169.87	ppb	23:08:31
1	Be 313.107†	17786.3	18488.9	4.9209	µg/L	4.9209	ppb	23:08:31
1	Cd 226.502†	943.8	1042.8	-0.3206	µg/L	-0.3206	ppb	23:08:51
1	Co 228.616†	562.4	741.3	5.9297	µg/L	5.9297	ppb	23:08:51
1	Cr 267.716†	14218.2	13750.1	109.48	µg/L	109.48	ppb	23:08:31
1	Cu 324.752†	4196.8	1139.1	13.781	µg/L	13.781	ppb	23:08:31
1	Mn 257.610†	2355378.8	2307178.4	2854.3	µg/L	2854.3	ppb	23:08:29
1	Mo 202.031†	264.5	279.2	10.905	µg/L	10.905	ppb	23:08:51
1	Ni 231.604†	4861.7	4839.2	55.720	µg/L	55.720	ppb	23:08:31
1	P 214.914†	3122.2	3076.6	616.56	µg/L	616.56	ppb	23:08:51
1	Pb 220.353†	811.1	708.2	40.570	µg/L	40.570	ppb	23:08:51
1	S 181.975 Axial†	178.9	70.2	52.202	µg/L	52.202	ppb	23:08:51
1	Sb 206.836†	88.0	5.4	-1.6871	µg/L	-1.6871	ppb	23:08:51
1	Se 196.026†	-52.8	-67.0	-1.95	µg/L	-1.95	ppb	23:08:51
1	SiO2†	526539.6	514042.2	50243	µg/L	50243	ppb	23:08:29
1	Si 251.611†	1619390.5	1585578.0	23376	µg/L	23376	ppb	23:08:29
1	Sn 189.927†	128.8	127.3	13.064	µg/L	13.064	ppb	23:08:51
1	Ti 334.940†	1663048.1	1628230.5	1521.0	µg/L	1521.0	ppb	23:08:29
1	Tl 190.801†	-349.1	-225.3	-4.7714	µg/L	-4.7714	ppb	23:08:51
1	U 409.014†	-6818.7	-6410.0	-368.63	µg/L	-368.63	ppb	23:08:29
1	V 292.402†	9270.1	8677.6	34.334	µg/L	34.334	ppb	23:08:31
1	Zn 213.857†	75812.1	73703.9	407.66	µg/L	407.66	ppb	23:08:31
2	Sc RADIAL	146110.7	146110.7	100	%			23:08:21
2	Al 396.153Radial†	72797.6	72770.6	13491	µg/L	13491	ppb	23:08:21
2	Ca 317.933Radial†	78657.7	77999.7	4344.9	µg/L	4344.9	ppb	23:08:21
2	Fe 238.204 Radial†	1036222.5	1034791.0	63778	µg/L	63778	ppb	23:08:19
2	K 766.490 Radial†	18376.7	16809.2	6149.0	µg/L	6149.0	ppb	23:08:21
2	Mg 279.077 IEC†	15748.0	15537.7	5734.6	µg/L	5734.6	ppb	23:08:21
2	Na 589.592 Radial†	39145.7	37806.4	5159.3	µg/L	5159.3	ppb	23:08:21
2	Sr 421.552†	28203.4	28303.8	58.808	µg/L	58.808	ppb	23:08:21
2	Sc 361.383	1738836.2	1738836.2	101.20	%			23:08:54
2	Y 371.029	1378996.2	1378996.2	134.31	%			23:08:54
2	Ag 328.068†	4189.4	48.3	-1.0643	µg/L	-1.0643	ppb	23:08:56
2	As 188.979†	13.7	33.9	25.647	µg/L	25.647	ppb	23:09:16
2	B 249.677†	3948.0	395.3	5.7966	µg/L	5.7966	ppb	23:08:56
2	Ba 233.527†	43941.5	43556.3	174.73	µg/L	174.73	ppb	23:08:56
2	Be 313.107†	18346.7	19193.8	5.1138	µg/L	5.1138	ppb	23:08:56
2	Cd 226.502†	926.1	1033.4	-0.2251	µg/L	-0.2251	ppb	23:09:16
2	Co 228.616†	587.8	771.1	6.3792	µg/L	6.3792	ppb	23:09:16
2	Cr 267.716†	14561.2	14210.0	113.03	µg/L	113.03	ppb	23:08:56
2	Cu 324.752†	4438.9	1414.0	14.639	µg/L	14.639	ppb	23:08:56
2	Mn 257.610†	2332722.1	2304824.1	2851.4	µg/L	2851.4	ppb	23:08:54
2	Mo 202.031†	274.2	291.0	11.196	µg/L	11.196	ppb	23:09:16
2	Ni 231.604†	4899.9	4918.3	56.631	µg/L	56.631	ppb	23:08:56
2	P 214.914†	3107.0	3088.2	620.04	µg/L	620.04	ppb	23:09:16
2	Pb 220.353†	811.8	715.8	41.045	µg/L	41.045	ppb	23:09:16

2	S 181.975 Axial†	183.0	75.8	56.353	µg/L	56.353 ppb	23:09:16
2	Sb 206.836†	77.5	-4.3	-2.8630	µg/L	-2.8630 ppb	23:09:16
2	Se 196.026†	-44.7	-59.5	0.272	µg/L	0.272 ppb	23:09:16
2	SiO2†	520627.8	512679.0	50110	µg/L	50110 ppb	23:08:54
2	Si 251.611†	1601651.7	1581823.2	23320	µg/L	23320 ppb	23:08:54
2	Sn 189.927†	129.6	129.2	13.184	µg/L	13.184 ppb	23:09:16
2	Ti 334.940†	1648664.3	1628162.4	1520.9	µg/L	1520.9 ppb	23:08:54
2	Tl 190.801†	-325.2	-204.7	-2.2365	µg/L	-2.2365 ppb	23:09:16
2	U 409.014†	-6702.7	-6353.3	-364.93	µg/L	-364.93 ppb	23:08:54
2	V 292.402†	9476.2	8960.1	35.888	µg/L	35.888 ppb	23:08:56
2	Zn 213.857†	77657.0	76171.8	421.67	µg/L	421.67 ppb	23:08:56
3	Sc RADIAL	144599.1	144599.1	99.1	%		23:08:25
3	Al 396.153Radial†	71895.4	72620.3	13463	µg/L	13463 ppb	23:08:25
3	Ca 317.933Radial†	77972.2	78129.2	4352.1	µg/L	4352.1 ppb	23:08:25
3	Fe 238.204 Radial†	1033075.0	1042434.0	64249	µg/L	64249 ppb	23:08:23
3	K 766.490 Radial†	18323.8	16947.6	6199.7	µg/L	6199.7 ppb	23:08:25
3	Mg 279.077 IEC†	15659.0	15612.4	5762.1	µg/L	5762.1 ppb	23:08:25
3	Na 589.592 Radial†	38703.7	37769.1	5154.2	µg/L	5154.2 ppb	23:08:25
3	Sr 421.552†	27964.6	28357.2	58.919	µg/L	58.919 ppb	23:08:25
3	Sc 361.383	1728163.4	1728163.4	100.58	%		23:09:18
3	Y 371.029	1371957.7	1371957.7	133.63	%		23:09:18
3	Ag 328.068†	3987.1	-127.2	-1.7271	µg/L	-1.7271 ppb	23:09:20
3	As 188.979†	-2.9	17.5	20.768	µg/L	20.768 ppb	23:09:40
3	B 249.677†	3919.6	391.2	5.7365	µg/L	5.7365 ppb	23:09:20
3	Ba 233.527†	43124.6	43012.3	172.53	µg/L	172.53 ppb	23:09:20
3	Be 313.107†	17831.4	18793.4	5.0035	µg/L	5.0035 ppb	23:09:20
3	Cd 226.502†	942.6	1055.3	-0.1375	µg/L	-0.1375 ppb	23:09:40
3	Co 228.616†	567.1	754.1	6.1427	µg/L	6.1427 ppb	23:09:40
3	Cr 267.716†	14254.9	13994.3	111.37	µg/L	111.37 ppb	23:09:20
3	Cu 324.752†	4340.2	1343.0	14.428	µg/L	14.428 ppb	23:09:20
3	Mn 257.610†	2312595.8	2299049.2	2844.2	µg/L	2844.2 ppb	23:09:18
3	Mo 202.031†	263.7	282.2	10.956	µg/L	10.956 ppb	23:09:40
3	Ni 231.604†	4850.5	4899.1	56.410	µg/L	56.410 ppb	23:09:20
3	P 214.914†	3115.9	3116.0	625.67	µg/L	625.67 ppb	23:09:40
3	Pb 220.353†	810.5	719.4	41.227	µg/L	41.227 ppb	23:09:40
3	S 181.975 Axial†	169.0	62.9	46.807	µg/L	46.807 ppb	23:09:40
3	Sb 206.836†	73.0	-8.2	-3.3174	µg/L	-3.3174 ppb	23:09:40
3	Se 196.026†	-43.4	-58.5	0.794	µg/L	0.794 ppb	23:09:40
3	SiO2†	515905.0	511160.6	49961	µg/L	49961 ppb	23:09:18
3	Si 251.611†	1587153.4	1577182.6	23252	µg/L	23252 ppb	23:09:18
3	Sn 189.927†	127.7	128.1	13.104	µg/L	13.104 ppb	23:09:40
3	Ti 334.940†	1634579.6	1624219.8	1517.2	µg/L	1517.2 ppb	23:09:18
3	Tl 190.801†	-348.6	-229.9	-5.3990	µg/L	-5.3990 ppb	23:09:40
3	U 409.014†	-6739.0	-6430.4	-369.62	µg/L	-369.62 ppb	23:09:18
3	V 292.402†	9315.1	8857.7	35.329	µg/L	35.329 ppb	23:09:20
3	Zn 213.857†	76039.2	75037.1	415.25	µg/L	415.25 ppb	23:09:20

Mean Data: 1202068048|963993|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1740311.0	101.29	%	0.754				0.74%
Sc RADIAL	145193.8	99.5	%	0.55				0.55%
Y 371.029	1380424.4	134.45	%	0.902				0.67%
Ag 328.068†	-92.7	-1.6009	µg/L	0.48598	-1.6009	ppb	0.48598	30.36%
Al 396.153Radial†	72564.5	13453	µg/L	44.3	13453	ppb	44.3	0.33%
As 188.979†	28.0	23.985	µg/L	2.7867	23.985	ppb	2.7867	11.62%
B 249.677†	371.7	5.4489	µg/L	0.55094	5.4489	ppb	0.55094	10.11%
Ba 233.527†	42974.2	172.38	µg/L	2.436	172.38	ppb	2.436	1.41%
Be 313.107†	18825.4	5.0127	µg/L	0.09681	5.0127	ppb	0.09681	1.93%
Ca 317.933Radial†	78068.1	4348.7	µg/L	3.62	4348.7	ppb	3.62	0.08%
Cd 226.502†	1043.8	-0.2277	µg/L	0.09157	-0.2277	ppb	0.09157	40.21%
Co 228.616†	755.5	6.1505	µg/L	0.22484	6.1505	ppb	0.22484	3.66%
Cr 267.716†	13984.8	111.29	µg/L	1.776	111.29	ppb	1.776	1.60%
Cu 324.752†	1298.7	14.283	µg/L	0.4468	14.283	ppb	0.4468	3.13%
Fe 238.204 Radial†	1045267.5	64424	µg/L	748.5	64424	ppb	748.5	1.16%
K 766.490 Radial†	16875.4	6173.2	µg/L	25.41	6173.2	ppb	25.41	0.41%
Mg 279.077 IEC†	15577.5	5748.9	µg/L	13.74	5748.9	ppb	13.74	0.24%
Mn 257.610†	2303683.9	2849.9	µg/L	5.17	2849.9	ppb	5.17	0.18%
Mo 202.031†	284.2	11.019	µg/L	0.1550	11.019	ppb	0.1550	1.41%
Na 589.592 Radial†	37761.9	5153.2	µg/L	6.62	5153.2	ppb	6.62	0.13%

Ni 231.604†	4885.6	56.254	µg/L	0.4749	56.254	ppb	0.4749	0.84%
P 214.914†	3093.6	620.76	µg/L	4.595	620.76	ppb	4.595	0.74%
Pb 220.353†	714.5	40.947	µg/L	0.3396	40.947	ppb	0.3396	0.83%
S 181.975 Axial†	69.6	51.787	µg/L	4.7865	51.787	ppb	4.7865	9.24%
Sb 206.836†	-2.4	-2.6225	µg/L	0.84132	-2.6225	ppb	0.84132	32.08%
Se 196.026†	-61.6	-0.294	µg/L	1.4567	-0.294	ppb	1.4567	494.91%
SiO2†	512627.2	50105	µg/L	140.9	50105	ppb	140.9	0.28%
Si 251.611†	1581527.9	23316	µg/L	62.0	23316	ppb	62.0	0.27%
Sn 189.927†	128.2	13.118	µg/L	0.0611	13.118	ppb	0.0611	0.47%
Sr 421.552†	28293.7	58.787	µg/L	0.1438	58.787	ppb	0.1438	0.24%
Ti 334.940†	1626870.9	1519.7	µg/L	2.15	1519.7	ppb	2.15	0.14%
Tl 190.801†	-220.0	-4.1357	µg/L	1.67436	-4.1357	ppb	1.67436	40.49%
U 409.014†	-6397.9	-367.73	µg/L	2.470	-367.73	ppb	2.470	0.67%
Concentration less than lower limit for U 409.014.								
V 292.402†	8831.8	35.184	µg/L	0.7872	35.184	ppb	0.7872	2.24%
Zn 213.857†	74970.9	414.86	µg/L	7.015	414.86	ppb	7.015	1.69%

Sequence No.: 102
Sample ID: 1202068050|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 232
Date Collected: 3/31/2010 23:09:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068050|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143924.9	143924.9	98.6	%			23:10:21
1	Al 396.153Radial†	104274.1	105789.8	19592	µg/L	19592	ppb	23:10:21
1	Ca 317.933Radial†	176398.6	178295.3	9931.7	µg/L	9931.7	ppb	23:10:21
1	Fe 238.204 Radial†	820726.5	832011.2	51280	µg/L	51280	ppb	23:10:19
1	K 766.490 Radial†	31071.8	29959.8	10960	µg/L	10960	ppb	23:10:21
1	Mg 279.077 IEC†	18846.9	18918.7	7016.1	µg/L	7016.1	ppb	23:10:21
1	Na 589.592 Radial†	77998.8	77794.5	10618	µg/L	10618	ppb	23:10:21
1	Sr 421.552†	236345.9	239773.4	498.40	µg/L	498.40	ppb	23:10:19
1	Sc 361.383	1727978.0	1727978.0	100.57	%			23:10:34
1	Y 371.029	1366916.6	1366916.6	133.14	%			23:10:34
1	Ag 328.068†	129381.8	124559.6	465.77	µg/L	465.77	ppb	23:10:34
1	As 188.979†	1572.5	1584.0	497.34	µg/L	497.34	ppb	23:10:36
1	B 249.677†	36007.7	32298.4	474.73	µg/L	474.73	ppb	23:10:34
1	Ba 233.527†	142579.1	141909.6	571.64	µg/L	571.64	ppb	23:10:34
1	Be 313.107†	1809998.3	1800839.4	490.35	µg/L	490.35	ppb	23:10:34
1	Cd 226.502†	76926.6	76610.3	473.37	µg/L	473.37	ppb	23:10:34
1	Co 228.616†	37739.0	37716.1	463.30	µg/L	463.30	ppb	23:10:36
1	Cr 267.716†	74375.1	73776.4	579.04	µg/L	579.04	ppb	23:10:34
1	Cu 324.752†	131456.6	127741.8	504.41	µg/L	504.41	ppb	23:10:34
1	Mn 257.610†	2118940.4	2106734.4	2606.2	µg/L	2606.2	ppb	23:10:34
1	Mo 202.031†	15790.2	15721.1	464.34	µg/L	464.34	ppb	23:10:36
1	Ni 231.604†	46257.8	46073.0	530.50	µg/L	530.50	ppb	23:10:36
1	P 214.914†	4490.0	4482.6	922.01	µg/L	922.01	ppb	23:10:36
1	Pb 220.353†	9002.5	8865.3	497.71	µg/L	497.71	ppb	23:10:36
1	S 181.975 Axial†	6519.0	6377.1	4739.4	µg/L	4739.4	ppb	23:10:36
1	Sb 206.836†	3875.1	3772.4	447.11	µg/L	447.11	ppb	23:10:36
1	Se 196.026†	1292.9	1270.4	477	µg/L	477	ppb	23:10:36
1	SiO2†	787277.2	781055.0	76322	µg/L	76322	ppb	23:10:34
1	Si 251.611†	2413524.1	2399055.0	35360	µg/L	35360	ppb	23:10:34
1	Sn 189.927†	7496.0	7454.8	470.56	µg/L	470.56	ppb	23:10:36
1	Ti 334.940†	1864886.5	1853400.3	1731.0	µg/L	1731.0	ppb	23:10:34
1	Tl 190.801†	3478.5	3575.6	464.67	µg/L	464.67	ppb	23:10:36
1	U 409.014†	797.4	1062.8	94.689	µg/L	94.689	ppb	23:10:34
1	V 292.402†	99097.6	98134.0	479.02	µg/L	479.02	ppb	23:10:34
1	Zn 213.857†	124961.1	123690.8	686.59	µg/L	686.59	ppb	23:10:34
2	Sc RADIAL	145559.1	145559.1	99.7	%			23:10:25
2	Al 396.153Radial†	104784.0	105114.0	19466	µg/L	19466	ppb	23:10:25
2	Ca 317.933Radial†	177700.5	177592.4	9892.6	µg/L	9892.6	ppb	23:10:25
2	Fe 238.204 Radial†	837380.7	839365.0	51733	µg/L	51733	ppb	23:10:23
2	K 766.490 Radial†	31314.6	29849.6	10920	µg/L	10920	ppb	23:10:25
2	Mg 279.077 IEC†	19041.2	18899.0	7008.6	µg/L	7008.6	ppb	23:10:25
2	Na 589.592 Radial†	78507.7	77416.8	10566	µg/L	10566	ppb	23:10:25
2	Sr 421.552†	240723.8	241472.1	501.93	µg/L	501.93	ppb	23:10:23
2	Sc 361.383	1720667.8	1720667.8	100.14	%			23:10:39
2	Y 371.029	1362488.5	1362488.5	132.71	%			23:10:39
2	Ag 328.068†	129030.9	124755.8	466.49	µg/L	466.49	ppb	23:10:39
2	As 188.979†	1650.9	1668.9	523.14	µg/L	523.14	ppb	23:10:41
2	B 249.677†	35609.3	32052.7	471.08	µg/L	471.08	ppb	23:10:39
2	Ba 233.527†	142301.8	142235.1	572.95	µg/L	572.95	ppb	23:10:39
2	Be 313.107†	1800589.7	1799090.3	489.88	µg/L	489.88	ppb	23:10:39
2	Cd 226.502†	76485.0	76494.3	472.61	µg/L	472.61	ppb	23:10:39
2	Co 228.616†	38265.0	38400.9	471.73	µg/L	471.73	ppb	23:10:41
2	Cr 267.716†	74154.8	73870.6	579.79	µg/L	579.79	ppb	23:10:39
2	Cu 324.752†	131102.2	127943.3	505.27	µg/L	505.27	ppb	23:10:39
2	Mn 257.610†	2109515.2	2106274.0	2605.7	µg/L	2605.7	ppb	23:10:39
2	Mo 202.031†	16010.3	16007.5	472.78	µg/L	472.78	ppb	23:10:41
2	Ni 231.604†	46752.3	46762.3	538.43	µg/L	538.43	ppb	23:10:41
2	P 214.914†	4522.2	4533.7	932.58	µg/L	932.58	ppb	23:10:41
2	Pb 220.353†	8945.7	8846.6	496.66	µg/L	496.66	ppb	23:10:41

2	S 181.975 Axial†	6627.3	6512.8	4840.3	µg/L	4840.3 ppb	23:10:41
2	Sb 206.836†	3920.5	3834.1	454.57	µg/L	454.57 ppb	23:10:41
2	Se 196.026†	1333.9	1316.7	494	µg/L	494 ppb	23:10:41
2	SiO2†	783960.1	781068.4	76323	µg/L	76323 ppb	23:10:39
2	Si 251.611†	2403101.4	2398842.8	35356	µg/L	35356 ppb	23:10:39
2	Sn 189.927†	7611.2	7601.4	479.71	µg/L	479.71 ppb	23:10:41
2	Ti 334.940†	1858233.1	1854634.5	1732.2	µg/L	1732.2 ppb	23:10:39
2	Tl 190.801†	3547.7	3659.3	474.93	µg/L	474.93 ppb	23:10:41
2	U 409.014†	806.8	1075.6	95.301	µg/L	95.301 ppb	23:10:39
2	V 292.402†	98589.1	98045.0	478.63	µg/L	478.63 ppb	23:10:39
2	Zn 213.857†	124519.9	123778.2	686.98	µg/L	686.98 ppb	23:10:39
3	Sc RADIAL	145267.3	145267.3	99.5	%		23:10:29
3	Al 396.153Radial†	104935.6	105477.3	19534	µg/L	19534 ppb	23:10:29
3	Ca 317.933Radial†	177070.9	177317.8	9877.3	µg/L	9877.3 ppb	23:10:29
3	Fe 238.204 Radial†	816085.1	819658.4	50519	µg/L	50519 ppb	23:10:27
3	K 766.490 Radial†	31302.4	29900.3	10938	µg/L	10938 ppb	23:10:29
3	Mg 279.077 IEC†	19036.1	18932.2	7022.0	µg/L	7022.0 ppb	23:10:29
3	Na 589.592 Radial†	78373.3	77439.9	10569	µg/L	10569 ppb	23:10:29
3	Sr 421.552†	236465.3	237678.9	494.04	µg/L	494.04 ppb	23:10:27
3	Sc 361.383	1732357.2	1732357.2	100.82	%		23:10:44
3	Y 371.029	1371017.2	1371017.2	133.54	%		23:10:44
3	Ag 328.068†	129741.1	124590.8	465.88	µg/L	465.88 ppb	23:10:44
3	As 188.979†	1632.8	1639.8	514.09	µg/L	514.09 ppb	23:10:46
3	B 249.677†	36009.5	32209.7	473.40	µg/L	473.40 ppb	23:10:44
3	Ba 233.527†	143136.6	142104.1	572.44	µg/L	572.44 ppb	23:10:44
3	Be 313.107†	1815123.7	1801373.3	490.50	µg/L	490.50 ppb	23:10:44
3	Cd 226.502†	77268.5	76756.0	474.37	µg/L	474.37 ppb	23:10:44
3	Co 228.616†	38275.6	38153.5	468.74	µg/L	468.74 ppb	23:10:46
3	Cr 267.716†	74848.0	74058.5	581.22	µg/L	581.22 ppb	23:10:44
3	Cu 324.752†	132184.2	128133.1	505.83	µg/L	505.83 ppb	23:10:44
3	Mn 257.610†	2126945.7	2109348.2	2609.5	µg/L	2609.5 ppb	23:10:44
3	Mo 202.031†	16015.1	15904.5	469.70	µg/L	469.70 ppb	23:10:46
3	Ni 231.604†	46777.0	46471.7	535.09	µg/L	535.09 ppb	23:10:46
3	P 214.914†	4511.2	4492.4	924.57	µg/L	924.57 ppb	23:10:46
3	Pb 220.353†	9024.1	8864.0	497.67	µg/L	497.67 ppb	23:10:46
3	S 181.975 Axial†	6665.3	6505.9	4835.1	µg/L	4835.1 ppb	23:10:46
3	Sb 206.836†	3892.6	3780.0	448.08	µg/L	448.08 ppb	23:10:46
3	Se 196.026†	1284.5	1258.7	473	µg/L	473 ppb	23:10:46
3	SiO2†	790180.6	781955.7	76410	µg/L	76410 ppb	23:10:44
3	Si 251.611†	2421702.0	2401099.4	35390	µg/L	35390 ppb	23:10:44
3	Sn 189.927†	7609.0	7548.0	476.38	µg/L	476.38 ppb	23:10:46
3	Ti 334.940†	1870471.0	1854251.6	1731.8	µg/L	1731.8 ppb	23:10:44
3	Tl 190.801†	3577.5	3665.0	475.64	µg/L	475.64 ppb	23:10:46
3	U 409.014†	820.7	1083.9	96.042	µg/L	96.042 ppb	23:10:44
3	V 292.402†	99095.6	97883.0	477.94	µg/L	477.94 ppb	23:10:44
3	Zn 213.857†	125522.2	123933.2	688.00	µg/L	688.00 ppb	23:10:44

Mean Data: 1202068050|963993|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1727001.0	100.51	%	0.344				0.34%
Sc RADIAL	144917.1	99.3	%	0.60				0.60%
Y 371.029	1366807.4	133.13	%	0.415				0.31%
Ag 328.068†	124635.4	466.05	µg/L	0.389	466.05	ppb	0.389	0.08%
Al 396.153Radial†	105460.4	19531	µg/L	62.9	19531	ppb	62.9	0.32%
As 188.979†	1630.9	511.52	µg/L	13.093	511.52	ppb	13.093	2.56%
B 249.677†	32187.0	473.07	µg/L	1.849	473.07	ppb	1.849	0.39%
Ba 233.527†	142082.9	572.34	µg/L	0.659	572.34	ppb	0.659	0.12%
Be 313.107†	1800434.3	490.24	µg/L	0.325	490.24	ppb	0.325	0.07%
Ca 317.933Radial†	177735.2	9900.5	µg/L	28.08	9900.5	ppb	28.08	0.28%
Cd 226.502†	76620.2	473.45	µg/L	0.883	473.45	ppb	0.883	0.19%
Co 228.616†	38090.2	467.92	µg/L	4.272	467.92	ppb	4.272	0.91%
Cr 267.716†	73901.8	580.02	µg/L	1.107	580.02	ppb	1.107	0.19%
Cu 324.752†	127939.4	505.17	µg/L	0.712	505.17	ppb	0.712	0.14%
Fe 238.204 Radial†	830344.8	51177	µg/L	613.8	51177	ppb	613.8	1.20%
K 766.490 Radial†	29903.2	10940	µg/L	20.2	10940	ppb	20.2	0.18%
Mg 279.077 IEC†	18916.6	7015.6	µg/L	6.70	7015.6	ppb	6.70	0.10%
Mn 257.610†	2107452.2	2607.1	µg/L	2.05	2607.1	ppb	2.05	0.08%
Mo 202.031†	15877.7	468.94	µg/L	4.270	468.94	ppb	4.270	0.91%
Na 589.592 Radial†	77550.4	10585	µg/L	28.9	10585	ppb	28.9	0.27%

Ni 231.604†	46435.6	534.67 µg/L	3.984	534.67 ppb	3.984	0.75%
P 214.914†	4502.9	926.39 µg/L	5.513	926.39 ppb	5.513	0.60%
Pb 220.353†	8858.6	497.35 µg/L	0.592	497.35 ppb	0.592	0.12%
S 181.975 Axial†	6465.3	4804.9 µg/L	56.77	4804.9 ppb	56.77	1.18%
Sb 206.836†	3795.5	449.92 µg/L	4.054	449.92 ppb	4.054	0.90%
Se 196.026†	1281.9	481 µg/L	11.3	481 ppb	11.3	2.34%
SiO2†	781359.7	76351 µg/L	50.4	76351 ppb	50.4	0.07%
Si 251.611†	2399665.7	35369 µg/L	18.4	35369 ppb	18.4	0.05%
Sn 189.927†	7534.7	475.55 µg/L	4.629	475.55 ppb	4.629	0.97%
Sr 421.552†	239641.5	498.12 µg/L	3.950	498.12 ppb	3.950	0.79%
Ti 334.940†	1854095.4	1731.7 µg/L	0.59	1731.7 ppb	0.59	0.03%
Tl 190.801†	3633.3	471.75 µg/L	6.138	471.75 ppb	6.138	1.30%
U 409.014†	1074.1	95.344 µg/L	0.6774	95.344 ppb	0.6774	0.71%
V 292.402†	98020.6	478.53 µg/L	0.546	478.53 ppb	0.546	0.11%
Zn 213.857†	123800.7	687.19 µg/L	0.728	687.19 ppb	0.728	0.11%

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Sequence No.: 103
Sample ID: 1202068051|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 233
Date Collected: 3/31/2010 23:10:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068051|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143682.3	143682.3	98.5	%			23:11:28
1	Al 396.153Radial†	119739.0	121675.2	22536	µg/L	22536	ppb	23:11:28
1	Ca 317.933Radial†	195439.9	197936.4	11026	µg/L	11026	ppb	23:11:28
1	Fe 238.204 Radial†	948791.1	963484.1	59383	µg/L	59383	ppb	23:11:25
1	K 766.490 Radial†	33328.7	32305.3	11818	µg/L	11818	ppb	23:11:28
1	Mg 279.077 IEC†	21415.5	21559.7	7993.6	µg/L	7993.6	ppb	23:11:28
1	Na 589.592 Radial†	81861.6	81851.3	11171	µg/L	11171	ppb	23:11:28
1	Sr 421.552†	243454.0	247397.4	514.24	µg/L	514.24	ppb	23:11:25
1	Sc 361.383	1732850.4	1732850.4	100.85	%			23:11:54
1	Y 371.029	1413744.2	1413744.2	137.70	%			23:11:54
1	Ag 328.068†	133152.1	127936.3	478.27	µg/L	478.27	ppb	23:11:54
1	As 188.979†	1656.1	1662.4	523.06	µg/L	523.06	ppb	23:11:56
1	B 249.677†	37092.9	33273.8	489.05	µg/L	489.05	ppb	23:11:54
1	Ba 233.527†	155202.9	154028.1	620.39	µg/L	620.39	ppb	23:11:54
1	Be 313.107†	1863782.2	1849108.5	503.49	µg/L	503.49	ppb	23:11:54
1	Cd 226.502†	79044.8	78495.5	484.31	µg/L	484.31	ppb	23:11:54
1	Co 228.616†	39433.3	39290.7	482.35	µg/L	482.35	ppb	23:11:56
1	Cr 267.716†	76504.6	75680.0	594.14	µg/L	594.14	ppb	23:11:54
1	Cu 324.752†	135721.9	131603.6	520.62	µg/L	520.62	ppb	23:11:54
1	Mn 257.610†	2445789.5	2424899.3	2999.9	µg/L	2999.9	ppb	23:11:54
1	Mo 202.031†	16403.6	16285.2	481.26	µg/L	481.26	ppb	23:11:56
1	Ni 231.604†	48265.0	47934.0	551.92	µg/L	551.92	ppb	23:11:56
1	P 214.914†	4915.1	4891.6	1004.5	µg/L	1004.5	ppb	23:11:56
1	Pb 220.353†	9349.0	9183.6	515.74	µg/L	515.74	ppb	23:11:56
1	S 181.975 Axial†	6822.1	6659.4	4949.2	µg/L	4949.2	ppb	23:11:56
1	Sb 206.836†	3916.7	3802.8	450.68	µg/L	450.68	ppb	23:11:56
1	Se 196.026†	1290.9	1264.8	478	µg/L	478	ppb	23:11:56
1	SiO2†	806621.2	798034.4	77981	µg/L	77981	ppb	23:11:54
1	Si 251.611†	2472022.8	2450311.7	36115	µg/L	36115	ppb	23:11:54
1	Sn 189.927†	7861.4	7796.2	492.60	µg/L	492.60	ppb	23:11:56
1	Ti 334.940†	2109473.5	2090707.9	1952.7	µg/L	1952.7	ppb	23:11:54
1	Tl 190.801†	3615.9	3702.0	483.48	µg/L	483.48	ppb	23:11:56
1	U 409.014†	437.5	703.7	75.411	µg/L	75.411	ppb	23:11:54
1	V 292.402†	102892.0	101619.4	495.18	µg/L	495.18	ppb	23:11:54
1	Zn 213.857†	134531.2	132830.7	737.06	µg/L	737.06	ppb	23:11:54
2	Sc RADIAL	143519.5	143519.5	98.3	%			23:11:32
2	Al 396.153Radial†	118981.0	121042.4	22419	µg/L	22419	ppb	23:11:32
2	Ca 317.933Radial†	194652.4	197360.9	10994	µg/L	10994	ppb	23:11:32
2	Fe 238.204 Radial†	947963.0	963735.3	59399	µg/L	59399	ppb	23:11:30
2	K 766.490 Radial†	33456.4	32473.5	11880	µg/L	11880	ppb	23:11:32
2	Mg 279.077 IEC†	21337.0	21504.6	7973.2	µg/L	7973.2	ppb	23:11:32
2	Na 589.592 Radial†	81726.8	81808.5	11165	µg/L	11165	ppb	23:11:32
2	Sr 421.552†	244053.2	248287.2	516.09	µg/L	516.09	ppb	23:11:30
2	Sc 361.383	1716147.1	1716147.1	99.879	%			23:11:59
2	Y 371.029	1399427.0	1399427.0	136.30	%			23:11:59
2	Ag 328.068†	131040.4	127107.1	475.19	µg/L	475.19	ppb	23:11:59
2	As 188.979†	1652.6	1675.0	526.87	µg/L	526.87	ppb	23:12:02
2	B 249.677†	36369.3	32907.2	483.64	µg/L	483.64	ppb	23:11:59
2	Ba 233.527†	153305.4	153626.2	618.77	µg/L	618.77	ppb	23:11:59
2	Be 313.107†	1840104.6	1843389.4	501.93	µg/L	501.93	ppb	23:11:59
2	Cd 226.502†	77839.5	78051.6	481.53	µg/L	481.53	ppb	23:11:59
2	Co 228.616†	39105.2	39342.7	482.99	µg/L	482.99	ppb	23:12:02
2	Cr 267.716†	75731.2	75644.0	593.87	µg/L	593.87	ppb	23:11:59
2	Cu 324.752†	134112.6	131302.2	519.45	µg/L	519.45	ppb	23:11:59
2	Mn 257.610†	2415268.4	2417945.2	2991.2	µg/L	2991.2	ppb	23:11:59
2	Mo 202.031†	16385.3	16425.1	485.37	µg/L	485.37	ppb	23:12:02
2	Ni 231.604†	48062.0	48196.5	554.95	µg/L	554.95	ppb	23:12:02
2	P 214.914†	4998.8	5022.8	1032.5	µg/L	1032.5	ppb	23:12:02
2	Pb 220.353†	9238.3	9163.1	514.60	µg/L	514.60	ppb	23:12:02

2	S 181.975 Axial†	6806.6	6709.8	4986.6	µg/L	4986.6 ppb	23:12:02
2	Sb 206.836†	3980.7	3904.7	462.85	µg/L	462.85 ppb	23:12:02
2	Se 196.026†	1363.6	1350.0	509	µg/L	509 ppb	23:12:02
2	SiO2†	795594.6	794779.1	77662	µg/L	77662 ppb	23:11:59
2	Si 251.611†	2438077.4	2440182.5	35966	µg/L	35966 ppb	23:11:59
2	Sn 189.927†	7819.3	7829.9	494.68	µg/L	494.68 ppb	23:12:02
2	Ti 334.940†	2085824.2	2087388.3	1949.6	µg/L	1949.6 ppb	23:11:59
2	Tl 190.801†	3601.6	3722.6	485.95	µg/L	485.95 ppb	23:12:02
2	U 409.014†	358.7	629.0	70.959	µg/L	70.959 ppb	23:11:59
2	V 292.402†	101821.7	101540.8	494.84	µg/L	494.84 ppb	23:11:59
2	Zn 213.857†	132857.3	132453.2	734.92	µg/L	734.92 ppb	23:11:59
3	Sc RADIAL	144657.4	144657.4	99.1	%		23:11:36
3	Al 396.153Radial†	119908.9	121026.8	22416	µg/L	22416 ppb	23:11:36
3	Ca 317.933Radial†	196766.5	197936.6	11026	µg/L	11026 ppb	23:11:36
3	Fe 238.204 Radial†	935156.7	943234.3	58135	µg/L	58135 ppb	23:11:34
3	K 766.490 Radial†	33655.8	32407.1	11855	µg/L	11855 ppb	23:11:36
3	Mg 279.077 IEC†	21554.4	21553.3	7992.1	µg/L	7992.1 ppb	23:11:36
3	Na 589.592 Radial†	82535.6	81970.8	11188	µg/L	11188 ppb	23:11:36
3	Sr 421.552†	241567.9	243828.0	506.82	µg/L	506.82 ppb	23:11:34
3	Sc 361.383	1750542.5	1750542.5	101.88	%		23:12:04
3	Y 371.029	1428692.7	1428692.7	139.16	%		23:12:04
3	Ag 328.068†	134254.3	127683.9	477.32	µg/L	477.32 ppb	23:12:04
3	As 188.979†	1608.7	1599.4	503.69	µg/L	503.69 ppb	23:12:07
3	B 249.677†	37322.6	33127.5	486.93	µg/L	486.93 ppb	23:12:04
3	Ba 233.527†	156560.8	153805.7	619.51	µg/L	619.51 ppb	23:12:04
3	Be 313.107†	1882380.6	1848685.9	503.37	µg/L	503.37 ppb	23:12:04
3	Cd 226.502†	79930.7	78572.9	484.92	µg/L	484.92 ppb	23:12:04
3	Co 228.616†	38902.0	38373.9	471.11	µg/L	471.11 ppb	23:12:07
3	Cr 267.716†	77368.4	75761.2	594.75	µg/L	594.75 ppb	23:12:04
3	Cu 324.752†	137074.0	131570.7	520.29	µg/L	520.29 ppb	23:12:04
3	Mn 257.610†	2469146.8	2423315.3	2997.9	µg/L	2997.9 ppb	23:12:04
3	Mo 202.031†	16275.6	15995.2	472.69	µg/L	472.69 ppb	23:12:07
3	Ni 231.604†	47809.7	47003.4	541.21	µg/L	541.21 ppb	23:12:07
3	P 214.914†	4849.2	4777.6	980.87	µg/L	980.87 ppb	23:12:07
3	Pb 220.353†	9259.2	9001.9	505.62	µg/L	505.62 ppb	23:12:07
3	S 181.975 Axial†	6751.6	6521.9	4847.0	µg/L	4847.0 ppb	23:12:07
3	Sb 206.836†	3939.7	3786.1	448.56	µg/L	448.56 ppb	23:12:07
3	Se 196.026†	1269.3	1230.6	465	µg/L	465 ppb	23:12:07
3	SiO2†	814280.1	797468.5	77926	µg/L	77926 ppb	23:12:04
3	Si 251.611†	2495080.6	2448170.8	36084	µg/L	36084 ppb	23:12:04
3	Sn 189.927†	7706.4	7565.2	478.20	µg/L	478.20 ppb	23:12:07
3	Ti 334.940†	2132610.9	2092278.4	1954.2	µg/L	1954.2 ppb	23:12:04
3	Tl 190.801†	3583.2	3633.7	475.15	µg/L	475.15 ppb	23:12:07
3	U 409.014†	170.5	437.2	60.109	µg/L	60.109 ppb	23:12:04
3	V 292.402†	103978.3	101654.5	495.39	µg/L	495.39 ppb	23:12:04
3	Zn 213.857†	136187.0	133107.8	738.82	µg/L	738.82 ppb	23:12:04

Mean Data: 1202068051|963993|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733180.0	100.87	%	1.001				0.99%
Sc RADIAL	143953.0	98.6	%	0.42				0.43%
Y 371.029	1413954.6	137.72	%	1.425				1.03%
Ag 328.068†	127575.8	476.93	µg/L	1.576	476.93	ppb	1.576	0.33%
Al 396.153Radial†	121248.1	22457	µg/L	68.5	22457	ppb	68.5	0.31%
As 188.979†	1645.6	517.87	µg/L	12.431	517.87	ppb	12.431	2.40%
B 249.677†	33102.8	486.54	µg/L	2.725	486.54	ppb	2.725	0.56%
Ba 233.527†	153820.0	619.56	µg/L	0.810	619.56	ppb	0.810	0.13%
Be 313.107†	1847061.3	502.93	µg/L	0.867	502.93	ppb	0.867	0.17%
Ca 317.933Radial†	197744.6	11015	µg/L	18.5	11015	ppb	18.5	0.17%
Cd 226.502†	78373.3	483.59	µg/L	1.803	483.59	ppb	1.803	0.37%
Co 228.616†	39002.4	478.82	µg/L	6.685	478.82	ppb	6.685	1.40%
Cr 267.716†	75695.1	594.26	µg/L	0.451	594.26	ppb	0.451	0.08%
Cu 324.752†	131492.2	520.12	µg/L	0.605	520.12	ppb	0.605	0.12%
Fe 238.204 Radial†	956817.9	58972	µg/L	725.1	58972	ppb	725.1	1.23%
K 766.490 Radial†	32395.3	11851	µg/L	31.0	11851	ppb	31.0	0.26%
Mg 279.077 IEC†	21539.2	7986.3	µg/L	11.39	7986.3	ppb	11.39	0.14%
Mn 257.610†	2422053.2	2996.3	µg/L	4.51	2996.3	ppb	4.51	0.15%
Mo 202.031†	16235.2	479.78	µg/L	6.472	479.78	ppb	6.472	1.35%
Na 589.592 Radial†	81876.9	11175	µg/L	11.5	11175	ppb	11.5	0.10%

Ni 231.604†	47711.3	549.36 µg/L	7.219	549.36 ppb	7.219	1.31%
P 214.914†	4897.3	1005.9 µg/L	25.83	1005.9 ppb	25.83	2.57%
Pb 220.353†	9116.2	511.99 µg/L	5.542	511.99 ppb	5.542	1.08%
S 181.975 Axial†	6630.4	4927.6 µg/L	72.28	4927.6 ppb	72.28	1.47%
Sb 206.836†	3831.2	454.03 µg/L	7.715	454.03 ppb	7.715	1.70%
Se 196.026†	1281.8	484 µg/L	22.4	484 ppb	22.4	4.63%
SiO2†	796760.7	77856 µg/L	170.2	77856 ppb	170.2	0.22%
Si 251.611†	2446221.7	36055 µg/L	78.8	36055 ppb	78.8	0.22%
Sn 189.927†	7730.4	488.49 µg/L	8.973	488.49 ppb	8.973	1.84%
Sr 421.552†	246504.2	512.38 µg/L	4.906	512.38 ppb	4.906	0.96%
Ti 334.940†	2090124.9	1952.2 µg/L	2.33	1952.2 ppb	2.33	0.12%
Tl 190.801†	3686.1	481.53 µg/L	5.655	481.53 ppb	5.655	1.17%
U 409.014†	590.0	68.826 µg/L	7.8711	68.826 ppb	7.8711	11.44%
V 292.402†	101604.9	495.14 µg/L	0.278	495.14 ppb	0.278	0.06%
Zn 213.857†	132797.2	736.93 µg/L	1.955	736.93 ppb	1.955	0.27%

Sequence No.: 104
Sample ID: 1202068049|963993|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 234
Date Collected: 3/31/2010 23:12:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068049|963993|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	148181.1	148181.1	102	%			23:12:45
1	Al 396.153Radial†	11054.6	10949.9	2030.0	µg/L	2030.0	ppb	23:12:47
1	Ca 317.933Radial†	13043.5	12284.8	684.31	µg/L	684.31	ppb	23:12:47
1	Fe 238.204 Radial†	167221.6	164532.9	10141	µg/L	10141	ppb	23:12:45
1	K 766.490 Radial†	3545.0	1946.4	711.87	µg/L	711.87	ppb	23:12:45
1	Mg 279.077 IEC†	1148.0	939.8	341.51	µg/L	341.51	ppb	23:12:47
1	Na 589.592 Radial†	6702.9	5310.3	724.82	µg/L	724.82	ppb	23:12:45
1	Sr 421.552†	2655.2	2750.1	5.7120	µg/L	5.7120	ppb	23:12:47
1	Sc 361.383	1776273.2	1776273.2	103.38	%			23:12:59
1	Y 371.029	1116126.2	1116126.2	108.71	%			23:12:59
1	Ag 328.068†	4384.0	149.4	0.3471	µg/L	0.3471	ppb	23:13:01
1	As 188.979†	-4.6	15.9	7.3232	µg/L	7.3232	ppb	23:13:21
1	B 249.677†	3665.6	39.9	0.5812	µg/L	0.5812	ppb	23:13:01
1	Ba 233.527†	5409.2	5368.3	21.505	µg/L	21.505	ppb	23:13:21
1	Be 313.107†	2013.3	3012.2	0.8037	µg/L	0.8037	ppb	23:13:01
1	Cd 226.502†	55.0	171.4	0.0105	µg/L	0.0105	ppb	23:13:21
1	Co 228.616†	-36.8	154.7	1.4059	µg/L	1.4059	ppb	23:13:21
1	Cr 267.716†	3494.9	3202.2	25.377	µg/L	25.377	ppb	23:13:01
1	Cu 324.752†	3122.5	48.2	1.6297	µg/L	1.6297	ppb	23:13:01
1	Mn 257.610†	315778.0	305219.9	377.61	µg/L	377.61	ppb	23:13:01
1	Mo 202.031†	38.0	56.9	2.0799	µg/L	2.0799	ppb	23:13:21
1	Ni 231.604†	1112.2	1152.3	13.268	µg/L	13.268	ppb	23:13:21
1	P 214.914†	506.5	507.9	102.19	µg/L	102.19	ppb	23:13:21
1	Pb 220.353†	177.3	85.1	4.9043	µg/L	4.9043	ppb	23:13:21
1	S 181.975 Axial†	132.3	23.0	17.065	µg/L	17.065	ppb	23:13:21
1	Sb 206.836†	83.8	0.2	-0.4586	µg/L	-0.4586	ppb	23:13:21
1	Se 196.026†	18.2	2.3	4.30	µg/L	4.30	ppb	23:13:21
1	SiO2†	92658.0	87854.2	8586.9	µg/L	8586.9	ppb	23:13:01
1	Si 251.611†	279955.9	269969.3	3980.1	µg/L	3980.1	ppb	23:13:01
1	Sn 189.927†	49.3	48.8	3.8334	µg/L	3.8334	ppb	23:13:21
1	Ti 334.940†	259940.1	250491.7	234.03	µg/L	234.03	ppb	23:13:01
1	Tl 190.801†	-145.1	-23.7	0.4348	µg/L	0.4348	ppb	23:13:21
1	U 409.014†	-1244.3	-933.7	-54.228	µg/L	-54.228	ppb	23:13:01
1	V 292.402†	1255.1	810.2	2.7542	µg/L	2.7542	ppb	23:13:01
1	Zn 213.857†	8549.2	7705.4	42.264	µg/L	42.264	ppb	23:13:21
2	Sc RADIAL	146233.8	146233.8	100	%			23:12:49
2	Al 396.153Radial†	10925.2	10965.7	2033.0	µg/L	2033.0	ppb	23:12:51
2	Ca 317.933Radial†	12925.0	12337.6	687.25	µg/L	687.25	ppb	23:12:51
2	Fe 238.204 Radial†	165649.2	165156.7	10179	µg/L	10179	ppb	23:12:49
2	K 766.490 Radial†	3475.3	1923.3	703.43	µg/L	703.43	ppb	23:12:49
2	Mg 279.077 IEC†	1124.8	931.8	338.47	µg/L	338.47	ppb	23:12:51
2	Na 589.592 Radial†	6765.3	5460.4	745.34	µg/L	745.34	ppb	23:12:49
2	Sr 421.552†	2616.9	2746.8	5.7050	µg/L	5.7050	ppb	23:12:51
2	Sc 361.383	1769226.5	1769226.5	102.97	%			23:13:23
2	Y 371.029	1112018.5	1112018.5	108.31	%			23:13:23
2	Ag 328.068†	3850.9	-351.5	-1.5041	µg/L	-1.5041	ppb	23:13:25
2	As 188.979†	-6.3	14.3	6.8588	µg/L	6.8588	ppb	23:13:45
2	B 249.677†	3768.2	153.7	2.2608	µg/L	2.2608	ppb	23:13:25
2	Ba 233.527†	5381.2	5361.9	21.480	µg/L	21.480	ppb	23:13:45
2	Be 313.107†	2031.0	3037.1	0.8081	µg/L	0.8081	ppb	23:13:25
2	Cd 226.502†	88.4	204.0	0.2102	µg/L	0.2102	ppb	23:13:45
2	Co 228.616†	-59.1	132.9	1.1352	µg/L	1.1352	ppb	23:13:45
2	Cr 267.716†	3730.6	3444.5	27.281	µg/L	27.281	ppb	23:13:25
2	Cu 324.752†	3137.1	74.4	1.7307	µg/L	1.7307	ppb	23:13:25
2	Mn 257.610†	321555.2	312047.1	386.06	µg/L	386.06	ppb	23:13:25
2	Mo 202.031†	23.3	42.7	1.6643	µg/L	1.6643	ppb	23:13:45
2	Ni 231.604†	1098.7	1143.5	13.167	µg/L	13.167	ppb	23:13:45
2	P 214.914†	485.7	489.6	98.250	µg/L	98.250	ppb	23:13:45
2	Pb 220.353†	173.4	82.0	4.7418	µg/L	4.7418	ppb	23:13:45

2	S 181.975 Axial†	118.6	10.1	7.5112 µg/L	7.5112 ppb	23:13:45
2	Sb 206.836†	74.1	-8.9	-1.5704 µg/L	-1.5704 ppb	23:13:45
2	Se 196.026†	8.7	-6.9	0.994 µg/L	0.994 ppb	23:13:45
2	SiO2†	94594.8	90092.1	8805.7 µg/L	8805.7 ppb	23:13:25
2	Si 251.611†	286019.8	276936.9	4082.8 µg/L	4082.8 ppb	23:13:25
2	Sn 189.927†	26.5	26.9	2.4822 µg/L	2.4822 ppb	23:13:45
2	Ti 334.940†	264990.1	256397.6	239.55 µg/L	239.55 ppb	23:13:25
2	Tl 190.801†	-152.9	-31.8	-0.4765 µg/L	-0.4765 ppb	23:13:45
2	U 409.014†	-1374.6	-1065.0	-61.786 µg/L	-61.786 ppb	23:13:25
2	V 292.402†	1524.9	1077.1	4.0455 µg/L	4.0455 ppb	23:13:25
2	Zn 213.857†	8554.2	7743.2	42.476 µg/L	42.476 ppb	23:13:45
3	Sc RADIAL	146643.3	146643.3	100 %		23:12:53
3	Al 396.153Radial†	10974.1	10983.9	2036.3 µg/L	2036.3 ppb	23:12:55
3	Ca 317.933Radial†	13065.9	12441.8	693.06 µg/L	693.06 ppb	23:12:55
3	Fe 238.204 Radial†	164846.4	163896.2	10102 µg/L	10102 ppb	23:12:53
3	K 766.490 Radial†	3572.7	2010.5	735.35 µg/L	735.35 ppb	23:12:53
3	Mg 279.077 IEC†	1128.2	932.0	338.65 µg/L	338.65 ppb	23:12:55
3	Na 589.592 Radial†	6730.3	5406.8	737.98 µg/L	737.98 ppb	23:12:53
3	Sr 421.552†	2719.5	2841.6	5.9021 µg/L	5.9021 ppb	23:12:55
3	Sc 361.383	1773246.2	1773246.2	103.20 %		23:13:47
3	Y 371.029	1114059.7	1114059.7	108.51 %		23:13:47
3	Ag 328.068†	4132.9	-86.8	-0.5319 µg/L	-0.5319 ppb	23:13:49
3	As 188.979†	-8.7	11.9	6.1240 µg/L	6.1240 ppb	23:14:10
3	B 249.677†	3601.4	-16.3	-0.2473 µg/L	-0.2473 ppb	23:13:49
3	Ba 233.527†	5373.2	5342.3	21.402 µg/L	21.402 ppb	23:14:10
3	Be 313.107†	2076.0	3076.3	0.8194 µg/L	0.8194 ppb	23:13:49
3	Cd 226.502†	55.4	171.9	0.0180 µg/L	0.0180 ppb	23:14:10
3	Co 228.616†	-25.3	165.8	1.5443 µg/L	1.5443 ppb	23:14:10
3	Cr 267.716†	3685.8	3392.8	26.871 µg/L	26.871 ppb	23:13:49
3	Cu 324.752†	3084.9	16.9	1.4977 µg/L	1.4977 ppb	23:13:49
3	Mn 257.610†	323350.1	313078.4	387.33 µg/L	387.33 ppb	23:13:49
3	Mo 202.031†	44.6	63.3	2.2663 µg/L	2.2663 ppb	23:14:10
3	Ni 231.604†	1139.3	1180.4	13.592 µg/L	13.592 ppb	23:14:10
3	P 214.914†	501.8	504.2	101.42 µg/L	101.42 ppb	23:14:10
3	Pb 220.353†	159.5	68.1	3.9720 µg/L	3.9720 ppb	23:14:10
3	S 181.975 Axial†	113.9	5.3	3.9867 µg/L	3.9867 ppb	23:14:10
3	Sb 206.836†	79.4	-3.9	-0.9676 µg/L	-0.9676 ppb	23:14:10
3	Se 196.026†	-7.0	-22.0	-4.52 µg/L	-4.52 ppb	23:14:10
3	SiO2†	94869.1	90149.7	8811.3 µg/L	8811.3 ppb	23:13:49
3	Si 251.611†	287530.3	277770.9	4095.1 µg/L	4095.1 ppb	23:13:49
3	Sn 189.927†	33.4	33.5	2.8959 µg/L	2.8959 ppb	23:14:10
3	Ti 334.940†	266040.1	256831.6	239.96 µg/L	239.96 ppb	23:13:49
3	Tl 190.801†	-141.0	-20.0	0.9756 µg/L	0.9756 ppb	23:14:10
3	U 409.014†	-1344.0	-1032.4	-59.903 µg/L	-59.903 ppb	23:13:49
3	V 292.402†	1341.9	896.5	3.1780 µg/L	3.1780 ppb	23:13:49
3	Zn 213.857†	8514.9	7686.3	42.162 µg/L	42.162 ppb	23:14:10

Mean Data: 1202068049|963993|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1772915.3	103.18	%	0.206				0.20%
Sc RADIAL	147019.4	101	%	0.7				0.70%
Y 371.029	1114068.1	108.51	%	0.200				0.18%
Ag 328.068†	-96.3	-0.5630	µg/L	0.92599	-0.5630	ppb	0.92599	164.48%
Al 396.153Radial†	10966.5	2033.1	µg/L	3.16	2033.1	ppb	3.16	0.16%
As 188.979†	14.0	6.7687	µg/L	0.60466	6.7687	ppb	0.60466	8.93%
B 249.677†	59.1	0.8649	µg/L	1.27790	0.8649	ppb	1.27790	147.75%
Ba 233.527†	5357.5	21.462	µg/L	0.0541	21.462	ppb	0.0541	0.25%
Be 313.107†	3041.9	0.8104	µg/L	0.00809	0.8104	ppb	0.00809	1.00%
Ca 317.933Radial†	12354.7	688.21	µg/L	4.451	688.21	ppb	4.451	0.65%
Cd 226.502†	182.4	0.0796	µg/L	0.11321	0.0796	ppb	0.11321	142.30%
Co 228.616†	151.1	1.3618	µg/L	0.20808	1.3618	ppb	0.20808	15.28%
Cr 267.716†	3346.5	26.510	µg/L	1.0022	26.510	ppb	1.0022	3.78%
Cu 324.752†	46.5	1.6193	µg/L	0.11685	1.6193	ppb	0.11685	7.22%
Fe 238.204 Radial†	164528.6	10141	µg/L	38.8	10141	ppb	38.8	0.38%
K 766.490 Radial†	1960.1	716.88	µg/L	16.543	716.88	ppb	16.543	2.31%
Mg 279.077 IEC†	934.6	339.54	µg/L	1.707	339.54	ppb	1.707	0.50%
Mn 257.610†	310115.1	383.66	µg/L	5.284	383.66	ppb	5.284	1.38%
Mo 202.031†	54.3	2.0035	µg/L	0.30818	2.0035	ppb	0.30818	15.38%
Na 589.592 Radial†	5392.5	736.04	µg/L	10.395	736.04	ppb	10.395	1.41%

Ni 231.604†	1158.8	13.342	µg/L	0.2220	13.342	ppb	0.2220	1.66%
P 214.914†	500.6	100.62	µg/L	2.089	100.62	ppb	2.089	2.08%
Pb 220.353†	78.4	4.5394	µg/L	0.49803	4.5394	ppb	0.49803	10.97%
S 181.975 Axial†	12.8	9.5210	µg/L	6.76687	9.5210	ppb	6.76687	71.07%
Sb 206.836†	-4.2	-0.9988	µg/L	0.55658	-0.9988	ppb	0.55658	55.72%
Se 196.026†	-8.9	0.257	µg/L	4.4537	0.257	ppb	4.4537	>999.9%
SiO2†	89365.4	8734.7	µg/L	127.95	8734.7	ppb	127.95	1.46%
Si 251.611†	274892.4	4052.7	µg/L	63.16	4052.7	ppb	63.16	1.56%
Sn 189.927†	36.4	3.0705	µg/L	0.69230	3.0705	ppb	0.69230	22.55%
Sr 421.552†	2779.5	5.7730	µg/L	0.11181	5.7730	ppb	0.11181	1.94%
Ti 334.940†	254573.6	237.85	µg/L	3.310	237.85	ppb	3.310	1.39%
Tl 190.801†	-25.2	0.3113	µg/L	0.73389	0.3113	ppb	0.73389	235.77%
U 409.014†	-1010.4	-58.639	µg/L	3.9345	-58.639	ppb	3.9345	6.71%
Concentration less than lower limit for U 409.014.								
V 292.402†	927.9	3.3259	µg/L	0.65828	3.3259	ppb	0.65828	19.79%
Zn 213.857†	7711.6	42.301	µg/L	0.1601	42.301	ppb	0.1601	0.38%

Sequence No.: 107
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 23:18:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144621.4	144621.4	99.1	%			23:18:59
1	Al 396.153Radial†	26323.5	26624.9	4914.2	µg/L	4914.2	ppb	23:18:59
1	Ca 317.933Radial†	86890.8	87116.3	4852.7	µg/L	4852.7	ppb	23:18:59
1	Fe 238.204 Radial†	77681.3	78236.0	4822.0	µg/L	4822.0	ppb	23:18:59
1	K 766.490 Radial†	14559.5	13146.4	4809.1	µg/L	4809.1	ppb	23:18:59
1	Mg 279.077 IEC†	13260.2	13189.4	4921.6	µg/L	4921.6	ppb	23:18:59
1	Na 589.592 Radial†	71065.1	70417.2	9615.6	µg/L	9615.6	ppb	23:18:59
1	Sr 421.552†	226802.4	228989.5	476.02	µg/L	476.02	ppb	23:18:57
1	Sc 361.383	1740302.6	1740302.6	101.29	%			23:19:12
1	Y 371.029	1028952.4	1028952.4	100.22	%			23:19:12
1	Ag 328.068†	133614.5	127827.5	479.30	µg/L	479.30	ppb	23:19:12
1	As 188.979†	1600.2	1600.2	490.89	µg/L	490.89	ppb	23:19:32
1	B 249.677†	35788.1	31828.1	467.74	µg/L	467.74	ppb	23:19:12
1	Ba 233.527†	120219.9	118830.1	479.24	µg/L	479.24	ppb	23:19:12
1	Be 313.107†	1792744.0	1771058.2	482.36	µg/L	482.36	ppb	23:19:12
1	Cd 226.502†	77213.0	76351.3	476.62	µg/L	476.62	ppb	23:19:12
1	Co 228.616†	39286.0	38977.8	481.18	µg/L	481.18	ppb	23:19:12
1	Cr 267.716†	61813.7	60850.7	476.45	µg/L	476.45	ppb	23:19:12
1	Cu 324.752†	127063.4	122478.8	477.46	µg/L	477.46	ppb	23:19:12
1	Mn 257.610†	394634.0	389388.7	481.58	µg/L	481.58	ppb	23:19:12
1	Mo 202.031†	16315.2	16128.2	474.43	µg/L	474.43	ppb	23:19:32
1	Ni 231.604†	42026.4	41569.6	478.64	µg/L	478.64	ppb	23:19:12
1	P 214.914†	11190.5	11066.4	2358.7	µg/L	2358.7	ppb	23:19:32
1	Pb 220.353†	8740.7	8543.3	478.42	µg/L	478.42	ppb	23:19:32
1	S 181.975 Axial†	1377.8	1255.2	936.10	µg/L	936.10	ppb	23:19:32
1	Sb 206.836†	4144.7	4011.3	477.89	µg/L	477.89	ppb	23:19:32
1	Se 196.026†	1340.6	1308.3	475	µg/L	475	ppb	23:19:32
1	SiO2†	55627.7	53146.4	5174.3	µg/L	5174.3	ppb	23:19:12
1	Si 251.611†	168264.2	165292.3	2427.4	µg/L	2427.4	ppb	23:19:12
1	Sn 189.927†	7681.2	7584.9	474.45	µg/L	474.45	ppb	23:19:32
1	Ti 334.940†	520666.2	513106.3	478.76	µg/L	478.76	ppb	23:19:12
1	Tl 190.801†	3808.4	3876.8	483.51	µg/L	483.51	ppb	23:19:32
1	U 409.014†	7415.2	7590.9	472.81	µg/L	472.81	ppb	23:19:12
1	V 292.402†	98786.7	97129.3	480.13	µg/L	480.13	ppb	23:19:12
1	Zn 213.857†	87000.0	85331.6	475.59	µg/L	475.59	ppb	23:19:12
2	Sc RADIAL	142472.1	142472.1	97.6	%			23:19:03
2	Al 396.153Radial†	25927.4	26619.8	4913.0	µg/L	4913.0	ppb	23:19:03
2	Ca 317.933Radial†	85608.6	87125.7	4853.2	µg/L	4853.2	ppb	23:19:03
2	Fe 238.204 Radial†	76614.2	78325.4	4827.5	µg/L	4827.5	ppb	23:19:03
2	K 766.490 Radial†	14271.1	13072.6	4782.1	µg/L	4782.1	ppb	23:19:03
2	Mg 279.077 IEC†	13162.7	13291.5	4959.8	µg/L	4959.8	ppb	23:19:03
2	Na 589.592 Radial†	70188.6	70601.3	9640.7	µg/L	9640.7	ppb	23:19:03
2	Sr 421.552†	229468.1	235172.4	488.87	µg/L	488.87	ppb	23:19:01
2	Sc 361.383	1723519.2	1723519.2	100.31	%			23:19:35
2	Y 371.029	1019447.3	1019447.3	99.295	%			23:19:35
2	Ag 328.068†	132544.4	128045.3	480.11	µg/L	480.11	ppb	23:19:35
2	As 188.979†	1616.7	1632.0	500.53	µg/L	500.53	ppb	23:19:55
2	B 249.677†	35773.7	32157.7	472.61	µg/L	472.61	ppb	23:19:35
2	Ba 233.527†	119609.8	119377.7	481.45	µg/L	481.45	ppb	23:19:35
2	Be 313.107†	1778804.5	1774397.6	483.27	µg/L	483.27	ppb	23:19:35
2	Cd 226.502†	76467.8	76350.8	476.61	µg/L	476.61	ppb	23:19:35
2	Co 228.616†	38765.7	38836.8	479.44	µg/L	479.44	ppb	23:19:35
2	Cr 267.716†	61178.2	60811.4	476.15	µg/L	476.15	ppb	23:19:35
2	Cu 324.752†	126162.4	122802.1	478.71	µg/L	478.71	ppb	23:19:35
2	Mn 257.610†	391126.3	389685.9	481.95	µg/L	481.95	ppb	23:19:35
2	Mo 202.031†	16388.5	16358.2	481.19	µg/L	481.19	ppb	23:19:55
2	Ni 231.604†	41688.5	41636.7	479.42	µg/L	479.42	ppb	23:19:35
2	P 214.914†	11227.5	11210.9	2389.5	µg/L	2389.5	ppb	23:19:55
2	Pb 220.353†	8752.6	8639.3	483.80	µg/L	483.80	ppb	23:19:55

2	S 181.975 Axial†	1387.2	1277.9	952.97	µg/L	952.97 ppb	23:19:55
2	Sb 206.836†	4153.3	4059.7	483.76	µg/L	483.76 ppb	23:19:55
2	Se 196.026†	1345.0	1325.6	481	µg/L	481 ppb	23:19:55
2	SiO2†	55194.2	53249.1	5184.0	µg/L	5184.0 ppb	23:19:35
2	Si 251.611†	166652.6	165303.4	2427.5	µg/L	2427.5 ppb	23:19:35
2	Sn 189.927†	7721.4	7698.8	481.56	µg/L	481.56 ppb	23:19:55
2	Ti 334.940†	516481.7	513940.5	479.54	µg/L	479.54 ppb	23:19:35
2	Tl 190.801†	3825.6	3930.5	490.14	µg/L	490.14 ppb	23:19:55
2	U 409.014†	7186.2	7434.0	463.72	µg/L	463.72 ppb	23:19:35
2	V 292.402†	98156.4	97450.7	481.75	µg/L	481.75 ppb	23:19:35
2	Zn 213.857†	86133.5	85304.1	475.43	µg/L	475.43 ppb	23:19:35
3	Sc RADIAL	143809.9	143809.9	98.5	%		23:19:07
3	Al 396.153Radial†	26240.2	26690.2	4926.1	µg/L	4926.1 ppb	23:19:07
3	Ca 317.933Radial†	86148.8	86858.1	4838.3	µg/L	4838.3 ppb	23:19:07
3	Fe 238.204 Radial†	77300.3	78291.6	4825.4	µg/L	4825.4 ppb	23:19:07
3	K 766.490 Radial†	14495.5	13164.4	4815.7	µg/L	4815.7 ppb	23:19:07
3	Mg 279.077 IEC†	13104.6	13107.1	4891.0	µg/L	4891.0 ppb	23:19:07
3	Na 589.592 Radial†	70560.3	70309.6	9600.9	µg/L	9600.9 ppb	23:19:07
3	Sr 421.552†	228660.9	232166.8	482.62	µg/L	482.62 ppb	23:19:05
3	Sc 361.383	1735011.3	1735011.3	100.98	%		23:19:58
3	Y 371.029	1026280.7	1026280.7	99.960	%		23:19:58
3	Ag 328.068†	133432.9	128050.0	480.14	µg/L	480.14 ppb	23:19:58
3	As 188.979†	1602.2	1607.1	492.96	µg/L	492.96 ppb	23:20:18
3	B 249.677†	35929.6	32076.0	471.40	µg/L	471.40 ppb	23:19:58
3	Ba 233.527†	120028.3	119002.3	479.93	µg/L	479.93 ppb	23:19:58
3	Be 313.107†	1790709.1	1774441.1	483.28	µg/L	483.28 ppb	23:19:58
3	Cd 226.502†	76990.5	76363.5	476.69	µg/L	476.69 ppb	23:19:58
3	Co 228.616†	38992.1	38805.0	479.05	µg/L	479.05 ppb	23:19:58
3	Cr 267.716†	61553.2	60778.9	475.89	µg/L	475.89 ppb	23:19:58
3	Cu 324.752†	126757.9	122558.7	477.77	µg/L	477.77 ppb	23:19:58
3	Mn 257.610†	393545.3	389498.8	481.72	µg/L	481.72 ppb	23:19:58
3	Mo 202.031†	16392.4	16253.8	478.12	µg/L	478.12 ppb	23:20:18
3	Ni 231.604†	41888.6	41559.7	478.53	µg/L	478.53 ppb	23:19:58
3	P 214.914†	11251.6	11160.7	2378.8	µg/L	2378.8 ppb	23:20:18
3	Pb 220.353†	8767.6	8596.3	481.39	µg/L	481.39 ppb	23:20:18
3	S 181.975 Axial†	1362.8	1244.5	928.19	µg/L	928.19 ppb	23:20:18
3	Sb 206.836†	4134.8	4013.9	478.27	µg/L	478.27 ppb	23:20:18
3	Se 196.026†	1346.5	1318.2	479	µg/L	479 ppb	23:20:18
3	SiO2†	55432.8	53120.9	5171.6	µg/L	5171.6 ppb	23:19:58
3	Si 251.611†	167686.3	165226.7	2426.4	µg/L	2426.4 ppb	23:19:58
3	Sn 189.927†	7743.2	7669.3	479.72	µg/L	479.72 ppb	23:20:18
3	Ti 334.940†	520000.5	514014.7	479.61	µg/L	479.61 ppb	23:19:58
3	Tl 190.801†	3827.1	3906.8	487.22	µg/L	487.22 ppb	23:20:18
3	U 409.014†	7368.8	7567.3	471.52	µg/L	471.52 ppb	23:19:58
3	V 292.402†	98829.1	97468.7	481.82	µg/L	481.82 ppb	23:19:58
3	Zn 213.857†	86772.4	85368.1	475.79	µg/L	475.79 ppb	23:19:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732944.4	100.86	%	0.499				0.50%
Sc RADIAL	143634.5	98.4	%	0.74				0.76%
Y 371.029	1024893.5	99.825	%	0.4775				0.48%
Ag 328.068†	127974.3	479.85	µg/L	0.478	479.85	ppb	0.478	0.10%
QC value within limits for Ag 328.068 Recovery = 95.97%								
Al 396.153Radial†	26645.0	4917.8	µg/L	7.28	4917.8	ppb	7.28	0.15%
QC value within limits for Al 396.153Radial Recovery = 98.36%								
As 188.979†	1613.1	494.79	µg/L	5.073	494.79	ppb	5.073	1.03%
QC value within limits for As 188.979 Recovery = 98.96%								
B 249.677†	32020.6	470.58	µg/L	2.536	470.58	ppb	2.536	0.54%
QC value within limits for B 249.677 Recovery = 94.12%								
Ba 233.527†	119070.1	480.21	µg/L	1.130	480.21	ppb	1.130	0.24%
QC value within limits for Ba 233.527 Recovery = 96.04%								
Be 313.107†	1773298.9	482.97	µg/L	0.528	482.97	ppb	0.528	0.11%
QC value within limits for Be 313.107 Recovery = 96.59%								
Ca 317.933Radial†	87033.4	4848.1	µg/L	8.46	4848.1	ppb	8.46	0.17%
QC value within limits for Ca 317.933Radial Recovery = 96.96%								
Cd 226.502†	76355.2	476.64	µg/L	0.045	476.64	ppb	0.045	0.01%
QC value within limits for Cd 226.502 Recovery = 95.33%								
Co 228.616†	38873.2	479.89	µg/L	1.134	479.89	ppb	1.134	0.24%

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   QC value within limits for Co 228.616  Recovery = 95.98%
Cr 267.716†            60813.7      476.16 µg/L         0.280      476.16 ppb          0.280   0.06%
   QC value within limits for Cr 267.716  Recovery = 95.23%
Cu 324.752†           122613.2      477.98 µg/L         0.651      477.98 ppb          0.651   0.14%
   QC value within limits for Cu 324.752  Recovery = 95.60%
Fe 238.204 Radial†     78284.3      4825.0 µg/L          2.78      4825.0 ppb           2.78   0.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.50%
K 766.490 Radial†      13127.8      4802.3 µg/L         17.82      4802.3 ppb          17.82   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 96.05%
Mg 279.077 IEC†        13196.0      4924.2 µg/L         34.46      4924.2 ppb          34.46   0.70%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.48%
Mn 257.610†           389524.5      481.75 µg/L         0.185      481.75 ppb          0.185   0.04%
   QC value within limits for Mn 257.610  Recovery = 96.35%
Mo 202.031†            16246.8      477.91 µg/L         3.385      477.91 ppb          3.385   0.71%
   QC value within limits for Mo 202.031  Recovery = 95.58%
Na 589.592 Radial†     70442.7      9619.1 µg/L         20.17      9619.1 ppb          20.17   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 96.19%
Ni 231.604†            41588.7      478.86 µg/L         0.483      478.86 ppb          0.483   0.10%
   QC value within limits for Ni 231.604  Recovery = 95.77%
P 214.914†             11146.0      2375.7 µg/L         15.67      2375.7 ppb          15.67   0.66%
   QC value within limits for P 214.914  Recovery = 95.03%
Pb 220.353†             8593.0      481.20 µg/L         2.697      481.20 ppb          2.697   0.56%
   QC value within limits for Pb 220.353  Recovery = 96.24%
S 181.975 Axial†        1259.2      939.09 µg/L        12.659      939.09 ppb         12.659   1.35%
   QC value within limits for S 181.975 Axial  Recovery = 93.91%
Sb 206.836†             4028.3      479.97 µg/L         3.284      479.97 ppb          3.284   0.68%
   QC value within limits for Sb 206.836  Recovery = 95.99%
Se 196.026†             1317.4         478 µg/L           3.1         478 ppb            3.1   0.65%
   QC value within limits for Se 196.026  Recovery = 95.67%
SiO2†                  53172.1      5176.6 µg/L          6.53      5176.6 ppb           6.53   0.13%
   QC value within limits for SiO2  Recovery = 96.80%
Si 251.611†           165274.1      2427.1 µg/L          0.62      2427.1 ppb           0.62   0.03%
   QC value within limits for Si 251.611  Recovery = 97.08%
Sn 189.927†             7651.0      478.58 µg/L         3.688      478.58 ppb          3.688   0.77%
   QC value within limits for Sn 189.927  Recovery = 95.72%
Sr 421.552†           232109.6      482.50 µg/L         6.428      482.50 ppb          6.428   1.33%
   QC value within limits for Sr 421.552  Recovery = 96.50%
Ti 334.940†           513687.1      479.31 µg/L         0.472      479.31 ppb          0.472   0.10%
   QC value within limits for Ti 334.940  Recovery = 95.86%
Tl 190.801†             3904.7      486.96 µg/L         3.327      486.96 ppb          3.327   0.68%
   QC value within limits for Tl 190.801  Recovery = 97.39%
U 409.014†              7530.7      469.35 µg/L         4.918      469.35 ppb          4.918   1.05%
   QC value within limits for U 409.014  Recovery = 93.87%
V 292.402†             97349.6      481.23 µg/L         0.958      481.23 ppb          0.958   0.20%
   QC value within limits for V 292.402  Recovery = 96.25%
Zn 213.857†            85334.6      475.60 µg/L         0.184      475.60 ppb          0.184   0.04%
   QC value within limits for Zn 213.857  Recovery = 95.12%
All analyte(s) passed QC.
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Sequence No.: 108
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 23:20:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144721.0	144721.0	99.2	%			23:20:58
1	Al 396.153Radial†	-83.6	-21.0	-3.8947	µg/L	-3.8947	ppb	23:21:18
1	Ca 317.933Radial†	580.4	24.7	1.3750	µg/L	1.3750	ppb	23:21:18
1	Fe 238.204 Radial†	196.1	49.7	3.0605	µg/L	3.0605	ppb	23:21:18
1	K 766.490 Radial†	1602.1	70.7	25.883	µg/L	25.883	ppb	23:20:58
1	Mg 279.077 IEC†	205.0	16.0	5.9406	µg/L	5.9406	ppb	23:21:18
1	Na 589.592 Radial†	1213.9	-66.8	-9.1423	µg/L	-9.1423	ppb	23:20:58
1	Sr 421.552†	-55.9	78.9	0.1640	µg/L	0.1640	ppb	23:20:58
1	Sc 361.383	1740172.6	1740172.6	101.28	%			23:22:05
1	Y 371.029	1040560.6	1040560.6	101.35	%			23:22:05
1	Ag 328.068†	3851.9	-288.0	-1.0737	µg/L	-1.0737	ppb	23:22:08
1	As 188.979†	-3.9	16.5	4.9867	µg/L	4.9867	ppb	23:22:28
1	B 249.677†	3520.7	-29.6	-0.4370	µg/L	-0.4370	ppb	23:22:08
1	Ba 233.527†	-128.4	9.1	0.0366	µg/L	0.0366	ppb	23:22:28
1	Be 313.107†	-942.4	134.2	0.0343	µg/L	0.0343	ppb	23:22:08
1	Cd 226.502†	-109.3	10.3	0.0637	µg/L	0.0637	ppb	23:22:28
1	Co 228.616†	-168.6	23.8	0.2936	µg/L	0.2936	ppb	23:22:28
1	Cr 267.716†	186.3	5.4	0.0484	µg/L	0.0484	ppb	23:22:28
1	Cu 324.752†	2967.4	-42.3	-0.1696	µg/L	-0.1696	ppb	23:22:08
1	Mn 257.610†	341.2	99.6	0.1230	µg/L	0.1230	ppb	23:22:28
1	Mo 202.031†	-26.0	-5.6	-0.1652	µg/L	-0.1652	ppb	23:22:28
1	Ni 231.604†	-86.6	-8.9	-0.1030	µg/L	-0.1030	ppb	23:22:28
1	P 214.914†	2.1	20.0	4.2896	µg/L	4.2896	ppb	23:22:28
1	Pb 220.353†	89.4	1.9	0.1123	µg/L	0.1123	ppb	23:22:28
1	S 181.975 Axial†	95.7	-10.5	-7.8226	µg/L	-7.8226	ppb	23:22:28
1	Sb 206.836†	91.9	9.9	1.1769	µg/L	1.1769	ppb	23:22:28
1	Se 196.026†	23.5	7.9	2.85	µg/L	2.85	ppb	23:22:28
1	SiO2†	1814.1	15.9	1.5390	µg/L	1.5390	ppb	23:22:28
1	Si 251.611†	917.6	69.4	1.0187	µg/L	1.0187	ppb	23:22:08
1	Sn 189.927†	16.5	17.4	1.0880	µg/L	1.0880	ppb	23:22:28
1	Ti 334.940†	1176.4	209.1	0.1979	µg/L	0.1979	ppb	23:22:08
1	Tl 190.801†	-110.5	7.6	0.9307	µg/L	0.9307	ppb	23:22:28
1	U 409.014†	-401.5	-126.5	-7.3869	µg/L	-7.3869	ppb	23:22:08
1	V 292.402†	444.8	35.4	0.1657	µg/L	0.1657	ppb	23:22:08
1	Zn 213.857†	587.2	15.4	0.0869	µg/L	0.0869	ppb	23:22:28
2	Sc RADIAL	144189.3	144189.3	98.8	%			23:21:20
2	Al 396.153Radial†	-42.6	20.1	3.7335	µg/L	3.7335	ppb	23:21:40
2	Ca 317.933Radial†	605.6	52.4	2.9175	µg/L	2.9175	ppb	23:21:40
2	Fe 238.204 Radial†	235.5	90.2	5.5587	µg/L	5.5587	ppb	23:21:40
2	K 766.490 Radial†	1804.3	281.3	102.99	µg/L	102.99	ppb	23:21:20
2	Mg 279.077 IEC†	185.5	-3.0	-1.1298	µg/L	-1.1298	ppb	23:21:40
2	Na 589.592 Radial†	1392.4	118.4	16.088	µg/L	16.088	ppb	23:21:20
2	Sr 421.552†	-172.0	-38.8	-0.0807	µg/L	-0.0807	ppb	23:21:20
2	Sc 361.383	1750632.4	1750632.4	101.89	%			23:22:30
2	Y 371.029	1045632.3	1045632.3	101.85	%			23:22:30
2	Ag 328.068†	3884.1	-279.2	-1.0517	µg/L	-1.0517	ppb	23:22:32
2	As 188.979†	-9.6	10.9	3.2935	µg/L	3.2935	ppb	23:22:52
2	B 249.677†	3509.8	-61.1	-0.9032	µg/L	-0.9032	ppb	23:22:32
2	Ba 233.527†	-114.7	23.2	0.0931	µg/L	0.0931	ppb	23:22:52
2	Be 313.107†	-767.6	311.3	0.0822	µg/L	0.0822	ppb	23:22:32
2	Cd 226.502†	-108.6	11.6	0.0718	µg/L	0.0718	ppb	23:22:52
2	Co 228.616†	-145.0	48.0	0.5919	µg/L	0.5919	ppb	23:22:52
2	Cr 267.716†	155.6	-25.9	-0.1960	µg/L	-0.1960	ppb	23:22:52
2	Cu 324.752†	2910.6	-115.5	-0.4545	µg/L	-0.4545	ppb	23:22:32
2	Mn 257.610†	337.8	94.3	0.1167	µg/L	0.1167	ppb	23:22:52
2	Mo 202.031†	-28.0	-7.4	-0.2186	µg/L	-0.2186	ppb	23:22:52
2	Ni 231.604†	-82.4	-4.3	-0.0499	µg/L	-0.0499	ppb	23:22:52
2	P 214.914†	-26.2	-7.8	-1.6582	µg/L	-1.6582	ppb	23:22:52
2	Pb 220.353†	84.8	-3.2	-0.1707	µg/L	-0.1707	ppb	23:22:52

2	S 181.975 Axial†	94.4	-12.4	-9.1963 µg/L	-9.1963 ppb	23:22:52
2	Sb 206.836†	90.2	7.7	0.9179 µg/L	0.9179 ppb	23:22:52
2	Se 196.026†	18.0	2.4	0.844 µg/L	0.844 ppb	23:22:52
2	SiO2†	1787.8	-20.7	-2.0247 µg/L	-2.0247 ppb	23:22:52
2	Si 251.611†	881.0	28.1	0.4136 µg/L	0.4136 ppb	23:22:32
2	Sn 189.927†	7.3	8.3	0.5186 µg/L	0.5186 ppb	23:22:52
2	Ti 334.940†	950.4	-19.7	-0.0148 µg/L	-0.0148 ppb	23:22:32
2	Tl 190.801†	-105.4	13.3	1.6208 µg/L	1.6208 ppb	23:22:52
2	U 409.014†	-420.2	-142.5	-8.3714 µg/L	-8.3714 ppb	23:22:32
2	V 292.402†	279.7	-129.3	-0.6400 µg/L	-0.6400 ppb	23:22:32
2	Zn 213.857†	564.2	-10.7	-0.0598 µg/L	-0.0598 ppb	23:22:52
3	Sc RADIAL	144369.9	144369.9	98.9 %		23:21:42
3	Al 396.153Radial†	-72.5	-10.1	-1.8730 µg/L	-1.8730 ppb	23:22:02
3	Ca 317.933Radial†	584.3	30.1	1.6744 µg/L	1.6744 ppb	23:22:02
3	Fe 238.204 Radial†	204.0	58.1	3.5807 µg/L	3.5807 ppb	23:22:02
3	K 766.490 Radial†	1674.9	148.2	54.270 µg/L	54.270 ppb	23:21:42
3	Mg 279.077 IEC†	184.9	-3.8	-1.4254 µg/L	-1.4254 ppb	23:22:02
3	Na 589.592 Radial†	1285.3	8.4	1.0985 µg/L	1.0985 ppb	23:21:42
3	Sr 421.552†	-188.2	-55.0	-0.1143 µg/L	-0.1143 ppb	23:21:42
3	Sc 361.383	1741492.2	1741492.2	101.35 %		23:22:54
3	Y 371.029	1040823.4	1040823.4	101.38 %		23:22:54
3	Ag 328.068†	4356.2	206.6	0.7527 µg/L	0.7527 ppb	23:22:56
3	As 188.979†	-10.3	10.2	3.0901 µg/L	3.0901 ppb	23:23:16
3	B 249.677†	3495.4	-57.2	-0.8448 µg/L	-0.8448 ppb	23:22:56
3	Ba 233.527†	-104.9	32.3	0.1301 µg/L	0.1301 ppb	23:23:16
3	Be 313.107†	-758.4	316.4	0.0840 µg/L	0.0840 ppb	23:22:56
3	Cd 226.502†	-93.1	26.3	0.1638 µg/L	0.1638 ppb	23:23:16
3	Co 228.616†	-177.9	14.8	0.1826 µg/L	0.1826 ppb	23:23:16
3	Cr 267.716†	215.5	34.0	0.2721 µg/L	0.2721 ppb	23:23:16
3	Cu 324.752†	2926.0	-85.3	-0.3369 µg/L	-0.3369 ppb	23:22:56
3	Mn 257.610†	318.8	77.2	0.0956 µg/L	0.0956 ppb	23:23:16
3	Mo 202.031†	-22.0	-1.7	-0.0489 µg/L	-0.0489 ppb	23:23:16
3	Ni 231.604†	-129.1	-50.8	-0.5854 µg/L	-0.5854 ppb	23:23:16
3	P 214.914†	-27.8	-9.5	-2.0268 µg/L	-2.0268 ppb	23:23:16
3	Pb 220.353†	99.2	11.4	0.6440 µg/L	0.6440 ppb	23:23:16
3	S 181.975 Axial†	104.2	-2.2	-1.6435 µg/L	-1.6435 ppb	23:23:16
3	Sb 206.836†	80.2	-1.7	-0.2024 µg/L	-0.2024 ppb	23:23:16
3	Se 196.026†	-2.8	-18.0	-6.52 µg/L	-6.52 ppb	23:23:16
3	SiO2†	1785.7	-13.5	-1.3191 µg/L	-1.3191 ppb	23:23:16
3	Si 251.611†	942.5	93.3	1.3760 µg/L	1.3760 ppb	23:22:56
3	Sn 189.927†	-0.1	1.0	0.0628 µg/L	0.0628 ppb	23:23:16
3	Ti 334.940†	1040.9	74.5	0.0726 µg/L	0.0726 ppb	23:22:56
3	Tl 190.801†	-122.9	-4.6	-0.5664 µg/L	-0.5664 ppb	23:23:16
3	U 409.014†	-398.4	-123.1	-7.2165 µg/L	-7.2165 ppb	23:22:56
3	V 292.402†	352.1	-56.4	-0.2799 µg/L	-0.2799 ppb	23:22:56
3	Zn 213.857†	592.9	20.6	0.1194 µg/L	0.1194 ppb	23:23:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1744099.1	101.51	%	0.332				0.33%
Sc RADIAL	144426.7	99.0	%	0.19				0.19%
Y 371.029	1042338.8	101.52	%	0.278				0.27%
Ag 328.068†	-120.2	-0.4576	µg/L	1.04821	-0.4576	ppb	1.04821	229.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.7	-0.6781	µg/L	3.95199	-0.6781	ppb	3.95199	582.82%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	12.5	3.7901	µg/L	1.04128	3.7901	ppb	1.04128	27.47%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-49.3	-0.7283	µg/L	0.25394	-0.7283	ppb	0.25394	34.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	21.5	0.0866	µg/L	0.04706	0.0866	ppb	0.04706	54.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	254.0	0.0668	µg/L	0.02820	0.0668	ppb	0.02820	42.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	35.7	1.9890	µg/L	0.81790	1.9890	ppb	0.81790	41.12%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.1	0.0998	µg/L	0.05561	0.0998	ppb	0.05561	55.74%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	28.9	0.3560	µg/L	0.21172	0.3560	ppb	0.21172	59.47%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                4.5      0.0415 µg/L       0.23416      0.0415 ppb        0.23416 564.27%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -81.0     -0.3203 µg/L       0.14318     -0.3203 ppb        0.14318  44.70%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        66.0      4.0666 µg/L       1.31807      4.0666 ppb        1.31807  32.41%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        166.7      61.047 µg/L       38.9970      61.047 ppb        38.9970  63.88%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            3.0      1.1285 µg/L       4.17006      1.1285 ppb        4.17006 369.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               90.4      0.1118 µg/L       0.01435      0.1118 ppb        0.01435  12.84%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -4.9     -0.1442 µg/L       0.08677     -0.1442 ppb        0.08677  60.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        20.0      2.6814 µg/L      12.68942      2.6814 ppb       12.68942 473.24%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -21.4     -0.2461 µg/L       0.29505     -0.2461 ppb        0.29505 119.90%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.9      0.2015 µg/L       3.54518      0.2015 ppb        3.54518 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                3.4      0.1952 µg/L       0.41363      0.1952 ppb        0.41363 211.92%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -8.4     -6.2208 µg/L       4.02315     -6.2208 ppb        4.02315  64.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.3      0.6308 µg/L       0.73310      0.6308 ppb        0.73310 116.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.6      -0.941 µg/L        4.9356      -0.941 ppb         4.9356 524.57%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -6.1     -0.6016 µg/L       1.88709     -0.6016 ppb        1.88709 313.69%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               63.6      0.9361 µg/L       0.48651      0.9361 ppb        0.48651  51.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                8.9      0.5565 µg/L       0.51367      0.5565 ppb        0.51367  92.31%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -5.0     -0.0103 µg/L       0.15190     -0.0103 ppb        0.15190 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               87.9      0.0852 µg/L       0.10689      0.0852 ppb        0.10689 125.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.4      0.6617 µg/L       1.11813      0.6617 ppb        1.11813 168.98%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -130.7     -7.6583 µg/L       0.62345     -7.6583 ppb        0.62345   8.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -50.1     -0.2514 µg/L       0.40359     -0.2514 ppb        0.40359 160.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                8.4      0.0488 µg/L       0.09550      0.0488 ppb        0.09550 195.59%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 109
Sample ID: 248834002|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 237
Date Collected: 3/31/2010 23:23:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248834002|963993|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	149694.0	149694.0	103	%			23:23:58
1	Al 396.153Radial†	179545.4	175093.7	32462	µg/L	32462	ppb	23:23:58
1	Ca 317.933Radial†	129287.0	125475.4	6989.5	µg/L	6989.5	ppb	23:23:58
1	Fe 238.204 Radial†	1029272.1	1003241.9	61834	µg/L	61834	ppb	23:23:56
1	K 766.490 Radial†	14146.4	12245.9	4473.7	µg/L	4473.7	ppb	23:23:58
1	Mg 279.077 IEC†	16973.3	16355.8	6041.0	µg/L	6041.0	ppb	23:23:58
1	Na 589.592 Radial†	34604.0	32443.1	4428.1	µg/L	4428.1	ppb	23:23:58
1	Sr 421.552†	23309.7	22858.9	47.468	µg/L	47.468	ppb	23:23:58
1	Sc 361.383	1732316.5	1732316.5	100.82	%			23:24:24
1	Y 371.029	1199787.6	1199787.6	116.86	%			23:24:24
1	Ag 328.068†	3978.2	-145.6	-1.0094	µg/L	-1.0094	ppb	23:24:24
1	As 188.979†	20.5	40.7	26.521	µg/L	26.521	ppb	23:24:45
1	B 249.677†	4294.1	753.3	11.062	µg/L	11.062	ppb	23:24:24
1	Ba 233.527†	76009.4	75526.6	303.60	µg/L	303.60	ppb	23:24:24
1	Be 313.107†	18100.6	19018.0	5.0883	µg/L	5.0883	ppb	23:24:24
1	Cd 226.502†	988.5	1098.7	0.3734	µg/L	0.3734	ppb	23:24:45
1	Co 228.616†	935.0	1117.7	10.870	µg/L	10.870	ppb	23:24:45
1	Cr 267.716†	4512.1	4296.8	35.617	µg/L	35.617	ppb	23:24:45
1	Cu 324.752†	23465.7	20302.5	87.831	µg/L	87.831	ppb	23:24:24
1	Mn 257.610†	1214452.2	1204330.8	1489.7	µg/L	1489.7	ppb	23:24:24
1	Mo 202.031†	147.6	166.4	7.4726	µg/L	7.4726	ppb	23:24:45
1	Ni 231.604†	2381.4	2438.5	28.078	µg/L	28.078	ppb	23:24:45
1	P 214.914†	3929.1	3915.1	801.65	µg/L	801.65	ppb	23:24:45
1	Pb 220.353†	1972.2	1869.7	106.58	µg/L	106.58	ppb	23:24:45
1	S 181.975 Axial†	445.2	336.5	249.90	µg/L	249.90	ppb	23:24:45
1	Sb 206.836†	94.1	12.6	0.1930	µg/L	0.1930	ppb	23:24:45
1	Se 196.026†	-52.9	-67.7	-3.31	µg/L	-3.31	ppb	23:24:45
1	SiO2†	665871.1	658676.4	64380	µg/L	64380	ppb	23:24:24
1	Si 251.611†	2043939.0	2026467.4	29876	µg/L	29876	ppb	23:24:24
1	Sn 189.927†	95.2	95.6	11.038	µg/L	11.038	ppb	23:24:45
1	Ti 334.940†	1626249.3	1612061.2	1505.9	µg/L	1505.9	ppb	23:24:24
1	Tl 190.801†	-308.3	-189.1	-3.7844	µg/L	-3.7844	ppb	23:24:45
1	U 409.014†	-5402.7	-5088.9	-297.43	µg/L	-297.43	ppb	23:24:24
1	V 292.402†	15698.0	15166.4	66.062	µg/L	66.062	ppb	23:24:45
1	Zn 213.857†	43640.4	42720.8	234.46	µg/L	234.46	ppb	23:24:24
2	Sc RADIAL	145691.0	145691.0	99.8	%			23:24:02
2	Al 396.153Radial†	175331.9	175682.4	32571	µg/L	32571	ppb	23:24:02
2	Ca 317.933Radial†	125757.5	125403.0	6985.4	µg/L	6985.4	ppb	23:24:02
2	Fe 238.204 Radial†	1032532.1	1034075.8	63734	µg/L	63734	ppb	23:24:00
2	K 766.490 Radial†	13897.9	12375.9	4521.3	µg/L	4521.3	ppb	23:24:02
2	Mg 279.077 IEC†	16400.7	16236.9	5995.1	µg/L	5995.1	ppb	23:24:02
2	Na 589.592 Radial†	33829.2	32593.8	4448.7	µg/L	4448.7	ppb	23:24:02
2	Sr 421.552†	22779.3	22951.9	47.661	µg/L	47.661	ppb	23:24:02
2	Sc 361.383	1745194.8	1745194.8	101.57	%			23:24:47
2	Y 371.029	1209053.2	1209053.2	117.76	%			23:24:47
2	Ag 328.068†	3859.8	-291.3	-1.6011	µg/L	-1.6011	ppb	23:24:47
2	As 188.979†	27.1	47.0	28.859	µg/L	28.859	ppb	23:25:07
2	B 249.677†	4219.0	647.9	9.5078	µg/L	9.5078	ppb	23:24:47
2	Ba 233.527†	76581.7	75533.8	303.61	µg/L	303.61	ppb	23:24:47
2	Be 313.107†	18399.0	19179.3	5.1246	µg/L	5.1246	ppb	23:24:47
2	Cd 226.502†	976.9	1080.0	0.0568	µg/L	0.0568	ppb	23:25:07
2	Co 228.616†	924.3	1100.3	10.556	µg/L	10.556	ppb	23:25:07
2	Cr 267.716†	4522.1	4273.7	35.521	µg/L	35.521	ppb	23:25:07
2	Cu 324.752†	23426.7	20092.3	87.269	µg/L	87.269	ppb	23:24:47
2	Mn 257.610†	1224670.5	1205502.3	1491.2	µg/L	1491.2	ppb	23:24:47
2	Mo 202.031†	145.6	163.4	7.4576	µg/L	7.4576	ppb	23:25:07
2	Ni 231.604†	2421.4	2460.5	28.330	µg/L	28.330	ppb	23:25:07
2	P 214.914†	3913.1	3870.5	790.86	µg/L	790.86	ppb	23:25:07
2	Pb 220.353†	1969.0	1852.1	105.56	µg/L	105.56	ppb	23:25:07

2	S 181.975 Axial†	430.1	318.4	236.47	µg/L	236.47 ppb	23:25:07
2	Sb 206.836†	64.0	-17.8	-3.4391	µg/L	-3.4391 ppb	23:25:07
2	Se 196.026†	-54.0	-68.4	-2.94	µg/L	-2.94 ppb	23:25:07
2	SiO2†	671860.4	659699.5	64480	µg/L	64480 ppb	23:24:47
2	Si 251.611†	2061031.7	2028335.8	29903	µg/L	29903 ppb	23:24:47
2	Sn 189.927†	93.8	93.4	10.907	µg/L	10.907 ppb	23:25:07
2	Ti 334.940†	1639465.4	1613170.1	1506.9	µg/L	1506.9 ppb	23:24:47
2	Tl 190.801†	-286.4	-165.3	-0.8523	µg/L	-0.8523 ppb	23:25:07
2	U 409.014†	-5882.9	-5522.0	-323.23	µg/L	-323.23 ppb	23:24:47
2	V 292.402†	15665.5	15019.5	65.125	µg/L	65.125 ppb	23:25:07
2	Zn 213.857†	44110.3	42864.0	235.06	µg/L	235.06 ppb	23:24:47
3	Sc RADIAL	145485.4	145485.4	99.7	%		23:24:06
3	Al 396.153Radial†	174989.9	175587.6	32554	µg/L	32554 ppb	23:24:06
3	Ca 317.933Radial†	125699.4	125522.8	6992.1	µg/L	6992.1 ppb	23:24:06
3	Fe 238.204 Radial†	1042830.6	1045867.9	64461	µg/L	64461 ppb	23:24:04
3	K 766.490 Radial†	13905.1	12402.8	4531.1	µg/L	4531.1 ppb	23:24:06
3	Mg 279.077 IEC†	16377.5	16236.9	5994.4	µg/L	5994.4 ppb	23:24:06
3	Na 589.592 Radial†	33697.8	32509.9	4437.2	µg/L	4437.2 ppb	23:24:06
3	Sr 421.552†	22654.0	22858.5	47.467	µg/L	47.467 ppb	23:24:06
3	Sc 361.383	1731447.2	1731447.2	100.77	%		23:25:10
3	Y 371.029	1200158.3	1200158.3	116.90	%		23:25:10
3	Ag 328.068†	3784.3	-336.0	-1.7478	µg/L	-1.7478 ppb	23:25:10
3	As 188.979†	15.5	35.8	25.614	µg/L	25.614 ppb	23:25:30
3	B 249.677†	4248.0	709.7	10.417	µg/L	10.417 ppb	23:25:10
3	Ba 233.527†	75943.6	75499.2	303.46	µg/L	303.46 ppb	23:25:10
3	Be 313.107†	18130.9	19057.1	5.0955	µg/L	5.0955 ppb	23:25:10
3	Cd 226.502†	987.9	1098.6	0.0968	µg/L	0.0968 ppb	23:25:30
3	Co 228.616†	965.3	1148.3	11.109	µg/L	11.109 ppb	23:25:30
3	Cr 267.716†	4514.1	4301.1	35.751	µg/L	35.751 ppb	23:25:30
3	Cu 324.752†	23416.0	20264.9	88.057	µg/L	88.057 ppb	23:25:10
3	Mn 257.610†	1213725.8	1204214.7	1489.6	µg/L	1489.6 ppb	23:25:10
3	Mo 202.031†	163.4	182.3	8.0411	µg/L	8.0411 ppb	23:25:30
3	Ni 231.604†	2403.0	2461.1	28.338	µg/L	28.338 ppb	23:25:30
3	P 214.914†	3938.7	3926.5	802.33	µg/L	802.33 ppb	23:25:30
3	Pb 220.353†	1999.3	1897.7	108.07	µg/L	108.07 ppb	23:25:30
3	S 181.975 Axial†	437.3	328.9	244.28	µg/L	244.28 ppb	23:25:30
3	Sb 206.836†	88.4	6.9	-0.5056	µg/L	-0.5056 ppb	23:25:30
3	Se 196.026†	-38.5	-53.5	2.74	µg/L	2.74 ppb	23:25:30
3	SiO2†	665436.9	658577.0	64370	µg/L	64370 ppb	23:25:10
3	Si 251.611†	2040374.1	2023947.5	29839	µg/L	29839 ppb	23:25:10
3	Sn 189.927†	98.9	99.3	11.272	µg/L	11.272 ppb	23:25:30
3	Ti 334.940†	1626185.4	1612807.5	1506.6	µg/L	1506.6 ppb	23:25:10
3	Tl 190.801†	-304.3	-185.3	-3.3133	µg/L	-3.3133 ppb	23:25:30
3	U 409.014†	-5593.4	-5280.7	-309.27	µg/L	-309.27 ppb	23:25:10
3	V 292.402†	15642.2	15118.9	65.549	µg/L	65.549 ppb	23:25:30
3	Zn 213.857†	43566.0	42668.7	233.89	µg/L	233.89 ppb	23:25:10

Mean Data: 248834002|963993|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1736319.5	101.05	%	0.448				0.44%
Sc RADIAL	146956.8	101	%	1.6				1.61%
Y 371.029	1202999.7	117.17	%	0.511				0.44%
Ag 328.068†	-257.6	-1.4527	µg/L	0.39091	-1.4527	ppb	0.39091	26.91%
Al 396.153Radial†	175454.6	32529	µg/L	58.6	32529	ppb	58.6	0.18%
As 188.979†	41.2	26.998	µg/L	1.6744	26.998	ppb	1.6744	6.20%
B 249.677†	703.6	10.329	µg/L	0.7808	10.329	ppb	0.7808	7.56%
Ba 233.527†	75519.9	303.56	µg/L	0.084	303.56	ppb	0.084	0.03%
Be 313.107†	19084.8	5.1028	µg/L	0.01920	5.1028	ppb	0.01920	0.38%
Ca 317.933Radial†	125467.0	6989.0	µg/L	3.36	6989.0	ppb	3.36	0.05%
Cd 226.502†	1092.4	0.1757	µg/L	0.17242	0.1757	ppb	0.17242	98.13%
Co 228.616†	1122.1	10.845	µg/L	0.2777	10.845	ppb	0.2777	2.56%
Cr 267.716†	4290.5	35.629	µg/L	0.1152	35.629	ppb	0.1152	0.32%
Cu 324.752†	20219.9	87.719	µg/L	0.4060	87.719	ppb	0.4060	0.46%
Fe 238.204 Radial†	1027728.5	63343	µg/L	1356.6	63343	ppb	1356.6	2.14%
K 766.490 Radial†	12341.6	4508.7	µg/L	30.72	4508.7	ppb	30.72	0.68%
Mg 279.077 IEC†	16276.5	6010.2	µg/L	26.70	6010.2	ppb	26.70	0.44%
Mn 257.610†	1204682.6	1490.1	µg/L	0.88	1490.1	ppb	0.88	0.06%
Mo 202.031†	170.7	7.6571	µg/L	0.33263	7.6571	ppb	0.33263	4.34%
Na 589.592 Radial†	32515.6	4438.0	µg/L	10.30	4438.0	ppb	10.30	0.23%

Ni 231.604†	2453.4	28.249	µg/L	0.1482	28.249	ppb	0.1482	0.52%
P 214.914†	3904.1	798.28	µg/L	6.434	798.28	ppb	6.434	0.81%
Pb 220.353†	1873.2	106.74	µg/L	1.261	106.74	ppb	1.261	1.18%
S 181.975 Axial†	327.9	243.55	µg/L	6.746	243.55	ppb	6.746	2.77%
Sb 206.836†	0.6	-1.2505	µg/L	1.92724	-1.2505	ppb	1.92724	154.11%
Se 196.026†	-63.2	-1.17	µg/L	3.389	-1.17	ppb	3.389	289.68%
SiO2†	658984.3	64410	µg/L	60.7	64410	ppb	60.7	0.09%
Si 251.611†	2026250.2	29873	µg/L	32.5	29873	ppb	32.5	0.11%
Sn 189.927†	96.1	11.072	µg/L	0.1850	11.072	ppb	0.1850	1.67%
Sr 421.552†	22889.8	47.532	µg/L	0.1119	47.532	ppb	0.1119	0.24%
Ti 334.940†	1612679.6	1506.5	µg/L	0.54	1506.5	ppb	0.54	0.04%
Tl 190.801†	-179.9	-2.6500	µg/L	1.57458	-2.6500	ppb	1.57458	59.42%
U 409.014†	-5297.2	-309.98	µg/L	12.910	-309.98	ppb	12.910	4.17%
Concentration less than lower limit for U 409.014.								
V 292.402†	15101.6	65.579	µg/L	0.4691	65.579	ppb	0.4691	0.72%
Zn 213.857†	42751.2	234.47	µg/L	0.588	234.47	ppb	0.588	0.25%

Sequence No.: 110
Sample ID: 248834003|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 238
Date Collected: 3/31/2010 23:25:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248834003|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145457.2	145457.2	99.7	%			23:26:09
1	Al 396.153Radial†	37663.0	37848.5	7015.7	µg/L	7015.7	ppb	23:26:11
1	Ca 317.933Radial†	39066.4	38632.7	2152.0	µg/L	2152.0	ppb	23:26:11
1	Fe 238.204 Radial†	836043.6	838611.5	51687	µg/L	51687	ppb	23:26:09
1	K 766.490 Radial†	9191.3	7676.4	2807.9	µg/L	2807.9	ppb	23:26:11
1	Mg 279.077 IEC†	2629.8	2447.7	868.35	µg/L	868.35	ppb	23:26:11
1	Na 589.592 Radial†	22893.2	21676.7	2958.8	µg/L	2958.8	ppb	23:26:11
1	Sr 421.552†	5173.1	5325.2	11.054	µg/L	11.054	ppb	23:26:11
1	Sc 361.383	1754292.1	1754292.1	102.10	%			23:26:23
1	Y 371.029	1484038.4	1484038.4	144.55	%			23:26:23
1	Ag 328.068†	3902.6	-269.0	-2.0329	µg/L	-2.0329	ppb	23:26:25
1	As 188.979†	27.3	47.1	26.140	µg/L	26.140	ppb	23:26:45
1	B 249.677†	3775.1	191.6	2.7993	µg/L	2.7993	ppb	23:26:25
1	Ba 233.527†	16349.8	16149.4	64.436	µg/L	64.436	ppb	23:26:25
1	Be 313.107†	9991.2	10850.4	2.8453	µg/L	2.8453	ppb	23:26:25
1	Cd 226.502†	720.8	824.2	-0.2795	µg/L	-0.2795	ppb	23:26:45
1	Co 228.616†	443.5	624.7	5.0787	µg/L	5.0787	ppb	23:26:45
1	Cr 267.716†	3258.1	3012.5	25.266	µg/L	25.266	ppb	23:26:25
1	Cu 324.752†	5736.4	2646.2	17.542	µg/L	17.542	ppb	23:26:25
1	Mn 257.610†	1324369.5	1296898.5	1604.5	µg/L	1604.5	ppb	23:26:23
1	Mo 202.031†	983.0	982.9	30.953	µg/L	30.953	ppb	23:26:45
1	Ni 231.604†	1383.4	1431.5	16.483	µg/L	16.483	ppb	23:26:45
1	P 214.914†	3080.5	3035.1	615.24	µg/L	615.24	ppb	23:26:45
1	Pb 220.353†	365.5	271.6	15.647	µg/L	15.647	ppb	23:26:45
1	S 181.975 Axial†	172.8	64.2	47.913	µg/L	47.913	ppb	23:26:45
1	Sb 206.836†	66.7	-15.5	-2.4378	µg/L	-2.4378	ppb	23:26:45
1	Se 196.026†	-41.5	-55.9	-2.62	µg/L	-2.62	ppb	23:26:45
1	SiO2†	380246.7	370652.1	36227	µg/L	36227	ppb	23:26:23
1	Si 251.611†	1171236.3	1146315.0	16900	µg/L	16900	ppb	23:26:23
1	Sn 189.927†	168.9	166.5	13.880	µg/L	13.880	ppb	23:26:45
1	Ti 334.940†	1135212.9	1110916.3	1038.0	µg/L	1038.0	ppb	23:26:23
1	Tl 190.801†	-287.6	-165.0	-5.6013	µg/L	-5.6013	ppb	23:26:45
1	U 409.014†	-6575.1	-6170.0	-360.91	µg/L	-360.91	ppb	23:26:23
1	V 292.402†	4591.6	4093.4	13.711	µg/L	13.711	ppb	23:26:25
1	Zn 213.857†	31520.6	30308.0	165.27	µg/L	165.27	ppb	23:26:25
2	Sc RADIAL	146160.3	146160.3	100	%			23:26:13
2	Al 396.153Radial†	37594.9	37598.9	6969.4	µg/L	6969.4	ppb	23:26:15
2	Ca 317.933Radial†	38851.7	38229.8	2129.6	µg/L	2129.6	ppb	23:26:15
2	Fe 238.204 Radial†	837883.2	836413.4	51551	µg/L	51551	ppb	23:26:13
2	K 766.490 Radial†	9170.0	7610.8	2783.9	µg/L	2783.9	ppb	23:26:15
2	Mg 279.077 IEC†	2619.3	2424.5	859.83	µg/L	859.83	ppb	23:26:15
2	Na 589.592 Radial†	22596.4	21270.0	2903.3	µg/L	2903.3	ppb	23:26:15
2	Sr 421.552†	5140.8	5268.0	10.935	µg/L	10.935	ppb	23:26:15
2	Sc 361.383	1735228.5	1735228.5	100.99	%			23:26:48
2	Y 371.029	1469142.0	1469142.0	143.10	%			23:26:48
2	Ag 328.068†	3994.8	-135.8	-1.5205	µg/L	-1.5205	ppb	23:26:50
2	As 188.979†	24.2	44.3	25.267	µg/L	25.267	ppb	23:27:10
2	B 249.677†	3820.0	276.6	4.0534	µg/L	4.0534	ppb	23:26:50
2	Ba 233.527†	16632.5	16605.3	66.276	µg/L	66.276	ppb	23:26:50
2	Be 313.107†	10261.9	11226.0	2.9508	µg/L	2.9508	ppb	23:26:50
2	Cd 226.502†	707.1	818.4	-0.3014	µg/L	-0.3014	ppb	23:27:10
2	Co 228.616†	423.7	609.9	4.9053	µg/L	4.9053	ppb	23:27:10
2	Cr 267.716†	3329.8	3118.6	26.081	µg/L	26.081	ppb	23:26:50
2	Cu 324.752†	5927.8	2897.4	18.507	µg/L	18.507	ppb	23:26:50
2	Mn 257.610†	1317109.6	1303960.3	1613.2	µg/L	1613.2	ppb	23:26:48
2	Mo 202.031†	971.8	982.3	30.930	µg/L	30.930	ppb	23:27:10
2	Ni 231.604†	1393.5	1456.3	16.768	µg/L	16.768	ppb	23:27:10
2	P 214.914†	3087.6	3075.2	623.91	µg/L	623.91	ppb	23:27:10
2	Pb 220.353†	357.3	267.4	15.410	µg/L	15.410	ppb	23:27:10

2	S 181.975 Axial†	182.9	76.0	56.710	µg/L	56.710 ppb	23:27:10
2	Sb 206.836†	66.8	-14.7	-2.3468	µg/L	-2.3468 ppb	23:27:10
2	Se 196.026†	-28.5	-43.5	1.83	µg/L	1.83 ppb	23:27:10
2	SiO2†	377952.2	372471.7	36405	µg/L	36405 ppb	23:26:48
2	Si 251.611†	1164354.3	1152103.2	16985	µg/L	16985 ppb	23:26:48
2	Sn 189.927†	187.4	186.7	15.156	µg/L	15.156 ppb	23:27:10
2	Ti 334.940†	1128210.3	1116197.6	1042.9	µg/L	1042.9 ppb	23:26:48
2	Tl 190.801†	-279.4	-160.0	-4.9130	µg/L	-4.9130 ppb	23:27:10
2	U 409.014†	-6318.1	-5986.3	-350.05	µg/L	-350.05 ppb	23:26:48
2	V 292.402†	4655.7	4206.3	14.282	µg/L	14.282 ppb	23:26:50
2	Zn 213.857†	32082.4	31203.5	170.32	µg/L	170.32 ppb	23:26:50
3	Sc RADIAL	145997.8	145997.8	100	%		23:26:17
3	Al 396.153Radial†	38028.8	38074.3	7057.6	µg/L	7057.6 ppb	23:26:19
3	Ca 317.933Radial†	39326.9	38748.0	2158.4	µg/L	2158.4 ppb	23:26:19
3	Fe 238.204 Radial†	841136.4	840596.5	51809	µg/L	51809 ppb	23:26:17
3	K 766.490 Radial†	9419.8	7870.7	2879.0	µg/L	2879.0 ppb	23:26:19
3	Mg 279.077 IEC†	2586.3	2394.4	848.40	µg/L	848.40 ppb	23:26:19
3	Na 589.592 Radial†	23028.5	21727.0	2965.6	µg/L	2965.6 ppb	23:26:19
3	Sr 421.552†	5244.3	5377.1	11.162	µg/L	11.162 ppb	23:26:19
3	Sc 361.383	1756230.1	1756230.1	102.21	%		23:27:12
3	Y 371.029	1485516.9	1485516.9	144.69	%		23:27:12
3	Ag 328.068†	3987.3	-190.4	-1.7461	µg/L	-1.7461 ppb	23:27:14
3	As 188.979†	22.3	42.2	24.679	µg/L	24.679 ppb	23:27:35
3	B 249.677†	3604.6	20.7	0.2780	µg/L	0.2780 ppb	23:27:14
3	Ba 233.527†	16503.4	16282.0	64.969	µg/L	64.969 ppb	23:27:14
3	Be 313.107†	10070.6	10917.3	2.8620	µg/L	2.8620 ppb	23:27:14
3	Cd 226.502†	739.5	841.7	-0.1831	µg/L	-0.1831 ppb	23:27:35
3	Co 228.616†	465.5	645.8	5.3332	µg/L	5.3332 ppb	23:27:35
3	Cr 267.716†	3227.4	2979.0	25.011	µg/L	25.011 ppb	23:27:14
3	Cu 324.752†	5888.6	2789.0	18.110	µg/L	18.110 ppb	23:27:14
3	Mn 257.610†	1326054.4	1297115.6	1604.7	µg/L	1604.7 ppb	23:27:12
3	Mo 202.031†	987.6	986.3	31.057	µg/L	31.057 ppb	23:27:35
3	Ni 231.604†	1410.7	1456.7	16.773	µg/L	16.773 ppb	23:27:35
3	P 214.914†	3087.8	3038.9	615.97	µg/L	615.97 ppb	23:27:35
3	Pb 220.353†	386.8	292.1	16.794	µg/L	16.794 ppb	23:27:35
3	S 181.975 Axial†	173.3	64.5	48.117	µg/L	48.117 ppb	23:27:35
3	Sb 206.836†	73.0	-9.4	-1.7050	µg/L	-1.7050 ppb	23:27:35
3	Se 196.026†	-47.3	-61.5	-4.61	µg/L	-4.61 ppb	23:27:35
3	SiO2†	380851.4	370832.8	36245	µg/L	36245 ppb	23:27:12
3	Si 251.611†	1173738.7	1147497.3	16917	µg/L	16917 ppb	23:27:12
3	Sn 189.927†	171.1	168.6	14.011	µg/L	14.011 ppb	23:27:35
3	Ti 334.940†	1137364.1	1111794.0	1038.8	µg/L	1038.8 ppb	23:27:12
3	Tl 190.801†	-288.7	-165.8	-5.6908	µg/L	-5.6908 ppb	23:27:35
3	U 409.014†	-6670.8	-6256.5	-365.98	µg/L	-365.98 ppb	23:27:12
3	V 292.402†	4645.1	4140.7	13.925	µg/L	13.925 ppb	23:27:14
3	Zn 213.857†	31740.0	30488.6	166.27	µg/L	166.27 ppb	23:27:14

Mean Data: 248834003|963993|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1748583.6	101.77	%	0.675				0.66%
Sc RADIAL	145871.8	100.0	%	0.25				0.25%
Y 371.029	1479565.8	144.11	%	0.882				0.61%
Ag 328.068†	-198.4	-1.7665	µg/L	0.25677	-1.7665	ppb	0.25677	14.54%
Al 396.153Radial†	37840.6	7014.3	µg/L	44.09	7014.3	ppb	44.09	0.63%
As 188.979†	44.5	25.362	µg/L	0.7353	25.362	ppb	0.7353	2.90%
B 249.677†	163.0	2.3769	µg/L	1.92280	2.3769	ppb	1.92280	80.90%
Ba 233.527†	16345.6	65.227	µg/L	0.9463	65.227	ppb	0.9463	1.45%
Be 313.107†	10997.9	2.8861	µg/L	0.05671	2.8861	ppb	0.05671	1.97%
Ca 317.933Radial†	38536.9	2146.7	µg/L	15.16	2146.7	ppb	15.16	0.71%
Cd 226.502†	828.1	-0.2547	µg/L	0.06293	-0.2547	ppb	0.06293	24.71%
Co 228.616†	626.8	5.1057	µg/L	0.21525	5.1057	ppb	0.21525	4.22%
Cr 267.716†	3036.7	25.453	µg/L	0.5591	25.453	ppb	0.5591	2.20%
Cu 324.752†	2777.5	18.053	µg/L	0.4851	18.053	ppb	0.4851	2.69%
Fe 238.204 Radial†	838540.5	51682	µg/L	129.0	51682	ppb	129.0	0.25%
K 766.490 Radial†	7719.3	2823.6	µg/L	49.47	2823.6	ppb	49.47	1.75%
Mg 279.077 IEC†	2422.2	858.86	µg/L	10.010	858.86	ppb	10.010	1.17%
Mn 257.610†	1299324.8	1607.5	µg/L	4.97	1607.5	ppb	4.97	0.31%
Mo 202.031†	983.8	30.980	µg/L	0.0675	30.980	ppb	0.0675	0.22%
Na 589.592 Radial†	21557.9	2942.6	µg/L	34.20	2942.6	ppb	34.20	1.16%

Ni 231.604†	1448.2	16.675	µg/L	0.1662	16.675	ppb	0.1662	1.00%
P 214.914†	3049.7	618.37	µg/L	4.809	618.37	ppb	4.809	0.78%
Pb 220.353†	277.0	15.951	µg/L	0.7400	15.951	ppb	0.7400	4.64%
S 181.975 Axial†	68.2	50.914	µg/L	5.0211	50.914	ppb	5.0211	9.86%
Sb 206.836†	-13.2	-2.1632	µg/L	0.39944	-2.1632	ppb	0.39944	18.47%
Se 196.026†	-53.6	-1.80	µg/L	3.302	-1.80	ppb	3.302	183.33%
SiO2†	371318.8	36292	µg/L	98.0	36292	ppb	98.0	0.27%
Si 251.611†	1148638.5	16934	µg/L	45.1	16934	ppb	45.1	0.27%
Sn 189.927†	173.9	14.349	µg/L	0.7017	14.349	ppb	0.7017	4.89%
Sr 421.552†	5323.4	11.050	µg/L	0.1134	11.050	ppb	0.1134	1.03%
Ti 334.940†	1112969.3	1039.9	µg/L	2.64	1039.9	ppb	2.64	0.25%
Tl 190.801†	-163.6	-5.4017	µg/L	0.42558	-5.4017	ppb	0.42558	7.88%
U 409.014†	-6137.6	-358.98	µg/L	8.138	-358.98	ppb	8.138	2.27%
Concentration less than lower limit for U 409.014.								
V 292.402†	4146.8	13.973	µg/L	0.2885	13.973	ppb	0.2885	2.06%
Zn 213.857†	30666.7	167.29	µg/L	2.671	167.29	ppb	2.671	1.60%

Sequence No.: 111
Sample ID: 248834004|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 239
Date Collected: 3/31/2010 23:27:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248834004|963993|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146378.1	146378.1	100	%			23:28:12
1	Al 396.153Radial†	38303.8	38249.7	7091.1	µg/L	7091.1	ppb	23:28:14
1	Ca 317.933Radial†	60925.8	60178.6	3352.2	µg/L	3352.2	ppb	23:28:14
1	Fe 238.204 Radial†	768042.6	765542.1	47183	µg/L	47183	ppb	23:28:12
1	K 766.490 Radial†	10550.1	8973.0	3281.7	µg/L	3281.7	ppb	23:28:14
1	Mg 279.077 IEC†	3302.7	3101.9	1115.4	µg/L	1115.4	ppb	23:28:14
1	Na 589.592 Radial†	53877.3	52421.4	7158.5	µg/L	7158.5	ppb	23:28:12
1	Sr 421.552†	7391.8	7504.4	15.575	µg/L	15.575	ppb	23:28:14
1	Sc 361.383	1749901.0	1749901.0	101.84	%			23:28:26
1	Y 371.029	1325017.8	1325017.8	129.06	%			23:28:26
1	Ag 328.068†	3936.1	-226.6	-2.0286	µg/L	-2.0286	ppb	23:28:28
1	As 188.979†	11.4	31.5	20.482	µg/L	20.482	ppb	23:28:48
1	B 249.677†	3713.4	140.3	2.0494	µg/L	2.0494	ppb	23:28:28
1	Ba 233.527†	23501.9	23212.3	92.946	µg/L	92.946	ppb	23:28:28
1	Be 313.107†	13032.9	13861.6	3.6746	µg/L	3.6746	ppb	23:28:28
1	Cd 226.502†	668.0	774.1	-0.1146	µg/L	-0.1146	ppb	23:28:48
1	Co 228.616†	278.6	463.8	3.3598	µg/L	3.3598	ppb	23:28:48
1	Cr 267.716†	4973.1	4704.5	38.196	µg/L	38.196	ppb	23:28:28
1	Cu 324.752†	3608.0	570.4	8.8505	µg/L	8.8505	ppb	23:28:28
1	Mn 257.610†	1773056.7	1740716.8	2153.6	µg/L	2153.6	ppb	23:28:26
1	Mo 202.031†	201.9	218.3	8.3086	µg/L	8.3086	ppb	23:28:48
1	Ni 231.604†	2194.5	2231.3	25.692	µg/L	25.692	ppb	23:28:48
1	P 214.914†	2097.1	2077.1	413.71	µg/L	413.71	ppb	23:28:48
1	Pb 220.353†	397.0	303.5	17.507	µg/L	17.507	ppb	23:28:48
1	S 181.975 Axial†	175.0	66.8	49.666	µg/L	49.666	ppb	23:28:48
1	Sb 206.836†	80.2	-2.0	-1.3054	µg/L	-1.3054	ppb	23:28:48
1	Se 196.026†	-24.7	-39.6	1.75	µg/L	1.75	ppb	23:28:48
1	SiO2†	419381.9	410013.2	40075	µg/L	40075	ppb	23:28:26
1	Si 251.611†	1291456.0	1267236.6	18683	µg/L	18683	ppb	23:28:26
1	Sn 189.927†	106.7	105.9	10.135	µg/L	10.135	ppb	23:28:48
1	Ti 334.940†	1143823.8	1122161.4	1048.5	µg/L	1048.5	ppb	23:28:26
1	Tl 190.801†	-287.5	-165.6	-4.1614	µg/L	-4.1614	ppb	23:28:48
1	U 409.014†	-6019.3	-5640.4	-325.49	µg/L	-325.49	ppb	23:28:26
1	V 292.402†	3961.4	3485.8	11.058	µg/L	11.058	ppb	23:28:28
1	Zn 213.857†	43258.0	41910.4	230.83	µg/L	230.83	ppb	23:28:28
2	Sc RADIAL	144455.2	144455.2	99.0	%			23:28:16
2	Al 396.153Radial†	38464.1	38919.9	7215.4	µg/L	7215.4	ppb	23:28:18
2	Ca 317.933Radial†	61178.0	61241.9	3411.4	µg/L	3411.4	ppb	23:28:18
2	Fe 238.204 Radial†	756483.2	764057.1	47092	µg/L	47092	ppb	23:28:16
2	K 766.490 Radial†	10489.3	9051.6	3310.4	µg/L	3310.4	ppb	23:28:18
2	Mg 279.077 IEC†	3240.8	3083.2	1108.5	µg/L	1108.5	ppb	23:28:18
2	Na 589.592 Radial†	53050.8	52301.6	7142.1	µg/L	7142.1	ppb	23:28:16
2	Sr 421.552†	7400.8	7611.7	15.797	µg/L	15.797	ppb	23:28:18
2	Sc 361.383	1737281.1	1737281.1	101.11	%			23:28:51
2	Y 371.029	1316568.2	1316568.2	128.23	%			23:28:51
2	Ag 328.068†	3994.3	-140.9	-1.7094	µg/L	-1.7094	ppb	23:28:53
2	As 188.979†	12.4	32.6	20.800	µg/L	20.800	ppb	23:29:13
2	B 249.677†	3706.7	160.2	2.3416	µg/L	2.3416	ppb	23:28:53
2	Ba 233.527†	23595.7	23472.7	93.996	µg/L	93.996	ppb	23:28:53
2	Be 313.107†	13134.1	14054.7	3.7273	µg/L	3.7273	ppb	23:28:53
2	Cd 226.502†	665.9	776.8	-0.0878	µg/L	-0.0878	ppb	23:29:13
2	Co 228.616†	294.2	481.3	3.5807	µg/L	3.5807	ppb	23:29:13
2	Cr 267.716†	4991.4	4758.1	38.614	µg/L	38.614	ppb	23:28:53
2	Cu 324.752†	3531.7	520.7	8.6445	µg/L	8.6445	ppb	23:28:53
2	Mn 257.610†	1753674.9	1734194.2	2145.5	µg/L	2145.5	ppb	23:28:51
2	Mo 202.031†	199.8	217.7	8.2864	µg/L	8.2864	ppb	23:29:13
2	Ni 231.604†	2168.7	2221.4	25.578	µg/L	25.578	ppb	23:29:13
2	P 214.914†	2102.1	2096.9	418.04	µg/L	418.04	ppb	23:29:13
2	Pb 220.353†	382.0	291.4	16.845	µg/L	16.845	ppb	23:29:13

2	S 181.975 Axial†	181.0	74.0	54.979	µg/L	54.979 ppb	23:29:13
2	Sb 206.836†	81.5	-0.3	-1.1013	µg/L	-1.1013 ppb	23:29:13
2	Se 196.026†	-33.9	-48.8	-1.63	µg/L	-1.63 ppb	23:29:13
2	SiO2†	414224.2	407903.5	39869	µg/L	39869 ppb	23:28:51
2	Si 251.611†	1277269.0	1262416.7	18612	µg/L	18612 ppb	23:28:51
2	Sn 189.927†	99.9	100.0	9.7625	µg/L	9.7625 ppb	23:29:13
2	Ti 334.940†	1134067.8	1120670.9	1047.1	µg/L	1047.1 ppb	23:28:51
2	Tl 190.801†	-283.6	-163.8	-3.9852	µg/L	-3.9852 ppb	23:29:13
2	U 409.014†	-5964.4	-5629.1	-324.86	µg/L	-324.86 ppb	23:28:51
2	V 292.402†	3929.9	3483.0	11.057	µg/L	11.057 ppb	23:28:53
2	Zn 213.857†	43505.2	42463.4	233.95	µg/L	233.95 ppb	23:28:53
3	Sc RADIAL	142882.5	142882.5	97.9	%		23:28:20
3	Al 396.153Radial†	38580.9	39466.9	7316.8	µg/L	7316.8 ppb	23:28:22
3	Ca 317.933Radial†	60911.3	61649.8	3434.1	µg/L	3434.1 ppb	23:28:22
3	Fe 238.204 Radial†	745235.9	760981.5	46902	µg/L	46902 ppb	23:28:20
3	K 766.490 Radial†	10654.9	9337.4	3415.0	µg/L	3415.0 ppb	23:28:22
3	Mg 279.077 IEC†	3321.1	3201.2	1152.7	µg/L	1152.7 ppb	23:28:22
3	Na 589.592 Radial†	52491.4	52320.1	7144.5	µg/L	7144.5 ppb	23:28:20
3	Sr 421.552†	7262.5	7552.6	15.675	µg/L	15.675 ppb	23:28:22
3	Sc 361.383	1723715.9	1723715.9	100.32	%		23:29:15
3	Y 371.029	1307915.9	1307915.9	127.39	%		23:29:15
3	Ag 328.068†	3796.7	-306.8	-2.3144	µg/L	-2.3144 ppb	23:29:17
3	As 188.979†	5.0	25.3	18.539	µg/L	18.539 ppb	23:29:38
3	B 249.677†	3765.9	248.0	3.6371	µg/L	3.6371 ppb	23:29:17
3	Ba 233.527†	23142.8	23204.9	92.919	µg/L	92.919 ppb	23:29:17
3	Be 313.107†	12752.8	13776.8	3.6556	µg/L	3.6556 ppb	23:29:17
3	Cd 226.502†	686.4	802.4	0.0923	µg/L	0.0923 ppb	23:29:38
3	Co 228.616†	278.5	467.9	3.4243	µg/L	3.4243 ppb	23:29:38
3	Cr 267.716†	4773.2	4579.4	37.196	µg/L	37.196 ppb	23:29:17
3	Cu 324.752†	3270.7	288.0	7.7245	µg/L	7.7245 ppb	23:29:17
3	Mn 257.610†	1743535.1	1737736.4	2149.9	µg/L	2149.9 ppb	23:29:15
3	Mo 202.031†	213.1	232.5	8.7153	µg/L	8.7153 ppb	23:29:38
3	Ni 231.604†	2169.3	2238.9	25.780	µg/L	25.780 ppb	23:29:38
3	P 214.914†	2101.7	2112.9	421.61	µg/L	421.61 ppb	23:29:38
3	Pb 220.353†	409.0	321.3	18.517	µg/L	18.517 ppb	23:29:38
3	S 181.975 Axial†	166.7	61.1	45.431	µg/L	45.431 ppb	23:29:38
3	Sb 206.836†	91.6	10.5	0.2021	µg/L	0.2021 ppb	23:29:38
3	Se 196.026†	-21.1	-36.3	2.84	µg/L	2.84 ppb	23:29:38
3	SiO2†	412207.6	409117.4	39988	µg/L	39988 ppb	23:29:15
3	Si 251.611†	1268833.2	1263949.4	18634	µg/L	18634 ppb	23:29:15
3	Sn 189.927†	97.0	97.8	9.6322	µg/L	9.6322 ppb	23:29:38
3	Ti 334.940†	1126577.0	1122030.9	1048.4	µg/L	1048.4 ppb	23:29:15
3	Tl 190.801†	-282.8	-165.2	-4.1311	µg/L	-4.1311 ppb	23:29:38
3	U 409.014†	-5693.8	-5405.7	-311.75	µg/L	-311.75 ppb	23:29:15
3	V 292.402†	3795.6	3379.7	10.579	µg/L	10.579 ppb	23:29:17
3	Zn 213.857†	42414.2	41714.5	229.77	µg/L	229.77 ppb	23:29:17

Mean Data: 248834004|963993|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1736966.0	101.09	%	0.762				0.75%
Sc RADIAL	144571.9	99.1	%	1.20				1.21%
Y 371.029	1316500.6	128.23	%	0.833				0.65%
Ag 328.068†	-224.8	-2.0175	µg/L	0.30264	-2.0175	ppb	0.30264	15.00%
Al 396.153Radial†	38878.8	7207.8	µg/L	113.02	7207.8	ppb	113.02	1.57%
As 188.979†	29.8	19.940	µg/L	1.2237	19.940	ppb	1.2237	6.14%
B 249.677†	182.8	2.6760	µg/L	0.84504	2.6760	ppb	0.84504	31.58%
Ba 233.527†	23296.6	93.287	µg/L	0.6143	93.287	ppb	0.6143	0.66%
Be 313.107†	13897.7	3.6858	µg/L	0.03716	3.6858	ppb	0.03716	1.01%
Ca 317.933Radial†	61023.4	3399.2	µg/L	42.31	3399.2	ppb	42.31	1.24%
Cd 226.502†	784.4	-0.0367	µg/L	0.11252	-0.0367	ppb	0.11252	306.68%
Co 228.616†	471.0	3.4549	µg/L	0.11361	3.4549	ppb	0.11361	3.29%
Cr 267.716†	4680.7	38.002	µg/L	0.7286	38.002	ppb	0.7286	1.92%
Cu 324.752†	459.7	8.4065	µg/L	0.59953	8.4065	ppb	0.59953	7.13%
Fe 238.204 Radial†	763526.9	47059	µg/L	143.4	47059	ppb	143.4	0.30%
K 766.490 Radial†	9120.7	3335.7	µg/L	70.16	3335.7	ppb	70.16	2.10%
Mg 279.077 IEC†	3128.7	1125.5	µg/L	23.75	1125.5	ppb	23.75	2.11%
Mn 257.610†	1737549.1	2149.7	µg/L	4.04	2149.7	ppb	4.04	0.19%
Mo 202.031†	222.8	8.4368	µg/L	0.24145	8.4368	ppb	0.24145	2.86%
Na 589.592 Radial†	52347.7	7148.4	µg/L	8.85	7148.4	ppb	8.85	0.12%

Ni 231.604†	2230.6	25.683	µg/L	0.1010	25.683	ppb	0.1010	0.39%
P 214.914†	2095.7	417.79	µg/L	3.959	417.79	ppb	3.959	0.95%
Pb 220.353†	305.4	17.623	µg/L	0.8425	17.623	ppb	0.8425	4.78%
S 181.975 Axial†	67.3	50.025	µg/L	4.7842	50.025	ppb	4.7842	9.56%
Sb 206.836†	2.7	-0.7349	µg/L	0.81783	-0.7349	ppb	0.81783	111.29%
Se 196.026†	-41.6	0.985	µg/L	2.3327	0.985	ppb	2.3327	236.87%
SiO2†	409011.4	39977	µg/L	103.5	39977	ppb	103.5	0.26%
Si 251.611†	1264534.2	18643	µg/L	36.3	18643	ppb	36.3	0.19%
Sn 189.927†	101.2	9.8432	µg/L	0.26091	9.8432	ppb	0.26091	2.65%
Sr 421.552†	7556.2	15.682	µg/L	0.1115	15.682	ppb	0.1115	0.71%
Ti 334.940†	1121621.1	1048.0	µg/L	0.77	1048.0	ppb	0.77	0.07%
Tl 190.801†	-164.9	-4.0926	µg/L	0.09422	-4.0926	ppb	0.09422	2.30%
U 409.014†	-5558.4	-320.70	µg/L	7.755	-320.70	ppb	7.755	2.42%
Concentration less than lower limit for U 409.014.								
V 292.402†	3449.5	10.898	µg/L	0.2760	10.898	ppb	0.2760	2.53%
Zn 213.857†	42029.4	231.52	µg/L	2.175	231.52	ppb	2.175	0.94%

Sequence No.: 112
Sample ID: 248834005|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 240
Date Collected: 3/31/2010 23:29:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248834005|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144614.8	144614.8	99.1	%			23:30:16
1	Al 396.153Radial†	54226.7	54783.0	10156	µg/L	10156	ppb	23:30:18
1	Ca 317.933Radial†	38844.7	38637.4	2152.3	µg/L	2152.3	ppb	23:30:18
1	Fe 238.204 Radial†	788237.7	795257.1	49015	µg/L	49015	ppb	23:30:16
1	K 766.490 Radial†	11772.6	10334.9	3780.3	µg/L	3780.3	ppb	23:30:18
1	Mg 279.077 IEC†	3667.8	3510.5	1266.1	µg/L	1266.1	ppb	23:30:18
1	Na 589.592 Radial†	31694.5	30691.9	4189.5	µg/L	4189.5	ppb	23:30:18
1	Sr 421.552†	5686.2	5873.2	12.193	µg/L	12.193	ppb	23:30:18
1	Sc 361.383	1732115.0	1732115.0	100.81	%			23:30:45
1	Y 371.029	1213387.9	1213387.9	118.18	%			23:30:45
1	Ag 328.068†	3975.0	-148.3	-1.5523	µg/L	-1.5523	ppb	23:30:47
1	As 188.979†	0.2	20.6	18.983	µg/L	18.983	ppb	23:31:07
1	B 249.677†	3579.3	44.7	0.6267	µg/L	0.6267	ppb	23:30:47
1	Ba 233.527†	26105.7	26032.1	104.29	µg/L	104.29	ppb	23:30:47
1	Be 313.107†	11406.7	12379.9	3.2803	µg/L	3.2803	ppb	23:30:47
1	Cd 226.502†	662.8	775.7	-0.2659	µg/L	-0.2659	ppb	23:31:07
1	Co 228.616†	556.8	742.7	6.7425	µg/L	6.7425	ppb	23:31:07
1	Cr 267.716†	23750.3	23381.2	184.54	µg/L	184.54	ppb	23:30:47
1	Cu 324.752†	4354.3	1347.1	12.167	µg/L	12.167	ppb	23:30:47
1	Mn 257.610†	1666731.2	1653121.1	2045.2	µg/L	2045.2	ppb	23:30:45
1	Mo 202.031†	310.1	327.7	11.601	µg/L	11.601	ppb	23:31:07
1	Ni 231.604†	7805.6	7819.4	90.035	µg/L	90.035	ppb	23:30:47
1	P 214.914†	2172.6	2173.1	433.63	µg/L	433.63	ppb	23:31:07
1	Pb 220.353†	503.5	413.1	23.788	µg/L	23.788	ppb	23:31:07
1	S 181.975 Axial†	183.3	76.8	57.078	µg/L	57.078	ppb	23:31:07
1	Sb 206.836†	82.5	1.0	-3.1194	µg/L	-3.1194	ppb	23:31:07
1	Se 196.026†	-44.0	-59.0	-4.60	µg/L	-4.60	ppb	23:31:07
1	SiO2†	484750.8	479086.1	46826	µg/L	46826	ppb	23:30:45
1	Si 251.611†	1491675.4	1478870.6	21803	µg/L	21803	ppb	23:30:45
1	Sn 189.927†	146.1	146.0	12.756	µg/L	12.756	ppb	23:31:07
1	Ti 334.940†	1169452.1	1159116.7	1082.9	µg/L	1082.9	ppb	23:30:45
1	Tl 190.801†	-294.3	-175.2	-5.2452	µg/L	-5.2452	ppb	23:31:07
1	U 409.014†	-5431.6	-5118.1	-295.87	µg/L	-295.87	ppb	23:30:45
1	V 292.402†	5451.4	5003.9	18.921	µg/L	18.921	ppb	23:30:47
1	Zn 213.857†	35206.6	34359.7	187.88	µg/L	187.88	ppb	23:30:47
2	Sc RADIAL	145466.6	145466.6	99.7	%			23:30:20
2	Al 396.153Radial†	54058.9	54294.2	10066	µg/L	10066	ppb	23:30:22
2	Ca 317.933Radial†	38715.0	38277.7	2132.2	µg/L	2132.2	ppb	23:30:22
2	Fe 238.204 Radial†	790621.9	792990.9	48875	µg/L	48875	ppb	23:30:20
2	K 766.490 Radial†	11953.7	10446.9	3821.4	µg/L	3821.4	ppb	23:30:22
2	Mg 279.077 IEC†	3648.9	3469.8	1251.1	µg/L	1251.1	ppb	23:30:22
2	Na 589.592 Radial†	31649.0	30458.9	4157.7	µg/L	4157.7	ppb	23:30:22
2	Sr 421.552†	5765.4	5919.1	12.289	µg/L	12.289	ppb	23:30:22
2	Sc 361.383	1749200.6	1749200.6	101.80	%			23:31:09
2	Y 371.029	1224684.2	1224684.2	119.28	%			23:31:09
2	Ag 328.068†	3979.0	-182.9	-1.6458	µg/L	-1.6458	ppb	23:31:11
2	As 188.979†	-3.8	16.6	17.761	µg/L	17.761	ppb	23:31:31
2	B 249.677†	3746.0	173.7	2.5298	µg/L	2.5298	ppb	23:31:11
2	Ba 233.527†	26290.9	25961.0	104.01	µg/L	104.01	ppb	23:31:11
2	Be 313.107†	11143.2	12010.5	3.1873	µg/L	3.1873	ppb	23:31:11
2	Cd 226.502†	681.7	787.8	-0.1762	µg/L	-0.1762	ppb	23:31:31
2	Co 228.616†	577.5	757.6	6.9331	µg/L	6.9331	ppb	23:31:31
2	Cr 267.716†	23921.5	23319.2	184.03	µg/L	184.03	ppb	23:31:11
2	Cu 324.752†	4422.9	1372.4	12.265	µg/L	12.265	ppb	23:31:11
2	Mn 257.610†	1680606.3	1650601.1	2042.1	µg/L	2042.1	ppb	23:31:09
2	Mo 202.031†	295.0	309.8	11.070	µg/L	11.070	ppb	23:31:31
2	Ni 231.604†	7754.5	7693.6	88.587	µg/L	88.587	ppb	23:31:11
2	P 214.914†	2162.7	2142.4	427.14	µg/L	427.14	ppb	23:31:31
2	Pb 220.353†	473.8	379.1	21.865	µg/L	21.865	ppb	23:31:31

2	S 181.975 Axial†	186.9	78.5	58.384	µg/L	58.384 ppb	23:31:31
2	Sb 206.836†	113.1	30.3	0.3605	µg/L	0.3605 ppb	23:31:31
2	Se 196.026†	-23.1	-38.0	2.97	µg/L	2.97 ppb	23:31:31
2	SiO2†	488512.5	478084.3	46728	µg/L	46728 ppb	23:31:09
2	Si 251.611†	1503387.8	1475922.3	21759	µg/L	21759 ppb	23:31:09
2	Sn 189.927†	144.0	142.6	12.537	µg/L	12.537 ppb	23:31:31
2	Ti 334.940†	1179218.6	1157379.0	1081.3	µg/L	1081.3 ppb	23:31:09
2	Tl 190.801†	-271.0	-149.6	-2.1124	µg/L	-2.1124 ppb	23:31:31
2	U 409.014†	-5053.0	-4693.6	-271.03	µg/L	-271.03 ppb	23:31:09
2	V 292.402†	5537.5	5035.6	19.101	µg/L	19.101 ppb	23:31:11
2	Zn 213.857†	35371.9	34181.0	186.90	µg/L	186.90 ppb	23:31:11
3	Sc RADIAL	143876.3	143876.3	98.6	%		23:30:24
3	Al 396.153Radial†	53758.0	54588.5	10120	µg/L	10120 ppb	23:30:26
3	Ca 317.933Radial†	38575.6	38565.6	2148.3	µg/L	2148.3 ppb	23:30:26
3	Fe 238.204 Radial†	784784.0	795836.9	49051	µg/L	49051 ppb	23:30:24
3	K 766.490 Radial†	11943.4	10569.1	3866.1	µg/L	3866.1 ppb	23:30:26
3	Mg 279.077 IEC†	3658.0	3519.5	1269.5	µg/L	1269.5 ppb	23:30:26
3	Na 589.592 Radial†	31376.1	30533.1	4167.7	µg/L	4167.7 ppb	23:30:26
3	Sr 421.552†	5621.2	5836.8	12.117	µg/L	12.117 ppb	23:30:26
3	Sc 361.383	1726514.4	1726514.4	100.48	%		23:31:34
3	Y 371.029	1209539.1	1209539.1	117.81	%		23:31:34
3	Ag 328.068†	3977.9	-132.7	-1.4829	µg/L	-1.4829 ppb	23:31:36
3	As 188.979†	1.9	22.3	19.505	µg/L	19.505 ppb	23:31:56
3	B 249.677†	3623.9	100.6	1.4513	µg/L	1.4513 ppb	23:31:36
3	Ba 233.527†	26080.8	26091.4	104.53	µg/L	104.53 ppb	23:31:36
3	Be 313.107†	11291.3	12301.8	3.2632	µg/L	3.2632 ppb	23:31:36
3	Cd 226.502†	677.2	792.2	-0.1674	µg/L	-0.1674 ppb	23:31:56
3	Co 228.616†	560.9	748.5	6.8122	µg/L	6.8122 ppb	23:31:56
3	Cr 267.716†	23596.7	23304.8	183.93	µg/L	183.93 ppb	23:31:36
3	Cu 324.752†	4378.8	1385.6	12.333	µg/L	12.333 ppb	23:31:36
3	Mn 257.610†	1660099.9	1651885.1	2043.7	µg/L	2043.7 ppb	23:31:34
3	Mo 202.031†	295.6	314.2	11.207	µg/L	11.207 ppb	23:31:56
3	Ni 231.604†	7652.8	7692.5	88.574	µg/L	88.574 ppb	23:31:36
3	P 214.914†	2160.0	2167.6	432.42	µg/L	432.42 ppb	23:31:56
3	Pb 220.353†	484.3	395.6	22.793	µg/L	22.793 ppb	23:31:56
3	S 181.975 Axial†	184.6	78.6	58.462	µg/L	58.462 ppb	23:31:56
3	Sb 206.836†	83.5	2.3	-2.9647	µg/L	-2.9647 ppb	23:31:56
3	Se 196.026†	-40.0	-55.1	-3.16	µg/L	-3.16 ppb	23:31:56
3	SiO2†	482160.5	478068.1	46727	µg/L	46727 ppb	23:31:34
3	Si 251.611†	1483146.8	1475183.0	21748	µg/L	21748 ppb	23:31:34
3	Sn 189.927†	150.1	150.5	13.031	µg/L	13.031 ppb	23:31:56
3	Ti 334.940†	1164309.3	1157761.7	1081.7	µg/L	1081.7 ppb	23:31:34
3	Tl 190.801†	-284.1	-166.1	-4.1396	µg/L	-4.1396 ppb	23:31:56
3	U 409.014†	-5182.4	-4887.6	-282.43	µg/L	-282.43 ppb	23:31:34
3	V 292.402†	5344.5	4915.0	18.487	µg/L	18.487 ppb	23:31:36
3	Zn 213.857†	34887.5	34155.5	186.74	µg/L	186.74 ppb	23:31:36

Mean Data: 248834005|963993|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1735943.3	101.03	%	0.688				0.68%
Sc RADIAL	144652.6	99.1	%	0.55				0.55%
Y 371.029	1215870.4	118.43	%	0.767				0.65%
Ag 328.068†	-154.6	-1.5603	µg/L	0.08179	-1.5603	ppb	0.08179	5.24%
Al 396.153Radial†	54555.2	10114	µg/L	45.6	10114	ppb	45.6	0.45%
As 188.979†	19.8	18.749	µg/L	0.8953	18.749	ppb	0.8953	4.77%
B 249.677†	106.3	1.5359	µg/L	0.95435	1.5359	ppb	0.95435	62.14%
Ba 233.527†	26028.2	104.28	µg/L	0.262	104.28	ppb	0.262	0.25%
Be 313.107†	12230.7	3.2436	µg/L	0.04952	3.2436	ppb	0.04952	1.53%
Ca 317.933Radial†	38493.5	2144.2	µg/L	10.60	2144.2	ppb	10.60	0.49%
Cd 226.502†	785.2	-0.2032	µg/L	0.05452	-0.2032	ppb	0.05452	26.83%
Co 228.616†	749.6	6.8292	µg/L	0.09646	6.8292	ppb	0.09646	1.41%
Cr 267.716†	23335.0	184.17	µg/L	0.326	184.17	ppb	0.326	0.18%
Cu 324.752†	1368.4	12.255	µg/L	0.0834	12.255	ppb	0.0834	0.68%
Fe 238.204 Radial†	794695.0	48980	µg/L	92.7	48980	ppb	92.7	0.19%
K 766.490 Radial†	10450.3	3822.6	µg/L	42.89	3822.6	ppb	42.89	1.12%
Mg 279.077 IEC†	3499.9	1262.2	µg/L	9.79	1262.2	ppb	9.79	0.78%
Mn 257.610†	1651869.1	2043.7	µg/L	1.56	2043.7	ppb	1.56	0.08%
Mo 202.031†	317.3	11.292	µg/L	0.2757	11.292	ppb	0.2757	2.44%
Na 589.592 Radial†	30561.3	4171.6	µg/L	16.28	4171.6	ppb	16.28	0.39%

Ni 231.604†	7735.2	89.065	µg/L	0.8400	89.065	ppb	0.8400	0.94%
P 214.914†	2161.0	431.06	µg/L	3.452	431.06	ppb	3.452	0.80%
Pb 220.353†	395.9	22.815	µg/L	0.9615	22.815	ppb	0.9615	4.21%
S 181.975 Axial†	78.0	57.975	µg/L	0.7771	57.975	ppb	0.7771	1.34%
Sb 206.836†	11.2	-1.9079	µg/L	1.96600	-1.9079	ppb	1.96600	103.05%
Se 196.026†	-50.7	-1.60	µg/L	4.021	-1.60	ppb	4.021	251.53%
SiO2†	478412.8	46761	µg/L	57.0	46761	ppb	57.0	0.12%
Si 251.611†	1476658.6	21770	µg/L	28.8	21770	ppb	28.8	0.13%
Sn 189.927†	146.4	12.774	µg/L	0.2475	12.774	ppb	0.2475	1.94%
Sr 421.552†	5876.3	12.200	µg/L	0.0858	12.200	ppb	0.0858	0.70%
Ti 334.940†	1158085.8	1082.0	µg/L	0.86	1082.0	ppb	0.86	0.08%
Tl 190.801†	-163.6	-3.8324	µg/L	1.58884	-3.8324	ppb	1.58884	41.46%
U 409.014†	-4899.8	-283.11	µg/L	12.435	-283.11	ppb	12.435	4.39%
Concentration less than lower limit for U 409.014.								
V 292.402†	4984.8	18.837	µg/L	0.3155	18.837	ppb	0.3155	1.67%
Zn 213.857†	34232.0	187.17	µg/L	0.619	187.17	ppb	0.619	0.33%

Sequence No.: 113
Sample ID: 248834006|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 241
Date Collected: 3/31/2010 23:32:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248834006|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145475.4	145475.4	99.7	%			23:32:35
1	Al 396.153Radial†	251060.2	251907.6	46703	µg/L	46703	ppb	23:32:33
1	Ca 317.933Radial†	139394.4	139269.2	7757.8	µg/L	7757.8	ppb	23:32:35
1	Fe 238.204 Radial†	1321132.0	1325110.1	81672	µg/L	81672	ppb	23:32:33
1	K 766.490 Radial†	14080.5	12579.7	4592.7	µg/L	4592.7	ppb	23:32:35
1	Mg 279.077 IEC†	16780.7	16642.4	6130.8	µg/L	6130.8	ppb	23:32:35
1	Na 589.592 Radial†	27988.9	26785.5	3655.1	µg/L	3655.1	ppb	23:32:35
1	Sr 421.552†	34479.8	34722.8	72.126	µg/L	72.126	ppb	23:32:35
1	Sc 361.383	1721085.4	1721085.4	100.17	%			23:32:48
1	Y 371.029	1237744.0	1237744.0	120.56	%			23:32:48
1	Ag 328.068†	3777.1	-320.6	-1.9781	µg/L	-1.9781	ppb	23:32:48
1	As 188.979†	21.8	42.1	31.661	µg/L	31.661	ppb	23:33:08
1	B 249.677†	3878.2	365.8	5.3234	µg/L	5.3234	ppb	23:32:48
1	Ba 233.527†	109459.2	109412.7	439.91	µg/L	439.91	ppb	23:32:48
1	Be 313.107†	22343.2	23370.7	6.2390	µg/L	6.2390	ppb	23:32:48
1	Cd 226.502†	1231.1	1347.3	-0.1504	µg/L	-0.1504	ppb	23:33:08
1	Co 228.616†	1478.8	1666.7	16.746	µg/L	16.746	ppb	23:33:08
1	Cr 267.716†	8100.2	7908.1	64.497	µg/L	64.497	ppb	23:33:08
1	Cu 324.752†	7491.1	4506.4	29.247	µg/L	29.247	ppb	23:32:48
1	Mn 257.610†	1808980.1	1805728.6	2233.8	µg/L	2233.8	ppb	23:32:48
1	Mo 202.031†	202.4	222.1	9.9007	µg/L	9.9007	ppb	23:33:08
1	Ni 231.604†	4062.3	4132.0	47.577	µg/L	47.577	ppb	23:33:08
1	P 214.914†	4614.9	4625.2	943.82	µg/L	943.82	ppb	23:33:08
1	Pb 220.353†	1096.8	1008.6	59.898	µg/L	59.898	ppb	23:33:08
1	S 181.975 Axial†	382.5	276.8	205.58	µg/L	205.58	ppb	23:33:08
1	Sb 206.836†	67.4	-13.5	-3.6352	µg/L	-3.6352	ppb	23:33:08
1	Se 196.026†	-76.5	-91.6	-5.19	µg/L	-5.19	ppb	23:33:08
1	SiO2†	661188.1	658311.1	64344	µg/L	64344	ppb	23:32:48
1	Si 251.611†	2028977.2	2024759.9	29851	µg/L	29851	ppb	23:32:48
1	Sn 189.927†	63.6	64.6	11.718	µg/L	11.718	ppb	23:33:08
1	Ti 334.940†	2445503.9	2440476.6	2279.9	µg/L	2279.9	ppb	23:32:48
1	Tl 190.801†	-368.4	-251.1	-1.6396	µg/L	-1.6396	ppb	23:33:08
1	U 409.014†	-7321.5	-7039.4	-410.34	µg/L	-410.34	ppb	23:32:48
1	V 292.402†	18555.7	18121.0	77.726	µg/L	77.726	ppb	23:32:48
1	Zn 213.857†	45976.5	45335.4	247.59	µg/L	247.59	ppb	23:32:48
2	Sc RADIAL	145490.1	145490.1	99.7	%			23:32:39
2	Al 396.153Radial†	251409.0	252231.9	46763	µg/L	46763	ppb	23:32:37
2	Ca 317.933Radial†	139580.5	139441.7	7767.4	µg/L	7767.4	ppb	23:32:39
2	Fe 238.204 Radial†	1320426.6	1324268.7	81620	µg/L	81620	ppb	23:32:37
2	K 766.490 Radial†	13998.6	12496.1	4562.1	µg/L	4562.1	ppb	23:32:39
2	Mg 279.077 IEC†	16758.4	16618.4	6121.9	µg/L	6121.9	ppb	23:32:39
2	Na 589.592 Radial†	27902.2	26695.7	3642.9	µg/L	3642.9	ppb	23:32:39
2	Sr 421.552†	34491.9	34731.4	72.144	µg/L	72.144	ppb	23:32:39
2	Sc 361.383	1723949.6	1723949.6	100.33	%			23:33:11
2	Y 371.029	1239020.9	1239020.9	120.68	%			23:33:11
2	Ag 328.068†	3940.3	-164.2	-1.3933	µg/L	-1.3933	ppb	23:33:11
2	As 188.979†	27.5	47.8	33.371	µg/L	33.371	ppb	23:33:31
2	B 249.677†	4022.7	503.4	7.3543	µg/L	7.3543	ppb	23:33:11
2	Ba 233.527†	109455.9	109227.8	439.16	µg/L	439.16	ppb	23:33:11
2	Be 313.107†	22556.0	23545.7	6.2865	µg/L	6.2865	ppb	23:33:11
2	Cd 226.502†	1234.0	1348.1	-0.1398	µg/L	-0.1398	ppb	23:33:31
2	Co 228.616†	1453.7	1639.1	16.409	µg/L	16.409	ppb	23:33:31
2	Cr 267.716†	8128.3	7922.7	64.612	µg/L	64.612	ppb	23:33:31
2	Cu 324.752†	7442.2	4445.2	29.001	µg/L	29.001	ppb	23:33:11
2	Mn 257.610†	1808562.8	1802312.2	2229.5	µg/L	2229.5	ppb	23:33:11
2	Mo 202.031†	204.0	223.4	9.9367	µg/L	9.9367	ppb	23:33:31
2	Ni 231.604†	4063.6	4126.6	47.514	µg/L	47.514	ppb	23:33:31
2	P 214.914†	4613.9	4616.5	942.01	µg/L	942.01	ppb	23:33:31
2	Pb 220.353†	1089.3	999.3	59.381	µg/L	59.381	ppb	23:33:31

2	S 181.975 Axial†	392.9	286.5	212.83	µg/L	212.83 ppb	23:33:31
2	Sb 206.836†	74.1	-7.0	-2.8602	µg/L	-2.8602 ppb	23:33:31
2	Se 196.026†	-64.0	-79.1	-0.670	µg/L	-0.670 ppb	23:33:31
2	SiO2†	660651.1	656679.1	64185	µg/L	64185 ppb	23:33:11
2	Si 251.611†	2028867.1	2021284.7	29799	µg/L	29799 ppb	23:33:11
2	Sn 189.927†	59.4	60.3	11.431	µg/L	11.431 ppb	23:33:31
2	Ti 334.940†	2443946.0	2434867.5	2274.7	µg/L	2274.7 ppb	23:33:11
2	Tl 190.801†	-375.8	-257.9	-2.5364	µg/L	-2.5364 ppb	23:33:31
2	U 409.014†	-7339.2	-7044.9	-410.66	µg/L	-410.66 ppb	23:33:11
2	V 292.402†	18670.7	18204.8	78.146	µg/L	78.146 ppb	23:33:11
2	Zn 213.857†	46062.8	45345.2	247.65	µg/L	247.65 ppb	23:33:11
3	Sc RADIAL	143073.8	143073.8	98.0	%		23:32:43
3	Al 396.153Radial†	251096.7	256172.3	47494	µg/L	47494 ppb	23:32:41
3	Ca 317.933Radial†	136913.6	139086.0	7747.6	µg/L	7747.6 ppb	23:32:43
3	Fe 238.204 Radial†	1312071.8	1338114.8	82473	µg/L	82473 ppb	23:32:41
3	K 766.490 Radial†	13756.7	12486.5	4558.4	µg/L	4558.4 ppb	23:32:43
3	Mg 279.077 IEC†	16421.2	16558.3	6098.8	µg/L	6098.8 ppb	23:32:43
3	Na 589.592 Radial†	27436.8	26693.6	3642.6	µg/L	3642.6 ppb	23:32:43
3	Sr 421.552†	34104.7	34920.8	72.538	µg/L	72.538 ppb	23:32:43
3	Sc 361.383	1734059.4	1734059.4	100.92	%		23:33:34
3	Y 371.029	1246817.7	1246817.7	121.44	%		23:33:34
3	Ag 328.068†	4044.5	-83.9	-1.1113	µg/L	-1.1113 ppb	23:33:34
3	As 188.979†	7.6	27.9	27.531	µg/L	27.531 ppb	23:33:54
3	B 249.677†	3964.0	421.9	6.1503	µg/L	6.1503 ppb	23:33:34
3	Ba 233.527†	110431.6	109558.6	440.49	µg/L	440.49 ppb	23:33:34
3	Be 313.107†	22836.4	23692.5	6.3246	µg/L	6.3246 ppb	23:33:34
3	Cd 226.502†	1211.6	1318.7	-0.4135	µg/L	-0.4135 ppb	23:33:54
3	Co 228.616†	1492.5	1669.2	16.736	µg/L	16.736 ppb	23:33:54
3	Cr 267.716†	8106.7	7854.1	64.108	µg/L	64.108 ppb	23:33:54
3	Cu 324.752†	7302.7	4263.7	28.414	µg/L	28.414 ppb	23:33:34
3	Mn 257.610†	1823458.2	1806562.4	2234.8	µg/L	2234.8 ppb	23:33:34
3	Mo 202.031†	212.7	230.8	10.187	µg/L	10.187 ppb	23:33:54
3	Ni 231.604†	4057.5	4096.9	47.173	µg/L	47.173 ppb	23:33:54
3	P 214.914†	4624.8	4600.5	938.19	µg/L	938.19 ppb	23:33:54
3	Pb 220.353†	1105.8	1009.3	59.969	µg/L	59.969 ppb	23:33:54
3	S 181.975 Axial†	396.7	288.0	213.92	µg/L	213.92 ppb	23:33:54
3	Sb 206.836†	75.7	-5.8	-2.7212	µg/L	-2.7212 ppb	23:33:54
3	Se 196.026†	-64.7	-79.4	-0.479	µg/L	-0.479 ppb	23:33:54
3	SiO2†	666227.7	658365.9	64350	µg/L	64350 ppb	23:33:34
3	Si 251.611†	2045817.1	2026290.7	29873	µg/L	29873 ppb	23:33:34
3	Sn 189.927†	58.1	58.7	11.351	µg/L	11.351 ppb	23:33:54
3	Ti 334.940†	2465767.7	2442288.8	2281.6	µg/L	2281.6 ppb	23:33:34
3	Tl 190.801†	-398.6	-278.3	-4.9591	µg/L	-4.9591 ppb	23:33:54
3	U 409.014†	-7493.3	-7155.0	-417.26	µg/L	-417.26 ppb	23:33:34
3	V 292.402†	18759.3	18184.1	77.944	µg/L	77.944 ppb	23:33:34
3	Zn 213.857†	46180.3	45194.0	246.73	µg/L	246.73 ppb	23:33:34

Mean Data: 248834006|963993|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726364.8	100.47	%	0.397				0.39%
Sc RADIAL	144679.8	99.1	%	0.95				0.96%
Y 371.029	1241194.2	120.89	%	0.478				0.40%
Ag 328.068†	-189.6	-1.4942	µg/L	0.44212	-1.4942	ppb	0.44212	29.59%
Al 396.153Radial†	253437.3	46987	µg/L	440.2	46987	ppb	440.2	0.94%
As 188.979†	39.2	30.854	µg/L	3.0026	30.854	ppb	3.0026	9.73%
B 249.677†	430.4	6.2760	µg/L	1.02129	6.2760	ppb	1.02129	16.27%
Ba 233.527†	109399.7	439.85	µg/L	0.663	439.85	ppb	0.663	0.15%
Be 313.107†	23536.3	6.2834	µg/L	0.04288	6.2834	ppb	0.04288	0.68%
Ca 317.933Radial†	139265.6	7757.6	µg/L	9.91	7757.6	ppb	9.91	0.13%
Cd 226.502†	1338.0	-0.2346	µg/L	0.15505	-0.2346	ppb	0.15505	66.10%
Co 228.616†	1658.3	16.630	µg/L	0.1920	16.630	ppb	0.1920	1.15%
Cr 267.716†	7895.0	64.405	µg/L	0.2642	64.405	ppb	0.2642	0.41%
Cu 324.752†	4405.1	28.887	µg/L	0.4277	28.887	ppb	0.4277	1.48%
Fe 238.204 Radial†	1329164.5	81922	µg/L	478.4	81922	ppb	478.4	0.58%
K 766.490 Radial†	12520.8	4571.1	µg/L	18.83	4571.1	ppb	18.83	0.41%
Mg 279.077 IEC†	16606.4	6117.2	µg/L	16.52	6117.2	ppb	16.52	0.27%
Mn 257.610†	1804867.8	2232.7	µg/L	2.79	2232.7	ppb	2.79	0.12%
Mo 202.031†	225.4	10.008	µg/L	0.1558	10.008	ppb	0.1558	1.56%
Na 589.592 Radial†	26725.0	3646.9	µg/L	7.15	3646.9	ppb	7.15	0.20%

Ni 231.604†	4118.5	47.422	µg/L	0.2175	47.422	ppb	0.2175	0.46%
P 214.914†	4614.1	941.34	µg/L	2.875	941.34	ppb	2.875	0.31%
Pb 220.353†	1005.7	59.749	µg/L	0.3212	59.749	ppb	0.3212	0.54%
S 181.975 Axial†	283.8	210.78	µg/L	4.534	210.78	ppb	4.534	2.15%
Sb 206.836†	-8.8	-3.0722	µg/L	0.49248	-3.0722	ppb	0.49248	16.03%
Se 196.026†	-83.4	-2.11	µg/L	2.667	-2.11	ppb	2.667	126.20%
SiO2†	657785.4	64293	µg/L	93.7	64293	ppb	93.7	0.15%
Si 251.611†	2024111.7	29841	µg/L	37.8	29841	ppb	37.8	0.13%
Sn 189.927†	61.2	11.500	µg/L	0.1927	11.500	ppb	0.1927	1.68%
Sr 421.552†	34791.7	72.269	µg/L	0.2328	72.269	ppb	0.2328	0.32%
Ti 334.940†	2439211.0	2278.7	µg/L	3.62	2278.7	ppb	3.62	0.16%
Tl 190.801†	-262.4	-3.0450	µg/L	1.71722	-3.0450	ppb	1.71722	56.39%
U 409.014†	-7079.8	-412.75	µg/L	3.905	-412.75	ppb	3.905	0.95%
Concentration less than lower limit for U 409.014.								
V 292.402†	18170.0	77.939	µg/L	0.2101	77.939	ppb	0.2101	0.27%
Zn 213.857†	45291.6	247.32	µg/L	0.515	247.32	ppb	0.515	0.21%

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Sequence No.: 114
Sample ID: 248834007|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 242
Date Collected: 3/31/2010 23:34:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248834007|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144204.5	144204.5	98.8	%			23:34:31
1	Al 396.153Radial†	91665.2	92825.0	17209	µg/L	17209	ppb	23:34:31
1	Ca 317.933Radial†	103101.3	103774.3	5780.6	µg/L	5780.6	ppb	23:34:33
1	Fe 238.204 Radial†	1053764.2	1066223.4	65715	µg/L	65715	ppb	23:34:31
1	K 766.490 Radial†	17556.6	16221.9	5933.2	µg/L	5933.2	ppb	23:34:33
1	Mg 279.077 IEC†	7220.6	7116.2	2595.3	µg/L	2595.3	ppb	23:34:33
1	Na 589.592 Radial†	32836.9	31939.0	4358.0	µg/L	4358.0	ppb	23:34:33
1	Sr 421.552†	12194.7	12475.9	25.891	µg/L	25.891	ppb	23:34:33
1	Sc 361.383	1745301.2	1745301.2	101.58	%			23:34:46
1	Y 371.029	1210350.4	1210350.4	117.89	%			23:34:46
1	Ag 328.068†	4005.8	-147.8	-1.3161	µg/L	-1.3161	ppb	23:34:46
1	As 188.979†	3.9	24.2	22.718	µg/L	22.718	ppb	23:35:06
1	B 249.677†	3734.3	170.4	2.4579	µg/L	2.4579	ppb	23:34:46
1	Ba 233.527†	52234.9	51560.2	206.97	µg/L	206.97	ppb	23:34:46
1	Be 313.107†	17175.2	17973.4	4.8018	µg/L	4.8018	ppb	23:34:46
1	Cd 226.502†	1185.6	1285.4	1.1376	µg/L	1.1376	ppb	23:35:06
1	Co 228.616†	1129.6	1302.4	12.856	µg/L	12.856	ppb	23:35:06
1	Cr 267.716†	8825.7	8510.2	68.607	µg/L	68.607	ppb	23:35:06
1	Cu 324.752†	12302.6	9139.5	44.918	µg/L	44.918	ppb	23:34:46
1	Mn 257.610†	1842204.9	1813380.3	2243.4	µg/L	2243.4	ppb	23:34:46
1	Mo 202.031†	275.1	290.9	11.218	µg/L	11.218	ppb	23:35:06
1	Ni 231.604†	3512.3	3534.3	40.695	µg/L	40.695	ppb	23:35:06
1	P 214.914†	4191.4	4144.3	845.18	µg/L	845.18	ppb	23:35:06
1	Pb 220.353†	1615.9	1504.4	86.201	µg/L	86.201	ppb	23:35:06
1	S 181.975 Axial†	880.3	761.5	565.58	µg/L	565.58	ppb	23:35:06
1	Sb 206.836†	62.1	-19.7	-4.0232	µg/L	-4.0232	ppb	23:35:06
1	Se 196.026†	-46.5	-61.0	0.446	µg/L	0.446	ppb	23:35:06
1	SiO2†	468330.4	459287.5	44891	µg/L	44891	ppb	23:34:46
1	Si 251.611†	1441043.1	1417844.4	20903	µg/L	20903	ppb	23:34:46
1	Sn 189.927†	247.8	245.0	23.025	µg/L	23.025	ppb	23:35:06
1	Ti 334.940†	2499483.0	2459743.6	2298.1	µg/L	2298.1	ppb	23:34:46
1	Tl 190.801†	-381.6	-259.0	-2.5436	µg/L	-2.5436	ppb	23:35:06
1	U 409.014†	-5564.4	-5208.1	-300.92	µg/L	-300.92	ppb	23:34:46
1	V 292.402†	14287.1	13661.6	57.752	µg/L	57.752	ppb	23:35:06
1	Zn 213.857†	50904.5	49550.2	272.52	µg/L	272.52	ppb	23:34:46
2	Sc RADIAL	145431.1	145431.1	99.7	%			23:34:35
2	Al 396.153Radial†	92473.2	92853.5	17215	µg/L	17215	ppb	23:34:35
2	Ca 317.933Radial†	103995.7	103791.7	5781.6	µg/L	5781.6	ppb	23:34:37
2	Fe 238.204 Radial†	1069100.8	1072618.8	66110	µg/L	66110	ppb	23:34:35
2	K 766.490 Radial†	17659.2	16175.0	5916.1	µg/L	5916.1	ppb	23:34:37
2	Mg 279.077 IEC†	7221.2	7055.2	2572.2	µg/L	2572.2	ppb	23:34:37
2	Na 589.592 Radial†	33299.9	32123.3	4383.2	µg/L	4383.2	ppb	23:34:37
2	Sr 421.552†	12420.2	12598.1	26.145	µg/L	26.145	ppb	23:34:37
2	Sc 361.383	1735011.4	1735011.4	100.98	%			23:35:08
2	Y 371.029	1202948.5	1202948.5	117.17	%			23:35:08
2	Ag 328.068†	3756.1	-371.7	-2.1305	µg/L	-2.1305	ppb	23:35:08
2	As 188.979†	15.1	35.3	26.169	µg/L	26.169	ppb	23:35:29
2	B 249.677†	3870.9	327.5	4.7750	µg/L	4.7750	ppb	23:35:08
2	Ba 233.527†	51886.8	51520.4	206.81	µg/L	206.81	ppb	23:35:08
2	Be 313.107†	16766.4	17668.9	4.7207	µg/L	4.7207	ppb	23:35:08
2	Cd 226.502†	1151.6	1258.6	0.9292	µg/L	0.9292	ppb	23:35:29
2	Co 228.616†	1114.4	1294.0	12.732	µg/L	12.732	ppb	23:35:29
2	Cr 267.716†	8796.9	8533.2	68.798	µg/L	68.798	ppb	23:35:29
2	Cu 324.752†	12127.7	9038.1	44.586	µg/L	44.586	ppb	23:35:08
2	Mn 257.610†	1826613.7	1808696.0	2237.6	µg/L	2237.6	ppb	23:35:08
2	Mo 202.031†	252.7	270.3	10.629	µg/L	10.629	ppb	23:35:29
2	Ni 231.604†	3518.9	3561.3	41.006	µg/L	41.006	ppb	23:35:29
2	P 214.914†	4192.5	4169.9	850.40	µg/L	850.40	ppb	23:35:29
2	Pb 220.353†	1615.8	1513.8	86.700	µg/L	86.700	ppb	23:35:29

2	S 181.975 Axial†	866.1	752.6	558.96	µg/L	558.96 ppb	23:35:29
2	Sb 206.836†	94.3	12.6	-0.2065	µg/L	-0.2065 ppb	23:35:29
2	Se 196.026†	-47.6	-62.4	0.086	µg/L	0.086 ppb	23:35:29
2	SiO2†	464725.4	458451.8	44809	µg/L	44809 ppb	23:35:08
2	Si 251.611†	1429846.8	1415170.3	20863	µg/L	20863 ppb	23:35:08
2	Sn 189.927†	251.5	250.2	23.332	µg/L	23.332 ppb	23:35:29
2	Ti 334.940†	2479688.9	2454734.6	2293.4	µg/L	2293.4 ppb	23:35:08
2	Tl 190.801†	-373.7	-253.4	-1.9106	µg/L	-1.9106 ppb	23:35:29
2	U 409.014†	-5423.9	-5101.5	-294.77	µg/L	-294.77 ppb	23:35:08
2	V 292.402†	14342.2	13799.6	58.386	µg/L	58.386 ppb	23:35:29
2	Zn 213.857†	50676.4	49621.5	272.87	µg/L	272.87 ppb	23:35:08
3	Sc RADIAL	144423.0	144423.0	99.0	%		23:34:39
3	Al 396.153Radial†	92023.8	93047.1	17250	µg/L	17250 ppb	23:34:39
3	Ca 317.933Radial†	103852.7	104375.7	5814.1	µg/L	5814.1 ppb	23:34:41
3	Fe 238.204 Radial†	1053326.5	1064167.9	65589	µg/L	65589 ppb	23:34:39
3	K 766.490 Radial†	17702.0	16341.9	5977.2	µg/L	5977.2 ppb	23:34:41
3	Mg 279.077 IEC†	7244.6	7129.5	2600.3	µg/L	2600.3 ppb	23:34:41
3	Na 589.592 Radial†	33212.6	32268.3	4402.9	µg/L	4402.9 ppb	23:34:41
3	Sr 421.552†	12402.9	12667.6	26.290	µg/L	26.290 ppb	23:34:41
3	Sc 361.383	1747099.6	1747099.6	101.68	%		23:35:31
3	Y 371.029	1210461.6	1210461.6	117.90	%		23:35:31
3	Ag 328.068†	4207.8	46.9	-0.5885	µg/L	-0.5885 ppb	23:35:31
3	As 188.979†	8.7	28.9	24.124	µg/L	24.124 ppb	23:35:51
3	B 249.677†	3711.3	144.0	2.0687	µg/L	2.0687 ppb	23:35:31
3	Ba 233.527†	52366.8	51636.9	207.28	µg/L	207.28 ppb	23:35:31
3	Be 313.107†	16904.3	17689.6	4.7255	µg/L	4.7255 ppb	23:35:31
3	Cd 226.502†	1184.0	1282.6	1.1335	µg/L	1.1335 ppb	23:35:51
3	Co 228.616†	1128.3	1300.0	12.833	µg/L	12.833 ppb	23:35:51
3	Cr 267.716†	8882.1	8556.7	68.965	µg/L	68.965 ppb	23:35:51
3	Cu 324.752†	12274.8	9099.7	44.747	µg/L	44.747 ppb	23:35:31
3	Mn 257.610†	1843416.4	1812704.9	2242.6	µg/L	2242.6 ppb	23:35:31
3	Mo 202.031†	262.1	277.8	10.830	µg/L	10.830 ppb	23:35:51
3	Ni 231.604†	3507.6	3526.1	40.600	µg/L	40.600 ppb	23:35:51
3	P 214.914†	4214.3	4162.6	849.19	µg/L	849.19 ppb	23:35:51
3	Pb 220.353†	1616.4	1503.3	86.143	µg/L	86.143 ppb	23:35:51
3	S 181.975 Axial†	876.3	756.8	562.05	µg/L	562.05 ppb	23:35:51
3	Sb 206.836†	66.0	-15.9	-3.5813	µg/L	-3.5813 ppb	23:35:51
3	Se 196.026†	-45.9	-60.4	0.626	µg/L	0.626 ppb	23:35:51
3	SiO2†	467955.9	458444.6	44809	µg/L	44809 ppb	23:35:31
3	Si 251.611†	1439723.6	1415086.4	20862	µg/L	20862 ppb	23:35:31
3	Sn 189.927†	266.1	262.8	24.131	µg/L	24.131 ppb	23:35:51
3	Ti 334.940†	2501976.1	2459662.4	2298.0	µg/L	2298.0 ppb	23:35:31
3	Tl 190.801†	-377.7	-254.7	-2.0212	µg/L	-2.0212 ppb	23:35:51
3	U 409.014†	-5512.2	-5151.2	-297.55	µg/L	-297.55 ppb	23:35:31
3	V 292.402†	14348.4	13707.5	57.988	µg/L	57.988 ppb	23:35:51
3	Zn 213.857†	51121.9	49712.4	273.44	µg/L	273.44 ppb	23:35:31

Mean Data: 248834007|963993|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1742470.7	101.41	%	0.380				0.37%
Sc RADIAL	144686.2	99.1	%	0.45				0.45%
Y 371.029	1207920.2	117.65	%	0.419				0.36%
Ag 328.068†	-157.5	-1.3450	µg/L	0.77145	-1.3450	ppb	0.77145	57.35%
Al 396.153Radial†	92908.5	17225	µg/L	22.4	17225	ppb	22.4	0.13%
As 188.979†	29.5	24.337	µg/L	1.7352	24.337	ppb	1.7352	7.13%
B 249.677†	214.0	3.1005	µg/L	1.46314	3.1005	ppb	1.46314	47.19%
Ba 233.527†	51572.5	207.02	µg/L	0.242	207.02	ppb	0.242	0.12%
Be 313.107†	17777.3	4.7493	µg/L	0.04548	4.7493	ppb	0.04548	0.96%
Ca 317.933Radial†	103980.6	5792.1	µg/L	19.07	5792.1	ppb	19.07	0.33%
Cd 226.502†	1275.5	1.0667	µg/L	0.11915	1.0667	ppb	0.11915	11.17%
Co 228.616†	1298.8	12.807	µg/L	0.0663	12.807	ppb	0.0663	0.52%
Cr 267.716†	8533.4	68.790	µg/L	0.1790	68.790	ppb	0.1790	0.26%
Cu 324.752†	9092.5	44.750	µg/L	0.1661	44.750	ppb	0.1661	0.37%
Fe 238.204 Radial†	1067670.0	65805	µg/L	271.6	65805	ppb	271.6	0.41%
K 766.490 Radial†	16246.3	5942.2	µg/L	31.51	5942.2	ppb	31.51	0.53%
Mg 279.077 IEC†	7100.3	2589.2	µg/L	14.99	2589.2	ppb	14.99	0.58%
Mn 257.610†	1811593.7	2241.2	µg/L	3.13	2241.2	ppb	3.13	0.14%
Mo 202.031†	279.7	10.892	µg/L	0.2995	10.892	ppb	0.2995	2.75%
Na 589.592 Radial†	32110.2	4381.4	µg/L	22.53	4381.4	ppb	22.53	0.51%

Ni 231.604†	3540.6	40.767	µg/L	0.2122	40.767	ppb	0.2122	0.52%
P 214.914†	4158.9	848.26	µg/L	2.732	848.26	ppb	2.732	0.32%
Pb 220.353†	1507.2	86.348	µg/L	0.3059	86.348	ppb	0.3059	0.35%
S 181.975 Axial†	757.0	562.20	µg/L	3.315	562.20	ppb	3.315	0.59%
Sb 206.836†	-7.7	-2.6036	µg/L	2.08774	-2.6036	ppb	2.08774	80.19%
Se 196.026†	-61.3	0.386	µg/L	0.2751	0.386	ppb	0.2751	71.30%
SiO2†	458728.0	44836	µg/L	47.4	44836	ppb	47.4	0.11%
Si 251.611†	1416033.7	20876	µg/L	23.1	20876	ppb	23.1	0.11%
Sn 189.927†	252.7	23.496	µg/L	0.5708	23.496	ppb	0.5708	2.43%
Sr 421.552†	12580.5	26.109	µg/L	0.2017	26.109	ppb	0.2017	0.77%
Ti 334.940†	2458046.9	2296.5	µg/L	2.68	2296.5	ppb	2.68	0.12%
Tl 190.801†	-255.7	-2.1585	µg/L	0.33807	-2.1585	ppb	0.33807	15.66%
U 409.014†	-5153.6	-297.75	µg/L	3.079	-297.75	ppb	3.079	1.03%
Concentration less than lower limit for U 409.014.								
V 292.402†	13722.9	58.042	µg/L	0.3206	58.042	ppb	0.3206	0.55%
Zn 213.857†	49628.0	272.95	µg/L	0.467	272.95	ppb	0.467	0.17%

Sequence No.: 115
Sample ID: 248834008|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 243
Date Collected: 3/31/2010 23:35:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248834008|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	147086.8	147086.8	101	%			23:36:29
1	Al 396.153Radial†	45555.5	45260.3	8390.9	µg/L	8390.9	ppb	23:36:31
1	Ca 317.933Radial†	101295.2	99937.8	5566.9	µg/L	5566.9	ppb	23:36:31
1	Fe 238.204 Radial†	798389.4	791960.9	48812	µg/L	48812	ppb	23:36:29
1	K 766.490 Radial†	9879.7	8257.2	3019.4	µg/L	3019.4	ppb	23:36:31
1	Mg 279.077 IEC†	4222.3	3998.4	1448.0	µg/L	1448.0	ppb	23:36:31
1	Na 589.592 Radial†	28566.5	27051.0	3692.8	µg/L	3692.8	ppb	23:36:31
1	Sr 421.552†	5213.5	5307.8	10.991	µg/L	10.991	ppb	23:36:31
1	Sc 361.383	1739098.5	1739098.5	101.22	%			23:36:43
1	Y 371.029	1351372.3	1351372.3	131.62	%			23:36:43
1	Ag 328.068†	4011.9	-127.6	-1.8185	µg/L	-1.8185	ppb	23:36:45
1	As 188.979†	18.3	38.5	22.768	µg/L	22.768	ppb	23:37:05
1	B 249.677†	3666.6	116.7	1.6979	µg/L	1.6979	ppb	23:36:45
1	Ba 233.527†	23850.7	23700.2	94.893	µg/L	94.893	ppb	23:36:45
1	Be 313.107†	14377.1	15269.1	4.0494	µg/L	4.0494	ppb	23:36:45
1	Cd 226.502†	639.2	749.7	-0.4431	µg/L	-0.4431	ppb	23:37:05
1	Co 228.616†	360.5	546.4	4.2924	µg/L	4.2924	ppb	23:37:05
1	Cr 267.716†	2475.2	2266.9	19.104	µg/L	19.104	ppb	23:36:45
1	Cu 324.752†	4074.3	1053.2	10.950	µg/L	10.950	ppb	23:36:45
1	Mn 257.610†	2013107.3	1988699.2	2460.4	µg/L	2460.4	ppb	23:36:43
1	Mo 202.031†	177.6	195.5	7.7106	µg/L	7.7106	ppb	23:37:05
1	Ni 231.604†	1239.1	1300.7	14.977	µg/L	14.977	ppb	23:37:05
1	P 214.914†	2444.6	2433.2	489.01	µg/L	489.01	ppb	23:37:05
1	Pb 220.353†	1550.6	1445.6	81.955	µg/L	81.955	ppb	23:37:05
1	S 181.975 Axial†	137.0	30.3	22.523	µg/L	22.523	ppb	23:37:05
1	Sb 206.836†	80.4	-1.4	-0.9852	µg/L	-0.9852	ppb	23:37:05
1	Se 196.026†	-6.9	-22.1	8.59	µg/L	8.59	ppb	23:37:05
1	SiO2†	428996.7	422070.5	41254	µg/L	41254	ppb	23:36:43
1	Si 251.611†	1320519.2	1303827.5	19222	µg/L	19222	ppb	23:36:43
1	Sn 189.927†	33.6	34.3	7.3290	µg/L	7.3290	ppb	23:37:05
1	Ti 334.940†	1669108.6	1648115.5	1539.9	µg/L	1539.9	ppb	23:36:43
1	Tl 190.801†	-328.6	-208.0	-3.6358	µg/L	-3.6358	ppb	23:37:05
1	U 409.014†	-6463.7	-6116.2	-351.42	µg/L	-351.42	ppb	23:36:43
1	V 292.402†	4500.2	4042.4	13.038	µg/L	13.038	ppb	23:36:45
1	Zn 213.857†	36471.0	35468.7	194.80	µg/L	194.80	ppb	23:36:45
2	Sc RADIAL	145425.5	145425.5	99.7	%			23:36:33
2	Al 396.153Radial†	45094.2	45313.8	8400.8	µg/L	8400.8	ppb	23:36:35
2	Ca 317.933Radial†	99760.4	99545.7	5545.1	µg/L	5545.1	ppb	23:36:35
2	Fe 238.204 Radial†	790651.7	793245.2	48891	µg/L	48891	ppb	23:36:33
2	K 766.490 Radial†	10082.4	8572.6	3134.9	µg/L	3134.9	ppb	23:36:35
2	Mg 279.077 IEC†	4257.3	4081.4	1478.9	µg/L	1478.9	ppb	23:36:35
2	Na 589.592 Radial†	28421.1	27228.9	3717.0	µg/L	3717.0	ppb	23:36:35
2	Sr 421.552†	5177.2	5330.5	11.038	µg/L	11.038	ppb	23:36:35
2	Sc 361.383	1736391.3	1736391.3	101.06	%			23:37:08
2	Y 371.029	1349948.2	1349948.2	131.49	%			23:37:08
2	Ag 328.068†	4081.4	-52.7	-1.5540	µg/L	-1.5540	ppb	23:37:10
2	As 188.979†	20.0	40.1	23.285	µg/L	23.285	ppb	23:37:30
2	B 249.677†	3671.9	127.5	1.8570	µg/L	1.8570	ppb	23:37:10
2	Ba 233.527†	23557.0	23446.3	93.869	µg/L	93.869	ppb	23:37:10
2	Be 313.107†	13910.8	14829.9	3.9257	µg/L	3.9257	ppb	23:37:10
2	Cd 226.502†	684.9	796.0	-0.1626	µg/L	-0.1626	ppb	23:37:30
2	Co 228.616†	373.6	560.0	4.4550	µg/L	4.4550	ppb	23:37:30
2	Cr 267.716†	2381.7	2178.2	18.425	µg/L	18.425	ppb	23:37:10
2	Cu 324.752†	4011.0	996.8	10.732	µg/L	10.732	ppb	23:37:10
2	Mn 257.610†	1999859.3	1978690.8	2448.0	µg/L	2448.0	ppb	23:37:08
2	Mo 202.031†	193.3	211.3	8.1789	µg/L	8.1789	ppb	23:37:30
2	Ni 231.604†	1229.8	1293.5	14.894	µg/L	14.894	ppb	23:37:30
2	P 214.914†	2438.7	2431.1	488.50	µg/L	488.50	ppb	23:37:30
2	Pb 220.353†	1491.6	1389.6	78.832	µg/L	78.832	ppb	23:37:30

2	S 181.975 Axial†	150.1	43.5	32.356	µg/L	32.356 ppb	23:37:30
2	Sb 206.836†	59.7	-21.7	-3.3851	µg/L	-3.3851 ppb	23:37:30
2	Se 196.026†	-26.0	-41.0	1.77	µg/L	1.77 ppb	23:37:30
2	SiO2†	425372.8	419145.3	40968	µg/L	40968 ppb	23:37:08
2	Si 251.611†	1309831.9	1295286.1	19096	µg/L	19096 ppb	23:37:08
2	Sn 189.927†	37.2	37.9	7.5390	µg/L	7.5390 ppb	23:37:30
2	Ti 334.940†	1661185.6	1642846.5	1535.0	µg/L	1535.0 ppb	23:37:08
2	Tl 190.801†	-328.9	-208.8	-3.8159	µg/L	-3.8159 ppb	23:37:30
2	U 409.014†	-6691.5	-6351.6	-365.27	µg/L	-365.27 ppb	23:37:08
2	V 292.402†	4500.1	4049.2	13.060	µg/L	13.060 ppb	23:37:10
2	Zn 213.857†	35888.5	34948.5	191.87	µg/L	191.87 ppb	23:37:10
3	Sc RADIAL	144860.5	144860.5	99.3	%		23:36:37
3	Al 396.153Radial†	45132.3	45528.7	8440.7	µg/L	8440.7 ppb	23:36:39
3	Ca 317.933Radial†	99879.0	100055.7	5573.5	µg/L	5573.5 ppb	23:36:39
3	Fe 238.204 Radial†	790704.3	796392.8	49085	µg/L	49085 ppb	23:36:37
3	K 766.490 Radial†	9910.1	8438.5	3085.8	µg/L	3085.8 ppb	23:36:39
3	Mg 279.077 IEC†	4248.7	4089.3	1481.7	µg/L	1481.7 ppb	23:36:39
3	Na 589.592 Radial†	28361.0	27279.6	3724.0	µg/L	3724.0 ppb	23:36:39
3	Sr 421.552†	5179.7	5353.2	11.085	µg/L	11.085 ppb	23:36:39
3	Sc 361.383	1719261.9	1719261.9	100.06	%		23:37:32
3	Y 371.029	1337604.5	1337604.5	130.28	%		23:37:32
3	Ag 328.068†	4083.8	-10.1	-1.3906	µg/L	-1.3906 ppb	23:37:34
3	As 188.979†	11.9	32.2	20.932	µg/L	20.932 ppb	23:37:55
3	B 249.677†	3638.4	130.3	1.8977	µg/L	1.8977 ppb	23:37:34
3	Ba 233.527†	23825.5	23946.9	95.883	µg/L	95.883 ppb	23:37:34
3	Be 313.107†	14293.3	15349.4	4.0704	µg/L	4.0704 ppb	23:37:34
3	Cd 226.502†	702.1	819.8	-0.0340	µg/L	-0.0340 ppb	23:37:55
3	Co 228.616†	376.9	567.0	4.5324	µg/L	4.5324 ppb	23:37:55
3	Cr 267.716†	2368.0	2188.0	18.497	µg/L	18.497 ppb	23:37:34
3	Cu 324.752†	4022.4	1047.8	10.968	µg/L	10.968 ppb	23:37:34
3	Mn 257.610†	1986552.8	1985108.9	2456.0	µg/L	2456.0 ppb	23:37:32
3	Mo 202.031†	177.5	197.4	7.7772	µg/L	7.7772 ppb	23:37:55
3	Ni 231.604†	1203.1	1278.9	14.725	µg/L	14.725 ppb	23:37:55
3	P 214.914†	2444.4	2460.9	494.75	µg/L	494.75 ppb	23:37:55
3	Pb 220.353†	1499.9	1412.6	80.109	µg/L	80.109 ppb	23:37:55
3	S 181.975 Axial†	139.9	34.7	25.850	µg/L	25.850 ppb	23:37:55
3	Sb 206.836†	89.1	8.3	0.1694	µg/L	0.1694 ppb	23:37:55
3	Se 196.026†	-41.8	-57.0	-3.93	µg/L	-3.93 ppb	23:37:55
3	SiO2†	422184.8	420153.0	41066	µg/L	41066 ppb	23:37:32
3	Si 251.611†	1301124.7	1299497.9	19158	µg/L	19158 ppb	23:37:32
3	Sn 189.927†	42.8	43.9	7.9251	µg/L	7.9251 ppb	23:37:55
3	Ti 334.940†	1649636.6	1647682.1	1539.5	µg/L	1539.5 ppb	23:37:32
3	Tl 190.801†	-329.7	-212.8	-4.2470	µg/L	-4.2470 ppb	23:37:55
3	U 409.014†	-6435.7	-6161.9	-354.19	µg/L	-354.19 ppb	23:37:32
3	V 292.402†	4391.4	3985.0	12.725	µg/L	12.725 ppb	23:37:34
3	Zn 213.857†	36270.3	35683.9	195.98	µg/L	195.98 ppb	23:37:34

Mean Data: 248834008|963993|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1731583.9	100.78	%	0.626				0.62%
Sc RADIAL	145790.9	99.9	%	0.79				0.79%
Y 371.029	1346308.4	131.13	%	0.737				0.56%
Ag 328.068†	-63.5	-1.5877	µg/L	0.21592	-1.5877	ppb	0.21592	13.60%
Al 396.153Radial†	45367.6	8410.8	µg/L	26.34	8410.8	ppb	26.34	0.31%
As 188.979†	36.9	22.328	µg/L	1.2367	22.328	ppb	1.2367	5.54%
B 249.677†	124.9	1.8175	µg/L	0.10561	1.8175	ppb	0.10561	5.81%
Ba 233.527†	23697.8	94.882	µg/L	1.0072	94.882	ppb	1.0072	1.06%
Be 313.107†	15149.5	4.0152	µg/L	0.07823	4.0152	ppb	0.07823	1.95%
Ca 317.933Radial†	99846.4	5561.8	µg/L	14.87	5561.8	ppb	14.87	0.27%
Cd 226.502†	788.5	-0.2132	µg/L	0.20922	-0.2132	ppb	0.20922	98.12%
Co 228.616†	557.8	4.4266	µg/L	0.12251	4.4266	ppb	0.12251	2.77%
Cr 267.716†	2211.0	18.675	µg/L	0.3724	18.675	ppb	0.3724	1.99%
Cu 324.752†	1032.6	10.884	µg/L	0.1313	10.884	ppb	0.1313	1.21%
Fe 238.204 Radial†	793866.3	48929	µg/L	140.5	48929	ppb	140.5	0.29%
K 766.490 Radial†	8422.8	3080.1	µg/L	57.95	3080.1	ppb	57.95	1.88%
Mg 279.077 IEC†	4056.4	1469.5	µg/L	18.67	1469.5	ppb	18.67	1.27%
Mn 257.610†	1984166.3	2454.8	µg/L	6.27	2454.8	ppb	6.27	0.26%
Mo 202.031†	201.4	7.8889	µg/L	0.25332	7.8889	ppb	0.25332	3.21%
Na 589.592 Radial†	27186.5	3711.3	µg/L	16.36	3711.3	ppb	16.36	0.44%

Ni 231.604†	1291.0	14.865	µg/L	0.1279	14.865	ppb	0.1279	0.86%
P 214.914†	2441.7	490.75	µg/L	3.473	490.75	ppb	3.473	0.71%
Pb 220.353†	1416.0	80.298	µg/L	1.5701	80.298	ppb	1.5701	1.96%
S 181.975 Axial†	36.2	26.910	µg/L	5.0014	26.910	ppb	5.0014	18.59%
Sb 206.836†	-5.0	-1.4003	µg/L	1.81321	-1.4003	ppb	1.81321	129.49%
Se 196.026†	-40.1	2.14	µg/L	6.266	2.14	ppb	6.266	292.43%
SiO2†	420456.3	41096	µg/L	145.2	41096	ppb	145.2	0.35%
Si 251.611†	1299537.2	19159	µg/L	63.0	19159	ppb	63.0	0.33%
Sn 189.927†	38.7	7.5977	µg/L	0.30231	7.5977	ppb	0.30231	3.98%
Sr 421.552†	5330.5	11.038	µg/L	0.0472	11.038	ppb	0.0472	0.43%
Ti 334.940†	1646214.7	1538.2	µg/L	2.73	1538.2	ppb	2.73	0.18%
Tl 190.801†	-209.9	-3.8996	µg/L	0.31409	-3.8996	ppb	0.31409	8.05%
U 409.014†	-6209.9	-356.96	µg/L	7.332	-356.96	ppb	7.332	2.05%
Concentration less than lower limit for U 409.014.								
V 292.402†	4025.5	12.941	µg/L	0.1870	12.941	ppb	0.1870	1.45%
Zn 213.857†	35367.0	194.22	µg/L	2.118	194.22	ppb	2.118	1.09%

Sequence No.: 116
Sample ID: 248834009|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 244
Date Collected: 3/31/2010 23:38:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248834009|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143161.1	143161.1	98.1	%			23:38:33
1	Al 396.153Radial†	117389.6	119723.1	22196	µg/L	22196	ppb	23:38:33
1	Ca 317.933Radial†	47026.5	47375.4	2639.0	µg/L	2639.0	ppb	23:38:35
1	Fe 238.204 Radial†	1102622.2	1123798.2	69264	µg/L	69264	ppb	23:38:33
1	K 766.490 Radial†	14253.5	12984.4	4747.6	µg/L	4747.6	ppb	23:38:35
1	Mg 279.077 IEC†	6917.4	6860.5	2496.9	µg/L	2496.9	ppb	23:38:35
1	Na 589.592 Radial†	25726.9	24933.6	3402.0	µg/L	3402.0	ppb	23:38:35
1	Sr 421.552†	9324.3	9639.9	20.020	µg/L	20.020	ppb	23:38:35
1	Sc 361.383	1734236.6	1734236.6	100.93	%			23:39:02
1	Y 371.029	1274138.5	1274138.5	124.10	%			23:39:02
1	Ag 328.068†	4091.7	-37.5	-1.1209	µg/L	-1.1209	ppb	23:39:02
1	As 188.979†	11.8	32.1	25.471	µg/L	25.471	ppb	23:39:22
1	B 249.677†	3674.3	134.4	1.9227	µg/L	1.9227	ppb	23:39:02
1	Ba 233.527†	54322.4	53956.5	216.58	µg/L	216.58	ppb	23:39:02
1	Be 313.107†	17699.5	18600.7	4.9500	µg/L	4.9500	ppb	23:39:02
1	Cd 226.502†	1070.7	1179.0	0.0903	µg/L	0.0903	ppb	23:39:22
1	Co 228.616†	1216.1	1395.2	13.817	µg/L	13.817	ppb	23:39:22
1	Cr 267.716†	2920.0	2714.5	23.302	µg/L	23.302	ppb	23:39:22
1	Cu 324.752†	6275.4	3245.2	22.465	µg/L	22.465	ppb	23:39:02
1	Mn 257.610†	2132045.9	2112115.0	2613.0	µg/L	2613.0	ppb	23:39:02
1	Mo 202.031†	271.1	288.6	11.289	µg/L	11.289	ppb	23:39:22
1	Ni 231.604†	1747.1	1807.5	20.812	µg/L	20.812	ppb	23:39:22
1	P 214.914†	3784.3	3767.3	763.36	µg/L	763.36	ppb	23:39:22
1	Pb 220.353†	923.0	828.1	49.276	µg/L	49.276	ppb	23:39:22
1	S 181.975 Axial†	237.7	130.4	96.913	µg/L	96.913	ppb	23:39:22
1	Sb 206.836†	53.4	-27.9	-4.4400	µg/L	-4.4400	ppb	23:39:22
1	Se 196.026†	-37.7	-52.6	4.63	µg/L	4.63	ppb	23:39:22
1	SiO2†	515856.6	509316.3	49781	µg/L	49781	ppb	23:39:02
1	Si 251.611†	1587791.5	1572288.6	23180	µg/L	23180	ppb	23:39:02
1	Sn 189.927†	9.8	10.9	9.8579	µg/L	9.8579	ppb	23:39:22
1	Ti 334.940†	2941862.5	2913736.1	2722.2	µg/L	2722.2	ppb	23:39:02
1	Tl 190.801†	-426.2	-305.5	-3.1006	µg/L	-3.1006	ppb	23:39:22
1	U 409.014†	-6818.7	-6485.8	-374.46	µg/L	-374.46	ppb	23:39:02
1	V 292.402†	12945.1	12421.8	50.689	µg/L	50.689	ppb	23:39:22
1	Zn 213.857†	53887.4	52825.3	291.02	µg/L	291.02	ppb	23:39:02
2	Sc RADIAL	143076.0	143076.0	98.0	%			23:38:37
2	Al 396.153Radial†	117562.4	119970.5	22242	µg/L	22242	ppb	23:38:37
2	Ca 317.933Radial†	45951.6	46307.6	2579.5	µg/L	2579.5	ppb	23:38:39
2	Fe 238.204 Radial†	1100141.4	1121936.7	69149	µg/L	69149	ppb	23:38:37
2	K 766.490 Radial†	13943.4	12676.8	4635.0	µg/L	4635.0	ppb	23:38:39
2	Mg 279.077 IEC†	6681.0	6623.6	2408.8	µg/L	2408.8	ppb	23:38:39
2	Na 589.592 Radial†	25297.9	24511.7	3344.5	µg/L	3344.5	ppb	23:38:39
2	Sr 421.552†	9363.9	9685.9	20.116	µg/L	20.116	ppb	23:38:39
2	Sc 361.383	1731576.9	1731576.9	100.78	%			23:39:25
2	Y 371.029	1271943.1	1271943.1	123.89	%			23:39:25
2	Ag 328.068†	3779.0	-341.6	-2.2373	µg/L	-2.2373	ppb	23:39:25
2	As 188.979†	5.5	25.8	23.548	µg/L	23.548	ppb	23:39:45
2	B 249.677†	3858.5	322.8	4.7005	µg/L	4.7005	ppb	23:39:25
2	Ba 233.527†	54092.9	53811.5	216.00	µg/L	216.00	ppb	23:39:25
2	Be 313.107†	17775.3	18702.8	4.9785	µg/L	4.9785	ppb	23:39:25
2	Cd 226.502†	1093.9	1203.6	0.2561	µg/L	0.2561	ppb	23:39:45
2	Co 228.616†	1238.4	1419.2	14.119	µg/L	14.119	ppb	23:39:45
2	Cr 267.716†	2906.8	2705.8	23.228	µg/L	23.228	ppb	23:39:45
2	Cu 324.752†	6185.3	3165.3	22.137	µg/L	22.137	ppb	23:39:25
2	Mn 257.610†	2133283.1	2116587.5	2618.6	µg/L	2618.6	ppb	23:39:25
2	Mo 202.031†	303.7	321.5	12.247	µg/L	12.247	ppb	23:39:45
2	Ni 231.604†	1730.1	1793.3	20.648	µg/L	20.648	ppb	23:39:45
2	P 214.914†	3811.1	3799.7	770.36	µg/L	770.36	ppb	23:39:45
2	Pb 220.353†	944.6	850.9	50.563	µg/L	50.563	ppb	23:39:45

2	S 181.975 Axial†	251.5	144.5	107.39	µg/L	107.39 ppb	23:39:45
2	Sb 206.836†	75.7	-5.7	-1.7840	µg/L	-1.7840 ppb	23:39:45
2	Se 196.026†	-49.0	-63.9	0.516	µg/L	0.516 ppb	23:39:45
2	SiO2†	516958.2	511194.5	49965	µg/L	49965 ppb	23:39:25
2	Si 251.611†	1588900.4	1575805.4	23232	µg/L	23232 ppb	23:39:25
2	Sn 189.927†	9.2	10.2	9.8314	µg/L	9.8314 ppb	23:39:45
2	Ti 334.940†	2941915.6	2918266.0	2726.5	µg/L	2726.5 ppb	23:39:25
2	Tl 190.801†	-443.2	-323.1	-5.2005	µg/L	-5.2005 ppb	23:39:45
2	U 409.014†	-6769.4	-6447.3	-372.12	µg/L	-372.12 ppb	23:39:25
2	V 292.402†	13031.8	12527.5	51.224	µg/L	51.224 ppb	23:39:45
2	Zn 213.857†	53825.7	52846.0	291.16	µg/L	291.16 ppb	23:39:25
3	Sc RADIAL	143992.3	143992.3	98.7	%		23:38:41
3	Al 396.153Radial†	118629.4	120288.8	22301	µg/L	22301 ppb	23:38:41
3	Ca 317.933Radial†	45964.0	46021.9	2563.6	µg/L	2563.6 ppb	23:38:43
3	Fe 238.204 Radial†	1112828.3	1127653.8	69502	µg/L	69502 ppb	23:38:41
3	K 766.490 Radial†	14068.0	12712.5	4648.1	µg/L	4648.1 ppb	23:38:43
3	Mg 279.077 IEC†	6651.5	6550.3	2381.1	µg/L	2381.1 ppb	23:38:43
3	Na 589.592 Radial†	25214.1	24262.5	3310.4	µg/L	3310.4 ppb	23:38:43
3	Sr 421.552†	9247.1	9506.8	19.744	µg/L	19.744 ppb	23:38:43
3	Sc 361.383	1747309.7	1747309.7	101.69	%		23:39:48
3	Y 371.029	1282131.8	1282131.8	124.88	%		23:39:48
3	Ag 328.068†	4064.8	-94.3	-1.3245	µg/L	-1.3245 ppb	23:39:48
3	As 188.979†	17.2	37.2	27.080	µg/L	27.080 ppb	23:40:08
3	B 249.677†	3656.1	89.4	1.2594	µg/L	1.2594 ppb	23:39:48
3	Ba 233.527†	54536.9	53764.7	215.80	µg/L	215.80 ppb	23:39:48
3	Be 313.107†	18002.8	18767.8	4.9986	µg/L	4.9986 ppb	23:39:48
3	Cd 226.502†	1070.6	1171.0	0.0150	µg/L	0.0150 ppb	23:40:08
3	Co 228.616†	1200.8	1371.1	13.507	µg/L	13.507 ppb	23:40:08
3	Cr 267.716†	2896.7	2669.9	22.952	µg/L	22.952 ppb	23:40:08
3	Cu 324.752†	6101.3	3027.5	21.658	µg/L	21.658 ppb	23:39:48
3	Mn 257.610†	2155795.6	2119665.1	2622.4	µg/L	2622.4 ppb	23:39:48
3	Mo 202.031†	292.4	307.6	11.853	µg/L	11.853 ppb	23:40:08
3	Ni 231.604†	1708.1	1756.2	20.221	µg/L	20.221 ppb	23:40:08
3	P 214.914†	3787.2	3742.1	757.83	µg/L	757.83 ppb	23:40:08
3	Pb 220.353†	924.5	822.8	48.978	µg/L	48.978 ppb	23:40:08
3	S 181.975 Axial†	245.0	135.8	100.93	µg/L	100.93 ppb	23:40:08
3	Sb 206.836†	64.6	-17.3	-3.1627	µg/L	-3.1627 ppb	23:40:08
3	Se 196.026†	-40.5	-55.1	3.83	µg/L	3.83 ppb	23:40:08
3	SiO2†	521934.8	511469.4	49992	µg/L	49992 ppb	23:39:48
3	Si 251.611†	1605558.4	1577989.8	23264	µg/L	23264 ppb	23:39:48
3	Sn 189.927†	-1.3	-0.2	9.1864	µg/L	9.1864 ppb	23:40:08
3	Ti 334.940†	2969427.9	2919035.4	2727.2	µg/L	2727.2 ppb	23:39:48
3	Tl 190.801†	-428.9	-305.1	-2.9715	µg/L	-2.9715 ppb	23:40:08
3	U 409.014†	-6691.3	-6310.0	-364.20	µg/L	-364.20 ppb	23:39:48
3	V 292.402†	12976.9	12357.1	50.355	µg/L	50.355 ppb	23:40:08
3	Zn 213.857†	54564.2	53091.3	292.50	µg/L	292.50 ppb	23:39:48

Mean Data: 248834009|963993|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1737707.7	101.13	%	0.490				0.48%
Sc RADIAL	143409.8	98.3	%	0.35				0.35%
Y 371.029	1276071.2	124.29	%	0.522				0.42%
Ag 328.068†	-157.8	-1.5609	µg/L	0.59454	-1.5609	ppb	0.59454	38.09%
Al 396.153Radial†	119994.1	22246	µg/L	52.6	22246	ppb	52.6	0.24%
As 188.979†	31.7	25.366	µg/L	1.7682	25.366	ppb	1.7682	6.97%
B 249.677†	182.2	2.6275	µg/L	1.82563	2.6275	ppb	1.82563	69.48%
Ba 233.527†	53844.2	216.13	µg/L	0.404	216.13	ppb	0.404	0.19%
Be 313.107†	18690.4	4.9757	µg/L	0.02442	4.9757	ppb	0.02442	0.49%
Ca 317.933Radial†	46568.3	2594.0	µg/L	39.74	2594.0	ppb	39.74	1.53%
Cd 226.502†	1184.5	0.1205	µg/L	0.12334	0.1205	ppb	0.12334	102.38%
Co 228.616†	1395.2	13.814	µg/L	0.3058	13.814	ppb	0.3058	2.21%
Cr 267.716†	2696.7	23.161	µg/L	0.1844	23.161	ppb	0.1844	0.80%
Cu 324.752†	3146.0	22.087	µg/L	0.4055	22.087	ppb	0.4055	1.84%
Fe 238.204 Radial†	1124462.9	69305	µg/L	179.7	69305	ppb	179.7	0.26%
K 766.490 Radial†	12791.2	4676.9	µg/L	61.59	4676.9	ppb	61.59	1.32%
Mg 279.077 IEC†	6678.1	2428.9	µg/L	60.46	2428.9	ppb	60.46	2.49%
Mn 257.610†	2116122.5	2618.0	µg/L	4.70	2618.0	ppb	4.70	0.18%
Mo 202.031†	305.9	11.796	µg/L	0.4816	11.796	ppb	0.4816	4.08%
Na 589.592 Radial†	24569.3	3352.3	µg/L	46.30	3352.3	ppb	46.30	1.38%

Ni 231.604†	1785.6	20.560	µg/L	0.3051	20.560	ppb	0.3051	1.48%
P 214.914†	3769.7	763.85	µg/L	6.279	763.85	ppb	6.279	0.82%
Pb 220.353†	833.9	49.606	µg/L	0.8426	49.606	ppb	0.8426	1.70%
S 181.975 Axial†	136.9	101.74	µg/L	5.284	101.74	ppb	5.284	5.19%
Sb 206.836†	-17.0	-3.1289	µg/L	1.32835	-3.1289	ppb	1.32835	42.45%
Se 196.026†	-57.2	2.99	µg/L	2.182	2.99	ppb	2.182	72.93%
SiO2†	510660.1	49913	µg/L	114.5	49913	ppb	114.5	0.23%
Si 251.611†	1575361.3	23225	µg/L	42.4	23225	ppb	42.4	0.18%
Sn 189.927†	7.0	9.6252	µg/L	0.38026	9.6252	ppb	0.38026	3.95%
Sr 421.552†	9610.9	19.960	µg/L	0.1933	19.960	ppb	0.1933	0.97%
Ti 334.940†	2917012.5	2725.3	µg/L	2.68	2725.3	ppb	2.68	0.10%
Tl 190.801†	-311.3	-3.7576	µg/L	1.25133	-3.7576	ppb	1.25133	33.30%
U 409.014†	-6414.3	-370.26	µg/L	5.379	-370.26	ppb	5.379	1.45%
Concentration less than lower limit for U 409.014.								
V 292.402†	12435.4	50.756	µg/L	0.4384	50.756	ppb	0.4384	0.86%
Zn 213.857†	52920.9	291.56	µg/L	0.818	291.56	ppb	0.818	0.28%

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Sequence No.: 117
Sample ID: 248834010|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 245
Date Collected: 3/31/2010 23:40:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248834010|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142775.9	142775.9	97.8	%			23:40:45
1	Al 396.153Radial†	89439.4	91478.3	16959	µg/L	16959	ppb	23:40:45
1	Ca 317.933Radial†	113029.2	114965.4	6404.0	µg/L	6404.0	ppb	23:40:47
1	Fe 238.204 Radial†	1037351.7	1060118.4	65339	µg/L	65339	ppb	23:40:45
1	K 766.490 Radial†	10315.2	8998.3	3288.7	µg/L	3288.7	ppb	23:40:47
1	Mg 279.077 IEC†	9609.3	9630.9	3532.6	µg/L	3532.6	ppb	23:40:47
1	Na 589.592 Radial†	20859.0	20028.9	2733.3	µg/L	2733.3	ppb	23:40:47
1	Sr 421.552†	21427.4	22036.0	45.761	µg/L	45.761	ppb	23:40:47
1	Sc 361.383	1753884.2	1753884.2	102.08	%			23:41:00
1	Y 371.029	1425512.1	1425512.1	138.85	%			23:41:00
1	Ag 328.068†	3802.1	-366.6	-2.4728	µg/L	-2.4728	ppb	23:41:00
1	As 188.979†	32.1	51.8	30.578	µg/L	30.578	ppb	23:41:20
1	B 249.677†	3941.6	355.6	5.1961	µg/L	5.1961	ppb	23:41:00
1	Ba 233.527†	50096.2	49213.4	197.51	µg/L	197.51	ppb	23:41:00
1	Be 313.107†	15499.9	16249.4	4.2719	µg/L	4.2719	ppb	23:41:00
1	Cd 226.502†	1099.2	1195.0	0.6083	µg/L	0.6083	ppb	23:41:20
1	Co 228.616†	950.1	1121.1	10.622	µg/L	10.622	ppb	23:41:20
1	Cr 267.716†	2945.1	2706.7	23.396	µg/L	23.396	ppb	23:41:20
1	Cu 324.752†	20274.6	16890.1	74.841	µg/L	74.841	ppb	23:41:00
1	Mn 257.610†	1457768.6	1427886.5	1766.4	µg/L	1766.4	ppb	23:41:00
1	Mo 202.031†	461.3	471.9	16.536	µg/L	16.536	ppb	23:41:20
1	Ni 231.604†	2735.6	2756.5	31.739	µg/L	31.739	ppb	23:41:20
1	P 214.914†	3846.8	3786.5	768.41	µg/L	768.41	ppb	23:41:20
1	Pb 220.353†	2663.6	2523.0	142.11	µg/L	142.11	ppb	23:41:20
1	S 181.975 Axial†	440.0	326.0	242.21	µg/L	242.21	ppb	23:41:20
1	Sb 206.836†	76.9	-5.5	-1.6112	µg/L	-1.6112	ppb	23:41:20
1	Se 196.026†	-36.0	-50.6	3.90	µg/L	3.90	ppb	23:41:20
1	SiO2†	512054.5	499866.1	48857	µg/L	48857	ppb	23:41:00
1	Si 251.611†	1574705.6	1541846.2	22731	µg/L	22731	ppb	23:41:00
1	Sn 189.927†	135.6	133.9	13.336	µg/L	13.336	ppb	23:41:20
1	Ti 334.940†	1616754.1	1582923.6	1478.9	µg/L	1478.9	ppb	23:41:00
1	Tl 190.801†	-325.5	-202.2	-5.1514	µg/L	-5.1514	ppb	23:41:20
1	U 409.014†	-9085.3	-8630.6	-505.01	µg/L	-505.01	ppb	23:41:00
1	V 292.402†	10554.5	9936.1	40.102	µg/L	40.102	ppb	23:41:20
1	Zn 213.857†	52530.0	50897.3	279.72	µg/L	279.72	ppb	23:41:00
2	Sc RADIAL	144368.8	144368.8	98.9	%			23:40:49
2	Al 396.153Radial†	90566.2	91608.7	16983	µg/L	16983	ppb	23:40:49
2	Ca 317.933Radial†	112601.1	113258.0	6308.9	µg/L	6308.9	ppb	23:40:51
2	Fe 238.204 Radial†	1052458.9	1063690.2	65559	µg/L	65559	ppb	23:40:49
2	K 766.490 Radial†	10351.6	8918.8	3259.6	µg/L	3259.6	ppb	23:40:51
2	Mg 279.077 IEC†	9523.7	9436.0	3459.8	µg/L	3459.8	ppb	23:40:51
2	Na 589.592 Radial†	20683.8	19616.7	2677.0	µg/L	2677.0	ppb	23:40:51
2	Sr 421.552†	21300.1	21665.7	44.992	µg/L	44.992	ppb	23:40:51
2	Sc 361.383	1738427.3	1738427.3	101.18	%			23:41:22
2	Y 371.029	1413200.4	1413200.4	137.65	%			23:41:22
2	Ag 328.068†	3619.1	-514.4	-3.0069	µg/L	-3.0069	ppb	23:41:22
2	As 188.979†	30.4	50.4	30.179	µg/L	30.179	ppb	23:41:43
2	B 249.677†	4066.6	513.4	7.5231	µg/L	7.5231	ppb	23:41:22
2	Ba 233.527†	49507.5	49067.8	196.92	µg/L	196.92	ppb	23:41:22
2	Be 313.107†	15597.7	16481.1	4.3361	µg/L	4.3361	ppb	23:41:22
2	Cd 226.502†	1082.3	1187.9	0.5407	µg/L	0.5407	ppb	23:41:43
2	Co 228.616†	967.9	1146.9	10.928	µg/L	10.928	ppb	23:41:43
2	Cr 267.716†	2916.0	2703.5	23.377	µg/L	23.377	ppb	23:41:43
2	Cu 324.752†	20236.5	17029.1	75.415	µg/L	75.415	ppb	23:41:22
2	Mn 257.610†	1448230.4	1431157.0	1770.5	µg/L	1770.5	ppb	23:41:22
2	Mo 202.031†	467.4	482.1	16.841	µg/L	16.841	ppb	23:41:43
2	Ni 231.604†	2712.6	2757.6	31.751	µg/L	31.751	ppb	23:41:43
2	P 214.914†	3870.6	3843.6	780.46	µg/L	780.46	ppb	23:41:43
2	Pb 220.353†	2689.7	2572.0	144.84	µg/L	144.84	ppb	23:41:43

2	S 181.975 Axial†	437.2	327.0	242.98	µg/L	242.98 ppb	23:41:43
2	Sb 206.836†	68.7	-12.9	-2.4896	µg/L	-2.4896 ppb	23:41:43
2	Se 196.026†	-62.8	-77.3	-5.69	µg/L	-5.69 ppb	23:41:43
2	SiO2†	507958.6	500278.1	48898	µg/L	48898 ppb	23:41:22
2	Si 251.611†	1564115.3	1545095.5	22779	µg/L	22779 ppb	23:41:22
2	Sn 189.927†	158.9	158.1	14.854	µg/L	14.854 ppb	23:41:43
2	Ti 334.940†	1605095.8	1585483.6	1481.3	µg/L	1481.3 ppb	23:41:22
2	Tl 190.801†	-321.8	-201.4	-5.0084	µg/L	-5.0084 ppb	23:41:43
2	U 409.014†	-8939.0	-8565.2	-501.17	µg/L	-501.17 ppb	23:41:22
2	V 292.402†	10609.2	10082.1	40.794	µg/L	40.794 ppb	23:41:43
2	Zn 213.857†	52160.8	50990.0	280.22	µg/L	280.22 ppb	23:41:22
3	Sc RADIAL	144147.1	144147.1	98.8	%		23:40:53
3	Al 396.153Radial†	89963.1	91138.9	16896	µg/L	16896 ppb	23:40:53
3	Ca 317.933Radial†	112890.2	113725.7	6335.0	µg/L	6335.0 ppb	23:40:55
3	Fe 238.204 Radial†	1043934.3	1056696.7	65128	µg/L	65128 ppb	23:40:53
3	K 766.490 Radial†	10243.4	8825.3	3225.4	µg/L	3225.4 ppb	23:40:55
3	Mg 279.077 IEC†	9520.4	9447.4	3464.4	µg/L	3464.4 ppb	23:40:55
3	Na 589.592 Radial†	20854.8	19821.9	2705.0	µg/L	2705.0 ppb	23:40:55
3	Sr 421.552†	21492.5	21893.6	45.466	µg/L	45.466 ppb	23:40:55
3	Sc 361.383	1757279.2	1757279.2	102.27	%		23:41:45
3	Y 371.029	1427818.7	1427818.7	139.07	%		23:41:45
3	Ag 328.068†	4003.8	-176.6	-1.7596	µg/L	-1.7596 ppb	23:41:45
3	As 188.979†	33.0	52.6	30.758	µg/L	30.758 ppb	23:42:05
3	B 249.677†	4039.1	443.4	6.4907	µg/L	6.4907 ppb	23:41:45
3	Ba 233.527†	50208.6	49228.4	197.57	µg/L	197.57 ppb	23:41:45
3	Be 313.107†	15496.2	16216.5	4.2632	µg/L	4.2632 ppb	23:41:45
3	Cd 226.502†	1088.9	1182.9	0.5547	µg/L	0.5547 ppb	23:42:05
3	Co 228.616†	974.7	1143.4	10.908	µg/L	10.908 ppb	23:42:05
3	Cr 267.716†	2953.3	2709.1	23.408	µg/L	23.408 ppb	23:42:05
3	Cu 324.752†	20267.2	16844.5	74.633	µg/L	74.633 ppb	23:41:45
3	Mn 257.610†	1462127.3	1429389.2	1768.3	µg/L	1768.3 ppb	23:41:45
3	Mo 202.031†	456.6	466.6	16.368	µg/L	16.368 ppb	23:42:05
3	Ni 231.604†	2746.1	2761.5	31.797	µg/L	31.797 ppb	23:42:05
3	P 214.914†	3866.3	3798.3	771.07	µg/L	771.07 ppb	23:42:05
3	Pb 220.353†	2673.0	2527.2	142.35	µg/L	142.35 ppb	23:42:05
3	S 181.975 Axial†	427.9	313.3	232.77	µg/L	232.77 ppb	23:42:05
3	Sb 206.836†	81.6	-1.0	-1.0801	µg/L	-1.0801 ppb	23:42:05
3	Se 196.026†	-36.3	-50.8	3.76	µg/L	3.76 ppb	23:42:05
3	SiO2†	513188.0	500005.2	48871	µg/L	48871 ppb	23:41:45
3	Si 251.611†	1579755.5	1543803.4	22760	µg/L	22760 ppb	23:41:45
3	Sn 189.927†	158.8	156.4	14.739	µg/L	14.739 ppb	23:42:05
3	Ti 334.940†	1621111.4	1584124.1	1480.1	µg/L	1480.1 ppb	23:41:45
3	Tl 190.801†	-315.5	-191.8	-3.8495	µg/L	-3.8495 ppb	23:42:05
3	U 409.014†	-9085.5	-8613.6	-503.93	µg/L	-503.93 ppb	23:41:45
3	V 292.402†	10676.1	10035.0	40.605	µg/L	40.605 ppb	23:42:05
3	Zn 213.857†	52595.0	50861.5	279.54	µg/L	279.54 ppb	23:41:45

Mean Data: 248834010|963993|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1749863.6	101.84	%	0.585				0.57%
Sc RADIAL	143763.9	98.5	%	0.59				0.60%
Y 371.029	1422177.0	138.52	%	0.765				0.55%
Ag 328.068†	-352.5	-2.4131	µg/L	0.62578	-2.4131	ppb	0.62578	25.93%
Al 396.153Radial†	91408.6	16946	µg/L	45.0	16946	ppb	45.0	0.27%
As 188.979†	51.6	30.505	µg/L	0.2966	30.505	ppb	0.2966	0.97%
B 249.677†	437.5	6.4033	µg/L	1.16592	6.4033	ppb	1.16592	18.21%
Ba 233.527†	49169.9	197.34	µg/L	0.360	197.34	ppb	0.360	0.18%
Be 313.107†	16315.7	4.2904	µg/L	0.03983	4.2904	ppb	0.03983	0.93%
Ca 317.933Radial†	113983.0	6349.3	µg/L	49.15	6349.3	ppb	49.15	0.77%
Cd 226.502†	1188.6	0.5679	µg/L	0.03568	0.5679	ppb	0.03568	6.28%
Co 228.616†	1137.1	10.819	µg/L	0.1713	10.819	ppb	0.1713	1.58%
Cr 267.716†	2706.4	23.394	µg/L	0.0157	23.394	ppb	0.0157	0.07%
Cu 324.752†	16921.2	74.963	µg/L	0.4050	74.963	ppb	0.4050	0.54%
Fe 238.204 Radial†	1060168.4	65342	µg/L	215.5	65342	ppb	215.5	0.33%
K 766.490 Radial†	8914.1	3257.9	µg/L	31.67	3257.9	ppb	31.67	0.97%
Mg 279.077 IEC†	9504.8	3485.6	µg/L	40.75	3485.6	ppb	40.75	1.17%
Mn 257.610†	1429477.6	1768.4	µg/L	2.03	1768.4	ppb	2.03	0.11%
Mo 202.031†	473.5	16.581	µg/L	0.2399	16.581	ppb	0.2399	1.45%
Na 589.592 Radial†	19822.5	2705.1	µg/L	28.15	2705.1	ppb	28.15	1.04%

Ni 231.604†	2758.5	31.762	µg/L	0.0307	31.762	ppb	0.0307	0.10%
P 214.914†	3809.4	773.31	µg/L	6.335	773.31	ppb	6.335	0.82%
Pb 220.353†	2540.7	143.10	µg/L	1.513	143.10	ppb	1.513	1.06%
S 181.975 Axial†	322.1	239.32	µg/L	5.687	239.32	ppb	5.687	2.38%
Sb 206.836†	-6.5	-1.7270	µg/L	0.71181	-1.7270	ppb	0.71181	41.22%
Se 196.026†	-59.5	0.658	µg/L	5.4934	0.658	ppb	5.4934	835.21%
SiO2†	500049.8	48875	µg/L	20.5	48875	ppb	20.5	0.04%
Si 251.611†	1543581.7	22757	µg/L	24.1	22757	ppb	24.1	0.11%
Sn 189.927†	149.5	14.310	µg/L	0.8451	14.310	ppb	0.8451	5.91%
Sr 421.552†	21865.1	45.407	µg/L	0.3880	45.407	ppb	0.3880	0.85%
Ti 334.940†	1584177.1	1480.1	µg/L	1.20	1480.1	ppb	1.20	0.08%
Tl 190.801†	-198.5	-4.6698	µg/L	0.71395	-4.6698	ppb	0.71395	15.29%
U 409.014†	-8603.2	-503.37	µg/L	1.979	-503.37	ppb	1.979	0.39%
Concentration less than lower limit for U 409.014.								
V 292.402†	10017.7	40.500	µg/L	0.3576	40.500	ppb	0.3576	0.88%
Zn 213.857†	50916.3	279.83	µg/L	0.352	279.83	ppb	0.352	0.13%

Sequence No.: 118
Sample ID: 248834011|963993|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 246
Date Collected: 3/31/2010 23:42:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248834011|963993|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146013.4	146013.4	100	%			23:42:46
1	Al 396.153Radial†	270472.7	270381.0	50128	µg/L	50128	ppb	23:42:44
1	Ca 317.933Radial†	165192.8	164537.6	9165.4	µg/L	9165.4	ppb	23:42:46
1	Fe 238.204 Radial†	1399454.9	1398505.4	86195	µg/L	86195	ppb	23:42:44
1	K 766.490 Radial†	13318.4	11766.0	4293.8	µg/L	4293.8	ppb	23:42:46
1	Mg 279.077 IEC†	15574.3	15374.7	5654.6	µg/L	5654.6	ppb	23:42:46
1	Na 589.592 Radial†	28994.0	27686.6	3778.5	µg/L	3778.5	ppb	23:42:46
1	Sr 421.552†	34923.0	35038.3	72.771	µg/L	72.771	ppb	23:42:46
1	Sc 361.383	1758710.6	1758710.6	102.36	%			23:43:13
1	Y 371.029	1248688.7	1248688.7	121.62	%			23:43:13
1	Ag 328.068†	3877.0	-303.6	-1.6808	µg/L	-1.6808	ppb	23:43:13
1	As 188.979†	10.3	30.4	29.066	µg/L	29.066	ppb	23:43:33
1	B 249.677†	4136.9	535.8	7.8224	µg/L	7.8224	ppb	23:43:13
1	Ba 233.527†	115764.8	113235.3	455.27	µg/L	455.27	ppb	23:43:13
1	Be 313.107†	23978.8	24491.4	6.5522	µg/L	6.5522	ppb	23:43:13
1	Cd 226.502†	1315.8	1403.7	-0.2723	µg/L	-0.2723	ppb	23:43:33
1	Co 228.616†	1709.6	1860.6	18.917	µg/L	18.917	ppb	23:43:33
1	Cr 267.716†	7415.5	7066.2	58.073	µg/L	58.073	ppb	23:43:33
1	Cu 324.752†	8658.4	5486.8	33.726	µg/L	33.726	ppb	23:43:13
1	Mn 257.610†	1787960.2	1746556.5	2160.6	µg/L	2160.6	ppb	23:43:13
1	Mo 202.031†	195.7	211.3	9.7601	µg/L	9.7601	ppb	23:43:33
1	Ni 231.604†	4411.6	4386.5	50.508	µg/L	50.508	ppb	23:43:33
1	P 214.914†	7988.7	7822.7	1625.4	µg/L	1625.4	ppb	23:43:33
1	Pb 220.353†	1051.5	940.9	56.720	µg/L	56.720	ppb	23:43:33
1	S 181.975 Axial†	346.2	233.1	173.18	µg/L	173.18	ppb	23:43:33
1	Sb 206.836†	83.0	0.2	-1.9540	µg/L	-1.9540	ppb	23:43:33
1	Se 196.026†	-88.0	-101.3	-7.08	µg/L	-7.08	ppb	23:43:33
1	SiO2†	727427.3	708903.5	69289	µg/L	69289	ppb	23:43:13
1	Si 251.611†	2230504.3	2178312.0	32114	µg/L	32114	ppb	23:43:13
1	Sn 189.927†	34.0	34.4	11.239	µg/L	11.239	ppb	23:43:33
1	Ti 334.940†	2956487.8	2887464.4	2697.6	µg/L	2697.6	ppb	23:43:13
1	Tl 190.801†	-408.7	-282.7	-1.3734	µg/L	-1.3734	ppb	23:43:33
1	U 409.014†	-7013.6	-6582.2	-383.86	µg/L	-383.86	ppb	23:43:13
1	V 292.402†	23291.1	22351.0	97.483	µg/L	97.483	ppb	23:43:13
1	Zn 213.857†	46840.9	45198.0	246.60	µg/L	246.60	ppb	23:43:13
2	Sc RADIAL	144857.1	144857.1	99.3	%			23:42:50
2	Al 396.153Radial†	271198.3	273269.7	50664	µg/L	50664	ppb	23:42:48
2	Ca 317.933Radial†	163702.5	164354.1	9155.2	µg/L	9155.2	ppb	23:42:50
2	Fe 238.204 Radial†	1399149.4	1409361.6	86864	µg/L	86864	ppb	23:42:48
2	K 766.490 Radial†	13188.8	11741.7	4284.7	µg/L	4284.7	ppb	23:42:50
2	Mg 279.077 IEC†	15441.4	15365.0	5650.4	µg/L	5650.4	ppb	23:42:50
2	Na 589.592 Radial†	28631.1	27552.3	3760.2	µg/L	3760.2	ppb	23:42:50
2	Sr 421.552†	34628.0	35019.6	72.732	µg/L	72.732	ppb	23:42:50
2	Sc 361.383	1746522.5	1746522.5	101.65	%			23:43:36
2	Y 371.029	1240062.5	1240062.5	120.78	%			23:43:36
2	Ag 328.068†	3961.9	-193.7	-1.2941	µg/L	-1.2941	ppb	23:43:36
2	As 188.979†	15.2	35.3	30.700	µg/L	30.700	ppb	23:43:56
2	B 249.677†	4045.0	473.6	6.9038	µg/L	6.9038	ppb	23:43:36
2	Ba 233.527†	114710.5	112987.3	454.26	µg/L	454.26	ppb	23:43:36
2	Be 313.107†	23761.8	24441.4	6.5355	µg/L	6.5355	ppb	23:43:36
2	Cd 226.502†	1312.5	1409.4	-0.3072	µg/L	-0.3072	ppb	23:43:56
2	Co 228.616†	1711.5	1874.1	19.047	µg/L	19.047	ppb	23:43:56
2	Cr 267.716†	7390.7	7092.4	58.311	µg/L	58.311	ppb	23:43:56
2	Cu 324.752†	8347.7	5240.2	32.857	µg/L	32.857	ppb	23:43:36
2	Mn 257.610†	1770213.3	1741287.2	2154.0	µg/L	2154.0	ppb	23:43:36
2	Mo 202.031†	193.0	210.0	9.7465	µg/L	9.7465	ppb	23:43:56
2	Ni 231.604†	4345.1	4351.1	50.100	µg/L	50.100	ppb	23:43:56
2	P 214.914†	7894.4	7784.4	1616.8	µg/L	1616.8	ppb	23:43:56
2	Pb 220.353†	1069.6	965.9	58.129	µg/L	58.129	ppb	23:43:56

2	S 181.975 Axial†	355.0	244.2	181.42	µg/L	181.42 ppb	23:43:56
2	Sb 206.836†	67.5	-14.4	-3.7150	µg/L	-3.7150 ppb	23:43:56
2	Se 196.026†	-73.4	-87.5	-1.87	µg/L	-1.87 ppb	23:43:56
2	SiO2†	720101.5	706655.9	69070	µg/L	69070 ppb	23:43:36
2	Si 251.611†	2207342.7	2170733.1	32003	µg/L	32003 ppb	23:43:36
2	Sn 189.927†	15.5	16.4	10.102	µg/L	10.102 ppb	23:43:56
2	Ti 334.940†	2931081.3	2882626.5	2693.1	µg/L	2693.1 ppb	23:43:36
2	Tl 190.801†	-432.1	-308.4	-4.6076	µg/L	-4.6076 ppb	23:43:56
2	U 409.014†	-7145.6	-6759.9	-394.47	µg/L	-394.47 ppb	23:43:36
2	V 292.402†	23036.9	22259.8	96.965	µg/L	96.965 ppb	23:43:36
2	Zn 213.857†	46467.8	45150.3	246.27	µg/L	246.27 ppb	23:43:36
3	Sc RADIAL	145080.3	145080.3	99.4	%		23:42:55
3	Al 396.153Radial†	270971.0	272620.8	50543	µg/L	50543 ppb	23:42:53
3	Ca 317.933Radial†	164279.1	164680.4	9173.3	µg/L	9173.3 ppb	23:42:55
3	Fe 238.204 Radial†	1394927.9	1402947.4	86469	µg/L	86469 ppb	23:42:53
3	K 766.490 Radial†	13232.4	11765.1	4293.4	µg/L	4293.4 ppb	23:42:55
3	Mg 279.077 IEC†	15416.5	15316.1	5632.5	µg/L	5632.5 ppb	23:42:55
3	Na 589.592 Radial†	28648.7	27525.7	3756.5	µg/L	3756.5 ppb	23:42:55
3	Sr 421.552†	34817.2	35156.3	73.016	µg/L	73.016 ppb	23:42:55
3	Sc 361.383	1746489.5	1746489.5	101.65	%		23:43:59
3	Y 371.029	1239828.7	1239828.7	120.76	%		23:43:59
3	Ag 328.068†	3692.5	-458.7	-2.2824	µg/L	-2.2824 ppb	23:43:59
3	As 188.979†	11.1	31.3	29.398	µg/L	29.398 ppb	23:44:19
3	B 249.677†	3942.3	372.6	5.4149	µg/L	5.4149 ppb	23:43:59
3	Ba 233.527†	114834.1	113111.0	454.76	µg/L	454.76 ppb	23:43:59
3	Be 313.107†	24021.7	24697.6	6.6025	µg/L	6.6025 ppb	23:43:59
3	Cd 226.502†	1325.6	1422.3	-0.1850	µg/L	-0.1850 ppb	23:44:19
3	Co 228.616†	1713.7	1876.3	19.096	µg/L	19.096 ppb	23:44:19
3	Cr 267.716†	7420.8	7122.1	58.536	µg/L	58.536 ppb	23:44:19
3	Cu 324.752†	8380.4	5272.5	32.917	µg/L	32.917 ppb	23:43:59
3	Mn 257.610†	1771866.0	1742946.0	2156.1	µg/L	2156.1 ppb	23:43:59
3	Mo 202.031†	186.6	203.7	9.5464	µg/L	9.5464 ppb	23:44:19
3	Ni 231.604†	4377.1	4382.8	50.464	µg/L	50.464 ppb	23:44:19
3	P 214.914†	7953.7	7842.9	1629.6	µg/L	1629.6 ppb	23:44:19
3	Pb 220.353†	1071.1	967.4	58.229	µg/L	58.229 ppb	23:44:19
3	S 181.975 Axial†	351.1	240.4	178.57	µg/L	178.57 ppb	23:44:19
3	Sb 206.836†	87.5	5.2	-1.3801	µg/L	-1.3801 ppb	23:44:19
3	Se 196.026†	-75.0	-89.0	-2.58	µg/L	-2.58 ppb	23:44:19
3	SiO2†	720550.2	707110.7	69114	µg/L	69114 ppb	23:43:59
3	Si 251.611†	2209553.2	2172948.8	32035	µg/L	32035 ppb	23:43:59
3	Sn 189.927†	13.2	14.1	9.9723	µg/L	9.9723 ppb	23:44:19
3	Ti 334.940†	2934582.6	2886125.5	2696.3	µg/L	2696.3 ppb	23:43:59
3	Tl 190.801†	-410.6	-287.3	-1.9705	µg/L	-1.9705 ppb	23:44:19
3	U 409.014†	-7298.4	-6910.3	-403.15	µg/L	-403.15 ppb	23:43:59
3	V 292.402†	23075.0	22297.7	97.182	µg/L	97.182 ppb	23:43:59
3	Zn 213.857†	46374.6	45059.5	245.80	µg/L	245.80 ppb	23:43:59

Mean Data: 248834011|963993|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1750574.2	101.88	%	0.410				0.40%
Sc RADIAL	145316.9	99.6	%	0.42				0.42%
Y 371.029	1242860.0	121.06	%	0.492				0.41%
Ag 328.068†	-318.7	-1.7525	µg/L	0.49803	-1.7525	ppb	0.49803	28.42%
Al 396.153Radial†	272090.5	50445	µg/L	281.0	50445	ppb	281.0	0.56%
As 188.979†	32.3	29.721	µg/L	0.8637	29.721	ppb	0.8637	2.91%
B 249.677†	460.7	6.7137	µg/L	1.21497	6.7137	ppb	1.21497	18.10%
Ba 233.527†	113111.2	454.76	µg/L	0.504	454.76	ppb	0.504	0.11%
Be 313.107†	24543.4	6.5634	µg/L	0.03492	6.5634	ppb	0.03492	0.53%
Ca 317.933Radial†	164524.0	9164.6	µg/L	9.11	9164.6	ppb	9.11	0.10%
Cd 226.502†	1411.8	-0.2548	µg/L	0.06293	-0.2548	ppb	0.06293	24.70%
Co 228.616†	1870.3	19.020	µg/L	0.0928	19.020	ppb	0.0928	0.49%
Cr 267.716†	7093.6	58.307	µg/L	0.2317	58.307	ppb	0.2317	0.40%
Cu 324.752†	5333.2	33.167	µg/L	0.4856	33.167	ppb	0.4856	1.46%
Fe 238.204 Radial†	1403604.8	86510	µg/L	336.4	86510	ppb	336.4	0.39%
K 766.490 Radial†	11757.6	4290.6	µg/L	5.10	4290.6	ppb	5.10	0.12%
Mg 279.077 IEC†	15351.9	5645.8	µg/L	11.73	5645.8	ppb	11.73	0.21%
Mn 257.610†	1743596.6	2156.9	µg/L	3.33	2156.9	ppb	3.33	0.15%
Mo 202.031†	208.3	9.6843	µg/L	0.11966	9.6843	ppb	0.11966	1.24%
Na 589.592 Radial†	27588.2	3765.1	µg/L	11.78	3765.1	ppb	11.78	0.31%

Ni 231.604†	4373.5	50.357	µg/L	0.2237	50.357	ppb	0.2237	0.44%
P 214.914†	7816.7	1623.9	µg/L	6.50	1623.9	ppb	6.50	0.40%
Pb 220.353†	958.1	57.692	µg/L	0.8437	57.692	ppb	0.8437	1.46%
S 181.975 Axial†	239.3	177.72	µg/L	4.184	177.72	ppb	4.184	2.35%
Sb 206.836†	-3.0	-2.3497	µg/L	1.21670	-2.3497	ppb	1.21670	51.78%
Se 196.026†	-92.6	-3.84	µg/L	2.826	-3.84	ppb	2.826	73.56%
SiO2†	707556.7	69158	µg/L	116.1	69158	ppb	116.1	0.17%
Si 251.611†	2173998.0	32051	µg/L	57.4	32051	ppb	57.4	0.18%
Sn 189.927†	21.6	10.438	µg/L	0.6971	10.438	ppb	0.6971	6.68%
Sr 421.552†	35071.4	72.840	µg/L	0.1540	72.840	ppb	0.1540	0.21%
Ti 334.940†	2885405.5	2695.7	µg/L	2.33	2695.7	ppb	2.33	0.09%
Tl 190.801†	-292.8	-2.6505	µg/L	1.72099	-2.6505	ppb	1.72099	64.93%
U 409.014†	-6750.8	-393.82	µg/L	9.662	-393.82	ppb	9.662	2.45%
Concentration less than lower limit for U 409.014.								
V 292.402†	22302.8	97.210	µg/L	0.2602	97.210	ppb	0.2602	0.27%
Zn 213.857†	45135.9	246.22	µg/L	0.402	246.22	ppb	0.402	0.16%

Sequence No.: 119
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 23:44:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144132.6	144132.6	98.8	%			23:45:03
1	Al 396.153Radial†	26296.2	26687.3	4925.8	µg/L	4925.8	ppb	23:45:03
1	Ca 317.933Radial†	86285.0	86800.3	4835.1	µg/L	4835.1	ppb	23:45:03
1	Fe 238.204 Radial†	77336.8	78153.0	4816.9	µg/L	4816.9	ppb	23:45:03
1	K 766.490 Radial†	14372.8	13007.2	4758.2	µg/L	4758.2	ppb	23:45:03
1	Mg 279.077 IEC†	13164.6	13138.1	4902.5	µg/L	4902.5	ppb	23:45:03
1	Na 589.592 Radial†	70648.2	70238.4	9591.2	µg/L	9591.2	ppb	23:45:03
1	Sr 421.552†	230039.5	233043.2	484.45	µg/L	484.45	ppb	23:45:01
1	Sc 361.383	1743955.0	1743955.0	101.50	%			23:45:30
1	Y 371.029	1030705.1	1030705.1	100.39	%			23:45:30
1	Ag 328.068†	134389.6	128314.9	481.13	µg/L	481.13	ppb	23:45:30
1	As 188.979†	1617.5	1614.0	495.08	µg/L	495.08	ppb	23:45:50
1	B 249.677†	36323.2	32281.3	474.42	µg/L	474.42	ppb	23:45:30
1	Ba 233.527†	120941.4	119292.4	481.10	µg/L	481.10	ppb	23:45:30
1	Be 313.107†	1804931.8	1779359.2	484.62	µg/L	484.62	ppb	23:45:30
1	Cd 226.502†	77856.9	76826.1	479.58	µg/L	479.58	ppb	23:45:30
1	Co 228.616†	39432.5	39040.8	481.96	µg/L	481.96	ppb	23:45:30
1	Cr 267.716†	62111.2	61016.0	477.74	µg/L	477.74	ppb	23:45:30
1	Cu 324.752†	127832.7	122973.9	479.39	µg/L	479.39	ppb	23:45:30
1	Mn 257.610†	396902.5	390807.7	483.34	µg/L	483.34	ppb	23:45:30
1	Mo 202.031†	16367.7	16146.2	474.96	µg/L	474.96	ppb	23:45:50
1	Ni 231.604†	42121.9	41576.8	478.73	µg/L	478.73	ppb	23:45:30
1	P 214.914†	11245.4	11097.4	2365.3	µg/L	2365.3	ppb	23:45:50
1	Pb 220.353†	8777.1	8561.2	479.42	µg/L	479.42	ppb	23:45:50
1	S 181.975 Axial†	1374.9	1249.5	931.87	µg/L	931.87	ppb	23:45:50
1	Sb 206.836†	4133.7	3991.9	475.58	µg/L	475.58	ppb	23:45:50
1	Se 196.026†	1363.1	1327.7	482	µg/L	482	ppb	23:45:50
1	SiO2†	56167.1	53562.8	5214.9	µg/L	5214.9	ppb	23:45:30
1	Si 251.611†	170045.6	166699.5	2448.2	µg/L	2448.2	ppb	23:45:30
1	Sn 189.927†	7739.8	7626.7	477.06	µg/L	477.06	ppb	23:45:50
1	Ti 334.940†	523080.4	514408.2	479.98	µg/L	479.98	ppb	23:45:30
1	Tl 190.801†	3815.6	3875.9	483.43	µg/L	483.43	ppb	23:45:50
1	U 409.014†	7450.4	7610.3	474.06	µg/L	474.06	ppb	23:45:30
1	V 292.402†	99368.6	97498.3	481.94	µg/L	481.94	ppb	23:45:30
1	Zn 213.857†	87576.9	85720.0	477.77	µg/L	477.77	ppb	23:45:30
2	Sc RADIAL	143500.3	143500.3	98.3	%			23:45:07
2	Al 396.153Radial†	26117.8	26623.2	4913.8	µg/L	4913.8	ppb	23:45:07
2	Ca 317.933Radial†	85980.2	86875.2	4839.3	µg/L	4839.3	ppb	23:45:07
2	Fe 238.204 Radial†	77018.6	78174.4	4818.2	µg/L	4818.2	ppb	23:45:07
2	K 766.490 Radial†	14350.9	13049.0	4773.5	µg/L	4773.5	ppb	23:45:07
2	Mg 279.077 IEC†	13097.3	13128.4	4899.0	µg/L	4899.0	ppb	23:45:07
2	Na 589.592 Radial†	70405.7	70306.9	9600.5	µg/L	9600.5	ppb	23:45:07
2	Sr 421.552†	230191.6	234224.0	486.90	µg/L	486.90	ppb	23:45:05
2	Sc 361.383	1741142.3	1741142.3	101.33	%			23:45:53
2	Y 371.029	1028976.3	1028976.3	100.22	%			23:45:53
2	Ag 328.068†	133876.6	128022.6	480.04	µg/L	480.04	ppb	23:45:53
2	As 188.979†	1611.4	1610.6	494.02	µg/L	494.02	ppb	23:46:13
2	B 249.677†	36111.0	32129.7	472.20	µg/L	472.20	ppb	23:45:53
2	Ba 233.527†	120384.6	118935.4	479.66	µg/L	479.66	ppb	23:45:53
2	Be 313.107†	1798241.9	1775630.2	483.61	µg/L	483.61	ppb	23:45:53
2	Cd 226.502†	77471.2	76569.4	477.98	µg/L	477.98	ppb	23:45:53
2	Co 228.616†	39116.7	38792.0	478.89	µg/L	478.89	ppb	23:45:53
2	Cr 267.716†	61760.5	60768.7	475.81	µg/L	475.81	ppb	23:45:53
2	Cu 324.752†	127313.2	122664.7	478.18	µg/L	478.18	ppb	23:45:53
2	Mn 257.610†	395198.2	389757.6	482.04	µg/L	482.04	ppb	23:45:53
2	Mo 202.031†	16425.2	16229.0	477.39	µg/L	477.39	ppb	23:46:13
2	Ni 231.604†	42030.8	41554.0	478.46	µg/L	478.46	ppb	23:45:53
2	P 214.914†	11285.9	11155.2	2377.7	µg/L	2377.7	ppb	23:46:13
2	Pb 220.353†	8805.0	8602.7	481.74	µg/L	481.74	ppb	23:46:13

2	S 181.975 Axial†	1386.2	1262.9	941.84 µg/L	941.84 ppb	23:46:13
2	Sb 206.836†	4124.1	3989.0	475.29 µg/L	475.29 ppb	23:46:13
2	Se 196.026†	1357.9	1324.8	481 µg/L	481 ppb	23:46:13
2	SiO2†	55814.1	53303.9	5189.5 µg/L	5189.5 ppb	23:45:53
2	Si 251.611†	169030.5	165968.4	2437.3 µg/L	2437.3 ppb	23:45:53
2	Sn 189.927†	7760.3	7659.3	479.09 µg/L	479.09 ppb	23:46:13
2	Ti 334.940†	520780.4	512971.1	478.64 µg/L	478.64 ppb	23:45:53
2	Tl 190.801†	3842.4	3908.4	487.42 µg/L	487.42 ppb	23:46:13
2	U 409.014†	7450.4	7622.2	474.73 µg/L	474.73 ppb	23:45:53
2	V 292.402†	99152.5	97443.2	481.69 µg/L	481.69 ppb	23:45:53
2	Zn 213.857†	86966.1	85256.7	475.17 µg/L	475.17 ppb	23:45:53
3	Sc RADIAL	141926.1	141926.1	97.3 %		23:45:11
3	Al 396.153Radial†	25922.6	26717.1	4931.1 µg/L	4931.1 ppb	23:45:11
3	Ca 317.933Radial†	85061.3	86900.2	4840.7 µg/L	4840.7 ppb	23:45:11
3	Fe 238.204 Radial†	76232.3	78234.7	4821.9 µg/L	4821.9 ppb	23:45:11
3	K 766.490 Radial†	14404.4	13266.0	4852.9 µg/L	4852.9 ppb	23:45:11
3	Mg 279.077 IEC†	13020.1	13196.7	4924.4 µg/L	4924.4 ppb	23:45:11
3	Na 589.592 Radial†	69631.1	70304.6	9600.1 µg/L	9600.1 ppb	23:45:11
3	Sr 421.552†	231949.9	238628.3	496.06 µg/L	496.06 ppb	23:45:09
3	Sc 361.383	1729820.2	1729820.2	100.68 %		23:46:16
3	Y 371.029	1022158.2	1022158.2	99.559 %		23:46:16
3	Ag 328.068†	132876.1	127893.4	479.56 µg/L	479.56 ppb	23:46:16
3	As 188.979†	1593.5	1603.2	491.79 µg/L	491.79 ppb	23:46:36
3	B 249.677†	35994.3	32247.0	473.92 µg/L	473.92 ppb	23:46:16
3	Ba 233.527†	119768.8	119101.4	480.33 µg/L	480.33 ppb	23:46:16
3	Be 313.107†	1786026.7	1775111.9	483.47 µg/L	483.47 ppb	23:46:16
3	Cd 226.502†	76950.6	76552.6	477.87 µg/L	477.87 ppb	23:46:16
3	Co 228.616†	38889.1	38818.6	479.22 µg/L	479.22 ppb	23:46:16
3	Cr 267.716†	61424.2	60833.7	476.31 µg/L	476.31 ppb	23:46:16
3	Cu 324.752†	126247.1	122428.1	477.27 µg/L	477.27 ppb	23:46:16
3	Mn 257.610†	392394.3	389525.1	481.75 µg/L	481.75 ppb	23:46:16
3	Mo 202.031†	16372.3	16282.5	478.96 µg/L	478.96 ppb	23:46:36
3	Ni 231.604†	41712.3	41509.0	477.95 µg/L	477.95 ppb	23:46:16
3	P 214.914†	11238.3	11180.9	2383.2 µg/L	2383.2 ppb	23:46:36
3	Pb 220.353†	8781.7	8636.4	483.62 µg/L	483.62 ppb	23:46:36
3	S 181.975 Axial†	1376.5	1262.2	941.29 µg/L	941.29 ppb	23:46:36
3	Sb 206.836†	4136.7	4028.2	479.97 µg/L	479.97 ppb	23:46:36
3	Se 196.026†	1358.7	1334.3	485 µg/L	485 ppb	23:46:36
3	SiO2†	55649.6	53501.0	5208.7 µg/L	5208.7 ppb	23:46:16
3	Si 251.611†	167782.3	165820.3	2435.1 µg/L	2435.1 ppb	23:46:16
3	Sn 189.927†	7733.5	7682.7	480.55 µg/L	480.55 ppb	23:46:36
3	Ti 334.940†	517675.9	513251.1	478.89 µg/L	478.89 ppb	23:46:16
3	Tl 190.801†	3823.0	3914.0	488.10 µg/L	488.10 ppb	23:46:36
3	U 409.014†	7497.8	7717.4	480.25 µg/L	480.25 ppb	23:46:16
3	V 292.402†	98366.1	97302.5	481.02 µg/L	481.02 ppb	23:46:16
3	Zn 213.857†	86593.9	85448.7	476.25 µg/L	476.25 ppb	23:46:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1738305.8	101.17	%	0.435				0.43%
Sc RADIAL	143186.3	98.1	%	0.78				0.79%
Y 371.029	1027279.9	100.06	%	0.440				0.44%
Ag 328.068†	128076.9	480.24	µg/L	0.801	480.24	ppb	0.801	0.17%
QC value within limits for Ag 328.068 Recovery = 96.05%								
Al 396.153Radial†	26675.9	4923.5	µg/L	8.88	4923.5	ppb	8.88	0.18%
QC value within limits for Al 396.153Radial Recovery = 98.47%								
As 188.979†	1609.3	493.63	µg/L	1.680	493.63	ppb	1.680	0.34%
QC value within limits for As 188.979 Recovery = 98.73%								
B 249.677†	32219.3	473.51	µg/L	1.168	473.51	ppb	1.168	0.25%
QC value within limits for B 249.677 Recovery = 94.70%								
Ba 233.527†	119109.7	480.37	µg/L	0.719	480.37	ppb	0.719	0.15%
QC value within limits for Ba 233.527 Recovery = 96.07%								
Be 313.107†	1776700.4	483.90	µg/L	0.630	483.90	ppb	0.630	0.13%
QC value within limits for Be 313.107 Recovery = 96.78%								
Ca 317.933Radial†	86858.6	4838.4	µg/L	2.90	4838.4	ppb	2.90	0.06%
QC value within limits for Ca 317.933Radial Recovery = 96.77%								
Cd 226.502†	76649.4	478.48	µg/L	0.958	478.48	ppb	0.958	0.20%
QC value within limits for Cd 226.502 Recovery = 95.70%								
Co 228.616†	38883.8	480.02	µg/L	1.687	480.02	ppb	1.687	0.35%

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   QC value within limits for Co 228.616  Recovery = 96.00%
Cr 267.716†            60872.8      476.62 µg/L         1.005      476.62 ppb          1.005   0.21%
   QC value within limits for Cr 267.716  Recovery = 95.32%
Cu 324.752†           122688.9      478.28 µg/L         1.061      478.28 ppb          1.061   0.22%
   QC value within limits for Cu 324.752  Recovery = 95.66%
Fe 238.204 Radial†     78187.4      4819.0 µg/L          2.61      4819.0 ppb           2.61   0.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.38%
K 766.490 Radial†      13107.4      4794.9 µg/L         50.84      4794.9 ppb          50.84   1.06%
   QC value within limits for K 766.490 Radial  Recovery = 95.90%
Mg 279.077 IEC†        13154.4      4908.6 µg/L         13.80      4908.6 ppb          13.80   0.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.17%
Mn 257.610†           390030.2      482.38 µg/L         0.846      482.38 ppb          0.846   0.18%
   QC value within limits for Mn 257.610  Recovery = 96.48%
Mo 202.031†            16219.2      477.10 µg/L         2.018      477.10 ppb          2.018   0.42%
   QC value within limits for Mo 202.031  Recovery = 95.42%
Na 589.592 Radial†     70283.3      9597.3 µg/L          5.29      9597.3 ppb           5.29   0.06%
   QC value within limits for Na 589.592 Radial  Recovery = 95.97%
Ni 231.604†            41546.6      478.38 µg/L         0.397      478.38 ppb          0.397   0.08%
   QC value within limits for Ni 231.604  Recovery = 95.68%
P 214.914†             11144.5      2375.4 µg/L          9.15      2375.4 ppb           9.15   0.39%
   QC value within limits for P 214.914  Recovery = 95.02%
Pb 220.353†             8600.1      481.59 µg/L         2.106      481.59 ppb          2.106   0.44%
   QC value within limits for Pb 220.353  Recovery = 96.32%
S 181.975 Axial†        1258.2      938.33 µg/L         5.605      938.33 ppb          5.605   0.60%
   QC value within limits for S 181.975 Axial  Recovery = 93.83%
Sb 206.836†             4003.0      476.94 µg/L         2.622      476.94 ppb          2.622   0.55%
   QC value within limits for Sb 206.836  Recovery = 95.39%
Se 196.026†             1329.0         483 µg/L           1.8         483 ppb            1.8   0.37%
   QC value within limits for Se 196.026  Recovery = 96.51%
SiO2†                  53455.9      5204.4 µg/L         13.25      5204.4 ppb          13.25   0.25%
   QC value within limits for SiO2  Recovery = 97.32%
Si 251.611†           166162.8      2440.2 µg/L          6.98      2440.2 ppb           6.98   0.29%
   QC value within limits for Si 251.611  Recovery = 97.61%
Sn 189.927†             7656.2      478.90 µg/L         1.752      478.90 ppb          1.752   0.37%
   QC value within limits for Sn 189.927  Recovery = 95.78%
Sr 421.552†           235298.5      489.13 µg/L         6.119      489.13 ppb          6.119   1.25%
   QC value within limits for Sr 421.552  Recovery = 97.83%
Ti 334.940†           513543.5      479.17 µg/L         0.712      479.17 ppb          0.712   0.15%
   QC value within limits for Ti 334.940  Recovery = 95.83%
Tl 190.801†             3899.5      486.32 µg/L         2.525      486.32 ppb          2.525   0.52%
   QC value within limits for Tl 190.801  Recovery = 97.26%
U 409.014†              7650.0      476.34 µg/L         3.400      476.34 ppb          3.400   0.71%
   QC value within limits for U 409.014  Recovery = 95.27%
V 292.402†             97414.7      481.55 µg/L         0.473      481.55 ppb          0.473   0.10%
   QC value within limits for V 292.402  Recovery = 96.31%
Zn 213.857†            85475.1      476.40 µg/L         1.307      476.40 ppb          1.307   0.27%
   QC value within limits for Zn 213.857  Recovery = 95.28%
All analyte(s) passed QC.
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Sequence No.: 120 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/31/2010 23:46:45**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143139.1	143139.1	98.1	%			23:47:16
1	Al 396.153Radial†	-44.4	17.9	3.3413	µg/L	3.3413	ppb	23:47:36
1	Ca 317.933Radial†	582.0	32.8	1.8256	µg/L	1.8256	ppb	23:47:36
1	Fe 238.204 Radial†	254.9	111.7	6.8857	µg/L	6.8857	ppb	23:47:36
1	K 766.490 Radial†	1616.9	103.6	37.929	µg/L	37.929	ppb	23:47:16
1	Mg 279.077 IEC†	177.5	-9.8	-3.6543	µg/L	-3.6543	ppb	23:47:36
1	Na 589.592 Radial†	1371.1	107.0	14.589	µg/L	14.589	ppb	23:47:16
1	Sr 421.552†	-218.3	-87.3	-0.1815	µg/L	-0.1815	ppb	23:47:16
1	Sc 361.383	1721067.2	1721067.2	100.17	%			23:48:23
1	Y 371.029	1029992.5	1029992.5	100.32	%			23:48:23
1	Ag 328.068†	4263.3	164.8	0.5898	µg/L	0.5898	ppb	23:48:26
1	As 188.979†	-17.1	3.3	0.9838	µg/L	0.9838	ppb	23:48:46
1	B 249.677†	3587.8	76.0	1.1202	µg/L	1.1202	ppb	23:48:26
1	Ba 233.527†	-139.7	-3.6	-0.0153	µg/L	-0.0153	ppb	23:48:46
1	Be 313.107†	-1283.0	-216.2	-0.0609	µg/L	-0.0609	ppb	23:48:26
1	Cd 226.502†	-112.6	5.8	0.0354	µg/L	0.0354	ppb	23:48:46
1	Co 228.616†	-173.9	16.7	0.2052	µg/L	0.2052	ppb	23:48:46
1	Cr 267.716†	180.0	1.2	0.0142	µg/L	0.0142	ppb	23:48:46
1	Cu 324.752†	2926.2	-50.8	-0.2020	µg/L	-0.2020	ppb	23:48:26
1	Mn 257.610†	341.1	103.2	0.1279	µg/L	0.1279	ppb	23:48:46
1	Mo 202.031†	-33.0	-12.8	-0.3775	µg/L	-0.3775	ppb	23:48:46
1	Ni 231.604†	-84.7	-8.0	-0.0923	µg/L	-0.0923	ppb	23:48:46
1	P 214.914†	-12.9	5.1	1.1019	µg/L	1.1019	ppb	23:48:46
1	Pb 220.353†	98.0	11.4	0.6420	µg/L	0.6420	ppb	23:48:46
1	S 181.975 Axial†	101.0	-4.2	-3.1438	µg/L	-3.1438	ppb	23:48:46
1	Sb 206.836†	91.8	10.9	1.2860	µg/L	1.2860	ppb	23:48:46
1	Se 196.026†	14.8	-0.5	-0.177	µg/L	-0.177	ppb	23:48:46
1	SiO2†	1836.2	57.8	5.6538	µg/L	5.6538	ppb	23:48:46
1	Si 251.611†	1107.2	268.8	3.9640	µg/L	3.9640	ppb	23:48:26
1	Sn 189.927†	7.5	8.6	0.5360	µg/L	0.5360	ppb	23:48:46
1	Ti 334.940†	947.2	-6.9	-0.0034	µg/L	-0.0034	ppb	23:48:26
1	Tl 190.801†	-108.0	8.8	1.0752	µg/L	1.0752	ppb	23:48:46
1	U 409.014†	-383.9	-113.4	-6.6898	µg/L	-6.6898	ppb	23:48:26
1	V 292.402†	195.1	-209.0	-1.0288	µg/L	-1.0288	ppb	23:48:26
1	Zn 213.857†	592.8	27.4	0.1540	µg/L	0.1540	ppb	23:48:46
2	Sc RADIAL	142955.7	142955.7	98.0	%			23:47:38
2	Al 396.153Radial†	-78.4	-16.8	-3.1397	µg/L	-3.1397	ppb	23:47:58
2	Ca 317.933Radial†	568.8	20.0	1.1154	µg/L	1.1154	ppb	23:47:58
2	Fe 238.204 Radial†	246.3	103.3	6.3692	µg/L	6.3692	ppb	23:47:58
2	K 766.490 Radial†	1462.0	-52.3	-19.161	µg/L	-19.161	ppb	23:47:38
2	Mg 279.077 IEC†	183.1	-3.8	-1.4109	µg/L	-1.4109	ppb	23:47:58
2	Na 589.592 Radial†	1236.3	-28.8	-3.9154	µg/L	-3.9154	ppb	23:47:38
2	Sr 421.552†	-279.2	-149.7	-0.3112	µg/L	-0.3112	ppb	23:47:38
2	Sc 361.383	1746509.7	1746509.7	101.65	%			23:48:48
2	Y 371.029	1042959.8	1042959.8	101.58	%			23:48:48
2	Ag 328.068†	4265.0	104.5	0.3736	µg/L	0.3736	ppb	23:48:50
2	As 188.979†	-11.7	8.8	2.6655	µg/L	2.6655	ppb	23:49:10
2	B 249.677†	3506.2	-56.5	-0.8332	µg/L	-0.8332	ppb	23:48:50
2	Ba 233.527†	-121.9	16.0	0.0640	µg/L	0.0640	ppb	23:49:10
2	Be 313.107†	-723.9	352.5	0.0944	µg/L	0.0944	ppb	23:48:50
2	Cd 226.502†	-117.5	2.6	0.0156	µg/L	0.0156	ppb	23:49:10
2	Co 228.616†	-180.5	12.8	0.1572	µg/L	0.1572	ppb	23:49:10
2	Cr 267.716†	177.3	-4.1	-0.0284	µg/L	-0.0284	ppb	23:49:10
2	Cu 324.752†	3022.2	1.1	0.0009	µg/L	0.0009	ppb	23:48:50
2	Mn 257.610†	312.9	70.6	0.0874	µg/L	0.0874	ppb	23:49:10
2	Mo 202.031†	-8.4	11.8	0.3482	µg/L	0.3482	ppb	23:49:10
2	Ni 231.604†	-112.1	-33.8	-0.3893	µg/L	-0.3893	ppb	23:49:10
2	P 214.914†	-28.4	-10.0	-2.1529	µg/L	-2.1529	ppb	23:49:10
2	Pb 220.353†	61.6	-25.8	-1.4338	µg/L	-1.4338	ppb	23:49:10

2	S 181.975 Axial†	110.6	3.7	2.7632 µg/L	2.7632 ppb	23:49:10
2	Sb 206.836†	80.8	-1.3	-0.1519 µg/L	-0.1519 ppb	23:49:10
2	Se 196.026†	7.2	-8.2	-2.97 µg/L	-2.97 ppb	23:49:10
2	SiO2†	1816.0	11.2	1.0819 µg/L	1.0819 ppb	23:49:10
2	Si 251.611†	1081.7	227.6	3.3494 µg/L	3.3494 ppb	23:48:50
2	Sn 189.927†	2.0	3.1	0.1923 µg/L	0.1923 ppb	23:49:10
2	Ti 334.940†	932.7	-34.9	-0.0304 µg/L	-0.0304 ppb	23:48:50
2	Tl 190.801†	-106.3	12.1	1.4842 µg/L	1.4842 ppb	23:49:10
2	U 409.014†	-364.3	-88.6	-5.2117 µg/L	-5.2117 ppb	23:48:50
2	V 292.402†	290.2	-118.3	-0.5776 µg/L	-0.5776 ppb	23:48:50
2	Zn 213.857†	597.7	23.6	0.1343 µg/L	0.1343 ppb	23:49:10
3	Sc RADIAL	142060.8	142060.8	97.3 %		23:48:00
3	Al 396.153Radial†	-74.7	-13.5	-2.5097 µg/L	-2.5097 ppb	23:48:20
3	Ca 317.933Radial†	575.1	30.2	1.6799 µg/L	1.6799 ppb	23:48:20
3	Fe 238.204 Radial†	223.1	81.1	4.9991 µg/L	4.9991 ppb	23:48:20
3	K 766.490 Radial†	1632.6	132.3	48.447 µg/L	48.447 ppb	23:48:00
3	Mg 279.077 IEC†	208.7	23.7	8.8315 µg/L	8.8315 ppb	23:48:20
3	Na 589.592 Radial†	1308.6	53.4	7.2507 µg/L	7.2507 ppb	23:48:00
3	Sr 421.552†	-258.5	-130.3	-0.2709 µg/L	-0.2709 ppb	23:48:00
3	Sc 361.383	1726289.1	1726289.1	100.47 %		23:49:12
3	Y 371.029	1031437.7	1031437.7	100.46 %		23:49:12
3	Ag 328.068†	4170.2	59.3	0.2058 µg/L	0.2058 ppb	23:49:14
3	As 188.979†	-17.6	2.8	0.8598 µg/L	0.8598 ppb	23:49:34
3	B 249.677†	3575.5	52.9	0.7802 µg/L	0.7802 ppb	23:49:14
3	Ba 233.527†	-111.6	24.8	0.0994 µg/L	0.0994 ppb	23:49:34
3	Be 313.107†	-874.1	194.7	0.0518 µg/L	0.0518 ppb	23:49:14
3	Cd 226.502†	-142.0	-23.1	-0.1448 µg/L	-0.1448 ppb	23:49:34
3	Co 228.616†	-193.8	-2.6	-0.0317 µg/L	-0.0317 ppb	23:49:34
3	Cr 267.716†	191.0	11.5	0.0933 µg/L	0.0933 ppb	23:49:34
3	Cu 324.752†	2976.0	-10.1	-0.0417 µg/L	-0.0417 ppb	23:49:14
3	Mn 257.610†	330.2	91.4	0.1127 µg/L	0.1127 ppb	23:49:34
3	Mo 202.031†	-17.5	2.7	0.0796 µg/L	0.0796 ppb	23:49:34
3	Ni 231.604†	-80.8	-3.9	-0.0446 µg/L	-0.0446 ppb	23:49:34
3	P 214.914†	-31.6	-13.5	-2.8878 µg/L	-2.8878 ppb	23:49:34
3	Pb 220.353†	72.3	-14.4	-0.8013 µg/L	-0.8013 ppb	23:49:34
3	S 181.975 Axial†	108.9	3.3	2.4479 µg/L	2.4479 ppb	23:49:34
3	Sb 206.836†	90.6	9.4	1.1111 µg/L	1.1111 ppb	23:49:34
3	Se 196.026†	27.8	12.4	4.47 µg/L	4.47 ppb	23:49:34
3	SiO2†	1848.9	64.9	6.3403 µg/L	6.3403 ppb	23:49:34
3	Si 251.611†	1214.9	372.7	5.4917 µg/L	5.4917 ppb	23:49:14
3	Sn 189.927†	3.0	4.1	0.2558 µg/L	0.2558 ppb	23:49:34
3	Ti 334.940†	1155.8	197.9	0.1859 µg/L	0.1859 ppb	23:49:14
3	Tl 190.801†	-94.9	22.3	2.7336 µg/L	2.7336 ppb	23:49:34
3	U 409.014†	-341.4	-69.9	-4.1301 µg/L	-4.1301 ppb	23:49:14
3	V 292.402†	256.5	-148.5	-0.7266 µg/L	-0.7266 ppb	23:49:14
3	Zn 213.857†	589.1	22.0	0.1232 µg/L	0.1232 ppb	23:49:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1731288.6	100.76	%	0.782				0.78%
Sc RADIAL	142718.5	97.8	%	0.40				0.40%
Y 371.029	1034796.7	100.79	%	0.692				0.69%
Ag 328.068†	109.5	0.3897	µg/L	0.19255	0.3897	ppb	0.19255	49.40%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.1	-0.7694	µg/L	3.57387	-0.7694	ppb	3.57387	464.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.0	1.5030	µg/L	1.00867	1.5030	ppb	1.00867	67.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	24.1	0.3557	µg/L	1.04358	0.3557	ppb	1.04358	293.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.4	0.0494	µg/L	0.05873	0.0494	ppb	0.05873	118.93%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	110.4	0.0284	µg/L	0.08023	0.0284	ppb	0.08023	282.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	27.7	1.5403	µg/L	0.37512	1.5403	ppb	0.37512	24.35%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-4.9	-0.0313	µg/L	0.09882	-0.0313	ppb	0.09882	315.68%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.0	0.1102	µg/L	0.12522	0.1102	ppb	0.12522	113.62%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                2.9      0.0263 µg/L       0.06173      0.0263 ppb        0.06173 234.26%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -20.0     -0.0809 µg/L       0.10696     -0.0809 ppb        0.10696 132.15%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        98.7      6.0847 µg/L       0.97498      6.0847 ppb        0.97498  16.02%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         61.2      22.405 µg/L       36.3791      22.405 ppb        36.3791 162.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            3.4      1.2555 µg/L       6.65627      1.2555 ppb        6.65627 530.18%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               88.4      0.1093 µg/L       0.02047      0.1093 ppb        0.02047  18.73%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                0.6      0.0168 µg/L       0.36692      0.0168 ppb        0.36692 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        43.9      5.9749 µg/L       9.31815      5.9749 ppb        9.31815 155.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -15.2     -0.1754 µg/L       0.18674     -0.1754 ppb        0.18674 106.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -6.1     -1.3129 µg/L       2.12332     -1.3129 ppb        2.12332 161.72%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -9.6     -0.5310 µg/L       1.06398     -0.5310 ppb        1.06398 200.37%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.9      0.6891 µg/L       3.32317      0.6891 ppb        3.32317 482.25%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                6.3      0.7484 µg/L       0.78460      0.7484 ppb        0.78460 104.84%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.2       0.441 µg/L        3.7613       0.441 ppb         3.7613 853.72%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     44.6      4.3586 µg/L       2.85844      4.3586 ppb        2.85844  65.58%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              289.7      4.2683 µg/L       1.10310      4.2683 ppb        1.10310  25.84%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.3      0.3280 µg/L       0.18288      0.3280 ppb        0.18288  55.75%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -122.4     -0.2545 µg/L       0.06637     -0.2545 ppb        0.06637  26.08%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               52.0      0.0507 µg/L       0.11782      0.0507 ppb        0.11782 232.33%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               14.4      1.7643 µg/L       0.86396      1.7643 ppb        0.86396  48.97%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -90.6     -5.3439 µg/L       1.28496     -5.3439 ppb        1.28496  24.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -158.6     -0.7777 µg/L       0.22990     -0.7777 ppb        0.22990  29.56%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               24.3      0.1372 µg/L       0.01563      0.1372 ppb        0.01563  11.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, May 10, 2010 23:55:35
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100506\Sample.241
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1764.7	1764.709	38.538	2.2
	Mg	24.0	153346.5	153346.512	1657.789	1.1
	Co	58.9	21859.9	21859.913	156.616	0.7
	Rh	102.9	46595.3	46595.268	324.589	0.7
	In	114.9	59279.7	59279.745	492.193	0.8
	Pb	208.0	40999.4	40999.361	661.389	1.6
⌈>	Ba	137.9	61842.9	61842.883	691.306	1.1
⌊	Ba++	69.0	715.3	0.012	0.000	2.7
⌈>	Ce	139.9	66427.3	66427.299	780.909	1.2
⌊	CeO	155.9	1078.4	0.016	0.000	1.6
	Bkgd	220.0	21.4	21.400	3.090	14.4

Current Optimization File Data

Current Value	Description
0.74	Nebulizer Gas Flow
9.00	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	15	7.5	2598.2
Co	59	15	8.5	21396.7
In	115	15	9.8	56650.4

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	577	2080	0.635
Be	9.0	9.0	2048	2080	0.659
Mg	24.0	24.0	5682	2120	0.619
Mg	25.0	25.0	5921	2080	0.663
Mg	26.0	25.9	6160	2120	0.677
Co	58.9	58.9	14160	2170	0.637
Rh	102.9	102.9	24851	2230	0.696
In	114.9	114.9	27778	2260	0.683
Ce	139.9	139.9	33852	2280	0.745
Pb	206.0	205.9	49936	2424	0.759
Pb	207.0	207.0	50137	2385	0.662
Pb	208.0	208.0	50463	2430	0.717
U	238.1	238.0	57727	2470	0.700

Report Date/Time: Monday, May 10, 2010 23:54:27

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, May 11, 2010 09:22:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\Blank.120

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		20	
>	Sc	45		ug/L		651458	
	Ni	60		ug/L		158	
>	Ge	74		ug/L		176983	
	As	75		ug/L		355	
	Se	77		ug/L		4657	
	Se	82		ug/L		-38	
	Kr	83		ug/L		106	
>	Lu	175		ug/L		181938	
	Tl	205		ug/L		1297	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Simple Linear	
Ge	74	Linear Thru Zero	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, May 11, 2010 09:26:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\Standard 1.121

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.000**	**ug/L**	4.098	2304	0.004
>	Sc	45		**ug/L**		634743	634742.771
	Ni	60	**10.000**	**ug/L**	4.174	4990	0.008
>	Ge	74		**ug/L**		171352	171352.357
	As	75	**10.000**	**ug/L**	3.021	4609	0.025
	Se	77		**ug/L**		4832	0.002
	Se	82	**10.000**	**ug/L**	9.017	270	0.002
	Kr	83		**ug/L**		113	0.000
>	Lu	175		**ug/L**		177482	177482.254
	Tl	205	**10.000**	**ug/L**	0.320	54154	0.298

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, May 11, 2010 09:30:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\Standard 2.122

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**100.004**	**ug/L**	2.895	21881	0.036
>	Sc	45		**ug/L**		605153	605152.702
	Ni	60	**100.042**	**ug/L**	1.538	48311	0.080
>	Ge	74		**ug/L**		167288	167288.178
	As	75	**100.098**	**ug/L**	1.722	46537	0.276
	Se	77		**ug/L**		6942	0.015
	Se	82	**100.110**	**ug/L**	0.204	3338	0.020
	Kr	83		**ug/L**		125	0.000
>	Lu	175		**ug/L**		174651	174650.663
	Tl	205	**100.089**	**ug/L**	0.886	572823	3.273

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, May 11, 2010 09:35:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 1.123

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.157**	**ug/L**	1.255	11937	0.019
>	Sc	45		**ug/L**		620502	620502.246
	Ni	60	**53.153**	**ug/L**	1.855	26390	0.042
>	Ge	74		**ug/L**		169925	169925.363
	As	75	**53.885**	**ug/L**	1.979	25601	0.149
	Se	77		**ug/L**		5927	0.009
	Se	82	**52.568**	**ug/L**	6.767	1763	0.011
	Kr	83		**ug/L**		126	0.000
>	Lu	175		**ug/L**		178957	178957.068
	Tl	205	**51.801**	**ug/L**	1.746	304357	1.694

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	106.314				
>	Sc	45		95.2			
	Ni	60	106.306				
>	Ge	74		96.0			
	As	75	107.771				
	Se	77					
	Se	82	105.136				
	Kr	83					
>	Lu	175		98.4			
	Tl	205	103.603				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, May 11, 2010 09:39:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 2.124

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.005**	**ug/L**	575.817	21	0.000
>	Sc	45		**ug/L**		646675	646675.388
	Ni	60	**0.019**	**ug/L**	72.276	166	0.000
>	Ge	74		**ug/L**		172825	172825.303
	As	75	**0.160**	**ug/L**	529.184	426	0.000
	Se	77		**ug/L**		4705	0.001
	Se	82	**-0.163**	**ug/L**	361.796	-43	-0.000
	Kr	83		**ug/L**		112	0.000
>	Lu	175		**ug/L**		177712	177712.384
	Tl	205	**0.347**	**ug/L**	0.360	3284	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.3			
	Ni	60					
>	Ge	74		97.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, May 11, 2010 09:43:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 3.125

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.528**	**ug/L**	4.937	142	0.000
>	Sc	45		**ug/L**		644128	644128.169
	Ni	60	**2.153**	**ug/L**	1.711	1259	0.002
>	Ge	74		**ug/L**		173680	173680.376
	As	75	**4.356**	**ug/L**	4.344	2434	0.012
	Se	77		**ug/L**		4721	0.001
	Se	82	**5.343**	**ug/L**	18.762	149	0.001
	Kr	83		**ug/L**		111	0.000
>	Lu	175		**ug/L**		177588	177587.615
	Tl	205	**1.136**	**ug/L**	3.526	7859	0.037

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	105.606				
>	Sc	45		98.9			
	Ni	60	107.634				
>	Ge	74		98.1			
	As	75	87.112				
	Se	77					
	Se	82	106.867				
	Kr	83					
>	Lu	175		97.6			
	Tl	205	113.580				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, May 11, 2010 09:48:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 4.126

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.098**	**ug/L**	36.553	37	0.000
>	Sc	45		**ug/L**		570500	570500.283
	Ni	60	**2.521**	**ug/L**	0.841	1283	0.002
>	Ge	74		**ug/L**		155089	155088.953
	As	75	**-0.807**	**ug/L**	48.834	-33	-0.002
	Se	77		**ug/L**		5428	0.009
	Se	82	**-0.868**	**ug/L**	74.420	-60	-0.000
	Kr	83		**ug/L**		133	0.000
>	Lu	175		**ug/L**		168106	168106.322
	Tl	205	**0.019**	**ug/L**	28.389	1304	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		87.6			
	Ni	60	93.374				
>	Ge	74		87.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		92.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, May 11, 2010 09:52:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 5.127

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**18.907**	**ug/L**	0.206	3953	0.007
>	Sc	45		**ug/L**		576043	576042.732
	Ni	60	**20.960**	**ug/L**	1.952	9744	0.017
>	Ge	74		**ug/L**		157936	157935.902
	As	75	**18.985**	**ug/L**	1.749	8589	0.052
	Se	77		**ug/L**		5716	0.010
	Se	82	**19.083**	**ug/L**	1.926	573	0.004
	Kr	83		**ug/L**		142	0.000
>	Lu	175		**ug/L**		171762	171761.925
	Tl	205	**16.906**	**ug/L**	0.538	96178	0.553

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	94.533				
>	Sc	45		88.4			
	Ni	60	92.337				
>	Ge	74		89.2			
	As	75	94.927				
	Se	77					
	Se	82	95.415				
	Kr	83					
>	Lu	175		94.4			
	Tl	205	84.528				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 11, 2010 09:57:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 6.128

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.352**	**ug/L**	0.927	11551	0.019
>	Sc	45		**ug/L**		609646	609645.753
	Ni	60	**53.471**	**ug/L**	2.388	26083	0.043
>	Ge	74		**ug/L**		166075	166075.270
	As	75	**54.756**	**ug/L**	3.741	25415	0.151
	Se	77		**ug/L**		5947	0.010
	Se	82	**56.265**	**ug/L**	0.388	1847	0.011
	Kr	83		**ug/L**		100	-0.000
>	Lu	175		**ug/L**		172428	172428.459
	Tl	205	**52.088**	**ug/L**	0.664	294926	1.703

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	104.704				
>	Sc	45		93.6			
	Ni	60	106.942				
>	Ge	74		93.8			
	As	75	109.512				
	Se	77					
	Se	82	112.529				
	Kr	83					
>	Lu	175		94.8			
	Tl	205	104.176				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Se	82	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 11, 2010 10:01:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 7.129

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.007**	**ug/L**	297.029	20	0.000
>	Sc	45		**ug/L**		623076	623076.346
	Ni	60	**-0.006**	**ug/L**	272.342	148	-0.000
>	Ge	74		**ug/L**		170852	170852.344
	As	75	**-0.674**	**ug/L**	47.887	24	-0.002
	Se	77		**ug/L**		4893	0.002
	Se	82	**-0.124**	**ug/L**	496.409	-41	-0.000
	Kr	83		**ug/L**		103	-0.000
>	Lu	175		**ug/L**		175710	175710.330
	Tl	205	**0.248**	**ug/L**	2.981	2677	0.008

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.6			
	Ni	60					
>	Ge	74		96.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068053
Sample Date/Time: Tuesday, May 11, 2010 10:05:50
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\1202068053.130

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.020	ug/L	78.807	15	-0.000
>	Sc	45		ug/L		669692	669692.344
	Ni	60	-0.086	ug/L	21.806	117	-0.000
>	Ge	74		ug/L		182787	182787.208
	As	75	-0.275	ug/L	76.192	228	-0.001
	Se	77		ug/L		4001	-0.004
	Se	82	0.472	ug/L	64.210	-22	0.000
	Kr	83		ug/L		91	-0.000
>	Lu	175		ug/L		189354	189354.326
	Tl	205	0.082	ug/L	12.119	1857	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.8			
	Ni	60					
>	Ge	74		103.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068058
Sample Date/Time: Tuesday, May 11, 2010 10:10:14
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 963995|40|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\1202068058.131

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**20.650**	**ug/L**	2.255	5014	0.007
>	Sc	45		**ug/L**		669253	669252.999
	Ni	60	**37.090**	**ug/L**	2.547	19909	0.030
>	Ge	74		**ug/L**		180845	180845.487
	As	75	**27.318**	**ug/L**	2.716	13992	0.075
	Se	77		**ug/L**		8713	0.022
	Se	82	**73.701**	**ug/L**	1.881	2646	0.015
	Kr	83		**ug/L**		114	0.000
>	Lu	175		**ug/L**		182802	182802.479
	Tl	205	**29.465**	**ug/L**	1.984	177406	0.964

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.7			
	Ni	60					
>	Ge	74		102.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 11, 2010 10:23:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 6.134

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.671**	**ug/L**	1.476	11788	0.019
>	Sc	45		**ug/L**		618412	618412.485
	Ni	60	**53.821**	**ug/L**	1.418	26627	0.043
>	Ge	74		**ug/L**		171775	171775.356
	As	75	**52.424**	**ug/L**	1.602	25190	0.145
	Se	77		**ug/L**		6131	0.009
	Se	82	**51.807**	**ug/L**	2.591	1756	0.010
	Kr	83		**ug/L**		110	0.000
>	Lu	175		**ug/L**		175317	175317.382
	Tl	205	**51.674**	**ug/L**	2.576	297379	1.690

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	105.342				
>	Sc	45		94.9			
	Ni	60	107.641				
>	Ge	74		97.1			
	As	75	104.847				
	Se	77					
	Se	82	103.614				
	Kr	83					
>	Lu	175		96.4			
	Tl	205	103.349				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 11, 2010 10:27:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 7.135

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.007	ug/L	85.909	17	-0.000
>	Sc	45		ug/L		626591	626591.372
	Ni	60	0.040	ug/L	39.780	172	0.000
>	Ge	74		ug/L		171062	171062.143
	As	75	-0.742	ug/L	63.623	-8	-0.002
	Se	77		ug/L		4748	0.001
	Se	82	-0.026	ug/L	214.667	-38	-0.000
	Kr	83		ug/L		100	-0.000
>	Lu	175		ug/L		176000	176000.381
	Tl	205	0.147	ug/L	15.651	2097	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.2			
	Ni	60					
>	Ge	74		96.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834001
Sample Date/Time: Tuesday, May 11, 2010 10:32:12
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\248834001.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.486**	**ug/L**	2.338	401	0.001
>	Sc	45		**ug/L**		707240	707240.223
	Ni	60	**7.314**	**ug/L**	0.319	4287	0.006
>	Ge	74		**ug/L**		183923	183922.858
	As	75	**2.036**	**ug/L**	31.861	1405	0.006
	Se	77		**ug/L**		4057	-0.004
	Se	82	**0.884**	**ug/L**	27.172	-7	0.000
	Kr	83		**ug/L**		119	0.000
>	Lu	175		**ug/L**		203395	203394.818
	Tl	205	**0.385**	**ug/L**	1.626	4012	0.013

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		108.6			
	Ni	60					
>	Ge	74		103.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		111.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068054
Sample Date/Time: Tuesday, May 11, 2010 10:36:36
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\1202068054.137

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.700**	**ug/L**	6.764	469	0.001
>	Sc	45		**ug/L**		727993	727992.985
	Ni	60	**8.653**	**ug/L**	3.490	5187	0.007
>	Ge	74		**ug/L**		188619	188618.926
	As	75	**1.728**	**ug/L**	35.408	1277	0.005
	Se	77		**ug/L**		3867	-0.006
	Se	82	**0.348**	**ug/L**	11.505	-28	0.000
	Kr	83		**ug/L**		141	0.000
>	Lu	175		**ug/L**		206290	206289.875
	Tl	205	**0.309**	**ug/L**	4.868	3552	0.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		111.7			
	Ni	60					
>	Ge	74		106.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		113.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068056
Sample Date/Time: Tuesday, May 11, 2010 10:41:00
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\1202068056.138

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**28.219**	**ug/L**	1.296	7516	0.010
>	Sc	45		**ug/L**		735064	735063.752
	Ni	60	**31.440**	**ug/L**	2.509	18561	0.025
>	Ge	74		**ug/L**		186977	186977.359
	As	75	**40.101**	**ug/L**	3.546	21055	0.111
	Se	77		**ug/L**		4191	-0.004
	Se	82	**9.991**	**ug/L**	7.454	336	0.002
	Kr	83		**ug/L**		144	0.000
>	Lu	175		**ug/L**		207235	207234.646
	Tl	205	**43.494**	**ug/L**	2.729	296136	1.422

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		112.8			
	Ni	60					
>	Ge	74		105.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		113.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068057
Sample Date/Time: Tuesday, May 11, 2010 10:45:25
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\1202068057.139

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**27.825**	**ug/L**	3.112	7554	0.010
>	Sc	45		**ug/L**		749209	749209.470
	Ni	60	**29.442**	**ug/L**	1.345	17733	0.023
>	Ge	74		**ug/L**		189675	189675.479
	As	75	**38.930**	**ug/L**	2.648	20751	0.107
	Se	77		**ug/L**		4198	-0.004
	Se	82	**9.842**	**ug/L**	3.550	335	0.002
	Kr	83		**ug/L**		140	0.000
>	Lu	175		**ug/L**		210463	210463.134
	Tl	205	**42.293**	**ug/L**	2.313	292542	1.383

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		115.0			
	Ni	60					
>	Ge	74		107.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		115.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068055
Sample Date/Time: Tuesday, May 11, 2010 10:49:49
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 963995|10|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\1202068055.140

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.300**	**ug/L**	17.549	102	0.000
>	Sc	45		**ug/L**		738908	738908.287
	Ni	60	**1.393**	**ug/L**	0.709	998	0.001
>	Ge	74		**ug/L**		190722	190722.078
	As	75	**-0.273**	**ug/L**	227.211	239	-0.001
	Se	77		**ug/L**		6116	0.006
	Se	82	**0.006**	**ug/L**	1860.010	-41	0.000
	Kr	83		**ug/L**		121	0.000
>	Lu	175		**ug/L**		191437	191437.490
	Tl	205	**0.206**	**ug/L**	6.325	2653	0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		113.4			
	Ni	60					
>	Ge	74		107.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		105.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834002
Sample Date/Time: Tuesday, May 11, 2010 10:54:14
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\248834002.141

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.542**	**ug/L**	1.726	713	0.001
>	Sc	45		**ug/L**		751518	751518.164
	Ni	60	**17.731**	**ug/L**	3.760	10780	0.014
>	Ge	74		**ug/L**		189005	189005.383
	As	75	**6.782**	**ug/L**	9.925	3917	0.019
	Se	77		**ug/L**		3683	-0.007
	Se	82	**0.024**	**ug/L**	411.245	-40	0.000
	Kr	83		**ug/L**		150	0.000
>	Lu	175		**ug/L**		205232	205231.516
	Tl	205	**0.415**	**ug/L**	3.333	4250	0.014

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		115.4			
	Ni	60					
>	Ge	74		106.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		112.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834003
Sample Date/Time: Tuesday, May 11, 2010 10:58:38
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\248834003.142

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.658**	**ug/L**	9.866	201	0.000
>	Sc	45		**ug/L**		750166	750165.522
	Ni	60	**4.190**	**ug/L**	2.436	2683	0.003
>	Ge	74		**ug/L**		190507	190507.261
	As	75	**1.304**	**ug/L**	19.278	1069	0.004
	Se	77		**ug/L**		3853	-0.006
	Se	82	**1.171**	**ug/L**	30.495	4	0.000
	Kr	83		**ug/L**		131	0.000
>	Lu	175		**ug/L**		209412	209411.964
	Tl	205	**0.065**	**ug/L**	17.252	1941	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		115.2			
	Ni	60					
>	Ge	74		107.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		115.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834004
Sample Date/Time: Tuesday, May 11, 2010 11:03:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\248834004.143

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.563**	**ug/L**	3.795	438	0.001
>	Sc	45		**ug/L**		736597	736597.376
	Ni	60	**5.647**	**ug/L**	2.824	3487	0.004
>	Ge	74		**ug/L**		188105	188105.229
	As	75	**2.797**	**ug/L**	36.884	1835	0.008
	Se	77		**ug/L**		3834	-0.006
	Se	82	**0.416**	**ug/L**	171.869	-25	0.000
	Kr	83		**ug/L**		139	0.000
>	Lu	175		**ug/L**		206718	206718.309
	Tl	205	**0.272**	**ug/L**	6.302	3312	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		113.1			
	Ni	60					
>	Ge	74		106.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		113.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 11, 2010 11:07:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 6.144

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**56.094**	**ug/L**	1.227	13757	0.020
>	Sc	45		**ug/L**		677652	677651.933
	Ni	60	**50.817**	**ug/L**	0.975	27561	0.040
>	Ge	74		**ug/L**		180457	180456.941
	As	75	**52.188**	**ug/L**	2.076	26342	0.144
	Se	77		**ug/L**		5799	0.006
	Se	82	**51.828**	**ug/L**	4.999	1845	0.010
	Kr	83		**ug/L**		108	-0.000
>	Lu	175		**ug/L**		179660	179659.648
	Tl	205	**50.111**	**ug/L**	1.044	295658	1.639

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	112.188				
>	Sc	45		104.0			
	Ni	60	101.634				
>	Ge	74		102.0			
	As	75	104.376				
	Se	77					
	Se	82	103.657				
	Kr	83					
>	Lu	175		98.7			
	Tl	205	100.222				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 11, 2010 11:11:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 7.145

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.003**	**ug/L**	336.410	21	0.000
>	Sc	45		**ug/L**		684483	684483.256
	Ni	60	**-0.010**	**ug/L**	100.974	160	-0.000
>	Ge	74		**ug/L**		178535	178534.910
	As	75	**-0.370**	**ug/L**	131.784	177	-0.001
	Se	77		**ug/L**		4595	-0.001
	Se	82	**0.309**	**ug/L**	152.819	-28	0.000
	Kr	83		**ug/L**		101	-0.000
>	Lu	175		**ug/L**		179311	179310.546
	Tl	205	**0.050**	**ug/L**	18.717	1570	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		105.1			
	Ni	60					
>	Ge	74		100.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834005
Sample Date/Time: Tuesday, May 11, 2010 11:16:13
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\248834005.146

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.148**	**ug/L**	2.338	328	0.000
>	Sc	45		**ug/L**		737205	737205.032
	Ni	60	**7.245**	**ug/L**	2.292	4429	0.006
>	Ge	74		**ug/L**		189322	189322.231
	As	75	**1.307**	**ug/L**	35.931	1064	0.004
	Se	77		**ug/L**		3936	-0.006
	Se	82	**0.542**	**ug/L**	65.101	-20	0.000
	Kr	83		**ug/L**		116	0.000
>	Lu	175		**ug/L**		201803	201802.624
	Tl	205	**0.054**	**ug/L**	10.416	1794	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		113.2			
	Ni	60					
>	Ge	74		107.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		110.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834006
Sample Date/Time: Tuesday, May 11, 2010 11:20:38
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\248834006.147

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.111**	**ug/L**	6.384	590	0.001
>	Sc	45		**ug/L**		744618	744617.507
	Ni	60	**14.382**	**ug/L**	3.142	8699	0.011
>	Ge	74		**ug/L**		184783	184783.225
	As	75	**3.308**	**ug/L**	23.708	2062	0.009
	Se	77		**ug/L**		3810	-0.006
	Se	82	**-0.071**	**ug/L**	333.253	-43	-0.000
	Kr	83		**ug/L**		149	0.000
>	Lu	175		**ug/L**		203006	203006.336
	Tl	205	**0.265**	**ug/L**	1.515	3207	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		114.3			
	Ni	60					
>	Ge	74		104.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		111.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834007
Sample Date/Time: Tuesday, May 11, 2010 11:25:02
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\248834007.148

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.248**	**ug/L**	1.784	357	0.000
>	Sc	45		**ug/L**		741573	741573.055
	Ni	60	**10.418**	**ug/L**	0.429	6327	0.008
>	Ge	74		**ug/L**		191182	191182.128
	As	75	**2.246**	**ug/L**	23.102	1570	0.006
	Se	77		**ug/L**		3818	-0.006
	Se	82	**-0.043**	**ug/L**	1050.591	-43	-0.000
	Kr	83		**ug/L**		140	0.000
>	Lu	175		**ug/L**		201603	201603.062
	Tl	205	**0.053**	**ug/L**	27.585	1784	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		113.8			
	Ni	60					
>	Ge	74		108.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		110.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834008
Sample Date/Time: Tuesday, May 11, 2010 11:29:27
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\248834008.149

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.090**	**ug/L**	2.971	315	0.000
>	Sc	45		**ug/L**		741864	741864.294
	Ni	60	**3.683**	**ug/L**	1.169	2354	0.003
>	Ge	74		**ug/L**		188442	188441.871
	As	75	**1.889**	**ug/L**	51.481	1364	0.005
	Se	77		**ug/L**		3851	-0.006
	Se	82	**0.432**	**ug/L**	95.339	-24	0.000
	Kr	83		**ug/L**		130	0.000
>	Lu	175		**ug/L**		202302	202301.766
	Tl	205	**0.132**	**ug/L**	3.611	2316	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		113.9			
	Ni	60					
>	Ge	74		106.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		111.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834009
Sample Date/Time: Tuesday, May 11, 2010 11:33:52
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl 2.mth
Dataset File: C:\elandata\Dataset\100510\248834009.150

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.780**	**ug/L**	1.925	500	0.001
>	Sc	45		**ug/L**		742706	742705.684
	Ni	60	**10.231**	**ug/L**	2.234	6226	0.008
>	Ge	74		**ug/L**		185851	185851.024
	As	75	**3.154**	**ug/L**	14.412	1991	0.009
	Se	77		**ug/L**		3552	-0.007
	Se	82	**0.429**	**ug/L**	84.657	-24	0.000
	Kr	83		**ug/L**		137	0.000
>	Lu	175		**ug/L**		202627	202626.766
	Tl	205	**0.154**	**ug/L**	5.697	2461	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		114.0			
	Ni	60					
>	Ge	74		105.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		111.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834010
Sample Date/Time: Tuesday, May 11, 2010 11:38:17
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100510\248834010.151

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.493**	**ug/L**	3.481	428	0.001
>	Sc	45		**ug/L**		751309	751309.343
	Ni	60	**14.979**	**ug/L**	3.047	9134	0.012
>	Ge	74		**ug/L**		187248	187247.566
	As	75	**2.538**	**ug/L**	1.908	1687	0.007
	Se	77		**ug/L**		3604	-0.007
	Se	82	**0.614**	**ug/L**	35.612	-17	0.000
	Kr	83		**ug/L**		144	0.000
>	Lu	175		**ug/L**		210013	210012.693
	Tl	205	**0.023**	**ug/L**	17.965	1653	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		115.3			
	Ni	60					
>	Ge	74		105.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		115.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834011
Sample Date/Time: Tuesday, May 11, 2010 11:42:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100510\248834011.152

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.633**	**ug/L**	5.878	726	0.001
>	Sc	45		**ug/L**		739571	739571.108
	Ni	60	**18.011**	**ug/L**	1.645	10778	0.014
>	Ge	74		**ug/L**		183958	183957.866
	As	75	**4.124**	**ug/L**	10.151	2463	0.011
	Se	77		**ug/L**		3337	-0.008
	Se	82	**0.538**	**ug/L**	71.103	-20	0.000
	Kr	83		**ug/L**		145	0.000
>	Lu	175		**ug/L**		203300	203300.450
	Tl	205	**0.268**	**ug/L**	1.427	3231	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		113.5			
	Ni	60					
>	Ge	74		103.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		111.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 11, 2010 11:51:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 6.154

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**56.465**	**ug/L**	2.526	13238	0.020
>	Sc	45		**ug/L**		647906	647906.044
	Ni	60	**52.469**	**ug/L**	0.813	27206	0.042
>	Ge	74		**ug/L**		172598	172597.600
	As	75	**53.099**	**ug/L**	1.229	25628	0.146
	Se	77		**ug/L**		5532	0.006
	Se	82	**52.247**	**ug/L**	1.869	1780	0.011
	Kr	83		**ug/L**		124	0.000
>	Lu	175		**ug/L**		173732	173732.096
	Tl	205	**51.921**	**ug/L**	0.856	296201	1.698

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	112.930				
>	Sc	45		99.5			
	Ni	60	104.938				
>	Ge	74		97.5			
	As	75	106.197				
	Se	77					
	Se	82	104.494				
	Kr	83					
>	Lu	175		95.5			
	Tl	205	103.842				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 11, 2010 11:55:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 7.155

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.015**	**ug/L**	201.772	24	0.000
>	Sc	45		**ug/L**		664719	664719.095
	Ni	60	**-0.026**	**ug/L**	75.356	147	-0.000
>	Ge	74		**ug/L**		174703	174702.842
	As	75	**-0.573**	**ug/L**	55.121	74	-0.002
	Se	77		**ug/L**		4329	-0.002
	Se	82	**0.374**	**ug/L**	125.159	-25	0.000
	Kr	83		**ug/L**		98	-0.000
>	Lu	175		**ug/L**		175043	175042.879
	Tl	205	**-0.055**	**ug/L**	7.391	935	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.0			
	Ni	60					
>	Ge	74		98.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, May 11, 2010 23:34:39
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100506\Sample.242
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1776.7	1776.711	42.074	2.4
	Mg	24.0	44428.2	44428.183	415.223	0.9
	Co	58.9	20750.9	20750.860	94.875	0.5
	Rh	102.9	44715.7	44715.680	489.551	1.1
	In	114.9	52761.9	52761.859	408.680	0.8
	Pb	208.0	45381.6	45381.570	276.280	0.6
⌈>	Ba	137.9	54651.5	54651.516	242.066	0.4
⌊	Ba++	69.0	625.9	0.011	0.000	1.5
⌈>	Ce	139.9	65021.6	65021.643	448.821	0.7
⌊	CeO	155.9	904.2	0.014	0.000	3.4
	Bkgd	220.0	19.5	19.500	1.581	8.1

Current Optimization File Data

Current Value	Description
0.73	Nebulizer Gas Flow
9.00	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	15	7.8	2463.9
Co	59	15	8.5	20243.0
In	115	15	10.0	53142.0

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	579	2080	0.639
Be	9.0	9.0	2040	2080	0.662
Mg	24.0	24.0	5680	2120	0.615
Mg	25.0	24.9	5907	2080	0.692
Mg	26.0	26.0	6158	2120	0.670
Co	58.9	59.0	14182	2170	0.648
Rh	102.9	102.9	24844	2230	0.697
In	114.9	114.9	27784	2260	0.688
Ce	139.9	139.9	33845	2280	0.755
Pb	206.0	206.0	49948	2424	0.727
Pb	207.0	206.9	50125	2385	0.672
Pb	208.0	207.9	50451	2430	0.731
U	238.1	238.1	57733	2470	0.724

Report Date/Time: Tuesday, May 11, 2010 23:33:18

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, May 12, 2010 06:41:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\Blank.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		22	
>	Sc	45		ug/L		561392	
>	Ge	74		ug/L		168311	
	As	75		ug/L		582	
	Se	77		ug/L		7455	
	Se	82		ug/L		-36	
	Kr	83		ug/L		113	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, May 12, 2010 06:45:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\Standard 1.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	2.141	2646	0.005
>	Sc	45		ug/L		544533	544532.874
>	Ge	74		ug/L		163152	163152.382
	As	75	10.000	ug/L	11.517	4826	0.026
	Se	77		ug/L		4730	-0.015
	Se	82	10.000	ug/L	8.826	270	0.002
	Kr	83		ug/L		114	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, May 12, 2010 06:50:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\Standard 2.088

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**100.008**	**ug/L**	0.996	25843	0.049
⌊>	Sc	45		**ug/L**		531106	531105.896
⌈>	Ge	74		**ug/L**		158199	158199.305
|	As	75	**100.101**	**ug/L**	0.955	46526	0.291
|	Se	77		**ug/L**		6774	-0.001
|	Se	82	**100.093**	**ug/L**	3.100	3225	0.021
⌊	Kr	83		**ug/L**		132	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45					
⌈>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, May 12, 2010 06:54:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 1.089

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.945**	**ug/L**	1.332	13921	0.026
>	Sc	45		**ug/L**		529976	529975.768
>	Ge	74		**ug/L**		156478	156478.307
	As	75	**53.530**	**ug/L**	1.142	24862	0.155
	Se	77		**ug/L**		5366	-0.010
	Se	82	**55.429**	**ug/L**	1.674	1752	0.011
	Kr	83		**ug/L**		110	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	107.889				
>	Sc	45		94.4			
>	Ge	74		93.0			
	As	75	107.060				
	Se	77					
	Se	82	110.858				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Se	82	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, May 12, 2010 06:58:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 2.090

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.006	ug/L	288.742	21	-0.000
>	Sc	45		ug/L		572262	572262.475
>	Ge	74		ug/L		165183	165182.822
	As	75	-1.059	ug/L	129.945	64	-0.003
	Se	77		ug/L		7290	-0.000
	Se	82	-0.285	ug/L	177.440	-45	-0.000
	Kr	83		ug/L		115	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.9			
>	Ge	74		98.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, May 12, 2010 07:02:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 3.091

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.595**	**ug/L**	8.571	183	0.000
>	Sc	45		**ug/L**		558419	558419.381
>	Ge	74		**ug/L**		164922	164922.172
	As	75	**5.177**	**ug/L**	9.801	3049	0.015
	Se	77		**ug/L**		4596	-0.016
	Se	82	**5.455**	**ug/L**	10.786	150	0.001
	Kr	83		**ug/L**		129	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	118.907				
>	Sc	45		99.5			
>	Ge	74		98.0			
	As	75	103.530				
	Se	77					
	Se	82	109.106				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, May 12, 2010 07:07:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 4.092

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.117**	**ug/L**	26.908	46	0.000
>	Sc	45		**ug/L**		479367	479366.614
>	Ge	74		**ug/L**		143010	143010.394
	As	75	**-0.734**	**ug/L**	63.394	191	-0.002
	Se	77		**ug/L**		5063	-0.009
	Se	82	**-1.337**	**ug/L**	86.487	-70	-0.000
	Kr	83		**ug/L**		135	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		85.4			
>	Ge	74		85.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, May 12, 2010 07:11:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 5.093

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**20.449**	**ug/L**	1.709	4782	0.010
>	Sc	45		**ug/L**		479075	479074.574
>	Ge	74		**ug/L**		142073	142072.747
	As	75	**20.502**	**ug/L**	2.865	8950	0.060
	Se	77		**ug/L**		5318	-0.007
	Se	82	**21.551**	**ug/L**	4.512	600	0.004
	Kr	83		**ug/L**		116	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	102.244				
>	Sc	45		85.3			
>	Ge	74		84.4			
	As	75	102.509				
	Se	77					
	Se	82	107.753				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 12, 2010 07:15:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 6.094

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.513**	**ug/L**	0.710	13765	0.027
>	Sc	45		**ug/L**		518593	518593.197
>	Ge	74		**ug/L**		153152	153152.473
	As	75	**54.932**	**ug/L**	4.063	24959	0.160
	Se	77		**ug/L**		5325	-0.010
	Se	82	**54.807**	**ug/L**	2.621	1695	0.011
	Kr	83		**ug/L**		107	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	109.026				
>	Sc	45		92.4			
>	Ge	74		91.0			
	As	75	109.863				
	Se	77					
	Se	82	109.615				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 12, 2010 07:19:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 7.095

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.013	ug/L	112.295	19	-0.000
>	Sc	45		ug/L		565401	565401.083
>	Ge	74		ug/L		164685	164685.137
	As	75	-0.621	ug/L	110.491	271	-0.002
	Se	77		ug/L		7264	-0.000
	Se	82	0.069	ug/L	386.642	-33	0.000
	Kr	83		ug/L		104	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.7			
>	Ge	74		97.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068053
Sample Date/Time: Wednesday, May 12, 2010 07:23:54
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\1202068053.096

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.014	ug/L	96.874	18	-0.000
>	Sc	45		ug/L		543389	543388.738
>	Ge	74		ug/L		159378	159377.936
	As	75	-1.666	ug/L	30.372	-221	-0.005
	Se	77		ug/L		3576	-0.022
	Se	82	0.175	ug/L	553.787	-28	0.000
	Kr	83		ug/L		91	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.8			
>	Ge	74		94.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068058
Sample Date/Time: Wednesday, May 12, 2010 07:28:09
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 963995|40|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\1202068058.097

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**22.166**	**ug/L**	0.991	6063	0.011
>	Sc	45		**ug/L**		560547	560546.857
>	Ge	74		**ug/L**		163387	163386.696
	As	75	**28.039**	**ug/L**	2.335	13870	0.081
	Se	77		**ug/L**		7952	0.004
	Se	82	**80.263**	**ug/L**	0.963	2665	0.017
	Kr	83		**ug/L**		103	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.8			
>	Ge	74		97.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 12, 2010 07:40:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 6.100

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.752**	**ug/L**	1.521	13876	0.025
>	Sc	45		**ug/L**		550697	550696.793
>	Ge	74		**ug/L**		159746	159746.201
	As	75	**53.688**	**ug/L**	1.292	25458	0.156
	Se	77		**ug/L**		5262	-0.011
	Se	82	**53.324**	**ug/L**	5.823	1720	0.011
	Kr	83		**ug/L**		97	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	103.504				
>	Sc	45		98.1			
>	Ge	74		94.9			
	As	75	107.376				
	Se	77					
	Se	82	106.649				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 12, 2010 07:45:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 7.101

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.003	ug/L	334.969	22	-0.000
>	Sc	45		ug/L		593234	593233.887
>	Ge	74		ug/L		166906	166906.486
	As	75	-0.738	ug/L	87.424	222	-0.002
	Se	77		ug/L		7137	-0.002
	Se	82	0.033	ug/L	1109.476	-34	0.000
	Kr	83		ug/L		99	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		105.7			
>	Ge	74		99.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834001
Sample Date/Time: Wednesday, May 12, 2010 07:49:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\248834001.102

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.646**	**ug/L**	3.281	488	0.001
>	Sc	45		**ug/L**		581309	581309.368
>	Ge	74		**ug/L**		163597	163596.751
	As	75	**2.137**	**ug/L**	22.797	1580	0.006
	Se	77		**ug/L**		3658	-0.022
	Se	82	**0.372**	**ug/L**	175.467	-22	0.000
	Kr	83		**ug/L**		139	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.5			
>	Ge	74		97.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068054
Sample Date/Time: Wednesday, May 12, 2010 07:53:35
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\1202068054.103

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.795**	**ug/L**	4.304	540	0.001
>	Sc	45		**ug/L**		591898	591897.789
>	Ge	74		**ug/L**		164604	164603.570
	As	75	**1.881**	**ug/L**	29.460	1468	0.005
	Se	77		**ug/L**		3526	-0.023
	Se	82	**1.083**	**ug/L**	34.999	2	0.000
	Kr	83		**ug/L**		127	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		105.4			
>	Ge	74		97.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068056
Sample Date/Time: Wednesday, May 12, 2010 07:57:50
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\1202068056.104

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**30.341**	**ug/L**	0.810	9007	0.015
>	Sc	45		**ug/L**		609034	609034.139
>	Ge	74		**ug/L**		164598	164598.255
	As	75	**44.086**	**ug/L**	1.612	21637	0.128
	Se	77		**ug/L**		3803	-0.021
	Se	82	**10.733**	**ug/L**	12.472	329	0.002
	Kr	83		**ug/L**		135	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		108.5			
>	Ge	74		97.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068057
Sample Date/Time: Wednesday, May 12, 2010 08:02:05
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\1202068057.105

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**27.603**	**ug/L**	0.678	8794	0.013
>	Sc	45		**ug/L**		653359	653359.408
>	Ge	74		**ug/L**		165942	165942.400
	As	75	**42.864**	**ug/L**	2.385	21223	0.124
	Se	77		**ug/L**		3837	-0.021
	Se	82	**10.844**	**ug/L**	10.751	335	0.002
	Kr	83		**ug/L**		130	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		116.4			
>	Ge	74		98.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068055
Sample Date/Time: Wednesday, May 12, 2010 08:06:20
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 963995|10|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\1202068055.106

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.346**	**ug/L**	11.755	136	0.000
>	Sc	45		**ug/L**		654315	654314.722
>	Ge	74		**ug/L**		175656	175656.289
	As	75	**-0.478**	**ug/L**	198.856	367	-0.001
	Se	77		**ug/L**		5741	-0.012
	Se	82	**0.439**	**ug/L**	65.007	-21	0.000
	Kr	83		**ug/L**		90	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		116.6			
>	Ge	74		104.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834002
Sample Date/Time: Wednesday, May 12, 2010 08:10:35
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\248834002.107

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.629**	**ug/L**	3.691	848	0.001
>	Sc	45		**ug/L**		643377	643376.950
>	Ge	74		**ug/L**		168786	168785.944
	As	75	**7.393**	**ug/L**	9.169	4208	0.021
	Se	77		**ug/L**		3497	-0.024
	Se	82	**0.040**	**ug/L**	1413.045	-34	0.000
	Kr	83		**ug/L**		126	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		114.6			
>	Ge	74		100.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834003
Sample Date/Time: Wednesday, May 12, 2010 08:14:51
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\248834003.108

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.656**	**ug/L**	15.923	222	0.000
>	Sc	45		**ug/L**		619636	619635.549
>	Ge	74		**ug/L**		171545	171544.897
	As	75	**1.422**	**ug/L**	27.620	1301	0.004
	Se	77		**ug/L**		3672	-0.023
	Se	82	**1.162**	**ug/L**	48.048	5	0.000
	Kr	83		**ug/L**		112	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		110.4			
>	Ge	74		101.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834004
Sample Date/Time: Wednesday, May 12, 2010 08:19:06
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\248834004.109

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.630**	**ug/L**	8.578	513	0.001
>	Sc	45		**ug/L**		616745	616745.492
>	Ge	74		**ug/L**		168894	168894.216
	As	75	**2.986**	**ug/L**	11.801	2048	0.009
	Se	77		**ug/L**		3631	-0.023
	Se	82	**0.439**	**ug/L**	54.474	-20	0.000
	Kr	83		**ug/L**		132	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		109.9			
>	Ge	74		100.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 12, 2010 08:23:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 6.110

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.225**	**ug/L**	2.139	16407	0.025
>	Sc	45		**ug/L**		645222	645222.179
>	Ge	74		**ug/L**		169050	169050.449
	As	75	**51.669**	**ug/L**	0.582	25949	0.150
	Se	77		**ug/L**		5335	-0.013
	Se	82	**53.582**	**ug/L**	1.470	1829	0.011
	Kr	83		**ug/L**		95	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	104.450				
>	Sc	45		114.9			
>	Ge	74		100.4			
	As	75	103.338				
	Se	77					
	Se	82	107.163				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 12, 2010 08:27:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 7.111

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.017**	**ug/L**	13.689	19	-0.000
>	Sc	45		**ug/L**		629652	629652.339
>	Ge	74		**ug/L**		173211	173211.491
	As	75	**-1.291**	**ug/L**	36.485	-49	-0.004
	Se	77		**ug/L**		7101	-0.003
	Se	82	**0.068**	**ug/L**	653.267	-34	0.000
	Kr	83		**ug/L**		108	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		112.2			
>	Ge	74		102.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834005
Sample Date/Time: Wednesday, May 12, 2010 08:31:48
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\248834005.112

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.263**	**ug/L**	5.841	411	0.001
>	Sc	45		**ug/L**		628804	628804.298
>	Ge	74		**ug/L**		169803	169802.909
	As	75	**0.960**	**ug/L**	77.901	1061	0.003
	Se	77		**ug/L**		3662	-0.023
	Se	82	**0.974**	**ug/L**	65.489	-2	0.000
	Kr	83		**ug/L**		114	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		112.0			
>	Ge	74		100.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834006
Sample Date/Time: Wednesday, May 12, 2010 08:36:04
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\248834006.113

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	2.421	ug/L	6.878	778	0.001
>	Sc	45		ug/L		639813	639812.907
>	Ge	74		ug/L		169888	169887.921
	As	75	2.702	ug/L	20.006	1922	0.008
	Se	77		ug/L		3579	-0.023
	Se	82	0.512	ug/L	4.905	-18	0.000
	Kr	83		ug/L		124	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		114.0			
>	Ge	74		100.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834007
Sample Date/Time: Wednesday, May 12, 2010 08:40:19
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\248834007.114

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.349**	**ug/L**	1.888	428	0.001
>	Sc	45		**ug/L**		616051	616051.043
>	Ge	74		**ug/L**		165651	165650.575
	As	75	**2.241**	**ug/L**	6.470	1651	0.007
	Se	77		**ug/L**		3652	-0.022
	Se	82	**0.039**	**ug/L**	595.255	-34	0.000
	Kr	83		**ug/L**		124	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		109.7			
>	Ge	74		98.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834008
Sample Date/Time: Wednesday, May 12, 2010 08:44:35
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\248834008.115

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.155**	**ug/L**	5.539	376	0.001
>	Sc	45		**ug/L**		626602	626601.604
>	Ge	74		**ug/L**		168834	168834.347
	As	75	**0.878**	**ug/L**	16.413	1015	0.003
	Se	77		**ug/L**		3616	-0.023
	Se	82	**0.406**	**ug/L**	46.197	-22	0.000
	Kr	83		**ug/L**		123	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		111.6			
>	Ge	74		100.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834009
Sample Date/Time: Wednesday, May 12, 2010 08:48:51
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\248834009.116

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.858**	**ug/L**	1.711	599	0.001
>	Sc	45		**ug/L**		636187	636186.544
>	Ge	74		**ug/L**		167833	167832.882
	As	75	**2.684**	**ug/L**	4.322	1888	0.008
	Se	77		**ug/L**		3473	-0.024
	Se	82	**0.061**	**ug/L**	800.923	-34	0.000
	Kr	83		**ug/L**		138	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		113.3			
>	Ge	74		99.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834010
Sample Date/Time: Wednesday, May 12, 2010 08:53:06
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\248834010.117

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**1.636**	**ug/L**	4.593	544	0.001
⌊>	Sc	45		**ug/L**		651715	651715.051
⌈>	Ge	74		**ug/L**		168522	168521.840
|	As	75	**2.631**	**ug/L**	10.305	1871	0.008
|	Se	77		**ug/L**		3451	-0.024
|	Se	82	**0.271**	**ug/L**	102.361	-26	0.000
⌊	Kr	83		**ug/L**		150	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		116.1			
⌈>	Ge	74		100.1			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834011
Sample Date/Time: Wednesday, May 12, 2010 08:57:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\248834011.118

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.674**	**ug/L**	3.969	882	0.001
>	Sc	45		**ug/L**		658926	658925.594
>	Ge	74		**ug/L**		169018	169018.247
	As	75	**4.116**	**ug/L**	22.980	2611	0.012
	Se	77		**ug/L**		3237	-0.025
	Se	82	**0.204**	**ug/L**	61.798	-29	0.000
	Kr	83		**ug/L**		150	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		117.4			
>	Ge	74		100.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 12, 2010 09:05:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 6.120

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.783**	**ug/L**	2.119	15339	0.026
>	Sc	45		**ug/L**		596881	596880.793
>	Ge	74		**ug/L**		163297	163297.323
	As	75	**50.908**	**ug/L**	1.069	24704	0.148
	Se	77		**ug/L**		4953	-0.014
	Se	82	**51.324**	**ug/L**	1.466	1691	0.011
	Kr	83		**ug/L**		99	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	105.567				
>	Sc	45		106.3			
>	Ge	74		97.0			
	As	75	101.816				
	Se	77					
	Se	82	102.647				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 12, 2010 09:10:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 7.121

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.016	ug/L	50.290	20	-0.000
>	Sc	45		ug/L		623131	623131.385
>	Ge	74		ug/L		169724	169724.289
	As	75	-0.830	ug/L	73.139	178	-0.002
	Se	77		ug/L		6708	-0.005
	Se	82	0.174	ug/L	87.674	-30	0.000
	Kr	83		ug/L		102	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		111.0			
>	Ge	74		100.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, May 13, 2010 00:21:48
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100506\Sample.246
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2037.5	2037.545	49.122	2.4
	Mg	24.0	19030.3	19030.268	191.474	1.0
	Co	58.9	30324.8	30324.753	205.150	0.7
	Rh	102.9	73874.1	73874.126	615.123	0.8
	In	114.9	88805.8	88805.795	932.517	1.1
	Pb	208.0	79191.3	79191.297	576.293	0.7
⌈>	Ba	137.9	88686.0	88686.018	779.662	0.9
⌊	Ba++	69.0	861.7	0.010	0.000	2.0
⌈>	Ce	139.9	114050.3	114050.273	880.342	0.8
⌊	CeO	155.9	1786.7	0.016	0.000	1.5
	Bkgd	220.0	17.6	17.600	1.981	11.3

Current Optimization File Data

Current Value	Description
0.92	Nebulizer Gas Flow
9.00	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	15	9.0	2752.3
Co	59	15	9.5	42364.7
In	115	15	10.5	104887.0

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	581	2080	0.641
Be	9.0	9.0	2043	2080	0.656
Mg	24.0	24.0	5678	2120	0.639
Mg	25.0	25.0	5905	2080	0.690
Mg	26.0	26.0	6168	2120	0.695
Co	58.9	58.9	14168	2170	0.655
Rh	102.9	102.9	24849	2230	0.703
In	114.9	114.9	27789	2260	0.693
Ce	139.9	139.9	33850	2280	0.751
Pb	206.0	206.0	49960	2424	0.778
Pb	207.0	207.0	50125	2385	0.709
Pb	208.0	208.0	50451	2430	0.727
U	238.1	238.1	57739	2470	0.723

Report Date/Time: Thursday, May 13, 2010 00:06:59

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, May 13, 2010 01:47:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\Blank.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		16	
>	Sc	45		ug/L		502015	
>	Ge	74		ug/L		194143	
	As	75		ug/L		-324	
	Se	77		ug/L		5549	
	Se	82		ug/L		0	
	Kr	83		ug/L		72	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, May 13, 2010 01:51:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\Standard 1.019

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	2.899	3187	0.006
>	Sc	45		ug/L		510881	510880.883
>	Ge	74		ug/L		198418	198417.781
	As	75	10.000	ug/L	3.964	5924	0.032
	Se	77		ug/L		6004	0.002
	Se	82	10.000	ug/L	4.751	626	0.003
	Kr	83		ug/L		69	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, May 13, 2010 01:55:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\Standard 2.020

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**100.051**	**ug/L**	0.753	31677	0.065
>	Sc	45		**ug/L**		483871	483870.737
>	Ge	74		**ug/L**		190409	190409.475
	As	75	**100.059**	**ug/L**	0.162	63515	0.335
	Se	77		**ug/L**		9554	0.022
	Se	82	**100.060**	**ug/L**	1.444	6394	0.034
	Kr	83		**ug/L**		84	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, May 13, 2010 01:59:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 1.021

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.221**	**ug/L**	1.160	16420	0.032
>	Sc	45		**ug/L**		520143	520142.717
>	Ge	74		**ug/L**		198268	198268.025
	As	75	**49.441**	**ug/L**	0.888	32511	0.166
	Se	77		**ug/L**		7299	0.008
	Se	82	**50.314**	**ug/L**	3.303	3348	0.017
	Kr	83		**ug/L**		70	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	96.442				
>	Sc	45		103.6			
>	Ge	74		102.1			
	As	75	98.882				
	Se	77					
	Se	82	100.628				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, May 13, 2010 02:03:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 2.022

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.009**	**ug/L**	142.625	21	0.000
>	Sc	45		**ug/L**		535961	535960.753
>	Ge	74		**ug/L**		203731	203731.129
	As	75	**-0.072**	**ug/L**	774.767	-390	-0.000
	Se	77		**ug/L**		5179	-0.003
	Se	82	**0.113**	**ug/L**	54.550	8	0.000
	Kr	83		**ug/L**		63	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		106.8			
>	Ge	74		104.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, May 13, 2010 02:08:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 3.023

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.553**	**ug/L**	14.429	204	0.000
>	Sc	45		**ug/L**		516664	516664.226
>	Ge	74		**ug/L**		201036	201035.991
	As	75	**6.375**	**ug/L**	4.131	3958	0.021
	Se	77		**ug/L**		5630	-0.001
	Se	82	**5.895**	**ug/L**	8.478	398	0.002
	Kr	83		**ug/L**		71	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	110.563				
>	Sc	45		102.9			
>	Ge	74		103.6			
	As	75	127.508				
	Se	77					
	Se	82	117.891				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, May 13, 2010 02:12:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 4.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.086**	**ug/L**	26.672	42	0.000
>	Sc	45		**ug/L**		468227	468227.241
>	Ge	74		**ug/L**		181310	181309.798
	As	75	**0.625**	**ug/L**	103.477	77	0.002
	Se	77		**ug/L**		4318	-0.005
	Se	82	**-2.057**	**ug/L**	3.923	-125	-0.001
	Kr	83		**ug/L**		204	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.3			
>	Ge	74		93.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, May 13, 2010 02:16:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 5.025

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**17.443**	**ug/L**	1.773	5398	0.011
>	Sc	45		**ug/L**		471927	471927.407
>	Ge	74		**ug/L**		183362	183362.259
	As	75	**19.136**	**ug/L**	3.418	11446	0.064
	Se	77		**ug/L**		4911	-0.002
	Se	82	**17.861**	**ug/L**	1.764	1099	0.006
	Kr	83		**ug/L**		196	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	87.215				
>	Sc	45		94.0			
>	Ge	74		94.4			
	As	75	95.679				
	Se	77					
	Se	82	89.304				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 13, 2010 02:20:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 6.026

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.603**	**ug/L**	1.731	15683	0.031
>	Sc	45		**ug/L**		503300	503299.800
>	Ge	74		**ug/L**		197259	197258.558
	As	75	**49.290**	**ug/L**	1.420	32248	0.165
	Se	77		**ug/L**		6696	0.005
	Se	82	**49.566**	**ug/L**	0.730	3281	0.017
	Kr	83		**ug/L**		77	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	95.206				
>	Sc	45		100.3			
>	Ge	74		101.6			
	As	75	98.579				
	Se	77					
	Se	82	99.132				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 13, 2010 02:25:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 7.027

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.012**	**ug/L**	128.620	21	0.000
>	Sc	45		**ug/L**		524482	524481.574
>	Ge	74		**ug/L**		202673	202672.942
	As	75	**0.340**	**ug/L**	133.845	-107	0.001
	Se	77		**ug/L**		4824	-0.005
	Se	82	**-0.058**	**ug/L**	242.220	-4	-0.000
	Kr	83		**ug/L**		72	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		104.5			
>	Ge	74		104.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068053
Sample Date/Time: Thursday, May 13, 2010 02:29:17
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\1202068053.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.012	ug/L	92.082	14	-0.000
>	Sc	45		ug/L		561049	561049.130
>	Ge	74		ug/L		209112	209111.809
	As	75	0.442	ug/L	91.113	-39	0.001
	Se	77		ug/L		4811	-0.006
	Se	82	-0.166	ug/L	17.863	-12	-0.000
	Kr	83		ug/L		69	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		111.8			
>	Ge	74		107.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068058
Sample Date/Time: Thursday, May 13, 2010 02:33:32
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 963995|40|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\1202068058.029

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**18.469**	**ug/L**	1.989	7382	0.012
>	Sc	45		**ug/L**		609552	609551.958
>	Ge	74		**ug/L**		228741	228741.418
	As	75	**23.457**	**ug/L**	3.351	17595	0.079
	Se	77		**ug/L**		11996	0.024
	Se	82	**64.035**	**ug/L**	2.055	4916	0.021
	Kr	83		**ug/L**		87	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		121.4			
>	Ge	74		117.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 13, 2010 02:46:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 6.032

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**46.732**	**ug/L**	0.949	16869	0.031
>	Sc	45		**ug/L**		551388	551387.778
>	Ge	74		**ug/L**		210824	210824.380
	As	75	**49.521**	**ug/L**	1.427	34627	0.166
	Se	77		**ug/L**		7747	0.008
	Se	82	**49.551**	**ug/L**	2.332	3506	0.017
	Kr	83		**ug/L**		76	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	93.464				
>	Sc	45		109.8			
>	Ge	74		108.6			
	As	75	99.042				
	Se	77					
	Se	82	99.102				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 13, 2010 02:50:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 7.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.017	ug/L	93.881	24	0.000
>	Sc	45		ug/L		544133	544132.999
>	Ge	74		ug/L		207979	207978.754
	As	75	0.171	ug/L	142.770	-229	0.001
	Se	77		ug/L		5462	-0.002
	Se	82	0.052	ug/L	474.369	4	0.000
	Kr	83		ug/L		69	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		108.4			
>	Ge	74		107.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834001
Sample Date/Time: Thursday, May 13, 2010 02:54:44
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\248834001.034

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.296**	**ug/L**	2.041	503	0.001
>	Sc	45		**ug/L**		571211	571210.546
>	Ge	74		**ug/L**		208302	208302.402
	As	75	**2.418**	**ug/L**	12.884	1339	0.008
	Se	77		**ug/L**		5240	-0.003
	Se	82	**0.518**	**ug/L**	39.511	36	0.000
	Kr	83		**ug/L**		129	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		113.8			
>	Ge	74		107.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068054
Sample Date/Time: Thursday, May 13, 2010 02:58:58
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\1202068054.035

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.507**	**ug/L**	2.232	570	0.001
>	Sc	45		**ug/L**		559501	559500.530
>	Ge	74		**ug/L**		204383	204383.037
	As	75	**2.280**	**ug/L**	6.173	1220	0.008
	Se	77		**ug/L**		4784	-0.005
	Se	82	**0.619**	**ug/L**	62.799	43	0.000
	Kr	83		**ug/L**		133	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		111.5			
>	Ge	74		105.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068056
Sample Date/Time: Thursday, May 13, 2010 03:03:13
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\1202068056.036

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**23.255**	**ug/L**	3.591	8705	0.015
>	Sc	45		**ug/L**		571238	571237.535
>	Ge	74		**ug/L**		203608	203607.838
	As	75	**35.124**	**ug/L**	2.336	23616	0.118
	Se	77		**ug/L**		5181	-0.003
	Se	82	**8.212**	**ug/L**	4.580	561	0.003
	Kr	83		**ug/L**		148	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		113.8			
>	Ge	74		104.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068057
Sample Date/Time: Thursday, May 13, 2010 03:07:28
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\1202068057.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**22.281**	**ug/L**	0.836	8317	0.015
>	Sc	45		**ug/L**		569535	569535.134
>	Ge	74		**ug/L**		202635	202635.381
	As	75	**34.591**	**ug/L**	2.157	23147	0.116
	Se	77		**ug/L**		5003	-0.004
	Se	82	**8.229**	**ug/L**	2.396	560	0.003
	Kr	83		**ug/L**		151	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		113.4			
>	Ge	74		104.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068055
Sample Date/Time: Thursday, May 13, 2010 03:11:44
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 963995|10|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\1202068055.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.259**	**ug/L**	13.564	121	0.000
>	Sc	45		**ug/L**		600615	600614.657
>	Ge	74		**ug/L**		217638	217637.648
	As	75	**0.067**	**ug/L**	705.192	-315	0.000
	Se	77		**ug/L**		7993	0.008
	Se	82	**-0.121**	**ug/L**	70.079	-9	-0.000
	Kr	83		**ug/L**		88	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		119.6			
>	Ge	74		112.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834002
Sample Date/Time: Thursday, May 13, 2010 03:15:59
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\248834002.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.998**	**ug/L**	6.892	759	0.001
>	Sc	45		**ug/L**		566822	566821.536
>	Ge	74		**ug/L**		193281	193281.334
	As	75	**6.952**	**ug/L**	4.273	4179	0.023
	Se	77		**ug/L**		3915	-0.008
	Se	82	**-0.076**	**ug/L**	264.816	-5	-0.000
	Kr	83		**ug/L**		144	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		112.9			
>	Ge	74		99.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834003
Sample Date/Time: Thursday, May 13, 2010 03:20:14
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\248834003.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.490**	**ug/L**	7.803	189	0.000
>	Sc	45		**ug/L**		534016	534015.574
>	Ge	74		**ug/L**		193645	193645.203
	As	75	**1.445**	**ug/L**	16.370	614	0.005
	Se	77		**ug/L**		4100	-0.007
	Se	82	**0.575**	**ug/L**	66.199	37	0.000
	Kr	83		**ug/L**		139	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		106.4			
>	Ge	74		99.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834004
Sample Date/Time: Thursday, May 13, 2010 03:24:29
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\248834004.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.207**	**ug/L**	3.903	441	0.001
>	Sc	45		**ug/L**		536454	536454.185
>	Ge	74		**ug/L**		192934	192934.018
	As	75	**3.190**	**ug/L**	6.632	1740	0.011
	Se	77		**ug/L**		4229	-0.007
	Se	82	**0.268**	**ug/L**	83.733	17	0.000
	Kr	83		**ug/L**		141	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		106.9			
>	Ge	74		99.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 13, 2010 03:28:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 6.042

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.411**	**ug/L**	0.784	16397	0.031
>	Sc	45		**ug/L**		528281	528280.509
>	Ge	74		**ug/L**		201376	201376.081
	As	75	**49.812**	**ug/L**	1.543	33270	0.167
	Se	77		**ug/L**		7066	0.007
	Se	82	**49.764**	**ug/L**	2.055	3363	0.017
	Kr	83		**ug/L**		77	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	94.822				
>	Sc	45		105.2			
>	Ge	74		103.7			
	As	75	99.623				
	Se	77					
	Se	82	99.527				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 13, 2010 03:32:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 7.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.001	ug/L	930.413	18	0.000
>	Sc	45		ug/L		529153	529153.346
>	Ge	74		ug/L		200325	200325.440
	As	75	-0.130	ug/L	245.250	-422	-0.000
	Se	77		ug/L		4731	-0.005
	Se	82	-0.071	ug/L	243.172	-5	-0.000
	Kr	83		ug/L		82	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		105.4			
>	Ge	74		103.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834005
Sample Date/Time: Thursday, May 13, 2010 03:37:12
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\248834005.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.020**	**ug/L**	3.915	390	0.001
>	Sc	45		**ug/L**		557822	557821.540
>	Ge	74		**ug/L**		199744	199744.399
	As	75	**1.512**	**ug/L**	31.393	677	0.005
	Se	77		**ug/L**		4528	-0.006
	Se	82	**0.258**	**ug/L**	74.735	17	0.000
	Kr	83		**ug/L**		115	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		111.1			
>	Ge	74		102.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834006
Sample Date/Time: Thursday, May 13, 2010 03:41:27
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\248834006.045

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.690**	**ug/L**	6.241	656	0.001
>	Sc	45		**ug/L**		576435	576435.294
>	Ge	74		**ug/L**		195018	195018.392
	As	75	**3.363**	**ug/L**	9.473	1871	0.011
	Se	77		**ug/L**		3953	-0.008
	Se	82	**-0.297**	**ug/L**	39.834	-19	-0.000
	Kr	83		**ug/L**		163	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		114.8			
>	Ge	74		100.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834007
Sample Date/Time: Thursday, May 13, 2010 03:45:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\248834007.046

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.952	ug/L	5.402	359	0.001
>	Sc	45		ug/L		548534	548533.541
>	Ge	74		ug/L		194357	194357.455
	As	75	2.509	ug/L	17.854	1308	0.008
	Se	77		ug/L		3930	-0.008
	Se	82	-0.011	ug/L	1586.729	-1	-0.000
	Kr	83		ug/L		116	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		109.3			
>	Ge	74		100.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834008
Sample Date/Time: Thursday, May 13, 2010 03:49:58
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\248834008.047

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.802**	**ug/L**	7.415	304	0.001
>	Sc	45		**ug/L**		545526	545525.819
>	Ge	74		**ug/L**		195006	195005.543
	As	75	**1.530**	**ug/L**	19.936	673	0.005
	Se	77		**ug/L**		3927	-0.008
	Se	82	**0.248**	**ug/L**	73.168	16	0.000
	Kr	83		**ug/L**		122	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		108.7			
>	Ge	74		100.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834009
Sample Date/Time: Thursday, May 13, 2010 03:54:14
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\248834009.048

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.354**	**ug/L**	5.070	495	0.001
>	Sc	45		**ug/L**		539390	539389.871
>	Ge	74		**ug/L**		189482	189481.597
	As	75	**3.178**	**ug/L**	6.533	1701	0.011
	Se	77		**ug/L**		3499	-0.010
	Se	82	**-0.020**	**ug/L**	476.867	-1	-0.000
	Kr	83		**ug/L**		144	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		107.4			
>	Ge	74		97.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834010
Sample Date/Time: Thursday, May 13, 2010 03:58:30
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\248834010.049

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.203**	**ug/L**	9.903	440	0.001
>	Sc	45		**ug/L**		536969	536969.006
>	Ge	74		**ug/L**		190685	190684.632
	As	75	**2.948**	**ug/L**	20.199	1565	0.010
	Se	77		**ug/L**		3547	-0.010
	Se	82	**0.533**	**ug/L**	52.502	34	0.000
	Kr	83		**ug/L**		163	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		107.0			
>	Ge	74		98.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248834011
Sample Date/Time: Thursday, May 13, 2010 04:02:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 963995|2|rmj
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\248834011.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.055**	**ug/L**	7.187	764	0.001
>	Sc	45		**ug/L**		555056	555055.780
>	Ge	74		**ug/L**		191573	191572.633
	As	75	**4.128**	**ug/L**	11.294	2331	0.014
	Se	77		**ug/L**		3232	-0.012
	Se	82	**-0.126**	**ug/L**	67.093	-8	-0.000
	Kr	83		**ug/L**		164	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		110.6			
>	Ge	74		98.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 13, 2010 04:11:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 6.052

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**46.613**	**ug/L**	1.018	16188	0.030
>	Sc	45		**ug/L**		530452	530451.635
>	Ge	74		**ug/L**		198445	198444.796
	As	75	**50.340**	**ug/L**	0.976	33138	0.169
	Se	77		**ug/L**		6746	0.005
	Se	82	**50.667**	**ug/L**	1.533	3375	0.017
	Kr	83		**ug/L**		89	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	93.226				
>	Sc	45		105.7			
>	Ge	74		102.2			
	As	75	100.680				
	Se	77					
	Se	82	101.334				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 13, 2010 04:15:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beasse.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 7.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.009	ug/L	75.383	20	0.000
>	Sc	45		ug/L		532344	532344.142
>	Ge	74		ug/L		196602	196601.552
	As	75	0.021	ug/L	883.570	-314	0.000
	Se	77		ug/L		4066	-0.008
	Se	82	-0.184	ug/L	197.437	-12	-0.000
	Kr	83		ug/L		79	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		106.0			
>	Ge	74		101.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #7 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, May 26, 2010 12:14:02
Sample Description:
Method File: C:\elandata\Method\daily2.mth
Dataset File: C:\elandata\Dataset\default\Sample.584
Tuning File: C:\elandata\Tuning\Default.tun
Optimization File: C:\elandata\Optimize\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 80
Current Dead Time (ns): 80

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	3223.2	3223.231	91.957	2.9
	Mg	24.0	32246.0	32245.991	577.869	1.8
	Co	58.9	92560.0	92560.016	1018.613	1.1
	Rh	102.9	138335.0	138335.018	887.105	0.6
	In	114.9	173789.4	173789.424	1484.893	0.9
	Pb	208.0	95946.1	95946.135	1214.667	1.3
⌈>	Ba	137.9	153380.5	153380.495	1581.724	1.0
⌊	Ba++	69.0	2223.2	0.014	0.000	1.8
⌈>	Ce	139.9	196554.2	196554.210	2468.716	1.3
⌊	CeO	155.9	3679.3	0.019	0.001	3.9
	Bkgd	220.0	10.3	10.300	2.414	23.4

Current Optimization File Data

Current Value	Description
0.95	Nebulizer Gas Flow
8.00	Lens Voltage
1000.00	ICP RF Power
-1525.00	Analog Stage Voltage
750.00	Pulse Stage Voltage
14.00	Discriminator Threshold
-3.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	25	8.0	3982.3
Co	59	25	9.5	94248.3
In	115	25	10.8	157231.2

Instrument #7 Tuning Report

File Name: 100526.tun
File Path: C:\Elandata\Tuning\100526.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	569	2064	0.657
Be	9.0	9.0	2015	2060	0.635
Mg	24.0	24.0	5666	2080	0.586
Mg	25.0	25.0	5894	2070	0.556
Mg	26.0	26.0	6178	2070	0.584
Co	58.9	58.9	14151	2040	0.661
Rh	102.9	102.9	24879	2030	0.648
In	114.9	114.9	27789	2033	0.634
Ce	139.9	140.0	33883	2020	0.642
Pb	206.0	206.0	49942	1980	0.694
Pb	207.0	207.0	50201	2000	0.641
Pb	208.0	208.0	50467	1990	0.663
U	238.1	238.0	57764	1980	0.722

ICPMS#7 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, May 26, 2010 15:24:50
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\Blank.991

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133		ug/L		33	
⌊>	Lu	175		ug/L		168444	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, May 26, 2010 15:25:45
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\Standard 1.992

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	10.000	ug/L	1.396	91258	0.550
Lu	175		ug/L		165871	165870.906

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, May 26, 2010 15:26:41
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\Standard 2.993

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**99.973**	**ug/L**	0.686	904014	5.354
Lu	175		**ug/L**		168838	168837.545

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, May 26, 2010 15:27:37
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 1.994

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	51.248	ug/L	2.714	454873	2.745
Lu	175		ug/L		165679	165679.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	102.496				
Lu	175		98.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, May 26, 2010 15:28:34
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 2.995

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	0.008	ug/L	3.286	109	0.000
Lu	175		ug/L		172004	172004.369

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		102.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, May 26, 2010 15:29:30
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 3.996

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**0.379**	**ug/L**	33.648	4152	0.020
⌊>	Lu	175		**ug/L**		218999	218998.562

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133	75.803				
⌊>	Lu	175		130.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu 175 Int Std for Q	Lu	175	

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, May 26, 2010 15:30:27
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 4.997

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**0.079**	**ug/L**	9.288	804	0.004
⌊>	Lu	175		**ug/L**		183248	183247.800

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		108.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, May 26, 2010 15:31:23
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 5.998

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**18.443**	**ug/L**	0.809	183898	0.988
⌊>	Lu	175		**ug/L**		186143	186142.918

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133	92.214				
⌊>	Lu	175		110.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 26, 2010 15:32:19
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.999

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**48.992**	**ug/L**	0.909	473298	2.624
⌊>	Lu	175		**ug/L**		180394	180394.404

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133	97.983				
⌊>	Lu	175		107.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 26, 2010 15:33:17
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.1000

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	0.008	ug/L	14.379	109	0.000
⌊>	Lu	175		ug/L		178530	178529.612

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		106.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202116481
Sample Date/Time: Wednesday, May 26, 2010 15:34:14
Sample Type: Sample
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 983926|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202116481.1001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	0.002	ug/L	25.421	50	0.000
⌊>	Lu	175		ug/L		170741	170741.173

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		101.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202116482
Sample Date/Time: Wednesday, May 26, 2010 15:35:10
Sample Type: Sample
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 983926|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202116482.1002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**25.566**	**ug/L**	1.772	239963	1.369
⌊>	Lu	175		**ug/L**		175232	175232.393

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		104.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248834001
Sample Date/Time: Wednesday, May 26, 2010 15:36:06
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983926|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248834001.1003

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**0.646**	**ug/L**	2.060	6543	0.035
⌊>	Lu	175		**ug/L**		188128	188127.719

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		111.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068054
Sample Date/Time: Wednesday, May 26, 2010 15:37:03
Sample Type: Sample
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 983926|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202068054.1004

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	0.466	ug/L	1.357	4794	0.025
Lu	175		ug/L		190567	190566.936

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		113.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068056
Sample Date/Time: Wednesday, May 26, 2010 15:38:00
Sample Type: Sample
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 983926|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202068056.1005

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**26.103**	**ug/L**	1.112	261456	1.398
⌊>	Lu	175		**ug/L**		187037	187037.195

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		111.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068057
Sample Date/Time: Wednesday, May 26, 2010 15:38:56
Sample Type: Sample
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 983926|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202068057.1006

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	24.371	ug/L	0.687	249054	1.305
Lu	175		ug/L		190795	190795.424

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		113.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068055
Sample Date/Time: Wednesday, May 26, 2010 15:39:53
Sample Type: Sample
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 983926|10|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202068055.1007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**0.130**	**ug/L**	1.534	1322	0.007
⌊>	Lu	175		**ug/L**		185162	185161.510

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		109.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248834002
Sample Date/Time: Wednesday, May 26, 2010 15:40:50
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983926|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248834002.1008

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	5.792	ug/L	1.767	57677	0.310
Lu	175		ug/L		185873	185873.143

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		110.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 26, 2010 15:41:46
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.1009

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**51.349**	**ug/L**	3.715	482291	2.750
Lu	175		**ug/L**		175616	175615.642

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	102.698				
Lu	175		104.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 26, 2010 15:42:44
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.1010

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	0.006	ug/L	22.972	92	0.000
Lu	175		ug/L		181824	181823.640

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		107.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248834003
Sample Date/Time: Wednesday, May 26, 2010 15:43:41
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983926|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248834003.1011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	0.575	ug/L	2.230	5966	0.031
⌊>	Lu	175		ug/L		192731	192731.301

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		114.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248834004
Sample Date/Time: Wednesday, May 26, 2010 15:44:37
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983926|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248834004.1012

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**0.510**	**ug/L**	2.815	5300	0.027
Lu	175		**ug/L**		192617	192616.887

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		114.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248834005
Sample Date/Time: Wednesday, May 26, 2010 15:45:34
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983926|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248834005.1013

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**1.074**	**ug/L**	1.315	10888	0.058
⌊>	Lu	175		**ug/L**		188651	188651.480

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		112.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248834006
Sample Date/Time: Wednesday, May 26, 2010 15:46:31
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983926|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248834006.1014

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**3.528**	**ug/L**	1.363	34176	0.189
⌊>	Lu	175		**ug/L**		180729	180729.336

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		107.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248834007
Sample Date/Time: Wednesday, May 26, 2010 15:47:28
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983926|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248834007.1015

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**4.761**	**ug/L**	1.027	45330	0.255
Lu	175		**ug/L**		177683	177682.501

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		105.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248834008
Sample Date/Time: Wednesday, May 26, 2010 15:48:25
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983926|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248834008.1016

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**0.624**	**ug/L**	1.090	6231	0.033
Lu	175		**ug/L**		185218	185218.253

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		110.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248834009
Sample Date/Time: Wednesday, May 26, 2010 15:49:22
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983926|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248834009.1017

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**1.508**	**ug/L**	0.791	14783	0.081
⌊>	Lu	175		**ug/L**		182669	182669.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		108.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248834010
Sample Date/Time: Wednesday, May 26, 2010 15:50:18
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983926|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248834010.1018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**15.155**	**ug/L**	0.628	153971	0.812
⌊>	Lu	175		**ug/L**		189667	189666.692

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		112.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248834011
Sample Date/Time: Wednesday, May 26, 2010 15:51:15
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 983926|2|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248834011.1019

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**4.814**	**ug/L**	0.270	45955	0.258
⌊>	Lu	175		**ug/L**		178102	178101.944

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		105.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 26, 2010 15:52:12
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.1020

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	51.655	ug/L	1.239	469401	2.767
Lu	175		ug/L		169673	169672.916

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	103.311				
Lu	175		100.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 26, 2010 15:53:10
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.1021

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**0.006**	**ug/L**	14.998	86	0.000
Lu	175		**ug/L**		176183	176183.178

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		104.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\032410S1.SIF
Batch ID:
Results Data Set: 032410S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 3/16/2010 09:36:57**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/24/2010 09:24:39**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0007	0.0033	0.0007	09:25:32	Yes
2		[0.00]	0.0006	0.0026	0.0006	09:26:02	Yes
Mean:		[0.00]	0.0006				
SD:		0.00	0.0001				
%RSD:		0.00	7.96				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/24/2010 09:26:20**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0025	0.0155	0.0031	09:27:11	Yes
2		[0.2]	0.0025	0.0156	0.0031	09:27:40	Yes
Mean:		[0.2]	0.0025				
SD:		0.0	0.0000				
%RSD:		0.0	0.38				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01232 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/24/2010 09:28:00**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0064	0.0356	0.0070	09:28:51	Yes
2		[0.5]	0.0063	0.0345	0.0069	09:29:21	Yes
Mean:		[0.5]	0.0063				
SD:		0.0	0.0001				
%RSD:		0.0	1.27				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999934 Slope: 0.01265 Intercept: -0.00003

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/24/2010 09:29:40**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0258	0.1358	0.0265	09:30:31	Yes
2		[2.0]	0.0256	0.1334	0.0262	09:31:01	Yes
Mean:		[2.0]	0.0257				
SD:		0.0	0.0002				
%RSD:		0.0	0.65				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999988 Slope: 0.01288 Intercept: -0.00007

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/24/2010 09:31:21**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0621	0.3243	0.0627	09:32:13	Yes
2		[5.0]	0.0616	0.3190	0.0622	09:32:43	Yes
Mean:		[5.0]	0.0618				
SD:		0.0	0.0004				
%RSD:		0.0	0.58				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999865 Slope: 0.01238 Intercept: 0.00019

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/24/2010 09:33:03**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1178	0.6163	0.1185	09:33:54	Yes
2		[10.0]	0.1194	0.6216	0.1201	09:34:23	Yes
Mean:		[10.0]	0.1186				
SD:		0.0	0.0011				
%RSD:		0.0	0.95				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999718 Slope: 0.01189 Intercept: 0.00075

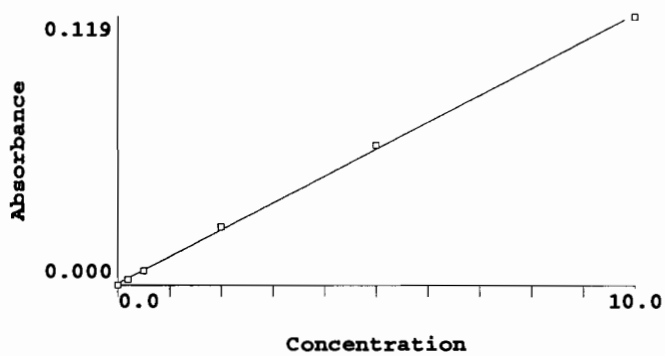

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.063	0.00	8.0
S0.2	0.0025	0.2	0.144	0.00	0.4
S0.5	0.0063	0.5	0.469	0.00	1.3
S2.0	0.0257	2.0	2.099	0.00	0.6

S5.0	0.0618	5.0	5.136	0.00	0.6
S10.0	0.1186	10.0	9.915	0.00	1.0

Correlation Coef.: 0.999718 Slope: 0.01189 Intercept: 0.00075

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/24/2010 09:34:42**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.181	5.181	0.0623	0.3260	0.0630	09:35:34	Yes
2	5.062	5.062	0.0609	0.3154	0.0616	09:36:04	Yes
Mean:	5.122	5.122	0.0616				
SD:	0.084	0.084	0.0010				
%RSD:	1.634	1.634	1.61				

QC value within limits for Hg 253.7 Recovery = 102.43%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/24/2010 09:36:23**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.079	-0.079	-0.0002	0.0016	0.0004	09:37:14	Yes
2	-0.077	-0.077	-0.0002	0.0018	0.0005	09:37:44	Yes
Mean:	-0.078	-0.078	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	2.384	2.384	12.14				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/24/2010 09:38:04**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.132	0.132	0.0023	0.0144	0.0030	09:38:55	Yes
2	0.126	0.126	0.0022	0.0144	0.0029	09:39:25	Yes
Mean:	0.129	0.129	0.0023				
SD:	0.005	0.005	0.0001				
%RSD:	3.623	3.623	2.44				

QC value within limits for Hg 253.7 Recovery = 64.54%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 09:39:45**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.060	5.060	0.0609	0.3200	0.0615	09:40:36	Yes
2	4.996	4.996	0.0601	0.3122	0.0608	09:41:06	Yes
Mean:	5.028	5.028	0.0605				
SD:	0.045	0.045	0.0005				
%RSD:	0.902	0.902	0.89				

QC value within limits for Hg 253.7 Recovery = 100.56%
All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 09:41:25**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.081	-0.081	-0.0002	0.0018	0.0004	09:42:15	Yes
2	-0.081	-0.081	-0.0002	0.0019	0.0004	09:42:45	Yes
Mean:	-0.081	-0.081	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.212	0.212	0.95				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202076821|967600|1 **Date Collected: 3/24/2010 09:43:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076821|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.082	-0.082	-0.0002	0.0017	0.0004	09:43:56	Yes
2	-0.085	-0.085	-0.0003	0.0016	0.0004	09:44:26	Yes
Mean:	-0.083	-0.083	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	2.755	2.755	11.15				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202076822|967600|10 **Date Collected: 3/24/2010 09:44:46**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076822|967600|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.136	3.136	0.0380	0.1988	0.0387	09:45:38	Yes
2	3.174	3.174	0.0385	0.2027	0.0391	09:46:08	Yes
Mean:	3.155	3.155	0.0383				
SD:	0.027	0.027	0.0003				
%RSD:	0.857	0.857	0.84				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 248834001|967600|1 **Date Collected: 3/24/2010 09:46:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834001|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.044	-0.044	0.0002	0.0040	0.0009	09:47:19	Yes
2	-0.050	-0.050	0.0002	0.0033	0.0008	09:47:49	Yes
Mean:	-0.047	-0.047	0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	8.317	8.317	25.32				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202076823|967600|1 **Date Collected: 3/24/2010 09:48:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076823|967600|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.062	-0.062	0.0000	0.0026	0.0007	09:48:58	Yes
2	-0.058	-0.058	0.0001	0.0030	0.0007	09:49:28	Yes
Mean:	-0.060	-0.060	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	4.586	4.586	87.83				

==========

Sequence No.: 16 **Autosampler Location: 16**
Sample ID: 1202076824|967600|1 **Date Collected: 3/24/2010 09:49:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076824|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.035	2.035	0.0249	0.1317	0.0256	09:50:38	Yes
2	2.014	2.014	0.0247	0.1301	0.0253	09:51:08	Yes
Mean:	2.024	2.024	0.0248				
SD:	0.015	0.015	0.0002				
%RSD:	0.764	0.764	0.74				

==========

Sequence No.: 17 **Autosampler Location: 17**
Sample ID: 1202076832|967600|1 **Date Collected: 3/24/2010 09:51:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076832|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.159	2.159	0.0264	0.1392	0.0271	09:52:17	Yes
2	2.137	2.137	0.0261	0.1372	0.0268	09:52:47	Yes
Mean:	2.148	2.148	0.0263				
SD:	0.016	0.016	0.0002				
%RSD:	0.730	0.730	0.71				

==========

Sequence No.: 18 **Autosampler Location: 18**
Sample ID: 1202076831|967600|5 **Date Collected: 3/24/2010 09:53:06**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076831|967600|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.078	-0.078	-0.0002	0.0019	0.0005	09:53:56	Yes
2	-0.076	-0.076	-0.0002	0.0021	0.0005	09:54:26	Yes
Mean:	-0.077	-0.077	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.323	1.323	7.12				

==========

Sequence No.: 19 **Autosampler Location: 19**
Sample ID: 248834002|967600|1 **Date Collected: 3/24/2010 09:54:45**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834002|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.39	10.39	0.1243	0.6528	0.1249	09:55:36	Yes
2	10.12	10.12	0.1211	0.6342	0.1218	09:56:06	Yes
Mean:	10.26	10.26	0.1227				
SD:	0.189	0.189	0.0022				
%RSD:	1.839	1.839	1.83				

==========

Sequence No.: 20 **Autosampler Location: 20**
Sample ID: 248834003|967600|1 **Date Collected: 3/24/2010 09:56:25**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834003|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.322	0.322	0.0046	0.0264	0.0052	09:57:16	Yes
2	0.319	0.319	0.0045	0.0264	0.0052	09:57:45	Yes
Mean:	0.320	0.320	0.0046				
SD:	0.002	0.002	0.0000				
%RSD:	0.753	0.753	0.63				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 248834004|967600|1 **Date Collected: 3/24/2010 09:58:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834004|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.065	-0.065	-0.0000	0.0032	0.0006	09:58:56	Yes
2	-0.066	-0.066	-0.0000	0.0035	0.0006	09:59:26	Yes
Mean:	-0.066	-0.066	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	0.765	0.765	17.62				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 09:59:46**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.192	5.192	0.0625	0.3277	0.0631	10:00:36	Yes
2	5.091	5.091	0.0613	0.3179	0.0619	10:01:06	Yes
Mean:	5.141	5.141	0.0619				
SD:	0.072	0.072	0.0009				
%RSD:	1.399	1.399	1.38				

QC value within limits for Hg 253.7 Recovery = 102.83%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 10:01:25**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.081	-0.081	-0.0002	0.0021	0.0004	10:02:16	Yes
2	-0.082	-0.082	-0.0002	0.0023	0.0004	10:02:46	Yes
Mean:	-0.081	-0.081	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.458	0.458	2.00				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 248834005|967600|1 **Date Collected: 3/24/2010 10:03:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834005|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.910	5.910	0.0710	0.3730	0.0716	10:03:57	Yes
2	5.838	5.838	0.0702	0.3674	0.0708	10:04:27	Yes

Mean:	5.874	5.874	0.0706
SD:	0.051	0.051	0.0006
%RSD:	0.863	0.863	0.85

==========

Sequence No.: 25 **Autosampler Location: 23**
Sample ID: 248834006|967600|1 **Date Collected: 3/24/2010 10:04:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834006|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.143	0.143	0.0025	0.0167	0.0031	10:05:38	Yes
2	0.138	0.138	0.0024	0.0160	0.0030	10:06:08	Yes
Mean:	0.141	0.141	0.0024				
SD:	0.003	0.003	0.0000				
%RSD:	2.480	2.480	1.72				

==========

Sequence No.: 26 **Autosampler Location: 24**
Sample ID: 248834007|967600|1 **Date Collected: 3/24/2010 10:06:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834007|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	78.45	78.45	0.9335	5.7488	0.9341	10:07:19	Yes
Sample concentration is greater than that of the highest standard.							
2	77.60	77.60	0.9233	5.6625	0.9240	10:07:49	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	78.03	78.03	0.9284				
SD:	0.603	0.603	0.0072				
%RSD:	0.773	0.773	0.77				
Sample concentration is greater than that of the highest standard.							

==========

Sequence No.: 27 **Autosampler Location: 25**
Sample ID: 248834008|967600|1 **Date Collected: 3/24/2010 10:08:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834008|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.414	0.414	0.0057	0.0272	0.0063	10:09:01	Yes
2	0.407	0.407	0.0056	0.0296	0.0062	10:09:31	Yes
Mean:	0.411	0.411	0.0056				
SD:	0.005	0.005	0.0001				
%RSD:	1.268	1.268	1.10				

==========

Sequence No.: 28 **Autosampler Location: 26**
Sample ID: 248834009|967600|1 **Date Collected: 3/24/2010 10:09:51**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834009|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.089	0.089	0.0018	0.0118	0.0024	10:10:41	Yes
2	0.089	0.089	0.0018	0.0120	0.0024	10:11:11	Yes
Mean:	0.089	0.089	0.0018				
SD:	0.000	0.000	0.0000				
%RSD:	0.289	0.289	0.17				

==========

Sequence No.: 29 **Autosampler Location: 27**
Sample ID: 248834010|967600|1 **Date Collected: 3/24/2010 10:11:30**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834010|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	17.02	17.02	0.2031	1.0792	0.2037	10:12:21	Yes
	Sample concentration is greater than that of the highest standard.						
2	17.16	17.16	0.2047	1.0826	0.2053	10:12:51	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	17.09	17.09	0.2039				
SD:	0.097	0.097	0.0012				
%RSD:	0.570	0.570	0.57				

Sample concentration is greater than that of the highest standard.

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 248834011|967600|1 **Date Collected: 3/24/2010 10:13:10**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834011|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.157	0.157	0.0026	0.0164	0.0032	10:14:00	Yes
2	0.161	0.161	0.0027	0.0166	0.0033	10:14:30	Yes
Mean:	0.159	0.159	0.0026				
SD:	0.003	0.003	0.0000				
%RSD:	1.736	1.736	1.24				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 248865001|967600|1 **Date Collected: 3/24/2010 10:14:49**
Analyst: JXL **Data Type: Original**

Replicate Data: 248865001|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.061	0.061	0.0015	0.0108	0.0021	10:15:40	Yes
2	0.067	0.067	0.0015	0.0115	0.0022	10:16:10	Yes
Mean:	0.064	0.064	0.0015				
SD:	0.005	0.005	0.0001				
%RSD:	7.100	7.100	3.59				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 1202076764|967577|1 **Date Collected: 3/24/2010 10:16:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076764|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.041	-0.041	0.0003	0.0059	0.0009	10:17:20	Yes
2	-0.035	-0.035	0.0003	0.0068	0.0010	10:17:49	Yes
Mean:	-0.038	-0.038	0.0003				
SD:	0.004	0.004	0.0000				
%RSD:	10.50	10.50	16.45				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 1202076765|967577|10 **Date Collected: 3/24/2010 10:18:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076765|967577|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.617	3.617	0.0438	0.2269	0.0444	10:19:00	Yes
2	3.532	3.532	0.0427	0.2207	0.0434	10:19:29	Yes
Mean:	3.575	3.575	0.0432				

SD:	0.060	0.060	0.0007
%RSD:	1.687	1.687	1.66

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 10:19:49**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.300	5.300	0.0638	0.3306	0.0644	10:20:39	Yes
2	5.271	5.271	0.0634	0.3268	0.0640	10:21:09	Yes
Mean:	5.286	5.286	0.0636				
SD:	0.021	0.021	0.0003				
%RSD:	0.398	0.398	0.39				

QC value within limits for Hg 253.7 Recovery = 105.71%
All analyte(s) passed QC.

==========

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 10:21:27**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.077	-0.077	-0.0002	0.0019	0.0005	10:22:19	Yes
2	-0.077	-0.077	-0.0002	0.0018	0.0005	10:22:49	Yes
Mean:	-0.077	-0.077	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.039	0.039	0.21				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 249072002|967577|1 **Date Collected: 3/24/2010 10:23:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 249072002|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.230	0.230	0.0035	0.0213	0.0041	10:23:59	Yes
2	0.239	0.239	0.0036	0.0212	0.0042	10:24:29	Yes
Mean:	0.235	0.235	0.0035				
SD:	0.006	0.006	0.0001				
%RSD:	2.731	2.731	2.16				

==========

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 249072003|967577|1 **Date Collected: 3/24/2010 10:24:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 249072003|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.306	0.306	0.0044	0.0257	0.0050	10:25:39	Yes
2	0.311	0.311	0.0044	0.0259	0.0051	10:26:09	Yes
Mean:	0.309	0.309	0.0044				
SD:	0.004	0.004	0.0000				
%RSD:	1.245	1.245	1.03				

==========

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 249072004|967577|1 **Date Collected: 3/24/2010 10:26:29**
Analyst: JXL **Data Type: Original**

Sequence No.: 43 **Autosampler Location: 39**
Sample ID: 1202076769|967577|1 **Date Collected: 3/24/2010 10:34:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076769|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.162	2.162	0.0264	0.1380	0.0271	10:35:46	Yes
2	2.193	2.193	0.0268	0.1399	0.0275	10:36:16	Yes
Mean:	2.178	2.178	0.0266				
SD:	0.023	0.023	0.0003				
%RSD:	1.037	1.037	1.01				

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 1202076768|967577|5 **Date Collected: 3/24/2010 10:36:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076768|967577|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.074	-0.074	-0.0001	0.0026	0.0005	10:37:26	Yes
2	-0.074	-0.074	-0.0001	0.0028	0.0005	10:37:56	Yes
Mean:	-0.074	-0.074	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.631	0.631	4.13				

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 249102003|967577|1 **Date Collected: 3/24/2010 10:38:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102003|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.047	-0.047	0.0002	0.0045	0.0008	10:39:07	Yes
2	-0.051	-0.051	0.0001	0.0041	0.0008	10:39:37	Yes
Mean:	-0.049	-0.049	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	5.014	5.014	17.75				

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 10:39:56**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.819	4.819	0.0580	0.2999	0.0587	10:40:46	Yes
2	4.944	4.944	0.0595	0.3056	0.0602	10:41:16	Yes
Mean:	4.881	4.881	0.0588				
SD:	0.089	0.089	0.0011				
%RSD:	1.819	1.819	1.80				

QC value within limits for Hg 253.7 Recovery = 97.63%
All analyte(s) passed QC.

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 10:41:35**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	-0.083	-0.083	-0.0002	0.0019	0.0004	10:42:26	Yes
2	-0.082	-0.082	-0.0002	0.0022	0.0004	10:42:56	Yes
Mean:	-0.083	-0.083	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.048	1.048	4.33				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 48 **Autosampler Location: 42**
Sample ID: 249102004|967577|1 **Date Collected: 3/24/2010 10:43:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102004|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.075	0.075	0.0016	0.0115	0.0023	10:44:06	Yes
2	0.080	0.080	0.0017	0.0119	0.0023	10:44:36	Yes
Mean:	0.078	0.078	0.0017				
SD:	0.004	0.004	0.0000				
%RSD:	4.576	4.576	2.53				

Sequence No.: 49 **Autosampler Location: 43**
Sample ID: 249102005|967577|1 **Date Collected: 3/24/2010 10:44:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102005|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.048	-0.048	0.0002	0.0043	0.0008	10:45:46	Yes
2	-0.049	-0.049	0.0002	0.0041	0.0008	10:46:16	Yes
Mean:	-0.049	-0.049	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.335	0.335	1.14				

Sequence No.: 50 **Autosampler Location: 44**
Sample ID: 249102006|967577|1 **Date Collected: 3/24/2010 10:46:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102006|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.052	-0.052	0.0001	0.0037	0.0008	10:47:26	Yes
2	-0.051	-0.051	0.0001	0.0038	0.0008	10:47:56	Yes
Mean:	-0.052	-0.052	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	1.201	1.201	5.52				

Sequence No.: 51 **Autosampler Location: 45**
Sample ID: 1202078437|968185|1 **Date Collected: 3/24/2010 10:48:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078437|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.085	-0.085	-0.0003	0.0019	0.0004	10:49:06	Yes
2	-0.085	-0.085	-0.0003	0.0019	0.0004	10:49:36	Yes
Mean:	-0.085	-0.085	-0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	0.593	0.593	2.27				

Sequence No.: 52 **Autosampler Location: 46**
Sample ID: 1202078438|968185|10 **Date Collected: 3/24/2010 10:49:55**

Sequence No.: 57 **Autosampler Location: 51**
Sample ID: 248860005|968185|1 **Date Collected: 3/24/2010 10:58:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 248860005|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.190	0.190	0.0030	0.0183	0.0036	10:59:13	Yes
2	0.196	0.196	0.0031	0.0188	0.0037	10:59:43	Yes
Mean:	0.193	0.193	0.0030				
SD:	0.005	0.005	0.0001				
%RSD:	2.435	2.435	1.84				

Sequence No.: 58 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 11:00:03**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.182	5.182	0.0624	0.3187	0.0630	11:00:53	Yes
2	5.191	5.191	0.0625	0.3195	0.0631	11:01:23	Yes
Mean:	5.187	5.187	0.0624				
SD:	0.007	0.007	0.0001				
%RSD:	0.129	0.129	0.13				

QC value within limits for Hg 253.7 Recovery = 103.73%
All analyte(s) passed QC.

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 11:01:42**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.085	-0.085	-0.0003	0.0019	0.0004	11:02:32	Yes
2	-0.084	-0.084	-0.0003	0.0019	0.0004	11:03:02	Yes
Mean:	-0.084	-0.084	-0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	0.839	0.839	3.27				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 60 **Autosampler Location: 52**
Sample ID: 248860006|968185|1 **Date Collected: 3/24/2010 11:03:21**
Analyst: JXL **Data Type: Original**

Replicate Data: 248860006|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.644	1.644	0.0203	0.1066	0.0209	11:04:13	Yes
2	1.649	1.649	0.0203	0.1060	0.0210	11:04:43	Yes
Mean:	1.647	1.647	0.0203				
SD:	0.003	0.003	0.0000				
%RSD:	0.188	0.188	0.18				

Sequence No.: 61 **Autosampler Location: 53**
Sample ID: 248860007|968185|1 **Date Collected: 3/24/2010 11:05:02**
Analyst: JXL **Data Type: Original**

Sample ID: 248863003|968185|1 Date Collected: 3/24/2010 11:13:23
Analyst: JXL Data Type: Original

Replicate Data: 248863003|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.287	0.287	0.0042	0.0244	0.0048	11:14:15	Yes
2	0.286	0.286	0.0042	0.0240	0.0048	11:14:45	Yes
Mean:	0.286	0.286	0.0042				
SD:	0.000	0.000	0.0000				
%RSD:	0.048	0.048	0.04				

Sequence No.: 67 Autosampler Location: 59
Sample ID: 248863004|968185|1 Date Collected: 3/24/2010 11:15:05
Analyst: JXL Data Type: Original

Replicate Data: 248863004|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0011	0.0089	0.0018	11:15:56	Yes
2	0.028	0.028	0.0011	0.0086	0.0017	11:16:26	Yes
Mean:	0.031	0.031	0.0011				
SD:	0.004	0.004	0.0000				
%RSD:	12.64	12.64	4.14				

Sequence No.: 68 Autosampler Location: 60
Sample ID: 248866001|968185|1 Date Collected: 3/24/2010 11:16:46
Analyst: JXL Data Type: Original

Replicate Data: 248866001|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.508	1.508	0.0187	0.0974	0.0193	11:17:38	Yes
2	1.505	1.505	0.0186	0.0967	0.0193	11:18:07	Yes
Mean:	1.506	1.506	0.0187				
SD:	0.002	0.002	0.0000				
%RSD:	0.161	0.161	0.15				

Sequence No.: 69 Autosampler Location: 61
Sample ID: 248866002|968185|1 Date Collected: 3/24/2010 11:18:28
Analyst: JXL Data Type: Original

Replicate Data: 248866002|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0011	0.0085	0.0017	11:19:19	Yes
2	0.028	0.028	0.0011	0.0086	0.0017	11:19:49	Yes
Mean:	0.028	0.028	0.0011				
SD:	0.001	0.001	0.0000				
%RSD:	2.614	2.614	0.81				

Sequence No.: 70 Autosampler Location: 7
Sample ID: CCV Date Collected: 3/24/2010 11:20:09
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.300	5.300	0.0638	0.3270	0.0644	11:21:00	Yes
2	5.102	5.102	0.0614	0.3147	0.0620	11:21:29	Yes
Mean:	5.201	5.201	0.0626				
SD:	0.140	0.140	0.0017				

%RSD: 2.687 2.687 2.66
QC value within limits for Hg 253.7 Recovery = 104.02%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 11:21:48**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.089	-0.089	-0.0003	0.0015	0.0003	11:22:40	Yes
2	-0.092	-0.092	-0.0003	0.0012	0.0003	11:23:09	Yes
Mean:	-0.090	-0.090	-0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	2.647	2.647	8.70				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 72 **Autosampler Location: 62**
Sample ID: 248867001|968185|1 **Date Collected: 3/24/2010 11:23:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 248867001|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.609	3.609	0.0437	0.2267	0.0443	11:24:20	Yes
2	3.588	3.588	0.0434	0.2255	0.0440	11:24:50	Yes
Mean:	3.598	3.598	0.0435				
SD:	0.015	0.015	0.0002				
%RSD:	0.408	0.408	0.40				

==========

Sequence No.: 73 **Autosampler Location: 63**
Sample ID: 1202078439|968185|1 **Date Collected: 3/24/2010 11:25:10**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078439|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.811	2.811	0.0342	0.1764	0.0348	11:26:01	Yes
2	2.779	2.779	0.0338	0.1738	0.0344	11:26:31	Yes
Mean:	2.795	2.795	0.0340				
SD:	0.023	0.023	0.0003				
%RSD:	0.808	0.808	0.79				

==========

Sequence No.: 74 **Autosampler Location: 64**
Sample ID: 1202078440|968185|1 **Date Collected: 3/24/2010 11:26:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078440|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.813	5.813	0.0699	0.3587	0.0705	11:27:41	Yes
2	5.767	5.767	0.0693	0.3561	0.0699	11:28:11	Yes
Mean:	5.790	5.790	0.0696				
SD:	0.033	0.033	0.0004				
%RSD:	0.567	0.567	0.56				

==========

Sequence No.: 75 **Autosampler Location: 65**
Sample ID: 1202078442|968185|1 **Date Collected: 3/24/2010 11:28:31**
Analyst: JXL **Data Type: Original**

Sample concentration is greater than that of the highest standard.

==========

Sequence No.: 80 **Autosampler Location: 70**
Sample ID: 1202076742|967570|1 **Date Collected: 3/24/2010 11:36:57**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076742|967570|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.089	-0.089	-0.0003	0.0009	0.0003	11:37:48	Yes
2	-0.086	-0.086	-0.0003	0.0015	0.0004	11:38:18	Yes
Mean:	-0.088	-0.088	-0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	2.030	2.030	7.16				

==========

Sequence No.: 81 **Autosampler Location: 71**
Sample ID: 1202076743|967570|1 **Date Collected: 3/24/2010 11:38:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076743|967570|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.182	2.182	0.0267	0.1380	0.0273	11:39:29	Yes
2	2.193	2.193	0.0268	0.1380	0.0275	11:39:59	Yes
Mean:	2.187	2.187	0.0268				
SD:	0.008	0.008	0.0001				
%RSD:	0.356	0.356	0.35				

==========

Sequence No.: 82 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 11:40:19**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.125	5.125	0.0617	0.3141	0.0623	11:41:09	Yes
2	5.096	5.096	0.0613	0.3103	0.0620	11:41:39	Yes
Mean:	5.111	5.111	0.0615				
SD:	0.021	0.021	0.0002				
%RSD:	0.401	0.401	0.40				

QC value within limits for Hg 253.7 Recovery = 102.21%
All analyte(s) passed QC.

==========

Sequence No.: 83 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 11:41:58**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.090	-0.090	-0.0003	0.0012	0.0003	11:42:48	Yes
2	-0.085	-0.085	-0.0003	0.0016	0.0004	11:43:18	Yes
Mean:	-0.088	-0.088	-0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	3.961	3.961	13.86				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 84 **Autosampler Location: 72**
Sample ID: 249476001|967570|1 **Date Collected: 3/24/2010 11:43:38**
Analyst: JXL **Data Type: Original**

1	4.303	4.303	0.0519	0.2627	0.0525	11:59:42	Yes
2	4.278	4.278	0.0516	0.2617	0.0522	12:00:12	Yes
Mean:	4.290	4.290	0.0518				
SD:	0.018	0.018	0.0002				
%RSD:	0.413	0.413	0.41				

==========

Sequence No.: 94 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 12:00:32**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.380	5.380	0.0647	0.3267	0.0653	12:01:22	Yes
2	5.336	5.336	0.0642	0.3239	0.0648	12:01:52	Yes
Mean:	5.358	5.358	0.0644				
SD:	0.032	0.032	0.0004				
%RSD:	0.589	0.589	0.58				

QC value within limits for Hg 253.7 Recovery = 107.16%
All analyte(s) passed QC.

==========

Sequence No.: 95 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 12:02:11**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.085	-0.085	-0.0003	0.0017	0.0004	12:03:02	Yes
2	-0.087	-0.087	-0.0003	0.0015	0.0003	12:03:32	Yes
Mean:	-0.086	-0.086	-0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	1.300	1.300	4.78				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 96 **Autosampler Location: 82**
Sample ID: 249476007|967570|1 **Date Collected: 3/24/2010 12:03:51**
Analyst: JXL **Data Type: Original**

Replicate Data: 249476007|967570|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.049	-0.049	0.0002	0.0039	0.0008	12:04:42	Yes
2	-0.057	-0.057	0.0001	0.0034	0.0007	12:05:12	Yes
Mean:	-0.053	-0.053	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	10.93	10.93	57.74				

==========

Sequence No.: 97 **Autosampler Location: 83**
Sample ID: 249476008|967570|1 **Date Collected: 3/24/2010 12:05:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 249476008|967570|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.217	0.217	0.0033	0.0199	0.0040	12:06:23	Yes
2	0.213	0.213	0.0033	0.0194	0.0039	12:06:53	Yes
Mean:	0.215	0.215	0.0033				
SD:	0.002	0.002	0.0000				
%RSD:	1.032	1.032	0.80				

==========

SD:	0.014	0.014	0.0002
%RSD:	0.666	0.666	0.65

==========

Sequence No.: 103 **Autosampler Location: 89**
Sample ID: 249559003|968166|1 **Date Collected: 3/24/2010 12:15:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 249559003|968166|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.059	-0.059	0.0000	0.0030	0.0007	12:16:34	Yes
2	-0.057	-0.057	0.0001	0.0032	0.0007	12:17:04	Yes
Mean:	-0.058	-0.058	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.290	2.290	28.55				

==========

Sequence No.: 104 **Autosampler Location: 90**
Sample ID: 1202078403|968166|1 **Date Collected: 3/24/2010 12:17:24**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078403|968166|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.048	-0.048	0.0002	0.0042	0.0008	12:18:15	Yes
2	-0.049	-0.049	0.0002	0.0040	0.0008	12:18:45	Yes
Mean:	-0.048	-0.048	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	2.039	2.039	6.83				

==========

Sequence No.: 105 **Autosampler Location: 91**
Sample ID: 1202078404|968166|1 **Date Collected: 3/24/2010 12:19:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078404|968166|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.111	2.111	0.0258	0.1323	0.0265	12:19:57	Yes
2	2.035	2.035	0.0249	0.1270	0.0256	12:20:27	Yes
Mean:	2.073	2.073	0.0254				
SD:	0.054	0.054	0.0006				
%RSD:	2.596	2.596	2.52				

==========

Sequence No.: 106 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 12:20:47**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.415	5.415	0.0651	0.3293	0.0658	12:21:38	Yes
2	5.169	5.169	0.0622	0.3154	0.0628	12:22:08	Yes
Mean:	5.292	5.292	0.0637				
SD:	0.174	0.174	0.0021				
%RSD:	3.292	3.292	3.25				

QC value within limits for Hg 253.7 Recovery = 105.84%
All analyte(s) passed QC.

==========

Sequence No.: 107 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 12:22:27**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.089	-0.089	-0.0003	0.0012	0.0003	12:23:17	Yes
2	-0.088	-0.088	-0.0003	0.0016	0.0003	12:23:47	Yes
Mean:	-0.088	-0.088	-0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	1.040	1.040	3.58				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 108 **Autosampler Location: 92**
Sample ID: 1202078406|968166|1 **Date Collected: 3/24/2010 12:24:06**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078406|968166|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.039	2.039	0.0250	0.1279	0.0256	12:24:58	Yes
2	1.991	1.991	0.0244	0.1249	0.0251	12:25:28	Yes
Mean:	2.015	2.015	0.0247				
SD:	0.034	0.034	0.0004				
%RSD:	1.683	1.683	1.63				

==========

Sequence No.: 109 **Autosampler Location: 93**
Sample ID: 1202078405|968166|5 **Date Collected: 3/24/2010 12:25:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078405|968166|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.089	-0.089	-0.0003	0.0013	0.0003	12:26:40	Yes
2	-0.088	-0.088	-0.0003	0.0012	0.0003	12:27:10	Yes
Mean:	-0.089	-0.089	-0.0003				
SD:	0.000	0.000	0.0000				
%RSD:	0.225	0.225	0.77				

==========

Sequence No.: 110 **Autosampler Location: 94**
Sample ID: 249559004|968166|1 **Date Collected: 3/24/2010 12:27:30**
Analyst: JXL **Data Type: Original**

Replicate Data: 249559004|968166|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.709	5.709	0.0686	0.3462	0.0693	12:28:22	Yes
2	5.841	5.841	0.0702	0.3539	0.0708	12:28:51	Yes
Mean:	5.775	5.775	0.0694				
SD:	0.094	0.094	0.0011				
%RSD:	1.619	1.619	1.60				

==========

Sequence No.: 111 **Autosampler Location: 95**
Sample ID: 249559005|968166|1 **Date Collected: 3/24/2010 12:29:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 249559005|968166|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.086	-0.086	-0.0003	0.0016	0.0004	12:30:03	Yes
2	-0.093	-0.093	-0.0004	0.0011	0.0003	12:30:33	Yes
Mean:	-0.089	-0.089	-0.0003				
SD:	0.005	0.005	0.0001				
%RSD:	5.420	5.420	18.31				

Mean:	3.696	3.696	0.0447
SD:	0.009	0.009	0.0001
%RSD:	0.249	0.249	0.25

==========

Sequence No.: 117 **Autosampler Location: 101**
Sample ID: 1202078407|968171|1 **Date Collected: 3/24/2010 12:39:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078407|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.096	-0.096	-0.0004	0.0007	0.0002	12:40:14	Yes
2	-0.097	-0.097	-0.0004	0.0006	0.0002	12:40:44	Yes
Mean:	-0.096	-0.096	-0.0004				
SD:	0.001	0.001	0.0000				
%RSD:	0.899	0.899	2.58				

==========

Sequence No.: 118 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 12:41:04**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.362	5.362	0.0645	0.3244	0.0651	12:41:54	Yes
2	5.394	5.394	0.0649	0.3271	0.0655	12:42:24	Yes
Mean:	5.378	5.378	0.0647				
SD:	0.023	0.023	0.0003				
%RSD:	0.423	0.423	0.42				

QC value within limits for Hg 253.7 Recovery = 107.56%
All analyte(s) passed QC.

==========

Sequence No.: 119 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 12:42:43**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.095	-0.095	-0.0004	0.0008	0.0003	12:43:34	Yes
2	-0.090	-0.090	-0.0003	0.0011	0.0003	12:44:04	Yes
Mean:	-0.092	-0.092	-0.0004				
SD:	0.003	0.003	0.0000				
%RSD:	3.290	3.290	10.23				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 120 **Autosampler Location: 102**
Sample ID: 1202078408|968171|1 **Date Collected: 3/24/2010 12:44:23**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078408|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.259	2.259	0.0276	0.1409	0.0282	12:45:15	Yes
2	2.184	2.184	0.0267	0.1355	0.0274	12:45:45	Yes
Mean:	2.222	2.222	0.0272				
SD:	0.053	0.053	0.0006				
%RSD:	2.377	2.377	2.31				

==========

Sequence No.: 121 **Autosampler Location: 103**
Sample ID: 249616001|968171|1 **Date Collected: 3/24/2010 12:46:05**

Sequence No.: 126
Sample ID: 249616009|968171|1
Analyst: JXL
Autosampler Location: 108
Date Collected: 3/24/2010 12:54:37
Data Type: Original

Replicate Data: 249616009|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.200	0.200	0.0031	0.0185	0.0038	12:55:29	Yes
2	0.201	0.201	0.0031	0.0181	0.0038	12:55:58	Yes
Mean:	0.200	0.200	0.0031				
SD:	0.001	0.001	0.0000				
%RSD:	0.359	0.359	0.27				

Sequence No.: 127
Sample ID: 249616010|968171|1
Analyst: JXL
Autosampler Location: 109
Date Collected: 3/24/2010 12:56:19
Data Type: Original

Replicate Data: 249616010|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.310	0.310	0.0044	0.0254	0.0051	12:57:11	Yes
2	0.309	0.309	0.0044	0.0250	0.0051	12:57:41	Yes
Mean:	0.310	0.310	0.0044				
SD:	0.001	0.001	0.0000				
%RSD:	0.307	0.307	0.26				

Sequence No.: 128
Sample ID: 249616011|968171|1
Analyst: JXL
Autosampler Location: 110
Date Collected: 3/24/2010 12:58:01
Data Type: Original

Replicate Data: 249616011|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.095	0.095	0.0019	0.0123	0.0025	12:58:54	Yes
2	0.098	0.098	0.0019	0.0123	0.0025	12:59:23	Yes
Mean:	0.097	0.097	0.0019				
SD:	0.002	0.002	0.0000				
%RSD:	1.944	1.944	1.18				

Sequence No.: 129
Sample ID: 249616012|968171|1
Analyst: JXL
Autosampler Location: 111
Date Collected: 3/24/2010 12:59:44
Data Type: Original

Replicate Data: 249616012|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.359	0.359	0.0050	0.0280	0.0057	13:00:36	Yes
2	0.359	0.359	0.0050	0.0280	0.0056	13:01:06	Yes
Mean:	0.359	0.359	0.0050				
SD:	0.000	0.000	0.0000				
%RSD:	0.094	0.094	0.08				

Sequence No.: 130
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 3/24/2010 13:01:27
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.270	5.270	0.0634	0.3185	0.0640	13:02:18	Yes

2	5.445	5.445	0.0655	0.3270	0.0661	13:02:48	Yes
Mean:	5.357	5.357	0.0644				
SD:	0.124	0.124	0.0015				
%RSD:	2.317	2.317	2.29				

QC value within limits for Hg 253.7 Recovery = 107.15%
All analyte(s) passed QC.

==========

Sequence No.: 131 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 13:03:06**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.091	-0.091	-0.0003	0.0013	0.0003	13:03:58	Yes
2	-0.094	-0.094	-0.0004	0.0011	0.0003	13:04:27	Yes
Mean:	-0.092	-0.092	-0.0004				
SD:	0.002	0.002	0.0000				
%RSD:	2.329	2.329	7.24				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 132 **Autosampler Location: 112**
Sample ID: 249616013|968171|1 **Date Collected: 3/24/2010 13:04:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 249616013|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.069	0.069	0.0016	0.0109	0.0022	13:05:38	Yes
2	0.066	0.066	0.0015	0.0107	0.0022	13:06:08	Yes
Mean:	0.067	0.067	0.0015				
SD:	0.002	0.002	0.0000				
%RSD:	3.672	3.672	1.90				

==========

Sequence No.: 133 **Autosampler Location: 113**
Sample ID: 249616014|968171|1 **Date Collected: 3/24/2010 13:06:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 249616014|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.366	0.366	0.0051	0.0282	0.0057	13:07:21	Yes
2	0.360	0.360	0.0050	0.0283	0.0057	13:07:51	Yes
Mean:	0.363	0.363	0.0051				
SD:	0.004	0.004	0.0000				
%RSD:	1.042	1.042	0.89				

==========

Sequence No.: 134 **Autosampler Location: 114**
Sample ID: 249616015|968171|1 **Date Collected: 3/24/2010 13:08:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 249616015|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.296	0.296	0.0043	0.0247	0.0049	13:09:04	Yes
2	0.300	0.300	0.0043	0.0245	0.0049	13:09:33	Yes
Mean:	0.298	0.298	0.0043				
SD:	0.003	0.003	0.0000				
%RSD:	0.922	0.922	0.76				

==========

Sequence No.: 135 **Autosampler Location: 115**

%RSD:	0.640	0.640	0.58

==========

Sequence No.: 140 **Autosampler Location: 120**
Sample ID: 249616021|968171|1 **Date Collected: 3/24/2010 13:18:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 249616021|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.235	0.235	0.0035	0.0206	0.0042	13:19:19	Yes
2	0.232	0.232	0.0035	0.0203	0.0041	13:19:49	Yes
Mean:	0.234	0.234	0.0035				
SD:	0.002	0.002	0.0000				
%RSD:	0.746	0.746	0.59				

==========

Sequence No.: 141 **Autosampler Location: 121**
Sample ID: 249616022|968171|1 **Date Collected: 3/24/2010 13:20:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 249616022|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.220	0.220	0.0034	0.0197	0.0040	13:21:02	Yes
2	0.219	0.219	0.0034	0.0196	0.0040	13:21:32	Yes
Mean:	0.219	0.219	0.0034				
SD:	0.000	0.000	0.0000				
%RSD:	0.113	0.113	0.09				

==========

Sequence No.: 142 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 13:21:52**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.328	5.328	0.0641	0.3199	0.0647	13:22:43	Yes
2	5.316	5.316	0.0640	0.3181	0.0646	13:23:13	Yes
Mean:	5.322	5.322	0.0640				
SD:	0.009	0.009	0.0001				
%RSD:	0.163	0.163	0.16				

QC value within limits for Hg 253.7 Recovery = 106.45%
All analyte(s) passed QC.

==========

Sequence No.: 143 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 13:23:32**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.092	-0.092	-0.0004	0.0012	0.0003	13:24:22	Yes
2	-0.091	-0.091	-0.0003	0.0014	0.0003	13:24:52	Yes
Mean:	-0.092	-0.092	-0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	0.788	0.788	2.48				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 144 **Autosampler Location: 122**
Sample ID: 249616023|968171|1 **Date Collected: 3/24/2010 13:25:11**
Analyst: JXL **Data Type: Original**

SD:	0.002	0.002	0.0000
%RSD:	1.938	1.938	5.44

==========

Sequence No.: 154 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 13:42:20**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.463	5.463	0.0657	0.3296	0.0663	13:43:10	Yes
2	5.420	5.420	0.0652	0.3255	0.0658	13:43:40	Yes
Mean:	5.442	5.442	0.0654				
SD:	0.030	0.030	0.0004				
%RSD:	0.556	0.556	0.55				

QC value within limits for Hg 253.7 Recovery = 108.84%
All analyte(s) passed QC.

==========

Sequence No.: 155 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 13:43:59**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.096	-0.096	-0.0004	0.0010	0.0002	13:44:50	Yes
2	-0.095	-0.095	-0.0004	0.0011	0.0002	13:45:20	Yes
Mean:	-0.096	-0.096	-0.0004				
SD:	0.000	0.000	0.0000				
%RSD:	0.507	0.507	1.47				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 156 **Autosampler Location: 132**
Sample ID: 1202076848|967608|1 **Date Collected: 3/24/2010 13:45:39**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076848|967608|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.279	2.279	0.0278	0.1411	0.0285	13:46:32	Yes
2	2.256	2.256	0.0276	0.1395	0.0282	13:47:02	Yes
Mean:	2.268	2.268	0.0277				
SD:	0.016	0.016	0.0002				
%RSD:	0.717	0.717	0.70				

==========

Sequence No.: 157 **Autosampler Location: 133**
Sample ID: 249500001|967608|100 **Date Collected: 3/24/2010 13:47:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 249500001|967608|100

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.094	-0.094	-0.0004	0.0011	0.0003	13:48:14	Yes
2	-0.096	-0.096	-0.0004	0.0009	0.0002	13:48:44	Yes
Mean:	-0.095	-0.095	-0.0004				
SD:	0.002	0.002	0.0000				
%RSD:	1.621	1.621	4.76				

User canceled analysis.

==========

Analysis Begun

Logged In Analyst: Administrator
Technique: AA FIMS-MHS
Spectrometer Model: FIMS-100, S/N B050-9550
Autosampler Model: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\032410S1.SIF
Batch ID:
Results Data Set: 032410S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL
Method Last Saved: 3/16/2010 09:36:57
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1
Autosampler Location: 19
Sample ID: 248834002|967600|2
Date Collected: 3/24/2010 13:58:55
Analyst: JXL
Data Type: Original

Replicate Data: 248834002|967600|2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.582	5.582	0.0671	0.3332	0.0677	13:59:46	Yes
2	5.660	5.660	0.0680	0.3381	0.0687	14:00:15	Yes
Mean:	5.621	5.621	0.0676				
SD:	0.055	0.055	0.0007				
%RSD:	0.980	0.980	0.97				

==========

Sequence No.: 2
Autosampler Location: 24
Sample ID: 248834007|967600|50
Date Collected: 3/24/2010 14:00:35
Analyst: JXL
Data Type: Original

Replicate Data: 248834007|967600|50

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.796	2.796	0.0340	0.1707	0.0346	14:01:26	Yes
2	2.702	2.702	0.0329	0.1643	0.0335	14:01:56	Yes
Mean:	2.749	2.749	0.0334				
SD:	0.066	0.066	0.0008				
%RSD:	2.415	2.415	2.36				

==========

Sequence No.: 3
Autosampler Location: 27
Sample ID: 248834010|967600|10
Date Collected: 3/24/2010 14:02:16
Analyst: JXL
Data Type: Original

Replicate Data: 248834010|967600|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.992	1.992	0.0244	0.1229	0.0251	14:03:07	Yes
2	2.012	2.012	0.0247	0.1241	0.0253	14:03:37	Yes
Mean:	2.002	2.002	0.0245				
SD:	0.014	0.014	0.0002				
%RSD:	0.722	0.722	0.70				

==========

Sequence No.: 4
Autosampler Location: 69
Sample ID: 248867004|968185|2
Date Collected: 3/24/2010 14:03:56
Analyst: JXL
Data Type: Original

Replicate Data: 248867004|968185|2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

---

Replicate Data: 1202076851|967608|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.122	2.122	0.0260	0.1312	0.0266	14:13:20	Yes
2	2.128	2.128	0.0260	0.1305	0.0267	14:13:50	Yes
Mean:	2.125	2.125	0.0260				
SD:	0.004	0.004	0.0000				
%RSD:	0.194	0.194	0.19				

==========

Sequence No.: 10 **Autosampler Location: 137**
Sample ID: 1202076852|967608|5 **Date Collected: 3/24/2010 14:14:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076852|967608|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.031	-0.031	0.0004	0.0047	0.0010	14:15:03	Yes
2	-0.030	-0.030	0.0004	0.0051	0.0010	14:15:33	Yes
Mean:	-0.031	-0.031	0.0004				
SD:	0.001	0.001	0.0000				
%RSD:	2.154	2.154	2.04				

==========

Sequence No.: 11 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 14:15:54**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.179	5.179	0.0623	0.3076	0.0630	14:16:45	Yes
2	5.061	5.061	0.0609	0.2970	0.0616	14:17:15	Yes
Mean:	5.120	5.120	0.0616				
SD:	0.084	0.084	0.0010				
%RSD:	1.636	1.636	1.62				

QC value within limits for Hg 253.7 Recovery = 102.40%
All analyte(s) passed QC.

==========

Sequence No.: 12 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 14:17:33**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.091	-0.091	-0.0003	0.0013	0.0003	14:18:24	Yes
2	-0.091	-0.091	-0.0003	0.0014	0.0003	14:18:54	Yes
Mean:	-0.091	-0.091	-0.0003				
SD:	0.000	0.000	0.0000				
%RSD:	0.391	0.391	1.25				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **963992.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202068052	Metals Soil LCS SRM ICP/Hg	U1062540-I	.508	g
MS	1202068050	Metals Spike Mix 1	UI1268741-01	.25	mL
MS	1202068050	Metals Spike Mix II	U11268744-06	.25	mL
MSD	1202068051	Metals Spike Mix 1	UI1268741-01	.25	mL
MSD	1202068051	Metals Spike Mix II	UI1268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202068047 MB	13-MAR-2010 03:00:00	Soil	0.516	50	96.89922	
1202068052 LCS	13-MAR-2010 03:00:00	Soil	0.508	50	98.4252	
248824001	13-MAR-2010 03:00:00	Soil	0.532	50	93.98496	
248824002	13-MAR-2010 03:00:00	Soil	0.515	50	97.08738	
248834001	13-MAR-2010 03:00:00	Soil	0.513	50	97.46589	
1202068048 DUP (248834001)	13-MAR-2010 03:00:00	Soil	0.521	50	95.96929	
1202068049 SDILT (248834001)	13-MAR-2010 03:00:00	Soil	0.513	50	97.46589	
1202068050 MS (248834001)	13-MAR-2010 03:00:00	Soil	0.5	50	100	
1202068051 MSD (248834001)	13-MAR-2010 03:00:00	Soil	0.505	50	99.0099	
248834002	13-MAR-2010 03:00:00	Soil	0.555	50	90.09009	
248834003	13-MAR-2010 03:00:00	Soil	0.513	50	97.46589	
248834004	13-MAR-2010 03:00:00	Soil	0.506	50	98.81423	
248834005	13-MAR-2010 03:00:00	Soil	0.517	50	96.7118	
248834006	13-MAR-2010 03:00:00	Soil	0.501	50	99.8004	
248834007	13-MAR-2010 03:00:00	Soil	0.509	50	98.23183	
248834008	13-MAR-2010 03:00:00	Soil	0.5	50	100	
248834009	13-MAR-2010 03:00:00	Soil	0.511	50	97.84736	
248834010	13-MAR-2010 03:00:00	Soil	0.508	50	98.4252	
248834011	13-MAR-2010 03:00:00	Soil	0.504	50	99.20635	

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL
1282566	Nitric Acid CONC.	1.25 mL

Comments:

Sample 248834001 consist of gray soil

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 963994.0 **Verified by:** _____
Analyst: Anthony Green
Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19
Instrument: BAL-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202068053 MB	13-MAR-2010 03:00:00	0.5	50	100	
1202068058 LCS	13-MAR-2010 03:00:00	0.501	50	99.8004	
248824001	13-MAR-2010 03:00:00	0.503	50	99.40358	
248824002	13-MAR-2010 03:00:00	0.506	50	98.81423	
248834001	13-MAR-2010 03:00:00	0.502	50	99.60159	
1202068054 DUP (248834001)	13-MAR-2010 03:00:00	0.512	50	97.65625	
1202068055 SDILT (248834001)	13-MAR-2010 03:00:00	0.502	50	99.60159	
1202068056 MS (248834001)	13-MAR-2010 03:00:00	0.509	50	98.23183	
1202068057 MSD (248834001)	13-MAR-2010 03:00:00	0.502	50	99.60159	
248834002	13-MAR-2010 03:00:00	0.529	50	94.51796	
248834003	13-MAR-2010 03:00:00	0.504	50	99.20635	
248834004	13-MAR-2010 03:00:00	0.509	50	98.23183	
248834005	13-MAR-2010 03:00:00	0.506	50	98.81423	
248834006	13-MAR-2010 03:00:00	0.506	50	98.81423	
248834007	13-MAR-2010 03:00:00	0.507	50	98.61933	
248834008	13-MAR-2010 03:00:00	0.505	50	99.0099	
248834009	13-MAR-2010 03:00:00	0.571	50	87.56567	
248834010	13-MAR-2010 03:00:00	0.556	50	89.92806	
248834011	13-MAR-2010 03:00:00	0.509	50	98.23183	

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202068058	Metals Soil LCS SRM ICPMS	UI062540-MS	.501	g
MS	1202068056	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MS	1202068056	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
MSD	1202068057	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MSD	1202068057	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1282566	5	mL

Comments:

Sample 248824001 consist of gray, soil.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 983925.0 **Verified by:** _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: BAL-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202116481 MB	13-MAY-2010 06:30:00	0.533	50	93.80863	
1202116482 LCS	13-MAY-2010 06:30:00	0.5	50	100	
248834001 - 2	13-MAY-2010 06:30:00	0.532	50	93.98496	
1202068054 - 2 DUP (248834001)	13-MAY-2010 06:30:00	0.527	50	94.87666	
1202068055 - 2 SDILT (248834001)	13-MAY-2010 06:30:00	0.532	50	93.98496	
1202068056 - 2 MS (248834001)	13-MAY-2010 06:30:00	0.532	50	93.98496	
1202068057 - 2 MSD (248834001)	13-MAY-2010 06:30:00	0.52	50	96.15385	
248834002 - 2	13-MAY-2010 06:30:00	0.555	50	90.09009	
248834003 - 2	13-MAY-2010 06:30:00	0.527	50	94.87666	
248834004 - 2	13-MAY-2010 06:30:00	0.511	50	97.84736	
248834005 - 2	13-MAY-2010 06:30:00	0.533	50	93.80863	
248834006 - 2	13-MAY-2010 06:30:00	0.539	50	92.76438	
248834007 - 2	13-MAY-2010 06:30:00	0.529	50	94.51796	
248834008 - 2	13-MAY-2010 06:30:00	0.509	50	98.23183	
248834009 - 2	13-MAY-2010 06:30:00	0.522	50	95.78544	
248834010 - 2	13-MAY-2010 06:30:00	0.549	50	91.07468	
248834011 - 2	13-MAY-2010 06:30:00	0.556	50	89.92806	

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202116482	ICPMS Rare Earth elements LCS standard	UI1303474-05	.25	mL
MS	1202068056	ICPMS Rare Earth elements LCS standard	UI1303474-05	.25	mL
MSD	1202068057	ICPMS Rare Earth elements LCS standard	UI1303474-05	.25	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1335913	5	mL

Comments:

Sample 248834001 consist of light, brown fine soil with rocks.

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **967599.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202076822	Metals LCS Soil SRM	UI031809A	.203	g
MS	1202076824	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL
MSD	1202076832	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202076821 MB	23-MAR-2010 11:20:00	Soil	0.539	30	55.65863	
1202076822 LCS	23-MAR-2010 11:20:00	Soil	0.203	30	147.78325	
248834001	23-MAR-2010 11:20:00	Soil	0.504	30	59.52381	
1202076823 DUP (248834001)	23-MAR-2010 11:20:00	Soil	0.578	30	51.90311	
1202076824 MS (248834001)	23-MAR-2010 11:20:00	Soil	0.538	30	55.76208	
1202076832 MSD (248834001)	23-MAR-2010 11:20:00	Soil	0.51	30	58.82353	
1202076831 SDILT (248834001)	23-MAR-2010 11:20:00	Soil	0.504	30	59.52381	
248834002	23-MAR-2010 11:20:00	Soil	0.512	30	58.59375	
248834003	23-MAR-2010 11:20:00	Soil	0.522	30	57.47126	
248834004	23-MAR-2010 11:20:00	Soil	0.503	30	59.64215	
248834005	23-MAR-2010 11:20:00	Soil	0.565	30	53.09735	
248834006	23-MAR-2010 11:20:00	Soil	0.537	30	55.86592	
248834007	23-MAR-2010 11:20:00	Soil	0.591	30	50.76142	
248834008	23-MAR-2010 11:20:00	Soil	0.593	30	50.59022	
248834009	23-MAR-2010 11:20:00	Soil	0.509	30	58.9391	
248834010	23-MAR-2010 11:20:00	Soil	0.563	30	53.28597	
248834011	23-MAR-2010 11:20:00	Soil	0.574	30	52.26481	
248865001	23-MAR-2010 11:20:00	Soil	0.516	30	58.13953	

Reagent/Solvent Lot ID	Description	Amount
1255532-C	Hg reducing agent	2 mL
1274391-1	NITRIC ACID	.375 mL
1277235-A	Hydrochloric Acid Conc.	1.125 mL
1277238-C	5% KMnO4 solution	7.5 mL
WHG100323-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL
WHG100323-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL

Comments:

Sample 248834001 is a brown soil.

Digestion Start Date: 23-MAR-10 11:20

Digestion End Date: 23-MAR-10 11:50

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
06-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
963993	See Below		

Potentially affected work order(s)(SDG): 248824(10-2305),248834(10-2299)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for LCS/LCSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202068050MS 2. Failed RPD for DUP: QC 1202068048DUP 3. Failed Recovery for LCS/LCSD: QC 1202068052LCS 4. Failed Recovery for MSD/PSD: QC 1202068051MSD	1. The matrix spike recovery failed outside of the control limits for aluminum,calcium,manganese,potassium and sodium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for aluminum,barium,calcium,chromium,iron,lead,magnesium, manganese,potassium,sodium,vanadium and zinc due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. Silver and/or antimony did not meet the recovery acceptance criteria for the LCS. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures. 4. The matrix spike duplicate recovery failed outside of the control limits for aluminum,calcium,magnesium,manganese,potassium and sodium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:
Helen Camello 09-APR-10

Data Validator/Group Leader:
Louise Smith 13-APR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
26-MAY-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
983926	See Below		

Potentially affected work order(s)(SDG): 248834(10-2299)

Application Issues:

Container scanning event for custody missed

Specification and Requirements Exception Description:	DER Disposition:
1. Container scanning event for custody missed: 248834 001,002,003,004,005,006,007,008,009, 010,011	Samples were in custody of ICPMS lab during analysis.

Originator's Name:

Paul Boyd 26-MAY-10

Data Validator/Group Leader:

Dale Mori 26-MAY-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Cesium	1.68 mg/kg	Chromium	236 mg/kg
Cobalt	91.2 mg/kg	Copper	174 mg/kg
Iron	18000 mg/kg	Lead	86 mg/kg
Lithium	10.6 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	755 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silver	30.1 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	1020 mg/kg	Strontium	227 mg/kg
Thallium	121 mg/kg	Thorium	9.84 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Uranium	2.13 mg/kg	Uranium-235	.0153 mg/kg
Uranium-238	2.11 mg/kg	Vanadium	92.4 mg/kg
Zinc	594 mg/kg	Zirconium	10.6 mg/kg

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 22-APR-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	30 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	30 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	100 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	3 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	5 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090827-A **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 27-AUG-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090827-B **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 27-AUG-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100310-49.13 **Opened:** 31-MAR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 01-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100317-06 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-MAR-10 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019161
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI100317-07 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-MAR-10 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019162
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Standard Logbook

Serial ID: UI100317-08 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-MAR-10 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019163
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI100325-41 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100509-11 **Opened:** 09-MAY-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 09-MAY-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 09-MAY-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI1268741-01 **Opened:** 11-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI1268744-06 **Opened:** 11-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI1303474-05 **Opened:** 19-APR-10 **Amount :** 100 mL
Name: ICP-MS Rare Earth SPIKE **Received:** 19-APR-10 **Catalog Number :** 160203-01-01
Type: Source Material **Expires:** 19-APR-11 **Lot Number :** 1019528
Employee: Jamie Johnson **Solvent :** 2% HNO3
Supplier: O2SI
Description: ICPMS Rare Earth elements LCS standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Cerium	10 mg/L	Cesium	10 mg/L
Europium	10 mg/L	Lanthanum	10 mg/L
Neodymium	10 mg/L	Praseodymium	10 mg/L
Ruthenium	10 mg/L	Samarium	10 mg/L
Terbium	10 mg/L		

Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100415-03 **Opened:** 15-APR-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100323-01 **Opened:** 23-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 23-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 24-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: IHG100323-02 **Opened:** 23-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 24-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100323-07 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100323-08 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100323-09 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Standard Logbook

Serial ID: WHG100323-10 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100323-11 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100323-12 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100323-14 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: WI100331-42 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100331-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100331-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100331-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100331-43 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100331-44 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1293083
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100331-45 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100331-46 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1293083
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100331-47 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL &1%HNO3-1293083
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100510-04AB **Opened:** 10-MAY-10 **Balance Id :** 40245216

Name: ICPMS Cal Standard 10 **Received:** 10-MAY-10 **Pipet Id :** 3541598

Type: Working **Expires:** 11-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588

Employee: Rose Jenkins

Supplier: GEL

Description: ICPMS Calibration Standard (10 ppb)

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100510-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100510-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100510-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100510-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100510-04B **Opened:** 10-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 10-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 11-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1336588
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100510-06B **Opened:** 10-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 10-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 11-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100510-07B **Opened:** 10-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 10-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 11-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1336588
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100510-08B **Opened:** 10-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 10-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 11-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100511-04AB **Opened:** 11-MAY-10 **Balance Id :** 40245216

Name: ICPMS Cal Standard 10 **Received:** 11-MAY-10 **Pipet Id :** 3541598

Type: Working **Expires:** 12-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588

Employee: Rose Jenkins

Supplier: GEL

Description: ICPMS Calibration Standard (10 ppb)

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100511-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100511-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100511-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100511-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100511-04B **Opened:** 11-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 11-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 12-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1336588
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100511-06B **Opened:** 11-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 11-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 12-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100511-07B **Opened:** 11-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 11-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 12-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1336588
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100511-08B **Opened:** 11-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 11-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 12-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100512-04AB **Opened:** 12-MAY-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 12-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 13-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100512-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100512-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100512-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100512-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100512-04B **Opened:** 12-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 12-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 13-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1336588
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100512-06B **Opened:** 12-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 12-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 13-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100512-07B **Opened:** 12-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 12-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 13-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1336588
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100512-08B **Opened:** 12-MAY-10 **Balance Id :** 40245216

Name: ICPMS ICSAB **Received:** 12-MAY-10 **Pipet Id :** 3541598/1758088

Type: Working **Expires:** 13-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1336588

Employee: Rose Jenkins

Supplier: GEL

Description: ICPMS ICSAB

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100526-04 **Opened:** 26-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 26-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 27-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1342941
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100526-04A **Opened:** 26-MAY-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 26-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 27-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100526-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100526-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100526-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Serial ID: WMS100526-05 **Opened:** 26-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 26-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 27-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1342941
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100526-06 **Opened:** 26-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 26-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 27-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1342941
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	30 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	200 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100526-07 **Opened:** 26-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 26-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 27-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1342941
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100526-08 **Opened:** 26-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 26-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 27-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1342941
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-08
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%

Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1277235-A **Opened:** 01-MAR-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 01-MAR-11
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Standard Logbook

Serial ID: 1282564 **Opened:** 09-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 09-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1282566 **Opened:** 09-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 09-MAR-10
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1293083 **Opened:** 29-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 29-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 04-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1302252 **Opened:** 15-APR-10 **Lot Number :** J 10027 L
Name: I-HNO3 **Received:** 15-APR-10
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1302255 **Opened:** 15-APR-10 **Lot Number :** J07033
Name: I-HCL **Received:** 15-APR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Standard Logbook

Serial ID: 1335913 **Opened:** 07-MAY-10 **Lot Number :** J10038 L
Name: I-HNO3 **Received:** 07-MAY-10
Type: Reagent/Solvent **Expires:** 07-MAY-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1336568 **Opened:** 10-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 10-MAY-10
Type: Reagent/Solvent **Expires:** 17-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1302255	I-HCL	36.5-38.0	80 mL	8 l	N/A

Serial ID: 1338237 **Opened:** 13-MAY-10 **Lot Number :** J11034
Name: I-HCL **Received:** 13-MAY-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 13-MAY-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1342941 **Opened:** 24-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 24-MAY-10
Type: Reagent/Solvent **Expires:** 31-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1338237	I-HCL	36.5-38.0	80 mL	8 l	N/A

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2299-1

Sample Analysis

Sample ID	**Client ID**
248839001	RE46-10-13872
248839002	RE46-10-13875
1202065849	Method Blank (MB) **ICP**
1202065850	Laboratory Control Sample (LCS)
1202065853	248861001(RE46-10-13786L) Serial Dilution (SD)
1202065851	248861001(RE46-10-13786D) Sample Duplicate (DUP)
1202065852	248861001(RE46-10-13786S) Matrix Spike (MS)
1202065854	Method Blank (MB) **ICP-MS**
1202124413	Method Blank (MB) **ICP-MS**
1202125831	Method Blank (MB) **ICP-MS**
1202065855	Laboratory Control Sample (LCS)
1202124414	Laboratory Control Sample (LCS)
1202125832	Laboratory Control Sample (LCS)
1202125835	248839001(RE46-10-13872L) Serial Dilution (SD)
1202124417	248839002(RE46-10-13875L) Serial Dilution (SD)
1202065858	248861001(RE46-10-13786L) Serial Dilution (SD)
1202125833	248839001(RE46-10-13872D) Sample Duplicate (DUP)
1202124415	248839002(RE46-10-13875D) Sample Duplicate (DUP)
1202065856	248861001(RE46-10-13786D) Sample Duplicate (DUP)
1202125834	248839001(RE46-10-13872S) Matrix Spike (MS)

1202124416	248839002(RE46-10-13875S) Matrix Spike (MS)
1202065857	248861001(RE46-10-13786S) Matrix Spike (MS)
1202069578	Method Blank (MB) **CVAA**
1202069579	Laboratory Control Sample (LCS)
1202069582	248861001(RE46-10-13786L) Serial Dilution (SD)
1202069580	248861001(RE46-10-13786D) Sample Duplicate (DUP)
1202069581	248861001(RE46-10-13786S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch:	962982, 962984, 987939, 987387 and 964665
Prep Batch :	962981, 962983, 987937, 987386 and 964663
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
Prep Method :	SW846 3005A and SW846 7470A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-

7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standards met the advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 248861001 (RE46-10-13786), 248839002 (RE46-10-13875) and 248839001 (RE46-10-13872).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Pauson **Date:** 5/26/10

Sample Data Summary

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248839001 **BASIS:** As Received **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13872 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	RMJ	05/11/10 08:18	100510-2	962984
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	RMJ	05/11/10 08:18	100510-2	962984
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	RMJ	05/11/10 08:18	100510-2	962984
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-46-2	Cesium	0.50	ug/L	U	0.102	0.5	0.5	1	MS	PRB	05/26/10 16:03	100526-4	987939
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	03/31/10 19:35	033110B-1	962982
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	03/31/10 19:35	033110B-1	962982
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	RMJ	05/12/10 03:00	100511-3	962984
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/31/10 19:35	033110B-1	962982
7439-96-5	Manganese	1.17	ug/L	J	1	5	5	1	MS	RMJ	05/12/10 03:00	100511-3	962984
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/13/10 09:12	031310W1-5	964665
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	03/31/10 19:35	033110B-1	962982
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-23-5	Sodium	122	ug/L	J	100	300	300	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	RMJ	05/11/10 08:18	100510-2	962984
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:35	033110B-1	962982
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	03/31/10 19:35	033110B-1	962982

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
962982	962981	SW846 3005A	50	mL	50	mL	03/13/10	LYH1
962984	962983	SW846 3005A	50	mL	50	mL	03/13/10	LYH1
964665	964663	SW846 7470A Prep	20	mL	20	mL	03/12/10	TXB3
987939	987937	SW846 3005A	25	mL	25	mL	05/25/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2299-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248839002 **BASIS:** As Received **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-13875 **LEVEL:** Low **DATE RECEIVED** 05-MAR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	RMJ	05/11/10 08:22	100510-2	962984
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	RMJ	05/11/10 08:22	100510-2	962984
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	RMJ	05/11/10 08:22	100510-2	962984
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-46-2	Cesium	0.50	ug/L	U	0.102	0.5	0.5	1	MS	PRB	05/26/10 15:56	100526-4	987387
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	03/31/10 19:38	033110B-1	962982
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	03/31/10 19:38	033110B-1	962982
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	RMJ	05/12/10 03:04	100511-3	962984
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/31/10 19:38	033110B-1	962982
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	RMJ	05/12/10 03:04	100511-3	962984
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/13/10 09:14	031310W1-5	964665
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	03/31/10 19:38	033110B-1	962982
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	RMJ	05/11/10 08:22	100510-2	962984
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 19:38	033110B-1	962982
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	03/31/10 19:38	033110B-1	962982

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
962982	962981	SW846 3005A	50	mL	50	mL	03/13/10	LYH1
962984	962983	SW846 3005A	50	mL	50	mL	03/13/10	LYH1
964665	964663	SW846 7470A Prep	20	mL	20	mL	03/12/10	TXB3
987387	987386	SW846 3005A	25	mL	25	mL	05/24/10	BXA1

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2299-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.1	ug/L	5	ug/L	101.9	90.0 - 110.0	AV	13-MAR-10 07:19	031310W1-5
	Aluminum	5150	ug/L	5000	ug/L	102.9	90.0 - 110.0	P	31-MAR-10 18:47	033110B-1
	Arsenic	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	31-MAR-10 18:47	033110B-1
	Barium	507	ug/L	500	ug/L	101.5	90.0 - 110.0	P	31-MAR-10 18:47	033110B-1
	Calcium	5050	ug/L	5000	ug/L	101	90.0 - 110.0	P	31-MAR-10 18:47	033110B-1
	Chromium	488	ug/L	500	ug/L	97.7	90.0 - 110.0	P	31-MAR-10 18:47	033110B-1
	Cobalt	510	ug/L	500	ug/L	101.9	90.0 - 110.0	P	31-MAR-10 18:47	033110B-1
	Copper	509	ug/L	500	ug/L	101.9	90.0 - 110.0	P	31-MAR-10 18:47	033110B-1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	31-MAR-10 18:47	033110B-1
	Magnesium	5330	ug/L	5000	ug/L	106.6	90.0 - 110.0	P	31-MAR-10 18:47	033110B-1
	Nickel	505	ug/L	500	ug/L	101	90.0 - 110.0	P	31-MAR-10 18:47	033110B-1
	Potassium	2520	ug/L	2500	ug/L	100.7	90.0 - 110.0	P	31-MAR-10 18:47	033110B-1
	Selenium	2500	ug/L	2500	ug/L	100	90.0 - 110.0	P	31-MAR-10 18:47	033110B-1
	Silver	258	ug/L	250	ug/L	103.3	90.0 - 110.0	P	31-MAR-10 18:47	033110B-1
	Sodium	2510	ug/L	2500	ug/L	100.5	90.0 - 110.0	P	31-MAR-10 18:47	033110B-1
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	31-MAR-10 18:47	033110B-1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	31-MAR-10 18:47	033110B-1
	Antimony	50.7	ug/L	50	ug/L	101.3	90.0 - 110.0	MS	11-MAY-10 07:15	100510-2
	Beryllium	53.8	ug/L	50	ug/L	107.7	90.0 - 110.0	MS	11-MAY-10 07:15	100510-2
	Cadmium	53.5	ug/L	50	ug/L	106.9	90.0 - 110.0	MS	11-MAY-10 07:15	100510-2
	Thallium	52.5	ug/L	50	ug/L	105	90.0 - 110.0	MS	11-MAY-10 07:15	100510-2
	Lead	51.6	ug/L	50	ug/L	103.3	90.0 - 110.0	MS	12-MAY-10 02:06	100511-3
	Manganese	52.5	ug/L	50	ug/L	105.1	90.0 - 110.0	MS	12-MAY-10 02:06	100511-3
	Cesium	51.3	ug/L	50	ug/L	102.5	90.0 - 110.0	MS	26-MAY-10 15:27	100526-4
CCV01										
	Mercury	5.04	ug/L	5	ug/L	100.8	80.0 - 120.0	AV	13-MAR-10 07:24	031310W1-5
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Arsenic	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Barium	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 - 110.0	P	31-MAR-10 18:59	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2299-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Magnesium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Nickel	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Potassium	5700	ug/L	5000	ug/L	113.9	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Selenium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Vanadium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Antimony	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	11-MAY-10 07:39	100510-2
	Beryllium	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	11-MAY-10 07:39	100510-2
	Cadmium	54.6	ug/L	50	ug/L	109.1	90.0 – 110.0	MS	11-MAY-10 07:39	100510-2
	Thallium	54.9	ug/L	50	ug/L	109.9	90.0 – 110.0	MS	11-MAY-10 07:39	100510-2
	Lead	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	12-MAY-10 02:27	100511-3
	Manganese	46.3	ug/L	50	ug/L	92.5	90.0 – 110.0	MS	12-MAY-10 02:27	100511-3
	Cesium	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	26-MAY-10 15:32	100526-4
CCV02										
	Mercury	4.97	ug/L	5	ug/L	99.4	80.0 – 120.0	AV	13-MAR-10 07:47	031310W1-5
	Aluminum	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Arsenic	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Barium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Calcium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Chromium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Iron	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Magnesium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2299-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Nickel	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Potassium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Selenium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Silver	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Zinc	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 19:06	033110B-1
	Antimony	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	11-MAY-10 07:54	100510-2
	Beryllium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	11-MAY-10 07:54	100510-2
	Cadmium	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	11-MAY-10 07:54	100510-2
	Thallium	53.2	ug/L	50	ug/L	106.4	90.0 – 110.0	MS	11-MAY-10 07:54	100510-2
	Lead	52.3	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	12-MAY-10 02:39	100511-3
	Manganese	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	12-MAY-10 02:39	100511-3
	Cesium	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	26-MAY-10 15:41	100526-4
CCV03										
	Mercury	5.01	ug/L	5	ug/L	100.2	80.0 – 120.0	AV	13-MAR-10 08:11	031310W1-5
	Aluminum	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Arsenic	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Barium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Chromium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Cobalt	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Iron	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Nickel	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Potassium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Selenium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 – 110.0	P	31-MAR-10 19:27	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2299-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	494	ug/L	500	ug/L	98.7	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Zinc	489	ug/L	500	ug/L	97.9	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Antimony	51.6	ug/L	50	ug/L	103.2	90.0 - 110.0	MS	11-MAY-10 08:32	100510-2
	Beryllium	48.1	ug/L	50	ug/L	96.3	90.0 - 110.0	MS	11-MAY-10 08:32	100510-2
	Cadmium	53	ug/L	50	ug/L	105.9	90.0 - 110.0	MS	11-MAY-10 08:32	100510-2
	Thallium	51.6	ug/L	50	ug/L	103.1	90.0 - 110.0	MS	11-MAY-10 08:32	100510-2
	Lead	52.9	ug/L	50	ug/L	105.7	90.0 - 110.0	MS	12-MAY-10 03:12	100511-3
	Manganese	50	ug/L	50	ug/L	100	90.0 - 110.0	MS	12-MAY-10 03:12	100511-3
	Cesium	51.7	ug/L	50	ug/L	103.3	90.0 - 110.0	MS	26-MAY-10 15:52	100526-4
CCV04										
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 - 120.0	AV	13-MAR-10 08:34	031310W1-5
	Aluminum	4980	ug/L	5000	ug/L	99.5	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Arsenic	495	ug/L	500	ug/L	98.9	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Barium	488	ug/L	500	ug/L	97.5	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Chromium	485	ug/L	500	ug/L	97	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Cobalt	490	ug/L	500	ug/L	98	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Copper	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Iron	4880	ug/L	5000	ug/L	97.7	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Magnesium	5000	ug/L	5000	ug/L	100	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Nickel	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Potassium	4870	ug/L	5000	ug/L	97.5	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Selenium	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Silver	489	ug/L	500	ug/L	97.7	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Sodium	9730	ug/L	10000	ug/L	97.3	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Vanadium	490	ug/L	500	ug/L	97.9	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Zinc	483	ug/L	500	ug/L	96.7	90.0 - 110.0	P	31-MAR-10 19:48	033110B-1
	Antimony	51.4	ug/L	50	ug/L	102.8	90.0 - 110.0	MS	11-MAY-10 09:06	100510-2
	Beryllium	49.3	ug/L	50	ug/L	98.5	90.0 - 110.0	MS	11-MAY-10 09:06	100510-2
	Cadmium	53.7	ug/L	50	ug/L	107.3	90.0 - 110.0	MS	11-MAY-10 09:06	100510-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2299-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Thallium	51.3	ug/L	50	ug/L	102.7	90.0 - 110.0	MS	11-MAY-10 09:06	100510-2
	Lead	53.5	ug/L	50	ug/L	106.9	90.0 - 110.0	MS	12-MAY-10 03:41	100511-3
	Manganese	50.5	ug/L	50	ug/L	101	90.0 - 110.0	MS	12-MAY-10 03:41	100511-3
	Cesium	50.7	ug/L	50	ug/L	101.5	90.0 - 110.0	MS	26-MAY-10 15:59	100526-4
CCV05										
	Mercury	5.25	ug/L	5	ug/L	105.1	80.0 - 120.0	AV	13-MAR-10 08:57	031310W1-5
	Cesium	49.8	ug/L	50	ug/L	99.5	90.0 - 110.0	MS	26-MAY-10 16:07	100526-4
CCV06										
	Mercury	5.13	ug/L	5	ug/L	102.6	80.0 - 120.0	AV	13-MAR-10 09:20	031310W1-5
CCV07										
	Mercury	5.09	ug/L	5	ug/L	101.7	80.0 - 120.0	AV	13-MAR-10 09:43	031310W1-5

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-2299-1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS6,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.199	ug/L	.2	ug/L	99.5	70.0 – 130.0	AV	13-MAR-10 07:23	031310W1-5
	Thallium	1.14	ug/L	1	ug/L	113.9	70.0 – 130.0	MS	11-MAY-10 07:25	100510-2
	Antimony	3.26	ug/L	3	ug/L	108.8	70.0 – 130.0	MS	11-MAY-10 07:25	100510-2
	Cadmium	1.14	ug/L	1	ug/L	114.3	70.0 – 130.0	MS	11-MAY-10 07:25	100510-2
	Beryllium	.572	ug/L	.5	ug/L	114.4	70.0 – 130.0	MS	11-MAY-10 07:25	100510-2
	Lead	2.31	ug/L	2	ug/L	115.3	70.0 – 130.0	MS	12-MAY-10 02:14	100511-3
	Manganese	6	ug/L	5	ug/L	119.9	70.0 – 130.0	MS	12-MAY-10 02:14	100511-3
	Cesium	.379	ug/L	.5	ug/L	75.8	70.0 – 130.0	MS	26-MAY-10 15:29	100526-4
PQL01										
	Vanadium	4.74	ug/L	5	ug/L	94.8	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Copper	10	ug/L	10	ug/L	100	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Cobalt	5.18	ug/L	5	ug/L	103.6	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Chromium	4.91	ug/L	5	ug/L	98.3	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Barium	4.99	ug/L	5	ug/L	99.9	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Arsenic	30.2	ug/L	30	ug/L	100.7	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Sodium	280	ug/L	300	ug/L	93.3	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Silver	4.61	ug/L	5	ug/L	92.3	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Potassium	150	ug/L	150	ug/L	99.9	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Zinc	10.1	ug/L	10	ug/L	101	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Aluminum	204	ug/L	200	ug/L	101.9	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Iron	102	ug/L	100	ug/L	102.4	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Nickel	4.99	ug/L	5	ug/L	99.9	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Magnesium	311	ug/L	300	ug/L	103.7	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Calcium	212	ug/L	200	ug/L	106.2	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Selenium	31.2	ug/L	30	ug/L	104	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2299–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	13–MAR–10 07:21	031310W1–5
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	31–MAR–10 18:48	033110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	31–MAR–10 18:48	033110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	31–MAR–10 18:48	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	31–MAR–10 18:48	033110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	31–MAR–10 18:48	033110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	31–MAR–10 18:48	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	31–MAR–10 18:48	033110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	11–MAY–10 07:20	100510–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	11–MAY–10 07:20	100510–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	11–MAY–10 07:20	100510–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	11–MAY–10 07:20	100510–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	12–MAY–10 02:10	100511–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	12–MAY–10 02:10	100511–3
	Cesium	0.102	+/–.5	U	0.102	0.5	LIQ	MS	26–MAY–10 15:28	100526–4
CCB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	13–MAR–10 07:26	031310W1–5
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	31–MAR–10 19:01	033110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	31–MAR–10 19:01	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:01	033110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	31–MAR–10 19:01	033110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:01	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2299–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:01	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	31–MAR–10 19:01	033110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	31–MAR–10 19:01	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	31–MAR–10 19:01	033110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	31–MAR–10 19:01	033110B–1
	Potassium	298.29	+/–150		50.0	150	LIQ	P	31–MAR–10 19:01	033110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	31–MAR–10 19:01	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:01	033110B–1
	Sodium	140.13	+/–300	J	100	300	LIQ	P	31–MAR–10 19:01	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:01	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	31–MAR–10 19:01	033110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	11–MAY–10 07:44	100510–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	11–MAY–10 07:44	100510–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	11–MAY–10 07:44	100510–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	11–MAY–10 07:44	100510–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	12–MAY–10 02:31	100511–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	12–MAY–10 02:31	100511–3
	Cesium	0.102	+/–.5	U	0.102	0.5	LIQ	MS	26–MAY–10 15:33	100526–4
CCB02										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	13–MAR–10 07:49	031310W1–5
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	31–MAR–10 19:08	033110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	31–MAR–10 19:08	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:08	033110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	31–MAR–10 19:08	033110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:08	033110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:08	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	31–MAR–10 19:08	033110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	31–MAR–10 19:08	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	31–MAR–10 19:08	033110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	31–MAR–10 19:08	033110B–1
	Potassium	98.66	+/–150	J	50.0	150	LIQ	P	31–MAR–10 19:08	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2299–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	31–MAR–10 19:08	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:08	033110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	31–MAR–10 19:08	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:08	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	31–MAR–10 19:08	033110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	11–MAY–10 07:58	100510–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	11–MAY–10 07:58	100510–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	11–MAY–10 07:58	100510–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	11–MAY–10 07:58	100510–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	12–MAY–10 02:43	100511–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	12–MAY–10 02:43	100511–3
	Cesium	0.102	+/–.5	U	0.102	0.5	LIQ	MS	26–MAY–10 15:42	100526–4
CCB03										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	13–MAR–10 08:12	031310W1–5
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	31–MAR–10 19:29	033110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	31–MAR–10 19:29	033110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	31–MAR–10 19:29	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	31–MAR–10 19:29	033110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	31–MAR–10 19:29	033110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	31–MAR–10 19:29	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	31–MAR–10 19:29	033110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	11–MAY–10 08:37	100510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2299–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	11–MAY–10 08:37	100510–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	11–MAY–10 08:37	100510–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	11–MAY–10 08:37	100510–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	12–MAY–10 03:16	100511–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	12–MAY–10 03:16	100511–3
	Cesium	0.102	+/–.5	U	0.102	0.5	LIQ	MS	26–MAY–10 15:53	100526–4
CCB04										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	13–MAR–10 08:36	031310W1–5
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	31–MAR–10 19:50	033110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	31–MAR–10 19:50	033110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	31–MAR–10 19:50	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	31–MAR–10 19:50	033110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	31–MAR–10 19:50	033110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	31–MAR–10 19:50	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	31–MAR–10 19:50	033110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	11–MAY–10 09:10	100510–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	11–MAY–10 09:10	100510–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	11–MAY–10 09:10	100510–2
	Thallium	0.489	+/–1	J	0.3	1.0	LIQ	MS	11–MAY–10 09:10	100510–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	12–MAY–10 03:45	100511–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	12–MAY–10 03:45	100511–3
	Cesium	0.102	+/–.5	U	0.102	0.5	LIQ	MS	26–MAY–10 16:00	100526–4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2299–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB05										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	13–MAR–10 08:59	031310W1–5
	Cesium	0.102	+/–.5	U	0.102	0.5	LIQ	MS	26–MAY–10 16:08	100526–4
CCB06										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	13–MAR–10 09:22	031310W1–5
CCB07										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	13–MAR–10 09:45	031310W1–5

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-2299-1

Contract: LANL01004

Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202065849								
	Aluminum	68	ug/L	+/-200	U	P	68	200
	Arsenic	5	ug/L	+/-30	U	P	5	30
	Barium	1	ug/L	+/-5	U	P	1	5
	Chromium	1	ug/L	+/-5	U	P	1	5
	Copper	3	ug/L	+/-10	U	P	3	10
	Magnesium	85	ug/L	+/-300	U	P	85	300
	Potassium	79.5	ug/L	+/-150	J	P	50	150
	Silver	1	ug/L	+/-5	U	P	1	5
	Vanadium	1	ug/L	+/-5	U	P	1	5
	Zinc	3.3	ug/L	+/-10	U	P	3.3	10
	Sodium	100	ug/L	+/-300	U	P	100	300
	Selenium	5	ug/L	+/-30	U	P	5	30
	Nickel	1.5	ug/L	+/-5	U	P	1.5	5
	Iron	30	ug/L	+/-100	U	P	30	100
	Cobalt	1	ug/L	+/-5	U	P	1	5
	Calcium	50	ug/L	+/-200	U	P	50	200
1202065854								
	Antimony	1	ug/L	+/-3	U	MS	1	3
	Cadmium	0.11	ug/L	+/-1	U	MS	0.11	1
	Lead	0.5	ug/L	+/-2	U	MS	0.5	2
	Manganese	1	ug/L	+/-5	U	MS	1	5
	Thallium	0.3	ug/L	+/-1	U	MS	0.3	1
	Beryllium	0.1	ug/L	+/-0.5	U	MS	0.1	0.5
1202069578								
	Mercury	0.066	ug/L	+/-0.2	U	AV	0.066	0.2
1202124413								
	Cesium	0.102	ug/L	+/-0.5	U	MS	0.102	0.5
1202125831								
	Cesium	0.102	ug/L	+/-0.5	U	MS	0.102	0.5

METALS
–4–
Interference Check Sample

SDG No: 10–2299–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	502000	ug/L	500000	ug/L	100	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Arsenic	11.1	ug/L					31–MAR–10 18:53	033110B–1
	Barium	0.205	ug/L					31–MAR–10 18:53	033110B–1
	Calcium	480000	ug/L	500000	ug/L	96	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Chromium	1.07	ug/L					31–MAR–10 18:53	033110B–1
	Cobalt	–6.06	ug/L					31–MAR–10 18:53	033110B–1
	Copper	4.63	ug/L					31–MAR–10 18:53	033110B–1
	Iron	190000	ug/L	200000	ug/L	95	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Magnesium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Nickel	2.82	ug/L					31–MAR–10 18:53	033110B–1
	Potassium	–119.0	ug/L					31–MAR–10 18:53	033110B–1
	Selenium	–4.44	ug/L					31–MAR–10 18:53	033110B–1
	Silver	–2.44	ug/L					31–MAR–10 18:53	033110B–1
	Sodium	38.8	ug/L					31–MAR–10 18:53	033110B–1
	Vanadium	–0.082	ug/L					31–MAR–10 18:53	033110B–1
	Zinc	8.58	ug/L					31–MAR–10 18:53	033110B–1
ICSAB01									
	Aluminum	507000	ug/L	500000	ug/L	101	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Arsenic	523	ug/L	500	ug/L	105	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Barium	499	ug/L	500	ug/L	99.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Calcium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Chromium	484	ug/L	500	ug/L	96.7	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Cobalt	442	ug/L	500	ug/L	88.5	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Copper	542	ug/L	500	ug/L	108	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Iron	192000	ug/L	200000	ug/L	96	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Magnesium	485000	ug/L	500000	ug/L	97	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Nickel	455	ug/L	500	ug/L	90.9	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Potassium	5550	ug/L	5000	ug/L	111	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Selenium	2420	ug/L	2500	ug/L	96.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1

METALS
–4–
Interference Check Sample

SDG No: 10–2299–1

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silver	267	ug/L	250	ug/L	107	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Sodium	5330	ug/L	5000	ug/L	107	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Vanadium	513	ug/L	500	ug/L	103	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Zinc	494	ug/L	500	ug/L	98.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1

METALS
–4–
Interference Check Sample

SDG No: 10–2299–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.02	ug/L					11–MAY–10 07:30	100510–2
	Beryllium	0.074	ug/L					11–MAY–10 07:30	100510–2
	Cadmium	0.312	ug/L					11–MAY–10 07:30	100510–2
	Thallium	–0.002	ug/L					11–MAY–10 07:30	100510–2
ICSAB01									
	Antimony	19.2	ug/L	20	ug/L	96.2	80.0 – 120.0	11–MAY–10 07:34	100510–2
	Beryllium	18.6	ug/L	20	ug/L	93	80.0 – 120.0	11–MAY–10 07:34	100510–2
	Cadmium	20.2	ug/L	20.44	ug/L	98.7	80.0 – 120.0	11–MAY–10 07:34	100510–2
	Thallium	18.2	ug/L	20	ug/L	90.8	80.0 – 120.0	11–MAY–10 07:34	100510–2

METALS
-4-
Interference Check Sample

SDG No: 10--2299-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lead	0.22	ug/L					12-MAY-10 02:18	100511-3
	Manganese	5.53	ug/L					12-MAY-10 02:18	100511-3
ICSAB01									
	Lead	19.8	ug/L	20.19	ug/L	97.9	80.0 - 120.0	12-MAY-10 02:22	100511-3
	Manganese	25.0	ug/L	25.8	ug/L	96.7	80.0 - 120.0	12-MAY-10 02:22	100511-3

METALS
–4–
Interference Check Sample

SDG No: 10–2299–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS7

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Cesium	0.079	ug/L					26–MAY–10 15:30	100526–4
ICSAB01									
	Cesium	18.4	ug/L	20	ug/L	92.2	80.0 – 120.0	26–MAY–10 15:31	100526–4

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2299–1 **Client ID** RE46–10–13786S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 248861001 **Spike ID:** 1202065852

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Magnesium	ug/L	75–125	5210		85	U	5000	104		P
Nickel	ug/L	75–125	506		1.5	U	500	101		P
Potassium	ug/L	75–125	5060		74.3	J	5000	99.7		P
Selenium	ug/L	75–125	491		5	U	500	98.1		P
Silver	ug/L	75–125	485		1	U	500	97		P
Sodium	ug/L	75–125	5170		166	J	5000	100		P
Vanadium	ug/L	75–125	507		1	U	500	101		P
Zinc	ug/L	75–125	489		3.51	J	500	97.2		P
Aluminum	ug/L	75–125	5140		68	U	5000	102		P
Arsenic	ug/L	75–125	510		5	U	500	102		P
Barium	ug/L	75–125	508		1	U	500	101		P
Calcium	ug/L	75–125	5120		50	U	5000	102		P
Chromium	ug/L	75–125	500		1	U	500	99.9		P
Cobalt	ug/L	75–125	495		1	U	500	99		P
Copper	ug/L	75–125	506		3	U	500	101		P
Iron	ug/L	75–125	5080		47.2	J	5000	101		P

METALS
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Matrix Spike Summary

SDG NO. 10-2299-1 **Client ID** RE46-10-13786S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 248861001 **Spike ID:** 1202065857

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75-125	203		1	U	200	101		MS
Beryllium	ug/L	75-125	54.5		0.1	U	50	109		MS
Cadmium	ug/L	75-125	10.7		0.11	U	10	107		MS
Lead	ug/L	75-125	46		0.5	U	40	115		MS
Manganese	ug/L	75-125	53.1		1.6	J	50	103		MS
Thallium	ug/L	75-125	91.4		0.3	U	100	91.4		MS

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-2299-1 **Client ID** RE46-10-13786S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 248861001 **Spike ID:** 1202069581

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75-125	2.1		0.066	U	2	105		AV

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-2299-1 **Client ID** RE46-10-13875S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 248839002 **Spike ID:** 1202124416

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cesium	ug/L	75-125	103		0.102	U	100	103		MS

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-2299-1 **Client ID** RE46-10-13872S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 248839001 **Spike ID:** 1202125834

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cesium	ug/L	75-125	51.2		0.102	U	50	102		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2299–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE46–10–13786D

Sample ID: 248861001 **Duplicate ID:** 1202065851 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Arsenic	ug/L		5	U	5	U			P
Barium	ug/L		1	U	1	U			P
Calcium	ug/L		50	U	50	U			P
Chromium	ug/L		1	U	1	U			P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L	+/–100	47.2	J	46.1	J	2.48		P
Magnesium	ug/L		85	U	85	U			P
Nickel	ug/L		1.5	U	1.5	U			P
Potassium	ug/L		74.3	J	50	U	200		P
Selenium	ug/L		5	U	5	U			P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L	+/–300	166	J	152	J	9.12		P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L		3.51	J	3.3	U	200		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2299–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE46–10–13786D

Sample ID: 248861001 **Duplicate ID:** 1202065856 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		1	U	1	U			MS
Beryllium	ug/L		0.1	U	0.1	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Manganese	ug/L	+/–5	1.6	J	1.76	J	9.23		MS
Thallium	ug/L		0.3	U	0.3	U			MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-2299-1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE46-10-13786D

Sample ID: 248861001 **Duplicate ID:** 1202069580 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-2299-1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE46-10-13875D

Sample ID: 248839002 **Duplicate ID:** 1202124415 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cesium	ug/L		0.102	U	0.102	U			MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2299–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE46–10–13872D

Sample ID: 248839001 **Duplicate ID:** 1202125833 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cesium	ug/L		0.102	U	0.102	U			MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2299-1

Contract: LANL01004

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202065850								
	Aluminum	ug/L	5000	5000		100	80-120	P
	Arsenic	ug/L	500	505		101	80-120	P
	Barium	ug/L	500	499		99.8	80-120	P
	Calcium	ug/L	5000	5000		100	80-120	P
	Chromium	ug/L	500	491		98.2	80-120	P
	Cobalt	ug/L	500	487		97.3	80-120	P
	Copper	ug/L	500	495		99.1	80-120	P
	Iron	ug/L	5000	4920		98.4	80-120	P
	Magnesium	ug/L	5000	5080		102	80-120	P
	Nickel	ug/L	500	496		99.3	80-120	P
	Potassium	ug/L	5000	4950		98.9	80-120	P
	Selenium	ug/L	500	485		97	80-120	P
	Silver	ug/L	500	478		95.6	80-120	P
	Sodium	ug/L	5000	4960		99.2	80-120	P
	Vanadium	ug/L	500	496		99.1	80-120	P
	Zinc	ug/L	500	483		96.5	80-120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2299-1

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202065855								
	Antimony	ug/L	50	52.6		105	80-120	MS
	Beryllium	ug/L	50	54.7		109	80-120	MS
	Cadmium	ug/L	50	54		108	80-120	MS
	Lead	ug/L	50	55.3		111	80-120	MS
	Manganese	ug/L	50	54.9		110	80-120	MS
	Thallium	ug/L	50	49		98.1	80-120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2299-1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202069579								
	Mercury	ug/L	2	2.12		106	80-120	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2299–1

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202124414								
	Cesium	ug/L	50	55.5		111	80–120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2299-1

Contract: LANL01004

Aqueous LCS Source:O2SI **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202125832								
	Cesium	ug/L	50	48.4		96.8	80-120	MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2299-1 **Client ID** RE46-10-13786L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 248861001 **Serial Dilution ID:** 1202065853

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	5	U	25	U				P
Barium	1	U	5	U				P
Calcium	50	U	250	U				P
Chromium	1	U	5	U				P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	47.2	J	150	U	100			P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	74.3	J	250	U	100			P
Selenium	5	U	25	U				P
Silver	1	U	5	U				P
Sodium	166	J	500	U	100			P
Vanadium	1	U	5	U				P
Zinc	3.51	J	16.5	U	100			P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2299–1 **Client ID** RE46–10–13786L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 248861001 **Serial Dilution ID:** 1202065858

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1	U	5	U				MS
Beryllium	.1	U	.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Manganese	1.6	J	5	U	100			MS
Thallium	.3	U	6.7					MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2299-1 **Client ID** RE46-10-13786L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 248861001 **Serial Dilution ID:** 1202069582

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2299–1 **Client ID** RE46–10–13875L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 248839002 **Serial Dilution ID:** 1202124417

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Cesium	.102	U	.51	U				MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2299-1 **Client ID** RE46-10-13872L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 248839001 **Serial Dilution ID:** 1202125835

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Cesium	.102	U	.51	U				MS

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2299-1 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	962981						
1202065849	MB for batch 962981	MB	W	13-MAR-10	50mL	50mL	
1202065850	LCS for batch 962981	LCS	W	13-MAR-10	50mL	50mL	
1202065852	RE46-10-13786S	MS	W	13-MAR-10	50mL	50mL	
1202065851	RE46-10-13786D	DUP	W	13-MAR-10	50mL	50mL	
248839001	RE46-10-13872	SAMPLE	W	13-MAR-10	50mL	50mL	
248839002	RE46-10-13875	SAMPLE	W	13-MAR-10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2299-1 **Method Type**: MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 962983							
1202065854	MB for batch 962983	MB	W	13-MAR-10	50mL	50mL	
1202065855	LCS for batch 962983	LCS	W	13-MAR-10	50mL	50mL	
1202065857	RE46-10-13786S	MS	W	13-MAR-10	50mL	50mL	
1202065856	RE46-10-13786D	DUP	W	13-MAR-10	50mL	50mL	
248839001	RE46-10-13872	SAMPLE	W	13-MAR-10	50mL	50mL	
248839002	RE46-10-13875	SAMPLE	W	13-MAR-10	50mL	50mL	
Batch Number 987386							
1202124413	MB for batch 987386	MB	W	24-MAY-10	25mL	25mL	
1202124414	LCS for batch 987386	LCS	W	24-MAY-10	25mL	25mL	
1202124416	RE46-10-13875S	MS	W	24-MAY-10	25mL	25mL	
1202124415	RE46-10-13875D	DUP	W	24-MAY-10	25mL	25mL	
248839002	RE46-10-13875	SAMPLE	W	24-MAY-10	25mL	25mL	
Batch Number 987937							
1202125831	MB for batch 987937	MB	W	25-MAY-10	25mL	25mL	
1202125832	LCS for batch 987937	LCS	W	25-MAY-10	25mL	25mL	
1202125834	RE46-10-13872S	MS	W	25-MAY-10	25mL	25mL	
1202125833	RE46-10-13872D	DUP	W	25-MAY-10	25mL	25mL	
248839001	RE46-10-13872	SAMPLE	W	25-MAY-10	25mL	25mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2299-1 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	964663						
1202069578	MB for batch 964663	MB	W	12-MAR-10	20mL	20mL	
1202069579	LCS for batch 964663	LCS	W	12-MAR-10	20mL	20mL	
1202069581	RE46-10-13786S	MS	W	12-MAR-10	20mL	20mL	
1202069580	RE46-10-13786D	DUP	W	12-MAR-10	20mL	20mL	
248839001	RE46-10-13872	SAMPLE	W	12-MAR-10	20mL	20mL	
248839002	RE46-10-13875	SAMPLE	W	12-MAR-10	20mL	20mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 11–MAY–10 **End Date:** 11–MAY–10

Client Sdg: 10–2299–1
Method MS
Data File: 100510–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	07:01:00		X			X	X																X		
S10	1	07:06:00		X			X	X																X		
S100	1	07:11:00		X			X	X																X		
ICV01	1	07:15:00		X			X	X																X		
ICB01	1	07:20:00		X			X	X																X		
CRDL01	1	07:25:00		X			X	X																X		
ICSA01	1	07:30:00		X			X	X																X		
ICSAB01	1	07:34:00		X			X	X																X		
CCV01	1	07:39:00		X			X	X																X		
CCB01	1	07:44:00		X			X	X																X		
LR01	1	07:49:00		X			X	X																X		
CCV02	1	07:54:00		X			X	X																X		
CCB02	1	07:58:00		X			X	X																X		
1202065854	1	08:03:00		X			X	X																X		
1202065855	1	08:08:00		X			X	X																X		
ZZZZZZ	1	08:13:00																								
248839001	1	08:18:00		X			X	X																X		
248839002	1	08:22:00		X			X	X																X		
ZZZZZZ	1	08:27:00																								
CCV03	1	08:32:00		X			X	X																X		
CCB03	1	08:37:00		X			X	X																X		
ZZZZZZ	1	08:42:00																								
1202065856	1	08:46:00		X			X	X																X		
1202065857	1	08:51:00		X			X	X																X		
1202065858	5	08:56:00		X			X	X																X		
ZZZZZZ	1	09:01:00																								
CCV04	1	09:06:00		X			X	X																X		
CCB04	1	09:10:00		X			X	X																X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 12–MAY–10 **End Date:** 12–MAY–10

Client Sdg: 10–2299–1
Method MS
Data File: 100511–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	01:54:00													X		X									
S10	1	01:58:00													X		X									
S100	1	02:02:00													X		X									
ICV01	1	02:06:00													X		X									
ICB01	1	02:10:00													X		X									
CRDL01	1	02:14:00													X		X									
ICSA01	1	02:18:00													X		X									
ICSAB01	1	02:22:00													X		X									
CCV01	1	02:27:00													X		X									
CCB01	1	02:31:00													X		X									
LR01	1	02:35:00													X		X									
CCV02	1	02:39:00													X		X									
CCB02	1	02:43:00													X		X									
1202065854	1	02:47:00													X		X									
1202065855	1	02:51:00													X		X									
ZZZZZZ	1	02:55:00																								
248839001	1	03:00:00													X		X									
248839002	1	03:04:00													X		X									
ZZZZZZ	1	03:08:00																								
CCV03	1	03:12:00													X		X									
CCB03	1	03:16:00													X		X									
ZZZZZZ	1	03:20:00																								
1202065856	1	03:24:00													X		X									
1202065857	1	03:28:00													X		X									
1202065858	5	03:33:00													X		X									
ZZZZZZ	1	03:37:00																								
CCV04	1	03:41:00													X		X									
CCB04	1	03:45:00													X		X									

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 13-MAR-10 **End Date:** 13-MAR-10

Client Sdg: 10-2299-1
Method AV
Data File: 031310W1-5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	07:07:00																X								
S0.2	1	07:09:00																X								
S0.5	1	07:11:00																X								
S2.0	1	07:13:00																X								
S5.0	1	07:15:00																X								
S10.0	1	07:17:00																X								
ICV01	1	07:19:00																X								
ICB01	1	07:21:00																X								
CRDL01	1	07:23:00																X								
CCV01	1	07:24:00																X								
CCB01	1	07:26:00																X								
ZZZZZZ	1	07:28:00																								
ZZZZZZ	1	07:30:00																								
ZZZZZZ	1	07:32:00																								
ZZZZZZ	1	07:34:00																								
ZZZZZZ	1	07:36:00																								
ZZZZZZ	100	07:38:00																								
ZZZZZZ	100	07:40:00																								
ZZZZZZ	100	07:42:00																								
ZZZZZZ	500	07:44:00																								
ZZZZZZ	100	07:46:00																								
CCV02	1	07:47:00																X								
CCB02	1	07:49:00																X								
ZZZZZZ	1	07:51:00																								
ZZZZZZ	1	07:53:00																								
ZZZZZZ	1	07:55:00																								
ZZZZZZ	1	07:57:00																								
ZZZZZZ	1	07:59:00																								
ZZZZZZ	1	08:01:00																								
ZZZZZZ	1	08:03:00																								
ZZZZZZ	1	08:05:00																								
ZZZZZZ	1	08:07:00																								
ZZZZZZ	1	08:09:00																								
CCV03	1	08:11:00																X								
CCB03	1	08:12:00																X								
ZZZZZZ	1	08:14:00																								
ZZZZZZ	1	08:16:00																								
ZZZZZZ	1	08:18:00																								
ZZZZZZ	1	08:20:00																								
ZZZZZZ	1	08:22:00																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	08:24:00																							
ZZZZZZ	1	08:26:00																							
ZZZZZZ	1	08:28:00																							
ZZZZZZ	5	08:30:00																							
ZZZZZZ	1	08:32:00																							
CCV04	1	08:34:00															X								
CCB04	1	08:36:00															X								
1202069578	1	08:38:00															X								
1202069579	1	08:39:00															X								
ZZZZZZ	1	08:41:00																							
ZZZZZZ	1	08:43:00																							
ZZZZZZ	1	08:45:00																							
ZZZZZZ	1	08:47:00																							
ZZZZZZ	1	08:49:00																							
ZZZZZZ	1	08:51:00																							
ZZZZZZ	1	08:53:00																							
ZZZZZZ	1	08:55:00																							
CCV05	1	08:57:00															X								
CCB05	1	08:59:00															X								
ZZZZZZ	1	09:01:00																							
ZZZZZZ	1	09:03:00																							
ZZZZZZ	1	09:05:00																							
ZZZZZZ	1	09:06:00																							
ZZZZZZ	1	09:08:00																							
ZZZZZZ	1	09:10:00																							
248839001	1	09:12:00															X								
248839002	1	09:14:00															X								
ZZZZZZ	1	09:16:00																							
ZZZZZZ	1	09:18:00																							
CCV06	1	09:20:00															X								
CCB06	1	09:22:00															X								
1202069580	1	09:24:00															X								
1202069581	1	09:26:00															X								
1202069582	5	09:28:00															X								
ZZZZZZ	1	09:30:00																							
ZZZZZZ	1	09:32:00																							
ZZZZZZ	1	09:34:00																							
ZZZZZZ	1	09:35:00																							
ZZZZZZ	1	09:37:00																							
ZZZZZZ	1	09:39:00																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	09:41:00																								
CCV07	1	09:43:00																X								
CCB07	1	09:45:00																X								

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 31–MAR–10 **End Date:** 31–MAR–10

Client Sdg: 10–2299–1
Method P
Data File: 033110B–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	18:36:30	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
S0.1	1	18:39:45			X	X					X	X	X						X	X	X	X			X	X
S0.5	1	18:41:56	X		X	X			X		X	X	X			X			X	X	X	X			X	X
SCAL	1	18:43:55	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
S10	1	18:45:59	X						X					X		X							X			
ICV01	1	18:47:03	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
ICB01	1	18:48:09	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
PQL01	1	18:51:18	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
ICSA01	1	18:53:20	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
ICSAB01	1	18:55:20	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
LR01	1	18:56:26	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
LR02	1	18:57:44	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
CCV01	1	18:59:11	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
CCB01	1	19:01:26	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
CCV02	1	19:06:03	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
CCB02	1	19:08:04	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
1202065849	1	19:11:15	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
1202065850	1	19:14:12	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	19:16:26																								
1202065851	1	19:19:36	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
1202065852	1	19:22:32	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
1202065853	5	19:24:31	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
CCV03	1	19:27:41	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
CCB03	1	19:29:42	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	19:32:54																								
248839001	1	19:35:52	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
248839002	1	19:38:50	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	19:41:46																								
ZZZZZZ	1	19:44:56																								
CCV04	1	19:48:07	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X
CCB04	1	19:50:08	X		X	X			X		X	X	X	X		X			X	X	X	X	X		X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS7
Start Date: 26–MAY–10 **End Date:** 26–MAY–10

Client Sdg: 10–2299–1
Method MS
Data File: 100526–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cs	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	15:24:50								X																
S10	1	15:25:45								X																
S100	1	15:26:41								X																
ICV01	1	15:27:37								X																
ICB01	1	15:28:34								X																
CRDL01	1	15:29:30								X																
ICSA01	1	15:30:27								X																
ICSAB01	1	15:31:23								X																
CCV01	1	15:32:19								X																
CCB01	1	15:33:17								X																
ZZZZZZ	2	15:34:14																								
ZZZZZZ	2	15:35:10																								
ZZZZZZ	2	15:36:06																								
ZZZZZZ	2	15:37:03																								
ZZZZZZ	2	15:38:00																								
ZZZZZZ	2	15:38:56																								
ZZZZZZ	10	15:39:53																								
ZZZZZZ	2	15:40:50																								
CCV02	1	15:41:46								X																
CCB02	1	15:42:44								X																
ZZZZZZ	2	15:43:41																								
ZZZZZZ	2	15:44:37																								
ZZZZZZ	2	15:45:34																								
ZZZZZZ	2	15:46:31																								
ZZZZZZ	2	15:47:28																								
ZZZZZZ	2	15:48:25																								
ZZZZZZ	2	15:49:22																								
ZZZZZZ	2	15:50:18																								
ZZZZZZ	2	15:51:15																								
CCV03	1	15:52:12								X																
CCB03	1	15:53:10								X																
1202124413	1	15:54:07								X																
1202124414	1	15:55:04								X																
248839002	1	15:56:01								X																
1202124415	1	15:56:58								X																
1202124416	1	15:57:55								X																
1202124417	5	15:58:52								X																
CCV04	1	15:59:49								X																
CCB04	1	16:00:46								X																
1202125831	1	16:01:44								X																

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
1202125832	1	16:02:41								X																
248839001	1	16:03:38								X																
1202125833	1	16:04:35								X																
1202125834	1	16:05:33								X																
1202125835	5	16:06:30								X																
CCV05	1	16:07:27								X																
CCB05	1	16:08:25								X																

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2299–1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Cadmium		0.11	1
	Calcium		65.0	200
	Cesium		0.102	.5
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2299-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Mercury		0.066	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2299–1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2299-1
Effective Dates: 22-MAR-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2299-1
Effective Dates: 22-MAR-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2299-1
Effective Dates: 22-MAR-10

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2299-1
Effective Dates: 22-MAR-10

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2299-1
Effective Dates: 22-MAR-10

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2299-1
Effective Dates: 22-MAR-10

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–2299–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Cesium	1000	100	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2299–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10

METALS
-12-
Linear Ranges

SDG NO. 10-2299-1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS7

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Cesium	1000	100	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

Raw Data

Method: Hg_ReAlign
Result: 052610

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

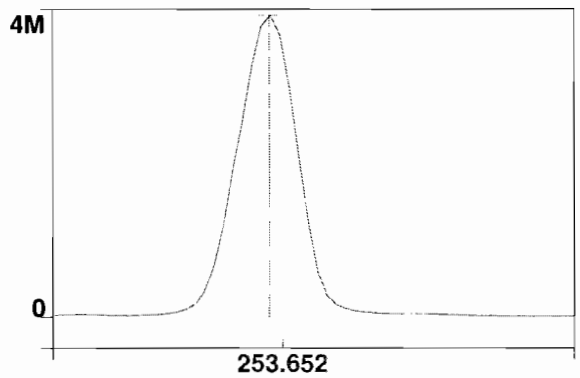

Intensity: 4315801.5 cps
Conc:

1

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Analysis Begun

Start Time: 3/31/2010 18:36:27 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701 **Autosampler Model: AS-93plus**

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/31/2010 18:36:30**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	146983.1	146983.1	101	%	18:37:03
1	Al 396.153Radial†	-46.6	-46.3	[0.00]	µg/L	18:37:23
1	Ca 317.933Radial†	562.9	558.9	[0.00]	µg/L	18:37:23
1	Fe 238.204 Radial†	148.8	147.8	[0.00]	µg/L	18:37:23
1	K 766.490 Radial†	1565.6	1554.3	[0.00]	µg/L	18:37:03
1	Mg 279.077 IEC†	207.4	205.9	[0.00]	µg/L	18:37:23
1	Na 589.592 Radial†	1216.0	1207.3	[0.00]	µg/L	18:37:03
1	Sr 421.552†	-110.9	-110.1	[0.00]	µg/L	18:37:03
1	Sc 361.383	1704607.6	1704607.6	99.208	%	18:38:25
1	Y 371.029	1018376.3	1018376.3	99.190	%	18:38:25
1	Ag 328.068†	3963.8	3995.4	[0.00]	µg/L	18:38:27
1	As 188.979†	-17.7	-17.9	[0.00]	µg/L	18:38:48
1	B 249.677†	3489.7	3517.5	[0.00]	µg/L	18:38:27
1	Ba 233.527†	-145.9	-147.0	[0.00]	µg/L	18:38:48
1	Be 313.107†	-965.4	-973.1	[0.00]	µg/L	18:38:27
1	Cd 226.502†	-106.0	-106.8	[0.00]	µg/L	18:38:48
1	Co 228.616†	-174.9	-176.3	[0.00]	µg/L	18:38:48
1	Cr 267.716†	129.8	130.8	[0.00]	µg/L	18:38:48
1	Cu 324.752†	2846.5	2869.3	[0.00]	µg/L	18:38:27
1	Mn 257.610†	253.9	255.9	[0.00]	µg/L	18:38:48
1	Mo 202.031†	-24.9	-25.1	[0.00]	µg/L	18:38:48
1	Ni 231.604†	-72.6	-73.1	[0.00]	µg/L	18:38:48
1	P 214.914†	-29.6	-29.8	[0.00]	µg/L	18:38:48
1	Pb 220.353†	106.5	107.4	[0.00]	µg/L	18:38:48
1	S 181.975 Axial†	102.6	103.4	[0.00]	µg/L	18:38:48
1	Sb 206.836†	81.9	82.6	[0.00]	µg/L	18:38:48
1	Se 196.026†	14.5	14.6	[0.00]	µg/L	18:38:48
1	SiO2†	1812.7	1827.1	[0.00]	µg/L	18:38:27
1	Si 251.611†	747.0	752.9	[0.00]	µg/L	18:38:27
1	Sn 189.927†	-6.9	-6.9	[0.00]	µg/L	18:38:48
1	Ti 334.940†	920.6	928.0	[0.00]	µg/L	18:38:27
1	Tl 190.801†	-108.2	-109.0	[0.00]	µg/L	18:38:48
1	U 409.014†	-161.2	-162.4	[0.00]	µg/L	18:38:27
1	V 292.402†	343.5	346.2	[0.00]	µg/L	18:38:27
1	Zn 213.857†	560.7	565.2	[0.00]	µg/L	18:38:48
2	Sc RADIAL	145077.9	145077.9	99.4	%	18:37:25
2	Al 396.153Radial†	-80.7	-81.2	[0.00]	µg/L	18:37:45
2	Ca 317.933Radial†	555.7	559.0	[0.00]	µg/L	18:37:45
2	Fe 238.204 Radial†	152.0	152.9	[0.00]	µg/L	18:37:45
2	K 766.490 Radial†	1581.8	1591.1	[0.00]	µg/L	18:37:25
2	Mg 279.077 IEC†	207.4	208.6	[0.00]	µg/L	18:37:45
2	Na 589.592 Radial†	1309.5	1317.2	[0.00]	µg/L	18:37:25
2	Sr 421.552†	-50.0	-50.3	[0.00]	µg/L	18:37:25
2	Sc 361.383	1730517.4	1730517.4	100.72	%	18:38:50
2	Y 371.029	1034150.1	1034150.1	100.73	%	18:38:50
2	Ag 328.068†	4314.8	4284.1	[0.00]	µg/L	18:38:52
2	As 188.979†	-23.3	-23.2	[0.00]	µg/L	18:39:12

2	B 249.677†	3487.4	3462.6	[0.00]	µg/L	18:38:52
2	Ba 233.527†	-138.3	-137.3	[0.00]	µg/L	18:39:12
2	Be 313.107†	-1181.9	-1173.5	[0.00]	µg/L	18:38:52
2	Cd 226.502†	-128.3	-127.3	[0.00]	µg/L	18:39:12
2	Co 228.616†	-207.1	-205.6	[0.00]	µg/L	18:39:12
2	Cr 267.716†	187.0	185.7	[0.00]	µg/L	18:39:12
2	Cu 324.752†	3037.7	3016.1	[0.00]	µg/L	18:38:52
2	Mn 257.610†	235.4	233.7	[0.00]	µg/L	18:39:12
2	Mo 202.031†	-14.8	-14.7	[0.00]	µg/L	18:39:12
2	Ni 231.604†	-77.5	-77.0	[0.00]	µg/L	18:39:12
2	P 214.914†	-7.1	-7.0	[0.00]	µg/L	18:39:12
2	Pb 220.353†	82.7	82.1	[0.00]	µg/L	18:39:12
2	S 181.975 Axial†	101.1	100.4	[0.00]	µg/L	18:39:12
2	Sb 206.836†	84.6	84.0	[0.00]	µg/L	18:39:12
2	Se 196.026†	9.6	9.5	[0.00]	µg/L	18:39:12
2	SiO2†	1764.6	1752.0	[0.00]	µg/L	18:38:52
2	Si 251.611†	909.0	902.5	[0.00]	µg/L	18:38:52
2	Sn 189.927†	4.1	4.0	[0.00]	µg/L	18:39:12
2	Ti 334.940†	1042.4	1035.0	[0.00]	µg/L	18:38:52
2	Tl 190.801†	-124.1	-123.3	[0.00]	µg/L	18:39:12
2	U 409.014†	-390.5	-387.7	[0.00]	µg/L	18:38:52
2	V 292.402†	355.1	352.6	[0.00]	µg/L	18:38:52
2	Zn 213.857†	564.8	560.8	[0.00]	µg/L	18:39:12
3	Sc RADIAL	145728.3	145728.3	99.9	%	18:37:47
3	Al 396.153Radial†	-62.0	-62.1	[0.00]	µg/L	18:38:07
3	Ca 317.933Radial†	563.1	563.9	[0.00]	µg/L	18:38:07
3	Fe 238.204 Radial†	143.5	143.7	[0.00]	µg/L	18:38:07
3	K 766.490 Radial†	1486.8	1488.8	[0.00]	µg/L	18:37:47
3	Mg 279.077 IEC†	157.4	157.6	[0.00]	µg/L	18:38:07
3	Na 589.592 Radial†	1346.0	1347.9	[0.00]	µg/L	18:37:47
3	Sr 421.552†	-245.1	-245.5	[0.00]	µg/L	18:37:47
3	Sc 361.383	1719527.8	1719527.8	100.08	%	18:39:14
3	Y 371.029	1027539.8	1027539.8	100.08	%	18:39:14
3	Ag 328.068†	3997.7	3994.6	[0.00]	µg/L	18:39:16
3	As 188.979†	-20.0	-20.0	[0.00]	µg/L	18:39:36
3	B 249.677†	3540.3	3537.6	[0.00]	µg/L	18:39:16
3	Ba 233.527†	-123.3	-123.2	[0.00]	µg/L	18:39:36
3	Be 313.107†	-1048.2	-1047.4	[0.00]	µg/L	18:39:16
3	Cd 226.502†	-120.5	-120.4	[0.00]	µg/L	18:39:36
3	Co 228.616†	-189.2	-189.0	[0.00]	µg/L	18:39:36
3	Cr 267.716†	219.3	219.2	[0.00]	µg/L	18:39:36
3	Cu 324.752†	3033.6	3031.3	[0.00]	µg/L	18:39:16
3	Mn 257.610†	222.3	222.2	[0.00]	µg/L	18:39:36
3	Mo 202.031†	-20.4	-20.4	[0.00]	µg/L	18:39:36
3	Ni 231.604†	-79.5	-79.4	[0.00]	µg/L	18:39:36
3	P 214.914†	-17.1	-17.1	[0.00]	µg/L	18:39:36
3	Pb 220.353†	69.7	69.7	[0.00]	µg/L	18:39:36
3	S 181.975 Axial†	111.4	111.3	[0.00]	µg/L	18:39:36
3	Sb 206.836†	76.0	76.0	[0.00]	µg/L	18:39:36
3	Se 196.026†	21.7	21.7	[0.00]	µg/L	18:39:36
3	SiO2†	1748.3	1747.0	[0.00]	µg/L	18:39:16
3	Si 251.611†	854.9	854.3	[0.00]	µg/L	18:39:16
3	Sn 189.927†	-0.5	-0.5	[0.00]	µg/L	18:39:36
3	Ti 334.940†	895.3	894.7	[0.00]	µg/L	18:39:16
3	Tl 190.801†	-117.8	-117.8	[0.00]	µg/L	18:39:36
3	U 409.014†	-259.7	-259.5	[0.00]	µg/L	18:39:16
3	V 292.402†	512.9	512.6	[0.00]	µg/L	18:39:16
3	Zn 213.857†	567.7	567.3	[0.00]	µg/L	18:39:36

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1718217.6	13004.50	0.76%	100.00	%
Sc RADIAL	145929.8	968.46	0.66%	100	%
Y 371.029	1026688.7	7921.26	0.77%	100.000	%
Ag 328.068†	4091.4	166.92	4.08%	[0.00]	µg/L
Al 396.153Radial†	-63.2	17.46	27.63%	[0.00]	µg/L
As 188.979†	-20.4	2.68	13.16%	[0.00]	µg/L
B 249.677†	3505.9	38.80	1.11%	[0.00]	µg/L
Ba 233.527†	-135.9	11.99	8.83%	[0.00]	µg/L

Be 313.107†	-1064.7	101.30	9.51%	[0.00] µg/L
Ca 317.933Radial†	560.6	2.89	0.52%	[0.00] µg/L
Cd 226.502†	-118.2	10.43	8.83%	[0.00] µg/L
Co 228.616†	-190.3	14.72	7.73%	[0.00] µg/L
Cr 267.716†	178.6	44.62	24.99%	[0.00] µg/L
Cu 324.752†	2972.2	89.48	3.01%	[0.00] µg/L
Fe 238.204 Radial†	148.1	4.61	3.11%	[0.00] µg/L
K 766.490 Radial†	1544.8	51.81	3.35%	[0.00] µg/L
Mg 279.077 IEC†	190.7	28.69	15.04%	[0.00] µg/L
Mn 257.610†	237.3	17.14	7.23%	[0.00] µg/L
Mo 202.031†	-20.1	5.18	25.80%	[0.00] µg/L
Na 589.592 Radial†	1290.8	73.89	5.72%	[0.00] µg/L
Ni 231.604†	-76.5	3.18	4.16%	[0.00] µg/L
P 214.914†	-18.0	11.42	63.61%	[0.00] µg/L
Pb 220.353†	86.4	19.23	22.27%	[0.00] µg/L
S 181.975 Axial†	105.1	5.63	5.36%	[0.00] µg/L
Sb 206.836†	80.8	4.27	5.29%	[0.00] µg/L
Se 196.026†	15.3	6.14	40.18%	[0.00] µg/L
SiO2†	1775.4	44.90	2.53%	[0.00] µg/L
Si 251.611†	836.6	76.33	9.12%	[0.00] µg/L
Sn 189.927†	-1.1	5.51	492.60%	[0.00] µg/L
Sr 421.552†	-135.3	99.98	73.90%	[0.00] µg/L
Ti 334.940†	952.5	73.33	7.70%	[0.00] µg/L
Tl 190.801†	-116.7	7.17	6.15%	[0.00] µg/L
U 409.014†	-269.9	113.01	41.87%	[0.00] µg/L
V 292.402†	403.8	94.24	23.34%	[0.00] µg/L
Zn 213.857†	564.4	3.32	0.59%	[0.00] µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/31/2010 18:39:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	144945.8	144945.8	99.3	%	18:40:16
1	K 766.490 Radial†	4177.9	2661.5	[1000]	µg/L	18:40:16
1	Sr 421.552†	48790.2	49256.8	[100]	µg/L	18:40:16
1	Sc 361.383	1738207.5	1738207.5	101.16	%	18:40:38
1	Y 371.029	1035658.2	1035658.2	100.87	%	18:40:38
1	Ag 328.068†	31505.9	27052.2	[100]	µg/L	18:40:40
1	As 188.979†	319.4	336.1	[100]	µg/L	18:41:00
1	B 249.677†	10182.7	6559.7	[100]	µg/L	18:40:40
1	Ba 233.527†	25238.0	25083.6	[100]	µg/L	18:40:40
1	Be 313.107†	372065.7	368851.5	[100]	µg/L	18:40:38
1	Cd 226.502†	16206.1	16137.9	[100]	µg/L	18:40:40
1	Co 228.616†	8180.0	8276.3	[100]	µg/L	18:41:00
1	Cr 267.716†	13182.1	12852.0	[100]	µg/L	18:40:40
1	Cu 324.752†	28766.5	25463.5	[100]	µg/L	18:40:40
1	Mn 257.610†	84629.1	83418.6	[100]	µg/L	18:40:40
1	Mo 202.031†	3388.6	3369.7	[100]	µg/L	18:41:00
1	Ni 231.604†	8784.7	8760.2	[100]	µg/L	18:40:40
1	P 214.914†	2330.2	2321.4	[500]	µg/L	18:41:00
1	Pb 220.353†	1931.7	1823.1	[100]	µg/L	18:41:00
1	S 181.975 Axial†	386.6	277.1	[200]	µg/L	18:41:00
1	Sb 206.836†	932.6	841.0	[100]	µg/L	18:41:00
1	Se 196.026†	288.8	270.2	[100]	µg/L	18:41:00
1	SiO2†	12629.3	10708.7	[1069.5]	µg/L	18:40:40
1	Si 251.611†	34601.6	33367.1	[500]	µg/L	18:40:40
1	Sn 189.927†	1637.3	1619.6	[100]	µg/L	18:41:00
1	Ti 334.940†	108213.7	106016.7	[100]	µg/L	18:40:40
1	Tl 190.801†	724.1	832.5	[100]	µg/L	18:41:00
1	U 409.014†	1714.9	1965.0	[100]	µg/L	18:40:40
1	V 292.402†	20866.1	20222.4	[100]	µg/L	18:40:40
1	Zn 213.857†	18689.8	17910.4	[100]	µg/L	18:40:40
2	Sc RADIAL	144384.1	144384.1	98.9	%	18:40:18
2	K 766.490 Radial†	4099.7	2598.8	[1000]	µg/L	18:40:18
2	Sr 421.552†	48913.4	49572.3	[100]	µg/L	18:40:18
2	Sc 361.383	1718136.8	1718136.8	99.995	%	18:41:02
2	Y 371.029	1023615.0	1023615.0	99.701	%	18:41:02
2	Ag 328.068†	31474.0	27384.1	[100]	µg/L	18:41:04
2	As 188.979†	316.2	336.6	[100]	µg/L	18:41:24
2	B 249.677†	10249.3	6743.9	[100]	µg/L	18:41:04
2	Ba 233.527†	25403.3	25540.3	[100]	µg/L	18:41:04
2	Be 313.107†	368011.0	369093.1	[100]	µg/L	18:41:02
2	Cd 226.502†	16403.0	16522.0	[100]	µg/L	18:41:04
2	Co 228.616†	8194.1	8384.8	[100]	µg/L	18:41:24
2	Cr 267.716†	13299.6	13121.6	[100]	µg/L	18:41:04
2	Cu 324.752†	29042.8	26072.0	[100]	µg/L	18:41:04
2	Mn 257.610†	85481.9	85248.7	[100]	µg/L	18:41:04
2	Mo 202.031†	3415.9	3436.2	[100]	µg/L	18:41:24
2	Ni 231.604†	9104.3	9181.2	[100]	µg/L	18:41:04
2	P 214.914†	2327.9	2346.0	[500]	µg/L	18:41:24
2	Pb 220.353†	1943.3	1857.0	[100]	µg/L	18:41:24
2	S 181.975 Axial†	382.9	277.8	[200]	µg/L	18:41:24
2	Sb 206.836†	933.1	852.4	[100]	µg/L	18:41:24
2	Se 196.026†	282.7	267.4	[100]	µg/L	18:41:24
2	SiO2†	12728.6	10953.9	[1069.5]	µg/L	18:41:04
2	Si 251.611†	35105.7	34270.8	[500]	µg/L	18:41:04
2	Sn 189.927†	1643.4	1644.6	[100]	µg/L	18:41:24
2	Ti 334.940†	109258.0	108310.6	[100]	µg/L	18:41:04
2	Tl 190.801†	742.2	858.9	[100]	µg/L	18:41:24
2	U 409.014†	1747.4	2017.4	[100]	µg/L	18:41:04
2	V 292.402†	20863.1	20460.2	[100]	µg/L	18:41:04

2	Zn 213.857†	18913.1	18349.6	[100]	µg/L	18:41:04
3	Sc RADIAL	144888.2	144888.2	99.3	%	18:40:20
3	K 766.490 Radial†	4194.1	2679.5	[1000]	µg/L	18:40:20
3	Sr 421.552†	48878.7	49365.4	[100]	µg/L	18:40:20
3	Sc 361.383	1720712.1	1720712.1	100.15	%	18:41:26
3	Y 371.029	1025149.2	1025149.2	99.850	%	18:41:26
3	Ag 328.068†	30653.6	26517.7	[100]	µg/L	18:41:28
3	As 188.979†	311.4	331.3	[100]	µg/L	18:41:48
3	B 249.677†	10032.3	6511.9	[100]	µg/L	18:41:28
3	Ba 233.527†	24571.6	24671.8	[100]	µg/L	18:41:28
3	Be 313.107†	369363.0	369892.2	[100]	µg/L	18:41:26
3	Cd 226.502†	15800.2	15895.5	[100]	µg/L	18:41:28
3	Co 228.616†	7941.4	8120.2	[100]	µg/L	18:41:48
3	Cr 267.716†	12878.6	12681.3	[100]	µg/L	18:41:28
3	Cu 324.752†	28237.0	25223.9	[100]	µg/L	18:41:28
3	Mn 257.610†	82709.3	82352.2	[100]	µg/L	18:41:28
3	Mo 202.031†	3317.5	3332.8	[100]	µg/L	18:41:48
3	Ni 231.604†	8579.1	8643.1	[100]	µg/L	18:41:28
3	P 214.914†	2246.6	2261.3	[500]	µg/L	18:41:48
3	Pb 220.353†	1888.8	1799.7	[100]	µg/L	18:41:48
3	S 181.975 Axial†	370.3	264.7	[200]	µg/L	18:41:48
3	Sb 206.836†	914.8	832.6	[100]	µg/L	18:41:48
3	Se 196.026†	294.0	278.3	[100]	µg/L	18:41:48
3	SiO2†	12365.6	10572.3	[1069.5]	µg/L	18:41:28
3	Si 251.611†	33612.6	32727.3	[500]	µg/L	18:41:28
3	Sn 189.927†	1589.9	1588.8	[100]	µg/L	18:41:48
3	Ti 334.940†	106005.7	104899.5	[100]	µg/L	18:41:28
3	Tl 190.801†	699.9	815.6	[100]	µg/L	18:41:48
3	U 409.014†	1493.0	1760.7	[100]	µg/L	18:41:28
3	V 292.402†	20303.9	19870.7	[100]	µg/L	18:41:28
3	Zn 213.857†	18249.8	17659.0	[100]	µg/L	18:41:28

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1725685.5	10920.55	0.63%	100.43	%
Sc RADIAL	144739.3	309.02	0.21%	99.2	%
Y 371.029	1028140.8	6555.30	0.64%	100.14	%
Ag 328.068†	26984.7	437.11	1.62%	[100]	µg/L
As 188.979†	334.7	2.93	0.88%	[100]	µg/L
B 249.677†	6605.2	122.52	1.85%	[100]	µg/L
Ba 233.527†	25098.6	434.45	1.73%	[100]	µg/L
Be 313.107†	369278.9	544.69	0.15%	[100]	µg/L
Cd 226.502†	16185.1	315.91	1.95%	[100]	µg/L
Co 228.616†	8260.4	133.02	1.61%	[100]	µg/L
Cr 267.716†	12885.0	222.00	1.72%	[100]	µg/L
Cu 324.752†	25586.4	437.23	1.71%	[100]	µg/L
K 766.490 Radial†	2646.6	42.33	1.60%	[1000]	µg/L
Mn 257.610†	83673.1	1464.94	1.75%	[100]	µg/L
Mo 202.031†	3379.6	52.39	1.55%	[100]	µg/L
Ni 231.604†	8861.5	282.97	3.19%	[100]	µg/L
P 214.914†	2309.6	43.55	1.89%	[500]	µg/L
Pb 220.353†	1826.6	28.83	1.58%	[100]	µg/L
S 181.975 Axial†	273.2	7.39	2.70%	[200]	µg/L
Sb 206.836†	842.0	9.91	1.18%	[100]	µg/L
Se 196.026†	272.0	5.61	2.06%	[100]	µg/L
SiO2†	10744.9	193.37	1.80%	[1069.5]	µg/L
Si 251.611†	33455.1	775.50	2.32%	[500]	µg/L
Sn 189.927†	1617.7	27.99	1.73%	[100]	µg/L
Sr 421.552†	49398.1	160.32	0.32%	[100]	µg/L
Ti 334.940†	106408.9	1739.07	1.63%	[100]	µg/L
Tl 190.801†	835.7	21.85	2.61%	[100]	µg/L
U 409.014†	1914.4	135.63	7.09%	[100]	µg/L
V 292.402†	20184.4	296.62	1.47%	[100]	µg/L
Zn 213.857†	17973.0	349.52	1.94%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/31/2010 18:41:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139976.0	139976.0	95.9	%	18:42:27
1	Al 396.153Radial†	25919.4	27085.0	[5000]	µg/L	18:42:27
1	Ca 317.933Radial†	87385.1	90541.3	[5000]	µg/L	18:42:27
1	K 766.490 Radial†	14430.7	13499.7	[5000]	µg/L	18:42:27
1	Mg 279.077 IEC†	13338.9	13715.6	[5000]	µg/L	18:42:27
1	Sr 421.552†	229015.2	238891.4	[500]	µg/L	18:42:25
1	Sc 361.383	1645400.7	1645400.7	95.762	%	18:42:40
1	Y 371.029	975342.9	975342.9	94.999	%	18:42:40
1	Ag 328.068†	131294.3	133013.3	[500]	µg/L	18:42:40
1	As 188.979†	1571.6	1661.5	[500]	µg/L	18:43:00
1	B 249.677†	35172.1	33222.7	[500]	µg/L	18:42:40
1	Ba 233.527†	117348.5	122677.6	[500]	µg/L	18:42:40
1	Be 313.107†	1744827.1	1823108.9	[500]	µg/L	18:42:40
1	Cd 226.502†	75312.3	78763.4	[500]	µg/L	18:42:40
1	Co 228.616†	38245.0	40127.8	[500]	µg/L	18:42:40
1	Cr 267.716†	60545.4	63046.3	[500]	µg/L	18:42:40
1	Cu 324.752†	123884.9	126395.2	[500]	µg/L	18:42:40
1	Mn 257.610†	385575.1	402401.4	[500]	µg/L	18:42:40
1	Mo 202.031†	16410.2	17156.5	[500]	µg/L	18:43:00
1	Ni 231.604†	41126.2	43022.7	[500]	µg/L	18:42:40
1	P 214.914†	11303.9	11822.1	[2500]	µg/L	18:43:00
1	Pb 220.353†	8787.6	9090.2	[500]	µg/L	18:43:00
1	S 181.975 Axial†	1381.6	1337.7	[1000]	µg/L	18:43:00
1	Sb 206.836†	4130.5	4232.5	[500]	µg/L	18:43:00
1	Se 196.026†	1340.7	1384.8	[500]	µg/L	18:43:00
1	SiO2†	54250.1	54875.6	[5347.5]	µg/L	18:42:40
1	Si 251.611†	163679.1	170086.1	[2500]	µg/L	18:42:40
1	Sn 189.927†	7746.5	8090.4	[500]	µg/L	18:43:00
1	Ti 334.940†	510093.6	531715.2	[500]	µg/L	18:42:40
1	Tl 190.801†	3808.0	4093.2	[500]	µg/L	18:43:00
1	U 409.014†	6985.6	7564.6	[500]	µg/L	18:42:40
1	V 292.402†	96986.0	100874.3	[500]	µg/L	18:42:40
1	Zn 213.857†	84527.8	87704.2	[500]	µg/L	18:42:40
2	Sc RADIAL	141210.3	141210.3	96.8	%	18:42:31
2	Al 396.153Radial†	26176.8	27114.9	[5000]	µg/L	18:42:31
2	Ca 317.933Radial†	88277.8	90667.6	[5000]	µg/L	18:42:31
2	K 766.490 Radial†	14658.6	13603.8	[5000]	µg/L	18:42:31
2	Mg 279.077 IEC†	13508.7	13769.5	[5000]	µg/L	18:42:31
2	Sr 421.552†	232944.0	240864.6	[500]	µg/L	18:42:29
2	Sc 361.383	1687203.1	1687203.1	98.195	%	18:43:03
2	Y 371.029	998510.1	998510.1	97.255	%	18:43:03
2	Ag 328.068†	134607.0	132990.0	[500]	µg/L	18:43:03
2	As 188.979†	1586.5	1636.0	[500]	µg/L	18:43:23
2	B 249.677†	36433.6	33597.5	[500]	µg/L	18:43:03
2	Ba 233.527†	121232.8	123597.1	[500]	µg/L	18:43:03
2	Be 313.107†	1799842.1	1833991.9	[500]	µg/L	18:43:03
2	Cd 226.502†	78158.8	79713.7	[500]	µg/L	18:43:03
2	Co 228.616†	39721.5	40642.0	[500]	µg/L	18:43:03
2	Cr 267.716†	62227.1	63192.4	[500]	µg/L	18:43:03
2	Cu 324.752†	127576.9	126949.9	[500]	µg/L	18:43:03
2	Mn 257.610†	397913.1	404990.4	[500]	µg/L	18:43:03
2	Mo 202.031†	16475.5	16798.5	[500]	µg/L	18:43:23
2	Ni 231.604†	42320.9	43175.4	[500]	µg/L	18:43:03
2	P 214.914†	11321.5	11547.6	[2500]	µg/L	18:43:23
2	Pb 220.353†	8841.9	8918.0	[500]	µg/L	18:43:23
2	S 181.975 Axial†	1404.5	1325.2	[1000]	µg/L	18:43:23
2	Sb 206.836†	4150.6	4146.1	[500]	µg/L	18:43:23
2	Se 196.026†	1352.6	1362.2	[500]	µg/L	18:43:23
2	SiO2†	55913.1	55165.5	[5347.5]	µg/L	18:43:03

2	Si 251.611†	169027.8	171298.3	[2500]	µg/L	18:43:03
2	Sn 189.927†	7793.7	7938.1	[500]	µg/L	18:43:23
2	Ti 334.940†	524282.8	532967.8	[500]	µg/L	18:43:03
2	Tl 190.801†	3829.1	4016.1	[500]	µg/L	18:43:23
2	U 409.014†	7204.4	7606.8	[500]	µg/L	18:43:03
2	V 292.402†	99476.3	100901.1	[500]	µg/L	18:43:03
2	Zn 213.857†	87574.3	88619.7	[500]	µg/L	18:43:03
3	Sc RADIAL	139845.9	139845.9	95.8	%	18:42:35
3	Al 396.153Radial†	25970.7	27163.8	[5000]	µg/L	18:42:35
3	Ca 317.933Radial†	87048.7	90275.0	[5000]	µg/L	18:42:35
3	K 766.490 Radial†	14322.7	13401.0	[5000]	µg/L	18:42:35
3	Mg 279.077 IEC†	13177.9	13560.5	[5000]	µg/L	18:42:35
3	Sr 421.552†	232490.3	242739.9	[500]	µg/L	18:42:33
3	Sc 361.383	1671427.9	1671427.9	97.277	%	18:43:26
3	Y 371.029	990579.4	990579.4	96.483	%	18:43:26
3	Ag 328.068†	132744.3	132368.9	[500]	µg/L	18:43:26
3	As 188.979†	1563.8	1627.9	[500]	µg/L	18:43:46
3	B 249.677†	35824.9	33321.9	[500]	µg/L	18:43:26
3	Ba 233.527†	119283.9	122759.0	[500]	µg/L	18:43:26
3	Be 313.107†	1775117.0	1825874.0	[500]	µg/L	18:43:26
3	Cd 226.502†	77044.3	79319.2	[500]	µg/L	18:43:26
3	Co 228.616†	39106.1	40391.2	[500]	µg/L	18:43:26
3	Cr 267.716†	61510.3	63053.6	[500]	µg/L	18:43:26
3	Cu 324.752†	125724.5	126271.8	[500]	µg/L	18:43:26
3	Mn 257.610†	391730.1	402458.9	[500]	µg/L	18:43:26
3	Mo 202.031†	16447.7	16928.2	[500]	µg/L	18:43:46
3	Ni 231.604†	41833.4	43081.0	[500]	µg/L	18:43:26
3	P 214.914†	11306.9	11641.3	[2500]	µg/L	18:43:46
3	Pb 220.353†	8817.9	8978.4	[500]	µg/L	18:43:46
3	S 181.975 Axial†	1403.6	1337.8	[1000]	µg/L	18:43:46
3	Sb 206.836†	4107.1	4141.3	[500]	µg/L	18:43:46
3	Se 196.026†	1356.4	1379.1	[500]	µg/L	18:43:46
3	SiO2†	55098.9	54865.9	[5347.5]	µg/L	18:43:26
3	Si 251.611†	166541.0	170366.5	[2500]	µg/L	18:43:26
3	Sn 189.927†	7776.3	7995.1	[500]	µg/L	18:43:46
3	Ti 334.940†	517688.6	531228.1	[500]	µg/L	18:43:26
3	Tl 190.801†	3841.1	4065.3	[500]	µg/L	18:43:46
3	U 409.014†	7259.9	7733.0	[500]	µg/L	18:43:26
3	V 292.402†	98243.7	100590.2	[500]	µg/L	18:43:26
3	Zn 213.857†	86383.4	88237.2	[500]	µg/L	18:43:26

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1668010.6	21109.69	1.27%	97.078	%
Sc RADIAL	140344.1	753.01	0.54%	96.2	%
Y 371.029	988144.1	11774.03	1.19%	96.246	%
Ag 328.068†	132790.8	365.49	0.28%	[500]	µg/L
Al 396.153Radial†	27121.2	39.74	0.15%	[5000]	µg/L
As 188.979†	1641.8	17.55	1.07%	[500]	µg/L
B 249.677†	33380.7	194.18	0.58%	[500]	µg/L
Ba 233.527†	123011.2	509.04	0.41%	[500]	µg/L
Be 313.107†	1827658.3	5656.67	0.31%	[500]	µg/L
Ca 317.933Radial†	90494.7	200.40	0.22%	[5000]	µg/L
Cd 226.502†	79265.5	477.42	0.60%	[500]	µg/L
Co 228.616†	40387.0	257.10	0.64%	[500]	µg/L
Cr 267.716†	63097.4	82.35	0.13%	[500]	µg/L
Cu 324.752†	126538.9	361.18	0.29%	[500]	µg/L
K 766.490 Radial†	13501.5	101.39	0.75%	[5000]	µg/L
Mg 279.077 IEC†	13681.9	108.49	0.79%	[5000]	µg/L
Mn 257.610†	403283.6	1478.44	0.37%	[500]	µg/L
Mo 202.031†	16961.0	181.25	1.07%	[500]	µg/L
Ni 231.604†	43093.0	77.04	0.18%	[500]	µg/L
P 214.914†	11670.4	139.54	1.20%	[2500]	µg/L
Pb 220.353†	8995.5	87.32	0.97%	[500]	µg/L
S 181.975 Axial†	1333.6	7.24	0.54%	[1000]	µg/L
Sb 206.836†	4173.3	51.32	1.23%	[500]	µg/L
Se 196.026†	1375.4	11.73	0.85%	[500]	µg/L
SiO2†	54969.0	170.25	0.31%	[5347.5]	µg/L
Si 251.611†	170583.6	634.61	0.37%	[2500]	µg/L

Sn 189.927†	8007.9	76.96	0.96%	[500] µg/L
Sr 421.552†	240832.0	1924.44	0.80%	[500] µg/L
Ti 334.940†	531970.4	897.45	0.17%	[500] µg/L
Tl 190.801†	4058.2	39.03	0.96%	[500] µg/L
U 409.014†	7634.8	87.65	1.15%	[500] µg/L
V 292.402†	100788.5	172.29	0.17%	[500] µg/L
Zn 213.857†	88187.0	459.83	0.52%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/31/2010 18:43:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	140246.3	140246.3	96.1	%	18:44:26
1	Al 396.153Radial†	52689.3	54887.7	[10000]	µg/L	18:44:26
1	Ca 317.933Radial†	176157.7	182735.9	[10000]	µg/L	18:44:26
1	Fe 238.204 Radial†	157034.9	163250.7	[10000]	µg/L	18:44:26
1	K 766.490 Radial†	27864.8	27449.2	[10000]	µg/L	18:44:26
1	Mg 279.077 IEC†	26628.7	27517.1	[10000]	µg/L	18:44:26
1	Na 589.592 Radial†	71367.5	72968.9	[10000]	µg/L	18:44:26
1	Sr 421.552†	465887.4	484902.9	[1000]	µg/L	18:44:24
1	Sc 361.383	1660058.9	1660058.9	96.615	%	18:44:39
1	Y 371.029	978012.9	978012.9	95.259	%	18:44:39
1	Ag 328.068†	268618.1	273937.5	[1000]	µg/L	18:44:41
1	As 188.979†	3193.8	3326.1	[1000]	µg/L	18:45:01
1	B 249.677†	69762.5	68700.7	[1000]	µg/L	18:44:41
1	Ba 233.527†	242316.3	250941.5	[1000]	µg/L	18:44:41
1	Be 313.107†	3555578.2	3681209.5	[1000]	µg/L	18:44:39
1	Cd 226.502†	156604.8	162209.5	[1000]	µg/L	18:44:41
1	Co 228.616†	78951.1	81907.4	[1000]	µg/L	18:44:41
1	Cr 267.716†	125005.7	129206.6	[1000]	µg/L	18:44:41
1	Cu 324.752†	255303.1	261275.2	[1000]	µg/L	18:44:41
1	Mn 257.610†	781879.7	809034.9	[1000]	µg/L	18:44:39
1	Mo 202.031†	33228.9	34413.1	[1000]	µg/L	18:44:41
1	Ni 231.604†	84765.4	87811.6	[1000]	µg/L	18:44:41
1	P 214.914†	22636.2	23447.2	[5000]	µg/L	18:45:01
1	Pb 220.353†	17407.6	17931.0	[1000]	µg/L	18:45:01
1	S 181.975 Axial†	2706.2	2696.0	[2000]	µg/L	18:45:01
1	Sb 206.836†	8264.7	8473.4	[1000]	µg/L	18:45:01
1	Se 196.026†	2709.4	2789.0	[1000]	µg/L	18:45:01
1	SiO2†	108329.2	110349.0	[10695]	µg/L	18:44:41
1	Si 251.611†	331285.5	342055.2	[5000]	µg/L	18:44:41
1	Sn 189.927†	15541.6	16087.2	[1000]	µg/L	18:45:01
1	Ti 334.940†	1037686.9	1073088.8	[1000]	µg/L	18:44:39
1	Tl 190.801†	7778.7	8167.9	[1000]	µg/L	18:45:01
1	U 409.014†	16858.3	17718.8	[1000]	µg/L	18:44:41
1	V 292.402†	201478.5	208133.3	[1000]	µg/L	18:44:41
1	Zn 213.857†	174510.7	180060.2	[1000]	µg/L	18:44:41
2	Sc RADIAL	138844.4	138844.4	95.1	%	18:44:30
2	Al 396.153Radial†	52161.3	54886.4	[10000]	µg/L	18:44:30
2	Ca 317.933Radial†	173493.6	181786.6	[10000]	µg/L	18:44:30
2	Fe 238.204 Radial†	154887.4	162643.3	[10000]	µg/L	18:44:30
2	K 766.490 Radial†	27455.0	27311.3	[10000]	µg/L	18:44:30
2	Mg 279.077 IEC†	26420.5	27578.1	[10000]	µg/L	18:44:30
2	Na 589.592 Radial†	70508.9	72816.3	[10000]	µg/L	18:44:30
2	Sr 421.552†	460810.9	484461.8	[1000]	µg/L	18:44:28
2	Sc 361.383	1689699.6	1689699.6	98.340	%	18:45:04
2	Y 371.029	993860.1	993860.1	96.802	%	18:45:04
2	Ag 328.068†	266910.5	267323.9	[1000]	µg/L	18:45:06
2	As 188.979†	3218.4	3293.1	[1000]	µg/L	18:45:26
2	B 249.677†	69508.7	67175.9	[1000]	µg/L	18:45:06
2	Ba 233.527†	241134.5	245340.1	[1000]	µg/L	18:45:06
2	Be 313.107†	3627090.7	3689371.8	[1000]	µg/L	18:45:04
2	Cd 226.502†	155509.2	158252.0	[1000]	µg/L	18:45:06
2	Co 228.616†	78490.7	80005.8	[1000]	µg/L	18:45:06
2	Cr 267.716†	124369.4	126289.8	[1000]	µg/L	18:45:06
2	Cu 324.752†	253180.3	254481.2	[1000]	µg/L	18:45:06
2	Mn 257.610†	797903.6	811133.0	[1000]	µg/L	18:45:04
2	Mo 202.031†	33052.4	33630.3	[1000]	µg/L	18:45:06
2	Ni 231.604†	84350.1	85850.2	[1000]	µg/L	18:45:06
2	P 214.914†	22849.9	23253.5	[5000]	µg/L	18:45:26
2	Pb 220.353†	17581.2	17791.6	[1000]	µg/L	18:45:26

2	S 181.975 Axial†	2749.5	2690.8	[2000]	µg/L	18:45:26
2	Sb 206.836†	8294.0	8353.2	[1000]	µg/L	18:45:26
2	Se 196.026†	2710.1	2740.6	[1000]	µg/L	18:45:26
2	SiO2†	107785.0	107828.8	[10695]	µg/L	18:45:06
2	Si 251.611†	329317.5	334039.0	[5000]	µg/L	18:45:06
2	Sn 189.927†	15680.3	15946.1	[1000]	µg/L	18:45:26
2	Ti 334.940†	1057357.1	1074250.2	[1000]	µg/L	18:45:04
2	Tl 190.801†	7829.0	8077.8	[1000]	µg/L	18:45:26
2	U 409.014†	16641.8	17192.5	[1000]	µg/L	18:45:06
2	V 292.402†	200063.6	203036.4	[1000]	µg/L	18:45:06
2	Zn 213.857†	173774.1	176142.5	[1000]	µg/L	18:45:06
3	Sc RADIAL	142431.7	142431.7	97.6	%	18:44:34
3	Al 396.153Radial†	53146.2	54514.7	[10000]	µg/L	18:44:34
3	Ca 317.933Radial†	178392.5	182213.1	[10000]	µg/L	18:44:34
3	Fe 238.204 Radial†	159216.9	162979.1	[10000]	µg/L	18:44:34
3	K 766.490 Radial†	28289.6	27439.6	[10000]	µg/L	18:44:34
3	Mg 279.077 IEC†	27285.4	27764.8	[10000]	µg/L	18:44:34
3	Na 589.592 Radial†	72542.7	73033.5	[10000]	µg/L	18:44:34
3	Sr 421.552†	461335.7	472801.1	[1000]	µg/L	18:44:32
3	Sc 361.383	1671450.9	1671450.9	97.278	%	18:45:29
3	Y 371.029	984698.6	984698.6	95.910	%	18:45:29
3	Ag 328.068†	268839.9	272270.6	[1000]	µg/L	18:45:31
3	As 188.979†	3207.1	3317.1	[1000]	µg/L	18:45:51
3	B 249.677†	69920.1	68370.5	[1000]	µg/L	18:45:31
3	Ba 233.527†	242785.5	249714.4	[1000]	µg/L	18:45:31
3	Be 313.107†	3559181.4	3659831.0	[1000]	µg/L	18:45:29
3	Cd 226.502†	156473.3	160969.5	[1000]	µg/L	18:45:31
3	Co 228.616†	79020.9	81422.2	[1000]	µg/L	18:45:31
3	Cr 267.716†	125294.1	128621.2	[1000]	µg/L	18:45:31
3	Cu 324.752†	255275.0	259445.3	[1000]	µg/L	18:45:31
3	Mn 257.610†	783171.7	804847.3	[1000]	µg/L	18:45:29
3	Mo 202.031†	33174.1	34122.4	[1000]	µg/L	18:45:31
3	Ni 231.604†	84877.1	87328.4	[1000]	µg/L	18:45:31
3	P 214.914†	22811.2	23467.5	[5000]	µg/L	18:45:51
3	Pb 220.353†	17557.7	17962.6	[1000]	µg/L	18:45:51
3	S 181.975 Axial†	2739.9	2711.5	[2000]	µg/L	18:45:51
3	Sb 206.836†	8307.3	8458.9	[1000]	µg/L	18:45:51
3	Se 196.026†	2720.6	2781.4	[1000]	µg/L	18:45:51
3	SiO2†	108495.7	109756.0	[10695]	µg/L	18:45:31
3	Si 251.611†	331529.5	339969.0	[5000]	µg/L	18:45:31
3	Sn 189.927†	15666.1	16105.6	[1000]	µg/L	18:45:51
3	Ti 334.940†	1040566.4	1068728.6	[1000]	µg/L	18:45:29
3	Tl 190.801†	7842.2	8178.3	[1000]	µg/L	18:45:51
3	U 409.014†	16964.7	17709.3	[1000]	µg/L	18:45:31
3	V 292.402†	201223.5	206449.9	[1000]	µg/L	18:45:31
3	Zn 213.857†	174624.2	178945.7	[1000]	µg/L	18:45:31

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1673736.5	14951.98	0.89%	97.411	%
Sc RADIAL	140507.5	1807.88	1.29%	96.3	%
Y 371.029	985523.8	7955.77	0.81%	95.991	%
Ag 328.068†	271177.3	3439.65	1.27%	[1000]	µg/L
Al 396.153Radial†	54762.9	214.99	0.39%	[10000]	µg/L
As 188.979†	3312.1	17.04	0.51%	[1000]	µg/L
B 249.677†	68082.4	802.18	1.18%	[1000]	µg/L
Ba 233.527†	248665.4	2944.35	1.18%	[1000]	µg/L
Be 313.107†	3676804.1	15255.21	0.41%	[1000]	µg/L
Ca 317.933Radial†	182245.2	475.46	0.26%	[10000]	µg/L
Cd 226.502†	160477.0	2024.24	1.26%	[1000]	µg/L
Co 228.616†	81111.8	988.08	1.22%	[1000]	µg/L
Cr 267.716†	128039.2	1543.01	1.21%	[1000]	µg/L
Cu 324.752†	258400.5	3515.45	1.36%	[1000]	µg/L
Fe 238.204 Radial†	162957.7	304.26	0.19%	[10000]	µg/L
K 766.490 Radial†	27400.1	77.00	0.28%	[10000]	µg/L
Mg 279.077 IEC†	27620.0	129.06	0.47%	[10000]	µg/L
Mn 257.610†	808338.4	3200.20	0.40%	[1000]	µg/L
Mo 202.031†	34055.3	395.69	1.16%	[1000]	µg/L
Na 589.592 Radial†	72939.6	111.55	0.15%	[10000]	µg/L

Ni 231.604†	86996.7	1021.87	1.17%	[1000]	µg/L
P 214.914†	23389.4	118.12	0.51%	[5000]	µg/L
Pb 220.353†	17895.1	91.02	0.51%	[1000]	µg/L
S 181.975 Axial†	2699.4	10.77	0.40%	[2000]	µg/L
Sb 206.836†	8428.5	65.64	0.78%	[1000]	µg/L
Se 196.026†	2770.3	26.05	0.94%	[1000]	µg/L
SiO2†	109311.3	1317.66	1.21%	[10695]	µg/L
Si 251.611†	338687.7	4158.85	1.23%	[5000]	µg/L
Sn 189.927†	16046.3	87.25	0.54%	[1000]	µg/L
Sr 421.552†	480721.9	6863.20	1.43%	[1000]	µg/L
Ti 334.940†	1072022.5	2911.16	0.27%	[1000]	µg/L
Tl 190.801†	8141.3	55.30	0.68%	[1000]	µg/L
U 409.014†	17540.2	301.14	1.72%	[1000]	µg/L
V 292.402†	205873.2	2596.95	1.26%	[1000]	µg/L
Zn 213.857†	178382.8	2018.56	1.13%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/31/2010 18:45:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139343.3	139343.3	95.5	%	18:46:28
1	Al 396.153Radial†	256543.2	268732.8	[50000]	µg/L	18:46:28
1	Ca 317.933Radial†	856588.9	896517.6	[50000]	µg/L	18:46:28
1	Fe 238.204 Radial†	309603.0	324089.2	[20000]	µg/L	18:46:28
1	Mg 279.077 IEC†	128261.6	134133.6	[50000]	µg/L	18:46:28
1	Na 589.592 Radial†	141053.4	146429.9	[20000]	µg/L	18:46:28
1	Sc 361.383	1636602.8	1636602.8	95.250	%	18:46:50
1	Y 371.029	965973.5	965973.5	94.086	%	18:46:50
2	Sc RADIAL	137624.0	137624.0	94.3	%	18:46:30
2	Al 396.153Radial†	254363.4	269777.6	[50000]	µg/L	18:46:30
2	Ca 317.933Radial†	846244.8	896755.8	[50000]	µg/L	18:46:30
2	Fe 238.204 Radial†	305781.9	324087.9	[20000]	µg/L	18:46:30
2	Mg 279.077 IEC†	126264.9	133694.4	[50000]	µg/L	18:46:30
2	Na 589.592 Radial†	139489.2	146616.7	[20000]	µg/L	18:46:30
2	Sc 361.383	1622381.6	1622381.6	94.422	%	18:46:53
2	Y 371.029	956849.7	956849.7	93.198	%	18:46:53
3	Sc RADIAL	137980.0	137980.0	94.6	%	18:46:32
3	Al 396.153Radial†	255245.7	270015.0	[50000]	µg/L	18:46:32
3	Ca 317.933Radial†	849307.2	897679.9	[50000]	µg/L	18:46:32
3	Fe 238.204 Radial†	306725.7	324249.8	[20000]	µg/L	18:46:32
3	Mg 279.077 IEC†	127087.0	134218.4	[50000]	µg/L	18:46:32
3	Na 589.592 Radial†	139780.8	146543.6	[20000]	µg/L	18:46:32
3	Sc 361.383	1649813.3	1649813.3	96.019	%	18:46:56
3	Y 371.029	972430.3	972430.3	94.715	%	18:46:56

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1636265.9	13718.97	0.84%	95.230	%
Sc RADIAL	138315.8	907.47	0.66%	94.8	%
Y 371.029	965084.5	7828.26	0.81%	94.000	%
Al 396.153Radial†	269508.5	682.17	0.25%	[50000]	µg/L
Ca 317.933Radial†	896984.4	613.95	0.07%	[50000]	µg/L
Fe 238.204 Radial†	324142.3	93.07	0.03%	[20000]	µg/L
Mg 279.077 IEC†	134015.5	281.29	0.21%	[50000]	µg/L
Na 589.592 Radial†	146530.1	94.09	0.06%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	270.1	0.00000	0.999966	
Al 396.153Radial	3	Lin Thru 0	0.0	5.394	0.00000	0.999995	
As 188.979	3	Lin Thru 0	0.0	3.307	0.00000	0.999994	
B 249.677	3	Lin Thru 0	0.0	67.80	0.00000	0.999967	
Ba 233.527	3	Lin Thru 0	0.0	248.2	0.00000	0.999990	
Be 313.107	3	Lin Thru 0	0.0	3673	0.00000	0.999997	
Ca 317.933Radial	3	Lin Thru 0	0.0	17.95	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	160.1	0.00000	0.999988	
Co 228.616	3	Lin Thru 0	0.0	81.06	0.00000	0.999997	
Cr 267.716	3	Lin Thru 0	0.0	127.7	0.00000	0.999983	
Cu 324.752	3	Lin Thru 0	0.0	257.3	0.00000	0.999966	
Fe 238.204 Radia	2	Lin Thru 0	0.0	16.22	0.00000	0.999998	
K 766.490 Radial	3	Lin Thru 0	0.0	2.731	0.00000	0.999979	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.684	0.00000	0.999981	
Mn 257.610	3	Lin Thru 0	0.0	808.2	0.00000	0.999995	
Mo 202.031	3	Lin Thru 0	0.0	34.03	0.00000	0.999999	
Na 589.592 Radia	2	Lin Thru 0	0.0	7.320	0.00000	0.999998	

Ni 231.604	3	Lin Thru 0	0.0	86.85	0.00000	0.999991
P 214.914	3	Lin Thru 0	0.0	4.675	0.00000	0.999999
Pb 220.353	3	Lin Thru 0	0.0	17.92	0.00000	0.999996
S 181.975 Axial	3	Lin Thru 0	0.0	1.347	0.00000	0.999988
Sb 206.836	3	Lin Thru 0	0.0	8.412	0.00000	0.999992
Se 196.026	3	Lin Thru 0	0.0	2.766	0.00000	0.999995
SiO2	3	Lin Thru 0	0.0	10.23	0.00000	0.999996
Si 251.611	3	Lin Thru 0	0.0	67.83	0.00000	0.999995
Sn 189.927	3	Lin Thru 0	0.0	16.04	0.00000	0.999999
Sr 421.552	3	Lin Thru 0	0.0	481.0	0.00000	0.999997
Ti 334.940	3	Lin Thru 0	0.0	1070	0.00000	0.999995
Tl 190.801	3	Lin Thru 0	0.0	8.138	0.00000	0.999996
U 409.014	3	Lin Thru 0	0.0	17.10	0.00000	0.998547
V 292.402	3	Lin Thru 0	0.0	205.0	0.00000	0.999964
Zn 213.857	3	Lin Thru 0	0.0	178.0	0.00000	0.999990

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/31/2010 18:47:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142728.0	142728.0	97.8	%			18:47:35
1	Al 396.153Radial†	27196.1	27869.4	5141.6	µg/L	5141.6	ppb	18:47:35
1	Ca 317.933Radial†	89393.1	90837.9	5060.0	µg/L	5060.0	ppb	18:47:35
1	Fe 238.204 Radial†	80412.9	82068.7	5058.2	µg/L	5058.2	ppb	18:47:35
1	K 766.490 Radial†	8352.4	6995.0	2558.1	µg/L	2558.1	ppb	18:47:35
1	Mg 279.077 IEC†	14148.2	14274.9	5327.6	µg/L	5327.6	ppb	18:47:35
1	Na 589.592 Radial†	19150.9	18289.7	2496.3	µg/L	2496.3	ppb	18:47:35
1	Sr 421.552†	250356.1	256107.6	532.39	µg/L	532.39	ppb	18:47:33
1	Sc 361.383	1677195.1	1677195.1	97.612	%			18:47:48
1	Y 371.029	995806.6	995806.6	96.992	%			18:47:48
1	Ag 328.068†	70215.3	67841.3	257.54	µg/L	257.54	ppb	18:47:48
1	As 188.979†	1526.8	1584.5	486.58	µg/L	486.58	ppb	18:47:50
1	B 249.677†	37075.8	34476.8	506.67	µg/L	506.67	ppb	18:47:48
1	Ba 233.527†	122696.8	125833.7	507.50	µg/L	507.50	ppb	18:47:48
1	Be 313.107†	933729.3	957632.1	260.88	µg/L	260.88	ppb	18:47:48
1	Cd 226.502†	77657.9	79675.5	497.37	µg/L	497.37	ppb	18:47:48
1	Co 228.616†	40998.4	42191.5	520.85	µg/L	520.85	ppb	18:47:50
1	Cr 267.716†	62225.7	63569.1	497.75	µg/L	497.75	ppb	18:47:50
1	Cu 324.752†	130541.7	130762.4	509.73	µg/L	509.73	ppb	18:47:48
1	Mn 257.610†	407677.2	417411.4	516.24	µg/L	516.24	ppb	18:47:48
1	Mo 202.031†	18097.1	18559.8	545.92	µg/L	545.92	ppb	18:47:50
1	Ni 231.604†	43663.1	44807.6	515.93	µg/L	515.93	ppb	18:47:50
1	P 214.914†	11760.6	12066.2	2571.9	µg/L	2571.9	ppb	18:47:50
1	Pb 220.353†	9089.2	9225.1	516.68	µg/L	516.68	ppb	18:47:50
1	S 181.975 Axial†	3477.6	3457.6	2572.2	µg/L	2572.2	ppb	18:47:50
1	Sb 206.836†	4253.6	4276.8	510.30	µg/L	510.30	ppb	18:47:50
1	Se 196.026†	6905.2	7058.8	2550	µg/L	2550	ppb	18:47:50
1	SiO2†	106599.4	107431.3	10477	µg/L	10477	ppb	18:47:48
1	Si 251.611†	325209.4	332327.1	4888.6	µg/L	4888.6	ppb	18:47:48
1	Sn 189.927†	8509.6	8718.8	545.19	µg/L	545.19	ppb	18:47:50
1	Ti 334.940†	517306.5	529006.8	493.58	µg/L	493.58	ppb	18:47:48
1	Tl 190.801†	4208.4	4428.0	551.50	µg/L	551.50	ppb	18:47:50
1	U 409.014†	7246.7	7693.8	480.75	µg/L	480.75	ppb	18:47:48
1	V 292.402†	101371.8	103447.4	511.74	µg/L	511.74	ppb	18:47:48
1	Zn 213.857†	89039.6	90653.0	505.19	µg/L	505.19	ppb	18:47:48
2	Sc RADIAL	141472.3	141472.3	96.9	%			18:47:39
2	Al 396.153Radial†	26888.4	27798.8	5129.2	µg/L	5129.2	ppb	18:47:39
2	Ca 317.933Radial†	88063.7	90277.8	5028.8	µg/L	5028.8	ppb	18:47:39
2	Fe 238.204 Radial†	79583.4	81942.8	5050.5	µg/L	5050.5	ppb	18:47:39
2	K 766.490 Radial†	8113.5	6824.4	2495.6	µg/L	2495.6	ppb	18:47:39
2	Mg 279.077 IEC†	13969.8	14219.3	5306.5	µg/L	5306.5	ppb	18:47:39
2	Na 589.592 Radial†	19176.1	18489.5	2523.7	µg/L	2523.7	ppb	18:47:39
2	Sr 421.552†	244831.9	252681.3	525.27	µg/L	525.27	ppb	18:47:37
2	Sc 361.383	1698788.6	1698788.6	98.869	%			18:47:53
2	Y 371.029	1007373.3	1007373.3	98.119	%			18:47:53
2	Ag 328.068†	71291.0	68014.9	258.16	µg/L	258.16	ppb	18:47:53
2	As 188.979†	1532.9	1570.8	482.29	µg/L	482.29	ppb	18:47:55
2	B 249.677†	37726.0	34651.6	509.29	µg/L	509.29	ppb	18:47:53
2	Ba 233.527†	124221.9	125778.5	507.27	µg/L	507.27	ppb	18:47:53
2	Be 313.107†	946768.4	958661.3	261.16	µg/L	261.16	ppb	18:47:53
2	Cd 226.502†	78878.8	79899.1	498.76	µg/L	498.76	ppb	18:47:53
2	Co 228.616†	40427.2	41079.9	507.13	µg/L	507.13	ppb	18:47:55
2	Cr 267.716†	61613.4	62139.5	486.55	µg/L	486.55	ppb	18:47:55
2	Cu 324.752†	131991.8	130529.2	508.81	µg/L	508.81	ppb	18:47:53
2	Mn 257.610†	413215.3	417704.0	516.60	µg/L	516.60	ppb	18:47:53
2	Mo 202.031†	17824.6	18048.5	530.89	µg/L	530.89	ppb	18:47:55
2	Ni 231.604†	43042.2	43611.0	502.15	µg/L	502.15	ppb	18:47:55
2	P 214.914†	11581.1	11731.5	2500.3	µg/L	2500.3	ppb	18:47:55
2	Pb 220.353†	8959.4	8975.5	502.70	µg/L	502.70	ppb	18:47:55

2	S 181.975 Axial†	3387.2	3320.9	2470.5 µg/L	2470.5 ppb	18:47:55
2	Sb 206.836†	4183.4	4150.4	495.20 µg/L	495.20 ppb	18:47:55
2	Se 196.026†	6756.5	6818.5	2470 µg/L	2470 ppb	18:47:55
2	SiO2†	108026.4	107486.5	10483 µg/L	10483 ppb	18:47:53
2	Si 251.611†	330001.8	332939.4	4897.9 µg/L	4897.9 ppb	18:47:53
2	Sn 189.927†	8332.5	8429.0	527.12 µg/L	527.12 ppb	18:47:55
2	Ti 334.940†	523598.9	528634.8	493.24 µg/L	493.24 ppb	18:47:53
2	Tl 190.801†	4130.1	4294.0	535.11 µg/L	535.11 ppb	18:47:55
2	U 409.014†	7323.1	7676.7	479.70 µg/L	479.70 ppb	18:47:53
2	V 292.402†	102428.7	103196.4	510.32 µg/L	510.32 ppb	18:47:53
2	Zn 213.857†	90500.4	90971.0	507.07 µg/L	507.07 ppb	18:47:53
3	Sc RADIAL	141074.5	141074.5	96.7 %		18:47:43
3	Al 396.153Radial†	27024.0	28017.2	5169.9 µg/L	5169.9 ppb	18:47:43
3	Ca 317.933Radial†	88402.3	90884.2	5062.6 µg/L	5062.6 ppb	18:47:43
3	Fe 238.204 Radial†	79763.1	82360.1	5076.2 µg/L	5076.2 ppb	18:47:43
3	K 766.490 Radial†	8103.8	6838.0	2500.5 µg/L	2500.5 ppb	18:47:43
3	Mg 279.077 IEC†	14069.6	14363.2	5360.0 µg/L	5360.0 ppb	18:47:43
3	Na 589.592 Radial†	19066.5	18431.9	2515.8 µg/L	2515.8 ppb	18:47:43
3	Sr 421.552†	247012.7	255649.2	531.44 µg/L	531.44 ppb	18:47:41
3	Sc 361.383	1692022.5	1692022.5	98.475 %		18:47:58
3	Y 371.029	1004104.0	1004104.0	97.800 %		18:47:58
3	Ag 328.068†	71156.1	68166.3	258.74 µg/L	258.74 ppb	18:47:58
3	As 188.979†	1530.4	1574.5	483.34 µg/L	483.34 ppb	18:48:00
3	B 249.677†	37553.2	34628.7	508.97 µg/L	508.97 ppb	18:47:58
3	Ba 233.527†	123711.5	125762.6	507.21 µg/L	507.21 ppb	18:47:58
3	Be 313.107†	941930.7	957578.0	260.87 µg/L	260.87 ppb	18:47:58
3	Cd 226.502†	78415.4	79747.6	497.81 µg/L	497.81 ppb	18:47:58
3	Co 228.616†	39781.6	40587.8	501.06 µg/L	501.06 ppb	18:48:00
3	Cr 267.716†	60612.6	61372.4	480.54 µg/L	480.54 ppb	18:48:00
3	Cu 324.752†	131599.2	130664.3	509.34 µg/L	509.34 ppb	18:47:58
3	Mn 257.610†	411605.2	417740.2	516.64 µg/L	516.64 ppb	18:47:58
3	Mo 202.031†	17622.4	17915.3	526.98 µg/L	526.98 ppb	18:48:00
3	Ni 231.604†	42378.9	43111.5	496.40 µg/L	496.40 ppb	18:48:00
3	P 214.914†	11404.8	11599.3	2472.0 µg/L	2472.0 ppb	18:48:00
3	Pb 220.353†	8867.2	8918.1	499.49 µg/L	499.49 ppb	18:48:00
3	S 181.975 Axial†	3288.2	3234.1	2406.0 µg/L	2406.0 ppb	18:48:00
3	Sb 206.836†	4104.8	4087.6	487.75 µg/L	487.75 ppb	18:48:00
3	Se 196.026†	6722.3	6811.1	2460 µg/L	2460 ppb	18:48:00
3	SiO2†	107577.1	107467.2	10482 µg/L	10482 ppb	18:47:58
3	Si 251.611†	328691.1	332943.1	4898.1 µg/L	4898.1 ppb	18:47:58
3	Sn 189.927†	8196.6	8324.7	520.62 µg/L	520.62 ppb	18:48:00
3	Ti 334.940†	522557.7	529695.2	494.23 µg/L	494.23 ppb	18:47:58
3	Tl 190.801†	3987.3	4165.7	519.39 µg/L	519.39 ppb	18:48:00
3	U 409.014†	7372.3	7756.3	484.40 µg/L	484.40 ppb	18:47:58
3	V 292.402†	102179.3	103357.4	511.03 µg/L	511.03 ppb	18:47:58
3	Zn 213.857†	89790.3	90616.0	505.12 µg/L	505.12 ppb	18:47:58

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1689335.4	98.319	%	0.6428				0.65%
Sc RADIAL	141758.3	97.1	%	0.59				0.61%
Y 371.029	1002428.0	97.637	%	0.5808				0.59%
Ag 328.068†	68007.5	258.15	µg/L	0.601	258.15	ppb	0.601	0.23%
QC value within limits for Ag 328.068 Recovery = 103.26%								
Al 396.153Radial†	27895.2	5146.9	µg/L	20.85	5146.9	ppb	20.85	0.41%
QC value within limits for Al 396.153Radial Recovery = 102.94%								
As 188.979†	1576.6	484.07	µg/L	2.239	484.07	ppb	2.239	0.46%
QC value within limits for As 188.979 Recovery = 96.81%								
B 249.677†	34585.7	508.31	µg/L	1.434	508.31	ppb	1.434	0.28%
QC value within limits for B 249.677 Recovery = 101.66%								
Ba 233.527†	125791.6	507.32	µg/L	0.154	507.32	ppb	0.154	0.03%
QC value within limits for Ba 233.527 Recovery = 101.46%								
Be 313.107†	957957.1	260.97	µg/L	0.166	260.97	ppb	0.166	0.06%
QC value within limits for Be 313.107 Recovery = 104.39%								
Ca 317.933Radial†	90666.6	5050.5	µg/L	18.80	5050.5	ppb	18.80	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.01%								
Cd 226.502†	79774.1	497.98	µg/L	0.711	497.98	ppb	0.711	0.14%
QC value within limits for Cd 226.502 Recovery = 99.60%								
Co 228.616†	41286.4	509.68	µg/L	10.138	509.68	ppb	10.138	1.99%

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   QC value within limits for Co 228.616  Recovery = 101.94%
Cr 267.716†            62360.3      488.28 µg/L         8.733      488.28 ppb          8.733   1.79%
   QC value within limits for Cr 267.716  Recovery = 97.66%
Cu 324.752†           130652.0      509.29 µg/L         0.460      509.29 ppb          0.460   0.09%
   QC value within limits for Cu 324.752  Recovery = 101.86%
Fe 238.204 Radial†     82123.9      5061.6 µg/L         13.19      5061.6 ppb          13.19   0.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.23%
K 766.490 Radial†       6885.8      2518.1 µg/L         34.72      2518.1 ppb          34.72   1.38%
   QC value within limits for K 766.490 Radial  Recovery = 100.72%
Mg 279.077 IEC†        14285.8      5331.4 µg/L         26.95      5331.4 ppb          26.95   0.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.63%
Mn 257.610†           417618.5      516.49 µg/L         0.223      516.49 ppb          0.223   0.04%
   QC value within limits for Mn 257.610  Recovery = 103.30%
Mo 202.031†            18174.5      534.59 µg/L         9.999      534.59 ppb          9.999   1.87%
   QC value within limits for Mo 202.031  Recovery = 106.92%
Na 589.592 Radial†     18403.7      2511.9 µg/L         14.08      2511.9 ppb          14.08   0.56%
   QC value within limits for Na 589.592 Radial  Recovery = 100.48%
Ni 231.604†            43843.4      504.82 µg/L        10.036      504.82 ppb         10.036   1.99%
   QC value within limits for Ni 231.604  Recovery = 100.96%
P 214.914†             11799.0      2514.8 µg/L         51.47      2514.8 ppb          51.47   2.05%
   QC value within limits for P 214.914  Recovery = 100.59%
Pb 220.353†             9039.6      506.29 µg/L         9.140      506.29 ppb          9.140   1.81%
   QC value within limits for Pb 220.353  Recovery = 101.26%
S 181.975 Axial†        3337.5      2482.9 µg/L         83.76      2482.9 ppb          83.76   3.37%
   QC value within limits for S 181.975 Axial  Recovery = 99.32%
Sb 206.836†             4171.6      497.75 µg/L        11.489      497.75 ppb         11.489   2.31%
   QC value within limits for Sb 206.836  Recovery = 99.55%
Se 196.026†             6896.1        2500 µg/L          50.9        2500 ppb           50.9   2.04%
   QC value within limits for Se 196.026  Recovery = 99.81%
SiO2†                 107461.7       10481 µg/L           3.1       10481 ppb            3.1   0.03%
   QC value within limits for SiO2  Recovery = 98.00%
Si 251.611†           332736.6      4894.9 µg/L          5.44      4894.9 ppb           5.44   0.11%
   QC value within limits for Si 251.611  Recovery = 97.90%
Sn 189.927†             8490.8      530.98 µg/L        12.731      530.98 ppb         12.731   2.40%
   QC value within limits for Sn 189.927  Recovery = 106.20%
Sr 421.552†           254812.7      529.70 µg/L         3.867      529.70 ppb          3.867   0.73%
   QC value within limits for Sr 421.552  Recovery = 105.94%
Ti 334.940†           529112.2      493.68 µg/L         0.501      493.68 ppb          0.501   0.10%
   QC value within limits for Ti 334.940  Recovery = 98.74%
Tl 190.801†             4295.9      535.33 µg/L        16.060      535.33 ppb         16.060   3.00%
   QC value within limits for Tl 190.801  Recovery = 107.07%
U 409.014†              7709.0      481.62 µg/L         2.468      481.62 ppb          2.468   0.51%
   QC value within limits for U 409.014  Recovery = 96.32%
V 292.402†            103333.7      511.03 µg/L         0.714      511.03 ppb          0.714   0.14%
   QC value within limits for V 292.402  Recovery = 102.21%
Zn 213.857†            90746.7      505.79 µg/L         1.109      505.79 ppb          1.109   0.22%
   QC value within limits for Zn 213.857  Recovery = 101.16%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/31/2010 18:48:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141820.7	141820.7	97.2	%			18:48:38
1	Al 396.153Radial†	-23.3	39.2	7.2759	µg/L	7.2759	ppb	18:48:58
1	Ca 317.933Radial†	601.1	58.0	3.2284	µg/L	3.2284	ppb	18:48:58
1	Fe 238.204 Radial†	172.3	29.2	1.7975	µg/L	1.7975	ppb	18:48:58
1	K 766.490 Radial†	1651.6	154.7	56.635	µg/L	56.635	ppb	18:48:38
1	Mg 279.077 IEC†	178.4	-7.1	-2.6584	µg/L	-2.6584	ppb	18:48:58
1	Na 589.592 Radial†	1421.8	172.2	23.470	µg/L	23.470	ppb	18:48:38
1	Sr 421.552†	-137.1	-5.8	-0.0120	µg/L	-0.0120	ppb	18:48:38
1	Sc 361.383	1683915.8	1683915.8	98.004	%			18:50:00
1	Y 371.029	1008438.2	1008438.2	98.222	%			18:50:00
1	Ag 328.068†	3988.4	-21.8	-0.0966	µg/L	-0.0966	ppb	18:50:02
1	As 188.979†	-16.6	3.4	1.0196	µg/L	1.0196	ppb	18:50:22
1	B 249.677†	3689.5	258.8	3.8157	µg/L	3.8157	ppb	18:50:02
1	Ba 233.527†	-144.6	-11.7	-0.0475	µg/L	-0.0475	ppb	18:50:22
1	Be 313.107†	-835.0	212.7	0.0556	µg/L	0.0556	ppb	18:50:02
1	Cd 226.502†	-86.3	30.1	0.1877	µg/L	0.1877	ppb	18:50:22
1	Co 228.616†	-156.6	30.5	0.3761	µg/L	0.3761	ppb	18:50:22
1	Cr 267.716†	188.6	13.8	0.1142	µg/L	0.1142	ppb	18:50:22
1	Cu 324.752†	2866.9	-46.9	-0.1882	µg/L	-0.1882	ppb	18:50:02
1	Mn 257.610†	237.6	5.2	0.0065	µg/L	0.0065	ppb	18:50:22
1	Mo 202.031†	-20.5	-0.8	-0.0238	µg/L	-0.0238	ppb	18:50:22
1	Ni 231.604†	-85.2	-10.4	-0.1202	µg/L	-0.1202	ppb	18:50:22
1	P 214.914†	-19.5	-2.0	-0.4133	µg/L	-0.4133	ppb	18:50:22
1	Pb 220.353†	104.1	19.8	1.1130	µg/L	1.1130	ppb	18:50:22
1	S 181.975 Axial†	94.9	-8.2	-6.0991	µg/L	-6.0991	ppb	18:50:22
1	Sb 206.836†	83.0	3.9	0.4581	µg/L	0.4581	ppb	18:50:22
1	Se 196.026†	16.9	2.0	0.709	µg/L	0.709	ppb	18:50:22
1	SiO2†	1750.1	10.4	1.0001	µg/L	1.0001	ppb	18:50:22
1	Si 251.611†	692.5	-130.0	-1.9216	µg/L	-1.9216	ppb	18:50:02
1	Sn 189.927†	12.8	14.2	0.8842	µg/L	0.8842	ppb	18:50:22
1	Ti 334.940†	967.2	34.4	0.0355	µg/L	0.0355	ppb	18:50:02
1	Tl 190.801†	-113.3	1.1	0.1286	µg/L	0.1286	ppb	18:50:22
1	U 409.014†	-392.4	-130.5	-7.6641	µg/L	-7.6641	ppb	18:50:02
1	V 292.402†	288.2	-109.7	-0.5404	µg/L	-0.5404	ppb	18:50:02
1	Zn 213.857†	580.6	28.0	0.1584	µg/L	0.1584	ppb	18:50:22
2	Sc RADIAL	141475.5	141475.5	96.9	%			18:49:00
2	Al 396.153Radial†	-59.5	1.9	0.3293	µg/L	0.3293	ppb	18:49:20
2	Ca 317.933Radial†	582.6	40.4	2.2485	µg/L	2.2485	ppb	18:49:20
2	Fe 238.204 Radial†	177.4	34.9	2.1506	µg/L	2.1506	ppb	18:49:20
2	K 766.490 Radial†	1678.4	186.4	68.259	µg/L	68.259	ppb	18:49:00
2	Mg 279.077 IEC†	195.6	11.1	4.1266	µg/L	4.1266	ppb	18:49:20
2	Na 589.592 Radial†	1313.4	64.0	8.6800	µg/L	8.6800	ppb	18:49:00
2	Sr 421.552†	-263.2	-136.2	-0.2832	µg/L	-0.2832	ppb	18:49:00
2	Sc 361.383	1681105.0	1681105.0	97.840	%			18:50:24
2	Y 371.029	1006809.9	1006809.9	98.064	%			18:50:24
2	Ag 328.068†	3899.5	-105.8	-0.4010	µg/L	-0.4010	ppb	18:50:26
2	As 188.979†	-14.2	5.9	1.7810	µg/L	1.7810	ppb	18:50:47
2	B 249.677†	3479.7	50.7	0.7461	µg/L	0.7461	ppb	18:50:26
2	Ba 233.527†	-126.1	7.0	0.0284	µg/L	0.0284	ppb	18:50:47
2	Be 313.107†	-932.6	111.6	0.0281	µg/L	0.0281	ppb	18:50:26
2	Cd 226.502†	-94.6	21.5	0.1342	µg/L	0.1342	ppb	18:50:47
2	Co 228.616†	-159.1	27.7	0.3416	µg/L	0.3416	ppb	18:50:47
2	Cr 267.716†	205.7	31.7	0.2541	µg/L	0.2541	ppb	18:50:47
2	Cu 324.752†	2760.4	-150.9	-0.5921	µg/L	-0.5921	ppb	18:50:26
2	Mn 257.610†	248.9	17.1	0.0210	µg/L	0.0210	ppb	18:50:47
2	Mo 202.031†	-6.8	13.1	0.3848	µg/L	0.3848	ppb	18:50:47
2	Ni 231.604†	-77.1	-2.3	-0.0264	µg/L	-0.0264	ppb	18:50:47
2	P 214.914†	-8.5	9.3	1.9937	µg/L	1.9937	ppb	18:50:47
2	Pb 220.353†	88.9	4.5	0.2582	µg/L	0.2582	ppb	18:50:47

2	S 181.975 Axial†	97.2	-5.7	-4.2111 µg/L	-4.2111 ppb	18:50:47
2	Sb 206.836†	84.7	5.7	0.6836 µg/L	0.6836 ppb	18:50:47
2	Se 196.026†	31.5	16.9	6.11 µg/L	6.11 ppb	18:50:47
2	SiO2†	1754.7	18.0	1.7515 µg/L	1.7515 ppb	18:50:47
2	Si 251.611†	708.6	-112.3	-1.6605 µg/L	-1.6605 ppb	18:50:26
2	Sn 189.927†	-0.8	0.3	0.0171 µg/L	0.0171 ppb	18:50:47
2	Ti 334.940†	917.4	-14.9	-0.0112 µg/L	-0.0112 ppb	18:50:26
2	Tl 190.801†	-109.7	4.5	0.5537 µg/L	0.5537 ppb	18:50:47
2	U 409.014†	-392.0	-130.8	-7.6468 µg/L	-7.6468 ppb	18:50:26
2	V 292.402†	396.5	1.4	0.0068 µg/L	0.0068 ppb	18:50:26
2	Zn 213.857†	557.8	5.7	0.0323 µg/L	0.0323 ppb	18:50:47
3	Sc RADIAL	140788.0	140788.0	96.5 %		18:49:22
3	Al 396.153Radial†	-53.3	8.0	1.4950 µg/L	1.4950 ppb	18:49:42
3	Ca 317.933Radial†	570.5	30.7	1.7106 µg/L	1.7106 ppb	18:49:42
3	Fe 238.204 Radial†	153.8	11.4	0.7002 µg/L	0.7002 ppb	18:49:42
3	K 766.490 Radial†	1509.3	19.7	7.1988 µg/L	7.1988 ppb	18:49:22
3	Mg 279.077 IEC†	187.5	3.6	1.3339 µg/L	1.3339 ppb	18:49:42
3	Na 589.592 Radial†	1241.2	-4.3	-0.5891 µg/L	-0.5891 ppb	18:49:22
3	Sr 421.552†	-62.3	70.7	0.1469 µg/L	0.1469 ppb	18:49:22
3	Sc 361.383	1702475.2	1702475.2	99.084 %		18:50:49
3	Y 371.029	1019278.2	1019278.2	99.278 %		18:50:49
3	Ag 328.068†	3893.2	-162.2	-0.6047 µg/L	-0.6047 ppb	18:50:51
3	As 188.979†	-11.0	9.3	2.8073 µg/L	2.8073 ppb	18:51:11
3	B 249.677†	3493.6	20.0	0.2957 µg/L	0.2957 ppb	18:50:51
3	Ba 233.527†	-155.1	-20.7	-0.0837 µg/L	-0.0837 ppb	18:51:11
3	Be 313.107†	-918.7	137.5	0.0367 µg/L	0.0367 ppb	18:50:51
3	Cd 226.502†	-90.2	27.2	0.1697 µg/L	0.1697 ppb	18:51:11
3	Co 228.616†	-191.5	-3.0	-0.0369 µg/L	-0.0369 ppb	18:51:11
3	Cr 267.716†	192.8	16.1	0.1277 µg/L	0.1277 ppb	18:51:11
3	Cu 324.752†	2902.8	-42.6	-0.1675 µg/L	-0.1675 ppb	18:50:51
3	Mn 257.610†	221.1	-14.1	-0.0175 µg/L	-0.0175 ppb	18:51:11
3	Mo 202.031†	-27.6	-7.7	-0.2274 µg/L	-0.2274 ppb	18:51:11
3	Ni 231.604†	-80.3	-4.5	-0.0519 µg/L	-0.0519 ppb	18:51:11
3	P 214.914†	-10.6	7.3	1.5639 µg/L	1.5639 ppb	18:51:11
3	Pb 220.353†	87.5	1.9	0.1068 µg/L	0.1068 ppb	18:51:11
3	S 181.975 Axial†	108.2	4.2	3.0845 µg/L	3.0845 ppb	18:51:11
3	Sb 206.836†	65.7	-14.5	-1.7326 µg/L	-1.7326 ppb	18:51:11
3	Se 196.026†	1.4	-13.8	-5.00 µg/L	-5.00 ppb	18:51:11
3	SiO2†	1771.9	13.0	1.2622 µg/L	1.2622 ppb	18:51:11
3	Si 251.611†	804.4	-24.7	-0.3658 µg/L	-0.3658 ppb	18:50:51
3	Sn 189.927†	10.9	12.2	0.7583 µg/L	0.7583 ppb	18:51:11
3	Ti 334.940†	1048.8	105.9	0.0999 µg/L	0.0999 ppb	18:50:51
3	Tl 190.801†	-119.3	-3.7	-0.4558 µg/L	-0.4558 ppb	18:51:11
3	U 409.014†	-309.5	-42.5	-2.4891 µg/L	-2.4891 ppb	18:50:51
3	V 292.402†	382.0	-18.2	-0.0926 µg/L	-0.0926 ppb	18:50:51
3	Zn 213.857†	566.8	7.7	0.0435 µg/L	0.0435 ppb	18:51:11

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1689165.4	98.309	%	0.6758				0.69%
Sc RADIAL	141361.4	96.9	%	0.36				0.37%
Y 371.029	1011508.8	98.521	%	0.6601				0.67%
Ag 328.068†	-96.6	-0.3674	µg/L	0.25571	-0.3674	ppb	0.25571	69.60%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	16.4	3.0334	µg/L	3.72004	3.0334	ppb	3.72004	122.63%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	1.8693	µg/L	0.89713	1.8693	ppb	0.89713	47.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	109.8	1.6192	µg/L	1.91554	1.6192	ppb	1.91554	118.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.5	-0.0343	µg/L	0.05718	-0.0343	ppb	0.05718	166.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	153.9	0.0401	µg/L	0.01409	0.0401	ppb	0.01409	35.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	43.0	2.3958	µg/L	0.76955	2.3958	ppb	0.76955	32.12%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	26.3	0.1639	µg/L	0.02723	0.1639	ppb	0.02723	16.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.4	0.2269	µg/L	0.22917	0.2269	ppb	0.22917	100.99%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              20.5      0.1654 µg/L       0.07718      0.1654 ppb        0.07718  46.67%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -80.1     -0.3159 µg/L       0.23936     -0.3159 ppb        0.23936  75.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       25.1      1.5494 µg/L       0.75637      1.5494 ppb        0.75637  48.82%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       120.3      44.031 µg/L       32.4227      44.031 ppb        32.4227  73.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.5      0.9341 µg/L       3.41013      0.9341 ppb        3.41013 365.09%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               2.7      0.0033 µg/L       0.01944      0.0033 ppb        0.01944 582.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.5      0.0446 µg/L       0.31176      0.0446 ppb        0.31176 699.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       77.3      10.520 µg/L       12.1345      10.520 ppb        12.1345 115.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -5.7     -0.0661 µg/L       0.04849     -0.0661 ppb        0.04849  73.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                4.9      1.0481 µg/L       1.28372      1.0481 ppb        1.28372 122.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               8.7      0.4927 µg/L       0.54252      0.4927 ppb        0.54252 110.12%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -3.2     -2.4085 µg/L       4.84991     -2.4085 ppb        4.84991 201.36%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.6     -0.1970 µg/L       1.33468     -0.1970 ppb        1.33468 677.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.7       0.603 µg/L        5.5558       0.603 ppb         5.5558 920.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    13.8      1.3380 µg/L       0.38138      1.3380 ppb        0.38138  28.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -89.0     -1.3160 µg/L       0.83316     -1.3160 ppb        0.83316  63.31%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.9      0.5532 µg/L       0.46851      0.5532 ppb        0.46851  84.69%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -23.8     -0.0494 µg/L       0.21749     -0.0494 ppb        0.21749 439.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              41.8      0.0414 µg/L       0.05575      0.0414 ppb        0.05575 134.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.6      0.0755 µg/L       0.50686      0.0755 ppb        0.50686 671.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -101.3     -5.9334 µg/L       2.98281     -5.9334 ppb        2.98281  50.27%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -42.2     -0.2088 µg/L       0.29151     -0.2088 ppb        0.29151 139.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              13.8      0.0780 µg/L       0.06978      0.0780 ppb        0.06978  89.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 3/31/2010 18:51:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	140861.4	140861.4	96.5	%			18:51:48
1	Al 396.153Radial†	987.6	1086.3	200.96	µg/L	200.96	ppb	18:51:50
1	Ca 317.933Radial†	4191.0	3781.2	210.63	µg/L	210.63	ppb	18:51:50
1	Fe 238.204 Radial†	1792.5	1708.9	105.32	µg/L	105.32	ppb	18:51:50
1	K 766.490 Radial†	1849.3	371.1	135.70	µg/L	135.70	ppb	18:51:48
1	Mg 279.077 IEC†	1004.6	850.0	316.85	µg/L	316.85	ppb	18:51:50
1	Na 589.592 Radial†	3218.7	2043.7	279.07	µg/L	279.07	ppb	18:51:50
1	Sr 421.552†	2356.1	2576.2	5.3541	µg/L	5.3541	ppb	18:51:50
1	Sc 361.383	1696993.3	1696993.3	98.765	%			18:52:02
1	Y 371.029	1016566.5	1016566.5	99.014	%			18:52:02
1	Ag 328.068†	5094.4	1066.7	4.0516	µg/L	4.0516	ppb	18:52:04
1	As 188.979†	82.8	104.2	31.603	µg/L	31.603	ppb	18:52:24
1	B 249.677†	6532.0	3107.8	45.816	µg/L	45.816	ppb	18:52:04
1	Ba 233.527†	1080.9	1230.2	4.9619	µg/L	4.9619	ppb	18:52:24
1	Be 313.107†	16638.5	17911.3	4.8913	µg/L	4.8913	ppb	18:52:04
1	Cd 226.502†	682.8	809.6	5.0479	µg/L	5.0479	ppb	18:52:24
1	Co 228.616†	230.9	424.1	5.2325	µg/L	5.2325	ppb	18:52:24
1	Cr 267.716†	759.8	590.7	4.5885	µg/L	4.5885	ppb	18:52:24
1	Cu 324.752†	5375.4	2470.4	9.6665	µg/L	9.6665	ppb	18:52:04
1	Mn 257.610†	8461.3	8329.9	10.294	µg/L	10.294	ppb	18:52:04
1	Mo 202.031†	297.2	321.0	9.4457	µg/L	9.4457	ppb	18:52:24
1	Ni 231.604†	359.2	440.2	5.0686	µg/L	5.0686	ppb	18:52:24
1	P 214.914†	662.2	688.4	147.09	µg/L	147.09	ppb	18:52:24
1	Pb 220.353†	275.6	192.6	10.753	µg/L	10.753	ppb	18:52:24
1	S 181.975 Axial†	231.8	129.7	96.360	µg/L	96.360	ppb	18:52:24
1	Sb 206.836†	150.3	71.3	8.5656	µg/L	8.5656	ppb	18:52:24
1	Se 196.026†	92.5	78.4	28.4	µg/L	28.4	ppb	18:52:24
1	SiO2†	3882.7	2155.9	210.31	µg/L	210.31	ppb	18:52:04
1	Si 251.611†	7564.5	6822.6	100.39	µg/L	100.39	ppb	18:52:04
1	Sn 189.927†	162.8	165.9	10.360	µg/L	10.360	ppb	18:52:24
1	Ti 334.940†	6150.6	5275.0	4.8870	µg/L	4.8870	ppb	18:52:04
1	Tl 190.801†	46.5	163.8	20.204	µg/L	20.204	ppb	18:52:24
1	U 409.014†	536.3	812.9	47.827	µg/L	47.827	ppb	18:52:04
1	V 292.402†	1270.3	882.4	4.4384	µg/L	4.4384	ppb	18:52:04
1	Zn 213.857†	2321.2	1785.9	9.9841	µg/L	9.9841	ppb	18:52:24
2	Sc RADIAL	140936.7	140936.7	96.6	%			18:51:52
2	Al 396.153Radial†	972.6	1070.3	198.01	µg/L	198.01	ppb	18:51:54
2	Ca 317.933Radial†	4253.2	3843.3	214.09	µg/L	214.09	ppb	18:51:54
2	Fe 238.204 Radial†	1742.6	1656.2	102.08	µg/L	102.08	ppb	18:51:54
2	K 766.490 Radial†	1908.6	431.4	157.79	µg/L	157.79	ppb	18:51:52
2	Mg 279.077 IEC†	969.9	813.6	303.26	µg/L	303.26	ppb	18:51:54
2	Na 589.592 Radial†	3291.7	2117.5	289.13	µg/L	289.13	ppb	18:51:54
2	Sr 421.552†	2245.5	2460.3	5.1132	µg/L	5.1132	ppb	18:51:54
2	Sc 361.383	1687966.3	1687966.3	98.239	%			18:52:26
2	Y 371.029	1011019.5	1011019.5	98.474	%			18:52:26
2	Ag 328.068†	5292.9	1296.4	4.8998	µg/L	4.8998	ppb	18:52:28
2	As 188.979†	83.0	104.8	31.803	µg/L	31.803	ppb	18:52:48
2	B 249.677†	6698.9	3313.0	48.843	µg/L	48.843	ppb	18:52:28
2	Ba 233.527†	1087.4	1242.7	5.0120	µg/L	5.0120	ppb	18:52:48
2	Be 313.107†	16507.3	17867.9	4.8796	µg/L	4.8796	ppb	18:52:28
2	Cd 226.502†	680.2	810.6	5.0545	µg/L	5.0545	ppb	18:52:48
2	Co 228.616†	236.4	430.9	5.3167	µg/L	5.3167	ppb	18:52:48
2	Cr 267.716†	835.7	672.2	5.2260	µg/L	5.2260	ppb	18:52:48
2	Cu 324.752†	5528.6	2655.4	10.385	µg/L	10.385	ppb	18:52:28
2	Mn 257.610†	8398.7	8312.0	10.272	µg/L	10.272	ppb	18:52:28
2	Mo 202.031†	283.2	308.3	9.0728	µg/L	9.0728	ppb	18:52:48
2	Ni 231.604†	357.6	440.5	5.0722	µg/L	5.0722	ppb	18:52:48
2	P 214.914†	662.1	691.9	147.84	µg/L	147.84	ppb	18:52:48
2	Pb 220.353†	294.5	213.4	11.913	µg/L	11.913	ppb	18:52:48

2	S 181.975 Axial†	239.0	138.2	102.73 µg/L	102.73 ppb	18:52:48
2	Sb 206.836†	162.6	84.7	10.140 µg/L	10.140 ppb	18:52:48
2	Se 196.026†	98.4	84.9	30.8 µg/L	30.8 ppb	18:52:48
2	SiO2†	3912.9	2207.6	215.37 µg/L	215.37 ppb	18:52:28
2	Si 251.611†	7475.2	6772.6	99.658 µg/L	99.658 ppb	18:52:28
2	Sn 189.927†	165.0	169.0	10.554 µg/L	10.554 ppb	18:52:48
2	Ti 334.940†	5906.4	5059.7	4.6867 µg/L	4.6867 ppb	18:52:28
2	Tl 190.801†	41.0	158.5	19.548 µg/L	19.548 ppb	18:52:48
2	U 409.014†	539.0	818.5	48.142 µg/L	48.142 ppb	18:52:28
2	V 292.402†	1219.4	837.5	4.2189 µg/L	4.2189 ppb	18:52:28
2	Zn 213.857†	2338.9	1816.4	10.155 µg/L	10.155 ppb	18:52:48
3	Sc RADIAL	141853.7	141853.7	97.2 %		18:51:56
3	Al 396.153Radial†	1054.0	1147.5	212.32 µg/L	212.32 ppb	18:51:58
3	Ca 317.933Radial†	4255.4	3817.1	212.63 µg/L	212.63 ppb	18:51:58
3	Fe 238.204 Radial†	1716.2	1617.5	99.690 µg/L	99.690 ppb	18:51:58
3	K 766.490 Radial†	1916.0	426.3	155.92 µg/L	155.92 ppb	18:51:56
3	Mg 279.077 IEC†	1001.3	839.3	312.86 µg/L	312.86 ppb	18:51:58
3	Na 589.592 Radial†	3186.5	1987.3	271.34 µg/L	271.34 ppb	18:51:58
3	Sr 421.552†	2248.0	2447.8	5.0873 µg/L	5.0873 ppb	18:51:58
3	Sc 361.383	1703589.6	1703589.6	99.149 %		18:52:50
3	Y 371.029	1020076.1	1020076.1	99.356 %		18:52:50
3	Ag 328.068†	5329.5	1283.9	4.8863 µg/L	4.8863 ppb	18:52:52
3	As 188.979†	68.9	89.8	27.263 µg/L	27.263 ppb	18:53:13
3	B 249.677†	6826.1	3378.8	49.814 µg/L	49.814 ppb	18:52:52
3	Ba 233.527†	1095.4	1240.7	5.0047 µg/L	5.0047 ppb	18:53:13
3	Be 313.107†	16765.5	17974.2	4.9127 µg/L	4.9127 ppb	18:52:52
3	Cd 226.502†	685.3	809.4	5.0473 µg/L	5.0473 ppb	18:53:13
3	Co 228.616†	212.4	404.5	4.9910 µg/L	4.9910 ppb	18:53:13
3	Cr 267.716†	807.3	635.7	4.9297 µg/L	4.9297 ppb	18:53:13
3	Cu 324.752†	5461.8	2536.5	9.9340 µg/L	9.9340 ppb	18:52:52
3	Mn 257.610†	8558.8	8395.0	10.374 µg/L	10.374 ppb	18:52:52
3	Mo 202.031†	286.1	308.6	9.0804 µg/L	9.0804 ppb	18:53:13
3	Ni 231.604†	341.2	420.7	4.8437 µg/L	4.8437 ppb	18:53:13
3	P 214.914†	668.0	691.7	147.81 µg/L	147.81 ppb	18:53:13
3	Pb 220.353†	280.1	196.2	10.941 µg/L	10.941 ppb	18:53:13
3	S 181.975 Axial†	229.3	126.2	93.811 µg/L	93.811 ppb	18:53:13
3	Sb 206.836†	165.2	85.8	10.280 µg/L	10.280 ppb	18:53:13
3	Se 196.026†	109.6	95.3	34.5 µg/L	34.5 ppb	18:53:13
3	SiO2†	3891.1	2149.2	209.66 µg/L	209.66 ppb	18:52:52
3	Si 251.611†	7576.0	6804.5	100.13 µg/L	100.13 ppb	18:52:52
3	Sn 189.927†	163.2	165.7	10.345 µg/L	10.345 ppb	18:53:13
3	Ti 334.940†	6177.6	5278.1	4.8843 µg/L	4.8843 ppb	18:52:52
3	Tl 190.801†	27.8	144.7	17.868 µg/L	17.868 ppb	18:53:13
3	U 409.014†	779.2	1055.8	62.094 µg/L	62.094 ppb	18:52:52
3	V 292.402†	1501.4	1110.5	5.5591 µg/L	5.5591 ppb	18:52:52
3	Zn 213.857†	2359.0	1814.8	10.149 µg/L	10.149 ppb	18:53:13

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1696183.1	98.718	%	0.4565				0.46%
Sc RADIAL	141217.3	96.8	%	0.38				0.39%
Y 371.029	1015887.4	98.948	%	0.4448				0.45%
Ag 328.068†	1215.7	4.6126	µg/L	0.48588	4.6126	ppb	0.48588	10.53%
QC value within limits for Ag 328.068 Recovery = 92.25%								
Al 396.153Radial†	1101.4	203.76	µg/L	7.553	203.76	ppb	7.553	3.71%
QC value within limits for Al 396.153Radial Recovery = 101.88%								
As 188.979†	99.6	30.223	µg/L	2.5657	30.223	ppb	2.5657	8.49%
QC value within limits for As 188.979 Recovery = 100.74%								
B 249.677†	3266.5	48.158	µg/L	2.0851	48.158	ppb	2.0851	4.33%
QC value within limits for B 249.677 Recovery = 96.32%								
Ba 233.527†	1237.9	4.9928	µg/L	0.02706	4.9928	ppb	0.02706	0.54%
QC value within limits for Ba 233.527 Recovery = 99.86%								
Be 313.107†	17917.8	4.8945	µg/L	0.01680	4.8945	ppb	0.01680	0.34%
QC value within limits for Be 313.107 Recovery = 97.89%								
Ca 317.933Radial†	3813.9	212.45	µg/L	1.736	212.45	ppb	1.736	0.82%
QC value within limits for Ca 317.933Radial Recovery = 106.22%								
Cd 226.502†	809.8	5.0499	µg/L	0.00397	5.0499	ppb	0.00397	0.08%
QC value within limits for Cd 226.502 Recovery = 101.00%								
Co 228.616†	419.8	5.1801	µg/L	0.16905	5.1801	ppb	0.16905	3.26%

```
   QC value within limits for Co 228.616  Recovery = 103.60%
Cr 267.716†              632.8      4.9147 µg/L       0.31903      4.9147 ppb        0.31903   6.49%
   QC value within limits for Cr 267.716  Recovery = 98.29%
Cu 324.752†             2554.1      9.9952 µg/L       0.36319      9.9952 ppb        0.36319   3.63%
   QC value within limits for Cu 324.752  Recovery = 99.95%
Fe 238.204 Radial†      1660.8      102.36 µg/L         2.828      102.36 ppb          2.828   2.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.36%
K 766.490 Radial†        409.6      149.80 µg/L        12.246      149.80 ppb         12.246   8.17%
   QC value within limits for K 766.490 Radial  Recovery = 99.87%
Mg 279.077 IEC†          834.3      310.99 µg/L         6.984      310.99 ppb          6.984   2.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.66%
Mn 257.610†             8345.6      10.313 µg/L        0.0539      10.313 ppb         0.0539   0.52%
   QC value within limits for Mn 257.610  Recovery = 103.13%
Mo 202.031†              312.7      9.1996 µg/L       0.21314      9.1996 ppb        0.21314   2.32%
   QC value within limits for Mo 202.031  Recovery = 92.00%
Na 589.592 Radial†      2049.5      279.85 µg/L         8.919      279.85 ppb          8.919   3.19%
   QC value within limits for Na 589.592 Radial  Recovery = 93.28%
Ni 231.604†              433.8      4.9948 µg/L       0.13089      4.9948 ppb        0.13089   2.62%
   QC value within limits for Ni 231.604  Recovery = 99.90%
P 214.914†               690.7      147.58 µg/L         0.423      147.58 ppb          0.423   0.29%
   QC value within limits for P 214.914  Recovery = 98.39%
Pb 220.353†              200.7      11.202 µg/L        0.6223      11.202 ppb         0.6223   5.56%
   QC value within limits for Pb 220.353  Recovery = 112.02%
S 181.975 Axial†         131.4      97.634 µg/L        4.5940      97.634 ppb         4.5940   4.71%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†               80.6      9.6618 µg/L       0.95194      9.6618 ppb        0.95194   9.85%
   QC value within limits for Sb 206.836  Recovery = 96.62%
Se 196.026†               86.2        31.2 µg/L          3.09        31.2 ppb           3.09   9.88%
   QC value within limits for Se 196.026  Recovery = 104.17%
SiO2†                   2170.9      211.78 µg/L         3.127      211.78 ppb          3.127   1.48%
   QC value within limits for SiO2  Recovery = 99.43%
Si 251.611†             6799.9      100.06 µg/L         0.371      100.06 ppb          0.371   0.37%
   QC value within limits for Si 251.611  Recovery = 100.06%
Sn 189.927†              166.9      10.420 µg/L        0.1167      10.420 ppb         0.1167   1.12%
   QC value within limits for Sn 189.927  Recovery = 104.20%
Sr 421.552†             2494.8      5.1849 µg/L       0.14714      5.1849 ppb        0.14714   2.84%
   QC value within limits for Sr 421.552  Recovery = 103.70%
Ti 334.940†             5204.3      4.8193 µg/L       0.11489      4.8193 ppb        0.11489   2.38%
   QC value within limits for Ti 334.940  Recovery = 96.39%
Tl 190.801†              155.6      19.207 µg/L        1.2048      19.207 ppb         1.2048   6.27%
   QC value within limits for Tl 190.801  Recovery = 96.03%
U 409.014†               895.8      52.688 µg/L        8.1477      52.688 ppb         8.1477  15.46%
   QC value within limits for U 409.014  Recovery = 105.38%
V 292.402†               943.5      4.7388 µg/L       0.71883      4.7388 ppb        0.71883  15.17%
   QC value within limits for V 292.402  Recovery = 94.78%
Zn 213.857†             1805.7      10.096 µg/L        0.0971      10.096 ppb         0.0971   0.96%
   QC value within limits for Zn 213.857  Recovery = 100.96%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 3/31/2010 18:53:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	132242.6	132242.6	90.6	%			18:53:53
1	Al 396.153Radial†	2422897.8	2673731.8	495710	µg/L	495710	ppb	18:53:51
1	Ca 317.933Radial†	7691621.4	8487146.3	472770	µg/L	472770	ppb	18:53:51
1	Fe 238.204 Radial†	2755313.8	3040341.6	187390	µg/L	187390	ppb	18:53:51
1	K 766.490 Radial†	1640.2	265.2	-138.93	µg/L	-138.93	ppb	18:53:53
1	Mg 279.077 IEC†	1160629.2	1280564.0	476960	µg/L	476960	ppb	18:53:51
1	Na 589.592 Radial†	1484.0	346.8	47.294	µg/L	47.294	ppb	18:53:53
1	Sr 421.552†	1473.7	1761.6	-0.0382	µg/L	-0.0382	ppb	18:53:53
1	Sc 361.383	1517022.4	1517022.4	88.290	%			18:54:06
1	Y 371.029	894868.4	894868.4	87.161	%			18:54:06
1	Ag 328.068†	6255.0	2993.2	-1.9729	µg/L	-1.9729	ppb	18:54:06
1	As 188.979†	-100.1	-93.0	13.877	µg/L	13.877	ppb	18:54:26
1	B 249.677†	3380.9	323.4	4.7554	µg/L	4.7554	ppb	18:54:06
1	Ba 233.527†	434.1	627.6	0.1345	µg/L	0.1345	ppb	18:54:26
1	Be 313.107†	-1147.6	-235.1	-0.0621	µg/L	-0.0621	ppb	18:54:06
1	Cd 226.502†	2412.4	2850.5	-1.8998	µg/L	-1.8998	ppb	18:54:26
1	Co 228.616†	123.8	330.6	-5.6944	µg/L	-5.6944	ppb	18:54:26
1	Cr 267.716†	198.7	46.5	1.0479	µg/L	1.0479	ppb	18:54:26
1	Cu 324.752†	-5619.3	-9336.8	3.9046	µg/L	3.9046	ppb	18:54:06
1	Mn 257.610†	16860.5	18859.4	3.9217	µg/L	3.9217	ppb	18:54:06
1	Mo 202.031†	-556.1	-609.8	-1.7911	µg/L	-1.7911	ppb	18:54:26
1	Ni 231.604†	185.4	286.5	3.2984	µg/L	3.2984	ppb	18:54:26
1	P 214.914†	178.3	219.9	29.959	µg/L	29.959	ppb	18:54:26
1	Pb 220.353†	-392.3	-530.7	-4.9340	µg/L	-4.9340	ppb	18:54:26
1	S 181.975 Axial†	184.5	103.9	77.024	µg/L	77.024	ppb	18:54:26
1	Sb 206.836†	109.1	42.8	-0.8364	µg/L	-0.8364	ppb	18:54:26
1	Se 196.026†	-143.5	-177.8	0.756	µg/L	0.756	ppb	18:54:26
1	SiO2†	1661.3	106.3	10.857	µg/L	10.857	ppb	18:54:26
1	Si 251.611†	457.4	-318.5	-4.4771	µg/L	-4.4771	ppb	18:54:26
1	Sn 189.927†	41.8	48.5	3.1002	µg/L	3.1002	ppb	18:54:26
1	Ti 334.940†	22402.5	24421.1	-3.7208	µg/L	-3.7208	ppb	18:54:06
1	Tl 190.801†	-159.3	-63.8	-7.4175	µg/L	-7.4175	ppb	18:54:26
1	U 409.014†	-141.4	109.7	-14.558	µg/L	-14.558	ppb	18:54:06
1	V 292.402†	4081.9	4219.5	0.6141	µg/L	0.6141	ppb	18:54:06
1	Zn 213.857†	4369.0	4384.0	8.5615	µg/L	8.5615	ppb	18:54:26
2	Sc RADIAL	132040.0	132040.0	90.5	%			18:53:58
2	Al 396.153Radial†	2444947.4	2702202.7	500990	µg/L	500990	ppb	18:53:56
2	Ca 317.933Radial†	7800125.3	8620085.6	480170	µg/L	480170	ppb	18:53:56
2	Fe 238.204 Radial†	2791790.4	3085319.9	190160	µg/L	190160	ppb	18:53:56
2	K 766.490 Radial†	1740.8	379.1	-100.42	µg/L	-100.42	ppb	18:53:58
2	Mg 279.077 IEC†	1178560.0	1302345.9	485070	µg/L	485070	ppb	18:53:56
2	Na 589.592 Radial†	1410.4	267.9	36.479	µg/L	36.479	ppb	18:53:58
2	Sr 421.552†	1434.5	1720.7	-0.1811	µg/L	-0.1811	ppb	18:53:58
2	Sc 361.383	1500109.7	1500109.7	87.306	%			18:54:29
2	Y 371.029	884042.0	884042.0	86.106	%			18:54:29
2	Ag 328.068†	6203.9	3014.6	-2.1211	µg/L	-2.1211	ppb	18:54:29
2	As 188.979†	-119.9	-117.0	7.2444	µg/L	7.2444	ppb	18:54:49
2	B 249.677†	3505.1	508.8	7.4908	µg/L	7.4908	ppb	18:54:29
2	Ba 233.527†	482.5	688.5	0.3435	µg/L	0.3435	ppb	18:54:49
2	Be 313.107†	-1215.4	-327.4	-0.0902	µg/L	-0.0902	ppb	18:54:29
2	Cd 226.502†	2441.6	2914.8	-1.7901	µg/L	-1.7901	ppb	18:54:49
2	Co 228.616†	105.8	311.5	-6.0736	µg/L	-6.0736	ppb	18:54:49
2	Cr 267.716†	217.8	70.9	1.2432	µg/L	1.2432	ppb	18:54:49
2	Cu 324.752†	-5483.5	-9253.0	4.8451	µg/L	4.8451	ppb	18:54:29
2	Mn 257.610†	16639.0	18821.0	3.5450	µg/L	3.5450	ppb	18:54:29
2	Mo 202.031†	-590.4	-656.1	-2.8945	µg/L	-2.8945	ppb	18:54:49
2	Ni 231.604†	122.0	216.3	2.4904	µg/L	2.4904	ppb	18:54:49
2	P 214.914†	170.4	213.2	27.815	µg/L	27.815	ppb	18:54:49
2	Pb 220.353†	-391.2	-534.5	-4.9028	µg/L	-4.9028	ppb	18:54:49

2	S 181.975 Axial†	176.5	97.2	71.982 µg/L	71.982 ppb	18:54:49
2	Sb 206.836†	116.0	52.0	0.1714 µg/L	0.1714 ppb	18:54:49
2	Se 196.026†	-172.4	-212.7	-10.9 µg/L	-10.9 ppb	18:54:49
2	SiO2†	1633.2	95.3	9.7946 µg/L	9.7946 ppb	18:54:49
2	Si 251.611†	508.3	-254.3	-3.5215 µg/L	-3.5215 ppb	18:54:49
2	Sn 189.927†	60.8	70.8	4.4873 µg/L	4.4873 ppb	18:54:49
2	Ti 334.940†	21754.3	23964.7	-4.6112 µg/L	-4.6112 ppb	18:54:29
2	Tl 190.801†	-183.8	-93.9	-11.124 µg/L	-11.124 ppb	18:54:49
2	U 409.014†	-286.0	-57.7	-24.699 µg/L	-24.699 ppb	18:54:29
2	V 292.402†	3918.7	4084.7	-0.3553 µg/L	-0.3553 ppb	18:54:29
2	Zn 213.857†	4368.9	4439.7	8.6032 µg/L	8.6032 ppb	18:54:49
3	Sc RADIAL	128528.5	128528.5	88.1 %		18:54:02
3	Al 396.153Radial†	2425420.2	2753857.9	510560 µg/L	510560 ppb	18:54:00
3	Ca 317.933Radial†	7690261.2	8730875.1	486340 µg/L	486340 ppb	18:54:00
3	Fe 238.204 Radial†	2749581.2	3121695.4	192400 µg/L	192400 ppb	18:54:00
3	K 766.490 Radial†	1659.5	339.4	-118.61 µg/L	-118.61 ppb	18:54:02
3	Mg 279.077 IEC†	1158065.5	1314663.8	489660 µg/L	489660 ppb	18:54:00
3	Na 589.592 Radial†	1347.0	238.6	32.485 µg/L	32.485 ppb	18:54:02
3	Sr 421.552†	1492.5	1829.9	-0.0025 µg/L	-0.0025 ppb	18:54:02
3	Sc 361.383	1514195.4	1514195.4	88.126 %		18:54:52
3	Y 371.029	891947.3	891947.3	86.876 %		18:54:52
3	Ag 328.068†	6032.7	2754.1	-3.2379 µg/L	-3.2379 ppb	18:54:52
3	As 188.979†	-108.0	-102.2	12.211 µg/L	12.211 ppb	18:55:12
3	B 249.677†	3436.5	393.7	5.7936 µg/L	5.7936 ppb	18:54:52
3	Ba 233.527†	448.2	644.5	0.1380 µg/L	0.1380 ppb	18:55:12
3	Be 313.107†	-1158.8	-250.2	-0.0644 µg/L	-0.0644 ppb	18:54:52
3	Cd 226.502†	2438.6	2885.4	-2.2095 µg/L	-2.2095 ppb	18:55:12
3	Co 228.616†	90.0	292.5	-6.4255 µg/L	-6.4255 ppb	18:55:12
3	Cr 267.716†	181.2	27.0	0.9095 µg/L	0.9095 ppb	18:55:12
3	Cu 324.752†	-5570.7	-9293.5	5.1506 µg/L	5.1506 ppb	18:54:52
3	Mn 257.610†	16733.6	18751.0	3.2706 µg/L	3.2706 ppb	18:54:52
3	Mo 202.031†	-556.7	-611.6	-1.4146 µg/L	-1.4146 ppb	18:55:12
3	Ni 231.604†	136.4	231.3	2.6634 µg/L	2.6634 ppb	18:55:12
3	P 214.914†	188.3	231.6	32.331 µg/L	32.331 ppb	18:55:12
3	Pb 220.353†	-364.7	-500.2	-2.4766 µg/L	-2.4766 ppb	18:55:12
3	S 181.975 Axial†	176.2	94.9	70.345 µg/L	70.345 ppb	18:55:12
3	Sb 206.836†	127.8	64.2	1.5521 µg/L	1.5521 ppb	18:55:12
3	Se 196.026†	-157.0	-193.4	-3.16 µg/L	-3.16 ppb	18:55:12
3	SiO2†	1710.0	165.0	16.582 µg/L	16.582 ppb	18:55:12
3	Si 251.611†	438.9	-338.5	-4.7759 µg/L	-4.7759 ppb	18:55:12
3	Sn 189.927†	52.5	60.6	3.8554 µg/L	3.8554 ppb	18:55:12
3	Ti 334.940†	21892.4	23889.7	-4.9005 µg/L	-4.9005 ppb	18:54:52
3	Tl 190.801†	-161.6	-66.7	-7.7840 µg/L	-7.7840 ppb	18:55:12
3	U 409.014†	-54.1	208.5	-9.3710 µg/L	-9.3710 ppb	18:54:52
3	V 292.402†	3967.3	4098.1	-0.5042 µg/L	-0.5042 ppb	18:54:52
3	Zn 213.857†	4428.1	4460.3	8.5816 µg/L	8.5816 ppb	18:55:12

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1510442.5	87.908	%	0.5273				0.60%
Sc RADIAL	130937.0	89.7	%	1.43				1.59%
Y 371.029	890285.9	86.714	%	0.5456				0.63%
Ag 328.068†	2920.6	-2.4440	µg/L	0.69159	-2.4440	ppb	0.69159	28.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2709930.8	502420	µg/L	7530.6	502420	ppb	7530.6	1.50%
QC value within limits for Al 396.153Radial Recovery = 100.48%								
As 188.979†	-104.0	11.111	µg/L	3.4505	11.111	ppb	3.4505	31.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	408.6	6.0133	µg/L	1.38084	6.0133	ppb	1.38084	22.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	653.5	0.2053	µg/L	0.11966	0.2053	ppb	0.11966	58.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-270.9	-0.0722	µg/L	0.01558	-0.0722	ppb	0.01558	21.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8612702.4	479760	µg/L	6797.7	479760	ppb	6797.7	1.42%
QC value within limits for Ca 317.933Radial Recovery = 95.95%								
Cd 226.502†	2883.6	-1.9665	µg/L	0.21751	-1.9665	ppb	0.21751	11.06%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	311.5	-6.0645	µg/L	0.36562	-6.0645	ppb	0.36562	6.03%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              48.1      1.0668 µg/L       0.16765      1.0668 ppb        0.16765  15.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -9294.4      4.6334 µg/L       0.64943      4.6334 ppb        0.64943  14.02%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   3082452.3      189980 µg/L        2511.7      189980 ppb         2511.7   1.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.99%
K 766.490 Radial†        327.9     -119.32 µg/L        19.263     -119.32 ppb         19.263  16.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1299191.2      483900 µg/L        6431.4      483900 ppb         6431.4   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.78%
Mn 257.610†            18810.4      3.5791 µg/L       0.32691      3.5791 ppb        0.32691   9.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -625.9     -2.0334 µg/L       0.76912     -2.0334 ppb        0.76912  37.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       284.5      38.753 µg/L        7.6619      38.753 ppb         7.6619  19.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              244.7      2.8174 µg/L       0.42544      2.8174 ppb        0.42544  15.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               221.6      30.035 µg/L        2.2592      30.035 ppb         2.2592   7.52%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -521.8     -4.1045 µg/L       1.40989     -4.1045 ppb        1.40989  34.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          98.7      73.117 µg/L        3.4814      73.117 ppb         3.4814   4.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               53.0      0.2957 µg/L       1.19909      0.2957 ppb        1.19909 405.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -194.6       -4.44 µg/L         5.948       -4.44 ppb          5.948 133.85%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    122.2      12.411 µg/L        3.6511      12.411 ppb         3.6511  29.42%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -303.8     -4.2582 µg/L       0.65524     -4.2582 ppb        0.65524  15.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               60.0      3.8143 µg/L       0.69446      3.8143 ppb        0.69446  18.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             1770.7     -0.0740 µg/L       0.09453     -0.0740 ppb        0.09453 127.80%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            24091.8     -4.4108 µg/L       0.61484     -4.4108 ppb        0.61484  13.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -74.8     -8.7751 µg/L       2.04236     -8.7751 ppb        2.04236  23.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                86.8     -16.209 µg/L        7.7964     -16.209 ppb         7.7964  48.10%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              4134.1     -0.0818 µg/L       0.60724     -0.0818 ppb        0.60724 742.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             4428.0      8.5821 µg/L       0.02081      8.5821 ppb        0.02081   0.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 3/31/2010 18:55:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128923.7	128923.7	88.3	%			18:55:52
1	Al 396.153Radial†	2441585.6	2763714.4	512370	µg/L	512370	ppb	18:55:50
1	Ca 317.933Radial†	7758514.8	8781367.4	489160	µg/L	489160	ppb	18:55:50
1	Fe 238.204 Radial†	2782554.2	3149448.4	194110	µg/L	194110	ppb	18:55:50
1	K 766.490 Radial†	15194.3	15653.8	5486.8	µg/L	5486.8	ppb	18:55:52
1	Mg 279.077 IEC†	1148118.0	1299373.7	483970	µg/L	483970	ppb	18:55:52
1	Na 589.592 Radial†	35618.0	39025.6	5326.3	µg/L	5326.3	ppb	18:55:52
1	Sr 421.552†	218553.1	247517.3	510.75	µg/L	510.75	ppb	18:55:52
1	Sc 361.383	1501848.4	1501848.4	87.407	%			18:56:05
1	Y 371.029	885934.6	885934.6	86.290	%			18:56:05
1	Ag 328.068†	68208.1	73943.4	266.87	µg/L	266.87	ppb	18:56:05
1	As 188.979†	1287.3	1493.1	500.98	µg/L	500.98	ppb	18:56:07
1	B 249.677†	33851.7	35222.8	517.92	µg/L	517.92	ppb	18:56:05
1	Ba 233.527†	108371.1	124119.8	498.16	µg/L	498.16	ppb	18:56:05
1	Be 313.107†	784555.4	898650.0	244.84	µg/L	244.84	ppb	18:56:05
1	Cd 226.502†	69032.6	79096.3	473.84	µg/L	473.84	ppb	18:56:05
1	Co 228.616†	31520.5	36252.0	437.70	µg/L	437.70	ppb	18:56:07
1	Cr 267.716†	53782.3	61352.1	481.07	µg/L	481.07	ppb	18:56:07
1	Cu 324.752†	114717.9	128272.9	540.53	µg/L	540.53	ppb	18:56:05
1	Mn 257.610†	356699.6	407851.6	484.93	µg/L	484.93	ppb	18:56:05
1	Mo 202.031†	13953.9	15984.3	486.45	µg/L	486.45	ppb	18:56:07
1	Ni 231.604†	34191.5	39194.0	451.29	µg/L	451.29	ppb	18:56:07
1	P 214.914†	10448.2	11971.4	2535.7	µg/L	2535.7	ppb	18:56:07
1	Pb 220.353†	6755.9	7642.9	453.53	µg/L	453.53	ppb	18:56:07
1	S 181.975 Axial†	3250.1	3613.3	2687.1	µg/L	2687.1	ppb	18:56:07
1	Sb 206.836†	3785.3	4249.8	500.40	µg/L	500.40	ppb	18:56:07
1	Se 196.026†	5624.0	6419.0	2390	µg/L	2390	ppb	18:56:07
1	SiO2†	99846.0	112455.3	10971	µg/L	10971	ppb	18:56:05
1	Si 251.611†	306352.4	349651.7	5145.5	µg/L	5145.5	ppb	18:56:05
1	Sn 189.927†	6636.1	7593.3	475.14	µg/L	475.14	ppb	18:56:07
1	Ti 334.940†	496139.0	566664.5	502.37	µg/L	502.37	ppb	18:56:05
1	Tl 190.801†	3058.5	3615.8	452.56	µg/L	452.56	ppb	18:56:07
1	U 409.014†	7410.9	8748.5	521.43	µg/L	521.43	ppb	18:56:05
1	V 292.402†	94726.2	107969.5	513.01	µg/L	513.01	ppb	18:56:05
1	Zn 213.857†	80178.7	91165.5	492.35	µg/L	492.35	ppb	18:56:05
2	Sc RADIAL	130306.5	130306.5	89.3	%			18:55:57
2	Al 396.153Radial†	2425762.3	2716664.8	503640	µg/L	503640	ppb	18:55:54
2	Ca 317.933Radial†	7696197.0	8618379.7	480080	µg/L	480080	ppb	18:55:54
2	Fe 238.204 Radial†	2760250.1	3091044.9	190510	µg/L	190510	ppb	18:55:54
2	K 766.490 Radial†	15576.4	15899.2	5580.2	µg/L	5580.2	ppb	18:55:57
2	Mg 279.077 IEC†	1163916.5	1303274.7	485430	µg/L	485430	ppb	18:55:57
2	Na 589.592 Radial†	35962.5	38983.4	5320.4	µg/L	5320.4	ppb	18:55:57
2	Sr 421.552†	221063.2	247703.0	511.20	µg/L	511.20	ppb	18:55:57
2	Sc 361.383	1503774.7	1503774.7	87.519	%			18:56:10
2	Y 371.029	887039.9	887039.9	86.398	%			18:56:10
2	Ag 328.068†	68293.1	73940.5	267.10	µg/L	267.10	ppb	18:56:10
2	As 188.979†	1349.3	1562.1	521.08	µg/L	521.08	ppb	18:56:12
2	B 249.677†	33920.1	35251.3	518.32	µg/L	518.32	ppb	18:56:10
2	Ba 233.527†	108643.6	124272.4	498.82	µg/L	498.82	ppb	18:56:10
2	Be 313.107†	786963.6	900251.8	245.27	µg/L	245.27	ppb	18:56:10
2	Cd 226.502†	69426.5	79445.1	476.40	µg/L	476.40	ppb	18:56:10
2	Co 228.616†	32044.4	36804.3	444.70	µg/L	444.70	ppb	18:56:12
2	Cr 267.716†	54375.8	61951.4	485.63	µg/L	485.63	ppb	18:56:12
2	Cu 324.752†	115372.1	128852.4	542.29	µg/L	542.29	ppb	18:56:10
2	Mn 257.610†	357810.4	408598.0	485.80	µg/L	485.80	ppb	18:56:10
2	Mo 202.031†	14059.7	16084.7	489.29	µg/L	489.29	ppb	18:56:12
2	Ni 231.604†	34695.4	39719.6	457.34	µg/L	457.34	ppb	18:56:12
2	P 214.914†	10657.1	12194.8	2584.0	µg/L	2584.0	ppb	18:56:12
2	Pb 220.353†	7007.7	7920.6	468.62	µg/L	468.62	ppb	18:56:12

2	S 181.975 Axial†	3226.8	3581.8	2663.8 µg/L	2663.8 ppb	18:56:12
2	Sb 206.836†	3801.0	4262.2	501.96 µg/L	501.96 ppb	18:56:12
2	Se 196.026†	5730.0	6531.8	2430 µg/L	2430 ppb	18:56:12
2	SiO2†	100449.1	112998.1	11024 µg/L	11024 ppb	18:56:10
2	Si 251.611†	307929.3	351004.4	5165.3 µg/L	5165.3 ppb	18:56:10
2	Sn 189.927†	6796.2	7766.5	485.94 µg/L	485.94 ppb	18:56:12
2	Ti 334.940†	498020.9	568087.6	503.35 µg/L	503.35 ppb	18:56:10
2	Tl 190.801†	3159.1	3726.2	466.12 µg/L	466.12 ppb	18:56:12
2	U 409.014†	7207.8	8505.6	507.68 µg/L	507.68 ppb	18:56:10
2	V 292.402†	94912.3	108043.3	513.79 µg/L	513.79 ppb	18:56:10
2	Zn 213.857†	80541.8	91462.8	494.31 µg/L	494.31 ppb	18:56:10
3	Sc RADIAL	130048.3	130048.3	89.1 %		18:56:01
3	Al 396.153Radial†	2433855.1	2731140.9	506330 µg/L	506330 ppb	18:55:59
3	Ca 317.933Radial†	7718645.4	8660686.5	482430 µg/L	482430 ppb	18:55:59
3	Fe 238.204 Radial†	2766938.5	3104689.2	191350 µg/L	191350 ppb	18:55:59
3	K 766.490 Radial†	15537.1	15889.7	5575.7 µg/L	5575.7 ppb	18:56:01
3	Mg 279.077 IEC†	1162812.5	1304624.6	485930 µg/L	485930 ppb	18:56:01
3	Na 589.592 Radial†	36095.8	39213.0	5351.8 µg/L	5351.8 ppb	18:56:01
3	Sr 421.552†	220343.8	247387.5	510.53 µg/L	510.53 ppb	18:56:01
3	Sc 361.383	1505253.1	1505253.1	87.605 %		18:56:15
3	Y 371.029	887796.9	887796.9	86.472 %		18:56:15
3	Ag 328.068†	68315.0	73888.9	266.85 µg/L	266.85 ppb	18:56:15
3	As 188.979†	1427.8	1650.2	547.91 µg/L	547.91 ppb	18:56:17
3	B 249.677†	34091.4	35408.8	520.64 µg/L	520.64 ppb	18:56:15
3	Ba 233.527†	108923.3	124469.7	499.60 µg/L	499.60 ppb	18:56:15
3	Be 313.107†	788697.2	901347.5	245.57 µg/L	245.57 ppb	18:56:15
3	Cd 226.502†	69816.9	79812.9	478.61 µg/L	478.61 ppb	18:56:15
3	Co 228.616†	32104.8	36837.3	445.06 µg/L	445.06 ppb	18:56:17
3	Cr 267.716†	54241.6	61737.2	483.97 µg/L	483.97 ppb	18:56:17
3	Cu 324.752†	115315.5	128658.2	541.67 µg/L	541.67 ppb	18:56:15
3	Mn 257.610†	358650.2	409155.1	486.47 µg/L	486.47 ppb	18:56:15
3	Mo 202.031†	13985.2	15983.9	486.37 µg/L	486.37 ppb	18:56:17
3	Ni 231.604†	34565.9	39532.8	455.19 µg/L	455.19 ppb	18:56:17
3	P 214.914†	10680.3	12209.4	2587.2 µg/L	2587.2 ppb	18:56:17
3	Pb 220.353†	7037.5	7946.8	470.21 µg/L	470.21 ppb	18:56:17
3	S 181.975 Axial†	3275.8	3634.2	2702.6 µg/L	2702.6 ppb	18:56:17
3	Sb 206.836†	3858.4	4323.5	509.22 µg/L	509.22 ppb	18:56:17
3	Se 196.026†	5760.2	6559.9	2440 µg/L	2440 ppb	18:56:17
3	SiO2†	100355.9	112779.0	11003 µg/L	11003 ppb	18:56:15
3	Si 251.611†	307749.7	350453.9	5157.2 µg/L	5157.2 ppb	18:56:15
3	Sn 189.927†	6900.6	7878.0	492.90 µg/L	492.90 ppb	18:56:17
3	Ti 334.940†	498757.3	568369.4	503.63 µg/L	503.63 ppb	18:56:15
3	Tl 190.801†	3121.0	3679.2	460.34 µg/L	460.34 ppb	18:56:17
3	U 409.014†	7255.1	8551.4	510.28 µg/L	510.28 ppb	18:56:15
3	V 292.402†	95008.3	108046.4	513.68 µg/L	513.68 ppb	18:56:15
3	Zn 213.857†	80688.3	91539.7	494.68 µg/L	494.68 ppb	18:56:15

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1503625.4	87.511	%	0.0994				0.11%
Sc RADIAL	129759.5	88.9	%	0.50				0.57%
Y 371.029	886923.8	86.387	%	0.0912				0.11%
Ag 328.068†	73924.3	266.94	µg/L	0.141	266.94	ppb	0.141	0.05%
QC value within limits for Ag 328.068 Recovery = 106.78%								
Al 396.153Radial†	2737173.4	507450	µg/L	4467.8	507450	ppb	4467.8	0.88%
QC value within limits for Al 396.153Radial Recovery = 101.49%								
As 188.979†	1568.5	523.32	µg/L	23.543	523.32	ppb	23.543	4.50%
QC value within limits for As 188.979 Recovery = 104.66%								
B 249.677†	35294.3	518.96	µg/L	1.468	518.96	ppb	1.468	0.28%
QC value within limits for B 249.677 Recovery = 103.79%								
Ba 233.527†	124287.3	498.86	µg/L	0.724	498.86	ppb	0.724	0.15%
QC value within limits for Ba 233.527 Recovery = 99.77%								
Be 313.107†	900083.1	245.23	µg/L	0.367	245.23	ppb	0.367	0.15%
QC value within limits for Be 313.107 Recovery = 98.09%								
Ca 317.933Radial†	8686811.2	483890	µg/L	4711.2	483890	ppb	4711.2	0.97%
QC value within limits for Ca 317.933Radial Recovery = 96.78%								
Cd 226.502†	79451.4	476.29	µg/L	2.386	476.29	ppb	2.386	0.50%
QC value within limits for Cd 226.502 Recovery = 95.26%								
Co 228.616†	36631.2	442.49	µg/L	4.152	442.49	ppb	4.152	0.94%

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   QC value within limits for Co 228.616  Recovery = 88.50%
Cr 267.716†            61680.2      483.56 µg/L         2.310      483.56 ppb          2.310   0.48%
   QC value within limits for Cr 267.716  Recovery = 96.71%
Cu 324.752†           128594.5      541.50 µg/L         0.893      541.50 ppb          0.893   0.16%
   QC value within limits for Cu 324.752  Recovery = 108.30%
Fe 238.204 Radial†   3115060.8      191990 µg/L        1883.0      191990 ppb         1883.0   0.98%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.00%
K 766.490 Radial†      15814.2      5547.6 µg/L         52.66      5547.6 ppb          52.66   0.95%
   QC value within limits for K 766.490 Radial  Recovery = 110.95%
Mg 279.077 IEC†      1302424.3      485110 µg/L        1017.4      485110 ppb         1017.4   0.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.02%
Mn 257.610†           408534.9      485.73 µg/L         0.774      485.73 ppb          0.774   0.16%
   QC value within limits for Mn 257.610  Recovery = 97.15%
Mo 202.031†            16017.6      487.37 µg/L         1.662      487.37 ppb          1.662   0.34%
   QC value within limits for Mo 202.031  Recovery = 97.47%
Na 589.592 Radial†     39074.0      5332.8 µg/L         16.68      5332.8 ppb          16.68   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 106.66%
Ni 231.604†            39482.1      454.61 µg/L         3.068      454.61 ppb          3.068   0.67%
   QC value within limits for Ni 231.604  Recovery = 90.92%
P 214.914†             12125.2      2569.0 µg/L         28.88      2569.0 ppb          28.88   1.12%
   QC value within limits for P 214.914  Recovery = 102.76%
Pb 220.353†             7836.8      464.12 µg/L         9.210      464.12 ppb          9.210   1.98%
   QC value within limits for Pb 220.353  Recovery = 92.82%
S 181.975 Axial†        3609.8      2684.5 µg/L         19.56      2684.5 ppb          19.56   0.73%
   QC value within limits for S 181.975 Axial  Recovery = 107.38%
Sb 206.836†             4278.5      503.86 µg/L         4.707      503.86 ppb          4.707   0.93%
   QC value within limits for Sb 206.836  Recovery = 100.77%
Se 196.026†             6503.6        2420 µg/L          26.4        2420 ppb           26.4   1.09%
   QC value within limits for Se 196.026  Recovery = 96.73%
SiO2†                 112744.1       10999 µg/L          26.6       10999 ppb           26.6   0.24%
   QC value within limits for SiO2  Recovery = 102.85%
Si 251.611†           350370.0      5156.0 µg/L         9.97      5156.0 ppb           9.97   0.19%
   QC value within limits for Si 251.611  Recovery = 103.12%
Sn 189.927†             7745.9      484.66 µg/L         8.948      484.66 ppb          8.948   1.85%
   QC value within limits for Sn 189.927  Recovery = 96.93%
Sr 421.552†           247536.0      510.83 µg/L         0.344      510.83 ppb          0.344   0.07%
   QC value within limits for Sr 421.552  Recovery = 102.17%
Ti 334.940†           567707.2      503.12 µg/L         0.662      503.12 ppb          0.662   0.13%
   QC value within limits for Ti 334.940  Recovery = 100.62%
Tl 190.801†             3673.7      459.67 µg/L         6.804      459.67 ppb          6.804   1.48%
   QC value within limits for Tl 190.801  Recovery = 91.93%
U 409.014†              8601.8      513.13 µg/L         7.307      513.13 ppb          7.307   1.42%
   QC value within limits for U 409.014  Recovery = 102.63%
V 292.402†            108019.7      513.49 µg/L         0.422      513.49 ppb          0.422   0.08%
   QC value within limits for V 292.402  Recovery = 102.70%
Zn 213.857†            91389.3      493.78 µg/L         1.251      493.78 ppb          1.251   0.25%
   QC value within limits for Zn 213.857  Recovery = 98.76%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 3/31/2010 18:56:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128043.7	128043.7	87.7	%			18:56:58
1	Al 396.153Radial†	2381304.8	2714005.3	503180	µg/L	503180	ppb	18:56:56
1	Ca 317.933Radial†	7611014.0	8673613.0	483150	µg/L	483150	ppb	18:56:56
1	Fe 238.204 Radial†	6523125.5	7434173.2	458200	µg/L	458200	ppb	18:56:56
1	K 766.490 Radial†	2256.7	1027.2	53.040	µg/L	53.040	ppb	18:56:58
1	Mg 279.077 IEC†	1139739.5	1298755.6	483500	µg/L	483500	ppb	18:56:56
1	Na 589.592 Radial†	3271680.6	3727401.1	509210	µg/L	509210	ppb	18:56:56
1	Sr 421.552†	5079.9	5924.8	8.5355	µg/L	8.5355	ppb	18:56:58
1	Sc 361.383	1451583.4	1451583.4	84.482	%			18:57:26
1	Y 371.029	852879.4	852879.4	83.071	%			18:57:26
1	Ag 328.068†	2264.1	-1411.5	-0.2309	µg/L	-0.2309	ppb	18:57:26
1	As 188.979†	-305.1	-340.8	-0.3436	µg/L	-0.3436	ppb	18:57:28
1	B 249.677†	4415.2	1720.3	25.330	µg/L	25.330	ppb	18:57:26
1	Ba 233.527†	738.1	1009.5	-1.7895	µg/L	-1.7895	ppb	18:57:28
1	Be 313.107†	-15542.1	-17332.3	0.1527	µg/L	0.1527	ppb	18:57:26
1	Cd 226.502†	6136.8	7382.3	-2.0728	µg/L	-2.0728	ppb	18:57:28
1	Co 228.616†	663.9	976.1	-11.855	µg/L	-11.855	ppb	18:57:28
1	Cr 267.716†	326.4	207.8	-1.0531	µg/L	-1.0531	ppb	18:57:28
1	Cu 324.752†	-15976.1	-21882.9	8.0863	µg/L	8.0863	ppb	18:57:26
1	Mn 257.610†	18213.2	21321.4	5.9920	µg/L	5.9920	ppb	18:57:26
1	Mo 202.031†	-937.6	-1089.8	-5.0578	µg/L	-5.0578	ppb	18:57:26
1	Ni 231.604†	147.8	251.5	2.8954	µg/L	2.8954	ppb	18:57:28
1	P 214.914†	945.2	1136.8	44.272	µg/L	44.272	ppb	18:57:28
1	Pb 220.353†	-112.1	-219.1	-7.8626	µg/L	-7.8626	ppb	18:57:28
1	S 181.975 Axial†	176.1	103.3	76.471	µg/L	76.471	ppb	18:57:28
1	Sb 206.836†	186.9	140.4	7.1485	µg/L	7.1485	ppb	18:57:28
1	Se 196.026†	-404.8	-494.4	-4.21	µg/L	-4.21	ppb	18:57:28
1	SiO2†	1963.2	548.4	54.447	µg/L	54.447	ppb	18:57:28
1	Si 251.611†	-2032.7	-3242.6	-47.410	µg/L	-47.410	ppb	18:57:28
1	Sn 189.927†	64.2	77.1	4.9002	µg/L	4.9002	ppb	18:57:28
1	Ti 334.940†	26623.1	30560.8	-4.8606	µg/L	-4.8606	ppb	18:57:26
1	Tl 190.801†	-158.4	-70.8	-8.1165	µg/L	-8.1165	ppb	18:57:28
1	U 409.014†	232638.7	275640.9	16036	µg/L	16036	ppb	18:57:26
1	V 292.402†	7227.0	8150.7	1.9065	µg/L	1.9065	ppb	18:57:28
1	Zn 213.857†	8608.4	9625.2	9.4603	µg/L	9.4603	ppb	18:57:28
2	Sc RADIAL	127587.1	127587.1	87.4	%			18:57:03
2	Al 396.153Radial†	2344707.9	2681859.2	497220	µg/L	497220	ppb	18:57:01
2	Ca 317.933Radial†	7463583.8	8536029.3	475490	µg/L	475490	ppb	18:57:01
2	Fe 238.204 Radial†	6391908.1	7310696.0	450590	µg/L	450590	ppb	18:57:01
2	K 766.490 Radial†	2390.9	1189.8	117.32	µg/L	117.32	ppb	18:57:03
2	Mg 279.077 IEC†	1114206.6	1274200.4	474360	µg/L	474360	ppb	18:57:01
2	Na 589.592 Radial†	3209939.6	3670127.4	501380	µg/L	501380	ppb	18:57:01
2	Sr 421.552†	5135.8	6009.4	8.7715	µg/L	8.7715	ppb	18:57:03
2	Sc 361.383	1456448.3	1456448.3	84.765	%			18:57:30
2	Y 371.029	856251.9	856251.9	83.399	%			18:57:30
2	Ag 328.068†	2013.8	-1715.7	-1.0926	µg/L	-1.0926	ppb	18:57:30
2	As 188.979†	-237.9	-260.3	22.297	µg/L	22.297	ppb	18:57:32
2	B 249.677†	4229.1	1483.4	21.834	µg/L	21.834	ppb	18:57:30
2	Ba 233.527†	835.0	1121.0	-1.2428	µg/L	-1.2428	ppb	18:57:32
2	Be 313.107†	-15397.0	-17099.7	0.2214	µg/L	0.2214	ppb	18:57:30
2	Cd 226.502†	6036.4	7239.5	-2.1644	µg/L	-2.1644	ppb	18:57:32
2	Co 228.616†	696.8	1012.4	-11.010	µg/L	-11.010	ppb	18:57:32
2	Cr 267.716†	355.9	241.2	-0.9572	µg/L	-0.9572	ppb	18:57:32
2	Cu 324.752†	-16236.3	-22126.7	5.7984	µg/L	5.7984	ppb	18:57:30
2	Mn 257.610†	18248.7	21291.3	6.3374	µg/L	6.3374	ppb	18:57:30
2	Mo 202.031†	-933.0	-1080.6	-5.2559	µg/L	-5.2559	ppb	18:57:30
2	Ni 231.604†	134.2	234.9	2.7046	µg/L	2.7046	ppb	18:57:32
2	P 214.914†	1061.2	1269.9	76.619	µg/L	76.619	ppb	18:57:32
2	Pb 220.353†	-99.7	-204.1	-7.1629	µg/L	-7.1629	ppb	18:57:32

2	S 181.975 Axial†	67.9	-24.9	-18.790 µg/L	-18.790 ppb	18:57:32
2	Sb 206.836†	102.8	40.5	-4.5964 µg/L	-4.5964 ppb	18:57:32
2	Se 196.026†	-406.6	-495.0	-7.05 µg/L	-7.05 ppb	18:57:32
2	SiO2†	1830.8	384.5	38.395 µg/L	38.395 ppb	18:57:32
2	Si 251.611†	-1934.6	-3118.9	-45.598 µg/L	-45.598 ppb	18:57:32
2	Sn 189.927†	82.4	98.3	6.2185 µg/L	6.2185 ppb	18:57:32
2	Ti 334.940†	25364.2	28970.4	-5.8085 µg/L	-5.8085 ppb	18:57:30
2	Tl 190.801†	-211.8	-133.2	-15.794 µg/L	-15.794 ppb	18:57:32
2	U 409.014†	233675.5	275944.1	16055 µg/L	16055 ppb	18:57:30
2	V 292.402†	7224.5	8119.2	2.5727 µg/L	2.5727 ppb	18:57:32
2	Zn 213.857†	8699.2	9698.3	10.651 µg/L	10.651 ppb	18:57:32
3	Sc RADIAL	127845.5	127845.5	87.6 %		18:57:07
3	Al 396.153Radial†	2359012.1	2692767.9	499240 µg/L	499240 ppb	18:57:05
3	Ca 317.933Radial†	7510342.6	8572152.9	477500 µg/L	477500 ppb	18:57:05
3	Fe 238.204 Radial†	6434548.4	7344595.4	452680 µg/L	452680 ppb	18:57:05
3	K 766.490 Radial†	2440.5	1241.0	134.70 µg/L	134.70 ppb	18:57:07
3	Mg 279.077 IEC†	1121897.2	1280403.8	476670 µg/L	476670 ppb	18:57:05
3	Na 589.592 Radial†	3229732.0	3685301.0	503460 µg/L	503460 ppb	18:57:05
3	Sr 421.552†	4859.4	5682.0	8.0751 µg/L	8.0751 ppb	18:57:07
3	Sc 361.383	1472435.6	1472435.6	85.696 %		18:57:35
3	Y 371.029	865581.1	865581.1	84.308 %		18:57:35
3	Ag 328.068†	2006.5	-1749.9	-1.2878 µg/L	-1.2878 ppb	18:57:35
3	As 188.979†	-242.4	-262.5	22.088 µg/L	22.088 ppb	18:57:37
3	B 249.677†	4311.3	1525.1	22.443 µg/L	22.443 ppb	18:57:35
3	Ba 233.527†	597.3	832.8	-2.4315 µg/L	-2.4315 ppb	18:57:37
3	Be 313.107†	-15503.1	-17026.2	0.2432 µg/L	0.2432 ppb	18:57:35
3	Cd 226.502†	5998.3	7117.7	-3.1440 µg/L	-3.1440 ppb	18:57:37
3	Co 228.616†	825.0	1153.0	-9.3850 µg/L	-9.3850 ppb	18:57:37
3	Cr 267.716†	265.1	130.8	-1.7837 µg/L	-1.7837 ppb	18:57:37
3	Cu 324.752†	-16427.6	-22141.9	6.1120 µg/L	6.1120 ppb	18:57:35
3	Mn 257.610†	18616.4	21486.6	6.4820 µg/L	6.4820 ppb	18:57:35
3	Mo 202.031†	-951.0	-1089.6	-5.3968 µg/L	-5.3968 ppb	18:57:35
3	Ni 231.604†	238.5	354.9	4.0862 µg/L	4.0862 ppb	18:57:37
3	P 214.914†	1053.2	1246.9	70.775 µg/L	70.775 ppb	18:57:37
3	Pb 220.353†	-34.4	-126.5	-2.7794 µg/L	-2.7794 ppb	18:57:37
3	S 181.975 Axial†	188.2	114.6	84.800 µg/L	84.800 ppb	18:57:37
3	Sb 206.836†	165.1	111.8	3.8601 µg/L	3.8601 ppb	18:57:37
3	Se 196.026†	-442.3	-531.4	-19.5 µg/L	-19.5 ppb	18:57:37
3	SiO2†	1893.1	433.7	43.156 µg/L	43.156 ppb	18:57:37
3	Si 251.611†	-1908.7	-3063.9	-44.810 µg/L	-44.810 ppb	18:57:37
3	Sn 189.927†	139.3	163.7	10.296 µg/L	10.296 ppb	18:57:37
3	Ti 334.940†	26025.3	29416.9	-5.5292 µg/L	-5.5292 ppb	18:57:35
3	Tl 190.801†	-218.6	-138.4	-16.446 µg/L	-16.446 ppb	18:57:37
3	U 409.014†	236329.7	276048.2	16061 µg/L	16061 ppb	18:57:35
3	V 292.402†	7144.2	7933.0	1.4413 µg/L	1.4413 ppb	18:57:37
3	Zn 213.857†	8714.2	9604.4	9.9077 µg/L	9.9077 ppb	18:57:37

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1460155.8	84.981	%	0.6349				0.75%
Sc RADIAL	127825.4	87.6	%	0.16				0.18%
Y 371.029	858237.5	83.593	%	0.6409				0.77%
Ag 328.068†	-1625.7	-0.8704	µg/L	0.56237	-0.8704	ppb	0.56237	64.61%
Al 396.153Radial†	2696210.8	499880	µg/L	3030.8	499880	ppb	3030.8	0.61%
QC value within limits for Al 396.153Radial Recovery = 99.98%								
As 188.979†	-287.9	14.680	µg/L	13.0115	14.680	ppb	13.0115	88.63%
B 249.677†	1576.2	23.202	µg/L	1.8679	23.202	ppb	1.8679	8.05%
Ba 233.527†	987.8	-1.8213	µg/L	0.59497	-1.8213	ppb	0.59497	32.67%
Be 313.107†	-17152.7	0.2058	µg/L	0.04725	0.2058	ppb	0.04725	22.96%
Ca 317.933Radial†	8593931.8	478720	µg/L	3973.4	478720	ppb	3973.4	0.83%
QC value within limits for Ca 317.933Radial Recovery = 95.74%								
Cd 226.502†	7246.5	-2.4604	µg/L	0.59380	-2.4604	ppb	0.59380	24.13%
Co 228.616†	1047.2	-10.750	µg/L	1.2554	-10.750	ppb	1.2554	11.68%
Cr 267.716†	193.3	-1.2647	µg/L	0.45201	-1.2647	ppb	0.45201	35.74%
Cu 324.752†	-22050.5	6.6655	µg/L	1.24035	6.6655	ppb	1.24035	18.61%
Fe 238.204 Radial†	7363154.9	453820	µg/L	3932.0	453820	ppb	3932.0	0.87%
QC value within limits for Fe 238.204 Radial Recovery = 90.76%								
K 766.490 Radial†	1152.7	101.69	µg/L	43.017	101.69	ppb	43.017	42.30%
Mg 279.077 IEC†	1284453.2	478180	µg/L	4754.0	478180	ppb	4754.0	0.99%

QC value within limits for Mg 279.077 IEC Recovery = 95.64%

Mn 257.610†	21366.4	6.2705 µg/L	0.25177	6.2705 ppb	0.25177	4.02%
Mo 202.031†	-1086.7	-5.2368 µg/L	0.17026	-5.2368 ppb	0.17026	3.25%
Na 589.592 Radial†	3694276.5	504680 µg/L	4053.7	504680 ppb	4053.7	0.80%

QC value within limits for Na 589.592 Radial Recovery = 100.94%

Ni 231.604†	280.4	3.2287 µg/L	0.74869	3.2287 ppb	0.74869	23.19%
P 214.914†	1217.9	63.889 µg/L	17.2380	63.889 ppb	17.2380	26.98%
Pb 220.353†	-183.2	-5.9350 µg/L	2.75510	-5.9350 ppb	2.75510	46.42%
S 181.975 Axial†	64.3	47.494 µg/L	57.5543	47.494 ppb	57.5543	121.18%
Sb 206.836†	97.6	2.1374 µg/L	6.05903	2.1374 ppb	6.05903	283.48%
Se 196.026†	-506.9	-10.3 µg/L	8.13	-10.3 ppb	8.13	79.29%
SiO2†	455.6	45.333 µg/L	8.2442	45.333 ppb	8.2442	18.19%
Si 251.611†	-3141.8	-45.939 µg/L	1.3330	-45.939 ppb	1.3330	2.90%
Sn 189.927†	113.0	7.1383 µg/L	2.81321	7.1383 ppb	2.81321	39.41%
Sr 421.552†	5872.1	8.4607 µg/L	0.35414	8.4607 ppb	0.35414	4.19%
Ti 334.940†	29649.4	-5.3994 µg/L	0.48710	-5.3994 ppb	0.48710	9.02%
Tl 190.801†	-114.1	-13.452 µg/L	4.6323	-13.452 ppb	4.6323	34.44%
U 409.014†	275877.8	16051 µg/L	13.0	16051 ppb	13.0	0.08%

QC value within limits for U 409.014 Recovery = 107.00%

V 292.402†	8067.6	1.9735 µg/L	0.56868	1.9735 ppb	0.56868	28.82%
Zn 213.857†	9642.6	10.006 µg/L	0.6012	10.006 ppb	0.6012	6.01%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 3/31/2010 18:57:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	138428.5	138428.5	94.9	%			18:58:18
1	Al 396.153Radial†	2589.6	2793.1	65.979	µg/L	65.979	ppb	18:58:20
1	Ca 317.933Radial†	2182.0	1739.6	96.903	µg/L	96.903	ppb	18:58:20
1	Fe 238.204 Radial†	-202.3	-361.4	-22.274	µg/L	-22.274	ppb	18:58:20
1	K 766.490 Radial†	763320.3	803139.1	294040	µg/L	294040	ppb	18:58:18
1	Mg 279.077 IEC†	-318.7	-526.7	41.787	µg/L	41.787	ppb	18:58:20
1	Na 589.592 Radial†	4722.3	3687.4	242.24	µg/L	242.24	ppb	18:58:18
1	Sr 421.552†	4464241.5	4706289.3	9784.1	µg/L	9784.1	ppb	18:58:15
1	Sc 361.383	1644054.1	1644054.1	95.684	%			18:58:42
1	Y 371.029	958940.9	958940.9	93.401	%			18:58:42
1	Ag 328.068†	-28181.7	-33544.4	-7.2060	µg/L	-7.2060	ppb	18:58:44
1	As 188.979†	32117.0	33586.2	10409	µg/L	10409	ppb	18:58:44
1	B 249.677†	322787.1	333842.2	4891.3	µg/L	4891.3	ppb	18:58:42
1	Ba 233.527†	3263599.9	3410957.3	13754	µg/L	13754	ppb	18:58:42
1	Be 313.107†	10059777.2	10514640.1	2862.8	µg/L	2862.8	ppb	18:58:38
1	Cd 226.502†	1463937.1	1530093.7	9561.7	µg/L	9561.7	ppb	18:58:42
1	Co 228.616†	720309.4	752993.0	9307.6	µg/L	9307.6	ppb	18:58:42
1	Cr 267.716†	2891693.7	3021959.9	23671	µg/L	23671	ppb	18:58:42
1	Cu 324.752†	4894436.4	5112253.1	19872	µg/L	19872	ppb	18:58:42
1	Mn 257.610†	7191165.6	7515323.1	9298.7	µg/L	9298.7	ppb	18:58:42
1	Mo 202.031†	316742.4	331050.8	9732.5	µg/L	9732.5	ppb	18:58:44
1	Ni 231.604†	799875.1	836034.2	9626.3	µg/L	9626.3	ppb	18:58:42
1	P 214.914†	68547.5	71657.7	15093	µg/L	15093	ppb	18:58:44
1	Pb 220.353†	401154.4	419164.2	23428	µg/L	23428	ppb	18:58:42
1	S 181.975 Axial†	67316.5	70248.1	52247	µg/L	52247	ppb	18:58:44
1	Sb 206.836†	80773.2	84336.1	9841.1	µg/L	9841.1	ppb	18:58:44
1	Se 196.026†	26033.9	27193.0	9830	µg/L	9830	ppb	18:58:44
1	SiO2†	974638.1	1016828.8	98967	µg/L	98967	ppb	18:58:42
1	Si 251.611†	3010622.9	3145596.0	46180	µg/L	46180	ppb	18:58:42
1	Sn 189.927†	151635.6	158477.0	9912.7	µg/L	9912.7	ppb	18:58:44
1	Ti 334.940†	10132846.9	10588988.8	9885.3	µg/L	9885.3	ppb	18:58:38
1	Tl 190.801†	74051.0	77508.1	9673.9	µg/L	9673.9	ppb	18:58:44
1	U 409.014†	-10469.2	-10671.6	-21.061	µg/L	-21.061	ppb	18:58:44
1	V 292.402†	1944343.2	2031649.1	10104	µg/L	10104	ppb	18:58:42
1	Zn 213.857†	2422227.0	2530929.6	14143	µg/L	14143	ppb	18:58:42
2	Sc RADIAL	138489.8	138489.8	94.9	%			18:58:24
2	Al 396.153Radial†	2632.4	2837.1	80.052	µg/L	80.052	ppb	18:58:26
2	Ca 317.933Radial†	2111.9	1664.8	92.734	µg/L	92.734	ppb	18:58:26
2	Fe 238.204 Radial†	-168.1	-325.2	-20.046	µg/L	-20.046	ppb	18:58:26
2	K 766.490 Radial†	768501.7	808242.3	295910	µg/L	295910	ppb	18:58:24
2	Mg 279.077 IEC†	-343.1	-552.3	29.128	µg/L	29.128	ppb	18:58:26
2	Na 589.592 Radial†	4657.2	3616.6	230.89	µg/L	230.89	ppb	18:58:24
2	Sr 421.552†	4443237.9	4682072.2	9733.8	µg/L	9733.8	ppb	18:58:22
2	Sc 361.383	1654174.4	1654174.4	96.273	%			18:58:52
2	Y 371.029	964160.7	964160.7	93.910	%			18:58:52
2	Ag 328.068†	-27980.3	-33155.0	-5.4230	µg/L	-5.4230	ppb	18:58:54
2	As 188.979†	31657.2	32903.2	10204	µg/L	10204	ppb	18:58:54
2	B 249.677†	326358.6	335488.1	4915.4	µg/L	4915.4	ppb	18:58:52
2	Ba 233.527†	3296633.7	3424402.5	13809	µg/L	13809	ppb	18:58:52
2	Be 313.107†	10113068.4	10505672.2	2860.3	µg/L	2860.3	ppb	18:58:48
2	Cd 226.502†	1483425.3	1540976.0	9629.7	µg/L	9629.7	ppb	18:58:52
2	Co 228.616†	729085.8	757503.5	9363.3	µg/L	9363.3	ppb	18:58:52
2	Cr 267.716†	2922280.8	3035241.6	23775	µg/L	23775	ppb	18:58:52
2	Cu 324.752†	4934401.1	5122469.9	19912	µg/L	19912	ppb	18:58:52
2	Mn 257.610†	7264987.1	7546022.1	9336.7	µg/L	9336.7	ppb	18:58:52
2	Mo 202.031†	314514.5	326711.4	9605.0	µg/L	9605.0	ppb	18:58:54
2	Ni 231.604†	809217.8	840624.1	9679.2	µg/L	9679.2	ppb	18:58:52
2	P 214.914†	67979.1	70628.9	14873	µg/L	14873	ppb	18:58:54
2	Pb 220.353†	406432.6	422081.8	23591	µg/L	23591	ppb	18:58:52

2	S 181.975 Axial†	66600.5	69074.0	51374	µg/L	51374	ppb	18:58:54
2	Sb 206.836†	80074.2	83093.5	9689.8	µg/L	9689.8	ppb	18:58:54
2	Se 196.026†	25686.7	26665.9	9640	µg/L	9640	ppb	18:58:54
2	SiO2†	986400.6	1022814.9	99557	µg/L	99557	ppb	18:58:52
2	Si 251.611†	3046941.6	3164070.8	46455	µg/L	46455	ppb	18:58:52
2	Sn 189.927†	150469.1	156295.8	9776.7	µg/L	9776.7	ppb	18:58:54
2	Ti 334.940†	10189195.0	10582728.8	9879.4	µg/L	9879.4	ppb	18:58:48
2	Tl 190.801†	73611.8	76578.5	9559.6	µg/L	9559.6	ppb	18:58:54
2	U 409.014†	-10364.3	-10495.7	-9.0352	µg/L	-9.0352	ppb	18:58:54
2	V 292.402†	1961854.5	2037406.1	10131	µg/L	10131	ppb	18:58:52
2	Zn 213.857†	2448683.7	2542922.9	14210	µg/L	14210	ppb	18:58:52
3	Sc RADIAL	137437.4	137437.4	94.2	%			18:58:31
3	Al 396.153Radial†	2618.6	2843.6	77.986	µg/L	77.986	ppb	18:58:33
3	Ca 317.933Radial†	2227.5	1804.6	100.52	µg/L	100.52	ppb	18:58:33
3	Fe 238.204 Radial†	-164.9	-323.2	-19.923	µg/L	-19.923	ppb	18:58:33
3	K 766.490 Radial†	765491.4	811247.2	297010	µg/L	297010	ppb	18:58:31
3	Mg 279.077 IEC†	-295.0	-503.9	48.881	µg/L	48.881	ppb	18:58:33
3	Na 589.592 Radial†	4456.0	3440.6	205.87	µg/L	205.87	ppb	18:58:31
3	Sr 421.552†	4441067.4	4715621.3	9803.5	µg/L	9803.5	ppb	18:58:29
3	Sc 361.383	1660837.4	1660837.4	96.660	%			18:59:01
3	Y 371.029	967825.2	967825.2	94.267	%			18:59:01
3	Ag 328.068†	-28451.9	-33526.3	-6.5821	µg/L	-6.5821	ppb	18:59:04
3	As 188.979†	32300.2	33436.5	10365	µg/L	10365	ppb	18:59:04
3	B 249.677†	328722.2	336573.4	4931.3	µg/L	4931.3	ppb	18:59:01
3	Ba 233.527†	3317615.9	3432372.0	13841	µg/L	13841	ppb	18:59:01
3	Be 313.107†	10133998.6	10485182.6	2854.7	µg/L	2854.7	ppb	18:58:58
3	Cd 226.502†	1494854.9	1546618.8	9664.9	µg/L	9664.9	ppb	18:59:01
3	Co 228.616†	734092.5	759645.0	9389.8	µg/L	9389.8	ppb	18:59:01
3	Cr 267.716†	2940364.9	3041773.0	23826	µg/L	23826	ppb	18:59:01
3	Cu 324.752†	4964197.6	5132733.3	19952	µg/L	19952	ppb	18:59:01
3	Mn 257.610†	7309991.3	7562306.7	9356.8	µg/L	9356.8	ppb	18:59:01
3	Mo 202.031†	318101.3	329111.4	9675.5	µg/L	9675.5	ppb	18:59:04
3	Ni 231.604†	815203.0	843443.9	9711.6	µg/L	9711.6	ppb	18:59:01
3	P 214.914†	69129.8	71536.1	15067	µg/L	15067	ppb	18:59:04
3	Pb 220.353†	409679.7	423747.3	23684	µg/L	23684	ppb	18:59:01
3	S 181.975 Axial†	67967.3	70210.4	52219	µg/L	52219	ppb	18:59:04
3	Sb 206.836†	81066.4	83786.4	9772.6	µg/L	9772.6	ppb	18:59:04
3	Se 196.026†	26138.8	27026.6	9770	µg/L	9770	ppb	18:59:04
3	SiO2†	993772.6	1026331.1	99898	µg/L	99898	ppb	18:59:01
3	Si 251.611†	3070650.4	3175901.7	46628	µg/L	46628	ppb	18:59:01
3	Sn 189.927†	152708.7	157985.7	9882.0	µg/L	9882.0	ppb	18:59:04
3	Ti 334.940†	10211863.8	10563720.7	9861.6	µg/L	9861.6	ppb	18:58:58
3	Tl 190.801†	74486.4	77176.5	9633.0	µg/L	9633.0	ppb	18:59:04
3	U 409.014†	-10678.1	-10777.2	-24.287	µg/L	-24.287	ppb	18:59:04
3	V 292.402†	1973672.0	2041456.5	10152	µg/L	10152	ppb	18:59:01
3	Zn 213.857†	2465384.0	2549996.1	14250	µg/L	14250	ppb	18:59:01

Mean Data: LR2

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1653021.9	96.206	%	0.4918				0.51%
Sc RADIAL	138118.6	94.6	%	0.40				0.43%
Y 371.029	963642.3	93.859	%	0.4349				0.46%
Ag 328.068†	-33408.6	-6.4037	µg/L	0.90480	-6.4037	ppb	0.90480	14.13%
Al 396.153Radial†	2824.6	74.672	µg/L	7.5994	74.672	ppb	7.5994	10.18%
As 188.979†	33308.6	10326	µg/L	108.5	10326	ppb	108.5	1.05%
QC value within limits for As 188.979 Recovery = 103.26%								
B 249.677†	335301.2	4912.7	µg/L	20.14	4912.7	ppb	20.14	0.41%
QC value within limits for B 249.677 Recovery = 98.25%								
Ba 233.527†	3422577.3	13801	µg/L	43.6	13801	ppb	43.6	0.32%
QC value within limits for Ba 233.527 Recovery = 92.01%								
Be 313.107†	10501831.6	2859.3	µg/L	4.11	2859.3	ppb	4.11	0.14%
QC value within limits for Be 313.107 Recovery = 95.31%								
Ca 317.933Radial†	1736.3	96.720	µg/L	3.8970	96.720	ppb	3.8970	4.03%
Cd 226.502†	1539229.5	9618.8	µg/L	52.49	9618.8	ppb	52.49	0.55%
QC value within limits for Cd 226.502 Recovery = 96.19%								
Co 228.616†	756713.8	9353.6	µg/L	41.95	9353.6	ppb	41.95	0.45%
QC value within limits for Co 228.616 Recovery = 93.54%								
Cr 267.716†	3032991.5	23758	µg/L	79.1	23758	ppb	79.1	0.33%
QC value within limits for Cr 267.716 Recovery = 95.03%								

Cu 324.752†	5122485.4	19912 µg/L	39.8	19912 ppb	39.8	0.20%
QC value within limits for Cu 324.752 Recovery = 99.56%						
Fe 238.204 Radial†	-336.6	-20.748 µg/L	1.3234	-20.748 ppb	1.3234	6.38%
K 766.490 Radial†	807542.9	295650 µg/L	1500.7	295650 ppb	1500.7	0.51%
QC value within limits for K 766.490 Radial Recovery = 98.55%						
Mg 279.077 IEC†	-527.6	39.932 µg/L	10.0061	39.932 ppb	10.0061	25.06%
Mn 257.610†	7541217.3	9330.7 µg/L	29.52	9330.7 ppb	29.52	0.32%
QC value within limits for Mn 257.610 Recovery = 93.31%						
Mo 202.031†	328957.9	9671.0 µg/L	63.88	9671.0 ppb	63.88	0.66%
QC value within limits for Mo 202.031 Recovery = 96.71%						
Na 589.592 Radial†	3581.5	226.33 µg/L	18.607	226.33 ppb	18.607	8.22%
Ni 231.604†	840034.1	9672.4 µg/L	43.06	9672.4 ppb	43.06	0.45%
QC value within limits for Ni 231.604 Recovery = 96.72%						
P 214.914†	71274.3	15011 µg/L	120.3	15011 ppb	120.3	0.80%
QC value within limits for P 214.914 Recovery = 100.07%						
Pb 220.353†	421664.4	23568 µg/L	129.3	23568 ppb	129.3	0.55%
QC value within limits for Pb 220.353 Recovery = 94.27%						
S 181.975 Axial†	69844.2	51947 µg/L	496.0	51947 ppb	496.0	0.95%
QC value within limits for S 181.975 Axial Recovery = 103.89%						
Sb 206.836†	83738.7	9767.8 µg/L	75.75	9767.8 ppb	75.75	0.78%
QC value within limits for Sb 206.836 Recovery = 97.68%						
Se 196.026†	26961.8	9750 µg/L	97.4	9750 ppb	97.4	1.00%
QC value within limits for Se 196.026 Recovery = 97.47%						
SiO2†	1021991.6	99474 µg/L	471.0	99474 ppb	471.0	0.47%
QC value within limits for SiO2 Recovery = 92.97%						
Si 251.611†	3161856.2	46421 µg/L	225.8	46421 ppb	225.8	0.49%
QC value within limits for Si 251.611 Recovery = 92.84%						
Sn 189.927†	157586.2	9857.1 µg/L	71.32	9857.1 ppb	71.32	0.72%
QC value within limits for Sn 189.927 Recovery = 98.57%						
Sr 421.552†	4701327.6	9773.8 µg/L	36.00	9773.8 ppb	36.00	0.37%
QC value within limits for Sr 421.552 Recovery = 97.74%						
Ti 334.940†	10578479.4	9875.4 µg/L	12.32	9875.4 ppb	12.32	0.12%
QC value within limits for Ti 334.940 Recovery = 98.75%						
Tl 190.801†	77087.7	9622.1 µg/L	57.90	9622.1 ppb	57.90	0.60%
QC value within limits for Tl 190.801 Recovery = 96.22%						
U 409.014†	-10648.1	-18.128 µg/L	8.0380	-18.128 ppb	8.0380	44.34%
V 292.402†	2036837.3	10129 µg/L	24.0	10129 ppb	24.0	0.24%
QC value within limits for V 292.402 Recovery = 101.29%						
Zn 213.857†	2541282.9	14201 µg/L	53.8	14201 ppb	53.8	0.38%
QC value within limits for Zn 213.857 Recovery = 94.68%						

All analyte(s) passed QC.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 18:59:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142139.5	142139.5	97.4	%			18:59:45
1	Al 396.153Radial†	26433.8	27201.9	5020.1	µg/L	5020.1	ppb	18:59:45
1	Ca 317.933Radial†	88689.7	90494.1	5040.9	µg/L	5040.9	ppb	18:59:45
1	Fe 238.204 Radial†	79307.5	81274.2	5009.2	µg/L	5009.2	ppb	18:59:45
1	K 766.490 Radial†	16771.4	15673.9	5734.3	µg/L	5734.3	ppb	18:59:45
1	Mg 279.077 IEC†	13660.1	13833.7	5162.1	µg/L	5162.1	ppb	18:59:45
1	Na 589.592 Radial†	73293.1	73956.7	10098	µg/L	10098	ppb	18:59:45
1	Sr 421.552†	230485.0	236766.3	492.18	µg/L	492.18	ppb	18:59:42
1	Sc 361.383	1685039.5	1685039.5	98.069	%			19:00:11
1	Y 371.029	998501.4	998501.4	97.255	%			19:00:11
1	Ag 328.068†	132676.3	131197.3	491.97	µg/L	491.97	ppb	19:00:11
1	As 188.979†	1601.0	1652.9	507.06	µg/L	507.06	ppb	19:00:31
1	B 249.677†	36255.7	33463.6	491.81	µg/L	491.81	ppb	19:00:11
1	Ba 233.527†	119950.7	122448.3	493.83	µg/L	493.83	ppb	19:00:11
1	Be 313.107†	1777442.6	1813504.8	493.92	µg/L	493.92	ppb	19:00:11
1	Cd 226.502†	77121.2	78757.9	491.64	µg/L	491.64	ppb	19:00:11
1	Co 228.616†	39140.7	40101.7	495.05	µg/L	495.05	ppb	19:00:11
1	Cr 267.716†	61794.1	62832.3	491.97	µg/L	491.97	ppb	19:00:11
1	Cu 324.752†	126997.2	126525.5	493.24	µg/L	493.24	ppb	19:00:11
1	Mn 257.610†	392842.9	400340.6	495.12	µg/L	495.12	ppb	19:00:11
1	Mo 202.031†	16539.5	16885.3	496.69	µg/L	496.69	ppb	19:00:31
1	Ni 231.604†	41890.8	42792.1	492.72	µg/L	492.72	ppb	19:00:11
1	P 214.914†	11336.8	11578.0	2467.8	µg/L	2467.8	ppb	19:00:31
1	Pb 220.353†	8936.3	9025.8	505.42	µg/L	505.42	ppb	19:00:31
1	S 181.975 Axial†	1440.2	1363.5	1016.7	µg/L	1016.7	ppb	19:00:31
1	Sb 206.836†	4150.3	4151.2	494.66	µg/L	494.66	ppb	19:00:31
1	Se 196.026†	1355.8	1367.2	496	µg/L	496	ppb	19:00:31
1	SiO2†	55729.4	55051.3	5359.5	µg/L	5359.5	ppb	19:00:11
1	Si 251.611†	167770.7	170237.6	2499.9	µg/L	2499.9	ppb	19:00:11
1	Sn 189.927†	7832.4	7987.8	499.62	µg/L	499.62	ppb	19:00:31
1	Ti 334.940†	519447.4	528722.7	493.33	µg/L	493.33	ppb	19:00:11
1	Tl 190.801†	3833.0	4025.2	501.97	µg/L	501.97	ppb	19:00:31
1	U 409.014†	7396.5	7812.0	486.67	µg/L	486.67	ppb	19:00:11
1	V 292.402†	98795.4	100336.9	496.05	µg/L	496.05	ppb	19:00:11
1	Zn 213.857†	87637.0	88798.1	494.94	µg/L	494.94	ppb	19:00:11
2	Sc RADIAL	141405.1	141405.1	96.9	%			18:59:49
2	Al 396.153Radial†	26316.7	27222.0	5023.9	µg/L	5023.9	ppb	18:59:49
2	Ca 317.933Radial†	88132.2	90391.6	5035.2	µg/L	5035.2	ppb	18:59:49
2	Fe 238.204 Radial†	78428.2	80789.6	4979.4	µg/L	4979.4	ppb	18:59:49
2	K 766.490 Radial†	16577.4	15563.0	5693.7	µg/L	5693.7	ppb	18:59:49
2	Mg 279.077 IEC†	13417.4	13656.1	5095.9	µg/L	5095.9	ppb	18:59:49
2	Na 589.592 Radial†	72730.8	73767.2	10072	µg/L	10072	ppb	18:59:49
2	Sr 421.552†	231214.8	238748.4	496.30	µg/L	496.30	ppb	18:59:47
2	Sc 361.383	1693366.2	1693366.2	98.554	%			19:00:35
2	Y 371.029	1002117.3	1002117.3	97.607	%			19:00:35
2	Ag 328.068†	134028.3	131903.9	494.57	µg/L	494.57	ppb	19:00:35
2	As 188.979†	1592.6	1636.4	502.08	µg/L	502.08	ppb	19:00:55
2	B 249.677†	36515.2	33545.2	493.02	µg/L	493.02	ppb	19:00:35
2	Ba 233.527†	120680.2	122587.1	494.39	µg/L	494.39	ppb	19:00:35
2	Be 313.107†	1789722.9	1817053.1	494.89	µg/L	494.89	ppb	19:00:35
2	Cd 226.502†	77769.6	79029.1	493.33	µg/L	493.33	ppb	19:00:35
2	Co 228.616†	39338.4	40106.1	495.11	µg/L	495.11	ppb	19:00:35
2	Cr 267.716†	62316.9	63052.8	493.70	µg/L	493.70	ppb	19:00:35
2	Cu 324.752†	127673.8	126575.3	493.42	µg/L	493.42	ppb	19:00:35
2	Mn 257.610†	395604.2	401172.7	496.16	µg/L	496.16	ppb	19:00:35
2	Mo 202.031†	16605.0	16868.7	496.20	µg/L	496.20	ppb	19:00:55
2	Ni 231.604†	42250.6	42947.2	494.51	µg/L	494.51	ppb	19:00:35
2	P 214.914†	11392.0	11577.2	2467.6	µg/L	2467.6	ppb	19:00:55
2	Pb 220.353†	8993.4	9039.0	506.15	µg/L	506.15	ppb	19:00:55

2	S 181.975 Axial†	1441.0	1357.1	1011.9 µg/L	1011.9 ppb	19:00:55
2	Sb 206.836†	4173.3	4153.7	494.93 µg/L	494.93 ppb	19:00:55
2	Se 196.026†	1369.6	1374.4	499 µg/L	499 ppb	19:00:55
2	SiO2†	55740.1	54782.8	5333.3 µg/L	5333.3 ppb	19:00:35
2	Si 251.611†	168764.7	170404.9	2502.4 µg/L	2502.4 ppb	19:00:35
2	Sn 189.927†	7855.7	7972.1	498.64 µg/L	498.64 ppb	19:00:55
2	Ti 334.940†	522510.2	529225.9	493.80 µg/L	493.80 ppb	19:00:35
2	Tl 190.801†	3874.1	4047.6	504.73 µg/L	504.73 ppb	19:00:55
2	U 409.014†	7341.8	7719.4	481.23 µg/L	481.23 ppb	19:00:35
2	V 292.402†	99158.5	100210.0	495.43 µg/L	495.43 ppb	19:00:35
2	Zn 213.857†	88086.4	88814.8	495.03 µg/L	495.03 ppb	19:00:35
3	Sc RADIAL	143105.8	143105.8	98.1 %		18:59:53
3	Al 396.153Radial†	26546.6	27133.7	5007.7 µg/L	5007.7 ppb	18:59:53
3	Ca 317.933Radial†	89145.0	90343.6	5032.5 µg/L	5032.5 ppb	18:59:53
3	Fe 238.204 Radial†	79321.5	80738.7	4976.2 µg/L	4976.2 ppb	18:59:53
3	K 766.490 Radial†	16684.6	15469.1	5659.4 µg/L	5659.4 ppb	18:59:53
3	Mg 279.077 IEC†	13656.7	13735.5	5125.4 µg/L	5125.4 ppb	18:59:53
3	Na 589.592 Radial†	73452.5	73611.2	10051 µg/L	10051 ppb	18:59:53
3	Sr 421.552†	233202.1	237939.3	494.62 µg/L	494.62 ppb	18:59:51
3	Sc 361.383	1698557.6	1698557.6	98.856 %		19:00:58
3	Y 371.029	1005300.2	1005300.2	97.917 %		19:00:58
3	Ag 328.068†	134027.1	131487.0	493.03 µg/L	493.03 ppb	19:00:58
3	As 188.979†	1600.3	1639.2	502.90 µg/L	502.90 ppb	19:01:18
3	B 249.677†	36626.1	33544.1	493.00 µg/L	493.00 ppb	19:00:58
3	Ba 233.527†	120865.6	122400.4	493.64 µg/L	493.64 ppb	19:00:58
3	Be 313.107†	1794818.7	1816657.7	494.78 µg/L	494.78 ppb	19:00:58
3	Cd 226.502†	77952.7	78973.1	492.98 µg/L	492.98 ppb	19:00:58
3	Co 228.616†	39410.3	40056.7	494.50 µg/L	494.50 ppb	19:00:58
3	Cr 267.716†	62267.5	62809.6	491.79 µg/L	491.79 ppb	19:00:58
3	Cu 324.752†	127710.6	126216.6	492.03 µg/L	492.03 ppb	19:00:58
3	Mn 257.610†	396581.9	400934.9	495.86 µg/L	495.86 ppb	19:00:58
3	Mo 202.031†	16557.8	16769.5	493.29 µg/L	493.29 ppb	19:01:18
3	Ni 231.604†	42318.2	42884.5	493.78 µg/L	493.78 ppb	19:00:58
3	P 214.914†	11368.7	11518.2	2455.0 µg/L	2455.0 ppb	19:01:18
3	Pb 220.353†	8920.7	8937.6	500.48 µg/L	500.48 ppb	19:01:18
3	S 181.975 Axial†	1449.3	1361.0	1014.8 µg/L	1014.8 ppb	19:01:18
3	Sb 206.836†	4163.9	4131.2	492.23 µg/L	492.23 ppb	19:01:18
3	Se 196.026†	1367.7	1368.2	497 µg/L	497 ppb	19:01:18
3	SiO2†	55966.4	54838.9	5338.9 µg/L	5338.9 ppb	19:00:58
3	Si 251.611†	169027.1	170146.9	2498.6 µg/L	2498.6 ppb	19:00:58
3	Sn 189.927†	7816.0	7907.6	494.62 µg/L	494.62 ppb	19:01:18
3	Ti 334.940†	523522.3	528629.3	493.24 µg/L	493.24 ppb	19:00:58
3	Tl 190.801†	3828.1	3989.1	497.54 µg/L	497.54 ppb	19:01:18
3	U 409.014†	7431.2	7787.1	485.18 µg/L	485.18 ppb	19:00:58
3	V 292.402†	99434.0	100181.1	495.25 µg/L	495.25 ppb	19:00:58
3	Zn 213.857†	87848.2	88300.5	492.15 µg/L	492.15 ppb	19:00:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1692321.1	98.493	%	0.3969				0.40%
Sc RADIAL	142216.8	97.5	%	0.58				0.60%
Y 371.029	1001973.0	97.593	%	0.3313				0.34%
Ag 328.068†	131529.4	493.19	µg/L	1.309	493.19	ppb	1.309	0.27%
QC value within limits for Ag 328.068 Recovery = 98.64%								
Al 396.153Radial†	27185.9	5017.2	µg/L	8.50	5017.2	ppb	8.50	0.17%
QC value within limits for Al 396.153Radial Recovery = 100.34%								
As 188.979†	1642.8	504.02	µg/L	2.669	504.02	ppb	2.669	0.53%
QC value within limits for As 188.979 Recovery = 100.80%								
B 249.677†	33517.6	492.61	µg/L	0.690	492.61	ppb	0.690	0.14%
QC value within limits for B 249.677 Recovery = 98.52%								
Ba 233.527†	122478.6	493.95	µg/L	0.391	493.95	ppb	0.391	0.08%
QC value within limits for Ba 233.527 Recovery = 98.79%								
Be 313.107†	1815738.5	494.53	µg/L	0.529	494.53	ppb	0.529	0.11%
QC value within limits for Be 313.107 Recovery = 98.91%								
Ca 317.933Radial†	90409.8	5036.2	µg/L	4.28	5036.2	ppb	4.28	0.09%
QC value within limits for Ca 317.933Radial Recovery = 100.72%								
Cd 226.502†	78920.1	492.65	µg/L	0.896	492.65	ppb	0.896	0.18%
QC value within limits for Cd 226.502 Recovery = 98.53%								
Co 228.616†	40088.2	494.89	µg/L	0.337	494.89	ppb	0.337	0.07%

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   QC value within limits for Co 228.616  Recovery = 98.98%
Cr 267.716†            62898.2      492.49 µg/L         1.054      492.49 ppb          1.054   0.21%
   QC value within limits for Cr 267.716  Recovery = 98.50%
Cu 324.752†           126439.1      492.90 µg/L         0.756      492.90 ppb          0.756   0.15%
   QC value within limits for Cu 324.752  Recovery = 98.58%
Fe 238.204 Radial†     80934.2      4988.3 µg/L         18.22      4988.3 ppb          18.22   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.77%
K 766.490 Radial†      15568.7      5695.8 µg/L         37.52      5695.8 ppb          37.52   0.66%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 113.92%
Mg 279.077 IEC†        13741.8      5127.8 µg/L         33.15      5127.8 ppb          33.15   0.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.56%
Mn 257.610†           400816.1      495.71 µg/L         0.532      495.71 ppb          0.532   0.11%
   QC value within limits for Mn 257.610  Recovery = 99.14%
Mo 202.031†            16841.2      495.39 µg/L         1.841      495.39 ppb          1.841   0.37%
   QC value within limits for Mo 202.031  Recovery = 99.08%
Na 589.592 Radial†     73778.4       10074 µg/L          23.6       10074 ppb           23.6   0.23%
   QC value within limits for Na 589.592 Radial  Recovery = 100.74%
Ni 231.604†            42874.6      493.67 µg/L         0.898      493.67 ppb          0.898   0.18%
   QC value within limits for Ni 231.604  Recovery = 98.73%
P 214.914†             11557.8      2463.5 µg/L          7.33      2463.5 ppb           7.33   0.30%
   QC value within limits for P 214.914  Recovery = 98.54%
Pb 220.353†             9000.8      504.02 µg/L         3.083      504.02 ppb          3.083   0.61%
   QC value within limits for Pb 220.353  Recovery = 100.80%
S 181.975 Axial†        1360.5      1014.5 µg/L          2.43      1014.5 ppb           2.43   0.24%
   QC value within limits for S 181.975 Axial  Recovery = 101.45%
Sb 206.836†             4145.4      493.94 µg/L         1.484      493.94 ppb          1.484   0.30%
   QC value within limits for Sb 206.836  Recovery = 98.79%
Se 196.026†             1370.0         497 µg/L           1.4         497 ppb            1.4   0.28%
   QC value within limits for Se 196.026  Recovery = 99.49%
SiO2†                  54891.0      5343.9 µg/L         13.80      5343.9 ppb          13.80   0.26%
   QC value within limits for SiO2  Recovery = 99.93%
Si 251.611†           170263.1      2500.3 µg/L          1.90      2500.3 ppb           1.90   0.08%
   QC value within limits for Si 251.611  Recovery = 100.01%
Sn 189.927†             7955.8      497.63 µg/L         2.649      497.63 ppb          2.649   0.53%
   QC value within limits for Sn 189.927  Recovery = 99.53%
Sr 421.552†           237818.0      494.37 µg/L         2.072      494.37 ppb          2.072   0.42%
   QC value within limits for Sr 421.552  Recovery = 98.87%
Ti 334.940†           528859.3      493.46 µg/L         0.302      493.46 ppb          0.302   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.69%
Tl 190.801†             4020.6      501.41 µg/L         3.629      501.41 ppb          3.629   0.72%
   QC value within limits for Tl 190.801  Recovery = 100.28%
U 409.014†              7772.9      484.36 µg/L         2.811      484.36 ppb          2.811   0.58%
   QC value within limits for U 409.014  Recovery = 96.87%
V 292.402†            100242.7      495.58 µg/L         0.417      495.58 ppb          0.417   0.08%
   QC value within limits for V 292.402  Recovery = 99.12%
Zn 213.857†            88637.8      494.04 µg/L         1.641      494.04 ppb          1.641   0.33%
   QC value within limits for Zn 213.857  Recovery = 98.81%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:01:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142576.4	142576.4	97.7	%			19:01:55
1	Al 396.153Radial†	57.6	122.1	22.616	µg/L	22.616	ppb	19:02:15
1	Ca 317.933Radial†	950.3	412.1	22.954	µg/L	22.954	ppb	19:02:15
1	Fe 238.204 Radial†	408.4	269.9	16.636	µg/L	16.636	ppb	19:02:15
1	K 766.490 Radial†	2351.3	861.8	315.49	µg/L	315.49	ppb	19:01:55
1	Mg 279.077 IEC†	256.3	71.6	26.675	µg/L	26.675	ppb	19:02:15
1	Na 589.592 Radial†	2324.7	1088.6	148.44	µg/L	148.44	ppb	19:01:55
1	Sr 421.552†	-47.4	86.8	0.1802	µg/L	0.1802	ppb	19:01:55
1	Sc 361.383	1712993.6	1712993.6	99.696	%			19:03:03
1	Y 371.029	1024574.5	1024574.5	99.794	%			19:03:03
1	Ag 328.068†	3862.6	-217.0	-0.8055	µg/L	-0.8055	ppb	19:03:05
1	As 188.979†	-11.7	8.6	2.6096	µg/L	2.6096	ppb	19:03:25
1	B 249.677†	3681.1	186.4	2.7486	µg/L	2.7486	ppb	19:03:05
1	Ba 233.527†	-102.8	32.7	0.1316	µg/L	0.1316	ppb	19:03:25
1	Be 313.107†	-845.8	216.4	0.0592	µg/L	0.0592	ppb	19:03:05
1	Cd 226.502†	-69.1	48.9	0.3038	µg/L	0.3038	ppb	19:03:25
1	Co 228.616†	-171.2	18.6	0.2289	µg/L	0.2289	ppb	19:03:25
1	Cr 267.716†	235.5	57.6	0.4508	µg/L	0.4508	ppb	19:03:25
1	Cu 324.752†	3139.9	177.3	0.6930	µg/L	0.6930	ppb	19:03:05
1	Mn 257.610†	387.8	151.7	0.1866	µg/L	0.1866	ppb	19:03:25
1	Mo 202.031†	-0.9	19.2	0.5643	µg/L	0.5643	ppb	19:03:25
1	Ni 231.604†	-84.9	-8.7	-0.0996	µg/L	-0.0996	ppb	19:03:25
1	P 214.914†	-24.3	-6.5	-1.3891	µg/L	-1.3891	ppb	19:03:25
1	Pb 220.353†	141.3	55.4	3.0911	µg/L	3.0911	ppb	19:03:25
1	S 181.975 Axial†	113.5	8.8	6.5060	µg/L	6.5060	ppb	19:03:25
1	Sb 206.836†	76.0	-4.6	-0.5451	µg/L	-0.5451	ppb	19:03:25
1	Se 196.026†	20.7	5.5	2.01	µg/L	2.01	ppb	19:03:25
1	SiO2†	1808.7	38.9	3.7615	µg/L	3.7615	ppb	19:03:25
1	Si 251.611†	1158.0	325.0	4.7734	µg/L	4.7734	ppb	19:03:05
1	Sn 189.927†	23.2	24.4	1.5199	µg/L	1.5199	ppb	19:03:25
1	Ti 334.940†	1109.4	160.3	0.1476	µg/L	0.1476	ppb	19:03:05
1	Tl 190.801†	-105.0	11.4	1.4002	µg/L	1.4002	ppb	19:03:25
1	U 409.014†	-251.8	17.3	0.9993	µg/L	0.9993	ppb	19:03:05
1	V 292.402†	359.4	-43.3	-0.2046	µg/L	-0.2046	ppb	19:03:05
1	Zn 213.857†	837.7	275.9	1.5483	µg/L	1.5483	ppb	19:03:25
2	Sc RADIAL	143802.6	143802.6	98.5	%			19:02:17
2	Al 396.153Radial†	-23.6	39.2	7.2646	µg/L	7.2646	ppb	19:02:37
2	Ca 317.933Radial†	724.5	174.6	9.7279	µg/L	9.7279	ppb	19:02:37
2	Fe 238.204 Radial†	241.4	96.9	5.9704	µg/L	5.9704	ppb	19:02:37
2	K 766.490 Radial†	2344.6	834.5	305.50	µg/L	305.50	ppb	19:02:17
2	Mg 279.077 IEC†	184.0	-4.0	-1.5026	µg/L	-1.5026	ppb	19:02:37
2	Na 589.592 Radial†	2222.6	964.7	131.52	µg/L	131.52	ppb	19:02:17
2	Sr 421.552†	-22.7	112.3	0.2333	µg/L	0.2333	ppb	19:02:17
2	Sc 361.383	1715539.4	1715539.4	99.844	%			19:03:27
2	Y 371.029	1025697.2	1025697.2	99.903	%			19:03:27
2	Ag 328.068†	4157.7	72.8	0.2757	µg/L	0.2757	ppb	19:03:30
2	As 188.979†	-16.7	3.7	1.1138	µg/L	1.1138	ppb	19:03:50
2	B 249.677†	3652.6	152.4	2.2465	µg/L	2.2465	ppb	19:03:30
2	Ba 233.527†	-103.8	31.9	0.1289	µg/L	0.1289	ppb	19:03:50
2	Be 313.107†	-800.4	263.0	0.0711	µg/L	0.0711	ppb	19:03:30
2	Cd 226.502†	-101.0	17.0	0.1059	µg/L	0.1059	ppb	19:03:50
2	Co 228.616†	-175.3	14.7	0.1813	µg/L	0.1813	ppb	19:03:50
2	Cr 267.716†	251.6	73.5	0.5772	µg/L	0.5772	ppb	19:03:50
2	Cu 324.752†	3073.4	105.9	0.4112	µg/L	0.4112	ppb	19:03:30
2	Mn 257.610†	351.3	114.6	0.1418	µg/L	0.1418	ppb	19:03:50
2	Mo 202.031†	-12.8	7.2	0.2126	µg/L	0.2126	ppb	19:03:50
2	Ni 231.604†	-67.1	9.3	0.1072	µg/L	0.1072	ppb	19:03:50
2	P 214.914†	-27.6	-9.7	-2.0622	µg/L	-2.0622	ppb	19:03:50
2	Pb 220.353†	95.6	9.4	0.5244	µg/L	0.5244	ppb	19:03:50

2	S 181.975 Axial†	105.7	0.8	0.6240 µg/L	0.6240 ppb	19:03:50
2	Sb 206.836†	85.0	4.3	0.5093 µg/L	0.5093 ppb	19:03:50
2	Se 196.026†	19.1	3.9	1.40 µg/L	1.40 ppb	19:03:50
2	SiO2†	1782.4	9.8	0.9335 µg/L	0.9335 ppb	19:03:50
2	Si 251.611†	944.9	109.8	1.6073 µg/L	1.6073 ppb	19:03:30
2	Sn 189.927†	21.6	22.8	1.4197 µg/L	1.4197 ppb	19:03:50
2	Ti 334.940†	960.9	9.8	0.0100 µg/L	0.0100 ppb	19:03:30
2	Tl 190.801†	-107.7	8.8	1.0828 µg/L	1.0828 ppb	19:03:50
2	U 409.014†	-298.4	-28.9	-1.6511 µg/L	-1.6511 ppb	19:03:30
2	V 292.402†	549.1	146.2	0.7161 µg/L	0.7161 ppb	19:03:30
2	Zn 213.857†	814.7	251.5	1.4114 µg/L	1.4114 ppb	19:03:50
3	Sc RADIAL	143637.2	143637.2	98.4 %		19:02:39
3	Al 396.153Radial†	-43.2	19.4	3.5840 µg/L	3.5840 ppb	19:03:00
3	Ca 317.933Radial†	715.6	166.4	9.2706 µg/L	9.2706 ppb	19:03:00
3	Fe 238.204 Radial†	242.5	98.3	6.0580 µg/L	6.0580 ppb	19:03:00
3	K 766.490 Radial†	2256.9	748.2	273.88 µg/L	273.88 ppb	19:02:39
3	Mg 279.077 IEC†	205.1	17.7	6.5824 µg/L	6.5824 ppb	19:03:00
3	Na 589.592 Radial†	2284.1	1029.7	140.43 µg/L	140.43 ppb	19:02:39
3	Sr 421.552†	11.7	147.2	0.3060 µg/L	0.3060 ppb	19:02:39
3	Sc 361.383	1722456.3	1722456.3	100.25 %		19:03:52
3	Y 371.029	1029533.6	1029533.6	100.28 %		19:03:52
3	Ag 328.068†	4007.1	-94.2	-0.3350 µg/L	-0.3350 ppb	19:03:54
3	As 188.979†	-18.8	1.6	0.4750 µg/L	0.4750 ppb	19:04:14
3	B 249.677†	3639.8	125.0	1.8421 µg/L	1.8421 ppb	19:03:54
3	Ba 233.527†	-117.1	19.1	0.0776 µg/L	0.0776 ppb	19:04:14
3	Be 313.107†	-721.4	345.0	0.0939 µg/L	0.0939 ppb	19:03:54
3	Cd 226.502†	-93.0	25.4	0.1581 µg/L	0.1581 ppb	19:04:14
3	Co 228.616†	-173.2	17.6	0.2167 µg/L	0.2167 ppb	19:04:14
3	Cr 267.716†	211.6	32.5	0.2552 µg/L	0.2552 ppb	19:04:14
3	Cu 324.752†	3092.5	112.7	0.4392 µg/L	0.4392 ppb	19:03:54
3	Mn 257.610†	342.1	104.0	0.1284 µg/L	0.1284 ppb	19:04:14
3	Mo 202.031†	-15.6	4.5	0.1336 µg/L	0.1336 ppb	19:04:14
3	Ni 231.604†	-90.2	-13.4	-0.1547 µg/L	-0.1547 ppb	19:04:14
3	P 214.914†	-22.3	-4.2	-0.9047 µg/L	-0.9047 ppb	19:04:14
3	Pb 220.353†	117.3	30.6	1.7079 µg/L	1.7079 ppb	19:04:14
3	S 181.975 Axial†	114.1	8.7	6.4890 µg/L	6.4890 ppb	19:04:14
3	Sb 206.836†	80.1	-1.0	-0.1107 µg/L	-0.1107 ppb	19:04:14
3	Se 196.026†	9.2	-6.1	-2.20 µg/L	-2.20 ppb	19:04:14
3	SiO2†	1811.5	31.7	3.0742 µg/L	3.0742 ppb	19:04:14
3	Si 251.611†	907.7	68.9	1.0043 µg/L	1.0043 ppb	19:03:54
3	Sn 189.927†	22.3	23.4	1.4577 µg/L	1.4577 ppb	19:04:14
3	Ti 334.940†	846.3	-108.3	-0.1015 µg/L	-0.1015 ppb	19:03:54
3	Tl 190.801†	-114.4	2.6	0.3215 µg/L	0.3215 ppb	19:04:14
3	U 409.014†	-270.6	-0.0	0.0667 µg/L	0.0667 ppb	19:03:54
3	V 292.402†	646.7	241.3	1.1790 µg/L	1.1790 ppb	19:03:54
3	Zn 213.857†	803.7	237.3	1.3332 µg/L	1.3332 ppb	19:04:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716996.5	99.929	%	0.2850				0.29%
Sc RADIAL	143338.8	98.2	%	0.46				0.46%
Y 371.029	1026601.8	99.992	%	0.2533				0.25%
Ag 328.068†	-79.5	-0.2883	µg/L	0.54213	-0.2883	ppb	0.54213	188.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	60.2	11.155	µg/L	10.0946	11.155	ppb	10.0946	90.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.6	1.3995	µg/L	1.09560	1.3995	ppb	1.09560	78.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	154.6	2.2791	µg/L	0.45415	2.2791	ppb	0.45415	19.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	27.9	0.1127	µg/L	0.03047	0.1127	ppb	0.03047	27.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	274.8	0.0748	µg/L	0.01765	0.0748	ppb	0.01765	23.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	251.0	13.984	µg/L	7.7715	13.984	ppb	7.7715	55.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	30.5	0.1893	µg/L	0.10254	0.1893	ppb	0.10254	54.18%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.0	0.2090	µg/L	0.02473	0.2090	ppb	0.02473	11.83%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              54.5      0.4277 µg/L       0.16226      0.4277 ppb        0.16226  37.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             132.0      0.5144 µg/L       0.15523      0.5144 ppb        0.15523  30.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      155.0      9.5549 µg/L       6.13280      9.5549 ppb        6.13280  64.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       814.8      298.29 µg/L        21.721      298.29 ppb         21.721   7.28%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          28.4      10.585 µg/L       14.5091      10.585 ppb        14.5091 137.07%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             123.4      0.1523 µg/L       0.03051      0.1523 ppb        0.03051  20.04%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.3      0.3035 µg/L       0.22930      0.3035 ppb        0.22930  75.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      1027.7      140.13 µg/L         8.461      140.13 ppb          8.461   6.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.3     -0.0490 µg/L       0.13810     -0.0490 ppb        0.13810 281.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -6.8     -1.4520 µg/L       0.58130     -1.4520 ppb        0.58130  40.03%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              31.8      1.7745 µg/L       1.28462      1.7745 ppb        1.28462  72.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.1      4.5397 µg/L       3.39110      4.5397 ppb        3.39110  74.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.4     -0.0489 µg/L       0.52991     -0.0489 ppb        0.52991 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.1       0.402 µg/L        2.2740       0.402 ppb         2.2740 564.97%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    26.8      2.5897 µg/L       1.47490      2.5897 ppb        1.47490  56.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             167.9      2.4617 µg/L       2.02458      2.4617 ppb        2.02458  82.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              23.5      1.4657 µg/L       0.05055      1.4657 ppb        0.05055   3.45%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             115.4      0.2398 µg/L       0.06313      0.2398 ppb        0.06313  26.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              20.6      0.0187 µg/L       0.12478      0.0187 ppb        0.12478 667.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.6      0.9348 µg/L       0.55437      0.9348 ppb        0.55437  59.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -3.9     -0.1950 µg/L       1.34448     -0.1950 ppb        1.34448 689.39%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              114.7      0.5635 µg/L       0.70433      0.5635 ppb        0.70433 125.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             254.9      1.4310 µg/L       0.10892      1.4310 ppb        0.10892   7.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

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Analysis Begun

Start Time: 3/31/2010 19:06:02 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 3/31/2010 18:15:19**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/31/2010 19:06:03**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142053.7	142053.7	97.3	%			19:06:36
1	Al 396.153Radial†	26187.8	26965.5	4976.4	µg/L	4976.4	ppb	19:06:36
1	Ca 317.933Radial†	87895.1	89732.8	4998.5	µg/L	4998.5	ppb	19:06:36
1	Fe 238.204 Radial†	78245.6	80232.5	4945.0	µg/L	4945.0	ppb	19:06:36

1	K 766.490 Radial†	15026.3	13891.5	5081.8 µg/L	5081.8 ppb	19:06:36
1	Mg 279.077 IEC†	13439.2	13615.2	5080.7 µg/L	5080.7 ppb	19:06:36
1	Na 589.592 Radial†	71676.4	72341.3	9878.2 µg/L	9878.2 ppb	19:06:36
1	Sr 421.552†	230855.8	237290.2	493.27 µg/L	493.27 ppb	19:06:34
1	Sc 361.383	1692635.7	1692635.7	98.511 %		19:06:49
1	Y 371.029	1002740.0	1002740.0	97.667 %		19:06:49
1	Ag 328.068†	133490.2	131416.3	492.76 µg/L	492.76 ppb	19:06:49
1	As 188.979†	1592.7	1637.1	502.26 µg/L	502.26 ppb	19:07:09
1	B 249.677†	36019.4	33057.9	485.83 µg/L	485.83 ppb	19:06:49
1	Ba 233.527†	119977.2	121926.4	491.73 µg/L	491.73 ppb	19:06:49
1	Be 313.107†	1788795.8	1816895.8	494.84 µg/L	494.84 ppb	19:06:49
1	Cd 226.502†	77305.4	78591.9	490.61 µg/L	490.61 ppb	19:06:49
1	Co 228.616†	39248.1	40031.6	494.19 µg/L	494.19 ppb	19:06:49
1	Cr 267.716†	61675.1	62428.6	488.81 µg/L	488.81 ppb	19:06:49
1	Cu 324.752†	126554.7	125495.2	489.22 µg/L	489.22 ppb	19:06:49
1	Mn 257.610†	394217.2	399938.0	494.63 µg/L	494.63 ppb	19:06:49
1	Mo 202.031†	16588.6	16859.4	495.93 µg/L	495.93 ppb	19:07:09
1	Ni 231.604†	41959.1	42669.8	491.31 µg/L	491.31 ppb	19:06:49
1	P 214.914†	11467.5	11658.8	2485.2 µg/L	2485.2 ppb	19:07:09
1	Pb 220.353†	8908.4	8956.6	501.56 µg/L	501.56 ppb	19:07:09
1	S 181.975 Axial†	1431.0	1347.6	1004.9 µg/L	1004.9 ppb	19:07:09
1	Sb 206.836†	4198.6	4181.2	498.27 µg/L	498.27 ppb	19:07:09
1	Se 196.026†	1378.4	1384.0	502 µg/L	502 ppb	19:07:09
1	SiO2†	55424.9	54487.2	5304.4 µg/L	5304.4 ppb	19:06:49
1	Si 251.611†	167452.8	169147.1	2483.8 µg/L	2483.8 ppb	19:06:49
1	Sn 189.927†	7877.5	7997.7	500.23 µg/L	500.23 ppb	19:07:09
1	Ti 334.940†	520670.2	527586.9	492.28 µg/L	492.28 ppb	19:06:49
1	Tl 190.801†	3872.9	4048.2	504.78 µg/L	504.78 ppb	19:07:09
1	U 409.014†	7291.5	7671.6	478.40 µg/L	478.40 ppb	19:06:49
1	V 292.402†	98968.4	100060.4	494.68 µg/L	494.68 ppb	19:06:49
1	Zn 213.857†	86928.5	87677.9	488.67 µg/L	488.67 ppb	19:06:49
2	Sc RADIAL	141682.9	141682.9	97.1 %		19:06:40
2	Al 396.153Radial†	26223.0	27072.3	4996.3 µg/L	4996.3 ppb	19:06:40
2	Ca 317.933Radial†	87546.1	89609.7	4991.6 µg/L	4991.6 ppb	19:06:40
2	Fe 238.204 Radial†	78166.5	80361.4	4953.0 µg/L	4953.0 ppb	19:06:40
2	K 766.490 Radial†	14890.1	13791.7	5045.3 µg/L	5045.3 ppb	19:06:40
2	Mg 279.077 IEC†	13407.1	13618.3	5081.7 µg/L	5081.7 ppb	19:06:40
2	Na 589.592 Radial†	71442.4	72293.1	9871.6 µg/L	9871.6 ppb	19:06:40
2	Sr 421.552†	234429.9	241592.0	502.22 µg/L	502.22 ppb	19:06:38
2	Sc 361.383	1693933.2	1693933.2	98.587 %		19:07:12
2	Y 371.029	1002754.3	1002754.3	97.669 %		19:07:12
2	Ag 328.068†	133887.2	131715.3	493.86 µg/L	493.86 ppb	19:07:12
2	As 188.979†	1584.7	1627.8	499.44 µg/L	499.44 ppb	19:07:32
2	B 249.677†	36086.4	33097.9	486.42 µg/L	486.42 ppb	19:07:12
2	Ba 233.527†	120244.1	122103.7	492.44 µg/L	492.44 ppb	19:07:12
2	Be 313.107†	1788194.1	1814894.6	494.30 µg/L	494.30 ppb	19:07:12
2	Cd 226.502†	77647.5	78878.9	492.40 µg/L	492.40 ppb	19:07:12
2	Co 228.616†	39316.5	40070.5	494.67 µg/L	494.67 ppb	19:07:12
2	Cr 267.716†	61922.8	62632.0	490.40 µg/L	490.40 ppb	19:07:12
2	Cu 324.752†	126725.3	125569.8	489.51 µg/L	489.51 ppb	19:07:12
2	Mn 257.610†	394218.9	399633.2	494.25 µg/L	494.25 ppb	19:07:12
2	Mo 202.031†	16463.2	16719.3	491.81 µg/L	491.81 ppb	19:07:32
2	Ni 231.604†	42154.2	42835.0	493.21 µg/L	493.21 ppb	19:07:12
2	P 214.914†	11314.3	11494.4	2450.0 µg/L	2450.0 ppb	19:07:32
2	Pb 220.353†	8825.1	8865.3	496.44 µg/L	496.44 ppb	19:07:32
2	S 181.975 Axial†	1411.2	1326.4	989.11 µg/L	989.11 ppb	19:07:32
2	Sb 206.836†	4167.4	4146.3	494.02 µg/L	494.02 ppb	19:07:32
2	Se 196.026†	1363.3	1367.5	497 µg/L	497 ppb	19:07:32
2	SiO2†	55444.1	54463.6	5302.3 µg/L	5302.3 ppb	19:07:12
2	Si 251.611†	167875.0	169445.1	2488.3 µg/L	2488.3 ppb	19:07:12
2	Sn 189.927†	7786.1	7898.8	494.07 µg/L	494.07 ppb	19:07:32
2	Ti 334.940†	520698.2	527210.5	491.92 µg/L	491.92 ppb	19:07:12
2	Tl 190.801†	3845.2	4017.0	500.93 µg/L	500.93 ppb	19:07:32
2	U 409.014†	7348.6	7723.9	481.39 µg/L	481.39 ppb	19:07:12
2	V 292.402†	98856.0	99869.4	493.71 µg/L	493.71 ppb	19:07:12
2	Zn 213.857†	87044.0	87727.5	488.93 µg/L	488.93 ppb	19:07:12
3	Sc RADIAL	140290.8	140290.8	96.1 %		19:06:44
3	Al 396.153Radial†	26121.4	27234.6	5026.5 µg/L	5026.5 ppb	19:06:44
3	Ca 317.933Radial†	86648.1	89570.3	4989.4 µg/L	4989.4 ppb	19:06:44
3	Fe 238.204 Radial†	77524.7	80492.7	4961.1 µg/L	4961.1 ppb	19:06:44
3	K 766.490 Radial†	14881.5	13934.9	5097.7 µg/L	5097.7 ppb	19:06:44

3	Mg 279.077 IEC†	13262.2	13604.5	5076.6 µg/L	5076.6 ppb	19:06:44
3	Na 589.592 Radial†	70817.9	72373.6	9882.6 µg/L	9882.6 ppb	19:06:44
3	Sr 421.552†	230738.3	240148.1	499.21 µg/L	499.21 ppb	19:06:42
3	Sc 361.383	1701566.9	1701566.9	99.031 %		19:07:35
3	Y 371.029	1007094.6	1007094.6	98.092 %		19:07:35
3	Ag 328.068†	134475.4	131699.9	493.82 µg/L	493.82 ppb	19:07:35
3	As 188.979†	1593.4	1629.4	499.91 µg/L	499.91 ppb	19:07:55
3	B 249.677†	36488.9	33340.1	489.99 µg/L	489.99 ppb	19:07:35
3	Ba 233.527†	120822.0	122140.2	492.59 µg/L	492.59 ppb	19:07:35
3	Be 313.107†	1801771.9	1820467.8	495.82 µg/L	495.82 ppb	19:07:35
3	Cd 226.502†	78139.4	79022.2	493.29 µg/L	493.29 ppb	19:07:35
3	Co 228.616†	39662.8	40241.2	496.77 µg/L	496.77 ppb	19:07:35
3	Cr 267.716†	62197.1	62627.2	490.36 µg/L	490.36 ppb	19:07:35
3	Cu 324.752†	127822.8	126101.4	491.58 µg/L	491.58 ppb	19:07:35
3	Mn 257.610†	397277.8	400928.1	495.85 µg/L	495.85 ppb	19:07:35
3	Mo 202.031†	16490.8	16672.2	490.43 µg/L	490.43 ppb	19:07:55
3	Ni 231.604†	42326.5	42817.2	493.01 µg/L	493.01 ppb	19:07:35
3	P 214.914†	11342.9	11471.9	2445.2 µg/L	2445.2 ppb	19:07:55
3	Pb 220.353†	8843.5	8843.7	495.23 µg/L	495.23 ppb	19:07:55
3	S 181.975 Axial†	1419.8	1328.6	990.72 µg/L	990.72 ppb	19:07:55
3	Sb 206.836†	4178.4	4138.4	493.07 µg/L	493.07 ppb	19:07:55
3	Se 196.026†	1363.2	1361.3	494 µg/L	494 ppb	19:07:55
3	SiO2†	56222.5	54997.3	5354.5 µg/L	5354.5 ppb	19:07:35
3	Si 251.611†	169502.3	170324.4	2501.3 µg/L	2501.3 ppb	19:07:35
3	Sn 189.927†	7808.9	7886.4	493.30 µg/L	493.30 ppb	19:07:55
3	Ti 334.940†	523661.8	527833.6	492.50 µg/L	492.50 ppb	19:07:35
3	Tl 190.801†	3856.9	4011.4	500.25 µg/L	500.25 ppb	19:07:55
3	U 409.014†	7413.7	7756.2	483.37 µg/L	483.37 ppb	19:07:35
3	V 292.402†	99576.3	100146.9	495.05 µg/L	495.05 ppb	19:07:35
3	Zn 213.857†	87808.2	88103.1	491.04 µg/L	491.04 ppb	19:07:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1696045.3	98.710	%	0.2809				0.28%
Sc RADIAL	141342.5	96.9	%	0.64				0.66%
Y 371.029	1004196.3	97.809	%	0.2445				0.25%
Ag 328.068†	131610.5	493.48	µg/L	0.624	493.48	ppb	0.624	0.13%
QC value within limits for Ag 328.068 Recovery = 98.70%								
Al 396.153Radial†	27090.8	4999.7	µg/L	25.24	4999.7	ppb	25.24	0.50%
QC value within limits for Al 396.153Radial Recovery = 99.99%								
As 188.979†	1631.4	500.54	µg/L	1.508	500.54	ppb	1.508	0.30%
QC value within limits for As 188.979 Recovery = 100.11%								
B 249.677†	33165.3	487.41	µg/L	2.247	487.41	ppb	2.247	0.46%
QC value within limits for B 249.677 Recovery = 97.48%								
Ba 233.527†	122056.8	492.25	µg/L	0.460	492.25	ppb	0.460	0.09%
QC value within limits for Ba 233.527 Recovery = 98.45%								
Be 313.107†	1817419.4	494.99	µg/L	0.769	494.99	ppb	0.769	0.16%
QC value within limits for Be 313.107 Recovery = 99.00%								
Ca 317.933Radial†	89637.6	4993.2	µg/L	4.72	4993.2	ppb	4.72	0.09%
QC value within limits for Ca 317.933Radial Recovery = 99.86%								
Cd 226.502†	78831.0	492.10	µg/L	1.368	492.10	ppb	1.368	0.28%
QC value within limits for Cd 226.502 Recovery = 98.42%								
Co 228.616†	40114.4	495.21	µg/L	1.376	495.21	ppb	1.376	0.28%
QC value within limits for Co 228.616 Recovery = 99.04%								
Cr 267.716†	62562.6	489.86	µg/L	0.907	489.86	ppb	0.907	0.19%
QC value within limits for Cr 267.716 Recovery = 97.97%								
Cu 324.752†	125722.1	490.10	µg/L	1.288	490.10	ppb	1.288	0.26%
QC value within limits for Cu 324.752 Recovery = 98.02%								
Fe 238.204 Radial†	80362.2	4953.0	µg/L	8.02	4953.0	ppb	8.02	0.16%
QC value within limits for Fe 238.204 Radial Recovery = 99.06%								
K 766.490 Radial†	13872.7	5074.9	µg/L	26.88	5074.9	ppb	26.88	0.53%
QC value within limits for K 766.490 Radial Recovery = 101.50%								
Mg 279.077 IEC†	13612.7	5079.7	µg/L	2.74	5079.7	ppb	2.74	0.05%
QC value within limits for Mg 279.077 IEC Recovery = 101.59%								
Mn 257.610†	400166.4	494.91	µg/L	0.838	494.91	ppb	0.838	0.17%
QC value within limits for Mn 257.610 Recovery = 98.98%								
Mo 202.031†	16750.3	492.72	µg/L	2.861	492.72	ppb	2.861	0.58%
QC value within limits for Mo 202.031 Recovery = 98.54%								
Na 589.592 Radial†	72336.0	9877.5	µg/L	5.51	9877.5	ppb	5.51	0.06%

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   QC value within limits for Na 589.592 Radial  Recovery = 98.77%
Ni 231.604†            42774.0      492.51 µg/L         1.044      492.51 ppb          1.044   0.21%
   QC value within limits for Ni 231.604  Recovery = 98.50%
P 214.914†             11541.7      2460.1 µg/L         21.83      2460.1 ppb          21.83   0.89%
   QC value within limits for P 214.914  Recovery = 98.40%
Pb 220.353†             8888.5      497.74 µg/L         3.356      497.74 ppb          3.356   0.67%
   QC value within limits for Pb 220.353  Recovery = 99.55%
S 181.975 Axial†        1334.2      994.90 µg/L         8.662      994.90 ppb          8.662   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 99.49%
Sb 206.836†             4155.3      495.12 µg/L         2.767      495.12 ppb          2.767   0.56%
   QC value within limits for Sb 206.836  Recovery = 99.02%
Se 196.026†             1370.9         498 µg/L           4.2         498 ppb            4.2   0.85%
   QC value within limits for Se 196.026  Recovery = 99.56%
SiO2†                  54649.4      5320.4 µg/L         29.56      5320.4 ppb          29.56   0.56%
   QC value within limits for SiO2  Recovery = 99.49%
Si 251.611†           169638.9      2491.1 µg/L          9.08      2491.1 ppb           9.08   0.36%
   QC value within limits for Si 251.611  Recovery = 99.65%
Sn 189.927†             7927.7      495.87 µg/L         3.802      495.87 ppb          3.802   0.77%
   QC value within limits for Sn 189.927  Recovery = 99.17%
Sr 421.552†           239676.8      498.23 µg/L         4.551      498.23 ppb          4.551   0.91%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           527543.7      492.23 µg/L         0.293      492.23 ppb          0.293   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.45%
Tl 190.801†             4025.5      501.99 µg/L         2.440      501.99 ppb          2.440   0.49%
   QC value within limits for Tl 190.801  Recovery = 100.40%
U 409.014†              7717.2      481.05 µg/L         2.502      481.05 ppb          2.502   0.52%
   QC value within limits for U 409.014  Recovery = 96.21%
V 292.402†            100025.5      494.48 µg/L         0.691      494.48 ppb          0.691   0.14%
   QC value within limits for V 292.402  Recovery = 98.90%
Zn 213.857†            87836.2      489.55 µg/L         1.301      489.55 ppb          1.301   0.27%
   QC value within limits for Zn 213.857  Recovery = 97.91%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:08:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143606.3	143606.3	98.4	%			19:08:33
1	Al 396.153Radial†	-40.6	21.9	4.0709	µg/L	4.0709	ppb	19:08:53
1	Ca 317.933Radial†	593.8	42.8	2.3863	µg/L	2.3863	ppb	19:08:53
1	Fe 238.204 Radial†	181.2	36.0	2.2211	µg/L	2.2211	ppb	19:08:53
1	K 766.490 Radial†	1807.5	291.9	106.87	µg/L	106.87	ppb	19:08:33
1	Mg 279.077 IEC†	167.1	-20.9	-7.7799	µg/L	-7.7799	ppb	19:08:53
1	Na 589.592 Radial†	1829.3	568.1	77.508	µg/L	77.508	ppb	19:08:33
1	Sr 421.552†	-159.2	-26.5	-0.0550	µg/L	-0.0550	ppb	19:08:33
1	Sc 361.383	1699498.0	1699498.0	98.911	%			19:09:55
1	Y 371.029	1016806.2	1016806.2	99.037	%			19:09:55
1	Ag 328.068†	3769.0	-280.8	-1.0378	µg/L	-1.0378	ppb	19:09:57
1	As 188.979†	-4.4	15.9	4.8042	µg/L	4.8042	ppb	19:10:17
1	B 249.677†	3588.4	122.0	1.7978	µg/L	1.7978	ppb	19:09:57
1	Ba 233.527†	-115.2	19.4	0.0783	µg/L	0.0783	ppb	19:10:17
1	Be 313.107†	-954.3	99.8	0.0273	µg/L	0.0273	ppb	19:09:57
1	Cd 226.502†	-91.5	25.7	0.1602	µg/L	0.1602	ppb	19:10:17
1	Co 228.616†	-158.7	29.9	0.3690	µg/L	0.3690	ppb	19:10:17
1	Cr 267.716†	173.6	-3.0	-0.0236	µg/L	-0.0236	ppb	19:10:17
1	Cu 324.752†	3195.6	258.6	1.0054	µg/L	1.0054	ppb	19:09:57
1	Mn 257.610†	286.5	52.4	0.0651	µg/L	0.0651	ppb	19:10:17
1	Mo 202.031†	-26.1	-6.3	-0.1854	µg/L	-0.1854	ppb	19:10:17
1	Ni 231.604†	-117.6	-42.4	-0.4885	µg/L	-0.4885	ppb	19:10:17
1	P 214.914†	-30.3	-12.6	-2.7014	µg/L	-2.7014	ppb	19:10:17
1	Pb 220.353†	88.8	3.4	0.1879	µg/L	0.1879	ppb	19:10:17
1	S 181.975 Axial†	97.0	-6.9	-5.1546	µg/L	-5.1546	ppb	19:10:17
1	Sb 206.836†	72.1	-8.0	-0.9474	µg/L	-0.9474	ppb	19:10:17
1	Se 196.026†	15.9	0.8	0.281	µg/L	0.281	ppb	19:10:17
1	SiO2†	1782.8	27.1	2.6348	µg/L	2.6348	ppb	19:09:57
1	Si 251.611†	842.6	15.3	0.2204	µg/L	0.2204	ppb	19:09:57
1	Sn 189.927†	17.4	18.7	1.1657	µg/L	1.1657	ppb	19:10:17
1	Ti 334.940†	982.6	40.9	0.0388	µg/L	0.0388	ppb	19:09:57
1	Tl 190.801†	-115.4	-0.0	-0.0031	µg/L	-0.0031	ppb	19:10:17
1	U 409.014†	-263.1	3.9	0.2381	µg/L	0.2381	ppb	19:09:57
1	V 292.402†	432.1	33.1	0.1592	µg/L	0.1592	ppb	19:09:57
1	Zn 213.857†	662.7	105.6	0.5956	µg/L	0.5956	ppb	19:10:17
2	Sc RADIAL	143906.0	143906.0	98.6	%			19:08:55
2	Al 396.153Radial†	-30.9	31.9	5.9210	µg/L	5.9210	ppb	19:09:15
2	Ca 317.933Radial†	576.5	24.0	1.3374	µg/L	1.3374	ppb	19:09:15
2	Fe 238.204 Radial†	194.8	49.4	3.0451	µg/L	3.0451	ppb	19:09:15
2	K 766.490 Radial†	1821.8	302.6	110.79	µg/L	110.79	ppb	19:08:55
2	Mg 279.077 IEC†	181.6	-6.5	-2.4285	µg/L	-2.4285	ppb	19:09:15
2	Na 589.592 Radial†	1674.8	407.6	55.585	µg/L	55.585	ppb	19:08:55
2	Sr 421.552†	-76.3	57.9	0.1204	µg/L	0.1204	ppb	19:08:55
2	Sc 361.383	1701303.0	1701303.0	99.016	%			19:10:20
2	Y 371.029	1018421.2	1018421.2	99.195	%			19:10:20
2	Ag 328.068†	4174.8	124.9	0.4507	µg/L	0.4507	ppb	19:10:22
2	As 188.979†	-9.4	10.9	3.3020	µg/L	3.3020	ppb	19:10:42
2	B 249.677†	3516.0	45.1	0.6647	µg/L	0.6647	ppb	19:10:22
2	Ba 233.527†	-149.1	-14.7	-0.0595	µg/L	-0.0595	ppb	19:10:42
2	Be 313.107†	-839.9	216.4	0.0569	µg/L	0.0569	ppb	19:10:22
2	Cd 226.502†	-102.1	15.1	0.0939	µg/L	0.0939	ppb	19:10:42
2	Co 228.616†	-188.6	-0.1	-0.0019	µg/L	-0.0019	ppb	19:10:42
2	Cr 267.716†	211.4	34.9	0.2788	µg/L	0.2788	ppb	19:10:42
2	Cu 324.752†	2916.8	-26.4	-0.1080	µg/L	-0.1080	ppb	19:10:22
2	Mn 257.610†	284.4	50.0	0.0619	µg/L	0.0619	ppb	19:10:42
2	Mo 202.031†	-25.0	-5.2	-0.1530	µg/L	-0.1530	ppb	19:10:42
2	Ni 231.604†	-103.9	-28.5	-0.3278	µg/L	-0.3278	ppb	19:10:42
2	P 214.914†	-33.0	-15.3	-3.2711	µg/L	-3.2711	ppb	19:10:42
2	Pb 220.353†	114.7	29.5	1.6503	µg/L	1.6503	ppb	19:10:42

2	S 181.975 Axial†	99.7	-4.4	-3.2387 µg/L	-3.2387 ppb	19:10:42
2	Sb 206.836†	76.2	-3.9	-0.4635 µg/L	-0.4635 ppb	19:10:42
2	Se 196.026†	16.5	1.4	0.491 µg/L	0.491 ppb	19:10:42
2	SiO2†	1763.9	6.1	0.5919 µg/L	0.5919 ppb	19:10:22
2	Si 251.611†	911.5	84.0	1.2359 µg/L	1.2359 ppb	19:10:22
2	Sn 189.927†	8.3	9.5	0.5950 µg/L	0.5950 ppb	19:10:42
2	Ti 334.940†	886.7	-57.0	-0.0503 µg/L	-0.0503 ppb	19:10:22
2	Tl 190.801†	-114.1	1.5	0.1759 µg/L	0.1759 ppb	19:10:42
2	U 409.014†	-383.3	-117.2	-6.8703 µg/L	-6.8703 ppb	19:10:22
2	V 292.402†	344.9	-55.5	-0.2761 µg/L	-0.2761 ppb	19:10:22
2	Zn 213.857†	648.7	90.7	0.5114 µg/L	0.5114 ppb	19:10:42
3	Sc RADIAL	142315.2	142315.2	97.5 %		19:09:17
3	Al 396.153Radial†	-52.2	9.6	1.7667 µg/L	1.7667 ppb	19:09:37
3	Ca 317.933Radial†	577.3	31.3	1.7458 µg/L	1.7458 ppb	19:09:37
3	Fe 238.204 Radial†	193.7	50.5	3.1105 µg/L	3.1105 ppb	19:09:37
3	K 766.490 Radial†	1715.2	213.9	78.318 µg/L	78.318 ppb	19:09:17
3	Mg 279.077 IEC†	194.2	8.4	3.1563 µg/L	3.1563 ppb	19:09:37
3	Na 589.592 Radial†	1682.9	434.8	59.332 µg/L	59.332 ppb	19:09:17
3	Sr 421.552†	-204.0	-73.9	-0.1537 µg/L	-0.1537 ppb	19:09:17
3	Sc 361.383	1707432.2	1707432.2	99.372 %		19:10:44
3	Y 371.029	1021900.0	1021900.0	99.534 %		19:10:44
3	Ag 328.068†	4053.2	-12.6	-0.0528 µg/L	-0.0528 ppb	19:10:46
3	As 188.979†	-2.3	18.1	5.4690 µg/L	5.4690 ppb	19:11:06
3	B 249.677†	3514.8	31.1	0.4591 µg/L	0.4591 ppb	19:10:46
3	Ba 233.527†	-138.9	-3.9	-0.0159 µg/L	-0.0159 ppb	19:11:06
3	Be 313.107†	-1076.7	-18.8	-0.0056 µg/L	-0.0056 ppb	19:10:46
3	Cd 226.502†	-100.3	17.3	0.1074 µg/L	0.1074 ppb	19:11:06
3	Co 228.616†	-200.8	-11.7	-0.1450 µg/L	-0.1450 ppb	19:11:06
3	Cr 267.716†	180.7	3.3	0.0269 µg/L	0.0269 ppb	19:11:06
3	Cu 324.752†	3029.2	76.1	0.2948 µg/L	0.2948 ppb	19:10:46
3	Mn 257.610†	296.9	61.5	0.0760 µg/L	0.0760 ppb	19:11:06
3	Mo 202.031†	-3.7	16.3	0.4802 µg/L	0.4802 ppb	19:11:06
3	Ni 231.604†	-90.5	-14.6	-0.1676 µg/L	-0.1676 ppb	19:11:06
3	P 214.914†	-14.2	3.7	0.7799 µg/L	0.7799 ppb	19:11:06
3	Pb 220.353†	92.0	6.2	0.3485 µg/L	0.3485 ppb	19:11:06
3	S 181.975 Axial†	108.0	3.6	2.6796 µg/L	2.6796 ppb	19:11:06
3	Sb 206.836†	87.9	7.6	0.9107 µg/L	0.9107 ppb	19:11:06
3	Se 196.026†	15.0	-0.2	-0.060 µg/L	-0.060 ppb	19:11:06
3	SiO2†	1735.7	-28.7	-2.8190 µg/L	-2.8190 ppb	19:10:46
3	Si 251.611†	790.1	-41.5	-0.6182 µg/L	-0.6182 ppb	19:10:46
3	Sn 189.927†	-1.2	-0.1	-0.0053 µg/L	-0.0053 ppb	19:11:06
3	Ti 334.940†	766.5	-181.2	-0.1688 µg/L	-0.1688 ppb	19:10:46
3	Tl 190.801†	-101.0	15.0	1.8436 µg/L	1.8436 ppb	19:11:06
3	U 409.014†	-295.6	-27.6	-1.6324 µg/L	-1.6324 ppb	19:10:46
3	V 292.402†	332.8	-68.9	-0.3322 µg/L	-0.3322 ppb	19:10:46
3	Zn 213.857†	625.3	64.8	0.3648 µg/L	0.3648 ppb	19:11:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1702744.4	99.099	%	0.2420				0.24%
Sc RADIAL	143275.8	98.2	%	0.58				0.59%
Y 371.029	1019042.5	99.255	%	0.2535				0.26%
Ag 328.068†	-56.2	-0.2133	µg/L	0.75716	-0.2133	ppb	0.75716	354.96%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	21.2	3.9195	µg/L	2.08128	3.9195	ppb	2.08128	53.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	15.0	4.5251	µg/L	1.11017	4.5251	ppb	1.11017	24.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	66.0	0.9738	µg/L	0.72094	0.9738	ppb	0.72094	74.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.3	0.0009	µg/L	0.07043	0.0009	ppb	0.07043	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	99.2	0.0262	µg/L	0.03124	0.0262	ppb	0.03124	119.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	32.7	1.8232	µg/L	0.52869	1.8232	ppb	0.52869	29.00%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.4	0.1205	µg/L	0.03504	0.1205	ppb	0.03504	29.08%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.0	0.0740	µg/L	0.26530	0.0740	ppb	0.26530	358.50%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              11.7      0.0940 µg/L       0.16198      0.0940 ppb        0.16198 172.24%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             102.8      0.3974 µg/L       0.56376      0.3974 ppb        0.56376 141.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       45.3      2.7923 µg/L       0.49571      2.7923 ppb        0.49571  17.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       269.5      98.660 µg/L       17.7254      98.660 ppb        17.7254  17.97%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -6.3     -2.3507 µg/L       5.46855     -2.3507 ppb        5.46855 232.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              54.6      0.0677 µg/L       0.00738      0.0677 ppb        0.00738  10.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.6      0.0473 µg/L       0.37526      0.0473 ppb        0.37526 793.90%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      470.2      64.142 µg/L       11.7262      64.142 ppb        11.7262  18.28%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -28.5     -0.3280 µg/L       0.16046     -0.3280 ppb        0.16046  48.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.1     -1.7309 µg/L       2.19296     -1.7309 ppb        2.19296 126.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              13.0      0.7289 µg/L       0.80200      0.7289 ppb        0.80200 110.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.6     -1.9046 µg/L       4.08395     -1.9046 ppb        4.08395 214.43%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.4     -0.1667 µg/L       0.96394     -0.1667 ppb        0.96394 578.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.7       0.238 µg/L        0.2782       0.238 ppb         0.2782 117.02%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     1.5      0.1359 µg/L       2.75534      0.1359 ppb        2.75534 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              19.3      0.2794 µg/L       0.92845      0.2794 ppb        0.92845 332.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.4      0.5851 µg/L       0.58554      0.5851 ppb        0.58554 100.07%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -14.1     -0.0294 µg/L       0.13885     -0.0294 ppb        0.13885 471.87%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -65.8     -0.0601 µg/L       0.10414     -0.0601 ppb        0.10414 173.25%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.5      0.6721 µg/L       1.01847      0.6721 ppb        1.01847 151.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -47.0     -2.7549 µg/L       3.68475     -2.7549 ppb        3.68475 133.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -30.4     -0.1497 µg/L       0.26898     -0.1497 ppb        0.26898 179.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              87.0      0.4906 µg/L       0.11682      0.4906 ppb        0.11682  23.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: 1202065849|962982|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 113
Date Collected: 3/31/2010 19:11:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065849|962982|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143632.4	143632.4	98.4	%			19:11:46
1	Al 396.153Radial†	-211.0	-151.2	-28.027	µg/L	-28.027	ppb	19:11:46
1	Ca 317.933Radial†	656.8	106.8	5.9472	µg/L	5.9472	ppb	19:12:06
1	Fe 238.204 Radial†	202.0	57.1	3.5206	µg/L	3.5206	ppb	19:12:06
1	K 766.490 Radial†	1640.5	121.9	44.633	µg/L	44.633	ppb	19:11:46
1	Mg 279.077 IEC†	185.5	-2.2	-0.8300	µg/L	-0.8300	ppb	19:12:06
1	Na 589.592 Radial†	1633.5	368.8	50.345	µg/L	50.345	ppb	19:11:46
1	Sr 421.552†	-290.6	-160.0	-0.3326	µg/L	-0.3326	ppb	19:11:46
1	Sc 361.383	1722554.4	1722554.4	100.25	%			19:12:53
1	Y 371.029	1027067.1	1027067.1	100.04	%			19:12:53
1	Ag 328.068†	3997.6	-103.9	-0.3944	µg/L	-0.3944	ppb	19:12:56
1	As 188.979†	-22.0	-1.6	-0.4790	µg/L	-0.4790	ppb	19:13:16
1	B 249.677†	3603.2	88.2	1.3008	µg/L	1.3008	ppb	19:12:56
1	Ba 233.527†	-146.9	-10.7	-0.0435	µg/L	-0.0435	ppb	19:13:16
1	Be 313.107†	-771.3	295.3	0.0796	µg/L	0.0796	ppb	19:12:56
1	Cd 226.502†	-102.6	15.8	0.0984	µg/L	0.0984	ppb	19:13:16
1	Co 228.616†	-187.9	2.8	0.0349	µg/L	0.0349	ppb	19:13:16
1	Cr 267.716†	197.2	18.1	0.1437	µg/L	0.1437	ppb	19:13:16
1	Cu 324.752†	3169.4	189.2	0.7338	µg/L	0.7338	ppb	19:12:56
1	Mn 257.610†	425.8	187.5	0.2320	µg/L	0.2320	ppb	19:13:16
1	Mo 202.031†	-26.1	-6.0	-0.1754	µg/L	-0.1754	ppb	19:13:16
1	Ni 231.604†	-101.6	-24.9	-0.2864	µg/L	-0.2864	ppb	19:13:16
1	P 214.914†	-15.4	2.6	0.5342	µg/L	0.5342	ppb	19:13:16
1	Pb 220.353†	89.1	2.5	0.1367	µg/L	0.1367	ppb	19:13:16
1	S 181.975 Axial†	98.0	-7.3	-5.4236	µg/L	-5.4236	ppb	19:13:16
1	Sb 206.836†	92.5	11.5	1.3559	µg/L	1.3559	ppb	19:13:16
1	Se 196.026†	20.6	5.2	1.89	µg/L	1.89	ppb	19:13:16
1	SiO2†	1934.3	154.0	15.060	µg/L	15.060	ppb	19:13:16
1	Si 251.611†	1453.6	613.4	9.0453	µg/L	9.0453	ppb	19:12:56
1	Sn 189.927†	-0.9	0.2	0.0133	µg/L	0.0133	ppb	19:13:16
1	Ti 334.940†	952.3	-2.6	-0.0012	µg/L	-0.0012	ppb	19:12:56
1	Tl 190.801†	-115.0	1.9	0.2327	µg/L	0.2327	ppb	19:13:16
1	U 409.014†	-314.3	-43.7	-2.5836	µg/L	-2.5836	ppb	19:12:56
1	V 292.402†	293.0	-111.5	-0.5473	µg/L	-0.5473	ppb	19:12:56
1	Zn 213.857†	750.9	184.6	1.0372	µg/L	1.0372	ppb	19:13:16
2	Sc RADIAL	144624.9	144624.9	99.1	%			19:12:08
2	Al 396.153Radial†	-249.1	-188.1	-34.865	µg/L	-34.865	ppb	19:12:08
2	Ca 317.933Radial†	653.7	99.0	5.5133	µg/L	5.5133	ppb	19:12:28
2	Fe 238.204 Radial†	208.4	62.1	3.8297	µg/L	3.8297	ppb	19:12:28
2	K 766.490 Radial†	1755.6	226.7	82.994	µg/L	82.994	ppb	19:12:08
2	Mg 279.077 IEC†	215.1	26.4	9.8068	µg/L	9.8068	ppb	19:12:28
2	Na 589.592 Radial†	1596.5	320.1	43.657	µg/L	43.657	ppb	19:12:08
2	Sr 421.552†	-170.4	-36.6	-0.0761	µg/L	-0.0761	ppb	19:12:08
2	Sc 361.383	1702901.1	1702901.1	99.109	%			19:13:18
2	Y 371.029	1016600.9	1016600.9	99.017	%			19:13:18
2	Ag 328.068†	3687.5	-370.7	-1.3612	µg/L	-1.3612	ppb	19:13:20
2	As 188.979†	-8.6	11.7	3.5440	µg/L	3.5440	ppb	19:13:40
2	B 249.677†	3621.9	148.6	2.1914	µg/L	2.1914	ppb	19:13:20
2	Ba 233.527†	-150.4	-15.9	-0.0640	µg/L	-0.0640	ppb	19:13:40
2	Be 313.107†	-1107.7	-52.9	-0.0126	µg/L	-0.0126	ppb	19:13:20
2	Cd 226.502†	-100.1	17.2	0.1072	µg/L	0.1072	ppb	19:13:40
2	Co 228.616†	-181.7	7.0	0.0859	µg/L	0.0859	ppb	19:13:40
2	Cr 267.716†	176.5	-0.4	-0.0080	µg/L	-0.0080	ppb	19:13:40
2	Cu 324.752†	2984.6	39.2	0.1582	µg/L	0.1582	ppb	19:13:20
2	Mn 257.610†	420.0	186.5	0.2304	µg/L	0.2304	ppb	19:13:40
2	Mo 202.031†	-31.2	-11.4	-0.3358	µg/L	-0.3358	ppb	19:13:40
2	Ni 231.604†	-74.8	1.0	0.0120	µg/L	0.0120	ppb	19:13:40
2	P 214.914†	-7.3	10.6	2.2602	µg/L	2.2602	ppb	19:13:40
2	Pb 220.353†	112.6	27.3	1.5147	µg/L	1.5147	ppb	19:13:40

2	S 181.975 Axial†	108.3	4.2	3.1255 µg/L	3.1255 ppb	19:13:40
2	Sb 206.836†	71.0	-9.2	-1.0925 µg/L	-1.0925 ppb	19:13:40
2	Se 196.026†	17.8	2.7	0.989 µg/L	0.989 ppb	19:13:40
2	SiO2†	1970.2	212.6	20.778 µg/L	20.778 ppb	19:13:40
2	Si 251.611†	1454.5	631.0	9.3029 µg/L	9.3029 ppb	19:13:20
2	Sn 189.927†	8.9	10.0	0.6269 µg/L	0.6269 ppb	19:13:40
2	Ti 334.940†	1084.1	141.3	0.1290 µg/L	0.1290 ppb	19:13:20
2	Tl 190.801†	-116.9	-1.2	-0.1485 µg/L	-0.1485 ppb	19:13:40
2	U 409.014†	-168.3	100.1	5.8758 µg/L	5.8758 ppb	19:13:20
2	V 292.402†	476.2	76.6	0.3738 µg/L	0.3738 ppb	19:13:20
2	Zn 213.857†	712.1	154.1	0.8644 µg/L	0.8644 ppb	19:13:40
3	Sc RADIAL	145304.2	145304.2	99.6 %		19:12:30
3	Al 396.153Radial†	-244.6	-182.4	-33.839 µg/L	-33.839 ppb	19:12:30
3	Ca 317.933Radial†	653.3	95.6	5.3238 µg/L	5.3238 ppb	19:12:50
3	Fe 238.204 Radial†	214.8	67.6	4.1686 µg/L	4.1686 ppb	19:12:50
3	K 766.490 Radial†	1839.8	302.9	110.91 µg/L	110.91 ppb	19:12:30
3	Mg 279.077 IEC†	196.9	7.0	2.6155 µg/L	2.6155 ppb	19:12:50
3	Na 589.592 Radial†	1603.5	319.6	43.566 µg/L	43.566 ppb	19:12:30
3	Sr 421.552†	-100.5	34.4	0.0714 µg/L	0.0714 ppb	19:12:30
3	Sc 361.383	1734905.2	1734905.2	100.97 %		19:13:42
3	Y 371.029	1034855.5	1034855.5	100.80 %		19:13:42
3	Ag 328.068†	3795.3	-332.6	-1.2419 µg/L	-1.2419 ppb	19:13:44
3	As 188.979†	-24.2	-3.6	-1.0988 µg/L	-1.0988 ppb	19:14:04
3	B 249.677†	3554.7	14.7	0.2175 µg/L	0.2175 ppb	19:13:44
3	Ba 233.527†	-134.7	2.5	0.0101 µg/L	0.0101 ppb	19:14:04
3	Be 313.107†	-907.0	166.4	0.0424 µg/L	0.0424 ppb	19:13:44
3	Cd 226.502†	-117.6	1.7	0.0101 µg/L	0.0101 ppb	19:14:04
3	Co 228.616†	-223.3	-30.9	-0.3808 µg/L	-0.3808 ppb	19:14:04
3	Cr 267.716†	206.6	26.1	0.2117 µg/L	0.2117 ppb	19:14:04
3	Cu 324.752†	2994.6	-6.4	-0.0323 µg/L	-0.0323 ppb	19:13:44
3	Mn 257.610†	426.4	185.0	0.2288 µg/L	0.2288 ppb	19:14:04
3	Mo 202.031†	-9.1	11.1	0.3268 µg/L	0.3268 ppb	19:14:04
3	Ni 231.604†	-87.6	-10.2	-0.1178 µg/L	-0.1178 ppb	19:14:04
3	P 214.914†	-0.1	17.8	3.8093 µg/L	3.8093 ppb	19:14:04
3	Pb 220.353†	75.7	-11.4	-0.6306 µg/L	-0.6306 ppb	19:14:04
3	S 181.975 Axial†	119.7	13.5	10.046 µg/L	10.046 ppb	19:14:04
3	Sb 206.836†	82.9	1.2	0.1507 µg/L	0.1507 ppb	19:14:04
3	Se 196.026†	22.7	7.2	2.60 µg/L	2.60 ppb	19:14:04
3	SiO2†	1966.7	172.5	16.832 µg/L	16.832 ppb	19:14:04
3	Si 251.611†	1543.3	691.9	10.189 µg/L	10.189 ppb	19:13:44
3	Sn 189.927†	15.3	16.2	1.0118 µg/L	1.0118 ppb	19:14:04
3	Ti 334.940†	1021.1	58.8	0.0587 µg/L	0.0587 ppb	19:13:44
3	Tl 190.801†	-122.8	-4.9	-0.5979 µg/L	-0.5979 ppb	19:14:04
3	U 409.014†	-437.2	-163.2	-9.5318 µg/L	-9.5318 ppb	19:13:44
3	V 292.402†	433.9	26.0	0.1240 µg/L	0.1240 ppb	19:13:44
3	Zn 213.857†	727.4	156.0	0.8760 µg/L	0.8760 ppb	19:14:04

Mean Data: 1202065849|962982|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1720120.2	100.11	%	0.939				0.94%
Sc RADIAL	144520.5	99.0	%	0.58				0.58%
Y 371.029	1026174.5	99.950	%	0.8922				0.89%
Ag 328.068†	-269.0	-0.9992	µg/L	0.52713	-0.9992	ppb	0.52713	52.75%
Al 396.153Radial†	-173.9	-32.244	µg/L	3.6877	-32.244	ppb	3.6877	11.44%
As 188.979†	2.2	0.6554	µg/L	2.52074	0.6554	ppb	2.52074	384.62%
B 249.677†	83.8	1.2366	µg/L	0.98851	1.2366	ppb	0.98851	79.94%
Ba 233.527†	-8.0	-0.0325	µg/L	0.03828	-0.0325	ppb	0.03828	117.79%
Be 313.107†	136.3	0.0365	µg/L	0.04643	0.0365	ppb	0.04643	127.28%
Ca 317.933Radial†	100.4	5.5948	µg/L	0.31959	5.5948	ppb	0.31959	5.71%
Cd 226.502†	11.6	0.0719	µg/L	0.05367	0.0719	ppb	0.05367	74.64%
Co 228.616†	-7.0	-0.0867	µg/L	0.25604	-0.0867	ppb	0.25604	295.47%
Cr 267.716†	14.6	0.1158	µg/L	0.11248	0.1158	ppb	0.11248	97.10%
Cu 324.752†	74.0	0.2866	µg/L	0.39885	0.2866	ppb	0.39885	139.17%
Fe 238.204 Radial†	62.3	3.8396	µg/L	0.32412	3.8396	ppb	0.32412	8.44%
K 766.490 Radial†	217.2	79.512	µg/L	33.2753	79.512	ppb	33.2753	41.85%
Mg 279.077 IEC†	10.4	3.8641	µg/L	5.42723	3.8641	ppb	5.42723	140.45%
Mn 257.610†	186.3	0.2304	µg/L	0.00158	0.2304	ppb	0.00158	0.69%
Mo 202.031†	-2.1	-0.0615	µg/L	0.34571	-0.0615	ppb	0.34571	562.28%
Na 589.592 Radial†	336.2	45.856	µg/L	3.8879	45.856	ppb	3.8879	8.48%

Ni 231.604†	-11.4	-0.1307	µg/L	0.14959	-0.1307	ppb	0.14959 114.42%
P 214.914†	10.3	2.2012	µg/L	1.63835	2.2012	ppb	1.63835 74.43%
Pb 220.353†	6.1	0.3402	µg/L	1.08703	0.3402	ppb	1.08703 319.49%
S 181.975 Axial†	3.5	2.5826	µg/L	7.74896	2.5826	ppb	7.74896 300.05%
Sb 206.836†	1.2	0.1381	µg/L	1.22427	0.1381	ppb	1.22427 886.82%
Se 196.026†	5.1	1.83	µg/L	0.809	1.83	ppb	0.809 44.24%
SiO2†	179.7	17.557	µg/L	2.9271	17.557	ppb	2.9271 16.67%
Si 251.611†	645.4	9.5125	µg/L	0.60007	9.5125	ppb	0.60007 6.31%
Sn 189.927†	8.8	0.5507	µg/L	0.50363	0.5507	ppb	0.50363 91.46%
Sr 421.552†	-54.1	-0.1125	µg/L	0.20442	-0.1125	ppb	0.20442 181.78%
Ti 334.940†	65.8	0.0621	µg/L	0.06519	0.0621	ppb	0.06519 104.91%
Tl 190.801†	-1.4	-0.1712	µg/L	0.41579	-0.1712	ppb	0.41579 242.81%
U 409.014†	-35.6	-2.0799	µg/L	7.71613	-2.0799	ppb	7.71613 370.99%
V 292.402†	-3.0	-0.0165	µg/L	0.47636	-0.0165	ppb	0.47636 >999.9%
Zn 213.857†	164.9	0.9259	µg/L	0.09661	0.9259	ppb	0.09661 10.43%

Sequence No.: 4
Sample ID: 1202065850|962982|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 114
Date Collected: 3/31/2010 19:14:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065850|962982|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143858.0	143858.0	98.6	%			19:14:44
1	Al 396.153Radial†	26698.4	27146.1	5010.1	µg/L	5010.1	ppb	19:14:44
1	Ca 317.933Radial†	88981.0	89701.8	4996.7	µg/L	4996.7	ppb	19:14:44
1	Fe 238.204 Radial†	78803.1	79789.9	4917.8	µg/L	4917.8	ppb	19:14:44
1	K 766.490 Radial†	14784.5	13452.7	4922.0	µg/L	4922.0	ppb	19:14:44
1	Mg 279.077 IEC†	13586.5	13591.4	5071.7	µg/L	5071.7	ppb	19:14:44
1	Na 589.592 Radial†	36958.6	36200.1	4941.0	µg/L	4941.0	ppb	19:14:44
1	Sr 421.552†	232413.7	235896.0	490.37	µg/L	490.37	ppb	19:14:42
1	Sc 361.383	1709674.8	1709674.8	99.503	%			19:15:11
1	Y 371.029	1011749.6	1011749.6	98.545	%			19:15:11
1	Ag 328.068†	130873.9	127436.5	478.06	µg/L	478.06	ppb	19:15:11
1	As 188.979†	1633.9	1662.4	509.90	µg/L	509.90	ppb	19:15:31
1	B 249.677†	36232.7	32907.8	483.64	µg/L	483.64	ppb	19:15:11
1	Ba 233.527†	122930.9	123681.0	498.80	µg/L	498.80	ppb	19:15:11
1	Be 313.107†	1803396.0	1813471.8	493.92	µg/L	493.92	ppb	19:15:11
1	Cd 226.502†	78018.4	78526.5	490.20	µg/L	490.20	ppb	19:15:11
1	Co 228.616†	39093.5	39479.2	487.38	µg/L	487.38	ppb	19:15:11
1	Cr 267.716†	62545.6	62679.6	490.76	µg/L	490.76	ppb	19:15:11
1	Cu 324.752†	129350.9	127025.0	495.17	µg/L	495.17	ppb	19:15:11
1	Mn 257.610†	398404.7	400158.1	494.90	µg/L	494.90	ppb	19:15:11
1	Mo 202.031†	16583.9	16686.8	490.85	µg/L	490.85	ppb	19:15:31
1	Ni 231.604†	42850.2	43140.8	496.74	µg/L	496.74	ppb	19:15:11
1	P 214.914†	2325.5	2355.1	495.29	µg/L	495.29	ppb	19:15:31
1	Pb 220.353†	9031.7	8990.4	503.41	µg/L	503.41	ppb	19:15:31
1	S 181.975 Axial†	6835.0	6764.1	5027.0	µg/L	5027.0	ppb	19:15:31
1	Sb 206.836†	4211.8	4152.0	494.69	µg/L	494.69	ppb	19:15:31
1	Se 196.026†	1346.3	1337.8	486	µg/L	486	ppb	19:15:31
1	SiO2†	106677.6	105435.3	10284	µg/L	10284	ppb	19:15:11
1	Si 251.611†	326024.0	326816.5	4808.4	µg/L	4808.4	ppb	19:15:11
1	Sn 189.927†	7945.3	7986.1	499.50	µg/L	499.50	ppb	19:15:31
1	Ti 334.940†	523144.4	524805.9	489.67	µg/L	489.67	ppb	19:15:11
1	Tl 190.801†	3921.5	4057.7	505.97	µg/L	505.97	ppb	19:15:31
1	U 409.014†	7688.7	7997.0	497.49	µg/L	497.49	ppb	19:15:11
1	V 292.402†	100203.8	100300.7	495.82	µg/L	495.82	ppb	19:15:11
1	Zn 213.857†	86716.3	86585.2	482.49	µg/L	482.49	ppb	19:15:11
2	Sc RADIAL	145480.8	145480.8	99.7	%			19:14:48
2	Al 396.153Radial†	26936.0	27082.4	4998.3	µg/L	4998.3	ppb	19:14:48
2	Ca 317.933Radial†	90320.5	90038.7	5015.5	µg/L	5015.5	ppb	19:14:48
2	Fe 238.204 Radial†	79852.2	79950.6	4927.7	µg/L	4927.7	ppb	19:14:48
2	K 766.490 Radial†	15007.5	13509.0	4942.6	µg/L	4942.6	ppb	19:14:48
2	Mg 279.077 IEC†	13843.3	13695.3	5110.4	µg/L	5110.4	ppb	19:14:48
2	Na 589.592 Radial†	37572.0	36397.1	4967.9	µg/L	4967.9	ppb	19:14:48
2	Sr 421.552†	238761.8	239633.9	498.15	µg/L	498.15	ppb	19:14:46
2	Sc 361.383	1711117.3	1711117.3	99.587	%			19:15:34
2	Y 371.029	1012770.8	1012770.8	98.644	%			19:15:34
2	Ag 328.068†	130948.3	127400.3	477.93	µg/L	477.93	ppb	19:15:34
2	As 188.979†	1624.4	1651.5	506.61	µg/L	506.61	ppb	19:15:54
2	B 249.677†	36208.2	32852.5	482.84	µg/L	482.84	ppb	19:15:34
2	Ba 233.527†	123015.5	123661.8	498.72	µg/L	498.72	ppb	19:15:34
2	Be 313.107†	1800082.9	1808617.1	492.60	µg/L	492.60	ppb	19:15:34
2	Cd 226.502†	77686.1	78126.6	487.70	µg/L	487.70	ppb	19:15:34
2	Co 228.616†	38923.2	39275.0	484.86	µg/L	484.86	ppb	19:15:34
2	Cr 267.716†	62560.9	62642.0	490.46	µg/L	490.46	ppb	19:15:34
2	Cu 324.752†	129380.4	126945.0	494.87	µg/L	494.87	ppb	19:15:34
2	Mn 257.610†	398583.7	400000.4	494.70	µg/L	494.70	ppb	19:15:34
2	Mo 202.031†	16607.1	16696.0	491.13	µg/L	491.13	ppb	19:15:54
2	Ni 231.604†	42645.5	42898.9	493.95	µg/L	493.95	ppb	19:15:34
2	P 214.914†	2366.4	2394.2	503.65	µg/L	503.65	ppb	19:15:54
2	Pb 220.353†	9056.0	9007.2	504.34	µg/L	504.34	ppb	19:15:54

2	S 181.975 Axial†	6885.6	6809.2	5060.5 µg/L	5060.5 ppb	19:15:54
2	Sb 206.836†	4247.6	4184.4	498.56 µg/L	498.56 ppb	19:15:54
2	Se 196.026†	1365.6	1356.0	492 µg/L	492 ppb	19:15:54
2	SiO2†	106630.6	105297.7	10271 µg/L	10271 ppb	19:15:34
2	Si 251.611†	326357.5	326875.1	4809.2 µg/L	4809.2 ppb	19:15:34
2	Sn 189.927†	7973.2	8007.4	500.83 µg/L	500.83 ppb	19:15:54
2	Ti 334.940†	523700.9	524921.5	489.77 µg/L	489.77 ppb	19:15:34
2	Tl 190.801†	3934.5	4067.5	507.18 µg/L	507.18 ppb	19:15:54
2	U 409.014†	7824.8	8127.1	505.09 µg/L	505.09 ppb	19:15:34
2	V 292.402†	100252.2	100264.4	495.65 µg/L	495.65 ppb	19:15:34
2	Zn 213.857†	86546.8	86341.5	481.14 µg/L	481.14 ppb	19:15:34
3	Sc RADIAL	143065.2	143065.2	98.0 %		19:14:52
3	Al 396.153Radial†	26422.1	27014.4	4986.1 µg/L	4986.1 ppb	19:14:52
3	Ca 317.933Radial†	88499.6	89711.0	4997.3 µg/L	4997.3 ppb	19:14:52
3	Fe 238.204 Radial†	78279.5	79698.8	4912.1 µg/L	4912.1 ppb	19:14:52
3	K 766.490 Radial†	14835.2	13587.4	4971.3 µg/L	4971.3 ppb	19:14:52
3	Mg 279.077 IEC†	13500.4	13580.0	5067.3 µg/L	5067.3 ppb	19:14:52
3	Na 589.592 Radial†	37019.7	36470.2	4977.8 µg/L	4977.8 ppb	19:14:52
3	Sr 421.552†	232165.8	236949.6	492.57 µg/L	492.57 ppb	19:14:50
3	Sc 361.383	1738528.1	1738528.1	101.18 %		19:15:57
3	Y 371.029	1028097.6	1028097.6	100.14 %		19:15:57
3	Ag 328.068†	133162.0	127514.9	478.34 µg/L	478.34 ppb	19:15:57
3	As 188.979†	1622.6	1624.0	498.26 µg/L	498.26 ppb	19:16:17
3	B 249.677†	36987.3	33049.3	485.73 µg/L	485.73 ppb	19:15:57
3	Ba 233.527†	125281.2	123953.5	499.89 µg/L	499.89 ppb	19:15:57
3	Be 313.107†	1835659.1	1815278.6	494.41 µg/L	494.41 ppb	19:15:57
3	Cd 226.502†	79438.1	78628.3	490.84 µg/L	490.84 ppb	19:15:57
3	Co 228.616†	39744.9	39470.9	487.28 µg/L	487.28 ppb	19:15:57
3	Cr 267.716†	63658.4	62736.1	491.21 µg/L	491.21 ppb	19:15:57
3	Cu 324.752†	131728.7	127217.6	495.91 µg/L	495.91 ppb	19:15:57
3	Mn 257.610†	405452.9	400478.8	495.30 µg/L	495.30 ppb	19:15:57
3	Mo 202.031†	16548.9	16375.6	481.71 µg/L	481.71 ppb	19:16:17
3	Ni 231.604†	43732.5	43298.1	498.55 µg/L	498.55 ppb	19:15:57
3	P 214.914†	2333.5	2324.2	488.68 µg/L	488.68 ppb	19:16:17
3	Pb 220.353†	8982.2	8790.9	492.25 µg/L	492.25 ppb	19:16:17
3	S 181.975 Axial†	6806.5	6622.0	4921.4 µg/L	4921.4 ppb	19:16:17
3	Sb 206.836†	4227.7	4097.5	488.06 µg/L	488.06 ppb	19:16:17
3	Se 196.026†	1340.1	1309.1	475 µg/L	475 ppb	19:16:17
3	SiO2†	108526.4	105483.1	10289 µg/L	10289 ppb	19:15:57
3	Si 251.611†	332042.0	327326.3	4816.1 µg/L	4816.1 ppb	19:15:57
3	Sn 189.927†	7935.1	7843.5	490.62 µg/L	490.62 ppb	19:16:17
3	Ti 334.940†	532484.8	525311.5	490.15 µg/L	490.15 ppb	19:15:57
3	Tl 190.801†	3906.9	3977.9	496.17 µg/L	496.17 ppb	19:16:17
3	U 409.014†	7715.6	7895.3	491.55 µg/L	491.55 ppb	19:15:57
3	V 292.402†	101871.9	100277.9	495.62 µg/L	495.62 ppb	19:15:57
3	Zn 213.857†	88429.4	86831.9	483.87 µg/L	483.87 ppb	19:15:57

Mean Data: 1202065850|962982|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1719773.4	100.09	%	0.946				0.95%
Sc RADIAL	144134.7	98.8	%	0.84				0.85%
Y 371.029	1017539.3	99.109	%	0.8920				0.90%
Ag 328.068†	127450.6	478.11	µg/L	0.209	478.11	ppb	0.209	0.04%
Al 396.153Radial†	27081.0	4998.1	µg/L	12.00	4998.1	ppb	12.00	0.24%
As 188.979†	1646.0	504.93	µg/L	6.001	504.93	ppb	6.001	1.19%
B 249.677†	32936.5	484.07	µg/L	1.493	484.07	ppb	1.493	0.31%
Ba 233.527†	123765.4	499.14	µg/L	0.656	499.14	ppb	0.656	0.13%
Be 313.107†	1812455.8	493.64	µg/L	0.936	493.64	ppb	0.936	0.19%
Ca 317.933Radial†	89817.2	5003.2	µg/L	10.69	5003.2	ppb	10.69	0.21%
Cd 226.502†	78427.1	489.58	µg/L	1.658	489.58	ppb	1.658	0.34%
Co 228.616†	39408.4	486.51	µg/L	1.426	486.51	ppb	1.426	0.29%
Cr 267.716†	62685.9	490.81	µg/L	0.376	490.81	ppb	0.376	0.08%
Cu 324.752†	127062.5	495.32	µg/L	0.538	495.32	ppb	0.538	0.11%
Fe 238.204 Radial†	79813.1	4919.2	µg/L	7.86	4919.2	ppb	7.86	0.16%
K 766.490 Radial†	13516.4	4945.3	µg/L	24.78	4945.3	ppb	24.78	0.50%
Mg 279.077 IEC†	13622.3	5083.2	µg/L	23.74	5083.2	ppb	23.74	0.47%
Mn 257.610†	400212.4	494.97	µg/L	0.302	494.97	ppb	0.302	0.06%
Mo 202.031†	16586.2	487.90	µg/L	5.361	487.90	ppb	5.361	1.10%
Na 589.592 Radial†	36355.8	4962.2	µg/L	19.07	4962.2	ppb	19.07	0.38%

Ni 231.604†	43112.6	496.41 µg/L	2.315	496.41 ppb	2.315	0.47%
P 214.914†	2357.8	495.87 µg/L	7.499	495.87 ppb	7.499	1.51%
Pb 220.353†	8929.5	500.00 µg/L	6.727	500.00 ppb	6.727	1.35%
S 181.975 Axial†	6731.7	5003.0 µg/L	72.60	5003.0 ppb	72.60	1.45%
Sb 206.836†	4144.6	493.77 µg/L	5.306	493.77 ppb	5.306	1.07%
Se 196.026†	1334.3	485 µg/L	8.6	485 ppb	8.6	1.76%
SiO2†	105405.4	10281 µg/L	9.6	10281 ppb	9.6	0.09%
Si 251.611†	327006.0	4811.2 µg/L	4.22	4811.2 ppb	4.22	0.09%
Sn 189.927†	7945.7	496.98 µg/L	5.552	496.98 ppb	5.552	1.12%
Sr 421.552†	237493.2	493.70 µg/L	4.007	493.70 ppb	4.007	0.81%
Ti 334.940†	525012.9	489.86 µg/L	0.250	489.86 ppb	0.250	0.05%
Tl 190.801†	4034.4	503.11 µg/L	6.037	503.11 ppb	6.037	1.20%
U 409.014†	8006.5	498.04 µg/L	6.790	498.04 ppb	6.790	1.36%
V 292.402†	100281.0	495.70 µg/L	0.111	495.70 ppb	0.111	0.02%
Zn 213.857†	86586.2	482.50 µg/L	1.363	482.50 ppb	1.363	0.28%

Sequence No.: 6
Sample ID: 1202065851|962982|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 116
Date Collected: 3/31/2010 19:19:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065851|962982|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146899.9	146899.9	101	%			19:20:06
1	Al 396.153Radial†	-5.2	58.1	10.803	µg/L	10.803	ppb	19:20:06
1	Ca 317.933Radial†	1216.5	647.9	36.090	µg/L	36.090	ppb	19:20:26
1	Fe 238.204 Radial†	889.5	735.5	45.331	µg/L	45.331	ppb	19:20:26
1	K 766.490 Radial†	1692.3	136.4	49.891	µg/L	49.891	ppb	19:20:06
1	Mg 279.077 IEC†	236.7	44.4	16.480	µg/L	16.480	ppb	19:20:26
1	Na 589.592 Radial†	2354.3	1047.9	143.12	µg/L	143.12	ppb	19:20:06
1	Sr 421.552†	-168.8	-32.4	-0.0676	µg/L	-0.0676	ppb	19:20:06
1	Sc 361.383	1719079.0	1719079.0	100.05	%			19:21:14
1	Y 371.029	1024705.7	1024705.7	99.807	%			19:21:14
1	Ag 328.068†	3935.4	-158.0	-0.5861	µg/L	-0.5861	ppb	19:21:16
1	As 188.979†	-19.2	1.1	0.3561	µg/L	0.3561	ppb	19:21:36
1	B 249.677†	3606.3	98.6	1.4544	µg/L	1.4544	ppb	19:21:16
1	Ba 233.527†	-46.0	89.8	0.3610	µg/L	0.3610	ppb	19:21:36
1	Be 313.107†	-567.5	497.5	0.1366	µg/L	0.1366	ppb	19:21:16
1	Cd 226.502†	-92.0	26.3	0.1597	µg/L	0.1597	ppb	19:21:36
1	Co 228.616†	-186.9	3.6	0.0420	µg/L	0.0420	ppb	19:21:36
1	Cr 267.716†	291.6	112.8	0.8815	µg/L	0.8815	ppb	19:21:36
1	Cu 324.752†	3025.7	51.9	0.2121	µg/L	0.2121	ppb	19:21:16
1	Mn 257.610†	1456.0	1218.0	1.5062	µg/L	1.5062	ppb	19:21:36
1	Mo 202.031†	-46.7	-26.6	-0.7806	µg/L	-0.7806	ppb	19:21:36
1	Ni 231.604†	-36.8	39.7	0.4575	µg/L	0.4575	ppb	19:21:36
1	P 214.914†	-14.5	3.4	0.7127	µg/L	0.7127	ppb	19:21:36
1	Pb 220.353†	78.2	-8.2	-0.4621	µg/L	-0.4621	ppb	19:21:36
1	S 181.975 Axial†	107.8	2.6	1.9591	µg/L	1.9591	ppb	19:21:36
1	Sb 206.836†	87.4	6.6	0.7557	µg/L	0.7557	ppb	19:21:36
1	Se 196.026†	28.0	12.7	4.61	µg/L	4.61	ppb	19:21:36
1	SiO2†	3436.2	1659.1	162.18	µg/L	162.18	ppb	19:21:16
1	Si 251.611†	6062.7	5223.1	77.009	µg/L	77.009	ppb	19:21:16
1	Sn 189.927†	8.3	9.4	0.5878	µg/L	0.5878	ppb	19:21:36
1	Ti 334.940†	1671.3	717.9	0.6684	µg/L	0.6684	ppb	19:21:16
1	Tl 190.801†	-129.7	-12.9	-1.5804	µg/L	-1.5804	ppb	19:21:36
1	U 409.014†	-203.0	67.0	3.8983	µg/L	3.8983	ppb	19:21:16
1	V 292.402†	329.1	-74.9	-0.3724	µg/L	-0.3724	ppb	19:21:16
1	Zn 213.857†	713.2	148.4	0.8259	µg/L	0.8259	ppb	19:21:36
2	Sc RADIAL	146902.9	146902.9	101	%			19:20:28
2	Al 396.153Radial†	-60.6	3.0	0.5602	µg/L	0.5602	ppb	19:20:28
2	Ca 317.933Radial†	1180.5	612.1	34.098	µg/L	34.098	ppb	19:20:48
2	Fe 238.204 Radial†	908.2	754.0	46.475	µg/L	46.475	ppb	19:20:48
2	K 766.490 Radial†	1651.1	95.4	34.904	µg/L	34.904	ppb	19:20:28
2	Mg 279.077 IEC†	220.5	28.3	10.516	µg/L	10.516	ppb	19:20:48
2	Na 589.592 Radial†	2511.3	1203.9	164.43	µg/L	164.43	ppb	19:20:28
2	Sr 421.552†	-162.6	-26.2	-0.0548	µg/L	-0.0548	ppb	19:20:28
2	Sc 361.383	1739745.4	1739745.4	101.25	%			19:21:38
2	Y 371.029	1035904.4	1035904.4	100.90	%			19:21:38
2	Ag 328.068†	4076.7	-65.1	-0.2500	µg/L	-0.2500	ppb	19:21:40
2	As 188.979†	-25.8	-5.1	-1.5331	µg/L	-1.5331	ppb	19:22:00
2	B 249.677†	3593.2	42.9	0.6320	µg/L	0.6320	ppb	19:21:40
2	Ba 233.527†	-56.7	79.9	0.3215	µg/L	0.3215	ppb	19:22:00
2	Be 313.107†	-1064.7	13.1	0.0005	µg/L	0.0005	ppb	19:21:40
2	Cd 226.502†	-98.9	20.5	0.1232	µg/L	0.1232	ppb	19:22:00
2	Co 228.616†	-186.9	5.7	0.0683	µg/L	0.0683	ppb	19:22:00
2	Cr 267.716†	296.3	114.0	0.9025	µg/L	0.9025	ppb	19:22:00
2	Cu 324.752†	3080.1	69.8	0.2698	µg/L	0.2698	ppb	19:21:40
2	Mn 257.610†	1481.9	1226.3	1.5167	µg/L	1.5167	ppb	19:22:00
2	Mo 202.031†	-27.8	-7.4	-0.2147	µg/L	-0.2147	ppb	19:22:00
2	Ni 231.604†	-57.9	19.3	0.2227	µg/L	0.2227	ppb	19:22:00
2	P 214.914†	-4.7	13.3	2.8156	µg/L	2.8156	ppb	19:22:00
2	Pb 220.353†	97.0	9.4	0.5315	µg/L	0.5315	ppb	19:22:00

2	S 181.975 Axial†	118.0	11.5	8.5038 µg/L	8.5038 ppb		19:22:00
2	Sb 206.836†	71.5	-10.2	-1.2238 µg/L	-1.2238 ppb		19:22:00
2	Se 196.026†	13.8	-1.6	-0.589 µg/L	-0.589 ppb		19:22:00
2	SiO2†	3487.2	1668.7	163.10 µg/L	163.10 ppb		19:21:40
2	Si 251.611†	6231.5	5317.8	78.400 µg/L	78.400 ppb		19:21:40
2	Sn 189.927†	5.3	6.4	0.3985 µg/L	0.3985 ppb		19:22:00
2	Ti 334.940†	1624.6	652.0	0.6131 µg/L	0.6131 ppb		19:21:40
2	Tl 190.801†	-119.8	-1.6	-0.1847 µg/L	-0.1847 ppb		19:22:00
2	U 409.014†	-452.0	-176.5	-10.296 µg/L	-10.296 ppb		19:21:40
2	V 292.402†	501.8	91.7	0.4368 µg/L	0.4368 ppb		19:21:40
2	Zn 213.857†	726.5	153.1	0.8535 µg/L	0.8535 ppb		19:22:00
3	Sc RADIAL	146176.8	146176.8	100 %			19:20:50
3	Al 396.153Radial†	-77.8	-14.5	-2.6438 µg/L	-2.6438 ppb		19:20:50
3	Ca 317.933Radial†	1184.4	621.8	34.636 µg/L	34.636 ppb		19:21:10
3	Fe 238.204 Radial†	902.7	753.1	46.416 µg/L	46.416 ppb		19:21:10
3	K 766.490 Radial†	1690.7	143.1	52.356 µg/L	52.356 ppb		19:20:50
3	Mg 279.077 IEC†	178.5	-12.5	-4.7066 µg/L	-4.7066 ppb		19:21:10
3	Na 589.592 Radial†	2379.6	1084.8	148.15 µg/L	148.15 ppb		19:20:50
3	Sr 421.552†	-87.2	48.2	0.1000 µg/L	0.1000 ppb		19:20:50
3	Sc 361.383	1748739.2	1748739.2	101.78 %			19:22:02
3	Y 371.029	1041731.1	1041731.1	101.47 %			19:22:02
3	Ag 328.068†	3992.3	-168.8	-0.6183 µg/L	-0.6183 ppb		19:22:04
3	As 188.979†	-16.8	3.9	1.1884 µg/L	1.1884 ppb		19:22:25
3	B 249.677†	3602.0	33.2	0.4892 µg/L	0.4892 ppb		19:22:04
3	Ba 233.527†	-54.5	82.3	0.3309 µg/L	0.3309 ppb		19:22:25
3	Be 313.107†	-757.8	320.1	0.0884 µg/L	0.0884 ppb		19:22:04
3	Cd 226.502†	-105.4	14.7	0.0867 µg/L	0.0867 ppb		19:22:25
3	Co 228.616†	-169.3	23.9	0.2932 µg/L	0.2932 ppb		19:22:25
3	Cr 267.716†	291.2	107.6	0.8409 µg/L	0.8409 ppb		19:22:25
3	Cu 324.752†	2979.8	-44.4	-0.1624 µg/L	-0.1624 ppb		19:22:04
3	Mn 257.610†	1489.2	1226.0	1.5169 µg/L	1.5169 ppb		19:22:25
3	Mo 202.031†	-50.6	-29.6	-0.8682 µg/L	-0.8682 ppb		19:22:25
3	Ni 231.604†	-69.1	8.6	0.0993 µg/L	0.0993 ppb		19:22:25
3	P 214.914†	-1.0	17.0	3.6127 µg/L	3.6127 ppb		19:22:25
3	Pb 220.353†	83.5	-4.3	-0.2462 µg/L	-0.2462 ppb		19:22:25
3	S 181.975 Axial†	116.2	9.1	6.7809 µg/L	6.7809 ppb		19:22:25
3	Sb 206.836†	92.8	10.4	1.2062 µg/L	1.2062 ppb		19:22:25
3	Se 196.026†	1.4	-13.9	-5.02 µg/L	-5.02 ppb		19:22:25
3	SiO2†	3523.4	1686.5	164.86 µg/L	164.86 ppb		19:22:04
3	Si 251.611†	6024.0	5082.3	74.938 µg/L	74.938 ppb		19:22:04
3	Sn 189.927†	4.4	5.4	0.3411 µg/L	0.3411 ppb		19:22:25
3	Ti 334.940†	1833.1	848.6	0.7922 µg/L	0.7922 ppb		19:22:04
3	Tl 190.801†	-124.4	-5.5	-0.6694 µg/L	-0.6694 ppb		19:22:25
3	U 409.014†	-204.1	69.4	4.0708 µg/L	4.0708 ppb		19:22:04
3	V 292.402†	467.1	55.1	0.2607 µg/L	0.2607 ppb		19:22:04
3	Zn 213.857†	713.3	136.4	0.7607 µg/L	0.7607 ppb		19:22:25

Mean Data: 1202065851|962982|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1735854.6	101.03	%	0.885				0.88%
Sc RADIAL	146659.9	101	%	0.3				0.29%
Y 371.029	1034113.7	100.72	%	0.843				0.84%
Ag 328.068†	-130.6	-0.4848	µg/L	0.20399	-0.4848	ppb	0.20399	42.08%
Al 396.153Radial†	15.5	2.9064	µg/L	7.02366	2.9064	ppb	7.02366	241.66%
As 188.979†	-0.0	0.0038	µg/L	1.39456	0.0038	ppb	1.39456	>999.9%
B 249.677†	58.2	0.8585	µg/L	0.52095	0.8585	ppb	0.52095	60.68%
Ba 233.527†	84.0	0.3378	µg/L	0.02063	0.3378	ppb	0.02063	6.11%
Be 313.107†	276.9	0.0752	µg/L	0.06905	0.0752	ppb	0.06905	91.87%
Ca 317.933Radial†	627.3	34.941	µg/L	1.0306	34.941	ppb	1.0306	2.95%
Cd 226.502†	20.5	0.1232	µg/L	0.03647	0.1232	ppb	0.03647	29.60%
Co 228.616†	11.1	0.1345	µg/L	0.13808	0.1345	ppb	0.13808	102.66%
Cr 267.716†	111.5	0.8750	µg/L	0.03136	0.8750	ppb	0.03136	3.58%
Cu 324.752†	25.8	0.1065	µg/L	0.23469	0.1065	ppb	0.23469	220.36%
Fe 238.204 Radial†	747.5	46.074	µg/L	0.6439	46.074	ppb	0.6439	1.40%
K 766.490 Radial†	125.0	45.717	µg/L	9.4453	45.717	ppb	9.4453	20.66%
Mg 279.077 IEC†	20.1	7.4297	µg/L	10.92523	7.4297	ppb	10.92523	147.05%
Mn 257.610†	1223.4	1.5133	µg/L	0.00613	1.5133	ppb	0.00613	0.40%
Mo 202.031†	-21.2	-0.6212	µg/L	0.35472	-0.6212	ppb	0.35472	57.11%
Na 589.592 Radial†	1112.2	151.90	µg/L	11.141	151.90	ppb	11.141	7.33%

Ni 231.604†	22.6	0.2599	µg/L	0.18195	0.2599	ppb	0.18195	70.02%
P 214.914†	11.2	2.3803	µg/L	1.49819	2.3803	ppb	1.49819	62.94%
Pb 220.353†	-1.0	-0.0590	µg/L	0.52262	-0.0590	ppb	0.52262	886.53%
S 181.975 Axial†	7.7	5.7479	µg/L	3.39242	5.7479	ppb	3.39242	59.02%
Sb 206.836†	2.2	0.2460	µg/L	1.29272	0.2460	ppb	1.29272	525.46%
Se 196.026†	-1.0	-0.334	µg/L	4.8198	-0.334	ppb	4.8198	>999.9%
SiO2†	1671.5	163.38	µg/L	1.363	163.38	ppb	1.363	0.83%
Si 251.611†	5207.7	76.782	µg/L	1.7422	76.782	ppb	1.7422	2.27%
Sn 189.927†	7.1	0.4425	µg/L	0.12908	0.4425	ppb	0.12908	29.17%
Sr 421.552†	-3.5	-0.0075	µg/L	0.09329	-0.0075	ppb	0.09329	>999.9%
Ti 334.940†	739.5	0.6912	µg/L	0.09169	0.6912	ppb	0.09169	13.26%
Tl 190.801†	-6.7	-0.8115	µg/L	0.70859	-0.8115	ppb	0.70859	87.32%
U 409.014†	-13.4	-0.7756	µg/L	8.24514	-0.7756	ppb	8.24514	>999.9%
V 292.402†	24.0	0.1084	µg/L	0.42556	0.1084	ppb	0.42556	392.71%
Zn 213.857†	146.0	0.8134	µg/L	0.04765	0.8134	ppb	0.04765	5.86%

Sequence No.: 7
Sample ID: 1202065852|962982|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 117
Date Collected: 3/31/2010 19:22:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065852|962982|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145110.4	145110.4	99.4	%			19:23:04
1	Al 396.153Radial†	27603.0	27822.1	5135.1	µg/L	5135.1	ppb	19:23:04
1	Ca 317.933Radial†	92084.6	92044.0	5127.2	µg/L	5127.2	ppb	19:23:04
1	Fe 238.204 Radial†	82105.5	82421.0	5079.9	µg/L	5079.9	ppb	19:23:04
1	K 766.490 Radial†	15271.9	13813.4	5053.9	µg/L	5053.9	ppb	19:23:04
1	Mg 279.077 IEC†	14107.5	13996.4	5222.7	µg/L	5222.7	ppb	19:23:04
1	Na 589.592 Radial†	38938.3	37867.4	5168.6	µg/L	5168.6	ppb	19:23:04
1	Sr 421.552†	237517.4	238993.8	496.81	µg/L	496.81	ppb	19:23:02
1	Sc 361.383	1731810.2	1731810.2	100.79	%			19:23:17
1	Y 371.029	1024766.9	1024766.9	99.813	%			19:23:17
1	Ag 328.068†	134343.8	129198.0	484.71	µg/L	484.71	ppb	19:23:17
1	As 188.979†	1650.8	1658.2	508.76	µg/L	508.76	ppb	19:23:37
1	B 249.677†	37123.3	33326.1	489.79	µg/L	489.79	ppb	19:23:17
1	Ba 233.527†	126606.9	125749.0	507.14	µg/L	507.14	ppb	19:23:17
1	Be 313.107†	1855223.6	1841727.2	501.61	µg/L	501.61	ppb	19:23:17
1	Cd 226.502†	80025.5	79515.6	496.37	µg/L	496.37	ppb	19:23:17
1	Co 228.616†	40132.2	40007.5	493.90	µg/L	493.90	ppb	19:23:17
1	Cr 267.716†	64548.4	63863.2	500.04	µg/L	500.04	ppb	19:23:17
1	Cu 324.752†	133739.3	129717.4	505.66	µg/L	505.66	ppb	19:23:17
1	Mn 257.610†	412174.6	408702.2	505.47	µg/L	505.47	ppb	19:23:17
1	Mo 202.031†	17027.3	16913.7	497.54	µg/L	497.54	ppb	19:23:37
1	Ni 231.604†	44055.2	43785.9	504.16	µg/L	504.16	ppb	19:23:17
1	P 214.914†	2374.7	2374.0	499.11	µg/L	499.11	ppb	19:23:37
1	Pb 220.353†	9221.7	9063.0	507.49	µg/L	507.49	ppb	19:23:37
1	S 181.975 Axial†	6998.2	6838.2	5082.1	µg/L	5082.1	ppb	19:23:37
1	Sb 206.836†	4307.0	4192.3	499.47	µg/L	499.47	ppb	19:23:37
1	Se 196.026†	1368.2	1342.1	487	µg/L	487	ppb	19:23:37
1	SiO2†	112986.9	110324.8	10762	µg/L	10762	ppb	19:23:17
1	Si 251.611†	345543.1	341994.4	5032.0	µg/L	5032.0	ppb	19:23:17
1	Sn 189.927†	8133.1	8070.4	504.79	µg/L	504.79	ppb	19:23:37
1	Ti 334.940†	541792.3	536587.3	500.67	µg/L	500.67	ppb	19:23:17
1	Tl 190.801†	4008.1	4093.3	510.53	µg/L	510.53	ppb	19:23:37
1	U 409.014†	7792.2	8000.9	498.38	µg/L	498.38	ppb	19:23:17
1	V 292.402†	103766.4	102548.2	506.87	µg/L	506.87	ppb	19:23:17
1	Zn 213.857†	89072.4	87808.9	489.30	µg/L	489.30	ppb	19:23:17
2	Sc RADIAL	144273.5	144273.5	98.9	%			19:23:08
2	Al 396.153Radial†	27373.5	27751.0	5121.8	µg/L	5121.8	ppb	19:23:08
2	Ca 317.933Radial†	91516.5	92006.6	5125.1	µg/L	5125.1	ppb	19:23:08
2	Fe 238.204 Radial†	81703.4	82493.2	5084.4	µg/L	5084.4	ppb	19:23:08
2	K 766.490 Radial†	15180.0	13809.5	5052.5	µg/L	5052.5	ppb	19:23:08
2	Mg 279.077 IEC†	13843.7	13811.9	5153.9	µg/L	5153.9	ppb	19:23:08
2	Na 589.592 Radial†	38671.7	37824.9	5162.8	µg/L	5162.8	ppb	19:23:08
2	Sr 421.552†	242048.8	244962.9	509.22	µg/L	509.22	ppb	19:23:06
2	Sc 361.383	1719333.7	1719333.7	100.06	%			19:23:40
2	Y 371.029	1017297.1	1017297.1	99.085	%			19:23:40
2	Ag 328.068†	133270.6	129092.7	484.32	µg/L	484.32	ppb	19:23:40
2	As 188.979†	1646.6	1665.9	511.09	µg/L	511.09	ppb	19:24:00
2	B 249.677†	36903.5	33373.6	490.49	µg/L	490.49	ppb	19:23:40
2	Ba 233.527†	125844.5	125898.7	507.74	µg/L	507.74	ppb	19:23:40
2	Be 313.107†	1841720.0	1841589.2	501.58	µg/L	501.58	ppb	19:23:40
2	Cd 226.502†	79474.0	79540.6	496.52	µg/L	496.52	ppb	19:23:40
2	Co 228.616†	39947.9	40112.3	495.19	µg/L	495.19	ppb	19:23:40
2	Cr 267.716†	64088.8	63868.6	500.07	µg/L	500.07	ppb	19:23:40
2	Cu 324.752†	132983.2	129924.7	506.48	µg/L	506.48	ppb	19:23:40
2	Mn 257.610†	409217.4	408714.5	505.48	µg/L	505.48	ppb	19:23:40
2	Mo 202.031†	16979.9	16988.9	499.75	µg/L	499.75	ppb	19:24:00
2	Ni 231.604†	43798.6	43846.6	504.86	µg/L	504.86	ppb	19:23:40
2	P 214.914†	2397.2	2413.5	507.56	µg/L	507.56	ppb	19:24:00
2	Pb 220.353†	9181.0	9088.6	508.92	µg/L	508.92	ppb	19:24:00

2	S 181.975 Axial†	6968.1	6858.5	5097.2 µg/L	5097.2 ppb	19:24:00
2	Sb 206.836†	4292.4	4208.8	501.46 µg/L	501.46 ppb	19:24:00
2	Se 196.026†	1367.2	1351.0	491 µg/L	491 ppb	19:24:00
2	SiO2†	112286.7	110438.5	10773 µg/L	10773 ppb	19:23:40
2	Si 251.611†	343122.8	342063.5	5033.0 µg/L	5033.0 ppb	19:23:40
2	Sn 189.927†	8132.4	8128.3	508.40 µg/L	508.40 ppb	19:24:00
2	Ti 334.940†	537774.0	536472.4	500.56 µg/L	500.56 ppb	19:23:40
2	Tl 190.801†	3984.3	4098.4	511.14 µg/L	511.14 ppb	19:24:00
2	U 409.014†	7896.6	8161.4	507.70 µg/L	507.70 ppb	19:23:40
2	V 292.402†	102800.8	102330.2	505.84 µg/L	505.84 ppb	19:23:40
2	Zn 213.857†	88484.6	87862.7	489.59 µg/L	489.59 ppb	19:23:40
3	Sc RADIAL	144351.3	144351.3	98.9 %		19:23:12
3	Al 396.153Radial†	27586.9	27951.8	5159.2 µg/L	5159.2 ppb	19:23:12
3	Ca 317.933Radial†	91513.0	91953.1	5122.1 µg/L	5122.1 ppb	19:23:12
3	Fe 238.204 Radial†	81716.6	82462.1	5082.5 µg/L	5082.5 ppb	19:23:12
3	K 766.490 Radial†	15255.3	13877.3	5077.3 µg/L	5077.3 ppb	19:23:12
3	Mg 279.077 IEC†	14105.4	14068.9	5249.6 µg/L	5249.6 ppb	19:23:12
3	Na 589.592 Radial†	38763.4	37896.5	5172.6 µg/L	5172.6 ppb	19:23:12
3	Sr 421.552†	239753.3	242510.3	504.12 µg/L	504.12 ppb	19:23:10
3	Sc 361.383	1729361.7	1729361.7	100.65 %		19:24:03
3	Y 371.029	1023502.6	1023502.6	99.690 %		19:24:03
3	Ag 328.068†	134577.1	129618.5	486.29 µg/L	486.29 ppb	19:24:03
3	As 188.979†	1657.1	1666.8	511.38 µg/L	511.38 ppb	19:24:23
3	B 249.677†	37335.5	33589.0	493.66 µg/L	493.66 ppb	19:24:03
3	Ba 233.527†	126618.3	125938.2	507.90 µg/L	507.90 ppb	19:24:03
3	Be 313.107†	1856258.9	1845361.8	502.60 µg/L	502.60 ppb	19:24:03
3	Cd 226.502†	80030.7	79633.2	497.10 µg/L	497.10 ppb	19:24:03
3	Co 228.616†	40276.5	40207.2	496.37 µg/L	496.37 ppb	19:24:03
3	Cr 267.716†	64547.9	63953.3	500.74 µg/L	500.74 ppb	19:24:03
3	Cu 324.752†	133860.3	130025.5	506.87 µg/L	506.87 ppb	19:24:03
3	Mn 257.610†	412170.8	409277.5	506.18 µg/L	506.18 ppb	19:24:03
3	Mo 202.031†	16978.6	16889.2	496.82 µg/L	496.82 ppb	19:24:23
3	Ni 231.604†	44389.2	44179.7	508.70 µg/L	508.70 ppb	19:24:03
3	P 214.914†	2382.2	2384.8	501.42 µg/L	501.42 ppb	19:24:23
3	Pb 220.353†	9204.3	9058.6	507.24 µg/L	507.24 ppb	19:24:23
3	S 181.975 Axial†	6958.9	6809.0	5060.4 µg/L	5060.4 ppb	19:24:23
3	Sb 206.836†	4304.2	4195.6	499.84 µg/L	499.84 ppb	19:24:23
3	Se 196.026†	1384.1	1359.9	494 µg/L	494 ppb	19:24:23
3	SiO2†	113143.0	110638.5	10793 µg/L	10793 ppb	19:24:03
3	Si 251.611†	346219.6	343151.9	5049.1 µg/L	5049.1 ppb	19:24:03
3	Sn 189.927†	8115.4	8064.2	504.41 µg/L	504.41 ppb	19:24:23
3	Ti 334.940†	542009.6	537564.3	501.57 µg/L	501.57 ppb	19:24:03
3	Tl 190.801†	4000.1	4091.0	510.25 µg/L	510.25 ppb	19:24:23
3	U 409.014†	7918.6	8137.5	506.43 µg/L	506.43 ppb	19:24:03
3	V 292.402†	103832.7	102759.8	507.90 µg/L	507.90 ppb	19:24:03
3	Zn 213.857†	89001.3	87863.3	489.57 µg/L	489.57 ppb	19:24:03

Mean Data: 1202065852|962982|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726835.2	100.50	%	0.385				0.38%
Sc RADIAL	144578.4	99.1	%	0.32				0.32%
Y 371.029	1021855.6	99.529	%	0.3894				0.39%
Ag 328.068†	129303.1	485.10	µg/L	1.043	485.10	ppb	1.043	0.22%
Al 396.153Radial†	27841.6	5138.7	µg/L	18.94	5138.7	ppb	18.94	0.37%
As 188.979†	1663.6	510.41	µg/L	1.436	510.41	ppb	1.436	0.28%
B 249.677†	33429.6	491.31	µg/L	2.063	491.31	ppb	2.063	0.42%
Ba 233.527†	125862.0	507.59	µg/L	0.402	507.59	ppb	0.402	0.08%
Be 313.107†	1842892.7	501.93	µg/L	0.583	501.93	ppb	0.583	0.12%
Ca 317.933Radial†	92001.2	5124.8	µg/L	2.54	5124.8	ppb	2.54	0.05%
Cd 226.502†	79563.2	496.66	µg/L	0.388	496.66	ppb	0.388	0.08%
Co 228.616†	40109.0	495.15	µg/L	1.233	495.15	ppb	1.233	0.25%
Cr 267.716†	63895.1	500.28	µg/L	0.394	500.28	ppb	0.394	0.08%
Cu 324.752†	129889.2	506.34	µg/L	0.615	506.34	ppb	0.615	0.12%
Fe 238.204 Radial†	82458.8	5082.3	µg/L	2.23	5082.3	ppb	2.23	0.04%
K 766.490 Radial†	13833.4	5061.2	µg/L	13.94	5061.2	ppb	13.94	0.28%
Mg 279.077 IEC†	13959.1	5208.8	µg/L	49.34	5208.8	ppb	49.34	0.95%
Mn 257.610†	408898.1	505.71	µg/L	0.405	505.71	ppb	0.405	0.08%
Mo 202.031†	16930.6	498.03	µg/L	1.526	498.03	ppb	1.526	0.31%
Na 589.592 Radial†	37862.9	5168.0	µg/L	4.91	5168.0	ppb	4.91	0.10%

Ni 231.604†	43937.4	505.91	µg/L	2.441	505.91	ppb	2.441	0.48%
P 214.914†	2390.8	502.70	µg/L	4.369	502.70	ppb	4.369	0.87%
Pb 220.353†	9070.1	507.89	µg/L	0.906	507.89	ppb	0.906	0.18%
S 181.975 Axial†	6835.2	5079.9	µg/L	18.48	5079.9	ppb	18.48	0.36%
Sb 206.836†	4198.9	500.26	µg/L	1.059	500.26	ppb	1.059	0.21%
Se 196.026†	1351.0	491	µg/L	3.2	491	ppb	3.2	0.65%
SiO2†	110467.3	10776	µg/L	15.6	10776	ppb	15.6	0.14%
Si 251.611†	342403.3	5038.0	µg/L	9.59	5038.0	ppb	9.59	0.19%
Sn 189.927†	8087.6	505.87	µg/L	2.202	505.87	ppb	2.202	0.44%
Sr 421.552†	242155.6	503.39	µg/L	6.237	503.39	ppb	6.237	1.24%
Ti 334.940†	536874.7	500.93	µg/L	0.557	500.93	ppb	0.557	0.11%
Tl 190.801†	4094.2	510.64	µg/L	0.452	510.64	ppb	0.452	0.09%
U 409.014†	8099.9	504.17	µg/L	5.054	504.17	ppb	5.054	1.00%
V 292.402†	102546.1	506.87	µg/L	1.033	506.87	ppb	1.033	0.20%
Zn 213.857†	87845.0	489.49	µg/L	0.165	489.49	ppb	0.165	0.03%

Sequence No.: 8
Sample ID: 1202065853|962982|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 118
Date Collected: 3/31/2010 19:24:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202065853|962982|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145655.2	145655.2	99.8	%			19:25:01
1	Al 396.153Radial†	-25.0	38.2	7.0941	µg/L	7.0941	ppb	19:25:21
1	Ca 317.933Radial†	904.8	345.9	19.270	µg/L	19.270	ppb	19:25:21
1	Fe 238.204 Radial†	305.3	157.7	9.7217	µg/L	9.7217	ppb	19:25:21
1	K 766.490 Radial†	1716.2	174.7	63.931	µg/L	63.931	ppb	19:25:01
1	Mg 279.077 IEC†	193.7	3.3	1.2238	µg/L	1.2238	ppb	19:25:21
1	Na 589.592 Radial†	1612.8	325.1	44.349	µg/L	44.349	ppb	19:25:01
1	Sr 421.552†	-305.7	-171.0	-0.3557	µg/L	-0.3557	ppb	19:25:01
1	Sc 361.383	1739846.2	1739846.2	101.26	%			19:26:23
1	Y 371.029	1037840.4	1037840.4	101.09	%			19:26:23
1	Ag 328.068†	3995.5	-145.6	-0.5379	µg/L	-0.5379	ppb	19:26:25
1	As 188.979†	-28.0	-7.3	-2.2041	µg/L	-2.2041	ppb	19:26:45
1	B 249.677†	3680.2	128.5	1.8962	µg/L	1.8962	ppb	19:26:25
1	Ba 233.527†	-40.1	96.3	0.3879	µg/L	0.3879	ppb	19:26:45
1	Be 313.107†	-823.2	251.8	0.0682	µg/L	0.0682	ppb	19:26:25
1	Cd 226.502†	-92.1	27.3	0.1694	µg/L	0.1694	ppb	19:26:45
1	Co 228.616†	-202.7	-9.9	-0.1221	µg/L	-0.1221	ppb	19:26:45
1	Cr 267.716†	190.5	9.5	0.0758	µg/L	0.0758	ppb	19:26:45
1	Cu 324.752†	2859.2	-148.5	-0.5767	µg/L	-0.5767	ppb	19:26:25
1	Mn 257.610†	531.8	287.9	0.3561	µg/L	0.3561	ppb	19:26:45
1	Mo 202.031†	-27.8	-7.4	-0.2168	µg/L	-0.2168	ppb	19:26:45
1	Ni 231.604†	-91.8	-14.2	-0.1630	µg/L	-0.1630	ppb	19:26:45
1	P 214.914†	-1.0	17.0	3.6479	µg/L	3.6479	ppb	19:26:45
1	Pb 220.353†	95.5	7.9	0.4436	µg/L	0.4436	ppb	19:26:45
1	S 181.975 Axial†	114.5	8.0	5.9603	µg/L	5.9603	ppb	19:26:45
1	Sb 206.836†	67.4	-14.3	-1.7030	µg/L	-1.7030	ppb	19:26:45
1	Se 196.026†	22.0	6.4	2.32	µg/L	2.32	ppb	19:26:45
1	SiO2†	2056.5	255.6	24.978	µg/L	24.978	ppb	19:26:25
1	Si 251.611†	1733.0	874.9	12.898	µg/L	12.898	ppb	19:26:25
1	Sn 189.927†	8.3	9.3	0.5802	µg/L	0.5802	ppb	19:26:45
1	Ti 334.940†	1144.8	178.0	0.1671	µg/L	0.1671	ppb	19:26:25
1	Tl 190.801†	-118.8	-0.7	-0.0765	µg/L	-0.0765	ppb	19:26:45
1	U 409.014†	-292.4	-18.9	-1.0895	µg/L	-1.0895	ppb	19:26:25
1	V 292.402†	466.4	56.8	0.2731	µg/L	0.2731	ppb	19:26:25
1	Zn 213.857†	736.7	163.2	0.9172	µg/L	0.9172	ppb	19:26:45
2	Sc RADIAL	145714.6	145714.6	99.9	%			19:25:23
2	Al 396.153Radial†	-35.7	27.5	5.1031	µg/L	5.1031	ppb	19:25:43
2	Ca 317.933Radial†	894.9	335.6	18.694	µg/L	18.694	ppb	19:25:43
2	Fe 238.204 Radial†	322.5	174.9	10.778	µg/L	10.778	ppb	19:25:43
2	K 766.490 Radial†	1577.5	35.0	12.803	µg/L	12.803	ppb	19:25:23
2	Mg 279.077 IEC†	200.9	10.5	3.8953	µg/L	3.8953	ppb	19:25:43
2	Na 589.592 Radial†	1743.0	454.8	62.122	µg/L	62.122	ppb	19:25:23
2	Sr 421.552†	-164.4	-29.3	-0.0611	µg/L	-0.0611	ppb	19:25:23
2	Sc 361.383	1725534.7	1725534.7	100.43	%			19:26:47
2	Y 371.029	1029930.3	1029930.3	100.32	%			19:26:47
2	Ag 328.068†	3883.4	-224.5	-0.8357	µg/L	-0.8357	ppb	19:26:49
2	As 188.979†	-18.0	2.5	0.7443	µg/L	0.7443	ppb	19:27:09
2	B 249.677†	3532.0	11.1	0.1630	µg/L	0.1630	ppb	19:26:49
2	Ba 233.527†	-87.2	49.0	0.1977	µg/L	0.1977	ppb	19:27:09
2	Be 313.107†	-588.0	479.2	0.1281	µg/L	0.1281	ppb	19:26:49
2	Cd 226.502†	-118.4	0.3	0.0007	µg/L	0.0007	ppb	19:27:09
2	Co 228.616†	-165.9	25.1	0.3092	µg/L	0.3092	ppb	19:27:09
2	Cr 267.716†	158.5	-20.7	-0.1555	µg/L	-0.1555	ppb	19:27:09
2	Cu 324.752†	3096.3	111.0	0.4267	µg/L	0.4267	ppb	19:26:49
2	Mn 257.610†	516.3	276.9	0.3424	µg/L	0.3424	ppb	19:27:09
2	Mo 202.031†	-29.8	-9.6	-0.2809	µg/L	-0.2809	ppb	19:27:09
2	Ni 231.604†	-98.0	-21.1	-0.2431	µg/L	-0.2431	ppb	19:27:09
2	P 214.914†	-6.2	11.8	2.5181	µg/L	2.5181	ppb	19:27:09
2	Pb 220.353†	107.1	20.3	1.1377	µg/L	1.1377	ppb	19:27:09

2	S 181.975 Axial†	112.1	6.6	4.9016 µg/L	4.9016 ppb	19:27:09
2	Sb 206.836†	93.2	11.9	1.4192 µg/L	1.4192 ppb	19:27:09
2	Se 196.026†	17.4	2.0	0.722 µg/L	0.722 ppb	19:27:09
2	SiO2†	2003.5	219.6	21.462 µg/L	21.462 ppb	19:26:49
2	Si 251.611†	1680.8	837.1	12.341 µg/L	12.341 ppb	19:26:49
2	Sn 189.927†	9.8	10.9	0.6811 µg/L	0.6811 ppb	19:27:09
2	Ti 334.940†	1148.1	190.7	0.1815 µg/L	0.1815 ppb	19:26:49
2	Tl 190.801†	-116.3	0.9	0.1128 µg/L	0.1128 ppb	19:27:09
2	U 409.014†	-404.6	-133.0	-7.7456 µg/L	-7.7456 ppb	19:26:49
2	V 292.402†	505.5	99.6	0.4757 µg/L	0.4757 ppb	19:26:49
2	Zn 213.857†	729.4	161.9	0.9094 µg/L	0.9094 ppb	19:27:09
3	Sc RADIAL	147580.0	147580.0	101 %		19:25:45
3	Al 396.153Radial†	-18.4	45.1	8.3847 µg/L	8.3847 ppb	19:26:05
3	Ca 317.933Radial†	903.2	332.6	18.525 µg/L	18.525 ppb	19:26:05
3	Fe 238.204 Radial†	328.8	177.0	10.911 µg/L	10.911 ppb	19:26:05
3	K 766.490 Radial†	1668.1	104.7	38.321 µg/L	38.321 ppb	19:25:45
3	Mg 279.077 IEC†	202.6	9.6	3.5668 µg/L	3.5668 ppb	19:26:05
3	Na 589.592 Radial†	1593.5	284.9	38.888 µg/L	38.888 ppb	19:25:45
3	Sr 421.552†	-201.4	-63.9	-0.1330 µg/L	-0.1330 ppb	19:25:45
3	Sc 361.383	1729546.3	1729546.3	100.66 %		19:27:11
3	Y 371.029	1032097.6	1032097.6	100.53 %		19:27:11
3	Ag 328.068†	4027.5	-90.2	-0.3277 µg/L	-0.3277 ppb	19:27:13
3	As 188.979†	-21.7	-1.2	-0.3704 µg/L	-0.3704 ppb	19:27:34
3	B 249.677†	3432.0	-96.4	-1.4230 µg/L	-1.4230 ppb	19:27:13
3	Ba 233.527†	-53.1	83.1	0.3345 µg/L	0.3345 ppb	19:27:34
3	Be 313.107†	-1050.9	20.7	0.0074 µg/L	0.0074 ppb	19:27:13
3	Cd 226.502†	-91.2	27.6	0.1712 µg/L	0.1712 ppb	19:27:34
3	Co 228.616†	-166.8	24.6	0.3030 µg/L	0.3030 ppb	19:27:34
3	Cr 267.716†	205.8	25.9	0.1986 µg/L	0.1986 ppb	19:27:34
3	Cu 324.752†	2993.7	1.9	0.0140 µg/L	0.0140 ppb	19:27:13
3	Mn 257.610†	535.6	294.8	0.3646 µg/L	0.3646 ppb	19:27:34
3	Mo 202.031†	-43.1	-22.7	-0.6673 µg/L	-0.6673 ppb	19:27:34
3	Ni 231.604†	-86.7	-9.7	-0.1112 µg/L	-0.1112 ppb	19:27:34
3	P 214.914†	-0.3	17.6	3.7826 µg/L	3.7826 ppb	19:27:34
3	Pb 220.353†	93.0	6.0	0.3303 µg/L	0.3303 ppb	19:27:34
3	S 181.975 Axial†	112.2	6.4	4.7244 µg/L	4.7244 ppb	19:27:34
3	Sb 206.836†	79.4	-2.0	-0.2447 µg/L	-0.2447 ppb	19:27:34
3	Se 196.026†	28.1	12.7	4.60 µg/L	4.60 ppb	19:27:34
3	SiO2†	2181.2	391.5	38.279 µg/L	38.279 ppb	19:27:13
3	Si 251.611†	1777.8	929.6	13.709 µg/L	13.709 ppb	19:27:13
3	Sn 189.927†	10.8	11.9	0.7412 µg/L	0.7412 ppb	19:27:34
3	Ti 334.940†	946.5	-12.3	-0.0137 µg/L	-0.0137 ppb	19:27:13
3	Tl 190.801†	-116.7	0.7	0.0848 µg/L	0.0848 ppb	19:27:34
3	U 409.014†	-171.2	99.8	5.8361 µg/L	5.8361 ppb	19:27:13
3	V 292.402†	405.6	-0.9	-0.0076 µg/L	-0.0076 ppb	19:27:13
3	Zn 213.857†	725.1	155.9	0.8753 µg/L	0.8753 ppb	19:27:34

Mean Data: 1202065853|962982|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1731642.4	100.78	%	0.430				0.43%
Sc RADIAL	146316.6	100	%	0.8				0.75%
Y 371.029	1033289.4	100.64	%	0.398				0.40%
Ag 328.068†	-153.4	-0.5671	µg/L	0.25527	-0.5671	ppb	0.25527	45.02%
Al 396.153Radial†	36.9	6.8606	µg/L	1.65325	6.8606	ppb	1.65325	24.10%
As 188.979†	-2.0	-0.6101	µg/L	1.48877	-0.6101	ppb	1.48877	244.04%
B 249.677†	14.4	0.2121	µg/L	1.66016	0.2121	ppb	1.66016	782.81%
Ba 233.527†	76.1	0.3067	µg/L	0.09811	0.3067	ppb	0.09811	31.99%
Be 313.107†	250.6	0.0679	µg/L	0.06037	0.0679	ppb	0.06037	88.88%
Ca 317.933Radial†	338.0	18.830	µg/L	0.3905	18.830	ppb	0.3905	2.07%
Cd 226.502†	18.4	0.1138	µg/L	0.09791	0.1138	ppb	0.09791	86.07%
Co 228.616†	13.3	0.1634	µg/L	0.24725	0.1634	ppb	0.24725	151.36%
Cr 267.716†	4.9	0.0397	µg/L	0.17984	0.0397	ppb	0.17984	453.52%
Cu 324.752†	-11.9	-0.0454	µg/L	0.50435	-0.0454	ppb	0.50435	>999.9%
Fe 238.204 Radial†	169.9	10.470	µg/L	0.6515	10.470	ppb	0.6515	6.22%
K 766.490 Radial†	104.8	38.352	µg/L	25.5640	38.352	ppb	25.5640	66.66%
Mg 279.077 IEC†	7.8	2.8953	µg/L	1.45682	2.8953	ppb	1.45682	50.32%
Mn 257.610†	286.5	0.3544	µg/L	0.01120	0.3544	ppb	0.01120	3.16%
Mo 202.031†	-13.2	-0.3883	µg/L	0.24372	-0.3883	ppb	0.24372	62.76%
Na 589.592 Radial†	354.9	48.453	µg/L	12.1484	48.453	ppb	12.1484	25.07%

Ni 231.604†	-15.0	-0.1724	µg/L	0.06648	-0.1724	ppb	0.06648	38.55%
P 214.914†	15.5	3.3162	µg/L	0.69448	3.3162	ppb	0.69448	20.94%
Pb 220.353†	11.4	0.6372	µg/L	0.43716	0.6372	ppb	0.43716	68.61%
S 181.975 Axial†	7.0	5.1954	µg/L	0.66829	5.1954	ppb	0.66829	12.86%
Sb 206.836†	-1.4	-0.1762	µg/L	1.56220	-0.1762	ppb	1.56220	886.74%
Se 196.026†	7.0	2.55	µg/L	1.946	2.55	ppb	1.946	76.41%
SiO2†	288.9	28.240	µg/L	8.8701	28.240	ppb	8.8701	31.41%
Si 251.611†	880.6	12.983	µg/L	0.6883	12.983	ppb	0.6883	5.30%
Sn 189.927†	10.7	0.6675	µg/L	0.08136	0.6675	ppb	0.08136	12.19%
Sr 421.552†	-88.1	-0.1833	µg/L	0.15356	-0.1833	ppb	0.15356	83.79%
Ti 334.940†	118.8	0.1116	µg/L	0.10883	0.1116	ppb	0.10883	97.48%
Tl 190.801†	0.3	0.0404	µg/L	0.10214	0.0404	ppb	0.10214	252.97%
U 409.014†	-17.4	-0.9997	µg/L	6.79128	-0.9997	ppb	6.79128	679.35%
V 292.402†	51.8	0.2471	µg/L	0.24271	0.2471	ppb	0.24271	98.24%
Zn 213.857†	160.3	0.9006	µg/L	0.02227	0.9006	ppb	0.02227	2.47%

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 19:27:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144745.8	144745.8	99.2	%			19:28:15
1	Al 396.153Radial†	26764.4	27046.5	4991.6	µg/L	4991.6	ppb	19:28:15
1	Ca 317.933Radial†	89467.8	89639.1	4993.2	µg/L	4993.2	ppb	19:28:15
1	Fe 238.204 Radial†	79722.2	80226.2	4944.7	µg/L	4944.7	ppb	19:28:15
1	K 766.490 Radial†	14982.5	13560.3	4960.6	µg/L	4960.6	ppb	19:28:15
1	Mg 279.077 IEC†	13759.9	13681.8	5105.4	µg/L	5105.4	ppb	19:28:15
1	Na 589.592 Radial†	72591.2	71894.2	9817.2	µg/L	9817.2	ppb	19:28:15
1	Sr 421.552†	234529.9	236583.6	491.80	µg/L	491.80	ppb	19:28:12
1	Sc 361.383	1725305.4	1725305.4	100.41	%			19:28:27
1	Y 371.029	1020728.0	1020728.0	99.419	%			19:28:27
1	Ag 328.068†	136300.1	131648.8	493.59	µg/L	493.59	ppb	19:28:27
1	As 188.979†	1633.4	1647.0	505.23	µg/L	505.23	ppb	19:28:47
1	B 249.677†	36849.8	33192.5	487.82	µg/L	487.82	ppb	19:28:27
1	Ba 233.527†	122221.5	121855.2	491.44	µg/L	491.44	ppb	19:28:27
1	Be 313.107†	1820741.4	1814326.2	494.14	µg/L	494.14	ppb	19:28:27
1	Cd 226.502†	78844.9	78639.2	490.90	µg/L	490.90	ppb	19:28:27
1	Co 228.616†	39847.3	39874.0	492.24	µg/L	492.24	ppb	19:28:27
1	Cr 267.716†	62843.9	62407.1	488.65	µg/L	488.65	ppb	19:28:27
1	Cu 324.752†	129009.2	125507.0	489.26	µg/L	489.26	ppb	19:28:27
1	Mn 257.610†	401352.4	399466.3	494.04	µg/L	494.04	ppb	19:28:27
1	Mo 202.031†	16754.7	16705.9	491.42	µg/L	491.42	ppb	19:28:47
1	Ni 231.604†	42787.5	42688.2	491.52	µg/L	491.52	ppb	19:28:27
1	P 214.914†	11575.7	11546.1	2461.1	µg/L	2461.1	ppb	19:28:47
1	Pb 220.353†	8987.5	8864.2	496.39	µg/L	496.39	ppb	19:28:47
1	S 181.975 Axial†	1425.3	1314.4	980.21	µg/L	980.21	ppb	19:28:47
1	Sb 206.836†	4236.7	4138.5	493.11	µg/L	493.11	ppb	19:28:47
1	Se 196.026†	1383.3	1362.3	495	µg/L	495	ppb	19:28:47
1	SiO2†	56481.4	54474.0	5303.3	µg/L	5303.3	ppb	19:28:27
1	Si 251.611†	170572.5	169035.2	2482.3	µg/L	2482.3	ppb	19:28:27
1	Sn 189.927†	7932.0	7900.5	494.17	µg/L	494.17	ppb	19:28:47
1	Ti 334.940†	529379.1	526251.8	491.03	µg/L	491.03	ppb	19:28:27
1	Tl 190.801†	3920.2	4020.8	501.40	µg/L	501.40	ppb	19:28:47
1	U 409.014†	7328.3	7568.1	472.22	µg/L	472.22	ppb	19:28:27
1	V 292.402†	100463.2	99646.7	492.61	µg/L	492.61	ppb	19:28:27
1	Zn 213.857†	88617.6	87689.1	488.73	µg/L	488.73	ppb	19:28:27
2	Sc RADIAL	143128.0	143128.0	98.1	%			19:28:19
2	Al 396.153Radial†	26390.4	26970.3	4977.5	µg/L	4977.5	ppb	19:28:19
2	Ca 317.933Radial†	88547.9	89720.6	4997.8	µg/L	4997.8	ppb	19:28:19
2	Fe 238.204 Radial†	78967.6	80365.3	4953.2	µg/L	4953.2	ppb	19:28:19
2	K 766.490 Radial†	14857.2	13603.3	4976.3	µg/L	4976.3	ppb	19:28:19
2	Mg 279.077 IEC†	13593.0	13668.4	5100.4	µg/L	5100.4	ppb	19:28:19
2	Na 589.592 Radial†	71676.1	71788.4	9802.7	µg/L	9802.7	ppb	19:28:19
2	Sr 421.552†	234348.1	239070.9	496.98	µg/L	496.98	ppb	19:28:17
2	Sc 361.383	1734628.6	1734628.6	100.96	%			19:28:51
2	Y 371.029	1025716.4	1025716.4	99.905	%			19:28:51
2	Ag 328.068†	136816.4	131430.6	492.82	µg/L	492.82	ppb	19:28:51
2	As 188.979†	1631.9	1636.9	502.17	µg/L	502.17	ppb	19:29:11
2	B 249.677†	37069.7	33213.1	488.12	µg/L	488.12	ppb	19:28:51
2	Ba 233.527†	122992.1	121964.3	491.88	µg/L	491.88	ppb	19:28:51
2	Be 313.107†	1838526.2	1822196.9	496.29	µg/L	496.29	ppb	19:28:51
2	Cd 226.502†	79892.7	79255.0	494.75	µg/L	494.75	ppb	19:28:51
2	Co 228.616†	40292.1	40101.3	495.05	µg/L	495.05	ppb	19:28:51
2	Cr 267.716†	63389.6	62611.4	490.23	µg/L	490.23	ppb	19:28:51
2	Cu 324.752†	129959.6	125757.9	490.25	µg/L	490.25	ppb	19:28:51
2	Mn 257.610†	404701.1	400635.0	495.49	µg/L	495.49	ppb	19:28:51
2	Mo 202.031†	16826.1	16687.0	490.86	µg/L	490.86	ppb	19:29:11
2	Ni 231.604†	43211.3	42879.0	493.72	µg/L	493.72	ppb	19:28:51
2	P 214.914†	11647.2	11554.9	2462.9	µg/L	2462.9	ppb	19:29:11
2	Pb 220.353†	9025.0	8853.2	495.76	µg/L	495.76	ppb	19:29:11

2	S 181.975 Axial†	1448.9	1330.1	991.87 µg/L	991.87 ppb	19:29:11
2	Sb 206.836†	4260.0	4138.9	493.13 µg/L	493.13 ppb	19:29:11
2	Se 196.026†	1384.1	1355.7	492 µg/L	492 ppb	19:29:11
2	SiO2†	56922.3	54608.4	5316.4 µg/L	5316.4 ppb	19:28:51
2	Si 251.611†	172250.5	169784.3	2493.3 µg/L	2493.3 ppb	19:28:51
2	Sn 189.927†	7982.8	7908.4	494.67 µg/L	494.67 ppb	19:29:11
2	Ti 334.940†	533116.5	527120.2	491.83 µg/L	491.83 ppb	19:28:51
2	Tl 190.801†	3941.1	4020.5	501.37 µg/L	501.37 ppb	19:29:11
2	U 409.014†	7625.6	7823.4	487.25 µg/L	487.25 ppb	19:28:51
2	V 292.402†	101346.4	99983.8	494.26 µg/L	494.26 ppb	19:28:51
2	Zn 213.857†	89423.9	88013.5	490.54 µg/L	490.54 ppb	19:28:51
3	Sc RADIAL	145496.7	145496.7	99.7 %		19:28:23
3	Al 396.153Radial†	26858.9	27002.0	4983.3 µg/L	4983.3 ppb	19:28:23
3	Ca 317.933Radial†	90156.6	89864.4	5005.8 µg/L	5005.8 ppb	19:28:23
3	Fe 238.204 Radial†	80315.1	80406.1	4955.7 µg/L	4955.7 ppb	19:28:23
3	K 766.490 Radial†	15083.0	13583.2	4968.9 µg/L	4968.9 ppb	19:28:23
3	Mg 279.077 IEC†	13878.0	13728.6	5122.9 µg/L	5122.9 ppb	19:28:23
3	Na 589.592 Radial†	72879.8	71805.9	9805.1 µg/L	9805.1 ppb	19:28:23
3	Sr 421.552†	234221.7	235054.0	488.62 µg/L	488.62 ppb	19:28:21
3	Sc 361.383	1725210.5	1725210.5	100.41 %		19:29:14
3	Y 371.029	1019973.4	1019973.4	99.346 %		19:29:14
3	Ag 328.068†	135997.1	131354.5	492.51 µg/L	492.51 ppb	19:29:14
3	As 188.979†	1616.1	1629.9	500.07 µg/L	500.07 ppb	19:29:34
3	B 249.677†	36719.7	33065.0	485.94 µg/L	485.94 ppb	19:29:14
3	Ba 233.527†	122082.7	121723.7	490.91 µg/L	490.91 ppb	19:29:14
3	Be 313.107†	1823924.9	1817596.6	495.03 µg/L	495.03 ppb	19:29:14
3	Cd 226.502†	79138.6	78936.0	492.75 µg/L	492.75 ppb	19:29:14
3	Co 228.616†	39917.6	39946.1	493.13 µg/L	493.13 ppb	19:29:14
3	Cr 267.716†	63023.3	62589.2	490.08 µg/L	490.08 ppb	19:29:14
3	Cu 324.752†	129255.3	125759.2	490.24 µg/L	490.24 ppb	19:29:14
3	Mn 257.610†	401870.3	400004.1	494.71 µg/L	494.71 ppb	19:29:14
3	Mo 202.031†	16781.3	16733.4	492.23 µg/L	492.23 ppb	19:29:34
3	Ni 231.604†	42953.4	42855.8	493.45 µg/L	493.45 ppb	19:29:14
3	P 214.914†	11608.1	11579.0	2468.1 µg/L	2468.1 ppb	19:29:34
3	Pb 220.353†	9009.0	8886.1	497.61 µg/L	497.61 ppb	19:29:34
3	S 181.975 Axial†	1440.9	1330.0	991.78 µg/L	991.78 ppb	19:29:34
3	Sb 206.836†	4230.2	4132.2	492.36 µg/L	492.36 ppb	19:29:34
3	Se 196.026†	1386.3	1365.4	496 µg/L	496 ppb	19:29:34
3	SiO2†	56734.1	54728.8	5328.1 µg/L	5328.1 ppb	19:29:14
3	Si 251.611†	171053.5	169523.6	2489.4 µg/L	2489.4 ppb	19:29:14
3	Sn 189.927†	7957.3	7926.1	495.77 µg/L	495.77 ppb	19:29:34
3	Ti 334.940†	529976.9	526876.1	491.61 µg/L	491.61 ppb	19:29:14
3	Tl 190.801†	3905.9	4006.8	499.68 µg/L	499.68 ppb	19:29:34
3	U 409.014†	7243.0	7483.6	467.35 µg/L	467.35 ppb	19:29:14
3	V 292.402†	100691.8	99879.9	493.76 µg/L	493.76 ppb	19:29:14
3	Zn 213.857†	88689.8	87765.9	489.15 µg/L	489.15 ppb	19:29:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1728381.5	100.59	%	0.315				0.31%
Sc RADIAL	144456.8	99.0	%	0.83				0.84%
Y 371.029	1022139.3	99.557	%	0.3040				0.31%
Ag 328.068†	131478.0	492.97	µg/L	0.557	492.97	ppb	0.557	0.11%
QC value within limits for Ag 328.068 Recovery = 98.59%								
Al 396.153Radial†	27006.3	4984.1	µg/L	7.09	4984.1	ppb	7.09	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.68%								
As 188.979†	1637.9	502.49	µg/L	2.596	502.49	ppb	2.596	0.52%
QC value within limits for As 188.979 Recovery = 100.50%								
B 249.677†	33156.9	487.29	µg/L	1.181	487.29	ppb	1.181	0.24%
QC value within limits for B 249.677 Recovery = 97.46%								
Ba 233.527†	121847.7	491.41	µg/L	0.486	491.41	ppb	0.486	0.10%
QC value within limits for Ba 233.527 Recovery = 98.28%								
Be 313.107†	1818039.9	495.15	µg/L	1.079	495.15	ppb	1.079	0.22%
QC value within limits for Be 313.107 Recovery = 99.03%								
Ca 317.933Radial†	89741.4	4998.9	µg/L	6.35	4998.9	ppb	6.35	0.13%
QC value within limits for Ca 317.933Radial Recovery = 99.98%								
Cd 226.502†	78943.4	492.80	µg/L	1.924	492.80	ppb	1.924	0.39%
QC value within limits for Cd 226.502 Recovery = 98.56%								
Co 228.616†	39973.8	493.47	µg/L	1.433	493.47	ppb	1.433	0.29%

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   QC value within limits for Co 228.616  Recovery = 98.69%
Cr 267.716†            62535.9      489.65 µg/L         0.875      489.65 ppb          0.875   0.18%
   QC value within limits for Cr 267.716  Recovery = 97.93%
Cu 324.752†           125674.7      489.91 µg/L         0.568      489.91 ppb          0.568   0.12%
   QC value within limits for Cu 324.752  Recovery = 97.98%
Fe 238.204 Radial†     80332.5      4951.2 µg/L          5.81      4951.2 ppb           5.81   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.02%
K 766.490 Radial†      13582.3      4968.6 µg/L          7.88      4968.6 ppb           7.88   0.16%
   QC value within limits for K 766.490 Radial  Recovery = 99.37%
Mg 279.077 IEC†        13692.9      5109.5 µg/L         11.80      5109.5 ppb          11.80   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.19%
Mn 257.610†           400035.1      494.75 µg/L         0.724      494.75 ppb          0.724   0.15%
   QC value within limits for Mn 257.610  Recovery = 98.95%
Mo 202.031†            16708.8      491.50 µg/L         0.686      491.50 ppb          0.686   0.14%
   QC value within limits for Mo 202.031  Recovery = 98.30%
Na 589.592 Radial†     71829.5      9808.4 µg/L          7.75      9808.4 ppb           7.75   0.08%
   QC value within limits for Na 589.592 Radial  Recovery = 98.08%
Ni 231.604†            42807.7      492.90 µg/L         1.199      492.90 ppb          1.199   0.24%
   QC value within limits for Ni 231.604  Recovery = 98.58%
P 214.914†             11560.0      2464.0 µg/L          3.63      2464.0 ppb           3.63   0.15%
   QC value within limits for P 214.914  Recovery = 98.56%
Pb 220.353†             8867.8      496.59 µg/L         0.942      496.59 ppb          0.942   0.19%
   QC value within limits for Pb 220.353  Recovery = 99.32%
S 181.975 Axial†        1324.9      987.95 µg/L         6.702      987.95 ppb          6.702   0.68%
   QC value within limits for S 181.975 Axial  Recovery = 98.80%
Sb 206.836†             4136.5      492.87 µg/L         0.436      492.87 ppb          0.436   0.09%
   QC value within limits for Sb 206.836  Recovery = 98.57%
Se 196.026†             1361.2         494 µg/L           1.8         494 ppb            1.8   0.36%
   QC value within limits for Se 196.026  Recovery = 98.85%
SiO2†                  54603.7      5315.9 µg/L         12.44      5315.9 ppb          12.44   0.23%
   QC value within limits for SiO2  Recovery = 99.41%
Si 251.611†           169447.7      2488.3 µg/L          5.61      2488.3 ppb           5.61   0.23%
   QC value within limits for Si 251.611  Recovery = 99.53%
Sn 189.927†             7911.7      494.87 µg/L         0.819      494.87 ppb          0.819   0.17%
   QC value within limits for Sn 189.927  Recovery = 98.97%
Sr 421.552†           236902.8      492.47 µg/L         4.215      492.47 ppb          4.215   0.86%
   QC value within limits for Sr 421.552  Recovery = 98.49%
Ti 334.940†           526749.4      491.49 µg/L         0.416      491.49 ppb          0.416   0.08%
   QC value within limits for Ti 334.940  Recovery = 98.30%
Tl 190.801†             4016.0      500.82 µg/L         0.981      500.82 ppb          0.981   0.20%
   QC value within limits for Tl 190.801  Recovery = 100.16%
U 409.014†              7625.0      475.61 µg/L        10.374      475.61 ppb         10.374   2.18%
   QC value within limits for U 409.014  Recovery = 95.12%
V 292.402†             99836.8      493.54 µg/L         0.847      493.54 ppb          0.847   0.17%
   QC value within limits for V 292.402  Recovery = 98.71%
Zn 213.857†            87822.9      489.47 µg/L         0.946      489.47 ppb          0.946   0.19%
   QC value within limits for Zn 213.857  Recovery = 97.89%
All analyte(s) passed QC.
```

Sequence No.: 10 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/31/2010 19:29:42**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145475.6	145475.6	99.7	%			19:30:11
1	Al 396.153Radial†	-75.1	-12.2	-2.2232	µg/L	-2.2232	ppb	19:30:31
1	Ca 317.933Radial†	587.7	29.0	1.6154	µg/L	1.6154	ppb	19:30:31
1	Fe 238.204 Radial†	164.7	17.2	1.0571	µg/L	1.0571	ppb	19:30:31
1	K 766.490 Radial†	1612.2	72.5	26.524	µg/L	26.524	ppb	19:30:11
1	Mg 279.077 IEC†	187.3	-2.8	-1.0689	µg/L	-1.0689	ppb	19:30:31
1	Na 589.592 Radial†	1489.8	203.6	27.794	µg/L	27.794	ppb	19:30:11
1	Sr 421.552†	-307.3	-173.0	-0.3597	µg/L	-0.3597	ppb	19:30:11
1	Sc 361.383	1698492.9	1698492.9	98.852	%			19:31:33
1	Y 371.029	1016683.6	1016683.6	99.025	%			19:31:33
1	Ag 328.068†	3801.1	-246.1	-0.8975	µg/L	-0.8975	ppb	19:31:35
1	As 188.979†	-17.7	2.5	0.7531	µg/L	0.7531	ppb	19:31:55
1	B 249.677†	3427.3	-38.8	-0.5719	µg/L	-0.5719	ppb	19:31:35
1	Ba 233.527†	-135.5	-1.2	-0.0047	µg/L	-0.0047	ppb	19:31:55
1	Be 313.107†	-787.7	267.8	0.0745	µg/L	0.0745	ppb	19:31:35
1	Cd 226.502†	-126.1	-9.3	-0.0586	µg/L	-0.0586	ppb	19:31:55
1	Co 228.616†	-187.3	0.8	0.0098	µg/L	0.0098	ppb	19:31:55
1	Cr 267.716†	185.7	9.3	0.0694	µg/L	0.0694	ppb	19:31:55
1	Cu 324.752†	2920.3	-18.0	-0.0655	µg/L	-0.0655	ppb	19:31:35
1	Mn 257.610†	272.9	38.8	0.0481	µg/L	0.0481	ppb	19:31:55
1	Mo 202.031†	-42.5	-22.9	-0.6735	µg/L	-0.6735	ppb	19:31:55
1	Ni 231.604†	-89.8	-14.3	-0.1646	µg/L	-0.1646	ppb	19:31:55
1	P 214.914†	-7.3	10.6	2.2741	µg/L	2.2741	ppb	19:31:55
1	Pb 220.353†	105.5	20.3	1.1296	µg/L	1.1296	ppb	19:31:55
1	S 181.975 Axial†	107.5	3.7	2.7631	µg/L	2.7631	ppb	19:31:55
1	Sb 206.836†	82.4	2.5	0.2868	µg/L	0.2868	ppb	19:31:55
1	Se 196.026†	15.9	0.8	0.284	µg/L	0.284	ppb	19:31:55
1	SiO2†	1750.8	-4.2	-0.4021	µg/L	-0.4021	ppb	19:31:55
1	Si 251.611†	831.1	4.2	0.0667	µg/L	0.0667	ppb	19:31:35
1	Sn 189.927†	9.7	11.0	0.6833	µg/L	0.6833	ppb	19:31:55
1	Ti 334.940†	1069.9	129.8	0.1193	µg/L	0.1193	ppb	19:31:35
1	Tl 190.801†	-107.7	7.8	0.9584	µg/L	0.9584	ppb	19:31:55
1	U 409.014†	-179.0	88.9	5.2323	µg/L	5.2323	ppb	19:31:35
1	V 292.402†	528.0	130.3	0.6323	µg/L	0.6323	ppb	19:31:35
1	Zn 213.857†	590.7	33.1	0.1869	µg/L	0.1869	ppb	19:31:55
2	Sc RADIAL	144319.0	144319.0	98.9	%			19:30:33
2	Al 396.153Radial†	-78.7	-16.4	-3.0556	µg/L	-3.0556	ppb	19:30:53
2	Ca 317.933Radial†	611.2	57.5	3.2020	µg/L	3.2020	ppb	19:30:53
2	Fe 238.204 Radial†	171.3	25.1	1.5453	µg/L	1.5453	ppb	19:30:53
2	K 766.490 Radial†	1571.9	44.7	16.347	µg/L	16.347	ppb	19:30:33
2	Mg 279.077 IEC†	180.9	-7.8	-2.8873	µg/L	-2.8873	ppb	19:30:53
2	Na 589.592 Radial†	1390.8	115.6	15.771	µg/L	15.771	ppb	19:30:33
2	Sr 421.552†	-219.7	-86.8	-0.1805	µg/L	-0.1805	ppb	19:30:33
2	Sc 361.383	1734133.7	1734133.7	100.93	%			19:31:58
2	Y 371.029	1037702.6	1037702.6	101.07	%			19:31:58
2	Ag 328.068†	3823.7	-302.8	-1.1204	µg/L	-1.1204	ppb	19:32:00
2	As 188.979†	-14.9	5.6	1.6918	µg/L	1.6918	ppb	19:32:20
2	B 249.677†	3536.1	-2.3	-0.0340	µg/L	-0.0340	ppb	19:32:00
2	Ba 233.527†	-136.5	0.6	0.0024	µg/L	0.0024	ppb	19:32:20
2	Be 313.107†	-795.6	276.4	0.0756	µg/L	0.0756	ppb	19:32:00
2	Cd 226.502†	-86.6	32.4	0.2024	µg/L	0.2024	ppb	19:32:20
2	Co 228.616†	-173.2	18.7	0.2305	µg/L	0.2305	ppb	19:32:20
2	Cr 267.716†	178.6	-1.6	-0.0131	µg/L	-0.0131	ppb	19:32:20
2	Cu 324.752†	2720.4	-276.8	-1.0746	µg/L	-1.0746	ppb	19:32:00
2	Mn 257.610†	233.8	-5.6	-0.0068	µg/L	-0.0068	ppb	19:32:20
2	Mo 202.031†	-11.0	9.2	0.2711	µg/L	0.2711	ppb	19:32:20
2	Ni 231.604†	-67.5	9.6	0.1106	µg/L	0.1106	ppb	19:32:20
2	P 214.914†	-23.6	-5.5	-1.1584	µg/L	-1.1584	ppb	19:32:20
2	Pb 220.353†	95.4	8.1	0.4532	µg/L	0.4532	ppb	19:32:20

2	S 181.975 Axial†	102.0	-4.0	-2.9595 µg/L	-2.9595 ppb	19:32:20
2	Sb 206.836†	80.5	-1.1	-0.1231 µg/L	-0.1231 ppb	19:32:20
2	Se 196.026†	11.1	-4.2	-1.53 µg/L	-1.53 ppb	19:32:20
2	SiO2†	1780.0	-11.7	-1.1573 µg/L	-1.1573 ppb	19:32:20
2	Si 251.611†	833.5	-10.8	-0.1648 µg/L	-0.1648 ppb	19:32:00
2	Sn 189.927†	4.9	6.0	0.3748 µg/L	0.3748 ppb	19:32:20
2	Ti 334.940†	959.8	-1.5	-0.0015 µg/L	-0.0015 ppb	19:32:00
2	Tl 190.801†	-121.4	-3.6	-0.4439 µg/L	-0.4439 ppb	19:32:20
2	U 409.014†	-253.2	19.1	1.1109 µg/L	1.1109 ppb	19:32:00
2	V 292.402†	396.6	-10.8	-0.0495 µg/L	-0.0495 ppb	19:32:00
2	Zn 213.857†	608.7	38.7	0.2171 µg/L	0.2171 ppb	19:32:20
3	Sc RADIAL	143412.5	143412.5	98.3 %		19:30:55
3	Al 396.153Radial†	-61.2	0.9	0.1676 µg/L	0.1676 ppb	19:31:15
3	Ca 317.933Radial†	592.5	42.3	2.3561 µg/L	2.3561 ppb	19:31:15
3	Fe 238.204 Radial†	168.4	23.2	1.4324 µg/L	1.4324 ppb	19:31:15
3	K 766.490 Radial†	1616.9	100.5	36.805 µg/L	36.805 ppb	19:30:55
3	Mg 279.077 IEC†	171.0	-16.7	-6.2040 µg/L	-6.2040 ppb	19:31:15
3	Na 589.592 Radial†	1303.8	35.9	4.8761 µg/L	4.8761 ppb	19:30:55
3	Sr 421.552†	-236.1	-105.0	-0.2183 µg/L	-0.2183 ppb	19:30:55
3	Sc 361.383	1715805.0	1715805.0	99.860 %		19:32:22
3	Y 371.029	1026242.1	1026242.1	99.956 %		19:32:22
3	Ag 328.068†	4010.0	-75.8	-0.2851 µg/L	-0.2851 ppb	19:32:24
3	As 188.979†	-13.5	6.8	2.0688 µg/L	2.0688 ppb	19:32:44
3	B 249.677†	3513.5	12.5	0.1850 µg/L	0.1850 ppb	19:32:24
3	Ba 233.527†	-128.9	6.8	0.0274 µg/L	0.0274 ppb	19:32:44
3	Be 313.107†	-697.9	365.9	0.0986 µg/L	0.0986 ppb	19:32:24
3	Cd 226.502†	-106.1	12.0	0.0747 µg/L	0.0747 ppb	19:32:44
3	Co 228.616†	-189.4	0.6	0.0078 µg/L	0.0078 ppb	19:32:44
3	Cr 267.716†	196.4	18.1	0.1446 µg/L	0.1446 ppb	19:32:44
3	Cu 324.752†	2902.2	-65.9	-0.2591 µg/L	-0.2591 ppb	19:32:24
3	Mn 257.610†	273.8	36.9	0.0459 µg/L	0.0459 ppb	19:32:44
3	Mo 202.031†	-16.2	3.9	0.1137 µg/L	0.1137 ppb	19:32:44
3	Ni 231.604†	-88.7	-12.3	-0.1412 µg/L	-0.1412 ppb	19:32:44
3	P 214.914†	-24.0	-6.1	-1.2988 µg/L	-1.2988 ppb	19:32:44
3	Pb 220.353†	103.9	17.7	0.9897 µg/L	0.9897 ppb	19:32:44
3	S 181.975 Axial†	107.4	2.5	1.8491 µg/L	1.8491 ppb	19:32:44
3	Sb 206.836†	83.4	2.7	0.3244 µg/L	0.3244 ppb	19:32:44
3	Se 196.026†	19.7	4.5	1.61 µg/L	1.61 ppb	19:32:44
3	SiO2†	1808.2	35.4	3.4538 µg/L	3.4538 ppb	19:32:44
3	Si 251.611†	977.1	141.9	2.0894 µg/L	2.0894 ppb	19:32:24
3	Sn 189.927†	2.2	3.3	0.2061 µg/L	0.2061 ppb	19:32:44
3	Ti 334.940†	999.8	48.7	0.0474 µg/L	0.0474 ppb	19:32:24
3	Tl 190.801†	-111.5	5.0	0.6198 µg/L	0.6198 ppb	19:32:44
3	U 409.014†	-328.9	-59.4	-3.4761 µg/L	-3.4761 ppb	19:32:24
3	V 292.402†	400.2	-3.0	-0.0153 µg/L	-0.0153 ppb	19:32:24
3	Zn 213.857†	599.5	35.9	0.2028 µg/L	0.2028 ppb	19:32:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716143.9	99.879	%	1.0373				1.04%
Sc RADIAL	144402.4	99.0	%	0.71				0.72%
Y 371.029	1026876.1	100.02	%	1.025				1.02%
Ag 328.068†	-208.2	-0.7677	µg/L	0.43252	-0.7677	ppb	0.43252	56.34%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.2	-1.7037	µg/L	1.67317	-1.7037	ppb	1.67317	98.21%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.0	1.5046	µg/L	0.67750	1.5046	ppb	0.67750	45.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-9.5	-0.1403	µg/L	0.38951	-0.1403	ppb	0.38951	277.57%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0084	µg/L	0.01681	0.0084	ppb	0.01681	200.54%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	303.4	0.0829	µg/L	0.01359	0.0829	ppb	0.01359	16.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	42.9	2.3912	µg/L	0.79388	2.3912	ppb	0.79388	33.20%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.7	0.0728	µg/L	0.13050	0.0728	ppb	0.13050	179.15%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.7	0.0827	µg/L	0.12800	0.0827	ppb	0.12800	154.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.6      0.0669 µg/L       0.07889      0.0669 ppb        0.07889 117.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -120.3     -0.4664 µg/L       0.53553     -0.4664 ppb        0.53553 114.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         21.8      1.3449 µg/L       0.25554      1.3449 ppb        0.25554  19.00%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          72.5      26.559 µg/L       10.2293      26.559 ppb        10.2293  38.52%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -9.1     -3.3867 µg/L       2.60377     -3.3867 ppb        2.60377  76.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                23.4      0.0291 µg/L       0.03107      0.0291 ppb        0.03107 106.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.3     -0.0962 µg/L       0.50606     -0.0962 ppb        0.50606 525.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        118.4      16.147 µg/L       11.4636      16.147 ppb        11.4636  70.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.7     -0.0651 µg/L       0.15260     -0.0651 ppb        0.15260 234.56%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.3     -0.0611 µg/L       2.02349     -0.0611 ppb        2.02349 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.4      0.8575 µg/L       0.35710      0.8575 ppb        0.35710  41.64%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.7      0.5509 µg/L       3.07426      0.5509 ppb        3.07426 558.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.4      0.1627 µg/L       0.24819      0.1627 ppb        0.24819 152.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.3       0.122 µg/L        1.5761       0.122 ppb         1.5761 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       6.5      0.6315 µg/L       2.47323      0.6315 ppb        2.47323 391.67%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                45.1      0.6638 µg/L       1.24006      0.6638 ppb        1.24006 186.82%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.8      0.4214 µg/L       0.24200      0.4214 ppb        0.24200  57.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -121.6     -0.2528 µg/L       0.09445     -0.2528 ppb        0.09445  37.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                59.0      0.0550 µg/L       0.06076      0.0550 ppb        0.06076 110.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.1      0.3781 µg/L       0.73174      0.3781 ppb        0.73174 193.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 16.2      0.9557 µg/L       4.35630      0.9557 ppb        4.35630 455.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 38.8      0.1892 µg/L       0.38415      0.1892 ppb        0.38415 203.07%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                35.9      0.2023 µg/L       0.01507      0.2023 ppb        0.01507   7.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: 248839001|962982|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 120
Date Collected: 3/31/2010 19:35:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248839001|962982|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	147861.7	147861.7	101	%			19:36:22
1	Al 396.153Radial†	-244.6	-178.2	-33.027	µg/L	-33.027	ppb	19:36:22
1	Ca 317.933Radial†	1032.3	458.3	25.527	µg/L	25.527	ppb	19:36:43
1	Fe 238.204 Radial†	424.3	270.6	16.680	µg/L	16.680	ppb	19:36:43
1	K 766.490 Radial†	1665.5	99.0	36.225	µg/L	36.225	ppb	19:36:22
1	Mg 279.077 IEC†	220.5	26.9	10.003	µg/L	10.003	ppb	19:36:43
1	Na 589.592 Radial†	2223.0	903.2	123.35	µg/L	123.35	ppb	19:36:22
1	Sr 421.552†	-130.0	7.0	0.0144	µg/L	0.0144	ppb	19:36:22
1	Sc 361.383	1776802.2	1776802.2	103.41	%			19:37:30
1	Y 371.029	1057321.5	1057321.5	102.98	%			19:37:30
1	Ag 328.068†	3659.1	-552.9	-2.0550	µg/L	-2.0550	ppb	19:37:32
1	As 188.979†	-15.2	5.7	1.7280	µg/L	1.7280	ppb	19:37:52
1	B 249.677†	3531.6	-90.8	-1.3389	µg/L	-1.3389	ppb	19:37:32
1	Ba 233.527†	-7.7	128.4	0.5175	µg/L	0.5175	ppb	19:37:52
1	Be 313.107†	-1263.2	-156.8	-0.0459	µg/L	-0.0459	ppb	19:37:32
1	Cd 226.502†	-100.4	21.1	0.1300	µg/L	0.1300	ppb	19:37:52
1	Co 228.616†	-194.1	2.6	0.0317	µg/L	0.0317	ppb	19:37:52
1	Cr 267.716†	196.4	11.3	0.0976	µg/L	0.0976	ppb	19:37:52
1	Cu 324.752†	3188.6	111.2	0.4262	µg/L	0.4262	ppb	19:37:32
1	Mn 257.610†	931.6	663.6	0.8207	µg/L	0.8207	ppb	19:37:52
1	Mo 202.031†	-26.8	-5.8	-0.1702	µg/L	-0.1702	ppb	19:37:52
1	Ni 231.604†	-71.8	7.1	0.0813	µg/L	0.0813	ppb	19:37:52
1	P 214.914†	18.7	36.0	7.6786	µg/L	7.6786	ppb	19:37:52
1	Pb 220.353†	90.5	1.1	0.0661	µg/L	0.0661	ppb	19:37:52
1	S 181.975 Axial†	109.6	1.0	0.7075	µg/L	0.7075	ppb	19:37:52
1	Sb 206.836†	77.8	-5.6	-0.6669	µg/L	-0.6669	ppb	19:37:52
1	Se 196.026†	11.4	-4.2	-1.53	µg/L	-1.53	ppb	19:37:52
1	SiO2†	2276.7	426.3	41.667	µg/L	41.667	ppb	19:37:32
1	Si 251.611†	2541.4	1621.1	23.900	µg/L	23.900	ppb	19:37:32
1	Sn 189.927†	2.4	3.5	0.2179	µg/L	0.2179	ppb	19:37:52
1	Ti 334.940†	1299.7	304.3	0.2884	µg/L	0.2884	ppb	19:37:32
1	Tl 190.801†	-116.8	3.7	0.4680	µg/L	0.4680	ppb	19:37:52
1	U 409.014†	-465.6	-180.4	-10.512	µg/L	-10.512	ppb	19:37:32
1	V 292.402†	531.3	109.9	0.5258	µg/L	0.5258	ppb	19:37:32
1	Zn 213.857†	749.8	160.6	0.8991	µg/L	0.8991	ppb	19:37:52
2	Sc RADIAL	146746.7	146746.7	101	%			19:36:45
2	Al 396.153Radial†	-181.0	-116.8	-21.637	µg/L	-21.637	ppb	19:36:45
2	Ca 317.933Radial†	1045.0	478.6	26.662	µg/L	26.662	ppb	19:37:05
2	Fe 238.204 Radial†	443.1	292.5	18.028	µg/L	18.028	ppb	19:37:05
2	K 766.490 Radial†	1553.1	-0.3	-0.1475	µg/L	-0.1475	ppb	19:36:45
2	Mg 279.077 IEC†	205.7	13.9	5.1407	µg/L	5.1407	ppb	19:37:05
2	Na 589.592 Radial†	2144.7	841.9	115.02	µg/L	115.02	ppb	19:36:45
2	Sr 421.552†	-160.9	-24.8	-0.0517	µg/L	-0.0517	ppb	19:36:45
2	Sc 361.383	1739832.7	1739832.7	101.26	%			19:37:55
2	Y 371.029	1036727.2	1036727.2	100.98	%			19:37:55
2	Ag 328.068†	3953.4	-187.1	-0.7070	µg/L	-0.7070	ppb	19:37:57
2	As 188.979†	-17.2	3.4	1.0274	µg/L	1.0274	ppb	19:38:17
2	B 249.677†	3547.2	-2.7	-0.0402	µg/L	-0.0402	ppb	19:37:57
2	Ba 233.527†	-13.3	122.7	0.4936	µg/L	0.4936	ppb	19:38:17
2	Be 313.107†	-1023.3	54.1	0.0137	µg/L	0.0137	ppb	19:37:57
2	Cd 226.502†	-96.4	23.0	0.1416	µg/L	0.1416	ppb	19:38:17
2	Co 228.616†	-200.6	-7.8	-0.0964	µg/L	-0.0964	ppb	19:38:17
2	Cr 267.716†	213.3	32.1	0.2539	µg/L	0.2539	ppb	19:38:17
2	Cu 324.752†	3160.8	149.4	0.5803	µg/L	0.5803	ppb	19:37:57
2	Mn 257.610†	906.1	657.5	0.8133	µg/L	0.8133	ppb	19:38:17
2	Mo 202.031†	-29.8	-9.4	-0.2748	µg/L	-0.2748	ppb	19:38:17
2	Ni 231.604†	-66.3	11.1	0.1276	µg/L	0.1276	ppb	19:38:17
2	P 214.914†	9.0	26.8	5.7201	µg/L	5.7201	ppb	19:38:17
2	Pb 220.353†	122.2	34.3	1.9128	µg/L	1.9128	ppb	19:38:17

2	S 181.975 Axial†	108.5	2.1	1.5500 µg/L	1.5500 ppb		19:38:17
2	Sb 206.836†	87.5	5.6	0.6525 µg/L	0.6525 ppb		19:38:17
2	Se 196.026†	28.8	13.2	4.76 µg/L	4.76 ppb		19:38:17
2	SiO2†	2241.5	438.2	42.839 µg/L	42.839 ppb		19:37:57
2	Si 251.611†	2749.1	1878.4	27.695 µg/L	27.695 ppb		19:37:57
2	Sn 189.927†	2.5	3.6	0.2269 µg/L	0.2269 ppb		19:38:17
2	Ti 334.940†	1229.1	261.3	0.2457 µg/L	0.2457 ppb		19:37:57
2	Tl 190.801†	-137.1	-18.7	-2.3002 µg/L	-2.3002 ppb		19:38:17
2	U 409.014†	-331.6	-57.6	-3.4100 µg/L	-3.4100 ppb		19:37:57
2	V 292.402†	249.7	-157.2	-0.7731 µg/L	-0.7731 ppb		19:37:57
2	Zn 213.857†	712.1	138.8	0.7763 µg/L	0.7763 ppb		19:38:17
3	Sc RADIAL	146099.6	146099.6	100 %			19:37:07
3	Al 396.153Radial†	-240.9	-177.4	-32.866 µg/L	-32.866 ppb		19:37:07
3	Ca 317.933Radial†	1023.9	462.1	25.741 µg/L	25.741 ppb		19:37:27
3	Fe 238.204 Radial†	437.0	288.4	17.774 µg/L	17.774 ppb		19:37:27
3	K 766.490 Radial†	1557.5	11.0	3.9961 µg/L	3.9961 ppb		19:37:07
3	Mg 279.077 IEC†	228.3	37.3	13.867 µg/L	13.867 ppb		19:37:27
3	Na 589.592 Radial†	2232.3	938.9	128.26 µg/L	128.26 ppb		19:37:07
3	Sr 421.552†	-168.7	-33.3	-0.0694 µg/L	-0.0694 ppb		19:37:07
3	Sc 361.383	1745460.6	1745460.6	101.59 %			19:38:19
3	Y 371.029	1040722.0	1040722.0	101.37 %			19:38:19
3	Ag 328.068†	3867.7	-284.0	-1.0528 µg/L	-1.0528 ppb		19:38:21
3	As 188.979†	-15.5	5.1	1.5561 µg/L	1.5561 ppb		19:38:41
3	B 249.677†	3503.9	-56.7	-0.8370 µg/L	-0.8370 ppb		19:38:21
3	Ba 233.527†	-21.2	114.9	0.4629 µg/L	0.4629 ppb		19:38:41
3	Be 313.107†	-1086.2	-4.5	-0.0018 µg/L	-0.0018 ppb		19:38:21
3	Cd 226.502†	-115.4	4.6	0.0272 µg/L	0.0272 ppb		19:38:41
3	Co 228.616†	-174.3	18.7	0.2305 µg/L	0.2305 ppb		19:38:41
3	Cr 267.716†	242.7	60.4	0.4744 µg/L	0.4744 ppb		19:38:41
3	Cu 324.752†	3012.1	-7.2	-0.0263 µg/L	-0.0263 ppb		19:38:21
3	Mn 257.610†	916.9	665.3	0.8226 µg/L	0.8226 ppb		19:38:41
3	Mo 202.031†	-40.5	-19.7	-0.5794 µg/L	-0.5794 ppb		19:38:41
3	Ni 231.604†	-66.4	11.2	0.1285 µg/L	0.1285 ppb		19:38:41
3	P 214.914†	-15.0	3.2	0.6572 µg/L	0.6572 ppb		19:38:41
3	Pb 220.353†	81.2	-6.4	-0.3617 µg/L	-0.3617 ppb		19:38:41
3	S 181.975 Axial†	111.9	5.1	3.7510 µg/L	3.7510 ppb		19:38:41
3	Sb 206.836†	84.7	2.5	0.2831 µg/L	0.2831 ppb		19:38:41
3	Se 196.026†	4.0	-11.3	-4.09 µg/L	-4.09 ppb		19:38:41
3	SiO2†	2358.3	546.1	53.405 µg/L	53.405 ppb		19:38:21
3	Si 251.611†	2650.5	1772.6	26.144 µg/L	26.144 ppb		19:38:21
3	Sn 189.927†	-9.0	-7.7	-0.4818 µg/L	-0.4818 ppb		19:38:41
3	Ti 334.940†	1312.4	339.3	0.3171 µg/L	0.3171 ppb		19:38:21
3	Tl 190.801†	-133.3	-14.5	-1.7765 µg/L	-1.7765 ppb		19:38:41
3	U 409.014†	-305.5	-30.8	-1.7900 µg/L	-1.7900 ppb		19:38:21
3	V 292.402†	446.6	35.8	0.1673 µg/L	0.1673 ppb		19:38:21
3	Zn 213.857†	730.4	154.6	0.8652 µg/L	0.8652 ppb		19:38:41

Mean Data: 248839001|962982|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1754031.8	102.08	%	1.159				1.14%
Sc RADIAL	146902.7	101	%	0.6				0.61%
Y 371.029	1044923.6	101.78	%	1.064				1.05%
Ag 328.068†	-341.3	-1.2716	µg/L	0.70011	-1.2716	ppb	0.70011	55.06%
Al 396.153Radial†	-157.5	-29.177	µg/L	6.5303	-29.177	ppb	6.5303	22.38%
As 188.979†	4.7	1.4372	µg/L	0.36512	1.4372	ppb	0.36512	25.41%
B 249.677†	-50.1	-0.7387	µg/L	0.65493	-0.7387	ppb	0.65493	88.66%
Ba 233.527†	122.0	0.4913	µg/L	0.02741	0.4913	ppb	0.02741	5.58%
Be 313.107†	-35.7	-0.0113	µg/L	0.03093	-0.0113	ppb	0.03093	273.30%
Ca 317.933Radial†	466.3	25.977	µg/L	0.6029	25.977	ppb	0.6029	2.32%
Cd 226.502†	16.2	0.0996	µg/L	0.06293	0.0996	ppb	0.06293	63.20%
Co 228.616†	4.5	0.0552	µg/L	0.16474	0.0552	ppb	0.16474	298.18%
Cr 267.716†	34.6	0.2753	µg/L	0.18936	0.2753	ppb	0.18936	68.78%
Cu 324.752†	84.5	0.3267	µg/L	0.31528	0.3267	ppb	0.31528	96.49%
Fe 238.204 Radial†	283.8	17.494	µg/L	0.7161	17.494	ppb	0.7161	4.09%
K 766.490 Radial†	36.5	13.358	µg/L	19.9115	13.358	ppb	19.9115	149.06%
Mg 279.077 IEC†	26.0	9.6700	µg/L	4.37245	9.6700	ppb	4.37245	45.22%
Mn 257.610†	662.2	0.8189	µg/L	0.00491	0.8189	ppb	0.00491	0.60%
Mo 202.031†	-11.6	-0.3415	µg/L	0.21258	-0.3415	ppb	0.21258	62.26%
Na 589.592 Radial†	894.7	122.21	µg/L	6.693	122.21	ppb	6.693	5.48%

Ni 231.604†	9.8	0.1125 µg/L	0.02700	0.1125 ppb	0.02700	24.00%
P 214.914†	22.0	4.6853 µg/L	3.62330	4.6853 ppb	3.62330	77.33%
Pb 220.353†	9.6	0.5391 µg/L	1.20878	0.5391 ppb	1.20878	224.23%
S 181.975 Axial†	2.7	2.0029 µg/L	1.57145	2.0029 ppb	1.57145	78.46%
Sb 206.836†	0.8	0.0896 µg/L	0.68068	0.0896 ppb	0.68068	759.97%
Se 196.026†	-0.8	-0.285 µg/L	4.5577	-0.285 ppb	4.5577	>999.9%
SiO2†	470.2	45.970 µg/L	6.4651	45.970 ppb	6.4651	14.06%
Si 251.611†	1757.4	25.913 µg/L	1.9081	25.913 ppb	1.9081	7.36%
Sn 189.927†	-0.2	-0.0123 µg/L	0.40658	-0.0123 ppb	0.40658	>999.9%
Sr 421.552†	-17.0	-0.0356 µg/L	0.04414	-0.0356 ppb	0.04414	124.14%
Ti 334.940†	301.6	0.2838 µg/L	0.03596	0.2838 ppb	0.03596	12.67%
Tl 190.801†	-9.8	-1.2029 µg/L	1.47054	-1.2029 ppb	1.47054	122.25%
U 409.014†	-89.6	-5.2375 µg/L	4.63947	-5.2375 ppb	4.63947	88.58%
V 292.402†	-3.8	-0.0267 µg/L	0.67083	-0.0267 ppb	0.67083	>999.9%
Zn 213.857†	151.4	0.8469 µg/L	0.06345	0.8469 ppb	0.06345	7.49%

Sequence No.: 13
Sample ID: 248839002|962982|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 121
Date Collected: 3/31/2010 19:38:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248839002|962982|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140025.5	140025.5	96.0	%			19:39:20
1	Al 396.153Radial†	-61.8	-1.2	-0.1983	µg/L	-0.1983	ppb	19:39:40
1	Ca 317.933Radial†	679.6	147.6	8.2238	µg/L	8.2238	ppb	19:39:40
1	Fe 238.204 Radial†	230.8	92.4	5.6974	µg/L	5.6974	ppb	19:39:40
1	K 766.490 Radial†	1581.9	103.8	37.996	µg/L	37.996	ppb	19:39:20
1	Mg 279.077 IEC†	195.8	13.4	4.9784	µg/L	4.9784	ppb	19:39:40
1	Na 589.592 Radial†	1275.6	38.6	5.2389	µg/L	5.2389	ppb	19:39:20
1	Sr 421.552†	-323.9	-202.3	-0.4206	µg/L	-0.4206	ppb	19:39:20
1	Sc 361.383	1729744.2	1729744.2	100.67	%			19:40:28
1	Y 371.029	1031306.9	1031306.9	100.45	%			19:40:28
1	Ag 328.068†	3839.3	-277.6	-1.0375	µg/L	-1.0375	ppb	19:40:30
1	As 188.979†	-14.7	5.7	1.7314	µg/L	1.7314	ppb	19:40:50
1	B 249.677†	3380.3	-148.1	-2.1856	µg/L	-2.1856	ppb	19:40:30
1	Ba 233.527†	-59.0	77.2	0.3110	µg/L	0.3110	ppb	19:40:50
1	Be 313.107†	-1014.0	57.4	0.0137	µg/L	0.0137	ppb	19:40:30
1	Cd 226.502†	-118.5	0.5	0.0024	µg/L	0.0024	ppb	19:40:50
1	Co 228.616†	-156.3	35.0	0.4321	µg/L	0.4321	ppb	19:40:50
1	Cr 267.716†	181.3	1.5	0.0170	µg/L	0.0170	ppb	19:40:50
1	Cu 324.752†	2802.8	-188.0	-0.7347	µg/L	-0.7347	ppb	19:40:30
1	Mn 257.610†	366.8	127.1	0.1571	µg/L	0.1571	ppb	19:40:50
1	Mo 202.031†	-31.6	-11.3	-0.3327	µg/L	-0.3327	ppb	19:40:50
1	Ni 231.604†	-59.8	17.1	0.1967	µg/L	0.1967	ppb	19:40:50
1	P 214.914†	-5.4	12.6	2.7145	µg/L	2.7145	ppb	19:40:50
1	Pb 220.353†	59.5	-27.3	-1.5212	µg/L	-1.5212	ppb	19:40:50
1	S 181.975 Axial†	111.8	6.0	4.4421	µg/L	4.4421	ppb	19:40:50
1	Sb 206.836†	82.4	1.0	0.1206	µg/L	0.1206	ppb	19:40:50
1	Se 196.026†	29.1	13.6	4.93	µg/L	4.93	ppb	19:40:50
1	SiO2†	1925.1	136.9	13.387	µg/L	13.387	ppb	19:40:30
1	Si 251.611†	1242.6	397.8	5.8657	µg/L	5.8657	ppb	19:40:30
1	Sn 189.927†	6.9	7.9	0.4950	µg/L	0.4950	ppb	19:40:50
1	Ti 334.940†	972.5	13.5	0.0150	µg/L	0.0150	ppb	19:40:30
1	Tl 190.801†	-116.3	1.2	0.1432	µg/L	0.1432	ppb	19:40:50
1	U 409.014†	-379.3	-106.9	-6.2585	µg/L	-6.2585	ppb	19:40:30
1	V 292.402†	382.8	-23.5	-0.1229	µg/L	-0.1229	ppb	19:40:30
1	Zn 213.857†	670.3	101.4	0.5683	µg/L	0.5683	ppb	19:40:50
2	Sc RADIAL	141646.4	141646.4	97.1	%			19:39:42
2	Al 396.153Radial†	-37.0	25.1	4.6588	µg/L	4.6588	ppb	19:40:02
2	Ca 317.933Radial†	668.6	128.2	7.1434	µg/L	7.1434	ppb	19:40:02
2	Fe 238.204 Radial†	220.9	79.5	4.8983	µg/L	4.8983	ppb	19:40:02
2	K 766.490 Radial†	1710.9	217.9	79.756	µg/L	79.756	ppb	19:39:42
2	Mg 279.077 IEC†	197.2	12.4	4.6204	µg/L	4.6204	ppb	19:40:02
2	Na 589.592 Radial†	1400.7	152.3	20.728	µg/L	20.728	ppb	19:39:42
2	Sr 421.552†	-214.3	-85.5	-0.1778	µg/L	-0.1778	ppb	19:39:42
2	Sc 361.383	1705674.6	1705674.6	99.270	%			19:40:52
2	Y 371.029	1018079.5	1018079.5	99.161	%			19:40:52
2	Ag 328.068†	3960.3	-102.0	-0.3781	µg/L	-0.3781	ppb	19:40:54
2	As 188.979†	-23.3	-3.1	-0.9512	µg/L	-0.9512	ppb	19:41:14
2	B 249.677†	3561.5	81.8	1.2055	µg/L	1.2055	ppb	19:40:54
2	Ba 233.527†	-91.7	43.5	0.1753	µg/L	0.1753	ppb	19:41:14
2	Be 313.107†	-1091.1	-34.4	-0.0103	µg/L	-0.0103	ppb	19:40:54
2	Cd 226.502†	-97.2	20.2	0.1258	µg/L	0.1258	ppb	19:41:14
2	Co 228.616†	-185.6	3.4	0.0413	µg/L	0.0413	ppb	19:41:14
2	Cr 267.716†	187.7	10.5	0.0851	µg/L	0.0851	ppb	19:41:14
2	Cu 324.752†	2840.9	-110.4	-0.4307	µg/L	-0.4307	ppb	19:40:54
2	Mn 257.610†	354.1	119.4	0.1475	µg/L	0.1475	ppb	19:41:14
2	Mo 202.031†	-29.7	-9.8	-0.2883	µg/L	-0.2883	ppb	19:41:14
2	Ni 231.604†	-98.7	-22.9	-0.2634	µg/L	-0.2634	ppb	19:41:14
2	P 214.914†	-18.2	-0.3	-0.0645	µg/L	-0.0645	ppb	19:41:14
2	Pb 220.353†	94.3	8.6	0.4828	µg/L	0.4828	ppb	19:41:14

2	S 181.975 Axial†	90.1	-14.3	-10.653	µg/L	-10.653	ppb	19:41:14
2	Sb 206.836†	81.6	1.4	0.1599	µg/L	0.1599	ppb	19:41:14
2	Se 196.026†	9.3	-5.9	-2.12	µg/L	-2.12	ppb	19:41:14
2	SiO2†	1948.1	187.0	18.280	µg/L	18.280	ppb	19:40:54
2	Si 251.611†	1229.4	401.9	5.9252	µg/L	5.9252	ppb	19:40:54
2	Sn 189.927†	7.1	8.3	0.5174	µg/L	0.5174	ppb	19:41:14
2	Ti 334.940†	1064.0	119.2	0.1125	µg/L	0.1125	ppb	19:40:54
2	Tl 190.801†	-124.5	-8.7	-1.0715	µg/L	-1.0715	ppb	19:41:14
2	U 409.014†	-320.5	-53.0	-3.0799	µg/L	-3.0799	ppb	19:40:54
2	V 292.402†	462.0	61.6	0.2951	µg/L	0.2951	ppb	19:40:54
2	Zn 213.857†	660.1	100.5	0.5664	µg/L	0.5664	ppb	19:41:14
3	Sc RADIAL	141467.4	141467.4	96.9	%			19:40:04
3	Al 396.153Radial†	-66.3	-5.2	-0.9380	µg/L	-0.9380	ppb	19:40:24
3	Ca 317.933Radial†	655.3	115.4	6.4267	µg/L	6.4267	ppb	19:40:24
3	Fe 238.204 Radial†	223.9	82.9	5.1068	µg/L	5.1068	ppb	19:40:24
3	K 766.490 Radial†	1490.2	-7.5	-2.7618	µg/L	-2.7618	ppb	19:40:04
3	Mg 279.077 IEC†	179.0	-6.0	-2.2648	µg/L	-2.2648	ppb	19:40:24
3	Na 589.592 Radial†	1388.2	141.2	19.287	µg/L	19.287	ppb	19:40:04
3	Sr 421.552†	-207.9	-79.2	-0.1647	µg/L	-0.1647	ppb	19:40:04
3	Sc 361.383	1716071.4	1716071.4	99.875	%			19:41:16
3	Y 371.029	1023980.4	1023980.4	99.736	%			19:41:16
3	Ag 328.068†	3695.9	-390.8	-1.4618	µg/L	-1.4618	ppb	19:41:18
3	As 188.979†	-23.1	-2.8	-0.8305	µg/L	-0.8305	ppb	19:41:39
3	B 249.677†	3456.0	-45.6	-0.6729	µg/L	-0.6729	ppb	19:41:18
3	Ba 233.527†	-73.9	61.9	0.2491	µg/L	0.2491	ppb	19:41:39
3	Be 313.107†	-944.0	119.5	0.0289	µg/L	0.0289	ppb	19:41:18
3	Cd 226.502†	-120.1	-2.1	-0.0137	µg/L	-0.0137	ppb	19:41:39
3	Co 228.616†	-169.4	20.7	0.2559	µg/L	0.2559	ppb	19:41:39
3	Cr 267.716†	225.2	46.9	0.3772	µg/L	0.3772	ppb	19:41:39
3	Cu 324.752†	2947.9	-20.6	-0.0891	µg/L	-0.0891	ppb	19:41:18
3	Mn 257.610†	390.1	153.4	0.1898	µg/L	0.1898	ppb	19:41:39
3	Mo 202.031†	-34.3	-14.2	-0.4183	µg/L	-0.4183	ppb	19:41:39
3	Ni 231.604†	-114.2	-37.8	-0.4354	µg/L	-0.4354	ppb	19:41:39
3	P 214.914†	-17.5	0.4	0.0941	µg/L	0.0941	ppb	19:41:39
3	Pb 220.353†	87.4	1.1	0.0714	µg/L	0.0714	ppb	19:41:39
3	S 181.975 Axial†	101.2	-3.7	-2.7789	µg/L	-2.7789	ppb	19:41:39
3	Sb 206.836†	79.9	-0.8	-0.1064	µg/L	-0.1064	ppb	19:41:39
3	Se 196.026†	23.6	8.3	3.01	µg/L	3.01	ppb	19:41:39
3	SiO2†	1885.4	112.4	10.994	µg/L	10.994	ppb	19:41:18
3	Si 251.611†	1353.2	518.3	7.6454	µg/L	7.6454	ppb	19:41:18
3	Sn 189.927†	2.7	3.8	0.2382	µg/L	0.2382	ppb	19:41:39
3	Ti 334.940†	1174.8	223.7	0.2141	µg/L	0.2141	ppb	19:41:18
3	Tl 190.801†	-108.2	8.3	1.0269	µg/L	1.0269	ppb	19:41:39
3	U 409.014†	-473.1	-203.8	-11.915	µg/L	-11.915	ppb	19:41:18
3	V 292.402†	407.6	4.3	0.0094	µg/L	0.0094	ppb	19:41:18
3	Zn 213.857†	671.1	107.5	0.6064	µg/L	0.6064	ppb	19:41:39

Mean Data: 248839002|962982|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1717163.4	99.939	%	0.7026				0.70%
Sc RADIAL	141046.4	96.7	%	0.61				0.63%
Y 371.029	1024455.6	99.782	%	0.6454				0.65%
Ag 328.068†	-256.8	-0.9591	µg/L	0.54608	-0.9591	ppb	0.54608	56.93%
Al 396.153Radial†	6.2	1.1742	µg/L	3.04036	1.1742	ppb	3.04036	258.94%
As 188.979†	-0.1	-0.0167	µg/L	1.51515	-0.0167	ppb	1.51515	>999.9%
B 249.677†	-37.3	-0.5510	µg/L	1.69884	-0.5510	ppb	1.69884	308.34%
Ba 233.527†	60.9	0.2451	µg/L	0.06793	0.2451	ppb	0.06793	27.71%
Be 313.107†	47.5	0.0108	µg/L	0.01978	0.0108	ppb	0.01978	183.26%
Ca 317.933Radial†	130.4	7.2646	µg/L	0.90468	7.2646	ppb	0.90468	12.45%
Cd 226.502†	6.2	0.0382	µg/L	0.07631	0.0382	ppb	0.07631	199.95%
Co 228.616†	19.7	0.2431	µg/L	0.19570	0.2431	ppb	0.19570	80.50%
Cr 267.716†	19.7	0.1598	µg/L	0.19135	0.1598	ppb	0.19135	119.77%
Cu 324.752†	-106.4	-0.4182	µg/L	0.32298	-0.4182	ppb	0.32298	77.23%
Fe 238.204 Radial†	84.9	5.2342	µg/L	0.41451	5.2342	ppb	0.41451	7.92%
K 766.490 Radial†	104.7	38.330	µg/L	41.2600	38.330	ppb	41.2600	107.64%
Mg 279.077 IEC†	6.6	2.4447	µg/L	4.08244	2.4447	ppb	4.08244	166.99%
Mn 257.610†	133.3	0.1648	µg/L	0.02218	0.1648	ppb	0.02218	13.46%
Mo 202.031†	-11.8	-0.3464	µg/L	0.06605	-0.3464	ppb	0.06605	19.07%
Na 589.592 Radial†	110.7	15.085	µg/L	8.5572	15.085	ppb	8.5572	56.73%

Ni 231.604†	-14.5	-0.1674	µg/L	0.32682	-0.1674	ppb	0.32682	195.27%
P 214.914†	4.2	0.9147	µg/L	1.56067	0.9147	ppb	1.56067	170.62%
Pb 220.353†	-5.9	-0.3223	µg/L	1.05844	-0.3223	ppb	1.05844	328.37%
S 181.975 Axial†	-4.0	-2.9967	µg/L	7.55003	-2.9967	ppb	7.55003	251.95%
Sb 206.836†	0.5	0.0580	µg/L	0.14374	0.0580	ppb	0.14374	247.66%
Se 196.026†	5.4	1.94	µg/L	3.645	1.94	ppb	3.645	188.21%
SiO2†	145.5	14.220	µg/L	3.7141	14.220	ppb	3.7141	26.12%
Si 251.611†	439.3	6.4787	µg/L	1.01078	6.4787	ppb	1.01078	15.60%
Sn 189.927†	6.7	0.4169	µg/L	0.15514	0.4169	ppb	0.15514	37.22%
Sr 421.552†	-122.3	-0.2544	µg/L	0.14412	-0.2544	ppb	0.14412	56.66%
Ti 334.940†	118.8	0.1138	µg/L	0.09958	0.1138	ppb	0.09958	87.47%
Tl 190.801†	0.3	0.0329	µg/L	1.05351	0.0329	ppb	1.05351	>999.9%
U 409.014†	-121.2	-7.0846	µg/L	4.47533	-7.0846	ppb	4.47533	63.17%
V 292.402†	14.1	0.0605	µg/L	0.21364	0.0605	ppb	0.21364	353.04%
Zn 213.857†	103.2	0.5804	µg/L	0.02257	0.5804	ppb	0.02257	3.89%

Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 19:48:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142074.6	142074.6	97.4	%			19:48:41
1	Al 396.153Radial†	26307.3	27084.3	4998.9	µg/L	4998.9	ppb	19:48:41
1	Ca 317.933Radial†	86883.3	88680.2	4939.8	µg/L	4939.8	ppb	19:48:41
1	Fe 238.204 Radial†	77361.0	79312.1	4888.3	µg/L	4888.3	ppb	19:48:41
1	K 766.490 Radial†	14600.0	13451.4	4920.7	µg/L	4920.7	ppb	19:48:41
1	Mg 279.077 IEC†	13319.4	13490.1	5033.8	µg/L	5033.8	ppb	19:48:41
1	Na 589.592 Radial†	70751.2	71380.2	9747.0	µg/L	9747.0	ppb	19:48:41
1	Sr 421.552†	226373.4	232651.3	483.63	µg/L	483.63	ppb	19:48:39
1	Sc 361.383	1707292.7	1707292.7	99.364	%			19:48:54
1	Y 371.029	1010159.7	1010159.7	98.390	%			19:48:54
1	Ag 328.068†	133110.0	129870.3	486.98	µg/L	486.98	ppb	19:48:54
1	As 188.979†	1576.3	1606.7	492.97	µg/L	492.97	ppb	19:49:14
1	B 249.677†	35756.1	32479.0	477.32	µg/L	477.32	ppb	19:48:54
1	Ba 233.527†	119643.5	120545.0	486.15	µg/L	486.15	ppb	19:48:54
1	Be 313.107†	1782114.7	1794583.1	488.77	µg/L	488.77	ppb	19:48:54
1	Cd 226.502†	76871.1	77481.2	483.67	µg/L	483.67	ppb	19:48:54
1	Co 228.616†	39104.8	39545.3	488.18	µg/L	488.18	ppb	19:48:54
1	Cr 267.716†	61488.3	61703.2	483.11	µg/L	483.11	ppb	19:48:54
1	Cu 324.752†	126677.7	124516.1	485.41	µg/L	485.41	ppb	19:48:54
1	Mn 257.610†	392328.2	394601.4	488.03	µg/L	488.03	ppb	19:48:54
1	Mo 202.031†	16345.9	16470.5	484.49	µg/L	484.49	ppb	19:49:14
1	Ni 231.604†	41875.3	42219.8	486.13	µg/L	486.13	ppb	19:48:54
1	P 214.914†	11193.1	11282.7	2404.8	µg/L	2404.8	ppb	19:49:14
1	Pb 220.353†	8730.4	8699.9	487.18	µg/L	487.18	ppb	19:49:14
1	S 181.975 Axial†	1383.4	1287.2	959.96	µg/L	959.96	ppb	19:49:14
1	Sb 206.836†	4107.0	4052.4	482.84	µg/L	482.84	ppb	19:49:14
1	Se 196.026†	1342.1	1335.4	485	µg/L	485	ppb	19:49:14
1	SiO2†	55335.6	53914.4	5248.9	µg/L	5248.9	ppb	19:48:54
1	Si 251.611†	167076.9	167309.4	2457.0	µg/L	2457.0	ppb	19:48:54
1	Sn 189.927†	7693.0	7743.4	484.36	µg/L	484.36	ppb	19:49:14
1	Ti 334.940†	519233.7	521603.7	486.68	µg/L	486.68	ppb	19:48:54
1	Tl 190.801†	3814.7	3955.8	493.34	µg/L	493.34	ppb	19:49:14
1	U 409.014†	7610.9	7929.5	493.08	µg/L	493.08	ppb	19:48:54
1	V 292.402†	98525.0	98751.7	488.17	µg/L	488.17	ppb	19:48:54
1	Zn 213.857†	86407.4	86395.9	481.51	µg/L	481.51	ppb	19:48:54
2	Sc RADIAL	141314.4	141314.4	96.8	%			19:48:45
2	Al 396.153Radial†	26070.1	26984.8	4980.3	µg/L	4980.3	ppb	19:48:45
2	Ca 317.933Radial†	86198.1	88452.8	4927.2	µg/L	4927.2	ppb	19:48:45
2	Fe 238.204 Radial†	76905.6	79269.3	4885.7	µg/L	4885.7	ppb	19:48:45
2	K 766.490 Radial†	14469.9	13397.8	4901.1	µg/L	4901.1	ppb	19:48:45
2	Mg 279.077 IEC†	13056.5	13292.2	4960.2	µg/L	4960.2	ppb	19:48:45
2	Na 589.592 Radial†	70248.5	71252.1	9729.5	µg/L	9729.5	ppb	19:48:45
2	Sr 421.552†	230623.8	238291.3	495.36	µg/L	495.36	ppb	19:48:43
2	Sc 361.383	1705432.9	1705432.9	99.256	%			19:49:17
2	Y 371.029	1009468.8	1009468.8	98.323	%			19:49:17
2	Ag 328.068†	133787.0	130698.5	490.05	µg/L	490.05	ppb	19:49:17
2	As 188.979†	1570.4	1602.5	491.73	µg/L	491.73	ppb	19:49:37
2	B 249.677†	35970.0	32733.8	481.06	µg/L	481.06	ppb	19:49:17
2	Ba 233.527†	120220.9	121258.0	489.03	µg/L	489.03	ppb	19:49:17
2	Be 313.107†	1787251.2	1801714.0	490.71	µg/L	490.71	ppb	19:49:17
2	Cd 226.502†	77339.1	78037.0	487.14	µg/L	487.14	ppb	19:49:17
2	Co 228.616†	39270.6	39755.3	490.78	µg/L	490.78	ppb	19:49:17
2	Cr 267.716†	61757.1	62041.5	485.78	µg/L	485.78	ppb	19:49:17
2	Cu 324.752†	126820.0	124798.5	486.50	µg/L	486.50	ppb	19:49:17
2	Mn 257.610†	394508.1	397228.3	491.28	µg/L	491.28	ppb	19:49:17
2	Mo 202.031†	16426.8	16570.0	487.42	µg/L	487.42	ppb	19:49:37
2	Ni 231.604†	41982.9	42374.1	487.91	µg/L	487.91	ppb	19:49:17
2	P 214.914†	11261.9	11364.3	2422.2	µg/L	2422.2	ppb	19:49:37
2	Pb 220.353†	8823.1	8802.9	492.95	µg/L	492.95	ppb	19:49:37

2	S 181.975 Axial†	1396.0	1301.4	970.49 µg/L	970.49 ppb	19:49:37
2	Sb 206.836†	4148.9	4099.2	488.41 µg/L	488.41 ppb	19:49:37
2	Se 196.026†	1355.8	1350.7	490 µg/L	490 ppb	19:49:37
2	SiO2†	55442.9	54083.1	5265.3 µg/L	5265.3 ppb	19:49:17
2	Si 251.611†	167481.5	167900.5	2465.6 µg/L	2465.6 ppb	19:49:17
2	Sn 189.927†	7735.0	7794.1	487.53 µg/L	487.53 ppb	19:49:37
2	Ti 334.940†	520412.2	523360.9	488.34 µg/L	488.34 ppb	19:49:17
2	Tl 190.801†	3830.1	3975.4	495.78 µg/L	495.78 ppb	19:49:37
2	U 409.014†	7376.5	7701.7	479.90 µg/L	479.90 ppb	19:49:17
2	V 292.402†	98853.0	99190.2	490.34 µg/L	490.34 ppb	19:49:17
2	Zn 213.857†	86774.5	86860.6	484.11 µg/L	484.11 ppb	19:49:17
3	Sc RADIAL	143116.0	143116.0	98.1 %		19:48:49
3	Al 396.153Radial†	26236.6	26815.6	4949.0 µg/L	4949.0 ppb	19:48:49
3	Ca 317.933Radial†	87307.0	88462.9	4927.7 µg/L	4927.7 ppb	19:48:49
3	Fe 238.204 Radial†	77796.7	79178.1	4880.1 µg/L	4880.1 ppb	19:48:49
3	K 766.490 Radial†	14380.3	13118.2	4798.8 µg/L	4798.8 ppb	19:48:49
3	Mg 279.077 IEC†	13346.6	13418.3	5007.1 µg/L	5007.1 ppb	19:48:49
3	Na 589.592 Radial†	71057.8	71164.1	9717.6 µg/L	9717.6 ppb	19:48:49
3	Sr 421.552†	230412.2	235077.6	488.67 µg/L	488.67 ppb	19:48:47
3	Sc 361.383	1721387.2	1721387.2	100.18 %		19:49:40
3	Y 371.029	1018897.4	1018897.4	99.241 %		19:49:40
3	Ag 328.068†	134640.8	130301.5	488.57 µg/L	488.57 ppb	19:49:40
3	As 188.979†	1609.9	1627.2	499.20 µg/L	499.20 ppb	19:50:00
3	B 249.677†	36341.2	32768.4	481.57 µg/L	481.57 ppb	19:49:40
3	Ba 233.527†	121012.1	120925.1	487.69 µg/L	487.69 ppb	19:49:40
3	Be 313.107†	1805276.3	1803016.9	491.06 µg/L	491.06 ppb	19:49:40
3	Cd 226.502†	78051.9	78026.4	487.08 µg/L	487.08 ppb	19:49:40
3	Co 228.616†	39637.9	39755.2	490.78 µg/L	490.78 ppb	19:49:40
3	Cr 267.716†	62404.8	62111.3	486.33 µg/L	486.33 ppb	19:49:40
3	Cu 324.752†	128037.0	124829.0	486.61 µg/L	486.61 ppb	19:49:40
3	Mn 257.610†	397828.4	396858.6	490.82 µg/L	490.82 ppb	19:49:40
3	Mo 202.031†	16520.4	16510.1	485.66 µg/L	485.66 ppb	19:50:00
3	Ni 231.604†	42275.1	42273.8	486.75 µg/L	486.75 ppb	19:49:40
3	P 214.914†	11329.3	11326.4	2414.1 µg/L	2414.1 ppb	19:50:00
3	Pb 220.353†	8851.7	8749.0	489.94 µg/L	489.94 ppb	19:50:00
3	S 181.975 Axial†	1397.8	1290.2	962.16 µg/L	962.16 ppb	19:50:00
3	Sb 206.836†	4164.3	4075.8	485.60 µg/L	485.60 ppb	19:50:00
3	Se 196.026†	1362.5	1344.7	488 µg/L	488 ppb	19:50:00
3	SiO2†	55884.7	54006.4	5257.8 µg/L	5257.8 ppb	19:49:40
3	Si 251.611†	169043.3	167895.4	2465.6 µg/L	2465.6 ppb	19:49:40
3	Sn 189.927†	7803.9	7790.6	487.31 µg/L	487.31 ppb	19:50:00
3	Ti 334.940†	525263.4	523343.7	488.32 µg/L	488.32 ppb	19:49:40
3	Tl 190.801†	3853.4	3963.0	494.25 µg/L	494.25 ppb	19:50:00
3	U 409.014†	7327.8	7584.2	473.02 µg/L	473.02 ppb	19:49:40
3	V 292.402†	99734.3	99146.8	490.11 µg/L	490.11 ppb	19:49:40
3	Zn 213.857†	87677.5	86951.6	484.63 µg/L	484.63 ppb	19:49:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1711370.9	99.602	%	0.5077				0.51%
Sc RADIAL	142168.3	97.4	%	0.62				0.64%
Y 371.029	1012841.9	98.651	%	0.5119				0.52%
Ag 328.068†	130290.1	488.54	µg/L	1.538	488.54	ppb	1.538	0.31%
QC value within limits for Ag 328.068 Recovery = 97.71%								
Al 396.153Radial†	26961.6	4976.1	µg/L	25.20	4976.1	ppb	25.20	0.51%
QC value within limits for Al 396.153Radial Recovery = 99.52%								
As 188.979†	1612.2	494.63	µg/L	4.004	494.63	ppb	4.004	0.81%
QC value within limits for As 188.979 Recovery = 98.93%								
B 249.677†	32660.4	479.98	µg/L	2.326	479.98	ppb	2.326	0.48%
QC value within limits for B 249.677 Recovery = 96.00%								
Ba 233.527†	120909.3	487.62	µg/L	1.439	487.62	ppb	1.439	0.30%
QC value within limits for Ba 233.527 Recovery = 97.52%								
Be 313.107†	1799771.3	490.18	µg/L	1.233	490.18	ppb	1.233	0.25%
QC value within limits for Be 313.107 Recovery = 98.04%								
Ca 317.933Radial†	88532.0	4931.6	µg/L	7.16	4931.6	ppb	7.16	0.15%
QC value within limits for Ca 317.933Radial Recovery = 98.63%								
Cd 226.502†	77848.2	485.96	µg/L	1.986	485.96	ppb	1.986	0.41%
QC value within limits for Cd 226.502 Recovery = 97.19%								
Co 228.616†	39685.3	489.91	µg/L	1.497	489.91	ppb	1.497	0.31%

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   QC value within limits for Co 228.616  Recovery = 97.98%
Cr 267.716†            61952.0      485.07 µg/L         1.718      485.07 ppb          1.718   0.35%
   QC value within limits for Cr 267.716  Recovery = 97.01%
Cu 324.752†           124714.6      486.17 µg/L         0.662      486.17 ppb          0.662   0.14%
   QC value within limits for Cu 324.752  Recovery = 97.23%
Fe 238.204 Radial†     79253.2      4884.7 µg/L          4.22      4884.7 ppb           4.22   0.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.69%
K 766.490 Radial†      13322.5      4873.5 µg/L         65.48      4873.5 ppb          65.48   1.34%
   QC value within limits for K 766.490 Radial  Recovery = 97.47%
Mg 279.077 IEC†        13400.2      5000.4 µg/L         37.28      5000.4 ppb          37.28   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.01%
Mn 257.610†           396229.4      490.04 µg/L         1.761      490.04 ppb          1.761   0.36%
   QC value within limits for Mn 257.610  Recovery = 98.01%
Mo 202.031†            16516.9      485.86 µg/L         1.472      485.86 ppb          1.472   0.30%
   QC value within limits for Mo 202.031  Recovery = 97.17%
Na 589.592 Radial†     71265.4      9731.4 µg/L         14.79      9731.4 ppb          14.79   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 97.31%
Ni 231.604†            42289.2      486.93 µg/L         0.902      486.93 ppb          0.902   0.19%
   QC value within limits for Ni 231.604  Recovery = 97.39%
P 214.914†             11324.5      2413.7 µg/L          8.72      2413.7 ppb           8.72   0.36%
   QC value within limits for P 214.914  Recovery = 96.55%
Pb 220.353†             8750.6      490.02 µg/L         2.885      490.02 ppb          2.885   0.59%
   QC value within limits for Pb 220.353  Recovery = 98.00%
S 181.975 Axial†        1292.9      964.20 µg/L         5.551      964.20 ppb          5.551   0.58%
   QC value within limits for S 181.975 Axial  Recovery = 96.42%
Sb 206.836†             4075.8      485.62 µg/L         2.784      485.62 ppb          2.784   0.57%
   QC value within limits for Sb 206.836  Recovery = 97.12%
Se 196.026†             1343.6         488 µg/L           2.8         488 ppb            2.8   0.57%
   QC value within limits for Se 196.026  Recovery = 97.58%
SiO2†                  54001.3      5257.4 µg/L          8.20      5257.4 ppb           8.20   0.16%
   QC value within limits for SiO2  Recovery = 98.31%
Si 251.611†           167701.8      2462.7 µg/L          4.98      2462.7 ppb           4.98   0.20%
   QC value within limits for Si 251.611  Recovery = 98.51%
Sn 189.927†             7776.0      486.40 µg/L         1.771      486.40 ppb          1.771   0.36%
   QC value within limits for Sn 189.927  Recovery = 97.28%
Sr 421.552†           235340.1      489.22 µg/L         5.882      489.22 ppb          5.882   1.20%
   QC value within limits for Sr 421.552  Recovery = 97.84%
Ti 334.940†           522769.4      487.78 µg/L         0.949      487.78 ppb          0.949   0.19%
   QC value within limits for Ti 334.940  Recovery = 97.56%
Tl 190.801†             3964.8      494.46 µg/L         1.233      494.46 ppb          1.233   0.25%
   QC value within limits for Tl 190.801  Recovery = 98.89%
U 409.014†              7738.5      482.00 µg/L        10.196      482.00 ppb         10.196   2.12%
   QC value within limits for U 409.014  Recovery = 96.40%
V 292.402†             99029.6      489.54 µg/L         1.192      489.54 ppb          1.192   0.24%
   QC value within limits for V 292.402  Recovery = 97.91%
Zn 213.857†            86736.0      483.41 µg/L         1.671      483.41 ppb          1.671   0.35%
   QC value within limits for Zn 213.857  Recovery = 96.68%
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:50:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143600.6	143600.6	98.4	%			19:50:37
1	Al 396.153Radial†	-51.1	11.3	2.1044	µg/L	2.1044	ppb	19:50:57
1	Ca 317.933Radial†	586.6	35.5	1.9797	µg/L	1.9797	ppb	19:50:57
1	Fe 238.204 Radial†	144.0	-1.8	-0.1088	µg/L	-0.1088	ppb	19:50:57
1	K 766.490 Radial†	1486.8	-33.9	-12.412	µg/L	-12.412	ppb	19:50:37
1	Mg 279.077 IEC†	173.5	-14.4	-5.3870	µg/L	-5.3870	ppb	19:50:57
1	Na 589.592 Radial†	1458.3	191.2	26.130	µg/L	26.130	ppb	19:50:37
1	Sr 421.552†	-289.3	-158.8	-0.3301	µg/L	-0.3301	ppb	19:50:37
1	Sc 361.383	1727301.6	1727301.6	100.53	%			19:51:45
1	Y 371.029	1033229.5	1033229.5	100.64	%			19:51:45
1	Ag 328.068†	3918.0	-194.0	-0.7232	µg/L	-0.7232	ppb	19:51:47
1	As 188.979†	-11.4	9.0	2.7325	µg/L	2.7325	ppb	19:52:07
1	B 249.677†	3507.2	-17.2	-0.2546	µg/L	-0.2546	ppb	19:52:07
1	Ba 233.527†	-159.6	-22.9	-0.0923	µg/L	-0.0923	ppb	19:52:07
1	Be 313.107†	-960.5	109.3	0.0290	µg/L	0.0290	ppb	19:51:47
1	Cd 226.502†	-87.8	30.8	0.1926	µg/L	0.1926	ppb	19:52:07
1	Co 228.616†	-159.6	31.5	0.3887	µg/L	0.3887	ppb	19:52:07
1	Cr 267.716†	221.5	41.8	0.3292	µg/L	0.3292	ppb	19:52:07
1	Cu 324.752†	2909.7	-77.8	-0.3046	µg/L	-0.3046	ppb	19:51:47
1	Mn 257.610†	275.7	37.0	0.0460	µg/L	0.0460	ppb	19:52:07
1	Mo 202.031†	-30.5	-10.3	-0.3033	µg/L	-0.3033	ppb	19:52:07
1	Ni 231.604†	-82.7	-5.8	-0.0664	µg/L	-0.0664	ppb	19:52:07
1	P 214.914†	-17.8	0.3	0.0611	µg/L	0.0611	ppb	19:52:07
1	Pb 220.353†	92.7	5.8	0.3254	µg/L	0.3254	ppb	19:52:07
1	S 181.975 Axial†	92.1	-13.5	-10.016	µg/L	-10.016	ppb	19:52:07
1	Sb 206.836†	70.2	-11.0	-1.3187	µg/L	-1.3187	ppb	19:52:07
1	Se 196.026†	23.8	8.4	3.03	µg/L	3.03	ppb	19:52:07
1	SiO2†	1746.0	-38.6	-3.7620	µg/L	-3.7620	ppb	19:52:07
1	Si 251.611†	804.0	-36.7	-0.5381	µg/L	-0.5381	ppb	19:51:47
1	Sn 189.927†	-0.2	0.9	0.0546	µg/L	0.0546	ppb	19:52:07
1	Ti 334.940†	954.9	-2.7	-0.0011	µg/L	-0.0011	ppb	19:51:47
1	Tl 190.801†	-118.5	-1.2	-0.1445	µg/L	-0.1445	ppb	19:52:07
1	U 409.014†	-315.9	-44.3	-2.6009	µg/L	-2.6009	ppb	19:51:47
1	V 292.402†	377.6	-28.1	-0.1408	µg/L	-0.1408	ppb	19:51:47
1	Zn 213.857†	598.1	30.5	0.1719	µg/L	0.1719	ppb	19:52:07
2	Sc RADIAL	143131.7	143131.7	98.1	%			19:50:59
2	Al 396.153Radial†	-32.2	30.3	5.6296	µg/L	5.6296	ppb	19:51:19
2	Ca 317.933Radial†	576.7	27.4	1.5269	µg/L	1.5269	ppb	19:51:19
2	Fe 238.204 Radial†	158.7	13.7	0.8423	µg/L	0.8423	ppb	19:51:19
2	K 766.490 Radial†	1675.4	163.4	59.819	µg/L	59.819	ppb	19:50:59
2	Mg 279.077 IEC†	212.3	25.7	9.5785	µg/L	9.5785	ppb	19:51:19
2	Na 589.592 Radial†	1429.9	167.0	22.764	µg/L	22.764	ppb	19:50:59
2	Sr 421.552†	-273.0	-143.1	-0.2975	µg/L	-0.2975	ppb	19:50:59
2	Sc 361.383	1718494.8	1718494.8	100.02	%			19:52:09
2	Y 371.029	1028699.8	1028699.8	100.20	%			19:52:09
2	Ag 328.068†	4047.8	-44.2	-0.1507	µg/L	-0.1507	ppb	19:52:11
2	As 188.979†	-18.3	2.1	0.6206	µg/L	0.6206	ppb	19:52:32
2	B 249.677†	3519.8	13.3	0.1962	µg/L	0.1962	ppb	19:52:32
2	Ba 233.527†	-147.0	-11.2	-0.0449	µg/L	-0.0449	ppb	19:52:32
2	Be 313.107†	-767.5	297.4	0.0836	µg/L	0.0836	ppb	19:52:11
2	Cd 226.502†	-96.5	21.7	0.1357	µg/L	0.1357	ppb	19:52:32
2	Co 228.616†	-176.2	14.1	0.1739	µg/L	0.1739	ppb	19:52:32
2	Cr 267.716†	180.3	1.7	0.0063	µg/L	0.0063	ppb	19:52:32
2	Cu 324.752†	2889.0	-83.7	-0.3176	µg/L	-0.3176	ppb	19:52:11
2	Mn 257.610†	264.9	27.6	0.0338	µg/L	0.0338	ppb	19:52:32
2	Mo 202.031†	-22.6	-2.5	-0.0728	µg/L	-0.0728	ppb	19:52:32
2	Ni 231.604†	-57.5	19.1	0.2195	µg/L	0.2195	ppb	19:52:32
2	P 214.914†	4.9	22.9	4.9039	µg/L	4.9039	ppb	19:52:32
2	Pb 220.353†	90.9	4.5	0.2430	µg/L	0.2430	ppb	19:52:32

2	S 181.975 Axial†	92.8	-12.3	-9.1413 µg/L	-9.1413 ppb	19:52:32
2	Sb 206.836†	91.0	10.1	1.2060 µg/L	1.2060 ppb	19:52:32
2	Se 196.026†	23.4	8.1	2.95 µg/L	2.95 ppb	19:52:32
2	SiO2†	1770.3	-5.4	-0.5347 µg/L	-0.5347 ppb	19:52:32
2	Si 251.611†	816.5	-20.2	-0.3025 µg/L	-0.3025 ppb	19:52:11
2	Sn 189.927†	13.1	14.3	0.8887 µg/L	0.8887 ppb	19:52:32
2	Ti 334.940†	824.8	-127.9	-0.1238 µg/L	-0.1238 ppb	19:52:11
2	Tl 190.801†	-110.8	5.9	0.7247 µg/L	0.7247 ppb	19:52:32
2	U 409.014†	-118.9	151.0	8.8426 µg/L	8.8426 ppb	19:52:11
2	V 292.402†	441.7	37.8	0.1896 µg/L	0.1896 ppb	19:52:11
2	Zn 213.857†	569.1	4.5	0.0243 µg/L	0.0243 ppb	19:52:32
3	Sc RADIAL	142404.0	142404.0	97.6 %		19:51:21
3	Al 396.153Radial†	-37.8	24.5	4.5543 µg/L	4.5543 ppb	19:51:41
3	Ca 317.933Radial†	603.4	57.8	3.2194 µg/L	3.2194 ppb	19:51:41
3	Fe 238.204 Radial†	154.3	10.0	0.6188 µg/L	0.6188 ppb	19:51:41
3	K 766.490 Radial†	1584.3	78.7	28.824 µg/L	28.824 ppb	19:51:21
3	Mg 279.077 IEC†	168.4	-18.1	-6.7588 µg/L	-6.7588 ppb	19:51:41
3	Na 589.592 Radial†	1217.4	-43.3	-5.9413 µg/L	-5.9413 ppb	19:51:21
3	Sr 421.552†	-213.0	-83.0	-0.1726 µg/L	-0.1726 ppb	19:51:21
3	Sc 361.383	1725113.7	1725113.7	100.40 %		19:52:34
3	Y 371.029	1032434.0	1032434.0	100.56 %		19:52:34
3	Ag 328.068†	4136.4	28.4	0.1103 µg/L	0.1103 ppb	19:52:36
3	As 188.979†	-21.2	-0.8	-0.2286 µg/L	-0.2286 ppb	19:52:56
3	B 249.677†	3487.8	-32.0	-0.4730 µg/L	-0.4730 ppb	19:52:56
3	Ba 233.527†	-148.1	-11.7	-0.0471 µg/L	-0.0471 ppb	19:52:56
3	Be 313.107†	-958.9	109.7	0.0307 µg/L	0.0307 ppb	19:52:36
3	Cd 226.502†	-100.1	18.5	0.1156 µg/L	0.1156 ppb	19:52:56
3	Co 228.616†	-181.7	9.3	0.1151 µg/L	0.1151 ppb	19:52:56
3	Cr 267.716†	179.3	-0.0	-0.0022 µg/L	-0.0022 ppb	19:52:56
3	Cu 324.752†	2944.1	-39.9	-0.1527 µg/L	-0.1527 ppb	19:52:36
3	Mn 257.610†	258.6	20.3	0.0254 µg/L	0.0254 ppb	19:52:56
3	Mo 202.031†	-33.3	-13.1	-0.3839 µg/L	-0.3839 ppb	19:52:56
3	Ni 231.604†	-89.6	-12.8	-0.1471 µg/L	-0.1471 ppb	19:52:56
3	P 214.914†	-5.5	12.5	2.6899 µg/L	2.6899 ppb	19:52:56
3	Pb 220.353†	86.1	-0.6	-0.0367 µg/L	-0.0367 ppb	19:52:56
3	S 181.975 Axial†	105.1	-0.4	-0.3195 µg/L	-0.3195 ppb	19:52:56
3	Sb 206.836†	78.4	-2.7	-0.3234 µg/L	-0.3234 ppb	19:52:56
3	Se 196.026†	32.5	17.1	6.18 µg/L	6.18 ppb	19:52:56
3	SiO2†	1714.4	-67.8	-6.6340 µg/L	-6.6340 ppb	19:52:56
3	Si 251.611†	948.1	107.7	1.5850 µg/L	1.5850 ppb	19:52:36
3	Sn 189.927†	18.5	19.5	1.2178 µg/L	1.2178 ppb	19:52:56
3	Ti 334.940†	1054.7	98.0	0.0910 µg/L	0.0910 ppb	19:52:36
3	Tl 190.801†	-105.2	11.9	1.4675 µg/L	1.4675 ppb	19:52:56
3	U 409.014†	-221.6	49.1	2.8801 µg/L	2.8801 ppb	19:52:36
3	V 292.402†	431.8	26.3	0.1262 µg/L	0.1262 ppb	19:52:36
3	Zn 213.857†	567.6	1.0	0.0065 µg/L	0.0065 ppb	19:52:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1723636.7	100.32	%	0.267				0.27%
Sc RADIAL	143045.4	98.0	%	0.41				0.42%
Y 371.029	1031454.4	100.46	%	0.236				0.23%
Ag 328.068†	-69.9	-0.2546	µg/L	0.42634	-0.2546	ppb	0.42634	167.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	22.0	4.0961	µg/L	1.80672	4.0961	ppb	1.80672	44.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.4	1.0415	µg/L	1.52480	1.0415	ppb	1.52480	146.41%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-12.0	-0.1771	µg/L	0.34126	-0.1771	ppb	0.34126	192.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-15.2	-0.0614	µg/L	0.02676	-0.0614	ppb	0.02676	43.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	172.1	0.0478	µg/L	0.03107	0.0478	ppb	0.03107	65.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	40.2	2.2420	µg/L	0.87622	2.2420	ppb	0.87622	39.08%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.7	0.1480	µg/L	0.03996	0.1480	ppb	0.03996	27.01%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.3	0.2259	µg/L	0.14405	0.2259	ppb	0.14405	63.76%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.5      0.1111 µg/L       0.18892      0.1111 ppb        0.18892 170.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -67.1     -0.2583 µg/L       0.09167     -0.2583 ppb        0.09167  35.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          7.3      0.4508 µg/L       0.49733      0.4508 ppb        0.49733 110.33%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          69.4      25.411 µg/L       36.2364      25.411 ppb        36.2364 142.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.3     -0.8557 µg/L       9.06232     -0.8557 ppb        9.06232 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                28.3      0.0350 µg/L       0.01036      0.0350 ppb        0.01036  29.56%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -8.6     -0.2533 µg/L       0.16143     -0.2533 ppb        0.16143  63.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        105.0      14.318 µg/L       17.6253      14.318 ppb        17.6253 123.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.2      0.0020 µg/L       0.19262      0.0020 ppb        0.19262 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 11.9      2.5516 µg/L       2.42435      2.5516 ppb        2.42435  95.01%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.2      0.1772 µg/L       0.18975      0.1772 ppb        0.18975 107.07%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -8.7     -6.4924 µg/L       5.36374     -6.4924 ppb        5.36374  82.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.2     -0.1454 µg/L       1.27176     -0.1454 ppb        1.27176 874.71%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                11.2        4.05 µg/L         1.843        4.05 ppb          1.843  45.47%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -37.2     -3.6436 µg/L       3.05138     -3.6436 ppb        3.05138  83.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                16.9      0.2481 µg/L       1.16372      0.2481 ppb        1.16372 469.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                11.6      0.7204 µg/L       0.59961      0.7204 ppb        0.59961  83.23%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -128.3     -0.2667 µg/L       0.08309     -0.2667 ppb        0.08309  31.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -10.9     -0.0113 µg/L       0.10776     -0.0113 ppb        0.10776 953.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.6      0.6826 µg/L       0.80682      0.6826 ppb        0.80682 118.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 51.9      3.0406 µg/L       5.72342      3.0406 ppb        5.72342 188.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 12.0      0.0584 µg/L       0.17533      0.0584 ppb        0.17533 300.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                12.0      0.0676 µg/L       0.09081      0.0676 ppb        0.09081 134.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, May 10, 2010 23:55:35
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100506\Sample.241
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1764.7	1764.709	38.538	2.2
	Mg	24.0	153346.5	153346.512	1657.789	1.1
	Co	58.9	21859.9	21859.913	156.616	0.7
	Rh	102.9	46595.3	46595.268	324.589	0.7
	In	114.9	59279.7	59279.745	492.193	0.8
	Pb	208.0	40999.4	40999.361	661.389	1.6
⌈>	Ba	137.9	61842.9	61842.883	691.306	1.1
⌊	Ba++	69.0	715.3	0.012	0.000	2.7
⌈>	Ce	139.9	66427.3	66427.299	780.909	1.2
⌊	CeO	155.9	1078.4	0.016	0.000	1.6
	Bkgd	220.0	21.4	21.400	3.090	14.4

Current Optimization File Data

Current Value	Description
0.74	Nebulizer Gas Flow
9.00	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	15	7.5	2598.2
Co	59	15	8.5	21396.7
In	115	15	9.8	56650.4

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	577	2080	0.635
Be	9.0	9.0	2048	2080	0.659
Mg	24.0	24.0	5682	2120	0.619
Mg	25.0	25.0	5921	2080	0.663
Mg	26.0	25.9	6160	2120	0.677
Co	58.9	58.9	14160	2170	0.637
Rh	102.9	102.9	24851	2230	0.696
In	114.9	114.9	27778	2260	0.683
Ce	139.9	139.9	33852	2280	0.745
Pb	206.0	205.9	49936	2424	0.759
Pb	207.0	207.0	50137	2385	0.662
Pb	208.0	208.0	50463	2430	0.717
U	238.1	238.0	57727	2470	0.700

Report Date/Time: Monday, May 10, 2010 23:54:27

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, May 11, 2010 07:01:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\Blank.091

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9		ug/L		26	
|>	Sc	45		ug/L		672675	
⌊	Mn	55		ug/L		774	
	Ge	74		ug/L		181025	
⌈	Cd	111		ug/L		25	
|	Cd	114		ug/L		37	
|>	In	115		ug/L		107140	
|	Sb	121		ug/L		104	
⌊	Sb	123		ug/L		104	
⌈>	Lu	175		ug/L		180588	
|	Tl	205		ug/L		702	
|	Pb	208		ug/L		341	
⌊	U	238		ug/L		249	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Linear Thru Zero	
Mn	55	Simple Linear	
Ge	74	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45					
⌊	Mn	55					
	Ge	74					
⌈	Cd	111					
|	Cd	114					
|>	In	115					
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175					
|	Tl	205					
|	Pb	208					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, May 11, 2010 07:06:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\Standard 1.092

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	2.220	2516	0.004
>	Sc	45		ug/L		663579	663578.520
	Mn	55	10.000	ug/L	2.061	34255	0.050
	Ge	74		ug/L		179107	-1917.500
	Cd	111	10.000	ug/L	3.452	5311	0.050
	Cd	114		ug/L		12533	0.118
>	In	115		ug/L		106380	106380.493
	Sb	121	10.000	ug/L	2.661	22695	0.212
	Sb	123		ug/L		17668	0.165
>	Lu	175		ug/L		179206	179206.052
	Tl	205	10.000	ug/L	2.169	57495	0.317
	Pb	208	10.000	ug/L	2.374	90581	0.504
	U	238	10.000	ug/L	0.832	100577	0.560

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45					
⌊	Mn	55					
	Ge	74					
⌈	Cd	111					
|	Cd	114					
|>	In	115					
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175					
|	Tl	205					
|	Pb	208					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, May 11, 2010 07:11:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\Standard 2.093

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**99.995**	**ug/L**	0.902	24881	0.037
|>	Sc	45		**ug/L**		665190	665190.186
⌊	Mn	55	**99.989**	**ug/L**	1.801	332829	0.499
	Ge	74		**ug/L**		179276	-1748.625
⌈	Cd	111	**99.997**	**ug/L**	2.074	53447	0.495
|	Cd	114		**ug/L**		125686	1.165
|>	In	115		**ug/L**		107868	107868.360
|	Sb	121	**100.015**	**ug/L**	2.777	232740	2.157
⌊	Sb	123		**ug/L**		177802	1.648
⌈>	Lu	175		**ug/L**		183768	183768.122
|	Tl	205	**100.034**	**ug/L**	2.187	604107	3.284
|	Pb	208	**99.975**	**ug/L**	1.357	903463	4.915
⌊	U	238	**99.991**	**ug/L**	1.181	1019777	5.549

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, May 11, 2010 07:15:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 1.094

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.823**	**ug/L**	2.025	13331	0.020
>	Sc	45		**ug/L**		661641	661641.366
	Mn	55	**56.112**	**ug/L**	2.053	186129	0.280
	Ge	74		**ug/L**		180589	-436.140
	Cd	111	**53.461**	**ug/L**	2.400	28594	0.265
	Cd	114		**ug/L**		67828	0.628
>	In	115		**ug/L**		107921	107921.095
	Sb	121	**50.671**	**ug/L**	1.923	118016	1.093
	Sb	123		**ug/L**		92522	0.857
>	Lu	175		**ug/L**		181279	181279.451
	Tl	205	**52.487**	**ug/L**	0.387	313079	1.723
	Pb	208	**54.369**	**ug/L**	1.746	484867	2.673
	U	238	**56.428**	**ug/L**	1.695	567877	3.131

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	107.646				
|>	Sc	45		98.4			
⌊	Mn	55	112.224				
	Ge	74					
⌈	Cd	111	106.921				
|	Cd	114					
|>	In	115		100.7			
|	Sb	121	101.342				
⌊	Sb	123					
⌈>	Lu	175		100.4			
|	Tl	205	104.973				
|	Pb	208	108.739				
⌊	U	238	112.857				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Mn	55	ICV is out of limits (+/- 10%)
QC Std 1	U	238	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, May 11, 2010 07:20:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 2.095

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.010**	**ug/L**	156.150	23	-0.000
>	Sc	45		**ug/L**		670536	670536.188
	Mn	55	**-0.017**	**ug/L**	7.861	714	-0.000
	Ge	74		**ug/L**		184297	3272.068
	Cd	111	**-0.009**	**ug/L**	352.871	21	-0.000
	Cd	114		**ug/L**		39	0.000
>	In	115		**ug/L**		110610	110610.356
	Sb	121	**0.015**	**ug/L**	6.540	143	0.000
	Sb	123		**ug/L**		114	0.000
>	Lu	175		**ug/L**		184219	184219.022
	Tl	205	**0.170**	**ug/L**	17.226	1745	0.006
	Pb	208	**-0.003**	**ug/L**	51.714	322	-0.000
	U	238	**-0.001**	**ug/L**	105.344	240	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.7			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		103.2			
	Sb	121					
	Sb	123					
>	Lu	175		102.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, May 11, 2010 07:25:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 3.096

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.572**	**ug/L**	7.533	170	0.000
| >	Sc	45		**ug/L**		672161	672160.918
⌊	Mn	55	**5.983**	**ug/L**	2.002	20854	0.030
	Ge	74		**ug/L**		176489	-4536.303
⌈	Cd	111	**1.143**	**ug/L**	2.724	628	0.006
|	Cd	114		**ug/L**		1535	0.014
| >	In	115		**ug/L**		106436	106436.381
|	Sb	121	**3.263**	**ug/L**	1.997	7593	0.070
⌊	Sb	123		**ug/L**		5993	0.055
⌈ >	Lu	175		**ug/L**		176991	176991.308
|	Tl	205	**1.139**	**ug/L**	2.536	7306	0.037
|	Pb	208	**2.384**	**ug/L**	2.064	21072	0.117
⌊	U	238	**0.323**	**ug/L**	5.368	3417	0.018

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	114.430				
|>	Sc	45		99.9			
⌊	Mn	55	119.653				
	Ge	74					
⌈	Cd	111	114.295				
|	Cd	114					
|>	In	115		99.3			
|	Sb	121	163.171				
⌊	Sb	123					
⌈>	Lu	175		98.0			
|	Tl	205	113.908				
|	Pb	208	119.194				
⌊	U	238	161.624				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Sb	121	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, May 11, 2010 07:30:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 4.097

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.074**	**ug/L**	31.687	38	0.000
|>	Sc	45		**ug/L**		572869	572868.902
⌊	Mn	55	**5.497**	**ug/L**	1.640	16384	0.027
	Ge	74		**ug/L**		161390	-19634.829
⌈	Cd	111	**0.312**	**ug/L**	16.060	173	0.002
|	Cd	114		**ug/L**		2273	0.023
|>	In	115		**ug/L**		97041	97040.903
|	Sb	121	**0.020**	**ug/L**	39.525	136	0.000
⌊	Sb	123		**ug/L**		119	0.000
⌈>	Lu	175		**ug/L**		174134	174134.369
|	Tl	205	**-0.002**	**ug/L**	599.628	667	-0.000
|	Pb	208	**0.206**	**ug/L**	1.464	2095	0.010
⌊	U	238	**-0.018**	**ug/L**	7.319	67	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		85.2			
	Mn	55	94.783				
	Ge	74					
	Cd	111	77.970				
	Cd	114					
>	In	115		90.6			
	Sb	121	20.005				
	Sb	123					
>	Lu	175		96.4			
	Tl	205					
	Pb	208	103.184				
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, May 11, 2010 07:34:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 5.098

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**18.594**	**ug/L**	3.147	4045	0.007
|>	Sc	45		**ug/L**		579198	579197.505
⌊	Mn	55	**25.055**	**ug/L**	1.280	73121	0.125
	Ge	74		**ug/L**		161717	-19308.092
⌈	Cd	111	**20.179**	**ug/L**	1.925	9698	0.100
|	Cd	114		**ug/L**		24342	0.251
|>	In	115		**ug/L**		96804	96804.183
|	Sb	121	**19.235**	**ug/L**	1.890	40247	0.415
⌊	Sb	123		**ug/L**		31785	0.327
⌈>	Lu	175		**ug/L**		171014	171013.616
|	Tl	205	**18.151**	**ug/L**	1.787	102563	0.596
|	Pb	208	**20.029**	**ug/L**	1.808	168695	0.985
⌊	U	238	**20.904**	**ug/L**	0.577	198600	1.160

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9	92.970				
|>	Sc	45		86.1			
⌊	Mn	55	97.111				
	Ge	74					
⌈	Cd	111	98.916				
|	Cd	114					
|>	In	115		90.4			
|	Sb	121	95.696				
⌊	Sb	123					
⌈>	Lu	175		94.7			
|	Tl	205	90.754				
|	Pb	208	99.151				
⌊	U	238	104.519				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 11, 2010 07:39:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 6.099

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.898**	**ug/L**	0.795	11765	0.019
>	Sc	45		**ug/L**		605521	605521.388
	Mn	55	**55.752**	**ug/L**	1.757	169239	0.278
	Ge	74		**ug/L**		169524	-11500.839
	Cd	111	**54.548**	**ug/L**	1.579	27530	0.270
	Cd	114		**ug/L**		64352	0.632
>	In	115		**ug/L**		101815	101815.454
	Sb	121	**53.256**	**ug/L**	3.324	117003	1.149
	Sb	123		**ug/L**		90714	0.890
>	Lu	175		**ug/L**		172901	172900.827
	Tl	205	**54.930**	**ug/L**	2.207	312433	1.803
	Pb	208	**56.116**	**ug/L**	1.333	477282	2.759
	U	238	**58.370**	**ug/L**	0.248	560266	3.239

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	103.795				
>	Sc	45		90.0			
	Mn	55	111.503				
	Ge	74					
	Cd	111	109.096				
	Cd	114					
>	In	115		95.0			
	Sb	121	106.511				
	Sb	123					
>	Lu	175		95.7			
	Tl	205	109.861				
	Pb	208	112.231				
	U	238	116.739				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Mn	55	CCV is out of limits (+/- 10%)
QC Std 6	Pb	208	CCV is out of limits (+/- 10%)
QC Std 6	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 11, 2010 07:44:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 7.100

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.009**	**ug/L**	217.901	26	0.000
>	Sc	45		**ug/L**		625767	625767.140
	Mn	55	**-0.030**	**ug/L**	44.309	628	-0.000
	Ge	74		**ug/L**		175173	-5851.546
	Cd	111	**-0.024**	**ug/L**	71.728	13	-0.000
	Cd	114		**ug/L**		53	0.000
>	In	115		**ug/L**		106380	106380.324
	Sb	121	**0.013**	**ug/L**	14.448	134	0.000
	Sb	123		**ug/L**		120	0.000
>	Lu	175		**ug/L**		180402	180402.248
	Tl	205	**0.127**	**ug/L**	13.079	1454	0.004
	Pb	208	**-0.001**	**ug/L**	167.701	333	-0.000
	U	238	**0.003**	**ug/L**	91.305	274	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.0			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		99.3			
	Sb	121					
	Sb	123					
>	Lu	175		99.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Tuesday, May 11, 2010 07:49:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 10.101

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**956.001**	**ug/L**	1.243	196484	0.357
>	Sc	45		**ug/L**		550016	550016.448
	Mn	55	**1013.834**	**ug/L**	1.281	2784961	5.063
	Ge	74		**ug/L**		155758	-25266.794
	Cd	111	**1008.411**	**ug/L**	2.332	466810	4.995
	Cd	114		**ug/L**		1122981	12.016
>	In	115		**ug/L**		93468	93468.363
	Sb	121	**261.736**	**ug/L**	2.416	527598	5.645
	Sb	123		**ug/L**		417928	4.471
>	Lu	175		**ug/L**		165867	165866.823
	Tl	205	**478.785**	**ug/L**	1.099	2607840	15.719
	Pb	208	**5108.331**	**ug/L**	1.474	41651327	251.142
	U	238	**5354.436**	**ug/L**	2.258	49271250	297.120

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	95.600				
>	Sc	45		81.8			
	Mn	55	101.383				
	Ge	74					
	Cd	111	100.841				
	Cd	114					
>	In	115		87.2			
	Sb	121	104.694				
	Sb	123					
>	Lu	175		91.8			
	Tl	205	95.757				
	Pb	208	102.167				
	U	238	107.089				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Tuesday, May 11, 2010 07:54:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 11.102

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**49.903**	**ug/L**	1.871	11296	0.019
|>	Sc	45		**ug/L**		604531	604530.892
⌊	Mn	55	**55.689**	**ug/L**	0.994	168793	0.278
	Ge	74		**ug/L**		174409	-6616.379
⌈	Cd	111	**51.906**	**ug/L**	1.516	27245	0.257
|	Cd	114		**ug/L**		64388	0.608
|>	In	115		**ug/L**		105873	105873.206
|	Sb	121	**50.232**	**ug/L**	1.038	114800	1.083
⌊	Sb	123		**ug/L**		89676	0.846
⌈>	Lu	175		**ug/L**		180643	180643.482
|	Tl	205	**53.189**	**ug/L**	1.279	316150	1.746
|	Pb	208	**54.150**	**ug/L**	1.314	481208	2.662
⌊	U	238	**56.265**	**ug/L**	1.484	564195	3.122

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	99.806				
>	Sc	45		89.9			
	Mn	55	111.378				
	Ge	74					
	Cd	111	103.811				
	Cd	114					
>	In	115		98.8			
	Sb	121	100.464				
	Sb	123					
>	Lu	175		100.0			
	Tl	205	106.379				
	Pb	208	108.299				
	U	238	112.531				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Mn	55	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Tuesday, May 11, 2010 07:58:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 12.103

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.039**	**ug/L**	36.134	33	0.000
>	Sc	45		**ug/L**		625440	625439.523
	Mn	55	**0.072**	**ug/L**	21.183	944	0.000
	Ge	74		**ug/L**		177537	-3487.804
	Cd	111	**-0.020**	**ug/L**	96.213	15	-0.000
	Cd	114		**ug/L**		49	0.000
>	In	115		**ug/L**		107985	107985.007
	Sb	121	**0.023**	**ug/L**	28.119	157	0.000
	Sb	123		**ug/L**		138	0.000
>	Lu	175		**ug/L**		179929	179929.147
	Tl	205	**0.277**	**ug/L**	4.691	2336	0.009
	Pb	208	**0.008**	**ug/L**	24.547	412	0.000
	U	238	**0.018**	**ug/L**	8.861	432	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		93.0			
⌊	Mn	55					
	Ge	74					
⌈	Cd	111					
|	Cd	114					
|>	In	115		100.8			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		99.6			
|	Tl	205					
|	Pb	208					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065854
Sample Date/Time: Tuesday, May 11, 2010 08:03:40
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\1202065854.104

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.002**	**ug/L**	190.759	27	0.000
>	Sc	45		**ug/L**		690771	690771.382
	Mn	55	**0.239**	**ug/L**	3.710	1620	0.001
	Ge	74		**ug/L**		192174	11149.005
	Cd	111	**-0.023**	**ug/L**	78.481	14	-0.000
	Cd	114		**ug/L**		45	0.000
>	In	115		**ug/L**		111682	111681.825
	Sb	121	**0.012**	**ug/L**	6.725	138	0.000
	Sb	123		**ug/L**		148	0.000
>	Lu	175		**ug/L**		179249	179248.738
	Tl	205	**0.061**	**ug/L**	5.726	1057	0.002
	Pb	208	**0.014**	**ug/L**	9.491	463	0.001
	U	238	**-0.007**	**ug/L**	8.359	178	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.7			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		104.2			
	Sb	121					
	Sb	123					
>	Lu	175		99.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065855
Sample Date/Time: Tuesday, May 11, 2010 08:08:27
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\1202065855.105

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.732**	**ug/L**	3.084	14689	0.020
>	Sc	45		**ug/L**		716949	716948.699
	Mn	55	**52.447**	**ug/L**	1.827	188571	0.262
	Ge	74		**ug/L**		190145	9120.197
	Cd	111	**53.951**	**ug/L**	1.731	29021	0.267
	Cd	114		**ug/L**		67087	0.618
>	In	115		**ug/L**		108523	108523.182
	Sb	121	**52.552**	**ug/L**	2.065	123075	1.133
	Sb	123		**ug/L**		95824	0.882
>	Lu	175		**ug/L**		177607	177606.673
	Tl	205	**49.028**	**ug/L**	1.906	286556	1.610
	Pb	208	**53.702**	**ug/L**	0.466	469239	2.640
	U	238	**53.017**	**ug/L**	1.354	522751	2.942

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		106.6			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		101.3			
	Sb	121					
	Sb	123					
>	Lu	175		98.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248839001
Sample Date/Time: Tuesday, May 11, 2010 08:18:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\248839001.107

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.015**	**ug/L**	106.277	32	0.000
| >	Sc	45		**ug/L**		718436	718435.798
⌊	Mn	55	**1.090**	**ug/L**	3.210	4736	0.005
	Ge	74		**ug/L**		191623	10597.665
⌈	Cd	111	**-0.008**	**ug/L**	143.552	22	-0.000
|	Cd	114		**ug/L**		39	0.000
| >	In	115		**ug/L**		111502	111501.897
|	Sb	121	**-0.005**	**ug/L**	142.032	97	-0.000
⌊	Sb	123		**ug/L**		107	-0.000
⌈ >	Lu	175		**ug/L**		179998	179997.586
|	Tl	205	**0.050**	**ug/L**	11.409	995	0.002
|	Pb	208	**0.079**	**ug/L**	2.801	1037	0.004
⌊	U	238	**-0.015**	**ug/L**	13.225	95	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		106.8			
⌊	Mn	55					
	Ge	74					
⌈	Cd	111					
|	Cd	114					
|>	In	115		104.1			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		99.7			
|	Tl	205					
|	Pb	208					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248839002
Sample Date/Time: Tuesday, May 11, 2010 08:22:51
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\248839002.108

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.018**	**ug/L**	24.292	22	-0.000
>	Sc	45		**ug/L**		702235	702234.981
	Mn	55	**0.584**	**ug/L**	5.352	2855	0.003
	Ge	74		**ug/L**		187641	6616.232
	Cd	111	**-0.020**	**ug/L**	132.920	15	-0.000
	Cd	114		**ug/L**		28	-0.000
>	In	115		**ug/L**		109628	109628.360
	Sb	121	**-0.009**	**ug/L**	24.398	84	-0.000
	Sb	123		**ug/L**		86	-0.000
>	Lu	175		**ug/L**		178430	178429.510
	Tl	205	**0.013**	**ug/L**	31.658	770	0.000
	Pb	208	**0.007**	**ug/L**	36.706	394	0.000
	U	238	**-0.019**	**ug/L**	5.402	59	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		104.4			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		102.3			
	Sb	121					
	Sb	123					
>	Lu	175		98.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Tuesday, May 11, 2010 08:32:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 8.110

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**48.138**	**ug/L**	1.660	11197	0.018
|>	Sc	45		**ug/L**		621253	621252.899
⌊	Mn	55	**53.273**	**ug/L**	1.732	165970	0.266
	Ge	74		**ug/L**		168974	-12051.044
⌈	Cd	111	**52.955**	**ug/L**	1.019	26931	0.262
|	Cd	114		**ug/L**		63150	0.615
|>	In	115		**ug/L**		102582	102582.246
|	Sb	121	**51.575**	**ug/L**	2.417	114175	1.112
⌊	Sb	123		**ug/L**		89449	0.871
⌈>	Lu	175		**ug/L**		175568	175567.618
|	Tl	205	**51.571**	**ug/L**	2.053	297859	1.693
|	Pb	208	**55.280**	**ug/L**	1.188	477406	2.718
⌊	U	238	**56.090**	**ug/L**	1.737	546567	3.112

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	96.275				
>	Sc	45		92.4			
	Mn	55	106.546				
	Ge	74					
	Cd	111	105.910				
	Cd	114					
>	In	115		95.7			
	Sb	121	103.150				
	Sb	123					
>	Lu	175		97.2			
	Tl	205	103.142				
	Pb	208	110.560				
	U	238	112.180				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Pb	208	CCV is out of limits (+/- 10%)
QC Std 8	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Tuesday, May 11, 2010 08:37:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 9.111

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.007**	**ug/L**	145.643	23	-0.000
>	Sc	45		**ug/L**		628006	628005.786
	Mn	55	**-0.007**	**ug/L**	202.225	699	-0.000
	Ge	74		**ug/L**		176850	-4175.275
	Cd	111	**-0.026**	**ug/L**	108.671	11	-0.000
	Cd	114		**ug/L**		35	-0.000
>	In	115		**ug/L**		106153	106153.394
	Sb	121	**0.001**	**ug/L**	619.221	105	0.000
	Sb	123		**ug/L**		102	-0.000
>	Lu	175		**ug/L**		178452	178452.401
	Tl	205	**0.283**	**ug/L**	9.762	2352	0.009
	Pb	208	**0.002**	**ug/L**	221.528	353	0.000
	U	238	**0.011**	**ug/L**	7.136	351	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.4			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		99.1			
	Sb	121					
	Sb	123					
>	Lu	175		98.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065856
Sample Date/Time: Tuesday, May 11, 2010 08:46:53
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\1202065856.113

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.009**	**ug/L**	192.820	25	-0.000
|>	Sc	45		**ug/L**		705063	705062.654
⌊	Mn	55	**1.657**	**ug/L**	1.060	6645	0.008
	Ge	74		**ug/L**		191957	10932.123
⌈	Cd	111	**-0.011**	**ug/L**	93.155	21	-0.000
|	Cd	114		**ug/L**		36	-0.000
|>	In	115		**ug/L**		111428	111428.439
|	Sb	121	**-0.007**	**ug/L**	49.461	91	-0.000
⌊	Sb	123		**ug/L**		112	0.000
⌈>	Lu	175		**ug/L**		178771	178771.206
|	Tl	205	**-0.003**	**ug/L**	95.512	677	-0.000
|	Pb	208	**0.059**	**ug/L**	3.553	856	0.003
⌊	U	238	**-0.018**	**ug/L**	3.525	65	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		104.8			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		104.0			
	Sb	121					
	Sb	123					
>	Lu	175		99.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065857
Sample Date/Time: Tuesday, May 11, 2010 08:51:41
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\1202065857.114

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**54.484**	**ug/L**	0.844	14145	0.020
|>	Sc	45		**ug/L**		693518	693518.308
⌊	Mn	55	**52.564**	**ug/L**	1.275	182813	0.262
	Ge	74		**ug/L**		186173	5148.257
⌈	Cd	111	**10.735**	**ug/L**	1.310	5772	0.053
|	Cd	114		**ug/L**		12884	0.119
|>	In	115		**ug/L**		108069	108069.439
|	Sb	121	**202.731**	**ug/L**	2.843	472457	4.372
⌊	Sb	123		**ug/L**		364584	3.373
⌈>	Lu	175		**ug/L**		177248	177248.298
|	Tl	205	**91.420**	**ug/L**	0.986	532691	3.001
|	Pb	208	**42.102**	**ug/L**	0.740	367202	2.070
⌊	U	238	**53.232**	**ug/L**	0.583	523816	2.954

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.1			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		100.9			
	Sb	121					
	Sb	123					
>	Lu	175		98.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065858
Sample Date/Time: Tuesday, May 11, 2010 08:56:29
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 962984|5|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\1202065858.115

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.021**	**ug/L**	83.696	21	-0.000
|>	Sc	45		**ug/L**		679446	679446.400
⌊	Mn	55	**0.277**	**ug/L**	3.530	1722	0.001
	Ge	74		**ug/L**		182875	1849.769
⌈	Cd	111	**-0.025**	**ug/L**	106.847	13	-0.000
|	Cd	114		**ug/L**		30	-0.000
|>	In	115		**ug/L**		110833	110832.725
|	Sb	121	**0.046**	**ug/L**	18.275	217	0.001
⌊	Sb	123		**ug/L**		173	0.001
⌈>	Lu	175		**ug/L**		184600	184600.253
|	Tl	205	**1.335**	**ug/L**	7.223	8812	0.044
|	Pb	208	**0.023**	**ug/L**	9.396	560	0.001
⌊	U	238	**-0.011**	**ug/L**	2.893	141	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		101.0			
⌊	Mn	55					
	Ge	74					
⌈	Cd	111					
|	Cd	114					
|>	In	115		103.4			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		102.2			
|	Tl	205					
|	Pb	208					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 11, 2010 09:06:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 6.117

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.261**	**ug/L**	0.760	11344	0.018
>	Sc	45		**ug/L**		615095	615094.913
	Mn	55	**54.310**	**ug/L**	1.186	167531	0.271
	Ge	74		**ug/L**		168824	-12200.797
	Cd	111	**53.646**	**ug/L**	1.992	27228	0.266
	Cd	114		**ug/L**		64127	0.626
>	In	115		**ug/L**		102385	102385.342
	Sb	121	**51.412**	**ug/L**	2.575	113611	1.109
	Sb	123		**ug/L**		89172	0.870
>	Lu	175		**ug/L**		177235	177234.854
	Tl	205	**51.328**	**ug/L**	1.455	299327	1.685
	Pb	208	**54.964**	**ug/L**	1.189	479217	2.702
	U	238	**56.204**	**ug/L**	0.405	552980	3.119

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	98.522				
>	Sc	45		91.4			
	Mn	55	108.621				
	Ge	74					
	Cd	111	107.291				
	Cd	114					
>	In	115		95.6			
	Sb	121	102.824				
	Sb	123					
>	Lu	175		98.1			
	Tl	205	102.657				
	Pb	208	109.928				
	U	238	112.407				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 11, 2010 09:10:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 7.118

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.007	ug/L	354.006	23	-0.000
>	Sc	45		ug/L		639448	639447.789
	Mn	55	-0.024	ug/L	48.021	660	-0.000
	Ge	74		ug/L		174404	-6621.403
	Cd	111	0.003	ug/L	185.551	27	0.000
	Cd	114		ug/L		40	0.000
>	In	115		ug/L		104225	104225.069
	Sb	121	0.010	ug/L	57.905	124	0.000
	Sb	123		ug/L		129	0.000
>	Lu	175		ug/L		175389	175388.818
	Tl	205	0.489	ug/L	4.590	3496	0.016
	Pb	208	0.005	ug/L	28.707	376	0.000
	U	238	0.006	ug/L	12.541	304	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.1			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		97.3			
	Sb	121					
	Sb	123					
>	Lu	175		97.1			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, May 11, 2010 23:34:39
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100506\Sample.242
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1776.7	1776.711	42.074	2.4
	Mg	24.0	44428.2	44428.183	415.223	0.9
	Co	58.9	20750.9	20750.860	94.875	0.5
	Rh	102.9	44715.7	44715.680	489.551	1.1
	In	114.9	52761.9	52761.859	408.680	0.8
	Pb	208.0	45381.6	45381.570	276.280	0.6
⌈>	Ba	137.9	54651.5	54651.516	242.066	0.4
⌊	Ba++	69.0	625.9	0.011	0.000	1.5
⌈>	Ce	139.9	65021.6	65021.643	448.821	0.7
⌊	CeO	155.9	904.2	0.014	0.000	3.4
	Bkgd	220.0	19.5	19.500	1.581	8.1

Current Optimization File Data

Current Value	Description
0.73	Nebulizer Gas Flow
9.00	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	15	7.8	2463.9
Co	59	15	8.5	20243.0
In	115	15	10.0	53142.0

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	579	2080	0.639
Be	9.0	9.0	2040	2080	0.662
Mg	24.0	24.0	5680	2120	0.615
Mg	25.0	24.9	5907	2080	0.692
Mg	26.0	26.0	6158	2120	0.670
Co	58.9	59.0	14182	2170	0.648
Rh	102.9	102.9	24844	2230	0.697
In	114.9	114.9	27784	2260	0.688
Ce	139.9	139.9	33845	2280	0.755
Pb	206.0	206.0	49948	2424	0.727
Pb	207.0	206.9	50125	2385	0.672
Pb	208.0	207.9	50451	2430	0.731
U	238.1	238.1	57733	2470	0.724

Report Date/Time: Tuesday, May 11, 2010 23:33:18

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, May 12, 2010 01:54:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\Blank.025

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		418260	
⌊	Mn	55		**ug/L**		647	
⌈>	Lu	175		**ug/L**		161522	
⌊	Pb	208		**ug/L**		169	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45					
	Mn	55					
>	Lu	175					
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, May 12, 2010 01:58:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\Standard 1.026

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		414388	414388.288
⌊	Mn	55	10.000	ug/L	1.748	28273	0.067
⌈>	Lu	175		ug/L		165171	165171.313
⌊	Pb	208	10.000	ug/L	1.695	85841	0.519

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45					
⌊	Mn	55					
⌈>	Lu	175					
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, May 12, 2010 02:02:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\Standard 2.027

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		395001	395000.937
⌊	Mn	55	**100.038**	**ug/L**	2.379	274511	0.694
⌈>	Lu	175		**ug/L**		162557	162556.655
⌊	Pb	208	**100.032**	**ug/L**	3.009	871747	5.363

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45					
⌊	Mn	55					
⌈>	Lu	175					
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, May 12, 2010 02:06:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 1.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		411208	411207.691
	Mn	55	52.524	ug/L	2.675	150356	0.364
>	Lu	175		ug/L		166689	166688.580
	Pb	208	51.625	ug/L	1.180	461483	2.768

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		98.3			
⌊	Mn	55	105.048				
⌈>	Lu	175		103.2			
⌊	Pb	208	103.250				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, May 12, 2010 02:10:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 2.029

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		418361	418361.207
⌊	Mn	55	**0.003**	**ug/L**	413.081	657	0.000
⌈>	Lu	175		**ug/L**		162114	162114.273
⌊	Pb	208	**0.001**	**ug/L**	189.025	179	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		100.0			
⌊	Mn	55					
⌈>	Lu	175		100.4			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, May 12, 2010 02:14:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 3.030

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		424695	424695.399
⌊	Mn	55	**5.996**	**ug/L**	1.946	18310	0.042
⌈>	Lu	175		**ug/L**		165989	165988.771
⌊	Pb	208	**2.305**	**ug/L**	1.865	20687	0.124

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		101.5			
⌊	Mn	55	119.922				
⌈>	Lu	175		102.8			
⌊	Pb	208	115.265				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, May 12, 2010 02:18:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 4.031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		352616	352615.747
⌊	Mn	55	**5.527**	**ug/L**	0.569	14057	0.038
⌈>	Lu	175		**ug/L**		149115	149114.904
⌊	Pb	208	**0.220**	**ug/L**	4.671	1910	0.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		84.3			
⌊	Mn	55	95.285				
⌈>	Lu	175		92.3			
⌊	Pb	208	109.781				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, May 12, 2010 02:22:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 5.032

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		352007	352006.502
⌊	Mn	55	24.952	ug/L	1.383	61440	0.173
⌈>	Lu	175		ug/L		148526	148525.811
⌊	Pb	208	19.756	ug/L	1.188	157440	1.059

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		84.2			
⌊	Mn	55	96.712				
⌈>	Lu	175		92.0			
⌊	Pb	208	97.802				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 12, 2010 02:27:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 6.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		451562	451561.899
⌊	Mn	55	**46.253**	**ug/L**	1.981	145505	0.321
⌈>	Lu	175		**ug/L**		161602	161601.964
⌊	Pb	208	**52.316**	**ug/L**	2.696	453304	2.805

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		108.0			
⌊	Mn	55	92.507				
⌈>	Lu	175		100.0			
⌊	Pb	208	104.632				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 12, 2010 02:31:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 7.034

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		411523	411523.263
⌊	Mn	55	**-0.007**	**ug/L**	98.627	616	-0.000
⌈>	Lu	175		**ug/L**		157690	157690.333
⌊	Pb	208	**0.004**	**ug/L**	55.425	195	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		98.4			
⌊	Mn	55					
⌈>	Lu	175		97.6			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Wednesday, May 12, 2010 02:35:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 10.035

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		383751	383751.326
⌊	Mn	55	**933.248**	**ug/L**	1.578	2483136	6.471
⌈>	Lu	175		**ug/L**		160838	160837.736
⌊	Pb	208	**4665.014**	**ug/L**	1.636	40218476	250.095

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		91.7			
⌊	Mn	55	93.325				
⌈>	Lu	175		99.6			
⌊	Pb	208	93.300				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Wednesday, May 12, 2010 02:39:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 11.036

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		411891	411890.828
⌊	Mn	55	**52.601**	**ug/L**	2.133	150840	0.365
⌈>	Lu	175		**ug/L**		163486	163485.662
⌊	Pb	208	**52.266**	**ug/L**	1.707	458178	2.802

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		98.5			
⌊	Mn	55	105.202				
⌈>	Lu	175		101.2			
⌊	Pb	208	104.533				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Wednesday, May 12, 2010 02:43:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 12.037

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		423957	423957.491
⌊	Mn	55	**0.118**	**ug/L**	12.983	1003	0.001
⌈>	Lu	175		**ug/L**		158901	158901.338
⌊	Pb	208	**0.020**	**ug/L**	17.294	334	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		101.4			
⌊	Mn	55					
⌈>	Lu	175		98.4			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 12

Report Date/Time: Wednesday, May 12, 2010 02:43:56

ICPMS#6 - Summary Report

Sample ID: 1202065854
Sample Date/Time: Wednesday, May 12, 2010 02:47:40
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\1202065854.038

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		461979	461978.580
⌊	Mn	55	**0.282**	**ug/L**	5.699	1620	0.002
⌈>	Lu	175		**ug/L**		154963	154962.585
⌊	Pb	208	**0.051**	**ug/L**	9.642	583	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		110.5			
⌊	Mn	55					
⌈>	Lu	175		95.9			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065855
Sample Date/Time: Wednesday, May 12, 2010 02:51:47
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\1202065855.039

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		465296	465295.553
⌊	Mn	55	**54.949**	**ug/L**	1.993	177984	0.381
⌈>	Lu	175		**ug/L**		157732	157731.655
⌊	Pb	208	**55.308**	**ug/L**	1.600	467802	2.965

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		111.2			
⌊	Mn	55					
⌈>	Lu	175		97.7			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248839001
Sample Date/Time: Wednesday, May 12, 2010 03:00:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\248839001.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		474376	474376.104
⌊	Mn	55	1.171	ug/L	1.492	4585	0.008
⌈>	Lu	175		ug/L		153292	153292.090
⌊	Pb	208	0.106	ug/L	4.135	1030	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		113.4			
	Mn	55					
>	Lu	175		94.9			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248839002
Sample Date/Time: Wednesday, May 12, 2010 03:04:10
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\248839002.042

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		475208	475207.588
⌊	Mn	55	**0.621**	**ug/L**	2.244	2781	0.004
⌈>	Lu	175		**ug/L**		157153	157152.611
⌊	Pb	208	**0.028**	**ug/L**	5.694	397	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		113.6			
⌊	Mn	55					
⌈>	Lu	175		97.3			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Wednesday, May 12, 2010 03:12:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 8.044

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		419096	419096.076
⌊	Mn	55	**50.004**	**ug/L**	2.072	145949	0.347
⌈>	Lu	175		**ug/L**		160773	160773.392
⌊	Pb	208	**52.850**	**ug/L**	2.546	455561	2.833

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		100.2			
⌊	Mn	55	100.008				
⌈>	Lu	175		99.5			
⌊	Pb	208	105.700				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Wednesday, May 12, 2010 03:16:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 9.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		450362	450361.765
⌊	Mn	55	0.003	ug/L	689.158	706	0.000
⌈>	Lu	175		ug/L		162330	162330.220
⌊	Pb	208	0.005	ug/L	54.144	216	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		107.7			
⌊	Mn	55					
⌈>	Lu	175		100.5			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065856
Sample Date/Time: Wednesday, May 12, 2010 03:24:50
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\1202065856.047

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45		ug/L		457887	457886.831
[	Mn	55	1.757	ug/L	2.664	6287	0.012
[>	Lu	175		ug/L		153111	153111.452
[	Pb	208	0.082	ug/L	5.887	836	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		109.5			
	Mn	55					
>	Lu	175		94.8			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065857
Sample Date/Time: Wednesday, May 12, 2010 03:28:58
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 962984|1|rmj
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\1202065857.048

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		463874	463873.966
⌊	Mn	55	53.116	ug/L	2.557	171537	0.368
⌈>	Lu	175		ug/L		150442	150442.128
⌊	Pb	208	45.961	ug/L	2.828	370684	2.464

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		110.9			
⌊	Mn	55					
⌈>	Lu	175		93.1			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202065858
Sample Date/Time: Wednesday, May 12, 2010 03:33:06
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 962984|5|rmj
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\1202065858.049

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		449542	449541.943
⌊	Mn	55	**0.312**	**ug/L**	13.183	1665	0.002
⌈>	Lu	175		**ug/L**		160933	160933.029
⌊	Pb	208	**0.051**	**ug/L**	4.302	612	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		107.5			
	Mn	55					
>	Lu	175		99.6			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 12, 2010 03:41:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 6.051

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		416996	416996.254
⌊	Mn	55	**50.516**	**ug/L**	0.599	146704	0.350
⌈>	Lu	175		**ug/L**		160330	160329.700
⌊	Pb	208	**53.466**	**ug/L**	1.396	459680	2.866

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		99.7			
⌊	Mn	55	101.033				
⌈>	Lu	175		99.3			
⌊	Pb	208	106.932				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 12, 2010 03:45:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\mnpb.mth
Dataset File: C:\elandata\Dataset\100511\QC Std 7.052

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		453604	453604.385
⌊	Mn	55	**-0.008**	**ug/L**	60.431	677	-0.000
⌈>	Lu	175		**ug/L**		160711	160711.374
⌊	Pb	208	**0.005**	**ug/L**	25.793	211	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		108.5			
⌊	Mn	55					
⌈>	Lu	175		99.5			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #7 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, May 26, 2010 12:14:02
Sample Description:
Method File: C:\elandata\Method\daily2.mth
Dataset File: C:\elandata\Dataset\default\Sample.584
Tuning File: C:\elandata\Tuning\Default.tun
Optimization File: C:\elandata\Optimize\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 80
Current Dead Time (ns): 80

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	3223.2	3223.231	91.957	2.9
	Mg	24.0	32246.0	32245.991	577.869	1.8
	Co	58.9	92560.0	92560.016	1018.613	1.1
	Rh	102.9	138335.0	138335.018	887.105	0.6
	In	114.9	173789.4	173789.424	1484.893	0.9
	Pb	208.0	95946.1	95946.135	1214.667	1.3
⌈>	Ba	137.9	153380.5	153380.495	1581.724	1.0
⌊	Ba++	69.0	2223.2	0.014	0.000	1.8
⌈>	Ce	139.9	196554.2	196554.210	2468.716	1.3
⌊	CeO	155.9	3679.3	0.019	0.001	3.9
	Bkgd	220.0	10.3	10.300	2.414	23.4

Current Optimization File Data

Current Value	Description
0.95	Nebulizer Gas Flow
8.00	Lens Voltage
1000.00	ICP RF Power
-1525.00	Analog Stage Voltage
750.00	Pulse Stage Voltage
14.00	Discriminator Threshold
-3.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	25	8.0	3982.3
Co	59	25	9.5	94248.3
In	115	25	10.8	157231.2

Instrument #7 Tuning Report

File Name: 100526.tun
File Path: C:\Elandata\Tuning\100526.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	569	2064	0.657
Be	9.0	9.0	2015	2060	0.635
Mg	24.0	24.0	5666	2080	0.586
Mg	25.0	25.0	5894	2070	0.556
Mg	26.0	26.0	6178	2070	0.584
Co	58.9	58.9	14151	2040	0.661
Rh	102.9	102.9	24879	2030	0.648
In	114.9	114.9	27789	2033	0.634
Ce	139.9	140.0	33883	2020	0.642
Pb	206.0	206.0	49942	1980	0.694
Pb	207.0	207.0	50201	2000	0.641
Pb	208.0	208.0	50467	1990	0.663
U	238.1	238.0	57764	1980	0.722

ICPMS#7 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, May 26, 2010 15:24:50
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\Blank.991

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133		ug/L		33	
⌊>	Lu	175		ug/L		168444	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, May 26, 2010 15:25:45
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\Standard 1.992

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**10.000**	**ug/L**	1.396	91258	0.550
Lu	175		**ug/L**		165871	165870.906

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, May 26, 2010 15:26:41
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\Standard 2.993

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**99.973**	**ug/L**	0.686	904014	5.354
Lu	175		**ug/L**		168838	168837.545

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, May 26, 2010 15:27:37
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 1.994

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**51.248**	**ug/L**	2.714	454873	2.745
Lu	175		**ug/L**		165679	165679.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	102.496				
Lu	175		98.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, May 26, 2010 15:28:34
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 2.995

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**0.008**	**ug/L**	3.286	109	0.000
Lu	175		**ug/L**		172004	172004.369

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		102.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, May 26, 2010 15:29:30
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 3.996

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	0.379	ug/L	33.648	4152	0.020
Lu	175		ug/L		218999	218998.562

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	75.803				
Lu	175		130.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu	175 Int Std for Q(	Lu	175

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, May 26, 2010 15:30:27
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 4.997

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**0.079**	**ug/L**	9.288	804	0.004
Lu	175		**ug/L**		183248	183247.800

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		108.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, May 26, 2010 15:31:23
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 5.998

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	18.443	ug/L	0.809	183898	0.988
Lu	175		ug/L		186143	186142.918

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	92.214				
Lu	175		110.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 26, 2010 15:32:19
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.999

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**48.992**	**ug/L**	0.909	473298	2.624
Lu	175		**ug/L**		180394	180394.404

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	97.983				
Lu	175		107.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 26, 2010 15:33:17
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.1000

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**0.008**	**ug/L**	14.379	109	0.000
Lu	175		**ug/L**		178530	178529.612

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		106.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 26, 2010 15:41:46
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.1009

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**51.349**	**ug/L**	3.715	482291	2.750
Lu	175		**ug/L**		175616	175615.642

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	102.698				
Lu	175		104.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 26, 2010 15:42:44
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.1010

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**0.006**	**ug/L**	22.972	92	0.000
Lu	175		**ug/L**		181824	181823.640

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		107.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 26, 2010 15:52:12
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.1020

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**51.655**	**ug/L**	1.239	469401	2.767
Lu	175		**ug/L**		169673	169672.916

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	103.311				
Lu	175		100.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 26, 2010 15:53:10
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.1021

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	0.006	ug/L	14.998	86	0.000
Lu	175		ug/L		176183	176183.178

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		104.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202124413
Sample Date/Time: Wednesday, May 26, 2010 15:54:07
Sample Type: Sample
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 987387|1|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202124413.1022

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	0.003	ug/L	7.860	56	0.000
⌊>	Lu	175		ug/L		150010	150009.680

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		89.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202124414
Sample Date/Time: Wednesday, May 26, 2010 15:55:04
Sample Type: Sample
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 987387|1|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202124414.1023

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**55.514**	**ug/L**	0.203	453547	2.973
⌊>	Lu	175		**ug/L**		152537	152536.778

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		90.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248839002
Sample Date/Time: Wednesday, May 26, 2010 15:56:01
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 987387|1|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248839002.1024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**0.012**	**ug/L**	15.228	119	0.001
⌊>	Lu	175		**ug/L**		143432	143432.160

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		85.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202124415
Sample Date/Time: Wednesday, May 26, 2010 15:56:58
Sample Type: Sample
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 987387|1|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202124415.1025

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	0.003	ug/L	37.685	54	0.000
⌊>	Lu	175		ug/L		150733	150733.223

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		89.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202124416
Sample Date/Time: Wednesday, May 26, 2010 15:57:55
Sample Type: Sample
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 987387|1|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202124416.1026

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**102.831**	**ug/L**	0.150	884600	5.508
Lu	175		**ug/L**		160609	160608.638

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		95.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Cs	133	Upper, S, EECs	133

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202124417
Sample Date/Time: Wednesday, May 26, 2010 15:58:52
Sample Type: Sample
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 987387|5|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202124417.1027

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	0.016	ug/L	9.779	179	0.001
⌊>	Lu	175		ug/L		171060	171059.875

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		101.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 26, 2010 15:59:49
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.1028

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**50.736**	**ug/L**	1.466	466076	2.717
Lu	175		**ug/L**		171546	171546.138

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	101.472				
Lu	175		101.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 26, 2010 16:00:46
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.1029

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	0.009	ug/L	21.581	118	0.000
Lu	175		ug/L		178321	178320.854

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		105.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202125831
Sample Date/Time: Wednesday, May 26, 2010 16:01:44
Sample Type: Sample
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 987939|1|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202125831.1030

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**0.009**	**ug/L**	8.330	106	0.001
Lu	175		**ug/L**		151937	151937.101

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		90.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202125832
Sample Date/Time: Wednesday, May 26, 2010 16:02:41
Sample Type: Sample
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 987939|1|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202125832.1031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**48.376**	**ug/L**	2.677	422454	2.591
⌊>	Lu	175		**ug/L**		163138	163137.958

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		96.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248839001
Sample Date/Time: Wednesday, May 26, 2010 16:03:38
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 987939|1|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\248839001.1032

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**0.024**	**ug/L**	3.704	238	0.001
Lu	175		**ug/L**		159576	159575.503

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		94.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202125833
Sample Date/Time: Wednesday, May 26, 2010 16:04:35
Sample Type: Sample
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 987939|1|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202125833.1033

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**0.028**	**ug/L**	5.890	266	0.001
Lu	175		**ug/L**		157088	157087.762

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		93.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202125834
Sample Date/Time: Wednesday, May 26, 2010 16:05:33
Sample Type: Sample
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 987939|1|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202125834.1034

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**51.211**	**ug/L**	1.023	444305	2.743
Lu	175		**ug/L**		162008	162008.155

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		96.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202125835
Sample Date/Time: Wednesday, May 26, 2010 16:06:30
Sample Type: Sample
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 987939|5|prb
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\1202125835.1035

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Cs	133	**0.010**	**ug/L**	6.994	126	0.001
⌊>	Lu	175		**ug/L**		176423	176422.939

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cs	133					
⌊>	Lu	175		104.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 26, 2010 16:07:27
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.1036

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	**49.748**	**ug/L**	1.357	458866	2.664
Lu	175		**ug/L**		172234	172233.984

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133	99.496				
Lu	175		102.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 26, 2010 16:08:25
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\cs only.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.1037

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Cs	133	0.006	ug/L	21.431	87	0.000
Lu	175		ug/L		168262	168262.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Cs	133	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Cs	133					
Lu	175		99.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\031310W1.SIF
Batch ID:
Results Data Set: 031310W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 2/8/2010 13:04:57**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/13/2010 07:06:01**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0003	0.0001	0.0003	07:07:03	Yes
2		[0.00]	0.0003	0.0003	0.0003	07:07:38	Yes
Mean:		[0.00]	0.0003				
SD:		0.00	0.0000				
%RSD:		0.00	3.76				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/13/2010 07:07:57**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0024	0.0110	0.0026	07:08:57	Yes
2		[0.2]	0.0023	0.0104	0.0025	07:09:32	Yes
Mean:		[0.2]	0.0023				
SD:		0.0	0.0001				
%RSD:		0.0	3.43				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01159 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/13/2010 07:09:51**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0056	0.0261	0.0059	07:10:52	Yes
2		[0.5]	0.0056	0.0259	0.0059	07:11:27	Yes
Mean:		[0.5]	0.0056				
SD:		0.0	0.0000				
%RSD:		0.0	0.01				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999927 Slope: 0.01128 Intercept: 0.00002

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/13/2010 07:11:46**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0231	0.1060	0.0233	07:12:48	Yes
2		[2.0]	0.0232	0.1057	0.0235	07:13:23	Yes
Mean:		[2.0]	0.0231				
SD:		0.0	0.0001				
%RSD:		0.0	0.38				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999978 Slope: 0.01158 Intercept: -0.00004

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/13/2010 07:13:43**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0576	0.2651	0.0579	07:14:44	Yes
2		[5.0]	0.0576	0.2650	0.0578	07:15:19	Yes
Mean:		[5.0]	0.0576				
SD:		0.0	0.0000				
%RSD:		0.0	0.08				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999995 Slope: 0.01153 Intercept: -0.00001

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/13/2010 07:15:39**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1155	0.5378	0.1158	07:16:40	Yes
2		[10.0]	0.1157	0.5387	0.1159	07:17:14	Yes
Mean:		[10.0]	0.1156				
SD:		0.0	0.0001				
%RSD:		0.0	0.08				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999998 Slope: 0.01156 Intercept: -0.00005

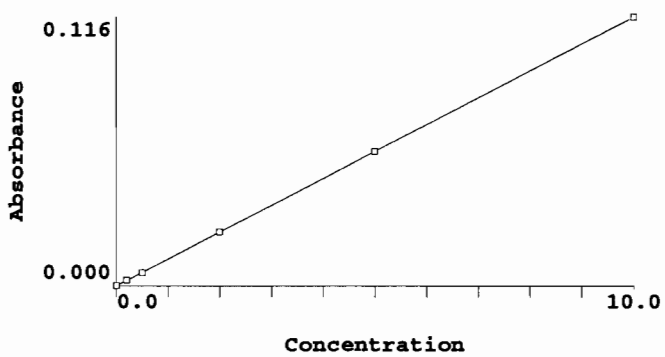

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	0.004	0.00	3.8
S0.2	0.0023	0.2	0.205	0.00	3.4
S0.5	0.0056	0.5	0.493	0.00	0.0
S2.0	0.0231	2.0	2.006	0.00	0.4

S5.0	0.0576	5.0	4.987	0.00	0.1
S10.0	0.1156	10.0	10.006	0.00	0.1

Correlation Coef.: 0.999998 Slope: 0.01156 Intercept: -0.00005

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/13/2010 07:17:33**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.116	5.116	0.0591	0.2724	0.0593	07:18:34	Yes
2	5.078	5.078	0.0586	0.2706	0.0589	07:19:10	Yes
Mean:	5.097	5.097	0.0589				
SD:	0.027	0.027	0.0003				
%RSD:	0.521	0.521	0.52				

QC value within limits for Hg 253.7 Recovery = 101.94%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/13/2010 07:19:29**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	-0.0001	-0.0006	0.0002	07:20:31	Yes
2	0.000	0.000	-0.0000	-0.0005	0.0002	07:21:06	Yes
Mean:	-0.001	-0.001	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	159.4	159.4	42.51				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/13/2010 07:21:25**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.198	0.198	0.0022	0.0107	0.0025	07:22:27	Yes
2	0.199	0.199	0.0023	0.0108	0.0025	07:23:02	Yes
Mean:	0.199	0.199	0.0022				
SD:	0.001	0.001	0.0000				
%RSD:	0.293	0.293	0.30				

QC value within limits for Hg 253.7 Recovery = 99.29%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/13/2010 07:23:22**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.047	5.047	0.0583	0.2704	0.0586	07:24:22	Yes
2	5.032	5.032	0.0581	0.2689	0.0584	07:24:57	Yes
Mean:	5.039	5.039	0.0582				
SD:	0.011	0.011	0.0001				
%RSD:	0.215	0.215	0.21				

QC value within limits for Hg 253.7 Recovery = 100.79%
All analyte(s) passed QC.

Sequence No.: 11 Autosampler Location: 8
Sample ID: CCB Date Collected: 3/13/2010 07:25:16
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	-0.0001	-0.0004	0.0002	07:26:17	Yes
2	0.006	0.006	0.0000	0.0001	0.0003	07:26:51	Yes
Mean:	0.002	0.002	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	230.2	230.2	281.11				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 Autosampler Location: 12
Sample ID: 1202056683|959019|1 Date Collected: 3/13/2010 07:27:11
Analyst: JXL Data Type: Original

Replicate Data: 1202056683|959019|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	-0.0000	-0.0003	0.0002	07:28:12	Yes
2	0.003	0.003	-0.0000	0.0001	0.0003	07:28:47	Yes
Mean:	0.002	0.002	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	54.12	54.12	61.22				

Sequence No.: 13 Autosampler Location: 13
Sample ID: 247669001|959019|1 Date Collected: 3/13/2010 07:29:07
Analyst: JXL Data Type: Original

Replicate Data: 247669001|959019|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.285	0.285	0.0033	0.0150	0.0035	07:30:09	Yes
2	0.291	0.291	0.0033	0.0151	0.0036	07:30:44	Yes
Mean:	0.288	0.288	0.0033				
SD:	0.004	0.004	0.0000				
%RSD:	1.257	1.257	1.28				

Sequence No.: 14 Autosampler Location: 14
Sample ID: 247669002|959019|1 Date Collected: 3/13/2010 07:31:04
Analyst: JXL Data Type: Original

Replicate Data: 247669002|959019|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.429	0.429	0.0049	0.0230	0.0052	07:32:05	Yes
2	0.426	0.426	0.0049	0.0229	0.0051	07:32:40	Yes
Mean:	0.427	0.427	0.0049				
SD:	0.002	0.002	0.0000				
%RSD:	0.463	0.463	0.47				

Sequence No.: 15 Autosampler Location: 15
Sample ID: 1202069597|964675|1 Date Collected: 3/13/2010 07:32:59
Analyst: JXL Data Type: Original

Replicate Data: 1202069597|964675|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 1202069601|964675|500

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	-0.0000	0.0005	0.0002	07:43:33	Yes
2	0.003	0.003	-0.0000	0.0008	0.0003	07:44:08	Yes
Mean:	0.002	0.002	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	20.17	20.17	29.29				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 249148002|964675|100 **Date Collected: 3/13/2010 07:44:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 249148002|964675|100

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.004	0.004	-0.0000	0.0010	0.0003	07:45:29	Yes
2	0.009	0.009	0.0001	0.0013	0.0003	07:46:04	Yes
Mean:	0.006	0.006	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	51.00	51.00	144.96				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/13/2010 07:46:23**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.999	4.999	0.0577	0.2686	0.0580	07:47:24	Yes
2	4.942	4.942	0.0571	0.2675	0.0573	07:47:59	Yes
Mean:	4.971	4.971	0.0574				
SD:	0.040	0.040	0.0005				
%RSD:	0.811	0.811	0.81				

QC value within limits for Hg 253.7 Recovery = 99.42%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/13/2010 07:48:18**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.014	0.014	0.0001	0.0024	0.0004	07:49:18	Yes
2	0.017	0.017	0.0001	0.0032	0.0004	07:49:53	Yes
Mean:	0.016	0.016	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	12.14	12.14	16.46				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 1202056673|959008|1 **Date Collected: 3/13/2010 07:50:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202056673|959008|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0001	0.0018	0.0004	07:51:14	Yes
2	0.012	0.012	0.0001	0.0018	0.0004	07:51:49	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.013	0.013	0.0001	0.0020	0.0004	08:00:54	Yes
2	0.021	0.021	0.0002	0.0033	0.0005	08:01:28	Yes
Mean:	0.017	0.017	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	33.77	33.77	44.57				

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 248390001|964196|1 **Date Collected: 3/13/2010 08:01:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 248390001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.013	0.013	0.0001	0.0022	0.0004	08:02:48	Yes
2	0.016	0.016	0.0001	0.0021	0.0004	08:03:23	Yes
Mean:	0.014	0.014	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	13.65	13.65	19.08				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 248402001|964196|1 **Date Collected: 3/13/2010 08:03:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 248402001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.013	0.013	0.0001	0.0028	0.0004	08:04:43	Yes
2	0.020	0.020	0.0002	0.0038	0.0004	08:05:18	Yes
Mean:	0.016	0.016	0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	30.84	30.84	41.23				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 248516001|964196|1 **Date Collected: 3/13/2010 08:05:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 248516001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0001	0.0020	0.0003	08:06:38	Yes
2	0.004	0.004	-0.0000	0.0012	0.0003	08:07:12	Yes
Mean:	0.007	0.007	0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	67.34	67.34	164.84				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 248516002|964196|1 **Date Collected: 3/13/2010 08:07:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 248516002|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0000	0.0014	0.0003	08:08:33	Yes
2	0.008	0.008	0.0000	0.0016	0.0003	08:09:07	Yes
Mean:	0.006	0.006	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	26.39	26.39	73.83				

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/13/2010 08:09:27**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.004	5.004	0.0578	0.2733	0.0581	08:10:27	Yes
2	5.016	5.016	0.0579	0.2728	0.0582	08:11:02	Yes
Mean:	5.010	5.010	0.0579				
SD:	0.008	0.008	0.0001				
%RSD:	0.163	0.163	0.16				

QC value within limits for Hg 253.7 Recovery = 100.20%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 3/13/2010 08:11:21
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0001	0.0014	0.0003	08:12:22	Yes
2	0.009	0.009	0.0001	0.0015	0.0003	08:12:57	Yes
Mean:	0.009	0.009	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	3.974	3.974	7.44				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 248518001|964196|1 Date Collected: 3/13/2010 08:13:16
Analyst: JXL Data Type: Original

Replicate Data: 248518001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0000	0.0016	0.0003	08:14:17	Yes
2	0.008	0.008	0.0000	0.0019	0.0003	08:14:52	Yes
Mean:	0.007	0.007	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	19.79	19.79	45.55				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 248523001|964196|1 Date Collected: 3/13/2010 08:15:12
Analyst: JXL Data Type: Original

Replicate Data: 248523001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0000	0.0016	0.0003	08:16:13	Yes
2	0.005	0.005	0.0000	0.0015	0.0003	08:16:48	Yes
Mean:	0.006	0.006	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	9.345	9.345	32.53				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 248533001|964196|1 Date Collected: 3/13/2010 08:17:07
Analyst: JXL Data Type: Original

Replicate Data: 248533001|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.007	0.007	0.0000	0.0017	0.0003	08:18:09	Yes

Replicate Data: 1202068543|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.086	2.086	0.0241	0.1153	0.0243	08:27:50	Yes
2	2.102	2.102	0.0242	0.1155	0.0245	08:28:25	Yes
Mean:	2.094	2.094	0.0242				
SD:	0.011	0.011	0.0001				
%RSD:	0.523	0.523	0.52				

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 1202068544|964196|5 **Date Collected: 3/13/2010 08:28:45**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202068544|964196|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0001	0.0016	0.0003	08:29:45	Yes
2	0.007	0.007	0.0000	0.0016	0.0003	08:30:20	Yes
Mean:	0.008	0.008	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	22.97	22.97	46.36				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 248551002|964196|1 **Date Collected: 3/13/2010 08:30:40**
Analyst: JXL **Data Type: Original**

Replicate Data: 248551002|964196|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0000	0.0012	0.0003	08:31:41	Yes
2	0.005	0.005	0.0000	0.0013	0.0003	08:32:15	Yes
Mean:	0.005	0.005	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	5.023	5.023	38.58				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/13/2010 08:32:35**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.139	5.139	0.0594	0.2801	0.0596	08:33:35	Yes
2	5.137	5.137	0.0593	0.2796	0.0596	08:34:10	Yes
Mean:	5.138	5.138	0.0593				
SD:	0.002	0.002	0.0000				
%RSD:	0.030	0.030	0.03				

QC value within limits for Hg 253.7 Recovery = 102.76%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/13/2010 08:34:29**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0001	0.0014	0.0003	08:35:30	Yes
2	0.007	0.007	0.0000	0.0013	0.0003	08:36:05	Yes
Mean:	0.008	0.008	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	25.04	25.04	51.72				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 48 Autosampler Location: 42
Sample ID: 1202069578|964665|1 Date Collected: 3/13/2010 08:36:24
Analyst: JXL Data Type: Original

Replicate Data: 1202069578|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	-0.0000	0.0009	0.0002	08:37:25	Yes
2	0.002	0.002	-0.0000	0.0013	0.0002	08:38:00	Yes
Mean:	0.002	0.002	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	43.40	43.40	32.96				

Sequence No.: 49 Autosampler Location: 43
Sample ID: 1202069579|964665|1 Date Collected: 3/13/2010 08:38:19
Analyst: JXL Data Type: Original

Replicate Data: 1202069579|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.123	2.123	0.0245	0.1160	0.0248	08:39:20	Yes
2	2.111	2.111	0.0244	0.1146	0.0246	08:39:55	Yes
Mean:	2.117	2.117	0.0244				
SD:	0.009	0.009	0.0001				
%RSD:	0.411	0.411	0.41				

Sequence No.: 50 Autosampler Location: 44
Sample ID: 248550001|964665|1 Date Collected: 3/13/2010 08:40:14
Analyst: JXL Data Type: Original

Replicate Data: 248550001|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	-0.0000	0.0006	0.0002	08:41:15	Yes
2	0.003	0.003	-0.0000	0.0012	0.0003	08:41:50	Yes
Mean:	0.002	0.002	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	82.77	82.77	80.49				

Sequence No.: 51 Autosampler Location: 45
Sample ID: 248557001|964665|1 Date Collected: 3/13/2010 08:42:10
Analyst: JXL Data Type: Original

Replicate Data: 248557001|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	-0.0000	0.0010	0.0002	08:43:11	Yes
2	0.006	0.006	0.0000	0.0014	0.0003	08:43:46	Yes
Mean:	0.004	0.004	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	65.07	65.07	>999.9%				

Sequence No.: 52 Autosampler Location: 46
Sample ID: 248638001|964665|1 Date Collected: 3/13/2010 08:44:05
Analyst: JXL Data Type: Original

Replicate Data: 248638001|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

Replicate Data: 248697003|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	-0.0000	0.0006	0.0002	08:54:49	Yes
2	0.005	0.005	0.0000	0.0011	0.0003	08:55:24	Yes
Mean:	0.003	0.003	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	83.79	83.79	188.06				

Sequence No.: 58 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/13/2010 08:55:44**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.239	5.239	0.0605	0.2848	0.0608	08:56:44	Yes
2	5.269	5.269	0.0608	0.2848	0.0611	08:57:19	Yes
Mean:	5.254	5.254	0.0607				
SD:	0.021	0.021	0.0002				
%RSD:	0.403	0.403	0.40				

QC value within limits for Hg 253.7 Recovery = 105.07%
All analyte(s) passed QC.

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/13/2010 08:57:38**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	-0.0000	0.0008	0.0003	08:58:39	Yes
2	0.003	0.003	-0.0000	0.0009	0.0002	08:59:14	Yes
Mean:	0.003	0.003	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	11.12	11.12	23.12				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 60 **Autosampler Location: 52**
Sample ID: 248697004|964665|1 **Date Collected: 3/13/2010 08:59:33**
Analyst: JXL **Data Type: Original**

Replicate Data: 248697004|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	-0.0000	0.0008	0.0002	09:00:34	Yes
2	0.001	0.001	-0.0000	0.0007	0.0002	09:01:09	Yes
Mean:	0.002	0.002	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	38.87	38.87	38.59				

Sequence No.: 61 **Autosampler Location: 53**
Sample ID: 248778001|964665|1 **Date Collected: 3/13/2010 09:01:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 248778001|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	-0.0001	0.0006	0.0002	09:02:30	Yes
2	0.004	0.004	-0.0000	0.0009	0.0003	09:03:05	Yes
Mean:	0.001	0.001	-0.0000				

SD:	0.003	0.003	0.0000
%RSD:	226.1	226.1	122.55

==========

Sequence No.: 62 **Autosampler Location: 54**
Sample ID: 248783001|964665|1 **Date Collected: 3/13/2010 09:03:25**
Analyst: JXL **Data Type: Original**

Replicate Data: 248783001|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	-0.0000	0.0009	0.0002	09:04:26	Yes
2	0.003	0.003	-0.0000	0.0007	0.0002	09:05:00	Yes
Mean:	0.002	0.002	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	12.18	12.18	16.04				

==========

Sequence No.: 63 **Autosampler Location: 55**
Sample ID: 248792001|964665|1 **Date Collected: 3/13/2010 09:05:20**
Analyst: JXL **Data Type: Original**

Replicate Data: 248792001|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	-0.0000	0.0008	0.0002	09:06:21	Yes
2	0.007	0.007	0.0000	0.0011	0.0003	09:06:56	Yes
Mean:	0.005	0.005	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	75.04	75.04	845.08				

==========

Sequence No.: 64 **Autosampler Location: 56**
Sample ID: 248799001|964665|1 **Date Collected: 3/13/2010 09:07:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 248799001|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0001	0.0014	0.0003	09:08:17	Yes
2	0.004	0.004	-0.0000	0.0009	0.0003	09:08:52	Yes
Mean:	0.007	0.007	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	55.74	55.74	148.30				

==========

Sequence No.: 65 **Autosampler Location: 57**
Sample ID: 248809001|964665|1 **Date Collected: 3/13/2010 09:09:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 248809001|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.004	0.004	-0.0000	0.0010	0.0003	09:10:12	Yes
2	0.003	0.003	-0.0000	0.0008	0.0003	09:10:47	Yes
Mean:	0.003	0.003	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	27.68	27.68	114.81				

==========

Sequence No.: 66 **Autosampler Location: 58**
Sample ID: 248839001|964665|1 **Date Collected: 3/13/2010 09:11:07**
Analyst: JXL **Data Type: Original**

Replicate Data: 248839001|964665|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.009	0.009	0.0001	0.0013	0.0003	09:12:08	Yes
2	0.010	0.010	0.0001	0.0015	0.0003	09:12:43	Yes
Mean:	0.010	0.010	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	5.211	5.211	9.09				

==========

Sequence No.: 67 **Autosampler Location: 59**
Sample ID: 248839002|964665|1 **Date Collected: 3/13/2010 09:13:03**
Analyst: JXL **Data Type: Original**

Replicate Data: 248839002|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0000	0.0012	0.0003	09:14:04	Yes
2	0.004	0.004	-0.0000	0.0013	0.0003	09:14:39	Yes
Mean:	0.005	0.005	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	18.09	18.09	144.22				

==========

Sequence No.: 68 **Autosampler Location: 60**
Sample ID: 248859001|964665|1 **Date Collected: 3/13/2010 09:14:59**
Analyst: JXL **Data Type: Original**

Replicate Data: 248859001|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0000	0.0012	0.0003	09:16:01	Yes
2	0.005	0.005	0.0000	0.0012	0.0003	09:16:36	Yes
Mean:	0.005	0.005	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	7.733	7.733	41.81				

==========

Sequence No.: 69 **Autosampler Location: 61**
Sample ID: 248861001|964665|1 **Date Collected: 3/13/2010 09:16:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 248861001|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	-0.0000	0.0011	0.0003	09:17:58	Yes
2	0.003	0.003	-0.0000	0.0009	0.0003	09:18:33	Yes
Mean:	0.003	0.003	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	5.396	5.396	13.88				

==========

Sequence No.: 70 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/13/2010 09:18:53**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.121	5.121	0.0591	0.2763	0.0594	09:19:54	Yes
2	5.143	5.143	0.0594	0.2773	0.0597	09:20:29	Yes
Mean:	5.132	5.132	0.0593				
SD:	0.016	0.016	0.0002				
%RSD:	0.305	0.305	0.31				

QC value within limits for Hg 253.7 Recovery = 102.64%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**

Sample ID: CCB **Date Collected: 3/13/2010 09:20:48**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.004	0.004	-0.0000	0.0008	0.0003	09:21:49	Yes
2	0.003	0.003	-0.0000	0.0011	0.0003	09:22:24	Yes
Mean:	0.003	0.003	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	14.38	14.38	79.36				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 72 **Autosampler Location: 62**
Sample ID: 1202069580|964665|1 **Date Collected: 3/13/2010 09:22:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069580|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	-0.0000	0.0011	0.0003	09:23:44	Yes
2	0.003	0.003	-0.0000	0.0013	0.0003	09:24:19	Yes
Mean:	0.003	0.003	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	5.570	5.570	24.65				

Sequence No.: 73 **Autosampler Location: 63**
Sample ID: 1202069581|964665|1 **Date Collected: 3/13/2010 09:24:39**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069581|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.088	2.088	0.0241	0.1149	0.0244	09:25:41	Yes
2	2.113	2.113	0.0244	0.1157	0.0246	09:26:15	Yes
Mean:	2.101	2.101	0.0242				
SD:	0.018	0.018	0.0002				
%RSD:	0.835	0.835	0.84				

Sequence No.: 74 **Autosampler Location: 64**
Sample ID: 1202069582|964665|5 **Date Collected: 3/13/2010 09:26:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202069582|964665|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.007	0.007	0.0000	0.0014	0.0003	09:27:36	Yes
2	0.004	0.004	0.0000	0.0012	0.0003	09:28:11	Yes
Mean:	0.006	0.006	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	35.35	35.35	117.49				

Sequence No.: 75 **Autosampler Location: 65**
Sample ID: 248861002|964665|1 **Date Collected: 3/13/2010 09:28:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 248861002|964665|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	-0.0000	0.0011	0.0003	09:29:32	Yes
2	0.006	0.006	0.0000	0.0014	0.0003	09:30:08	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.717	1.717	0.0198	0.0936	0.0201	09:39:13	Yes
2	1.727	1.727	0.0199	0.0930	0.0202	09:39:49	Yes
Mean:	1.722	1.722	0.0199				
SD:	0.007	0.007	0.0001				
%RSD:	0.415	0.415	0.42				

==========

Sequence No.: 81 **Autosampler Location: 71**
Sample ID: 1202067242|963587|1 **Date Collected: 3/13/2010 09:40:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202067242|963587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	-0.0000	0.0009	0.0003	09:41:10	Yes
2	0.003	0.003	-0.0000	0.0011	0.0003	09:41:45	Yes
Mean:	0.003	0.003	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	2.959	2.959	10.30				

==========

Sequence No.: 82 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/13/2010 09:42:05**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.072	5.072	0.0586	0.2749	0.0588	09:43:05	Yes
2	5.101	5.101	0.0589	0.2750	0.0592	09:43:40	Yes
Mean:	5.087	5.087	0.0587				
SD:	0.021	0.021	0.0002				
%RSD:	0.406	0.406	0.41				

QC value within limits for Hg 253.7 Recovery = 101.73%
All analyte(s) passed QC.

==========

Sequence No.: 83 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/13/2010 09:43:59**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.008	0.008	0.0000	0.0014	0.0003	09:45:00	Yes
2	0.007	0.007	0.0000	0.0013	0.0003	09:45:35	Yes
Mean:	0.007	0.007	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	5.224	5.224	11.97				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 84 **Autosampler Location: 72**
Sample ID: 1202067245|963587|5 **Date Collected: 3/13/2010 09:45:54**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202067245|963587|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.008	0.008	0.0000	0.0013	0.0003	09:46:56	Yes
2	0.008	0.008	0.0000	0.0013	0.0003	09:47:31	Yes
Mean:	0.008	0.008	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.710	0.710	1.40				

Miscellaneous

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **987386.0** Verified by: _____

Analyst: Barry Audain

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202124414	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	UI1338243-A	.25	mL
LCS	1202124414	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).	UI1338253-B	.25	mL
MS	1202124416	ICPMS Rare Earth elements LCS standard	UI1303474-05	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202124413 MB	24-MAY-2010 18:21:00	Water	25	25	1	<2
1202124414 LCS	24-MAY-2010 18:21:00	Water	25	25	1	<2
248839002 - 2	24-MAY-2010 18:21:00	Water	25	25	1	<2
1202124415 - 2 DUP (248839002)	24-MAY-2010 18:21:00	Water	25	25	1	<2
1202124416 - 2 MS (248839002)	24-MAY-2010 18:21:00	Water	25	25	1	<2
1202124417 - 2 SDILT (248839002)	24-MAY-2010 18:21:00	Water	25	25	1	<2

Reagent/Solvent Lot ID	Description	Amount
1335913	Nitric Acid CONC.	.5 mL
1338237	HYDROCHLORIC ACID	1.25 mL

Comments:

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **964663.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7470A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: No analytical instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202069579	Mercury working intermediate standard for LCS/MS	WHG100312-13	.2	mL
MS	1202069581	Mercury working intermediate standard for LCS/MS	WHG100312-13	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202069578 MB	12-MAR-2010 15:10:00	Water	20	20	1	<2
1202069579 LCS	12-MAR-2010 15:10:00	Water	20	20	1	<2
248550001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248557001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248638001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248685001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248685002	12-MAR-2010 15:10:00	Water	20	20	1	<2
248697001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248697002	12-MAR-2010 15:10:00	Water	20	20	1	<2
248697003	12-MAR-2010 15:10:00	Water	20	20	1	<2
248697004	12-MAR-2010 15:10:00	Water	20	20	1	<2
248778001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248783001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248792001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248799001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248809001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248839001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248839002	12-MAR-2010 15:10:00	Water	20	20	1	<2
248859001	12-MAR-2010 15:10:00	Water	20	20	1	<2
248861001	12-MAR-2010 15:10:00	Water	20	20	1	<2
1202069580 DUP (248861001)	12-MAR-2010 15:10:00	Water	20	20	1	<2
1202069581 MS (248861001)	12-MAR-2010 15:10:00	Water	20	20	1	<2
1202069582 SDILT (248861001)	12-MAR-2010 15:10:00	Water	20	20	1	<2
248861002	12-MAR-2010 21:56:00	Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1176183	Sulfuric Acid, Concentrated	1 mL

Comments:

Digestion Start Date: 12-MAR-10 15:10

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **962981.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Metals Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202065850	Metals Spike Mix I	UI1268741-01	.25	mL
LCS	1202065850	Metals Spike Mix II	UI1268744-06	.25	mL
MS	1202065852	Metals Spike Mix I	UI1268741-01	.25	mL
MS	1202065852	Metals Spike Mix II	UI1268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202065849 MB	13-MAR-2010 03:15:00	Water	50	50	1	<2
1202065850 LCS	13-MAR-2010 03:15:00	Water	50	50	1	<2
248809001	13-MAR-2010 03:15:00	Water	50	50	1	<2
248839001	13-MAR-2010 03:15:00	Water	50	50	1	<2
248839002	13-MAR-2010 03:15:00	Water	50	50	1	<2
248859001	13-MAR-2010 03:15:00	Water	50	50	1	<2
248861001	13-MAR-2010 03:15:00	Water	50	50	1	<2
1202065851 DUP (248861001)	13-MAR-2010 03:15:00	Water	50	50	1	<2
1202065852 MS (248861001)	13-MAR-2010 03:15:00	Water	50	50	1	<2
1202065853 SDILT (248861001)	13-MAR-2010 03:15:00	Water	50	50	1	<2
248861002	13-MAR-2010 03:15:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1277916	HYDROCHLORIC ACID	2.5 mL
1282566	Nitric Acid CONC.	1 mL

Comments:

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **962983.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Metals Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202065855	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	UI1268746-A	.5	mL
LCS	1202065855	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).	UI1268749-B	.5	mL
MS	1202065857	ICP-MS DOE liquid Spike Solution A	UI090930-A	.5	mL
MS	1202065857	ICP-MS DOE Liquid Spike Solution B	UI090930-B	.5	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202065854 MB	13-MAR-2010 03:15:00	Water	50	50	1	<2
1202065855 LCS	13-MAR-2010 03:15:00	Water	50	50	1	<2
248809001	13-MAR-2010 03:15:00	Water	50	50	1	<2
248839001	13-MAR-2010 03:15:00	Water	50	50	1	<2
248839002	13-MAR-2010 03:15:00	Water	50	50	1	<2
248859001	13-MAR-2010 03:15:00	Water	50	50	1	<2
248861001	13-MAR-2010 03:15:00	Water	50	50	1	<2
1202065856 DUP (248861001)	13-MAR-2010 03:15:00	Water	50	50	1	<2
1202065857 MS (248861001)	13-MAR-2010 03:15:00	Water	50	50	1	<2
1202065858 SDILT (248861001)	13-MAR-2010 03:15:00	Water	50	50	1	<2
248861002	13-MAR-2010 03:15:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1277916	HYDROCHLORIC ACID	2.5 mL
1282566	Nitric Acid CONC.	1 mL

Comments:

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **987937.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Metals Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202125832	ICPMS Rare Earth elements LCS standard	UI1303474-05	.125	mL
MS	1202125834	ICPMS Rare Earth elements LCS standard	UI1303474-05	.125	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202125831 MB	25-MAY-2010 10:00:00	Water	25	25	1	<2
1202125832 LCS	25-MAY-2010 10:00:00	Water	25	25	1	<2
248839001 - 2	25-MAY-2010 10:00:00	Water	25	25	1	<2
1202125833 - 2 DUP (248839001)	25-MAY-2010 10:00:00	Water	25	25	1	<2
1202125834 - 2 MS (248839001)	25-MAY-2010 10:00:00	Water	25	25	1	<2
1202125835 - 2 SDILT (248839001)	25-MAY-2010 10:00:00	Water	25	25	1	<2

Reagent/Solvent Lot ID	Description	Amount
1335913	Nitric Acid CONC.	.5 mL
1338237	HYDROCHLORIC ACID	1.25 mL

Comments:

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 22-APR-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Standard Logbook

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	30 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	30 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	100 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	3 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	5 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L

Analyte	Concentration	Analyte	Concentration
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID:	UI090925-41	**Opened:**	23-OCT-09	**Amount :**	500 mL
Name:	SECOND SOURCE STD -1	**Received:**	25-SEP-09	**Catalog Number :**	SGELMX39-500B
Type:	Source Material	**Expires:**	30-SEP-10	**Lot Number :**	4909130
Employee:	Helen Camello			**Solvent :**	5%HNO3,TR.HF
Supplier:	SPECTRO PURE				
Description:	SECOND SOURCE STD #1B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID:	UI090930-A	**Opened:**	30-SEP-09	**Catalog Number :**	160067-02
Name:	ICP-MS DOE Liquid SPIKE	**Received:**	28-SEP-09	**Lot Number :**	1017141
Type:	Source Material	**Expires:**	30-SEP-10		
Employee:	Francena Armstrong	**Verified:**	21-NOV-08		
Supplier:	O2Si				
Description:	ICP-MS DOE liquid Spike Solution A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100310-49.13 **Opened:** 31-MAR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 01-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100317-06 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-MAR-10 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019161
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI100317-07 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-MAR-10 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019162
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L

Analyte	Concentration	Analyte	Concentration
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI100317-08 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-MAR-10 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019163
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI100325-41 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100509-11 **Opened:** 09-MAY-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 09-MAY-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 09-MAY-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI1268741-01 **Opened:** 11-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1268744-06 **Opened:** 11-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI1268746-A **Opened:** 11-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 11-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L

Analyte	Concentration	Analyte	Concentration
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI1268749-B **Opened:** 11-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 11-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI1303474-05 **Opened:** 19-APR-10 **Amount :** 100 mL
Name: ICP-MS Rare Earth SPIKE **Received:** 19-APR-10 **Catalog Number :** 160203-01-01
Type: Source Material **Expires:** 19-APR-11 **Lot Number :** 1019528
Employee: Jamie Johnson **Solvent :** 2% HNO3
Supplier: O2SI
Description: ICPMS Rare Earth elements LCS standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Cerium	10 mg/L	Cesium	10 mg/L
Europium	10 mg/L	Lanthanum	10 mg/L
Neodymium	10 mg/L	Praseodymium	10 mg/L
Ruthenium	10 mg/L	Samarium	10 mg/L
Terbium	10 mg/L		

Serial ID: UI1338243-A **Opened:** 13-MAY-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 13-MAY-10 **Lot Number :** 1019724
Type: Source Material **Expires:** 13-MAY-11
Employee: Anthony Green
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI1338253-B **Opened:** 13-MAY-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 13-MAY-10 **Lot Number :** 1019724
Type: Source Material **Expires:** 13-MAY-11
Employee: Anthony Green
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100415-03 **Opened:** 15-APR-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100312-01 **Opened:** 12-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 12-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 13-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: IHG100312-02 **Opened:** 12-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 13-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100312-01a **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100312-02 **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100312-03 **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Standard Logbook

Serial ID: WHG100312-04 **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100312-05 **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100312-06 **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100312-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100312-13 **Opened:** 12-MAR-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 12-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 19-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: WI100331-42 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100331-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100331-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100331-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100331-43 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100331-44 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1293083
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100331-45 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100331-46 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1293083
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100331-47 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL &1%HNO3-1293083
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100510-04AB **Opened:** 10-MAY-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 10-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 11-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100510-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100510-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100510-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100510-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100510-04B **Opened:** 10-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 10-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 11-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1336588
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100510-06B **Opened:** 10-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 10-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 11-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100510-07B **Opened:** 10-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 10-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 11-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1336588
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100510-08B **Opened:** 10-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 10-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 11-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100511-04AB **Opened:** 11-MAY-10 **Balance Id :** 40245216

Name: ICPMS Cal Standard 10 **Received:** 11-MAY-10 **Pipet Id :** 3541598

Type: Working **Expires:** 12-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588

Employee: Rose Jenkins

Supplier: GEL

Description: ICPMS Calibration Standard (10 ppb)

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100511-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100511-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100511-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100511-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100511-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100511-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100511-04B **Opened:** 11-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 11-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 12-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1336588
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100511-06B **Opened:** 11-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 11-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 12-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100511-07B **Opened:** 11-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 11-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 12-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1336588
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100511-08B **Opened:** 11-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 11-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 12-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100526-04 **Opened:** 26-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 26-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 27-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1342941
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100526-04A **Opened:** 26-MAY-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 26-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 27-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100526-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100526-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100526-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100526-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100526-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100526-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100526-05 **Opened:** 26-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 26-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 27-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1342941
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100526-06 **Opened:** 26-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 26-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 27-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1342941
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	30 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	200 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100526-07 **Opened:** 26-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 26-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 27-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1342941
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100526-08 **Opened:** 26-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 26-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 27-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1342941
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-08
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL

Standard Logbook

Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1276435-C **Opened:** 28-FEB-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-FEB-10
Type: Reagent/Solvent **Expires:** 28-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1277916 **Opened:** 02-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 02-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Standard Logbook

Serial ID: 1282566 **Opened:** 09-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 09-MAR-10
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1293083 **Opened:** 29-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 29-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 04-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1302252 **Opened:** 15-APR-10 **Lot Number :** J 10027 L
Name: I-HNO3 **Received:** 15-APR-10
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1302255 **Opened:** 15-APR-10 **Lot Number :** J07033
Name: I-HCL **Received:** 15-APR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1335913 **Opened:** 07-MAY-10 **Lot Number :** J10038 L
Name: I-HNO3 **Received:** 07-MAY-10
Type: Reagent/Solvent **Expires:** 07-MAY-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1336568 **Opened:** 10-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 10-MAY-10
Type: Reagent/Solvent **Expires:** 17-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1302255	I-HCL	36.5-38.0	80 mL	8 l	N/A

Serial ID: 1338237 **Opened:** 13-MAY-10 **Lot Number :** J11034
Name: I-HCL **Received:** 13-MAY-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 13-MAY-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1342941 **Opened:** 24-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 24-MAY-10
Type: Reagent/Solvent **Expires:** 31-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1338237	I-HCL	36.5-38.0	80 mL	8 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2299

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	962262	**Method:**	SW9012A Cyanide and Total
Prep Batch :	962261	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
248834001	RE46-10-13867
248834002	RE46-10-13864
248834003	RE46-10-13863
248834004	RE46-10-13869
248834005	RE46-10-13861
248834006	RE46-10-13866
248834007	RE46-10-13860
248834008	RE46-10-13865
248834009	RE46-10-13868
248834010	RE46-10-13862
248834011	RE46-10-13873
1202064149	Method Blank (MB)
1202064150	248814001(RE46-10-13553) Sample Duplicate (DUP)
1202064151	248814002(RE46-10-13549) Sample Duplicate (DUP)
1202064152	248814001(RE46-10-13553) Matrix Spike (MS)
1202064153	248814002(RE46-10-13549) Matrix Spike (MS)
1202064154	248814001(RE46-10-13553) Matrix Spike Duplicate (MSD)
1202064155	248814002(RE46-10-13549) Matrix Spike Duplicate (MSD)
1202064156	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 248814001 (RE46-10-13553) and 248814002 (RE46-10-13549).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The spike recovery falls outside of the client specified acceptance limits due to matrix interference: 1202064153 (RE46-10-13549).

Matrix Spike Duplicate (MSD) Recovery Statement

The spike recovery duplicate falls outside of the client specified acceptance limits due to matrix interference: 1202064155 (RE46-10-13549).

MS/MSD Relative Percent Difference (RPD) Statement

The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202064156 (LCS).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 808136 1202064153 (RE46-10-13549) and 1202064155 (RE46-10-13549).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer:_____ **Date:** 03/31/10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2299 GEL Work Order: 248834

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13864	Project:	LANL01004
Sample ID:	248834002	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	14%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	71.7	68.2	251	ug/kg	1	AXC2 03/16/10	2106	962262	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13863	Project:	LANL01004
Sample ID:	248834003	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	11.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.9	272	ug/kg	1	AXC2 03/16/10	2106	962262	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13869	Project:	LANL01004
Sample ID:	248834004	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	7.99%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	68.4	252	ug/kg	1	AXC2 03/16/10	2107	962262	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13861	Project:	LANL01004
Sample ID:	248834005	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	12.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	71.6	263	ug/kg	1	AXC2 03/16/10	2108	962262	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13866	Project:	LANL01004
Sample ID:	248834006	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	7.09%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	65.3	240	ug/kg	1	AXC2 03/16/10	2109	962262	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13860	Project:	LANL01004
Sample ID:	248834007	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	9.53%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	64.8	238	ug/kg	1	AXC2 03/16/10	2110	962262	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13865	Project:	LANL01004
Sample ID:	248834008	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	8.45%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	67.5	248	ug/kg	1	AXC2 03/16/10	2111	962262	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13868	Project:	LANL01004
Sample ID:	248834009	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	7.71%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.8	260	ug/kg	1	AXC2 03/16/10	2112	962262	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13862	Project:	LANL01004
Sample ID:	248834010	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	11.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.2	276	ug/kg	1	AXC2 03/16/10	2113	962262	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13873	Project:	LANL01004
Sample ID:	248834011	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	7.07%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	63.1	232	ug/kg	1	AXC2 03/16/10	2114	962262	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 31, 2010

Client SDG: 10-2299

Client Sample ID:	RE46-10-13867	Project:	LANL01004
Sample ID:	248834001	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	05-MAR-10		
Collector:	Client		
Moisture:	7.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.8	271	ug/kg	1	AXC2 03/16/10	2101	962262	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/15/10	1642	962261

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: March 31, 2010

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 248834

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 962262										
QC1202064150 248814001 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	03/16/10 20:45
QC1202064151 248814002 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A				03/16/10 20:49
QC1202064156 LCS										
Cyanide, Total	67900			53000	ug/kg		78.1	(32%-157%)		03/16/10 20:43
QC1202064149 MB										
Cyanide, Total			U	250	ug/kg					03/16/10 20:42
QC1202064152 248814001 MS										
Cyanide, Total	5700 U	ND		5300	ug/kg		93	(26%-158%)		03/16/10 20:46
QC1202064153 248814002 MS										
Cyanide, Total	5450 U	ND		3090	ug/kg		56.8	(26%-158%)		03/16/10 20:53
QC1202064154 248814001 MSD										
Cyanide, Total	5010 U	ND		4760	ug/kg	10.7	95	(0%-30%)		03/16/10 20:47
QC1202064155 248814002 MSD										
Cyanide, Total	5550 U	ND		3810	ug/kg	20.8	68.7	(0%-30%)		03/16/10 20:54

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based

QC Summary

Workorder: 248834

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

on nearest internal standard response factor

N/A RPD or %Recovery limits do not apply.

ND Analyte concentration is not detected above the detection limit

NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%

R Sample results are rejected

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

UI Gamma Spectroscopy--Uncertain identification

UJ Gamma Spectroscopy--Uncertain identification

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Y QC Samples were not spiked with this compound

Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 31-MAR-2010 09:08

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-2299**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**16-MAR-2010 11:44:35**	**OM_3-16-2010_11-35-56**	**150**	**150**	**100**	**(90%-110%)**	**Yes**
CCV	16-MAR-2010 20:37:28	OM_3-16-2010_20-23-30	106	100	106	(90%-110%)	Yes
CCV	16-MAR-2010 20:50:00	OM_3-16-2010_20-23-30	107	100	107	(90%-110%)	Yes
CCV	16-MAR-2010 21:02:25	OM_3-16-2010_20-23-30	108	100	108	(90%-110%)	Yes
CCV	16-MAR-2010 21:14:56	OM_3-16-2010_20-23-30	109	100	109	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**16-MAR-2010 11:46:25**	**OM_3-16-2010_11-35-56**	**-1.57**	**10**	**Yes**
CCB	16-MAR-2010 20:39:18	OM_3-16-2010_20-23-30	-1.61	10	Yes
CCB	16-MAR-2010 20:51:50	OM_3-16-2010_20-23-30	-2.4	10	Yes
CCB	16-MAR-2010 21:04:15	OM_3-16-2010_20-23-30	-1.85	10	Yes
CCB	16-MAR-2010 21:16:46	OM_3-16-2010_20-23-30	-2.15	10	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **962261.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064156	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202064152	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064153	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064154	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064155	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202064149 MB	15-MAR-2010 16:42:00	Soil	0.5	25	50	>12
1202064156 LCS	15-MAR-2010 16:42:00	Soil	0.25	25	100	>12
248814001	15-MAR-2010 16:42:00	Soil	0.5	25	50	>12
1202064150 DUP (248814001)	15-MAR-2010 16:42:00	Soil	0.51	25	49.01961	>12
1202064152 MS (248814001)	15-MAR-2010 16:42:00	Soil	0.51	25	49.01961	>12
1202064154 MSD (248814001)	15-MAR-2010 16:42:00	Soil	0.58	25	43.10345	>12
248814002	15-MAR-2010 16:42:00	Soil	0.56	25	44.64286	>12
1202064151 DUP (248814002)	15-MAR-2010 16:42:00	Soil	0.5	25	50	>12
1202064153 MS (248814002)	15-MAR-2010 16:42:00	Soil	0.55	25	45.45455	>12
1202064155 MSD (248814002)	15-MAR-2010 16:42:00	Soil	0.54	25	46.2963	>12
248814003	15-MAR-2010 16:42:00	Soil	0.53	25	47.16981	>12
248814004	15-MAR-2010 16:42:00	Soil	0.51	25	49.01961	>12
248814005	15-MAR-2010 16:42:00	Soil	0.54	25	46.2963	>12
248814006	15-MAR-2010 16:42:00	Soil	0.52	25	48.07692	>12
248814007	15-MAR-2010 16:42:00	Soil	0.56	25	44.64286	>12
248814008	15-MAR-2010 16:42:00	Soil	0.59	25	42.37288	>12
248814009	15-MAR-2010 16:42:00	Soil	0.51	25	49.01961	>12
248834001	15-MAR-2010 16:42:00	Soil	0.5	25	50	>12
248834002	15-MAR-2010 16:42:00	Soil	0.58	25	43.10345	>12
248834003	15-MAR-2010 16:42:00	Soil	0.52	25	48.07692	>12
248834004	15-MAR-2010 16:42:00	Soil	0.54	25	46.2963	>12

Prep Logbook

Batch ID: **962261.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064156	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202064152	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064153	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064154	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064155	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
248834005	15-MAR-2010 16:42:00	Soil	0.54	25	46.2963	>12
248834006	15-MAR-2010 16:42:00	Soil	0.56	25	44.64286	>12
248834007	15-MAR-2010 16:42:00	Soil	0.58	25	43.10345	>12
248834008	15-MAR-2010 16:42:00	Soil	0.55	25	45.45455	>12
248834009	15-MAR-2010 16:42:00	Soil	0.52	25	48.07692	>12
248834010	15-MAR-2010 16:42:00	Soil	0.51	25	49.01961	>12
248834011	15-MAR-2010 16:42:00	Soil	0.58	25	43.10345	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100315-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/16/2010 11:37:26	OM_3-16-2010_11-35-56
150 ppb		1	axc2	3/16/2010 11:38:18	OM_3-16-2010_11-35-56
100 ppb		1	axc2	3/16/2010 11:39:11	OM_3-16-2010_11-35-56
50 ppb		1	axc2	3/16/2010 11:40:04	OM_3-16-2010_11-35-56
10 ppb		1	axc2	3/16/2010 11:40:57	OM_3-16-2010_11-35-56
CRDL 5.0 ppb		1	axc2	3/16/2010 11:41:50	OM_3-16-2010_11-35-56
ICAL-00		1	axc2	3/16/2010 11:42:45	OM_3-16-2010_11-35-56
ICV		1	axc2	3/16/2010 11:44:35	OM_3-16-2010_11-35-56
ICB		1	axc2	3/16/2010 11:46:25	OM_3-16-2010_11-35-56
CRDL		1	axc2	3/16/2010 11:48:15	OM_3-16-2010_11-35-56
1202068586	964224	1	axc2	3/16/2010 11:50:05	OM_3-16-2010_11-35-56
1202068593	964224	25	axc2	3/16/2010 11:50:58	OM_3-16-2010_11-35-56
249057002	964224	1	axc2	3/16/2010 11:51:51	OM_3-16-2010_11-35-56
1202068588	964224	1	axc2	3/16/2010 11:52:44	OM_3-16-2010_11-35-56
1202068590	964224	1	axc2	3/16/2010 11:53:37	OM_3-16-2010_11-35-56
1202068592	964224	1	axc2	3/16/2010 11:54:29	OM_3-16-2010_11-35-56
249076003	964224	1	axc2	3/16/2010 11:55:22	OM_3-16-2010_11-35-56
249076004	964224	1	axc2	3/16/2010 11:56:15	OM_3-16-2010_11-35-56
249076005	964224	1	axc2	3/16/2010 11:57:07	OM_3-16-2010_11-35-56
249076006	964224	1	axc2	3/16/2010 11:58:00	OM_3-16-2010_11-35-56
CCV		1	axc2	3/16/2010 11:58:52	OM_3-16-2010_11-35-56
CCB		1	axc2	3/16/2010 12:00:42	OM_3-16-2010_11-35-56
1202068587	964224	1	axc2	3/16/2010 12:02:30	OM_3-16-2010_11-35-56
1202068589	964224	1	axc2	3/16/2010 12:03:22	OM_3-16-2010_11-35-56
1202068591	964224	1	axc2	3/16/2010 12:04:14	OM_3-16-2010_11-35-56
249076007	964224	1	axc2	3/16/2010 12:05:06	OM_3-16-2010_11-35-56
249076008	964224	1	axc2	3/16/2010 12:05:57	OM_3-16-2010_11-35-56
249076009	964224	1	axc2	3/16/2010 12:06:51	OM_3-16-2010_11-35-56
249076010	964224	1	axc2	3/16/2010 12:07:45	OM_3-16-2010_11-35-56
249076011	964224	1	axc2	3/16/2010 12:08:39	OM_3-16-2010_11-35-56
249076012*	964224	1	axc2	3/16/2010 12:09:32	OM_3-16-2010_11-35-56
249076013	964224	1	axc2	3/16/2010 12:10:25	OM_3-16-2010_11-35-56
CCV		1	axc2	3/16/2010 12:11:17	OM_3-16-2010_11-35-56
CCB		1	axc2	3/16/2010 12:13:08	OM_3-16-2010_11-35-56
249076012*	964224	1	axc2	3/16/2010 12:14:57	OM_3-16-2010_11-35-56
249076014*	964224	1	axc2	3/16/2010 12:15:50	OM_3-16-2010_11-35-56
249076015*	964224	1	axc2	3/16/2010 12:16:43	OM_3-16-2010_11-35-56
249076016*	964224	1	axc2	3/16/2010 12:17:36	OM_3-16-2010_11-35-56
249076017*	964224	1	axc2	3/16/2010 12:18:28	OM_3-16-2010_11-35-56
249076018*	964224	1	axc2	3/16/2010 12:19:21	OM_3-16-2010_11-35-56
249076019*	964224	1	axc2	3/16/2010 12:20:13	OM_3-16-2010_11-35-56
249076020*	964224	1	axc2	3/16/2010 12:21:06	OM_3-16-2010_11-35-56
249097002*	964224	1	axc2	3/16/2010 12:21:57	OM_3-16-2010_11-35-56
249076016*	964224	1	axc2	3/16/2010 12:22:50	OM_3-16-2010_11-35-56
CCV		1	axc2	3/16/2010 12:23:42	OM_3-16-2010_11-35-56
CCB		1	axc2	3/16/2010 12:25:32	OM_3-16-2010_11-35-56

Author: axc2 Date : 3/16/2010

Original Run Filename: OM_3-16-2010_11-35-56.OMN created 3/16/2010 11:35:56
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-16-2010_11-35-56.OMN last modified 3/16/2010 12:26:37
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100316-01	1	S1	200	9.76	3/16/2010@11:37:26			200 ppb
WCN100316-02	1	S2	150	7.51	3/16/2010@11:38:18			150 ppb
WCN100316-03	1	S3	100	4.94	3/16/2010@11:39:11			100 ppb
WCN100316-04	1	S4	50.0	2.64	3/16/2010@11:40:04			50 ppb
WCN100316-05	1	S5	10.0	0.638	3/16/2010@11:40:57			10 ppb
WCN100316-06	1	S6	5.00	0.357	3/16/2010@11:41:50			CRDL 5.0 ppb
WCN100316-08	1	S7	0.00	-0.00167	3/16/2010@11:42:45			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99976 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100316-07	1	S8	150	7.40	3/16/2010@11:44:35			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-0.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100316-08	1	S7	-1.57	0.0343	3/16/2010@11:46:25			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.57 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.57 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100316-06	1	S6	5.32	0.370	3/16/2010@11:48:15			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.32 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.32 > 2.50					
		Message	Pass					
		Action	None					
1202068586|964224|MB	1	1	-2.27	6.18e-4	3/16/2010@11:50:05			
1202068593||LCS	1	2	25.7	1.36	3/16/2010@11:50:58		25.00	
249057002	1	3	-0.148	0.104	3/16/2010@11:51:51			
1202068588||DUP	1	4	-1.32	0.0465	3/16/2010@11:52:44			
1202068590||MS	1	5	65.5	3.30	3/16/2010@11:53:37			
1202068592||MSD	1	6	50.1	2.55	3/16/2010@11:54:29			
249076003	1	7	-1.29	0.0482	3/16/2010@11:55:22			
249076004	1	8	-1.74	0.0261	3/16/2010@11:56:15			
249076005	1	9	-1.54	0.0360	3/16/2010@11:57:07			
249076006	1	10	-1.62	0.0319	3/16/2010@11:58:00			
WCN100316-03	1	S3	104	5.18	3/16/2010@11:58:52			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.0 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-0.661	0.0787	3/16/2010@12:00:42			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.661 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.661 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202068587||DUP	1	11	-1.57	0.0343	3/16/2010@12:02:30			
1202068589||MS	1	12	105	5.23	3/16/2010@12:03:22			
1202068591||MSD	1	13	102	5.06	3/16/2010@12:04:14			
249076007	1	14	-1.54	0.0360	3/16/2010@12:05:06			
249076008	1	15	-1.55	0.0353	3/16/2010@12:05:57			
249076009	1	16	-2.51	-0.0113	3/16/2010@12:06:51			
249076010	1	17	-2.28	-1.61e-4	3/16/2010@12:07:45			
249076011	1	18	-1.46	0.0401	3/16/2010@12:08:39			
249076012	1	19	-10.7	-0.410	3/16/2010@12:09:32			
249076013	1	20	1.99	0.208	3/16/2010@12:10:25			
WCN100316-03	1	S3	103	5.14	3/16/2010@12:11:17			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	4.21	0.316	3/16/2010@12:13:08			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	4.21 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	4.21 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249076012	1	19	-3.02	-0.0360	3/16/2010@12:14:57			
249076014	1	21	-1.62	0.0320	3/16/2010@12:15:50			
249076015	1	22	0.262	0.124	3/16/2010@12:16:43			
249076016	1	23	-5.77	-0.170	3/16/2010@12:17:36			
249076017	1	24	-1.58	0.0341	3/16/2010@12:18:28			
249076018	1	25	-2.16	0.00576	3/16/2010@12:19:21			
249076019	1	26	-4.94	-0.130	3/16/2010@12:20:13			
249076020	1	27	-2.28	-2.14e-4	3/16/2010@12:21:06			
249097002	1	28	-1.64	0.0313	3/16/2010@12:21:57			
249076016	1	23	-1.01	0.0618	3/16/2010@12:22:50			
WCN100316-03	1	S3	103	5.10	3/16/2010@12:23:42			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	9.14	0.556	3/16/2010@12:25:32			CCB
		Known Conc:	0.00					

Author: axc2 Date : 3/16/2010

DQM Test: > + Concentration Limit						
Result:	9.14 > 5.00					
Message	CCB Failed					
Action	Stop Run					
DQM Test: < - Concentration Limit						
Result:	9.14 > -5.00					
Message	CCB Passed					
Action	Continue					

Analyte Properties Table for OM_3-16-2010_11-35-56.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

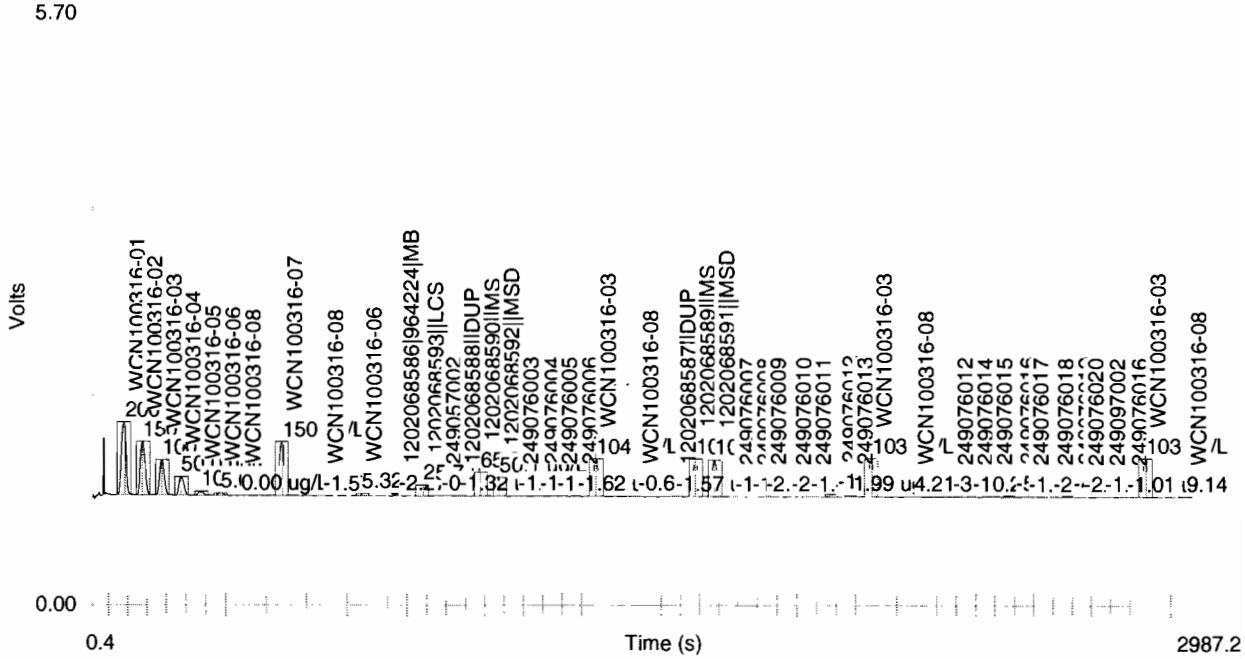

Author: axc2 Date : 3/16/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.76	0.694	0.8	3/16/2010	11:38:29
2	150	1	7.51	0.508	-1.4	3/16/2010	11:39:21
3	100	1	4.94	0.333	0.7	3/16/2010	11:40:14
4	50.0	1	2.64	0.177	-3.6	3/16/2010	11:41:07
5	10.0	1	0.638	0.0416	-6.6	3/16/2010	11:42:00
6	5.00	1	0.357	0.0229	-0.2	3/16/2010	11:42:53
7	0.00	1	-0.00167	-0.00189		3/16/2010	11:43:48

Figure 1: TCYANIDE

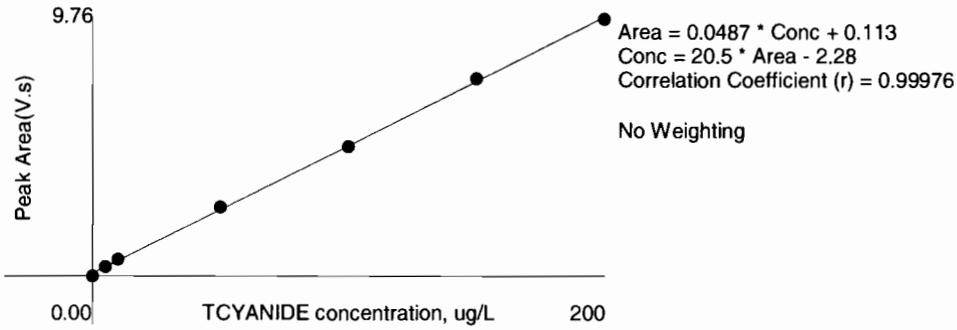

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	3/16/2010 20:25:01	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 20:26:51	OM_3-16-2010_20-23-30
249076012	964224	1	axc2	3/16/2010 20:28:41	OM_3-16-2010_20-23-30
249076014	964224	1	axc2	3/16/2010 20:29:34	OM_3-16-2010_20-23-30
249076015	964224	1	axc2	3/16/2010 20:30:27	OM_3-16-2010_20-23-30
249076016	964224	1	axc2	3/16/2010 20:31:20	OM_3-16-2010_20-23-30
249076017	964224	1	axc2	3/16/2010 20:32:13	OM_3-16-2010_20-23-30
249076018	964224	1	axc2	3/16/2010 20:33:05	OM_3-16-2010_20-23-30
249076019	964224	1	axc2	3/16/2010 20:33:57	OM_3-16-2010_20-23-30
249076020	964224	1	axc2	3/16/2010 20:34:49	OM_3-16-2010_20-23-30
249097002	964224	1	axc2	3/16/2010 20:35:42	OM_3-16-2010_20-23-30
1202064134*	962258	1	axc2	3/16/2010 20:36:36	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 20:37:28	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 20:39:18	OM_3-16-2010_20-23-30
1202064134	962258	1	axc2	3/16/2010 20:41:09	OM_3-16-2010_20-23-30
248798002	962258	1	axc2	3/16/2010 20:42:03	OM_3-16-2010_20-23-30
1202064149	962262	1	axc2	3/16/2010 20:42:54	OM_3-16-2010_20-23-30
1202064156	962262	25	axc2	3/16/2010 20:43:46	OM_3-16-2010_20-23-30
248814001	962262	1	axc2	3/16/2010 20:44:40	OM_3-16-2010_20-23-30
1202064150	962262	1	axc2	3/16/2010 20:45:34	OM_3-16-2010_20-23-30
1202064152	962262	1	axc2	3/16/2010 20:46:27	OM_3-16-2010_20-23-30
1202064154	962262	1	axc2	3/16/2010 20:47:21	OM_3-16-2010_20-23-30
248814002	962262	1	axc2	3/16/2010 20:48:14	OM_3-16-2010_20-23-30
1202064151	962262	1	axc2	3/16/2010 20:49:07	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 20:50:00	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 20:51:50	OM_3-16-2010_20-23-30
1202064153	962262	1	axc2	3/16/2010 20:53:39	OM_3-16-2010_20-23-30
1202064155	962262	1	axc2	3/16/2010 20:54:32	OM_3-16-2010_20-23-30
248814003	962262	1	axc2	3/16/2010 20:55:25	OM_3-16-2010_20-23-30
248814004	962262	1	axc2	3/16/2010 20:56:18	OM_3-16-2010_20-23-30
248814005	962262	1	axc2	3/16/2010 20:57:10	OM_3-16-2010_20-23-30
248814006	962262	1	axc2	3/16/2010 20:58:02	OM_3-16-2010_20-23-30
248814007	962262	1	axc2	3/16/2010 20:58:55	OM_3-16-2010_20-23-30
248814008	962262	1	axc2	3/16/2010 20:59:46	OM_3-16-2010_20-23-30
248814009	962262	1	axc2	3/16/2010 21:00:38	OM_3-16-2010_20-23-30
248834001	962262	1	axc2	3/16/2010 21:01:32	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 21:02:25	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 21:04:15	OM_3-16-2010_20-23-30
248834002	962262	1	axc2	3/16/2010 21:06:05	OM_3-16-2010_20-23-30
248834003	962262	1	axc2	3/16/2010 21:06:58	OM_3-16-2010_20-23-30
248834004	962262	1	axc2	3/16/2010 21:07:52	OM_3-16-2010_20-23-30
248834005	962262	1	axc2	3/16/2010 21:08:45	OM_3-16-2010_20-23-30
248834006	962262	1	axc2	3/16/2010 21:09:39	OM_3-16-2010_20-23-30
248834007	962262	1	axc2	3/16/2010 21:10:32	OM_3-16-2010_20-23-30
248834008	962262	1	axc2	3/16/2010 21:11:25	OM_3-16-2010_20-23-30
248834009	962262	1	axc2	3/16/2010 21:12:18	OM_3-16-2010_20-23-30
248834010	962262	1	axc2	3/16/2010 21:13:11	OM_3-16-2010_20-23-30
248834011	962262	1	axc2	3/16/2010 21:14:04	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 21:14:56	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 21:16:46	OM_3-16-2010_20-23-30
1202064141	962260	1	axc2	3/16/2010 21:18:34	OM_3-16-2010_20-23-30
248700001	962260	1	axc2	3/16/2010 21:19:26	OM_3-16-2010_20-23-30
1202064148*	962260	25	axc2	3/16/2010 21:20:18	OM_3-16-2010_20-23-30
1202064142	962260	1	axc2	3/16/2010 21:21:11	OM_3-16-2010_20-23-30
1202064144	962260	1	axc2	3/16/2010 21:22:04	OM_3-16-2010_20-23-30
1202064146	962260	1	axc2	3/16/2010 21:22:59	OM_3-16-2010_20-23-30
248700002	962260	1	axc2	3/16/2010 21:23:53	OM_3-16-2010_20-23-30
1202064143	962260	1	axc2	3/16/2010 21:24:47	OM_3-16-2010_20-23-30

1202064145	962260	1	axc2	3/16/2010 21:25:41	OM_3-16-2010_20-23-30
1202064147	962260	1	axc2	3/16/2010 21:26:35	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 21:27:27	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 21:29:17	OM_3-16-2010_20-23-30
1202064148	962260	25	axc2	3/16/2010 21:31:06	OM_3-16-2010_20-23-30
248700003	962260	1	axc2	3/16/2010 21:31:59	OM_3-16-2010_20-23-30
248700004	962260	1	axc2	3/16/2010 21:32:52	OM_3-16-2010_20-23-30
248700005	962260	1	axc2	3/16/2010 21:33:45	OM_3-16-2010_20-23-30
248700006	962260	1	axc2	3/16/2010 21:34:38	OM_3-16-2010_20-23-30
248700007	962260	1	axc2	3/16/2010 21:35:31	OM_3-16-2010_20-23-30
248700008	962260	1	axc2	3/16/2010 21:36:24	OM_3-16-2010_20-23-30
248700009	962260	1	axc2	3/16/2010 21:37:16	OM_3-16-2010_20-23-30
248700010	962260	1	axc2	3/16/2010 21:38:09	OM_3-16-2010_20-23-30
248700011	962260	1	axc2	3/16/2010 21:39:01	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 21:39:53	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 21:41:43	OM_3-16-2010_20-23-30
248700012*	962260	1	axc2	3/16/2010 21:43:35	OM_3-16-2010_20-23-30
248700013*	962260	1	axc2	3/16/2010 21:44:29	OM_3-16-2010_20-23-30
248700014*	962260	1	axc2	3/16/2010 21:45:23	OM_3-16-2010_20-23-30
248700015*	962260	1	axc2	3/16/2010 21:46:17	OM_3-16-2010_20-23-30
248700016*	962260	1	axc2	3/16/2010 21:47:11	OM_3-16-2010_20-23-30
1202068608*	964231	1	axc2	3/16/2010 21:48:04	OM_3-16-2010_20-23-30
1202068618*	964231	1	axc2	3/16/2010 21:48:58	OM_3-16-2010_20-23-30
249076001*	964231	1	axc2	3/16/2010 21:49:51	OM_3-16-2010_20-23-30
248634002*	964231	1	axc2	3/16/2010 21:50:45	OM_3-16-2010_20-23-30
248885002*	964231	1	axc2	3/16/2010 21:51:37	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 21:52:30	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 21:54:21	OM_3-16-2010_20-23-30
248952011*	964231	1	axc2	3/16/2010 21:56:10	OM_3-16-2010_20-23-30
1202068610*	964231	1	axc2	3/16/2010 21:57:03	OM_3-16-2010_20-23-30
1202068613*	964231	1	axc2	3/16/2010 21:57:57	OM_3-16-2010_20-23-30
1202068616*	964231	1	axc2	3/16/2010 21:58:49	OM_3-16-2010_20-23-30
248952012*	964231	1	axc2	3/16/2010 21:59:41	OM_3-16-2010_20-23-30
248952018*	964231	1	axc2	3/16/2010 22:00:33	OM_3-16-2010_20-23-30
248964002*	964231	1	axc2	3/16/2010 22:01:28	OM_3-16-2010_20-23-30
1202068611*	964231	1	axc2	3/16/2010 22:02:23	OM_3-16-2010_20-23-30
1202068614*	964231	1	axc2	3/16/2010 22:03:17	OM_3-16-2010_20-23-30
1202068617*	964231	1	axc2	3/16/2010 22:04:11	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 22:05:03	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 22:06:55	OM_3-16-2010_20-23-30
1202068608*	964231	1	axc2	3/16/2010 22:08:43	OM_3-16-2010_20-23-30
1202068618*	964231	1	axc2	3/16/2010 22:09:37	OM_3-16-2010_20-23-30
249076001*	964231	1	axc2	3/16/2010 22:10:30	OM_3-16-2010_20-23-30
248964003*	964231	1	axc2	3/16/2010 22:11:25	OM_3-16-2010_20-23-30
1202068608*	964231	1	axc2	3/16/2010 22:12:18	OM_3-16-2010_20-23-30
1202068618*	964231	1	axc2	3/16/2010 22:13:11	OM_3-16-2010_20-23-30

Author: axc2 Date : 3/30/2010

Original Run Filename: OM_3-16-2010_20-23-30.OMN created 3/16/2010 20:23:30
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-16-2010_20-23-30.OMN last modified 3/16/2010 22:15:07
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100316-03	1	S3	105	5.22	3/16/2010@20:25:01			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100316-08	1	S7	-1.78	0.0243	3/16/2010@20:26:51			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.78 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.78 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249076012|964224|	1	19	-1.65	0.0306	3/16/2010@20:28:41			
249076014	1	21	-1.68	0.0291	3/16/2010@20:29:34			
249076015	1	22	-2.19	0.00410	3/16/2010@20:30:27			
249076016	1	23	0.0867	0.115	3/16/2010@20:31:20			
249076017	1	24	-1.82	0.0224	3/16/2010@20:32:13			
249076018	1	25	-1.50	0.0380	3/16/2010@20:33:05			
249076019	1	26	-1.82	0.0222	3/16/2010@20:33:57			
249076020	1	27	-2.06	0.0107	3/16/2010@20:34:49			
249097002	1	28	-1.44	0.0407	3/16/2010@20:35:42			
1202064134|962258|DUP	1	112	519	25.4	3/16/2010@20:36:36			
WCN100316-03	1	S3	106	5.29	3/16/2010@20:37:28			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-1.61	0.0325	3/16/2010@20:39:18			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.61 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.61 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064134|962258|DUP	1	112	-2.01	0.0133	3/16/2010@20:41:09			
248798002	1	113	-2.12	0.00795	3/16/2010@20:42:03			
1202064149|962262|MB	1	29	-1.85	0.0208	3/16/2010@20:42:54			
1202064156||LCS	1	30	21.2	1.14	3/16/2010@20:43:46		25.00	
248814001	1	31	-1.92	0.0176	3/16/2010@20:44:40			

1202064150||DUP	1	32	-1.94	0.0167	3/16/2010@20:45:34			
1202064152||MS	1	33	93.0	4.64	3/16/2010@20:46:27			
1202064154||MSD	1	34	95.0	4.73	3/16/2010@20:47:21			
248814002	1	35	-1.81	0.0230	3/16/2010@20:48:14			
1202064151||DUP	1	36	-1.70	0.0279	3/16/2010@20:49:07			
WCN100316-03	1	S3	107	5.32	3/16/2010@20:50:00			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	7.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-2.40	-0.00592	3/16/2010@20:51:50			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.40 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.40 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064153||MS	1	37	56.8	2.87	3/16/2010@20:53:39			
1202064155||MSD	1	38	68.7	3.45	3/16/2010@20:54:32			
248814003	1	39	-1.21	0.0520	3/16/2010@20:55:25			
248814004	1	40	-1.64	0.0311	3/16/2010@20:56:18			
248814005	1	41	-1.31	0.0473	3/16/2010@20:57:10			
248814006	1	42	-1.36	0.0446	3/16/2010@20:58:02			
248814007	1	43	-1.56	0.0349	3/16/2010@20:58:55			
248814008	1	44	-1.71	0.0279	3/16/2010@20:59:46			
248814009	1	45	-1.60	0.0332	3/16/2010@21:00:38			
248834001	1	46	-1.80	0.0231	3/16/2010@21:01:32			
WCN100316-03	1	S3	108	5.36	3/16/2010@21:02:25			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	7.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-1.85	0.0210	3/16/2010@21:04:15			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.85 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.85 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248834002	1	47	1.43	0.181	3/16/2010@21:06:05			
248834003	1	48	-1.90	0.0185	3/16/2010@21:06:58			
248834004	1	49	-1.78	0.0243	3/16/2010@21:07:52			
248834005	1	50	-1.74	0.0262	3/16/2010@21:08:45			
248834006	1	51	-2.13	0.00738	3/16/2010@21:09:39			
248834007	1	52	-2.40	-0.00569	3/16/2010@21:10:32			
248834008	1	53	-2.10	0.00869	3/16/2010@21:11:25			
248834009	1	54	-1.82	0.0221	3/16/2010@21:12:18			
248834010	1	55	-1.46	0.0397	3/16/2010@21:13:11			
248834011	1	56	-1.79	0.0236	3/16/2010@21:14:04			
WCN100316-03	1	S3	109	5.40	3/16/2010@21:14:56			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								

		Result:	8.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	8.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-2.15	0.00636	3/16/2010@21:16:46			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.15 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.15 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064141|962260|MB	1	57	-1.27	0.0492	3/16/2010@21:18:34			
248700001	1	58	-1.98	0.0144	3/16/2010@21:19:26		25.00	
1202064148||LCS	1	59	711	34.7	3/16/2010@21:20:18			
1202064142||DUP	1	60	1.08	0.163	3/16/2010@21:21:11			
1202064144||MS	1	61	102	5.07	3/16/2010@21:22:04			
1202064146||MSD	1	62	99.0	4.93	3/16/2010@21:22:59			
248700002	1	63	-0.804	0.0718	3/16/2010@21:23:53			
1202064143||DUP	1	64	-2.28	-2.93e-4	3/16/2010@21:24:47			
1202064145||MS	1	65	103	5.13	3/16/2010@21:25:41			
1202064147||MSD	1	66	105	5.24	3/16/2010@21:26:35			
WCN100316-03	1	S3	105	5.22	3/16/2010@21:27:27			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-2.13	0.00714	3/16/2010@21:29:17			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.13 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.13 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064148||LCS	1	59	25.3	1.34	3/16/2010@21:31:06		25.00	
248700003	1	67	-0.850	0.0695	3/16/2010@21:31:59			
248700004	1	68	-0.511	0.0860	3/16/2010@21:32:52			
248700005	1	69	-0.731	0.0753	3/16/2010@21:33:45			
248700006	1	70	0.111	0.116	3/16/2010@21:34:38			
248700007	1	71	-1.12	0.0562	3/16/2010@21:35:31			
248700008	1	72	-1.75	0.0256	3/16/2010@21:36:24			
248700009	1	73	-0.966	0.0639	3/16/2010@21:37:16			
248700010	1	74	2.32	0.224	3/16/2010@21:38:09			
248700011	1	75	-0.512	0.0860	3/16/2010@21:39:01			
WCN100316-03	1	S3	103	5.13	3/16/2010@21:39:53			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-1.67	0.0295	3/16/2010@21:41:43			CCB

		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.67 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.67 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248700012	1	76	7.01	0.452	3/16/2010@21:43:35			
248700013	1	77	-57.1	-2.67	3/16/2010@21:44:29			
248700014	1	78	1.66	0.192	3/16/2010@21:45:23			
248700015	1	79	12.0	0.695	3/16/2010@21:46:17			
248700016	1	80	20.0	1.08	3/16/2010@21:47:11			
1202068608|964231|MB	1	81	9.84	0.590	3/16/2010@21:48:04			
1202068618||LCS	1	82	61.6	3.11	3/16/2010@21:48:58			
249076001	1	102	-10.7	-0.409	3/16/2010@21:49:51			
248634002	1	83	-1.11	0.0570	3/16/2010@21:50:45			
248885002	1	84	-0.520	0.0856	3/16/2010@21:51:37			
WCN100316-03	1	S3	103	5.13	3/16/2010@21:52:30			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-1.84	0.0211	3/16/2010@21:54:21			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.84 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.84 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248952011	1	85	-3.64	-0.0664	3/16/2010@21:56:10			
1202068610||DUP	1	86	-1.43	0.0415	3/16/2010@21:57:03			
1202068613||MS	1	87	102	5.09	3/16/2010@21:57:57			
1202068616||MSD	1	88	109	5.41	3/16/2010@21:58:49			
248952012	1	89	-1.36	0.0445	3/16/2010@21:59:41			
248952018	1	90	-1.18	0.0533	3/16/2010@22:00:33			
248964002	1	91	-1.61	0.0323	3/16/2010@22:01:28			
1202068611||DUP	1	92	0.111	0.116	3/16/2010@22:02:23			
1202068614||MS	1	93	121	5.99	3/16/2010@22:03:17			
1202068617||MSD	1	94	108	5.38	3/16/2010@22:04:11			
WCN100316-03	1	S3	105	5.23	3/16/2010@22:05:03			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-0.763	0.0738	3/16/2010@22:06:55			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.763 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.763 > -5.00					
		Message	CCB Passed					

Author: axc2 Date : 3/30/2010

		Action	Continue						
1202068608|964231|MB	1	81	13.0	0.742	3/16/2010@22:08:43				
1202068618||LCS	1	82	59.6	3.01	3/16/2010@22:09:37				
249076001	1	102	-0.852	0.0694	3/16/2010@22:10:30				
248964003	1	95	15.4	0.863	3/16/2010@22:11:25				
1202068608|964231|MB	1	81	-2.86	-0.0283	3/16/2010@22:12:18				
1202068618||LCS	1	82	68.5	3.45	3/16/2010@22:13:11				

Analyte Properties Table for OM_3-16-2010_20-23-30.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

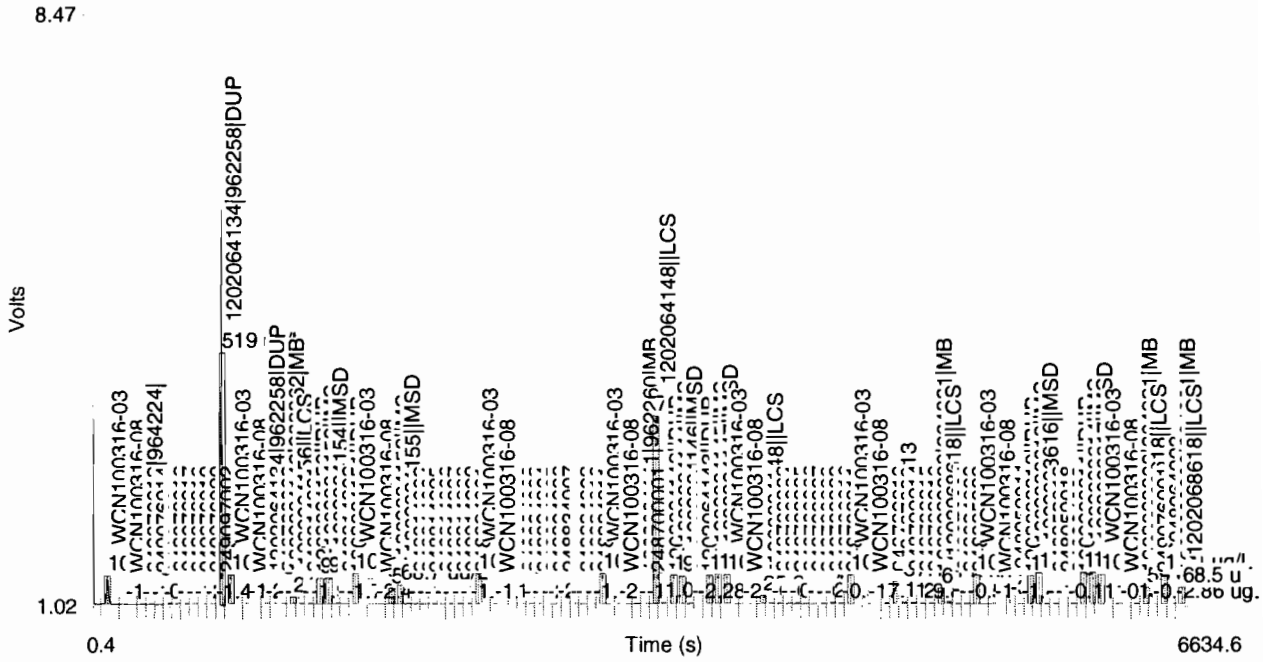

Author: axc2 Date : 3/30/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.76	0.694	0.8	3/16/2010	11:38:29
2	150	1	7.51	0.508	-1.4	3/16/2010	11:39:21
3	100	1	4.94	0.333	0.7	3/16/2010	11:40:14
4	50.0	1	2.64	0.177	-3.6	3/16/2010	11:41:07
5	10.0	1	0.638	0.0416	-6.6	3/16/2010	11:42:00
6	5.00	1	0.357	0.0229	-0.2	3/16/2010	11:42:53
7	0.00	1	-0.00167	-0.00189		3/16/2010	11:43:48

Figure 1: TCYANIDE

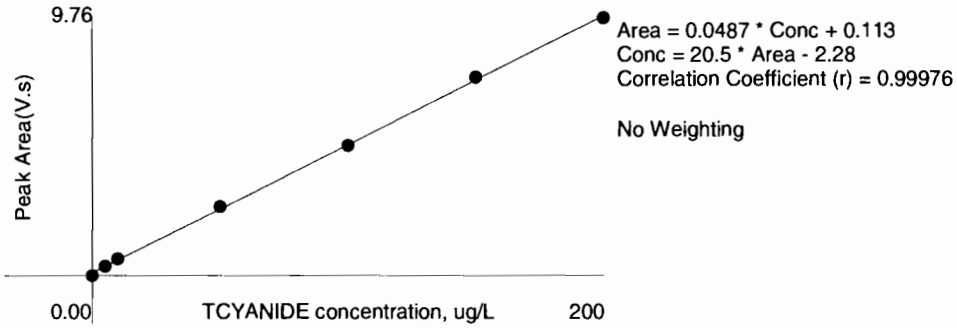

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
23-MAR-10			
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
	SW846 9012A	Solid	LANL
Batch ID:	**Sample Numbers:**		
962262	See Below		

Potentially affected work order(s)(SDG): 248814(10-2303),248834(10-2299)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed recovery for MS/MSD: QC 1202064153MS 1202064155MSD	1. The matrix spike falls outside of the client specified acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD.

Originator's Name:

Ashley Earl 23-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc 31-MAR-10

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2299-1

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	962268	**Method:**	SW9012A Cyanide and Total
Prep Batch :	962267	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
248839001	RE46-10-13872
248839002	RE46-10-13875
1202064160	Method Blank (MB)
1202064161	248638001(RE11-10-1778) Sample Duplicate (DUP)
1202064162	248805001(CAPA-10-12903) Sample Duplicate (DUP)
1202064163	248786001(NPDES03A185-10-13615) Sample Duplicate (DUP)
1202064164	248638001(RE11-10-1778) Matrix Spike (MS)
1202064165	248805001(CAPA-10-12903) Matrix Spike (MS)
1202064166	248786001(NPDES03A185-10-13615) Matrix Spike (MS)
1202064167	248638001(RE11-10-1778) Matrix Spike Duplicate (MSD)
1202064168	248805001(CAPA-10-12903) Matrix Spike Duplicate (MSD)
1202064169	248786001(NPDES03A185-10-13615) Matrix Spike Duplicate (MSD)
1202064170	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 248638001 (RE11-10-1778), 248786001 (NPDES03A185-10-13615) and 248805001 (CAPA-10-12903).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) between the Spike and Spike Duplicate was outside of the required acceptance limits. However, both the Spike and Spike Duplicate recoveries were within the required acceptance limits; therefore, the data is deemed acceptable. 1202064164 (RE11-10-1778) and 1202064167 (RE11-10-1778).

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202064161 (RE11-10-1778) and 1202064162 (CAPA-10-12903).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were reanalyzed due to PS failure: 1202064163 (NPDES03A185-10-13615), 1202064166 (NPDES03A185-10-13615) and 1202064169 (NPDES03A185-10-13615).

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 803187 1202064164 (RE11-10-1778) and 1202064167 (RE11-10-1778).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nick Cole A. Elmore **Date:** 3.29.10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2299-1 GEL Work Order: 248839

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Nick Cole A. Elmore 3-29-10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2299-1

Client Sample ID: RE46-10-13872
Sample ID: 248839001
Matrix: W
Collect Date: 03-MAR-10 12:00
Receive Date: 05-MAR-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/11/10	1839	962268	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/11/10	1416	962267

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2299-1

Client Sample ID: RE46-10-13875
Sample ID: 248839002
Matrix: W
Collect Date: 03-MAR-10 12:00
Receive Date: 05-MAR-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/11/10	1840	962268	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/11/10	1416	962267

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: March 27, 2010

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 248839

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 962268										
QC1202064161 248638001 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A			AXC2	03/11/10 18:11
QC1202064162 248805001 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A				03/11/10 18:36
QC1202064163 248786001 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A				03/11/10 18:48
QC1202064170 LCS										
Cyanide, Total	50.0			54.8	ug/L		110	(90%-110%)		03/11/10 18:06
QC1202064160 MB										
Cyanide, Total			U	5.00	ug/L					03/11/10 18:05
QC1202064164 248638001 MS										
Cyanide, Total	100 U	ND		103	ug/L		103	(60%-144%)		03/11/10 18:12
QC1202064165 248805001 MS										
Cyanide, Total	100 U	ND		107	ug/L		107	(60%-144%)		03/11/10 18:37
QC1202064166 248786001 MS										
Cyanide, Total	100 U	ND		93.1	ug/L		93.1	(60%-144%)		03/11/10 18:49
QC1202064167 248638001 MSD										
Cyanide, Total	100 U	ND		82.4	ug/L	22.2*	82.4	(0%-20%)		03/11/10 18:13
QC1202064168 248805001 MSD										
Cyanide, Total	100 U	ND		106	ug/L	0.939	106	(0%-20%)		03/11/10 18:38
QC1202064169 248786001 MSD										
Cyanide, Total	100 U	ND		96.0	ug/L	3.07	96	(0%-20%)		03/11/10 18:50

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated

QC Summary

Workorder: 248839

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 27-MAR-2010 13:11

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2299-1

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**11-MAR-2010 16:25:47**	**OM_3-11-2010_16-17-08**	**146**	**150**	**97.3**	**(90%-110%)**	**Yes**
CCV	11-MAR-2010 17:54:54	OM_3-11-2010_16-17-08	108	100	108	(90%-110%)	Yes
CCV	11-MAR-2010 18:07:26	OM_3-11-2010_16-17-08	107	100	107	(90%-110%)	Yes
CCV	11-MAR-2010 18:19:56	OM_3-11-2010_16-17-08	107	100	107	(90%-110%)	Yes
CCV	11-MAR-2010 18:32:34	OM_3-11-2010_16-17-08	107	100	107	(90%-110%)	Yes
CCV	11-MAR-2010 18:45:10	OM_3-11-2010_16-17-08	107	100	107	(90%-110%)	Yes
CCV	11-MAR-2010 18:52:24	OM_3-11-2010_16-17-08	108	100	108	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**11-MAR-2010 16:27:38**	**OM_3-11-2010_16-17-08**	**-0.946**	**10**	**Yes**
CCB	11-MAR-2010 17:56:45	OM_3-11-2010_16-17-08	-0.875	10	Yes
CCB	11-MAR-2010 18:09:16	OM_3-11-2010_16-17-08	-1.32	10	Yes
CCB	11-MAR-2010 18:21:46	OM_3-11-2010_16-17-08	-1.35	10	Yes
CCB	11-MAR-2010 18:34:25	OM_3-11-2010_16-17-08	-1.21	10	Yes
CCB	11-MAR-2010 18:47:01	OM_3-11-2010_16-17-08	-0.623	10	Yes
CCB	11-MAR-2010 18:54:14	OM_3-11-2010_16-17-08	-1.15	10	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **962267.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064170	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202064164	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064165	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064166	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064167	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064168	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064169	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202064160 MB	11-MAR-2010 14:16:00	Water	25	25	1	>12
1202064170 LCS	11-MAR-2010 14:16:00	Water	25	25	1	>12
248638001	11-MAR-2010 14:16:00	Water	25	25	1	>12
1202064161 DUP (248638001)	11-MAR-2010 14:16:00	Water	25	25	1	>12
1202064164 MS (248638001)	11-MAR-2010 14:16:00	Water	25	25	1	>12
1202064167 MSD (248638001)	11-MAR-2010 14:16:00	Water	25	25	1	>12
248685001	11-MAR-2010 14:16:00	Water	25	25	1	>12
248685002	11-MAR-2010 14:16:00	Water	25	25	1	>12
248697001	11-MAR-2010 14:16:00	Water	25	25	1	>12
248697002	11-MAR-2010 14:16:00	Water	25	25	1	>12
248697003	11-MAR-2010 14:16:00	Water	25	25	1	>12
248697004	11-MAR-2010 14:16:00	Water	25	25	1	>12
248719001	11-MAR-2010 14:16:00	Waste Water	25	25	1	>12
248719002	11-MAR-2010 14:16:00	Waste Water	25	25	1	>12
248736002	11-MAR-2010 14:16:00	Waste Water	25	25	1	>12
248778001	11-MAR-2010 14:16:00	Water	25	25	1	>12

Prep Logbook

Batch ID: **962267.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064170	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202064164	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064165	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064166	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064167	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064168	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064169	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
248786001	11-MAR-2010 14:16:00	Waste Water	25	25	1	>12
1202064163 DUP (248786001)	11-MAR-2010 14:16:00	Waste Water	25	25	1	>12
1202064166 MS (248786001)	11-MAR-2010 14:16:00	Waste Water	25	25	1	>12
1202064169 MSD (248786001)	11-MAR-2010 14:16:00	Waste Water	25	25	1	>12
248799001	11-MAR-2010 14:16:00	Water	25	25	1	>12
248805001	11-MAR-2010 14:16:00	Ground Water	25	25	1	>12
1202064162 DUP (248805001)	11-MAR-2010 14:16:00	Ground Water	25	25	1	>12
1202064165 MS (248805001)	11-MAR-2010 14:16:00	Ground Water	25	25	1	>12
1202064168 MSD (248805001)	11-MAR-2010 14:16:00	Ground Water	25	25	1	>12
248805003	11-MAR-2010 14:16:00	Ground Water	25	25	1	>12
248839001	11-MAR-2010 14:16:00	Water	25	25	1	>12
248839002	11-MAR-2010 14:16:00	Water	25	25	1	>12
248861001	11-MAR-2010 14:16:00	Water	25	25	1	>12
248861002	11-MAR-2010 14:16:00	Water	25	25	1	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/11/2010 16:18:39	OM_3-11-2010_16-17-08
150 ppb		1	axc2	3/11/2010 16:19:30	OM_3-11-2010_16-17-08
100 ppb		1	axc2	3/11/2010 16:20:23	OM_3-11-2010_16-17-08
50 ppb		1	axc2	3/11/2010 16:21:16	OM_3-11-2010_16-17-08
10 ppb		1	axc2	3/11/2010 16:22:09	OM_3-11-2010_16-17-08
CRDL 5.0 ppb		1	axc2	3/11/2010 16:23:03	OM_3-11-2010_16-17-08
ICAL-00		1	axc2	3/11/2010 16:23:57	OM_3-11-2010_16-17-08
ICV		1	axc2	3/11/2010 16:25:47	OM_3-11-2010_16-17-08
ICB		1	axc2	3/11/2010 16:27:38	OM_3-11-2010_16-17-08
CRDL		1	axc2	3/11/2010 16:29:27	OM_3-11-2010_16-17-08
1202061957	961288	1	axc2	3/11/2010 16:31:17	OM_3-11-2010_16-17-08
1202061964	961288	25	axc2	3/11/2010 16:32:10	OM_3-11-2010_16-17-08
248520001	961288	1	axc2	3/11/2010 16:33:03	OM_3-11-2010_16-17-08
1202061958	961288	1	axc2	3/11/2010 16:33:56	OM_3-11-2010_16-17-08
1202061960	961288	1	axc2	3/11/2010 16:34:49	OM_3-11-2010_16-17-08
1202061962*	961288	1	axc2	3/11/2010 16:35:42	OM_3-11-2010_16-17-08
248520002	961288	1	axc2	3/11/2010 16:36:34	OM_3-11-2010_16-17-08
1202061959	961288	1	axc2	3/11/2010 16:37:27	OM_3-11-2010_16-17-08
1202061961	961288	1	axc2	3/11/2010 16:38:19	OM_3-11-2010_16-17-08
1202061963	961288	1	axc2	3/11/2010 16:39:12	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010 16:40:04	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010 16:41:54	OM_3-11-2010_16-17-08
248520003	961288	1	axc2	3/11/2010 16:43:43	OM_3-11-2010_16-17-08
248520004	961288	1	axc2	3/11/2010 16:44:34	OM_3-11-2010_16-17-08
248520005	961288	1	axc2	3/11/2010 16:45:27	OM_3-11-2010_16-17-08
248520006	961288	1	axc2	3/11/2010 16:46:18	OM_3-11-2010_16-17-08
248520007	961288	1	axc2	3/11/2010 16:47:10	OM_3-11-2010_16-17-08
248520008	961288	1	axc2	3/11/2010 16:48:03	OM_3-11-2010_16-17-08
248520009	961288	1	axc2	3/11/2010 16:48:57	OM_3-11-2010_16-17-08
248520010	961288	1	axc2	3/11/2010 16:49:50	OM_3-11-2010_16-17-08
248520011	961288	1	axc2	3/11/2010 16:50:44	OM_3-11-2010_16-17-08
248549001	961288	1	axc2	3/11/2010 16:51:37	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010 16:52:29	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010 16:54:20	OM_3-11-2010_16-17-08
1202061962	961288	1	axc2	3/11/2010 16:56:08	OM_3-11-2010_16-17-08
248549002	961288	1	axc2	3/11/2010 16:57:01	OM_3-11-2010_16-17-08
248549003	961288	1	axc2	3/11/2010 16:57:55	OM_3-11-2010_16-17-08
248549004	961288	1	axc2	3/11/2010 16:58:47	OM_3-11-2010_16-17-08
248549005	961288	1	axc2	3/11/2010 16:59:40	OM_3-11-2010_16-17-08
248549006	961288	1	axc2	3/11/2010 17:00:32	OM_3-11-2010_16-17-08
1202061949	961286	1	axc2	3/11/2010 17:01:25	OM_3-11-2010_16-17-08
1202061956*	961286	25	axc2	3/11/2010 17:02:16	OM_3-11-2010_16-17-08
248517001	961286	1	axc2	3/11/2010 17:03:09	OM_3-11-2010_16-17-08
1202061950	961286	1	axc2	3/11/2010 17:04:01	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010 17:04:53	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010 17:06:44	OM_3-11-2010_16-17-08
1202061952	961286	1	axc2	3/11/2010 17:08:31	OM_3-11-2010_16-17-08
1202061954	961286	1	axc2	3/11/2010 17:09:25	OM_3-11-2010_16-17-08
248527002	961286	1	axc2	3/11/2010 17:10:19	OM_3-11-2010_16-17-08
1202061951	961286	1	axc2	3/11/2010 17:11:13	OM_3-11-2010_16-17-08
1202061953	961286	1	axc2	3/11/2010 17:12:06	OM_3-11-2010_16-17-08
1202061955	961286	1	axc2	3/11/2010 17:12:59	OM_3-11-2010_16-17-08
248527003	961286	1	axc2	3/11/2010 17:13:52	OM_3-11-2010_16-17-08
248527004	961286	1	axc2	3/11/2010 17:14:46	OM_3-11-2010_16-17-08
248527005	961286	1	axc2	3/11/2010 17:15:39	OM_3-11-2010_16-17-08
248527006	961286	1	axc2	3/11/2010 17:16:31	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010 17:17:24	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010 17:19:14	OM_3-11-2010_16-17-08

248527007	961286	1	axc2	3/11/2010	17:21:04	OM_3-11-2010_16-17-08
248527008	961286	1	axc2	3/11/2010	17:21:55	OM_3-11-2010_16-17-08
248527009	961286	1	axc2	3/11/2010	17:22:48	OM_3-11-2010_16-17-08
248527010	961286	1	axc2	3/11/2010	17:23:41	OM_3-11-2010_16-17-08
248527011	961286	1	axc2	3/11/2010	17:24:32	OM_3-11-2010_16-17-08
248527012	961286	1	axc2	3/11/2010	17:25:24	OM_3-11-2010_16-17-08
248527013	961286	1	axc2	3/11/2010	17:26:18	OM_3-11-2010_16-17-08
248527014	961286	1	axc2	3/11/2010	17:27:13	OM_3-11-2010_16-17-08
248527015	961286	1	axc2	3/11/2010	17:28:06	OM_3-11-2010_16-17-08
248527016	961286	1	axc2	3/11/2010	17:29:00	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	17:29:52	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	17:31:43	OM_3-11-2010_16-17-08
1202061933	961281	1	axc2	3/11/2010	17:33:32	OM_3-11-2010_16-17-08
1202061940	961281	25	axc2	3/11/2010	17:34:25	OM_3-11-2010_16-17-08
248511001	961281	1	axc2	3/11/2010	17:35:18	OM_3-11-2010_16-17-08
1202061934	961281	1	axc2	3/11/2010	17:36:11	OM_3-11-2010_16-17-08
1202061936	961281	1	axc2	3/11/2010	17:37:04	OM_3-11-2010_16-17-08
1202061938	961281	1	axc2	3/11/2010	17:37:57	OM_3-11-2010_16-17-08
248511002	961281	1	axc2	3/11/2010	17:38:50	OM_3-11-2010_16-17-08
1202061935	961281	1	axc2	3/11/2010	17:39:42	OM_3-11-2010_16-17-08
1202061937	961281	1	axc2	3/11/2010	17:40:35	OM_3-11-2010_16-17-08
1202061939	961281	1	axc2	3/11/2010	17:41:27	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	17:42:19	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	17:44:10	OM_3-11-2010_16-17-08
248511003	961281	1	axc2	3/11/2010	17:45:58	OM_3-11-2010_16-17-08
248511004	961281	1	axc2	3/11/2010	17:46:53	OM_3-11-2010_16-17-08
248511005	961281	1	axc2	3/11/2010	17:47:46	OM_3-11-2010_16-17-08
248511006	961281	1	axc2	3/11/2010	17:48:41	OM_3-11-2010_16-17-08
248511007	961281	1	axc2	3/11/2010	17:49:35	OM_3-11-2010_16-17-08
248511008	961281	1	axc2	3/11/2010	17:50:28	OM_3-11-2010_16-17-08
248511009	961281	1	axc2	3/11/2010	17:51:22	OM_3-11-2010_16-17-08
248511010	961281	1	axc2	3/11/2010	17:52:16	OM_3-11-2010_16-17-08
248511011	961281	1	axc2	3/11/2010	17:53:08	OM_3-11-2010_16-17-08
248511012	961281	1	axc2	3/11/2010	17:54:01	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	17:54:54	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	17:56:45	OM_3-11-2010_16-17-08
248511013	961281	1	axc2	3/11/2010	17:58:34	OM_3-11-2010_16-17-08
248511014	961281	1	axc2	3/11/2010	17:59:27	OM_3-11-2010_16-17-08
248511015	961281	1	axc2	3/11/2010	18:00:19	OM_3-11-2010_16-17-08
248511016	961281	1	axc2	3/11/2010	18:01:12	OM_3-11-2010_16-17-08
248511017	961281	1	axc2	3/11/2010	18:02:04	OM_3-11-2010_16-17-08
248511018	961281	1	axc2	3/11/2010	18:02:57	OM_3-11-2010_16-17-08
248511019	961281	1	axc2	3/11/2010	18:03:50	OM_3-11-2010_16-17-08
248511020	961281	1	axc2	3/11/2010	18:04:45	OM_3-11-2010_16-17-08
1202064160	962268	1	axc2	3/11/2010	18:05:39	OM_3-11-2010_16-17-08
1202064170	962268	1	axc2	3/11/2010	18:06:33	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	18:07:26	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	18:09:16	OM_3-11-2010_16-17-08
248638001	962268	1	axc2	3/11/2010	18:11:06	OM_3-11-2010_16-17-08
1202064161	962268	1	axc2	3/11/2010	18:11:59	OM_3-11-2010_16-17-08
1202064164	962268	1	axc2	3/11/2010	18:12:52	OM_3-11-2010_16-17-08
1202064167	962268	1	axc2	3/11/2010	18:13:46	OM_3-11-2010_16-17-08
248685001	962268	1	axc2	3/11/2010	18:14:39	OM_3-11-2010_16-17-08
248685002	962268	1	axc2	3/11/2010	18:15:32	OM_3-11-2010_16-17-08
248697001	962268	1	axc2	3/11/2010	18:16:25	OM_3-11-2010_16-17-08
248697002	962268	1	axc2	3/11/2010	18:17:18	OM_3-11-2010_16-17-08
248697003	962268	1	axc2	3/11/2010	18:18:10	OM_3-11-2010_16-17-08
248697004	962268	1	axc2	3/11/2010	18:19:03	OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	18:19:56	OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	18:21:46	OM_3-11-2010_16-17-08

248719001	962268	1	axc2	3/11/2010	18:23:35 OM_3-11-2010_16-17-08
248719002	962268	1	axc2	3/11/2010	18:24:30 OM_3-11-2010_16-17-08
248736002	962268	1	axc2	3/11/2010	18:25:24 OM_3-11-2010_16-17-08
248778001	962268	1	axc2	3/11/2010	18:26:18 OM_3-11-2010_16-17-08
248786001*	962268	1	axc2	3/11/2010	18:27:13 OM_3-11-2010_16-17-08
1202064163*	962268	1	axc2	3/11/2010	18:28:07 OM_3-11-2010_16-17-08
1202064166*	962268	1	axc2	3/11/2010	18:29:01 OM_3-11-2010_16-17-08
1202064169*	962268	1	axc2	3/11/2010	18:29:55 OM_3-11-2010_16-17-08
248799001	962268	1	axc2	3/11/2010	18:30:48 OM_3-11-2010_16-17-08
248805001	962268	1	axc2	3/11/2010	18:31:42 OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	18:32:34 OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	18:34:25 OM_3-11-2010_16-17-08
1202064162	962268	1	axc2	3/11/2010	18:36:14 OM_3-11-2010_16-17-08
1202064165	962268	1	axc2	3/11/2010	18:37:07 OM_3-11-2010_16-17-08
1202064168	962268	1	axc2	3/11/2010	18:38:00 OM_3-11-2010_16-17-08
248805003	962268	1	axc2	3/11/2010	18:38:53 OM_3-11-2010_16-17-08
248839001	962268	1	axc2	3/11/2010	18:39:46 OM_3-11-2010_16-17-08
248839002	962268	1	axc2	3/11/2010	18:40:39 OM_3-11-2010_16-17-08
248861001	962268	1	axc2	3/11/2010	18:41:34 OM_3-11-2010_16-17-08
248861002	962268	1	axc2	3/11/2010	18:42:29 OM_3-11-2010_16-17-08
248736002	962268	10	axc2	3/11/2010	18:43:23 OM_3-11-2010_16-17-08
248786001	962268	1	axc2	3/11/2010	18:44:18 OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	18:45:10 OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	18:47:01 OM_3-11-2010_16-17-08
1202064163	962268	1	axc2	3/11/2010	18:48:51 OM_3-11-2010_16-17-08
1202064166	962268	1	axc2	3/11/2010	18:49:45 OM_3-11-2010_16-17-08
1202064169	962268	1	axc2	3/11/2010	18:50:39 OM_3-11-2010_16-17-08
1202061956	961286	25	axc2	3/11/2010	18:51:31 OM_3-11-2010_16-17-08
CCV		1	axc2	3/11/2010	18:52:24 OM_3-11-2010_16-17-08
CCB		1	axc2	3/11/2010	18:54:14 OM_3-11-2010_16-17-08

Author: axc2 Date : 3/11/2010

Original Run Filename: OM_3-11-2010_16-17-08.OMN created 3/11/2010 16:17:08
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-11-2010_16-17-08.OMN last modified 3/11/2010 18:55:19
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100311-01	1	S1	200	10.2	3/11/2010@16:18:39			200 ppb
WCN100311-02	1	S2	150	7.64	3/11/2010@16:19:30			150 ppb
WCN100311-03	1	S3	100	5.21	3/11/2010@16:20:23			100 ppb
WCN100311-04	1	S4	50.0	2.71	3/11/2010@16:21:16			50 ppb
WCN100311-05	1	S5	10.0	0.668	3/11/2010@16:22:09			10 ppb
WCN100311-06	1	S6	5.00	0.372	3/11/2010@16:23:03			CRDL 5.0 ppb
WCN100311-08	1	S7	0.00	0.0704	3/11/2010@16:23:57			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99994 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100311-07	1	S8	146	7.51	3/11/2010@16:25:47			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-2.4 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.4 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100311-08	1	S7	-0.946	0.0856	3/11/2010@16:27:38			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.946 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.946 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100311-06	1	S6	5.52	0.411	3/11/2010@16:29:27			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.52 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.52 > 2.50					
		Message	Pass					
		Action	None					
1202061957|961288|MB	1	1	-1.65	0.0501	3/11/2010@16:31:17			
1202061964||LCS	1	2	18.0	1.04	3/11/2010@16:32:10		25.00	
248520001	1	3	3.00	0.284	3/11/2010@16:33:03			
1202061958||DUP	1	4	3.06	0.287	3/11/2010@16:33:56			
1202061960||MS	1	5	38.6	2.08	3/11/2010@16:34:49			
1202061962||MSD	1	6	7.88	0.530	3/11/2010@16:35:42			
248520002	1	7	16.2	0.950	3/11/2010@16:36:34			
1202061959||DUP	1	8	23.4	1.31	3/11/2010@16:37:27			
1202061961||MS	1	9	59.4	3.12	3/11/2010@16:38:19			
1202061963||MSD	1	10	63.5	3.33	3/11/2010@16:39:12			
WCN100311-03	1	S3	105	5.42	3/11/2010@16:40:04			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.0 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.15	0.0753	3/11/2010@16:41:54			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.15 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.15 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248520003	1	11	6.30	0.451	3/11/2010@16:43:43			
248520004	1	12	23.1	1.29	3/11/2010@16:44:34			
248520005	1	13	6.76	0.473	3/11/2010@16:45:27			
248520006	1	14	2.15	0.241	3/11/2010@16:46:18			
248520007	1	15	16.8	0.981	3/11/2010@16:47:10			
248520008	1	16	7.48	0.510	3/11/2010@16:48:03			
248520009	1	17	6.44	0.457	3/11/2010@16:48:57			
248520010	1	18	5.87	0.429	3/11/2010@16:49:50			
248520011	1	19	9.72	0.623	3/11/2010@16:50:44			
248549001	1	20	-1.77	0.0439	3/11/2010@16:51:37			
WCN100311-03	1	S3	106	5.47	3/11/2010@16:52:29			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.18	0.0738	3/11/2010@16:54:20			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.18 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.18 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202061962||MSD	1	6	39.9	2.14	3/11/2010@16:56:08			
248549002	1	21	-1.77	0.0440	3/11/2010@16:57:01			
248549003	1	22	-1.69	0.0479	3/11/2010@16:57:55			
248549004	1	23	-1.69	0.0483	3/11/2010@16:58:47			
248549005	1	24	-1.77	0.0443	3/11/2010@16:59:40			
248549006	1	25	-1.23	0.0714	3/11/2010@17:00:32			
1202061949|961286|MB	1	26	-1.96	0.0344	3/11/2010@17:01:25			
1202061956||LCS	1	27	12.1	0.745	3/11/2010@17:02:16		25.00	
248517001	1	28	4.40	0.355	3/11/2010@17:03:09			
1202061950||DUP	1	29	6.52	0.462	3/11/2010@17:04:01			
WCN100311-03	1	S3	107	5.50	3/11/2010@17:04:53			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.02	0.0816	3/11/2010@17:06:44			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.02 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.02 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202061952||MS	1	30	51.0	2.70	3/11/2010@17:08:31			
1202061954||MSD	1	31	87.1	4.52	3/11/2010@17:09:25			
248527002	1	32	0.589	0.163	3/11/2010@17:10:19			
1202061951||DUP	1	33	2.24	0.246	3/11/2010@17:11:13			
1202061953||MS	1	34	77.9	4.06	3/11/2010@17:12:06			
1202061955||MSD	1	35	86.4	4.48	3/11/2010@17:12:59			
248527003	1	36	-0.0758	0.129	3/11/2010@17:13:52			
248527004	1	37	-1.69	0.0479	3/11/2010@17:14:46			
248527005	1	38	-2.12	0.0267	3/11/2010@17:15:39			
248527006	1	39	-2.11	0.0268	3/11/2010@17:16:31			
WCN100311-03	1	S3	106	5.46	3/11/2010@17:17:24			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.03	0.0814	3/11/2010@17:19:14			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.03 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.03 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248527007	1	40	-0.0659	0.130	3/11/2010@17:21:04			
248527008	1	41	0.415	0.154	3/11/2010@17:21:55			
248527009	1	42	-2.53	0.00599	3/11/2010@17:22:48			
248527010	1	43	-1.32	0.0670	3/11/2010@17:23:41			
248527011	1	44	-1.51	0.0572	3/11/2010@17:24:32			
248527012	1	45	-1.76	0.0445	3/11/2010@17:25:24			
248527013	1	46	-0.984	0.0837	3/11/2010@17:26:18			
248527014	1	47	-1.98	0.0337	3/11/2010@17:27:13			
248527015	1	48	-1.88	0.0385	3/11/2010@17:28:06			
248527016	1	49	-0.201	0.123	3/11/2010@17:29:00			
WCN100311-03	1	S3	106	5.49	3/11/2010@17:29:52			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.04	0.0811	3/11/2010@17:31:43			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.04 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.04 > -5.00					
		Message	CCB Passed					
		Action	Continue					

1202061933|961281|MB	1	50	-2.14	0.0257	3/11/2010@17:33:32			
1202061940||LCS	1	51	25.5	1.42	3/11/2010@17:34:25		25.00	
248511001	1	52	9.89	0.631	3/11/2010@17:35:18			
1202061934||DUP	1	53	11.3	0.701	3/11/2010@17:36:11			
1202061936||MS	1	54	103	5.30	3/11/2010@17:37:04			
1202061938||MSD	1	55	118	6.07	3/11/2010@17:37:57			
248511002	1	56	1.23	0.195	3/11/2010@17:38:50			
1202061935||DUP	1	57	3.46	0.307	3/11/2010@17:39:42			
1202061937||MS	1	58	94.9	4.91	3/11/2010@17:40:35			
1202061939||MSD	1	59	88.8	4.61	3/11/2010@17:41:27			
WCN100311-03	1	S3	108	5.56	3/11/2010@17:42:19			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		7.8 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		7.8 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100311-08	1	S7	-3.25	-0.0302	3/11/2010@17:44:10			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-3.25 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-3.25 > -5.00					
	Message		CCB Passed					
	Action		Continue					
248511003	1	60	0.545	0.161	3/11/2010@17:45:58			
248511004	1	61	41.2	2.21	3/11/2010@17:46:53			
248511005	1	62	9.25	0.599	3/11/2010@17:47:46			
248511006	1	63	10.9	0.683	3/11/2010@17:48:41			
248511007	1	64	1.48	0.208	3/11/2010@17:49:35			
248511008	1	65	5.88	0.429	3/11/2010@17:50:28			
248511009	1	66	16.7	0.973	3/11/2010@17:51:22			
248511010	1	67	25.4	1.41	3/11/2010@17:52:16			
248511011	1	68	5.04	0.387	3/11/2010@17:53:08			
248511012	1	69	68.8	3.60	3/11/2010@17:54:01			
WCN100311-03	1	S3	108	5.56	3/11/2010@17:54:54			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		7.7 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		7.7 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100311-08	1	S7	-0.875	0.0892	3/11/2010@17:56:45			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-0.875 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-0.875 > -5.00					
	Message		CCB Passed					
	Action		Continue					
248511013	1	70	17.0	0.990	3/11/2010@17:58:34			
248511014	1	71	3.20	0.294	3/11/2010@17:59:27			
248511015	1	72	1.31	0.199	3/11/2010@18:00:19			
248511016	1	73	4.92	0.381	3/11/2010@18:01:12			
248511017	1	74	1.34	0.201	3/11/2010@18:02:04			
248511018	1	75	-0.129	0.127	3/11/2010@18:02:57			
248511019	1	76	-0.510	0.108	3/11/2010@18:03:50			
248511020	1	77	2.83	0.276	3/11/2010@18:04:45			

1202064160|962268|MB	1	78	-1.64	0.0508	3/11/2010@18:05:39			
1202064170||LCS	1	79	54.8	2.89	3/11/2010@18:06:33			
WCN100311-03	1	S3	107	5.53	3/11/2010@18:07:26			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		7.1 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		7.1 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100311-08	1	S7	-1.32	0.0667	3/11/2010@18:09:16			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.32 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.32 > -5.00					
	Message		CCB Passed					
	Action		Continue					
248638001	1	80	-2.08	0.0287	3/11/2010@18:11:06			
1202064161||DUP	1	81	-1.44	0.0607	3/11/2010@18:11:59			
1202064164||MS	1	82	103	5.32	3/11/2010@18:12:52			
1202064167||MSD	1	83	82.4	4.28	3/11/2010@18:13:46			
248685001	1	84	-1.85	0.0401	3/11/2010@18:14:39			
248685002	1	85	-1.89	0.0380	3/11/2010@18:15:32			
248697001	1	86	-1.97	0.0339	3/11/2010@18:16:25			
248697002	1	87	-2.87	-0.0112	3/11/2010@18:17:18			
248697003	1	88	-1.96	0.0344	3/11/2010@18:18:10			
248697004	1	89	-2.14	0.0255	3/11/2010@18:19:03			
WCN100311-03	1	S3	107	5.52	3/11/2010@18:19:56			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		6.9 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		6.9 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100311-08	1	S7	-1.35	0.0655	3/11/2010@18:21:46			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.35 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.35 > -5.00					
	Message		CCB Passed					
	Action		Continue					
248719001	1	90	-1.29	0.0683	3/11/2010@18:23:35			
248719002	1	91	-1.02	0.0818	3/11/2010@18:24:30			
248736002	1	92	414	21.0	3/11/2010@18:25:24			
248778001	1	93	0.0656	0.137	3/11/2010@18:26:18			
248786001	1	94	1.35	0.201	3/11/2010@18:27:13			
1202064163||DUP	1	95	11.2	0.700	3/11/2010@18:28:07			
1202064166||MS	1	96	2.13	0.241	3/11/2010@18:29:01			
1202064169||MSD	1	97	1.76	0.222	3/11/2010@18:29:55			
248799001	1	98	-1.85	0.0403	3/11/2010@18:30:48			
248805001	1	99	-2.65	-1.59e-4	3/11/2010@18:31:42			
WCN100311-03	1	S3	107	5.53	3/11/2010@18:32:34			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		7.2 < 10.0					
	Message		CCV Passed					
	Action		Continue					

DQM Test: < - Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.21	0.0725	3/11/2010@18:34:25			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.21 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.21 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064162||DUP	1	100	-2.10	0.0276	3/11/2010@18:36:14			
1202064165||MS	1	101	107	5.51	3/11/2010@18:37:07			
1202064168||MSD	1	102	106	5.49	3/11/2010@18:38:00			
248805003	1	103	-1.44	0.0608	3/11/2010@18:38:53			
248839001	1	104	-2.65	-1.99e-4	3/11/2010@18:39:46			
248839002	1	105	-1.74	0.0457	3/11/2010@18:40:39			
248861001	1	106	-2.18	0.0232	3/11/2010@18:41:34			
248861002	1	107	-2.91	-0.0132	3/11/2010@18:42:29			
248736002	1	92	75.6	3.94	3/11/2010@18:43:23		10.00	
248786001	1	94	-1.60	0.0526	3/11/2010@18:44:18			
WCN100311-03	1	S3	107	5.53	3/11/2010@18:45:10			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-0.623	0.102	3/11/2010@18:47:01			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.623 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.623 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064163||DUP	1	95	-1.89	0.0383	3/11/2010@18:48:51			
1202064166||MS	1	96	93.1	4.82	3/11/2010@18:49:45			
1202064169||MSD	1	97	96.0	4.97	3/11/2010@18:50:39			
1202061956|961286|LCS	1	27	26.3	1.46	3/11/2010@18:51:31		25.00	
WCN100311-03	1	S3	108	5.58	3/11/2010@18:52:24			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	8.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	8.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100311-08	1	S7	-1.15	0.0752	3/11/2010@18:54:14			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.15 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.15 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Author: axc2 Date : 3/11/2010

Analyte Properties Table for OM_3-11-2010_16-17-08.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

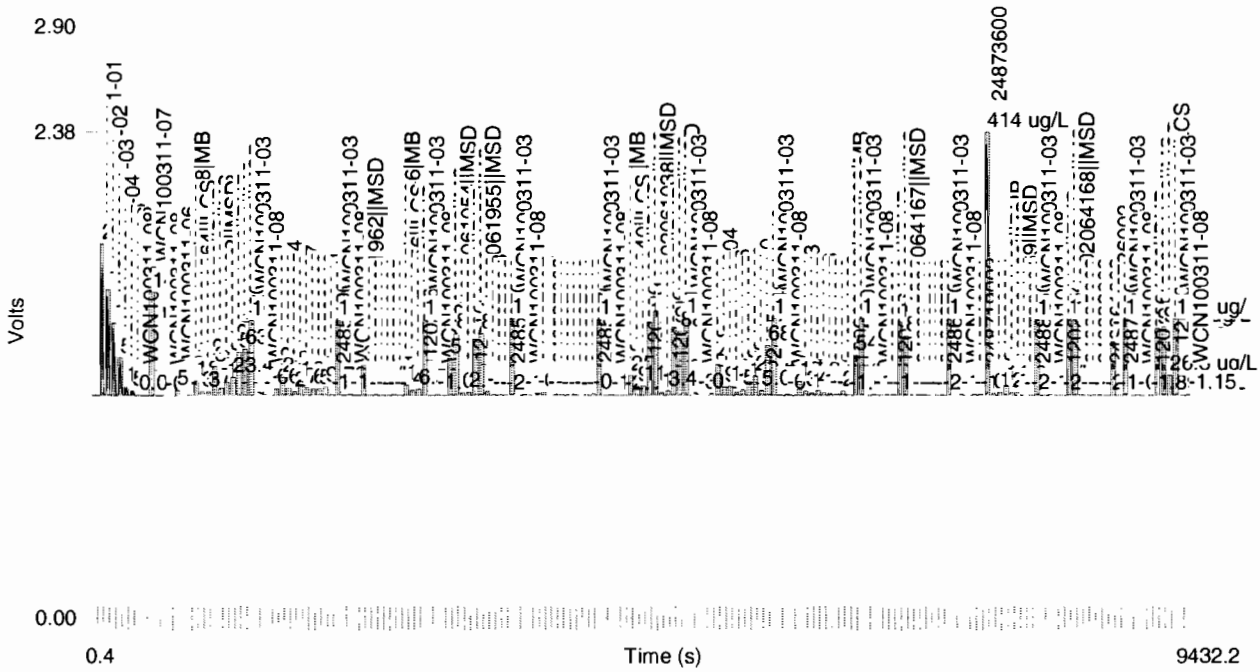

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.2	0.739	-0.0	3/11/2010	16:19:41
2	150	1	7.64	0.520	0.7	3/11/2010	16:20:33
3	100	1	5.21	0.356	-0.7	3/11/2010	16:21:26
4	50.0	1	2.71	0.184	-2.1	3/11/2010	16:22:19
5	10.0	1	0.668	0.0430	-4.8	3/11/2010	16:23:12
6	5.00	1	0.372	0.0248	3.4	3/11/2010	16:24:06
7	0.00	1	0.0704	0.00376		3/11/2010	16:25:00

Author: axc2

Date : 3/11/2010

Figure 1: TCYANIDE

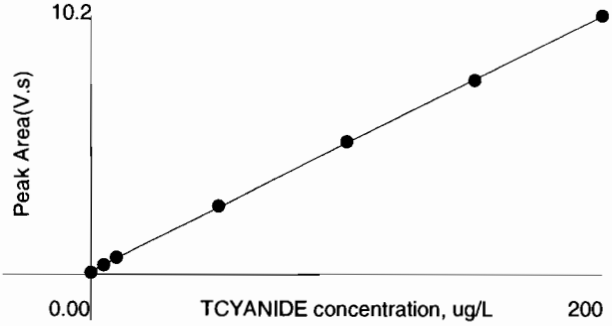

Area = 0.0503 * Conc + 0.134
Conc = 19.9 * Area - 2.65
Correlation Coefficient (r) = 0.99994

No Weighting

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
12-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 335.4	Liquid	DTYN, EASV, ESHL, LANL
Batch ID:	**Sample Numbers:**		
962268	See Below		

Potentially affected work order(s)(SDG): 248638(10-2234-1),248685(10-2259-1),248697(10-2262),248719,248736,248778(10-2281-1),248786(10-2310),248799(10-2289-1),248805(10-2295),248839(10-2299-1),248861(10-2313-1)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for MS/MSD: QC 1202064164MS 1202064167MSD	1. The relative percent difference (RPD) between the Spike and Spike Duplicate was outside of the required acceptance limits. However, both the Spike and Spike Duplicate recoveries were within the required acceptance limits; therefore, the data is deemed acceptable.

Originator's Name:
Ashley Earl 12-MAR-10

Data Validator/Group Leader:
Elzbieta Szulc 12-MAR-10

Thursday, March 04, 2010

REQUEST NUMBER: 10-2298

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2298
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/4/2010
TURNAROUND/REPORT DUE: 4/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-	1	RE46-10-13860	S	3/3/2010	
		1	RE46-10-13861	S	3/3/2010	
		1	RE46-10-13862	S	3/3/2010	
		1	RE46-10-13863	S	3/3/2010	
		1	RE46-10-13864	S	3/3/2010	
		1	RE46-10-13865	S	3/3/2010	

	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010
	1	RE46-10-13873	S	3/3/2010
SW-846:8081A	1	RE46-10-13860	S	3/3/2010
	1	RE46-10-13861	S	3/3/2010
	1	RE46-10-13862	S	3/3/2010
	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010
	1	RE46-10-13873	S	3/3/2010
SW-846:8082	1	RE46-10-13860	S	3/3/2010
	1	RE46-10-13861	S	3/3/2010
	1	RE46-10-13862	S	3/3/2010
	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010
	1	RE46-10-13873	S	3/3/2010
SW-846:8260B	1	RE46-10-13860	S	3/3/2010
	1	RE46-10-13861	S	3/3/2010
	1	RE46-10-13862	S	3/3/2010
	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010

	1	RE46-10-13873	S	3/3/2010
	1	RE46-10-13874	S	3/3/2010
SW-846:8270C	1	RE46-10-13860	S	3/3/2010
	1	RE46-10-13861	S	3/3/2010
	1	RE46-10-13862	S	3/3/2010
	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010
	1	RE46-10-13873	S	3/3/2010

Final Page of REQUEST NUMBER 10-2298

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2298C

REQUEST NUMBER: 10-2298

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13867	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13867	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13867	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13864	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13864	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13864	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13863	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13863	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13863	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13869	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13869	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13869	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13861	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13861	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13861	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13866	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13866	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13866	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13860	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13860	1	SEPTUM AMBER GLASS	8260B	Ice	S

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2298C

REQUEST NUMBER: 10-2298

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13860	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13865	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13865	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13865	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13868	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13868	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13868	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13862	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13862	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13862	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13873	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13873	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13873	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13874	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	3/4/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13860 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1337	SUB-MEDIA:	SOIL	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611754	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1	SCREEN/PORT DESC:		13A
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: fill & brown tuff (7.5YR 5/2)

SAMPLE COMMENTS: tuff @ 3" sampled beneath asphalt

LOCATION DESC: 7-1

FIELD SCREENING/MEASUREMENT RESULTS:
PID: 0.5ppm Background
α: 12
β: 827 dpm
Samples < MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) [signature]	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13861 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	~~ALLH~~ 3/3/10	Qbt3
TIME COLLECTED (HH:MM)		1357	SUB-MEDIA:	SOIL	N
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611754		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	2	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	3	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R 3/3/10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: gray tuff (5YR 5/1)

SAMPLE COMMENTS: sampled beneath asphalt

LOCATION DESC: 7-1

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.4 ppm Background α: 12 β 827 dpm Samples < MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) [signature]	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13862 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	~~ALLH~~ RA 3/3/10	Qbt3
TIME COLLECTED (HH:MM)		1349	SUB-MEDIA:	SOIL	N
PRS ID:	46-007	ok	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611755	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R RA 3/3/10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ 1 ISOPU+ISOU	LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: Dark Reddish gray tuff (5YR 4/2)

SAMPLE COMMENTS: Sample beneath asphalt

LOCATION DESC: 7-2

FIELD SCREENING/MEASUREMENT RESULTS: Background: α: 12 dpm β: 827 Samples < MDA

PID: 4.6 ppm

COLLECTED BY (PRINT) JRamos **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) Sherri Sherwood	1632
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13863 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1340	SUB-MEDIA:	SOIL	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611755	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ 1 ISOPU+ISOU	LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: brown tuff (7.5 YR 4/2), coarse sediment

SAMPLE COMMENTS: tuff @ 6", sampled beneath asphalt

LOCATION DESC: 7-2

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples < MDA

PID: 6.6 ppm

α: 12 dpm

β: 827

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) Sherri Sherwood	1632
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13864 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		03-03-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1335	SUB-MEDIA:	SOIL	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611756	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: brown coarse grained silty sand (7.5YR 4/3)

SAMPLE COMMENTS: tuff @ 10", ~~Sampled beneath asphalt~~ 3/3/10

LOCATION DESC: 7-3

FIELD SCREENING/MEASUREMENT RESULTS: PID: 6.1 ppm
Background screening α: 12 β: 827 dpm Samples < MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) [signature]	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13865 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	~~ALLH~~ 3/3/10	QST3
TIME COLLECTED (HH:MM)		1352	SUB-MEDIA:	SOIL	N
PRS ID:	46-007	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	46-611756		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ RA 3/3/10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: gray tuff (5YR 6/1)

SAMPLE COMMENTS:

LOCATION DESC: 7-3, ~~sampled beneath asphalt~~ 3/3/10

FIELD SCREENING/MEASUREMENT RESULTS: PID: 5.7 ppm
Background Screening α: 12 ppm β: 827 Samples < MDA

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) [signature]	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13866 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1443	SUB-MEDIA:	SOIL	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611757		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: Reddish brown coarse sandy sediment w/gravel (5YR 4/3)

SAMPLE COMMENTS: Sampled under asphalt

LOCATION DESC: 7-~~2~~4 AW 3-3-10

FIELD SCREENING/MEASUREMENT RESULTS: PID • 0.6ppm Background α: 12 β: 827 dpm Samples < MDA

COLLECTED BY (PRINT) J. Ramero REVIEWED BY (PRINT) Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature)	1632	(Signature) Sherri Sherwood	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13867 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	~~ALLH~~ 3/3/10	QC3
TIME COLLECTED (HH:MM)		1502	SUB-MEDIA:	SOIL	N
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611757		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	2	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	~~SR~~ 3/3/10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: pale red tuff (2.5 YR 6/2)

SAMPLE COMMENTS: Sampled under asphalt

LOCATION DESC: 7-~~2~~ 4 MW 3-3-10

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.6ppm Background α: 12 β: 827 dpm Samples < MDA

COLLECTED BY (PRINT) M. Nawck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) Sherri Sherwood	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13868 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1442	SUB-MEDIA:	SOIL	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611758		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: coarse sandy sediment w/ gravel (2.5 YR 6/1)

SAMPLE COMMENTS: Sample under asphalt, tuff @ 6"

LOCATION DESC: 7-~~3~~ 5 3-3-10

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.8ppm Background α: 12 β: 827 dpm Samples < MDA

COLLECTED BY (PRINT) M. Shenda **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) [signature]	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13869 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	~~ALLH~~ Rd 3/3/10	Qbt3
TIME COLLECTED (HH:MM)		1505	SUB-MEDIA:	SOIL	N
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611758		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	2	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	3	SCREEN/PORT DESC:		12A
FIELD MATRIX:	SR RA 3/3/10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: reddish gray tuff (2.5 YR 6/1)

SAMPLE COMMENTS: sampled under asphalt

LOCATION DESC: 7-85 AW 3-3-10

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.7ppm Background α: 12 β: 827 dpm Samples < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) Sherri Sherwood	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13872 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		3/3/10 1415 ~~1409~~ 1415	SUB-MEDIA:	OTHER	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611757	FIELD QC TYPE:	FR	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	Plus Cesium Metal pH <2
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH >12
1		SW-846:6850	250 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13866

SAMPLE COMMENTS: NA

LOCATION DESC: 7-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Sheado **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature)	1632	(Signature)	1632
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13873 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1443	SUB-MEDIA:	SOIL	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	46-611757	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	Plus Cesium Metals

SAMPLE DESC: QC Sample of RE46-10-13866

SAMPLE COMMENTS: NA

LOCATION DESC: 7-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10	(Printed Name) Sherri Sherwood	3/3/10
(Signature) [signature]	1632	(Signature) [signature]	1632

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13874 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1443	SUB-MEDIA:	OTHER	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611757	FIELD QC TYPE:	FTB	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13866

SAMPLE COMMENTS: NA

LOCATION DESC: 7-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Andress

REVIEWED BY (PRINT) ~~Lane Andress~~ M. Nauck 3/3/10

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/3/10 1632	(Printed Name) Sherri Sherwood	3/3/10 1632
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13875 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		~~1415~~ 1409 3/3/10	SUB-MEDIA:	OTHER	OK
PRS ID:	46-007	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611757	FIELD QC TYPE:	FB	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	Plus Cesium Metal pH <2
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH >12
1		SW-846:6850	250 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13866

SAMPLE COMMENTS: NA

LOCATION DESC: 7-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature) [signature]	3/3/10 1632	(Printed Name) Sherri Sherwood (Signature) [signature]	3/3/10 1632
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2298 VALIDATION DATE: 04/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the FTB, sample RE46-10-13874, associated with samples -13866, -13867 and 13873, acetone was detected. The associated result for sample -13867 was a detect ≤10X the FTB concentration and, thus, was qualified U,V4d. The remaining associated sample results were NDs and, thus, were not qualified.
2. The ICV/CCV %Ds were >20% for dichlorodifluoromethane and 2-hexanone. The associated sample results were NDs and, thus, were qualified UJ,V7c.
3. The bromofluorobenzene surrogate %R was > the laboratory UAL for sample RE46-10-13860. The associated sample results for 1,1,1-trichloroethane; trichloroethylene and toluene were detects and, thus, were qualified J+,V3b. The remaining associated sample results were NDs and, thus, were not qualified.
4. It should be noted that trichlorotrifluoroethane was not represented in the MS/MSD analyses. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 04/23/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 04/22/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☒	☐	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☒	☐	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 Volatile Organic Compound (VOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815001	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13867	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 10:26	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:30	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C208.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.369	1.09	UJ,V7c
74-87-3	Chloromethane	U	1.09	ug/kg	0.326	1.09	
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.326	1.09	
74-83-9	Bromomethane	U	1.09	ug/kg	0.326	1.09	
75-00-3	Chloroethane	U	1.09	ug/kg	0.326	1.09	
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.326	1.09	
67-64-1	Acetone	J	4.41	ug/kg	1.80	5.43	U,V4d
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.326	1.09	
74-88-4	Iodomethane	U	5.43	ug/kg	1.74	5.43	
75-09-2	Methylene chloride	U	5.43	ug/kg	2.17	5.43	
75-15-0	Carbon disulfide	U	5.43	ug/kg	1.36	5.43	
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09	
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.326	1.09	
78-93-3	2-Butanone	U	5.43	ug/kg	1.63	5.43	
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09	
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09	
67-66-3	Chloroform	U	1.09	ug/kg	0.326	1.09	
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.358	1.09	
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.326	1.09	
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.326	1.09	
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.326	1.09	
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.326	1.09	
71-43-2	Benzene	U	1.09	ug/kg	0.326	1.09	
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.358	1.09	
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09	
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.326	1.09	
74-95-3	Dibromomethane	U	1.09	ug/kg	0.326	1.09	
108-10-1	4-Methyl-2-pentanone	U	5.43	ug/kg	1.36	5.43	
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09	
108-88-3	Toluene	U	1.09	ug/kg	0.326	1.09	
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09	
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.326	1.09	
591-78-6	2-Hexanone	U	5.43	ug/kg	1.63	5.43	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.326	1.09	
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.326	1.09	
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.326	1.09	
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.326	1.09	
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.326	1.09	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815001	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13867	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 10:26	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:30	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C208.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.326	1.09
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.326	2.17
95-47-6	o-Xylene	U	1.09	ug/kg	0.326	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.326	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.326	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.326	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.326	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.326	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.326	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.326	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.326	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.326	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.326	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.326	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.43	ug/kg	1.74	5.43
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

P.S. 4/22/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13864**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 10:52**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:31**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C209.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.396	1.16	UJ,V7c
74-87-3	Chloromethane	U	1.16	ug/kg	0.349	1.16	
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.349	1.16	
74-83-9	Bromomethane	U	1.16	ug/kg	0.349	1.16	
75-00-3	Chloroethane	U	1.16	ug/kg	0.349	1.16	
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.349	1.16	
67-64-1	Acetone	U	5.82	ug/kg	1.93	5.82	
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.349	1.16	
74-88-4	Iodomethane	U	5.82	ug/kg	1.86	5.82	
75-09-2	Methylene chloride	U	5.82	ug/kg	2.33	5.82	
75-15-0	Carbon disulfide	U	5.82	ug/kg	1.45	5.82	
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16	
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.349	1.16	
78-93-3	2-Butanone	U	5.82	ug/kg	1.75	5.82	
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16	
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16	
67-66-3	Chloroform	U	1.16	ug/kg	0.349	1.16	
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.384	1.16	
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.349	1.16	
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.349	1.16	
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.349	1.16	
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.349	1.16	
71-43-2	Benzene	U	1.16	ug/kg	0.349	1.16	
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.384	1.16	
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16	
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.349	1.16	
74-95-3	Dibromomethane	U	1.16	ug/kg	0.349	1.16	
108-10-1	4-Methyl-2-pentanone	U	5.82	ug/kg	1.45	5.82	
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16	
108-88-3	Toluene	U	1.16	ug/kg	0.349	1.16	
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16	
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.349	1.16	
591-78-6	2-Hexanone	U	5.82	ug/kg	1.75	5.82	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.349	1.16	
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.349	1.16	
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.349	1.16	
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.349	1.16	
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.349	1.16	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815002	**Date Received:**	03/05/2010 10:20	**%Moisture:**	14
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13864	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 10:52	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:31	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C209.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.349	1.16
179601-23-1	m,p-Xylenes	U	2.33	ug/kg	0.349	2.33
95-47-6	o-Xylene	U	1.16	ug/kg	0.349	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.349	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.349	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.349	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.349	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.349	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.349	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.349	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.349	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.349	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.349	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.349	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.82	ug/kg	1.86	5.82
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815003	**Date Received:**	03/05/2010 10:20	**%Moisture:**	11.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13863	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 11:18	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:34	**Allquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C210.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.384	1.13	UJ,V7c
74-87-3	Chloromethane	U	1.13	ug/kg	0.339	1.13	
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.339	1.13	
74-83-9	Bromomethane	U	1.13	ug/kg	0.339	1.13	
75-00-3	Chloroethane	U	1.13	ug/kg	0.339	1.13	
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.339	1.13	
67-64-1	Acetone	U	5.65	ug/kg	1.88	5.65	
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.339	1.13	
74-88-4	Iodomethane	U	5.65	ug/kg	1.81	5.65	
75-09-2	Methylene chloride	U	5.65	ug/kg	2.26	5.65	
75-15-0	Carbon disulfide	U	5.65	ug/kg	1.41	5.65	
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13	
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.339	1.13	
78-93-3	2-Butanone	U	5.65	ug/kg	1.69	5.65	
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13	
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13	
67-66-3	Chloroform	U	1.13	ug/kg	0.339	1.13	
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.373	1.13	
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.339	1.13	
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.339	1.13	
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.339	1.13	
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.339	1.13	
71-43-2	Benzene	U	1.13	ug/kg	0.339	1.13	
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.373	1.13	
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13	
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.339	1.13	
74-95-3	Dibromomethane	U	1.13	ug/kg	0.339	1.13	
108-10-1	4-Methyl-2-pentanone	U	5.65	ug/kg	1.41	5.65	
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13	
108-88-3	Toluene	U	1.13	ug/kg	0.339	1.13	
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13	
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.339	1.13	
591-78-6	2-Hexanone	U	5.65	ug/kg	1.69	5.65	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.339	1.13	
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.339	1.13	
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.339	1.13	
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.339	1.13	
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.339	1.13	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815003	**Date Received:**	03/05/2010 10:20	**%Moisture:**	11.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13863	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 11:18	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:34	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C210.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.339	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.339	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.339	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.339	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.339	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.339	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.339	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.339	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.339	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.339	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.339	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.339	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.339	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.339	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.65	ug/kg	1.81	5.65
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815004	**Date Received:**	03/05/2010 10:20	**%Moisture:**	8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13869	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 11:45	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:35	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C211.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.370	1.09	UJ,V7c
74-87-3	Chloromethane	U	1.09	ug/kg	0.326	1.09	
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.326	1.09	
74-83-9	Bromomethane	U	1.09	ug/kg	0.326	1.09	
75-00-3	Chloroethane	U	1.09	ug/kg	0.326	1.09	
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.326	1.09	
67-64-1	Acetone		6.05	ug/kg	1.80	5.43	
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.326	1.09	
74-88-4	Iodomethane	U	5.43	ug/kg	1.74	5.43	
75-09-2	Methylene chloride	U	5.43	ug/kg	2.17	5.43	
75-15-0	Carbon disulfide	U	5.43	ug/kg	1.36	5.43	
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09	
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.326	1.09	
78-93-3	2-Butanone	U	5.43	ug/kg	1.63	5.43	
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09	
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09	
67-66-3	Chloroform	U	1.09	ug/kg	0.326	1.09	
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.359	1.09	
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.326	1.09	
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.326	1.09	
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.326	1.09	
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.326	1.09	
71-43-2	Benzene	U	1.09	ug/kg	0.326	1.09	
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.359	1.09	
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09	
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.326	1.09	
74-95-3	Dibromomethane	U	1.09	ug/kg	0.326	1.09	
108-10-1	4-Methyl-2-pentanone	U	5.43	ug/kg	1.36	5.43	
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09	
108-88-3	Toluene	U	1.09	ug/kg	0.326	1.09	
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09	
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.326	1.09	
591-78-6	2-Hexanone	U	5.43	ug/kg	1.63	5.43	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.326	1.09	
127-18-4	Tetrachloroethylene.	U	1.09	ug/kg	0.326	1.09	
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.326	1.09	
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.326	1.09	
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.326	1.09	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815004	**Date Received:**	03/05/2010 10:20	**%Moisture:**	8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13869	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 11:45	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:35	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C211.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.326	1.09
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.326	2.17
95-47-6	o-Xylene	U	1.09	ug/kg	0.326	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.326	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.326	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.326	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.326	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.326	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.326	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.326	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.326	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.326	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.326	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.326	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.43	ug/kg	1.74	5.43
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815005	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13861	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 12:11	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:36	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C212.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.387	1.14	UJ,V7c
74-87-3	Chloromethane	U	1.14	ug/kg	0.341	1.14	
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.341	1.14	
74-83-9	Bromomethane	U	1.14	ug/kg	0.341	1.14	
75-00-3	Chloroethane	U	1.14	ug/kg	0.341	1.14	
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.341	1.14	
67-64-1	Acetone	U	5.69	ug/kg	1.89	5.69	
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.341	1.14	
74-88-4	Iodomethane	U	5.69	ug/kg	1.82	5.69	
75-09-2	Methylene chloride	U	5.69	ug/kg	2.27	5.69	
75-15-0	Carbon disulfide	U	5.69	ug/kg	1.42	5.69	
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.341	1.14	
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.341	1.14	
78-93-3	2-Butanone	U	5.69	ug/kg	1.71	5.69	
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.341	1.14	
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.341	1.14	
67-66-3	Chloroform	U	1.14	ug/kg	0.341	1.14	
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.375	1.14	
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.341	1.14	
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.341	1.14	
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.341	1.14	
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.341	1.14	
71-43-2	Benzene	U	1.14	ug/kg	0.341	1.14	
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.375	1.14	
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.341	1.14	
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.341	1.14	
74-95-3	Dibromomethane	U	1.14	ug/kg	0.341	1.14	
108-10-1	4-Methyl-2-pentanone	U	5.69	ug/kg	1.42	5.69	
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.341	1.14	
108-88-3	Toluene	U	1.14	ug/kg	0.341	1.14	
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.341	1.14	
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.341	1.14	
591-78-6	2-Hexanone	U	5.69	ug/kg	1.71	5.69	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.341	1.14	
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.341	1.14	
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.341	1.14	
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.341	1.14	
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.341	1.14	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815005	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13861	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 12:11	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:36	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C212.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.341	1.14
179601-23-1	m,p-Xylenes	U	2.27	ug/kg	0.341	2.27
95-47-6	o-Xylene	U	1.14	ug/kg	0.341	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.341	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.341	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.341	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.341	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.341	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.341	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.341	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.341	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.341	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.341	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.341	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.341	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.341	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.341	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.341	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.341	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.341	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.341	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.69	ug/kg	1.82	5.69
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.341	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.341	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815006	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13866	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 12:38	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:37	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C213.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.366	1.08	UJ,V7c
74-87-3	Chloromethane	U	1.08	ug/kg	0.323	1.08	
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.323	1.08	
74-83-9	Bromomethane	U	1.08	ug/kg	0.323	1.08	
75-00-3	Chloroethane	U	1.08	ug/kg	0.323	1.08	
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.323	1.08	
67-64-1	Acetone	U	5.38	ug/kg	1.79	5.38	
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.323	1.08	
74-88-4	Iodomethane	U	5.38	ug/kg	1.72	5.38	
75-09-2	Methylene chloride	U	5.38	ug/kg	2.15	5.38	
75-15-0	Carbon disulfide	U	5.38	ug/kg	1.35	5.38	
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08	
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.323	1.08	
78-93-3	2-Butanone	U	5.38	ug/kg	1.61	5.38	
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08	
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08	
67-66-3	Chloroform	U	1.08	ug/kg	0.323	1.08	
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.355	1.08	
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.323	1.08	
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.323	1.08	
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.323	1.08	
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.323	1.08	
71-43-2	Benzene	U	1.08	ug/kg	0.323	1.08	
79-01-6	Trichloroethylene	J	0.893	ug/kg	0.355	1.08	
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08	
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.323	1.08	
74-95-3	Dibromomethane	U	1.08	ug/kg	0.323	1.08	
108-10-1	4-Methyl-2-pentanone	U	5.38	ug/kg	1.35	5.38	
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08	
108-88-3	Toluene	U	1.08	ug/kg	0.323	1.08	
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08	
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.323	1.08	
591-78-6	2-Hexanone	U	5.38	ug/kg	1.61	5.38	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.323	1.08	
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.323	1.08	
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.323	1.08	
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.323	1.08	
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.323	1.08	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815006	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13866	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 12:38	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:37	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C213.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.323	1.08
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.323	2.15
95-47-6	o-Xylene	U	1.08	ug/kg	0.323	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.323	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.323	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.323	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.323	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.323	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.323	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.323	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.323	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.323	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.323	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.323	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.38	ug/kg	1.72	5.38
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815007	**Date Received:**	03/05/2010 10:20	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13860	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 13:05	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:38	**Allquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C214.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.376	1.11	UJ,V7c
74-87-3	Chloromethane	U	1.11	ug/kg	0.332	1.11	
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.332	1.11	
74-83-9	Bromomethane	U	1.11	ug/kg	0.332	1.11	
75-00-3	Chloroethane	U	1.11	ug/kg	0.332	1.11	
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.332	1.11	
67-64-1	Acetone	U	5.53	ug/kg	1.83	5.53	
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.332	1.11	
74-88-4	Iodomethane	U	5.53	ug/kg	1.77	5.53	
75-09-2	Methylene chloride	U	5.53	ug/kg	2.21	5.53	
75-15-0	Carbon disulfide	U	5.53	ug/kg	1.38	5.53	
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11	
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.332	1.11	
78-93-3	2-Butanone	U	5.53	ug/kg	1.66	5.53	
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11	
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11	
67-66-3	Chloroform	U	1.11	ug/kg	0.332	1.11	
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.365	1.11	
71-55-6	1,1,1-Trichloroethane	J	0.674	ug/kg	0.332	1.11	J+,V3b
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.332	1.11	
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.332	1.11	
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.332	1.11	
71-43-2	Benzene	U	1.11	ug/kg	0.332	1.11	
79-01-6	Trichloroethylene		3.88	ug/kg	0.365	1.11	J+,V3b
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11	
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.332	1.11	
74-95-3	Dibromomethane	U	1.11	ug/kg	0.332	1.11	
108-10-1	4-Methyl-2-pentanone	U	5.53	ug/kg	1.38	5.53	
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11	
108-88-3	Toluene		2.55	ug/kg	0.332	1.11	J+,V3b
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11	
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.332	1.11	
591-78-6	2-Hexanone	U	5.53	ug/kg	1.66	5.53	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.332	1.11	
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.332	1.11	
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.332	1.11	
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.332	1.11	
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.332	1.11	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815007	**Date Received:**	03/05/2010 10:20	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13860	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 13:05	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:38	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C214.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.332	1.11
179601-23-1	m,p-Xylenes	U	2.21	ug/kg	0.332	2.21
95-47-6	o-Xylene	U	1.11	ug/kg	0.332	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.332	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.332	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.332	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.332	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.332	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.332	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.332	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.332	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.332	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.332	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.332	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.53	ug/kg	1.77	5.53
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

P.S. 4/22/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815008	**Date Received:**	03/05/2010 10:20	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13865	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 13:31	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:39	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C215.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.371	1.09	UJ,V7c
74-87-3	Chloromethane	U	1.09	ug/kg	0.328	1.09	
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.328	1.09	
74-83-9	Bromomethane	U	1.09	ug/kg	0.328	1.09	
75-00-3	Chloroethane	U	1.09	ug/kg	0.328	1.09	
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.328	1.09	
67-64-1	Acetone	U	5.46	ug/kg	1.81	5.46	
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.328	1.09	
74-88-4	Iodomethane	U	5.46	ug/kg	1.75	5.46	
75-09-2	Methylene chloride	U	5.46	ug/kg	2.18	5.46	
75-15-0	Carbon disulfide	U	5.46	ug/kg	1.37	5.46	
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.328	1.09	
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.328	1.09	
78-93-3	2-Butanone	U	5.46	ug/kg	1.64	5.46	
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.328	1.09	
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.328	1.09	
67-66-3	Chloroform	U	1.09	ug/kg	0.328	1.09	
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.360	1.09	
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.328	1.09	
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.328	1.09	
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.328	1.09	
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.328	1.09	
71-43-2	Benzene	U	1.09	ug/kg	0.328	1.09	
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.360	1.09	
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.328	1.09	
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.328	1.09	
74-95-3	Dibromomethane	U	1.09	ug/kg	0.328	1.09	
108-10-1	4-Methyl-2-pentanone	U	5.46	ug/kg	1.37	5.46	
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.328	1.09	
108-88-3	Toluene	U	1.09	ug/kg	0.328	1.09	
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.328	1.09	
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.328	1.09	
591-78-6	2-Hexanone	U	5.46	ug/kg	1.64	5.46	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.328	1.09	
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.328	1.09	
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.328	1.09	
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.328	1.09	
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.328	1.09	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815008	**Date Received:**	03/05/2010 10:20	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13865	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 13:31	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:39	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C215.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.328	1.09
179601-23-1	m,p-Xylenes	U	2.18	ug/kg	0.328	2.18
95-47-6	o-Xylene	U	1.09	ug/kg	0.328	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.328	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.328	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.328	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.328	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.328	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.328	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.328	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.328	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.328	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.328	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.328	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.328	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.328	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.328	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.328	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.328	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.46	ug/kg	1.75	5.46
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.328	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13868	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 13:58	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:40	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C216.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.368	1.08	UJ,V7c
74-87-3	Chloromethane	U	1.08	ug/kg	0.325	1.08	
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.325	1.08	
74-83-9	Bromomethane	U	1.08	ug/kg	0.325	1.08	
75-00-3	Chloroethane	U	1.08	ug/kg	0.325	1.08	
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.325	1.08	
67-64-1	Acetone	U	5.42	ug/kg	1.80	5.42	
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.325	1.08	
74-88-4	Iodomethane	U	5.42	ug/kg	1.73	5.42	
75-09-2	Methylene chloride	U	5.42	ug/kg	2.17	5.42	
75-15-0	Carbon disulfide	U	5.42	ug/kg	1.35	5.42	
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08	
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.325	1.08	
78-93-3	2-Butanone	U	5.42	ug/kg	1.63	5.42	
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08	
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08	
67-66-3	Chloroform	U	1.08	ug/kg	0.325	1.08	
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.358	1.08	
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.325	1.08	
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.325	1.08	
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.325	1.08	
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.325	1.08	
71-43-2	Benzene	U	1.08	ug/kg	0.325	1.08	
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.358	1.08	
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08	
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.325	1.08	
74-95-3	Dibromomethane	U	1.08	ug/kg	0.325	1.08	
108-10-1	4-Methyl-2-pentanone	U	5.42	ug/kg	1.35	5.42	
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08	
108-88-3	Toluene	U	1.08	ug/kg	0.325	1.08	
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08	
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.325	1.08	
591-78-6	2-Hexanone	U	5.42	ug/kg	1.63	5.42	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.325	1.08	
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.325	1.08	
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.325	1.08	
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.325	1.08	
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.325	1.08	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13868	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 13:58	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:40	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C216.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.325	1.08
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.325	2.17
95-47-6	o-Xylene	U	1.08	ug/kg	0.325	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.325	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.325	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.325	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.325	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.325	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.325	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.325	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.325	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.325	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.325	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.325	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.42	ug/kg	1.73	5.42
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248815010	Date Received:	03/05/2010 10:20	%Moisture:	11.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13862	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	965702	Inst:	VOA5.I	Dilution:	1
Run Date:	03/16/2010 14:25	Analyst:	CDS1	Purge Vol:	5 mL
Prep Date:	03/16/2010 06:41	Aliquot:	5 g	Final Volume:	5 mL
Data File:	031610V5\5C217.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.383	1.13	UJ,V7c
74-87-3	Chloromethane	U	1.13	ug/kg	0.338	1.13	
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.338	1.13	
74-83-9	Bromomethane	U	1.13	ug/kg	0.338	1.13	
75-00-3	Chloroethane	U	1.13	ug/kg	0.338	1.13	
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.338	1.13	
67-64-1	Acetone		6.06	ug/kg	1.87	5.64	
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.338	1.13	
74-88-4	Iodomethane	U	5.64	ug/kg	1.80	5.64	
75-09-2	Methylene chloride	U	5.64	ug/kg	2.26	5.64	
75-15-0	Carbon disulfide	U	5.64	ug/kg	1.41	5.64	
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13	
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.338	1.13	
78-93-3	2-Butanone	U	5.64	ug/kg	1.69	5.64	
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13	
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13	
67-66-3	Chloroform	U	1.13	ug/kg	0.338	1.13	
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.372	1.13	
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.338	1.13	
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.338	1.13	
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.338	1.13	
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.338	1.13	
71-43-2	Benzene	U	1.13	ug/kg	0.338	1.13	
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.372	1.13	
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13	
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.338	1.13	
74-95-3	Dibromomethane	U	1.13	ug/kg	0.338	1.13	
108-10-1	4-Methyl-2-pentanone	U	5.64	ug/kg	1.41	5.64	
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13	
108-88-3	Toluene	U	1.13	ug/kg	0.338	1.13	
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13	
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.338	1.13	
591-78-6	2-Hexanone	U	5.64	ug/kg	1.69	5.64	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.338	1.13	
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.338	1.13	
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.338	1.13	
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.338	1.13	
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.338	1.13	

P.S. 4/22/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13862**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 14:25**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:41**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C217.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.338	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.338	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.338	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.338	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.338	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.338	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.338	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.338	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.338	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.338	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.338	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.338	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.338	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.338	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.64	ug/kg	1.80	5.64
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

P.S. 4/22/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815011	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13873	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 14:51	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:42	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C218.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.366	1.08	UJ,V7c
74-87-3	Chloromethane	U	1.08	ug/kg	0.323	1.08	
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.323	1.08	
74-83-9	Bromomethane	U	1.08	ug/kg	0.323	1.08	
75-00-3	Chloroethane	U	1.08	ug/kg	0.323	1.08	
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.323	1.08	
67-64-1	Acetone	U	5.38	ug/kg	1.79	5.38	
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.323	1.08	
74-88-4	Iodomethane	U	5.38	ug/kg	1.72	5.38	
75-09-2	Methylene chloride	U	5.38	ug/kg	2.15	5.38	
75-15-0	Carbon disulfide	U	5.38	ug/kg	1.35	5.38	
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08	
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.323	1.08	
78-93-3	2-Butanone	U	5.38	ug/kg	1.61	5.38	
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08	
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08	
67-66-3	Chloroform	U	1.08	ug/kg	0.323	1.08	
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.355	1.08	
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.323	1.08	
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.323	1.08	
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.323	1.08	
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.323	1.08	
71-43-2	Benzene	U	1.08	ug/kg	0.323	1.08	
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.355	1.08	
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08	
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.323	1.08	
74-95-3	Dibromomethane	U	1.08	ug/kg	0.323	1.08	
108-10-1	4-Methyl-2-pentanone	U	5.38	ug/kg	1.35	5.38	
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08	
108-88-3	Toluene	U	1.08	ug/kg	0.323	1.08	
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08	
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.323	1.08	
591-78-6	2-Hexanone	U	5.38	ug/kg	1.61	5.38	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.323	1.08	
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.323	1.08	
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.323	1.08	
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.323	1.08	
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.323	1.08	

P.S. 4/22/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815011	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13873	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 14:51	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:42	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C218.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.323	1.08
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.323	2.15
95-47-6	o-Xylene	U	1.08	ug/kg	0.323	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.323	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.323	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.323	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.323	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.323	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.323	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.323	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.323	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.323	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.323	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.323	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.38	ug/kg	1.72	5.38
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

P.S. 4/22/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815012	**Date Received:**	03/05/2010 10:20		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13874	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 15:18	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:43	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C219.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00	UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00	
67-64-1	Acetone	J	1.88	ug/kg	1.66	5.00	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00	
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00	
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00	
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00	

P.S. 4/22/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815012	**Date Received:**	03/05/2010 10:20		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13874	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 15:18	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:43	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C219.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

P.S. 4/22/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2298 VALIDATION DATE: 04/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV and/or CCV %Ds were > 20% for pyridine; hexachlorocyclopentadiene; 4-nitroaniline; 2-methyl-4,6-dinitrophenol; benzyl alcohol; benzoic acid; 4-chloroaniline; indeno(1,2,3-cd)pyrene; dibenzo(a,h)anthracene and benzo(ghi)perylene. The indeno(1,2,3-cd)pyrene results for samples -13862 through -13867 and -13873 and the benzo(ghi)perylene results for samples -13862, -13864 through -13867 and -13873 were detects and, thus, were qualified J,SV7c. The remaining associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The phenol-d5 surrogate %R was < the laboratory LAL but ≥10% for sample RE46-10-13863. Since only one surrogate in the acid fraction was outside limits, no sample data were qualified.
3. The MS/MSD %Rs and/or RPDs for several compounds did not meet laboratory acceptance criteria. Since the analysis of an MS or MSD was not required for SVOCs, no sample data were qualified as a result. It should be noted that the parent sample for the QC analyses was from another LANL RN. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 04/23/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 04/22/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☒	☐	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815007	**Date Received:**	03/05/2010 10:20	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13860	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	10
Run Date:	03/23/2010 18:35	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	s7c2324.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	3680	ug/kg	735	3680	
108-95-2	Phenol	U	3680	ug/kg	735	3680	
95-57-8	2-Chlorophenol	U	3680	ug/kg	735	3680	
106-46-7	1,4-Dichlorobenzene	U	3680	ug/kg	735	3680	
621-64-7	N-Nitrosodipropylamine	U	3680	ug/kg	735	3680	
59-50-7	4-Chloro-3-methylphenol	U	3680	ug/kg	735	3680	
83-32-9	Acenaphthene	U	368	ug/kg	121	368	
121-14-2	2,4-Dinitrotoluene	U	3680	ug/kg	368	3680	
100-02-7	4-Nitrophenol	U	3680	ug/kg	1210	3680	
87-86-5	Pentachlorophenol	U	3680	ug/kg	919	3680	
129-00-0	Pyrene	J	119	ug/kg	110	368	
110-86-1	Pyridine	U	3680	ug/kg	735	3680	UJ,SV7c
62-53-3	Aniline	U	3680	ug/kg	1100	3680	
111-44-4	bis(2-Chloroethyl) ether	U	3680	ug/kg	735	3680	
541-73-1	1,3-Dichlorobenzene	U	3680	ug/kg	735	3680	
100-51-6	Benzyl alcohol	U	3680	ug/kg	1100	3680	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	3680	ug/kg	735	3680	
108-60-1	bis(2-Chloroisopropyl)ether	U	3680	ug/kg	735	3680	
95-48-7	o-Cresol	U	3680	ug/kg	735	3680	
65794-96-9	m,p-Cresols	U	3680	ug/kg	1100	3680	
67-72-1	Hexachloroethane	U	3680	ug/kg	735	3680	
98-95-3	Nitrobenzene	U	3680	ug/kg	735	3680	
78-59-1	Isophorone	U	3680	ug/kg	735	3680	
88-75-5	2-Nitrophenol	U	3680	ug/kg	735	3680	
105-67-9	2,4-Dimethylphenol	U	3680	ug/kg	1290	3680	
111-91-1	bis(2-Chloroethoxy)methane	U	3680	ug/kg	735	3680	
120-83-2	2,4-Dichlorophenol	U	3680	ug/kg	735	3680	
65-85-0	Benzoic acid	U	7350	ug/kg	1840	7350	UJ,SV7c
91-20-3	Naphthalene	U	368	ug/kg	110	368	
106-47-8	4-Chloroaniline	U	3680	ug/kg	735	3680	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	3680	ug/kg	735	3680	
91-57-6	2-Methylnaphthalene	U	368	ug/kg	73.5	368	
77-47-4	Hexachlorocyclopentadiene	U	3680	ug/kg	735	3680	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	3680	ug/kg	735	3680	
95-95-4	2,4,5-Trichlorophenol	U	3680	ug/kg	735	3680	
91-58-7	2-Chloronaphthalene	U	368	ug/kg	121	368	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	3680	ug/kg	735	3680	
99-09-2	3-Nitroaniline	U	3680	ug/kg	735	3680	

P.S. 4/22/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815007	**Date Received:**	03/05/2010 10:20	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13860	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	10
Run Date:	03/23/2010 18:35	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	s7c2324.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	3680	ug/kg	735	3680	
606-20-2	2,6-Dinitrotoluene	U	3680	ug/kg	368	3680	
208-96-8	Acenaphthylene	U	368	ug/kg	110	368	
51-28-5	2,4-Dinitrophenol	U	7350	ug/kg	1400	7350	
132-64-9	Dibenzofuran	U	3680	ug/kg	735	3680	
84-66-2	Diethylphthalate	U	3680	ug/kg	735	3680	
86-73-7	Fluorene	U	368	ug/kg	110	368	
7005-72-3	4-Chlorophenylphenylether	U	3680	ug/kg	735	3680	
534-52-1	2-Methyl-4,6-dinitrophenol	U	3680	ug/kg	735	3680	UJ,SV7c
100-01-6	4-Nitroaniline	U	3680	ug/kg	1100	3680	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	3680	ug/kg	735	3680	
122-66-7	Azobenzene	U	3680	ug/kg	735	3680	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	3680	ug/kg	735	3680	
118-74-1	Hexachlorobenzene	U	3680	ug/kg	735	3680	
85-01-8	Phenanthrene	U	368	ug/kg	110	368	
120-12-7	Anthracene	U	368	ug/kg	73.5	368	
84-74-2	Di-n-butylphthalate	U	3680	ug/kg	735	3680	
206-44-0	Fluoranthene	J	116	ug/kg	110	368	
85-68-7	Butylbenzylphthalate	U	3680	ug/kg	735	3680	
56-55-3	Benzo(a)anthracene	U	368	ug/kg	110	368	
91-94-1	3,3'-Dichlorobenzidine	U	3680	ug/kg	1100	3680	
218-01-9	Chrysene	U	368	ug/kg	110	368	
117-81-7	bis(2-Ethylhexyl)phthalate	U	3680	ug/kg	735	3680	
117-84-0	Di-n-octylphthalate	U	3680	ug/kg	735	3680	
205-99-2	Benzo(b)fluoranthene	U	368	ug/kg	110	368	
207-08-9	Benzo(k)fluoranthene	U	368	ug/kg	110	368	
50-32-8	Benzo(a)pyrene	U	368	ug/kg	110	368	
193-39-5	Indeno(1,2,3-cd)pyrene	U	368	ug/kg	110	368	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	368	ug/kg	110	368	
191-24-2	Benzo(ghi)perylene	U	368	ug/kg	110	368	
120-82-1	1,2,4-Trichlorobenzene	U	3680	ug/kg	735	3680	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

P.S. 4/22/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13861**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 17:52**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2322.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Quallfier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	379	ug/kg	75.7	379	
108-95-2	Phenol	U	379	ug/kg	75.7	379	
95-57-8	2-Chlorophenol	U	379	ug/kg	75.7	379	
106-46-7	1,4-Dichlorobenzene	U	379	ug/kg	75.7	379	
621-64-7	N-Nitrosodipropylamine	U	379	ug/kg	75.7	379	
59-50-7	4-Chloro-3-methylphenol	U	379	ug/kg	75.7	379	
83-32-9	Acenaphthene	U	37.9	ug/kg	12.5	37.9	
121-14-2	2,4-Dinitrotoluene	U	379	ug/kg	37.9	379	
100-02-7	4-Nitrophenol	U	379	ug/kg	125	379	
87-86-5	Pentachlorophenol	U	379	ug/kg	94.6	379	
129-00-0	Pyrene	U	37.9	ug/kg	11.4	37.9	
110-86-1	Pyridine	U	379	ug/kg	75.7	379	UJ,SV7c
62-53-3	Aniline	U	379	ug/kg	114	379	
111-44-4	bis(2-Chloroethyl) ether	U	379	ug/kg	75.7	379	
541-73-1	1,3-Dichlorobenzene	U	379	ug/kg	75.7	379	
100-51-6	Benzyl alcohol	U	379	ug/kg	114	379	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	379	ug/kg	75.7	379	
108-60-1	bis(2-Chloroisopropyl)ether	U	379	ug/kg	75.7	379	
95-48-7	o-Cresol	U	379	ug/kg	75.7	379	
65794-96-9	m,p-Cresols	U	379	ug/kg	114	379	
67-72-1	Hexachloroethane	U	379	ug/kg	75.7	379	
98-95-3	Nitrobenzene	U	379	ug/kg	75.7	379	
78-59-1	Isophorone	U	379	ug/kg	75.7	379	
88-75-5	2-Nitrophenol	U	379	ug/kg	75.7	379	
105-67-9	2,4-Dimethylphenol	U	379	ug/kg	132	379	
111-91-1	bis(2-Chloroethoxy)methane	U	379	ug/kg	75.7	379	
120-83-2	2,4-Dichlorophenol	U	379	ug/kg	75.7	379	
65-85-0	Benzoic acid	U	757	ug/kg	189	757	UJ,SV7c
91-20-3	Naphthalene	U	37.9	ug/kg	11.4	37.9	
106-47-8	4-Chloroaniline	U	379	ug/kg	75.7	379	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	379	ug/kg	75.7	379	
91-57-6	2-Methylnaphthalene	U	37.9	ug/kg	7.57	37.9	
77-47-4	Hexachlorocyclopentadiene	U	379	ug/kg	75.7	379	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	379	ug/kg	75.7	379	
95-95-4	2,4,5-Trichlorophenol	U	379	ug/kg	75.7	379	
91-58-7	2-Chloronaphthalene	U	37.9	ug/kg	12.5	37.9	
88-74-4	2-Nitroaniline	U	379	ug/kg	75.7	379	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	379	ug/kg	75.7	379	

P.S. 4/22/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815005	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13861	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 17:52	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	s7c2322.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	379	ug/kg	75.7	379	
606-20-2	2,6-Dinitrotoluene	U	379	ug/kg	37.9	379	
208-96-8	Acenaphthylene	U	37.9	ug/kg	11.4	37.9	
51-28-5	2,4-Dinitrophenol	U	757	ug/kg	144	757	
132-64-9	Dibenzofuran	U	379	ug/kg	75.7	379	
84-66-2	Diethylphthalate	U	379	ug/kg	75.7	379	
86-73-7	Fluorene	U	37.9	ug/kg	11.4	37.9	
7005-72-3	4-Chlorophenylphenylether	U	379	ug/kg	75.7	379	
534-52-1	2-Methyl-4,6-dinitrophenol	U	379	ug/kg	75.7	379	UJ,SV7c
100-01-6	4-Nitroaniline	U	379	ug/kg	114	379	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	379	ug/kg	75.7	379	
122-66-7	Azobenzene	U	379	ug/kg	75.7	379	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	379	ug/kg	75.7	379	
118-74-1	Hexachlorobenzene	U	379	ug/kg	75.7	379	
85-01-8	Phenanthrene	U	37.9	ug/kg	11.4	37.9	
120-12-7	Anthracene	U	37.9	ug/kg	7.57	37.9	
84-74-2	Di-n-butylphthalate	U	379	ug/kg	75.7	379	
206-44-0	Fluoranthene	U	37.9	ug/kg	11.4	37.9	
85-68-7	Butylbenzylphthalate	U	379	ug/kg	75.7	379	
56-55-3	Benzo(a)anthracene	U	37.9	ug/kg	11.4	37.9	
91-94-1	3,3'-Dichlorobenzidine	U	379	ug/kg	114	379	
218-01-9	Chrysene	U	37.9	ug/kg	11.4	37.9	
117-81-7	bis(2-Ethylhexyl)phthalate	U	379	ug/kg	75.7	379	
117-84-0	Di-n-octylphthalate	U	379	ug/kg	75.7	379	
205-99-2	Benzo(b)fluoranthene	U	37.9	ug/kg	11.4	37.9	
207-08-9	Benzo(k)fluoranthene	U	37.9	ug/kg	11.4	37.9	
50-32-8	Benzo(a)pyrene	U	37.9	ug/kg	11.4	37.9	
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.9	ug/kg	11.4	37.9	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	37.9	ug/kg	11.4	37.9	
191-24-2	Benzo(ghi)perylene	U	37.9	ug/kg	11.4	37.9	
120-82-1	1,2,4-Trichlorobenzene	U	379	ug/kg	75.7	379	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	485	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815010	**Date Received:**	03/05/2010 10:20	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13862	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 19:18	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	s7c2326.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	374	ug/kg	74.8	374	
108-95-2	Phenol	U	374	ug/kg	74.8	374	
95-57-8	2-Chlorophenol	U	374	ug/kg	74.8	374	
106-46-7	1,4-Dichlorobenzene	U	374	ug/kg	74.8	374	
621-64-7	N-Nitrosodipropylamine	U	374	ug/kg	74.8	374	
59-50-7	4-Chloro-3-methylphenol	U	374	ug/kg	74.8	374	
83-32-9	Acenaphthene	U	37.4	ug/kg	12.3	37.4	
121-14-2	2,4-Dinitrotoluene	U	374	ug/kg	37.4	374	
100-02-7	4-Nitrophenol	U	374	ug/kg	123	374	
87-86-5	Pentachlorophenol	U	374	ug/kg	93.5	374	
129-00-0	Pyrene		66.9	ug/kg	11.2	37.4	
110-86-1	Pyridine	U	374	ug/kg	74.8	374	UJ,SV7c
62-53-3	Aniline	U	374	ug/kg	112	374	
111-44-4	bis(2-Chloroethyl) ether	U	374	ug/kg	74.8	374	
541-73-1	1,3-Dichlorobenzene	U	374	ug/kg	74.8	374	
100-51-6	Benzyl alcohol	U	374	ug/kg	112	374	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	374	ug/kg	74.8	374	
108-60-1	bis(2-Chloroisopropyl)ether	U	374	ug/kg	74.8	374	
95-48-7	o-Cresol	U	374	ug/kg	74.8	374	
65794-96-9	m,p-Cresols	U	374	ug/kg	112	374	
67-72-1	Hexachloroethane	U	374	ug/kg	74.8	374	
98-95-3	Nitrobenzene	U	374	ug/kg	74.8	374	
78-59-1	Isophorone	U	374	ug/kg	74.8	374	
88-75-5	2-Nitrophenol	U	374	ug/kg	74.8	374	
105-67-9	2,4-Dimethylphenol	U	374	ug/kg	131	374	
111-91-1	bis(2-Chloroethoxy)methane	U	374	ug/kg	74.8	374	
120-83-2	2,4-Dichlorophenol	U	374	ug/kg	74.8	374	
65-85-0	Benzoic acid	U	748	ug/kg	187	748	UJ,SV7c
91-20-3	Naphthalene	U	37.4	ug/kg	11.2	37.4	
106-47-8	4-Chloroaniline	U	374	ug/kg	74.8	374	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	374	ug/kg	74.8	374	
91-57-6	2-Methylnaphthalene	U	37.4	ug/kg	7.48	37.4	
77-47-4	Hexachlorocyclopentadiene	U	374	ug/kg	74.8	374	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	374	ug/kg	74.8	374	
95-95-4	2,4,5-Trichlorophenol	U	374	ug/kg	74.8	374	
91-58-7	2-Chloronaphthalene	U	37.4	ug/kg	12.3	37.4	
88-74-4	2-Nitroaniline	U	374	ug/kg	74.8	374	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	374	ug/kg	74.8	374	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815010	**Date Received:**	03/05/2010 10:20	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13862	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 19:18	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	s7c2326.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	374	ug/kg	74.8	374	
606-20-2	2,6-Dinitrotoluene	U	374	ug/kg	37.4	374	
208-96-8	Acenaphthylene	U	37.4	ug/kg	11.2	37.4	
51-28-5	2,4-Dinitrophenol	U	748	ug/kg	142	748	
132-64-9	Dibenzofuran	U	374	ug/kg	74.8	374	
84-66-2	Diethylphthalate	U	374	ug/kg	74.8	374	
86-73-7	Fluorene	U	37.4	ug/kg	11.2	37.4	
7005-72-3	4-Chlorophenylphenylether	U	374	ug/kg	74.8	374	
534-52-1	2-Methyl-4,6-dinitrophenol	U	374	ug/kg	74.8	374	UJ,SV7c
100-01-6	4-Nitroaniline	U	374	ug/kg	112	374	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	374	ug/kg	74.8	374	
122-66-7	Azobenzene	U	374	ug/kg	74.8	374	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	374	ug/kg	74.8	374	
118-74-1	Hexachlorobenzene	U	374	ug/kg	74.8	374	
85-01-8	Phenanthrene		43.5	ug/kg	11.2	37.4	
120-12-7	Anthracene	J	11.4	ug/kg	7.48	37.4	
84-74-2	Di-n-butylphthalate	U	374	ug/kg	74.8	374	
206-44-0	Fluoranthene		69.1	ug/kg	11.2	37.4	
85-68-7	Butylbenzylphthalate	U	374	ug/kg	74.8	374	
56-55-3	Benzo(a)anthracene	J	37.1	ug/kg	11.2	37.4	
91-94-1	3,3'-Dichlorobenzidine	U	374	ug/kg	112	374	
218-01-9	Chrysene	J	37.1	ug/kg	11.2	37.4	
117-81-7	bis(2-Ethylhexyl)phthalate	U	374	ug/kg	74.8	374	
117-84-0	Di-n-octylphthalate	J	84.5	ug/kg	74.8	374	
205-99-2	Benzo(b)fluoranthene		60.2	ug/kg	11.2	37.4	
207-08-9	Benzo(k)fluoranthene	U	37.4	ug/kg	11.2	37.4	
50-32-8	Benzo(a)pyrene		37.8	ug/kg	11.2	37.4	
193-39-5	Indeno(1,2,3-cd)pyrene	J	22.9	ug/kg	11.2	37.4	J,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	37.4	ug/kg	11.2	37.4	UJ,SV7c
191-24-2	Benzo(ghi)perylene	J	30.9	ug/kg	11.2	37.4	J,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	374	ug/kg	74.8	374	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	363	ug/kg		JA
	Unknown	7.49	151	ug/kg		J

P.S. 4/22/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815010	**Date Received:**	03/05/2010 10:20	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13862	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 19:18	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	s7c2326.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	7.98	402	ug/kg		J
	Unknown	8.45	903	ug/kg		J
	Unknown	8.9	1280	ug/kg		J
	Unknown	9.32	1730	ug/kg		J
	Unknown	9.72	1900	ug/kg		J
541-01-5	Heptasiloxane, hexadecamethyl-	10.38	265	ug/kg	90	NJ
	Unknown	10.55	253	ug/kg		J
	Unknown	10.81	156	ug/kg		J
	Unknown	11.2	3530	ug/kg		J
	Unknown	11.3	268	ug/kg		J
	Unknown	11.53	160	ug/kg		J
	Unknown	11.9	3220	ug/kg		J
	Unknown	12.76	2580	ug/kg		J
	Unknown	13.85	2020	ug/kg		J
	Unknown	14.14	217	ug/kg		J
	Unknown	14.37	209	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13863**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:48**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2308.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	374	ug/kg	74.9	374	
108-95-2	Phenol	U	374	ug/kg	74.9	374	
95-57-8	2-Chlorophenol	U	374	ug/kg	74.9	374	
106-46-7	1,4-Dichlorobenzene	U	374	ug/kg	74.9	374	
621-64-7	N-Nitrosodipropylamine	U	374	ug/kg	74.9	374	
59-50-7	4-Chloro-3-methylphenol	U	374	ug/kg	74.9	374	
83-32-9	Acenaphthene	U	37.4	ug/kg	12.4	37.4	
121-14-2	2,4-Dinitrotoluene	U	374	ug/kg	37.4	374	
100-02-7	4-Nitrophenol	U	374	ug/kg	124	374	
87-86-5	Pentachlorophenol	U	374	ug/kg	93.6	374	
129-00-0	Pyrene	U	37.4	ug/kg	11.2	37.4	
110-86-1	Pyridine	U	374	ug/kg	74.9	374	UJ,SV7c
62-53-3	Aniline	U	374	ug/kg	112	374	
111-44-4	bis(2-Chloroethyl) ether	U	374	ug/kg	74.9	374	
541-73-1	1,3-Dichlorobenzene	U	374	ug/kg	74.9	374	
100-51-6	Benzyl alcohol	U	374	ug/kg	112	374	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	374	ug/kg	74.9	374	
108-60-1	bis(2-Chloroisopropyl)ether	U	374	ug/kg	74.9	374	
95-48-7	o-Cresol	U	374	ug/kg	74.9	374	
65794-96-9	m,p-Cresols	U	374	ug/kg	112	374	
67-72-1	Hexachloroethane	U	374	ug/kg	74.9	374	
98-95-3	Nitrobenzene	U	374	ug/kg	74.9	374	
78-59-1	Isophorone	U	374	ug/kg	74.9	374	
88-75-5	2-Nitrophenol	U	374	ug/kg	74.9	374	
105-67-9	2,4-Dimethylphenol	U	374	ug/kg	131	374	
111-91-1	bis(2-Chloroethoxy)methane	U	374	ug/kg	74.9	374	
120-83-2	2,4-Dichlorophenol	U	374	ug/kg	74.9	374	
65-85-0	Benzoic acid	U	749	ug/kg	187	749	UJ,SV7c
91-20-3	Naphthalene	U	37.4	ug/kg	11.2	37.4	
106-47-8	4-Chloroaniline	U	374	ug/kg	74.9	374	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	374	ug/kg	74.9	374	
91-57-6	2-Methylnaphthalene	U	37.4	ug/kg	7.49	37.4	
77-47-4	Hexachlorocyclopentadiene	U	374	ug/kg	74.9	374	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	374	ug/kg	74.9	374	
95-95-4	2,4,5-Trichlorophenol	U	374	ug/kg	74.9	374	
91-58-7	2-Chloronaphthalene	U	37.4	ug/kg	12.4	37.4	
88-74-4	2-Nitroaniline	U	374	ug/kg	74.9	374	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	374	ug/kg	74.9	374	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815003	**Date Received:**	03/05/2010 10:20	**%Moisture:**	11.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13863	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 12:48	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	s7c2308.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	374	ug/kg	74.9	374	
606-20-2	2,6-Dinitrotoluene	U	374	ug/kg	37.4	374	
208-96-8	Acenaphthylene	U	37.4	ug/kg	11.2	37.4	
51-28-5	2,4-Dinitrophenol	U	749	ug/kg	142	749	
132-64-9	Dibenzofuran	U	374	ug/kg	74.9	374	
84-66-2	Diethylphthalate	U	374	ug/kg	74.9	374	
86-73-7	Fluorene	U	37.4	ug/kg	11.2	37.4	
7005-72-3	4-Chlorophenylphenylether	U	374	ug/kg	74.9	374	
534-52-1	2-Methyl-4,6-dinitrophenol	U	374	ug/kg	74.9	374	UJ,SV7c
100-01-6	4-Nitroaniline	U	374	ug/kg	112	374	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	374	ug/kg	74.9	374	
122-66-7	Azobenzene	U	374	ug/kg	74.9	374	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	374	ug/kg	74.9	374	
118-74-1	Hexachlorobenzene	U	374	ug/kg	74.9	374	
85-01-8	Phenanthrene	U	37.4	ug/kg	11.2	37.4	
120-12-7	Anthracene	U	37.4	ug/kg	7.49	37.4	
84-74-2	Di-n-butylphthalate	U	374	ug/kg	74.9	374	
206-44-0	Fluoranthene	U	37.4	ug/kg	11.2	37.4	
85-68-7	Butylbenzylphthalate	U	374	ug/kg	74.9	374	
56-55-3	Benzo(a)anthracene	U	37.4	ug/kg	11.2	37.4	
91-94-1	3,3'-Dichlorobenzidine	U	374	ug/kg	112	374	
218-01-9	Chrysene	U	37.4	ug/kg	11.2	37.4	
117-81-7	bis(2-Ethylhexyl)phthalate	U	374	ug/kg	74.9	374	
117-84-0	Di-n-octylphthalate	U	374	ug/kg	74.9	374	
205-99-2	Benzo(b)fluoranthene	U	37.4	ug/kg	11.2	37.4	
207-08-9	Benzo(k)fluoranthene	U	37.4	ug/kg	11.2	37.4	
50-32-8	Benzo(a)pyrene	U	37.4	ug/kg	11.2	37.4	
193-39-5	Indeno(1,2,3-cd)pyrene	J	12.8	ug/kg	11.2	37.4	J,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	37.4	ug/kg	11.2	37.4	UJ,SV7c
191-24-2	Benzo(ghi)perylene	U	37.4	ug/kg	11.2	37.4	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	374	ug/kg	74.9	374	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	247	ug/kg		J

P.S. 4/22/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248815002	Date Received:	03/05/2010 10:20	%Moisture:	14
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13864	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965816	Inst:	MSD7.I	Dilution:	1
Run Date:	03/23/2010 17:30	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	03/16/2010 21:37	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	s7c2321.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	387	ug/kg	77.4	387	
108-95-2	Phenol	U	387	ug/kg	77.4	387	
95-57-8	2-Chlorophenol	U	387	ug/kg	77.4	387	
106-46-7	1,4-Dichlorobenzene	U	387	ug/kg	77.4	387	
621-64-7	N-Nitrosodipropylamine	U	387	ug/kg	77.4	387	
59-50-7	4-Chloro-3-methylphenol	U	387	ug/kg	77.4	387	
83-32-9	Acenaphthene	J	36.7	ug/kg	12.8	38.7	
121-14-2	2,4-Dinitrotoluene	U	387	ug/kg	38.7	387	
100-02-7	4-Nitrophenol	U	387	ug/kg	128	387	
87-86-5	Pentachlorophenol	U	387	ug/kg	96.7	387	
129-00-0	Pyrene		438	ug/kg	11.6	38.7	
110-86-1	Pyridine	U	387	ug/kg	77.4	387	UJ,SV7c
62-53-3	Aniline	U	387	ug/kg	116	387	
111-44-4	bis(2-Chloroethyl) ether	U	387	ug/kg	77.4	387	
541-73-1	1,3-Dichlorobenzene	U	387	ug/kg	77.4	387	
100-51-6	Benzyl alcohol	U	387	ug/kg	116	387	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	387	ug/kg	77.4	387	
108-60-1	bis(2-Chloroisopropyl)ether	U	387	ug/kg	77.4	387	
95-48-7	o-Cresol	U	387	ug/kg	77.4	387	
65794-96-9	m,p-Cresols	U	387	ug/kg	116	387	
67-72-1	Hexachloroethane	U	387	ug/kg	77.4	387	
98-95-3	Nitrobenzene	U	387	ug/kg	77.4	387	
78-59-1	Isophorone	U	387	ug/kg	77.4	387	
88-75-5	2-Nitrophenol	U	387	ug/kg	77.4	387	
105-67-9	2,4-Dimethylphenol	U	387	ug/kg	135	387	
111-91-1	bis(2-Chloroethoxy)methane	U	387	ug/kg	77.4	387	
120-83-2	2,4-Dichlorophenol	U	387	ug/kg	77.4	387	
65-85-0	Benzoic acid	U	774	ug/kg	193	774	UJ,SV7c
91-20-3	Naphthalene	J	18.0	ug/kg	11.6	38.7	
106-47-8	4-Chloroaniline	U	387	ug/kg	77.4	387	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	387	ug/kg	77.4	387	
91-57-6	2-Methylnaphthalene	U	38.7	ug/kg	7.74	38.7	
77-47-4	Hexachlorocyclopentadiene	U	387	ug/kg	77.4	387	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	387	ug/kg	77.4	387	
95-95-4	2,4,5-Trichlorophenol	U	387	ug/kg	77.4	387	
91-58-7	2-Chloronaphthalene	U	38.7	ug/kg	12.8	38.7	
88-74-4	2-Nitroaniline	U	387	ug/kg	77.4	387	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	387	ug/kg	77.4	387	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815002	**Date Received:**	03/05/2010 10:20	**%Moisture:**	14
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13864	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 17:30	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	s7c2321.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	387	ug/kg	77.4	387	
606-20-2	2,6-Dinitrotoluene	U	387	ug/kg	38.7	387	
208-96-8	Acenaphthylene	U	38.7	ug/kg	11.6	38.7	
51-28-5	2,4-Dinitrophenol	U	774	ug/kg	147	774	
132-64-9	Dibenzofuran	U	387	ug/kg	77.4	387	
84-66-2	Diethylphthalate	U	387	ug/kg	77.4	387	
86-73-7	Fluorene	J	32.1	ug/kg	11.6	38.7	
7005-72-3	4-Chlorophenylphenylether	U	387	ug/kg	77.4	387	
534-52-1	2-Methyl-4,6-dinitrophenol	U	387	ug/kg	77.4	387	UJ,SV7c
100-01-6	4-Nitroaniline	U	387	ug/kg	116	387	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	387	ug/kg	77.4	387	
122-66-7	Azobenzene	U	387	ug/kg	77.4	387	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	387	ug/kg	77.4	387	
118-74-1	Hexachlorobenzene	U	387	ug/kg	77.4	387	
85-01-8	Phenanthrene		327	ug/kg	11.6	38.7	
120-12-7	Anthracene		60.2	ug/kg	7.74	38.7	
84-74-2	Di-n-butylphthalate	U	387	ug/kg	77.4	387	
206-44-0	Fluoranthene		438	ug/kg	11.6	38.7	
85-68-7	Butylbenzylphthalate	U	387	ug/kg	77.4	387	
56-55-3	Benzo(a)anthracene		181	ug/kg	11.6	38.7	
91-94-1	3,3'-Dichlorobenzidine	U	387	ug/kg	116	387	
218-01-9	Chrysene		206	ug/kg	11.6	38.7	
117-81-7	bis(2-Ethylhexyl)phthalate	U	387	ug/kg	77.4	387	
117-84-0	Di-n-octylphthalate	U	387	ug/kg	77.4	387	
205-99-2	Benzo(b)fluoranthene		320	ug/kg	11.6	38.7	
207-08-9	Benzo(k)fluoranthene	U	38.7	ug/kg	11.6	38.7	
50-32-8	Benzo(a)pyrene		190	ug/kg	11.6	38.7	
193-39-5	Indeno(1,2,3-cd)pyrene		140	ug/kg	11.6	38.7	J,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	38.7	ug/kg	11.6	38.7	UJ,SV7c
191-24-2	Benzo(ghi)perylene		151	ug/kg	11.6	38.7	J,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	387	ug/kg	77.4	387	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	432	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815008	**Date Received:**	03/05/2010 10:20	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13865	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 13:32	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.13 g	**Final Volume:**	1 mL
Data File:	s7c2310.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	363	ug/kg	72.5	363	
108-95-2	Phenol	U	363	ug/kg	72.5	363	
95-57-8	2-Chlorophenol	U	363	ug/kg	72.5	363	
106-46-7	1,4-Dichlorobenzene	U	363	ug/kg	72.5	363	
621-64-7	N-Nitrosodipropylamine	U	363	ug/kg	72.5	363	
59-50-7	4-Chloro-3-methylphenol	U	363	ug/kg	72.5	363	
83-32-9	Acenaphthene	U	36.3	ug/kg	12.0	36.3	
121-14-2	2,4-Dinitrotoluene	U	363	ug/kg	36.3	363	
100-02-7	4-Nitrophenol	U	363	ug/kg	120	363	
87-86-5	Pentachlorophenol	U	363	ug/kg	90.6	363	
129-00-0	Pyrene		38.7	ug/kg	10.9	36.3	
110-86-1	Pyridine	U	363	ug/kg	72.5	363	UJ,SV7c
62-53-3	Aniline	U	363	ug/kg	109	363	
111-44-4	bis(2-Chloroethyl) ether	U	363	ug/kg	72.5	363	
541-73-1	1,3-Dichlorobenzene	U	363	ug/kg	72.5	363	
100-51-6	Benzyl alcohol	U	363	ug/kg	109	363	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	363	ug/kg	72.5	363	
108-60-1	bis(2-Chloroisopropyl)ether	U	363	ug/kg	72.5	363	
95-48-7	o-Cresol	U	363	ug/kg	72.5	363	
65794-96-9	m,p-Cresols	U	363	ug/kg	109	363	
67-72-1	Hexachloroethane	U	363	ug/kg	72.5	363	
98-95-3	Nitrobenzene	U	363	ug/kg	72.5	363	
78-59-1	Isophorone	U	363	ug/kg	72.5	363	
88-75-5	2-Nitrophenol	U	363	ug/kg	72.5	363	
105-67-9	2,4-Dimethylphenol	U	363	ug/kg	127	363	
111-91-1	bis(2-Chloroethoxy)methane	U	363	ug/kg	72.5	363	
120-83-2	2,4-Dichlorophenol	U	363	ug/kg	72.5	363	
65-85-0	Benzoic acid	U	725	ug/kg	181	725	UJ,SV7c
91-20-3	Naphthalene	U	36.3	ug/kg	10.9	36.3	
106-47-8	4-Chloroaniline	U	363	ug/kg	72.5	363	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	363	ug/kg	72.5	363	
91-57-6	2-Methylnaphthalene	U	36.3	ug/kg	7.25	36.3	
77-47-4	Hexachlorocyclopentadiene	U	363	ug/kg	72.5	363	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	363	ug/kg	72.5	363	
95-95-4	2,4,5-Trichlorophenol	U	363	ug/kg	72.5	363	
91-58-7	2-Chloronaphthalene	U	36.3	ug/kg	12.0	36.3	
88-74-4	2-Nitroaniline	U	363	ug/kg	72.5	363	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	363	ug/kg	72.5	363	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13865**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:32**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2310.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	363	ug/kg	72.5	363	
606-20-2	2,6-Dinitrotoluene	U	363	ug/kg	36.3	363	
208-96-8	Acenaphthylene	U	36.3	ug/kg	10.9	36.3	
51-28-5	2,4-Dinitrophenol	U	725	ug/kg	138	725	
132-64-9	Dibenzofuran	U	363	ug/kg	72.5	363	
84-66-2	Diethylphthalate	U	363	ug/kg	72.5	363	
86-73-7	Fluorene	U	36.3	ug/kg	10.9	36.3	
7005-72-3	4-Chlorophenylphenylether	U	363	ug/kg	72.5	363	
534-52-1	2-Methyl-4,6-dinitrophenol	U	363	ug/kg	72.5	363	UJ,SV7c
100-01-6	4-Nitroaniline	U	363	ug/kg	109	363	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	363	ug/kg	72.5	363	
122-66-7	Azobenzene	U	363	ug/kg	72.5	363	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	363	ug/kg	72.5	363	
118-74-1	Hexachlorobenzene	U	363	ug/kg	72.5	363	
85-01-8	Phenanthrene	J	27.8	ug/kg	10.9	36.3	
120-12-7	Anthracene	U	36.3	ug/kg	7.25	36.3	
84-74-2	Di-n-butylphthalate	U	363	ug/kg	72.5	363	
206-44-0	Fluoranthene		41.3	ug/kg	10.9	36.3	
85-68-7	Butylbenzylphthalate	U	363	ug/kg	72.5	363	
56-55-3	Benzo(a)anthracene	J	20.4	ug/kg	10.9	36.3	
91-94-1	3,3'-Dichlorobenzidine	U	363	ug/kg	109	363	
218-01-9	Chrysene	J	19.7	ug/kg	10.9	36.3	
117-81-7	bis(2-Ethylhexyl)phthalate	U	363	ug/kg	72.5	363	
117-84-0	Di-n-octylphthalate	U	363	ug/kg	72.5	363	
205-99-2	Benzo(b)fluoranthene	J	27.0	ug/kg	10.9	36.3	
207-08-9	Benzo(k)fluoranthene	U	36.3	ug/kg	10.9	36.3	
50-32-8	Benzo(a)pyrene	J	15.5	ug/kg	10.9	36.3	
193-39-5	Indeno(1,2,3-cd)pyrene	J	14.0	ug/kg	10.9	36.3	J,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	36.3	ug/kg	10.9	36.3	UJ,SV7c
191-24-2	Benzo(ghi)perylene	J	16.9	ug/kg	10.9	36.3	J,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	363	ug/kg	72.5	363	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	423	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815006	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13866	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 18:13	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s7c2323.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.6	358	
108-95-2	Phenol	U	358	ug/kg	71.6	358	
95-57-8	2-Chlorophenol	U	358	ug/kg	71.6	358	
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.6	358	
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.6	358	
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.6	358	
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8	
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358	
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358	
87-86-5	Pentachlorophenol	U	358	ug/kg	89.5	358	
129-00-0	Pyrene	J	31.8	ug/kg	10.7	35.8	
110-86-1	Pyridine	U	358	ug/kg	71.6	358	UJ,SV7c
62-53-3	Aniline	U	358	ug/kg	107	358	
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.6	358	
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.6	358	
100-51-6	Benzyl alcohol	U	358	ug/kg	107	358	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.6	358	
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.6	358	
95-48-7	o-Cresol	U	358	ug/kg	71.6	358	
65794-96-9	m,p-Cresols	U	358	ug/kg	107	358	
67-72-1	Hexachloroethane	U	358	ug/kg	71.6	358	
98-95-3	Nitrobenzene	U	358	ug/kg	71.6	358	
78-59-1	Isophorone	U	358	ug/kg	71.6	358	
88-75-5	2-Nitrophenol	U	358	ug/kg	71.6	358	
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358	
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.6	358	
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.6	358	
65-85-0	Benzoic acid	U	716	ug/kg	179	716	UJ,SV7c
91-20-3	Naphthalene	U	35.8	ug/kg	10.7	35.8	
106-47-8	4-Chloroaniline	U	358	ug/kg	71.6	358	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.6	358	
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.16	35.8	
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.6	358	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.6	358	
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.6	358	
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8	
88-74-4	2-Nitroaniline	U	358	ug/kg	71.6	358	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	358	ug/kg	71.6	358	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13866**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 18:13**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2323.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	358	ug/kg	71.6	358	
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358	
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.7	35.8	
51-28-5	2,4-Dinitrophenol	U	716	ug/kg	136	716	
132-64-9	Dibenzofuran	U	358	ug/kg	71.6	358	
84-66-2	Diethylphthalate	U	358	ug/kg	71.6	358	
86-73-7	Fluorene	U	35.8	ug/kg	10.7	35.8	
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.6	358	
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.6	358	UJ,SV7c
100-01-6	4-Nitroaniline	U	358	ug/kg	107	358	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	358	ug/kg	71.6	358	
122-66-7	Azobenzene	U	358	ug/kg	71.6	358	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.6	358	
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.6	358	
85-01-8	Phenanthrene	J	25.4	ug/kg	10.7	35.8	
120-12-7	Anthracene	U	35.8	ug/kg	7.16	35.8	
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.6	358	
206-44-0	Fluoranthene	J	35.7	ug/kg	10.7	35.8	
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.6	358	
56-55-3	Benzo(a)anthracene	J	20.7	ug/kg	10.7	35.8	
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	107	358	
218-01-9	Chrysene	J	18.1	ug/kg	10.7	35.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.6	358	
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.6	358	
205-99-2	Benzo(b)fluoranthene	J	32.1	ug/kg	10.7	35.8	
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.7	35.8	
50-32-8	Benzo(a)pyrene	J	19.8	ug/kg	10.7	35.8	
193-39-5	Indeno(1,2,3-cd)pyrene	J	16.4	ug/kg	10.7	35.8	J,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.7	35.8	UJ,SV7c
191-24-2	Benzo(ghi)perylene	J	20.3	ug/kg	10.7	35.8	J,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.6	358	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	404	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13867**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 16:03**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2317.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	362	ug/kg	72.4	362	
108-95-2	Phenol	U	362	ug/kg	72.4	362	
95-57-8	2-Chlorophenol	U	362	ug/kg	72.4	362	
106-46-7	1,4-Dichlorobenzene	U	362	ug/kg	72.4	362	
621-64-7	N-Nitrosodipropylamine	U	362	ug/kg	72.4	362	
59-50-7	4-Chloro-3-methylphenol	U	362	ug/kg	72.4	362	
83-32-9	Acenaphthene	U	36.2	ug/kg	11.9	36.2	
121-14-2	2,4-Dinitrotoluene	U	362	ug/kg	36.2	362	
100-02-7	4-Nitrophenol	U	362	ug/kg	119	362	
87-86-5	Pentachlorophenol	U	362	ug/kg	90.4	362	
129-00-0	Pyrene	J	19.1	ug/kg	10.9	36.2	
110-86-1	Pyridine	U	362	ug/kg	72.4	362	UJ,SV7c
62-53-3	Aniline	U	362	ug/kg	109	362	
111-44-4	bis(2-Chloroethyl) ether	U	362	ug/kg	72.4	362	
541-73-1	1,3-Dichlorobenzene	U	362	ug/kg	72.4	362	
100-51-6	Benzyl alcohol	U	362	ug/kg	109	362	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	362	ug/kg	72.4	362	
108-60-1	bis(2-Chloroisopropyl)ether	U	362	ug/kg	72.4	362	
95-48-7	o-Cresol	U	362	ug/kg	72.4	362	
65794-96-9	m,p-Cresols	U	362	ug/kg	109	362	
67-72-1	Hexachloroethane	U	362	ug/kg	72.4	362	
98-95-3	Nitrobenzene	U	362	ug/kg	72.4	362	
78-59-1	Isophorone	U	362	ug/kg	72.4	362	
88-75-5	2-Nitrophenol	U	362	ug/kg	72.4	362	
105-67-9	2,4-Dimethylphenol	U	362	ug/kg	127	362	
111-91-1	bis(2-Chloroethoxy)methane	U	362	ug/kg	72.4	362	
120-83-2	2,4-Dichlorophenol	U	362	ug/kg	72.4	362	
65-85-0	Benzoic acid	U	724	ug/kg	181	724	UJ,SV7c
91-20-3	Naphthalene	U	36.2	ug/kg	10.9	36.2	
106-47-8	4-Chloroaniline	U	362	ug/kg	72.4	362	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	362	ug/kg	72.4	362	
91-57-6	2-Methylnaphthalene	U	36.2	ug/kg	7.24	36.2	
77-47-4	Hexachlorocyclopentadiene	U	362	ug/kg	72.4	362	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	362	ug/kg	72.4	362	
95-95-4	2,4,5-Trichlorophenol	U	362	ug/kg	72.4	362	
91-58-7	2-Chloronaphthalene	U	36.2	ug/kg	11.9	36.2	
88-74-4	2-Nitroaniline	U	362	ug/kg	72.4	362	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	362	ug/kg	72.4	362	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815001	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13867	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 16:03	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s7c2317.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	362	ug/kg	72.4	362	
606-20-2	2,6-Dinitrotoluene	U	362	ug/kg	36.2	362	
208-96-8	Acenaphthylene	U	36.2	ug/kg	10.9	36.2	
51-28-5	2,4-Dinitrophenol	U	724	ug/kg	137	724	
132-64-9	Dibenzofuran	U	362	ug/kg	72.4	362	
84-66-2	Diethylphthalate	U	362	ug/kg	72.4	362	
86-73-7	Fluorene	U	36.2	ug/kg	10.9	36.2	
7005-72-3	4-Chlorophenylphenylether	U	362	ug/kg	72.4	362	
534-52-1	2-Methyl-4,6-dinitrophenol	U	362	ug/kg	72.4	362	UJ,SV7c
100-01-6	4-Nitroaniline	U	362	ug/kg	109	362	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	362	ug/kg	72.4	362	
122-66-7	Azobenzene	U	362	ug/kg	72.4	362	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	362	ug/kg	72.4	362	
118-74-1	Hexachlorobenzene	U	362	ug/kg	72.4	362	
85-01-8	Phenanthrene	J	15.2	ug/kg	10.9	36.2	
120-12-7	Anthracene	U	36.2	ug/kg	7.24	36.2	
84-74-2	Di-n-butylphthalate	U	362	ug/kg	72.4	362	
206-44-0	Fluoranthene	J	19.7	ug/kg	10.9	36.2	
85-68-7	Butylbenzylphthalate	U	362	ug/kg	72.4	362	
56-55-3	Benzo(a)anthracene	J	21.7	ug/kg	10.9	36.2	
91-94-1	3,3'-Dichlorobenzidine	U	362	ug/kg	109	362	
218-01-9	Chrysene	J	29.0	ug/kg	10.9	36.2	
117-81-7	bis(2-Ethylhexyl)phthalate	U	362	ug/kg	72.4	362	
117-84-0	Di-n-octylphthalate	U	362	ug/kg	72.4	362	
205-99-2	Benzo(b)fluoranthene		57.6	ug/kg	10.9	36.2	
207-08-9	Benzo(k)fluoranthene	U	36.2	ug/kg	10.9	36.2	
50-32-8	Benzo(a)pyrene	J	30.7	ug/kg	10.9	36.2	
193-39-5	Indeno(1,2,3-cd)pyrene	J	23.8	ug/kg	10.9	36.2	J,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	36.2	ug/kg	10.9	36.2	UJ,SV7c
191-24-2	Benzo(ghi)perylene	J	25.5	ug/kg	10.9	36.2	J,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	362	ug/kg	72.4	362	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	489	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13868	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 18:56	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	s7c2325.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	359	ug/kg	71.8	359	
108-95-2	Phenol	U	359	ug/kg	71.8	359	
95-57-8	2-Chlorophenol	U	359	ug/kg	71.8	359	
106-46-7	1,4-Dichlorobenzene	U	359	ug/kg	71.8	359	
621-64-7	N-Nitrosodipropylamine	U	359	ug/kg	71.8	359	
59-50-7	4-Chloro-3-methylphenol	U	359	ug/kg	71.8	359	
83-32-9	Acenaphthene	U	35.9	ug/kg	11.9	35.9	
121-14-2	2,4-Dinitrotoluene	U	359	ug/kg	35.9	359	
100-02-7	4-Nitrophenol	U	359	ug/kg	119	359	
87-86-5	Pentachlorophenol	U	359	ug/kg	89.8	359	
129-00-0	Pyrene	U	35.9	ug/kg	10.8	35.9	
110-86-1	Pyridine	U	359	ug/kg	71.8	359	UJ,SV7c
62-53-3	Aniline	U	359	ug/kg	108	359	
111-44-4	bis(2-Chloroethyl) ether	U	359	ug/kg	71.8	359	
541-73-1	1,3-Dichlorobenzene	U	359	ug/kg	71.8	359	
100-51-6	Benzyl alcohol	U	359	ug/kg	108	359	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	359	ug/kg	71.8	359	
108-60-1	bis(2-Chloroisopropyl)ether	U	359	ug/kg	71.8	359	
95-48-7	o-Cresol	U	359	ug/kg	71.8	359	
65794-96-9	m,p-Cresols	U	359	ug/kg	108	359	
67-72-1	Hexachloroethane	U	359	ug/kg	71.8	359	
98-95-3	Nitrobenzene	U	359	ug/kg	71.8	359	
78-59-1	Isophorone	U	359	ug/kg	71.8	359	
88-75-5	2-Nitrophenol	U	359	ug/kg	71.8	359	
105-67-9	2,4-Dimethylphenol	U	359	ug/kg	126	359	
111-91-1	bis(2-Chloroethoxy)methane	U	359	ug/kg	71.8	359	
120-83-2	2,4-Dichlorophenol	U	359	ug/kg	71.8	359	
65-85-0	Benzoic acid	U	718	ug/kg	180	718	UJ,SV7c
91-20-3	Naphthalene	U	35.9	ug/kg	10.8	35.9	
106-47-8	4-Chloroaniline	U	359	ug/kg	71.8	359	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	359	ug/kg	71.8	359	
91-57-6	2-Methylnaphthalene	U	35.9	ug/kg	7.18	35.9	
77-47-4	Hexachlorocyclopentadiene	U	359	ug/kg	71.8	359	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	359	ug/kg	71.8	359	
95-95-4	2,4,5-Trichlorophenol	U	359	ug/kg	71.8	359	
91-58-7	2-Chloronaphthalene	U	35.9	ug/kg	11.9	35.9	
88-74-4	2-Nitroaniline	U	359	ug/kg	71.8	359	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	359	ug/kg	71.8	359	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13868	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 18:56	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data Flle:	s7c2325.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	359	ug/kg	71.8	359	
606-20-2	2,6-Dinitrotoluene	U	359	ug/kg	35.9	359	
208-96-8	Acenaphthylene	U	35.9	ug/kg	10.8	35.9	
51-28-5	2,4-Dinitrophenol	U	718	ug/kg	136	718	
132-64-9	Dibenzofuran	U	359	ug/kg	71.8	359	
84-66-2	Diethylphthalate	U	359	ug/kg	71.8	359	
86-73-7	Fluorene	U	35.9	ug/kg	10.8	35.9	
7005-72-3	4-Chlorophenylphenylether	U	359	ug/kg	71.8	359	
534-52-1	2-Methyl-4,6-dinitrophenol	U	359	ug/kg	71.8	359	UJ,SV7c
100-01-6	4-Nitroaniline	U	359	ug/kg	108	359	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	359	ug/kg	71.8	359	
122-66-7	Azobenzene	U	359	ug/kg	71.8	359	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	359	ug/kg	71.8	359	
118-74-1	Hexachlorobenzene	U	359	ug/kg	71.8	359	
85-01-8	Phenanthrene	U	35.9	ug/kg	10.8	35.9	
120-12-7	Anthracene	U	35.9	ug/kg	7.18	35.9	
84-74-2	Di-n-butylphthalate	U	359	ug/kg	71.8	359	
206-44-0	Fluoranthene	U	35.9	ug/kg	10.8	35.9	
85-68-7	Butylbenzylphthalate	U	359	ug/kg	71.8	359	
56-55-3	Benzo(a)anthracene	U	35.9	ug/kg	10.8	35.9	
91-94-1	3,3'-Dichlorobenzidine	U	359	ug/kg	108	359	
218-01-9	Chrysene	U	35.9	ug/kg	10.8	35.9	
117-81-7	bis(2-Ethylhexyl)phthalate	U	359	ug/kg	71.8	359	
117-84-0	Di-n-octylphthalate	U	359	ug/kg	71.8	359	
205-99-2	Benzo(b)fluoranthene	U	35.9	ug/kg	10.8	35.9	
207-08-9	Benzo(k)fluoranthene	U	35.9	ug/kg	10.8	35.9	
50-32-8	Benzo(a)pyrene	U	35.9	ug/kg	10.8	35.9	
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.9	ug/kg	10.8	35.9	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	35.9	ug/kg	10.8	35.9	
191-24-2	Benzo(ghi)perylene	U	35.9	ug/kg	10.8	35.9	
120-82-1	1,2,4-Trichlorobenzene	U	359	ug/kg	71.8	359	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.9	318	ug/kg	64	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815004	**Date Received:**	03/05/2010 10:20	**%Moisture:**	8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13869	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 13:10	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.1 g	**Final Volume:**	1 mL
Data File:	s7c2309.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	361	ug/kg	72.2	361	
108-95-2	Phenol	U	361	ug/kg	72.2	361	
95-57-8	2-Chlorophenol	U	361	ug/kg	72.2	361	
106-46-7	1,4-Dichlorobenzene	U	361	ug/kg	72.2	361	
621-64-7	N-Nitrosodipropylamine	U	361	ug/kg	72.2	361	
59-50-7	4-Chloro-3-methylphenol	U	361	ug/kg	72.2	361	
83-32-9	Acenaphthene	U	36.1	ug/kg	11.9	36.1	
121-14-2	2,4-Dinitrotoluene	U	361	ug/kg	36.1	361	
100-02-7	4-Nitrophenol	U	361	ug/kg	119	361	
87-86-5	Pentachlorophenol	U	361	ug/kg	90.3	361	
129-00-0	Pyrene	U	36.1	ug/kg	10.8	36.1	
110-86-1	Pyridine	U	361	ug/kg	72.2	361	UJ,SV7c
62-53-3	Aniline	U	361	ug/kg	108	361	
111-44-4	bis(2-Chloroethyl) ether	U	361	ug/kg	72.2	361	
541-73-1	1,3-Dichlorobenzene	U	361	ug/kg	72.2	361	
100-51-6	Benzyl alcohol	U	361	ug/kg	108	361	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	361	ug/kg	72.2	361	
108-60-1	bis(2-Chloroisopropyl)ether	U	361	ug/kg	72.2	361	
95-48-7	o-Cresol	U	361	ug/kg	72.2	361	
65794-96-9	m,p-Cresols	U	361	ug/kg	108	361	
67-72-1	Hexachloroethane	U	361	ug/kg	72.2	361	
98-95-3	Nitrobenzene	U	361	ug/kg	72.2	361	
78-59-1	Isophorone	U	361	ug/kg	72.2	361	
88-75-5	2-Nitrophenol	U	361	ug/kg	72.2	361	
105-67-9	2,4-Dimethylphenol	U	361	ug/kg	126	361	
111-91-1	bis(2-Chloroethoxy)methane	U	361	ug/kg	72.2	361	
120-83-2	2,4-Dichlorophenol	U	361	ug/kg	72.2	361	
65-85-0	Benzoic acid	U	722	ug/kg	181	722	UJ,SV7c
91-20-3	Naphthalene	U	36.1	ug/kg	10.8	36.1	
106-47-8	4-Chloroaniline	U	361	ug/kg	72.2	361	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	361	ug/kg	72.2	361	
91-57-6	2-Methylnaphthalene	U	36.1	ug/kg	7.22	36.1	
77-47-4	Hexachlorocyclopentadiene	U	361	ug/kg	72.2	361	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	361	ug/kg	72.2	361	
95-95-4	2,4,5-Trichlorophenol	U	361	ug/kg	72.2	361	
91-58-7	2-Chloronaphthalene	U	36.1	ug/kg	11.9	36.1	
88-74-4	2-Nitroaniline	U	361	ug/kg	72.2	361	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	361	ug/kg	72.2	361	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13869**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:10**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.1 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2309.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	361	ug/kg	72.2	361	
606-20-2	2,6-Dinitrotoluene	U	361	ug/kg	36.1	361	
208-96-8	Acenaphthylene	U	36.1	ug/kg	10.8	36.1	
51-28-5	2,4-Dinitrophenol	U	722	ug/kg	137	722	
132-64-9	Dibenzofuran	U	361	ug/kg	72.2	361	
84-66-2	Diethylphthalate	U	361	ug/kg	72.2	361	
86-73-7	Fluorene	U	36.1	ug/kg	10.8	36.1	
7005-72-3	4-Chlorophenylphenylether	U	361	ug/kg	72.2	361	
534-52-1	2-Methyl-4,6-dinitrophenol	U	361	ug/kg	72.2	361	UJ,SV7c
100-01-6	4-Nitroaniline	U	361	ug/kg	108	361	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	361	ug/kg	72.2	361	
122-66-7	Azobenzene	U	361	ug/kg	72.2	361	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	361	ug/kg	72.2	361	
118-74-1	Hexachlorobenzene	U	361	ug/kg	72.2	361	
85-01-8	Phenanthrene	U	36.1	ug/kg	10.8	36.1	
120-12-7	Anthracene	U	36.1	ug/kg	7.22	36.1	
84-74-2	Di-n-butylphthalate	U	361	ug/kg	72.2	361	
206-44-0	Fluoranthene	U	36.1	ug/kg	10.8	36.1	
85-68-7	Butylbenzylphthalate	U	361	ug/kg	72.2	361	
56-55-3	Benzo(a)anthracene	U	36.1	ug/kg	10.8	36.1	
91-94-1	3,3'-Dichlorobenzidine	U	361	ug/kg	108	361	
218-01-9	Chrysene	U	36.1	ug/kg	10.8	36.1	
117-81-7	bis(2-Ethylhexyl)phthalate	U	361	ug/kg	72.2	361	
117-84-0	Di-n-octylphthalate	U	361	ug/kg	72.2	361	
205-99-2	Benzo(b)fluoranthene	U	36.1	ug/kg	10.8	36.1	
207-08-9	Benzo(k)fluoranthene	U	36.1	ug/kg	10.8	36.1	
50-32-8	Benzo(a)pyrene	U	36.1	ug/kg	10.8	36.1	
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.1	ug/kg	10.8	36.1	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	36.1	ug/kg	10.8	36.1	
191-24-2	Benzo(ghi)perylene	U	36.1	ug/kg	10.8	36.1	
120-82-1	1,2,4-Trichlorobenzene	U	361	ug/kg	72.2	361	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	2.9	470	ug/kg		J
630-02-4	Octacosane	9.33	146	ug/kg	90	NJ

P.S. 4/22/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815011	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13873	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 19:39	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	s7c2327.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.5	358	
108-95-2	Phenol	U	358	ug/kg	71.5	358	
95-57-8	2-Chlorophenol	U	358	ug/kg	71.5	358	
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.5	358	
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.5	358	
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.5	358	
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8	
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358	
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358	
87-86-5	Pentachlorophenol	U	358	ug/kg	89.4	358	
129-00-0	Pyrene	J	15.6	ug/kg	10.7	35.8	
110-86-1	Pyridine	U	358	ug/kg	71.5	358	UJ,SV7c
62-53-3	Aniline	U	358	ug/kg	107	358	
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.5	358	
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.5	358	
100-51-6	Benzyl alcohol	U	358	ug/kg	107	358	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.5	358	
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.5	358	
95-48-7	o-Cresol	U	358	ug/kg	71.5	358	
65794-96-9	m,p-Cresols	U	358	ug/kg	107	358	
67-72-1	Hexachloroethane	U	358	ug/kg	71.5	358	
98-95-3	Nitrobenzene	U	358	ug/kg	71.5	358	
78-59-1	Isophorone	U	358	ug/kg	71.5	358	
88-75-5	2-Nitrophenol	U	358	ug/kg	71.5	358	
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358	
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.5	358	
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.5	358	
65-85-0	Benzoic acid	U	715	ug/kg	179	715	UJ,SV7c
91-20-3	Naphthalene	U	35.8	ug/kg	10.7	35.8	
106-47-8	4-Chloroaniline	U	358	ug/kg	71.5	358	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.5	358	
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.15	35.8	
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.5	358	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.5	358	
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.5	358	
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8	
88-74-4	2-Nitroaniline	U	358	ug/kg	71.5	358	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	358	ug/kg	71.5	358	

P.S. 4/22/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815011	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13873	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 19:39	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	s7c2327.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	358	ug/kg	71.5	358	
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358	
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.7	35.8	
51-28-5	2,4-Dinitrophenol	U	715	ug/kg	136	715	
132-64-9	Dibenzofuran	U	358	ug/kg	71.5	358	
84-66-2	Diethylphthalate	U	358	ug/kg	71.5	358	
86-73-7	Fluorene	U	35.8	ug/kg	10.7	35.8	
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.5	358	
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.5	358	UJ,SV7c
100-01-6	4-Nitroaniline	U	358	ug/kg	107	358	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	358	ug/kg	71.5	358	
122-66-7	Azobenzene	U	358	ug/kg	71.5	358	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.5	358	
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.5	358	
85-01-8	Phenanthrene	J	11.5	ug/kg	10.7	35.8	
120-12-7	Anthracene	U	35.8	ug/kg	7.15	35.8	
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.5	358	
206-44-0	Fluoranthene	J	17.0	ug/kg	10.7	35.8	
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.5	358	
56-55-3	Benzo(a)anthracene	J	15.8	ug/kg	10.7	35.8	
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	107	358	
218-01-9	Chrysene	J	12.1	ug/kg	10.7	35.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.5	358	
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.5	358	
205-99-2	Benzo(b)fluoranthene		36.3	ug/kg	10.7	35.8	
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.7	35.8	
50-32-8	Benzo(a)pyrene	J	19.1	ug/kg	10.7	35.8	
193-39-5	Indeno(1,2,3-cd)pyrene	J	12.9	ug/kg	10.7	35.8	J,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.7	35.8	UJ,SV7c
191-24-2	Benzo(ghi)perylene	J	15.1	ug/kg	10.7	35.8	J,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.5	358	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	348	ug/kg		JA
	Unknown	9.22	667	ug/kg		J

P.S. 4/22/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815011	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13873	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 19:39	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	s7c2327.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	13.55	150	ug/kg		J

P.S. 4/22/10

DATA VALIDATION COVER SHEET

5130-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2298 VALIDATION DATE: 04/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☒ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The surrogate %Rs were > the laboratory UAL for samples RE46-10-13860 and -13868. Also, the surrogate %R was <10% for sample -13862. Since the samples were diluted, no sample data were qualified as a result.
2. It should be noted that the MS/MSD analyses were performed on a LANL parent sample from another RN. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 04/23/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 04/22/10

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The retention time criteria were not met.	R, DR0 or GR0	R, DR0 or GR0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR0b	R, GR0b
☒	☐	☐	3. The surrogate is less than 10%R. Follow external laboratory limits.	R, DR3 or GR3	J-, DR3 or GR3
☐	☒	☐	4. The surrogate is less than the Lower Acceptance Limit, but greater than or equal to 10%R. Follow external laboratory limits.	UJ, DR3a or GR3a	J-, DR3a or GR3a
☒	☐	☐	5. The surrogate %R value is greater than the Upper Acceptance Limit. Follow external laboratory limits.	N/A	J+, DR3b or GR3b
☐	☒	☐	6. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR3d or GR3d	R, DR3d or GR3d
☐	☒	☐	7. The sample result is less than or equal to 5 times the concentration of the related analyte in the method blank.	U, DR4 or GR4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank, but was greater than 5x.	N/A	J+, DR4a or GR4a
☐	☐	☒	9. The sample result is less than or equal to 5 times the concentration of the related analyte in the trip blank, rinsate blank or equipment blank.	U, DR4d or GR4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DR4e or GR4e	R, DR4e or GR4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, DR7 or GR7	J, DR7 or GR7

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less than 0.995.	UJ, DR7a or GR7a	J, DR7a or GR7a
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method specific limits.	UJ, DR7c or GR7c	J, DR7c or GR7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DR7d or GR7d	J, DR7d or GR7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DR7f or GR7f	R, DR7f or GR7f
☐	☒	☐	16. The holding time was greater than 1 and less than or equal to 2 times the applicable holding time requirement.	UJ, DR9 or GR9	J-, DR9 or GR9
☐	☒	☐	17. The holding time was greater than 2 times the applicable holding time requirement.	R, DR9a or GR9a	J-, DR9a or GR9a
☐	☒	☐	18. The LCS percent recovery was less than 10%. Follow the external laboratory limits.	R, DR12 or GR12	J-, DR12 or GR12
☐	☒	☐	19. The LCS percent recovery was less than the Lower Acceptance Limit, but greater than 10%. Follow the external laboratory limits.	UJ, DR12a or GR12a	J-, DR12a or GR12a
☐	☒	☐	20. The LCS percent recovery was greater than the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DR12b or GR12b
☐	☒	☐	21. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or the external laboratory for information.	R, DR12c or GR12c	R, DR12c or GR12c
☐	☒	☐	22. The MS/MSD percent recovery was less than 10%.	R, DR12d or GR12d	R, DR12d or Gr12d
☐	☒	☐	23. The MS/MSD percent recovery was greater than 10%, but less than 70%.	UJ, DR12e or GR12e	J, DR12e or GR12e

TPH GRO AND DRO ANALYTICAL DATA VALIDATION CHECKLIST

5130-2

TPH GRO and DRO Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The MS/MSD percent recovery was greater than 70%.	N/A	J+, DR12f or GR12f
☐	☒	☐	25. The MS/MSD relative percent difference was greater than 30%.	UJ, DR12g or GR12g	J, DR12g or GR12g
☐	☐	☒	26. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, DR15 or GR15	R, DR15 or GR15
☐	☒	☐	27. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, DR19 or GR19	J, R, DR19 or GR19
☐	☒	☐	28. Duplicate, dilution, or reanalysis.	UJ, DR88 or GR88	J, DR88 or GR88

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815007	**Date Received:**	03/05/2010 10:20	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13860	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	20
Run Date:	03/19/2010 14:09	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.14 g	**Final Volume:**	1 mL
Data File:	042f4201.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		163	mg/kg	47.7	147

P.S. 4/22/10

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815005	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13861	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.1	**Dilution:**	10
Run Date:	03/19/2010 11:42	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	038f3801.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	75.7	mg/kg	24.6	75.7

P.S. 4/22/10

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815010	**Date Received:**	03/05/2010 10:20	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13862	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	20
Run Date:	03/19/2010 15:59	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	045f4501.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	62.2	mg/kg	48.7	150

P.S. 4/22/10

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815003	**Date Received:**	03/05/2010 10:20	**%Moisture:**	11.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13863	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 10:27	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	036f3601.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.52	mg/kg	2.44	7.52

P.S. 4/22/10

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13864**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 09:50**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.1 g**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		11.1	mg/kg	2.51	7.73

P.S. 4/22/10

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815008	**Date Received:**	03/05/2010 10:20	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13865	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 14:45	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	043f4301.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.27	mg/kg	2.36	7.27

P.S. 4/22/10

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815006	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13866	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	5
Run Date:	03/19/2010 12:18	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	039f3901.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	14.8	mg/kg	11.6	35.8

P.S. 4/22/10

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13867**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 09:13**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**034f3401.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.22	mg/kg	2.35	7.22

P.S. 4/22/10

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13868**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**20**
Run Date:	**03/19/2010 15:22**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**044f4401.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	144	mg/kg	46.8	144

P.S. 4/22/10

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815004	**Date Received:**	03/05/2010 10:20	**%Moisture:**	8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13869	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 11:04	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	037f3701.d	**Columu:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.23	mg/kg	2.35	7.23

P.S. 4/22/10

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815011**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13873**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 16:36**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**046f4601.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	5.49	mg/kg	2.32	7.14

P.S. 4/22/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2298 VALIDATION DATE: 04/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Pesticides

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The CCV %Ds were >15% on both columns for 4,4'-DDT. The associated sample results were NDs and, thus, were qualified UJ,P7c. The CCV %D was >15% on a single column for gamma-chlordane; alpha-BHC; gamma-BHC; endosulfan I; 4,4'-DDE; 4,4'-DDD; endrin and methoxychlor. The associated sample results were NDs and, thus, were not qualified.

Reviewed by: Mary Donivan Level: I Date: 04/23/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 04/22/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	**32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.**	**UJ, R, P15**	**R, P15**
☒	☐	☐	**33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.**	**U, U_LAB**	**J, J_LAB, NQ, NQ**
☐	☒	☐	**34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.**	**UJ, R, P19**	**J, R, P19**

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815007	**Date Received:**	03/05/2010 10:20	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13860	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	965996	**Inst:**	ECD3A.I	**Dilution:**	10
Run Date:	03/18/2010 01:20	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 11:39	**Aliquot:**	30.05 g	**Final Volume:**	5 mL
Data File:	028f2801.d	**Column:**	1 CLP–1	**Level:**	LOW
	028b2801.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
319–84–6	alpha–BHC	U	7.36	ug/kg	1.84	7.36		1
58–89–9	gamma–BHC (Lindane)	U	7.36	ug/kg	1.84	7.36		1
319–85–7	beta–BHC	U	7.36	ug/kg	1.84	7.36		1
319–86–8	delta–BHC	U	7.36	ug/kg	1.84	7.36		1
76–44–8	Heptachlor	U	7.36	ug/kg	1.84	7.36		1
309–00–2	Aldrin	U	7.36	ug/kg	1.84	7.36		1
1024–57–3	Heptachlor epoxide	U	7.36	ug/kg	2.30	7.36		1
5103–74–2	gamma–Chlordane	U	7.36	ug/kg	1.84	7.36		1
5103–71–9	alpha–Chlordane	U	7.36	ug/kg	1.84	7.36		1
959–98–8	Endosulfan I	U	7.36	ug/kg	1.84	7.36		1
72–55–9	4,4'–DDE	U	14.7	ug/kg	3.68	14.7		1
60–57–1	Dieldrin	U	14.7	ug/kg	3.68	14.7		1
72–20–8	Endrin	U	14.7	ug/kg	3.68	14.7		1
72–54–8	4,4'–DDD	U	14.7	ug/kg	3.68	14.7		1
33213–65–9	Endosulfan II	U	14.7	ug/kg	3.68	14.7		1
7421–93–4	Endrin aldehyde	U	14.7	ug/kg	3.68	14.7		1
50–29–3	4,4'–DDT	U	14.7	ug/kg	3.68	14.7	UJ,P7c	1
1031–07–8	Endosulfan sulfate	U	14.7	ug/kg	3.68	14.7		1
72–43–5	Methoxychlor	U	73.6	ug/kg	18.4	73.6		1
53494–70–5	Endrin ketone	U	14.7	ug/kg	3.68	14.7		1
8001–35–2	Toxaphene	U	184	ug/kg	61.2	184		1

P.S. 4/22/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13861**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 00:53**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30.02 g**	**Final Volume:**	**5 mL**
Data File:	**026f2601.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	026b2601.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
319–84–6	alpha–BHC	U	7.58	ug/kg	1.89	7.58		1
58–89–9	gamma–BHC (Lindane)	U	7.58	ug/kg	1.89	7.58		1
319–85–7	beta–BHC	U	7.58	ug/kg	1.89	7.58		1
319–86–8	delta–BHC	U	7.58	ug/kg	1.89	7.58		1
76–44–8	Heptachlor	U	7.58	ug/kg	1.89	7.58		1
309–00–2	Aldrin	U	7.58	ug/kg	1.89	7.58		1
1024–57–3	Heptachlor epoxide	U	7.58	ug/kg	2.37	7.58		1
5103–74–2	gamma–Chlordane	U	7.58	ug/kg	1.89	7.58		1
5103–71–9	alpha–Chlordane	U	7.58	ug/kg	1.89	7.58		1
959–98–8	Endosulfan I	U	7.58	ug/kg	1.89	7.58		1
72–55–9	4,4'–DDE	U	15.2	ug/kg	3.79	15.2		1
60–57–1	Dieldrin	U	15.2	ug/kg	3.79	15.2		1
72–20–8	Endrin	U	15.2	ug/kg	3.79	15.2		1
72–54–8	4,4'–DDD	U	15.2	ug/kg	3.79	15.2		1
33213–65–9	Endosulfan II	U	15.2	ug/kg	3.79	15.2		1
7421–93–4	Endrin aldehyde	U	15.2	ug/kg	3.79	15.2		1
50–29–3	4,4'–DDT	U	15.2	ug/kg	3.79	15.2	UJ,P7c	1
1031–07–8	Endosulfan sulfate	U	15.2	ug/kg	3.79	15.2		1
72–43–5	Methoxychlor	U	75.8	ug/kg	18.9	75.8		1
53494–70–5	Endrin ketone	U	15.2	ug/kg	3.79	15.2		1
8001–35–2	Toxaphene	U	189	ug/kg	63.1	189		1

P.S. 4/22/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13862**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 02:01**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30.04 g**	**Final Volume:**	**5 mL**
Data File:	**031f3101.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	031b3101.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
319–84–6	alpha–BHC	U	7.51	ug/kg	1.88	7.51		1
58–89–9	gamma–BHC (Lindane)	U	7.51	ug/kg	1.88	7.51		1
319–85–7	beta–BHC	U	7.51	ug/kg	1.88	7.51		1
319–86–8	delta–BHC	U	7.51	ug/kg	1.88	7.51		1
76–44–8	Heptachlor	U	7.51	ug/kg	1.88	7.51		1
309–00–2	Aldrin	U	7.51	ug/kg	1.88	7.51		1
1024–57–3	Heptachlor epoxide	U	7.51	ug/kg	2.35	7.51		1
5103–74–2	gamma–Chlordane	U	7.51	ug/kg	1.88	7.51		1
5103–71–9	alpha–Chlordane	U	7.51	ug/kg	1.88	7.51		1
959–98–8	Endosulfan I	U	7.51	ug/kg	1.88	7.51		1
72–55–9	4,4'–DDE	U	15.0	ug/kg	3.75	15.0		1
60–57–1	Dieldrin	U	15.0	ug/kg	3.75	15.0		1
72–20–8	Endrin	U	15.0	ug/kg	3.75	15.0		1
72–54–8	4,4'–DDD	U	15.0	ug/kg	3.75	15.0		1
33213–65–9	Endosulfan II	U	15.0	ug/kg	3.75	15.0		1
7421–93–4	Endrin aldehyde	U	15.0	ug/kg	3.75	15.0		1
50–29–3	4,4'–DDT	U	15.0	ug/kg	3.75	15.0	UJ,P7c	1
1031–07–8	Endosulfan sulfate	U	15.0	ug/kg	3.75	15.0		1
72–43–5	Methoxychlor	U	75.1	ug/kg	18.8	75.1		1
53494–70–5	Endrin ketone	U	15.0	ug/kg	3.75	15.0		1
8001–35–2	Toxaphene	U	188	ug/kg	62.5	188		1

P.S. 4/22/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815003	**Date Received:**	03/05/2010 10:20	**%Moisture:**	11.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13863	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	965996	**Inst:**	ECD3A.I	**Dilution:**	10
Run Date:	03/17/2010 23:58	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 11:39	**Aliquot:**	30 g	**Final Volume:**	5 mL
Data File:	022f2201.d	**Column:**	1 CLP–1	**Level:**	LOW
	022b2201.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
319–84–6	alpha–BHC	U	7.53	ug/kg	1.88	7.53		1
58–89–9	gamma–BHC (Lindane)	U	7.53	ug/kg	1.88	7.53		1
319–85–7	beta–BHC	U	7.53	ug/kg	1.88	7.53		1
319–86–8	delta–BHC	U	7.53	ug/kg	1.88	7.53		1
76–44–8	Heptachlor	U	7.53	ug/kg	1.88	7.53		1
309–00–2	Aldrin	U	7.53	ug/kg	1.88	7.53		1
1024–57–3	Heptachlor epoxide	U	7.53	ug/kg	2.35	7.53		1
5103–74–2	gamma–Chlordane	U	7.53	ug/kg	1.88	7.53		1
5103–71–9	alpha–Chlordane	U	7.53	ug/kg	1.88	7.53		1
959–98–8	Endosulfan I	U	7.53	ug/kg	1.88	7.53		1
72–55–9	4,4'–DDE	U	15.1	ug/kg	3.77	15.1		1
60–57–1	Dieldrin	U	15.1	ug/kg	3.77	15.1		1
72–20–8	Endrin	U	15.1	ug/kg	3.77	15.1		1
72–54–8	4,4'–DDD	U	15.1	ug/kg	3.77	15.1		1
33213–65–9	Endosulfan II	U	15.1	ug/kg	3.77	15.1		1
7421–93–4	Endrin aldehyde	U	15.1	ug/kg	3.77	15.1		1
50–29–3	4,4'–DDT	U	15.1	ug/kg	3.77	15.1	UJ,P7c	1
1031–07–8	Endosulfan sulfate	U	15.1	ug/kg	3.77	15.1		1
72–43–5	Methoxychlor	U	75.3	ug/kg	18.8	75.3		1
53494–70–5	Endrin ketone	U	15.1	ug/kg	3.77	15.1		1
8001–35–2	Toxaphene	U	188	ug/kg	62.7	188		1

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Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13864**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/17/2010 23:45**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**021f2101.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	021b2101.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
319–84–6	alpha–BHC	U	7.76	ug/kg	1.94	7.76		1
58–89–9	gamma–BHC (Lindane)	U	7.76	ug/kg	1.94	7.76		1
319–85–7	beta–BHC	U	7.76	ug/kg	1.94	7.76		1
319–86–8	delta–BHC	U	7.76	ug/kg	1.94	7.76		1
76–44–8	Heptachlor	U	7.76	ug/kg	1.94	7.76		1
309–00–2	Aldrin	U	7.76	ug/kg	1.94	7.76		1
1024–57–3	Heptachlor epoxide	U	7.76	ug/kg	2.42	7.76		1
5103–74–2	gamma–Chlordane	U	7.76	ug/kg	1.94	7.76		1
5103–71–9	alpha–Chlordane	U	7.76	ug/kg	1.94	7.76		1
959–98–8	Endosulfan I	U	7.76	ug/kg	1.94	7.76		1
72–55–9	4,4'–DDE	U	15.5	ug/kg	3.88	15.5		1
60–57–1	Dieldrin	U	15.5	ug/kg	3.88	15.5		1
72–20–8	Endrin	U	15.5	ug/kg	3.88	15.5		1
72–54–8	4,4'–DDD	U	15.5	ug/kg	3.88	15.5		1
33213–65–9	Endosulfan II	U	15.5	ug/kg	3.88	15.5		1
7421–93–4	Endrin aldehyde	U	15.5	ug/kg	3.88	15.5		1
50–29–3	4,4'–DDT	U	15.5	ug/kg	3.88	15.5	UJ,P7c	1
1031–07–8	Endosulfan sulfate	U	15.5	ug/kg	3.88	15.5		1
72–43–5	Methoxychlor	U	77.6	ug/kg	19.4	77.6		1
53494–70–5	Endrin ketone	U	15.5	ug/kg	3.88	15.5		1
8001–35–2	Toxaphene	U	194	ug/kg	64.6	194		1

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Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815008	**Date Received:**	03/05/2010 10:20	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13865	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	965996	**Inst:**	ECD3A.I	**Dilution:**	10
Run Date:	03/18/2010 01:34	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 11:39	**Aliquot:**	30 g	**Final Volume:**	5 mL
Data File:	029f2901.d	**Column:**	1 CLP–1	**Level:**	LOW
	029b2901.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
319–84–6	alpha–BHC	U	7.28	ug/kg	1.82	7.28		1
58–89–9	gamma–BHC (Lindane)	U	7.28	ug/kg	1.82	7.28		1
319–85–7	beta–BHC	U	7.28	ug/kg	1.82	7.28		1
319–86–8	delta–BHC	U	7.28	ug/kg	1.82	7.28		1
76–44–8	Heptachlor	U	7.28	ug/kg	1.82	7.28		1
309–00–2	Aldrin	U	7.28	ug/kg	1.82	7.28		1
1024–57–3	Heptachlor epoxide	U	7.28	ug/kg	2.28	7.28		1
5103–74–2	gamma–Chlordane	U	7.28	ug/kg	1.82	7.28		1
5103–71–9	alpha–Chlordane	U	7.28	ug/kg	1.82	7.28		1
959–98–8	Endosulfan I	U	7.28	ug/kg	1.82	7.28		1
72–55–9	4,4'–DDE	U	14.6	ug/kg	3.64	14.6		1
60–57–1	Dieldrin	U	14.6	ug/kg	3.64	14.6		1
72–20–8	Endrin	U	14.6	ug/kg	3.64	14.6		1
72–54–8	4,4'–DDD	U	14.6	ug/kg	3.64	14.6		1
33213–65–9	Endosulfan II	U	14.6	ug/kg	3.64	14.6		1
7421–93–4	Endrin aldehyde	U	14.6	ug/kg	3.64	14.6		1
50–29–3	4,4'–DDT	U	14.6	ug/kg	3.64	14.6	UJ,P7c	1
1031–07–8	Endosulfan sulfate	U	14.6	ug/kg	3.64	14.6		1
72–43–5	Methoxychlor	U	72.8	ug/kg	18.2	72.8		1
53494–70–5	Endrin ketone	U	14.6	ug/kg	3.64	14.6		1
8001–35–2	Toxaphene	U	182	ug/kg	60.6	182		1

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Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13866**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 01:06**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30.01 g**	**Final Volume:**	**5 mL**
Data File:	**027f2701.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	027b2701.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
319-84-6	alpha-BHC	U	7.17	ug/kg	1.79	7.17		1
58-89-9	gamma-BHC (Lindane)	U	7.17	ug/kg	1.79	7.17		1
319-85-7	beta-BHC	U	7.17	ug/kg	1.79	7.17		1
319-86-8	delta-BHC	U	7.17	ug/kg	1.79	7.17		1
76-44-8	Heptachlor	U	7.17	ug/kg	1.79	7.17		1
309-00-2	Aldrin	U	7.17	ug/kg	1.79	7.17		1
1024-57-3	Heptachlor epoxide	U	7.17	ug/kg	2.24	7.17		1
5103-74-2	gamma-Chlordane	U	7.17	ug/kg	1.79	7.17		1
5103-71-9	alpha-Chlordane	U	7.17	ug/kg	1.79	7.17		1
959-98-8	Endosulfan I	U	7.17	ug/kg	1.79	7.17		1
72-55-9	4,4'-DDE	U	14.3	ug/kg	3.59	14.3		1
60-57-1	Dieldrin	U	14.3	ug/kg	3.59	14.3		1
72-20-8	Endrin	U	14.3	ug/kg	3.59	14.3		1
72-54-8	4,4'-DDD	U	14.3	ug/kg	3.59	14.3		1
33213-65-9	Endosulfan II	U	14.3	ug/kg	3.59	14.3		1
7421-93-4	Endrin aldehyde	U	14.3	ug/kg	3.59	14.3		1
50-29-3	4,4'-DDT	U	14.3	ug/kg	3.59	14.3	UJ,P7c	1
1031-07-8	Endosulfan sulfate	U	14.3	ug/kg	3.59	14.3		1
72-43-5	Methoxychlor	U	71.7	ug/kg	17.9	71.7		1
53494-70-5	Endrin ketone	U	14.3	ug/kg	3.59	14.3		1
8001-35-2	Toxaphene	U	179	ug/kg	59.7	179		1

P.S. 4/22/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13867**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/17/2010 23:04**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30.01 g**	**Final Volume:**	**5 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	018b1801.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
319–84–6	alpha–BHC	U	7.24	ug/kg	1.81	7.24		1
58–89–9	gamma–BHC (Lindane)	U	7.24	ug/kg	1.81	7.24		1
319–85–7	beta–BHC	U	7.24	ug/kg	1.81	7.24		1
319–86–8	delta–BHC	U	7.24	ug/kg	1.81	7.24		1
76–44–8	Heptachlor	U	7.24	ug/kg	1.81	7.24		1
309–00–2	Aldrin	U	7.24	ug/kg	1.81	7.24		1
1024–57–3	Heptachlor epoxide	U	7.24	ug/kg	2.26	7.24		1
5103–74–2	gamma–Chlordane	U	7.24	ug/kg	1.81	7.24		1
5103–71–9	alpha–Chlordane	U	7.24	ug/kg	1.81	7.24		1
959–98–8	Endosulfan I	U	7.24	ug/kg	1.81	7.24		1
72–55–9	4,4'–DDE	U	14.5	ug/kg	3.62	14.5		1
60–57–1	Dieldrin	U	14.5	ug/kg	3.62	14.5		1
72–20–8	Endrin	U	14.5	ug/kg	3.62	14.5		1
72–54–8	4,4'–DDD	U	14.5	ug/kg	3.62	14.5		1
33213–65–9	Endosulfan II	U	14.5	ug/kg	3.62	14.5		1
7421–93–4	Endrin aldehyde	U	14.5	ug/kg	3.62	14.5		1
50–29–3	4,4'–DDT	U	14.5	ug/kg	3.62	14.5	UJ,P7c	1
1031–07–8	Endosulfan sulfate	U	14.5	ug/kg	3.62	14.5		1
72–43–5	Methoxychlor	U	72.4	ug/kg	18.1	72.4		1
53494–70–5	Endrin ketone	U	14.5	ug/kg	3.62	14.5		1
8001–35–2	Toxaphene	U	181	ug/kg	60.2	181		1

P.S. 4/22/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13868**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 01:47**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**030f3001.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	030b3001.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
319-84-6	alpha-BHC	U	7.22	ug/kg	1.81	7.22		1
58-89-9	gamma-BHC (Lindane)	U	7.22	ug/kg	1.81	7.22		1
319-85-7	beta-BHC	U	7.22	ug/kg	1.81	7.22		1
319-86-8	delta-BHC	U	7.22	ug/kg	1.81	7.22		1
76-44-8	Heptachlor	U	7.22	ug/kg	1.81	7.22		1
309-00-2	Aldrin	U	7.22	ug/kg	1.81	7.22		1
1024-57-3	Heptachlor epoxide	U	7.22	ug/kg	2.26	7.22		1
5103-74-2	gamma-Chlordane	U	7.22	ug/kg	1.81	7.22		1
5103-71-9	alpha-Chlordane	U	7.22	ug/kg	1.81	7.22		1
959-98-8	Endosulfan I	U	7.22	ug/kg	1.81	7.22		1
72-55-9	4,4'-DDE	U	14.4	ug/kg	3.61	14.4		1
60-57-1	Dieldrin	U	14.4	ug/kg	3.61	14.4		1
72-20-8	Endrin	U	14.4	ug/kg	3.61	14.4		1
72-54-8	4,4'-DDD	U	14.4	ug/kg	3.61	14.4		1
33213-65-9	Endosulfan II	U	14.4	ug/kg	3.61	14.4		1
7421-93-4	Endrin aldehyde	U	14.4	ug/kg	3.61	14.4		1
50-29-3	4,4'-DDT	U	14.4	ug/kg	3.61	14.4	UJ,P7c	1
1031-07-8	Endosulfan sulfate	U	14.4	ug/kg	3.61	14.4		1
72-43-5	Methoxychlor	U	72.2	ug/kg	18.1	72.2		1
53494-70-5	Endrin ketone	U	14.4	ug/kg	3.61	14.4		1
8001-35-2	Toxaphene	U	181	ug/kg	60.1	181		1

P.S. 4/22/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13869**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 00:12**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30.01 g**	**Final Volume:**	**5 mL**
Data File:	**023f2301.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	023b2301.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
319–84–6	alpha–BHC	U	7.24	ug/kg	1.81	7.24		1
58–89–9	gamma–BHC (Lindane)	U	7.24	ug/kg	1.81	7.24		1
319–85–7	beta–BHC	U	7.24	ug/kg	1.81	7.24		1
319–86–8	delta–BHC	U	7.24	ug/kg	1.81	7.24		1
76–44–8	Heptachlor	U	7.24	ug/kg	1.81	7.24		1
309–00–2	Aldrin	U	7.24	ug/kg	1.81	7.24		1
1024–57–3	Heptachlor epoxide	U	7.24	ug/kg	2.26	7.24		1
5103–74–2	gamma–Chlordane	U	7.24	ug/kg	1.81	7.24		1
5103–71–9	alpha–Chlordane	U	7.24	ug/kg	1.81	7.24		1
959–98–8	Endosulfan I	U	7.24	ug/kg	1.81	7.24		1
72–55–9	4,4'–DDE	U	14.5	ug/kg	3.62	14.5		1
60–57–1	Dieldrin	U	14.5	ug/kg	3.62	14.5		1
72–20–8	Endrin	U	14.5	ug/kg	3.62	14.5		1
72–54–8	4,4'–DDD	U	14.5	ug/kg	3.62	14.5		1
33213–65–9	Endosulfan II	U	14.5	ug/kg	3.62	14.5		1
7421–93–4	Endrin aldehyde	U	14.5	ug/kg	3.62	14.5		1
50–29–3	4,4'–DDT	U	14.5	ug/kg	3.62	14.5	UJ,P7c	1
1031–07–8	Endosulfan sulfate	U	14.5	ug/kg	3.62	14.5		1
72–43–5	Methoxychlor	U	72.4	ug/kg	18.1	72.4		1
53494–70–5	Endrin ketone	U	14.5	ug/kg	3.62	14.5		1
8001–35–2	Toxaphene	U	181	ug/kg	60.3	181		1

P.S. 4/22/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815011	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13873	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	965996	**Inst:**	ECD3A.I	**Dilution:**	10
Run Date:	03/18/2010 02:15	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 11:39	**Aliquot:**	30.04 g	**Final Volume:**	5 mL
Data File:	032f3201.d	**Column:**	1 CLP-1	**Level:**	LOW
	032b3201.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
319-84-6	alpha-BHC	U	7.16	ug/kg	1.79	7.16		1
58-89-9	gamma-BHC (Lindane)	U	7.16	ug/kg	1.79	7.16		1
319-85-7	beta-BHC	U	7.16	ug/kg	1.79	7.16		1
319-86-8	delta-BHC	U	7.16	ug/kg	1.79	7.16		1
76-44-8	Heptachlor	U	7.16	ug/kg	1.79	7.16		1
309-00-2	Aldrin	U	7.16	ug/kg	1.79	7.16		1
1024-57-3	Heptachlor epoxide	U	7.16	ug/kg	2.24	7.16		1
5103-74-2	gamma-Chlordane	U	7.16	ug/kg	1.79	7.16		1
5103-71-9	alpha-Chlordane	U	7.16	ug/kg	1.79	7.16		1
959-98-8	Endosulfan I	U	7.16	ug/kg	1.79	7.16		1
72-55-9	4,4'-DDE	U	14.3	ug/kg	3.58	14.3		1
60-57-1	Dieldrin	U	14.3	ug/kg	3.58	14.3		1
72-20-8	Endrin	U	14.3	ug/kg	3.58	14.3		1
72-54-8	4,4'-DDD	U	14.3	ug/kg	3.58	14.3		1
33213-65-9	Endosulfan II	U	14.3	ug/kg	3.58	14.3		1
7421-93-4	Endrin aldehyde	U	14.3	ug/kg	3.58	14.3		1
50-29-3	4,4'-DDT	U	14.3	ug/kg	3.58	14.3	UJ,P7c	1
1031-07-8	Endosulfan sulfate	U	14.3	ug/kg	3.58	14.3		1
72-43-5	Methoxychlor	U	71.6	ug/kg	17.9	71.6		1
53494-70-5	Endrin ketone	U	14.3	ug/kg	3.58	14.3		1
8001-35-2	Toxaphene	U	179	ug/kg	59.6	179		1

P.S. 4/22/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2298 VALIDATION DATE: 04/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None

Reviewed by: Mary Donivan Level: I Date: 04/23/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 04/22/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815007	**Date Received:**	03/05/2010 10:20	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13860	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	5
Run Date:	03/22/2010 17:20	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	054f5401.d	**Column:**	1 CLP1	**Level:**	LOW
	054b5401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.4	ug/kg	6.12	18.4	1
11104–28–2	Aroclor–1221	U	18.4	ug/kg	6.12	18.4	1
11141–16–5	Aroclor–1232	U	18.4	ug/kg	6.12	18.4	1
53469–21–9	Aroclor–1242	U	18.4	ug/kg	6.12	18.4	1
12672–29–6	Aroclor–1248	U	18.4	ug/kg	6.12	18.4	1
11097–69–1	Aroclor–1254	J	6.40	ug/kg	6.12	18.4	1
11096–82–5	Aroclor–1260	U	18.4	ug/kg	6.12	18.4	1

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815005	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13861	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	5
Run Date:	03/22/2010 16:30	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	050f5001.d	**Column:**	1 CLP1	**Level:**	LOW
	050b5001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.8	ug/kg	6.27	18.8	1
11104–28–2	Aroclor–1221	U	18.8	ug/kg	6.27	18.8	1
11141–16–5	Aroclor–1232	U	18.8	ug/kg	6.27	18.8	1
53469–21–9	Aroclor–1242	U	18.8	ug/kg	6.27	18.8	1
12672–29–6	Aroclor–1248	U	18.8	ug/kg	6.27	18.8	1
11097–69–1	Aroclor–1254	U	18.8	ug/kg	6.27	18.8	1
11096–82–5	Aroclor–1260	U	18.8	ug/kg	6.27	18.8	1

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13862**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967354**	**Inst:**	**ECD1A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 17:58**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 11:56**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**057f5701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	057b5701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.7	ug/kg	6.22	18.7	1
11104–28–2	Aroclor–1221	U	18.7	ug/kg	6.22	18.7	1
11141–16–5	Aroclor–1232	U	18.7	ug/kg	6.22	18.7	1
53469–21–9	Aroclor–1242	U	18.7	ug/kg	6.22	18.7	1
12672–29–6	Aroclor–1248	U	18.7	ug/kg	6.22	18.7	1
11097–69–1	Aroclor–1254		27.4	ug/kg	6.22	18.7	1
11096–82–5	Aroclor–1260		20.9	ug/kg	6.22	18.7	1

P.S. 4/22/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13863**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967354**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 16:05**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 11:56**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**048f4801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	048b4801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.76	ug/kg	1.25	3.76	1
11104-28-2	Aroclor-1221	U	3.76	ug/kg	1.25	3.76	1
11141-16-5	Aroclor-1232	U	3.76	ug/kg	1.25	3.76	1
53469-21-9	Aroclor-1242	U	3.76	ug/kg	1.25	3.76	1
12672-29-6	Aroclor-1248	U	3.76	ug/kg	1.25	3.76	1
11097-69-1	Aroclor-1254	U	3.76	ug/kg	1.25	3.76	1
11096-82-5	Aroclor-1260	U	3.76	ug/kg	1.25	3.76	1

P.S. 4/22/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13864**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967354**	**Inst:**	**ECD1A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 15:52**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 11:56**	**Aliquot:**	**30.16 g**	**Final Volume:**	**1 mL**
Data File:	**047f4701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	047b4701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	19.3	ug/kg	6.42	19.3	1
11104–28–2	Aroclor–1221	U	19.3	ug/kg	6.42	19.3	1
11141–16–5	Aroclor–1232	U	19.3	ug/kg	6.42	19.3	1
53469–21–9	Aroclor–1242	U	19.3	ug/kg	6.42	19.3	1
12672–29–6	Aroclor–1248	U	19.3	ug/kg	6.42	19.3	1
11097–69–1	Aroclor–1254	U	19.3	ug/kg	6.42	19.3	1
11096–82–5	Aroclor–1260	U	19.3	ug/kg	6.42	19.3	1

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815008	**Date Received:**	03/05/2010 10:20	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13865	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	5
Run Date:	03/22/2010 17:33	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	055f5501.d	**Column:**	1 CLP1	**Level:**	LOW
	055b5501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.1	ug/kg	6.04	18.1	1
11104–28–2	Aroclor–1221	U	18.1	ug/kg	6.04	18.1	1
11141–16–5	Aroclor–1232	U	18.1	ug/kg	6.04	18.1	1
53469–21–9	Aroclor–1242	U	18.1	ug/kg	6.04	18.1	1
12672–29–6	Aroclor–1248	U	18.1	ug/kg	6.04	18.1	1
11097–69–1	Aroclor–1254	U	18.1	ug/kg	6.04	18.1	1
11096–82–5	Aroclor–1260	U	18.1	ug/kg	6.04	18.1	1

P.S. 4/22/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13866**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967354**	**Inst:**	**ECD1A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 17:08**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 11:56**	**Aliquot:**	**30.16 g**	**Final Volume:**	**1 mL**
Data File:	**053f5301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	053b5301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	17.8	ug/kg	5.94	17.8	1
11104–28–2	Aroclor–1221	U	17.8	ug/kg	5.94	17.8	1
11141–16–5	Aroclor–1232	U	17.8	ug/kg	5.94	17.8	1
53469–21–9	Aroclor–1242	U	17.8	ug/kg	5.94	17.8	1
12672–29–6	Aroclor–1248	U	17.8	ug/kg	5.94	17.8	1
11097–69–1	Aroclor–1254	U	17.8	ug/kg	5.94	17.8	1
11096–82–5	Aroclor–1260	U	17.8	ug/kg	5.94	17.8	1

P.S. 4/22/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815001	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13867	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/22/2010 15:14	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.14 g	**Final Volume:**	1 mL
Data File:	044f4401.d	**Column:**	1 CLP1	**Level:**	LOW
	044b4401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.60	ug/kg	1.20	3.60	1
11104–28–2	Aroclor–1221	U	3.60	ug/kg	1.20	3.60	1
11141–16–5	Aroclor–1232	U	3.60	ug/kg	1.20	3.60	1
53469–21–9	Aroclor–1242	U	3.60	ug/kg	1.20	3.60	1
12672–29–6	Aroclor–1248	U	3.60	ug/kg	1.20	3.60	1
11097–69–1	Aroclor–1254	U	3.60	ug/kg	1.20	3.60	1
11096–82–5	Aroclor–1260	U	3.60	ug/kg	1.20	3.60	1

P.S. 4/22/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13868**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967354**	**Inst:**	**ECD1A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 17:45**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 11:56**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**056f5601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	056b5601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.0	ug/kg	5.99	18.0	1
11104–28–2	Aroclor–1221	U	18.0	ug/kg	5.99	18.0	1
11141–16–5	Aroclor–1232	U	18.0	ug/kg	5.99	18.0	1
53469–21–9	Aroclor–1242	U	18.0	ug/kg	5.99	18.0	1
12672–29–6	Aroclor–1248	U	18.0	ug/kg	5.99	18.0	1
11097–69–1	Aroclor–1254	U	18.0	ug/kg	5.99	18.0	1
11096–82–5	Aroclor–1260	U	18.0	ug/kg	5.99	18.0	1

P.S. 4/22/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815004	**Date Received:**	03/05/2010 10:20	**%Moisture:**	8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13869	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/22/2010 16:17	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	049f4901.d	**Column:**	1 CLP1	**Level:**	LOW
	049b4901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.62	ug/kg	1.20	3.62	1
11104-28-2	Aroclor-1221	U	3.62	ug/kg	1.20	3.62	1
11141-16-5	Aroclor-1232	U	3.62	ug/kg	1.20	3.62	1
53469-21-9	Aroclor-1242	U	3.62	ug/kg	1.20	3.62	1
12672-29-6	Aroclor-1248	U	3.62	ug/kg	1.20	3.62	1
11097-69-1	Aroclor-1254	U	3.62	ug/kg	1.20	3.62	1
11096-82-5	Aroclor-1260	U	3.62	ug/kg	1.20	3.62	1

P.S. 4/22/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815011	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13873	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	5
Run Date:	03/22/2010 18:11	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	058f5801.d	**Column:**	1 CLP1	**Level:**	LOW
	058b5801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	17.9	ug/kg	5.96	17.9	1
11104-28-2	Aroclor-1221	U	17.9	ug/kg	5.96	17.9	1
11141-16-5	Aroclor-1232	U	17.9	ug/kg	5.96	17.9	1
53469-21-9	Aroclor-1242	U	17.9	ug/kg	5.96	17.9	1
12672-29-6	Aroclor-1248	U	17.9	ug/kg	5.96	17.9	1
11097-69-1	Aroclor-1254	U	17.9	ug/kg	5.96	17.9	1
11096-82-5	Aroclor-1260	U	17.9	ug/kg	5.96	17.9	1

P.S. 4/22/10

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-229

LOS ALAMOS
NATIONAL LABORATORY

REQUEST NUMBER: 10-2298

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/3/2010
TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248815 °/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13867	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13867	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13867	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13864	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13864	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13864	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13863	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13863	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13863	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13869	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13869	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13869	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13861	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13861	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13861	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13866	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13866	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13866	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13860	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13860	1	SEPTUM AMBER GLASS	8260B	Ice	S

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2298

REQUEST NUMBER: 10-2298

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13860	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13865	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13865	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13865	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13868	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13868	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13868	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13862	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13862	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13862	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13873	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13873	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13873	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13874	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	3/4/10	1400	Patricia Dover-Dent	P. Dover-Dent	3/5/10	10:2[illegible]
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Thursday, March 04, 2010

REQUEST NUMBER: 10-2298

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2298
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010
TURNAROUND/REPORT DUE: 4/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-	1	RE46-10-13860	S	3/3/2010	
		1	RE46-10-13861	S	3/3/2010	
		1	RE46-10-13862	S	3/3/2010	
		1	RE46-10-13863	S	3/3/2010	
		1	RE46-10-13864	S	3/3/2010	
		1	RE46-10-13865	S	3/3/2010	

	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010
	1	RE46-10-13873	S	3/3/2010
SW-846:8081A	1	RE46-10-13860	S	3/3/2010
	1	RE46-10-13861	S	3/3/2010
	1	RE46-10-13862	S	3/3/2010
	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010
	1	RE46-10-13873	S	3/3/2010
SW-846:8082	1	RE46-10-13860	S	3/3/2010
	1	RE46-10-13861	S	3/3/2010
	1	RE46-10-13862	S	3/3/2010
	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010
	1	RE46-10-13873	S	3/3/2010
SW-846:8260B	1	RE46-10-13860	S	3/3/2010
	1	RE46-10-13861	S	3/3/2010
	1	RE46-10-13862	S	3/3/2010
	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010

	1	RE46-10-13873	S	3/3/2010
	1	RE46-10-13874	S	3/3/2010
SW-846:8270C	1	RE46-10-13860	S	3/3/2010
	1	RE46-10-13861	S	3/3/2010
	1	RE46-10-13862	S	3/3/2010
	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010
	1	RE46-10-13873	S	3/3/2010

Final Page of REQUEST NUMBER 10-2298

GEL Laboratories

a member of The GEL Group Inc.

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

March 12, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 248815
SDG: 10-2298

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 05, 2010, and analyzed for FID Flame Ionization Detector, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile and GC/MS Volatile. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2298
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 248815
SDG: 10-2298

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- QC Data 686
- Miscellaneous Data 693

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- Quality Control Summary 722
- Sample Data 729
- Standards Data 785
- Quality Control Data 869
- Miscellaneous Data 913

GC Semivolatile PCB Analysis **922**
- Sample Data Summary 930

Quality Control Summary 942
Sample Data 948
Standards Data 1008
Quality Control Data 1092
Miscellaneous Data 1125

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 248815
SDG # : 10-2298

March 12, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 05, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
248815001	RE46-10-13867
248815002	RE46-10-13864
248815003	RE46-10-13863
248815004	RE46-10-13869
248815005	RE46-10-13861
248815006	RE46-10-13866
248815007	RE46-10-13860
248815008	RE46-10-13865
248815009	RE46-10-13868
248815010	RE46-10-13862
248815011	RE46-10-13873
248815012	RE46-10-13874

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: FID Flame Ionization Detector, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile and GC/MS Volatile.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for D Francis

Valerie Davis

Project Manager

List of current GEL Certifications as of 12 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2298C

REQUEST NUMBER: 10-2298

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

248815 °/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13867	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13867	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13867	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13864	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13864	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13864	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13863	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13863	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13863	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13869	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13869	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13869	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13861	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13861	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13861	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13866	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13866	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13866	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13860	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13860	1	SEPTUM AMBER GLASS	8260B	Ice	S

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2298C

REQUEST NUMBER: 10-2298

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/3/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13860	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13865	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13865	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13865	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13868	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13868	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13868	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13862	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13862	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13862	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13873	1	AMBER GLASS	8081A+8082	Ice	S
RE46-10-13873	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13873	1	AMBER GLASS	8270C+TPH-DRO	Ice	S
RE46-10-13874	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/4/10	1400	Patricia Dover-Dent	P. Dover-Dent	3/5/10	10:20
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Thursday, March 04, 2010

REQUEST NUMBER: 10-2298

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2298
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/4/2010
TURNAROUND/REPORT DUE: 4/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-	1	RE46-10-13860	S	3/3/2010	
		1	RE46-10-13861	S	3/3/2010	
		1	RE46-10-13862	S	3/3/2010	
		1	RE46-10-13863	S	3/3/2010	
		1	RE46-10-13864	S	3/3/2010	
		1	RE46-10-13865	S	3/3/2010	

	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010
	1	RE46-10-13873	S	3/3/2010
SW-846:8081A	1	RE46-10-13860	S	3/3/2010
	1	RE46-10-13861	S	3/3/2010
	1	RE46-10-13862	S	3/3/2010
	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010
	1	RE46-10-13873	S	3/3/2010
SW-846:8082	1	RE46-10-13860	S	3/3/2010
	1	RE46-10-13861	S	3/3/2010
	1	RE46-10-13862	S	3/3/2010
	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010
	1	RE46-10-13873	S	3/3/2010
SW-846:8260B	1	RE46-10-13860	S	3/3/2010
	1	RE46-10-13861	S	3/3/2010
	1	RE46-10-13862	S	3/3/2010
	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010

	1	RE46-10-13873	S	3/3/2010
	1	RE46-10-13874	S	3/3/2010
SW-846:8270C	1	RE46-10-13860	S	3/3/2010
	1	RE46-10-13861	S	3/3/2010
	1	RE46-10-13862	S	3/3/2010
	1	RE46-10-13863	S	3/3/2010
	1	RE46-10-13864	S	3/3/2010
	1	RE46-10-13865	S	3/3/2010
	1	RE46-10-13866	S	3/3/2010
	1	RE46-10-13867	S	3/3/2010
	1	RE46-10-13868	S	3/3/2010
	1	RE46-10-13869	S	3/3/2010
	1	RE46-10-13873	S	3/3/2010

Final Page of REQUEST NUMBER 10-2298

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order:10-2298**
Received By:Patricia Dover-Dent	**Date Received: 3/5/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **1-5** **13,15**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers:

7209 7850 3587 1C **7209 7850 3668 4C**
7209 7850 3613 2C **7209 7850 3657 5C**
7209 7850 3598 2C **7209 7850 3565 13C**
7209 7850 3602 3C **7209 7850 3543 13C**
7209 7850 3635 3C **7209 7850 3554 15C**
7209 7850 3576 3C
7209 7850 3646 3C
7209 7850 3624 3C

PM (or PMA) review: Initials MS Date 3/8/10

N ID: SAFA (505) 665-9960
NE VALDEZ
LAMOS NATL LAB.
BLDG 1237 DPU 03

LAMOS, NM 87545
ED STATES US

ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
) 556-8171
: 6B010AMR3A0223KY10

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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MPS# 7209 7850 3613
Mstr# 7209 7850 3598 0201

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PRIORITY OVERNIGHT

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

04MAR10
ACTWGT: 44.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
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ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE24

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2450

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843) 556-8171
REF: 6B010AMR1A015AGWM0

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ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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ACTWGT: 66.0 LB MAN
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IGIN ID: SAFA (505) 665-9968
YLENE VALDEZ
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S ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

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LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2450

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2450

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ORIGIN ID: SAFA (505)
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ALAMOS NATL LAB.
0 BLDG 1237 DPU 03

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REF: 6B010AMR2A0515BYD0

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PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04MAR10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2298

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	965702
Prep Batch Number:	965701

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
248815001	RE46-10-13867
248815002	RE46-10-13864
248815003	RE46-10-13863
248815004	RE46-10-13869
248815005	RE46-10-13861
248815006	RE46-10-13866
248815007	RE46-10-13860
248815008	RE46-10-13865
248815009	RE46-10-13868
248815010	RE46-10-13862
248815011	RE46-10-13873
248815012	RE46-10-13874
1202072217	Method Blank (MB)
1202072220	Laboratory Control Sample (LCS)
1202072221	Laboratory Control Sample (LCS)
1202072218	248815002(RE46-10-13864) Post Spike (PS)
1202072219	248815002(RE46-10-13864) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
Samples 248815 001, 002, 003, 004, 005, 006, 007, 008, 009, 010 and 011 in this SDG were analyzed on an "dry weight" basis. Samples 248815 012 in this SDG were analyzed on a "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories

LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration

All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

The surrogate recovery, in the following sample, was above the acceptance limits. Sample re-analysis confirmed matrix interference: 248815007 (RE46-10-13860). See DER# 807174.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

QC Sample Designation

Sample 248815002 (RE46-10-13864) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement

The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement

The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement

The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
In the following sample, internal standard response was outside the required acceptance criteria. Sample reanalysis confirmed matrix interference: 248815007 (RE46-10-13860). See DER# 807174.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
The sample in this SDG was re-analyzed due to unacceptable recoveries in the initial analysis: 248815007 (RE46-10-13860).

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
DER # 807174 was generated for samples in this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this sample delivery group/work order. The tentatively identified compounds included some silanols. These compounds were due to column or septum bleed and were not native to the affected samples. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration

The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA5.I	Gas Chromatograph/Mass Spectrometer	HP6890N/HP5975	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2298 GEL Work Order: 248815

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 31 MAR 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13867**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 10:26**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C208.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.369	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.326	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.326	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.326	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.326	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.326	1.09
67-64-1	Acetone	J	4.41	ug/kg	1.80	5.43
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
74-88-4	Iodomethane	U	5.43	ug/kg	1.74	5.43
75-09-2	Methylene chloride	U	5.43	ug/kg	2.17	5.43
75-15-0	Carbon disulfide	U	5.43	ug/kg	1.36	5.43
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.326	1.09
78-93-3	2-Butanone	U	5.43	ug/kg	1.63	5.43
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.326	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.358	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.326	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.326	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.326	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.326	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.326	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.358	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.326	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.326	1.09
108-10-1	4-Methyl-2-pentanone	U	5.43	ug/kg	1.36	5.43
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.326	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.326	1.09
591-78-6	2-Hexanone	U	5.43	ug/kg	1.63	5.43
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.326	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.326	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.326	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.326	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.326	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13867**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 10:26**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C208.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.326	1.09
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.326	2.17
95-47-6	o-Xylene	U	1.09	ug/kg	0.326	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.326	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.326	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.326	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.326	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.326	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.326	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.326	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.326	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.326	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.326	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.326	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.43	ug/kg	1.74	5.43
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13864**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 10:52**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:31**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C209.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.396	1.16
74-87-3	Chloromethane	U	1.16	ug/kg	0.349	1.16
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.349	1.16
74-83-9	Bromomethane	U	1.16	ug/kg	0.349	1.16
75-00-3	Chloroethane	U	1.16	ug/kg	0.349	1.16
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.349	1.16
67-64-1	Acetone	U	5.82	ug/kg	1.93	5.82
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
74-88-4	Iodomethane	U	5.82	ug/kg	1.86	5.82
75-09-2	Methylene chloride	U	5.82	ug/kg	2.33	5.82
75-15-0	Carbon disulfide	U	5.82	ug/kg	1.45	5.82
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.349	1.16
78-93-3	2-Butanone	U	5.82	ug/kg	1.75	5.82
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16
67-66-3	Chloroform	U	1.16	ug/kg	0.349	1.16
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.384	1.16
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.349	1.16
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.349	1.16
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.349	1.16
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.349	1.16
71-43-2	Benzene	U	1.16	ug/kg	0.349	1.16
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.384	1.16
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.349	1.16
74-95-3	Dibromomethane	U	1.16	ug/kg	0.349	1.16
108-10-1	4-Methyl-2-pentanone	U	5.82	ug/kg	1.45	5.82
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16
108-88-3	Toluene	U	1.16	ug/kg	0.349	1.16
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.349	1.16
591-78-6	2-Hexanone	U	5.82	ug/kg	1.75	5.82
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.349	1.16
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.349	1.16
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.349	1.16
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.349	1.16
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.349	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13864**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 10:52**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:31**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C209.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.349	1.16
179601-23-1	m,p-Xylenes	U	2.33	ug/kg	0.349	2.33
95-47-6	o-Xylene	U	1.16	ug/kg	0.349	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.349	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.349	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.349	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.349	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.349	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.349	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.349	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.349	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.349	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.349	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.349	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.82	ug/kg	1.86	5.82
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13863**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 11:18**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:34**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C210.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.384	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.339	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.339	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.339	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.339	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.339	1.13
67-64-1	Acetone	U	5.65	ug/kg	1.88	5.65
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
74-88-4	Iodomethane	U	5.65	ug/kg	1.81	5.65
75-09-2	Methylene chloride	U	5.65	ug/kg	2.26	5.65
75-15-0	Carbon disulfide	U	5.65	ug/kg	1.41	5.65
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.339	1.13
78-93-3	2-Butanone	U	5.65	ug/kg	1.69	5.65
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.339	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.373	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.339	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.339	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.339	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.339	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.339	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.373	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.339	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.339	1.13
108-10-1	4-Methyl-2-pentanone	U	5.65	ug/kg	1.41	5.65
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.339	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.339	1.13
591-78-6	2-Hexanone	U	5.65	ug/kg	1.69	5.65
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.339	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.339	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.339	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.339	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.339	1.13

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13863**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 11:18**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:34**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C210.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.339	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.339	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.339	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.339	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.339	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.339	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.339	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.339	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.339	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.339	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.339	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.339	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.339	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.339	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.65	ug/kg	1.81	5.65
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13869**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 11:45**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:35**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C211.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.370	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.326	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.326	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.326	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.326	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.326	1.09
67-64-1	Acetone		6.05	ug/kg	1.80	5.43
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
74-88-4	Iodomethane	U	5.43	ug/kg	1.74	5.43
75-09-2	Methylene chloride	U	5.43	ug/kg	2.17	5.43
75-15-0	Carbon disulfide	U	5.43	ug/kg	1.36	5.43
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.326	1.09
78-93-3	2-Butanone	U	5.43	ug/kg	1.63	5.43
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.326	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.359	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.326	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.326	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.326	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.326	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.326	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.359	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.326	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.326	1.09
108-10-1	4-Methyl-2-pentanone	U	5.43	ug/kg	1.36	5.43
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.326	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.326	1.09
591-78-6	2-Hexanone	U	5.43	ug/kg	1.63	5.43
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.326	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.326	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.326	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.326	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.326	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13869**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 11:45**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:35**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C211.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.326	1.09
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.326	2.17
95-47-6	o-Xylene	U	1.09	ug/kg	0.326	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.326	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.326	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.326	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.326	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.326	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.326	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.326	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.326	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.326	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.326	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.326	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.43	ug/kg	1.74	5.43
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13861**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 12:11**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:36**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C212.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.387	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.341	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.341	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.341	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.341	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.341	1.14
67-64-1	Acetone	U	5.69	ug/kg	1.89	5.69
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.341	1.14
74-88-4	Iodomethane	U	5.69	ug/kg	1.82	5.69
75-09-2	Methylene chloride	U	5.69	ug/kg	2.27	5.69
75-15-0	Carbon disulfide	U	5.69	ug/kg	1.42	5.69
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.341	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.341	1.14
78-93-3	2-Butanone	U	5.69	ug/kg	1.71	5.69
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.341	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.341	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.341	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.375	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.341	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.341	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.341	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.341	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.341	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.375	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.341	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.341	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.341	1.14
108-10-1	4-Methyl-2-pentanone	U	5.69	ug/kg	1.42	5.69
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.341	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.341	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.341	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.341	1.14
591-78-6	2-Hexanone	U	5.69	ug/kg	1.71	5.69
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.341	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.341	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.341	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.341	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.341	1.14

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13861**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 12:11**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:36**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C212.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.341	1.14
179601-23-1	m,p-Xylenes	U	2.27	ug/kg	0.341	2.27
95-47-6	o-Xylene	U	1.14	ug/kg	0.341	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.341	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.341	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.341	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.341	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.341	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.341	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.341	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.341	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.341	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.341	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.341	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.341	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.341	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.341	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.341	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.341	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.341	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.341	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.69	ug/kg	1.82	5.69
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.341	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.341	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13866**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 12:38**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:37**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.366	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.323	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.323	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.323	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.323	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.323	1.08
67-64-1	Acetone	U	5.38	ug/kg	1.79	5.38
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
74-88-4	Iodomethane	U	5.38	ug/kg	1.72	5.38
75-09-2	Methylene chloride	U	5.38	ug/kg	2.15	5.38
75-15-0	Carbon disulfide	U	5.38	ug/kg	1.35	5.38
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.323	1.08
78-93-3	2-Butanone	U	5.38	ug/kg	1.61	5.38
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.323	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.355	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.323	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.323	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.323	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.323	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.323	1.08
79-01-6	Trichloroethylene	J	0.893	ug/kg	0.355	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.323	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.323	1.08
108-10-1	4-Methyl-2-pentanone	U	5.38	ug/kg	1.35	5.38
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.323	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.323	1.08
591-78-6	2-Hexanone	U	5.38	ug/kg	1.61	5.38
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.323	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.323	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.323	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.323	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.323	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13866**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 12:38**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:37**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.323	1.08
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.323	2.15
95-47-6	o-Xylene	U	1.08	ug/kg	0.323	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.323	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.323	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.323	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.323	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.323	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.323	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.323	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.323	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.323	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.323	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.323	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.38	ug/kg	1.72	5.38
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13860**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 13:05**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:38**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C214.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.376	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.332	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.332	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.332	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.332	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.332	1.11
67-64-1	Acetone	U	5.53	ug/kg	1.83	5.53
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
74-88-4	Iodomethane	U	5.53	ug/kg	1.77	5.53
75-09-2	Methylene chloride	U	5.53	ug/kg	2.21	5.53
75-15-0	Carbon disulfide	U	5.53	ug/kg	1.38	5.53
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.332	1.11
78-93-3	2-Butanone	U	5.53	ug/kg	1.66	5.53
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.332	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.365	1.11
71-55-6	1,1,1-Trichloroethane	J	0.674	ug/kg	0.332	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.332	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.332	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.332	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.332	1.11
79-01-6	Trichloroethylene		3.88	ug/kg	0.365	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.332	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.332	1.11
108-10-1	4-Methyl-2-pentanone	U	5.53	ug/kg	1.38	5.53
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11
108-88-3	Toluene		2.55	ug/kg	0.332	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.332	1.11
591-78-6	2-Hexanone	U	5.53	ug/kg	1.66	5.53
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.332	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.332	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.332	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.332	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.332	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13860**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 13:05**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:38**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C214.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.332	1.11
179601-23-1	m,p-Xylenes	U	2.21	ug/kg	0.332	2.21
95-47-6	o-Xylene	U	1.11	ug/kg	0.332	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.332	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.332	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.332	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.332	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.332	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.332	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.332	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.332	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.332	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.332	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.332	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.53	ug/kg	1.77	5.53
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13865**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 13:31**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:39**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C215.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.371	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.328	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.328	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.328	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.328	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.328	1.09
67-64-1	Acetone	U	5.46	ug/kg	1.81	5.46
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
74-88-4	Iodomethane	U	5.46	ug/kg	1.75	5.46
75-09-2	Methylene chloride	U	5.46	ug/kg	2.18	5.46
75-15-0	Carbon disulfide	U	5.46	ug/kg	1.37	5.46
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.328	1.09
78-93-3	2-Butanone	U	5.46	ug/kg	1.64	5.46
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.328	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.328	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.360	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.328	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.328	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.328	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.328	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.328	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.360	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.328	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.328	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.328	1.09
108-10-1	4-Methyl-2-pentanone	U	5.46	ug/kg	1.37	5.46
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.328	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.328	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.328	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.328	1.09
591-78-6	2-Hexanone	U	5.46	ug/kg	1.64	5.46
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.328	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.328	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.328	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.328	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.328	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13865**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 13:31**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:39**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C215.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.328	1.09
179601-23-1	m,p-Xylenes	U	2.18	ug/kg	0.328	2.18
95-47-6	o-Xylene	U	1.09	ug/kg	0.328	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.328	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.328	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.328	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.328	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.328	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.328	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.328	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.328	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.328	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.328	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.328	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.328	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.328	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.328	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.328	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.328	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.46	ug/kg	1.75	5.46
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.328	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13868**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 13:58**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:40**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C216.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.368	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.325	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.325	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.325	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.325	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.325	1.08
67-64-1	Acetone	U	5.42	ug/kg	1.80	5.42
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
74-88-4	Iodomethane	U	5.42	ug/kg	1.73	5.42
75-09-2	Methylene chloride	U	5.42	ug/kg	2.17	5.42
75-15-0	Carbon disulfide	U	5.42	ug/kg	1.35	5.42
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.325	1.08
78-93-3	2-Butanone	U	5.42	ug/kg	1.63	5.42
156-59-2	cis-1,2-DichIoroethylene	U	1.08	ug/kg	0.325	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.325	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.358	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.325	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.325	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.325	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.325	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.325	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.358	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.325	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.325	1.08
108-10-1	4-Methyl-2-pentanone	U	5.42	ug/kg	1.35	5.42
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.325	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.325	1.08
591-78-6	2-Hexanone	U	5.42	ug/kg	1.63	5.42
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.325	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.325	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.325	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.325	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.325	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13868**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 13:58**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:40**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C216.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.325	1.08
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.325	2.17
95-47-6	o-Xylene	U	1.08	ug/kg	0.325	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.325	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.325	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.325	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.325	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.325	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.325	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.325	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.325	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.325	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.325	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.325	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.42	ug/kg	1.73	5.42
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13862**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 14:25**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:41**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C217.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.383	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.338	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.338	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.338	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.338	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.338	1.13
67-64-1	Acetone		6.06	ug/kg	1.87	5.64
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
74-88-4	Iodomethane	U	5.64	ug/kg	1.80	5.64
75-09-2	Methylene chloride	U	5.64	ug/kg	2.26	5.64
75-15-0	Carbon disulfide	U	5.64	ug/kg	1.41	5.64
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.338	1.13
78-93-3	2-Butanone	U	5.64	ug/kg	1.69	5.64
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.338	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.372	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.338	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.338	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.338	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.338	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.338	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.372	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.338	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.338	1.13
108-10-1	4-Methyl-2-pentanone	U	5.64	ug/kg	1.41	5.64
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.338	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.338	1.13
591-78-6	2-Hexanone	U	5.64	ug/kg	1.69	5.64
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.338	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.338	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.338	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.338	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.338	1.13

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13862**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 14:25**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:41**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C217.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.338	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.338	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.338	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.338	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.338	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.338	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.338	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.338	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.338	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.338	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.338	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.338	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.338	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.338	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.64	ug/kg	1.80	5.64
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815011**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13873**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 14:51**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:42**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C218.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.366	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.323	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.323	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.323	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.323	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.323	1.08
67-64-1	Acetone	U	5.38	ug/kg	1.79	5.38
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
74-88-4	Iodomethane	U	5.38	ug/kg	1.72	5.38
75-09-2	Methylene chloride	U	5.38	ug/kg	2.15	5.38
75-15-0	Carbon disulfide	U	5.38	ug/kg	1.35	5.38
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.323	1.08
78-93-3	2-Butanone	U	5.38	ug/kg	1.61	5.38
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.323	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.355	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.323	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.323	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.323	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.323	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.323	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.355	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.323	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.323	1.08
108-10-1	4-Methyl-2-pentanone	U	5.38	ug/kg	1.35	5.38
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.323	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.323	1.08
591-78-6	2-Hexanone	U	5.38	ug/kg	1.61	5.38
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.323	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.323	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.323	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.323	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.323	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815011**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13873**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 14:51**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:42**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C218.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.323	1.08
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.323	2.15
95-47-6	o-Xylene	U	1.08	ug/kg	0.323	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.323	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.323	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.323	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.323	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.323	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.323	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.323	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.323	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.323	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.323	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.323	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.38	ug/kg	1.72	5.38
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815012**	**Date Received:**	**03/05/2010 10:20**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 15:18**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:43**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C219.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	1.88	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815012**	**Date Received:**	**03/05/2010 10:20**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 15:18**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:43**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C219.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-2298

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202072220	LCS for batch 965701	94	93	98
1202072221	LCS for batch 965701	91	94	102
1202072217	MB for batch 965701	99	101	112
248815001	RE46-10-13867	87	94	105
248815002	RE46-10-13864	85	94	112
248815003	RE46-10-13863	91	92	104
248815004	RE46-10-13869	87	93	104
248815005	RE46-10-13861	86	95	116
248815006	RE46-10-13866	86	94	112
248815007	RE46-10-13860	87	99	137 *
248815008	RE46-10-13865	89	92	105
248815009	RE46-10-13868	85	93	111
248815010	RE46-10-13862	85	94	113
248815011	RE46-10-13873	87	91	106
248815012	RE46-10-13874	85	92	106
1202072218	RE46-10-13864PS	85	93	111
1202072219	RE46-10-13864PSD	84	94	113

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(66%-134%)
TOL	= Toluene-d8	(71%-128%)
BFB	= Bromofluorobenzene	(65%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2298
Client ID: RE46-10-13864PS
Lab Sample ID: 1202072218
Instrument: VOA5.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 14
Analysis Date: 03/16/2010 16:44
Prep Batch ID 965701
Batch ID: 965702

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	58.1	116	39-148
74-87-3	PS	Chloromethane	50.0	0.00	U	47.9	96	42-131
75-01-4	PS	Vinyl chloride	50.0	0.00	U	52.9	106	50-127
74-83-9	PS	Bromomethane	50.0	0.00	U	47.0	94	26-135
75-00-3	PS	Chloroethane	50.0	0.00	U	50.9	102	54-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	53.6	107	55-138
67-64-1	PS	Acetone	250	0.00	U	225	90	20-144
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	51.6	103	55-128
74-88-4	PS	Iodomethane	250	0.00	U	225	90	47-132
75-09-2	PS	Methylene chloride	50.0	0.00	U	45.7	91	56-123
75-15-0	PS	Carbon disulfide	250	0.00	U	262	105	53-133
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	51.1	102	57-119
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	48.9	98	62-125
78-93-3	PS	2-Butanone	250	0.00	U	226	90	30-150
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	49.1	98	60-124
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	53.8	108	56-129
67-66-3	PS	Chloroform	50.0	0.00	U	48.1	96	62-120
74-97-5	PS	Bromochloromethane	50.0	0.00	U	45.0	90	51-135
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	52.3	105	58-129
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	52.8	106	59-126
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	53.6	107	55-132
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	44.2	88	54-121

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2298
Client ID: RE46-10-13864PS
Lab Sample ID: 1202072218
Instrument: VOA5.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 14
Analysis Date: 03/16/2010 16:44
Prep Batch ID: 965701
Batch ID: 965702
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	47.8	96	58-120
79-01-6	PS	Trichloroethylene	50.0	0.00	U	50.8	102	54-130
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	46.8	94	59-121
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	46.8	94	57-130
74-95-3	PS	Dibromomethane	50.0	0.00	U	45.0	90	57-124
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	249	100	40-137
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	44.0	88	50-131
108-88-3	PS	Toluene	50.0	0.00	U	48.7	97	54-119
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	45.7	91	47-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	44.9	90	60-130
591-78-6	PS	2-Hexanone	250	0.00	U	245	98	30-139
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	44.7	89	59-125
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	50.0	100	50-126
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	48.4	97	54-131
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	46.0	92	55-127
108-90-7	PS	Chlorobenzene	50.0	0.00	U	47.1	94	50-130
100-41-4	PS	Ethylbenzene	50.0	0.00	U	47.3	95	50-121
179601-23-1	PS	m,p-Xylenes	100	0.00	U	96.8	97	47-125
95-47-6	PS	o-Xylene	50.0	0.00	U	47.7	95	51-127
100-42-5	PS	Styrene	50.0	0.00	U	48.5	97	41-136
75-25-2	PS	Bromoform	50.0	0.00	U	53.3	107	48-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	47.8	96	52-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2298
Client ID: RE46-10-13864PS
Lab Sample ID: 1202072218
Instrument: VOA5.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 14
Analysis Date: 03/16/2010 16:44
Prep Batch ID: 965701
Batch ID: 965702

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	50.1	100	56-139
108-86-1	PS	Bromobenzene	50.0	0.00	U	48.9	98	54-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	51.3	103	46-127
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	51.0	102	47-130
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	53.8	108	42-126
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	50.2	100	44-132
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	48.5	97	46-127
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	48.6	97	48-136
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	49.2	98	42-132
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	47.6	95	47-130
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	44.8	90	36-142
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	46.4	93	41-130
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	45.3	91	41-126
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	41.7	83	37-136
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	46.8	94	42-143
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	47.7	95	58-127
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	43.9	88	42-128

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2298
Client ID: RE46-10-13864PSD
Lab Sample ID: 1202072219
Instrument: VOA5.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 14
Analysis Date: 03/16/2010 17:10
Prep Batch ID: 965701
Batch ID: 965702
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	56.6	113	39-148	3	0-19
74-87-3	PSD	Chloromethane	50.0	0.00	U	47.8	96	42-131	0	0-23
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	52.8	106	50-127	0	0-23
74-83-9	PSD	Bromomethane	50.0	0.00	U	47.4	95	26-135	1	0-22
75-00-3	PSD	Chloroethane	50.0	0.00	U	50.8	102	54-128	0	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	53.4	107	55-138	0	0-21
67-64-1	PSD	Acetone	250	0.00	U	213	85	20-144	6	0-22
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	52.1	104	55-128	1	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	226	90	47-132	0	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	46.1	92	56-123	1	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	261	104	53-133	1	0-22
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	51.8	104	57-119	1	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	49.3	99	62-125	1	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	215	86	30-150	5	0-21
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	49.1	98	60-124	0	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	52.9	106	56-129	2	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	48.4	97	62-120	1	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	45.6	91	51-135	2	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	52.9	106	58-129	1	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	53.1	106	59-126	1	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	54.4	109	55-132	2	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	44.1	88	54-121	0	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2298
Client ID: RE46-10-13864PSD
Lab Sample ID: 1202072219
Instrument: VOA5.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 14
Analysis Date: 03/16/2010 17:10
Prep Batch ID: 965701
Batch ID: 965702
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	48.1	96	58-120	1	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	51.2	102	54-130	1	0-23
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	47.2	94	59-121	1	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	47.5	95	57-130	2	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	45.7	91	57-124	1	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	237	95	40-137	5	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	43.7	87	50-131	1	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	48.7	97	54-119	0	0-23
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	45.0	90	47-133	1	0-24
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	43.7	87	60-130	3	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	228	91	30-139	7	0-21
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	44.2	88	59-125	1	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	49.2	98	50-126	2	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	47.9	96	54-131	1	0-23
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	45.7	91	55-127	1	0-23
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	46.8	94	50-130	1	0-24
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	46.8	94	50-121	1	0-24
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	95.5	95	47-125	1	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	47.1	94	51-127	1	0-24
100-42-5	PSD	Styrene	50.0	0.00	U	48.2	96	41-136	1	0-24
75-25-2	PSD	Bromoform	50.0	0.00	U	53.5	107	48-143	0	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	47.6	95	52-129	1	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2298
Client ID: RE46-10-13864PSD
Lab Sample ID: 1202072219
Instrument: VOA5.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 14
Analysis Date: 03/16/2010 17:10
Dilution: 1
Prep Batch ID: 965701
Batch ID: 965702

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	48.9	98	56-139	2	0-34
108-86-1	PSD	Bromobenzene	50.0	0.00	U	49.0	98	54-125	0	0-22
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	51.0	102	46-127	1	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	50.7	101	47-130	1	0-24
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	53.9	108	42-126	0	0-22
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	50.2	100	44-132	0	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	48.9	98	46-127	1	0-26
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	48.1	96	48-136	1	0-24
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	48.8	98	42-132	1	0-26
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	47.2	94	47-130	1	0-27
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	44.0	88	36-142	2	0-27
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	45.9	92	41-130	1	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	44.8	90	41-126	1	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	41.0	82	37-136	2	0-29
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	45.0	90	42-143	4	0-21
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	47.4	95	58-127	1	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	43.7	87	42-128	0	0-24

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2298
Client ID: LCS for batch 965701
Lab Sample ID: 1202072220
Instrument: VOA5.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/16/2010 08:41
Dilution: 1
Prep Batch ID: 965701
Batch ID: 965702

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	56.9	114	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	46.2	92	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	50.2	100	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	46.0	92	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	48.1	96	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	52.5	105	73-143
67-64-1	LCS	Acetone	250	0.0	249	100	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	49.4	99	71-129
74-88-4	LCS	Iodomethane	250	0.0	234	93	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	47.0	94	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	253	101	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	49.9	100	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	48.0	96	73-120
78-93-3	LCS	2-Butanone	250	0.0	255	102	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	48.0	96	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	51.6	103	73-134
67-66-3	LCS	Chloroform	50.0	0.0	47.9	96	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	46.7	93	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	52.2	104	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	52.1	104	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	53.6	107	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	46.2	92	65-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2298 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 965701 **Matrix:** SOIL

Lab Sample ID: 1202072220

Instrument: VOA5.I **Analysis Date:** 03/16/2010 08:41 **Dilution:** 1

Analyst: CDS1 **Prep Batch ID** 965701

Purge Vol: 5 mL **Batch ID:** 965702

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	47.0	94	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	49.2	98	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	47.2	94	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	49.3	99	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	47.9	96	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	268	107	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	48.6	97	78-127
108-88-3	LCS	Toluene	50.0	0.0	46.0	92	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	48.1	96	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	45.9	92	75-120
591-78-6	LCS	2-Hexanone	250	0.0	263	105	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	45.3	91	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	48.0	96	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	51.1	102	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	49.6	99	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	46.5	93	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	46.0	92	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	95.3	95	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	48.0	96	76-122
100-42-5	LCS	Styrene	50.0	0.0	50.0	100	75-125
75-25-2	LCS	Bromoform	50.0	0.0	51.8	104	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	46.3	93	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2298
Client ID: LCS for batch 965701
Lab Sample ID: 1202072220
Instrument: VOA5.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/16/2010 08:41
Dilution: 1
Prep Batch ID: 965701
Batch ID: 965702

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	47.1	94	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	45.0	90	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	45.9	92	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	45.3	91	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	46.9	94	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	46.5	93	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	44.1	88	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	46.1	92	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	46.1	92	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	47.6	95	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	46.5	93	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	45.5	91	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	44.4	89	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	46.1	92	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	51.5	103	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	48.4	97	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	45.3	91	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2298**
Client ID: **LCS for batch 965701**
Lab Sample ID: **1202072221**
Instrument: **VOA5.I**
Analyst: **CDS1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **03/16/2010 09:07**
Dilution: 1
Prep Batch ID: **965701**
Batch ID: **965702**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	282	113	67-140

Method Blank Summary

SDG Number:	10-2298	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965701	Instrument ID:	VOA5.I	Data File:	031610V5\5C207.D
Lab Sample ID:	1202072217	Prep Date:	03/16/2010 06:00	Analyzed:	03/16/10 10:00
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 965701	1202072220	031610V5\5C204.D	03/16/10	0841
02	LCS for batch 965701	1202072221	031610V5\5C205SLS.D	03/16/10	0907
03	RE46-10-13867	248815001	031610V5\5C208.D	03/16/10	1026
04	RE46-10-13864	248815002	031610V5\5C209.D	03/16/10	1052
05	RE46-10-13863	248815003	031610V5\5C210.D	03/16/10	1118
06	RE46-10-13869	248815004	031610V5\5C211.D	03/16/10	1145
07	RE46-10-13861	248815005	031610V5\5C212.D	03/16/10	1211
08	RE46-10-13866	248815006	031610V5\5C213.D	03/16/10	1238
09	RE46-10-13860	248815007	031610V5\5C214.D	03/16/10	1305
10	RE46-10-13865	248815008	031610V5\5C215.D	03/16/10	1331
11	RE46-10-13868	248815009	031610V5\5C216.D	03/16/10	1358
12	RE46-10-13862	248815010	031610V5\5C217.D	03/16/10	1425
13	RE46-10-13873	248815011	031610V5\5C218.D	03/16/10	1451
14	RE46-10-13874	248815012	031610V5\5C219.D	03/16/10	1518
15	RE46-10-13864PS	1202072218	031610V5\5C221.D	03/16/10	1644
16	RE46-10-13864PSD	1202072219	031610V5\5C222.D	03/16/10	1710

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2298

Instrument ID: VOA5.I **Injection Date/Time:** 15-MAR-10 16:20

Column Description: DB-624 **Lab File ID** 031510V5\5C101.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.2
75	30.0 - 60.0% of mass 95	45.3
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	77.4
175	5.0 -9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	96.8
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W5VM100315-01	031510V5\5C103.D	15-MAR-10 17:14
ICALMIX[A]	W5VM100315-02	031510V5\5C104.D	15-MAR-10 17:40
ICALMIX[A]	W5VM100315-03	031510V5\5C105.D	15-MAR-10 18:07
ICALMIX[A]	W5VM100315-04	031510V5\5C106.D	15-MAR-10 18:33
ICALMIX[A]	W5VM100315-05	031510V5\5C107.D	15-MAR-10 19:00
ICALMIX[A]	W5VM100315-06	031510V5\5C108.D	15-MAR-10 19:26
ICALMIX[A]	W5VM100315-07	031510V5\5C109.D	15-MAR-10 19:53
ICALMIX[A]	W5VM100315-08	031510V5\5C111.D	15-MAR-10 20:46
ICVMIX[A]01	W5VM100315-10	031510V5\5C113.D	15-MAR-10 21:39
ICALMIX[B]	W5VM100315-11	031510V5\5C115.D	15-MAR-10 22:32
ICALMIX[B]	W5VM100315-12	031510V5\5C116.D	15-MAR-10 22:58
ICALMIX[B]	W5VM100315-13	031510V5\5C117.D	15-MAR-10 23:24
ICALMIX[B]	W5VM100315-14	031510V5\5C118.D	15-MAR-10 23:51
ICALMIX[B]	W5VM100315-15	031510V5\5C119.D	16-MAR-10 00:17
ICALMIX[B]	W5VM100315-16	031510V5\5C120.D	16-MAR-10 00:44
ICALMIX[B]	W5VM100315-17	031510V5\5C121.D	16-MAR-10 01:10
ICVMIX[B]02	W5VM100315-18	031510V5\5C123.D	16-MAR-10 02:03

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2298

Instrument ID: VOA5.I **Injection Date/Time:** 16-MAR-10 07:14

Column Description: DB-624 **Lab File ID** 031610V5\5C201.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.6
75	30.0 - 60.0% of mass 95	45.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	75.5
175	5.0 -9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	95.5
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]01	W5VM100316-01	031610V5\5C202.D	16-MAR-10 07:41
BLK01LCS	1202072220	031610V5\5C204.D	16-MAR-10 08:41
CCVMIX[B]02	W5VM100316-04	031610V5\5C205.D	16-MAR-10 09:07
BLK01SLCS	1202072221	031610V5\5C205SLS.D	16-MAR-10 09:07
BLK01	1202072217	031610V5\5C207.D	16-MAR-10 10:00
RE46-10-13867	248815001	031610V5\5C208.D	16-MAR-10 10:26
RE46-10-13864	248815002	031610V5\5C209.D	16-MAR-10 10:52
RE46-10-13863	248815003	031610V5\5C210.D	16-MAR-10 11:18
RE46-10-13869	248815004	031610V5\5C211.D	16-MAR-10 11:45
RE46-10-13861	248815005	031610V5\5C212.D	16-MAR-10 12:11
RE46-10-13866	248815006	031610V5\5C213.D	16-MAR-10 12:38
RE46-10-13860	248815007	031610V5\5C214.D	16-MAR-10 13:05
RE46-10-13865	248815008	031610V5\5C215.D	16-MAR-10 13:31
RE46-10-13868	248815009	031610V5\5C216.D	16-MAR-10 13:58
RE46-10-13862	248815010	031610V5\5C217.D	16-MAR-10 14:25
RE46-10-13873	248815011	031610V5\5C218.D	16-MAR-10 14:51
RE46-10-13874	248815012	031610V5\5C219.D	16-MAR-10 15:18
RE46-10-13864MS	1202072218	031610V5\5C221.D	16-MAR-10 16:44
RE46-10-13864MSD	1202072219	031610V5\5C222.D	16-MAR-10 17:10

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2298

Instrument: VOA5.I

STD Analysis Time: 16-MAR-10 07:41

GC Column: DB-624

Data File: C:\msdchem\1\DATA\031610V5\5C202.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1685520		8.38	1272410		11.1	657196		13.4
Upper Limit	3371040		8.88	2544820		11.6	1314392		13.9
Lower Limit	842760		7.88	636205		10.6	328598		12.9
Sample ID									
BLK01LCS	1722609		8.39	1305962		11.1	681466		13.4
BLK01SLCS	1713952		8.39	1281289		11.1	645528		13.4
BLK01	1490079		8.39	1093347		11.1	526487		13.4
RE46-10-13867	1677923		8.39	1227591		11.1	566964		13.4
RE46-10-13864	1663559		8.39	1188383		11.1	503878		13.4
RE46-10-13863	1721730		8.39	1275052		11.1	612090		13.4
RE46-10-13869	1657622		8.39	1206537		11.1	568488		13.4
RE46-10-13861	1651870		8.39	1160414		11.1	472909		13.4
RE46-10-13866	1668613		8.39	1191854		11.1	511591		13.4
RE46-10-13860	1605802		8.39	1022329		11.1	320049	*	13.4
RE46-10-13865	1687293		8.39	1242218		11.1	594991		13.4
RE46-10-13868	1649550		8.39	1183531		11.1	520112		13.4
RE46-10-13862	1628623		8.39	1154158		11.1	485627		13.4
RE46-10-13873	1645935		8.39	1201774		11.1	557002		13.4
RE46-10-13874	1617153		8.39	1179213		11.1	554953		13.4
RE46-10-13864MS	1644713		8.39	1165608		11.1	516157		13.4
RE46-10-13864MSD	1580643		8.39	1130388		11.1	492291		13.4

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13867**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 10:26**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C208.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.369	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.326	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.326	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.326	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.326	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.326	1.09
67-64-1	Acetone	J	4.41	ug/kg	1.80	5.43
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
74-88-4	Iodomethane	U	5.43	ug/kg	1.74	5.43
75-09-2	Methylene chloride	U	5.43	ug/kg	2.17	5.43
75-15-0	Carbon disulfide	U	5.43	ug/kg	1.36	5.43
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.326	1.09
78-93-3	2-Butanone	U	5.43	ug/kg	1.63	5.43
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.326	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.358	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.326	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.326	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.326	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.326	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.326	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.358	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.326	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.326	1.09
108-10-1	4-Methyl-2-pentanone	U	5.43	ug/kg	1.36	5.43
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.326	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.326	1.09
591-78-6	2-Hexanone	U	5.43	ug/kg	1.63	5.43
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.326	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.326	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.326	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.326	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.326	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13867**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 10:26**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C208.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.326	1.09
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.326	2.17
95-47-6	o-Xylene	U	1.09	ug/kg	0.326	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.326	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.326	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.326	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.326	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.326	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.326	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.326	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.326	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.326	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.326	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.326	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.43	ug/kg	1.74	5.43
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C208.D
Acq On : 16 Mar 2010 10:26 am
Operator : CDS1
InstName : VOA5
Sample : |248815001|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 17 11:02:36 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.388	8.387	1.000	96	1677923	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.139	11.142	1.000	117	1227591	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	566964	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.387	1.000	96	1677923	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.139	11.139	1.000	117	1227591	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	566964	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.168	8.172	0.974	65	203280	43.55	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 87.10%					
43) Toluene-d8	9.721	9.721	0.873	98	1105520	46.82	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 93.64%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	835890	52.67	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 105.34%					
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.910	4.900	0.585	50	1005	Below Cal		68
4) Vinyl chloride	5.031	5.041	0.600	62	166	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.867	5.866	0.699	59	1629	N.D.		
9) Acetone	6.174	6.170	0.736	43	26025	4.06	ug/L	98
10) 1,1-Dichloroethylene	0.000	6.152	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.467	6.460	0.771	41	2186	N.D.		
13) Methyl acetate	6.248	6.361	0.745	43	229	N.D.		
14) Carbon disulfide	6.425	6.435	0.766	76	527	N.D.		
15) Methylene chloride	6.542	6.538	0.780	84	5265	Below Cal		97
16) tert-Butyl methyl ether	0.000	6.637	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.711	0.000		0	N.D.		
18) Vinyl acetate	0.000	6.969	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.072	0.000		0	N.D.		
20) 2-Butanone	7.447	7.450	0.888	43	147	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.510	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.715	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.903	0.000		0	N.D.		
26) Cyclohexane	0.000	7.928	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.002	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.232	0.000		0	N.D.		
31) Benzene	8.204	8.200	0.978	78	120	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D.	d	
33) n-Butyl alcohol	0.000	8.373	0.000		0m	N.D.	d	
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.829	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C208.D
Acq On : 16 Mar 2010 10:26 am
Operator : CDS1
InstName : VOA5
Sample : |248815001|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 17 11:02:36 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.109	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	9.484	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.784	9.788	0.878	91	1379	N.D.	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	10.283	10.276	0.923	43	637	N.D.	
48) 1,3-Dichloropropane	0.000	10.361	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	0.000	11.170	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.181	11.178	1.004	91	667	N.D.	
55) m,p-Xylenes	11.270	11.277	1.012	106	125	N.D.	
56) o-Xylene	0.000	11.697	0.000		0	N.D.	
57) Styrene	11.715	11.715	1.052	104	109	N.D.	
59) Bromoform	0.000	12.002	0.000		0	N.D.	
60) Isopropylbenzene	12.256	12.012	0.914	105	262	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	12.447	12.465	0.928	156	106	N.D.	
65) n-Propylbenzene	12.416	12.415	0.926	91	1260	N.D.	
66) 1,3,5-Trimethylbenzene	12.564	12.560	0.937	105	115	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.695	12.698	0.946	91	1983	N.D.	
69) tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	12.960	12.956	0.966	105	374	N.D.	
71) sec-Butylbenzene	13.112	13.116	0.978	105	1377	N.D.	
72) 4-Isopropyltoluene	13.240	13.229	0.987	119	2959	N.D.	
73) 1,3-Dichlorobenzene	13.342	13.349	0.995	146	282	N.D.	
74) 1,4-Dichlorobenzene	13.445	13.441	1.002	146	799	N.D.	
75) n-Butylbenzene	13.646	13.653	1.017	91	1035	N.D.	
76) 1,2-Dichlorobenzene	13.851	13.855	1.033	146	117	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	15.620	15.612	1.165	180	449	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.989	15.988	1.192	128	4772	N.D.	
81) 1,2,3-Trichlorobenzene	16.284	16.291	1.214	180	586	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.078	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.160	0.000		0	N.D.	
88) Allyl chloride	6.467	6.421	0.771	41	2186	N.D.	
89) tert-Butyl Alcohol	0.000	6.457	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.740	0.000		0	N.D.	
91) Isopropyl ether	0.000	6.916	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	7.440	7.380	0.887	43	106	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C208.D
Acq On : 16 Mar 2010 10:26 am
Operator : CDS1
InstName : VOA5
Sample : |248815001|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 17 11:02:36 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	7.578	0.000		0	N.D.	
96)	Methacrylonitrile	7.730	7.677	0.922	41	144	N.D.	
97)	Tetrahydrofuran	7.719	7.708	0.920	42	405	N.D.	
98)	Isobutyl alcohol	7.730	7.854	0.922	41	144	N.D.	
99)	Methyl tert-amyl ether	0.000	8.119	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	8.798	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	8.953	0.000		0	N.D.	
102)	2-Nitropropane	0.000	9.339	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	9.855	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	12.133	0.000		0	N.D.	
108)	Cyclohexanone	0.000	12.263	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	12.408	0.000		0	N.D.	
110)	Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111)	Benzyl chloride	13.565	13.565	1.011	91	3042	N.D.	
112)	bis(2-Chloroisopropyl)...	13.943	13.925	1.040	45	135	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C208.D
Acq On : 16 Mar 2010 10:26 am
Operator : CDS1
InstName : VOA5
Sample : |248815001|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 17 11:02:36 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

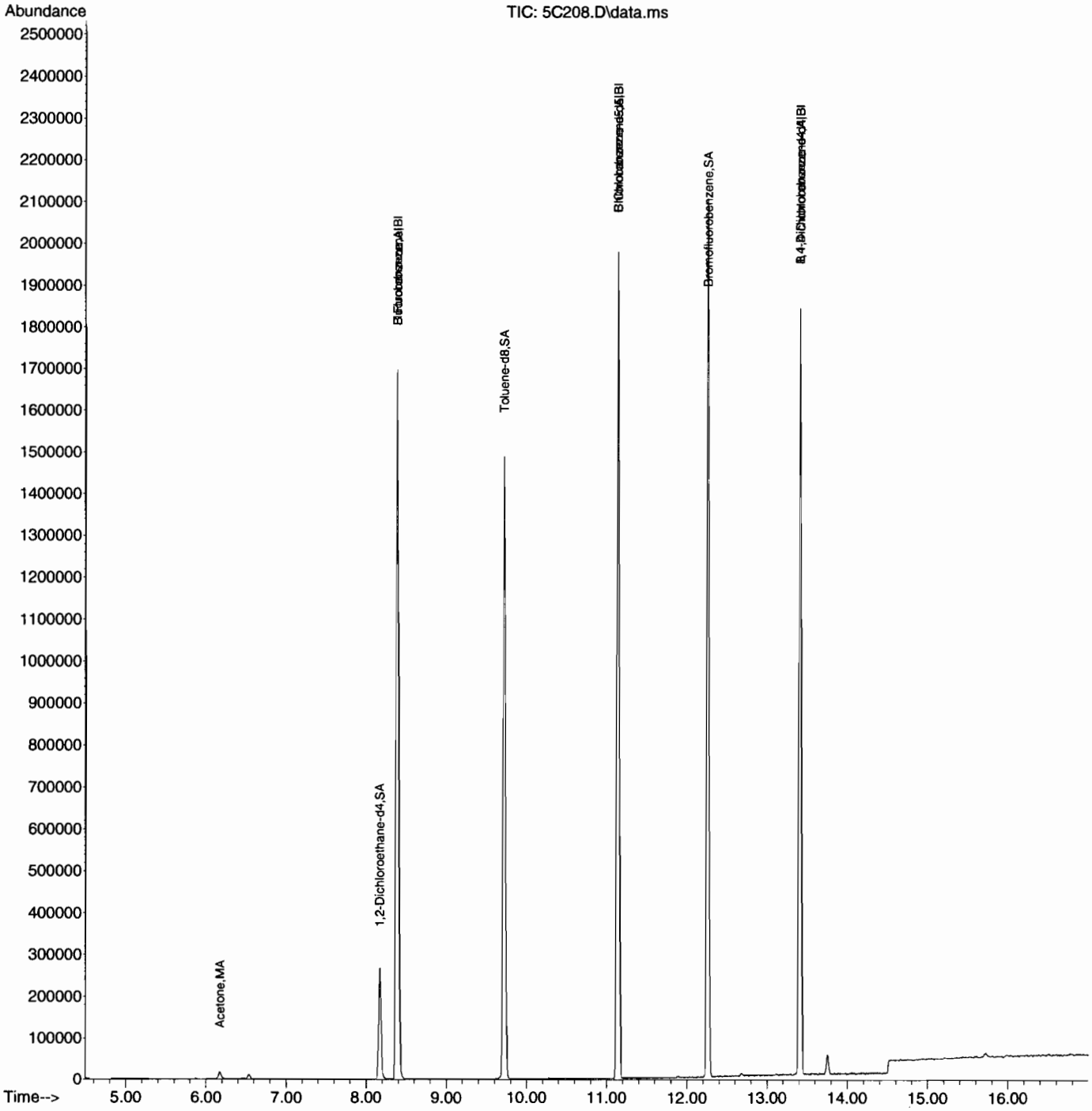

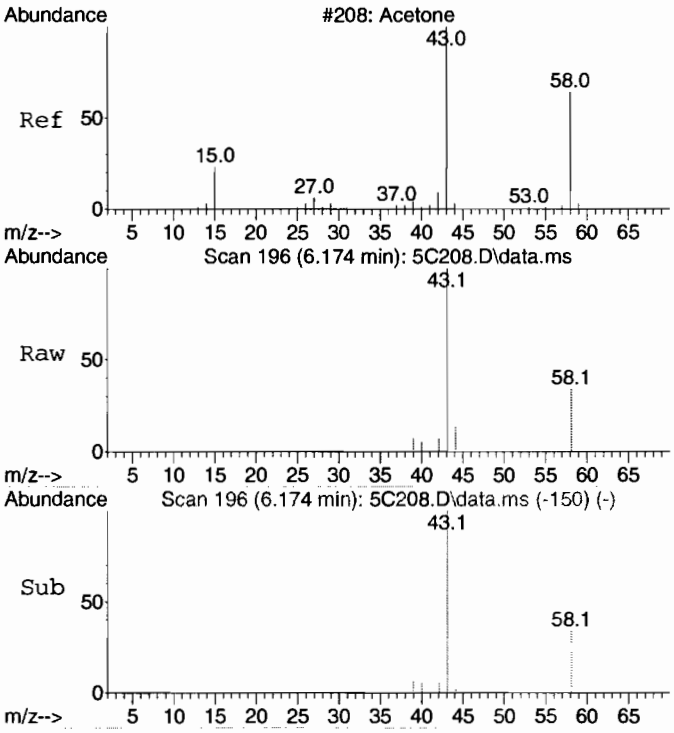

#9
Acetone
Concen: 4.06 ug/L
RT: 6.174 min Scan# 196
Delta R.T. 0.004 min
Lab File: 5C208.D
Acq: 16 Mar 2010 10:26 am

Tgt Ion: 43 Resp: 26025

Ion	Ratio	Lower	Upper
43	100		
58	30.5	1.7	61.7

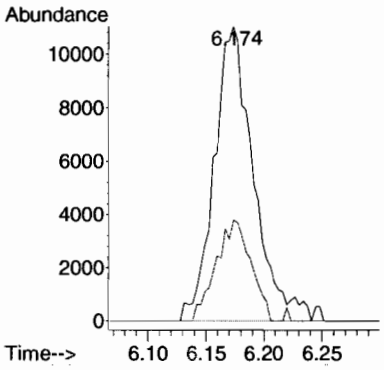

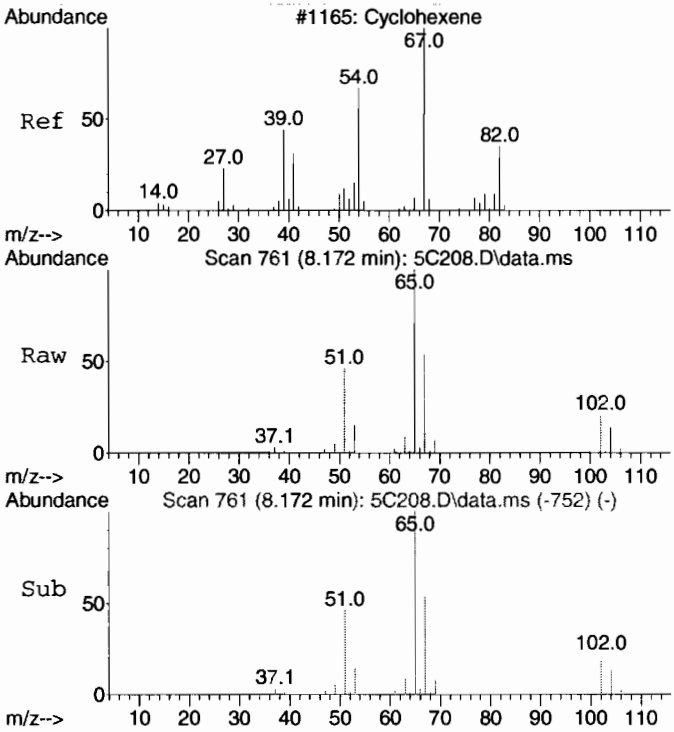

#32 BEFORE analyst DELETION
Cyclohexene
Concen: 9.19 ug/L
RT: 8.172 min Scan# 761
Delta R.T. -0.074 min
Lab File: 5C208.D
Acq: 16 Mar 2010 10:26 am

Tgt Ion: 67 Resp: 97230

Ion	Ratio	Lower	Upper
67	100		
54	0.0	47.0	107.0#

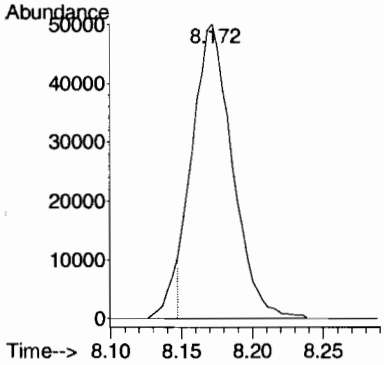

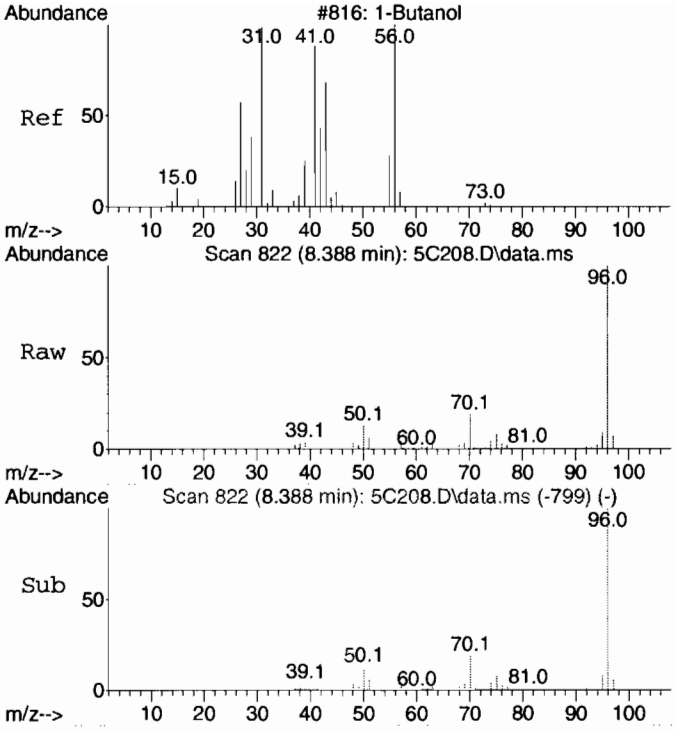

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 70.22 ug/L
RT: 8.388 min Scan# 822
Delta R.T. 0.015 min
Lab File: 5C208.D
Acq: 16 Mar 2010 10:26 am

Tgt Ion: 56 Resp: 9524

Ion	Ratio	Lower	Upper
56	100		
41	1.3	40.9	100.9#
43	0.0	27.4	87.4#

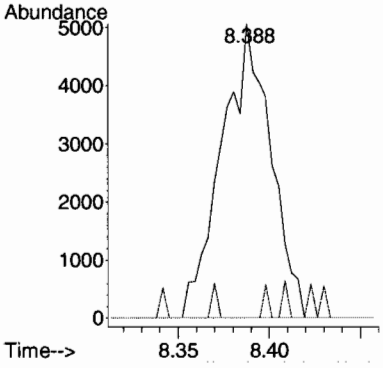

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C208.D
Acq On : 16 Mar 2010 10:26 am
Operator : CDS1
Sample : |248815001|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C208.D
Acq On : 16 Mar 2010 10:26 am
Operator : CDS1
Sample : |248815001|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815002	**Date Received:**	03/05/2010 10:20	**%Moisture:**	14
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13864	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965702	**Inst:**	VOA5.I	**Dilution:**	1
Run Date:	03/16/2010 10:52	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/16/2010 06:31	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031610V5\5C209.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.396	1.16
74-87-3	Chloromethane	U	1.16	ug/kg	0.349	1.16
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.349	1.16
74-83-9	Bromomethane	U	1.16	ug/kg	0.349	1.16
75-00-3	Chloroethane	U	1.16	ug/kg	0.349	1.16
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.349	1.16
67-64-1	Acetone	U	5.82	ug/kg	1.93	5.82
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
74-88-4	Iodomethane	U	5.82	ug/kg	1.86	5.82
75-09-2	Methylene chloride	U	5.82	ug/kg	2.33	5.82
75-15-0	Carbon disulfide	U	5.82	ug/kg	1.45	5.82
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.349	1.16
78-93-3	2-Butanone	U	5.82	ug/kg	1.75	5.82
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.349	1.16
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16
67-66-3	Chloroform	U	1.16	ug/kg	0.349	1.16
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.384	1.16
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.349	1.16
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.349	1.16
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.349	1.16
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.349	1.16
71-43-2	Benzene	U	1.16	ug/kg	0.349	1.16
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.384	1.16
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.349	1.16
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.349	1.16
74-95-3	Dibromomethane	U	1.16	ug/kg	0.349	1.16
108-10-1	4-Methyl-2-pentanone	U	5.82	ug/kg	1.45	5.82
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16
108-88-3	Toluene	U	1.16	ug/kg	0.349	1.16
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.349	1.16
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.349	1.16
591-78-6	2-Hexanone	U	5.82	ug/kg	1.75	5.82
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.349	1.16
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.349	1.16
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.349	1.16
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.349	1.16
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.349	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13864**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 10:52**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:31**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C209.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.349	1.16
179601-23-1	m,p-Xylenes	U	2.33	ug/kg	0.349	2.33
95-47-6	o-Xylene	U	1.16	ug/kg	0.349	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.349	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.349	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.349	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.349	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.349	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.349	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.349	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.349	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.349	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.349	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.349	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.349	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.349	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.82	ug/kg	1.86	5.82
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.349	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.349	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C209.D
Acq On : 16 Mar 2010 10:52 am
Operator : CDS1
InstName : VOA5
Sample : |248815002|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 17 11:03:11 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	8.388	8.387	1.000	96	1663559	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.139	11.142	1.000	117	1188383	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.409	13.413	1.000	152	503878	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.387	1.000	96	1663559	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.139	11.139	1.000	117	1188383	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.409	13.413	1.000	152	503878	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.168	8.172	0.974	65	195586	42.26	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 84.52%					
43) Toluene-d8	9.721	9.721	0.873	98	1074637	47.01	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 94.02%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	789547	55.98	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 111.96%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.980	4.900	0.594	50	546	Below Cal		53
4) Vinyl chloride	5.021	5.041	0.599	62	160	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.867	5.866	0.699	59	1647	N.D.		
9) Acetone	6.184	6.170	0.737	43	1328	Below Cal	#	43
10) 1,1-Dichloroethylene	0.000	6.152	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.464	6.460	0.771	41	527	N.D.		
13) Methyl acetate	6.184	6.361	0.737	43	1328	N.D.		
14) Carbon disulfide	6.421	6.435	0.766	76	732	N.D.		
15) Methylene chloride	6.538	6.538	0.779	84	7287	N.D.		
16) tert-Butyl methyl ether	0.000	6.637	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.711	0.000		0	N.D.		
18) Vinyl acetate	6.793	6.969	0.810	43	108	N.D.		
19) 1,1-Dichloroethane	0.000	7.072	0.000		0	N.D.		
20) 2-Butanone	0.000	7.450	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.510	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.715	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.903	0.000		0	N.D.		
26) Cyclohexane	0.000	7.928	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.002	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.232	0.000		0	N.D.		
31) Benzene	8.391	8.200	1.000	78	2561	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D.	d	
33) n-Butyl alcohol	0.000	8.373	0.000		0m	N.D.	d	
34) Trichloroethylene	8.681	8.677	1.035	95	149	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.829	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C209.D
Acq On : 16 Mar 2010 10:52 am
Operator : CDS1
InstName : VOA5
Sample : |248815002|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 17 11:03:11 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.109	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	9.484	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.791	9.788	0.879	91	2123	N.D.	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	10.272	10.276	0.922	43	141	N.D.	
48) 1,3-Dichloropropane	0.000	10.361	0.000		0	N.D.	
49) Tetrachloroethylene	10.294	10.290	0.924	164	117	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	0.000	11.170	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.178	11.178	1.003	91	786	N.D.	
55) m,p-Xylenes	0.000	11.277	0.000		0	N.D.	
56) o-Xylene	0.000	11.697	0.000		0	N.D.	
57) Styrene	0.000	11.715	0.000		0	N.D.	
59) Bromoform	0.000	12.002	0.000		0	N.D.	
60) Isopropylbenzene	12.005	12.012	0.895	105	113	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	0.000	12.465	0.000		0	N.D.	
65) n-Propylbenzene	12.415	12.415	0.926	91	597	N.D.	
66) 1,3,5-Trimethylbenzene	12.568	12.560	0.937	105	118	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.691	12.698	0.946	91	1817	N.D.	
69) tert-Butylbenzene	12.903	12.900	0.962	134	118	N.D.	
70) 1,2,4-Trimethylbenzene	12.946	12.956	0.965	105	132	N.D.	
71) sec-Butylbenzene	13.105	13.116	0.977	105	420	N.D.	
72) 4-Isopropyltoluene	13.222	13.229	0.986	119	1054	N.D.	
73) 1,3-Dichlorobenzene	13.338	13.349	0.995	146	107	N.D.	
74) 1,4-Dichlorobenzene	13.437	13.441	1.002	146	808	N.D.	
75) n-Butylbenzene	13.653	13.653	1.018	91	1028	N.D.	
76) 1,2-Dichlorobenzene	13.858	13.855	1.033	146	129	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	15.605	15.612	1.164	180	174	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.981	15.988	1.192	128	4555	N.D.	
81) 1,2,3-Trichlorobenzene	16.284	16.291	1.214	180	359	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.078	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.160	0.000		0	N.D.	
88) Allyl chloride	6.446	6.421	0.769	41	132	N.D.	
89) tert-Butyl Alcohol	0.000	6.457	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.740	0.000		0	N.D.	
91) Isopropyl ether	0.000	6.916	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	0.000	7.380	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C209.D
Acq On : 16 Mar 2010 10:52 am
Operator : CDS1
InstName : VOA5
Sample : |248815002|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 17 11:03:11 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	7.578	0.000		0	N.D.	
96)	Methacrylonitrile	7.730	7.677	0.922	41	271	N.D.	
97)	Tetrahydrofuran	7.712	7.708	0.919	42	363	N.D.	
98)	Isobutyl alcohol	7.829	7.854	0.933	41	119	N.D.	
99)	Methyl tert-amyl ether	0.000	8.119	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	8.798	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	8.953	0.000		0	N.D.	
102)	2-Nitropropane	9.275	9.339	1.106	43	107	N.D.	
104)	Ethyl methacrylate	0.000	9.855	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	12.133	0.000		0	N.D.	
108)	Cyclohexanone	0.000	12.263	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	12.408	0.000		0	N.D.	
110)	Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111)	Benzyl chloride	13.561	13.565	1.011	91	2861	N.D.	
112)	bis(2-Chloroisopropyl)...	13.911	13.925	1.037	45	245	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C209.D
Acq On : 16 Mar 2010 10:52 am
Operator : CDS1
InstName : VOA5
Sample : |248815002|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 17 11:03:11 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

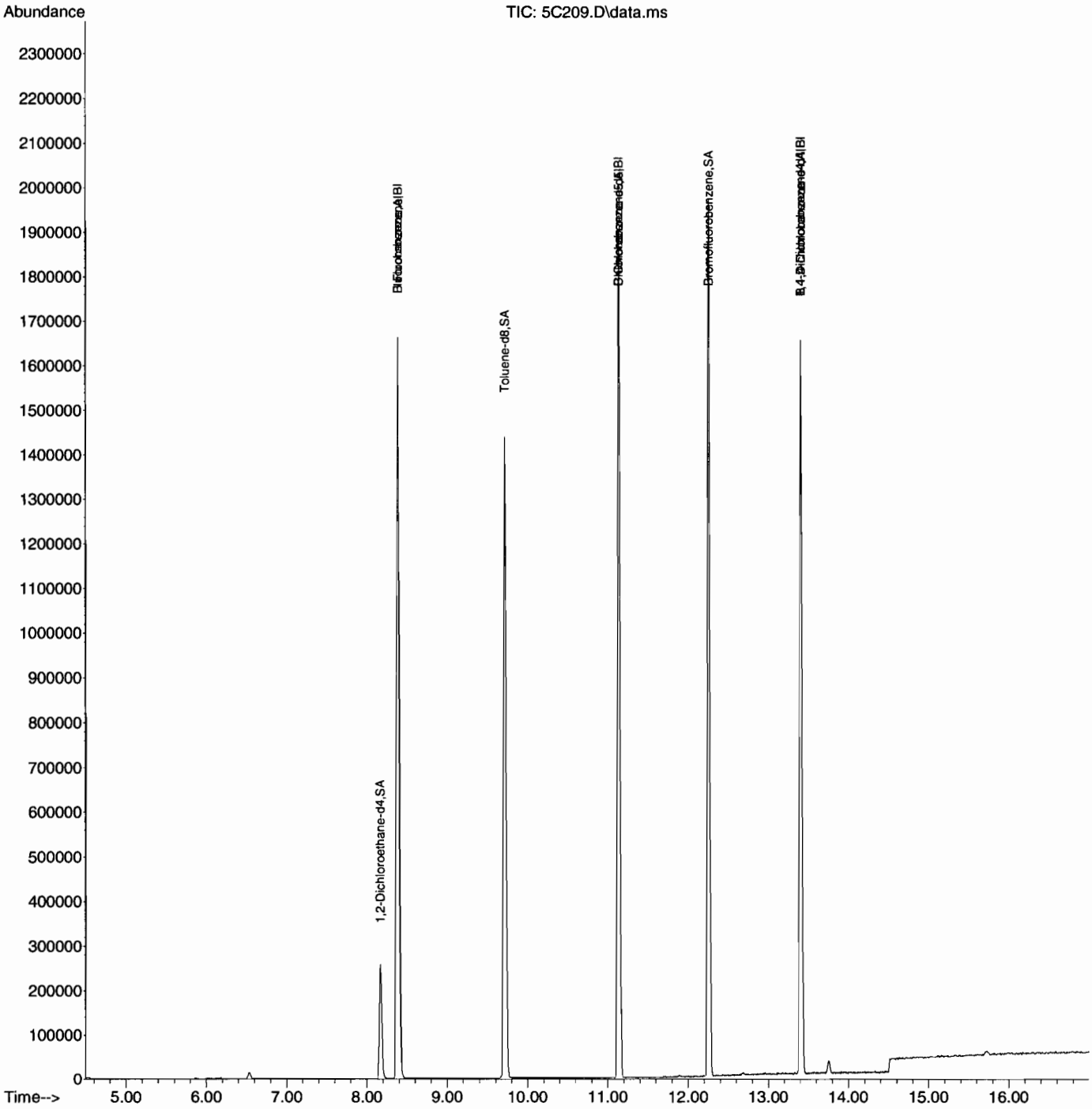

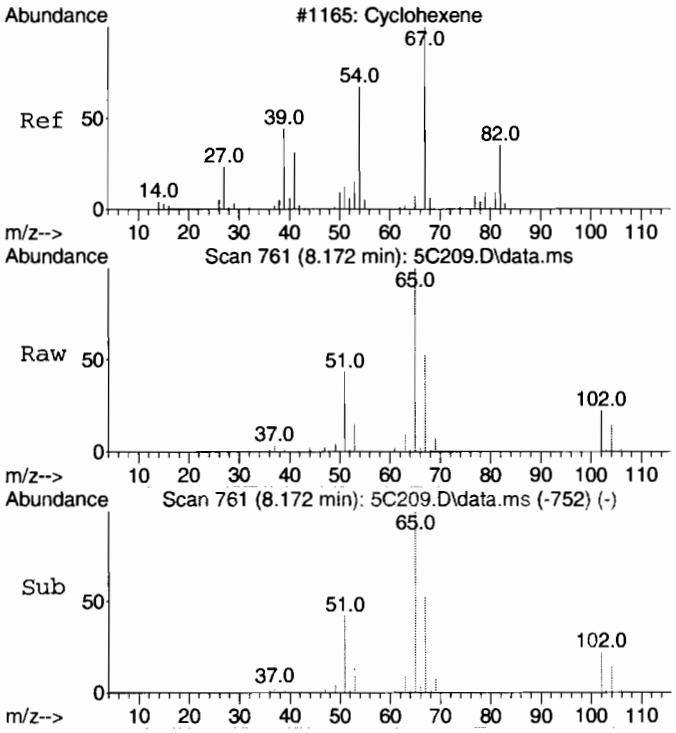

#32 BEFORE analyst DELETION
Cyclohexene
Concen: 9.12 ug/L
RT: 8.172 min Scan# 761
Delta R.T. -0.074 min
Lab File: 5C209.D
Acq: 16 Mar 2010 10:52 am

Tgt Ion: 67 Resp: 95686

Ion	Ratio	Lower	Upper
67	100		
54	0.0	47.0	107.0#

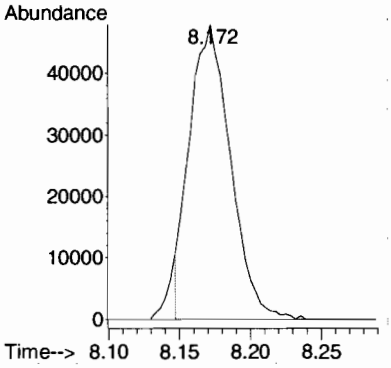

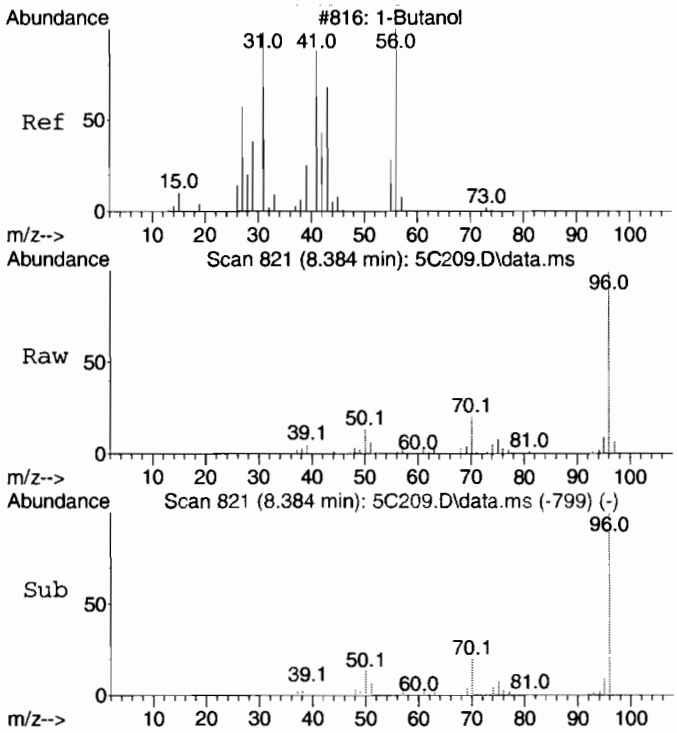

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 71.74 ug/L
RT: 8.384 min Scan# 821
Delta R.T. 0.011 min
Lab File: 5C209.D
Acq: 16 Mar 2010 10:52 am

Tgt Ion: 56 Resp: 9796

Ion	Ratio	Lower	Upper
56	100		
41	0.0	40.9	100.9#
43	0.0	27.4	87.4#

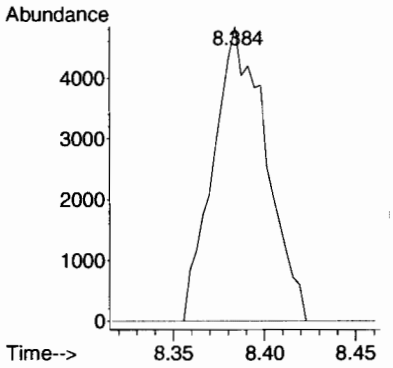

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C209.D
Acq On : 16 Mar 2010 10:52 am
Operator : CDS1
Sample : |248815002|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C209.D
Acq On : 16 Mar 2010 10:52 am
Operator : CDS1
Sample : |248815002|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13863**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 11:18**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:34**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C210.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.384	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.339	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.339	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.339	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.339	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.339	1.13
67-64-1	Acetone	U	5.65	ug/kg	1.88	5.65
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
74-88-4	Iodomethane	U	5.65	ug/kg	1.81	5.65
75-09-2	Methylene chloride	U	5.65	ug/kg	2.26	5.65
75-15-0	Carbon disulfide	U	5.65	ug/kg	1.41	5.65
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.339	1.13
78-93-3	2-Butanone	U	5.65	ug/kg	1.69	5.65
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.339	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.373	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.339	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.339	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.339	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.339	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.339	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.373	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.339	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.339	1.13
108-10-1	4-Methyl-2-pentanone	U	5.65	ug/kg	1.41	5.65
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.339	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.339	1.13
591-78-6	2-Hexanone	U	5.65	ug/kg	1.69	5.65
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.339	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.339	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.339	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.339	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.339	1.13

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13863**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 11:18**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:34**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C210.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.339	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.339	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.339	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.339	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.339	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.339	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.339	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.339	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.339	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.339	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.339	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.339	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.339	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.339	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.65	ug/kg	1.81	5.65
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C210.D
Acq On : 16 Mar 2010 11:18 am
Operator : CDS1
InstName : VOA5
Sample : |248815003|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 17 11:03:38 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1721730	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.139	11.142	1.000	117	1275052	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.409	13.413	1.000	152	612090	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.387	1.000	96	1721730	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.139	11.139	1.000	117	1275052	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.409	13.413	1.000	152	612090	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	217860	45.48	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 90.96%					
43) Toluene-d8	9.721	9.721	0.873	98	1124781	45.86	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 91.72%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	892137	52.07	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 104.14%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.890	4.900	0.583	50	1008	Below Cal	#	34
4) Vinyl chloride	5.020	5.041	0.599	62	211	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.866	5.866	0.699	59	1417	N.D.		
9) Acetone	6.174	6.170	0.736	43	8627	N.D.		
10) 1,1-Dichloroethylene	0.000	6.152	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.471	6.460	0.771	41	1196	N.D.		
13) Methyl acetate	6.237	6.361	0.744	43	119	N.D.		
14) Carbon disulfide	6.425	6.435	0.766	76	952	N.D.		
15) Methylene chloride	6.545	6.538	0.780	84	6021	Below Cal		97
16) tert-Butyl methyl ether	0.000	6.637	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.711	0.000		0	N.D.		
18) Vinyl acetate	0.000	6.969	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.072	0.000		0	N.D.		
20) 2-Butanone	0.000	7.450	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.510	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.715	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.903	0.000		0	N.D.		
26) Cyclohexane	0.000	7.928	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.002	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.232	0.000		0	N.D.		
31) Benzene	8.380	8.200	0.999	78	1285	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D.	d	
33) n-Butyl alcohol	0.000	8.373	0.000		0m	N.D.	d	
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.829	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C210.D
Acq On : 16 Mar 2010 11:18 am
Operator : CDS1
InstName : VOA5
Sample : |248815003|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 17 11:03:38 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.109	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	9.484	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.781	9.788	0.878	91	1371	N.D.	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	0.000	10.276	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	10.361	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	0.000	11.170	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.185	11.178	1.004	91	404	N.D.	
55) m,p-Xylenes	0.000	11.277	0.000		0	N.D.	
56) o-Xylene	0.000	11.697	0.000		0	N.D.	
57) Styrene	0.000	11.715	0.000		0	N.D.	
59) Bromoform	0.000	12.002	0.000		0	N.D.	
60) Isopropylbenzene	12.253	12.012	0.914	105	421	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	0.000	12.465	0.000		0	N.D.	
65) n-Propylbenzene	12.412	12.415	0.926	91	1038	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	12.560	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.695	12.698	0.947	91	1156	N.D.	
69) tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	12.953	12.956	0.966	105	263	N.D.	
71) sec-Butylbenzene	13.108	13.116	0.978	105	224	N.D.	
72) 4-Isopropyltoluene	13.225	13.229	0.986	119	911	N.D.	
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	13.437	13.441	1.002	146	232	N.D.	
75) n-Butylbenzene	13.649	13.653	1.018	91	1187	N.D.	
76) 1,2-Dichlorobenzene	13.862	13.855	1.034	146	107	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	15.619	15.612	1.165	180	228	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.988	15.988	1.192	128	4430	N.D.	
81) 1,2,3-Trichlorobenzene	16.283	16.291	1.214	180	300	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.078	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87) Isopropyl Alcohol	6.174	6.160	0.736	45	111	N.D.	
88) Allyl chloride	6.414	6.421	0.765	41	107	N.D.	
89) tert-Butyl Alcohol	0.000	6.457	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.740	0.000		0	N.D.	
91) Isopropyl ether	7.107	6.916	0.847	45	2633	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	0.000	7.380	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C210.D
Acq On : 16 Mar 2010 11:18 am
Operator : CDS1
InstName : VOA5
Sample : |248815003|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 17 11:03:38 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	7.578	0.000		0	N.D.	
96)	Methacrylonitrile	7.655	7.677	0.913	41	116	N.D.	
97)	Tetrahydrofuran	7.708	7.708	0.919	42	445	N.D.	
98)	Isobutyl alcohol	7.871	7.854	0.938	41	111	N.D.	
99)	Methyl tert-amyl ether	0.000	8.119	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	8.798	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	8.953	0.000		0	N.D.	
102)	2-Nitropropane	0.000	9.339	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	9.855	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	12.133	0.000		0	N.D.	
108)	Cyclohexanone	0.000	12.263	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	12.408	0.000		0	N.D.	
110)	Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111)	Benzyl chloride	13.561	13.565	1.011	91	1892	N.D.	
112)	bis(2-Chloroisopropyl)...	13.904	13.925	1.037	45	147	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C210.D
Acq On : 16 Mar 2010 11:18 am
Operator : CDS1
InstName : VOA5
Sample : |248815003|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 17 11:03:38 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

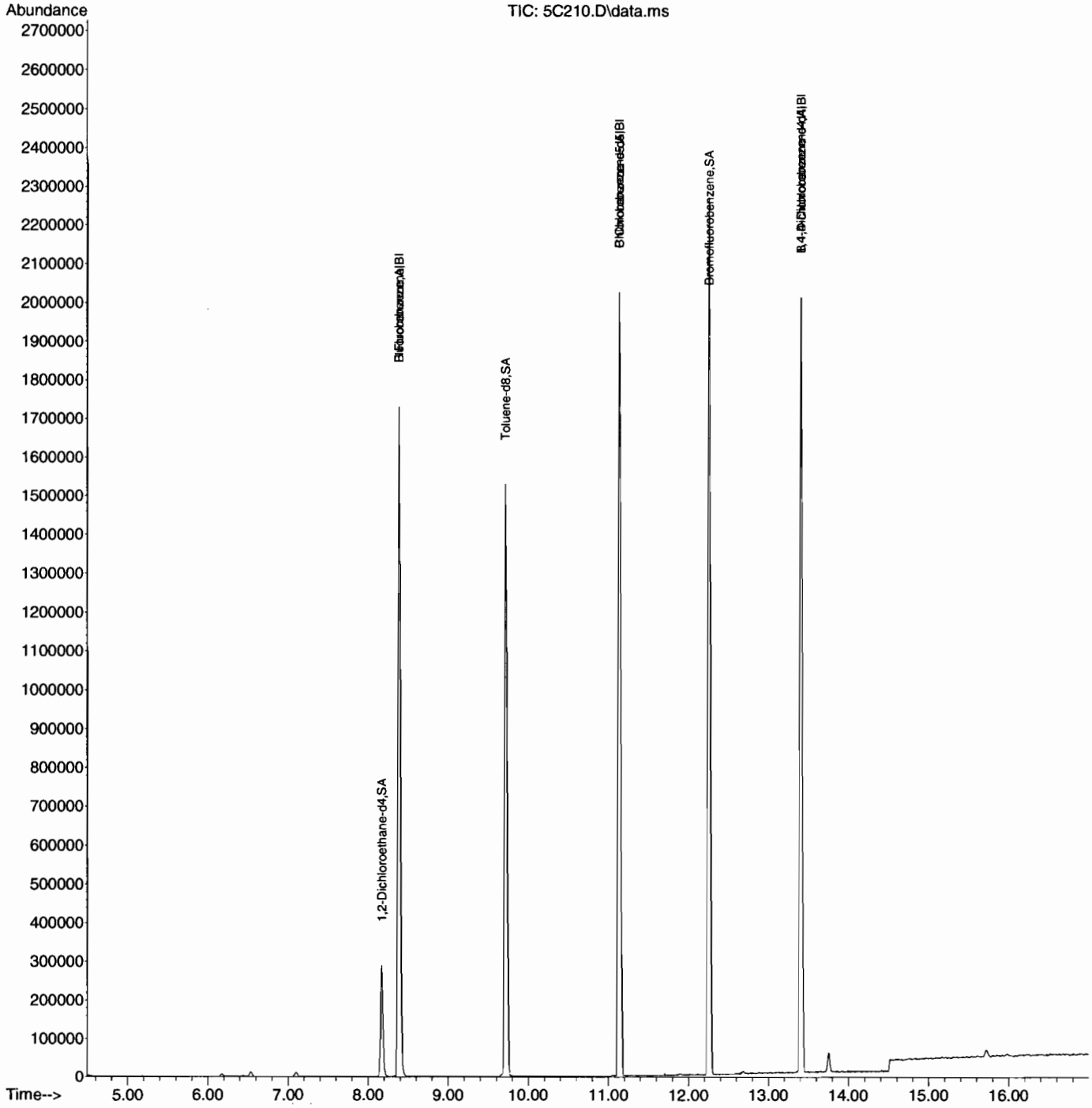

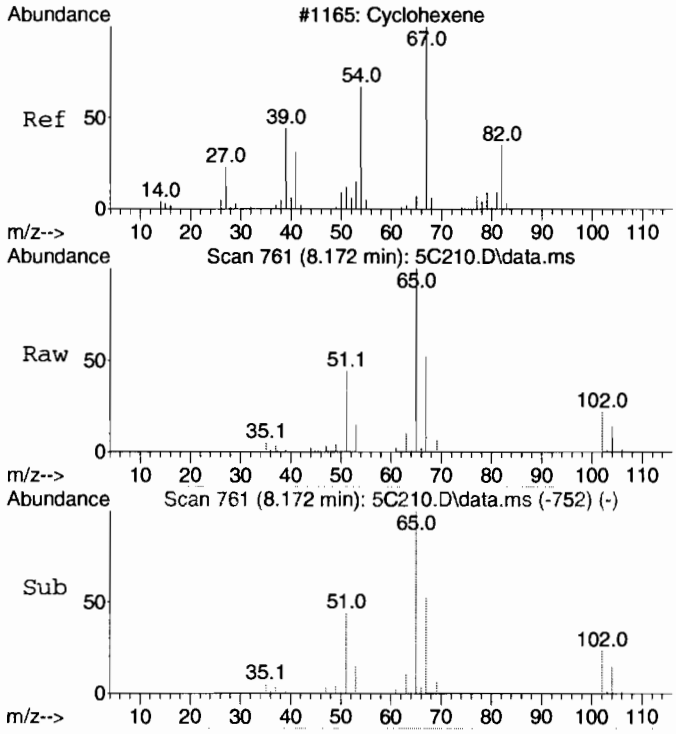

#32 BEFORE analyst DELETION
Cyclohexene
Concen: 9.91 ug/L
RT: 8.172 min Scan# 761
Delta R.T. -0.074 min
Lab File: 5C210.D
Acq: 16 Mar 2010 11:18 am

Tgt Ion: 67 Resp: 107602

Ion	Ratio	Lower	Upper
67	100		
54	0.0	47.0	107.0#

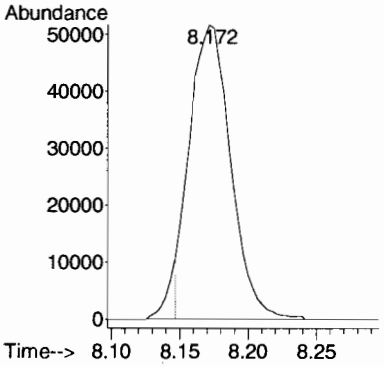

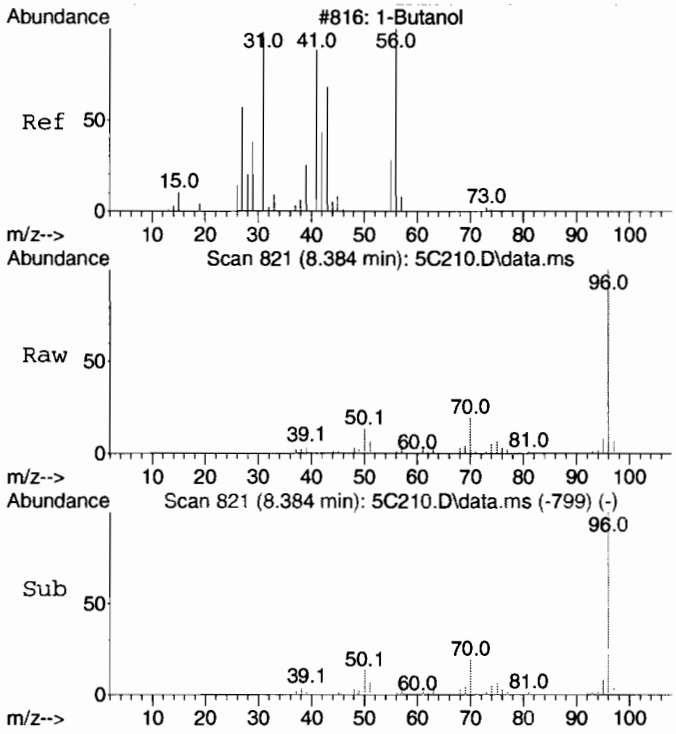

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 75.12 ug/L
RT: 8.384 min Scan# 821
Delta R.T. 0.011 min
Lab File: 5C210.D
Acq: 16 Mar 2010 11:18 am

Tgt Ion: 56 Resp: 10953

Ion	Ratio	Lower	Upper
56	100		
41	7.1	40.9	100.9#
43	1.1	27.4	87.4#

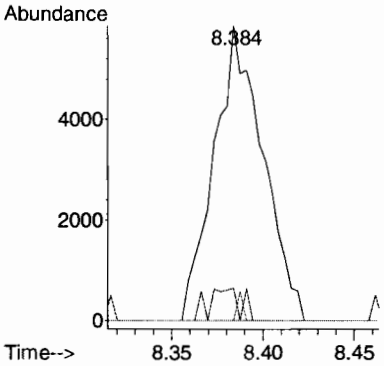

Library Search Compound Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C210.D
Acq On    : 16 Mar 2010  11:18 am
Operator  : CDS1
Sample    : |248815003|965702|1|VOA|1|VOA8260BS|
Misc      : LANL 5G - SOIL
ALS Vial  : 10   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title  : Volatile Organics 8260B                      SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P
```

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C210.D
Acq On : 16 Mar 2010 11:18 am
Operator : CDS1
Sample : |248815003|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13869**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 11:45**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:35**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C211.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.370	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.326	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.326	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.326	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.326	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.326	1.09
67-64-1	Acetone		6.05	ug/kg	1.80	5.43
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
74-88-4	Iodomethane	U	5.43	ug/kg	1.74	5.43
75-09-2	Methylene chloride	U	5.43	ug/kg	2.17	5.43
75-15-0	Carbon disulfide	U	5.43	ug/kg	1.36	5.43
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.326	1.09
78-93-3	2-Butanone	U	5.43	ug/kg	1.63	5.43
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.326	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.359	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.326	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.326	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.326	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.326	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.326	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.359	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.326	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.326	1.09
108-10-1	4-Methyl-2-pentanone	U	5.43	ug/kg	1.36	5.43
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.326	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.326	1.09
591-78-6	2-Hexanone	U	5.43	ug/kg	1.63	5.43
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.326	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.326	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.326	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.326	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.326	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13869**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 11:45**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:35**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C211.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.326	1.09
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.326	2.17
95-47-6	o-Xylene	U	1.09	ug/kg	0.326	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.326	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.326	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.326	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.326	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.326	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.326	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.326	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.326	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.326	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.326	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.326	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.43	ug/kg	1.74	5.43
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C211.D
Acq On : 16 Mar 2010 11:45 am
Operator : CDS1
InstName : VOA5
Sample : |248815004|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 17 11:04:03 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1657622	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.139	11.142	1.000	117	1206537	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	568488	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.387	1.000	96	1657622	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.139	11.139	1.000	117	1206537	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	568488	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	200384	43.45	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 86.90%					
43) Toluene-d8	9.721	9.721	0.873	98	1074985	46.32	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 92.64%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	831369	52.24	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 104.48%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.889	4.900	0.583	50	1395	Below Cal		61
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.866	5.866	0.699	59	1037	N.D.		
9) Acetone	6.166	6.170	0.735	43	32706	5.57	ug/L	96
10) 1,1-Dichloroethylene	0.000	6.152	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.464	6.460	0.771	41	2219	N.D.		
13) Methyl acetate	6.258	6.361	0.746	43	123	N.D.		
14) Carbon disulfide	6.435	6.435	0.767	76	797	N.D.		
15) Methylene chloride	6.541	6.538	0.780	84	5513	Below Cal		96
16) tert-Butyl methyl ether	0.000	6.637	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.711	0.000		0	N.D.		
18) Vinyl acetate	6.800	6.969	0.811	43	112	N.D.		
19) 1,1-Dichloroethane	0.000	7.072	0.000		0	N.D.		
20) 2-Butanone	7.454	7.450	0.889	43	140	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.510	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.715	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.903	0.000		0	N.D.		
26) Cyclohexane	0.000	7.928	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.002	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.232	0.000		0	N.D.		
31) Benzene	8.189	8.200	0.976	78	124	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D.	d	
33) n-Butyl alcohol	0.000	8.373	0.000		0m	N.D.	d	
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.829	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C211.D
Acq On : 16 Mar 2010 11:45 am
Operator : CDS1
InstName : VOA5
Sample : |248815004|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 17 11:04:03 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	9.109	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	9.678	9.484	1.154	75	107	N.D.	
42)	4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44)	Toluene	9.791	9.788	0.879	91	1232	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47)	2-Hexanone	10.276	10.276	0.923	43	224	N.D.	
48)	1,3-Dichloropropane	0.000	10.361	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52)	Chlorobenzene	0.000	11.170	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54)	Ethylbenzene	11.178	11.178	1.003	91	586	N.D.	
55)	m,p-Xylenes	0.000	11.277	0.000		0	N.D.	
56)	o-Xylene	0.000	11.697	0.000		0	N.D.	
57)	Styrene	0.000	11.715	0.000		0	N.D.	
59)	Bromoform	0.000	12.002	0.000		0	N.D.	
60)	Isopropylbenzene	12.260	12.012	0.914	105	421	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64)	Bromobenzene	0.000	12.465	0.000		0	N.D.	
65)	n-Propylbenzene	12.408	12.415	0.925	91	1193	N.D.	
66)	1,3,5-Trimethylbenzene	12.543	12.560	0.935	105	110	N.D.	
67)	2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68)	4-Chlorotoluene	12.695	12.698	0.946	91	1013	N.D.	
69)	tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	12.946	12.956	0.965	105	106	N.D.	
71)	sec-Butylbenzene	0.000	13.116	0.000		0	N.D.	
72)	4-Isopropyltoluene	13.222	13.229	0.986	119	920	N.D.	
73)	1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	13.430	13.441	1.001	146	115	N.D.	
75)	n-Butylbenzene	13.660	13.653	1.018	91	883	N.D.	
76)	1,2-Dichlorobenzene	0.000	13.855	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	15.612	15.612	1.164	180	274	N.D.	
79)	Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80)	Naphthalene	15.988	15.988	1.192	128	3731	N.D.	
81)	1,2,3-Trichlorobenzene	0.000	16.291	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85)	Acrolein	0.000	6.078	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87)	Isopropyl Alcohol	6.149	6.160	0.733	45	139	N.D.	
88)	Allyl chloride	6.425	6.421	0.766	41	122	N.D.	
89)	tert-Butyl Alcohol	0.000	6.457	0.000		0	N.D.	
90)	Acrylonitrile	0.000	6.740	0.000		0	N.D.	
91)	Isopropyl ether	0.000	6.916	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94)	Ethyl acetate	7.454	7.380	0.889	43	140	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C211.D
Acq On : 16 Mar 2010 11:45 am
Operator : CDS1
InstName : VOA5
Sample : |248815004|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 17 11:04:03 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.578	0.000		0	N.D.	
96) Methacrylonitrile	7.722	7.677	0.921	41	127	N.D.	
97) Tetrahydrofuran	7.708	7.708	0.919	42	374	N.D.	
98) Isobutyl alcohol	7.931	7.854	0.946	41	107	N.D.	
99) Methyl tert-amyl ether	0.000	8.119	0.000		0	N.D.	
100) Methyl methacrylate	0.000	8.798	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	8.953	0.000		0	N.D.	
102) 2-Nitropropane	0.000	9.339	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	9.855	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	12.133	0.000		0	N.D.	
108) Cyclohexanone	0.000	12.263	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	12.408	0.000		0	N.D.	
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.579	13.565	1.012	91	2044	N.D.	
112) bis(2-Chloroisopropyl)...	13.922	13.925	1.038	45	231	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C211.D
Acq On : 16 Mar 2010 11:45 am
Operator : CDS1
InstName : VOA5
Sample : |248815004|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 17 11:04:03 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

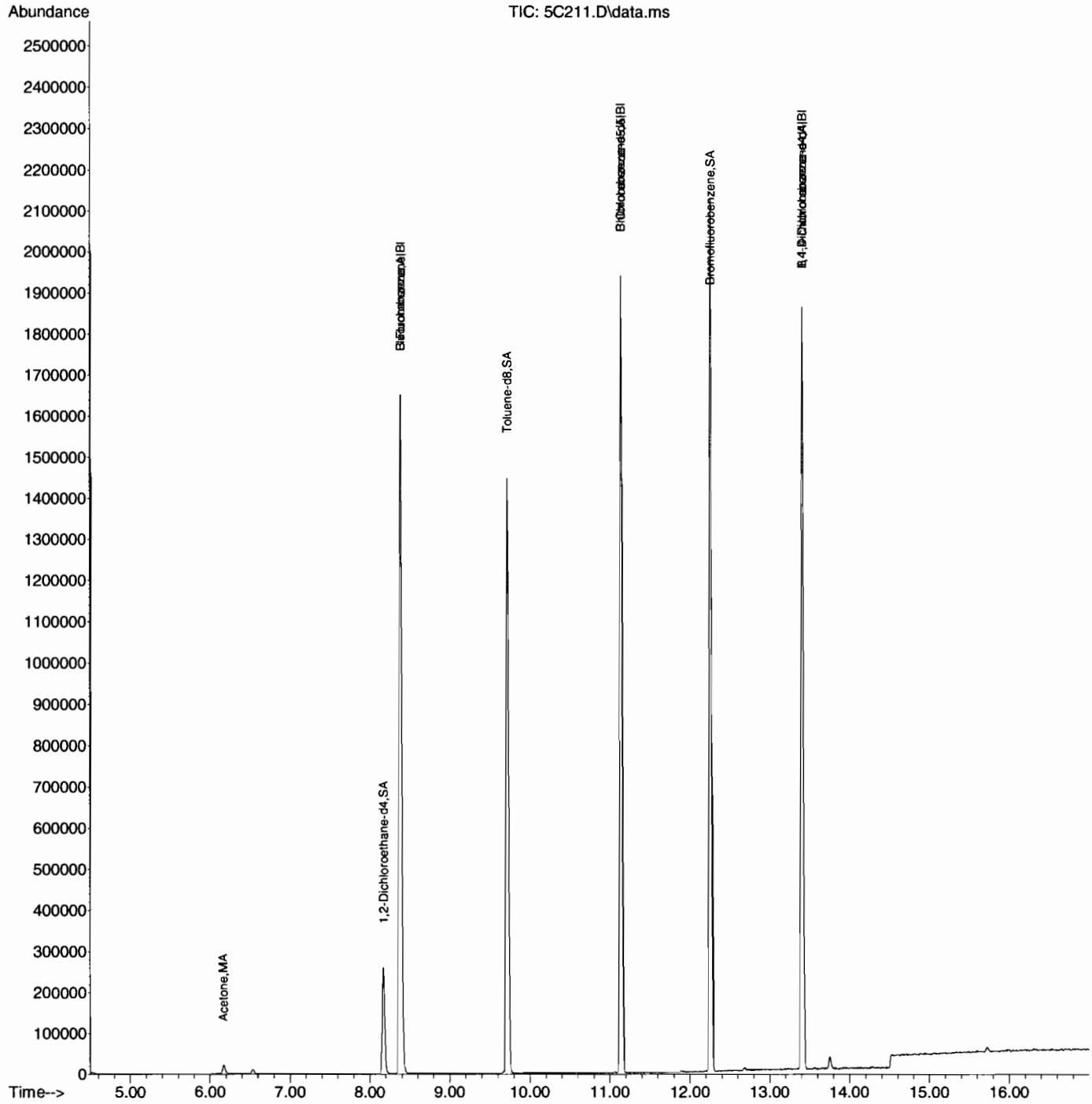

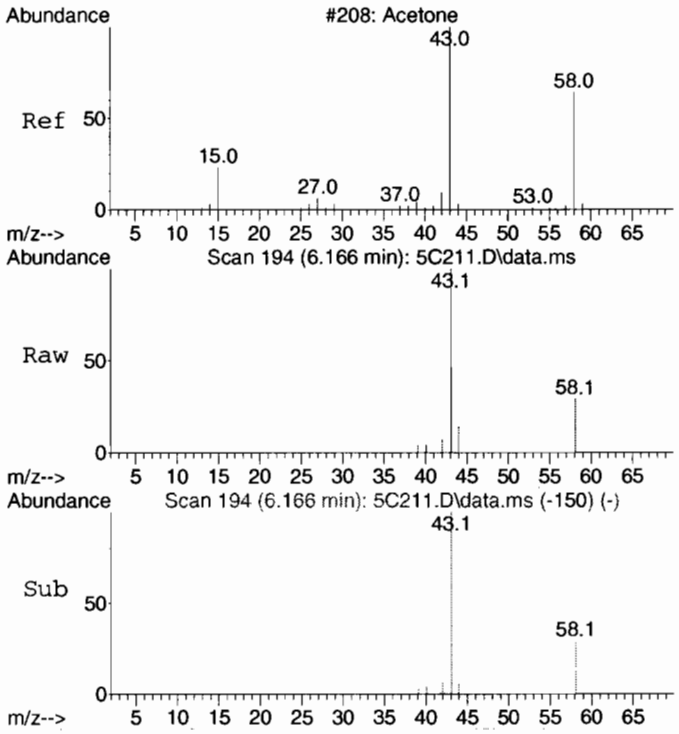

#9
Acetone
Concen: 5.57 ug/L
RT: 6.166 min Scan# 194
Delta R.T. -0.004 min
Lab File: 5C211.D
Acq: 16 Mar 2010 11:45 am

Tgt Ion: 43 Resp: 32706

Ion	Ratio	Lower	Upper
43	100		
58	29.3	1.7	61.7

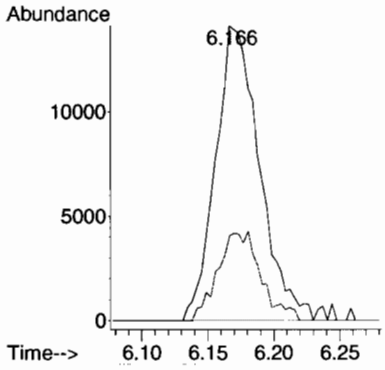

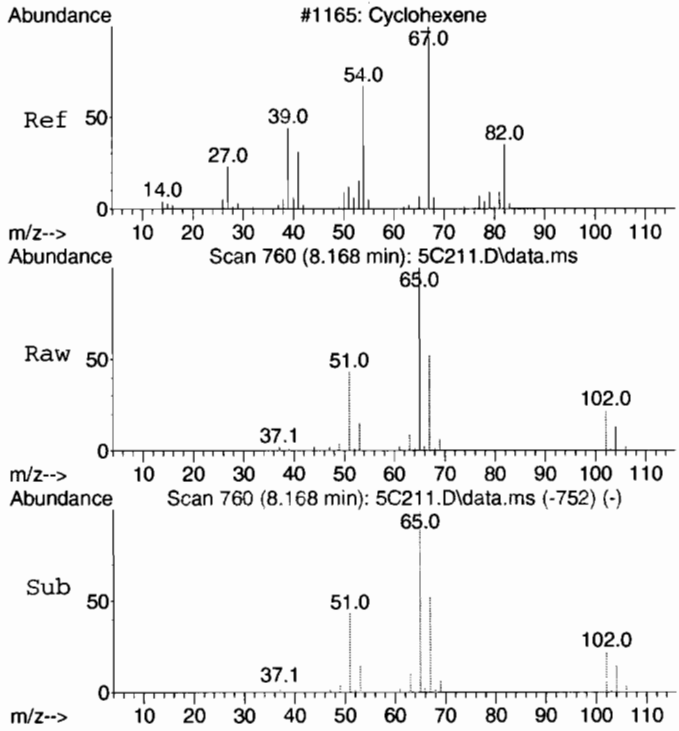

#32 BEFORE analyst DELETION
Cyclohexene
Concen: 9.11 ug/L
RT: 8.168 min Scan# 760
Delta R.T. -0.078 min
Lab File: 5C211.D
Acq: 16 Mar 2010 11:45 am

Tgt Ion: 67 Resp: 95240

Ion	Ratio	Lower	Upper
67	100		
54	0.0	47.0	107.0#

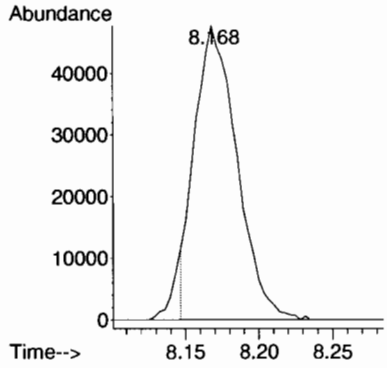

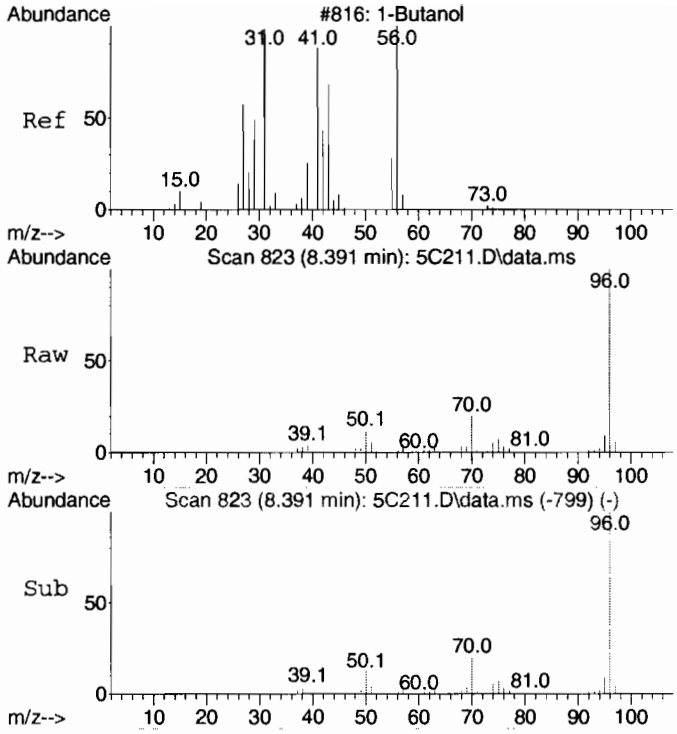

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 69.69 ug/L
RT: 8.391 min Scan# 823
Delta R.T. 0.018 min
Lab File: 5C211.D
Acq: 16 Mar 2010 11:45 am

Tgt Ion: 56 Resp: 9284

Ion	Ratio	Lower	Upper
56	100		
41	1.4	40.9	100.9#
43	0.0	27.4	87.4#

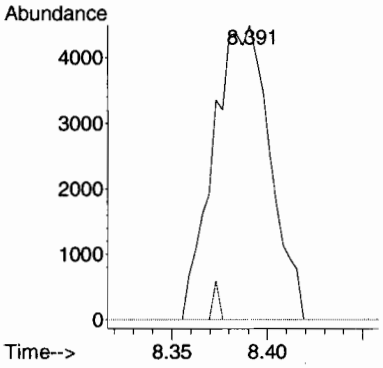

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C211.D
Acq On : 16 Mar 2010 11:45 am
Operator : CDS1
Sample : |248815004|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C211.D
Acq On : 16 Mar 2010 11:45 am
Operator : CDS1
Sample : |248815004|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13861**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 12:11**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:36**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C212.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.387	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.341	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.341	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.341	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.341	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.341	1.14
67-64-1	Acetone	U	5.69	ug/kg	1.89	5.69
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.341	1.14
74-88-4	Iodomethane	U	5.69	ug/kg	1.82	5.69
75-09-2	Methylene chloride	U	5.69	ug/kg	2.27	5.69
75-15-0	Carbon disulfide	U	5.69	ug/kg	1.42	5.69
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.341	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.341	1.14
78-93-3	2-Butanone	U	5.69	ug/kg	1.71	5.69
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.341	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.341	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.341	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.375	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.341	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.341	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.341	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.341	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.341	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.375	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.341	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.341	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.341	1.14
108-10-1	4-Methyl-2-pentanone	U	5.69	ug/kg	1.42	5.69
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.341	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.341	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.341	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.341	1.14
591-78-6	2-Hexanone	U	5.69	ug/kg	1.71	5.69
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.341	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.341	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.341	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.341	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.341	1.14

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13861**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 12:11**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:36**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C212.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.341	1.14
179601-23-1	m,p-Xylenes	U	2.27	ug/kg	0.341	2.27
95-47-6	o-Xylene	U	1.14	ug/kg	0.341	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.341	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.341	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.341	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.341	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.341	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.341	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.341	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.341	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.341	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.341	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.341	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.341	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.341	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.341	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.341	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.341	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.341	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.341	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.69	ug/kg	1.82	5.69
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.341	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.341	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C212.D
Acq On : 16 Mar 2010 12:11 pm
Operator : CDS1
InstName : VOA5
Sample : |248815005|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 17 11:04:29 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1651870	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1160414	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	472909	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.387	1.000	96	1651870	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.139	1.000	117	1160414	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	472909	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.168	8.172	0.974	65	197073	42.88	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 85.76%					
43) Toluene-d8	9.721	9.721	0.872	98	1061779	47.57	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 95.14%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	768223	58.03	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 116.06%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.869	4.900	0.581	50	965	Below Cal		75
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.866	5.866	0.699	59	1518	N.D.		
9) Acetone	6.174	6.170	0.736	43	7432	N.D.		
10) 1,1-Dichloroethylene	0.000	6.152	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.464	6.460	0.771	41	1610	N.D.		
13) Methyl acetate	6.174	6.361	0.736	43	7432	N.D.		
14) Carbon disulfide	6.435	6.435	0.767	76	133	N.D.		
15) Methylene chloride	6.534	6.538	0.779	84	7608	N.D.		
16) tert-Butyl methyl ether	0.000	6.637	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.711	0.000		0	N.D.		
18) Vinyl acetate	7.097	6.969	0.846	43	163	N.D.		
19) 1,1-Dichloroethane	0.000	7.072	0.000		0	N.D.		
20) 2-Butanone	0.000	7.450	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.510	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.715	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.903	0.000		0	N.D.		
26) Cyclohexane	0.000	7.928	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.002	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.232	0.000		0	N.D.		
31) Benzene	8.211	8.200	0.979	78	227	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D.	d	
33) n-Butyl alcohol	0.000	8.373	0.000		0m	N.D.	d	
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.829	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C212.D
Acq On : 16 Mar 2010 12:11 pm
Operator : CDS1
InstName : VOA5
Sample : |248815005|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 17 11:04:29 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	9.109	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000	9.484	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44)	Toluene	9.788	9.788	0.878	91	2228	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47)	2-Hexanone	0.000	10.276	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000	10.361	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52)	Chlorobenzene	0.000	11.170	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54)	Ethylbenzene	11.174	11.178	1.003	91	719	N.D.	
55)	m,p-Xylenes	0.000	11.277	0.000		0	N.D.	
56)	o-Xylene	0.000	11.697	0.000		0	N.D.	
57)	Styrene	0.000	11.715	0.000		0	N.D.	
59)	Bromoform	0.000	12.002	0.000		0	N.D.	
60)	Isopropylbenzene	12.256	12.012	0.914	105	651	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64)	Bromobenzene	0.000	12.465	0.000		0	N.D.	
65)	n-Propylbenzene	12.405	12.415	0.925	91	1600	N.D.	
66)	1,3,5-Trimethylbenzene	12.553	12.560	0.936	105	371	N.D.	
67)	2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68)	4-Chlorotoluene	12.688	12.698	0.946	91	1469	N.D.	
69)	tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	12.956	12.956	0.966	105	402	N.D.	
71)	sec-Butylbenzene	13.130	13.116	0.979	105	120	N.D.	
72)	4-Isopropyltoluene	13.232	13.229	0.987	119	1653	N.D.	
73)	1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	13.430	13.441	1.001	146	247	N.D.	
75)	n-Butylbenzene	13.646	13.653	1.017	91	374	N.D.	
76)	1,2-Dichlorobenzene	0.000	13.855	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	15.605	15.612	1.163	180	114	N.D.	
79)	Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80)	Naphthalene	15.981	15.988	1.191	128	2908	N.D.	
81)	1,2,3-Trichlorobenzene	0.000	16.291	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85)	Acrolein	0.000	6.078	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	6.160	0.000		0	N.D.	
88)	Allyl chloride	6.464	6.421	0.771	41	1610	N.D.	
89)	tert-Butyl Alcohol	0.000	6.457	0.000		0	N.D.	
90)	Acrylonitrile	0.000	6.740	0.000		0	N.D.	
91)	Isopropyl ether	7.097	6.916	0.846	45	6721	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	7.093	7.192	0.846	59	215	N.D.	
94)	Ethyl acetate	0.000	7.380	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C212.D
Acq On : 16 Mar 2010 12:11 pm
Operator : CDS1
InstName : VOA5
Sample : |248815005|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 17 11:04:29 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	7.578	0.000		0	N.D.	
96)	Methacrylonitrile	7.698	7.677	0.918	41	216	N.D.	
97)	Tetrahydrofuran	7.708	7.708	0.919	42	113	N.D.	
98)	Isobutyl alcohol	7.698	7.854	0.918	41	216	N.D.	
99)	Methyl tert-amyl ether	0.000	8.119	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	8.798	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	8.953	0.000		0	N.D.	
102)	2-Nitropropane	0.000	9.339	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	9.855	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	12.133	0.000		0	N.D.	
108)	Cyclohexanone	0.000	12.263	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	12.408	0.000		0	N.D.	
110)	Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111)	Benzyl chloride	13.558	13.565	1.011	91	1534	N.D.	
112)	bis(2-Chloroisopropyl)...	13.943	13.925	1.040	45	112	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C212.D
Acq On : 16 Mar 2010 12:11 pm
Operator : CDS1
InstName : VOA5
Sample : |248815005|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 17 11:04:29 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

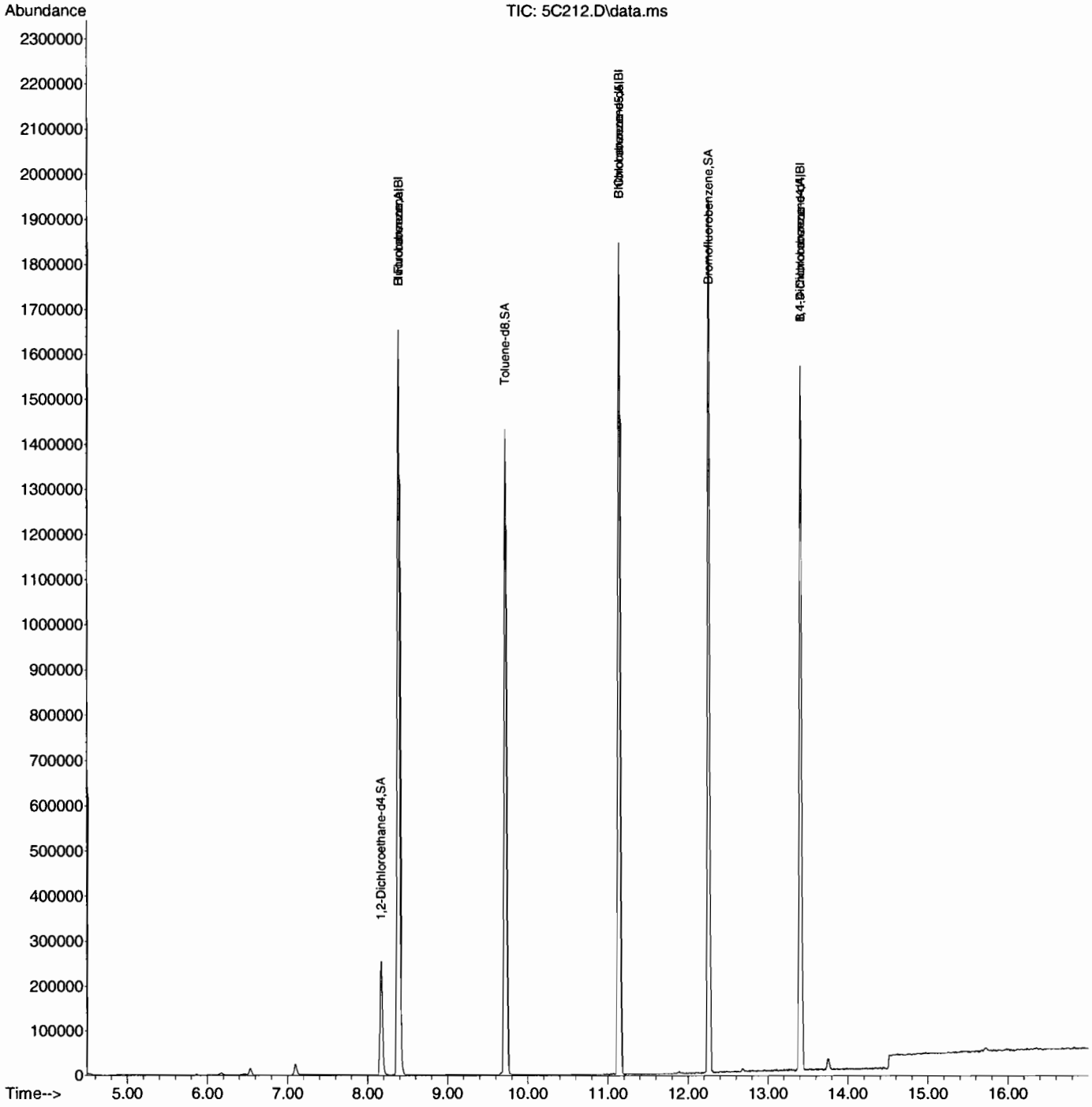

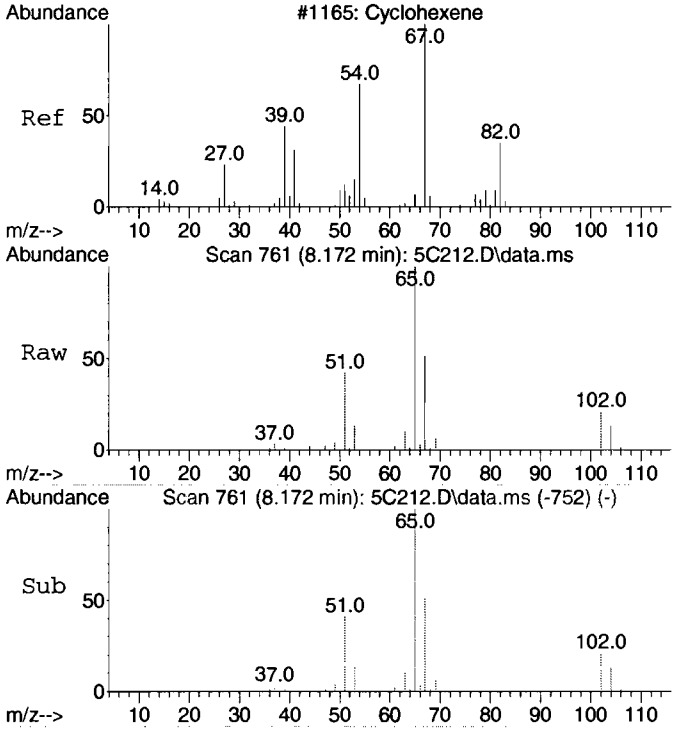

#32 BEFORE analyst DELETION
Cyclohexene
Concen: 9.11 ug/L
RT: 8.172 min Scan# 761
Delta R.T. -0.074 min
Lab File: 5C212.D
Acq: 16 Mar 2010 12:11 pm

Tgt Ion: 67 Resp: 94907

Ion	Ratio	Lower	Upper
67	100		
54	0.0	47.0	107.0#

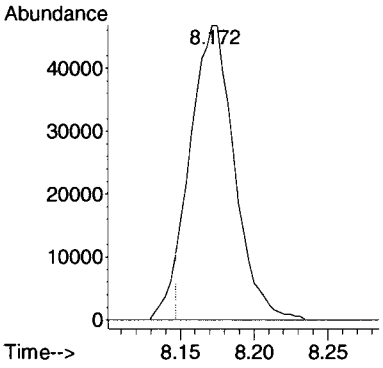

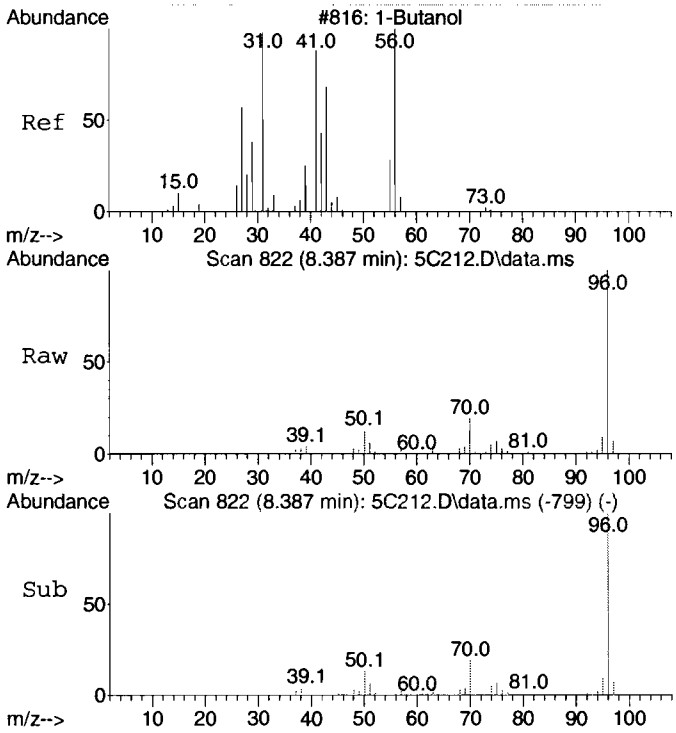

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 71.82 ug/L
RT: 8.387 min Scan# 822
Delta R.T. 0.014 min
Lab File: 5C212.D
Acq: 16 Mar 2010 12:11 pm

Tgt Ion: 56 Resp: 9746

Ion	Ratio	Lower	Upper
56	100		
41	0.0	40.9	100.9#
43	0.0	27.4	87.4#

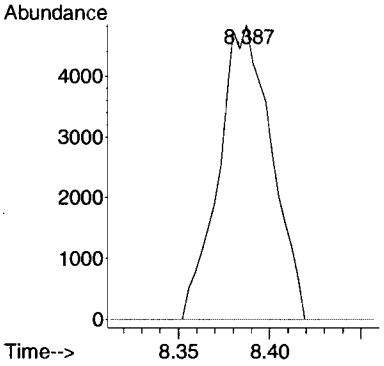

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C212.D
Acq On : 16 Mar 2010 12:11 pm
Operator : CDS1
Sample : |248815005|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C212.D
Acq On : 16 Mar 2010 12:11 pm
Operator : CDS1
Sample : |248815005|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13866**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 12:38**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:37**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.366	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.323	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.323	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.323	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.323	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.323	1.08
67-64-1	Acetone	U	5.38	ug/kg	1.79	5.38
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
74-88-4	Iodomethane	U	5.38	ug/kg	1.72	5.38
75-09-2	Methylene chloride	U	5.38	ug/kg	2.15	5.38
75-15-0	Carbon disulfide	U	5.38	ug/kg	1.35	5.38
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.323	1.08
78-93-3	2-Butanone	U	5.38	ug/kg	1.61	5.38
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.323	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.355	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.323	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.323	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.323	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.323	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.323	1.08
79-01-6	Trichloroethylene	J	0.893	ug/kg	0.355	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.323	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.323	1.08
108-10-1	4-Methyl-2-pentanone	U	5.38	ug/kg	1.35	5.38
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.323	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.323	1.08
591-78-6	2-Hexanone	U	5.38	ug/kg	1.61	5.38
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.323	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.323	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.323	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.323	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.323	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13866**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 12:38**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:37**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.323	1.08
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.323	2.15
95-47-6	o-Xylene	U	1.08	ug/kg	0.323	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.323	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.323	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.323	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.323	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.323	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.323	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.323	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.323	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.323	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.323	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.323	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.38	ug/kg	1.72	5.38
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C213.D
Acq On : 16 Mar 2010 12:38 pm
Operator : CDS1
InstName : VOA5
Sample : |248815006|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 17 11:04:58 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1668613	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1191854	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	511591	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.387	1.000	96	1668613	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.139	1.000	117	1191854	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	511591	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.168	8.172	0.974	65	200506	43.19	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 86.38%					
43) Toluene-d8	9.721	9.721	0.872	98	1074771	46.88	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 93.76%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	799786	55.85	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 111.70%					
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	5.021	4.900	0.599	50	2073	Below Cal		49
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.866	5.866	0.699	59	1176	N.D.		
9) Acetone	6.170	6.170	0.736	43	2934	Below Cal		72
10) 1,1-Dichloroethylene	0.000	6.152	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.464	6.460	0.771	41	137	N.D.		
13) Methyl acetate	6.206	6.361	0.740	43	110	N.D.		
14) Carbon disulfide	6.439	6.435	0.768	76	483	N.D.		
15) Methylene chloride	6.545	6.538	0.780	84	6049	Below Cal		97
16) tert-Butyl methyl ether	0.000	6.637	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.711	0.000		0	N.D.		
18) Vinyl acetate	6.800	6.969	0.811	43	394	N.D.		
19) 1,1-Dichloroethane	0.000	7.072	0.000		0	N.D.		
20) 2-Butanone	0.000	7.450	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.510	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.715	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	7.899	7.903	0.942	97	1846	N.D.		
26) Cyclohexane	0.000	7.928	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.002	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.232	0.000		0	N.D.		
31) Benzene	8.207	8.200	0.978	78	259	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D. d		
33) n-Butyl alcohol	0.000	8.373	0.000		0m	N.D. d		
34) Trichloroethylene	8.684	8.677	1.035	95	4491	0.83	ug/L	96
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.829	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C213.D
Acq On : 16 Mar 2010 12:38 pm
Operator : CDS1
InstName : VOA5
Sample : |248815006|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 17 11:04:58 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	9.109	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000	9.484	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44)	Toluene	9.777	9.788	0.877	91	2833	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47)	2-Hexanone	0.000	10.276	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000	10.361	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52)	Chlorobenzene	0.000	11.170	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54)	Ethylbenzene	11.202	11.178	1.005	91	125	N.D.	
55)	m,p-Xylenes	0.000	11.277	0.000		0	N.D.	
56)	o-Xylene	0.000	11.697	0.000		0	N.D.	
57)	Styrene	0.000	11.715	0.000		0	N.D.	
59)	Bromoform	0.000	12.002	0.000		0	N.D.	
60)	Isopropylbenzene	12.253	12.012	0.914	105	579	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64)	Bromobenzene	0.000	12.465	0.000		0	N.D.	
65)	n-Propylbenzene	12.412	12.415	0.925	91	1273	N.D.	
66)	1,3,5-Trimethylbenzene	12.553	12.560	0.936	105	115	N.D.	
67)	2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68)	4-Chlorotoluene	12.695	12.698	0.946	91	718	N.D.	
69)	tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	12.956	12.956	0.966	105	379	N.D.	
71)	sec-Butylbenzene	13.123	13.116	0.978	105	125	N.D.	
72)	4-Isopropyltoluene	13.331	13.229	0.994	119	522	N.D.	
73)	1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	0.000	13.441	0.000		0	N.D.	
75)	n-Butylbenzene	13.660	13.653	1.018	91	448	N.D.	
76)	1,2-Dichlorobenzene	0.000	13.855	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	15.612	15.612	1.164	180	145	N.D.	
79)	Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80)	Naphthalene	15.981	15.988	1.191	128	3524	N.D.	
81)	1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	255	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85)	Acrolein	0.000	6.078	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	6.160	0.000		0	N.D.	
88)	Allyl chloride	6.464	6.421	0.771	41	137	N.D.	
89)	tert-Butyl Alcohol	0.000	6.457	0.000		0	N.D.	
90)	Acrylonitrile	0.000	6.740	0.000		0	N.D.	
91)	Isopropyl ether	0.000	6.916	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94)	Ethyl acetate	0.000	7.380	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C213.D
Acq On : 16 Mar 2010 12:38 pm
Operator : CDS1
InstName : VOA5
Sample : |248815006|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 17 11:04:58 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.578	0.000		0	N.D.	
96) Methacrylonitrile	7.716	7.677	0.920	41	244	N.D.	
97) Tetrahydrofuran	7.705	7.708	0.919	42	217	N.D.	
98) Isobutyl alcohol	7.740	7.854	0.923	41	237	N.D.	
99) Methyl tert-amyl ether	0.000	8.119	0.000		0	N.D.	
100) Methyl methacrylate	0.000	8.798	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	8.953	0.000		0	N.D.	
102) 2-Nitropropane	9.275	9.339	1.106	43	113	N.D.	
104) Ethyl methacrylate	0.000	9.855	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	12.133	0.000		0	N.D.	
108) Cyclohexanone	0.000	12.263	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	12.408	0.000		0	N.D.	
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.551	13.565	1.010	91	169	N.D.	
112) bis(2-Chloroisopropyl)...	13.922	13.925	1.038	45	115	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C213.D
Acq On : 16 Mar 2010 12:38 pm
Operator : CDS1
InstName : VOA5
Sample : |248815006|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 17 11:04:58 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

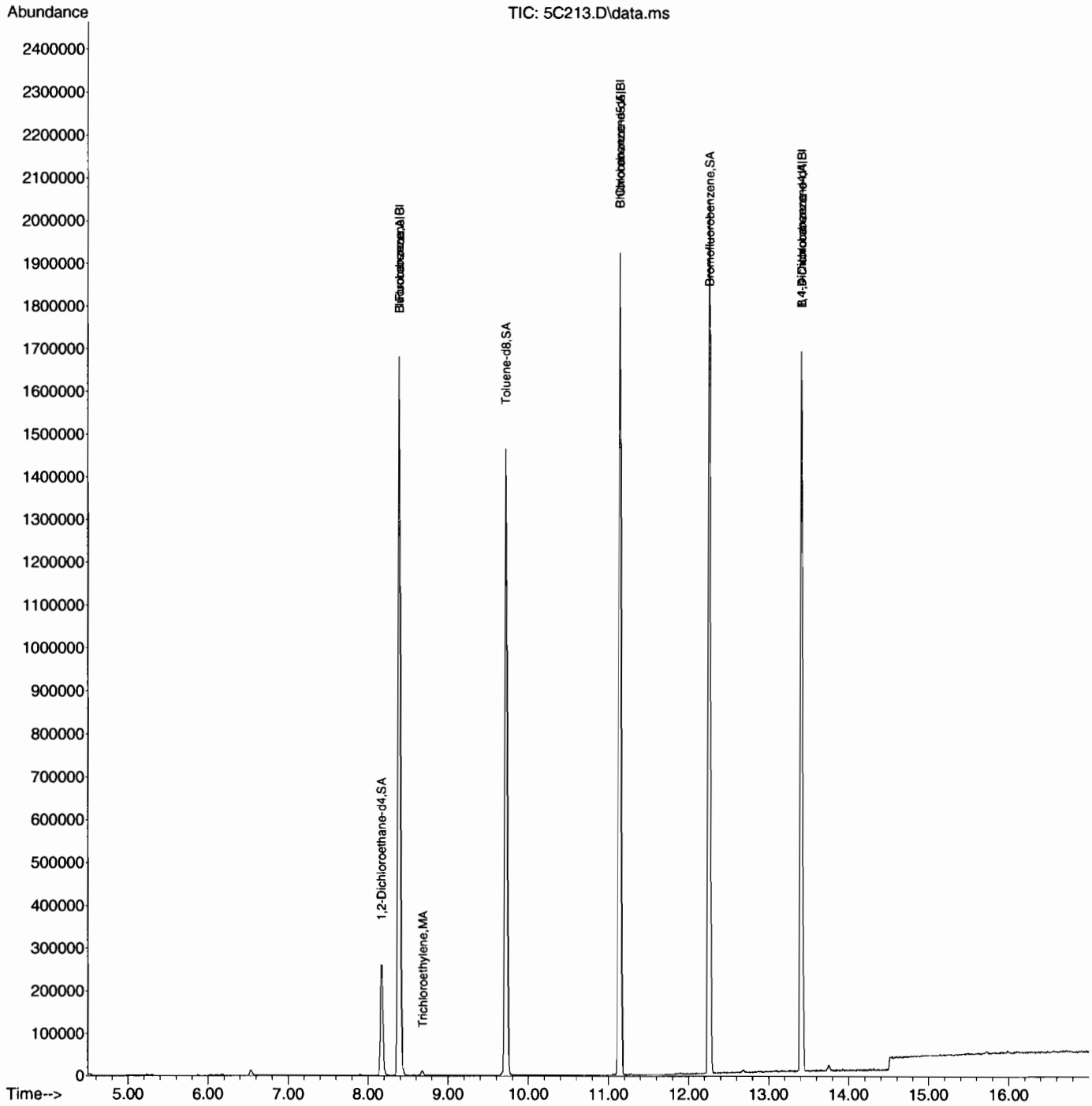

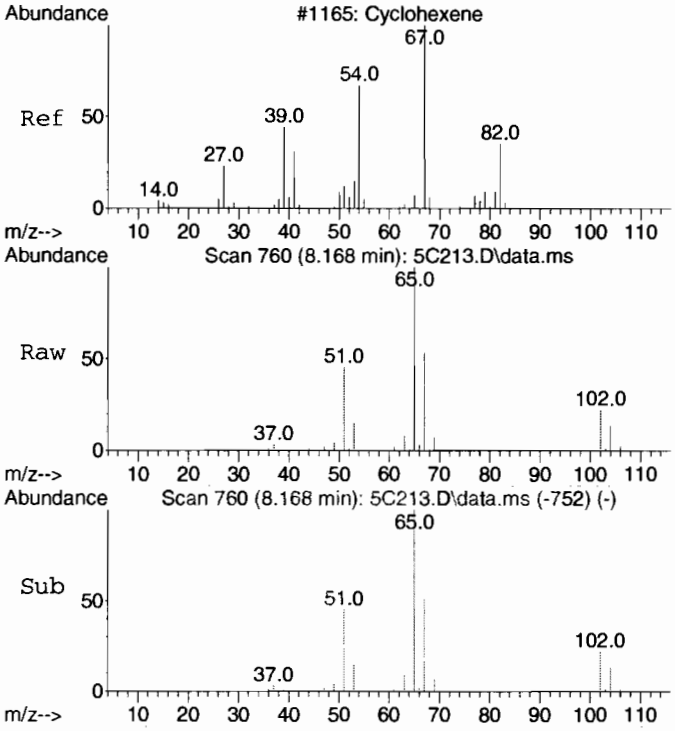

#32 BEFORE analyst DELETION
Cyclohexene
Concen: 9.27 ug/L
RT: 8.168 min Scan# 760
Delta R.T. -0.078 min
Lab File: 5C213.D
Acq: 16 Mar 2010 12:38 pm

Tgt Ion: 67 Resp: 97594

Ion	Ratio	Lower	Upper
67	100		
54	0.0	47.0	107.0#

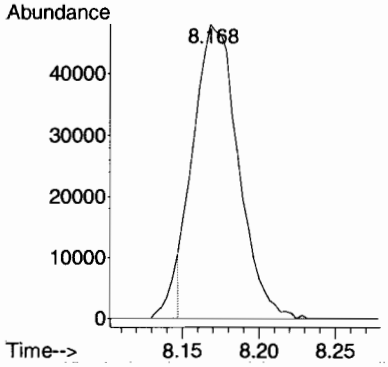

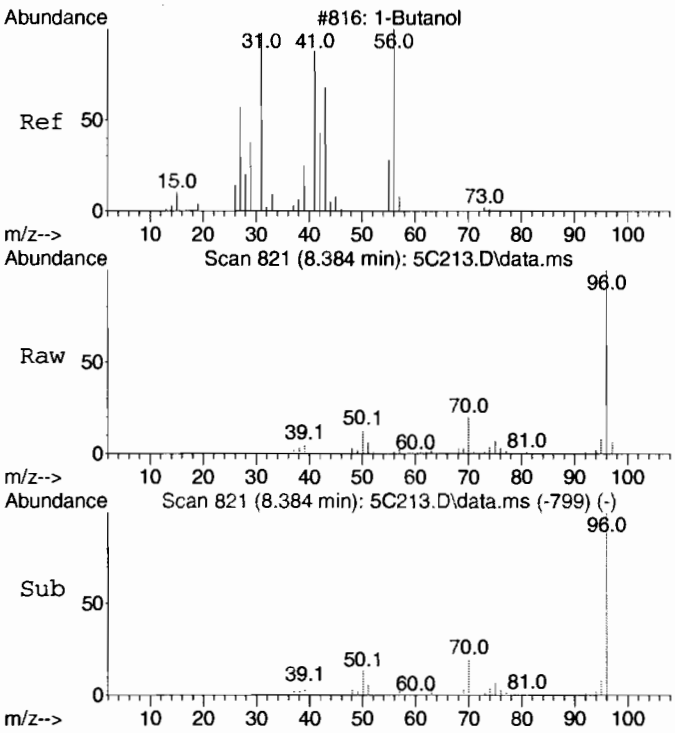

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 72.14 ug/L
RT: 8.384 min Scan# 821
Delta R.T. 0.011 min
Lab File: 5C213.D
Acq: 16 Mar 2010 12:38 pm

Tgt Ion: 56 Resp: 9920

Ion	Ratio	Lower	Upper
56	100		
41	1.3	40.9	100.9#
43	1.1	27.4	87.4#

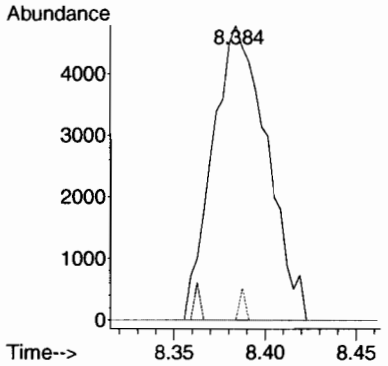

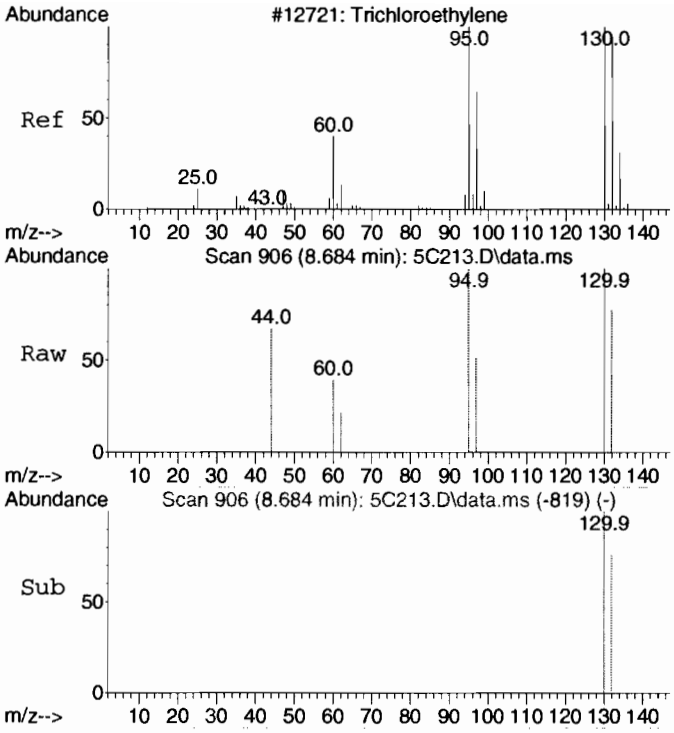

#34
Trichloroethylene
Concen: 0.83 ug/L
RT: 8.684 min Scan# 906
Delta R.T. 0.008 min
Lab File: 5C213.D
Acq: 16 Mar 2010 12:38 pm

Tgt Ion: 95 Resp: 4491

Ion	Ratio	Lower	Upper
95	100		
130	101.1	75.1	135.1
97	67.6	34.3	94.3

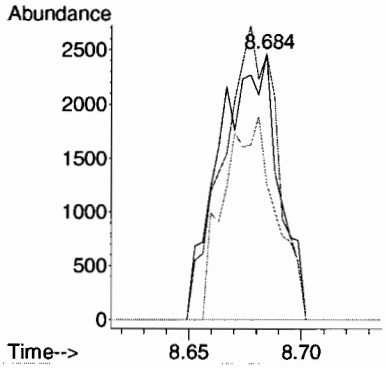

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C213.D
Acq On : 16 Mar 2010 12:38 pm
Operator : CDS1
Sample : |248815006|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C213.D
Acq On : 16 Mar 2010 12:38 pm
Operator : CDS1
Sample : |248815006|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13860**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 13:05**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:38**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C214.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.376	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.332	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.332	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.332	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.332	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.332	1.11
67-64-1	Acetone	U	5.53	ug/kg	1.83	5.53
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
74-88-4	Iodomethane	U	5.53	ug/kg	1.77	5.53
75-09-2	Methylene chloride	U	5.53	ug/kg	2.21	5.53
75-15-0	Carbon disulfide	U	5.53	ug/kg	1.38	5.53
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.332	1.11
78-93-3	2-Butanone	U	5.53	ug/kg	1.66	5.53
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.332	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.332	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.365	1.11
71-55-6	1,1,1-Trichloroethane	J	0.674	ug/kg	0.332	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.332	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.332	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.332	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.332	1.11
79-01-6	Trichloroethylene		3.88	ug/kg	0.365	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.332	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.332	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.332	1.11
108-10-1	4-Methyl-2-pentanone	U	5.53	ug/kg	1.38	5.53
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11
108-88-3	Toluene		2.55	ug/kg	0.332	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.332	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.332	1.11
591-78-6	2-Hexanone	U	5.53	ug/kg	1.66	5.53
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.332	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.332	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.332	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.332	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.332	1.11

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13860**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 13:05**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:38**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C214.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.332	1.11
179601-23-1	m,p-Xylenes	U	2.21	ug/kg	0.332	2.21
95-47-6	o-Xylene	U	1.11	ug/kg	0.332	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.332	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.332	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.332	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.332	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.332	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.332	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.332	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.332	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.332	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.332	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.332	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.332	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.332	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.53	ug/kg	1.77	5.53
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.332	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.332	1.11

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C214.D
Acq On : 16 Mar 2010 1:05 pm
Operator : CDS1
InstName : VOA5
Sample : |248815007|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 17 11:05:31 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1605802	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.139	11.142	1.000	117	1022329	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	320049	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.387	1.000	96	1605802	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.139	11.139	1.000	117	1022329	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	320049	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	194772	43.60	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 87.20%					
43) Toluene-d8	9.721	9.721	0.873	98	973364	49.50	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 99.00%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	614058	68.54	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 137.08%#					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.940	4.900	0.589	50	2430	Below Cal		85
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.867	5.866	0.699	59	1484	N.D.		
9) Acetone	6.181	6.170	0.737	43	2362	Below Cal		51
10) 1,1-Dichloroethylene	0.000	6.152	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.457	6.460	0.770	41	1806	N.D.		
13) Methyl acetate	6.181	6.361	0.737	43	2362	N.D.		
14) Carbon disulfide	6.442	6.435	0.768	76	500	N.D.		
15) Methylene chloride	6.542	6.538	0.780	84	12766	N.D.		
16) tert-Butyl methyl ether	0.000	6.637	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.711	0.000		0	N.D.		
18) Vinyl acetate	6.814	6.969	0.812	43	139	N.D.		
19) 1,1-Dichloroethane	0.000	7.072	0.000		0	N.D.		
20) 2-Butanone	7.447	7.450	0.888	43	137	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.510	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.715	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	7.899	7.903	0.942	97	4458	0.61	ug/L	80
26) Cyclohexane	7.921	7.928	0.944	56	278	N.D.		
27) 1,1-Dichloropropene	0.000	8.002	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.232	0.000		0	N.D.		
31) Benzene	8.207	8.200	0.978	78	227	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D. d		
33) n-Butyl alcohol	0.000	8.373	0.000		0m	N.D. d		
34) Trichloroethylene	8.681	8.677	1.035	95	18204	3.51	ug/L	98
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.826	8.829	1.052	83	116	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C214.D
Acq On : 16 Mar 2010 1:05 pm
Operator : CDS1
InstName : VOA5
Sample : |248815007|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 17 11:05:31 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	0.000	9.109	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	9.484	0.000		0	N.D.		
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.		
44) Toluene	9.788	9.788	0.879	91	48045	2.31	ug/L	99
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.		
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.		
47) 2-Hexanone	10.283	10.276	0.923	43	114	N.D.		
48) 1,3-Dichloropropane	0.000	10.361	0.000		0	N.D.		
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.		
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.		
52) Chlorobenzene	0.000	11.170	0.000		0	N.D.		
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.		
54) Ethylbenzene	11.199	11.178	1.005	91	106	N.D.		
55) m,p-Xylenes	11.280	11.277	1.013	106	374	N.D.		
56) o-Xylene	0.000	11.697	0.000		0	N.D.		
57) Styrene	11.719	11.715	1.052	104	109	N.D.		
59) Bromoform	0.000	12.002	0.000		0	N.D.		
60) Isopropylbenzene	12.253	12.012	0.914	105	376	N.D.		
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.		
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.		
64) Bromobenzene	12.698	12.465	0.947	156	108	N.D.		
65) n-Propylbenzene	12.412	12.415	0.925	91	1217	N.D.		
66) 1,3,5-Trimethylbenzene	12.571	12.560	0.937	105	110	N.D.		
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.		
68) 4-Chlorotoluene	12.695	12.698	0.946	91	702	N.D.		
69) tert-Butylbenzene	0.000	12.900	0.000		0	N.D.		
70) 1,2,4-Trimethylbenzene	12.960	12.956	0.966	105	644	N.D.		
71) sec-Butylbenzene	13.112	13.116	0.978	105	227	N.D.		
72) 4-Isopropyltoluene	13.218	13.229	0.985	119	1386	N.D.		
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.		
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	116	N.D.		
75) n-Butylbenzene	13.660	13.653	1.018	91	1113	N.D.		
76) 1,2-Dichlorobenzene	0.000	13.855	0.000		0	N.D.		
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	15.620	15.612	1.165	180	251	N.D.		
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.		
80) Naphthalene	15.981	15.988	1.191	128	2582	N.D.		
81) 1,2,3-Trichlorobenzene	16.284	16.291	1.214	180	135	N.D.		
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	0.000	6.078	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	6.160	0.000		0	N.D.		
88) Allyl chloride	6.457	6.421	0.770	41	1806	N.D.		
89) tert-Butyl Alcohol	0.000	6.457	0.000		0	N.D.		
90) Acrylonitrile	0.000	6.740	0.000		0	N.D.		
91) Isopropyl ether	7.093	6.916	0.846	45	1632	N.D.		
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.		
94) Ethyl acetate	7.447	7.380	0.888	43	137	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C214.D
Acq On : 16 Mar 2010 1:05 pm
Operator : CDS1
InstName : VOA5
Sample : |248815007|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 17 11:05:31 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	7.578	0.000		0	N.D.	
96)	Methacrylonitrile	7.701	7.677	0.918	41	255	N.D.	
97)	Tetrahydrofuran	7.708	7.708	0.919	42	127	N.D.	
98)	Isobutyl alcohol	7.921	7.854	0.944	41	488	N.D.	
99)	Methyl tert-amyl ether	0.000	8.119	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	8.798	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	8.953	0.000		0	N.D.	
102)	2-Nitropropane	0.000	9.339	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	9.855	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	12.133	0.000		0	N.D.	
108)	Cyclohexanone	0.000	12.263	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	12.408	0.000		0	N.D.	
110)	Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111)	Benzyl chloride	13.565	13.565	1.011	91	1169	N.D.	
112)	bis(2-Chloroisopropy1)...	13.922	13.925	1.038	45	110	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C214.D
Acq On : 16 Mar 2010 1:05 pm
Operator : CDS1
InstName : VOA5
Sample : |248815007|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 17 11:05:31 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

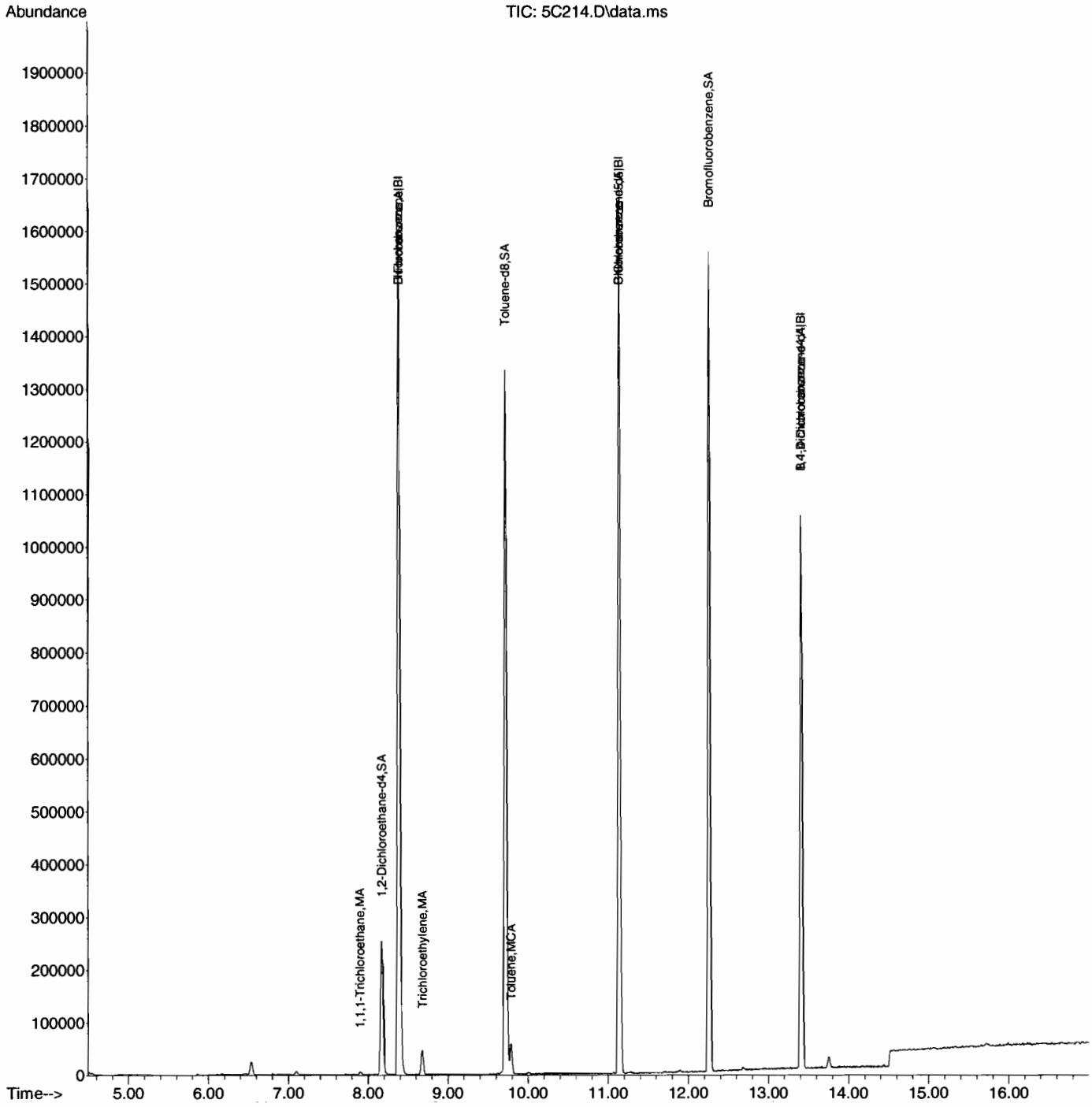

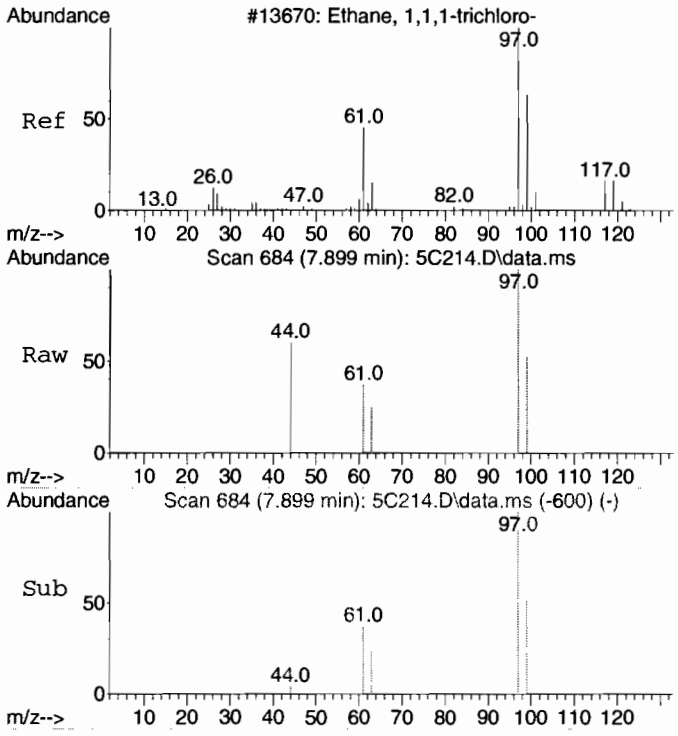

#25
1,1,1-Trichloroethane
Concen: 0.61 ug/L
RT: 7.899 min Scan# 684
Delta R.T. -0.004 min
Lab File: 5C214.D
Acq: 16 Mar 2010 1:05 pm

Tgt Ion: 97 Resp: 4458

Ion	Ratio	Lower	Upper
97	100		
99	59.2	33.1	93.1
61	20.3	16.7	76.7

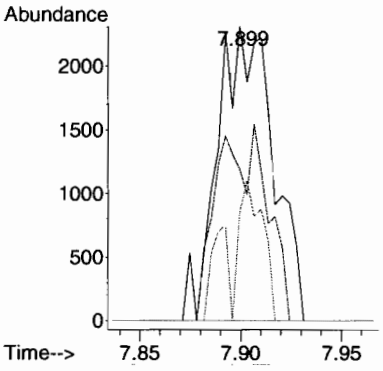

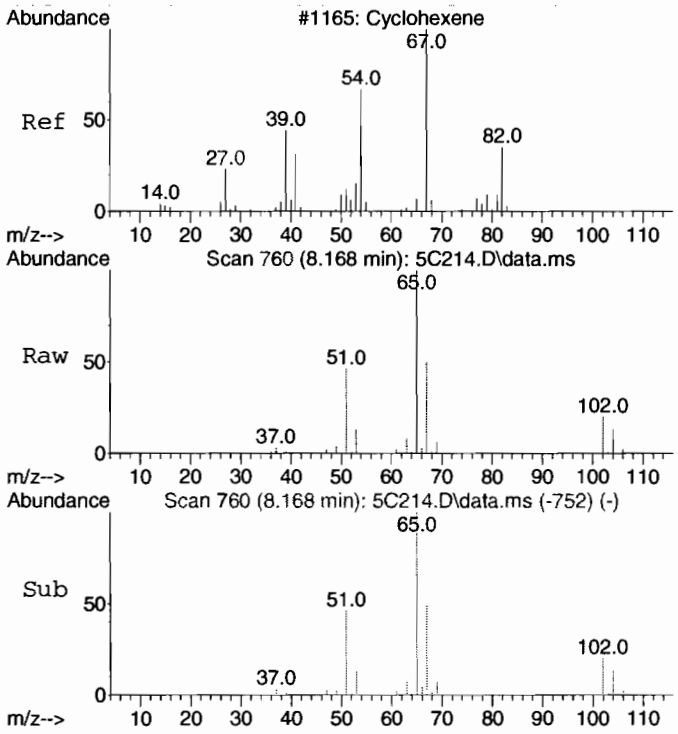

#32 BEFORE analyst DELETION
Cyclohexene
Concen: 9.45 ug/L
RT: 8.168 min Scan# 760
Delta R.T. -0.078 min
Lab File: 5C214.D
Acq: 16 Mar 2010 1:05 pm

Tgt Ion: 67 Resp: 95758

Ion	Ratio	Lower	Upper
67	100		
54	0.0	47.0	107.0#

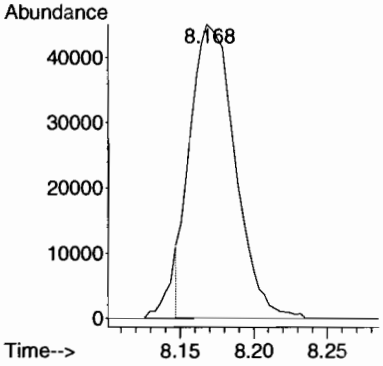

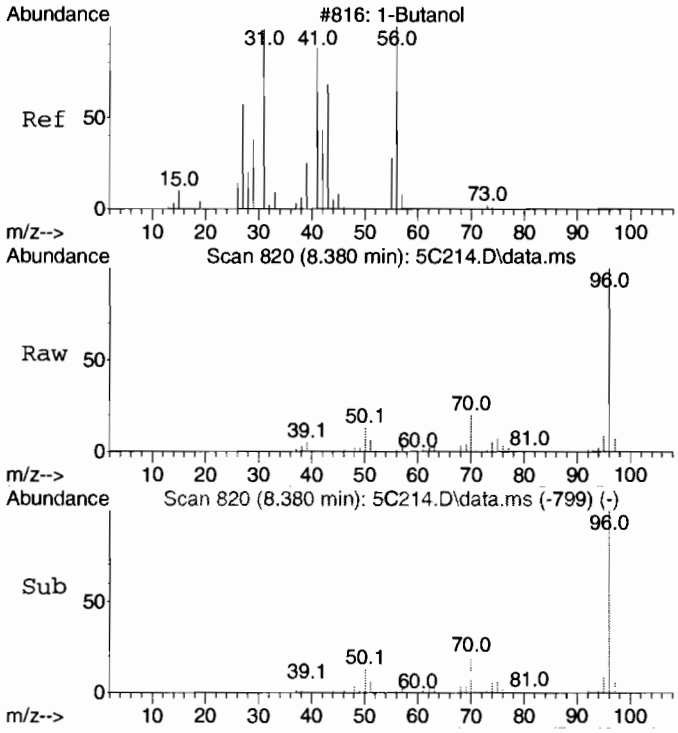

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 71.47 ug/L
RT: 8.380 min Scan# 820
Delta R.T. 0.007 min
Lab File: 5C214.D
Acq: 16 Mar 2010 1:05 pm

Tgt Ion: 56 Resp: 9395

Ion	Ratio	Lower	Upper
56	100		
41	3.6	40.9	100.9#
43	0.0	27.4	87.4#

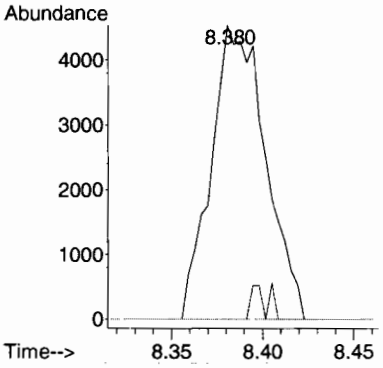

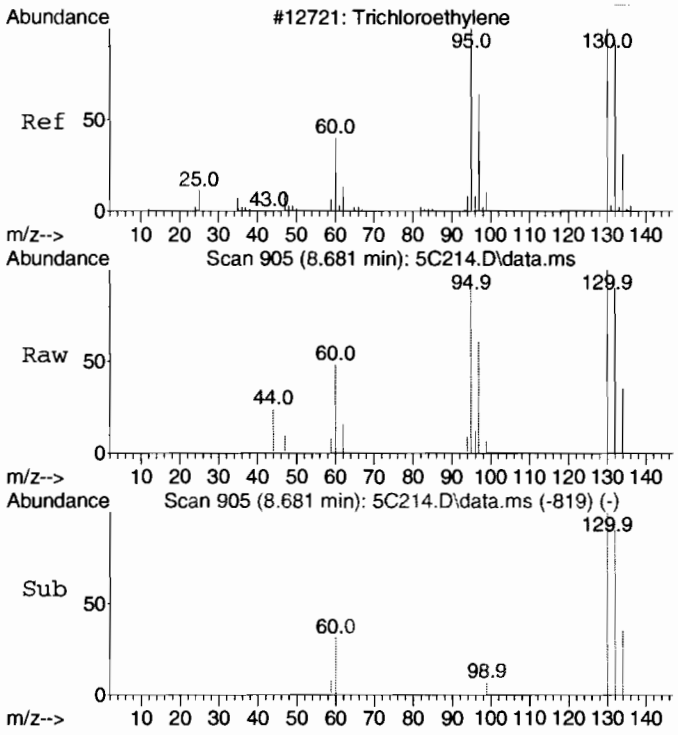

#34
Trichloroethylene
Concen: 3.51 ug/L
RT: 8.681 min Scan# 905
Delta R.T. 0.004 min
Lab File: 5C214.D
Acq: 16 Mar 2010 1:05 pm

Tgt Ion: 95 Resp: 18204

Ion	Ratio	Lower	Upper
95	100		
130	102.7	75.1	135.1
97	62.2	34.3	94.3

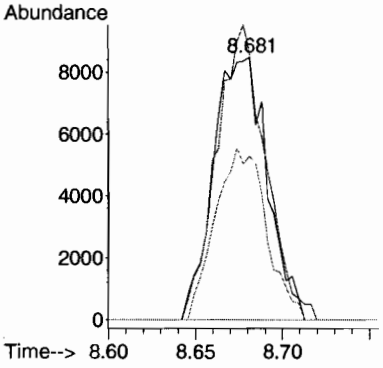

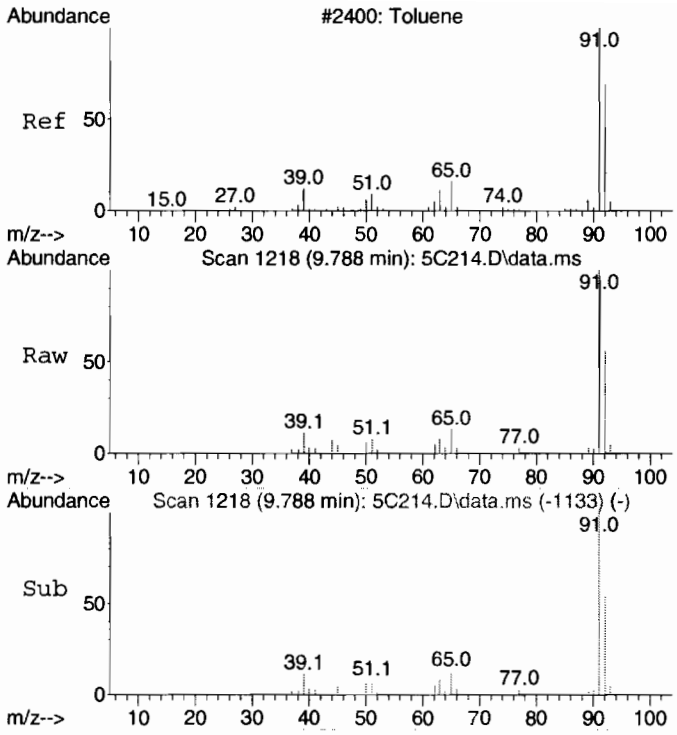

#44
Toluene
Concen: 2.31 ug/L
RT: 9.788 min Scan# 1218
Delta R.T. -0.000 min
Lab File: 5C214.D
Acq: 16 Mar 2010 1:05 pm

Tgt Ion: 91 Resp: 48045

Ion	Ratio	Lower	Upper
91	100		
92	58.7	29.3	89.3

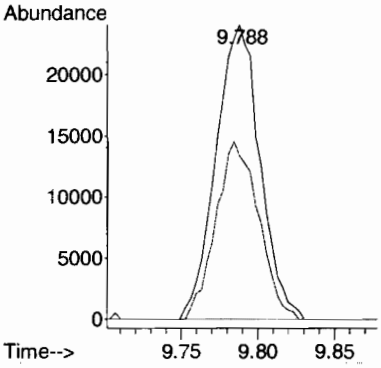

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C214.D
Acq On : 16 Mar 2010 1:05 pm
Operator : CDS1
Sample : |248815007|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C214.D
Acq On : 16 Mar 2010 1:05 pm
Operator : CDS1
Sample : |248815007|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13865**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 13:31**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:39**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C215.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.371	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.328	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.328	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.328	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.328	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.328	1.09
67-64-1	Acetone	U	5.46	ug/kg	1.81	5.46
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
74-88-4	Iodomethane	U	5.46	ug/kg	1.75	5.46
75-09-2	Methylene chloride	U	5.46	ug/kg	2.18	5.46
75-15-0	Carbon disulfide	U	5.46	ug/kg	1.37	5.46
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.328	1.09
78-93-3	2-Butanone	U	5.46	ug/kg	1.64	5.46
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.328	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.328	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.328	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.360	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.328	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.328	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.328	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.328	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.328	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.360	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.328	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.328	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.328	1.09
108-10-1	4-Methyl-2-pentanone	U	5.46	ug/kg	1.37	5.46
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.328	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.328	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.328	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.328	1.09
591-78-6	2-Hexanone	U	5.46	ug/kg	1.64	5.46
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.328	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.328	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.328	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.328	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.328	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13865**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 13:31**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:39**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C215.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.328	1.09
179601-23-1	m,p-Xylenes	U	2.18	ug/kg	0.328	2.18
95-47-6	o-Xylene	U	1.09	ug/kg	0.328	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.328	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.328	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.328	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.328	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.328	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.328	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.328	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.328	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.328	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.328	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.328	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.328	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.328	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.328	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.328	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.328	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.46	ug/kg	1.75	5.46
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.328	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.328	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C215.D
Acq On : 16 Mar 2010 1:31 pm
Operator : CDS1
InstName : VOA5
Sample : |248815008|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 17 11:06:03 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1687293	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1242218	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	594991	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.387	1.000	96	1687293	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.139	1.000	117	1242218	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	594991	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	209699	44.67	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 89.34%					
43) Toluene-d8	9.721	9.721	0.872	98	1097604	45.94	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 91.88%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	870520	52.27	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 104.54%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.910	4.900	0.585	50	2718	Below Cal		77
4) Vinyl chloride	5.031	5.041	0.600	62	151	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.867	5.866	0.699	59	984	N.D.		
9) Acetone	6.177	6.170	0.736	43	1482	Below Cal	#	43
10) 1,1-Dichloroethylene	0.000	6.152	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.460	6.460	0.770	41	559	N.D.		
13) Methyl acetate	6.202	6.361	0.739	43	115	N.D.		
14) Carbon disulfide	6.435	6.435	0.767	76	442	N.D.		
15) Methylene chloride	6.531	6.538	0.779	84	5892	Below Cal		97
16) tert-Butyl methyl ether	0.000	6.637	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.711	0.000		0	N.D.		
18) Vinyl acetate	0.000	6.969	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.072	0.000		0	N.D.		
20) 2-Butanone	0.000	7.450	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.510	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.715	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.903	0.000		0	N.D.		
26) Cyclohexane	0.000	7.928	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.002	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.232	0.000		0	N.D.		
31) Benzene	8.214	8.200	0.979	78	124	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D.	d	
33) n-Butyl alcohol	0.000	8.373	0.000		0m	N.D.	d	
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.829	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C215.D
Acq On : 16 Mar 2010 1:31 pm
Operator : CDS1
InstName : VOA5
Sample : |248815008|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 17 11:06:03 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.109	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	9.484	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.791	9.788	0.879	91	1116	N.D.	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	0.000	10.276	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	10.361	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	0.000	11.170	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.178	11.178	1.003	91	223	N.D.	
55) m,p-Xylenes	0.000	11.277	0.000		0	N.D.	
56) o-Xylene	0.000	11.697	0.000		0	N.D.	
57) Styrene	0.000	11.715	0.000		0	N.D.	
59) Bromoform	0.000	12.002	0.000		0	N.D.	
60) Isopropylbenzene	12.005	12.012	0.895	105	106	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	0.000	12.465	0.000		0	N.D.	
65) n-Propylbenzene	12.415	12.415	0.926	91	278	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	12.560	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.691	12.698	0.946	91	937	N.D.	
69) tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	12.956	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	13.116	0.000		0	N.D.	
72) 4-Isopropyltoluene	13.321	13.229	0.993	119	498	N.D.	
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	13.437	13.441	1.002	146	118	N.D.	
75) n-Butylbenzene	13.643	13.653	1.017	91	499	N.D.	
76) 1,2-Dichlorobenzene	0.000	13.855	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	15.612	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.988	15.988	1.192	128	3677	N.D.	
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	125	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.078	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.160	0.000		0	N.D.	
88) Allyl chloride	6.446	6.421	0.769	41	114	N.D.	
89) tert-Butyl Alcohol	0.000	6.457	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.740	0.000		0	N.D.	
91) Isopropyl ether	7.097	6.916	0.846	45	106	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	0.000	7.380	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C215.D
Acq On : 16 Mar 2010 1:31 pm
Operator : CDS1
InstName : VOA5
Sample : |248815008|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 17 11:06:03 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	7.578	0.000		0	N.D.	
96)	Methacrylonitrile	7.701	7.677	0.918	41	121	N.D.	
97)	Tetrahydrofuran	7.712	7.708	0.919	42	555	N.D.	
98)	Isobutyl alcohol	7.733	7.854	0.922	41	106	N.D.	
99)	Methyl tert-amyl ether	0.000	8.119	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	8.798	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	8.953	0.000		0	N.D.	
102)	2-Nitropropane	0.000	9.339	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	9.855	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	12.133	0.000		0	N.D.	
108)	Cyclohexanone	12.341	12.263	0.920	42	106	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	12.408	0.000		0	N.D.	
110)	Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111)	Benzyl chloride	13.568	13.565	1.012	91	1523	N.D.	
112)	bis(2-Chloroisopropyl)...	13.915	13.925	1.037	45	218	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C215.D
Acq On : 16 Mar 2010 1:31 pm
Operator : CDS1
InstName : VOA5
Sample : |248815008|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 17 11:06:03 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

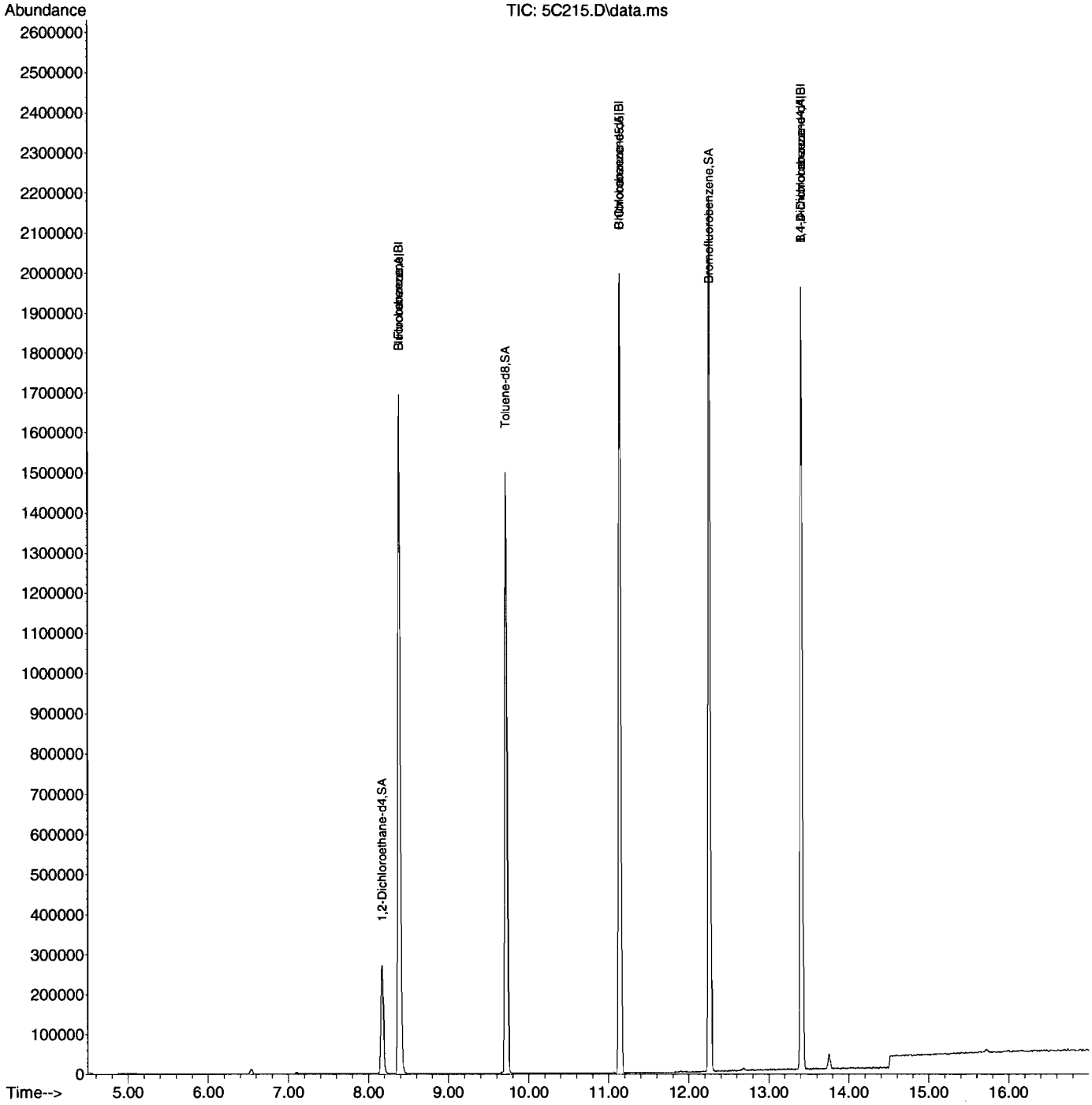

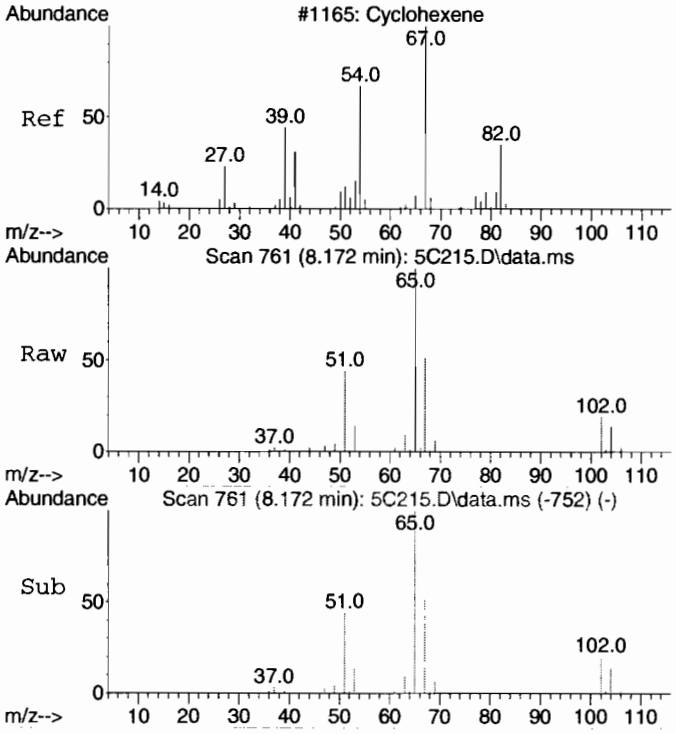

#32 BEFORE analyst DELETION
Cyclohexene
Concen: 9.59 ug/L
RT: 8.172 min Scan# 761
Delta R.T. -0.074 min
Lab File: 5C215.D
Acq: 16 Mar 2010 1:31 pm

Tgt Ion: 67 Resp: 102065

Ion	Ratio	Lower	Upper
67	100		
54	0.0	47.0	107.0#

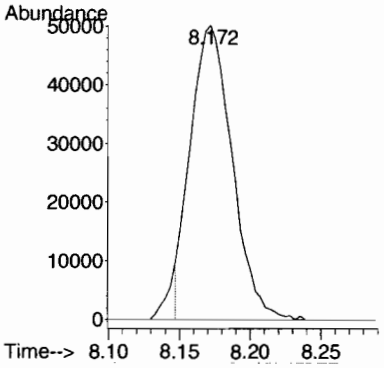

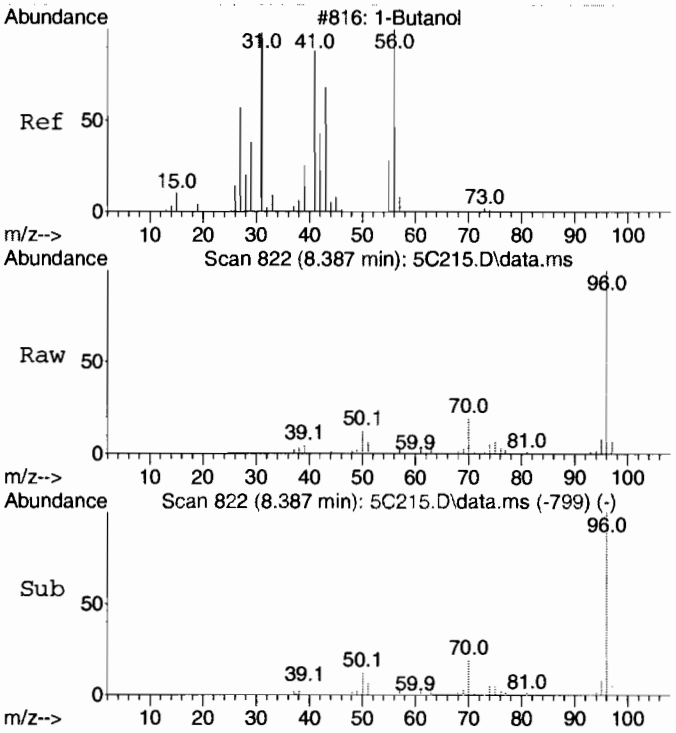

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 70.89 ug/L
RT: 8.387 min Scan# 822
Delta R.T. 0.014 min
Lab File: 5C215.D
Acq: 16 Mar 2010 1:31 pm

Tgt Ion: 56 Resp: 9735

Ion	Ratio	Lower	Upper
56	100		
41	1.1	40.9	100.9#
43	1.4	27.4	87.4#

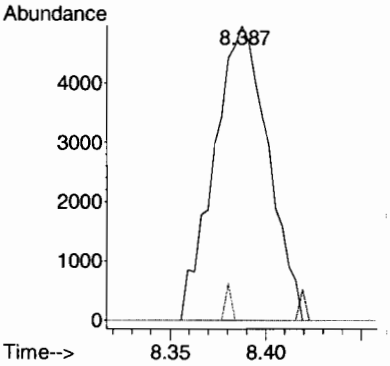

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C215.D
Acq On : 16 Mar 2010 1:31 pm
Operator : CDS1
Sample : |248815008|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C215.D
Acq On    : 16 Mar 2010   1:31 pm
Operator  : CDS1
Sample    : |248815008|965702|1|VOA|1|VOA8260BS|
Misc      : LANL 5G - SOIL
ALS Vial  : 15   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P

                                                  |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-----------------------------------------------------------------------------
```

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13868**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 13:58**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:40**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C216.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.368	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.325	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.325	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.325	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.325	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.325	1.08
67-64-1	Acetone	U	5.42	ug/kg	1.80	5.42
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
74-88-4	Iodomethane	U	5.42	ug/kg	1.73	5.42
75-09-2	Methylene chloride	U	5.42	ug/kg	2.17	5.42
75-15-0	Carbon disulfide	U	5.42	ug/kg	1.35	5.42
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.325	1.08
78-93-3	2-Butanone	U	5.42	ug/kg	1.63	5.42
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.325	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.325	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.358	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.325	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.325	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.325	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.325	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.325	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.358	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.325	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.325	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.325	1.08
108-10-1	4-Methyl-2-pentanone	U	5.42	ug/kg	1.35	5.42
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.325	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.325	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.325	1.08
591-78-6	2-Hexanone	U	5.42	ug/kg	1.63	5.42
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.325	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.325	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.325	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.325	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.325	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13868**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 13:58**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:40**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C216.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.325	1.08
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.325	2.17
95-47-6	o-Xylene	U	1.08	ug/kg	0.325	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.325	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.325	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.325	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.325	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.325	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.325	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.325	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.325	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.325	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.325	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.325	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.325	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.325	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.42	ug/kg	1.73	5.42
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.325	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.325	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C216.D
Acq On : 16 Mar 2010 1:58 pm
Operator : CDS1
InstName : VOA5
Sample : |248815009|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 17 11:06:25 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1649550	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.139	11.142	1.000	117	1183531	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	520112	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.387	1.000	96	1649550	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.139	11.139	1.000	117	1183531	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	520112	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	194530	42.39	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 84.78%					
43) Toluene-d8	9.721	9.721	0.873	98	1062818	46.69	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 93.38%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	808408	55.53	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 111.06%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.910	4.900	0.585	50	569	Below Cal	#	1
4) Vinyl chloride	5.031	5.041	0.600	62	154	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.867	5.866	0.699	59	1134	N.D.		
9) Acetone	6.170	6.170	0.736	43	1579	Below Cal	#	43
10) 1,1-Dichloroethylene	0.000	6.152	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.457	6.460	0.770	41	674	N.D.		
13) Methyl acetate	6.213	6.361	0.741	43	112	N.D.		
14) Carbon disulfide	6.432	6.435	0.767	76	249	N.D.		
15) Methylene chloride	6.531	6.538	0.779	84	5975	Below Cal		91
16) tert-Butyl methyl ether	0.000	6.637	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.711	0.000		0	N.D.		
18) Vinyl acetate	6.800	6.969	0.811	43	148	N.D.		
19) 1,1-Dichloroethane	0.000	7.072	0.000		0	N.D.		
20) 2-Butanone	0.000	7.450	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.510	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.715	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.903	0.000		0	N.D.		
26) Cyclohexane	0.000	7.928	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.002	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.232	0.000		0	N.D.		
31) Benzene	8.211	8.200	0.979	78	115	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D.	d	
33) n-Butyl alcohol	0.000	8.373	0.000		0m	N.D.	d	
34) Trichloroethylene	8.677	8.677	1.035	95	513	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.829	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C216.D
Acq On : 16 Mar 2010 1:58 pm
Operator : CDS1
InstName : VOA5
Sample : |248815009|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 17 11:06:25 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.109	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	9.484	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.791	9.788	0.879	91	3516	N.D.	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	0.000	10.276	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	10.361	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	0.000	11.170	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.174	11.178	1.003	91	920	N.D.	
55) m,p-Xylenes	0.000	11.277	0.000		0	N.D.	
56) o-Xylene	0.000	11.697	0.000		0	N.D.	
57) Styrene	0.000	11.715	0.000		0	N.D.	
59) Bromoform	0.000	12.002	0.000		0	N.D.	
60) Isopropylbenzene	0.000	12.012	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	0.000	12.465	0.000		0	N.D.	
65) n-Propylbenzene	12.412	12.415	0.925	91	462	N.D.	
66) 1,3,5-Trimethylbenzene	12.560	12.560	0.936	105	136	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.691	12.698	0.946	91	455	N.D.	
69) tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	12.978	12.956	0.968	105	219	N.D.	
71) sec-Butylbenzene	0.000	13.116	0.000		0	N.D.	
72) 4-Isopropyltoluene	13.218	13.229	0.985	119	1148	N.D.	
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	13.444	13.441	1.002	146	109	N.D.	
75) n-Butylbenzene	13.650	13.653	1.018	91	530	N.D.	
76) 1,2-Dichlorobenzene	0.000	13.855	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	15.612	15.612	1.164	180	119	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.981	15.988	1.191	128	3295	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	16.291	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.078	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.160	0.000		0	N.D.	
88) Allyl chloride	6.457	6.421	0.770	41	674	N.D.	
89) tert-Butyl Alcohol	0.000	6.457	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.740	0.000		0	N.D.	
91) Isopropyl ether	0.000	6.916	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	0.000	7.380	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C216.D
Acq On : 16 Mar 2010 1:58 pm
Operator : CDS1
InstName : VOA5
Sample : |248815009|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 17 11:06:25 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.578	0.000		0	N.D.	
96) Methacrylonitrile	7.712	7.677	0.919	41	277	N.D.	
97) Tetrahydrofuran	7.701	7.708	0.918	42	128	N.D.	
98) Isobutyl alcohol	7.864	7.854	0.938	41	166	N.D.	
99) Methyl tert-amyl ether	0.000	8.119	0.000		0	N.D.	
100) Methyl methacrylate	0.000	8.798	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	8.953	0.000		0	N.D.	
102) 2-Nitropropane	9.250	9.339	1.103	43	115	N.D.	
104) Ethyl methacrylate	0.000	9.855	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	12.133	0.000		0	N.D.	
108) Cyclohexanone	0.000	12.263	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	12.408	0.000		0	N.D.	
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.572	13.565	1.012	91	739	N.D.	
112) bis(2-Chloroisopropyl)...	13.915	13.925	1.037	45	114	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C216.D
Acq On : 16 Mar 2010 1:58 pm
Operator : CDS1
InstName : VOA5
Sample : |248815009|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 17 11:06:25 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

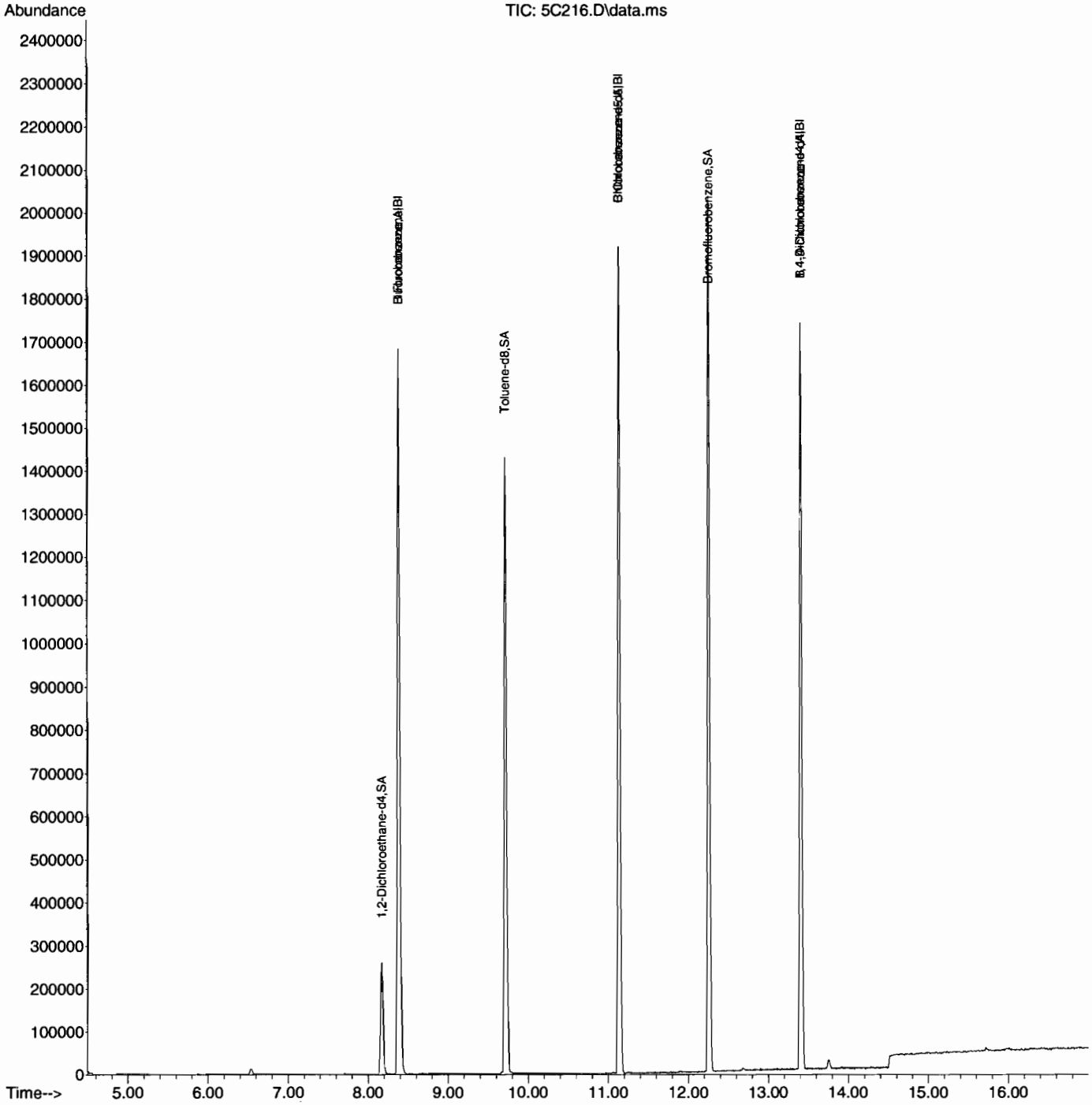

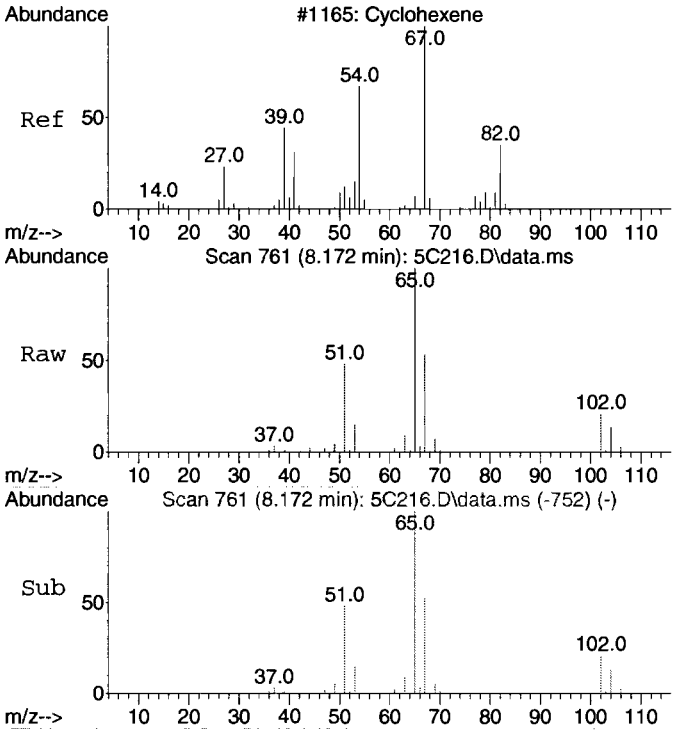

#32 BEFORE analyst DELETION
Cyclohexene
Concen: 9.18 ug/L
RT: 8.172 min Scan# 761
Delta R.T. -0.074 min
Lab File: 5C216.D
Acq: 16 Mar 2010 1:58 pm

Tgt Ion: 67 Resp: 95457

Ion	Ratio	Lower	Upper
67	100		
54	0.0	47.0	107.0#

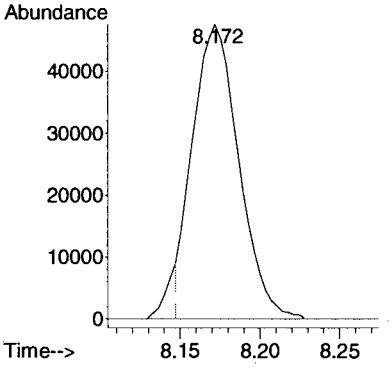

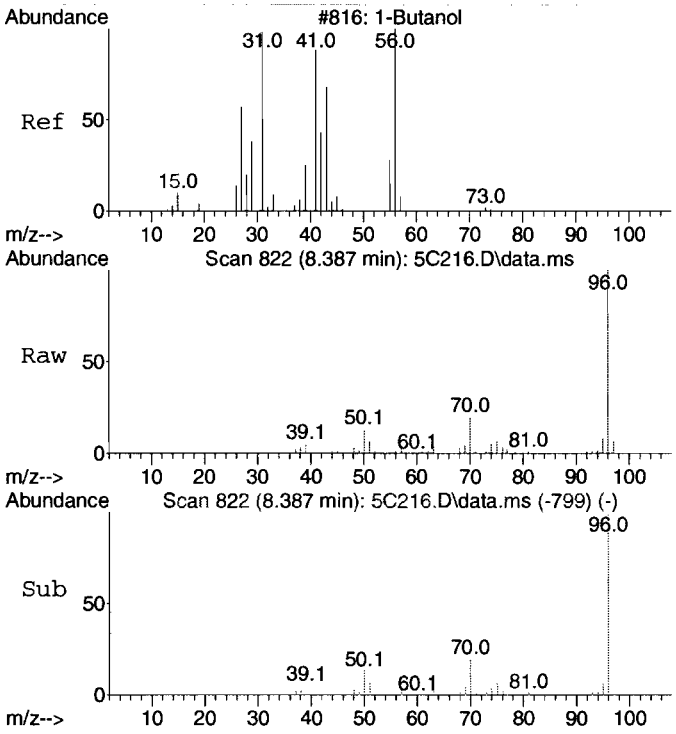

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 71.76 ug/L
RT: 8.387 min Scan# 822
Delta R.T. 0.014 min
Lab File: 5C216.D
Acq: 16 Mar 2010 1:58 pm

Tgt Ion: 56 Resp: 9718

Ion	Ratio	Lower	Upper
56	100		
41	0.0	40.9	100.9#
43	0.0	27.4	87.4#

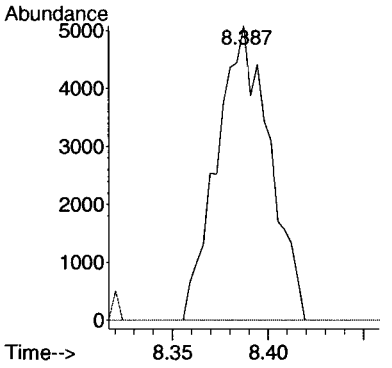

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C216.D
Acq On : 16 Mar 2010 1:58 pm
Operator : CDS1
Sample : |248815009|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C216.D
Acq On : 16 Mar 2010 1:58 pm
Operator : CDS1
Sample : |248815009|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13862**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 14:25**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:41**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C217.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.383	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.338	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.338	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.338	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.338	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.338	1.13
67-64-1	Acetone		6.06	ug/kg	1.87	5.64
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
74-88-4	Iodomethane	U	5.64	ug/kg	1.80	5.64
75-09-2	Methylene chloride	U	5.64	ug/kg	2.26	5.64
75-15-0	Carbon disulfide	U	5.64	ug/kg	1.41	5.64
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.338	1.13
78-93-3	2-Butanone	U	5.64	ug/kg	1.69	5.64
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.338	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.372	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.338	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.338	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.338	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.338	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.338	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.372	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.338	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.338	1.13
108-10-1	4-Methyl-2-pentanone	U	5.64	ug/kg	1.41	5.64
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.338	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.338	1.13
591-78-6	2-Hexanone	U	5.64	ug/kg	1.69	5.64
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.338	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.338	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.338	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.338	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.338	1.13

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13862**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 14:25**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:41**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C217.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.338	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.338	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.338	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.338	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.338	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.338	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.338	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.338	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.338	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.338	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.338	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.338	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.338	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.338	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.64	ug/kg	1.80	5.64
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C217.D
Acq On : 16 Mar 2010 2:25 pm
Operator : CDS1
InstName : VOA5
Sample : |248815010|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 17 11:06:49 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1628623	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1154158	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	485627	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.387	1.000	96	1628623	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.139	1.000	117	1154158	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	485627	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.168	8.172	0.974	65	193295	42.66	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 85.32%					
43) Toluene-d8	9.721	9.721	0.872	98	1040086	46.85	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 93.70%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	768393	56.53	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 113.06%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.880	4.900	0.582	50	1704	Below Cal		62
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.867	5.866	0.699	59	1719	N.D.		
9) Acetone	6.174	6.170	0.736	43	31217	5.37	ug/L	99
10) 1,1-Dichloroethylene	0.000	6.152	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.457	6.460	0.770	41	159	N.D.		
13) Methyl acetate	6.351	6.361	0.757	43	125	N.D.		
14) Carbon disulfide	6.439	6.435	0.768	76	379	N.D.		
15) Methylene chloride	6.542	6.538	0.780	84	7396	N.D.		
16) tert-Butyl methyl ether	0.000	6.637	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.711	0.000		0	N.D.		
18) Vinyl acetate	7.086	6.969	0.845	43	107	N.D.		
19) 1,1-Dichloroethane	0.000	7.072	0.000		0	N.D.		
20) 2-Butanone	7.447	7.450	0.888	43	391	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.510	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.715	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.903	0.000		0	N.D.		
26) Cyclohexane	0.000	7.928	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.002	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.232	0.000		0	N.D.		
31) Benzene	8.204	8.200	0.978	78	552	N.D.		
32) Cyclohexene	8.232	8.246	0.981	67	222	N.D.		
33) n-Butyl alcohol	0.000	8.373	0.000		0m	N.D.	d	
34) Trichloroethylene	8.670	8.677	1.034	95	1239	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.829	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C217.D
Acq On : 16 Mar 2010 2:25 pm
Operator : CDS1
InstName : VOA5
Sample : |248815010|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 17 11:06:49 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.109	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	9.484	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.788	9.788	0.878	91	1753	N.D.	
45) trans-1,3-Dichloroprop...	10.007	9.968	0.898	75	374	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	10.287	10.276	0.923	43	116	N.D.	
48) 1,3-Dichloropropane	0.000	10.361	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	0.000	11.170	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.178	11.178	1.003	91	644	N.D.	
55) m,p-Xylenes	0.000	11.277	0.000		0	N.D.	
56) o-Xylene	0.000	11.697	0.000		0	N.D.	
57) Styrene	0.000	11.715	0.000		0	N.D.	
59) Bromoform	0.000	12.002	0.000		0	N.D.	
60) Isopropylbenzene	12.019	12.012	0.896	105	213	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	0.000	12.465	0.000		0	N.D.	
65) n-Propylbenzene	12.483	12.415	0.931	91	820	N.D.	
66) 1,3,5-Trimethylbenzene	12.560	12.560	0.936	105	2005	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.702	12.698	0.947	91	1063	N.D.	
69) tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	12.953	12.956	0.966	105	4967	N.D.	
71) sec-Butylbenzene	13.109	13.116	0.977	105	1939	N.D.	
72) 4-Isopropyltoluene	13.165	13.229	0.982	119	1566	N.D.	
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	13.441	0.000		0	N.D.	
75) n-Butylbenzene	13.650	13.653	1.018	91	3640	N.D.	
76) 1,2-Dichlorobenzene	0.000	13.855	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	15.612	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.989	15.988	1.192	128	3932	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	16.291	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.078	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.160	0.000		0	N.D.	
88) Allyl chloride	6.414	6.421	0.765	41	107	N.D.	
89) tert-Butyl Alcohol	0.000	6.457	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.740	0.000		0	N.D.	
91) Isopropyl ether	7.100	6.916	0.847	45	4404	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	7.447	7.380	0.888	43	391	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C217.D
Acq On : 16 Mar 2010 2:25 pm
Operator : CDS1
InstName : VOA5
Sample : |248815010|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 17 11:06:49 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.578	0.000		0	N.D.	
96) Methacrylonitrile	7.723	7.677	0.921	41	242	N.D.	
97) Tetrahydrofuran	7.716	7.708	0.920	42	123	N.D.	
98) Isobutyl alcohol	7.723	7.854	0.921	41	242	N.D.	
99) Methyl tert-amyl ether	0.000	8.119	0.000		0	N.D.	
100) Methyl methacrylate	0.000	8.798	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	8.953	0.000		0	N.D.	
102) 2-Nitropropane	9.120	9.339	1.087	43	108	N.D.	
104) Ethyl methacrylate	0.000	9.855	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	12.133	0.000		0	N.D.	
108) Cyclohexanone	0.000	12.263	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	12.408	0.000		0	N.D.	
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.551	13.565	1.010	91	726	N.D.	
112) bis(2-Chloroisopropy1)...	13.908	13.925	1.037	45	225	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C217.D
Acq On : 16 Mar 2010 2:25 pm
Operator : CDS1
InstName : VOA5
Sample : |248815010|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 17 11:06:49 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

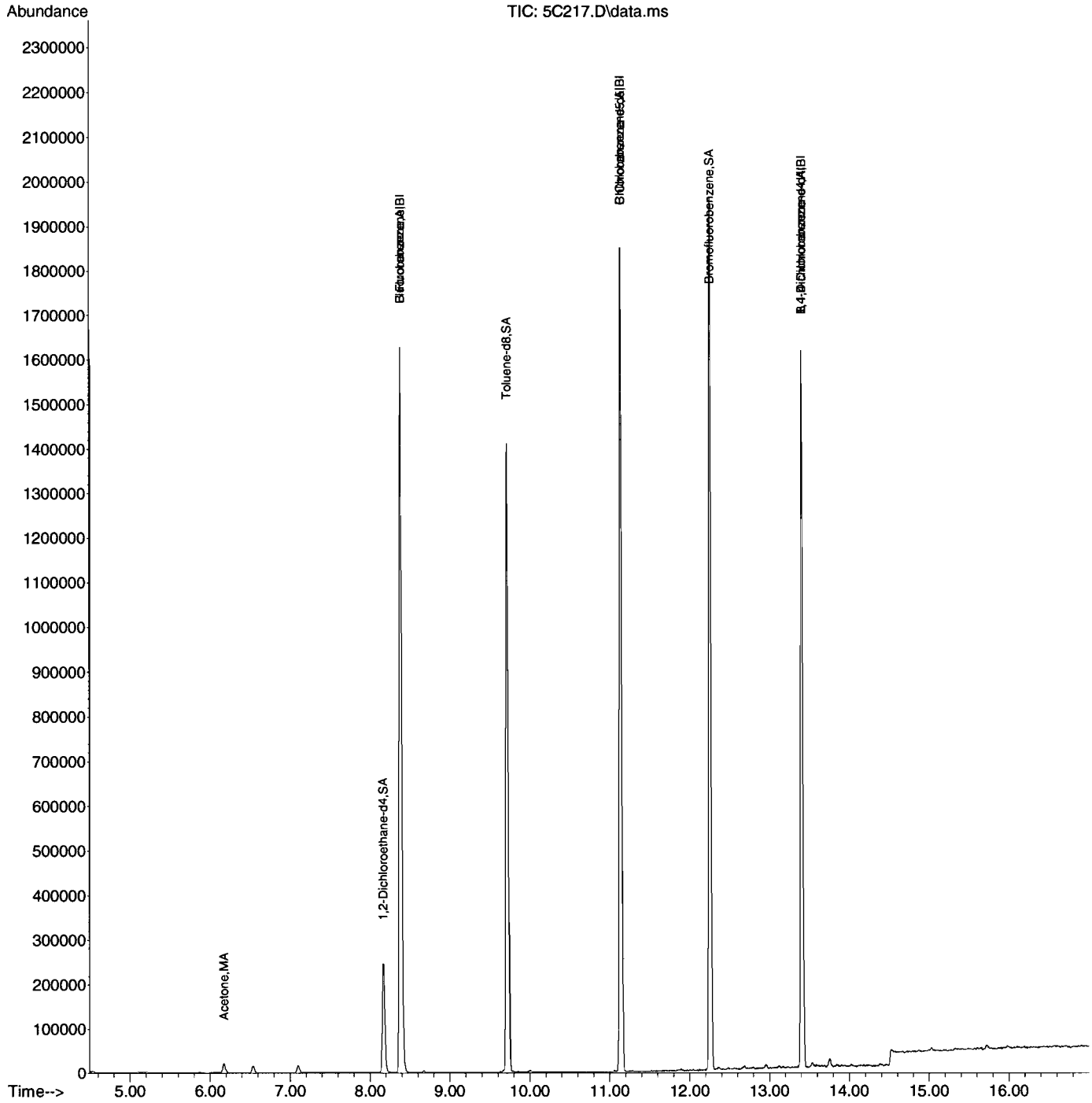

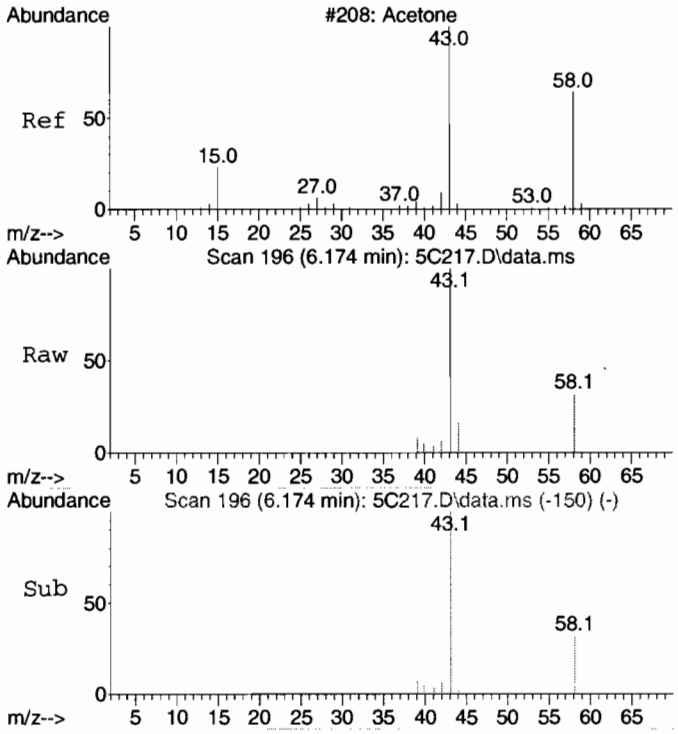

#9
Acetone
Concen: 5.37 ug/L
RT: 6.174 min Scan# 196
Delta R.T. 0.004 min
Lab File: 5C217.D
Acq: 16 Mar 2010 2:25 pm

Tgt Ion: 43 Resp: 31217

Ion	Ratio	Lower	Upper
43	100		
58	30.9	1.7	61.7

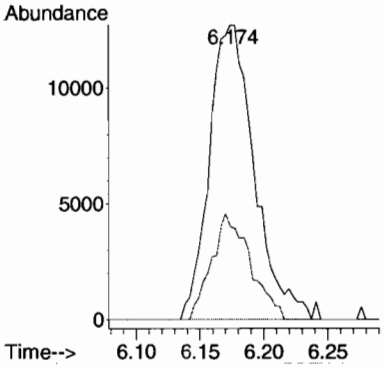

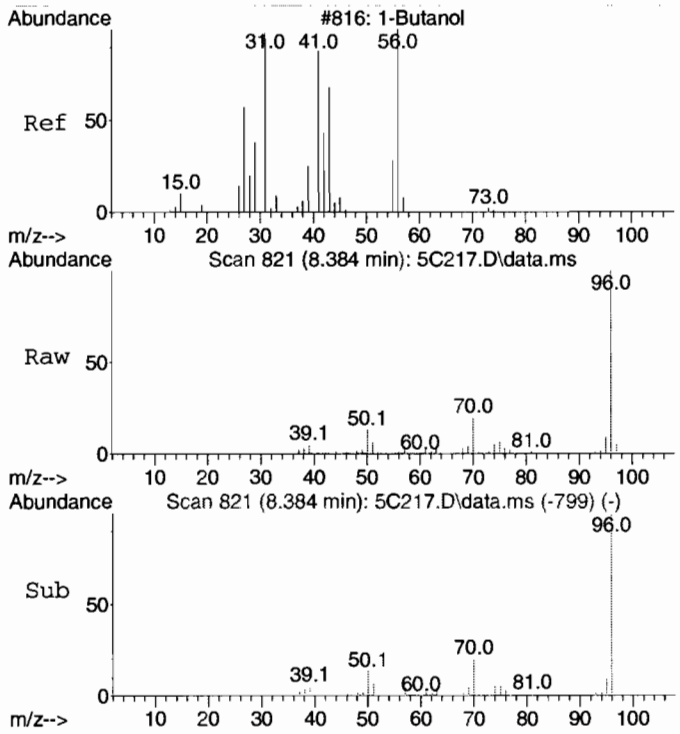

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 73.60 ug/L
RT: 8.384 min Scan# 821
Delta R.T. 0.011 min
Lab File: 5C217.D
Acq: 16 Mar 2010 2:25 pm

Tgt Ion: 56 Resp: 10014

Ion	Ratio	Lower	Upper
56	100		
41	1.2	40.9	100.9#
43	0.0	27.4	87.4#

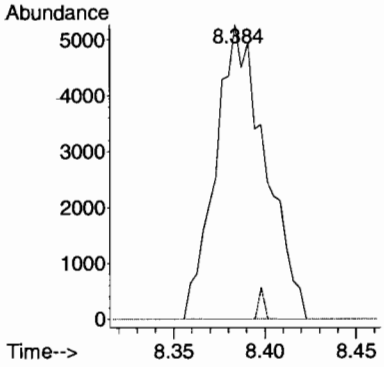

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C217.D
Acq On : 16 Mar 2010 2:25 pm
Operator : CDS1
Sample : |248815010|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C217.D
Acq On : 16 Mar 2010 2:25 pm
Operator : CDS1
Sample : |248815010|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815011**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13873**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 14:51**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:42**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C218.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.08	ug/kg	0.366	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.323	1.08
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.323	1.08
74-83-9	Bromomethane	U	1.08	ug/kg	0.323	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.323	1.08
75-69-4	Trichlorofluoromethane	U	1.08	ug/kg	0.323	1.08
67-64-1	Acetone	U	5.38	ug/kg	1.79	5.38
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
74-88-4	Iodomethane	U	5.38	ug/kg	1.72	5.38
75-09-2	Methylene chloride	U	5.38	ug/kg	2.15	5.38
75-15-0	Carbon disulfide	U	5.38	ug/kg	1.35	5.38
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.323	1.08
78-93-3	2-Butanone	U	5.38	ug/kg	1.61	5.38
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.323	1.08
594-20-7	2,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.323	1.08
74-97-5	Bromochloromethane	U	1.08	ug/kg	0.355	1.08
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.323	1.08
563-58-6	1,1-Dichloropropene	U	1.08	ug/kg	0.323	1.08
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.323	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.323	1.08
71-43-2	Benzene	U	1.08	ug/kg	0.323	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.355	1.08
78-87-5	1,2-Dichloropropane	U	1.08	ug/kg	0.323	1.08
75-27-4	Bromodichloromethane	U	1.08	ug/kg	0.323	1.08
74-95-3	Dibromomethane	U	1.08	ug/kg	0.323	1.08
108-10-1	4-Methyl-2-pentanone	U	5.38	ug/kg	1.35	5.38
10061-01-5	cis-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.323	1.08
10061-02-6	trans-1,3-Dichloropropylene	U	1.08	ug/kg	0.323	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.323	1.08
591-78-6	2-Hexanone	U	5.38	ug/kg	1.61	5.38
142-28-9	1,3-Dichloropropane	U	1.08	ug/kg	0.323	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.323	1.08
124-48-1	Dibromochloromethane	U	1.08	ug/kg	0.323	1.08
106-93-4	1,2-Dibromoethane	U	1.08	ug/kg	0.323	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.323	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815011**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13873**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 14:51**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:42**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C218.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.323	1.08
179601-23-1	m,p-Xylenes	U	2.15	ug/kg	0.323	2.15
95-47-6	o-Xylene	U	1.08	ug/kg	0.323	1.08
100-42-5	Styrene	U	1.08	ug/kg	0.323	1.08
75-25-2	Bromoform	U	1.08	ug/kg	0.323	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
96-18-4	1,2,3-Trichloropropane	U	1.08	ug/kg	0.323	1.08
108-86-1	Bromobenzene	U	1.08	ug/kg	0.323	1.08
103-65-1	n-Propylbenzene	U	1.08	ug/kg	0.323	1.08
95-49-8	2-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-82-8	Isopropylbenzene	U	1.08	ug/kg	0.323	1.08
108-67-8	1,3,5-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
106-43-4	4-Chlorotoluene	U	1.08	ug/kg	0.323	1.08
98-06-6	tert-Butylbenzene	U	1.08	ug/kg	0.323	1.08
95-63-6	1,2,4-Trimethylbenzene	U	1.08	ug/kg	0.323	1.08
135-98-8	sec-Butylbenzene	U	1.08	ug/kg	0.323	1.08
99-87-6	4-Isopropyltoluene	U	1.08	ug/kg	0.323	1.08
541-73-1	1,3-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
106-46-7	1,4-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08
104-51-8	n-Butylbenzene	U	1.08	ug/kg	0.323	1.08
96-12-8	1,2-Dibromo-3-chloropropane	U	1.08	ug/kg	0.323	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.38	ug/kg	1.72	5.38
630-20-6	1,1,1,2-Tetrachloroethane	U	1.08	ug/kg	0.323	1.08
95-50-1	1,2-Dichlorobenzene	U	1.08	ug/kg	0.323	1.08

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C218.D
Acq On : 16 Mar 2010 2:51 pm
Operator : CDS1
InstName : VOA5
Sample : |248815011|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 17 11:07:16 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1645935	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1201774	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	557002	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.387	1.000	96	1645935	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.139	1.000	117	1201774	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	557002	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	199846	43.64	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 87.28%					
43) Toluene-d8	9.721	9.721	0.872	98	1053032	45.55	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 91.10%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	825223	52.93	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 105.86%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.970	4.900	0.593	50	1960	Below Cal		55
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.877	5.866	0.701	59	809	N.D.		
9) Acetone	6.167	6.170	0.735	43	2176	Below Cal	#	43
10) 1,1-Dichloroethylene	0.000	6.152	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.464	6.460	0.771	41	419	N.D.		
13) Methyl acetate	6.216	6.361	0.741	43	247	N.D.		
14) Carbon disulfide	6.435	6.435	0.767	76	271	N.D.		
15) Methylene chloride	6.538	6.538	0.779	84	5396	Below Cal		91
16) tert-Butyl methyl ether	0.000	6.637	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.711	0.000		0	N.D.		
18) Vinyl acetate	0.000	6.969	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.072	0.000		0	N.D.		
20) 2-Butanone	0.000	7.450	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.510	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.715	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.903	0.000		0	N.D.		
26) Cyclohexane	0.000	7.928	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.002	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.232	0.000		0	N.D.		
31) Benzene	8.197	8.200	0.977	78	248	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D.	d	
33) n-Butyl alcohol	0.000	8.373	0.000		0m	N.D.	d	
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.829	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C218.D
Acq On : 16 Mar 2010 2:51 pm
Operator : CDS1
InstName : VOA5
Sample : |248815011|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 17 11:07:16 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	9.109	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	9.484	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44) Toluene	9.781	9.788	0.878	91	1779	N.D.	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47) 2-Hexanone	0.000	10.276	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	10.361	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52) Chlorobenzene	0.000	11.170	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.142	11.178	1.000	91	3678	N.D.	
55) m,p-Xylenes	0.000	11.277	0.000		0	N.D.	
56) o-Xylene	0.000	11.697	0.000		0	N.D.	
57) Styrene	0.000	11.715	0.000		0	N.D.	
59) Bromoform	0.000	12.002	0.000		0	N.D.	
60) Isopropylbenzene	12.019	12.012	0.896	105	108	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	0.000	12.465	0.000		0	N.D.	
65) n-Propylbenzene	12.408	12.415	0.925	91	476	N.D.	
66) 1,3,5-Trimethylbenzene	12.564	12.560	0.937	105	133	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.702	12.698	0.947	91	574	N.D.	
69) tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	12.949	12.956	0.965	105	246	N.D.	
71) sec-Butylbenzene	0.000	13.116	0.000		0	N.D.	
72) 4-Isopropyltoluene	13.239	13.229	0.987	119	1543	N.D.	
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	13.441	0.000		0	N.D.	
75) n-Butylbenzene	13.639	13.653	1.017	91	1605	N.D.	
76) 1,2-Dichlorobenzene	0.000	13.855	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	15.612	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.988	15.988	1.192	128	3406	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	16.291	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85) Acrolein	0.000	6.078	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.160	0.000		0	N.D.	
88) Allyl chloride	6.450	6.421	0.769	41	367	N.D.	
89) tert-Butyl Alcohol	0.000	6.457	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.740	0.000		0	N.D.	
91) Isopropyl ether	0.000	6.916	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94) Ethyl acetate	0.000	7.380	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C218.D
Acq On : 16 Mar 2010 2:51 pm
Operator : CDS1
InstName : VOA5
Sample : |248815011|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 17 11:07:16 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	7.578	0.000		0	N.D.	
96)	Methacrylonitrile	7.719	7.677	0.920	41	501	N.D.	
97)	Tetrahydrofuran	7.705	7.708	0.919	42	135	N.D.	
98)	Isobutyl alcohol	7.850	7.854	0.936	41	108	N.D.	
99)	Methyl tert-amyl ether	0.000	8.119	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	8.798	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	8.953	0.000		0	N.D.	
102)	2-Nitropropane	0.000	9.339	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	9.855	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	12.133	0.000		0	N.D.	
108)	Cyclohexanone	0.000	12.263	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	12.408	0.000		0	N.D.	
110)	Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111)	Benzyl chloride	13.572	13.565	1.012	91	540	N.D.	
112)	bis(2-Chloroisopropyl)...	13.918	13.925	1.038	45	106	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C218.D
Acq On : 16 Mar 2010 2:51 pm
Operator : CDS1
InstName : VOA5
Sample : |248815011|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 17 11:07:16 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

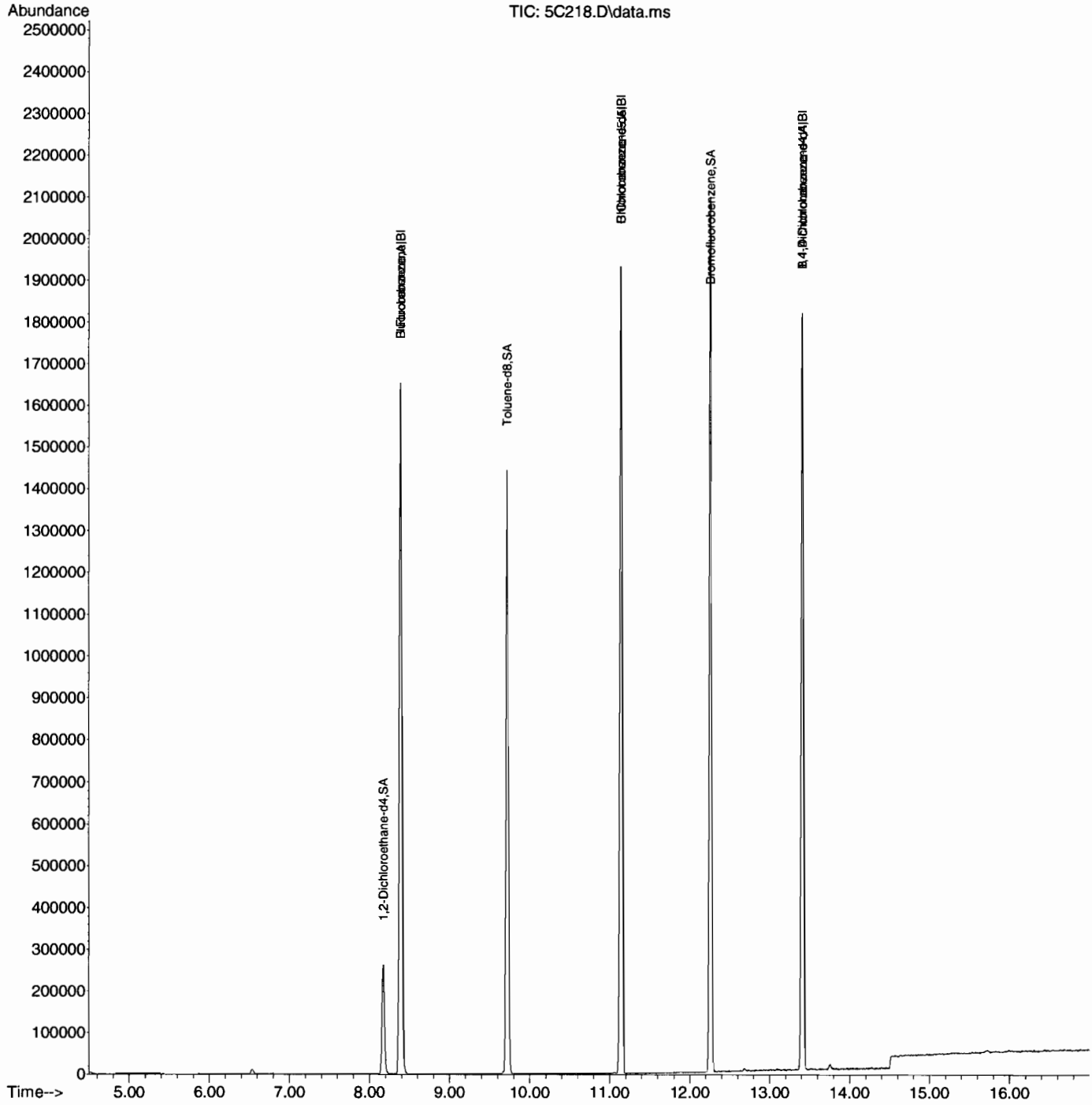

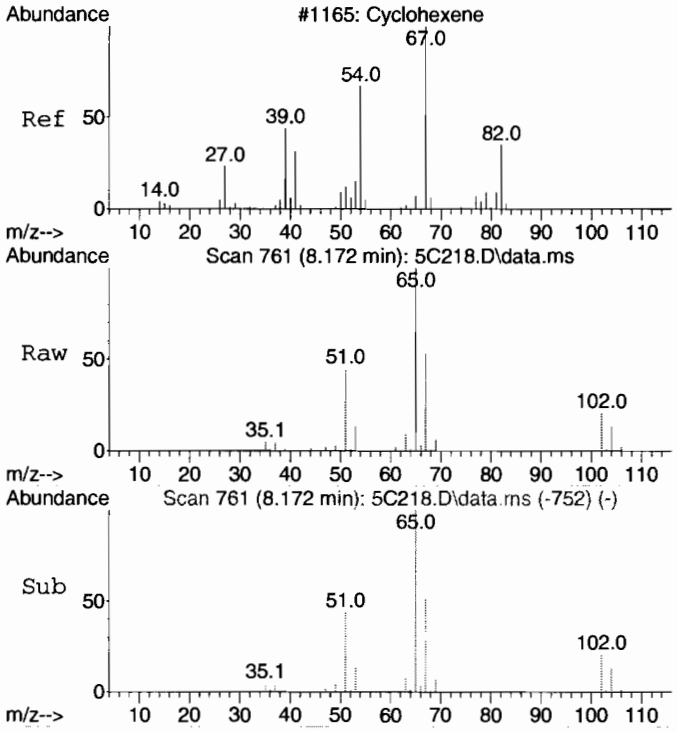

#32 BEFORE analyst DELETION
Cyclohexene
Concen: 9.35 ug/L
RT: 8.172 min Scan# 761
Delta R.T. -0.074 min
Lab File: 5C218.D
Acq: 16 Mar 2010 2:51 pm

Tgt Ion: 67 Resp: 97101

Ion	Ratio	Lower	Upper
67	100		
54	0.0	47.0	107.0#

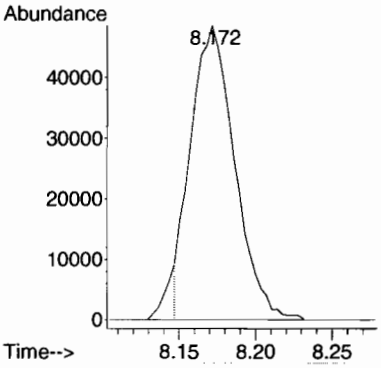

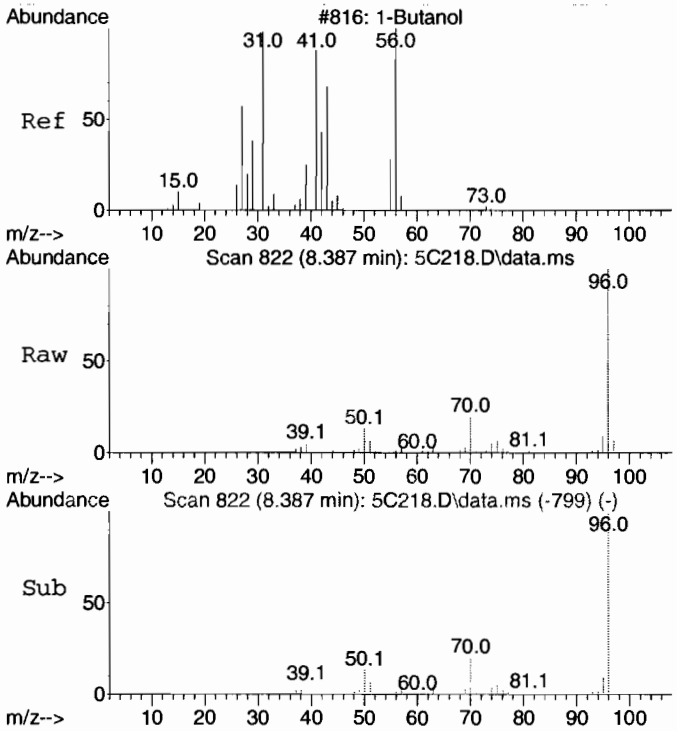

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 72.43 ug/L
RT: 8.387 min Scan# 822
Delta R.T. 0.014 min
Lab File: 5C218.D
Acq: 16 Mar 2010 2:51 pm

Tgt Ion: 56 Resp: 9852

Ion	Ratio	Lower	Upper
56	100		
41	1.1	40.9	100.9#
43	0.0	27.4	87.4#

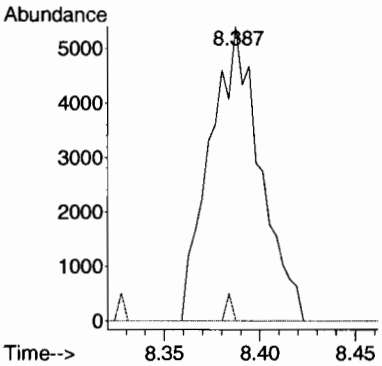

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C218.D
Acq On : 16 Mar 2010 2:51 pm
Operator : CDS1
Sample : |248815011|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C218.D
Acq On : 16 Mar 2010 2:51 pm
Operator : CDS1
Sample : |248815011|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815012**	**Date Received:**	**03/05/2010 10:20**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 15:18**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:43**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C219.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	1.88	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815012**	**Date Received:**	**03/05/2010 10:20**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13874**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 15:18**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:43**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C219.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C219.D
Acq On : 16 Mar 2010 3:18 pm
Operator : CDS1
InstName : VOA5
Sample : |248815012|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 17 11:07:49 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1617153	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.139	11.142	1.000	117	1179213	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	554953	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.387	1.000	96	1617153	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.139	11.139	1.000	117	1179213	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	554953	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.168	8.172	0.974	65	192039	42.69	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 85.38%					
43) Toluene-d8	9.721	9.721	0.873	98	1041978	45.94	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 91.88%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	822170	52.93	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 105.86%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.880	4.900	0.582	50	1479	Below Cal		85
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.866	5.866	0.699	59	2367	0.40	ug/L	90
9) Acetone	6.170	6.170	0.736	43	15240	1.88	ug/L	96
10) 1,1-Dichloroethylene	0.000	6.152	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.467	6.460	0.771	41	1667	N.D.		
13) Methyl acetate	6.251	6.361	0.745	43	128	N.D.		
14) Carbon disulfide	6.428	6.435	0.766	76	261	N.D.		
15) Methylene chloride	6.541	6.538	0.780	84	4233	Below Cal		96
16) tert-Butyl methyl ether	6.640	6.637	0.792	73	1140	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.711	0.000		0	N.D.		
18) Vinyl acetate	0.000	6.969	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.072	0.000		0	N.D.		
20) 2-Butanone	7.450	7.450	0.888	43	1098	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.510	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.715	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.903	0.000		0	N.D.		
26) Cyclohexane	0.000	7.928	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.002	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.232	0.000		0	N.D.		
31) Benzene	8.204	8.200	0.978	78	110	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D.	d	
33) n-Butyl alcohol	0.000	8.373	0.000		0m	N.D.	d	
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.829	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C219.D
Acq On : 16 Mar 2010 3:18 pm
Operator : CDS1
InstName : VOA5
Sample : |248815012|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 17 11:07:49 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	9.109	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000	9.484	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	9.530	9.526	0.856	58	2632	N.D.	
44)	Toluene	9.795	9.788	0.879	91	1067	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47)	2-Hexanone	10.279	10.276	0.923	43	1332	N.D.	
48)	1,3-Dichloropropane	0.000	10.361	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52)	Chlorobenzene	0.000	11.170	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54)	Ethylbenzene	11.139	11.178	1.000	91	3840	N.D.	
55)	m,p-Xylenes	0.000	11.277	0.000		0	N.D.	
56)	o-Xylene	0.000	11.697	0.000		0	N.D.	
57)	Styrene	0.000	11.715	0.000		0	N.D.	
59)	Bromoform	0.000	12.002	0.000		0	N.D.	
60)	Isopropylbenzene	0.000	12.012	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64)	Bromobenzene	0.000	12.465	0.000		0	N.D.	
65)	n-Propylbenzene	12.419	12.415	0.926	91	1022	N.D.	
66)	1,3,5-Trimethylbenzene	12.567	12.560	0.937	105	111	N.D.	
67)	2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68)	4-Chlorotoluene	12.695	12.698	0.946	91	580	N.D.	
69)	tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	12.953	12.956	0.966	105	411	N.D.	
71)	sec-Butylbenzene	13.116	13.116	0.978	105	256	N.D.	
72)	4-Isopropyltoluene	13.236	13.229	0.987	119	3849	N.D.	
73)	1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	0.000	13.441	0.000		0	N.D.	
75)	n-Butylbenzene	13.650	13.653	1.018	91	431	N.D.	
76)	1,2-Dichlorobenzene	0.000	13.855	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	15.612	15.612	1.164	180	113	N.D.	
79)	Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80)	Naphthalene	15.981	15.988	1.191	128	3960	N.D.	
81)	1,2,3-Trichlorobenzene	0.000	16.291	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85)	Acrolein	0.000	6.078	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87)	Isopropyl Alcohol	6.167	6.160	0.735	45	113	N.D.	
88)	Allyl chloride	6.467	6.421	0.771	41	1667	N.D.	
89)	tert-Butyl Alcohol	6.453	6.457	0.769	59	108	N.D.	
90)	Acrylonitrile	0.000	6.740	0.000		0	N.D.	
91)	Isopropyl ether	7.104	6.916	0.847	45	112	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94)	Ethyl acetate	7.380	7.380	0.880	43	3691	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C219.D
Acq On : 16 Mar 2010 3:18 pm
Operator : CDS1
InstName : VOA5
Sample : |248815012|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 17 11:07:49 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	0.000	7.578	0.000		0	N.D.		
96)	Methacrylonitrile	7.705	7.677	0.919	41	112	N.D.		
97)	Tetrahydrofuran	7.719	7.708	0.920	42	717	N.D.		
98)	Isobutyl alcohol	7.719	7.854	0.920	41	286	N.D.		
99)	Methyl tert-amyl ether	0.000	8.119	0.000		0	N.D.		
100)	Methyl methacrylate	0.000	8.798	0.000		0	N.D.		
101)	1,4-Dioxane	0.000	8.953	0.000		0	N.D.		
102)	2-Nitropropane	0.000	9.339	0.000		0m	N.D.	d	
104)	Ethyl methacrylate	0.000	9.855	0.000		0	N.D.		
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	0.000	12.133	0.000		0	N.D.		
108)	Cyclohexanone	0.000	12.263	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000	12.408	0.000		0	N.D.		
110)	Pentachloroethane	0.000	13.017	0.000		0	N.D.		
111)	Benzyl chloride	13.554	13.565	1.011	91	930	N.D.		
112)	bis(2-Chloroisopropyl)...	13.936	13.925	1.039	45	128	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C219.D
Acq On : 16 Mar 2010 3:18 pm
Operator : CDS1
InstName : VOA5
Sample : |248815012|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 17 11:07:49 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

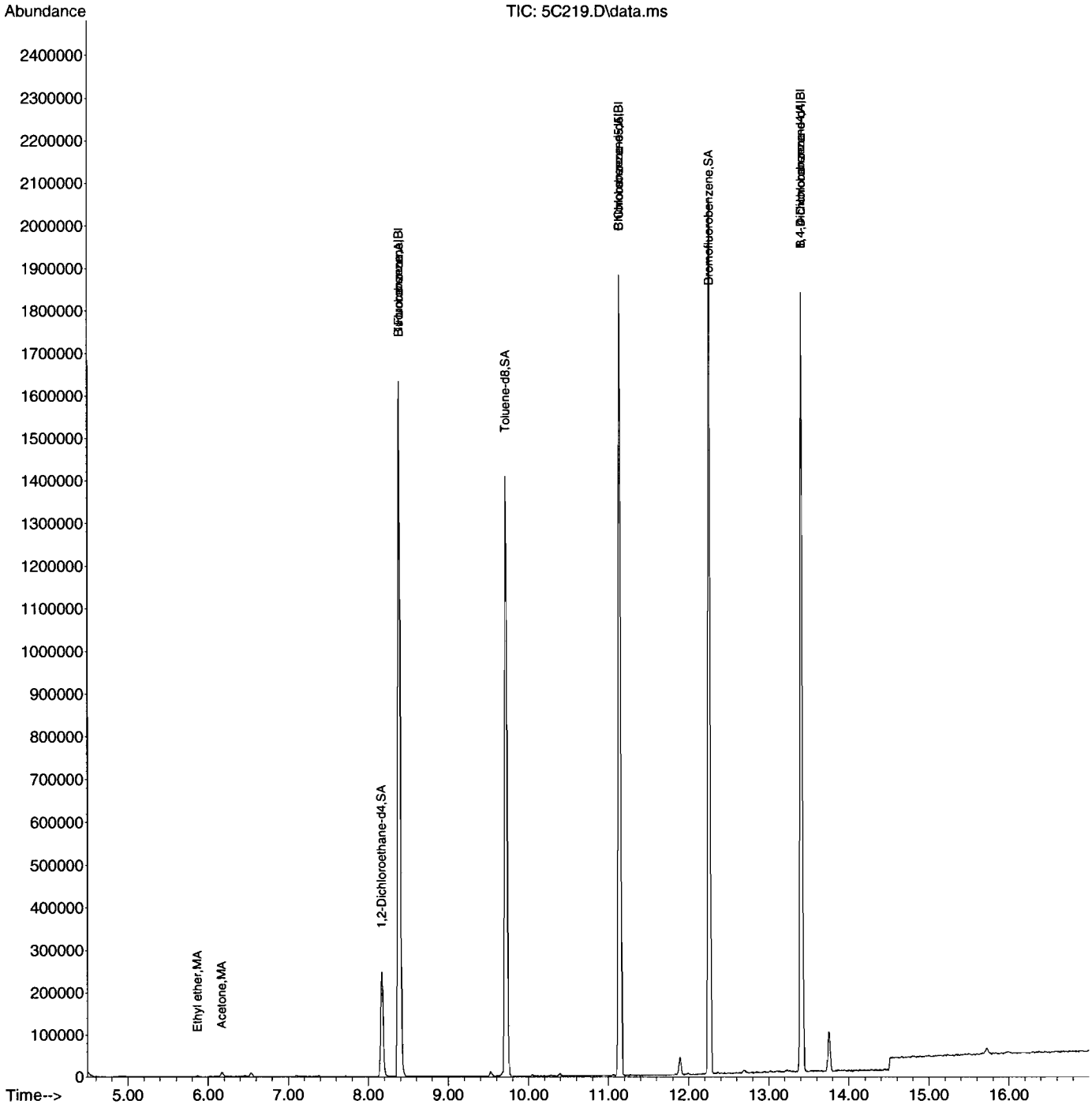

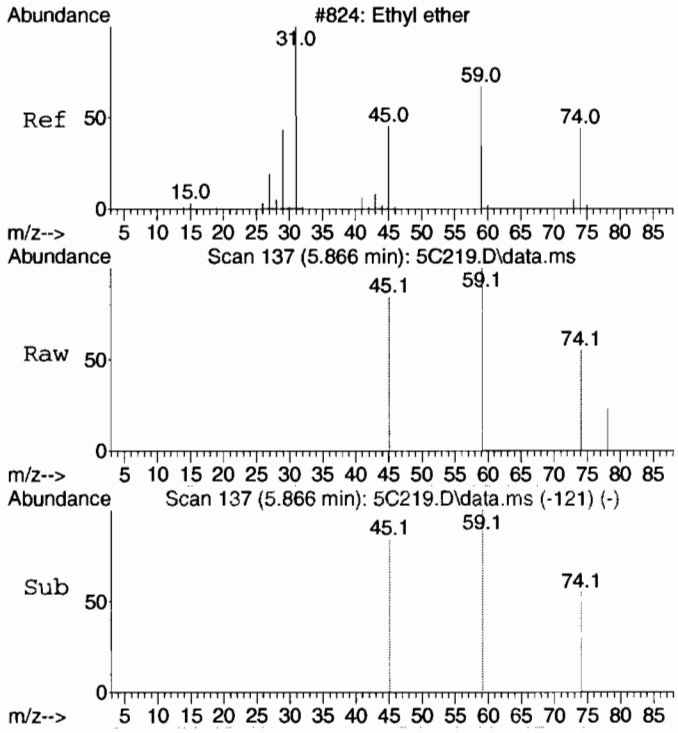

#8
Ethyl ether
Concen: 0.40 ug/L
RT: 5.866 min Scan# 137
Delta R.T. 0.000 min
Lab File: 5C219.D
Acq: 16 Mar 2010 3:18 pm

Tgt Ion: 59 Resp: 2367

Ion	Ratio	Lower	Upper
59	100		
45	100.4	60.9	120.9

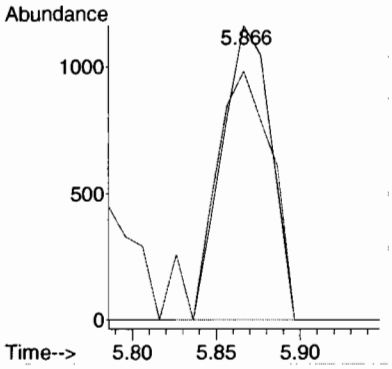

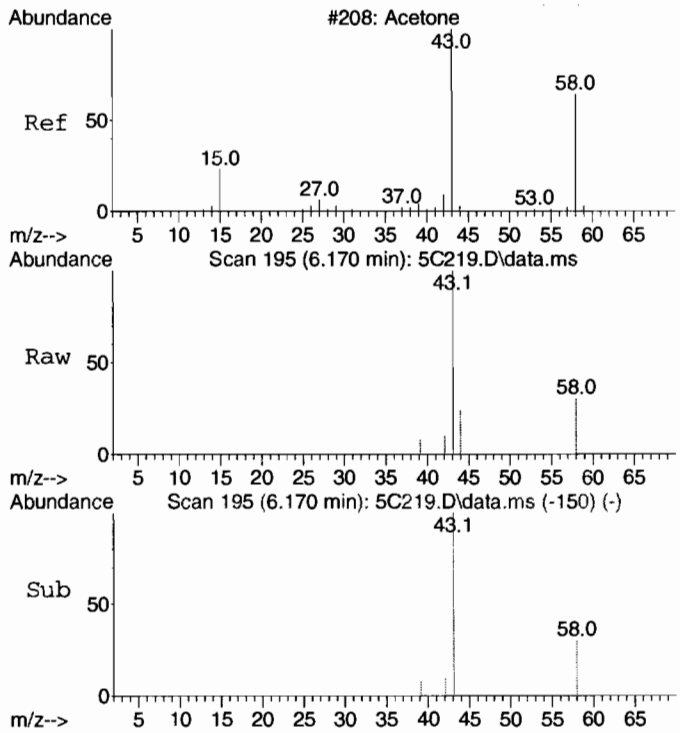

#9
Acetone
Concen: 1.88 ug/L
RT: 6.170 min Scan# 195
Delta R.T. 0.000 min
Lab File: 5C219.D
Acq: 16 Mar 2010 3:18 pm

Tgt Ion: 43 Resp: 15240

Ion	Ratio	Lower	Upper
43	100		
58	29.4	1.7	61.7

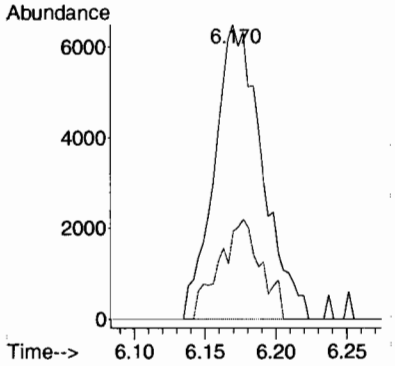

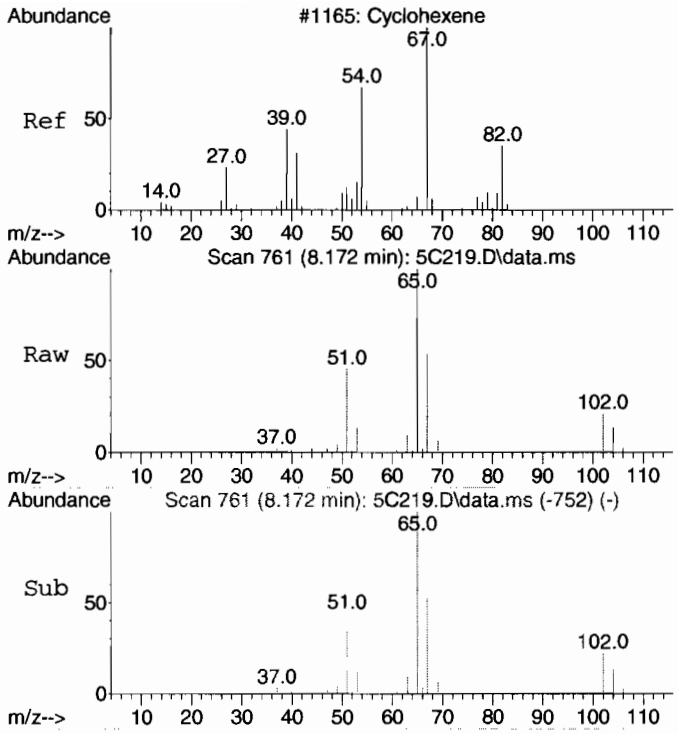

#32 BEFORE analyst DELETION
Cyclohexene
Concen: 9.12 ug/L
RT: 8.172 min Scan# 761
Delta R.T. -0.074 min
Lab File: 5C219.D
Acq: 16 Mar 2010 3:18 pm

Tgt Ion: 67 Resp: 93039

Ion	Ratio	Lower	Upper
67	100		
54	0.0	47.0	107.0#

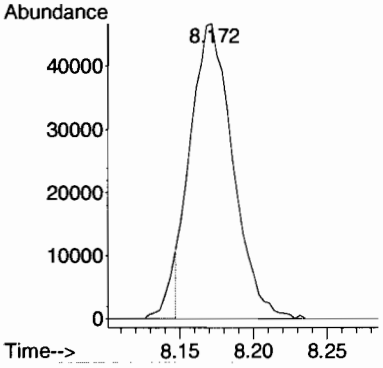

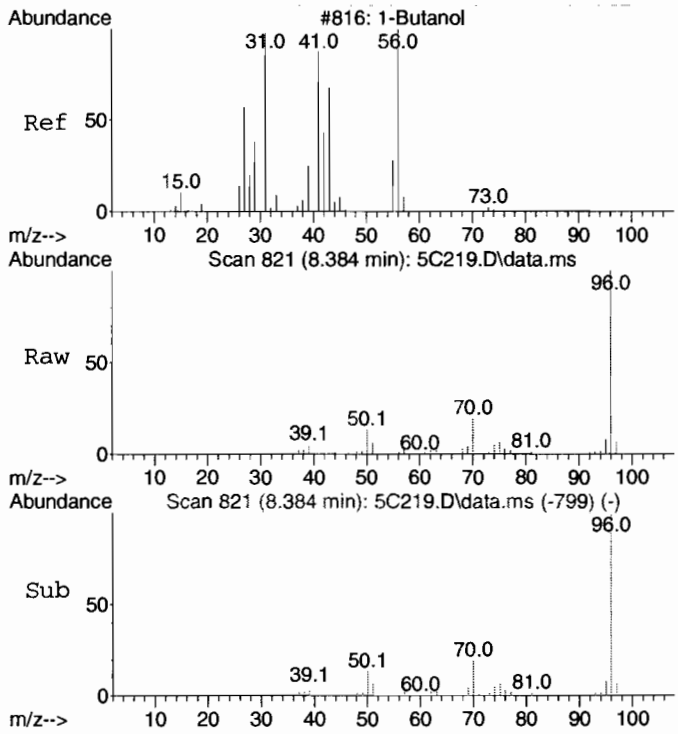

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 71.70 ug/L
RT: 8.384 min Scan# 821
Delta R.T. 0.011 min
Lab File: 5C219.D
Acq: 16 Mar 2010 3:18 pm

Tgt Ion: 56 Resp: 9514

Ion	Ratio	Lower	Upper
56	100		
41	1.2	40.9	100.9#
43	0.0	27.4	87.4#

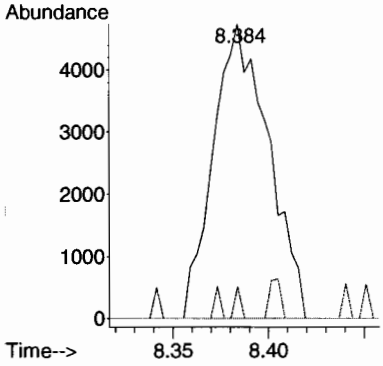

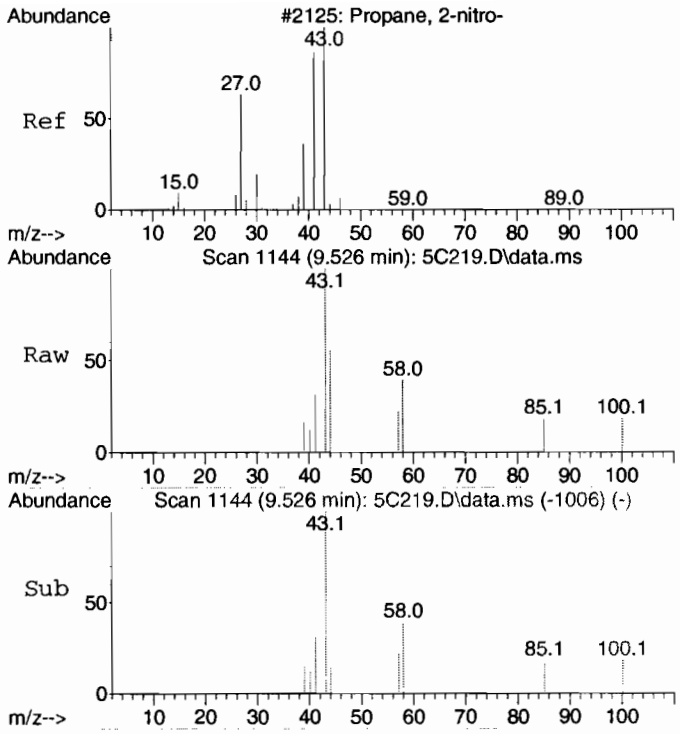

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 4.97 ug/L
RT: 9.526 min Scan# 1144
Delta R.T. 0.187 min
Lab File: 5C219.D
Acq: 16 Mar 2010 3:18 pm

Tgt Ion: 43 Resp: 8459

Ion	Ratio	Lower	Upper
43	100		
41	35.6	51.4	111.4#

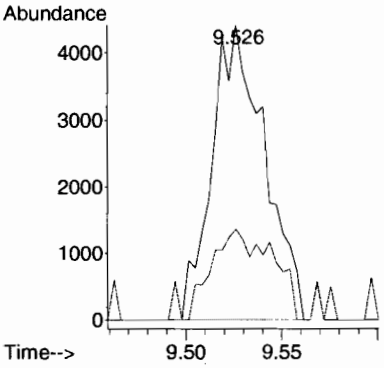

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C219.D
Acq On : 16 Mar 2010 3:18 pm
Operator : CDS1
Sample : |248815012|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C219.D
Acq On    : 16 Mar 2010   3:18 pm
Operator  : CDS1
Sample    : |248815012|965702|1|VOA|1|VOA8260BS|
Misc      : LANL 5G - SOIL
ALS Vial  : 19   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P

                                                  |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-----------------------------------------------------------------------------
```

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA5
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Last Update : Tue Mar 16 06:50:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\031510V5\5C111.D

Injection Date	Mix	Calibration File
15 Mar 2010 8:46 pm	A	C:\msdchem\1\DATA\031510V5\5C111.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\031510V5\5C115.D

Injection Date	Mix	Calibration File
15 Mar 2010 5:14 pm	A	C:\msdchem\1\DATA\031510V5\5C103.D
15 Mar 2010 10:32 pm	B	C:\msdchem\1\DATA\031510V5\5C115.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\031510V5\5C116.D

Injection Date	Mix	Calibration File
15 Mar 2010 5:40 pm	A	C:\msdchem\1\DATA\031510V5\5C104.D
15 Mar 2010 10:58 pm	B	C:\msdchem\1\DATA\031510V5\5C116.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\031510V5\5C117.D

Injection Date	Mix	Calibration File
15 Mar 2010 6:07 pm	A	C:\msdchem\1\DATA\031510V5\5C105.D
15 Mar 2010 11:24 pm	B	C:\msdchem\1\DATA\031510V5\5C117.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\031510V5\5C118.D

Injection Date	Mix	Calibration File
15 Mar 2010 6:33 pm	A	C:\msdchem\1\DATA\031510V5\5C106.D
15 Mar 2010 11:51 pm	B	C:\msdchem\1\DATA\031510V5\5C118.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\031510V5\5C119.D

Injection Date	Mix	Calibration File
15 Mar 2010 7:00 pm	A	C:\msdchem\1\DATA\031510V5\5C107.D
16 Mar 2010 12:17 am	B	C:\msdchem\1\DATA\031510V5\5C119.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\031510V5\5C120.D

Injection Date	Mix	Calibration File
15 Mar 2010 7:26 pm	A	C:\msdchem\1\DATA\031510V5\5C108.D
16 Mar 2010 12:44 am	B	C:\msdchem\1\DATA\031510V5\5C120.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\031510V5\5C121.D

Injection Date	Mix	Calibration File
15 Mar 2010 7:53 pm	A	C:\msdchem\1\DATA\031510V5\5C109.D
16 Mar 2010 1:10 am	B	C:\msdchem\1\DATA\031510V5\5C121.D

Response Factor Report VOA5
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Last Update : Tue Mar 16 06:50:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane		0.0941644	0.0780064	0.1066212	0.0915025	0.1014584				
	0.1041304	0.1034460					0.0970	AVRG		10.3372
3)MPA Chloromethane		7722	13987	32223	53968	110058				
0.0021 | 0.1489 | 0.00	262473	511628						LINR		0.9998
4)MCA Vinyl chloride		0.1302912	0.1213872	0.1273635	0.1137083	0.1225002				
	0.1211177	0.1244680					0.1230	AVRG		4.2911
5)MA Bromomethane		0.1193645	0.1138040	0.1284809	0.1145928	0.1187713				
	0.1161200	0.1221574					0.1190	AVRG		4.2661
6)MA Chloroethane		0.1159320	0.1226299	0.1307972	0.1160859	0.1245178				
	0.1217724	0.1243842					0.1223	AVRG		4.2357
7)MA Trichlorofluoromethane		0.1961091	0.1957785	0.2166879	0.1955981	0.2103186				
	0.2068943	0.2156889					0.2053	AVRG		4.5979
8)MA Ethyl ether		0.1675909	0.1778161	0.1986344	0.1938945	0.1955669				
	0.1693044	0.1692757					0.1817	AVRG		7.6180
9)MA Acetone		42814	58996	133569	273441	483546				
0.0042 | 0.1397 | 0.00	1177304	2412287						LINR		0.9989
10)MCA 1,1-Dichloroethylene		0.2299476	0.1988287	0.2323318	0.2375640	0.2395501				
	0.2367294	0.2377450					0.2304	AVRG		6.2141
11)MA Iodomethane		0.2511489	0.2143707	0.2439612	0.2484149	0.2545382				
	0.2416779	0.2392428					0.2419	AVRG		5.4865
12)MA Acetonitrile		0.0307905	0.0299474	0.0300958	0.0298240	0.0279572				
	0.0273402	0.0271513					0.0290	AVRG		5.1201
13)MA Methyl acetate		0.1688266	0.1583089	0.1671532	0.1689397	0.1630485				
	0.1528855	0.1526214					0.1617	AVRG		4.4196
14)MA Carbon disulfide		0.4847120	0.4064861	0.4757134	0.4787659	0.4875613				
	0.4604012	0.4410315					0.4621	AVRG		6.3477
15)MA Methylene chloride		13916	19171	39245	74134	138671				
0.0044 | 0.1828 | 0.00	321840	632391						LINR		0.9997
16)MA tert-Butyl methyl ether		0.4999980	0.4621356	0.5003399	0.4947344	0.4877589				
	0.4781474	0.5056687					0.4898	AVRG		3.1146

Response Factor Report VOA5
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Last Update : Tue Mar 16 06:50:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle	0.2547474	0.2463663 0.2592715	0.2263089	0.2536153	0.2597243	0.2645222	0.2521	AVRG		5.0472
18)MA Vinyl acetate	0.4380927	0.3805877 0.4519151	0.4074407	0.4564133	0.4207230	0.4410925	0.4280	AVRG		6.3094
19)MPA 1,1-Dichloroethane	0.3226580	0.3352675 0.3271405	0.2893325	0.3192584	0.3303718	0.3298679	0.3220	AVRG		4.7602
20)MA 2-Butanone	0.1742371	0.1705085 0.1879442	0.1610400	0.1702832	0.1730174	0.1671381	0.1720	AVRG		4.8006
21)MA cis-1,2-Dichloroethylene	0.2967406	0.2940492 0.3034139	0.2677974	0.3051218	0.3034648	0.3109170	0.2974	AVRG		4.7624
22)MA 2,2-Dichloropropane	0.2276597	0.2394727 0.2302762	0.2066378	0.2289912	0.2307526	0.2383983	0.2289	AVRG		4.7341
23)MA Bromochloromethane	0.0884286	0.0858692 0.0933893	0.0833160	0.0924555	0.0914342	0.0913344	0.0895	AVRG		4.1707
24)MCA Chloroform	0.2801288	0.2903879 0.2871256	0.2483806	0.2887270	0.2856188	0.2902118	0.2815	AVRG		5.3373
25)MA 1,1,1-Trichloroethane	0.2301762	0.2306055 0.2357163	0.2021049	0.2257611	0.2257443	0.2347182	0.2264	AVRG		5.0329
26)MA Cyclohexane	0.3254076	0.3272298 0.3216841	0.2832180	0.3265450	0.3216436	0.3290453	0.3193	AVRG		5.0519
27)MA 1,1-Dichloropropene	0.2090279	0.2142726 0.2092986	0.1794260	0.2068463	0.2079979	0.2175693	0.2063	AVRG		6.0411
28)MA Carbon tetrachloride	0.2018461	0.1830084 0.2058711	0.1681289	0.1967080	0.1942387	0.2014428	0.1930	AVRG		6.8494
29)SA 1,2-Dichloroethane-d4	0.1345964	0.1361751 0.1410608	0.1370834	0.1427368	0.1426703	0.1393751	0.1391	AVRG		2.3258
30)MA 1,2-Dichloroethane	0.2457912	0.2638433 0.2515565	0.2306159	0.2605178	0.2602248	0.2573290	0.2528	AVRG		4.5668
31)MA Benzene	0.6737091	0.7561183 0.6823552	0.6521243	0.7275327	0.6989924	0.7071387	0.6997	AVRG		4.9691

Response Factor Report VOA5
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Last Update : Tue Mar 16 06:50:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene	0.3184057	0.3297184 0.3145488	0.2820176	0.3162961	0.3189219	0.3276001	0.3154	AVRG		4.9990
33)MA n-Butyl alcohol -0.0042 | 0.0070 | 0.00	18732 1211876	26560 2385802	45968	110490	233110	464998		LINR	#	0.9998
34)MA Trichloroethylene	0.1603295	0.1558918 0.1632597	0.1464526	0.1697326	0.1645503	0.1694185	0.1614	AVRG		5.0723
35)MCA 1,2-Dichloropropane	0.1966027	0.2070072 0.2024395	0.1701765	0.2020624	0.2022814	0.2089452	0.1985	AVRG		6.5999
36)MA Methylcyclohexane	0.2893301	0.3026304 0.2880668	0.2637305	0.2849557	0.2925923	0.2937954	0.2879	AVRG		4.1798
37)MA Dibromomethane	0.1066480	0.0965385 0.1125400	0.0913652	0.1063360	0.1091295	0.1094685	0.1046	AVRG		7.3515
38)MA Bromodichloromethane	0.2128825	0.2113550 0.2291625	0.1775055	0.2090463	0.2090274	0.2177908	0.2095	AVRG		7.5315
39)MA 2-Chloroethylvinyl ether -0.0077 | 0.0707 | 0.00	567587	9329 1211837	18958	57027	102524	218595		LINR		0.9974
40)MA cis-1,3-Dichloropropylen	0.2866004	0.2961945 0.2996994	0.2332283	0.2900540	0.2903569	0.2969563	0.2847	AVRG		8.1374
42)MA 4-Methyl-2-pentanone	0.1140908	0.1051140 0.1164803	0.1001820	0.1129864	0.1175415	0.1171297	0.1119	AVRG		5.9874
43)SA Toluene-d8	0.9557047	0.9556306 0.9525118	0.9605780	0.9696377	0.9603582	0.9779594	0.9618	AVRG		0.9373
44)MCA Toluene	0.9735461	1.1504372 0.9537638	0.9543341	1.0344667	1.0126204	1.0282430	1.0153	AVRG		6.7342
45)MA trans-1,3-Dichloropropyl	0.3613305	0.3585869 0.3690614	0.3149418	0.3529566	0.3629951	0.3641753	0.3549	AVRG		5.1545
46)MA 1,1,2-Trichloroethane	0.1726434	0.1769246 0.1735649	0.1752110	0.1802999	0.1797099	0.1787411	0.1767	AVRG		1.7090
47)MA 2-Hexanone	0.3101446	0.2870171 0.3262260	0.2713206	0.2933683	0.3121438	0.3089078	0.3013	AVRG		6.1208

Response Factor Report VOA5
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Last Update : Tue Mar 16 06:50:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane	0.3749967	0.4235162 0.3741139	0.3650213	0.3894704	0.3988018	0.3878352	0.3877	AVRG		5.0167
49)MA Tetrachloroethylene	0.1783404	0.2027488 0.1701743	0.1713691	0.1868872	0.1846500	0.1845963	0.1827	AVRG		6.0428
50)MA Dibromochloromethane	0.2198045	0.1810798 0.2337519	0.1660096	0.1979107	0.2006157	0.2152992	0.2021	AVRG		11.5242
51)MA 1,2-Dibromoethane	0.2059627	0.1705171 0.2093411	0.1767862	0.1959487	0.2084352	0.2058127	0.1961	AVRG		8.1866
52)MPA Chlorobenzene	0.6359395	0.7237755 0.6225949	0.6165713	0.6708255	0.6693624	0.6773041	0.6595	AVRG		5.6850
53)MA 1,1,1,2-Tetrachloroethan	0.2297417	0.2213888 0.2327546	0.2037565	0.2275062	0.2283299	0.2321028	0.2251	AVRG		4.4970
54)MCA Ethylbenzene	1.0826307	1.3862331 1.0444822	1.0697455	1.1712794	1.1260338	1.1397231	1.1457	AVRG		10.0103
55)MA m,p-Xylenes	0.4277976	0.4645825 0.4128819	0.4040168	0.4472433	0.4440964	0.4458730	0.4352	AVRG		4.8983
56)MA o-Xylene	0.4340807	0.4375739 0.4220932	0.3772386	0.4436187	0.4402943	0.4537315	0.4298	AVRG		5.8357
57)MA Styrene	0.7034281	0.6436235 0.7178789	0.5522575	0.6346426	0.6598898	0.6990492	0.6587	AVRG		8.6034
59)MPA Bromoform	0.2847115	0.2335944 0.3036397	0.2200420	0.2456292	0.2693142	0.2732137	0.2614	AVRG		11.3271
60)MA Isopropylbenzene	2.1017442	2.4050292 2.0080046	1.9929266	2.2141254	2.1693361	2.2085511	2.1571	AVRG		6.5496
61)SA Bromofluorobenzene	1.3703234	1.3969967 1.3699312	1.4035366	1.4236857	1.4178632	1.4148816	1.3996	AVRG		1.5726
62)MPA 1,1,2,2-Tetrachloroethan	0.5493410	0.5875082 0.5456804	0.5440489	0.5887187	0.5912284	0.5730577	0.5685	AVRG		3.7952
63)MA 1,2,3-Trichloropropane	0.1524171	0.1517002 0.1494191	0.1468932	0.1561630	0.1685634	0.1544779	0.1542	AVRG		4.5532

Response Factor Report VOA5
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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene	0.5171409	0.5981553 0.5097509	0.5294747	0.5580509	0.5652133	0.5417398	0.5456	AVRG		5.6347
65)MA n-Propylbenzene	2.4837916	2.9257734 2.3855872	2.4421839	2.6332459	2.5722537	2.5993385	2.5775	AVRG		6.8828
66)MA 1,3,5-Trimethylbenzene	1.7902126	2.0052451 1.7461513	1.6973531	1.8878058	1.8385941	1.8685759	1.8334	AVRG		5.5329
67)MA 2-Chlorotoluene	0.5190330	0.6180084 0.5069219	0.5150594	0.5493229	0.5486427	0.5526492	0.5442	AVRG		6.8903
68)MA 4-Chlorotoluene	1.5533192	1.9899550 1.5288132	1.5863195	1.7133411	1.6496043	1.6460076	1.6668	AVRG		9.3499
69)MA tert-Butylbenzene	0.3949326	0.4539800 0.3813794	0.4108165	0.4146688	0.4129396	0.4157944	0.4121	AVRG		5.4399
70)MA 1,2,4-Trimethylbenzene	1.8253802	1.9908355 1.7979876	1.7643466	1.9029323	1.8861909	1.9084011	1.8680	AVRG		4.1313
71)MA sec-Butylbenzene	2.3086454	2.5395181 2.2330661	2.1188918	2.3469923	2.3424890	2.3801678	2.3243	AVRG		5.5835
72)MA 4-Isopropyltoluene	1.8671731	2.1864848 1.8115946	1.7812240	1.9739212	1.8345666	1.9109657	1.9094	AVRG		7.2291
73)MA 1,3-Dichlorobenzene	0.9753216	1.0964846 0.9743349	0.9657861	1.0200138	1.0196460	1.0344922	1.0123	AVRG		4.5386
74)MA 1,4-Dichlorobenzene	0.9954322	1.1841425 0.9875663	1.0005337	1.0711533	1.0574548	1.0433754	1.0485	AVRG		6.4975
75)MA n-Butylbenzene	1.7512322	2.1031498 1.7188535	1.7212992	1.8406873	1.7733808	1.7808557	1.8128	AVRG		7.4230
76)MA 1,2-Dichlorobenzene	0.9493542	1.0708676 0.9605320	0.9468834	1.0066904	1.0021152	1.0027831	0.9913	AVRG		4.4155
77)MA 1,2-Dibromo-3-chloroprop	0.1025188	0.0937419 0.1085670	0.1021779	0.1009387	0.1008914	0.0975099	0.1009	AVRG		4.5372
78)MA 1,2,4-Trichlorobenzene	0.6640712	0.7059065 0.6840810	0.5887642	0.6643349	0.6621552	0.6778082	0.6639	AVRG		5.5050

Response Factor Report VOA5
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Last Update : Tue Mar 16 06:50:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene	0.3995184	0.4279628 0.3910976	0.3291694	0.3990796	0.3870807	0.3981752	0.3903	AVRG		7.6797
80)MA Naphthalene	1.5558911	1.7251400 1.6033187	1.3829961	1.4977095	1.5434677	1.5591514	1.5525	AVRG		6.6658
81)MA 1,2,3-Trichlorobenzene	0.5965380	0.5847864 0.6035391	0.5075539	0.5869954	0.5754617	0.6007998	0.5794	AVRG		5.7237
83)B Chlorotrifluoroethylene	0.0643128	0.0984616 0.0819138	0.0713055	0.0716906	0.0747469	0.0985992	0.0801	AVRG	#	16.9599
84)B 2-Chloro-1,1,1-trifluoro	0.1269697	0.1325477 0.1232104	0.1182577	0.1247422	0.1267728	0.1257859	0.1255	AVRG		3.4403
85)B Acrolein	0.0336387	0.0329359 0.0362733	0.0300798	0.0333277	0.0365753	0.0325034	0.0336	AVRG		6.6631
86)B Trichlorotrifluoroethane	0.0562237	0.0438735 0.0572943	0.0471201	0.0519213	0.0658067	0.0626019	0.0550	AVRG		14.4125
87)B Isopropyl Alcohol	0.0157835	0.0132119 0.0147833	0.0122325	0.0135667	0.0147950	0.0129624	0.0139	AVRG		8.9884
88)B Allyl chloride	0.3297304	0.3415293 0.3359829	0.3346699	0.3396289	0.3785679	0.3527912	0.3447	AVRG		4.8094
89)B tert-Butyl Alcohol	0.0232196	0.0192112 0.0218028	0.0179601	0.0198725	0.0219537	0.0185043	0.0204	AVRG		9.7323
90)B Acrylonitrile	0.0694922	0.0694336 0.0752778	0.0653793	0.0696770	0.0753417	0.0679762	0.0704	AVRG		5.2398
91)B Isopropyl ether	0.7767812	0.7594103 0.7656359	0.7524427	0.7605237	0.7929735	0.7552087	0.7661	AVRG		1.8593
92)B 2-Chloro-1,3-butadiene	0.2421187	0.1994758 0.2586276	0.2006572	0.2146839	0.2496953	0.2488459	0.2306	AVRG		10.8193
93)B Ethyl tert-butyl ether	0.5808359	0.4984400 0.5831218	0.4800168	0.5130715	0.5622757	0.5219284	0.5342	AVRG		7.7056
94)B Ethyl acetate	0.1952807	0.1987012 0.2041458	0.1829220	0.1975201	0.2111114	0.1857834	0.1965	AVRG		4.9973

Response Factor Report VOA5
GEL Laboratories, LLC

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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile	0.0283402	0.0279072 0.0297223	0.0246573	0.0267262	0.0301619	0.0260605	0.0277	AVRG		7.1540
96)B Methacrylonitrile	0.1533763	0.1663755 0.1596480	0.1475848	0.1496285	0.1656146	0.1473200	0.1556	AVRG		5.2861
97)B Tetrahydrofuran	0.0680137	0.0792211 0.0718345	0.0694353	0.0701489	0.0755540	0.0651901	0.0713	AVRG		6.6253
98)B Isobutyl alcohol	0.0084368	0.0070396 0.0080715	0.0066196	0.0073507	0.0076316	0.0067240	0.0074	AVRG	#	9.1805
99)B Methyl tert-amyl ether	0.4547698	0.3988929 0.4557433	0.3809476	0.3946825	0.4295597	0.4009278	0.4165	AVRG		7.2478
100)B Methyl methacrylate	0.1212627	0.1044703 0.1227157	0.0953346	0.1066940	0.1195833	0.1108121	0.1116	AVRG		9.1179
101)B 1,4-Dioxane	0.0020772	0.0013930 0.0019720	0.0016331	0.0018598	0.0019063	0.0017446	0.0018	AVRG	#	12.8006
102)B 2-Nitropropane	0.0604039	0.0480279 0.0627678	0.0415326	0.0490022	0.0556582	0.0506884	0.0526	AVRG		14.1810
104)B Ethyl methacrylate	0.3246270	0.2366982 0.3124677	0.2413509	0.2703646	0.3124393	0.2938690	0.2845	AVRG		12.5139
106)B 1-Chlorohexane	0.5079080	0.5534262 0.5003156	0.5254488	0.5107686	0.5205510	0.5175824	0.5194	AVRG		3.3064
107)B cis-1,4-Dichloro-2-buten	0.2087122	0.1718879 0.2056762	0.1743502	0.1816141	0.2039818	0.1875621	0.1905	AVRG		8.1265
108)B Cyclohexanone	0.0206536	0.0189363 0.0220025	0.0166622	0.0174427	0.0192125	0.0171078	0.0189	AVRG		10.4110
109)B trans-1,4-Dichloro-2-but	0.1918146	0.1669735 0.1900790	0.1671552	0.1770978	0.1894143	0.1737331	0.1795	AVRG		6.0621
110)B Pentachloroethane	0.2787688	0.2294694 0.2768641	0.2606895	0.2679288	0.2805742	0.2825294	0.2681	AVRG		6.9805
111)B Benzyl chloride	0.9597552	0.8657762 0.9231041	0.8668169	0.8874432	0.9730665	0.8928125	0.9098	AVRG		4.7591

Response Factor Report VOA5
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Last Update : Tue Mar 16 06:50:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound	8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
b m1 m2	6	7								
112)B bis(2-Chloroisopropyl)et		0.3404456	0.2964138	0.3056103	0.3375559	0.2811759				
	0.3301913	0.3225145					0.3163	AVRG		7.0817

(#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-2298

Instrument ID: VOA5.I **Injection Date** 15-MAR-10 21:39

Data File: 031510V5\5C113.D **Init. Cal. Date(s)** 15-MAR-10 17:14 - 16-MAR-10 01:1

Lab Sample ID W5VM100315-10 **Quant Type** ISTD **Method:** 031510V5\VOA5-8260-031510.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.1391	0.13382		.01		-3.79583	30		Averaged	
S	Toluene-d8	0.9618	0.94678		.01		-1.56166	30		Averaged	
S	Bromofluorobenzene	1.3996	1.38092		.01		-1.33467	30		Averaged	
	Dichlorodifluoromethane	0.097	0.1208		.01		24.53608	30		Averaged	
	Chloromethane	50	52.57	50			5.14	30		Linear	spcc
	Vinyl chloride	0.123	0.13509		.01		9.82927	20		Averaged	ccc
	Bromomethane	0.119	0.12884		.01		8.26891	30		Averaged	
	Chloroethane	0.1223	0.12959		.01		5.96075	30		Averaged	
	Trichlorofluoromethane	0.2053	0.22223		.01		8.24647	30		Averaged	
	Ethyl ether	0.1817	0.18749		.01		3.18657	30		Averaged	
	1,1-Dichloroethylene	0.2304	0.24262		.01		5.30382	20		Averaged	ccc
	Acetone	250	210.05	250			-15.98	40		Linear	
	Methyl acetate	0.1617	0.15312		.01		-5.30612	40		Averaged	
	Iodomethane	0.2419	0.25416		.01		5.06821	30		Averaged	
	Carbon disulfide	0.4621	0.5058		.01		9.45683	30		Averaged	
	Acetonitrile	0.029	0.02712		.01		-6.48276	30		Averaged	
	Methylene chloride	50	53.01	50			6.02	30		Linear	
	tert-Butyl methyl ether	0.4898	0.49646		.01		1.35974	30		Averaged	
	trans-1,2-Dichloroethylene	0.2521	0.27219		.01		7.96906	30		Averaged	
	Vinyl acetate	0.428	0.46139		.01		7.8014	40		Averaged	
	1,1-Dichloroethane	0.322	0.34527		.1		7.22671	30		Averaged	spcc
	2-Butanone	0.172	0.15043		.01		-12.5407	40		Averaged	
	cis-1,2-Dichloroethylene	0.2974	0.32243		.01		8.41627	30		Averaged	
	2,2-Dichloropropane	0.2289	0.24737		.01		8.06903	30		Averaged	
	Chloroform	0.2815	0.30283		.01		7.57726	20		Averaged	ccc
	Bromochloromethane	0.0895	0.09537		.01		6.55866	30		Averaged	
	1,1,1-Trichloroethane	0.2264	0.24605		.01		8.67933	30		Averaged	
	Cyclohexane	0.3193	0.34445		.01		7.87661	30		Averaged	
	1,1-Dichloropropene	0.2063	0.22451		.01		8.82695	30		Averaged	
	Carbon tetrachloride	0.193	0.21335		.01		10.54404	30		Averaged	
	Benzene	0.6997	0.73052		.01		4.40474	30		Averaged	
	1,2-Dichloroethane	0.2528	0.26061		.01		3.0894	30		Averaged	
	Cyclohexene	0.3154	0.32605		.01		3.37666	30		Averaged	
	n-Butyl alcohol	5000	4846.21	5000			-3.0758	40		Linear	
	Trichloroethylene	0.1614	0.17393		.01		7.76332	30		Averaged	
	Methylcyclohexane	0.2879	0.30141		.01		4.6926	30		Averaged	
	1,2-Dichloropropane	0.1985	0.21354		.01		7.57683	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA5.I **Injection Date** 15-MAR-10 21:39

Data File: 031510V5\5C113.D **Init. Cal. Date(s)** 15-MAR-10 17:14 16-MAR-10 01:1

Lab Sample ID W5VM100315-10 **Quant Type** ISTD **Method:** 031510V5\VOA5-8260-031510.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1046	0.11151		.01		6.60612	30		Averaged	
Bromodichloromethane	0.2095	0.23551		.01		12.41527	30		Averaged	
2-Chloroethylvinyl ether	250	221.84	250			-11.264	30		Linear	
cis-1,3-Dichloropropylene	0.2847	0.30839		.01		8.32104	30		Averaged	
4-Methyl-2-pentanone	0.1119	0.11282		.01		0.82216	40		Averaged	
Toluene	1.0153	1.03128		.01		1.57392	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3549	0.38017		.01		7.12032	30		Averaged	
1,1,2-Trichloroethane	0.1767	0.17881		.01		1.19411	30		Averaged	
2-Hexanone	0.3013	0.26652		.01		-11.54331	40		Averaged	
Tetrachloroethylene	0.1827	0.18679		.01		2.23864	30		Averaged	
1,3-Dichloropropane	0.3877	0.38894		.01		0.31983	30		Averaged	
Dibromochloromethane	0.2021	0.22938		.01		13.49827	30		Averaged	
1,2-Dibromoethane	0.1961	0.21159		.01		7.89903	30		Averaged	
Chlorobenzene	0.6595	0.69222		.3		4.96133	30		Averaged	spcc
Ethylbenzene	1.1457	1.14967		.01		0.34651	20		Averaged	ccc
1,1,1,2-Tetrachloroethane	0.2251	0.24854		.01		10.41315	30		Averaged	
m,p-Xylenes	0.4352	0.45275		.01		4.03263	30		Averaged	
o-Xylene	0.4298	0.46204		.01		7.50116	30		Averaged	
Styrene	0.6587	0.75464		.01		14.56505	30		Averaged	
Bromoform	0.2614	0.29568		.1		13.114	30		Averaged	spcc
Isopropylbenzene	2.1571	2.23454		.01		3.59001	30		Averaged	
1,1,2,2-Tetrachloroethane	0.5685	0.55462		.3		-2.44151	30		Averaged	spcc
n-Propylbenzene	2.5775	2.61455		.01		1.43744	30		Averaged	
1,2,3-Trichloropropane	0.1542	0.15442		.01		0.14267	30		Averaged	
Bromobenzene	0.5456	0.56213		.01		3.02969	30		Averaged	
1,3,5-Trimethylbenzene	1.8334	1.90785		.01		4.06076	30		Averaged	
2-Chlorotoluene	0.5442	0.56201		.01		3.27269	30		Averaged	
4-Chlorotoluene	1.6668	1.68741		.01		1.2365	30		Averaged	
tert-Butylbenzene	0.4121	0.41833		.01		1.51177	30		Averaged	
1,2,4-Trimethylbenzene	1.868	1.95805		.01		4.82066	30		Averaged	
sec-Butylbenzene	2.3243	2.43593		.01		4.80274	30		Averaged	
4-Isopropyltoluene	1.9094	1.94885		.01		2.06609	30		Averaged	
1,3-Dichlorobenzene	1.0123	1.06021		.01		4.73279	30		Averaged	
1,4-Dichlorobenzene	1.0485	1.06911		.01		1.96567	30		Averaged	
n-Butylbenzene	1.8128	1.80995		.01		-0.15722	30		Averaged	
1,2-Dichlorobenzene	0.9913	1.03355		.01		4.26208	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1009	0.10194		.01		1.03072	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA5.I **Injection Date** 15-MAR-10 21:39

Data File: 031510V5\5C113.D **Init. Cal. Date(s)** 15-MAR-10 17:14 16-MAR-10 01:1

Lab Sample ID W5VM100315-10 **Quant Type** ISTD **Method:** 031510V5\VOA5-8260-031510.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.6639	0.69828		.01		5.17849	30		Averaged
Hexachlorobutadiene	0.3903	0.41389		.01		6.04407	30		Averaged
Naphthalene	1.5525	1.57893		.01		1.70242	30		Averaged
1,2,3-Trichlorobenzene	0.5794	0.63967		.01		10.40214	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V5\
Data File : 5C113.D
Acq On : 15 Mar 2010 9:39 pm
Operator : CDS1
InstName : VOA5
Sample : |W5VM100315-10|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[A] 0305-01B+0313-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 08:11:53 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	8.387	8.387	1.000	96	1713146	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1289845	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	655435	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.387	1.000	96	1713146	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.139	1.000	117	1289845	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	655435	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.168	8.172	0.974	65	229255	48.10	ug/L	0.00
43) Toluene-d8	9.721	9.721	0.872	98	1221201	49.22	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	905101	49.33	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	206940	62.24	ug/L	99
3) Chloromethane	4.900	4.900	0.584	50	271842	52.57	ug/L	99
4) Vinyl chloride	5.041	5.041	0.601	62	231430	54.93	ug/L	98
5) Bromomethane	5.423	5.423	0.647	94	220721	54.12	ug/L	99
6) Chloroethane	5.504	5.504	0.656	64	222015	52.98	ug/L	100
7) Trichlorofluoromethane	5.695	5.695	0.679	101	380721	54.13	ug/L	100
8) Ethyl ether	5.866	5.866	0.699	59	321204	51.59	ug/L	91
9) Acetone	6.174	6.170	0.736	43	1012249	210.05	ug/L	100
10) 1,1-Dichloroethylene	6.152	6.152	0.734	61	415648	52.66	ug/L	99
11) Iodomethane	6.357	6.357	0.758	142	2177045	262.66	ug/L	99
12) Acetonitrile	6.460	6.460	0.770	41	1161641	1168.48	ug/L	100
13) Methyl acetate	6.361	6.361	0.758	43	1311556	236.75	ug/L	100
14) Carbon disulfide	6.432	6.435	0.767	76	4332519	273.64	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	339439	53.01	ug/L	99
16) tert-Butyl methyl ether	6.637	6.637	0.791	73	850504	50.68	ug/L	99
17) trans-1,2-Dichloroethy...	6.711	6.711	0.800	61	466299	53.99	ug/L	100
18) Vinyl acetate	6.966	6.969	0.831	43	3952128	269.48	ug/L	100
19) 1,1-Dichloroethane	7.068	7.072	0.843	63	591504	53.62	ug/L	100
20) 2-Butanone	7.447	7.450	0.888	43	1288560	218.62	ug/L	100
21) cis-1,2-Dichloroethylene	7.503	7.507	0.895	61	552376	54.22	ug/L	100
22) 2,2-Dichloropropane	7.510	7.510	0.895	77	423774	54.04	ug/L	99
23) Bromochloromethane	7.719	7.715	0.920	128	163384	53.30	ug/L	99
24) Chloroform	7.698	7.701	0.918	83	518795	53.79	ug/L	100
25) 1,1,1-Trichloroethane	7.903	7.903	0.942	97	421524	54.34	ug/L	99
26) Cyclohexane	7.924	7.928	0.945	56	590097	53.95	ug/L	100
27) 1,1-Dichloropropene	8.005	8.002	0.954	75	384619	54.40	ug/L	99
28) Carbon tetrachloride	8.020	8.020	0.956	117	365503	55.26	ug/L	99
30) 1,2-Dichloroethane	8.235	8.232	0.982	62	446459	51.54	ug/L	100
31) Benzene	8.200	8.200	0.978	78	1251480	52.20	ug/L	99
32) Cyclohexene	8.246	8.246	0.983	67	558574	51.70	ug/L	99
33) n-Butyl alcohol	8.373	8.373	0.998	56	1155303	4846.21	ug/L	98
34) Trichloroethylene	8.677	8.677	1.035	95	297964	53.89	ug/L	100
35) 1,2-Dichloropropane	8.928	8.932	1.065	63	365832	53.79	ug/L	100
36) Methylcyclohexane	8.829	8.829	1.053	83	516364	52.35	ug/L	100
37) Dibromomethane	9.059	9.059	1.080	93	191039	53.32	ug/L	100
38) Bromodichloromethane	9.109	9.109	1.086	83	403471	56.20	ug/L	99
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	523927	221.84	ug/L	100
40) cis-1,3-Dichloropropylene	9.484	9.484	1.131	75	528309	54.15	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V5\
Data File : 5C113.D
Acq On : 15 Mar 2010 9:39 pm
Operator : CDS1
InstName : VOA5
Sample : |W5VM100315-10|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[A] 0305-01B+0313-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 08:11:53 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42)	4-Methyl-2-pentanone	9.526	9.526	0.855	58	727605	251.98	ug/L		99
44)	Toluene	9.784	9.788	0.878	91	1330194	50.78	ug/L		100
45)	trans-1,3-Dichloroprop...	9.965	9.968	0.894	75	490356	53.57	ug/L		99
46)	1,1,2-Trichloroethane	10.173	10.173	0.913	83	230640	50.59	ug/L		99
47)	2-Hexanone	10.276	10.276	0.922	43	1718840	221.14	ug/L		100
48)	1,3-Dichloropropane	10.364	10.361	0.930	76	501669	50.16	ug/L		100
49)	Tetrachloroethylene	10.290	10.290	0.924	164	240928	51.12	ug/L		99
50)	Dibromochloromethane	10.583	10.583	0.950	129	295862	56.76	ug/L		99
51)	1,2-Dibromoethane	10.771	10.771	0.967	107	272924	53.95	ug/L		99
52)	Chlorobenzene	11.171	11.170	1.003	112	892858	52.48	ug/L		100
53)	1,1,1,2-Tetrachloroethane	11.213	11.216	1.006	131	320576	55.21	ug/L		99
54)	Ethylbenzene	11.178	11.178	1.003	91	1482900	50.17	ug/L		100
55)	m,p-Xylenes	11.277	11.277	1.012	106	1167964	104.03	ug/L		100
56)	o-Xylene	11.697	11.697	1.050	106	595959	53.75	ug/L		100
57)	Styrene	11.712	11.715	1.051	104	973364	57.28	ug/L		99
59)	Bromoform	12.002	12.002	0.895	173	193797	56.55	ug/L		99
60)	Isopropylbenzene	12.012	12.012	0.896	105	1464595	51.79	ug/L		100
62)	1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	363517	48.78	ug/L		99
63)	1,2,3-Trichloropropane	12.451	12.454	0.928	110	101209	50.06	ug/L	#	92
64)	Bromobenzene	12.461	12.465	0.929	156	368438	51.51	ug/L		98
65)	n-Propylbenzene	12.412	12.415	0.925	91	1713669	50.72	ug/L		99
66)	1,3,5-Trimethylbenzene	12.560	12.560	0.936	105	1250473	52.03	ug/L		100
67)	2-Chlorotoluene	12.596	12.596	0.939	126	368359	51.63	ug/L		99
68)	4-Chlorotoluene	12.698	12.698	0.947	91	1105988	50.62	ug/L		100
69)	tert-Butylbenzene	12.903	12.900	0.962	134	274188	50.76	ug/L		100
70)	1,2,4-Trimethylbenzene	12.953	12.956	0.966	105	1283375	52.41	ug/L		100
71)	sec-Butylbenzene	13.116	13.116	0.978	105	1596596	52.40	ug/L		100
72)	4-Isopropyltoluene	13.229	13.229	0.986	119	1277345	51.03	ug/L		100
73)	1,3-Dichlorobenzene	13.349	13.349	0.995	146	694901	52.37	ug/L		99
74)	1,4-Dichlorobenzene	13.437	13.441	1.002	146	700730	50.98	ug/L		99
75)	n-Butylbenzene	13.653	13.653	1.018	91	1186302	49.92	ug/L		100
76)	1,2-Dichlorobenzene	13.855	13.855	1.033	146	677423	52.13	ug/L		99
77)	1,2-Dibromo-3-chloropr...	14.697	14.704	1.096	157	66813	50.51	ug/L		95
78)	1,2,4-Trichlorobenzene	15.612	15.612	1.164	180	457676	52.59	ug/L		100
79)	Hexachlorobutadiene	15.686	15.686	1.169	225	271276	53.02	ug/L		99
80)	Naphthalene	15.988	15.988	1.192	128	1034887	50.85	ug/L		99
81)	1,2,3-Trichlorobenzene	16.284	16.291	1.214	180	419265	55.20	ug/L		100
83)	Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.			
85)	Acrolein	5.957	6.078	0.710		0m	N.D.	d		
86)	Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.			
87)	Isopropyl Alcohol	6.163	6.160	0.735		0m	N.D.	d		
88)	Allyl chloride	6.460	6.421	0.770		0m	N.D.	d		
89)	tert-Butyl Alcohol	6.464	6.457	0.771		0m	N.D.	d		
90)	Acrylonitrile	6.637	6.740	0.791		0m	N.D.	d		
91)	Isopropyl ether	6.927	6.916	0.826		0m	N.D.	d		
92)	2-Chloro-1,3-butadiene	7.040	7.104	0.839		0m	N.D.	d		
93)	Ethyl tert-butyl ether	7.192	7.192	0.857		0m	N.D.	d		
94)	Ethyl acetate	7.380	7.380	0.880		0m	N.D.	d		
95)	Propionitrile	7.666	7.578	0.914		0m	N.D.	d		
96)	Methacrylonitrile	7.666	7.677	0.914		0m	N.D.	d		
97)	Tetrahydrofuran	7.712	7.708	0.919		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V5\
Data File : 5C113.D
Acq On : 15 Mar 2010 9:39 pm
Operator : CDS1
InstName : VOA5
Sample : |W5VM100315-10|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[A] 0305-01B+0313-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 08:11:53 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	7.666	7.854	0.914		0m	N.D.	d
99)	Methyl tert-amyl ether	8.129	8.119	0.969		0m	N.D.	d
100)	Methyl methacrylate	8.826	8.798	1.052		0m	N.D.	d
101)	1,4-Dioxane	9.063	8.953	1.081		0m	N.D.	d
102)	2-Nitropropane	9.137	9.339	1.089		0m	N.D.	d
104)	Ethyl methacrylate	0.000	9.855	0.000		0	N.D.	
106)	1-Chlorohexane	10.965	10.980	0.818		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	12.012	12.133	0.896		0m	N.D.	d
108)	Cyclohexanone	12.330	12.263	0.919		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	12.419	12.408	0.926		0m	N.D.	d
110)	Pentachloroethane	13.009	13.017	0.970		0m	N.D.	d
111)	Benzyl chloride	13.561	13.565	1.011		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	14.084	13.925	1.050		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V5\
Data File : 5C113.D
Acq On : 15 Mar 2010 9:39 pm
Operator : CDS1
InstName : VOA5
Sample : |W5VM100315-10|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[A] 0305-01B+0313-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 08:11:53 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

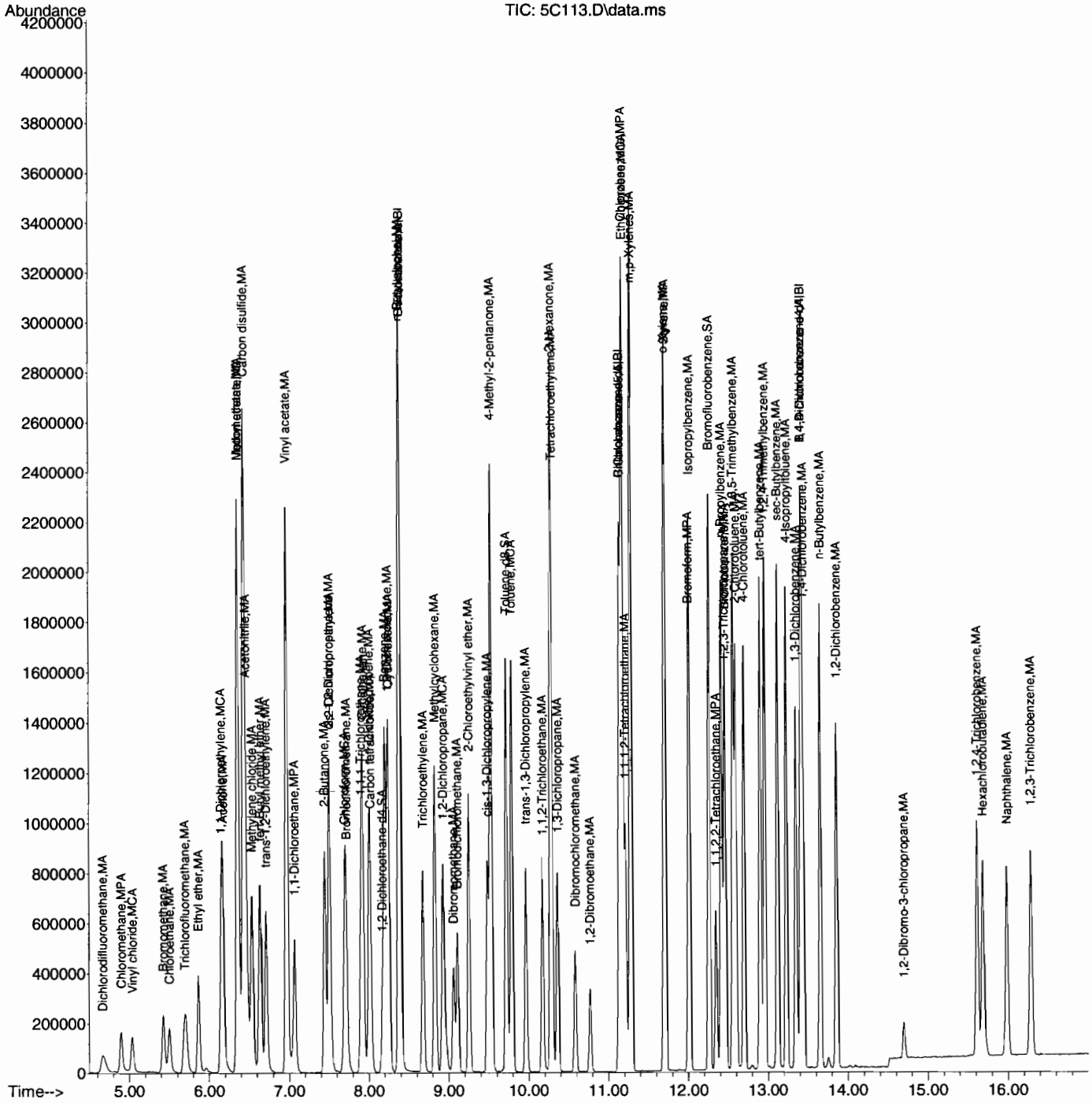

Continuing Calibration Summary

Client SDG: 10-2298

Instrument ID: VOA5.I **Injection Dat** 16-MAR-10 02:03

Data File: 031510V5\5C123.D **Init. Cal. Date(s)** 15-MAR-10 17:14 - 16-MAR-10 01:1

Lab Sample ID W5VM100315-18 **Quant Type** ISTD **Method:** 031510V5\VOA5-8260-031510.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.1391	0.13182		.01		-5.23364	30		Averaged
S	Toluene-d8	0.9618	0.92458		.01		-3.86983	30		Averaged
S	Bromofluorobenzene	1.3996	1.41002		.01		0.7445	30		Averaged
	Chlorotrifluoroethylene	0.0801	0.05909		.01		-26.22971	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.1255	0.11469		.01		-8.61355	30		Averaged
	Acrolein	0.0336	0.03223		.01		-4.07738	30		Averaged
	Trichlorotrifluoroethane	0.055	0.05691		.01		3.47273	30		Averaged
	Isopropyl Alcohol	0.0139	0.01485		.01		6.83453	40		Averaged
	Allyl chloride	0.3447	0.36241		.01		5.1378	30		Averaged
	tert-Butyl Alcohol	0.0204	0.02174		.01		6.56863	40		Averaged
	Acrylonitrile	0.0704	0.07012		.01		-0.39773	30		Averaged
	Isopropyl ether	0.7661	0.71977		.01		-6.04751	30		Averaged
	2-Chloro-1,3-butadiene	0.2306	0.27926		.01		21.10147	30		Averaged
	Ethyl tert-butyl ether	0.5342	0.53758		.01		0.63272	30		Averaged
	Ethyl acetate	0.1965	0.1745		.01		-11.19593	40		Averaged
	Propionitrile	0.0277	0.02632		.01		-4.98195	30		Averaged
	Methacrylonitrile	0.1556	0.14805		.01		-4.85219	30		Averaged
	Tetrahydrofuran	0.0713	0.06479		.01		-9.13043	30		Averaged
	Isobutyl alcohol	0.0074	0.00693		.01		-6.35135	40		Averaged
	Methyl tert-amyl ether	0.4165	0.42064		.01		0.994	30		Averaged
	Methyl methacrylate	0.1116	0.11477		.01		2.8405	30		Averaged
	1,4-Dioxane	0.0018	0.00176		.01		-2.22222	40		Averaged
	2-Nitropropane	0.0526	0.05439		.01		3.40304	30		Averaged
	Ethyl methacrylate	0.2845	0.30292		.01		6.47452	30		Averaged
	1-Chlorohexane	0.5194	0.45535		.01		-12.33154	30		Averaged
	cis-1,4-Dichloro-2-butene	0.1905	0.19901		.01		4.46719	30		Averaged
	Cyclohexanone	0.0189	0.01389		.01		-26.50794	40		Averaged
	trans-1,4-Dichloro-2-butene	0.1795	0.18668		.01		4	30		Averaged
	Pentachloroethane	0.2681	0.25451		.01		-5.069	30		Averaged
	Benzyl chloride	0.9098	0.81877		.01		-10.0055	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3163	0.29447		.01		-6.90168	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V5\
Data File : 5C123.D
Acq On : 16 Mar 2010 2:03 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100315-18|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[B] 304-08A+226-02A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 16 08:12:16 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	8.387	8.387	1.000	96	1701935	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.139	11.142	1.000	117	1271256	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	632639	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.387	1.000	96	1701935	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.139	11.139	1.000	117	1271256	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	632639	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.168	8.172	0.974	65	224347	47.38	ug/L	0.00
43) Toluene-d8	9.721	9.721	0.873	98	1175378	48.07	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	892034	50.37	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.608	4.668	0.549		0m	N.D.	d	
3) Chloromethane	4.890	4.900	0.583		0m	N.D.	d	
4) Vinyl chloride	5.031	5.041	0.600		0m	N.D.	d	
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	5.866	5.866	0.699		0m	N.D.	d	
9) Acetone	6.160	6.170	0.734		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.089	6.152	0.726		0m	N.D.	d	
11) Iodomethane	6.358	6.357	0.758		0m	N.D.	d	
12) Acetonitrile	6.421	6.460	0.766		0m	N.D.	d	
13) Methyl acetate	6.361	6.361	0.758		0m	N.D.	d	
14) Carbon disulfide	6.421	6.435	0.766		0m	N.D.	d	
15) Methylene chloride	6.534	6.538	0.779		0m	N.D.	d	
16) tert-Butyl methyl ether	6.633	6.637	0.791		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	6.495	6.711	0.774		0m	N.D.	d	
18) Vinyl acetate	6.916	6.969	0.825		0m	N.D.	d	
19) 1,1-Dichloroethane	7.104	7.072	0.847		0m	N.D.	d	
20) 2-Butanone	7.507	7.450	0.895		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	7.380	7.507	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	7.510	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.715	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.903	0.000		0	N.D.		
26) Cyclohexane	7.910	7.928	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	8.119	8.002	0.968		0m	N.D.	d	
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.232	0.000		0	N.D.		
31) Benzene	8.200	8.200	0.978		0m	N.D.	d	
32) Cyclohexene	8.242	8.246	0.983		0m	N.D.	d	
33) n-Butyl alcohol	8.384	8.373	1.000		0m	N.D.	d	
34) Trichloroethylene	8.695	8.677	1.037		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.798	8.829	1.049		0m	N.D.	d	
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		
38) Bromodichloromethane	0.000	9.109	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	9.484	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V5\
Data File : 5C123.D
Acq On : 16 Mar 2010 2:03 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100315-18|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[B] 304-08A+226-02A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 16 08:12:16 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.		
44) Toluene	9.781	9.788	0.878		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.		
46) 1,1,2-Trichloroethane	10.290	10.173	0.924		0m	N.D.	d	
47) 2-Hexanone	10.279	10.276	0.923		0m	N.D.	d	
48) 1,3-Dichloropropane	10.368	10.361	0.931		0m	N.D.	d	
49) Tetrachloroethylene	10.290	10.290	0.924		0m	N.D.	d	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.		
52) Chlorobenzene	11.178	11.170	1.003		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	11.209	11.216	1.006		0m	N.D.	d	
54) Ethylbenzene	11.142	11.178	1.000		0m	N.D.	d	
55) m,p-Xylenes	11.280	11.277	1.013		0m	N.D.	d	
56) o-Xylene	0.000	11.697	0.000		0	N.D.		
57) Styrene	11.705	11.715	1.051		0m	N.D.	d	
59) Bromoform	0.000	12.002	0.000		0	N.D.		
60) Isopropylbenzene	12.005	12.012	0.895		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	12.408	12.348	0.925		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.		
64) Bromobenzene	12.465	12.465	0.929		0m	N.D.	d	
65) n-Propylbenzene	12.408	12.415	0.925		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	12.560	12.560	0.936		0m	N.D.	d	
67) 2-Chlorotoluene	12.592	12.596	0.939		0m	N.D.	d	
68) 4-Chlorotoluene	12.695	12.698	0.946		0m	N.D.	d	
69) tert-Butylbenzene	12.826	12.900	0.956		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	12.956	12.956	0.966		0m	N.D.	d	
71) sec-Butylbenzene	13.108	13.116	0.977		0m	N.D.	d	
72) 4-Isopropyltoluene	13.225	13.229	0.986		0m	N.D.	d	
73) 1,3-Dichlorobenzene	13.352	13.349	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	13.437	13.441	1.002		0m	N.D.	d	
75) n-Butylbenzene	13.650	13.653	1.018		0m	N.D.	d	
76) 1,2-Dichlorobenzene	13.855	13.855	1.033		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	15.612	15.612	1.164		0m	N.D.	d	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.		
80) Naphthalene	15.988	15.988	1.192		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	16.276	16.291	1.213		0m	N.D.	d	
83) Chlorotrifluoroethylene	4.608	4.608	0.549	116	301712	110.59	ug/L	100
84) 2-Chloro-1,1,1-trifluo...	5.111	5.111	0.609	118	585564	137.11	ug/L	100
85) Acrolein	6.078	6.078	0.725	56	274308	239.71	ug/L	99
86) Trichlorotrifluoroethane	6.075	6.068	0.724	85	484295	258.79	ug/L	99
87) Isopropyl Alcohol	6.160	6.160	0.734	45	1264041	2670.64	ug/L	99
88) Allyl chloride	6.421	6.421	0.766	41	3083953	262.84	ug/L	99
89) tert-Butyl Alcohol	6.457	6.457	0.770	59	1850053	2669.44	ug/L	80
90) Acrylonitrile	6.739	6.740	0.804	53	596680	249.11	ug/L	100
91) Isopropyl ether	6.916	6.916	0.825	45	1225003	46.97	ug/L	100
92) 2-Chloro-1,3-butadiene	7.104	7.104	0.847	53	475278	60.55	ug/L	99
93) Ethyl tert-butyl ether	7.192	7.192	0.857	59	914934	50.31	ug/L	100
94) Ethyl acetate	7.380	7.380	0.880	43	1484945	222.02	ug/L	100
95) Propionitrile	7.581	7.578	0.904	54	223980	237.95	ug/L	98
96) Methacrylonitrile	7.677	7.677	0.915	41	1259877	237.80	ug/L	99
97) Tetrahydrofuran	7.708	7.708	0.919	42	551369	227.05	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V5\
Data File : 5C123.D
Acq On : 16 Mar 2010 2:03 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100315-18|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[B] 304-08A+226-02A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 16 08:12:16 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98)	Isobutyl alcohol	7.857	7.854	0.937	41	589590	2337.37	ug/L	99
99)	Methyl tert-amyl ether	8.119	8.119	0.968	73	715910	50.50	ug/L	98
100)	Methyl methacrylate	8.801	8.798	1.049	69	976646	257.21	ug/L	99
101)	1,4-Dioxane	8.953	8.953	1.067	88	149827	2448.08	ug/L	99
102)	2-Nitropropane	9.342	9.339	1.114	43	462837	258.59	ug/L	99
104)	Ethyl methacrylate	9.855	9.855	0.885	69	1925459	266.15	ug/L	100
106)	1-Chlorohexane	10.980	10.980	0.819	55	288072	43.83	ug/L	100
107)	cis-1,4-Dichloro-2-butene	12.136	12.133	0.905	53	629492	261.11	ug/L	100
108)	Cyclohexanone	12.267	12.263	0.915	42	219659	920.51	ug/L	100
109)	trans-1,4-Dichloro-2-b...	12.408	12.408	0.925	53	590492	260.04	ug/L	99
110)	Pentachloroethane	13.017	13.017	0.970	167	805061	237.31	ug/L	99
111)	Benzyl chloride	13.565	13.565	1.011	91	2589919	224.98	ug/L	100
112)	bis(2-Chloroisopropyl)...	13.925	13.925	1.038	45	931479	232.77	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V5\
Data File : 5C123.D
Acq On : 16 Mar 2010 2:03 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100315-18|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[B] 304-08A+226-02A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 16 08:12:16 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

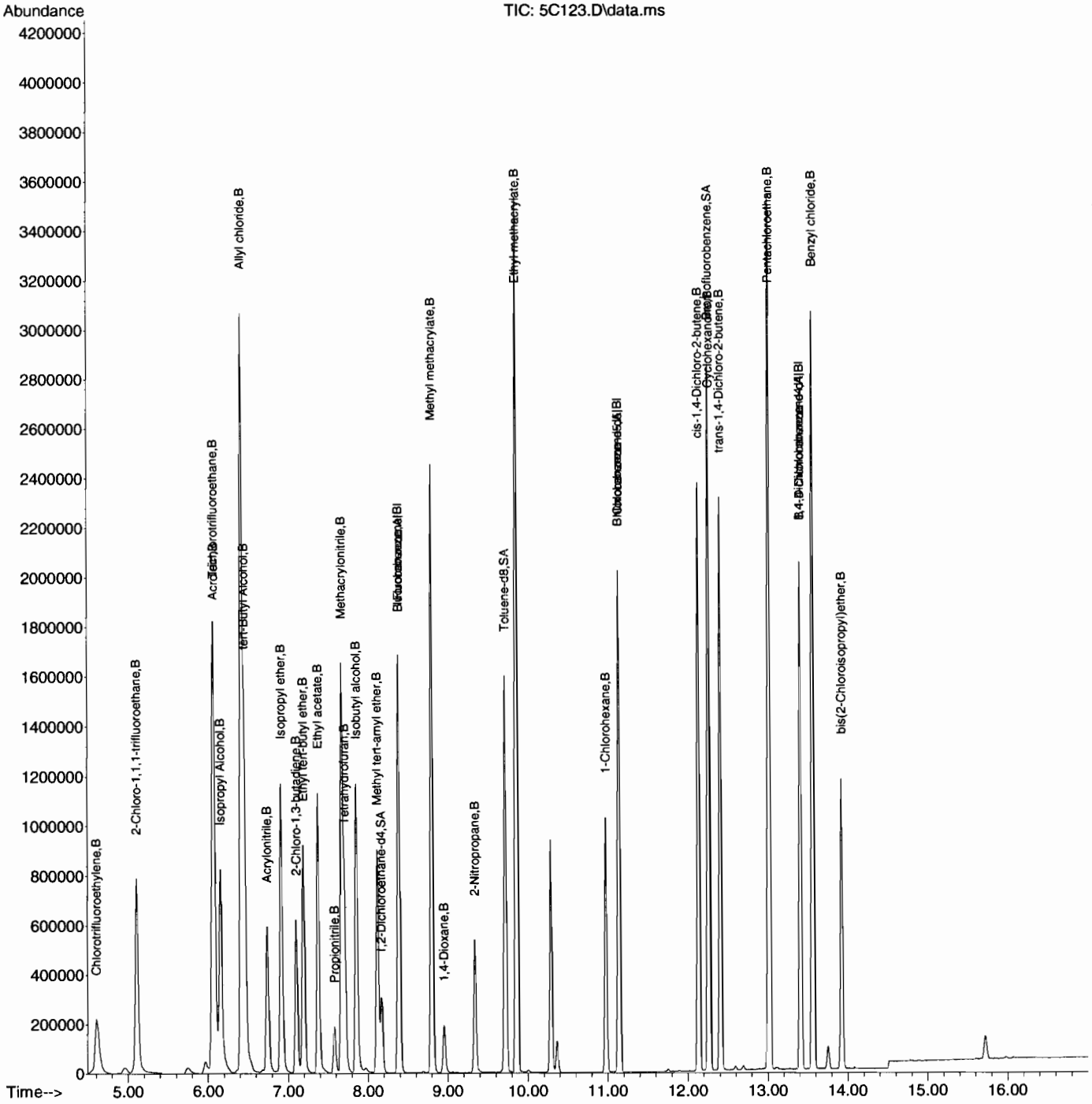

Continuing Calibration Summary

Client SDG: 10-2298

Instrument ID: VOA5.1 **Injection Date** 16-MAR-10 07:41

Data File: 031610V5\5C202.D **Init. Cal. Date(s)** 15-MAR-10 17:14 - 16-MAR-10 01:1

Lab Sample ID W5VM100316-01 **Quant Type** ISTD **Method:** 031510V5\VOA5-8260-031510.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.1391	0.13119		.01		-5.68656	30		Averaged	
S	Toluene-d8	0.9618	0.91736		.01		-4.6205	30		Averaged	
S	Bromofluorobenzene	1.3996	1.39996		.01		0.02572	30		Averaged	
	Dichlorodifluoromethane	0.097	0.11929		.01		22.97938	30		Averaged	
	Chloromethane	50	53.92	50			7.84	30		Linear	spcc
	Vinyl chloride	0.123	0.13677		.01		11.19512	20		Averaged	ccc
	Bromomethane	0.119	0.12666		.01		6.43697	30		Averaged	
	Chloroethane	0.1223	0.13474		.01		10.17171	30		Averaged	
	Trichlorofluoromethane	0.2053	0.23756		.01		15.71359	30		Averaged	
	Ethyl ether	0.1817	0.19323		.01		6.34562	30		Averaged	
	1,1-Dichloroethylene	0.2304	0.27163		.01		17.89497	20		Averaged	ccc
	Acetone	250	278.85	250			11.54	40		Linear	
	Methyl acetate	0.1617	0.16279		.01		0.67409	40		Averaged	
	Iodomethane	0.2419	0.26932		.01		11.33526	30		Averaged	
	Carbon disulfide	0.4621	0.52378		.01		13.34776	30		Averaged	
	Acetonitrile	0.029	0.02859		.01		-1.41379	30		Averaged	
	Methylene chloride	50	52.51	50			5.02	30		Linear	
	tert-Butyl methyl ether	0.4898	0.52148		.01		6.46795	30		Averaged	
	trans-1,2-Dichloroethylene	0.2521	0.28719		.01		13.91908	30		Averaged	
	Vinyl acetate	0.428	0.47958		.01		12.0514	40		Averaged	
	1,1-Dichloroethane	0.322	0.35846		.1		11.32298	30		Averaged	spcc
	2-Butanone	0.172	0.20617		.01		19.86628	40		Averaged	
	cis-1,2-Dichloroethylene	0.2974	0.33212		.01		11.67451	30		Averaged	
	2,2-Dichloropropane	0.2289	0.26797		.01		17.06859	30		Averaged	
	Chloroform	0.2815	0.31076		.01		10.39432	20		Averaged	ccc
	Bromochloromethane	0.0895	0.09713		.01		8.52514	30		Averaged	
	1,1,1-Trichloroethane	0.2264	0.26379		.01		16.51502	30		Averaged	
	Cyclohexane	0.3193	0.37305		.01		16.8337	30		Averaged	
	1,1-Dichloropropene	0.2063	0.23932		.01		16.00582	30		Averaged	
	Carbon tetrachloride	0.193	0.22939		.01		18.85492	30		Averaged	
	Benzene	0.6997	0.75638		.01		8.10061	30		Averaged	
	1,2-Dichloroethane	0.2528	0.26475		.01		4.72706	30		Averaged	
	Cyclohexene	0.3154	0.366		.01		16.04312	30		Averaged	
	n-Butyl alcohol	5000	5407.49	5000			8.1498	40		Linear	
	Trichloroethylene	0.1614	0.18196		.01		12.73854	30		Averaged	
	Methylcyclohexane	0.2879	0.33668		.01		16.94338	30		Averaged	
	1,2-Dichloropropane	0.1985	0.21674		.01		9.18892	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA5.I **Injection Dat** 16-MAR-10 07:41

Data File: 031610V5\5C202.D **Init. Cal. Date(s)** 15-MAR-10 17:14 16-MAR-10 01:1

Lab Sample ID W5VM100316-01 **Quant Type** ISTD **Method:** 031510V5\VOA5-8260-031510.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1046	0.11529		.01		10.21989	30		Averaged	
Bromodichloromethane	0.2095	0.23489		.01		12.11933	30		Averaged	
2-Chloroethylvinyl ether	250	280.16	250			12.064	30		Linear	
cis-1,3-Dichloropropylene	0.2847	0.31532		.01		10.75518	30		Averaged	
4-Methyl-2-pentanone	0.1119	0.13468		.01		20.35746	40		Averaged	
Toluene	1.0153	1.07333		.01		5.71555	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3549	0.38991		.01		9.86475	30		Averaged	
1,1,2-Trichloroethane	0.1767	0.18254		.01		3.30504	30		Averaged	
2-Hexanone	0.3013	0.38888		.01		29.06737	40		Averaged	
Tetrachloroethylene	0.1827	0.20064		.01		9.81938	30		Averaged	
1,3-Dichloropropane	0.3877	0.39444		.01		1.73846	30		Averaged	
Dibromochloromethane	0.2021	0.23642		.01		16.98169	30		Averaged	
1,2-Dibromoethane	0.1961	0.21405		.01		9.15349	30		Averaged	
Chlorobenzene	0.6595	0.69318		.3		5.1069	30		Averaged	spcc
Ethylbenzene	1.1457	1.19819		.01		4.58148	20		Averaged	ccc
1,1,1,2-Tetrachloroethane	0.2251	0.24951		.01		10.84407	30		Averaged	
m,p-Xylenes	0.4352	0.47502		.01		9.14982	30		Averaged	
o-Xylene	0.4298	0.4764		.01		10.84225	30		Averaged	
Styrene	0.6587	0.77463		.01		17.59982	30		Averaged	
Bromoform	0.2614	0.29762		.1		13.85616	30		Averaged	spcc
Isopropylbenzene	2.1571	2.3095		.01		7.06504	30		Averaged	
1,1,2,2-Tetrachloroethane	0.5685	0.5706		.3		0.36939	30		Averaged	spcc
n-Propylbenzene	2.5775	2.74039		.01		6.31969	30		Averaged	
1,2,3-Trichloropropane	0.1542	0.15471		.01		0.33074	30		Averaged	
Bromobenzene	0.5456	0.55611		.01		1.92632	30		Averaged	
1,3,5-Trimethylbenzene	1.8334	1.97499		.01		7.72281	30		Averaged	
2-Chlorotoluene	0.5442	0.56981		.01		4.70599	30		Averaged	
4-Chlorotoluene	1.6668	1.7179		.01		3.06575	30		Averaged	
tert-Butylbenzene	0.4121	0.43733		.01		6.1223	30		Averaged	
1,2,4-Trimethylbenzene	1.868	2.02172		.01		8.22912	30		Averaged	
sec-Butylbenzene	2.3243	2.56229		.01		10.23921	30		Averaged	
4-Isopropyltoluene	1.9094	2.07691		.01		8.77291	30		Averaged	
1,3-Dichlorobenzene	1.0123	1.07707		.01		6.3983	30		Averaged	
1,4-Dichlorobenzene	1.0485	1.09104		.01		4.05722	30		Averaged	
n-Butylbenzene	1.8128	1.97341		.01		8.85977	30		Averaged	
1,2-Dichlorobenzene	0.9913	1.03302		.01		4.20861	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1009	0.10444		.01		3.50842	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA5.I **Injection Date** 16-MAR-10 07:41

Data File: 031610V5\5C202.D **Init. Cal. Date(s)** 15-MAR-10 17:14 16-MAR-10 01:1

Lab Sample ID W5VM100316-01 **Quant Type** ISTD **Method:** 031510V5\VOA5-8260-031510.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.6639	0.76086		.01		14.60461	30		Averaged
Hexachlorobutadiene	0.3903	0.45451		.01		16.45145	30		Averaged
Naphthalene	1.5525	1.67605		.01		7.95813	30		Averaged
1,2,3-Trichlorobenzene	0.5794	0.66364		.01		14.53918	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C202.D
Acq On : 16 Mar 2010 7:41 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100316-01|CCV|1|VOA|1|
Misc : CCV 5mL - MIX[A] 0314-07A+0315-07A
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 08:18:26 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.384	8.387	1.000	96	1685520	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.139	11.142	1.000	117	1272410	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	657196	50.00	ug/L	0.00
82) B Fluorobenzene	8.384	8.387	1.000	96	1685520	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.139	11.139	1.000	117	1272410	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	657196	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.975	65	221128	47.16	ug/L	0.00
43) Toluene-d8	9.721	9.721	0.873	98	1167255	47.69	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	920050	50.01	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	201071	61.46	ug/L	98
3) Chloromethane	4.900	4.900	0.584	50	274215	53.92	ug/L	99
4) Vinyl chloride	5.041	5.041	0.601	62	230523	55.61	ug/L	99
5) Bromomethane	5.423	5.423	0.647	94	213487	53.20	ug/L	99
6) Chloroethane	5.504	5.504	0.656	64	227103	55.08	ug/L	99
7) Trichlorofluoromethane	5.695	5.695	0.679	101	400413	57.86	ug/L	99
8) Ethyl ether	5.866	5.866	0.700	59	325697	53.17	ug/L	91
9) Acetone	6.170	6.170	0.736	43	1319839	278.85	ug/L	100
10) 1,1-Dichloroethylene	6.149	6.152	0.733	61	457846	58.95	ug/L	99
11) Iodomethane	6.358	6.357	0.758	142	2269713	278.33	ug/L	99
12) Acetonitrile	6.460	6.460	0.771	41	1204581	1231.53	ug/L	100
13) Methyl acetate	6.361	6.361	0.759	43	1371893	251.70	ug/L	100
14) Carbon disulfide	6.435	6.435	0.768	76	4414247	283.37	ug/L	100
15) Methylene chloride	6.534	6.538	0.779	84	330912	52.51	ug/L	100
16) tert-Butyl methyl ether	6.637	6.637	0.792	73	878960	53.23	ug/L	100
17) trans-1,2-Dichloroethy...	6.711	6.711	0.800	61	484064	56.96	ug/L	99
18) Vinyl acetate	6.966	6.969	0.831	43	4041668	280.10	ug/L	100
19) 1,1-Dichloroethane	7.068	7.072	0.843	63	604184	55.66	ug/L	100
20) 2-Butanone	7.447	7.450	0.888	43	1737479	299.62	ug/L	100
21) cis-1,2-Dichloroethylene	7.503	7.507	0.895	61	559789	55.84	ug/L	100
22) 2,2-Dichloropropane	7.507	7.510	0.895	77	451662	58.54	ug/L	99
23) Bromochloromethane	7.719	7.715	0.921	128	163720	54.29	ug/L	98
24) Chloroform	7.698	7.701	0.918	83	523795	55.20	ug/L	99
25) 1,1,1-Trichloroethane	7.903	7.903	0.943	97	444615	58.26	ug/L	100
26) Cyclohexane	7.921	7.928	0.945	56	628779	58.42	ug/L	99
27) 1,1-Dichloropropene	8.002	8.002	0.954	75	403377	57.99	ug/L	100
28) Carbon tetrachloride	8.023	8.020	0.957	117	386641	59.42	ug/L	99
30) 1,2-Dichloroethane	8.232	8.232	0.982	62	446241	52.36	ug/L	100
31) Benzene	8.200	8.200	0.978	78	1274893	54.05	ug/L	98
32) Cyclohexene	8.246	8.246	0.984	67	616901	58.03	ug/L	99
33) n-Butyl alcohol	8.373	8.373	0.999	56	1269132	5407.49	ug/L	99
34) Trichloroethylene	8.674	8.677	1.035	95	306697	56.38	ug/L	99
35) 1,2-Dichloropropane	8.925	8.932	1.065	63	365313	54.59	ug/L	99
36) Methylcyclohexane	8.826	8.829	1.053	83	567477	58.48	ug/L	100
37) Dibromomethane	9.063	9.059	1.081	93	194327	55.12	ug/L	99
38) Bromodichloromethane	9.109	9.109	1.086	83	395920	56.05	ug/L	100
39) 2-Chloroethylvinyl ether	9.250	9.254	1.103	63	654411	280.16	ug/L	100
40) cis-1,3-Dichloropropylene	9.484	9.484	1.131	75	531476	55.37	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C202.D
Acq On : 16 Mar 2010 7:41 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100316-01|CCV|1|VOA|1|
Misc : CCV 5mL - MIX[A] 0314-07A+0315-07A
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 08:18:26 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42)	4-Methyl-2-pentanone	9.526	9.526	0.855	58	856856	300.81	ug/L		100
44)	Toluene	9.784	9.788	0.878	91	1365720	52.86	ug/L		100
45)	trans-1,3-Dichloroprop...	9.965	9.968	0.895	75	496122	54.94	ug/L		100
46)	1,1,2-Trichloroethane	10.170	10.173	0.913	83	232262	51.64	ug/L		97
47)	2-Hexanone	10.276	10.276	0.923	43	2474086	322.67	ug/L		100
48)	1,3-Dichloropropane	10.361	10.361	0.930	76	501891	50.87	ug/L		100
49)	Tetrachloroethylene	10.290	10.290	0.924	164	255294	54.91	ug/L		100
50)	Dibromochloromethane	10.580	10.583	0.950	129	300824	58.50	ug/L		100
51)	1,2-Dibromoethane	10.771	10.771	0.967	107	272358	54.57	ug/L		98
52)	Chlorobenzene	11.171	11.170	1.003	112	882006	52.55	ug/L		100
53)	1,1,1,2-Tetrachloroethane	11.213	11.216	1.007	131	317482	55.43	ug/L		100
54)	Ethylbenzene	11.178	11.178	1.003	91	1524590	52.29	ug/L		100
55)	m,p-Xylenes	11.280	11.277	1.013	106	1208831	109.15	ug/L		100
56)	o-Xylene	11.697	11.697	1.050	106	606176	55.42	ug/L		100
57)	Styrene	11.712	11.715	1.051	104	985648	58.80	ug/L		100
59)	Bromoform	12.005	12.002	0.895	173	195594	56.92	ug/L		99
60)	Isopropylbenzene	12.012	12.012	0.896	105	1517794	53.53	ug/L		100
62)	1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	374994	50.18	ug/L		100
63)	1,2,3-Trichloropropane	12.451	12.454	0.928	110	101678	50.16	ug/L	#	92
64)	Bromobenzene	12.461	12.465	0.929	156	365475	50.96	ug/L		99
65)	n-Propylbenzene	12.412	12.415	0.925	91	1800973	53.16	ug/L		100
66)	1,3,5-Trimethylbenzene	12.560	12.560	0.936	105	1297958	53.86	ug/L		100
67)	2-Chlorotoluene	12.596	12.596	0.939	126	374475	52.35	ug/L		99
68)	4-Chlorotoluene	12.695	12.698	0.946	91	1128995	51.53	ug/L		100
69)	tert-Butylbenzene	12.900	12.900	0.962	134	287410	53.06	ug/L		98
70)	1,2,4-Trimethylbenzene	12.956	12.956	0.966	105	1328668	54.11	ug/L		99
71)	sec-Butylbenzene	13.116	13.116	0.978	105	1683924	55.12	ug/L		100
72)	4-Isopropyltoluene	13.229	13.229	0.986	119	1364936	54.39	ug/L		99
73)	1,3-Dichlorobenzene	13.349	13.349	0.995	146	707848	53.20	ug/L		99
74)	1,4-Dichlorobenzene	13.437	13.441	1.002	146	717030	52.03	ug/L		99
75)	n-Butylbenzene	13.653	13.653	1.018	91	1296919	54.43	ug/L		100
76)	1,2-Dichlorobenzene	13.855	13.855	1.033	146	678896	52.10	ug/L		99
77)	1,2-Dibromo-3-chloropr...	14.697	14.704	1.096	157	68637	51.75	ug/L		96
78)	1,2,4-Trichlorobenzene	15.612	15.612	1.164	180	500031	57.30	ug/L		100
79)	Hexachlorobutadiene	15.686	15.686	1.169	225	298704	58.23	ug/L		98
80)	Naphthalene	15.981	15.988	1.191	128	1101493	53.98	ug/L		99
81)	1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	436144	57.27	ug/L		99
83)	Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.			
85)	Acrolein	5.957	6.078	0.711		0m	N.D.		d	
86)	Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.			
87)	Isopropyl Alcohol	6.160	6.160	0.735		0m	N.D.		d	
88)	Allyl chloride	6.460	6.421	0.771		0m	N.D.		d	
89)	tert-Butyl Alcohol	6.467	6.457	0.771		0m	N.D.		d	
90)	Acrylonitrile	6.630	6.740	0.791		0m	N.D.		d	
91)	Isopropyl ether	6.966	6.916	0.831		0m	N.D.		d	
92)	2-Chloro-1,3-butadiene	7.044	7.104	0.840		0m	N.D.		d	
93)	Ethyl tert-butyl ether	7.044	7.192	0.840		0m	N.D.		d	
94)	Ethyl acetate	7.383	7.380	0.881		0m	N.D.		d	
95)	Propionitrile	7.613	7.578	0.908		0m	N.D.		d	
96)	Methacrylonitrile	7.670	7.677	0.915		0m	N.D.		d	
97)	Tetrahydrofuran	7.691	7.708	0.917		0m	N.D.		d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C202.D
Acq On : 16 Mar 2010 7:41 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100316-01|CCV|1|VOA|1|
Misc : CCV 5mL - MIX[A] 0314-07A+0315-07A
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 08:18:26 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	7.850	7.854	0.936		0m	N.D.	d
99)	Methyl tert-amyl ether	8.196	8.119	0.978		0m	N.D.	d
100)	Methyl methacrylate	8.826	8.798	1.053		0m	N.D.	d
101)	1,4-Dioxane	9.049	8.953	1.079		0m	N.D.	d
102)	2-Nitropropane	9.371	9.339	1.118		0m	N.D.	d
104)	Ethyl methacrylate	9.855	9.855	0.885		0m	N.D.	d
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	12.136	12.133	0.905		0m	N.D.	d
108)	Cyclohexanone	12.267	12.263	0.915		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	12.415	12.408	0.926		0m	N.D.	d
110)	Pentachloroethane	13.006	13.017	0.970		0m	N.D.	d
111)	Benzyl chloride	13.565	13.565	1.011		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	13.918	13.925	1.038		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C202.D
Acq On : 16 Mar 2010 7:41 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100316-01|CCV|1|VOA|1|
Misc : CCV 5mL - MIX[A] 0314-07A+0315-07A
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 16 08:18:26 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

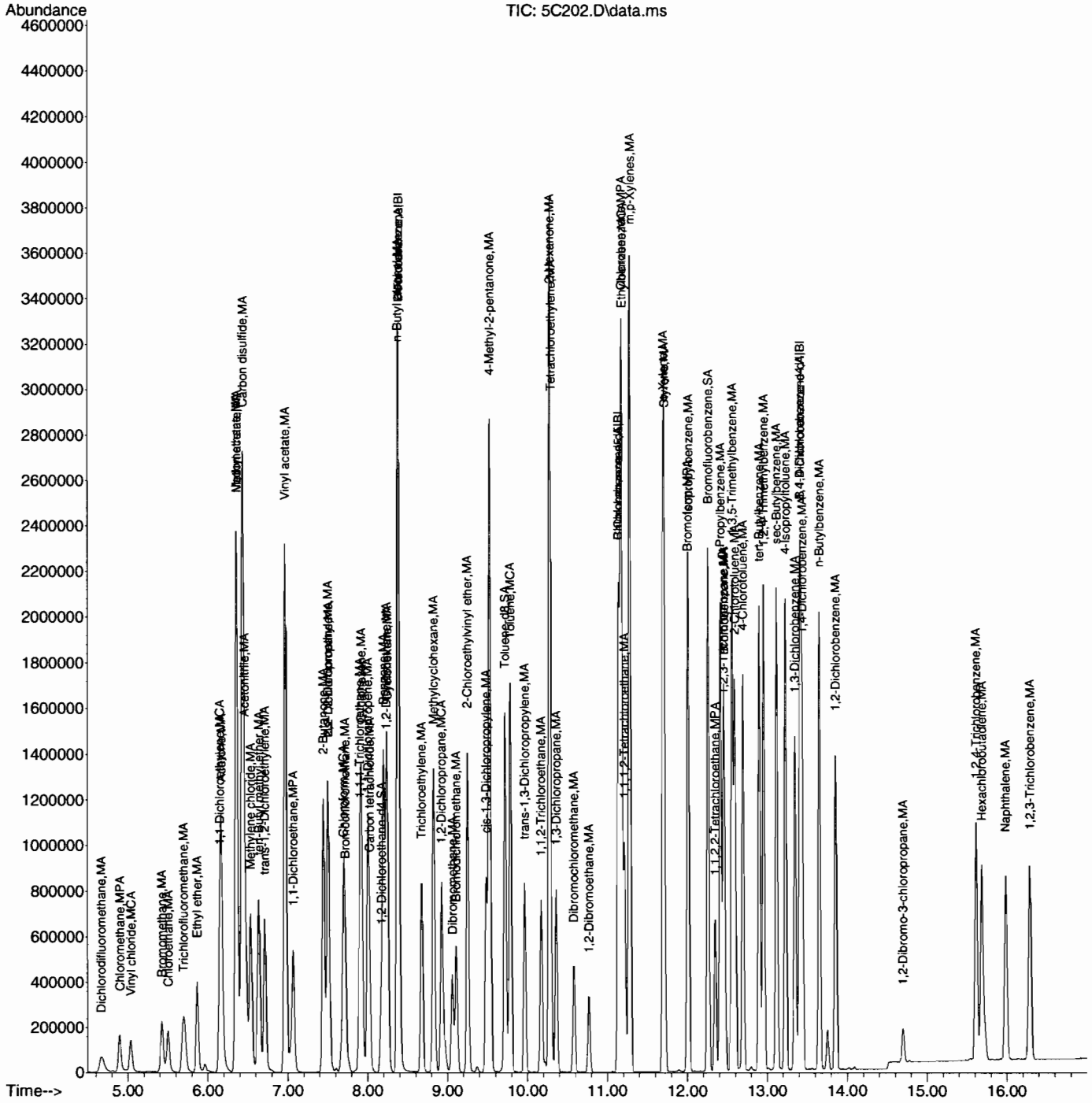

Continuing Calibration Summary

Client SDG: 10-2298

Instrument ID: VOA5.I **Injection Dat** 16-MAR-10 09:07

Data File: 031610V5\5C205.D **Init. Cal. Date(s)** 15-MAR-10 17:14 - 16-MAR-10 01:1

Lab Sample ID W5VM100316-04 **Quant Type** ISTD **Method:** 031510V5\VOA5-8260-031510.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.1391	0.12686		.01		-8.79942	30		Averaged
S	Toluene-d8	0.9618	0.90523		.01		-5.88168	30		Averaged
S	Bromofluorobenzene	1.3996	1.42317		.01		1.68405	30		Averaged
	Trichlorotrifluoroethane	0.055	0.06198		.01		12.69091	30		Averaged
	Acrolein	0.0336	0.03557		.01		5.8631	30		Averaged
	Allyl chloride	0.3447	0.30813		.01		-10.60923	30		Averaged
	Acrylonitrile	0.0704	0.07107		.01		0.9517	30		Averaged
	2-Chloro-1,3-butadiene	0.2306	0.28112		.01		21.90807	30		Averaged
	Ethyl acetate	0.1965	0.17649		.01		-10.18321	40		Averaged
	Propionitrile	0.0277	0.02755		.01		-0.54152	30		Averaged
	Methacrylonitrile	0.1556	0.14935		.01		-4.01671	30		Averaged
	Tetrahydrofuran	0.0713	0.06634		.01		-6.95652	30		Averaged
	Isobutyl alcohol	0.0074	0.00716		.01		-3.24324	40		Averaged
	Methyl methacrylate	0.1116	0.11542		.01		3.42294	30		Averaged
	1,4-Dioxane	0.0018	0.00179		.01		-0.55556	40		Averaged
	2-Nitropropane	0.0526	0.05603		.01		6.52091	30		Averaged
	Ethyl methacrylate	0.2845	0.30234		.01		6.27065	30		Averaged
	cis-1,4-Dichloro-2-butene	0.1905	0.21053		.01		10.51444	30		Averaged
	Cyclohexanone	0.0189	0.01444		.01		-23.59788	40		Averaged
	trans-1,4-Dichloro-2-butene	0.1795	0.19586		.01		9.11421	30		Averaged
	Pentachloroethane	0.2681	0.29164		.01		8.78031	30		Averaged
	Benzyl chloride	0.9098	1.03724		.01		14.00747	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3163	0.30348		.01		-4.05311	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C205.D
Acq On : 16 Mar 2010 9:07 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100316-04|CCV|1|VOA|1|VOA8260BS|
Misc : CCV 5G - MIX[B] 304-08A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 09:34:14 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	8.387	8.387	1.000	96	1713952	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.139	11.142	1.000	117	1281289	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.409	13.413	1.000	152	645528	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.387	1.000	96	1713952	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.139	11.139	1.000	117	1281289	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.409	13.413	1.000	152	645528	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.168	8.172	0.974	65	217437	45.60	ug/L	0.00
43) Toluene-d8	9.717	9.721	0.872	98	1159865	47.06	ug/L	0.00
61) Bromofluorobenzene	12.256	12.260	0.914	95	918694	50.84	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.889	4.900	0.583		0m	N.D.	d	
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	6.067	5.866	0.723		0m	N.D.	d	
9) Acetone	6.159	6.170	0.734		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.071	6.152	0.724		0m	N.D.	d	
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.421	6.460	0.766		0m	N.D.	d	
13) Methyl acetate	6.361	6.361	0.758		0m	N.D.	d	
14) Carbon disulfide	6.421	6.435	0.766		0m	N.D.	d	
15) Methylene chloride	6.531	6.538	0.779		0m	N.D.	d	
16) tert-Butyl methyl ether	6.633	6.637	0.791		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	6.711	0.000		0	N.D.		
18) Vinyl acetate	7.093	6.969	0.846		0m	N.D.	d	
19) 1,1-Dichloroethane	7.104	7.072	0.847		0m	N.D.	d	
20) 2-Butanone	7.376	7.450	0.879		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	7.379	7.507	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	7.510	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.715	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.903	0.000		0	N.D.		
26) Cyclohexane	7.857	7.928	0.937		0m	N.D.	d	
27) 1,1-Dichloropropene	8.115	8.002	0.968		0m	N.D.	d	
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.232	0.000		0	N.D.		
31) Benzene	8.200	8.200	0.978		0m	N.D.	d	
32) Cyclohexene	8.235	8.246	0.982		0m	N.D.	d	
33) n-Butyl alcohol	8.384	8.373	1.000		0m	N.D.	d	
34) Trichloroethylene	8.681	8.677	1.035		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.798	8.829	1.049		0m	N.D.	d	
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		
38) Bromodichloromethane	0.000	9.109	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	9.484	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C205.D
Acq On : 16 Mar 2010 9:07 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100316-04|CCV|1|VOA|1|VOA8260BS|
Misc : CCV 5G - MIX[B] 304-08A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 09:34:14 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	9.526	9.526	0.855		0m	N.D.	d	
44) Toluene	9.784	9.788	0.878		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	9.954	9.968	0.894		0m	N.D.	d	
46) 1,1,2-Trichloroethane	10.283	10.173	0.923		0m	N.D.	d	
47) 2-Hexanone	10.283	10.276	0.923		0m	N.D.	d	
48) 1,3-Dichloropropane	10.361	10.361	0.930		0m	N.D.	d	
49) Tetrachloroethylene	10.290	10.290	0.924		0m	N.D.	d	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.		
51) 1,2-Dibromoethane	10.767	10.771	0.967		0m	N.D.	d	
52) Chlorobenzene	11.170	11.170	1.003		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	11.220	11.216	1.007		0m	N.D.	d	
54) Ethylbenzene	11.174	11.178	1.003		0m	N.D.	d	
55) m,p-Xylenes	11.280	11.277	1.013		0m	N.D.	d	
56) o-Xylene	11.704	11.697	1.051		0m	N.D.	d	
57) Styrene	11.708	11.715	1.051		0m	N.D.	d	
59) Bromoform	0.000	12.002	0.000		0	N.D.		
60) Isopropylbenzene	12.005	12.012	0.895		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.		
64) Bromobenzene	12.461	12.465	0.929		0m	N.D.	d	
65) n-Propylbenzene	12.408	12.415	0.925		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	12.557	12.560	0.936		0m	N.D.	d	
67) 2-Chlorotoluene	12.592	12.596	0.939		0m	N.D.	d	
68) 4-Chlorotoluene	12.695	12.698	0.947		0m	N.D.	d	
69) tert-Butylbenzene	12.900	12.900	0.962		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	12.953	12.956	0.966		0m	N.D.	d	
71) sec-Butylbenzene	13.112	13.116	0.978		0m	N.D.	d	
72) 4-Isopropyltoluene	13.225	13.229	0.986		0m	N.D.	d	
73) 1,3-Dichlorobenzene	13.345	13.349	0.995		0m	N.D.	d	
74) 1,4-Dichlorobenzene	13.437	13.441	1.002		0m	N.D.	d	
75) n-Butylbenzene	13.653	13.653	1.018		0m	N.D.	d	
76) 1,2-Dichlorobenzene	13.855	13.855	1.033		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	14.704	14.704	1.097		0m	N.D.	d	
78) 1,2,4-Trichlorobenzene	15.619	15.612	1.165		0m	N.D.	d	
79) Hexachlorobutadiene	15.686	15.686	1.170		0m	N.D.	d	
80) Naphthalene	15.988	15.988	1.192		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	16.283	16.291	1.214		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	6.078	6.078	0.725	56	304800	264.48	ug/L	99
86) Trichlorotrifluoroethane	6.071	6.068	0.724	85	531112	281.82	ug/L	99
87) Isopropyl Alcohol	0.000	6.160	0.000		0m	N.D.	d	
88) Allyl chloride	6.421	6.421	0.766	41	2640640	223.48	ug/L	94
89) tert-Butyl Alcohol	6.456	6.457	0.770	59	120	N.D.		
90) Acrylonitrile	6.739	6.740	0.804	53	609022	252.48	ug/L	99
91) Isopropyl ether	7.104	6.916	0.847	45	111	N.D.		
92) 2-Chloro-1,3-butadiene	7.104	7.104	0.847	53	481823	60.96	ug/L	98
93) Ethyl tert-butyl ether	7.379	7.192	0.880	59	599	N.D.		
94) Ethyl acetate	7.376	7.380	0.879	43	1512439	224.54	ug/L	99
95) Propionitrile	7.581	7.578	0.904	54	236082	249.05	ug/L	100
96) Methacrylonitrile	7.673	7.677	0.915	41	1279907	239.88	ug/L	99
97) Tetrahydrofuran	7.712	7.708	0.919	42	568524	232.47	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C205.D
Acq On : 16 Mar 2010 9:07 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100316-04|CCV|1|VOA|1|VOA8260BS|
Misc : CCV 5G - MIX[B] 304-08A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 09:34:14 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98)	Isobutyl alcohol	7.857	7.854	0.937	41	613862	2416.53	ug/L	99
99)	Methyl tert-amyl ether	0.000	8.119	0.000		0	N.D.		
100)	Methyl methacrylate	8.801	8.798	1.049	69	989110	258.66	ug/L	99
101)	1,4-Dioxane	8.957	8.953	1.068	88	153123	2484.39	ug/L	99
102)	2-Nitropropane	9.339	9.339	1.113	43	480151	266.38	ug/L	100
104)	Ethyl methacrylate	9.855	9.855	0.885	69	1936945	265.64	ug/L	99
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	12.132	12.133	0.905	53	679509	276.22	ug/L	99
108)	Cyclohexanone	12.263	12.263	0.915	42	233071	957.21	ug/L	99
109)	trans-1,4-Dichloro-2-b...	12.408	12.408	0.925	53	632160	272.83	ug/L	100
110)	Pentachloroethane	13.013	13.017	0.970	167	941315	271.93	ug/L	99
111)	Benzyl chloride	13.561	13.565	1.011	91	3347845	285.01	ug/L	100
112)	bis(2-Chloroisopropyl)...	13.925	13.925	1.039	45	979518	239.89	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C205.D
Acq On : 16 Mar 2010 9:07 am
Operator : CDS1
InstName : VOA5
Sample : |W5VM100316-04|CCV|1|VOA|1|VOA8260BS|
Misc : CCV 5G - MIX[B] 304-08A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 09:34:14 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

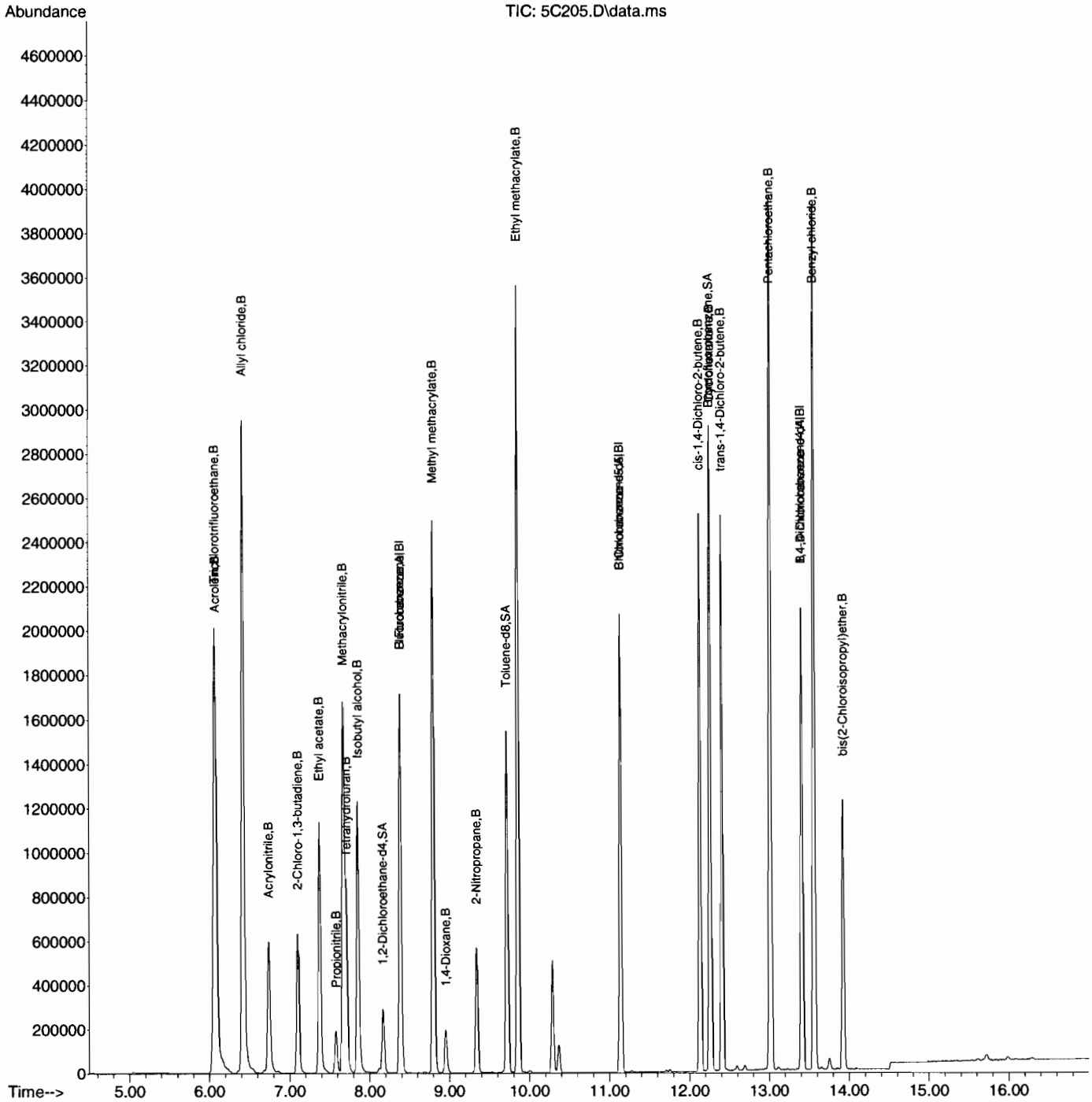

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V5\
Data File : 5C101.D
Acq On : 15 Mar 2010 4:20 pm
Operator : CDS1
Sample : |UVM100217-02|BFB|1|VOA|1|VOA8260BL|
Misc : BFB 5mL N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Title : Volatile Organics 8260B SubList :
Last Update : Tue Mar 16 06:50:36 2010

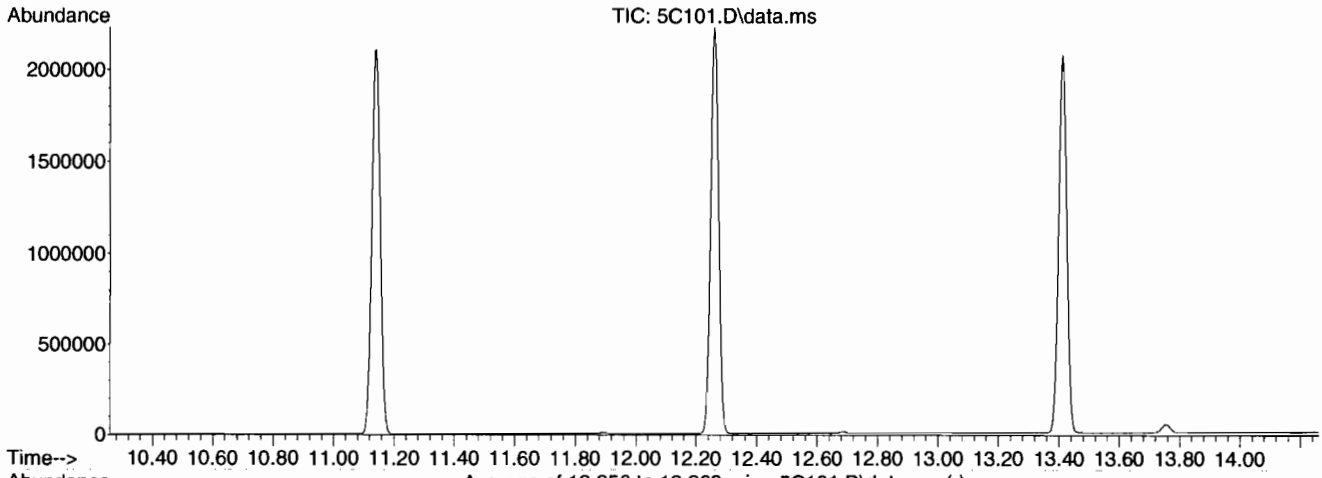

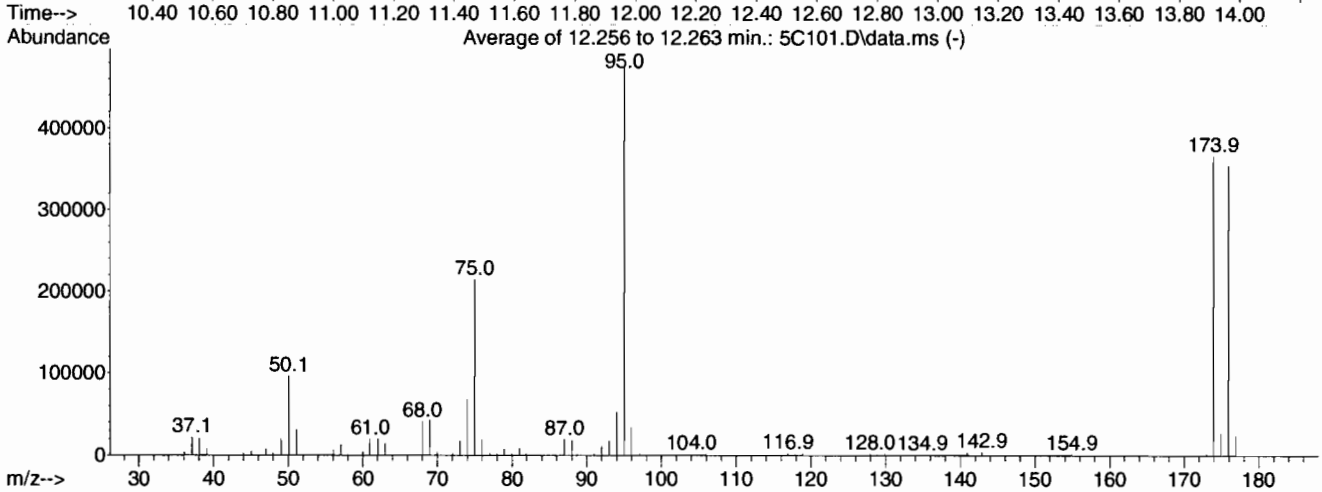

Spectrum Information: Average of 12.256 to 12.263 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	95704	PASS
75	95	30	60	45.3	214144	PASS
95	95	100	100	100.0	472768	PASS
96	95	5	9	7.1	33568	PASS
173	174	0.00	2	0.6	2274	PASS
174	95	50	100	77.4	365995	PASS
175	174	5	9	7.2	26299	PASS
176	174	95	101	96.8	354176	PASS
177	176	5	9	6.7	23652	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C201.D
Acq On : 16 Mar 2010 7:14 am
Operator : CDS1
Sample : |UVM100217-02|BFB|1|VOA|1|VOA8260BL|
Misc : BFB 5mL N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Title : Volatile Organics 8260B SubList :
Last Update : Tue Mar 16 06:50:36 2010

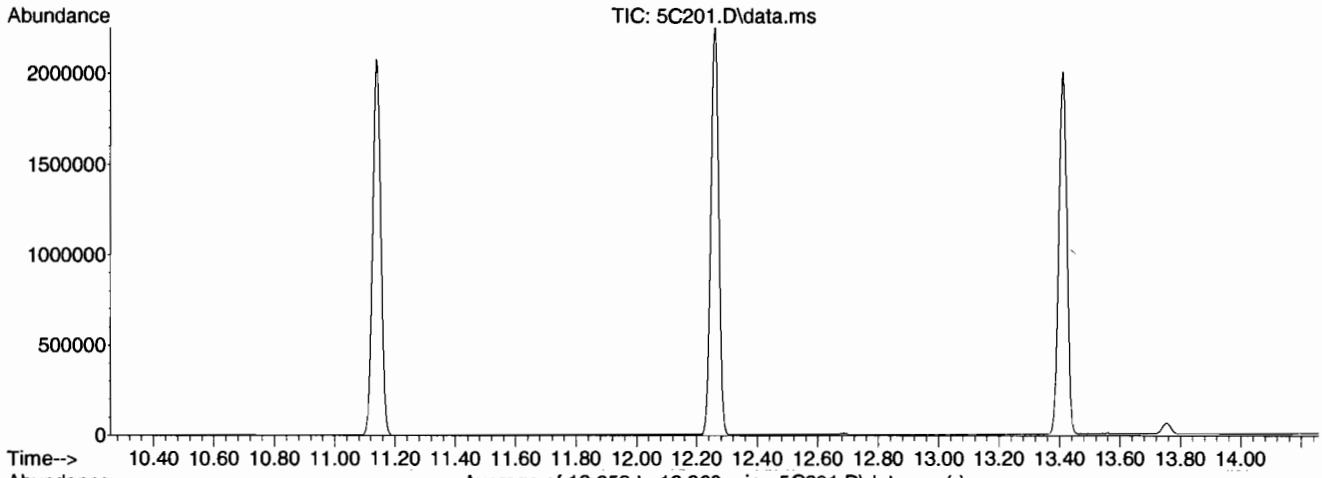

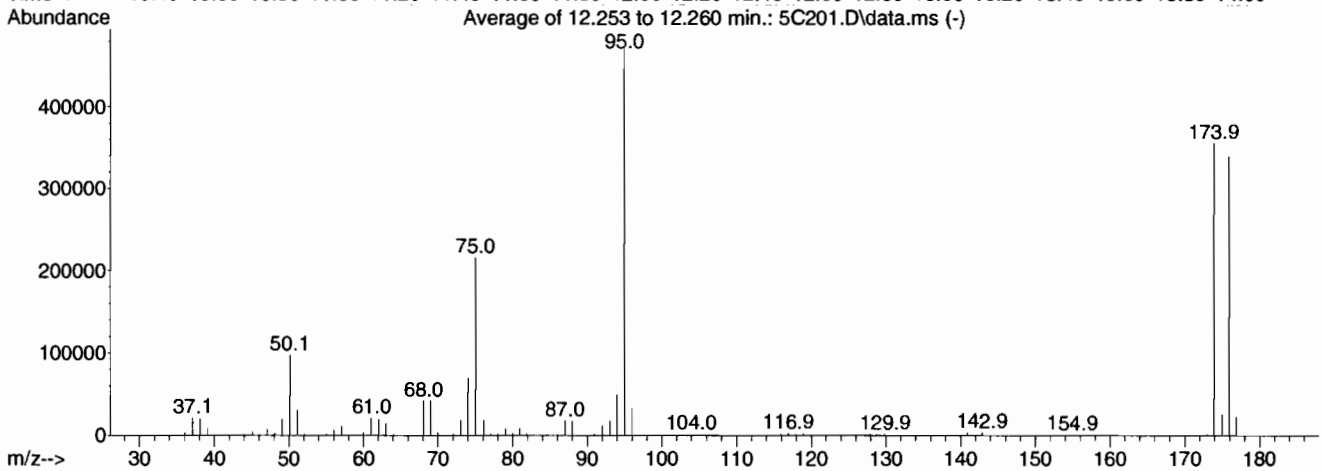

Spectrum Information: Average of 12.253 to 12.260 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.6	97133	PASS
75	95	30	60	45.8	215979	PASS
95	95	100	100	100.0	471104	PASS
96	95	5	9	7.1	33280	PASS
173	174	0.00	2	0.6	2228	PASS
174	95	50	100	75.5	355861	PASS
175	174	5	9	7.2	25445	PASS
176	174	95	101	95.5	339861	PASS
177	176	5	9	6.7	22768	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072217**				
Client Sample:	**QC for batch 965701**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965701**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 10:00**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C207.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072217**				
Client Sample:	**QC for batch 965701**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965701**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 10:00**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C207.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C207.D
Acq On : 16 Mar 2010 10:00 am
Operator : CDS1
InstName : VOA5
Sample : |1202072217|965702|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 16 15:47:19 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.388	8.387	1.000	96	1490079	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.139	11.142	1.000	117	1093347	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	526487	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.387	1.000	96	1490079	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.139	11.139	1.000	117	1093347	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	526487	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	206079	49.71	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 99.42%					
43) Toluene-d8	9.721	9.721	0.873	98	1066266	50.70	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 101.40%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	826243	56.06	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 112.12%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.890	4.900	0.583	50	941	Below Cal	#	6
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	0.000	5.866	0.000		0	N.D.		
9) Acetone	6.181	6.170	0.737	43	3805	Below Cal		55
10) 1,1-Dichloroethylene	0.000	6.152	0.000		0	N.D.		
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.450	6.460	0.769	41	524	N.D.		
13) Methyl acetate	6.181	6.361	0.737	43	3805	N.D.		
14) Carbon disulfide	6.428	6.435	0.766	76	1506	N.D.		
15) Methylene chloride	6.531	6.538	0.779	84	2218	Below Cal	#	78
16) tert-Butyl methyl ether	0.000	6.637	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.711	0.000		0	N.D.		
18) Vinyl acetate	6.966	6.969	0.831	43	107	N.D.		
19) 1,1-Dichloroethane	0.000	7.072	0.000		0	N.D.		
20) 2-Butanone	7.458	7.450	0.889	43	117	N.D.		
21) cis-1,2-Dichloroethylene	0.000	7.507	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	7.510	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.715	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.903	0.000		0	N.D.		
26) Cyclohexane	0.000	7.928	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.002	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.232	0.000		0	N.D.		
31) Benzene	8.391	8.200	1.000	78	2019	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D.	d	
33) n-Butyl alcohol	0.000	8.373	0.000		0m	N.D.	d	
34) Trichloroethylene	0.000	8.677	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	0.000	8.829	0.000		0	N.D.		
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C207.D
Acq On : 16 Mar 2010 10:00 am
Operator : CDS1
InstName : VOA5
Sample : |1202072217|965702|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 16 15:47:19 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	9.109	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000	9.484	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	9.526	0.000		0	N.D.	
44)	Toluene	9.788	9.788	0.879	91	1842	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	9.968	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	10.173	0.000		0	N.D.	
47)	2-Hexanone	10.276	10.276	0.923	43	1109	N.D.	
48)	1,3-Dichloropropane	0.000	10.361	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	10.290	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	10.771	0.000		0	N.D.	
52)	Chlorobenzene	0.000	11.170	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54)	Ethylbenzene	11.185	11.178	1.004	91	854	N.D.	
55)	m,p-Xylenes	11.277	11.277	1.012	106	117	N.D.	
56)	o-Xylene	0.000	11.697	0.000		0	N.D.	
57)	Styrene	11.719	11.715	1.052	104	107	N.D.	
59)	Bromoform	0.000	12.002	0.000		0	N.D.	
60)	Isopropylbenzene	12.016	12.012	0.896	105	117	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	12.348	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64)	Bromobenzene	12.454	12.465	0.929	156	108	N.D.	
65)	n-Propylbenzene	12.412	12.415	0.925	91	2496	N.D.	
66)	1,3,5-Trimethylbenzene	12.560	12.560	0.936	105	592	N.D.	
67)	2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68)	4-Chlorotoluene	12.695	12.698	0.946	91	2357	N.D.	
69)	tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	12.957	12.956	0.966	105	526	N.D.	
71)	sec-Butylbenzene	13.119	13.116	0.978	105	1062	N.D.	
72)	4-Isopropyltoluene	13.222	13.229	0.986	119	2357	N.D.	
73)	1,3-Dichlorobenzene	13.342	13.349	0.995	146	222	N.D.	
74)	1,4-Dichlorobenzene	13.438	13.441	1.002	146	1348	N.D.	
75)	n-Butylbenzene	13.646	13.653	1.017	91	2294	N.D.	
76)	1,2-Dichlorobenzene	13.855	13.855	1.033	146	225	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	15.605	15.612	1.163	180	878	N.D.	
79)	Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80)	Naphthalene	0.000	15.988	0.000		0m	N.D.	d
81)	1,2,3-Trichlorobenzene	16.284	16.291	1.214	180	857	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.	
85)	Acrolein	0.000	6.078	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	6.160	0.000		0	N.D.	
88)	Allyl chloride	6.443	6.421	0.768	41	255	N.D.	
89)	tert-Butyl Alcohol	0.000	6.457	0.000		0	N.D.	
90)	Acrylonitrile	0.000	6.740	0.000		0	N.D.	
91)	Isopropyl ether	0.000	6.916	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	7.104	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	7.192	0.000		0	N.D.	
94)	Ethyl acetate	7.458	7.380	0.889	43	117	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C207.D
Acq On : 16 Mar 2010 10:00 am
Operator : CDS1
InstName : VOA5
Sample : |1202072217|965702|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 16 15:47:19 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	7.578	0.000		0	N.D.	
96)	Methacrylonitrile	7.719	7.677	0.920	41	409	N.D.	
97)	Tetrahydrofuran	7.709	7.708	0.919	42	1408	N.D.	
98)	Isobutyl alcohol	7.861	7.854	0.937	41	136	N.D.	
99)	Methyl tert-amyl ether	0.000	8.119	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	8.798	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	8.953	0.000		0	N.D.	
102)	2-Nitropropane	9.113	9.339	1.086	43	110	N.D.	
104)	Ethyl methacrylate	0.000	9.855	0.000		0	N.D.	
106)	1-Chlorohexane	11.065	10.980	0.825	55	120	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	12.133	0.000		0	N.D.	
108)	Cyclohexanone	0.000	12.263	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	12.412	12.408	0.925	53	216	N.D.	
110)	Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111)	Benzyl chloride	13.565	13.565	1.011	91	4377	N.D.	
112)	bis(2-Chloroisopropyl)...	13.926	13.925	1.038	45	1260	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C207.D
Acq On : 16 Mar 2010 10:00 am
Operator : CDS1
InstName : VOA5
Sample : |1202072217|965702|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 16 15:47:19 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

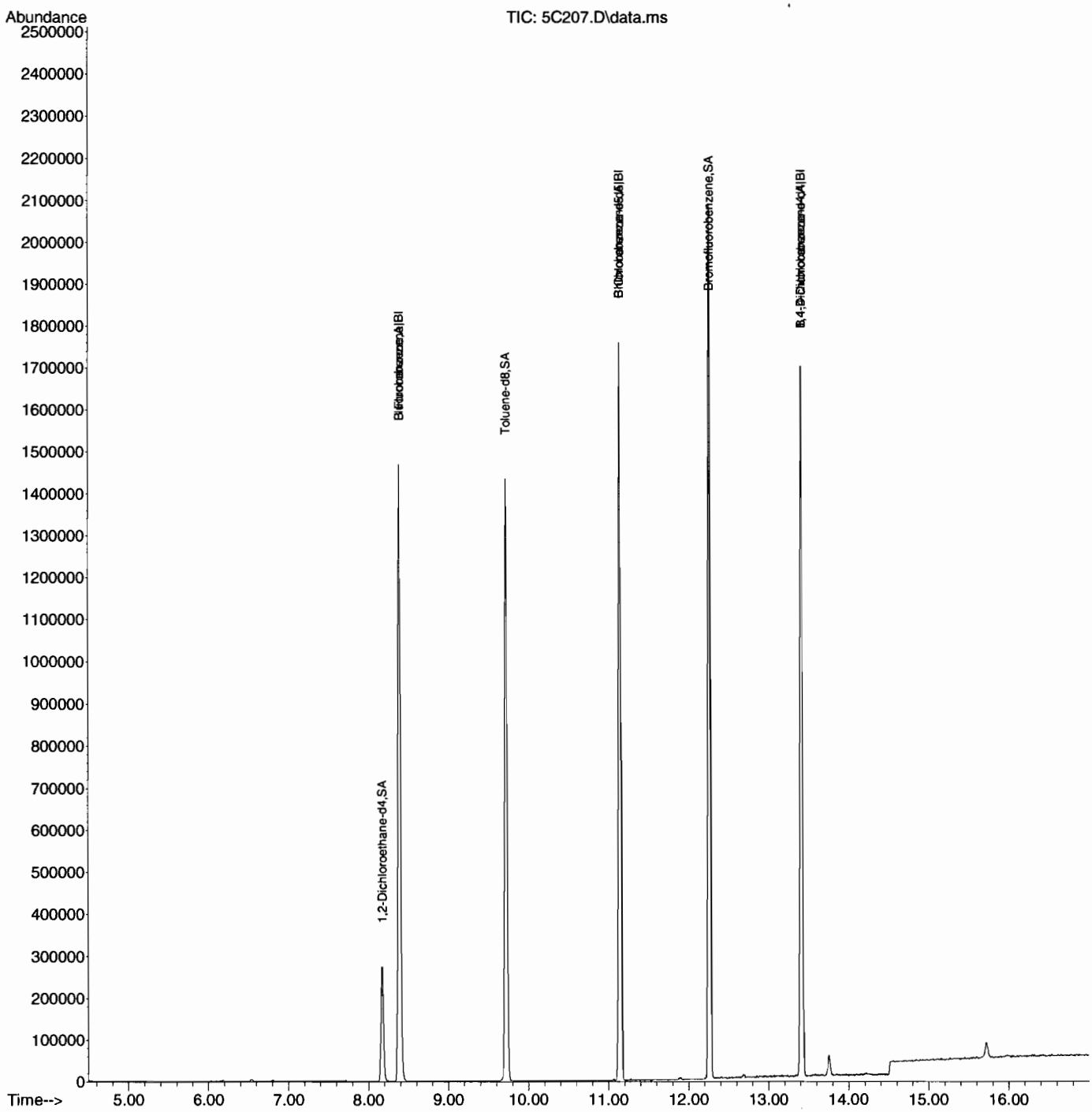

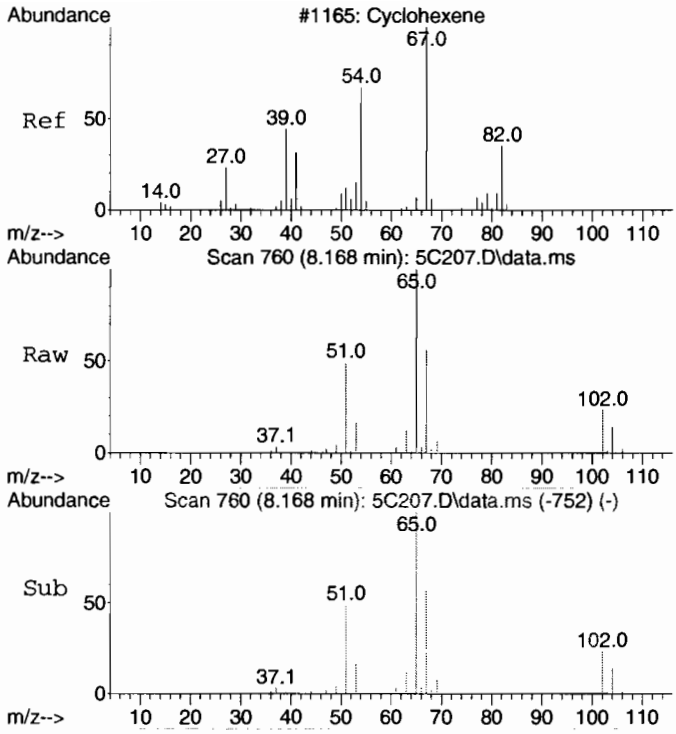

#32 BEFORE analyst DELETION
Cyclohexene
Concen: 10.69 ug/L
RT: 8.168 min Scan# 760
Delta R.T. -0.078 min
Lab File: 5C207.D
Acq: 16 Mar 2010 10:00 am

Tgt Ion: 67 Resp: 100508

Ion	Ratio	Lower	Upper
67	100		
54	0.0	47.0	107.0#

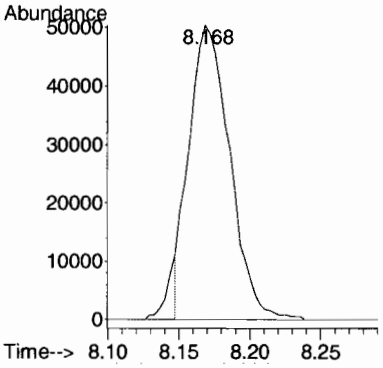

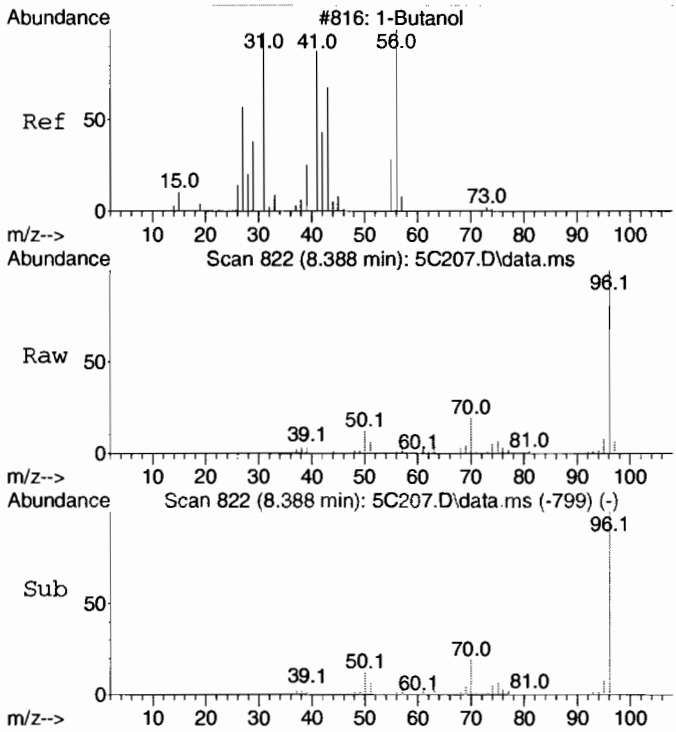

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 71.05 ug/L
RT: 8.388 min Scan# 822
Delta R.T. 0.015 min
Lab File: 5C207.D
Acq: 16 Mar 2010 10:00 am

Tgt Ion: 56 Resp: 8630

Ion	Ratio	Lower	Upper
56	100		
41	2.7	40.9	100.9#
43	0.0	27.4	87.4#

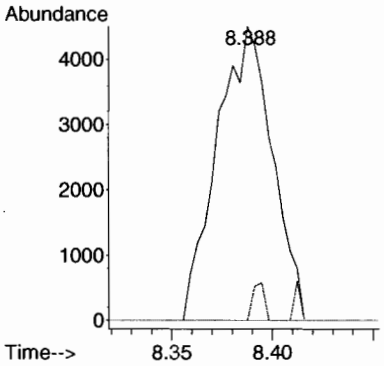

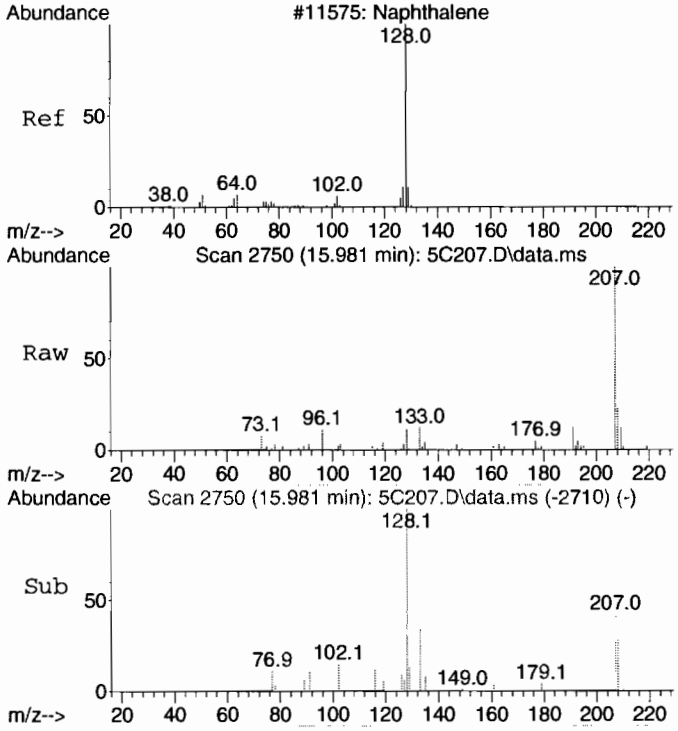

#80 BEFORE analyst DELETION
Naphthalene
Concen: 0.34 ug/L
RT: 15.981 min Scan# 2750
Delta R.T. -0.007 min
Lab File: 5C207.D
Acq: 16 Mar 2010 10:00 am

Tgt Ion:128 Resp: 5568

Ion	Ratio	Lower	Upper
128	100		
127	26.1	0.0	42.6
129	5.3	0.0	40.9

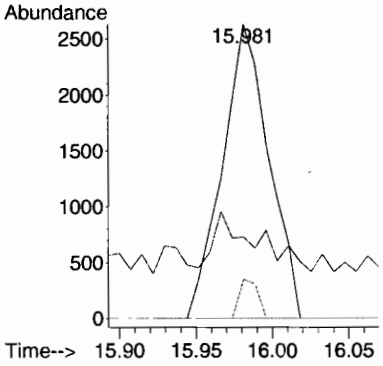

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C207.D
Acq On : 16 Mar 2010 10:00 am
Operator : CDS1
Sample : |1202072217|965702|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C207.D
Acq On    : 16 Mar 2010  10:00 am
Operator  : CDS1
Sample    : |1202072217|965702|1|VOA|1|VOA8260BS|
Misc      : BLANK 5G - SOIL
ALS Vial  : 7   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library   : C:\Database\NIST05.L
TIC Integration Parameters: default.P

                                                  |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-------------------------------------------------------------------------
```

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072220**				
Client Sample:	**QC for batch 965701**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965701**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 08:41**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C204.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		56.9	ug/kg	0.340	1.00
74-87-3	Chloromethane		46.2	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		50.2	ug/kg	0.300	1.00
74-83-9	Bromomethane		46.0	ug/kg	0.300	1.00
75-00-3	Chloroethane		48.1	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		52.5	ug/kg	0.300	1.00
67-64-1	Acetone		249	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		49.4	ug/kg	0.300	1.00
74-88-4	Iodomethane		234	ug/kg	1.60	5.00
75-09-2	Methylene chloride		47.0	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		253	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		49.9	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		48.0	ug/kg	0.300	1.00
78-93-3	2-Butanone		255	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		48.0	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		51.6	ug/kg	0.300	1.00
67-66-3	Chloroform		47.9	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		46.7	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		52.2	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		52.1	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		53.6	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		46.2	ug/kg	0.300	1.00
71-43-2	Benzene		47.0	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		49.2	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		47.2	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		49.3	ug/kg	0.300	1.00
74-95-3	Dibromomethane		47.9	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		268	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		48.6	ug/kg	0.300	1.00
108-88-3	Toluene		46.0	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		48.1	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		45.9	ug/kg	0.300	1.00
591-78-6	2-Hexanone		263	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		45.3	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		48.0	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		51.1	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		49.6	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		46.5	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072220**				
Client Sample:	**QC for batch 965701**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965701**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 08:41**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C204.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		46.0	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		95.3	ug/kg	0.300	2.00
95-47-6	o-Xylene		48.0	ug/kg	0.300	1.00
100-42-5	Styrene		50.0	ug/kg	0.300	1.00
75-25-2	Bromoform		51.8	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		46.3	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		47.1	ug/kg	0.300	1.00
108-86-1	Bromobenzene		45.0	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		45.9	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		45.3	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		46.9	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		46.5	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		44.1	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		46.1	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		46.1	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		47.6	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		46.5	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		45.5	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		44.4	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		46.1	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		51.5	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		48.4	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		45.3	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C204.D
Acq On : 16 Mar 2010 8:41 am
Operator : CDS1
InstName : VOA5
Sample : |1202072220|965702|1|VOA|1|VOA8260BS|
Misc : LCS 5G - SOIL MIX[A] 0305-01B+0316-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 09:33:54 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1722609	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.139	11.142	1.000	117	1305962	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	681466	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.387	1.000	96	1722609	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.139	11.139	1.000	117	1305962	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	681466	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	226203	47.20	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 94.40%					
43) Toluene-d8	9.721	9.721	0.873	98	1165070	46.38	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 92.76%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	932830	48.90	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 97.80%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	190207	56.89	ug/L	100
3) Chloromethane	4.900	4.900	0.584	50	240584	46.19	ug/L	99
4) Vinyl chloride	5.031	5.041	0.600	62	212742	50.21	ug/L	100
5) Bromomethane	5.423	5.423	0.647	94	188824	46.04	ug/L	99
6) Chloroethane	5.504	5.504	0.656	64	202857	48.14	ug/L	100
7) Trichlorofluoromethane	5.695	5.695	0.679	101	371029	52.46	ug/L	100
8) Ethyl ether	5.867	5.866	0.699	59	302107	48.25	ug/L	85
9) Acetone	6.170	6.170	0.736	43	1205752	249.10	ug/L	100
10) 1,1-Dichloroethylene	6.149	6.152	0.733	61	392234	49.42	ug/L	99
11) Iodomethane	6.358	6.357	0.758	142	1946349	233.54	ug/L	100
12) Acetonitrile	6.457	6.460	0.770	41	1190245	1190.68	ug/L	100
13) Methyl acetate	6.361	6.361	0.758	43	1325742	238.00	ug/L	100
14) Carbon disulfide	6.432	6.435	0.767	76	4028766	253.06	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	303224	46.96	ug/L	99
16) tert-Butyl methyl ether	6.637	6.637	0.791	73	805691	47.74	ug/L	99
17) trans-1,2-Dichloroethy...	6.708	6.711	0.800	61	433685	49.94	ug/L	100
18) Vinyl acetate	6.966	6.969	0.831	43	3966266	268.96	ug/L	100
19) 1,1-Dichloroethane	7.065	7.072	0.842	63	532127	47.97	ug/L	100
20) 2-Butanone	7.447	7.450	0.888	43	1513515	255.38	ug/L	100
21) cis-1,2-Dichloroethylene	7.503	7.507	0.895	61	491760	48.00	ug/L	99
22) 2,2-Dichloropropane	7.507	7.510	0.895	77	407042	51.62	ug/L	99
23) Bromochloromethane	7.719	7.715	0.920	128	144032	46.73	ug/L	100
24) Chloroform	7.694	7.701	0.917	83	464576	47.90	ug/L	99
25) 1,1,1-Trichloroethane	7.903	7.903	0.942	97	406976	52.18	ug/L	99
26) Cyclohexane	7.921	7.928	0.944	56	572146	52.02	ug/L	100
27) 1,1-Dichloropropene	8.002	8.002	0.954	75	370295	52.09	ug/L	99
28) Carbon tetrachloride	8.023	8.020	0.957	117	356414	53.59	ug/L	100
30) 1,2-Dichloroethane	8.232	8.232	0.981	62	402063	46.16	ug/L	99
31) Benzene	8.200	8.200	0.978	78	1133427	47.02	ug/L	100
32) Cyclohexene	8.246	8.246	0.983	67	544119	50.08	ug/L	99
33) n-Butyl alcohol	8.373	8.373	0.998	56	1368934	5705.49	ug/L	98
34) Trichloroethylene	8.670	8.677	1.034	95	273311	49.16	ug/L	99
35) 1,2-Dichloropropane	8.929	8.932	1.065	63	322577	47.17	ug/L	99
36) Methylcyclohexane	8.826	8.829	1.052	83	501753	50.59	ug/L	100
37) Dibromomethane	9.056	9.059	1.080	93	172680	47.93	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C204.D
Acq On : 16 Mar 2010 8:41 am
Operator : CDS1
InstName : VOA5
Sample : |1202072220|965702|1|VOA|1|VOA8260BS|
Misc : LCS 5G - SOIL MIX[A] 0305-01B+0316-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 09:33:54 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38)	Bromodichloromethane	9.109	9.109	1.086	83	355838	49.29	ug/L	99
39)	2-Chloroethylvinyl ether	9.250	9.254	1.103	63	636807	267.01	ug/L	100
40)	cis-1,3-Dichloropropylene	9.484	9.484	1.131	75	476238	48.55	ug/L	98
42)	4-Methyl-2-pentanone	9.526	9.526	0.855	58	783694	268.06	ug/L	100
44)	Toluene	9.784	9.788	0.878	91	1219697	45.99	ug/L	100
45)	trans-1,3-Dichloroprop...	9.965	9.968	0.895	75	445677	48.08	ug/L	99
46)	1,1,2-Trichloroethane	10.170	10.173	0.913	83	211791	45.88	ug/L	99
47)	2-Hexanone	10.276	10.276	0.923	43	2073335	263.45	ug/L	100
48)	1,3-Dichloropropane	10.364	10.361	0.930	76	459060	45.34	ug/L	100
49)	Tetrachloroethylene	10.290	10.290	0.924	164	229241	48.04	ug/L	100
50)	Dibromochloromethane	10.580	10.583	0.950	129	269510	51.06	ug/L	100
51)	1,2-Dibromoethane	10.771	10.771	0.967	107	254166	49.62	ug/L	99
52)	Chlorobenzene	11.171	11.170	1.003	112	801690	46.54	ug/L	100
53)	1,1,1,2-Tetrachloroethane	11.217	11.216	1.007	131	284451	48.38	ug/L	99
54)	Ethylbenzene	11.178	11.178	1.003	91	1376611	46.00	ug/L	100
55)	m,p-Xylenes	11.277	11.277	1.012	106	1082974	95.27	ug/L	100
56)	o-Xylene	11.701	11.697	1.050	106	538926	48.01	ug/L	99
57)	Styrene	11.712	11.715	1.051	104	860333	50.01	ug/L	99
59)	Bromoform	12.002	12.002	0.895	173	184419	51.75	ug/L	99
60)	Isopropylbenzene	12.012	12.012	0.896	105	1378301	46.88	ug/L	100
62)	1,1,2,2-Tetrachloroethane	12.345	12.348	0.920	83	358586	46.28	ug/L	99
63)	1,2,3-Trichloropropane	12.454	12.454	0.929	110	99055	47.12	ug/L	97
64)	Bromobenzene	12.465	12.465	0.929	156	334309	44.95	ug/L	98
65)	n-Propylbenzene	12.412	12.415	0.925	91	1613064	45.92	ug/L	99
66)	1,3,5-Trimethylbenzene	12.560	12.560	0.936	105	1161641	46.49	ug/L	99
67)	2-Chlorotoluene	12.592	12.596	0.939	126	336075	45.31	ug/L	100
68)	4-Chlorotoluene	12.698	12.698	0.947	91	1001268	44.08	ug/L	99
69)	tert-Butylbenzene	12.900	12.900	0.962	134	258644	46.05	ug/L	99
70)	1,2,4-Trimethylbenzene	12.953	12.956	0.966	105	1174482	46.13	ug/L	100
71)	sec-Butylbenzene	13.116	13.116	0.978	105	1507811	47.60	ug/L	100
72)	4-Isopropyltoluene	13.229	13.229	0.986	119	1208711	46.45	ug/L	99
73)	1,3-Dichlorobenzene	13.349	13.349	0.995	146	627370	45.47	ug/L	100
74)	1,4-Dichlorobenzene	13.437	13.441	1.002	146	634549	44.40	ug/L	98
75)	n-Butylbenzene	13.653	13.653	1.018	91	1138896	46.10	ug/L	100
76)	1,2-Dichlorobenzene	13.855	13.855	1.033	146	611798	45.28	ug/L	100
77)	1,2-Dibromo-3-chloropr...	14.697	14.704	1.096	157	70815	51.49	ug/L	96
78)	1,2,4-Trichlorobenzene	15.612	15.612	1.164	180	434266	47.99	ug/L	100
79)	Hexachlorobutadiene	15.686	15.686	1.169	225	253830	47.72	ug/L	100
80)	Naphthalene	15.989	15.988	1.192	128	1044500	49.36	ug/L	100
81)	1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	399221	50.56	ug/L	100
83)	Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85)	Acrolein	5.957	6.078	0.710		0m	N.D.	d	
86)	Trichlorotrifluoroethane	6.068	6.068	0.723		0m	N.D.	d	
87)	Isopropyl Alcohol	6.170	6.160	0.736		0m	N.D.	d	
88)	Allyl chloride	6.457	6.421	0.770		0m	N.D.	d	
89)	tert-Butyl Alcohol	6.464	6.457	0.771		0m	N.D.	d	
90)	Acrylonitrile	6.626	6.740	0.790		0m	N.D.	d	
91)	Isopropyl ether	6.916	6.916	0.825		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	7.040	7.104	0.839		0m	N.D.	d	
93)	Ethyl tert-butyl ether	7.185	7.192	0.857		0m	N.D.	d	
94)	Ethyl acetate	7.376	7.380	0.879		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C204.D
Acq On : 16 Mar 2010 8:41 am
Operator : CDS1
InstName : VOA5
Sample : |1202072220|965702|1|VOA|1|VOA8260BS|
Misc : LCS 5G - SOIL MIX[A] 0305-01B+0316-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 09:33:54 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	7.663	7.578	0.914		0m	N.D.	d
96)	Methacrylonitrile	7.677	7.677	0.915		0m	N.D.	d
97)	Tetrahydrofuran	7.712	7.708	0.919		0m	N.D.	d
98)	Isobutyl alcohol	7.677	7.854	0.915		0m	N.D.	d
99)	Methyl tert-amyl ether	8.122	8.119	0.968		0m	N.D.	d
100)	Methyl methacrylate	8.826	8.798	1.052		0m	N.D.	d
101)	1,4-Dioxane	9.063	8.953	1.081		0m	N.D.	d
102)	2-Nitropropane	9.374	9.339	1.118		0m	N.D.	d
104)	Ethyl methacrylate	9.852	9.855	0.884		0m	N.D.	d
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	12.016	12.133	0.896		0m	N.D.	d
108)	Cyclohexanone	12.359	12.263	0.921		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	12.408	12.408	0.925		0m	N.D.	d
110)	Pentachloroethane	13.010	13.017	0.970		0m	N.D.	d
111)	Benzyl chloride	13.561	13.565	1.011		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	13.933	13.925	1.039		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C204.D
Acq On : 16 Mar 2010 8:41 am
Operator : CDS1
InstName : VOA5
Sample : |1202072220|965702|1|VOA|1|VOA8260BS|
Misc : LCS 5G - SOIL MIX[A] 0305-01B+0316-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 16 09:33:54 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

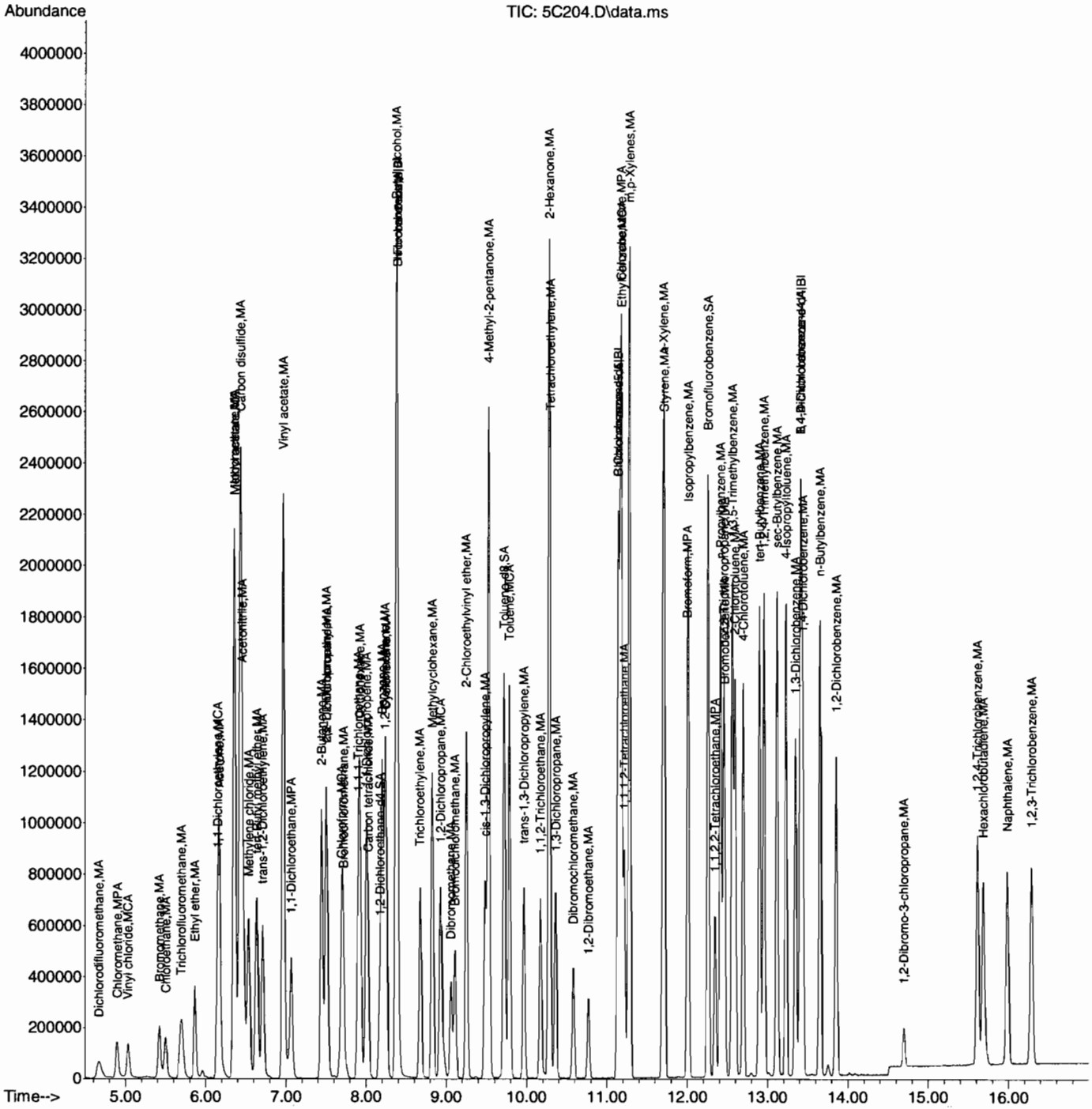

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072221**				
Client Sample:	**QC for batch 965701**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965701**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 09:07**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C205SLS.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072221**				
Client Sample:	**QC for batch 965701**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965701**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 09:07**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C205SLS.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		282	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C205SLS.D
Acq On : 16 Mar 2010 9:07 am
Operator : CDS1
InstName : VOA5
Sample : |1202072221|965702|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[B] 304-08A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 09:34:14 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1713952	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.139	11.142	1.000	117	1281289	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.409	13.413	1.000	152	645528	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.387	1.000	96	1713952	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.139	11.139	1.000	117	1281289	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.409	13.413	1.000	152	645528	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.168	8.172	0.974	65	217437	45.60	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 91.20%					
43) Toluene-d8	9.717	9.721	0.872	98	1159865	47.06	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 94.12%					
61) Bromofluorobenzene	12.256	12.260	0.914	95	918694	50.84	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 101.68%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.889	4.900	0.583		0m	N.D.	d	
4) Vinyl chloride	0.000	5.041	0.000		0	N.D.		
5) Bromomethane	0.000	5.423	0.000		0	N.D.		
6) Chloroethane	0.000	5.504	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.695	0.000		0	N.D.		
8) Ethyl ether	6.067	5.866	0.723		0m	N.D.	d	
9) Acetone	6.159	6.170	0.734		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.071	6.152	0.724		0m	N.D.	d	
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.421	6.460	0.766		0m	N.D.	d	
13) Methyl acetate	6.361	6.361	0.758		0m	N.D.	d	
14) Carbon disulfide	6.421	6.435	0.766		0m	N.D.	d	
15) Methylene chloride	6.531	6.538	0.779		0m	N.D.	d	
16) tert-Butyl methyl ether	6.633	6.637	0.791		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	6.711	0.000		0	N.D.		
18) Vinyl acetate	7.093	6.969	0.846		0m	N.D.	d	
19) 1,1-Dichloroethane	7.104	7.072	0.847		0m	N.D.	d	
20) 2-Butanone	7.376	7.450	0.879		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	7.379	7.507	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	7.510	0.000		0	N.D.		
23) Bromochloromethane	0.000	7.715	0.000		0	N.D.		
24) Chloroform	0.000	7.701	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	7.903	0.000		0	N.D.		
26) Cyclohexane	7.857	7.928	0.937		0m	N.D.	d	
27) 1,1-Dichloropropene	8.115	8.002	0.968		0m	N.D.	d	
28) Carbon tetrachloride	0.000	8.020	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	8.232	0.000		0	N.D.		
31) Benzene	8.200	8.200	0.978		0m	N.D.	d	
32) Cyclohexene	8.235	8.246	0.982		0m	N.D.	d	
33) n-Butyl alcohol	8.384	8.373	1.000		0m	N.D.	d	
34) Trichloroethylene	8.681	8.677	1.035		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.798	8.829	1.049		0m	N.D.	d	
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C205SLS.D
Acq On : 16 Mar 2010 9:07 am
Operator : CDS1
InstName : VOA5
Sample : |1202072221|965702|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[B] 304-08A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 09:34:14 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38)	Bromodichloromethane	0.000	9.109	0.000		0	N.D.		
39)	2-Chloroethylvinyl ether	0.000	9.254	0.000		0	N.D.		
40)	cis-1,3-Dichloropropylene	0.000	9.484	0.000		0	N.D.		
42)	4-Methyl-2-pentanone	9.526	9.526	0.855		0m	N.D.	d	
44)	Toluene	9.784	9.788	0.878		0m	N.D.	d	
45)	trans-1,3-Dichloroprop...	9.954	9.968	0.894		0m	N.D.	d	
46)	1,1,2-Trichloroethane	10.283	10.173	0.923		0m	N.D.	d	
47)	2-Hexanone	10.283	10.276	0.923		0m	N.D.	d	
48)	1,3-Dichloropropane	10.361	10.361	0.930		0m	N.D.	d	
49)	Tetrachloroethylene	10.290	10.290	0.924		0m	N.D.	d	
50)	Dibromochloromethane	0.000	10.583	0.000		0	N.D.		
51)	1,2-Dibromoethane	10.767	10.771	0.967		0m	N.D.	d	
52)	Chlorobenzene	11.170	11.170	1.003		0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane	11.220	11.216	1.007		0m	N.D.	d	
54)	Ethylbenzene	11.174	11.178	1.003		0m	N.D.	d	
55)	m,p-Xylenes	11.280	11.277	1.013		0m	N.D.	d	
56)	o-Xylene	11.704	11.697	1.051		0m	N.D.	d	
57)	Styrene	11.708	11.715	1.051		0m	N.D.	d	
59)	Bromoform	0.000	12.002	0.000		0	N.D.		
60)	Isopropylbenzene	12.005	12.012	0.895		0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane	12.348	12.348	0.921		0m	N.D.	d	
63)	1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.		
64)	Bromobenzene	12.461	12.465	0.929		0m	N.D.	d	
65)	n-Propylbenzene	12.408	12.415	0.925		0m	N.D.	d	
66)	1,3,5-Trimethylbenzene	12.557	12.560	0.936		0m	N.D.	d	
67)	2-Chlorotoluene	12.592	12.596	0.939		0m	N.D.	d	
68)	4-Chlorotoluene	12.695	12.698	0.947		0m	N.D.	d	
69)	tert-Butylbenzene	12.900	12.900	0.962		0m	N.D.	d	
70)	1,2,4-Trimethylbenzene	12.953	12.956	0.966		0m	N.D.	d	
71)	sec-Butylbenzene	13.112	13.116	0.978		0m	N.D.	d	
72)	4-Isopropyltoluene	13.225	13.229	0.986		0m	N.D.	d	
73)	1,3-Dichlorobenzene	13.345	13.349	0.995		0m	N.D.	d	
74)	1,4-Dichlorobenzene	13.437	13.441	1.002		0m	N.D.	d	
75)	n-Butylbenzene	13.653	13.653	1.018		0m	N.D.	d	
76)	1,2-Dichlorobenzene	13.855	13.855	1.033		0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...	14.704	14.704	1.097		0m	N.D.	d	
78)	1,2,4-Trichlorobenzene	15.619	15.612	1.165		0m	N.D.	d	
79)	Hexachlorobutadiene	15.686	15.686	1.170		0m	N.D.	d	
80)	Naphthalene	15.988	15.988	1.192		0m	N.D.	d	
81)	1,2,3-Trichlorobenzene	16.283	16.291	1.214		0m	N.D.	d	
83)	Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85)	Acrolein	6.078	6.078	0.725	56	304800	264.48	ug/L	99
86)	Trichlorotrifluoroethane	6.071	6.068	0.724	85	531112	281.82	ug/L	99
87)	Isopropyl Alcohol	0.000	6.160	0.000		0m	N.D.	d	
88)	Allyl chloride	6.421	6.421	0.766	41	2640640	223.48	ug/L	94
89)	tert-Butyl Alcohol	6.456	6.457	0.770	59	120	N.D.		
90)	Acrylonitrile	6.739	6.740	0.804	53	609022	252.48	ug/L	99
91)	Isopropyl ether	7.104	6.916	0.847	45	111	N.D.		
92)	2-Chloro-1,3-butadiene	7.104	7.104	0.847	53	481823	60.96	ug/L	98
93)	Ethyl tert-butyl ether	7.379	7.192	0.880	59	599	N.D.		
94)	Ethyl acetate	7.376	7.380	0.879	43	1512439	224.54	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C205SLS.D
Acq On : 16 Mar 2010 9:07 am
Operator : CDS1
InstName : VOA5
Sample : |1202072221|965702|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[B] 304-08A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 09:34:14 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	7.581	7.578	0.904	54	236082	249.05	ug/L	100
96)	Methacrylonitrile	7.673	7.677	0.915	41	1279907	239.88	ug/L	99
97)	Tetrahydrofuran	7.712	7.708	0.919	42	568524	232.47	ug/L	100
98)	Isobutyl alcohol	7.857	7.854	0.937	41	613862	2416.53	ug/L	99
99)	Methyl tert-amyl ether	0.000	8.119	0.000		0	N.D.		
100)	Methyl methacrylate	8.801	8.798	1.049	69	989110	258.66	ug/L	99
101)	1,4-Dioxane	8.957	8.953	1.068	88	153123	2484.39	ug/L	99
102)	2-Nitropropane	9.339	9.339	1.113	43	480151	266.38	ug/L	100
104)	Ethyl methacrylate	9.855	9.855	0.885	69	1936945	265.64	ug/L	99
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	12.132	12.133	0.905	53	679509	276.22	ug/L	99
108)	Cyclohexanone	12.263	12.263	0.915	42	233071	957.21	ug/L	99
109)	trans-1,4-Dichloro-2-b...	12.408	12.408	0.925	53	632160	272.83	ug/L	100
110)	Pentachloroethane	13.013	13.017	0.970	167	941315	271.93	ug/L	99
111)	Benzyl chloride	13.561	13.565	1.011	91	3347845	285.01	ug/L	100
112)	bis(2-Chloroisopropyl)...	13.925	13.925	1.039	45	979518	239.89	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C205SLS.D
Acq On : 16 Mar 2010 9:07 am
Operator : CDS1
InstName : VOA5
Sample : |1202072221|965702|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[B] 304-08A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 16 09:34:14 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

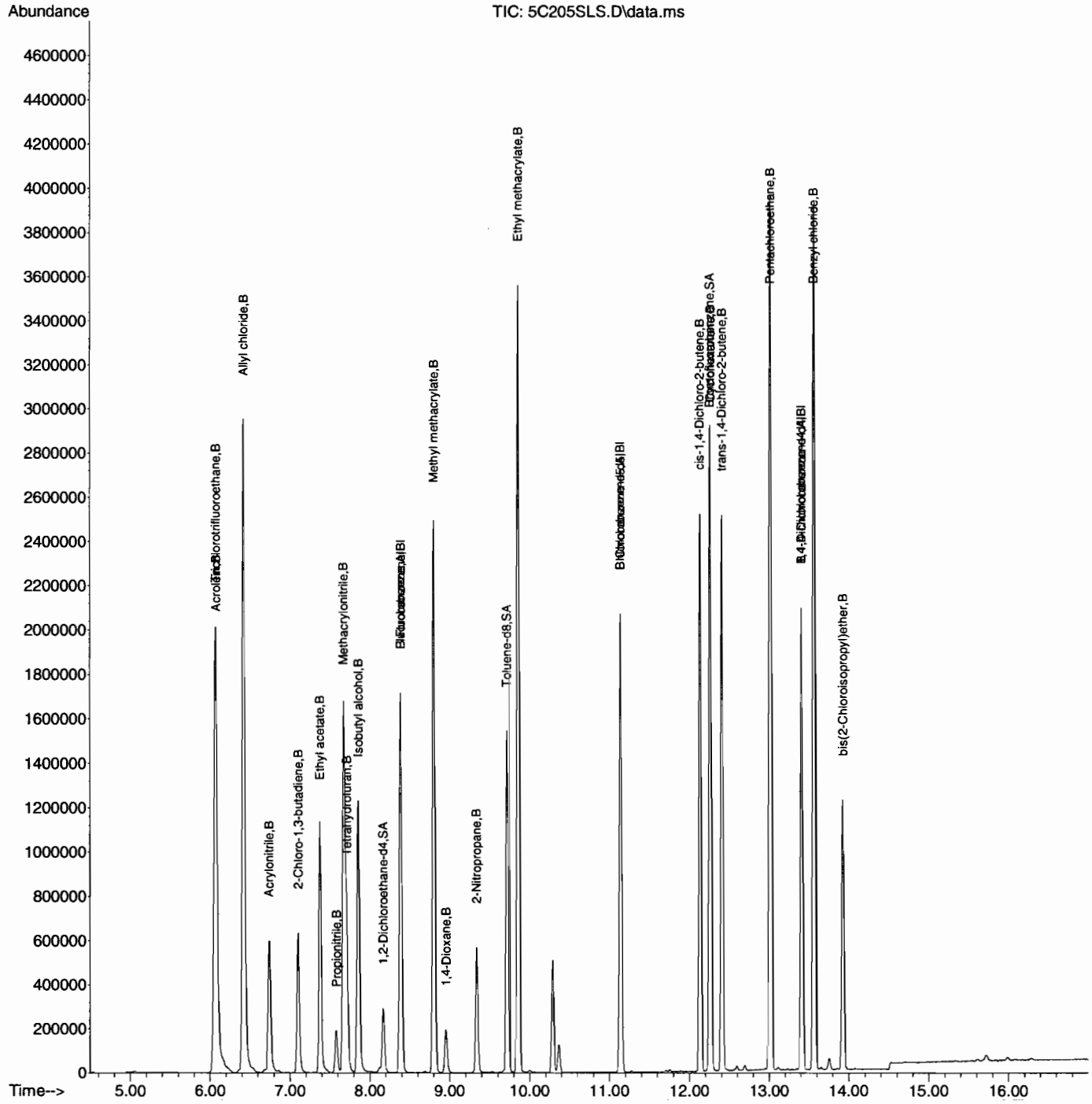

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202072218**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
Client Sample:	**QC for batch 965701**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13864PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 16:44**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:32**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C221.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		67.6	ug/kg	0.396	1.16
74-87-3	Chloromethane		55.8	ug/kg	0.349	1.16
75-01-4	Vinyl chloride		61.5	ug/kg	0.349	1.16
74-83-9	Bromomethane		54.7	ug/kg	0.349	1.16
75-00-3	Chloroethane		59.2	ug/kg	0.349	1.16
75-69-4	Trichlorofluoromethane		62.4	ug/kg	0.349	1.16
67-64-1	Acetone		261	ug/kg	1.93	5.82
75-35-4	1,1-Dichloroethylene		60.1	ug/kg	0.349	1.16
74-88-4	Iodomethane		262	ug/kg	1.86	5.82
75-09-2	Methylene chloride		53.1	ug/kg	2.33	5.82
75-15-0	Carbon disulfide		305	ug/kg	1.45	5.82
156-60-5	trans-1,2-Dichloroethylene		59.5	ug/kg	0.349	1.16
75-34-3	1,1-Dichloroethane		56.9	ug/kg	0.349	1.16
78-93-3	2-Butanone		263	ug/kg	1.75	5.82
156-59-2	cis-1,2-Dichloroethylene		57.1	ug/kg	0.349	1.16
594-20-7	2,2-Dichloropropane		62.6	ug/kg	0.349	1.16
67-66-3	Chloroform		56.0	ug/kg	0.349	1.16
74-97-5	Bromochloromethane		52.3	ug/kg	0.384	1.16
71-55-6	1,1,1-Trichloroethane		60.8	ug/kg	0.349	1.16
563-58-6	1,1-Dichloropropene		61.4	ug/kg	0.349	1.16
56-23-5	Carbon tetrachloride		62.4	ug/kg	0.349	1.16
107-06-2	1,2-Dichloroethane		51.4	ug/kg	0.349	1.16
71-43-2	Benzene		55.6	ug/kg	0.349	1.16
79-01-6	Trichloroethylene		59.1	ug/kg	0.384	1.16
78-87-5	1,2-Dichloropropane		54.5	ug/kg	0.349	1.16
75-27-4	Bromodichloromethane		54.4	ug/kg	0.349	1.16
74-95-3	Dibromomethane		52.4	ug/kg	0.349	1.16
108-10-1	4-Methyl-2-pentanone		290	ug/kg	1.45	5.82
10061-01-5	cis-1,3-Dichloropropylene		51.2	ug/kg	0.349	1.16
108-88-3	Toluene		56.7	ug/kg	0.349	1.16
10061-02-6	trans-1,3-Dichloropropylene		53.1	ug/kg	0.349	1.16
79-00-5	1,1,2-Trichloroethane		52.2	ug/kg	0.349	1.16
591-78-6	2-Hexanone		285	ug/kg	1.75	5.82
142-28-9	1,3-Dichloropropane		52.0	ug/kg	0.349	1.16
127-18-4	Tetrachloroethylene		58.2	ug/kg	0.349	1.16
124-48-1	Dibromochloromethane		56.3	ug/kg	0.349	1.16
106-93-4	1,2-Dibromoethane		53.5	ug/kg	0.349	1.16
108-90-7	Chlorobenzene		54.8	ug/kg	0.349	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202072218**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
Client Sample:	**QC for batch 965701**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13864PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 16:44**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:32**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C221.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		55.1	ug/kg	0.349	1.16
179601-23-1	m,p-Xylenes		113	ug/kg	0.349	2.33
95-47-6	o-Xylene		55.5	ug/kg	0.349	1.16
100-42-5	Styrene		56.5	ug/kg	0.349	1.16
75-25-2	Bromoform		62.0	ug/kg	0.349	1.16
79-34-5	1,1,2,2-Tetrachloroethane		55.6	ug/kg	0.349	1.16
96-18-4	1,2,3-Trichloropropane		58.3	ug/kg	0.349	1.16
108-86-1	Bromobenzene		56.9	ug/kg	0.349	1.16
103-65-1	n-Propylbenzene		59.7	ug/kg	0.349	1.16
95-49-8	2-Chlorotoluene		59.3	ug/kg	0.349	1.16
98-82-8	Isopropylbenzene		62.6	ug/kg	0.349	1.16
108-67-8	1,3,5-Trimethylbenzene		58.4	ug/kg	0.349	1.16
106-43-4	4-Chlorotoluene		56.4	ug/kg	0.349	1.16
98-06-6	tert-Butylbenzene		56.5	ug/kg	0.349	1.16
95-63-6	1,2,4-Trimethylbenzene		57.3	ug/kg	0.349	1.16
135-98-8	sec-Butylbenzene		55.4	ug/kg	0.349	1.16
99-87-6	4-Isopropyltoluene		52.1	ug/kg	0.349	1.16
541-73-1	1,3-Dichlorobenzene		54.0	ug/kg	0.349	1.16
106-46-7	1,4-Dichlorobenzene		52.7	ug/kg	0.349	1.16
104-51-8	n-Butylbenzene		48.5	ug/kg	0.349	1.16
96-12-8	1,2-Dibromo-3-chloropropane		54.4	ug/kg	0.349	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.82	ug/kg	1.86	5.82
630-20-6	1,1,1,2-Tetrachloroethane		55.5	ug/kg	0.349	1.16
95-50-1	1,2-Dichlorobenzene		51.0	ug/kg	0.349	1.16

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C221.D
Acq On : 16 Mar 2010 4:44 pm
Operator : CDS1
InstName : VOA5
Sample : |1202072218|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MS 248815002 MIX[A]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 17 10:50:34 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1644713	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.139	11.142	1.000	117	1165608	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	516157	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.387	1.000	96	1644713	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.139	11.139	1.000	117	1165608	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	516157	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	195500	42.73	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 85.46%					
43) Toluene-d8	9.721	9.721	0.873	98	1047437	46.72	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 93.44%					
61) Bromofluorobenzene	12.256	12.260	0.914	95	805230	55.73	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 111.46%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.678	4.668	0.558	85	185519	58.11	ug/L	99
3) Chloromethane	4.900	4.900	0.584	50	238201	47.92	ug/L	100
4) Vinyl chloride	5.041	5.041	0.601	62	213894	52.88	ug/L	100
5) Bromomethane	5.423	5.423	0.647	94	184137	47.02	ug/L	99
6) Chloroethane	5.504	5.504	0.656	64	204650	50.87	ug/L	100
7) Trichlorofluoromethane	5.695	5.695	0.679	101	362169	53.63	ug/L	99
8) Ethyl ether	5.866	5.866	0.699	59	268236	44.87	ug/L	89
9) Acetone	6.170	6.170	0.736	43	1039103	224.69	ug/L	98
10) 1,1-Dichloroethylene	6.152	6.152	0.734	61	391378	51.64	ug/L	99
11) Iodomethane	6.358	6.357	0.758	142	1790028	224.95	ug/L	99
12) Acetonitrile	6.460	6.460	0.770	41	993436	1040.86	ug/L	99
13) Methyl acetate	6.361	6.361	0.758	43	1349160	253.68	ug/L	100
14) Carbon disulfide	6.435	6.435	0.767	76	3988410	262.39	ug/L	100
15) Methylene chloride	6.534	6.538	0.779	84	281746	45.67	ug/L	99
16) tert-Butyl methyl ether	6.637	6.637	0.791	73	690465	42.85	ug/L	99
17) trans-1,2-Dichloroethy...	6.715	6.711	0.801	61	423916	51.12	ug/L	99
18) Vinyl acetate	6.969	6.969	0.831	43	104493	7.42	ug/L	96
19) 1,1-Dichloroethane	7.068	7.072	0.843	63	517636	48.87	ug/L	100
20) 2-Butanone	7.450	7.450	0.888	43	1277339	225.73	ug/L	99
21) cis-1,2-Dichloroethylene	7.503	7.507	0.895	61	479959	49.07	ug/L	98
22) 2,2-Dichloropropane	7.510	7.510	0.895	77	405086	53.80	ug/L	97
23) Bromochloromethane	7.719	7.715	0.920	128	132265	44.95	ug/L	99
24) Chloroform	7.698	7.701	0.918	83	445517	48.11	ug/L	99
25) 1,1,1-Trichloroethane	7.903	7.903	0.942	97	389479	52.30	ug/L	98
26) Cyclohexane	7.921	7.928	0.944	56	538024	51.23	ug/L	100
27) 1,1-Dichloropropene	8.002	8.002	0.954	75	358491	52.81	ug/L	97
28) Carbon tetrachloride	8.020	8.020	0.956	117	340342	53.60	ug/L	99
30) 1,2-Dichloroethane	8.232	8.232	0.981	62	367572	44.20	ug/L	99
31) Benzene	8.200	8.200	0.978	78	1100522	47.81	ug/L	99
32) Cyclohexene	8.246	8.246	0.983	67	534720	51.55	ug/L	99
33) n-Butyl alcohol	8.373	8.373	0.998	56	1032470	4513.21	ug/L	100
34) Trichloroethylene	8.674	8.677	1.034	95	269858	50.84	ug/L	99
35) 1,2-Dichloropropane	8.932	8.932	1.065	63	305772	46.83	ug/L	100
36) Methylcyclohexane	8.826	8.829	1.052	83	424198	44.80	ug/L	99
37) Dibromomethane	9.056	9.059	1.080	93	154829	45.01	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C221.D
Acq On : 16 Mar 2010 4:44 pm
Operator : CDS1
InstName : VOA5
Sample : |1202072218|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MS 248815002 MIX[A]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 17 10:50:34 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	9.109	9.109	1.086	83	322204	46.75	ug/L	99
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	480108	211.99	ug/L	99
40) cis-1,3-Dichloropropylene	9.484	9.484	1.131	75	412185	44.01	ug/L	99
42) 4-Methyl-2-pentanone	9.526	9.526	0.855	58	649395	248.87	ug/L	97
44) Toluene	9.784	9.788	0.878	91	1153771	48.74	ug/L	100
45) trans-1,3-Dichloroprop...	9.965	9.968	0.895	75	377720	45.66	ug/L	99
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	184867	44.87	ug/L	99
47) 2-Hexanone	10.276	10.276	0.923	43	1718396	244.64	ug/L	99
48) 1,3-Dichloropropane	10.361	10.361	0.930	76	404237	44.73	ug/L	98
49) Tetrachloroethylene	10.294	10.290	0.924	164	212899	49.99	ug/L	99
50) Dibromochloromethane	10.584	10.583	0.950	129	228135	48.43	ug/L	100
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	210267	45.99	ug/L	98
52) Chlorobenzene	11.171	11.170	1.003	112	724709	47.14	ug/L	99
53) 1,1,1,2-Tetrachloroethane	11.217	11.216	1.007	131	250260	47.69	ug/L	100
54) Ethylbenzene	11.178	11.178	1.003	91	1263832	47.32	ug/L	100
55) m,p-Xylenes	11.280	11.277	1.013	106	982266	96.82	ug/L	99
56) o-Xylene	11.697	11.697	1.050	106	477980	47.70	ug/L	98
57) Styrene	11.712	11.715	1.051	104	745282	48.54	ug/L	98
59) Bromoform	12.002	12.002	0.895	173	143835	53.29	ug/L	100
60) Isopropylbenzene	12.012	12.012	0.896	105	1198273	53.81	ug/L	100
62) 1,1,2,2-Tetrachloroethane	12.345	12.348	0.920	83	280702	47.83	ug/L	100
63) 1,2,3-Trichloropropane	12.451	12.454	0.928	110	79732	50.08	ug/L	96
64) Bromobenzene	12.461	12.465	0.929	156	275264	48.87	ug/L	99
65) n-Propylbenzene	12.415	12.415	0.926	91	1366124	51.34	ug/L	100
66) 1,3,5-Trimethylbenzene	12.560	12.560	0.936	105	950325	50.21	ug/L	100
67) 2-Chlorotoluene	12.596	12.596	0.939	126	286329	50.96	ug/L	98
68) 4-Chlorotoluene	12.695	12.698	0.946	91	833668	48.45	ug/L	100
69) tert-Butylbenzene	12.900	12.900	0.962	134	206650	48.58	ug/L	100
70) 1,2,4-Trimethylbenzene	12.953	12.956	0.966	105	949302	49.23	ug/L	99
71) sec-Butylbenzene	13.116	13.116	0.978	105	1142663	47.62	ug/L	99
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	882145	44.75	ug/L	100
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	485023	46.41	ug/L	100
74) 1,4-Dichlorobenzene	13.437	13.441	1.002	146	490596	45.32	ug/L	99
75) n-Butylbenzene	13.653	13.653	1.018	91	780465	41.71	ug/L	99
76) 1,2-Dichlorobenzene	13.855	13.855	1.033	146	448896	43.87	ug/L	100
77) 1,2-Dibromo-3-chloropr...	14.697	14.704	1.096	157	48728	46.78	ug/L	98
78) 1,2,4-Trichlorobenzene	15.612	15.612	1.164	180	230192	33.59	ug/L	98
79) Hexachlorobutadiene	15.686	15.686	1.169	225	112904	28.02	ug/L	99
80) Naphthalene	15.981	15.988	1.191	128	573434	35.78	ug/L	100
81) 1,2,3-Trichlorobenzene	16.284	16.291	1.214	180	187694	31.38	ug/L	100
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.		
85) Acrolein	5.957	6.078	0.710		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.		
87) Isopropyl Alcohol	6.174	6.160	0.736		0m	N.D.	d	
88) Allyl chloride	6.460	6.421	0.770		0m	N.D.	d	
89) tert-Butyl Alcohol	6.464	6.457	0.771		0m	N.D.	d	
90) Acrylonitrile	6.633	6.740	0.791		0m	N.D.	d	
91) Isopropyl ether	6.909	6.916	0.824		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	7.037	7.104	0.839		0m	N.D.	d	
93) Ethyl tert-butyl ether	7.196	7.192	0.858		0m	N.D.	d	
94) Ethyl acetate	7.383	7.380	0.880		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C221.D
Acq On : 16 Mar 2010 4:44 pm
Operator : CDS1
InstName : VOA5
Sample : |1202072218|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MS 248815002 MIX[A]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 17 10:50:34 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	7.659	7.578	0.913		0m	N.D.	d
96)	Methacrylonitrile	7.670	7.677	0.914		0m	N.D.	d
97)	Tetrahydrofuran	7.719	7.708	0.920		0m	N.D.	d
98)	Isobutyl alcohol	7.670	7.854	0.914		0m	N.D.	d
99)	Methyl tert-amyl ether	8.115	8.119	0.968		0m	N.D.	d
100)	Methyl methacrylate	8.826	8.798	1.052		0m	N.D.	d
101)	1,4-Dioxane	0.000	8.953	0.000		0	N.D.	
102)	2-Nitropropane	9.169	9.339	1.093		0m	N.D.	d
104)	Ethyl methacrylate	0.000	9.855	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	12.012	12.133	0.896		0m	N.D.	d
108)	Cyclohexanone	12.415	12.263	0.926		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	12.412	12.408	0.925		0m	N.D.	d
110)	Pentachloroethane	13.017	13.017	0.970		0m	N.D.	d
111)	Benzyl chloride	13.572	13.565	1.012		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	13.932	13.925	1.039		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C221.D
Acq On : 16 Mar 2010 4:44 pm
Operator : CDS1
InstName : VOA5
Sample : |1202072218|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MS 248815002 MIX[A]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 17 10:50:34 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

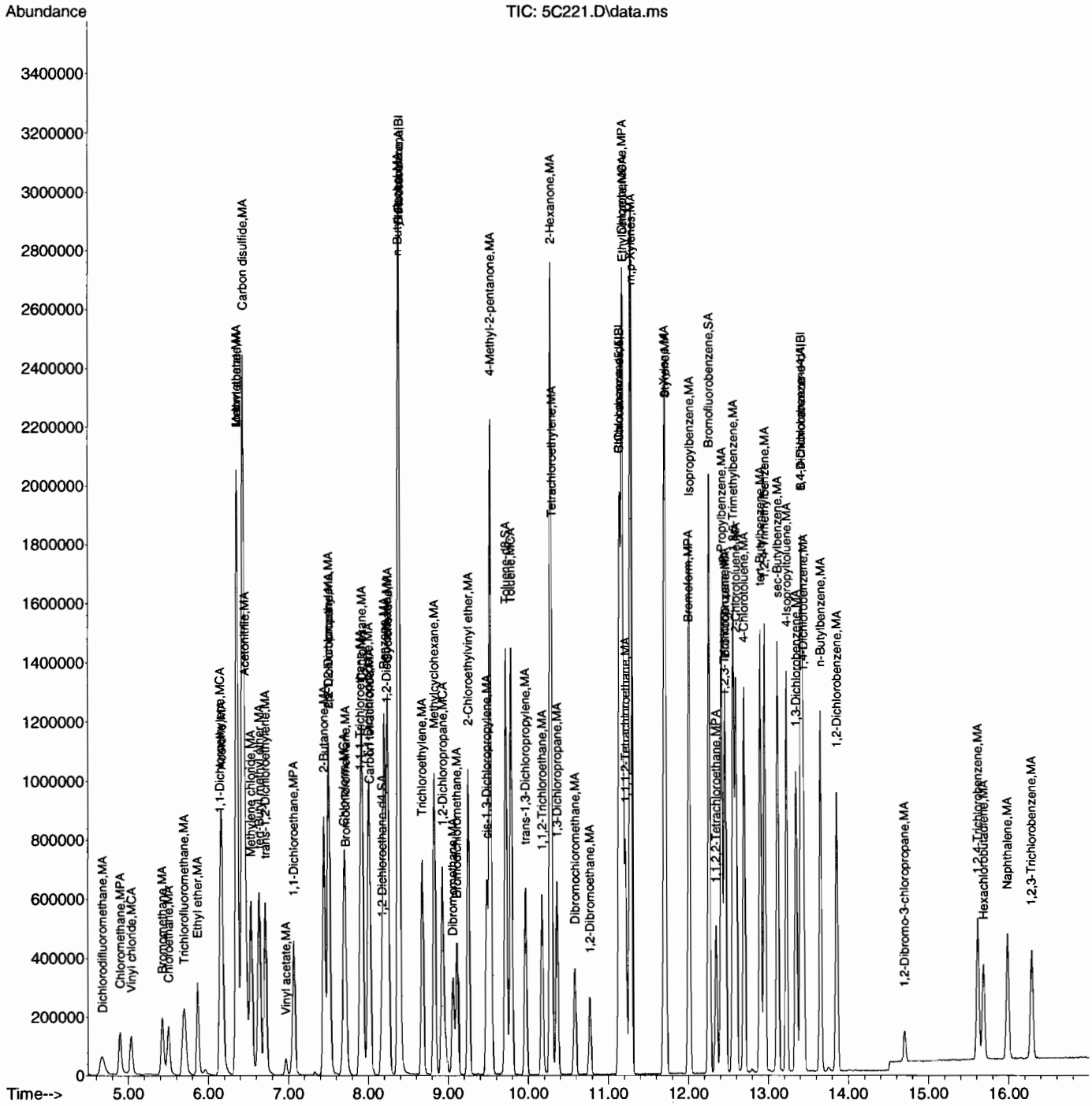

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202072219**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
Client Sample:	**QC for batch 965701**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13864PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 17:10**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:33**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C222.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		65.9	ug/kg	0.396	1.16
74-87-3	Chloromethane		55.6	ug/kg	0.349	1.16
75-01-4	Vinyl chloride		61.4	ug/kg	0.349	1.16
74-83-9	Bromomethane		55.2	ug/kg	0.349	1.16
75-00-3	Chloroethane		59.0	ug/kg	0.349	1.16
75-69-4	Trichlorofluoromethane		62.2	ug/kg	0.349	1.16
67-64-1	Acetone		247	ug/kg	1.93	5.82
75-35-4	1,1-Dichloroethylene		60.6	ug/kg	0.349	1.16
74-88-4	Iodomethane		262	ug/kg	1.86	5.82
75-09-2	Methylene chloride		53.6	ug/kg	2.33	5.82
75-15-0	Carbon disulfide		303	ug/kg	1.45	5.82
156-60-5	trans-1,2-Dichloroethylene		60.3	ug/kg	0.349	1.16
75-34-3	1,1-Dichloroethane		57.3	ug/kg	0.349	1.16
78-93-3	2-Butanone		250	ug/kg	1.75	5.82
156-59-2	cis-1,2-Dichloroethylene		57.2	ug/kg	0.349	1.16
594-20-7	2,2-Dichloropropane		61.5	ug/kg	0.349	1.16
67-66-3	Chloroform		56.3	ug/kg	0.349	1.16
74-97-5	Bromochloromethane		53.1	ug/kg	0.384	1.16
71-55-6	1,1,1-Trichloroethane		61.5	ug/kg	0.349	1.16
563-58-6	1,1-Dichloropropene		61.8	ug/kg	0.349	1.16
56-23-5	Carbon tetrachloride		63.3	ug/kg	0.349	1.16
107-06-2	1,2-Dichloroethane		51.3	ug/kg	0.349	1.16
71-43-2	Benzene		55.9	ug/kg	0.349	1.16
79-01-6	Trichloroethylene		59.6	ug/kg	0.384	1.16
78-87-5	1,2-Dichloropropane		55.0	ug/kg	0.349	1.16
75-27-4	Bromodichloromethane		55.3	ug/kg	0.349	1.16
74-95-3	Dibromomethane		53.1	ug/kg	0.349	1.16
108-10-1	4-Methyl-2-pentanone		275	ug/kg	1.45	5.82
10061-01-5	cis-1,3-Dichloropropylene		50.8	ug/kg	0.349	1.16
108-88-3	Toluene		56.7	ug/kg	0.349	1.16
10061-02-6	trans-1,3-Dichloropropylene		52.3	ug/kg	0.349	1.16
79-00-5	1,1,2-Trichloroethane		50.8	ug/kg	0.349	1.16
591-78-6	2-Hexanone		266	ug/kg	1.75	5.82
142-28-9	1,3-Dichloropropane		51.4	ug/kg	0.349	1.16
127-18-4	Tetrachloroethylene		57.2	ug/kg	0.349	1.16
124-48-1	Dibromochloromethane		55.8	ug/kg	0.349	1.16
106-93-4	1,2-Dibromoethane		53.2	ug/kg	0.349	1.16
108-90-7	Chlorobenzene		54.4	ug/kg	0.349	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202072219**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
Client Sample:	**QC for batch 965701**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13864PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965702**	**Inst:**	**VOA5.I**	**Dilution:**	**1**
Run Date:	**03/16/2010 17:10**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/16/2010 06:33**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031610V5\5C222.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		54.5	ug/kg	0.349	1.16
179601-23-1	m,p-Xylenes		111	ug/kg	0.349	2.33
95-47-6	o-Xylene		54.8	ug/kg	0.349	1.16
100-42-5	Styrene		56.1	ug/kg	0.349	1.16
75-25-2	Bromoform		62.2	ug/kg	0.349	1.16
79-34-5	1,1,2,2-Tetrachloroethane		55.3	ug/kg	0.349	1.16
96-18-4	1,2,3-Trichloropropane		56.9	ug/kg	0.349	1.16
108-86-1	Bromobenzene		57.0	ug/kg	0.349	1.16
103-65-1	n-Propylbenzene		59.4	ug/kg	0.349	1.16
95-49-8	2-Chlorotoluene		59.0	ug/kg	0.349	1.16
98-82-8	Isopropylbenzene		62.7	ug/kg	0.349	1.16
108-67-8	1,3,5-Trimethylbenzene		58.4	ug/kg	0.349	1.16
106-43-4	4-Chlorotoluene		56.9	ug/kg	0.349	1.16
98-06-6	tert-Butylbenzene		55.9	ug/kg	0.349	1.16
95-63-6	1,2,4-Trimethylbenzene		56.8	ug/kg	0.349	1.16
135-98-8	sec-Butylbenzene		54.9	ug/kg	0.349	1.16
99-87-6	4-Isopropyltoluene		51.2	ug/kg	0.349	1.16
541-73-1	1,3-Dichlorobenzene		53.4	ug/kg	0.349	1.16
106-46-7	1,4-Dichlorobenzene		52.1	ug/kg	0.349	1.16
104-51-8	n-Butylbenzene		47.7	ug/kg	0.349	1.16
96-12-8	1,2-Dibromo-3-chloropropane		52.4	ug/kg	0.349	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.82	ug/kg	1.86	5.82
630-20-6	1,1,1,2-Tetrachloroethane		55.2	ug/kg	0.349	1.16
95-50-1	1,2-Dichlorobenzene		50.8	ug/kg	0.349	1.16

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C222.D
Acq On : 16 Mar 2010 5:10 pm
Operator : CDS1
InstName : VOA5
Sample : |1202072219|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248815002 MIX[A]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 17 10:50:36 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1580643	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1130388	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	492291	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.387	1.000	96	1580643	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.139	1.000	117	1130388	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	492291	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	184576	41.97	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 83.94%					
43) Toluene-d8	9.721	9.721	0.872	98	1020299	46.92	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 93.84%					
61) Bromofluorobenzene	12.260	12.260	0.914	95	780123	56.61	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 113.22%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	173743	56.63	ug/L	99
3) Chloromethane	4.900	4.900	0.584	50	228310	47.79	ug/L	100
4) Vinyl chloride	5.031	5.041	0.600	62	205257	52.80	ug/L	99
5) Bromomethane	5.423	5.423	0.647	94	178465	47.42	ug/L	100
6) Chloroethane	5.504	5.504	0.656	64	196231	50.75	ug/L	99
7) Trichlorofluoromethane	5.695	5.695	0.679	101	346781	53.43	ug/L	100
8) Ethyl ether	5.866	5.866	0.699	59	267158	46.50	ug/L	87
9) Acetone	6.174	6.170	0.736	43	945357	212.63	ug/L	99
10) 1,1-Dichloroethylene	6.149	6.152	0.733	61	379393	52.09	ug/L	100
11) Iodomethane	6.357	6.357	0.758	142	1724775	225.54	ug/L	100
12) Acetonitrile	6.460	6.460	0.770	41	917839	1000.64	ug/L	99
13) Methyl acetate	6.361	6.361	0.758	43	1228828	240.42	ug/L	99
14) Carbon disulfide	6.432	6.435	0.767	76	3809961	260.81	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	273315	46.11	ug/L	99
16) tert-Butyl methyl ether	6.637	6.637	0.791	73	661819	42.74	ug/L	99
17) trans-1,2-Dichloroethy...	6.711	6.711	0.800	61	412785	51.80	ug/L	99
18) Vinyl acetate	6.969	6.969	0.831	43	86979	6.43	ug/L	96
19) 1,1-Dichloroethane	7.068	7.072	0.843	63	501484	49.27	ug/L	100
20) 2-Butanone	7.447	7.450	0.888	43	1166547	214.51	ug/L	100
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895	61	461794	49.13	ug/L	99
22) 2,2-Dichloropropane	7.510	7.510	0.895	77	382611	52.88	ug/L	98
23) Bromochloromethane	7.715	7.715	0.920	128	129085	45.64	ug/L	99
24) Chloroform	7.698	7.701	0.918	83	430669	48.39	ug/L	100
25) 1,1,1-Trichloroethane	7.903	7.903	0.942	97	378536	52.89	ug/L	98
26) Cyclohexane	7.924	7.928	0.945	56	509847	50.52	ug/L	100
27) 1,1-Dichloropropene	8.002	8.002	0.954	75	346454	53.11	ug/L	99
28) Carbon tetrachloride	8.020	8.020	0.956	117	332088	54.42	ug/L	100
30) 1,2-Dichloroethane	8.232	8.232	0.981	62	352309	44.08	ug/L	100
31) Benzene	8.200	8.200	0.978	78	1063398	48.07	ug/L	99
32) Cyclohexene	8.246	8.246	0.983	67	506858	50.84	ug/L	99
33) n-Butyl alcohol	8.377	8.373	0.999	56	925459	4211.41	ug/L	99
34) Trichloroethylene	8.677	8.677	1.035	95	261358	51.23	ug/L	99
35) 1,2-Dichloropropane	8.928	8.932	1.065	63	296413	47.24	ug/L	100
36) Methylcyclohexane	8.829	8.829	1.053	83	397691	43.70	ug/L	100
37) Dibromomethane	9.059	9.059	1.080	93	150976	45.67	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C222.D
Acq On : 16 Mar 2010 5:10 pm
Operator : CDS1
InstName : VOA5
Sample : |1202072219|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248815002 MIX[A]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 17 10:50:36 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38) Bromodichloromethane	9.109	9.109	1.086	83	314897	47.54	ug/L		99
39) 2-Chloroethylvinyl ether	9.250	9.254	1.103	63	457975	210.46	ug/L		100
40) cis-1,3-Dichloropropylene	9.487	9.484	1.131	75	392900	43.65	ug/L		98
42) 4-Methyl-2-pentanone	9.526	9.526	0.855	58	598914	236.67	ug/L		98
44) Toluene	9.788	9.788	0.878	91	1118426	48.72	ug/L		100
45) trans-1,3-Dichloroprop...	9.965	9.968	0.894	75	360901	44.99	ug/L		99
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	174471	43.67	ug/L		99
47) 2-Hexanone	10.279	10.276	0.923	43	1554866	228.26	ug/L		99
48) 1,3-Dichloropropane	10.364	10.361	0.930	76	387505	44.21	ug/L		99
49) Tetrachloroethylene	10.290	10.290	0.924	164	203124	49.18	ug/L		100
50) Dibromochloromethane	10.583	10.583	0.950	129	218918	47.92	ug/L		100
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	202689	45.72	ug/L		99
52) Chlorobenzene	11.174	11.170	1.003	112	697582	46.79	ug/L		99
53) 1,1,1,2-Tetrachloroethane	11.216	11.216	1.007	131	241242	47.41	ug/L		100
54) Ethylbenzene	11.178	11.178	1.003	91	1212884	46.83	ug/L		99
55) m,p-Xylenes	11.280	11.277	1.012	106	939122	95.45	ug/L		100
56) o-Xylene	11.697	11.697	1.050	106	458058	47.14	ug/L		98
57) Styrene	11.712	11.715	1.051	104	717588	48.19	ug/L		99
59) Bromoform	12.002	12.002	0.895	173	137688	53.49	ug/L		100
60) Isopropylbenzene	12.012	12.012	0.896	105	1143793	53.85	ug/L		100
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	266158	47.55	ug/L		100
63) 1,2,3-Trichloropropane	12.454	12.454	0.929	110	74319	48.94	ug/L	#	91
64) Bromobenzene	12.465	12.465	0.929	156	262964	48.95	ug/L		99
65) n-Propylbenzene	12.415	12.415	0.926	91	1295196	51.04	ug/L		100
66) 1,3,5-Trimethylbenzene	12.560	12.560	0.936	105	906621	50.22	ug/L		99
67) 2-Chlorotoluene	12.596	12.596	0.939	126	271558	50.68	ug/L		99
68) 4-Chlorotoluene	12.695	12.698	0.946	91	802935	48.93	ug/L		99
69) tert-Butylbenzene	12.903	12.900	0.962	134	195051	48.08	ug/L		99
70) 1,2,4-Trimethylbenzene	12.953	12.956	0.966	105	898238	48.84	ug/L		100
71) sec-Butylbenzene	13.115	13.116	0.978	105	1080764	47.23	ug/L		100
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	828008	44.04	ug/L		100
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	457298	45.88	ug/L		100
74) 1,4-Dichlorobenzene	13.437	13.441	1.002	146	462562	44.81	ug/L		99
75) n-Butylbenzene	13.653	13.653	1.018	91	732138	41.02	ug/L		100
76) 1,2-Dichlorobenzene	13.855	13.855	1.033	146	426369	43.68	ug/L		99
77) 1,2-Dibromo-3-chloropr...	14.697	14.704	1.096	157	44708	45.00	ug/L		98
78) 1,2,4-Trichlorobenzene	15.612	15.612	1.164	180	208745	31.94	ug/L		99
79) Hexachlorobutadiene	15.686	15.686	1.169	225	108972	28.36	ug/L		99
80) Naphthalene	15.988	15.988	1.192	128	524898	34.34	ug/L		100
81) 1,2,3-Trichlorobenzene	16.283	16.291	1.214	180	169758	29.76	ug/L		99
83) Chlorotrifluoroethylene	0.000	4.608	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.111	0.000		0	N.D.			
85) Acrolein	0.000	6.078	0.000		0	N.D.			
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.			
87) Isopropyl Alcohol	6.159	6.160	0.734		0m	N.D.	d		
88) Allyl chloride	6.460	6.421	0.770		0m	N.D.	d		
89) tert-Butyl Alcohol	6.464	6.457	0.771		0m	N.D.	d		
90) Acrylonitrile	6.630	6.740	0.790		0m	N.D.	d		
91) Isopropyl ether	6.916	6.916	0.825		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	7.044	7.104	0.840		0m	N.D.	d		
93) Ethyl tert-butyl ether	7.192	7.192	0.857		0m	N.D.	d		
94) Ethyl acetate	7.334	7.380	0.874		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C222.D
Acq On : 16 Mar 2010 5:10 pm
Operator : CDS1
InstName : VOA5
Sample : |1202072219|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248815002 MIX[A]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 17 10:50:36 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	7.669	7.578	0.914		0m	N.D.	d
96)	Methacrylonitrile	7.666	7.677	0.914		0m	N.D.	d
97)	Tetrahydrofuran	7.712	7.708	0.919		0m	N.D.	d
98)	Isobutyl alcohol	7.850	7.854	0.936		0m	N.D.	d
99)	Methyl tert-amyl ether	8.115	8.119	0.968		0m	N.D.	d
100)	Methyl methacrylate	8.826	8.798	1.052		0m	N.D.	d
101)	1,4-Dioxane	0.000	8.953	0.000		0	N.D.	
102)	2-Nitropropane	9.134	9.339	1.089		0m	N.D.	d
104)	Ethyl methacrylate	0.000	9.855	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	10.980	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	12.012	12.133	0.896		0m	N.D.	d
108)	Cyclohexanone	12.401	12.263	0.925		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	12.415	12.408	0.926		0m	N.D.	d
110)	Pentachloroethane	13.006	13.017	0.970		0m	N.D.	d
111)	Benzyl chloride	13.568	13.565	1.012		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	13.925	13.925	1.038		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V5\
Data File : 5C222.D
Acq On : 16 Mar 2010 5:10 pm
Operator : CDS1
InstName : VOA5
Sample : |1202072219|965702|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248815002 MIX[A]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 17 10:50:36 2010
Quant Method : C:\msdchem\1\DATA\031510V5\VOA5-8260-031510.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 16 06:50:36 2010
Response via : Initial Calibration
Integrator: RTE

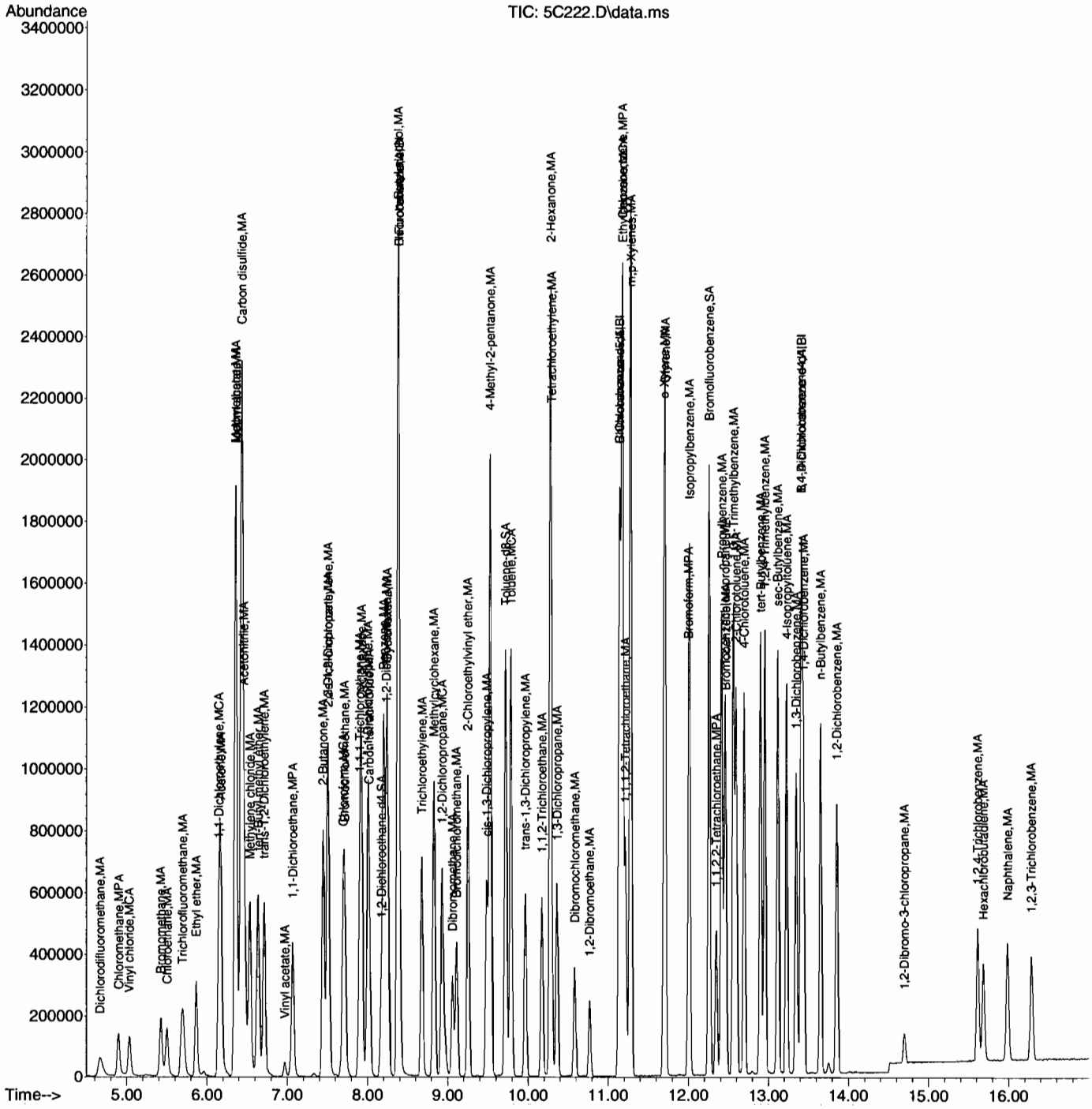

Miscellaneous

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **965701** Verified by: _____

Analyst: Crystal Stacey
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 14
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202072217 MB	16-MAR-2010 06:00:00	Soil	5	5	1	
1202072220 LCS	16-MAR-2010 06:00:00	Soil	5	5	1	
1202072221 LCS	16-MAR-2010 06:00:00	Soil	5	5	1	
248815001	16-MAR-2010 06:30:00	Soil	5	5	1	
248815002	16-MAR-2010 06:31:00	Soil	5	5	1	
1202072218 PS (248815002)	16-MAR-2010 06:32:00	Soil	5	5	1	
1202072219 PSD (248815002)	16-MAR-2010 06:33:00	Soil	5	5	1	
248815003	16-MAR-2010 06:34:00	Soil	5	5	1	
248815004	16-MAR-2010 06:35:00	Soil	5	5	1	
248815005	16-MAR-2010 06:36:00	Soil	5	5	1	
248815006	16-MAR-2010 06:37:00	Soil	5	5	1	
248815007	16-MAR-2010 06:38:00	Soil	5	5	1	
248815008	16-MAR-2010 06:39:00	Soil	5	5	1	
248815009	16-MAR-2010 06:40:00	Soil	5	5	1	
248815010	16-MAR-2010 06:41:00	Soil	5	5	1	
248815011	16-MAR-2010 06:42:00	Soil	5	5	1	
248815012	16-MAR-2010 06:43:00	Misc Solid	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA5

Date: 3/15/2010 Method 8260/624 Operator: CDS1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1412

CALIBRATION & CC INFORMATION:

Initial Calibration Date: _____

(See pg. _____ for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a

Cl test lot # n/a

Sequence Number: 031510V5

	Daily Standard Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
IS	UVM100203-01	1	1	1	
SS	UVM100217-02	1	1	1	
long ICV	W5VM100315-10			5+5	
BFB	UVM100217-02				1
short ICV	W5VM100315-18			5+5	

Purge Amount	
5	Water Purge Vol:
	Soil Purge Wt.
	Mid level ext. MeOH Vol:
	ul
	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3/15/2010	16:20	5C101.D	UVM100217-02	--------	BFB		1	N/A	1	w	CDS1	N/A	O	
3/15/2010	16:47	5C102.D	120206-----	--------	BLANK	5ML	1	N/A	2	w	CDS1	N/A	O	
3/15/2010	17:14	5C103.D	W5VM100315-01	VSTD001L	ICAL	5uL ea.	1	N/A	3	w	CDS1	N/A	O	UVM100314-02A+UVM100315-02A
3/15/2010	17:40	5C104.D	W5VM100315-02	VSTD002L	ICAL	5uL ea.	1	N/A	4	w	CDS1	N/A	O	UVM100314-03A+UVM100315-03A
3/15/2010	18:07	5C105.D	W5VM100315-03	VSTD005L	ICAL	5uL ea.	1	N/A	5	w	CDS1	N/A	O	UVM100314-04A+UVM100315-04A
3/15/2010	18:33	5C106.D	W5VM100315-04	VSTD010L	ICAL	5uL ea.	1	N/A	6	w	CDS1	N/A	O	UVM100314-05A+UVM100315-05A
3/15/2010	19:00	5C107.D	W5VM100315-05	VSTD020L	ICAL	5uL ea.	1	N/A	7	w	CDS1	N/A	O	UVM100314-06A+UVM100315-06A
3/15/2010	19:26	5C108.D	W5VM100315-06	VSTD050L	ICAL	5uL ea.	1	N/A	8	w	CDS1	N/A	O	UVM100314-07A+UVM100315-07A
3/15/2010	19:53	5C109.D	W5VM100315-07	VSTD100L	ICAL	5uL ea.	1	N/A	9	w	CDS1	N/A	O	UVM100314-08A+UVM100315-08A
3/15/2010	20:20	5C110.D	120206-----	--------	BLANK	5mL	1	N/A	10	w	CDS1	N/A	O	
3/15/2010	20:46	5C111.D	W5VM100315-08	VSTD0005L	ICAL	5uL ea.	1	N/A	11	w	CDS1	N/A	O	UVM100314-01A+UVM100315-01A
3/15/2010	21:13	5C112.D	W5VM100315-09	--------	ICV	5uL ea.	1	N/A	12	w	CDS1	N/A	X	UVM100226-01A+IVM100313-01freon high
3/15/2010	21:39	5C113.D	W5VM100315-10	--------	ICV	5uL ea.	1	N/A	13	w	CDS1	N/A	O	UVM100305-01B+IVM100313-01
3/15/2010	22:05	5C114.D	120206-----	--------	BLANK	5ML	1	N/A	14	w	CDS1	N/A	O	
3/15/2010	22:32	5C115.D	W5VM100315-11	VSTD005S	ICAL	5uL ea.	1	N/A	15	w	CDS1	N/A	O	UVM100304-01+UVM100227-01B
3/15/2010	22:58	5C116.D	W5VM100315-12	VSTD010S	ICAL	5uL ea.	1	N/A	16	w	CDS1	N/A	O	UVM100304-02+UVM100227-02B
3/15/2010	23:24	5C117.D	W5VM100315-13	VSTD025S	ICAL	5uL ea.	1	N/A	17	w	CDS1	N/A	O	UVM100304-03+UVM100227-03B
3/15/2010	23:51	5C118.D	W5VM100315-14	VSTD050S	ICAL	5uL ea.	1	N/A	18	w	CDS1	N/A	O	UVM100304-04+UVM100227-04B
3/16/2010	0:17	5C119.D	W5VM100315-15	VSTD100S	ICAL	5uL ea.	1	N/A	19	w	CDS1	N/A	O	UVM100304-05+UVM100227-05B
3/16/2010	0:44	5C120.D	W5VM100315-16	VSTD250S	ICAL	5uL ea.	1	N/A	20	w	CDS1	N/A	O	UVM100304-06+UVM100227-06B
3/16/2010	1:10	5C121.D	W5VM100315-17	VSTD500S	ICAL	5uL ea.	1	N/A	21	w	CDS1	N/A	O	UVM100304-07+UVM100227-07B
3/16/2010	1:36	5C122.D	120206-----	--------	BLANK	5mL	1	N/A	22	w	CDS1	N/A	O	
3/16/2010	2:03	5C123.D	W5VM100315-18	--------	ICV	5uL ea.	1	N/A	23	w	CDS1	N/A	O	UVM100304-08A+UVM100226-02A

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA5

Date: 3/16/2010 Method 8260/624 Operator: CDS1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1412

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/15/2010

(See pg. 54 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a

Cl test lot # n/a

Sequence Number: 031610V5

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W5VM100316-01		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100217-02	1	1	1	
LCS/MS	W5VM100316-02/03			5+5	
BFB	UVM100217-02				1
SHORT	W5VM100316-04		5	5	

Purge Amount

5	Water Purge Vol:
5	Soil Purge Wt.
	Mid level ext. MeOH Vol:
	ul
	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3/16/2010	7:14	5C201.D	UVM100217-02	--------	BFB	5ML	1	N/A	1	w	CDS1	N/A	O	
3/16/2010	7:41	5C202.D	W5VM100316-01	--------	CCV	5ML	1	N/A	2	w	CDS1	N/A	O	UVM100314-07A+UVM100315-07A
3/16/2010	8:07	5C203.D	W5VM100316-02	--------	LCS	5ML	1	N/A	3	w	CDS1	N/A	O	UVM100305-01B+IVM100316-01
3/16/2010	8:41	5C204.D	W5VM100316-03	--------	LCS	5G	1	N/A	4	s	CDS1	N/A	O	UVM100305-01B+IVM100316-01
3/16/2010	9:07	5C205.D	W5VM100316-04	--------	CCV/LCS	5G	1	N/A	5	s	CDS1	N/A	O	UVM10304-08A
3/16/2010	9:33	5C206.D	120207-------	--------	BLANK	5ML	1	N/A	6	w	CDS1	N/A	O	
3/16/2010	10:00	5C207.D	120207-------	--------	BLANK	5G	1	N/A	7	s	CDS1	N/A	O	
3/16/2010	10:26	5C208.D	248815001	LANL	965702	5G	1	N/A	8	s	CDS1	N/A	O	
3/16/2010	10:52	5C209.D	248815002	LANL	965702	5G	1	N/A	9	s	CDS1	N/A	O	
3/16/2010	11:18	5C210.D	248815003	LANL	965702	5G	1	N/A	10	s	CDS1	N/A	O	
3/16/2010	11:45	5C211.D	248815004	LANL	965702	5G	1	N/A	11	s	CDS1	N/A	O	
3/16/2010	12:11	5C212.D	248815005	LANL	965702	5G	1	N/A	12	s	CDS1	N/A	O	
3/16/2010	12:38	5C213.D	248815006	LANL	965702	5G	1	N/A	13	s	CDS1	N/A	O	
3/16/2010	13:05	5C214.D	248815007	LANL	965702	5G	1	N/A	14	s	CDS1	N/A	O	IS low, SS high--conf. by 5C220
3/16/2010	13:31	5C215.D	248815008	LANL	965702	5G	1	N/A	15	s	CDS1	N/A	O	
3/16/2010	13:58	5C216.D	248815009	LANL	965702	5G	1	N/A	16	s	CDS1	N/A	O	
3/16/2010	14:25	5C217.D	248815010	LANL	965702	5G	1	N/A	17	s	CDS1	N/A	O	
3/16/2010	14:51	5C218.D	248815011	LANL	965702	5G	1	N/A	18	s	CDS1	N/A	O	
3/16/2010	15:18	5C219.D	248815012	LANL	965702	5G	1	N/A	19	s	CDS1	N/A	O	
3/16/2010	16:17	5C220.D	248815007	LANL	965702	5G	1	N/A	14	s	CDS1	N/A	x	RA--IS low,SS high--conf. OF 5c214
3/16/2010	16:44	5C221.D	1202072218	LANL	965702	5G	1	N/A	15	s	CDS1	N/A	O	MS 248815002
3/16/2010	17:10	5C222.D	1202072219	LANL	965702	5G	1	N/A	16	s	CDS1	N/A	O	MSD 248815002

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
20-MAR-10	Federal	SOP	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOA GC/MS	8260	Solid	LANL010
Batch ID:	**Sample Numbers:**		
965702	248815007		

Potentially affected work order(s)(SDG): 248815(10-2298)

Application Issues:

Failed Recovery for Surrogate or Tracer

Other

Specification and Requirements Exception Description:	DER Disposition:
1. The recovery for the internal standard, 1,4-Dichlorobenzene-d4, was outside of the acceptance limit in sample 248815007. 2. The recovery for the surrogate, bromofluorobenzene, was outside of outside of the acceptance limit in sample 248815007.	1. Narrate and report data. The sample was re-analyzed with similar recoveries for both the internal standard and surrogate. It is believed that matrix interference was demonstrated.

Originator's Name:

Crystal Stacey 20-MAR-10

Data Validator/Group Leader:

Sarah Kozlik 24-MAR-10

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2298

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	965816
Prep Batch Number:	965812

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
248815001	RE46-10-13867
248815002	RE46-10-13864
248815003	RE46-10-13863
248815004	RE46-10-13869
248815005	RE46-10-13861
248815006	RE46-10-13866
248815007	RE46-10-13860
248815008	RE46-10-13865
248815009	RE46-10-13868
248815010	RE46-10-13862
248815011	RE46-10-13873
1202072534	Method Blank (MB)
1202072535	Laboratory Control Sample (LCS)
1202072536	249057002(RE16-10-2787) Matrix Spike (MS)
1202072537	249057002(RE16-10-2787) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with

multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the acceptance limits except for Phenol-d5 in sample 248815003 (RE46-10-13863). The sample was re-extracted and re-analyzed. The low surrogate recovery was confirmed in the re-analysis. The raw data for this analysis was submitted in the miscellaneous section of this data package.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 249057002 (RE16-10-2787) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the acceptance limits except for low recoveries of Benzyl alcohol and Hexachlorocyclopentadiene. Several polycyclic aromatic hydrocarbon (PAH) recoveries were high above the acceptance limits possibly due to the presence of these compounds in the parent sample.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the acceptance limits except for low recoveries of Benzyl alcohol and Hexachlorocyclopentadiene. The low recoveries confirmed in the MS and were attributed to matrix interference.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent differences (RPD) were within the acceptance limits except for 4-Chloroaniline.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Sample 248815007 (RE46-10-13860) was diluted because the extract was very dark and viscous.

Sample Re-extraction/Re-analysis
Sample 248815003 (RE46-10-13863) was re-extracted to confirm surrogate recovery.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report (DER ID 809844) was generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

The Semi-Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD7.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2298 GEL Work Order: 248815

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

E Organics--Concentration of the target analyte exceeds the instrument calibration range

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Pat Steele **Name: Patricia Steele**

Date: 31 MAR 2010 **Title: Group Leader**
Laboratory Manager

Roadmap for LANL 10-2298 SVOA

This roadmap was analyzed by jos00786 on 03-26-2010, 11:36.
This roadmap was reviewed by jcb on 03-29-2010, 11:57.
This roadmap was packaged by CHA01131 on 03-30-2010, 14:48.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD7.i/s032310.b/s7c2308.d	248815003	23-MAR-2010	12:48	10-2298.sub	RE46-10-13863	1	965816	REPORT: fails surr - rx s5c2525 confirms failure
☐	N	/chem/MSD7.i/s032310.b/s7c2309.d	248815004	23-MAR-2010	13:10	10-2298.sub	RE46-10-13869	1	965816	
☐	N	/chem/MSD7.i/s032310.b/s7c2310.d	248815008	23-MAR-2010	13:32	10-2298.sub	RE46-10-13865	1	965816	
■	N	/chem/MSD7.i/s032310.b/s7c2314.d	248815003	23-MAR-2010	14:59	10-2298.sub	RE46-10-13863	1	965816	DUSE: rerun of s7c2308 - still fails surr
☐	N	/chem/MSD7.i/s032310.b/s7c2317.d	248815001	23-MAR-2010	16:03	10-2298.sub	RE46-10-13867	1	965816	
☐	N	/chem/MSD7.i/s032310.b/s7c2321.d	248815002	23-MAR-2010	17:30	10-2298.sub	RE46-10-13864	1	965816	
☐	N	/chem/MSD7.i/s032310.b/s7c2322.d	248815005	23-MAR-2010	17:52	10-2298.sub	RE46-10-13861	1	965816	
☐	N	/chem/MSD7.i/s032310.b/s7c2323.d	248815006	23-MAR-2010	18:13	10-2298.sub	RE46-10-13866	1	965816	
☐	N	/chem/MSD7.i/s032310.b/s7c2324.d	248815007	23-MAR-2010	18:35	10-2298.sub	RE46-10-13860	10	965816	
☐	N	/chem/MSD7.i/s032310.b/s7c2325.d	248815009	23-MAR-2010	18:56	10-2298.sub	RE46-10-13868	1	965816	
☐	N	/chem/MSD7.i/s032310.b/s7c2326.d	248815010	23-MAR-2010	19:18	10-2298.sub	RE46-10-13862	1	965816	
☐	N	/chem/MSD7.i/s032310.b/s7c2327.d	248815011	23-MAR-2010	19:39	10-2298.sub	RE46-10-13873	1	965816	
■	N	/chem/MSD7.i/s032310.b/s7c2329.d	248815006	23-MAR-2010	20:23	10-2298.sub	RE46-10-13866	1	965816	DUSE: see s7c2323
■	N	/chem/MSD7.i/s032310.b/s7c2330.d	248815007	23-MAR-2010	20:45	10-2298.sub	RE46-10-13860	10	965816	DUSE: see s7c2324
■	N	/chem/MSD7.i/s032310.b/s7c2331.d	248815009	23-MAR-2010	21:06	10-2298.sub	RE46-10-13868	1	965816	DUSE: see s7c2325
■	N	/chem/MSD7.i/s032310.b/s7c2332.d	248815010	23-MAR-2010	21:28	10-2298.sub	RE46-10-13862	1	965816	DUSE: see s7c2326
■	N	/chem/MSD7.i/s032310.b/s7c2333.d	248815011	23-MAR-2010	21:50	10-2298.sub	RE46-10-13873	1	965816	DUSE: see s7c2327
■	N	/chem/MSD5.i/s032510.b/s5c2525.d	248815003	25-MAR-2010	18:53	10-2298.sub	RE46-10-13863	1	968918	DUSE - Rx of s7c2308 - fail SS(confirms)

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD7.i/s032310.b/s7c2306-1.d	1202072534	mb	23-MAR-2010	12:05	10-2298.sub	SBLK01	1	965816	
☐	N	/chem/MSD7.i/s032310.b/s7c2307-1.d	1202072535	lcs	23-MAR-2010	12:27	10-2298.sub	SBLK01LCS	1	965816	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248815007	Date Received:	03/05/2010 10:20	%Moisture:	9.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13860	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965816	Inst:	MSD7.I	Dilution:	10
Run Date:	03/23/2010 18:35	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	03/16/2010 21:37	Aliquot:	30.07 g	Final Volume:	1 mL
Data File:	s7c2324.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	3680	ug/kg	735	3680
108-95-2	Phenol	U	3680	ug/kg	735	3680
95-57-8	2-Chlorophenol	U	3680	ug/kg	735	3680
106-46-7	1,4-Dichlorobenzene	U	3680	ug/kg	735	3680
621-64-7	N-Nitrosodipropylamine	U	3680	ug/kg	735	3680
59-50-7	4-Chloro-3-methylphenol	U	3680	ug/kg	735	3680
83-32-9	Acenaphthene	U	368	ug/kg	121	368
121-14-2	2,4-Dinitrotoluene	U	3680	ug/kg	368	3680
100-02-7	4-Nitrophenol	U	3680	ug/kg	1210	3680
87-86-5	Pentachlorophenol	U	3680	ug/kg	919	3680
129-00-0	Pyrene	J	119	ug/kg	110	368
110-86-1	Pyridine	U	3680	ug/kg	735	3680
62-53-3	Aniline	U	3680	ug/kg	1100	3680
111-44-4	bis(2-Chloroethyl) ether	U	3680	ug/kg	735	3680
541-73-1	1,3-Dichlorobenzene	U	3680	ug/kg	735	3680
100-51-6	Benzyl alcohol	U	3680	ug/kg	1100	3680
95-50-1	1,2-Dichlorobenzene	U	3680	ug/kg	735	3680
108-60-1	bis(2-Chloroisopropyl)ether	U	3680	ug/kg	735	3680
95-48-7	o-Cresol	U	3680	ug/kg	735	3680
65794-96-9	m,p-Cresols	U	3680	ug/kg	1100	3680
67-72-1	Hexachloroethane	U	3680	ug/kg	735	3680
98-95-3	Nitrobenzene	U	3680	ug/kg	735	3680
78-59-1	Isophorone	U	3680	ug/kg	735	3680
88-75-5	2-Nitrophenol	U	3680	ug/kg	735	3680
105-67-9	2,4-Dimethylphenol	U	3680	ug/kg	1290	3680
111-91-1	bis(2-Chloroethoxy)methane	U	3680	ug/kg	735	3680
120-83-2	2,4-Dichlorophenol	U	3680	ug/kg	735	3680
65-85-0	Benzoic acid	U	7350	ug/kg	1840	7350
91-20-3	Naphthalene	U	368	ug/kg	110	368
106-47-8	4-Chloroaniline	U	3680	ug/kg	735	3680
87-68-3	Hexachlorobutadiene	U	3680	ug/kg	735	3680
91-57-6	2-Methylnaphthalene	U	368	ug/kg	73.5	368
77-47-4	Hexachlorocyclopentadiene	U	3680	ug/kg	735	3680
88-06-2	2,4,6-Trichlorophenol	U	3680	ug/kg	735	3680
95-95-4	2,4,5-Trichlorophenol	U	3680	ug/kg	735	3680
91-58-7	2-Chloronaphthalene	U	368	ug/kg	121	368
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	3680	ug/kg	735	3680
99-09-2	3-Nitroaniline	U	3680	ug/kg	735	3680

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13860**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 18:35**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2324.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	3680	ug/kg	735	3680
606-20-2	2,6-Dinitrotoluene	U	3680	ug/kg	368	3680
208-96-8	Acenaphthylene	U	368	ug/kg	110	368
51-28-5	2,4-Dinitrophenol	U	7350	ug/kg	1400	7350
132-64-9	Dibenzofuran	U	3680	ug/kg	735	3680
84-66-2	Diethylphthalate	U	3680	ug/kg	735	3680
86-73-7	Fluorene	U	368	ug/kg	110	368
7005-72-3	4-Chlorophenylphenylether	U	3680	ug/kg	735	3680
534-52-1	2-Methyl-4,6-dinitrophenol	U	3680	ug/kg	735	3680
100-01-6	4-Nitroaniline	U	3680	ug/kg	1100	3680
	p-Nitroaniline					
122-39-4	Diphenylamine	U	3680	ug/kg	735	3680
122-66-7	Azobenzene	U	3680	ug/kg	735	3680
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	3680	ug/kg	735	3680
118-74-1	Hexachlorobenzene	U	3680	ug/kg	735	3680
85-01-8	Phenanthrene	U	368	ug/kg	110	368
120-12-7	Anthracene	U	368	ug/kg	73.5	368
84-74-2	Di-n-butylphthalate	U	3680	ug/kg	735	3680
206-44-0	Fluoranthene	J	116	ug/kg	110	368
85-68-7	Butylbenzylphthalate	U	3680	ug/kg	735	3680
56-55-3	Benzo(a)anthracene	U	368	ug/kg	110	368
91-94-1	3,3'-Dichlorobenzidine	U	3680	ug/kg	1100	3680
218-01-9	Chrysene	U	368	ug/kg	110	368
117-81-7	bis(2-Ethylhexyl)phthalate	U	3680	ug/kg	735	3680
117-84-0	Di-n-octylphthalate	U	3680	ug/kg	735	3680
205-99-2	Benzo(b)fluoranthene	U	368	ug/kg	110	368
207-08-9	Benzo(k)fluoranthene	U	368	ug/kg	110	368
50-32-8	Benzo(a)pyrene	U	368	ug/kg	110	368
193-39-5	Indeno(1,2,3-cd)pyrene	U	368	ug/kg	110	368
53-70-3	Dibenzo(a,h)anthracene	U	368	ug/kg	110	368
191-24-2	Benzo(ghi)perylene	U	368	ug/kg	110	368
120-82-1	1,2,4-Trichlorobenzene	U	3680	ug/kg	735	3680

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13861**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 17:52**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2322.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	379	ug/kg	75.7	379
108-95-2	Phenol	U	379	ug/kg	75.7	379
95-57-8	2-Chlorophenol	U	379	ug/kg	75.7	379
106-46-7	1,4-Dichlorobenzene	U	379	ug/kg	75.7	379
621-64-7	N-Nitrosodipropylamine	U	379	ug/kg	75.7	379
59-50-7	4-Chloro-3-methylphenol	U	379	ug/kg	75.7	379
83-32-9	Acenaphthene	U	37.9	ug/kg	12.5	37.9
121-14-2	2,4-Dinitrotoluene	U	379	ug/kg	37.9	379
100-02-7	4-Nitrophenol	U	379	ug/kg	125	379
87-86-5	Pentachlorophenol	U	379	ug/kg	94.6	379
129-00-0	Pyrene	U	37.9	ug/kg	11.4	37.9
110-86-1	Pyridine	U	379	ug/kg	75.7	379
62-53-3	Aniline	U	379	ug/kg	114	379
111-44-4	bis(2-Chloroethyl) ether	U	379	ug/kg	75.7	379
541-73-1	1,3-Dichlorobenzene	U	379	ug/kg	75.7	379
100-51-6	Benzyl alcohol	U	379	ug/kg	114	379
95-50-1	1,2-Dichlorobenzene	U	379	ug/kg	75.7	379
108-60-1	bis(2-Chloroisopropyl)ether	U	379	ug/kg	75.7	379
95-48-7	o-Cresol	U	379	ug/kg	75.7	379
65794-96-9	m,p-Cresols	U	379	ug/kg	114	379
67-72-1	Hexachloroethane	U	379	ug/kg	75.7	379
98-95-3	Nitrobenzene	U	379	ug/kg	75.7	379
78-59-1	Isophorone	U	379	ug/kg	75.7	379
88-75-5	2-Nitrophenol	U	379	ug/kg	75.7	379
105-67-9	2,4-Dimethylphenol	U	379	ug/kg	132	379
111-91-1	bis(2-Chloroethoxy)methane	U	379	ug/kg	75.7	379
120-83-2	2,4-Dichlorophenol	U	379	ug/kg	75.7	379
65-85-0	Benzoic acid	U	757	ug/kg	189	757
91-20-3	Naphthalene	U	37.9	ug/kg	11.4	37.9
106-47-8	4-Chloroaniline	U	379	ug/kg	75.7	379
87-68-3	Hexachlorobutadiene	U	379	ug/kg	75.7	379
91-57-6	2-Methylnaphthalene	U	37.9	ug/kg	7.57	37.9
77-47-4	Hexachlorocyclopentadiene	U	379	ug/kg	75.7	379
88-06-2	2,4,6-Trichlorophenol	U	379	ug/kg	75.7	379
95-95-4	2,4,5-Trichlorophenol	U	379	ug/kg	75.7	379
91-58-7	2-Chloronaphthalene	U	37.9	ug/kg	12.5	37.9
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	379	ug/kg	75.7	379
99-09-2	3-Nitroaniline	U	379	ug/kg	75.7	379

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13861**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 17:52**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2322.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	379	ug/kg	75.7	379
606-20-2	2,6-Dinitrotoluene	U	379	ug/kg	37.9	379
208-96-8	Acenaphthylene	U	37.9	ug/kg	11.4	37.9
51-28-5	2,4-Dinitrophenol	U	757	ug/kg	144	757
132-64-9	Dibenzofuran	U	379	ug/kg	75.7	379
84-66-2	Diethylphthalate	U	379	ug/kg	75.7	379
86-73-7	Fluorene	U	37.9	ug/kg	11.4	37.9
7005-72-3	4-Chlorophenylphenylether	U	379	ug/kg	75.7	379
534-52-1	2-Methyl-4,6-dinitrophenol	U	379	ug/kg	75.7	379
100-01-6	4-Nitroaniline	U	379	ug/kg	114	379
	p-Nitroaniline					
122-39-4	Diphenylamine	U	379	ug/kg	75.7	379
122-66-7	Azobenzene	U	379	ug/kg	75.7	379
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	379	ug/kg	75.7	379
118-74-1	Hexachlorobenzene	U	379	ug/kg	75.7	379
85-01-8	Phenanthrene	U	37.9	ug/kg	11.4	37.9
120-12-7	Anthracene	U	37.9	ug/kg	7.57	37.9
84-74-2	Di-n-butylphthalate	U	379	ug/kg	75.7	379
206-44-0	Fluoranthene	U	37.9	ug/kg	11.4	37.9
85-68-7	Butylbenzylphthalate	U	379	ug/kg	75.7	379
56-55-3	Benzo(a)anthracene	U	37.9	ug/kg	11.4	37.9
91-94-1	3,3'-Dichlorobenzidine	U	379	ug/kg	114	379
218-01-9	Chrysene	U	37.9	ug/kg	11.4	37.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	379	ug/kg	75.7	379
117-84-0	Di-n-octylphthalate	U	379	ug/kg	75.7	379
205-99-2	Benzo(b)fluoranthene	U	37.9	ug/kg	11.4	37.9
207-08-9	Benzo(k)fluoranthene	U	37.9	ug/kg	11.4	37.9
50-32-8	Benzo(a)pyrene	U	37.9	ug/kg	11.4	37.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.9	ug/kg	11.4	37.9
53-70-3	Dibenzo(a,h)anthracene	U	37.9	ug/kg	11.4	37.9
191-24-2	Benzo(ghi)perylene	U	37.9	ug/kg	11.4	37.9
120-82-1	1,2,4-Trichlorobenzene	U	379	ug/kg	75.7	379

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	485	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13862**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 19:18**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2326.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	374	ug/kg	74.8	374
108-95-2	Phenol	U	374	ug/kg	74.8	374
95-57-8	2-Chlorophenol	U	374	ug/kg	74.8	374
106-46-7	1,4-Dichlorobenzene	U	374	ug/kg	74.8	374
621-64-7	N-Nitrosodipropylamine	U	374	ug/kg	74.8	374
59-50-7	4-Chloro-3-methylphenol	U	374	ug/kg	74.8	374
83-32-9	Acenaphthene	U	37.4	ug/kg	12.3	37.4
121-14-2	2,4-Dinitrotoluene	U	374	ug/kg	37.4	374
100-02-7	4-Nitrophenol	U	374	ug/kg	123	374
87-86-5	Pentachlorophenol	U	374	ug/kg	93.5	374
129-00-0	Pyrene		66.9	ug/kg	11.2	37.4
110-86-1	Pyridine	U	374	ug/kg	74.8	374
62-53-3	Aniline	U	374	ug/kg	112	374
111-44-4	bis(2-Chloroethyl) ether	U	374	ug/kg	74.8	374
541-73-1	1,3-Dichlorobenzene	U	374	ug/kg	74.8	374
100-51-6	Benzyl alcohol	U	374	ug/kg	112	374
95-50-1	1,2-Dichlorobenzene	U	374	ug/kg	74.8	374
108-60-1	bis(2-Chloroisopropyl)ether	U	374	ug/kg	74.8	374
95-48-7	o-Cresol	U	374	ug/kg	74.8	374
65794-96-9	m,p-Cresols	U	374	ug/kg	112	374
67-72-1	Hexachloroethane	U	374	ug/kg	74.8	374
98-95-3	Nitrobenzene	U	374	ug/kg	74.8	374
78-59-1	Isophorone	U	374	ug/kg	74.8	374
88-75-5	2-Nitrophenol	U	374	ug/kg	74.8	374
105-67-9	2,4-Dimethylphenol	U	374	ug/kg	131	374
111-91-1	bis(2-Chloroethoxy)methane	U	374	ug/kg	74.8	374
120-83-2	2,4-Dichlorophenol	U	374	ug/kg	74.8	374
65-85-0	Benzoic acid	U	748	ug/kg	187	748
91-20-3	Naphthalene	U	37.4	ug/kg	11.2	37.4
106-47-8	4-Chloroaniline	U	374	ug/kg	74.8	374
87-68-3	Hexachlorobutadiene	U	374	ug/kg	74.8	374
91-57-6	2-Methylnaphthalene	U	37.4	ug/kg	7.48	37.4
77-47-4	Hexachlorocyclopentadiene	U	374	ug/kg	74.8	374
88-06-2	2,4,6-Trichlorophenol	U	374	ug/kg	74.8	374
95-95-4	2,4,5-Trichlorophenol	U	374	ug/kg	74.8	374
91-58-7	2-Chloronaphthalene	U	37.4	ug/kg	12.3	37.4
88-74-4	2-Nitroaniline	U	374	ug/kg	74.8	374
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	374	ug/kg	74.8	374

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13862**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 19:18**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2326.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	374	ug/kg	74.8	374
606-20-2	2,6-Dinitrotoluene	U	374	ug/kg	37.4	374
208-96-8	Acenaphthylene	U	37.4	ug/kg	11.2	37.4
51-28-5	2,4-Dinitrophenol	U	748	ug/kg	142	748
132-64-9	Dibenzofuran	U	374	ug/kg	74.8	374
84-66-2	Diethylphthalate	U	374	ug/kg	74.8	374
86-73-7	Fluorene	U	37.4	ug/kg	11.2	37.4
7005-72-3	4-Chlorophenylphenylether	U	374	ug/kg	74.8	374
534-52-1	2-Methyl-4,6-dinitrophenol	U	374	ug/kg	74.8	374
100-01-6	4-Nitroaniline	U	374	ug/kg	112	374
	p-Nitroaniline					
122-39-4	Diphenylamine	U	374	ug/kg	74.8	374
122-66-7	Azobenzene	U	374	ug/kg	74.8	374
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	374	ug/kg	74.8	374
118-74-1	Hexachlorobenzene	U	374	ug/kg	74.8	374
85-01-8	Phenanthrene		43.5	ug/kg	11.2	37.4
120-12-7	Anthracene	J	11.4	ug/kg	7.48	37.4
84-74-2	Di-n-butylphthalate	U	374	ug/kg	74.8	374
206-44-0	Fluoranthene		69.1	ug/kg	11.2	37.4
85-68-7	Butylbenzylphthalate	U	374	ug/kg	74.8	374
56-55-3	Benzo(a)anthracene	J	37.1	ug/kg	11.2	37.4
91-94-1	3,3'-Dichlorobenzidine	U	374	ug/kg	112	374
218-01-9	Chrysene	J	37.1	ug/kg	11.2	37.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	374	ug/kg	74.8	374
117-84-0	Di-n-octylphthalate	J	84.5	ug/kg	74.8	374
205-99-2	Benzo(b)fluoranthene		60.2	ug/kg	11.2	37.4
207-08-9	Benzo(k)fluoranthene	U	37.4	ug/kg	11.2	37.4
50-32-8	Benzo(a)pyrene		37.8	ug/kg	11.2	37.4
193-39-5	Indeno(1,2,3-cd)pyrene	J	22.9	ug/kg	11.2	37.4
53-70-3	Dibenzo(a,h)anthracene	U	37.4	ug/kg	11.2	37.4
191-24-2	Benzo(ghi)perylene	J	30.9	ug/kg	11.2	37.4
120-82-1	1,2,4-Trichlorobenzene	U	374	ug/kg	74.8	374

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	363	ug/kg		JA
	Unknown	7.49	151	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13862**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 19:18**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2326.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	7.98	402	ug/kg		J
	Unknown	8.45	903	ug/kg		J
	Unknown	8.9	1280	ug/kg		J
	Unknown	9.32	1730	ug/kg		J
	Unknown	9.72	1900	ug/kg		J
541-01-5	Heptasiloxane, hexadecamethyl-	10.38	265	ug/kg	90	NJ
	Unknown	10.55	253	ug/kg		J
	Unknown	10.81	156	ug/kg		J
	Unknown	11.2	3530	ug/kg		J
	Unknown	11.3	268	ug/kg		J
	Unknown	11.53	160	ug/kg		J
	Unknown	11.9	3220	ug/kg		J
	Unknown	12.76	2580	ug/kg		J
	Unknown	13.85	2020	ug/kg		J
	Unknown	14.14	217	ug/kg		J
	Unknown	14.37	209	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13863**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:48**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2308.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	374	ug/kg	74.9	374
108-95-2	Phenol	U	374	ug/kg	74.9	374
95-57-8	2-Chlorophenol	U	374	ug/kg	74.9	374
106-46-7	1,4-Dichlorobenzene	U	374	ug/kg	74.9	374
621-64-7	N-Nitrosodipropylamine	U	374	ug/kg	74.9	374
59-50-7	4-Chloro-3-methylphenol	U	374	ug/kg	74.9	374
83-32-9	Acenaphthene	U	37.4	ug/kg	12.4	37.4
121-14-2	2,4-Dinitrotoluene	U	374	ug/kg	37.4	374
100-02-7	4-Nitrophenol	U	374	ug/kg	124	374
87-86-5	Pentachlorophenol	U	374	ug/kg	93.6	374
129-00-0	Pyrene	U	37.4	ug/kg	11.2	37.4
110-86-1	Pyridine	U	374	ug/kg	74.9	374
62-53-3	Aniline	U	374	ug/kg	112	374
111-44-4	bis(2-Chloroethyl) ether	U	374	ug/kg	74.9	374
541-73-1	1,3-Dichlorobenzene	U	374	ug/kg	74.9	374
100-51-6	Benzyl alcohol	U	374	ug/kg	112	374
95-50-1	1,2-Dichlorobenzene	U	374	ug/kg	74.9	374
108-60-1	bis(2-Chloroisopropyl)ether	U	374	ug/kg	74.9	374
95-48-7	o-Cresol	U	374	ug/kg	74.9	374
65794-96-9	m,p-Cresols	U	374	ug/kg	112	374
67-72-1	Hexachloroethane	U	374	ug/kg	74.9	374
98-95-3	Nitrobenzene	U	374	ug/kg	74.9	374
78-59-1	Isophorone	U	374	ug/kg	74.9	374
88-75-5	2-Nitrophenol	U	374	ug/kg	74.9	374
105-67-9	2,4-Dimethylphenol	U	374	ug/kg	131	374
111-91-1	bis(2-Chloroethoxy)methane	U	374	ug/kg	74.9	374
120-83-2	2,4-Dichlorophenol	U	374	ug/kg	74.9	374
65-85-0	Benzoic acid	U	749	ug/kg	187	749
91-20-3	Naphthalene	U	37.4	ug/kg	11.2	37.4
106-47-8	4-Chloroaniline	U	374	ug/kg	74.9	374
87-68-3	Hexachlorobutadiene	U	374	ug/kg	74.9	374
91-57-6	2-Methylnaphthalene	U	37.4	ug/kg	7.49	37.4
77-47-4	Hexachlorocyclopentadiene	U	374	ug/kg	74.9	374
88-06-2	2,4,6-Trichlorophenol	U	374	ug/kg	74.9	374
95-95-4	2,4,5-Trichlorophenol	U	374	ug/kg	74.9	374
91-58-7	2-Chloronaphthalene	U	37.4	ug/kg	12.4	37.4
88-74-4	2-Nitroaniline	U	374	ug/kg	74.9	374
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	374	ug/kg	74.9	374

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248815003	Date Received:	03/05/2010 10:20	%Moisture:	11.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13863	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965816	Inst:	MSD7.1	Dilution:	1
Run Date:	03/23/2010 12:48	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	03/16/2010 21:37	Aliquot:	30.18 g	Final Volume:	1 mL
Data File:	s7c2308.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	374	ug/kg	74.9	374
606-20-2	2,6-Dinitrotoluene	U	374	ug/kg	37.4	374
208-96-8	Acenaphthylene	U	37.4	ug/kg	11.2	37.4
51-28-5	2,4-Dinitrophenol	U	749	ug/kg	142	749
132-64-9	Dibenzofuran	U	374	ug/kg	74.9	374
84-66-2	Diethylphthalate	U	374	ug/kg	74.9	374
86-73-7	Fluorene	U	37.4	ug/kg	11.2	37.4
7005-72-3	4-Chlorophenylphenylether	U	374	ug/kg	74.9	374
534-52-1	2-Methyl-4,6-dinitrophenol	U	374	ug/kg	74.9	374
100-01-6	4-Nitroaniline	U	374	ug/kg	112	374
	p-Nitroaniline					
122-39-4	Diphenylamine	U	374	ug/kg	74.9	374
122-66-7	Azobenzene	U	374	ug/kg	74.9	374
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	374	ug/kg	74.9	374
118-74-1	Hexachlorobenzene	U	374	ug/kg	74.9	374
85-01-8	Phenanthrene	U	37.4	ug/kg	11.2	37.4
120-12-7	Anthracene	U	37.4	ug/kg	7.49	37.4
84-74-2	Di-n-butylphthalate	U	374	ug/kg	74.9	374
206-44-0	Fluoranthene	U	37.4	ug/kg	11.2	37.4
85-68-7	Butylbenzylphthalate	U	374	ug/kg	74.9	374
56-55-3	Benzo(a)anthracene	U	37.4	ug/kg	11.2	37.4
91-94-1	3,3'-Dichlorobenzidine	U	374	ug/kg	112	374
218-01-9	Chrysene	U	37.4	ug/kg	11.2	37.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	374	ug/kg	74.9	374
117-84-0	Di-n-octylphthalate	U	374	ug/kg	74.9	374
205-99-2	Benzo(b)fluoranthene	U	37.4	ug/kg	11.2	37.4
207-08-9	Benzo(k)fluoranthene	U	37.4	ug/kg	11.2	37.4
50-32-8	Benzo(a)pyrene	U	37.4	ug/kg	11.2	37.4
193-39-5	Indeno(1,2,3-cd)pyrene	J	12.8	ug/kg	11.2	37.4
53-70-3	Dibenzo(a,h)anthracene	U	37.4	ug/kg	11.2	37.4
191-24-2	Benzo(ghi)perylene	U	37.4	ug/kg	11.2	37.4
120-82-1	1,2,4-Trichlorobenzene	U	374	ug/kg	74.9	374

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	247	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13864**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 17:30**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2321.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	387	ug/kg	77.4	387
108-95-2	Phenol	U	387	ug/kg	77.4	387
95-57-8	2-Chlorophenol	U	387	ug/kg	77.4	387
106-46-7	1,4-Dichlorobenzene	U	387	ug/kg	77.4	387
621-64-7	N-Nitrosodipropylamine	U	387	ug/kg	77.4	387
59-50-7	4-Chloro-3-methylphenol	U	387	ug/kg	77.4	387
83-32-9	Acenaphthene	J	36.7	ug/kg	12.8	38.7
121-14-2	2,4-Dinitrotoluene	U	387	ug/kg	38.7	387
100-02-7	4-Nitrophenol	U	387	ug/kg	128	387
87-86-5	Pentachlorophenol	U	387	ug/kg	96.7	387
129-00-0	Pyrene		438	ug/kg	11.6	38.7
110-86-1	Pyridine	U	387	ug/kg	77.4	387
62-53-3	Aniline	U	387	ug/kg	116	387
111-44-4	bis(2-Chloroethyl) ether	U	387	ug/kg	77.4	387
541-73-1	1,3-Dichlorobenzene	U	387	ug/kg	77.4	387
100-51-6	Benzyl alcohol	U	387	ug/kg	116	387
95-50-1	1,2-Dichlorobenzene	U	387	ug/kg	77.4	387
108-60-1	bis(2-Chloroisopropyl)ether	U	387	ug/kg	77.4	387
95-48-7	o-Cresol	U	387	ug/kg	77.4	387
65794-96-9	m,p-Cresols	U	387	ug/kg	116	387
67-72-1	Hexachloroethane	U	387	ug/kg	77.4	387
98-95-3	Nitrobenzene	U	387	ug/kg	77.4	387
78-59-1	Isophorone	U	387	ug/kg	77.4	387
88-75-5	2-Nitrophenol	U	387	ug/kg	77.4	387
105-67-9	2,4-Dimethylphenol	U	387	ug/kg	135	387
111-91-1	bis(2-Chloroethoxy)methane	U	387	ug/kg	77.4	387
120-83-2	2,4-Dichlorophenol	U	387	ug/kg	77.4	387
65-85-0	Benzoic acid	U	774	ug/kg	193	774
91-20-3	Naphthalene	J	18.0	ug/kg	11.6	38.7
106-47-8	4-Chloroaniline	U	387	ug/kg	77.4	387
87-68-3	Hexachlorobutadiene	U	387	ug/kg	77.4	387
91-57-6	2-Methylnaphthalene	U	38.7	ug/kg	7.74	38.7
77-47-4	Hexachlorocyclopentadiene	U	387	ug/kg	77.4	387
88-06-2	2,4,6-Trichlorophenol	U	387	ug/kg	77.4	387
95-95-4	2,4,5-Trichlorophenol	U	387	ug/kg	77.4	387
91-58-7	2-Chloronaphthalene	U	38.7	ug/kg	12.8	38.7
88-74-4	2-Nitroaniline	U	387	ug/kg	77.4	387
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	387	ug/kg	77.4	387

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13864**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 17:30**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2321.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	387	ug/kg	77.4	387
606-20-2	2,6-Dinitrotoluene	U	387	ug/kg	38.7	387
208-96-8	Acenaphthylene	U	38.7	ug/kg	11.6	38.7
51-28-5	2,4-Dinitrophenol	U	774	ug/kg	147	774
132-64-9	Dibenzofuran	U	387	ug/kg	77.4	387
84-66-2	Diethylphthalate	U	387	ug/kg	77.4	387
86-73-7	Fluorene	J	32.1	ug/kg	11.6	38.7
7005-72-3	4-Chlorophenylphenylether	U	387	ug/kg	77.4	387
534-52-1	2-Methyl-4,6-dinitrophenol	U	387	ug/kg	77.4	387
100-01-6	4-Nitroaniline	U	387	ug/kg	116	387
	p-Nitroaniline					
122-39-4	Diphenylamine	U	387	ug/kg	77.4	387
122-66-7	Azobenzene	U	387	ug/kg	77.4	387
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	387	ug/kg	77.4	387
118-74-1	Hexachlorobenzene	U	387	ug/kg	77.4	387
85-01-8	Phenanthrene		327	ug/kg	11.6	38.7
120-12-7	Anthracene		60.2	ug/kg	7.74	38.7
84-74-2	Di-n-butylphthalate	U	387	ug/kg	77.4	387
206-44-0	Fluoranthene		438	ug/kg	11.6	38.7
85-68-7	Butylbenzylphthalate	U	387	ug/kg	77.4	387
56-55-3	Benzo(a)anthracene		181	ug/kg	11.6	38.7
91-94-1	3,3'-Dichlorobenzidine	U	387	ug/kg	116	387
218-01-9	Chrysene		206	ug/kg	11.6	38.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	387	ug/kg	77.4	387
117-84-0	Di-n-octylphthalate	U	387	ug/kg	77.4	387
205-99-2	Benzo(b)fluoranthene		320	ug/kg	11.6	38.7
207-08-9	Benzo(k)fluoranthene	U	38.7	ug/kg	11.6	38.7
50-32-8	Benzo(a)pyrene		190	ug/kg	11.6	38.7
193-39-5	Indeno(1,2,3-cd)pyrene		140	ug/kg	11.6	38.7
53-70-3	Dibenzo(a,h)anthracene	U	38.7	ug/kg	11.6	38.7
191-24-2	Benzo(ghi)perylene		151	ug/kg	11.6	38.7
120-82-1	1,2,4-Trichlorobenzene	U	387	ug/kg	77.4	387

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	432	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13865**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:32**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2310.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	363	ug/kg	72.5	363
108-95-2	Phenol	U	363	ug/kg	72.5	363
95-57-8	2-Chlorophenol	U	363	ug/kg	72.5	363
106-46-7	1,4-Dichlorobenzene	U	363	ug/kg	72.5	363
621-64-7	N-Nitrosodipropylamine	U	363	ug/kg	72.5	363
59-50-7	4-Chloro-3-methylphenol	U	363	ug/kg	72.5	363
83-32-9	Acenaphthene	U	36.3	ug/kg	12.0	36.3
121-14-2	2,4-Dinitrotoluene	U	363	ug/kg	36.3	363
100-02-7	4-Nitrophenol	U	363	ug/kg	120	363
87-86-5	Pentachlorophenol	U	363	ug/kg	90.6	363
129-00-0	Pyrene		38.7	ug/kg	10.9	36.3
110-86-1	Pyridine	U	363	ug/kg	72.5	363
62-53-3	Aniline	U	363	ug/kg	109	363
111-44-4	bis(2-Chloroethyl) ether	U	363	ug/kg	72.5	363
541-73-1	1,3-Dichlorobenzene	U	363	ug/kg	72.5	363
100-51-6	Benzyl alcohol	U	363	ug/kg	109	363
95-50-1	1,2-Dichlorobenzene	U	363	ug/kg	72.5	363
108-60-1	bis(2-Chloroisopropyl)ether	U	363	ug/kg	72.5	363
95-48-7	o-Cresol	U	363	ug/kg	72.5	363
65794-96-9	m,p-Cresols	U	363	ug/kg	109	363
67-72-1	Hexachloroethane	U	363	ug/kg	72.5	363
98-95-3	Nitrobenzene	U	363	ug/kg	72.5	363
78-59-1	Isophorone	U	363	ug/kg	72.5	363
88-75-5	2-Nitrophenol	U	363	ug/kg	72.5	363
105-67-9	2,4-Dimethylphenol	U	363	ug/kg	127	363
111-91-1	bis(2-Chloroethoxy)methane	U	363	ug/kg	72.5	363
120-83-2	2,4-Dichlorophenol	U	363	ug/kg	72.5	363
65-85-0	Benzoic acid	U	725	ug/kg	181	725
91-20-3	Naphthalene	U	36.3	ug/kg	10.9	36.3
106-47-8	4-Chloroaniline	U	363	ug/kg	72.5	363
87-68-3	Hexachlorobutadiene	U	363	ug/kg	72.5	363
91-57-6	2-Methylnaphthalene	U	36.3	ug/kg	7.25	36.3
77-47-4	Hexachlorocyclopentadiene	U	363	ug/kg	72.5	363
88-06-2	2,4,6-Trichlorophenol	U	363	ug/kg	72.5	363
95-95-4	2,4,5-Trichlorophenol	U	363	ug/kg	72.5	363
91-58-7	2-Chloronaphthalene	U	36.3	ug/kg	12.0	36.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	363	ug/kg	72.5	363
99-09-2	3-Nitroaniline	U	363	ug/kg	72.5	363

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13865**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:32**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2310.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	363	ug/kg	72.5	363
606-20-2	2,6-Dinitrotoluene	U	363	ug/kg	36.3	363
208-96-8	Acenaphthylene	U	36.3	ug/kg	10.9	36.3
51-28-5	2,4-Dinitrophenol	U	725	ug/kg	138	725
132-64-9	Dibenzofuran	U	363	ug/kg	72.5	363
84-66-2	Diethylphthalate	U	363	ug/kg	72.5	363
86-73-7	Fluorene	U	36.3	ug/kg	10.9	36.3
7005-72-3	4-Chlorophenylphenylether	U	363	ug/kg	72.5	363
534-52-1	2-Methyl-4,6-dinitrophenol	U	363	ug/kg	72.5	363
100-01-6	4-Nitroaniline	U	363	ug/kg	109	363
	p-Nitroaniline					
122-39-4	Diphenylamine	U	363	ug/kg	72.5	363
122-66-7	Azobenzene	U	363	ug/kg	72.5	363
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	363	ug/kg	72.5	363
118-74-1	Hexachlorobenzene	U	363	ug/kg	72.5	363
85-01-8	Phenanthrene	J	27.8	ug/kg	10.9	36.3
120-12-7	Anthracene	U	36.3	ug/kg	7.25	36.3
84-74-2	Di-n-butylphthalate	U	363	ug/kg	72.5	363
206-44-0	Fluoranthene		41.3	ug/kg	10.9	36.3
85-68-7	Butylbenzylphthalate	U	363	ug/kg	72.5	363
56-55-3	Benzo(a)anthracene	J	20.4	ug/kg	10.9	36.3
91-94-1	3,3'-Dichlorobenzidine	U	363	ug/kg	109	363
218-01-9	Chrysene	J	19.7	ug/kg	10.9	36.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	363	ug/kg	72.5	363
117-84-0	Di-n-octylphthalate	U	363	ug/kg	72.5	363
205-99-2	Benzo(b)fluoranthene	J	27.0	ug/kg	10.9	36.3
207-08-9	Benzo(k)fluoranthene	U	36.3	ug/kg	10.9	36.3
50-32-8	Benzo(a)pyrene	J	15.5	ug/kg	10.9	36.3
193-39-5	Indeno(1,2,3-cd)pyrene	J	14.0	ug/kg	10.9	36.3
53-70-3	Dibenzo(a,h)anthracene	U	36.3	ug/kg	10.9	36.3
191-24-2	Benzo(ghi)perylene	J	16.9	ug/kg	10.9	36.3
120-82-1	1,2,4-Trichlorobenzene	U	363	ug/kg	72.5	363

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	423	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13866**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 18:13**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2323.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.6	358
108-95-2	Phenol	U	358	ug/kg	71.6	358
95-57-8	2-Chlorophenol	U	358	ug/kg	71.6	358
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.6	358
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.6	358
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.6	358
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358
87-86-5	Pentachlorophenol	U	358	ug/kg	89.5	358
129-00-0	Pyrene	J	31.8	ug/kg	10.7	35.8
110-86-1	Pyridine	U	358	ug/kg	71.6	358
62-53-3	Aniline	U	358	ug/kg	107	358
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.6	358
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.6	358
100-51-6	Benzyl alcohol	U	358	ug/kg	107	358
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.6	358
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.6	358
95-48-7	o-Cresol	U	358	ug/kg	71.6	358
65794-96-9	m,p-Cresols	U	358	ug/kg	107	358
67-72-1	Hexachloroethane	U	358	ug/kg	71.6	358
98-95-3	Nitrobenzene	U	358	ug/kg	71.6	358
78-59-1	Isophorone	U	358	ug/kg	71.6	358
88-75-5	2-Nitrophenol	U	358	ug/kg	71.6	358
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.6	358
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.6	358
65-85-0	Benzoic acid	U	716	ug/kg	179	716
91-20-3	Naphthalene	U	35.8	ug/kg	10.7	35.8
106-47-8	4-Chloroaniline	U	358	ug/kg	71.6	358
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.6	358
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.16	35.8
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.6	358
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.6	358
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.6	358
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8
88-74-4	2-Nitroaniline	U	358	ug/kg	71.6	358
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	358	ug/kg	71.6	358

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13866**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 18:13**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2323.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	358	ug/kg	71.6	358
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.7	35.8
51-28-5	2,4-Dinitrophenol	U	716	ug/kg	136	716
132-64-9	Dibenzofuran	U	358	ug/kg	71.6	358
84-66-2	Diethylphthalate	U	358	ug/kg	71.6	358
86-73-7	Fluorene	U	35.8	ug/kg	10.7	35.8
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.6	358
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.6	358
100-01-6	4-Nitroaniline	U	358	ug/kg	107	358
	p-Nitroaniline					
122-39-4	Diphenylamine	U	358	ug/kg	71.6	358
122-66-7	Azobenzene	U	358	ug/kg	71.6	358
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.6	358
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.6	358
85-01-8	Phenanthrene	J	25.4	ug/kg	10.7	35.8
120-12-7	Anthracene	U	35.8	ug/kg	7.16	35.8
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.6	358
206-44-0	Fluoranthene	J	35.7	ug/kg	10.7	35.8
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.6	358
56-55-3	Benzo(a)anthracene	J	20.7	ug/kg	10.7	35.8
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	107	358
218-01-9	Chrysene	J	18.1	ug/kg	10.7	35.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.6	358
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.6	358
205-99-2	Benzo(b)fluoranthene	J	32.1	ug/kg	10.7	35.8
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.7	35.8
50-32-8	Benzo(a)pyrene	J	19.8	ug/kg	10.7	35.8
193-39-5	Indeno(1,2,3-cd)pyrene	J	16.4	ug/kg	10.7	35.8
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.7	35.8
191-24-2	Benzo(ghi)perylene	J	20.3	ug/kg	10.7	35.8
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.6	358

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	404	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13867**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 16:03**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2317.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	362	ug/kg	72.4	362
108-95-2	Phenol	U	362	ug/kg	72.4	362
95-57-8	2-Chlorophenol	U	362	ug/kg	72.4	362
106-46-7	1,4-Dichlorobenzene	U	362	ug/kg	72.4	362
621-64-7	N-Nitrosodipropylamine	U	362	ug/kg	72.4	362
59-50-7	4-Chloro-3-methylphenol	U	362	ug/kg	72.4	362
83-32-9	Acenaphthene	U	36.2	ug/kg	11.9	36.2
121-14-2	2,4-Dinitrotoluene	U	362	ug/kg	36.2	362
100-02-7	4-Nitrophenol	U	362	ug/kg	119	362
87-86-5	Pentachlorophenol	U	362	ug/kg	90.4	362
129-00-0	Pyrene	J	19.1	ug/kg	10.9	36.2
110-86-1	Pyridine	U	362	ug/kg	72.4	362
62-53-3	Aniline	U	362	ug/kg	109	362
111-44-4	bis(2-Chloroethyl) ether	U	362	ug/kg	72.4	362
541-73-1	1,3-Dichlorobenzene	U	362	ug/kg	72.4	362
100-51-6	Benzyl alcohol	U	362	ug/kg	109	362
95-50-1	1,2-Dichlorobenzene	U	362	ug/kg	72.4	362
108-60-1	bis(2-Chloroisopropyl)ether	U	362	ug/kg	72.4	362
95-48-7	o-Cresol	U	362	ug/kg	72.4	362
65794-96-9	m,p-Cresols	U	362	ug/kg	109	362
67-72-1	Hexachloroethane	U	362	ug/kg	72.4	362
98-95-3	Nitrobenzene	U	362	ug/kg	72.4	362
78-59-1	Isophorone	U	362	ug/kg	72.4	362
88-75-5	2-Nitrophenol	U	362	ug/kg	72.4	362
105-67-9	2,4-Dimethylphenol	U	362	ug/kg	127	362
111-91-1	bis(2-Chloroethoxy)methane	U	362	ug/kg	72.4	362
120-83-2	2,4-Dichlorophenol	U	362	ug/kg	72.4	362
65-85-0	Benzoic acid	U	724	ug/kg	181	724
91-20-3	Naphthalene	U	36.2	ug/kg	10.9	36.2
106-47-8	4-Chloroaniline	U	362	ug/kg	72.4	362
87-68-3	Hexachlorobutadiene	U	362	ug/kg	72.4	362
91-57-6	2-Methylnaphthalene	U	36.2	ug/kg	7.24	36.2
77-47-4	Hexachlorocyclopentadiene	U	362	ug/kg	72.4	362
88-06-2	2,4,6-Trichlorophenol	U	362	ug/kg	72.4	362
95-95-4	2,4,5-Trichlorophenol	U	362	ug/kg	72.4	362
91-58-7	2-Chloronaphthalene	U	36.2	ug/kg	11.9	36.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	362	ug/kg	72.4	362
99-09-2	3-Nitroaniline	U	362	ug/kg	72.4	362

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13867**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 16:03**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2317.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	362	ug/kg	72.4	362
606-20-2	2,6-Dinitrotoluene	U	362	ug/kg	36.2	362
208-96-8	Acenaphthylene	U	36.2	ug/kg	10.9	36.2
51-28-5	2,4-Dinitrophenol	U	724	ug/kg	137	724
132-64-9	Dibenzofuran	U	362	ug/kg	72.4	362
84-66-2	Diethylphthalate	U	362	ug/kg	72.4	362
86-73-7	Fluorene	U	36.2	ug/kg	10.9	36.2
7005-72-3	4-Chlorophenylphenylether	U	362	ug/kg	72.4	362
534-52-1	2-Methyl-4,6-dinitrophenol	U	362	ug/kg	72.4	362
100-01-6	4-Nitroaniline	U	362	ug/kg	109	362
	p-Nitroaniline					
122-39-4	Diphenylamine	U	362	ug/kg	72.4	362
122-66-7	Azobenzene	U	362	ug/kg	72.4	362
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	362	ug/kg	72.4	362
118-74-1	Hexachlorobenzene	U	362	ug/kg	72.4	362
85-01-8	Phenanthrene	J	15.2	ug/kg	10.9	36.2
120-12-7	Anthracene	U	36.2	ug/kg	7.24	36.2
84-74-2	Di-n-butylphthalate	U	362	ug/kg	72.4	362
206-44-0	Fluoranthene	J	19.7	ug/kg	10.9	36.2
85-68-7	Butylbenzylphthalate	U	362	ug/kg	72.4	362
56-55-3	Benzo(a)anthracene	J	21.7	ug/kg	10.9	36.2
91-94-1	3,3'-Dichlorobenzidine	U	362	ug/kg	109	362
218-01-9	Chrysene	J	29.0	ug/kg	10.9	36.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	362	ug/kg	72.4	362
117-84-0	Di-n-octylphthalate	U	362	ug/kg	72.4	362
205-99-2	Benzo(b)fluoranthene		57.6	ug/kg	10.9	36.2
207-08-9	Benzo(k)fluoranthene	U	36.2	ug/kg	10.9	36.2
50-32-8	Benzo(a)pyrene	J	30.7	ug/kg	10.9	36.2
193-39-5	Indeno(1,2,3-cd)pyrene	J	23.8	ug/kg	10.9	36.2
53-70-3	Dibenzo(a,h)anthracene	U	36.2	ug/kg	10.9	36.2
191-24-2	Benzo(ghi)perylene	J	25.5	ug/kg	10.9	36.2
120-82-1	1,2,4-Trichlorobenzene	U	362	ug/kg	72.4	362

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	489	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13868**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 18:56**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2325.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	359	ug/kg	71.8	359
108-95-2	Phenol	U	359	ug/kg	71.8	359
95-57-8	2-Chlorophenol	U	359	ug/kg	71.8	359
106-46-7	1,4-Dichlorobenzene	U	359	ug/kg	71.8	359
621-64-7	N-Nitrosodipropylamine	U	359	ug/kg	71.8	359
59-50-7	4-Chloro-3-methylphenol	U	359	ug/kg	71.8	359
83-32-9	Acenaphthene	U	35.9	ug/kg	11.9	35.9
121-14-2	2,4-Dinitrotoluene	U	359	ug/kg	35.9	359
100-02-7	4-Nitrophenol	U	359	ug/kg	119	359
87-86-5	Pentachlorophenol	U	359	ug/kg	89.8	359
129-00-0	Pyrene	U	35.9	ug/kg	10.8	35.9
110-86-1	Pyridine	U	359	ug/kg	71.8	359
62-53-3	Aniline	U	359	ug/kg	108	359
111-44-4	bis(2-Chloroethyl) ether	U	359	ug/kg	71.8	359
541-73-1	1,3-Dichlorobenzene	U	359	ug/kg	71.8	359
100-51-6	Benzyl alcohol	U	359	ug/kg	108	359
95-50-1	1,2-Dichlorobenzene	U	359	ug/kg	71.8	359
108-60-1	bis(2-Chloroisopropyl)ether	U	359	ug/kg	71.8	359
95-48-7	o-Cresol	U	359	ug/kg	71.8	359
65794-96-9	m,p-Cresols	U	359	ug/kg	108	359
67-72-1	Hexachloroethane	U	359	ug/kg	71.8	359
98-95-3	Nitrobenzene	U	359	ug/kg	71.8	359
78-59-1	Isophorone	U	359	ug/kg	71.8	359
88-75-5	2-Nitrophenol	U	359	ug/kg	71.8	359
105-67-9	2,4-Dimethylphenol	U	359	ug/kg	126	359
111-91-1	bis(2-Chloroethoxy)methane	U	359	ug/kg	71.8	359
120-83-2	2,4-Dichlorophenol	U	359	ug/kg	71.8	359
65-85-0	Benzoic acid	U	718	ug/kg	180	718
91-20-3	Naphthalene	U	35.9	ug/kg	10.8	35.9
106-47-8	4-Chloroaniline	U	359	ug/kg	71.8	359
87-68-3	Hexachlorobutadiene	U	359	ug/kg	71.8	359
91-57-6	2-Methylnaphthalene	U	35.9	ug/kg	7.18	35.9
77-47-4	Hexachlorocyclopentadiene	U	359	ug/kg	71.8	359
88-06-2	2,4,6-Trichlorophenol	U	359	ug/kg	71.8	359
95-95-4	2,4,5-Trichlorophenol	U	359	ug/kg	71.8	359
91-58-7	2-Chloronaphthalene	U	35.9	ug/kg	11.9	35.9
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	359	ug/kg	71.8	359
99-09-2	3-Nitroaniline	U	359	ug/kg	71.8	359

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13868**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 18:56**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2325.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	359	ug/kg	71.8	359
606-20-2	2,6-Dinitrotoluene	U	359	ug/kg	35.9	359
208-96-8	Acenaphthylene	U	35.9	ug/kg	10.8	35.9
51-28-5	2,4-Dinitrophenol	U	718	ug/kg	136	718
132-64-9	Dibenzofuran	U	359	ug/kg	71.8	359
84-66-2	Diethylphthalate	U	359	ug/kg	71.8	359
86-73-7	Fluorene	U	35.9	ug/kg	10.8	35.9
7005-72-3	4-Chlorophenylphenylether	U	359	ug/kg	71.8	359
534-52-1	2-Methyl-4,6-dinitrophenol	U	359	ug/kg	71.8	359
100-01-6	4-Nitroaniline	U	359	ug/kg	108	359
	p-Nitroaniline					
122-39-4	Diphenylamine	U	359	ug/kg	71.8	359
122-66-7	Azobenzene	U	359	ug/kg	71.8	359
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	359	ug/kg	71.8	359
118-74-1	Hexachlorobenzene	U	359	ug/kg	71.8	359
85-01-8	Phenanthrene	U	35.9	ug/kg	10.8	35.9
120-12-7	Anthracene	U	35.9	ug/kg	7.18	35.9
84-74-2	Di-n-butylphthalate	U	359	ug/kg	71.8	359
206-44-0	Fluoranthene	U	35.9	ug/kg	10.8	35.9
85-68-7	Butylbenzylphthalate	U	359	ug/kg	71.8	359
56-55-3	Benzo(a)anthracene	U	35.9	ug/kg	10.8	35.9
91-94-1	3,3'-Dichlorobenzidine	U	359	ug/kg	108	359
218-01-9	Chrysene	U	35.9	ug/kg	10.8	35.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	359	ug/kg	71.8	359
117-84-0	Di-n-octylphthalate	U	359	ug/kg	71.8	359
205-99-2	Benzo(b)fluoranthene	U	35.9	ug/kg	10.8	35.9
207-08-9	Benzo(k)fluoranthene	U	35.9	ug/kg	10.8	35.9
50-32-8	Benzo(a)pyrene	U	35.9	ug/kg	10.8	35.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.9	ug/kg	10.8	35.9
53-70-3	Dibenzo(a,h)anthracene	U	35.9	ug/kg	10.8	35.9
191-24-2	Benzo(ghi)perylene	U	35.9	ug/kg	10.8	35.9
120-82-1	1,2,4-Trichlorobenzene	U	359	ug/kg	71.8	359

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.9	318	ug/kg	64	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13869**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:10**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.1 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2309.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	361	ug/kg	72.2	361
108-95-2	Phenol	U	361	ug/kg	72.2	361
95-57-8	2-Chlorophenol	U	361	ug/kg	72.2	361
106-46-7	1,4-Dichlorobenzene	U	361	ug/kg	72.2	361
621-64-7	N-Nitrosodipropylamine	U	361	ug/kg	72.2	361
59-50-7	4-Chloro-3-methylphenol	U	361	ug/kg	72.2	361
83-32-9	Acenaphthene	U	36.1	ug/kg	11.9	36.1
121-14-2	2,4-Dinitrotoluene	U	361	ug/kg	36.1	361
100-02-7	4-Nitrophenol	U	361	ug/kg	119	361
87-86-5	Pentachlorophenol	U	361	ug/kg	90.3	361
129-00-0	Pyrene	U	36.1	ug/kg	10.8	36.1
110-86-1	Pyridine	U	361	ug/kg	72.2	361
62-53-3	Aniline	U	361	ug/kg	108	361
111-44-4	bis(2-Chloroethyl) ether	U	361	ug/kg	72.2	361
541-73-1	1,3-Dichlorobenzene	U	361	ug/kg	72.2	361
100-51-6	Benzyl alcohol	U	361	ug/kg	108	361
95-50-1	1,2-Dichlorobenzene	U	361	ug/kg	72.2	361
108-60-1	bis(2-Chloroisopropyl)ether	U	361	ug/kg	72.2	361
95-48-7	o-Cresol	U	361	ug/kg	72.2	361
65794-96-9	m,p-Cresols	U	361	ug/kg	108	361
67-72-1	Hexachloroethane	U	361	ug/kg	72.2	361
98-95-3	Nitrobenzene	U	361	ug/kg	72.2	361
78-59-1	Isophorone	U	361	ug/kg	72.2	361
88-75-5	2-Nitrophenol	U	361	ug/kg	72.2	361
105-67-9	2,4-Dimethylphenol	U	361	ug/kg	126	361
111-91-1	bis(2-Chloroethoxy)methane	U	361	ug/kg	72.2	361
120-83-2	2,4-Dichlorophenol	U	361	ug/kg	72.2	361
65-85-0	Benzoic acid	U	722	ug/kg	181	722
91-20-3	Naphthalene	U	36.1	ug/kg	10.8	36.1
106-47-8	4-Chloroaniline	U	361	ug/kg	72.2	361
87-68-3	Hexachlorobutadiene	U	361	ug/kg	72.2	361
91-57-6	2-Methylnaphthalene	U	36.1	ug/kg	7.22	36.1
77-47-4	Hexachlorocyclopentadiene	U	361	ug/kg	72.2	361
88-06-2	2,4,6-Trichlorophenol	U	361	ug/kg	72.2	361
95-95-4	2,4,5-Trichlorophenol	U	361	ug/kg	72.2	361
91-58-7	2-Chloronaphthalene	U	36.1	ug/kg	11.9	36.1
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	361	ug/kg	72.2	361
99-09-2	3-Nitroaniline	U	361	ug/kg	72.2	361

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13869**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:10**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.1 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2309.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	361	ug/kg	72.2	361
606-20-2	2,6-Dinitrotoluene	U	361	ug/kg	36.1	361
208-96-8	Acenaphthylene	U	36.1	ug/kg	10.8	36.1
51-28-5	2,4-Dinitrophenol	U	722	ug/kg	137	722
132-64-9	Dibenzofuran	U	361	ug/kg	72.2	361
84-66-2	Diethylphthalate	U	361	ug/kg	72.2	361
86-73-7	Fluorene	U	36.1	ug/kg	10.8	36.1
7005-72-3	4-Chlorophenylphenylether	U	361	ug/kg	72.2	361
534-52-1	2-Methyl-4,6-dinitrophenol	U	361	ug/kg	72.2	361
100-01-6	4-Nitroaniline	U	361	ug/kg	108	361
	p-Nitroaniline					
122-39-4	Diphenylamine	U	361	ug/kg	72.2	361
122-66-7	Azobenzene	U	361	ug/kg	72.2	361
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	361	ug/kg	72.2	361
118-74-1	Hexachlorobenzene	U	361	ug/kg	72.2	361
85-01-8	Phenanthrene	U	36.1	ug/kg	10.8	36.1
120-12-7	Anthracene	U	36.1	ug/kg	7.22	36.1
84-74-2	Di-n-butylphthalate	U	361	ug/kg	72.2	361
206-44-0	Fluoranthene	U	36.1	ug/kg	10.8	36.1
85-68-7	Butylbenzylphthalate	U	361	ug/kg	72.2	361
56-55-3	Benzo(a)anthracene	U	36.1	ug/kg	10.8	36.1
91-94-1	3,3'-Dichlorobenzidine	U	361	ug/kg	108	361
218-01-9	Chrysene	U	36.1	ug/kg	10.8	36.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	361	ug/kg	72.2	361
117-84-0	Di-n-octylphthalate	U	361	ug/kg	72.2	361
205-99-2	Benzo(b)fluoranthene	U	36.1	ug/kg	10.8	36.1
207-08-9	Benzo(k)fluoranthene	U	36.1	ug/kg	10.8	36.1
50-32-8	Benzo(a)pyrene	U	36.1	ug/kg	10.8	36.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.1	ug/kg	10.8	36.1
53-70-3	Dibenzo(a,h)anthracene	U	36.1	ug/kg	10.8	36.1
191-24-2	Benzo(ghi)perylene	U	36.1	ug/kg	10.8	36.1
120-82-1	1,2,4-Trichlorobenzene	U	361	ug/kg	72.2	361

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	470	ug/kg		J
630-02-4	Octacosane	9.33	146	ug/kg	90	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815011**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13873**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 19:39**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2327.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.5	358
108-95-2	Phenol	U	358	ug/kg	71.5	358
95-57-8	2-Chlorophenol	U	358	ug/kg	71.5	358
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.5	358
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.5	358
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.5	358
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358
87-86-5	Pentachlorophenol	U	358	ug/kg	89.4	358
129-00-0	Pyrene	J	15.6	ug/kg	10.7	35.8
110-86-1	Pyridine	U	358	ug/kg	71.5	358
62-53-3	Aniline	U	358	ug/kg	107	358
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.5	358
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.5	358
100-51-6	Benzyl alcohol	U	358	ug/kg	107	358
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.5	358
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.5	358
95-48-7	o-Cresol	U	358	ug/kg	71.5	358
65794-96-9	m,p-Cresols	U	358	ug/kg	107	358
67-72-1	Hexachloroethane	U	358	ug/kg	71.5	358
98-95-3	Nitrobenzene	U	358	ug/kg	71.5	358
78-59-1	Isophorone	U	358	ug/kg	71.5	358
88-75-5	2-Nitrophenol	U	358	ug/kg	71.5	358
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.5	358
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.5	358
65-85-0	Benzoic acid	U	715	ug/kg	179	715
91-20-3	Naphthalene	U	35.8	ug/kg	10.7	35.8
106-47-8	4-Chloroaniline	U	358	ug/kg	71.5	358
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.5	358
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.15	35.8
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.5	358
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.5	358
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.5	358
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8
88-74-4	2-Nitroaniline	U	358	ug/kg	71.5	358
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	358	ug/kg	71.5	358

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815011**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13873**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 19:39**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2327.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	358	ug/kg	71.5	358
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.7	35.8
51-28-5	2,4-Dinitrophenol	U	715	ug/kg	136	715
132-64-9	Dibenzofuran	U	358	ug/kg	71.5	358
84-66-2	Diethylphthalate	U	358	ug/kg	71.5	358
86-73-7	Fluorene	U	35.8	ug/kg	10.7	35.8
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.5	358
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.5	358
100-01-6	4-Nitroaniline	U	358	ug/kg	107	358
	p-Nitroaniline					
122-39-4	Diphenylamine	U	358	ug/kg	71.5	358
122-66-7	Azobenzene	U	358	ug/kg	71.5	358
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.5	358
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.5	358
85-01-8	Phenanthrene	J	11.5	ug/kg	10.7	35.8
120-12-7	Anthracene	U	35.8	ug/kg	7.15	35.8
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.5	358
206-44-0	Fluoranthene	J	17.0	ug/kg	10.7	35.8
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.5	358
56-55-3	Benzo(a)anthracene	J	15.8	ug/kg	10.7	35.8
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	107	358
218-01-9	Chrysene	J	12.1	ug/kg	10.7	35.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.5	358
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.5	358
205-99-2	Benzo(b)fluoranthene		36.3	ug/kg	10.7	35.8
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.7	35.8
50-32-8	Benzo(a)pyrene	J	19.1	ug/kg	10.7	35.8
193-39-5	Indeno(1,2,3-cd)pyrene	J	12.9	ug/kg	10.7	35.8
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.7	35.8
191-24-2	Benzo(ghi)perylene	J	15.1	ug/kg	10.7	35.8
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.5	358

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	348	ug/kg		JA
	Unknown	9.22	667	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815011**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13873**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 19:39**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2327.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	13.55	150	ug/kg		J

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-2298

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202072534	MB for batch 965812	72	69	78	85	88	93
1202072535	LCS for batch 965812	73	70	75	79	94	88
248815003	RE46-10-13863	33	32 *	35	41	53	68
248815004	RE46-10-13869	63	59	68	74	78	82
248815008	RE46-10-13865	60	58	66	73	77	87
248815001	RE46-10-13867	63	60	70	77	84	87
248815002	RE46-10-13864	53	50	56	66	65	77
248815005	RE46-10-13861	55	53	61	71	80	80
248815006	RE46-10-13866	52	50	56	64	67	72
248815007	RE46-10-13860	42 D	40 D	47 D	58 D	46 D	66 D
248815009	RE46-10-13868	45	42	48	56	58	60
248815010	RE46-10-13862	61	59	63	75	82	93
248815011	RE46-10-13873	58	57	62	73	77	85

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(29%-99%)
PHL	=	Phenol-d5	(33%-98%)
NBZ	=	Nitrobenzene-d5	(31%-105%)
FBP	=	2-Fluorobiphenyl	(25%-109%)
TBP	=	2,4,6-Tribromophenol	(37%-106%)
TPH	=	p-Terphenyl-d14	(13%-150%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2298

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 965812

Matrix: SOIL

Lab Sample ID: 1202072535

Instrument: MSD7.I

Analysis Date: 03/23/2010 12:27

Dilution: 1

Analyst: JMB3

Prep Batch ID: 965812

Inj. Vol: .5 uL

Batch ID: 965816

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	877	53	22-114
108-95-2	LCS	Phenol	1670	0.0	1170	70	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1340	81	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1250	75	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1270	76	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1280	77	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	1430	86	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1460	87	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	1440	86	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	1590	96	27-116
129-00-0	LCS	Pyrene	1670	0.0	1270	76	42-113
110-86-1	LCS	Pyridine	1670	0.0	952	57	8-125
62-53-3	LCS	Aniline	1670	0.0	979	59	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1050	63	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1190	71	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	695	42	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1320	79	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1160	70	28-117
95-48-7	LCS	o-Cresol	1670	0.0	1250	75	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1470	88	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	1260	75	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	1220	73	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2298 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 965812 **Matrix:** SOIL

Lab Sample ID: 1202072535

Instrument: MSD7.I **Analysis Date:** 03/23/2010 12:27 **Dilution:** 1

Analyst: JMB3 **Prep Batch ID** 965812

Inj. Vol: .5 uL **Batch ID:** 965816

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1180	71	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	1320	79	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1310	78	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1150	69	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1300	78	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	3600	108	22-138
91-20-3	LCS	Naphthalene	1670	0.0	1240	74	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	832	50	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1370	82	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1300	78	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1190	71	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1560	93	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1650	99	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1270	76	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1260	76	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1290	77	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	1510	91	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1430	86	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	1390	84	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1780	107	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	1410	85	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	1610	96	51-126

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2298
Client ID: LCS for batch 965812
Lab Sample ID: 1202072535
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 12:27
Dilution: 1
Prep Batch ID: 965812
Batch ID: 965816

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1490	89	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1500	90	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1540	92	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1560	94	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	1360	81	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1380	83	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1410	85	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1390	83	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	1410	85	46-107
120-12-7	LCS	Anthracene	1670	0.0	1400	84	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1580	95	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1490	90	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1450	87	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1360	82	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1330	80	36-103
218-01-9	LCS	Chrysene	1670	0.0	1450	87	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1540	92	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1400	84	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1400	84	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1410	85	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1470	88	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1840	111	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2298
Client ID: LCS for batch 965812
Lab Sample ID: 1202072535
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 12:27
Dilution: 1
Prep Batch ID: 965812
Batch ID: 965816

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1880	113	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1810	109	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1280	77	32-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2298
Client ID: RE16-10-2787MS
Lab Sample ID: 1202072536
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 15.9
Analysis Date: 03/23/2010 16:47
Prep Batch ID: 965812
Batch ID: 965816
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1970	0.00	U	567	29	27-98
108-95-2	MS	Phenol	1970	0.00	U	878	44	33-94
95-57-8	MS	2-Chlorophenol	1970	0.00	U	954	48	29-96
106-46-7	MS	1,4-Dichlorobenzene	1970	0.00	U	840	43	27-96
621-64-7	MS	N-Nitrosodipropylamine	1970	0.00	U	922	47	29-102
59-50-7	MS	4-Chloro-3-methylphenol	1970	0.00	U	1350	68	29-110
83-32-9	MS	Acenaphthene	1970	342		1760	72	17-109
121-14-2	MS	2,4-Dinitrotoluene	1970	0.00	U	1360	69	33-107
100-02-7	MS	4-Nitrophenol	1970	0.00	U	1170	59	15-110
87-86-5	MS	Pentachlorophenol	1970	0.00	U	1470	74	23-110
129-00-0	MS	Pyrene	1970	1940		3840	96	24-118
110-86-1	MS	Pyridine	1970	0.00	U	568	29	25-102
62-53-3	MS	Aniline	1970	0.00	U	832	42	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	1970	0.00	U	721	37	29-96
541-73-1	MS	1,3-Dichlorobenzene	1970	0.00	U	785	40	26-97
100-51-6	MS	Benzyl alcohol	1970	0.00	U	0.00	0 *	19-112
95-50-1	MS	1,2-Dichlorobenzene	1970	0.00	U	897	45	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	1970	0.00	U	830	42	28-103
95-48-7	MS	o-Cresol	1970	0.00	U	1120	57	32-107
65794-96-9	MS	m,p-Cresols	1970	0.00	U	1110	56	33-115
67-72-1	MS	Hexachloroethane	1970	0.00	U	774	39	25-100
98-95-3	MS	Nitrobenzene	1970	0.00	U	1000	51	27-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2298**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE16-10-2787MS**	**Matrix:**	**S**
Lab Sample ID:	**1202072536**	**%Moisture:**	**15.9**
Instrument:	**MSD7.I**	**Analysis Date:**	**03/23/2010 16:47**
Analyst:	**JMB3**	**Prep Batch ID:**	**965812**
Inj. Vol:	**.5 uL**	**Batch ID:**	**965816**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1970	0.00	U	939	48	29-104
88-75-5	MS	2-Nitrophenol	1970	0.00	U	924	47	26-102
105-67-9	MS	2,4-Dimethylphenol	1970	0.00	U	836	42	22-104
111-91-1	MS	bis(2-Chloroethoxy)methane	1970	0.00	U	916	46	27-101
120-83-2	MS	2,4-Dichlorophenol	1970	0.00	U	1190	60	26-103
65-85-0	MS	Benzoic acid	3950	0.00	U	2320	59	13-131
91-20-3	MS	Naphthalene	1970	223		1300	54	23-103
106-47-8	MS	4-Chloroaniline	1970	0.00	U	997	50	26-103
87-68-3	MS	Hexachlorobutadiene	1970	0.00	U	1010	51	28-101
91-57-6	MS	2-Methylnaphthalene	1970	96.3		1240	58	27-106
77-47-4	MS	Hexachlorocyclopentadiene	1970	0.00	U	358	18 *	24-117
88-06-2	MS	2,4,6-Trichlorophenol	1970	0.00	U	1360	69	26-105
95-95-4	MS	2,4,5-Trichlorophenol	1970	0.00	U	1700	86	30-110
91-58-7	MS	2-Chloronaphthalene	1970	0.00	U	1110	56	28-102
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1970	0.00	U	1200	61	33-106
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1970	0.00	U	1040	52	33-116
131-11-3	MS	Dimethylphthalate	1970	0.00	U	1440	73	38-113
606-20-2	MS	2,6-Dinitrotoluene	1970	0.00	U	1360	69	29-107
208-96-8	MS	Acenaphthylene	1970	0.00	U	1300	66	25-108
51-28-5	MS	2,4-Dinitrophenol	1970	0.00	U	941	48	14-102
132-64-9	MS	Dibenzofuran	1970	191	J	1590	71	35-112
84-66-2	MS	Diethylphthalate	1970	0.00	U	1570	80	36-122

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2298**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE16-10-2787MS**	**Matrix:**	**S**
Lab Sample ID:	**1202072536**	**%Moisture:**	**15.9**
Instrument:	**MSD7.I**	**Analysis Date:**	**03/23/2010 16:47**
Analyst:	**JMB3**	**Prep Batch ID:**	**965812**
Inj. Vol:	**.5 uL**	**Batch ID:**	**965816**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1970	366		1960	81	33-105
7005-72-3	MS	4-Chlorophenylphenylether	1970	0.00	U	1420	72	30-110
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1970	0.00	U	756	38	26-97
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1970	0.00	U	1480	75	28-135
122-39-4	MS	Diphenylamine	1970	0.00	U	1410	71	33-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1970	0.00	U	1400	71	31-113
101-55-3	MS	4-Bromophenylphenylether	1970	0.00	U	1450	73	31-109
118-74-1	MS	Hexachlorobenzene	1970	0.00	U	1350	68	37-99
85-01-8	MS	Phenanthrene	1970	2390		4770	120 *	29-109
120-12-7	MS	Anthracene	1970	596		2220	82	19-118
84-74-2	MS	Di-n-butylphthalate	1970	0.00	U	1560	79	39-123
206-44-0	MS	Fluoranthene	1970	2340		4580	113	33-114
85-68-7	MS	Butylbenzylphthalate	1970	0.00	U	1420	72	35-131
56-55-3	MS	Benzo(a)anthracene	1970	990		2750	89	30-111
91-94-1	MS	3,3'-Dichlorobenzidine	1970	0.00	U	1260	64	30-124
218-01-9	MS	Chrysene	1970	1020		2680	84	32-108
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1970	89.0	J	1560	74	37-129
117-84-0	MS	Di-n-octylphthalate	1970	0.00	U	1550	79	31-143
205-99-2	MS	Benzo(b)fluoranthene	1970	1480		2710	62	29-118
207-08-9	MS	Benzo(k)fluoranthene	1970	0.00	U	2420	122 *	32-118
50-32-8	MS	Benzo(a)pyrene	1970	923		2750	93	33-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1970	0.00	U	2560	130 *	29-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	10-2298	**Sample Type:**	Matrix Spike
Client ID:	RE16-10-2787MS	**Matrix:**	S
Lab Sample ID:	1202072536	**%Moisture:**	15.9
Instrument:	MSD7.I	**Analysis Date:**	03/23/2010 16:47
Analyst:	JMB3	**Prep Batch ID:**	965812
Inj. Vol:	.5 uL	**Batch ID:**	965816

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1970	0.00	U	1980	100	27-119
191-24-2	MS	Benzo(ghi)perylene	1970	0.00	U	2520	128 *	28-112
120-82-1	MS	1,2,4-Trichlorobenzene	1970	0.00	U	980	50	28-99

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2298
Client ID: RE16-10-2787MSD
Lab Sample ID: 1202072537
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 15.9
Analysis Date: 03/23/2010 17:09
Prep Batch ID: 965812
Batch ID: 965816
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1980	0.00	U	558	28	27-98	2	0-30
108-95-2	MSD Phenol	1980	0.00	U	812	41	33-94	8	0-30
95-57-8	MSD 2-Chlorophenol	1980	0.00	U	944	48	29-96	1	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1980	0.00	U	815	41	27-96	3	0-30
621-64-7	MSD N-Nitrosodipropylamine	1980	0.00	U	879	44	29-102	5	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1980	0.00	U	1170	59	29-110	14	0-30
83-32-9	MSD Acenaphthene	1980	342		1530	60	17-109	14	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1980	0.00	U	1210	61	33-107	11	0-30
100-02-7	MSD 4-Nitrophenol	1980	0.00	U	1050	53	15-110	11	0-30
87-86-5	MSD Pentachlorophenol	1980	0.00	U	1290	65	23-110	13	0-30
129-00-0	MSD Pyrene	1980	1940		3650	86	24-118	5	0-30
110-86-1	MSD Pyridine	1980	0.00	U	545	28	25-102	4	0-30
62-53-3	MSD Aniline	1980	0.00	U	694	35	18-109	18	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1980	0.00	U	689	35	29-96	5	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1980	0.00	U	776	39	26-97	1	0-30
100-51-6	MSD Benzyl alcohol	1980	0.00	U	0.00	0 *	19-112	0	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1980	0.00	U	858	43	30-97	4	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1980	0.00	U	790	40	28-103	5	0-30
95-48-7	MSD o-Cresol	1980	0.00	U	1120	56	32-107	0	0-30
65794-96-9	MSD m,p-Cresols	1980	0.00	U	1210	61	33-115	9	0-30
67-72-1	MSD Hexachloroethane	1980	0.00	U	751	38	25-100	3	0-30
98-95-3	MSD Nitrobenzene	1980	0.00	U	939	47	27-106	7	0-30

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2298
Client ID: RE16-10-2787MSD
Lab Sample ID: 1202072537
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 15.9
Analysis Date: 03/23/2010 17:09
Prep Batch ID: 965812
Batch ID: 965816
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1980	0.00	U	876	44	29-104	7	0-30
88-75-5	MSD 2-Nitrophenol	1980	0.00	U	900	45	26-102	3	0-30
105-67-9	MSD 2,4-Dimethylphenol	1980	0.00	U	725	37	22-104	14	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1980	0.00	U	858	43	27-101	7	0-30
120-83-2	MSD 2,4-Dichlorophenol	1980	0.00	U	1080	54	26-103	10	0-30
65-85-0	MSD Benzoic acid	3960	0.00	U	1960	49	13-131	17	0-30
91-20-3	MSD Naphthalene	1980	223		1210	50	23-103	7	0-30
106-47-8	MSD 4-Chloroaniline	1980	0.00	U	575	29	26-103	54 *	0-30
87-68-3	MSD Hexachlorobutadiene	1980	0.00	U	977	49	28-101	3	0-30
91-57-6	MSD 2-Methylnaphthalene	1980	96.3		1150	53	27-106	8	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1980	0.00	U	299	15 *	24-117	18	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1980	0.00	U	1190	60	26-105	13	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1980	0.00	U	1500	76	30-110	13	0-30
91-58-7	MSD 2-Chloronaphthalene	1980	0.00	U	1000	51	28-102	10	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1980	0.00	U	1030	52	33-106	15	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1980	0.00	U	801	40	33-116	26	0-30
131-11-3	MSD Dimethylphthalate	1980	0.00	U	1270	64	38-113	13	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1980	0.00	U	1190	60	29-107	13	0-30
208-96-8	MSD Acenaphthylene	1980	0.00	U	1160	58	25-108	11	0-30
51-28-5	MSD 2,4-Dinitrophenol	1980	0.00	U	854	43	14-102	10	0-30
132-64-9	MSD Dibenzofuran	1980	191	J	1430	62	35-112	11	0-30
84-66-2	MSD Diethylphthalate	1980	0.00	U	1360	69	36-122	14	0-30

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2298

Client ID: RE16-10-2787MSD

Lab Sample ID: 1202072537

Instrument: MSD7.I

Analyst: JMB3

Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate

Matrix: S

%Moisture: 15.9

Analysis Date: 03/23/2010 17:09

Dilution: 1

Prep Batch ID: 965812

Batch ID: 965816

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1980	366		1740	69	33-105	12	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1980	0.00	U	1260	64	30-110	12	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1980	0.00	U	678	34	26-97	11	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1980	0.00	U	1310	66	28-135	13	0-30
122-39-4	MSD	Diphenylamine	1980	0.00	U	1250	63	33-109	12	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1980	0.00	U	1240	63	31-113	12	0-30
101-55-3	MSD	4-Bromophenylphenylether	1980	0.00	U	1240	63	31-109	16	0-30
118-74-1	MSD	Hexachlorobenzene	1980	0.00	U	1170	59	37-99	14	0-30
85-01-8	MSD	Phenanthrene	1980	2390		4290	96	29-109	11	0-30
120-12-7	MSD	Anthracene	1980	596		2010	71	19-118	10	0-30
84-74-2	MSD	Di-n-butylphthalate	1980	0.00	U	1320	67	39-123	17	0-30
206-44-0	MSD	Fluoranthene	1980	2340		4110	89	33-114	11	0-30
85-68-7	MSD	Butylbenzylphthalate	1980	0.00	U	1300	66	35-131	9	0-30
56-55-3	MSD	Benzo(a)anthracene	1980	990		2410	72	30-111	13	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1980	0.00	U	1010	51	30-124	22	0-30
218-01-9	MSD	Chrysene	1980	1020		2400	70	32-108	11	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1980	89.0	J	1400	66	37-129	11	0-30
117-84-0	MSD	Di-n-octylphthalate	1980	0.00	U	1440	73	31-143	7	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1980	1480		2520	53	29-118	7	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1980	0.00	U	2070	105	32-118	15	0-30
50-32-8	MSD	Benzo(a)pyrene	1980	923		2390	74	33-115	14	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1980	0.00	U	2160	109	29-114	17	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2298**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE16-10-2787MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202072537**	**%Moisture:**	**15.9**
Instrument:	**MSD7.I**	**Analysis Date:**	**03/23/2010 17:09**
Analyst:	**JMB3**	**Prep Batch ID:**	**965812**
Inj. Vol:	**.5 uL**	**Batch ID:**	**965816**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD	Dibenzo(a,h)anthracene	1980	0.00	U	1740	88	27-119	13	0-30
191-24-2	MSD	Benzo(ghi)perylene	1980	0.00	U	2100	106	28-112	18	0-30
120-82-1	MSD	1,2,4-Trichlorobenzene	1980	0.00	U	917	46	28-99	7	0-30

Method Blank Summary

SDG Number:	10-2298	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965812	Instrument ID:	MSD7.I	Data File:	s7c2306-1.d
Lab Sample ID:	1202072534	Prep Date:	03/16/2010 21:37	Analyzed:	03/23/10 12:05
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 965812	1202072535	s7c2307-1.d	03/23/10	1227
02	RE46-10-13863	248815003	s7c2308.d	03/23/10	1248
03	RE46-10-13869	248815004	s7c2309.d	03/23/10	1310
04	RE46-10-13865	248815008	s7c2310.d	03/23/10	1332
05	RE46-10-13867	248815001	s7c2317.d	03/23/10	1603
08	RE46-10-13864	248815002	s7c2321.d	03/23/10	1730
09	RE46-10-13861	248815005	s7c2322.d	03/23/10	1752
10	RE46-10-13866	248815006	s7c2323.d	03/23/10	1813
11	RE46-10-13860	248815007	s7c2324.d	03/23/10	1835
12	RE46-10-13868	248815009	s7c2325.d	03/23/10	1856
13	RE46-10-13862	248815010	s7c2326.d	03/23/10	1918
14	RE46-10-13873	248815011	s7c2327.d	03/23/10	1939

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2298

Instrument ID: MSD7.I **Injection Date/Time:** 26-FEB-10 10:23

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s022610.b/s7b2601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	59.4
68	Less than 2% of mass 69	0.6
69	Mass 69 Relative Abundance	48.9
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	54.1
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.2
365	Greater than 1% of mass 198	2.7
441	Present, but less than mass 443	79.7
442	Greater than 40% of mass 198	71.6
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100225-08	s7b2603.d	26-FEB-10 11:07
MEGA040	WBN100225-05.1	s7b2606.d	26-FEB-10 12:19
MEGA050	WBN100225-04	s7b2607.d	26-FEB-10 12:43
MEGA080	WBN100225-03	s7b2608.d	26-FEB-10 13:07
MEGA100	WBN100225-02	s7b2609.d	26-FEB-10 13:32
MEGA120	WBN100225-01	s7b2610.d	26-FEB-10 13:56
MEGA010	WBN100225-07	s7b2612.d	26-FEB-10 14:44
MEGA020	WBN100225-06	s7b2613.d	26-FEB-10 15:08
MEGAICV	WBN100225-09.1	s7b2614.d	26-FEB-10 15:33

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2298

Instrument ID: MSD7.I **Injection Date/Time:** 26-FEB-10 16:00

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s022610.b/s7b2615.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	59
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	49.2
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	55.5
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.7
441	Present, but less than mass 443	78.7
442	Greater than 40% of mass 198	68.1
443	17 - 23% of mass 442	19.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN100218-01	s7b2617.d	26-FEB-10 16:34
AP020	WBN100218-02	s7b2618.d	26-FEB-10 16:56
AP040	WBN100218-03.1	s7b2619.d	26-FEB-10 17:17
AP050	WBN100218-04	s7b2620.d	26-FEB-10 17:39
AP080	WBN100218-05	s7b2621.d	26-FEB-10 18:00
AP100	WBN100218-06	s7b2622.d	26-FEB-10 18:22
AP120	WBN100218-07	s7b2623.d	26-FEB-10 18:43
APICV	WBN100218-08.1	s7b2638.d	27-FEB-10 00:07

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2298

Instrument ID: MSD7.I **Injection Date/Time:** 23-MAR-10 11:08

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s032310.b/s7c2303.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	56.3
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	49
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	54.2
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	7.1
275	10 - 30% of mass 198	23.9
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	77.2
442	Greater than 40% of mass 198	61.2
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-05.2	s7c2304.d	23-MAR-10 11:20
APCVS	WBN100312-03.3	s7c2305.d	23-MAR-10 11:44
SBLK01	1202072534	s7c2306-1.d	23-MAR-10 12:05
SBLK01LCS	1202072535	s7c2307-1.d	23-MAR-10 12:27
RE46-10-13863	248815003	s7c2308.d	23-MAR-10 12:48
RE46-10-13869	248815004	s7c2309.d	23-MAR-10 13:10
RE46-10-13865	248815008	s7c2310.d	23-MAR-10 13:32
RE46-10-13867	248815001	s7c2317.d	23-MAR-10 16:03
RE46-10-13864	248815002	s7c2321.d	23-MAR-10 17:30
RE46-10-13861	248815005	s7c2322.d	23-MAR-10 17:52
RE46-10-13866	248815006	s7c2323.d	23-MAR-10 18:13
RE46-10-13860	248815007	s7c2324.d	23-MAR-10 18:35
RE46-10-13868	248815009	s7c2325.d	23-MAR-10 18:56
RE46-10-13862	248815010	s7c2326.d	23-MAR-10 19:18
RE46-10-13873	248815011	s7c2327.d	23-MAR-10 19:39

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2298

Instrument: MSD7.I

STD Analysis Time: 23-MAR-10 11:20

GC Column: J&W DB-5MS

Data File: s7c2304.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	273307		3.87	1124363		4.74	583433		5.99	1092463		7.15	838935		9.55	588840		11.2
Upper Limit	546614		4.37	2248726		5.24	1166866		6.49	2184926		7.65	1677870		10.1	1177680		11.7
Lower Limit	136654		3.37	562182		4.24	291717		5.49	546232		6.65	419468		9.05	294420		10.7
Sample ID																		
BLK01	212090		3.87	794132		4.73	461044		5.98	834040		7.14	651822		9.54	489529		11.2
BLK01LCS	226223		3.87	939533		4.73	485896		5.98	944400		7.14	801200		9.55	620288		11.2
RE46-10-13863	232717		3.87	887465		4.73	507984		5.98	920106		7.14	682630		9.54	473375		11.2
RE46-10-13869	225418		3.87	845953		4.73	493261		5.98	904934		7.14	734380		9.54	556605		11.2
RE46-10-13865	219803		3.87	840274		4.73	490788		5.98	899515		7.14	649682		9.54	446646		11.2
RE46-10-13867	247362		3.87	922719		4.73	544539		5.98	1011336		7.14	785015		9.54	535727		11.2
RE46-10-13864	307180		3.87	1165896		4.73	664820		5.98	1201977		7.14	739885		9.54	374745		11.2
RE46-10-13861	316654		3.87	1168319		4.73	671166		5.98	1238698		7.14	926085		9.55	487080		11.2
RE46-10-13866	271822		3.87	1037245		4.73	613296		5.98	1150200		7.14	851956		9.54	472456		11.2
RE46-10-13860	323905		3.87	1194361		4.73	681092		5.98	1222369		7.14	818360		9.55	459525		11.2
RE46-10-13868	290403		3.87	1099342		4.73	623079		5.98	1164459		7.14	877626		9.55	519209		11.2
RE46-10-13862	306154		3.87	1178115		4.73	669125		5.98	1205901		7.15	775241		9.55	384405		11.2
RE46-10-13873	283612		3.87	1079532		4.73	637531		5.98	1149070		7.15	838044		9.55	437739		11.2

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13860**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 18:35**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2324.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	3680	ug/kg	735	3680
108-95-2	Phenol	U	3680	ug/kg	735	3680
95-57-8	2-Chlorophenol	U	3680	ug/kg	735	3680
106-46-7	1,4-Dichlorobenzene	U	3680	ug/kg	735	3680
621-64-7	N-Nitrosodipropylamine	U	3680	ug/kg	735	3680
59-50-7	4-Chloro-3-methylphenol	U	3680	ug/kg	735	3680
83-32-9	Acenaphthene	U	368	ug/kg	121	368
121-14-2	2,4-Dinitrotoluene	U	3680	ug/kg	368	3680
100-02-7	4-Nitrophenol	U	3680	ug/kg	1210	3680
87-86-5	Pentachlorophenol	U	3680	ug/kg	919	3680
129-00-0	Pyrene	J	119	ug/kg	110	368
110-86-1	Pyridine	U	3680	ug/kg	735	3680
62-53-3	Aniline	U	3680	ug/kg	1100	3680
111-44-4	bis(2-Chloroethyl) ether	U	3680	ug/kg	735	3680
541-73-1	1,3-Dichlorobenzene	U	3680	ug/kg	735	3680
100-51-6	Benzyl alcohol	U	3680	ug/kg	1100	3680
95-50-1	1,2-Dichlorobenzene	U	3680	ug/kg	735	3680
108-60-1	bis(2-Chloroisopropyl)ether	U	3680	ug/kg	735	3680
95-48-7	o-Cresol	U	3680	ug/kg	735	3680
65794-96-9	m,p-Cresols	U	3680	ug/kg	1100	3680
67-72-1	Hexachloroethane	U	3680	ug/kg	735	3680
98-95-3	Nitrobenzene	U	3680	ug/kg	735	3680
78-59-1	Isophorone	U	3680	ug/kg	735	3680
88-75-5	2-Nitrophenol	U	3680	ug/kg	735	3680
105-67-9	2,4-Dimethylphenol	U	3680	ug/kg	1290	3680
111-91-1	bis(2-Chloroethoxy)methane	U	3680	ug/kg	735	3680
120-83-2	2,4-Dichlorophenol	U	3680	ug/kg	735	3680
65-85-0	Benzoic acid	U	7350	ug/kg	1840	7350
91-20-3	Naphthalene	U	368	ug/kg	110	368
106-47-8	4-Chloroaniline	U	3680	ug/kg	735	3680
87-68-3	Hexachlorobutadiene	U	3680	ug/kg	735	3680
91-57-6	2-Methylnaphthalene	U	368	ug/kg	73.5	368
77-47-4	Hexachlorocyclopentadiene	U	3680	ug/kg	735	3680
88-06-2	2,4,6-Trichlorophenol	U	3680	ug/kg	735	3680
95-95-4	2,4,5-Trichlorophenol	U	3680	ug/kg	735	3680
91-58-7	2-Chloronaphthalene	U	368	ug/kg	121	368
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	3680	ug/kg	735	3680
99-09-2	3-Nitroaniline	U	3680	ug/kg	735	3680

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815007	**Date Received:**	03/05/2010 10:20	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13860	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	10
Run Date:	03/23/2010 18:35	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	s7c2324.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	3680	ug/kg	735	3680
606-20-2	2,6-Dinitrotoluene	U	3680	ug/kg	368	3680
208-96-8	Acenaphthylene	U	368	ug/kg	110	368
51-28-5	2,4-Dinitrophenol	U	7350	ug/kg	1400	7350
132-64-9	Dibenzofuran	U	3680	ug/kg	735	3680
84-66-2	Diethylphthalate	U	3680	ug/kg	735	3680
86-73-7	Fluorene	U	368	ug/kg	110	368
7005-72-3	4-Chlorophenylphenylether	U	3680	ug/kg	735	3680
534-52-1	2-Methyl-4,6-dinitrophenol	U	3680	ug/kg	735	3680
100-01-6	4-Nitroaniline	U	3680	ug/kg	1100	3680
	p-Nitroaniline					
122-39-4	Diphenylamine	U	3680	ug/kg	735	3680
122-66-7	Azobenzene	U	3680	ug/kg	735	3680
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	3680	ug/kg	735	3680
118-74-1	Hexachlorobenzene	U	3680	ug/kg	735	3680
85-01-8	Phenanthrene	U	368	ug/kg	110	368
120-12-7	Anthracene	U	368	ug/kg	73.5	368
84-74-2	Di-n-butylphthalate	U	3680	ug/kg	735	3680
206-44-0	Fluoranthene	J	116	ug/kg	110	368
85-68-7	Butylbenzylphthalate	U	3680	ug/kg	735	3680
56-55-3	Benzo(a)anthracene	U	368	ug/kg	110	368
91-94-1	3,3'-Dichlorobenzidine	U	3680	ug/kg	1100	3680
218-01-9	Chrysene	U	368	ug/kg	110	368
117-81-7	bis(2-Ethylhexyl)phthalate	U	3680	ug/kg	735	3680
117-84-0	Di-n-octylphthalate	U	3680	ug/kg	735	3680
205-99-2	Benzo(b)fluoranthene	U	368	ug/kg	110	368
207-08-9	Benzo(k)fluoranthene	U	368	ug/kg	110	368
50-32-8	Benzo(a)pyrene	U	368	ug/kg	110	368
193-39-5	Indeno(1,2,3-cd)pyrene	U	368	ug/kg	110	368
53-70-3	Dibenzo(a,h)anthracene	U	368	ug/kg	110	368
191-24-2	Benzo(ghi)perylene	U	368	ug/kg	110	368
120-82-1	1,2,4-Trichlorobenzene	U	3680	ug/kg	735	3680

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

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Data file : /chem/MSD7.i/s032310.b/s7c2324.d
Lab Smp Id: 248815007 Client Smp ID: RE46-10-13860
Inj Date : 23-MAR-2010 18:35
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815007|965816|10|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 llo00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 22
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.07000	weight of sample
M	9.53460	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	323905	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	1194361	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	681092	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	1222369	40.0000	
* 91 Chrysene-d12	240	9.547	9.552	(1.000)	818360	40.0000	
* 98 Perylene-d12	264	11.165	11.165	(1.000)	459525	40.0000	
$ 3 2-Fluorophenol	112	3.066	3.061	(0.792)	35397	4.20440	1540
$ 5 Phenol-d5	99	3.590	3.590	(0.928)	42187	3.99662	1470
$ 20 Nitrobenzene-d5	82	4.231	4.235	(0.894)	20945	2.32509	855
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	49031	2.88860	1060
$ 60 2,4,6-Tribromophenol	329	6.576	6.576	(1.099)	9025	4.58367	1680
$ 81 p-Terphenyl-d14	244	8.516	8.521	(0.892)	48492	3.30753	1220

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	8.415	8.420	(0.881)	8382	0.32421	119(a)
76 Fluoranthene	202	8.199	8.203	(1.148)	8597	0.31521	116(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s7c2324.d
Report Date: 03/23/2010 21:30
Lab. ID: 248815007 SampleType: SAMPLE
Injection Date: 23-MAR-2010 18:35
Operator: JMB3 Instrument: MSD7.i
Sample Info: |248815007|965816|10|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 10.0
Integrator: HP RTE Compound Sublist: 10-2298
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
43 Dimethylphthalate			CAS#: 131-11-3			
163	122765	5.98	5.75	80-120	100	(T)
164	681092	5.98	5.75	0- 40	555	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	88816	5.98	5.81	80-120	100	(T)
63	1033	5.98	5.81	66-126	1	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	88816	5.98	6.10	80-120	100	(T)
89	1273	5.98	6.10	43-103	1	(QT)
63	1033	5.98	6.10	22- 82	1	(QT)
69 Anthracene			CAS#: 120-12-7			
178	6927	7.16	7.21	80-120	100	( )
179	1207	7.16	7.21	0- 46	17	( )
176	973	7.16	7.21	0- 48	14	( )
76 Fluoranthene			CAS#: 206-44-0			
202	8597	8.20	8.20	80-120	100	( )
203	1838	8.20	8.20	0- 47	21	( )
101	639	8.20	8.20	0- 39	7	( )
79 Pyrene			CAS#: 129-00-0			
202	8382	8.42	8.42	80-120	100	( )
200	1633	8.42	8.42	0- 50	19	( )
101	950	8.41	8.42	0- 41	11	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
92 Chrysene		CAS#: 218-01-9				
228	5731	9.54	9.57	80-120	100	( )
229	2113	9.55	9.57	0- 49	37	( )
226	2200	9.53	9.57	0- 58	38	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	3977	10.67	10.67	80-120	100	( )
253	1430	10.67	10.67	0- 52	36	( )
125	500	10.67	10.67	0- 40	13	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	3977	10.67	10.70	80-120	100	( )
253	1784	10.67	10.70	0- 52	45	( )
125	537	10.67	10.70	0- 40	14	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

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Data file : /chem/MSD7.i/s032310.b/s7c2324.d
Lab Smp Id: 248815007 Client Smp ID: RE46-10-13860
Inj Date : 23-MAR-2010 18:35
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815007|965816|10|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 llo00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 22
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD7.i/s032310.b/s7c2324.d

Date : 23-MAR-2010 18:35

Client ID: RE46-10-13860

Sample Info: |2488150071965816110|SVMI1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD7.i

Operator: JMB3

Column diameter: 0.20

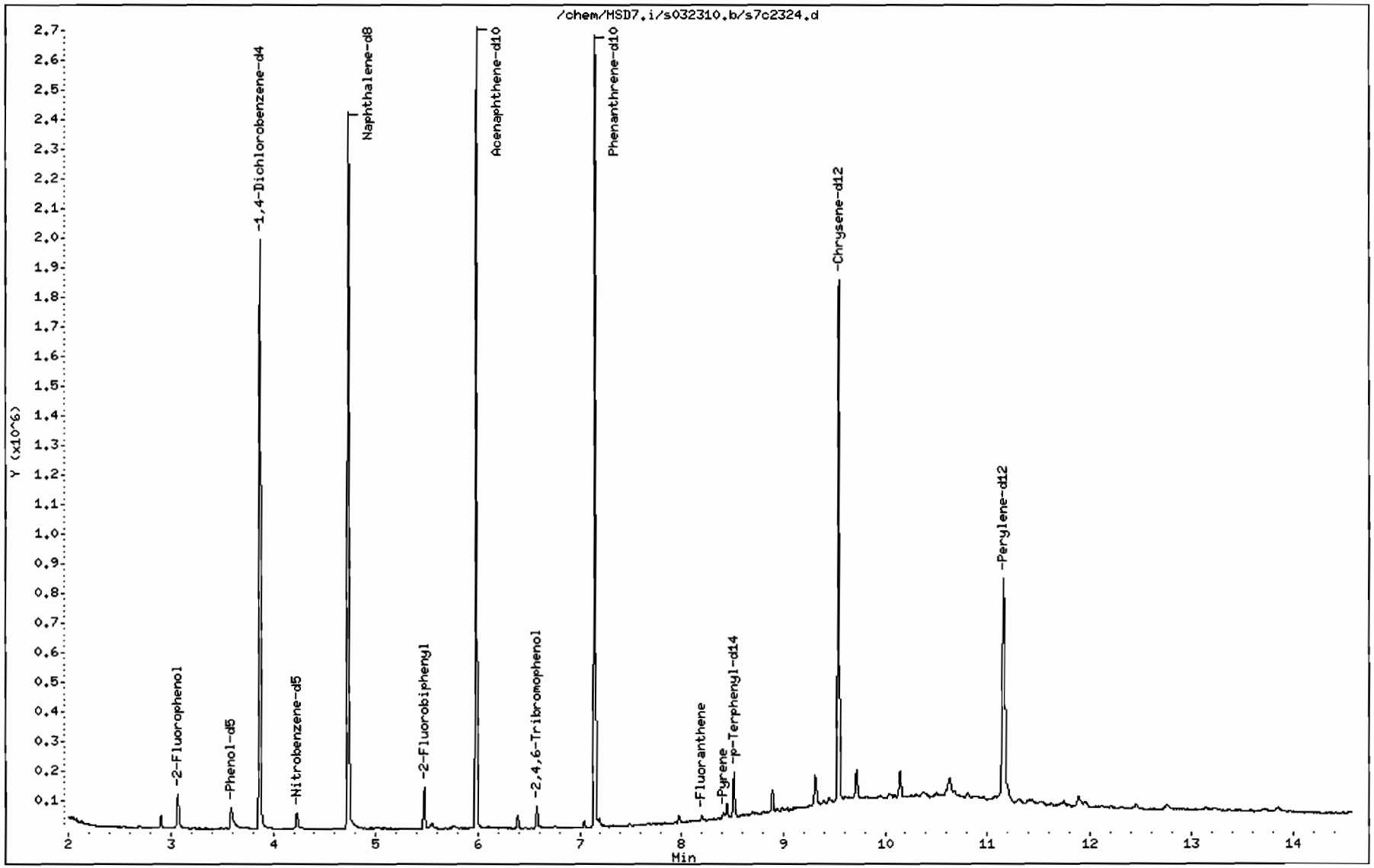

Data File: /chem/MSD7.i/s032310.b/s7c2324.d

Date : 23-MAR-2010 18:35

Client ID: RE46-10-13860

Instrument: MSD7.i

Sample Info: 1248815007196581611 01SVMI1ILANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 119 ug/Kg

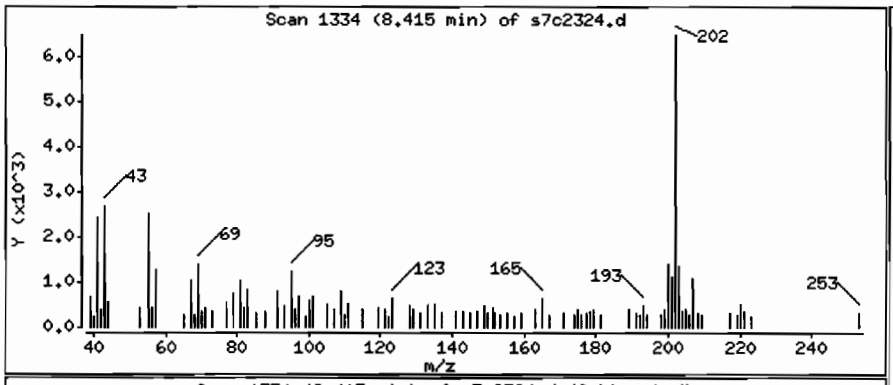

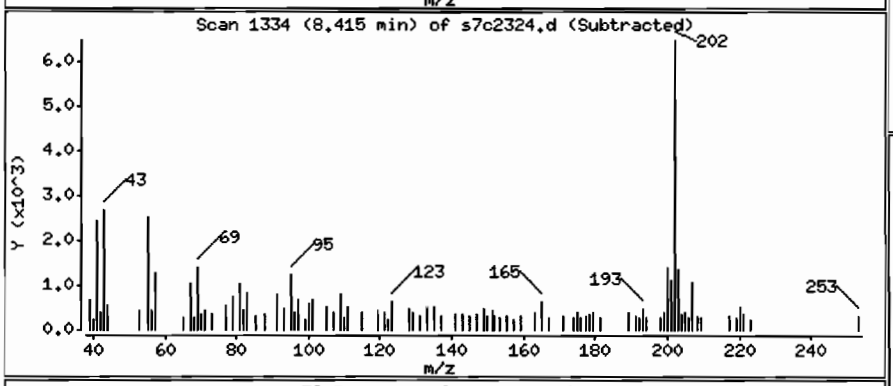

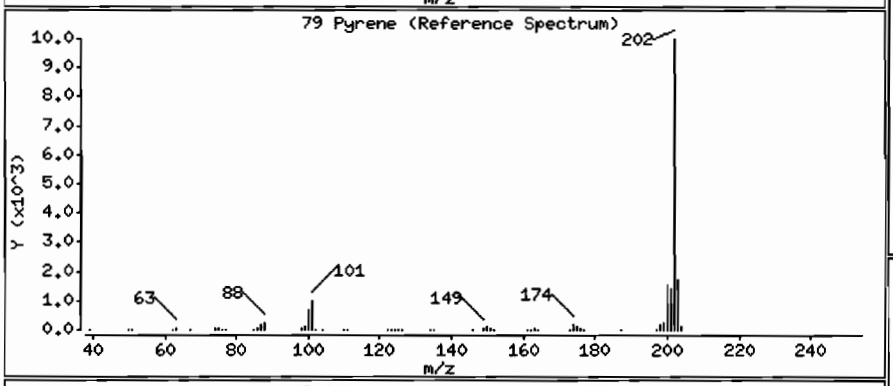

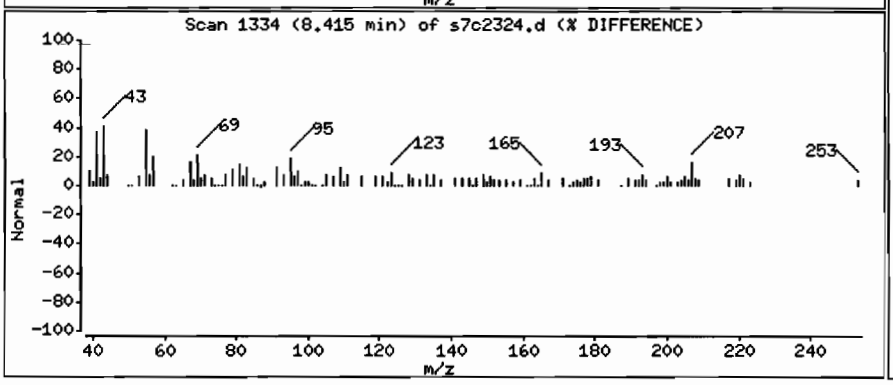

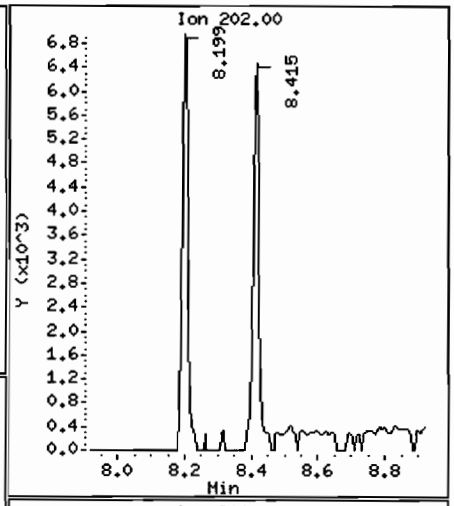

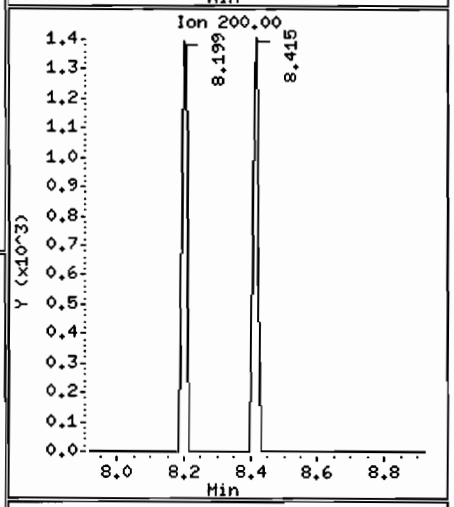

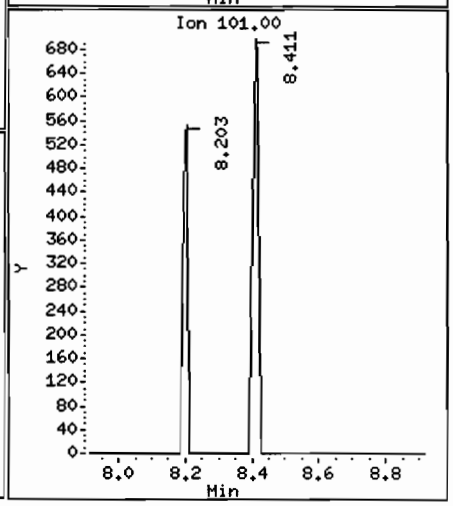

Data File: /chem/MSD7.i/s032310.b/s7c2324.d

Date : 23-MAR-2010 18:35

Client ID: RE46-10-13860

Instrument: MSD7.i

Sample Info: |2488815007|965816|10|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 116 ug/Kg

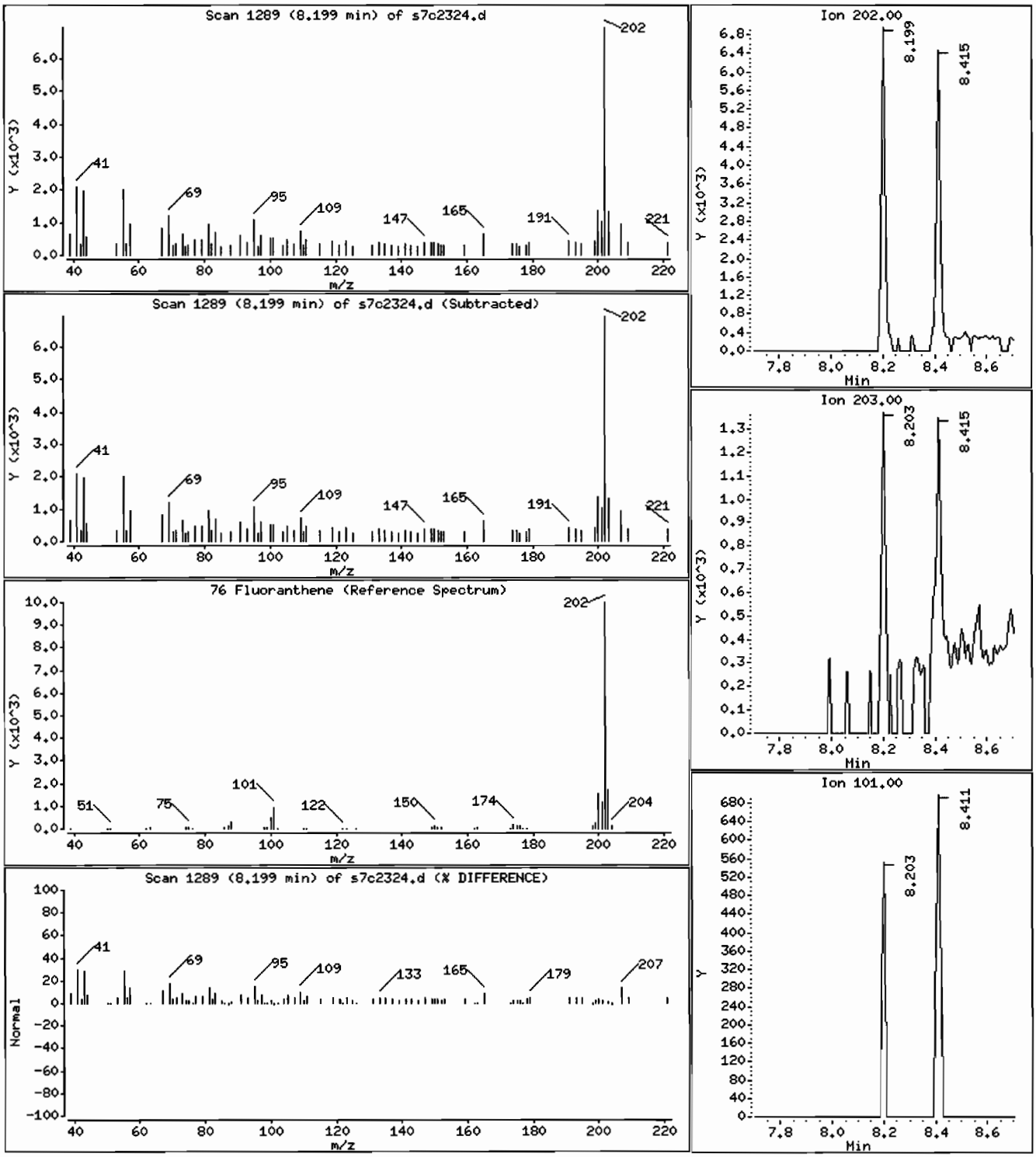

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13861**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 17:52**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2322.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	379	ug/kg	75.7	379
108-95-2	Phenol	U	379	ug/kg	75.7	379
95-57-8	2-Chlorophenol	U	379	ug/kg	75.7	379
106-46-7	1,4-Dichlorobenzene	U	379	ug/kg	75.7	379
621-64-7	N-Nitrosodipropylamine	U	379	ug/kg	75.7	379
59-50-7	4-Chloro-3-methylphenol	U	379	ug/kg	75.7	379
83-32-9	Acenaphthene	U	37.9	ug/kg	12.5	37.9
121-14-2	2,4-Dinitrotoluene	U	379	ug/kg	37.9	379
100-02-7	4-Nitrophenol	U	379	ug/kg	125	379
87-86-5	Pentachlorophenol	U	379	ug/kg	94.6	379
129-00-0	Pyrene	U	37.9	ug/kg	11.4	37.9
110-86-1	Pyridine	U	379	ug/kg	75.7	379
62-53-3	Aniline	U	379	ug/kg	114	379
111-44-4	bis(2-Chloroethyl) ether	U	379	ug/kg	75.7	379
541-73-1	1,3-Dichlorobenzene	U	379	ug/kg	75.7	379
100-51-6	Benzyl alcohol	U	379	ug/kg	114	379
95-50-1	1,2-Dichlorobenzene	U	379	ug/kg	75.7	379
108-60-1	bis(2-Chloroisopropyl)ether	U	379	ug/kg	75.7	379
95-48-7	o-Cresol	U	379	ug/kg	75.7	379
65794-96-9	m,p-Cresols	U	379	ug/kg	114	379
67-72-1	Hexachloroethane	U	379	ug/kg	75.7	379
98-95-3	Nitrobenzene	U	379	ug/kg	75.7	379
78-59-1	Isophorone	U	379	ug/kg	75.7	379
88-75-5	2-Nitrophenol	U	379	ug/kg	75.7	379
105-67-9	2,4-Dimethylphenol	U	379	ug/kg	132	379
111-91-1	bis(2-Chloroethoxy)methane	U	379	ug/kg	75.7	379
120-83-2	2,4-Dichlorophenol	U	379	ug/kg	75.7	379
65-85-0	Benzoic acid	U	757	ug/kg	189	757
91-20-3	Naphthalene	U	37.9	ug/kg	11.4	37.9
106-47-8	4-Chloroaniline	U	379	ug/kg	75.7	379
87-68-3	Hexachlorobutadiene	U	379	ug/kg	75.7	379
91-57-6	2-Methylnaphthalene	U	37.9	ug/kg	7.57	37.9
77-47-4	Hexachlorocyclopentadiene	U	379	ug/kg	75.7	379
88-06-2	2,4,6-Trichlorophenol	U	379	ug/kg	75.7	379
95-95-4	2,4,5-Trichlorophenol	U	379	ug/kg	75.7	379
91-58-7	2-Chloronaphthalene	U	37.9	ug/kg	12.5	37.9
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	379	ug/kg	75.7	379
99-09-2	3-Nitroaniline	U	379	ug/kg	75.7	379

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13861**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 17:52**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2322.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	379	ug/kg	75.7	379
606-20-2	2,6-Dinitrotoluene	U	379	ug/kg	37.9	379
208-96-8	Acenaphthylene	U	37.9	ug/kg	11.4	37.9
51-28-5	2,4-Dinitrophenol	U	757	ug/kg	144	757
132-64-9	Dibenzofuran	U	379	ug/kg	75.7	379
84-66-2	Diethylphthalate	U	379	ug/kg	75.7	379
86-73-7	Fluorene	U	37.9	ug/kg	11.4	37.9
7005-72-3	4-Chlorophenylphenylether	U	379	ug/kg	75.7	379
534-52-1	2-Methyl-4,6-dinitrophenol	U	379	ug/kg	75.7	379
100-01-6	4-Nitroaniline	U	379	ug/kg	114	379
	p-Nitroaniline					
122-39-4	Diphenylamine	U	379	ug/kg	75.7	379
122-66-7	Azobenzene	U	379	ug/kg	75.7	379
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	379	ug/kg	75.7	379
118-74-1	Hexachlorobenzene	U	379	ug/kg	75.7	379
85-01-8	Phenanthrene	U	37.9	ug/kg	11.4	37.9
120-12-7	Anthracene	U	37.9	ug/kg	7.57	37.9
84-74-2	Di-n-butylphthalate	U	379	ug/kg	75.7	379
206-44-0	Fluoranthene	U	37.9	ug/kg	11.4	37.9
85-68-7	Butylbenzylphthalate	U	379	ug/kg	75.7	379
56-55-3	Benzo(a)anthracene	U	37.9	ug/kg	11.4	37.9
91-94-1	3,3'-Dichlorobenzidine	U	379	ug/kg	114	379
218-01-9	Chrysene	U	37.9	ug/kg	11.4	37.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	379	ug/kg	75.7	379
117-84-0	Di-n-octylphthalate	U	379	ug/kg	75.7	379
205-99-2	Benzo(b)fluoranthene	U	37.9	ug/kg	11.4	37.9
207-08-9	Benzo(k)fluoranthene	U	37.9	ug/kg	11.4	37.9
50-32-8	Benzo(a)pyrene	U	37.9	ug/kg	11.4	37.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.9	ug/kg	11.4	37.9
53-70-3	Dibenzo(a,h)anthracene	U	37.9	ug/kg	11.4	37.9
191-24-2	Benzo(ghi)perylene	U	37.9	ug/kg	11.4	37.9
120-82-1	1,2,4-Trichlorobenzene	U	379	ug/kg	75.7	379

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	485	ug/kg		JA

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2322.d
Lab Smp Id: 248815005 Client Smp ID: RE46-10-13861
Inj Date : 23-MAR-2010 17:52
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815005|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 llo00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	12.06310	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	316654	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	1168319	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	671166	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	1238698	40.0000	
* 91 Chrysene-d12	240	9.547	9.552	(1.000)	926085	40.0000	
* 98 Perylene-d12	264	11.165	11.165	(1.000)	487080	40.0000	
$ 3 2-Fluorophenol	112	3.070	3.061	(0.793)	454114	55.1740	2090
$ 5 Phenol-d5	99	3.585	3.590	(0.927)	547389	53.0449	2010
$ 20 Nitrobenzene-d5	82	4.226	4.235	(0.893)	267831	30.3945	1150
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	595196	35.5839	1350
$ 60 2,4,6-Tribromophenol	329	6.576	6.576	(1.099)	155338	80.0607	3030
$ 81 p-Terphenyl-d14	244	8.521	8.521	(0.893)	666517	40.1734	1520

ION RATIO REPORT

SV REPORT

Data file: s7c2322.d
Report Date: 03/23/2010 21:29
Lab. ID: 248815005 SampleType: SAMPLE
Injection Date: 23-MAR-2010 17:52
Operator: JMB3 Instrument: MSD7.i
Sample Info: |248815005|965816|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2298
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	36316	3.59	3.66	80-120	100	(T)
93	529	3.55	3.66	229-289	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	41903	4.23	4.12	80-120	100	(T)
42	33679	4.23	4.11	74-134	80	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	121804	5.98	5.75	80-120	100	(T)
164	671166	5.98	5.75	0- 40	551	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	86815	5.98	5.81	80-120	100	(T)
63	1133	5.98	5.81	66-126	1	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	86815	5.98	6.10	80-120	100	(T)
89	1393	5.98	6.10	43-103	2	(QT)
63	1133	5.98	6.10	22- 82	1	(QT)
53 Fluorene		CAS#: 86-73-7				
166	8081	6.58	6.39	80-120	100	(T)
165	8711	6.58	6.39	61-121	108	(T)
167	3102	6.58	6.39	0- 44	38	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	10752	6.58	6.75	80-120	100	(T)
141	86627	6.58	6.75	61-121	806	(QT)
250	21893	6.58	6.75	69-129	204	(QT)
92 Chrysene			CAS#: 218-01-9			
228	6276	9.55	9.57	80-120	100	( )
229	1593	9.55	9.57	0- 49	25	( )
226	984	9.55	9.57	0- 58	16	( )
101 Benzo(ghi)perylene			CAS#: 191-24-2			
276	3011	13.36	13.37	80-120	100	( )
138	1202	13.35	13.37	0- 55	40	( )

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD7.i/s032310.b/s7c2322.d
Lab Smp Id: 248815005 Client Smp ID: RE46-10-13861
Inj Date : 23-MAR-2010 17:52
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815005|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 llo00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	12.06310	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.870	2031912	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.907	651366	12.8227112	485	0		0	10

Data File: /chem/MSD7.i/s032310.b/s7c2322.d

Page 1

Date : 23-MAR-2010 17:52

Client ID: RE46-10-13861

Instrument: MSD7.i

Sample Info: |248815005|965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

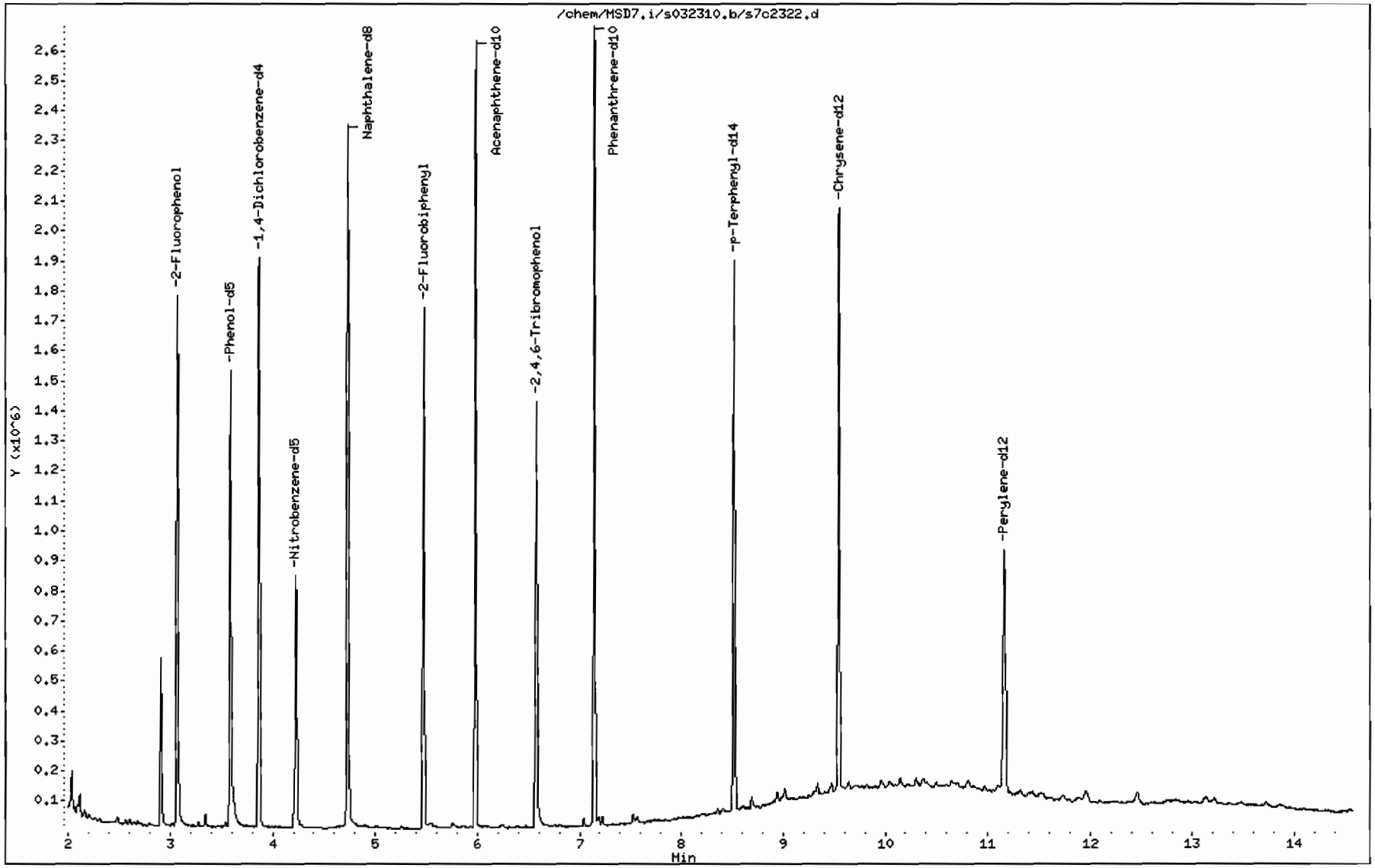

Data File: /chem/MSD7.i/s032310.b/s7c2322.d

Date : 23-MAR-2010 17:52

Client ID: RE46-10-13861

Instrument: MSD7.i

Sample Info: |2488150051965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116

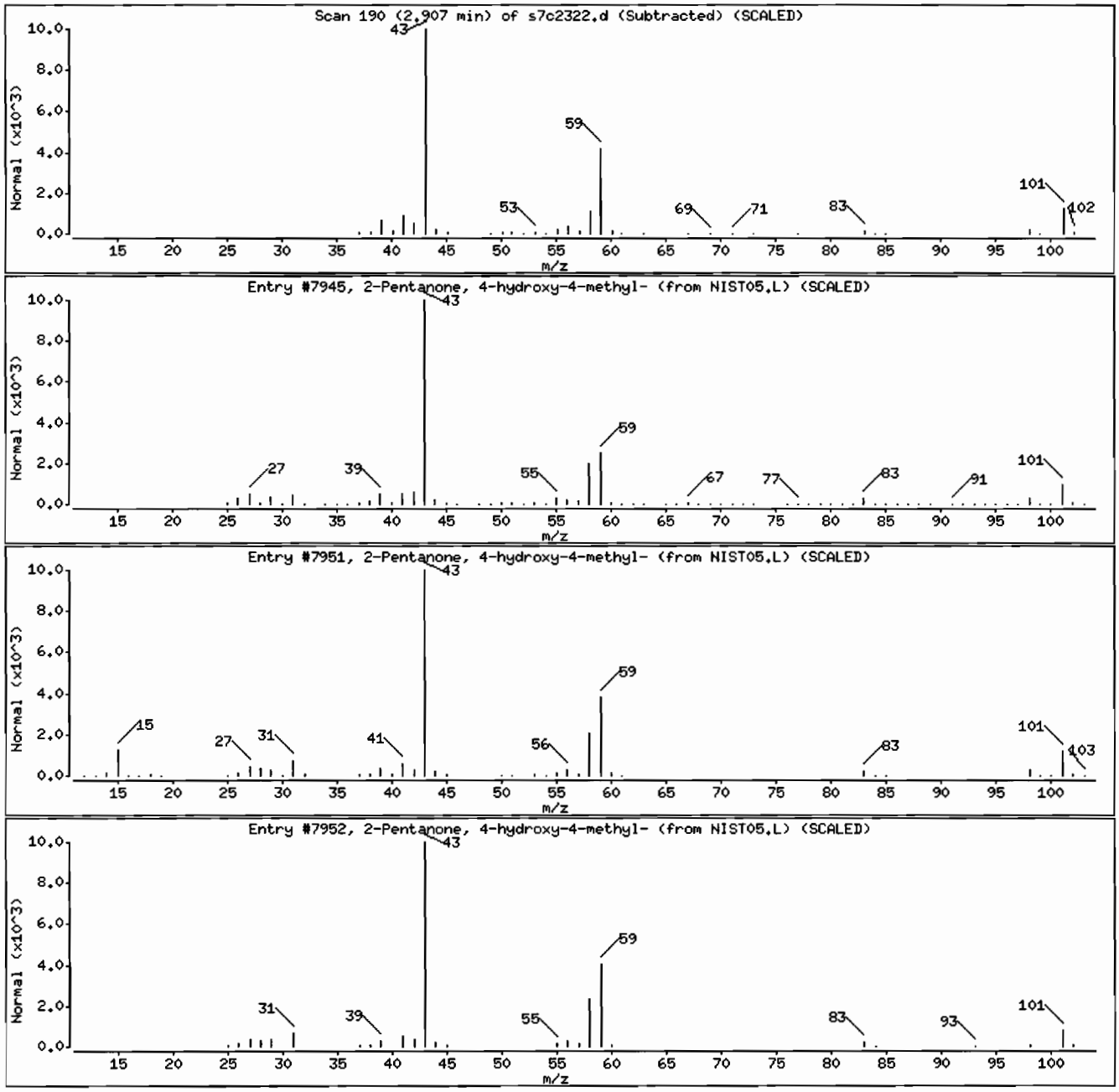

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13862**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 19:18**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2326.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	374	ug/kg	74.8	374
108-95-2	Phenol	U	374	ug/kg	74.8	374
95-57-8	2-Chlorophenol	U	374	ug/kg	74.8	374
106-46-7	1,4-Dichlorobenzene	U	374	ug/kg	74.8	374
621-64-7	N-Nitrosodipropylamine	U	374	ug/kg	74.8	374
59-50-7	4-Chloro-3-methylphenol	U	374	ug/kg	74.8	374
83-32-9	Acenaphthene	U	37.4	ug/kg	12.3	37.4
121-14-2	2,4-Dinitrotoluene	U	374	ug/kg	37.4	374
100-02-7	4-Nitrophenol	U	374	ug/kg	123	374
87-86-5	Pentachlorophenol	U	374	ug/kg	93.5	374
129-00-0	Pyrene		66.9	ug/kg	11.2	37.4
110-86-1	Pyridine	U	374	ug/kg	74.8	374
62-53-3	Aniline	U	374	ug/kg	112	374
111-44-4	bis(2-Chloroethyl) ether	U	374	ug/kg	74.8	374
541-73-1	1,3-Dichlorobenzene	U	374	ug/kg	74.8	374
100-51-6	Benzyl alcohol	U	374	ug/kg	112	374
95-50-1	1,2-Dichlorobenzene	U	374	ug/kg	74.8	374
108-60-1	bis(2-Chloroisopropyl)ether	U	374	ug/kg	74.8	374
95-48-7	o-Cresol	U	374	ug/kg	74.8	374
65794-96-9	m,p-Cresols	U	374	ug/kg	112	374
67-72-1	Hexachloroethane	U	374	ug/kg	74.8	374
98-95-3	Nitrobenzene	U	374	ug/kg	74.8	374
78-59-1	Isophorone	U	374	ug/kg	74.8	374
88-75-5	2-Nitrophenol	U	374	ug/kg	74.8	374
105-67-9	2,4-Dimethylphenol	U	374	ug/kg	131	374
111-91-1	bis(2-Chloroethoxy)methane	U	374	ug/kg	74.8	374
120-83-2	2,4-Dichlorophenol	U	374	ug/kg	74.8	374
65-85-0	Benzoic acid	U	748	ug/kg	187	748
91-20-3	Naphthalene	U	37.4	ug/kg	11.2	37.4
106-47-8	4-Chloroaniline	U	374	ug/kg	74.8	374
87-68-3	Hexachlorobutadiene	U	374	ug/kg	74.8	374
91-57-6	2-Methylnaphthalene	U	37.4	ug/kg	7.48	37.4
77-47-4	Hexachlorocyclopentadiene	U	374	ug/kg	74.8	374
88-06-2	2,4,6-Trichlorophenol	U	374	ug/kg	74.8	374
95-95-4	2,4,5-Trichlorophenol	U	374	ug/kg	74.8	374
91-58-7	2-Chloronaphthalene	U	37.4	ug/kg	12.3	37.4
88-74-4	2-Nitroaniline	U	374	ug/kg	74.8	374
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	374	ug/kg	74.8	374

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13862**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.1**	**Dilution:**	**1**
Run Date:	**03/23/2010 19:18**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2326.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	374	ug/kg	74.8	374
606-20-2	2,6-Dinitrotoluene	U	374	ug/kg	37.4	374
208-96-8	Acenaphthylene	U	37.4	ug/kg	11.2	37.4
51-28-5	2,4-Dinitrophenol	U	748	ug/kg	142	748
132-64-9	Dibenzofuran	U	374	ug/kg	74.8	374
84-66-2	Diethylphthalate	U	374	ug/kg	74.8	374
86-73-7	Fluorene	U	37.4	ug/kg	11.2	37.4
7005-72-3	4-Chlorophenylphenylether	U	374	ug/kg	74.8	374
534-52-1	2-Methyl-4,6-dinitrophenol	U	374	ug/kg	74.8	374
100-01-6	4-Nitroaniline	U	374	ug/kg	112	374
	p-Nitroaniline					
122-39-4	Diphenylamine	U	374	ug/kg	74.8	374
122-66-7	Azobenzene	U	374	ug/kg	74.8	374
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	374	ug/kg	74.8	374
118-74-1	Hexachlorobenzene	U	374	ug/kg	74.8	374
85-01-8	Phenanthrene		43.5	ug/kg	11.2	37.4
120-12-7	Anthracene	J	11.4	ug/kg	7.48	37.4
84-74-2	Di-n-butylphthalate	U	374	ug/kg	74.8	374
206-44-0	Fluoranthene		69.1	ug/kg	11.2	37.4
85-68-7	Butylbenzylphthalate	U	374	ug/kg	74.8	374
56-55-3	Benzo(a)anthracene	J	37.1	ug/kg	11.2	37.4
91-94-1	3,3'-Dichlorobenzidine	U	374	ug/kg	112	374
218-01-9	Chrysene	J	37.1	ug/kg	11.2	37.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	374	ug/kg	74.8	374
117-84-0	Di-n-octylphthalate	J	84.5	ug/kg	74.8	374
205-99-2	Benzo(b)fluoranthene		60.2	ug/kg	11.2	37.4
207-08-9	Benzo(k)fluoranthene	U	37.4	ug/kg	11.2	37.4
50-32-8	Benzo(a)pyrene		37.8	ug/kg	11.2	37.4
193-39-5	Indeno(1,2,3-cd)pyrene	J	22.9	ug/kg	11.2	37.4
53-70-3	Dibenzo(a,h)anthracene	U	37.4	ug/kg	11.2	37.4
191-24-2	Benzo(ghi)perylene	J	30.9	ug/kg	11.2	37.4
120-82-1	1,2,4-Trichlorobenzene	U	374	ug/kg	74.8	374

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	363	ug/kg		JA
	Unknown	7.49	151	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13862**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 19:18**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2326.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	7.98	402	ug/kg		J
	Unknown	8.45	903	ug/kg		J
	Unknown	8.9	1280	ug/kg		J
	Unknown	9.32	1730	ug/kg		J
	Unknown	9.72	1900	ug/kg		J
541-01-5	Heptasiloxane, hexadecamethyl-	10.38	265	ug/kg	90	NJ
	Unknown	10.55	253	ug/kg		J
	Unknown	10.81	156	ug/kg		J
	Unknown	11.2	3530	ug/kg		J
	Unknown	11.3	268	ug/kg		J
	Unknown	11.53	160	ug/kg		J
	Unknown	11.9	3220	ug/kg		J
	Unknown	12.76	2580	ug/kg		J
	Unknown	13.85	2020	ug/kg		J
	Unknown	14.14	217	ug/kg		J
	Unknown	14.37	209	ug/kg		J

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Data file : /chem/MSD7.i/s032310.b/s7c2326.d
Lab Smp Id: 248815010 Client Smp ID: RE46-10-13862
Inj Date : 23-MAR-2010 19:18
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815010|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 llo00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.17000	weight of sample
M	11.33080	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	306154	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	1178115	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	669125	40.0000	
* 67 Phenanthrene-d10	188	7.149	7.149	(1.000)	1205901	40.0000	
* 91 Chrysene-d12	240	9.547	9.552	(1.000)	775241	40.0000	
* 98 Perylene-d12	264	11.165	11.165	(1.000)	384405	40.0000	
$ 3 2-Fluorophenol	112	3.070	3.061	(0.793)	487599	61.2742	2290
$ 5 Phenol-d5	99	3.590	3.590	(0.928)	585814	58.7154	2190
$ 20 Nitrobenzene-d5	82	4.226	4.235	(0.893)	279227	31.4243	1170
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	624480	37.4485	1400
$ 60 2,4,6-Tribromophenol	329	6.581	6.576	(1.100)	157725	81.5389	3050
$ 81 p-Terphenyl-d14	244	8.521	8.521	(0.893)	643279	46.3170	1730

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	8.415	8.420	(0.881)	43823	1.78934	66.9
68 Phenanthrene	178	7.163	7.168	(1.002)	28791	1.16348	43.5
69 Anthracene	178	7.207	7.211	(1.008)	7667	0.30592	11.4(a)
76 Fluoranthene	202	8.204	8.203	(1.147)	49728	1.84821	69.1
89 Benzo(a)anthracene	228	9.537	9.537	(0.999)	18460	0.99329	37.1(a)
92 Chrysene	228	9.566	9.571	(1.002)	16403	0.99186	37.1(a)
94 Di-n-octylphthalate	149	10.149	10.110	(0.909)	34911	2.26167	84.5(a)
95 Benzo(b)fluoranthene	252	10.669	10.669	(0.956)	17360	1.61034	60.2
97 Benzo(a)pyrene	252	11.088	11.092	(0.993)	8940	1.01137	37.8
99 Indeno(1,2,3-cd)pyrene	276	12.850	12.850	(1.151)	3900	0.61356	22.9(a)
101 Benzo(ghi)perylene	276	13.361	13.365	(1.197)	4389	0.82795	30.9(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s7c2326.d
Report Date: 03/23/2010 21:30
Lab. ID: 248815010 SampleType: SAMPLE
Injection Date: 23-MAR-2010 19:18
Operator: JMB3 Instrument: MSD7.i
Sample Info: |248815010|965816|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2298
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	38924	3.59	3.66	80-120	100	(T)
93	496	3.55	3.66	229-289	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	43557	4.23	4.12	80-120	100	(T)
42	36958	4.23	4.11	74-134	85	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	118199	5.98	5.75	80-120	100	(T)
164	669125	5.98	5.75	0- 40	566	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	86573	5.98	5.81	80-120	100	(T)
63	1423	5.98	5.81	66-126	2	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	86573	5.98	6.10	80-120	100	(T)
89	1579	5.98	6.10	43-103	2	(QT)
63	1423	5.98	6.10	22- 82	2	(QT)
53 Fluorene		CAS#: 86-73-7				
166	8771	6.58	6.39	80-120	100	(T)
165	9001	6.58	6.39	61-121	103	(T)
167	2886	6.58	6.39	0- 44	33	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	572	6.58	6.41	80-120	100	(T)
105	1790	6.58	6.41	14- 74	313	(QT)
51	1569	6.58	6.41	41-101	274	(QT)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	10753	6.58	6.75	80-120	100	(T)
141	89109	6.58	6.75	61-121	829	(QT)
250	23111	6.58	6.75	69-129	215	(QT)
68 Phenanthrene				CAS#: 85-01-8		
178	28791	7.16	7.17	80-120	100	( )
179	5527	7.16	7.17	0- 46	19	( )
176	5044	7.16	7.17	0- 49	18	( )
69 Anthracene				CAS#: 120-12-7		
178	7667	7.21	7.21	80-120	100	( )
179	1799	7.21	7.21	0- 46	23	( )
176	1160	7.21	7.21	0- 48	15	( )
76 Fluoranthene				CAS#: 206-44-0		
202	49728	8.20	8.20	80-120	100	( )
203	8768	8.20	8.20	0- 47	18	( )
101	4669	8.20	8.20	0- 39	9	( )
79 Pyrene				CAS#: 129-00-0		
202	43823	8.42	8.42	80-120	100	( )
200	9211	8.42	8.42	0- 50	21	( )
101	5088	8.42	8.42	0- 41	12	( )
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	18460	9.54	9.54	80-120	100	( )
226	5011	9.53	9.54	0- 56	27	( )
229	4832	9.54	9.54	0- 49	26	( )
92 Chrysene				CAS#: 218-01-9		
228	16403	9.57	9.57	80-120	100	( )
229	3542	9.57	9.57	0- 49	22	( )
226	5193	9.57	9.57	0- 58	32	( )
94 Di-n-octylphthalate				CAS#: 117-84-0		
149	34911	10.15	10.11	80-120	100	( )
43	1123	10.12	10.11	0- 45	3	( )
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	17360	10.67	10.67	80-120	100	( )
253	5110	10.68	10.67	0- 52	29	( )
125	1213	10.67	10.67	0- 40	7	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	17360	10.67	10.70	80-120	100	( )
253	5110	10.68	10.70	0- 52	29	( )
125	784	10.67	10.70	0- 40	5	( )
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	8940	11.09	11.09	80-120	100	( )
253	4188	11.09	11.09	0- 52	47	( )
125	1436	11.08	11.09	0- 40	16	( )
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	3900	12.85	12.85	80-120	100	( )
138	1632	12.85	12.85	0- 59	42	( )
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	4389	13.36	13.37	80-120	100	( )
138	1446	13.37	13.37	0- 55	33	( )

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD7.i/s032310.b/s7c2326.d
Lab Smp Id: 248815010 Client Smp ID: RE46-10-13862
Inj Date : 23-MAR-2010 19:18
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815010|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 llo00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.17000	weight of sample
M	11.33080	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.870	2000507	40.000
* 67 Phenanthrene-d10	7.149	3097825	40.000
* 91 Chrysene-d12	9.547	2453390	40.000
* 98 Perylene-d12	11.165	1285333	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.907	485163	9.70079668	363	0		0	10
Unknown				CAS #:			
7.486	312046	4.02923166	151	0		0	67
Unknown				CAS #:			
7.977	833217	10.7587320	402	0		0	67
Unknown				CAS #:			
8.449	1481184	24.1491667	903	0		0	91
Unknown				CAS #:			
8.897	2100036	34.2389210	1280	0		0	91
Unknown				CAS #:			
9.321	2841822	46.3329734	1730	0		0	91
Unknown				CAS #:			
9.720	3119563	50.8612485	1900	0		0	91
Heptasiloxane, hexadecamethyl-				CAS #: 541-01-5			
10.380	227551	7.08147780	265	90	NIST05.L	186165	98
Unknown				CAS #:			
10.553	217834	6.77905530	253	0		0	98
Unknown				CAS #:			
10.809	134357	4.18122222	156	0		0	98
Unknown				CAS #:			
11.203	3033895	94.4158304	3530	0		0	98
Unknown				CAS #:			
11.300	230635	7.17744400	268	0		0	98
Unknown				CAS #:			
11.531	137591	4.28188196	160	0		0	98
Unknown				CAS #:			
11.897	2769615	86.1913359	3220	0		0	98
Unknown				CAS #:			
12.759	2215168	68.9367765	2580	0		0	98

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
13.847	1735319	54.0036978	2020	0		0	98
Unknown				CAS #:			
14.136	186154	5.79318497	216	0		0	98
Unknown				CAS #:			
14.367	179521	5.58675250	209	0		0	98

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862

Sample Info: |248815010|965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD7.i

Operator: JMB3

Column diameter: 0.20

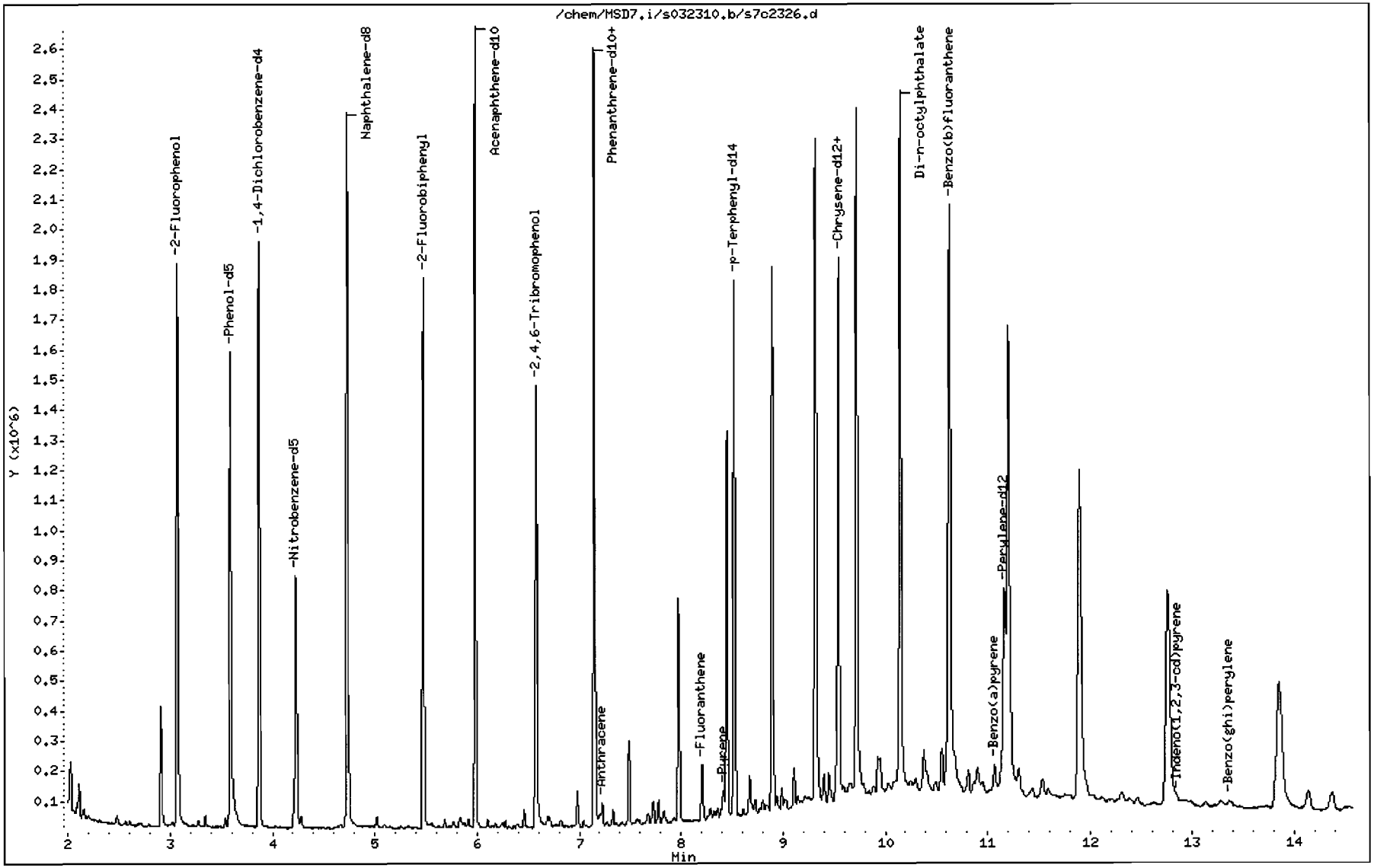

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862

Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 66.9 ug/Kg

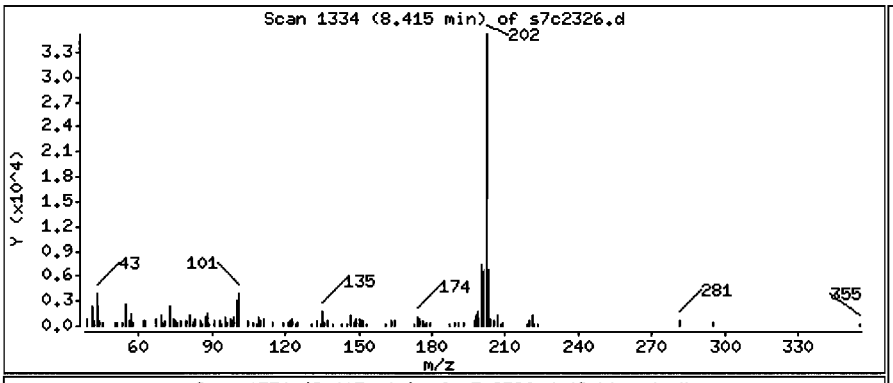

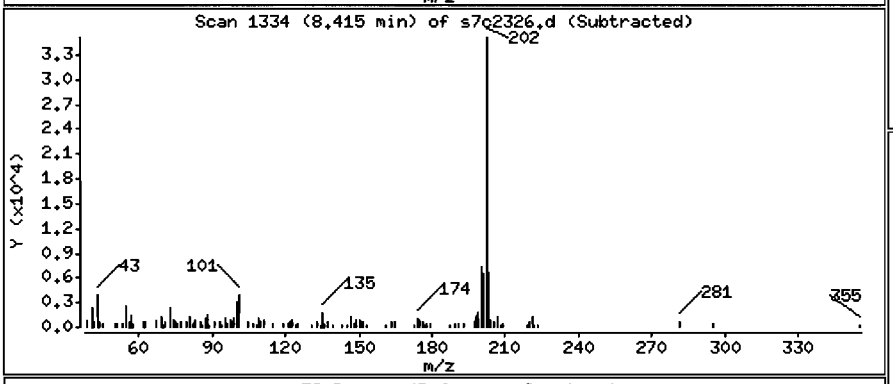

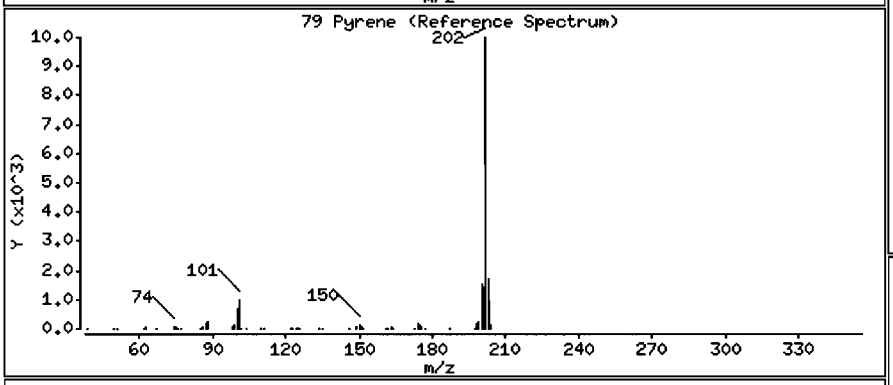

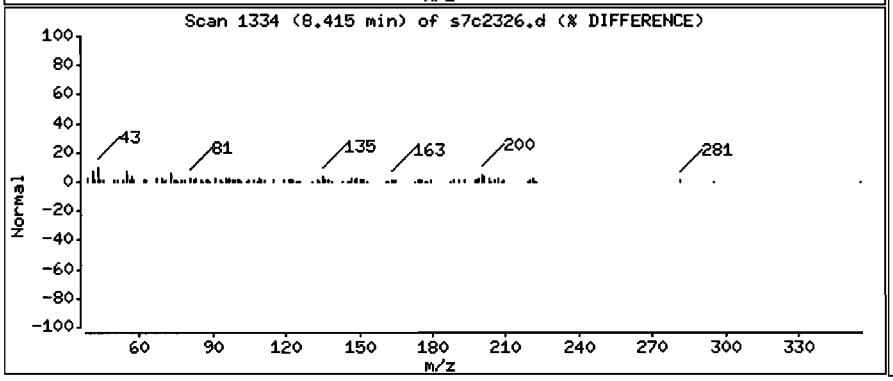

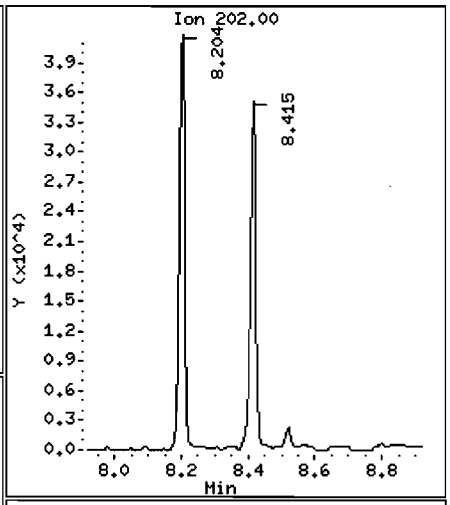

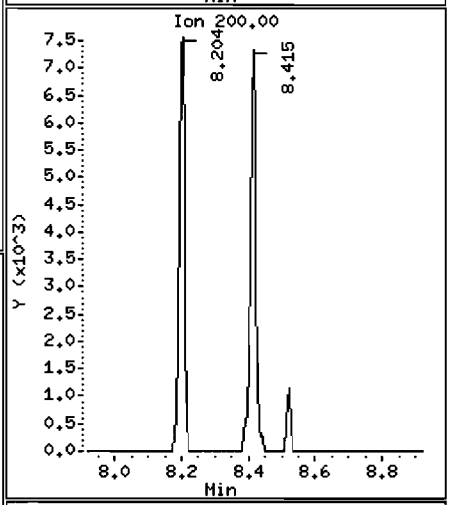

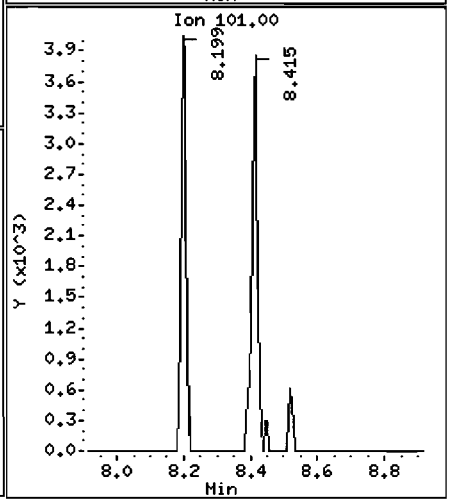

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862

Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 43.5 ug/Kg

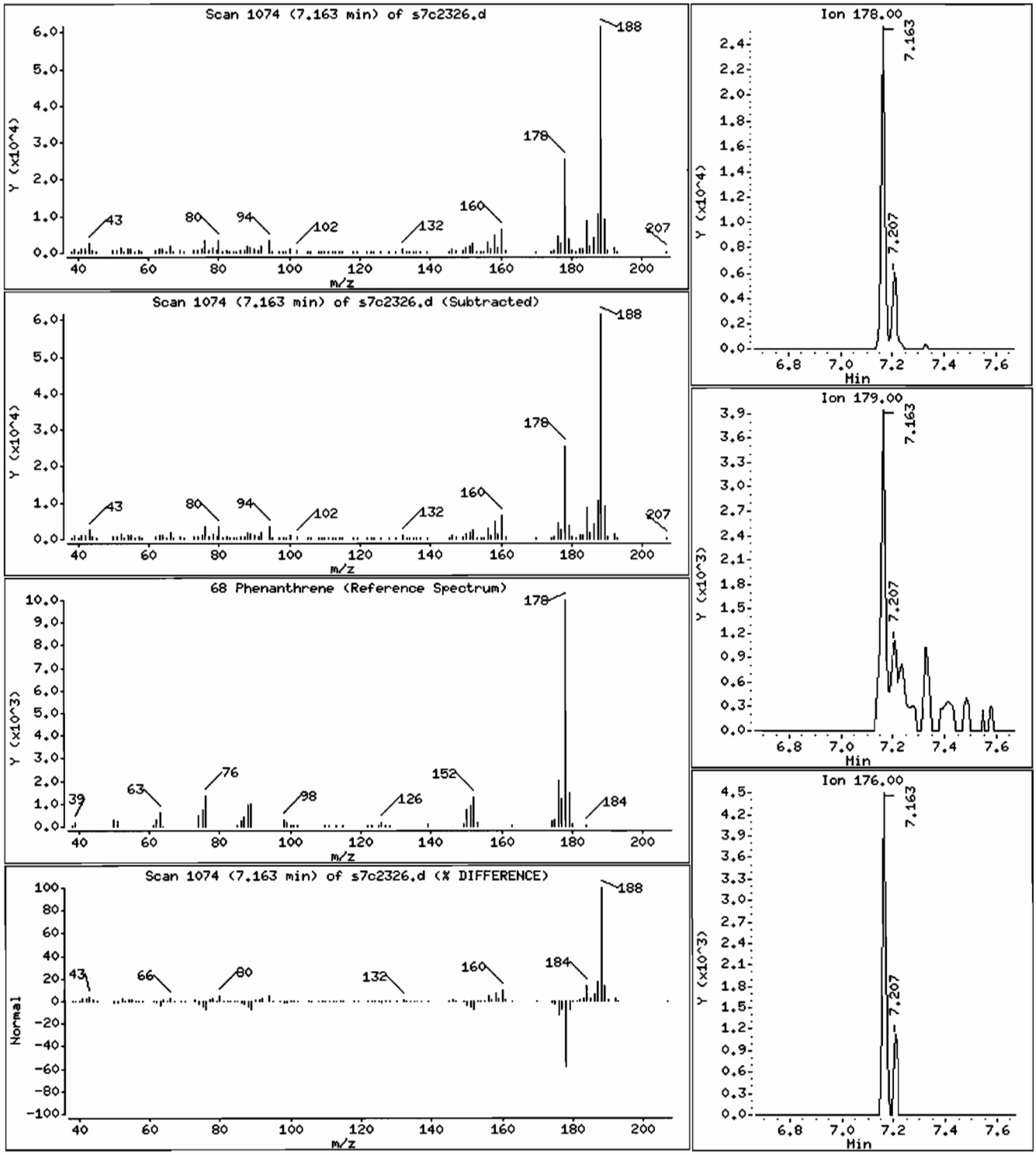

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862 Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

69 Anthracene Concentration: 11.4 ug/Kg

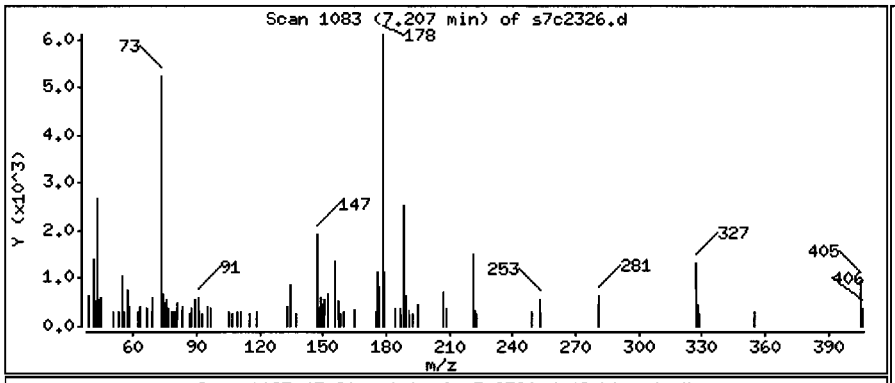

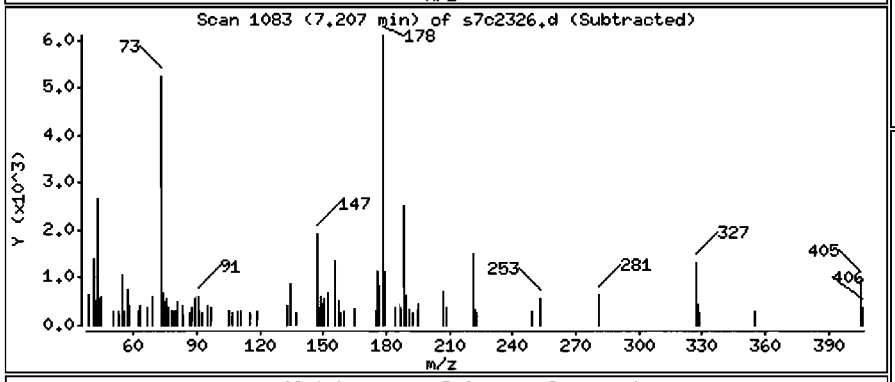

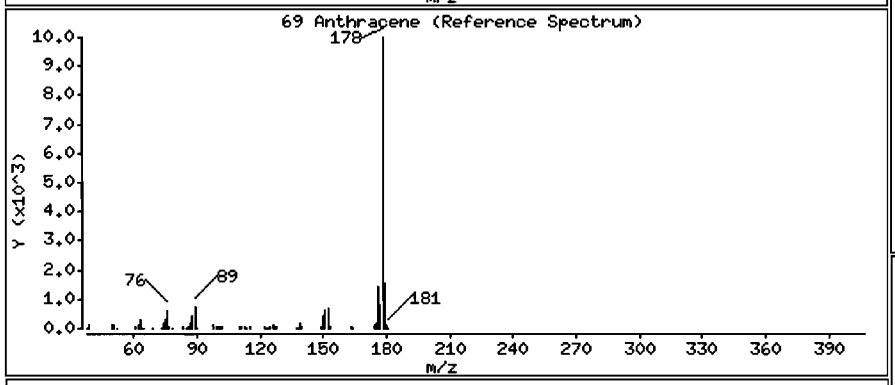

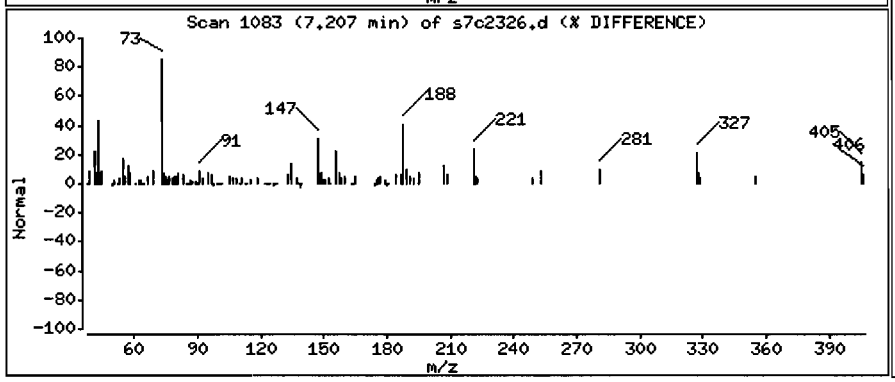

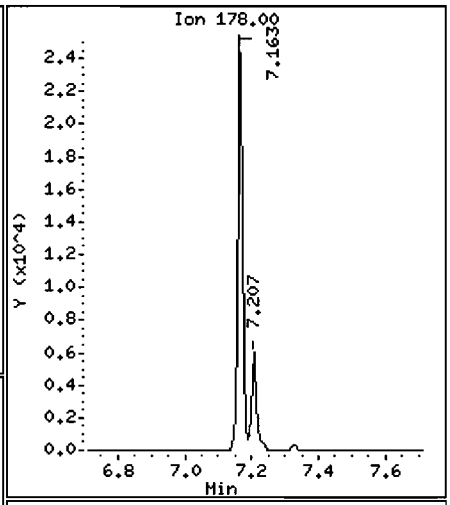

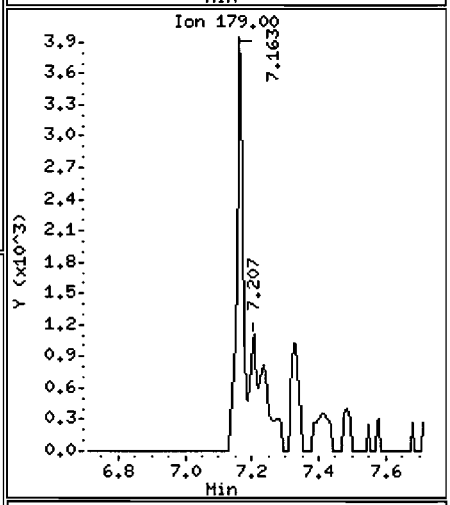

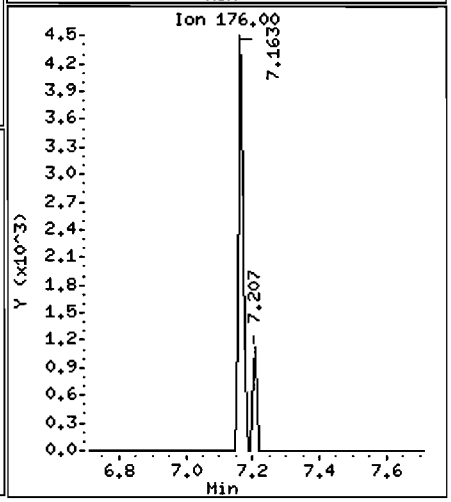

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862

Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 69.1 ug/Kg

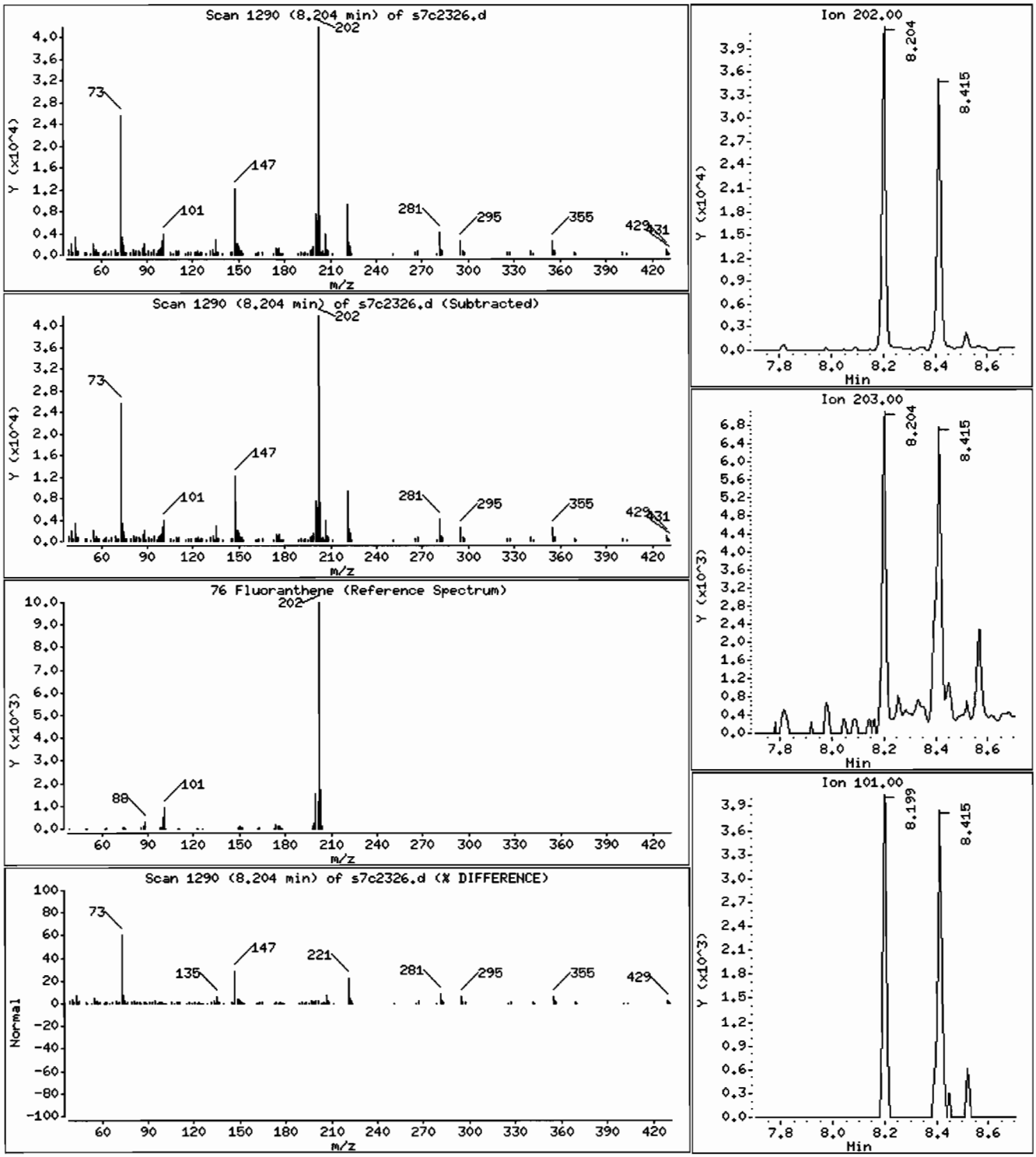

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862

Instrument: MSD7.i

Sample Info: 1248815010|965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 37.1 ug/Kg

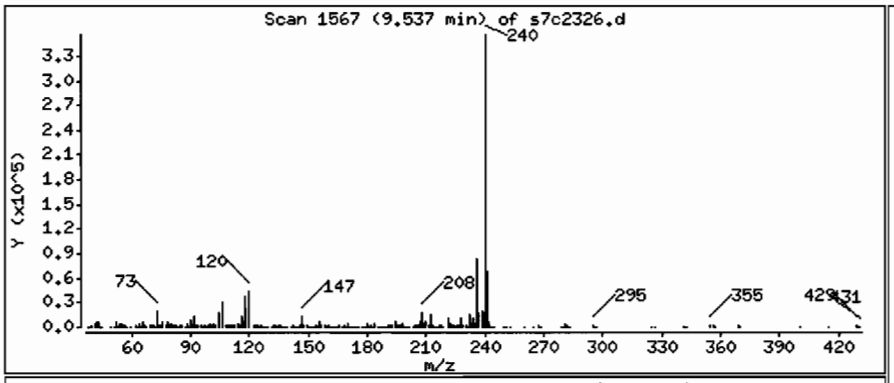

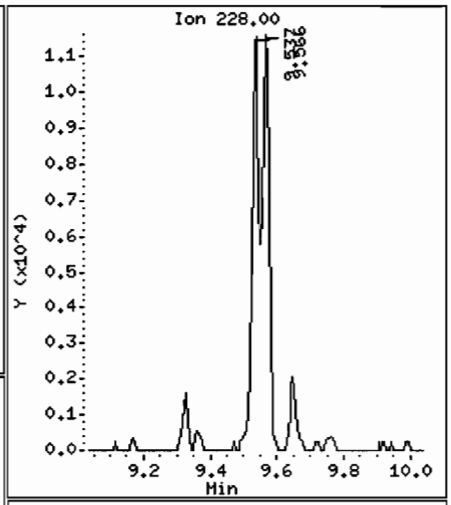

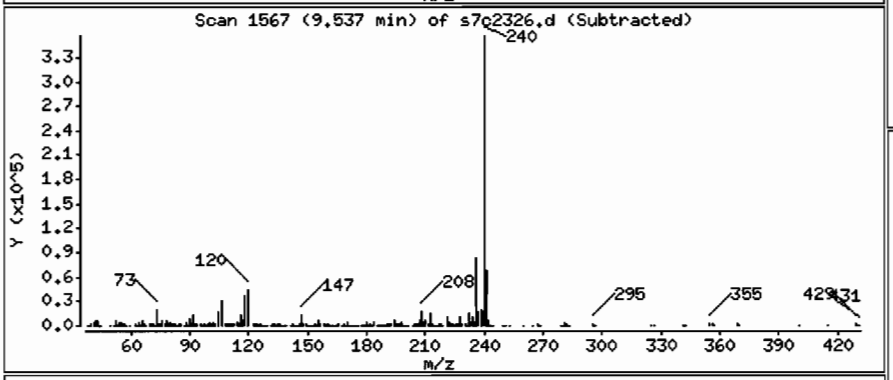

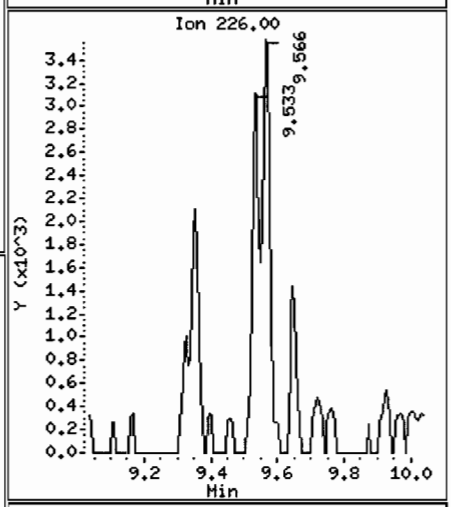

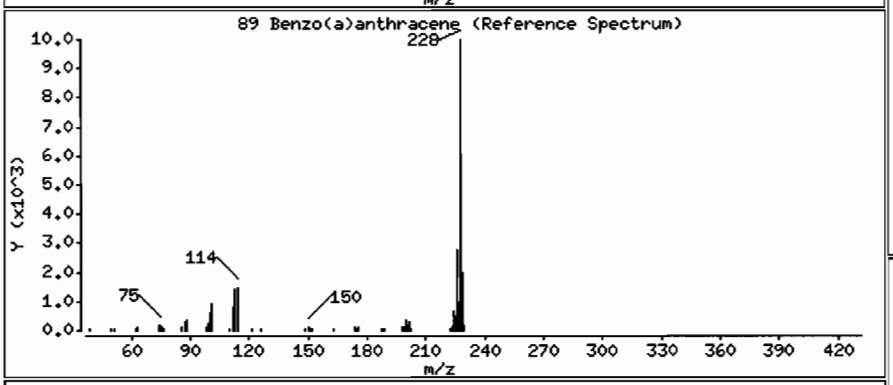

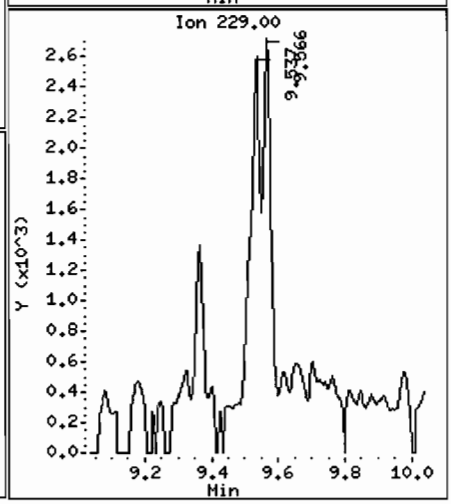

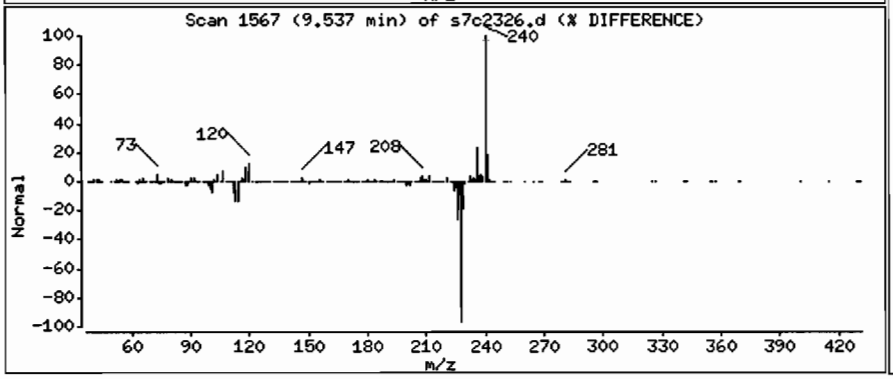

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862

Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 37.1 ug/Kg

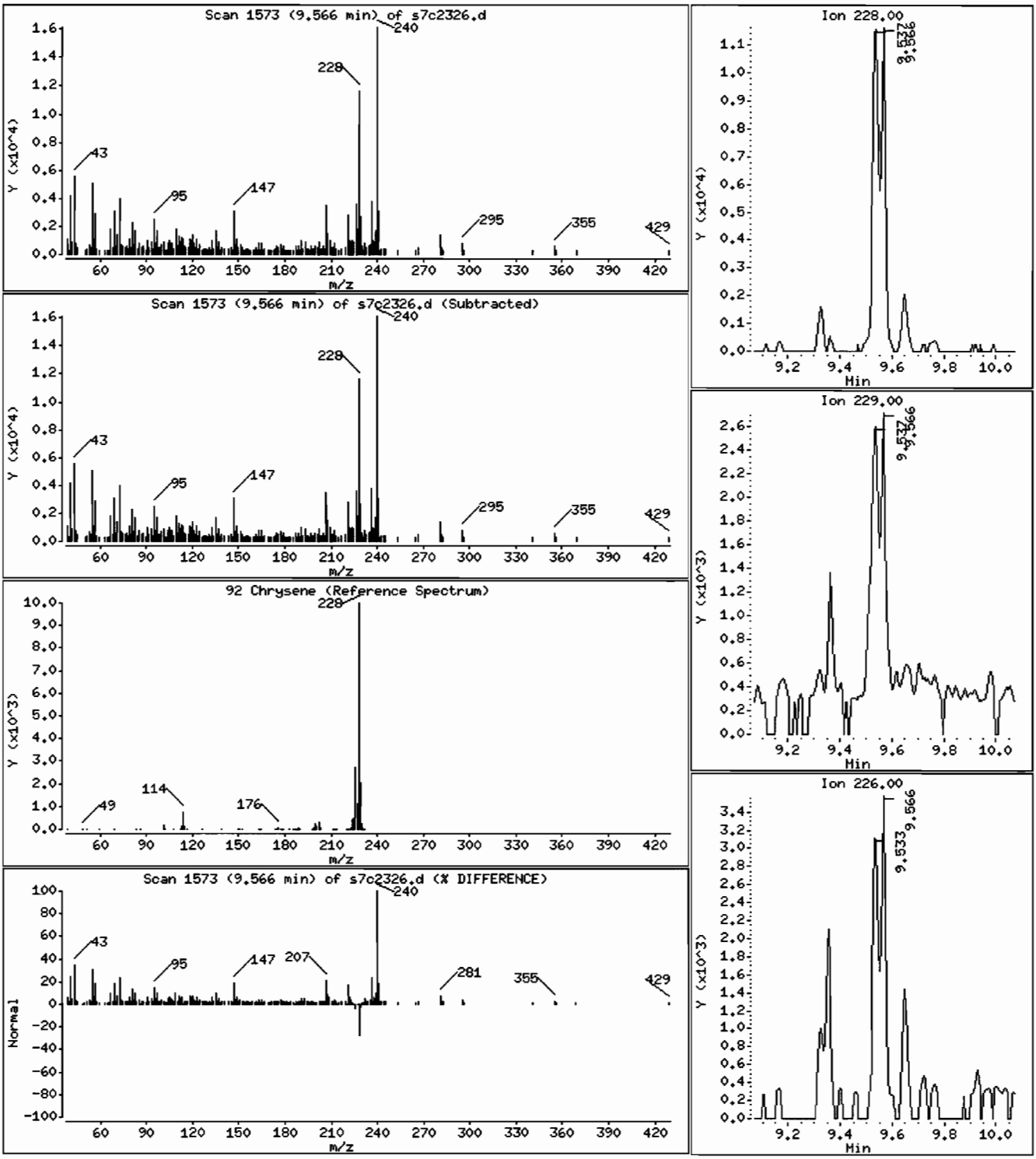

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862

Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

94 Di-n-octylphthalate

Concentration: 84.5 ug/Kg

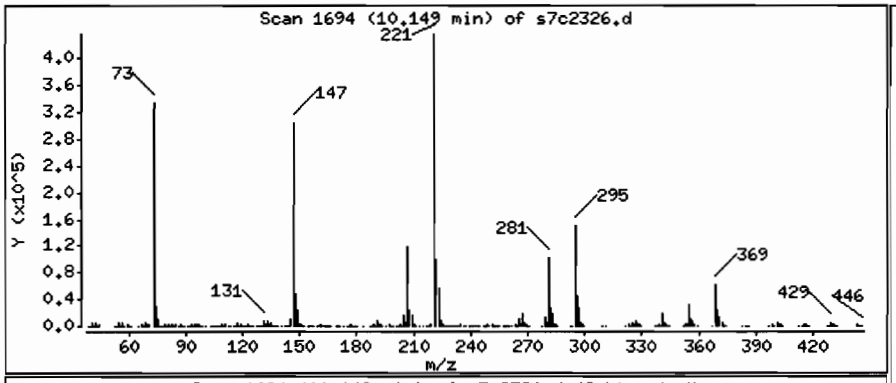

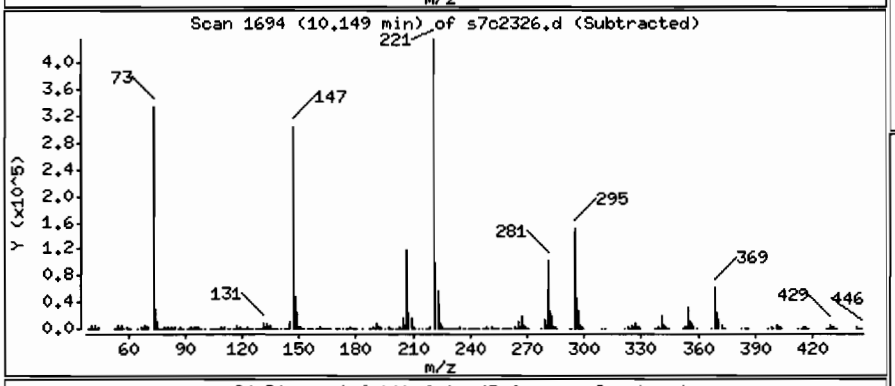

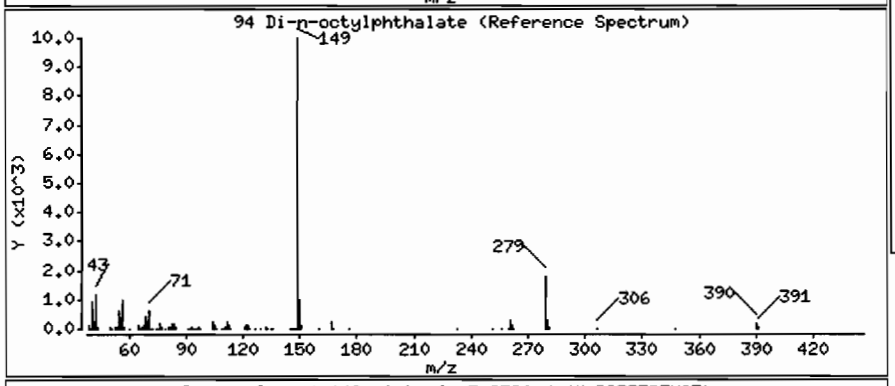

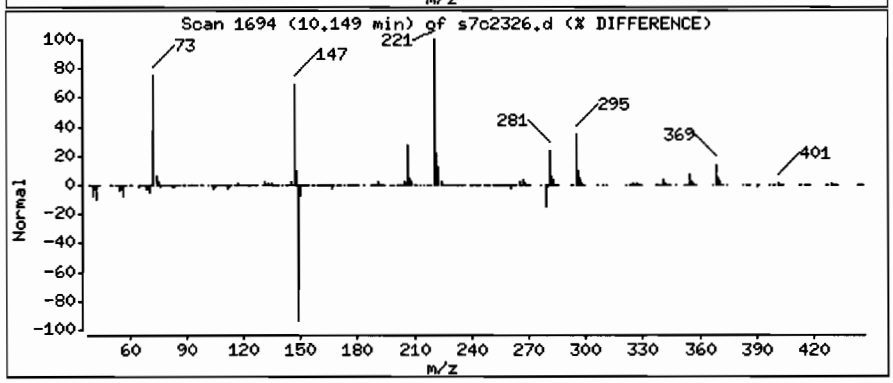

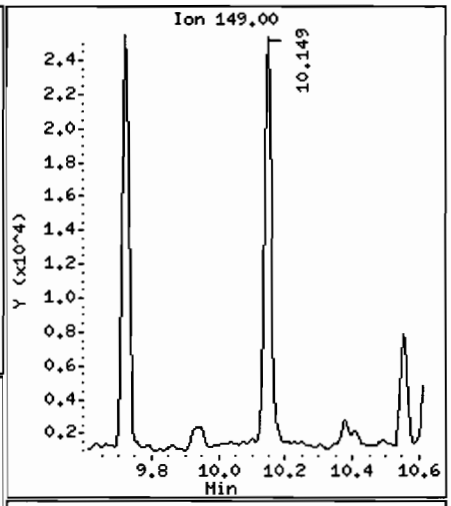

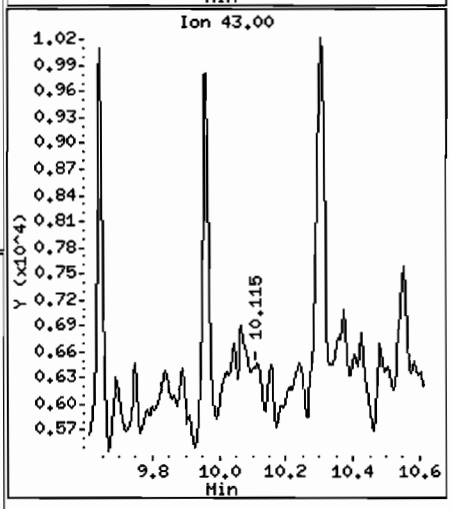

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862

Instrument: MSD7.i

Sample Info: 1248815010|965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 60.2 ug/Kg

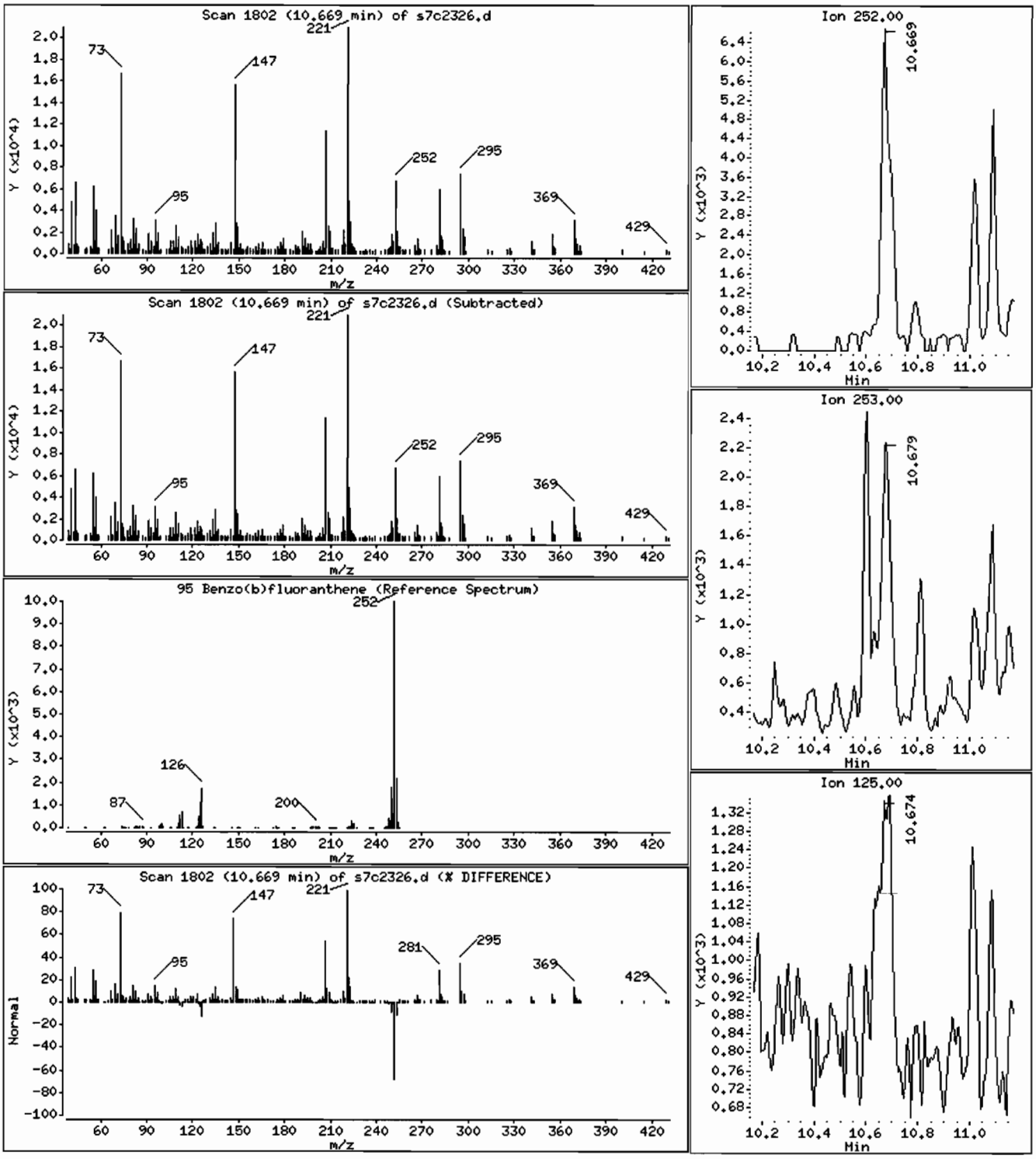

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862

Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 37.8 ug/Kg

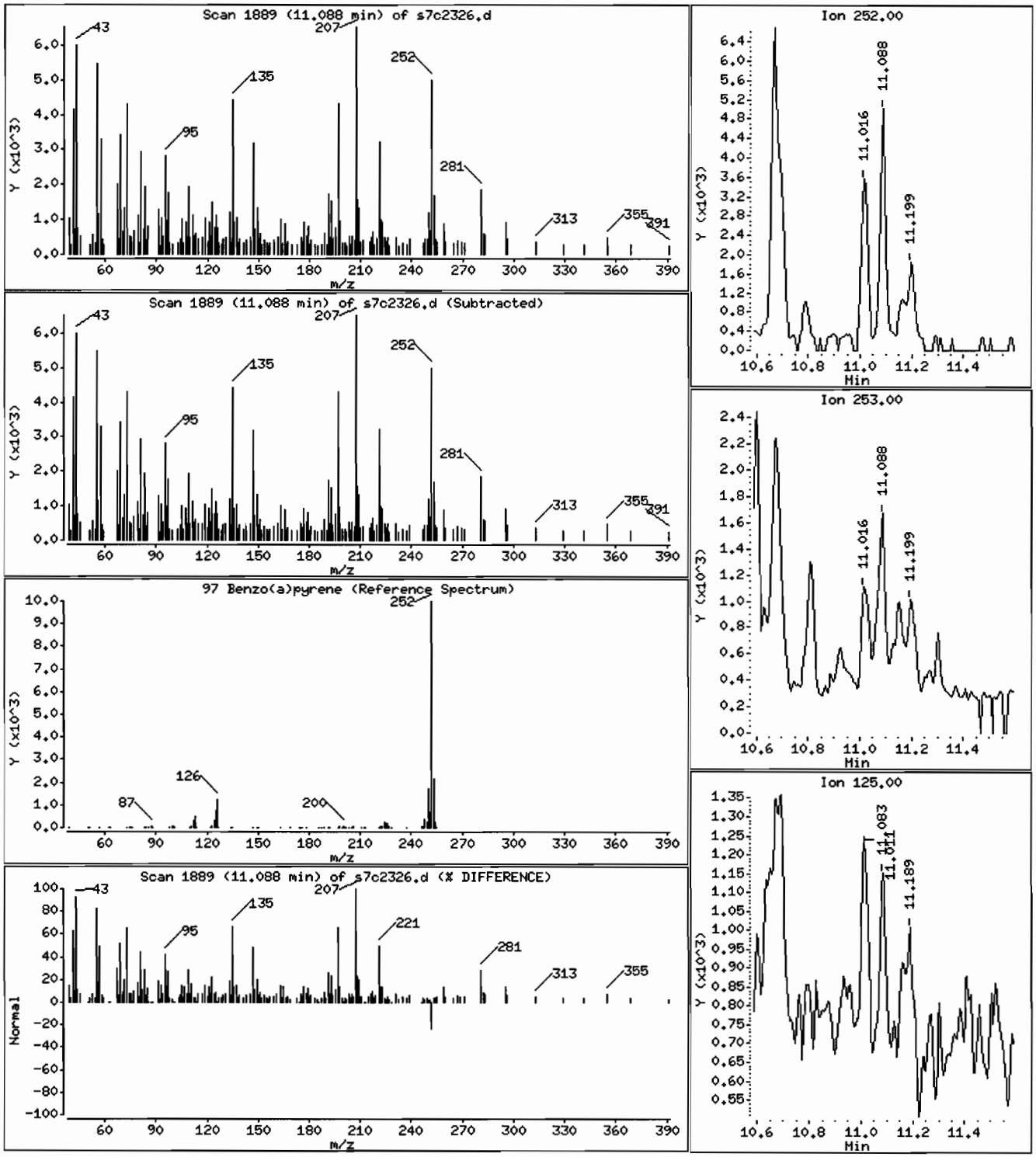

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862

Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 22.9 ug/Kg

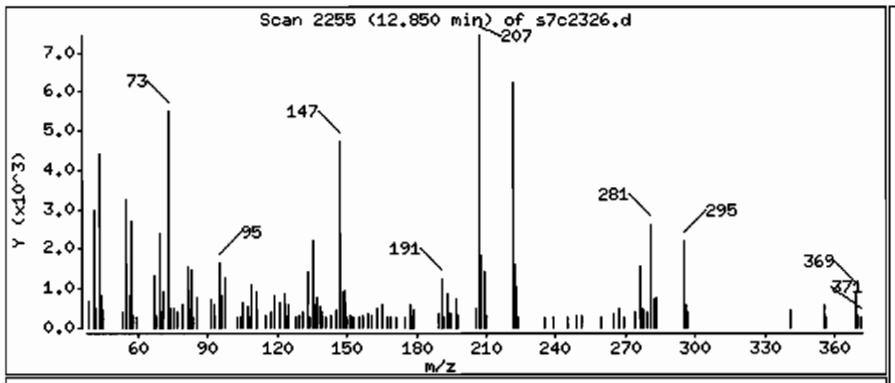

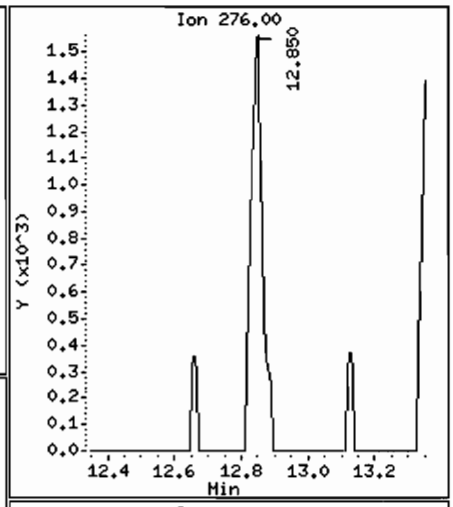

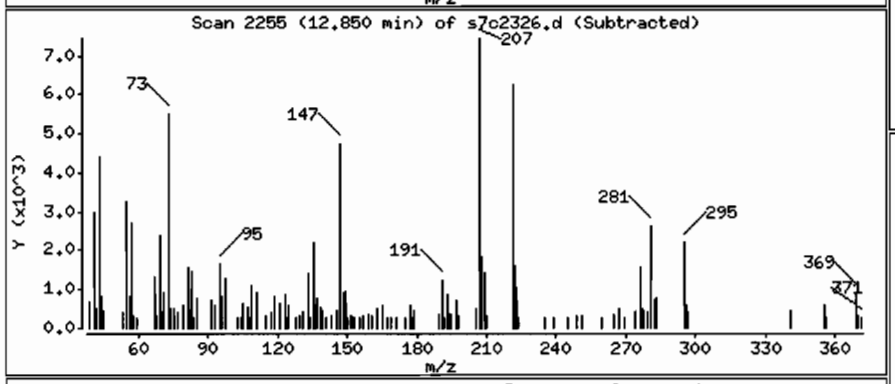

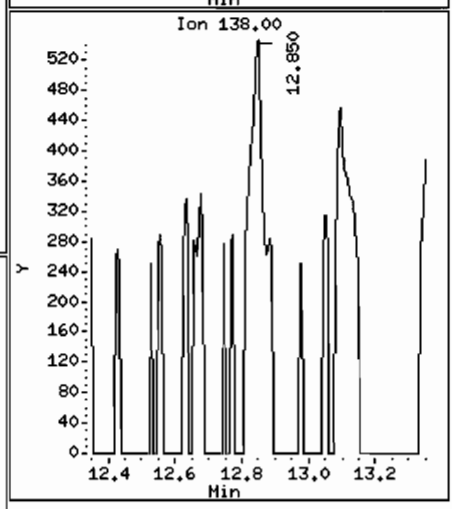

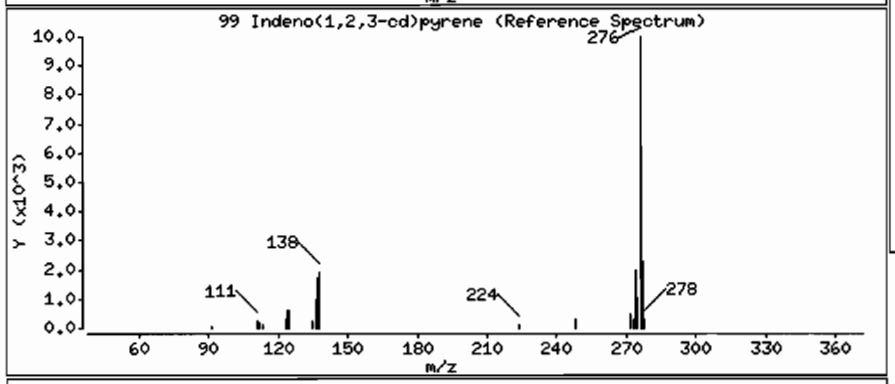

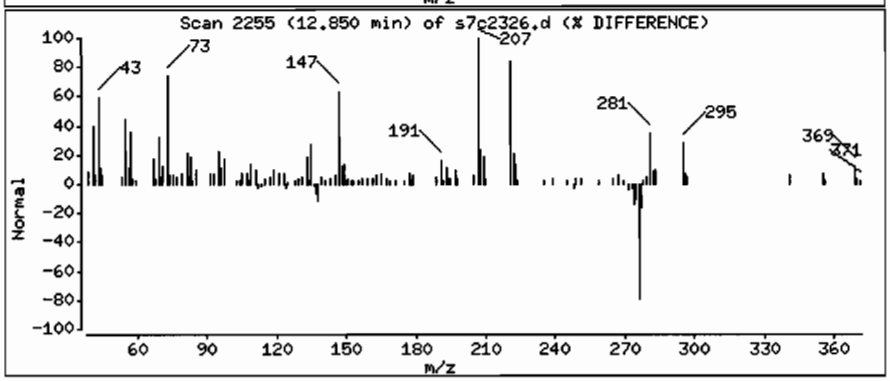

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862

Instrument: MSD7.i

Sample Info: |248815010|965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 30.9 ug/Kg

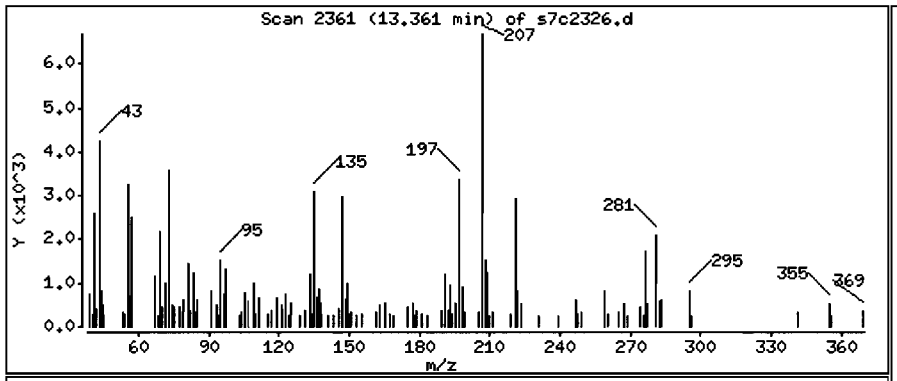

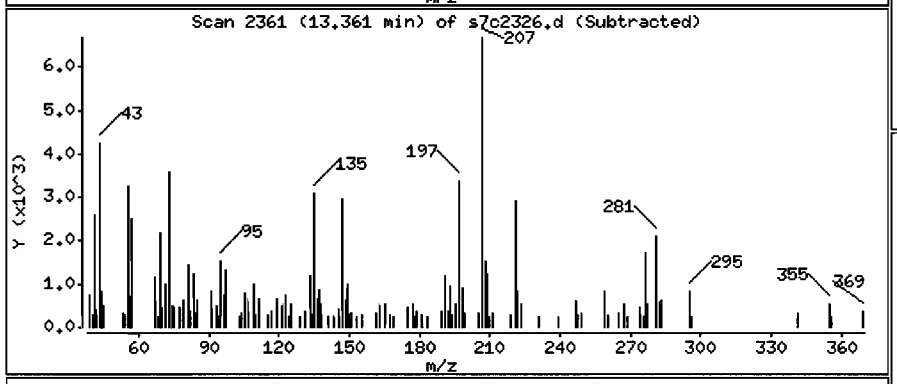

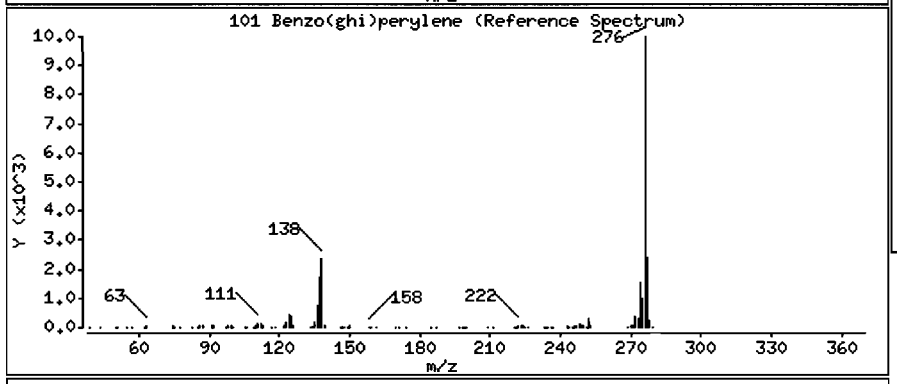

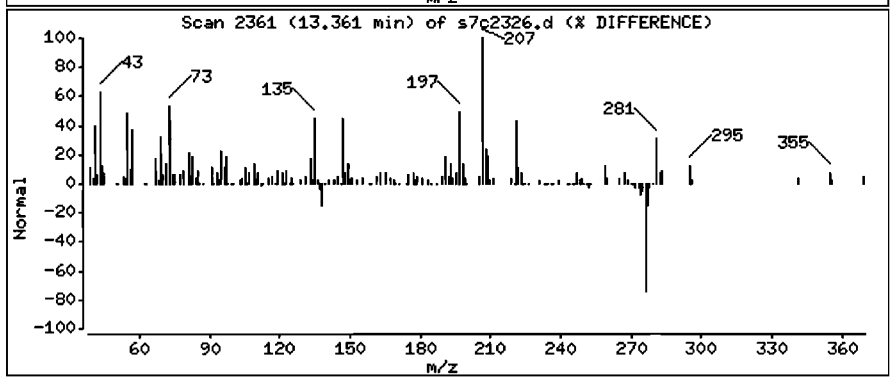

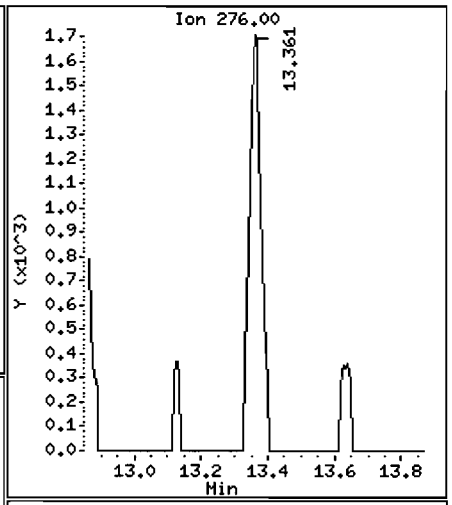

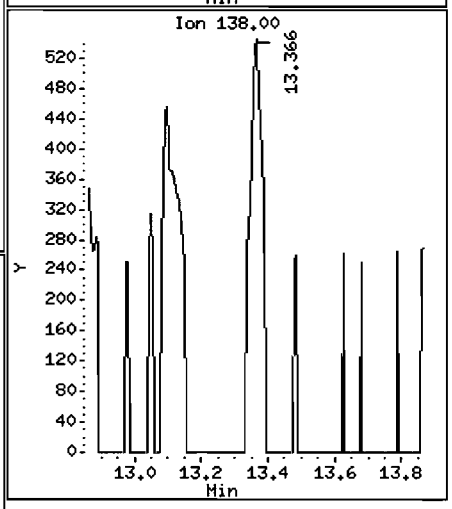

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862 Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116

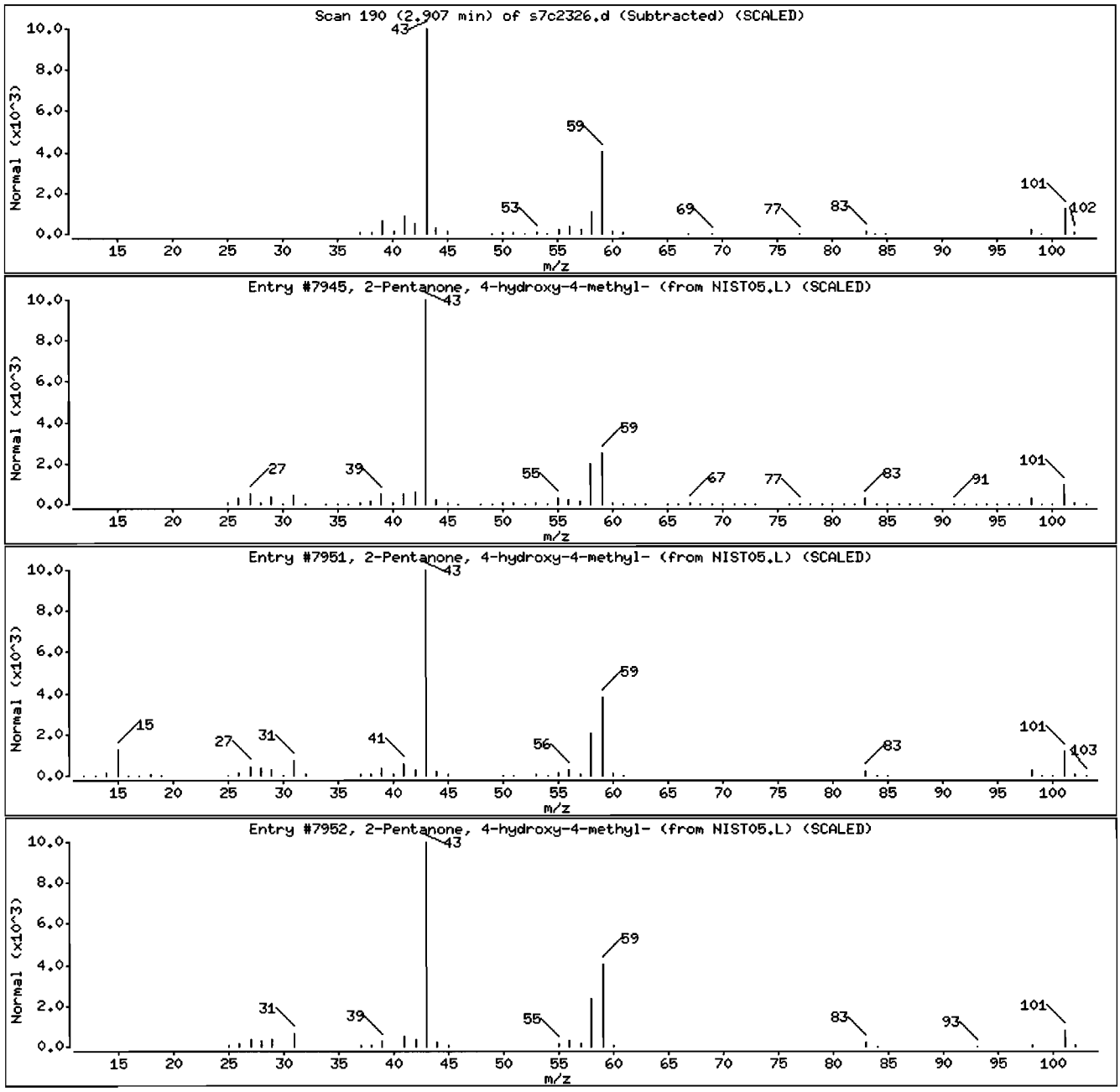

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862 Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JHB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Amino-2-oxo-acetic acid, N-[3,4-dimeth	24451-17-0	NIST05.L	71888	38	C12H15NO3	221
Trisiloxane, octamethyl-	107-51-7	NIST05.L	82775	27	C8H24O2Si3	236
3-Oxa-6-thia-2,7-disilaoctane, 2,2,7,7-t	78921-31-0	NIST05.L	73216	25	C8H22OSSi2	222

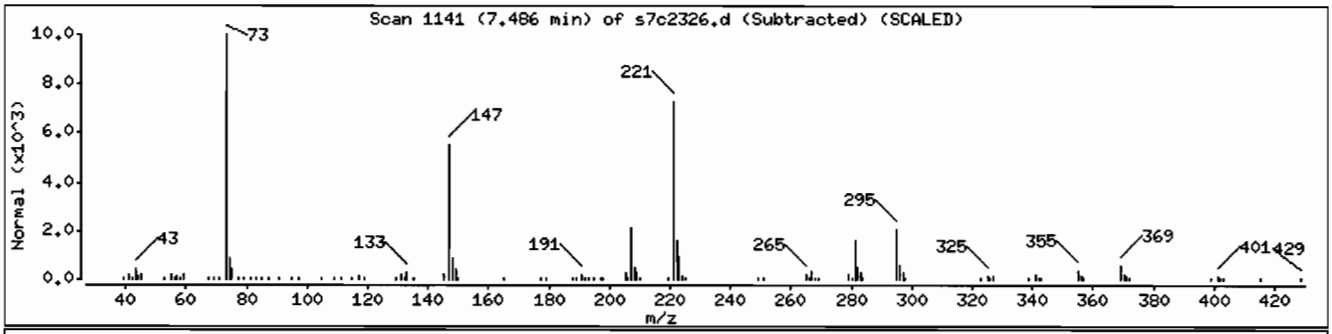

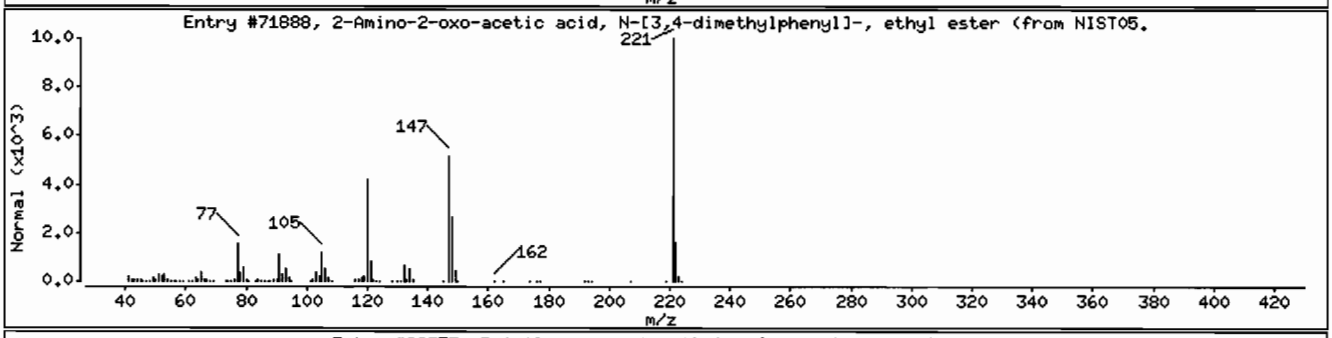

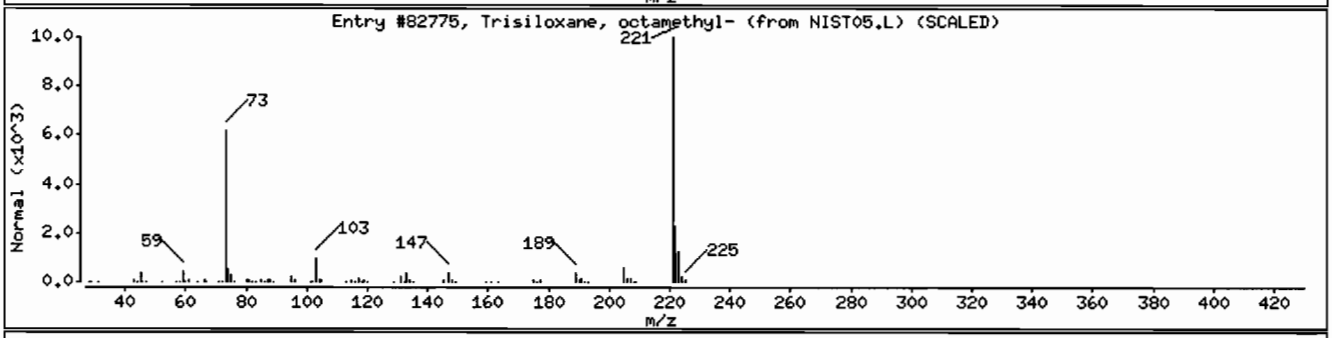

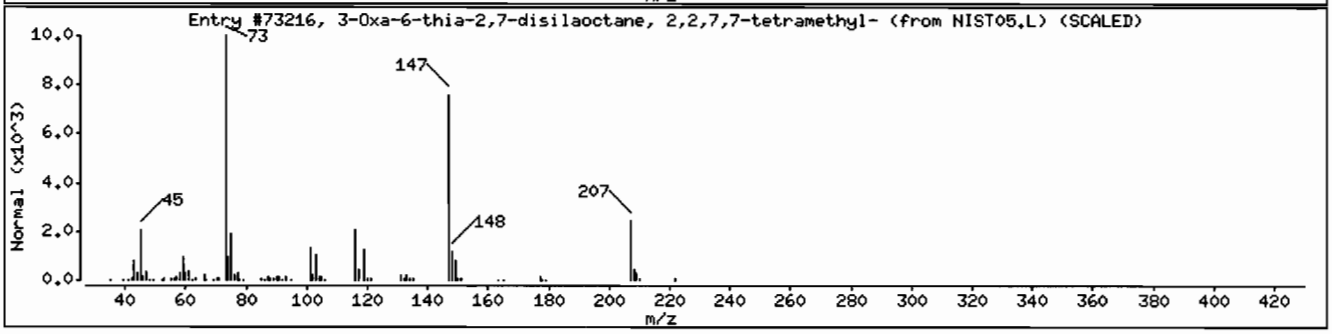

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862 Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3,6-Dioxa-2,4,5,7-tetrasilaoctane, 2,2,4	4342-25-0	NIST05.L	120498	53	C10H30O2Si4	294
2-Amino-2-oxo-acetic acid, N-[3,4-dimeth	24451-17-0	NIST05.L	71888	47	C12H15NO3	221
Trisiloxane, octamethyl-	107-51-7	NIST05.L	82774	43	C8H24O2Si3	236

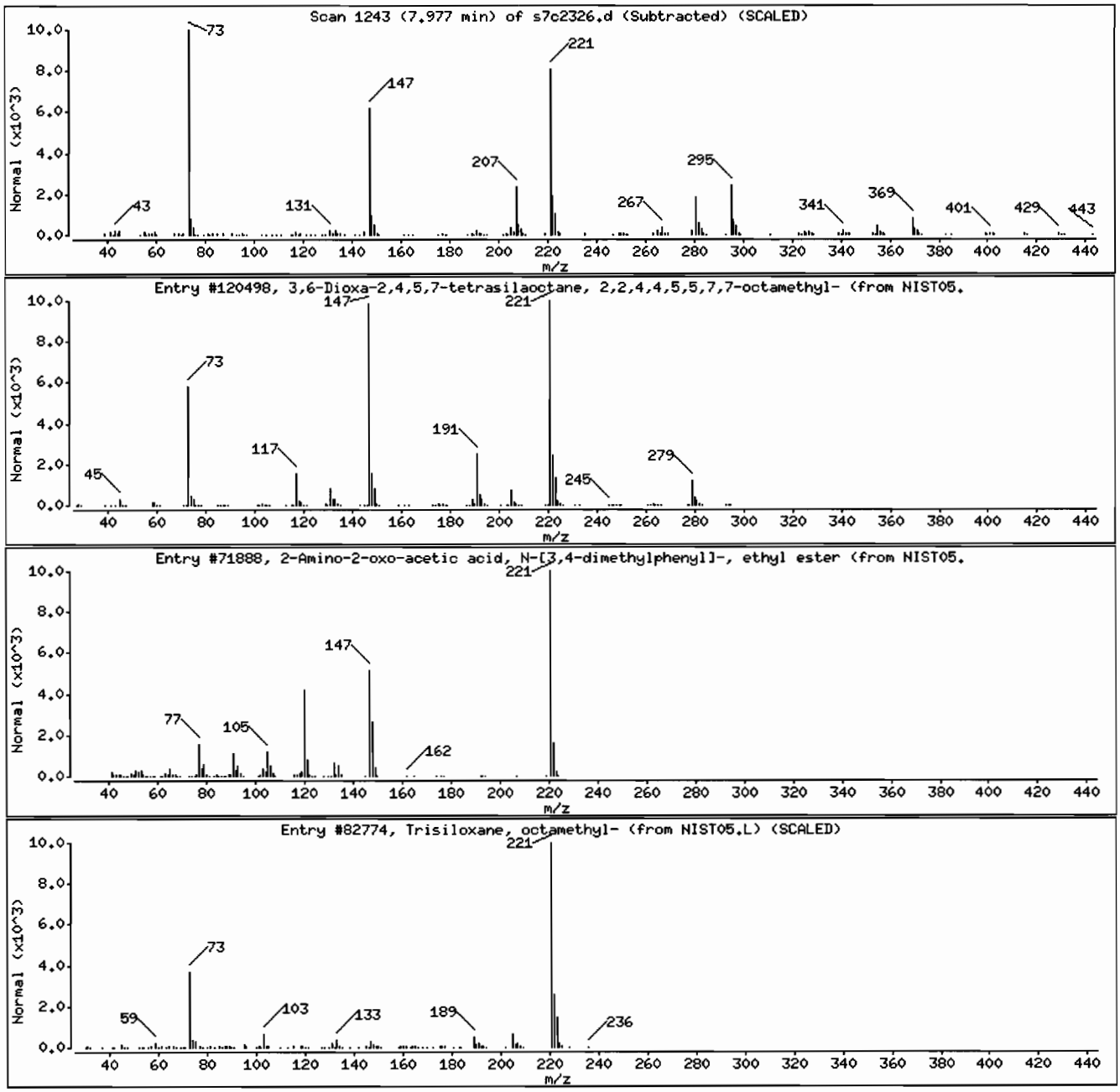

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862 Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Piperidine, 1-(5-trifluoromethyl-2-pyrid	1000268-74-7	NIST05.L	121405	56	C15H16F3N3	295
2-Amino-2-oxo-acetic acid, N-[3,4-dimeth	24451-17-0	NIST05.L	71888	43	C12H15NO3	221
Heptasiloxane, hexadecamethyl-	541-01-5	NIST05.L	186165	42	C16H48O6Si7	532

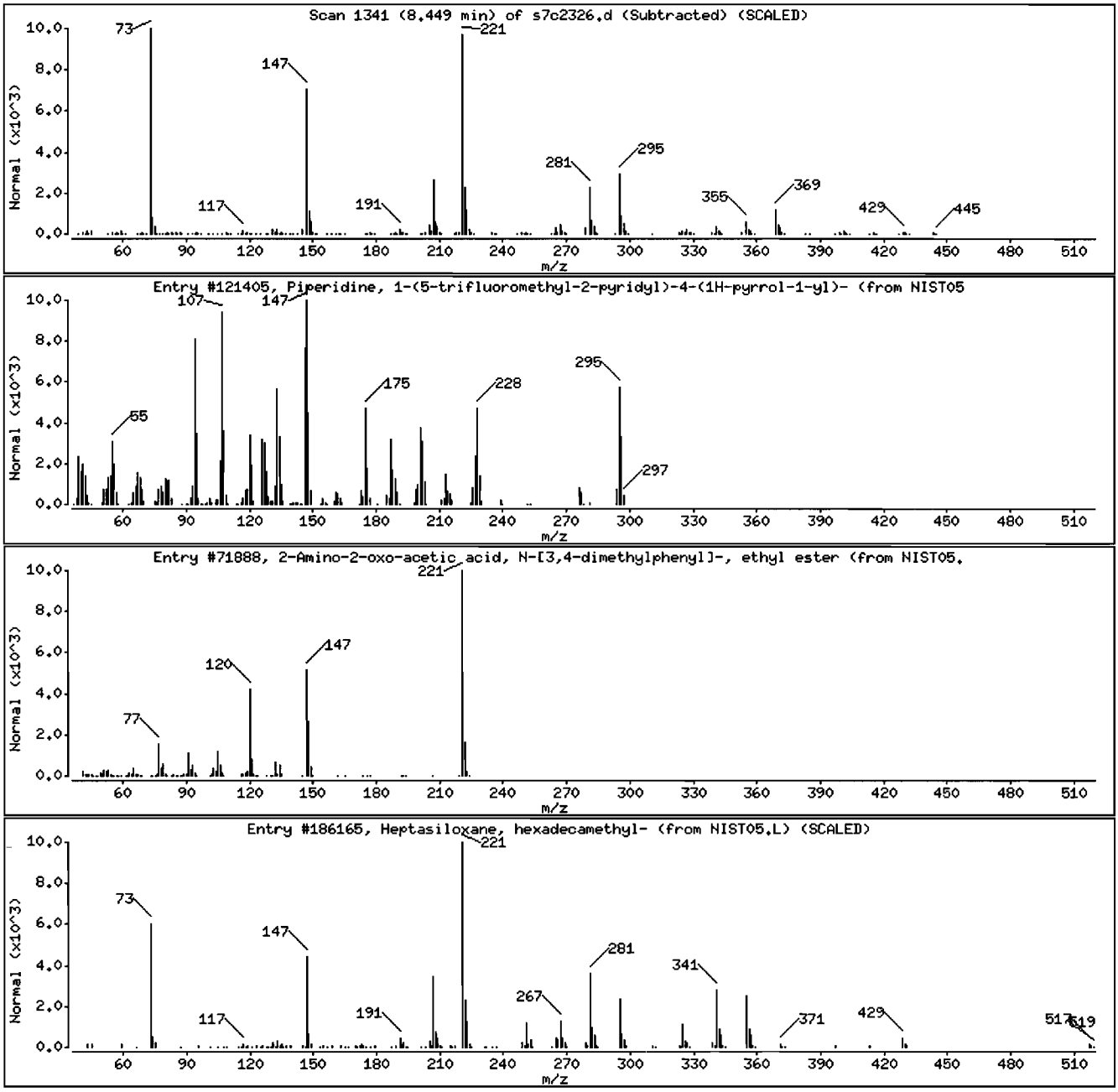

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862 Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Piperidine, 1-(5-trifluoromethyl-2-pyrid	1000268-74-7	NIST05.L	121405	59	C15H16F3N3	295
Trisiloxane, octamethyl-	107-51-7	NIST05.L	82774	38	C8H2402Si3	236
Mercaptoacetic acid, bis(trimethylsilyl)	6398-62-5	NIST05.L	82769	38	C8H2002SSi2	236

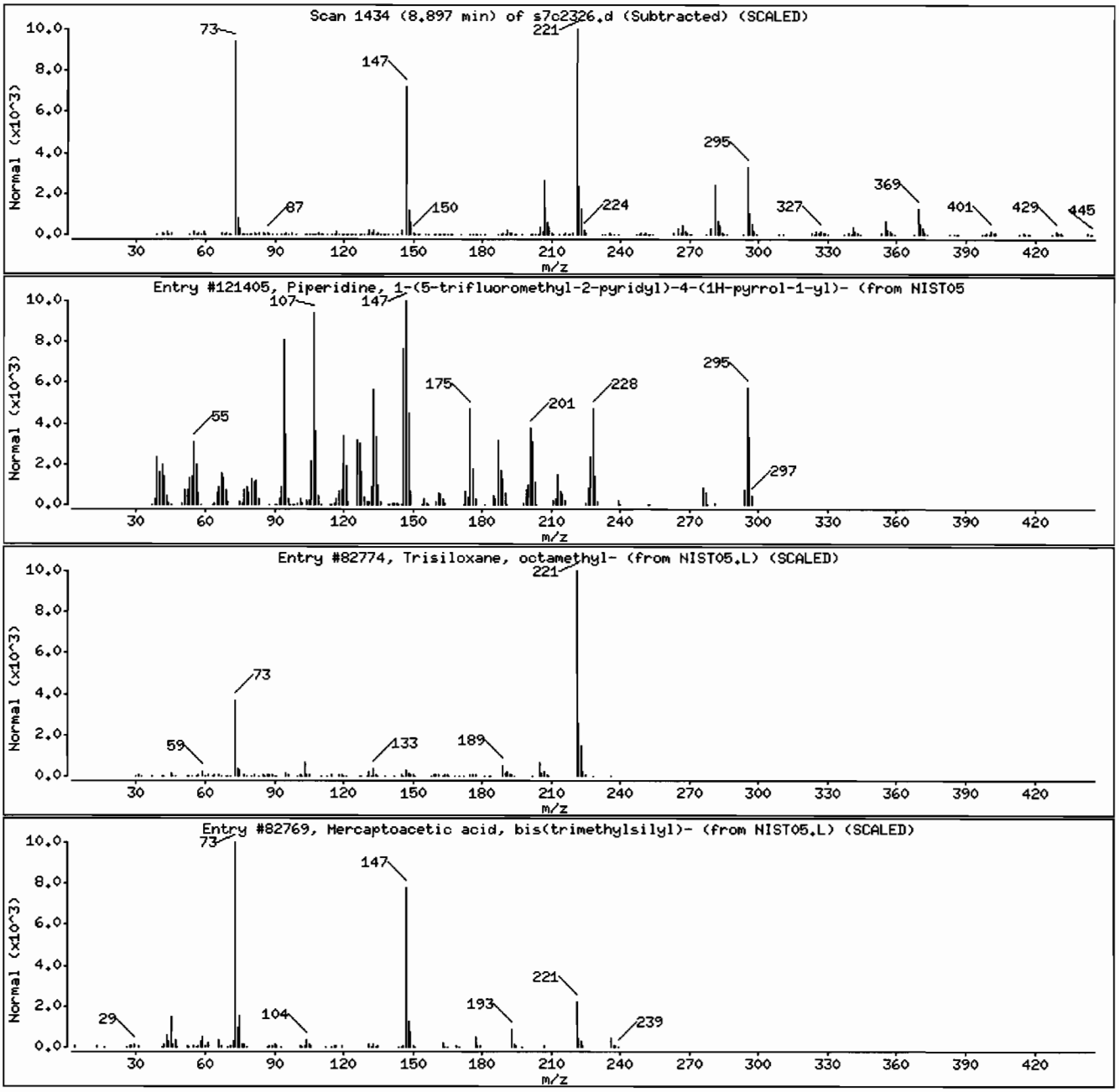

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862 Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Piperidine, 1-(5-trifluoromethyl-2-pyrid	1000268-74-7	NIST05.L	121405	59	C15H16F3N3	295
Heptasiloxane, hexadecamethyl-	541-01-5	NIST05.L	186165	42	C16H48O6Si7	532
Mercaptoacetic acid, bis(trimethylsilyl)	6398-62-5	NIST05.L	82769	38	C8H20O2SSi2	236

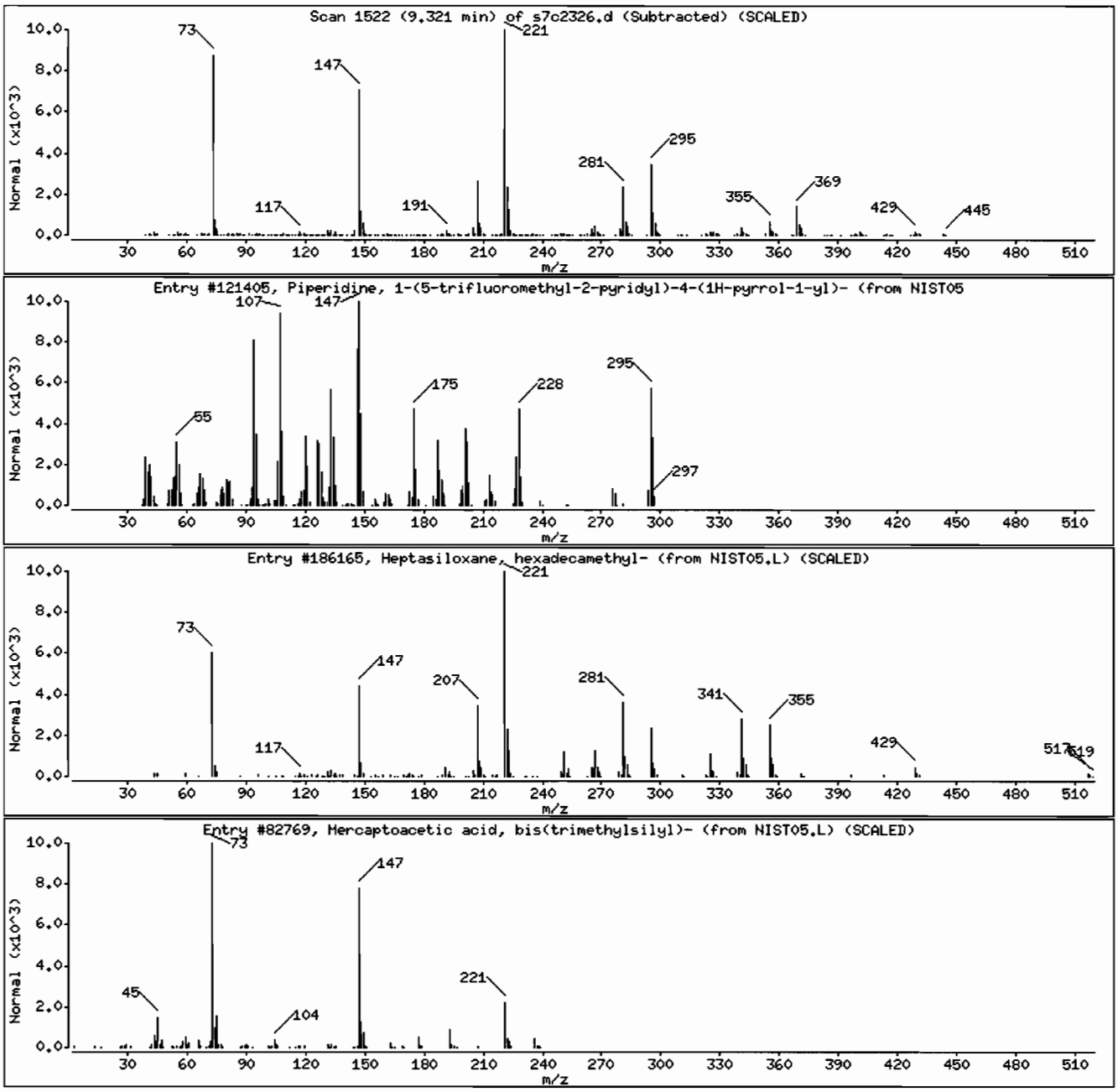

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862 Instrument: MSD7.i

Sample Info: |248815010|965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Piperidine, 1-(5-trifluoromethyl-2-pyrid	1000268-74-7	NIST05.L	121405	78	C15H16F3N3	295
Heptasiloxane, hexadecamethyl-	541-01-5	NIST05.L	186165	50	C16H48O6Si7	532
Mercaptoacetic acid, bis(trimethylsilyl)	6398-62-5	NIST05.L	82769	40	C8H20O2SSi2	236

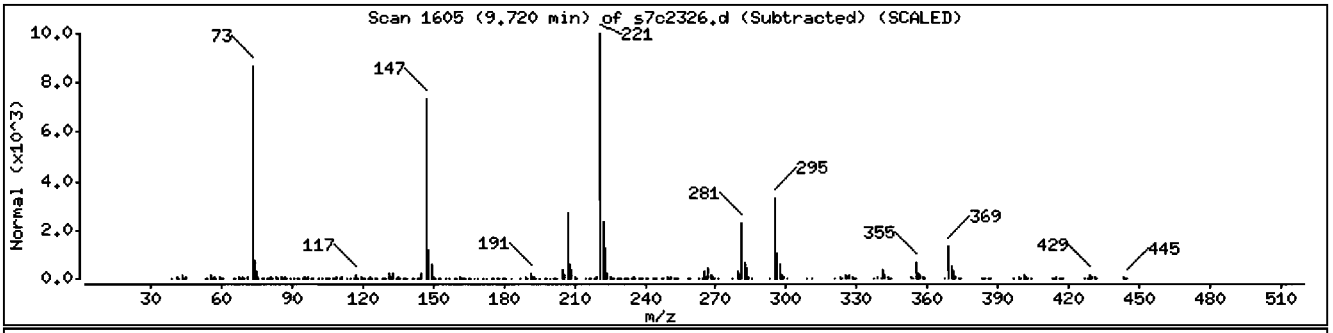

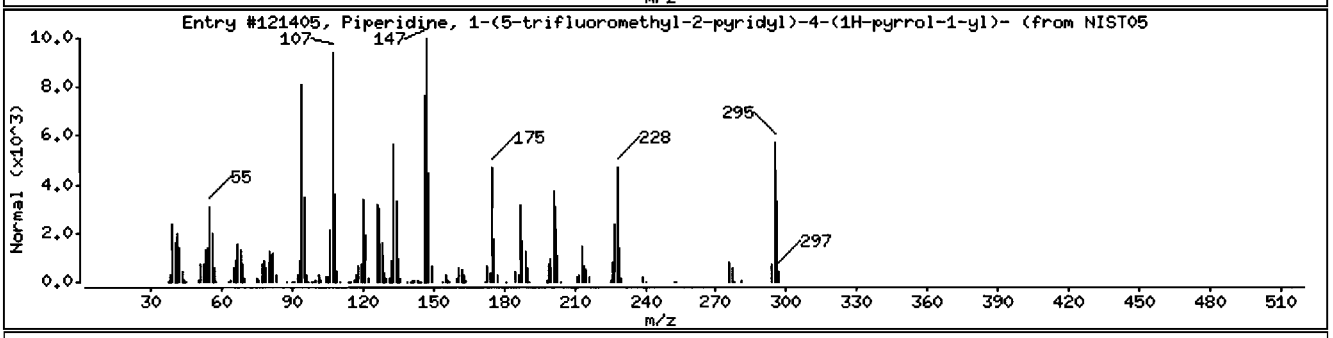

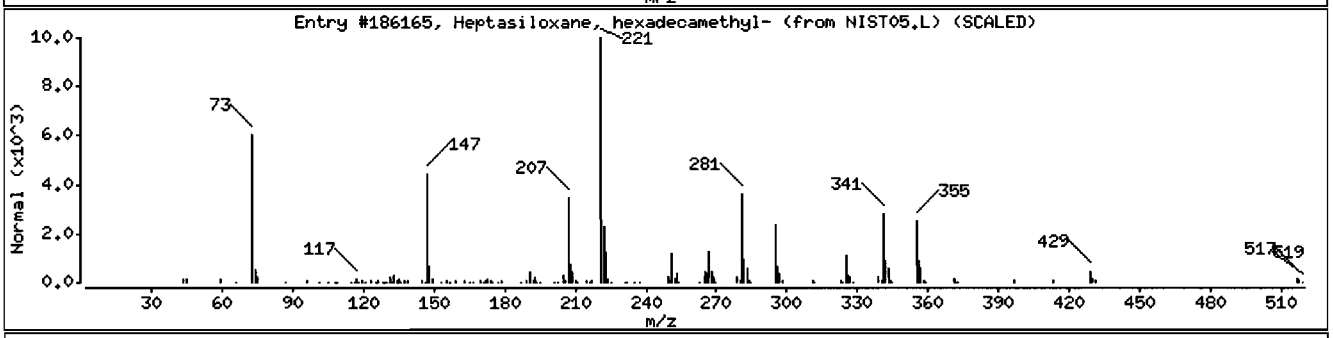

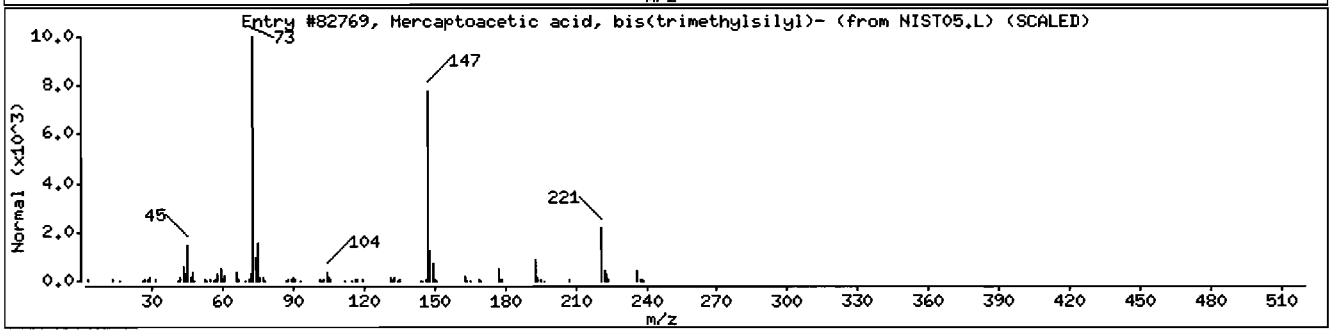

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862 Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heptasiloxane, hexadecamethyl-	541-01-5	NIST05.L	186165	90	C16H48O6Si7	532
Piperidine, 1-(5-trifluoromethyl-2-pyrid	1000268-74-7	NIST05.L	121405	64	C15H16F3N3	295
1,3(2H,4H)-Isoquinolinedione, 6,7-dimeth	1000115-82-7	NIST05.L	160873	30	C20H19NO6	369

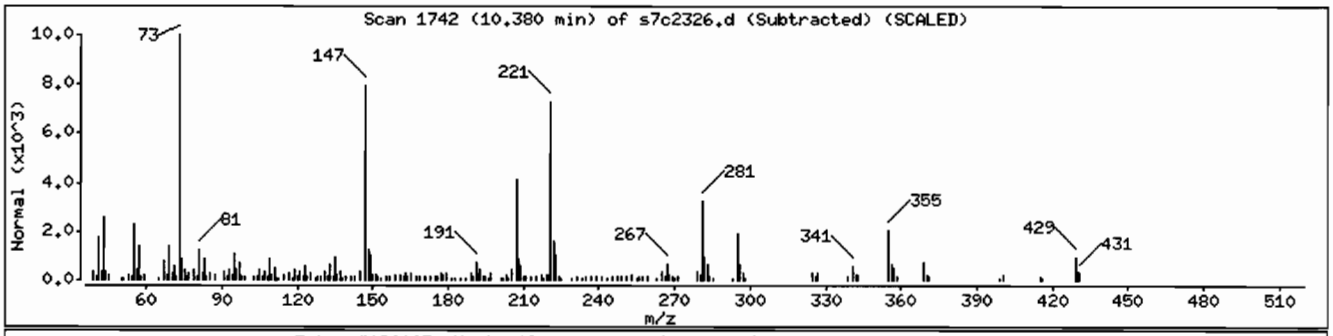

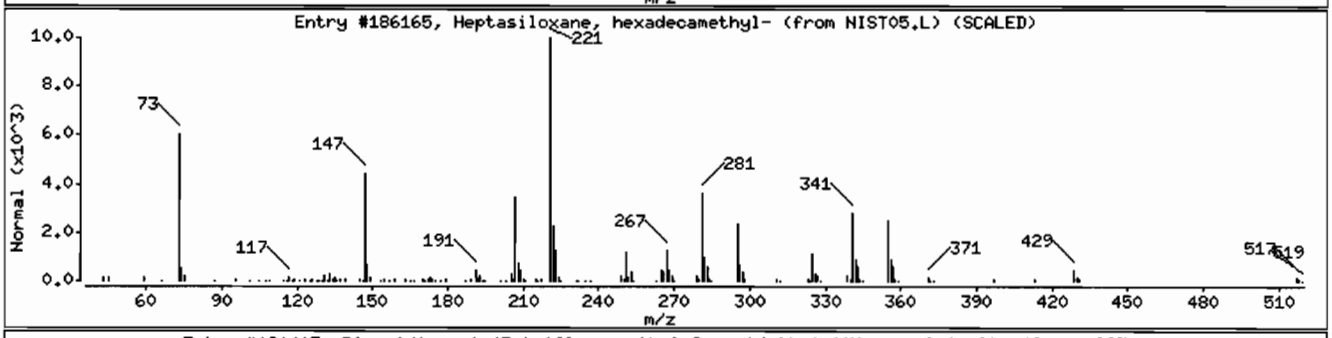

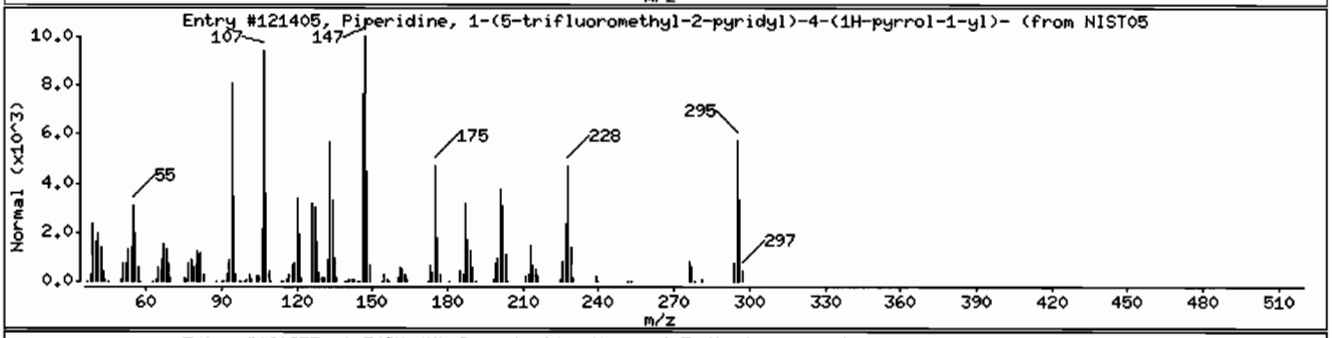

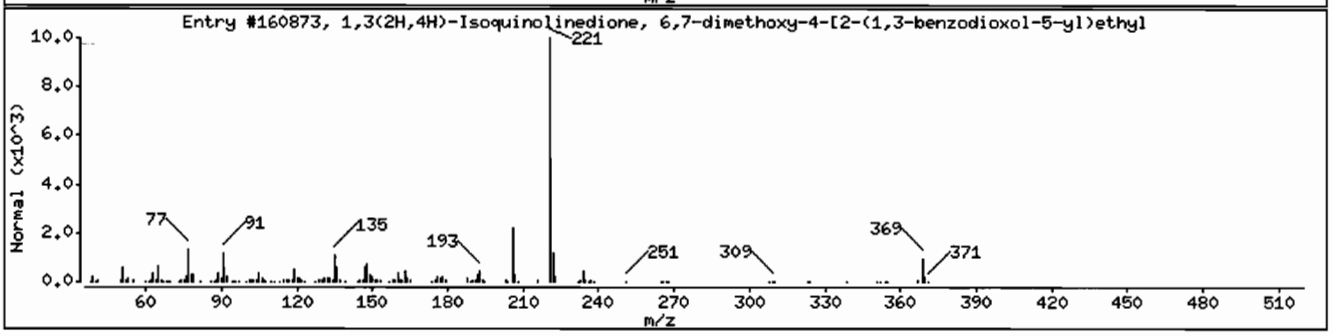

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862 Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Anhydro 5-hydroxy-3-piperonyl-1,2,3,4-ox	1000256-56-5	NIST05.L	72166	25	C9H7N3O4	221
4-Hydrazono-5-hydroxyimino-4,5,6,7-tetra	303194-86-7	NIST05.L	55129	25	C6H7N5O3	197
Morphinan-4,6-diol, N-formyl-6-acetate(e	1000129-10-2	NIST05.L	141877	18	C19H23NO4	329

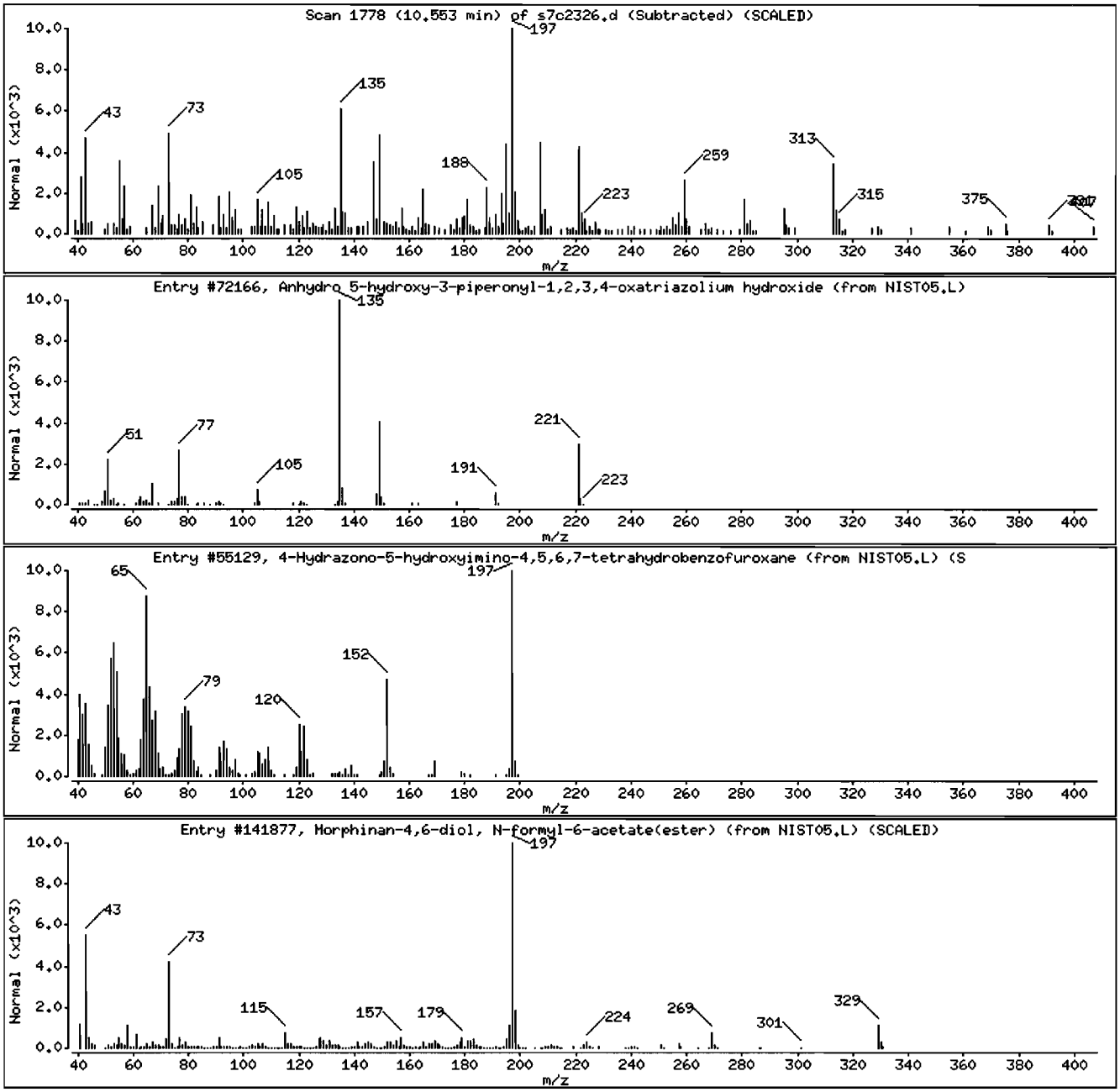

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862 Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4-Hydrazono-5-hydroxyimino-4,5,6,7-tetra	303194-86-7	NIST05.L	55129	56	C6H7N5O3	197
2-Butanone, 4-(dimethylphenylsilyl)-4-ph	100103-32-0	NIST05.L	113352	45	C18H22OSi	282
Pentanoic acid, 3-[(adamantan-1-ylmethyl	1000316-89-1	NIST05.L	160981	38	C23H31NO3	369

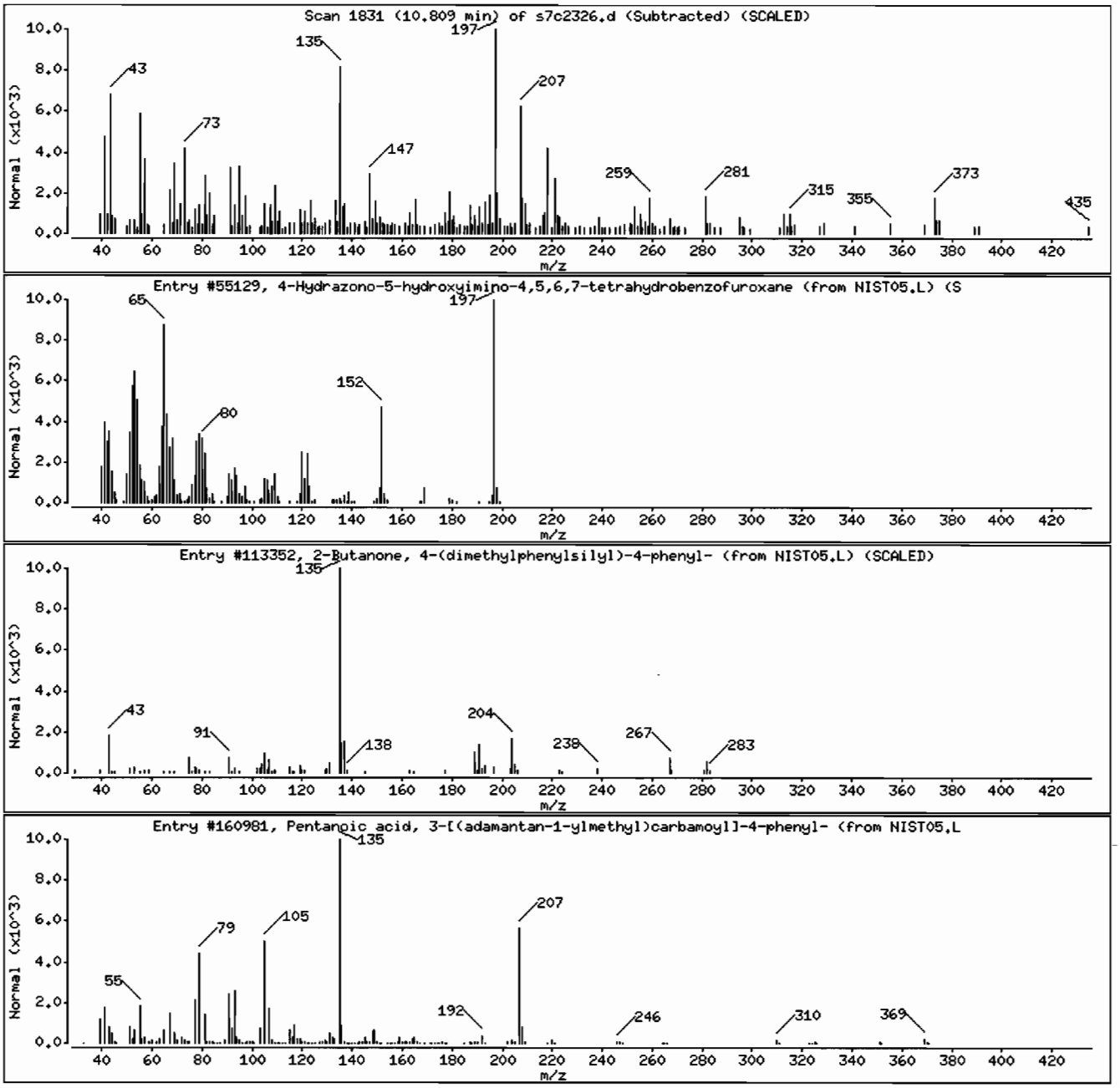

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862 Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Piperidine, 1-(5-trifluoromethyl-2-pyrid	1000268-74-7	NIST05.L	121405	60	C15H16F3N3	295
2-Amino-2-oxo-acetic acid, N-[3,4-dimeth	24451-17-0	NIST05.L	71888	38	C12H15NO3	221
3,6-Dioxa-2,4,5,7-tetrasilaoctane, 2,2,4	4342-25-0	NIST05.L	120498	38	C10H30O2Si4	294

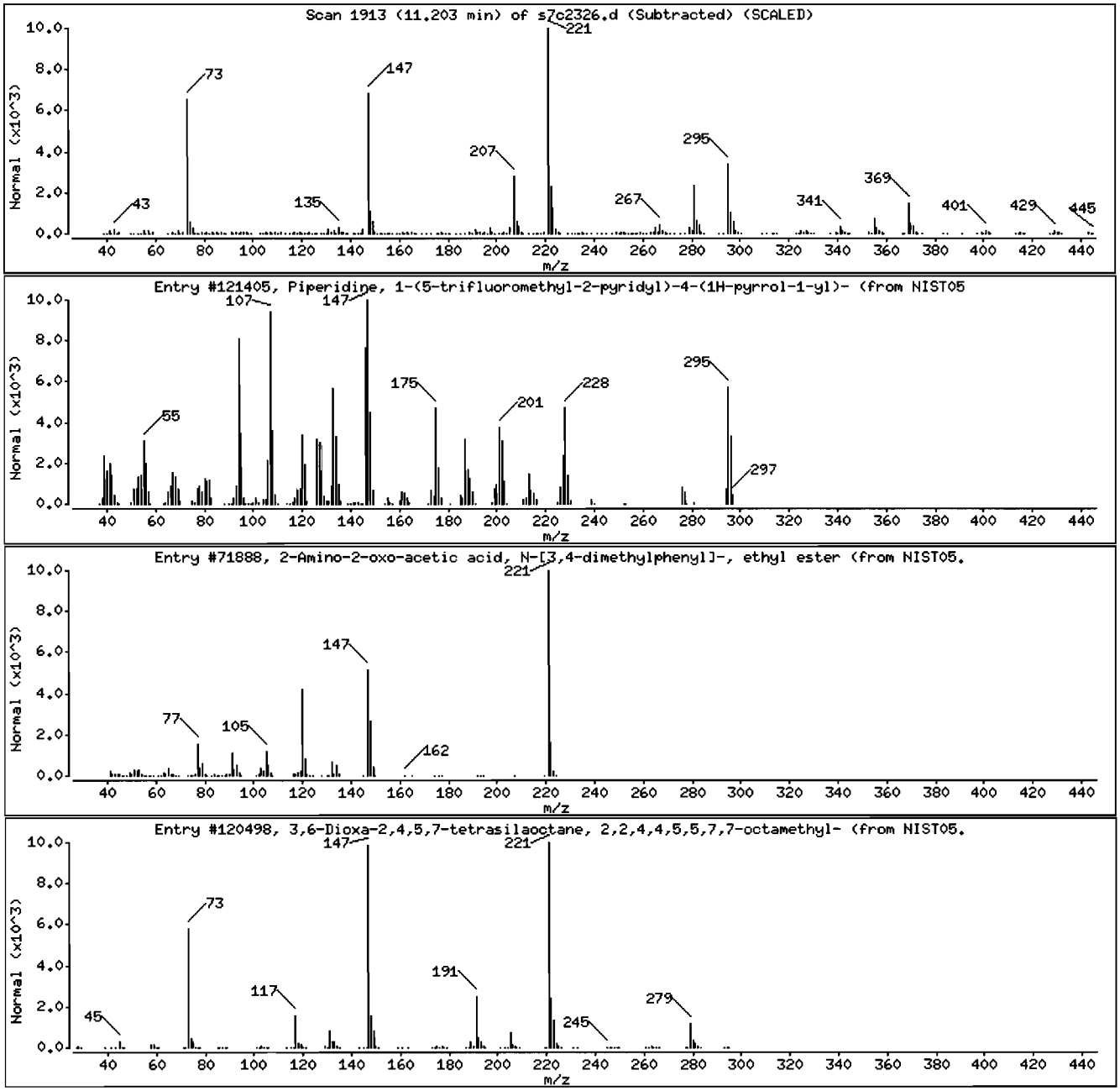

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862 Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ethyl 2-(1-phenylhydrazino)propanoate	1000305-28-3	NIST05.L	62551	25	C11H16N2O2	208
o-Anisic acid, pent-2-en-4-ynyl ester	1000292-57-3	NIST05.L	68473	25	C13H12O3	216
1,4-Cyclohexadiene, 1,3,6-tris(trimethyl	1000150-10-8	NIST05.L	121967	25	C15H32Si3	296

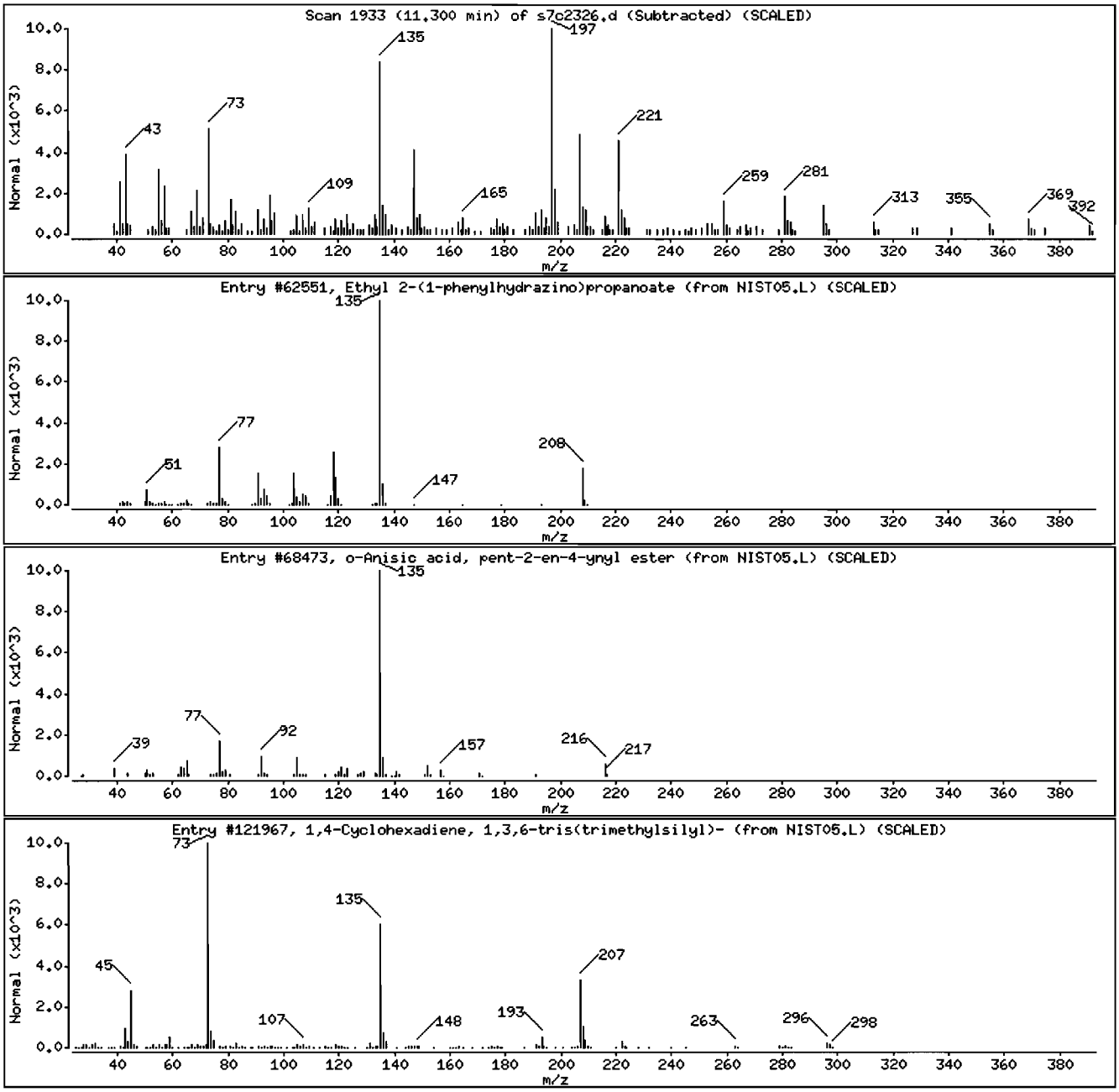

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862 Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Heptasiloxane, hexadecamethyl-	541-01-5	NIST05.L	186165	53	C16H48O6Si7	532
Octasiloxane, 1,1,3,3,5,5,7,7,9,9,11,11,	19095-24-0	NIST05.L	187862	43	C16H50O7Si8	578
Silane, trimethyl[5-methyl-2-(1-methylet	55012-80-1	NIST05.L	72682	20	C13H22OSi	222

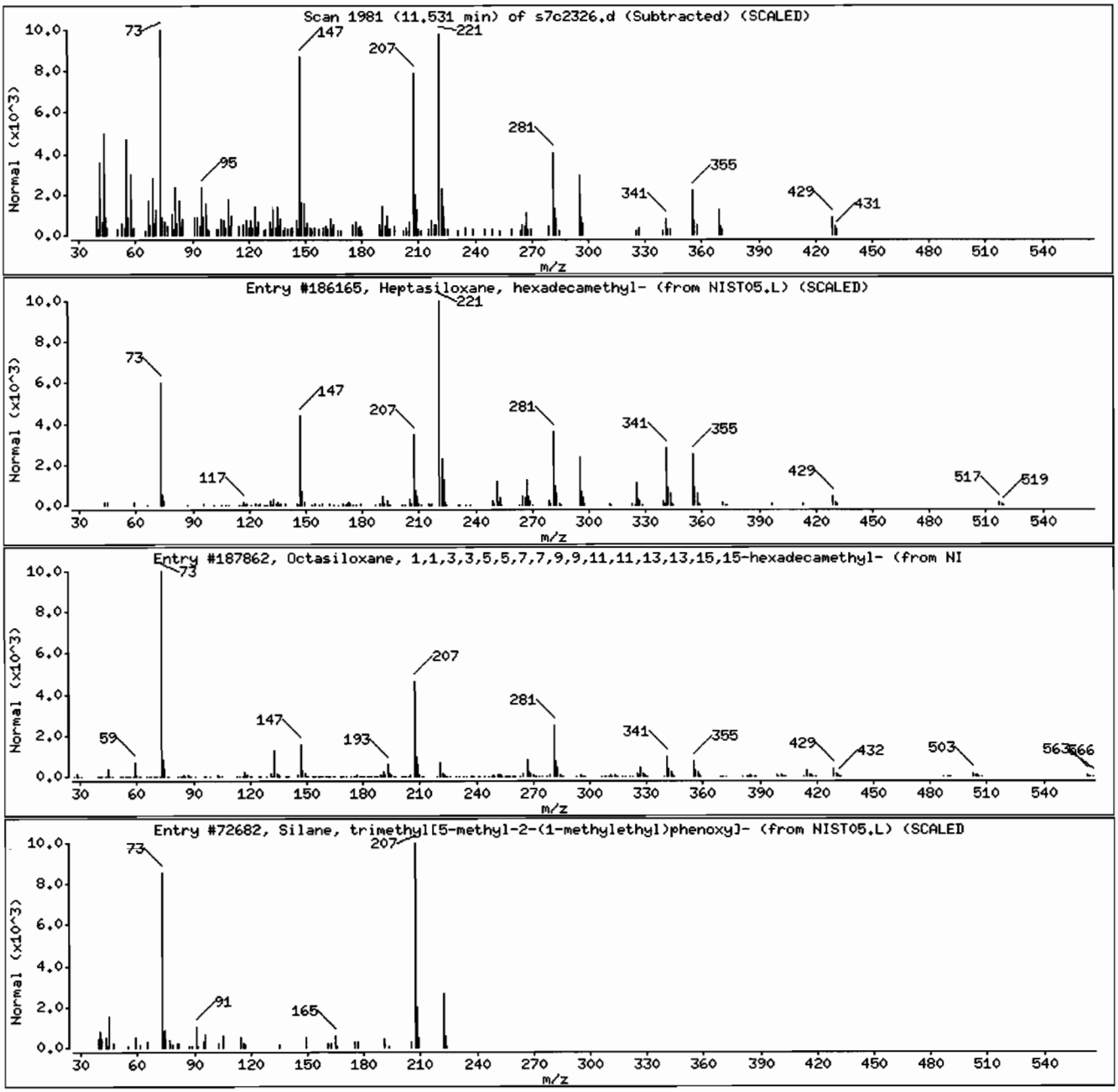

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862 Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Piperidine, 1-(5-trifluoromethyl-2-pyrid	1000268-74-7	NIST05.L	121405	60	C15H16F3N3	295
Tetrahydropyran-4-carboxamide, 4-(3,4-di	1000310-01-9	NIST05.L	160952	43	C22H27NO4	369
2-Amino-2-oxo-acetic acid, N-[3,4-dimeth	24451-17-0	NIST05.L	71888	38	C12H15NO3	221

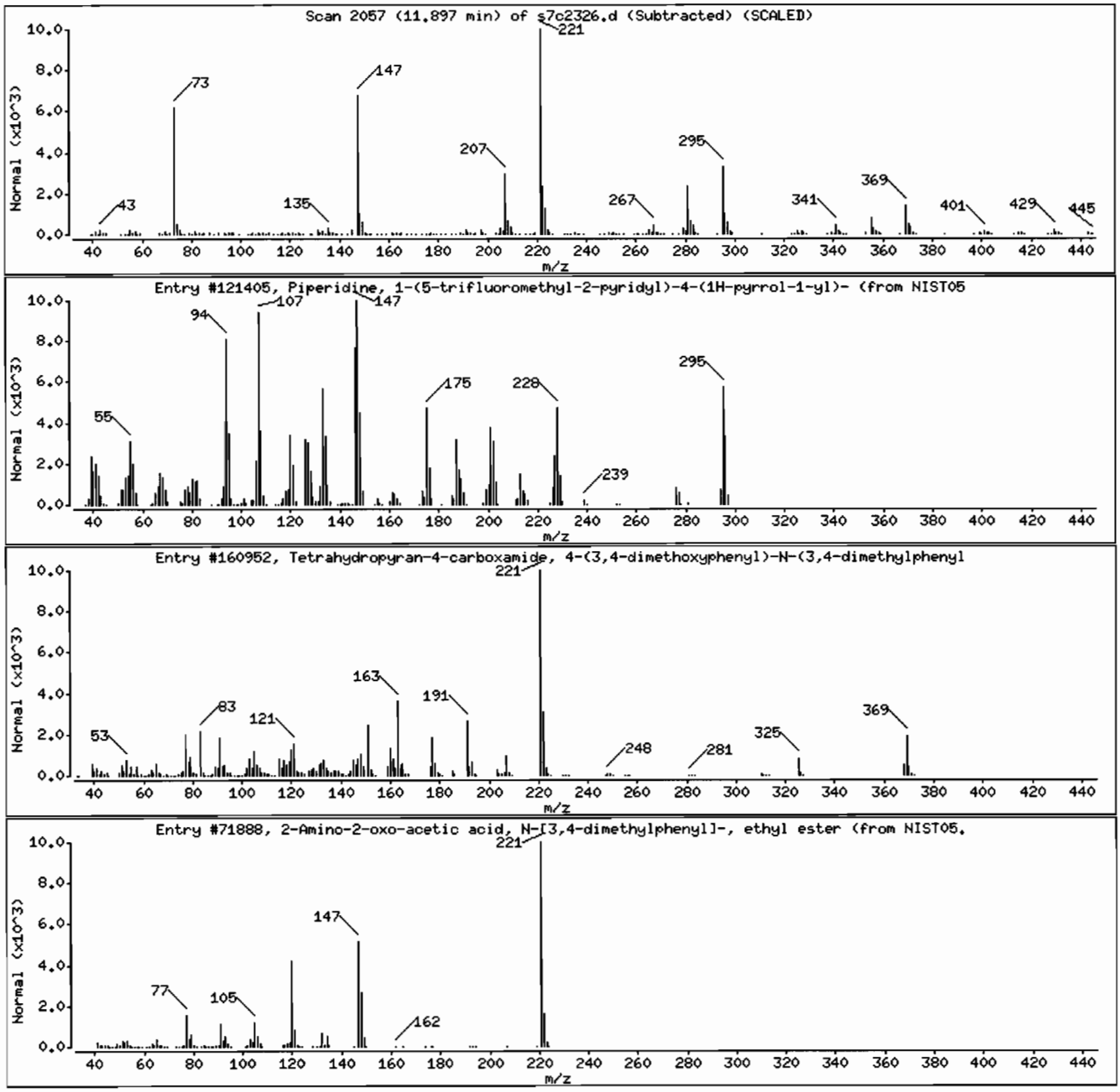

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862 Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Heptasiloxane, hexadecamethyl-	541-01-5	NIST05.L	186165	72	C16H48O6Si7	532
Piperidine, 1-(5-trifluoromethyl-2-pyrid	1000268-74-7	NIST05.L	121405	60	C15H16F3N3	295
2-Amino-2-oxo-acetic acid, N-[3,4-dimeth	24451-17-0	NIST05.L	71888	38	C12H15NO3	221

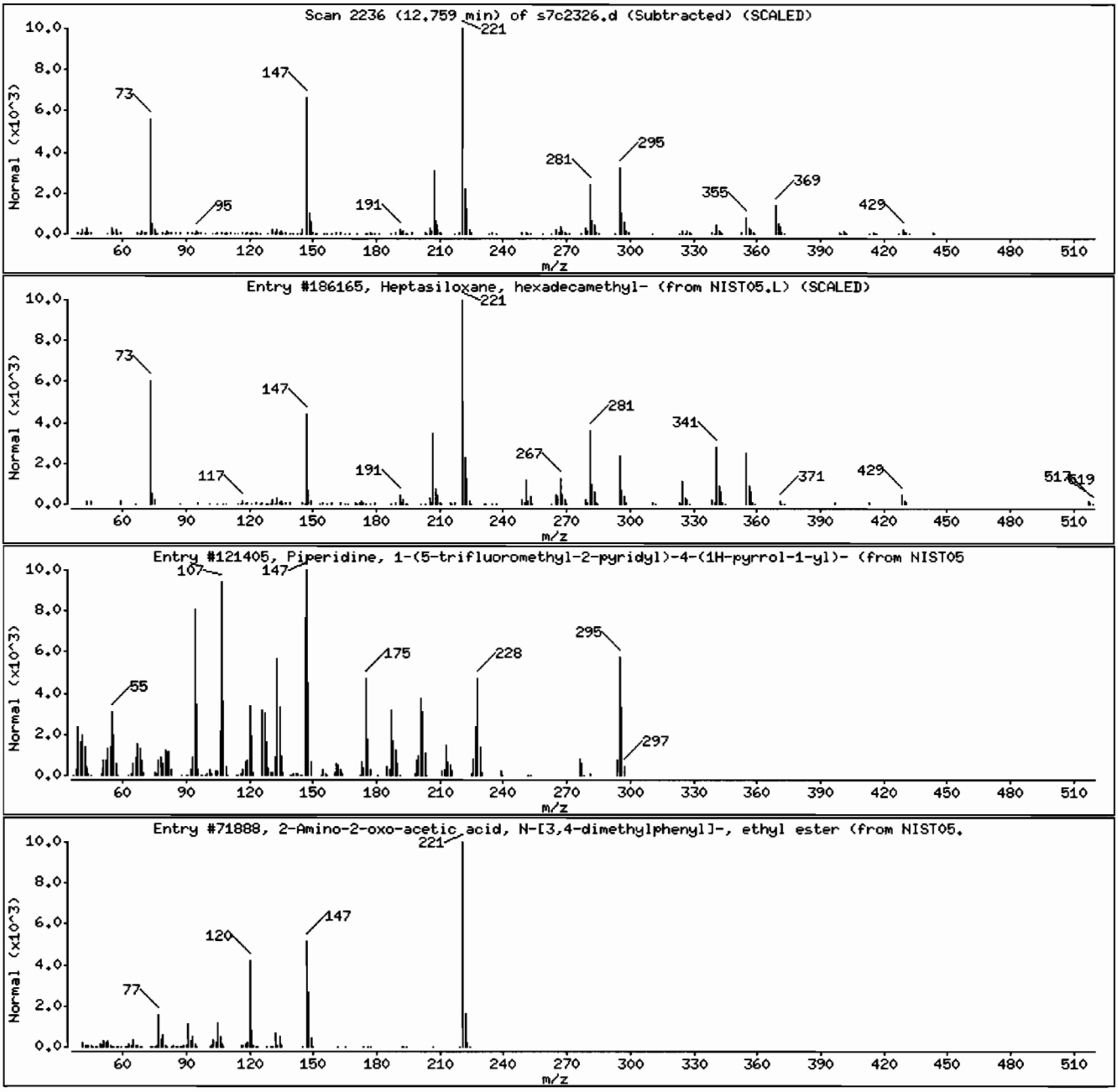

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862 Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Tetrahydropyran-4-carboxamide, 4-(3,4-di	1000310-01-9	NIST05.L	160952	43	C22H27N04	369
Heptasiloxane, hexadecamethyl-	541-01-5	NIST05.L	186165	38	C16H4806Si7	532
2-Amino-2-oxo-acetic acid, N-[3,4-dimeth	24451-17-0	NIST05.L	71888	38	C12H15N03	221

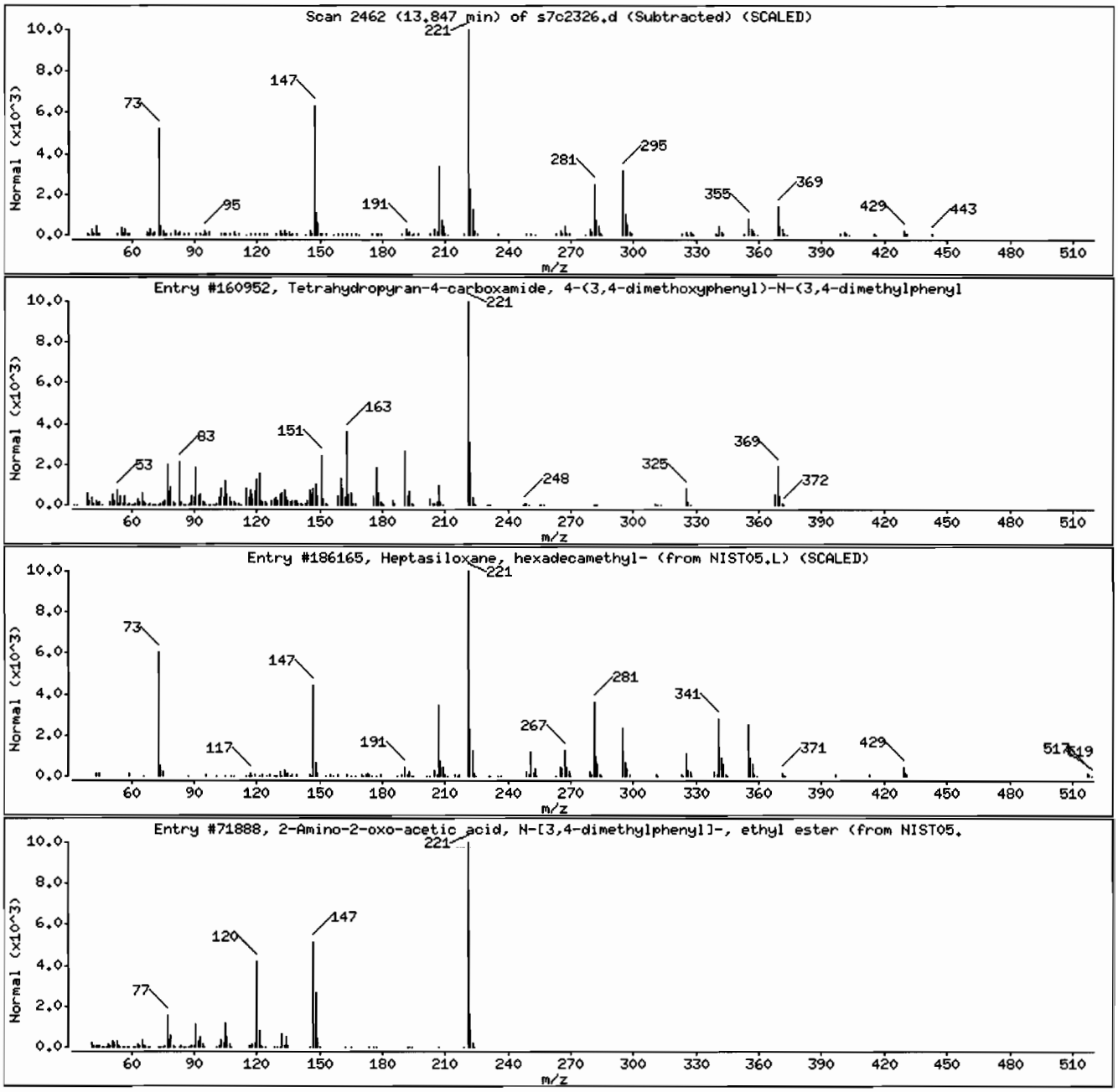

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862 Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2'-Methyldihydro-2-stilbazole	58246-68-7	NIST05.L	55103	35	C14H15N	197
2,4-Dimethylpyrimido[1,2-a]benzimidazole	25513-98-8	NIST05.L	55011	35	C12H11N3	197
Allylmethyldiphenylsilane	17922-43-9	NIST05.L	83983	35	C16H18Si	238

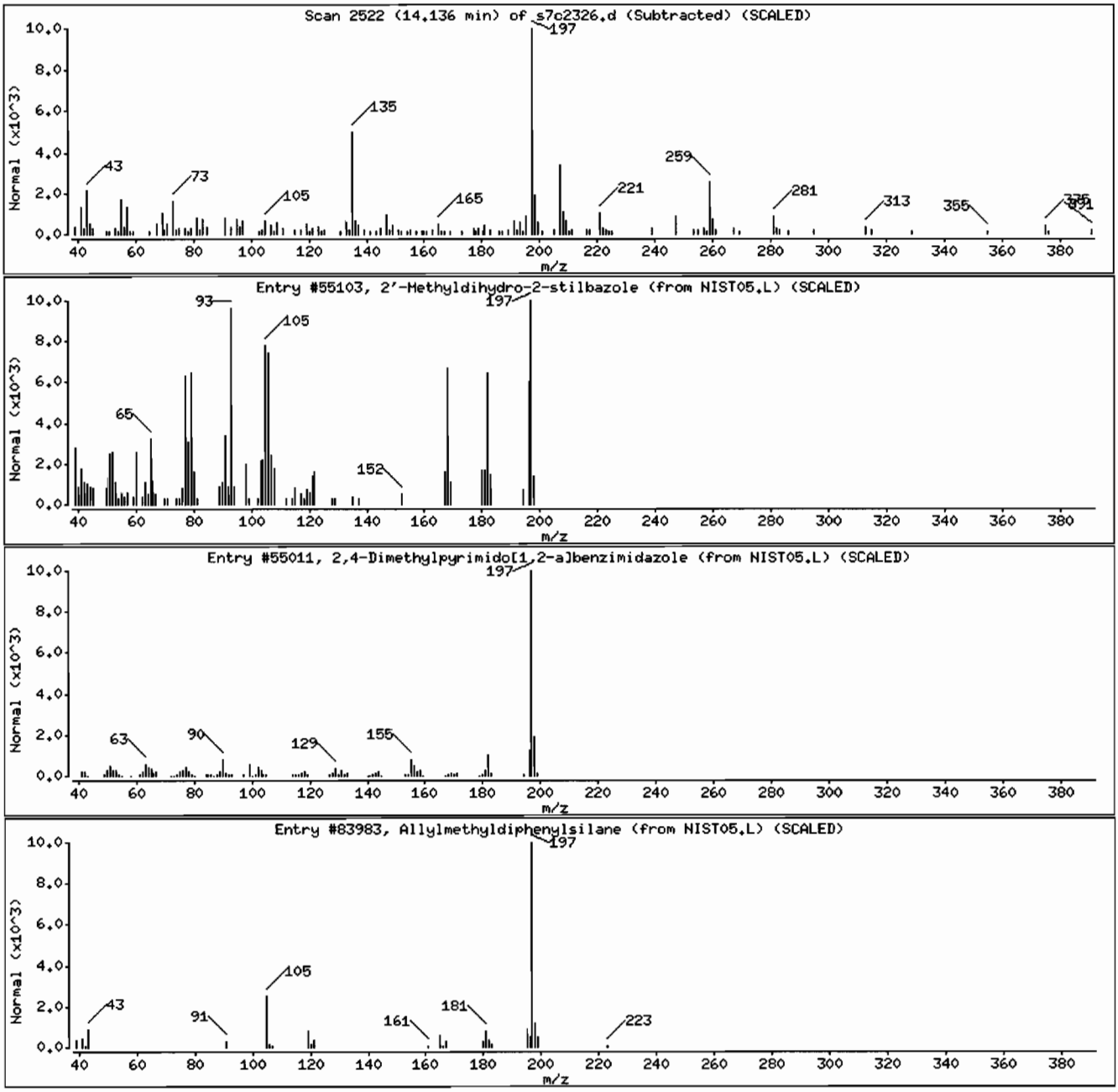

Data File: /chem/MSD7.i/s032310.b/s7c2326.d

Date : 23-MAR-2010 19:18

Client ID: RE46-10-13862

Instrument: MSD7.i

Sample Info: |2488150101965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Morphinan-4,6-diol, N-formyl-6-acetate(e	1000129-10-2	NIST05.L	141877	35	C19H23NO4	329
Benzene, 1-[2-bromo-1-(methoxydiphenylme	55268-68-3	NIST05.L	173427	35	C23H23BrO2	410
2,4-Dimethylpyrimido[1,2-a]benzimidazole	25513-98-8	NIST05.L	55011	35	C12H11N3	197

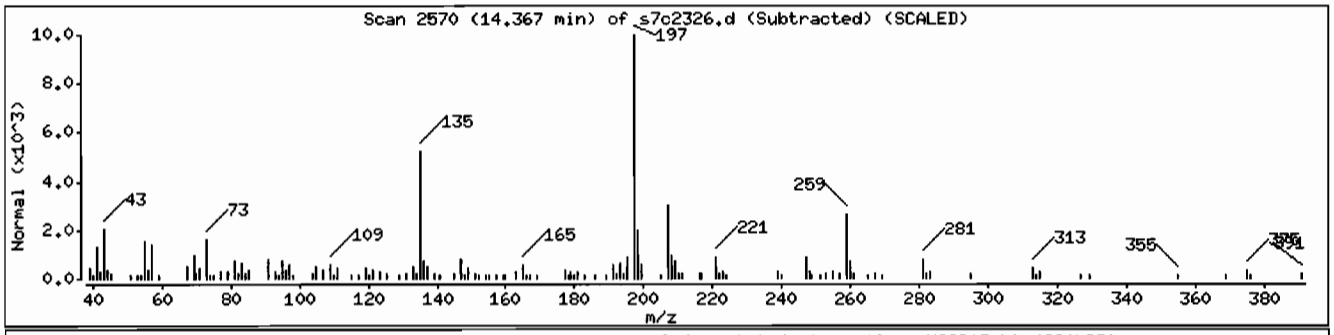

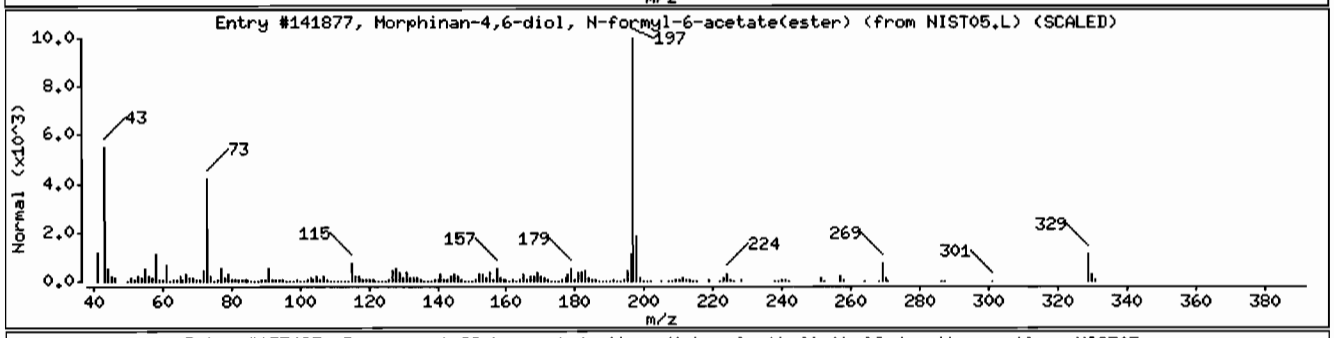

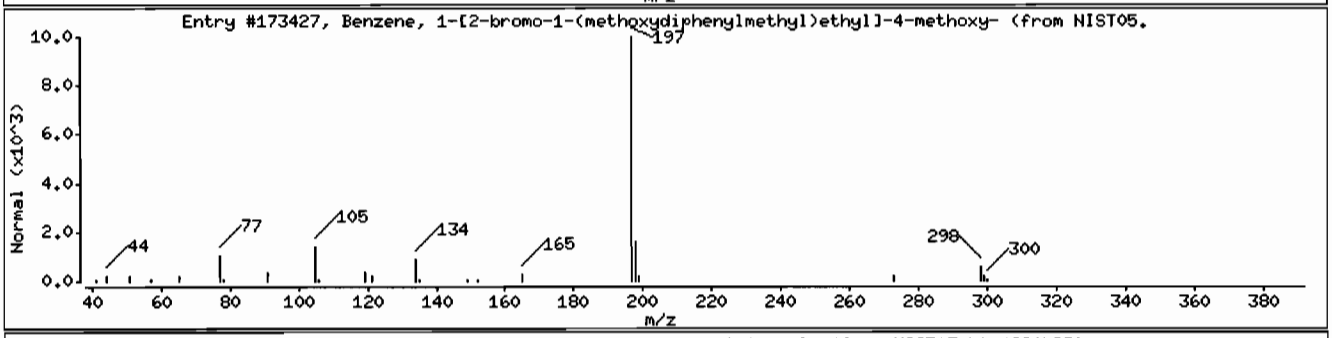

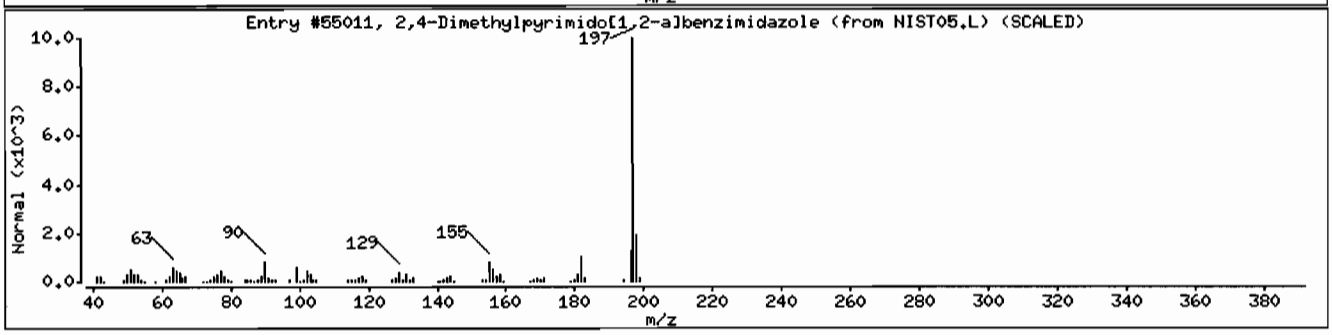

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13863**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.1**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:48**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2308.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	374	ug/kg	74.9	374
108-95-2	Phenol	U	374	ug/kg	74.9	374
95-57-8	2-Chlorophenol	U	374	ug/kg	74.9	374
106-46-7	1,4-Dichlorobenzene	U	374	ug/kg	74.9	374
621-64-7	N-Nitrosodipropylamine	U	374	ug/kg	74.9	374
59-50-7	4-Chloro-3-methylphenol	U	374	ug/kg	74.9	374
83-32-9	Acenaphthene	U	37.4	ug/kg	12.4	37.4
121-14-2	2,4-Dinitrotoluene	U	374	ug/kg	37.4	374
100-02-7	4-Nitrophenol	U	374	ug/kg	124	374
87-86-5	Pentachlorophenol	U	374	ug/kg	93.6	374
129-00-0	Pyrene	U	37.4	ug/kg	11.2	37.4
110-86-1	Pyridine	U	374	ug/kg	74.9	374
62-53-3	Aniline	U	374	ug/kg	112	374
111-44-4	bis(2-Chloroethyl) ether	U	374	ug/kg	74.9	374
541-73-1	1,3-Dichlorobenzene	U	374	ug/kg	74.9	374
100-51-6	Benzyl alcohol	U	374	ug/kg	112	374
95-50-1	1,2-Dichlorobenzene	U	374	ug/kg	74.9	374
108-60-1	bis(2-Chloroisopropyl)ether	U	374	ug/kg	74.9	374
95-48-7	o-Cresol	U	374	ug/kg	74.9	374
65794-96-9	m,p-Cresols	U	374	ug/kg	112	374
67-72-1	Hexachloroethane	U	374	ug/kg	74.9	374
98-95-3	Nitrobenzene	U	374	ug/kg	74.9	374
78-59-1	Isophorone	U	374	ug/kg	74.9	374
88-75-5	2-Nitrophenol	U	374	ug/kg	74.9	374
105-67-9	2,4-Dimethylphenol	U	374	ug/kg	131	374
111-91-1	bis(2-Chloroethoxy)methane	U	374	ug/kg	74.9	374
120-83-2	2,4-Dichlorophenol	U	374	ug/kg	74.9	374
65-85-0	Benzoic acid	U	749	ug/kg	187	749
91-20-3	Naphthalene	U	37.4	ug/kg	11.2	37.4
106-47-8	4-Chloroaniline	U	374	ug/kg	74.9	374
87-68-3	Hexachlorobutadiene	U	374	ug/kg	74.9	374
91-57-6	2-Methylnaphthalene	U	37.4	ug/kg	7.49	37.4
77-47-4	Hexachlorocyclopentadiene	U	374	ug/kg	74.9	374
88-06-2	2,4,6-Trichlorophenol	U	374	ug/kg	74.9	374
95-95-4	2,4,5-Trichlorophenol	U	374	ug/kg	74.9	374
91-58-7	2-Chloronaphthalene	U	37.4	ug/kg	12.4	37.4
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	374	ug/kg	74.9	374
99-09-2	3-Nitroaniline	U	374	ug/kg	74.9	374

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13863**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:48**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2308.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	374	ug/kg	74.9	374
606-20-2	2,6-Dinitrotoluene	U	374	ug/kg	37.4	374
208-96-8	Acenaphthylene	U	37.4	ug/kg	11.2	37.4
51-28-5	2,4-Dinitrophenol	U	749	ug/kg	142	749
132-64-9	Dibenzofuran	U	374	ug/kg	74.9	374
84-66-2	Diethylphthalate	U	374	ug/kg	74.9	374
86-73-7	Fluorene	U	37.4	ug/kg	11.2	37.4
7005-72-3	4-Chlorophenylphenylether	U	374	ug/kg	74.9	374
534-52-1	2-Methyl-4,6-dinitrophenol	U	374	ug/kg	74.9	374
100-01-6	4-Nitroaniline	U	374	ug/kg	112	374
	p-Nitroaniline					
122-39-4	Diphenylamine	U	374	ug/kg	74.9	374
122-66-7	Azobenzene	U	374	ug/kg	74.9	374
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	374	ug/kg	74.9	374
118-74-1	Hexachlorobenzene	U	374	ug/kg	74.9	374
85-01-8	Phenanthrene	U	37.4	ug/kg	11.2	37.4
120-12-7	Anthracene	U	37.4	ug/kg	7.49	37.4
84-74-2	Di-n-butylphthalate	U	374	ug/kg	74.9	374
206-44-0	Fluoranthene	U	37.4	ug/kg	11.2	37.4
85-68-7	Butylbenzylphthalate	U	374	ug/kg	74.9	374
56-55-3	Benzo(a)anthracene	U	37.4	ug/kg	11.2	37.4
91-94-1	3,3'-Dichlorobenzidine	U	374	ug/kg	112	374
218-01-9	Chrysene	U	37.4	ug/kg	11.2	37.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	374	ug/kg	74.9	374
117-84-0	Di-n-octylphthalate	U	374	ug/kg	74.9	374
205-99-2	Benzo(b)fluoranthene	U	37.4	ug/kg	11.2	37.4
207-08-9	Benzo(k)fluoranthene	U	37.4	ug/kg	11.2	37.4
50-32-8	Benzo(a)pyrene	U	37.4	ug/kg	11.2	37.4
193-39-5	Indeno(1,2,3-cd)pyrene	J	12.8	ug/kg	11.2	37.4
53-70-3	Dibenzo(a,h)anthracene	U	37.4	ug/kg	11.2	37.4
191-24-2	Benzo(ghi)perylene	U	37.4	ug/kg	11.2	37.4
120-82-1	1,2,4-Trichlorobenzene	U	374	ug/kg	74.9	374

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	247	ug/kg		J

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2308.d
Lab Smp Id: 248815003 Client Smp ID: RE46-10-13863
Inj Date : 23-MAR-2010 12:48
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815003|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.18000	weight of sample
M	11.47850	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	232717	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	887465	40.0000	
* 46 Acenaphthene-d10	164	5.979	5.988	(1.000)	507984	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	920106	40.0000	
* 91 Chrysene-d12	240	9.537	9.552	(1.000)	682630	40.0000	
* 98 Perylene-d12	264	11.155	11.165	(1.000)	473375	40.0000	
$ 3 2-Fluorophenol	112	3.065	3.061	(0.792)	197709	32.6854	1220
$ 5 Phenol-d5	99	3.581	3.590	(0.925)	239462	31.5748	1180(R)
$ 20 Nitrobenzene-d5	82	4.226	4.235	(0.893)	118559	17.7125	663
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	256458	20.2577	758
$ 60 2,4,6-Tribromophenol	329	6.571	6.576	(1.099)	77869	53.0257	1980
$ 81 p-Terphenyl-d14	244	8.516	8.521	(0.893)	415459	33.9720	1270

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
99 Indeno(1,2,3-cd)pyrene	276	12.826	12.850	(1.150)	2668	0.34085	12.8(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

ION RATIO REPORT

SV REPORT

Data file: s7c2308.d
Report Date: 03/23/2010 13:33
Lab. ID: 248815003 SampleType: SAMPLE
Injection Date: 23-MAR-2010 12:48
Operator: JMB3 Instrument: MSD7.i
Sample Info: |248815003|965816|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2298
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	16394	3.58	3.66	80-120	100	(T)
93	350	3.55	3.66	229-289	2	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	18579	4.23	4.12	80-120	100	(T)
42	16114	4.23	4.12	74-134	87	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	89807	5.98	5.75	80-120	100	(T)
164	507984	5.98	5.75	0- 40	566	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	65836	5.98	5.81	80-120	100	(T)
63	836	5.98	5.81	66-126	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	65836	5.98	6.10	80-120	100	(T)
89	904	5.98	6.10	43-103	1	(QT)
63	836	5.98	6.10	22- 82	1	(QT)
53 Fluorene			CAS#: 86-73-7			
166	4469	6.57	6.39	80-120	100	(T)
165	4574	6.57	6.39	61-121	102	(T)
167	1633	6.57	6.39	0- 44	37	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	259	6.57	6.41	80-120	100	(T)
105	822	6.57	6.41	14- 74	317	(QT)
51	840	6.57	6.41	41-101	324	(QT)
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	2668	12.83	12.85	80-120	100	( )
138	927	12.84	12.85	0- 59	35	( )

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD7.i/s032310.b/s7c2308.d
Lab Smp Id: 248815003 Client Smp ID: RE46-10-13863
Inj Date : 23-MAR-2010 12:48
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815003|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.18000	weight of sample
M	11.47850	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.870	1538081	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.902	254150	6.60953610	247	0		0	10

Data File: /chem/MSD7.i/s032310.b/s7c2308.d
Date : 23-MAR-2010 12:48
Client ID: RE46-10-13863
Sample Info: 1248815003|965816|1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

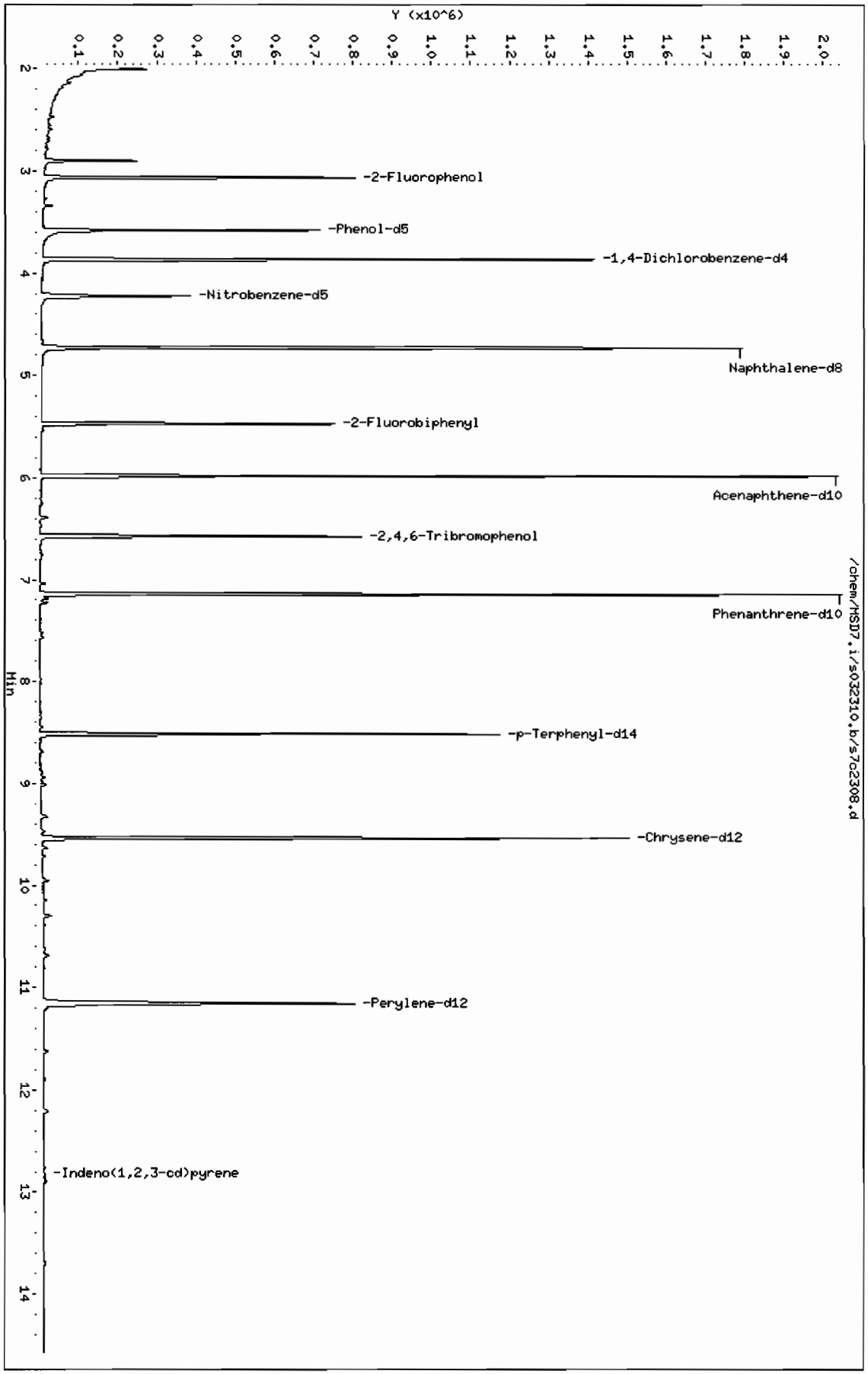

Page 1

Data File: /chem/MSD7.i/s032310.b/s7c2308.d

Page 2

Date : 23-MAR-2010 12:48

Client ID: RE46-10-13863

Instrument: MSD7.i

Sample Info: |2488150031965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 12.8 ug/Kg

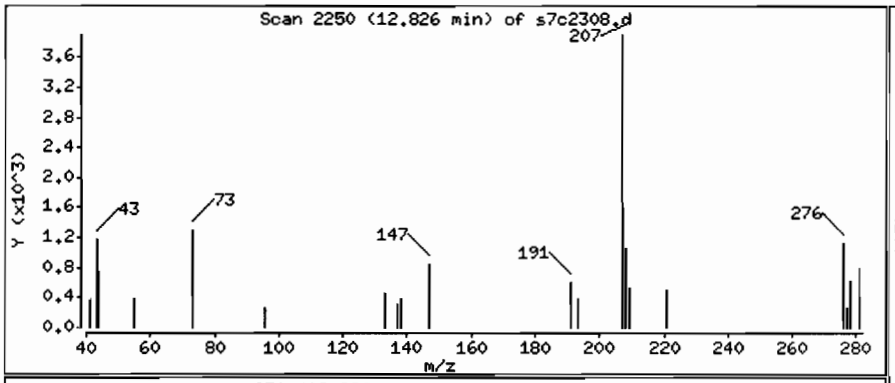

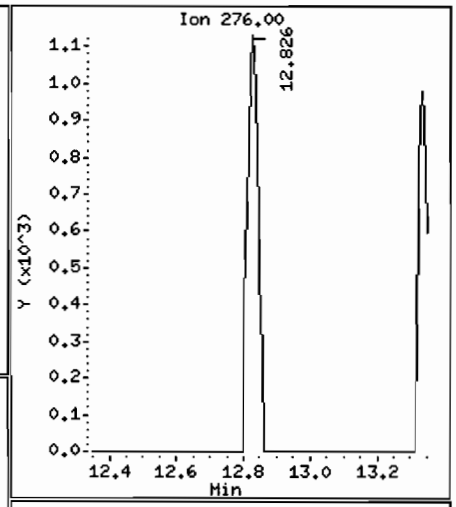

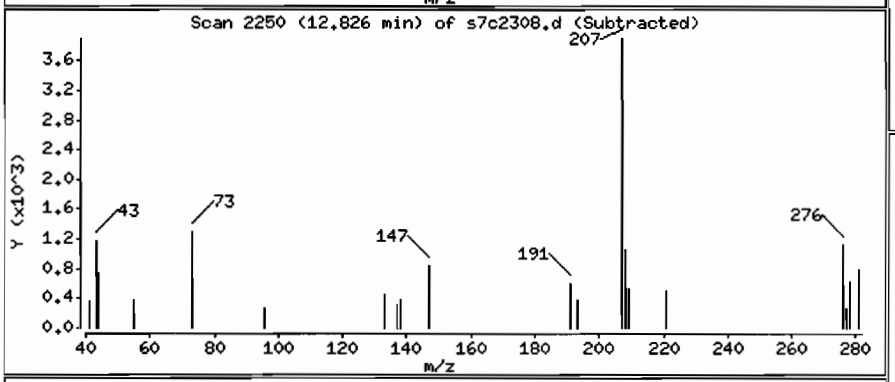

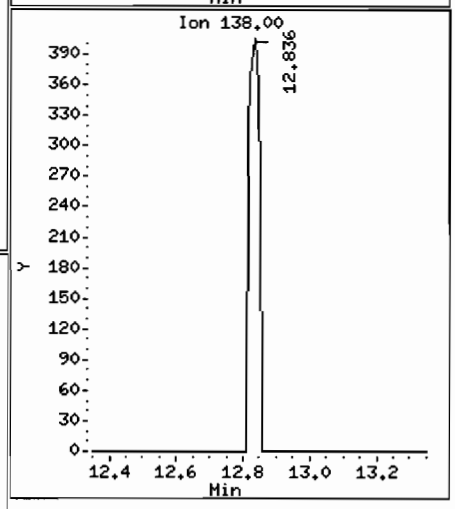

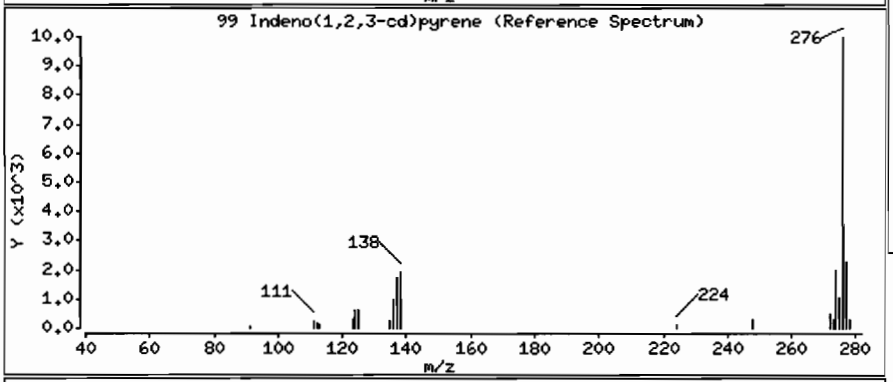

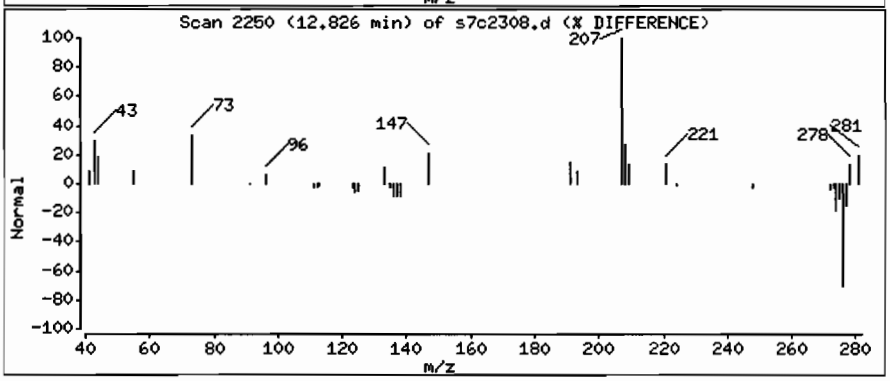

Data File: /chem/MSD7.i/s032310.b/s7c2308.d

Date : 23-MAR-2010 12:48

Client ID: RE46-10-13863

Instrument: MSD7.i

Sample Info: 1248815003|965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116

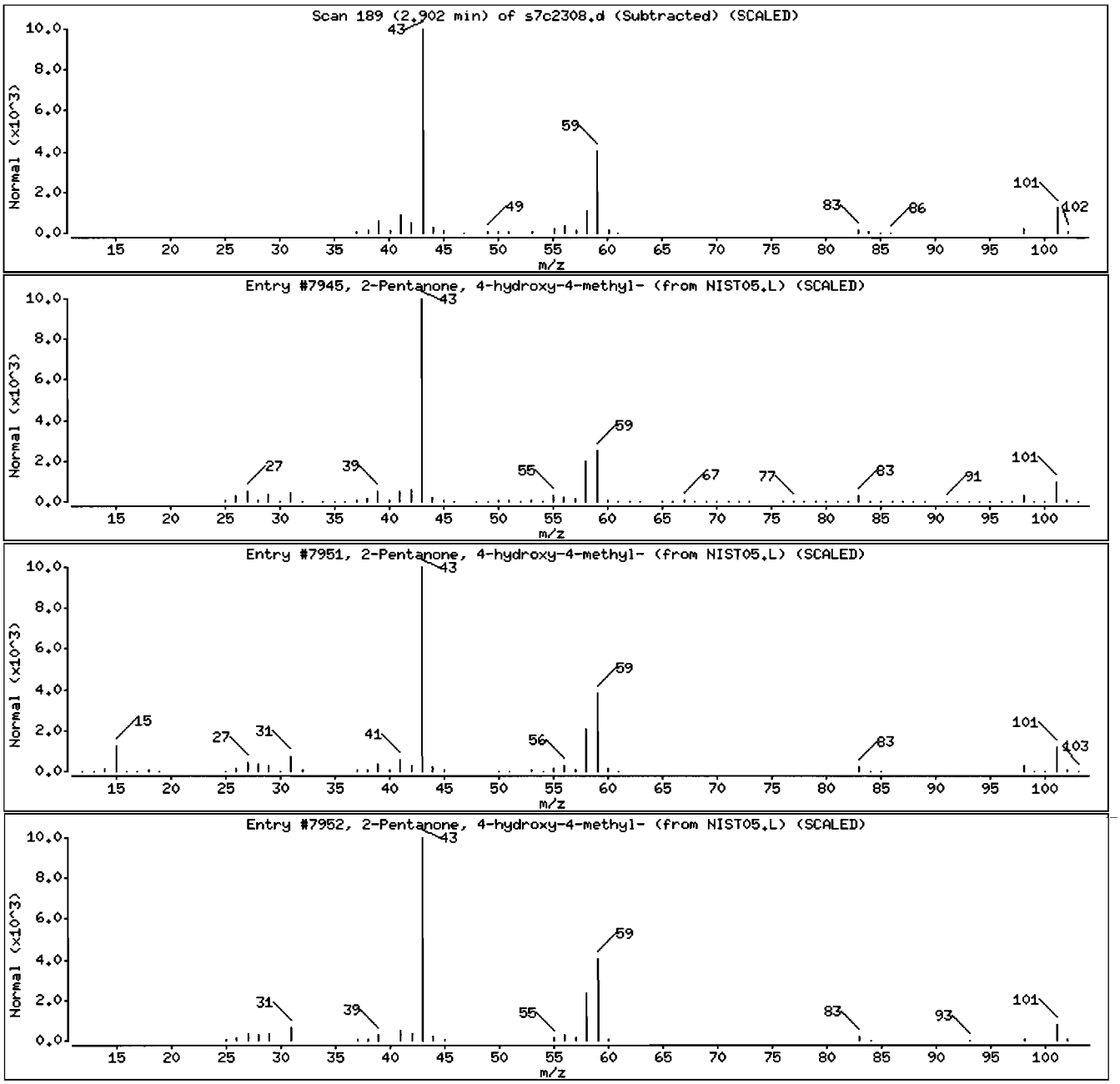

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13864**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 17:30**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2321.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	387	ug/kg	77.4	387
108-95-2	Phenol	U	387	ug/kg	77.4	387
95-57-8	2-Chlorophenol	U	387	ug/kg	77.4	387
106-46-7	1,4-Dichlorobenzene	U	387	ug/kg	77.4	387
621-64-7	N-Nitrosodipropylamine	U	387	ug/kg	77.4	387
59-50-7	4-Chloro-3-methylphenol	U	387	ug/kg	77.4	387
83-32-9	Acenaphthene	J	36.7	ug/kg	12.8	38.7
121-14-2	2,4-Dinitrotoluene	U	387	ug/kg	38.7	387
100-02-7	4-Nitrophenol	U	387	ug/kg	128	387
87-86-5	Pentachlorophenol	U	387	ug/kg	96.7	387
129-00-0	Pyrene		438	ug/kg	11.6	38.7
110-86-1	Pyridine	U	387	ug/kg	77.4	387
62-53-3	Aniline	U	387	ug/kg	116	387
111-44-4	bis(2-Chloroethyl) ether	U	387	ug/kg	77.4	387
541-73-1	1,3-Dichlorobenzene	U	387	ug/kg	77.4	387
100-51-6	Benzyl alcohol	U	387	ug/kg	116	387
95-50-1	1,2-Dichlorobenzene	U	387	ug/kg	77.4	387
108-60-1	bis(2-Chloroisopropyl)ether	U	387	ug/kg	77.4	387
95-48-7	o-Cresol	U	387	ug/kg	77.4	387
65794-96-9	m,p-Cresols	U	387	ug/kg	116	387
67-72-1	Hexachloroethane	U	387	ug/kg	77.4	387
98-95-3	Nitrobenzene	U	387	ug/kg	77.4	387
78-59-1	Isophorone	U	387	ug/kg	77.4	387
88-75-5	2-Nitrophenol	U	387	ug/kg	77.4	387
105-67-9	2,4-Dimethylphenol	U	387	ug/kg	135	387
111-91-1	bis(2-Chloroethoxy)methane	U	387	ug/kg	77.4	387
120-83-2	2,4-Dichlorophenol	U	387	ug/kg	77.4	387
65-85-0	Benzoic acid	U	774	ug/kg	193	774
91-20-3	Naphthalene	J	18.0	ug/kg	11.6	38.7
106-47-8	4-Chloroaniline	U	387	ug/kg	77.4	387
87-68-3	Hexachlorobutadiene	U	387	ug/kg	77.4	387
91-57-6	2-Methylnaphthalene	U	38.7	ug/kg	7.74	38.7
77-47-4	Hexachlorocyclopentadiene	U	387	ug/kg	77.4	387
88-06-2	2,4,6-Trichlorophenol	U	387	ug/kg	77.4	387
95-95-4	2,4,5-Trichlorophenol	U	387	ug/kg	77.4	387
91-58-7	2-Chloronaphthalene	U	38.7	ug/kg	12.8	38.7
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	387	ug/kg	77.4	387
99-09-2	3-Nitroaniline	U	387	ug/kg	77.4	387

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13864**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 17:30**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2321.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	387	ug/kg	77.4	387
606-20-2	2,6-Dinitrotoluene	U	387	ug/kg	38.7	387
208-96-8	Acenaphthylene	U	38.7	ug/kg	11.6	38.7
51-28-5	2,4-Dinitrophenol	U	774	ug/kg	147	774
132-64-9	Dibenzofuran	U	387	ug/kg	77.4	387
84-66-2	Diethylphthalate	U	387	ug/kg	77.4	387
86-73-7	Fluorene	J	32.1	ug/kg	11.6	38.7
7005-72-3	4-Chlorophenylphenylether	U	387	ug/kg	77.4	387
534-52-1	2-Methyl-4,6-dinitrophenol	U	387	ug/kg	77.4	387
100-01-6	4-Nitroaniline	U	387	ug/kg	116	387
	p-Nitroaniline					
122-39-4	Diphenylamine	U	387	ug/kg	77.4	387
122-66-7	Azobenzene	U	387	ug/kg	77.4	387
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	387	ug/kg	77.4	387
118-74-1	Hexachlorobenzene	U	387	ug/kg	77.4	387
85-01-8	Phenanthrene		327	ug/kg	11.6	38.7
120-12-7	Anthracene		60.2	ug/kg	7.74	38.7
84-74-2	Di-n-butylphthalate	U	387	ug/kg	77.4	387
206-44-0	Fluoranthene		438	ug/kg	11.6	38.7
85-68-7	Butylbenzylphthalate	U	387	ug/kg	77.4	387
56-55-3	Benzo(a)anthracene		181	ug/kg	11.6	38.7
91-94-1	3,3'-Dichlorobenzidine	U	387	ug/kg	116	387
218-01-9	Chrysene		206	ug/kg	11.6	38.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	387	ug/kg	77.4	387
117-84-0	Di-n-octylphthalate	U	387	ug/kg	77.4	387
205-99-2	Benzo(b)fluoranthene		320	ug/kg	11.6	38.7
207-08-9	Benzo(k)fluoranthene	U	38.7	ug/kg	11.6	38.7
50-32-8	Benzo(a)pyrene		190	ug/kg	11.6	38.7
193-39-5	Indeno(1,2,3-cd)pyrene		140	ug/kg	11.6	38.7
53-70-3	Dibenzo(a,h)anthracene	U	38.7	ug/kg	11.6	38.7
191-24-2	Benzo(ghi)perylene		151	ug/kg	11.6	38.7
120-82-1	1,2,4-Trichlorobenzene	U	387	ug/kg	77.4	387

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	432	ug/kg		JA

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Data file : /chem/MSD7.i/s032310.b/s7c2321.d
Lab Smp Id: 248815002 Client Smp ID: RE46-10-13864
Inj Date : 23-MAR-2010 17:30
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815002|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 11o00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	14.04900	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	307180	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	1165896	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	664820	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	1201977	40.0000	
* 91 Chrysene-d12	240	9.542	9.552	(1.000)	739885	40.0000	
* 98 Perylene-d12	264	11.160	11.165	(1.000)	374745	40.0000	
$ 3 2-Fluorophenol	112	3.070	3.061	(0.793)	420375	52.6501	2040
$ 5 Phenol-d5	99	3.585	3.590	(0.927)	501677	50.1145	1940
$ 20 Nitrobenzene-d5	82	4.226	4.235	(0.893)	248074	28.2109	1090
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	546906	33.0090	1280
$ 60 2,4,6-Tribromophenol	329	6.576	6.576	(1.099)	124771	64.9204	2510
$ 81 p-Terphenyl-d14	244	8.521	8.521	(0.893)	512336	38.6517	1490

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
47 Acenaphthene	154	6.003	6.012	(1.003)	13895	0.94957	36.7(a)
79 Pyrene	202	8.415	8.420	(0.882)	264801	11.3288	438
30 Naphthalene	128	4.746	4.751	(1.003)	10277	0.46663	18.0(a)
53 Fluorene	166	6.388	6.393	(1.068)	14330	0.83044	32.1(a)
68 Phenanthrene	178	7.163	7.168	(1.003)	208791	8.46501	327
69 Anthracene	178	7.207	7.211	(1.009)	38861	1.55566	60.2
76 Fluoranthene	202	8.199	8.203	(1.148)	303786	11.3275	438
89 Benzo(a)anthracene	228	9.532	9.537	(0.999)	82847	4.67081	181
92 Chrysene	228	9.566	9.571	(1.003)	83875	5.31412	206
95 Benzo(b)fluoranthene	252	10.664	10.669	(0.956)	86842	8.26325	320
97 Benzo(a)pyrene	252	11.083	11.092	(0.993)	42437	4.92462	190
99 Indeno(1,2,3-cd)pyrene	276	12.836	12.850	(1.150)	22366	3.60937	140
101 Benzo(ghi)perylene	276	13.351	13.365	(1.196)	20232	3.91501	151

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s7c2321.d
Report Date: 03/23/2010 21:29
Lab. ID: 248815002 SampleType: SAMPLE
Injection Date: 23-MAR-2010 17:30
Operator: JMB3 Instrument: MSD7.i
Sample Info: |248815002|965816|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2298
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	40902	4.23	4.12	80-120	100	(T)
42	31911	4.23	4.11	74-134	78	(T)
30 Naphthalene				CAS#: 91-20-3		
128	10277	4.75	4.75	80-120	100	( )
129	1101	4.75	4.75	0- 43	11	( )
127	1166	4.75	4.75	0- 44	11	( )
43 Dimethylphthalate				CAS#: 131-11-3		
163	120573	5.98	5.75	80-120	100	(T)
164	664820	5.98	5.75	0- 40	551	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	88059	5.98	5.81	80-120	100	(T)
63	1462	5.98	5.81	66-126	2	(QT)
47 Acenaphthene				CAS#: 83-32-9		
154	13895	6.00	6.01	80-120	100	( )
153	15919	6.00	6.01	73-133	115	( )
152	7232	6.00	6.01	19- 79	52	( )
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	88059	5.98	6.10	80-120	100	(T)
89	1356	5.98	6.10	43-103	2	(QT)
63	1462	5.98	6.10	22- 82	2	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	14330	6.39	6.39	80-120	100	( )
165	13296	6.39	6.39	61-121	93	( )
167	2063	6.39	6.39	0- 44	14	( )
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	339	6.58	6.41	80-120	100	(T)
105	1671	6.58	6.41	14- 74	493	(QT)
51	2309	6.58	6.41	41-101	681	(QT)
68 Phenanthrene			CAS#: 85-01-8			
178	208791	7.16	7.17	80-120	100	( )
179	34132	7.16	7.17	0- 46	16	( )
176	39202	7.16	7.17	0- 49	19	( )
69 Anthracene			CAS#: 120-12-7			
178	38861	7.21	7.21	80-120	100	( )
179	10243	7.20	7.21	0- 46	26	( )
176	6709	7.21	7.21	0- 48	17	( )
76 Fluoranthene			CAS#: 206-44-0			
202	303786	8.20	8.20	80-120	100	( )
203	53323	8.20	8.20	0- 47	18	( )
101	26988	8.20	8.20	0- 39	9	( )
79 Pyrene			CAS#: 129-00-0			
202	264801	8.42	8.42	80-120	100	( )
200	54496	8.42	8.42	0- 50	21	( )
101	31334	8.41	8.42	0- 41	12	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	82847	9.53	9.54	80-120	100	( )
226	21070	9.53	9.54	0- 56	25	( )
229	24127	9.53	9.54	0- 49	29	( )
92 Chrysene			CAS#: 218-01-9			
228	83875	9.57	9.57	80-120	100	( )
229	19769	9.57	9.57	0- 49	24	( )
226	24444	9.57	9.57	0- 58	29	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	86842	10.66	10.67	80-120	100	( )
253	21315	10.66	10.67	0- 52	25	( )
125	8919	10.66	10.67	0- 40	10	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	86842	10.66	10.70	80-120	100	( )
253	21315	10.66	10.70	0- 52	25	( )
125	8919	10.66	10.70	0- 40	10	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	42437	11.08	11.09	80-120	100	( )
253	10985	11.08	11.09	0- 52	26	( )
125	4988	11.08	11.09	0- 40	12	( )
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	22366	12.84	12.85	80-120	100	( )
138	6116	12.84	12.85	0- 59	27	( )
100 Dibenzo(a,h)anthracene			CAS#: 53-70-3			
278	7809	12.85	12.86	80-120	100	( )
139	1547	12.85	12.86	0- 48	20	( )
101 Benzo(ghi)perylene			CAS#: 191-24-2			
276	20232	13.35	13.37	80-120	100	( )
138	5719	13.34	13.37	0- 55	28	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2321.d
Lab Smp Id: 248815002 Client Smp ID: RE46-10-13864
Inj Date : 23-MAR-2010 17:30
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815002|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 llo00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	14.04900	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.870	1972395	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.907	550998	11.1741946	432	0		0	10

Data File: /chem/MSD7.i/s032310.b/s7o2321.d
Date : 23-MAR-2010 17:30
Client ID: RE46-10-13864
Sample Info: 1248815002196581611|SVM11|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

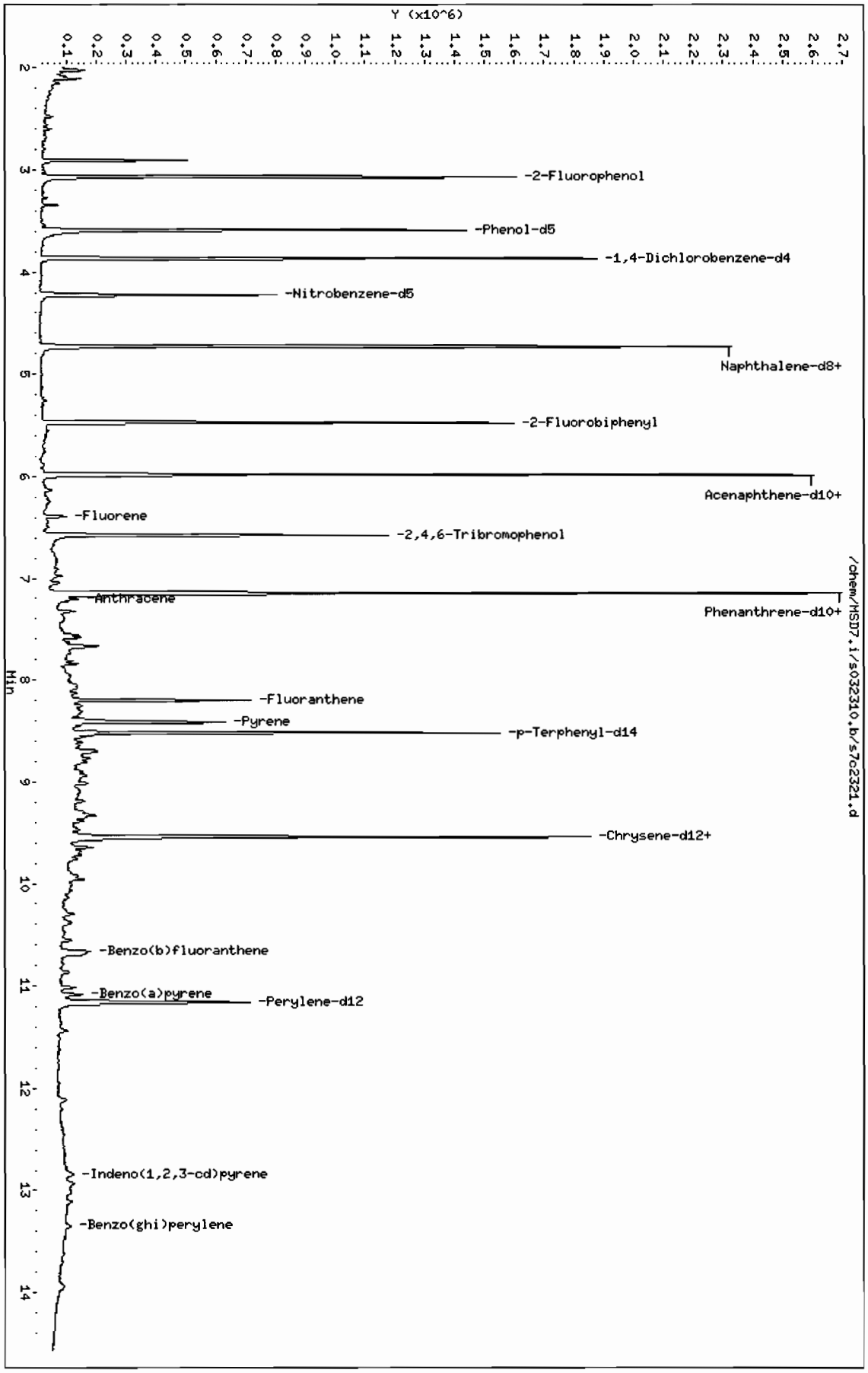

Page 1

Data File: /chem/MSD7.i/s032310.b/s7c2321.d

Date : 23-MAR-2010 17:30

Client ID: RE46-10-13864

Instrument: MSD7.i

Sample Info: |2488150021965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 36.7 ug/Kg

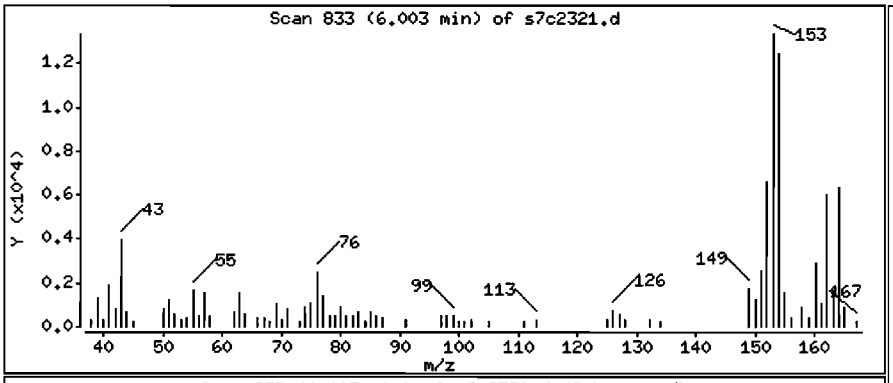

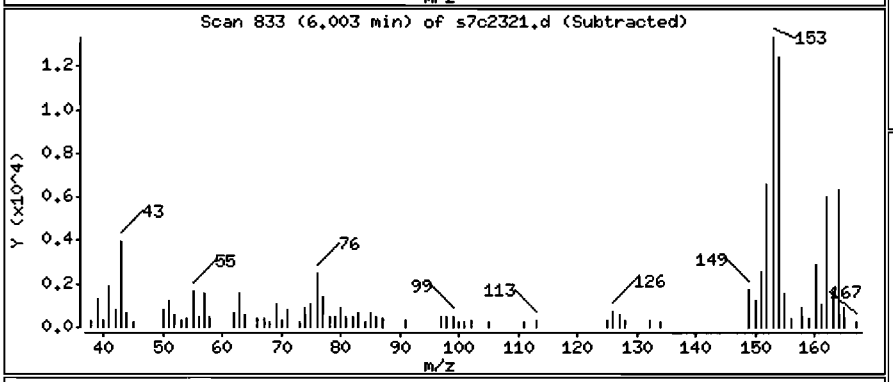

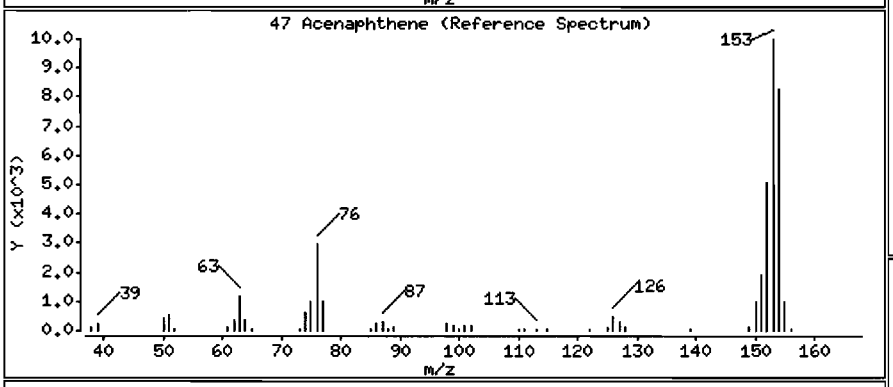

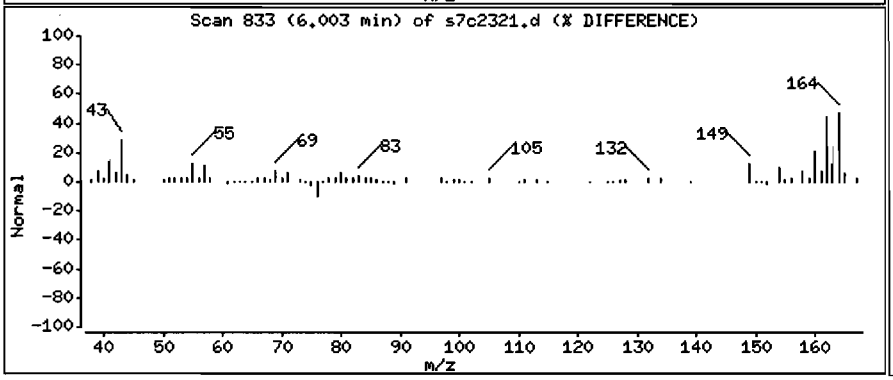

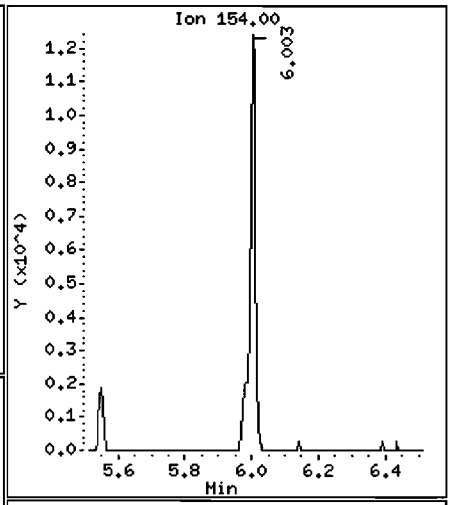

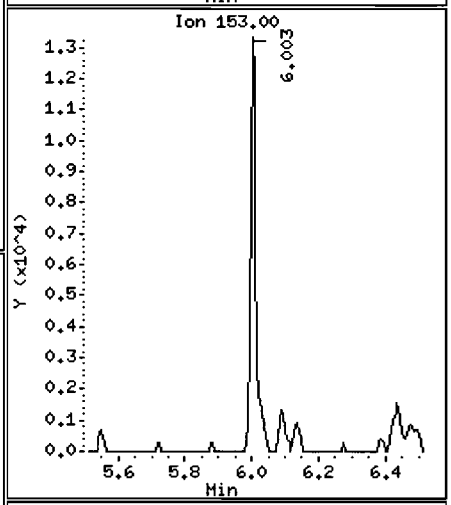

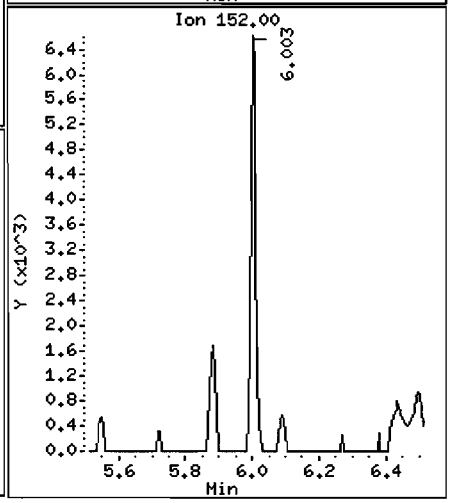

Data File: /chem/MSD7.i/s032310.b/s7c2321.d

Date : 23-MAR-2010 17:30

Client ID: RE46-10-13864

Instrument: MSD7.i

Sample Info: |2488150021965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 438 ug/Kg

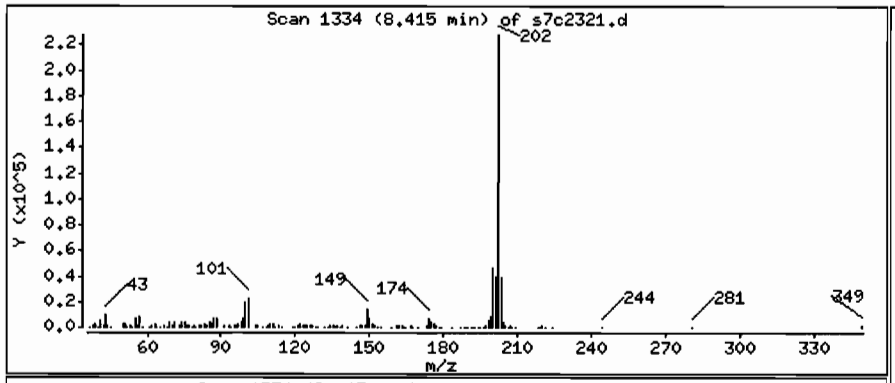

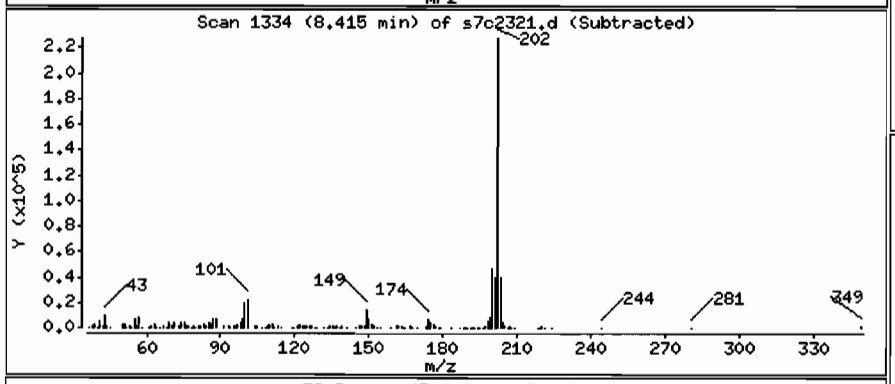

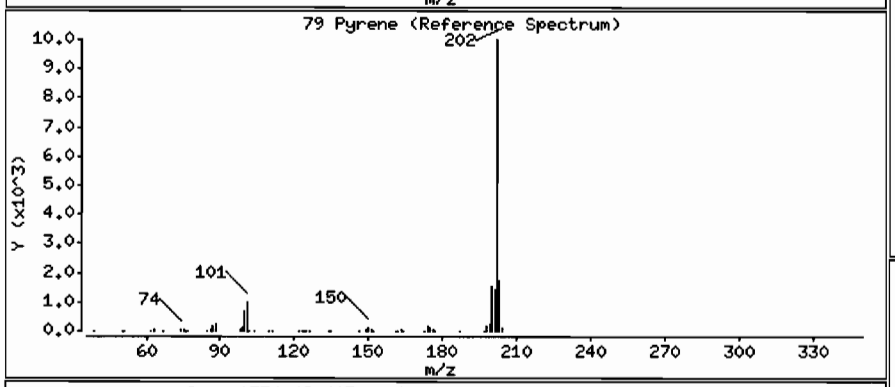

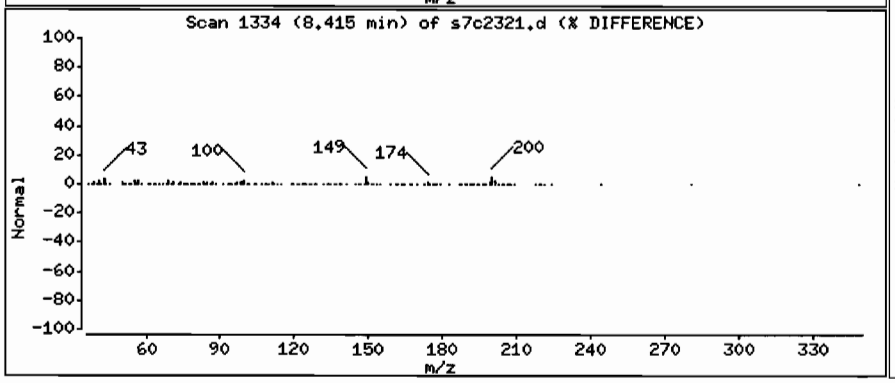

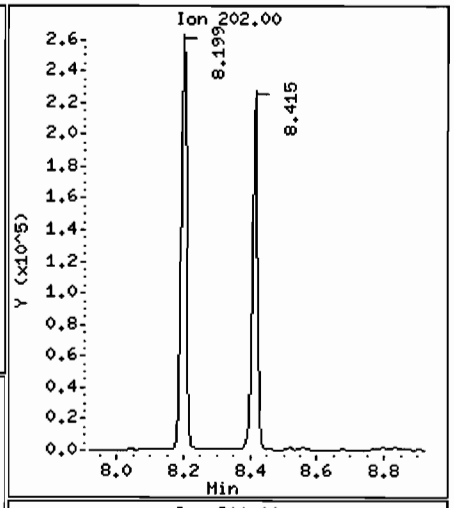

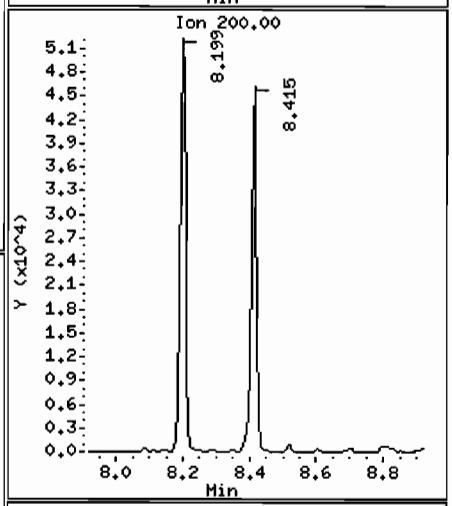

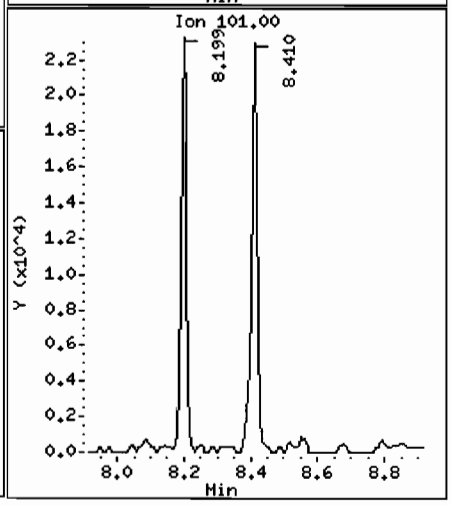

Data File: /chem/MSD7.i/s032310.b/s7c2321.d

Date : 23-MAR-2010 17:30

Client ID: RE46-10-13864 Instrument: MSD7.i

Sample Info: |2488150021965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

30 Naphthalene Concentration: 18.0 ug/Kg

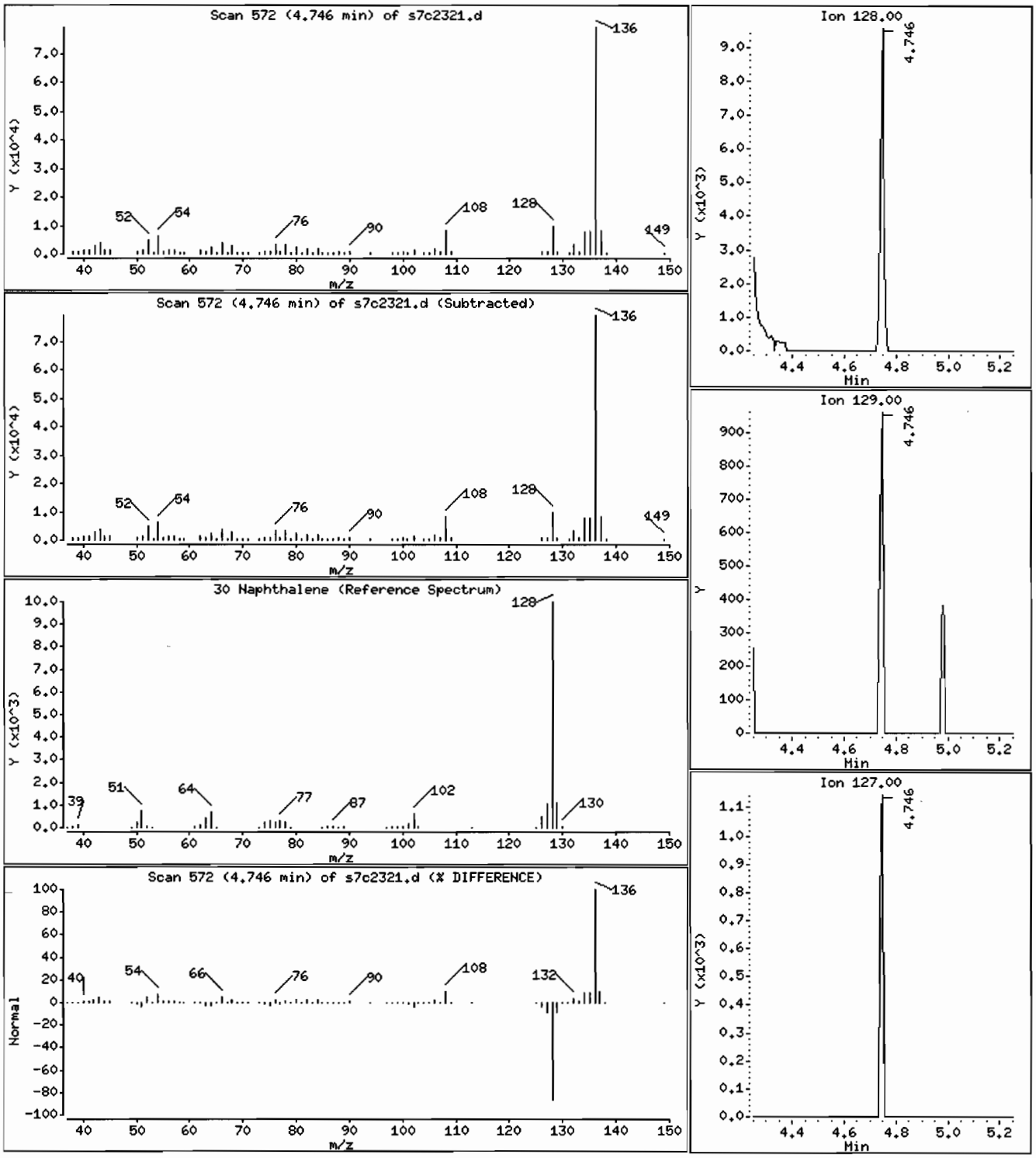

Data File: /chem/MSD7.i/s032310.b/s7c2321.d

Date : 23-MAR-2010 17:30

Client ID: RE46-10-13864

Instrument: MSD7.i

Sample Info: 1248815002|965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 32.1 ug/Kg

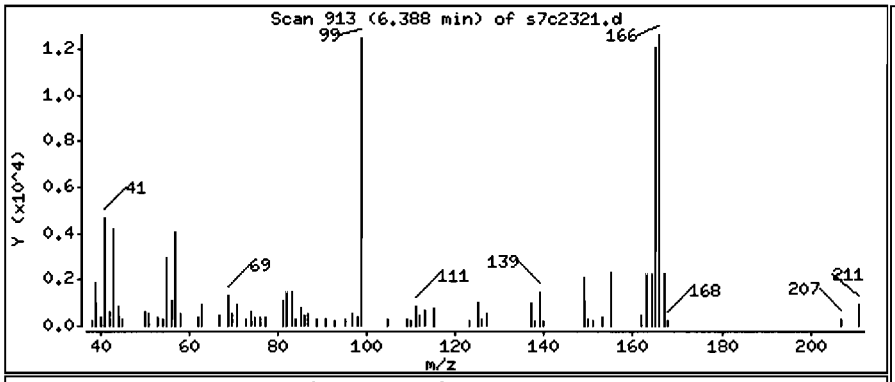

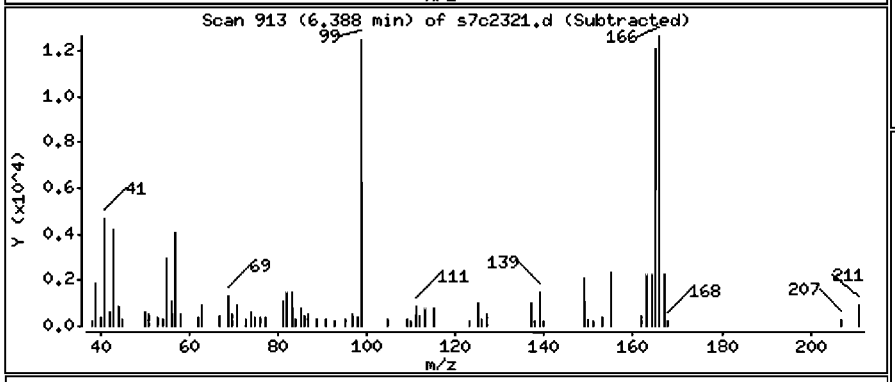

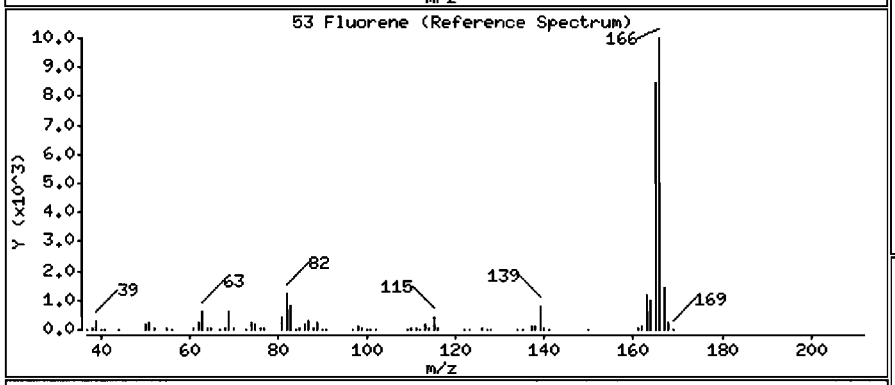

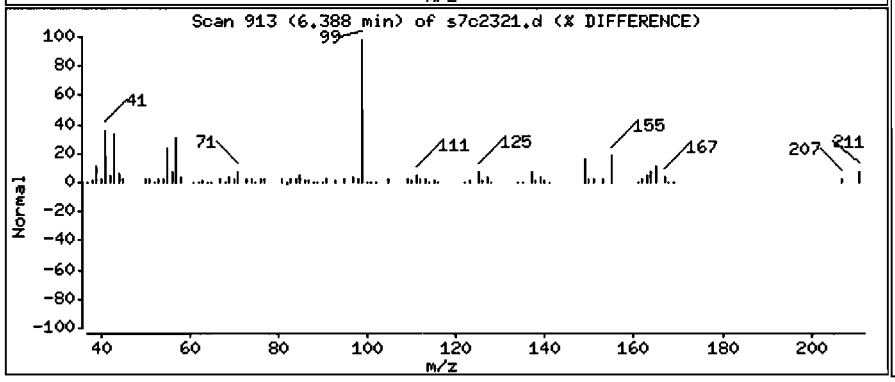

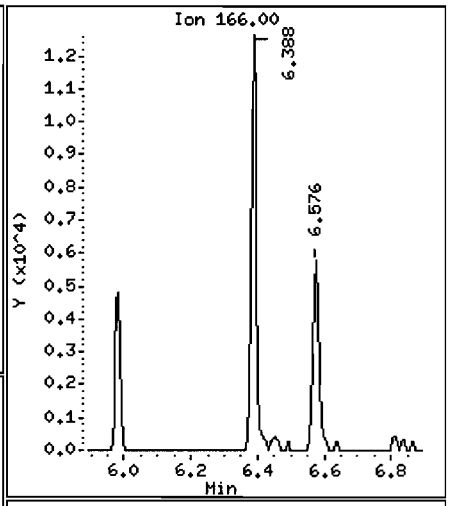

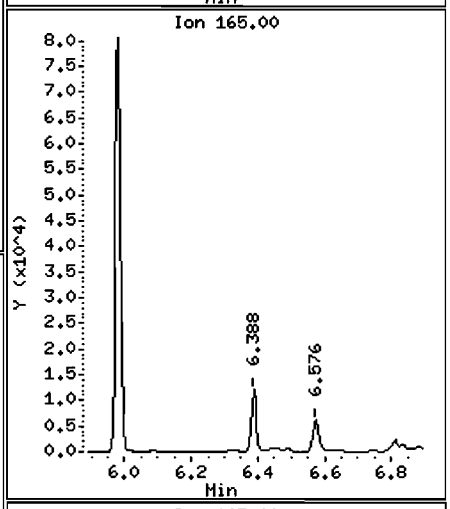

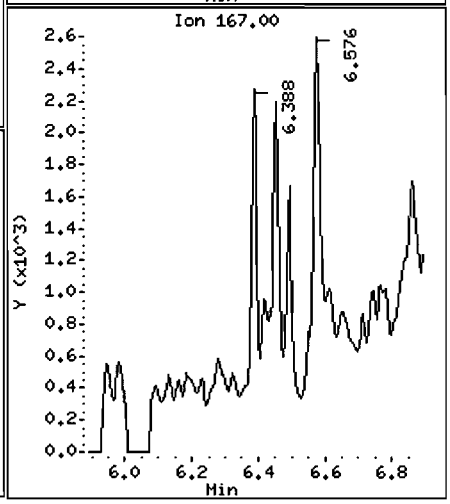

Data File: /chem/MSD7.i/s032310.b/s7c2321.d

Date : 23-MAR-2010 17:30

Client ID: RE46-10-13864

Instrument: MSD7.i

Sample Info: |2488150021965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 327 ug/Kg

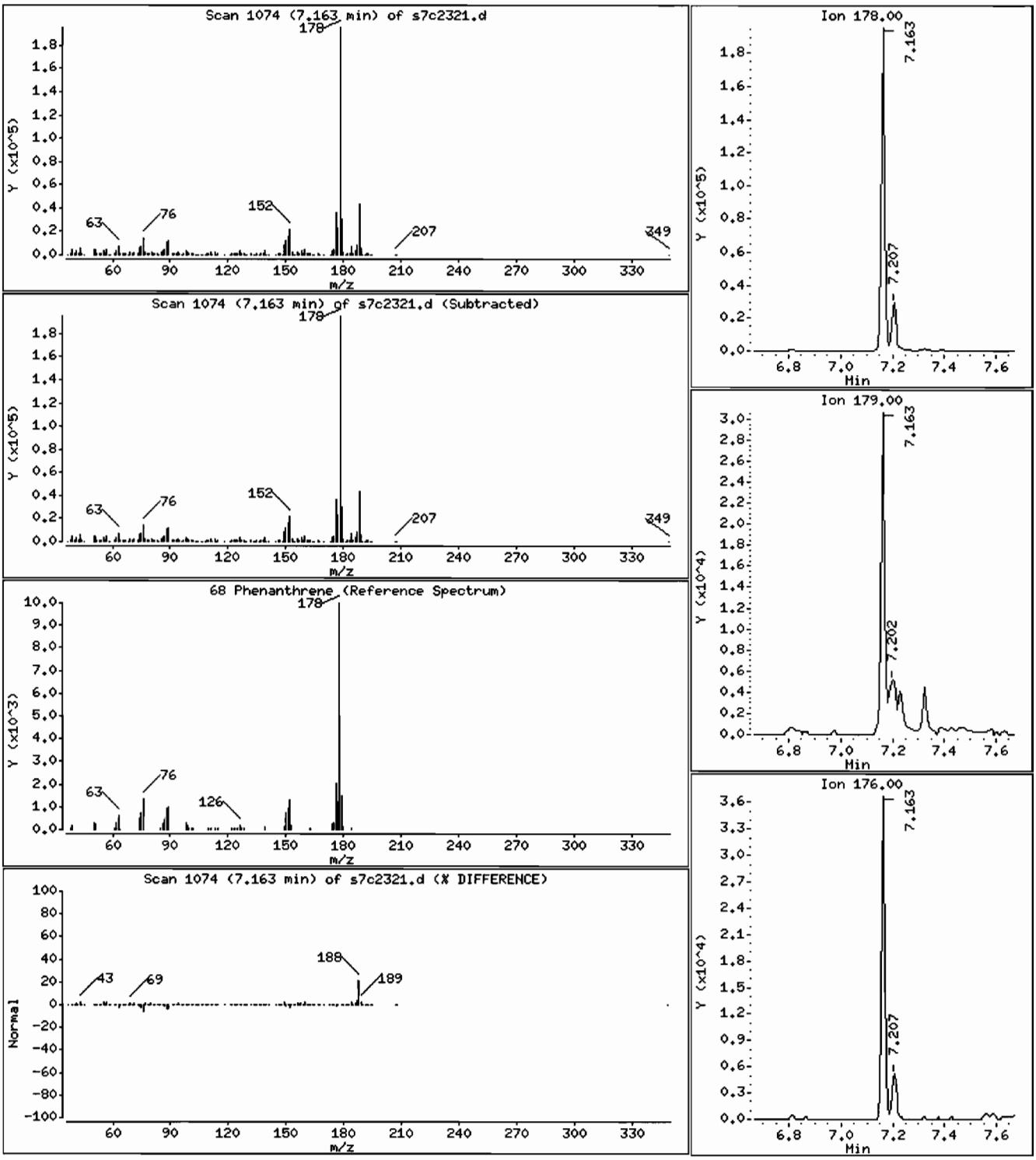

Data File: /chem/MSD7.i/s032310.b/s7c2321.d

Date : 23-MAR-2010 17:30

Client ID: RE46-10-13864 Instrument: MSD7.i

Sample Info: |2488815002|965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

69 Anthracene Concentration: 60.2 ug/Kg

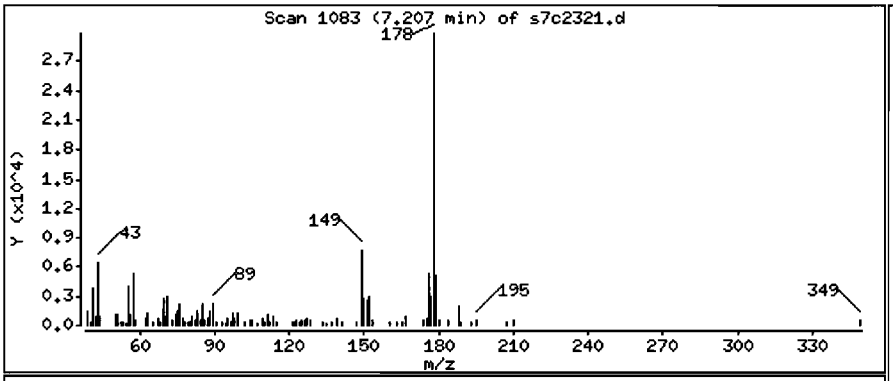

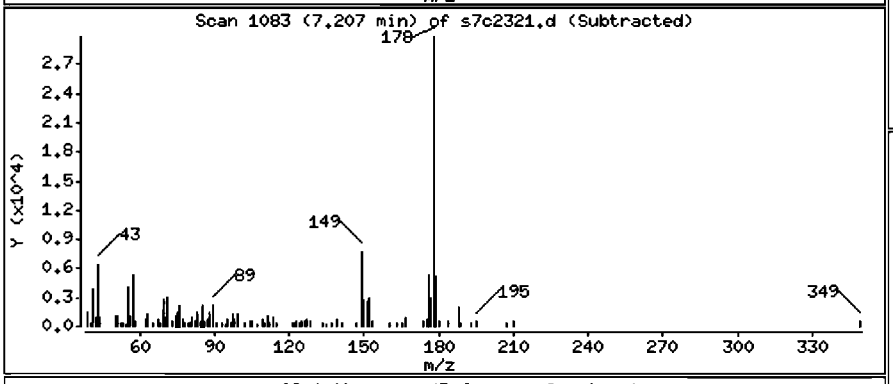

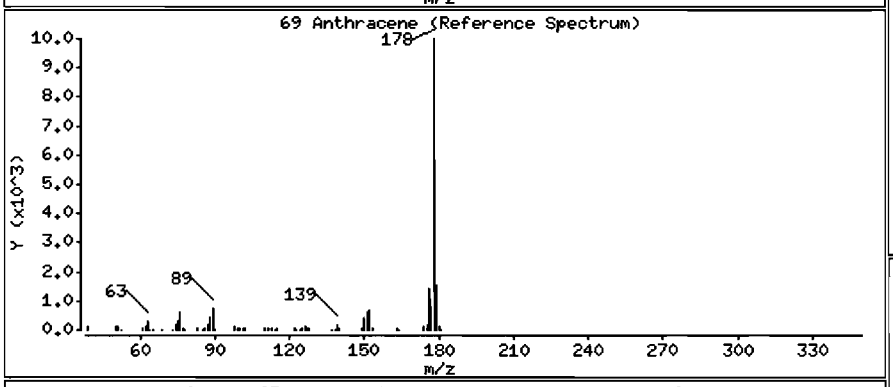

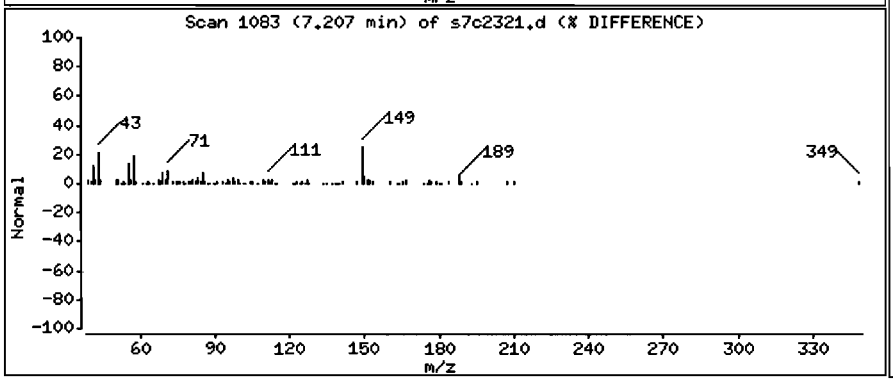

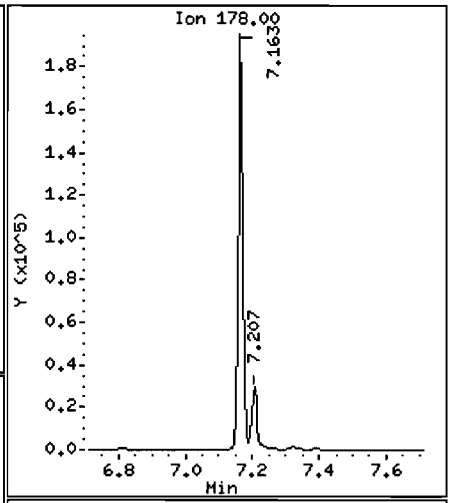

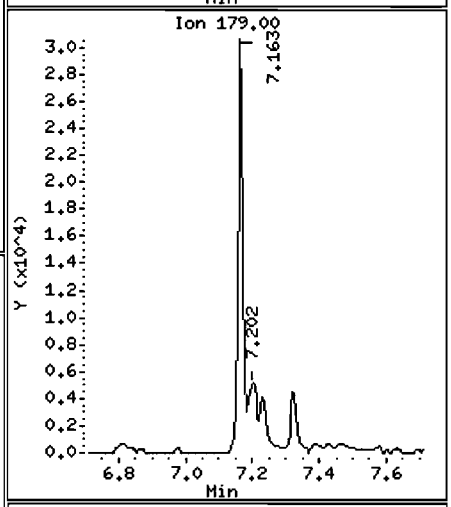

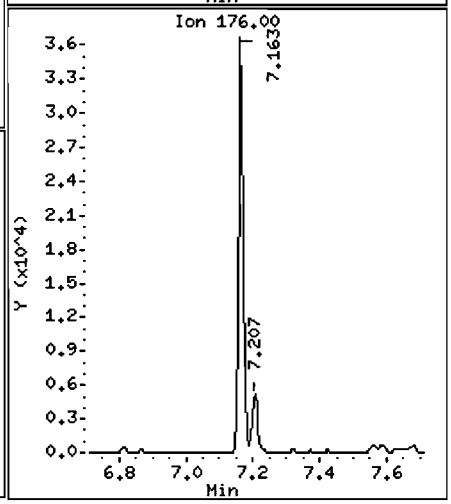

Data File: /chem/MSD7.i/s032310.b/s7c2321.d

Date : 23-MAR-2010 17:30

Client ID: RE46-10-13864

Instrument: MSD7.i

Sample Info: |2488150021965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 438 ug/Kg

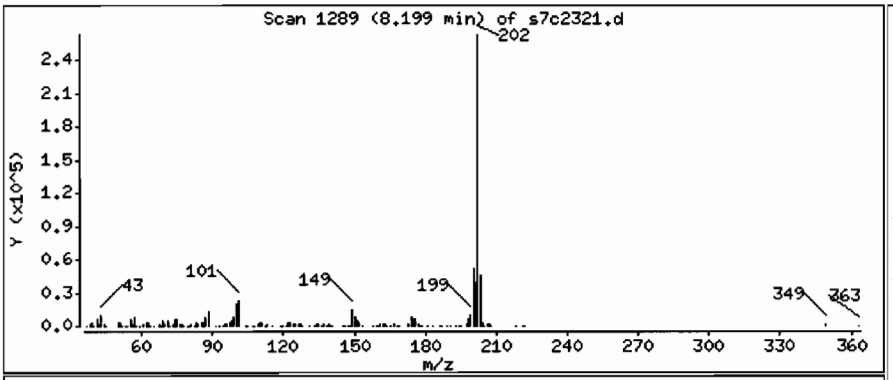

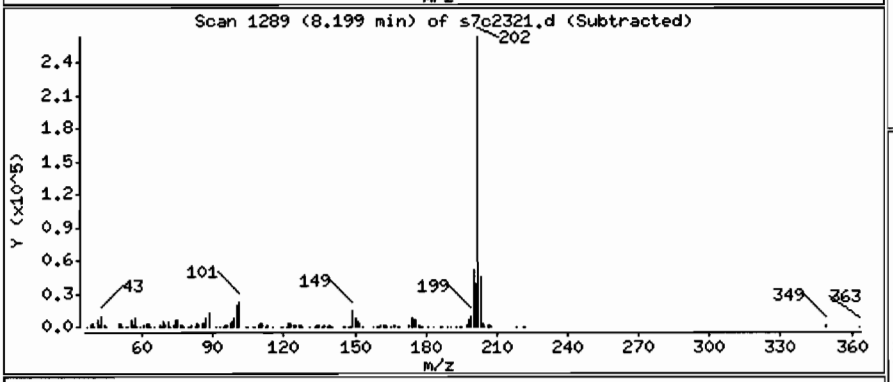

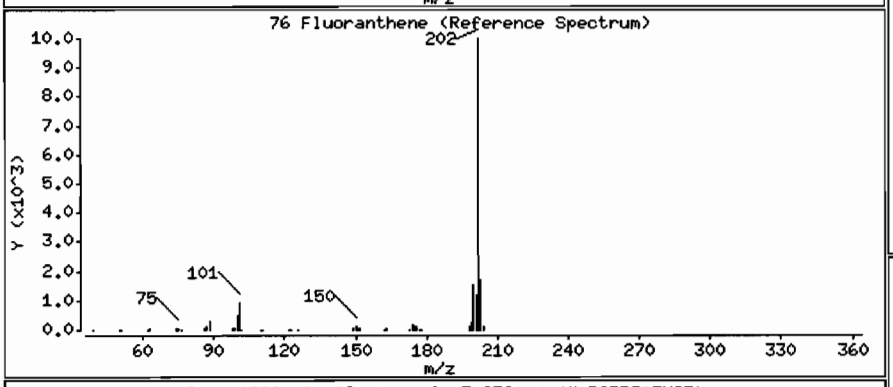

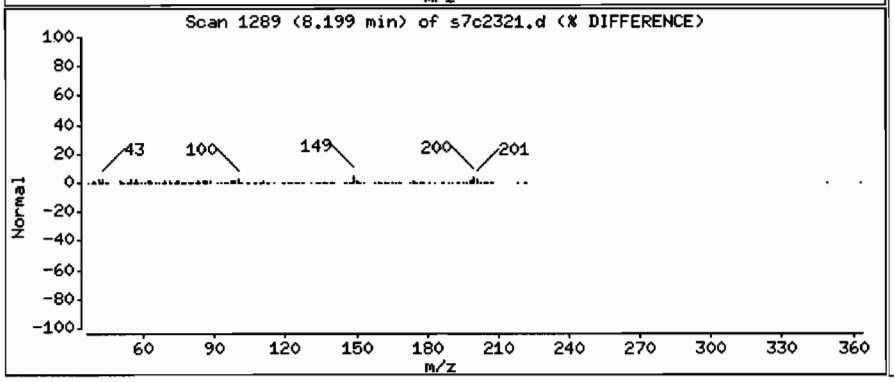

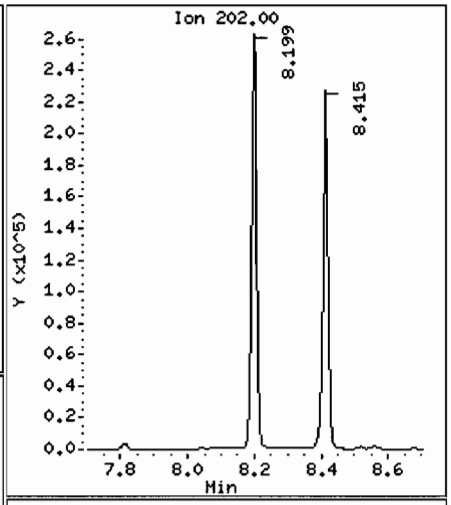

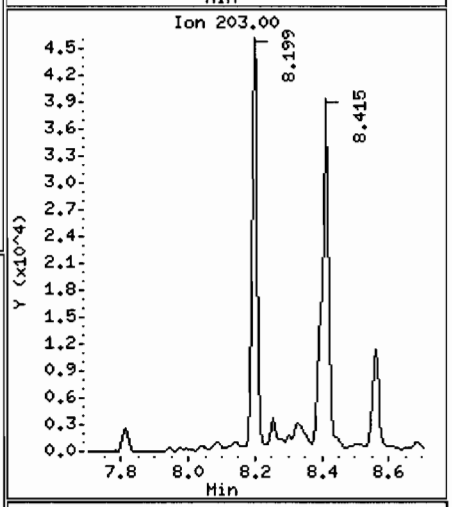

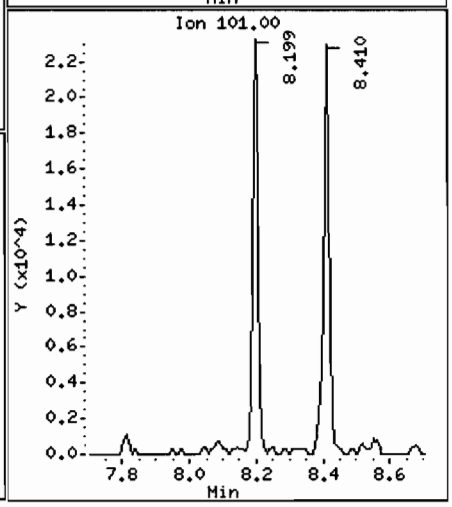

Data File: /chem/MSD7.i/s032310.b/s7c2321.d

Date : 23-MAR-2010 17:30

Client ID: RE46-10-13864 Instrument: MSD7.i

Sample Info: |2488150021965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

89 Benzo(a)anthracene Concentration: 181 ug/Kg

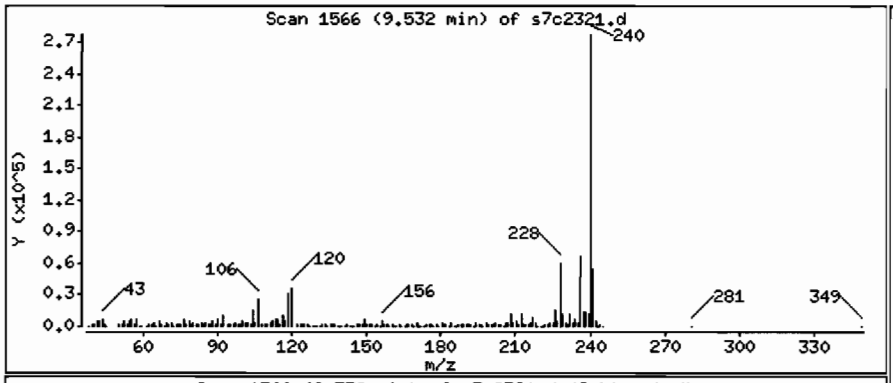

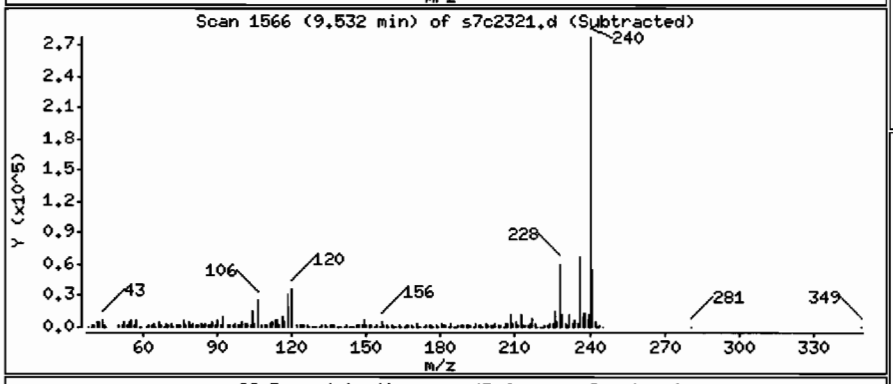

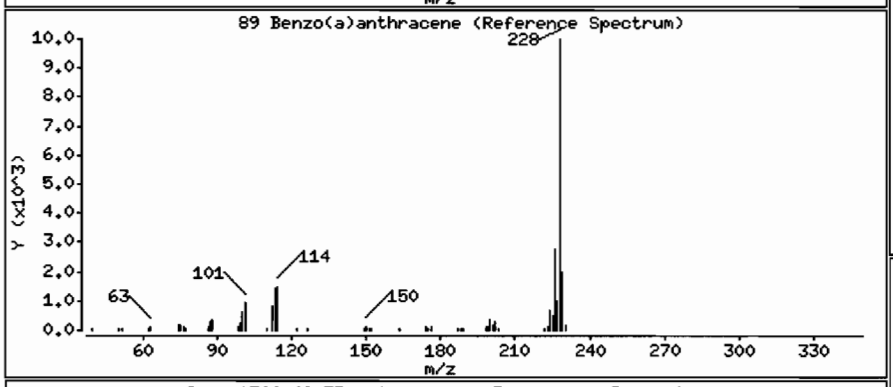

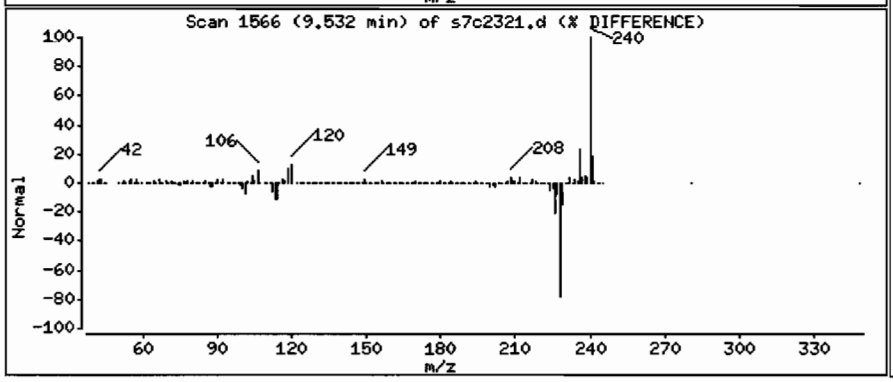

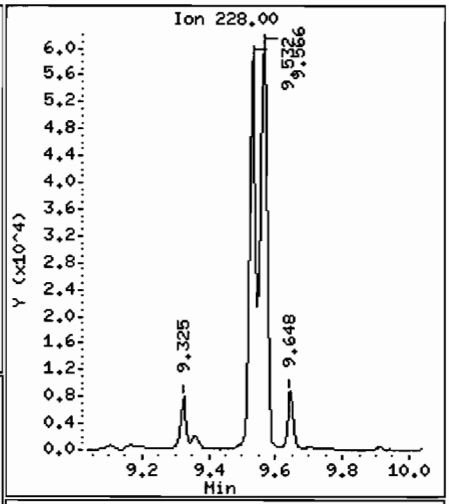

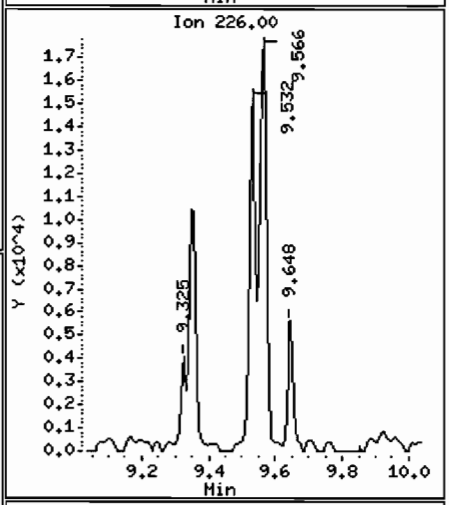

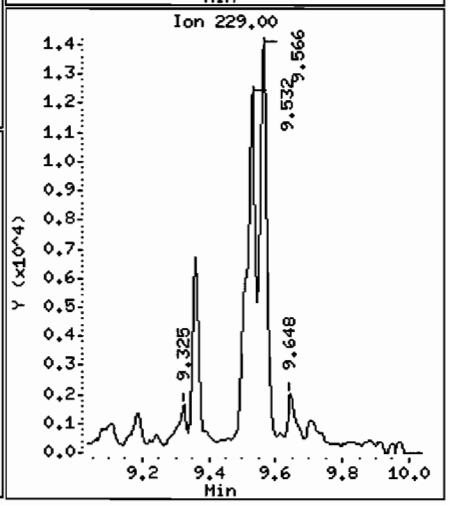

Data File: /chem/MSD7.i/s032310.b/s7c2321.d

Date : 23-MAR-2010 17:30

Client ID: RE46-10-13864

Instrument: MSD7.i

Sample Info: 1248815002196581611SVMI1ILANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 206 ug/Kg

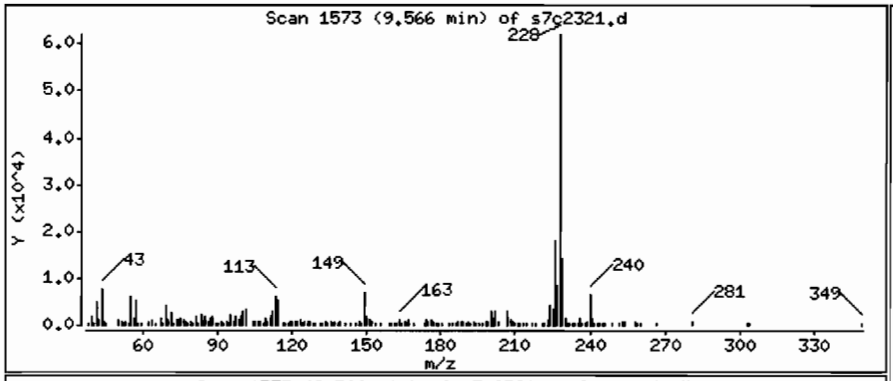

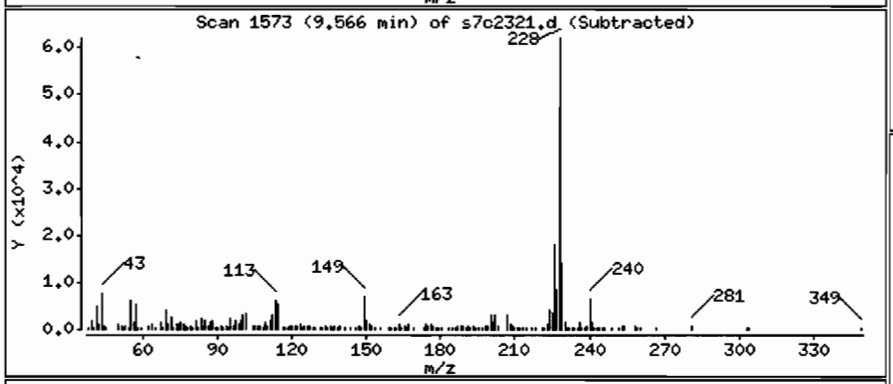

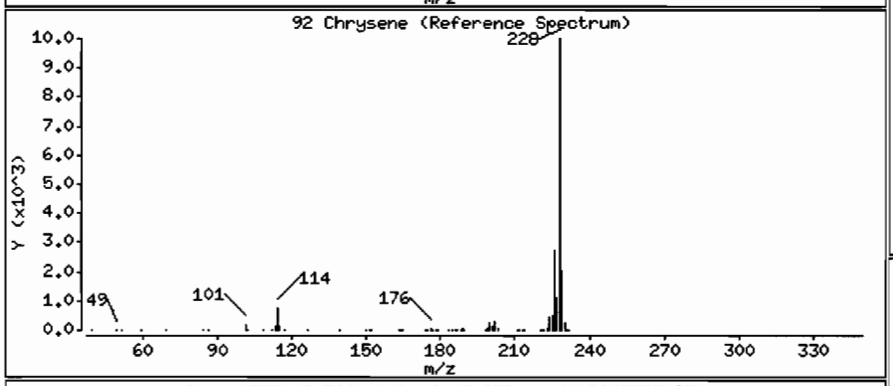

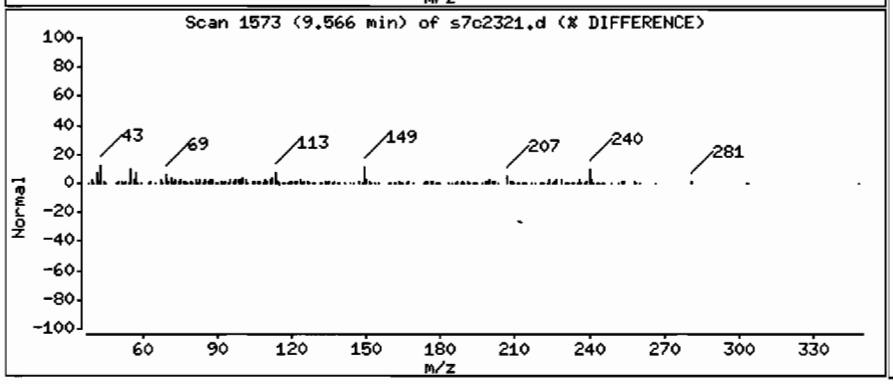

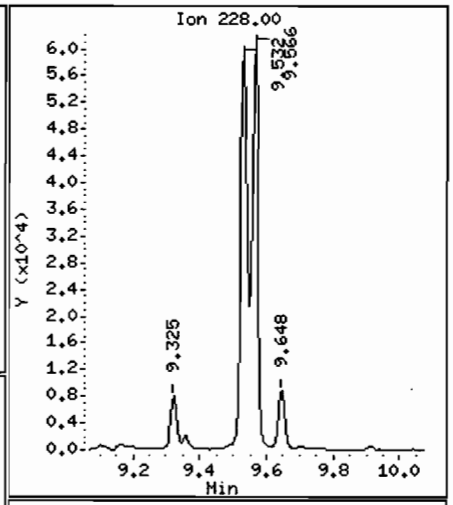

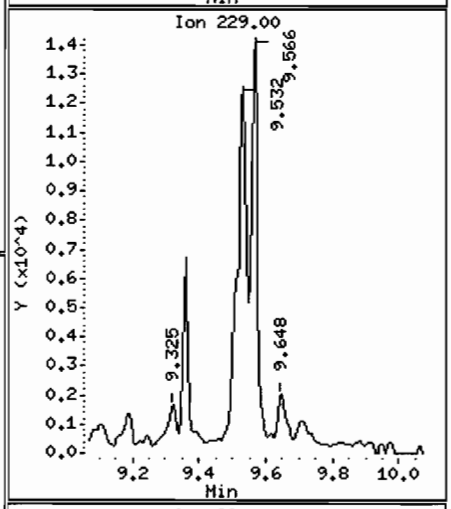

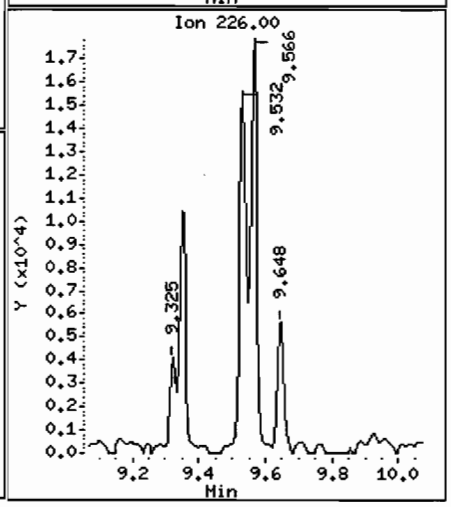

Data File: /chem/MSD7.i/s032310.b/s7c2321.d

Date : 23-MAR-2010 17:30

Client ID: RE46-10-13864

Instrument: MSD7.i

Sample Info: |2488150021965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 320 ug/Kg

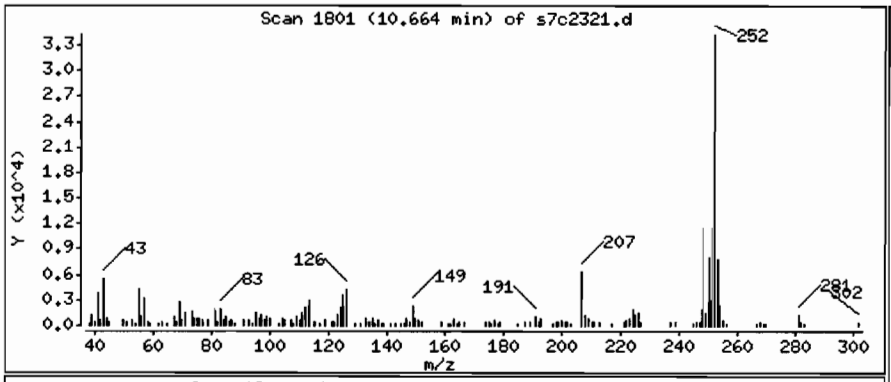

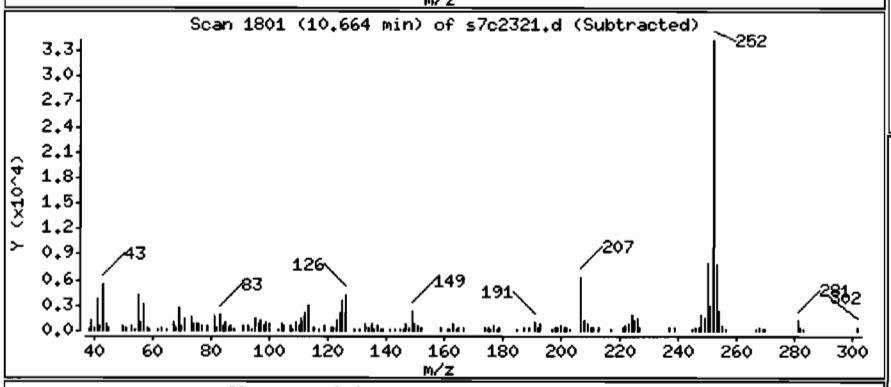

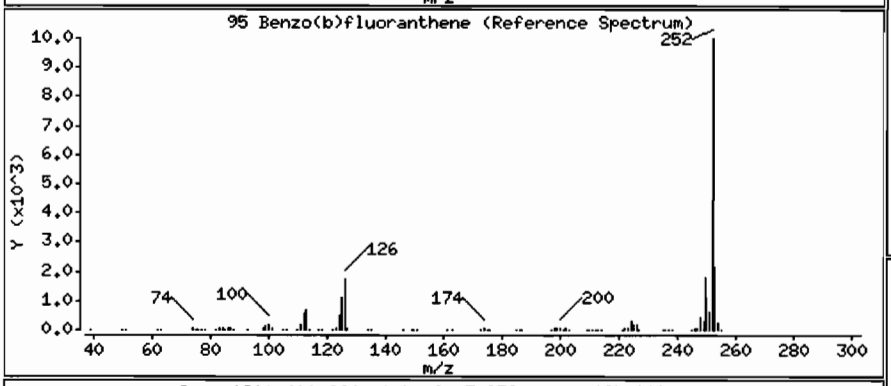

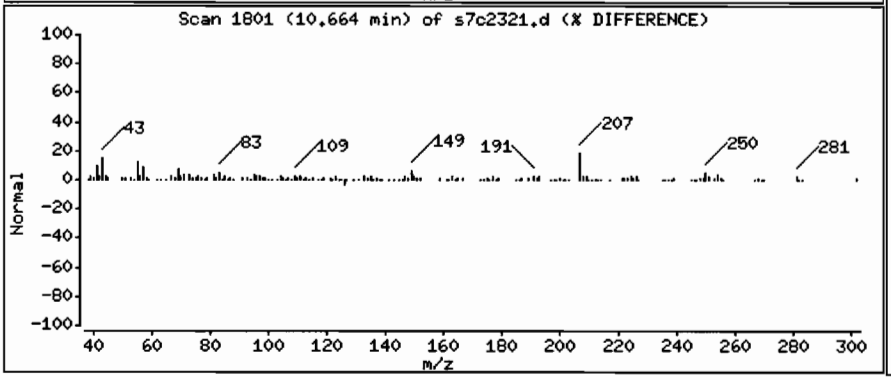

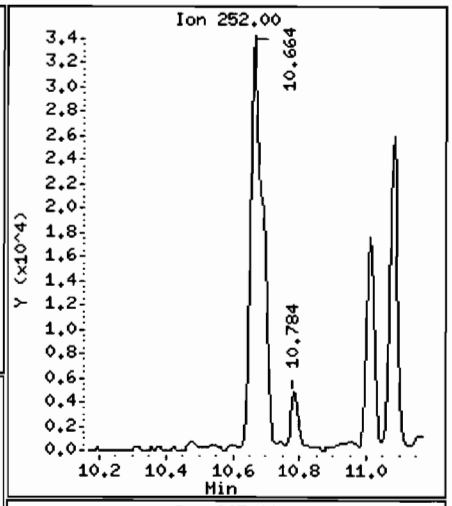

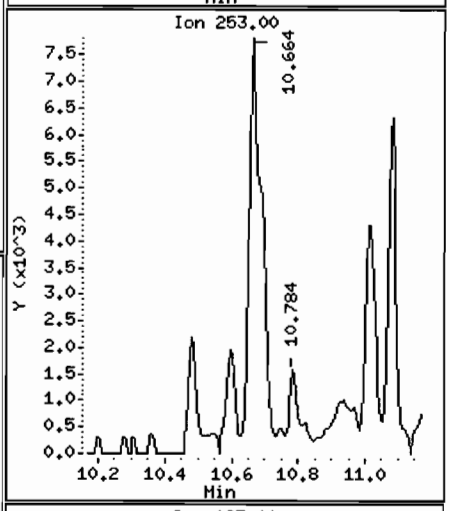

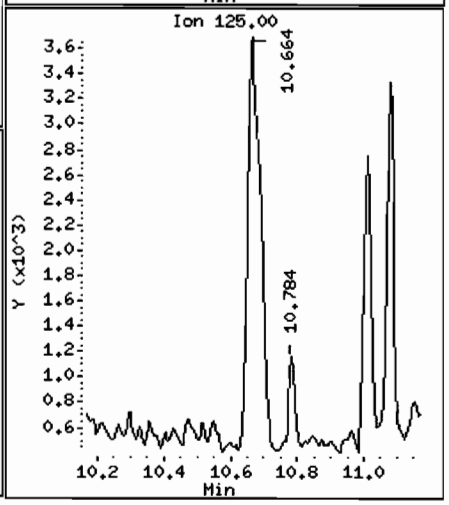

Data File: /chem/MSD7.i/s032310.b/s7c2321.d

Date : 23-MAR-2010 17:30

Client ID: RE46-10-13864

Instrument: MSD7.i

Sample Info: |2488150021965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 190 ug/Kg

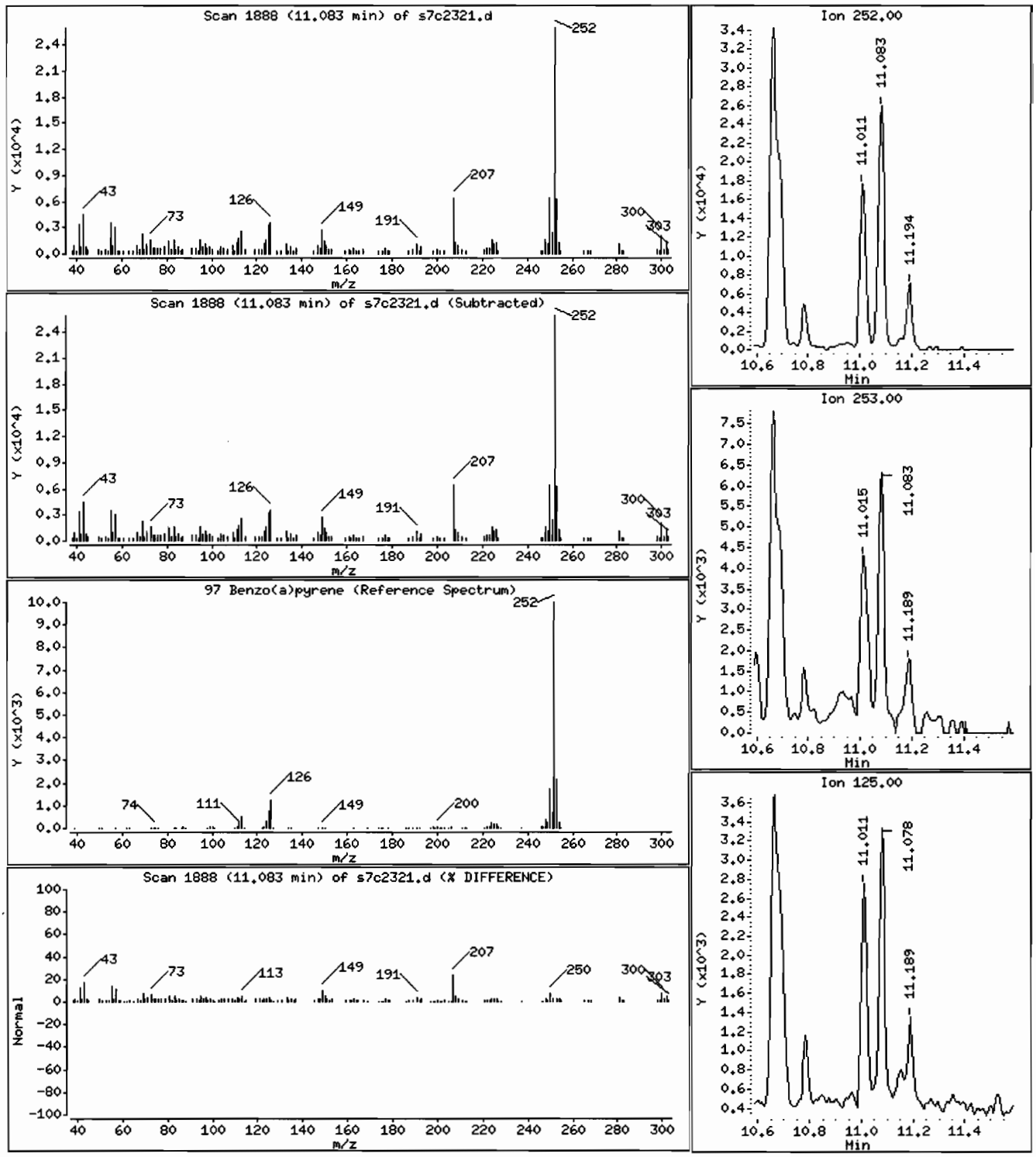

Data File: /chem/MSD7.i/s032310.b/s7c2321.d

Date : 23-MAR-2010 17:30

Client ID: RE46-10-13864

Instrument: MSD7.i

Sample Info: |2488150021965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 140 ug/Kg

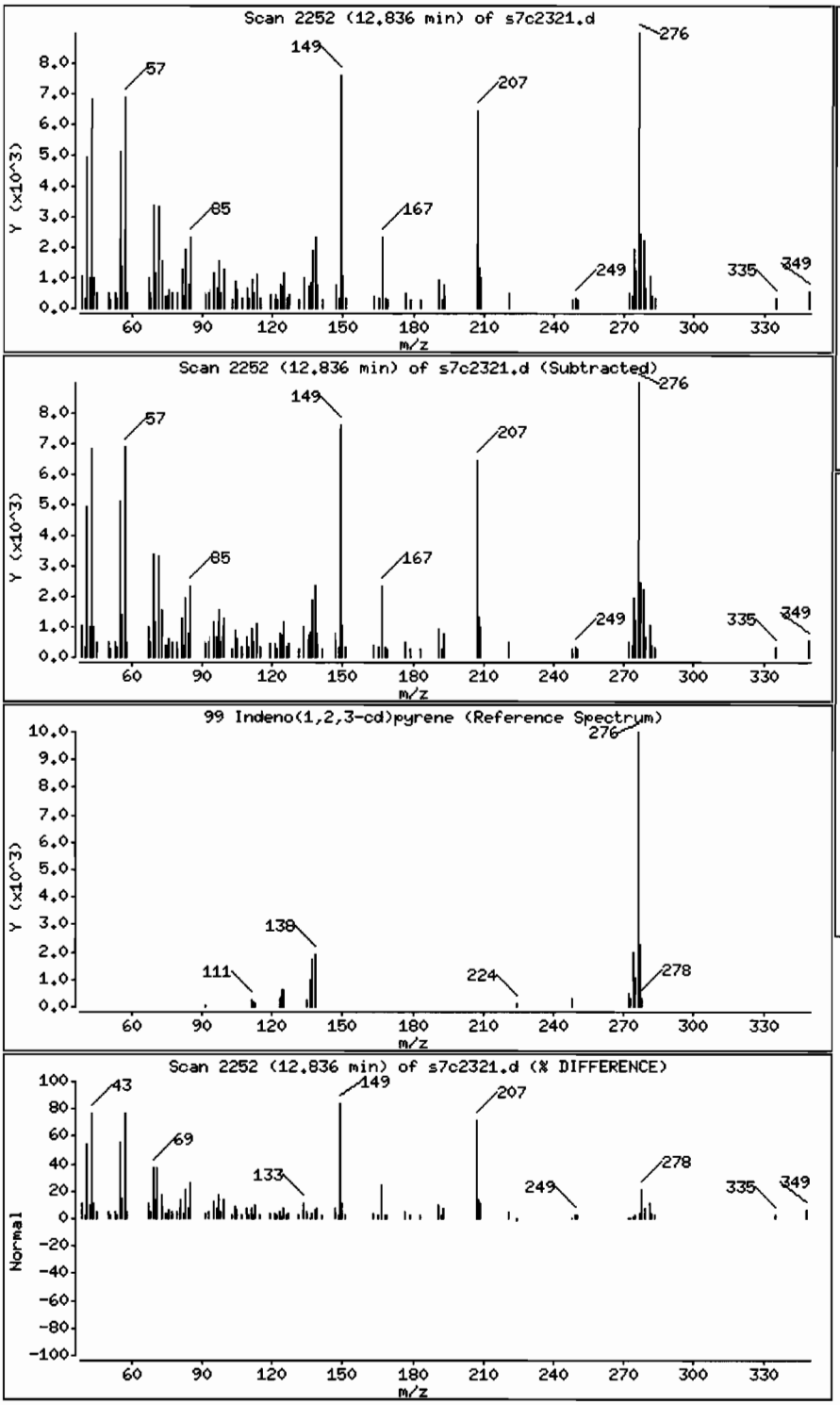

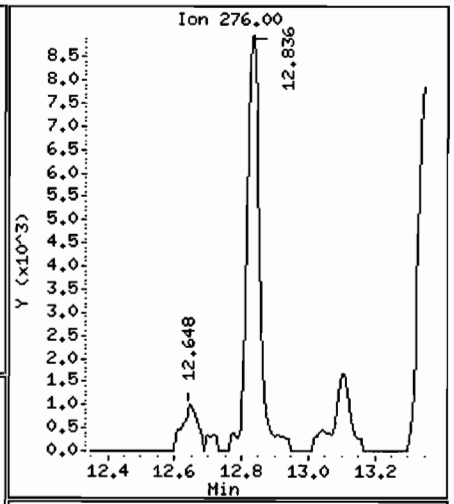

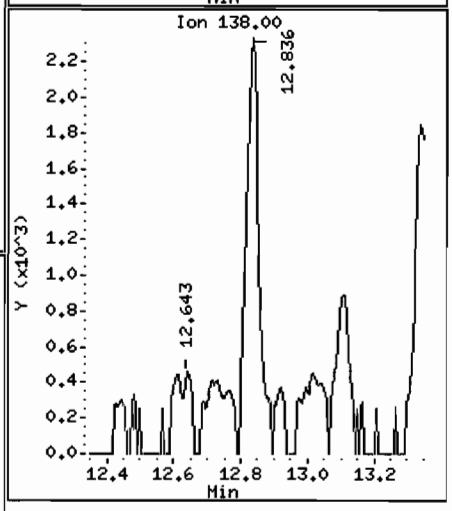

Data File: /chem/MSD7.i/s032310.b/s7c2321.d

Date : 23-MAR-2010 17:30

Client ID: RE46-10-13864 Instrument: MSD7.i

Sample Info: |2488150021965816|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

101 Benzo(ghi)perylene Concentration: 151 ug/Kg

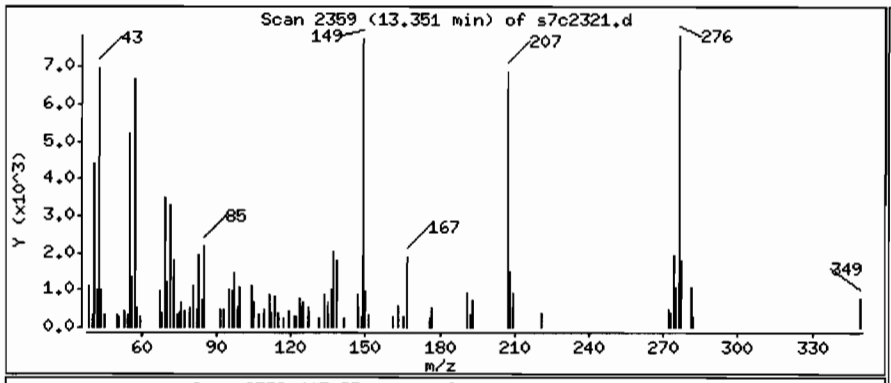

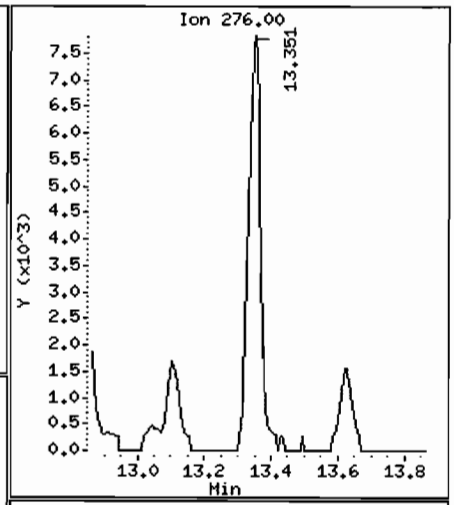

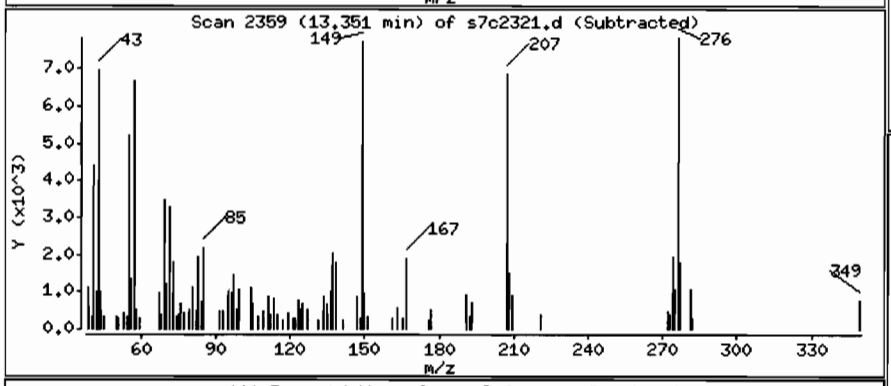

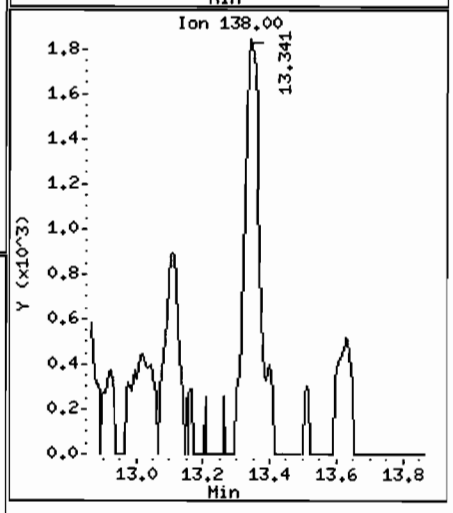

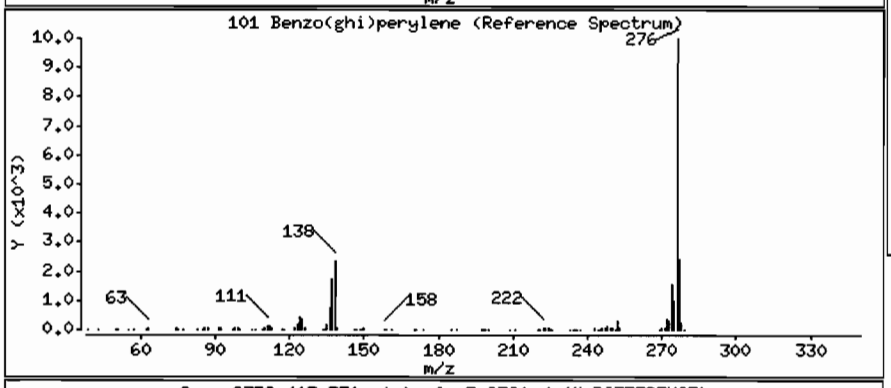

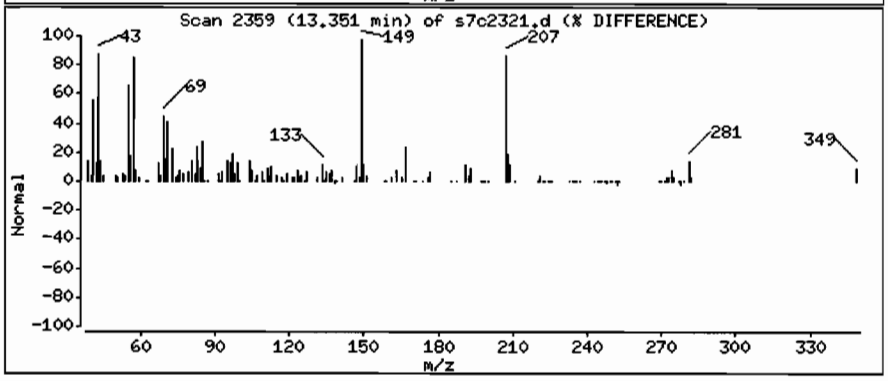

Data File: /chem/MSD7.i/s032310.b/s7c2321.d

Date : 23-MAR-2010 17:30

Client ID: RE46-10-13864

Instrument: MSD7.i

Sample Info: |2488150021965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116

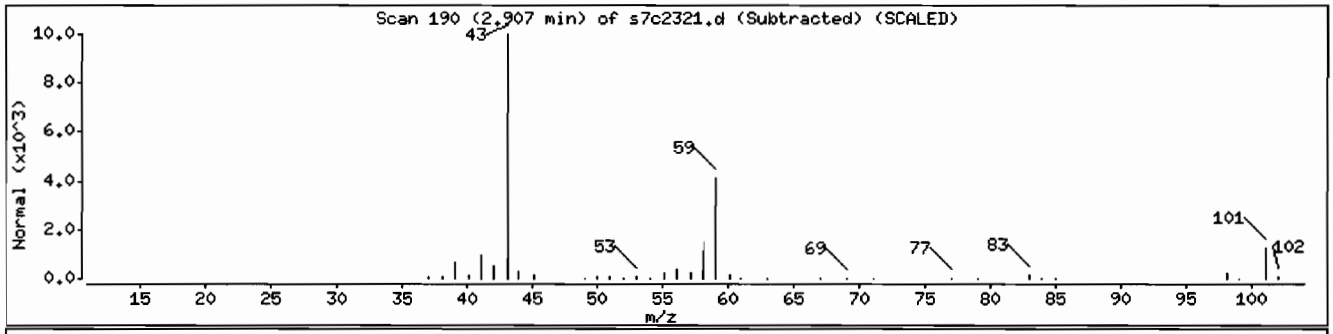

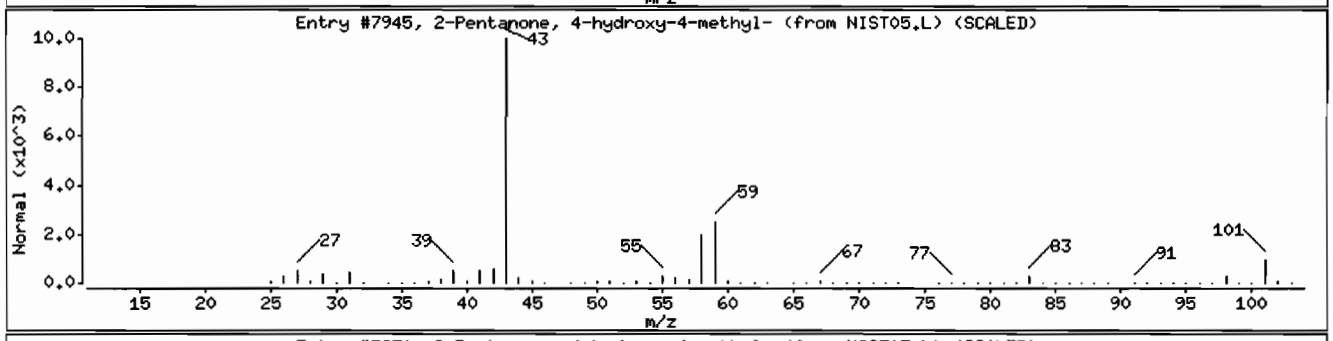

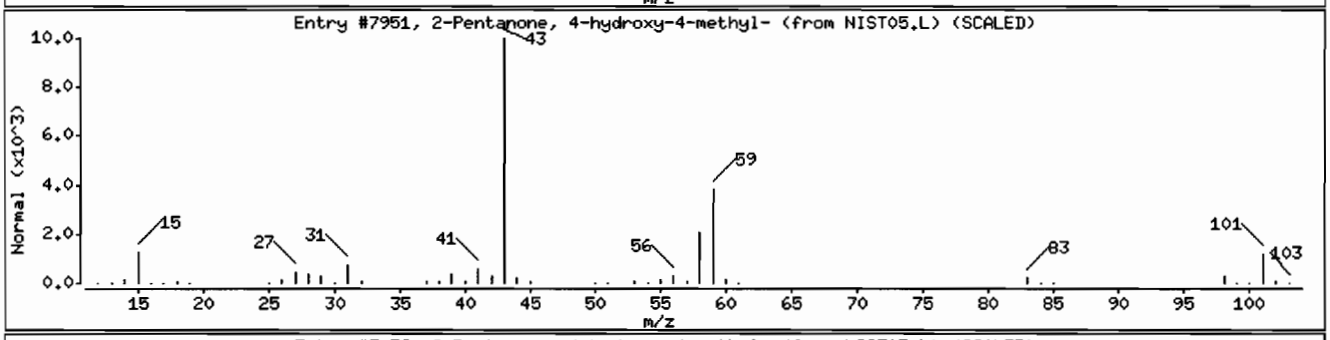

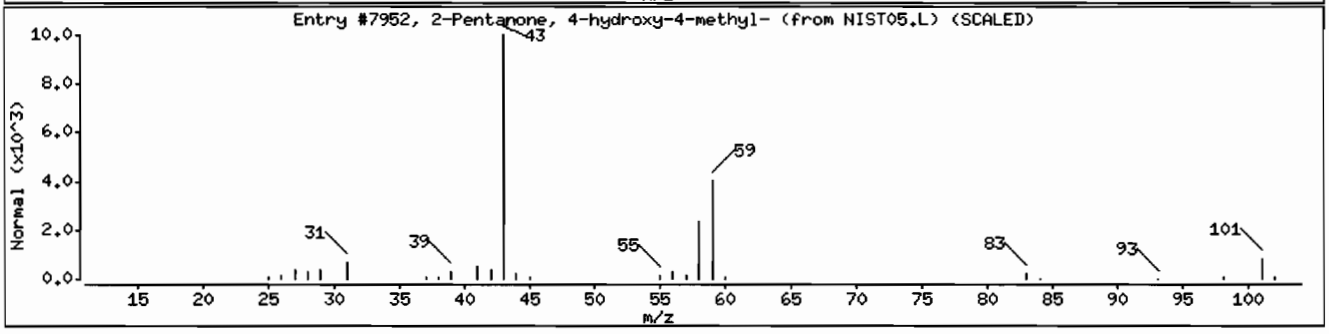

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248815008	Date Received:	03/05/2010 10:20	%Moisture:	8.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13865	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965816	Inst:	MSD7.1	Dilution:	1
Run Date:	03/23/2010 13:32	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	03/16/2010 21:37	Aliquot:	30.13 g	Final Volume:	1 mL
Data File:	s7c2310.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	363	ug/kg	72.5	363
108-95-2	Phenol	U	363	ug/kg	72.5	363
95-57-8	2-Chlorophenol	U	363	ug/kg	72.5	363
106-46-7	1,4-Dichlorobenzene	U	363	ug/kg	72.5	363
621-64-7	N-Nitrosodipropylamine	U	363	ug/kg	72.5	363
59-50-7	4-Chloro-3-methylphenol	U	363	ug/kg	72.5	363
83-32-9	Acenaphthene	U	36.3	ug/kg	12.0	36.3
121-14-2	2,4-Dinitrotoluene	U	363	ug/kg	36.3	363
100-02-7	4-Nitrophenol	U	363	ug/kg	120	363
87-86-5	Pentachlorophenol	U	363	ug/kg	90.6	363
129-00-0	Pyrene		38.7	ug/kg	10.9	36.3
110-86-1	Pyridine	U	363	ug/kg	72.5	363
62-53-3	Aniline	U	363	ug/kg	109	363
111-44-4	bis(2-Chloroethyl) ether	U	363	ug/kg	72.5	363
541-73-1	1,3-Dichlorobenzene	U	363	ug/kg	72.5	363
100-51-6	Benzyl alcohol	U	363	ug/kg	109	363
95-50-1	1,2-Dichlorobenzene	U	363	ug/kg	72.5	363
108-60-1	bis(2-Chloroisopropyl)ether	U	363	ug/kg	72.5	363
95-48-7	o-Cresol	U	363	ug/kg	72.5	363
65794-96-9	m,p-Cresols	U	363	ug/kg	109	363
67-72-1	Hexachloroethane	U	363	ug/kg	72.5	363
98-95-3	Nitrobenzene	U	363	ug/kg	72.5	363
78-59-1	Isophorone	U	363	ug/kg	72.5	363
88-75-5	2-Nitrophenol	U	363	ug/kg	72.5	363
105-67-9	2,4-Dimethylphenol	U	363	ug/kg	127	363
111-91-1	bis(2-Chloroethoxy)methane	U	363	ug/kg	72.5	363
120-83-2	2,4-Dichlorophenol	U	363	ug/kg	72.5	363
65-85-0	Benzoic acid	U	725	ug/kg	181	725
91-20-3	Naphthalene	U	36.3	ug/kg	10.9	36.3
106-47-8	4-Chloroaniline	U	363	ug/kg	72.5	363
87-68-3	Hexachlorobutadiene	U	363	ug/kg	72.5	363
91-57-6	2-Methylnaphthalene	U	36.3	ug/kg	7.25	36.3
77-47-4	Hexachlorocyclopentadiene	U	363	ug/kg	72.5	363
88-06-2	2,4,6-Trichlorophenol	U	363	ug/kg	72.5	363
95-95-4	2,4,5-Trichlorophenol	U	363	ug/kg	72.5	363
91-58-7	2-Chloronaphthalene	U	36.3	ug/kg	12.0	36.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	363	ug/kg	72.5	363
99-09-2	3-Nitroaniline	U	363	ug/kg	72.5	363

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13865**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:32**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2310.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	363	ug/kg	72.5	363
606-20-2	2,6-Dinitrotoluene	U	363	ug/kg	36.3	363
208-96-8	Acenaphthylene	U	36.3	ug/kg	10.9	36.3
51-28-5	2,4-Dinitrophenol	U	725	ug/kg	138	725
132-64-9	Dibenzofuran	U	363	ug/kg	72.5	363
84-66-2	Diethylphthalate	U	363	ug/kg	72.5	363
86-73-7	Fluorene	U	36.3	ug/kg	10.9	36.3
7005-72-3	4-Chlorophenylphenylether	U	363	ug/kg	72.5	363
534-52-1	2-Methyl-4,6-dinitrophenol	U	363	ug/kg	72.5	363
100-01-6	4-Nitroaniline	U	363	ug/kg	109	363
	p-Nitroaniline					
122-39-4	Diphenylamine	U	363	ug/kg	72.5	363
122-66-7	Azobenzene	U	363	ug/kg	72.5	363
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	363	ug/kg	72.5	363
118-74-1	Hexachlorobenzene	U	363	ug/kg	72.5	363
85-01-8	Phenanthrene	J	27.8	ug/kg	10.9	36.3
120-12-7	Anthracene	U	36.3	ug/kg	7.25	36.3
84-74-2	Di-n-butylphthalate	U	363	ug/kg	72.5	363
206-44-0	Fluoranthene		41.3	ug/kg	10.9	36.3
85-68-7	Butylbenzylphthalate	U	363	ug/kg	72.5	363
56-55-3	Benzo(a)anthracene	J	20.4	ug/kg	10.9	36.3
91-94-1	3,3'-Dichlorobenzidine	U	363	ug/kg	109	363
218-01-9	Chrysene	J	19.7	ug/kg	10.9	36.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	363	ug/kg	72.5	363
117-84-0	Di-n-octylphthalate	U	363	ug/kg	72.5	363
205-99-2	Benzo(b)fluoranthene	J	27.0	ug/kg	10.9	36.3
207-08-9	Benzo(k)fluoranthene	U	36.3	ug/kg	10.9	36.3
50-32-8	Benzo(a)pyrene	J	15.5	ug/kg	10.9	36.3
193-39-5	Indeno(1,2,3-cd)pyrene	J	14.0	ug/kg	10.9	36.3
53-70-3	Dibenzo(a,h)anthracene	U	36.3	ug/kg	10.9	36.3
191-24-2	Benzo(ghi)perylene	J	16.9	ug/kg	10.9	36.3
120-82-1	1,2,4-Trichlorobenzene	U	363	ug/kg	72.5	363

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	423	ug/kg		J

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Data file : /chem/MSD7.i/s032310.b/s7c2310.d
Lab Smp Id: 248815008 Client Smp ID: RE46-10-13865
Inj Date : 23-MAR-2010 13:32
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815008|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.13000	weight of sample
M	8.45250	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	219803	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	840274	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	490788	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	899515	40.0000	
* 91 Chrysene-d12	240	9.542	9.552	(1.000)	649682	40.0000	
* 98 Perylene-d12	264	11.155	11.165	(1.000)	446646	40.0000	
$ 3 2-Fluorophenol	112	3.066	3.061	(0.792)	343079	60.0503	2180
$ 5 Phenol-d5	99	3.586	3.590	(0.927)	415111	57.9513	2100
$ 20 Nitrobenzene-d5	82	4.226	4.235	(0.893)	208971	32.9732	1200
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	445021	36.3839	1320
$ 60 2,4,6-Tribromophenol	329	6.576	6.576	(1.099)	108596	76.5405	2770
$ 81 p-Terphenyl-d14	244	8.516	8.521	(0.892)	503958	43.2984	1570

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	8.411	8.420	(0.881)	21930	1.06848	38.7
68 Phenanthrene	178	7.163	7.168	(1.003)	14137	0.76588	27.8(a)
76 Fluoranthene	202	8.199	8.203	(1.148)	22839	1.13797	41.2
89 Benzo(a)anthracene	228	9.528	9.537	(0.998)	8775	0.56341	20.4(a)
92 Chrysene	228	9.561	9.571	(1.002)	7549	0.54469	19.7(a)
95 Benzo(b)fluoranthene	252	10.659	10.669	(0.956)	9313	0.74350	27.0(a)
97 Benzo(a)pyrene	252	11.078	11.092	(0.993)	4394	0.42782	15.5(a)
99 Indeno(1,2,3-cd)pyrene	276	12.826	12.850	(1.150)	2845	0.38521	14.0(a)
101 Benzo(ghi)perylene	276	13.332	13.365	(1.195)	2877	0.46710	16.9(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s7c2310.d
Report Date: 03/23/2010 14:19
Lab. ID: 248815008 SampleType: SAMPLE
Injection Date: 23-MAR-2010 13:32
Operator: JMB3 Instrument: MSD7.i
Sample Info: |248815008|965816|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2298
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	28239	3.59	3.66	80-120	100	(T)
93	257	3.55	3.66	229-289	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	32154	4.23	4.12	80-120	100	(T)
42	27461	4.23	4.12	74-134	85	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	89048	5.98	5.75	80-120	100	(T)
164	490788	5.98	5.75	0- 40	551	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	63570	5.98	5.81	80-120	100	(T)
63	676	5.98	5.81	66-126	1	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	63570	5.98	6.10	80-120	100	(T)
89	1079	5.98	6.10	43-103	2	(QT)
63	676	5.98	6.10	22- 82	1	(QT)
53 Fluorene		CAS#: 86-73-7				
166	6276	6.57	6.39	80-120	100	(T)
165	6263	6.57	6.39	61-121	100	(T)
167	1940	6.57	6.39	0- 44	31	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	371	6.58	6.41	80-120	100	(T)
105	878	6.57	6.41	14- 74	236	(QT)
51	1195	6.57	6.41	41-101	322	(QT)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	7596	6.58	6.75	80-120	100	(T)
141	62883	6.57	6.75	61-121	828	(QT)
250	15745	6.58	6.75	69-129	207	(QT)
68 Phenanthrene				CAS#: 85-01-8		
178	14137	7.16	7.17	80-120	100	( )
179	2709	7.16	7.17	0- 46	19	( )
176	2512	7.16	7.17	0- 49	18	( )
69 Anthracene				CAS#: 120-12-7		
178	14137	7.16	7.21	80-120	100	( )
179	2709	7.16	7.21	0- 46	19	( )
176	2512	7.16	7.21	0- 48	18	( )
76 Fluoranthene				CAS#: 206-44-0		
202	22839	8.20	8.20	80-120	100	( )
203	3591	8.20	8.20	0- 47	16	( )
101	1851	8.20	8.20	0- 39	8	( )
79 Pyrene				CAS#: 129-00-0		
202	21930	8.41	8.42	80-120	100	( )
200	4190	8.41	8.42	0- 50	19	( )
101	2428	8.41	8.42	0- 41	11	( )
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	8775	9.53	9.54	80-120	100	( )
226	2127	9.53	9.54	0- 56	24	( )
229	2289	9.53	9.54	0- 49	26	( )
92 Chrysene				CAS#: 218-01-9		
228	7549	9.56	9.57	80-120	100	( )
229	1669	9.56	9.57	0- 49	22	( )
226	2004	9.56	9.57	0- 58	27	( )
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	9313	10.66	10.67	80-120	100	( )
253	1666	10.66	10.67	0- 52	18	( )
125	517	10.65	10.67	0- 40	6	( )
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	9313	10.66	10.70	80-120	100	( )
253	1666	10.66	10.70	0- 52	18	( )
125	517	10.65	10.70	0- 40	6	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	4394	11.08	11.09	80-120	100	( )
253	1124	11.07	11.09	0- 52	26	( )
125	503	11.08	11.09	0- 40	11	( )
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	2845	12.83	12.85	80-120	100	( )
138	325	12.84	12.85	0- 59	11	( )
101 Benzo(ghi)perylene			CAS#: 191-24-2			
276	2877	13.33	13.37	80-120	100	( )
138	255	13.34	13.37	0- 55	9	( )

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD7.i/s032310.b/s7c2310.d
Lab Smp Id: 248815008 Client Smp ID: RE46-10-13865
Inj Date : 23-MAR-2010 13:32
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815008|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.13000	weight of sample
M	8.45250	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.870	1469179	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.902	428405	11.6637778	423	0		0	10

Data File: /chem/MSD7.i/s032310.b/s7c2310.d
Date : 23-MAR-2010 13:32
Client ID: RE46-10-13865
Sample Info: 1248815008196581611SVMI1LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

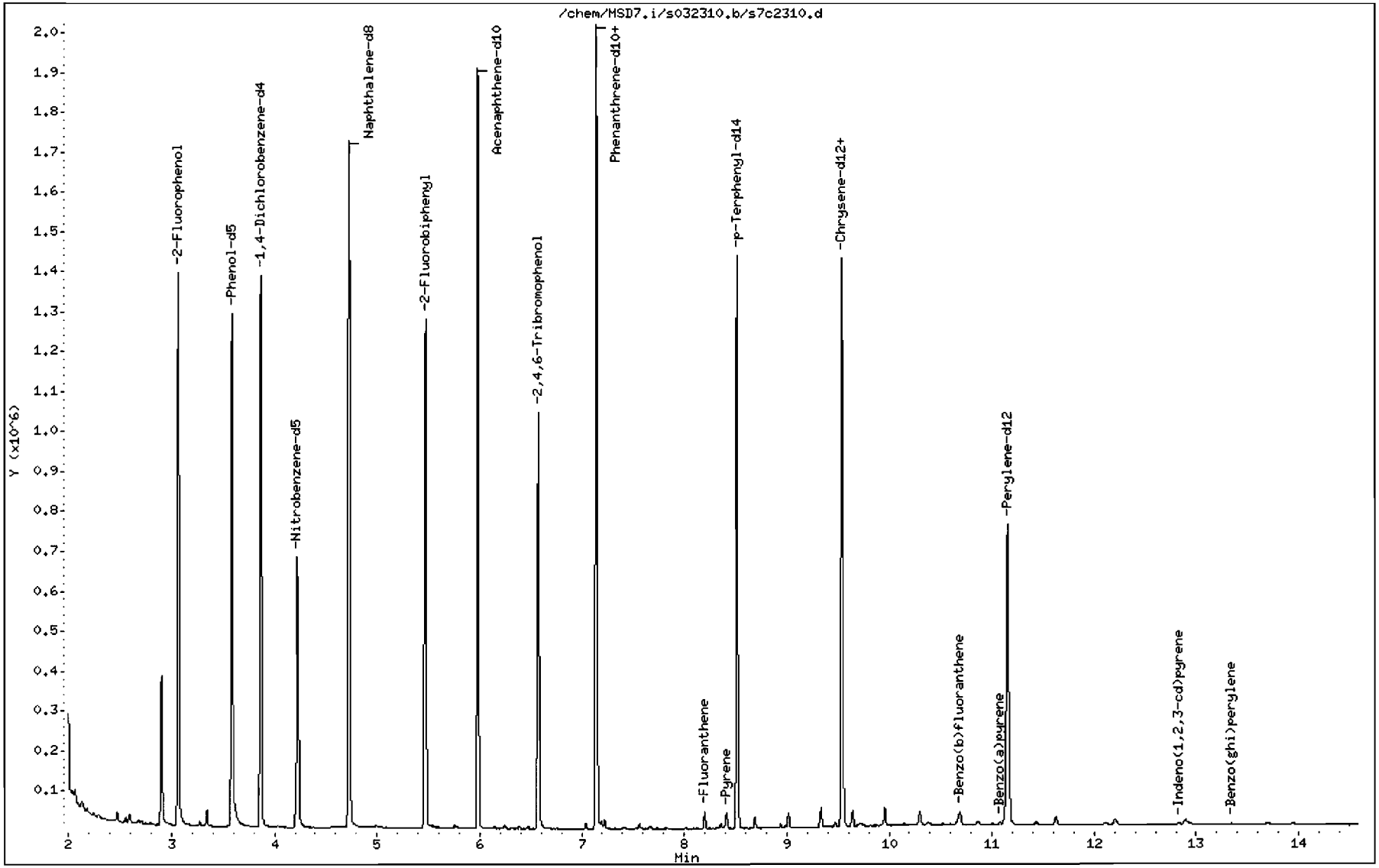

Data File: /chem/MSD7.i/s032310.b/s7c2310.d

Date : 23-MAR-2010 13:32

Client ID: RE46-10-13865

Instrument: MSD7.i

Sample Info: 1248815008|965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 38.7 ug/Kg

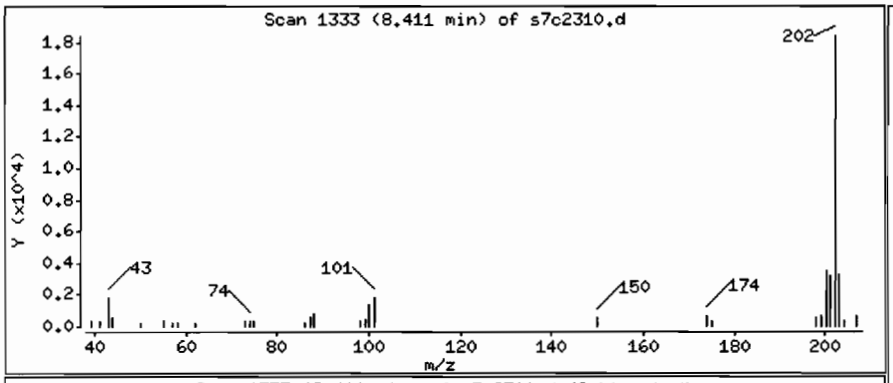

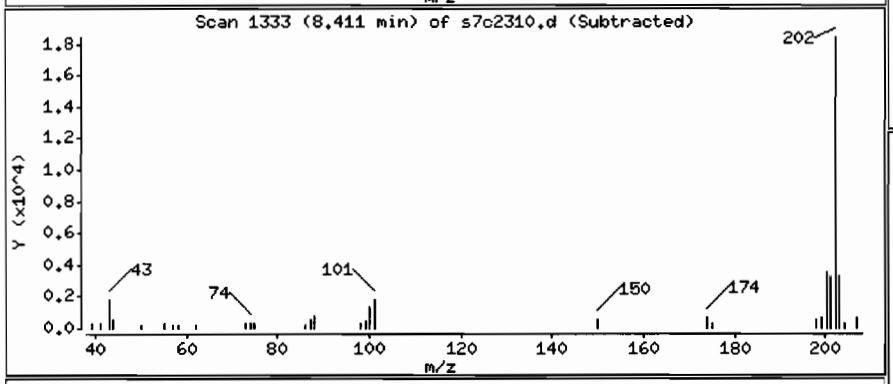

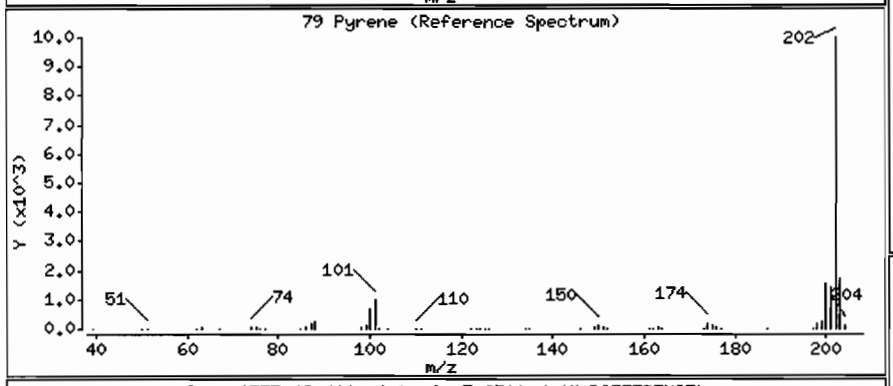

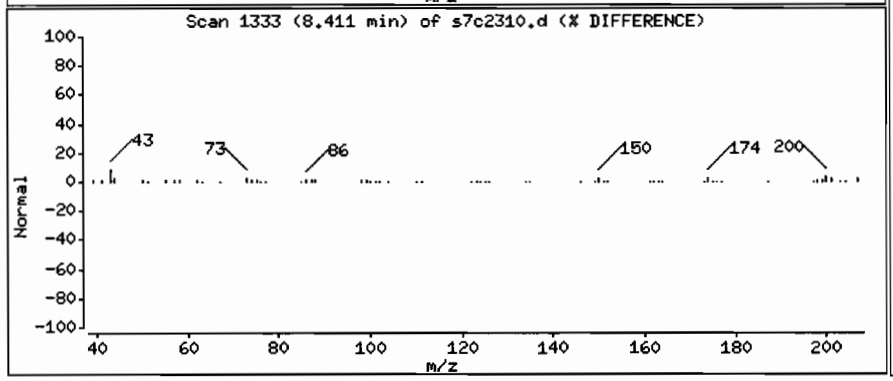

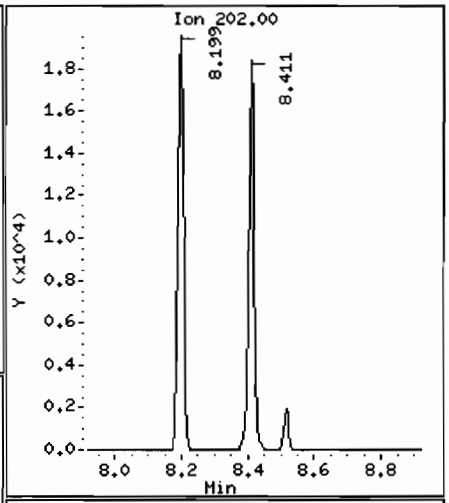

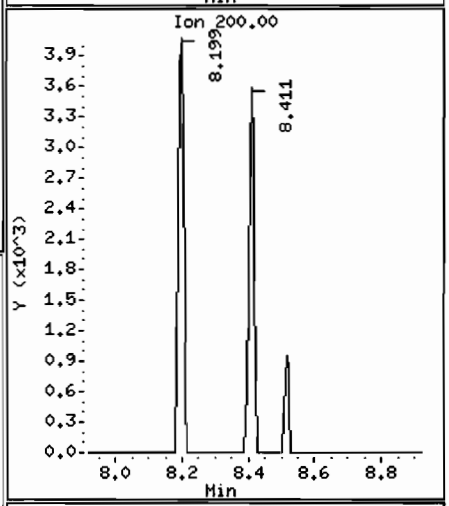

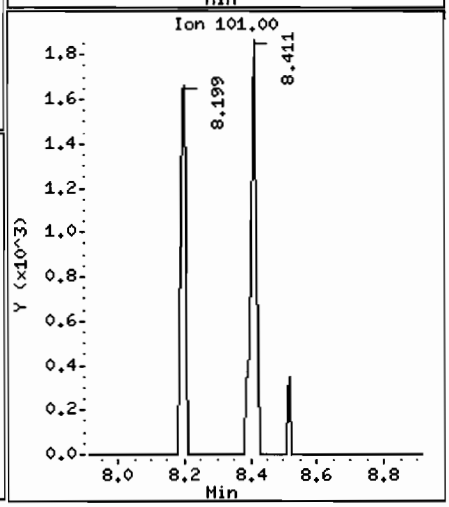

Data File: /chem/MSD7.i/s032310.b/s7c2310.d

Date : 23-MAR-2010 13:32

Client ID: RE46-10-13865

Instrument: MSD7.i

Sample Info: |2488150081965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 27.8 ug/Kg

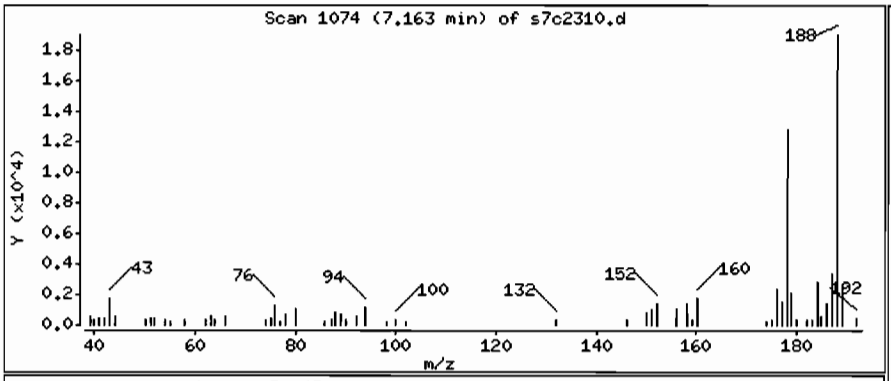

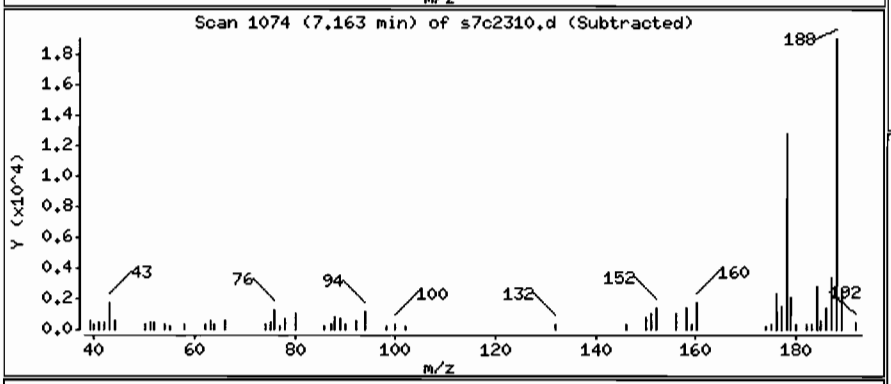

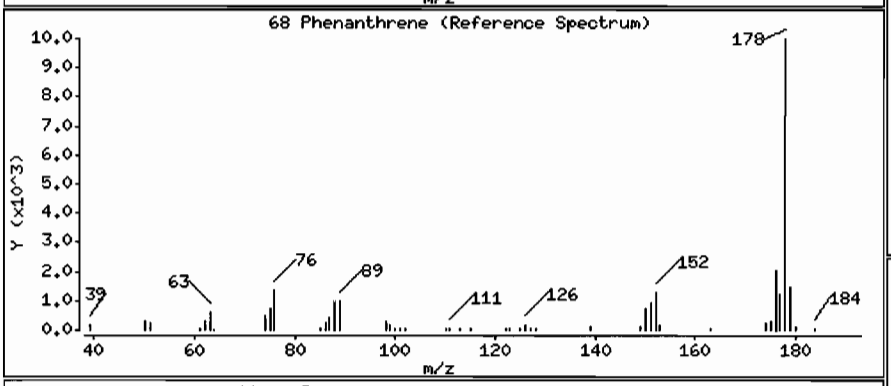

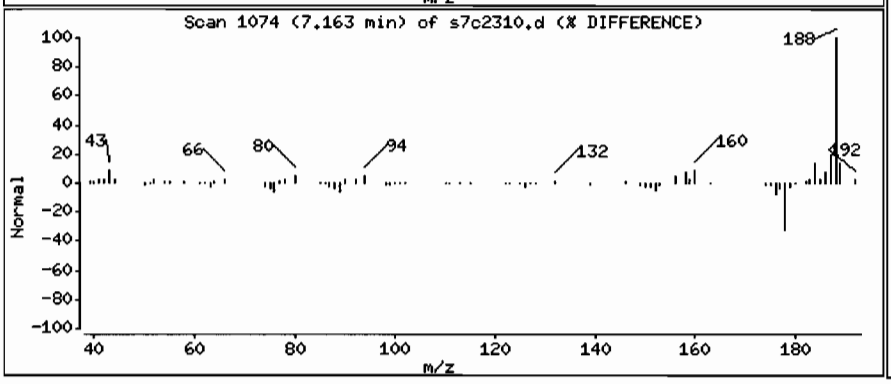

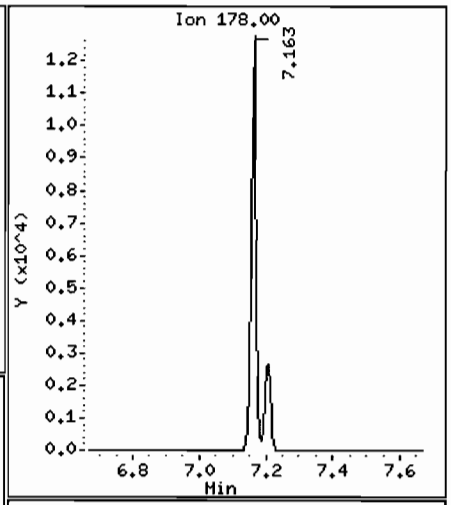

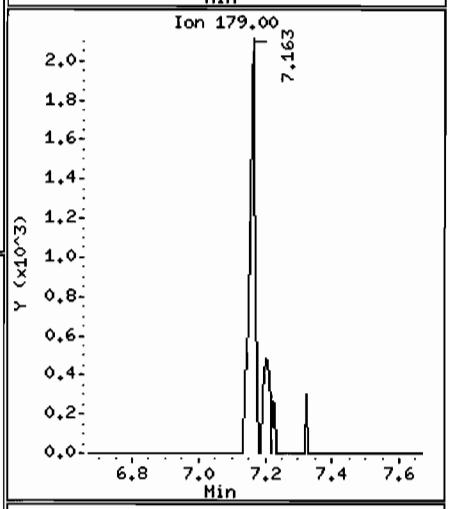

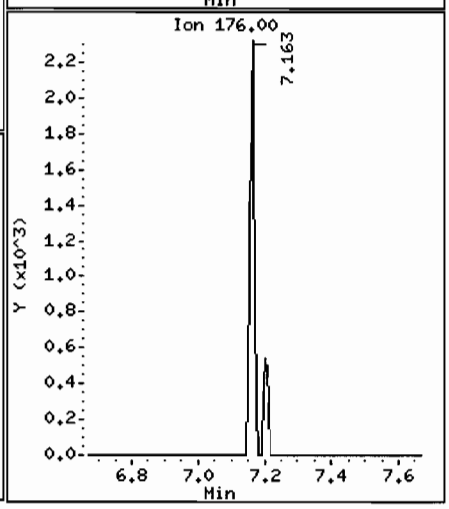

Data File: /chem/MSD7.i/s032310.b/s7c2310.d

Date : 23-MAR-2010 13:32

Client ID: RE46-10-13865

Instrument: MSD7.i

Sample Info: |2488150081965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 41.2 ug/Kg

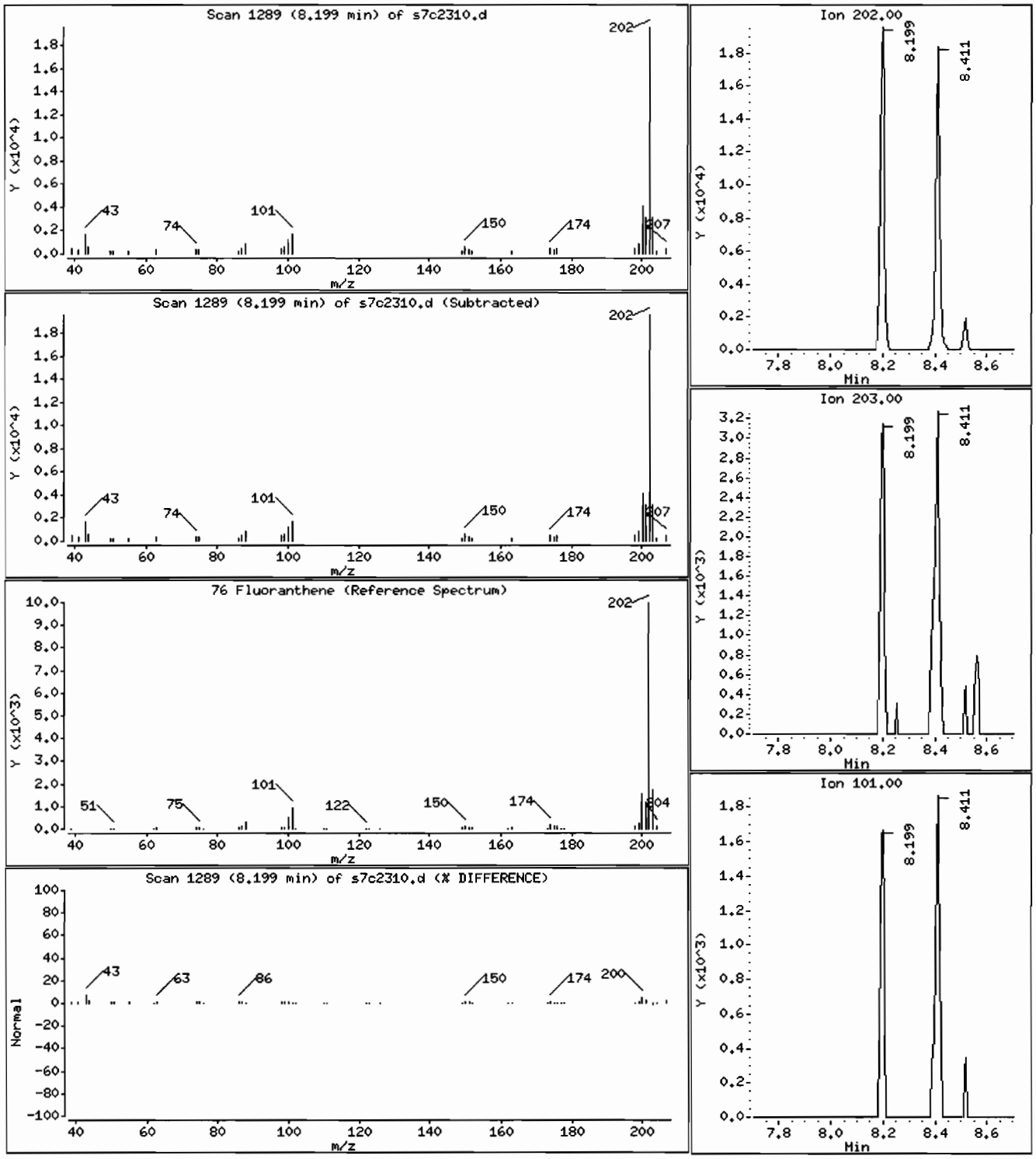

Data File: /chem/MSD7.i/s032310.b/s7c2310.d

Date : 23-MAR-2010 13:32

Client ID: RE46-10-13865 Instrument: MSD7.i

Sample Info: |2488150081965816|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

89 Benzo(a)anthracene Concentration: 20.4 ug/Kg

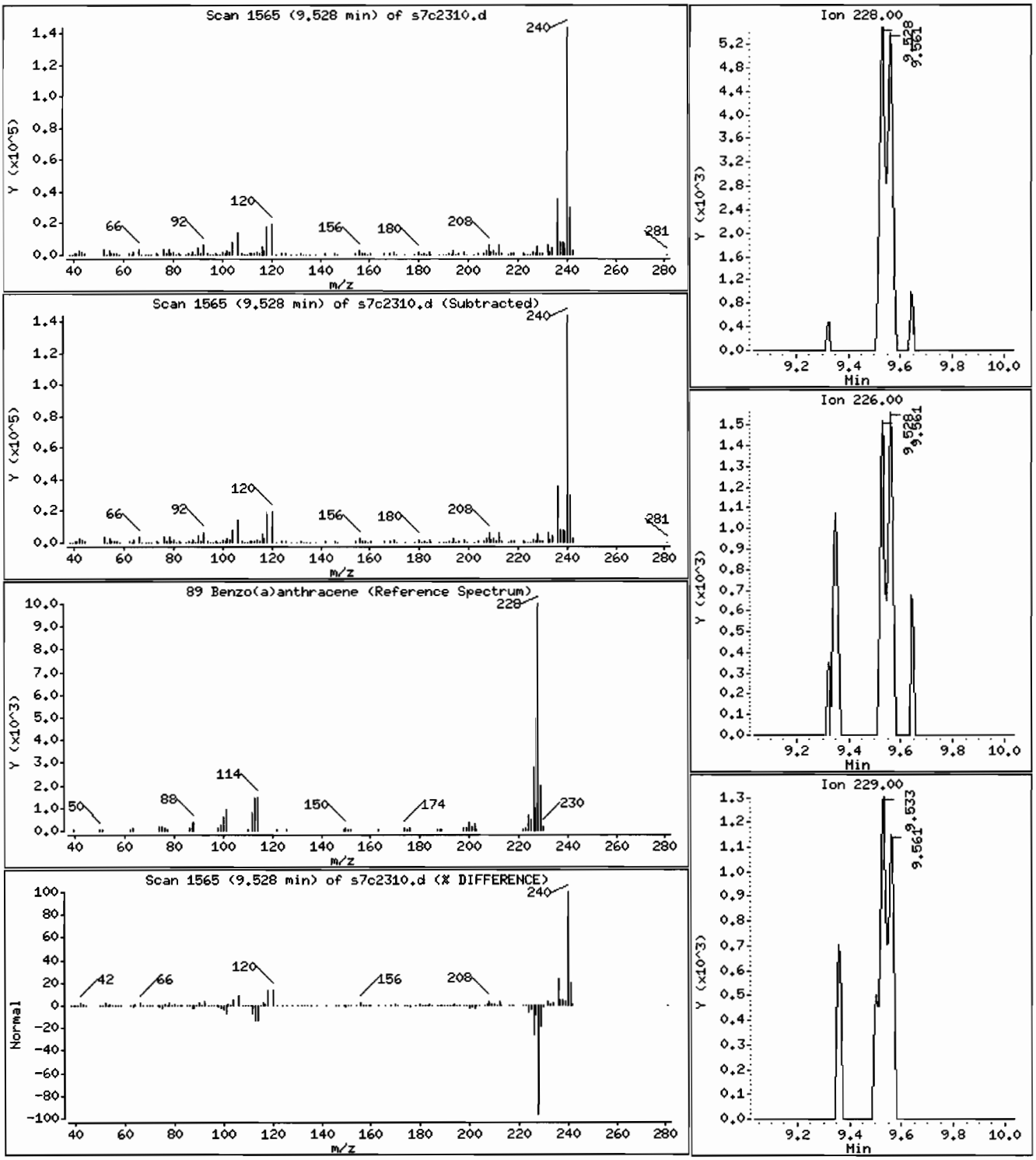

Data File: /chem/MSD7.i/s032310.b/s7c2310.d

Date : 23-MAR-2010 13:32

Client ID: RE46-10-13865

Instrument: MSD7.i

Sample Info: |248815008|965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 19.7 ug/Kg

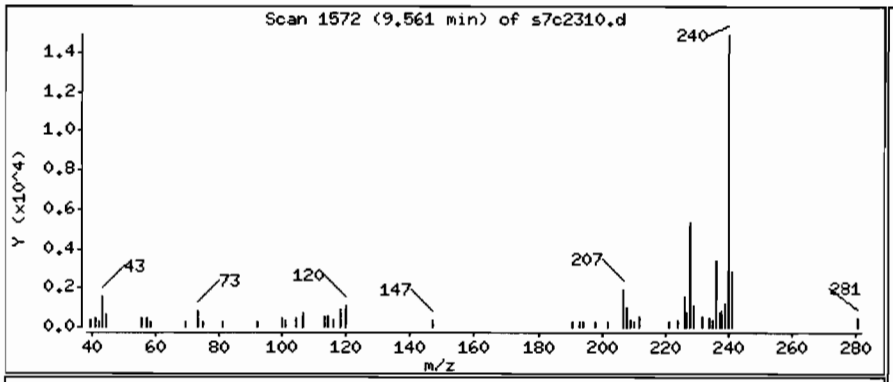

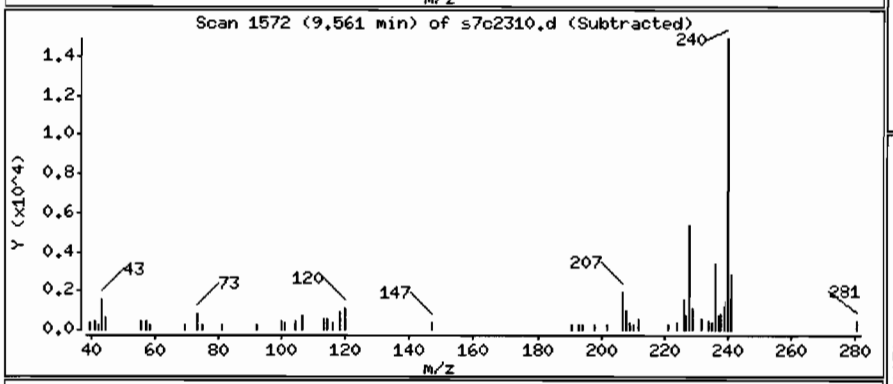

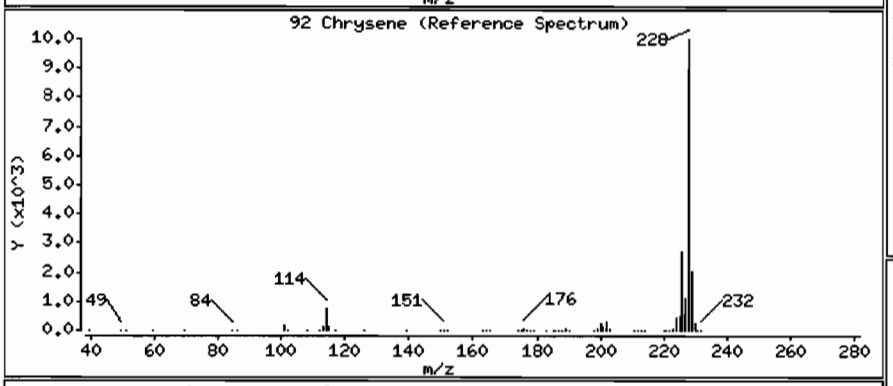

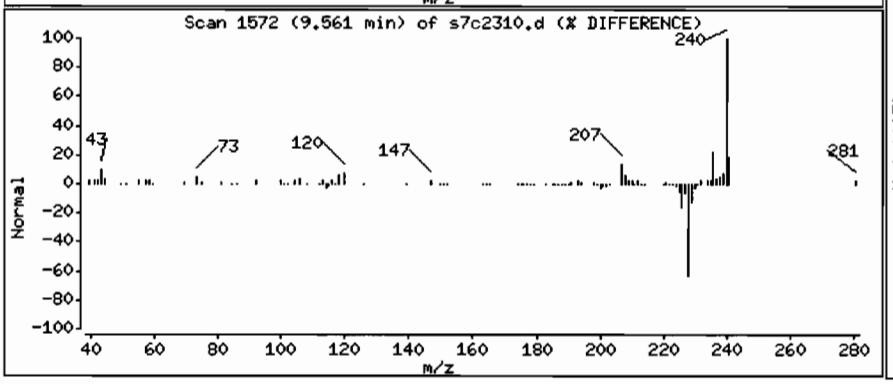

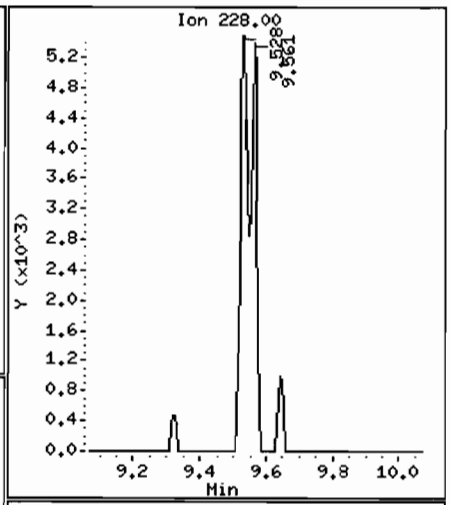

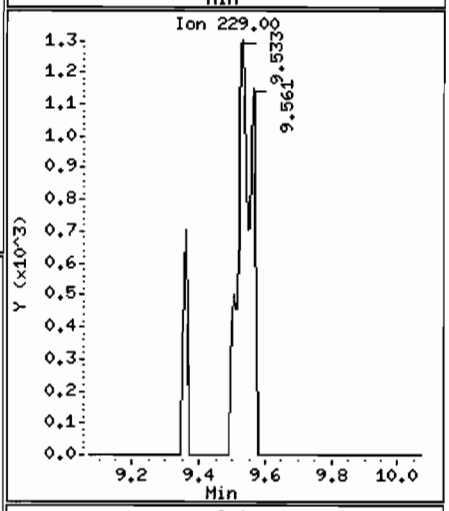

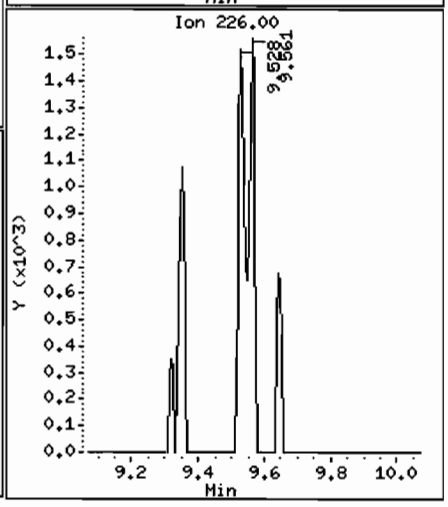

Data File: /chem/MSD7.i/s032310.b/s7c2310.d

Date : 23-MAR-2010 13:32

Client ID: RE46-10-13865 Instrument: MSD7.i

Sample Info: |2488150081965816|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

95 Benzo(b)fluoranthene Concentration: 27.0 ug/Kg

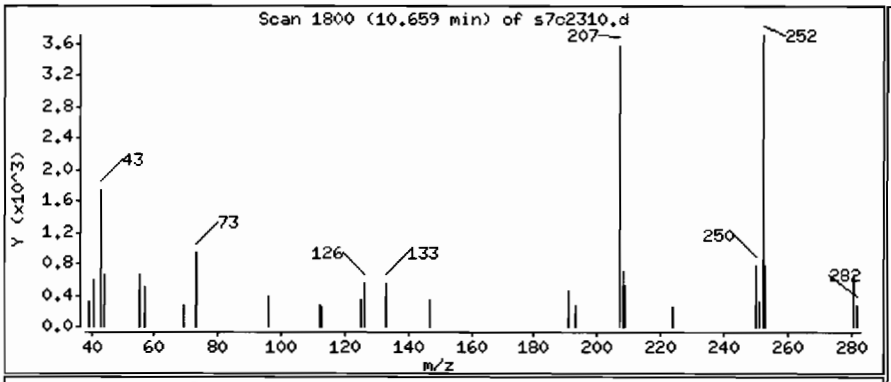

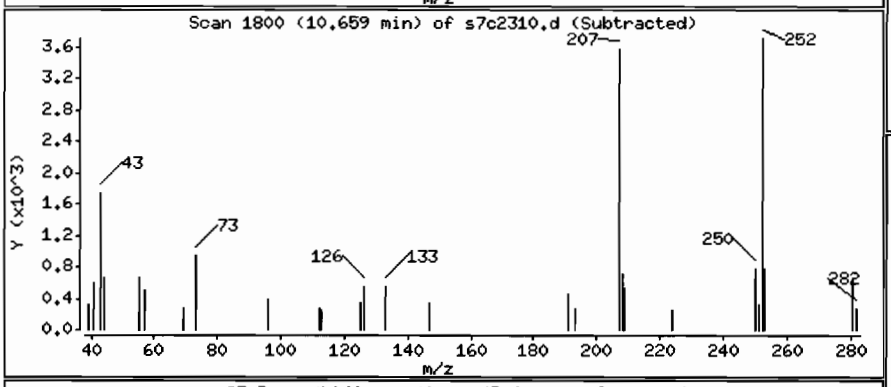

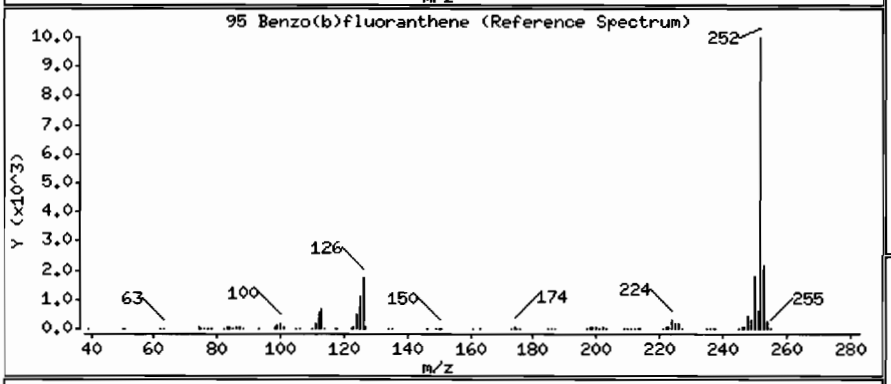

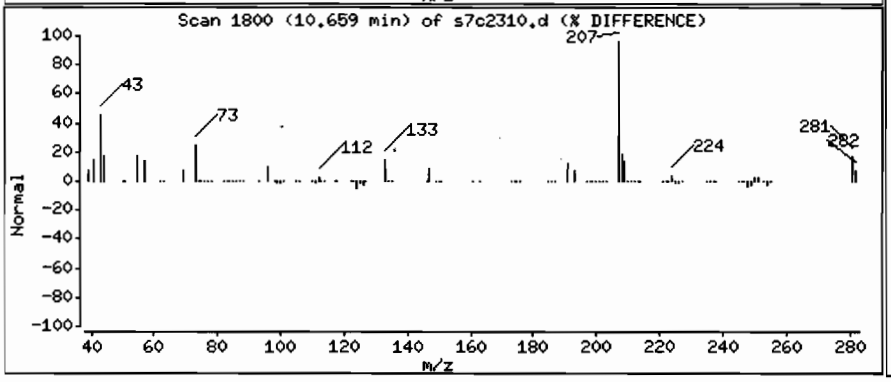

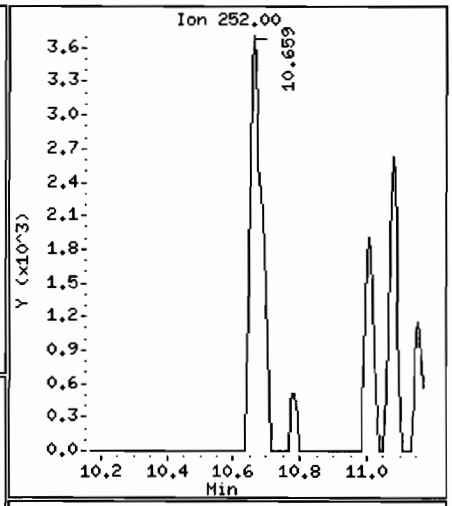

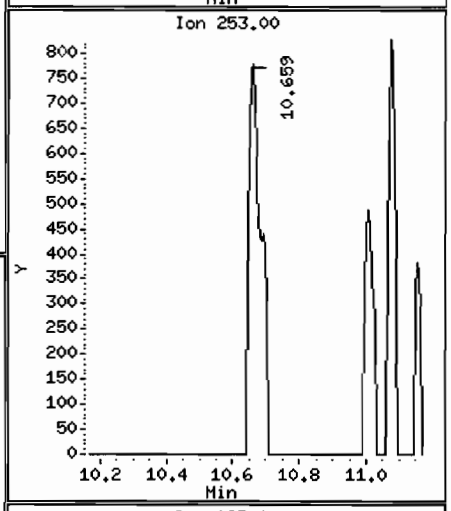

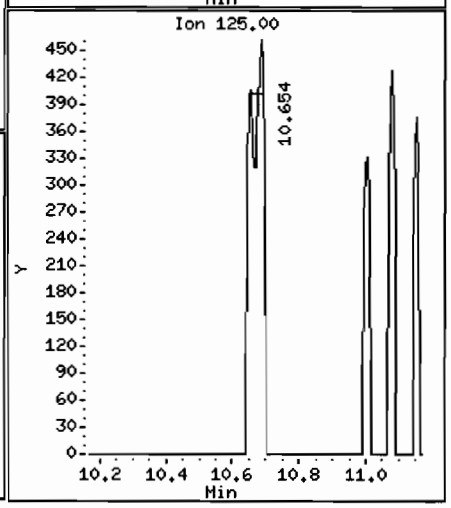

Data File: /chem/MSD7.i/s032310.b/s7c2310.d

Date : 23-MAR-2010 13:32

Client ID: RE46-10-13865

Instrument: MSD7.i

Sample Info: 1248815008196581611SVMI11LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 15.5 ug/Kg

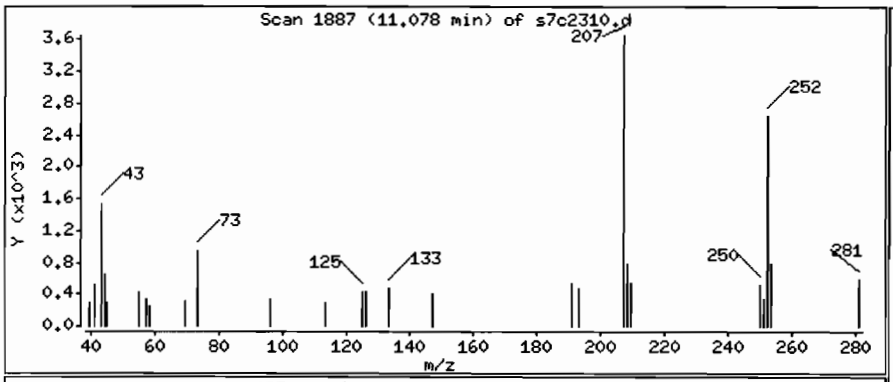

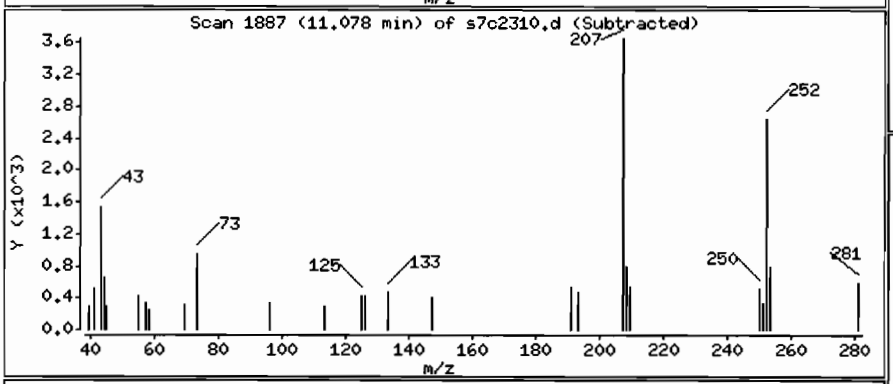

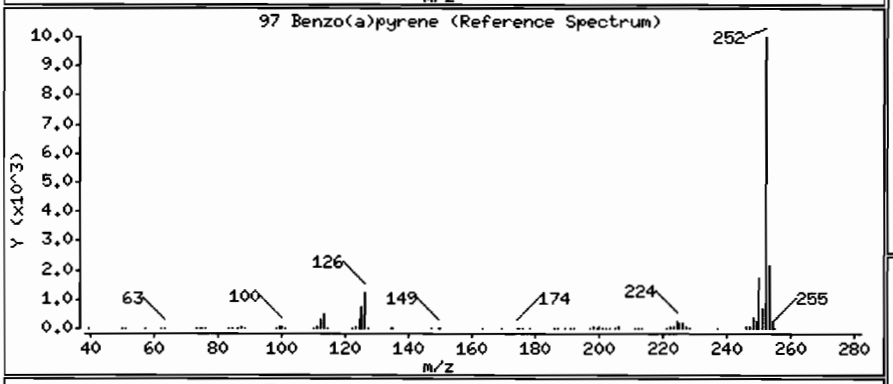

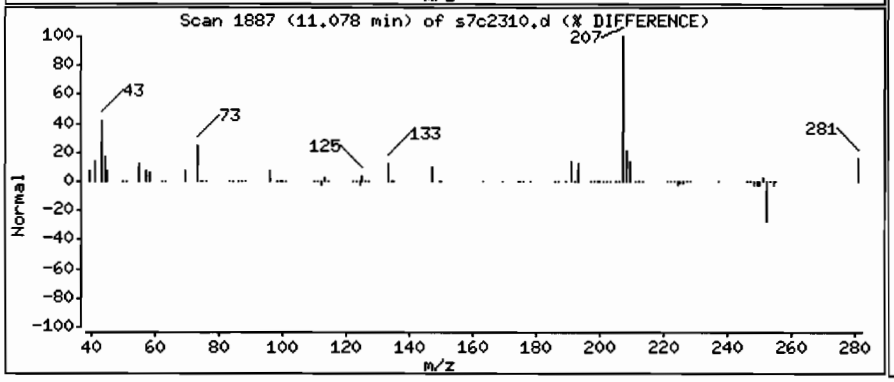

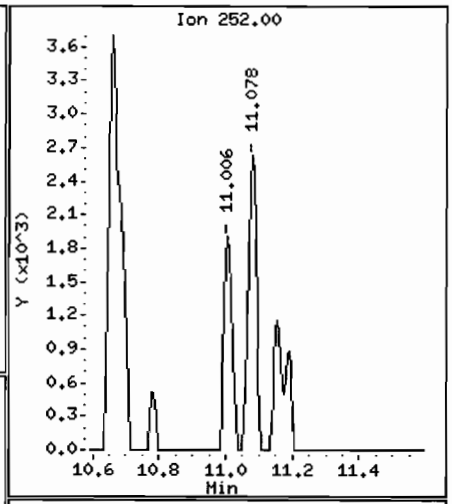

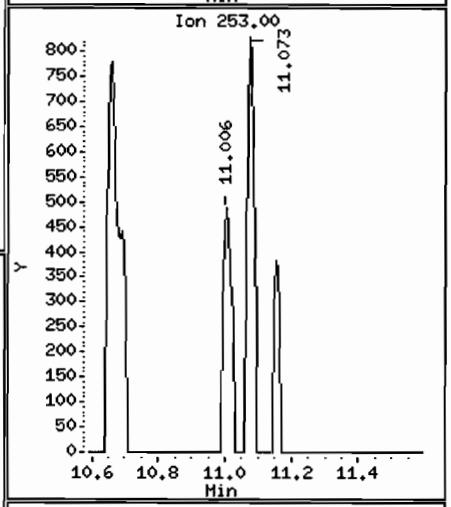

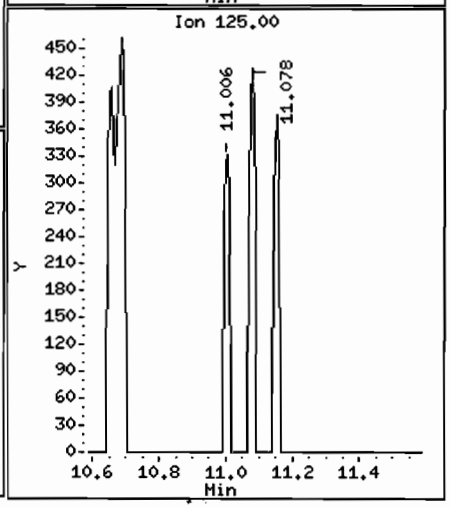

Data File: /chem/MSD7.i/s032310.b/s7c2310.d

Date : 23-MAR-2010 13:32

Client ID: RE46-10-13865 Instrument: MSD7.i

Sample Info: |2488150081965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene Concentration: 14.0 ug/Kg

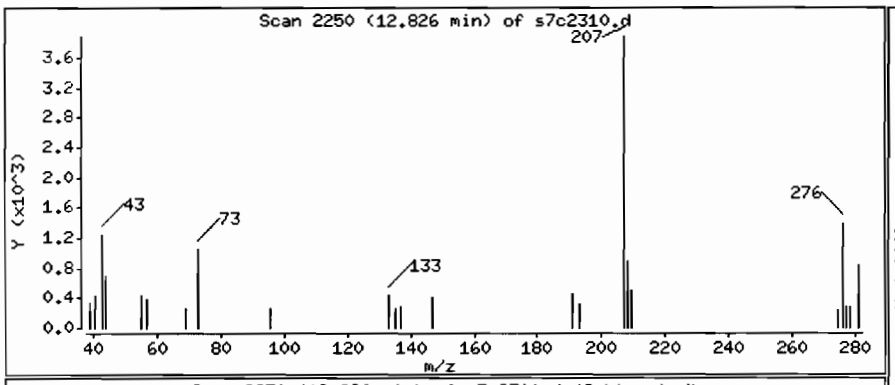

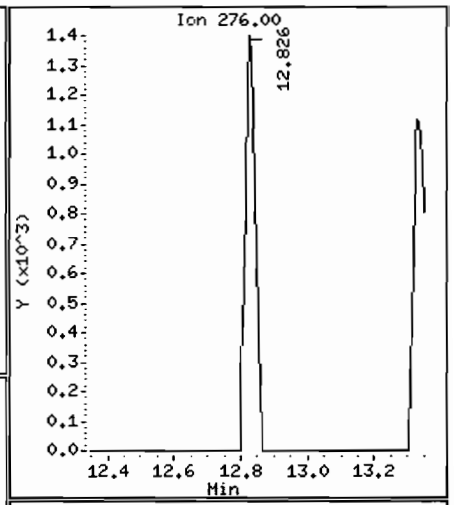

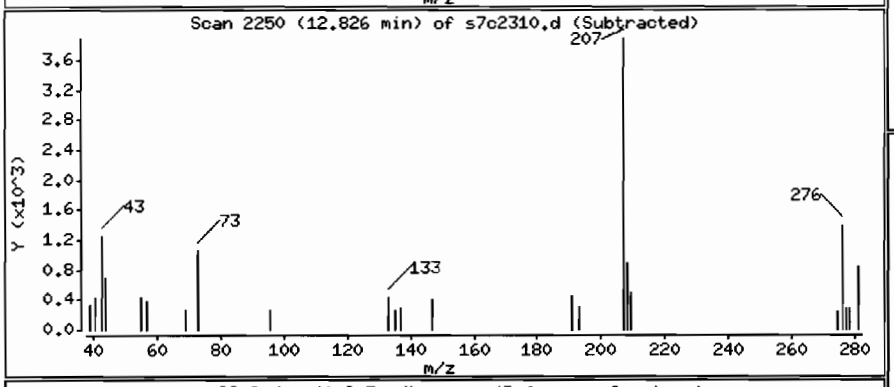

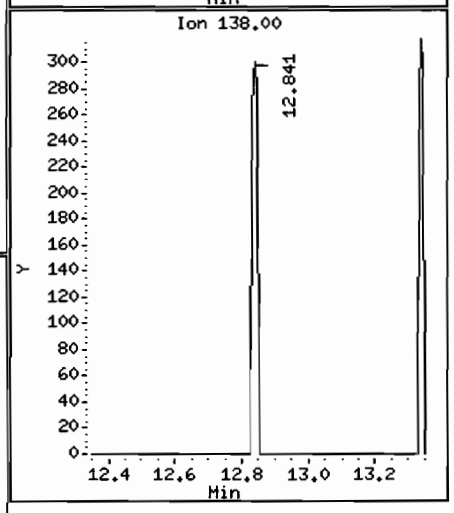

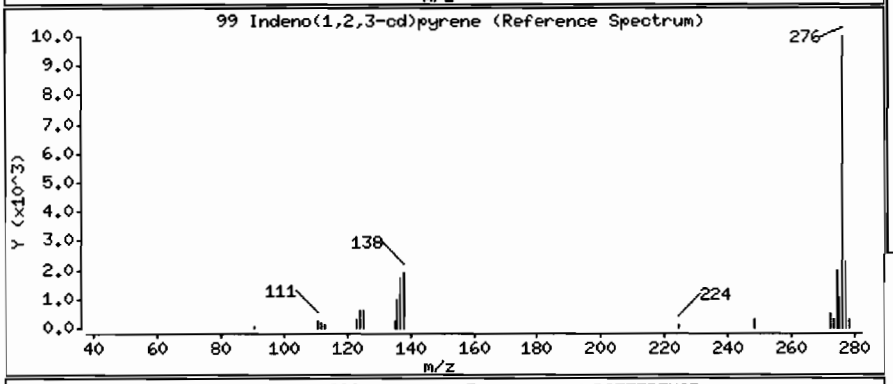

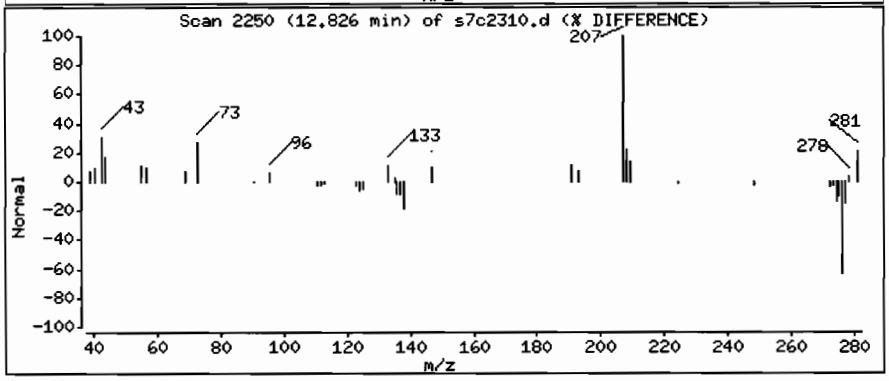

Data File: /chem/MSD7.i/s032310.b/s7c2310.d

Date : 23-MAR-2010 13:32

Client ID: RE46-10-13865

Instrument: MSD7.i

Sample Info: |2488150081965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 16.9 ug/Kg

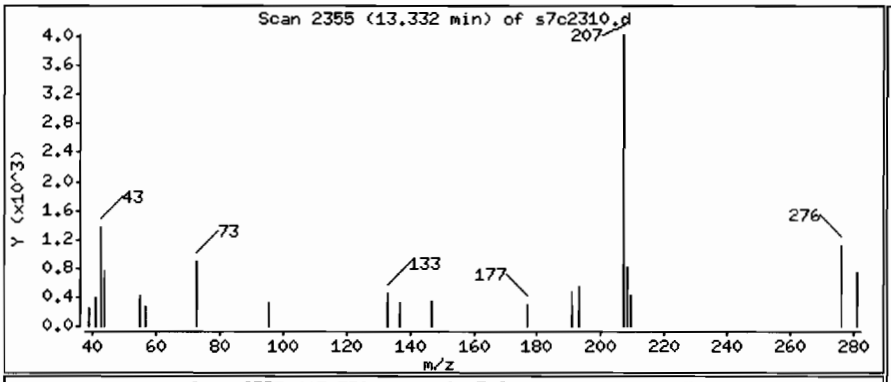

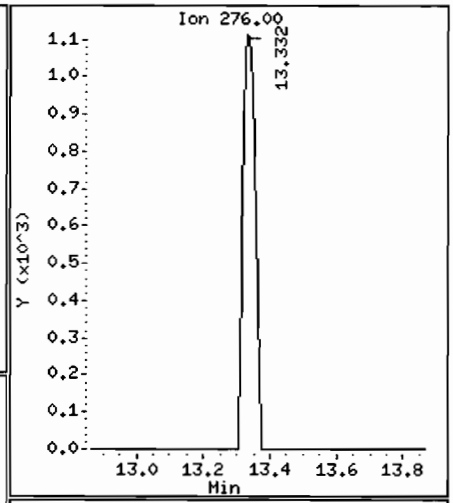

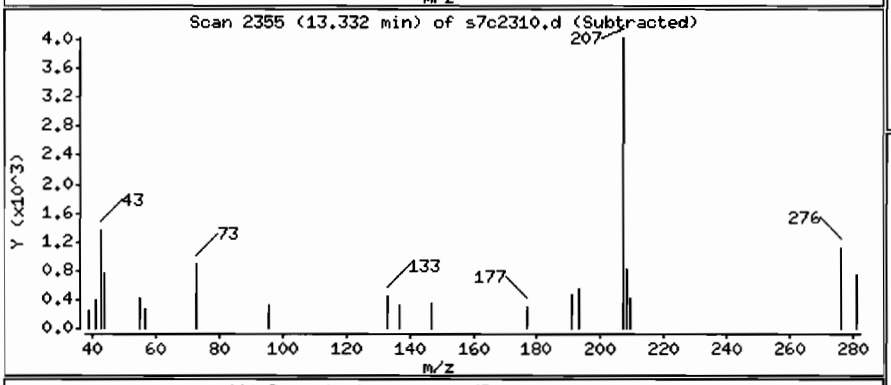

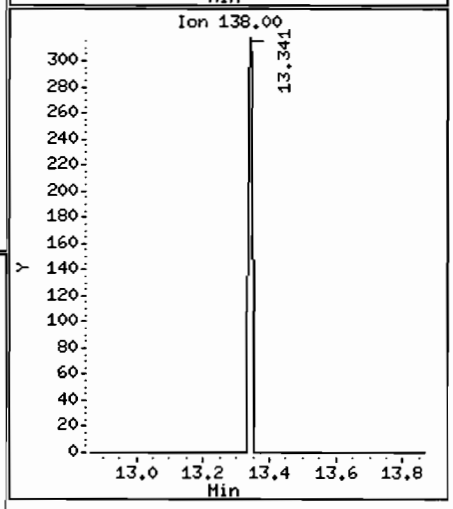

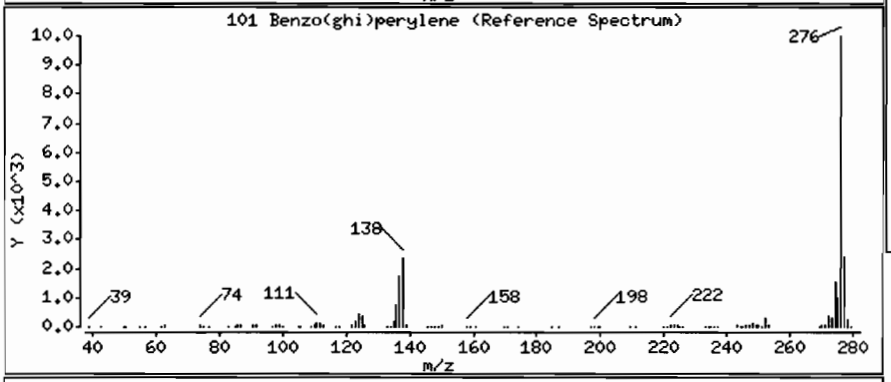

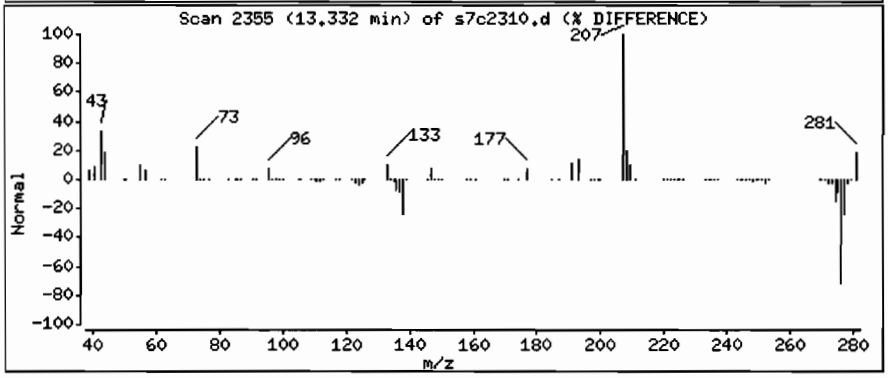

Data File: /chem/MSD7.i/s032310.b/s7c2310.d

Date : 23-MAR-2010 13:32

Client ID: RE46-10-13865

Instrument: MSD7.i

Sample Info: |2488150081965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116

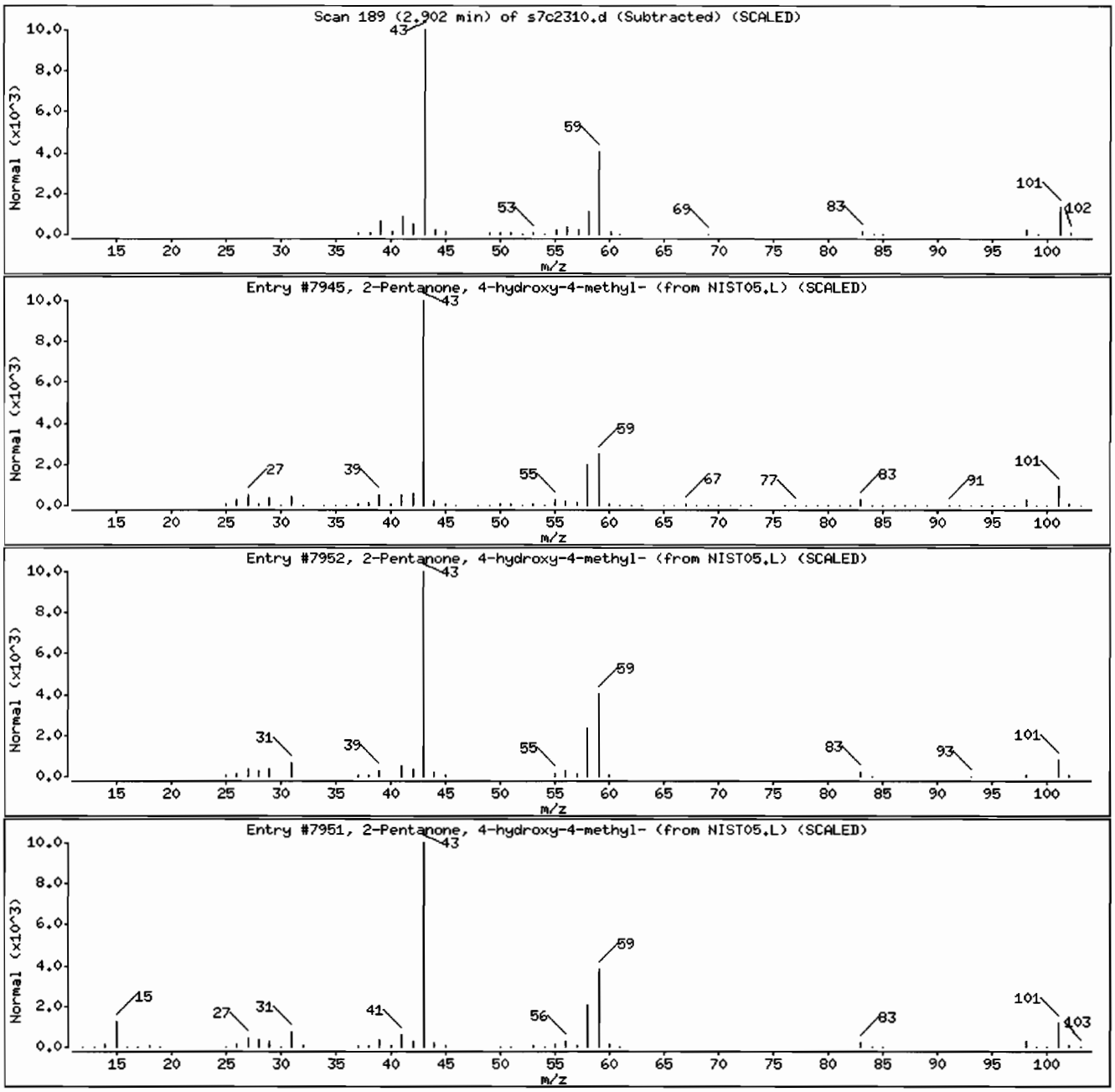

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248815006	Date Received:	03/05/2010 10:20	%Moisture:	7.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13866	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965816	Inst:	MSD7.I	Dilution:	1
Run Date:	03/23/2010 18:13	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	03/16/2010 21:37	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	s7c2323.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.6	358
108-95-2	Phenol	U	358	ug/kg	71.6	358
95-57-8	2-Chlorophenol	U	358	ug/kg	71.6	358
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.6	358
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.6	358
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.6	358
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358
87-86-5	Pentachlorophenol	U	358	ug/kg	89.5	358
129-00-0	Pyrene	J	31.8	ug/kg	10.7	35.8
110-86-1	Pyridine	U	358	ug/kg	71.6	358
62-53-3	Aniline	U	358	ug/kg	107	358
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.6	358
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.6	358
100-51-6	Benzyl alcohol	U	358	ug/kg	107	358
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.6	358
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.6	358
95-48-7	o-Cresol	U	358	ug/kg	71.6	358
65794-96-9	m,p-Cresols	U	358	ug/kg	107	358
67-72-1	Hexachloroethane	U	358	ug/kg	71.6	358
98-95-3	Nitrobenzene	U	358	ug/kg	71.6	358
78-59-1	Isophorone	U	358	ug/kg	71.6	358
88-75-5	2-Nitrophenol	U	358	ug/kg	71.6	358
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.6	358
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.6	358
65-85-0	Benzoic acid	U	716	ug/kg	179	716
91-20-3	Naphthalene	U	35.8	ug/kg	10.7	35.8
106-47-8	4-Chloroaniline	U	358	ug/kg	71.6	358
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.6	358
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.16	35.8
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.6	358
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.6	358
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.6	358
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8
88-74-4	2-Nitroaniline	U	358	ug/kg	71.6	358
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	358	ug/kg	71.6	358

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248815006	Date Received:	03/05/2010 10:20	%Moisture:	7.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13866	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965816	Inst:	MSD7.I	Dilution:	1
Run Date:	03/23/2010 18:13	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	03/16/2010 21:37	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	s7c2323.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	358	ug/kg	71.6	358
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.7	35.8
51-28-5	2,4-Dinitrophenol	U	716	ug/kg	136	716
132-64-9	Dibenzofuran	U	358	ug/kg	71.6	358
84-66-2	Diethylphthalate	U	358	ug/kg	71.6	358
86-73-7	Fluorene	U	35.8	ug/kg	10.7	35.8
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.6	358
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.6	358
100-01-6	4-Nitroaniline	U	358	ug/kg	107	358
	p-Nitroaniline					
122-39-4	Diphenylamine	U	358	ug/kg	71.6	358
122-66-7	Azobenzene	U	358	ug/kg	71.6	358
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.6	358
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.6	358
85-01-8	Phenanthrene	J	25.4	ug/kg	10.7	35.8
120-12-7	Anthracene	U	35.8	ug/kg	7.16	35.8
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.6	358
206-44-0	Fluoranthene	J	35.7	ug/kg	10.7	35.8
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.6	358
56-55-3	Benzo(a)anthracene	J	20.7	ug/kg	10.7	35.8
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	107	358
218-01-9	Chrysene	J	18.1	ug/kg	10.7	35.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.6	358
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.6	358
205-99-2	Benzo(b)fluoranthene	J	32.1	ug/kg	10.7	35.8
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.7	35.8
50-32-8	Benzo(a)pyrene	J	19.8	ug/kg	10.7	35.8
193-39-5	Indeno(1,2,3-cd)pyrene	J	16.4	ug/kg	10.7	35.8
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.7	35.8
191-24-2	Benzo(ghi)perylene	J	20.3	ug/kg	10.7	35.8
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.6	358

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	404	ug/kg		JA

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2323.d
Lab Smp Id: 248815006 Client Smp ID: RE46-10-13866
Inj Date : 23-MAR-2010 18:13
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815006|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 llo00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	7.08890	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	271822	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	1037245	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	613296	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	1150200	40.0000	
* 91 Chrysene-d12	240	9.542	9.552	(1.000)	851956	40.0000	
* 98 Perylene-d12	264	11.160	11.165	(1.000)	472456	40.0000	
$ 3 2-Fluorophenol	112	3.070	3.061	(0.793)	369248	52.2623	1870
$ 5 Phenol-d5	99	3.586	3.590	(0.927)	442086	49.9062	1790
$ 20 Nitrobenzene-d5	82	4.226	4.235	(0.893)	220434	28.1769	1010
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	491330	32.1460	1150
$ 60 2,4,6-Tribromophenol	329	6.576	6.576	(1.099)	119655	67.4889	2420
$ 81 p-Terphenyl-d14	244	8.521	8.521	(0.893)	553004	36.2317	1300

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	8.415	8.420	(0.882)	23919	0.88869	31.8(a)
68 Phenanthrene	178	7.163	7.168	(1.003)	16728	0.70873	25.4(a)
76 Fluoranthene	202	8.199	8.203	(1.148)	25575	0.99656	35.7(a)
89 Benzo(a)anthracene	228	9.533	9.537	(0.999)	11816	0.57854	20.7(a)
92 Chrysene	228	9.566	9.571	(1.003)	9183	0.50528	18.1(a)
95 Benzo(b)fluoranthene	252	10.664	10.669	(0.956)	11860	0.89512	32.1(a)
97 Benzo(a)pyrene	252	11.083	11.092	(0.993)	5991	0.55144	19.8(a)
99 Indeno(1,2,3-cd)pyrene	276	12.841	12.850	(1.151)	3571	0.45710	16.4(a)
101 Benzo(ghi)perylene	276	13.356	13.365	(1.197)	3686	0.56575	20.3(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s7c2323.d
Report Date: 03/23/2010 21:29
Lab. ID: 248815006 SampleType: SAMPLE
Injection Date: 23-MAR-2010 18:13
Operator: JMB3 Instrument: MSD7.i
Sample Info: |248815006|965816|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2298
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	34671	4.23	4.12	80-120	100	(T)
42	29548	4.23	4.11	74-134	85	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	109352	5.98	5.75	80-120	100	(T)
164	613296	5.98	5.75	0- 40	561	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	80633	5.98	5.81	80-120	100	(T)
63	1169	5.98	5.81	66-126	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	80633	5.98	6.10	80-120	100	(T)
89	1219	5.98	6.10	43-103	2	(QT)
63	1169	5.98	6.10	22- 82	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	6693	6.58	6.39	80-120	100	(T)
165	6910	6.58	6.39	61-121	103	(T)
167	2364	6.58	6.39	0- 44	35	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	373	6.58	6.41	80-120	100	(T)
105	1109	6.58	6.41	14- 74	297	(QT)
51	1206	6.57	6.41	41-101	323	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
68 Phenanthrene			CAS#: 85-01-8			
178	16728	7.16	7.17	80-120	100	( )
179	3252	7.16	7.17	0- 46	19	( )
176	3408	7.16	7.17	0- 49	20	( )
69 Anthracene			CAS#: 120-12-7			
178	16728	7.16	7.21	80-120	100	( )
179	3252	7.16	7.21	0- 46	19	( )
176	3408	7.16	7.21	0- 48	20	( )
76 Fluoranthene			CAS#: 206-44-0			
202	25575	8.20	8.20	80-120	100	( )
203	4265	8.20	8.20	0- 47	17	( )
101	2051	8.20	8.20	0- 39	8	( )
79 Pyrene			CAS#: 129-00-0			
202	23919	8.42	8.42	80-120	100	( )
200	4650	8.42	8.42	0- 50	19	( )
101	2718	8.41	8.42	0- 41	11	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	11816	9.53	9.54	80-120	100	( )
226	3183	9.53	9.54	0- 56	27	( )
229	3749	9.53	9.54	0- 49	32	( )
92 Chrysene			CAS#: 218-01-9			
228	9183	9.57	9.57	80-120	100	( )
229	2599	9.57	9.57	0- 49	28	( )
226	2768	9.57	9.57	0- 58	30	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	11860	10.66	10.67	80-120	100	( )
253	2863	10.66	10.67	0- 52	24	( )
125	771	10.66	10.67	0- 40	7	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	11860	10.66	10.70	80-120	100	( )
253	2863	10.66	10.70	0- 52	24	( )
125	836	10.66	10.70	0- 40	7	( )
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	5991	11.08	11.09	80-120	100	( )
253	2334	11.08	11.09	0- 52	39	( )
125	745	11.08	11.09	0- 40	12	( )
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	3571	12.84	12.85	80-120	100	( )
138	621	12.85	12.85	0- 59	17	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	2360	13.11	12.86	80-120	100	(T)
139	682	13.10	12.86	0- 48	29	(T)
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	3686	13.36	13.37	80-120	100	( )
138	1152	13.35	13.37	0- 55	31	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s032310.b/s7c2323.d
Lab Smp Id: 248815006 Client Smp ID: RE46-10-13866
Inj Date : 23-MAR-2010 18:13
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815006|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 11o00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	7.08890	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.870	1743839	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.902	491647	11.2773339	404	0		0	10

Data File: /chem/MSD7.i/s032310.b/s7c2323.d

Date : 23-MAR-2010 18:13

Client ID: RE46-10-13866

Sample Info: |2488150061965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD7.i

Operator: JMB3

Column diameter: 0.20

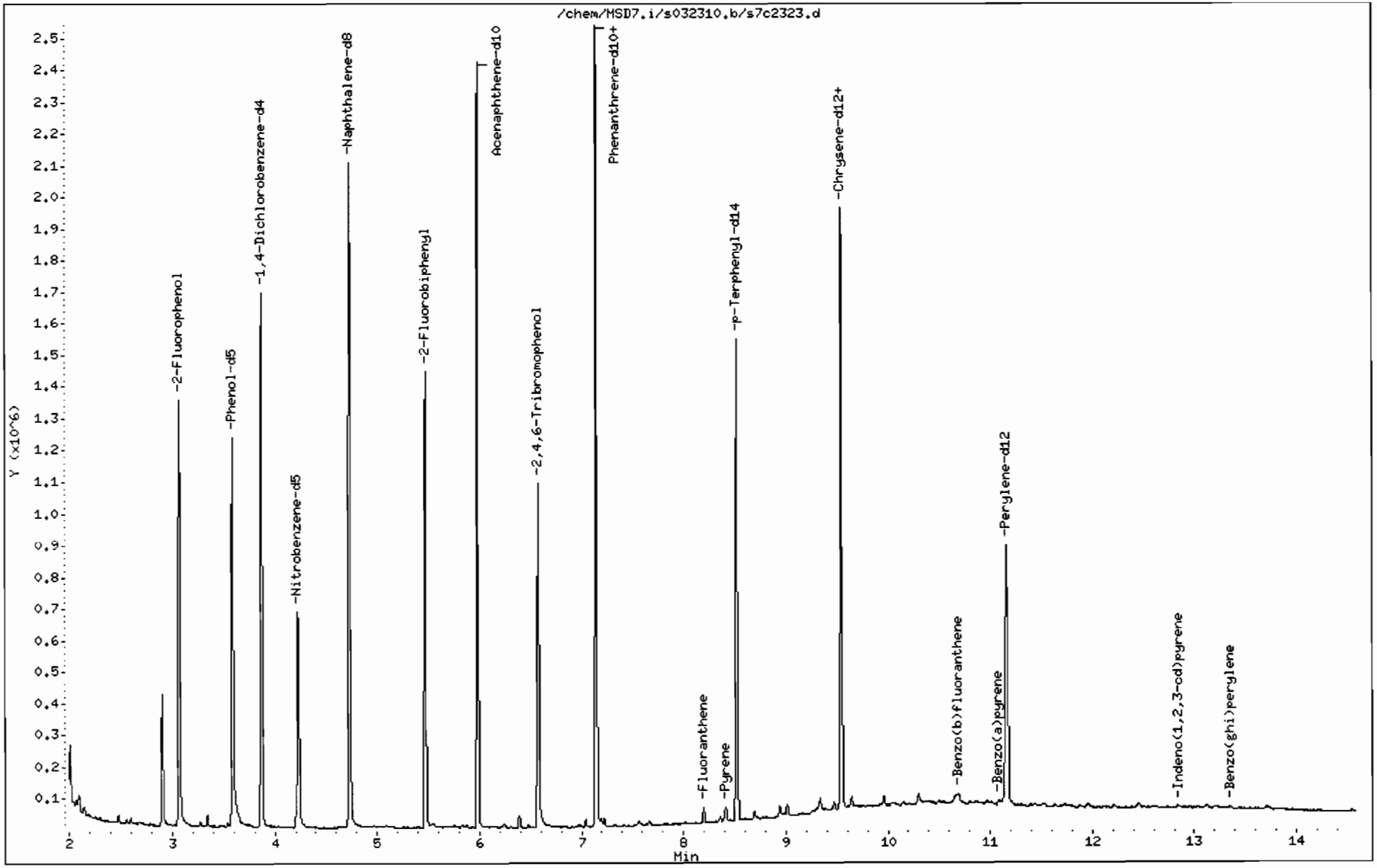

Data File: /chem/MSD7.i/s032310.b/s7c2323.d

Date : 23-MAR-2010 18:13

Client ID: RE46-10-13866

Instrument: MSD7.i

Sample Info: |2488150061965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 31.8 ug/Kg

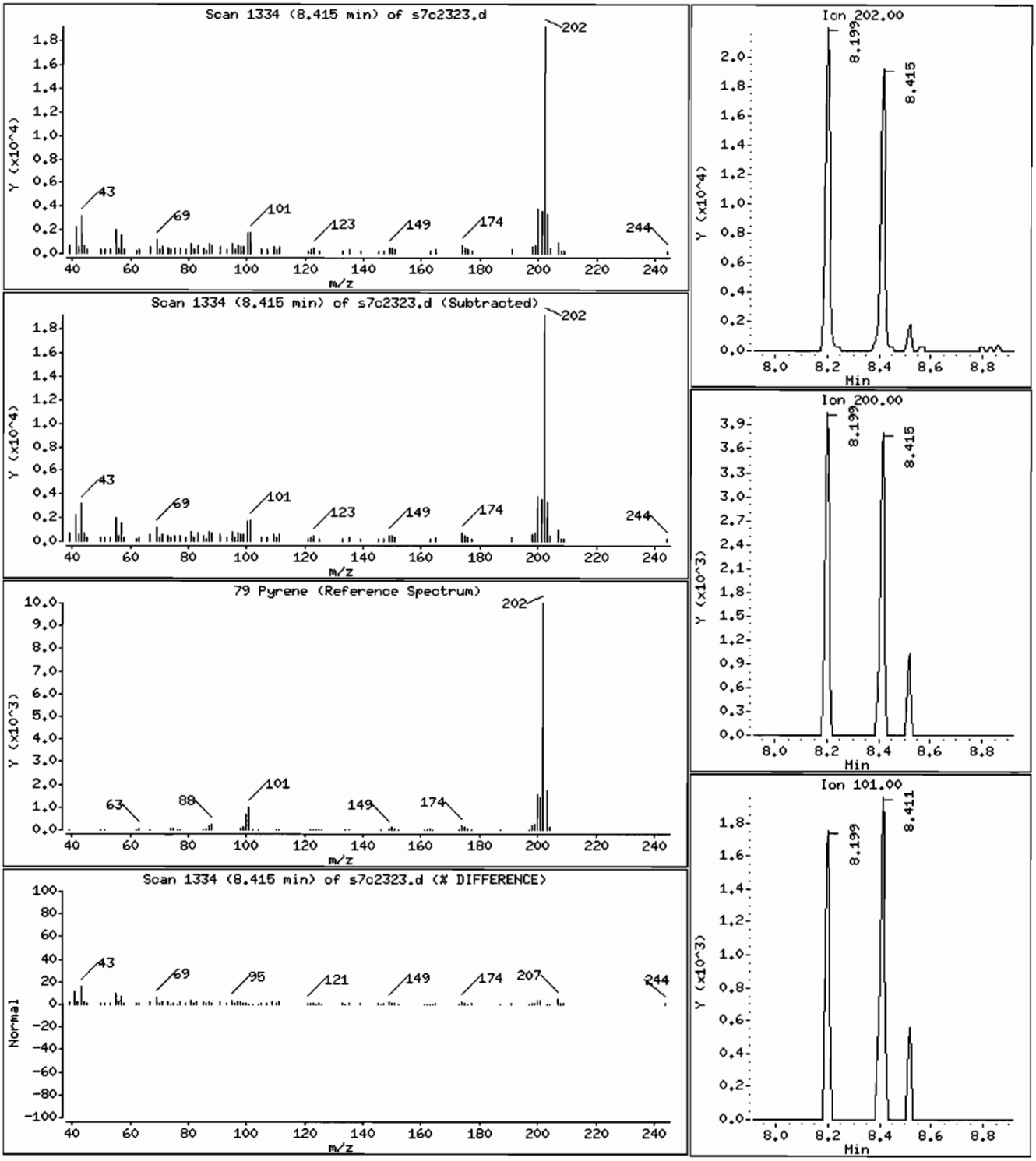

Data File: /chem/MSD7.i/s032310.b/s7c2323.d

Date : 23-MAR-2010 18:13

Client ID: RE46-10-13866

Instrument: MSD7.i

Sample Info: |2488150061965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 25.4 ug/Kg

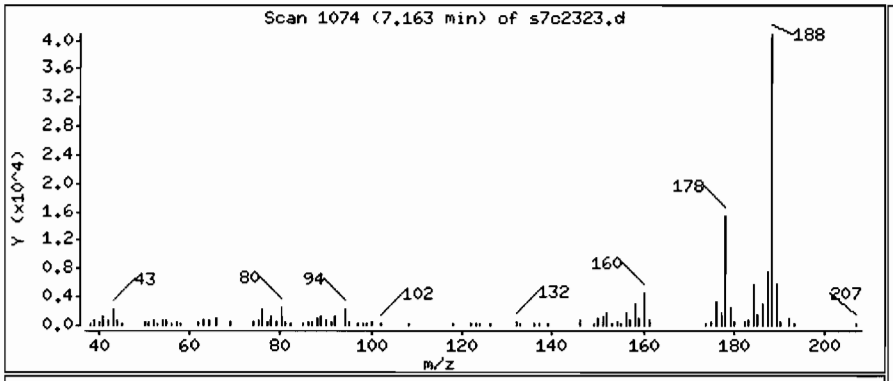

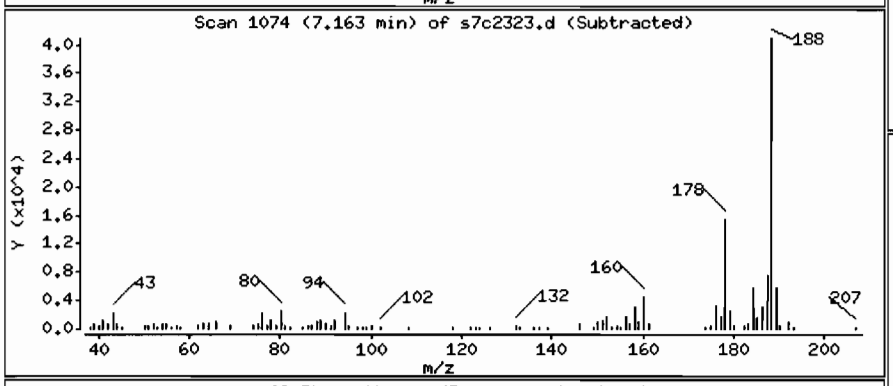

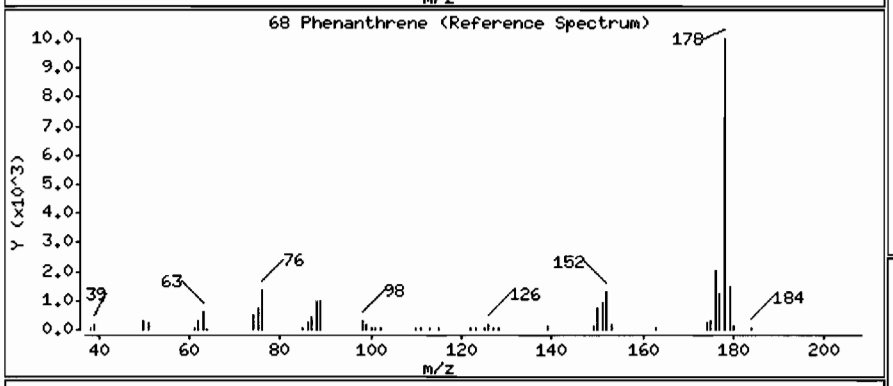

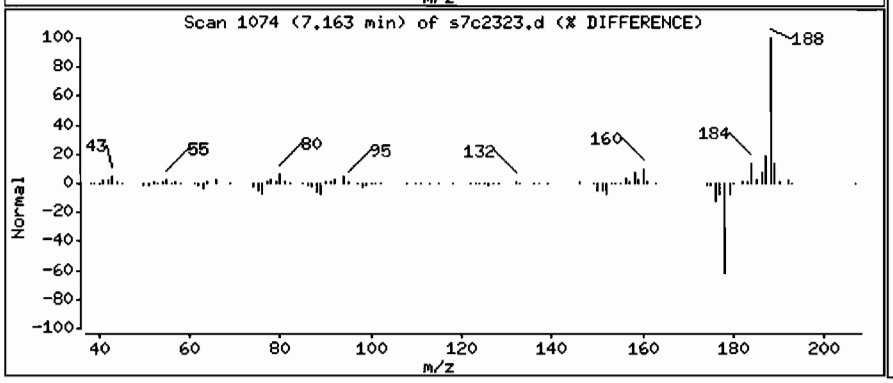

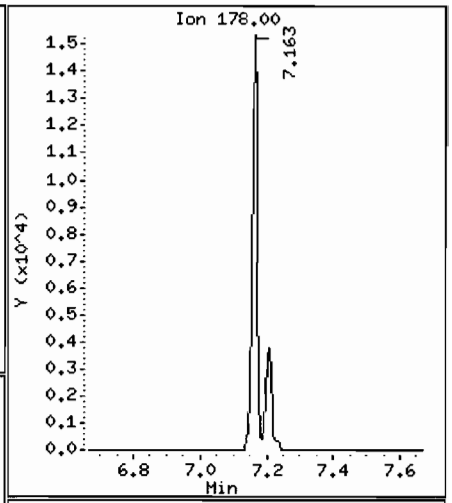

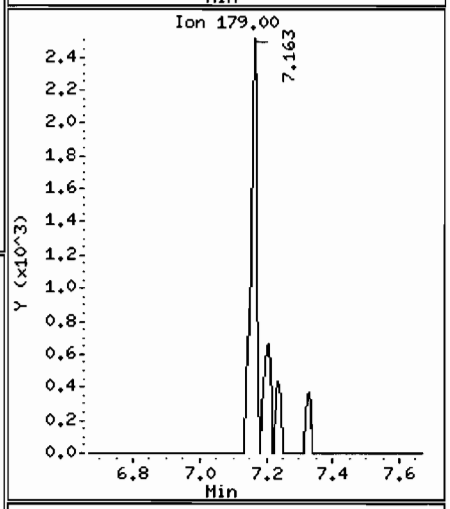

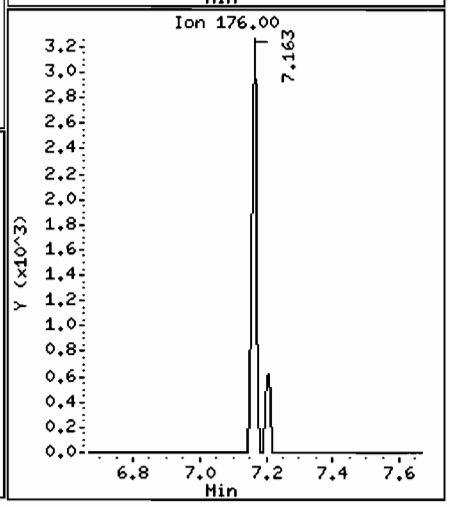

Data File: /chem/MSD7.i/s032310.b/s7c2323.d

Date : 23-MAR-2010 18:13

Client ID: RE46-10-13866

Instrument: MSD7.i

Sample Info: |2488150061965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 35.7 ug/Kg

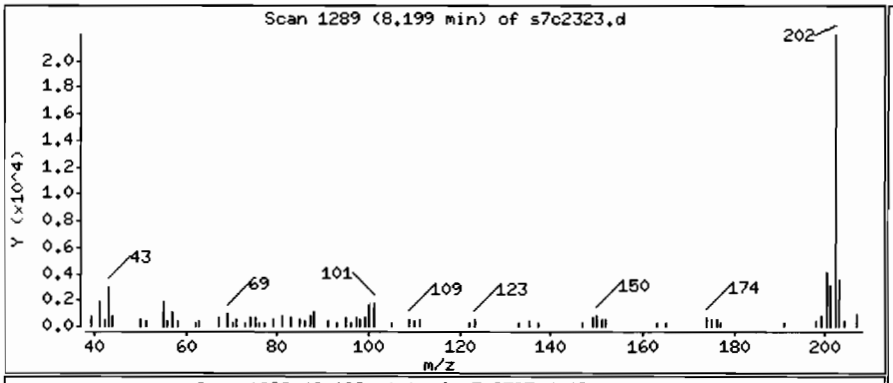

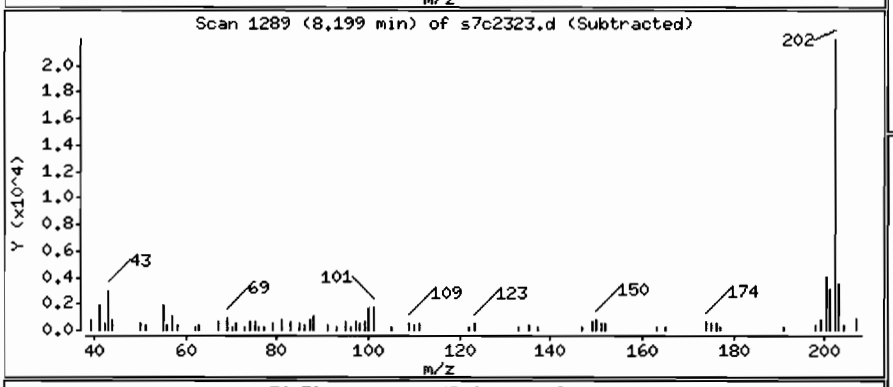

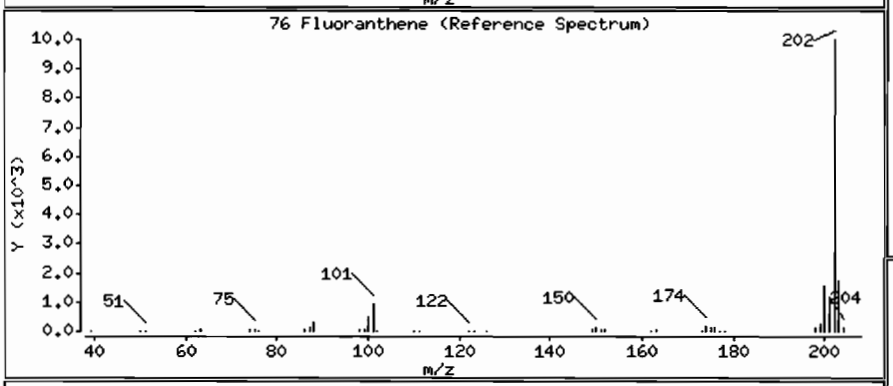

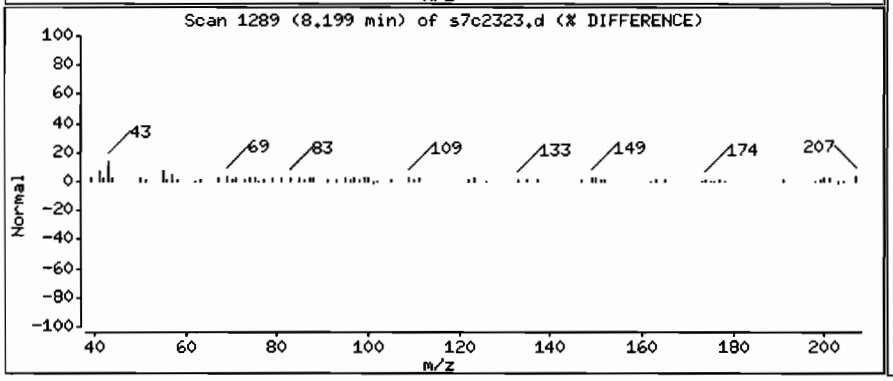

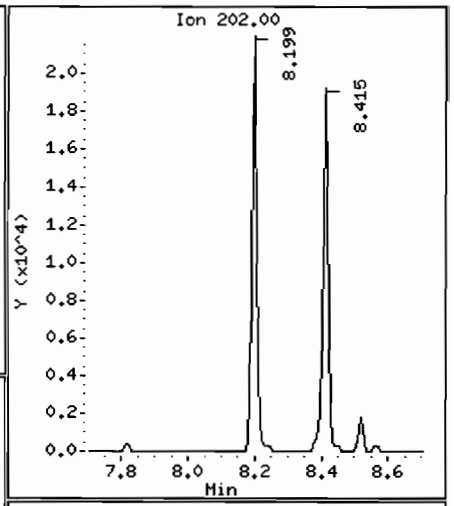

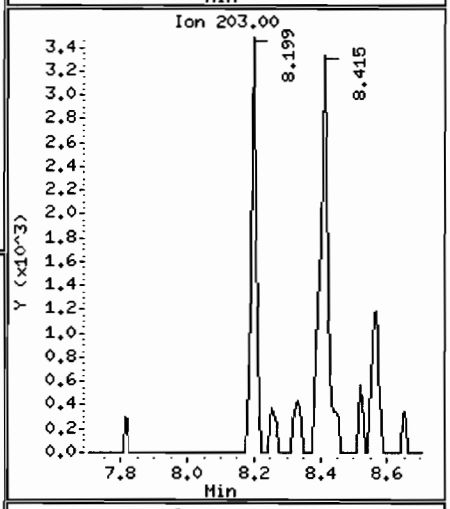

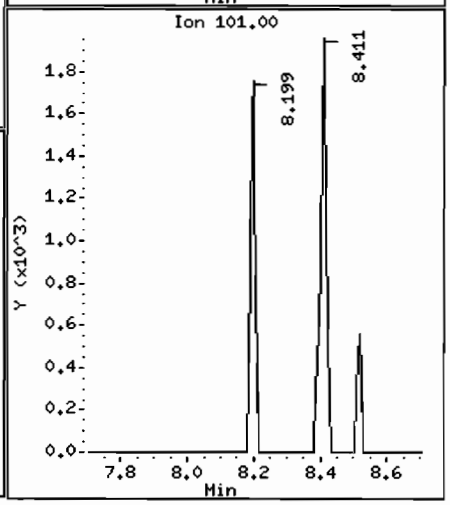

Data File: /chem/MSD7.i/s032310.b/s7c2323.d

Date : 23-MAR-2010 18:13

Client ID: RE46-10-13866

Instrument: MSD7.i

Sample Info: |2488150061965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 20.7 ug/Kg

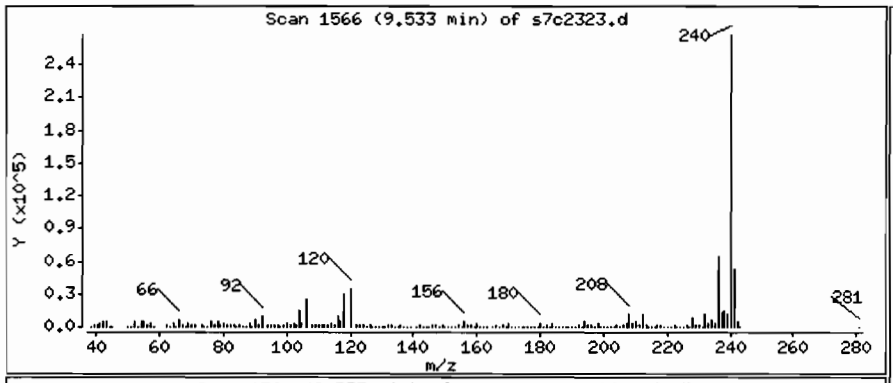

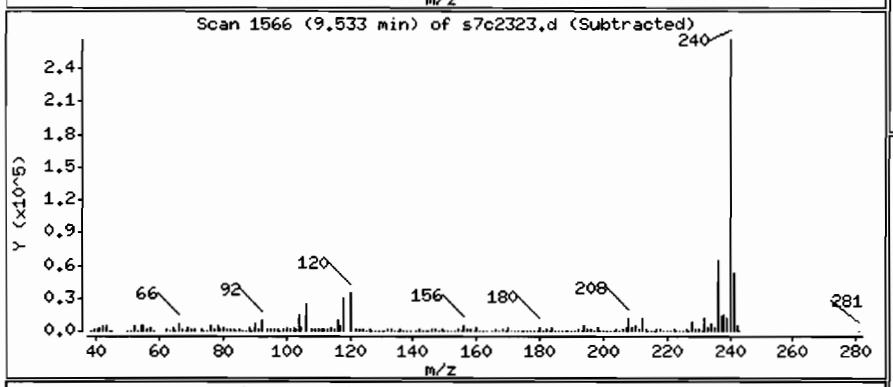

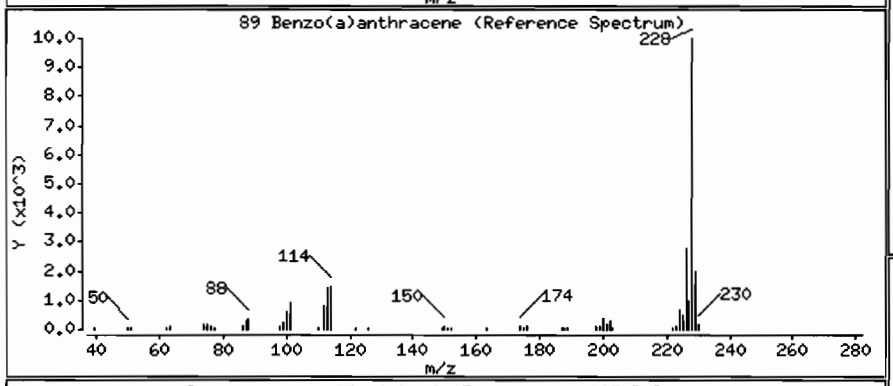

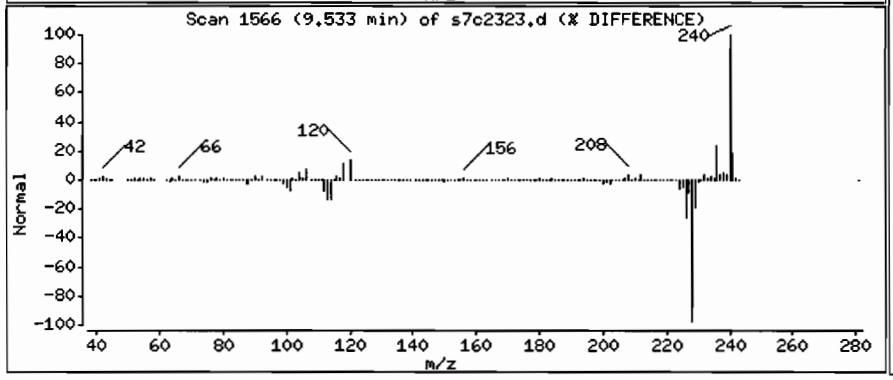

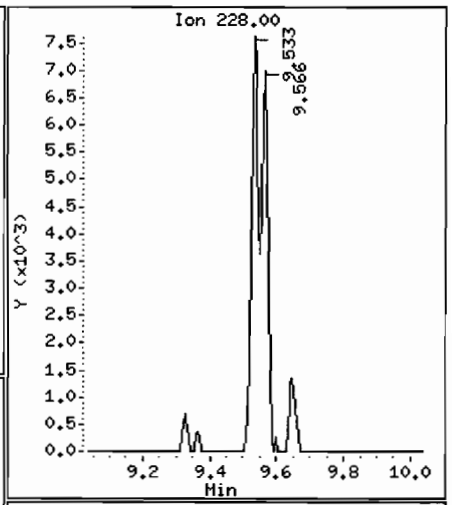

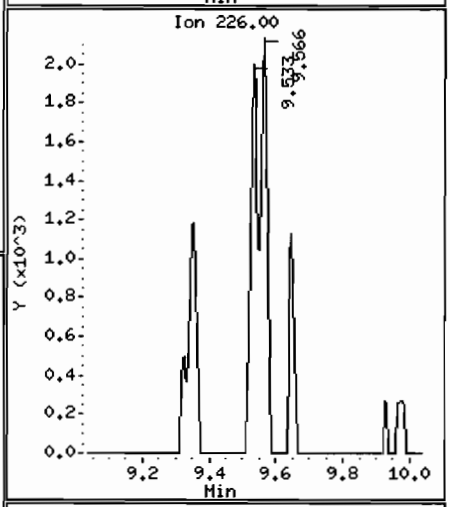

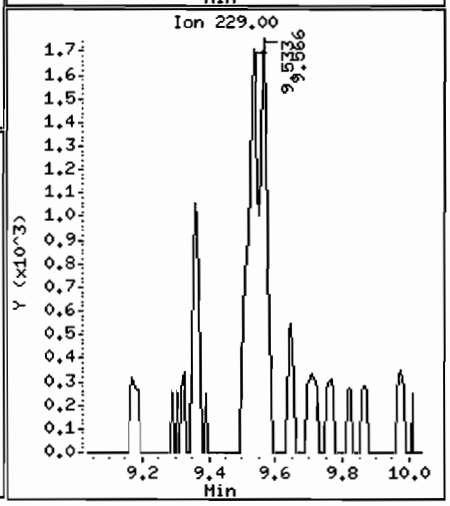

Data File: /chem/MSD7.i/s032310.b/s7c2323.d

Date : 23-MAR-2010 18:13

Client ID: RE46-10-13866

Instrument: MSD7.i

Sample Info: |2488150061965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 18.1 ug/Kg

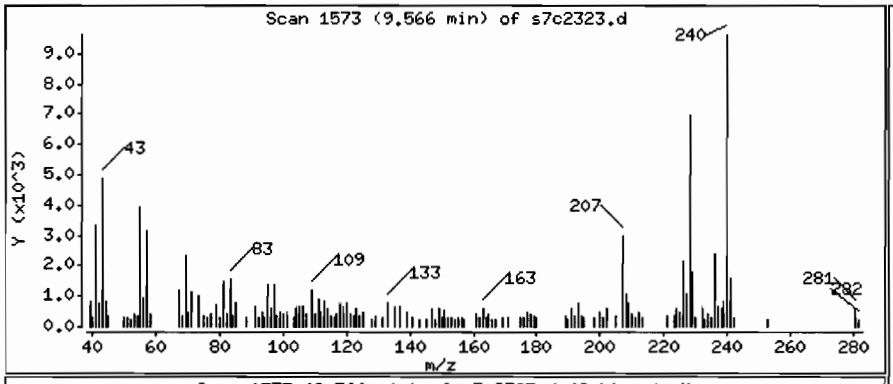

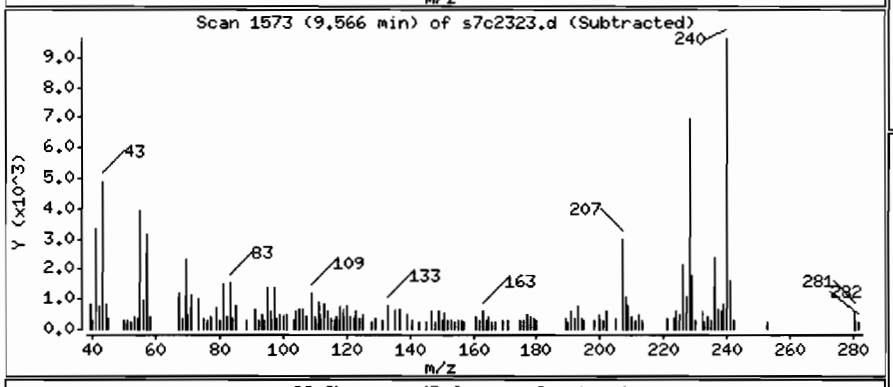

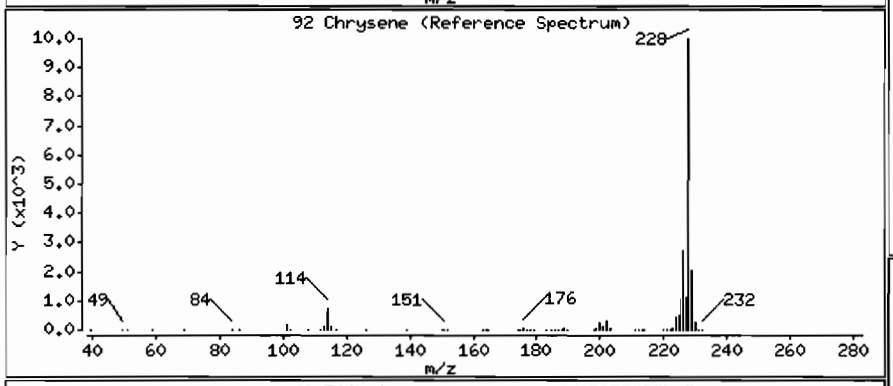

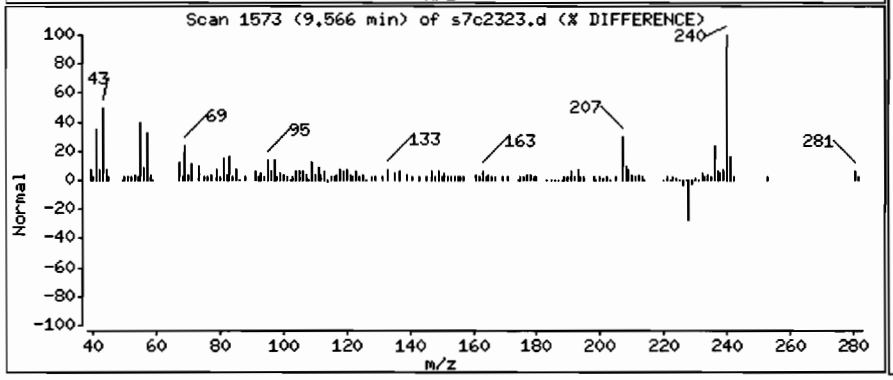

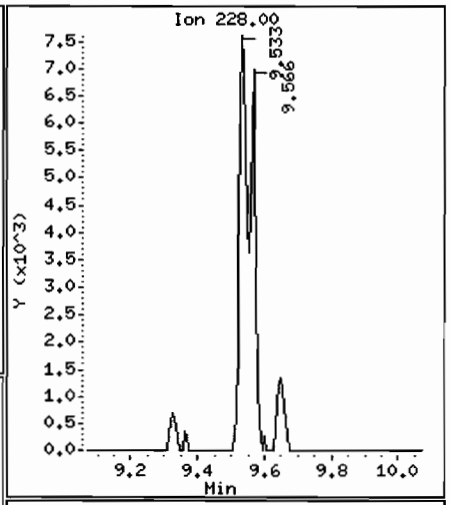

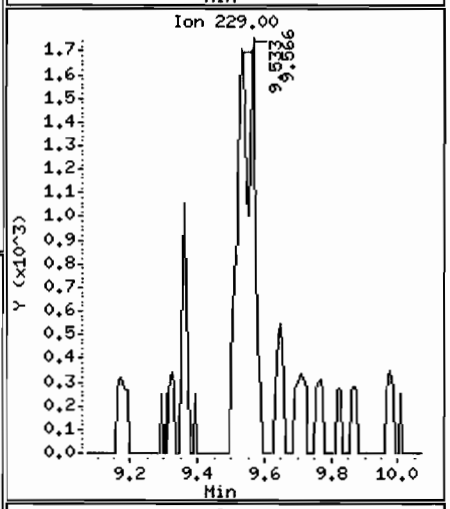

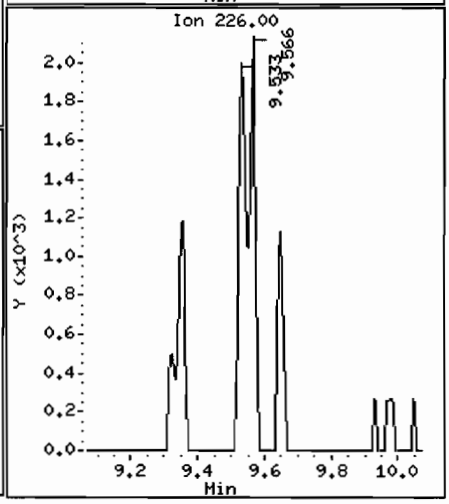

Data File: /chem/MSD7.i/s032310.b/s7c2323.d

Date : 23-MAR-2010 18:13

Client ID: RE46-10-13866

Instrument: MSD7.i

Sample Info: |2488150061965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 32.1 ug/Kg

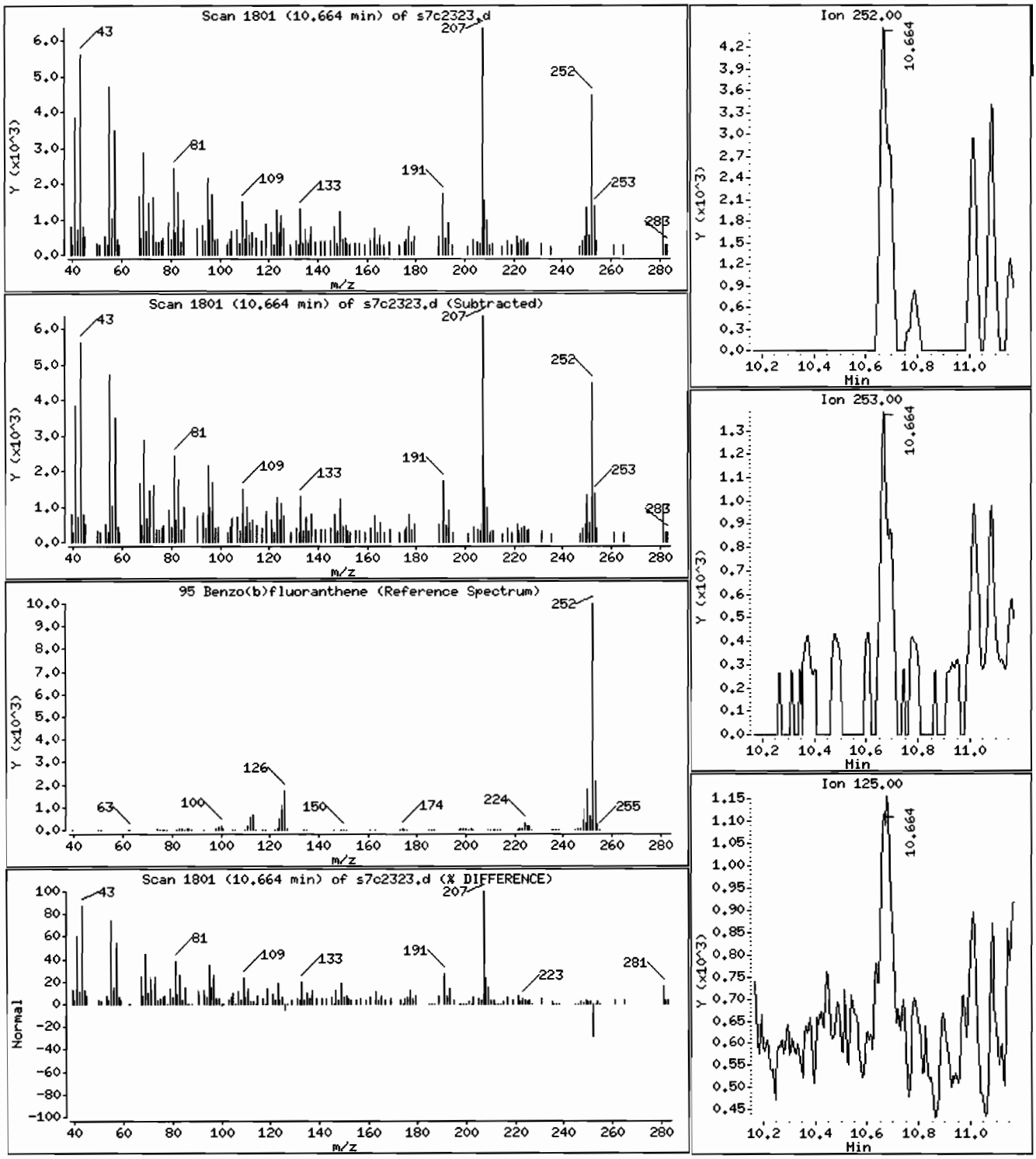

Data File: /chem/MSD7.i/s032310.b/s7c2323.d

Date : 23-MAR-2010 18:13

Client ID: RE46-10-13866

Instrument: MSD7.i

Sample Info: |2488150061965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 19.8 ug/Kg

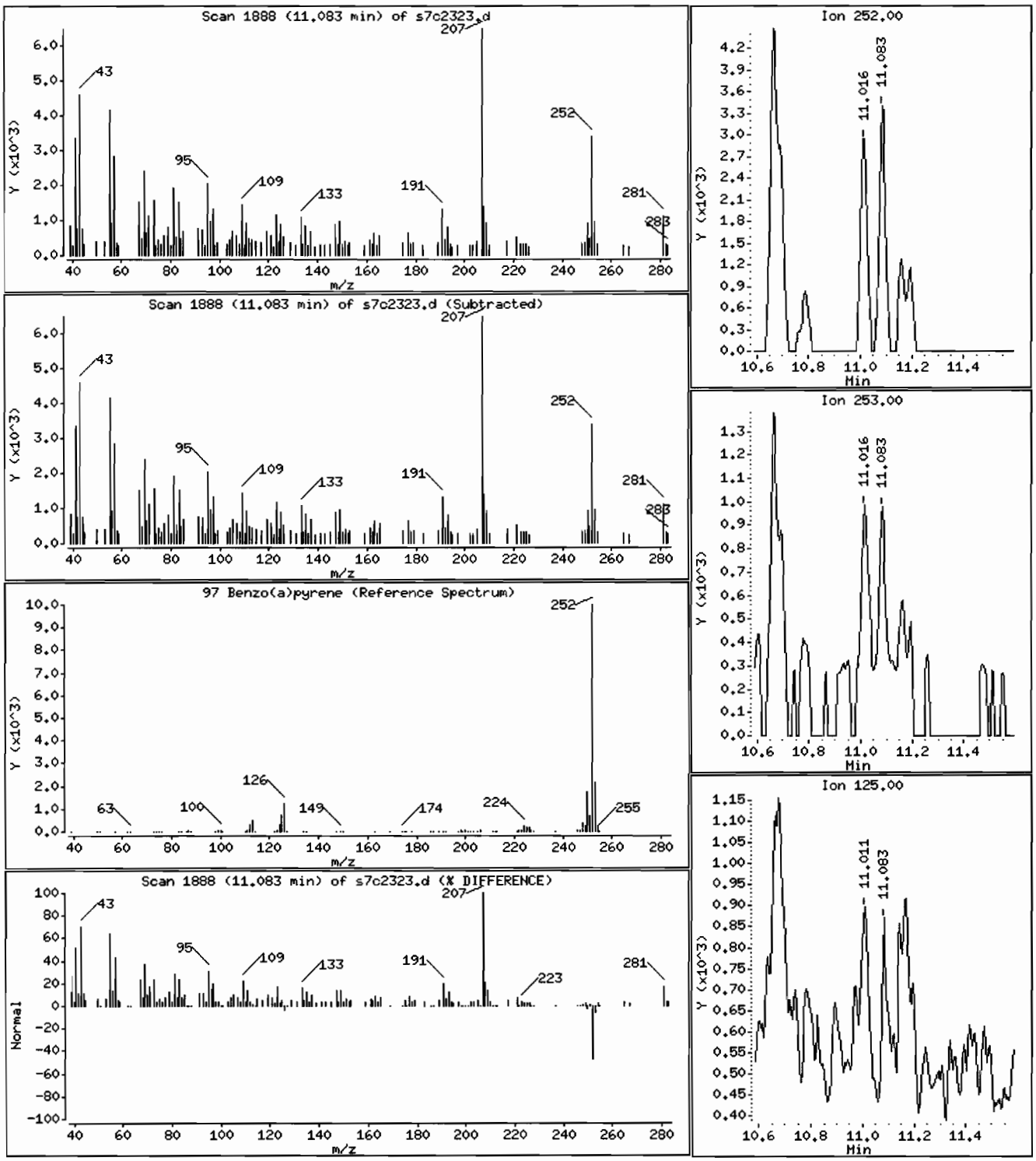

Data File: /chem/MSD7.i/s032310.b/s7c2323.d

Date : 23-MAR-2010 18:13

Client ID: RE46-10-13866

Instrument: MSD7.i

Sample Info: |2488150061965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 16.4 ug/Kg

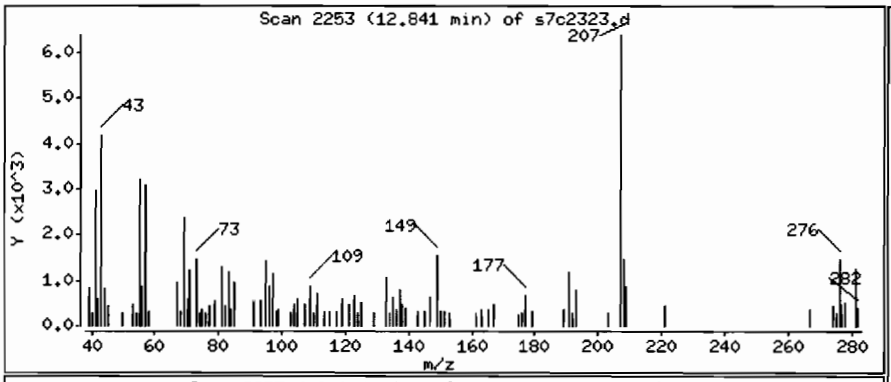

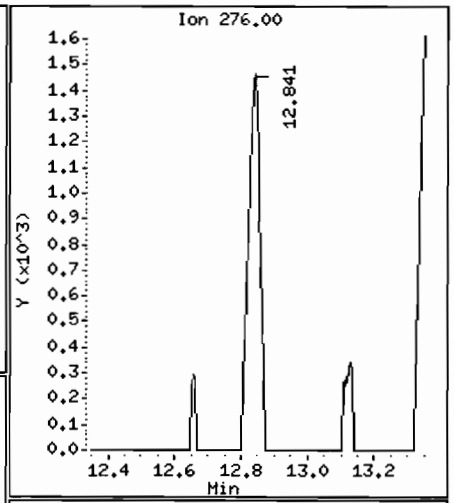

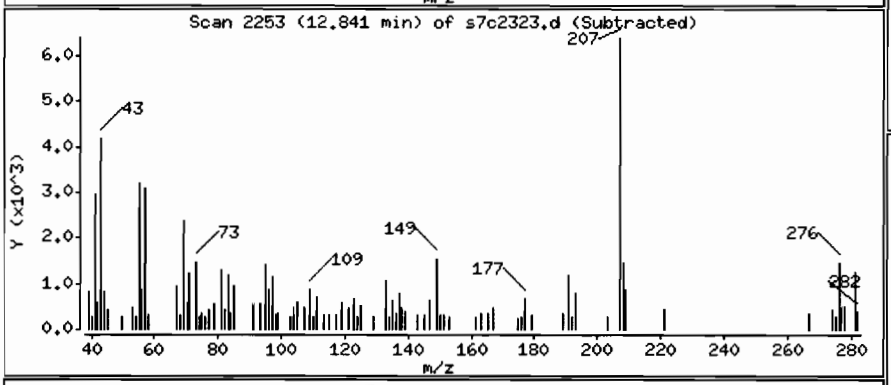

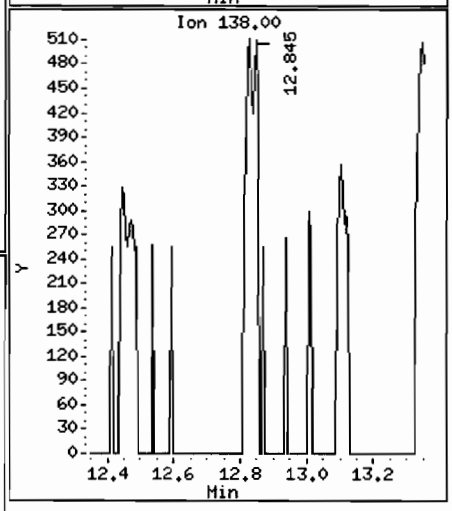

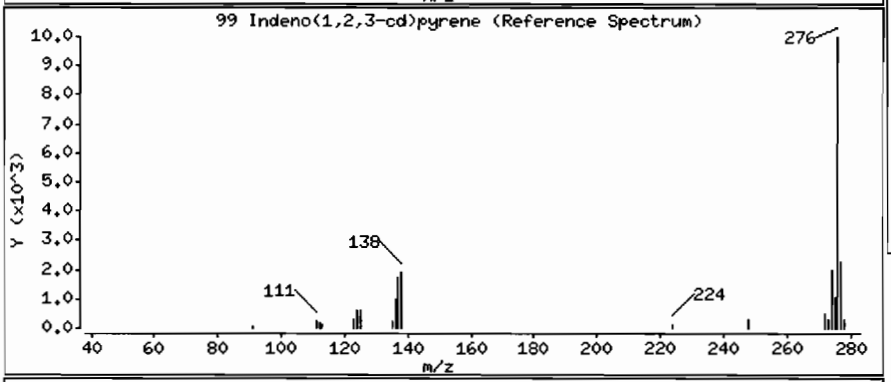

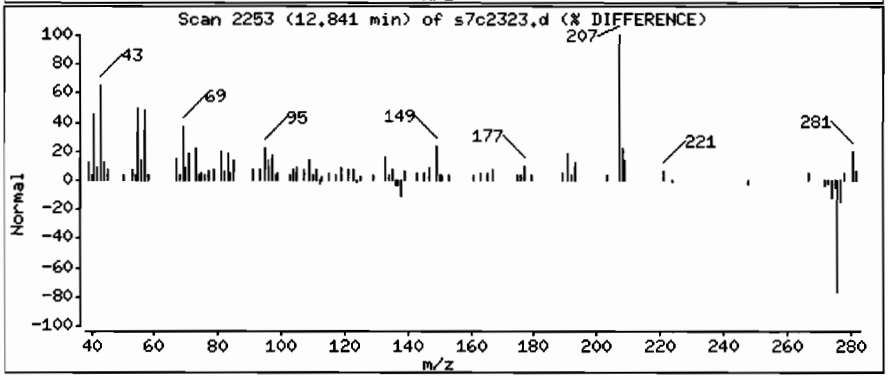

Data File: /chem/MSD7.i/s032310.b/s7c2323.d

Date : 23-MAR-2010 18:13

Client ID: RE46-10-13866

Instrument: MSD7.i

Sample Info: |2488150061965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 20.3 ug/Kg

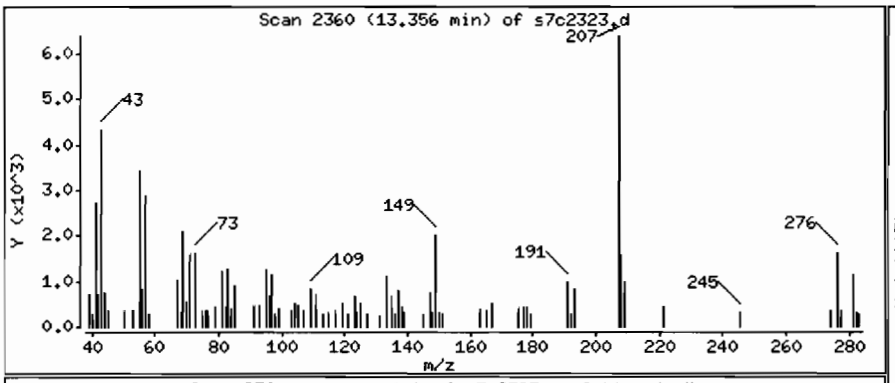

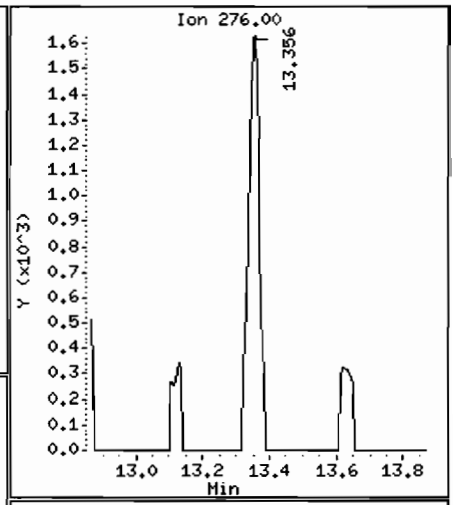

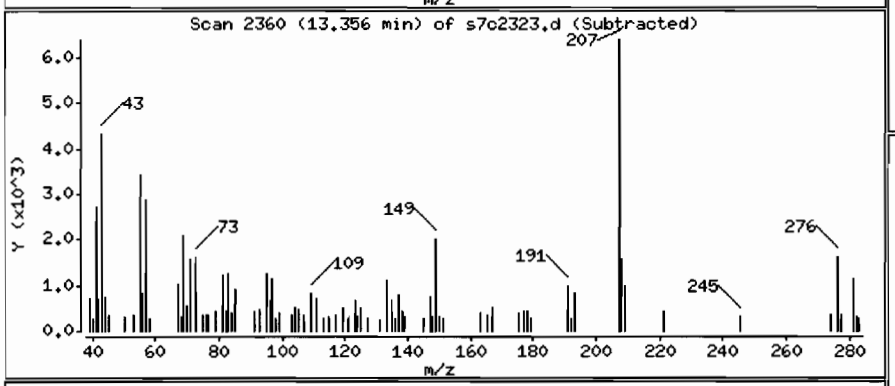

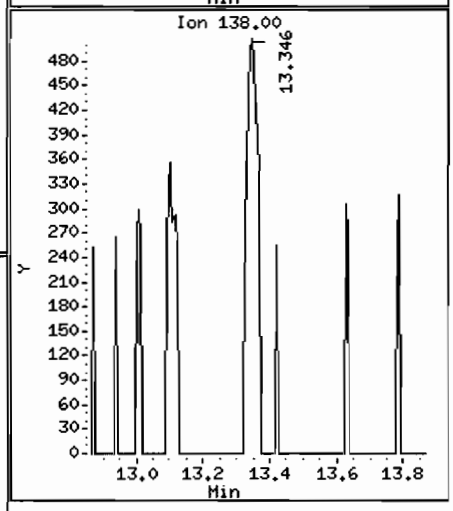

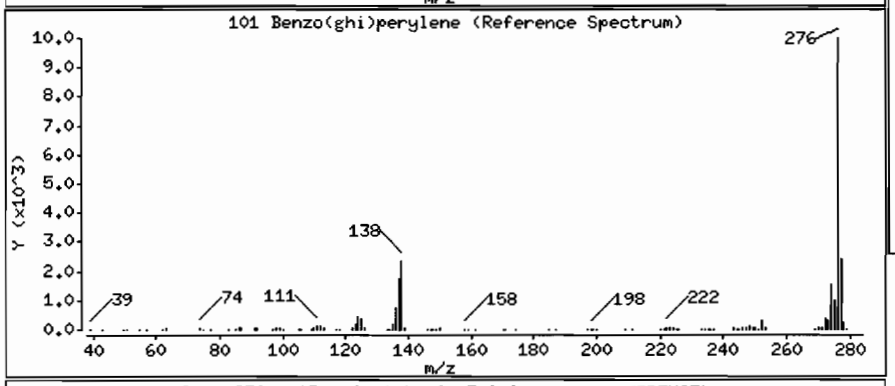

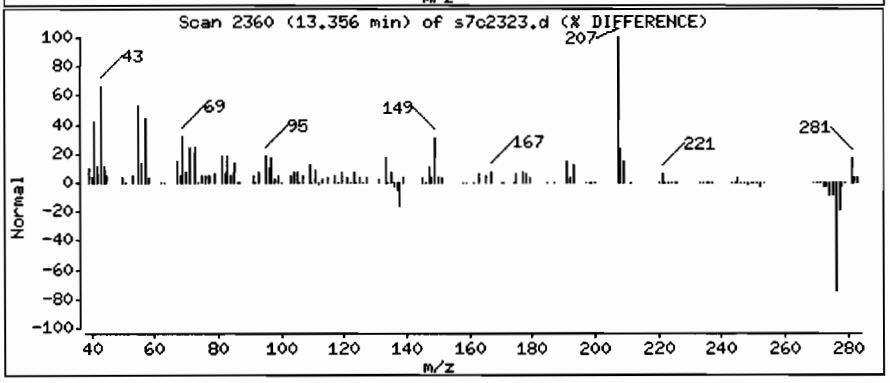

Data File: /chem/MSD7.i/s032310.b/s7c2323.d

Page 1

Date : 23-MAR-2010 18:13

Client ID: RE46-10-13866

Instrument: MSD7.i

Sample Info: |2488150061965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116

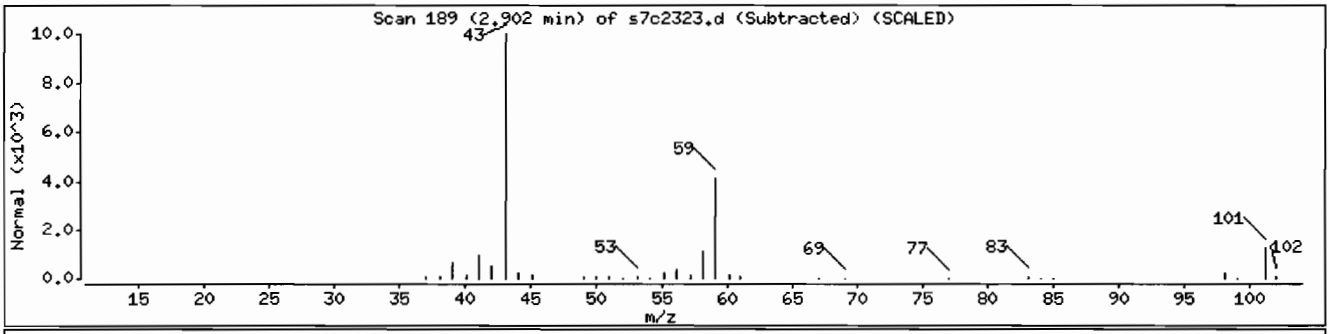

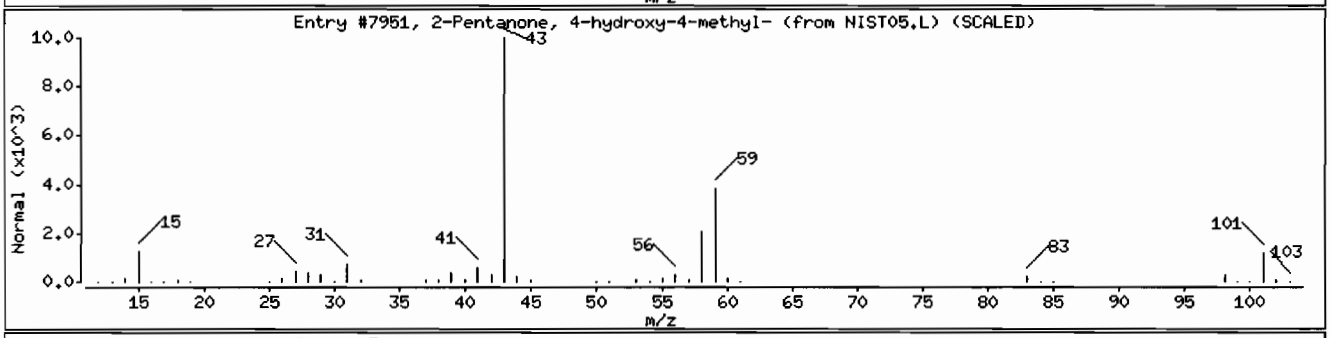

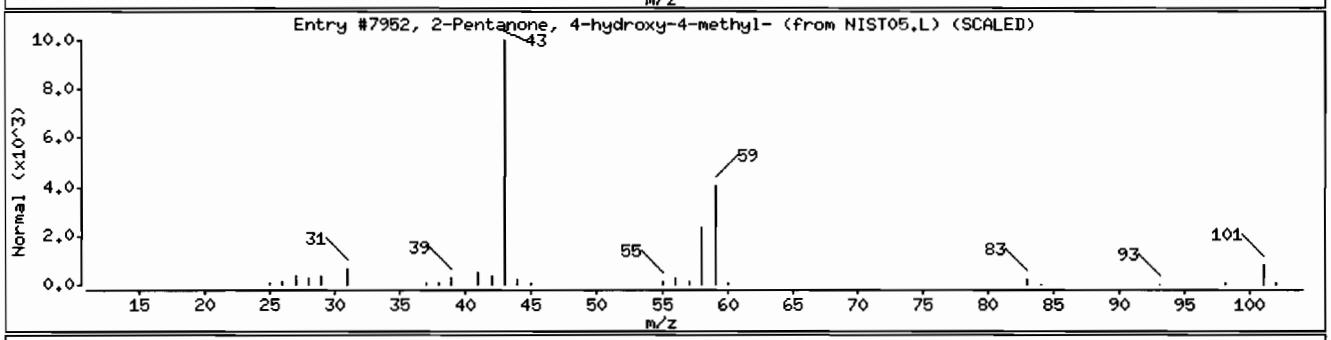

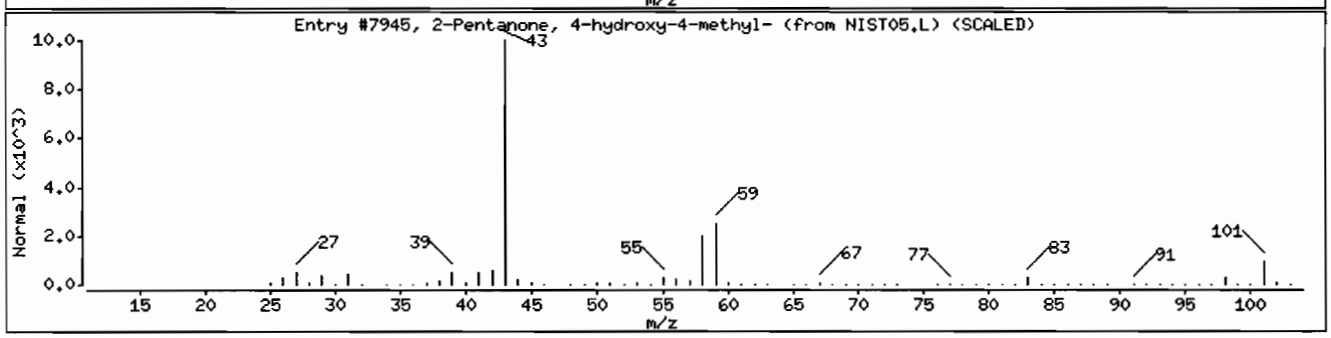

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248815001	Date Received:	03/05/2010 10:20	%Moisture:	7.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13867	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965816	Inst:	MSD7.1	Dilution:	1
Run Date:	03/23/2010 16:03	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	03/16/2010 21:37	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s7c2317.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	362	ug/kg	72.4	362
108-95-2	Phenol	U	362	ug/kg	72.4	362
95-57-8	2-Chlorophenol	U	362	ug/kg	72.4	362
106-46-7	1,4-Dichlorobenzene	U	362	ug/kg	72.4	362
621-64-7	N-Nitrosodipropylamine	U	362	ug/kg	72.4	362
59-50-7	4-Chloro-3-methylphenol	U	362	ug/kg	72.4	362
83-32-9	Acenaphthene	U	36.2	ug/kg	11.9	36.2
121-14-2	2,4-Dinitrotoluene	U	362	ug/kg	36.2	362
100-02-7	4-Nitrophenol	U	362	ug/kg	119	362
87-86-5	Pentachlorophenol	U	362	ug/kg	90.4	362
129-00-0	Pyrene	J	19.1	ug/kg	10.9	36.2
110-86-1	Pyridine	U	362	ug/kg	72.4	362
62-53-3	Aniline	U	362	ug/kg	109	362
111-44-4	bis(2-Chloroethyl) ether	U	362	ug/kg	72.4	362
541-73-1	1,3-Dichlorobenzene	U	362	ug/kg	72.4	362
100-51-6	Benzyl alcohol	U	362	ug/kg	109	362
95-50-1	1,2-Dichlorobenzene	U	362	ug/kg	72.4	362
108-60-1	bis(2-Chloroisopropyl)ether	U	362	ug/kg	72.4	362
95-48-7	o-Cresol	U	362	ug/kg	72.4	362
65794-96-9	m,p-Cresols	U	362	ug/kg	109	362
67-72-1	Hexachloroethane	U	362	ug/kg	72.4	362
98-95-3	Nitrobenzene	U	362	ug/kg	72.4	362
78-59-1	Isophorone	U	362	ug/kg	72.4	362
88-75-5	2-Nitrophenol	U	362	ug/kg	72.4	362
105-67-9	2,4-Dimethylphenol	U	362	ug/kg	127	362
111-91-1	bis(2-Chloroethoxy)methane	U	362	ug/kg	72.4	362
120-83-2	2,4-Dichlorophenol	U	362	ug/kg	72.4	362
65-85-0	Benzoic acid	U	724	ug/kg	181	724
91-20-3	Naphthalene	U	36.2	ug/kg	10.9	36.2
106-47-8	4-Chloroaniline	U	362	ug/kg	72.4	362
87-68-3	Hexachlorobutadiene	U	362	ug/kg	72.4	362
91-57-6	2-Methylnaphthalene	U	36.2	ug/kg	7.24	36.2
77-47-4	Hexachlorocyclopentadiene	U	362	ug/kg	72.4	362
88-06-2	2,4,6-Trichlorophenol	U	362	ug/kg	72.4	362
95-95-4	2,4,5-Trichlorophenol	U	362	ug/kg	72.4	362
91-58-7	2-Chloronaphthalene	U	36.2	ug/kg	11.9	36.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	362	ug/kg	72.4	362
99-09-2	3-Nitroaniline	U	362	ug/kg	72.4	362

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248815001	Date Received:	03/05/2010 10:20	%Moisture:	7.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13867	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965816	Inst:	MSD7.I	Dilution:	1
Run Date:	03/23/2010 16:03	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	03/16/2010 21:37	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s7c2317.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	362	ug/kg	72.4	362
606-20-2	2,6-Dinitrotoluene	U	362	ug/kg	36.2	362
208-96-8	Acenaphthylene	U	36.2	ug/kg	10.9	36.2
51-28-5	2,4-Dinitrophenol	U	724	ug/kg	137	724
132-64-9	Dibenzofuran	U	362	ug/kg	72.4	362
84-66-2	Diethylphthalate	U	362	ug/kg	72.4	362
86-73-7	Fluorene	U	36.2	ug/kg	10.9	36.2
7005-72-3	4-Chlorophenylphenylether	U	362	ug/kg	72.4	362
534-52-1	2-Methyl-4,6-dinitrophenol	U	362	ug/kg	72.4	362
100-01-6	4-Nitroaniline	U	362	ug/kg	109	362
	p-Nitroaniline					
122-39-4	Diphenylamine	U	362	ug/kg	72.4	362
122-66-7	Azobenzene	U	362	ug/kg	72.4	362
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	362	ug/kg	72.4	362
118-74-1	Hexachlorobenzene	U	362	ug/kg	72.4	362
85-01-8	Phenanthrene	J	15.2	ug/kg	10.9	36.2
120-12-7	Anthracene	U	36.2	ug/kg	7.24	36.2
84-74-2	Di-n-butylphthalate	U	362	ug/kg	72.4	362
206-44-0	Fluoranthene	J	19.7	ug/kg	10.9	36.2
85-68-7	Butylbenzylphthalate	U	362	ug/kg	72.4	362
56-55-3	Benzo(a)anthracene	J	21.7	ug/kg	10.9	36.2
91-94-1	3,3'-Dichlorobenzidine	U	362	ug/kg	109	362
218-01-9	Chrysene	J	29.0	ug/kg	10.9	36.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	362	ug/kg	72.4	362
117-84-0	Di-n-octylphthalate	U	362	ug/kg	72.4	362
205-99-2	Benzo(b)fluoranthene		57.6	ug/kg	10.9	36.2
207-08-9	Benzo(k)fluoranthene	U	36.2	ug/kg	10.9	36.2
50-32-8	Benzo(a)pyrene	J	30.7	ug/kg	10.9	36.2
193-39-5	Indeno(1,2,3-cd)pyrene	J	23.8	ug/kg	10.9	36.2
53-70-3	Dibenzo(a,h)anthracene	U	36.2	ug/kg	10.9	36.2
191-24-2	Benzo(ghi)perylene	J	25.5	ug/kg	10.9	36.2
120-82-1	1,2,4-Trichlorobenzene	U	362	ug/kg	72.4	362

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	489	ug/kg		J

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s032310.b/s7c2317.d
Lab Smp Id: 248815001 Client Smp ID: RE46-10-13867
Inj Date : 23-MAR-2010 16:03
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815001|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	7.89670	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	247362	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	922719	40.0000	
* 46 Acenaphthene-d10	164	5.979	5.988	(1.000)	544539	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	1011336	40.0000	
* 91 Chrysene-d12	240	9.542	9.552	(1.000)	785015	40.0000	
* 98 Perylene-d12	264	11.160	11.165	(1.000)	535727	40.0000	
$ 3 2-Fluorophenol	112	3.066	3.061	(0.792)	406648	63.2471	2290
$ 5 Phenol-d5	99	3.586	3.590	(0.927)	483867	60.0241	2170
$ 20 Nitrobenzene-d5	82	4.226	4.235	(0.893)	244948	35.1966	1270
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	522028	38.4670	1390
$ 60 2,4,6-Tribromophenol	329	6.576	6.576	(1.100)	131978	83.8386	3030
$ 81 p-Terphenyl-d14	244	8.516	8.521	(0.892)	608970	43.3008	1570

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	8.411	8.420	(0.881)	13069	0.52698	19.1(a)
68 Phenanthrene	178	7.163	7.168	(1.003)	8713	0.41984	15.2(a)
76 Fluoranthene	202	8.199	8.203	(1.148)	12311	0.54558	19.7(a)
89 Benzo(a)anthracene	228	9.533	9.537	(0.999)	11280	0.59939	21.7(a)
92 Chrysene	228	9.561	9.571	(1.002)	13402	0.80030	29.0(a)
95 Benzo(b)fluoranthene	252	10.659	10.669	(0.955)	23925	1.59245	57.6
97 Benzo(a)pyrene	252	11.078	11.092	(0.993)	10468	0.84974	30.7(a)
99 Indeno(1,2,3-cd)pyrene	276	12.826	12.850	(1.149)	5819	0.65688	23.8(a)
101 Benzo(ghi)perylene	276	13.337	13.365	(1.195)	5197	0.70346	25.4(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s7c2317.d
Report Date: 03/23/2010 16:25
Lab. ID: 248815001 SampleType: SAMPLE
Injection Date: 23-MAR-2010 16:03
Operator: JMB3 Instrument: MSD7.i
Sample Info: |248815001|965816|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2298
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	33480	3.59	3.66	80-120	100	(T)
93	271	3.55	3.66	229-289	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	37479	4.23	4.12	80-120	100	(T)
42	32494	4.23	4.12	74-134	87	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	99643	5.98	5.75	80-120	100	(T)
164	544539	5.98	5.75	0- 40	546	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	73503	5.98	5.81	80-120	100	(T)
63	1023	5.98	5.81	66-126	1	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	73503	5.98	6.10	80-120	100	(T)
89	1008	5.98	6.10	43-103	1	(QT)
63	1023	5.98	6.10	22- 82	1	(QT)
53 Fluorene		CAS#: 86-73-7				
166	7141	6.57	6.39	80-120	100	(T)
165	7256	6.57	6.39	61-121	102	(T)
167	2503	6.57	6.39	0- 44	35	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	498	6.57	6.41	80-120	100	(T)
105	1306	6.57	6.41	14- 74	262	(QT)
51	1268	6.57	6.41	41-101	255	(QT)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	9444	6.58	6.75	80-120	100	(T)
141	78178	6.57	6.75	61-121	828	(QT)
250	18837	6.58	6.75	69-129	199	(QT)
68 Phenanthrene				CAS#: 85-01-8		
178	8713	7.16	7.17	80-120	100	( )
179	1809	7.16	7.17	0- 46	21	( )
176	1368	7.16	7.17	0- 49	16	( )
69 Anthracene				CAS#: 120-12-7		
178	8713	7.16	7.21	80-120	100	( )
179	1809	7.16	7.21	0- 46	21	( )
176	1368	7.16	7.21	0- 48	16	( )
76 Fluoranthene				CAS#: 206-44-0		
202	12311	8.20	8.20	80-120	100	( )
203	1822	8.20	8.20	0- 47	15	( )
101	1128	8.19	8.20	0- 39	9	( )
79 Pyrene				CAS#: 129-00-0		
202	13069	8.41	8.42	80-120	100	( )
200	2558	8.41	8.42	0- 50	20	( )
101	1553	8.41	8.42	0- 41	12	( )
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	11280	9.53	9.54	80-120	100	( )
226	2585	9.53	9.54	0- 56	23	( )
229	2471	9.53	9.54	0- 49	22	( )
92 Chrysene				CAS#: 218-01-9		
228	13402	9.56	9.57	80-120	100	( )
229	3079	9.56	9.57	0- 49	23	( )
226	3983	9.56	9.57	0- 58	30	( )
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	23925	10.66	10.67	80-120	100	( )
253	6008	10.66	10.67	0- 52	25	( )
125	2852	10.66	10.67	0- 40	12	( )
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	23925	10.66	10.70	80-120	100	( )
253	6008	10.66	10.70	0- 52	25	( )
125	2852	10.66	10.70	0- 40	12	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	10468	11.08	11.09	80-120	100	( )
253	2895	11.08	11.09	0- 52	28	( )
125	1403	11.08	11.09	0- 40	13	( )
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	5819	12.83	12.85	80-120	100	( )
138	1177	12.82	12.85	0- 59	20	( )
100 Dibenzo(a,h)anthracene			CAS#: 53-70-3			
278	3464	13.10	12.86	80-120	100	(T)
139	352	13.10	12.86	0- 48	10	(T)
101 Benzo(ghi)perylene			CAS#: 191-24-2			
276	5197	13.34	13.37	80-120	100	( )
138	917	13.33	13.37	0- 55	18	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2317.d
Lab Smp Id: 248815001 Client Smp ID: RE46-10-13867
Inj Date : 23-MAR-2010 16:03
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815001|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	7.89670	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.870	1619787	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.902	547516	13.5206782	489	0		0	10

Data File: /chem/MSD7.i/s032310.b/s7c2317.d
Date : 23-MAR-2010 16:03
Client ID: RE46-10-13867
Sample Info: |2488150011965816|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

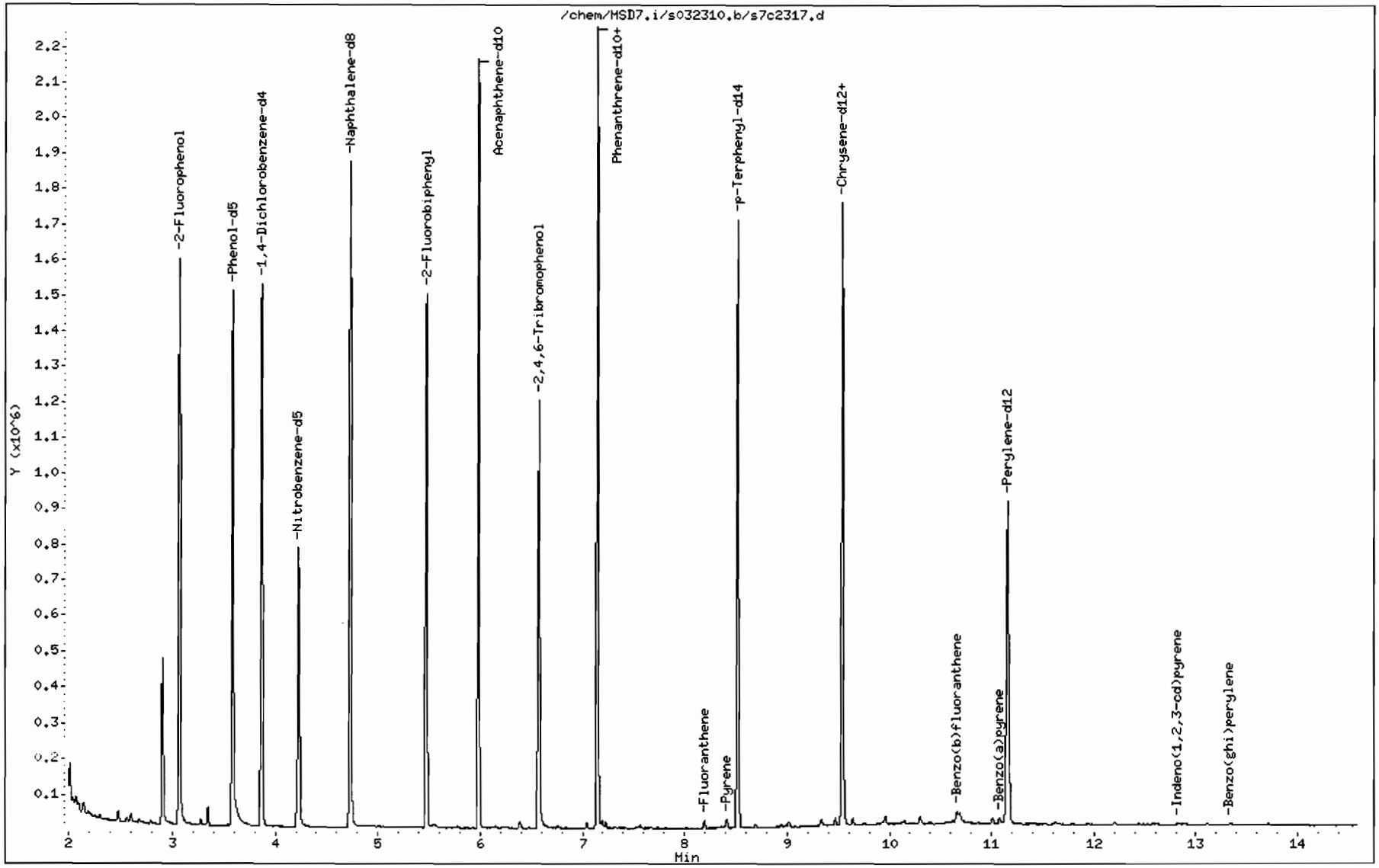

Data File: /chem/MSD7.i/s032310.b/s7c2317.d

Date : 23-MAR-2010 16:03

Client ID: RE46-10-13867 Instrument: MSD7.i

Sample Info: |2488150001|965816|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

79 Pyrene Concentration: 19.1 ug/Kg

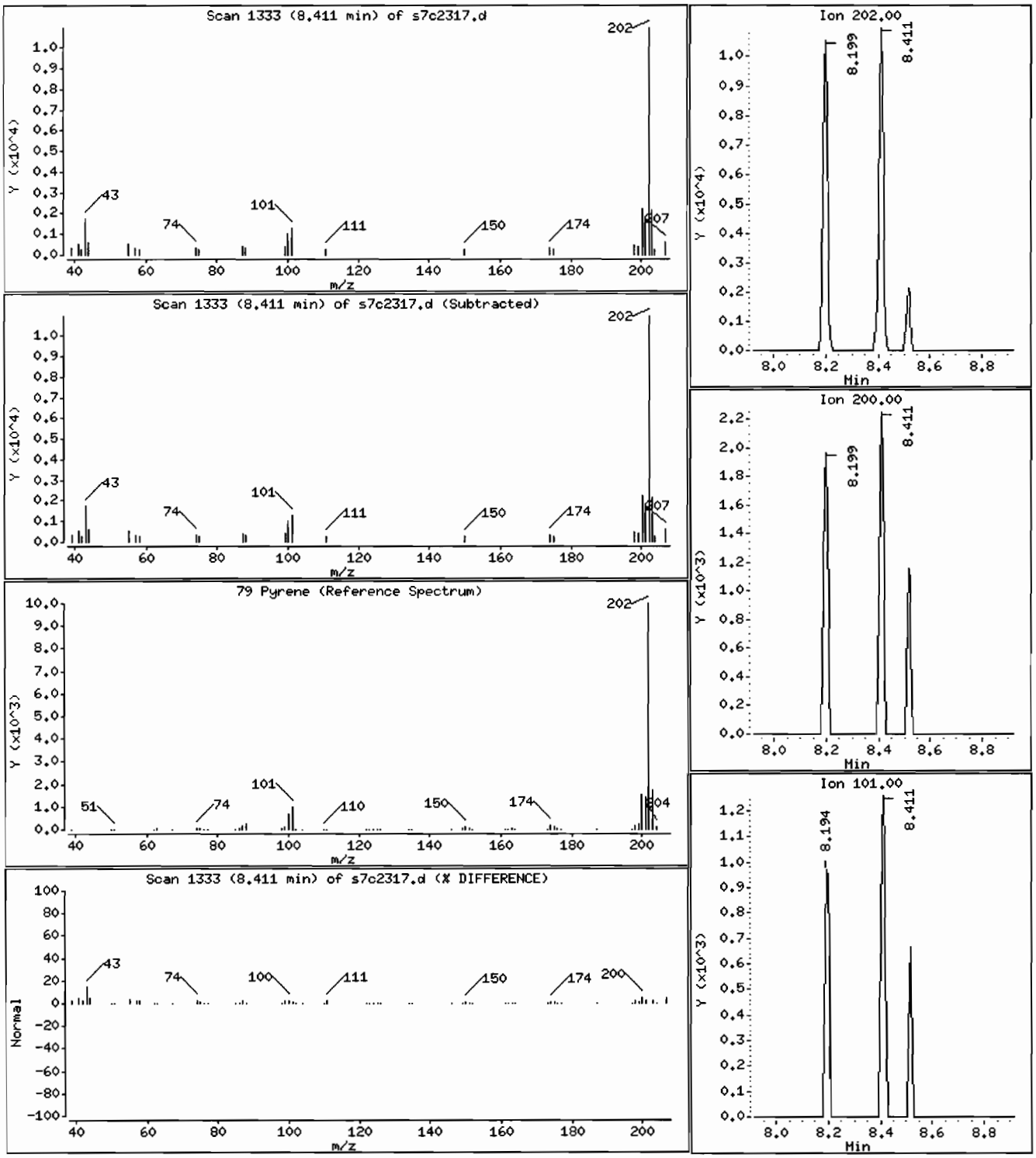

Data File: /chem/MSD7.i/s032310.b/s7c2317.d

Date : 23-MAR-2010 16:03

Client ID: RE46-10-13867

Instrument: MSD7.i

Sample Info: |2488150001|965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 15.2 ug/Kg

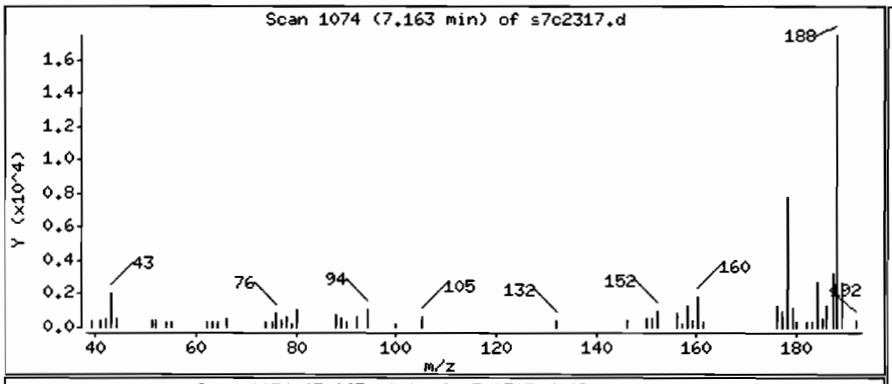

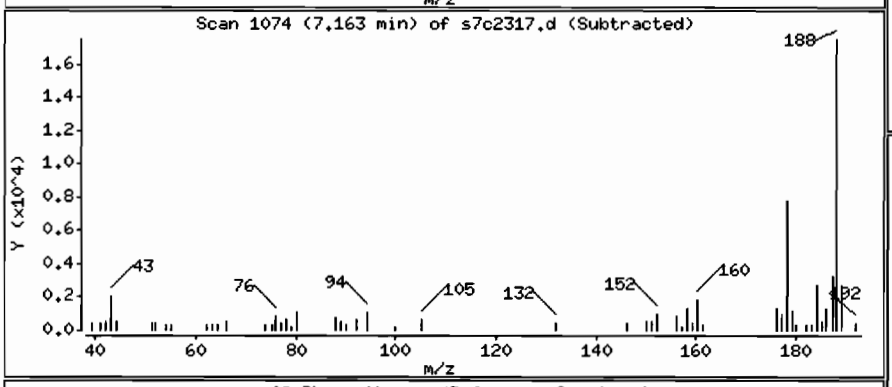

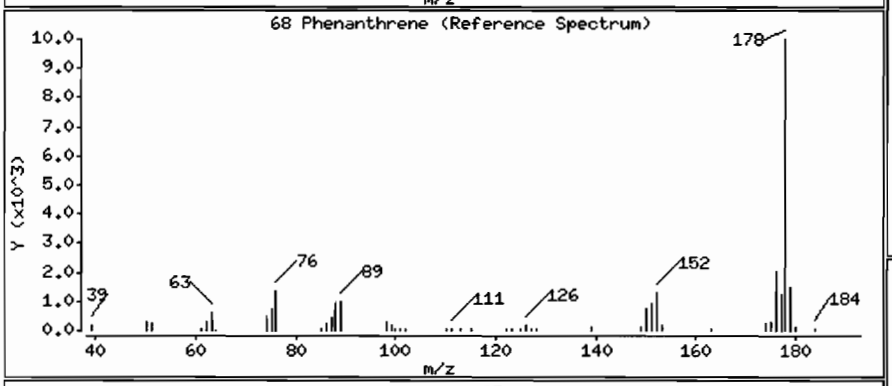

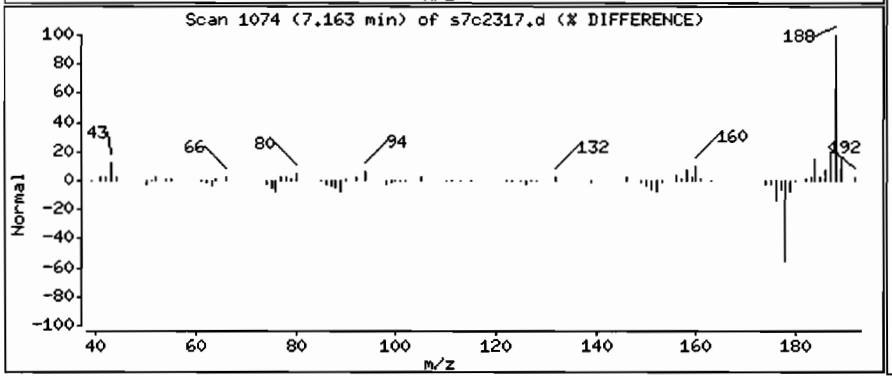

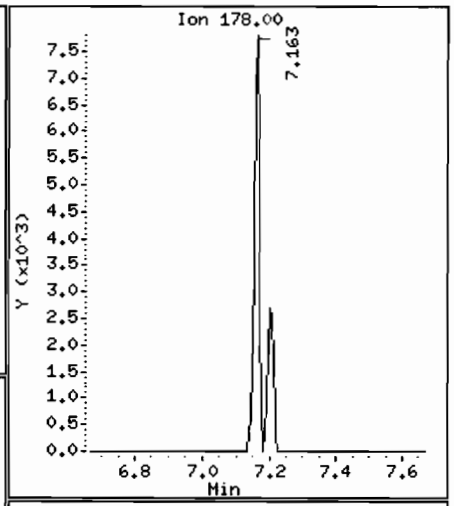

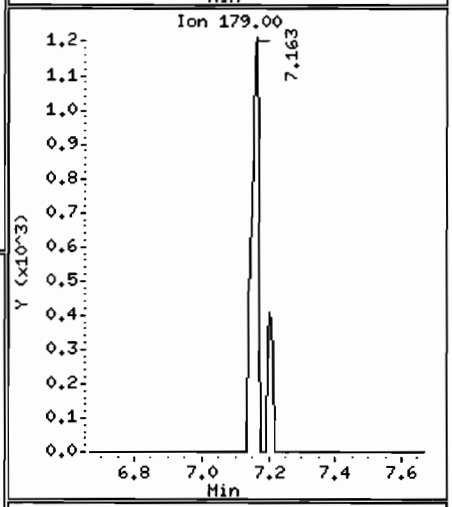

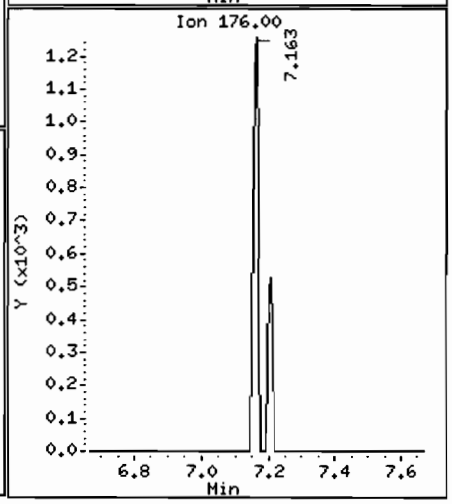

Data File: /chem/MSD7.i/s032310.b/s7c2317.d

Date : 23-MAR-2010 16:03

Client ID: RE46-10-13867

Instrument: MSD7.i

Sample Info: 1248815001|965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 19.7 ug/Kg

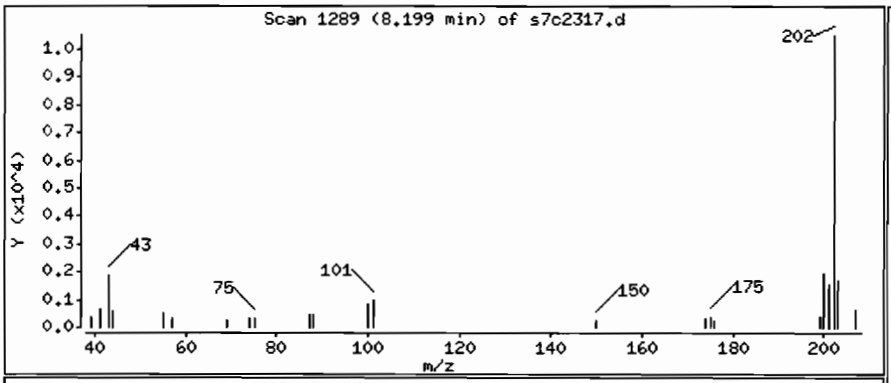

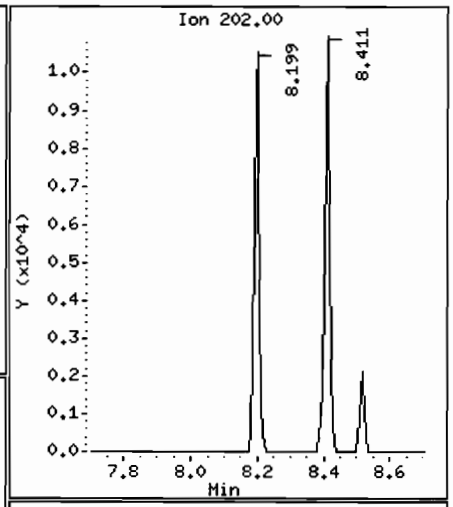

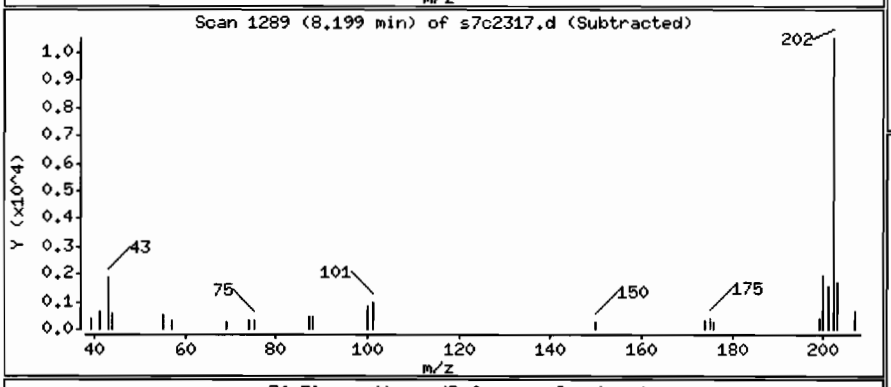

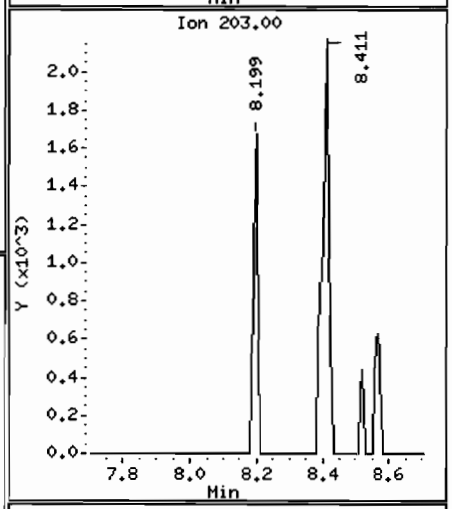

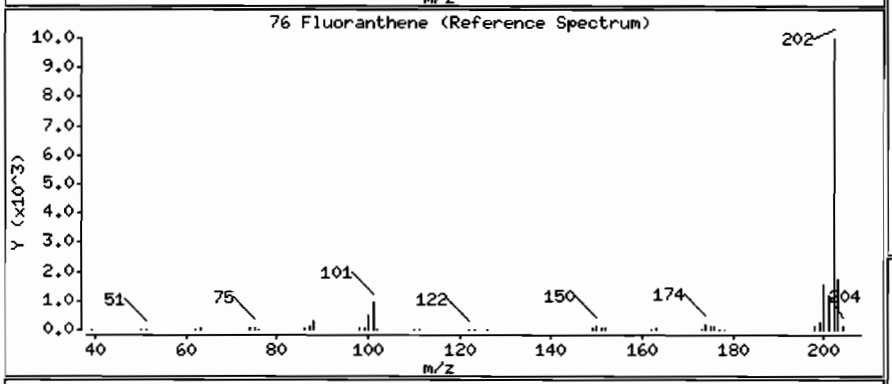

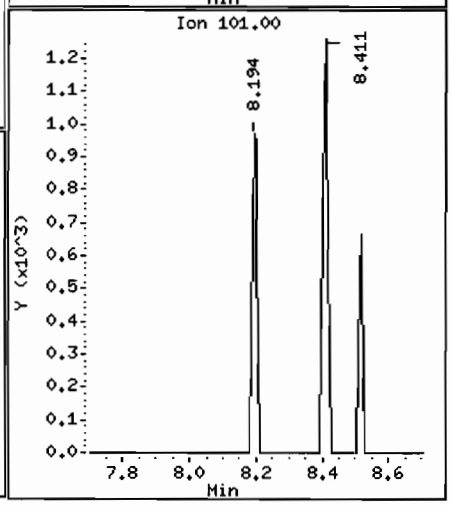

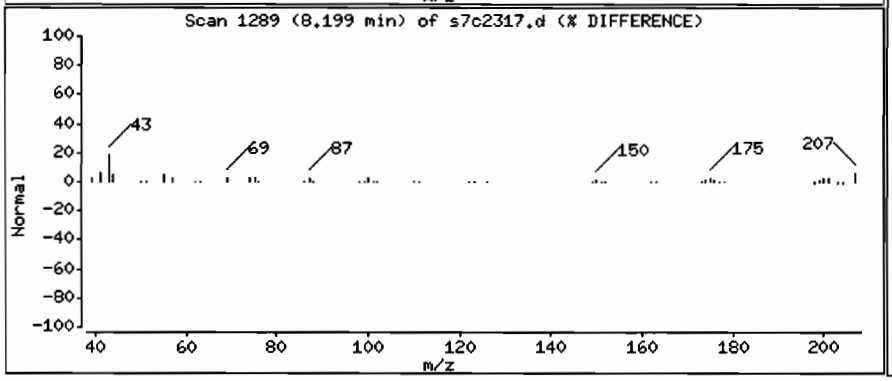

Data File: /chem/MSD7.i/s032310.b/s7c2317.d

Date : 23-MAR-2010 16:03

Client ID: RE46-10-13867 Instrument: MSD7.i

Sample Info: |2488150011965816|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

89 Benzo(a)anthracene Concentration: 21.7 ug/Kg

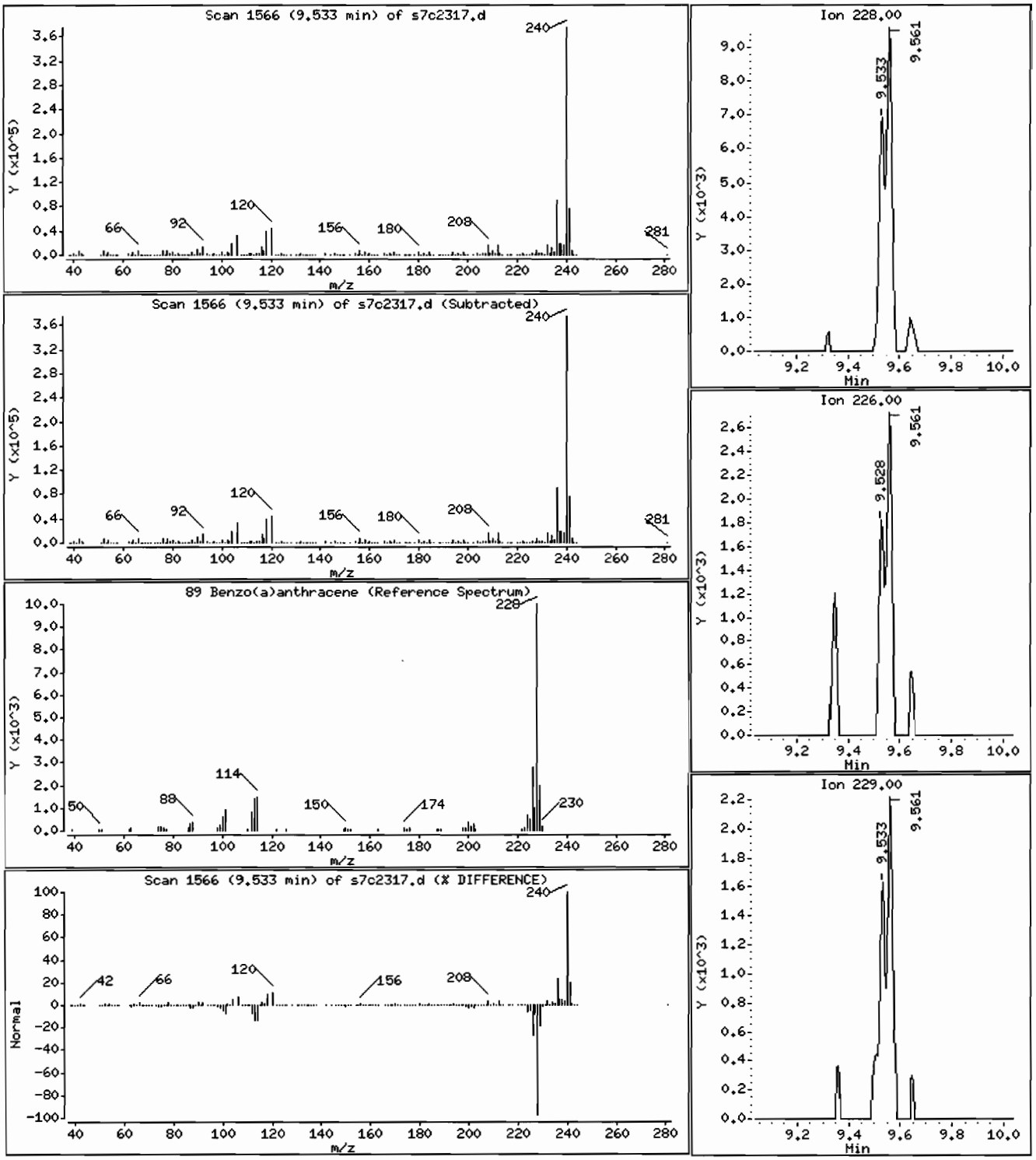

Data File: /chem/MSD7.i/s032310.b/s7c2317.d

Date : 23-MAR-2010 16:03

Client ID: RE46-10-13867

Instrument: MSD7.i

Sample Info: |2488150011965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 29.0 ug/Kg

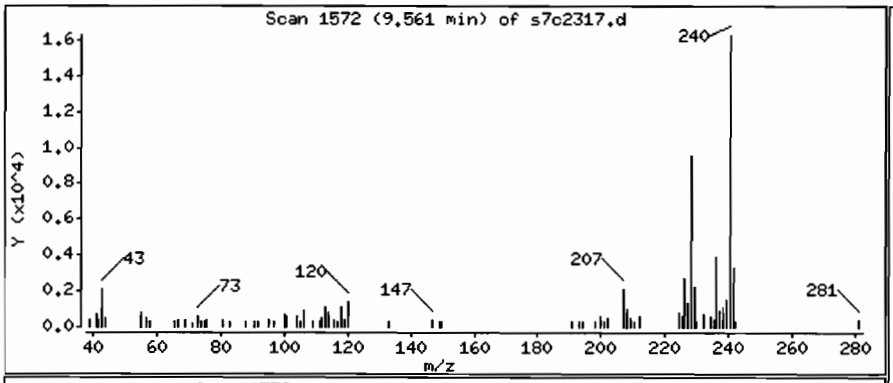

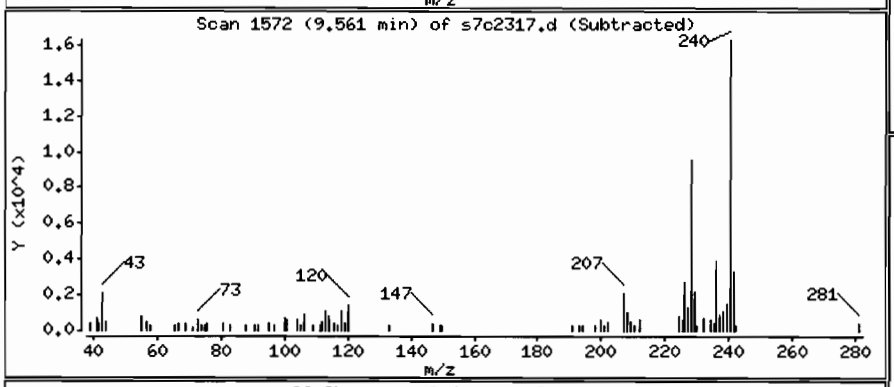

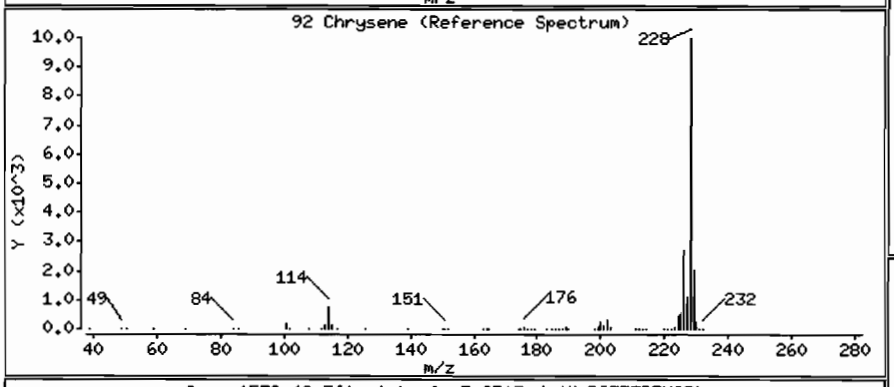

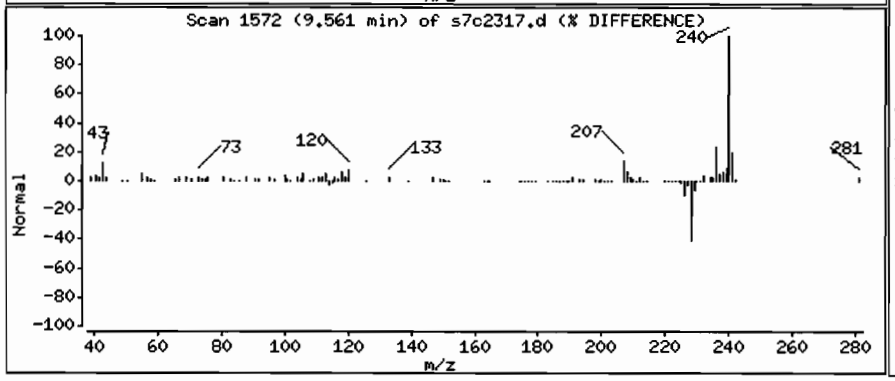

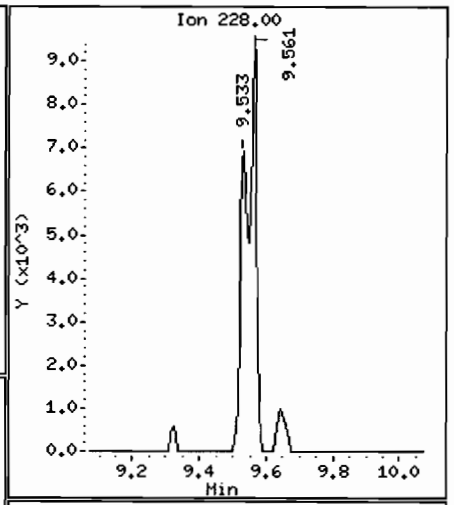

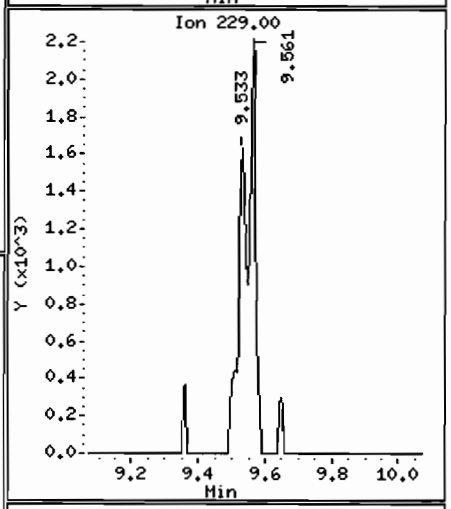

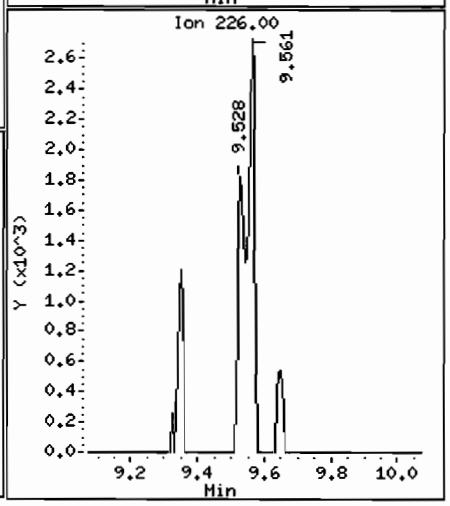

Data File: /chem/MSD7.i/s032310.b/s7c2317.d

Date : 23-MAR-2010 16:03

Client ID: RE46-10-13867

Instrument: MSD7.i

Sample Info: |2488150011965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 57.6 ug/Kg

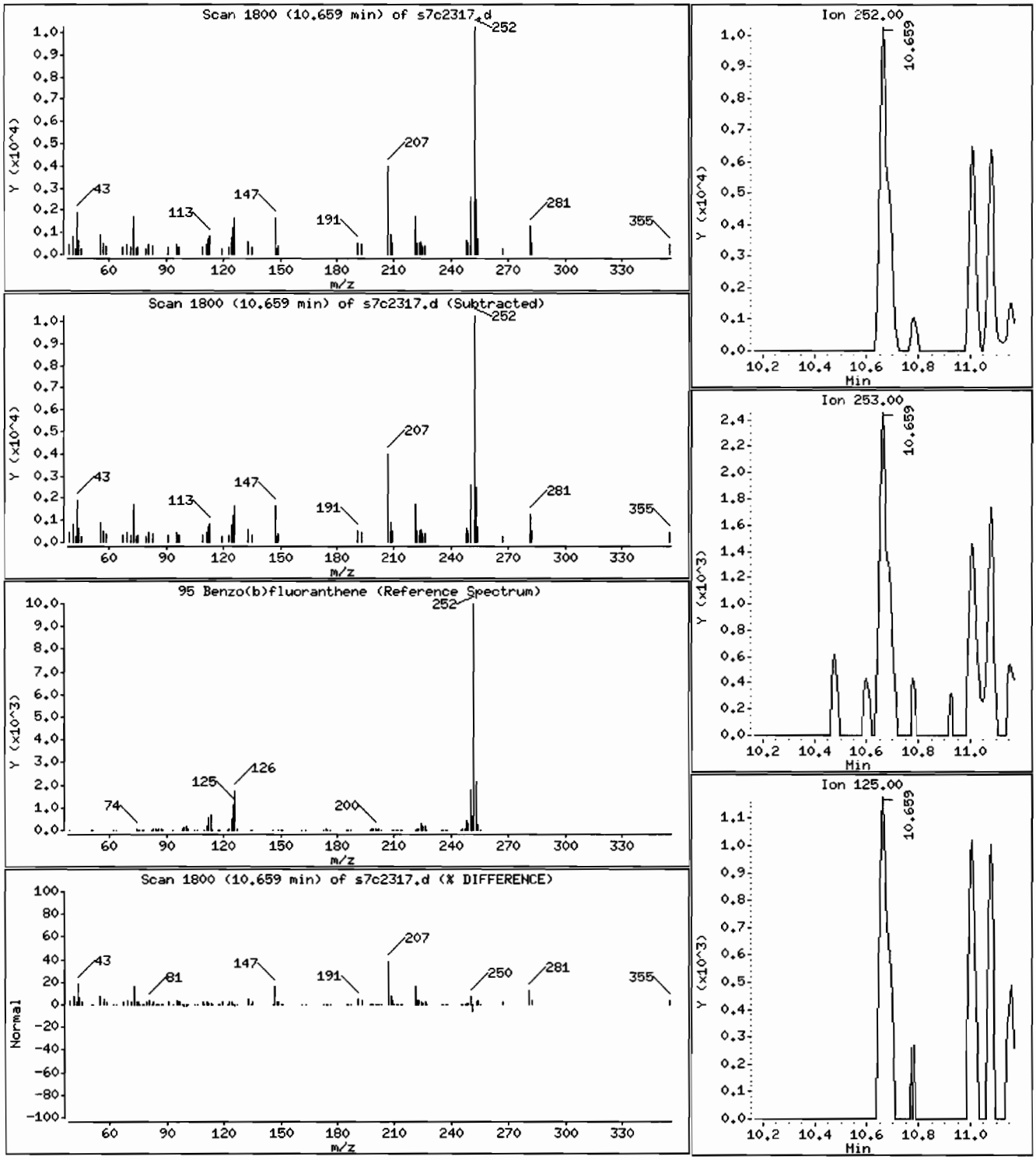

Data File: /chem/MSD7.i/s032310.b/s7c2317.d

Date : 23-MAR-2010 16:03

Client ID: RE46-10-13867

Instrument: MSD7.i

Sample Info: |2488150011965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 30.7 ug/Kg

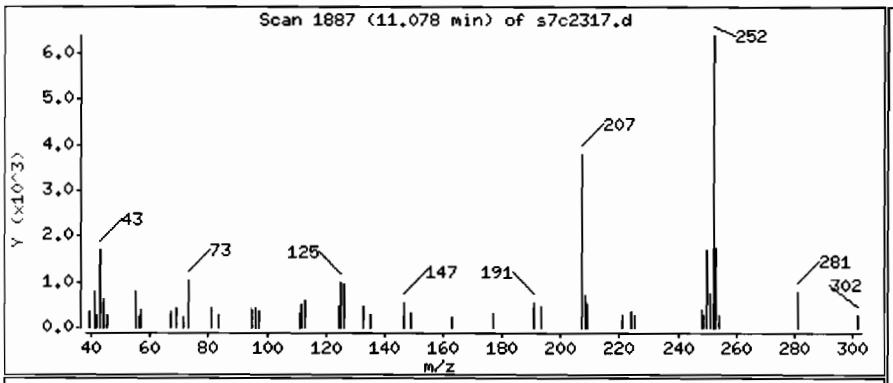

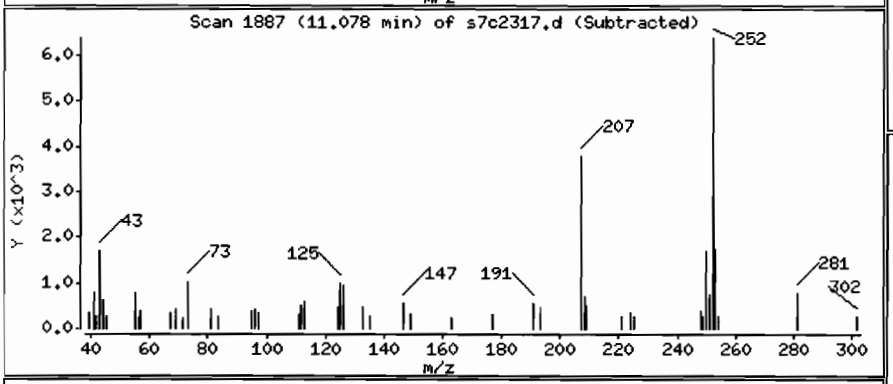

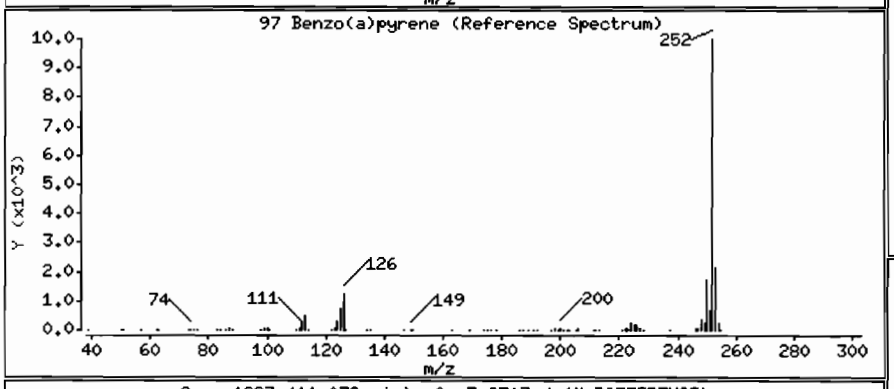

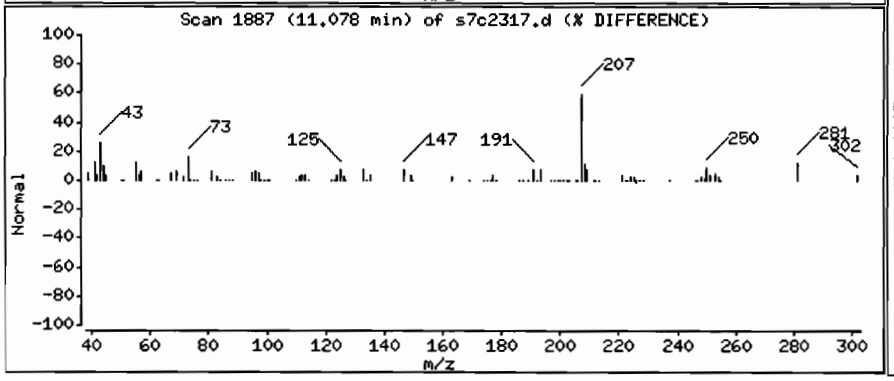

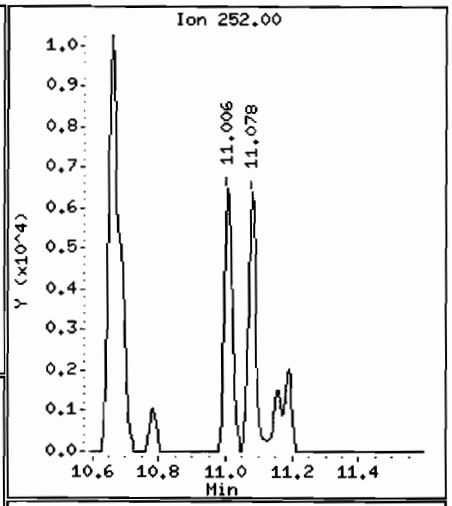

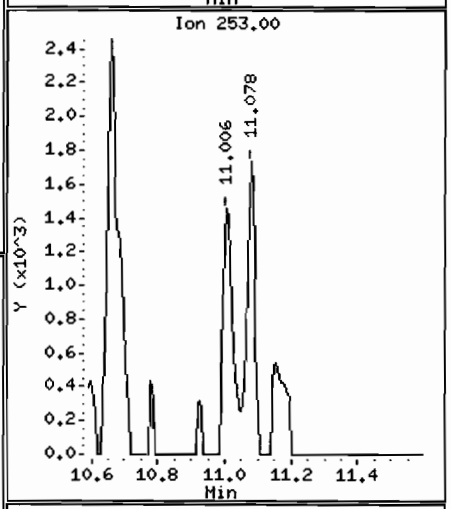

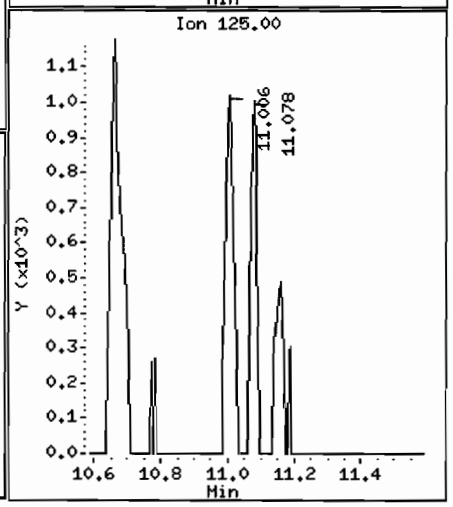

Data File: /chem/MSD7.i/s032310.b/s7c2317.d

Date : 23-MAR-2010 16:03

Client ID: RE46-10-13867

Instrument: MSD7.i

Sample Info: |2488150001|965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 23.8 ug/Kg

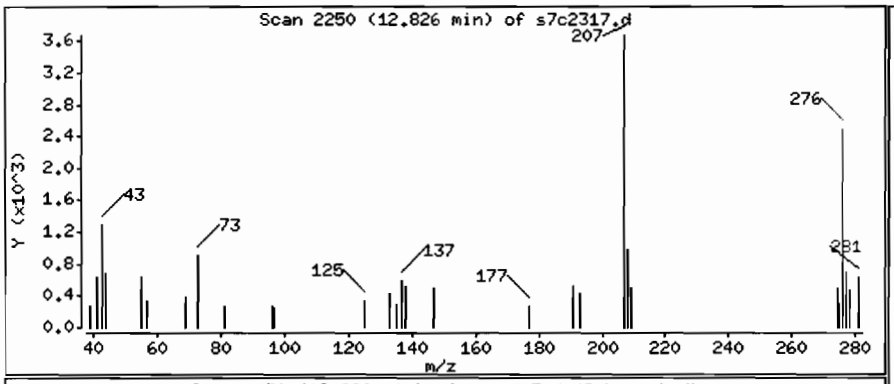

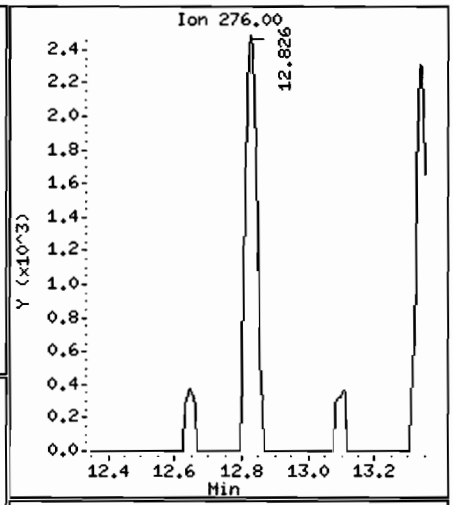

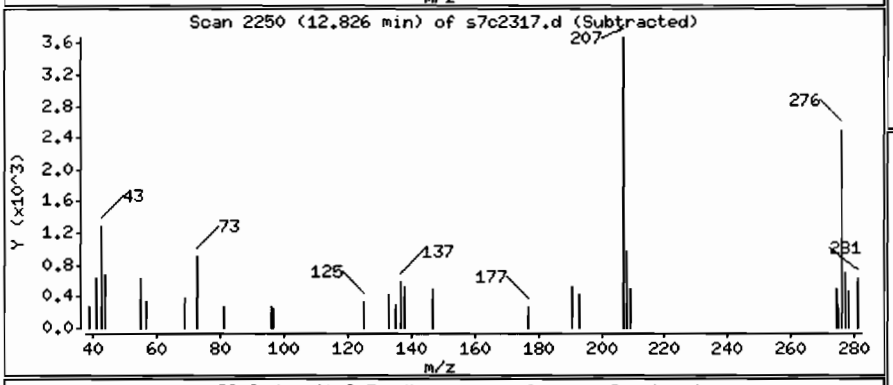

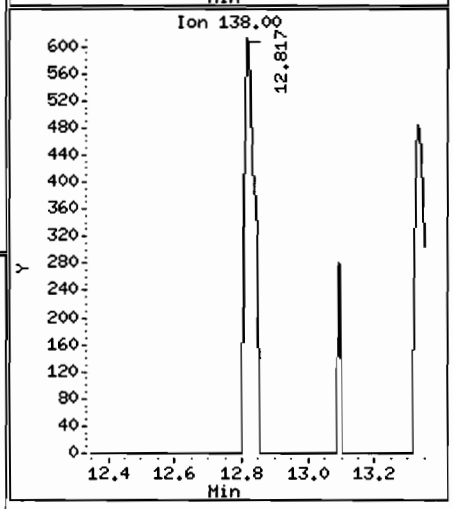

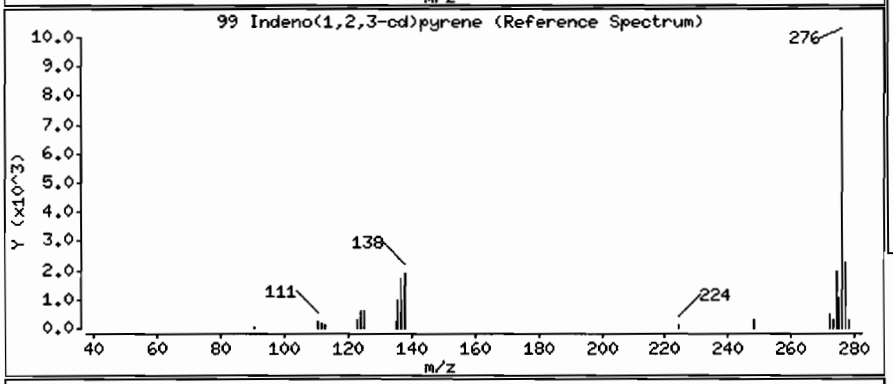

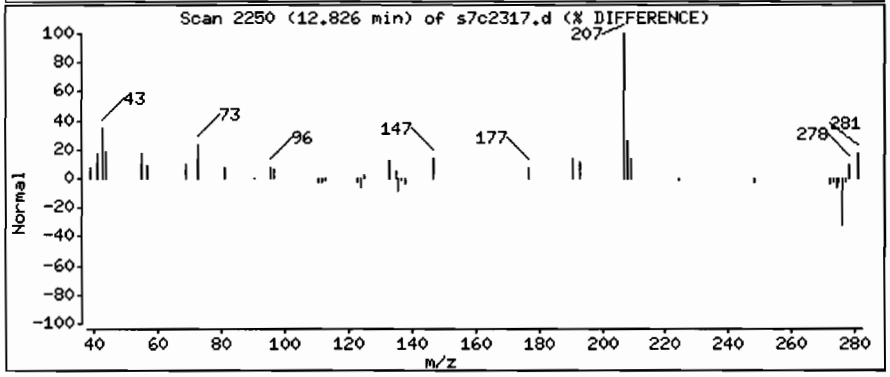

Data File: /chem/MSD7.i/s032310.b/s7c2317.d

Date : 23-MAR-2010 16:03

Client ID: RE46-10-13867 Instrument: MSD7.i

Sample Info: |2488150011965816|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

101 Benzo(ghi)perylene Concentration: 25.4 ug/Kg

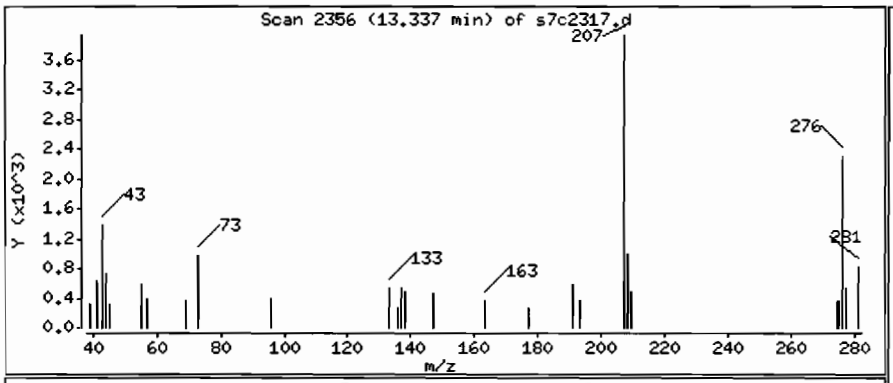

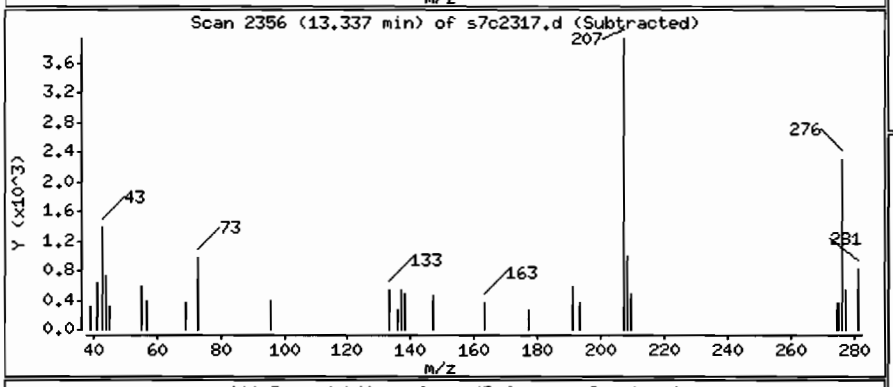

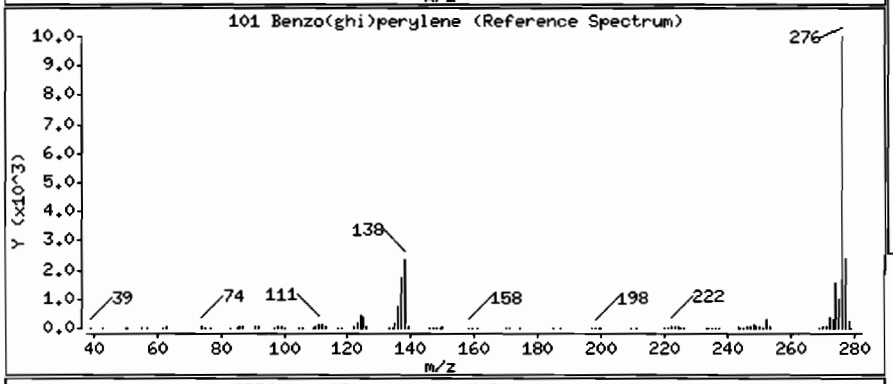

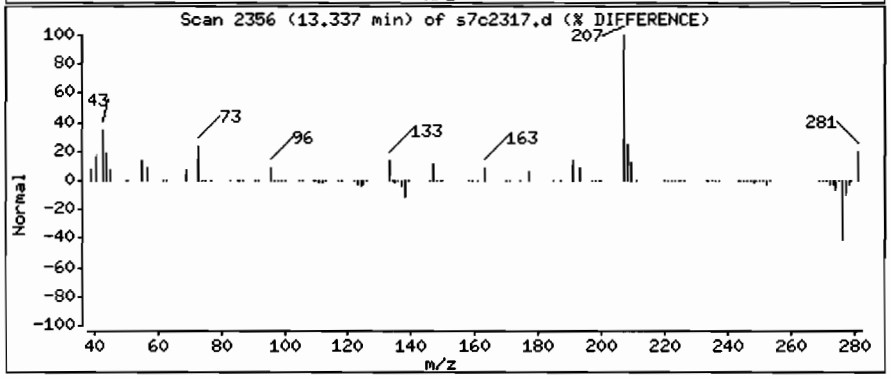

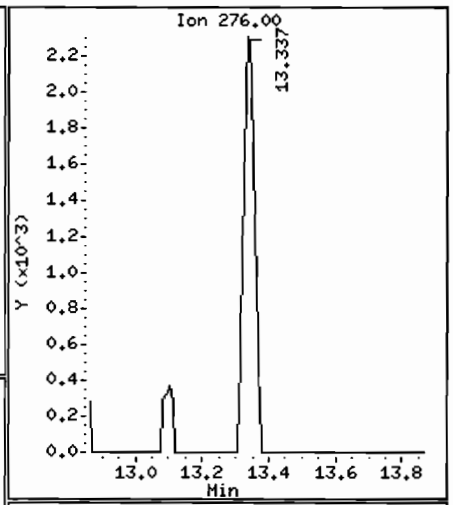

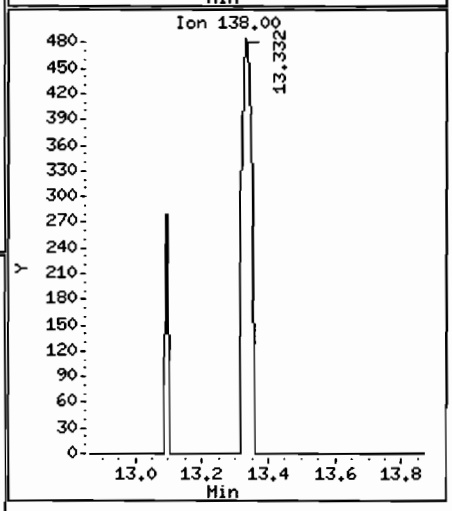

Data File: /chem/MSD7.i/s032310.b/s7c2317.d

Date : 23-MAR-2010 16:03

Client ID: RE46-10-13867

Instrument: MSD7.i

Sample Info: |2488150011965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7950	23	C6H12O2	116

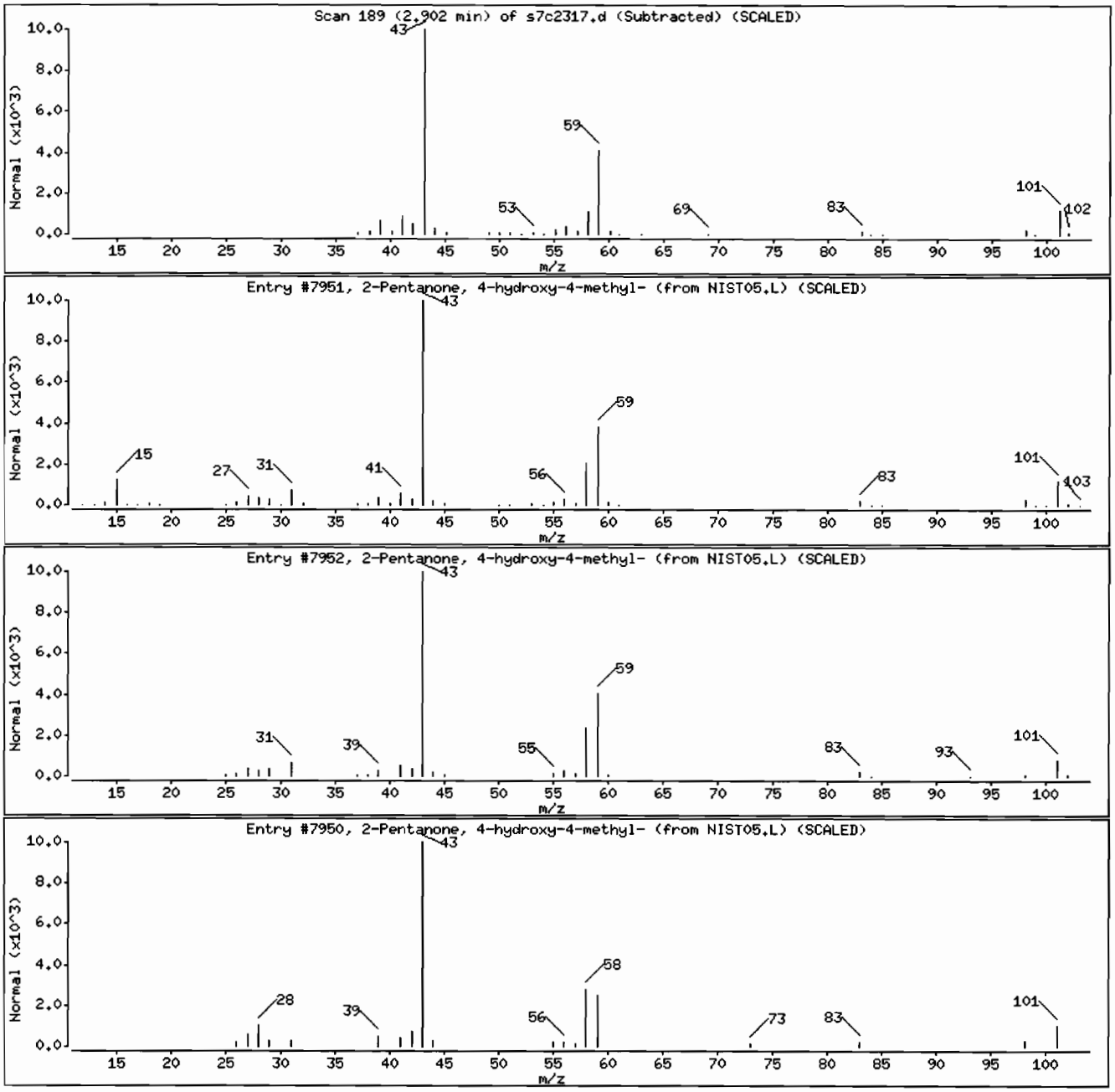

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13868**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 18:56**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2325.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	359	ug/kg	71.8	359
108-95-2	Phenol	U	359	ug/kg	71.8	359
95-57-8	2-Chlorophenol	U	359	ug/kg	71.8	359
106-46-7	1,4-Dichlorobenzene	U	359	ug/kg	71.8	359
621-64-7	N-Nitrosodipropylamine	U	359	ug/kg	71.8	359
59-50-7	4-Chloro-3-methylphenol	U	359	ug/kg	71.8	359
83-32-9	Acenaphthene	U	35.9	ug/kg	11.9	35.9
121-14-2	2,4-Dinitrotoluene	U	359	ug/kg	35.9	359
100-02-7	4-Nitrophenol	U	359	ug/kg	119	359
87-86-5	Pentachlorophenol	U	359	ug/kg	89.8	359
129-00-0	Pyrene	U	35.9	ug/kg	10.8	35.9
110-86-1	Pyridine	U	359	ug/kg	71.8	359
62-53-3	Aniline	U	359	ug/kg	108	359
111-44-4	bis(2-Chloroethyl) ether	U	359	ug/kg	71.8	359
541-73-1	1,3-Dichlorobenzene	U	359	ug/kg	71.8	359
100-51-6	Benzyl alcohol	U	359	ug/kg	108	359
95-50-1	1,2-Dichlorobenzene	U	359	ug/kg	71.8	359
108-60-1	bis(2-Chloroisopropyl)ether	U	359	ug/kg	71.8	359
95-48-7	o-Cresol	U	359	ug/kg	71.8	359
65794-96-9	m,p-Cresols	U	359	ug/kg	108	359
67-72-1	Hexachloroethane	U	359	ug/kg	71.8	359
98-95-3	Nitrobenzene	U	359	ug/kg	71.8	359
78-59-1	Isophorone	U	359	ug/kg	71.8	359
88-75-5	2-Nitrophenol	U	359	ug/kg	71.8	359
105-67-9	2,4-Dimethylphenol	U	359	ug/kg	126	359
111-91-1	bis(2-Chloroethoxy)methane	U	359	ug/kg	71.8	359
120-83-2	2,4-Dichlorophenol	U	359	ug/kg	71.8	359
65-85-0	Benzoic acid	U	718	ug/kg	180	718
91-20-3	Naphthalene	U	35.9	ug/kg	10.8	35.9
106-47-8	4-Chloroaniline	U	359	ug/kg	71.8	359
87-68-3	Hexachlorobutadiene	U	359	ug/kg	71.8	359
91-57-6	2-Methylnaphthalene	U	35.9	ug/kg	7.18	35.9
77-47-4	Hexachlorocyclopentadiene	U	359	ug/kg	71.8	359
88-06-2	2,4,6-Trichlorophenol	U	359	ug/kg	71.8	359
95-95-4	2,4,5-Trichlorophenol	U	359	ug/kg	71.8	359
91-58-7	2-Chloronaphthalene	U	35.9	ug/kg	11.9	35.9
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	359	ug/kg	71.8	359
99-09-2	3-Nitroaniline	U	359	ug/kg	71.8	359

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248815009	Date Received:	03/05/2010 10:20	%Moisture:	7.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13868	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965816	Inst:	MSD7.I	Dilution:	1
Run Date:	03/23/2010 18:56	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	03/16/2010 21:37	Aliquot:	30.17 g	Final Volume:	1 mL
Data File:	s7c2325.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	359	ug/kg	71.8	359
606-20-2	2,6-Dinitrotoluene	U	359	ug/kg	35.9	359
208-96-8	Acenaphthylene	U	35.9	ug/kg	10.8	35.9
51-28-5	2,4-Dinitrophenol	U	718	ug/kg	136	718
132-64-9	Dibenzofuran	U	359	ug/kg	71.8	359
84-66-2	Diethylphthalate	U	359	ug/kg	71.8	359
86-73-7	Fluorene	U	35.9	ug/kg	10.8	35.9
7005-72-3	4-Chlorophenylphenylether	U	359	ug/kg	71.8	359
534-52-1	2-Methyl-4,6-dinitrophenol	U	359	ug/kg	71.8	359
100-01-6	4-Nitroaniline	U	359	ug/kg	108	359
	p-Nitroaniline					
122-39-4	Diphenylamine	U	359	ug/kg	71.8	359
122-66-7	Azobenzene	U	359	ug/kg	71.8	359
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	359	ug/kg	71.8	359
118-74-1	Hexachlorobenzene	U	359	ug/kg	71.8	359
85-01-8	Phenanthrene	U	35.9	ug/kg	10.8	35.9
120-12-7	Anthracene	U	35.9	ug/kg	7.18	35.9
84-74-2	Di-n-butylphthalate	U	359	ug/kg	71.8	359
206-44-0	Fluoranthene	U	35.9	ug/kg	10.8	35.9
85-68-7	Butylbenzylphthalate	U	359	ug/kg	71.8	359
56-55-3	Benzo(a)anthracene	U	35.9	ug/kg	10.8	35.9
91-94-1	3,3'-Dichlorobenzidine	U	359	ug/kg	108	359
218-01-9	Chrysene	U	35.9	ug/kg	10.8	35.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	359	ug/kg	71.8	359
117-84-0	Di-n-octylphthalate	U	359	ug/kg	71.8	359
205-99-2	Benzo(b)fluoranthene	U	35.9	ug/kg	10.8	35.9
207-08-9	Benzo(k)fluoranthene	U	35.9	ug/kg	10.8	35.9
50-32-8	Benzo(a)pyrene	U	35.9	ug/kg	10.8	35.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.9	ug/kg	10.8	35.9
53-70-3	Dibenzo(a,h)anthracene	U	35.9	ug/kg	10.8	35.9
191-24-2	Benzo(ghi)perylene	U	35.9	ug/kg	10.8	35.9
120-82-1	1,2,4-Trichlorobenzene	U	359	ug/kg	71.8	359

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.9	318	ug/kg	64	NJ

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2325.d
Lab Smp Id: 248815009 Client Smp ID: RE46-10-13868
Inj Date : 23-MAR-2010 18:56
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815009|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 llo00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.17000	weight of sample
M	7.71220	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	290403	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	1099342	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	623079	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	1164459	40.0000	
* 91 Chrysene-d12	240	9.547	9.552	(1.000)	877626	40.0000	
* 98 Perylene-d12	264	11.165	11.165	(1.000)	519209	40.0000	
$ 3 2-Fluorophenol	112	3.070	3.061	(0.793)	338145	44.7978	1610
$ 5 Phenol-d5	99	3.586	3.590	(0.927)	399526	42.2159	1520
$ 20 Nitrobenzene-d5	82	4.226	4.235	(0.893)	198637	23.9565	860
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	433719	27.9311	1000
$ 60 2,4,6-Tribromophenol	329	6.576	6.576	(1.099)	103931	57.6997	2070
$ 81 p-Terphenyl-d14	244	8.521	8.521	(0.893)	472420	30.0467	1080

ION RATIO REPORT

SV REPORT

Data file: s7c2325.d
Report Date: 03/23/2010 21:30
Lab. ID: 248815009 SampleType: SAMPLE
Injection Date: 23-MAR-2010 18:56
Operator: JMB3 Instrument: MSD7.i
Sample Info: |248815009|965816|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2298
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	26268	3.59	3.66	80-120	100	(T)
93	292	3.55	3.66	229-289	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	31645	4.23	4.12	80-120	100	(T)
42	26668	4.23	4.11	74-134	84	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	113283	5.98	5.75	80-120	100	(T)
164	623079	5.98	5.75	0- 40	550	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	82150	5.98	5.81	80-120	100	(T)
63	1183	5.98	5.81	66-126	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	82150	5.98	6.10	80-120	100	(T)
89	1303	5.98	6.10	43-103	2	(QT)
63	1183	5.98	6.10	22- 82	1	(QT)
53 Fluorene			CAS#: 86-73-7			
166	5272	6.58	6.39	80-120	100	(T)
165	6373	6.58	6.39	61-121	121	(QT)
167	1985	6.58	6.39	0- 44	38	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	315	6.58	6.41	80-120	100	(T)
105	1002	6.58	6.41	14- 74	317	(QT)
51	1138	6.58	6.41	41-101	360	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s032310.b/s7c2325.d
Lab Smp Id: 248815009 Client Smp ID: RE46-10-13868
Inj Date : 23-MAR-2010 18:56
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815009|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 11o00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.17000	weight of sample
M	7.71220	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.870	1872993	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
2-Pentanone, 4-hydroxy-4-methyl-				CAS #: 123-42-2			
2.902	414342	8.84876375	318	64	NIST05.L	7952	10

Data File: /chem/MSD7.i/s032310.b/s7c2325.d

Date : 23-MAR-2010 18:56

Client ID: RE46-10-13868

Sample Info: |2488150091965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD7.i

Operator: JMB3

Column diameter: 0.20

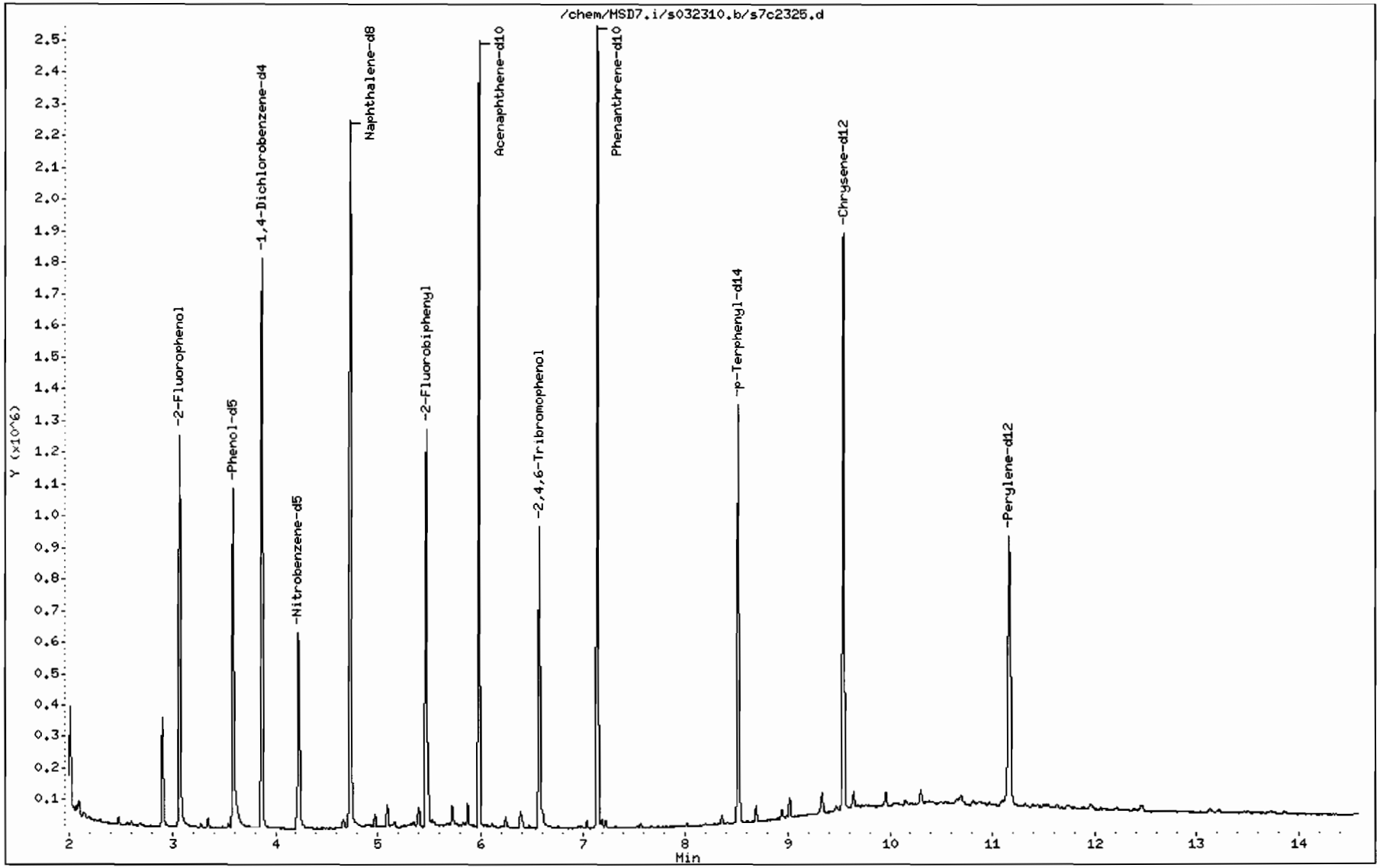

Data File: /chem/MSD7.i/s032310.b/s7c2325.d

Date : 23-MAR-2010 18:56

Client ID: RE46-10-13868 Instrument: MSD7.i

Sample Info: |2488150091965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116

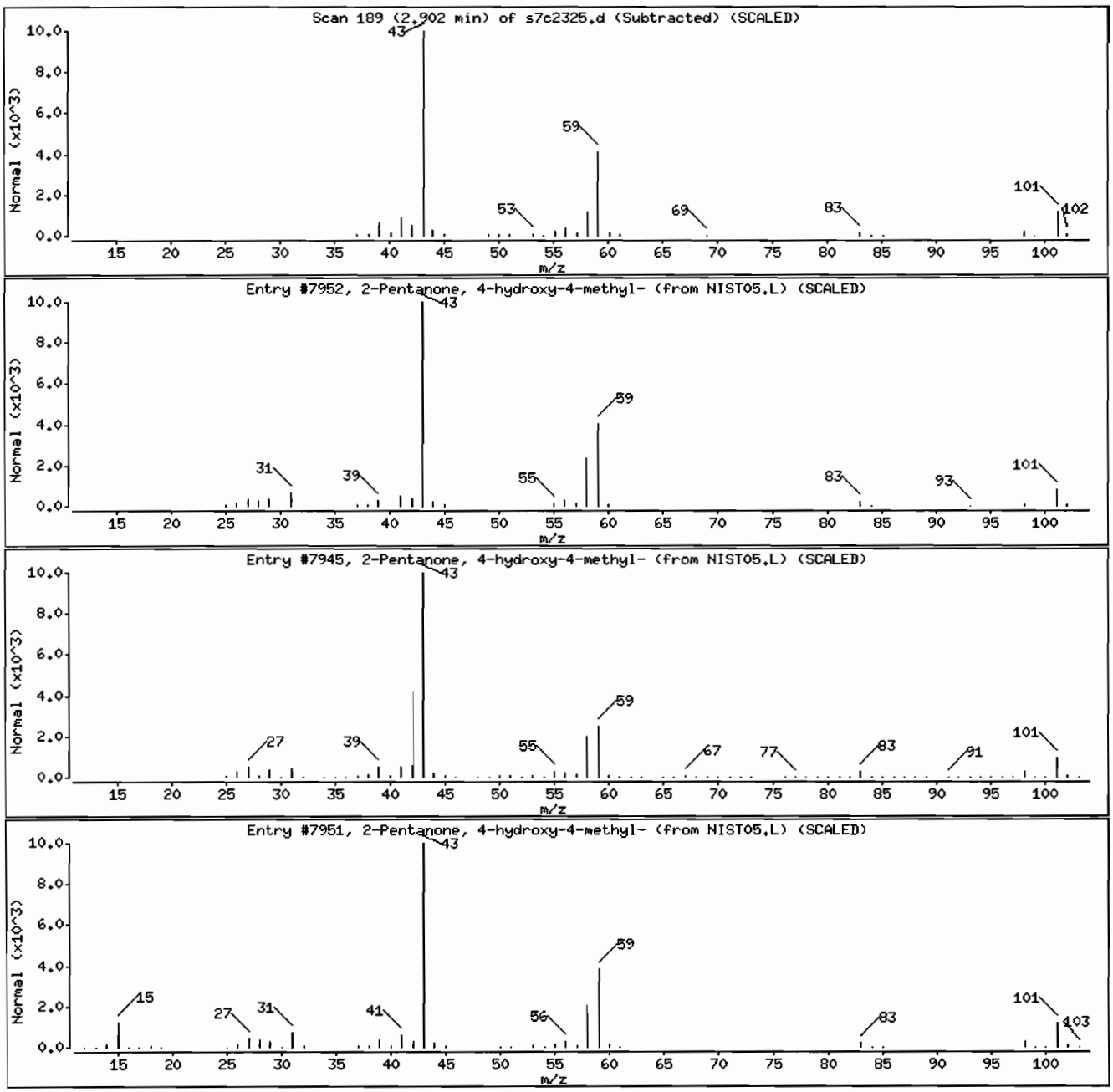

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248815004	Date Received:	03/05/2010 10:20	%Moisture:	8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13869	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965816	Inst:	MSD7.I	Dilution:	1
Run Date:	03/23/2010 13:10	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	03/16/2010 21:37	Aliquot:	30.1 g	Final Volume:	1 mL
Data File:	s7c2309.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	361	ug/kg	72.2	361
108-95-2	Phenol	U	361	ug/kg	72.2	361
95-57-8	2-Chlorophenol	U	361	ug/kg	72.2	361
106-46-7	1,4-Dichlorobenzene	U	361	ug/kg	72.2	361
621-64-7	N-Nitrosodipropylamine	U	361	ug/kg	72.2	361
59-50-7	4-Chloro-3-methylphenol	U	361	ug/kg	72.2	361
83-32-9	Acenaphthene	U	36.1	ug/kg	11.9	36.1
121-14-2	2,4-Dinitrotoluene	U	361	ug/kg	36.1	361
100-02-7	4-Nitrophenol	U	361	ug/kg	119	361
87-86-5	Pentachlorophenol	U	361	ug/kg	90.3	361
129-00-0	Pyrene	U	36.1	ug/kg	10.8	36.1
110-86-1	Pyridine	U	361	ug/kg	72.2	361
62-53-3	Aniline	U	361	ug/kg	108	361
111-44-4	bis(2-Chloroethyl) ether	U	361	ug/kg	72.2	361
541-73-1	1,3-Dichlorobenzene	U	361	ug/kg	72.2	361
100-51-6	Benzyl alcohol	U	361	ug/kg	108	361
95-50-1	1,2-Dichlorobenzene	U	361	ug/kg	72.2	361
108-60-1	bis(2-Chloroisopropyl)ether	U	361	ug/kg	72.2	361
95-48-7	o-Cresol	U	361	ug/kg	72.2	361
65794-96-9	m,p-Cresols	U	361	ug/kg	108	361
67-72-1	Hexachloroethane	U	361	ug/kg	72.2	361
98-95-3	Nitrobenzene	U	361	ug/kg	72.2	361
78-59-1	Isophorone	U	361	ug/kg	72.2	361
88-75-5	2-Nitrophenol	U	361	ug/kg	72.2	361
105-67-9	2,4-Dimethylphenol	U	361	ug/kg	126	361
111-91-1	bis(2-Chloroethoxy)methane	U	361	ug/kg	72.2	361
120-83-2	2,4-Dichlorophenol	U	361	ug/kg	72.2	361
65-85-0	Benzoic acid	U	722	ug/kg	181	722
91-20-3	Naphthalene	U	36.1	ug/kg	10.8	36.1
106-47-8	4-Chloroaniline	U	361	ug/kg	72.2	361
87-68-3	Hexachlorobutadiene	U	361	ug/kg	72.2	361
91-57-6	2-Methylnaphthalene	U	36.1	ug/kg	7.22	36.1
77-47-4	Hexachlorocyclopentadiene	U	361	ug/kg	72.2	361
88-06-2	2,4,6-Trichlorophenol	U	361	ug/kg	72.2	361
95-95-4	2,4,5-Trichlorophenol	U	361	ug/kg	72.2	361
91-58-7	2-Chloronaphthalene	U	36.1	ug/kg	11.9	36.1
88-74-4	2-Nitroaniline	U	361	ug/kg	72.2	361
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	361	ug/kg	72.2	361

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13869**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:10**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.1 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2309.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	361	ug/kg	72.2	361
606-20-2	2,6-Dinitrotoluene	U	361	ug/kg	36.1	361
208-96-8	Acenaphthylene	U	36.1	ug/kg	10.8	36.1
51-28-5	2,4-Dinitrophenol	U	722	ug/kg	137	722
132-64-9	Dibenzofuran	U	361	ug/kg	72.2	361
84-66-2	Diethylphthalate	U	361	ug/kg	72.2	361
86-73-7	Fluorene	U	36.1	ug/kg	10.8	36.1
7005-72-3	4-Chlorophenylphenylether	U	361	ug/kg	72.2	361
534-52-1	2-Methyl-4,6-dinitrophenol	U	361	ug/kg	72.2	361
100-01-6	4-Nitroaniline	U	361	ug/kg	108	361
	p-Nitroaniline					
122-39-4	Diphenylamine	U	361	ug/kg	72.2	361
122-66-7	Azobenzene	U	361	ug/kg	72.2	361
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	361	ug/kg	72.2	361
118-74-1	Hexachlorobenzene	U	361	ug/kg	72.2	361
85-01-8	Phenanthrene	U	36.1	ug/kg	10.8	36.1
120-12-7	Anthracene	U	36.1	ug/kg	7.22	36.1
84-74-2	Di-n-butylphthalate	U	361	ug/kg	72.2	361
206-44-0	Fluoranthene	U	36.1	ug/kg	10.8	36.1
85-68-7	Butylbenzylphthalate	U	361	ug/kg	72.2	361
56-55-3	Benzo(a)anthracene	U	36.1	ug/kg	10.8	36.1
91-94-1	3,3'-Dichlorobenzidine	U	361	ug/kg	108	361
218-01-9	Chrysene	U	36.1	ug/kg	10.8	36.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	361	ug/kg	72.2	361
117-84-0	Di-n-octylphthalate	U	361	ug/kg	72.2	361
205-99-2	Benzo(b)fluoranthene	U	36.1	ug/kg	10.8	36.1
207-08-9	Benzo(k)fluoranthene	U	36.1	ug/kg	10.8	36.1
50-32-8	Benzo(a)pyrene	U	36.1	ug/kg	10.8	36.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.1	ug/kg	10.8	36.1
53-70-3	Dibenzo(a,h)anthracene	U	36.1	ug/kg	10.8	36.1
191-24-2	Benzo(ghi)perylene	U	36.1	ug/kg	10.8	36.1
120-82-1	1,2,4-Trichlorobenzene	U	361	ug/kg	72.2	361

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	470	ug/kg		J
630-02-4	Octacosane	9.33	146	ug/kg	90	NJ

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2309.d
Lab Smp Id: 248815004 Client Smp ID: RE46-10-13869
Inj Date : 23-MAR-2010 13:10
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815004|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.10000	weight of sample
M	7.99070	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	225418	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	845953	40.0000	
* 46 Acenaphthene-d10	164	5.979	5.988	(1.000)	493261	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	904934	40.0000	
* 91 Chrysene-d12	240	9.537	9.552	(1.000)	734380	40.0000	
* 98 Perylene-d12	264	11.160	11.165	(1.000)	556605	40.0000	
$ 3 2-Fluorophenol	112	3.066	3.061	(0.792)	366755	62.5954	2260
$ 5 Phenol-d5	99	3.586	3.590	(0.927)	433350	58.9906	2130
$ 20 Nitrobenzene-d5	82	4.226	4.235	(0.893)	217288	34.0553	1230
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	452955	36.8469	1330
$ 60 2,4,6-Tribromophenol	329	6.576	6.576	(1.100)	111636	78.2887	2830
$ 81 p-Terphenyl-d14	244	8.516	8.521	(0.893)	540028	41.0462	1480

ION RATIO REPORT

SV REPORT

Data file: s7c2309.d
Report Date: 03/23/2010 13:33
Lab. ID: 248815004 SampleType: SAMPLE
Injection Date: 23-MAR-2010 13:10
Operator: JMB3 Instrument: MSD7.i
Sample Info: |248815004|965816|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2298
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	30196	3.59	3.66	80-120	100	(T)
93	483	3.55	3.66	229-289	2	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	34404	4.23	4.12	80-120	100	(T)
42	29691	4.23	4.12	74-134	86	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	88262	5.98	5.75	80-120	100	(T)
164	493261	5.98	5.75	0- 40	559	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	64179	5.98	5.81	80-120	100	(T)
63	911	5.98	5.81	66-126	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	64179	5.98	6.10	80-120	100	(T)
89	1071	5.98	6.10	43-103	2	(QT)
63	911	5.98	6.10	22- 82	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	6204	6.57	6.39	80-120	100	(T)
165	6701	6.57	6.39	61-121	108	(T)
167	2251	6.57	6.39	0- 44	36	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	541	6.58	6.41	80-120	100	(T)
105	1046	6.57	6.41	14- 74	193	(QT)
51	1028	6.57	6.41	41-101	190	(QT)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	7897	6.57	6.75	80-120	100	(T)
141	66357	6.57	6.75	61-121	840	(QT)
250	16383	6.57	6.75	69-129	207	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s032310.b/s7c2309.d
Lab Smp Id: 248815004 Client Smp ID: RE46-10-13869
Inj Date : 23-MAR-2010 13:10
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815004|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.10000	weight of sample
M	7.99070	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.870	1477761	40.000
* 91 Chrysene-d12	9.537	1951916	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.902	480511	13.0064532	470	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
Octacosane				CAS #: 630-02-4			
9.330	197405	4.04536305	146	90	NIST05.L	169721	91

Data File: /chem/MSD7.i/s032310.b/s7c2309.d

Date : 23-MAR-2010 13:10

Client ID: RE46-10-13869

Sample Info: 1248815004196581611SVMI1ILANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD7.i

Operator: JMB3

Column diameter: 0.20

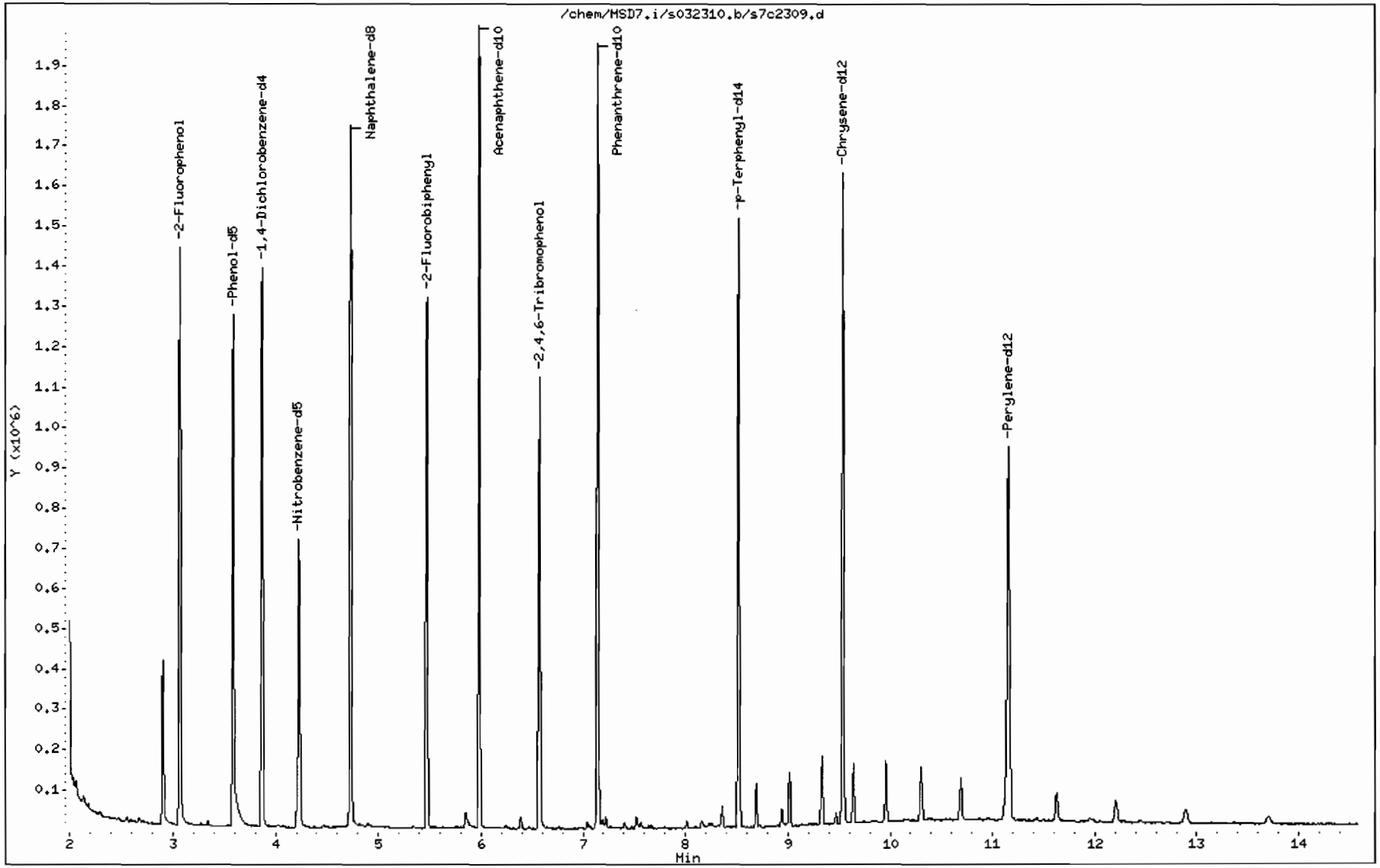

Data File: /chem/MSD7.i/s032310.b/s7c2309.d

Date : 23-MAR-2010 13:10

Client ID: RE46-10-13869

Instrument: MSD7.i

Sample Info: |2488150041965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116

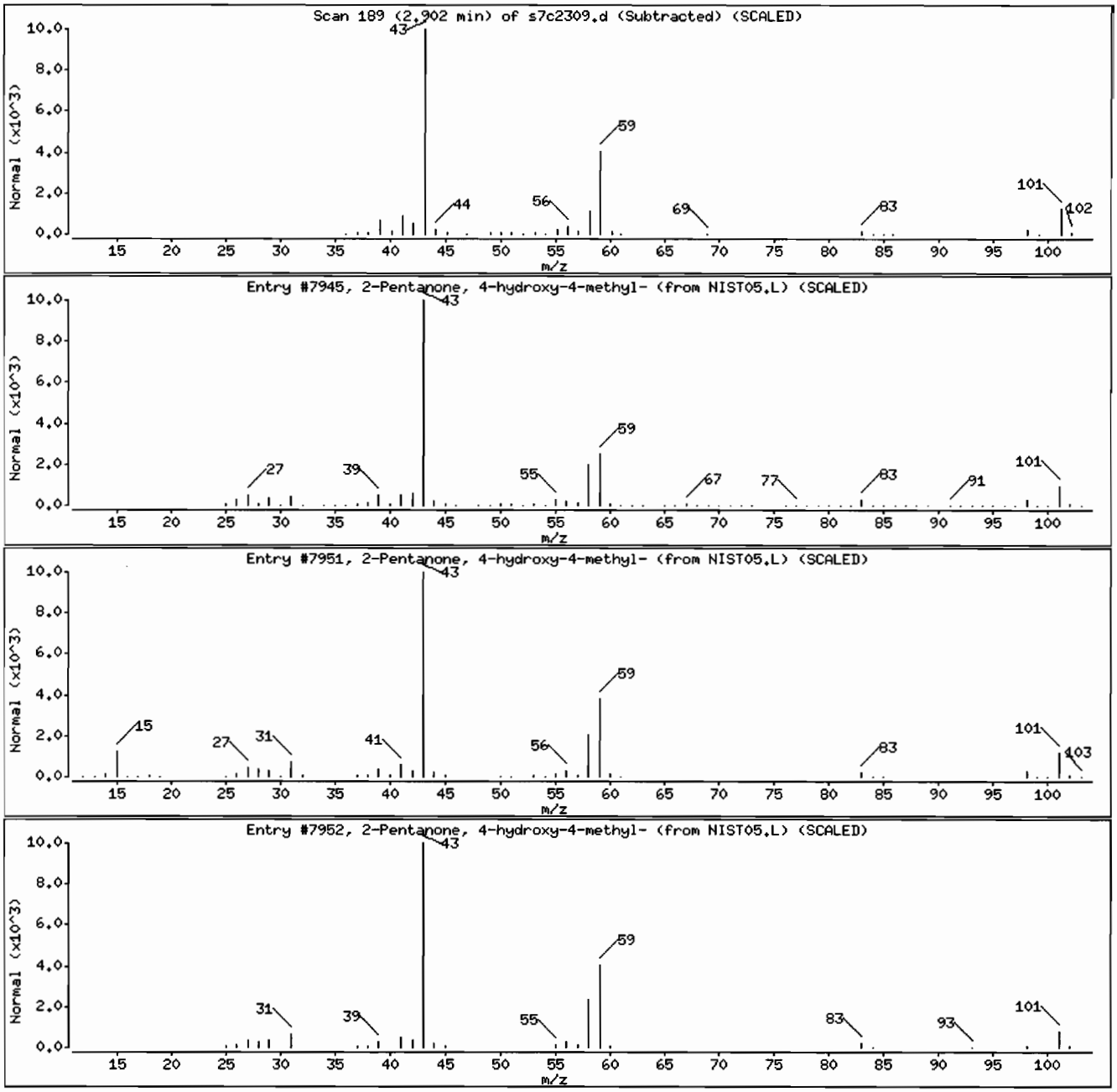

Data File: /chem/MSD7.i/s032310.b/s7c2309.d

Date : 23-MAR-2010 13:10

Client ID: RE46-10-13869

Instrument: MSD7.i

Sample Info: |2488150041965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octacosane	630-02-4	NIST05.L	169721	90	C28H58	394
Tetracosane	646-31-1	NIST05.L	146922	90	C24H50	338
Eicosane	112-95-8	NIST05.L	113490	87	C20H42	282

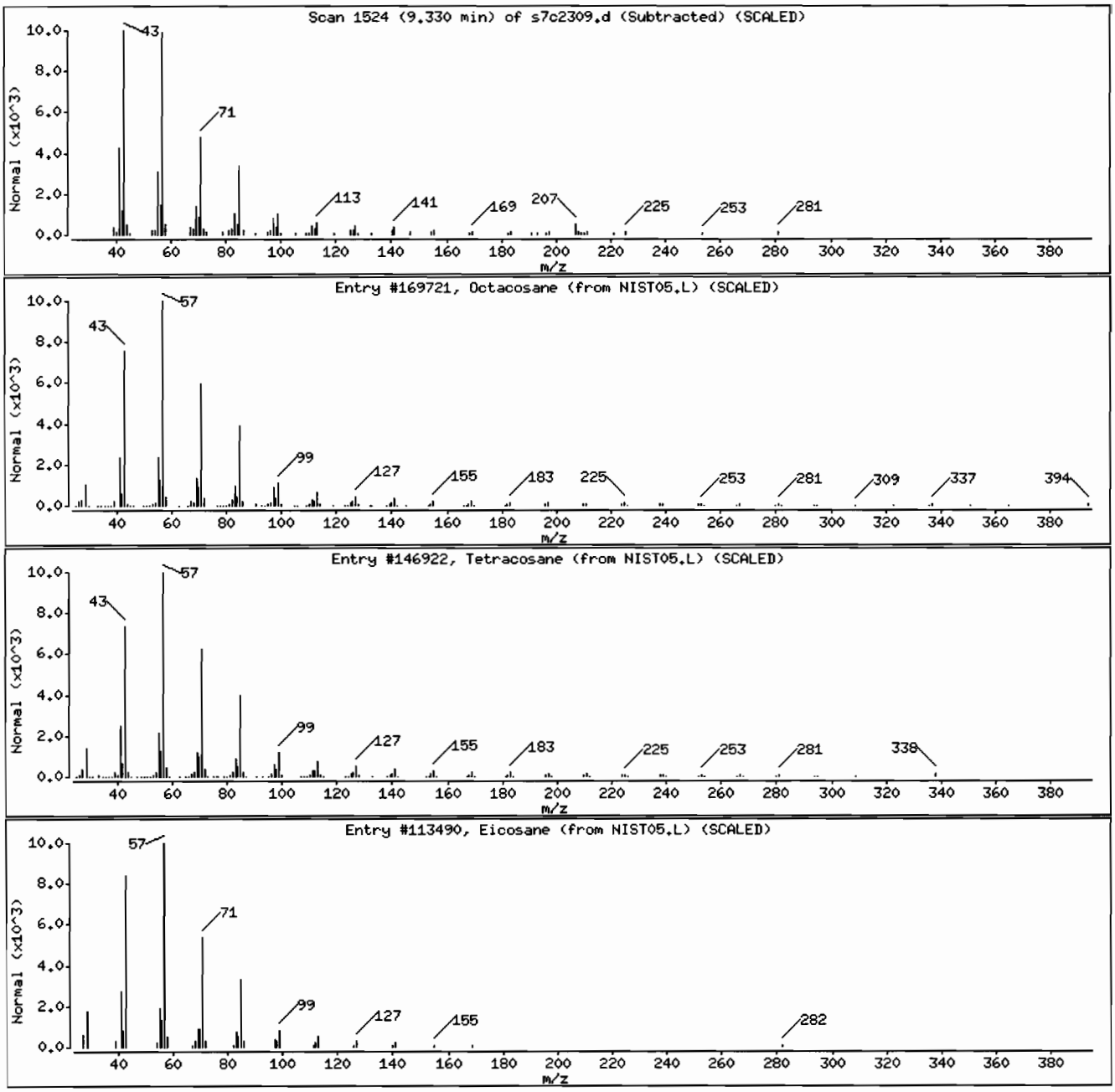

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815011	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13873	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.1	**Dilution:**	1
Run Date:	03/23/2010 19:39	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	s7c2327.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	358	ug/kg	71.5	358
108-95-2	Phenol	U	358	ug/kg	71.5	358
95-57-8	2-Chlorophenol	U	358	ug/kg	71.5	358
106-46-7	1,4-Dichlorobenzene	U	358	ug/kg	71.5	358
621-64-7	N-Nitrosodipropylamine	U	358	ug/kg	71.5	358
59-50-7	4-Chloro-3-methylphenol	U	358	ug/kg	71.5	358
83-32-9	Acenaphthene	U	35.8	ug/kg	11.8	35.8
121-14-2	2,4-Dinitrotoluene	U	358	ug/kg	35.8	358
100-02-7	4-Nitrophenol	U	358	ug/kg	118	358
87-86-5	Pentachlorophenol	U	358	ug/kg	89.4	358
129-00-0	Pyrene	J	15.6	ug/kg	10.7	35.8
110-86-1	Pyridine	U	358	ug/kg	71.5	358
62-53-3	Aniline	U	358	ug/kg	107	358
111-44-4	bis(2-Chloroethyl) ether	U	358	ug/kg	71.5	358
541-73-1	1,3-Dichlorobenzene	U	358	ug/kg	71.5	358
100-51-6	Benzyl alcohol	U	358	ug/kg	107	358
95-50-1	1,2-Dichlorobenzene	U	358	ug/kg	71.5	358
108-60-1	bis(2-Chloroisopropyl)ether	U	358	ug/kg	71.5	358
95-48-7	o-Cresol	U	358	ug/kg	71.5	358
65794-96-9	m,p-Cresols	U	358	ug/kg	107	358
67-72-1	Hexachloroethane	U	358	ug/kg	71.5	358
98-95-3	Nitrobenzene	U	358	ug/kg	71.5	358
78-59-1	Isophorone	U	358	ug/kg	71.5	358
88-75-5	2-Nitrophenol	U	358	ug/kg	71.5	358
105-67-9	2,4-Dimethylphenol	U	358	ug/kg	125	358
111-91-1	bis(2-Chloroethoxy)methane	U	358	ug/kg	71.5	358
120-83-2	2,4-Dichlorophenol	U	358	ug/kg	71.5	358
65-85-0	Benzoic acid	U	715	ug/kg	179	715
91-20-3	Naphthalene	U	35.8	ug/kg	10.7	35.8
106-47-8	4-Chloroaniline	U	358	ug/kg	71.5	358
87-68-3	Hexachlorobutadiene	U	358	ug/kg	71.5	358
91-57-6	2-Methylnaphthalene	U	35.8	ug/kg	7.15	35.8
77-47-4	Hexachlorocyclopentadiene	U	358	ug/kg	71.5	358
88-06-2	2,4,6-Trichlorophenol	U	358	ug/kg	71.5	358
95-95-4	2,4,5-Trichlorophenol	U	358	ug/kg	71.5	358
91-58-7	2-Chloronaphthalene	U	35.8	ug/kg	11.8	35.8
88-74-4	2-Nitroaniline	U	358	ug/kg	71.5	358
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	358	ug/kg	71.5	358

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248815011	Date Received:	03/05/2010 10:20	%Moisture:	7.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13873	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965816	Inst:	MSD7.I	Dilution:	1
Run Date:	03/23/2010 19:39	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	03/16/2010 21:37	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	s7c2327.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	358	ug/kg	71.5	358
606-20-2	2,6-Dinitrotoluene	U	358	ug/kg	35.8	358
208-96-8	Acenaphthylene	U	35.8	ug/kg	10.7	35.8
51-28-5	2,4-Dinitrophenol	U	715	ug/kg	136	715
132-64-9	Dibenzofuran	U	358	ug/kg	71.5	358
84-66-2	Diethylphthalate	U	358	ug/kg	71.5	358
86-73-7	Fluorene	U	35.8	ug/kg	10.7	35.8
7005-72-3	4-Chlorophenylphenylether	U	358	ug/kg	71.5	358
534-52-1	2-Methyl-4,6-dinitrophenol	U	358	ug/kg	71.5	358
100-01-6	4-Nitroaniline	U	358	ug/kg	107	358
	p-Nitroaniline					
122-39-4	Diphenylamine	U	358	ug/kg	71.5	358
122-66-7	Azobenzene	U	358	ug/kg	71.5	358
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	358	ug/kg	71.5	358
118-74-1	Hexachlorobenzene	U	358	ug/kg	71.5	358
85-01-8	Phenanthrene	J	11.5	ug/kg	10.7	35.8
120-12-7	Anthracene	U	35.8	ug/kg	7.15	35.8
84-74-2	Di-n-butylphthalate	U	358	ug/kg	71.5	358
206-44-0	Fluoranthene	J	17.0	ug/kg	10.7	35.8
85-68-7	Butylbenzylphthalate	U	358	ug/kg	71.5	358
56-55-3	Benzo(a)anthracene	J	15.8	ug/kg	10.7	35.8
91-94-1	3,3'-Dichlorobenzidine	U	358	ug/kg	107	358
218-01-9	Chrysene	J	12.1	ug/kg	10.7	35.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	358	ug/kg	71.5	358
117-84-0	Di-n-octylphthalate	U	358	ug/kg	71.5	358
205-99-2	Benzo(b)fluoranthene		36.3	ug/kg	10.7	35.8
207-08-9	Benzo(k)fluoranthene	U	35.8	ug/kg	10.7	35.8
50-32-8	Benzo(a)pyrene	J	19.1	ug/kg	10.7	35.8
193-39-5	Indeno(1,2,3-cd)pyrene	J	12.9	ug/kg	10.7	35.8
53-70-3	Dibenzo(a,h)anthracene	U	35.8	ug/kg	10.7	35.8
191-24-2	Benzo(ghi)perylene	J	15.1	ug/kg	10.7	35.8
120-82-1	1,2,4-Trichlorobenzene	U	358	ug/kg	71.5	358

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.91	348	ug/kg		JA
	Unknown	9.22	667	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815011**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13873**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.1**	**Dilution:**	**1**
Run Date:	**03/23/2010 19:39**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2327.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	13.55	150	ug/kg		J

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2327.d
Lab Smp Id: 248815011 Client Smp ID: RE46-10-13873
Inj Date : 23-MAR-2010 19:39
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815011|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 11o00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	7.06960	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	283612	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(I.000)	1079532	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	637531	40.0000	
* 67 Phenanthrene-d10	188	7.149	7.149	(1.000)	1149070	40.0000	
* 91 Chrysene-d12	240	9.547	9.552	(1.000)	838044	40.0000	
* 98 Perylene-d12	264	11.165	11.165	(1.000)	437739	40.0000	
$ 3 2-Fluorophenol	112	3.070	3.061	(0.793)	425325	57.6967	2060
$ 5 Phenol-d5	99	3.590	3.590	(0.928)	526181	56.9302	2040
$ 20 Nitrobenzene-d5	82	4.226	4.235	(0.893)	252658	31.0308	1110
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	579761	36.4897	1300
$ 60 2,4,6-Tribromophenol	329	6.576	6.576	(1.099)	142677	77.4148	2770
$ 81 p-Terphenyl-d14	244	8.521	8.521	(0.893)	637153	42.4380	1520

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	8.415	8.420	(0.881)	11515	0.43493	15.6(a)
68 Phenanthrene	178	7.163	7.168	(1.002)	7567	0.32091	11.5(a)
76 Fluoranthene	202	8.203	8.203	(1.147)	12159	0.47426	17.0(a)
89 Benzo(a)anthracene	228	9.537	9.537	(0.999)	8900	0.44300	15.8(a)
92 Chrysene	228	9.566	9.571	(1.002)	6070	0.33954	12.1(a)
95 Benzo(b)fluoranthene	252	10.669	10.669	(0.956)	12441	1.01344	36.2
97 Benzo(a)pyrene	252	11.088	11.092	(0.993)	5366	0.53309	19.1(a)
99 Indeno(1,2,3-cd)pyrene	276	12.841	12.850	(1.150)	2610	0.36058	12.9(a)
101 Benzo(ghi)perylene	276	13.365	13.365	(1.197)	2554	0.42309	15.1(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s7c2327.d
Report Date: 03/23/2010 21:30
Lab. ID: 248815011 SampleType: SAMPLE
Injection Date: 23-MAR-2010 19:39
Operator: JMB3 Instrument: MSD7.i
Sample Info: |248815011|965816|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2298
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	39660	4.23	4.12	80-120	100	(T)
42	34482	4.23	4.11	74-134	87	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	114058	5.98	5.75	80-120	100	(T)
164	637531	5.98	5.75	0- 40	559	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	83094	5.98	5.81	80-120	100	(T)
63	1140	5.98	5.81	66-126	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	83094	5.98	6.10	80-120	100	(T)
89	1108	5.98	6.10	43-103	1	(QT)
63	1140	5.98	6.10	22- 82	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	7724	6.58	6.39	80-120	100	(T)
165	7864	6.58	6.39	61-121	102	(T)
167	2557	6.58	6.39	0- 44	33	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	599	6.58	6.41	80-120	100	(T)
105	1433	6.58	6.41	14- 74	239	(QT)
51	1557	6.58	6.41	41-101	260	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	10182	6.58	6.75	80-120	100	(T)
141	83861	6.58	6.75	61-121	824	(QT)
250	21426	6.58	6.75	69-129	210	(QT)
68 Phenanthrene				CAS#: 85-01-8		
178	7567	7.16	7.17	80-120	100	( )
179	2035	7.16	7.17	0- 46	27	( )
176	1417	7.16	7.17	0- 49	19	( )
69 Anthracene				CAS#: 120-12-7		
178	7567	7.16	7.21	80-120	100	( )
179	2035	7.16	7.21	0- 46	27	( )
176	1417	7.16	7.21	0- 48	19	( )
76 Fluoranthene				CAS#: 206-44-0		
202	12159	8.20	8.20	80-120	100	( )
203	2412	8.20	8.20	0- 47	20	( )
101	1310	8.20	8.20	0- 39	11	( )
79 Pyrene				CAS#: 129-00-0		
202	11515	8.42	8.42	80-120	100	( )
200	2132	8.42	8.42	0- 50	19	( )
101	1212	8.42	8.42	0- 41	11	( )
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	8900	9.54	9.54	80-120	100	( )
226	2206	9.53	9.54	0- 56	25	( )
229	3182	9.54	9.54	0- 49	36	( )
92 Chrysene				CAS#: 218-01-9		
228	6070	9.57	9.57	80-120	100	( )
229	1923	9.57	9.57	0- 49	32	( )
226	2265	9.57	9.57	0- 58	37	( )
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	12441	10.67	10.67	80-120	100	( )
253	3011	10.66	10.67	0- 52	24	( )
125	721	10.66	10.67	0- 40	6	( )
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	12441	10.67	10.70	80-120	100	( )
253	3011	10.66	10.70	0- 52	24	( )
125	721	10.66	10.70	0- 40	6	( )
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	5366	11.09	11.09	80-120	100	( )
253	2023	11.09	11.09	0- 52	38	( )
125	642	11.09	11.09	0- 40	12	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	2610	12.84	12.85	80-120	100	( )
138	726	12.84	12.85	0- 59	28	( )
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	2554	13.37	13.37	80-120	100	( )
138	1147	13.36	13.37	0- 55	45	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2327.d
Lab Smp Id: 248815011 Client Smp ID: RE46-10-13873
Inj Date : 23-MAR-2010 19:39
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248815011|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 11o00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	7.06960	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.870	1843308	40.000
* 91 Chrysene-d12	9.547	2290229	40.000
* 98 Perylene-d12	11.165	2075151	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
Unknown Aldol Condensate				CAS #:			
2.907	448840	9.73987047	348	0		0	10
Unknown				CAS #:			
9.219	1067699	18.6479001	667	0		0	91
Unknown				CAS #:			
13.548	217609	4.19456943	150	0		0	98

Data File: /chem/MSD7.i/s032310.b/s7c2327.d

Date : 23-MAR-2010 19:39

Client ID: RE46-10-13873

Sample Info: |248815011|965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD7.i

Operator: JMB3

Column diameter: 0.20

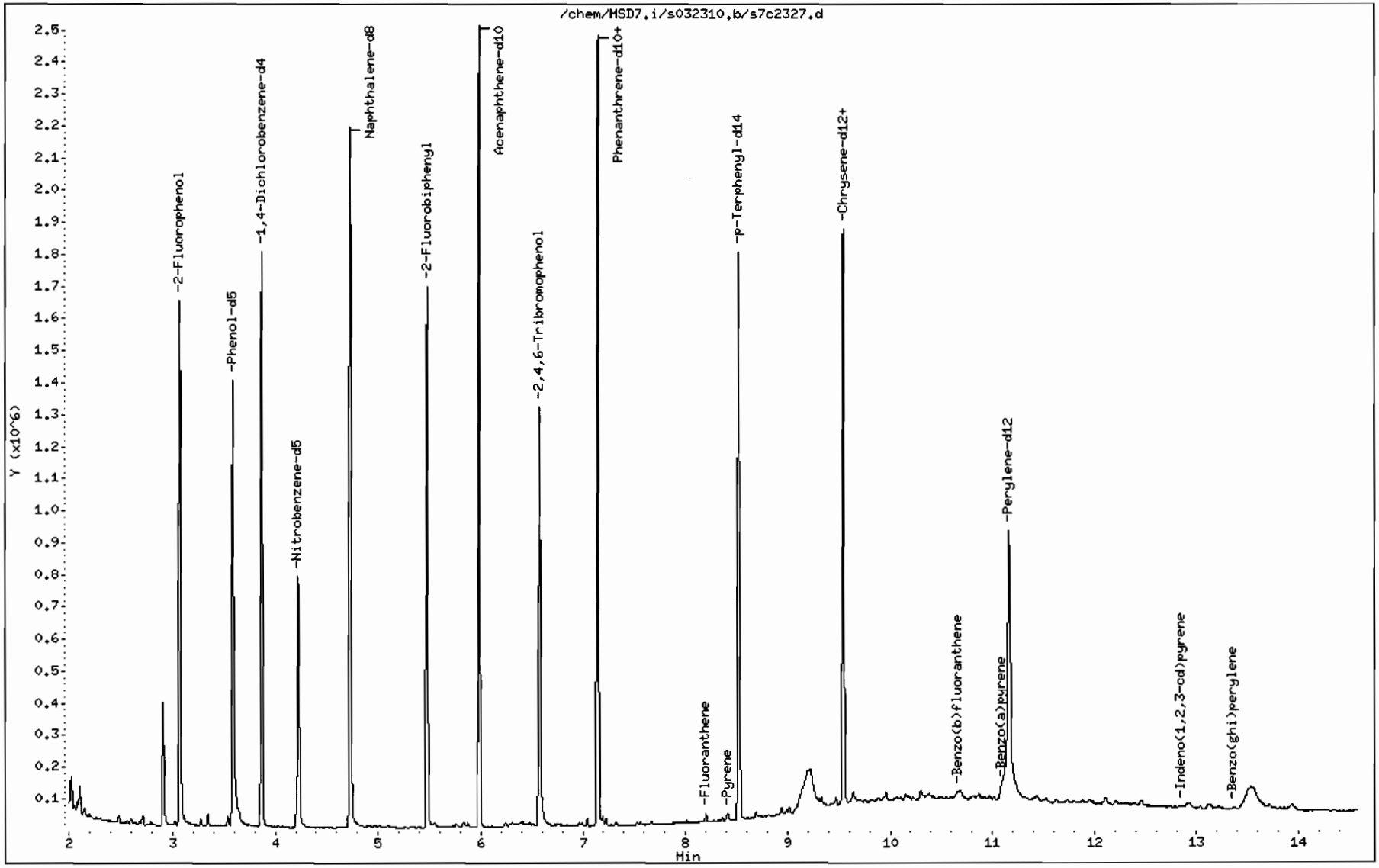

Data File: /chem/MSD7.i/s032310.b/s7c2327.d

Date : 23-MAR-2010 19:39

Client ID: RE46-10-13873

Instrument: MSD7.i

Sample Info: |2488150111965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 15.6 ug/Kg

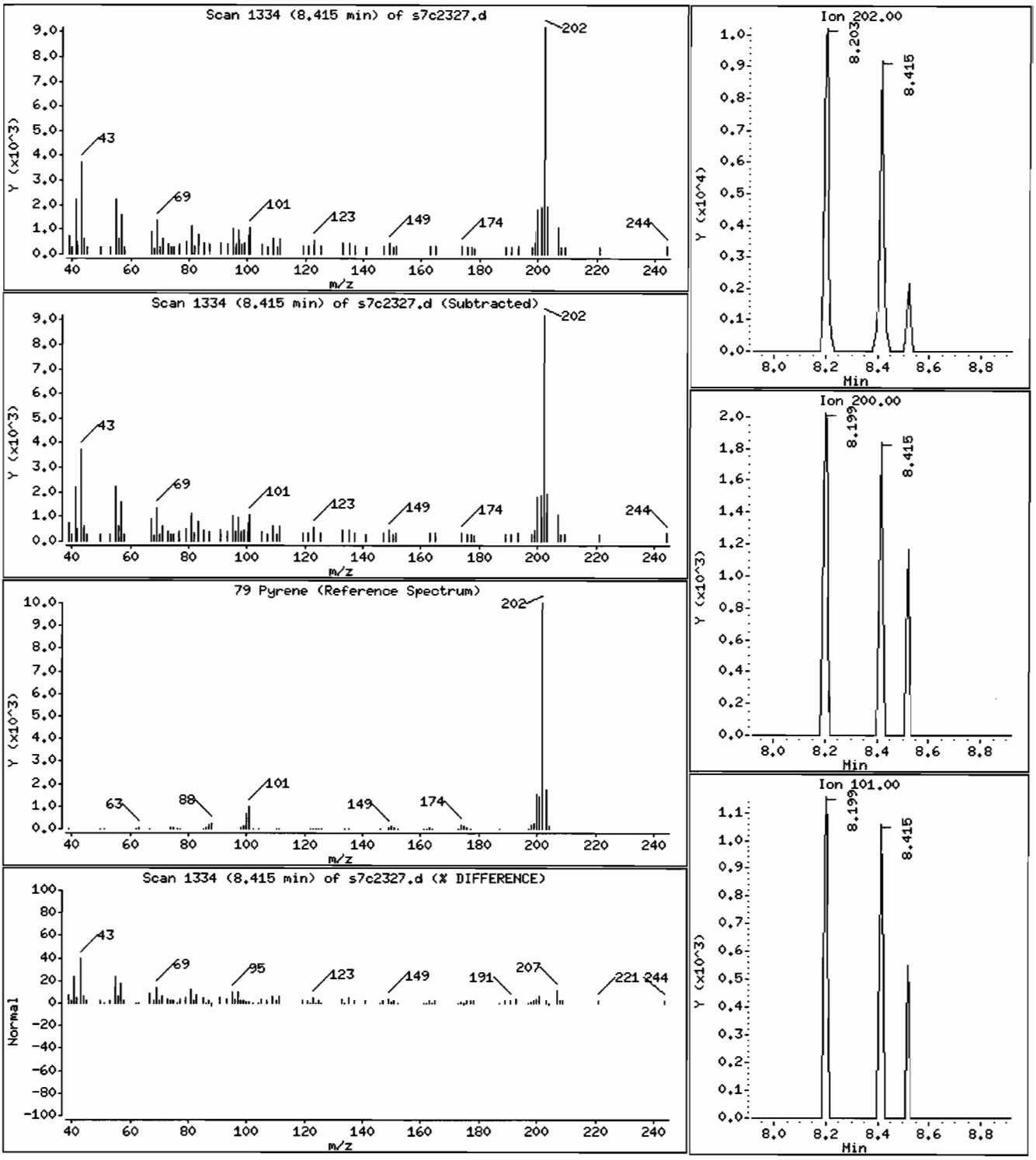

Data File: /chem/MSD7.i/s032310.b/s7c2327.d

Date : 23-MAR-2010 19:39

Client ID: RE46-10-13873

Instrument: MSD7.i

Sample Info: 1248815011|965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 11.5 ug/Kg

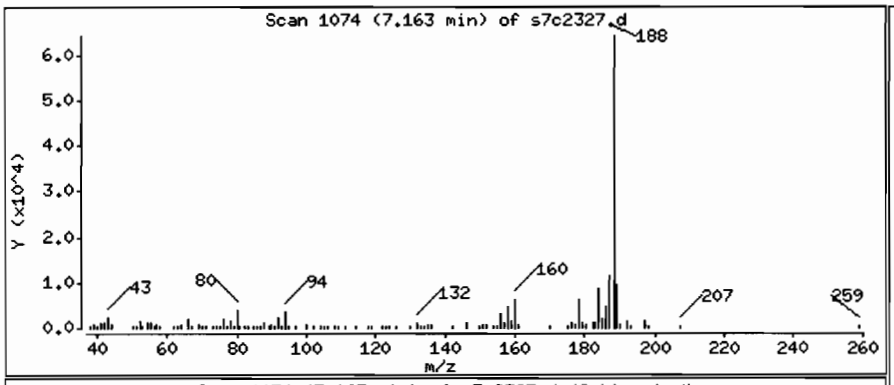

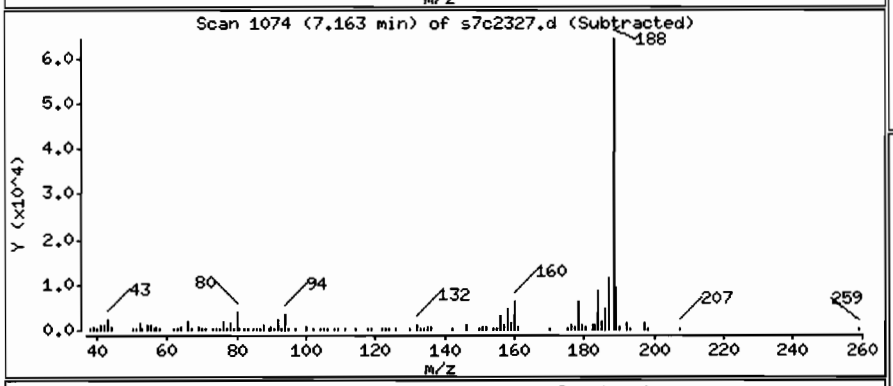

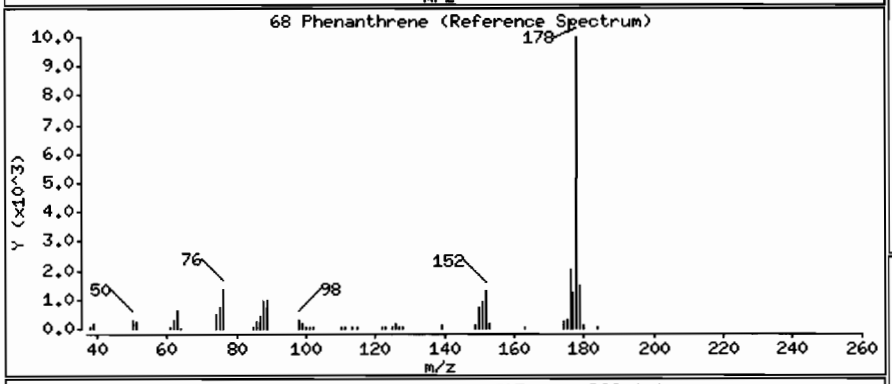

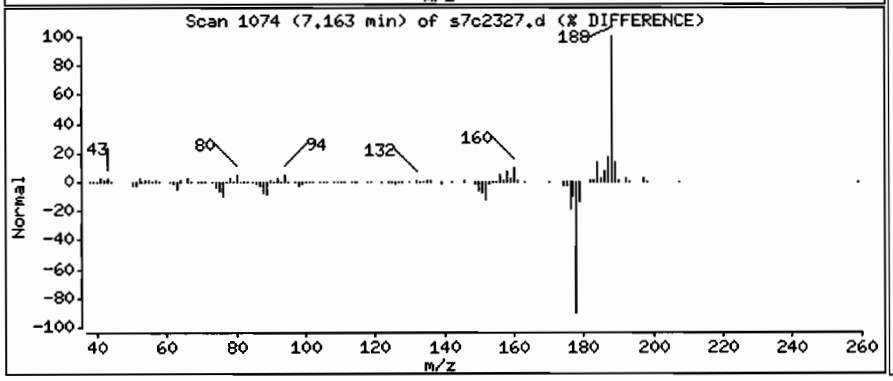

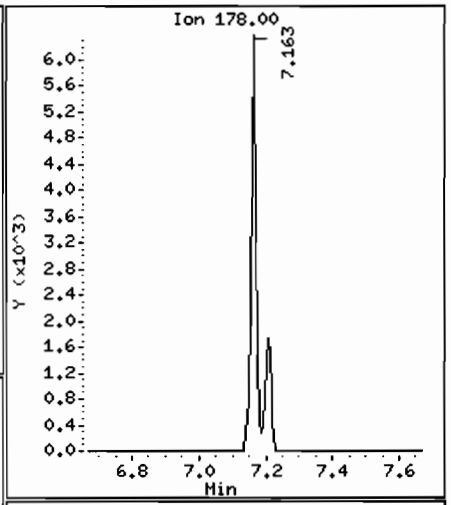

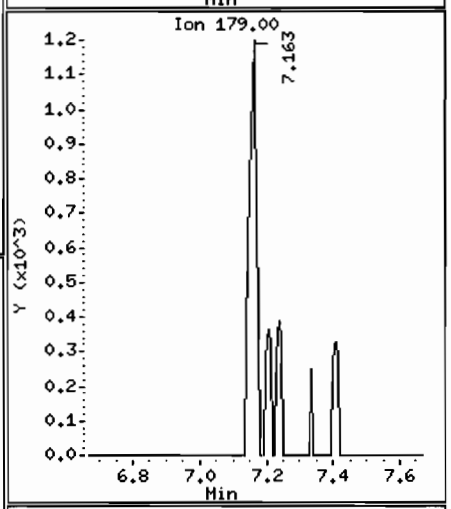

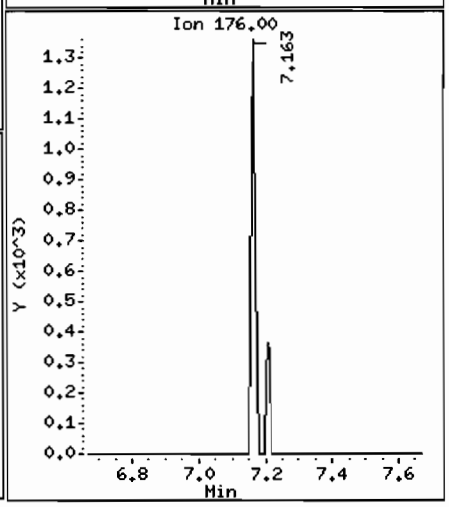

Data File: /chem/MSD7.i/s032310.b/s7c2327.d

Date : 23-MAR-2010 19:39

Client ID: RE46-10-13873

Instrument: MSD7.i

Sample Info: |2488150111965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 17.0 ug/Kg

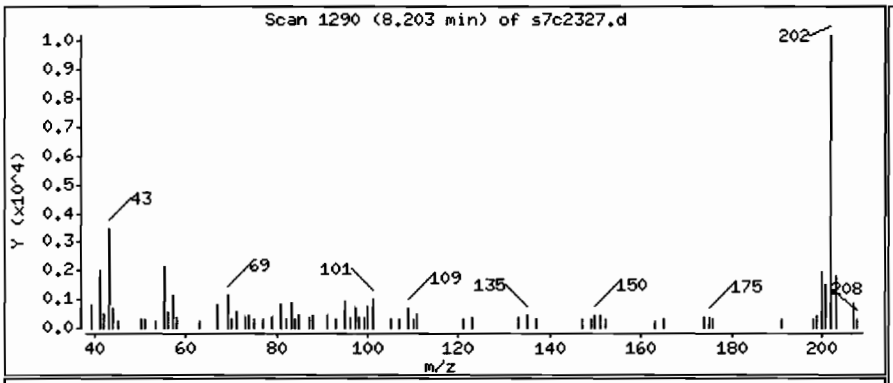

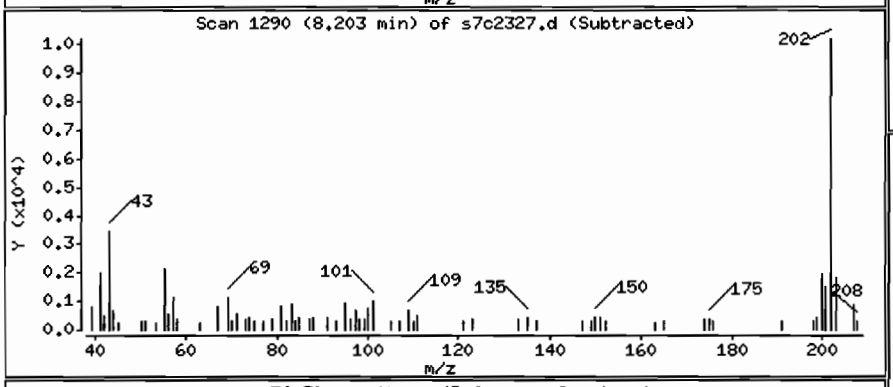

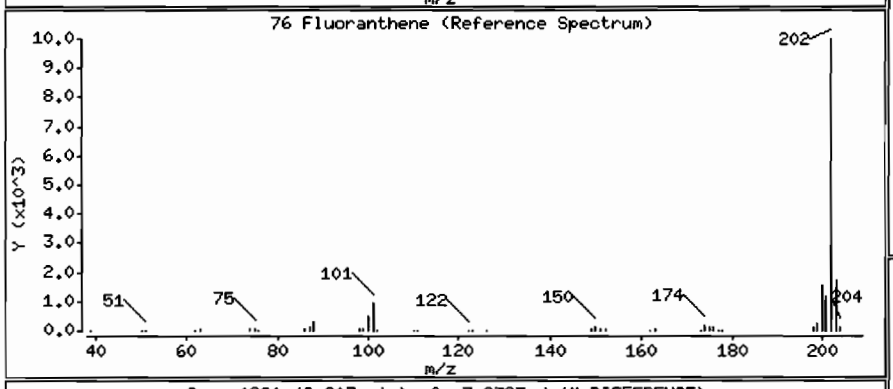

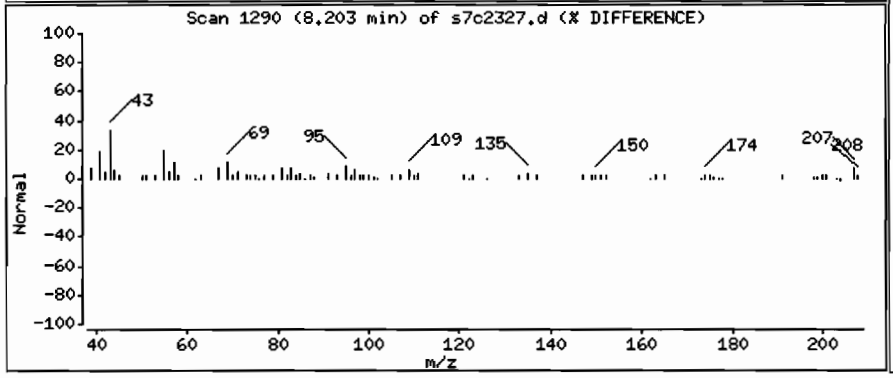

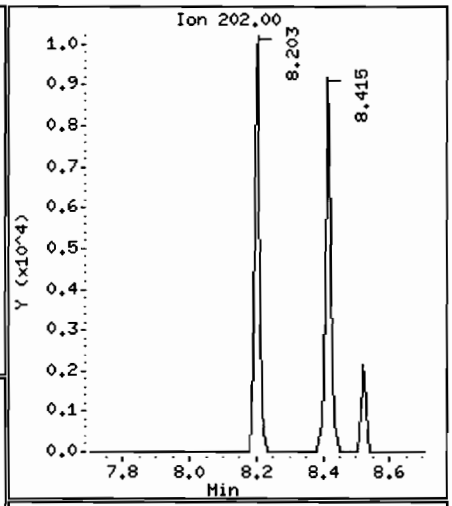

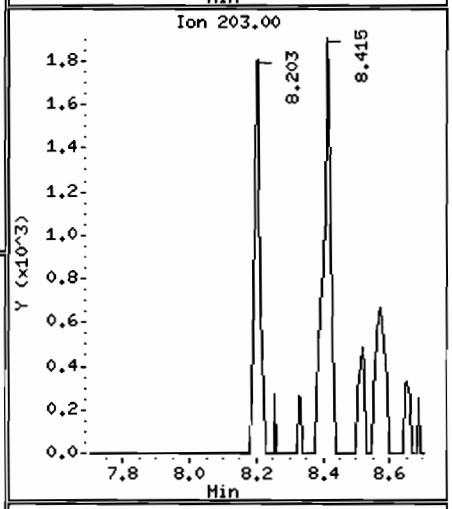

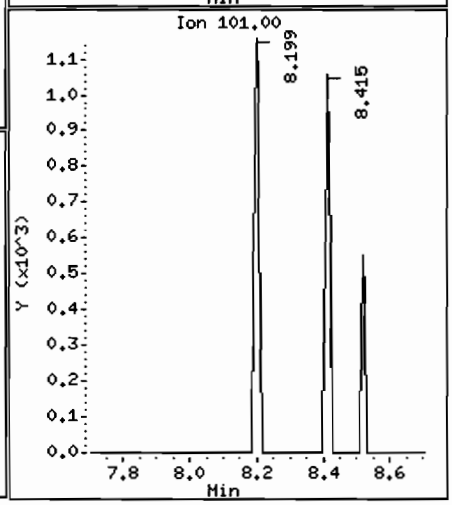

Data File: /chem/MSD7.i/s032310.b/s7c2327.d

Date : 23-MAR-2010 19:39

Client ID: RE46-10-13873

Instrument: MSD7.i

Sample Info: 1248815011196581611SVMI1ILANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 15.8 ug/Kg

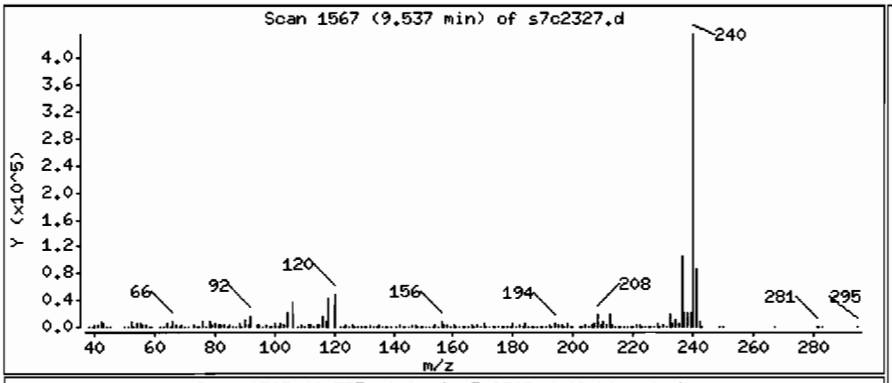

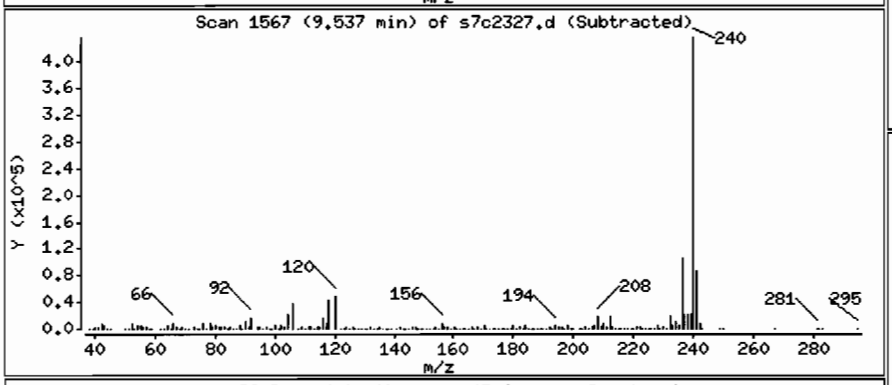

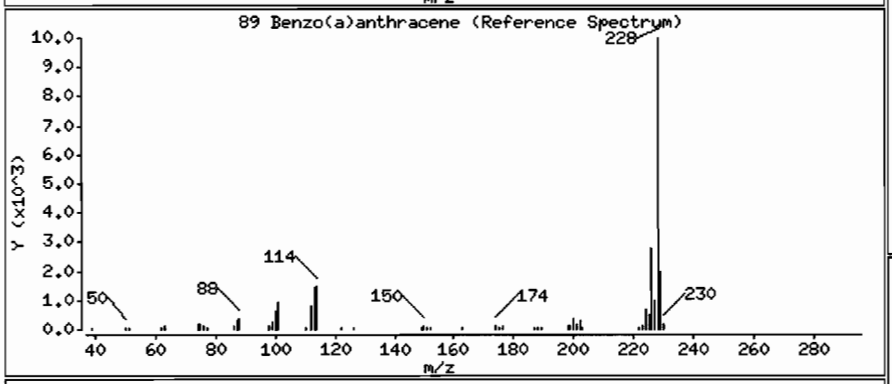

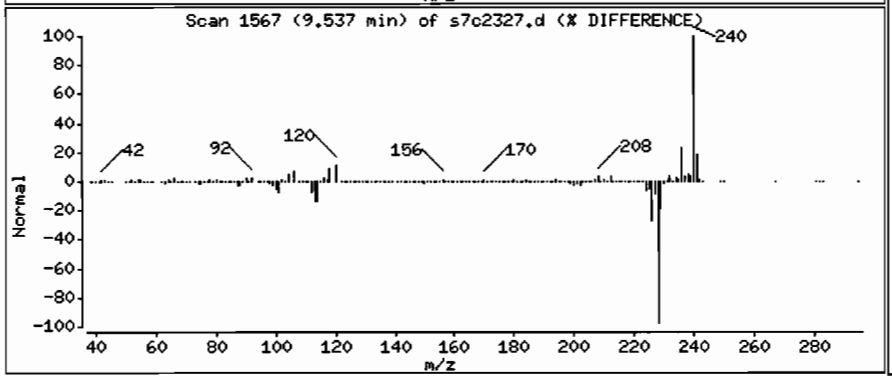

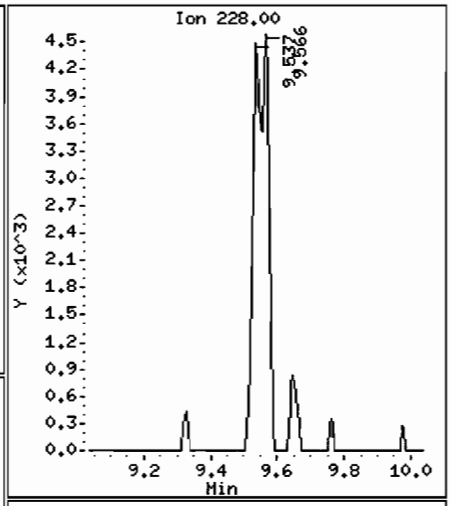

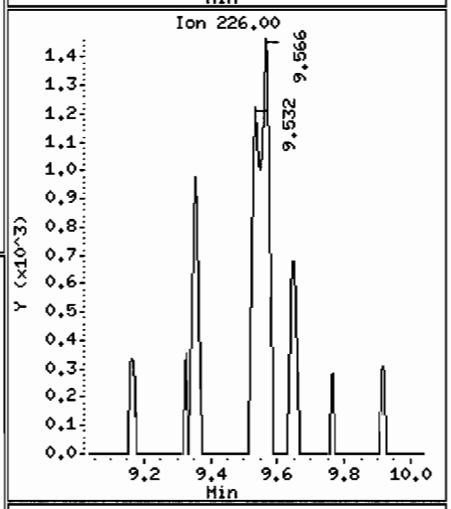

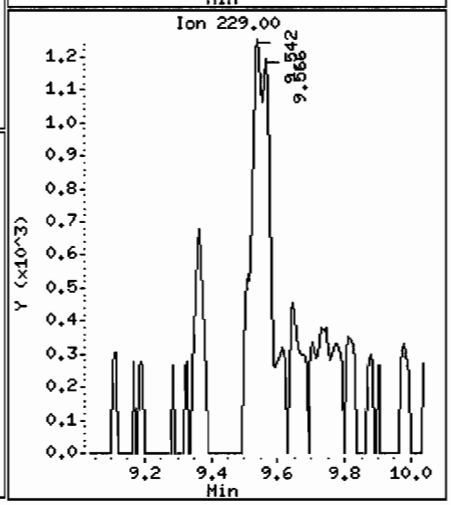

Data File: /chem/MSD7.i/s032310.b/s7c2327.d

Date : 23-MAR-2010 19:39

Client ID: RE46-10-13873

Instrument: MSD7.i

Sample Info: |248815011|965816|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 12.1 ug/Kg

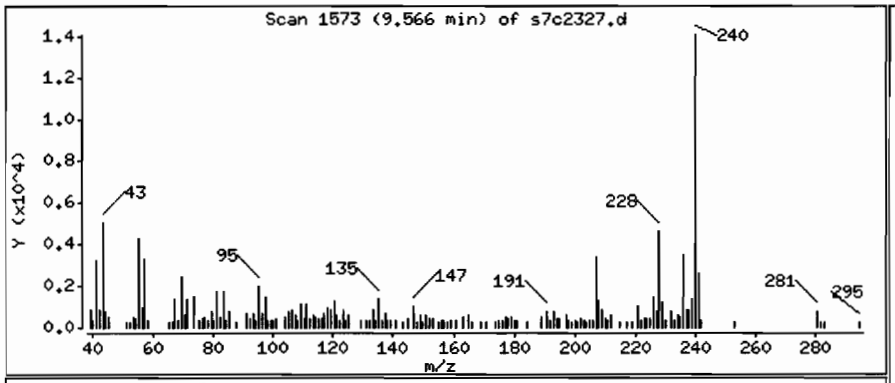

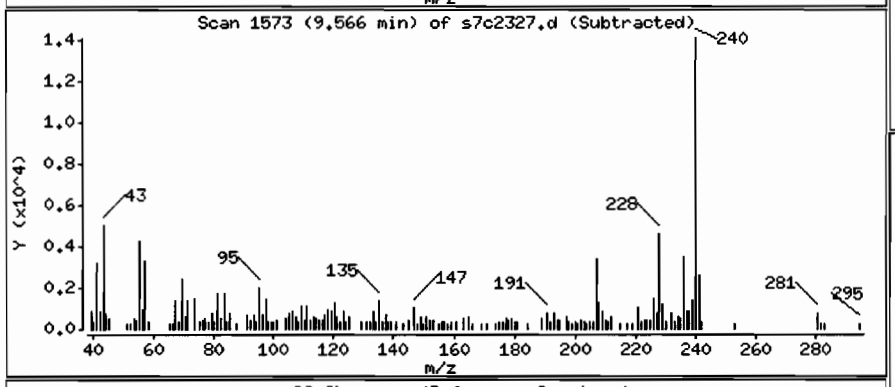

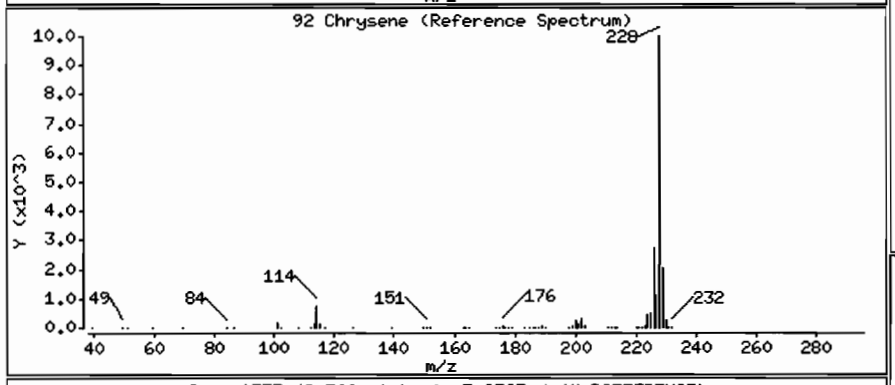

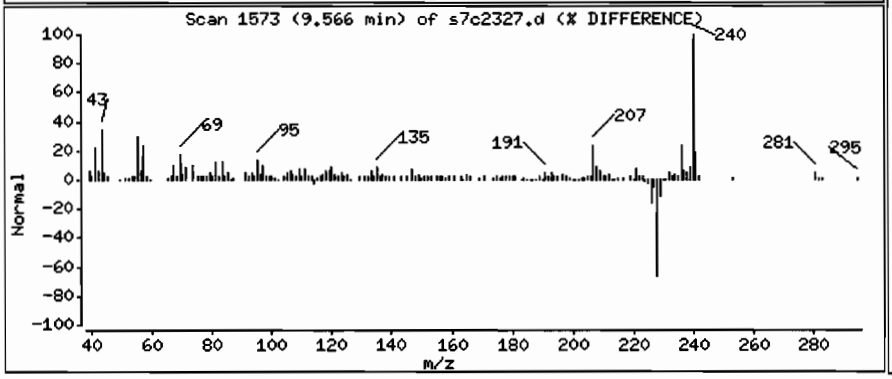

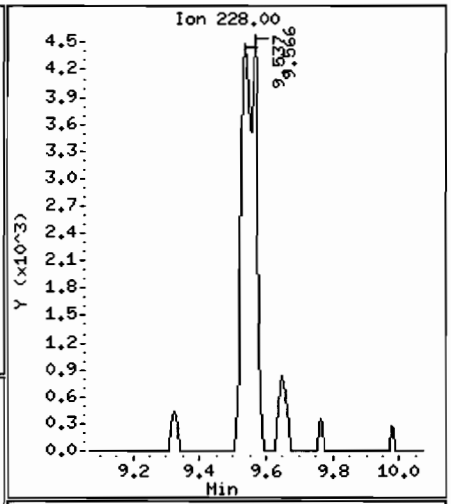

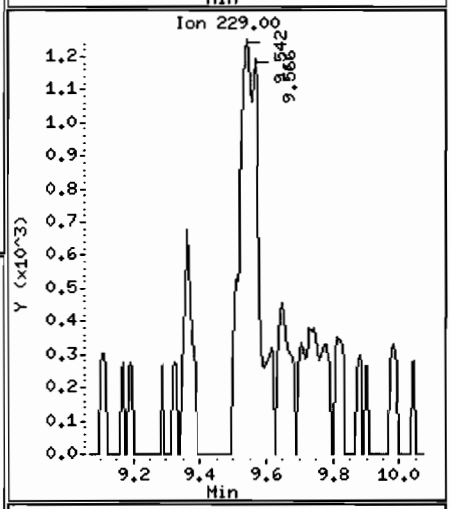

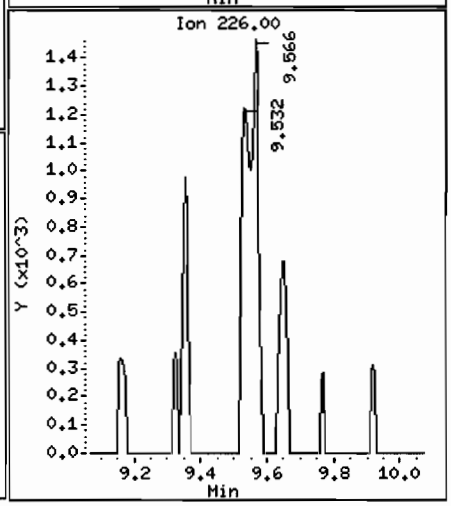

Data File: /chem/MSD7.i/s032310.b/s7c2327.d

Date : 23-MAR-2010 19:39

Client ID: RE46-10-13873

Instrument: MSD7.i

Sample Info: |2488150111965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 36.2 ug/Kg

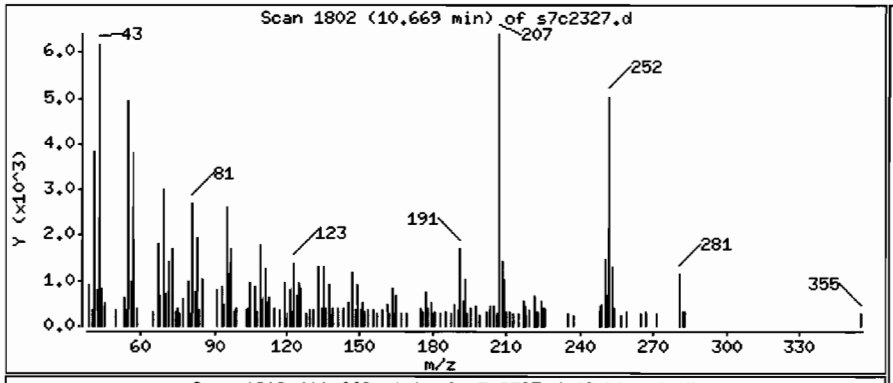

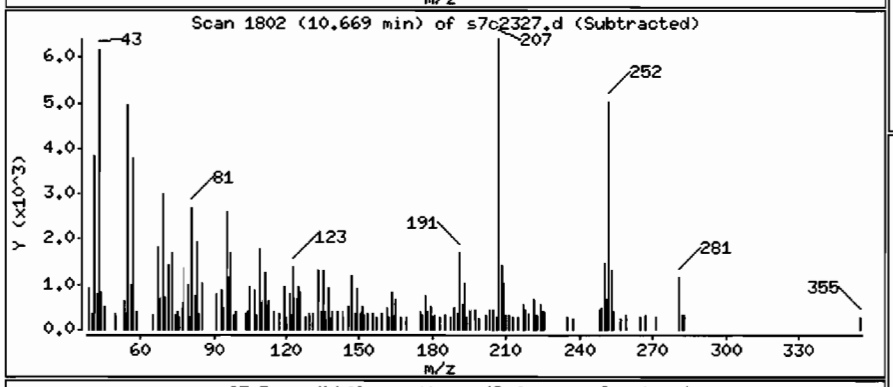

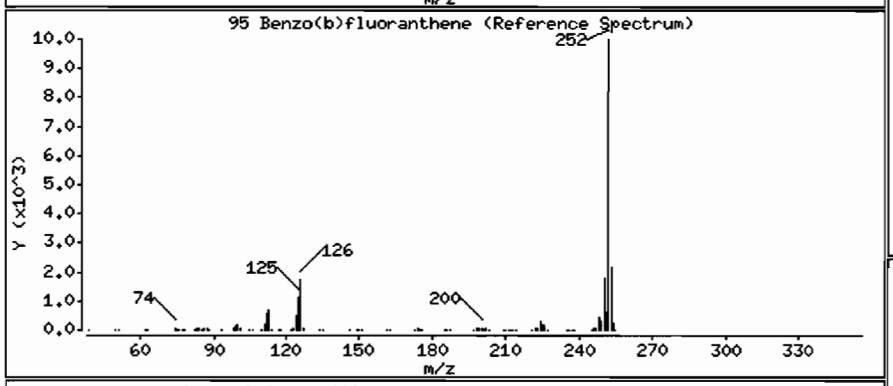

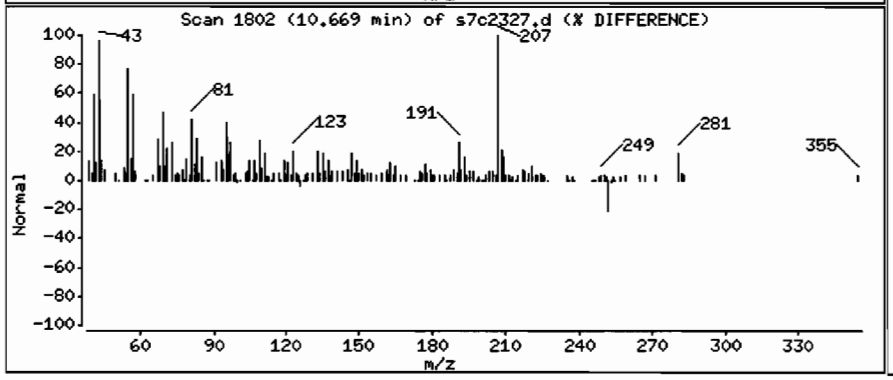

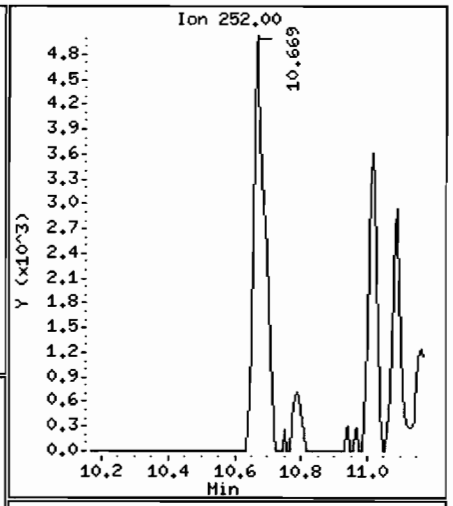

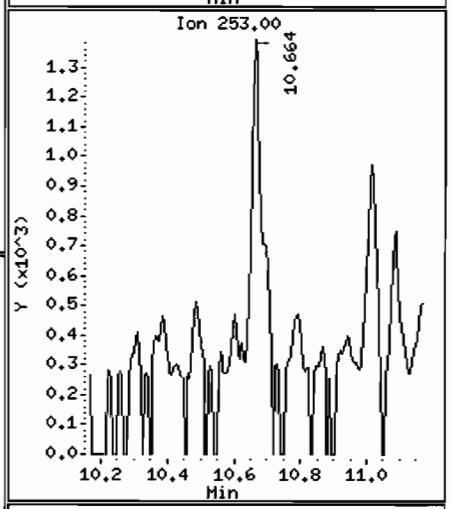

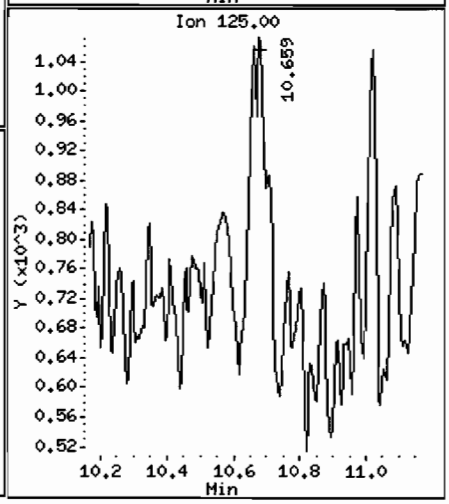

Data File: /chem/MSD7.i/s032310.b/s7c2327.d

Date : 23-MAR-2010 19:39

Client ID: RE46-10-13873

Instrument: MSD7.i

Sample Info: |2488150111965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 19.1 ug/Kg

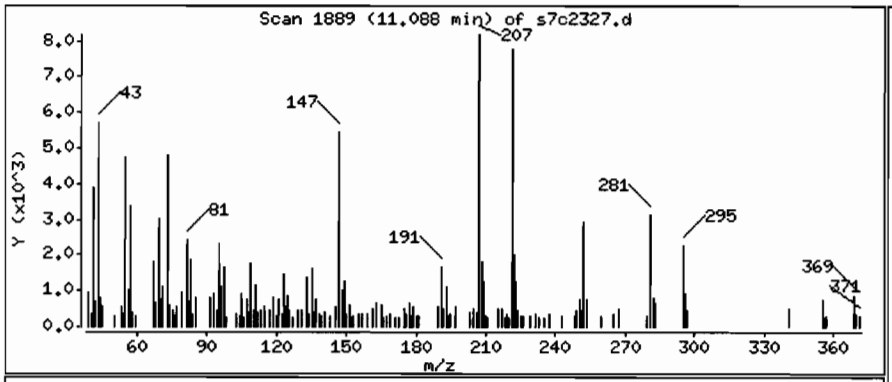

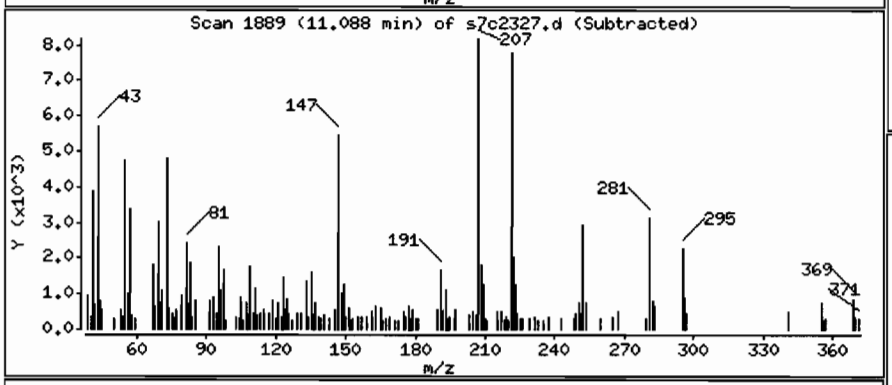

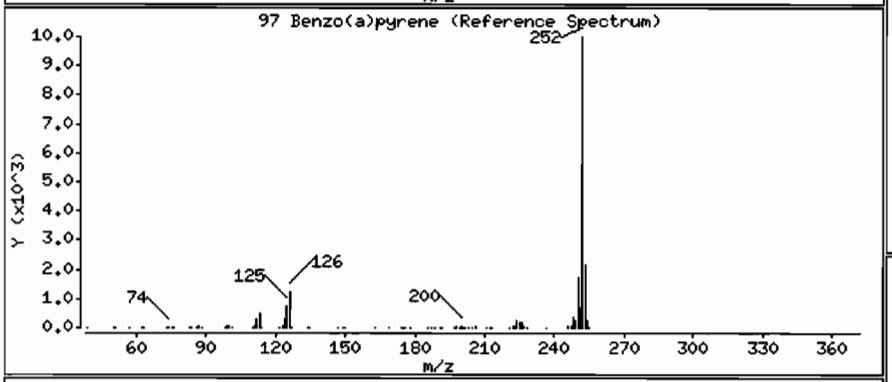

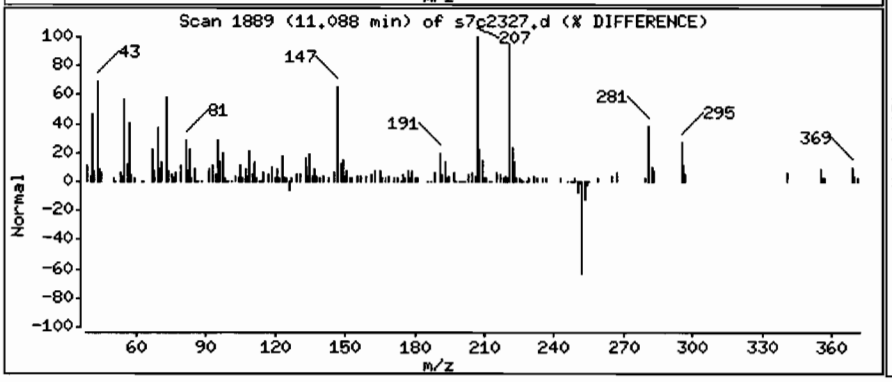

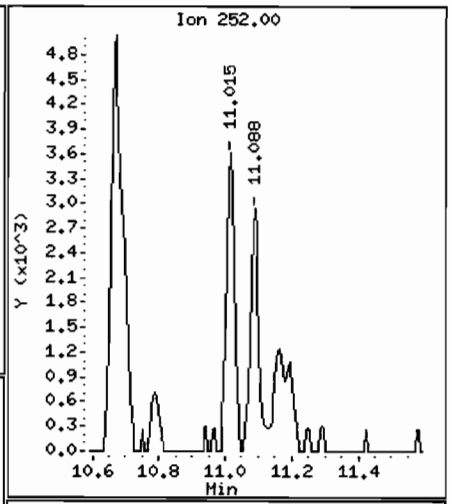

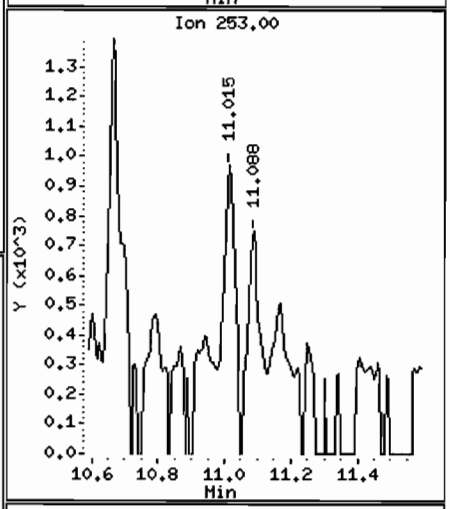

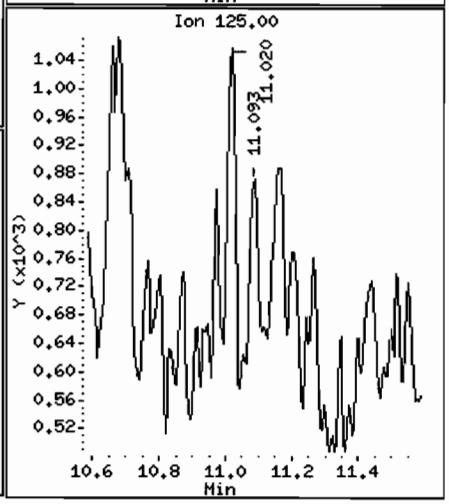

Data File: /chem/MSD7.i/s032310.b/s7c2327.d

Date : 23-MAR-2010 19:39

Client ID: RE46-10-13873 Instrument: MSD7.i

Sample Info: |248815011|965816|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene Concentration: 12.9 ug/Kg

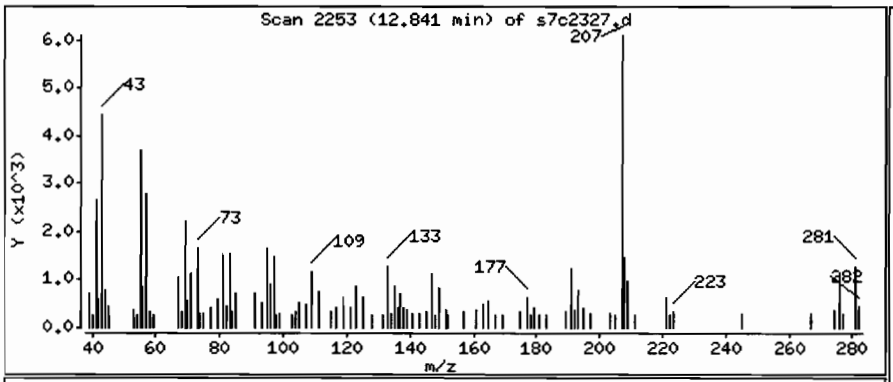

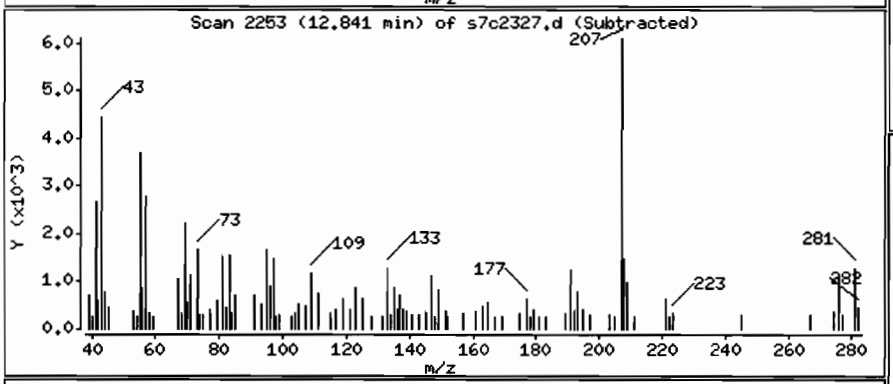

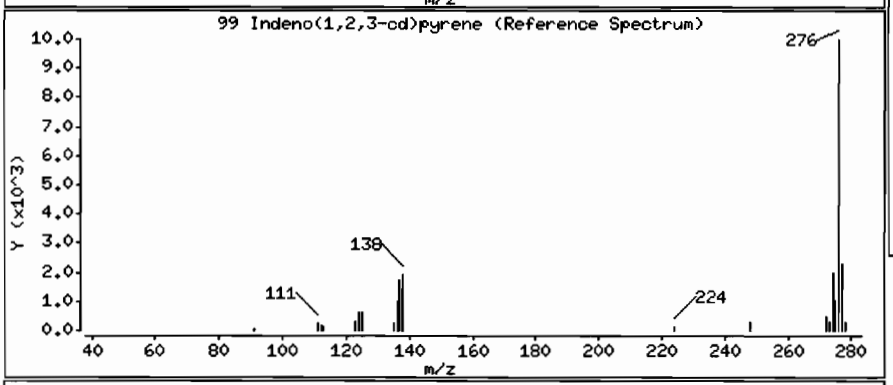

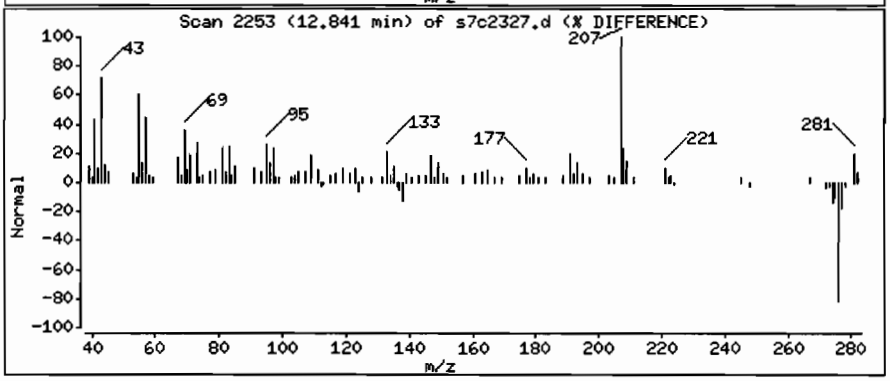

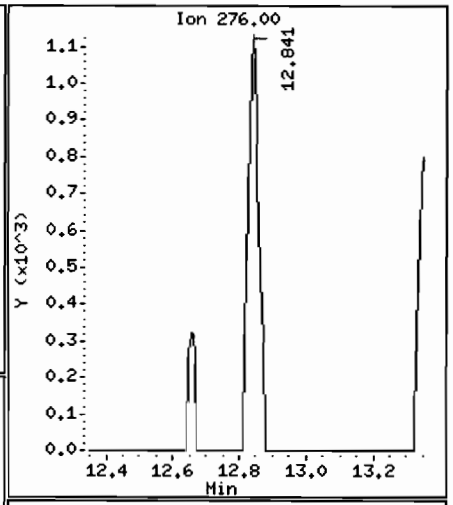

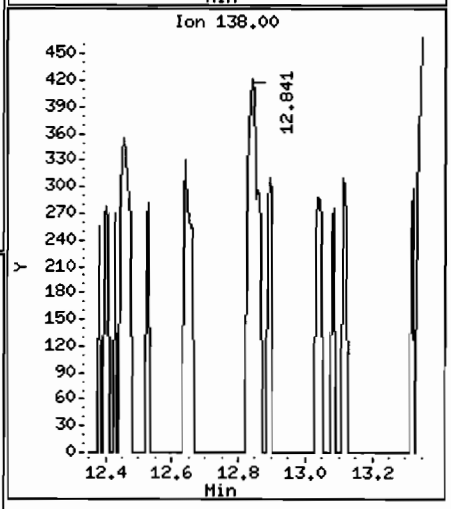

Data File: /chem/MSD7.i/s032310.b/s7c2327.d

Date : 23-MAR-2010 19:39

Client ID: RE46-10-13873

Instrument: MSD7.i

Sample Info: |2488150111965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 15.1 ug/Kg

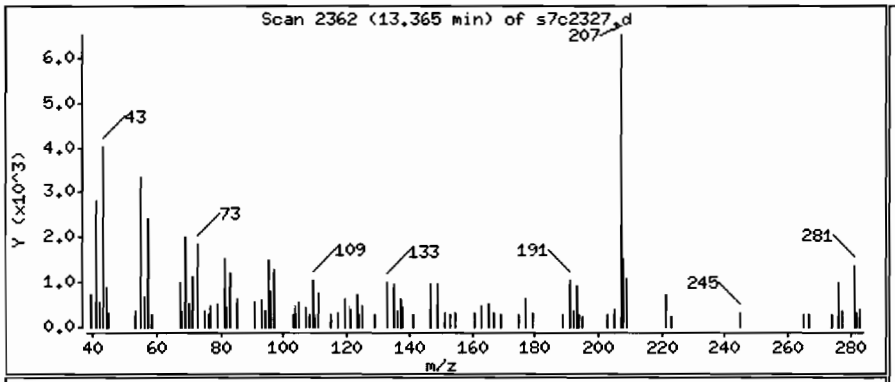

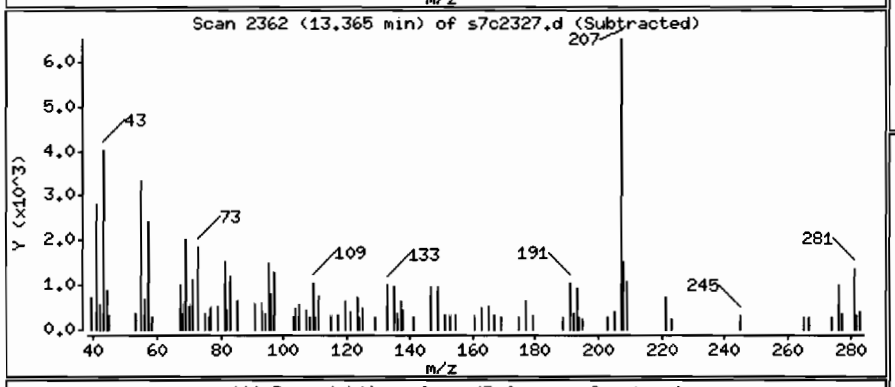

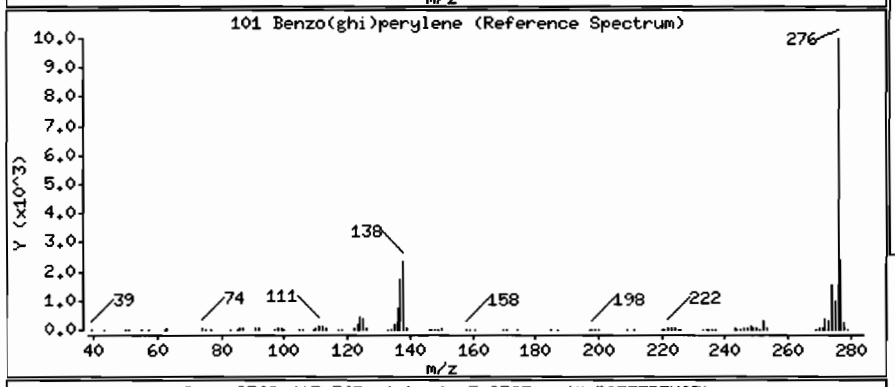

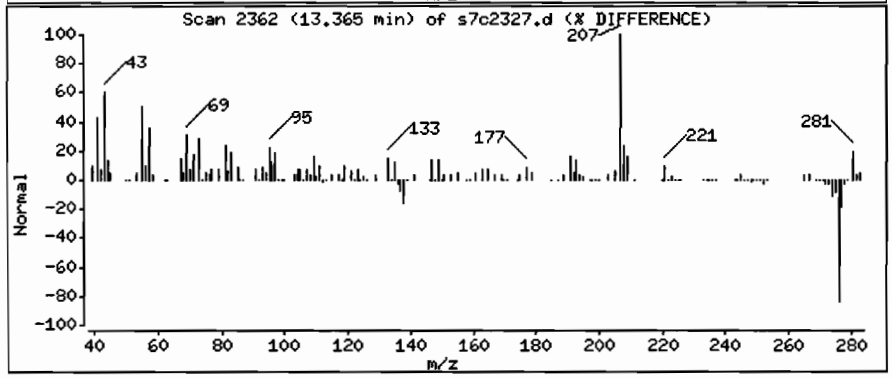

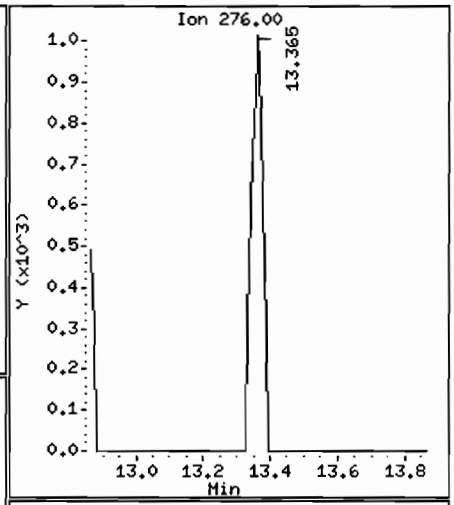

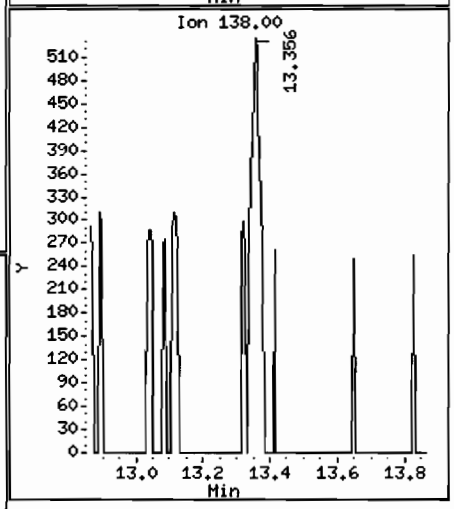

Data File: /chem/MSD7.i/s032310.b/s7c2327.d

Date : 23-MAR-2010 19:39

Client ID: RE46-10-13873 Instrument: MSD7.i

Sample Info: |2488150111965816|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116

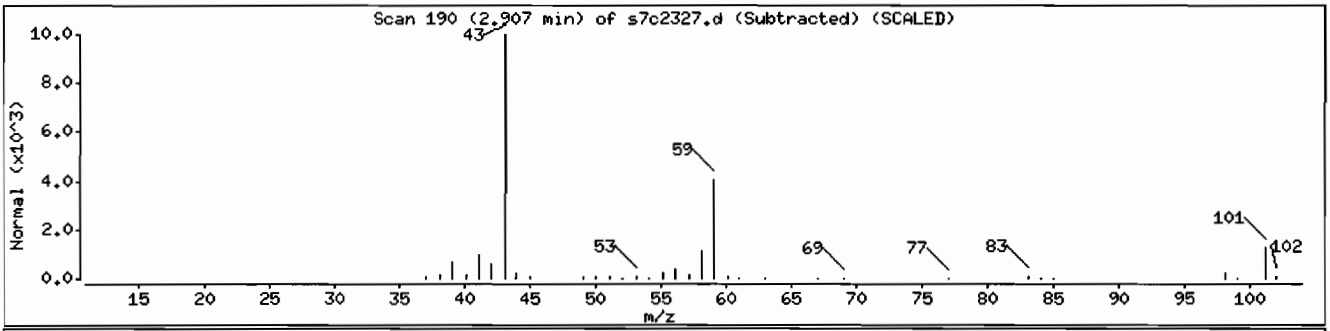

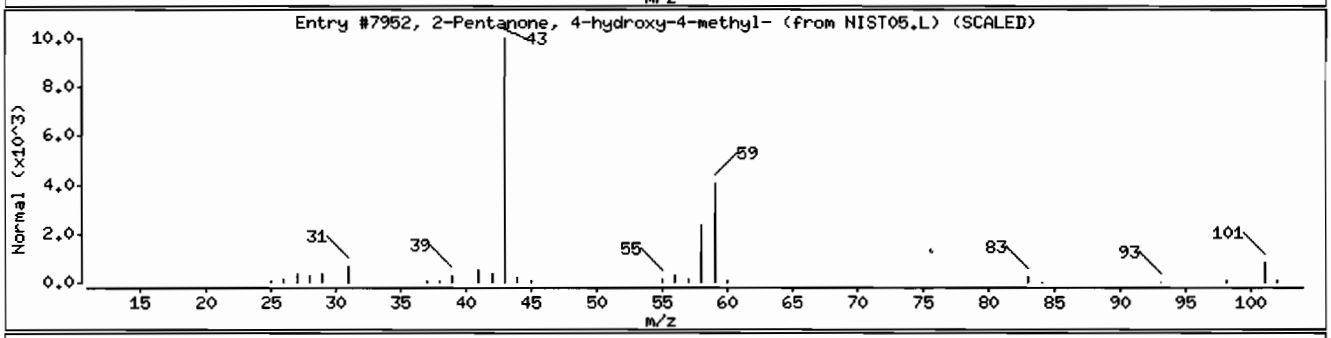

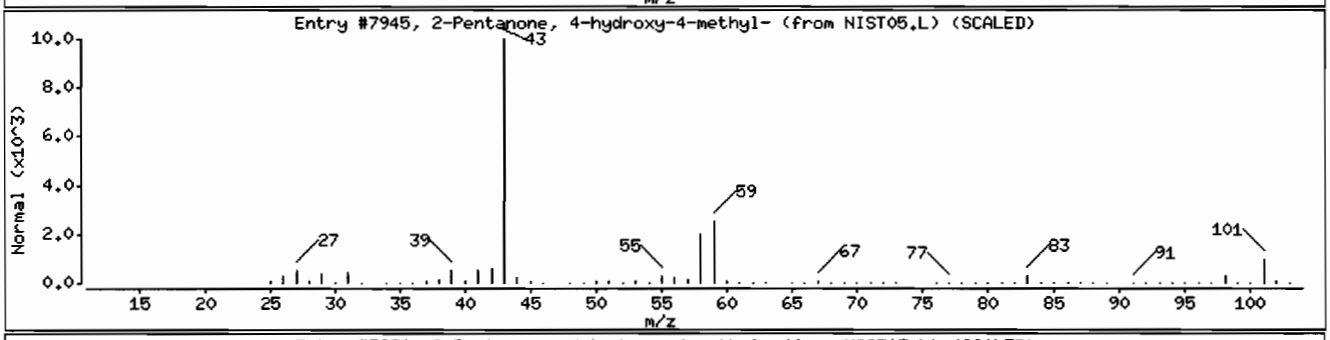

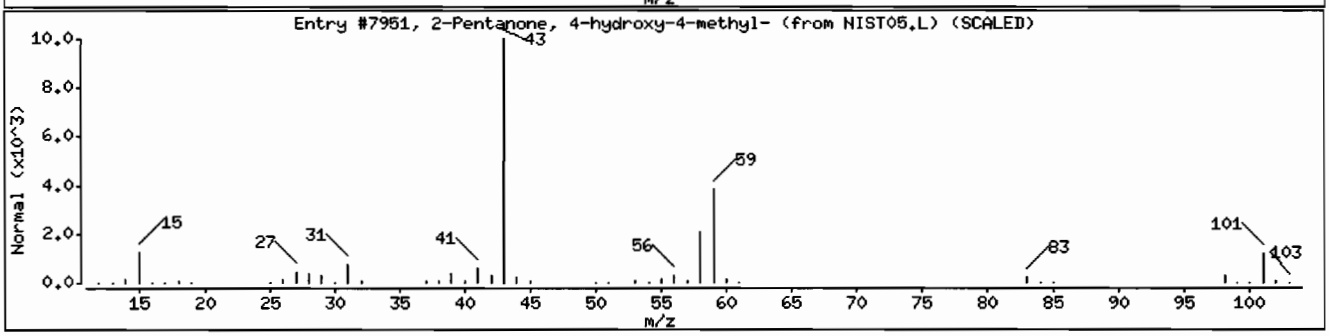

Data File: /chem/MSD7.i/s032310.b/s7c2327.d

Date : 23-MAR-2010 19:39

Client ID: RE46-10-13873 Instrument: MSD7.i

Sample Info: |2488150111965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Heptasiloxane, hexadecamethyl-	541-01-5	NIST05.L	186165	72	C16H48O6Si7	532
Tetrahydropyran-4-carboxamide, 4-(3,4-di	1000310-01-9	NIST05.L	160952	43	C22H27NO4	369
Benzene, 1-(1-hydroxyheptyl)-3-[1-(tetra	1000196-54-9	NIST05.L	168564	35	C25H42O3	390

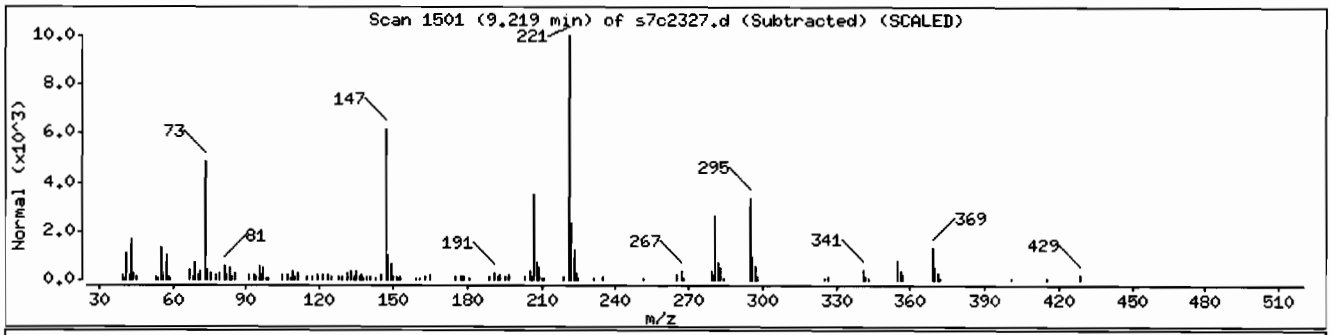

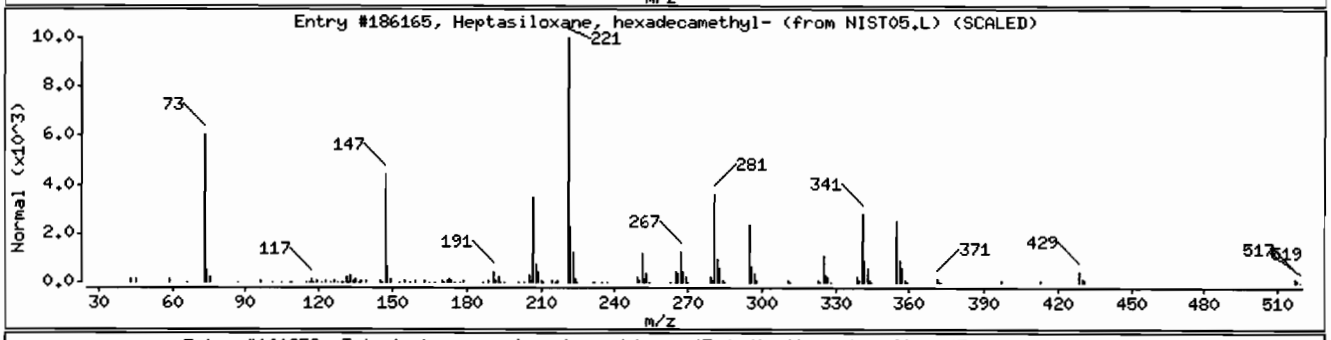

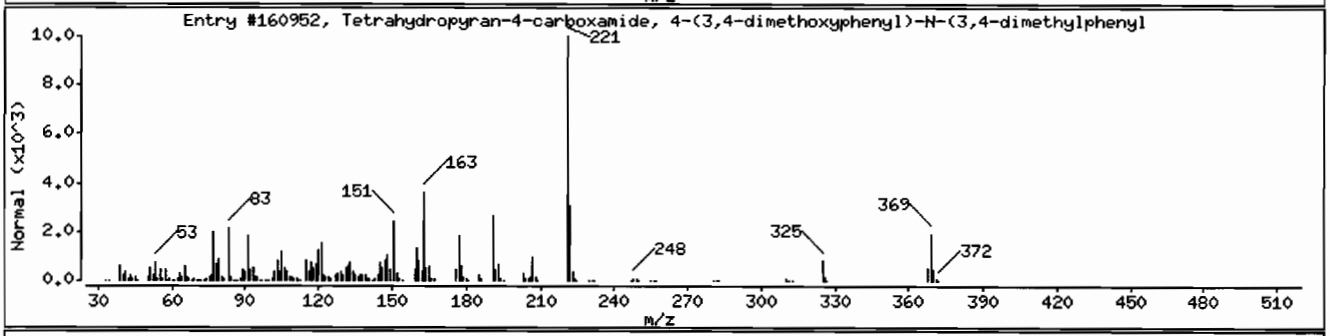

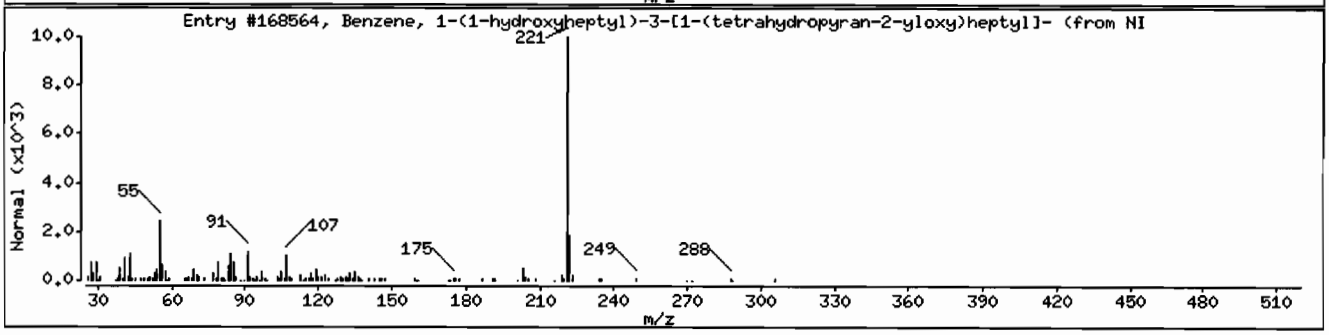

Data File: /chem/MSD7.i/s032310.b/s7c2327.d

Date : 23-MAR-2010 19:39

Client ID: RE46-10-13873 Instrument: MSD7.i

Sample Info: |2488150111965816|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Heptasiloxane, hexadecamethyl-	541-01-5	NIST05.L	186165	59	C16H4806Si7	532
1,4-Benzenediol, 2,5-bis(1,1-dimethylpro	79-74-3	NIST05.L	92123	27	C16H2602	250
1H-Quinolin-2-one, 3-phenyl-	38035-81-3	NIST05.L	72039	25	C15H11NO	221

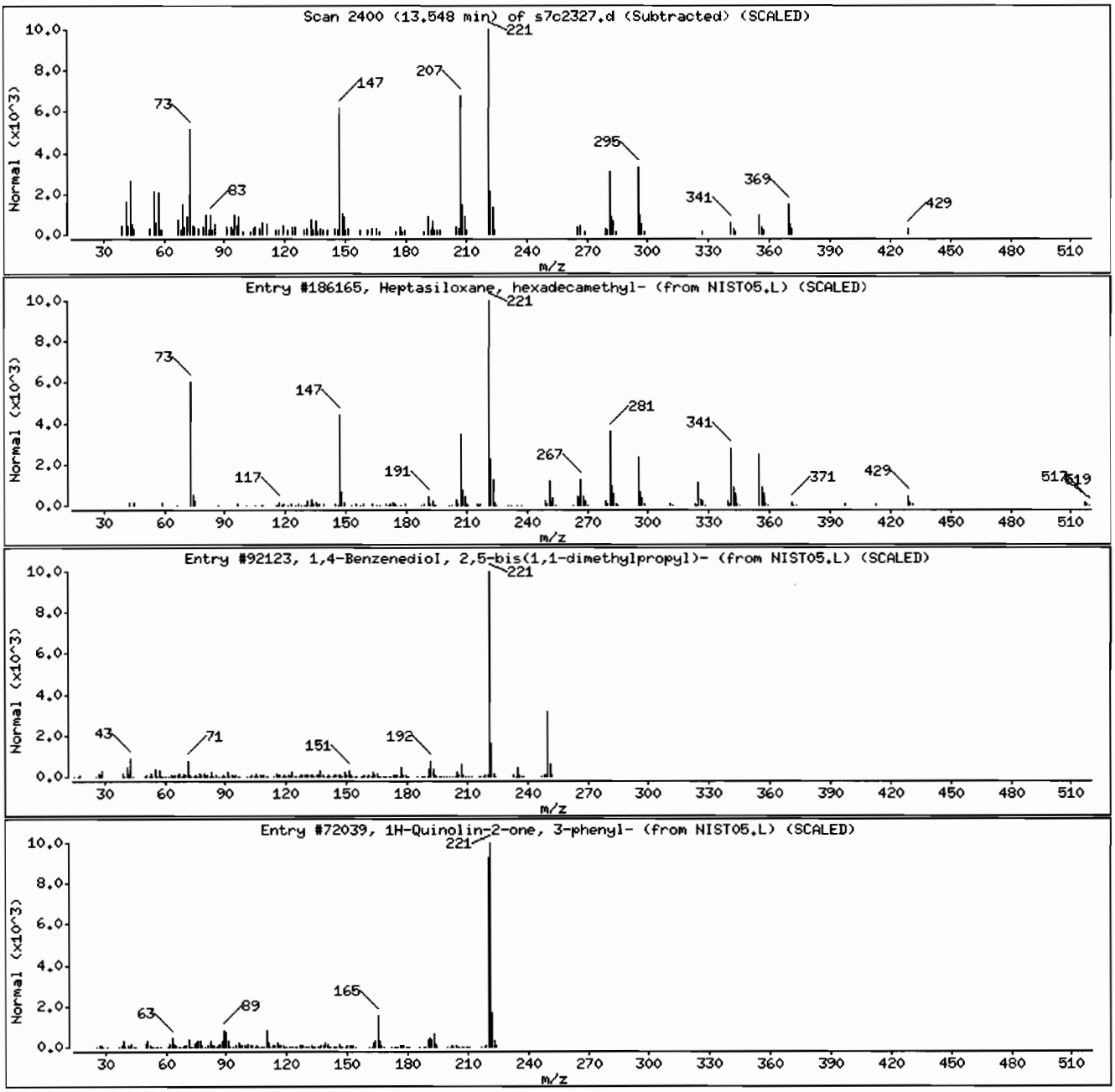

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 23-Mar-2010 12:32

Calibration History

Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Start Cal Date: 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
26-FEB-2010 11:07	MEGA	/chem/MSD7.i/s022610.b/s7b2603.d
Cal Level: 2 , Cal Amount: 10.00000		
26-FEB-2010 21:36	NEV	/chem/MSD7.i/s022610.b/s7b2631.d
26-FEB-2010 19:05	PEST	/chem/MSD7.i/s022610.b/s7b2624.d
26-FEB-2010 16:34	AP12	/chem/MSD7.i/s022610.b/s7b2617.d
26-FEB-2010 14:44	MEGA	/chem/MSD7.i/s022610.b/s7b2612.d
Cal Level: 3 , Cal Amount: 20.00000		
26-FEB-2010 21:58	NEV	/chem/MSD7.i/s022610.b/s7b2632.d
26-FEB-2010 19:26	PEST	/chem/MSD7.i/s022610.b/s7b2625.d
26-FEB-2010 16:56	AP12	/chem/MSD7.i/s022610.b/s7b2618.d
26-FEB-2010 15:08	MEGA	/chem/MSD7.i/s022610.b/s7b2613.d
Cal Level: 4 , Cal Amount: 40.00000		
26-FEB-2010 22:19	NEV	/chem/MSD7.i/s022610.b/s7b2633.d
26-FEB-2010 19:48	PEST	/chem/MSD7.i/s022610.b/s7b2626.d
26-FEB-2010 17:17	AP12	/chem/MSD7.i/s022610.b/s7b2619.d
26-FEB-2010 12:19	MEGA	/chem/MSD7.i/s022610.b/s7b2606.d
Cal Level: 5 , Cal Amount: 50.00000		
26-FEB-2010 22:40	NEV	/chem/MSD7.i/s022610.b/s7b2634.d
26-FEB-2010 20:09	PEST	/chem/MSD7.i/s022610.b/s7b2627.d
26-FEB-2010 17:39	AP12	/chem/MSD7.i/s022610.b/s7b2620.d
26-FEB-2010 12:43	MEGA	/chem/MSD7.i/s022610.b/s7b2607.d
Cal Level: 6 , Cal Amount: 80.00000		
26-FEB-2010 23:02	NEV	/chem/MSD7.i/s022610.b/s7b2635.d
26-FEB-2010 20:31	PEST	/chem/MSD7.i/s022610.b/s7b2628.d
26-FEB-2010 18:00	AP12	/chem/MSD7.i/s022610.b/s7b2621.d
26-FEB-2010 13:07	MEGA	/chem/MSD7.i/s022610.b/s7b2608.d
Cal Level: 7 , Cal Amount: 100.00000		
26-FEB-2010 23:24	NEV	/chem/MSD7.i/s022610.b/s7b2636.d
26-FEB-2010 20:52	PEST	/chem/MSD7.i/s022610.b/s7b2629.d
26-FEB-2010 18:22	AP12	/chem/MSD7.i/s022610.b/s7b2622.d
26-FEB-2010 13:32	MEGA	/chem/MSD7.i/s022610.b/s7b2609.d

Cal Level: 8 , Cal Amount: 120.00000		
26-FEB-2010 23:46	NEV	/chem/MSD7.i/s022610.b/s7b2637.d
26-FEB-2010 21:14	PEST	/chem/MSD7.i/s022610.b/s7b2630.d
26-FEB-2010 18:43	AP12	/chem/MSD7.i/s022610.b/s7b2623.d
26-FEB-2010 13:56	MEGA	/chem/MSD7.i/s022610.b/s7b2610.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
23-MAR-2010 11:20	MEGA	/chem/MSD7.i/s032310.b/s7c2304.d
Ccal Level: 4 , Ccal Amount: 40.0		
23-MAR-2010 11:44	AP12	/chem/MSD7.i/s032310.b/s7c2305.d
Ccal Level: 4 , Ccal Amount: 40.0		
23-MAR-2010 10:41	MEGA	/chem/MSD7.i/s032310.b/s7c2302.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Calibration File Names:
Level 1: /chem/MSD7.i/s022610.b/s7b2603.d
Level 2: /chem/MSD7.i/s022610.b/s7b2631.d
Level 3: /chem/MSD7.i/s022610.b/s7b2632.d
Level 4: /chem/MSD7.i/s022610.b/s7b2633.d
Level 5: /chem/MSD7.i/s022610.b/s7b2634.d
Level 6: /chem/MSD7.i/s022610.b/s7b2635.d
Level 7: /chem/MSD7.i/s022610.b/s7b2636.d
Level 8: /chem/MSD7.i/s022610.b/s7b2637.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.70129	0.69307	0.69919	0.69205	0.70435					
	0.72207	0.68805					AVRG		0.70001		1.61027
2 Pyridine	+++++	0.94944	0.95786	0.97202	0.96726	0.96770					
	0.98956	0.94873					AVRG		0.96465		1.47919
4 Aniline	+++++	0.63884	0.62715	0.61554	0.61939	0.61456					
	0.63008	0.60716					AVRG		0.62182		1.73598
209 Benzaldehyde	+++++	0.95833	0.92226	0.84939	0.85637	0.79340					
	0.79412	0.72945					AVRG		0.84333		9.38003
6 Phenol	+++++	1.32624	1.33308	1.29840	1.28556	1.27125					
	1.30161	1.24826					AVRG		1.29492		2.29936

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Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	+++++	1.10103	1.14462	1.07089	1.07731	1.02082					
	1.03135	0.97582					AVRG		1.06026		5.26596
8 2-Chlorophenol	+++++	1.05514	1.03806	0.97770	0.97692	0.96049					
	0.98254	0.94585					AVRG		0.99096		4.06684
203 n-Decane	+++++	2.18082	2.07044	1.82788	1.73590	1.49542					
	+++++	+++++					AVRG		1.86209		14.62211
9 1,3-Dichlorobenzene	+++++	1.32145	1.29459	1.24409	1.22768	1.22115					
	1.22709	1.17739					AVRG		1.24478		3.88965
11 1,4-Dichlorobenzene	+++++	1.25354	1.24697	1.20326	1.18250	1.16238					
	1.17850	1.13378					AVRG		1.19442		3.65492
12 Benzyl alcohol	+++++	0.67067	0.67376	0.66588	0.67064	0.67714					
	0.69639	0.66876					AVRG		0.67475		1.51022
13 1,2-Dichlorobenzene	+++++	1.18780	1.16188	1.10021	1.10063	1.06192					
	1.06520	1.01341					AVRG		1.09872		5.47171
14 bis(2-Chloroisopropyl)ether	+++++	2.84346	2.77975	2.54436	2.49732	2.25102					
	2.22248	2.05488					AVRG		2.45618		12.00760
15 o-Cresol	+++++	0.82975	0.83763	0.79686	0.80251	0.77550					
	0.77566	0.73522					AVRG		0.79330		4.42431

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Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.19544	1.16930	1.11939	1.09905	1.06063					
	1.05199	1.05015					AVRG		1.10656		5.25990
17 N-Nitrosodipropylamine	+++++	0.78986	0.78126	0.76761	0.76071	0.69101					
	0.68312	0.68292					AVRG		0.73664		6.60276
18 m,p-Cresols	+++++	1.06688	1.08137	1.06240	1.06282	1.06806					
	1.09460	1.06712					AVRG		1.07190		1.10409
19 Hexachloroethane	+++++	0.47830	0.48853	0.45909	0.46017	0.45910					
	0.46127	0.44002					AVRG		0.46378		3.35369
21 Nitrobenzene	+++++	0.32599	0.31564	0.28441	0.27994	0.26223					
	0.25178	0.23906					AVRG		0.27987		11.47927
22 Isophorone	+++++	0.60055	0.58304	0.55409	0.54916	0.51583					
	0.50295	0.47946					AVRG		0.54073		8.06835
23 2-Nitrophenol	+++++	0.15519	0.14330	0.13006	0.13093	0.12549					
	0.12051	0.11450					AVRG		0.13143		10.52994
24 2,4-Dimethylphenol	+++++	114168	218277	376135	452448	745396					
	905563	998411					WLINR	-0.12517	0.21482		0.99550
25 bis(2-Chloroethoxy)methane	+++++	0.33736	0.32731	0.30205	0.29544	0.27901					
	0.27212	0.25761					AVRG		0.29584		9.81641

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.23284	0.23115	0.21499	0.21340	0.20610					
	0.19857	0.18877					AVRG		0.21226		7.61142
27 Benzoic acid	+++++	+++++	0.09399	0.10823	0.11656	0.13120					
	0.13489	0.14008					AVRG		0.12083		14.68354
28 1,2,4-Trichlorobenzene	+++++	0.29769	0.28901	0.26508	0.25660	0.24189					
	0.23181	0.21987					AVRG		0.25742		11.19881
30 Naphthalene	0.86793	0.85653	0.82594	0.76646	0.74263	0.69647					
	0.66692	0.62198					AVRG		0.75561		11.96904
204 alpha-Terpineol	+++++	0.36073	0.33018	0.30395	0.29238	0.25678					
	+++++	+++++					AVRG		0.30880		12.69973
31 4-Chloroaniline	+++++	0.39138	0.38394	0.36323	0.35125	0.34226					
	0.33031	0.31443					AVRG		0.35383		7.86879
189 Caprolactam	+++++	0.07270	0.07721	0.07751	0.07660	0.07453					
	0.07119	0.07132					AVRG		0.07444		3.68543
32 Hexachlorobutadiene	+++++	0.15432	0.14969	0.13784	0.13578	0.12669					
	0.12160	0.11448					AVRG		0.13434		10.80519
33 4-Chloro-3-methylphenol	+++++	0.23968	0.24055	0.23641	0.23018	0.22561					
	0.21618	0.20719					AVRG		0.22797		5.51338

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.60775	0.60694	0.59172	0.55334	0.53860	0.50400					
	0.48115	0.45486					AVRG		0.54229		10.77312
35 1-Methylnaphthalene	0.59454	0.58640	0.56002	0.52389	0.50625	0.47447					
	0.45314	0.42590					AVRG		0.51558		12.04862
36 Hexachlorocyclopentadiene	+++++	0.17760	0.20342	0.20161	0.19061	0.22063					
	0.18724	0.17253					AVRG		0.19338		8.54937
208 1,1'-Biphenyl	+++++	1.26811	1.22170	1.13538	1.10081	1.02216					
	0.99895	0.96709					AVRG		1.10203		10.36141
205 2,3-Dichloroaniline	+++++	0.55167	0.53296	0.49182	0.48955	0.47670					
	0.46688	0.45276					AVRG		0.49462		7.19612
37 2,4,6-Trichlorophenol	+++++	0.28591	0.29017	0.28397	0.28642	0.27709					
	0.27579	0.26511					AVRG		0.28064		3.05262
38 2,4,5-Trichlorophenol	+++++	0.30067	0.30400	0.27441	0.27725	0.27297					
	0.27188	0.27453					AVRG		0.28225		4.90941
40 2-Chloronaphthalene	0.98968	0.98865	0.96920	0.92181	0.91661	0.88930					
	0.87923	0.85223					AVRG		0.92584		5.61667
42 o-Nitroaniline	+++++	0.32650	0.33651	0.32632	0.33065	0.32955					
	0.32556	0.31936					AVRG		0.32778		1.61097

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.22126	0.24562	0.23943	0.24325	0.24756					
	0.23907	0.23834					AVRG		0.23922		3.62078
43 Dimethylphthalate	+++++	1.14209	1.13350	1.05960	1.05899	1.02333					
	1.02706	0.99596					AVRG		1.06293		5.23993
44 2,6-Dinitrotoluene	+++++	0.26499	0.26039	0.24328	0.24493	0.23535					
	0.23967	0.22978					AVRG		0.24549		5.23468
45 Acenaphthylene	1.61531	1.62844	1.56002	1.45485	1.44949	1.39892					
	1.39129	1.34156					AVRG		1.47998		7.30956
47 Acenaphthene	0.94291	0.93284	0.92839	0.86375	0.86944	0.84726					
	0.85153	0.80716					AVRG		0.88041		5.54006
48 2,4-Dinitrophenol	+++++	+++++	22189	53016	65432	148984					
	192071	221189					LINR	0.35875	0.10576		0.99409
49 Dibenzofuran	+++++	1.35809	1.33389	1.22166	1.23984	1.19392					
	1.18290	1.13131					AVRG		1.23737		6.61916
50 2,4-Dinitrotoluene	+++++	0.32035	0.33058	0.31874	0.32457	0.32389					
	0.32862	0.31860					AVRG		0.32362		1.46117
51 Diethylphthalate	+++++	1.16778	1.15242	1.07866	1.08210	1.05762					
	1.05225	1.02521					AVRG		1.08801		4.86063

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.12189	0.15319	0.16924	0.16712	0.17578					
	0.17989	0.17224					AVRG		0.16277		12.22482
53 Fluorene	1.15003	1.14913	1.10994	1.00309	1.00564	0.97807					
	0.97276	0.93722					AVRG		1.03823		8.16853
54 4-Chlorophenylphenylether	+++++	0.55230	0.54732	0.51155	0.51708	0.50214					
	0.50180	0.47955					AVRG		0.51596		5.03023
55 2-Methyl-4,6-dinitrophenol	+++++	14243	47063	96235	119327	243903					
	311718	360208					LINR	0.20375	0.08692		0.99607
56 p-Nitroaniline	+++++	0.16936	0.20880	0.22482	0.21785	0.23101					
	0.23233	0.22347					AVRG		0.21538		10.12479
133 Diphenylamine	+++++	0.52306	0.50517	0.46428	0.46066	0.45126					
	0.45503	0.43996					AVRG		0.47134		6.50344
58 1,2-Diphenylhydrazine	+++++	0.65962	0.63737	0.59463	0.58510	0.56518					
	0.56834	0.54070					AVRG		0.59299		7.08469
59 Tributylphosphate	+++++	1.33867	1.16678	1.14080	1.10893	1.04610					
	1.01650	0.99882					AVRG		1.11666		10.42695
61 4-Bromophenylphenylether	+++++	0.17755	0.17375	0.16178	0.16189	0.15944					
	0.16098	0.15611					AVRG		0.16450		4.82846

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
63 Hexachlorobenzene	+++++	0.17131	0.16786	0.15738	0.15772	0.15513						
	0.15658	0.15273					AVRG		0.15982		4.34833	
207 Atrazine	+++++	0.04508	0.04317	0.03751	0.03999	0.03673						
	0.03600	0.03123					AVRG		0.03853		12.10180	
65 Pentachlorophenol	+++++	0.05499	0.07351	0.07546	0.07788	0.08148						
	0.08346	0.08259					AVRG		0.07563		12.99894	
206 n-Octadecane	+++++	0.66517	0.62877	0.54339	0.51312	0.41990						
	0.38282	0.35591					AVRG		0.50130		23.99535	<-
68 Phenanthrene	0.92440	0.87829	0.87153	0.80635	0.79576	0.77327						
	0.77180	0.74515					AVRG		0.82082		7.68182	
69 Anthracene	0.90440	0.90373	0.89117	0.81712	0.81109	0.79018						
	0.78315	0.74963					AVRG		0.83131		7.25516	
72 Di-n-butylphthalate	+++++	1.13584	1.12517	1.05910	1.04864	1.00051						
	0.99703	0.95438					AVRG		1.04581		6.45939	
76 Fluoranthene	0.90224	0.97031	0.96017	0.89278	0.88802	0.86786						
	0.84840	0.81005					AVRG		0.89248		6.00409	
77 Benzidine	+++++	0.40653	0.36246	0.36565	0.35403	0.36544						
	0.41263	0.35213					AVRG		0.37412		6.64046	

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.32405	1.35159	1.31284	1.20723	1.21760	1.15073					
	1.26280	1.28250					AVRG		1.26367		5.36819
85 Butylbenzylphthalate	+++++	0.59662	0.60220	0.59072	0.60132	0.58013					
	0.61922	0.61621					AVRG		0.60092		2.27892
89 Benzo(a)anthracene	1.05093	0.96816	0.96328	0.93178	0.93105	0.93332					
	0.96025	0.93255					AVRG		0.95891		4.21524
90 3,3'-Dichlorobenzidine	+++++	0.26681	0.28620	0.29510	0.27316	0.27699					
	0.29106	0.26436					AVRG		0.27910		4.28355
92 Chrysene	0.89020	0.89976	0.89113	0.83925	0.84009	0.82315					
	0.84100	0.80174					AVRG		0.85329		4.21177
93 bis(2-Ethylhexyl)phthalate	+++++	0.80809	0.78600	0.73624	0.76057	0.74158					
	0.75155	0.74362					AVRG		0.76109		3.48672
94 Di-n-octylphthalate	+++++	1.52295	1.51090	1.49260	1.57749	1.70881					
	1.68585	1.74490					AVRG		1.60621		6.52248
95 Benzo(b)fluoranthene	1.02704	1.09919	1.10279	1.13249	1.13619	1.13403					
	1.17324	1.16918					AVRG		1.12177		4.15603
96 Benzo(k)fluoranthene	1.03689	1.14562	1.11676	0.99048	1.02425	1.04585					
	1.04682	1.02719					AVRG		1.05423		4.86067

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.82018	0.92251	0.95324	0.92574	0.93085	0.93108					
	0.94872	0.92614					AVRG		0.91981		4.54058
99 Indeno(1,2,3-cd)pyrene	0.61793	0.62224	0.69390	0.69944	0.67832	0.64625					
	0.68582	0.64752					AVRG		0.66143		4.85925
100 Dibenzo(a,h)anthracene	0.47565	0.47818	0.54251	0.56597	0.53673	0.52054					
	0.55040	0.52332					AVRG		0.52416		6.20836
101 Benzo(ghi)perylene	0.56533	0.53785	0.58606	0.57992	0.55056	0.51978					
	0.55186	0.52150					AVRG		0.55161		4.48630
102 1,4-Dioxane	+++++	0.36384	0.36610	0.33417	0.33077	0.31979					
	0.31717	0.31403					AVRG		0.33513		6.45342
103 Methyl methacrylate	+++++	0.21020	0.20726	0.19621	0.19212	0.18889					
	0.18592	0.18875					AVRG		0.19562		4.88183
104 Ethyl methacrylate	+++++	0.79610	0.79733	0.75341	0.75358	0.72166					
	0.71755	0.72015					AVRG		0.75140		4.58534
105 2-Picoline	+++++	1.22561	1.21665	1.13966	1.12899	1.08441					
	1.07670	1.07757					AVRG		1.13566		5.59082
106 N-Nitrosomethylethylamine	+++++	0.47452	0.46462	0.43928	0.44021	0.42769					
	0.42281	0.42081					AVRG		0.44142		4.71501

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.54758	0.54286	0.49884	0.51161	0.49538					
	0.49709	0.45892					AVRG		0.50747		6.00086
108 N-Nitrosodiethylamine	+++++	0.49539	0.49681	0.46847	0.46768	0.45500					
	0.45400	0.45358					AVRG		0.47013		3.99967
109 Ethyl Methanesulfonate	+++++	0.65591	0.64231	0.61640	0.62051	0.60576					
	0.60616	0.59583					AVRG		0.62041		3.46816
110 Pentachloroethane	+++++	0.33091	0.32767	0.30927	0.31189	0.29650					
	0.29355	0.28904					AVRG		0.30840		5.34098
111 N-Nitrosopyrrolidine	+++++	0.51068	0.50360	0.49590	0.49956	0.48726					
	0.47931	0.47906					AVRG		0.49363		2.46520
113 N-Nitrosomorpholine	+++++	0.93269	0.89548	0.84559	0.81841	0.76963					
	0.74142	0.69563					AVRG		0.81412		10.39747
114 o-Toluidine	+++++	1.66749	1.62690	1.57357	1.54322	1.47535					
	1.45788	1.43454					AVRG		1.53985		5.74695
115 N-Nitrosopiperidine	+++++	0.13839	0.13649	0.13206	0.12980	0.12760					
	0.12960	0.12740					AVRG		0.13162		3.26869
116 a,a-Dimethylphenethylamine	+++++	0.91907	0.96417	0.99553	0.99366	0.99806					
	1.00353	0.99978					AVRG		0.98197		3.12063

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Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.13478	0.13459	0.13266	0.13072	0.12464					
	0.12191	0.12398					AVRG		0.12904		4.19259
118 2,6-Dichlorophenol	+++++	0.20253	0.20749	0.20261	0.20410	0.20112					
	0.20199	0.19907					AVRG		0.20270		1.29027
119 Hexachloropropene	+++++	0.10438	0.10831	0.10725	0.10671	0.10478					
	0.10645	0.09827					AVRG		0.10516		3.16694
120 p-Phenylenediamine	+++++	0.25668	0.25068	0.22690	0.21252	0.19855					
	0.19547	+++++					AVRG		0.22347		11.63559
121 N-Nitrosodi-n-butylamine	+++++	0.23441	0.23451	0.20097	0.18967	0.18327					
	0.18394	0.17781					AVRG		0.20065		12.05548
122 Safrole	+++++	0.20181	0.19524	0.18624	0.18455	0.17874					
	0.17654	0.17363					AVRG		0.18525		5.52554
123 1,2,4,5-Tetrachlorobenzene	+++++	0.44061	0.42948	0.40210	0.39235	0.37114					
	0.36184	0.35421					AVRG		0.39310		8.45898
124 Isosafrole	+++++	0.35170	0.34949	0.33088	0.32487	0.31439					
	0.31016	0.30561					AVRG		0.32673		5.63612
125 1,4-Naphthoquinone	+++++	84638	151030	288344	333563	495061					
	+++++	+++++					LINR	-0.21821	0.24057		0.99067

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.16835	0.17531	0.16597	0.17132	0.16929					
	0.16971	0.16651					AVRG		0.16950		1.86258
127 Pentachlorobenzene	+++++	0.37874	0.37429	0.35898	0.35476	0.34124					
	0.33507	0.33064					AVRG		0.35339		5.31101
128 1-Naphthylamine	+++++	0.93808	0.91662	0.87727	0.86662	0.82419					
	0.81523	0.76509					AVRG		0.85758		7.04454
129 2-Naphthylamine	+++++	1.00958	0.98980	0.95445	0.92796	0.89640					
	0.87021	0.81954					AVRG		0.92399		7.28200
130 2,3,4,6-Tetrachlorophenol	+++++	0.21848	0.23607	0.22847	0.23258	0.23782					
	0.24128	0.23864					AVRG		0.23333		3.33623
131 5-Nitro-o-toluidine	+++++	0.26504	0.27296	0.28000	0.27202	0.27408					
	0.27596	0.26950					AVRG		0.27279		1.74037
132 Thionazin	+++++	0.15991	0.16333	0.16125	0.15716	0.15263					
	0.15093	0.15034					AVRG		0.15651		3.35420
134 Sulfotepp	+++++	0.08069	0.08457	0.08225	0.08109	0.08247					
	0.08302	0.08521					AVRG		0.08276		2.01929
135 Phorate	+++++	0.38094	0.39212	0.38013	0.37064	0.35768					
	0.35368	0.35136					AVRG		0.36950		4.24438

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	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.09043	0.10798	0.11736	0.11408	0.12051					
	0.12517	0.12301					AVRG		0.11408		10.44181
137 Phenacetin	+++++	0.25499	0.26014	0.25425	0.24643	0.24758					
	0.25182	0.24676					AVRG		0.25171		2.03791
138 Diallate	+++++	0.24308	0.23259	0.21969	0.22000	0.21354					
	0.20757	0.20177					AVRG		0.21975		6.48800
139 Dimethoate	+++++	0.19708	0.21294	0.21778	0.21356	0.21259					
	0.21588	0.21951					AVRG		0.21276		3.47043
140 4-Aminobiphenyl	+++++	0.52229	0.52744	0.56450	0.55560	0.53372					
	0.51979	0.49365					AVRG		0.53100		4.44590
141 Pentachloronitrobenzene	+++++	0.06861	0.06544	0.05979	0.05907	0.05327					
	0.04994	0.04776					AVRG		0.05770		13.49738
142 Pronamide	+++++	0.27668	0.26559	0.24232	0.23613	0.21408					
	0.19922	0.18795					AVRG		0.23171		14.29562
143 Dinoseb	+++++	21314	69548	148150	183225	380967					
	493335	540450					LINR	0.20422	0.13388		0.99412
144 Disulfoton	+++++	0.27927	0.28869	0.28141	0.27781	0.27141					
	0.26930	0.27042					AVRG		0.27690		2.53496

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.16580	0.18496	0.19619	0.19321	0.19447					
	0.19781	0.20132					AVRG		0.19054		6.30793
146 4-Nitroquinoline-1-oxide	+++++	0.02797	0.02417	0.02069	0.01676	0.01596					
	0.01632	0.01115					AVRG		0.01900		29.85349 <-
147 Methapyrilene	+++++	0.53870	0.51095	0.46211	0.46851	0.42818					
	0.41014	0.36742					AVRG		0.45514		12.92653
148 Isodrin	+++++	0.11198	0.10591	0.10106	0.10099	0.09653					
	0.09427	0.09263					AVRG		0.10048		6.77327
149 Aramite	+++++	0.04288	0.04473	0.04328	0.04492	0.04294					
	0.04216	0.03955					AVRG		0.04292		4.18340
150 Kepone	+++++	0.06821	0.06688	0.06300	0.06292	0.06376					
	0.06429	0.06037					AVRG		0.06421		4.07909
151 p-(Dimethylamino)azobenzene	+++++	0.31886	0.31858	0.30561	0.32564	0.30896					
	0.29295	0.31135					AVRG		0.31171		3.43876
152 Chlorobenzilate	+++++	0.28015	0.27293	0.26692	0.28307	0.27552					
	0.25667	0.28081					AVRG		0.27373		3.40002
153 3,3'-Dimethylbenzidine	+++++	0.54411	0.53267	0.52587	0.52765	0.52481					
	0.53500	0.48082					AVRG		0.52442		3.87777

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
154 Famphur	+++++	0.39508	0.41129	0.40963	0.41295	0.41166						
	0.40965	0.43249					AVRG		0.41182		2.65732	
155 2-Acetylaminofluorene	+++++	0.26940	0.30220	0.33126	0.30846	0.31630						
	0.33855	0.30308					AVRG		0.30989		7.29418	
157 7,12Dimethylbenz(a)anthracene	+++++	0.52071	0.52087	0.48902	0.53422	0.51784						
	0.48120	0.52556					AVRG		0.51277		3.85020	
158 3-Methylcholanthrene	+++++	0.37699	0.38496	0.38662	0.36457	0.36689						
	0.36907	0.35258					AVRG		0.37167		3.24545	
26 Phthalic anhydride	+++++	19947	70183	158750	199408	349686						
	444882	524437					LINR	0.08827	0.11204		0.99920	
173 Carbazole	0.74030	0.66266	0.66768	0.67537	0.66904	0.68801						
	0.68838	0.65933					AVRG		0.68135		3.83434	
174 Hexachlorophene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
179 Dibenzo(a,e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
184 p-Benzoquinone	+++++	0.19714	0.23527	0.25694	0.31440	0.23557						
	0.31801	0.30125					AVRG		0.26551		17.51997	<-
191 Parathion	+++++	0.05144	0.05751	0.06005	0.05987	0.06048						
	0.06192	0.06233					AVRG		0.05908		6.29535	
192 Methoxychlor	+++++	0.56403	0.62279	0.57547	0.58466	0.59921						
	0.60284	0.57646					AVRG		0.58935		3.40697	
210 m-Toluidine	+++++	1.18361	1.14196	1.27790	1.40428	1.45000						
	1.57819	1.58735					AVRG		1.37475		13.05381	
211 p-Toluidine	+++++	1.19395	1.14859	1.22108	1.12140	1.12246						
	1.05038	0.88521					AVRG		1.10616		10.11699	
212 Cis Diallate	+++++	0.24942	0.23954	0.22264	0.22308	0.21957						
	0.22207	0.21623					AVRG		0.22751		5.34742	
213 Trans Diallate	+++++	0.28598	0.27364	0.25845	0.25883	0.25122						
	0.24420	0.23737					AVRG		0.25853		6.48800	
214 1,4-Dinitrobenzene	+++++	0.18254	0.19379	0.19206	0.19366	0.19651						
	0.20200	0.19895					AVRG		0.19422		3.18627	
215 2-Ethoxyethanol	+++++	0.93089	0.91998	0.93387	0.92416	0.93722						
	0.95789	0.91578					AVRG		0.93140		1.49848	

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	0.12024	0.12176	0.13402	0.13327	0.14612					
	0.14401	0.13627					AVRG		0.13367		7.42615
226 2,2'-Dichlorobenzil	+++++	0.74065	0.73565	0.70509	+++++	0.72929					
	0.68011	0.68665					AVRG		0.71291		3.64786
227 4-Chlorothioanisole	+++++	0.24526	0.24532	0.24448	+++++	0.24005					
	0.23939	0.23754					AVRG		0.24201		1.41023
228 4-Chlorothiophenol	+++++	44415	134478	332577	+++++	710506					
	861327	1051275					LINR	0.12298	0.22403		0.99993
229 bis(p-Chlorophenyl)sulfone	+++++	0.43969	0.42531	0.39518	+++++	0.40060					
	0.37609	0.37535					AVRG		0.40204		6.48066
230 bis(p-Chlorophenyl)disulfide	+++++	0.15840	0.15651	0.15172	+++++	0.15893					
	0.15153	0.15686					AVRG		0.15566		2.08939
231 Diphenyl disulfide	+++++	0.21133	0.20952	0.20464	+++++	0.20130					
	0.19738	0.19810					AVRG		0.20371		2.86119
232 Diphenyl sulfide	+++++	0.80314	0.78782	0.74734	+++++	0.71349					
	0.70255	0.67955					AVRG		0.73898		6.65171
233 Phenyl sulfone	+++++	0.41846	0.41107	0.39335	+++++	0.38576					
	0.38088	0.37013					AVRG		0.39328		4.68458

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	100 Level 7	120 Level 8										
234 Hydroxymethyl phthalimide	+++++	34368	69527	111795	+++++	219245						
	238854	310774					LINR	-0.17168	0.10332		0.99434	
235 Phthalic acid	+++++	10272	35793	103964	+++++	317426						
	377273	+++++					LINR	0.28377	0.10603		0.99240	
236 Thiophenol	+++++	0.72677	0.87316	0.98094	+++++	1.05176						
	1.04045	1.04474					AVRG		0.95297		13.61346	
237 bis(Chloromethyl)ether	+++++	0.87445	0.86289	0.81012	+++++	0.81952						
	0.78408	0.78451					AVRG		0.82259		4.68064	
238 Octachlorostyrene	+++++	0.05791	0.05657	0.05363	+++++	0.05348						
	0.05255	0.05173					AVRG		0.05431		4.42948	
239 Dibenzo(a,h)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
240 Benzo(j)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
241 Dibenzo(a,j)acridine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
242 Dibenz(a,h)acridine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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	100 Level 7	120 Level 8										
243 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
244 2,4-Toluene Diisocyanate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
245 Dibenzo(a,i)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
246 1-Nitropyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
247 5-Methylchrysene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
248 Dibenzo(a,l)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
249 7H-Dibenzo(c,g)carbazole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
250 1-Hexanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
251 Propylene glycol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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	100 Level 7	120 Level 8										
M 222 Trichlorophenols	+++++	0.29329	0.29709	0.27919	0.28184	0.27503						
	0.27383	0.26982					AVRG		0.28144		3.62457	
M 223 Tetrachlorophenols	+++++	0.21848	0.23607	0.22847	0.23258	0.23782						
	0.24128	0.23864					AVRG		0.23333		3.33623	
M 224 Benzo(b,k)fluoranthene	1.03196	1.12240	1.10977	1.06149	1.08022	1.08994						
	1.11003	1.09819					AVRG		1.08800		2.72527	
M 225 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 3 2-Fluorophenol	+++++	1.02520	1.04766	1.03008	1.03008	1.04425						
	1.06812	1.03245					AVRG		1.03969		1.43708	
$ 5 Phenol-d5	+++++	1.28367	1.32223	1.29638	1.30385	1.30539						
	1.33151	1.28181					AVRG		1.30355		1.41909	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.34547	0.33539	0.30609	0.30256	0.28769						
	0.27238	0.26228					AVRG		0.30169		10.19977	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
$ 39 2-Fluorobiphenyl	+++++	1.14787	1.07616	0.99829	0.98540	0.94271					
	0.93181	0.89582					AVRG		0.99687		8.84048
$ 60 2,4,6-Tribromophenol	+++++	0.10553	0.11240	0.11152	0.11625	0.11870					
	0.12293	0.12210					AVRG		0.11563		5.40333
$ 81 p-Terphenyl-d14	+++++	0.74292	0.72004	0.68997	0.69903	0.67156					
	0.74275	0.74998					AVRG		0.71661		4.24404

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 26-FEB-2010 15:33
Lab File ID: s7b2614.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.03969	1.02471	1.02471	0.000	-1.44120	60.00000	Averaged
$ 5 Phenol-d5	1.30355	1.24864	1.24864	0.000	-4.21259	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.30169	0.31799	0.31799	0.000	5.40220	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.99687	1.05207	1.05207	0.000	5.53779	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11563	0.11567	0.11567	0.000	0.03425	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.71661	0.79589	0.79589	0.000	11.06334	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.70001	0.65798	0.65798	0.000	-6.00450	60.00000	Averaged
2 Pyridine	0.96465	0.72626	0.72626	0.000	-24.71254	60.00000	Averaged
4 Aniline	0.62182	0.56215	0.56215	0.000	-9.59489	60.00000	Averaged
6 Phenol	1.29492	1.27998	1.27998	0.001	-1.15360	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06026	0.99193	0.99193	0.000	-6.44459	60.00000	Averaged
8 2-Chlorophenol	0.99096	0.96977	0.96977	0.000	-2.13776	60.00000	Averaged
203 n-Decane	1.86209	1.65806	1.65806	0.000	-10.95712	60.00000	Averaged
9 1,3-Dichlorobenzene	1.24478	1.24430	1.24430	0.000	-0.03834	60.00000	Averaged
11 1,4-Dichlorobenzene	1.19442	1.15499	1.15499	0.001	-3.30123	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.09872	1.05382	1.05382	0.000	-4.08631	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.45618	2.41690	2.41690	0.000	-1.59921	60.00000	Averaged
12 Benzyl alcohol	0.67475	0.65730	0.65730	0.000	-2.58575	60.00000	Averaged
15 o-Cresol	0.79330	0.75691	0.75691	0.000	-4.58754	60.00000	Averaged
18 m,p-Cresols	1.07190	1.06639	1.06639	0.000	-0.51397	60.00000	Averaged
17 N-Nitrosodipropylamine	0.73664	0.73992	0.73992	0.050	0.44576	60.00000	Averaged spcc
19 Hexachloroethane	0.46378	0.45091	0.45091	0.000	-2.77548	60.00000	Averaged
21 Nitrobenzene	0.27987	0.28434	0.28434	0.000	1.60052	60.00000	Averaged
22 Isophorone	0.54073	0.52607	0.52607	0.000	-2.71011	60.00000	Averaged
23 2-Nitrophenol	0.13143	0.13812	0.13812	0.001	5.09665	20.00000	Averaged ccc
24 2,4-Dimethylphenol	43.02153	40.00000	0.25793	0.000	7.55381	60.00000	Wt Linear
25 bis(2-Chloroethoxy)methane	0.29584	0.27846	0.27846	0.000	-5.87687	60.00000	Averaged
26 2,4-Dichlorophenol	0.21226	0.22457	0.22457	0.001	5.80057	20.00000	Averaged ccc
27 Benzoic acid	0.12083	0.13464	0.13464	0.000	11.43046	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.25742	0.26054	0.26054	0.000	1.21085	60.00000	Averaged
30 Naphthalene	0.75561	0.72974	0.72974	0.000	-3.42291	60.00000	Averaged
204 alpha-Terpineol	0.30880	0.27565	0.27565	0.000	-10.73794	60.00000	Averaged
31 4-Chloroaniline	0.35383	0.33113	0.33113	0.000	-6.41578	60.00000	Averaged
32 Hexachlorobutadiene	0.13434	0.14044	0.14044	0.001	4.53770	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.22797	0.23911	0.23911	0.001	4.88549	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54229	0.55783	0.55783	0.000	2.86468	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7b2614.d
Analysis Type:
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

Injection Date: 26-FEB-2010 15:33
Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Init. Cal. Times: 11:07 23:46

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DR1FT	MAX %D / %DR1FT	CURVE TYPE
35 1-Methylnaphthalene	0.51558	0.51162	0.51162	0.000	-0.76796	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.19338	0.18004	0.18004	0.050	-6.89835	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.49462	0.48886	0.48886	0.000	-1.16475	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.28064	0.29372	0.29372	0.001	4.66295	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.28225	0.31248	0.31248	0.000	10.71318	60.00000	Averaged
40 2-Chloronaphthalene	0.92584	0.93034	0.93034	0.000	0.48600	60.00000	Averaged
42 o-Nitroaniline	0.32778	0.32450	0.32450	0.000	-1.00006	60.00000	Averaged
41 m-Nitroaniline	0.23922	0.23795	0.23795	0.000	-0.52859	60.00000	Averaged
43 Dimethylphthalate	1.06293	1.06181	1.06181	0.000	-0.10595	60.00000	Averaged
44 2,6-Dinitrotoluene	0.24549	0.24572	0.24572	0.000	0.09588	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32362	0.32061	0.32061	0.000	-0.93059	60.00000	Averaged
45 Acenaphthylene	1.47998	1.47925	1.47925	0.000	-0.04942	60.00000	Averaged
47 Acenaphthene	0.88041	0.84456	0.84456	0.001	-4.07267	20.00000	Averaged ccc
48 2,4-Dinitrophenol	40.39092	40.00000	0.06885	0.050	0.97730	60.00000	Linear spcc
49 Dibenzofuran	1.23737	1.25843	1.25843	0.000	1.70156	60.00000	Averaged
51 Diethylphthalate	1.08801	1.08709	1.08709	0.000	-0.08413	60.00000	Averaged
52 4-Nitrophenol	0.16277	0.17018	0.17018	0.050	4.55207	60.00000	Averaged spcc
53 Fluorene	1.03823	0.98765	0.98765	0.000	-4.87233	60.00000	Averaged
54 4-Chlorophenylphenylether	0.51596	0.50557	0.50557	0.000	-2.01472	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	49.60025	40.00000	0.09008	0.000	24.00062	60.00000	Linear
56 p-Nitroaniline	0.21538	0.21035	0.21035	0.000	-2.33542	60.00000	Averaged
133 Diphenylamine	0.47134	0.46815	0.46815	0.001	-0.67705	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.59299	0.59852	0.59852	0.000	0.93248	60.00000	Averaged
61 4-Bromophenylphenylether	0.16450	0.15861	0.15861	0.000	-3.58149	60.00000	Averaged
63 Hexachlorobenzene	0.15982	0.15792	0.15792	0.000	-1.18714	60.00000	Averaged
65 Pentachlorophenol	0.07563	0.08477	0.08477	0.001	12.08882	20.00000	Averaged ccc
206 n-Octadecane	0.50130	0.54494	0.54494	0.000	8.70577	60.00000	Averaged
68 Phenanthrene	0.82082	0.79129	0.79129	0.000	-3.59795	60.00000	Averaged
69 Anthracene	0.83131	0.80745	0.80745	0.000	-2.86980	60.00000	Averaged
72 Di-n-butylphthalate	1.04581	1.05484	1.05484	0.000	0.86325	60.00000	Averaged
76 Fluoranthene	0.89248	0.89895	0.89895	0.001	0.72511	20.00000	Averaged ccc
79 Pyrene	1.26367	1.20352	1.20352	0.000	-4.76014	60.00000	Averaged
85 Butylbenzylphthalate	0.60092	0.60984	0.60984	0.000	1.48432	60.00000	Averaged
89 Benzo(a)anthracene	0.95891	0.88471	0.88471	0.000	-7.73823	60.00000	Averaged
92 Chrysene	0.85329	0.81713	0.81713	0.000	-4.23770	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.76109	0.74913	0.74913	0.000	-1.57123	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 26-FEB-2010 15:33
Lab File ID: s7b2614.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.60621	1.58412	1.58412	0.001	-1.37539	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	1.12177	1.06463	1.06463	0.000	-5.09364	60.00000	Averaged	
96 Benzo(k)fluoranthene	1.05423	1.04564	1.04564	0.000	-0.81471	60.00000	Averaged	
97 Benzo(a)pyrene	0.91981	0.90053	0.90053	0.001	-2.09622	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	0.66143	0.60388	0.60388	0.000	-8.69961	60.00000	Averaged	
100 Dibenzo(a,h)anthracene	0.52416	0.47011	0.47011	0.000	-10.31204	60.00000	Averaged	
101 Benzo(ghi)perylene	0.55161	0.49780	0.49780	0.000	-9.75514	60.00000	Averaged	
126 m-Dinitrobenzene	0.16950	0.17152	0.17152	0.000	1.19636	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.23333	0.23665	0.23665	0.000	1.42249	60.00000	Averaged	
143 Dinoseb	41.77834	40.00000	0.11249	0.000	4.44585	60.00000	Linear	
173 Carbazole	0.68135	0.69533	0.69533	0.000	2.05237	60.00000	Averaged	
184 p-Benzoquinone	0.26551	0.19230	0.19230	0.000	-27.57330	60.00000	Averaged	
192 Methoxychlor	0.58935	0.62587	0.62587	0.000	6.19688	60.00000	Averaged	
211 p-Toluidine	1.10616	0.97036	0.97036	0.000	-12.27617	60.00000	Averaged	
210 m-Toluidine	1.37475	1.21251	1.21251	0.000	-11.80169	60.00000	Averaged	
215 2-Ethoxyethanol	0.93140	0.93581	0.93581	0.000	0.47324	60.00000	Averaged	
26 Phthalic anhydride	51.56333	40.00000	0.13454	0.000	28.90832	60.00000	Linear	
214 1,4-Dinitrobenzene	0.19422	0.19244	0.19244	0.000	-0.91506	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	0.13367	0.13777	0.13777	0.000	3.06814	60.00000	Averaged	
M 222 Trichlorophenols	0.28144	0.30310	0.30310	0.000	7.69664	60.00000	Averaged	
M 223 Tetrachlorophenols	0.23333	0.23665	0.23665	0.000	1.42249	60.00000	Averaged	
M 224 Benzo(b,k)fluoranthene	1.08800	1.05514	1.05514	0.000	-3.02057	60.00000	Averaged	

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Data file : /chem/MSD7.i/s022610.b/s7b2614.d
Lab Smp Id: WBN100225-09.1 Client Smp ID: MEGAICV
Inj Date : 26-FEB-2010 15:33
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100225-09.1|ICV|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN100217-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m
Meth Date : 27-Feb-2010 08:41 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 15:08 Cal File: s7b2613.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.951	3.947	(1.000)	398783	40.0000	
* 29 Naphthalene-d8	136	4.818	4.818	(1.000)	1519686	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.070	(1.000)	819814	40.0000	
* 67 Phenanthrene-d10	188	7.250	7.245	(1.000)	1483884	40.0000	
* 91 Chrysene-d12	240	9.658	9.653	(1.000)	1119677	40.0000	
* 98 Perylene-d12	264	11.338	11.333	(1.000)	753913	40.0000	
$ 3 2-Fluorophenol	112	3.133	3.133	(0.793)	408636	40.0000	39.4
$ 5 Phenol-d5	99	3.663	3.658	(0.927)	497935	40.0000	38.3
$ 20 Nitrobenzene-d5	82	4.313	4.312	(0.895)	483245	40.0000	42.2
$ 39 2-Fluorobiphenyl	172	5.560	5.560	(0.915)	862503	40.0000	42.2
$ 60 2,4,6-Tribromophenol	329	6.672	6.672	(1.098)	94831	40.0000	40.0
$ 81 p-Terphenyl-d14	244	8.622	8.622	(0.893)	891139	40.0000	44.4
1 N-Methyl-N-nitrosomethylamine	74	2.444	2.444	(0.619)	262390	40.0000	37.6
2 Pyridine	79	2.473	2.478	(0.626)	289621	40.0000	30.1
4 Aniline	66	3.735	3.735	(0.945)	224177	40.0000	36.2
6 Phenol	94	3.672	3.667	(0.929)	510433	40.0000	39.5
7 bis(2-Chloroethyl) ether	63	3.749	3.749	(0.949)	395566	40.0000	37.4
8 2-Chlorophenol	128	3.817	3.812	(0.966)	386729	40.0000	39.1
203 n-Decane	43	3.802	3.802	(0.962)	661206	40.0000	35.6
9 1,3-Dichlorobenzene	146	3.918	3.918	(0.991)	496206	40.0000	40.0
11 1,4-Dichlorobenzene	146	3.966	3.961	(1.004)	460590	40.0000	38.7
13 1,2-Dichlorobenzene	146	4.067	4.067	(1.029)	420246	40.0000	38.4
14 bis(2-Chloroisopropyl)ether	45	4.096	4.096	(1.037)	963819	40.0000	39.4
12 Benzyl alcohol	108	4.014	4.014	(1.016)	262120	40.0000	39.0
15 o-Cresol	107	4.067	4.067	(1.029)	301843	40.0000	38.2
18 m,p-Cresols	107	4.168	4.168	(1.055)	425256	40.0000	39.8
17 N-Nitrosodipropylamine	70	4.192	4.192	(1.061)	295069	40.0000	40.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
19 Hexachloroethane	117	4.298	4.298	(1.088)	179815	40.0000	38.9
21 Nitrobenzene	77	4.327	4.327	(0.898)	432114	40.0000	40.6
22 Isophorone	82	4.481	4.486	(0.930)	799464	40.0000	38.9
23 2-Nitrophenol	139	4.544	4.544	(0.943)	209904	40.0000	42.0
24 2,4-Dimethylphenol	122	4.534	4.534	(0.941)	391978	40.0000	43.0
25 bis(2-Chloroethoxy)methane	93	4.601	4.601	(0.955)	423168	40.0000	37.6
26 2,4-Dichlorophenol	162	4.703	4.703	(0.976)	341282	40.0000	42.3
27 Benzoic acid	105	4.592	4.592	(0.953)	204606	40.0000	44.6
28 1,2,4-Trichlorobenzene	180	4.770	4.770	(0.990)	395939	40.0000	40.5
30 Naphthalene	128	4.837	4.837	(1.004)	1108980	40.0000	38.6
204 alpha-Terpineol	59	4.809	4.808	(0.998)	418894	40.0000	35.7
31 4-Chloroaniline	127	4.847	4.847	(1.006)	503209	40.0000	37.4
32 Hexachlorobutadiene	225	4.900	4.900	(1.017)	213421	40.0000	41.8
33 4-Chloro-3-methylphenol	107	5.155	5.155	(1.070)	363372	40.0000	42.0
34 2-Methylnaphthalene	142	5.314	5.314	(1.103)	847725	40.0000	41.1
35 1-Methylnaphthalene	142	5.391	5.391	(1.119)	777496	40.0000	39.7
36 Hexachlorocyclopentadiene	237	5.420	5.420	(0.892)	147596	40.0000	37.2
205 2,3-Dichloroaniline	161	5.512	5.512	(0.907)	400773	40.0000	39.5
37 2,4,6-Trichlorophenol	196	5.502	5.502	(0.906)	240799	40.0000	41.9
38 2,4,5-Trichlorophenol	196	5.526	5.526	(0.910)	256177	40.0000	44.3
40 2-Chloronaphthalene	162	5.670	5.670	(0.933)	762704	40.0000	40.2
42 o-Nitroaniline	65	5.723	5.723	(0.942)	266029	40.0000	39.6
41 m-Nitroaniline	138	6.022	6.022	(0.991)	195077	40.0000	39.8
43 Dimethylphthalate	163	5.839	5.839	(0.961)	870483	40.0000	40.0
44 2,6-Dinitrotoluene	165	5.892	5.892	(0.970)	201445	40.0000	40.0
50 2,4-Dinitrotoluene	165	6.186	6.186	(1.018)	262842	40.0000	39.6
45 Acenaphthylene	152	5.974	5.974	(0.983)	1212713	40.0000	40.0
47 Acenaphthene	154	6.099	6.099	(1.004)	692379	40.0000	38.4
48 2,4-Dinitrophenol	184	6.089	6.089	(1.002)	56443	40.0000	40.4
49 Dibenzofuran	168	6.224	6.224	(1.025)	1031677	40.0000	40.7
51 Diethylphthalate	149	6.345	6.345	(1.044)	891212	40.0000	40.0
52 4-Nitrophenol	139	6.104	6.104	(1.005)	139513	40.0000	41.8
53 Fluorene	166	6.489	6.489	(1.068)	809688	40.0000	38.0
54 4-Chlorophenylphenylether	204	6.460	6.460	(1.063)	414472	40.0000	39.2
55 2-Methyl-4,6-dinitrophenol	198	6.499	6.499	(0.896)	133661	40.0000	49.6
56 p-Nitroaniline	138	6.479	6.484	(1.067)	172445	40.0000	39.1
133 Diphenylamine	169	6.552	6.552	(0.904)	694684	40.0000	39.7
58 1,2-Diphenylhydrazine	77	6.590	6.585	(0.909)	888138	40.0000	40.4
61 4-Bromophenylphenylether	248	6.850	6.850	(0.945)	235353	40.0000	38.6
63 Hexachlorobenzene	284	6.922	6.922	(0.955)	234334	40.0000	39.5
65 Pentachlorophenol	266	7.072	7.067	(0.975)	125785	40.0000	44.8
206 n-Octadecane	57	7.062	7.062	(0.974)	808626	40.0000	43.5
68 Phenanthrene	178	7.269	7.269	(1.003)	1174179	40.0000	38.6
69 Anthracene	178	7.313	7.312	(1.009)	1198165	40.0000	38.8
72 Di-n-butylphthalate	149	7.669	7.669	(1.058)	1565255	40.0000	40.3
76 Fluoranthene	202	8.309	8.309	(1.146)	1333938	40.0000	40.3
79 Pyrene	202	8.526	8.526	(0.883)	1347549	40.0000	38.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
85 Butylbenzylphthalate	149	9.056	9.056	(0.938)	682818	40.0000	40.6
89 Benzo(a)anthracene	228	9.643	9.643	(0.998)	990591	40.0000	36.9
92 Chrysene	228	9.682	9.682	(1.002)	914923	40.0000	38.3
93 bis(2-Ethylhexyl)phthalate	149	9.581	9.580	(0.992)	838787	40.0000	39.4
94 Di-n-octylphthalate	149	10.235	10.240	(0.903)	1194290	40.0000	39.4
95 Benzo(b)fluoranthene	252	10.818	10.818	(0.954)	802637	40.0000	38.0
96 Benzo(k)fluoranthene	252	10.852	10.857	(0.957)	788325	40.0000	39.7
97 Benzo(a)pyrene	252	11.256	11.256	(0.993)	678918	40.0000	39.2
99 Indeno(1,2,3-cd)pyrene	276	13.091	13.096	(1.155)	455276	40.0000	36.5
100 Dibenzo(a,h)anthracene	278	13.105	13.110	(1.156)	354422	40.0000	35.9
101 Benzo(ghi)perylene	276	13.625	13.635	(1.202)	375295	40.0000	36.1
126 m-Dinitrobenzene	168	5.873	5.873	(0.967)	140617	40.0000	40.5
130 2,3,4,6-Tetrachlorophenol	232	6.301	6.301	(1.037)	194010	40.0000	40.6
143 Dinoseb	211	7.192	7.192	(0.992)	166919	40.0000	41.8
173 Carbazole	167	7.423	7.428	(1.024)	1031789	40.0000	40.8
184 p-Benzoquinone	54	3.431	3.431	(0.868)	76686	40.0000	29.0
192 Methoxychlor	227	9.528	9.527	(0.987)	700776	40.0000	42.5
211 p-Toluidine	106	4.226	4.226	(1.069)	386963	40.0000	35.1
210 m-Toluidine	106	4.250	4.250	(1.076)	483528	40.0000	35.3
215 2-Ethoxyethanol	59	2.290	2.290	(0.580)	373183	40.0000	40.2
26 Phthalic anhydride	104	5.348	5.348	(1.110)	204452	40.0000	51.6
214 1,4-Dinitrobenzene	75	5.815	5.815	(0.957)	157765	40.0000	39.6
216 Methylenebis(2-chloroaniline)	231	9.585	9.585	(0.993)	154259	40.0000	41.2
M 222 Trichlorophenols	196				496977	80.0000	86.2
M 223 Tetrachlorophenols	232				194010	40.0000	40.6
M 224 Benzo(b,k)fluoranthene	252				1590962	80.0000	77.6

Data File: /chem/MSD7.i/s022610.b/s7b2614.d
Date : 26-FEB-2010 15:33
Client ID: MEGAICV
Sample Info: IWBN100225-09,1|ICV|1|SVMF1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

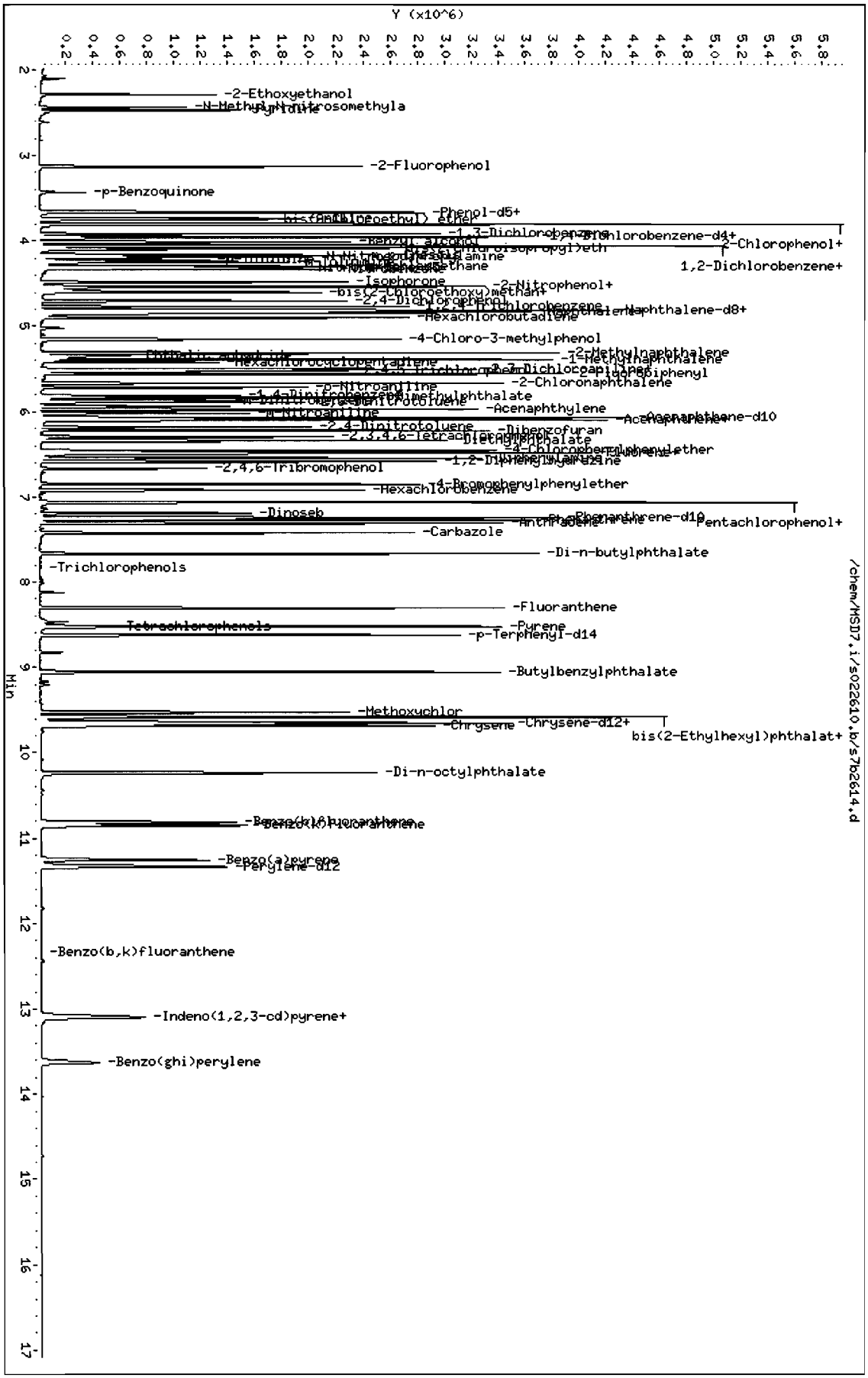

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7b2638.d
Analysis Type:
Lab Sample ID: WBN100218-08.1
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

Injection Date: 27-FEB-2010 00:07
Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Init. Cal. Times: 11:07 23:46
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84333	0.72762	0.72762	0.000	-13.72062	60.00000	Averaged
16 Acetophenone	1.10656	1.09035	1.09035	0.000	-1.46517	60.00000	Averaged
189 Caprolactam	0.07444	0.08269	0.08269	0.000	11.09028	60.00000	Averaged
208 1,1'-Biphenyl	1.10203	1.18702	1.18702	0.000	7.71210	60.00000	Averaged
207 Atrazine	0.03853	0.04597	0.04597	0.000	19.30469	60.00000	Averaged
77 Benzidine	0.37412	0.37290	0.37290	0.000	-0.32808	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27910	0.28354	0.28354	0.000	1.59226	60.00000	Averaged
102 1,4-Dioxane	0.33513	0.40939	0.40939	0.000	22.16131	60.00000	Averaged
103 Methyl methacrylate	0.19562	0.23961	0.23961	0.000	22.48803	60.00000	Averaged
104 Ethyl methacrylate	0.75140	0.90901	0.90901	0.000	20.97589	60.00000	Averaged
105 2-Picoline	1.13566	1.16769	1.16769	0.000	2.82042	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44142	0.47438	0.47438	0.000	7.46654	60.00000	Averaged
107 Methyl methanesulfonate	0.50747	0.54617	0.54617	0.000	7.62707	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47013	0.49911	0.49911	0.000	6.16504	60.00000	Averaged
109 Ethyl Methanesulfonate	0.62041	0.76141	0.76141	0.000	22.72687	60.00000	Averaged
110 Pentachloroethane	0.30840	0.42036	0.42036	0.000	36.30233	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49363	0.51936	0.51936	0.000	5.21438	60.00000	Averaged
113 N-Nitrosomorpholine	0.81412	0.89271	0.89271	0.000	9.65373	60.00000	Averaged
114 o-Toluidine	1.53985	1.58233	1.58233	0.000	2.75855	60.00000	Averaged
115 N-Nitrosopiperidine	0.13162	0.14324	0.14324	0.000	8.82907	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.98197	1.03595	1.03595	0.000	5.49667	60.00000	Averaged
118 2,6-Dichlorophenol	0.20270	0.18717	0.18717	0.000	-7.66350	60.00000	Averaged
119 Hexachloropropene	0.10516	0.16353	0.16353	0.000	55.49743	60.00000	Averaged
120 p-Phenylenediamine	0.22347	0.22273	0.22273	0.000	-0.33095	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.20065	0.21517	0.21517	0.000	7.23239	60.00000	Averaged
122 Safrole	0.18525	0.22522	0.22522	0.000	21.57952	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.39310	0.44447	0.44447	0.000	13.06636	60.00000	Averaged
124 Isosafrole	0.32673	0.44824	0.44824	0.000	37.18926	60.00000	Averaged
125 1,4-Naphthoquinone	42.42497	40.00000	0.30765	0.000	6.06244	60.00000	Linear
127 Pentachlorobenzene	0.35339	0.38326	0.38326	0.000	8.45157	60.00000	Averaged
128 1-Naphthylamine	0.85758	0.95943	0.95943	0.000	11.87595	60.00000	Averaged
129 2-Naphthylamine	0.92399	1.06906	1.06906	0.000	15.70067	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27279	0.29252	0.29252	0.000	7.23152	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11408	0.15190	0.15190	0.000	33.15347	60.00000	Averaged
137 Phenacetin	0.25171	0.26740	0.26740	0.000	6.23101	60.00000	Averaged
138 Diallate	0.21975	0.22151	0.22151	0.000	0.80197	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 27-FEB-2010 00:07
Lab File ID: s7b2638.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.22751	0.29963	0.29963	0.000	31.70163	60.00000	Averaged
213 Trans Diallate	0.25853	0.26060	0.26060	0.000	0.80197	60.00000	Averaged
140 4-Aminobiphenyl	0.53100	0.61459	0.61459	0.000	15.74304	60.00000	Averaged
141 Pentachloronitrobenzene	0.05770	0.06484	0.06484	0.000	12.37888	60.00000	Averaged
142 Pronamide	0.23171	0.26428	0.26428	0.000	14.05423	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01900	0.02204	0.02204	0.000	15.97890	60.00000	Averaged
147 Methapyrilene	0.45514	0.56955	0.56955	0.000	25.13562	60.00000	Averaged
148 Isodrin	0.10048	0.10103	0.10103	0.000	0.54771	60.00000	Averaged
149 Aramite	0.04292	0.04771	0.04771	0.000	11.14909	60.00000	Averaged
150 Kepone	0.06421	0.06503	0.06503	0.000	1.28262	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31171	0.34212	0.34212	0.000	9.75602	60.00000	Averaged
152 Chlorobenzilate	0.27373	0.25521	0.25521	0.000	-6.76399	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52442	0.55141	0.55141	0.000	5.14612	60.00000	Averaged
155 2-Acetylaminofluorene	0.30989	0.30947	0.30947	0.000	-0.13679	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51277	0.54729	0.54729	0.000	6.73130	60.00000	Averaged
158 3-Methylcholanthrene	0.37167	0.40941	0.40941	0.000	10.15366	60.00000	Averaged

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GEL Laboratories, LLC
Data file : /chem/MSD7.i/s022610.b/s7b2638.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV
Inj Date : 27-FEB-2010 00:07
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100218-08.1|ICV|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN100217-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m
Meth Date : 01-Mar-2010 10:44 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 38 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.952	3.952	(1.000)	457703	40.0000	
* 29 Naphthalene-d8	136	4.818	4.818	(1.000)	1628008	40.0000	
* 46 Acenaphthene-d10	164	6.070	6.070	(1.000)	931821	40.0000	
* 67 Phenanthrene-d10	188	7.245	7.245	(1.000)	1617850	40.0000	
* 91 Chrysene-d12	240	9.653	9.653	(1.000)	1288003	40.0000	
* 98 Perylene-d12	264	11.333	11.333	(1.000)	857015	40.0000	
209 Benzaldehyde	77	3.672	3.672	(0.929)	333034	40.0000	34.5
16 Acetophenone	105	4.202	4.202	(1.063)	499057	40.0000	39.4
189 Caprolactam	113	5.093	5.093	(1.057)	134623	40.0000	44.4
208 1,1'-Biphenyl	154	5.642	5.642	(0.929)	1106090	40.0000	43.1
207 Atrazine	173	6.947	6.947	(0.959)	74372	40.0000	47.7
77 Benzidine	184	8.396	8.396	(0.870)	480291	40.0000	39.9
90 3,3'-Dichlorobenzidine	252	9.590	9.590	(0.994)	365203	40.0000	40.6
102 1,4-Dioxane	88	2.290	2.290	(0.580)	187381	40.0000	48.9
103 Methyl methacrylate	100	2.285	2.285	(0.578)	109670	40.0000	49.0
104 Ethyl methacrylate	69	2.656	2.656	(0.672)	416056	40.0000	48.4
105 2-Picoline	93	2.844	2.844	(0.720)	534455	40.0000	41.1
106 N-Nitrosomethylethylamine	88	2.887	2.887	(0.731)	217124	40.0000	43.0
107 Methyl methanesulfonate	80	3.042	3.042	(0.770)	249986	40.0000	43.0
108 N-Nitrosodiethylamine	102	3.277	3.277	(0.829)	228446	40.0000	42.5
109 Ethyl Methanesulfonate	79	3.436	3.436	(0.870)	348500	40.0000	49.1
110 Pentachloroethane	167	3.773	3.773	(0.955)	192400	40.0000	54.5
111 N-Nitrosopyrrolidine	100	4.188	4.188	(1.060)	237715	40.0000	42.1
113 N-Nitrosomorpholine	56	4.212	4.212	(1.066)	408598	40.0000	43.9
114 o-Toluidine	106	4.226	4.226	(1.069)	724237	40.0000	41.1
115 N-Nitrosopiperidine	114	4.428	4.428	(0.919)	233195	40.0000	43.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.684	4.684	(0.972)	1686530	40.0000	42.2
118 2,6-Dichlorophenol	162	4.857	4.857	(1.008)	304708	40.0000	36.9
119 Hexachloropropene	213	4.891	4.891	(1.015)	266225	40.0000	62.2
120 p-Phenylenediamine	108	5.093	5.093	(1.057)	362600	40.0000	39.9
121 N-Nitrosodi-n-butylamine	84	5.064	5.064	(1.051)	350292	40.0000	42.9
122 Safrole	162	5.228	5.228	(1.085)	366667	40.0000	48.6
123 1,2,4,5-Tetrachlorobenzene	216	5.430	5.430	(0.894)	414165	40.0000	45.2
124 Isosafrole	162	5.598	5.598	(0.922)	417676	40.0000	54.9
125 1,4-Naphthoquinone	158	5.786	5.786	(0.953)	286671	40.0000	42.4
127 Pentachlorobenzene	250	6.191	6.191	(1.020)	357126	40.0000	43.4
128 1-Naphthylamine	143	6.277	6.277	(1.034)	894018	40.0000	44.8
129 2-Naphthylamine	143	6.335	6.335	(1.044)	996175	40.0000	46.3
131 5-Nitro-o-toluidine	152	6.475	6.475	(1.067)	272578	40.0000	42.9
136 1,3,5-Trinitrobenzene	75	6.720	6.720	(0.928)	245746	40.0000	53.3
137 Phenacetin	108	6.769	6.769	(0.934)	432605	40.0000	42.5(Q)
138 Diallate	86	6.759	6.759	(0.933)	358370	40.0000	40.3
212 Cis Diallate	86	6.836	6.836	(0.944)	72714	6.00000	7.9
213 Trans Diallate	86	6.759	6.759	(0.933)	358370	34.0000	34.3
140 4-Aminobiphenyl	169	7.062	7.062	(0.975)	994319	40.0000	46.3
141 Pentachloronitrobenzene	237	7.082	7.082	(0.977)	104897	40.0000	45.0(Q)
142 Pronamide	173	7.077	7.077	(0.977)	427557	40.0000	45.6
146 4-Nitroquinoline-1-oxide	101	7.910	7.910	(1.092)	35650	40.0000	46.4
147 Methapyrilene	58	7.948	7.948	(1.097)	921442	40.0000	50.0
148 Isodrin	193	8.175	8.175	(1.128)	163454	40.0000	40.2
149 Aramite	185	8.569	8.569	(1.183)	77182	40.0000	44.4
150 Kepone	272	9.162	9.162	(1.264)	105206	40.0000	40.5
151 p-(Dimethylamino)azobenzene	120	8.752	8.752	(0.907)	440648	40.0000	43.9
152 Chlorobenzilate	251	8.781	8.781	(0.910)	328712	40.0000	37.3
153 3,3'-Dimethylbenzidine	212	9.065	9.065	(0.939)	710215	40.0000	42.0
155 2-Acetylaminofluorene	181	9.311	9.311	(0.965)	398598	40.0000	39.9
157 7,12Dimethylbenz(a)anthracene	256	10.794	10.794	(0.952)	469035	40.0000	42.7
158 3-Methylcholanthrene	268	11.738	11.738	(1.036)	350866	40.0000	44.1

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s022610.b/s7b2638.d
Date : 27-FEB-2010 00:07
Client ID: APICV
Sample Info: WBN100218-08.1|ICV|1|SVMF|1|APICV
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

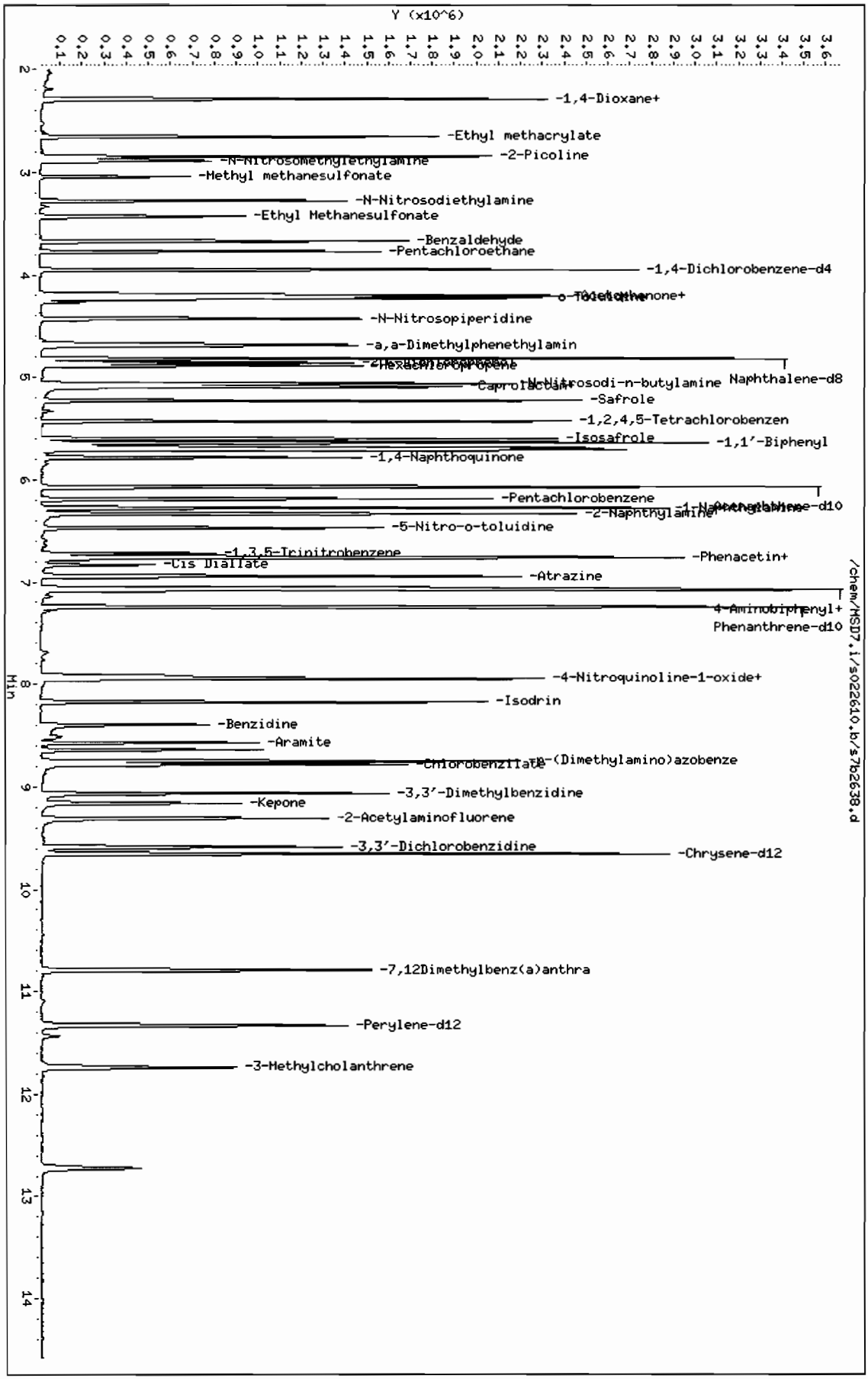

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 23-MAR-2010 11:20
Lab File ID: s7c2304.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100309-05.2 Quant Type: ISTD
Method: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$	3 2-Fluorophenol	1.03969	0.91803	0.91803	0.000	-11.70182	60.00000	Averaged	
$	5 Phenol-d5	1.30355	1.20141	1.20141	0.000	-7.83572	60.00000	Averaged	
$	20 Nitrobenzene-d5	0.30169	0.25865	0.25865	0.000	-14.26680	60.00000	Averaged	
$	39 2-Fluorobiphenyl	0.99687	1.05135	1.05135	0.000	5.46546	60.00000	Averaged	
$	60 2,4,6-Tribromophenol	0.11563	0.12038	0.12038	0.000	4.09967	60.00000	Averaged	
$	81 p-Terphenyl-d14	0.71661	0.72891	0.72891	0.000	1.71661	60.00000	Averaged	
	1 N-Methyl-N-nitrosomethylami	0.70001	0.58020	0.58020	0.000	-17.11539	60.00000	Averaged	
	2 Pyridine	0.96465	0.82573	0.82573	0.000	-14.40082	60.00000	Averaged	
	4 Aniline	0.62182	0.53515	0.53515	0.000	-13.93829	60.00000	Averaged	
	6 Phenol	1.29492	1.18070	1.18070	0.001	-8.82047	20.00000	Averaged	ccc
	7 bis(2-Chloroethyl) ether	1.06026	0.86931	0.86931	0.000	-18.01027	60.00000	Averaged	
	8 2-Chlorophenol	0.99096	0.98665	0.98665	0.000	-0.43533	60.00000	Averaged	
	203 n-Decane	1.86209	1.77849	1.77849	0.000	-4.48954	60.00000	Averaged	
	9 1,3-Dichlorobenzene	1.24478	1.22347	1.22347	0.000	-1.71184	60.00000	Averaged	
	11 1,4-Dichlorobenzene	1.19442	1.20934	1.20934	0.001	1.24909	20.00000	Averaged	ccc
	13 1,2-Dichlorobenzene	1.09872	1.15131	1.15131	0.000	4.78612	60.00000	Averaged	
	14 bis(2-Chloroisopropyl)ether	2.45618	2.13540	2.13540	0.000	-13.06001	60.00000	Averaged	
	12 Benzyl alcohol	0.67475	0.44750	0.44750	0.000	-33.67952	60.00000	Averaged	
	15 o-Cresol	0.79330	0.77010	0.77010	0.000	-2.92438	60.00000	Averaged	
	18 m,p-Cresols	1.07190	0.95599	0.95599	0.000	-10.81267	60.00000	Averaged	
	17 N-Nitrosodipropylamine	0.73664	0.69003	0.69003	0.050	-6.32741	60.00000	Averaged	spcc
	19 Hexachloroethane	0.46378	0.48670	0.48670	0.000	4.94194	60.00000	Averaged	
	21 Nitrobenzene	0.27987	0.25865	0.25865	0.000	-7.58062	60.00000	Averaged	
	22 Isophorone	0.54073	0.49648	0.49648	0.000	-8.18310	60.00000	Averaged	
	23 2-Nitrophenol	0.13143	0.12978	0.12978	0.001	-1.25266	20.00000	Averaged	ccc
	24 2,4-Dimethylphenol	37.62053	40.00000	0.22893	0.000	-5.94868	60.00000	Wt Linear	
	25 bis(2-Chloroethoxy)methane	0.29584	0.26929	0.26929	0.000	-8.97562	60.00000	Averaged	
	26 2,4-Dichlorophenol	0.21226	0.20896	0.20896	0.001	-1.55768	20.00000	Averaged	ccc
	27 Benzoic acid	0.12083	0.09529	0.09529	0.000	-21.13072	60.00000	Averaged	
	28 1,2,4-Trichlorobenzene	0.25742	0.25769	0.25769	0.000	0.10418	60.00000	Averaged	
	30 Naphthalene	0.75561	0.71585	0.71585	0.000	-5.26195	60.00000	Averaged	
	204 alpha-Terpineol	0.30880	0.25223	0.25223	0.000	-18.32031	60.00000	Averaged	
	31 4-Chloroaniline	0.35383	0.26228	0.26228	0.000	-25.87429	60.00000	Averaged	
	32 Hexachlorobutadiene	0.13434	0.14510	0.14510	0.001	8.00678	20.00000	Averaged	ccc
	33 4-Chloro-3-methylphenol	0.22797	0.21914	0.21914	0.001	-3.87447	20.00000	Averaged	ccc
	34 2-Methylnaphthalene	0.54229	0.52861	0.52861	0.000	-2.52398	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 23-MAR-2010 11:20
Lab File ID: s7c2304.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100309-05.2 Quant Type: ISTD
Method: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.51558	0.50504	0.50504	0.000	-2.04369	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.19338	0.14973	0.14973	0.050	-22.57119	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.49462	0.52962	0.52962	0.000	7.07627	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.28064	0.31173	0.31173	0.001	11.07865	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.28225	0.31673	0.31673	0.000	12.21880	60.00000	Averaged	
40 2-Chloronaphthalene	0.92584	0.93821	0.93821	0.000	1.33582	60.00000	Averaged	
42 o-Nitroaniline	0.32778	0.29706	0.29706	0.000	-9.37217	60.00000	Averaged	
41 m-Nitroaniline	0.23922	0.21505	0.21505	0.000	-10.10242	60.00000	Averaged	
43 Dimethylphthalate	1.06293	1.11559	1.11559	0.000	4.95394	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.24549	0.25514	0.25514	0.000	3.93149	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.32362	0.32767	0.32767	0.000	1.25184	60.00000	Averaged	
45 Acenaphthylene	1.47998	1.48156	1.48156	0.000	0.10635	60.00000	Averaged	
47 Acenaphthene	0.88041	0.93458	0.93458	0.001	6.15283	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	40.57835	40.00000	0.06934	0.050	1.44587	60.00000	Linear	spcc
49 Dibenzofuran	1.23737	1.26882	1.26882	0.000	2.54117	60.00000	Averaged	
51 Diethylphthalate	1.08801	1.18574	1.18574	0.000	8.98292	60.00000	Averaged	
52 4-Nitrophenol	0.16277	0.14180	0.14180	0.050	-12.87961	60.00000	Averaged	spcc
53 Fluorene	1.03823	1.11364	1.11364	0.000	7.26305	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.51596	0.55027	0.55027	0.000	6.64814	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	35.86803	40.00000	0.06023	0.000	-10.32992	60.00000	Linear	
56 p-Nitroaniline	0.21538	0.16030	0.16030	0.000	-25.57412	60.00000	Averaged	
133 Diphenylamine	0.47134	0.46472	0.46472	0.001	-1.40465	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.59299	0.56069	0.56069	0.000	-5.44809	60.00000	Averaged	
61 4-Bromophenylphenylether	0.16450	0.17153	0.17153	0.000	4.27443	60.00000	Averaged	
63 Hexachlorobenzene	0.15982	0.16975	0.16975	0.000	6.21384	60.00000	Averaged	
65 Pentachlorophenol	0.07563	0.08349	0.08349	0.001	10.40100	20.00000	Averaged	ccc
206 n-Octadecane	0.50130	0.48028	0.48028	0.000	-4.19222	60.00000	Averaged	
68 Phenanthrene	0.82082	0.85199	0.85199	0.000	3.79714	60.00000	Averaged	
69 Anthracene	0.83131	0.83370	0.83370	0.000	0.28733	60.00000	Averaged	
72 Di-n-butylphthalate	1.04581	1.13575	1.13575	0.000	8.60042	60.00000	Averaged	
76 Fluoranthene	0.89248	0.94125	0.94125	0.001	5.46505	20.00000	Averaged	ccc
79 Pyrene	1.26367	1.28608	1.28608	0.000	1.77366	60.00000	Averaged	
85 Butylbenzylphthalate	0.60092	0.63425	0.63425	0.000	5.54736	60.00000	Averaged	
89 Benzo(a)anthracene	0.95891	0.93434	0.93434	0.000	-2.56272	60.00000	Averaged	
92 Chrysene	0.85329	0.85189	0.85189	0.000	-0.16412	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.76109	0.84008	0.84008	0.000	10.37866	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 23-MAR-2010 11:20
Lab File ID: s7c2304.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100309-05.2 Quant Type: ISTD
Method: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.60621	1.77806	1.77806	0.001	10.69855	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	1.12177	1.12158	1.12158	0.000	-0.01705	60.00000	Averaged	
96 Benzo(k)fluoranthene	1.05423	1.10589	1.10589	0.000	4.90023	60.00000	Averaged	
97 Benzo(a)pyrene	0.91981	0.96595	0.96595	0.001	5.01684	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	0.66143	0.82101	0.82101	0.000	24.12780	60.00000	Averaged	
100 Dibenzo(a,h)anthracene	0.52416	0.65126	0.65126	0.000	24.24740	60.00000	Averaged	
101 Benzo(ghi)perylene	0.55161	0.68110	0.68110	0.000	23.47493	60.00000	Averaged	
126 m-Dinitrobenzene	0.16950	0.16941	0.16941	0.000	-0.05090	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.23333	0.26346	0.26346	0.000	12.91298	60.00000	Averaged	
143 Dinoseb	34.11006	40.00000	0.08682	0.000	-14.72485	0.000e+00	Linear	<-
173 Carbazole	0.68135	0.51110	0.51110	0.000	-24.98629	60.00000	Averaged	
184 p-Benzoquinone	0.26551	0.27469	0.27469	0.000	3.45855	60.00000	Averaged	
192 Methoxychlor	0.58935	0.66272	0.66272	0.000	12.44930	60.00000	Averaged	
211 p-Toluidine	1.10616	0.94703	0.94703	0.000	-14.38512	60.00000	Averaged	
210 m-Toluidine	1.37475	1.15828	1.15828	0.000	-15.74665	60.00000	Averaged	
215 2-Ethoxyethanol	0.93140	0.56604	0.56604	0.000	-39.22629	60.00000	Averaged	
26 Phthalic anhydride	35.19694	40.00000	0.08869	0.000	-12.00766	0.000e+00	Linear	<-
214 1,4-Dinitrobenzene	0.19422	0.19793	0.19793	0.000	1.91061	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	0.13367	0.10954	0.10954	0.000	-18.05290	60.00000	Averaged	
M 222 Trichlorophenols	0.28144	0.31423	0.31423	0.000	11.65029	60.00000	Averaged	
M 223 Tetrachlorophenols	0.23333	0.26346	0.26346	0.000	12.91298	60.00000	Averaged	
M 224 Benzo(b,k)fluoranthene	1.08800	1.11373	1.11373	0.000	2.36529	60.00000	Averaged	

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Data file : /chem/MSD7.i/s032310.b/s7c2304.d
Lab Smp Id: WBN100309-05.2 Client Smp ID: MEGACVS
Inj Date : 23-MAR-2010 11:20
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100309-05.2|CVS|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 11o00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	273307	40.0000	
* 29 Naphthalene-d8	136	4.736	4.736	(1.000)	1124363	40.0000	
* 46 Acenaphthene-d10	164	5.988	5.988	(1.000)	583433	40.0000	
* 67 Phenanthrene-d10	188	7.149	7.149	(1.000)	1092463	40.0000	
* 91 Chrysene-d12	240	9.552	9.552	(1.000)	838935	40.0000	
* 98 Perylene-d12	264	11.165	11.165	(1.000)	588840	40.0000	
$ 3 2-Fluorophenol	112	3.061	3.061	(0.791)	250904	40.0000	35.3
$ 5 Phenol-d5	99	3.590	3.590	(0.928)	328353	40.0000	36.9
$ 20 Nitrobenzene-d5	82	4.235	4.235	(0.894)	290817	40.0000	34.3
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.914)	613392	40.0000	42.2
$ 60 2,4,6-Tribromophenol	329	6.576	6.576	(1.098)	70231	40.0000	41.6
$ 81 p-Terphenyl-d14	244	8.521	8.521	(0.892)	611508	40.0000	40.7
1 N-Methyl-N-nitrosomethylamine	74	2.382	2.382	(0.615)	158573	40.0000	33.2
2 Pyridine	79	2.415	2.415	(0.624)	225679	40.0000	34.2
4 Aniline	66	3.658	3.658	(0.945)	146259	40.0000	34.4
6 Phenol	94	3.595	3.595	(0.929)	322693	40.0000	36.5
7 bis(2-Chloroethyl) ether	63	3.672	3.672	(0.949)	237588	40.0000	32.8
8 2-Chlorophenol	128	3.735	3.735	(0.965)	269657	40.0000	39.8
203 n-Decane	43	3.720	3.720	(0.961)	486075	40.0000	38.2
9 1,3-Dichlorobenzene	146	3.836	3.836	(0.991)	334383	40.0000	39.3
11 1,4-Dichlorobenzene	146	3.884	3.884	(1.004)	330521	40.0000	40.5
13 1,2-Dichlorobenzene	146	3.985	3.985	(1.030)	314660	40.0000	41.9
14 bis(2-Chloroisopropyl)ether	45	4.014	4.014	(1.037)	583621	40.0000	34.8
12 Benzyl alcohol	108	3.937	3.937	(1.017)	122304	40.0000	26.5
15 o-Cresol	107	3.990	3.990	(1.031)	210475	40.0000	38.8
18 m,p-Cresols	107	4.091	4.091	(1.057)	261280	40.0000	35.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.115	4.115	(1.063)	188590	40.0000	37.5
19 Hexachloroethane	117	4.211	4.211	(1.088)	133019	40.0000	42.0
21 Nitrobenzene	77	4.245	4.245	(0.896)	290816	40.0000	37.0
22 Isophorone	82	4.399	4.399	(0.929)	558222	40.0000	36.7
23 2-Nitrophenol	139	4.457	4.457	(0.941)	145919	40.0000	39.5
24 2,4-Dimethylphenol	122	4.452	4.452	(0.940)	257398	40.0000	37.6
25 bis(2-Chloroethoxy)methane	93	4.520	4.520	(0.954)	302780	40.0000	36.4
26 2,4-Dichlorophenol	162	4.621	4.621	(0.976)	234942	40.0000	39.4
27 Benzoic acid	105	4.515	4.515	(0.953)	107146	40.0000	31.5
28 1,2,4-Trichlorobenzene	180	4.683	4.683	(0.989)	289739	40.0000	40.0
30 Naphthalene	128	4.751	4.751	(1.003)	804872	40.0000	37.9
204 alpha-Terpineol	59	4.727	4.727	(0.998)	283599	40.0000	32.7
31 4-Chloroaniline	127	4.765	4.765	(1.006)	294895	40.0000	29.6
32 Hexachlorobutadiene	225	4.813	4.813	(1.016)	163143	40.0000	43.2
33 4-Chloro-3-methylphenol	107	5.078	5.078	(1.072)	246393	40.0000	38.4
34 2-Methylnaphthalene	142	5.227	5.227	(1.104)	594346	40.0000	39.0
35 1-Methylnaphthalene	142	5.304	5.304	(1.120)	567847	40.0000	39.2
36 Hexachlorocyclopentadiene	237	5.333	5.333	(0.891)	87357	40.0000	31.0
205 2,3-Dichloroaniline	161	5.425	5.425	(0.906)	308998	40.0000	42.8
37 2,4,6-Trichlorophenol	196	5.420	5.420	(0.905)	181873	40.0000	44.4
38 2,4,5-Trichlorophenol	196	5.444	5.444	(0.909)	184792	40.0000	44.9
40 2-Chloronaphthalene	162	5.584	5.584	(0.932)	547380	40.0000	40.5
42 o-Nitroaniline	65	5.642	5.642	(0.942)	173313	40.0000	36.2
41 m-Nitroaniline	138	5.935	5.935	(0.991)	125468	40.0000	36.0
43 Dimethylphthalate	163	5.752	5.752	(0.961)	650871	40.0000	42.0
44 2,6-Dinitrotoluene	165	5.805	5.805	(0.969)	148855	40.0000	41.6
50 2,4-Dinitrotoluene	165	6.104	6.104	(1.019)	191176	40.0000	40.5
45 Acenaphthylene	152	5.887	5.887	(0.983)	864390	40.0000	40.0
47 Acenaphthene	154	6.012	6.012	(1.004)	545266	40.0000	42.5
48 2,4-Dinitrophenol	184	6.008	6.008	(1.003)	40458	40.0000	40.6
49 Dibenzofuran	168	6.133	6.133	(1.024)	740269	40.0000	41.0
51 Diethylphthalate	149	6.258	6.258	(1.045)	691800	40.0000	43.6
52 4-Nitrophenol	139	6.027	6.027	(1.006)	82733	40.0000	34.8
53 Fluorene	166	6.393	6.393	(1.068)	649735	40.0000	42.9
54 4-Chlorophenylphenylether	204	6.369	6.369	(1.064)	321043	40.0000	42.6
55 2-Methyl-4,6-dinitrophenol	198	6.412	6.412	(0.897)	65803	40.0000	35.9
56 p-Nitroaniline	138	6.393	6.393	(1.068)	93522	40.0000	29.8
133 Diphenylamine	169	6.460	6.460	(0.904)	507693	40.0000	39.4
58 1,2-Diphenylhydrazine	77	6.494	6.494	(0.908)	612529	40.0000	37.8
61 4-Bromophenylphenylether	248	6.754	6.754	(0.945)	187389	40.0000	41.7
63 Hexachlorobenzene	284	6.826	6.826	(0.955)	185443	40.0000	42.5
65 Pentachlorophenol	266	6.975	6.975	(0.976)	91211	40.0000	44.2
206 n-Octadecane	57	6.966	6.966	(0.974)	524690	40.0000	38.3
68 Phenanthrene	178	7.168	7.168	(1.003)	930765	40.0000	41.5
69 Anthracene	178	7.211	7.211	(1.009)	910783	40.0000	40.1
72 Di-n-butylphthalate	149	7.568	7.568	(1.059)	1240767	40.0000	43.4
76 Fluoranthene	202	8.203	8.203	(1.148)	1028284	40.0000	42.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	8.420	8.420	(0.882)	1078939	40.0000	40.7
85 Butylbenzylphthalate	149	8.954	8.954	(0.937)	532095	40.0000	42.2
89 Benzo(a)anthracene	228	9.537	9.537	(0.998)	783851	40.0000	39.0
92 Chrysene	228	9.571	9.571	(1.002)	714681	40.0000	39.9
93 bis(2-Ethylhexyl)phthalate	149	9.475	9.475	(0.992)	704775	40.0000	44.2
94 Di-n-octylphthalate	149	10.110	10.110	(0.906)	1046990	40.0000	44.3
95 Benzo(b)fluoranthene	252	10.669	10.669	(0.956)	660429	40.0000	40.0
96 Benzo(k)fluoranthene	252	10.702	10.702	(0.959)	651194	40.0000	42.0
97 Benzo(a)pyrene	252	11.092	11.092	(0.994)	568791	40.0000	42.0
99 Indeno(1,2,3-cd)pyrene	276	12.850	12.850	(1.151)	483446	40.0000	49.6
100 Dibenzo(a,h)anthracene	278	12.864	12.864	(1.152)	383487	40.0000	49.7
101 Benzo(ghi)perylene	276	13.365	13.365	(1.197)	401057	40.0000	49.4
126 m-Dinitrobenzene	168	5.791	5.791	(0.967)	98839	40.0000	40.0
130 2,3,4,6-Tetrachlorophenol	232	6.215	6.215	(1.038)	153713	40.0000	45.2
143 Dinoseb	211	7.096	7.096	(0.993)	94851	40.0000	34.1
173 Carbazole	167	7.327	7.327	(1.025)	558361	40.0000	30.0
184 p-Benzoquinone	54	3.359	3.359	(0.868)	75076	40.0000	41.4
192 Methoxychlor	227	9.422	9.422	(0.986)	555981	40.0000	45.0
211 p-Toluidine	106	4.149	4.149	(1.072)	258831	40.0000	34.2
210 m-Toluidine	106	4.168	4.168	(1.077)	316565	40.0000	33.7
215 2-Ethoxyethanol	59	2.228	2.228	(0.576)	154704	40.0000	24.3
26 Phthalic anhydride	104	5.266	5.266	(1.112)	99725	40.0000	35.2
214 1,4-Dinitrobenzene	75	5.733	5.733	(0.957)	115478	40.0000	40.8
216 Methylenebis(2-chloroaniline)	231	9.479	9.479	(0.992)	91896	40.0000	32.8
M 222 Trichlorophenols	196				366665	80.0000	89.3
M 223 Tetrachlorophenols	232				153713	40.0000	45.2
M 224 Benzo(b,k)fluoranthene	252				1311623	80.0000	81.9

Data File: /chem/MSD7.i/s032310.b/s7c2304.d
Date : 23-MAR-2010 11:20
Client ID: MEGACVS
Sample Info: IWBN100309-05.2|CVS|1|SVMF|2|MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

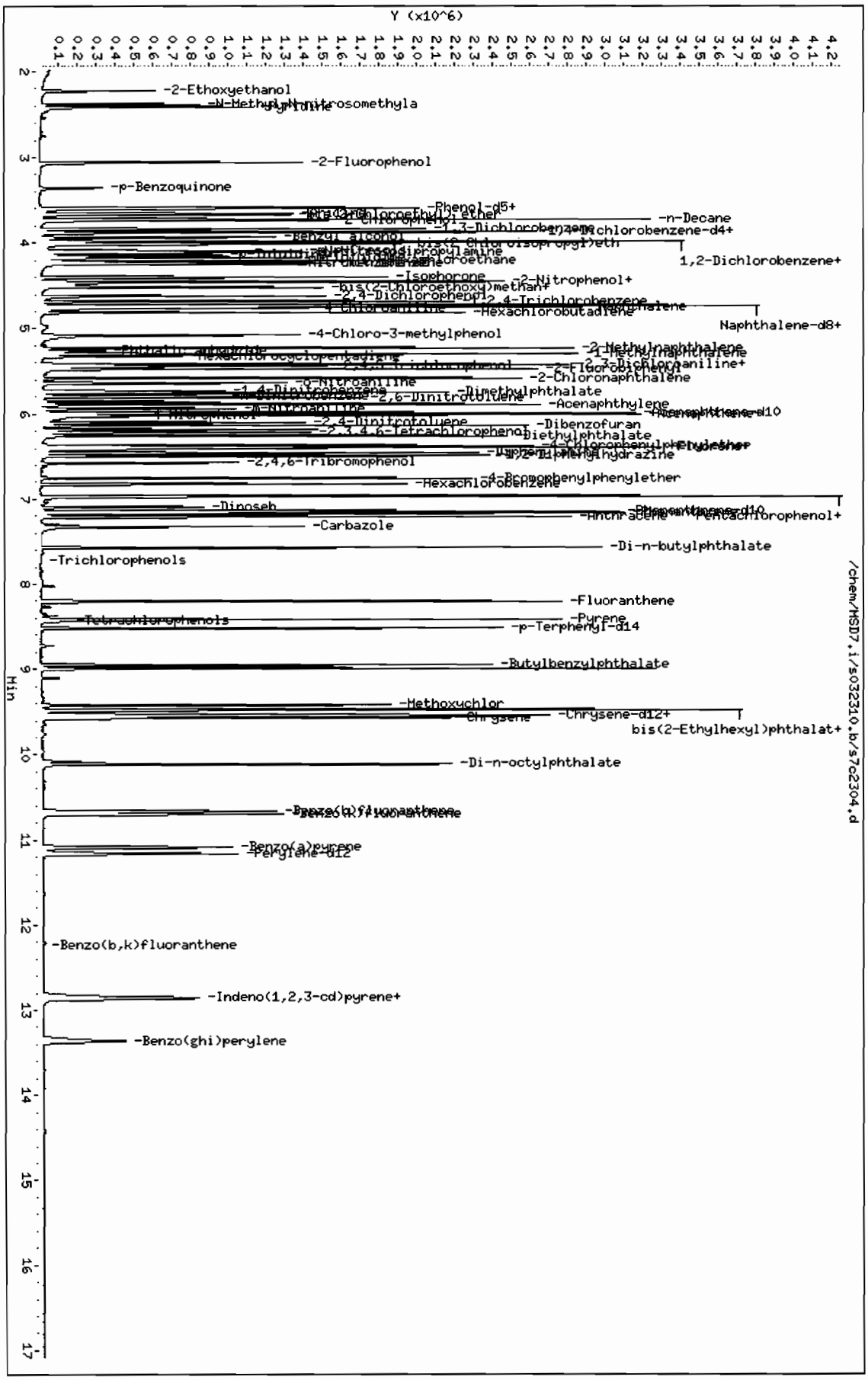

Page 1

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2305.d
Lab Smp Id: WBN100312-03.3 Client Smp ID: APCVS
Inj Date : 23-MAR-2010 11:44
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100312-03.3|CVS|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	316377	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	1165260	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	674951	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	1208754	40.0000	
* 91 Chrysene-d12	240	9.542	9.552	(1.000)	1041062	40.0000	
* 98 Perylene-d12	264	11.160	11.165	(1.000)	805555	40.0000	
209 Benzaldehyde	77	3.595	3.595	(0.929)	239836	40.0000	36.0
16 Acetophenone	105	4.120	4.120	(1.065)	336509	40.0000	38.4
189 Caprolactam	113	5.011	5.011	(1.059)	80330	40.0000	37.0
208 1,1'-Biphenyl	154	5.550	5.550	(0.928)	726956	40.0000	39.1
207 Atrazine	173	6.855	6.855	(0.960)	47258	40.0000	40.6
77 Benzidine	184	8.295	8.295	(0.869)	263551	40.0000	27.1
90 3,3'-Dichlorobenzidine	252	9.479	9.479	(0.993)	303554	40.0000	41.8
102 1,4-Dioxane	88	2.237	2.237	(0.578)	92707	40.0000	35.0
103 Methyl methacrylate	100	2.228	2.228	(0.576)	51617	40.0000	33.4
104 Ethyl methacrylate	69	2.589	2.589	(0.669)	205974	40.0000	34.6
105 2-Picoline	93	2.781	2.781	(0.719)	311314	40.0000	34.6
106 N-Nitrosomethylethylamine	88	2.820	2.820	(0.729)	116243	40.0000	33.3
107 Methyl methanesulfonate	80	2.974	2.974	(0.769)	153464	40.0000	38.2
108 N-Nitrosodiethylamine	102	3.205	3.205	(0.828)	131401	40.0000	35.3
109 Ethyl Methanesulfonate	79	3.359	3.359	(0.868)	171197	40.0000	34.9
110 Pentachloroethane	167	3.696	3.696	(0.955)	97474	40.0000	40.0
111 N-Nitrosopyrrolidine	100	4.110	4.110	(1.062)	137829	40.0000	35.3
113 N-Nitrosomorpholine	56	4.130	4.130	(1.067)	217361	40.0000	33.8
114 o-Toluidine	106	4.144	4.144	(1.071)	432485	40.0000	35.5
115 N-Nitrosopiperidine	114	4.342	4.342	(0.918)	129263	40.0000	33.7
116 a,a-Dimethylphenethylamine	58	4.587	4.587	(0.969)	796288	40.0000	27.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
118 2,6-Dichlorophenol	162	4.775	4.775	(1.009)	232800	40.0000	39.4
119 Hexachloropropene	213	4.799	4.799	(1.014)	115475	40.0000	37.7
120 p-Phenylenediamine	108	5.011	5.011	(1.059)	245983	40.0000	37.8
121 N-Nitrosodi-n-butylamine	84	4.977	4.977	(1.052)	207152	40.0000	35.4
122 Safrole	162	5.141	5.141	(1.087)	206157	40.0000	38.2
123 1,2,4,5-Tetrachlorobenzene	216	5.343	5.343	(0.893)	283482	40.0000	42.7
124 Isosafrole	162	5.512	5.512	(0.921)	206243	40.0000	37.4
125 1,4-Naphthoquinone	158	5.699	5.699	(0.953)	187804	40.0000	37.5
127 Pentachlorobenzene	250	6.099	6.099	(1.019)	243014	40.0000	40.8
128 1-Naphthylamine	143	6.186	6.186	(1.034)	580305	40.0000	40.1
129 2-Naphthylamine	143	6.244	6.244	(1.043)	603944	40.0000	38.7
131 5-Nitro-o-toluidine	152	6.383	6.383	(1.067)	170911	40.0000	37.1
136 I,3,5-Trinitrobenzene	75	6.643	6.643	(0.930)	150842	40.0000	43.8
137 Phenacetin	108	6.677	6.677	(0.935)	292302	40.0000	38.4(Q)
138 Diallate	86	6.662	6.662	(0.933)	241515	40.0000	36.4
212 Cis Diallate	86	6.740	6.740	(0.943)	34165	6.00000	5.0
213 Trans Diallate	86	6.662	6.662	(0.933)	241515	34.0000	30.9
140 4-Aminobiphenyl	169	6.966	6.966	(0.975)	649883	40.0000	40.5
141 Pentachloronitrobenzene	237	6.985	6.985	(0.978)	88234	40.0000	50.6(Q)
142 Pronamide	173	6.980	6.980	(0.977)	317327	40.0000	45.3
146 4-Nitroquinoline-1-oxide	101	7.813	7.813	(1.094)	16601	40.0000	28.9
147 Methapyrilene	58	7.847	7.847	(1.098)	523983	40.0000	38.1
148 Isodrin	193	8.064	8.064	(1.129)	124309	40.0000	40.9
149 Aramite	185	8.468	8.468	(1.185)	50724	40.0000	39.1
150 Kepone	272	9.046	9.046	(1.266)	81914	40.0000	42.2
151 p-(Dimethylamino)azobenzene	120	8.646	8.646	(0.906)	304262	40.0000	37.5
152 Chlorobenzilate	251	8.675	8.675	(0.909)	293025	40.0000	41.1
153 3,3'-Dimethylbenzidine	212	8.959	8.959	(0.939)	496473	40.0000	36.4
155 2-Acetylaminofluorene	181	9.205	9.205	(0.965)	353415	40.0000	43.8
157 7,12Dimethylbenz(a)anthracene	256	10.640	10.640	(0.953)	396065	40.0000	38.4
158 3-Methylcholanthrene	268	11.550	11.550	(1.035)	313561	40.0000	41.9

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s032310.b/s7c2305.d
Date : 23-MAR-2010 11:44
Client ID: APCVS
Sample Info: IWBN100312-03,3ICVS1I1SVMF1I1APCVS
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

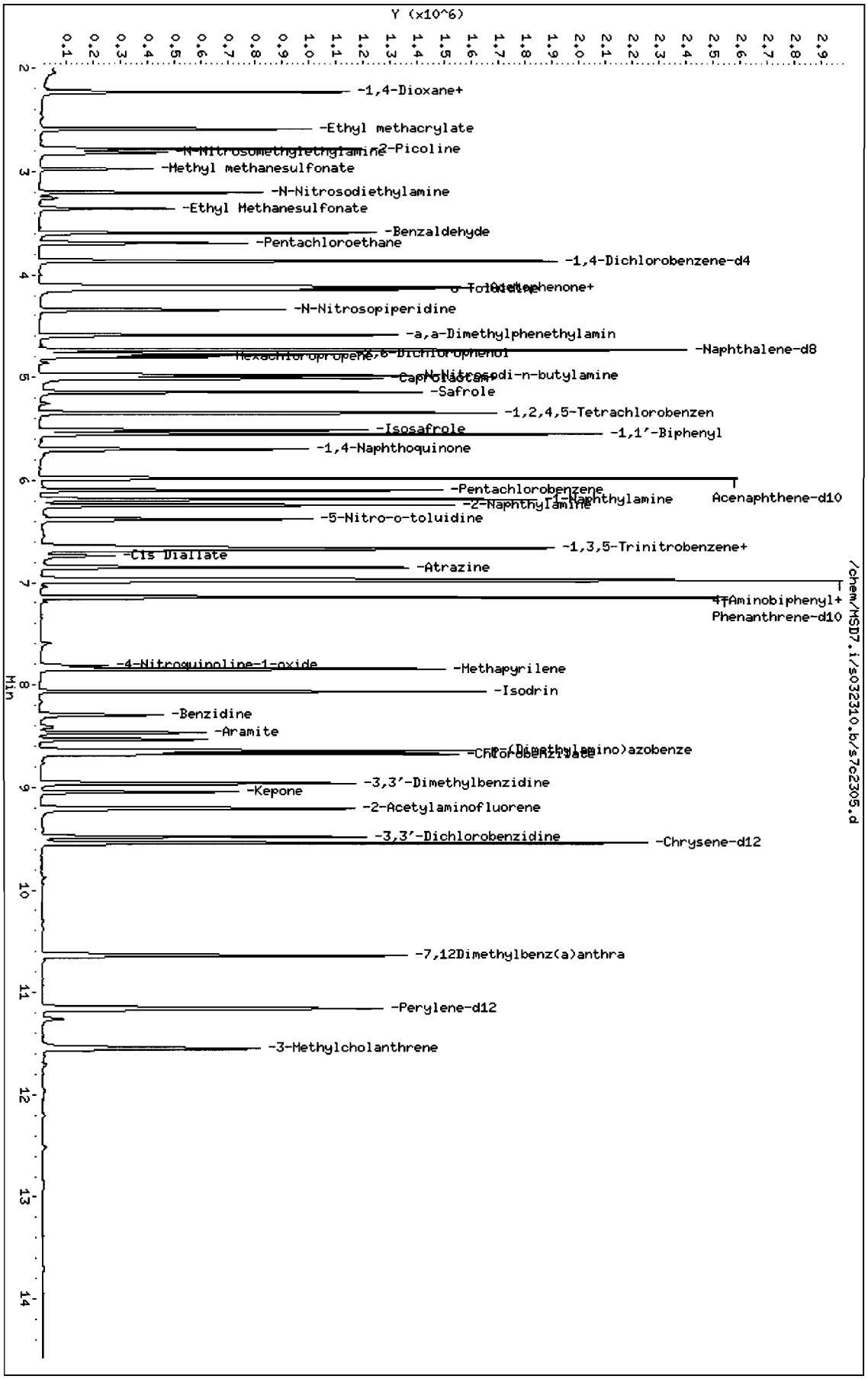

Page 1

QC Data

Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Page 1

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

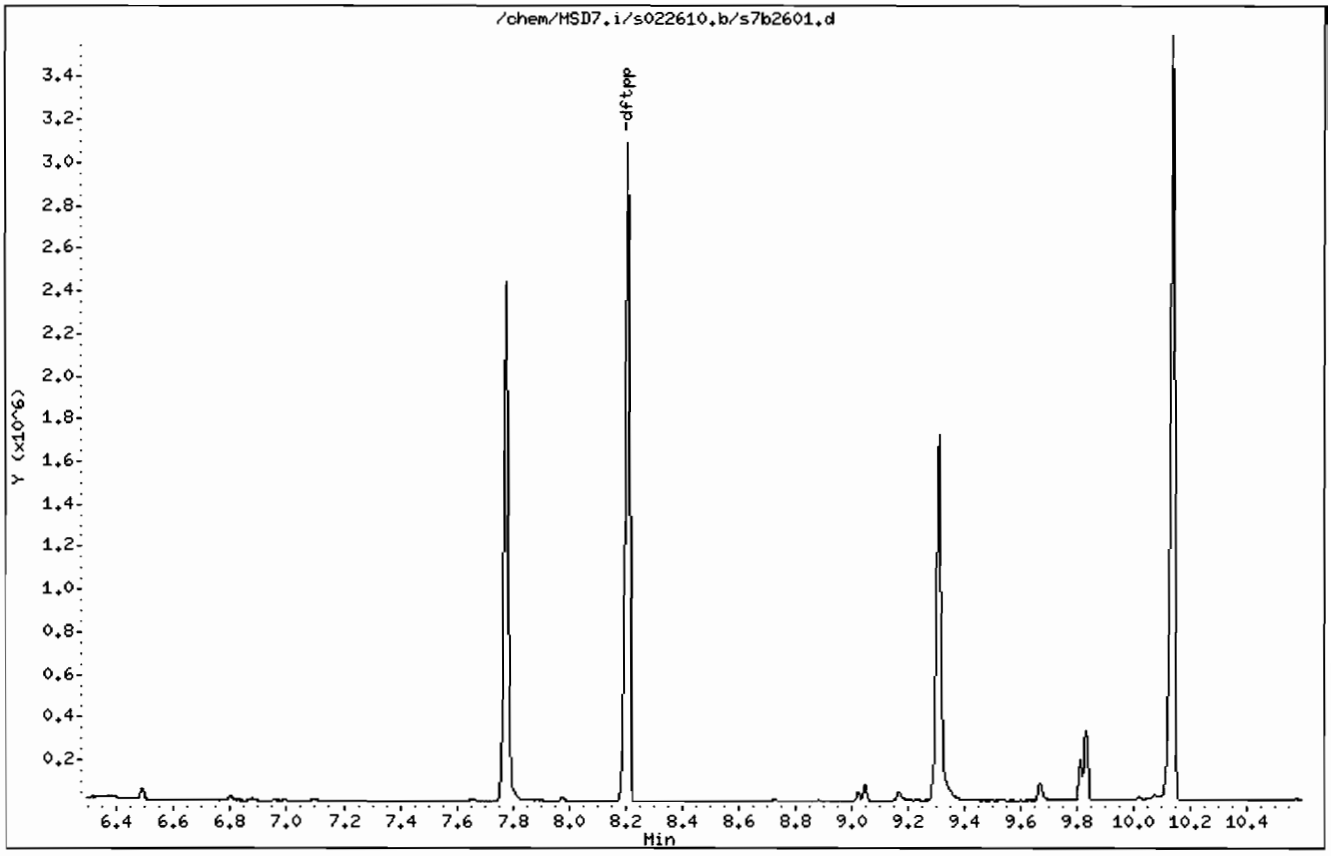

Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

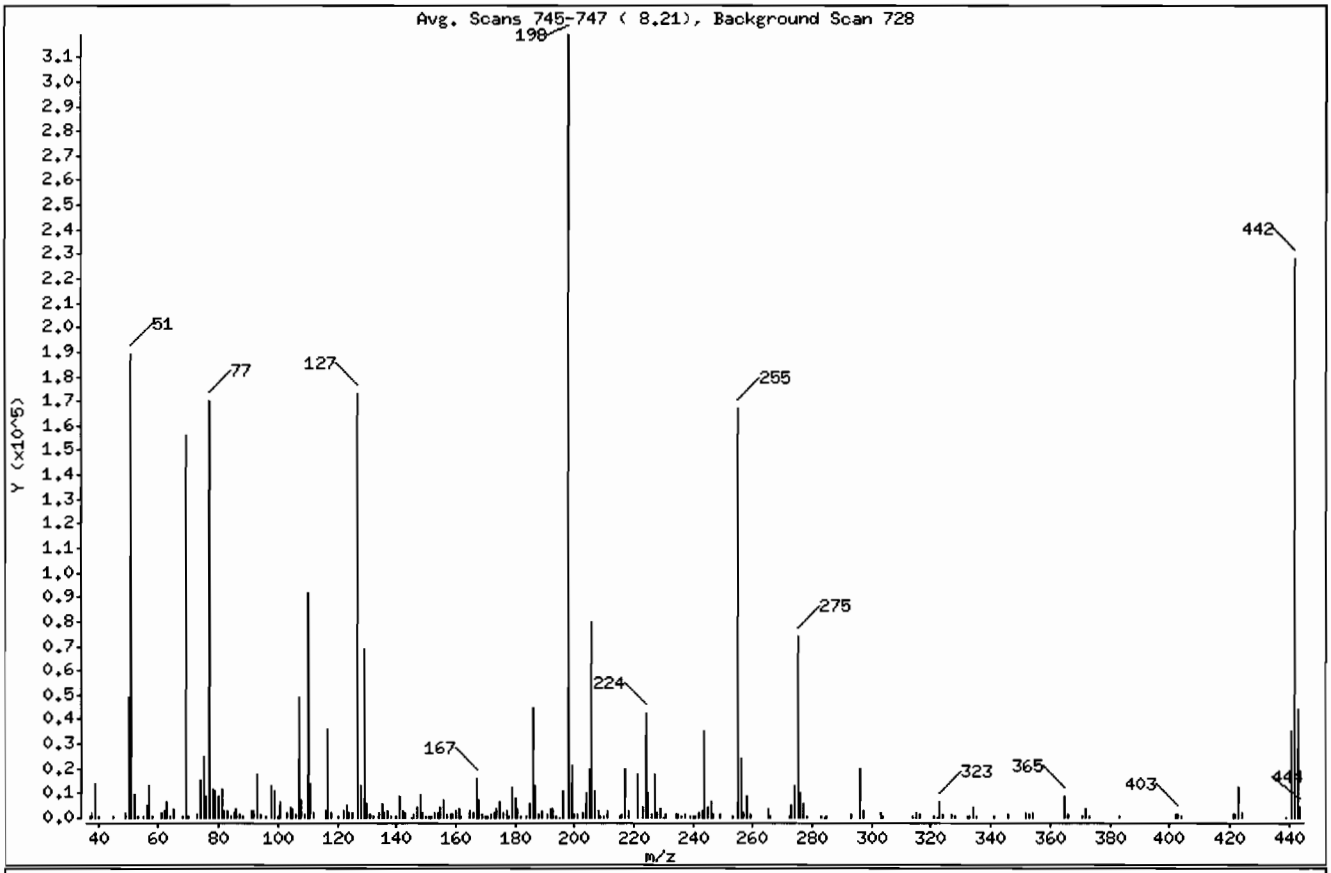

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	59.41
68	Less than 2.00% of mass 69	0.28 (0.57)
69	Mass 69 relative abundance	48.94
70	Less than 2.00% of mass 69	0.28 (0.58)
127	40.00 - 60.00% of mass 198	54.14
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.65
275	10.00 - 30.00% of mass 198	23.16
365	Greater than 1.00% of mass 198	2.69
441	Present, but less than mass 443	10.95
442	Greater than 40.00% of mass 198	71.59
443	17.00 - 23.00% of mass 442	13.73 (19.18)

Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: IWBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2601.d

Spectrum: Avg. Scans 745-747 (8.21), Background Scan 728

Location of Maximum: 198.00

Number of points: 228

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	852	117.00	35928	184.00	921	259.00	1456
38.00	2311	118.00	2505	185.00	5984	265.00	3673
39.00	13932	120.00	682	186.00	44920	266.00	602
40.00	778	122.00	3034	187.00	13079	272.00	686
45.00	617	123.00	4902	188.00	1326	273.00	5148
49.00	1836	124.00	2350	189.00	2753	274.00	13060
50.00	49024	125.00	2075	191.00	1303	275.00	73880
51.00	189504	127.00	172736	192.00	3677	276.00	10097
52.00	9606	128.00	13398	193.00	3924	277.00	5801
53.00	380	129.00	68952	194.00	852	278.00	937
55.00	641	130.00	5708	195.00	213	283.00	683
56.00	5212	131.00	1162	196.00	10681	284.00	363
57.00	12872	132.00	774	198.00	319040	285.00	980
58.00	597	134.00	2028	199.00	21208	293.00	1331
61.00	2326	135.00	5642	200.00	1647	296.00	19728
62.00	2698	136.00	2275	201.00	1773	297.00	2776
63.00	6781	137.00	2609	203.00	2366	303.00	2464
64.00	1046	138.00	715	204.00	10630	304.00	574
65.00	3631	140.00	969	205.00	19512	314.00	904
68.00	888	141.00	8721	206.00	79824	315.00	2209
69.00	156160	142.00	2698	207.00	10932	316.00	1138
70.00	900	143.00	1961	208.00	3049	321.00	715
73.00	1515	145.00	363	209.00	797	322.00	167
74.00	15266	146.00	1578	210.00	844	323.00	6440
75.00	24672	147.00	4519	211.00	3224	324.00	1313
76.00	8506	148.00	9607	215.00	827	327.00	1174
77.00	169984	149.00	1988	216.00	1701	328.00	565
78.00	11795	150.00	396	217.00	20024	332.00	397
79.00	11177	151.00	1094	218.00	2713	333.00	714
80.00	8792	152.00	647	221.00	17472	334.00	4276
81.00	12077	153.00	2565	223.00	4593	335.00	1100
82.00	3170	154.00	2159	224.00	42376	341.00	531
83.00	3008	155.00	4724	225.00	10621	346.00	1286
84.00	636	156.00	7141	226.00	1169	352.00	1989
85.00	2044	157.00	1513	227.00	17440	353.00	1401

Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SWHF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2601.d

Spectrum: Avg. Scans 745-747 (8.21), Background Scan 728

Location of Maximum: 198.00

Number of points: 228

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	3508	158.00	1749	228.00	2469	354.00	2183
87.00	1630	159.00	1243	229.00	3883	365.00	8577
88.00	419	160.00	2579	230.00	356	366.00	1114
91.00	2741	161.00	3950	231.00	1525	371.00	644
92.00	3230	162.00	1019	234.00	1203	372.00	3384
93.00	17792	165.00	2876	235.00	1368	373.00	853
94.00	1291	166.00	2290	236.00	770	383.00	796
96.00	998	167.00	15920	237.00	1366	402.00	1481
98.00	13554	168.00	7335	239.00	754	403.00	1754
99.00	10824	169.00	1371	240.00	398	404.00	734
100.00	976	170.00	409	241.00	1037	421.00	1467
101.00	6705	171.00	753	242.00	2373	422.00	1498
103.00	2265	172.00	1523	243.00	2625	423.00	12418
104.00	4074	173.00	1979	244.00	35000	424.00	2370
105.00	3826	174.00	3403	245.00	4542	439.00	178
106.00	1433	175.00	6519	246.00	6439	441.00	34928
107.00	49056	176.00	1866	247.00	1293	442.00	228416
108.00	7671	177.00	3004	249.00	1244	443.00	43808
109.00	1301	178.00	1078	253.00	913	444.00	4114
110.00	91472	179.00	12442	255.00	167552		
111.00	13914	180.00	8233	256.00	24184		
112.00	1881	181.00	3774	257.00	1884		
116.00	2779	182.00	632	258.00	9098		

Data File: /chem/MSD7.i/s022610.b/s7b2615.d

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

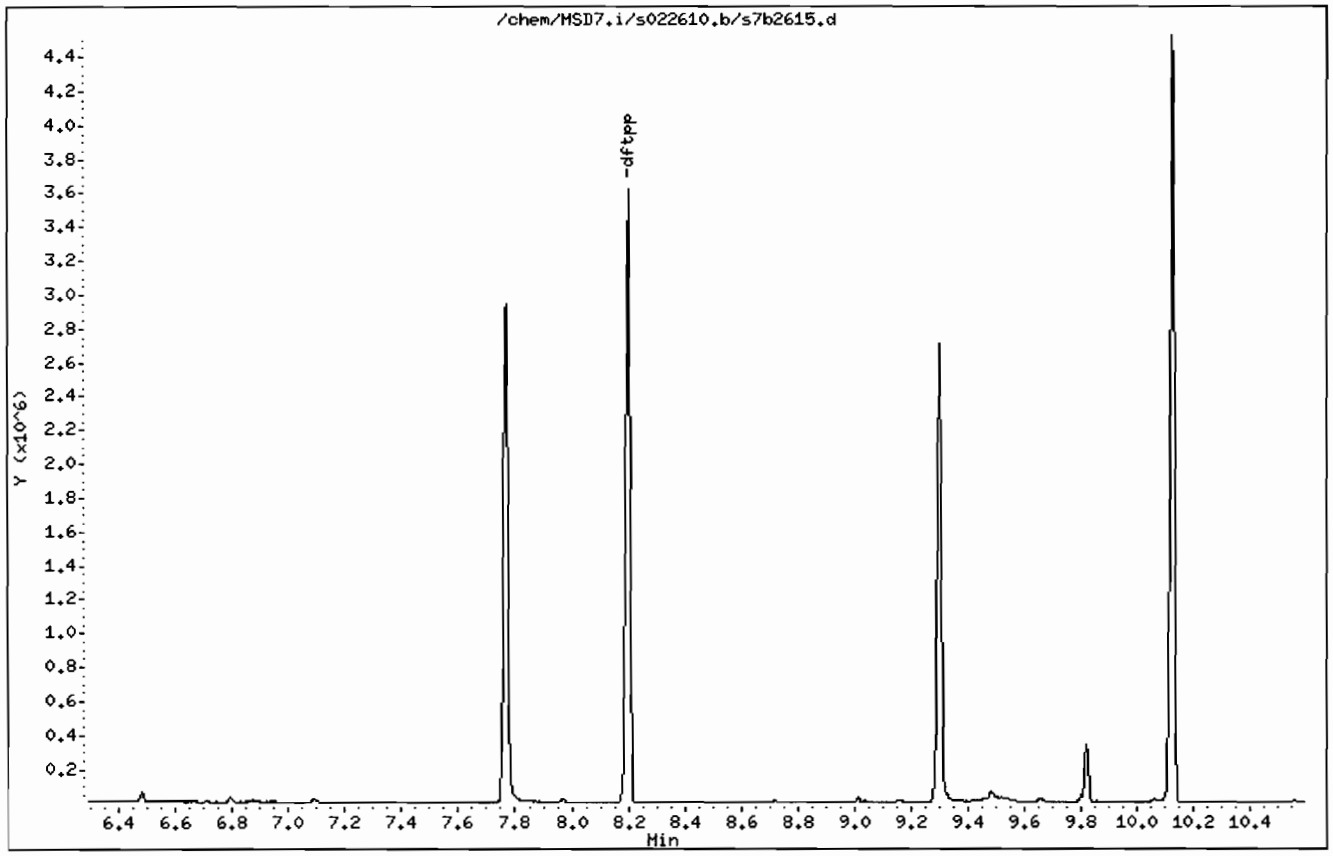

Data File: /chem/MSD7.i/s022610.b/s7b2615.d

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

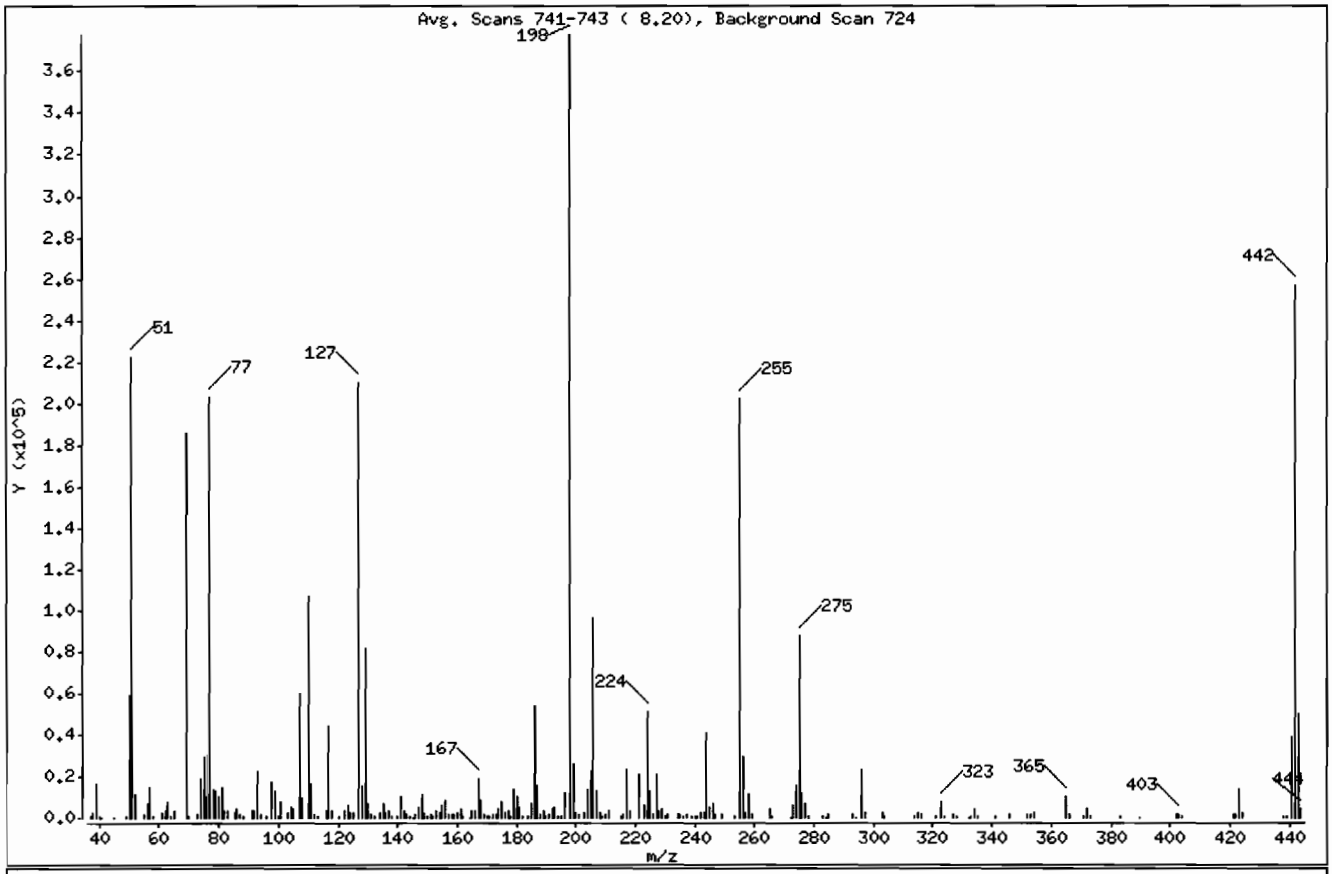

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	58.98
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	49.16
70	Less than 2.00% of mass 69	0.23 (0.48)
127	40.00 - 60.00% of mass 198	55.53
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.90
275	10.00 - 30.00% of mass 198	23.32
365	Greater than 1.00% of mass 198	2.65
441	Present, but less than mass 443	10.42
442	Greater than 40.00% of mass 198	68.13
443	17.00 - 23.00% of mass 442	13.23 (19.42)

Data File: /chem/MSD7.i/s022610.b/s7b2615.d

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2615.d
Spectrum: Avg. Scans 741-743 (8.20), Background Scan 724
Location of Maximum: 198.00
Number of points: 230

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1029	122.00	3738	185.00	6817	259.00	1573
38.00	2784	123.00	5796	186.00	54064	265.00	4325
39.00	16736	124.00	2600	187.00	15706	266.00	746
40.00	804	125.00	2612	188.00	1673	272.00	197
41.00	215	127.00	209728	189.00	3494	273.00	6106
45.00	168	128.00	15827	190.00	586	274.00	15839
49.00	1187	129.00	81240	191.00	1632	275.00	88080
50.00	59008	130.00	6686	192.00	4589	276.00	11832
51.00	222720	131.00	1427	193.00	4997	277.00	7181
52.00	11067	132.00	774	194.00	1040	278.00	1002
55.00	1479	134.00	2449	195.00	704	283.00	768
56.00	6807	135.00	6597	196.00	12441	284.00	411
57.00	14992	136.00	2742	198.00	377728	285.00	1383
58.00	682	137.00	3143	199.00	26056	293.00	1754
61.00	2681	138.00	765	200.00	2198	294.00	170
62.00	3163	140.00	1042	201.00	1902	296.00	23352
63.00	8062	141.00	10317	203.00	2941	297.00	3003
64.00	939	142.00	3584	204.00	13735	303.00	2912
65.00	3873	143.00	2145	205.00	22256	304.00	698
69.00	185664	144.00	648	206.00	96224	314.00	1230
70.00	883	145.00	345	207.00	12868	315.00	2658
73.00	1613	146.00	1896	208.00	3012	316.00	1427
74.00	18712	147.00	5046	209.00	1028	321.00	683
75.00	29592	148.00	11656	210.00	1417	323.00	8017
76.00	10277	149.00	2428	211.00	3685	324.00	1216
77.00	203520	150.00	602	215.00	982	327.00	1441
78.00	14043	151.00	1527	216.00	2051	328.00	748
79.00	13422	152.00	713	217.00	23848	332.00	363
80.00	10653	153.00	3096	218.00	3211	333.00	806
81.00	14622	154.00	2344	221.00	20792	334.00	4623
82.00	3466	155.00	5720	223.00	5862	335.00	1233
83.00	3303	156.00	8256	224.00	50920	341.00	795
85.00	2661	157.00	1579	225.00	13061	346.00	1522
86.00	3911	158.00	1721	226.00	1598	352.00	1965
87.00	1716	159.00	1403	227.00	20944	353.00	1542

Data File: /chem/MSD7.i/s022610.b/s7b2615.d

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVHF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2615.d
Spectrum: Avg. Scans 741-743 (8.20), Background Scan 724
Location of Maximum: 198.00
Number of points: 230

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	720	160.00	3002	228.00	3044	354.00	2372
91.00	3449	161.00	4728	229.00	4594	365.00	10014
92.00	3788	162.00	1233	230.00	617	366.00	1587
93.00	22184	164.00	176	231.00	1861	371.00	636
94.00	1680	165.00	3703	234.00	1383	372.00	3986
96.00	1049	166.00	3066	235.00	1556	373.00	896
98.00	17120	167.00	18856	236.00	1121	383.00	902
99.00	13353	168.00	9050	237.00	1622	390.00	167
100.00	1116	169.00	1603	239.00	883	402.00	1434
101.00	7543	170.00	665	240.00	677	403.00	2148
103.00	2685	171.00	809	241.00	1127	404.00	602
104.00	5030	172.00	1695	242.00	2573	421.00	1921
105.00	4545	173.00	2042	243.00	2934	422.00	1955
107.00	59544	174.00	4069	244.00	40392	423.00	14077
108.00	9676	175.00	7514	245.00	5448	424.00	2851
110.00	106720	176.00	2522	246.00	7235	438.00	613
111.00	16672	177.00	3771	247.00	1622	439.00	1021
112.00	2022	178.00	1302	249.00	1526	441.00	39344
113.00	647	179.00	14261	253.00	985	442.00	257344
116.00	3383	180.00	9998	255.00	202432	443.00	49984
117.00	44664	181.00	4790	256.00	29912	444.00	4586
118.00	3115	182.00	817	257.00	2724		
120.00	706	184.00	1225	258.00	11156		

Data File: /chem/MSD7.i/s032310.b/s7c2303.d

Date : 23-MAR-2010 11:08

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

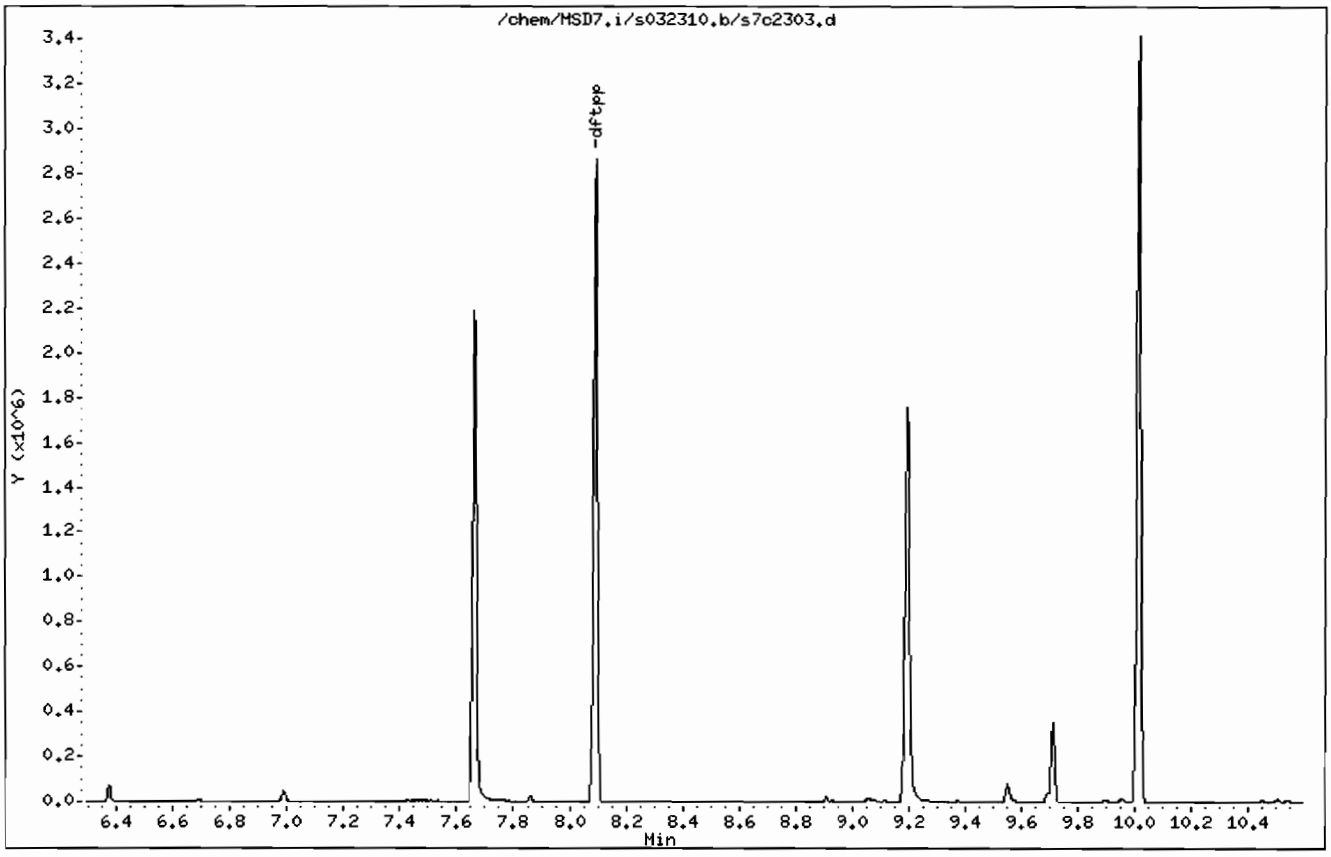

Data File: /chem/MSD7.i/s032310.b/s7c2303.d

Date : 23-MAR-2010 11:08

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

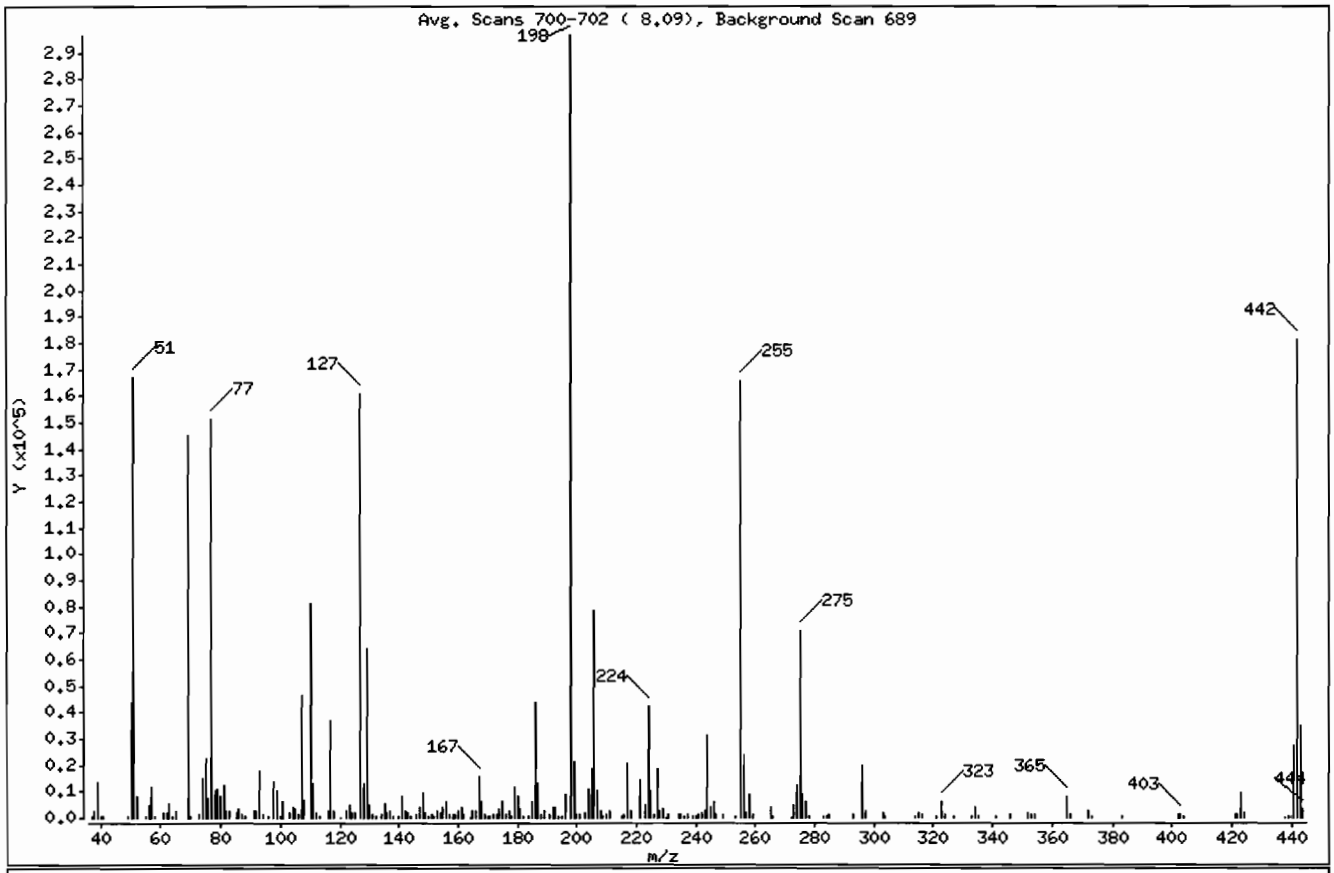

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	56.32
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	49.02
70	Less than 2.00% of mass 69	0.22 (0.46)
127	40.00 - 60.00% of mass 198	54.24
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.14
275	10.00 - 30.00% of mass 198	23.93
365	Greater than 1.00% of mass 198	2.86
441	Present, but less than mass 443	9.13
442	Greater than 40.00% of mass 198	61.18
443	17.00 - 23.00% of mass 442	11.82 (19.32)

Data File: /chem/MSD7.i/s032310.b/s7c2303.d

Date : 23-MAR-2010 11:08

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7c2303.d
Spectrum: Avg. Scans 700-702 (8.09), Background Scan 689
Location of Maximum: 198.00
Number of points: 224

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	911	120.00	167	184.00	1001	258.00	8963
38.00	2452	122.00	3007	185.00	5994	259.00	1524
39.00	13717	123.00	5114	186.00	43816	265.00	4121
40.00	754	124.00	1946	187.00	12737	266.00	718
41.00	604	125.00	1972	188.00	1169	272.00	334
49.00	422	127.00	160896	189.00	2898	273.00	4841
50.00	43728	128.00	12965	191.00	1434	274.00	12592
51.00	167104	129.00	64008	192.00	3791	275.00	70992
52.00	8120	130.00	5029	193.00	3946	276.00	8987
55.00	896	131.00	1160	194.00	897	277.00	6375
56.00	4901	132.00	636	195.00	546	278.00	1022
57.00	11360	134.00	1696	196.00	9097	283.00	547
58.00	441	135.00	5276	198.00	296704	284.00	359
61.00	1851	136.00	2266	199.00	21192	285.00	1172
62.00	2049	137.00	2668	200.00	1685	293.00	1419
63.00	5728	138.00	682	201.00	1333	296.00	19880
64.00	931	140.00	760	203.00	2128	297.00	2574
65.00	2724	141.00	8142	204.00	11112	303.00	2270
69.00	145408	142.00	2618	205.00	18312	304.00	581
70.00	667	143.00	2050	206.00	78728	314.00	1002
73.00	1186	144.00	381	207.00	10327	315.00	2196
74.00	14722	146.00	1405	208.00	2952	316.00	1091
75.00	22800	147.00	4223	209.00	966	321.00	616
76.00	7828	148.00	9518	210.00	1158	323.00	6010
77.00	151744	149.00	1772	211.00	2775	324.00	1132
78.00	10176	150.00	550	215.00	810	327.00	979
79.00	10584	151.00	1090	216.00	1650	333.00	608
80.00	8422	152.00	592	217.00	20576	334.00	4125
81.00	12041	153.00	2606	218.00	3014	335.00	1015
82.00	2898	154.00	1824	221.00	14085	341.00	630
83.00	2563	155.00	4426	223.00	4456	346.00	1355
85.00	1871	156.00	6443	224.00	42008	352.00	1762
86.00	3204	157.00	1261	225.00	10455	353.00	1238
87.00	1466	158.00	1260	226.00	1129	354.00	1480
88.00	368	159.00	1028	227.00	18592	365.00	8500

Data File: /chem/MSD7.i/s032310.b/s7c2303.d

Date : 23-MAR-2010 11:08

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7c2303.d
Spectrum: Avg. Scans 700-702 (8.09), Background Scan 689
Location of Maximum: 198.00
Number of points: 224

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	2636	160.00	2424	228.00	2651	366.00	1186
92.00	2595	161.00	3835	229.00	3615	372.00	2979
93.00	17888	162.00	1032	230.00	175	373.00	781
94.00	1184	164.00	168	231.00	1578	383.00	759
96.00	851	165.00	2930	234.00	1225	402.00	1290
98.00	13771	166.00	2569	235.00	1267	403.00	1676
99.00	10067	167.00	15715	236.00	884	404.00	671
100.00	890	168.00	6264	237.00	1285	421.00	1339
101.00	5972	169.00	1306	239.00	570	422.00	1419
103.00	1983	170.00	791	240.00	661	423.00	9683
104.00	3983	171.00	770	241.00	1282	424.00	1990
105.00	3658	172.00	1290	242.00	2205	438.00	166
106.00	1216	173.00	1697	243.00	2531	439.00	700
107.00	46232	174.00	3084	244.00	31344	440.00	785
108.00	7109	175.00	5997	245.00	4379	441.00	27080
110.00	80840	176.00	1535	246.00	6478	442.00	181504
111.00	12753	177.00	2950	247.00	1388	443.00	35072
112.00	1737	178.00	959	249.00	1075	444.00	3183
113.00	374	179.00	11424	253.00	936		
116.00	2818	180.00	7910	255.00	166080		
117.00	36816	181.00	3648	256.00	23920		
118.00	2706	182.00	697	257.00	1995		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072534**				
Client Sample:	**QC for batch 965812**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965812**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:05**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2306-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072534**				
Client Sample:	**QC for batch 965812**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965812**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:05**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2306-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	552	ug/kg		J

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Data file : /chem/MSD7.i/s032310.b/s7c2306-1.d
Lab Smp Id: 1202072534 Client Smp ID: SBLK01
Inj Date : 23-MAR-2010 12:05
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202072534|965816|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	212090	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	794132	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	461044	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	834040	40.0000	
* 91 Chrysene-d12	240	9.542	9.552	(1.000)	651822	40.0000	
* 98 Perylene-d12	264	11.155	11.165	(1.000)	489529	40.0000	
$ 3 2-Fluorophenol	112	3.065	3.061	(0.792)	398773	72.3370	2410
$ 5 Phenol-d5	99	3.585	3.590	(0.927)	475179	68.7495	2290
$ 20 Nitrobenzene-d5	82	4.226	4.235	(0.893)	234985	39.2323	1310
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	487590	42.4361	1410
$ 60 2,4,6-Tribromophenol	329	6.576	6.576	(1.099)	117619	88.2483	2940
$ 81 p-Terphenyl-d14	244	8.516	8.521	(0.892)	542209	46.4318	1550

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s032310.b/s7c2306-1.d
Lab Smp Id: 1202072534 Client Smp ID: SBLK01
Inj Date : 23-MAR-2010 12:05
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202072534|965816|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.870	1381743	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.902	572547	16.5746279	552	0		0	10

Data File: /chem/MSD7.i/s032310.b/s7c2306-1.d

Page 1

Date : 23-MAR-2010 12:05

Client ID: SBLK01

Instrument: MSD7.i

Sample Info: 1120207253419658161 1|SVMI1|MB

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

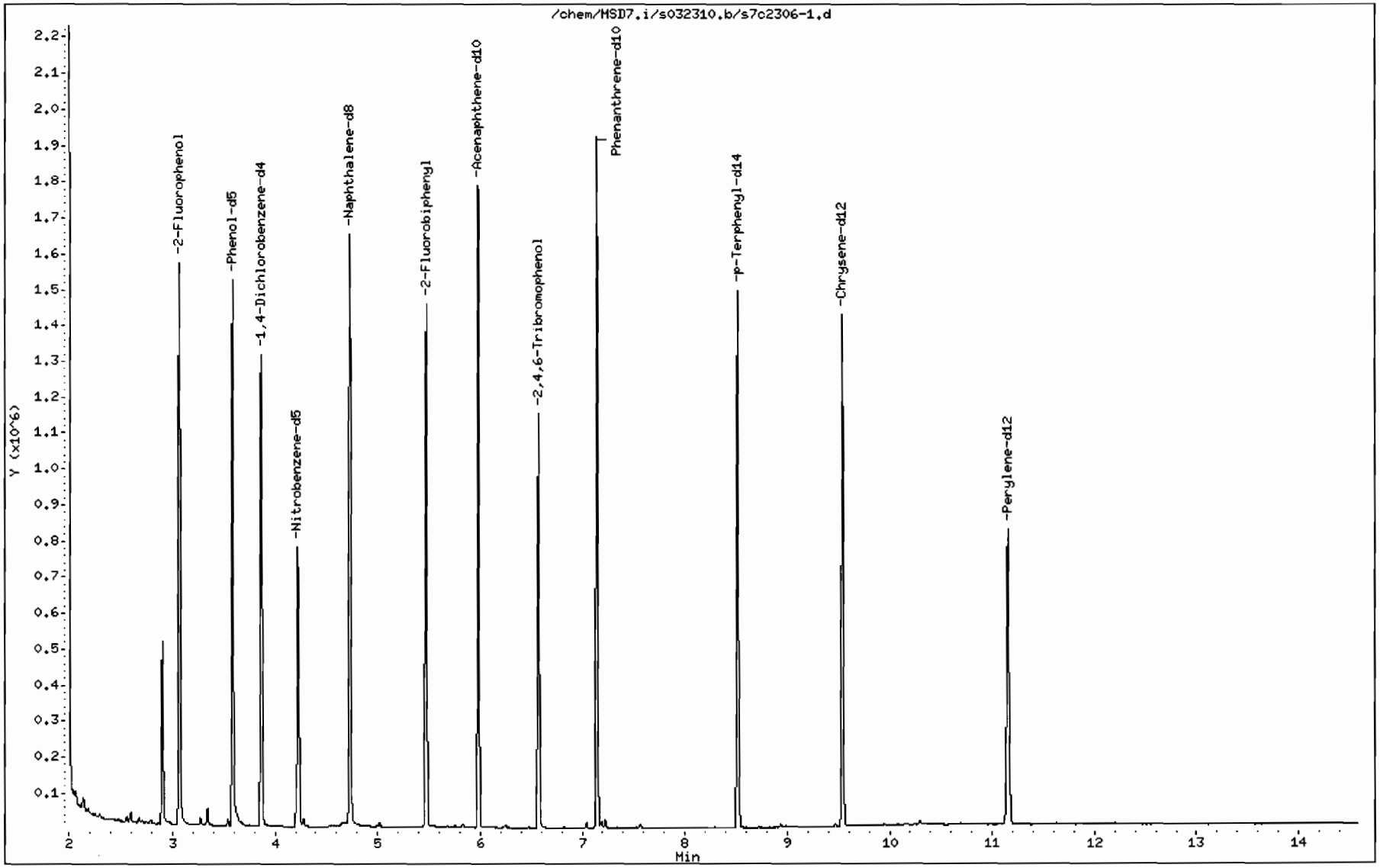

Data File: /chem/MSD7.i/s032310.b/s7c2306-1.d

Date : 23-MAR-2010 12:05

Client ID: SBLK01

Instrument: MSD7.i

Sample Info: |1202072534|965816|1|SVMI1|MB

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116

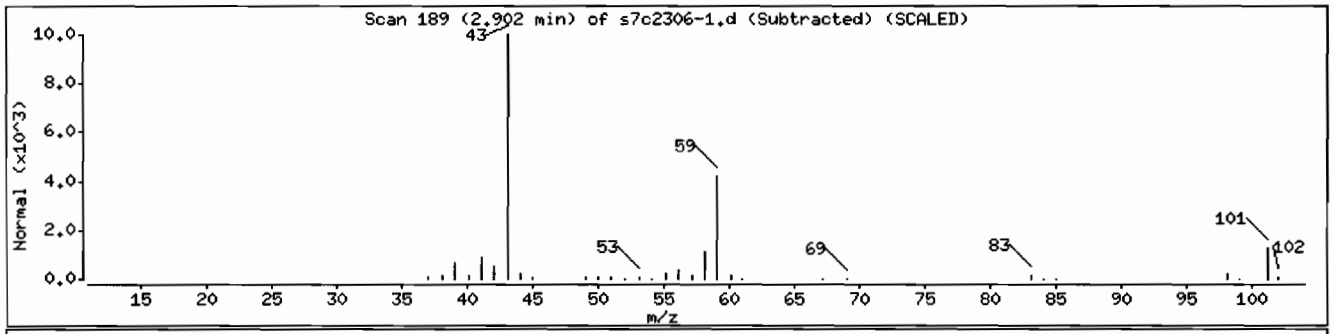

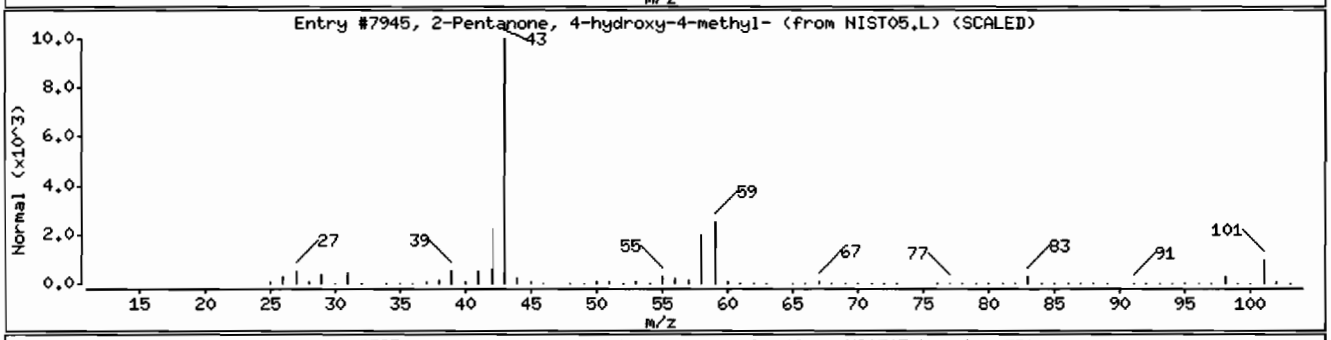

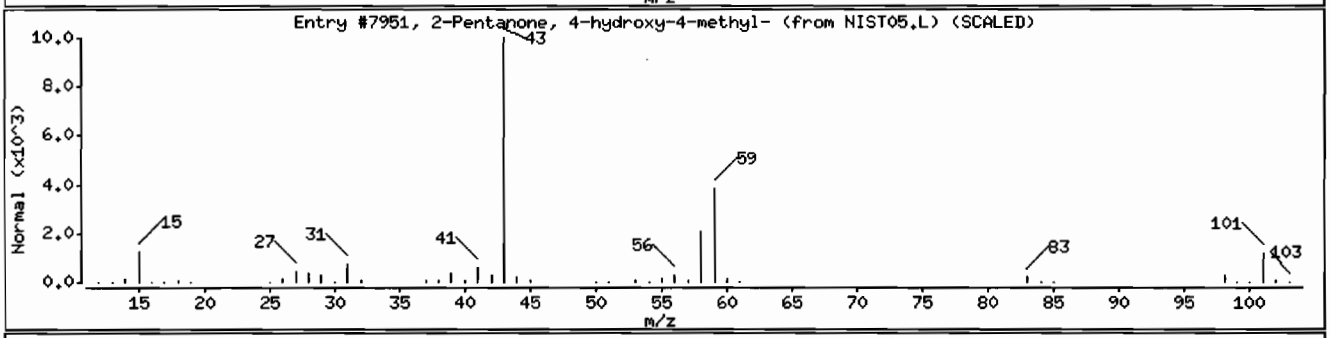

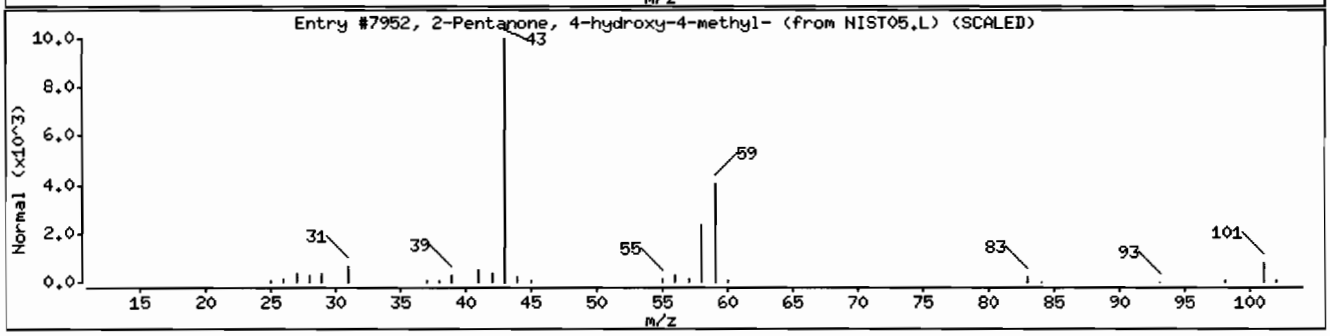

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072535**				
Client Sample:	**QC for batch 965812**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965812**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:27**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2307-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		877	ug/kg	66.7	333
108-95-2	Phenol		1170	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1340	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1250	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1270	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1280	ug/kg	66.7	333
83-32-9	Acenaphthene		1430	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1460	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1440	ug/kg	110	333
87-86-5	Pentachlorophenol		1590	ug/kg	83.3	333
129-00-0	Pyrene		1270	ug/kg	10.0	33.3
110-86-1	Pyridine		952	ug/kg	66.7	333
62-53-3	Aniline		979	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1050	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1190	ug/kg	66.7	333
100-51-6	Benzyl alcohol		695	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1320	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1160	ug/kg	66.7	333
95-48-7	o-Cresol		1250	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1470	ug/kg	100	333
67-72-1	Hexachloroethane		1260	ug/kg	66.7	333
98-95-3	Nitrobenzene		1220	ug/kg	66.7	333
78-59-1	Isophorone		1180	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1320	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1310	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1150	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1300	ug/kg	66.7	333
65-85-0	Benzoic acid		3600	ug/kg	167	667
91-20-3	Naphthalene		1240	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		832	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1370	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1300	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1190	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1560	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1650	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1270	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1260	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1290	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072535**				
Client Sample:	**QC for batch 965812**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965812**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:27**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2307-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1510	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1430	ug/kg	33.3	333
208-96-8	Acenaphthylene		1390	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1780	ug/kg	127	667
132-64-9	Dibenzofuran		1410	ug/kg	66.7	333
84-66-2	Diethylphthalate		1610	ug/kg	66.7	333
86-73-7	Fluorene		1490	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1500	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1540	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1560	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1360	ug/kg	66.7	333
122-66-7	Azobenzene		1380	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1410	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1390	ug/kg	66.7	333
85-01-8	Phenanthrene		1410	ug/kg	10.0	33.3
120-12-7	Anthracene		1400	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1580	ug/kg	66.7	333
206-44-0	Fluoranthene		1490	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1450	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1360	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1330	ug/kg	100	333
218-01-9	Chrysene		1450	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1540	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1400	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1400	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1410	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1470	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1840	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1880	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1810	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1280	ug/kg	66.7	333

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2307-1.d
Lab Smp Id: 1202072535 Client Smp ID: SBLK01LCS
Inj Date : 23-MAR-2010 12:27
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202072535|965816|1|SVM|1|LCS
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	226223	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	939533	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	485896	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	944400	40.0000	
* 91 Chrysene-d12	240	9.547	9.552	(1.000)	801200	40.0000	
* 98 Perylene-d12	264	11.160	11.165	(1.000)	620288	40.0000	
$ 3 2-Fluorophenol	112	3.066	3.061	(0.792)	428064	72.7992	2430
$ 5 Phenol-d5	99	3.586	3.590	(0.927)	515028	69.8597	2330
$ 20 Nitrobenzene-d5	82	4.231	4.235	(0.894)	264525	37.3294	1240
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	480102	39.6473	1320
$ 60 2,4,6-Tribromophenol	329	6.581	6.576	(1.100)	132636	94.4256	3150
$ 81 p-Terphenyl-d14	244	8.516	8.521	(0.892)	632377	44.0568	1470

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.595	3.595	(0.929)	256347	35.0034	1170
8 2-Chlorophenol	128	3.735	3.735	(0.965)	226027	40.3300	1340
11 1,4-Dichlorobenzene	146	3.879	3.884	(1.002)	254109	37.6172	1250
17 N-Nitrosodipropylamine	70	4.106	4.115	(1.061)	158424	38.0267	1270(Q)
28 1,2,4-Trichlorobenzene	180	4.683	4.683	(0.990)	232002	38.3700	1280
33 4-Chloro-3-methylphenol	107	5.083	5.078	(1.074)	205859	38.4445	1280
47 Acenaphthene	154	6.008	6.012	(1.004)	457471	42.7754	1420
50 2,4-Dinitrotoluene	165	6.099	6.104	(1.019)	171792	43.6999	1460
52 4-Nitrophenol	139	6.032	6.027	(1.008)	85337	43.1605	1440
65 Pentachlorophenol	266	6.976	6.975	(0.976)	85282	47.7633	1590
79 Pyrene	202	8.415	8.420	(0.881)	963188	38.0537	1270
2 Pyridine	79	2.430	2.415	(0.628)	155876	28.5714	952
4 Aniline	66	3.653	3.658	(0.944)	103262	29.3631	979(Q)
7 bis(2-Chloroethyl) ether	63	3.667	3.672	(0.948)	188099	31.3686	1040(Q)
9 1,3-Dichlorobenzene	146	3.836	3.836	(0.991)	251338	35.7017	1190
12 Benzyl alcohol	108	3.937	3.937	(1.017)	79540	20.8433	695
13 1,2-Dichlorobenzene	146	3.980	3.985	(1.029)	245542	39.5150	1320
14 bis(2-Chloroisopropyl)ether	45	4.009	4.014	(1.036)	483228	34.7868	1160
15 o-Cresol	107	3.990	3.990	(1.031)	168116	37.4708	1250
18 m,p-Cresols	107	4.086	4.091	(1.056)	267382	44.1066	1470
19 Hexachloroethane	117	4.212	4.211	(1.088)	98849	37.6861	1260
21 Nitrobenzene	77	4.245	4.245	(0.897)	240534	36.5911	1220
22 Isophorone	82	4.395	4.399	(0.929)	449837	35.4181	1180
23 2-Nitrophenol	139	4.457	4.457	(0.942)	122314	39.6227	1320
24 2,4-Dimethylphenol	122	4.452	4.452	(0.941)	222986	39.1864	1310
25 bis(2-Chloroethoxy)methane	93	4.515	4.520	(0.954)	238922	34.3828	1150
26 2,4-Dichlorophenol	162	4.621	4.621	(0.977)	193770	38.8653	1300
27 Benzoic acid	105	4.529	4.515	(0.957)	306469	107.987	3600
30 Naphthalene	128	4.746	4.751	(1.003)	657644	37.0547	1240
31 4-Chloroaniline	127	4.765	4.765	(1.007)	207359	24.9505	832
32 Hexachlorobutadiene	225	4.814	4.813	(1.017)	130023	41.2057	1370
34 2-Methylnaphthalene	142	5.228	5.227	(1.105)	496140	38.9509	1300
36 Hexachlorocyclopentadiene	237	5.329	5.333	(0.891)	83725	35.6425	1190
37 2,4,6-Trichlorophenol	196	5.415	5.420	(0.905)	159117	46.6752	1560
38 2,4,5-Trichlorophenol	196	5.449	5.444	(0.911)	169552	49.4530	1650
40 2-Chloronaphthalene	162	5.579	5.584	(0.932)	428658	38.1147	1270
42 o-Nitroaniline	65	5.637	5.642	(0.942)	150558	37.8131	1260
41 m-Nitroaniline	138	5.931	5.935	(0.991)	112428	38.6899	1290
43 Dimethylphthalate	163	5.743	5.752	(0.960)	584679	45.2824	1510
44 2,6-Dinitrotoluene	165	5.801	5.805	(0.969)	127837	42.8695	1430
45 Acenaphthylene	152	5.883	5.887	(0.983)	750816	41.7631	1390
48 2,4-Dinitrophenol	184	6.008	6.008	(1.004)	50286	53.4936	1780(Q)
49 Dibenzofuran	168	6.133	6.133	(1.025)	636987	42.3786	1410
51 Diethylphthalate	149	6.253	6.258	(1.045)	636534	48.1623	1600
53 Fluorene	166	6.393	6.393	(1.068)	562312	44.5860	1490
54 4-Chlorophenylphenylether	204	6.369	6.369	(1.064)	281702	44.9457	1500
55 2-Methyl-4,6-dinitrophenol	198	6.412	6.412	(0.898)	77985	46.1495	1540

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56	p-Nitroaniline	138	6.393	6.393	(1.068)	122351	46.7655	1560
133	Diphenylamine	169	6.456	6.460	(0.904)	453406	40.7430	1360
58	1,2-Diphenylhydrazine	77	6.494	6.494	(0.909)	581372	41.5249	1380
61	4-Bromophenylphenylether	248	6.754	6.754	(0.945)	164502	42.3561	1410
63	Hexachlorobenzene	284	6.821	6.826	(0.955)	156846	41.5676	1380
68	Phenanthrene	178	7.168	7.168	(1.003)	820766	42.3521	1410
69	Anthracene	178	7.212	7.211	(1.009)	825418	42.0548	1400
72	Di-n-butylphthalate	149	7.568	7.568	(1.059)	1172383	47.4812	1580
76	Fluoranthene	202	8.203	8.203	(1.148)	943175	44.7609	1490
85	Butylbenzylphthalate	149	8.950	8.954	(0.937)	523002	43.4519	1450
89	Benzo(a)anthracene	228	9.533	9.537	(0.998)	784988	40.8698	1360
90	3,3'-Dichlorobenzidine	252	9.484	9.479	(0.993)	222613	39.8210	1330
92	Chrysene	228	9.571	9.571	(1.003)	741126	43.3625	1440
93	bis(2-Ethylhexyl)phthalate	149	9.475	9.475	(0.992)	704741	46.2287	1540
94	Di-n-octylphthalate	149	10.110	10.110	(0.906)	1046698	42.0228	1400
95	Benzo(b)fluoranthene	252	10.664	10.669	(0.956)	731111	42.0288	1400
96	Benzo(k)fluoranthene	252	10.698	10.702	(0.959)	690839	42.2578	1410
97	Benzo(a)pyrene	252	11.088	11.092	(0.994)	629891	44.1607	1470
99	Indeno(1,2,3-cd)pyrene	276	12.850	12.850	(1.151)	566773	55.2579	1840
100	Dibenzo(a,h)anthracene	278	12.865	12.864	(1.153)	458386	56.3939	1880
101	Benzo(ghi)perylene	276	13.365	13.365	(1.198)	465103	54.3733	1810
1	N-Methyl-N-nitrosomethylamine	74	2.391	2.382	(0.618)	104126	26.3013	877

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s032310.b/s7c2307-1.d
Date : 23-MAR-2010 12:27
Client ID: SBLK01LCS
Sample Info: 1120072535196581611SVM11LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

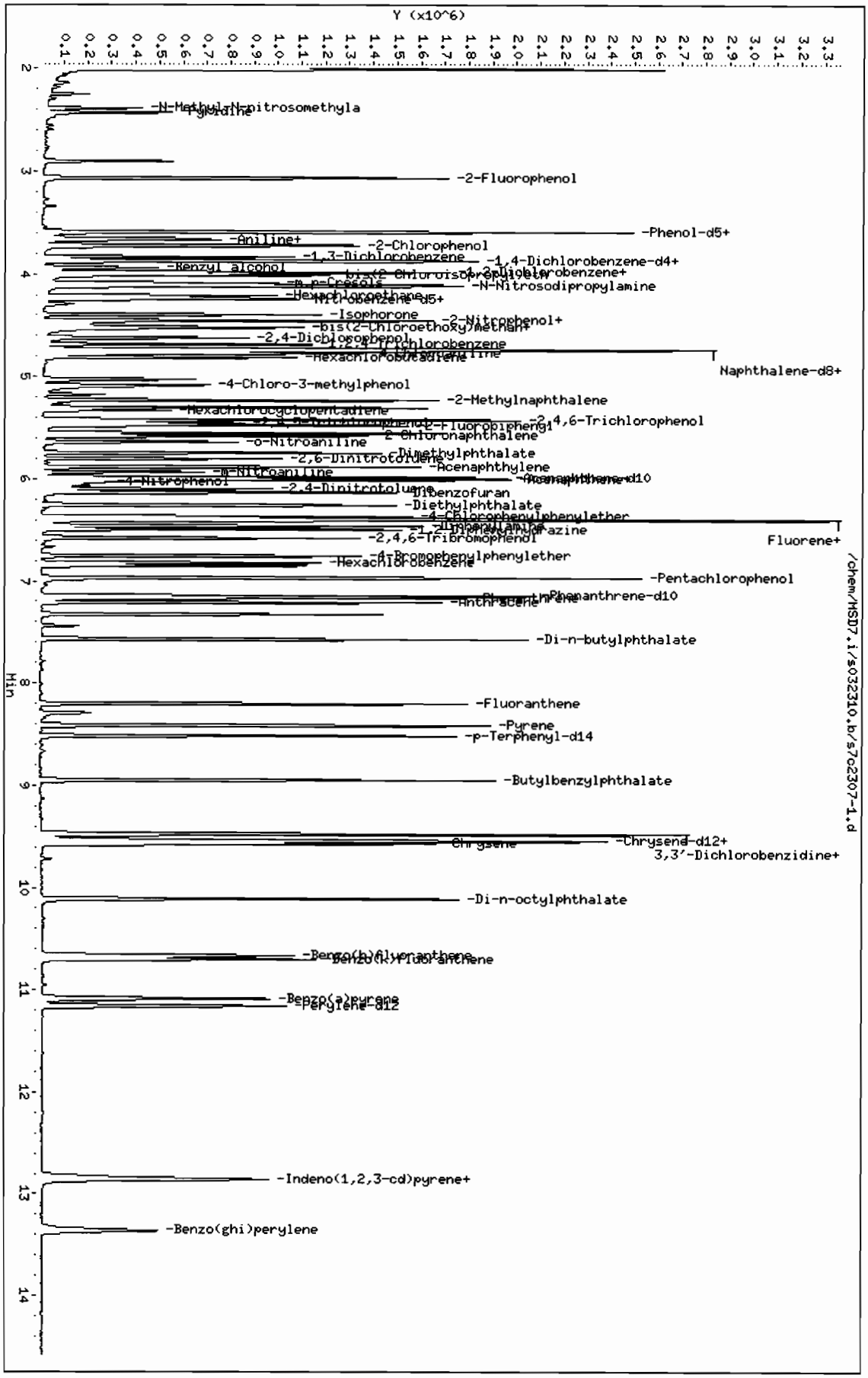

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 965812 **Verified by:** ____

Analyst: Alberto Velasco

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202072534 MB	16-MAR-2010 21:37:00	30	1	0.03333
1202072535 LCS	16-MAR-2010 21:37:00	30	1	0.03333
248815001	16-MAR-2010 21:37:00	30.01	1	0.03332
248815002	16-MAR-2010 21:37:00	30.08	1	0.03324
248815003	16-MAR-2010 21:37:00	30.18	1	0.03313
248815004	16-MAR-2010 21:37:00	30.1	1	0.03322
248815005	16-MAR-2010 21:37:00	30.04	1	0.03329
248815006	16-MAR-2010 21:37:00	30.05	1	0.03328
248815007	16-MAR-2010 21:37:00	30.07	1	0.03326
248815008	16-MAR-2010 21:37:00	30.13	1	0.03319
248815009	16-MAR-2010 21:37:00	30.17	1	0.03315
248815010	16-MAR-2010 21:37:00	30.17	1	0.03315
248815011	16-MAR-2010 21:37:00	30.08	1	0.03324
248824001	16-MAR-2010 21:37:00	30.16	1	0.03316
248824002	16-MAR-2010 21:37:00	30.17	1	0.03315
248865001	16-MAR-2010 21:37:00	30.02	1	0.03331
249057002	16-MAR-2010 21:37:00	30.02	1	0.03331
1202072536 MS (249057002)	16-MAR-2010 21:37:00	30.11	1	0.03321
1202072537 MSD (249057002)	16-MAR-2010 21:37:00	30.02	1	0.03331
249057003	16-MAR-2010 21:37:00	30.17	1	0.03315

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202072535	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
LCS	1202072535	BENZIDINE LCS	UE100310-23	1	mL
MS	1202072536	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MS	1202072536	BENZIDINE LCS	UE100310-23	1	mL
MSD	1202072537	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MSD	1202072537	BENZIDINE LCS	UE100310-23	1	mL
SURR	All	BNA for all Surrogate	UE100310-10	1	mL
REGNT	All	Acetone	1273823-B1	150	mL
REGNT	All	Methylene Chloride	1286042-D	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: AJS

Final Solvent: CH2Cl2

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
25-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
965816	See Below		

Potentially affected work order(s)(SDG): 248815(10-2298),248824(10-2305),248865(10-2318),249057(10-2350)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Yield for Surrogates

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. MS 1202072536 and MSD 1202072537 failed spike recovery limits. Please see the QC summary report for specific failures.	1,2. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.
2. The relative percent difference between MS 1202072536 and MSD 1202072537 failed acceptance limits for one or more target analytes. Please see the QC summary report for specific failures.	
3. Sample 248815003 failed surrogate recovery limits. Please see the QC summary report for specific failures.	3. Surrogate recoveries were not within the acceptance limit. The sample was re-extracted and confirmed the results. Matrix interference has been demonstrated. The initial results are reported.

Originator's Name:

Josh Brooks 26-MAR-10

Data Validator/Group Leader:

Cameron Bearden 29-MAR-10

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD7

DATE: 02/25/2010 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1965 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100217-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s022610.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s7b2601-D.d	WBN100207-01	JMB3	26-FEB-2010 10:23	DFTPP	s022610	1.0	DFTPP	8270d TUNE: MEGA
s7b2601.d	WBN100207-01	JMB3	26-FEB-2010 10:23	DFTPP	s022610	1.0	DFTPP	8270c TUNE: MEGA
s7b2602.d	INSTBLANK	JMB3	26-FEB-2010 10:35	IB	s022610	1.0	INSTBLANK	
s7b2603.d	WBN100225-08	JMB3	26-FEB-2010 11:07	ICAL	s022610	1.0	MEGA001	
s7b2604.d	WBN100225-07	JMB3	26-FEB-2010 11:31	ICAL	s022610	1.0	MEGA010	DUSE: see s7b2612
s7b2605.d	WBN100225-06	JMB3	26-FEB-2010 11:55	ICAL	s022610	1.0	MEGA020	DUSE: see s7b2613
s7b2606.d	WBN100225-05.1	JMB3	26-FEB-2010 12:19	ICAL	s022610	1.0	MEGA040	
s7b2607.d	WBN100225-04	JMB3	26-FEB-2010 12:43	ICAL	s022610	1.0	MEGA050	
s7b2608.d	WBN100225-03	JMB3	26-FEB-2010 13:07	ICAL	s022610	1.0	MEGA080	
s7b2609.d	WBN100225-02	JMB3	26-FEB-2010 13:32	ICAL	s022610	1.0	MEGA100	
s7b2610.d	WBN100225-01	JMB3	26-FEB-2010 13:56	ICAL	s022610	1.0	MEGA120	
s7b2611.d	INSTBLANK	JMB3	26-FEB-2010 14:19	IB	s022610	1.0	INSTBLANK	
s7b2612-D.d	WBN100225-07	JMB3	26-FEB-2010 14:44	ICAL	s022610	1.0	MEGA010	8270d
s7b2612.d	WBN100225-07	JMB3	26-FEB-2010 14:44	ICAL	s022610	1.0	MEGA010	
s7b2613-D.d	WBN100225-06	JMB3	26-FEB-2010 15:08	ICAL	s022610	1.0	MEGA020	8270d
s7b2613.d	WBN100225-06	JMB3	26-FEB-2010 15:08	ICAL	s022610	1.0	MEGA020	
s7b2614-625.d	WBN100225-09.1	JMB3	26-FEB-2010 15:33	ICV	s022610	1.0	MEGAICV	625 MEGA ICV
s7b2614-D.d	WBN100225-09.1	JMB3	26-FEB-2010 15:33	ICV	s022610	1.0	MEGAICV	8270d MEGA ICV
s7b2614.d	WBN100225-09.1	JMB3	26-FEB-2010 15:33	ICV	s022610	1.0	MEGAICV	8270c MEGA ICV

s7b2615-D.d	WBN100207-01	JMB3	26-FEB-2010 16:00	DFTPP	s022610		1.0	DFTPP	8270d TUNE: AP - PEST - NEV
s7b2615.d	WBN100207-01	JMB3	26-FEB-2010 16:00	DFTPP	s022610		1.0	DFTPP	8270c TUNE: AP - PEST - NEV
s7b2616.d	INSTBLANK	JMB3	26-FEB-2010 16:13	IB	s022610		1.0	INSTBLANK	
s7b2617-D.d	WBN100218-01	JMB3	26-FEB-2010 16:34	ICAL	s022610		1.0	AP010	8270d
s7b2617.d	WBN100218-01	JMB3	26-FEB-2010 16:34	ICAL	s022610		1.0	AP010	
s7b2618.d	WBN100218-02	JMB3	26-FEB-2010 16:56	ICAL	s022610		1.0	AP020	
s7b2619.d	WBN100218-03.1	JMB3	26-FEB-2010 17:17	ICAL	s022610		1.0	AP040	
s7b2620.d	WBN100218-04	JMB3	26-FEB-2010 17:39	ICAL	s022610		1.0	AP050	
s7b2621.d	WBN100218-05	JMB3	26-FEB-2010 18:00	ICAL	s022610		1.0	AP080	
s7b2622.d	WBN100218-06	JMB3	26-FEB-2010 18:22	ICAL	s022610		1.0	AP100	
s7b2623.d	WBN100218-07	JMB3	26-FEB-2010 18:43	ICAL	s022610		1.0	AP120	
s7b2624.d	WBN100205-25	JMB3	26-FEB-2010 19:05	ICAL	s022610		1.0	PEST010	
s7b2625.d	WBN100205-24	JMB3	26-FEB-2010 19:26	ICAL	s022610		1.0	PEST020	
s7b2626.d	WBN100205-23.1	JMB3	26-FEB-2010 19:48	ICAL	s022610		1.0	PEST040	
s7b2627.d	WBN100205-22	JMB3	26-FEB-2010 20:09	ICAL	s022610		1.0	PEST050	
s7b2628.d	WBN100205-21	JMB3	26-FEB-2010 20:31	ICAL	s022610		1.0	PEST080	
s7b2629.d	WBN100205-20	JMB3	26-FEB-2010 20:52	ICAL	s022610		1.0	PEST100	
s7b2630.d	WBN100205-19	JMB3	26-FEB-2010 21:14	ICAL	s022610		1.0	PEST120	
s7b2631.d	UBN100127-01	JMB3	26-FEB-2010 21:36	ICAL	s022610		1.0	NEV010	
s7b2632.d	UBN100127-02	JMB3	26-FEB-2010 21:58	ICAL	s022610		1.0	NEV020	
s7b2633.d	UBN100127-03	JMB3	26-FEB-2010 22:19	ICAL	s022610		1.0	NEV040	
s7b2634.d	UBN100127-04	JMB3	26-FEB-2010 22:40	ICAL	s022610		1.0	NEV050	
s7b2635.d	UBN100127-05	JMB3	26-FEB-2010 23:02	ICAL	s022610		1.0	NEV080	
s7b2636.d	UBN100127-06	JMB3	26-FEB-2010 23:24	ICAL	s022610		1.0	NEV100	
s7b2637.d	UBN100127-07	JMB3	26-FEB-2010 23:46	ICAL	s022610		1.0	NEV120	
s7b2638-625.d	WBN100218-08.1	JMB3	27-FEB-2010 00:07	ICV	s022610		1.0	APICV	625 AP ICV
s7b2638-D.d	WBN100218-08.1	JMB3	27-FEB-2010 00:07	ICV	s022610		1.0	APICV	8270d AP ICV

s7b2638.d	WBN100218-08.1	JMB3	27-FEB-2010 00:07	ICV	s022610	1.0	APICV	8270d AP ICV
s7b2639-625.d	WBN100205-26.1	JMB3	27-FEB-2010 00:29	ICV	s022610	1.0	PESTICV	625 PEST ICV
s7b2639-D.d	WBN100205-26.1	JMB3	27-FEB-2010 00:29	ICV	s022610	1.0	PESTICV	8270d PEST ICV
s7b2639.d	WBN100205-26.1	JMB3	27-FEB-2010 00:29	ICV	s022610	1.0	PESTICV	8270c PEST ICV
s7b2640-625.d	WBN100225-05.2	JMB3	27-FEB-2010 00:50	CVS	s022610	1.0	MEGACVS	DUSE: 625 MEGA CVS - fails some analytes >20%
s7b2641-625.d	WBN100218-03.1	JMB3	27-FEB-2010 01:15	CVS	s022610	1.0	APCVS	DUSE: 625 AP CVS
s7b2642-625.d	WBN100225-05.1	JMB3	27-FEB-2010 08:38	CVS	s022610	1.0	MEGACVS	DUSE: 625 MEGA CVS - fails some analytes >20%

Instrument Batch: /chem/MSD7.i/s022610.b

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD7

DATE: 03/26/2010 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 2000 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100319-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s032310.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s7c2301.d	WBN100306-01.2	JMB3	23-MAR-2010 10:27	DFTPP	s032310	1.0	DFTPP	DUSE
s7c2302.d	WBN100309-05.2	JMB3	23-MAR-2010 10:41	CVS	s032310	1.0	MEGACVS	DUSE
s7c2303.d	WBN100306-01.2	JMB3	23-MAR-2010 11:08	DFTPP	s032310	1.0	DFTPP	8270c TUNE: PASSES
s7c2304.d	WBN100309-05.2	JMB3	23-MAR-2010 11:20	CVS	s032310	1.0	MEGACVS	8270c MEGA CVS (IS1: 202889)
s7c2305.d	WBN100312-03.3	JMB3	23-MAR-2010 11:44	CVS	s032310	1.0	APCVS	8270c AP CVS
s7c2306-1.d	1202072534	JMB3	23-MAR-2010 12:05	965816	10-2298	1.0	MB	
s7c2306-2.d	1202072534	JMB3	23-MAR-2010 12:05	965816	10-2305	1.0	MB	
s7c2306-3.d	1202072534	JMB3	23-MAR-2010 12:05	965816	10-2318	1.0	MB	
s7c2306.d	1202072534	JMB3	23-MAR-2010 12:05	965816	10-2350	1.0	MB	
s7c2307-1.d	1202072535	JMB3	23-MAR-2010 12:27	965816	10-2298	1.0	LCS	
s7c2307-2.d	1202072535	JMB3	23-MAR-2010 12:27	965816	10-2305	1.0	LCS	
s7c2307-3.d	1202072535	JMB3	23-MAR-2010 12:27	965816	10-2318	1.0	LCS	
s7c2307.d	1202072535	JMB3	23-MAR-2010 12:27	965816	10-2350	1.0	LCS	
s7c2308.d	248815003	JMB3	23-MAR-2010 12:48	965816	10-2298	1.0	LANL	REPORT: fails surr - rx s5c2525 confirms failure
s7c2309.d	248815004	JMB3	23-MAR-2010 13:10	965816	10-2298	1.0	LANL	
s7c2310.d	248815008	JMB3	23-MAR-2010 13:32	965816	10-2298	1.0	LANL	
s7c2311.d	248824001	JMB3	23-MAR-2010 13:54	965816	10-2305	1.0	LANL	
s7c2312.d	248824002	JMB3	23-MAR-2010 14:15	965816	10-2305	1.0	LANL	
s7c2313.d	248865001	JMB3	23-MAR-2010 14:37	965816	10-2318	1.0	LANL	

s7c2314.d	248815003	JMB3	23-MAR-2010 14:59	965816	10-2298	1.0	LANL	DUSE: rerun of s7c2308 - still fails surr
s7c2315.d	248689009	JMB3	23-MAR-2010 15:20	965401	10-2261	5.0	LANL	REPORT: diluted analysis of s7c2221 for OR hits
s7c2316.d	248689012	JMB3	23-MAR-2010 15:42	965401	10-2261	1.0	LANL	
s7c2317.d	248815001	JMB3	23-MAR-2010 16:03	965816	10-2298	1.0	LANL	
s7c2318.d	249057002	JMB3	23-MAR-2010 16:25	965816	10-2350	1.0	LANL	
s7c2319.d	1202072536	JMB3	23-MAR-2010 16:47	965816	10-2350	1.0	MS_LANL	
s7c2320.d	1202072537	JMB3	23-MAR-2010 17:09	965816	10-2350	1.0	MSD_LANL	
s7c2321.d	248815002	JMB3	23-MAR-2010 17:30	965816	10-2298	1.0	LANL	
s7c2322.d	248815005	JMB3	23-MAR-2010 17:52	965816	10-2298	1.0	LANL	
s7c2323.d	248815006	JMB3	23-MAR-2010 18:13	965816	10-2298	1.0	LANL	
s7c2324.d	248815007	JMB3	23-MAR-2010 18:35	965816	10-2298	10.0	LANL	
s7c2325.d	248815009	JMB3	23-MAR-2010 18:56	965816	10-2298	1.0	LANL	
s7c2326.d	248815010	JMB3	23-MAR-2010 19:18	965816	10-2298	1.0	LANL	
s7c2327.d	248815011	JMB3	23-MAR-2010 19:39	965816	10-2298	1.0	LANL	
s7c2328.d	249057003	JMB3	23-MAR-2010 20:01	965816	10-2350	1.0	LANL	REPORT: all except OR hits - see s7c2416 for 10x analysis
s7c2329.d	248815006	JMB3	23-MAR-2010 20:23	965816	10-2298	1.0	LANL	DUSE: see s7c2323
s7c2330.d	248815007	JMB3	23-MAR-2010 20:45	965816	10-2298	10.0	LANL	DUSE: see s7c2324
s7c2331.d	248815009	JMB3	23-MAR-2010 21:06	965816	10-2298	1.0	LANL	DUSE: see s7c2325
s7c2332.d	248815010	JMB3	23-MAR-2010 21:28	965816	10-2298	1.0	LANL	DUSE: see s7c2326
s7c2333.d	248815011	JMB3	23-MAR-2010 21:50	965816	10-2298	1.0	LANL	DUSE: see s7c2327
s7c2334.d	249057003	JMB3	23-MAR-2010 22:12	965816	10-2350	1.0	LANL	DUSE: see s7c2328

Instrument Batch: /chem/MSD7.i/s032310.b

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032510.b/s5c2525.d
Lab Smp Id: 248815003 Client Smp ID: RE46-10-13863
Inj Date : 25-MAR-2010 18:53
Operator : RMB Inst ID: MSD5.i
Smp Info : |248815003|968918|1|SVM|2|LANLRE
Misc Info : |MSD8270_S|WBN100319-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD5.i/s032510.b/MSD5-M8270C-030210.m
Meth Date : 25-Mar-2010 10:43 rmb Quant Type: ISTD
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2298.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.12000	weight of sample
M	11.47850	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.901	3.906	(1.000)	187258	40.0000	
* 29 Naphthalene-d8	136	4.766	4.773	(1.000)	688516	40.0000	
* 46 Acenaphthene-d10	164	6.025	6.030	(1.000)	408487	40.0000	
* 67 Phenanthrene-d10	188	7.195	7.200	(1.000)	736436	40.0000	
* 91 Chrysene-d12	240	9.607	9.617	(1.000)	678934	40.0000	
* 98 Perylene-d12	264	11.272	11.288	(1.000)	607641	40.0000	
$ 3 2-Fluorophenol	112	3.101	3.097	(0.795)	156528	33.4752	1260
$ 5 Phenol-d5	99	3.619	3.627	(0.928)	183131	32.5854	1220(R)
$ 20 Nitrobenzene-d5	82	4.260	4.272	(0.894)	103335	20.1978	758
$ 39 2-Fluorobiphenyl	172	5.507	5.515	(0.914)	190154	18.6377	699
$ 60 2,4,6-Tribromophenol	329	6.619	6.627	(1.099)	64582	42.0932	1580
$ 81 p-Terphenyl-d14	244	8.572	8.577	(0.892)	312659	27.6848	1040

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
93 bis(2-Ethylhexyl)phthalate	149	9.525	9.531	(0.991)	20156	2.18512	82.0(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD5.i/s032510.b/s5c2525.d

Page 1

Date : 25-MAR-2010 18:53

Client ID: RE46-10-13863

Instrument: MSD5.i

Sample Info: |2488150031968918|1|SVMI2|LANLRE

Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&W DB-5MS

Column diameter: 0.20

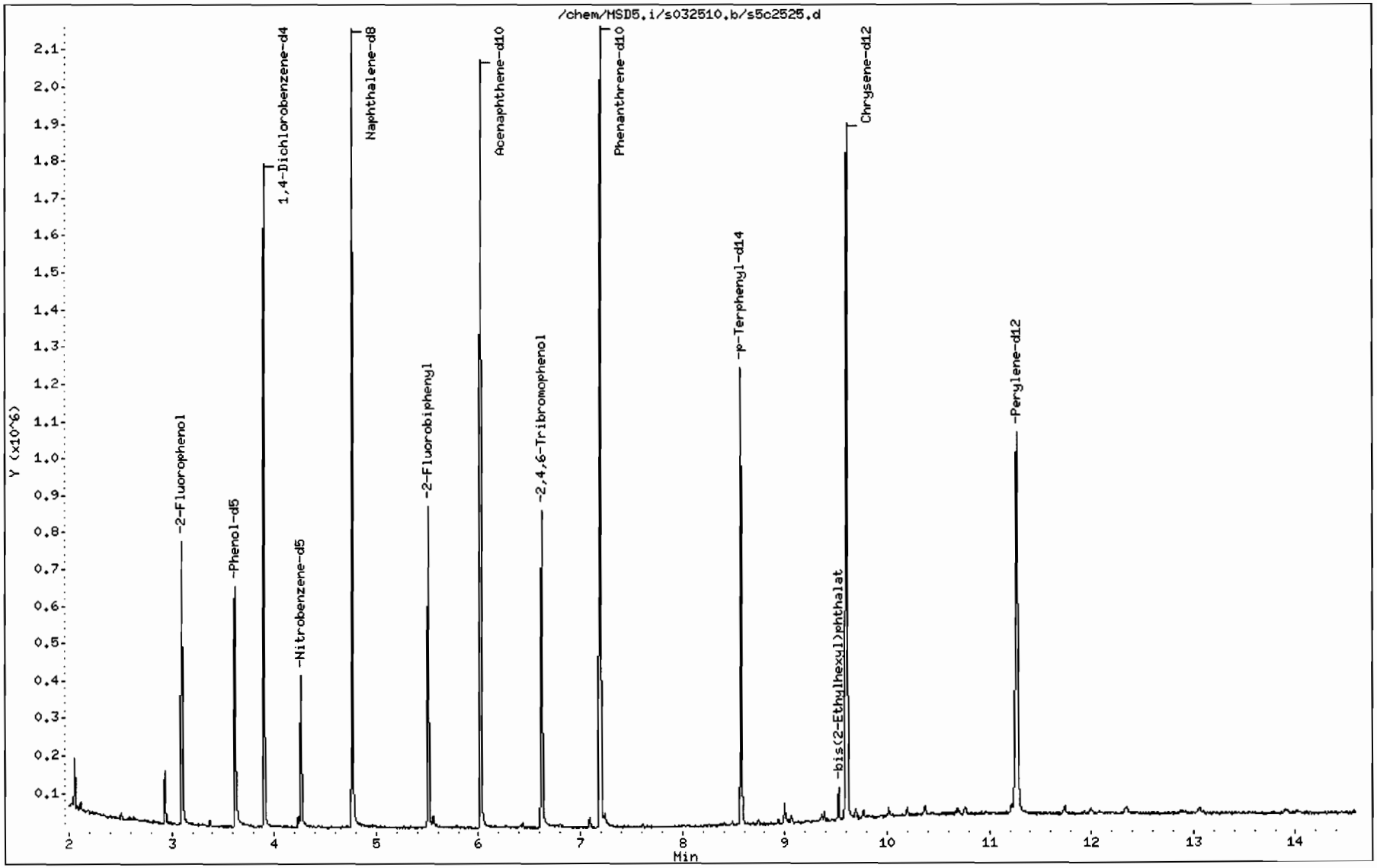

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Data file : /chem/MSD7.i/s032310.b/s7c2319.d
Lab Smp Id: 1202072536 Client Smp ID: RE16-10-2787MS
Inj Date : 23-MAR-2010 16:47
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202072536|965816|1|SVM|1|MS_LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 11o00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 17 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2350.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.11000	weight of sample
M	15.90390	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	225132	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	905141	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	494000	40.0000	
* 67 Phenanthrene-d10	188	7.149	7.149	(1.000)	943093	40.0000	
* 91 Chrysene-d12	240	9.552	9.552	(1.000)	746222	40.0000	
* 98 Perylene-d12	264	11.170	11.165	(1.000)	451209	40.0000	
$ 3 2-Fluorophenol	112	3.070	3.061	(0.793)	232082	39.6606	1570
$ 5 Phenol-d5	99	3.590	3.590	(0.928)	322788	43.9959	1740
$ 20 Nitrobenzene-d5	82	4.231	4.235	(0.894)	160651	23.5322	929
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	368331	29.9181	1180
$ 60 2,4,6-Tribromophenol	329	6.581	6.576	(1.100)	111202	77.8677	3080
$ 81 p-Terphenyl-d14	244	8.521	8.521	(0.892)	484225	36.2207	1430

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.600	3.595	(0.930)	162046	22.2341	878
8 2-Chlorophenol	128	3.735	3.735	(0.965)	134712	24.1531	954
11 1,4-Dichlorobenzene	146	3.879	3.884	(1.002)	143036	21.2770	840
17 N-Nitrosodipropylamine	70	4.106	4.115	(1.061)	96753	23.3363	922(Q)
28 1,2,4-Trichlorobenzene	180	4.683	4.683	(0.990)	144551	24.8151	980
33 4-Chloro-3-methylphenol	107	5.093	5.078	(1.076)	176352	34.1854	1350
47 Acenaphthene	154	6.008	6.012	(1.004)	485486	44.6502	1760
50 2,4-Dinitrotoluene	165	6.099	6.104	(1.019)	137188	34.3249	1360
52 4-Nitrophenol	139	6.051	6.027	(1.011)	59420	29.5595	1170
65 Pentachlorophenol	266	6.980	6.975	(0.976)	66225	37.1415	1470
79 Pyrene	202	8.425	8.420	(0.882)	2290170	97.1463	3840(R)
2 Pyridine	79	2.425	2.415	(0.627)	78053	14.3762	568
4 Aniline	66	3.653	3.658	(0.944)	73724	21.0654	832(Q)
7 bis(2-Chloroethyl) ether	63	3.672	3.672	(0.949)	108984	18.2630	721(Q)
9 1,3-Dichlorobenzene	146	3.836	3.836	(0.991)	139326	19.8867	785
13 1,2-Dichlorobenzene	146	3.985	3.985	(1.030)	140399	22.7039	897
14 bis(2-Chloroisopropyl)ether	45	4.014	4.014	(1.037)	290709	21.0291	830
15 o-Cresol	107	3.990	3.990	(1.031)	126185	28.2612	1120
18 m,p-Cresols	107	4.086	4.091	(1.056)	169277	28.0588	1110
19 Hexachloroethane	117	4.212	4.211	(1.088)	51165	19.6012	774
21 Nitrobenzene	77	4.245	4.245	(0.897)	160874	25.4028	1000
22 Isophorone	82	4.394	4.399	(0.929)	290895	23.7740	939
23 2-Nitrophenol	139	4.457	4.457	(0.942)	69575	23.3947	924
24 2,4-Dimethylphenol	122	4.452	4.452	(0.941)	127213	21.1632	836
25 bis(2-Chloroethoxy)methane	93	4.520	4.520	(0.955)	155291	23.1967	916
26 2,4-Dichlorophenol	162	4.626	4.621	(0.978)	144810	30.1488	1190
27 Benzoic acid	105	4.515	4.515	(0.954)	160844	58.8284	2320
30 Naphthalene	128	4.746	4.751	(1.003)	561749	32.8541	1300
31 4-Chloroaniline	127	4.765	4.765	(1.007)	202135	25.2460	997
32 Hexachlorobutadiene	225	4.813	4.813	(1.017)	77714	25.5642	1010
34 2-Methylnaphthalene	142	5.228	5.227	(1.105)	385392	31.4059	1240
36 Hexachlorocyclopentadiene	237	5.333	5.333	(0.891)	21670	9.07377	358(aR)
37 2,4,6-Trichlorophenol	196	5.420	5.420	(0.906)	119577	34.5012	1360
38 2,4,5-Trichlorophenol	196	5.454	5.444	(0.911)	150019	43.0381	1700
40 2-Chloronaphthalene	162	5.584	5.584	(0.933)	321771	28.1414	1110
42 o-Nitroaniline	65	5.642	5.642	(0.943)	122576	30.2803	1200
41 m-Nitroaniline	138	5.935	5.935	(0.992)	77535	26.2444	1040
43 Dimethylphthalate	163	5.748	5.752	(0.961)	478878	36.4798	1440
44 2,6-Dinitrotoluene	165	5.805	5.805	(0.970)	104154	34.3545	1360
45 Acenaphthylene	152	5.882	5.887	(0.983)	600283	32.8422	1300
48 2,4-Dinitrophenol	184	6.012	6.008	(1.005)	12362	23.8151	940(Q)
49 Dibenzofuran	168	6.133	6.133	(1.025)	617147	40.3851	1590
51 Diethylphthalate	149	6.253	6.258	(1.045)	534667	39.7910	1570
53 Fluorene	166	6.393	6.393	(1.068)	637786	49.7408	1960
54 4-Chlorophenylphenylether	204	6.369	6.369	(1.064)	229461	36.0100	1420
55 2-Methyl-4,6-dinitrophenol	198	6.412	6.412	(0.897)	22523	19.1400	756(Q)
56 p-Nitroaniline	138	6.393	6.393	(1.068)	99804	37.5217	1480

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.455	6.460	(0.903)	395871	35.6222	1410
58 1,2-Diphenylhydrazine	77	6.494	6.494	(0.908)	495911	35.4699	1400
61 4-Bromophenylphenylether	248	6.754	6.754	(0.945)	142352	36.7037	1450
63 Hexachlorobenzene	284	6.826	6.826	(0.955)	128834	34.1911	1350
68 Phenanthrene	178	7.173	7.168	(1.003)	2338618	120.842	4770(AR)
69 Anthracene	178	7.211	7.211	(1.009)	1101894	56.2190	2220
72 Di-n-butylphthalate	149	7.573	7.568	(1.059)	972086	39.4238	1560
76 Fluoranthene	202	8.208	8.203	(1.148)	2438945	115.907	4580(R)
85 Butylbenzylphthalate	149	8.955	8.954	(0.937)	403963	36.0346	1420
89 Benzo(a)anthracene	228	9.542	9.537	(0.999)	1245751	69.6375	2750(R)
90 3,3'-Dichlorobenzidine	252	9.489	9.479	(0.993)	165841	31.8513	1260
92 Chrysene	228	9.576	9.571	(1.003)	1081264	67.9245	2680(R)
93 bis(2-Ethylhexyl)phthalate	149	9.475	9.475	(0.992)	559679	39.4179	1560
94 Di-n-octylphthalate	149	10.115	10.110	(0.906)	711517	39.2703	1550
95 Benzo(b)fluoranthene	252	10.678	10.669	(0.956)	866808	68.5018	2700(R)
96 Benzo(k)fluoranthene	252	10.707	10.702	(0.959)	727609	61.1848	2420(R)
97 Benzo(a)pyrene	252	11.102	11.092	(0.994)	722438	69.6284	2750(R)
99 Indeno(1,2,3-cd)pyrene	276	12.889	12.850	(1.154)	483535	64.8080	2560(R)
100 Dibenzo(a,h)anthracene	278	12.903	12.864	(1.155)	296459	50.1396	1980
101 Benzo(ghi)perylene	276	13.423	13.365	(1.202)	396740	63.7615	2520(R)
1 N-Methyl-N-nitrosomethylamine	74	2.386	2.382	(0.617)	56576	14.3599	567

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

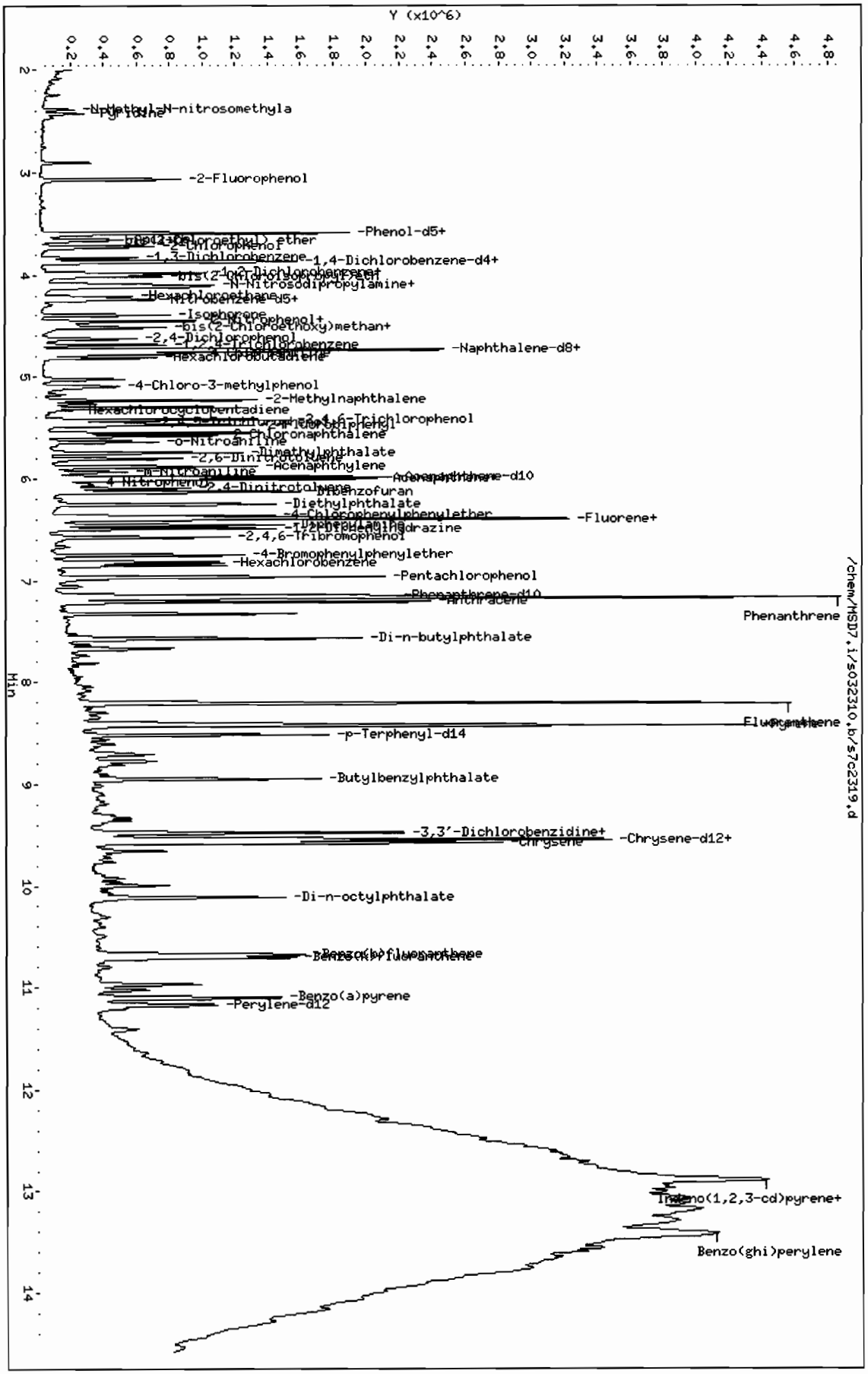
Data File: /chem/MSD7.i/s032310.b/s7c2319.d
Date : 23-MAR-2010 16:47
Client ID: RE16-10-2787MS
Sample Info: 1120207253619658161|SVM11|MS_LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS
Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20
Page 1
Y (x10^6)
Min
/chem/MSD7.i/s032310.b/s7c2319.d
-N-Nitrosodipropylamine+
-2-Fluorophenol
-Phenol-d5+
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4+
-Hexachloroethane
-Isophorone
-bis(2-Chloroethoxy)methan+
-2,4-Dichlorophenol
-Naphthalene-d8+
-4-Chloro-3-methylphenol
-2-Methylnaphthalene
-2,4,6-Trichlorophenol
-o-Nitroaniline
-Dimethylphthalate
-Acenaphthylene
-Acenaphthene-d10
-Dibenzofuran
-Diethylphthalate
-Fluorene+
-2,4,6-Tribromophenol
-4-Bromophenylphenylether
-Hexachlorobenzene
-Pentachlorophenol
Phenanthrene
-Di-n-butylphthalate
-p-Terphenyl-d14
-Butylbenzylphthalate
-3,3'-Dichlorobenzidine+
-Chrysene-d12+
-Di-n-octylphthalate
-Benzo(a)pyrene
-Perylene-d12
Indeno(1,2,3-cd)pyrene+
Benzo(ghi)perylene

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2320.d
Lab Smp Id: 1202072537 Client Smp ID: RE16-10-2787MSD
Inj Date : 23-MAR-2010 17:09
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202072537|965816|1|SVM|1|MSD_LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 11o00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 18 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2350.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	15.90390	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	253745	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	1011308	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	550848	40.0000	
* 67 Phenanthrene-d10	188	7.149	7.149	(1.000)	1032560	40.0000	
* 91 Chrysene-d12	240	9.552	9.552	(1.000)	759960	40.0000	
* 98 Perylene-d12	264	11.170	11.165	(1.000)	412409	40.0000	
$ 3 2-Fluorophenol	112	3.070	3.061	(0.793)	259112	39.2866	1560
$ 5 Phenol-d5	99	3.590	3.590	(0.928)	336706	40.7179	1610
$ 20 Nitrobenzene-d5	82	4.231	4.235	(0.894)	171524	22.4873	891
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	358741	26.1320	1040
$ 60 2,4,6-Tribromophenol	329	6.581	6.576	(1.100)	100754	63.2706	2510
$ 81 p-Terphenyl-d14	244	8.521	8.521	(0.892)	449265	32.9982	1310

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6	Phenol	94	3.600	3.595	(0.930)	168375	20.4974	812
8	2-Chlorophenol	128	3.735	3.735	(0.965)	149865	23.8400	944
11	1,4-Dichlorobenzene	146	3.879	3.884	(1.002)	155874	20.5721	815
17	N-Nitrosodipropylamine	70	4.106	4.115	(1.061)	103667	22.1844	879(Q)
28	1,2,4-Trichlorobenzene	180	4.683	4.683	(0.990)	150657	23.1482	917
33	4-Chloro-3-methylphenol	107	5.093	5.078	(1.076)	170149	29.5204	1170
47	Acenaphthene	154	6.008	6.012	(1.004)	469464	38.7208	1530
50	2,4-Dinitrotoluene	165	6.099	6.104	(1.019)	136640	30.6596	1210
52	4-Nitrophenol	139	6.051	6.027	(1.011)	59381	26.4916	1050
65	Pentachlorophenol	266	6.980	6.975	(0.976)	63346	32.4486	1280
79	Pyrene	202	8.425	8.420	(0.882)	2211712	92.1223	3650(R)
2	Pyridine	79	2.430	2.415	(0.628)	84149	13.7512	545
4	Aniline	66	3.653	3.658	(0.944)	69084	17.5137	694(Q)
7	bis(2-Chloroethyl) ether	63	3.672	3.672	(0.949)	116944	17.3871	689(Q)
9	1,3-Dichlorobenzene	146	3.836	3.836	(0.991)	154790	19.6026	776
13	1,2-Dichlorobenzene	146	3.985	3.985	(1.030)	150934	21.6552	858
14	bis(2-Chloroisopropyl)ether	45	4.014	4.014	(1.037)	310606	19.9348	790
15	o-Cresol	107	3.990	3.990	(1.031)	142152	28.2472	1120
18	m,p-Cresols	107	4.091	4.091	(1.057)	208365	30.6433	1210
19	Hexachloroethane	117	4.211	4.211	(1.088)	55795	18.9646	751
21	Nitrobenzene	77	4.245	4.245	(0.897)	167734	23.7055	939
22	Isophorone	82	4.394	4.399	(0.929)	302274	22.1106	876
23	2-Nitrophenol	139	4.457	4.457	(0.942)	75475	22.7143	900
24	2,4-Dimethylphenol	122	4.452	4.452	(0.941)	126667	18.3154	725
25	bis(2-Chloroethoxy)methane	93	4.520	4.520	(0.955)	161967	21.6541	858
26	2,4-Dichlorophenol	162	4.621	4.621	(0.977)	146159	27.2352	1080
27	Benzoic acid	105	4.515	4.515	(0.954)	150845	49.3794	1960
30	Naphthalene	128	4.751	4.751	(1.004)	582078	30.4693	1210
31	4-Chloroaniline	127	4.765	4.765	(1.007)	129758	14.5050	574
32	Hexachlorobutadiene	225	4.813	4.813	(1.017)	83748	24.6570	977
34	2-Methylnaphthalene	142	5.228	5.227	(1.105)	396901	28.9483	1150
36	Hexachlorocyclopentadiene	237	5.333	5.333	(0.891)	20102	7.54855	299(aR)
37	2,4,6-Trichlorophenol	196	5.420	5.420	(0.906)	116492	30.1424	1190
38	2,4,5-Trichlorophenol	196	5.454	5.444	(0.911)	146960	37.8095	1500
40	2-Chloronaphthalene	162	5.584	5.584	(0.933)	322686	25.3089	1000
42	o-Nitroaniline	65	5.642	5.642	(0.943)	117793	26.0957	1030
41	m-Nitroaniline	138	5.935	5.935	(0.992)	66607	20.2187	801
43	Dimethylphthalate	163	5.748	5.752	(0.961)	467733	31.9537	1260
44	2,6-Dinitrotoluene	165	5.805	5.805	(0.970)	101443	30.0072	1190
45	Acenaphthylene	152	5.882	5.887	(0.983)	595164	29.2017	1160
48	2,4-Dinitrophenol	184	6.012	6.008	(1.005)	10505	21.5632	854(Q)
49	Dibenzofuran	168	6.133	6.133	(1.025)	614063	36.0364	1430
51	Diethylphthalate	149	6.253	6.258	(1.045)	515638	34.4145	1360
53	Fluorene	166	6.393	6.393	(1.068)	626903	43.8463	1740
54	4-Chlorophenylphenylether	204	6.369	6.369	(1.064)	226116	31.8230	1260
55	2-Methyl-4,6-dinitrophenol	198	6.412	6.412	(0.897)	20099	17.1075	678(Q)
56	p-Nitroaniline	138	6.393	6.393	(1.068)	97850	32.9906	1310

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.460	6.460	(0.904)	382461	31.4336	1240
58 1,2-Diphenylhydrazine	77	6.494	6.494	(0.908)	478968	31.2897	1240
61 4-Bromophenylphenylether	248	6.754	6.754	(0.945)	132997	31.3204	1240
63 Hexachlorobenzene	284	6.826	6.826	(0.955)	122110	29.5987	1170
68 Phenanthrene	178	7.173	7.168	(1.003)	2296239	108.371	4290(R)
69 Anthracene	178	7.211	7.211	(1.009)	1086771	50.6431	2010
72 Di-n-butylphthalate	149	7.573	7.568	(1.059)	897846	33.2579	1320
76 Fluoranthene	202	8.208	8.203	(1.148)	2390232	103.750	4110(R)
85 Butylbenzylphthalate	149	8.955	8.954	(0.937)	374241	32.7799	1300
89 Benzo(a)anthracene	228	9.542	9.537	(0.999)	1107735	60.8030	2410(R)
90 3,3'-Dichlorobenzidine	252	9.489	9.479	(0.993)	135081	25.4746	1010
92 Chrysene	228	9.581	9.571	(1.003)	982772	60.6212	2400(R)
93 bis(2-Ethylhexyl)phthalate	149	9.475	9.475	(0.992)	511111	35.3466	1400
94 Di-n-octylphthalate	149	10.115	10.110	(0.906)	601814	36.3405	1440
95 Benzo(b)fluoranthene	252	10.678	10.669	(0.956)	734778	63.5309	2520(R)
96 Benzo(k)fluoranthene	252	10.707	10.702	(0.959)	568066	52.2630	2070
97 Benzo(a)pyrene	252	11.097	11.092	(0.994)	572698	60.3894	2390(R)
99 Indeno(1,2,3-cd)pyrene	276	12.884	12.850	(1.153)	372724	54.6560	2160
100 Dibenzo(a,h)anthracene	278	12.903	12.864	(1.155)	236851	43.8269	1740
101 Benzo(ghi)perylene	276	13.428	13.365	(1.202)	302116	53.1221	2100
1 N-Methyl-N-nitrosomethylamine	74	2.391	2.382	(0.618)	62569	14.0902	558

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD7.i/s032310.b/s7c2320.d
Date : 23-MAR-2010 17:09
Client ID: RE16-10-2787MSD
Sample Info: 1120207253719658161|1|SVMI1|MSD_LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

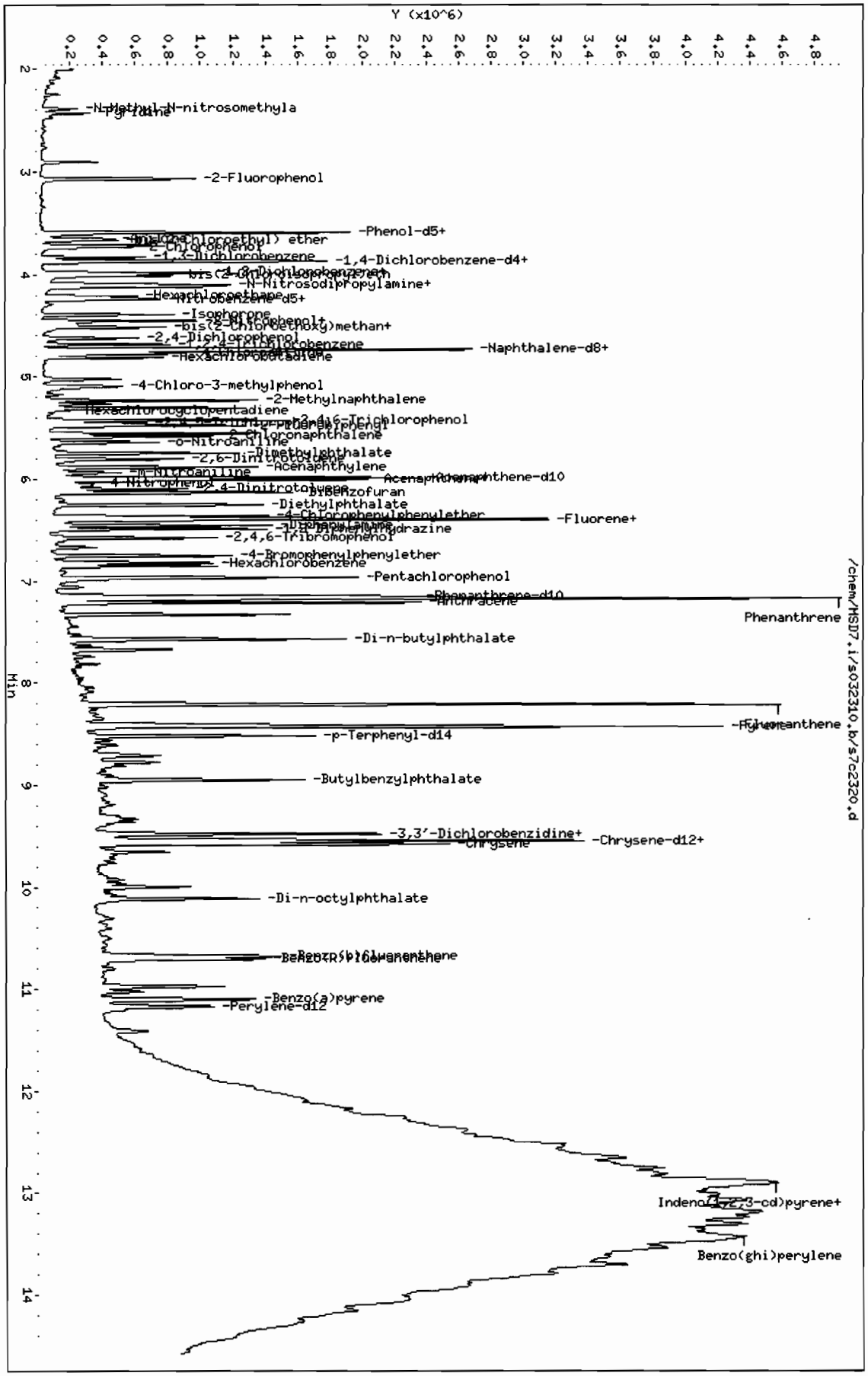

Page 1

FID Diesel Range Organics Analysis

FID Diesel Range Organics
Los Alamos National Laboratory (LANL)
SDG 10-2298
Work Order 248815

Method/Analysis Information

Procedure:	**Analysis of Diesel Range Organics by Flame Ionization Dectector**
Analytical Method:	SW846 8015A/B SVOC
Prep Method:	SW846 3550B
Analytical Batch Number:	966003
Prep Batch Number:	966002

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8015A/B SVOC:

Sample ID	Client ID
248815001	RE46-10-13867
248815002	RE46-10-13864
248815003	RE46-10-13863
248815004	RE46-10-13869
248815005	RE46-10-13861
248815006	RE46-10-13866
248815007	RE46-10-13860
248815008	RE46-10-13865
248815009	RE46-10-13868
248815010	RE46-10-13862
248815011	RE46-10-13873
1202073046	Method Blank (MB)
1202073047	Laboratory Control Sample (LCS)
1202073048	248862002(RE46-10-13782) Matrix Spike (MS)
1202073049	248862002(RE46-10-13782) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-003 REV# 18.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
The following samples fail recovery for surrogate due to matrix interference and dilution. 248815007 (RE46-10-13860), 248815009 (RE46-10-13868) and 248815010 (RE46-10-13862).

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248862002 (RE46-10-13782) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS recovery was within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery was within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Samples 248815005 (RE46-10-13861), 248815006 (RE46-10-13866), 248815007 (RE46-10-13860), 248815009 (RE46-10-13868) and 248815010 (RE46-10-13862) were diluted prior to analysis because the extracts were thick and oily.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Data Exception (DER) Documentation
The following DER was generated for this SDG due to Failed Yield for Surrogates. : 807650

Manual Integrations
Certain standards and QC samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Diesel Range Organics analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
FID7.I	Agilent GC FID	Agilent 6890N GC/FID	DB-5MS	30m x 0.25mm, 0.25um(J&W)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: _____ **Date:** 04-01-10

Sample Data Summary

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13860**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**20**
Run Date:	**03/19/2010 14:09**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**042f4201.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		163	mg/kg	47.7	147

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815005	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13861	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	10
Run Date:	03/19/2010 11:42	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	038f3801.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	75.7	mg/kg	24.6	75.7

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815010	**Date Received:**	03/05/2010 10:20	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13862	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	20
Run Date:	03/19/2010 15:59	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	045f4501.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	62.2	mg/kg	48.7	150

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815003	**Date Received:**	03/05/2010 10:20	**%Moisture:**	11.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13863	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 10:27	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	036f3601.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.52	mg/kg	2.44	7.52

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815002	**Date Received:**	03/05/2010 10:20	**%Moisture:**	14
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13864	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 09:50	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.1 g	**Final Volume:**	1 mL
Data File:	035f3501.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		11.1	mg/kg	2.51	7.73

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815008	**Date Received:**	03/05/2010 10:20	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13865	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 14:45	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	043f4301.d	**Colnmn:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.27	mg/kg	2.36	7.27

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815006	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13866	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	5
Run Date:	03/19/2010 12:18	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	039f3901.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	14.8	mg/kg	11.6	35.8

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13867**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 09:13**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**034f3401.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.22	mg/kg	2.35	7.22

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13868	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	20
Run Date:	03/19/2010 15:22	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	044f4401.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	144	mg/kg	46.8	144

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815004	**Date Received:**	03/05/2010 10:20	**%Moisture:**	8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13869	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 11:04	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	037f3701.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.23	mg/kg	2.35	7.23

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815011	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13873	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 16:36	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.15 g	**Final Volume:**	1 mL
Data File:	046f4601.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	5.49	mg/kg	2.32	7.14

QC Summary

FID Diesel Range Organics

Surrogate Recovery Report

SDG Number: 10-2298

Matrix Type: SOLID

CAP Column (1) : DB-5MS

Sample ID	Client ID	OTP %REC	
1202073046	MB for batch 966002	42	
1202073047	LCS for batch 966002	79	
248815001	RE46-10-13867	41	
248815002	RE46-10-13864	48	
248815003	RE46-10-13863	39	
248815004	RE46-10-13869	33	
248815005	RE46-10-13861	87	D
248815006	RE46-10-13866	100	D
248815007	RE46-10-13860	714 *	D
248815008	RE46-10-13865	40	
248815009	RE46-10-13868	144 *	D
248815010	RE46-10-13862	8	D
248815011	RE46-10-13873	55	

Surrogate	Acceptance Limits
OTP = o-Terphenyl	(8%-121%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

FID Diesel Range Organics

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2298 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 966002 **Matrix:** SOIL

Lab Sample ID: 1202073047

Instrument: FID7.I **Analysis Date:** 03/19/2010 08:36 **Dilution:** 1

Analyst: KXR2 **Prep Batch ID:** 966002

Inj. Vol: 1 uL **Batch ID:** 966003

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg	Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	LCS	Diesel Range Organics	33.3	0.0	25.1	75	44-113

FID Diesel Range Organics
Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2298**	**Sample Type:**	**Matrix Spike**	
Client ID:	**RE46-10-13782MS**	**Matrix:**	**S**	
Lab Sample ID:	**1202073048**	**%Moisture:**	**13.9**	
Instrument:	**FID7.I**	**Analysis Date:**	**03/19/2010 17:50**	**Dilution: 1**
Analyst:	**KXR2**	**Prep Batch ID:**	**966002**	
Inj. Vol:	**1 uL**	**Batch ID:**	**966003**	

CAS No		Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits
DRO	MS	Diesel Range Organics	38.6	0.00	U	30.6	79	23-130

FID Diesel Range Organics

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2298
Client ID: RE46-10-13782MSD
Lab Sample ID: 1202073049
Instrument: FID7.I
Analyst: KXR2
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 13.9
Analysis Date: 03/19/2010 18:27
Prep Batch ID: 966002
Batch ID: 966003
Dilution: 1

CAS No	Parmname	Amount Added mg/kg	Sample Conc. mg/kg		Spike Conc. mg/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
DRO	MSD Diesel Range Organics	38.5	0.00	U	26.2	68	23-130	16	0-30

Method Blank Summary

SDG Number:	10-2298	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 966002	Instrument ID:	FID7.I	Data File:	032f3201.d
Lab Sample ID:	1202073046	Prep Date:	03/17/2010 20:50	Analyzed:	03/19/10 07:59
Column:	DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 966002	1202073047	033f3301.d	03/19/10	0836
02	RE46-10-13867	248815001	034f3401.d	03/19/10	0913
03	RE46-10-13864	248815002	035f3501.d	03/19/10	0950
04	RE46-10-13863	248815003	036f3601.d	03/19/10	1027
05	RE46-10-13869	248815004	037f3701.d	03/19/10	1104
06	RE46-10-13861	248815005	038f3801.d	03/19/10	1142
07	RE46-10-13866	248815006	039f3901.d	03/19/10	1218
08	RE46-10-13860	248815007	042f4201.d	03/19/10	1409
09	RE46-10-13865	248815008	043f4301.d	03/19/10	1445
10	RE46-10-13868	248815009	044f4401.d	03/19/10	1522
11	RE46-10-13862	248815010	045f4501.d	03/19/10	1559
12	RE46-10-13873	248815011	046f4601.d	03/19/10	1636

Sample Data

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815007	**Date Received:**	03/05/2010 10:20	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13860	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	20
Run Date:	03/19/2010 14:09	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.14 g	**Final Volume:**	1 mL
Data File:	042f4201.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		163	mg/kg	47.7	147

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/042f4201.d
Lab Smp Id: 248815007 Client Smp ID: RE46-10-13860
Inj Date : 19-MAR-2010 14:09
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248815007|20|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 42
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.14000	Weigth of sample extracted (g)
M	9.53460	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.415- 17.722			2908204	222.278	163	(M)
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.496	13.532	-0.036	179529	7.14441	5.2	(RM)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /ohem/fid7.i/031810dr/042f4201.d

Date : 19-MAR-2010 14:09

Client ID: RE46-10-13860

Sample Info: |2488150071201

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

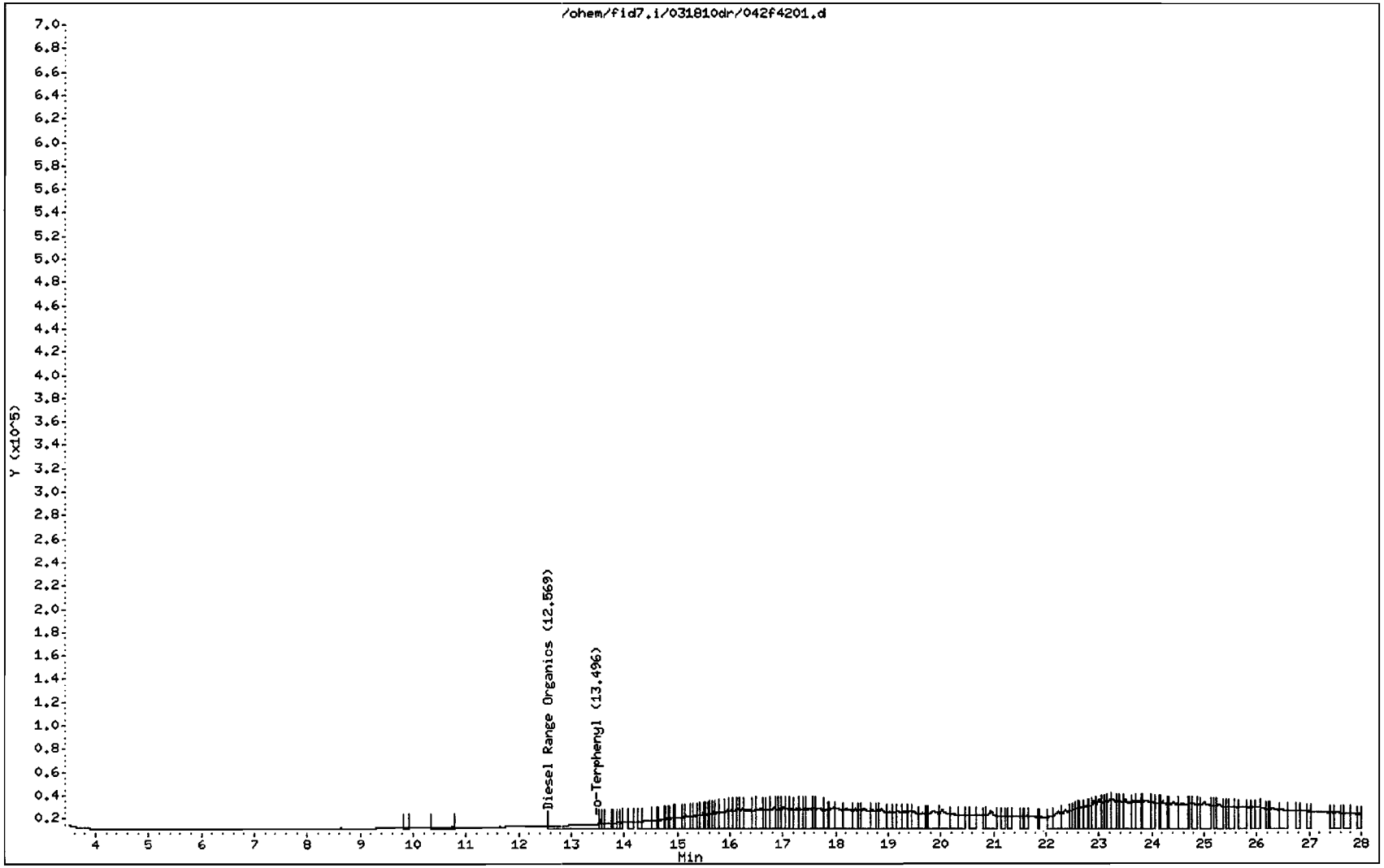

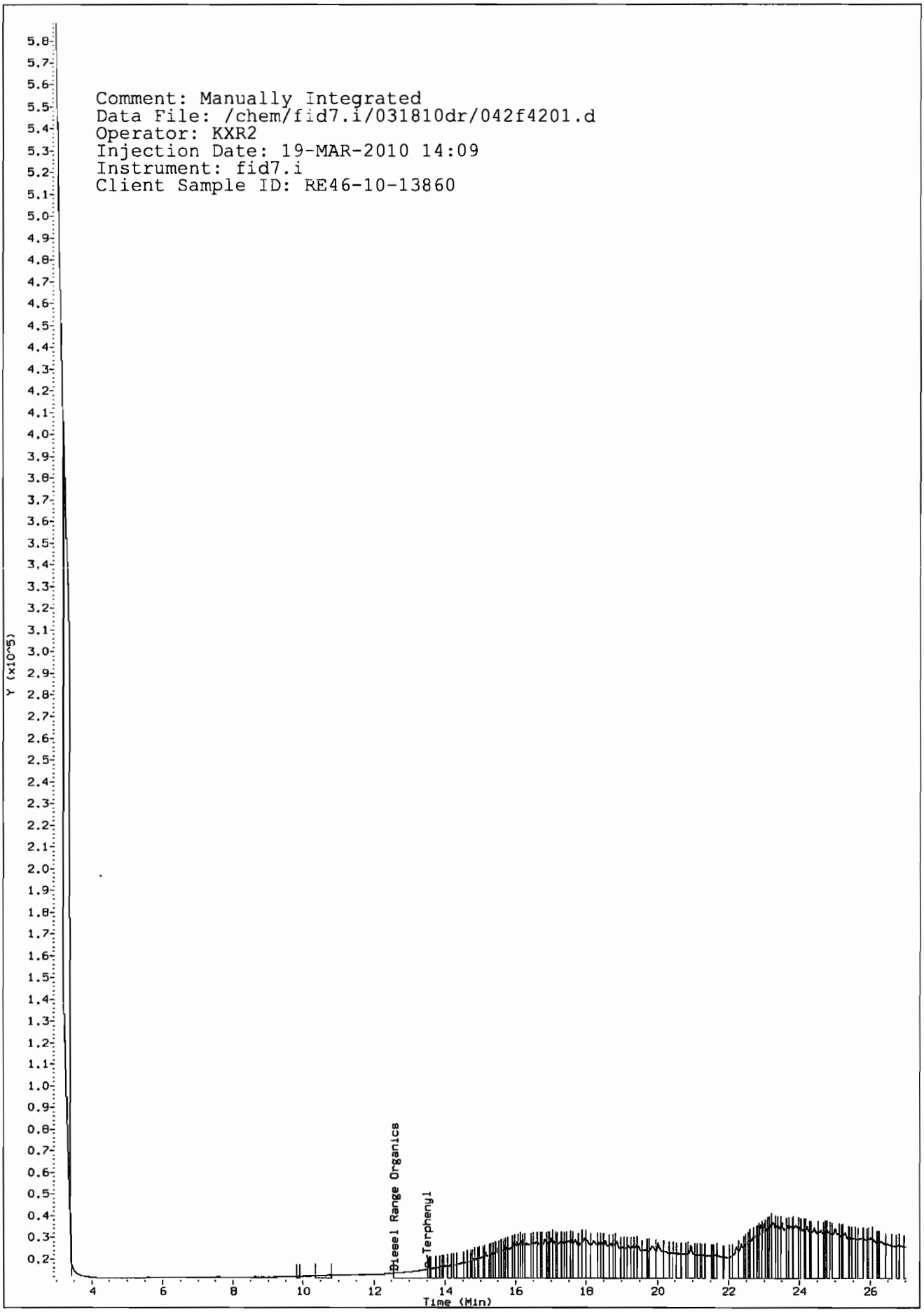
Comment: Manually Integrated
Data File: /chem/fid7.i/031810dr/042f4201.d
Operator: KXR2
Injection Date: 19-MAR-2010 14:09
Instrument: fid7.i
Client Sample ID: RE46-10-13860
Diesel Range Organics
Terphenyl
Y (x10^5)
Time (Min)

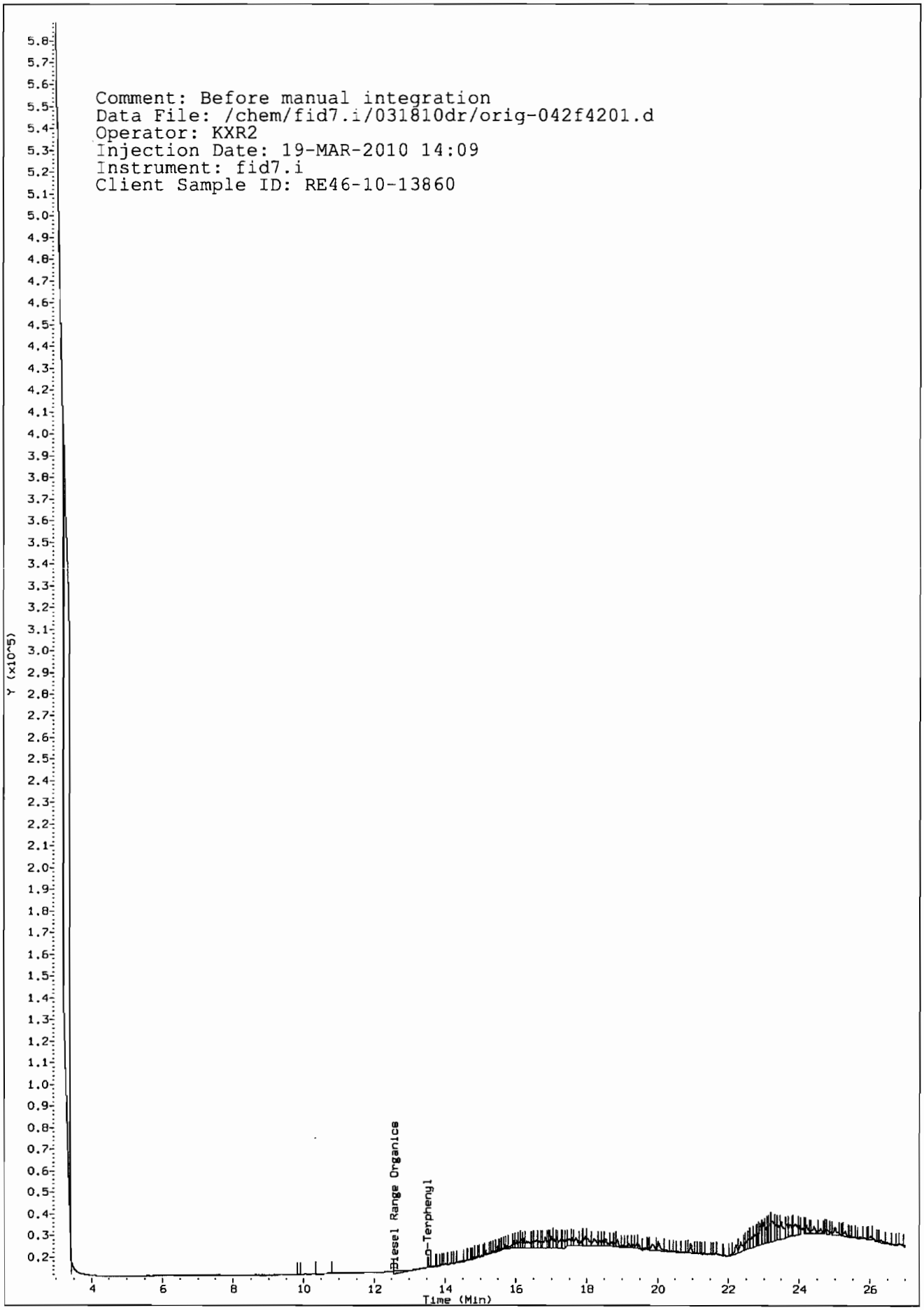
Comment: Before manual integration
Data File: /chem/fid7.i/031810dr/orig-042f4201.d
Operator: KXR2
Injection Date: 19-MAR-2010 14:09
Instrument: fid7.i
Client Sample ID: RE46-10-13860
Y (x10^5)
Diesel Range Organics
o-Terphenyl
Time (Min)

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815005	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13861	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	10
Run Date:	03/19/2010 11:42	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	038f3801.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	75.7	mg/kg	24.6	75.7

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/038f3801.d
Lab Smp Id: 248815005 Client Smp ID: RE46-10-13861
Inj Date : 19-MAR-2010 11:42
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248815005|10|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 38
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weigth of sample extracted (g)
M	12.06310	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.538	13.532	0.006	43723	1.74000	0.66

Data File: /chem/fid7.i/031810dr/038f3801.d
Date : 19-MAR-2010 11:42
Client ID: RE46-10-13861
Sample Info: |2488150051|0|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

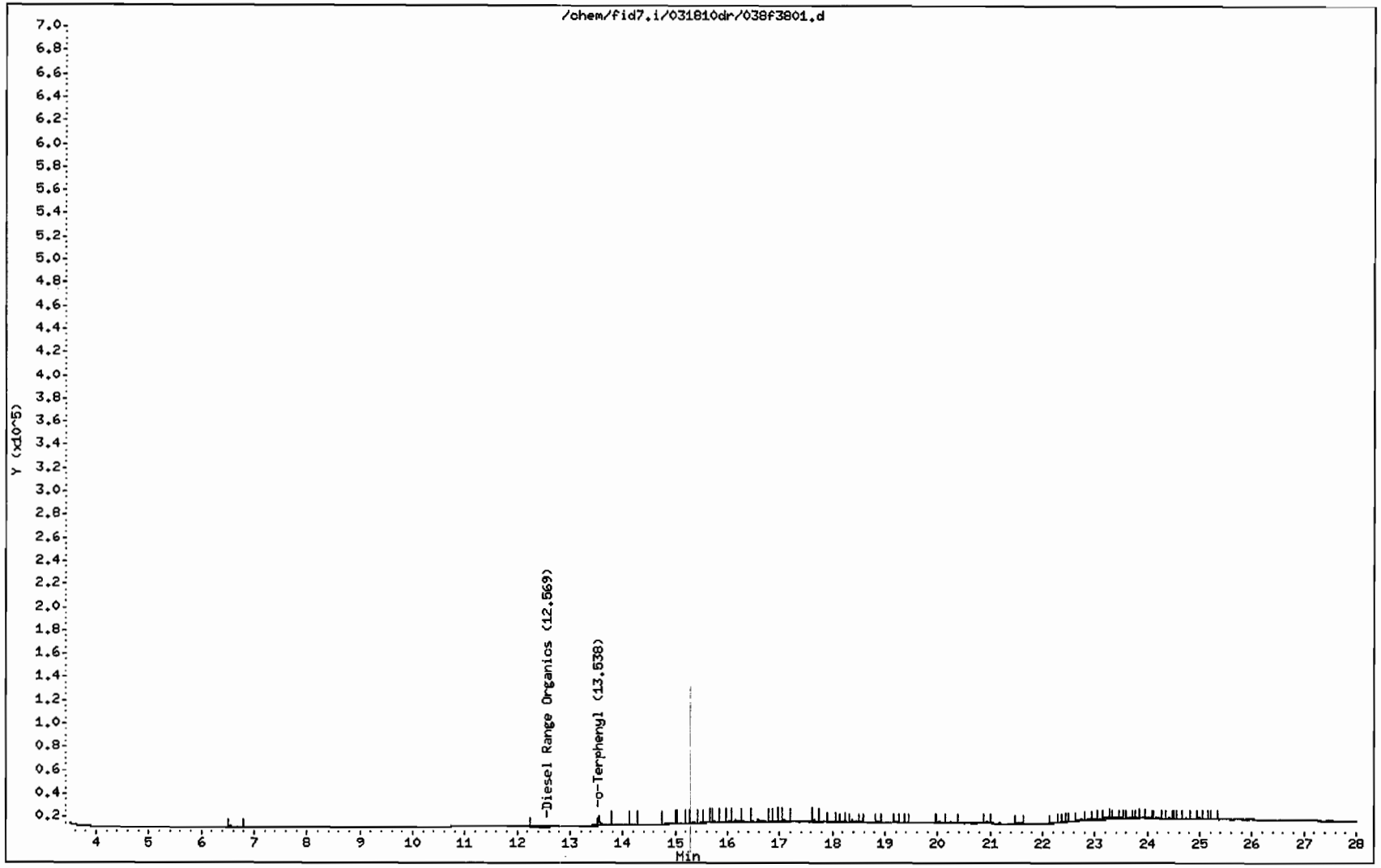

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815010	**Date Received:**	03/05/2010 10:20	**%Moisture:**	11.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13862	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	20
Run Date:	03/19/2010 15:59	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	045f4501.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	62.2	mg/kg	48.7	150

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/045f4501.d
Lab Smp Id: 248815010 Client Smp ID: RE46-10-13862
Inj Date : 19-MAR-2010 15:59
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248815010|20|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 45
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weigth of sample extracted (g)
M	11.33080	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.415- 17.722			1086612	83.0512	62.2	(aM)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.523	13.532	-0.009	2001	0.07966	0.060	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/031810dr/045f4501.d

Page 1

Date : 19-MAR-2010 15:59

Client ID: RE46-10-13862

Instrument: fid7.i

Sample Info: |2488150101201

Volume Injected (uL): 1.0

Operator: KXR2

Column phase: DB-5MS

Column diameter: 0.25

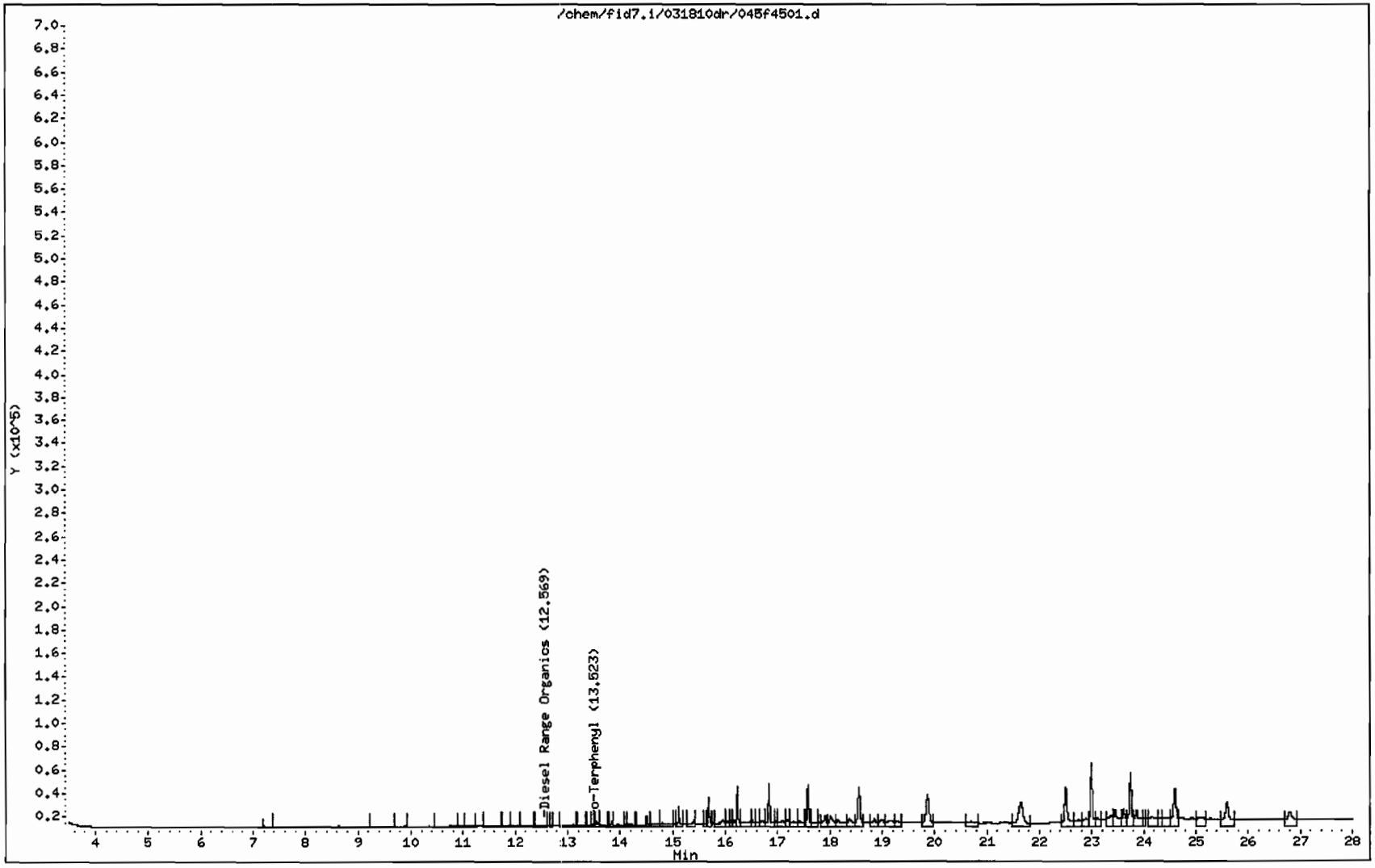

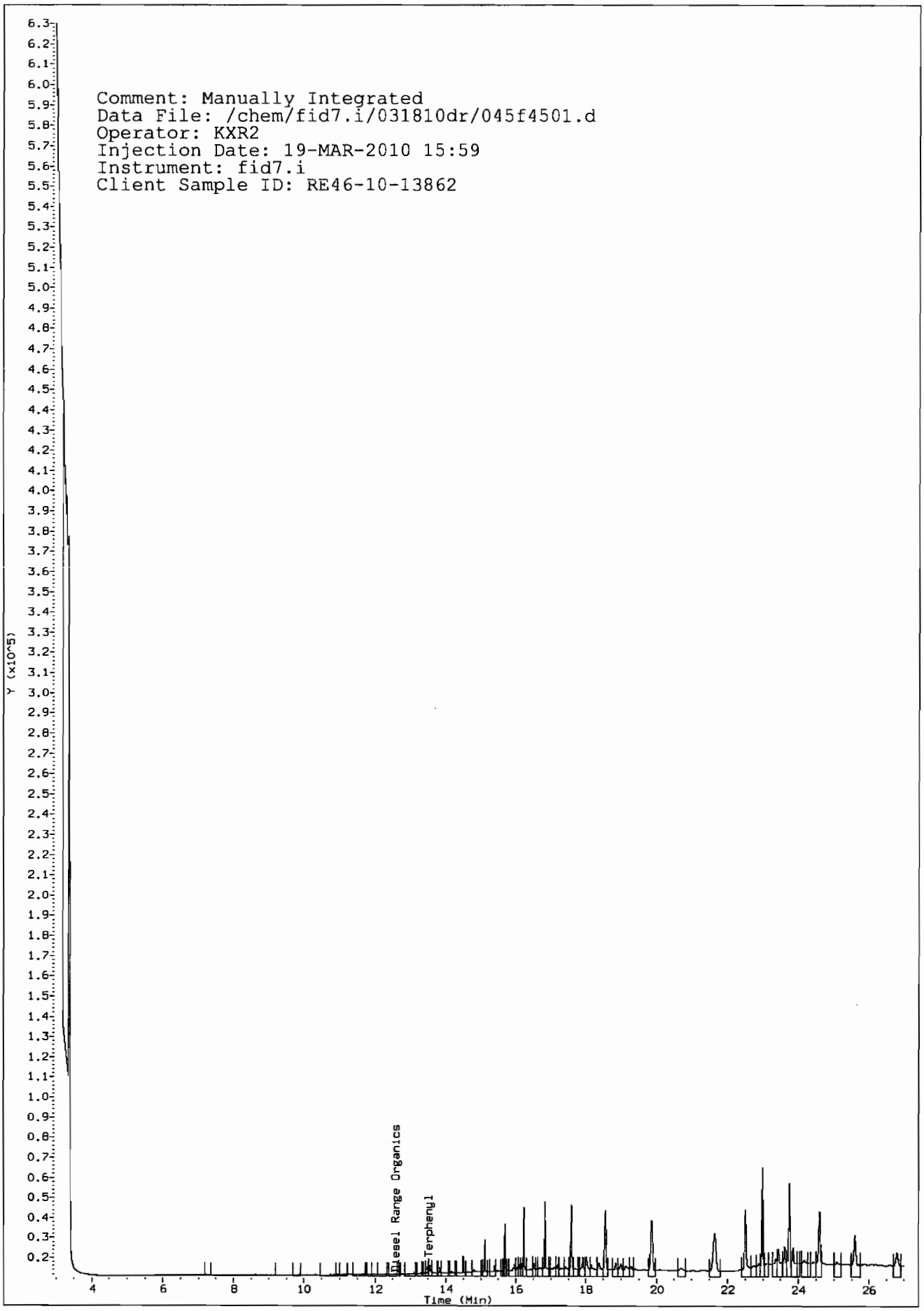
Comment: Manually Integrated
Data File: /chem/fid7.i/031810dr/045f4501.d
Operator: KXR2
Injection Date: 19-MAR-2010 15:59
Instrument: fid7.i
Client Sample ID: RE46-10-13862
Diesel Range Organics
Terphenyl
Y (x10^5)
Time (Min)

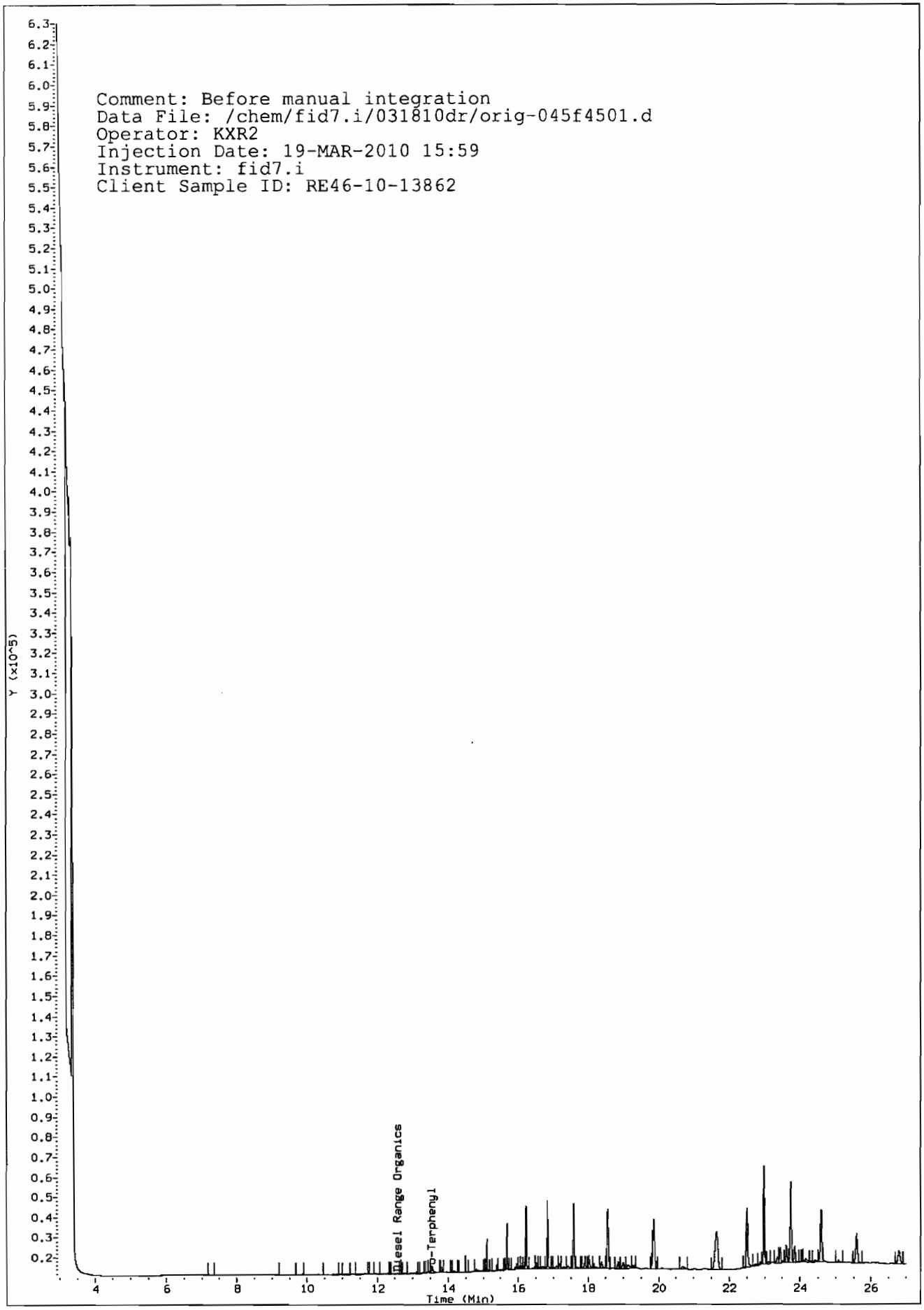
Comment: Before manual integration
Data File: /chem/fid7.i/031810dr/orig-045f4501.d
Operator: KXR2
Injection Date: 19-MAR-2010 15:59
Instrument: fid7.i
Client Sample ID: RE46-10-13862
Diesel Range Organics
o-Terphenyl
Y (x10^5)
Time (Min)

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815003	**Date Received:**	03/05/2010 10:20	**%Moisture:**	11.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13863	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.1	**Dilution:**	1
Run Date:	03/19/2010 10:27	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	036f3601.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.52	mg/kg	2.44	7.52

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/036f3601.d
Lab Smp Id: 248815003 Client Smp ID: RE46-10-13863
Inj Date : 19-MAR-2010 10:27
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248815003|1|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 36
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weigth of sample extracted (g)
M	11.47850	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.531	13.532	-0.001	194820	7.75291	0.29

Data File: /chem/fid7.i/031810dr/036f3601.d

Date : 19-MAR-2010 10:27

Client ID: RE46-10-13863

Sample Info: |248815003|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Page 1

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

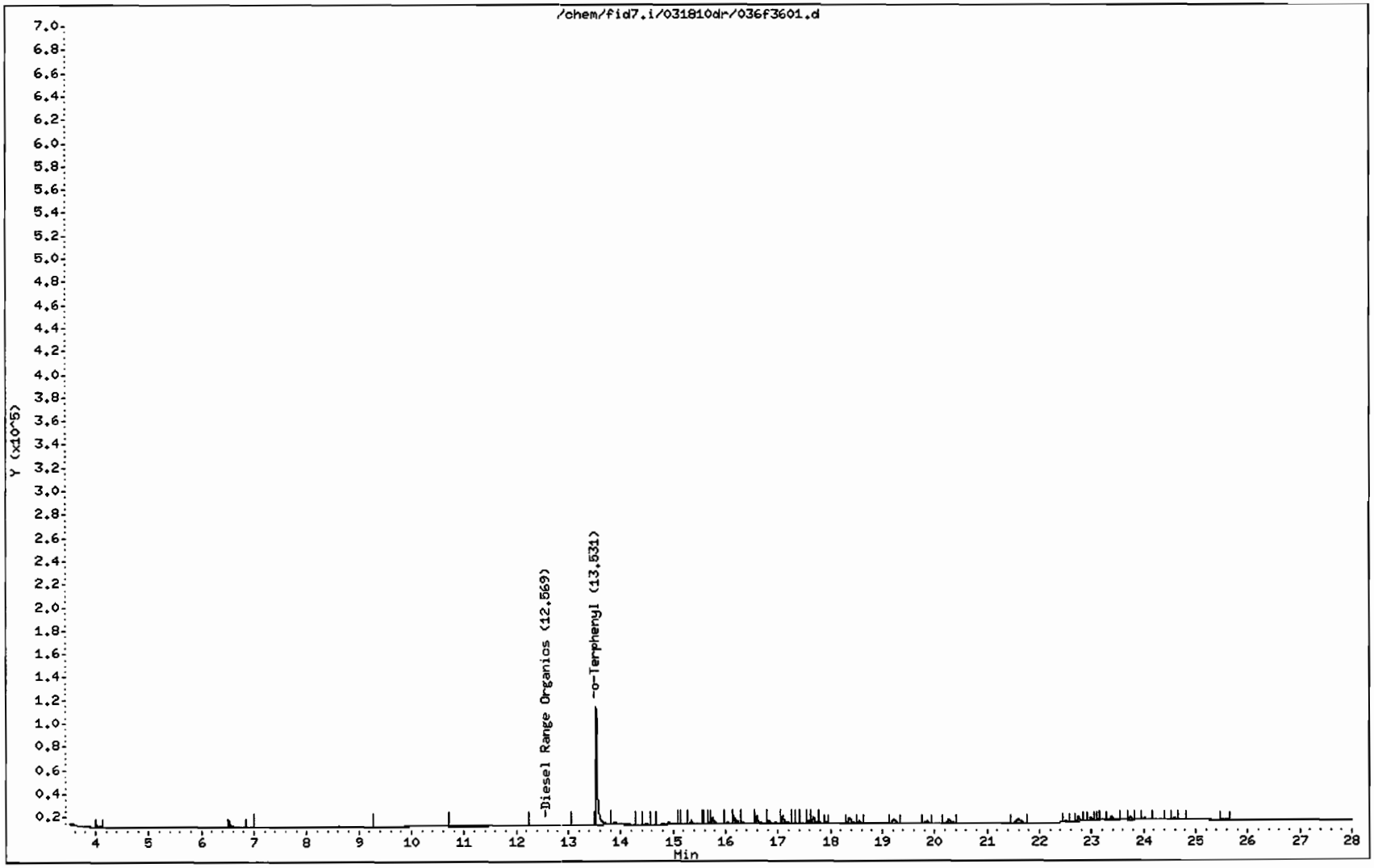

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815002	**Date Received:**	03/05/2010 10:20	**%Moisture:**	14
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13864	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 09:50	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.1 g	**Final Volume:**	1 mL
Data File:	035f3501.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		11.1	mg/kg	2.51	7.73

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/035f3501.d
Lab Smp Id: 248815002 Client Smp ID: RE46-10-13864
Inj Date : 19-MAR-2010 09:50
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248815002|1|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.10000	Weigth of sample extracted (g)
M	14.04900	% Moisture

Cpnd Variable Local Compound Variable

	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S	1 Diesel Range Organics					CAS #:	
	7.415- 17.722			3748251	286.484	11.1	
$	2 o-Terphenyl					CAS #: 84-15-1	
	13.527	13.532	-0.005	243618	9.69487	0.37	(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/fid7.i/031810dr/035f3501.d

Date : 19-MAR-2010 09:50

Client ID: RE46-10-13864

Sample Info: |248815002|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

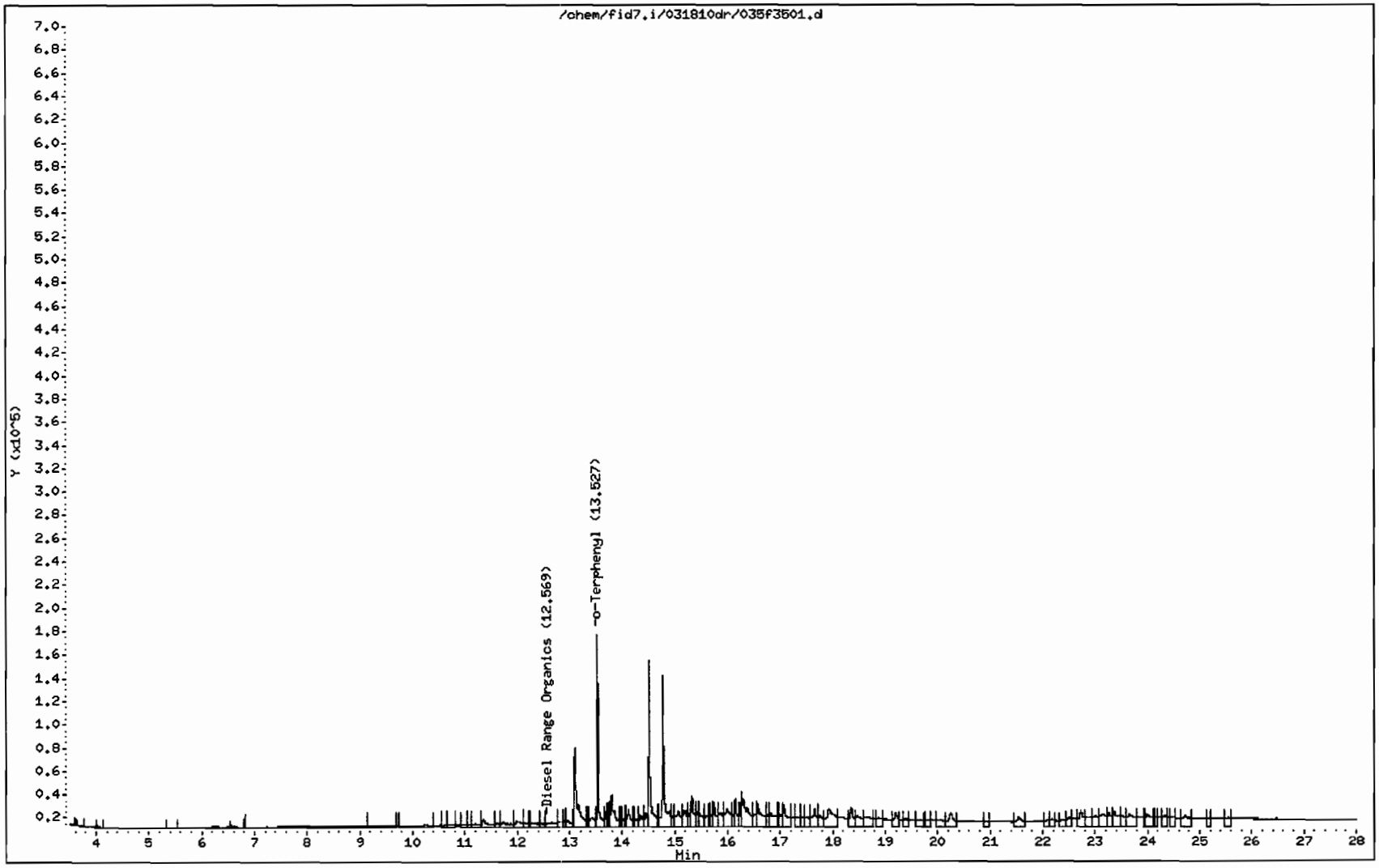

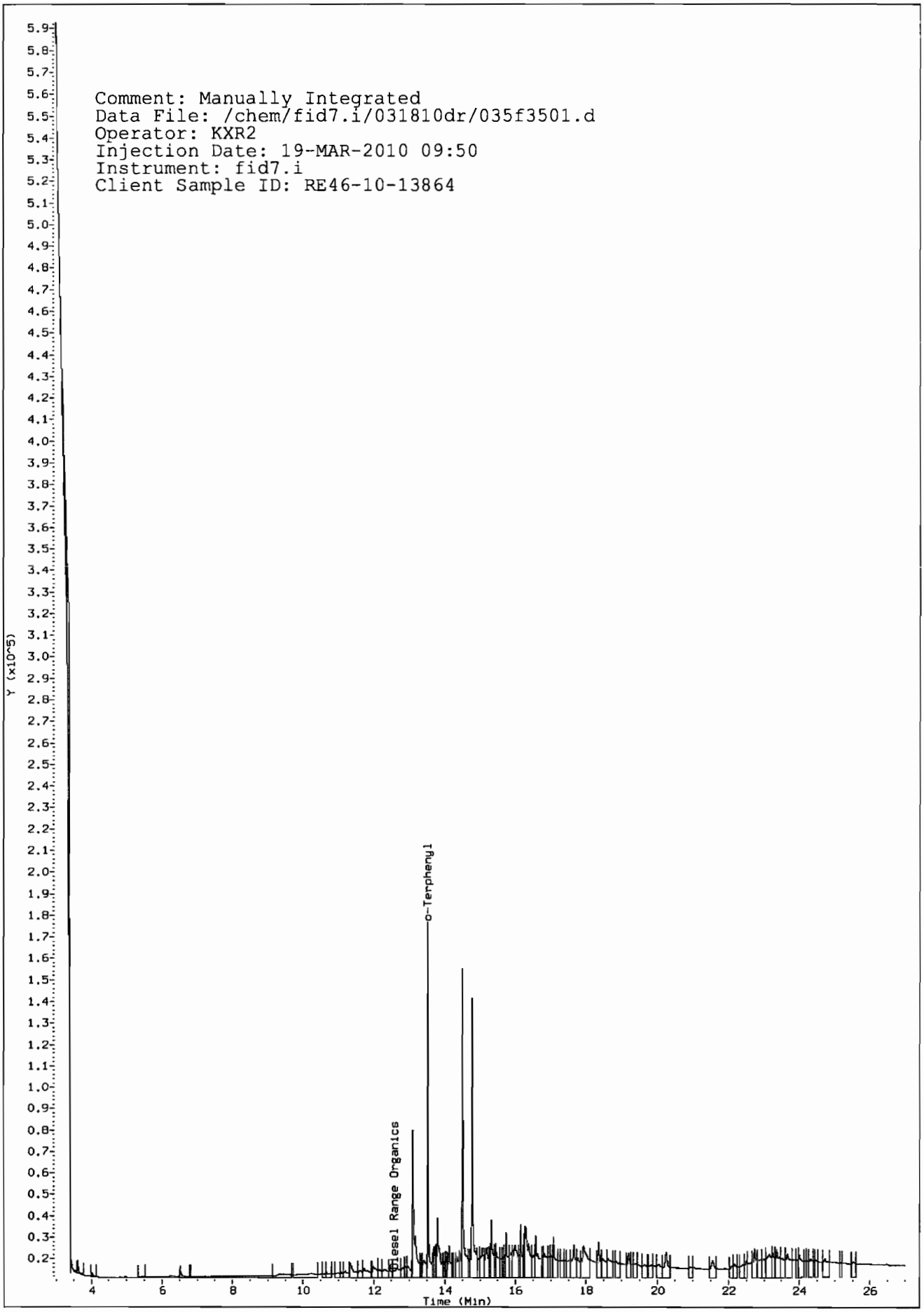
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Data File: /chem/fid7.i/031810dr/035f3501.d
Operator: KXR2
Injection Date: 19-MAR-2010 09:50
Instrument: fid7.i
Client Sample ID: RE46-10-13864
o-Terphenyl
Diesel Range Organics
Y (x10^5)
Time (Min)

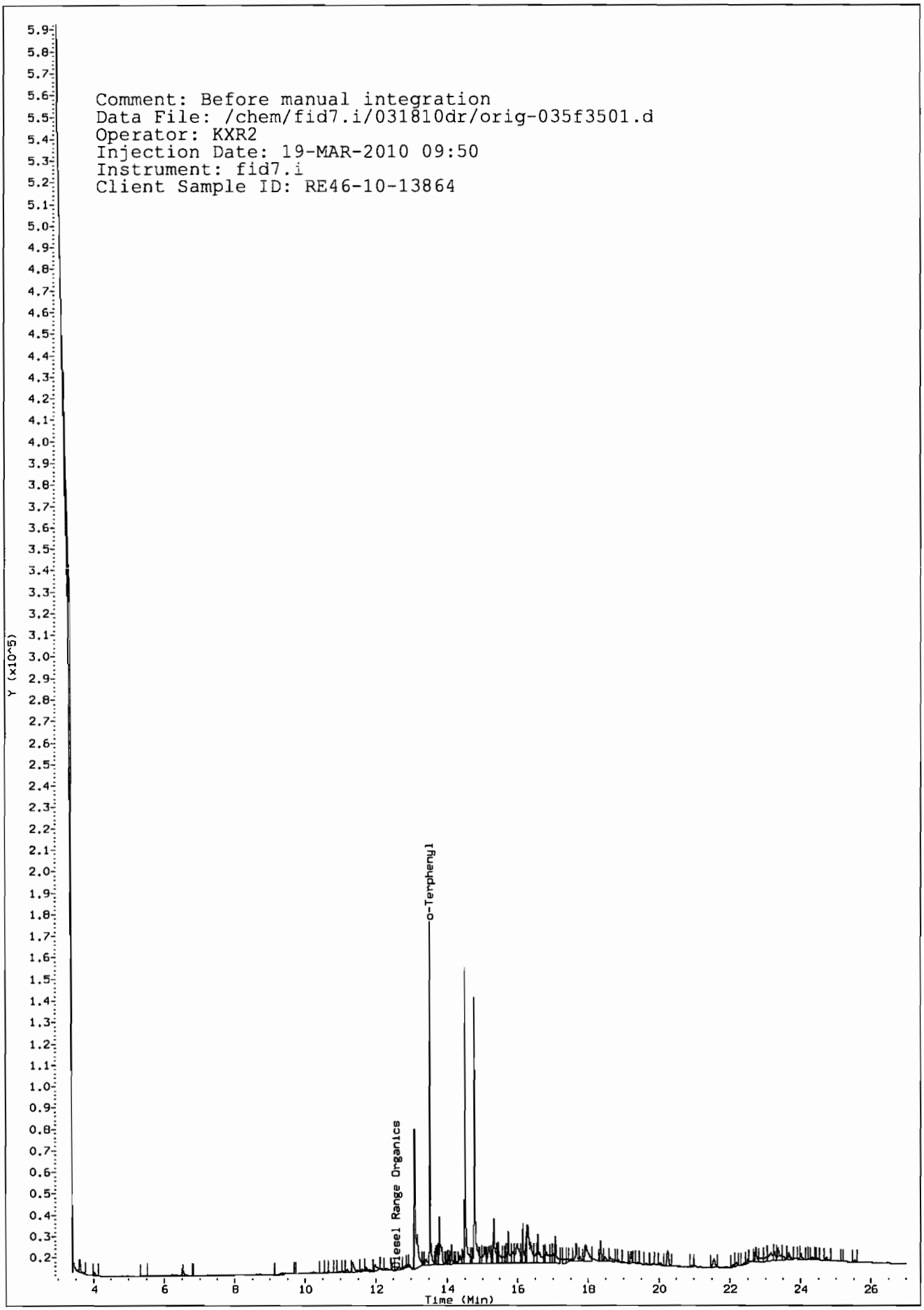
Comment: Before manual integration
Data File: /chem/fid7.i/031810dr/orig-035f3501.d
Operator: KXR2
Injection Date: 19-MAR-2010 09:50
Instrument: fid7.i
Client Sample ID: RE46-10-13864
o-Terphenyl
Diesel Range Organics
Y (x10^5)
Time (Min)

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815008	**Date Received:**	03/05/2010 10:20	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13865	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 14:45	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	043f4301.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.27	mg/kg	2.36	7.27

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/043f4301.d
Lab Smp Id: 248815008 Client Smp ID: RE46-10-13865
Inj Date : 19-MAR-2010 14:45
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248815008|1|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weigth of sample extracted (g)
M	8.45250	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.531	13.532	-0.001	200873	7.99382	0.29

Data File: /chem/fid7.i/031810dr/043f4301.d

Page 1

Date : 19-MAR-2010 14:45

Client ID: RE46-10-13865

Instrument: fid7.i

Sample Info: |248815008|1|

Volume Injected (uL): 1.0

Operator: KXR2

Column phase: DB-5MS

Column diameter: 0.25

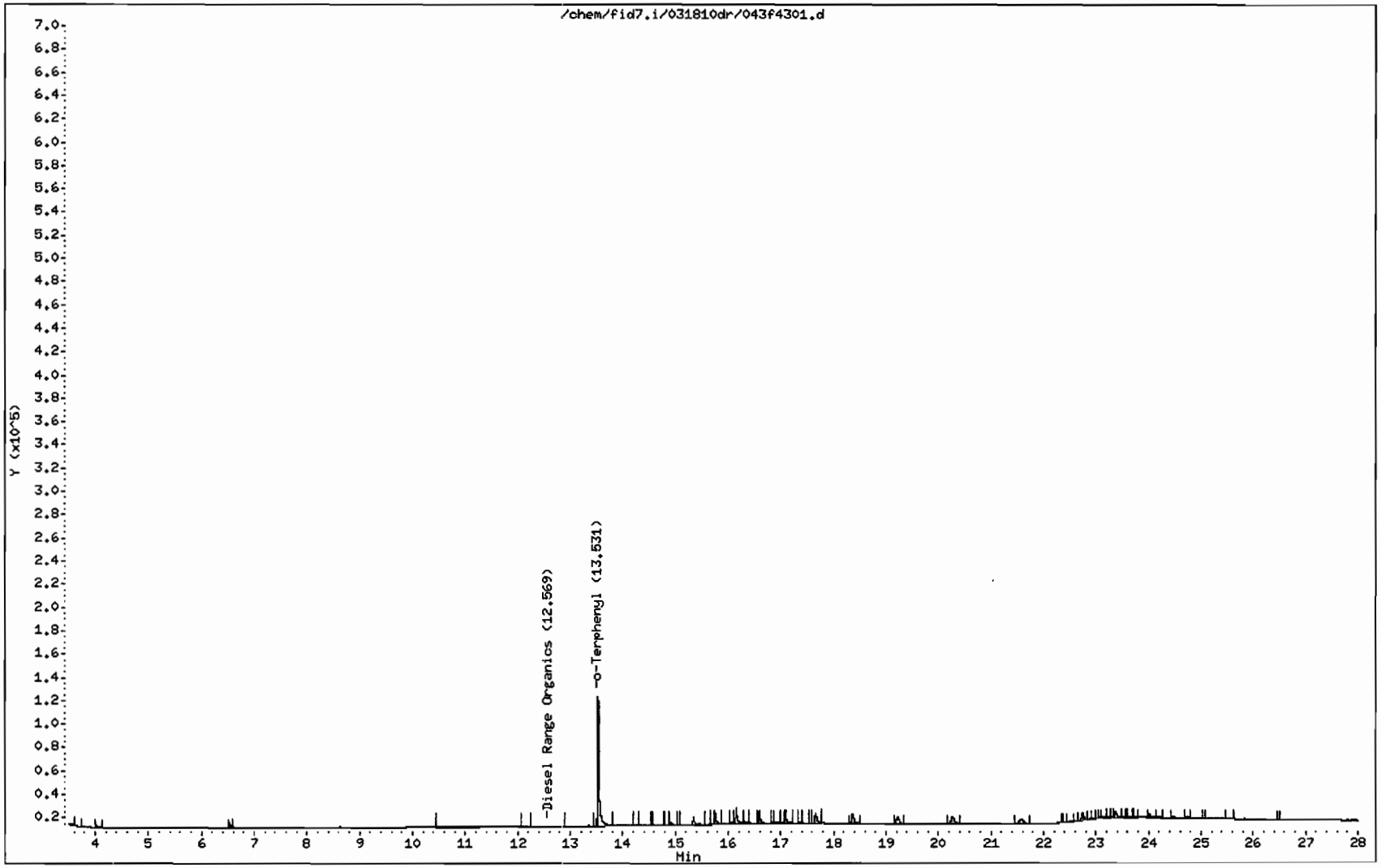

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815006	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13866	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	5
Run Date:	03/19/2010 12:18	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	039f3901.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	14.8	mg/kg	11.6	35.8

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/039f3901.d
Lab Smp Id: 248815006 Client Smp ID: RE46-10-13866
Inj Date : 19-MAR-2010 12:18
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248815006|5|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 39
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weigth of sample extracted (g)
M	7.08890	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.415- 17.722			1085353	82.9550	14.8	(aM)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.508	13.532	-0.024	100678	4.00652	0.72	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/031810dr/039f3901.d
Date : 19-MAR-2010 12:18
Client ID: RE46-10-13866
Sample Info: 1248815006151
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

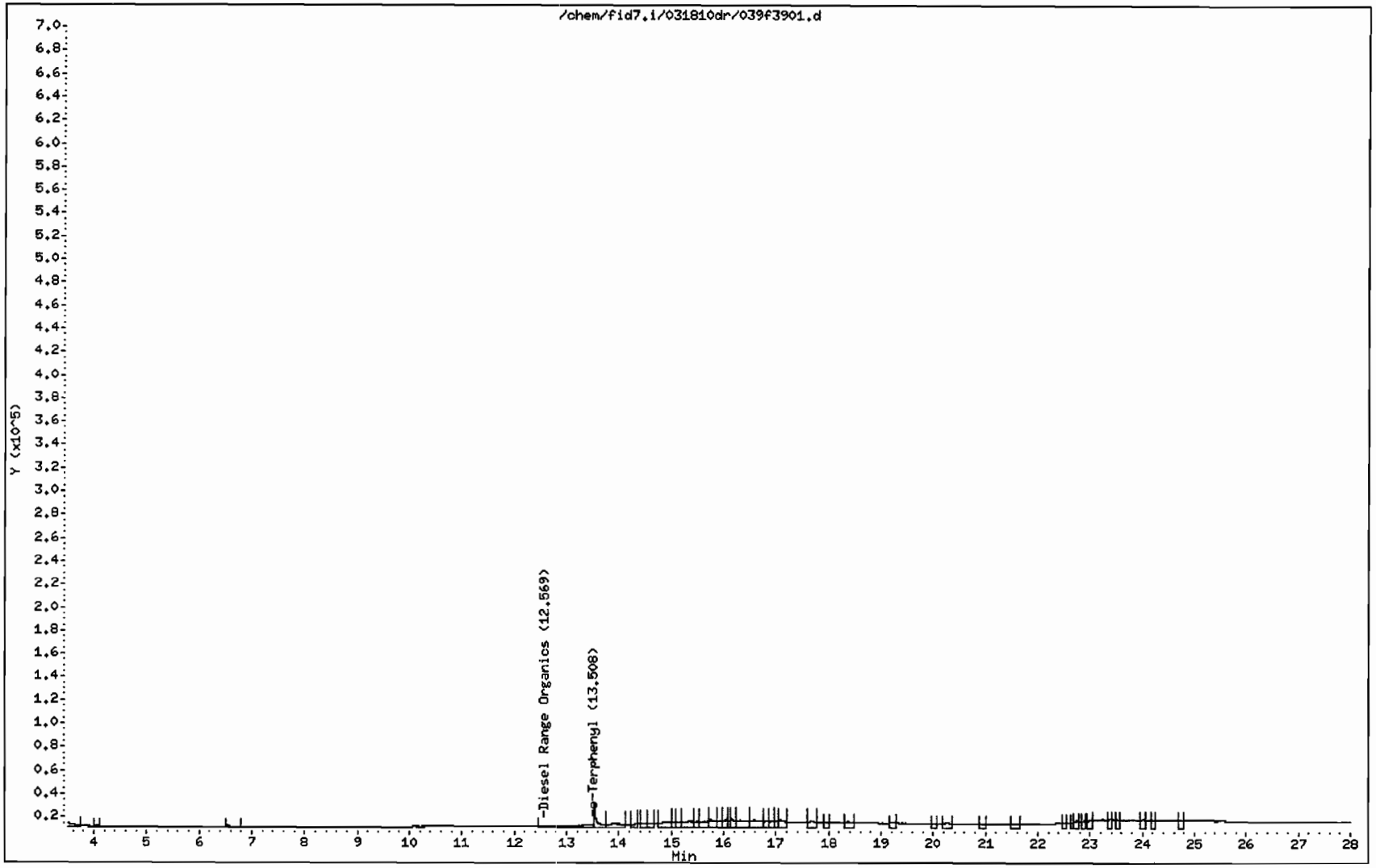

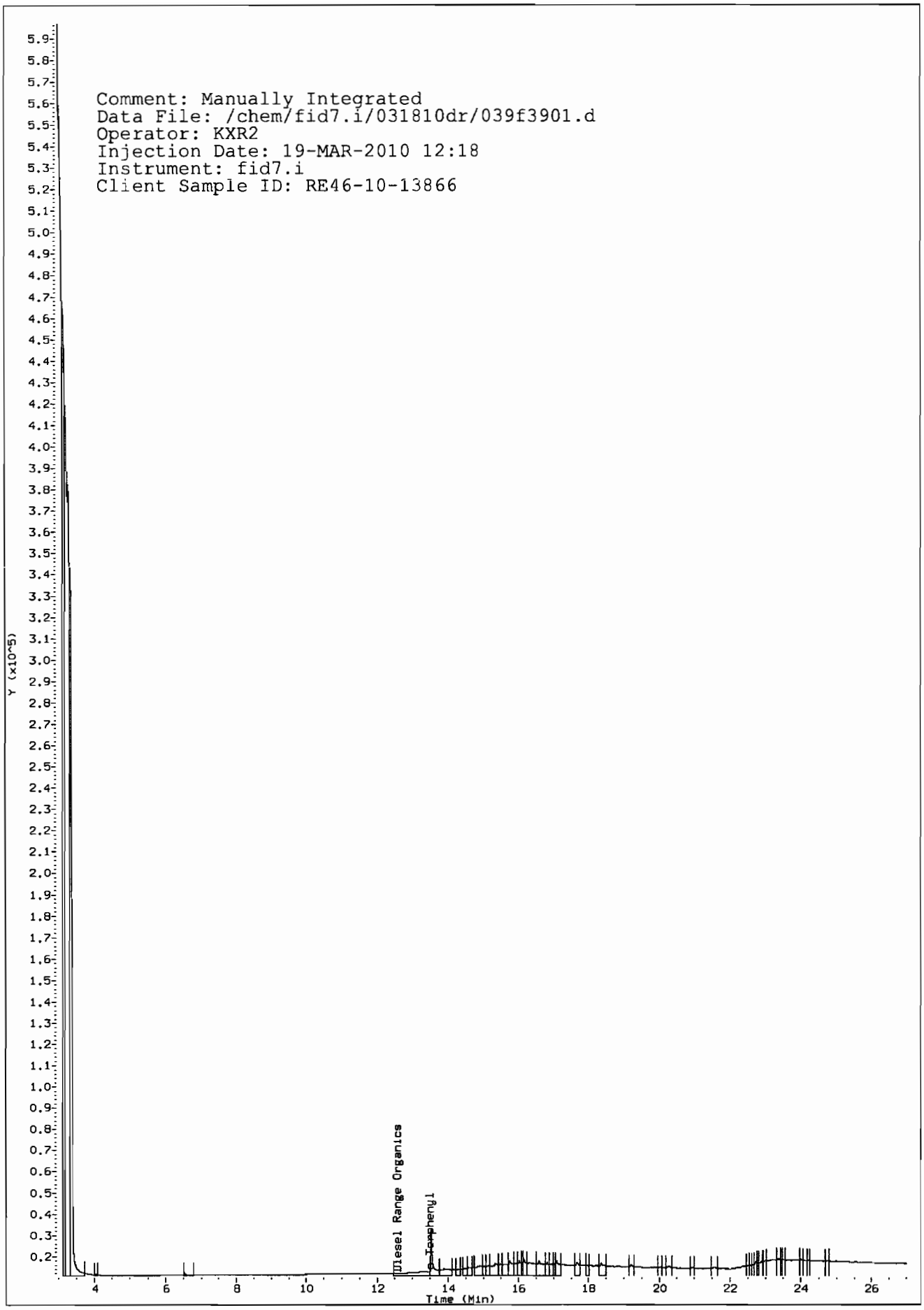
Comment: Manually Integrated
Data File: /chem/fid7.i/031810dr/039f3901.d
Operator: KXR2
Injection Date: 19-MAR-2010 12:18
Instrument: fid7.i
Client Sample ID: RE46-10-13866
Diesel Range Organics
Terphenyl
Y (x10^5)
Time (Min)

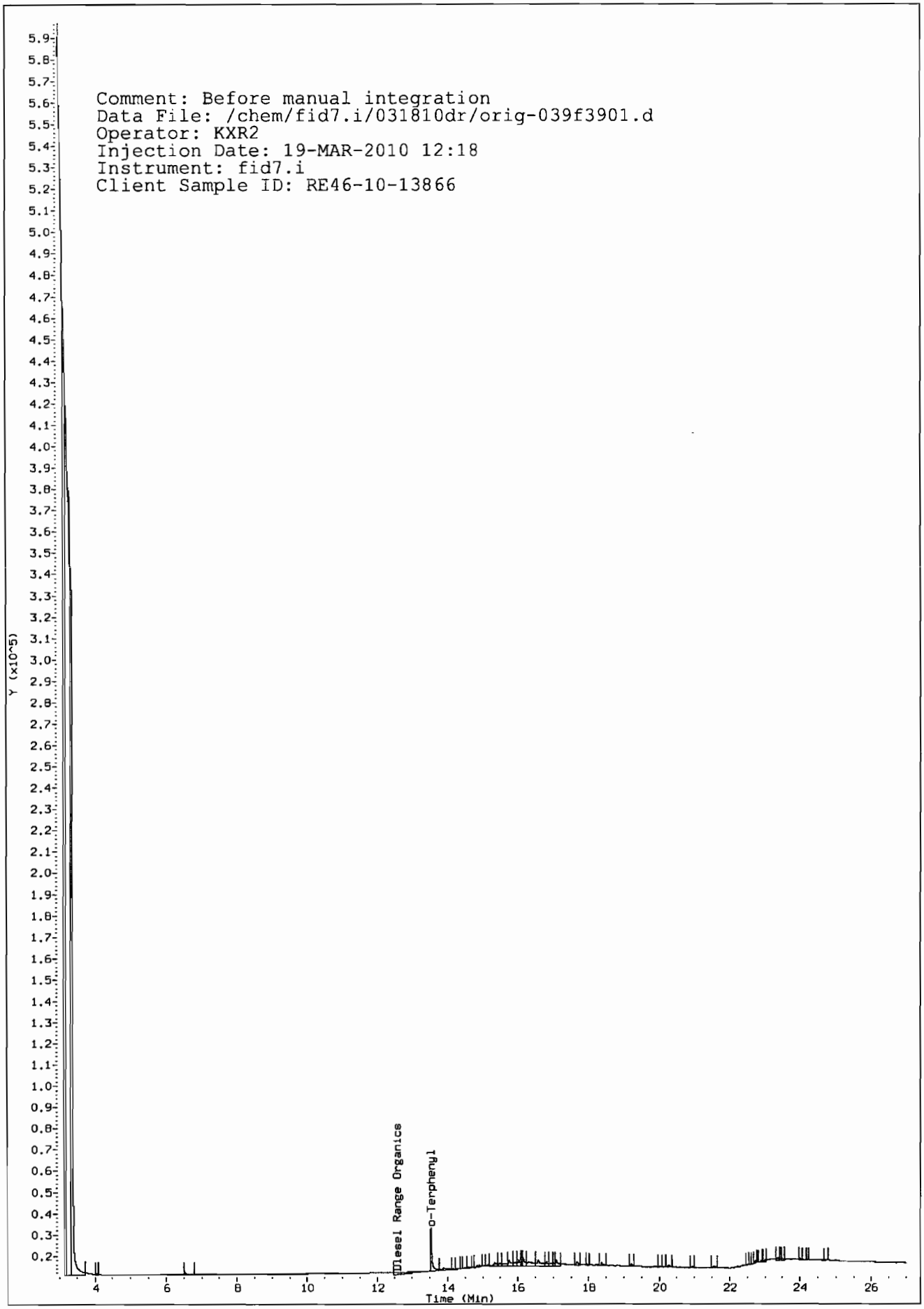
Comment: Before manual integration
Data File: /chem/fid7.i/031810dr/orig-039f3901.d
Operator: KXR2
Injection Date: 19-MAR-2010 12:18
Instrument: fid7.i
Client Sample ID: RE46-10-13866
Diesel Range Organics
o-Terphenyl
Y (x10^5)
Time (Min)

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815001	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13867	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 09:13	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	034f3401.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.22	mg/kg	2.35	7.22

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/034f3401.d
Lab Smp Id: 248815001 Client Smp ID: RE46-10-13867
Inj Date : 19-MAR-2010 09:13
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248815001|1|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weigth of sample extracted (g)
M	7.89670	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.531	13.532	-0.001	206984	8.23698	0.30

Data File: /chem/fid7.i/031810dr/034f3401.d

Page 1

Date : 19-MAR-2010 09:13

Client ID: RE46-10-13867

Instrument: fid7.i

Sample Info: |248815001|1|

Volume Injected (uL): 1.0

Operator: KXR2

Column phase: DB-5MS

Column diameter: 0.25

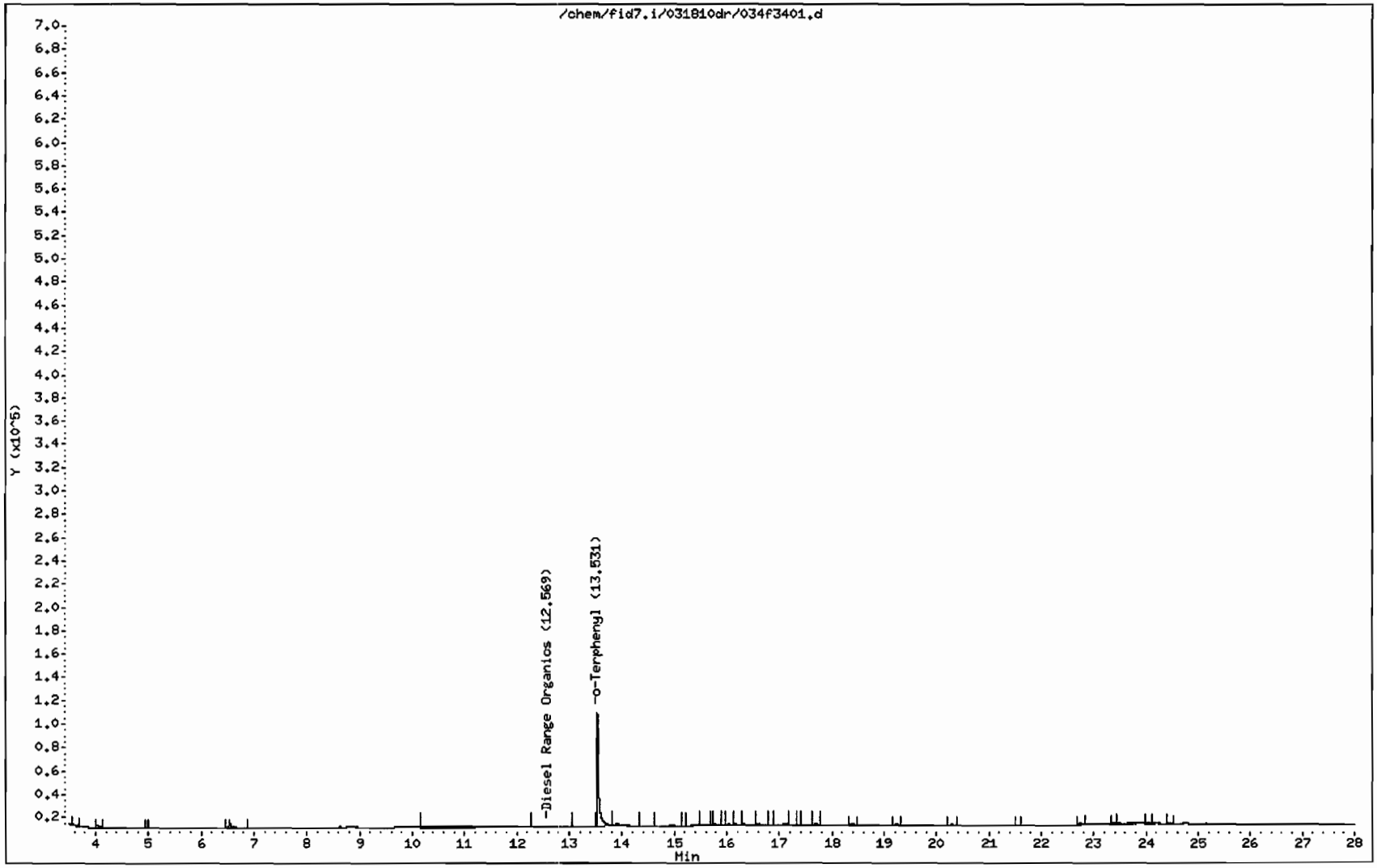

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13868	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	20
Run Date:	03/19/2010 15:22	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	044f4401.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	144	mg/kg	46.8	144

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/044f4401.d
Lab Smp Id: 248815009 Client Smp ID: RE46-10-13868
Inj Date : 19-MAR-2010 15:22
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248815009|20|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 44
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weigth of sample extracted (g)
M	7.71220	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.548	13.532	0.016	36276	1.44364	1.0	(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/fid7.i/031810dr/044f4401.d

Page 1

Date : 19-MAR-2010 15:22

Client ID: RE46-10-13868

Instrument: fid7.i

Sample Info: |2488150091201

Volume Injected (uL): 1.0

Operator: KXR2

Column phase: DB-5MS

Column diameter: 0.25

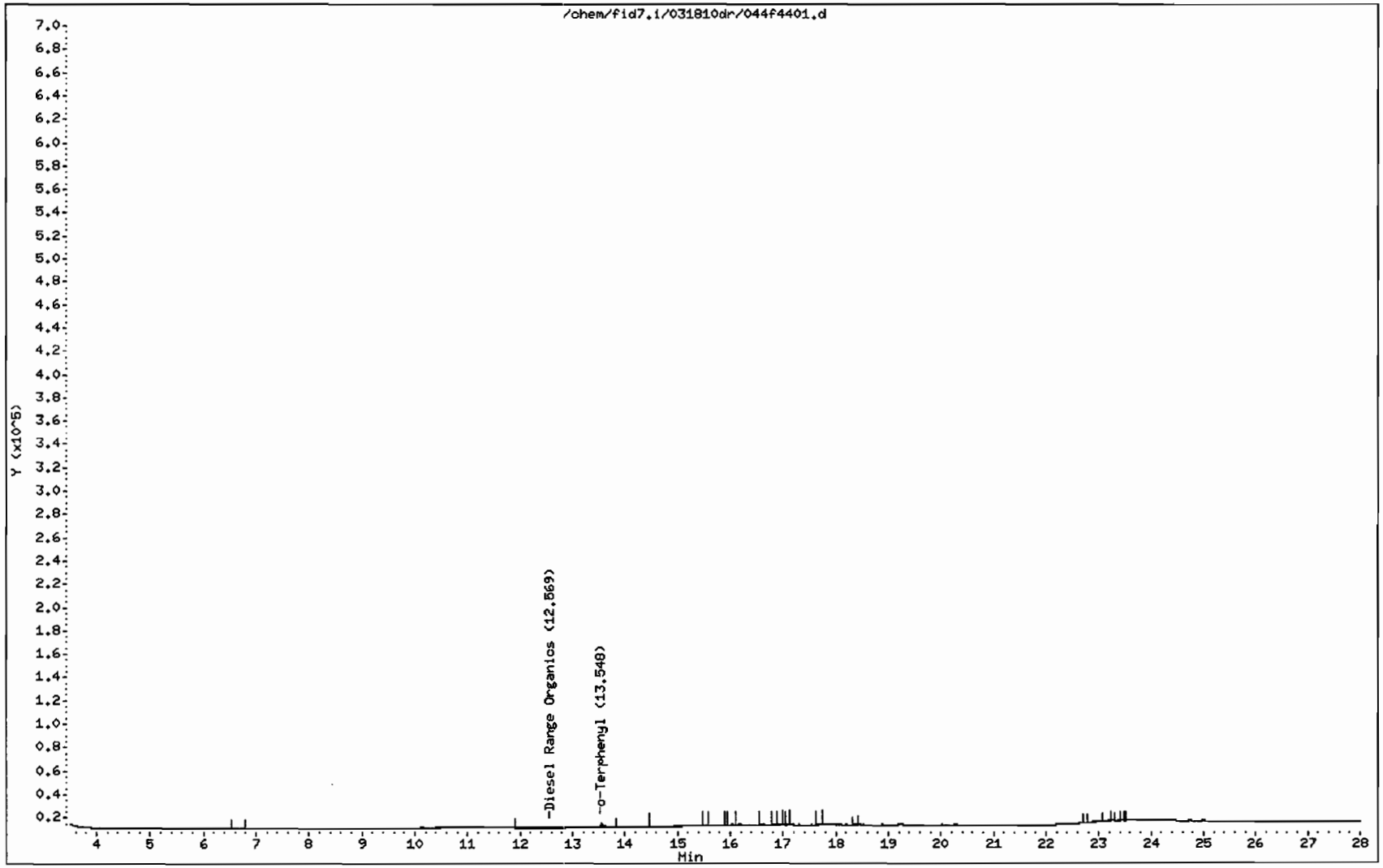

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815004	**Date Received:**	03/05/2010 10:20	**%Moisture:**	8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13869	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.1	**Dilution:**	1
Run Date:	03/19/2010 11:04	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	037f3701.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	7.23	mg/kg	2.35	7.23

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/037f3701.d
Lab Smp Id: 248815004 Client Smp ID: RE46-10-13869
Inj Date : 19-MAR-2010 11:04
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248815004|1|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weigth of sample extracted (g)
M	7.99070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.533	13.532	0.001	166899	6.64180	0.24

Data File: /chem/fid7.i/031810dr/037f3701.d

Page 1

Date : 19-MAR-2010 11:04

Client ID: RE46-10-13869

Instrument: fid7.i

Sample Info: |2488150041|1|

Volume Injected (uL): 1.0

Operator: KXR2

Column phase: DB-5MS

Column diameter: 0.25

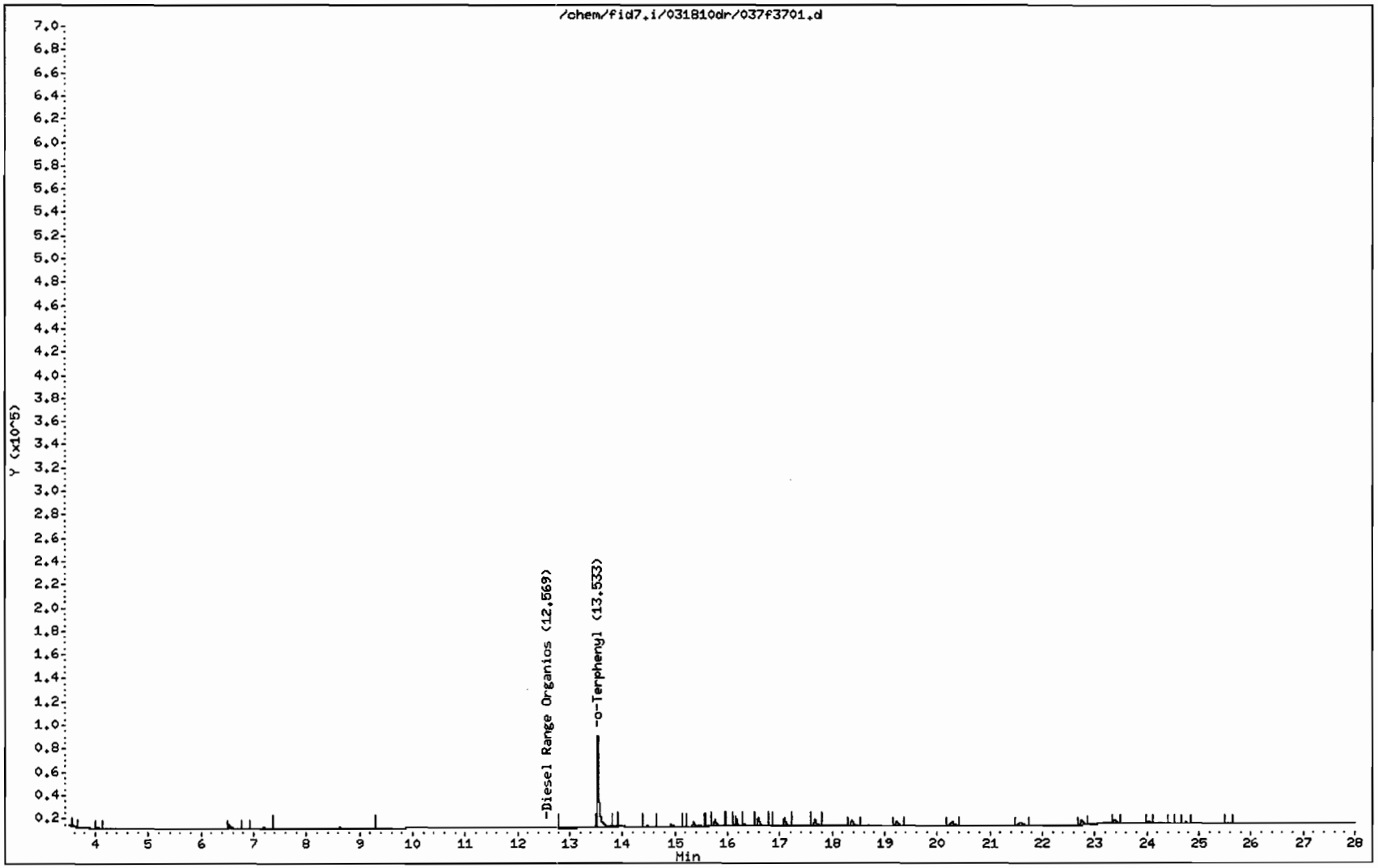

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815011	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13873	**Method:**	SW846 8015A/B SVOC	**SOP Ref:**	GL-OA-E-003
Batch ID:	966003	**Inst:**	FID7.I	**Dilution:**	1
Run Date:	03/19/2010 16:36	**Analyst:**	KXR2	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 20:50	**Aliquot:**	30.15 g	**Final Volume:**	1 mL
Data File:	046f4601.d	**Column:**	DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	J	5.49	mg/kg	2.32	7.14

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/046f4601.d
Lab Smp Id: 248815011 Client Smp ID: RE46-10-13873
Inj Date : 19-MAR-2010 16:36
Operator : KXR2 Inst ID: fid7.i
Smp Info : |248815011|1|
Misc Info : |FIDDRO_S|966003|DROQ|LANL|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 46
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.15000	Weigth of sample extracted (g)
M	7.06960	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)	
S 1 Diesel Range Organics					CAS #:	
7.415- 17.722			2012425	153.812	5.5	(a)
$ 2 o-Terphenyl					CAS #: 84-15-1	
13.529	13.532	-0.003	276110	10.9879	0.39	(M)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/fid7.i/031810dr/046f4601.d
Date : 19-MAR-2010 16:36
Client ID: RE46-10-13873
Sample Info: |248815011|1|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i
Operator: KXR2
Column diameter: 0.25

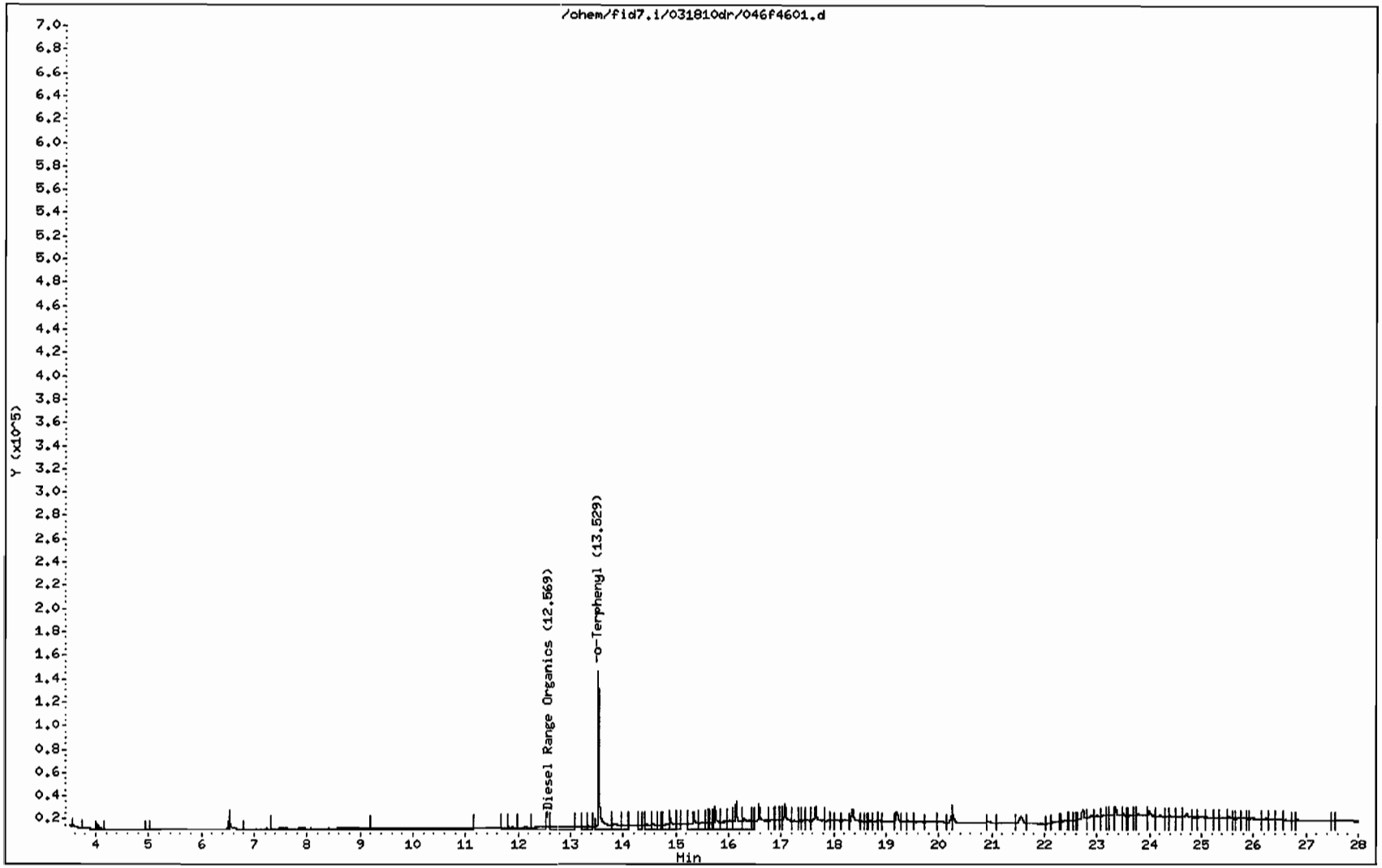

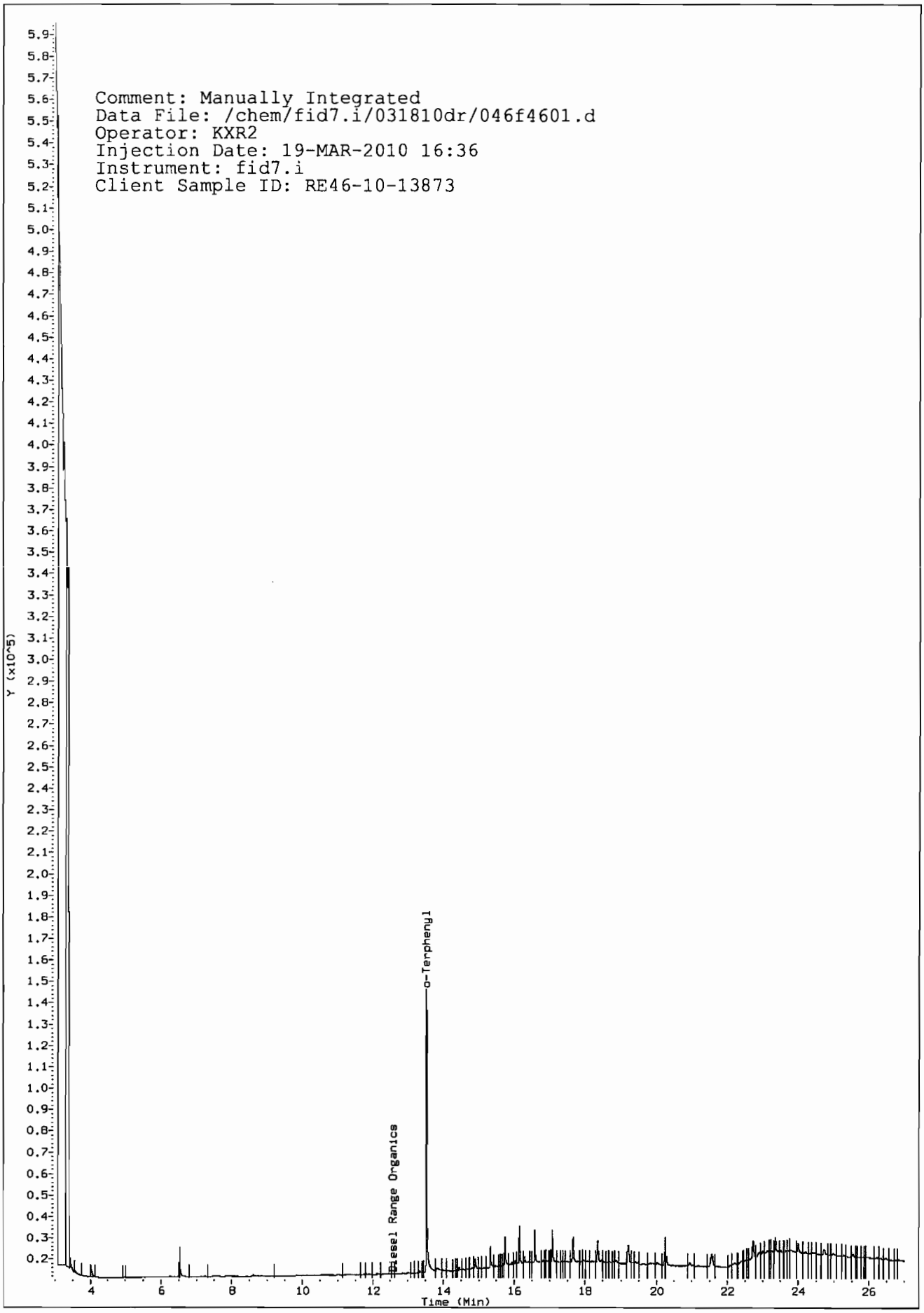
Comment: Manually Integrated
Data File: /chem/fid7.i/031810dr/046f4601.d
Operator: KXR2
Injection Date: 19-MAR-2010 16:36
Instrument: fid7.i
Client Sample ID: RE46-10-13873
Y (x10^5)
Time (Min)
Diesel Range Organics
o-Terphenyl

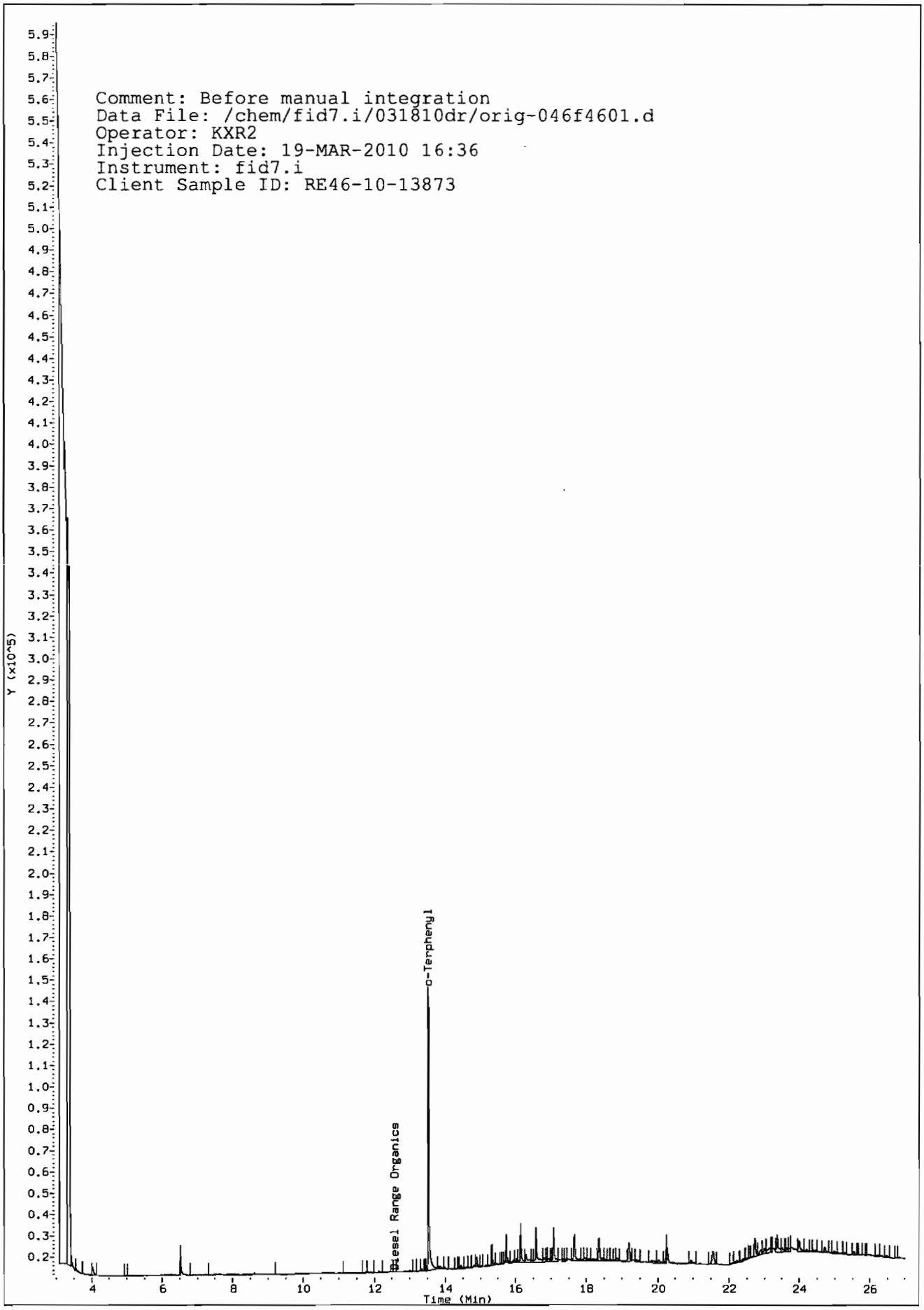
Comment: Before manual integration
Data File: /chem/fid7.i/031810dr/orig-046f4601.d
Operator: KXR2
Injection Date: 19-MAR-2010 16:36
Instrument: fid7.i
Client Sample ID: RE46-10-13873
Diesel Range Organics
o-Terphenyl
Y (x10^5)
Time (Min)

Standard Data

Report Date: 22-Mar-2010 11:22

Calibration History

Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Start Cal Date: 11-MAR-2010 14:05
End Cal Date : 11-MAR-2010 16:33

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 3 , Cal Amount: 200.00000		
11-MAR-2010 14:05	dro	/chem/fid7.i/031110dr/003f0301.d
Cal Level: 4 , Cal Amount: 500.00000		
11-MAR-2010 14:42	dro	/chem/fid7.i/031110dr/004f0401.d
Cal Level: 5 , Cal Amount: 1000.00000		
11-MAR-2010 15:19	dro	/chem/fid7.i/031110dr/005f0501.d
Cal Level: 6 , Cal Amount: 2000.00000		
11-MAR-2010 15:56	dro	/chem/fid7.i/031110dr/006f0601.d
Cal Level: 7 , Cal Amount: 5000.00000		
11-MAR-2010 16:33	dro	/chem/fid7.i/031110dr/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 1000		
19-MAR-2010 19:04	dro	/chem/fid7.i/031810dr/050f5001.d
Ccal Level: 5 , Ccal Amount: 1000		
19-MAR-2010 12:55	dro	/chem/fid7.i/031810dr/040f4001.d
Ccal Level: 5 , Ccal Amount: 1000		
19-MAR-2010 06:45	dro	/chem/fid7.i/031810dr/030f3001.d
Ccal Level: 5 , Ccal Amount: 1000		
19-MAR-2010 01:14	dro	/chem/fid7.i/031810dr/021f2101.d
Ccal Level: 5 , Ccal Amount: 1000		
18-MAR-2010 19:04	dro	/chem/fid7.i/031810dr/011f1101.d
Ccal Level: 5 , Ccal Amount: 1000		
18-MAR-2010 13:10	dro	/chem/fid7.i/031810dr/003f0301.d

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COMPOUND LISTING

Method file : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Quant Method : ESTD Target Version : 3.50
Last Update : 22-Mar-2010 10:14 Number of Cpnds : 6
Data Type : GC DATA

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	100.000000
Initial:End Threshold	50.000000
Initial:Area Threshold	100.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	11.000000
Initial:Negative Peaks	OFF
Initial:Tension	7.000000
5.000:Force Cluster ON	n/a
17.000:Force Cluster OFF	n/a
17.371:Tension	1.000000

	Compound	RT	RT Window	RF
	3 Decane (C10)	7.437	7.407-7.467	
S	1 Diesel Range Organics	12.569	7.415-17.722	1.308e+04
$	2 o-Terphenyl	13.532	13.502-13.562	2.513e+04
	4 Octacosane (C28)	17.672	17.642-17.702	
S	75 JP-4	6.750	3.500-10.000	
S	76 Motor oil	17.000	14.000-20.000	

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INITIAL CALIBRATION DATA

Start Cal Date : 11-MAR-2010 14:05
End Cal Date : 11-MAR-2010 16:33
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Cal Date : 22-Mar-2010 10:14 kev01577
Curve Type : Average

Calibration File Names:
Level 3: /chem/fid7.i/031110dr/003f0301.d
Level 4: /chem/fid7.i/031110dr/004f0401.d
Level 5: /chem/fid7.i/031110dr/005f0501.d
Level 6: /chem/fid7.i/031110dr/006f0601.d
Level 7: /chem/fid7.i/031110dr/007f0701.d

Compound	200.000 Level 3	500.000 Level 4	1000.000 Level 5	2000.000 Level 6	5000.000 Level 7	___ RRF	% RSD
3 Decane (C10)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S 1 Diesel Range Organics	12016	12573	13899	13696	13234	13084	5.997
4 Octacosane (C28)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S 75 JP-4	+++++	+++++	+++++	+++++	+++++	+++++	+++++
S 76 Motor oil	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 2 o-Terphenyl	23465	24862	25111	25585	26620	25129	4.569

Continuing Calibration Summary

Client SDG: 10-2298

Instrument ID: FID7.I

Injection Date: 18-MAR-10 13:10

Data File: /chem/fid7.i/031810dr/003f0301.d

Init. Cal. Date(s) 11-MAR-10 14:42 - 11-MAR-10 16:33

Lab Sample ID UFI100302-01 D1

Method: /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m

Column ID: DB-5MS

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Diesel Range Organics	13083.65	12433.37	1000	-4.97	15		Averaged
o-Terphenyl(Surr)	25128.64	21777.32	25	-13.34	15		Averaged

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/003f0301.d
Lab Smp Id: UFI100302-01 D1 Client Smp ID: DSTD01
Inj Date : 18-MAR-2010 13:10
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI100302-01 D1
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S 1 Diesel Range Organics					CAS #:
7.415- 17.722			12433372	1000.00	950
$ 2 o-Terphenyl					CAS #: 84-15-1
13.532	13.532	0.000	544433	25.0000	21.7

Data File: /chem/fid7.i/031810dr/003f0301.d

Page 1

Date : 18-MAR-2010 13:10

Client ID: DSTD01

Instrument: fid7.i

Sample Info: IUFI100302-01 D1

Operator: KXR2

Column phase: DB-5MS

Column diameter: 0.25

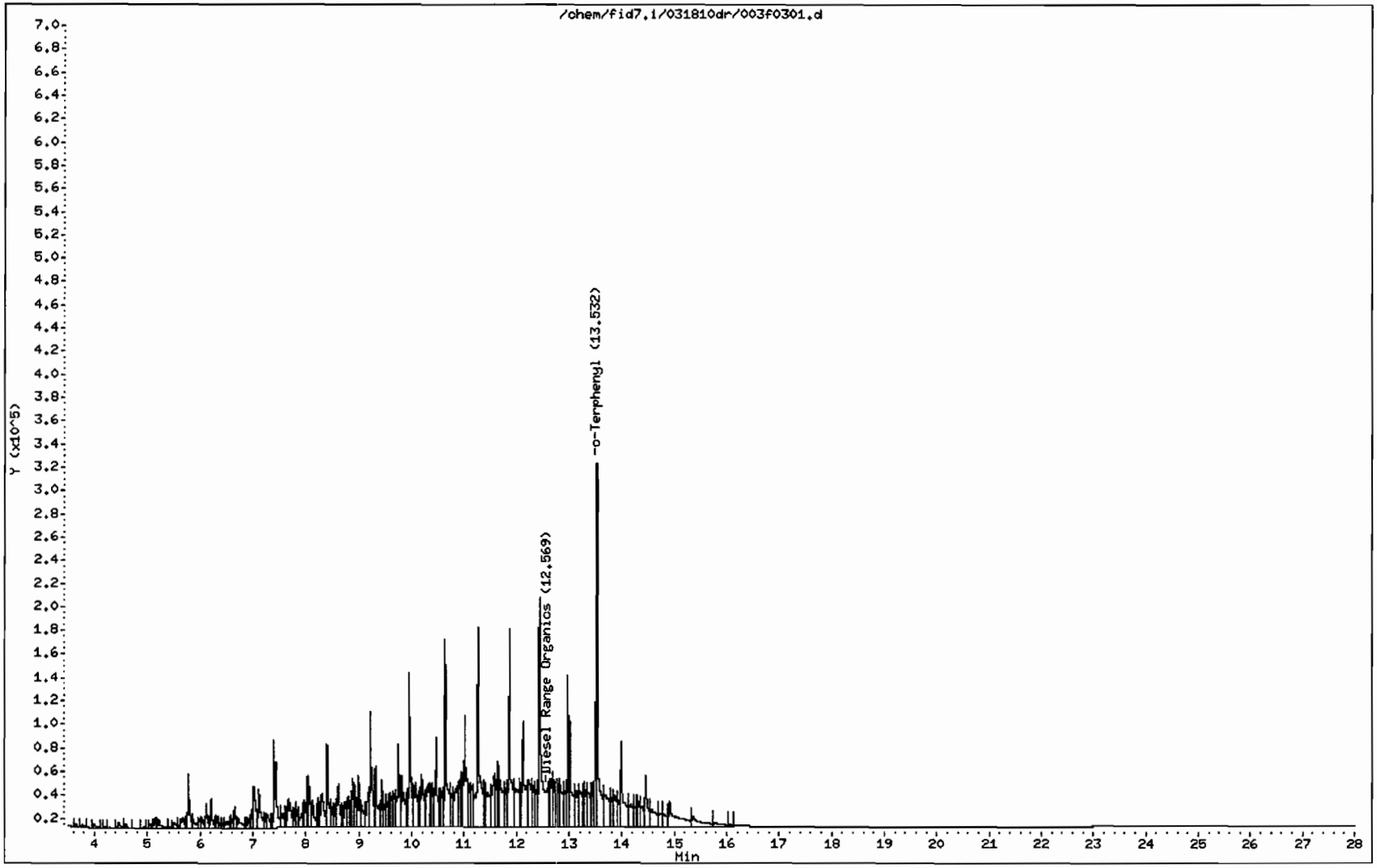

Continuing Calibration Summary

Client SDG: 10-2298

Instrument ID: FID7.I

Injection Date: 19-MAR-10 06:45

Data File: /chem/fid7.i/031810dr/030f3001.d

Init. Cal. Date(s) 11-MAR-10 14:42 - 11-MAR-10 16:33

Lab Sample ID UFI100302-01 D4

Method: /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m

Column ID: DB-5MS

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Diesel Range Organics	13083.65	13160.06	1000	0.58	15		Averaged
o-Terphenyl(Surr)	25128.64	22583.8	25	-10.13	15		Averaged

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DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/030f3001.d
Lab Smp Id: UFI100302-01 D4 Client Smp ID: DSTD04
Inj Date : 19-MAR-2010 06:45
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI100302-01 D4
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	ON-COL (mg/L)
S 1 Diesel Range Organics					CAS #:
7.415-	17.722		13160063	1000.00	1000
$ 2 o-Terphenyl					CAS #: 84-15-1
13.530	13.532	-0.002	564595	25.0000	22.5

Data File: /chem/fid7.i/031810dr/030f3001.d

Date : 19-MAR-2010 06:45

Client ID: DSTD04

Sample Info: IUFI100302-01 D4

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

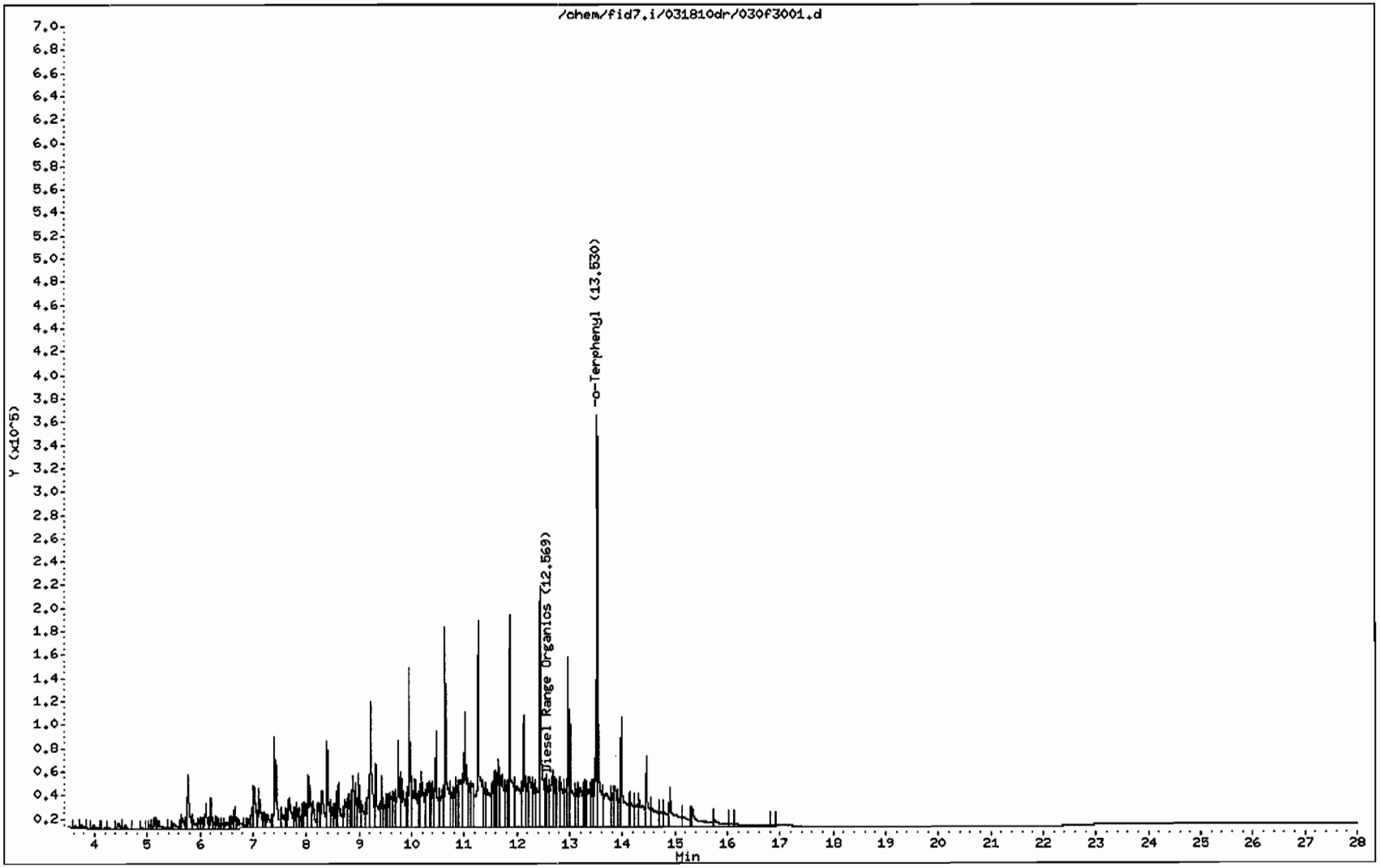

Continuing Calibration Summary

Client SDG: 10-2298

Instrument ID: FID7.I

Injection Date: 19-MAR-10 12:55

Data File: /chem/fid7.i/031810dr/040f4001.d

Init. Cal. Date(s) 11-MAR-10 14:42 - 11-MAR-10 16:33

Lab Sample ID UFI100302-01 D5

Method: /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m

Column ID: DB-5MS

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Diesel Range Organics	13083.65	14957.12	1000	14.32	15		Averaged
o-Terphenyl(Surr)	25128.64	25993.44	25	3.44	15		Averaged

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/040f4001.d
Lab Smp Id: UFI100302-01 D5 Client Smp ID: DSTD05
Inj Date : 19-MAR-2010 12:55
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI100302-01 D5
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 40 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)	
S	1 Diesel Range Organics						CAS #:
	7.415- 17.722			14957115	1000.00	1140	
$	2 o-Terphenyl						CAS #: 84-15-1
	13.531	13.532	-0.001	649836	25.0000	25.9	

Data File: /chem/fid7.i/031810dr/040f4001.d
Date : 19-MAR-2010 12:55
Client ID: DSTD05
Sample Info: IUFI100302-01 D5

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

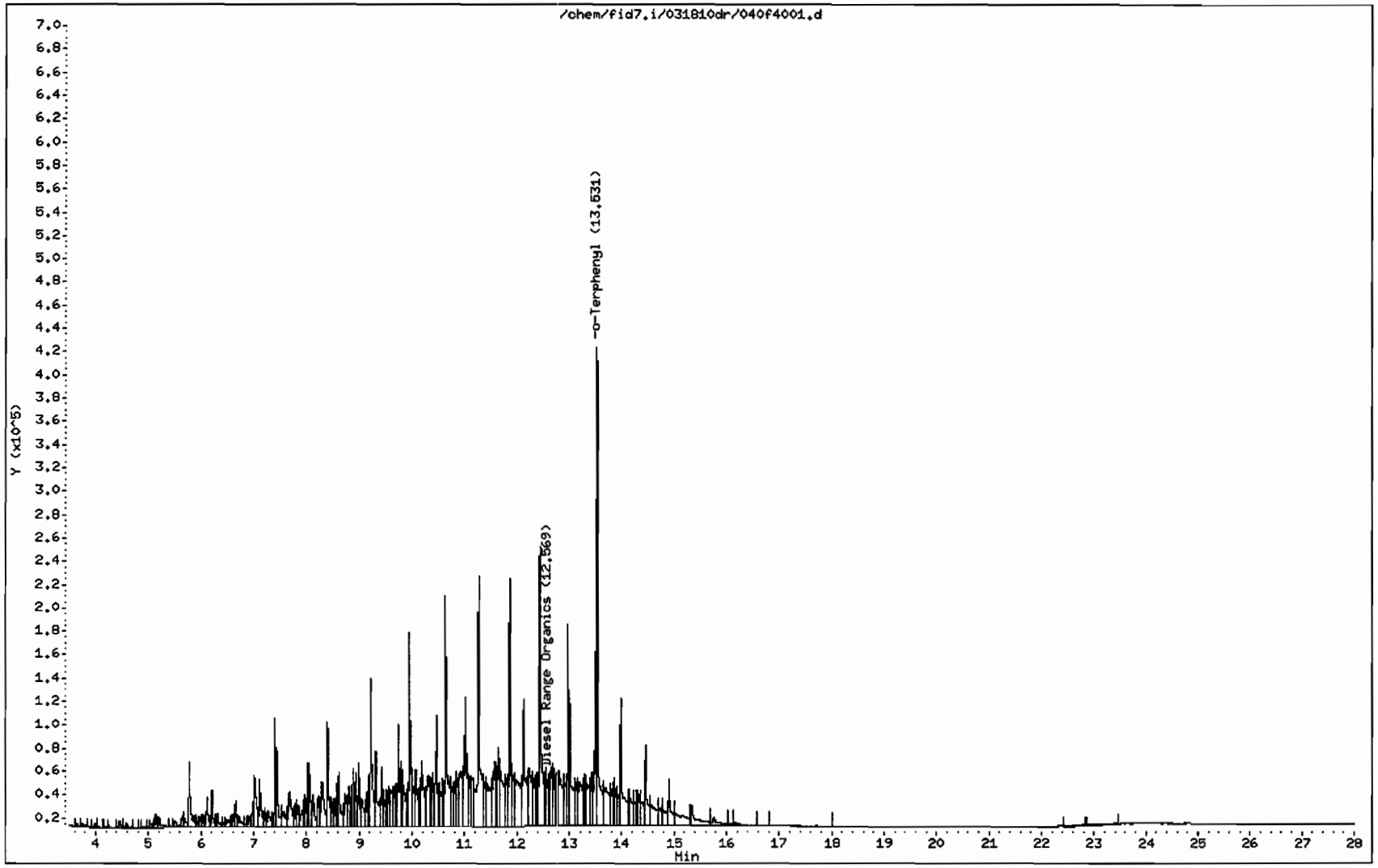

Continuing Calibration Summary

Client SDG: 10-2298

Instrument ID: FID7.I

Injection Date: 19-MAR-10 19:04

Data File: /chem/fid7.i/031810dr/050f5001.d

Init. Cal. Date(s) 11-MAR-10 14:42 - 11-MAR-10 16:33

Lab Sample ID UFI100302-01 D6

Method: /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m

Column ID: DB-5MS

Quant Type: ESTD

Compound	AVECF / Amount	CF CCV	Nominal CCV	%D / %Drift	Max	Drift Q	Curve Type
Diesel Range Organics	13083.65	13385.23	1000	2.31	15		Averaged
o-Terphenyl(Surr)	25128.64	23177.8	25	-7.76	15		Averaged

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/050f5001.d
Lab Smp Id: UFI100302-01 D6 Client Smp ID: DSTD06
Inj Date : 19-MAR-2010 19:04
Operator : KXR2 Inst ID: fid7.i
Smp Info : |UFI100302-01 D6
Misc Info :
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 50 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: dro.sub
Target Version: 3.50 Sample Matrix: None

	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (mg/L)	AMOUNTS ON-COL (mg/L)
S	1 Diesel Range Organics					CAS #:
	7.415- 17.722			13385229	1000.00	1020
$	2 o-Terphenyl					CAS #: 84-15-1
	13.530	13.532	-0.002	579445	25.0000	23.0

Data File: /chem/fid7.i/031810dr/050f5001.d
Date : 19-MAR-2010 19:04
Client ID: DSTD06
Sample Info: IUFI100302-01 D6

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

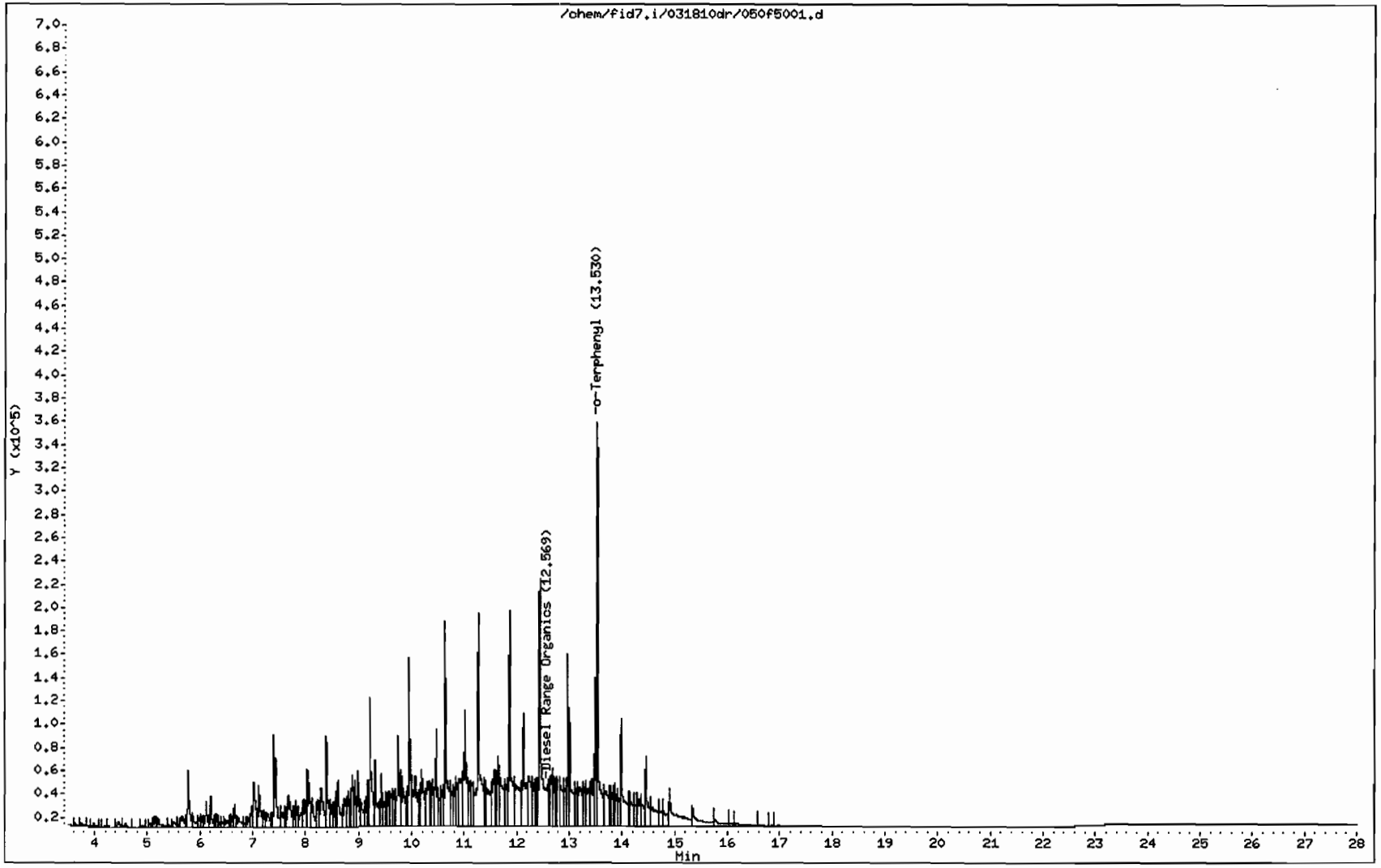

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 10-2298

GC Column: DB-5MS **Init. Calibration Dates:** 11-MAR-10 14:05 - 11-MAR-10 16:33

Instrument ID: FID7.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration: RT Range Based on Calibration Verification:				13.54 13.51 13.57 #
File	**Sample Number**	**Lab Sample ID**	**Analysis Date**	**o-Terphenyl**
001f0101.d	DIBLK01	WFI100125-06 B1	11-MAR-10 12:51	13.54
002f0201.d	RTMARKER	UFI091203-03 RT	11-MAR-10 13:27	NA
003f0301.d	CSTD01	UFI090827-20 200	11-MAR-10 14:05	13.54
004f0401.d	CSTD02	UFI090827-21 500	11-MAR-10 14:42	13.54
005f0501.d	CSTD03	UFI090827-22 1000	11-MAR-10 15:19	13.54
006f0601.d	CSTD04	UFI090827-23 2000	11-MAR-10 15:56	13.55
007f0701.d	CSTD05	UFI090827-24 5000	11-MAR-10 16:33	13.56
008f0801.d	DSTD01	WFI100125-01 D1	11-MAR-10 17:10	13.54
009f0901.d	DIBLK02	WFI100125-06 B2	11-MAR-10 17:46	13.54

Column used to flag retention time values with an asterisk.

Analytical Sequence

Lab Name: GEL Laboratories LLC **Client SDG:** 10-2298

GC Column: DB-5MS **Init. Calibration Dates:** 11-MAR-10 14:05 - 11-MAR-10 16:33

Instrument ID: FID7.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration:				13.53
RT Range Based on Calibration Verification:				13.5 13.56 #
File	**Sample Number**	**Lab Sample ID**	**Analysis Date**	**o-Terphenyl**
001f0101.d	DIBLK01	WFI100125-06 B1	18-MAR-10 11:56	13.54
002f0201.d	RTMARKER	UFI091203-03 RT	18-MAR-10 12:33	NA
003f0301.d	DSTD01	UFI100302-01 D1	18-MAR-10 13:10	13.53
004f0401.d	DIBLK02	WFI100125-06 B2	18-MAR-10 13:46	13.54
011f1101.d	DSTD02	UFI100302-01 D2	18-MAR-10 19:04	13.53
012f1201.d	DIBLK03	WFI100125-06 B3	18-MAR-10 19:41	13.53
013f1301c.d	ZZZZZZZ	ZZZZZZZ	18-MAR-10 20:18	13.53
014f1401d.d	ZZZZZZZ	ZZZZZZZ	18-MAR-10 20:55	13.53
015f1501.d	ZZZZZZZ	ZZZZZZZ	18-MAR-10 21:33	13.53
016f1601.d	ZZZZZZZ	ZZZZZZZ	18-MAR-10 22:09	13.53
017f1701.d	ZZZZZZZ	ZZZZZZZ	18-MAR-10 22:46	13.54
018f1801.d	ZZZZZZZ	ZZZZZZZ	18-MAR-10 23:23	13.53
019f1901.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 00:00	13.53
020f2001.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 00:37	13.53
021f2101.d	DSTD03	UFI100302-01 D3	19-MAR-10 01:14	13.53
022f2201.d	DIBLK04	WFI100125-06 B4	19-MAR-10 01:51	13.53
023f2301.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 02:28	13.54
024f2401.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 03:05	13.53
025f2501.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 03:41	13.53
026f2601.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 04:18	13.53
027f2701.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 04:55	13.53
028f2801.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 05:32	13.53
029f2901.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 06:08	13.53
030f3001.d	DSTD04	UFI100302-01 D4	19-MAR-10 06:45	13.53
031f3101.d	DIBLK05	WFI100125-06 B5	19-MAR-10 07:22	13.53
032f3201.d	DBLK01	1202073046	19-MAR-10 07:59	13.53
033f3301.d	BLK01LCS	1202073047	19-MAR-10 08:36	13.53
034f3401.d	RE46-10-13867	248815001	19-MAR-10 09:13	13.53
035f3501.d	RE46-10-13864	248815002	19-MAR-10 09:50	13.53

Column used to flag retention time values with an asterisk.

Lab Name:

Client SDG: 10-2298

GC Column: DB-5MS

Init. Calibration Dates: 11-MAR-10 14:05 - 11-MAR-10 16:33

Instrument ID: FID7.

Analytical Sequence for Performance Evaluation Mixtures, Blanks, Samples, and Standards is given below:

Mean Surrogate RT From Initial Calibration:				13.53
RT Range Based on Calibration Verification:				13.5 13.56 #
	Sample Number	Lab Sample ID	Analysis Date	o-Terphenyl
036f3601.d	RE46-10-13863	248815003	19-MAR-10 10:27	13.53
037f3701.d	RE46-10-13869	248815004	19-MAR-10 11:04	13.53
038f3801.d	RE46-10-13861	248815005	19-MAR-10 11:42	13.54
039f3901.d	RE46-10-13866	248815006	19-MAR-10 12:18	13.51
040f4001.d	DSTD05	UFI100302-01 D5	19-MAR-10 12:55	13.53
041f4101.d	DIBLK06	WFI100125-06 B6	19-MAR-10 13:32	13.53
042f4201.d	RE46-10-13860	248815007	19-MAR-10 14:09	13.5
043f4301.d	RE46-10-13865	248815008	19-MAR-10 14:45	13.53
044f4401.d	RE46-10-13868	248815009	19-MAR-10 15:22	13.55
045f4501.d	RE46-10-13862	248815010	19-MAR-10 15:59	13.52
046f4601.d	RE46-10-13873	248815011	19-MAR-10 16:36	13.53
047f4701.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 17:13	13.53
048f4801.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 17:50	13.53
049f4901.d	ZZZZZZZ	ZZZZZZZ	19-MAR-10 18:27	13.53
050f5001.d	DSTD06	UFI100302-01 D6	19-MAR-10 19:04	13.53
051f5101.d	DIBLK07	WFI100125-06 B7	19-MAR-10 19:41	13.53

Column used to flag retention time values with an asterisk.

QC Data

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202073046**				
Client Sample:	**QC for batch 966002**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966002**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 07:59**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**032f3201.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics	U	6.67	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/032f3201.d
Lab Smp Id: 1202073046 Client Smp ID: DBLK01
Inj Date : 19-MAR-2010 07:59
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1202073046|1|
Misc Info : |FIDDRO_S|966003|DROQ|MB|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 32 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
$ 2 o-Terphenyl					CAS #: 84-15-1
13.533	13.532	0.001	209227	8.32626	0.28

Data File: /chem/fid7.i/031810dr/032f3201.d
Date : 19-MAR-2010 07:59
Client ID: DBLK01
Sample Info: |120207304611|
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2
Column diameter: 0.25

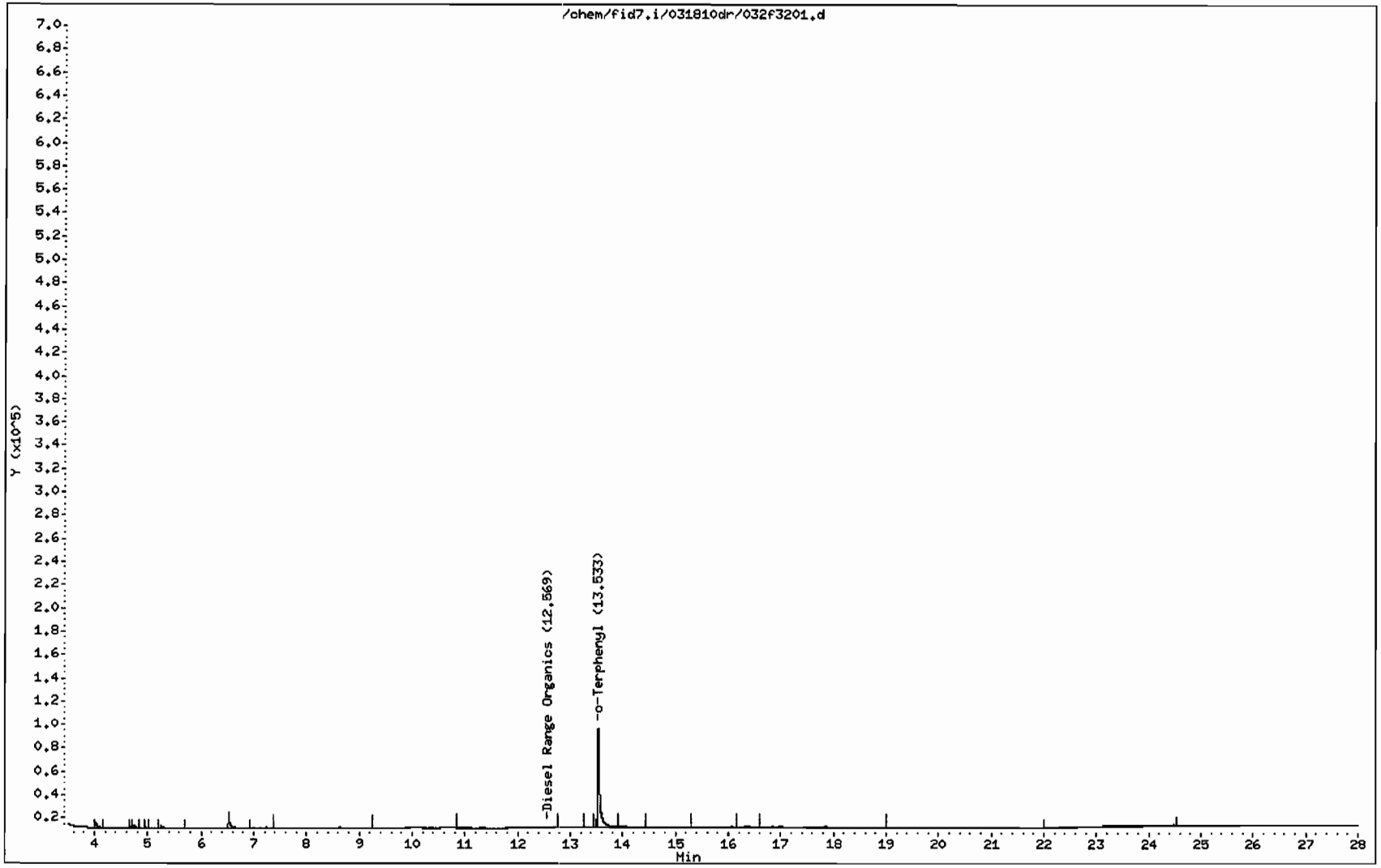

FID Diesel Range Organics
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202073047**				
Client Sample:	**QC for batch 966002**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966002**	**Method:**	**SW846 8015A/B SVOC**	**SOP Ref:**	**GL-OA-E-003**
Batch ID:	**966003**	**Inst:**	**FID7.1**	**Dilution:**	**1**
Run Date:	**03/19/2010 08:36**	**Analyst:**	**KXR2**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 20:50**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**033f3301.d**	**Column:**	**DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
DRO	Diesel Range Organics		25.1	mg/kg	2.17	6.67

GEL Laboratories LLC

DB-5MS .25mm

Data file : /chem/fid7.i/031810dr/033f3301.d
Lab Smp Id: 1202073047 Client Smp ID: DBLK01LCS
Inj Date : 19-MAR-2010 08:36
Operator : KXR2 Inst ID: fid7.i
Smp Info : |1202073047|1|
Misc Info : |FIDDRO_S|966003|DROQ|LCS|
Comment : 45C for 4 min; 20C/min ramp; 280C for 4 min.
Method : /chem/fid7.i/031810dr/FID7a.i_b_DRO_031110.m
Meth Date : 22-Mar-2010 10:14 kev01577 Quant Type: ESTD
Cal Date : 11-MAR-2010 16:33 Cal File: 007f0701.d
Als bottle: 33 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (mg/L)	FINAL (mg/Kg)
S 1 Diesel Range Organics					CAS #:
7.415- 17.722			9837341	751.881	25.1
$ 2 o-Terphenyl					CAS #: 84-15-1
13.529	13.532	-0.003	396042	15.7606	0.52

Data File: /ohem/fid7.i/031810dr/033f3301.d

Date : 19-MAR-2010 08:36

Client ID: DBLK01LCS

Sample Info: |12020730471|1|

Volume Injected (uL): 1.0

Column phase: DB-5MS

Instrument: fid7.i

Operator: KXR2

Column diameter: 0.25

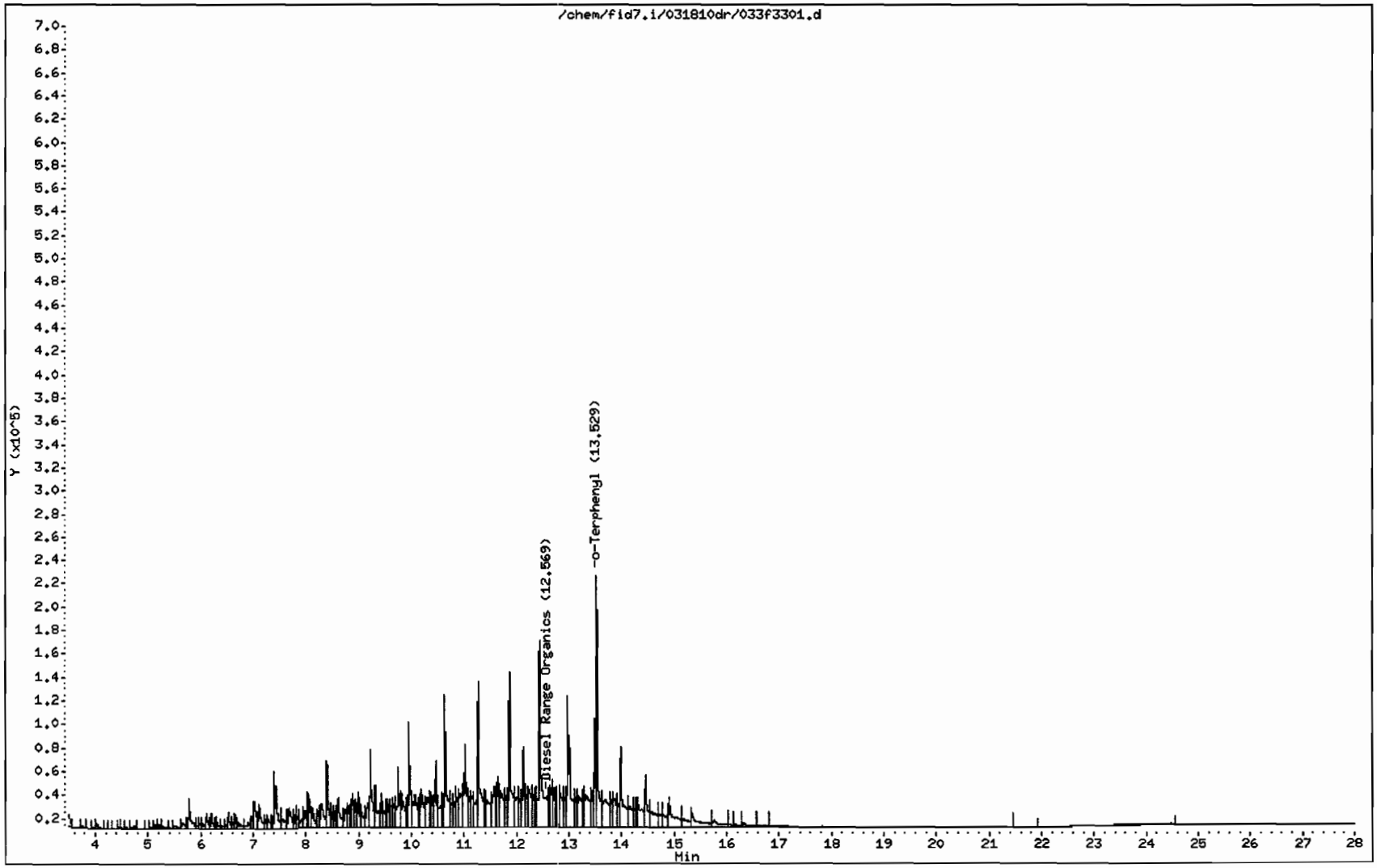

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 966002 **Verified by:** _____

Analyst: Alberto Velasco

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202073046 MB	17-MAR-2010 20:50:00	30	1	0.03333
1202073047 LCS	17-MAR-2010 20:50:00	30	1	0.03333
248815001	17-MAR-2010 20:50:00	30.09	1	0.03323
248815002	17-MAR-2010 20:50:00	30.1	1	0.03322
248815003	17-MAR-2010 20:50:00	30.06	1	0.03327
248815004	17-MAR-2010 20:50:00	30.07	1	0.03326
248815005	17-MAR-2010 20:50:00	30.03	1	0.0333
248815006	17-MAR-2010 20:50:00	30.07	1	0.03326
248815007	17-MAR-2010 20:50:00	30.14	1	0.03318
248815008	17-MAR-2010 20:50:00	30.03	1	0.0333
248815009	17-MAR-2010 20:50:00	30.09	1	0.03323
248815010	17-MAR-2010 20:50:00	30.12	1	0.0332
248815011	17-MAR-2010 20:50:00	30.15	1	0.03317
248862002	17-MAR-2010 20:50:00	30.17	1	0.03315
1202073048 MS (248862002)	17-MAR-2010 20:50:00	30.12	1	0.0332
1202073049 MSD (248862002)	17-MAR-2010 20:50:00	30.19	1	0.03312
248862003	17-MAR-2010 20:50:00	30.06	1	0.03327
248862004	17-MAR-2010 20:50:00	30.03	1	0.0333
248862005	17-MAR-2010 20:50:00	30.14	1	0.03318
248862006	17-MAR-2010 20:50:00	30.06	1	0.03327
248862007	17-MAR-2010 20:50:00	30.18	1	0.03313
248862008	17-MAR-2010 20:50:00	30.19	1	0.03312
248862009	17-MAR-2010 20:50:00	30.03	1	0.0333
248862010	17-MAR-2010 20:50:00	30.01	1	0.03332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202073047	TPH DRO LCS	UE091121-08	1	mL
MS	1202073048	TPH DRO LCS	UE091121-08	1	mL
MSD	1202073049	TPH DRO LCS	UE091121-08	1	mL
SURR	All	20 ppm surrogate	WE100305-04	1	mL
REGNT	All	Methylene Chloride	1287549-D	300	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: AJS

Final Solvent: CH2Cl2

GEL Laboratories LLC
Form GEL-DER

DER Report No.: 807650
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
22-MAR-10	Federal	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/FID	SW846 8015A/B SVOC	Solid	LANL
Batch ID:	**Sample Numbers:**		
966003	See Below		

Potentially affected work order(s)(SDG): 248815(10-2298),248862(10-2314)

Application Issues:

Failed Yield for Surrogates

Specification and Requirements Exception Description:	DER Disposition:
1. Samples 248815007,248815009 and 248815010 did not meet surrogate recovery acceptance criteria.	1. Samples failed surrogate recovery fdue to sample matrix interference and dilution. The data were reported.

Originator's Name:

Kevin Ryan 22-MAR-10

Data Validator/Group Leader:

Jimin Cao 22-MAR-10

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 03/15/2010 METHOD: FID7a.i_b_DRO_031110.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:031110DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI100125-06 B1	KXR2	11-MAR-2010 12:51		SDGa18479	1.0		CLEAN
002f0201.d	UFI091203-03 RT	KXR2	11-MAR-2010 13:27		SDGa18479	1.0		RTMARKER
003f0301.d	UFI090827-20 200	KXR2	11-MAR-2010 14:05		SDGa18479	1.0		CAL. LEVEL 1
004f0401.d	UFI090827-21 500	KXR2	11-MAR-2010 14:42		SDGa18479	1.0		CAL. LEVEL 2
005f0501.d	UFI090827-22 1000	KXR2	11-MAR-2010 15:19		SDGa18479	1.0		CAL. LEVEL 3
006f0601.d	UFI090827-23 2000	KXR2	11-MAR-2010 15:56		SDGa18479	1.0		CAL. LEVEL 4
007f0701.d	UFI090827-24 5000	KXR2	11-MAR-2010 16:33		SDGa18479	1.0		CAL. LEVEL 5
008f0801.d	WFI100125-01 D1	KXR2	11-MAR-2010 17:10		SDGa18479	1.0		PASSES
009f0901.d	WFI100125-06 B2	KXR2	11-MAR-2010 17:46		SDGa18479	1.0		CLEAN
010f1001.d	ch2cl2screen	KXR2	11-MAR-2010 18:23		SDGa18479	1.0		CLEAN
011f1101.d	1202066287	KXR2	11-MAR-2010 19:00	963172	10-2125	1.0	MB	USE
012f1201.d	1202066288	KXR2	11-MAR-2010 19:36	963172	10-2125	1.0	LCS	USE
013f1301.d	1202066290	KXR2	11-MAR-2010 20:13	963172	10-2125	1.0	MSD	USE
014f1401.d	1202066289	KXR2	11-MAR-2010 20:49	963172	10-2125	1.0	MS	USE
015f1501.d	248203002	KXR2	11-MAR-2010 21:26	963172	10-2125	1.0	LANL	USE

Instrument Batch: /chem/fid7.i/031110dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	UFI100302-01 D2	KXR2	11-MAR-2010 22:03		SDGa18479	1.0		PASSES

017f1701.d	WFI100125-06 B3	KXR2	11-MAR-2010 22:40			SDGa18479	1.0		CLEAN
018f1801.d	1202066061	KXR2	11-MAR-2010 23:17	963060	248706		1.0	MB	USE
019f1901.d	1202066062	KXR2	11-MAR-2010 23:54	963060	248706		1.0	LCS	USE,FAILS LOW, NO SAMPLE FOR RE-EXTRACT
020f2001.d	1202066063	KXR2	12-MAR-2010 00:31	963060	248706		1.0	LCSD	USE
021f2101.d	248706003	KXR2	12-MAR-2010 01:08	963060	248706		20.0	XCEL	USE
022f2201.d	UFI100302-01 D3	KXR2	12-MAR-2010 01:45			SDGa18479	1.0		PASSES
023f2301.d	WFI100125-06 B4	KXR2	12-MAR-2010 02:22			SDGa18479	1.0		CLEAN
024f2401.d	1202063324	KXR2	12-MAR-2010 02:59	961954	248343		1.0	MB	USE
025f2501.d	1202063325	KXR2	12-MAR-2010 03:36	961954	248343		1.0	LCS	USE
026f2601.d	248343001	KXR2	12-MAR-2010 04:13	961954	248343		1.0	SNLS	USE
027f2701.d	1202063326	KXR2	12-MAR-2010 04:50	961954	248343		1.0	MS	USE
028f2801.d	1202063327	KXR2	12-MAR-2010 05:27	961954	248343		1.0	MSD	USE
029f2901.d	248343004	KXR2	12-MAR-2010 06:04	961954	248343		1.0	SNLS	USE
030f3001.d	UFI100302-01 D4	KXR2	12-MAR-2010 06:41			SDGa18479	1.0		PASSES
031f3101.d	WFI100125-06 B5	KXR2	12-MAR-2010 07:19			SDGa18479	1.0		CLEAN
032f3201.d	1202066278	KXR2	12-MAR-2010 07:56	963169	10-2102		1.0	MB	USE
033f3301.d	1202066279	KXR2	12-MAR-2010 08:33	963169	10-2102		1.0	LCS	USE
034f3401.d	248154003	KXR2	12-MAR-2010 09:10	963169	10-2102		1.0	LANL	USE
035f3501.d	1202066280	KXR2	12-MAR-2010 09:47	963169	10-2102		1.0	MS	USE

Instrument Batch: /chem/fid7.i/031110dr

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202066281	KXR2	12-MAR-2010 10:24	963169	10-2102	1.0	MSD	USE
037f3701.d	248154004	KXR2	12-MAR-2010 11:01	963169	10-2102	1.0	LANL	USE
038f3801.d	248154005	KXR2	12-MAR-2010 11:38	963169	10-2102	10.0	LANL	USE
039f3901.d	248154006	KXR2	12-MAR-2010 12:15	963169	10-2102	1.0	LANL	USE
040f4001.d	UFI100302-01 D5	KXR2	12-MAR-2010 12:52		SDGa18479	1.0		PASSES
041f4101.d	WFI100125-06 B6	KXR2	12-MAR-2010 13:29		SDGa18479	1.0		CLEAN

042f4201.d	248154007	KXR2	12-MAR-2010 14:05	963169	10-2102		1.0	LANL	USE
043f4301.d	248154008	KXR2	12-MAR-2010 14:42	963169	10-2102		1.0	LANL	USE
044f4401.d	248154009	KXR2	12-MAR-2010 15:19	963169	10-2102		1.0	LANL	USE
045f4501.d	248154010	KXR2	12-MAR-2010 15:56	963169	10-2102		20.0	LANL	USE
046f4601.d	248154011	KXR2	12-MAR-2010 16:33	963169	10-2102		1.0	LANL	USE
047f4701.d	248154012	KXR2	12-MAR-2010 17:10	963169	10-2102		1.0	LANL	USE
048f4801.d	248154013	KXR2	12-MAR-2010 17:47	963169	10-2102		20.0	LANL	USE
049f4901.d	248154014	KXR2	12-MAR-2010 18:24	963169	10-2102		1.0	LANL	USE
050f5001.d	248154015	KXR2	12-MAR-2010 19:01	963169	10-2102		1.0	LANL	USE
051f5101.d	248154016	KXR2	12-MAR-2010 19:38	963169	10-2102		1.0	LANL	USE
052f5201.d	UFI100302-01 D6	KXR2	12-MAR-2010 20:15		SDGa18479		1.0		PASSES
053f5301.d	WFI100125-06 B7	KXR2	12-MAR-2010 20:52		SDGa18479		1.0		CLEAN
054f5401.d	1202066291	KXR2	12-MAR-2010 21:29	963175	IDOC-AW-DRO-S		1.0	MB	USE
055f5501.d	1202066292	KXR2	12-MAR-2010 22:07	963175	IDOC-AW-DRO-S		1.0	LCS	USE

Instrument Batch: /chem/fid7.i/031110dr

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	1202066293	KXR2	12-MAR-2010 22:44	963175	IDOC-AW-DRO-S	1.0	LCS	USE
057f5701.d	1202066294	KXR2	12-MAR-2010 23:21	963175	IDOC-AW-DRO-S	1.0	LCS	USE
058f5801.d	1202066295	KXR2	12-MAR-2010 23:58	963175	IDOC-AW-DRO-S	1.0	LCS	USE
059f5901.d	1202066296	KXR2	13-MAR-2010 00:35	963175	IDOC-AW-DRO-S	1.0	LCS	USE
060f6001.d	248909001	KXR2	13-MAR-2010 01:12	963175	IDOC-AW-DRO-S	1.0	QCQA	USE
061f6101.d	UFI100302-01 D7	KXR2	13-MAR-2010 01:49		SDGa18479	1.0		PASSES
062f6201.d	WFI100125-06 B8	KXR2	13-MAR-2010 02:26		SDGa18479	1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: FID7.i

DATE: 03/22/2010 METHOD: FID7a.i_b_DRO_031110.m OPERATOR:KXR2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 16 on pg. 16 Solvent REMAT ID:CH2CL2

Calibration & QC Information
GC Column: DB-5MS 30m x 0.25mm x 0.25um
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
FID analysis of GEL SOP:GL-OA-E-003

Sequence Number:031810DR Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WFI100125-06 B1	KXR2	18-MAR-2010 11:56		SDGa15945	1.0		CLEAN
002f0201.d	UFI091203-03 RT	KXR2	18-MAR-2010 12:33		SDGa15945	1.0		RTMARKER
003f0301.d	UFI100302-01 D1	KXR2	18-MAR-2010 13:10		SDGa15945	1.0		PASSES
004f0401.d	WFI100125-06 B2	KXR2	18-MAR-2010 13:46		SDGa15945	1.0		CLEAN
005f0501.d	1202072853	KXR2	18-MAR-2010 15:23	965927	249301	1.0	MB	USE
006f0601.d	1202072854	KXR2	18-MAR-2010 16:00	965927	249301	1.0	LCS	USE
007f0701.d	1202072855	KXR2	18-MAR-2010 16:37	965927	249301	1.0	LCSD	USE
008f0801.d	249301001	KXR2	18-MAR-2010 17:14	965927	249301	1.0	HESS	USE
009f0901.d	249308001	KXR2	18-MAR-2010 17:50	965927	249308	1.0	HESS	USE
010f1001.d	249312001	KXR2	18-MAR-2010 18:27	965927	249312	1.0	HESS	USE
011f1101.d	UFI100302-01 D2	KXR2	18-MAR-2010 19:04		SDGa15945	1.0		PASSES
012f1201.d	WFI100125-06 B3	KXR2	18-MAR-2010 19:41		SDGa15945	1.0		CLEAN
013f1301.d	1202068694	KXR2	18-MAR-2010 20:18	964269	10-2164	1.0	MB	USE
014f1401.d	1202068695	KXR2	18-MAR-2010 20:55	964269	10-2164	1.0	LCS	USE
015f1501.d	248386003	KXR2	18-MAR-2010 21:33	964269	10-2164	1.0	LANL	USE

Instrument Batch: /chem/fid7.i/031810dr Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	248386004	KXR2	18-MAR-2010 22:09	964269	10-2164	1.0	LANL	USE

017f1701.d	248394001	KXR2	18-MAR-2010 22:46	964269	10-2168		1.0	LANL	USE
018f1801.d	248394002	KXR2	18-MAR-2010 23:23	964269	10-2168		1.0	LANL	USE
019f1901.d	248394003	KXR2	19-MAR-2010 00:00	964269	10-2168		1.0	LANL	USE
020f2001.d	248394004	KXR2	19-MAR-2010 00:37	964269	10-2168		1.0	LANL	USE
021f2101.d	UFI100302-01 D3	KXR2	19-MAR-2010 01:14		SDGa15945		1.0		PASSES
022f2201.d	WFI100125-06 B4	KXR2	19-MAR-2010 01:51		SDGa15945		1.0		CLEAN
023f2301.d	248394006	KXR2	19-MAR-2010 02:28	964269	10-2168		1.0	LANL	USE
024f2401.d	248660002	KXR2	19-MAR-2010 03:05	964269	10-2244		1.0	LANL	USE
025f2501.d	248689001	KXR2	19-MAR-2010 03:41	964269	10-2261		5.0	LANL	USE
026f2601.d	248702001	KXR2	19-MAR-2010 04:18	964269	10-2264		1.0	LANL	USE
027f2701.d	1202068696	KXR2	19-MAR-2010 04:55	964269	10-2264		1.0	MS	USE
028f2801.d	1202068697	KXR2	19-MAR-2010 05:32	964269	10-2264		1.0	MSD	USE
029f2901.d	248702002	KXR2	19-MAR-2010 06:08	964269	10-2264		1.0	LANL	USE
030f3001.d	UFI100302-01 D4	KXR2	19-MAR-2010 06:45		SDGa15945		1.0		PASSES
031f3101.d	WFI100125-06 B5	KXR2	19-MAR-2010 07:22		SDGa15945		1.0		CLEAN
032f3201.d	1202073046	KXR2	19-MAR-2010 07:59	966003	10-2298		1.0	MB	USE
033f3301.d	1202073047	KXR2	19-MAR-2010 08:36	966003	10-2298		1.0	LCS	USE
034f3401.d	248815001	KXR2	19-MAR-2010 09:13	966003	10-2298		1.0	LANL	USE
035f3501.d	248815002	KXR2	19-MAR-2010 09:50	966003	10-2298		1.0	LANL	USE

Instrument Batch: /chem/fid7.i/031810dr Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	248815003	KXR2	19-MAR-2010 10:27	966003	10-2298	1.0	LANL	USE
037f3701.d	248815004	KXR2	19-MAR-2010 11:04	966003	10-2298	1.0	LANL	USE
038f3801.d	248815005	KXR2	19-MAR-2010 11:42	966003	10-2298	10.0	LANL	USE
039f3901.d	248815006	KXR2	19-MAR-2010 12:18	966003	10-2298	5.0	LANL	USE
040f4001.d	UFI100302-01 D5	KXR2	19-MAR-2010 12:55		SDGa15945	1.0		PASSES
041f4101.d	WFI100125-06 B6	KXR2	19-MAR-2010 13:32		SDGa15945	1.0		CLEAN

042f4201.d	248815007	KXR2	19-MAR-2010 14:09	966003	10-2298		20.0	LANL	USE
043f4301.d	248815008	KXR2	19-MAR-2010 14:45	966003	10-2298		1.0	LANL	USE
044f4401.d	248815009	KXR2	19-MAR-2010 15:22	966003	10-2298		20.0	LANL	USE
045f4501.d	248815010	KXR2	19-MAR-2010 15:59	966003	10-2298		20.0	LANL	USE
046f4601.d	248815011	KXR2	19-MAR-2010 16:36	966003	10-2298		1.0	LANL	USE
047f4701.d	248862002	KXR2	19-MAR-2010 17:13	966003	10-2314		1.0	LANL	USE
048f4801.d	1202073048	KXR2	19-MAR-2010 17:50	966003	10-2314		1.0	MS	USE
049f4901.d	1202073049	KXR2	19-MAR-2010 18:27	966003	10-2314		1.0	MSD	USE
050f5001.d	UFI100302-01 D6	KXR2	19-MAR-2010 19:04		SDGa15945		1.0		PASSES
051f5101.d	WFI100125-06 B7	KXR2	19-MAR-2010 19:41		SDGa15945		1.0		CLEAN
052f5201.d	248862003	KXR2	19-MAR-2010 20:18	966003	10-2314		1.0	LANL	USE
053f5301.d	248862004	KXR2	19-MAR-2010 20:55	966003	10-2314		20.0	LANL	USE
054f5401.d	248862005	KXR2	19-MAR-2010 21:32	966003	10-2314		1.0	LANL	USE
055f5501.d	248862006	KXR2	19-MAR-2010 22:09	966003	10-2314		1.0	LANL	USE

Instrument Batch: /chem/fid7.i/031810dr

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	248862007	KXR2	19-MAR-2010 22:46	966003	10-2314	1.0	LANL	USE
057f5701.d	248862008	KXR2	19-MAR-2010 23:22	966003	10-2314	20.0	LANL	USE
058f5801.d	248862009	KXR2	19-MAR-2010 23:59	966003	10-2314	1.0	LANL	USE
059f5901.d	248862010	KXR2	20-MAR-2010 00:36	966003	10-2314	1.0	LANL	USE
060f6001.d	UFI100302-01 D7	KXR2	20-MAR-2010 01:12		SDGa15945	1.0		PASSES
061f6101.d	WFI100125-06 B8	KXR2	20-MAR-2010 01:49		SDGa15945	1.0		CLEAN

GC SEMIVOLATILE PESTICIDE ANALYSIS

Pesticide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2298

Method/Analysis Information

Procedure:	**Analysis of Organochlorine Pesticides and Chlorinated Hydrocarbons by ECD**
Analytical Method:	SW846 8081A
Prep Method:	SW846 3550B
Analytical Batch Number:	965996
Prep Batch Number:	965995

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8081A:

Sample ID	Client ID
248815001	RE46-10-13867
248815002	RE46-10-13864
248815003	RE46-10-13863
248815004	RE46-10-13869
248815005	RE46-10-13861
248815006	RE46-10-13866
248815007	RE46-10-13860
248815008	RE46-10-13865
248815009	RE46-10-13868
248815010	RE46-10-13862
248815011	RE46-10-13873
1202073033	Method Blank (MB)
1202073034	Laboratory Control Sample (LCS)
1202073037	Laboratory Control Sample (LCS)-Toxaphene LCS Only
1202073035	248815001(RE46-10-13867) Matrix Spike (MS)
1202073036	248815001(RE46-10-13867) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 10.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
The calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

One of the five quantified peaks did not meet the acceptance criteria in Toxaphene standard analyzed for this SDG; however, the average concentration of the five peaks met the acceptance criteria.

Several target analytes recovered outside of the acceptance criteria with a negative and/or positive bias on one analytical column in the standards bracketing the samples in this SDG. The negative and/or positive bias for the analytical data is a result of instrument response decreasing and/or increasing after the initial calibration. The instrument response never decreased to a point where the target analytes would not be detected. These target analytes were not detected in the associated samples; therefore, the non-compliance has no adverse effects on the data.

Surrogate recovery did not meet the acceptance criteria in the standards bracketing the samples in this SDG; however, this had no adverse effects on the data as the samples associated with this SDG met surrogate recovery acceptance criteria well.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248815001 (RE46-10-13867) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information:

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those

holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. Florisil was used during sample preparation.

Sample Dilutions
All samples in this SDG and the associated MS/MSD were diluted at 1:10 due their viscous nature, dark brown/oily hue, strong odor, the presence of black particulate floating within the sample matrices.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information:

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The lower results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD3A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)

ECD3A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 4/1/10

Roadmap for LANL 10-2298 PEST

This roadmap was analyzed by hea01125 on 03-24-2010, 22:03.
This roadmap was packaged by yml on 04-01-2010, 07:57.
This roadmap was validated by jim01140 on 04-01-2010, 10:58.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/031710p.b/018f1801.d	248815001	sample	17-MAR-2010	23:04	10-2298.sub	RE46-10-13867	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/021f2101.d	248815002	sample	17-MAR-2010	23:45	10-2298.sub	RE46-10-13864	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/022f2201.d	248815003	sample	17-MAR-2010	23:58	10-2298.sub	RE46-10-13863	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/023f2301.d	248815004	sample	18-MAR-2010	00:12	10-2298.sub	RE46-10-13869	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/026f2601.d	248815005	sample	18-MAR-2010	00:53	10-2298.sub	RE46-10-13861	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/027f2701.d	248815006	sample	18-MAR-2010	01:06	10-2298.sub	RE46-10-13866	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/028f2801.d	248815007	sample	18-MAR-2010	01:20	10-2298.sub	RE46-10-13860	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/029f2901.d	248815008	sample	18-MAR-2010	01:34	10-2298.sub	RE46-10-13865	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/030f3001.d	248815009	sample	18-MAR-2010	01:47	10-2298.sub	RE46-10-13868	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/031f3101.d	248815010	sample	18-MAR-2010	02:01	10-2298.sub	RE46-10-13862	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/032f3201.d	248815011	sample	18-MAR-2010	02:15	10-2298.sub	RE46-10-13873	10.00000	965996	USE, uploaded both columns, reporting lower result

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/031710p.b/018b1801.d	248815001	sample	17-MAR-2010	23:04	10-2298.sub	RE46-10-13867	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/021b2101.d	248815002	sample	17-MAR-2010	23:45	10-2298.sub	RE46-10-13864	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/022b2201.d	248815003	sample	17-MAR-2010	23:58	10-2298.sub	RE46-10-13863	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/023b2301.d	248815004	sample	18-MAR-2010	00:12	10-2298.sub	RE46-10-13869	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/026b2601.d	248815005	sample	18-MAR-2010	00:53	10-2298.sub	RE46-10-13861	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/027b2701.d	248815006	sample	18-MAR-2010	01:06	10-2298.sub	RE46-10-13866	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/028b2801.d	248815007	sample	18-MAR-2010	01:20	10-2298.sub	RE46-10-13860	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/029b2901.d	248815008	sample	18-MAR-2010	01:34	10-2298.sub	RE46-10-13865	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/030b3001.d	248815009	sample	18-MAR-2010	01:47	10-2298.sub	RE46-10-13868	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/031b3101.d	248815010	sample	18-MAR-2010	02:01	10-2298.sub	RE46-10-13862	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/032b3201.d	248815011	sample	18-MAR-2010	02:15	10-2298.sub	RE46-10-13873	10.00000	965996	USE, uploaded both columns, reporting lower result

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/031710p.b/015f1501.d	1202073033	mb	17-MAR-2010	22:23	10-2298.sub	PBLK01	1.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/016f1601.d	1202073034	lcs	17-MAR-2010	22:36	10-2298.sub	PBLK01LCS	1.00000	965996	USE, uploaded both columns, reporting lower result

☐	N	/chem/ecd3a.i/031710p.b/017f1701.d	1202073037	lcs	17-MAR-2010	22:50	10-2298.sub	PBLK01TLCS	1.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/019f1901.d	1202073035	ms	17-MAR-2010	23:17	10-2298.sub	RE46-10-13867MS	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/020f2001.d	1202073036	msd	17-MAR-2010	23:31	10-2298.sub	RE46-10-13867MSD	10.00000	965996	USE, uploaded both columns, reporting lower result

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/031710p.b/015b1501.d	1202073033	mb	17-MAR-2010	22:23	10-2298.sub	PBLK01	1.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/016b1601.d	1202073034	lcs	17-MAR-2010	22:36	10-2298.sub	PBLK01LCS	1.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/017b1701.d	1202073037	lcs	17-MAR-2010	22:50	10-2298.sub	PBLK01TLCS	1.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/019b1901.d	1202073035	ms	17-MAR-2010	23:17	10-2298.sub	RE46-10-13867MS	10.00000	965996	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/031710p.b/020b2001.d	1202073036	msd	17-MAR-2010	23:31	10-2298.sub	RE46-10-13867MSD	10.00000	965996	USE, uploaded both columns, reporting lower result

SAMPLE DATA SUMMARY

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13860**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 01:20**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30.05 g**	**Final Volume:**	**5 mL**
Data File:	**028f2801.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	028b2801.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.36	ug/kg	1.84	7.36	1
58-89-9	gamma-BHC (Lindane)	U	7.36	ug/kg	1.84	7.36	1
319-85-7	beta-BHC	U	7.36	ug/kg	1.84	7.36	1
319-86-8	delta-BHC	U	7.36	ug/kg	1.84	7.36	1
76-44-8	Heptachlor	U	7.36	ug/kg	1.84	7.36	1
309-00-2	Aldrin	U	7.36	ug/kg	1.84	7.36	1
1024-57-3	Heptachlor epoxide	U	7.36	ug/kg	2.30	7.36	1
5103-74-2	gamma-Chlordane	U	7.36	ug/kg	1.84	7.36	1
5103-71-9	alpha-Chlordane	U	7.36	ug/kg	1.84	7.36	1
959-98-8	Endosulfan I	U	7.36	ug/kg	1.84	7.36	1
72-55-9	4,4'-DDE	U	14.7	ug/kg	3.68	14.7	1
60-57-1	Dieldrin	U	14.7	ug/kg	3.68	14.7	1
72-20-8	Endrin	U	14.7	ug/kg	3.68	14.7	1
72-54-8	4,4'-DDD	U	14.7	ug/kg	3.68	14.7	1
33213-65-9	Endosulfan II	U	14.7	ug/kg	3.68	14.7	1
7421-93-4	Endrin aldehyde	U	14.7	ug/kg	3.68	14.7	1
50-29-3	4,4'-DDT	U	14.7	ug/kg	3.68	14.7	1
1031-07-8	Endosulfan sulfate	U	14.7	ug/kg	3.68	14.7	1
72-43-5	Methoxychlor	U	73.6	ug/kg	18.4	73.6	1
53494-70-5	Endrin ketone	U	14.7	ug/kg	3.68	14.7	1
8001-35-2	Toxaphene	U	184	ug/kg	61.2	184	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815005	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13861	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	965996	**Inst:**	ECD3A.I	**Dilution:**	10
Run Date:	03/18/2010 00:53	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 11:39	**Aliquot:**	30.02 g	**Final Volume:**	5 mL
Data File:	026f2601.d	**Column:**	1 CLP–1	**Level:**	LOW
	026b2601.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.58	ug/kg	1.89	7.58	1
58–89–9	gamma–BHC (Lindane)	U	7.58	ug/kg	1.89	7.58	1
319–85–7	beta–BHC	U	7.58	ug/kg	1.89	7.58	1
319–86–8	delta–BHC	U	7.58	ug/kg	1.89	7.58	1
76–44–8	Heptachlor	U	7.58	ug/kg	1.89	7.58	1
309–00–2	Aldrin	U	7.58	ug/kg	1.89	7.58	1
1024–57–3	Heptachlor epoxide	U	7.58	ug/kg	2.37	7.58	1
5103–74–2	gamma–Chlordane	U	7.58	ug/kg	1.89	7.58	1
5103–71–9	alpha–Chlordane	U	7.58	ug/kg	1.89	7.58	1
959–98–8	Endosulfan I	U	7.58	ug/kg	1.89	7.58	1
72–55–9	4,4'–DDE	U	15.2	ug/kg	3.79	15.2	1
60–57–1	Dieldrin	U	15.2	ug/kg	3.79	15.2	1
72–20–8	Endrin	U	15.2	ug/kg	3.79	15.2	1
72–54–8	4,4'–DDD	U	15.2	ug/kg	3.79	15.2	1
33213–65–9	Endosulfan II	U	15.2	ug/kg	3.79	15.2	1
7421–93–4	Endrin aldehyde	U	15.2	ug/kg	3.79	15.2	1
50–29–3	4,4'–DDT	U	15.2	ug/kg	3.79	15.2	1
1031–07–8	Endosulfan sulfate	U	15.2	ug/kg	3.79	15.2	1
72–43–5	Methoxychlor	U	75.8	ug/kg	18.9	75.8	1
53494–70–5	Endrin ketone	U	15.2	ug/kg	3.79	15.2	1
8001–35–2	Toxaphene	U	189	ug/kg	63.1	189	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815010**	**Date Received:**	**03/05/2010 10:20**	**% Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13862**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 02:01**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30.04 g**	**Final Volume:**	**5 mL**
Data File:	**031f3101.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	031b3101.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.51	ug/kg	1.88	7.51	1
58-89-9	gamma-BHC (Lindane)	U	7.51	ug/kg	1.88	7.51	1
319-85-7	beta-BHC	U	7.51	ug/kg	1.88	7.51	1
319-86-8	delta-BHC	U	7.51	ug/kg	1.88	7.51	1
76-44-8	Heptachlor	U	7.51	ug/kg	1.88	7.51	1
309-00-2	Aldrin	U	7.51	ug/kg	1.88	7.51	1
1024-57-3	Heptachlor epoxide	U	7.51	ug/kg	2.35	7.51	1
5103-74-2	gamma-Chlordane	U	7.51	ug/kg	1.88	7.51	1
5103-71-9	alpha-Chlordane	U	7.51	ug/kg	1.88	7.51	1
959-98-8	Endosulfan I	U	7.51	ug/kg	1.88	7.51	1
72-55-9	4,4'-DDE	U	15.0	ug/kg	3.75	15.0	1
60-57-1	Dieldrin	U	15.0	ug/kg	3.75	15.0	1
72-20-8	Endrin	U	15.0	ug/kg	3.75	15.0	1
72-54-8	4,4'-DDD	U	15.0	ug/kg	3.75	15.0	1
33213-65-9	Endosulfan II	U	15.0	ug/kg	3.75	15.0	1
7421-93-4	Endrin aldehyde	U	15.0	ug/kg	3.75	15.0	1
50-29-3	4,4'-DDT	U	15.0	ug/kg	3.75	15.0	1
1031-07-8	Endosulfan sulfate	U	15.0	ug/kg	3.75	15.0	1
72-43-5	Methoxychlor	U	75.1	ug/kg	18.8	75.1	1
53494-70-5	Endrin ketone	U	15.0	ug/kg	3.75	15.0	1
8001-35-2	Toxaphene	U	188	ug/kg	62.5	188	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13863**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/17/2010 23:58**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**022f2201.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	022b2201.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.53	ug/kg	1.88	7.53	1
58-89-9	gamma-BHC (Lindane)	U	7.53	ug/kg	1.88	7.53	1
319-85-7	beta-BHC	U	7.53	ug/kg	1.88	7.53	1
319-86-8	delta-BHC	U	7.53	ug/kg	1.88	7.53	1
76-44-8	Heptachlor	U	7.53	ug/kg	1.88	7.53	1
309-00-2	Aldrin	U	7.53	ug/kg	1.88	7.53	1
1024-57-3	Heptachlor epoxide	U	7.53	ug/kg	2.35	7.53	1
5103-74-2	gamma-Chlordane	U	7.53	ug/kg	1.88	7.53	1
5103-71-9	alpha-Chlordane	U	7.53	ug/kg	1.88	7.53	1
959-98-8	Endosulfan I	U	7.53	ug/kg	1.88	7.53	1
72-55-9	4,4'-DDE	U	15.1	ug/kg	3.77	15.1	1
60-57-1	Dieldrin	U	15.1	ug/kg	3.77	15.1	1
72-20-8	Endrin	U	15.1	ug/kg	3.77	15.1	1
72-54-8	4,4'-DDD	U	15.1	ug/kg	3.77	15.1	1
33213-65-9	Endosulfan II	U	15.1	ug/kg	3.77	15.1	1
7421-93-4	Endrin aldehyde	U	15.1	ug/kg	3.77	15.1	1
50-29-3	4,4'-DDT	U	15.1	ug/kg	3.77	15.1	1
1031-07-8	Endosulfan sulfate	U	15.1	ug/kg	3.77	15.1	1
72-43-5	Methoxychlor	U	75.3	ug/kg	18.8	75.3	1
53494-70-5	Endrin ketone	U	15.1	ug/kg	3.77	15.1	1
8001-35-2	Toxaphene	U	188	ug/kg	62.7	188	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13864**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/17/2010 23:45**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**021f2101.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	021b2101.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.76	ug/kg	1.94	7.76	1
58-89-9	gamma-BHC (Lindane)	U	7.76	ug/kg	1.94	7.76	1
319-85-7	beta-BHC	U	7.76	ug/kg	1.94	7.76	1
319-86-8	delta-BHC	U	7.76	ug/kg	1.94	7.76	1
76-44-8	Heptachlor	U	7.76	ug/kg	1.94	7.76	1
309-00-2	Aldrin	U	7.76	ug/kg	1.94	7.76	1
1024-57-3	Heptachlor epoxide	U	7.76	ug/kg	2.42	7.76	1
5103-74-2	gamma-Chlordane	U	7.76	ug/kg	1.94	7.76	1
5103-71-9	alpha-Chlordane	U	7.76	ug/kg	1.94	7.76	1
959-98-8	Endosulfan I	U	7.76	ug/kg	1.94	7.76	1
72-55-9	4,4'-DDE	U	15.5	ug/kg	3.88	15.5	1
60-57-1	Dieldrin	U	15.5	ug/kg	3.88	15.5	1
72-20-8	Endrin	U	15.5	ug/kg	3.88	15.5	1
72-54-8	4,4'-DDD	U	15.5	ug/kg	3.88	15.5	1
33213-65-9	Endosulfan II	U	15.5	ug/kg	3.88	15.5	1
7421-93-4	Endrin aldehyde	U	15.5	ug/kg	3.88	15.5	1
50-29-3	4,4'-DDT	U	15.5	ug/kg	3.88	15.5	1
1031-07-8	Endosulfan sulfate	U	15.5	ug/kg	3.88	15.5	1
72-43-5	Methoxychlor	U	77.6	ug/kg	19.4	77.6	1
53494-70-5	Endrin ketone	U	15.5	ug/kg	3.88	15.5	1
8001-35-2	Toxaphene	U	194	ug/kg	64.6	194	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815008	**Date Received:**	03/05/2010 10:20	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13865	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	965996	**Inst:**	ECD3A.I	**Dilution:**	10
Run Date:	03/18/2010 01:34	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 11:39	**Aliquot:**	30 g	**Final Volume:**	5 mL
Data File:	029f2901.d	**Column:**	1 CLP–1	**Level:**	LOW
	029b2901.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.28	ug/kg	1.82	7.28	1
58–89–9	gamma–BHC (Lindane)	U	7.28	ug/kg	1.82	7.28	1
319–85–7	beta–BHC	U	7.28	ug/kg	1.82	7.28	1
319–86–8	delta–BHC	U	7.28	ug/kg	1.82	7.28	1
76–44–8	Heptachlor	U	7.28	ug/kg	1.82	7.28	1
309–00–2	Aldrin	U	7.28	ug/kg	1.82	7.28	1
1024–57–3	Heptachlor epoxide	U	7.28	ug/kg	2.28	7.28	1
5103–74–2	gamma–Chlordane	U	7.28	ug/kg	1.82	7.28	1
5103–71–9	alpha–Chlordane	U	7.28	ug/kg	1.82	7.28	1
959–98–8	Endosulfan I	U	7.28	ug/kg	1.82	7.28	1
72–55–9	4,4'–DDE	U	14.6	ug/kg	3.64	14.6	1
60–57–1	Dieldrin	U	14.6	ug/kg	3.64	14.6	1
72–20–8	Endrin	U	14.6	ug/kg	3.64	14.6	1
72–54–8	4,4'–DDD	U	14.6	ug/kg	3.64	14.6	1
33213–65–9	Endosulfan II	U	14.6	ug/kg	3.64	14.6	1
7421–93–4	Endrin aldehyde	U	14.6	ug/kg	3.64	14.6	1
50–29–3	4,4'–DDT	U	14.6	ug/kg	3.64	14.6	1
1031–07–8	Endosulfan sulfate	U	14.6	ug/kg	3.64	14.6	1
72–43–5	Methoxychlor	U	72.8	ug/kg	18.2	72.8	1
53494–70–5	Endrin ketone	U	14.6	ug/kg	3.64	14.6	1
8001–35–2	Toxaphene	U	182	ug/kg	60.6	182	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815006	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13866	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	965996	**Inst:**	ECD3A.I	**Dilution:**	10
Run Date:	03/18/2010 01:06	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 11:39	**Aliquot:**	30.01 g	**Final Volume:**	5 mL
Data File:	027f2701.d	**Column:**	1 CLP-1	**Level:**	LOW
	027b2701.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.17	ug/kg	1.79	7.17	1
58-89-9	gamma-BHC (Lindane)	U	7.17	ug/kg	1.79	7.17	1
319-85-7	beta-BHC	U	7.17	ug/kg	1.79	7.17	1
319-86-8	delta-BHC	U	7.17	ug/kg	1.79	7.17	1
76-44-8	Heptachlor	U	7.17	ug/kg	1.79	7.17	1
309-00-2	Aldrin	U	7.17	ug/kg	1.79	7.17	1
1024-57-3	Heptachlor epoxide	U	7.17	ug/kg	2.24	7.17	1
5103-74-2	gamma-Chlordane	U	7.17	ug/kg	1.79	7.17	1
5103-71-9	alpha-Chlordane	U	7.17	ug/kg	1.79	7.17	1
959-98-8	Endosulfan I	U	7.17	ug/kg	1.79	7.17	1
72-55-9	4,4'-DDE	U	14.3	ug/kg	3.59	14.3	1
60-57-1	Dieldrin	U	14.3	ug/kg	3.59	14.3	1
72-20-8	Endrin	U	14.3	ug/kg	3.59	14.3	1
72-54-8	4,4'-DDD	U	14.3	ug/kg	3.59	14.3	1
33213-65-9	Endosulfan II	U	14.3	ug/kg	3.59	14.3	1
7421-93-4	Endrin aldehyde	U	14.3	ug/kg	3.59	14.3	1
50-29-3	4,4'-DDT	U	14.3	ug/kg	3.59	14.3	1
1031-07-8	Endosulfan sulfate	U	14.3	ug/kg	3.59	14.3	1
72-43-5	Methoxychlor	U	71.7	ug/kg	17.9	71.7	1
53494-70-5	Endrin ketone	U	14.3	ug/kg	3.59	14.3	1
8001-35-2	Toxaphene	U	179	ug/kg	59.7	179	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13867**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/17/2010 23:04**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30.01 g**	**Final Volume:**	**5 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	018b1801.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.24	ug/kg	1.81	7.24	1
58–89–9	gamma–BHC (Lindane)	U	7.24	ug/kg	1.81	7.24	1
319–85–7	beta–BHC	U	7.24	ug/kg	1.81	7.24	1
319–86–8	delta–BHC	U	7.24	ug/kg	1.81	7.24	1
76–44–8	Heptachlor	U	7.24	ug/kg	1.81	7.24	1
309–00–2	Aldrin	U	7.24	ug/kg	1.81	7.24	1
1024–57–3	Heptachlor epoxide	U	7.24	ug/kg	2.26	7.24	1
5103–74–2	gamma–Chlordane	U	7.24	ug/kg	1.81	7.24	1
5103–71–9	alpha–Chlordane	U	7.24	ug/kg	1.81	7.24	1
959–98–8	Endosulfan I	U	7.24	ug/kg	1.81	7.24	1
72–55–9	4,4'–DDE	U	14.5	ug/kg	3.62	14.5	1
60–57–1	Dieldrin	U	14.5	ug/kg	3.62	14.5	1
72–20–8	Endrin	U	14.5	ug/kg	3.62	14.5	1
72–54–8	4,4'–DDD	U	14.5	ug/kg	3.62	14.5	1
33213–65–9	Endosulfan II	U	14.5	ug/kg	3.62	14.5	1
7421–93–4	Endrin aldehyde	U	14.5	ug/kg	3.62	14.5	1
50–29–3	4,4'–DDT	U	14.5	ug/kg	3.62	14.5	1
1031–07–8	Endosulfan sulfate	U	14.5	ug/kg	3.62	14.5	1
72–43–5	Methoxychlor	U	72.4	ug/kg	18.1	72.4	1
53494–70–5	Endrin ketone	U	14.5	ug/kg	3.62	14.5	1
8001–35–2	Toxaphene	U	181	ug/kg	60.2	181	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13868	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	965996	**Inst:**	ECD3A.I	**Dilution:**	10
Run Date:	03/18/2010 01:47	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 11:39	**Aliquot:**	30 g	**Final Volume:**	5 mL
Data File:	030f3001.d	**Column:**	1 CLP–1	**Level:**	LOW
	030b3001.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.22	ug/kg	1.81	7.22	1
58–89–9	gamma–BHC (Lindane)	U	7.22	ug/kg	1.81	7.22	1
319–85–7	beta–BHC	U	7.22	ug/kg	1.81	7.22	1
319–86–8	delta–BHC	U	7.22	ug/kg	1.81	7.22	1
76–44–8	Heptachlor	U	7.22	ug/kg	1.81	7.22	1
309–00–2	Aldrin	U	7.22	ug/kg	1.81	7.22	1
1024–57–3	Heptachlor epoxide	U	7.22	ug/kg	2.26	7.22	1
5103–74–2	gamma–Chlordane	U	7.22	ug/kg	1.81	7.22	1
5103–71–9	alpha–Chlordane	U	7.22	ug/kg	1.81	7.22	1
959–98–8	Endosulfan I	U	7.22	ug/kg	1.81	7.22	1
72–55–9	4,4'–DDE	U	14.4	ug/kg	3.61	14.4	1
60–57–1	Dieldrin	U	14.4	ug/kg	3.61	14.4	1
72–20–8	Endrin	U	14.4	ug/kg	3.61	14.4	1
72–54–8	4,4'–DDD	U	14.4	ug/kg	3.61	14.4	1
33213–65–9	Endosulfan II	U	14.4	ug/kg	3.61	14.4	1
7421–93–4	Endrin aldehyde	U	14.4	ug/kg	3.61	14.4	1
50–29–3	4,4'–DDT	U	14.4	ug/kg	3.61	14.4	1
1031–07–8	Endosulfan sulfate	U	14.4	ug/kg	3.61	14.4	1
72–43–5	Methoxychlor	U	72.2	ug/kg	18.1	72.2	1
53494–70–5	Endrin ketone	U	14.4	ug/kg	3.61	14.4	1
8001–35–2	Toxaphene	U	181	ug/kg	60.1	181	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13869**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**965996**	**Inst:**	**ECD3A.1**	**Dilution:**	**10**
Run Date:	**03/18/2010 00:12**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30.01 g**	**Final Volume:**	**5 mL**
Data File:	**023f2301.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	023b2301.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.24	ug/kg	1.81	7.24	1
58–89–9	gamma–BHC (Lindane)	U	7.24	ug/kg	1.81	7.24	1
319–85–7	beta–BHC	U	7.24	ug/kg	1.81	7.24	1
319–86–8	delta–BHC	U	7.24	ug/kg	1.81	7.24	1
76–44–8	Heptachlor	U	7.24	ug/kg	1.81	7.24	1
309–00–2	Aldrin	U	7.24	ug/kg	1.81	7.24	1
1024–57–3	Heptachlor epoxide	U	7.24	ug/kg	2.26	7.24	1
5103–74–2	gamma–Chlordane	U	7.24	ug/kg	1.81	7.24	1
5103–71–9	alpha–Chlordane	U	7.24	ug/kg	1.81	7.24	1
959–98–8	Endosulfan I	U	7.24	ug/kg	1.81	7.24	1
72–55–9	4,4'–DDE	U	14.5	ug/kg	3.62	14.5	1
60–57–1	Dieldrin	U	14.5	ug/kg	3.62	14.5	1
72–20–8	Endrin	U	14.5	ug/kg	3.62	14.5	1
72–54–8	4,4'–DDD	U	14.5	ug/kg	3.62	14.5	1
33213–65–9	Endosulfan II	U	14.5	ug/kg	3.62	14.5	1
7421–93–4	Endrin aldehyde	U	14.5	ug/kg	3.62	14.5	1
50–29–3	4,4'–DDT	U	14.5	ug/kg	3.62	14.5	1
1031–07–8	Endosulfan sulfate	U	14.5	ug/kg	3.62	14.5	1
72–43–5	Methoxychlor	U	72.4	ug/kg	18.1	72.4	1
53494–70–5	Endrin ketone	U	14.5	ug/kg	3.62	14.5	1
8001–35–2	Toxaphene	U	181	ug/kg	60.3	181	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815011**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13873**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 02:15**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30.04 g**	**Final Volume:**	**5 mL**
Data File:	**032f3201.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	032b3201.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.16	ug/kg	1.79	7.16	1
58-89-9	gamma-BHC (Lindane)	U	7.16	ug/kg	1.79	7.16	1
319-85-7	beta-BHC	U	7.16	ug/kg	1.79	7.16	1
319-86-8	delta-BHC	U	7.16	ug/kg	1.79	7.16	1
76-44-8	Heptachlor	U	7.16	ug/kg	1.79	7.16	1
309-00-2	Aldrin	U	7.16	ug/kg	1.79	7.16	1
1024-57-3	Heptachlor epoxide	U	7.16	ug/kg	2.24	7.16	1
5103-74-2	gamma-Chlordane	U	7.16	ug/kg	1.79	7.16	1
5103-71-9	alpha-Chlordane	U	7.16	ug/kg	1.79	7.16	1
959-98-8	Endosulfan I	U	7.16	ug/kg	1.79	7.16	1
72-55-9	4,4'-DDE	U	14.3	ug/kg	3.58	14.3	1
60-57-1	Dieldrin	U	14.3	ug/kg	3.58	14.3	1
72-20-8	Endrin	U	14.3	ug/kg	3.58	14.3	1
72-54-8	4,4'-DDD	U	14.3	ug/kg	3.58	14.3	1
33213-65-9	Endosulfan II	U	14.3	ug/kg	3.58	14.3	1
7421-93-4	Endrin aldehyde	U	14.3	ug/kg	3.58	14.3	1
50-29-3	4,4'-DDT	U	14.3	ug/kg	3.58	14.3	1
1031-07-8	Endosulfan sulfate	U	14.3	ug/kg	3.58	14.3	1
72-43-5	Methoxychlor	U	71.6	ug/kg	17.9	71.6	1
53494-70-5	Endrin ketone	U	14.3	ug/kg	3.58	14.3	1
8001-35-2	Toxaphene	U	179	ug/kg	59.6	179	1

QUALITY CONTROL SUMMARY

Pesticide

Surrogate Recovery Report

SDG Number: 10-2298

Matrix Type: SOLID

CAP Column (1) : CLP-1 **CAP Column (2) : CLP-2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
1202073033	MB for batch 965995	85		80		97		98	
1202073034	LCS for batch 965995	83		81		89		100	
1202073037	LCS for batch 965995	87		84		88		98	
248815001	RE46-10-13867	51	D	58	D	65	D	77	D
1202073035	RE46-10-13867MS	64	D	71	D	81	D	90	D
1202073036	RE46-10-13867MSD	63	D	70	D	79	D	85	D
248815002	RE46-10-13864	53	D	58	D	55	D	60	D
248815003	RE46-10-13863	64	D	71	D	93	D	98	D
248815004	RE46-10-13869	65	D	72	D	90	D	94	D
248815005	RE46-10-13861	58	D	63	D	65	D	65	D
248815006	RE46-10-13866	62	D	68	D	65	D	69	D
248815007	RE46-10-13860	56	D	58	D	49	D	51	D
248815008	RE46-10-13865	47	D	49	D	51	D	56	D
248815009	RE46-10-13868	52	D	54	D	52	D	43	D
248815010	RE46-10-13862	54	D	54	D	52	D	49	D
248815011	RE46-10-13873	60	D	64	D	82	D	54	D

Surrogate		Acceptance Limits
4CMX	= 4cmx	(32%-120%)
DCB	= Decachlorobiphenyl	(30%-116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2298
Client ID: LCS for batch 965995
Lab Sample ID: 1202073034
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/17/2010 22:36
Dilution: 1
Prep Batch ID: 965995
Batch ID: 965996

CAS No	Parmname		Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
319-84-6	LCS	alpha-BHC	16.7	0.0	14.0	84	57-130
58-89-9	LCS	gamma-BHC (Lindane)	16.7	0.0	14.5	87	56-132
319-85-7	LCS	beta-BHC	16.7	0.0	13.7	82	53-123
319-86-8	LCS	delta-BHC	16.7	0.0	14.3	86	56-130
76-44-8	LCS	Heptachlor	16.7	0.0	14.2	85	51-131
309-00-2	LCS	Aldrin	16.7	0.0	13.2	79	51-124
1024-57-3	LCS	Heptachlor epoxide	16.7	0.0	13.6	82	52-123
5103-74-2	LCS	gamma-Chlordane	16.7	0.0	14.4	86	57-126
5103-71-9	LCS	alpha-Chlordane	16.7	0.0	14.8	89	53-128
959-98-8	LCS	Endosulfan I	16.7	0.0	14.2	85	43-126
72-55-9	LCS	4,4'-DDE	41.7	0.0	37.8	91	59-122
60-57-1	LCS	Dieldrin	41.7	0.0	35.8	86	52-120
72-20-8	LCS	Endrin	41.7	0.0	40.0	96	61-135
72-54-8	LCS	4,4'-DDD	41.7	0.0	41.3	99	60-129
33213-65-9	LCS	Endosulfan II	41.7	0.0	38.7	93	50-126
7421-93-4	LCS	Endrin aldehyde	41.7	0.0	37.2	89	47-117
50-29-3	LCS	4,4'-DDT	41.7	0.0	42.5	102	50-142
1031-07-8	LCS	Endosulfan sulfate	41.7	0.0	41.8	100	61-132
72-43-5	LCS	Methoxychlor	167	0.0	154	92	59-140
53494-70-5	LCS	Endrin ketone	41.7	0.0	40.7	98	57-129

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2298
Client ID: LCS for batch 965995
Lab Sample ID: 1202073037
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/17/2010 22:50
Dilution: 1
Prep Batch ID: 965995
Batch ID: 965996

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
8001–35–2	LCS Toxaphene	133	0.0	101	76	50–129

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2298**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE46-10-13867MS**	**Matrix:**	**S**
Lab Sample ID:	**1202073035**	**%Moisture:**	**7.9**
Instrument:	**ECD3A.I**	**Analysis Date:**	**03/17/2010 23:17**
Analyst:	**HXJ1**	**Prep Batch ID:**	**965995**
Inj. Vol:	**1 uL**	**Batch ID:**	**965996**

Dilution: 10

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
319-84-6	MS	alpha-BHC	18.1	0.00	U	12.4	68	36-122
58-89-9	MS	gamma-BHC (Lindane)	18.1	0.00	U	13.3	74	37-126
319-85-7	MS	beta-BHC	18.1	0.00	U	14.9	82	33-129
319-86-8	MS	delta-BHC	18.1	0.00	U	13.4	74	32-125
76-44-8	MS	Heptachlor	18.1	0.00	U	13.2	73	33-128
309-00-2	MS	Aldrin	18.1	0.00	U	12.6	69	40-120
1024-57-3	MS	Heptachlor epoxide	18.1	0.00	U	13.5	75	30-128
5103-74-2	MS	gamma-Chlordane	18.1	0.00	U	13.2	73	35-133
5103-71-9	MS	alpha-Chlordane	18.1	0.00	U	13.9	77	36-129
959-98-8	MS	Endosulfan I	18.1	0.00	U	13.5	75	31-118
72-55-9	MS	4,4'-DDE	45.2	0.00	U	35.1	78	36-127
60-57-1	MS	Dieldrin	45.2	0.00	U	33.9	75	32-126
72-20-8	MS	Endrin	45.2	0.00	U	39.2	87	37-137
72-54-8	MS	4,4'-DDD	45.2	0.00	U	36.6	81	34-131
33213-65-9	MS	Endosulfan II	45.2	0.00	U	35.6	79	25-128
7421-93-4	MS	Endrin aldehyde	45.2	0.00	U	31.4	69	30-120
50-29-3	MS	4,4'-DDT	45.2	0.00	U	38.2	84	30-147
1031-07-8	MS	Endosulfan sulfate	45.2	0.00	U	36.0	80	32-127
72-43-5	MS	Methoxychlor	181	0.00	U	158	87	32-144
53494-70-5	MS	Endrin ketone	45.2	0.00	U	37.1	82	35-130

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2298
Client ID: RE46-10-13867MSD
Lab Sample ID: 1202073036
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 7.9
Analysis Date: 03/17/2010 23:31
Prep Batch ID: 965995
Batch ID: 965996
Dilution: 10

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
319-84-6	MSD alpha-BHC	18.1	0.00	U	11.9	66	36-122	4	0-32
58-89-9	MSD gamma-BHC (Lindane)	18.1	0.00	U	12.8	71	37-126	4	0-29
319-85-7	MSD beta-BHC	18.1	0.00	U	14.4	80	33-129	3	0-30
319-86-8	MSD delta-BHC	18.1	0.00	U	13.0	72	32-125	3	0-29
76-44-8	MSD Heptachlor	18.1	0.00	U	12.5	69	33-128	5	0-33
309-00-2	MSD Aldrin	18.1	0.00	U	11.8	65	40-120	6	0-31
1024-57-3	MSD Heptachlor epoxide	18.1	0.00	U	13.1	72	30-128	3	0-32
5103-74-2	MSD gamma-Chlordane	18.1	0.00	U	12.7	70	35-133	4	0-34
5103-71-9	MSD alpha-Chlordane	18.1	0.00	U	13.5	74	36-129	3	0-34
959-98-8	MSD Endosulfan I	18.1	0.00	U	13.1	72	31-118	3	0-29
72-55-9	MSD 4,4'-DDE	45.2	0.00	U	33.8	75	36-127	4	0-31
60-57-1	MSD Dieldrin	45.2	0.00	U	32.6	72	32-126	4	0-31
72-20-8	MSD Endrin	45.2	0.00	U	37.7	83	37-137	4	0-27
72-54-8	MSD 4,4'-DDD	45.2	0.00	U	35.4	78	34-131	3	0-25
33213-65-9	MSD Endosulfan II	45.2	0.00	U	34.7	77	25-128	3	0-31
7421-93-4	MSD Endrin aldehyde	45.2	0.00	U	31.8	70	30-120	1	0-30
50-29-3	MSD 4,4'-DDT	45.2	0.00	U	37.1	82	30-147	3	0-27
1031-07-8	MSD Endosulfan sulfate	45.2	0.00	U	36.1	80	32-127	0	0-30
72-43-5	MSD Methoxychlor	181	0.00	U	153	85	32-144	3	0-31
53494-70-5	MSD Endrin ketone	45.2	0.00	U	36.6	81	35-130	2	0-26

Method Blank Summary

SDG Number:	10–2298	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965995	Instrument ID:	ECD3A.I_2 ECD3A.I_1	Data File:	015b1501.d 015f1501.d
Lab Sample ID:	1202073033				
Column:	CLP–2 CLP–1	Prep Date:	03/17/2010 11:39	Analyzed:	03/17/10 22:23
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 965995	1202073034	016f1601.d 016b1601.d	03/17/10	2236
02	LCS for batch 965995	1202073037	017f1701.d 017b1701.d	03/17/10	2250
03	RE46–10–13867	248815001	018f1801.d 018b1801.d	03/17/10	2304
04	RE46–10–13867MS	1202073035	019f1901.d 019b1901.d	03/17/10	2317
05	RE46–10–13867MSD	1202073036	020f2001.d 020b2001.d	03/17/10	2331
06	RE46–10–13864	248815002	021f2101.d 021b2101.d	03/17/10	2345
07	RE46–10–13863	248815003	022f2201.d 022b2201.d	03/17/10	2358
08	RE46–10–13869	248815004	023f2301.d 023b2301.d	03/18/10	0012
09	RE46–10–13861	248815005	026f2601.d 026b2601.d	03/18/10	0053
10	RE46–10–13866	248815006	027f2701.d 027b2701.d	03/18/10	0106
11	RE46–10–13860	248815007	028f2801.d 028b2801.d	03/18/10	0120
12	RE46–10–13865	248815008	029f2901.d 029b2901.d	03/18/10	0134
13	RE46–10–13868	248815009	030f3001.d 030b3001.d	03/18/10	0147
14	RE46–10–13862	248815010	031f3101.d 031b3101.d	03/18/10	0201
15	RE46–10–13873	248815011	032f3201.d 032b3201.d	03/18/10	0215

SAMPLE
DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13860**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 01:20**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30.05 g**	**Final Volume:**	**5 mL**
Data File:	**028f2801.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	028b2801.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.36	ug/kg	1.84	7.36	1
58-89-9	gamma-BHC (Lindane)	U	7.36	ug/kg	1.84	7.36	1
319-85-7	beta-BHC	U	7.36	ug/kg	1.84	7.36	1
319-86-8	delta-BHC	U	7.36	ug/kg	1.84	7.36	1
76-44-8	Heptachlor	U	7.36	ug/kg	1.84	7.36	1
309-00-2	Aldrin	U	7.36	ug/kg	1.84	7.36	1
1024-57-3	Heptachlor epoxide	U	7.36	ug/kg	2.30	7.36	1
5103-74-2	gamma-Chlordane	U	7.36	ug/kg	1.84	7.36	1
5103-71-9	alpha-Chlordane	U	7.36	ug/kg	1.84	7.36	1
959-98-8	Endosulfan I	U	7.36	ug/kg	1.84	7.36	1
72-55-9	4,4'-DDE	U	14.7	ug/kg	3.68	14.7	1
60-57-1	Dieldrin	U	14.7	ug/kg	3.68	14.7	1
72-20-8	Endrin	U	14.7	ug/kg	3.68	14.7	1
72-54-8	4,4'-DDD	U	14.7	ug/kg	3.68	14.7	1
33213-65-9	Endosulfan II	U	14.7	ug/kg	3.68	14.7	1
7421-93-4	Endrin aldehyde	U	14.7	ug/kg	3.68	14.7	1
50-29-3	4,4'-DDT	U	14.7	ug/kg	3.68	14.7	1
1031-07-8	Endosulfan sulfate	U	14.7	ug/kg	3.68	14.7	1
72-43-5	Methoxychlor	U	73.6	ug/kg	18.4	73.6	1
53494-70-5	Endrin ketone	U	14.7	ug/kg	3.68	14.7	1
8001-35-2	Toxaphene	U	184	ug/kg	61.2	184	1

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CLP-1

Data file : /chem/ecd3a.i/031710p.b/028f2801.d
Lab Smp Id: 248815007 Client Smp ID: RE46-10-13860
Inj Date : 18-MAR-2010 01:20
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815007|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13860|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 28
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weigth of sample extracted (g)
M	9.53460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.580	0.000	746156	11.1992	20.6	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.663	7.663	0.000	509129	9.86277	18.1	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/028f2801.d

Page 1

Date : 18-MAR-2010 01:20

Client ID: RE46-10-13860

Instrument: ecd3a.i

Sample Info: 12488150071101

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

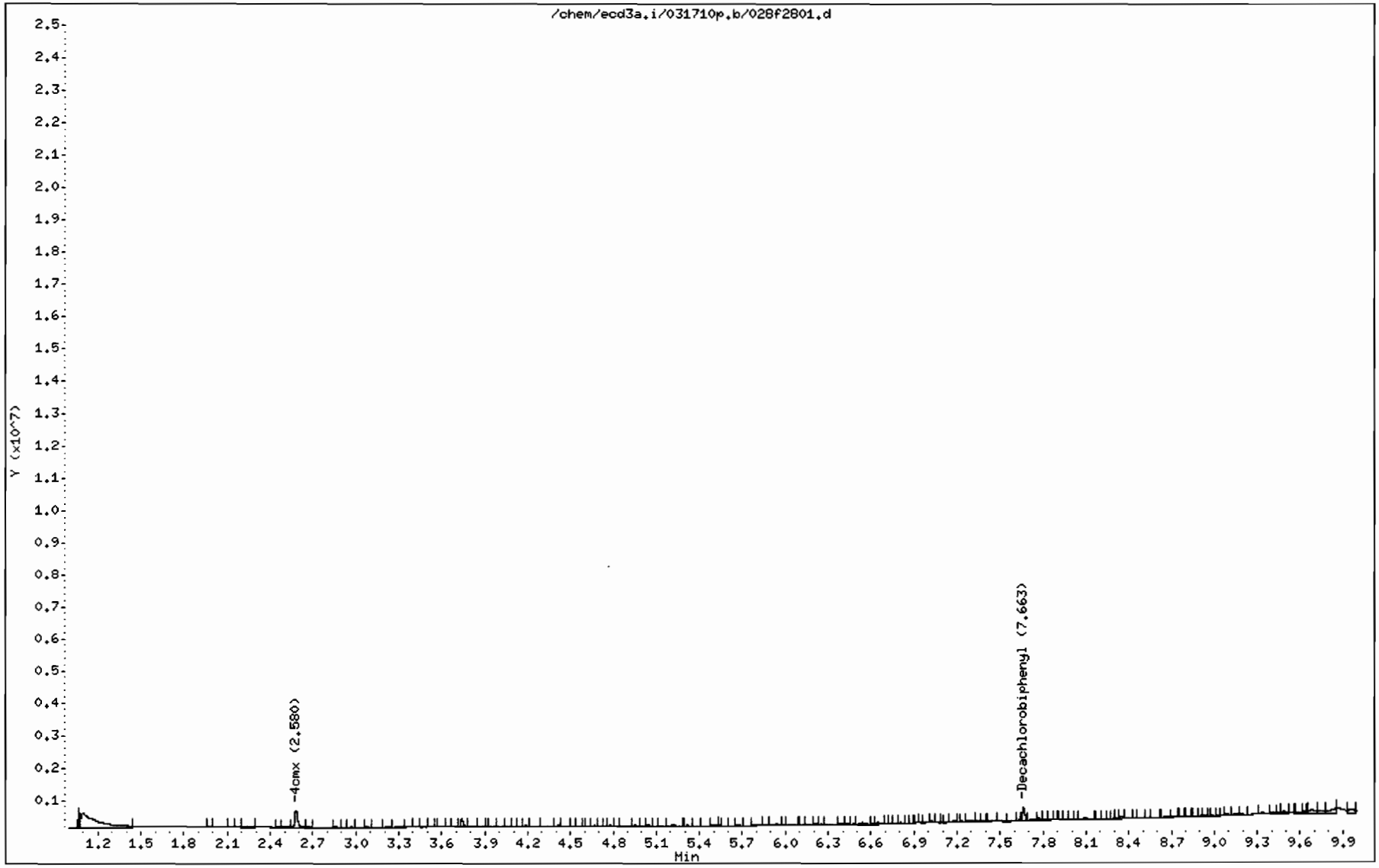

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/028b2801.d
Lab Smp Id: 248815007 Client Smp ID: RE46-10-13860
Inj Date : 18-MAR-2010 01:20
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815007|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13860|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 28
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weigth of sample extracted (g)
M	9.53460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.816	2.817	-0.001	7230277	11.6481	21.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.688	8.688	0.000	3702483	10.1944	18.8	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/028b2801.d

Page 1

Date : 18-MAR-2010 01:20

Client ID: RE46-10-13860

Instrument: ecd3a.i

Sample Info: |248815007|10|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

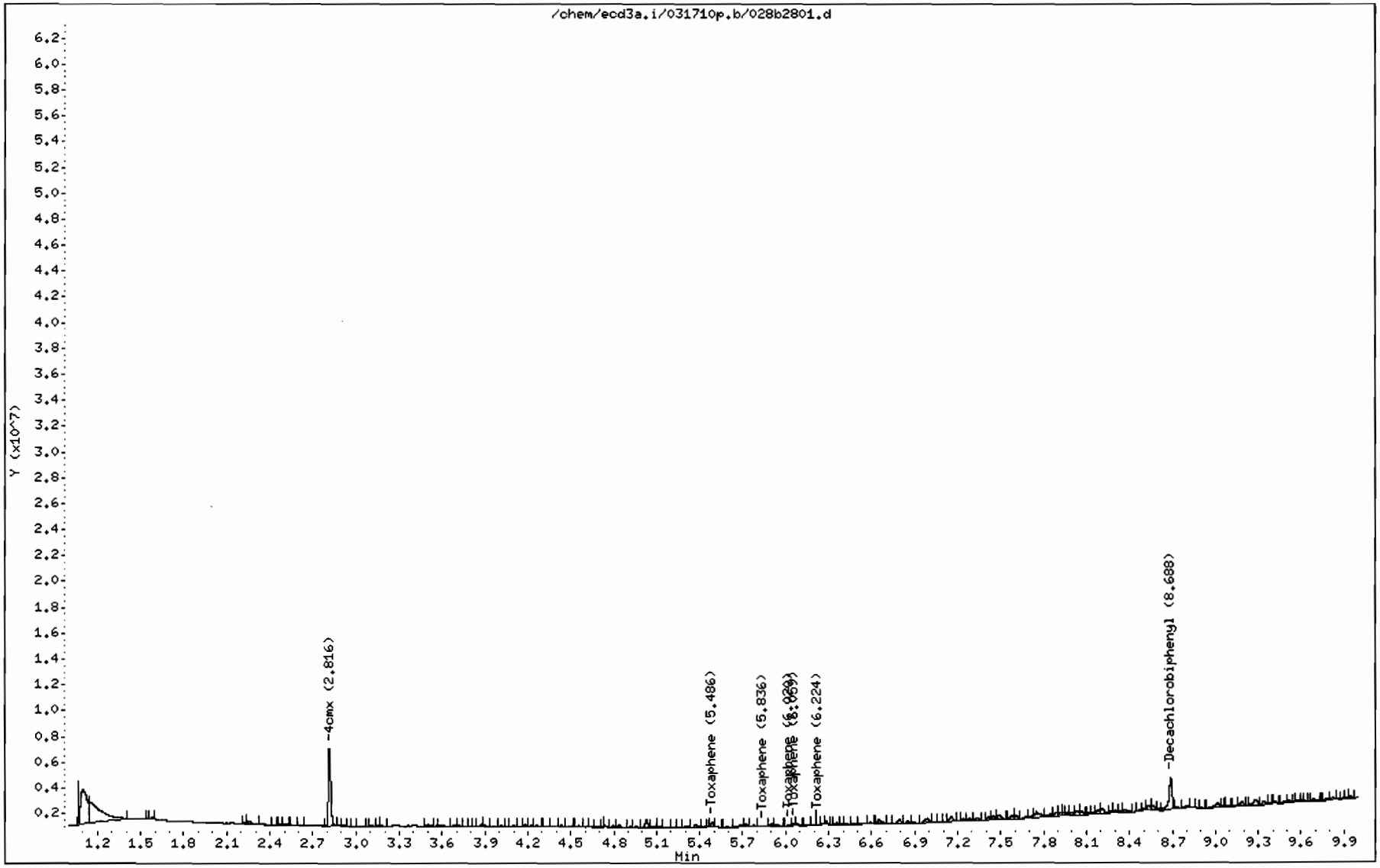

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815005**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**12.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13861**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 00:53**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30.02 g**	**Final Volume:**	**5 mL**
Data File:	**026f2601.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	026b2601.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.58	ug/kg	1.89	7.58	1
58-89-9	gamma-BHC (Lindane)	U	7.58	ug/kg	1.89	7.58	1
319-85-7	beta-BHC	U	7.58	ug/kg	1.89	7.58	1
319-86-8	delta-BHC	U	7.58	ug/kg	1.89	7.58	1
76-44-8	Heptachlor	U	7.58	ug/kg	1.89	7.58	1
309-00-2	Aldrin	U	7.58	ug/kg	1.89	7.58	1
1024-57-3	Heptachlor epoxide	U	7.58	ug/kg	2.37	7.58	1
5103-74-2	gamma-Chlordane	U	7.58	ug/kg	1.89	7.58	1
5103-71-9	alpha-Chlordane	U	7.58	ug/kg	1.89	7.58	1
959-98-8	Endosulfan I	U	7.58	ug/kg	1.89	7.58	1
72-55-9	4,4'-DDE	U	15.2	ug/kg	3.79	15.2	1
60-57-1	Dieldrin	U	15.2	ug/kg	3.79	15.2	1
72-20-8	Endrin	U	15.2	ug/kg	3.79	15.2	1
72-54-8	4,4'-DDD	U	15.2	ug/kg	3.79	15.2	1
33213-65-9	Endosulfan II	U	15.2	ug/kg	3.79	15.2	1
7421-93-4	Endrin aldehyde	U	15.2	ug/kg	3.79	15.2	1
50-29-3	4,4'-DDT	U	15.2	ug/kg	3.79	15.2	1
1031-07-8	Endosulfan sulfate	U	15.2	ug/kg	3.79	15.2	1
72-43-5	Methoxychlor	U	75.8	ug/kg	18.9	75.8	1
53494-70-5	Endrin ketone	U	15.2	ug/kg	3.79	15.2	1
8001-35-2	Toxaphene	U	189	ug/kg	63.1	189	1

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CLP-1

Data file : /chem/ecd3a.i/031710p.b/026f2601.d
Lab Smp Id: 248815005 Client Smp ID: RE46-10-13861
Inj Date : 18-MAR-2010 00:53
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815005|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13861|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 26
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	12.06310	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.579	2.580	-0.001	769305	11.5466	21.9	80.00- 120.00	100.00
$ 32 Decachlorobipheny1					CAS #: 2051-24-3		
7.663	7.663	0.000	673625	13.0494	24.7	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/026f2601.d

Page 1

Date : 18-MAR-2010 00:53

Client ID: RE46-10-13861

Instrument: ecd3a.i

Sample Info: |2488150051101

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

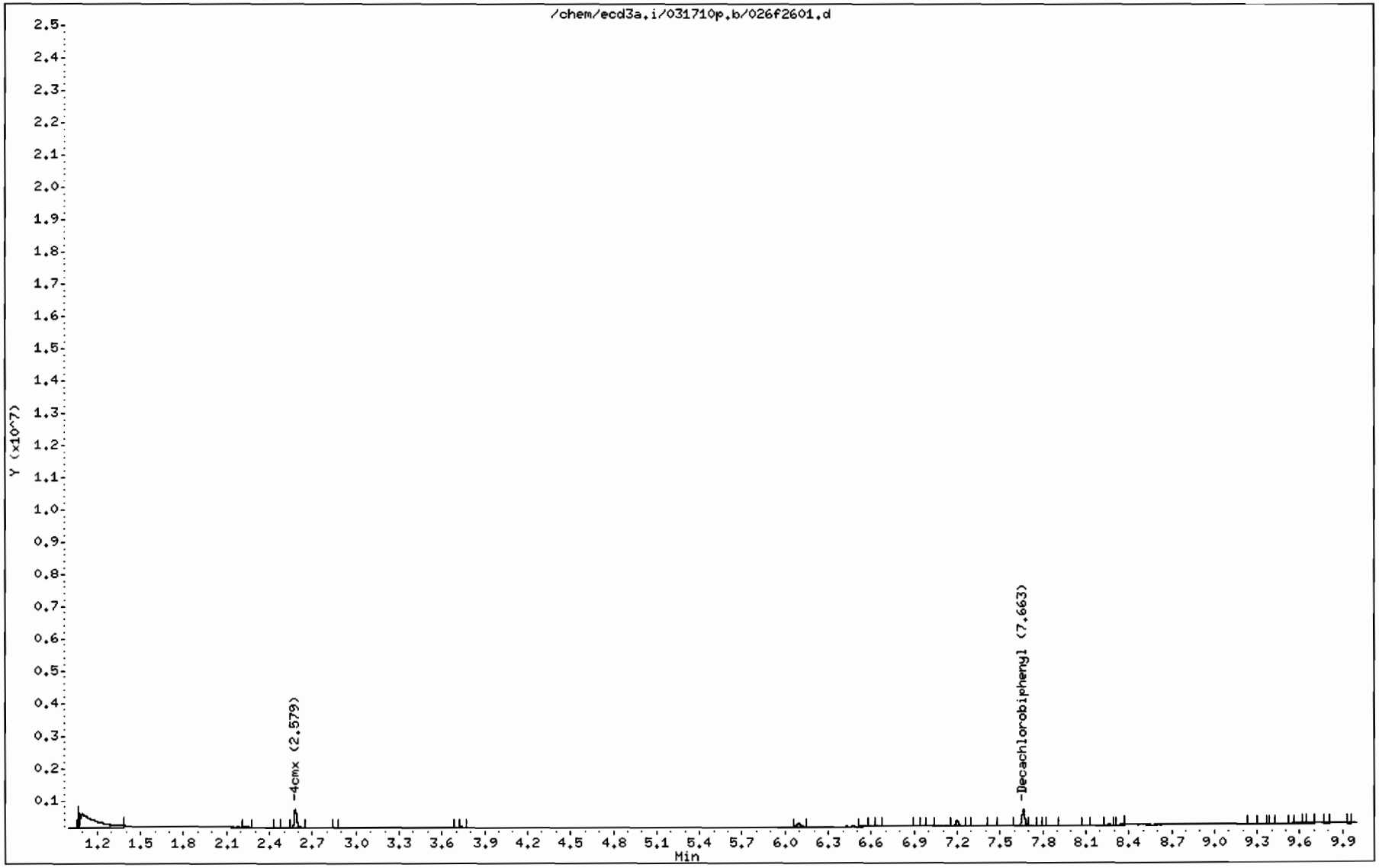

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/026b2601.d
Lab Smp Id: 248815005 Client Smp ID: RE46-10-13861
Inj Date : 18-MAR-2010 00:53
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815005|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13861|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 26
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	12.06310	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.816	2.817	-0.001	7811305	12.5842	23.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.688	8.688	0.000	4702602	12.9482	24.5	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/026b2601.d
Date : 18-MAR-2010 00:53
Client ID: RE46-10-13861
Sample Info: 1248815005110|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

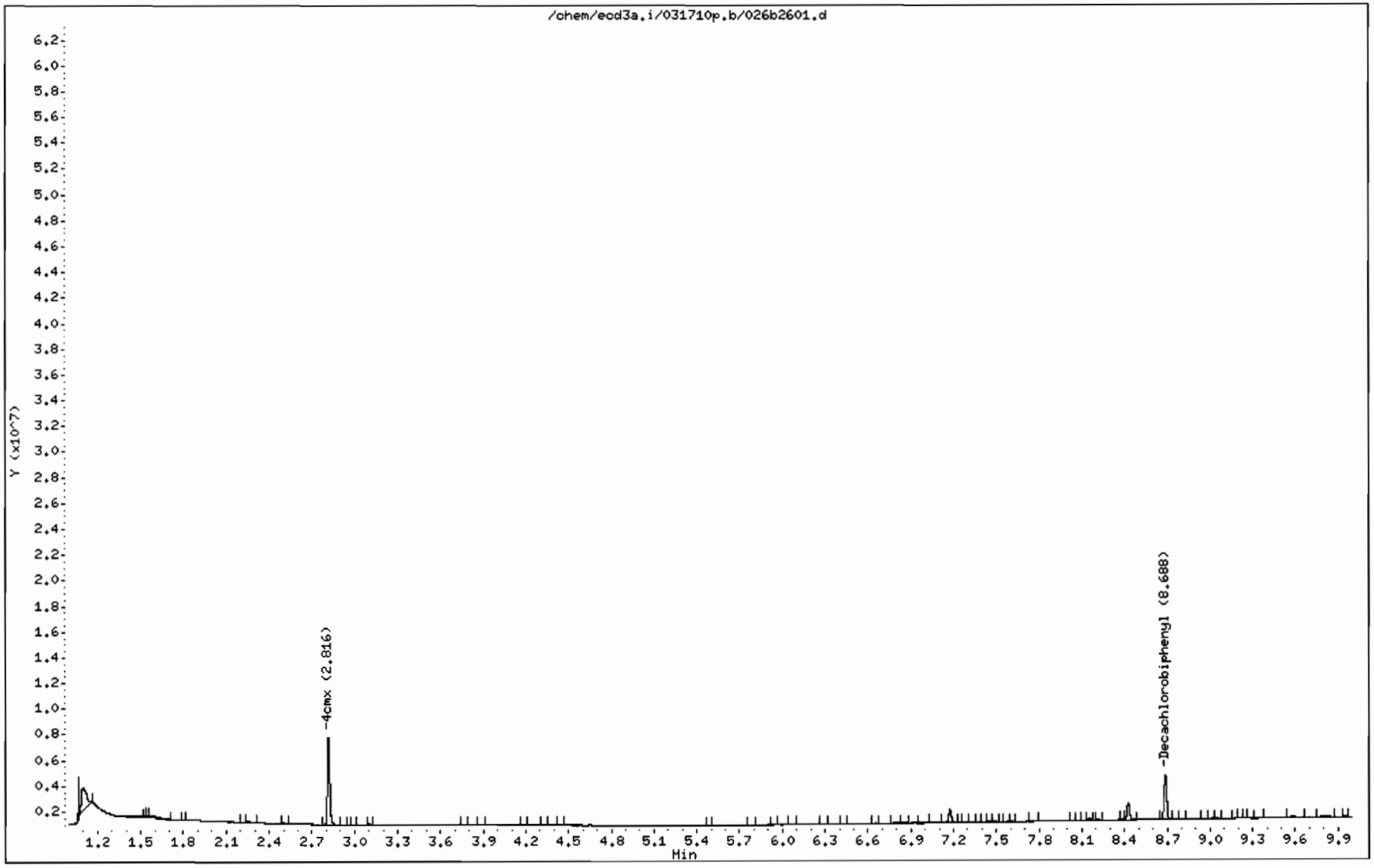

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13862**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 02:01**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30.04 g**	**Final Volume:**	**5 mL**
Data File:	**031f3101.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	031b3101.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.51	ug/kg	1.88	7.51	1
58–89–9	gamma–BHC (Lindane)	U	7.51	ug/kg	1.88	7.51	1
319–85–7	beta–BHC	U	7.51	ug/kg	1.88	7.51	1
319–86–8	delta–BHC	U	7.51	ug/kg	1.88	7.51	1
76–44–8	Heptachlor	U	7.51	ug/kg	1.88	7.51	1
309–00–2	Aldrin	U	7.51	ug/kg	1.88	7.51	1
1024–57–3	Heptachlor epoxide	U	7.51	ug/kg	2.35	7.51	1
5103–74–2	gamma–Chlordane	U	7.51	ug/kg	1.88	7.51	1
5103–71–9	alpha–Chlordane	U	7.51	ug/kg	1.88	7.51	1
959–98–8	Endosulfan I	U	7.51	ug/kg	1.88	7.51	1
72–55–9	4,4'–DDE	U	15.0	ug/kg	3.75	15.0	1
60–57–1	Dieldrin	U	15.0	ug/kg	3.75	15.0	1
72–20–8	Endrin	U	15.0	ug/kg	3.75	15.0	1
72–54–8	4,4'–DDD	U	15.0	ug/kg	3.75	15.0	1
33213–65–9	Endosulfan II	U	15.0	ug/kg	3.75	15.0	1
7421–93–4	Endrin aldehyde	U	15.0	ug/kg	3.75	15.0	1
50–29–3	4,4'–DDT	U	15.0	ug/kg	3.75	15.0	1
1031–07–8	Endosulfan sulfate	U	15.0	ug/kg	3.75	15.0	1
72–43–5	Methoxychlor	U	75.1	ug/kg	18.8	75.1	1
53494–70–5	Endrin ketone	U	15.0	ug/kg	3.75	15.0	1
8001–35–2	Toxaphene	U	188	ug/kg	62.5	188	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/031710p.b/031f3101.d
Lab Smp Id: 248815010 Client Smp ID: RE46-10-13862
Inj Date : 18-MAR-2010 02:01
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815010|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13862|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 31
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weigth of sample extracted (g)
M	11.33080	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.579	2.580	-0.001	724215	10.8699	20.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.664	7.663	0.001	539614	10.4533	19.6	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/031f3101.d

Date : 18-MAR-2010 02:01

Client ID: RE46-10-13862

Sample Info: |248815010|10|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

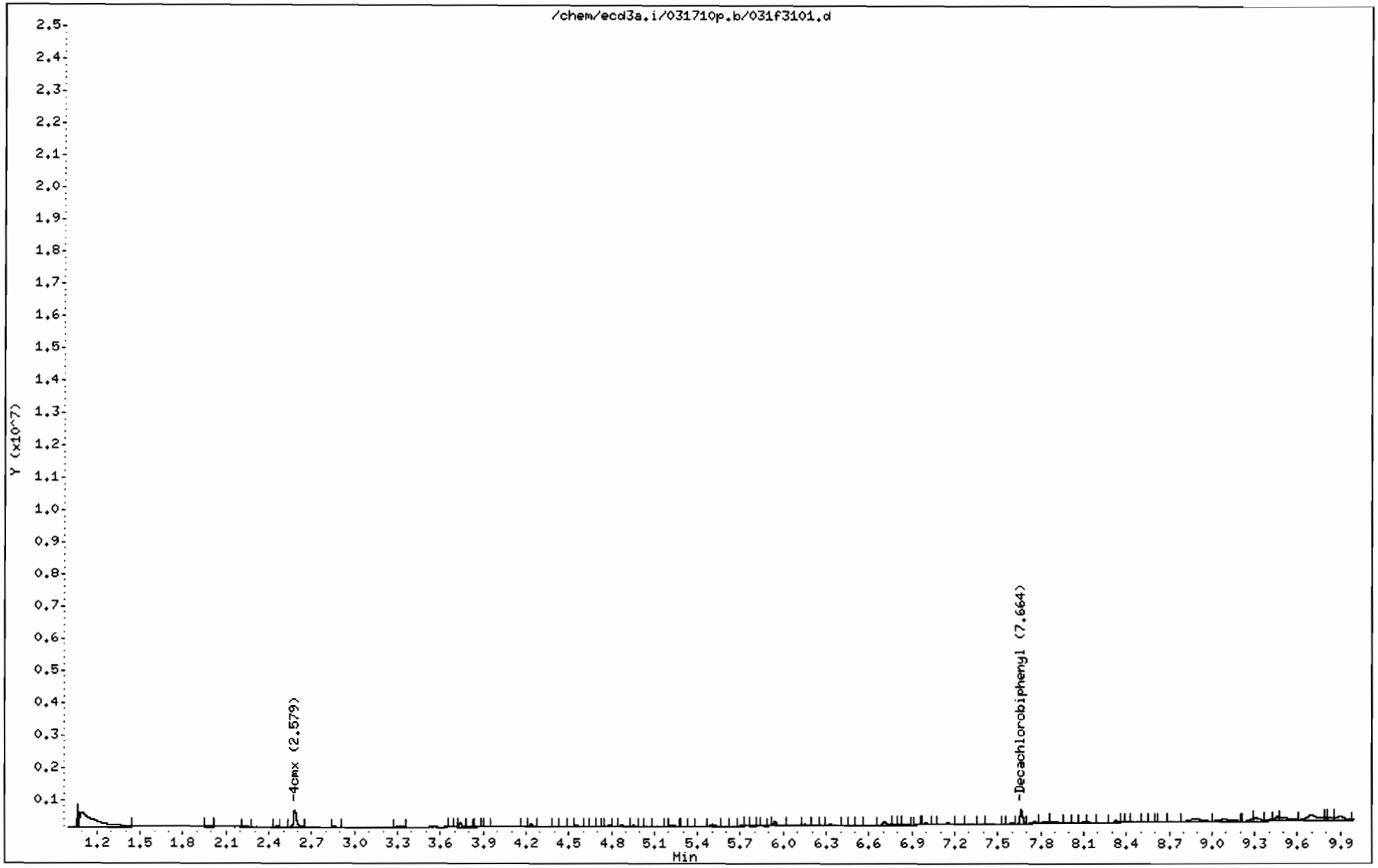

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/031b3101.d
Lab Smp Id: 248815010 Client Smp ID: RE46-10-13862
Inj Date : 18-MAR-2010 02:01
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815010|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13862|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 31
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weigth of sample extracted (g)
M	11.33080	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.817	2.817	0.000	6656857	10.7243	20.1	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.689	8.688	0.001	3556632	9.79284	18.4	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/031b3101.d

Date : 18-MAR-2010 02:01

Client ID: RE46-10-13862

Sample Info: |2488150101|10|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

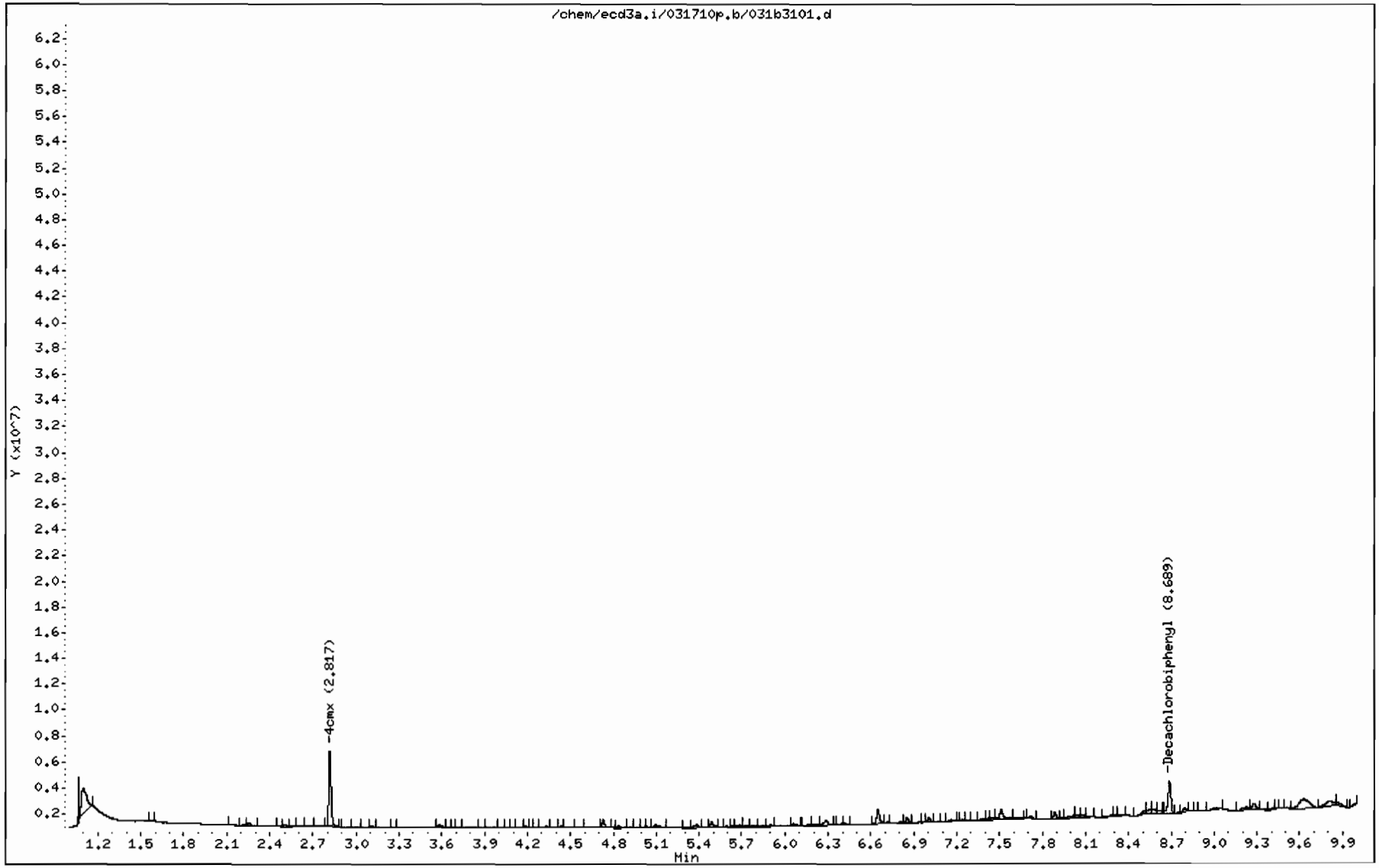

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13863**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/17/2010 23:58**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**022f2201.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	022b2201.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.53	ug/kg	1.88	7.53	1
58-89-9	gamma-BHC (Lindane)	U	7.53	ug/kg	1.88	7.53	1
319-85-7	beta-BHC	U	7.53	ug/kg	1.88	7.53	1
319-86-8	delta-BHC	U	7.53	ug/kg	1.88	7.53	1
76-44-8	Heptachlor	U	7.53	ug/kg	1.88	7.53	1
309-00-2	Aldrin	U	7.53	ug/kg	1.88	7.53	1
1024-57-3	Heptachlor epoxide	U	7.53	ug/kg	2.35	7.53	1
5103-74-2	gamma-Chlordane	U	7.53	ug/kg	1.88	7.53	1
5103-71-9	alpha-Chlordane	U	7.53	ug/kg	1.88	7.53	1
959-98-8	Endosulfan I	U	7.53	ug/kg	1.88	7.53	1
72-55-9	4,4'-DDE	U	15.1	ug/kg	3.77	15.1	1
60-57-1	Dieldrin	U	15.1	ug/kg	3.77	15.1	1
72-20-8	Endrin	U	15.1	ug/kg	3.77	15.1	1
72-54-8	4,4'-DDD	U	15.1	ug/kg	3.77	15.1	1
33213-65-9	Endosulfan II	U	15.1	ug/kg	3.77	15.1	1
7421-93-4	Endrin aldehyde	U	15.1	ug/kg	3.77	15.1	1
50-29-3	4,4'-DDT	U	15.1	ug/kg	3.77	15.1	1
1031-07-8	Endosulfan sulfate	U	15.1	ug/kg	3.77	15.1	1
72-43-5	Methoxychlor	U	75.3	ug/kg	18.8	75.3	1
53494-70-5	Endrin ketone	U	15.1	ug/kg	3.77	15.1	1
8001-35-2	Toxaphene	U	188	ug/kg	62.7	188	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/031710p.b/022f2201.d
Lab Smp Id: 248815003 Client Smp ID: RE46-10-13863
Inj Date : 17-MAR-2010 23:58
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815003|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13863|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 22
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	11.47850	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.579	2.580	-0.001	857731	12.8738	24.2	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.664	7.663	0.001	957162	18.5420	34.9	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/022f2201.d

Page 1

Date : 17-MAR-2010 23:58

Client ID: RE46-10-13863

Instrument: ecd3a.i

Sample Info: |2488150031101

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

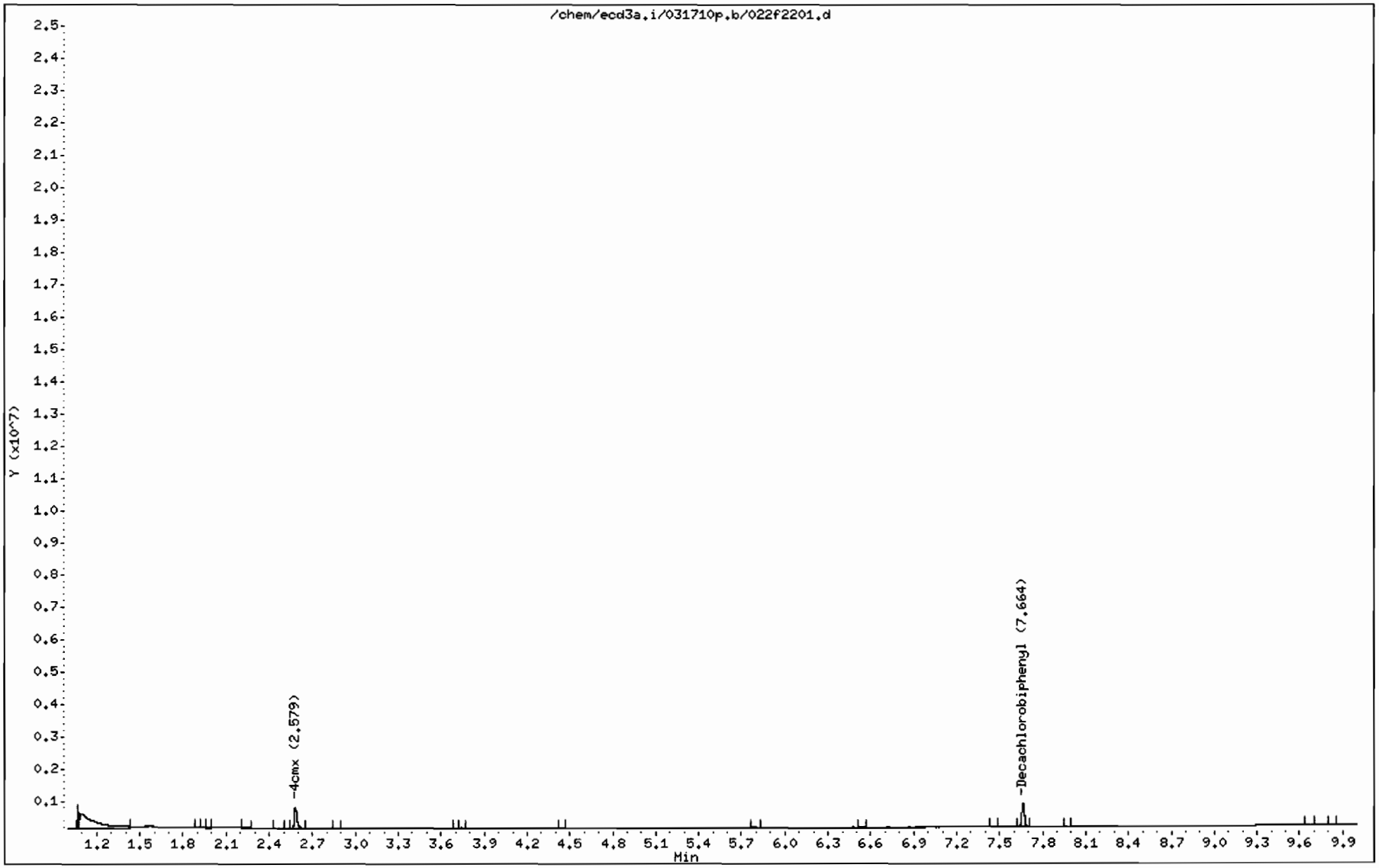

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/022b2201.d
Lab Smp Id: 248815003 Client Smp ID: RE46-10-13863
Inj Date : 17-MAR-2010 23:58
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815003|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13863|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 22
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	11.47850	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.816	2.817	-0.001	8870824	14.2911	26.9	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.687	8.688	-0.001	7094682	19.5345	36.8	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/022b2201.d

Page 1

Date : 17-MAR-2010 23:58

Client ID: RE46-10-13863

Instrument: ecd3a.i

Sample Info: |2488150031|01

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

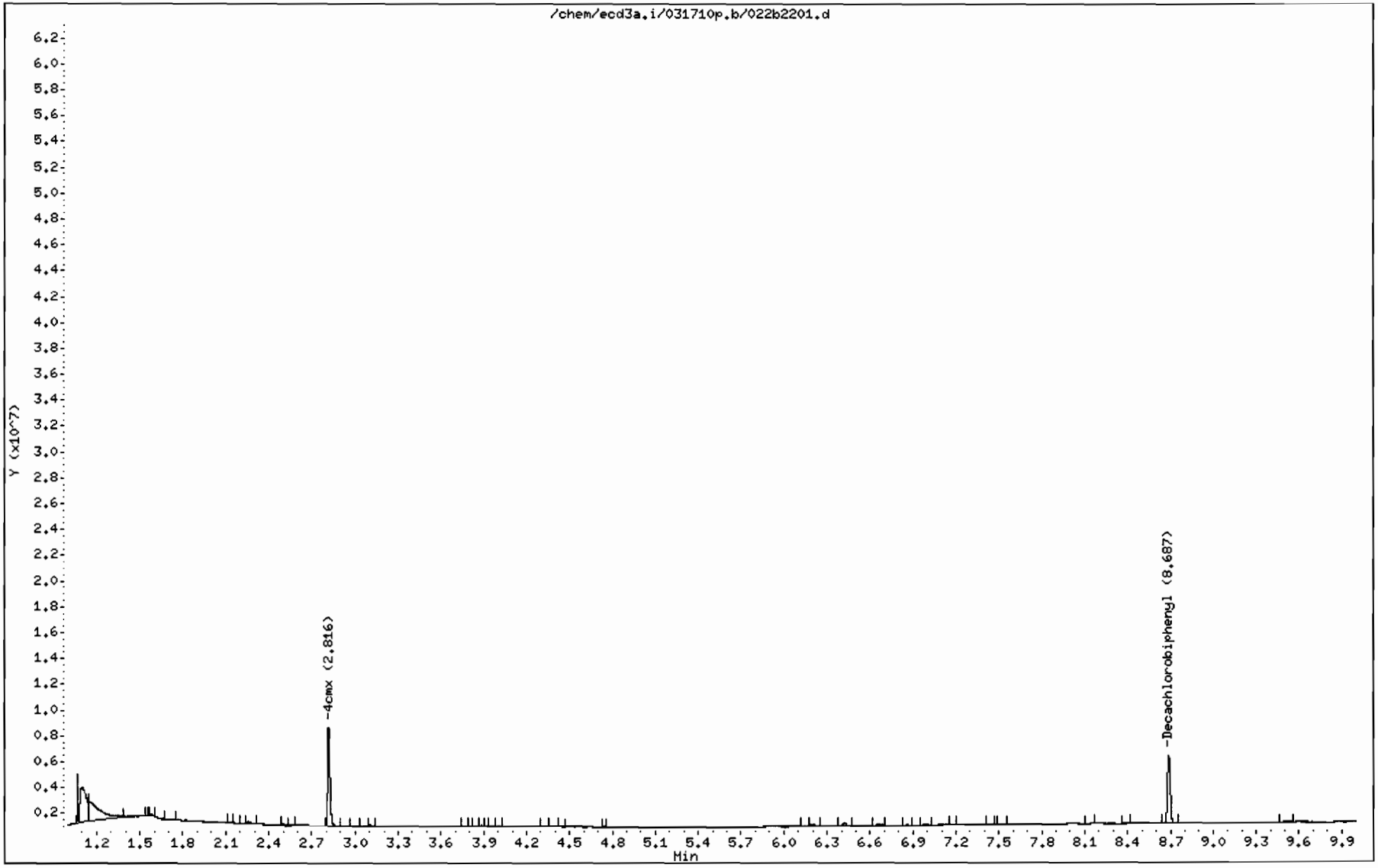

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13864**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/17/2010 23:45**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**021f2101.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	021b2101.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.76	ug/kg	1.94	7.76	1
58–89–9	gamma–BHC (Lindane)	U	7.76	ug/kg	1.94	7.76	1
319–85–7	beta–BHC	U	7.76	ug/kg	1.94	7.76	1
319–86–8	delta–BHC	U	7.76	ug/kg	1.94	7.76	1
76–44–8	Heptachlor	U	7.76	ug/kg	1.94	7.76	1
309–00–2	Aldrin	U	7.76	ug/kg	1.94	7.76	1
1024–57–3	Heptachlor epoxide	U	7.76	ug/kg	2.42	7.76	1
5103–74–2	gamma–Chlordane	U	7.76	ug/kg	1.94	7.76	1
5103–71–9	alpha–Chlordane	U	7.76	ug/kg	1.94	7.76	1
959–98–8	Endosulfan I	U	7.76	ug/kg	1.94	7.76	1
72–55–9	4,4'–DDE	U	15.5	ug/kg	3.88	15.5	1
60–57–1	Dieldrin	U	15.5	ug/kg	3.88	15.5	1
72–20–8	Endrin	U	15.5	ug/kg	3.88	15.5	1
72–54–8	4,4'–DDD	U	15.5	ug/kg	3.88	15.5	1
33213–65–9	Endosulfan II	U	15.5	ug/kg	3.88	15.5	1
7421–93–4	Endrin aldehyde	U	15.5	ug/kg	3.88	15.5	1
50–29–3	4,4'–DDT	U	15.5	ug/kg	3.88	15.5	1
1031–07–8	Endosulfan sulfate	U	15.5	ug/kg	3.88	15.5	1
72–43–5	Methoxychlor	U	77.6	ug/kg	19.4	77.6	1
53494–70–5	Endrin ketone	U	15.5	ug/kg	3.88	15.5	1
8001–35–2	Toxaphene	U	194	ug/kg	64.6	194	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/031710p.b/021f2101.d
Lab Smp Id: 248815002 Client Smp ID: RE46-10-13864
Inj Date : 17-MAR-2010 23:45
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815002|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13864|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 21
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	14.04900	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.580	0.000	701036	10.5220	20.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.663	7.663	0.000	563114	10.9086	21.2	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/021f2101.d

Page 1

Date : 17-MAR-2010 23:45

Client ID: RE46-10-13864

Instrument: ecd3a.i

Sample Info: |248815002|10|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

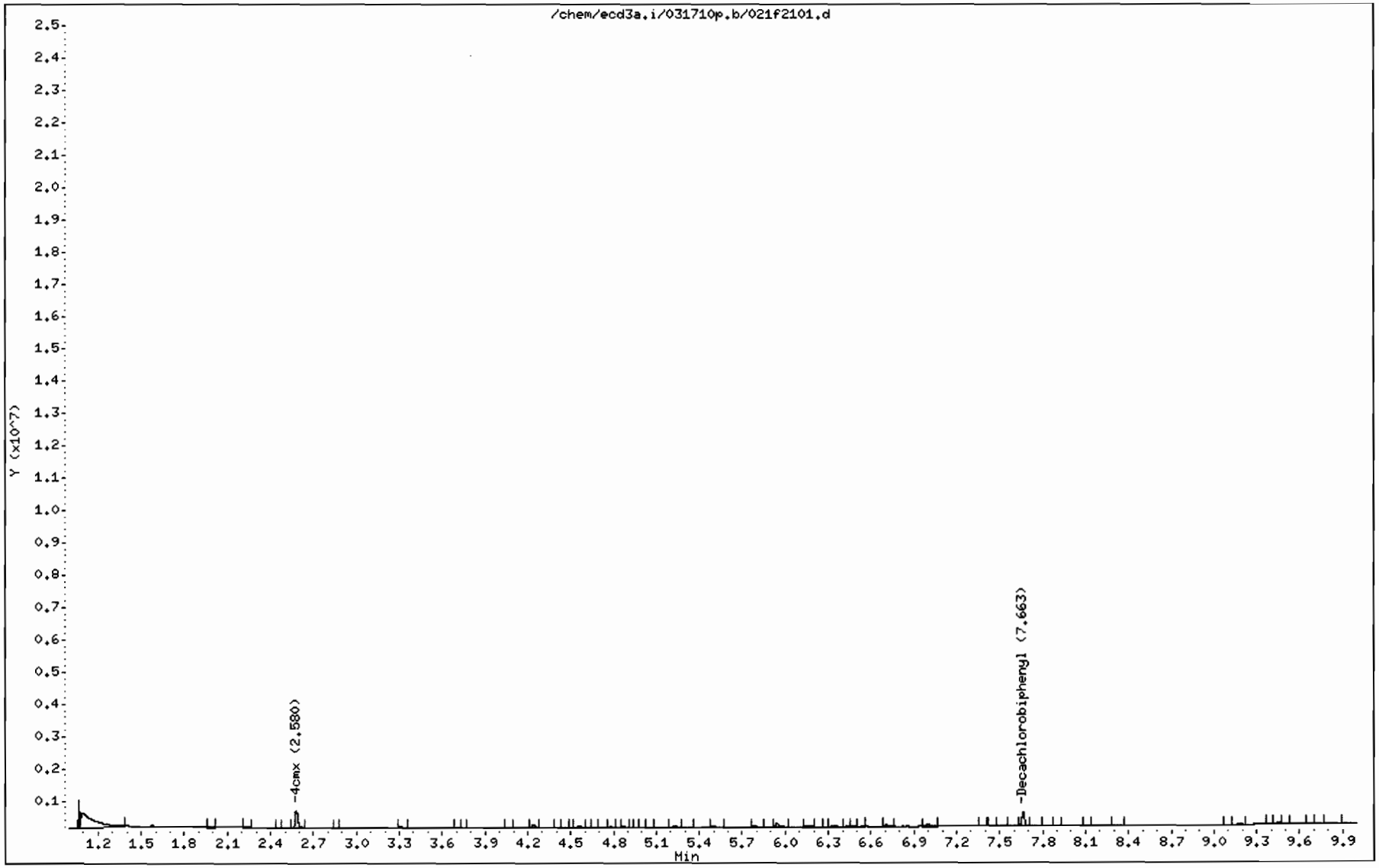

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/021b2101.d
Lab Smp Id: 248815002 Client Smp ID: RE46-10-13864
Inj Date : 17-MAR-2010 23:45
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815002|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13864|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 21
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	14.04900	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.817	2.817	0.000	7183021	11.5720	22.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.687	8.688	-0.001	4357288	11.9974	23.3	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/021b2101.d

Page 1

Date : 17-MAR-2010 23:45

Client ID: RE46-10-13864

Instrument: ecd3a.i

Sample Info: 1248815002110I

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

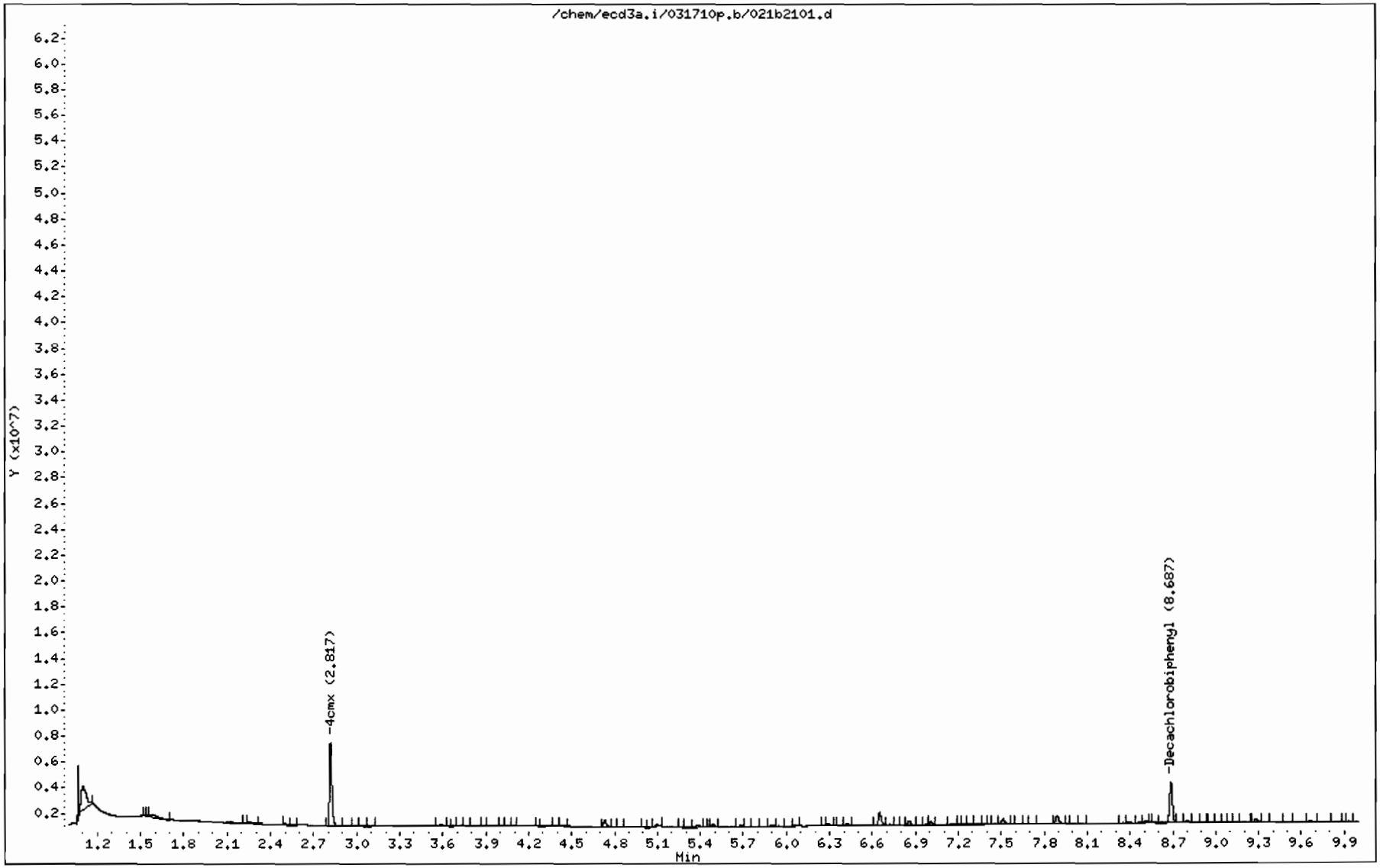

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13865**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 01:34**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**029f2901.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	029b2901.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.28	ug/kg	1.82	7.28	1
58-89-9	gamma-BHC (Lindane)	U	7.28	ug/kg	1.82	7.28	1
319-85-7	beta-BHC	U	7.28	ug/kg	1.82	7.28	1
319-86-8	delta-BHC	U	7.28	ug/kg	1.82	7.28	1
76-44-8	Heptachlor	U	7.28	ug/kg	1.82	7.28	1
309-00-2	Aldrin	U	7.28	ug/kg	1.82	7.28	1
1024-57-3	Heptachlor epoxide	U	7.28	ug/kg	2.28	7.28	1
5103-74-2	gamma-Chlordane	U	7.28	ug/kg	1.82	7.28	1
5103-71-9	alpha-Chlordane	U	7.28	ug/kg	1.82	7.28	1
959-98-8	Endosulfan I	U	7.28	ug/kg	1.82	7.28	1
72-55-9	4,4'-DDE	U	14.6	ug/kg	3.64	14.6	1
60-57-1	Dieldrin	U	14.6	ug/kg	3.64	14.6	1
72-20-8	Endrin	U	14.6	ug/kg	3.64	14.6	1
72-54-8	4,4'-DDD	U	14.6	ug/kg	3.64	14.6	1
33213-65-9	Endosulfan II	U	14.6	ug/kg	3.64	14.6	1
7421-93-4	Endrin aldehyde	U	14.6	ug/kg	3.64	14.6	1
50-29-3	4,4'-DDT	U	14.6	ug/kg	3.64	14.6	1
1031-07-8	Endosulfan sulfate	U	14.6	ug/kg	3.64	14.6	1
72-43-5	Methoxychlor	U	72.8	ug/kg	18.2	72.8	1
53494-70-5	Endrin ketone	U	14.6	ug/kg	3.64	14.6	1
8001-35-2	Toxaphene	U	182	ug/kg	60.6	182	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/031710p.b/029f2901.d
Lab Smp Id: 248815008 Client Smp ID: RE46-10-13865
Inj Date : 18-MAR-2010 01:34
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815008|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13865|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 29
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	8.45250	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.580	0.000	619661	9.30060	16.9	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 205I-24-3		
7.663	7.663	0.000	526454	10.1984	18.6	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/029f2901.d

Page 1

Date : 18-MAR-2010 01:34

Client ID: RE46-10-13865

Instrument: ecd3a.i

Sample Info: |2488150081101

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

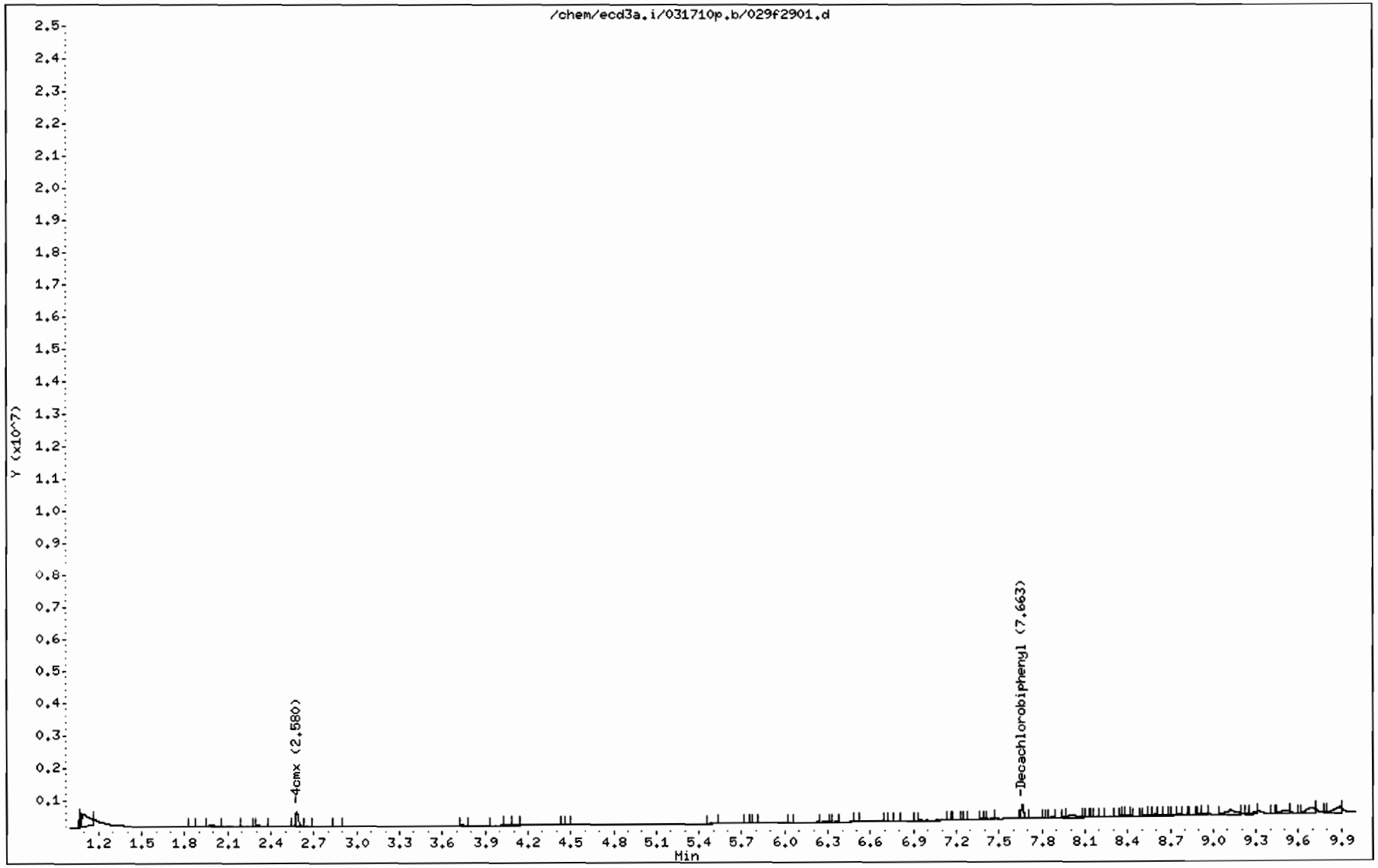

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/029b2901.d
Lab Smp Id: 248815008 Client Smp ID: RE46-10-13865
Inj Date : 18-MAR-2010 01:34
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815008|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13865|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 29
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	8.45250	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.816	2.817	-0.001	6069379	9.77788	17.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.688	8.688	0.000	4043625	11.1337	20.3	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/029b2901.d

Page 1

Date : 18-MAR-2010 01:34

Client ID: RE46-10-13865

Instrument: ecd3a.i

Sample Info: 1248815008110

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

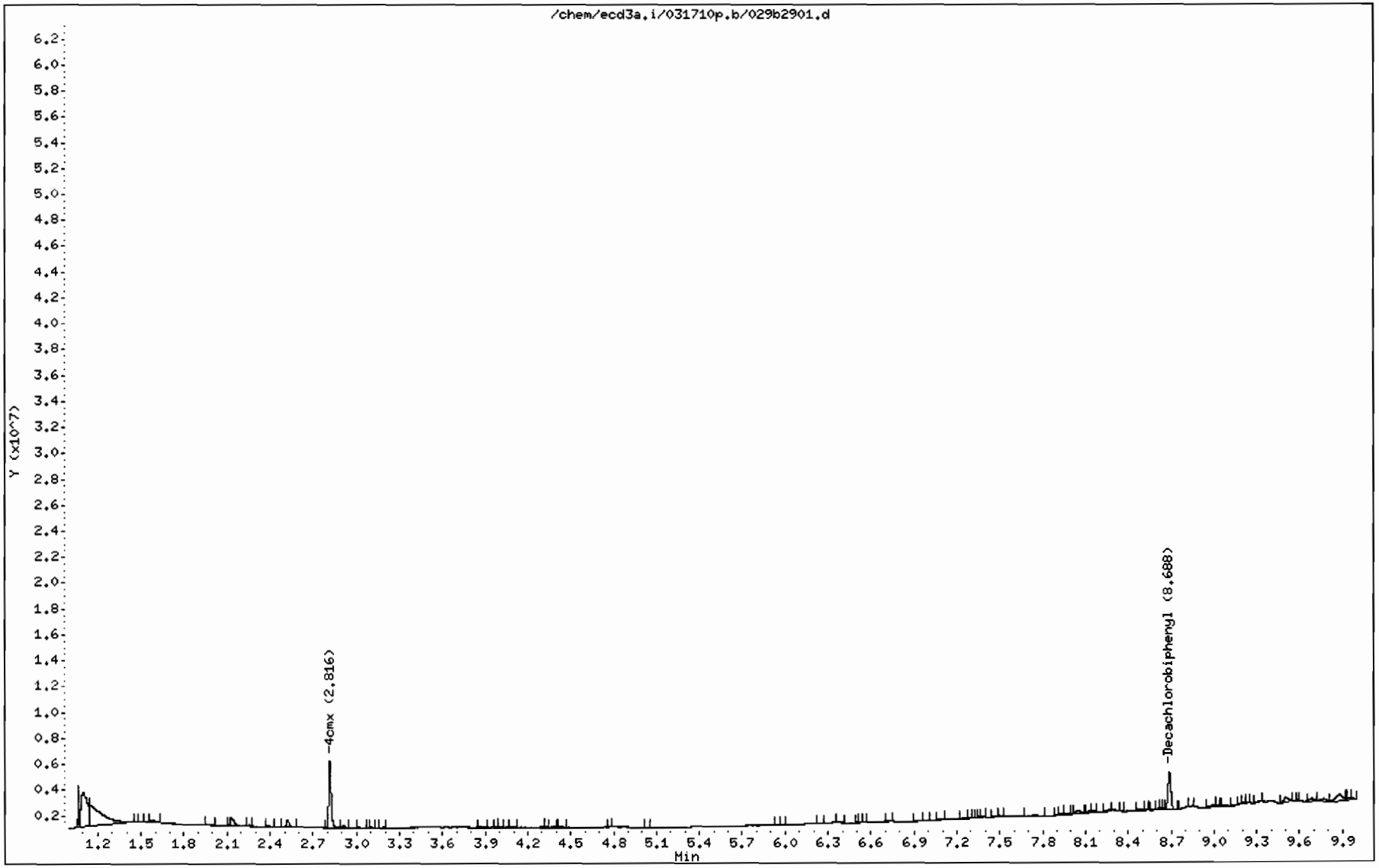

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815006**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13866**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 01:06**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30.01 g**	**Final Volume:**	**5 mL**
Data File:	**027f2701.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	027b2701.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.17	ug/kg	1.79	7.17	1
58-89-9	gamma-BHC (Lindane)	U	7.17	ug/kg	1.79	7.17	1
319-85-7	beta-BHC	U	7.17	ug/kg	1.79	7.17	1
319-86-8	delta-BHC	U	7.17	ug/kg	1.79	7.17	1
76-44-8	Heptachlor	U	7.17	ug/kg	1.79	7.17	1
309-00-2	Aldrin	U	7.17	ug/kg	1.79	7.17	1
1024-57-3	Heptachlor epoxide	U	7.17	ug/kg	2.24	7.17	1
5103-74-2	gamma-Chlordane	U	7.17	ug/kg	1.79	7.17	1
5103-71-9	alpha-Chlordane	U	7.17	ug/kg	1.79	7.17	1
959-98-8	Endosulfan I	U	7.17	ug/kg	1.79	7.17	1
72-55-9	4,4'-DDE	U	14.3	ug/kg	3.59	14.3	1
60-57-1	Dieldrin	U	14.3	ug/kg	3.59	14.3	1
72-20-8	Endrin	U	14.3	ug/kg	3.59	14.3	1
72-54-8	4,4'-DDD	U	14.3	ug/kg	3.59	14.3	1
33213-65-9	Endosulfan II	U	14.3	ug/kg	3.59	14.3	1
7421-93-4	Endrin aldehyde	U	14.3	ug/kg	3.59	14.3	1
50-29-3	4,4'-DDT	U	14.3	ug/kg	3.59	14.3	1
1031-07-8	Endosulfan sulfate	U	14.3	ug/kg	3.59	14.3	1
72-43-5	Methoxychlor	U	71.7	ug/kg	17.9	71.7	1
53494-70-5	Endrin ketone	U	14.3	ug/kg	3.59	14.3	1
8001-35-2	Toxaphene	U	179	ug/kg	59.7	179	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/031710p.b/027f2701.d
Lab Smp Id: 248815006 Client Smp ID: RE46-10-13866
Inj Date : 18-MAR-2010 01:06
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815006|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13866|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 27
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	7.08890	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.580	0.000	832807	12.4997	22.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.664	7.663	0.001	668551	12.9511	23.2	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/027f2701.d

Page 1

Date : 18-MAR-2010 01:06

Client ID: RE46-10-13866

Instrument: ecd3a.i

Sample Info: |2488150061101

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

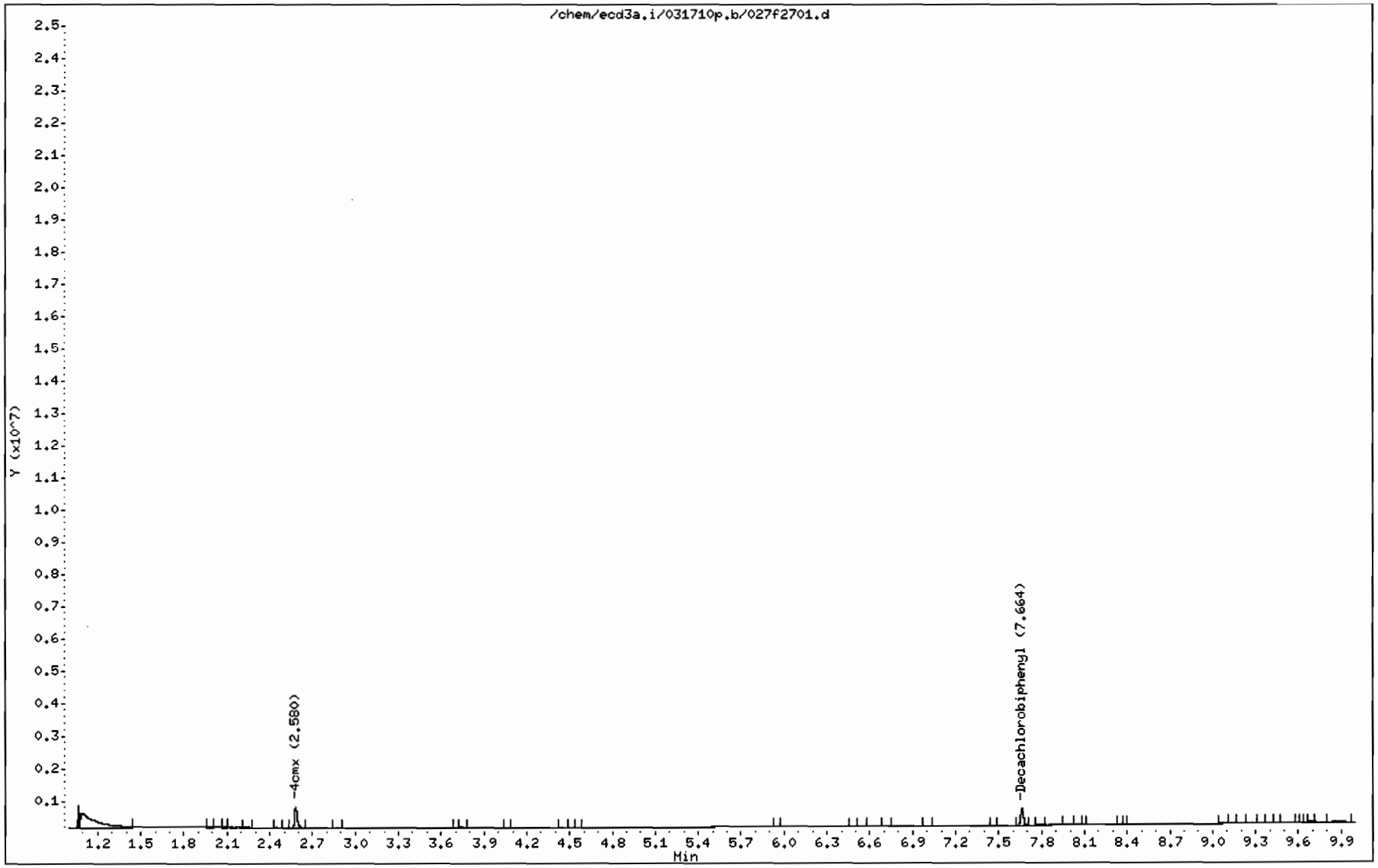

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/027b2701.d
Lab Smp Id: 248815006 Client Smp ID: RE46-10-13866
Inj Date : 18-MAR-2010 01:06
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815006|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13866|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 27
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	7.08890	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.816	2.817	-0.001	8484897	13.6693	24.5	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.688	8.688	0.000	5016787	13.8132	24.8	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/027b2701.d

Date : 18-MAR-2010 01:06

Client ID: RE46-10-13866

Sample Info: |2488150061101

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

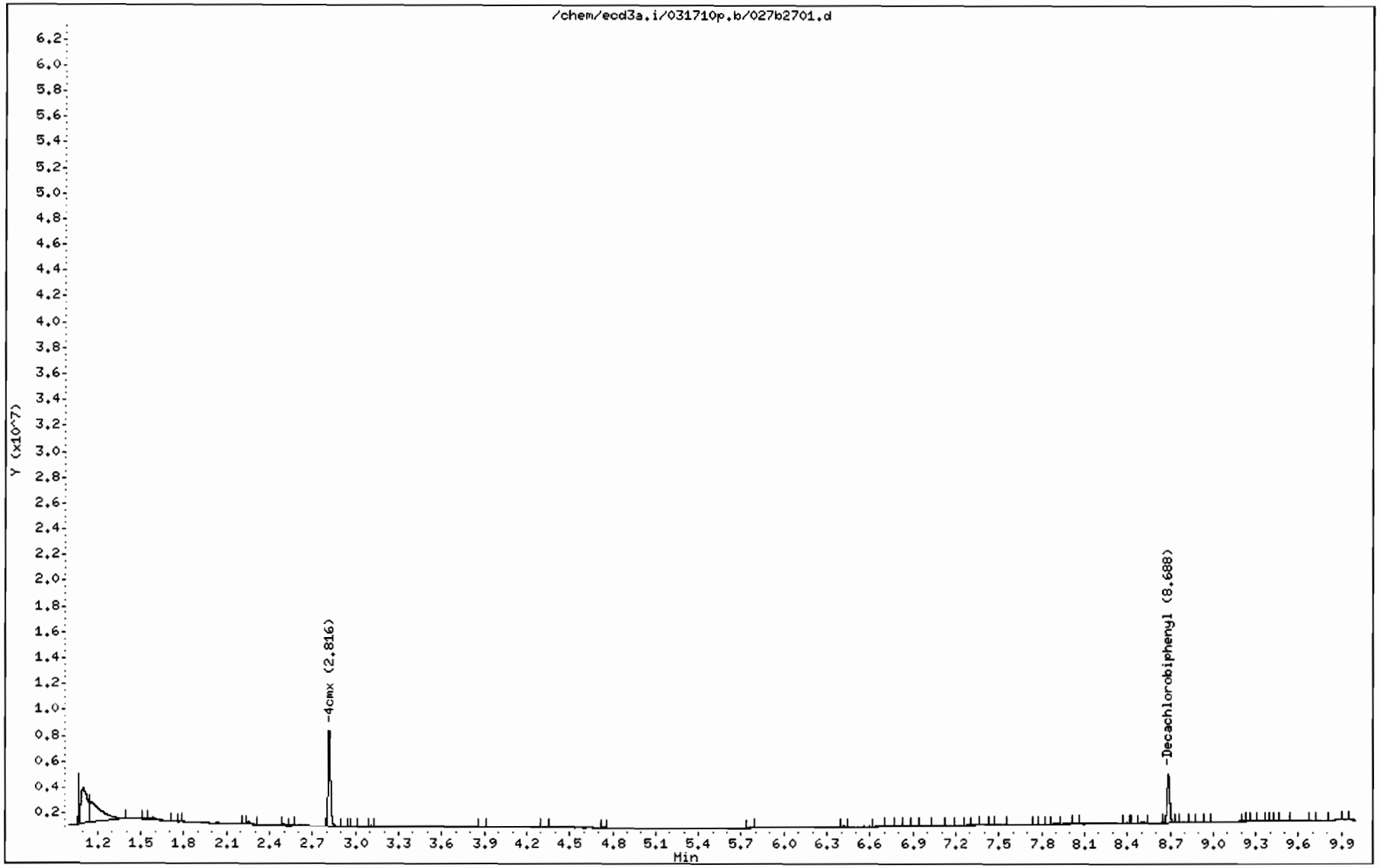

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13867**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/17/2010 23:04**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30.01 g**	**Final Volume:**	**5 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	018b1801.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.24	ug/kg	1.81	7.24	1
58-89-9	gamma-BHC (Lindane)	U	7.24	ug/kg	1.81	7.24	1
319-85-7	beta-BHC	U	7.24	ug/kg	1.81	7.24	1
319-86-8	delta-BHC	U	7.24	ug/kg	1.81	7.24	1
76-44-8	Heptachlor	U	7.24	ug/kg	1.81	7.24	1
309-00-2	Aldrin	U	7.24	ug/kg	1.81	7.24	1
1024-57-3	Heptachlor epoxide	U	7.24	ug/kg	2.26	7.24	1
5103-74-2	gamma-Chlordane	U	7.24	ug/kg	1.81	7.24	1
5103-71-9	alpha-Chlordane	U	7.24	ug/kg	1.81	7.24	1
959-98-8	Endosulfan I	U	7.24	ug/kg	1.81	7.24	1
72-55-9	4,4'-DDE	U	14.5	ug/kg	3.62	14.5	1
60-57-1	Dieldrin	U	14.5	ug/kg	3.62	14.5	1
72-20-8	Endrin	U	14.5	ug/kg	3.62	14.5	1
72-54-8	4,4'-DDD	U	14.5	ug/kg	3.62	14.5	1
33213-65-9	Endosulfan II	U	14.5	ug/kg	3.62	14.5	1
7421-93-4	Endrin aldehyde	U	14.5	ug/kg	3.62	14.5	1
50-29-3	4,4'-DDT	U	14.5	ug/kg	3.62	14.5	1
1031-07-8	Endosulfan sulfate	U	14.5	ug/kg	3.62	14.5	1
72-43-5	Methoxychlor	U	72.4	ug/kg	18.1	72.4	1
53494-70-5	Endrin ketone	U	14.5	ug/kg	3.62	14.5	1
8001-35-2	Toxaphene	U	181	ug/kg	60.2	181	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/031710p.b/018f1801.d
Lab Smp Id: 248815001 Client Smp ID: RE46-10-13867
Inj Date : 17-MAR-2010 23:04
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815001|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13867|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 18
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	7.89670	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.580	0.000	684423	10.2726	18.6	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.662	7.663	-0.001	669983	12.9788	23.5	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/018f1801.d

Page 1

Date : 17-MAR-2010 23:04

Client ID: RE46-10-13867

Instrument: ecd3a.i

Sample Info: |248815001|10|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

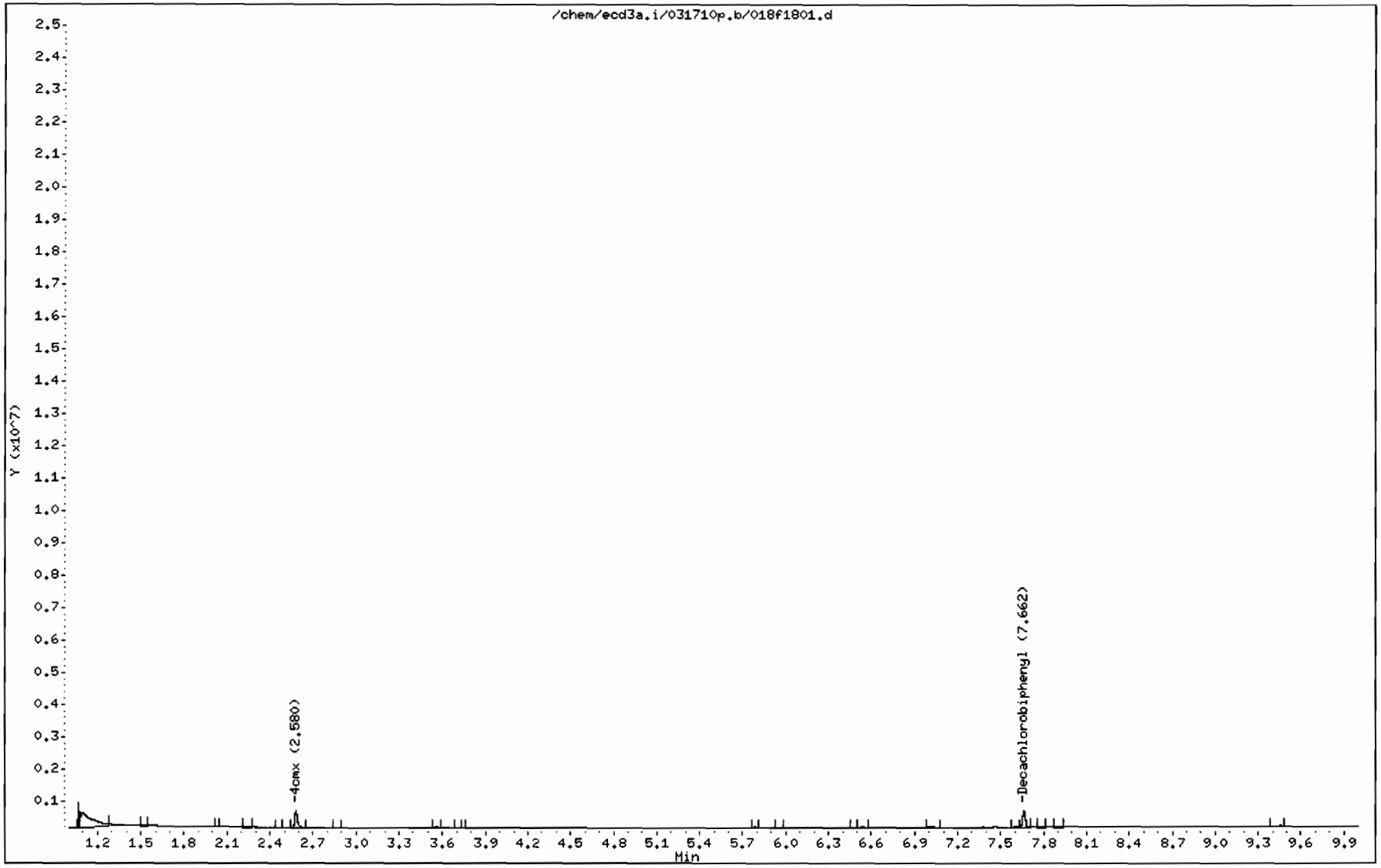

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/018b1801.d
Lab Smp Id: 248815001 Client Smp ID: RE46-10-13867
Inj Date : 17-MAR-2010 23:04
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815001|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13867|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 18
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	7.89670	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.816	2.817	-0.001	7149618	11.5182	20.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.688	8.688	0.000	5578712	15.3604	27.8	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/018b1801.d

Page 1

Date : 17-MAR-2010 23:04

Client ID: RE46-10-13867

Instrument: ecd3a.i

Sample Info: |248815001|10|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

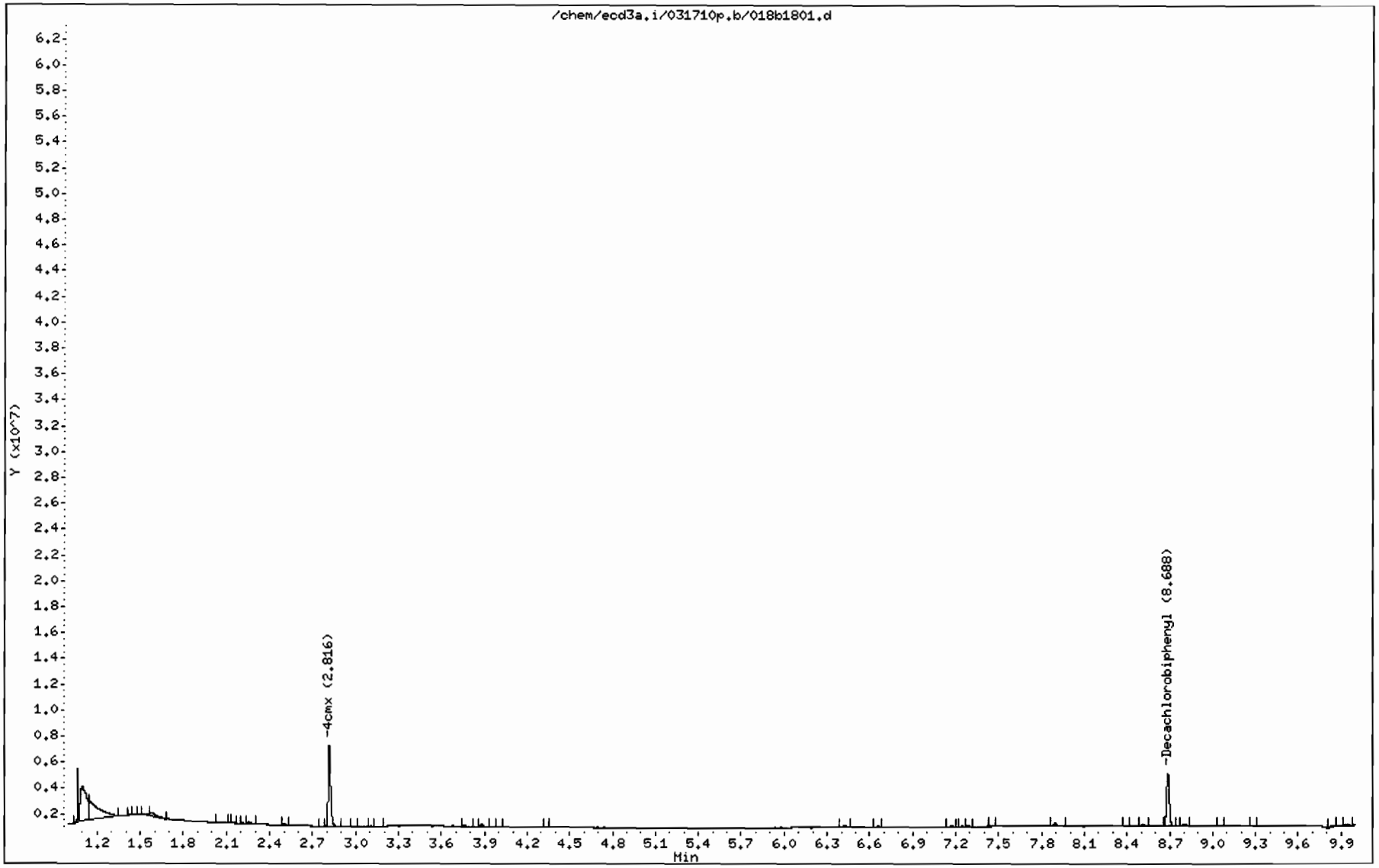

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13868**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 01:47**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**030f3001.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	030b3001.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.22	ug/kg	1.81	7.22	1
58-89-9	gamma-BHC (Lindane)	U	7.22	ug/kg	1.81	7.22	1
319-85-7	beta-BHC	U	7.22	ug/kg	1.81	7.22	1
319-86-8	delta-BHC	U	7.22	ug/kg	1.81	7.22	1
76-44-8	Heptachlor	U	7.22	ug/kg	1.81	7.22	1
309-00-2	Aldrin	U	7.22	ug/kg	1.81	7.22	1
1024-57-3	Heptachlor epoxide	U	7.22	ug/kg	2.26	7.22	1
5103-74-2	gamma-Chlordane	U	7.22	ug/kg	1.81	7.22	1
5103-71-9	alpha-Chlordane	U	7.22	ug/kg	1.81	7.22	1
959-98-8	Endosulfan I	U	7.22	ug/kg	1.81	7.22	1
72-55-9	4,4'-DDE	U	14.4	ug/kg	3.61	14.4	1
60-57-1	Dieldrin	U	14.4	ug/kg	3.61	14.4	1
72-20-8	Endrin	U	14.4	ug/kg	3.61	14.4	1
72-54-8	4,4'-DDD	U	14.4	ug/kg	3.61	14.4	1
33213-65-9	Endosulfan II	U	14.4	ug/kg	3.61	14.4	1
7421-93-4	Endrin aldehyde	U	14.4	ug/kg	3.61	14.4	1
50-29-3	4,4'-DDT	U	14.4	ug/kg	3.61	14.4	1
1031-07-8	Endosulfan sulfate	U	14.4	ug/kg	3.61	14.4	1
72-43-5	Methoxychlor	U	72.2	ug/kg	18.1	72.2	1
53494-70-5	Endrin ketone	U	14.4	ug/kg	3.61	14.4	1
8001-35-2	Toxaphene	U	181	ug/kg	60.1	181	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/031710p.b/030f3001.d
Lab Smp Id: 248815009 Client Smp ID: RE46-10-13868
Inj Date : 18-MAR-2010 01:47
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815009|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13868|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 30
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	7.71220	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.580	0.000	687817	10.3236	18.6	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.664	7.663	0.001	534693	10.3580	18.7	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/030f3001.d

Page 1

Date : 18-MAR-2010 01:47

Client ID: RE46-10-13868

Instrument: ecd3a.i

Sample Info: |248815009|10|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

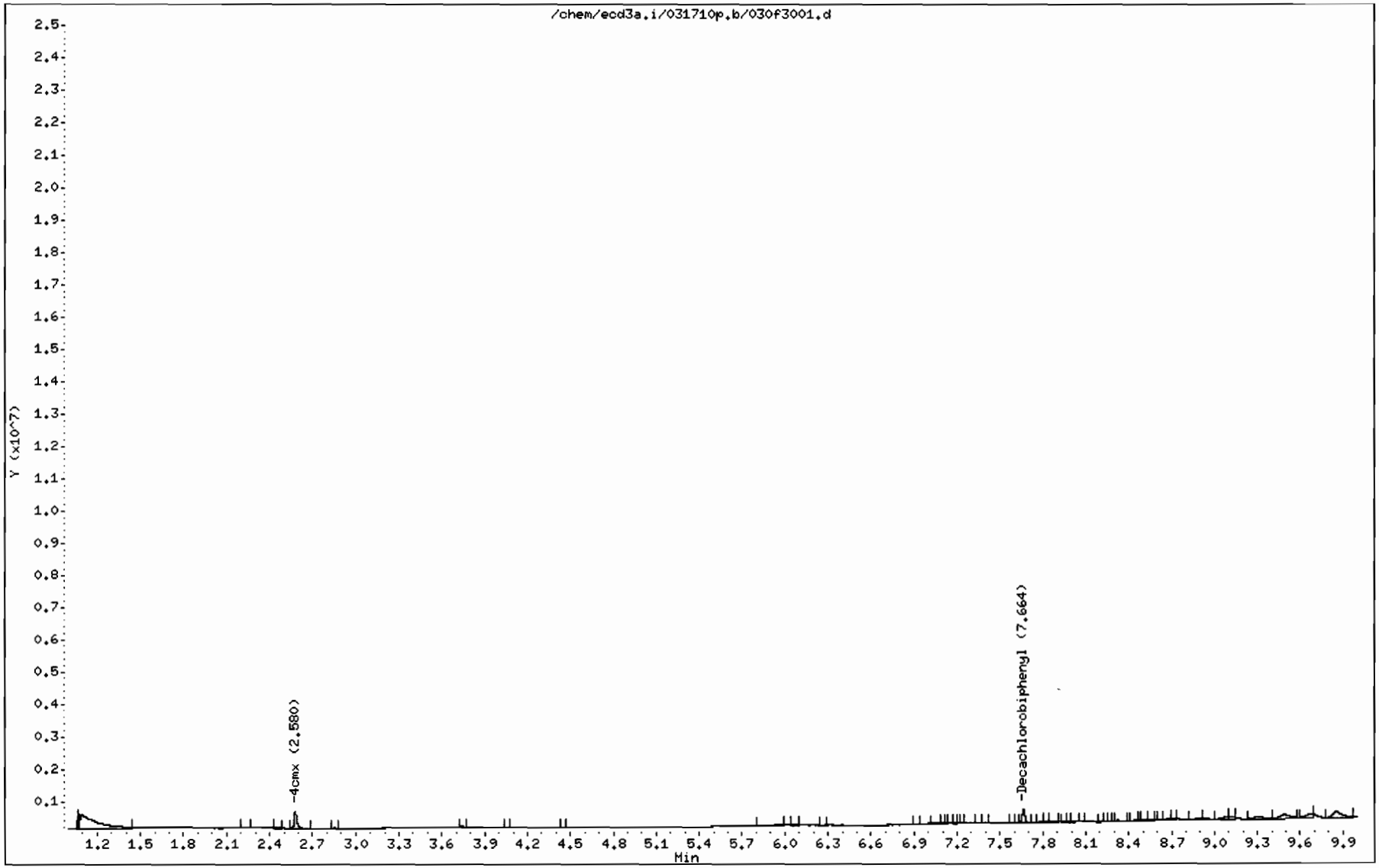

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/030b3001.d
Lab Smp Id: 248815009 Client Smp ID: RE46-10-13868
Inj Date : 18-MAR-2010 01:47
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815009|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13868|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 30
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	7.71220	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.816	2.817	-0.001	6672886	10.7501	19.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.687	8.688	-0.001	3113347	8.57230	15.5	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/030b3001.d
Date : 18-MAR-2010 01:47
Client ID: RE46-10-13868
Sample Info: |2488150091101|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

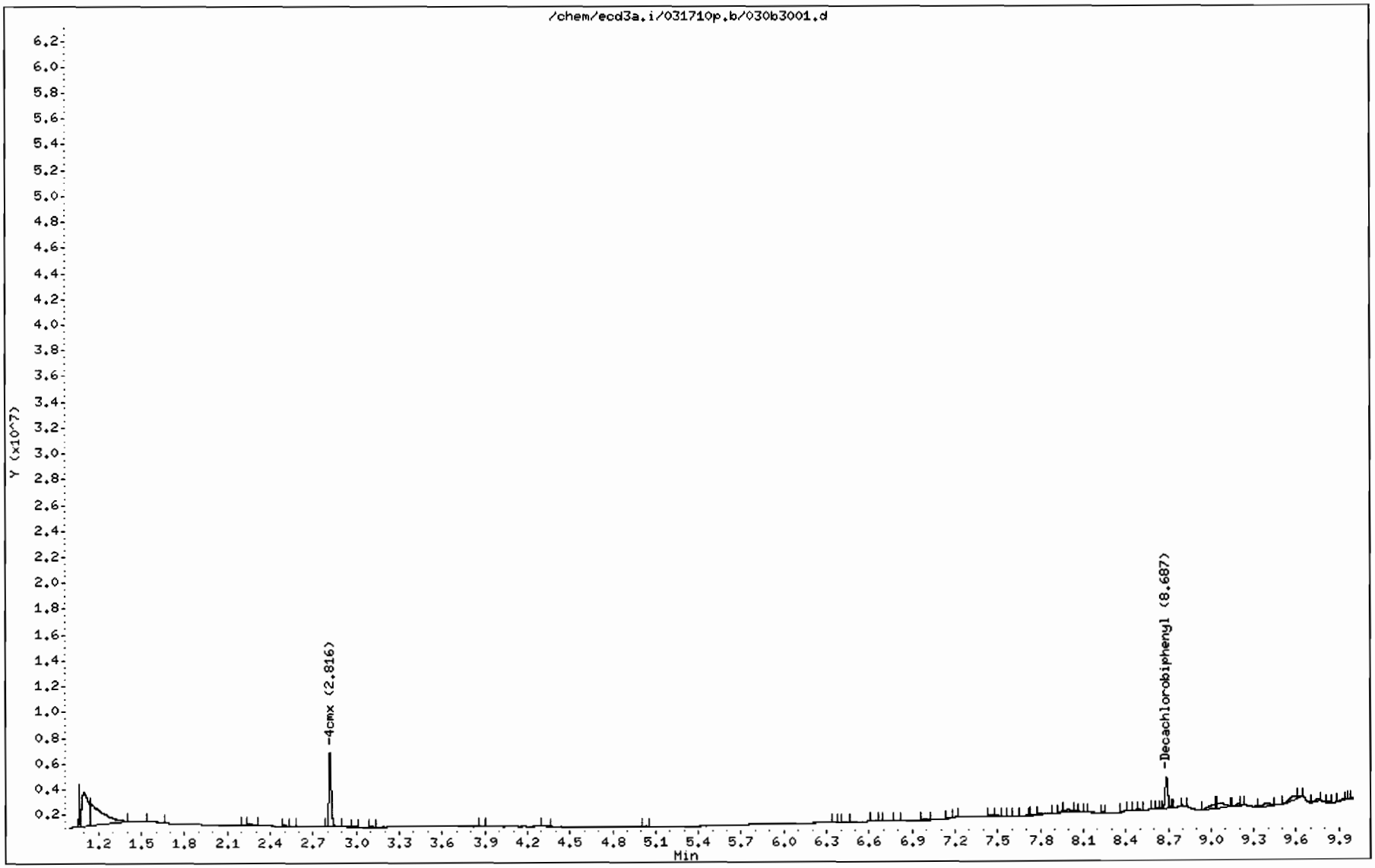

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13869**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 00:12**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30.01 g**	**Final Volume:**	**5 mL**
Data File:	**023f2301.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	023b2301.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.24	ug/kg	1.81	7.24	1
58-89-9	gamma-BHC (Lindane)	U	7.24	ug/kg	1.81	7.24	1
319-85-7	beta-BHC	U	7.24	ug/kg	1.81	7.24	1
319-86-8	delta-BHC	U	7.24	ug/kg	1.81	7.24	1
76-44-8	Heptachlor	U	7.24	ug/kg	1.81	7.24	1
309-00-2	Aldrin	U	7.24	ug/kg	1.81	7.24	1
1024-57-3	Heptachlor epoxide	U	7.24	ug/kg	2.26	7.24	1
5103-74-2	gamma-Chlordane	U	7.24	ug/kg	1.81	7.24	1
5103-71-9	alpha-Chlordane	U	7.24	ug/kg	1.81	7.24	1
959-98-8	Endosulfan I	U	7.24	ug/kg	1.81	7.24	1
72-55-9	4,4'-DDE	U	14.5	ug/kg	3.62	14.5	1
60-57-1	Dieldrin	U	14.5	ug/kg	3.62	14.5	1
72-20-8	Endrin	U	14.5	ug/kg	3.62	14.5	1
72-54-8	4,4'-DDD	U	14.5	ug/kg	3.62	14.5	1
33213-65-9	Endosulfan II	U	14.5	ug/kg	3.62	14.5	1
7421-93-4	Endrin aldehyde	U	14.5	ug/kg	3.62	14.5	1
50-29-3	4,4'-DDT	U	14.5	ug/kg	3.62	14.5	1
1031-07-8	Endosulfan sulfate	U	14.5	ug/kg	3.62	14.5	1
72-43-5	Methoxychlor	U	72.4	ug/kg	18.1	72.4	1
53494-70-5	Endrin ketone	U	14.5	ug/kg	3.62	14.5	1
8001-35-2	Toxaphene	U	181	ug/kg	60.3	181	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/031710p.b/023f2301.d
Lab Smp Id: 248815004 Client Smp ID: RE46-10-13869
Inj Date : 18-MAR-2010 00:12
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815004|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13869|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 23
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	7.99070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.580	0.000	870434	13.0645	23.6	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.664	7.663	0.001	926976	17.9573	32.5	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/023f2301.d

Page 1

Date : 18-MAR-2010 00:12

Client ID: RE46-10-13869

Instrument: ecd3a.i

Sample Info: |248815004|10|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

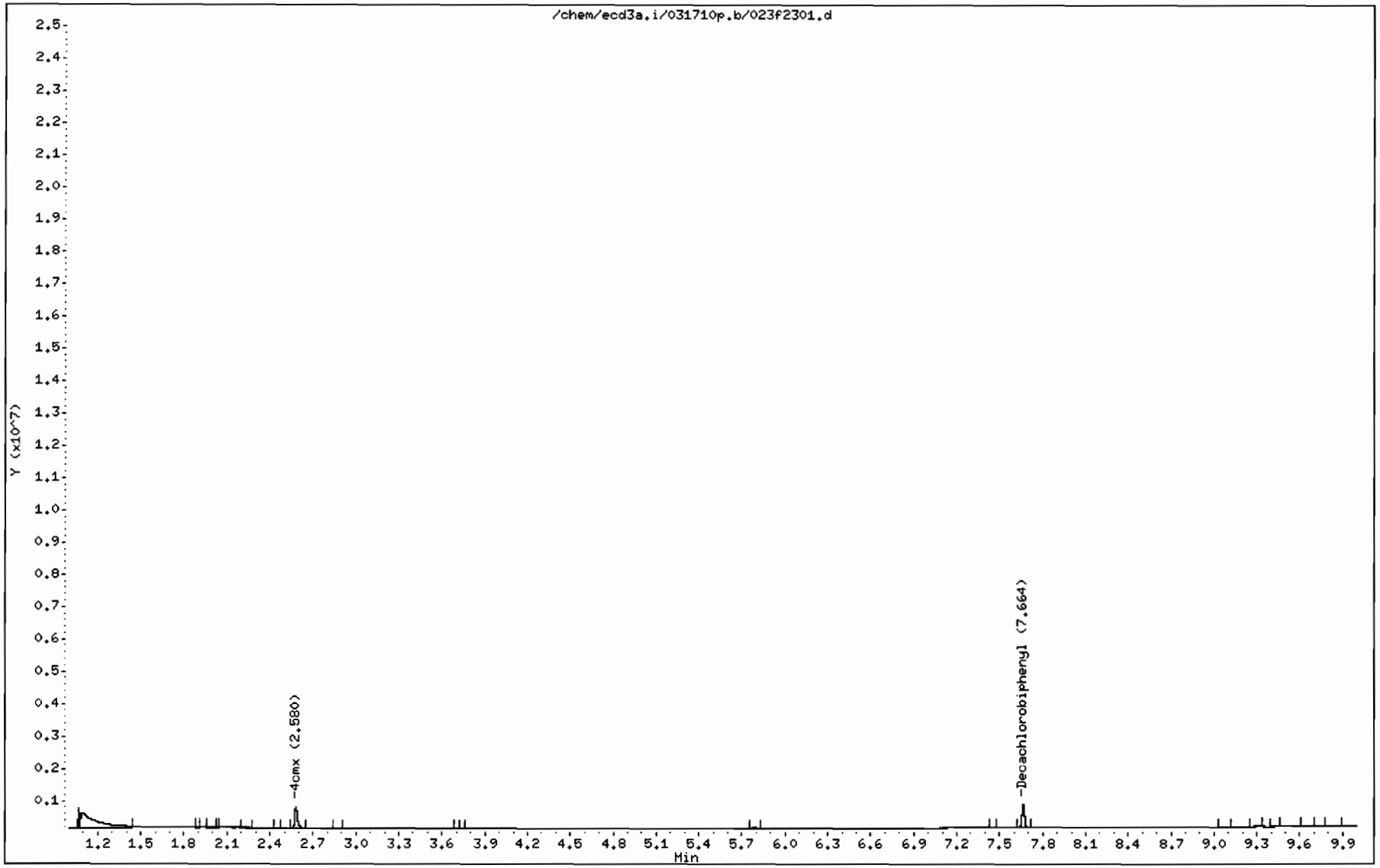

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/023b2301.d
Lab Smp Id: 248815004 Client Smp ID: RE46-10-13869
Inj Date : 18-MAR-2010 00:12
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815004|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13869|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 23
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	7.99070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.816	2.817	-0.001	8989628	14.4825	26.2	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.688	8.688	0.000	6858160	18.8833	34.2	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/023b2301.d

Date : 18-MAR-2010 00:12

Client ID: RE46-10-13869

Sample Info: |2488150041101

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

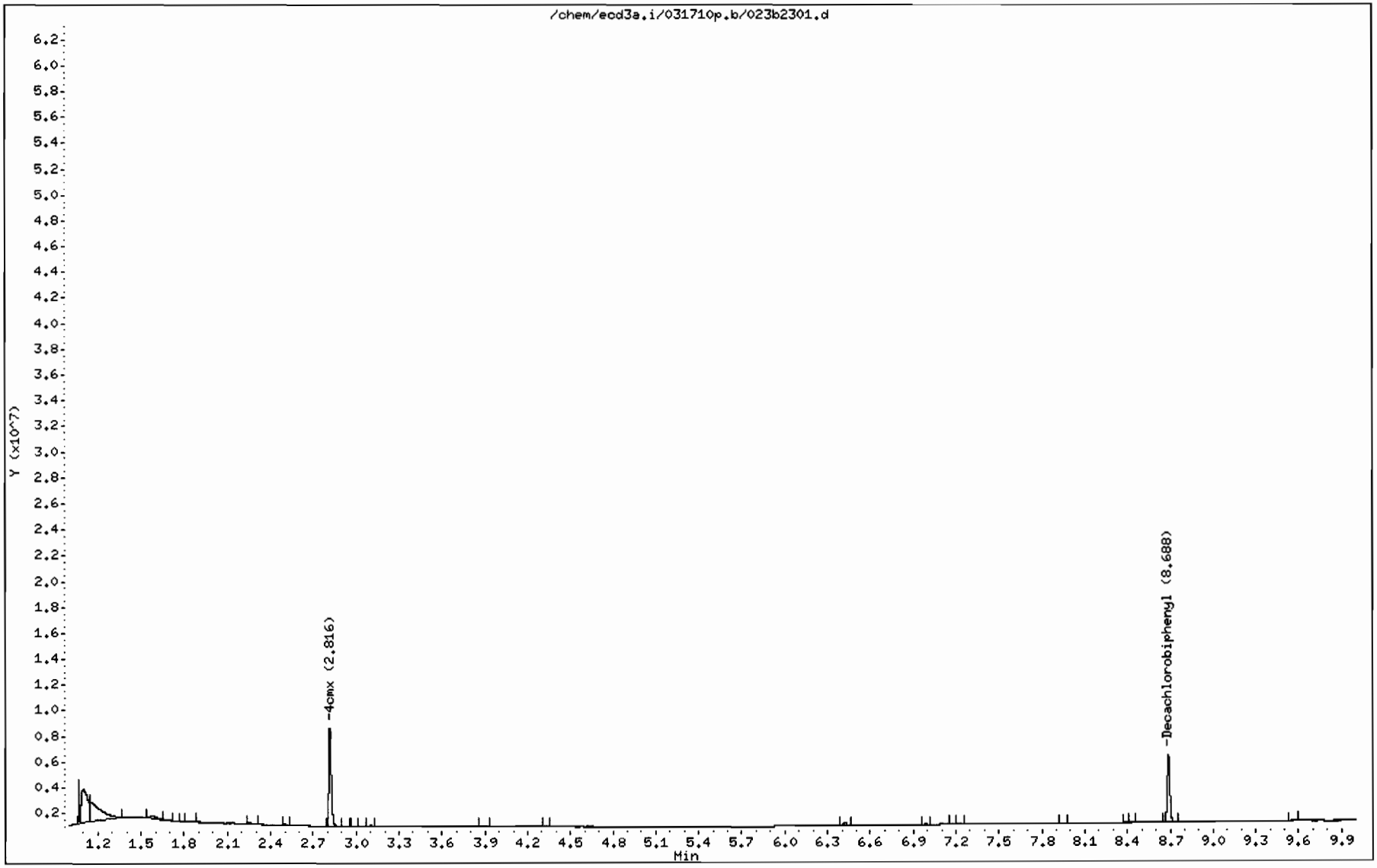

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815011**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13873**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/18/2010 02:15**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30.04 g**	**Final Volume:**	**5 mL**
Data File:	**032f3201.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	032b3201.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.16	ug/kg	1.79	7.16	1
58-89-9	gamma-BHC (Lindane)	U	7.16	ug/kg	1.79	7.16	1
319-85-7	beta-BHC	U	7.16	ug/kg	1.79	7.16	1
319-86-8	delta-BHC	U	7.16	ug/kg	1.79	7.16	1
76-44-8	Heptachlor	U	7.16	ug/kg	1.79	7.16	1
309-00-2	Aldrin	U	7.16	ug/kg	1.79	7.16	1
1024-57-3	Heptachlor epoxide	U	7.16	ug/kg	2.24	7.16	1
5103-74-2	gamma-Chlordane	U	7.16	ug/kg	1.79	7.16	1
5103-71-9	alpha-Chlordane	U	7.16	ug/kg	1.79	7.16	1
959-98-8	Endosulfan I	U	7.16	ug/kg	1.79	7.16	1
72-55-9	4,4'-DDE	U	14.3	ug/kg	3.58	14.3	1
60-57-1	Dieldrin	U	14.3	ug/kg	3.58	14.3	1
72-20-8	Endrin	U	14.3	ug/kg	3.58	14.3	1
72-54-8	4,4'-DDD	U	14.3	ug/kg	3.58	14.3	1
33213-65-9	Endosulfan II	U	14.3	ug/kg	3.58	14.3	1
7421-93-4	Endrin aldehyde	U	14.3	ug/kg	3.58	14.3	1
50-29-3	4,4'-DDT	U	14.3	ug/kg	3.58	14.3	1
1031-07-8	Endosulfan sulfate	U	14.3	ug/kg	3.58	14.3	1
72-43-5	Methoxychlor	U	71.6	ug/kg	17.9	71.6	1
53494-70-5	Endrin ketone	U	14.3	ug/kg	3.58	14.3	1
8001-35-2	Toxaphene	U	179	ug/kg	59.6	179	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/031710p.b/032f3201.d
Lab Smp Id: 248815011 Client Smp ID: RE46-10-13873
Inj Date : 18-MAR-2010 02:15
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815011|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13873|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 32
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weigth of sample extracted (g)
M	7.06960	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.580	0.000	797854	11.9751	21.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.664	7.663	0.001	847258	16.4130	29.4	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/032f3201.d

Date : 18-MAR-2010 02:15

Client ID: RE46-10-13873

Sample Info: |2488150111|10|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

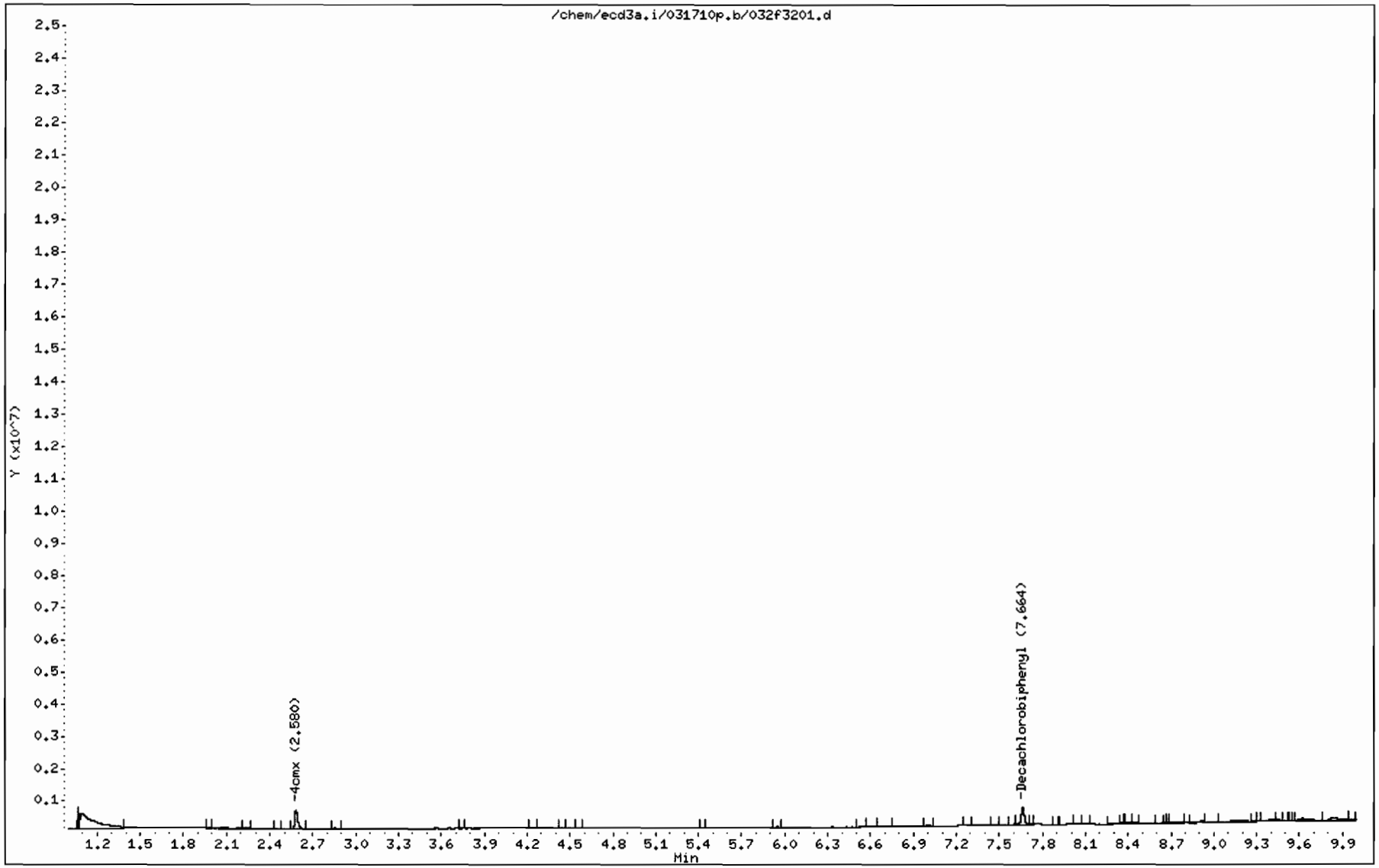

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/032b3201.d
Lab Smp Id: 248815011 Client Smp ID: RE46-10-13873
Inj Date : 18-MAR-2010 02:15
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |248815011|10|
Misc Info : |ECD81A_1S|965996|SVP|LANL|SOIL|RE46-10-13873|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 32
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weigth of sample extracted (g)
M	7.06960	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.815	2.817	-0.002	7930705	12.7765	22.9	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.688	8.688	0.000	3939936	10.8482	19.4	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/032b3201.d

Page 1

Date : 18-MAR-2010 02:15

Client ID: RE46-10-13873

Instrument: ecd3a.i

Sample Info: |248815011|10|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

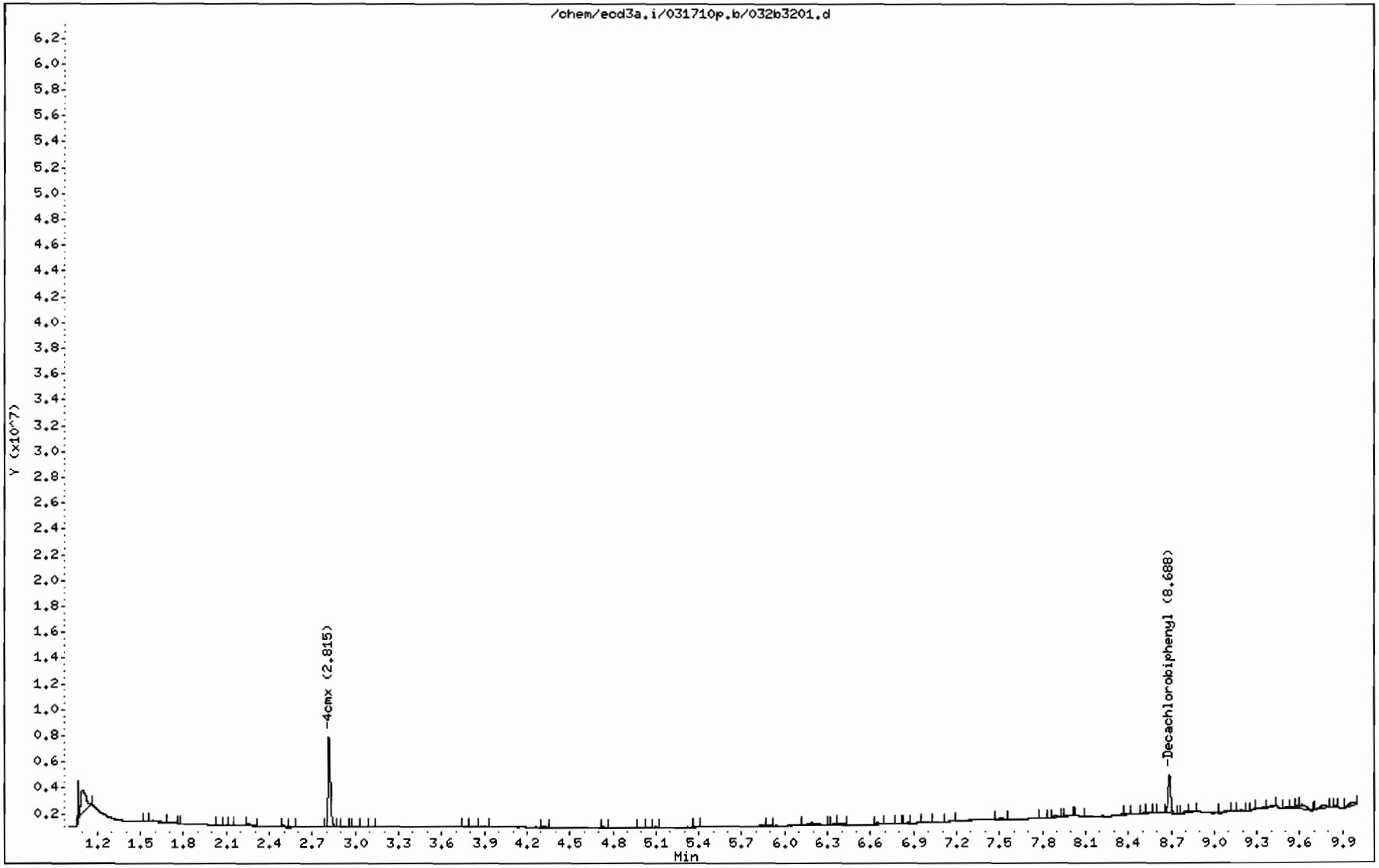

STANDARDS DATA

Report Date: 18-Mar-2010 20:46

Calibration History

Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Start Cal Date: 29-DEC-2009 17:34
End Cal Date : 17-MAR-2010 21:14

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
03-FEB-2010 16:55	gapa	/chem/ecd3a.i/020310p.b/011f1101.d
15-FEB-2010 00:23	chlor	/chem/ecd3a.i/021410p.b/003f0301.d
16-FEB-2010 21:02	tox	/chem/ecd3a.i/021610pa.b/003f0301.d
17-MAR-2010 20:20	indab	/chem/ecd3a.i/031710p.b/006f0601.d
Cal Level: 2 , Cal Amount: 10.00000		
03-FEB-2010 17:08	gapa	/chem/ecd3a.i/020310p.b/012f1201.d
15-FEB-2010 00:36	chlor	/chem/ecd3a.i/021410p.b/004f0401.d
16-FEB-2010 21:15	tox	/chem/ecd3a.i/021610pa.b/004f0401.d
17-MAR-2010 20:33	indab	/chem/ecd3a.i/031710p.b/007f0701.d
Cal Level: 3 , Cal Amount: 50.00000		
03-FEB-2010 17:22	gapa	/chem/ecd3a.i/020310p.b/013f1301.d
15-FEB-2010 00:50	chlor	/chem/ecd3a.i/021410p.b/005f0501.d
16-FEB-2010 21:29	tox	/chem/ecd3a.i/021610pa.b/005f0501.d
17-MAR-2010 20:47	indab	/chem/ecd3a.i/031710p.b/008f0801.d
Cal Level: 4 , Cal Amount: 100.00000		
03-FEB-2010 17:35	gapa	/chem/ecd3a.i/020310p.b/014f1401.d
15-FEB-2010 01:03	chlor	/chem/ecd3a.i/021410p.b/006f0601.d
16-FEB-2010 21:43	tox	/chem/ecd3a.i/021610pa.b/006f0601.d
17-MAR-2010 21:01	indab	/chem/ecd3a.i/031710p.b/009f0901.d
Cal Level: 5 , Cal Amount: 200.00000		
03-FEB-2010 17:49	gapa	/chem/ecd3a.i/020310p.b/015f1501.d
15-FEB-2010 01:17	chlor	/chem/ecd3a.i/021410p.b/007f0701.d
16-FEB-2010 21:56	tox	/chem/ecd3a.i/021610pa.b/007f0701.d
17-MAR-2010 21:14	indab	/chem/ecd3a.i/031710p.b/010f1001.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
18-MAR-2010 14:32	indab	/chem/ecd3a.i/031710p.b/086f8601.d

| Ccal Level: 4 , Ccal Amount: 100 |

18-MAR-2010 12:29	indab	/chem/ecd3a.i/031710p.b/077f7701.d
Ccal Level: 4 , Ccal Amount: 100		
18-MAR-2010 09:45	indab	/chem/ecd3a.i/031710p.b/065f6501.d
Ccal Level: 4 , Ccal Amount: 100		
18-MAR-2010 07:42	indab	/chem/ecd3a.i/031710p.b/056f5601.d
Ccal Level: 4 , Ccal Amount: 100		
18-MAR-2010 04:58	indab	/chem/ecd3a.i/031710p.b/044f4401.d
Ccal Level: 4 , Ccal Amount: 100		
18-MAR-2010 02:28	indab	/chem/ecd3a.i/031710p.b/033f3301.d
Ccal Level: 4 , Ccal Amount: 100		
18-MAR-2010 00:26	indab	/chem/ecd3a.i/031710p.b/024f2401.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 22:09	indab	/chem/ecd3a.i/031710p.b/014f1401.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 20:06	chlor	/chem/ecd3a.i/031710p.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 19:52	tox	/chem/ecd3a.i/031710p.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 21:28	indab	/chem/ecd3a.i/031710p.b/011f1101.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 21:01	indab	/chem/ecd3a.i/031710p.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 19:39	indab	/chem/ecd3a.i/031710p.b/003f0301.d

Report Date: 18-Mar-2010 20:46

Calibration History

Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Start Cal Date: 29-DEC-2009 17:34
End Cal Date : 17-MAR-2010 21:14

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
03-FEB-2010 16:55	gapa	/chem/ecd3a.i/020310p.b/011b1101.d
15-FEB-2010 00:23	chlor	/chem/ecd3a.i/021410p.b/003b0301.d
16-FEB-2010 21:02	tox	/chem/ecd3a.i/021610pa.b/003b0301.d
17-MAR-2010 20:20	indab	/chem/ecd3a.i/031710p.b/006b0601.d
Cal Level: 2 , Cal Amount: 10.00000		
03-FEB-2010 17:08	gapa	/chem/ecd3a.i/020310p.b/012b1201.d
15-FEB-2010 00:36	chlor	/chem/ecd3a.i/021410p.b/004b0401.d
16-FEB-2010 21:15	tox	/chem/ecd3a.i/021610pa.b/004b0401.d
17-MAR-2010 20:33	indab	/chem/ecd3a.i/031710p.b/007b0701.d
Cal Level: 3 , Cal Amount: 50.00000		
03-FEB-2010 17:22	gapa	/chem/ecd3a.i/020310p.b/013b1301.d
15-FEB-2010 00:50	chlor	/chem/ecd3a.i/021410p.b/005b0501.d
16-FEB-2010 21:29	tox	/chem/ecd3a.i/021610pa.b/005b0501.d
17-MAR-2010 20:47	indab	/chem/ecd3a.i/031710p.b/008b0801.d
Cal Level: 4 , Cal Amount: 100.00000		
03-FEB-2010 17:35	gapa	/chem/ecd3a.i/020310p.b/014b1401.d
15-FEB-2010 01:03	chlor	/chem/ecd3a.i/021410p.b/006b0601.d
16-FEB-2010 21:43	tox	/chem/ecd3a.i/021610pa.b/006b0601.d
17-MAR-2010 21:01	indab	/chem/ecd3a.i/031710p.b/009b0901.d
Cal Level: 5 , Cal Amount: 200.00000		
03-FEB-2010 17:49	gapa	/chem/ecd3a.i/020310p.b/015b1501.d
15-FEB-2010 01:17	chlor	/chem/ecd3a.i/021410p.b/007b0701.d
16-FEB-2010 21:56	tox	/chem/ecd3a.i/021610pa.b/007b0701.d
17-MAR-2010 21:14	indab	/chem/ecd3a.i/031710p.b/010b1001.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
18-MAR-2010 14:32	indab	/chem/ecd3a.i/031710p.b/086b8601.d
Ccal Level: 4 , Ccal Amount: 100		
18-MAR-2010 12:29	indab	/chem/ecd3a.i/031710p.b/077b7701.d
Ccal Level: 4 , Ccal Amount: 100		

18-MAR-2010 09:45	indab	/chem/ecd3a.i/031710p.b/065b6501.d
Ccal Level: 4 , Ccal Amount: 100		
18-MAR-2010 07:42	indab	/chem/ecd3a.i/031710p.b/056b5601.d
Ccal Level: 4 , Ccal Amount: 100		
18-MAR-2010 04:58	indab	/chem/ecd3a.i/031710p.b/044b4401.d
Ccal Level: 4 , Ccal Amount: 100		
18-MAR-2010 02:28	indab	/chem/ecd3a.i/031710p.b/033b3301.d
Ccal Level: 4 , Ccal Amount: 100		
18-MAR-2010 00:26	indab	/chem/ecd3a.i/031710p.b/024b2401.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 22:09	indab	/chem/ecd3a.i/031710p.b/014b1401.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 20:06	chlor	/chem/ecd3a.i/031710p.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 19:52	tox	/chem/ecd3a.i/031710p.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 21:28	indab	/chem/ecd3a.i/031710p.b/011b1101.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 21:01	indab	/chem/ecd3a.i/031710p.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 100		
17-MAR-2010 19:39	indab	/chem/ecd3a.i/031710p.b/003b0301.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Quant Method : ESTD Target Version : 3.50
Last Update : 18-Mar-2010 19:42 Number of Cpnds : 44
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	769.000000
Initial:End Threshold	384.500000
Initial:Area Threshold	7690.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	10.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.580	2.550-2.610	6.663e+04
63 2,4,5-Trichlorophenol	1.334	1.234-1.434	
59 Hexachlorobenzene	2.949	2.849-3.049	7.510e+04
2 Aroclor-1221	2.920	2.890-2.950	
	3.052	3.022-3.082	
	3.087	3.057-3.117	
3 Aroclor-1016	3.727	3.697-3.757	
	3.822	3.792-3.852	
	3.866	3.836-3.896	
	3.950	3.920-3.980	
	4.102	4.072-4.132	
4 Aroclor-1232	3.377	3.347-3.407	
	3.536	3.506-3.566	
	3.727	3.697-3.757	
	3.822	3.792-3.852	
	4.379	4.349-4.409	
5 alpha-BHC	2.976	2.946-3.006	9.319e+04
6 Aroclor-1242	3.377	3.277-3.477	
	3.728	3.628-3.828	
	3.866	3.766-3.966	
	4.379	4.279-4.479	
	4.398	4.298-4.498	
7 gamma-BHC (Lindane)	3.216	3.186-3.246	8.429e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.526	3.426-3.626	2.729e+03
	4.312	4.212-4.412	1.560e+03
	4.411	4.311-4.511	1.252e+03
	4.483	4.383-4.583	9.274e+03
	4.603	4.503-4.703	7.352e+03
9 Aroclor-1248	3.949	3.849-4.049	
	4.103	4.003-4.203	
	4.159	4.059-4.259	
	4.378	4.278-4.478	
	4.768	4.668-4.868	
10 Heptachlor	3.591	3.561-3.621	7.135e+04
11 Aldrin	3.843	3.813-3.873	8.042e+04
12 beta-BHC	3.280	3.250-3.310	3.741e+04
13 delta-BHC	3.424	3.394-3.454	8.398e+04
14 Heptachlor epoxide	4.370	4.340-4.400	7.223e+04
15 Aroclor-1254	4.352	4.322-4.382	
	4.516	4.486-4.546	
	4.769	4.739-4.799	
	4.937	4.907-4.967	
	5.219	5.189-5.249	
16 Endosulfan I	4.733	4.703-4.763	6.775e+04
17 gamma-Chlordane	4.483	4.453-4.513	7.178e+04
18 alpha-Chlordane	4.604	4.574-4.634	7.150e+04
19 4,4'-DDE	4.674	4.644-4.704	6.925e+04
20 Dieldrin	4.959	4.929-4.989	7.346e+04
21 Aroclor-1260	4.881	4.781-4.981	
	5.046	4.946-5.146	
	5.125	5.025-5.225	
	5.219	5.119-5.319	
	5.436	5.336-5.536	
22 Endrin	5.184	5.154-5.214	6.010e+04
23 Toxaphene	4.860	4.830-4.890	5.589e+02
	4.964	4.934-4.994	8.899e+02
	5.049	5.019-5.079	9.875e+02
	5.205	5.175-5.235	1.249e+03
	5.618	5.588-5.648	6.165e+02
24 Endosulfan II	5.405	5.375-5.435	6.139e+04
25 4,4'-DDD	5.249	5.219-5.279	5.620e+04
26 4,4'-DDT	5.525	5.495-5.555	4.809e+04
27 Endrin aldehyde	5.826	5.796-5.856	5.101e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m

	Compound	RT	RT Window	RF
	28 Methoxychlor	6.029	5.999-6.059	2.351e+04
	29 Endosulfan sulfate	6.275	6.245-6.305	5.308e+04
	30 Aroclor-1268	5.050	4.950-5.150	
		5.067	4.967-5.167	
		5.185	5.085-5.285	
		5.378	5.278-5.478	
		5.531	5.431-5.631	
	61 Aroclor-1262	4.121	4.021-4.221	
		4.289	4.189-4.389	
		4.525	4.425-4.625	
		4.671	4.571-4.771	
		4.854	4.754-4.954	
	31 Endrin ketone	6.569	6.539-6.599	6.876e+04
	51 Mirex	6.301	6.271-6.331	4.158e+04
	52 C-Nonachlor	5.346	5.316-5.376	6.572e+04
	53 O-Chlordane	4.397	4.367-4.427	5.216e+04
	54 T-Nonachlor	4.711	4.681-4.741	6.529e+04
	55 1,2-Dichlorobenzene	6.525	6.495-6.555	
	56 2,4-DDE	4.477	4.447-4.507	4.235e+04
	58 2,4-DDD	4.964	4.934-4.994	3.545e+04
	57 2,4-DDT	5.209	5.179-5.239	3.142e+04
$	32 Decachlorobiphenyl	7.663	7.633-7.693	5.162e+04
M	62 TTO Sum Pesticides	1.000	0.980-1.020	

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COMPOUND LISTING

Method file : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Quant Method : ESTD Target Version : 3.50
Last Update : 18-Mar-2010 19:14 Number of Cpnds : 43
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	2363.000000
Initial:End Threshold	1181.500000
Initial:Area Threshold	23630.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	8.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.817	2.787-2.847	6.207e+05
61 2,4,5-Trichlorophenol	1.631	1.531-1.731	
59 Hexachlorobenzene	3.282	3.252-3.312	5.247e+05
2 Aroclor-1221	3.414	3.384-3.444	
	3.531	3.501-3.561	
	3.579	3.549-3.609	
3 Aroclor-1016	4.216	4.186-4.246	
	4.378	4.348-4.408	
	4.466	4.436-4.496	
	4.617	4.587-4.647	
	4.999	4.969-5.029	
4 Aroclor-1232	3.579	3.549-3.609	
	4.216	4.186-4.246	
	4.307	4.277-4.337	
	4.617	4.587-4.647	
	4.887	4.857-4.917	
5 alpha-BHC	3.296	3.266-3.326	9.105e+05
6 Aroclor-1242	3.888	3.858-3.918	
	4.308	4.278-4.338	
	4.378	4.348-4.408	
	4.617	4.587-4.647	
	4.698	4.668-4.728	
7 gamma-BHC (Lindane)	3.598	3.568-3.628	7.585e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.869	3.839-3.899	1.981e+04
	4.810	4.780-4.840	9.089e+03
	5.038	5.008-5.068	4.150e+04
	5.132	5.102-5.162	3.461e+04
	5.183	5.153-5.213	3.481e+04
9 Aroclor-1248	4.436	4.406-4.466	
	4.617	4.587-4.647	
	4.697	4.667-4.727	
	4.856	4.826-4.886	
	5.034	5.004-5.064	
10 Heptachlor	4.002	3.972-4.032	6.259e+05
11 Aldrin	4.307	4.277-4.337	5.786e+05
12 beta-BHC	3.660	3.630-3.690	3.215e+05
13 delta-BHC	3.925	3.895-3.955	7.348e+05
14 Heptachlor epoxide	4.849	4.819-4.879	4.136e+05
15 Aroclor-1254	4.885	4.855-4.915	
	4.999	4.969-5.029	
	5.290	5.260-5.320	
	5.423	5.393-5.453	
	5.749	5.719-5.779	
16 Endosulfan I	5.244	5.214-5.274	3.657e+05
17 gamma-Chlordane	5.037	5.007-5.067	4.052e+05
18 alpha-Chlordane	5.183	5.153-5.213	3.997e+05
19 4,4'-DDE	5.343	5.313-5.373	3.774e+05
20 Dieldrin	5.522	5.492-5.552	4.139e+05
21 Aroclor-1260	5.310	5.280-5.340	
	5.406	5.376-5.436	
	5.526	5.496-5.556	
	5.628	5.598-5.658	
	5.749	5.719-5.779	
22 Endrin	5.836	5.806-5.866	3.732e+05
23 Toxaphene	5.495	5.465-5.525	6.830e+03
	5.808	5.778-5.838	6.164e+03
	6.005	5.975-6.035	7.522e+03
	6.045	6.015-6.075	1.184e+04
	6.234	6.204-6.264	4.920e+03
24 Endosulfan II	6.056	6.026-6.086	3.970e+05
25 4,4'-DDD	5.943	5.913-5.973	3.652e+05
26 4,4'-DDT	6.278	6.248-6.308	3.619e+05
27 Endrin aldehyde	6.410	6.380-6.440	3.545e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m

Compound	RT	RT Window	RF
28 Methoxychlor	7.019	6.989-7.049	1.817e+05
29 Endosulfan sulfate	6.711	6.681-6.741	4.198e+05
30 Aroclor-1268	5.217	5.187-5.247	
	5.596	5.566-5.626	
	5.628	5.598-5.658	
	5.769	5.739-5.799	
	6.149	6.119-6.179	
60 Aroclor-1262	4.689	4.589-4.789	
	4.779	4.679-4.879	
	5.074	4.974-5.174	
	5.224	5.124-5.324	
	5.396	5.296-5.496	
31 Endrin ketone	7.296	7.266-7.326	5.181e+05
51 Mirex	7.404	7.374-7.434	2.838e+05
52 C-Nonachlor	6.046	6.016-6.076	3.876e+05
53 O-Chlordane	4.876	4.846-4.906	2.657e+05
54 T-Nonachlor	5.249	5.219-5.279	3.254e+05
55 1,2-Dichlorobenzene	6.619	6.589-6.649	
56 2,4-DDE	5.143	5.113-5.173	1.999e+05
58 2,4-DDD	5.669	5.639-5.699	1.903e+05
57 2,4-DDT	5.992	5.962-6.022	1.965e+05
$ 32 Decachlorobiphenyl	8.688	8.658-8.718	3.632e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 17-MAR-2010 21:14
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Cal Date : 18-Mar-2010 19:42 hea01125
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd3a.i/020310p.b/011f1101.d
Level 2: /chem/ecd3a.i/020310p.b/012f1201.d
Level 3: /chem/ecd3a.i/020310p.b/013f1301.d
Level 4: /chem/ecd3a.i/020310p.b/014f1401.d
Level 5: /chem/ecd3a.i/020310p.b/015f1501.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
63 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Hexachlorobenzene	82047	75676	73003	72625	72132	75097	5.487
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 alpha-BHC	74029	80491	97425	103205	110777	93185	16.590
6 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 gamma-BHC (Lindane)	70690	73558	87406	92110	97703	84293	13.922
8 Chlordane (tech.)(1)	2422	2465	2708	2884	3166	2729	11.287
(2)	1461	1483	1516	1593	1746	1560	7.416
(3)	1000	1062	1222	1374	1603	1252	19.479
(4)	8132	8404	9428	9931	10473	9274	10.723
(5)	6602	6889	7575	7807	7888	7352	7.816

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 17-MAR-2010 21:14
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Cal Date : 18-Mar-2010 19:42 hea01125
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Heptachlor	62388	63456	73612	76521	80767	71349	11.368
11 Aldrin	66694	71116	84208	87899	92194	80422	13.676
12 beta-BHC	36668	34914	37062	38137	40261	37408	5.271
13 delta-BHC	68026	72202	88051	92887	98750	83983	15.833
14 Heptachlor epoxide	63182	65835	74689	77304	80150	72232	10.203
15 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 Endosulfan I	59596	62009	70431	72493	74223	67750	9.652
17 gamma-Chlordane	60394	63672	74239	78303	82307	71783	13.120
18 alpha-Chlordane	62236	64440	73559	76774	80471	71496	11.018
19 4,4'-DDE	55360	61424	73229	76356	79872	69248	15.030
20 Dieldrin	62120	67553	77131	78906	81585	73459	11.239
21 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Endrin	52154	55555	62446	63729	66614	60100	10.015
23 Toxaphene(1)	487	539	604	582	584	559	8.361
(2)	798	1055	902	856	838	890	11.164
(3)	888	944	1039	1035	1032	988	6.944
(4)	1171	1208	1264	1310	1293	1249	4.687
(5)	535	578	651	649	669	617	9.280
24 Endosulfan II	54415	57358	63690	64771	66726	61392	8.546
25 4,4'-DDD	45806	50806	59126	61255	64006	56200	13.557

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 17-MAR-2010 21:14
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Cal Date : 18-Mar-2010 19:42 hea01125
Curve Type : Average

	Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
	26 4,4'-DDT	41063	42904	49559	51861	55069	48091	12.361
	27 Endrin aldehyde	47170	48542	52343	53047	53961	51013	5.837
	28 Methoxychlor	23330	23081	22955	23260	24937	23513	3.445
	29 Endosulfan sulfate	48290	49500	54313	55576	57737	53083	7.605
	30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	61 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	31 Endrin ketone	64752	66581	70148	70457	71884	68764	4.325
	51 Mirex	46970	41684	39766	39693	39782	41579	7.524
	52 C-Nonachlor	61669	63304	67157	68112	68361	65721	4.628
	53 O-Chlordane	53873	51905	51938	51668	51400	52157	1.885
	54 T-Nonachlor	64324	63349	65522	66666	66574	65287	2.206
	55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	56 2,4-DDE	40688	42524	43567	42869	42118	42353	2.531
	58 2,4-DDD	35151	35632	35705	35621	35141	35450	0.788
	57 2,4-DDT	30607	31760	31581	31495	31682	31425	1.490
M	62 TTO Sum Pesticides	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	1 4cmx	60456	63007	67937	69444	72285	66626	7.231
$	32 Decachlorobiphenyl	51689	50570	51088	51675	53084	51621	1.821

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 17-MAR-2010 21:14
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Cal Date : 18-Mar-2010 19:14 hea01125
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd3a.i/020310p.b/011b1101.d
Level 2: /chem/ecd3a.i/020310p.b/012b1201.d
Level 3: /chem/ecd3a.i/020310p.b/013b1301.d
Level 4: /chem/ecd3a.i/020310p.b/014b1401.d
Level 5: /chem/ecd3a.i/020310p.b/015b1501.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
61 2,4,5-Trichlorophenol	#####	#####	#####	#####	#####	#####	#####
59 Hexachlorobenzene	638883	552521	498046	477710	456314	524695	13.942
2 Aroclor-1221(1)	#####	#####	#####	#####	#####	#####	#####
(2)	#####	#####	#####	#####	#####	#####	#####
(3)	#####	#####	#####	#####	#####	#####	#####
3 Aroclor-1016(1)	#####	#####	#####	#####	#####	#####	#####
(2)	#####	#####	#####	#####	#####	#####	#####
(3)	#####	#####	#####	#####	#####	#####	#####
(4)	#####	#####	#####	#####	#####	#####	#####
(5)	#####	#####	#####	#####	#####	#####	#####
4 Aroclor-1232(1)	#####	#####	#####	#####	#####	#####	#####
(2)	#####	#####	#####	#####	#####	#####	#####
(3)	#####	#####	#####	#####	#####	#####	#####
(4)	#####	#####	#####	#####	#####	#####	#####
(5)	#####	#####	#####	#####	#####	#####	#####
5 alpha-BHC	800791	854884	939493	960359	996961	910497	8.843
6 Aroclor-1242(1)	#####	#####	#####	#####	#####	#####	#####
(2)	#####	#####	#####	#####	#####	#####	#####
(3)	#####	#####	#####	#####	#####	#####	#####
(4)	#####	#####	#####	#####	#####	#####	#####
(5)	#####	#####	#####	#####	#####	#####	#####
7 gamma-BHC (Lindane)	704054	721101	775734	784733	806700	758464	5.774
8 Chlordane (tech.)(1)	18941	18772	19642	20493	21200	19810	5.209
(2)	9654	8891	8620	8794	9486	9089	4.989
(3)	41050	39830	41174	42615	42823	41498	2.974
(4)	34185	32623	34296	35479	36454	34608	4.184
(5)	34493	33596	34773	35789	35412	34813	2.445

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 17-MAR-2010 21:14
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Cal Date : 18-Mar-2010 19:14 hea01125
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Heptachlor	626665	617093	636556	629950	619302	625913	1.267
11 Aldrin	573690	570136	589820	584321	574950	578583	1.414
12 beta-BHC	327668	326383	314506	316301	322444	321461	1.832
13 delta-BHC	677476	689772	750766	764574	791352	734788	6.686
14 Heptachlor epoxide	426312	410877	413705	411448	405841	413637	1.848
15 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 Endosulfan I	367793	360106	367717	367068	365970	365731	0.883
17 gamma-Chlordane	401752	387367	402826	412399	421605	405190	3.162
18 alpha-Chlordane	397610	386395	398126	404684	411774	399718	2.355
19 4,4'-DDE	350185	365497	392561	391603	386958	377361	4.967
20 Dieldrin	402214	407206	427465	418681	413989	413911	2.380
21 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Endrin	367185	369959	383788	374433	370632	373199	1.731
23 Toxaphene(1)	6747	6941	6612	6370	7479	6830	6.127
(2)	5314	6204	6271	6079	6951	6164	9.467
(3)	5897	7754	7797	7549	8615	7522	13.237
(4)	10925	11804	11825	11490	13167	11842	6.966
(5)	3960	5295	4798	4588	5958	4920	15.297
24 Endosulfan II	399809	398137	403187	394471	389161	396953	1.352
25 4,4'-DDD	344300	350220	373205	376373	381803	365180	4.594

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 17-MAR-2010 21:14
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Cal Date : 18-Mar-2010 19:14 hea01125
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
26 4,4'-DDT	324651	335508	372583	380406	396450	361920	8.442
27 Endrin aldehyde	365684	357998	359253	348760	340833	354506	2.748
28 Methoxychlor	188910	185726	175254	173181	185493	181713	3.859
29 Endosulfan sulfate	404936	408208	428981	427621	429122	419773	2.887
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
60 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Endrin ketone	511108	513344	527563	519335	519359	518142	1.236
51 Mirex	331656	289442	264627	265905	267186	283763	10.100
52 C-Nonachlor	399290	392506	388456	383488	374228	387594	2.438
53 O-Chlordane	323094	270726	251625	244327	238954	265745	12.885
54 T-Nonachlor	363784	327181	317318	312166	306607	325411	6.991
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 2,4-DDE	241272	213798	191249	182163	171219	199940	13.961
58 2,4-DDD	218419	199549	183738	178310	171502	190304	9.888
57 2,4-DDT	209437	197934	193413	192124	189515	196485	3.998
$ 1 4cmx	644506	638571	630524	602517	587511	620726	3.958
$ 32 Decachlorobiphenyl	384754	362110	353592	353295	362184	363187	3.529

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/16/10 03/17/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :03/17/10

Lab Sample ID (PEM): WPE100125-99 Time Analyzed :1925

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	3.84	3.81	3.87	129	100	29.0
4,4'-DDE						
Endrin	5.18	5.15	5.21	130	100	30.0
4,4'-DDD						
4,4'-DDT	5.52	5.50	5.56	115	100	15.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.60 Endrin % breakdown (1): 3.30

Combined % breakdown (1): 5.90

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/16/10 03/17/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :03/17/10

Lab Sample ID (PEM): WPE100125-99 Time Analyzed :1925

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.31	4.28	4.34	119	100	19.0
4,4'-DDE						
Endrin	5.84	5.81	5.87	120	100	20.0
4,4'-DDD						
4,4'-DDT	6.28	6.25	6.31	112	100	12.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.30 Endrin % breakdown (1): 4.80

Combined % breakdown (1): 7.10

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/16/10 03/17/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :03/17/10

Lab Sample ID (PEM): WPE100125-99 Time Analyzed :2155

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	3.84	3.81	3.87	134	100	34.0
4,4'-DDE						
Endrin	5.18	5.15	5.21	120	100	20.0
4,4'-DDD						
4,4'-DDT	5.53	5.50	5.56	106	100	6.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 4.60 Endrin % breakdown (1): 4.50

Combined % breakdown (1): 9.10

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/16/10 03/17/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :03/17/10

Lab Sample ID (PEM): WPE100125-99 Time Analyzed :2155

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.31	4.28	4.34	121	100	21.0
4,4'-DDE						
Endrin	5.84	5.81	5.87	117	100	17.0
4,4'-DDD						
4,4'-DDT	6.28	6.25	6.31	104	100	4.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 4.10 Endrin % breakdown (1): 6.20

Combined % breakdown (1): 10.30

FORM VII PEST-1 OLM03.0

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2298

Instrument ID: ECD3A Calibration Date: 03/17/10 Time: 1952

Lab File ID: 004F0401 Init. Calib. Date(s): 02/16/10 02/16/10

Heated Purge: (Y/N) N Init. Calib. Times: 2102 2156

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	558.927	575.662	0.01	3.0	15.0
(2)	889.900	877.776	0.01	-1.4	15.0
(3)	987.509	1046.612	0.01	6.0	15.0
(4)	1249.226	1085.342	0.01	-13.1	15.0
(5)	616.514	593.762	0.01	-3.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2298

Instrument ID: ECD3A Calibration Date: 03/17/10 Time: 1952

Lab File ID: 004B0401 Init. Calib. Date(s): 02/16/10 02/16/10

Heated Purge: (Y/N) N Init. Calib. Times: 2102 2156

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
Toxaphene	6829.846	7461.863	0.01	9.2	15.0	
(2)	6163.826	6045.126	0.01	-1.9	15.0	
(3)	7522.018	6174.926	0.01	-17.9	15.0	<-
(4)	11842.033	10993.469	0.01	-7.2	15.0	
(5)	4919.856	4790.217	0.01	-2.6	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2298

Instrument ID: ECD3A Calibration Date: 03/17/10 Time: 2209

Lab File ID: 014F1401 Init. Calib. Date(s): 03/17/10 03/17/10

Heated Purge: (Y/N) N Init. Calib. Times: 2020 2114

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	93185.194	103522.31	0.01	11.1	15.0
beta-BHC	37408.456	38366.900	0.01	2.6	15.0
delta-BHC	83983.356	92721.070	0.01	10.4	15.0
gamma-BHC (Lindane)	84293.357	92102.390	0.01	9.3	15.0
Heptachlor	71348.600	76664.290	0.01	7.4	15.0
Aldrin	80421.878	87860.490	0.01	9.2	15.0
Heptachlor epoxide	72231.855	77363.540	0.01	7.1	15.0
Endosulfan I	67750.301	71764.690	0.01	5.9	15.0
Dieldrin	73459.013	79044.900	0.01	7.6	15.0
4,4'-DDE	69248.211	76815.620	0.01	10.9	15.0
Endrin	60099.649	64358.830	0.01	7.1	15.0
Endosulfan II	61392.024	64944.295	0.01	5.8	15.0
4,4'-DDD	56199.992	61681.215	0.01	9.8	15.0
Endosulfan sulfate	53083.402	55936.740	0.01	5.4	15.0
4,4'-DDT	48091.300	52318.805	0.01	8.8	15.0
Methoxychlor	23512.635	23476.827	0.01	-0.2	15.0
Endrin ketone	68764.423	70687.690	0.01	2.8	15.0
Endrin aldehyde	51012.702	53244.255	0.01	4.4	15.0
gamma-Chlordane	71783.167	76616.450	0.01	6.7	15.0
alpha-Chlordane	71496.032	76380.310	0.01	6.8	15.0
4cmx	66625.953	69631.480	0.01	4.5	15.0
Decachlorobiphenyl	51621.291	51832.825	0.01	0.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2298

Instrument ID: ECD3A Calibration Date: 03/17/10 Time: 2209

Lab File ID: 014B1401 Init. Calib. Date(s): 03/17/10 03/17/10

Heated Purge: (Y/N) N Init. Calib. Times: 2020 2114

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	910497.32	952859.17	0.01	4.6	15.0
beta-BHC	321460.59	316094.86	0.01	-1.7	15.0
delta-BHC	734788.22	758167.81	0.01	3.2	15.0
gamma-BHC (Lindane)	758464.27	784954.64	0.01	3.5	15.0
Heptachlor	625913.38	625503.48	0.01	-0.1	15.0
Aldrin	578583.25	582306.35	0.01	0.6	15.0
Heptachlor epoxide	413636.83	407936.37	0.01	-1.4	15.0
Endosulfan I	365730.83	365452.66	0.01	-0.1	15.0
Dieldrin	413911.22	418059.40	0.01	1.0	15.0
4,4'-DDE	377360.80	389199.73	0.01	3.1	15.0
Endrin	373199.49	374859.45	0.01	0.4	15.0
Endosulfan II	396952.94	393671.08	0.01	-0.8	15.0
4,4'-DDD	365180.25	378388.58	0.01	3.6	15.0
Endosulfan sulfate	419773.40	424514.09	0.01	1.1	15.0
4,4'-DDT	361919.59	381187.69	0.01	5.3	15.0
Methoxychlor	181712.75	171431.60	0.01	-5.6	15.0
Endrin ketone	518141.92	516272.66	0.01	-0.4	15.0
Endrin aldehyde	354505.77	348388.66	0.01	-1.7	15.0
gamma-Chlordane	405189.71	409036.33	0.01	0.9	15.0
alpha-Chlordane	399717.54	401577.55	0.01	0.5	15.0
4cmx	620725.60	600254.80	0.01	-3.3	15.0
Decachlorobiphenyl	363186.93	350892.21	0.01	-3.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2298

Instrument ID: ECD3A Calibration Date: 03/18/10 Time: 0026

Lab File ID: 024F2401 Init. Calib. Date(s): 03/17/10 03/17/10

Heated Purge: (Y/N) N Init. Calib. Times: 2020 2114

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	93185.194	108926.62	0.01	16.9	15.0	<-
beta-BHC	37408.456	39995.703	0.01	6.9	15.0	
delta-BHC	83983.356	95053.381	0.01	13.2	15.0	
gamma-BHC (Lindane)	84293.357	99713.699	0.01	18.3	15.0	<-
Heptachlor	71348.600	77579.626	0.01	8.7	15.0	
Aldrin	80421.878	88688.574	0.01	10.3	15.0	
Heptachlor epoxide	72231.855	80714.645	0.01	11.7	15.0	
Endosulfan I	67750.301	78720.601	0.01	16.2	15.0	<-
Dieldrin	73459.013	82232.965	0.01	11.9	15.0	
4,4'-DDE	69248.211	80954.149	0.01	16.9	15.0	<-
Endrin	60099.649	71467.604	0.01	18.9	15.0	<-
Endosulfan II	61392.024	68621.736	0.01	11.8	15.0	
4,4'-DDD	56199.992	65605.166	0.01	16.7	15.0	<-
Endosulfan sulfate	53083.402	58575.809	0.01	10.3	15.0	
4,4'-DDT	48091.300	56829.060	0.01	18.2	15.0	<-
Methoxychlor	23512.635	24778.944	0.01	5.4	15.0	
Endrin ketone	68764.423	72202.266	0.01	5.0	15.0	
Endrin aldehyde	51012.702	54085.876	0.01	6.0	15.0	
gamma-Chlordane	71783.167	86219.670	0.01	20.1	15.0	<-
alpha-Chlordane	71496.032	75196.458	0.01	5.2	15.0	
4cmx	66625.953	75860.150	0.01	13.8	15.0	
Decachlorobiphenyl	51621.291	55523.635	0.01	7.6	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2298

Instrument ID: ECD3A Calibration Date: 03/18/10 Time: 0026

Lab File ID: 024B2401 Init. Calib. Date(s): 03/17/10 03/17/10

Heated Purge: (Y/N) N Init. Calib. Times: 2020 2114

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	910497.32	991208.65	0.01	8.9	15.0
beta-BHC	321460.59	327363.37	0.01	1.8	15.0
delta-BHC	734788.22	782294.31	0.01	6.5	15.0
gamma-BHC (Lindane)	758464.27	838525.24	0.01	10.6	15.0
Heptachlor	625913.38	627189.96	0.01	0.2	15.0
Aldrin	578583.25	581565.64	0.01	0.5	15.0
Heptachlor epoxide	413636.83	428420.90	0.01	3.6	15.0
Endosulfan I	365730.83	397339.73	0.01	8.6	15.0
Dieldrin	413911.22	432451.83	0.01	4.5	15.0
4,4'-DDE	377360.80	407748.83	0.01	8.0	15.0
Endrin	373199.49	412180.18	0.01	10.4	15.0
Endosulfan II	396952.94	414105.27	0.01	4.3	15.0
4,4'-DDD	365180.25	400018.23	0.01	9.5	15.0
Endosulfan sulfate	419773.40	446376.00	0.01	6.3	15.0
4,4'-DDT	361919.59	414809.42	0.01	14.6	15.0
Methoxychlor	181712.75	180246.35	0.01	-0.8	15.0
Endrin ketone	518141.92	530313.22	0.01	2.3	15.0
Endrin aldehyde	354505.77	354144.44	0.01	-0.1	15.0
gamma-Chlordane	405189.71	448953.00	0.01	10.8	15.0
alpha-Chlordane	399717.54	394400.54	0.01	-1.3	15.0
4cmx	620725.60	645656.36	0.01	4.0	15.0
Decachlorobiphenyl	363186.93	381641.12	0.01	5.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2298

Instrument ID: ECD3A Calibration Date: 03/18/10 Time: 0228

Lab File ID: 033F3301 Init. Calib. Date(s): 03/17/10 03/17/10

Heated Purge: (Y/N) N Init. Calib. Times: 2020 2114

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	93185.194	108307.80	0.01	16.2	15.0	<-
beta-BHC	37408.456	39659.257	0.01	6.0	15.0	
delta-BHC	83983.356	95108.440	0.01	13.2	15.0	
gamma-BHC (Lindane)	84293.357	99040.408	0.01	17.5	15.0	<-
Heptachlor	71348.600	76768.716	0.01	7.6	15.0	
Aldrin	80421.878	87644.126	0.01	9.0	15.0	
Heptachlor epoxide	72231.855	79849.779	0.01	10.5	15.0	
Endosulfan I	67750.301	76946.411	0.01	13.6	15.0	
Dieldrin	73459.013	81557.770	0.01	11.0	15.0	
4,4'-DDE	69248.211	80175.635	0.01	15.8	15.0	<-
Endrin	60099.649	71747.229	0.01	19.4	15.0	<-
Endosulfan II	61392.024	67728.616	0.01	10.3	15.0	
4,4'-DDD	56199.992	72790.907	0.01	29.5	15.0	<-
Endosulfan sulfate	53083.402	57726.663	0.01	8.7	15.0	
4,4'-DDT	48091.300	45950.316	0.01	-4.4	15.0	
Methoxychlor	23512.635	21871.246	0.01	-7.0	15.0	
Endrin ketone	68764.423	69935.107	0.01	1.7	15.0	
Endrin aldehyde	51012.702	53241.332	0.01	4.4	15.0	
gamma-Chlordane	71783.167	83998.431	0.01	17.0	15.0	<-
alpha-Chlordane	71496.032	73729.076	0.01	3.1	15.0	
4cmx	66625.953	75220.155	0.01	12.9	15.0	
Decachlorobiphenyl	51621.291	52601.355	0.01	1.9	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2298

Instrument ID: ECD3A Calibration Date: 03/18/10 Time: 0228

Lab File ID: 033B3301 Init. Calib. Date(s): 03/17/10 03/17/10

Heated Purge: (Y/N) N Init. Calib. Times: 2020 2114

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	910497.32	937260.19	0.01	2.9	15.0	
beta-BHC	321460.59	307791.70	0.01	-4.2	15.0	
delta-BHC	734788.22	728619.93	0.01	-0.8	15.0	
gamma-BHC (Lindane)	758464.27	784533.44	0.01	3.4	15.0	
Heptachlor	625913.38	581230.79	0.01	-7.1	15.0	
Aldrin	578583.25	542869.18	0.01	-6.2	15.0	
Heptachlor epoxide	413636.83	400206.33	0.01	-3.2	15.0	
Endosulfan I	365730.83	368186.71	0.01	0.7	15.0	
Dieldrin	413911.22	401668.42	0.01	-3.0	15.0	
4,4'-DDE	377360.80	377456.88	0.01	0.0	15.0	
Endrin	373199.49	377109.78	0.01	1.0	15.0	
Endosulfan II	396952.94	379135.18	0.01	-4.5	15.0	
4,4'-DDD	365180.25	397286.45	0.01	8.8	15.0	
Endosulfan sulfate	419773.40	395039.42	0.01	-5.9	15.0	
4,4'-DDT	361919.59	303594.17	0.01	-16.1	15.0	<-
Methoxychlor	181712.75	146377.74	0.01	-19.4	15.0	<-
Endrin ketone	518141.92	449204.29	0.01	-13.3	15.0	
Endrin aldehyde	354505.77	321787.86	0.01	-9.2	15.0	
gamma-Chlordane	405189.71	412500.68	0.01	1.8	15.0	
alpha-Chlordane	399717.54	360433.37	0.01	-9.8	15.0	
4cmx	620725.60	622574.71	0.01	0.3	15.0	
Decachlorobiphenyl	363186.93	307836.95	0.01	-15.2	15.0	<-

FORM VII PEST

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/031710p.b/002f0201.d
Lab Smp Id: WPE100125-99DG Client Smp ID: PEM01
Inj Date : 17-MAR-2010 19:25
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100125-99DG
Misc Info :
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
3.842	3.843	-0.001	10713152	129.421	129	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.672	4.674	-0.002	19473	0.27293	0.273	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.182	5.184	-0.002	7272639	130.578	130	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.248	5.249	-0.001	120159	2.13238	2.13	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.825	5.826	-0.001	60364	1.21668	1.22	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.525	5.525	0.000	5190459	115.211	115	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.568	6.569	-0.001	191200	3.21103	3.21	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.581	2.580	0.001	14586184	206.481	206	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.662	7.663	-0.001	10975321	212.545	212	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/031710p.b/002f0201.d
Date : 17-MAR-2010 19:25
Client ID: PEM01
Sample Info: IWPE100125-99DG

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

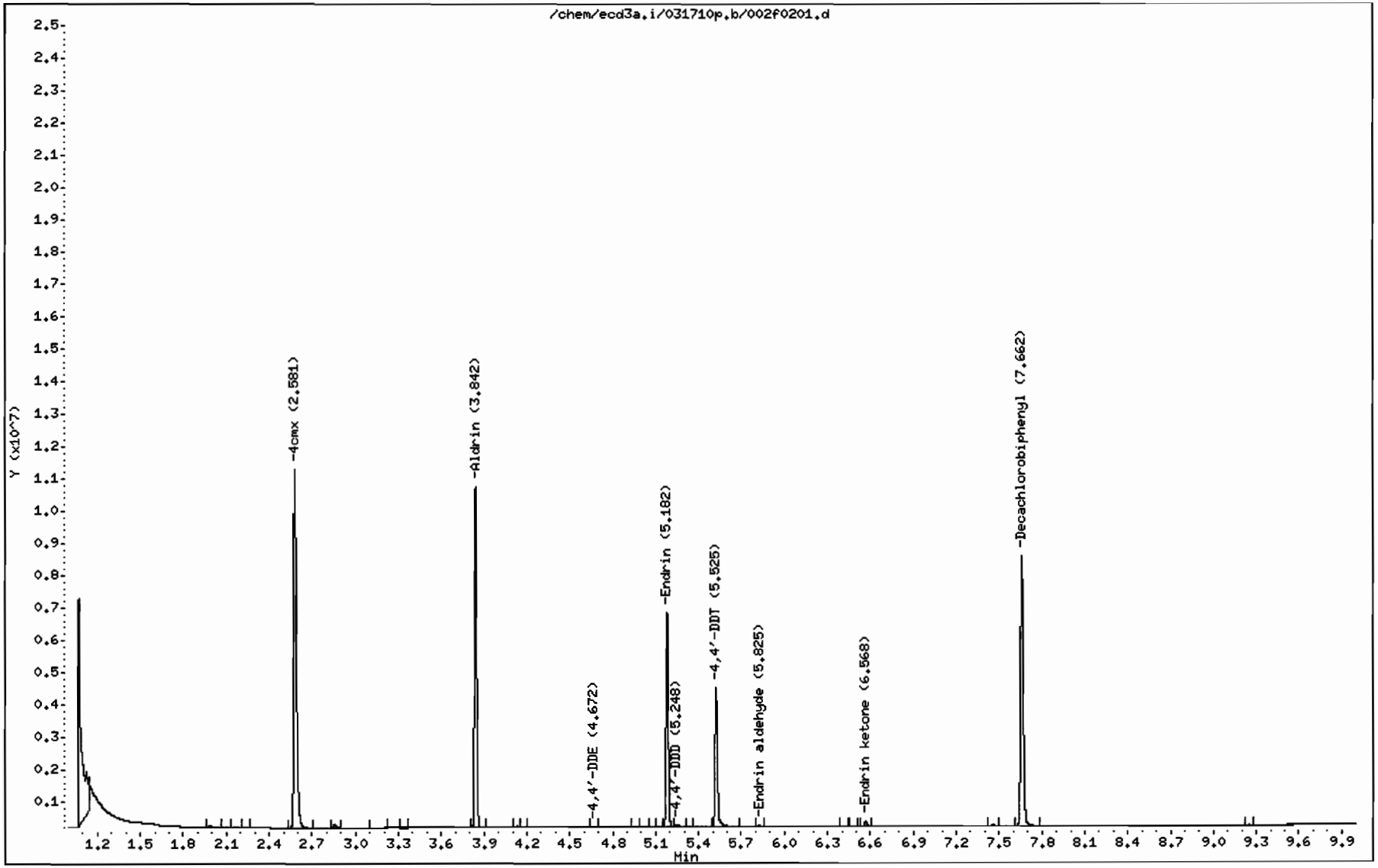

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/002b0201.d
Lab Smp Id: WPE100125-99DG Client Smp ID: PEM01
Inj Date : 17-MAR-2010 19:25
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100125-99DG
Misc Info :
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.306	4.307	-0.001	69101263	118.777	119	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.342	5.343	-0.001	152746	0.39818	0.398	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.836	5.836	0.000	43326663	119.754	120	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.943	5.943	0.000	756993	1.98429	1.98	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
6.411	6.410	0.001	574735	1.58512	1.58	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.278	6.278	0.000	37950431	112.341	112	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.295	7.296	-0.001	1591132	3.07392	3.07	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.817	2.817	0.000	124580305	195.021	195	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.686	8.688	-0.002	73187043	201.631	202	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/031710p.b/002b0201.d
Date : 17-MAR-2010 19:25
Client ID: PEM01
Sample Info: IWPE100125-99DG

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

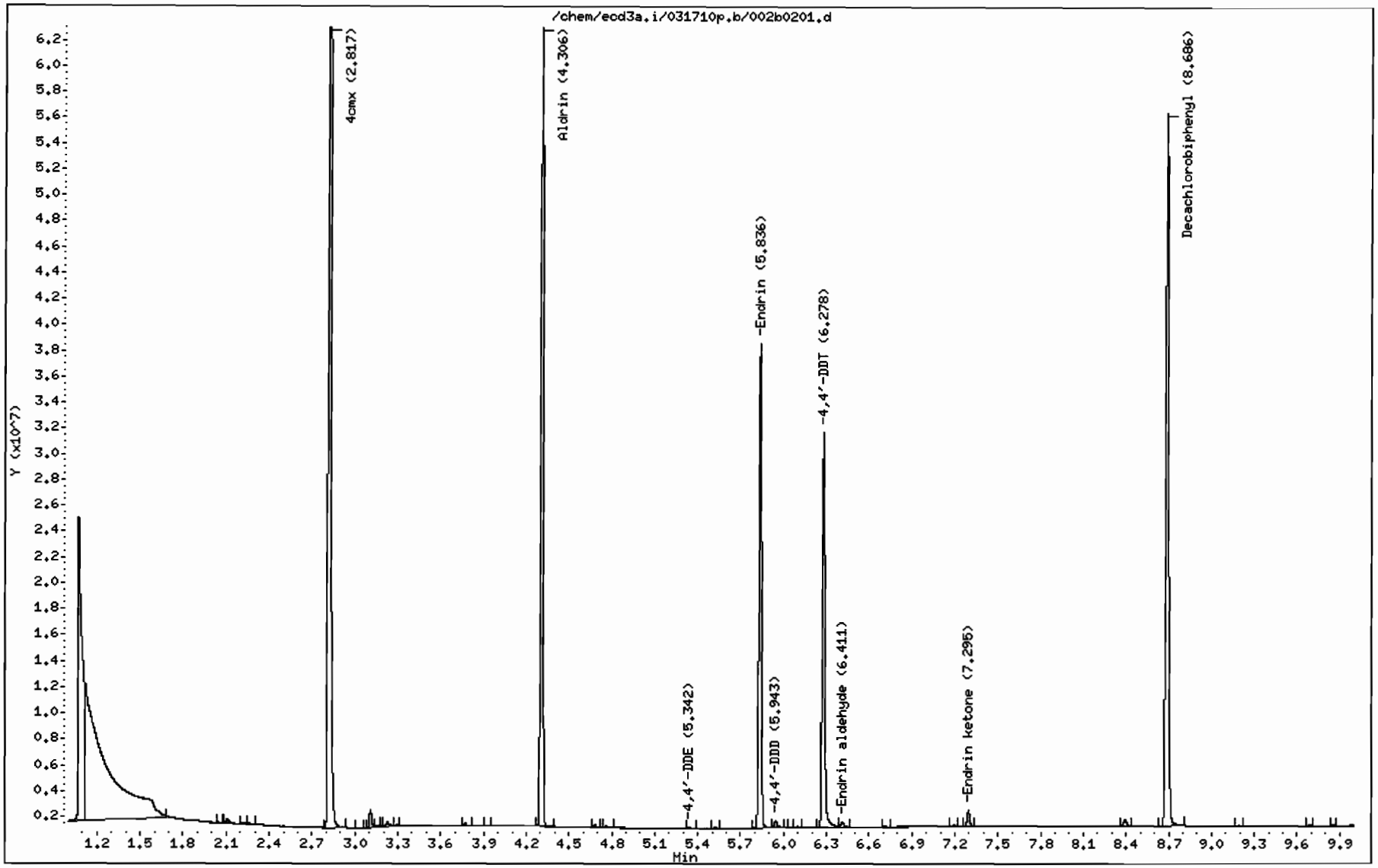

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/031710p.b/013f1301.d
Lab Smp Id: WPE100125-99DG Client Smp ID: PEM02
Inj Date : 17-MAR-2010 21:55
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100125-99DG
Misc Info :
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 13 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
3.844	3.843	0.001	10798044	134.267	134	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.674	4.674	0.000	22810	0.32940	0.329	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.184	5.184	0.000	7211182	119.987	120	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.252	5.249	0.003	221477	3.94087	3.94	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.828	5.826	0.002	70485	1.38171	1.38	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.527	5.525	0.002	5087639	105.791	106	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.570	6.569	0.001	267504	3.89015	3.89	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.580	0.000	14782943	221.880	222	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.663	7.663	0.000	11018435	213.447	213	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/031710p.b/013f1301.d
Date : 17-MAR-2010 21:55
Client ID: PEM02
Sample Info: IWPE100125-99DG

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

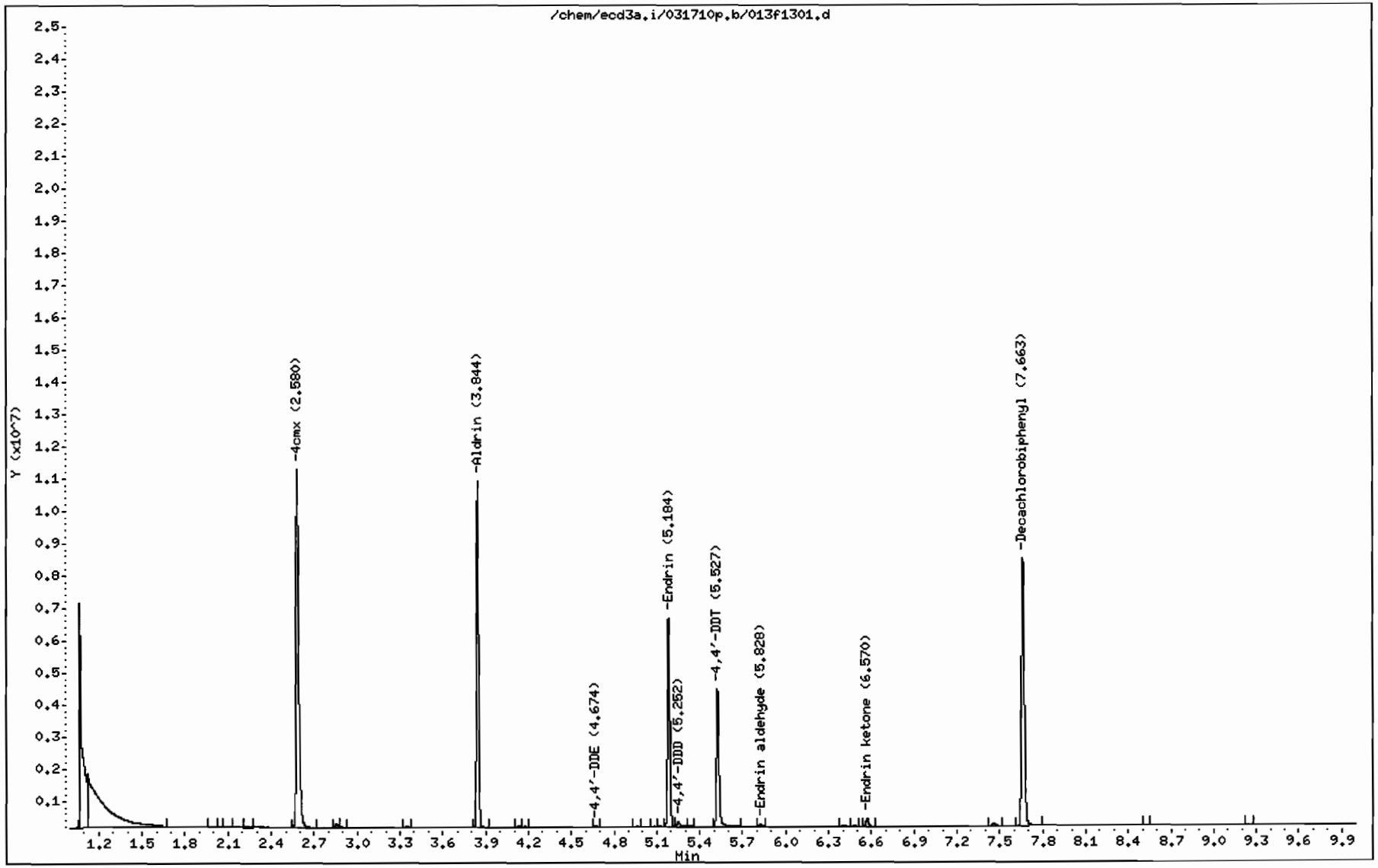

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/013b1301.d
Lab Smp Id: WPE100125-99DG Client Smp ID: PEM02
Inj Date : 17-MAR-2010 21:55
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100125-99DG
Misc Info :
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 13 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.307	4.307	0.000	69779000	120.603	121	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.342	5.343	-0.001	158941	0.42119	0.421	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.837	5.836	0.001	43582337	116.780	117	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.943	5.943	0.000	1451753	3.97544	3.98	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.410	6.410	0.000	667252	1.88220	1.88	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.279	6.278	0.001	37802595	104.450	104	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.297	7.296	0.001	2204430	4.25449	4.25	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.817	2.817	0.000	127297664	205.079	205	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.688	8.688	0.000	75336403	207.431	207	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/031710p.b/013b1301.d
Date : 17-MAR-2010 21:55
Client ID: PEM02
Sample Info: IWPE100125-99DG

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

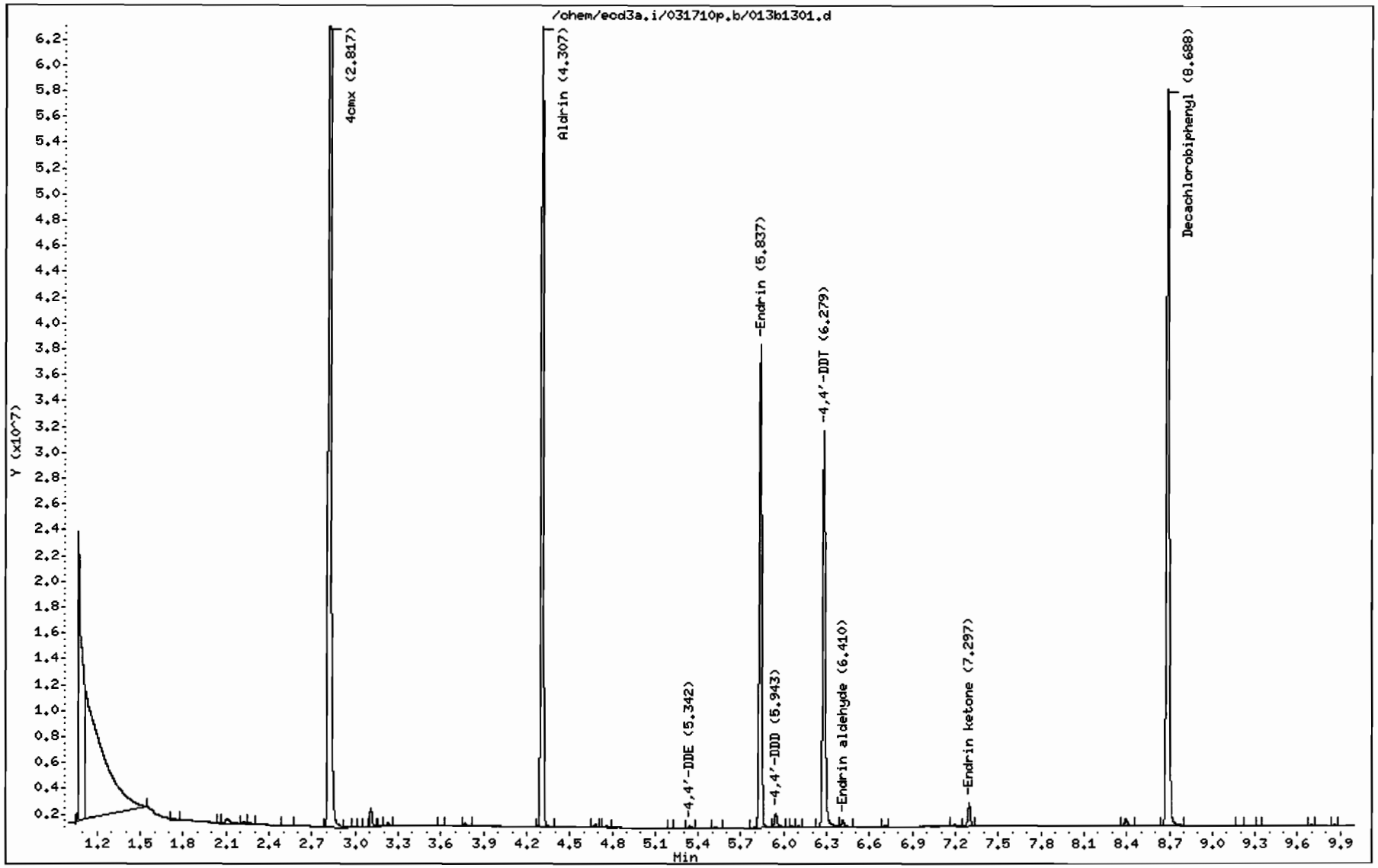

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/031710p.b/004f0401.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 17-MAR-2010 19:52
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100125-52TX
Misc Info : |TOXAPHICV
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
4.860	4.860	0.000	1151323	2000.00	2060	80.00- 120.00	100.00(M)
4.964	4.964	0.000	1755553	2000.00	1970	132.48- 172.48	152.48
5.049	5.049	0.000	2093223	2000.00	2120	161.81- 201.81	181.81
5.205	5.205	0.000	2170684	2000.00	1740	168.54- 208.54	188.54
5.618	5.618	0.000	1187525	2000.00	1930	83.14- 123.14	103.14

Average of Peak Amounts = 1.96e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/031710p.b/004f0401.d

Date : 17-MAR-2010 19:52

Client ID: TOXAPH01

Sample Info: IWPE100125-52TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

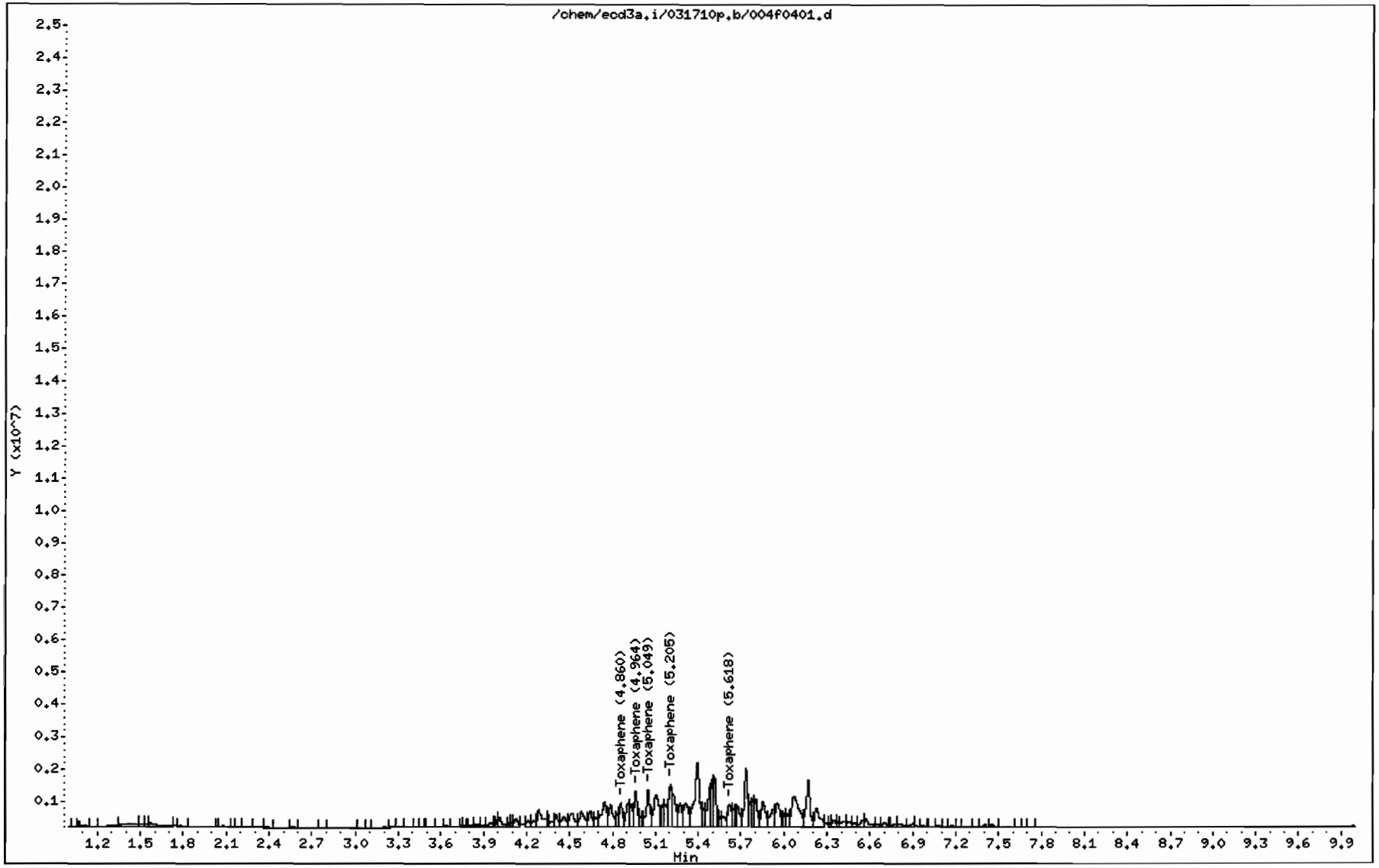

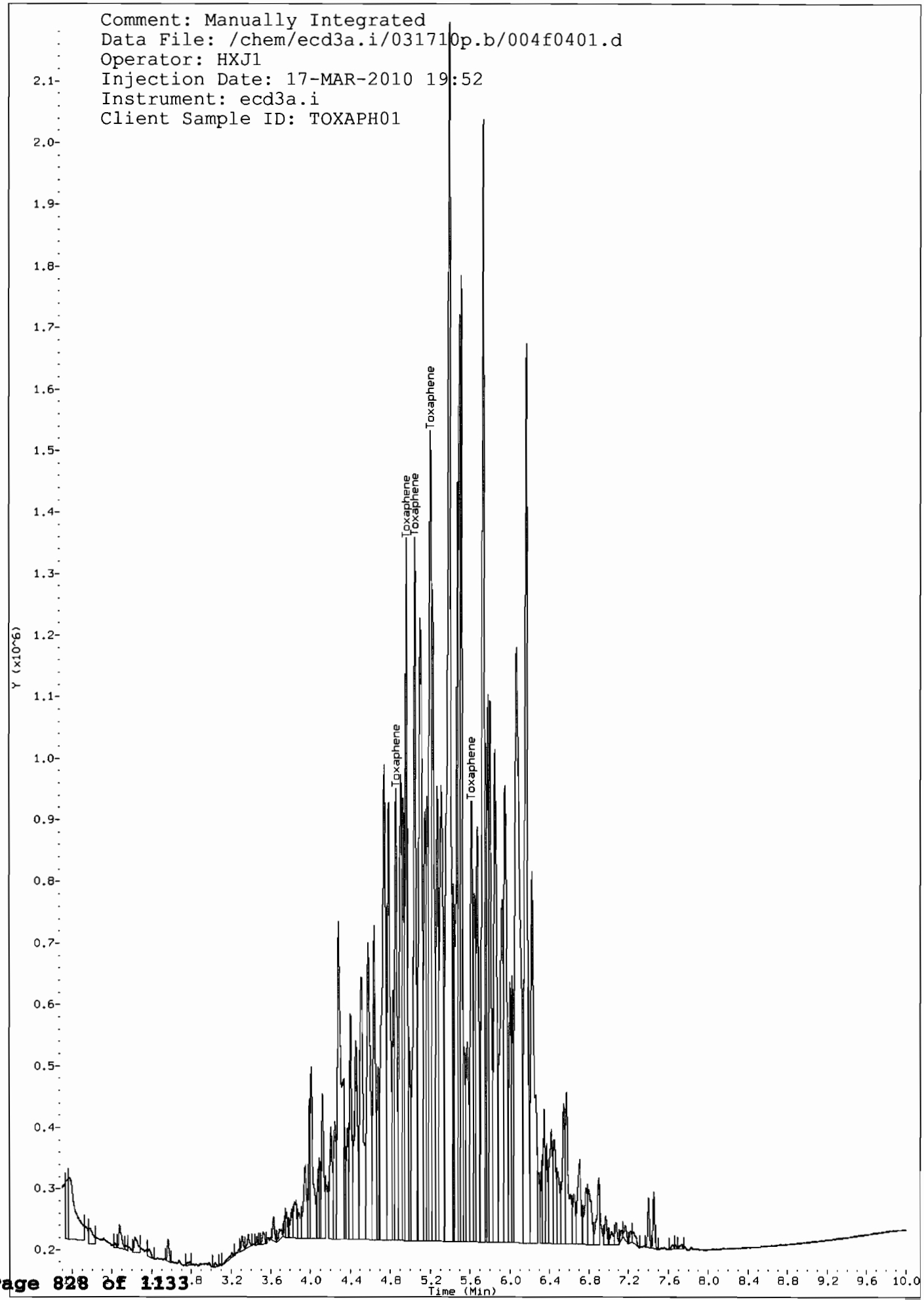
Comment: Manually Integrated
Data File: /chem/ecd3a.i/031710p.b/004f0401.d
Operator: HXJ1
Injection Date: 17-MAR-2010 19:52
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

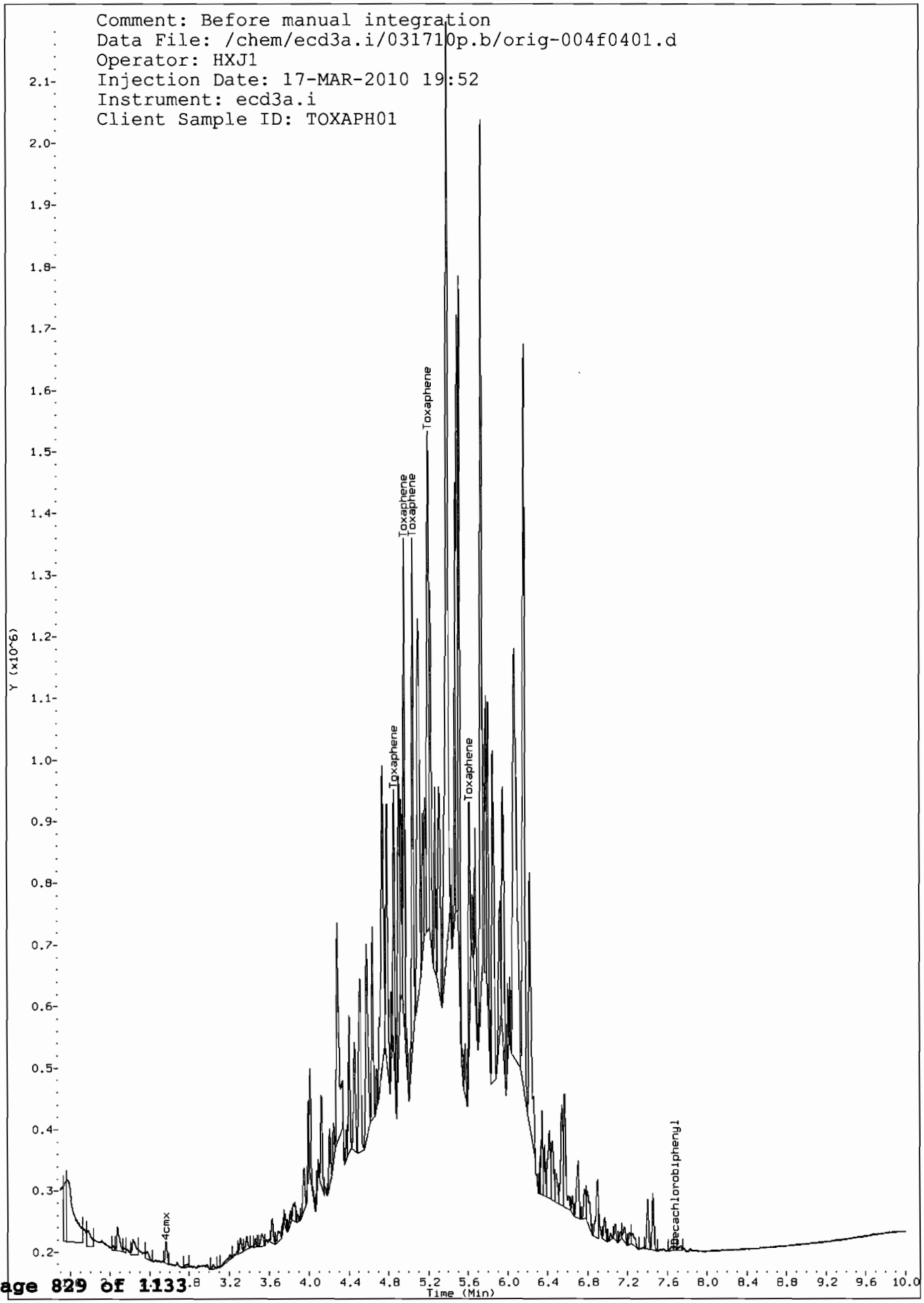
Comment: Before manual integration
Data File: /chem/ecd3a.i/031710p.b/orig-004f0401.d
Operator: HXJ1
Injection Date: 17-MAR-2010 19:52
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
4cmx
Decachlorobiphenyl
Y (x10^6)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/004b0401.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 17-MAR-2010 19:52
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100125-52TX
Misc Info : |TOXAPHICV
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.495	5.495	0.000	14923726	2000.00	2180	80.00- 120.00	100.00
5.808	5.808	0.000	12090253	2000.00	1960	61.01- 101.01	81.01
6.005	6.005	0.000	12349851	2000.00	1640	62.75- 102.75	82.75
6.045	6.045	0.000	21986938	2000.00	1860	127.33- 167.33	147.33
6.234	6.234	0.000	9580434	2000.00	1950	44.20- 84.20	64.20

Average of Peak Amounts = 1.92e+03

Data File: /chem/ecd3a.i/031710p.b/004b0401.d

Page 1

Date : 17-MAR-2010 19:52

Client ID: TOXAPH01

Instrument: ecd3a.i

Sample Info: IWPE100125-52TX

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

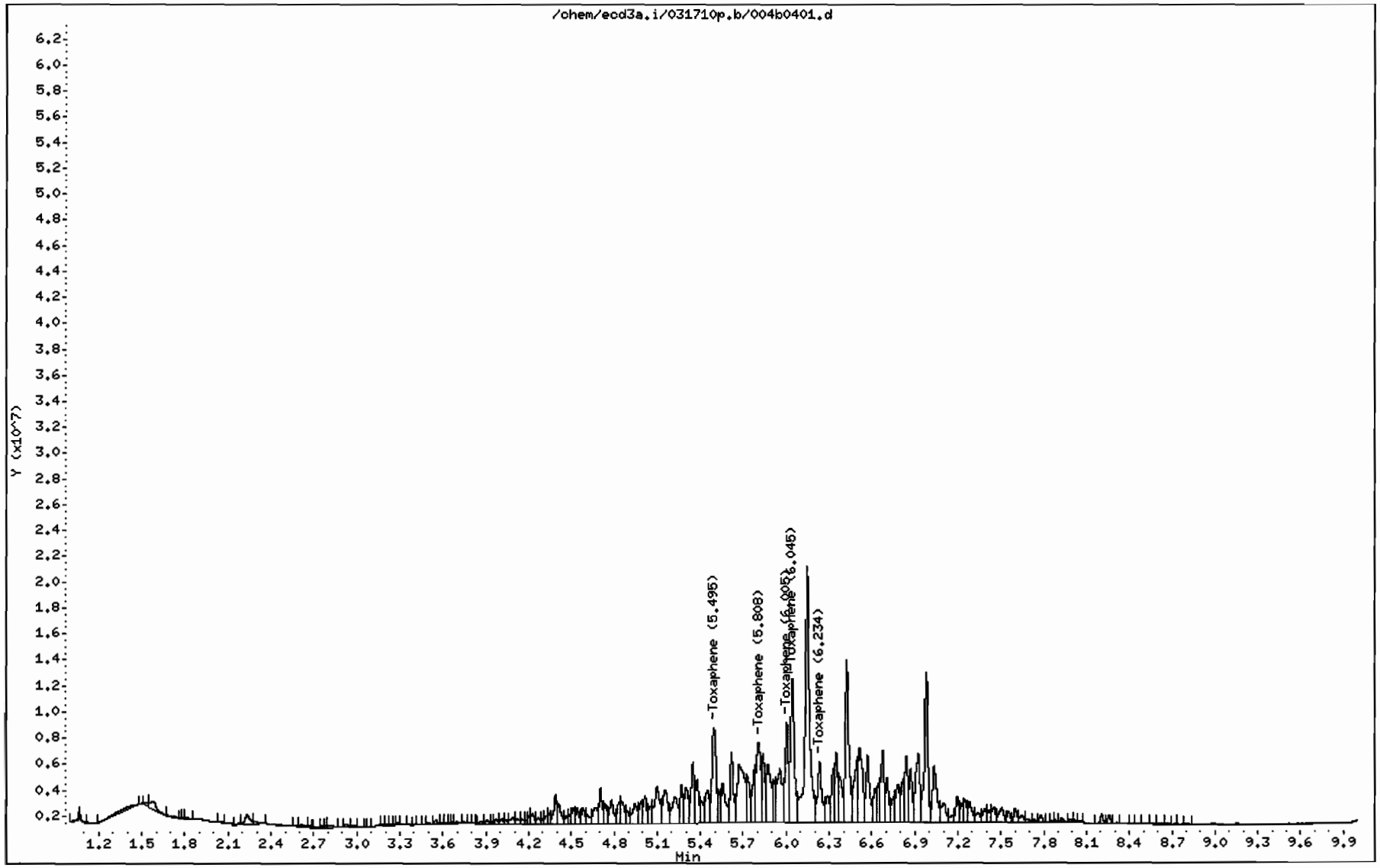

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/031710p.b/014f1401.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB01
Inj Date : 17-MAR-2010 22:09
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
2.976	2.976	0.000	10352231	100.000	111	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.216	3.216	0.000	9210239	100.000	109	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.280	3.280	0.000	3836690	100.000	102	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.591	3.591	0.000	7666429	100.000	107	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.424	3.424	0.000	9272107	100.000	110	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.843	3.843	0.000	8786049	100.000	109	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.370	4.370	0.000	7736354	100.000	107	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.483	4.483	0.000	7661645	100.000	107	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.604	4.604	0.000	7638031	100.000	107	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.733	4.733	0.000	7176469	100.000	106	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.674	4.674	0.000	15363124	200.000	222	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.959	4.959	0.000	15808980	200.000	215	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.184	5.184	0.000	12871766	200.000	214	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.249	5.249	0.000	12336243	200.000	220	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.405	5.405	0.000	12988859	200.000	212	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.826	5.826	0.000	10648851	200.000	209	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.525	5.525	0.000	10463761	200.000	218	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.275	6.275	0.000	11187348	200.000	211	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.029	6.029	0.000	23476827	1000.00	998	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.569	6.569	0.000	14137538	200.000	206	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.580	0.000	13926296	200.000	209	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.663	7.663	0.000	10366565	200.000	201	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/014f1401.d
Date : 17-MAR-2010 22:09
Client ID: INDAB01
Sample Info: IWPE100305-10AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

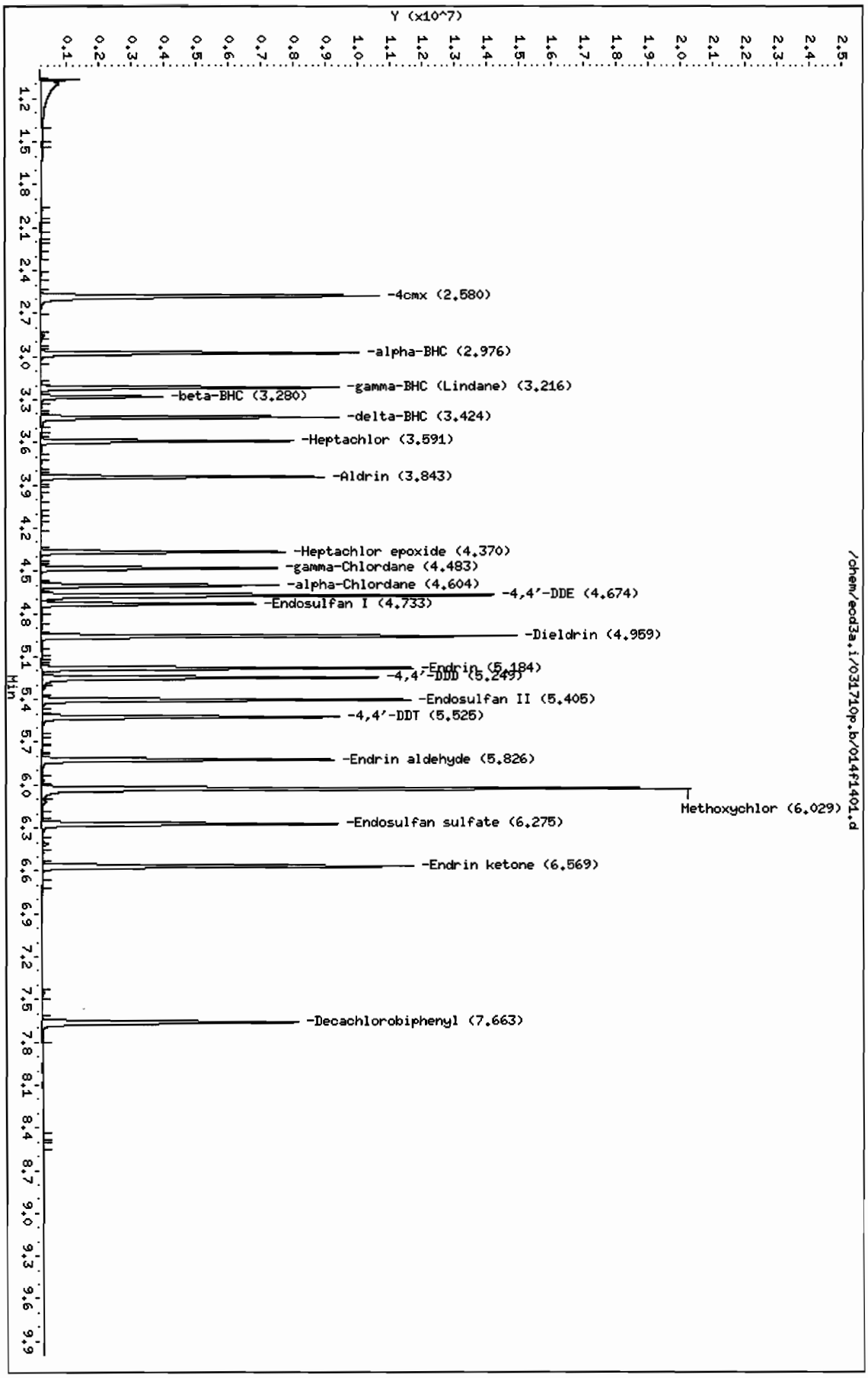

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/014b1401.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB01
Inj Date : 17-MAR-2010 22:09
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.296	3.296	0.000	95285917	100.000	105	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.598	3.598	0.000	78495464	100.000	103	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.660	3.660	0.000	31609486	100.000	98.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.002	4.002	0.000	62550348	100.000	99.9	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.925	3.925	0.000	75816781	100.000	103	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.307	4.307	0.000	58230635	100.000	101	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.849	4.849	0.000	40793637	100.000	98.6	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.037	5.037	0.000	40903633	100.000	101	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.183	5.183	0.000	40157755	100.000	100	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.244	5.244	0.000	36545266	100.000	99.9	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.343	5.343	0.000	77839946	200.000	206	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.522	5.522	0.000	83611879	200.000	202	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.836	5.836	0.000	74971889	200.000	201	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.943	5.943	0.000	75677715	200.000	207	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.056	6.056	0.000	78734215	200.000	198	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.410	6.410	0.000	69677732	200.000	196	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.278	6.278	0.000	76237538	200.000	211	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.711	6.711	0.000	84902818	200.000	202	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.019	7.019	0.000	171431596	1000.00	943	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.296	7.296	0.000	103254533	200.000	199	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.817	2.817	0.000	120050959	200.000	193	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.688	8.688	0.000	70178442	200.000	193	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/014b1401.d
Date : 17-MAR-2010 22:09
Client ID: INDAB01
Sample Info: IWPE100305-10AB

Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

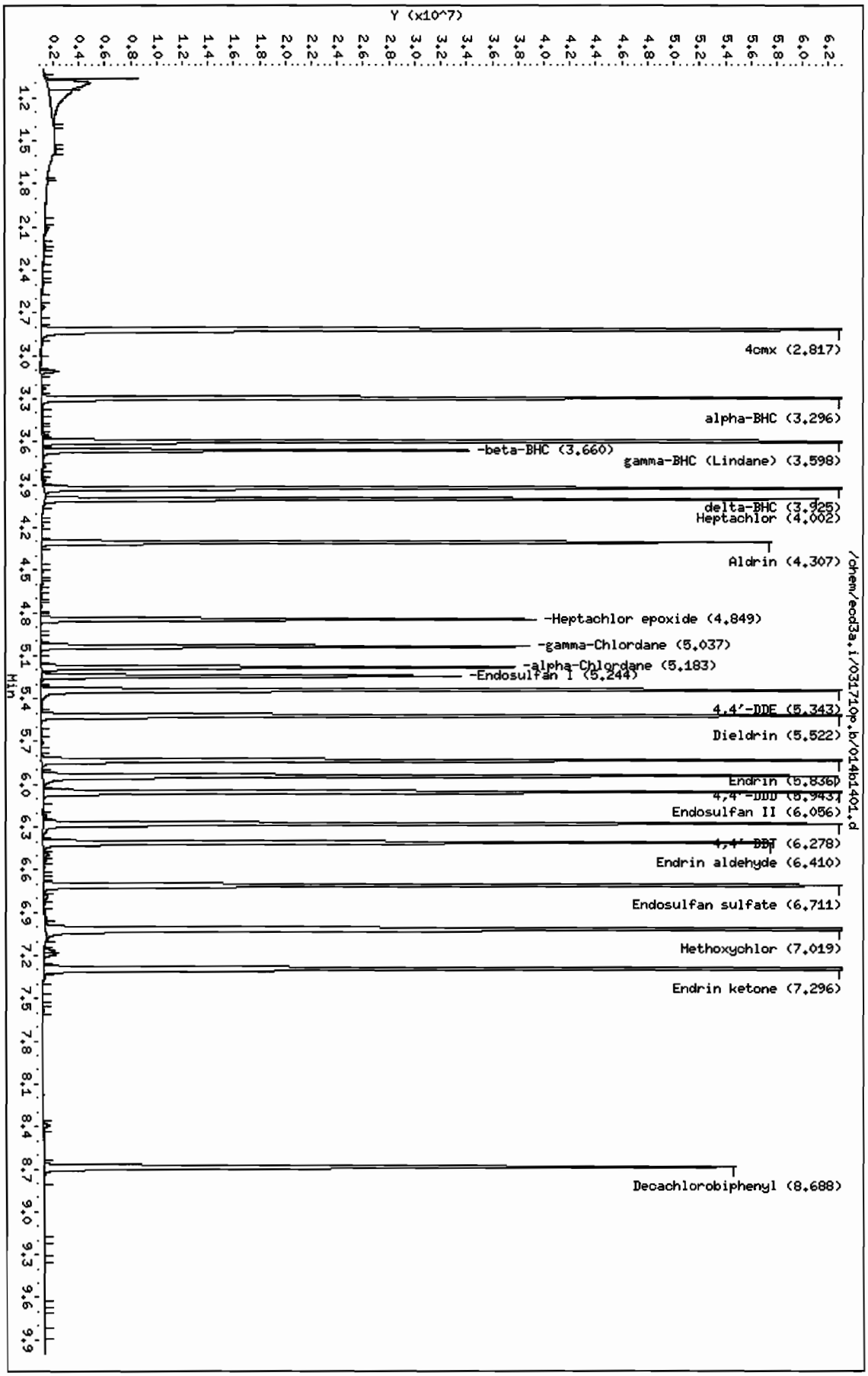

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CLP-1

Data file : /chem/ecd3a.i/031710p.b/024f2401.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB02
Inj Date : 18-MAR-2010 00:26
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
2.976	2.976	0.000	10892662	100.000	117	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.216	3.216	0.000	9971369	100.000	118	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.280	3.280	0.000	3999570	100.000	107	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.591	3.591	0.000	7757962	100.000	109	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.424	3.424	0.000	9505338	100.000	113	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.843	3.843	0.000	8868857	100.000	110	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.370	4.370	0.000	8071464	100.000	112	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.483	4.483	0.000	8621966	100.000	120	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.604	4.604	0.000	7519645	100.000	105	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.732	4.733	-0.001	7872060	100.000	116	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.673	4.674	-0.001	16190829	200.000	234	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.959	4.959	0.000	16446593	200.000	224	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.183	5.184	-0.001	14293520	200.000	238	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.248	5.249	-0.001	13121033	200.000	233	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.405	5.405	0.000	13724347	200.000	224	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.826	5.826	0.000	10817175	200.000	212	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.526	5.525	0.001	11365811	200.000	236	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.274	6.275	-0.001	11715161	200.000	221	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.029	6.029	0.000	24778943	1000.00	1050	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.569	6.569	0.000	14440453	200.000	210	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.580	0.000	15172030	200.000	228	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.664	7.663	0.001	11104727	200.000	215	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/024f2401.d
Date : 18-MAR-2010 00:26
Client ID: INDABO2
Sample Info: IWPE100305-10AB

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

Column phase: CLP-1

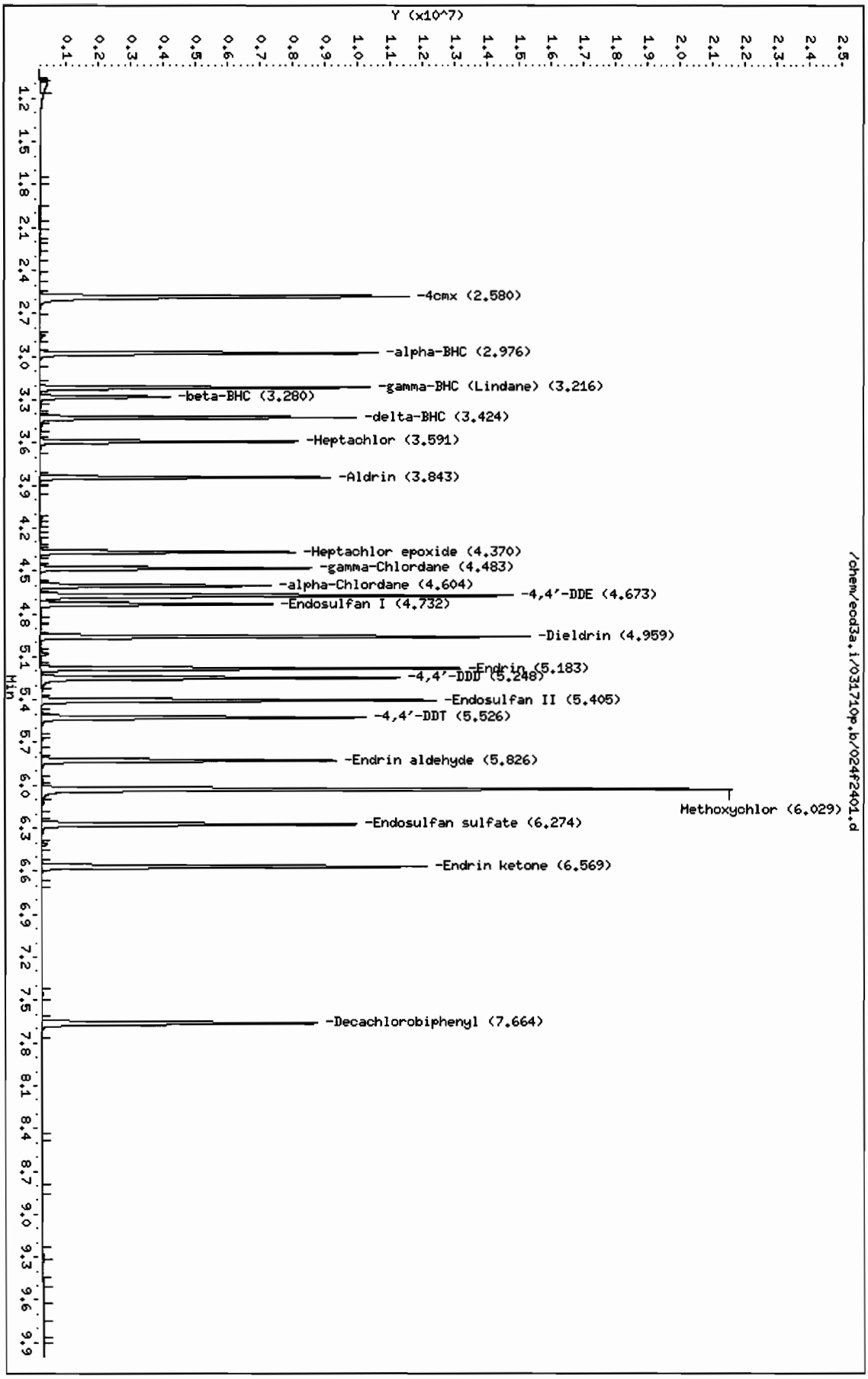

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/024b2401.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB02
Inj Date : 18-MAR-2010 00:26
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.296	3.296	0.000	99120865	100.000	109	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.598	3.598	0.000	83852523	100.000	110	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.660	3.660	0.000	32736337	100.000	102	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.002	4.002	0.000	62718996	100.000	100	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.925	3.925	0.000	78229430	100.000	106	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.307	4.307	0.000	58156564	100.000	100	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.848	4.849	-0.001	42842090	100.000	104	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.038	5.037	0.001	44895300	100.000	111	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.183	5.183	0.000	39440053	100.000	98.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.244	5.244	0.000	39733972	100.000	109	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.343	5.343	0.000	81549766	200.000	216	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.522	5.522	0.000	86490365	200.000	209	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.837	5.836	0.001	82436035	200.000	221	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.943	5.943	0.000	80003645	200.000	219	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.056	6.056	0.000	82821054	200.000	209	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.411	6.410	0.001	70828887	200.000	200	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.279	6.278	0.001	82961884	200.000	229	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.712	6.711	0.001	89275200	200.000	213	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.019	7.019	0.000	180246353	1000.00	992	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.297	7.296	0.001	106062643	200.000	205	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.816	2.817	-0.001	129131273	200.000	208	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.688	8.688	0.000	76328224	200.000	210	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/024b2401.d
Date : 18-MAR-2010 00:26
Client ID: INDAB02
Sample Info: IWPE100305-10AB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

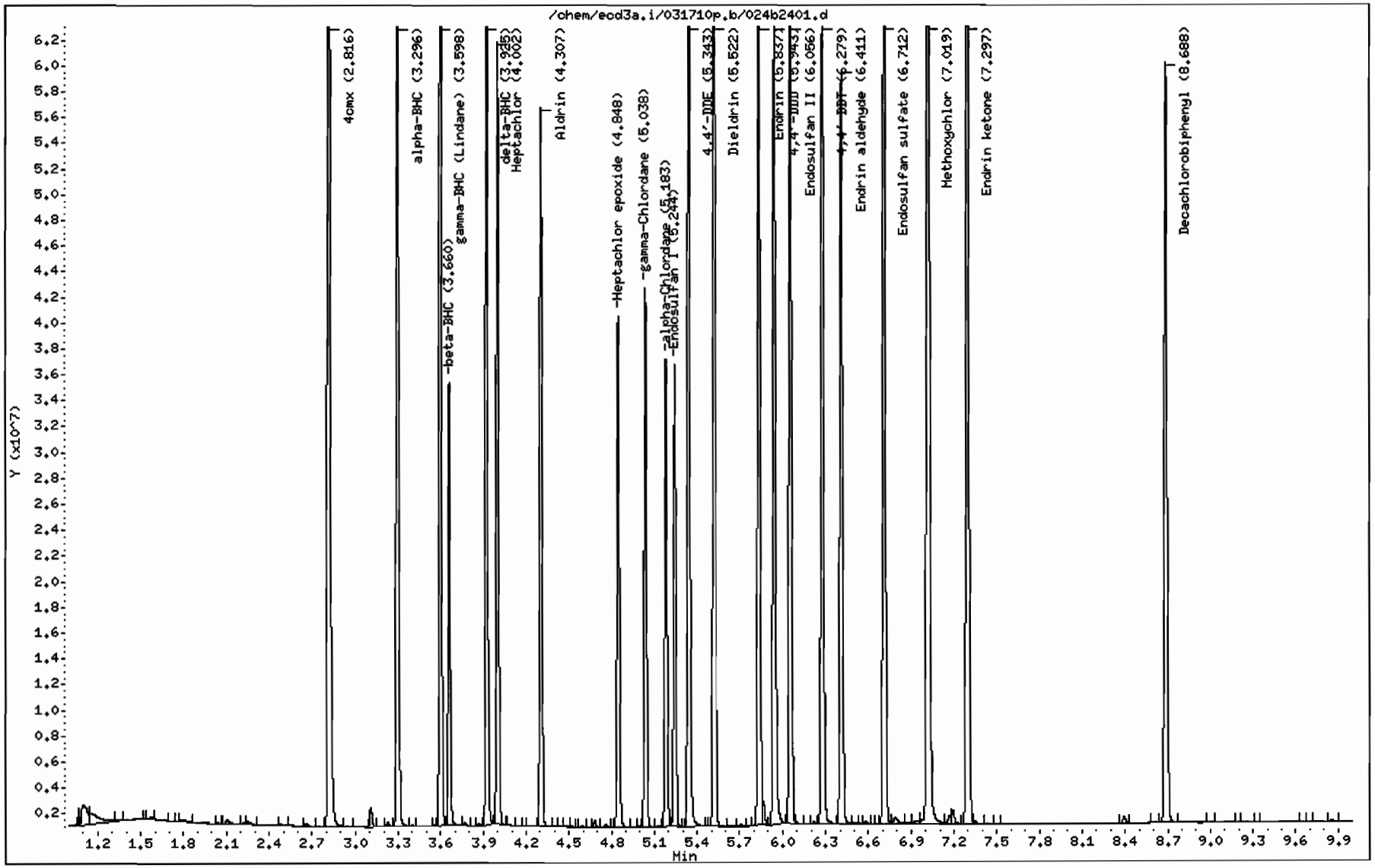

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CLP-1

Data file : /chem/ecd3a.i/031710p.b/033f3301.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB03
Inj Date : 18-MAR-2010 02:28
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
2.977	2.976	0.001	10830780	100.000	116	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.216	3.216	0.000	9904040	100.000	117	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.280	3.280	0.000	3965925	100.000	106	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.591	3.591	0.000	7676871	100.000	108	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.424	3.424	0.000	9510843	100.000	113	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.844	3.843	0.001	8764412	100.000	109	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.370	4.370	0.000	7984977	100.000	110	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.484	4.483	0.001	8399843	100.000	117	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.605	4.604	0.001	7372907	100.000	103	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.734	4.733	0.001	7694641	100.000	114	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.674	4.674	0.000	16035127	200.000	232	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.959	4.959	0.000	16311554	200.000	222	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.185	5.184	0.001	14349445	200.000	239	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.249	5.249	0.000	14558181	200.000	259	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.406	5.405	0.001	13545723	200.000	221	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.826	5.826	0.000	10648266	200.000	209	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.527	5.525	0.002	9190063	200.000	191	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.275	6.275	0.000	11545332	200.000	217	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.029	6.029	0.000	21871246	1000.00	930	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.570	6.569	0.001	13987021	200.000	203	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.581	2.580	0.001	15044031	200.000	226	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.664	7.663	0.001	10520271	200.000	204	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/033f3301.d
Date : 18-MAR-2010 02:28
Client ID: INDABO3
Sample Info: IWPE100305-10AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

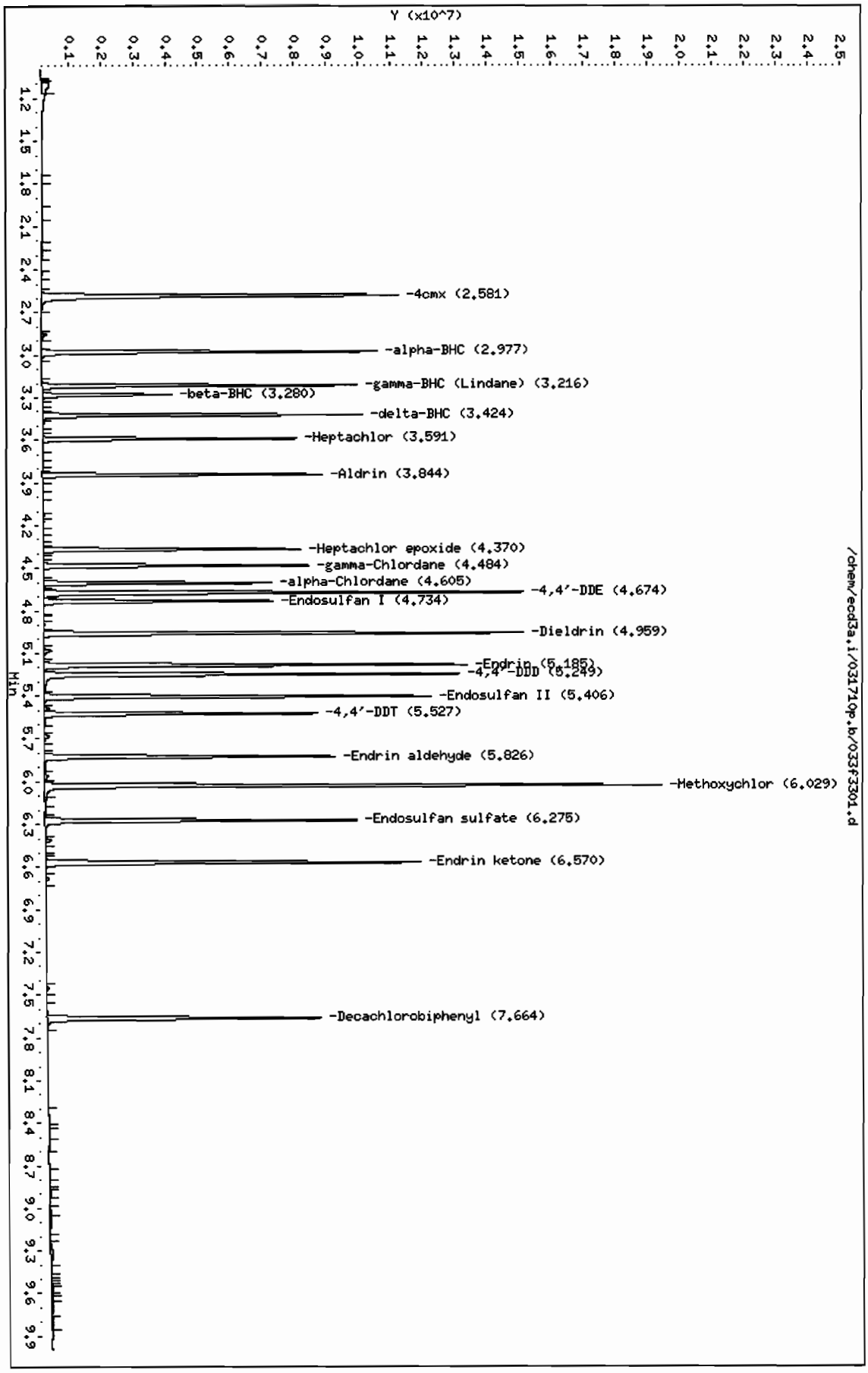

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/033b3301.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB03
Inj Date : 18-MAR-2010 02:28
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.296	3.296	0.000	93726018	100.000	103	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.597	3.598	-0.001	78453344	100.000	103	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.660	3.660	0.000	30779170	100.000	95.7	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.002	4.002	0.000	58123079	100.000	92.9	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.926	3.925	0.001	72861992	100.000	99.2	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.307	4.307	0.000	54286918	100.000	93.8	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.849	4.849	0.000	40020632	100.000	96.8	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.038	5.037	0.001	41250068	100.000	102	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.184	5.183	0.001	36043337	100.000	90.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.244	5.244	0.000	36818671	100.000	101	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.343	5.343	0.000	75491376	200.000	200	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.522	5.522	0.000	80333684	200.000	194	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.837	5.836	0.001	75421955	200.000	202	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.943	5.943	0.000	79457289	200.000	218	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.056	6.056	0.000	75827035	200.000	191	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.411	6.410	0.001	64357571	200.000	182	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.279	6.278	0.001	60718833	200.000	168	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.711	6.711	0.000	79007883	200.000	188	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.019	7.019	0.000	146377743	1000.00	806	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.297	7.296	0.001	89840858	200.000	173	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.816	2.817	-0.001	124514942	200.000	200	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.689	8.688	0.001	61567390	200.000	170	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/033b3301.d

Date : 18-MAR-2010 02:28

Client ID: INDAB03

Sample Info: IWPE100305-10AB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

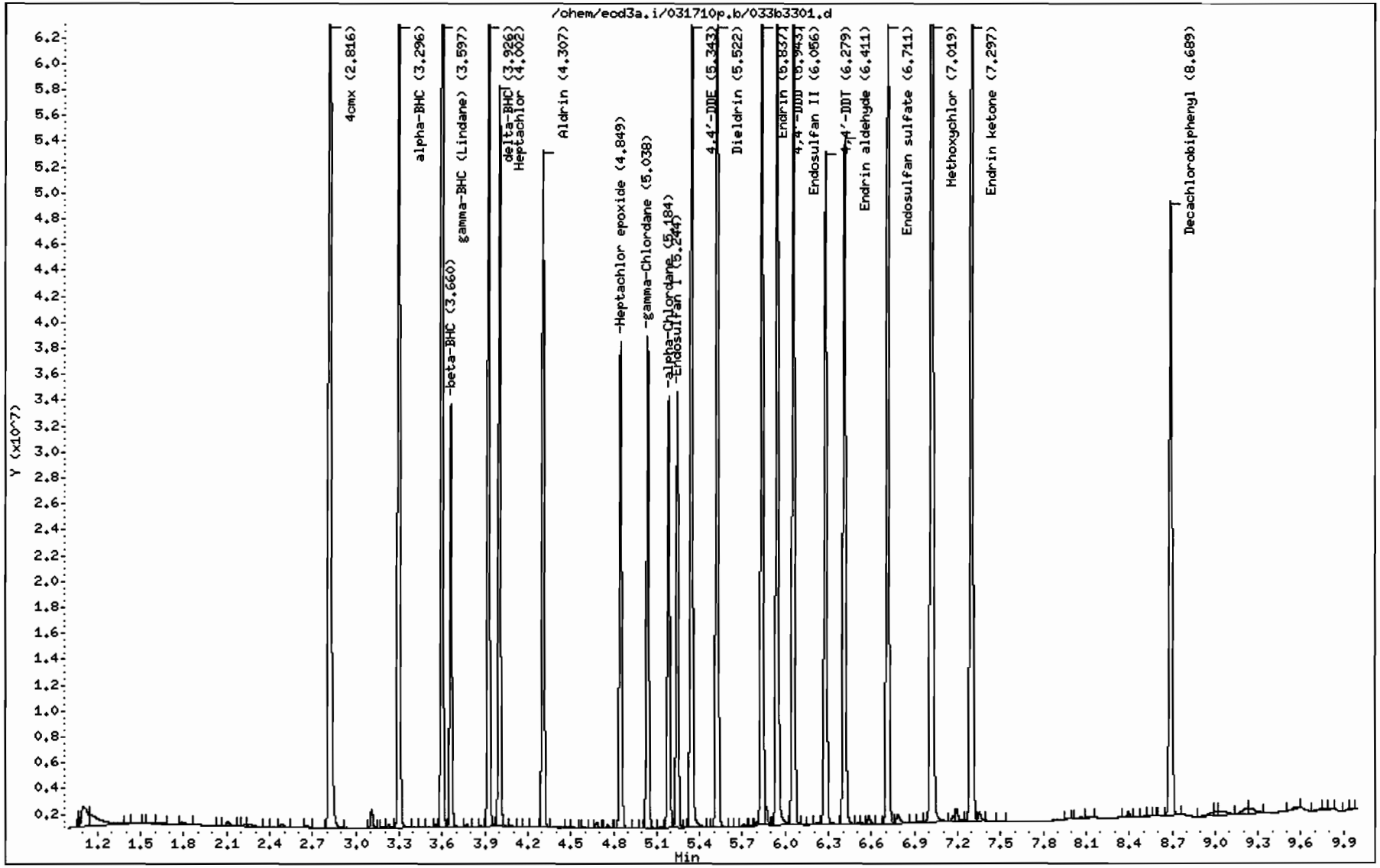

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/16/10 02/16/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.58 DCB: 7.68

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100211-99	02/16/10	2035	2.59	7.69
02	INDAB01	WPE100211-10	02/16/10	2048	2.59	7.68
03	TOXAPH01	WPE100216-11	02/16/10	2102		
04	TOXAPH02	WPE100216-12	02/16/10	2115		
05	TOXAPH03	WPE100216-13	02/16/10	2129		
06	TOXAPH04	WPE100216-14	02/16/10	2143		
07	TOXAPH05	IPE100204-40	02/16/10	2156		
08	TOXAPH01	WPE100125-52	02/16/10	2210		
09	PIBLK02	WAR100211-99	02/16/10	2224	2.59	7.68
10	ZZZZZ	ZZZZZ	02/16/10	2237	2.59	7.67
11	ZZZZZ	ZZZZZ	02/16/10	2251	2.59	7.67
12	ZZZZZ	ZZZZZ	02/16/10	2305	2.59	7.67
13	ZZZZZ	ZZZZZ	02/16/10	2318	2.59	7.68
14	ZZZZZ	ZZZZZ	02/16/10	2332	2.59	7.67
15	ZZZZZ	ZZZZZ	02/16/10	2346	2.59	7.67
16	ZZZZZ	ZZZZZ	02/16/10	2359	2.59	7.67
17	ZZZZZ	ZZZZZ	02/17/10	0013	2.59	7.67
18	ZZZZZ	ZZZZZ	02/17/10	0026	2.59	7.67
19	ZZZZZ	ZZZZZ	02/17/10	0040	2.59	7.67
20	INDAB02	WPE100211-10	02/17/10	0054	2.59	7.68
21	TOXAPH02	WPE100125-52	02/17/10	0107		
22	PIBLK03	WAR100211-99	02/17/10	0121	2.59	7.68
23	ZZZZZ	ZZZZZ	02/17/10	0135	2.59	7.67
24	ZZZZZ	ZZZZZ	02/17/10	0148	2.59	7.67
25	ZZZZZ	ZZZZZ	02/17/10	0202	2.59	7.67
26	ZZZZZ	ZZZZZ	02/17/10	0216	2.59	7.67
27	ZZZZZ	ZZZZZ	02/17/10	0229	2.59	7.67
28	ZZZZZ	ZZZZZ	02/17/10	0243	2.59	7.67
29	ZZZZZ	ZZZZZ	02/17/10	0256	2.59	7.67
30	ZZZZZ	ZZZZZ	02/17/10	0310	2.59	7.67
31	ZZZZZ	ZZZZZ	02/17/10	0324	2.59	7.67
32	ZZZZZ	ZZZZZ	02/17/10	0337	2.59	7.67

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

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FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/16/10 02/16/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.83 DCB: 8.71

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100211-99	02/16/10	2035	2.83	8.72
02	INDAB01	WPE100211-10	02/16/10	2048	2.83	8.71
03	TOXAPH01	WPE100216-11	02/16/10	2102		
04	TOXAPH02	WPE100216-12	02/16/10	2115		
05	TOXAPH03	WPE100216-13	02/16/10	2129		
06	TOXAPH04	WPE100216-14	02/16/10	2143		
07	TOXAPH05	IPE100204-40	02/16/10	2156		
08	TOXAPH01	WPE100125-52	02/16/10	2210		
09	PIBLK02	WAR100211-99	02/16/10	2224	2.83	8.71
10	ZZZZZ	ZZZZZ	02/16/10	2237	2.83	8.71
11	ZZZZZ	ZZZZZ	02/16/10	2251	2.83	8.71
12	ZZZZZ	ZZZZZ	02/16/10	2305	2.83	8.71
13	ZZZZZ	ZZZZZ	02/16/10	2318	2.83	8.71
14	ZZZZZ	ZZZZZ	02/16/10	2332	2.83	8.71
15	ZZZZZ	ZZZZZ	02/16/10	2345	2.83	8.71
16	ZZZZZ	ZZZZZ	02/16/10	2359	2.83	8.71
17	ZZZZZ	ZZZZZ	02/17/10	0013	2.83	8.71
18	ZZZZZ	ZZZZZ	02/17/10	0026	2.83	8.71
19	ZZZZZ	ZZZZZ	02/17/10	0040	2.83	8.71
20	INDAB02	WPE100211-10	02/17/10	0054	2.83	8.71
21	TOXAPH02	WPE100125-52	02/17/10	0107		
22	PIBLK03	WAR100211-99	02/17/10	0121	2.83	8.71
23	ZZZZZ	ZZZZZ	02/17/10	0135	2.83	8.71
24	ZZZZZ	ZZZZZ	02/17/10	0148	2.83	8.71
25	ZZZZZ	ZZZZZ	02/17/10	0202	2.83	8.71
26	ZZZZZ	ZZZZZ	02/17/10	0216	2.83	8.71
27	ZZZZZ	ZZZZZ	02/17/10	0229	2.83	8.71
28	ZZZZZ	ZZZZZ	02/17/10	0243	2.83	8.71
29	ZZZZZ	ZZZZZ	02/17/10	0256	2.83	8.71
30	ZZZZZ	ZZZZZ	02/17/10	0310	2.83	8.71
31	ZZZZZ	ZZZZZ	02/17/10	0324	2.83	8.71
32	ZZZZZ	ZZZZZ	02/17/10	0337	2.83	8.71

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/16/10 03/17/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.58 DCB: 7.66

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100211-99	03/17/10	1911	2.58	7.66
02	PEM01	WPE100125-99	03/17/10	1925	2.58	7.66
03	ZZZZZ	ZZZZZ	03/17/10	1939	2.58	7.66
04	TOXAPH01	WPE100125-52	03/17/10	1952		
05	CHLOR01	WPE100305-00	03/17/10	2006		
06	INDAB01	WPE100316-01	03/17/10	2020	2.58	7.66
07	INDAB02	WPE100316-02	03/17/10	2033	2.58	7.66
08	INDAB03	WPE100316-03	03/17/10	2047	2.58	7.66
09	INDAB04	WPE100316-04	03/17/10	2101	2.58	7.66
10	INDAB05	IPE100204-02	03/17/10	2114	2.58	7.66
11	ZZZZZ	ZZZZZ	03/17/10	2128	2.58	7.66
12	PIBLK02	WAR100211-99	03/17/10	2142	2.58	7.66
13	PEM02	WPE100125-99	03/17/10	2155	2.58	7.66
14	INDAB01	WPE100305-10	03/17/10	2209	2.58	7.66
15	PBLK01	1202073033	03/17/10	2223	2.58	7.66
16	PBLK01LCS	1202073034	03/17/10	2236	2.58	7.66
17	PBLK01TLCS	1202073037	03/17/10	2250	2.58	7.66
18	RE46-10-13867	248815001	03/17/10	2304	2.58	7.66
19	RE46-10-13867MS	1202073035	03/17/10	2317	2.58	7.66
20	RE46-10-13867MSD	1202073036	03/17/10	2331	2.58	7.66
21	RE46-10-13864	248815002	03/17/10	2345	2.58	7.66
22	RE46-10-13863	248815003	03/17/10	2358	2.58	7.66
23	RE46-10-13869	248815004	03/18/10	0012	2.58	7.66
24	INDAB02	WPE100305-10	03/18/10	0026	2.58	7.66
25	PIBLK03	WAR100211-99	03/18/10	0039	2.58	7.66
26	RE46-10-13861	248815005	03/18/10	0053	2.58	7.66
27	RE46-10-13866	248815006	03/18/10	0106	2.58	7.66
28	RE46-10-13860	248815007	03/18/10	0120	2.58	7.66
29	RE46-10-13865	248815008	03/18/10	0134	2.58	7.66
30	RE46-10-13868	248815009	03/18/10	0147	2.58	7.66
31	RE46-10-13862	248815010	03/18/10	0201	2.58	7.66
32	RE46-10-13873	248815011	03/18/10	0215	2.58	7.66

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/16/10 03/17/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.58 DCB: 7.66

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	INDAB03	WPE100305-10	03/18/10	0228	2.58	7.66
02	PIBLK04	WAR100211-99	03/18/10	0242	2.58	7.66
03	ZZZZZ	ZZZZZ	03/18/10	0256	2.58	7.66
04	ZZZZZ	ZZZZZ	03/18/10	0309	2.58	7.66
05	ZZZZZ	ZZZZZ	03/18/10	0323	2.58	7.66
06	ZZZZZ	ZZZZZ	03/18/10	0336	2.58	7.66
07	ZZZZZ	ZZZZZ	03/18/10	0350	2.58	7.66
08	ZZZZZ	ZZZZZ	03/18/10	0404	2.58	7.66
09	ZZZZZ	ZZZZZ	03/18/10	0417	2.58	7.66
10	ZZZZZ	ZZZZZ	03/18/10	0431	2.58	7.66
11	ZZZZZ	ZZZZZ	03/18/10	0445	2.58	7.66
12	INDAB04	WPE100305-10	03/18/10	0458	2.58	7.66
13	PIBLK05	WAR100211-99	03/18/10	0512	2.58	7.67
14	ZZZZZ	ZZZZZ	03/18/10	0526	2.58	7.66
15	ZZZZZ	ZZZZZ	03/18/10	0539	2.58	7.66
16	ZZZZZ	ZZZZZ	03/18/10	0553	2.58	7.66
17	ZZZZZ	ZZZZZ	03/18/10	0606	2.58	7.66
18	ZZZZZ	ZZZZZ	03/18/10	0620	2.58	7.66
19	ZZZZZ	ZZZZZ	03/18/10	0634	2.58	7.66
20	ZZZZZ	ZZZZZ	03/18/10	0647	2.58	7.66
21	ZZZZZ	ZZZZZ	03/18/10	0701	2.58	7.66
22	ZZZZZ	ZZZZZ	03/18/10	0715	2.58	7.66
23	ZZZZZ	ZZZZZ	03/18/10	0728	2.58	7.66
24	INDAB05	WPE100305-10	03/18/10	0742	2.58	7.66
25	PIBLK06	WAR100211-99	03/18/10	0756	2.58	7.66
26	ZZZZZ	ZZZZZ	03/18/10	0809	2.58	7.66
27	ZZZZZ	ZZZZZ	03/18/10	0823	2.58	7.66
28	ZZZZZ	ZZZZZ	03/18/10	0836	2.58	7.66
29	ZZZZZ	ZZZZZ	03/18/10	0850	2.58	7.66
30	ZZZZZ	ZZZZZ	03/18/10	0904	2.58	7.66
31	ZZZZZ	ZZZZZ	03/18/10	0918	2.58	7.66
32	ZZZZZ	ZZZZZ	03/18/10	0931	2.58	7.66

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/16/10 03/17/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.82 DCB: 8.69

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100211-99	03/17/10	1911	2.81	8.68
02	PEM01	WPE100125-99	03/17/10	1925	2.82	8.69
03	ZZZZZ	ZZZZZ	03/17/10	1939	2.82	8.69
04	TOXAPH01	WPE100125-52	03/17/10	1952		
05	CHLOR01	WPE100305-00	03/17/10	2006		
06	INDAB01	WPE100316-01	03/17/10	2020	2.82	8.69
07	INDAB02	WPE100316-02	03/17/10	2033	2.82	8.69
08	INDAB03	WPE100316-03	03/17/10	2047	2.82	8.69
09	INDAB04	WPE100316-04	03/17/10	2101	2.82	8.69
10	INDAB05	IPE100204-02	03/17/10	2114	2.82	8.69
11	ZZZZZ	ZZZZZ	03/17/10	2128	2.82	8.69
12	PIBLK02	WAR100211-99	03/17/10	2142	2.82	8.69
13	PEM02	WPE100125-99	03/17/10	2155	2.82	8.69
14	INDAB01	WPE100305-10	03/17/10	2209	2.82	8.69
15	PBLK01	1202073033	03/17/10	2223	2.82	8.69
16	PBLK01LCS	1202073034	03/17/10	2236	2.82	8.69
17	PBLK01TLCS	1202073037	03/17/10	2250	2.82	8.69
18	RE46-10-13867	248815001	03/17/10	2304	2.82	8.69
19	RE46-10-13867MS	1202073035	03/17/10	2317	2.82	8.69
20	RE46-10-13867MSD	1202073036	03/17/10	2331	2.82	8.69
21	RE46-10-13864	248815002	03/17/10	2345	2.82	8.69
22	RE46-10-13863	248815003	03/17/10	2358	2.82	8.69
23	RE46-10-13869	248815004	03/18/10	0012	2.82	8.69
24	INDAB02	WPE100305-10	03/18/10	0026	2.82	8.69
25	PIBLK03	WAR100211-99	03/18/10	0039	2.82	8.69
26	RE46-10-13861	248815005	03/18/10	0053	2.82	8.69
27	RE46-10-13866	248815006	03/18/10	0106	2.82	8.69
28	RE46-10-13860	248815007	03/18/10	0120	2.82	8.69
29	RE46-10-13865	248815008	03/18/10	0134	2.82	8.69
30	RE46-10-13868	248815009	03/18/10	0147	2.82	8.69
31	RE46-10-13862	248815010	03/18/10	0201	2.82	8.69
32	RE46-10-13873	248815011	03/18/10	0215	2.82	8.69

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/16/10 03/17/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.82 DCB: 8.69

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	INDAB03	WPE100305-10	03/18/10	0228	2.82	8.69
02	PIBLK04	WAR100211-99	03/18/10	0242	2.82	8.69
03	ZZZZZ	ZZZZZ	03/18/10	0256	2.82	8.69
04	ZZZZZ	ZZZZZ	03/18/10	0309	2.82	8.69
05	ZZZZZ	ZZZZZ	03/18/10	0323	2.82	8.69
06	ZZZZZ	ZZZZZ	03/18/10	0336	2.82	8.69
07	ZZZZZ	ZZZZZ	03/18/10	0350	2.82	8.69
08	ZZZZZ	ZZZZZ	03/18/10	0404	2.82	8.69
09	ZZZZZ	ZZZZZ	03/18/10	0417	2.82	8.69
10	ZZZZZ	ZZZZZ	03/18/10	0431	2.82	8.69
11	ZZZZZ	ZZZZZ	03/18/10	0445	2.82	8.69
12	INDAB04	WPE100305-10	03/18/10	0458	2.82	8.69
13	PIBLK05	WAR100211-99	03/18/10	0512	2.82	8.69
14	ZZZZZ	ZZZZZ	03/18/10	0526	2.82	8.69
15	ZZZZZ	ZZZZZ	03/18/10	0539	2.82	8.69
16	ZZZZZ	ZZZZZ	03/18/10	0553	2.82	8.69
17	ZZZZZ	ZZZZZ	03/18/10	0606	2.82	8.69
18	ZZZZZ	ZZZZZ	03/18/10	0620	2.82	8.69
19	ZZZZZ	ZZZZZ	03/18/10	0634	2.82	8.69
20	ZZZZZ	ZZZZZ	03/18/10	0647	2.82	8.69
21	ZZZZZ	ZZZZZ	03/18/10	0701	2.82	8.69
22	ZZZZZ	ZZZZZ	03/18/10	0715	2.82	8.69
23	ZZZZZ	ZZZZZ	03/18/10	0728	2.82	8.69
24	INDAB05	WPE100305-10	03/18/10	0742	2.82	8.69
25	PIBLK06	WAR100211-99	03/18/10	0756	2.82	8.69
26	ZZZZZ	ZZZZZ	03/18/10	0809	2.82	8.69
27	ZZZZZ	ZZZZZ	03/18/10	0823	2.82	8.69
28	ZZZZZ	ZZZZZ	03/18/10	0836	2.82	8.69
29	ZZZZZ	ZZZZZ	03/18/10	0850	2.82	8.69
30	ZZZZZ	ZZZZZ	03/18/10	0904	2.82	8.69
31	ZZZZZ	ZZZZZ	03/18/10	0918	2.82	8.69
32	ZZZZZ	ZZZZZ	03/18/10	0931	2.82	8.69

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

Identification Summary

SDG Number: 10–2298 **Client ID:** LCS for batch 965995

Lab Sample ID: 1202073034

Data File:	016f1601.d	**Data File:**	016b1601.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	17–MAR–10 22:36	**Analyzed:**	17–MAR–10 22:36

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							10.2
Column 1	1	2.98	2.95 – 3.01	15.5		ug/kg	
Column 2	1	3.3	3.27 – 3.33	14		ug/kg	
gamma–BHC (Lindane)							7.97
Column 1	1	3.22	3.19 – 3.25	15.7		ug/kg	
Column 2	1	3.6	3.57 – 3.63	14.5		ug/kg	
beta–BHC							4.71
Column 1	1	3.28	3.25 – 3.31	14.4		ug/kg	
Column 2	1	3.66	3.63 – 3.69	13.7		ug/kg	
delta–BHC							11.4
Column 1	1	3.42	3.39 – 3.45	16		ug/kg	
Column 2	1	3.93	3.9 – 3.96	14.3		ug/kg	
Heptachlor							8.04
Column 1	1	3.59	3.56 – 3.62	15.4		ug/kg	
Column 2	1	4	3.97 – 4.03	14.3		ug/kg	

Identification Summary

SDG Number: 10-2298 **Client ID:** LCS for batch 965995

Lab Sample ID: 1202073034

Data File:	016f1601.d	**Data File:**	016b1601.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	17-MAR-10 22:36	**Analyzed:**	17-MAR-10 22:36

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							7.92
Column 1	1	3.84	3.81 – 3.87	14.3		ug/kg	
Column 2	1	4.31	4.28 – 4.34	13.2		ug/kg	
Heptachlor epoxide							11.9
Column 1	1	4.37	4.34 – 4.4	15.3		ug/kg	
Column 2	1	4.85	4.82 – 4.88	13.6		ug/kg	
gamma-Chlordane							5.27
Column 1	1	4.48	4.45 – 4.51	15.1		ug/kg	
Column 2	1	5.04	5.01 – 5.07	14.4		ug/kg	
alpha-Chlordane							4.94
Column 1	1	4.6	4.57 – 4.63	15.5		ug/kg	
Column 2	1	5.18	5.15 – 5.21	14.8		ug/kg	
Endosulfan I							5.62
Column 1	1	4.73	4.7 – 4.76	15.1		ug/kg	
Column 2	1	5.24	5.21 – 5.27	14.2		ug/kg	

Identification Summary

SDG Number: 10–2298 **Client ID:** LCS for batch 965995

Lab Sample ID: 1202073034

Data File:	016f1601.d	**Data File:**	016b1601.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	17–MAR–10 22:36	**Analyzed:**	17–MAR–10 22:36

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								5.53
	Column 1	1	4.67	4.64 – 4.7	40		ug/kg	
	Column 2	1	5.34	5.31 – 5.37	37.8		ug/kg	
Dieldrin								6.5
	Column 1	1	4.96	4.93 – 4.99	38.2		ug/kg	
	Column 2	1	5.52	5.49 – 5.55	35.8		ug/kg	
Endrin								8.55
	Column 1	1	5.18	5.15 – 5.21	43.5		ug/kg	
	Column 2	1	5.84	5.81 – 5.87	40		ug/kg	
4,4'–DDD								7.56
	Column 1	1	5.25	5.22 – 5.28	44.6		ug/kg	
	Column 2	1	5.94	5.91 – 5.97	41.3		ug/kg	
Endosulfan II								8.04
	Column 1	1	5.41	5.37 – 5.43	41.9		ug/kg	
	Column 2	1	6.06	6.03 – 6.09	38.7		ug/kg	

Identification Summary

SDG Number: 10–2298 **Client ID:** LCS for batch 965995

Lab Sample ID: 1202073034

Data File:	016f1601.d	**Data File:**	016b1601.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	17–MAR–10 22:36	**Analyzed:**	17–MAR–10 22:36

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							5.57
Column 1	1	5.83	5.8 – 5.86	39.4		ug/kg	
Column 2	1	6.41	6.38 – 6.44	37.2		ug/kg	
4,4'–DDT							8.56
Column 1	1	5.53	5.5 – 5.56	46.3		ug/kg	
Column 2	1	6.28	6.25 – 6.31	42.5		ug/kg	
Endosulfan sulfate							5.82
Column 1	1	6.27	6.24 – 6.3	44.3		ug/kg	
Column 2	1	6.71	6.68 – 6.74	41.8		ug/kg	
Methoxychlor							14.3
Column 1	1	6.03	6 – 6.06	177		ug/kg	
Column 2	1	7.02	6.99 – 7.05	154		ug/kg	
Endrin ketone							4.35
Column 1	1	6.57	6.54 – 6.6	42.5		ug/kg	
Column 2	1	7.3	7.27 – 7.33	40.7		ug/kg	

Identification Summary

SDG Number: 10–2298 **Client ID:** LCS for batch 965995

Lab Sample ID: 1202073037

Data File:	017f1701.d	**Data File:**	017b1701.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	17–MAR–10 22:50	**Analyzed:**	17–MAR–10 22:50

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							9.71
Column 1	1	4.86	4.83 – 4.89	101		ug/kg	
	2	4.96	4.93 – 4.99	101		ug/kg	
	3	5.05	5.02 – 5.08	102		ug/kg	
	4	5.21	5.17 – 5.23	107		ug/kg	
	5	5.62	5.59 – 5.65	94.7		ug/kg	
					101		
Column 2	1	5.5	5.47 – 5.53	112		ug/kg	
	2	5.81	5.78 – 5.84	115		ug/kg	
	3	6	5.97 – 6.03	119		ug/kg	
	4	6.04	6.01 – 6.07	116		ug/kg	
	5	6.23	6.2 – 6.26	96.2		ug/kg	
					111		

Identification Summary

SDG Number: 10–2298 **Client ID:** RE46–10–13867MS

Lab Sample ID: 1202073035

Data File:	019f1901.d	**Data File:**	019b1901.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	17–MAR–10 23:17	**Analyzed:**	17–MAR–10 23:17

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							5.03
Column 1	1	2.98	2.95 – 3.01	12.4		ug/kg	
Column 2	1	3.3	3.27 – 3.33	13		ug/kg	
gamma–BHC (Lindane)							4.01
Column 1	1	3.21	3.19 – 3.25	13.3		ug/kg	
Column 2	1	3.6	3.57 – 3.63	13.9		ug/kg	
beta–BHC							2.44
Column 1	1	3.28	3.25 – 3.31	14.9		ug/kg	
Column 2	1	3.66	3.63 – 3.69	15.2		ug/kg	
delta–BHC							4.84
Column 1	1	3.42	3.39 – 3.45	13.4		ug/kg	
Column 2	1	3.93	3.9 – 3.96	14		ug/kg	
Heptachlor							7.11
Column 1	1	3.59	3.56 – 3.62	13.2		ug/kg	
Column 2	1	4	3.97 – 4.03	14.1		ug/kg	

Identification Summary

SDG Number: 10–2298 **Client ID:** RE46–10–13867MS

Lab Sample ID: 1202073035

Data File:	019f1901.d	**Data File:**	019b1901.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	17–MAR–10 23:17	**Analyzed:**	17–MAR–10 23:17

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							11
Column 1	1	3.84	3.81 – 3.87	12.6		ug/kg	
Column 2	1	4.31	4.28 – 4.34	14		ug/kg	
Heptachlor epoxide							8.14
Column 1	1	4.37	4.34 – 4.4	13.5		ug/kg	
Column 2	1	4.85	4.82 – 4.88	14.7		ug/kg	
gamma–Chlordane							9.56
Column 1	1	4.48	4.45 – 4.51	13.2		ug/kg	
Column 2	1	5.04	5.01 – 5.07	14.6		ug/kg	
alpha–Chlordane							8.11
Column 1	1	4.6	4.57 – 4.63	13.9		ug/kg	
Column 2	1	5.18	5.15 – 5.21	15.1		ug/kg	
Endosulfan I							8.94
Column 1	1	4.73	4.7 – 4.76	13.5		ug/kg	
Column 2	1	5.24	5.21 – 5.27	14.8		ug/kg	

Identification Summary

SDG Number: 10–2298 **Client ID:** RE46–10–13867MS

Lab Sample ID: 1202073035

Data File:	019f1901.d	**Data File:**	019b1901.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	17–MAR–10 23:17	**Analyzed:**	17–MAR–10 23:17

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								3.93
	Column 1	1	4.67	4.64 – 4.7	35.1		ug/kg	
	Column 2	1	5.34	5.31 – 5.37	36.5		ug/kg	
Dieldrin								6.56
	Column 1	1	4.96	4.93 – 4.99	33.9		ug/kg	
	Column 2	1	5.52	5.49 – 5.55	36.2		ug/kg	
Endrin								4.11
	Column 1	1	5.18	5.15 – 5.21	39.2		ug/kg	
	Column 2	1	5.84	5.81 – 5.87	40.8		ug/kg	
4,4'–DDD								3.5
	Column 1	1	5.25	5.22 – 5.28	36.6		ug/kg	
	Column 2	1	5.94	5.91 – 5.97	37.9		ug/kg	
Endosulfan II								5.12
	Column 1	1	5.41	5.37 – 5.43	35.6		ug/kg	
	Column 2	1	6.05	6.03 – 6.09	37.5		ug/kg	

Identification Summary

SDG Number: 10–2298 **Client ID:** RE46–10–13867MS

Lab Sample ID: 1202073035

Data File:	019f1901.d	**Data File:**	019b1901.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	17–MAR–10 23:17	**Analyzed:**	17–MAR–10 23:17

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							4.83
Column 1	1	5.83	5.8 – 5.86	31.4		ug/kg	
Column 2	1	6.41	6.38 – 6.44	33		ug/kg	
4,4'–DDT							3.04
Column 1	1	5.53	5.5 – 5.56	38.2		ug/kg	
Column 2	1	6.28	6.25 – 6.31	37.1		ug/kg	
Endosulfan sulfate							2.02
Column 1	1	6.27	6.24 – 6.3	36		ug/kg	
Column 2	1	6.71	6.68 – 6.74	36.7		ug/kg	
Methoxychlor							.114
Column 1	1	6.03	6 – 6.06	158		ug/kg	
Column 2	1	7.02	6.99 – 7.05	158		ug/kg	
Endrin ketone							.187
Column 1	1	6.57	6.54 – 6.6	37.2		ug/kg	
Column 2	1	7.3	7.27 – 7.33	37.1		ug/kg	

Identification Summary

SDG Number: 10–2298 **Client ID:** RE46–10–13867MSD

Lab Sample ID: 1202073036

Data File:	020f2001.d	**Data File:**	020b2001.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	17–MAR–10 23:31	**Analyzed:**	17–MAR–10 23:31

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							5.6
Column 1	1	2.98	2.95 – 3.01	11.9		ug/kg	
Column 2	1	3.3	3.27 – 3.33	12.6		ug/kg	
gamma–BHC (Lindane)							5.62
Column 1	1	3.22	3.19 – 3.25	12.8		ug/kg	
Column 2	1	3.6	3.57 – 3.63	13.6		ug/kg	
beta–BHC							2.14
Column 1	1	3.28	3.25 – 3.31	14.4		ug/kg	
Column 2	1	3.66	3.63 – 3.69	14.8		ug/kg	
delta–BHC							5.18
Column 1	1	3.42	3.39 – 3.45	13		ug/kg	
Column 2	1	3.92	3.9 – 3.96	13.7		ug/kg	
Heptachlor							7.5
Column 1	1	3.59	3.56 – 3.62	12.5		ug/kg	
Column 2	1	4	3.97 – 4.03	13.5		ug/kg	

Identification Summary

SDG Number: 10–2298 **Client ID:** RE46–10–13867MSD

Lab Sample ID: 1202073036

Data File:	020f2001.d	**Data File:**	020b2001.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	17–MAR–10 23:31	**Analyzed:**	17–MAR–10 23:31

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							11.3
Column 1	1	3.84	3.81 – 3.87	11.8		ug/kg	
Column 2	1	4.31	4.28 – 4.34	13.2		ug/kg	
Heptachlor epoxide							8.13
Column 1	1	4.37	4.34 – 4.4	13.1		ug/kg	
Column 2	1	4.85	4.82 – 4.88	14.2		ug/kg	
gamma–Chlordane							10.6
Column 1	1	4.48	4.45 – 4.51	12.7		ug/kg	
Column 2	1	5.04	5.01 – 5.07	14.1		ug/kg	
alpha–Chlordane							8.2
Column 1	1	4.6	4.57 – 4.63	13.5		ug/kg	
Column 2	1	5.18	5.15 – 5.21	14.6		ug/kg	
Endosulfan I							8.85
Column 1	1	4.73	4.7 – 4.76	13.1		ug/kg	
Column 2	1	5.24	5.21 – 5.27	14.3		ug/kg	

Identification Summary

SDG Number: 10–2298 **Client ID:** RE46–10–13867MSD

Lab Sample ID: 1202073036

Data File:	020f2001.d	**Data File:**	020b2001.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	17–MAR–10 23:31	**Analyzed:**	17–MAR–10 23:31

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								4.73
	Column 1	1	4.67	4.64 – 4.7	33.8		ug/kg	
	Column 2	1	5.34	5.31 – 5.37	35.5		ug/kg	
Dieldrin								6.44
	Column 1	1	4.96	4.93 – 4.99	32.6		ug/kg	
	Column 2	1	5.52	5.49 – 5.55	34.7		ug/kg	
Endrin								4.04
	Column 1	1	5.18	5.15 – 5.21	37.7		ug/kg	
	Column 2	1	5.84	5.81 – 5.87	39.2		ug/kg	
4,4'–DDD								3.68
	Column 1	1	5.25	5.22 – 5.28	35.4		ug/kg	
	Column 2	1	5.94	5.91 – 5.97	36.7		ug/kg	
Endosulfan II								4.89
	Column 1	1	5.4	5.37 – 5.43	34.7		ug/kg	
	Column 2	1	6.06	6.03 – 6.09	36.4		ug/kg	

Identification Summary

SDG Number: 10–2298 **Client ID:** RE46–10–13867MSD

Lab Sample ID: 1202073036

Data File:	020f2001.d	**Data File:**	020b2001.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	17–MAR–10 23:31	**Analyzed:**	17–MAR–10 23:31

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							4.27
Column 1	1	5.83	5.8 – 5.86	31.8		ug/kg	
Column 2	1	6.41	6.38 – 6.44	33.2		ug/kg	
4,4'–DDT							5.63
Column 1	1	5.53	5.5 – 5.56	37.1		ug/kg	
Column 2	1	6.28	6.25 – 6.31	35.1		ug/kg	
Endosulfan sulfate							1.43
Column 1	1	6.27	6.24 – 6.3	36.1		ug/kg	
Column 2	1	6.71	6.68 – 6.74	36.7		ug/kg	
Methoxychlor							.685
Column 1	1	6.03	6 – 6.06	153		ug/kg	
Column 2	1	7.02	6.99 – 7.05	152		ug/kg	
Endrin ketone							1.52
Column 1	1	6.57	6.54 – 6.6	36.6		ug/kg	
Column 2	1	7.3	7.27 – 7.33	37.1		ug/kg	

QUALITY CONTROL DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202073033**				
Client Sample:	**QC for batch 965995**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965995**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 22:23**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**015f1501.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	015b1501.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.667	ug/kg	0.167	0.667	1
58-89-9	gamma-BHC (Lindane)	U	0.667	ug/kg	0.167	0.667	1
319-85-7	beta-BHC	U	0.667	ug/kg	0.167	0.667	1
319-86-8	delta-BHC	U	0.667	ug/kg	0.167	0.667	1
76-44-8	Heptachlor	U	0.667	ug/kg	0.167	0.667	1
309-00-2	Aldrin	U	0.667	ug/kg	0.167	0.667	1
1024-57-3	Heptachlor epoxide	U	0.667	ug/kg	0.208	0.667	1
5103-74-2	gamma-Chlordane	U	0.667	ug/kg	0.167	0.667	1
5103-71-9	alpha-Chlordane	U	0.667	ug/kg	0.167	0.667	1
959-98-8	Endosulfan I	U	0.667	ug/kg	0.167	0.667	1
72-55-9	4,4'-DDE	U	1.33	ug/kg	0.333	1.33	1
60-57-1	Dieldrin	U	1.33	ug/kg	0.333	1.33	1
72-20-8	Endrin	U	1.33	ug/kg	0.333	1.33	1
72-54-8	4,4'-DDD	U	1.33	ug/kg	0.333	1.33	1
33213-65-9	Endosulfan II	U	1.33	ug/kg	0.333	1.33	1
7421-93-4	Endrin aldehyde	U	1.33	ug/kg	0.333	1.33	1
50-29-3	4,4'-DDT	U	1.33	ug/kg	0.333	1.33	1
1031-07-8	Endosulfan sulfate	U	1.33	ug/kg	0.333	1.33	1
72-43-5	Methoxychlor	U	6.67	ug/kg	1.67	6.67	1
53494-70-5	Endrin ketone	U	1.33	ug/kg	0.333	1.33	1
8001-35-2	Toxaphene	U	16.7	ug/kg	5.55	16.7	1

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CLP-1

Data file : /chem/ecd3a.i/031710p.b/015f1501.d
Lab Smp Id: 1202073033 Client Smp ID: PBLK01
Inj Date : 17-MAR-2010 22:23
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202073033|1|
Misc Info : |ECD81A_1S|965996|SVP|MB|SOIL|MB|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 15 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.579	2.580	-0.001	11266209	169.096	28.2	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.663	7.663	0.000	10020582	194.117	32.4	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/015f1501.d

Date : 17-MAR-2010 22:23

Client ID: PBLK01

Sample Info: |1202073033|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

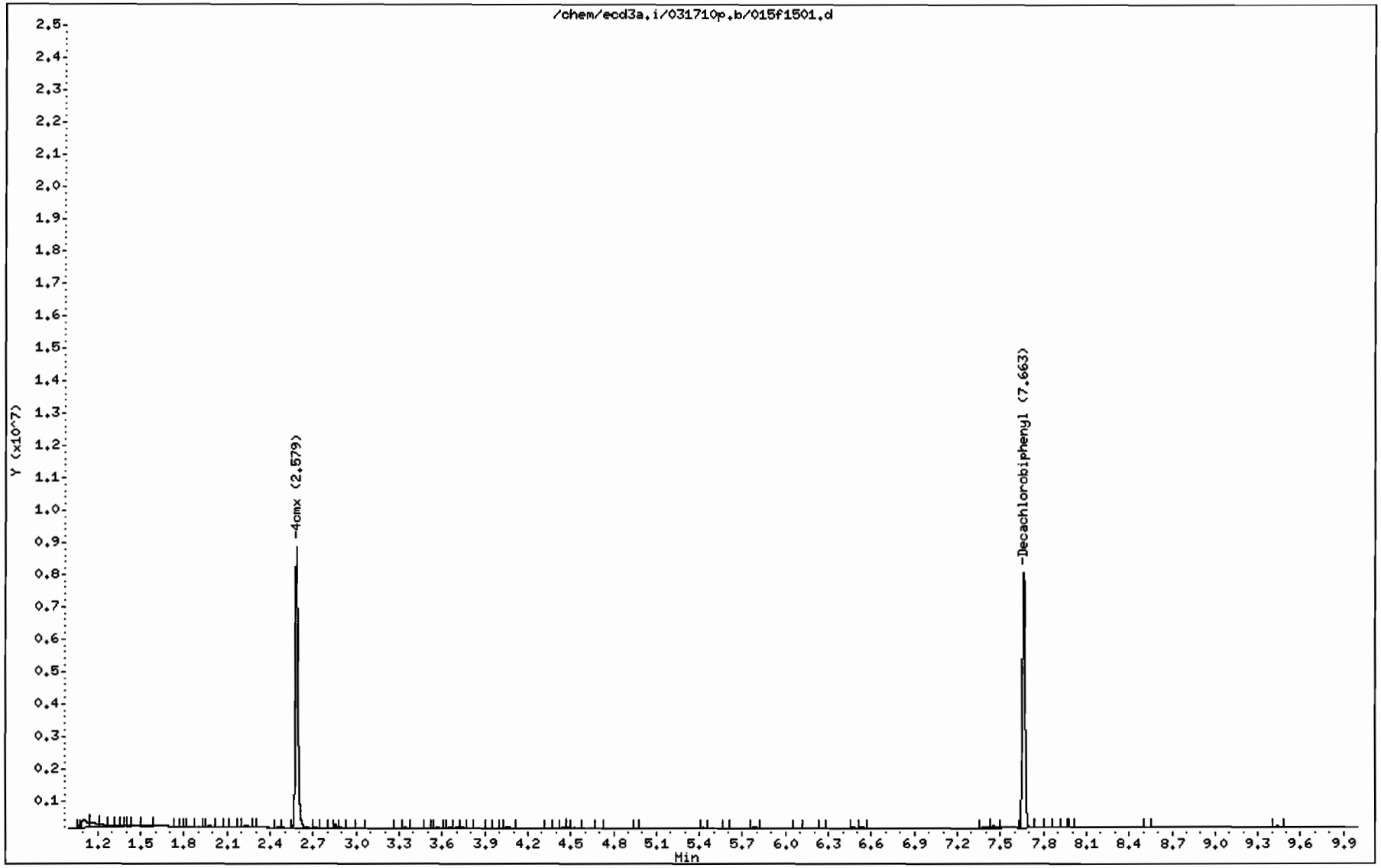

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CLP-2

Data file : /chem/ecd3a.i/031710p.b/015b1501.d
Lab Smp Id: 1202073033 Client Smp ID: PBLK01
Inj Date : 17-MAR-2010 22:23
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202073033|1|
Misc Info : |ECD81A_1S|965996|SVP|MB|SOIL|MB|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 15 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.816	2.817	-0.001	99812589	160.800	26.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.687	8.688	-0.001	71303288	196.327	32.7	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/015b1501.d

Date : 17-MAR-2010 22:23

Client ID: PBLK01

Sample Info: |1202073033|1|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

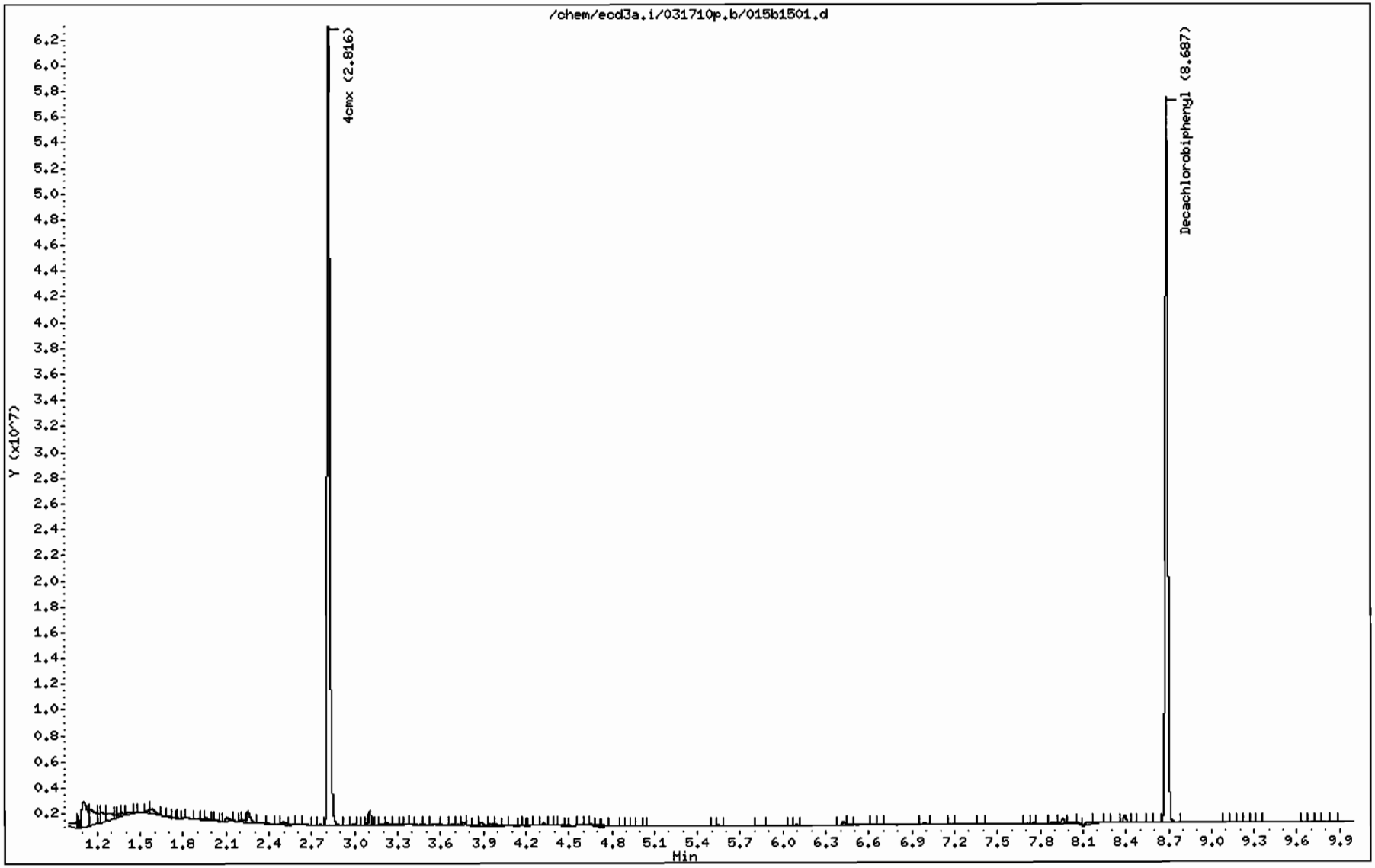

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202073034**				
Client Sample:	**QC for batch 965995**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965995**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 22:36**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**016f1601.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	016b1601.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC		14.0	ug/kg	0.167	0.667	2
58–89–9	gamma–BHC (Lindane)		14.5	ug/kg	0.167	0.667	2
319–85–7	beta–BHC		13.7	ug/kg	0.167	0.667	2
319–86–8	delta–BHC		14.3	ug/kg	0.167	0.667	2
76–44–8	Heptachlor		14.2	ug/kg	0.167	0.667	2
309–00–2	Aldrin		13.2	ug/kg	0.167	0.667	2
1024–57–3	Heptachlor epoxide		13.6	ug/kg	0.208	0.667	2
5103–74–2	gamma–Chlordane		14.4	ug/kg	0.167	0.667	2
5103–71–9	alpha–Chlordane		14.8	ug/kg	0.167	0.667	2
959–98–8	Endosulfan I		14.2	ug/kg	0.167	0.667	2
72–55–9	4,4'–DDE		37.8	ug/kg	0.333	1.33	2
60–57–1	Dieldrin		35.8	ug/kg	0.333	1.33	2
72–20–8	Endrin		40.0	ug/kg	0.333	1.33	2
72–54–8	4,4'–DDD		41.3	ug/kg	0.333	1.33	2
33213–65–9	Endosulfan II		38.7	ug/kg	0.333	1.33	2
7421–93–4	Endrin aldehyde		37.2	ug/kg	0.333	1.33	2
50–29–3	4,4'–DDT		42.5	ug/kg	0.333	1.33	2
1031–07–8	Endosulfan sulfate		41.8	ug/kg	0.333	1.33	2
72–43–5	Methoxychlor		154	ug/kg	1.67	6.67	2
53494–70–5	Endrin ketone		40.7	ug/kg	0.333	1.33	2
8001–35–2	Toxaphene	U	16.7	ug/kg	5.55	16.7	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/031710p.b/016f1601.d
Lab Smp Id: 1202073034 Client Smp ID: PBLK01LCS
Inj Date : 17-MAR-2010 22:36
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202073034|1|
Misc Info : |ECD81A_1S|965996|SVP|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.580	0.000	11077199	166.260	27.7	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.663	7.663	0.000	9182767	177.887	29.6	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
2.977	2.976	0.001	8659914	92.9323	15.5	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.216	3.216	0.000	7962303	94.4594	15.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.280	3.280	0.000	3221764	86.1240	14.4	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.424	3.424	0.000	8074819	96.1479	16.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.591	3.591	0.000	6610982	92.6575	15.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.844	3.843	0.001	6909131	85.9111	14.3	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.370	4.370	0.000	6648522	92.0442	15.3	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.483	4.483	0.000	6524115	90.8864	15.1	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.604	4.604	0.000	6668457	93.2703	15.5	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.734	4.733	0.001	6126225	90.4236	15.1	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.674	4.674	0.000	16598994	239.703	40.0	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.959	4.959	0.000	16855335	229.452	38.2	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.184	5.184	0.000	15698628	261.210	43.5	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.250	5.249	0.001	15030363	267.444	44.6	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.406	5.405	0.001	15437415	251.456	41.9	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.826	5.826	0.000	12052013	236.255	39.4	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.526	5.525	0.001	13367285	277.956	46.3	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.274	6.275	-0.001	14110608	265.820	44.3	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.029	6.029	0.000	25008674	1063.63	177	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.569	6.569	0.000	17540720	255.084	42.5	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/016f1601.d
Date : 17-MAR-2010 22:36
Client ID: PBLK01LCS
Sample Info: 1120207303411
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

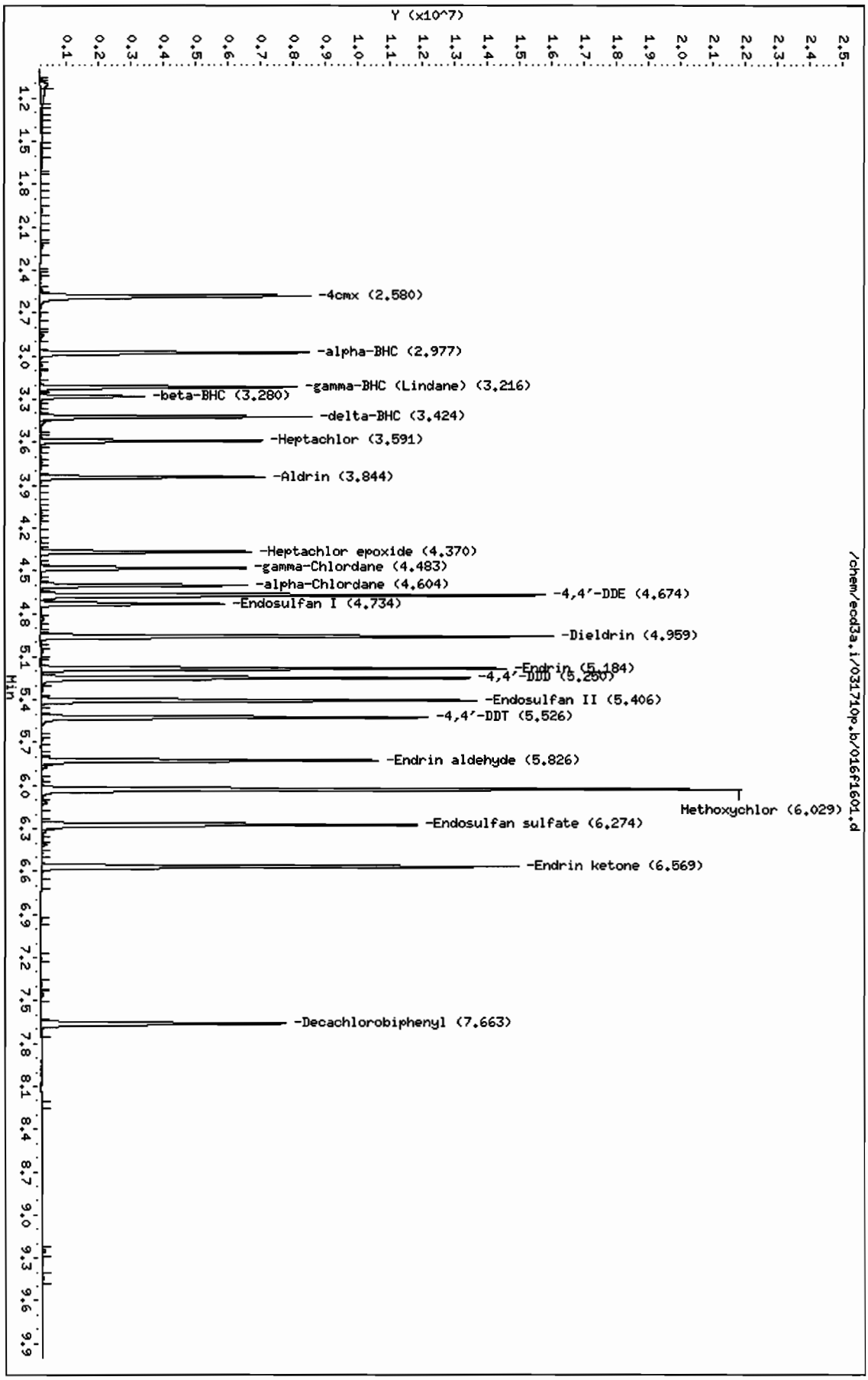

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CLP-2

Data file : /chem/ecd3a.i/031710p.b/016b1601.d
Lab Smp Id: 1202073034 Client Smp ID: PBLK01LCS
Inj Date : 17-MAR-2010 22:36
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202073034|1|
Misc Info : |ECD81A_1S|965996|SVP|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.817	2.817	0.000	100136985	161.322	26.9	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.688	8.688	0.000	72338780	199.178	33.2	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.296	3.296	0.000	76394643	83.9043	14.0	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.598	3.598	0.000	66150114	87.2159	14.5	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.660	3.660	0.000	26412036	82.1626	13.7	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.925	3.925	0.000	63045456	85.8009	14.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.002	4.002	0.000	53515416	85.4997	14.2	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.306	4.307	-0.001	45918713	79.3641	13.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.849	4.849	0.000	33798960	81.7117	13.6	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.038	5.037	0.001	34934925	86.2187	14.4	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.183	5.183	0.000	35484819	88.7747	14.8	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.244	5.244	0.000	31263050	85.4810	14.2	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.343	5.343	0.000	85586103	226.802	37.8	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.522	5.522	0.000	88994251	215.008	35.8	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.837	5.836	0.001	89487628	239.785	40.0	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.942	5.943	-0.001	90550892	247.962	41.3	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.056	6.056	0.000	92099568	232.016	38.7	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.410	6.410	0.000	79211207	223.441	37.2	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.278	6.278	0.000	92342249	255.146	42.5	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.711	6.711	0.000	105274444	250.789	41.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.019	7.019	0.000	167421352	921.352	154	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.296	7.296	0.000	126546911	244.232	40.7	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/016b1601.d

Date : 17-MAR-2010 22:36

Client ID: PBLK01LCS

Sample Info: |1202073034|1|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

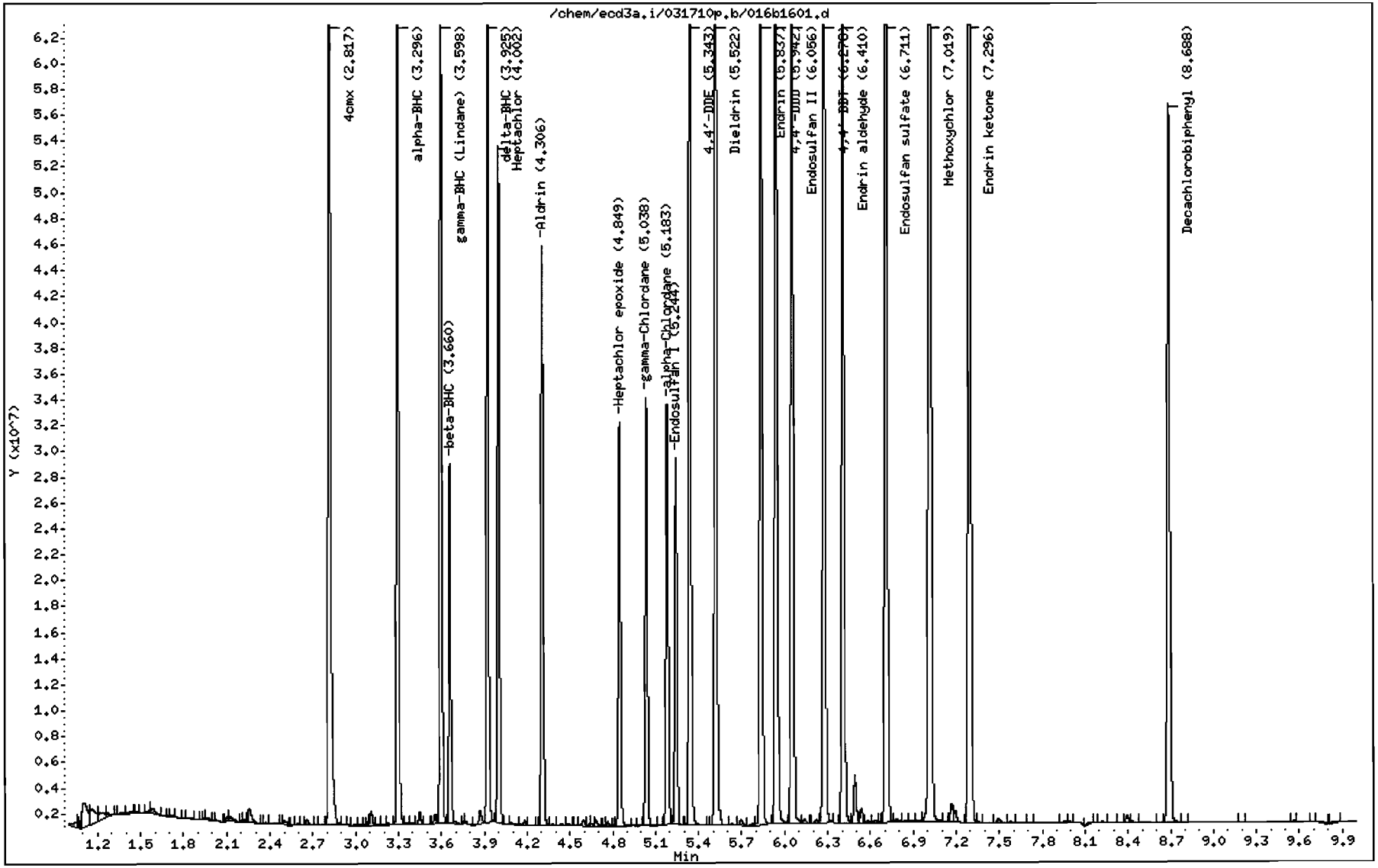

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202073037**				
Client Sample:	**QC for batch 965995**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965995**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**965996**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**03/17/2010 22:50**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/17/2010 11:39**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**017f1701.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	017b1701.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.667	ug/kg	0.167	0.667	1
58-89-9	gamma-BHC (Lindane)	U	0.667	ug/kg	0.167	0.667	1
319-85-7	beta-BHC	U	0.667	ug/kg	0.167	0.667	1
319-86-8	delta-BHC	U	0.667	ug/kg	0.167	0.667	1
76-44-8	Heptachlor	U	0.667	ug/kg	0.167	0.667	1
309-00-2	Aldrin	U	0.667	ug/kg	0.167	0.667	1
1024-57-3	Heptachlor epoxide	U	0.667	ug/kg	0.208	0.667	1
5103-74-2	gamma-Chlordane	U	0.667	ug/kg	0.167	0.667	1
5103-71-9	alpha-Chlordane	U	0.667	ug/kg	0.167	0.667	1
959-98-8	Endosulfan I	U	0.667	ug/kg	0.167	0.667	1
72-55-9	4,4'-DDE	U	1.33	ug/kg	0.333	1.33	1
60-57-1	Dieldrin	U	1.33	ug/kg	0.333	1.33	1
72-20-8	Endrin	U	1.33	ug/kg	0.333	1.33	1
72-54-8	4,4'-DDD	U	1.33	ug/kg	0.333	1.33	1
33213-65-9	Endosulfan II	U	1.33	ug/kg	0.333	1.33	1
7421-93-4	Endrin aldehyde	U	1.33	ug/kg	0.333	1.33	1
50-29-3	4,4'-DDT	U	1.33	ug/kg	0.333	1.33	1
1031-07-8	Endosulfan sulfate	U	1.33	ug/kg	0.333	1.33	1
72-43-5	Methoxychlor	U	6.67	ug/kg	1.67	6.67	1
53494-70-5	Endrin ketone	U	1.33	ug/kg	0.333	1.33	1
8001-35-2	Toxaphene		101	ug/kg	5.55	16.7	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/031710p.b/017f1701.d
Lab Smp Id: 1202073037 Client Smp ID: PBLK01TLCS
Inj Date : 17-MAR-2010 22:50
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202073037|1|
Misc Info : |ECD81A_1S|965996|SVP|TLCS|SOIL|TLCS|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 17 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.580	0.000	11631064	174.573	29.1	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.662	7.663	-0.001	9057552	175.462	29.2	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
4.858	4.860	-0.002	338134	604.970	101	80.00- 120.00	100.00(M)
4.963	4.964	-0.001	539858	606.650	101	132.48- 172.48	190.16
5.048	5.049	-0.001	604078	611.719	102	161.81- 201.81	178.65
5.205	5.205	0.000	803622	643.296	107	168.54- 208.54	237.66
5.618	5.618	0.000	350326	568.237	94.7	83.14- 123.14	103.61

Average of Peak Concentrations = 101

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/031710p.b/017f1701.d

Date : 17-MAR-2010 22:50

Client ID: PBLK01TLCS

Sample Info: |1202073037|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

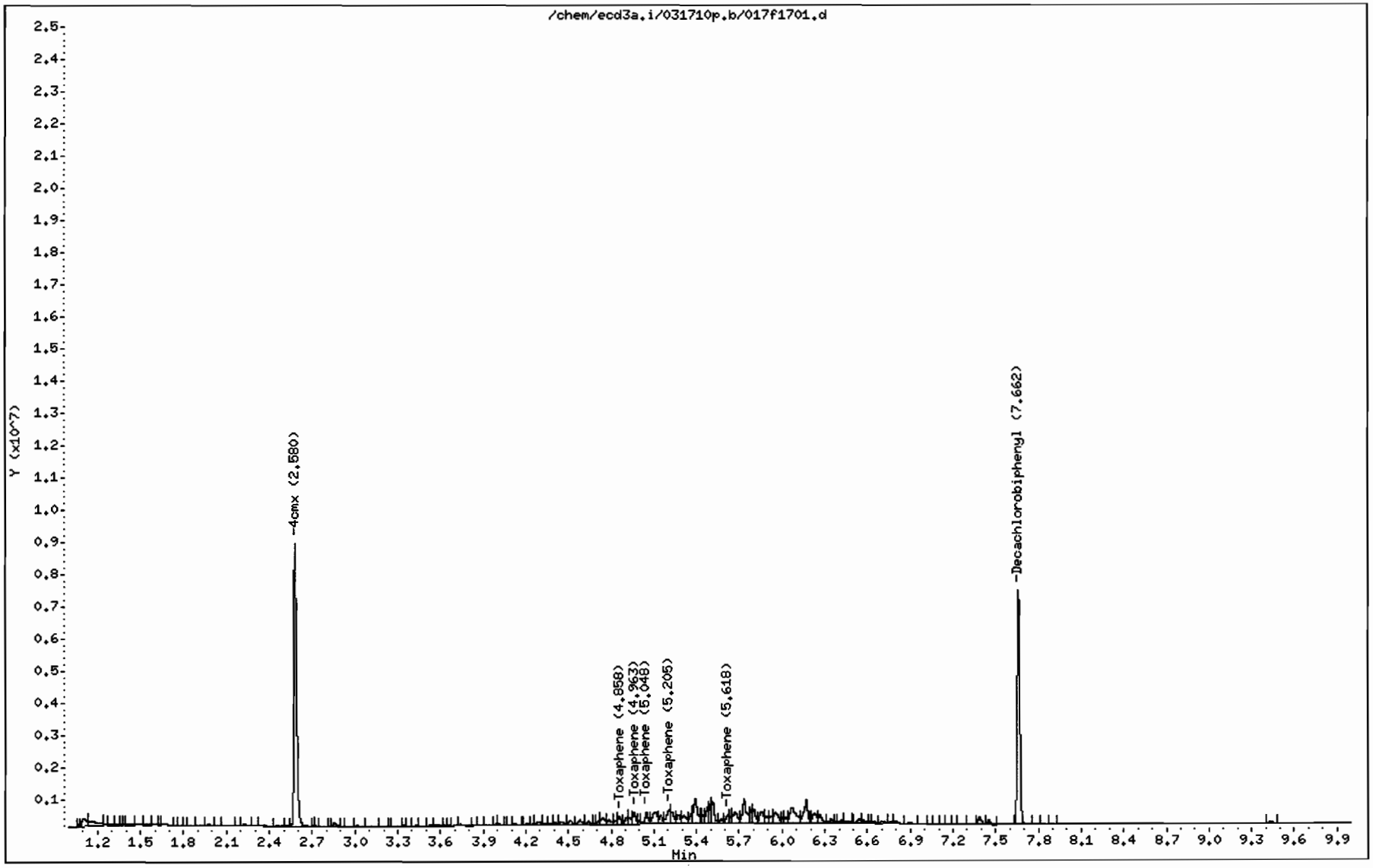

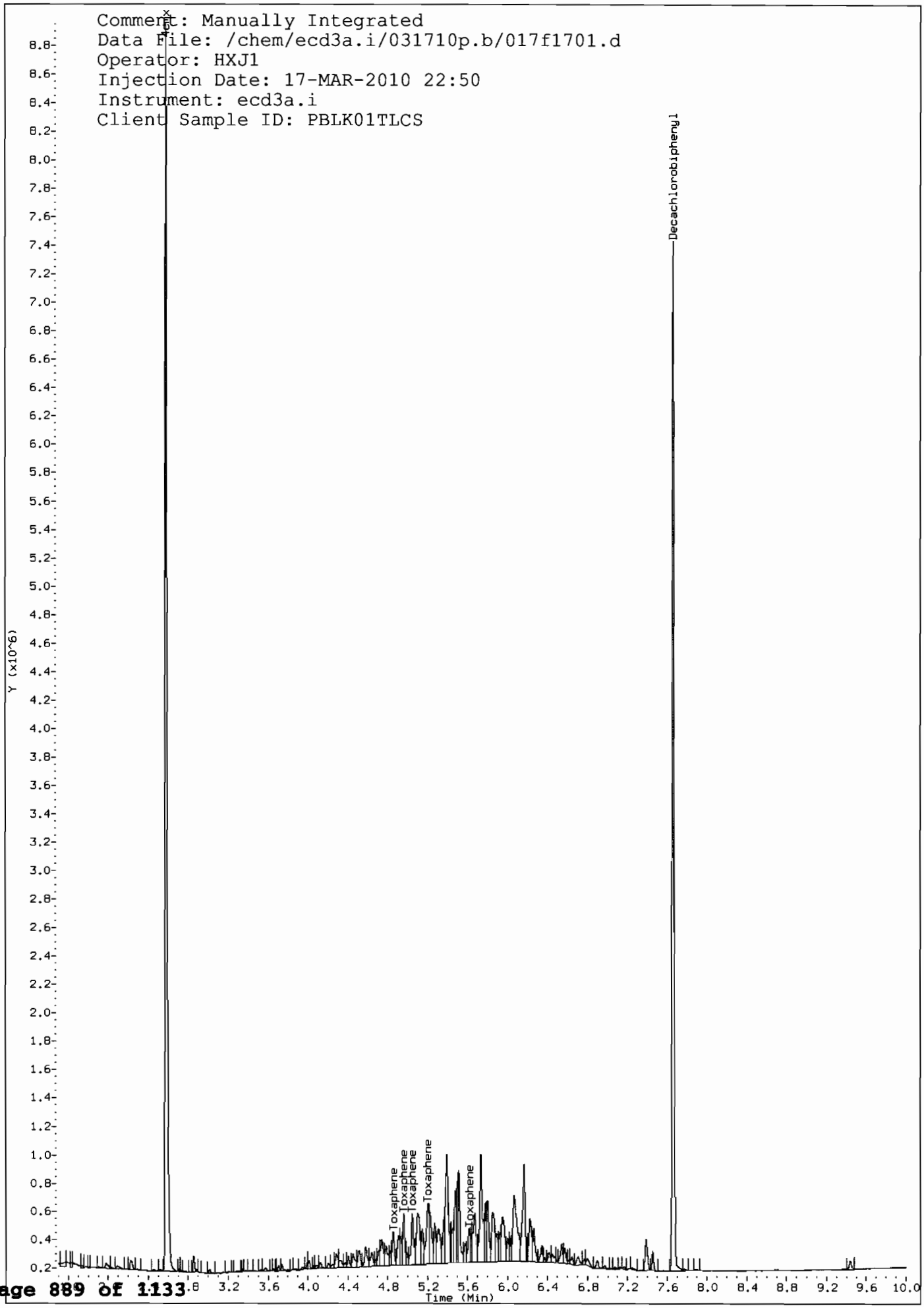
Comment: Manually Integrated
Data File: /chem/ecd3a.i/031710p.b/017f1701.d
Operator: HXJ1
Injection Date: 17-MAR-2010 22:50
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

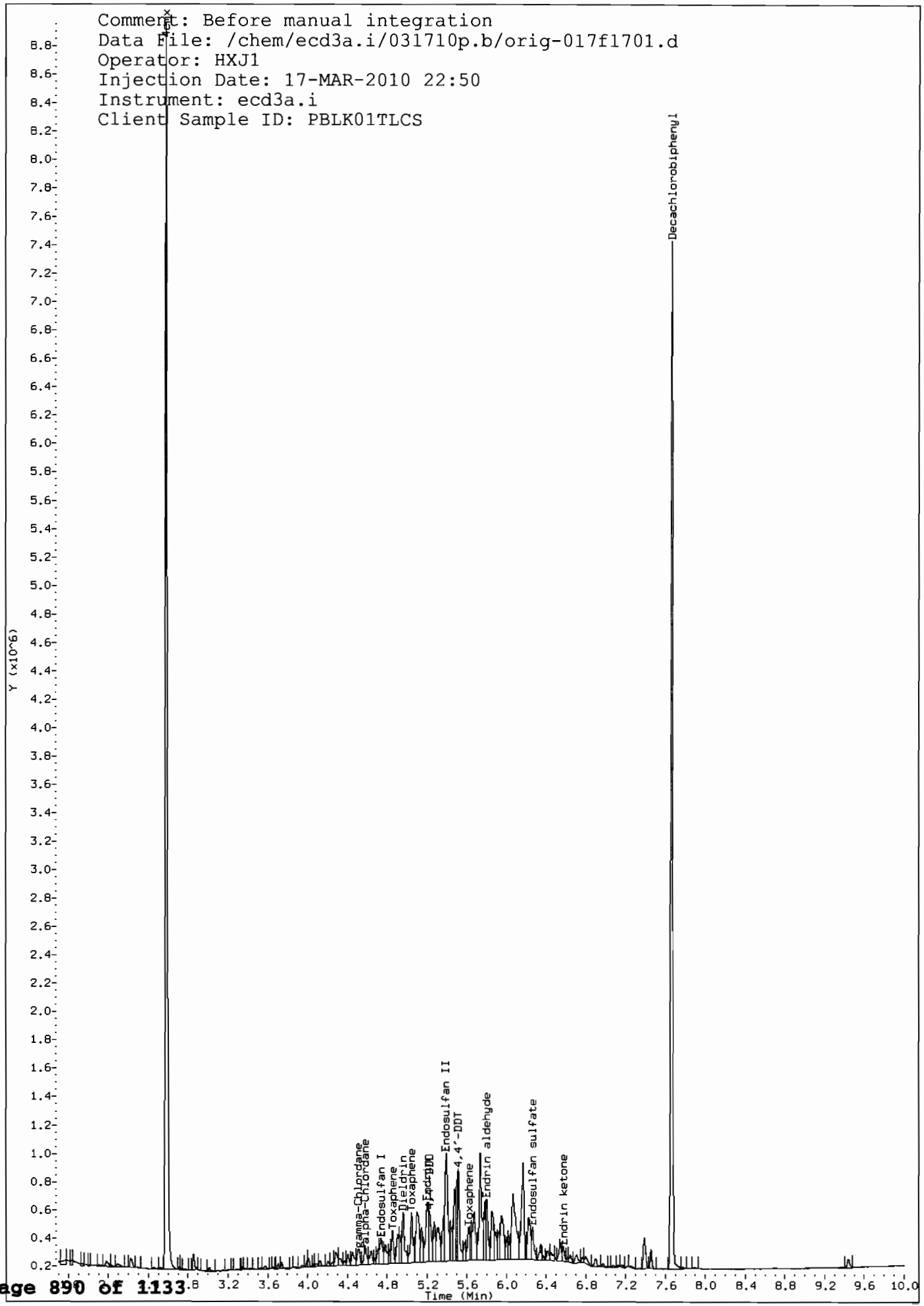
Comment: Before manual integration
Data File: /chem/ecd3a.i/031710p.b/orig-017f1701.d
Operator: HXJ1
Injection Date: 17-MAR-2010 22:50
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS
Decachlorobiphenyl
Endosulfan II
4,4'-DDT
Toxaphene
Endrin aldehyde
Endosulfan sulfate
Endrin ketone
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Toxaphene
Dieldrin
Toxaphene
Y (x10^6)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/017b1701.d
Lab Smp Id: 1202073037 Client Smp ID: PBLK01TLCS
Inj Date : 17-MAR-2010 22:50
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202073037|1|
Misc Info : |ECD81A_1S|965996|SVP|TLCS|SOIL|TLCS|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 17 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.817	2.817	0.000	104193075	167.857	28.0	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.688	8.688	0.000	70870540	195.135	32.5	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.500	5.495	0.005	4578218	670.325	112	80.00- 120.00	100.00
5.806	5.808	-0.002	4250993	689.668	115	61.01- 101.01	92.85
6.003	6.005	-0.002	5368791	713.743	119	62.75- 102.75	117.27
6.045	6.045	0.000	8210936	693.372	116	127.33- 167.33	179.35
6.233	6.234	-0.001	2840940	577.444	96.2	44.20- 84.20	62.05

Average of Peak Concentrations = 112

Data File: /chem/ecd3a.i/031710p.b/017b1701.d

Date : 17-MAR-2010 22:50

Client ID: PBLK01TLCS

Sample Info: |1202073037|1|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

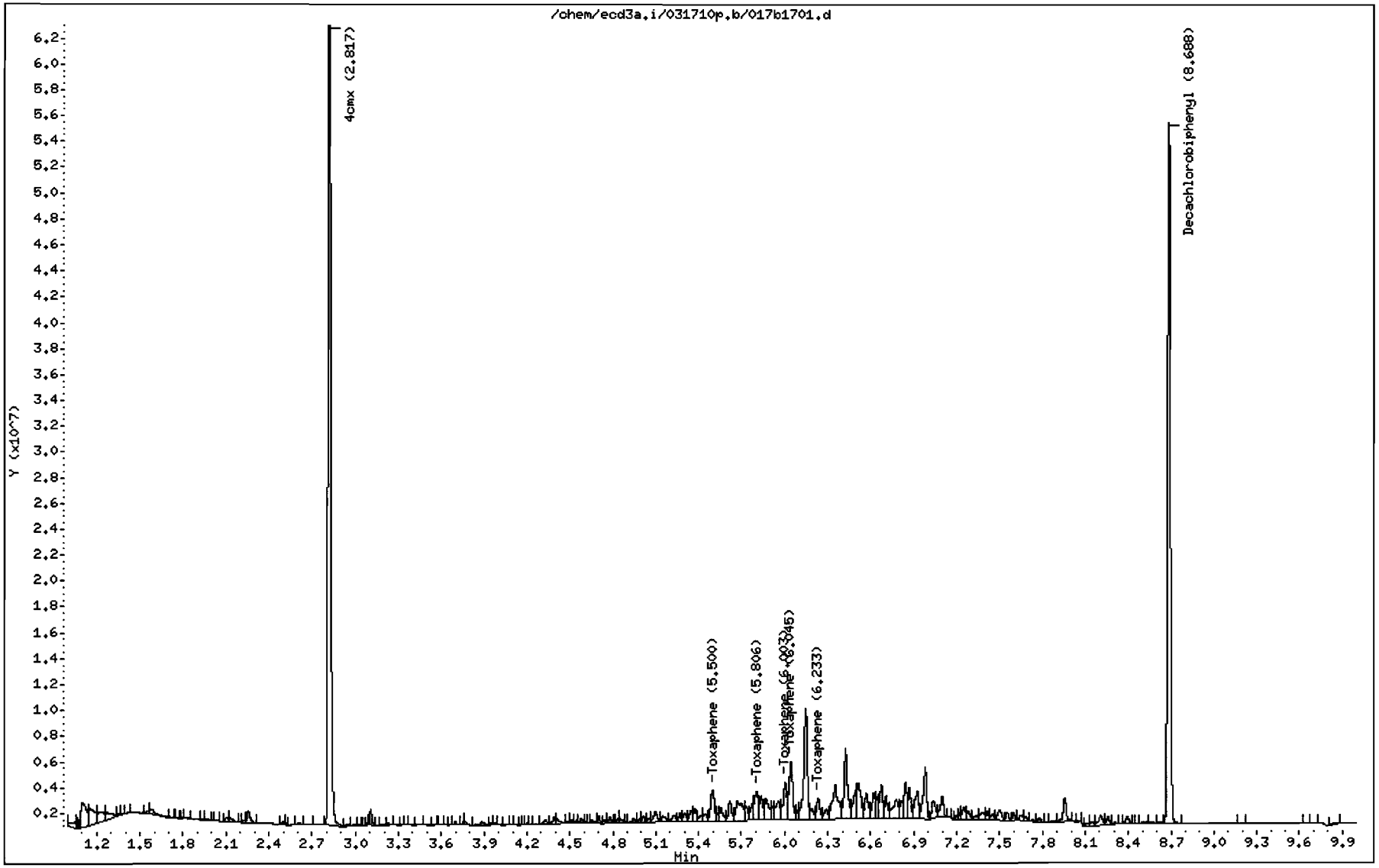

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202073035	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.9
Client Sample:	QC for batch 965995	**Client:**	LANL010	**Project:**	QC
Client ID:	RE46–10–13867MS	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	965996	**Inst:**	ECD3A.I	**Dilution:**	10
Run Date:	03/17/2010 23:17	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 11:39	**Aliquot:**	30 g	**Final Volume:**	5 mL
Data File:	019f1901.d	**Column:**	1 CLP–1	**Level:**	LOW
	019b1901.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC		12.4	ug/kg	1.81	7.24	1
58–89–9	gamma–BHC (Lindane)		13.3	ug/kg	1.81	7.24	1
319–85–7	beta–BHC		14.9	ug/kg	1.81	7.24	1
319–86–8	delta–BHC		13.4	ug/kg	1.81	7.24	1
76–44–8	Heptachlor		13.2	ug/kg	1.81	7.24	1
309–00–2	Aldrin		12.6	ug/kg	1.81	7.24	1
1024–57–3	Heptachlor epoxide		13.5	ug/kg	2.26	7.24	1
5103–74–2	gamma–Chlordane		13.2	ug/kg	1.81	7.24	1
5103–71–9	alpha–Chlordane		13.9	ug/kg	1.81	7.24	1
959–98–8	Endosulfan I		13.5	ug/kg	1.81	7.24	1
72–55–9	4,4'–DDE		35.1	ug/kg	3.62	14.5	1
60–57–1	Dieldrin		33.9	ug/kg	3.62	14.5	1
72–20–8	Endrin		39.2	ug/kg	3.62	14.5	1
72–54–8	4,4'–DDD		36.6	ug/kg	3.62	14.5	1
33213–65–9	Endosulfan II		35.6	ug/kg	3.62	14.5	1
7421–93–4	Endrin aldehyde		31.4	ug/kg	3.62	14.5	1
50–29–3	4,4'–DDT		38.2	ug/kg	3.62	14.5	1
1031–07–8	Endosulfan sulfate		36.0	ug/kg	3.62	14.5	1
72–43–5	Methoxychlor		158	ug/kg	18.1	72.4	1
53494–70–5	Endrin ketone		37.1	ug/kg	3.62	14.5	1
8001–35–2	Toxaphene	U	181	ug/kg	60.3	181	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/031710p.b/019f1901.d
Lab Smp Id: 1202073035 Client Smp ID: RE46-10-13867MS
Inj Date : 17-MAR-2010 23:17
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202073035|10|
Misc Info : |ECD81A_1S|965996|SVP|MS|SOIL|MS|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 19 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	7.89670	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.580	0.000	846305	12.7023	23.0	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.662	7.663	-0.001	838860	16.2503	29.4	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
2.976	2.976	0.000	637279	6.83885	12.4	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.215	3.216	-0.001	621270	7.37033	13.3	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.279	3.280	-0.001	307022	8.20730	14.8	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.424	3.424	0.000	620830	7.39231	13.4	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.591	3.591	0.000	519280	7.27807	13.2	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.843	3.843	0.000	558635	6.94631	12.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.370	4.370	0.000	540438	7.48199	13.5	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.482	4.483	-0.001	525031	7.31413	13.2	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.604	4.604	0.000	550539	7.70028	13.9	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.733	4.733	0.000	506190	7.47142	13.5	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.673	4.674	-0.001	1342943	19.3932	35.1	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.958	4.959	-0.001	1375213	18.7208	33.9	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.184	5.184	0.000	1301925	21.6628	39.2	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.249	5.249	0.000	1136950	20.2304	36.6	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.405	5.405	0.000	1208526	19.6854	35.6	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.826	5.826	0.000	886027	17.3688	31.4	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.525	5.525	0.000	1015036	21.1064	38.2	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.274	6.275	-0.001	1056142	19.8959	36.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.028	6.029	-0.001	2052591	87.2974	158	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.570	6.569	0.001	1411701	20.5295	37.1	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/019f1901.d
Date : 17-MAR-2010 23:17
Client ID: RE46-10-13867MS
Sample Info: 1120207303511101
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

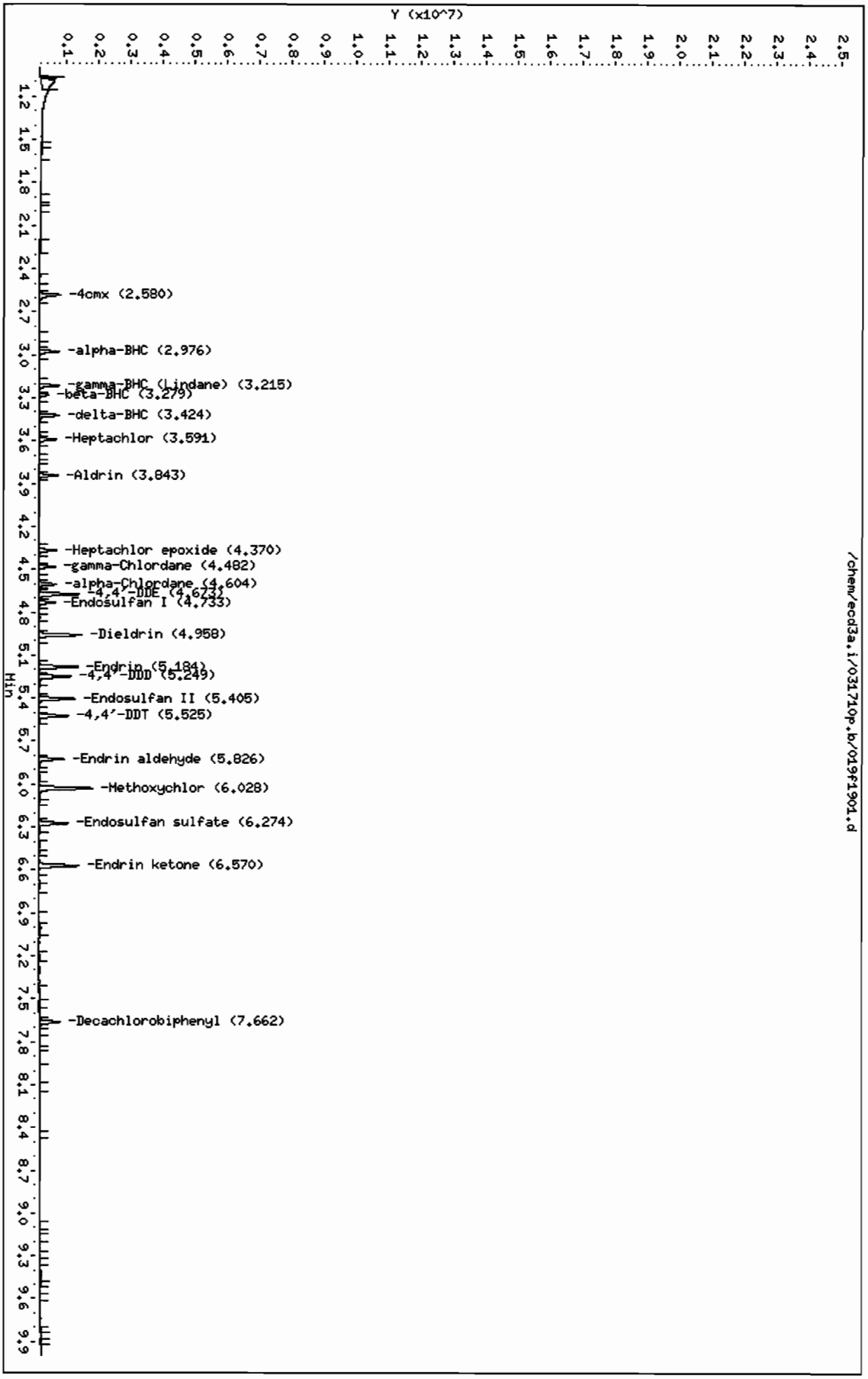

Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/031710p.b/019b1901.d
Lab Smp Id: 1202073035 Client Smp ID: RE46-10-13867MS
Inj Date : 17-MAR-2010 23:17
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202073035|10|
Misc Info : |ECD81A_1S|965996|SVP|MS|SOIL|MS|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 19 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	7.89670	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.816	2.817	-0.001	8841828	14.2443	25.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.687	8.688	-0.001	6539967	18.0072	32.6	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.295	3.296	-0.001	6547862	7.19152	13.0	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.597	3.598	-0.001	5818611	7.67157	13.9	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.659	3.660	-0.001	2703519	8.41011	15.2	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.925	3.925	0.000	5701300	7.75911	14.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.001	4.002	-0.001	4891244	7.81457	14.1	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.305	4.307	-0.002	4488839	7.75833	14.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.848	4.849	-0.001	3357525	8.11708	14.7	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.036	5.037	-0.001	3261008	8.04810	14.6	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.183	5.183	0.000	3338237	8.35149	15.1	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.243	5.244	-0.001	2988367	8.17095	14.8	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.342	5.343	-0.001	7611895	20.1714	36.5	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.521	5.522	-0.001	8273971	19.9897	36.2	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.836	5.836	0.000	8423528	22.5711	40.8	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.942	5.943	-0.001	7651178	20.9518	37.9	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.055	6.056	-0.001	8224388	20.7188	37.5	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.410	6.410	0.000	6462344	18.2292	33.0	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.278	6.278	0.000	7410301	20.4750	37.0	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.711	6.711	0.000	8522591	20.3028	36.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.018	7.019	-0.001	15881146	87.3970	158	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
7.296	7.296	0.000	10617314	20.4911	37.1	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/031710p.b/019b1901.d

Date : 17-MAR-2010 23:17

Client ID: RE46-10-13867MS

Sample Info: |1202073035|10|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

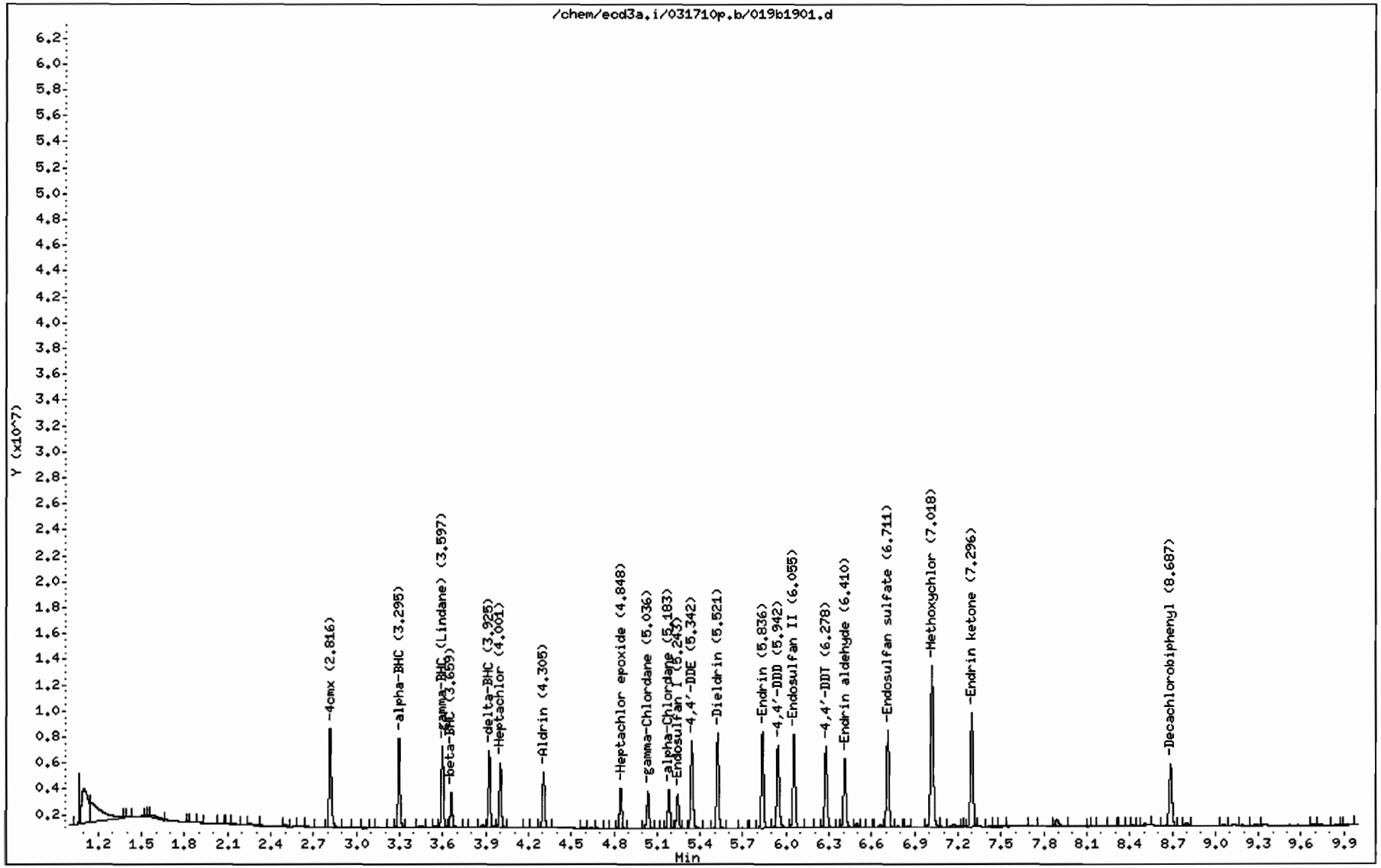

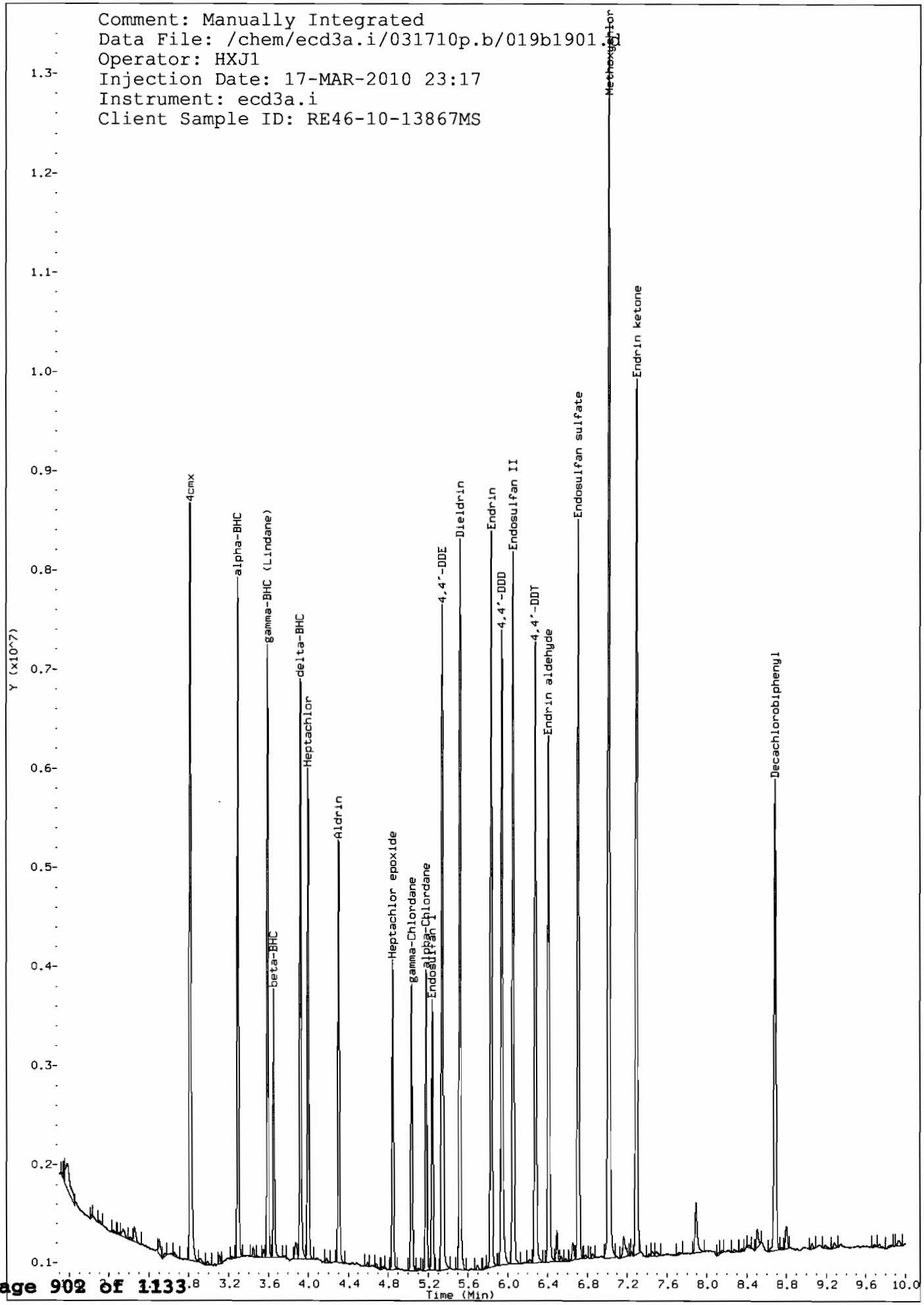
Comment: Manually Integrated
Data File: /chem/ecd3a.i/031710p.b/019b1901.d1
Operator: HXJ1
Injection Date: 17-MAR-2010 23:17
Instrument: ecd3a.i
Client Sample ID: RE46-10-13867MS
Y (x10^7)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

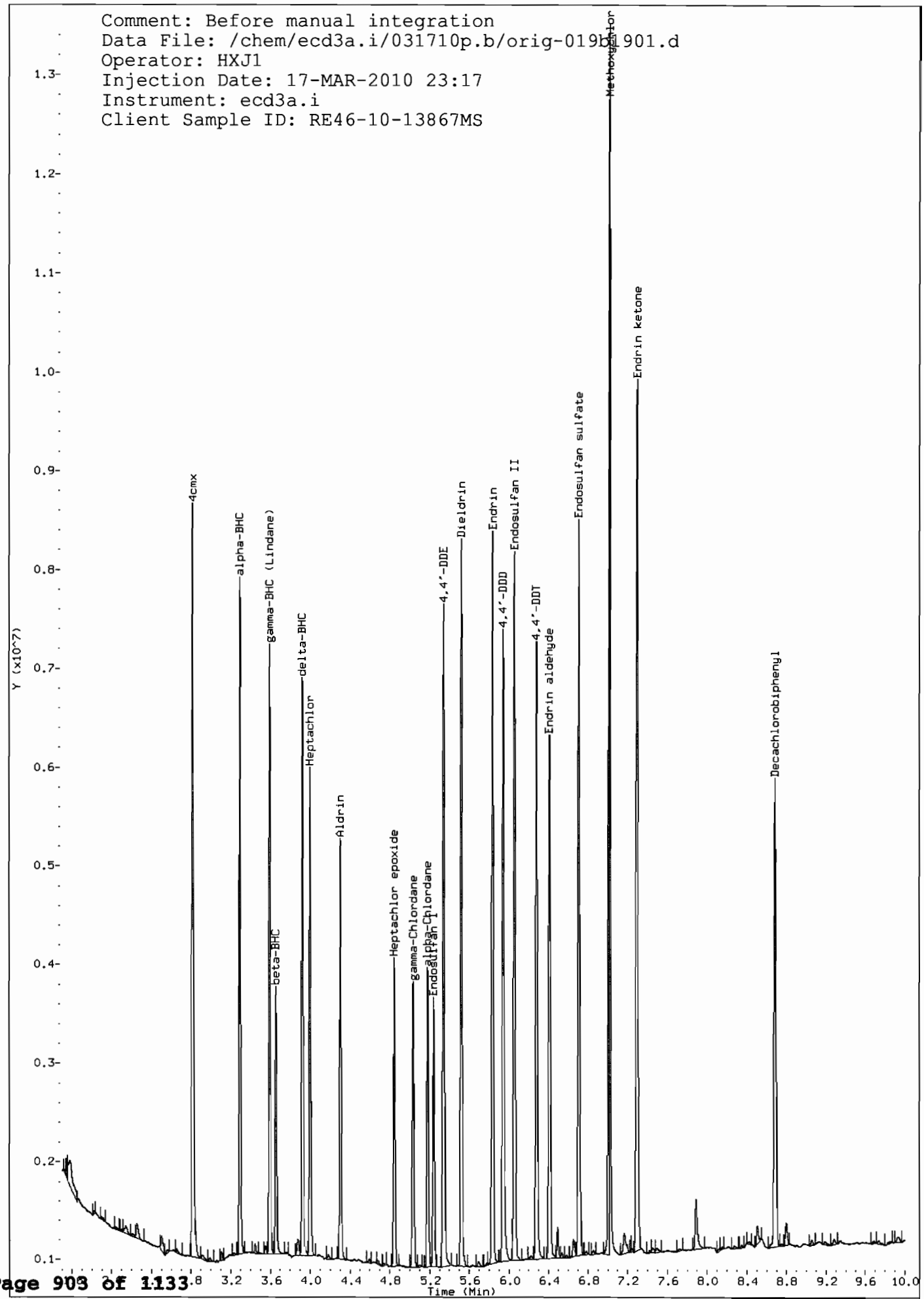
Comment: Before manual integration
Data File: /chem/ecd3a.i/031710p.b/orig-019b1901.d
Operator: HXJ1
Injection Date: 17-MAR-2010 23:17
Instrument: ecd3a.i
Client Sample ID: RE46-10-13867MS
Y (x10^7)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202073036	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.9
Client Sample:	QC for batch 965995	**Client:**	LANL010	**Project:**	QC
Client ID:	RE46–10–13867MSD	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	965996	**Inst:**	ECD3A.I	**Dilution:**	10
Run Date:	03/17/2010 23:31	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/17/2010 11:39	**Aliquot:**	30.02 g	**Final Volume:**	5 mL
Data File:	020f2001.d	**Column:**	1 CLP–1	**Level:**	LOW
	020b2001.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC		11.9	ug/kg	1.81	7.23	1
58–89–9	gamma–BHC (Lindane)		12.8	ug/kg	1.81	7.23	1
319–85–7	beta–BHC		14.4	ug/kg	1.81	7.23	1
319–86–8	delta–BHC		13.0	ug/kg	1.81	7.23	1
76–44–8	Heptachlor		12.5	ug/kg	1.81	7.23	1
309–00–2	Aldrin		11.8	ug/kg	1.81	7.23	1
1024–57–3	Heptachlor epoxide		13.1	ug/kg	2.26	7.23	1
5103–74–2	gamma–Chlordane		12.7	ug/kg	1.81	7.23	1
5103–71–9	alpha–Chlordane		13.5	ug/kg	1.81	7.23	1
959–98–8	Endosulfan I		13.1	ug/kg	1.81	7.23	1
72–55–9	4,4'–DDE		33.8	ug/kg	3.62	14.5	1
60–57–1	Dieldrin		32.6	ug/kg	3.62	14.5	1
72–20–8	Endrin		37.7	ug/kg	3.62	14.5	1
72–54–8	4,4'–DDD		35.4	ug/kg	3.62	14.5	1
33213–65–9	Endosulfan II		34.7	ug/kg	3.62	14.5	1
7421–93–4	Endrin aldehyde		31.8	ug/kg	3.62	14.5	1
50–29–3	4,4'–DDT		37.1	ug/kg	3.62	14.5	1
1031–07–8	Endosulfan sulfate		36.1	ug/kg	3.62	14.5	1
72–43–5	Methoxychlor		153	ug/kg	18.1	72.3	1
53494–70–5	Endrin ketone		36.6	ug/kg	3.62	14.5	1
8001–35–2	Toxaphene	U	181	ug/kg	60.2	181	1

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CLP-1

Data file : /chem/ecd3a.i/031710p.b/020f2001.d
Lab Smp Id: 1202073036 Client Smp ID: RE46-10-13867MSD
Inj Date : 17-MAR-2010 23:31
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202073036|10|
Misc Info : |ECD81A_1S|965996|SVP|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-F-8081-021010pa.m
Meth Date : 18-Mar-2010 19:42 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015f1501.d
Als bottle: 20 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	7.89670	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.580	0.000	841331	12.6277	22.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.664	7.663	0.001	816790	15.8227	28.6	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
2.976	2.976	0.000	612145	6.56912	11.9	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.215	3.216	-0.001	597270	7.08562	12.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.279	3.280	-0.001	298708	7.98505	14.4	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.423	3.424	-0.001	604075	7.19280	13.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.590	3.591	-0.001	492520	6.90302	12.5	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.843	3.843	0.000	523926	6.51473	11.8	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.369	4.370	-0.001	522749	7.23711	13.1	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.483	4.483	0.000	503997	7.02110	12.7	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.604	4.604	0.000	532200	7.44378	13.5	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.733	4.733	0.000	491104	7.24874	13.1	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.674	4.674	0.000	1295218	18.7040	33.8	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.959	4.959	0.000	1322425	18.0022	32.6	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.184	5.184	0.000	1252225	20.8358	37.7	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.249	5.249	0.000	1099660	19.5669	35.4	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.405	5.405	0.000	1177121	19.1739	34.7	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.826	5.826	0.000	897426	17.5922	31.8	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.526	5.525	0.001	987682	20.5377	37.1	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.274	6.275	-0.001	1060902	19.9856	36.1	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.029	6.029	0.000	1987025	84.5088	153	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.570	6.569	0.001	1390183	20.2166	36.6	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/020f2001.d

Date : 17-MAR-2010 23:31

Client ID: RE46-10-13867MSD

Sample Info: |1202073036|10|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

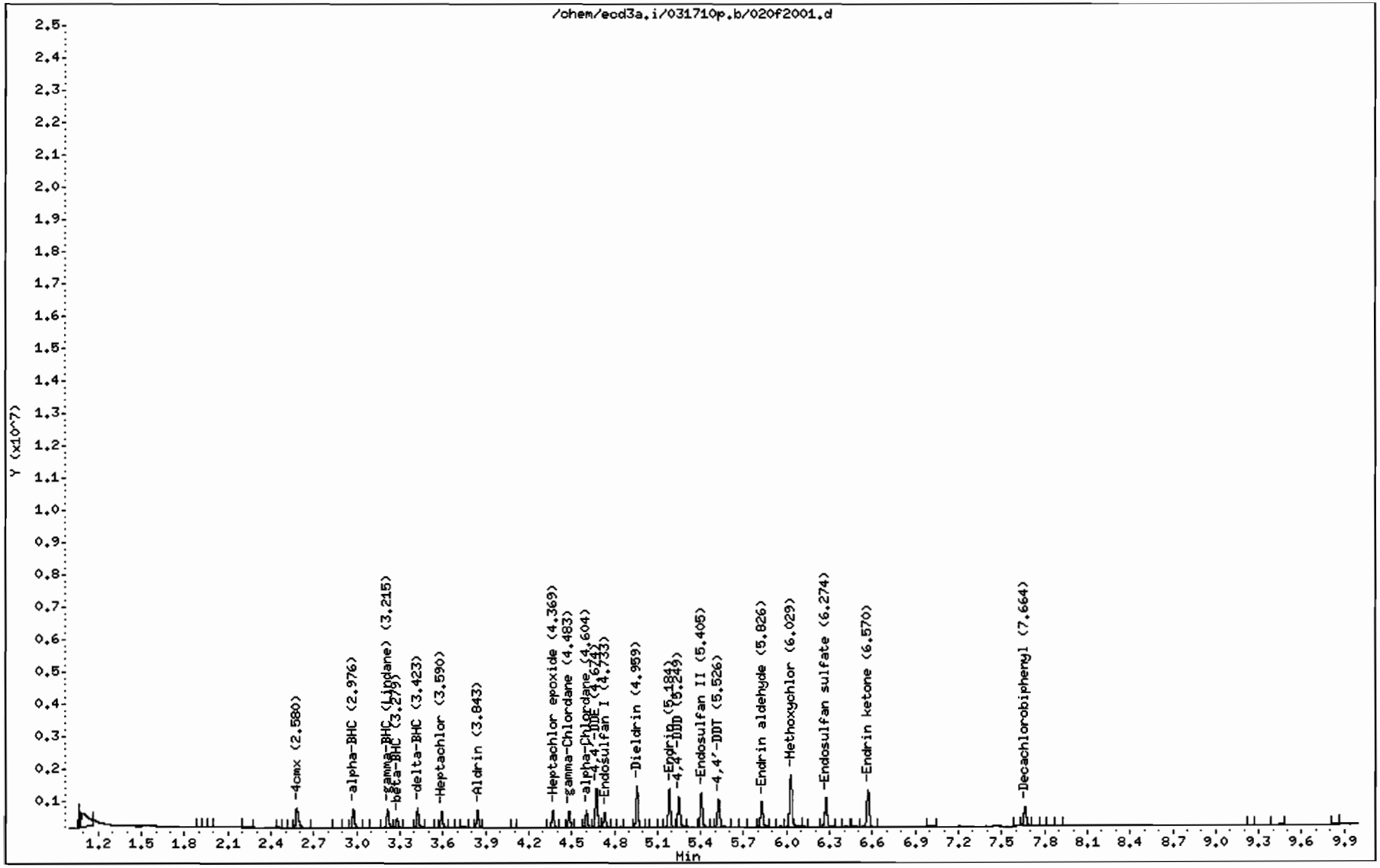

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CLP-2

Data file : /chem/ecd3a.i/031710p.b/020b2001.d
Lab Smp Id: 1202073036 Client Smp ID: RE46-10-13867MSD
Inj Date : 17-MAR-2010 23:31
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202073036|10|
Misc Info : |ECD81A_1S|965996|SVP|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd3a.i/031710p.b/ECD3-B-8081-021010pa.m
Meth Date : 18-Mar-2010 19:14 hea01125 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:49 Cal File: 015b1501.d
Als bottle: 20 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	7.89670	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.816	2.817	-0.001	8636121	13.9129	25.2	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.688	8.688	0.000	6155238	16.9479	30.6	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.295	3.296	-0.001	6325912	6.94775	12.6	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.597	3.598	-0.001	5684772	7.49511	13.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.659	3.660	-0.001	2622386	8.15772	14.8	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.924	3.925	-0.001	5566015	7.57499	13.7	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.000	4.002	-0.002	4657470	7.44108	13.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.306	4.307	-0.001	4221176	7.29571	13.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.848	4.849	-0.001	3247322	7.85066	14.2	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.037	5.037	0.000	3164315	7.80947	14.1	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.182	5.183	-0.001	3229786	8.08017	14.6	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.243	5.244	-0.001	2896467	7.91967	14.3	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.342	5.343	-0.001	7400392	19.6109	35.5	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.521	5.522	-0.001	7947468	19.2009	34.7	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.836	5.836	0.000	8096904	21.6959	39.2	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.942	5.943	-0.001	7413382	20.3006	36.7	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.055	6.056	-0.001	7992867	20.1356	36.4	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.411	6.410	0.001	6508757	18.3601	33.2	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.278	6.278	0.000	7025861	19.4128	35.1	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.711	6.711	0.000	8510108	20.2731	36.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.019	7.019	0.000	15251515	83.9320	152	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.295	7.296	-0.001	10635935	20.5271	37.1	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/031710p.b/020b2001.d

Date : 17-MAR-2010 23:31

Client ID: RE46-10-13867MSD

Sample Info: |12020730361101

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

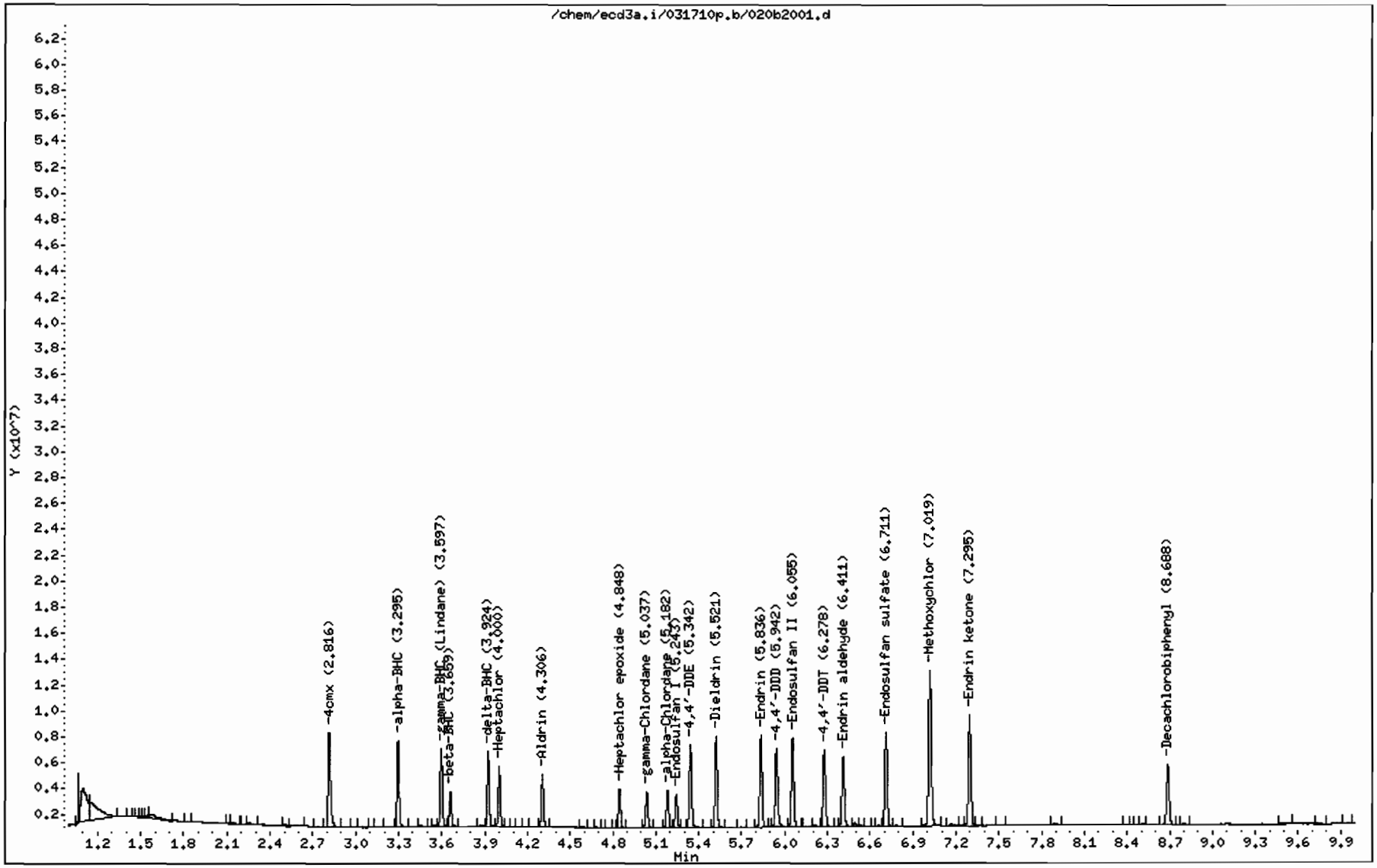

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD3

DATE: 03/01/2010 METHOD: ECD3-B-8081-021010pa.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-041
EPA Method: 8081
8081A
Sequence Number: 021610PA.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100211-99IB	HXJ1	16-FEB-2010 20:35		021610pa	1.0		Clean
002b0201.d	WPE100211-10AB	HXJ1	16-FEB-2010 20:48		021610pa	1.0		Surrogates pass
003b0301.d	WPE100216-11TX	HXJ1	16-FEB-2010 21:02		021610pa	1.0		TOXAPH ICAL level 1
004b0401.d	WPE100216-12TX	HXJ1	16-FEB-2010 21:15		021610pa	1.0		TOXAPH ICAL level 2
005b0501.d	WPE100216-13TX	HXJ1	16-FEB-2010 21:29		021610pa	1.0		TOXAPH ICAL level 3
006b0601.d	WPE100216-14TX	HXJ1	16-FEB-2010 21:43		021610pa	1.0		TOXAPH ICAL level 4
007b0701.d	IPE100204-40TX	HXJ1	16-FEB-2010 21:56		021610pa	1.0		TOXAPH ICAL level 5
008b0801.d	WPE100125-52TX	HXJ1	16-FEB-2010 22:10		021610pa	1.0		All okay
009b0901.d	WAR100211-99IB	HXJ1	16-FEB-2010 22:24		021610pa	1.0		Clean
010b1001.d	1202016693	HXJ1	16-FEB-2010 22:37	942099	2010MDLVECD5TOX	1.0	MB	USE, uploaded both columns, reporting both results
011b1101.d	244565009	HXJ1	16-FEB-2010 22:51	942099	2010TOXMDLSPE-L	1.0	QCQA	USE, uploaded both columns, reporting both results
012b1201.d	244565010	HXJ1	16-FEB-2010 23:05	942099	2010TOXMDLSPE-L	1.0	QCQA	USE, uploaded both columns, reporting both results
013b1301.d	244565011	HXJ1	16-FEB-2010 23:18	942099	2010TOXMDLSPE-L	1.0	QCQA	USE, uploaded both columns, reporting both results
014b1401.d	244565012	HXJ1	16-FEB-2010 23:32	942099	2010TOXMDLSPE-L	1.0	QCQA	USE, uploaded both columns, reporting both results
015b1501.d	244565013	HXJ1	16-FEB-2010 23:45	942099	2010TOXMDLSPE-L	1.0	QCQA	USE, uploaded both columns, reporting both results

Instrument Batch: /chem/ecd3a.i/021610pa.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016b1601.d	244748001	HXJ1	16-FEB-2010 23:59	943312	2010MDLVECD5TOXSPE-	1.0	QCQA	USE, uploaded both columns, reporting both results

017b1701.d	244748002	HXJ1	17-FEB-2010 00:13	943312	2010MDLVECD5TOXSPE-	1.0	QCQA	USE, uploaded both columns, reporting both results
018b1801.d	244748003	HXJ1	17-FEB-2010 00:26	943312	2010MDLVECD5TOXSPE-	1.0	QCQA	USE, uploaded both columns, reporting both results
019b1901.d	244748004	HXJ1	17-FEB-2010 00:40	943312	2010MDLVECD5TOXSPE-	1.0	QCQA	USE, uploaded both columns, reporting both results
020b2001.d	WPE100211-10AB	HXJ1	17-FEB-2010 00:54		021610pa	1.0		Surrogates pass
021b2101.d	WPE100125-52TX	HXJ1	17-FEB-2010 01:07		021610pa	1.0		(b) Passes on average (1 peak elevated); (f) All okay
022b2201.d	WAR100211-99IB	HXJ1	17-FEB-2010 01:21		021610pa	1.0		Clean
023b2301.d	1202019771	HXJ1	17-FEB-2010 01:35	943312	2010TOXMDLSPE-L	1.0	MB	USE, uploaded both columns, reporting both results
024b2401.d	1202019772	HXJ1	17-FEB-2010 01:48	943312	2010TOXMDLSPE-L	1.0	LCS	USE, uploaded both columns, reporting both results
025b2501.d	244565001	HXJ1	17-FEB-2010 02:02	943312	2010TOXMDLSPE-L	1.0	QCQA	USE, uploaded both columns, reporting both results
026b2601.d	244565002	HXJ1	17-FEB-2010 02:16	943312	2010TOXMDLSPE-L	1.0	QCQA	USE, uploaded both columns, reporting both results
027b2701.d	244565003	HXJ1	17-FEB-2010 02:29	943312	2010TOXMDLSPE-L	1.0	QCQA	USE, uploaded both columns, reporting both results
028b2801.d	244565004	HXJ1	17-FEB-2010 02:43	943312	2010TOXMDLSPE-L	1.0	QCQA	USE, uploaded both columns, reporting both results
029b2901.d	244565005	HXJ1	17-FEB-2010 02:56	943312	2010TOXMDLSPE-L	1.0	QCQA	USE, uploaded both columns, reporting both results
030b3001.d	244565006	HXJ1	17-FEB-2010 03:10	943312	2010TOXMDLSPE-L	1.0	QCQA	USE, uploaded both columns, reporting both results
031b3101.d	244565007	HXJ1	17-FEB-2010 03:24	943312	2010TOXMDLSPE-L	1.0	QCQA	USE, uploaded both columns, reporting both results
032b3201.d	244565008	HXJ1	17-FEB-2010 03:37	943312	2010TOXMDLSPE-L	1.0	QCQA	USE, uploaded both columns, reporting both results
033b3301.d	WPE100211-10AB	HXJ1	17-FEB-2010 03:51		021610pa	1.0		Surrogates pass
034b3401.d	WPE100125-52TX	HXJ1	17-FEB-2010 04:05		021610pa	1.0		(b) Passes on average (1 peak elevated); (f) All okay
035b3501.d	WAR100211-99IB	HXJ1	17-FEB-2010 04:18		021610pa	1.0		Clean

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD3

DATE: 03/23/2010 METHOD: ECD3-B-8081-021010pa.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-041
EPA Method: 8081
8081A
Sequence Number: 031710p.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100211-99IB	HXJ1	17-MAR-2010 19:11		031710p	1.0		Clean
002b0201.d	WPE100125-99DG	HXJ1	17-MAR-2010 19:25		031710p	1.0		(b) DDT 2.3%, Endrin 4.8%; (f) 2.6%, Endrin 3.3%
003b0301.d	WPE100305-10AB	HXJ1	17-MAR-2010 19:39		031710p	1.0		DUSE - elevated
004b0401.d	WPE100125-52TX	HXJ1	17-MAR-2010 19:52		031710p	1.0		(b) Passes on average; (f) All okay
005b0501.d	WPE100305-00CL	HXJ1	17-MAR-2010 20:06		031710p	1.0		Passes on average - not target for this sequence
006b0601.d	WPE100316-01AB	HXJ1	17-MAR-2010 20:20		031710p	1.0		INDAB ICAL level 1
007b0701.d	WPE100316-02AB	HXJ1	17-MAR-2010 20:33		031710p	1.0		INDAB ICAL level 2
008b0801.d	WPE100316-03AB	HXJ1	17-MAR-2010 20:47		031710p	1.0		INDAB ICAL level 3
009b0901.d	WPE100316-04AB	HXJ1	17-MAR-2010 21:01		031710p	1.0		INDAB ICAL level 4
010b1001.d	IPE100204-02AB	HXJ1	17-MAR-2010 21:14		031710p	1.0		INDAB ICAL level 5
011b1101.d	WPE100305-10AB	HXJ1	17-MAR-2010 21:28		031710p	1.0		DUSE - elevated on front - use vial 14 as ICV
012b1201.d	WAR100211-99IB	HXJ1	17-MAR-2010 21:42		031710p	1.0		Clean
013b1301.d	WPE100125-99DG	HXJ1	17-MAR-2010 21:55		031710p	1.0		(b) DDT 4.1%, Endrin 6.2%; (f) 4.6%, Endrin 4.5%
014b1401.d	WPE100305-10AB	HXJ1	17-MAR-2010 22:09		031710p	1.0		All okay
015b1501.d	1202073033	HXJ1	17-MAR-2010 22:23	965996	10-2298	1.0	MB	USE, uploaded both columns, reporting lower result

Instrument Batch: /chem/ecd3a.i/031710p.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016b1601.d	1202073034	HXJ1	17-MAR-2010 22:36	965996	10-2298	1.0	LCS	USE, uploaded both columns, reporting lower result

017b1701.d	1202073037	HXJ1	17-MAR-2010 22:50	965996	10-2298	1.0	TLCS	USE, uploaded both columns, reporting lower result
018b1801.d	248815001	HXJ1	17-MAR-2010 23:04	965996	10-2298	10.0	LANL	USE, uploaded both columns, reporting lower result
019b1901.d	1202073035	HXJ1	17-MAR-2010 23:17	965996	10-2298	10.0	MS	USE, uploaded both columns, reporting lower result
020b2001.d	1202073036	HXJ1	17-MAR-2010 23:31	965996	10-2298	10.0	MSD	USE, uploaded both columns, reporting lower result
021b2101.d	248815002	HXJ1	17-MAR-2010 23:45	965996	10-2298	10.0	LANL	USE, uploaded both columns, reporting lower result
022b2201.d	248815003	HXJ1	17-MAR-2010 23:58	965996	10-2298	10.0	LANL	USE, uploaded both columns, reporting lower result
023b2301.d	248815004	HXJ1	18-MAR-2010 00:12	965996	10-2298	10.0	LANL	USE, uploaded both columns, reporting lower result
024b2401.d	WPE100305-10AB	HXJ1	18-MAR-2010 00:26		031710p	1.0		(b) All okay; (f) several analytes elevated
025b2501.d	WAR100211-99IB	HXJ1	18-MAR-2010 00:39		031710p	1.0		Clean
026b2601.d	248815005	HXJ1	18-MAR-2010 00:53	965996	10-2298	10.0	LANL	USE, uploaded both columns, reporting lower result
027b2701.d	248815006	HXJ1	18-MAR-2010 01:06	965996	10-2298	10.0	LANL	USE, uploaded both columns, reporting lower result
028b2801.d	248815007	HXJ1	18-MAR-2010 01:20	965996	10-2298	10.0	LANL	USE, uploaded both columns, reporting lower result
029b2901.d	248815008	HXJ1	18-MAR-2010 01:34	965996	10-2298	10.0	LANL	USE, uploaded both columns, reporting lower result
030b3001.d	248815009	HXJ1	18-MAR-2010 01:47	965996	10-2298	10.0	LANL	USE, uploaded both columns, reporting lower result
031b3101.d	248815010	HXJ1	18-MAR-2010 02:01	965996	10-2298	10.0	LANL	USE, uploaded both columns, reporting lower result
032b3201.d	248815011	HXJ1	18-MAR-2010 02:15	965996	10-2298	10.0	LANL	USE, uploaded both columns, reporting lower result
033b3301.d	WPE100305-10AB	HXJ1	18-MAR-2010 02:28		031710p	1.0		(b) DDT, Methoxychlor low; (f) several analytes elevated
034b3401.d	WAR100211-99IB	HXJ1	18-MAR-2010 02:42		031710p	1.0		Clean
035b3501.d	1202071526	HXJ1	18-MAR-2010 02:56	965438	10-2359-1	1.0	MB	USE, uploaded both columns, reporting lower result

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	1202071527	HXJ1	18-MAR-2010 03:09	965438	10-2359-1	1.0	LCS	USE, uploaded both columns, reporting lower result
037b3701.d	1202071530	HXJ1	18-MAR-2010 03:23	965438	10-2359-1	1.0	TLCS	USE, uploaded both columns, reporting lower result
038b3801.d	249081005	HXJ1	18-MAR-2010 03:36	965438	10-2359-1	10.0	LANL	USE, uploaded both columns, reporting lower result
039b3901.d	1202071528	HXJ1	18-MAR-2010 03:50	965438	10-2359-1	10.0	MS	USE, uploaded both columns, reporting lower result
040b4001.d	1202071529	HXJ1	18-MAR-2010 04:04	965438	10-2359-1	10.0	MSD	USE, uploaded both columns, reporting lower result
041b4101.d	249081006	HXJ1	18-MAR-2010 04:17	965438	10-2359-1	10.0	LANL	USE, uploaded both columns, reporting lower result

042b4201.d	249081007	HXJ1	18-MAR-2010 04:31	965438	10-2359-1	10.0	LANL	USE, uploaded both columns, reporting lower result
043b4301.d	249081008	HXJ1	18-MAR-2010 04:45	965438	10-2359-1	10.0	LANL	USE, uploaded both columns, reporting lower result
044b4401.d	WPE100305-10AB	HXJ1	18-MAR-2010 04:58		031710p	1.0		(b) Endrin, DDT, Methoxychlor low; (f) DDT, Methoxychlor low CCV failure confirmed in seq. 031810p.b
045b4501.d	WAR100211-99IB	HXJ1	18-MAR-2010 05:12		031710p	1.0		Clean
046b4601.d	249081009	HXJ1	18-MAR-2010 05:26	965438	10-2359-1	10.0	LANL	USE, uploaded both columns, reporting lower result
047b4701.d	249081010	HXJ1	18-MAR-2010 05:39	965438	10-2359-1	10.0	LANL	USE, uploaded both columns, reporting lower result
048b4801.d	249081011	HXJ1	18-MAR-2010 05:53	965438	10-2359-1	10.0	LANL	USE, uploaded both columns, reporting lower result
049b4901.d	249081012	HXJ1	18-MAR-2010 06:06	965438	10-2359-1	10.0	LANL	USE, uploaded both columns, reporting lower result
050b5001.d	249081013	HXJ1	18-MAR-2010 06:20	965438	10-2359-1	10.0	LANL	USE, uploaded both columns, reporting lower result
051b5101.d	249081014	HXJ1	18-MAR-2010 06:34	965438	10-2359-1	10.0	LANL	USE, uploaded both columns, reporting lower result
052b5201.d	249081015	HXJ1	18-MAR-2010 06:47	965438	10-2359-1	10.0	LANL	USE, uploaded both columns, reporting lower result
053b5301.d	249081016	HXJ1	18-MAR-2010 07:01	965438	10-2359-1	10.0	LANL	USE, uploaded both columns, reporting lower result
054b5401.d	249081017	HXJ1	18-MAR-2010 07:15	965438	10-2359-1	10.0	LANL	USE, uploaded both columns, reporting lower result
055b5501.d	249081018	HXJ1	18-MAR-2010 07:28	965438	10-2359-1	10.0	LANL	USE, uploaded both columns, reporting lower result

Instrument Batch: /chem/ecd3a.i/031710p.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	WPE100305-10AB	HXJ1	18-MAR-2010 07:42		031710p	1.0		(b) DDD elevated, Endrin, DDT, Methoxychlor, Endrin ketone low; (f) alpha-CHL, Endrin, DDD elevated, DDT, Methoxychlor low CCV failure confirmed in seq. 031810p.b
057b5701.d	WAR100211-99IB	HXJ1	18-MAR-2010 07:56		031710p	1.0		Clean
058b5801.d	1202072594	HXJ1	18-MAR-2010 08:09	965832	10-2356-DUSE	1.0	MB	DUSE
059b5901.d	1202072595	HXJ1	18-MAR-2010 08:23	965832	10-2356-DUSE	1.0	LCS	DUSE
060b6001.d	1202072598	HXJ1	18-MAR-2010 08:36	965832	10-2356-DUSE	1.0	TLCS	DUSE
061b6101.d	249074003	HXJ1	18-MAR-2010 08:50	965832	10-2356-DUSE	10.0	LANL	DUSE
062b6201.d	249074004	HXJ1	18-MAR-2010 09:04	965832	10-2356-DUSE	10.0	LANL	DUSE
063b6301.d	1202072596	HXJ1	18-MAR-2010 09:18	965832	10-2356-DUSE	10.0	MS	DUSE
064b6401.d	1202072597	HXJ1	18-MAR-2010 09:31	965832	10-2356-DUSE	10.0	MSD	DUSE

065b6501.d	WPE100305-10AB	HXJ1	18-MAR-2010 09:45			031710p	1.0		DUSE
066b6601.d	WAR100211-99IB	HXJ1	18-MAR-2010 09:59			031710p	1.0		DUSE
067b6701.d	WPE100125-99DG	HXJ1	18-MAR-2010 10:12			031710p	1.0		DUSE
068b6801.d	249074005	HXJ1	18-MAR-2010 10:26	965832	10-2356-DUSE		10.0	LANL	DUSE
069b6901.d	249074006	HXJ1	18-MAR-2010 10:39	965832	10-2356-DUSE		10.0	LANL	DUSE
070b7001.d	249074007	HXJ1	18-MAR-2010 10:53	965832	10-2356-DUSE		10.0	LANL	DUSE
071b7101.d	249074008	HXJ1	18-MAR-2010 11:07	965832	10-2356-DUSE		10.0	LANL	DUSE
072b7201.d	249074009	HXJ1	18-MAR-2010 11:20	965832	10-2356-DUSE		10.0	LANL	DUSE
073b7301.d	249074010	HXJ1	18-MAR-2010 11:34	965832	10-2356-DUSE		10.0	LANL	DUSE
074b7401.d	249074011	HXJ1	18-MAR-2010 11:48	965832	10-2356-DUSE		10.0	LANL	DUSE
075b7501.d	249074012	HXJ1	18-MAR-2010 12:01	965832	10-2356-DUSE		10.0	LANL	DUSE

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076b7601.d	249074013	HXJ1	18-MAR-2010 12:15	965832	10-2356-DUSE	10.0	LANL	DUSE
077b7701.d	WPE100305-10AB	HXJ1	18-MAR-2010 12:29		031710p	1.0		DUSE
078b7801.d	WAR100211-99IB	HXJ1	18-MAR-2010 12:43		031710p	1.0		DUSE
079b7901.d	249074014	HXJ1	18-MAR-2010 12:56	965832	10-2356-DUSE	10.0	LANL	DUSE
080b8001.d	249074015	HXJ1	18-MAR-2010 13:10	965832	10-2356-DUSE	10.0	LANL	DUSE
081b8101.d	249074016	HXJ1	18-MAR-2010 13:24	965832	10-2356-DUSE	10.0	LANL	DUSE
082b8201.d	249074017	HXJ1	18-MAR-2010 13:37	965832	10-2356-DUSE	10.0	LANL	DUSE
083b8301.d	249074018	HXJ1	18-MAR-2010 13:51	965832	10-2356-DUSE	10.0	LANL	DUSE
084b8401.d	249074019	HXJ1	18-MAR-2010 14:05	965832	10-2356-DUSE	10.0	LANL	DUSE
085b8501.d	249074020	HXJ1	18-MAR-2010 14:18	965832	10-2356-DUSE	10.0	LANL	DUSE
086b8601.d	WPE100305-10AB	HXJ1	18-MAR-2010 14:32		031710p	1.0		DUSE
087b8701.d	WAR100211-99IB	HXJ1	18-MAR-2010 14:46		031710p	1.0		DUSE

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 965995 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL–OA–E–010 REV# 18

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202073033 MB	17–MAR–2010 11:39:00	30	Florisil	5	1	10	5	0.16667
1202073034 LCS	17–MAR–2010 11:39:00	30	Florisil	5	1	10	5	0.16667
1202073037 LCS	17–MAR–2010 11:39:00	30	Florisil	5	1	10	5	0.16667
248815001	17–MAR–2010 11:39:00	30.01	Florisil	5	1	10	5	0.16661
1202073035 MS (248815001)	17–MAR–2010 11:39:00	30	Florisil	5	1	10	5	0.16667
1202073036 MSD (248815001)	17–MAR–2010 11:39:00	30.02	Florisil	5	1	10	5	0.16656
248815002	17–MAR–2010 11:39:00	30	Florisil	5	1	10	5	0.16667
248815003	17–MAR–2010 11:39:00	30	Florisil	5	1	10	5	0.16667
248815004	17–MAR–2010 11:39:00	30.01	Florisil	5	1	10	5	0.16661
248815005	17–MAR–2010 11:39:00	30.02	Florisil	5	1	10	5	0.16656
248815006	17–MAR–2010 11:39:00	30.01	Florisil	5	1	10	5	0.16661
248815007	17–MAR–2010 11:39:00	30.05	Florisil	5	1	10	5	0.16639
248815008	17–MAR–2010 11:39:00	30	Florisil	5	1	10	5	0.16667
248815009	17–MAR–2010 11:39:00	30	Florisil	5	1	10	5	0.16667
248815010	17–MAR–2010 11:39:00	30.04	Florisil	5	1	10	5	0.16644
248815011	17–MAR–2010 11:39:00	30.04	Florisil	5	1	10	5	0.16644

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202073034	PESTSPIKE	UE100310–04	1	mL
LCS	1202073037	Toxaphene TCLP LCS	WE100206–11	2	mL
MS	1202073035	PESTSPIKE	UE100310–04	1	mL
MSD	1202073036	PESTSPIKE	UE100310–04	1	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE100302–08	1	mL
REGNT	All	Acetone	1273739–B1	150	mL
REGNT	All	Hexane	1279341–B2	150	mL
REGNT	All	Florisil cartridge 1000mg per cartridge	1284410–28	1	g
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 03/17/2010
Clean up Initials: JAM
Verified By: RWH
Final Solvent: Hexane
Clean Up SOP: GL–OA–E–036

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2298

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	967354
Prep Batch Number:	967352

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
248815001	RE46-10-13867
248815002	RE46-10-13864
248815003	RE46-10-13863
248815004	RE46-10-13869
248815005	RE46-10-13861
248815006	RE46-10-13866
248815007	RE46-10-13860
248815008	RE46-10-13865
248815009	RE46-10-13868
248815010	RE46-10-13862
248815011	RE46-10-13873
1202076239	Method Blank (MB)
1202076240	Laboratory Control Sample (LCS)
1202076241	248815001(RE46-10-13867) Matrix Spike (MS)
1202076242	248815001(RE46-10-13867) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248815001 (RE46-10-13867) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
Samples 248815002 (RE46-10-13864), 248815005 (RE46-10-13861), 248815006 (RE46-10-13866), 248815007 (RE46-10-13860), 248815008 (RE46-10-13865), 248815009 (RE46-10-13868), 248815010 (RE46-10-13862) and 248815011 (RE46-10-13873) were diluted at 1:5 prior to analysis due to the oily matrix of the extracts.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation

Data Exception Report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration

Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 3/31/10

Roadmap for LANL 10-2298 PCB

This roadmap was analyzed by yip00818 on 03-23-2010, 08:25.
This roadmap was packaged by sha01289 on 03-31-2010, 11:08.
This roadmap was validated by jim01140 on 03-31-2010, 13:33.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032210.b/044f4401.d	248815001	sample	22-MAR-2010	15:14	10-2298.sub	RE46-10-13867	1.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/047f4701.d	248815002	sample	22-MAR-2010	15:52	10-2298.sub	RE46-10-13864	5.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/048f4801.d	248815003	sample	22-MAR-2010	16:05	10-2298.sub	RE46-10-13863	1.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/049f4901.d	248815004	sample	22-MAR-2010	16:17	10-2298.sub	RE46-10-13869	1.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/050f5001.d	248815005	sample	22-MAR-2010	16:30	10-2298.sub	RE46-10-13861	5.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/053f5301.d	248815006	sample	22-MAR-2010	17:08	10-2298.sub	RE46-10-13866	5.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/054f5401.d	248815007	sample	22-MAR-2010	17:20	10-2298.sub	RE46-10-13860	5.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/055f5501.d	248815008	sample	22-MAR-2010	17:33	10-2298.sub	RE46-10-13865	5.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/056f5601.d	248815009	sample	22-MAR-2010	17:45	10-2298.sub	RE46-10-13868	5.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/057f5701.d	248815010	sample	22-MAR-2010	17:58	10-2298.sub	RE46-10-13862	5.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/058f5801.d	248815011	sample	22-MAR-2010	18:11	10-2298.sub	RE46-10-13873	5.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032210.b/044b4401.d	248815001	sample	22-MAR-2010	15:14	10-2298.sub	RE46-10-13867	1.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/047b4701.d	248815002	sample	22-MAR-2010	15:52	10-2298.sub	RE46-10-13864	5.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/048b4801.d	248815003	sample	22-MAR-2010	16:05	10-2298.sub	RE46-10-13863	1.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/049b4901.d	248815004	sample	22-MAR-2010	16:17	10-2298.sub	RE46-10-13869	1.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/050b5001.d	248815005	sample	22-MAR-2010	16:30	10-2298.sub	RE46-10-13861	5.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/053b5301.d	248815006	sample	22-MAR-2010	17:08	10-2298.sub	RE46-10-13866	5.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/054b5401.d	248815007	sample	22-MAR-2010	17:20	10-2298.sub	RE46-10-13860	5.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/055b5501.d	248815008	sample	22-MAR-2010	17:33	10-2298.sub	RE46-10-13865	5.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/056b5601.d	248815009	sample	22-MAR-2010	17:45	10-2298.sub	RE46-10-13868	5.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/057b5701.d	248815010	sample	22-MAR-2010	17:58	10-2298.sub	RE46-10-13862	5.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/058b5801.d	248815011	sample	22-MAR-2010	18:11	10-2298.sub	RE46-10-13873	5.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032210.b/041f4101.d	1202076239	mb	22-MAR-2010	14:36	10-2298.sub	PBLK01	1.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/042f4201.d	1202076240	lcs	22-MAR-2010	14:49	10-2298.sub	PBLK01LCS	1.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/045f4501.d	1202076241	ms	22-MAR-2010	15:27	10-2298.sub	RE46-10-13867MS	1.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/046f4601.d	1202076242	msd	22-MAR-2010	15:39	10-2298.sub	RE46-10-13867MSD	1.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032210.b/041b4101.d	1202076239	mb	22-MAR-2010	14:36	10-2298.sub	PBLK01	1.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/042b4201.d	1202076240	lcs	22-MAR-2010	14:49	10-2298.sub	PBLK01LCS	1.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/045b4501.d	1202076241	ms	22-MAR-2010	15:27	10-2298.sub	RE46-10-13867MS	1.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032210.b/046b4601.d	1202076242	msd	22-MAR-2010	15:39	10-2298.sub	RE46-10-13867MSD	1.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815007	**Date Received:**	03/05/2010 10:20	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13860	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	5
Run Date:	03/22/2010 17:20	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	054f5401.d	**Column:**	1 CLP1	**Level:**	LOW
	054b5401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.4	ug/kg	6.12	18.4	1
11104–28–2	Aroclor–1221	U	18.4	ug/kg	6.12	18.4	1
11141–16–5	Aroclor–1232	U	18.4	ug/kg	6.12	18.4	1
53469–21–9	Aroclor–1242	U	18.4	ug/kg	6.12	18.4	1
12672–29–6	Aroclor–1248	U	18.4	ug/kg	6.12	18.4	1
11097–69–1	Aroclor–1254	J	6.40	ug/kg	6.12	18.4	1
11096–82–5	Aroclor–1260	U	18.4	ug/kg	6.12	18.4	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815005	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13861	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	5
Run Date:	03/22/2010 16:30	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	050f5001.d	**Column:**	1 CLP1	**Level:**	LOW
	050b5001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.8	ug/kg	6.27	18.8	1
11104–28–2	Aroclor–1221	U	18.8	ug/kg	6.27	18.8	1
11141–16–5	Aroclor–1232	U	18.8	ug/kg	6.27	18.8	1
53469–21–9	Aroclor–1242	U	18.8	ug/kg	6.27	18.8	1
12672–29–6	Aroclor–1248	U	18.8	ug/kg	6.27	18.8	1
11097–69–1	Aroclor–1254	U	18.8	ug/kg	6.27	18.8	1
11096–82–5	Aroclor–1260	U	18.8	ug/kg	6.27	18.8	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13862**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967354**	**Inst:**	**ECD1A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 17:58**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 11:56**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**057f5701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	057b5701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.7	ug/kg	6.22	18.7	1
11104–28–2	Aroclor–1221	U	18.7	ug/kg	6.22	18.7	1
11141–16–5	Aroclor–1232	U	18.7	ug/kg	6.22	18.7	1
53469–21–9	Aroclor–1242	U	18.7	ug/kg	6.22	18.7	1
12672–29–6	Aroclor–1248	U	18.7	ug/kg	6.22	18.7	1
11097–69–1	Aroclor–1254		27.4	ug/kg	6.22	18.7	1
11096–82–5	Aroclor–1260		20.9	ug/kg	6.22	18.7	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815003**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13863**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967354**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 16:05**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 11:56**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**048f4801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	048b4801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.76	ug/kg	1.25	3.76	1
11104–28–2	Aroclor–1221	U	3.76	ug/kg	1.25	3.76	1
11141–16–5	Aroclor–1232	U	3.76	ug/kg	1.25	3.76	1
53469–21–9	Aroclor–1242	U	3.76	ug/kg	1.25	3.76	1
12672–29–6	Aroclor–1248	U	3.76	ug/kg	1.25	3.76	1
11097–69–1	Aroclor–1254	U	3.76	ug/kg	1.25	3.76	1
11096–82–5	Aroclor–1260	U	3.76	ug/kg	1.25	3.76	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13864**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967354**	**Inst:**	**ECD1A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 15:52**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 11:56**	**Aliquot:**	**30.16 g**	**Final Volume:**	**1 mL**
Data File:	**047f4701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	047b4701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	19.3	ug/kg	6.42	19.3	1
11104–28–2	Aroclor–1221	U	19.3	ug/kg	6.42	19.3	1
11141–16–5	Aroclor–1232	U	19.3	ug/kg	6.42	19.3	1
53469–21–9	Aroclor–1242	U	19.3	ug/kg	6.42	19.3	1
12672–29–6	Aroclor–1248	U	19.3	ug/kg	6.42	19.3	1
11097–69–1	Aroclor–1254	U	19.3	ug/kg	6.42	19.3	1
11096–82–5	Aroclor–1260	U	19.3	ug/kg	6.42	19.3	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815008**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13865**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967354**	**Inst:**	**ECD1A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 17:33**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 11:56**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**055f5501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	055b5501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.1	ug/kg	6.04	18.1	1
11104–28–2	Aroclor–1221	U	18.1	ug/kg	6.04	18.1	1
11141–16–5	Aroclor–1232	U	18.1	ug/kg	6.04	18.1	1
53469–21–9	Aroclor–1242	U	18.1	ug/kg	6.04	18.1	1
12672–29–6	Aroclor–1248	U	18.1	ug/kg	6.04	18.1	1
11097–69–1	Aroclor–1254	U	18.1	ug/kg	6.04	18.1	1
11096–82–5	Aroclor–1260	U	18.1	ug/kg	6.04	18.1	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815006	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13866	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	5
Run Date:	03/22/2010 17:08	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.16 g	**Final Volume:**	1 mL
Data File:	053f5301.d	**Column:**	1 CLP1	**Level:**	LOW
	053b5301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	17.8	ug/kg	5.94	17.8	1
11104–28–2	Aroclor–1221	U	17.8	ug/kg	5.94	17.8	1
11141–16–5	Aroclor–1232	U	17.8	ug/kg	5.94	17.8	1
53469–21–9	Aroclor–1242	U	17.8	ug/kg	5.94	17.8	1
12672–29–6	Aroclor–1248	U	17.8	ug/kg	5.94	17.8	1
11097–69–1	Aroclor–1254	U	17.8	ug/kg	5.94	17.8	1
11096–82–5	Aroclor–1260	U	17.8	ug/kg	5.94	17.8	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13867**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967354**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 15:14**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 11:56**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**044f4401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	044b4401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.60	ug/kg	1.20	3.60	1
11104–28–2	Aroclor–1221	U	3.60	ug/kg	1.20	3.60	1
11141–16–5	Aroclor–1232	U	3.60	ug/kg	1.20	3.60	1
53469–21–9	Aroclor–1242	U	3.60	ug/kg	1.20	3.60	1
12672–29–6	Aroclor–1248	U	3.60	ug/kg	1.20	3.60	1
11097–69–1	Aroclor–1254	U	3.60	ug/kg	1.20	3.60	1
11096–82–5	Aroclor–1260	U	3.60	ug/kg	1.20	3.60	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815009	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13868	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	5
Run Date:	03/22/2010 17:45	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.14 g	**Final Volume:**	1 mL
Data File:	056f5601.d	**Column:**	1 CLP1	**Level:**	LOW
	056b5601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.0	ug/kg	5.99	18.0	1
11104–28–2	Aroclor–1221	U	18.0	ug/kg	5.99	18.0	1
11141–16–5	Aroclor–1232	U	18.0	ug/kg	5.99	18.0	1
53469–21–9	Aroclor–1242	U	18.0	ug/kg	5.99	18.0	1
12672–29–6	Aroclor–1248	U	18.0	ug/kg	5.99	18.0	1
11097–69–1	Aroclor–1254	U	18.0	ug/kg	5.99	18.0	1
11096–82–5	Aroclor–1260	U	18.0	ug/kg	5.99	18.0	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815004**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13869**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967354**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 16:17**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 11:56**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**049f4901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	049b4901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.62	ug/kg	1.20	3.62	1
11104-28-2	Aroclor-1221	U	3.62	ug/kg	1.20	3.62	1
11141-16-5	Aroclor-1232	U	3.62	ug/kg	1.20	3.62	1
53469-21-9	Aroclor-1242	U	3.62	ug/kg	1.20	3.62	1
12672-29-6	Aroclor-1248	U	3.62	ug/kg	1.20	3.62	1
11097-69-1	Aroclor-1254	U	3.62	ug/kg	1.20	3.62	1
11096-82-5	Aroclor-1260	U	3.62	ug/kg	1.20	3.62	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815011	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13873	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	5
Run Date:	03/22/2010 18:11	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	058f5801.d	**Column:**	1 CLP1	**Level:**	LOW
	058b5801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	17.9	ug/kg	5.96	17.9	1
11104–28–2	Aroclor–1221	U	17.9	ug/kg	5.96	17.9	1
11141–16–5	Aroclor–1232	U	17.9	ug/kg	5.96	17.9	1
53469–21–9	Aroclor–1242	U	17.9	ug/kg	5.96	17.9	1
12672–29–6	Aroclor–1248	U	17.9	ug/kg	5.96	17.9	1
11097–69–1	Aroclor–1254	U	17.9	ug/kg	5.96	17.9	1
11096–82–5	Aroclor–1260	U	17.9	ug/kg	5.96	17.9	1

QUALITY CONTROL SUMMARY

Surrogate Recovery Report

SDG Number: 10–2298

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC	#	4CMX 2 %REC	#	DCB 1 %REC	#	DCB 2 %REC	#
1202076239	MB for batch 967352	84		80		84		85	
1202076240	LCS for batch 967352	86		82		87		87	
248815001	RE46–10–13867	82		77		74		83	
1202076241	RE46–10–13867MS	86		82		87		84	
1202076242	RE46–10–13867MSD	85		80		91		85	
248815002	RE46–10–13864	58	D	58	D	62	D	67	D
248815003	RE46–10–13863	85		81		91		86	
248815004	RE46–10–13869	57		55		62		59	
248815005	RE46–10–13861	64	D	64	D	61	D	65	D
248815006	RE46–10–13866	79	D	78	D	62	D	84	D
248815007	RE46–10–13860	40	D	40	D	37	D	39	D
248815008	RE46–10–13865	98	D	98	D	100	D	98	D
248815009	RE46–10–13868	75	D	75	D	75	D	77	D
248815010	RE46–10–13862	78	D	77	D	70	D	83	D
248815011	RE46–10–13873	85	D	84	D	80	D	86	D

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%–120%)
DCB = Decachlorobiphenyl	(30%–116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2298
Client ID: LCS for batch 967352
Lab Sample ID: 1202076240
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/22/2010 14:49
Dilution: 1
Prep Batch ID: 967352
Batch ID: 967354

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674–11–2	LCS	Aroclor–1016	33.3	0.0	26.7	80	39–102
11096–82–5	LCS	Aroclor–1260	33.3	0.0	29.2	88	45–118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2298**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE46-10-13867MS**	**Matrix:**	**S**
Lab Sample ID:	**1202076241**	**%Moisture:**	**7.9**
Instrument:	**ECD1A.I**	**Analysis Date:**	**03/22/2010 15:27**
Analyst:	**YS1**	**Prep Batch ID:**	**967352**
Inj. Vol:	**1 uL**	**Batch ID:**	**967354**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	36.2	0.00	U	30.0	83	23-119
11096-82-5	MS	Aroclor-1260	36.2	0.00	U	34.8	96	28-124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2298
Client ID: RE46–10–13867MSD
Lab Sample ID: 1202076242
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 7.9
Analysis Date: 03/22/2010 15:39
Prep Batch ID: 967352
Batch ID: 967354
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	36.1	0.00	U	28.2	78	23–119	6	0–28
11096–82–5	MSD Aroclor–1260	36.1	0.00	U	33.5	93	28–124	4	0–30

Method Blank Summary

SDG Number:	10–2298	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 967352	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	041b4101–1.d 041f4101–1.d
Lab Sample ID:	1202076239				
Column:	CLP2 CLP1	Prep Date:	03/21/2010 11:56	Analyzed:	03/22/10 14:36
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 967352	1202076240	042f4201–1.d 042b4201–1.d	03/22/10	1449
02 RE46–10–13867	248815001	044f4401.d 044b4401.d	03/22/10	1514
03 RE46–10–13867MS	1202076241	045f4501.d 045b4501.d	03/22/10	1527
04 RE46–10–13867MSD	1202076242	046f4601.d 046b4601.d	03/22/10	1539
05 RE46–10–13864	248815002	047f4701.d 047b4701.d	03/22/10	1552
06 RE46–10–13863	248815003	048f4801.d 048b4801.d	03/22/10	1605
07 RE46–10–13869	248815004	049f4901.d 049b4901.d	03/22/10	1617
08 RE46–10–13861	248815005	050f5001.d 050b5001.d	03/22/10	1630
09 RE46–10–13866	248815006	053f5301.d 053b5301.d	03/22/10	1708
10 RE46–10–13860	248815007	054f5401.d 054b5401.d	03/22/10	1720
11 RE46–10–13865	248815008	055f5501.d 055b5501.d	03/22/10	1733
12 RE46–10–13868	248815009	056f5601.d 056b5601.d	03/22/10	1745
13 RE46–10–13862	248815010	057f5701.d 057b5701.d	03/22/10	1758
14 RE46–10–13873	248815011	058f5801.d 058b5801.d	03/22/10	1811

SAMPLE
DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815007**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13860**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967354**	**Inst:**	**ECD1A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 17:20**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 11:56**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**054f5401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	054b5401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.4	ug/kg	6.12	18.4	1
11104–28–2	Aroclor–1221	U	18.4	ug/kg	6.12	18.4	1
11141–16–5	Aroclor–1232	U	18.4	ug/kg	6.12	18.4	1
53469–21–9	Aroclor–1242	U	18.4	ug/kg	6.12	18.4	1
12672–29–6	Aroclor–1248	U	18.4	ug/kg	6.12	18.4	1
11097–69–1	Aroclor–1254	J	6.40	ug/kg	6.12	18.4	1
11096–82–5	Aroclor–1260	U	18.4	ug/kg	6.12	18.4	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/054f5401.d
Lab Smp Id: 248815007 Client Smp ID: RE46-10-13860
Inj Date : 22-MAR-2010 17:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815007|5|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13860|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 54
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	9.53460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.911	0.001	6235608	16.0083	2.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.216	-0.002	4384522	14.7662	2.7	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.206	3.207	-0.001	377813	28.4885	5.2	80.00- 120.00	100.00(a)
3.361	3.362	-0.001	519152	29.1114	5.4	113.84- 153.84	137.41
3.594	3.596	-0.002	789111	35.2734	6.5	154.72- 194.72	208.86
3.757	3.758	-0.001	488170	29.6039	5.4	109.40- 149.40	129.21
3.865	3.867	-0.002	816276	51.1310	9.4	108.11- 148.11	216.05
Average of Peak Concentrations =					6.4		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/032210.b/054f5401.d

Page 1

Date : 22-MAR-2010 17:20

Client ID: RE46-10-13860

Instrument: ecd1a.i

Sample Info: |248815007|5|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

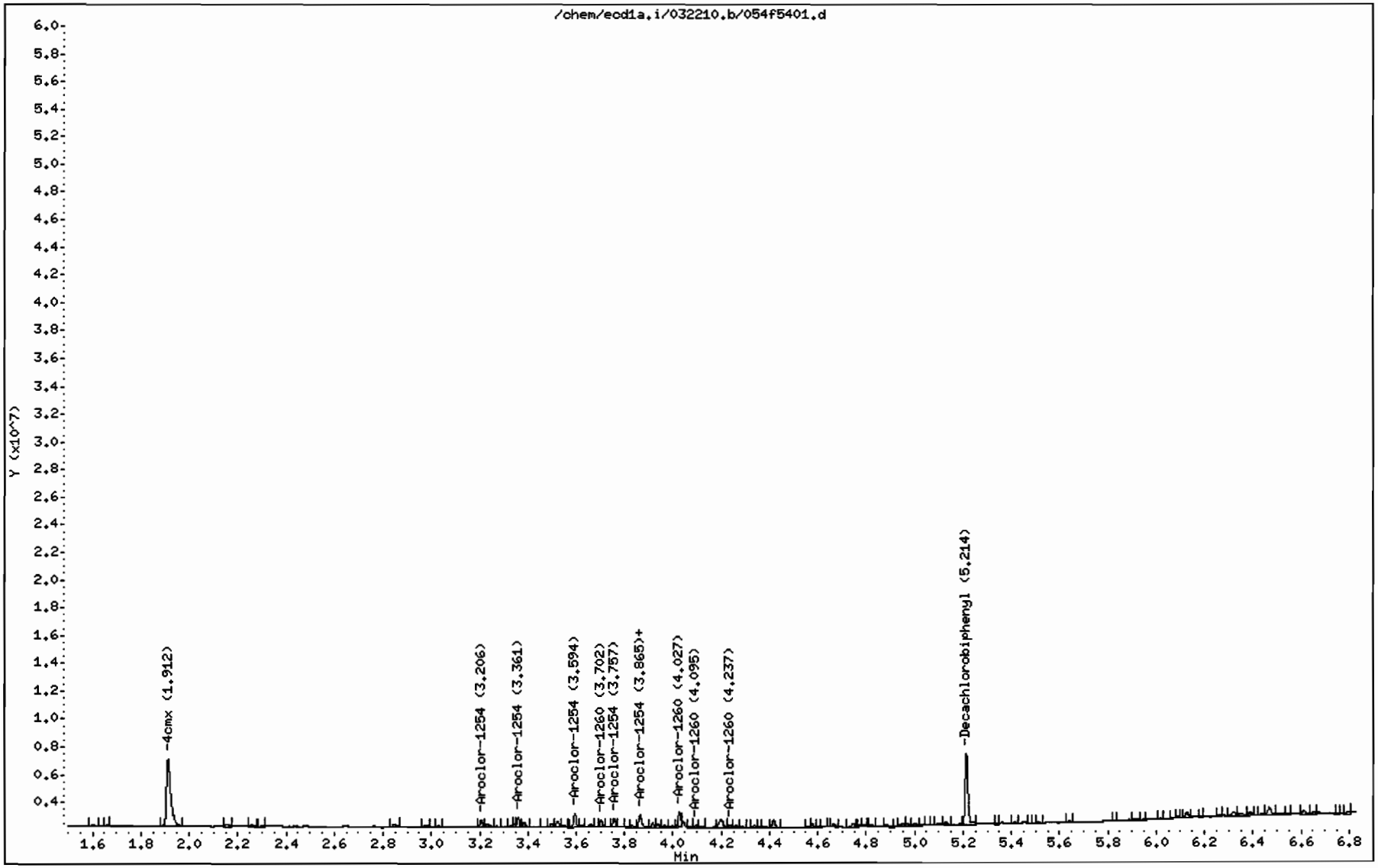

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/054b5401.d
Lab Smp Id: 248815007 Client Smp ID: RE46-10-13860
Inj Date : 22-MAR-2010 17:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815007|5|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13860|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 06:34 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 54
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	9.53460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	4248553	16.1953	3.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.911	-0.001	2928809	15.6476	2.9	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.373	3.372	0.001	155791	25.8737	4.8	80.00- 120.00	100.00(a)
3.795	3.794	0.001	382152	35.3198	6.5	162.06- 202.06	245.30
3.911	3.911	0.000	452189	37.8920	7.0	180.48- 220.48	290.25
4.186	4.186	0.000	618879	37.6406	6.9	261.71- 301.71	397.25

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.322	4.323	-0.001	383001	31.6125	5.8	184.44- 224.44	245.84
Average of Peak Concentrations =					6.2		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/032210.b/054b5401.d

Date : 22-MAR-2010 17:20

Client ID: RE46-10-13860

Sample Info: |248815007|5|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

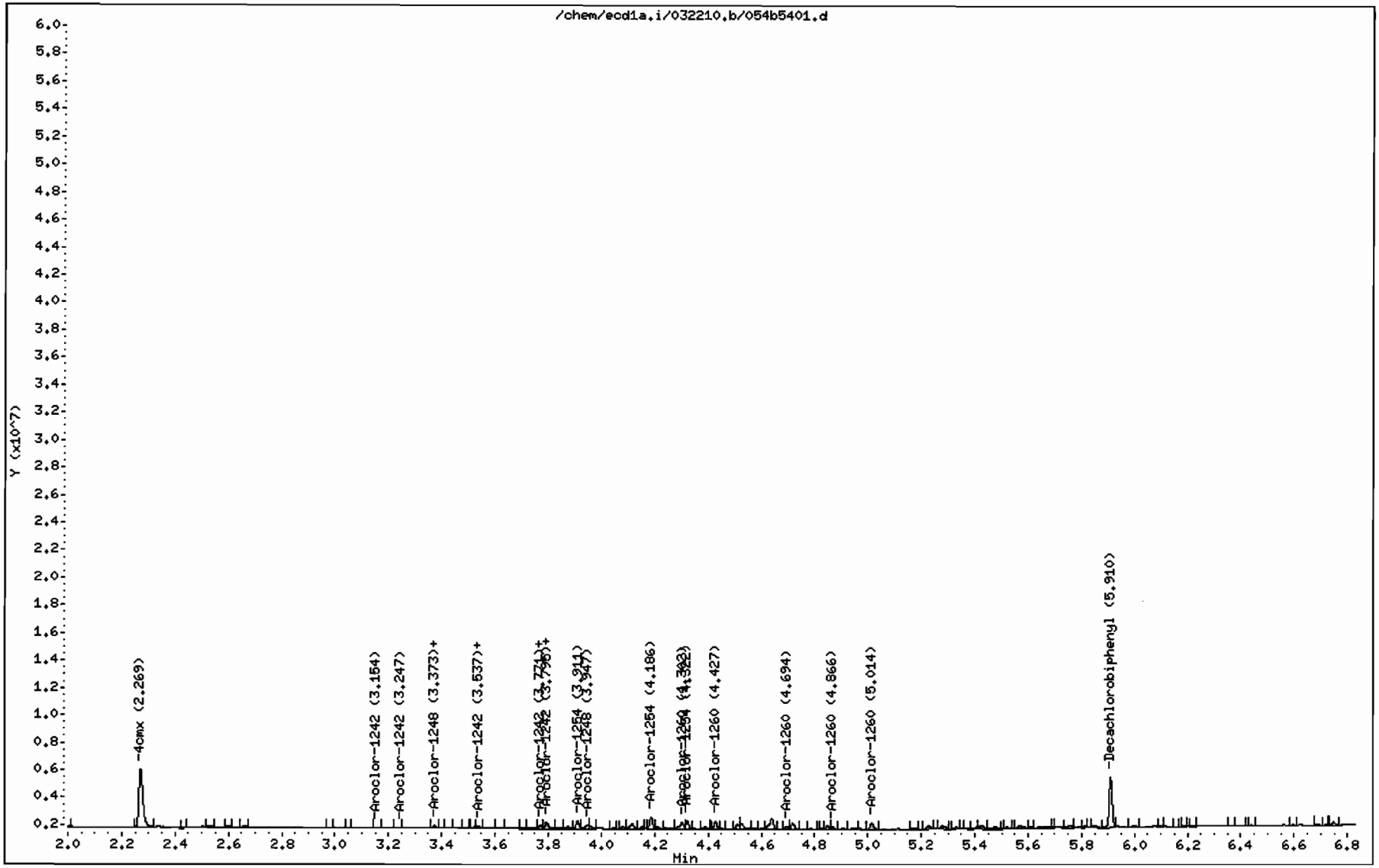

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815005	**Date Received:**	03/05/2010 10:20	**%Moisture:**	12.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13861	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	5
Run Date:	03/22/2010 16:30	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	050f5001.d	**Column:**	1 CLP1	**Level:**	LOW
	050b5001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	18.8	ug/kg	6.27	18.8	1
11104-28-2	Aroclor-1221	U	18.8	ug/kg	6.27	18.8	1
11141-16-5	Aroclor-1232	U	18.8	ug/kg	6.27	18.8	1
53469-21-9	Aroclor-1242	U	18.8	ug/kg	6.27	18.8	1
12672-29-6	Aroclor-1248	U	18.8	ug/kg	6.27	18.8	1
11097-69-1	Aroclor-1254	U	18.8	ug/kg	6.27	18.8	1
11096-82-5	Aroclor-1260	U	18.8	ug/kg	6.27	18.8	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/050f5001.d
Lab Smp Id: 248815005 Client Smp ID: RE46-10-13861
Inj Date : 22-MAR-2010 16:30
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815005|5|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13861|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 23-Mar-2010 06:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 50
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weight of sample extracted (g)
M	12.06310	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.911	0.001	9968469	25.5915	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.216	-0.003	7257830	24.4429	4.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/050f5001.d

Date : 22-MAR-2010 16:30

Client ID: RE46-10-13861

Sample Info: |248815005|5|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

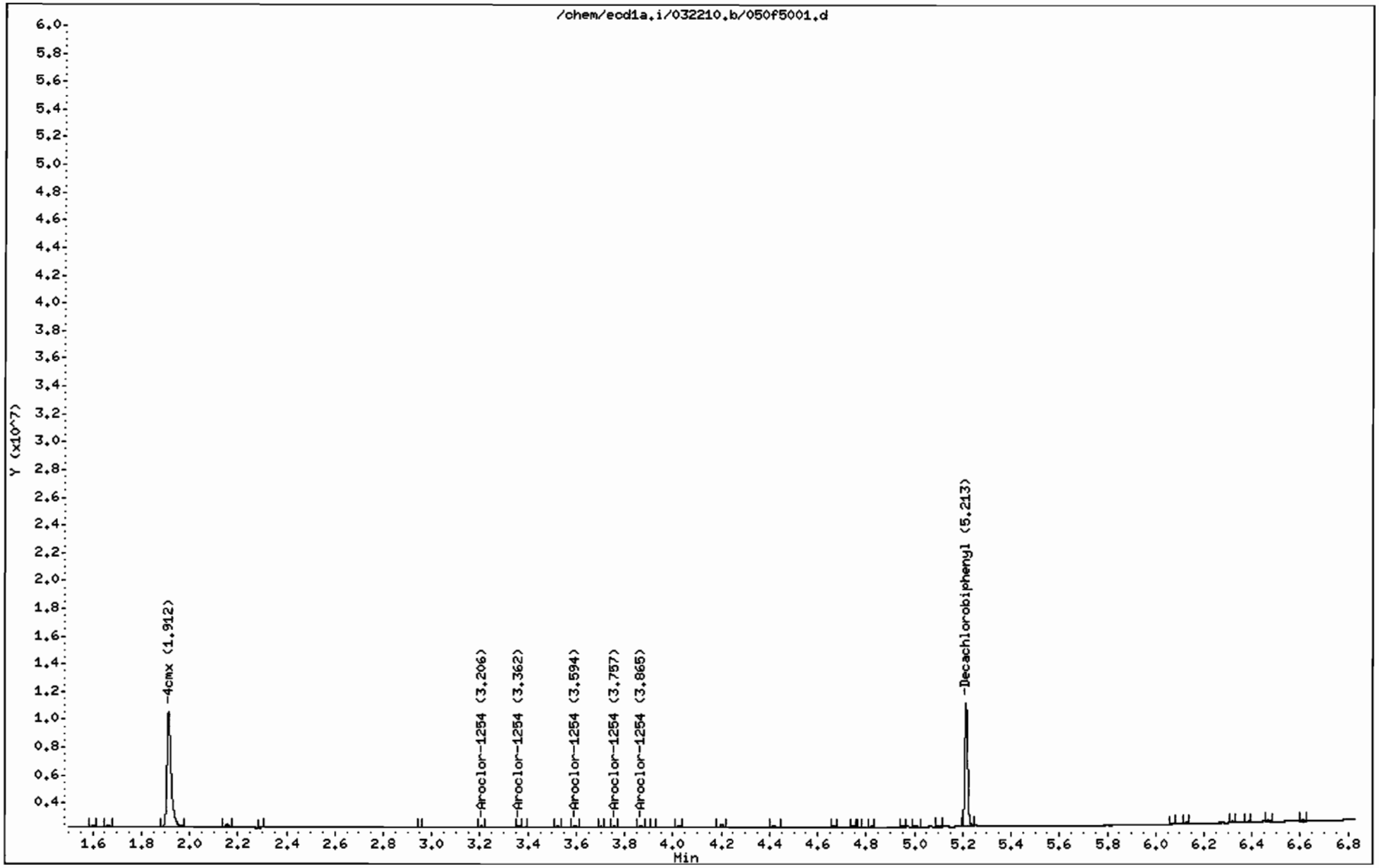

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/050b5001.d
Lab Smp Id: 248815005 Client Smp ID: RE46-10-13861
Inj Date : 22-MAR-2010 16:30
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815005|5|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13861|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 06:26 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 50
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weight of sample extracted (g)
M	12.06310	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	6759568	25.7672	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.911	-0.001	4873021	26.0348	4.9	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/050b5001.d
Date : 22-MAR-2010 16:30
Client ID: RE46-10-13861
Sample Info: 1248815005151
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

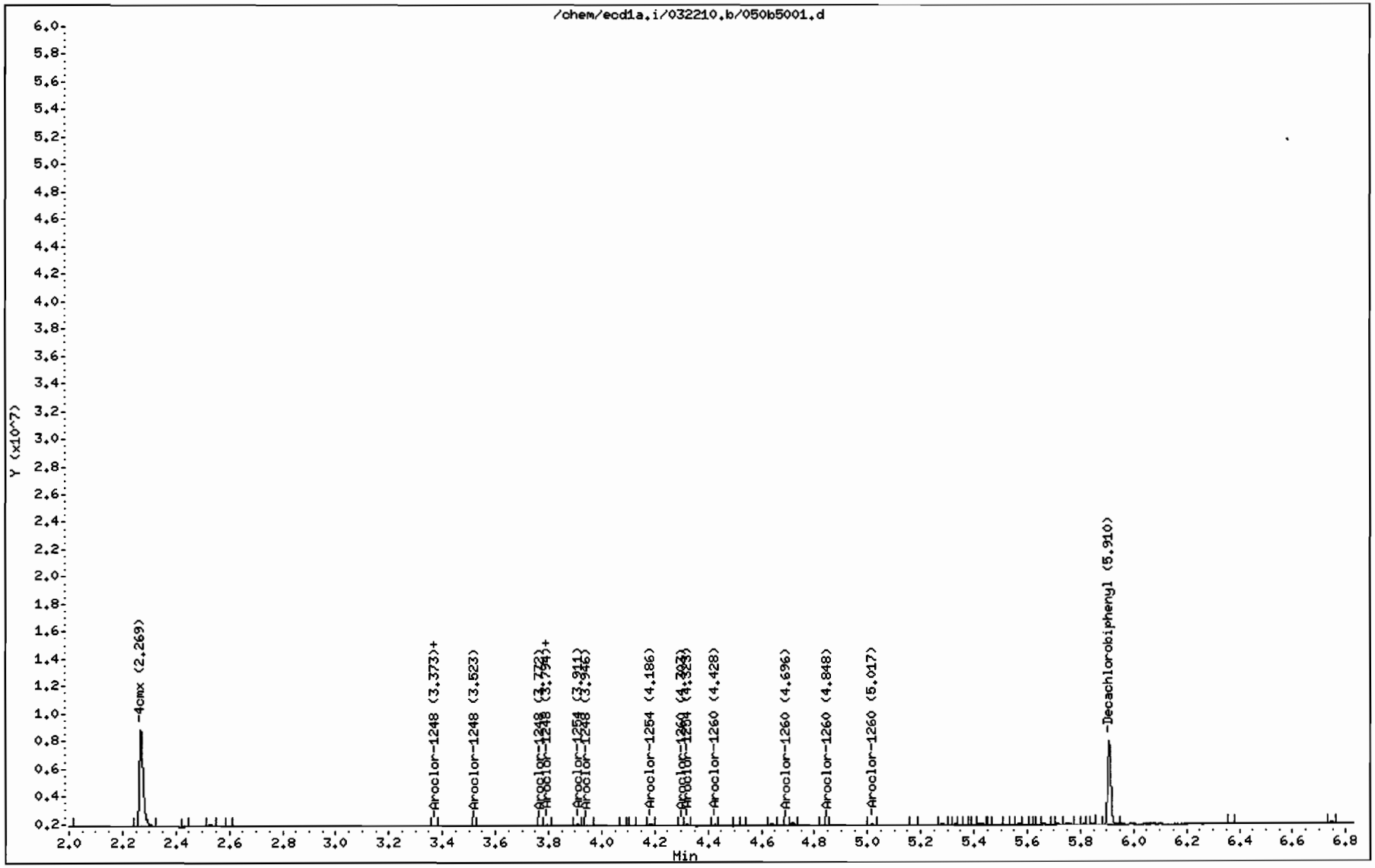

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815010**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**11.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13862**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967354**	**Inst:**	**ECD1A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 17:58**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 11:56**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**057f5701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	057b5701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.7	ug/kg	6.22	18.7	1
11104–28–2	Aroclor–1221	U	18.7	ug/kg	6.22	18.7	1
11141–16–5	Aroclor–1232	U	18.7	ug/kg	6.22	18.7	1
53469–21–9	Aroclor–1242	U	18.7	ug/kg	6.22	18.7	1
12672–29–6	Aroclor–1248	U	18.7	ug/kg	6.22	18.7	1
11097–69–1	Aroclor–1254		27.4	ug/kg	6.22	18.7	1
11096–82–5	Aroclor–1260		20.9	ug/kg	6.22	18.7	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/057f5701.d
Lab Smp Id: 248815010 Client Smp ID: RE46-10-13862
Inj Date : 22-MAR-2010 17:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815010|5|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13862|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 57
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weight of sample extracted (g)
M	11.33080	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.911	0.002	12224292	31.3827	5.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.216	-0.002	8281184	27.8893	5.2	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.206	3.207	-0.001	1548221	116.742	21.8	80.00- 120.00	100.00
3.360	3.362	-0.002	1614216	90.5169	16.9	113.84- 153.84	104.26
3.594	3.596	-0.002	3725827	166.545	31.1	154.72- 194.72	240.65
3.758	3.758	0.000	1644304	99.7149	18.6	109.40- 149.40	106.21
3.866	3.867	-0.001	4141466	259.419	48.4	108.11- 148.11	267.50

Average of Peak Concentrations = 27.4

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.704	-0.001	1930996	105.346	19.7	80.00- 120.00	100.00
3.866	3.866	0.000	4141466	154.016	28.8	128.74- 168.74	214.47
4.028	4.028	0.000	6339299	223.882	41.8	138.95- 178.95	328.29
4.095	4.096	-0.001	555583	34.3847	6.4	69.61- 109.61	28.77
4.238	4.240	-0.002	720426	42.8502	8.0	72.96- 112.96	37.31
			Average of Peak Concentrations =		20.9		

Data File: /chem/ecd1a.i/032210.b/057f5701.d

Date : 22-MAR-2010 17:58

Client ID: RE46-10-13862

Sample Info: |248815010|5|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

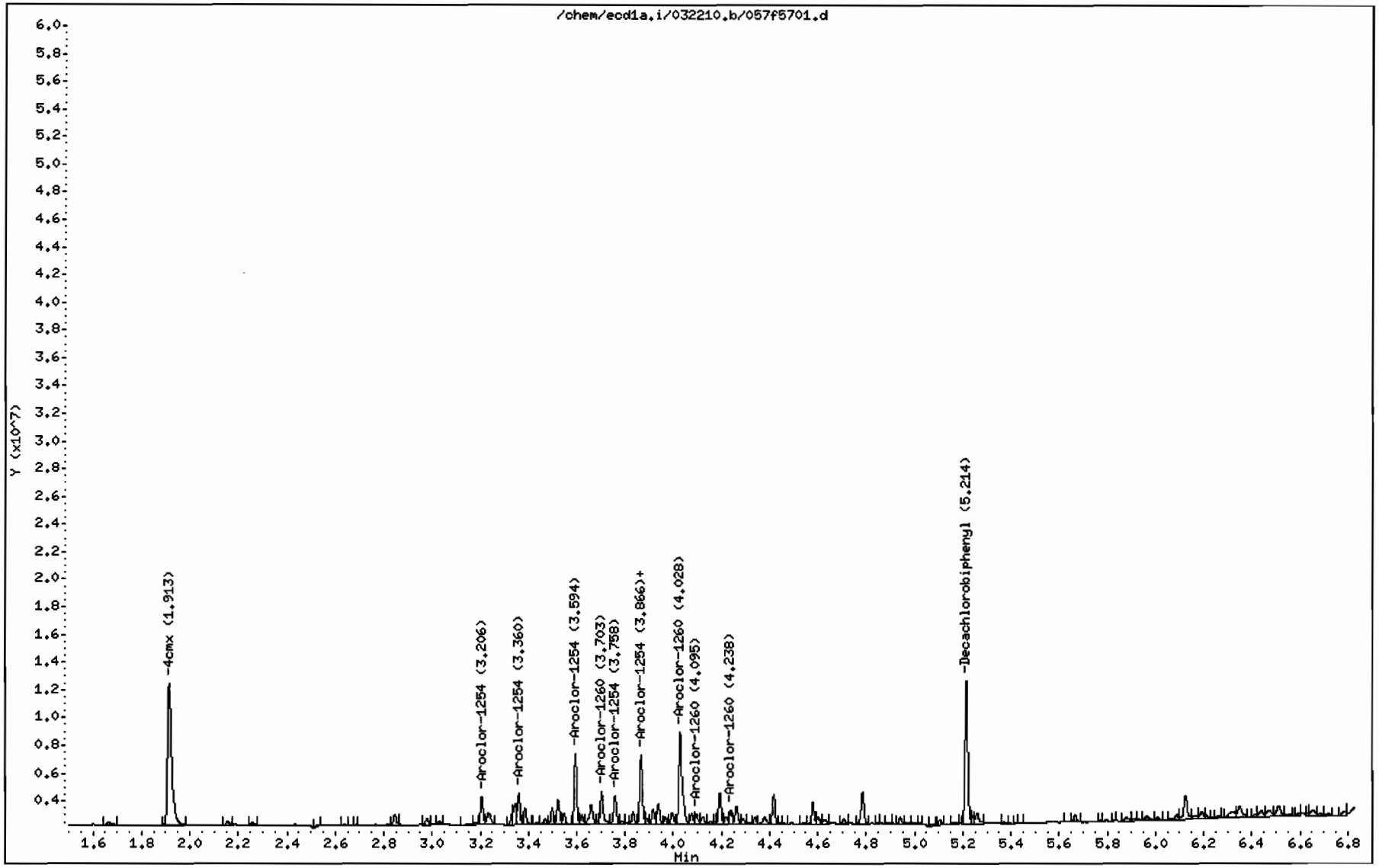

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/057b5701.d
Lab Smp Id: 248815010 Client Smp ID: RE46-10-13862
Inj Date : 22-MAR-2010 17:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815010|5|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13862|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 57
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weight of sample extracted (g)
M	11.33080	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.269	0.001	8129762	30.9903	5.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.911	-0.001	6229260	33.2807	6.2	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.373	3.372	0.001	514544	85.4551	16.0	80.00- 120.00	100.00
3.794	3.794	0.000	1395918	129.015	24.1	162.06- 202.06	271.29
3.912	3.911	0.001	1458018	122.177	22.8	180.48- 220.48	283.36
4.186	4.186	0.000	2939256	178.767	33.4	261.71- 301.71	571.23
4.323	4.323	0.000	982501	81.0944	15.1	184.44- 224.44	190.95

Average of Peak Concentrations = 22.3

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.303	4.303	0.000	1412863	108.015	20.2	80.00- 120.00	100.00(a)
4.428	4.428	0.000	1917395	123.313	23.0	101.84- 141.84	135.71
4.696	4.694	0.002	679266	57.1000	10.7	71.20- 111.20	48.08
4.866	4.867	-0.001	521802	42.4602	7.9	74.64- 114.64	36.93
5.013	5.014	-0.001	1309249	49.6028	9.3	190.66- 230.66	92.67
Average of Peak Concentrations =					14.2		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/032210.b/057b5701.d

Date : 22-MAR-2010 17:58

Client ID: RE46-10-13862

Sample Info: |248815010|5|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

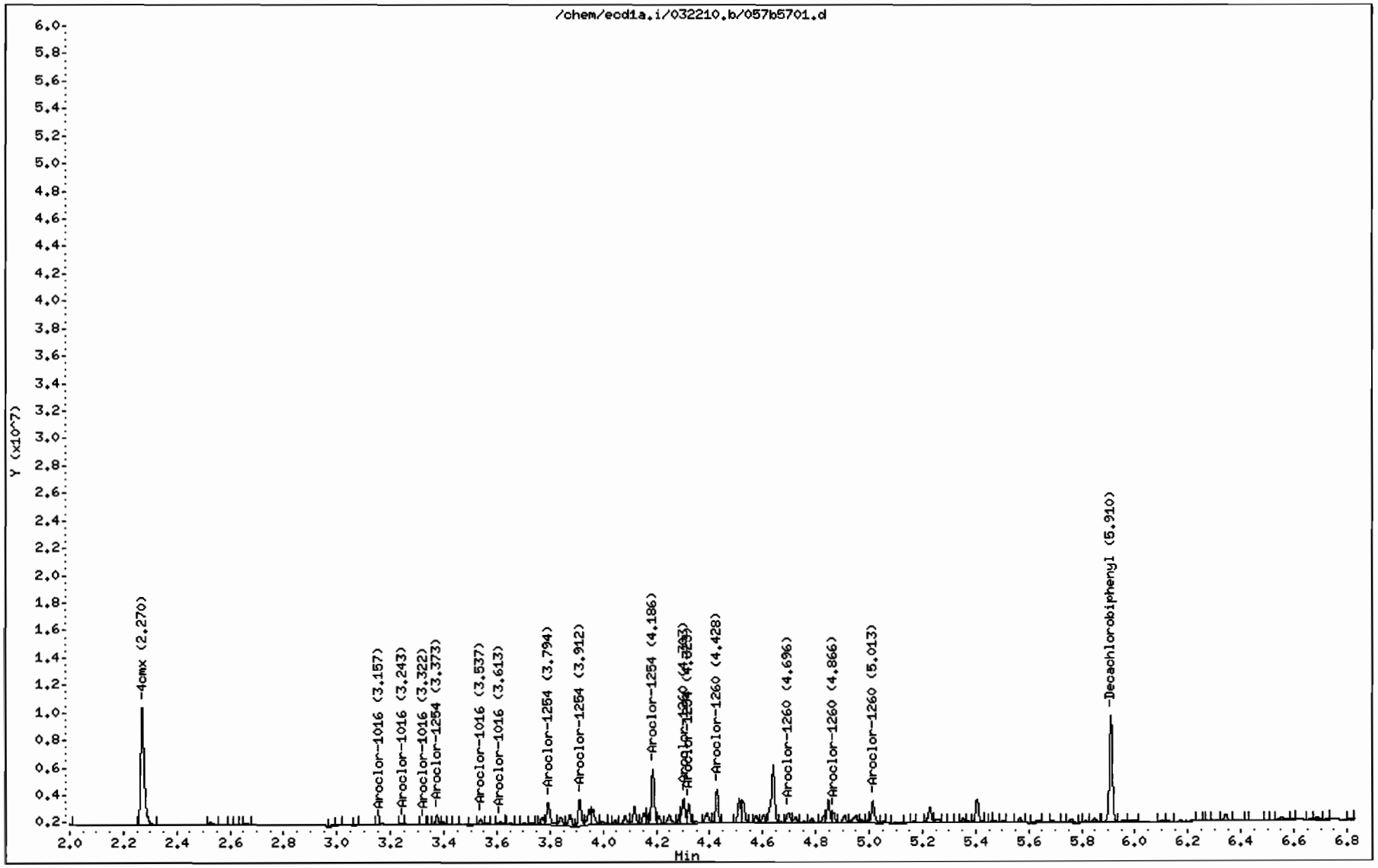

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815003	**Date Received:**	03/05/2010 10:20	**%Moisture:**	11.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13863	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/22/2010 16:05	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	048f4801.d	**Column:**	1 CLP1	**Level:**	LOW
	048b4801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.76	ug/kg	1.25	3.76	1
11104–28–2	Aroclor–1221	U	3.76	ug/kg	1.25	3.76	1
11141–16–5	Aroclor–1232	U	3.76	ug/kg	1.25	3.76	1
53469–21–9	Aroclor–1242	U	3.76	ug/kg	1.25	3.76	1
12672–29–6	Aroclor–1248	U	3.76	ug/kg	1.25	3.76	1
11097–69–1	Aroclor–1254	U	3.76	ug/kg	1.25	3.76	1
11096–82–5	Aroclor–1260	U	3.76	ug/kg	1.25	3.76	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/048f4801.d
Lab Smp Id: 248815003 Client Smp ID: RE46-10-13863
Inj Date : 22-MAR-2010 16:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815003|1|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13863|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 23-Mar-2010 06:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 48
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	11.47850	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.911	0.001	66544198	170.835	6.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.216	-0.002	53970188	181.760	6.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/048f4801.d

Page 1

Date : 22-MAR-2010 16:05

Client ID: RE46-10-13863

Instrument: ecd1a.i

Sample Info: 1248815003111

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

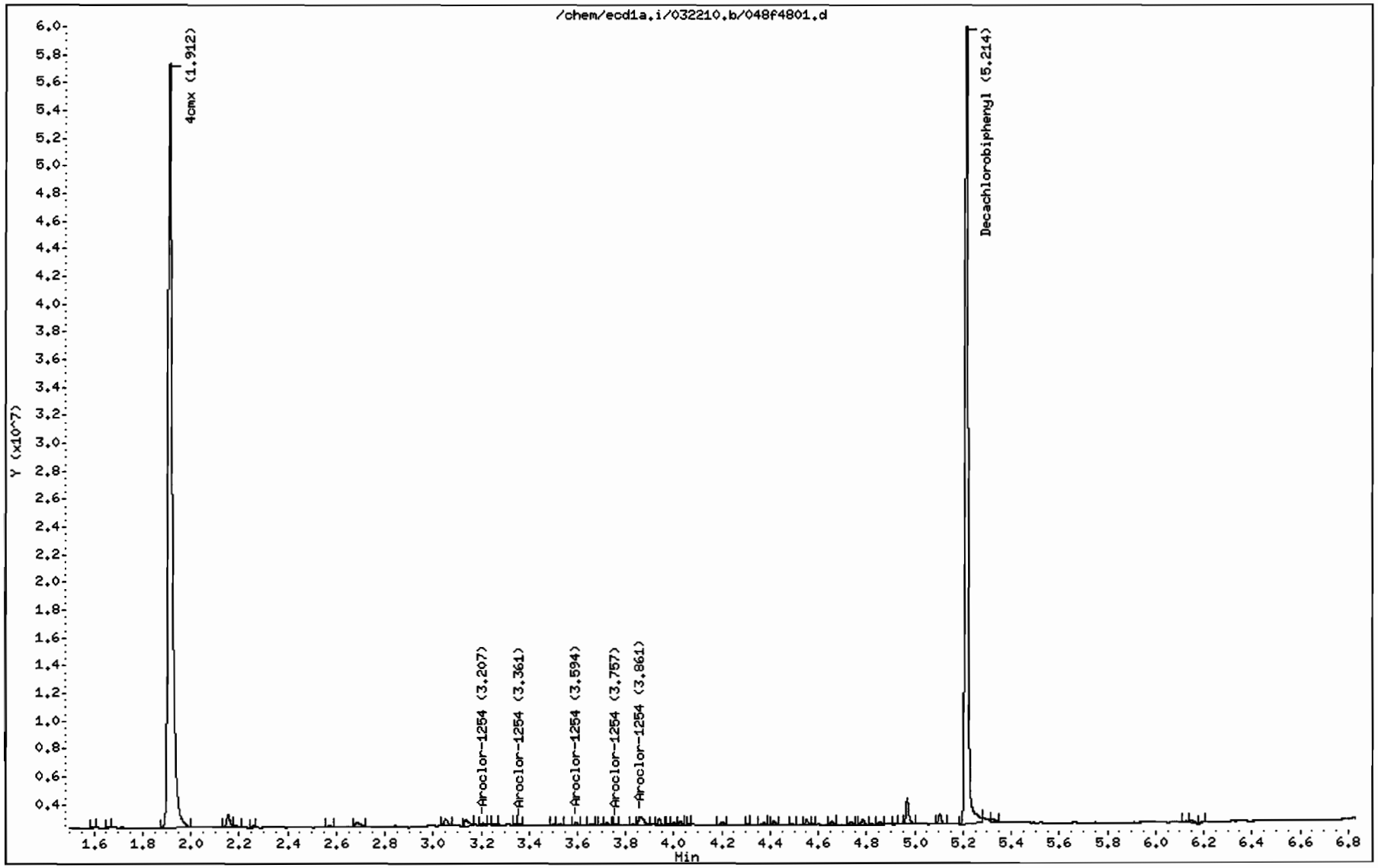

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/048b4801.d
Lab Smp Id: 248815003 Client Smp ID: RE46-10-13863
Inj Date : 22-MAR-2010 16:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815003|1|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13863|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 06:26 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 48
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	11.47850	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	42285935	161.192	6.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.911	-0.001	32080502	171.395	6.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/048b4801.d

Date : 22-MAR-2010 16:05

Client ID: RE46-10-13863

Sample Info: |248815003|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

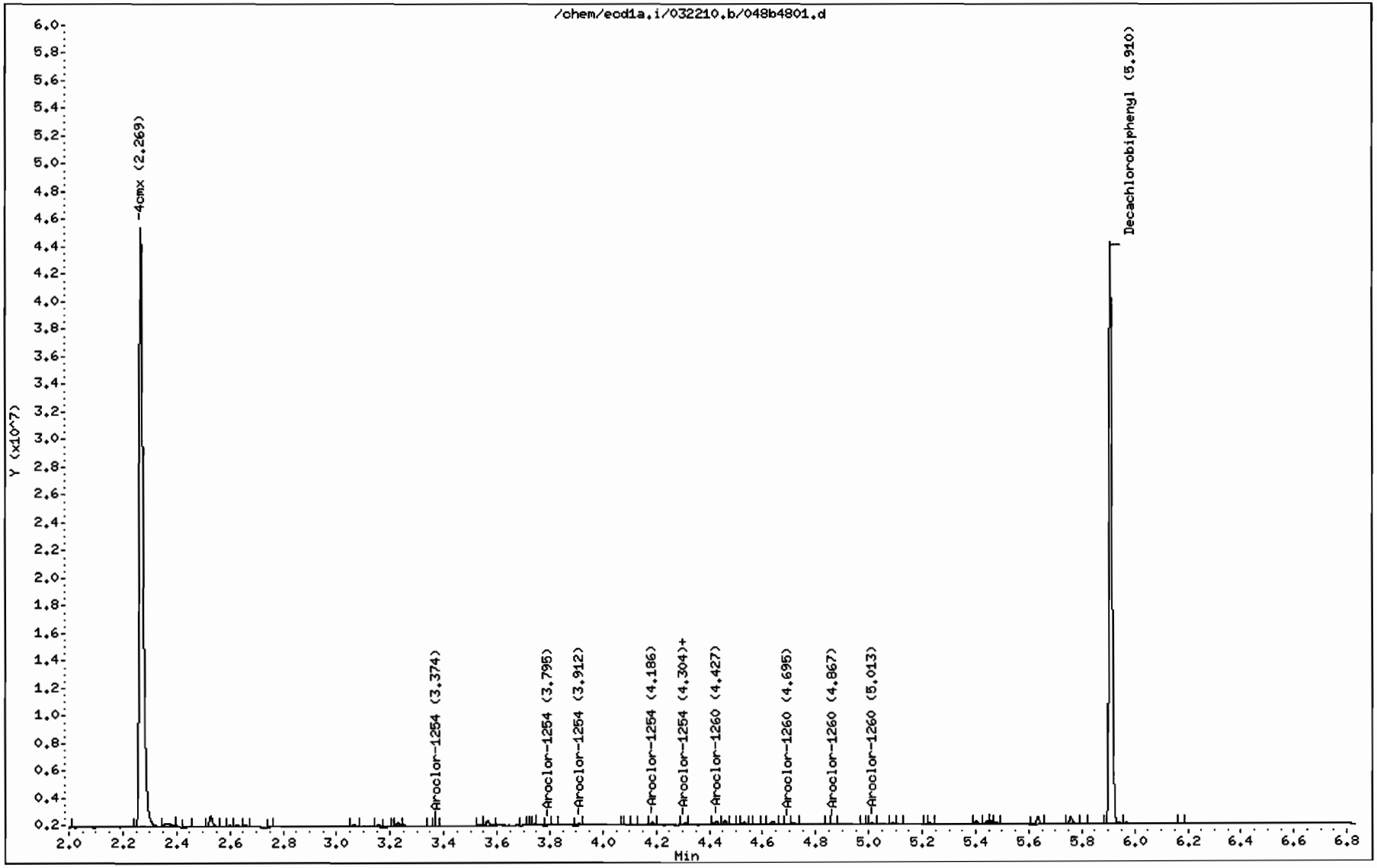

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815002**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**14**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13864**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967354**	**Inst:**	**ECD1A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 15:52**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 11:56**	**Aliquot:**	**30.16 g**	**Final Volume:**	**1 mL**
Data File:	**047f4701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	047b4701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	19.3	ug/kg	6.42	19.3	1
11104-28-2	Aroclor-1221	U	19.3	ug/kg	6.42	19.3	1
11141-16-5	Aroclor-1232	U	19.3	ug/kg	6.42	19.3	1
53469-21-9	Aroclor-1242	U	19.3	ug/kg	6.42	19.3	1
12672-29-6	Aroclor-1248	U	19.3	ug/kg	6.42	19.3	1
11097-69-1	Aroclor-1254	U	19.3	ug/kg	6.42	19.3	1
11096-82-5	Aroclor-1260	U	19.3	ug/kg	6.42	19.3	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/047f4701.d
Lab Smp Id: 248815002 Client Smp ID: RE46-10-13864
Inj Date : 22-MAR-2010 15:52
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815002|5|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13864|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 47
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.16000	Weight of sample extracted (g)
M	14.04900	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.911	0.001	9107039	23.3800	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.216	-0.003	7321408	24.6570	4.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/047f4701.d

Date : 22-MAR-2010 15:52

Client ID: RE46-10-13864

Sample Info: |248815002|5|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

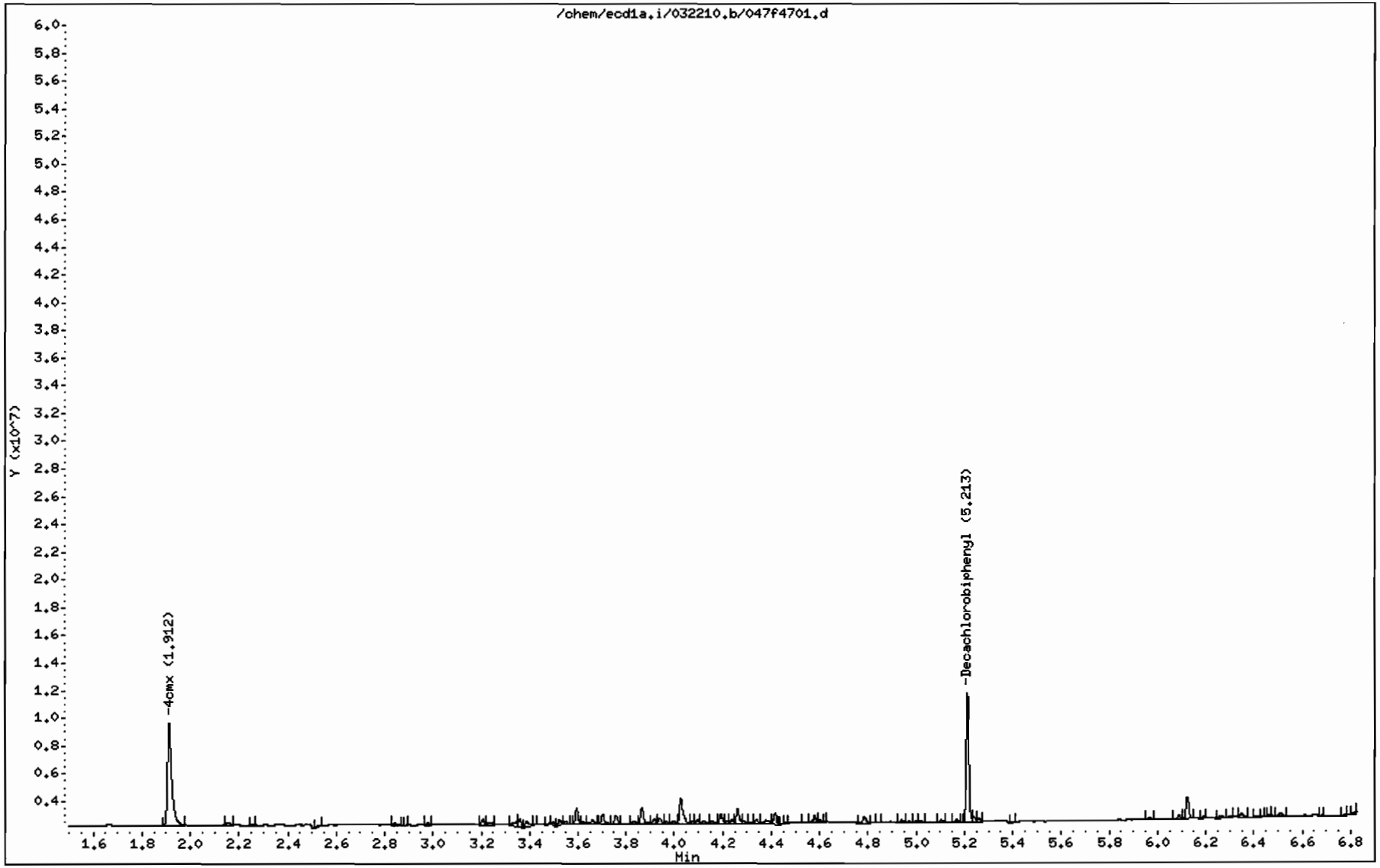

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/047b4701.d
Lab Smp Id: 248815002 Client Smp ID: RE46-10-13864
Inj Date : 22-MAR-2010 15:52
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815002|5|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13864|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 06:26 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 47
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.16000	Weight of sample extracted (g)
M	14.04900	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	6138367	23.3992	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.909	5.911	-0.002	5008366	26.7579	5.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/047b4701.d

Page 1

Date : 22-MAR-2010 15:52

Client ID: RE46-10-13864

Instrument: ecd1a.i

Sample Info: |248815002151

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

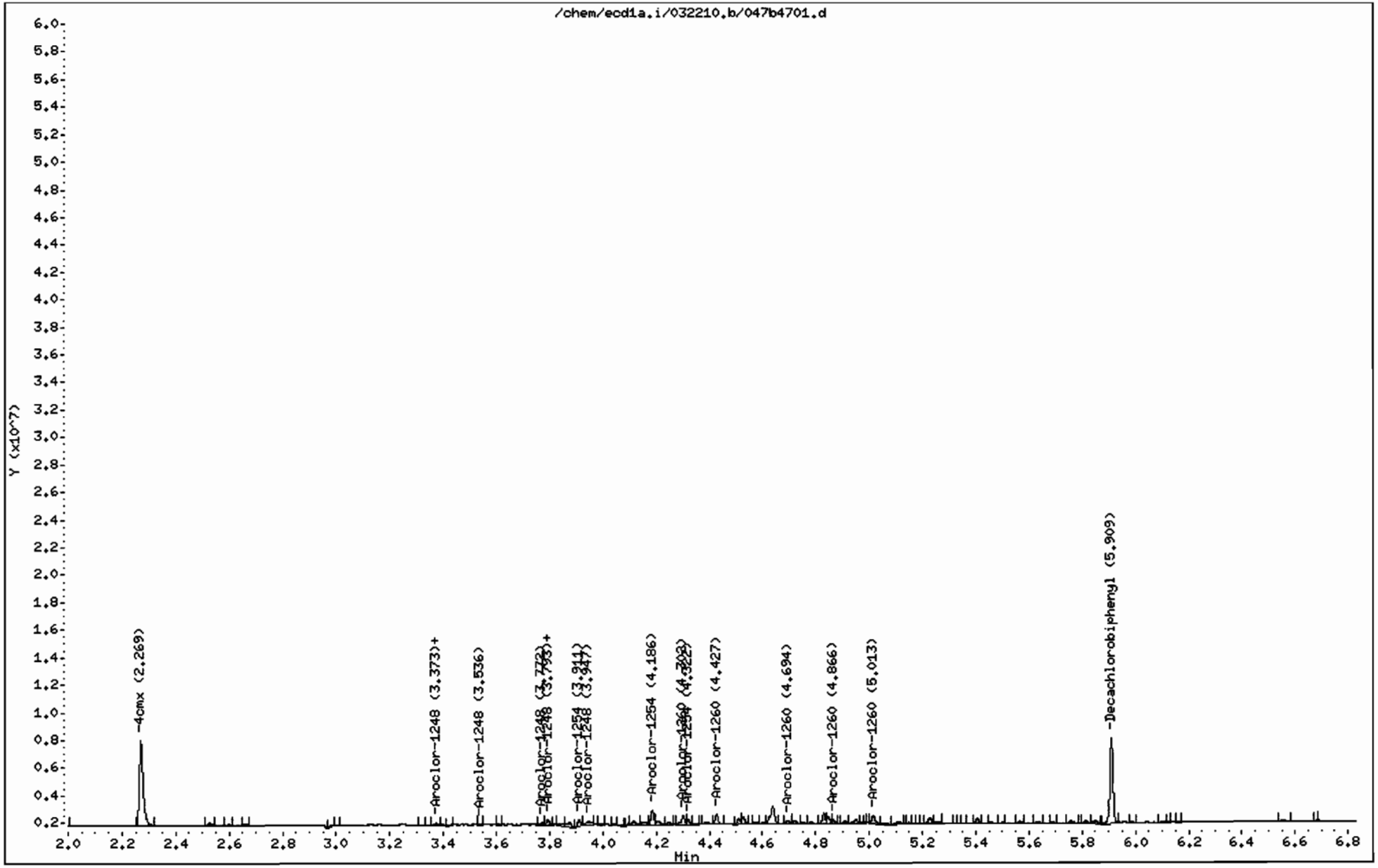

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815008	**Date Received:**	03/05/2010 10:20	**%Moisture:**	8.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13865	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	5
Run Date:	03/22/2010 17:33	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	055f5501.d	**Column:**	1 CLP1	**Level:**	LOW
	055b5501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.1	ug/kg	6.04	18.1	1
11104–28–2	Aroclor–1221	U	18.1	ug/kg	6.04	18.1	1
11141–16–5	Aroclor–1232	U	18.1	ug/kg	6.04	18.1	1
53469–21–9	Aroclor–1242	U	18.1	ug/kg	6.04	18.1	1
12672–29–6	Aroclor–1248	U	18.1	ug/kg	6.04	18.1	1
11097–69–1	Aroclor–1254	U	18.1	ug/kg	6.04	18.1	1
11096–82–5	Aroclor–1260	U	18.1	ug/kg	6.04	18.1	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/055f5501.d
Lab Smp Id: 248815008 Client Smp ID: RE46-10-13865
Inj Date : 22-MAR-2010 17:33
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815008|5|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13865|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 23-Mar-2010 06:35 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 55
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weight of sample extracted (g)
M	8.45250	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.911	0.000	15289355	39.2515	7.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.216	5.216	0.000	11895756	40.0624	7.3	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/055f5501.d

Date : 22-MAR-2010 17:33

Client ID: RE46-10-13865

Sample Info: |248815008|5|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

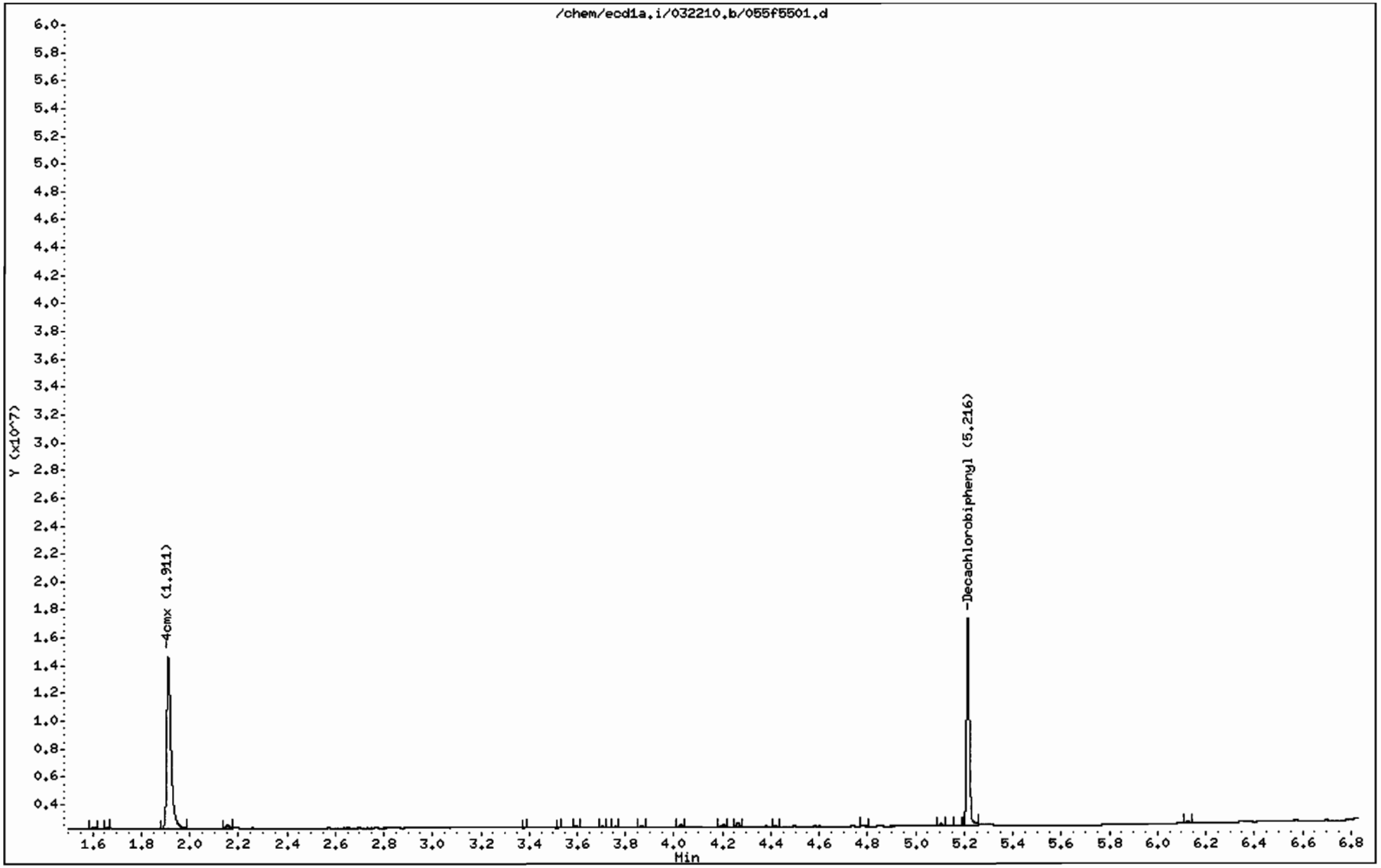

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/055b5501.d
Lab Smp Id: 248815008 Client Smp ID: RE46-10-13865
Inj Date : 22-MAR-2010 17:33
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815008|5|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13865|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 06:34 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 55
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weight of sample extracted (g)
M	8.45250	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	10251796	39.0794	7.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.911	0.000	7307546	39.0416	7.1	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/055b5501.d

Date : 22-MAR-2010 17:33

Client ID: RE46-10-13865

Sample Info: |248815008151

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

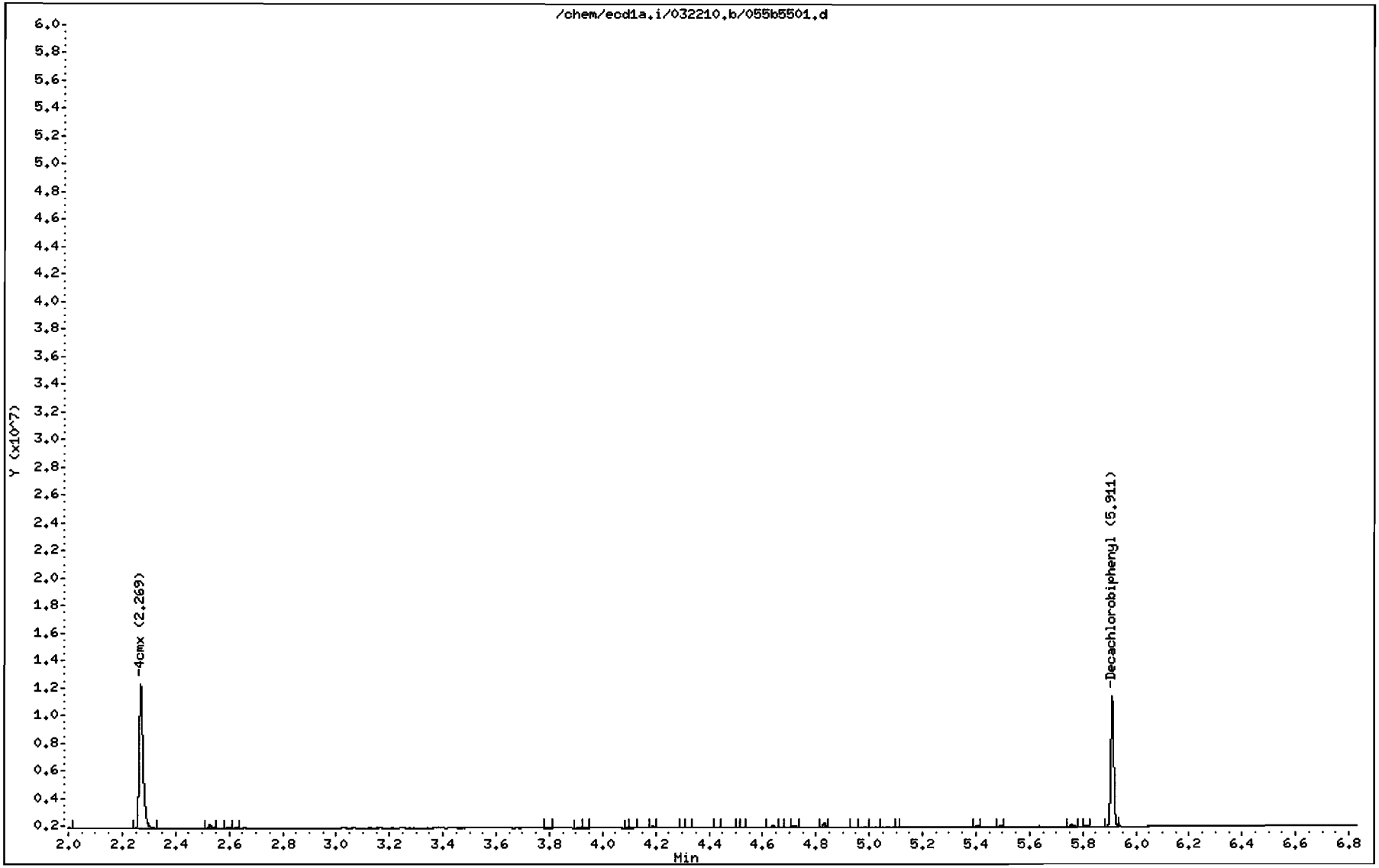

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815006	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13866	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	5
Run Date:	03/22/2010 17:08	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.16 g	**Final Volume:**	1 mL
Data File:	053f5301.d	**Column:**	1 CLP1	**Level:**	LOW
	053b5301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	17.8	ug/kg	5.94	17.8	1
11104–28–2	Aroclor–1221	U	17.8	ug/kg	5.94	17.8	1
11141–16–5	Aroclor–1232	U	17.8	ug/kg	5.94	17.8	1
53469–21–9	Aroclor–1242	U	17.8	ug/kg	5.94	17.8	1
12672–29–6	Aroclor–1248	U	17.8	ug/kg	5.94	17.8	1
11097–69–1	Aroclor–1254	U	17.8	ug/kg	5.94	17.8	1
11096–82–5	Aroclor–1260	U	17.8	ug/kg	5.94	17.8	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/053f5301.d
Lab Smp Id: 248815006 Client Smp ID: RE46-10-13866
Inj Date : 22-MAR-2010 17:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815006|5|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13866|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 23-Mar-2010 06:35 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 53
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.16000	Weight of sample extracted (g)
M	7.08890	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.911	0.000	12364429	31.7425	5.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.216	-0.002	7386606	24.8766	4.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/053f5301.d

Date : 22-MAR-2010 17:08

Client ID: RE46-10-13866

Sample Info: 1248815006151

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

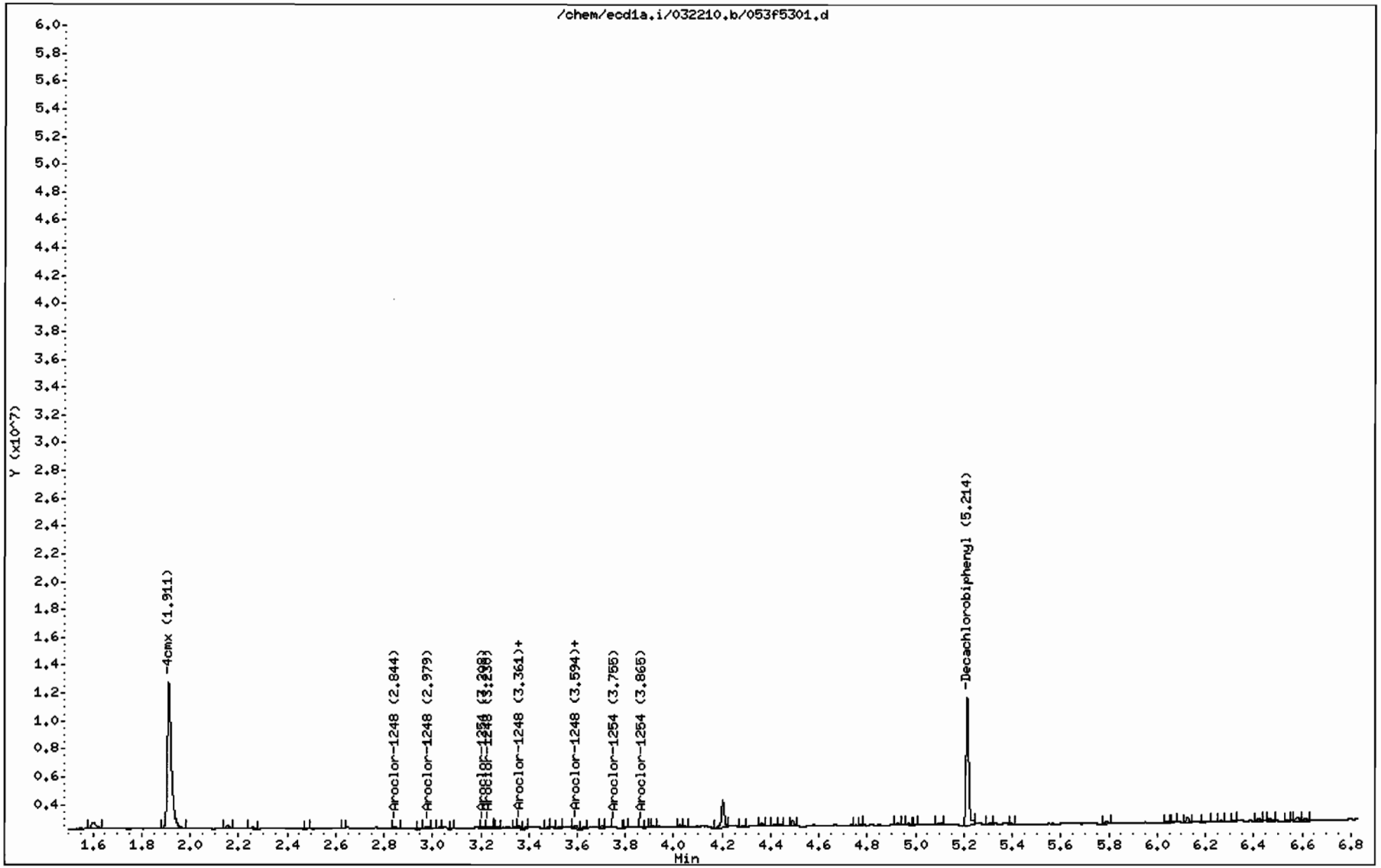

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/053b5301.d
Lab Smp Id: 248815006 Client Smp ID: RE46-10-13866
Inj Date : 22-MAR-2010 17:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815006|5|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13866|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 06:34 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 53
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.16000	Weight of sample extracted (g)
M	7.08890	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	8222113	31.3423	5.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.909	5.911	-0.002	6306336	33.6925	6.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/053b5301.d
Date : 22-MAR-2010 17:08
Client ID: RE46-10-13866
Sample Info: 1248815006151
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

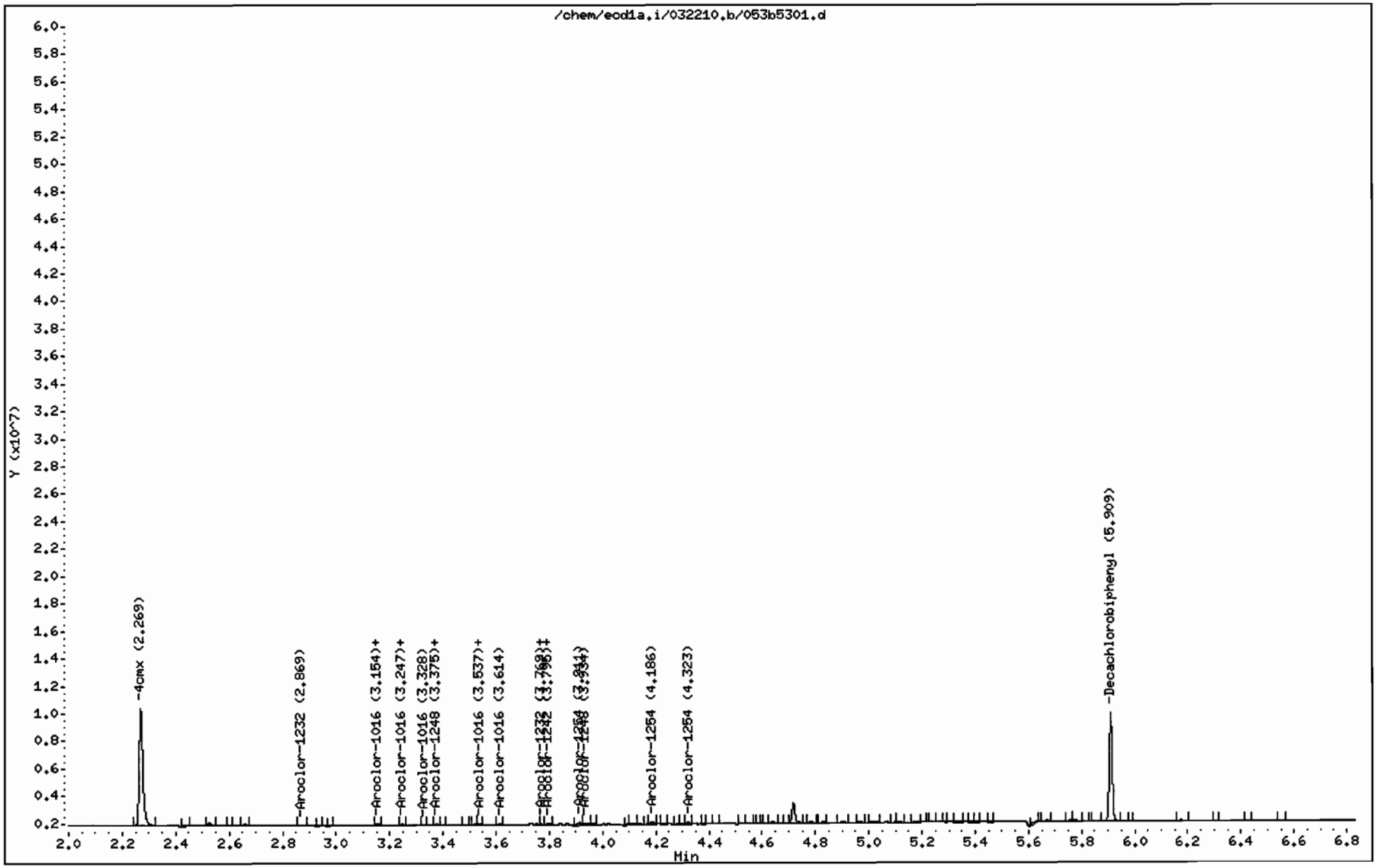

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815001**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13867**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967354**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 15:14**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 11:56**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**044f4401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	044b4401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.60	ug/kg	1.20	3.60	1
11104–28–2	Aroclor–1221	U	3.60	ug/kg	1.20	3.60	1
11141–16–5	Aroclor–1232	U	3.60	ug/kg	1.20	3.60	1
53469–21–9	Aroclor–1242	U	3.60	ug/kg	1.20	3.60	1
12672–29–6	Aroclor–1248	U	3.60	ug/kg	1.20	3.60	1
11097–69–1	Aroclor–1254	U	3.60	ug/kg	1.20	3.60	1
11096–82–5	Aroclor–1260	U	3.60	ug/kg	1.20	3.60	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/044f4401.d
Lab Smp Id: 248815001 Client Smp ID: RE46-10-13867
Inj Date : 22-MAR-2010 15:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815001|1|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13867|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 23-Mar-2010 06:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 44
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.14000	Weight of sample extracted (g)
M	7.89670	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.911	0.000	63886230	164.011	5.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.212	5.216	-0.004	43709367	147.204	5.3	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/044f4401.d

Page 1

Date : 22-MAR-2010 15:14

Client ID: RE46-10-13867

Instrument: ecd1a.i

Sample Info: |248815001|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

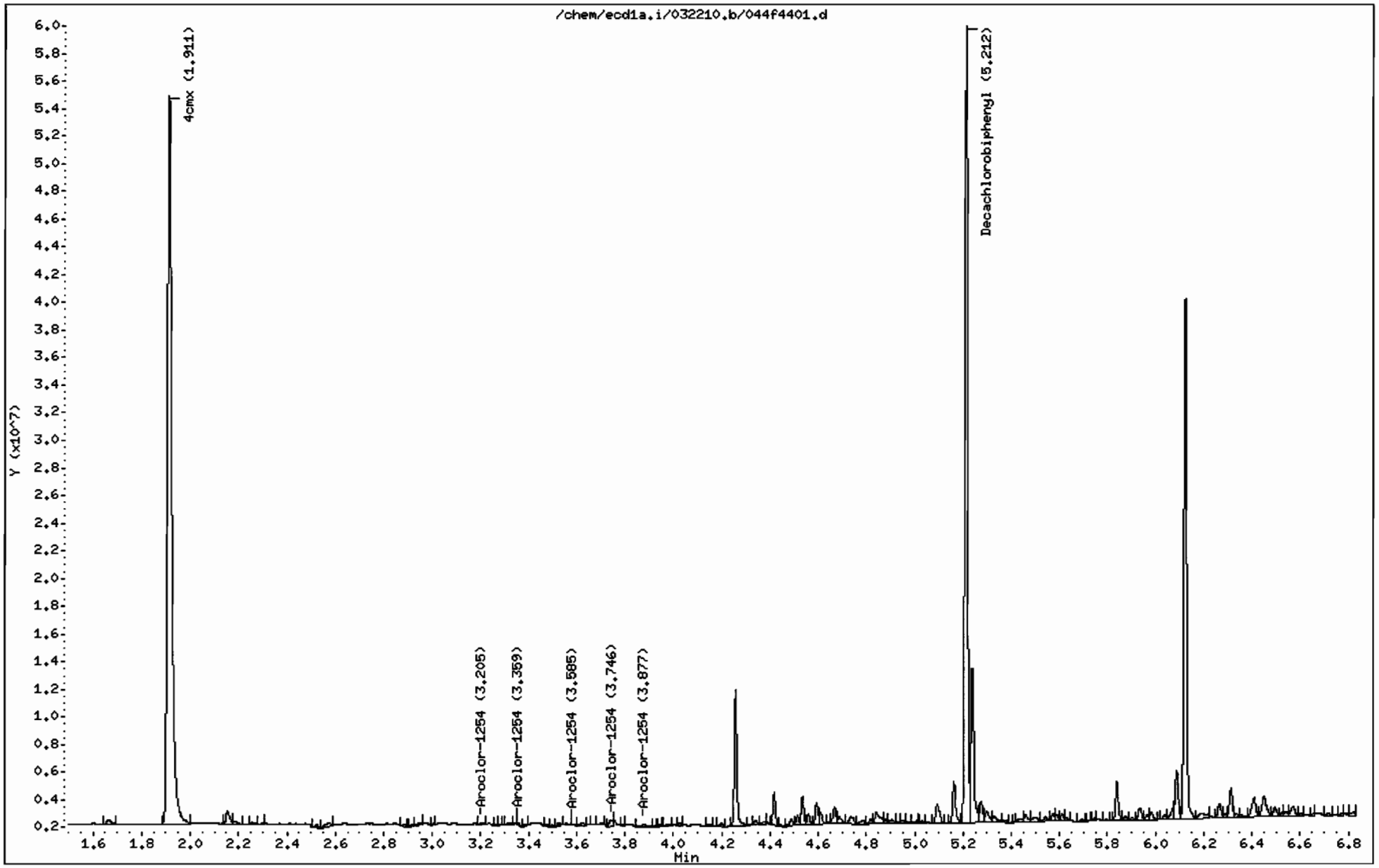

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/044b4401.d
Lab Smp Id: 248815001 Client Smp ID: RE46-10-13867
Inj Date : 22-MAR-2010 15:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815001|1|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13867|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 06:26 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 44
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.14000	Weight of sample extracted (g)
M	7.89670	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	40326228	153.722	5.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.911	-0.001	31187917	166.626	6.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/044b4401.d

Date : 22-MAR-2010 15:14

Client ID: RE46-10-13867

Sample Info: |248815001|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

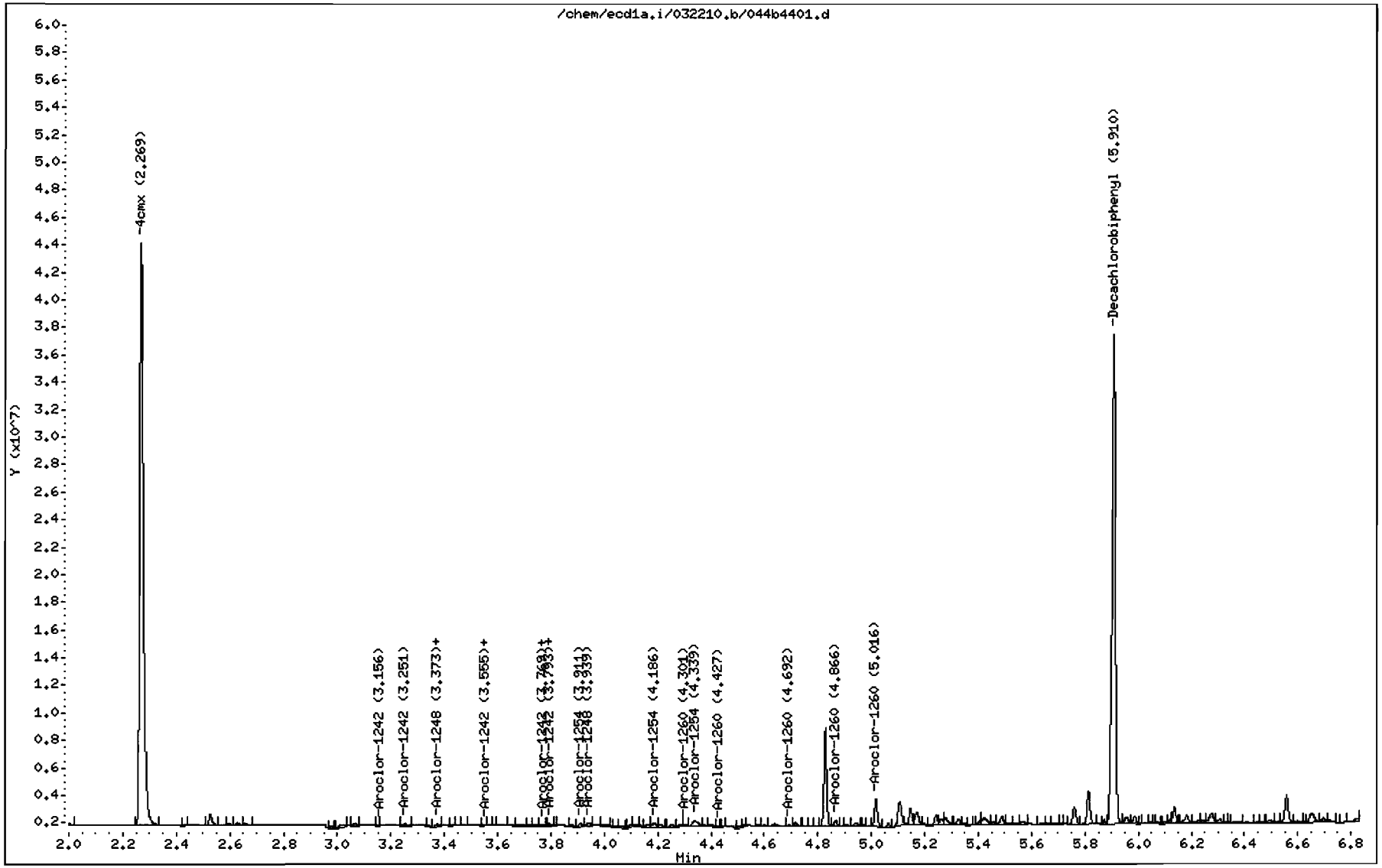

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248815009**	**Date Received:**	**03/05/2010 10:20**	**%Moisture:**	**7.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13868**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967354**	**Inst:**	**ECD1A.I**	**Dilution:**	**5**
Run Date:	**03/22/2010 17:45**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 11:56**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**056f5601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	056b5601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.0	ug/kg	5.99	18.0	1
11104–28–2	Aroclor–1221	U	18.0	ug/kg	5.99	18.0	1
11141–16–5	Aroclor–1232	U	18.0	ug/kg	5.99	18.0	1
53469–21–9	Aroclor–1242	U	18.0	ug/kg	5.99	18.0	1
12672–29–6	Aroclor–1248	U	18.0	ug/kg	5.99	18.0	1
11097–69–1	Aroclor–1254	U	18.0	ug/kg	5.99	18.0	1
11096–82–5	Aroclor–1260	U	18.0	ug/kg	5.99	18.0	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/056f5601.d
Lab Smp Id: 248815009 Client Smp ID: RE46-10-13868
Inj Date : 22-MAR-2010 17:45
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815009|5|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13868|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 23-Mar-2010 06:35 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 56
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.14000	Weight of sample extracted (g)
M	7.71220	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.911	0.001	11641225	29.8858	5.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.216	-0.001	8875215	29.8899	5.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/056f5601.d

Page 1

Date : 22-MAR-2010 17:45

Client ID: RE46-10-13868

Instrument: ecd1a.i

Sample Info: |248815009|5|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

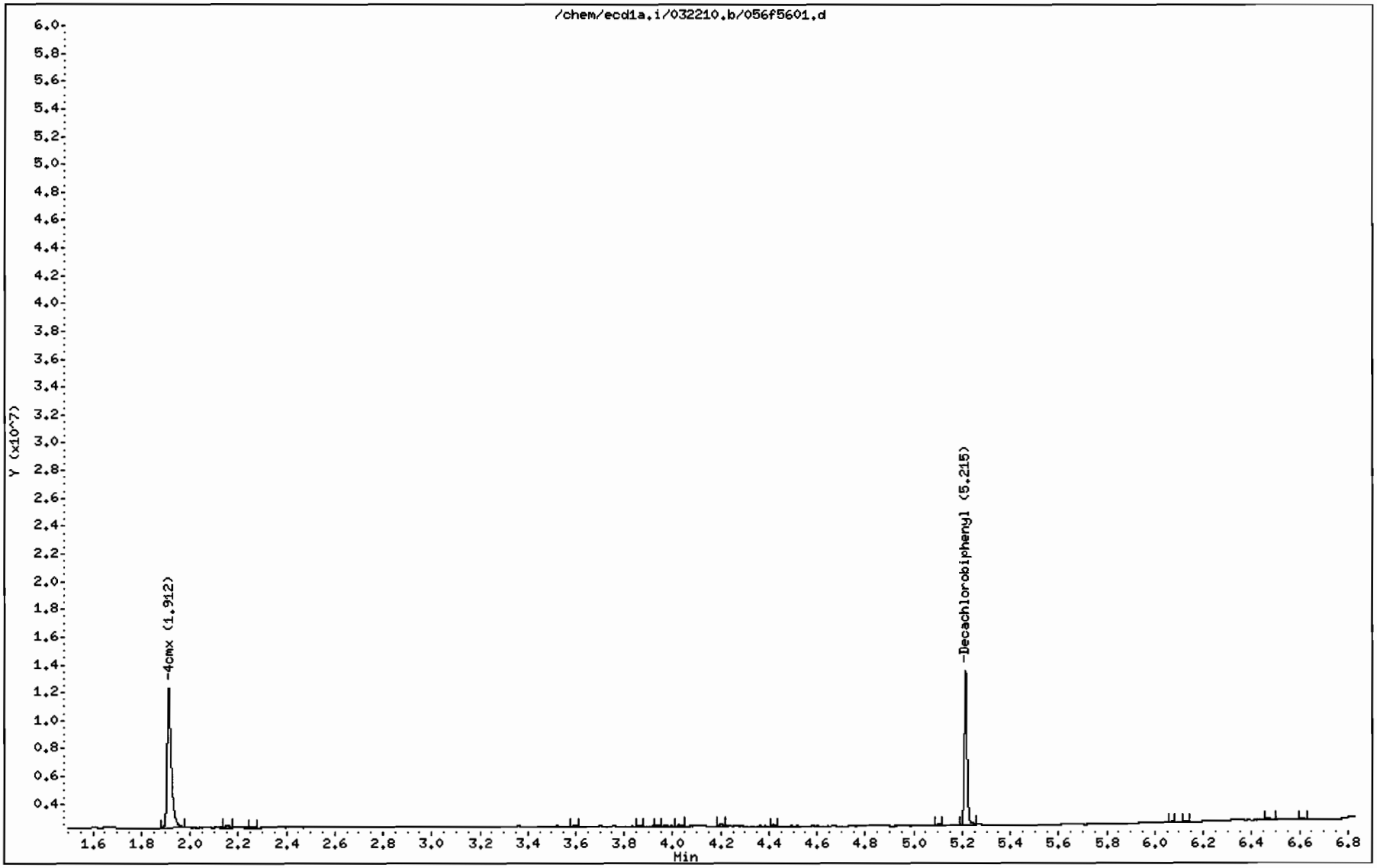

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/056b5601.d
Lab Smp Id: 248815009 Client Smp ID: RE46-10-13868
Inj Date : 22-MAR-2010 17:45
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815009|5|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13868|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 06:34 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 56
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.14000	Weight of sample extracted (g)
M	7.71220	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.269	0.001	7820766	29.8124	5.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.911	-0.001	5786679	30.9161	5.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/056b5601.d

Page 1

Date : 22-MAR-2010 17:45

Client ID: RE46-10-13868

Instrument: ecd1a.i

Sample Info: |248815009|5|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

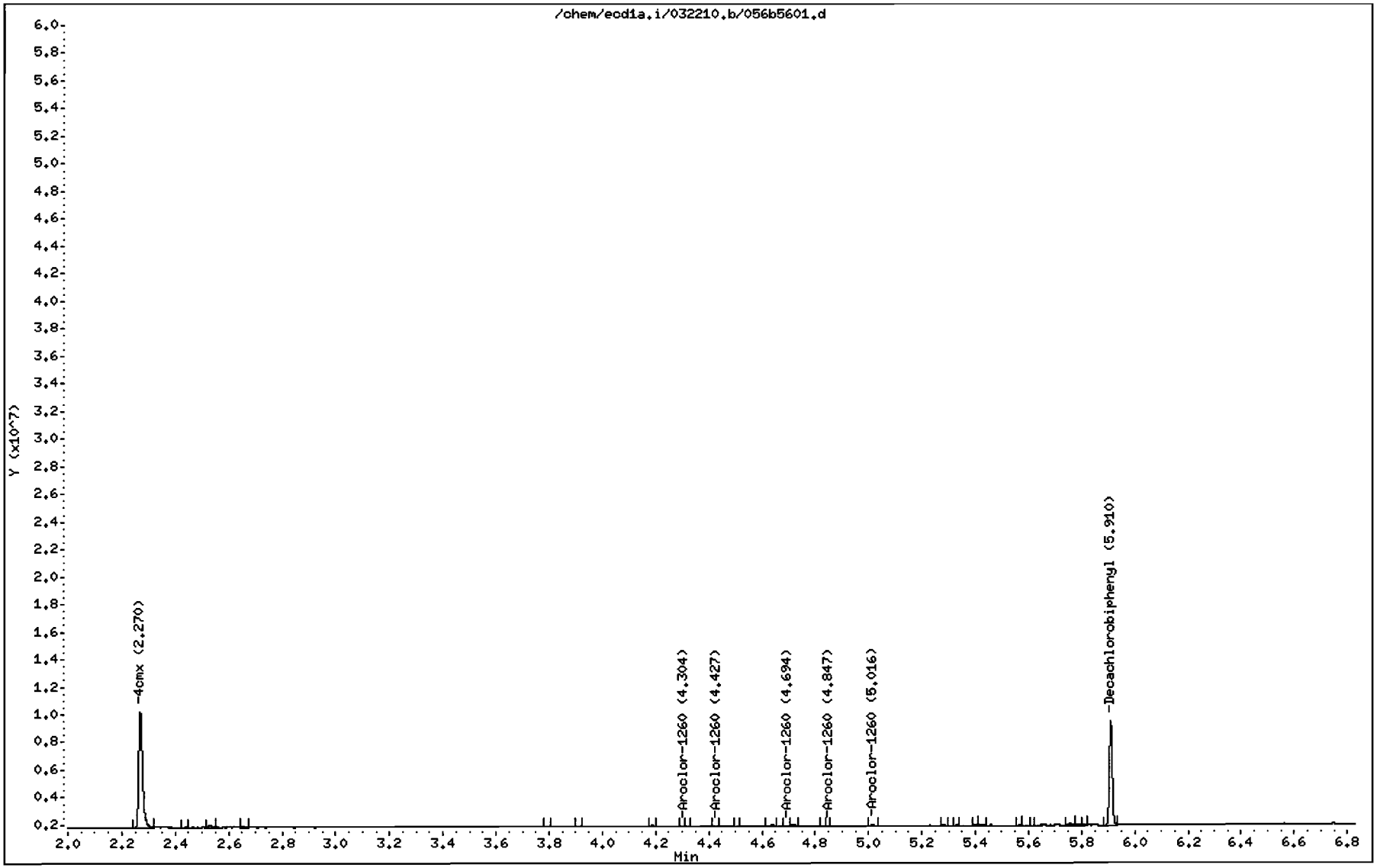

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815004	**Date Received:**	03/05/2010 10:20	**%Moisture:**	8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13869	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/22/2010 16:17	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	049f4901.d	**Column:**	1 CLP1	**Level:**	LOW
	049b4901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.62	ug/kg	1.20	3.62	1
11104–28–2	Aroclor–1221	U	3.62	ug/kg	1.20	3.62	1
11141–16–5	Aroclor–1232	U	3.62	ug/kg	1.20	3.62	1
53469–21–9	Aroclor–1242	U	3.62	ug/kg	1.20	3.62	1
12672–29–6	Aroclor–1248	U	3.62	ug/kg	1.20	3.62	1
11097–69–1	Aroclor–1254	U	3.62	ug/kg	1.20	3.62	1
11096–82–5	Aroclor–1260	U	3.62	ug/kg	1.20	3.62	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/049f4901.d
Lab Smp Id: 248815004 Client Smp ID: RE46-10-13869
Inj Date : 22-MAR-2010 16:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815004|1|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13869|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 23-Mar-2010 06:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 49
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	7.99070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.911	-0.001	44420156	114.037	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.216	-0.001	36646295	123.417	4.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/049f4901.d
Date : 22-MAR-2010 16:17
Client ID: RE46-10-13869
Sample Info: |248815004|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

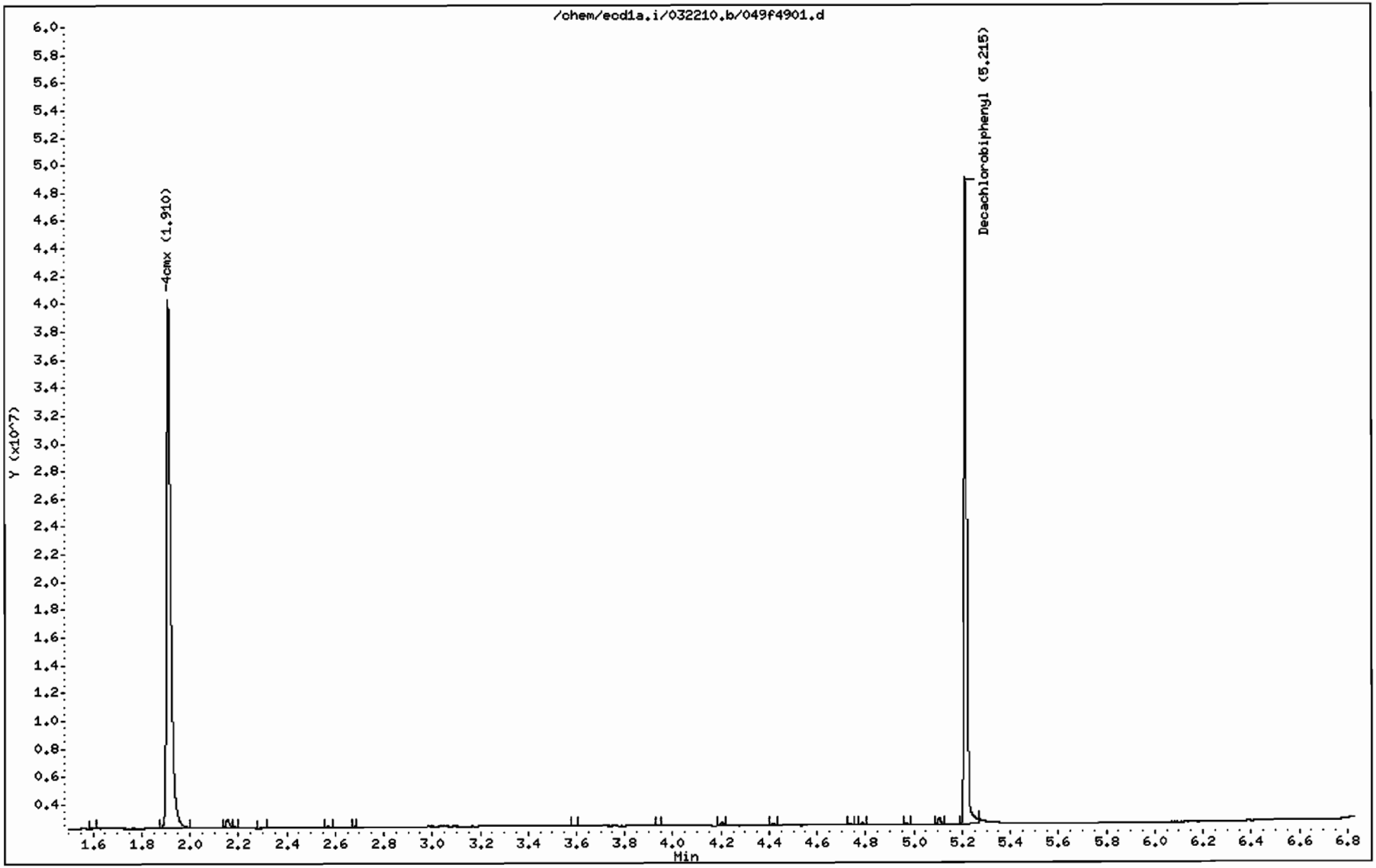

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/049b4901.d
Lab Smp Id: 248815004 Client Smp ID: RE46-10-13869
Inj Date : 22-MAR-2010 16:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815004|1|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13869|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 06:26 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 49
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	7.99070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	28818211	109.854	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.911	-0.001	22107644	118.113	4.3	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/049b4901.d

Date : 22-MAR-2010 16:17

Client ID: RE46-10-13869

Sample Info: |24881500411|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

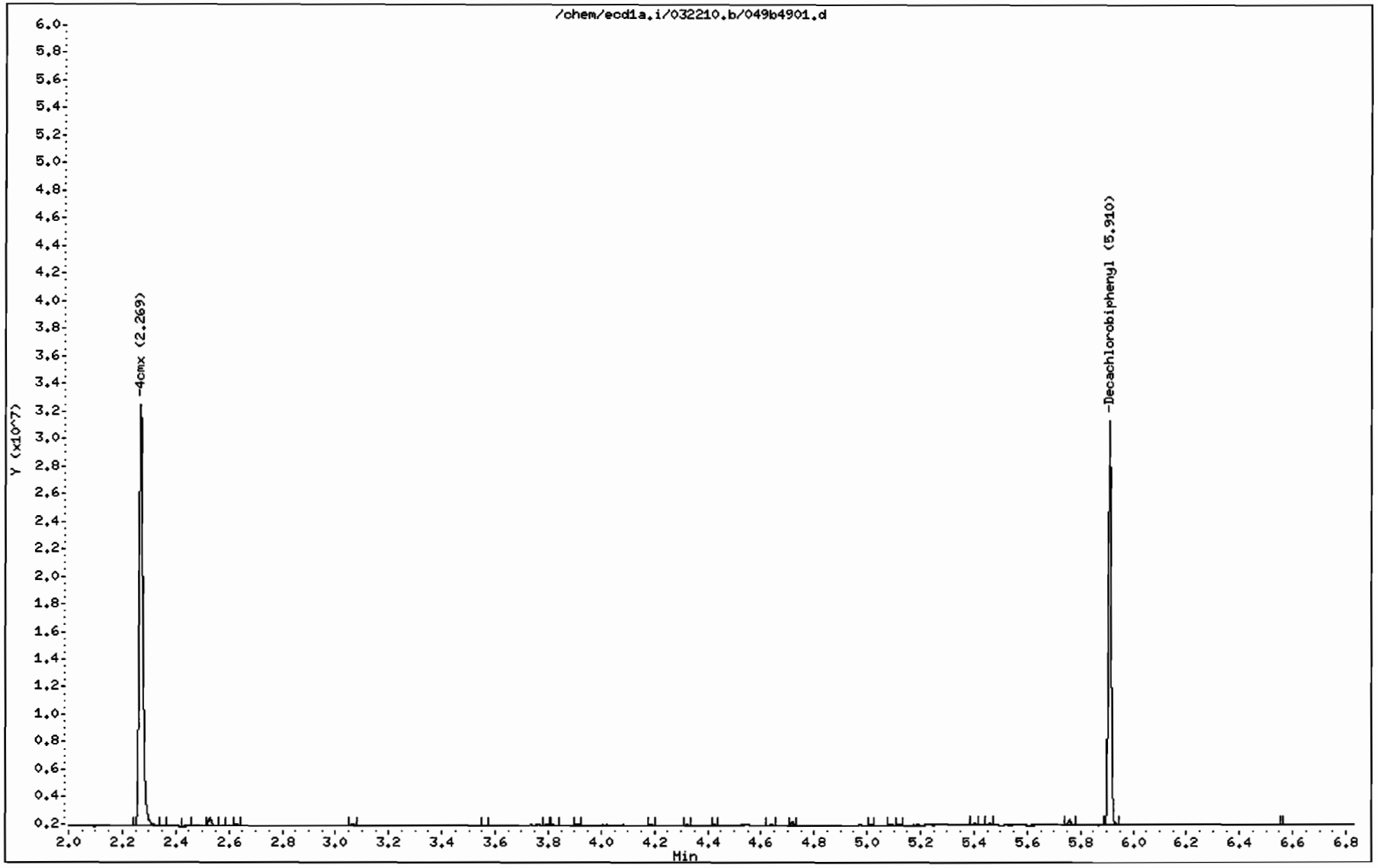

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248815011	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13873	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	5
Run Date:	03/22/2010 18:11	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	058f5801.d	**Column:**	1 CLP1	**Level:**	LOW
	058b5801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	17.9	ug/kg	5.96	17.9	1
11104–28–2	Aroclor–1221	U	17.9	ug/kg	5.96	17.9	1
11141–16–5	Aroclor–1232	U	17.9	ug/kg	5.96	17.9	1
53469–21–9	Aroclor–1242	U	17.9	ug/kg	5.96	17.9	1
12672–29–6	Aroclor–1248	U	17.9	ug/kg	5.96	17.9	1
11097–69–1	Aroclor–1254	U	17.9	ug/kg	5.96	17.9	1
11096–82–5	Aroclor–1260	U	17.9	ug/kg	5.96	17.9	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/058f5801.d
Lab Smp Id: 248815011 Client Smp ID: RE46-10-13873
Inj Date : 22-MAR-2010 18:11
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815011|5|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13873|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 23-Mar-2010 06:35 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 58
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	7.06960	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.911	0.001	13234896	33.9772	6.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.216	-0.002	9527004	32.0850	5.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/058f5801.d

Page 1

Date : 22-MAR-2010 18:11

Client ID: RE46-10-13873

Instrument: ecd1a.i

Sample Info: |248815011|5|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

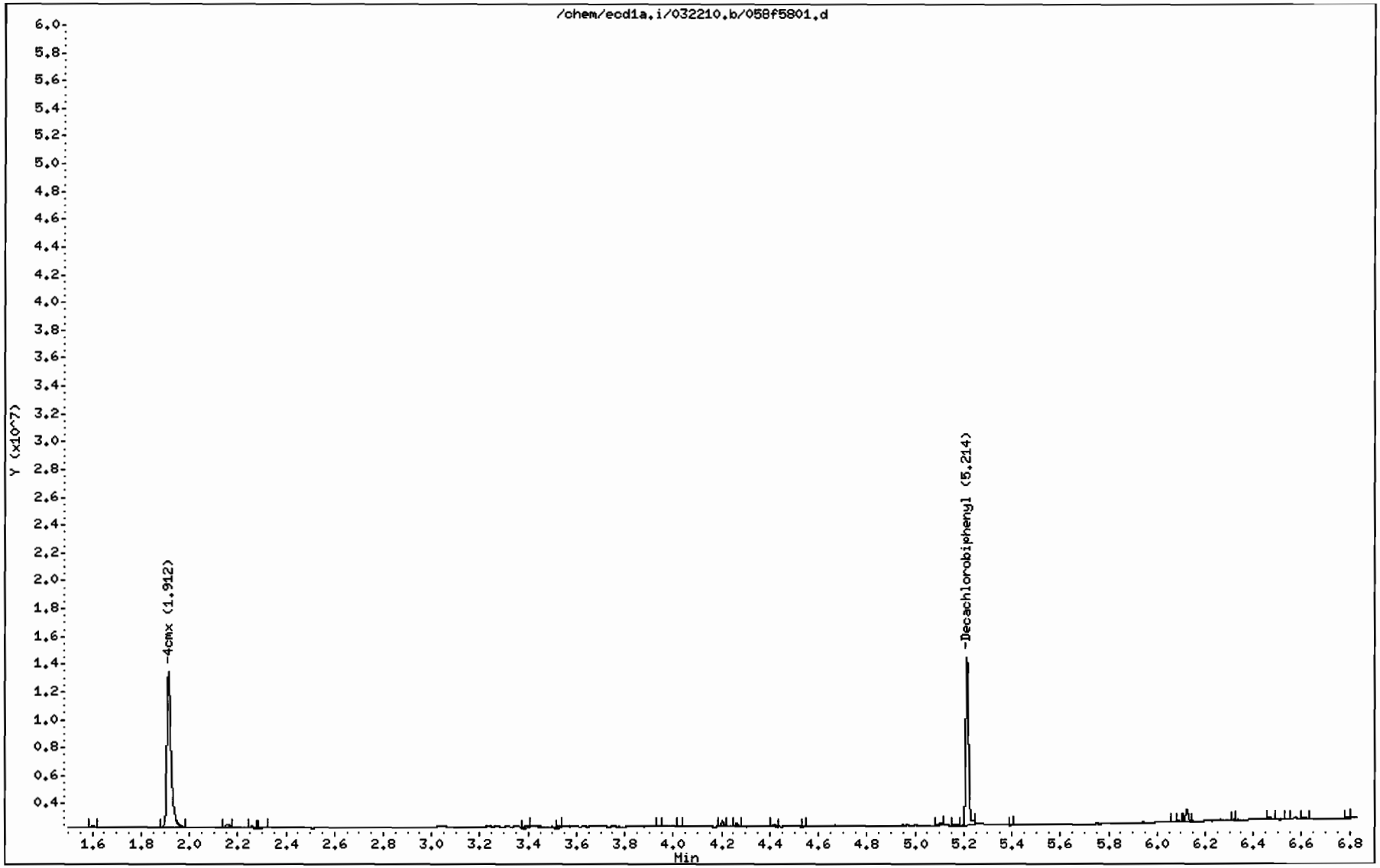

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/058b5801.d
Lab Smp Id: 248815011 Client Smp ID: RE46-10-13873
Inj Date : 22-MAR-2010 18:11
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248815011|5|
Misc Info : |ECD82P_1S|967354|SVA|LANL|SOIL|RE46-10-13873|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 06:34 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 58
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	7.06960	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.269	0.001	8813257	33.5957	6.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.911	-0.001	6453359	34.4780	6.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/058b5801.d

Page 1

Date : 22-MAR-2010 18:11

Client ID: RE46-10-13873

Instrument: ecd1a.i

Sample Info: |248815011|5|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

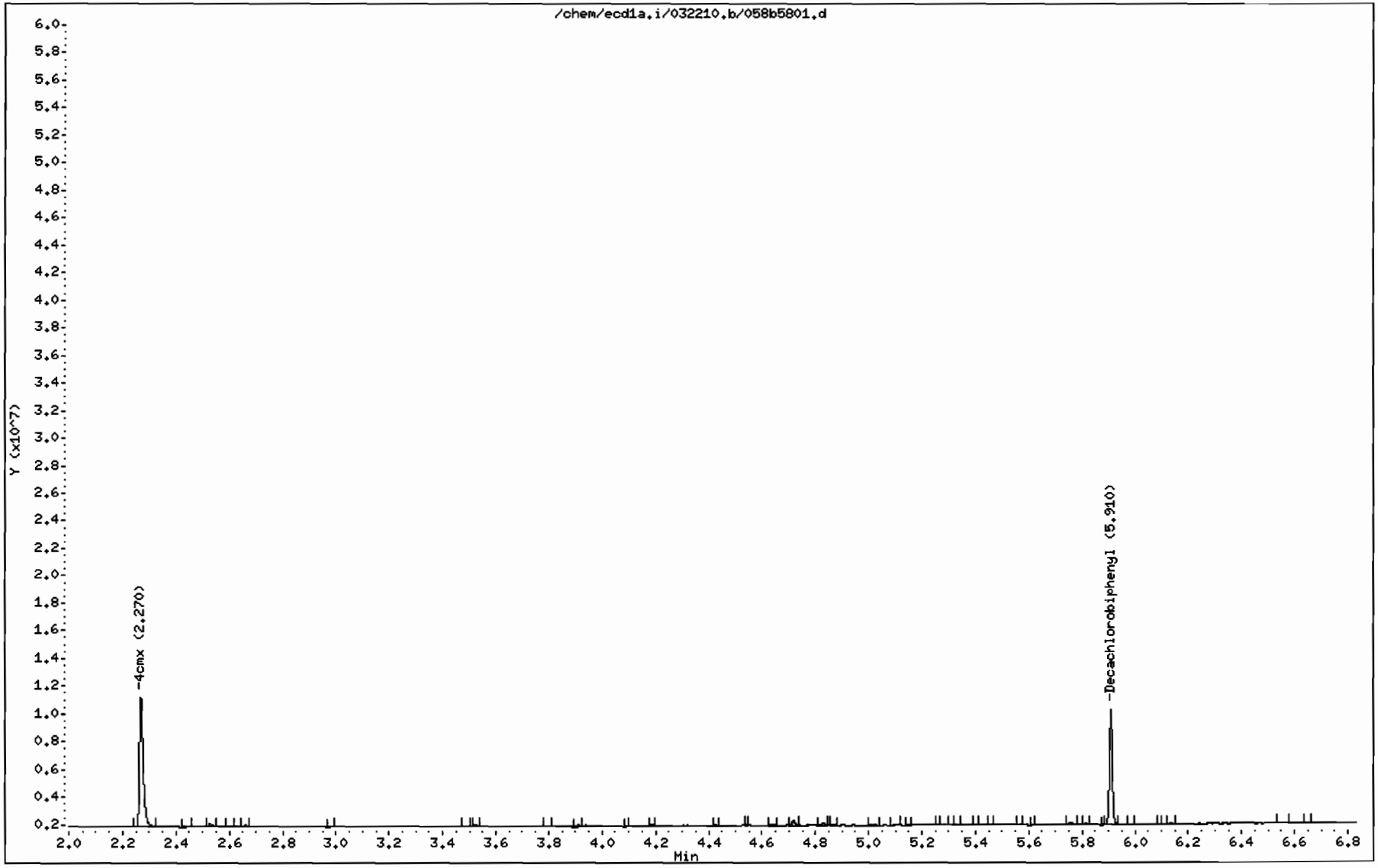

STANDARDS DATA

Report Date: 23-Mar-2010 08:11

Calibration History

Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032f3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029f2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023f2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017f1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033f3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030f3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024f2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018f1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034f3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031f3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025f2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019f1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035f3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032f3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026f2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020f2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014f1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009f0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008f0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007f0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010f1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036f3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033f3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027f2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021f2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 18:23	AR1660	/chem/ecd1a.i/032210.b/059f5901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 16:42	AR1660	/chem/ecd1a.i/032210.b/051f5101.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 14:15	AR1660	/chem/ecd1a.i/032210.b/039f3901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 13:04	AR1660	/chem/ecd1a.i/032210.b/033f3301.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 10:49	AR1660	/chem/ecd1a.i/032210.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 08:16	AR1262	/chem/ecd1a.i/032210.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 08:05	AR1221	/chem/ecd1a.i/032210.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 07:55	AR1232	/chem/ecd1a.i/032210.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 07:44	AR1268	/chem/ecd1a.i/032210.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 07:34	AR1248	/chem/ecd1a.i/032210.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 07:23	AR1242	/chem/ecd1a.i/032210.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 07:13	AR1254	/chem/ecd1a.i/032210.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 07:02	AR1660	/chem/ecd1a.i/032210.b/002f0201.d

Report Date: 23-Mar-2010 08:11

Calibration History

Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029b2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023b2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017b1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030b3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024b2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018b1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031b3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025b2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019b1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032b3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026b2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020b2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014b1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009b0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008b0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007b0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010b1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033b3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027b2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021b2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 1000 |

22-MAR-2010 18:23	AR1660	/chem/ecd1a.i/032210.b/059b5901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 16:42	AR1660	/chem/ecd1a.i/032210.b/051b5101.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 14:15	AR1660	/chem/ecd1a.i/032210.b/039b3901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 13:04	AR1660	/chem/ecd1a.i/032210.b/033b3301.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 10:49	AR1660	/chem/ecd1a.i/032210.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 08:16	AR1262	/chem/ecd1a.i/032210.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 08:05	AR1221	/chem/ecd1a.i/032210.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 07:55	AR1232	/chem/ecd1a.i/032210.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 07:44	AR1268	/chem/ecd1a.i/032210.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 07:34	AR1248	/chem/ecd1a.i/032210.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 07:23	AR1242	/chem/ecd1a.i/032210.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 07:13	AR1254	/chem/ecd1a.i/032210.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
22-MAR-2010 07:02	AR1660	/chem/ecd1a.i/032210.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Mar-2010 06:36 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.364	2.334-2.394	1.518e+04
	2.650	2.620-2.680	1.894e+04
	2.730	2.700-2.760	1.244e+04
	2.768	2.738-2.798	7.348e+03
	2.978	2.948-3.008	9.518e+03
63 4,4-DDD	3.888	3.868-3.908	3.140e+05
64 4,4-DDE	3.539	3.519-3.559	3.727e+05
62 4,4-DDT	4.052	4.032-4.072	2.363e+05
2 Aroclor-1221	2.025	1.995-2.055	4.466e+03
	2.117	2.087-2.147	2.447e+03
	2.143	2.113-2.173	1.083e+04
3 Aroclor-1232	2.365	2.335-2.395	6.667e+03
	2.650	2.620-2.680	8.344e+03
	2.731	2.701-2.761	5.531e+03
	2.845	2.815-2.875	2.649e+03
	3.233	3.203-3.263	3.555e+03
4 Aroclor-1242	2.365	2.335-2.395	1.233e+04
	2.652	2.622-2.682	1.490e+04
	2.770	2.740-2.800	5.896e+03
	2.980	2.950-3.010	7.735e+03
	3.233	3.203-3.263	7.285e+03

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COMPOUND LISTING

Method file : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.846	2.816-2.876	1.000e+04
	2.980	2.950-3.010	1.314e+04
	3.233	3.203-3.263	1.430e+04
	3.365	3.335-3.395	1.190e+04
	3.596	3.566-3.626	8.005e+03
6 Aroclor-1254	3.207	3.177-3.237	1.326e+04
	3.362	3.332-3.392	1.783e+04
	3.596	3.566-3.626	2.237e+04
	3.758	3.728-3.788	1.649e+04
	3.867	3.837-3.897	1.596e+04
7 Aroclor-1260	3.704	3.674-3.734	1.833e+04
	3.866	3.836-3.896	2.689e+04
	4.028	3.998-4.058	2.832e+04
	4.096	4.066-4.126	1.616e+04
	4.240	4.210-4.270	1.681e+04
8 Aroclor-1262	3.704	3.674-3.734	1.423e+04
	3.867	3.837-3.897	1.874e+04
	4.098	4.068-4.128	2.315e+04
	4.240	4.210-4.270	2.110e+04
	4.419	4.389-4.449	4.350e+04
9 Aroclor-1268	4.604	4.574-4.634	4.848e+04
	4.627	4.597-4.657	5.448e+04
	4.739	4.709-4.769	3.862e+04
	4.942	4.912-4.972	1.635e+04
	5.107	5.077-5.137	1.121e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.911	1.881-1.941	3.895e+05
$ 12 Decachlorobiphenyl	5.216	5.186-5.246	2.969e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Mar-2010 06:36 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.164	3.134-3.194	1.258e+04
	3.246	3.216-3.276	8.634e+03
	3.310	3.280-3.340	5.287e+03
	3.537	3.507-3.567	6.893e+03
	3.612	3.582-3.642	6.423e+03
62 4,4-DDT	4.642	4.622-4.662	7.489e+04
63 4,4-DDE	4.111	4.091-4.131	2.469e+05
64 4,4-DDD	4.455	4.435-4.475	1.989e+05
2 Aroclor-1221	2.466	2.436-2.496	3.250e+03
	2.560	2.530-2.590	2.084e+03
	2.601	2.571-2.631	7.320e+03
3 Aroclor-1232	2.867	2.837-2.897	5.054e+03
	3.165	3.135-3.195	5.712e+03
	3.248	3.218-3.278	3.888e+03
	3.538	3.508-3.568	2.840e+03
	3.772	3.742-3.802	2.821e+03
4 Aroclor-1242	3.165	3.135-3.195	1.014e+04
	3.248	3.218-3.278	7.097e+03
	3.538	3.508-3.568	5.514e+03
	3.772	3.742-3.802	5.722e+03
	3.800	3.770-3.830	6.370e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.374	3.344-3.404	7.604e+03
	3.539	3.509-3.569	9.470e+03
	3.772	3.742-3.802	1.093e+04
	3.800	3.770-3.830	1.216e+04
	3.936	3.906-3.966	1.181e+04
6 Aroclor-1254	3.372	3.342-3.402	6.021e+03
	3.794	3.764-3.824	1.082e+04
	3.911	3.881-3.941	1.193e+04
	4.186	4.156-4.216	1.644e+04
	4.323	4.293-4.353	1.212e+04
7 Aroclor-1260	4.303	4.273-4.333	1.308e+04
	4.428	4.398-4.458	1.555e+04
	4.694	4.664-4.724	1.190e+04
	4.867	4.837-4.897	1.229e+04
	5.014	4.984-5.044	2.639e+04
8 Aroclor-1262	4.429	4.399-4.459	1.160e+04
	4.694	4.664-4.724	1.620e+04
	4.868	4.838-4.898	1.484e+04
	5.015	4.985-5.045	2.937e+04
	5.228	5.198-5.258	2.065e+04
9 Aroclor-1268	5.226	5.196-5.256	3.730e+04
	5.254	5.224-5.284	3.492e+04
	5.403	5.373-5.433	2.658e+04
	5.567	5.537-5.597	1.223e+04
	5.760	5.730-5.790	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.269	2.239-2.299	2.623e+05
$ 12 Decachlorobiphenyl	5.911	5.881-5.941	1.872e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Cal Date : 23-Mar-2010 06:36 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032f3201.d
Level 2: /chem/ecd1a.i/022210.b/033f3301.d
Level 3: /chem/ecd1a.i/022210.b/034f3401.d
Level 4: /chem/ecd1a.i/022210.b/035f3501.d
Level 5: /chem/ecd1a.i/022210.b/036f3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	17517	15916	14941	14342	13168	15177	10.833
(2)	20378	19291	18809	18310	17891	18936	5.082
(3)	13830	13020	12255	11836	11271	12442	8.071
(4)	7957	7573	7201	7091	6919	7348	5.665
(5)	10680	9850	9332	8998	8729	9518	8.119
63 4,4-DDD	+++++	+++++	+++++	313980	+++++	313980	0.000
64 4,4-DDE	+++++	+++++	+++++	372684	+++++	372684	0.000
62 4,4-DDT	+++++	+++++	+++++	236265	+++++	236265	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4466	+++++	4466	0.000
(2)	+++++	+++++	+++++	2447	+++++	2447	0.000
(3)	+++++	+++++	+++++	10828	+++++	10828	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6667	+++++	6667	0.000
(2)	+++++	+++++	+++++	8344	+++++	8344	0.000
(3)	+++++	+++++	+++++	5531	+++++	5531	0.000
(4)	+++++	+++++	+++++	2649	+++++	2649	0.000
(5)	+++++	+++++	+++++	3555	+++++	3555	0.000
4 Aroclor-1242(1)	14179	12973	12200	11692	10617	12332	10.871
(2)	16141	15119	14927	14559	13766	14903	5.801
(3)	6352	6182	5816	5703	5424	5896	6.324
(4)	8823	8005	7582	7293	6975	7735	9.260
(5)	7955	7511	7149	7022	6787	7285	6.273
5 Aroclor-1248(1)	11183	10572	9738	9526	8980	10000	8.748
(2)	14876	13683	12753	12517	11873	13140	8.885
(3)	15448	14508	14083	13911	13564	14303	5.068
(4)	13161	12385	11501	11480	10960	11898	7.335
(5)	8649	8385	7955	7608	7427	8005	6.411

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Cal Date : 23-Mar-2010 06:36 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	15079	13757	12872	12576	12027	13262	8.998
(2)	20126	18408	17163	17147	16322	17833	8.313
(3)	24516	23104	21642	21571	21024	22371	6.372
(4)	18056	17097	15691	15840	15766	16490	6.365
(5)	18024	16683	15151	15091	14874	15964	8.504
7 Aroclor-1260(1)	20231	18737	18018	17739	16925	18330	6.792
(2)	29345	27114	26401	26314	25275	26890	5.656
(3)	30716	28501	27786	27176	27398	28315	5.062
(4)	17775	16311	15776	15627	15300	16158	6.034
(5)	18203	16850	16463	16434	16114	16813	4.876
8 Aroclor-1262(1)	+++++	+++++	+++++	14232	+++++	14232	0.000
(2)	+++++	+++++	+++++	18742	+++++	18742	0.000
(3)	+++++	+++++	+++++	23151	+++++	23151	0.000
(4)	+++++	+++++	+++++	21098	+++++	21098	0.000
(5)	+++++	+++++	+++++	43500	+++++	43500	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	407603	391717	384007	385362	378927	389523	2.846
$ 12 Decachlorobiphenyl	324859	292709	291687	292552	282844	296930	5.438

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Cal Date : 23-Mar-2010 06:36 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032b3201.d
Level 2: /chem/ecd1a.i/022210.b/033b3301.d
Level 3: /chem/ecd1a.i/022210.b/034b3401.d
Level 4: /chem/ecd1a.i/022210.b/035b3501.d
Level 5: /chem/ecd1a.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	___ RRF	% RSD
1 Aroclor-1016(1)	14376	12782	12025	12307	11436	12585	8.846
(2)	10090	9074	8445	8099	7462	8634	11.594
(3)	6137	5472	5151	4973	4701	5287	10.435
(4)	7962	7103	6817	6522	6060	6893	10.318
(5)	7497	6686	6263	5965	5703	6423	10.948
62 4,4-DDT	+++++	+++++	+++++	74891	+++++	74891	0.000
63 4,4-DDE	+++++	+++++	+++++	246875	+++++	246875	0.000
64 4,4-DDD	+++++	+++++	+++++	198885	+++++	198885	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3250	+++++	3250	0.000
(2)	+++++	+++++	+++++	2084	+++++	2084	0.000
(3)	+++++	+++++	+++++	7320	+++++	7320	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	5054	+++++	5054	0.000
(2)	+++++	+++++	+++++	5712	+++++	5712	0.000
(3)	+++++	+++++	+++++	3888	+++++	3888	0.000
(4)	+++++	+++++	+++++	2840	+++++	2840	0.000
(5)	+++++	+++++	+++++	2821	+++++	2821	0.000
4 Aroclor-1242(1)	11230	10514	10117	9526	9309	10139	7.634
(2)	8350	7546	6909	6642	6036	7097	12.487
(3)	6442	5836	5387	5177	4727	5514	11.868
(4)	6626	6011	5573	5400	4999	5722	10.877
(5)	7365	6655	6241	6005	5582	6370	10.658
5 Aroclor-1248(1)	9056	8166	7435	6980	6383	7604	13.684
(2)	11093	10088	9257	8814	8097	9470	12.242
(3)	12505	11602	10677	10284	9581	10930	10.466
(4)	13890	12873	11986	11379	10657	12157	10.405
(5)	13590	12468	11541	11009	10453	11812	10.502

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Cal Date : 23-Mar-2010 06:36 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7300	6493	5824	5480	5009	6021	14.886
(2)	12825	11548	10490	9974	9262	10820	12.909
(3)	14182	12643	11550	11031	10262	11934	12.788
(4)	19027	17317	15983	15442	14439	16442	10.826
(5)	14064	13049	11651	11174	10640	12116	11.634
7 Aroclor-1260(1)	15189	13569	12744	12369	11530	13080	10.610
(2)	17885	16016	15152	14853	13838	15549	9.776
(3)	13812	12250	11562	11271	10585	11896	10.311
(4)	14218	12635	11954	11625	11015	12289	9.981
(5)	29595	26825	25949	25629	23976	26395	7.824
8 Aroclor-1262(1)	+++++	+++++	+++++	11597	+++++	11597	0.000
(2)	+++++	+++++	+++++	16200	+++++	16200	0.000
(3)	+++++	+++++	+++++	14838	+++++	14838	0.000
(4)	+++++	+++++	+++++	29366	+++++	29366	0.000
(5)	+++++	+++++	+++++	20651	+++++	20651	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	286554	267083	258607	255362	244057	262333	6.044
$ 12 Decachlorobiphenyl	217815	191410	181026	177515	168101	187173	10.178

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 0702

Lab File ID: 002F0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	13874.025	0.01	-8.6	15.0
(2)	18935.774	17223.062	0.01	-9.0	15.0
(3)	12442.153	11099.980	0.01	-10.8	15.0
(4)	7348.319	6652.429	0.01	-9.5	15.0
(5)	9517.775	8513.830	0.01	-10.5	15.0
Aroclor-1260	18330.091	18268.454	0.01	-0.3	15.0
(2)	26889.831	26941.124	0.01	0.2	15.0
(3)	28315.304	28742.142	0.01	1.5	15.0
(4)	16157.873	16199.960	0.01	0.3	15.0
(5)	16812.669	16879.122	0.01	0.4	15.0
4cmx	389523.02	392027.86	0.01	0.6	15.0
Decachlorobiphenyl	296930.38	292345.35	0.01	-1.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 0702

Lab File ID: 002B0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11596.241	0.01	-7.8	15.0
(2)	8634.207	7663.844	0.01	-11.2	15.0
(3)	5286.637	4702.010	0.01	-11.0	15.0
(4)	6892.719	6011.420	0.01	-12.8	15.0
(5)	6422.564	5652.140	0.01	-12.0	15.0
Aroclor-1260	13080.231	12515.456	0.01	-4.3	15.0
(2)	15549.023	15176.092	0.01	-2.4	15.0
(3)	11896.069	11445.175	0.01	-3.8	15.0
(4)	12289.216	11857.119	0.01	-3.5	15.0
(5)	26394.638	26318.926	0.01	-0.3	15.0
4cmx	262332.66	257432.43	0.01	-1.9	15.0
Decachlorobiphenyl	187173.38	176097.75	0.01	-5.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 0713

Lab File ID: 003F0301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	13261.954	12782.929	0.01	-3.6	15.0
(2)	17833.306	17108.598	0.01	-4.1	15.0
(3)	22371.301	22334.536	0.01	-0.2	15.0
(4)	16490.050	16541.262	0.01	0.3	15.0
(5)	15964.418	16375.684	0.01	2.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 0713

Lab File ID: 003B0301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6021.217	5592.748	0.01	-7.1	15.0
(2)	10819.790	10182.375	0.01	-5.9	15.0
(3)	11933.626	11212.477	0.01	-6.0	15.0
(4)	16441.788	15755.066	0.01	-4.2	15.0
(5)	12115.517	11433.868	0.01	-5.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 1415

Lab File ID: 039F3901 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14558.167	0.01	-4.1	15.0
(2)	18935.774	18690.552	0.01	-1.3	15.0
(3)	12442.153	11737.319	0.01	-5.7	15.0
(4)	7348.319	7050.596	0.01	-4.0	15.0
(5)	9517.775	8989.556	0.01	-5.5	15.0
Aroclor-1260	18330.091	18876.328	0.01	3.0	15.0
(2)	26889.831	26762.360	0.01	-0.5	15.0
(3)	28315.304	27761.488	0.01	-2.0	15.0
(4)	16157.873	16549.459	0.01	2.4	15.0
(5)	16812.669	17476.717	0.01	3.9	15.0
4cmx	389523.02	409808.95	0.01	5.2	15.0
Decachlorobiphenyl	296930.38	294392.66	0.01	-0.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 1415

Lab File ID: 039B3901 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	12241.773	0.01	-2.7	15.0
(2)	8634.207	7815.854	0.01	-9.5	15.0
(3)	5286.637	4849.138	0.01	-8.3	15.0
(4)	6892.719	6138.081	0.01	-10.9	15.0
(5)	6422.564	5733.339	0.01	-10.7	15.0
Aroclor-1260	13080.231	12788.482	0.01	-2.2	15.0
(2)	15549.023	15581.586	0.01	0.2	15.0
(3)	11896.069	11735.713	0.01	-1.3	15.0
(4)	12289.216	12213.321	0.01	-0.6	15.0
(5)	26394.638	27088.090	0.01	2.6	15.0
4cmx	262332.66	261849.88	0.01	-0.2	15.0
Decachlorobiphenyl	187173.38	183051.79	0.01	-2.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 1642

Lab File ID: 051F5101 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14822.526	0.01	-2.3	15.0
(2)	18935.774	19056.565	0.01	0.6	15.0
(3)	12442.153	11883.418	0.01	-4.5	15.0
(4)	7348.319	7124.433	0.01	-3.0	15.0
(5)	9517.775	9329.798	0.01	-2.0	15.0
Aroclor-1260	18330.091	19625.187	0.01	7.1	15.0
(2)	26889.831	28850.077	0.01	7.3	15.0
(3)	28315.304	30927.654	0.01	9.2	15.0
(4)	16157.873	17403.521	0.01	7.7	15.0
(5)	16812.669	18042.837	0.01	7.3	15.0
4cmx	389523.02	417406.95	0.01	7.2	15.0
Decachlorobiphenyl	296930.38	306985.88	0.01	3.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 1642

Lab File ID: 051B5101 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11962.559	0.01	-4.9	15.0
(2)	8634.207	7938.268	0.01	-8.1	15.0
(3)	5286.637	4918.804	0.01	-7.0	15.0
(4)	6892.719	6184.622	0.01	-10.3	15.0
(5)	6422.564	5880.070	0.01	-8.4	15.0
Aroclor-1260	13080.231	12863.423	0.01	-1.6	15.0
(2)	15549.023	15672.553	0.01	0.8	15.0
(3)	11896.069	11730.961	0.01	-1.4	15.0
(4)	12289.216	12173.416	0.01	-0.9	15.0
(5)	26394.638	27097.796	0.01	2.7	15.0
4cmx	262332.66	267177.95	0.01	1.8	15.0
Decachlorobiphenyl	187173.38	181485.43	0.01	-3.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 1823

Lab File ID: 059F5901 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14897.059	0.01	-1.8	15.0
(2)	18935.774	19790.411	0.01	4.5	15.0
(3)	12442.153	11925.869	0.01	-4.1	15.0
(4)	7348.319	7195.884	0.01	-2.1	15.0
(5)	9517.775	9279.876	0.01	-2.5	15.0
Aroclor-1260	18330.091	19357.938	0.01	5.6	15.0
(2)	26889.831	28793.164	0.01	7.1	15.0
(3)	28315.304	30770.032	0.01	8.7	15.0
(4)	16157.873	17346.424	0.01	7.4	15.0
(5)	16812.669	17995.939	0.01	7.0	15.0
4cmx	389523.02	420369.40	0.01	7.9	15.0
Decachlorobiphenyl	296930.38	299685.58	0.01	0.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 1823

Lab File ID: 059B5901 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	12122.042	0.01	-3.7	15.0
(2)	8634.207	7970.362	0.01	-7.7	15.0
(3)	5286.637	4936.142	0.01	-6.6	15.0
(4)	6892.719	6506.802	0.01	-5.6	15.0
(5)	6422.564	6027.296	0.01	-6.2	15.0
Aroclor-1260	13080.231	12863.255	0.01	-1.6	15.0
(2)	15549.023	15652.044	0.01	0.7	15.0
(3)	11896.069	11759.940	0.01	-1.1	15.0
(4)	12289.216	12158.157	0.01	-1.1	15.0
(5)	26394.638	27013.231	0.01	2.3	15.0
4cmx	262332.66	268451.96	0.01	2.3	15.0
Decachlorobiphenyl	187173.38	180007.02	0.01	-3.8	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/002f0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 22-MAR-2010 07:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 14:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.911	0.000	39202786	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.216	5.216	0.000	29234535	100.000	98.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.364	0.000	13874025	1000.00	914	80.00- 120.00	100.00
2.650	2.650	0.000	17223062	1000.00	910	108.39- 148.39	124.14
2.730	2.730	0.000	11099980	1000.00	892	60.62- 100.62	80.01
2.768	2.768	0.000	6652429	1000.00	905	28.43- 68.43	47.95
2.978	2.978	0.000	8513830	1000.00	894	41.75- 81.75	61.37
Average of Peak Amounts =					903		
7 Aroclor-1260					CAS #: 11096-82-5		
3.704	3.704	0.000	18268454	1000.00	997	80.00- 120.00	100.00
3.866	3.866	0.000	26941124	1000.00	1000	121.78- 161.78	147.47
4.028	4.028	0.000	28742142	1000.00	1020	127.07- 167.07	157.33
4.096	4.096	0.000	16199960	1000.00	1000	67.67- 107.67	88.68
4.240	4.240	0.000	16879122	1000.00	1000	72.59- 112.59	92.39
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd1a.i/032210.b/002f0201.d
Date : 22-MAR-2010 07:02
Client ID: AR166001
Sample Info: IWAR100222-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

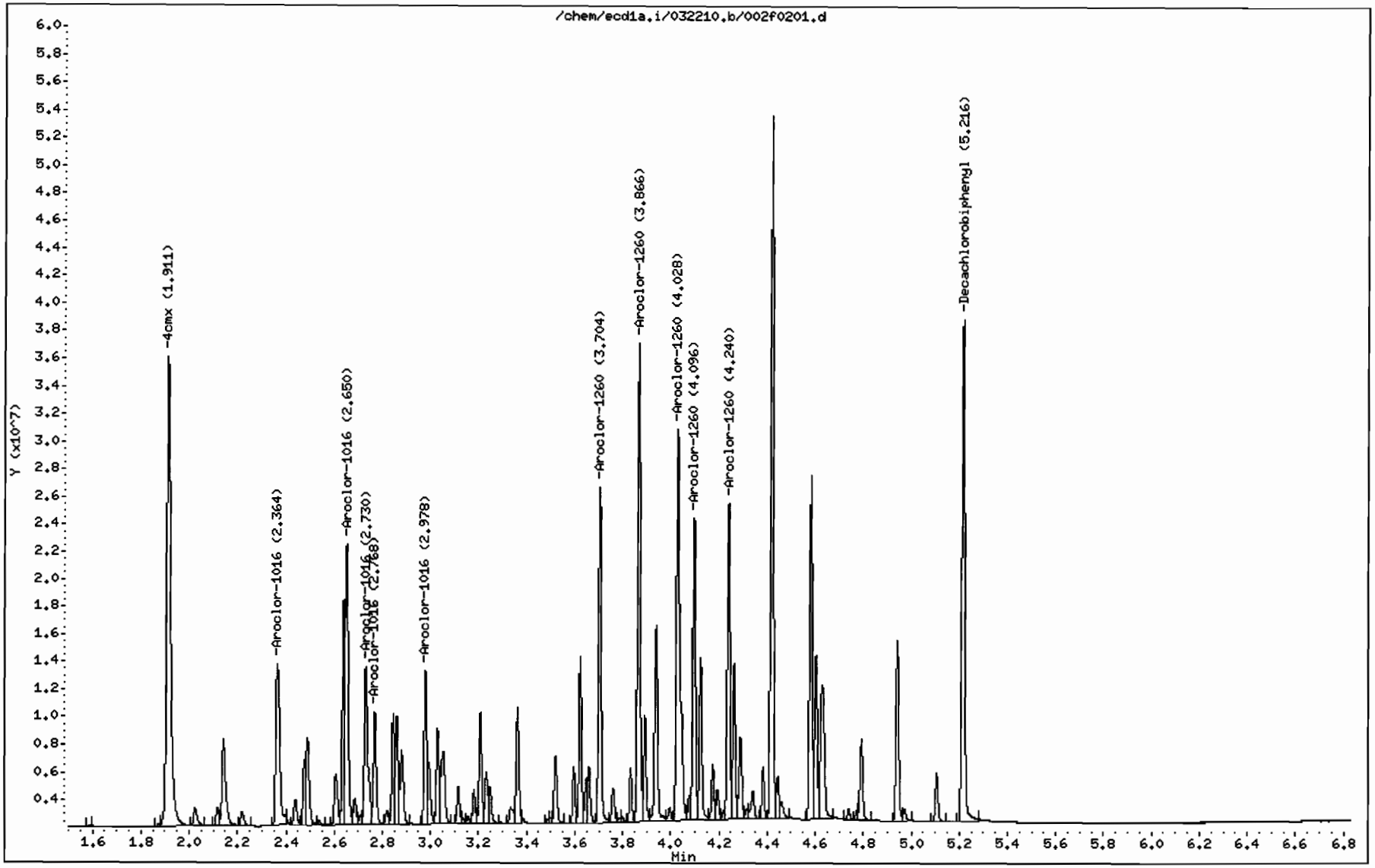

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/002b0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 22-MAR-2010 07:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 14:29 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	25743243	100.000	98.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.911	0.000	17609775	100.000	94.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.164	0.000	11596241	1000.00	921	80.00- 120.00	100.00(M)
3.246	3.246	0.000	7663844	1000.00	888	43.85- 83.85	66.09
3.310	3.310	0.000	4702010	1000.00	889	19.61- 59.61	40.55
3.537	3.537	0.000	6011420	1000.00	872	30.14- 70.14	51.84
3.612	3.612	0.000	5652140	1000.00	880	26.83- 66.83	48.74
Average of Peak Amounts =					890		
7 Aroclor-1260					CAS #: 11096-82-5		
4.303	4.303	0.000	12515456	1000.00	957	80.00- 120.00	100.00
4.428	4.428	0.000	15176092	1000.00	976	101.84- 141.84	121.26
4.694	4.694	0.000	11445175	1000.00	962	71.77- 111.77	91.45
4.867	4.867	0.000	11857119	1000.00	965	75.50- 115.50	94.74
5.014	5.014	0.000	26318926	1000.00	997	191.82- 231.82	210.29
Average of Peak Amounts =					971		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032210.b/002b0201.d

Date : 22-MAR-2010 07:02

Client ID: AR166001

Sample Info: IWAR100222-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

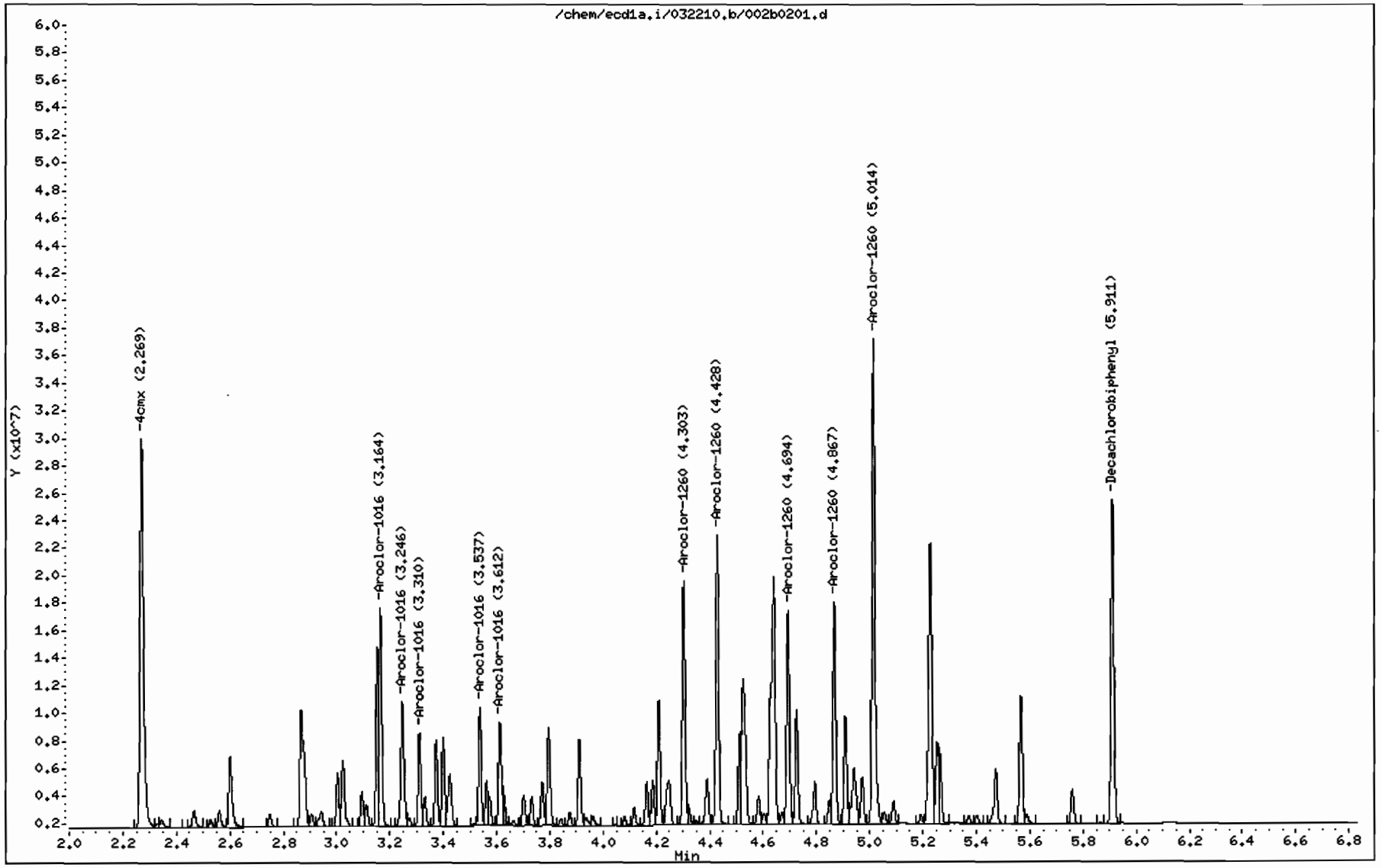

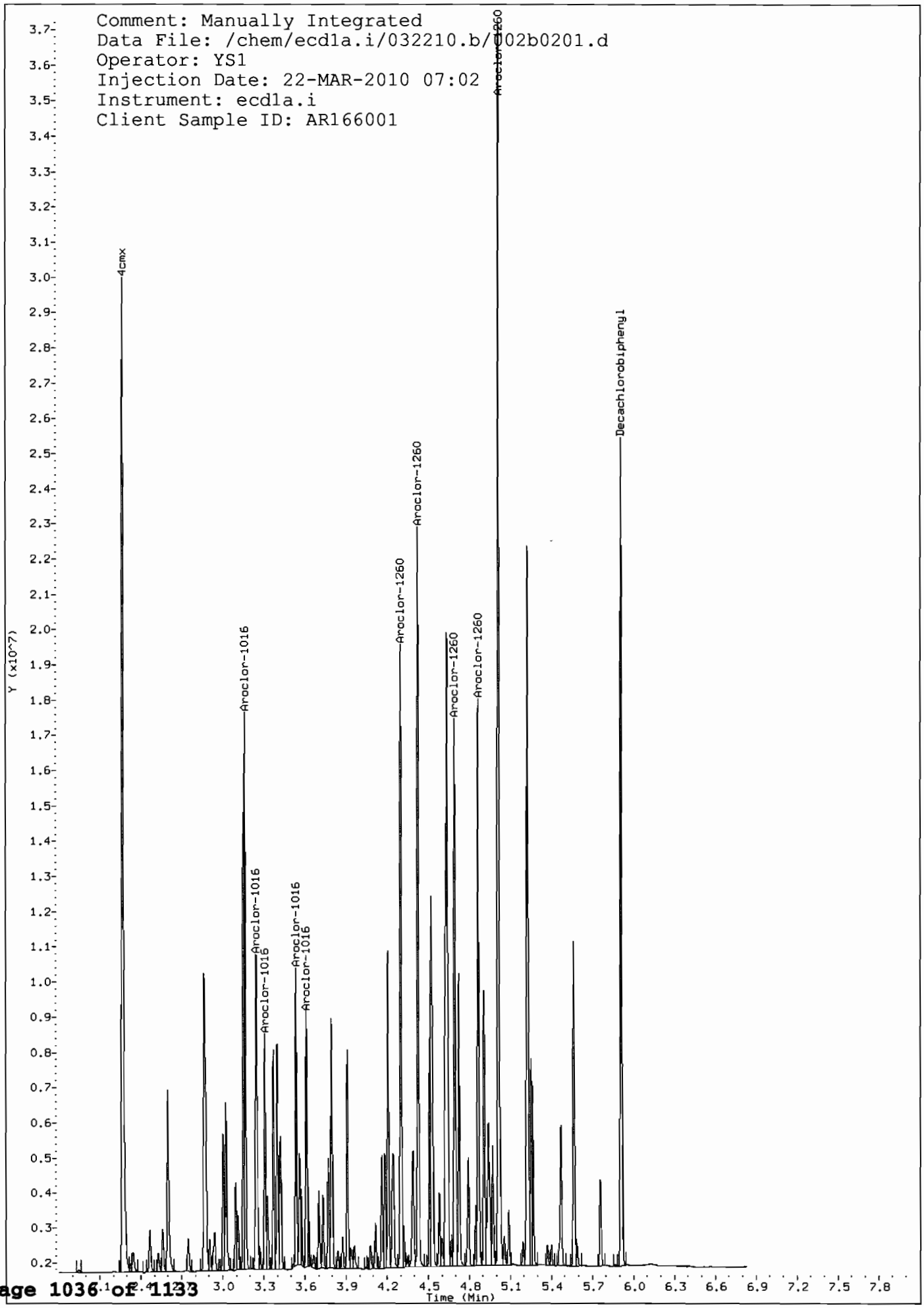
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032210.b/002b0201.d
Operator: YS1
Injection Date: 22-MAR-2010 07:02
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

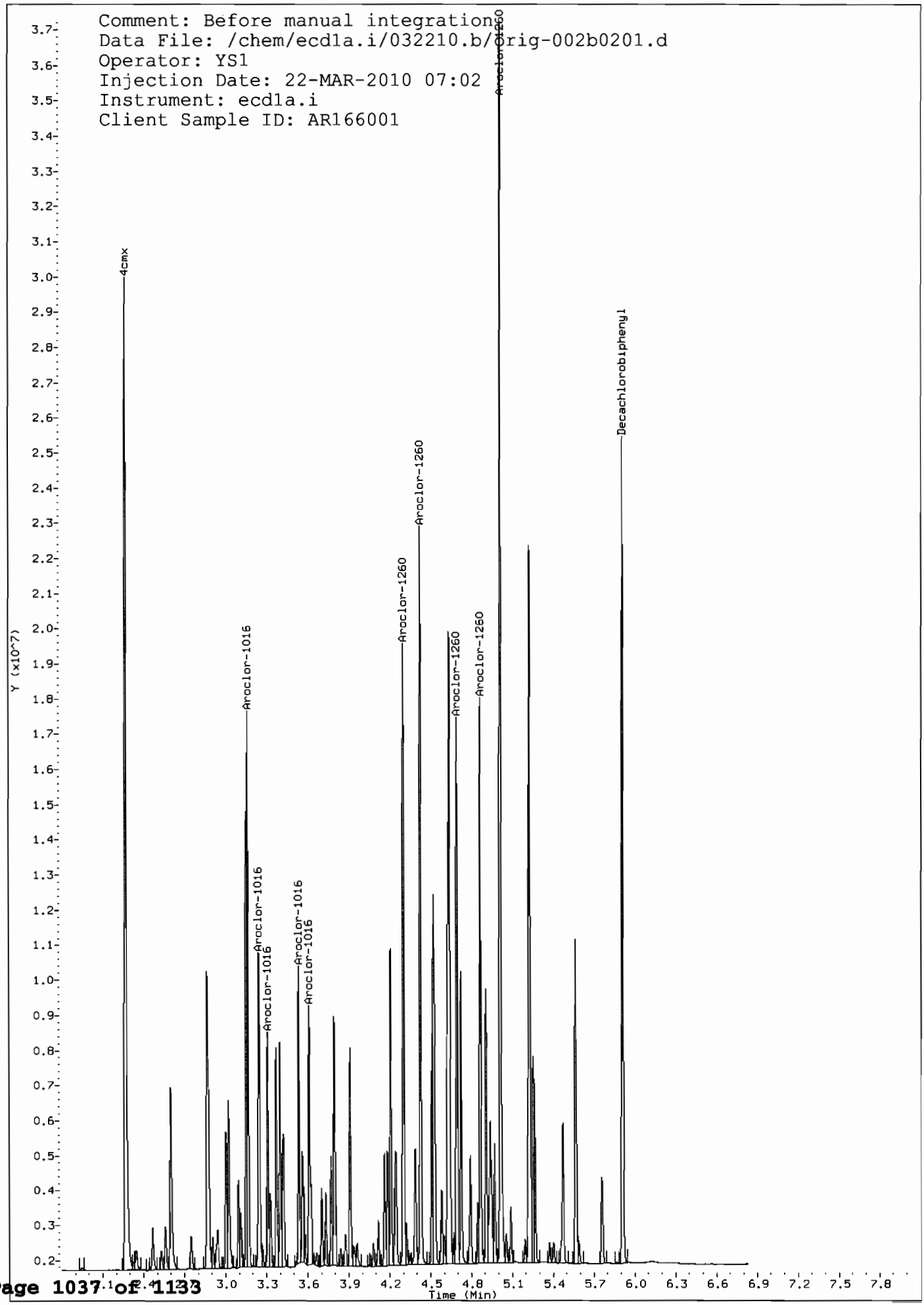
Comment: Before manual integration
Data File: /chem/ecd1a.i/032210.b/orig-002b0201.d
Operator: YS1
Injection Date: 22-MAR-2010 07:02
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 22-MAR-2010 07:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 14:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.207	3.207	0.000	12782929	1000.00	964	80.00- 120.00	100.00
3.362	3.362	0.000	17108598	1000.00	959	113.84- 153.84	133.84
3.596	3.596	0.000	22334536	1000.00	998	154.72- 194.72	174.72
3.758	3.758	0.000	16541262	1000.00	1000	109.40- 149.40	129.40
3.867	3.867	0.000	16375684	1000.00	1020	108.11- 148.11	128.11
Average of Peak Amounts =					990		

Data File: /chem/ecd1a.i/032210.b/003f0301.d

Date : 22-MAR-2010 07:13

Client ID: AR125401

Sample Info: !WAR100219-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

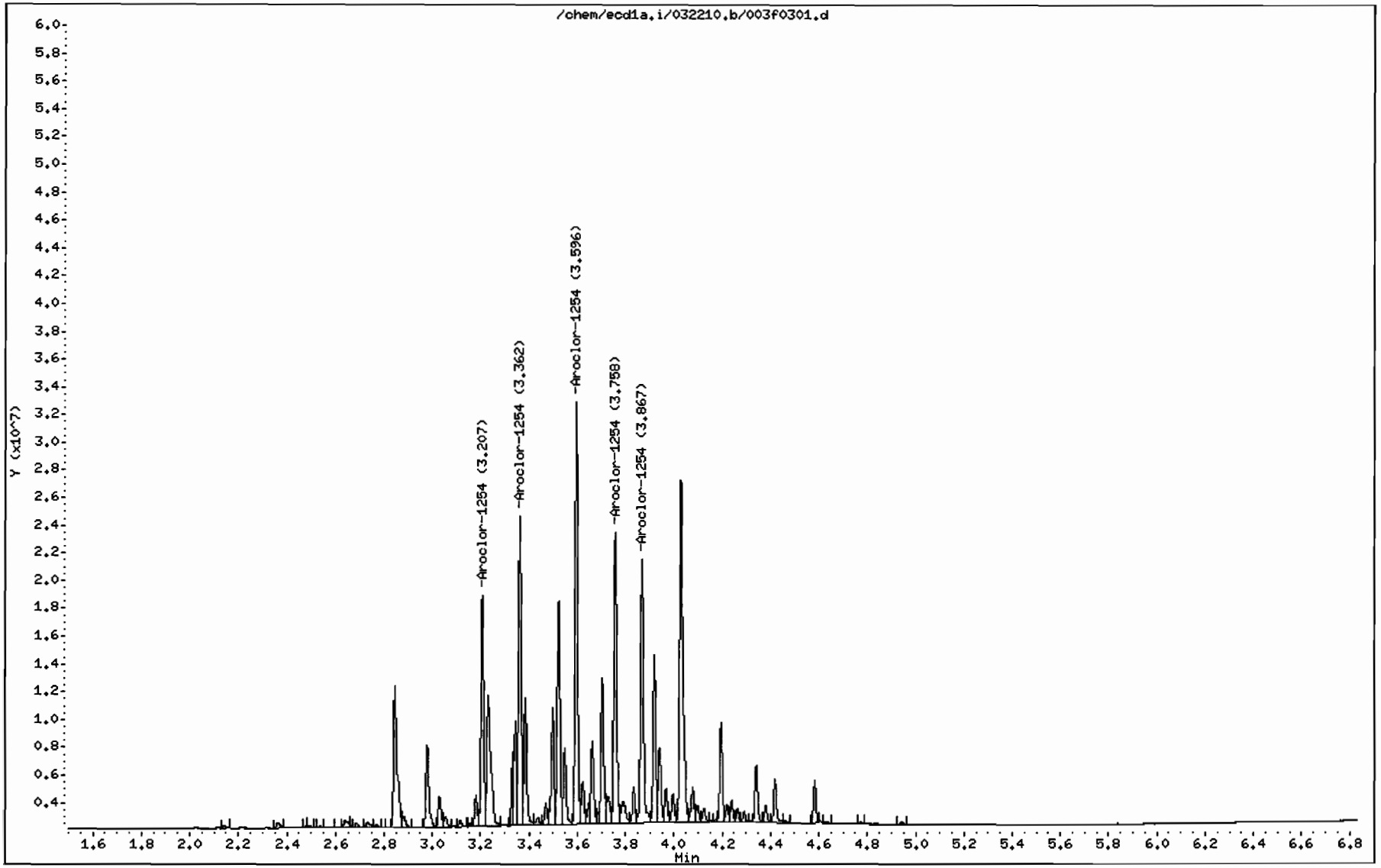

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 22-MAR-2010 07:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 14:29 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.372	3.372	0.000	5592748	1000.00	929	80.00- 120.00	100.00
3.794	3.794	0.000	10182375	1000.00	941	162.06- 202.06	182.06
3.911	3.911	0.000	11212477	1000.00	940	180.48- 220.48	200.48
4.186	4.186	0.000	15755066	1000.00	958	261.71- 301.71	281.71
4.323	4.323	0.000	11433868	1000.00	944	184.44- 224.44	204.44
Average of Peak Amounts =					942		

Data File: /chem/ecd1a.i/032210.b/003b0301.d

Date : 22-MAR-2010 07:13

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

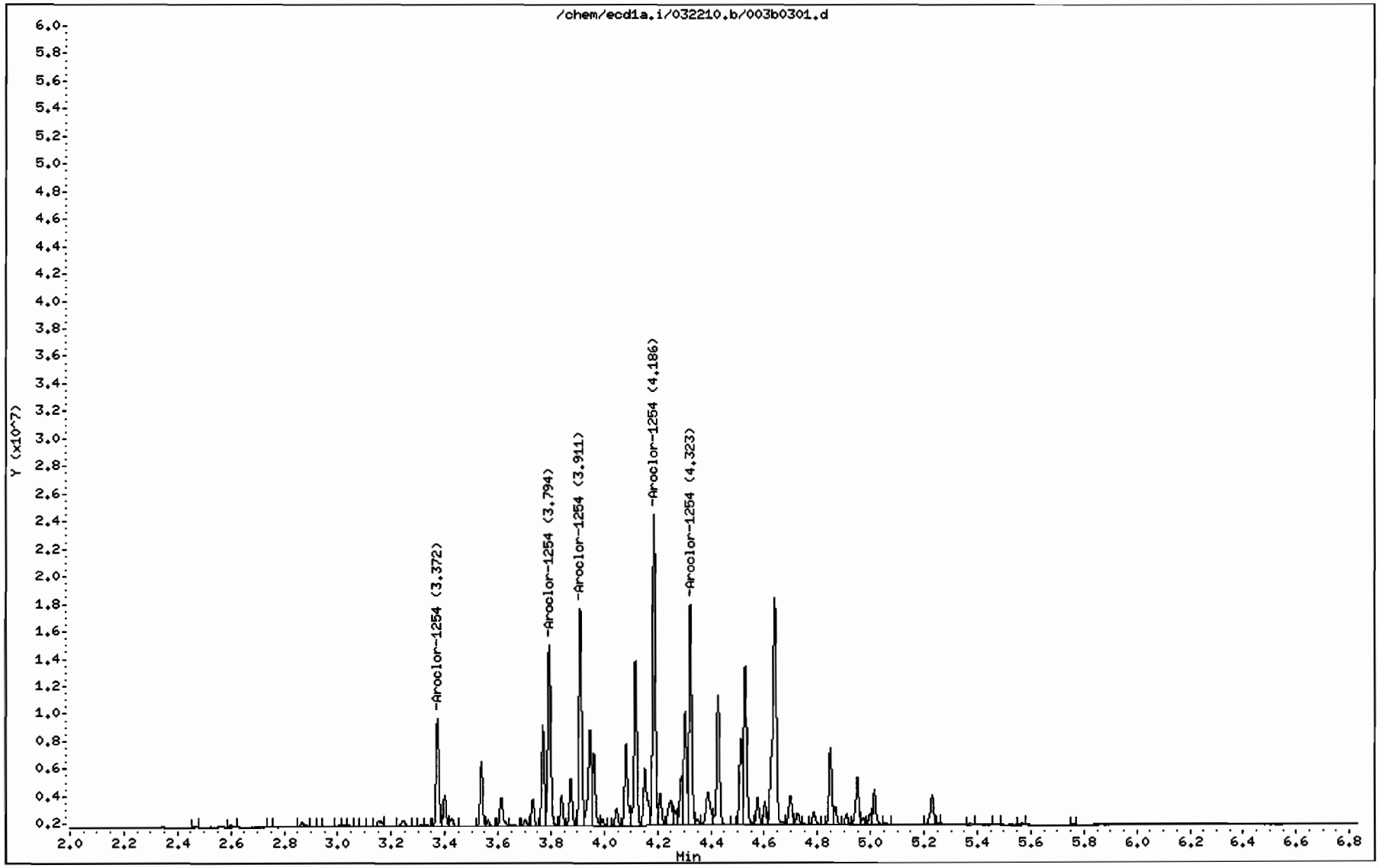

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/004f0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 22-MAR-2010 07:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 14:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.365	2.365	0.000	12600151	1000.00	1020	80.00- 120.00	100.00
2.652	2.652	0.000	15775175	1000.00	1060	105.20- 145.20	125.20
2.770	2.770	0.000	5930396	1000.00	1000	27.07- 67.07	47.07
2.980	2.980	0.000	7618735	1000.00	985	40.47- 80.47	60.47
3.233	3.233	0.000	7197700	1000.00	988	37.12- 77.12	57.12

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032210.b/004f0401.d

Date : 22-MAR-2010 07:23

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

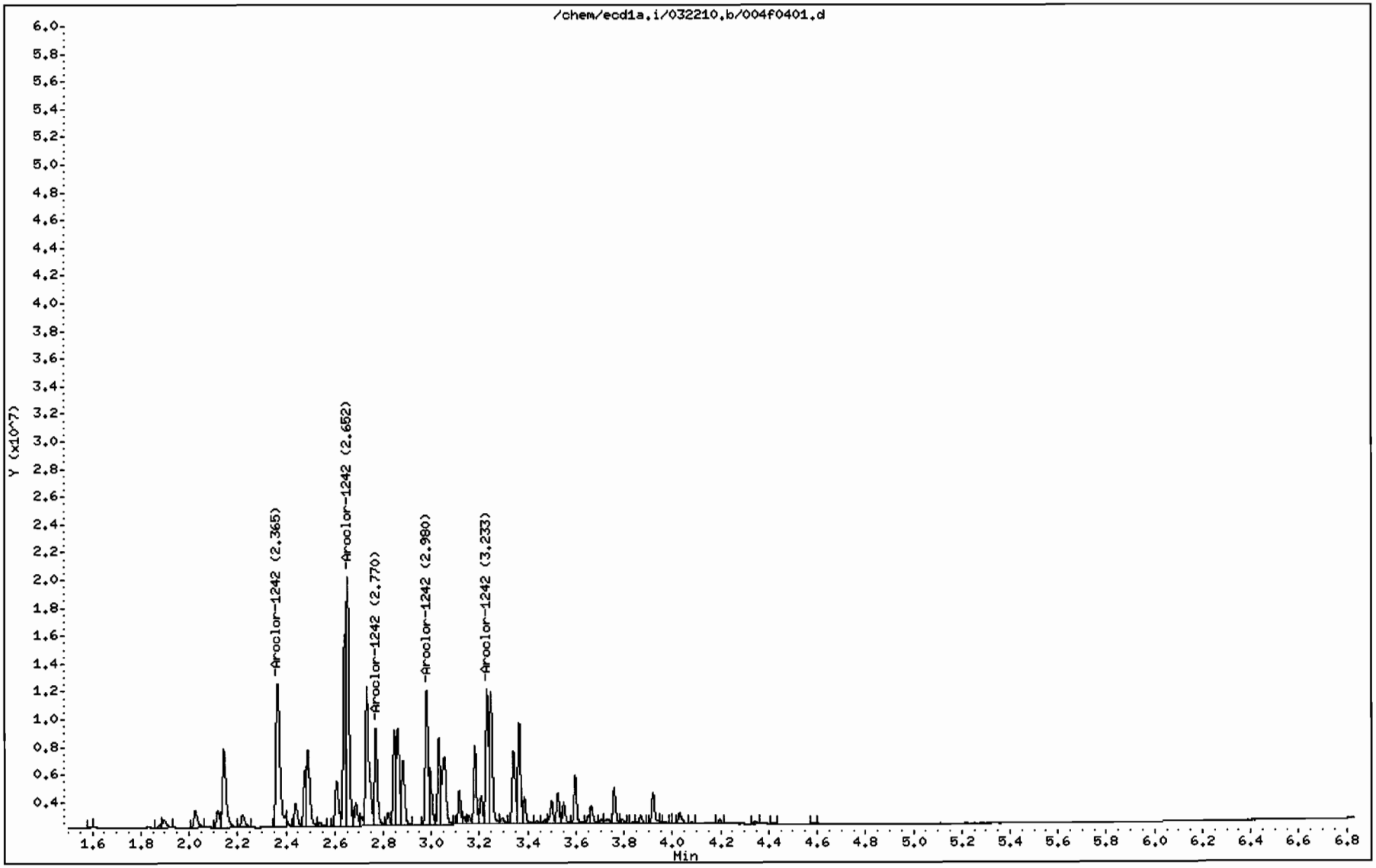

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/004b0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 22-MAR-2010 07:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 14:29 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.165	3.165	0.000	10079057	1000.00	994	80.00- 120.00	100.00
3.248	3.248	0.000	6789459	1000.00	957	47.36- 87.36	67.36
3.538	3.538	0.000	5310278	1000.00	963	32.69- 72.69	52.69
3.772	3.772	0.000	5560374	1000.00	972	35.17- 75.17	55.17
3.800	3.800	0.000	6261212	1000.00	983	42.12- 82.12	62.12
		Average of Peak Amounts =			974		

Data File: /chem/ecd1a.i/032210.b/004b0401.d

Date : 22-MAR-2010 07:23

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

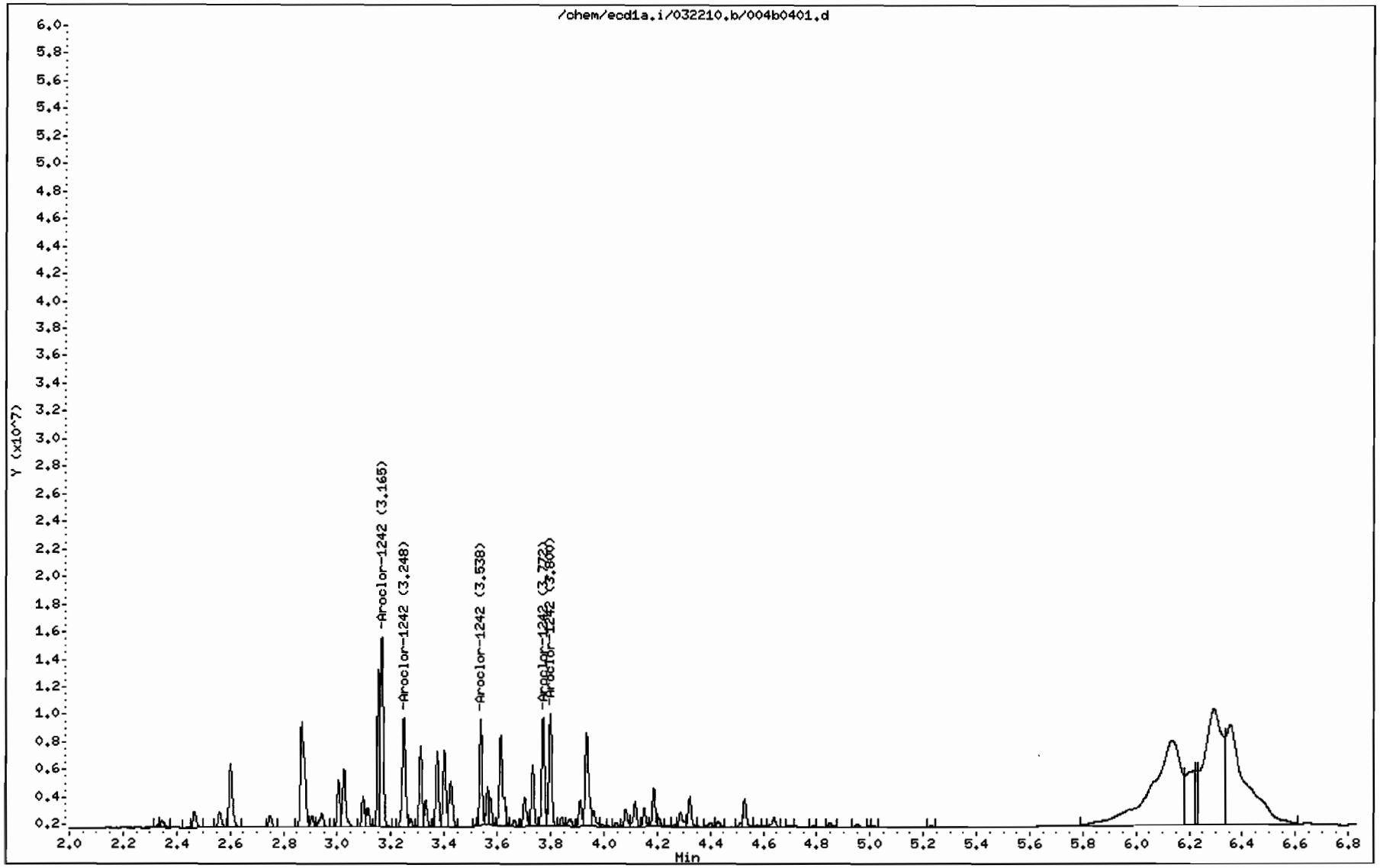

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 22-MAR-2010 07:34
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 14:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
2.846	2.846	0.000	9885297	1000.00	988	80.00- 120.00	100.00
2.980	2.980	0.000	13390340	1000.00	1020	115.46- 155.46	135.46
3.233	3.233	0.000	14654166	1000.00	1020	128.24- 168.24	148.24
3.365	3.365	0.000	11824779	1000.00	994	99.62- 139.62	119.62
3.596	3.596	0.000	7772051	1000.00	971	58.62- 98.62	78.62
Average of Peak Amounts =					999		

Data File: /chem/ecd1a.i/032210.b/005f0501.d

Date : 22-MAR-2010 07:34

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

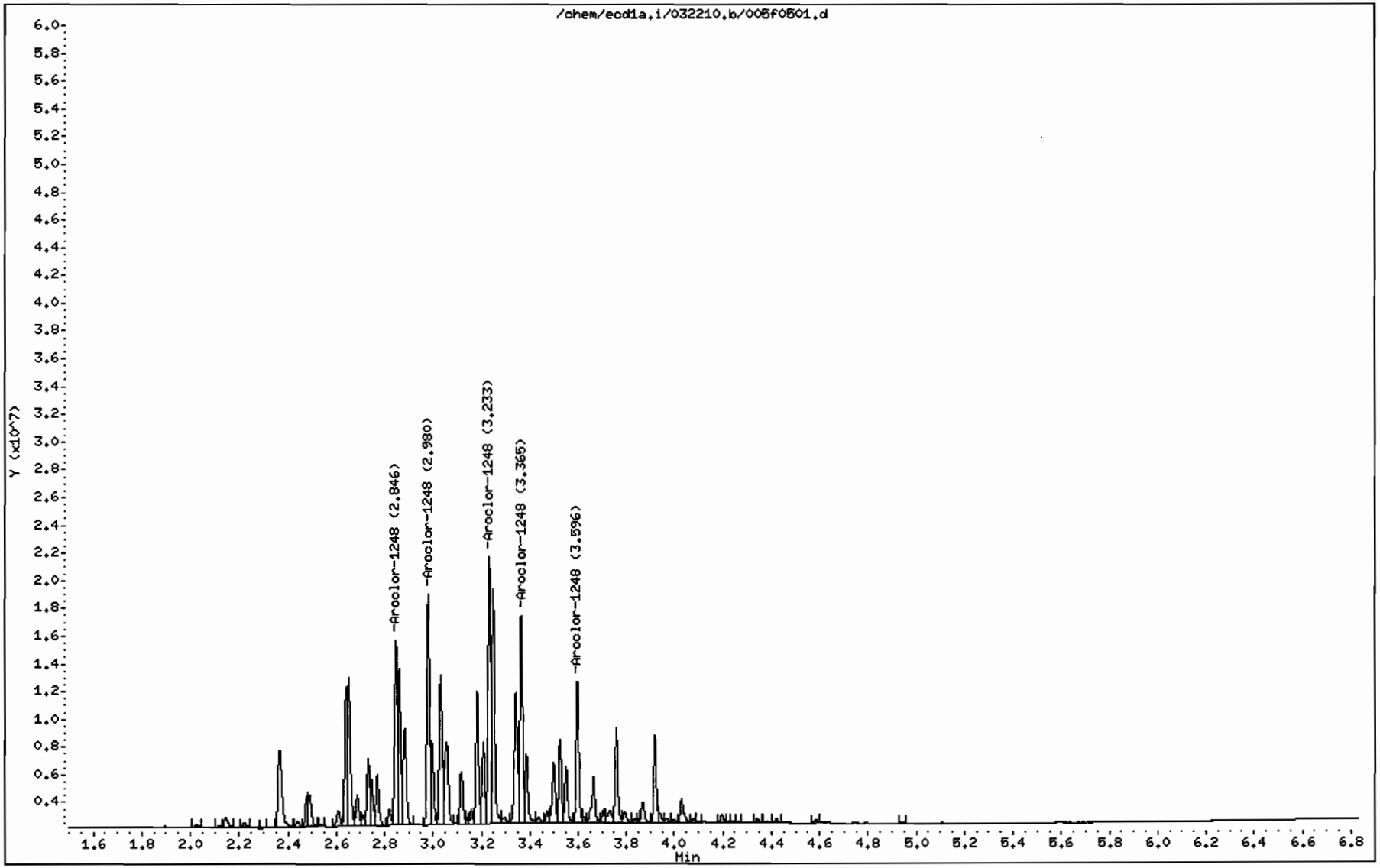

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 22-MAR-2010 07:34
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 14:29 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.374	3.374	0.000	7330805	1000.00	964	80.00- 120.00	100.00
3.539	3.539	0.000	9210376	1000.00	973	105.64- 145.64	125.64
3.772	3.772	0.000	10638996	1000.00	973	125.13- 165.13	145.13
3.800	3.800	0.000	11857575	1000.00	975	141.75- 181.75	161.75
3.936	3.936	0.000	11388434	1000.00	964	135.35- 175.35	155.35
Average of Peak Amounts =					970		

Data File: /chem/ecd1a.i/032210.b/005b0501.d

Date : 22-MAR-2010 07:34

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

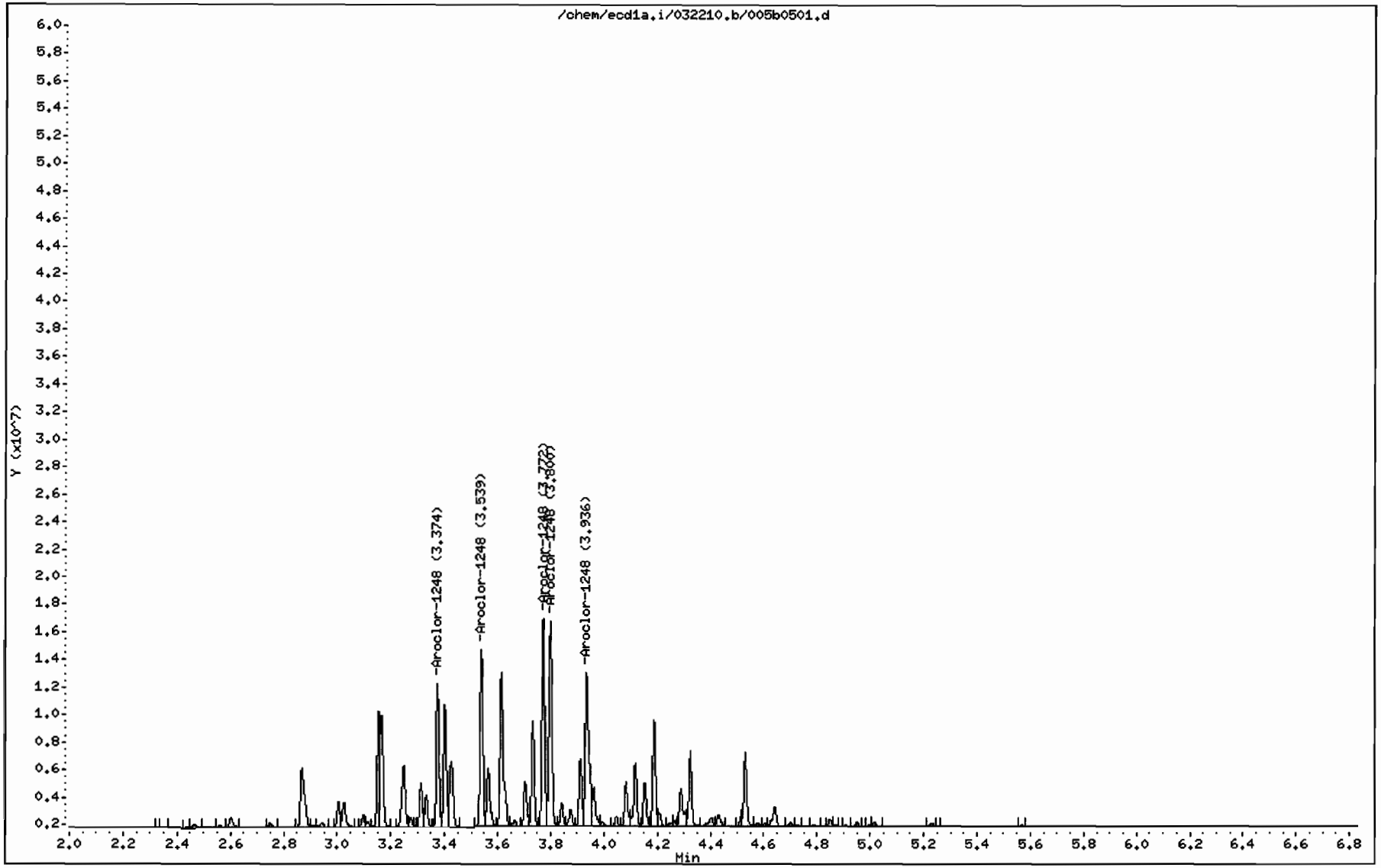

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/007f0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 22-MAR-2010 07:55
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 14:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.365	2.365	0.000	7070645	1000.00	1060	80.00- 120.00	100.00
2.650	2.650	0.000	8986908	1000.00	1080	107.10- 147.10	127.10
2.731	2.731	0.000	5817927	1000.00	1050	62.28- 102.28	82.28
2.845	2.845	0.000	2769308	1000.00	1040	19.17- 59.17	39.17
3.233	3.233	0.000	3708246	1000.00	1040	32.45- 72.45	52.45

Average of Peak Amounts = 1.06e+03

Data File: /chem/ecd1a.i/032210.b/007f0701.d

Page 1

Date : 22-MAR-2010 07:55

Client ID: AR123201

Instrument: ecd1a.i

Sample Info: IWAR100104-32

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

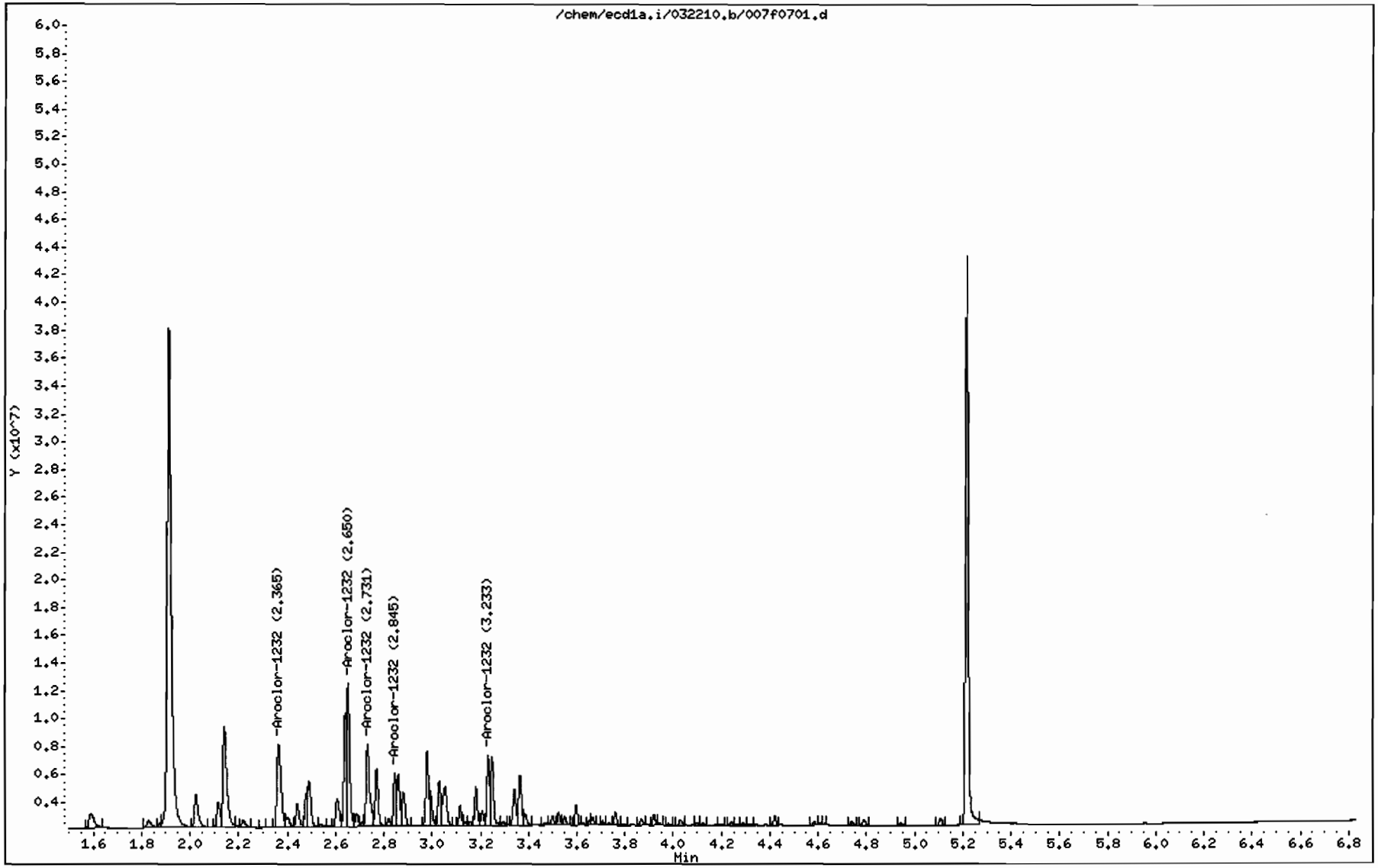

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/007b0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 22-MAR-2010 07:55
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 14:29 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.867	2.867	0.000	5277707	1000.00	1040	80.00- 120.00	100.00
3.165	3.165	0.000	6006794	1000.00	1050	93.81- 133.81	113.81
3.248	3.248	0.000	4076942	1000.00	1050	57.25- 97.25	77.25
3.538	3.538	0.000	3025590	1000.00	1060	37.33- 77.33	57.33
3.772	3.772	0.000	2986513	1000.00	1060	36.59- 76.59	56.59

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/032210.b/007b0701.d

Date : 22-MAR-2010 07:55

Client ID: AR123201

Sample Info: !WAR100104-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

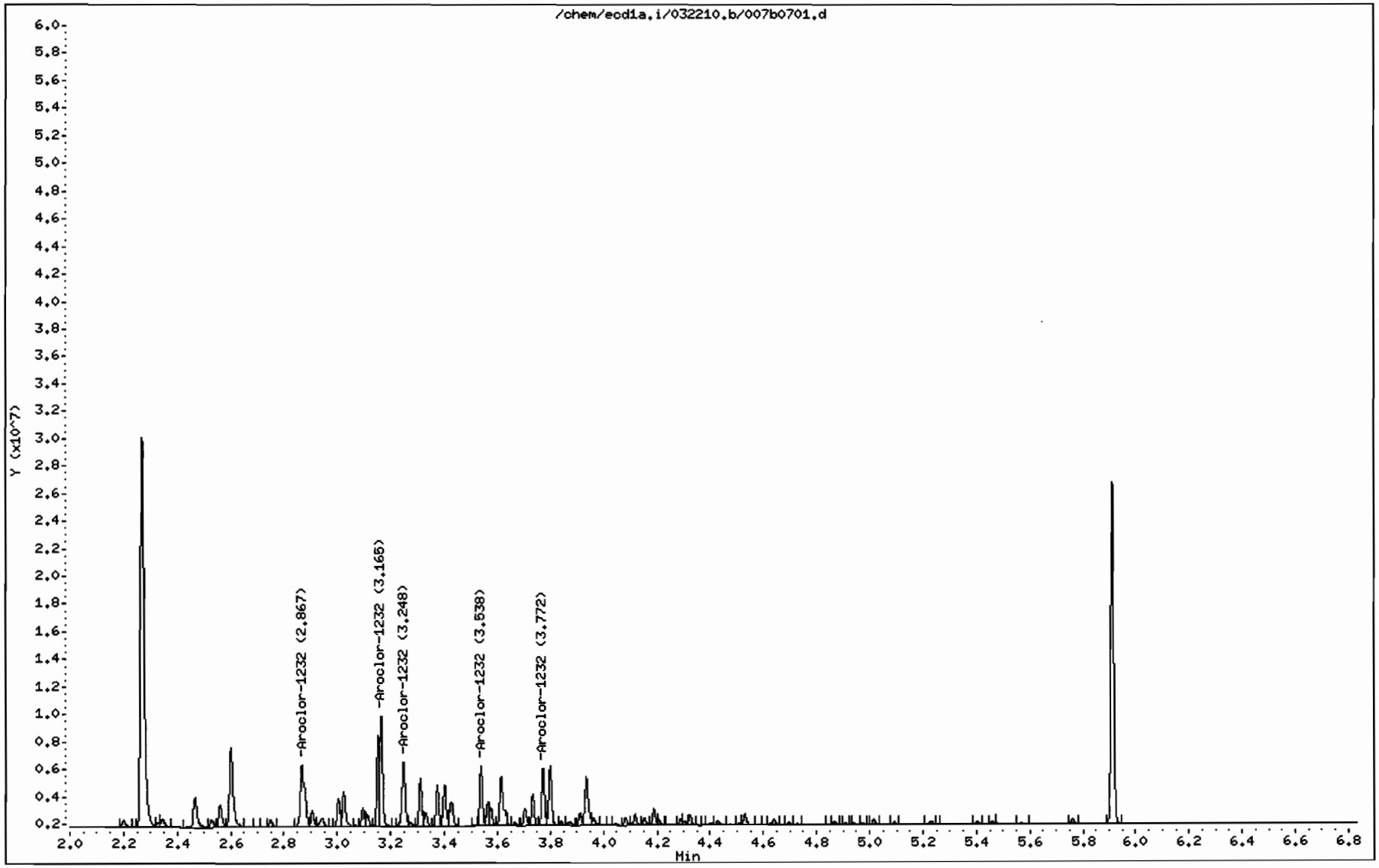

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/008f0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 22-MAR-2010 08:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 14:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.025	2.025	0.000	4694807	1000.00	1050	80.00- 120.00	100.00
2.117	2.117	0.000	2599048	1000.00	1060	35.36- 75.36	55.36
2.143	2.143	0.000	11298360	1000.00	1040	220.66- 260.66	240.66

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/032210.b/008f0801.d

Date : 22-MAR-2010 08:05

Client ID: AR122101

Sample Info: !WAR100104-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

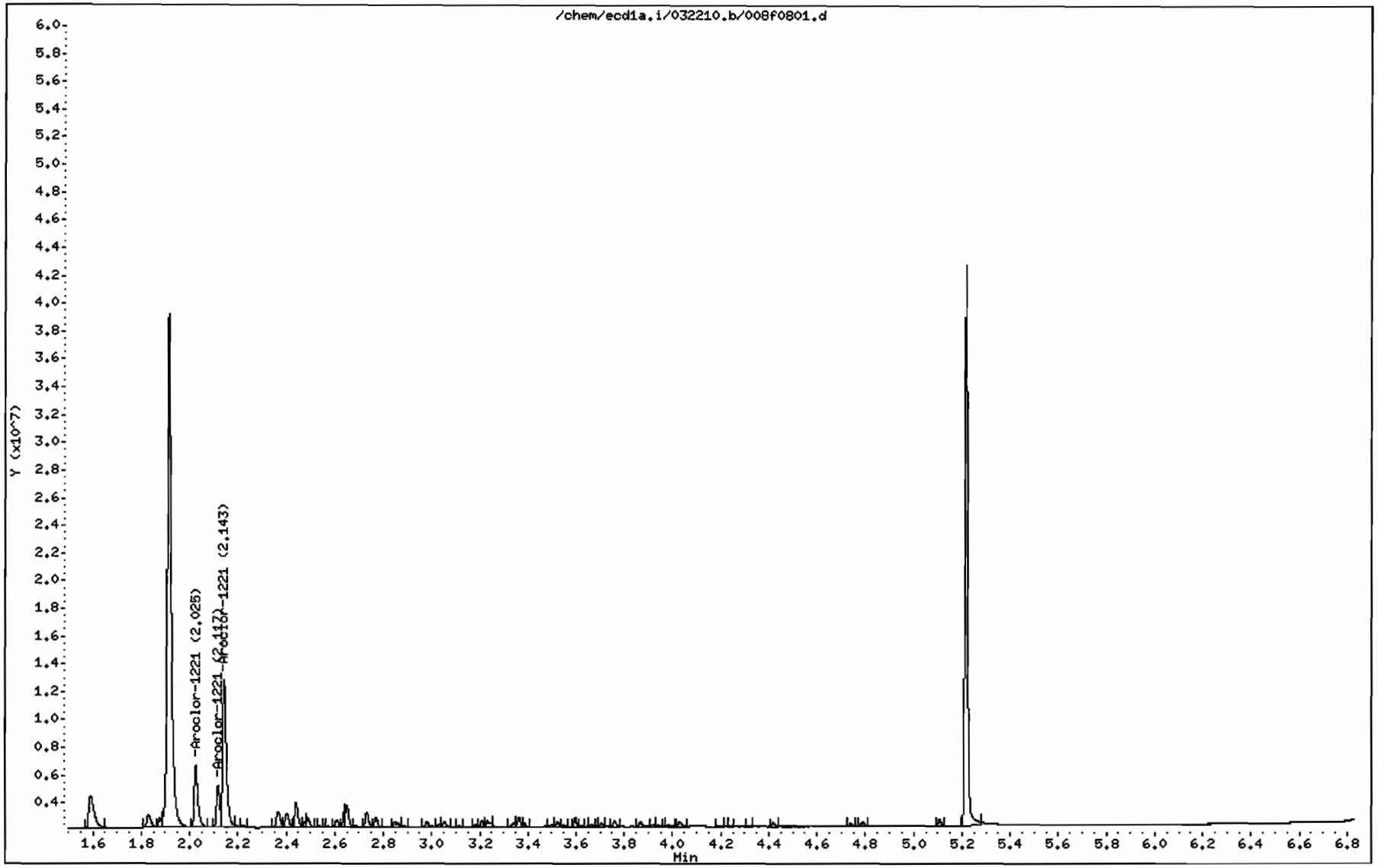

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/008b0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 22-MAR-2010 08:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 14:29 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.466	2.466	0.000	3329496	1000.00	1020	80.00- 120.00	100.00
2.560	2.560	0.000	2159259	1000.00	1040	44.85- 84.85	64.85
2.601	2.601	0.000	7455002	1000.00	1020	203.91- 243.91	223.91

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd1a.i/032210.b/008b0801.d

Page 1

Date : 22-MAR-2010 08:05

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: IWAR100104-21

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

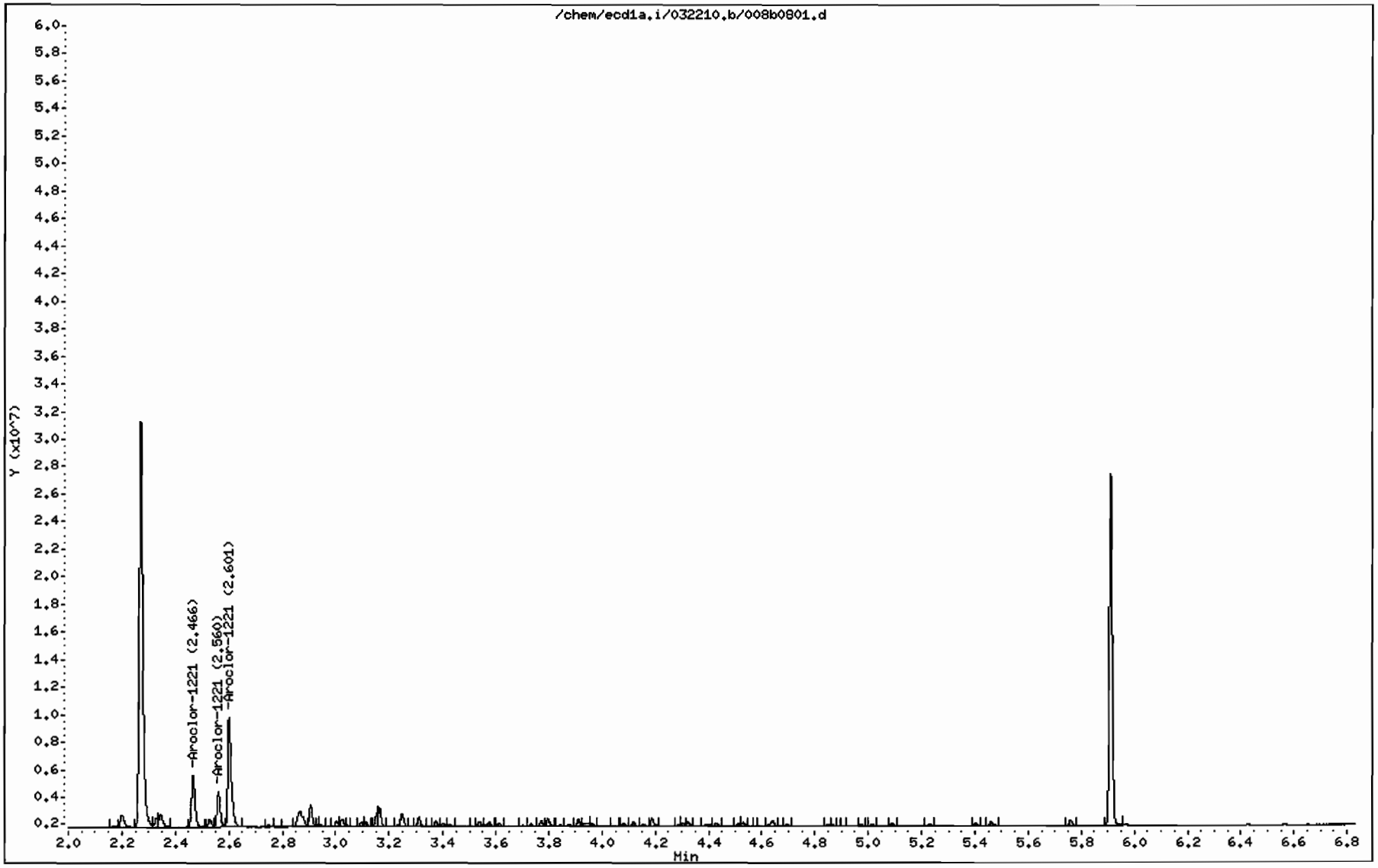

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/039f3901.d
Lab Smp Id: WAR100222-60 05 Client Smp ID: AR166005
Inj Date : 22-MAR-2010 14:15
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 22-Mar-2010 14:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 39 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.911	0.000	40980895	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.216	-0.002	29439266	100.000	99.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.362	2.364	-0.002	14558166	1000.00	959	80.00- 120.00	100.00
2.650	2.650	0.000	18690552	1000.00	987	108.39- 148.39	128.39
2.730	2.730	0.000	11737319	1000.00	943	60.62- 100.62	80.62
2.767	2.768	-0.001	7050596	1000.00	959	28.43- 68.43	48.43
2.977	2.978	-0.001	8989556	1000.00	944	41.75- 81.75	61.75
Average of Peak Amounts =					959		
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.704	-0.002	18876327	1000.00	1030	80.00- 120.00	100.00
3.865	3.866	-0.001	26762359	1000.00	995	121.78- 161.78	141.78
4.026	4.028	-0.002	27761487	1000.00	980	127.07- 167.07	147.07
4.096	4.096	0.000	16549459	1000.00	1020	67.67- 107.67	87.67
4.237	4.240	-0.003	17476717	1000.00	1040	72.59- 112.59	92.59
Average of Peak Amounts =					1.01e+03		

Data File: /chem/ecd1a.i/032210.b/039f3901.d

Date : 22-MAR-2010 14:15

Client ID: AR166005

Sample Info: IWAR100222-60 05

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

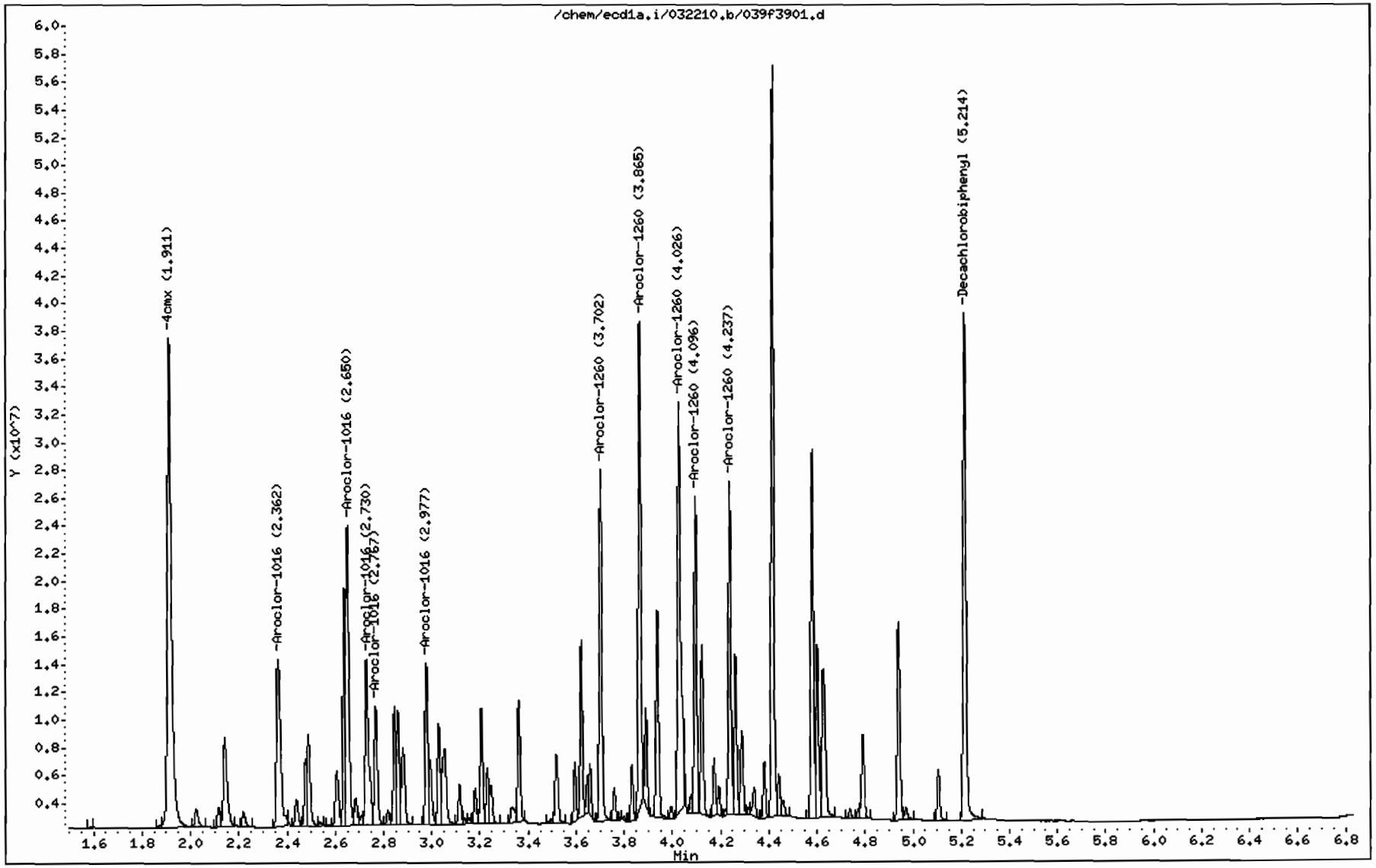

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/039b3901.d
Lab Smp Id: WAR100222-60 05 Client Smp ID: AR166005
Inj Date : 22-MAR-2010 14:15
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 22-Mar-2010 14:29 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 39 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.268	2.269	-0.001	26184988	100.000	99.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.911	0.000	18305179	100.000	97.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.163	3.164	-0.001	12241773	1000.00	973	80.00- 120.00	100.00(M)
3.246	3.246	0.000	7815854	1000.00	905	43.85- 83.85	63.85
3.310	3.310	0.000	4849138	1000.00	917	19.61- 59.61	39.61
3.536	3.537	-0.001	6138081	1000.00	890	30.14- 70.14	50.14
3.612	3.612	0.000	5733339	1000.00	893	26.83- 66.83	46.83
Average of Peak Amounts =					916		
7 Aroclor-1260					CAS #: 11096-82-5		
4.301	4.303	-0.002	12788482	1000.00	978	80.00- 120.00	100.00
4.426	4.428	-0.002	15581586	1000.00	1000	101.84- 141.84	121.84
4.692	4.694	-0.002	11735713	1000.00	986	71.77- 111.77	91.77
4.866	4.867	-0.001	12213321	1000.00	994	75.50- 115.50	95.50
5.013	5.014	-0.001	27088090	1000.00	1030	191.82- 231.82	211.82
Average of Peak Amounts =					997		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032210.b/039b3901.d
Date : 22-MAR-2010 14:15
Client ID: AR166005
Sample Info: IWAR100222-60 05

Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

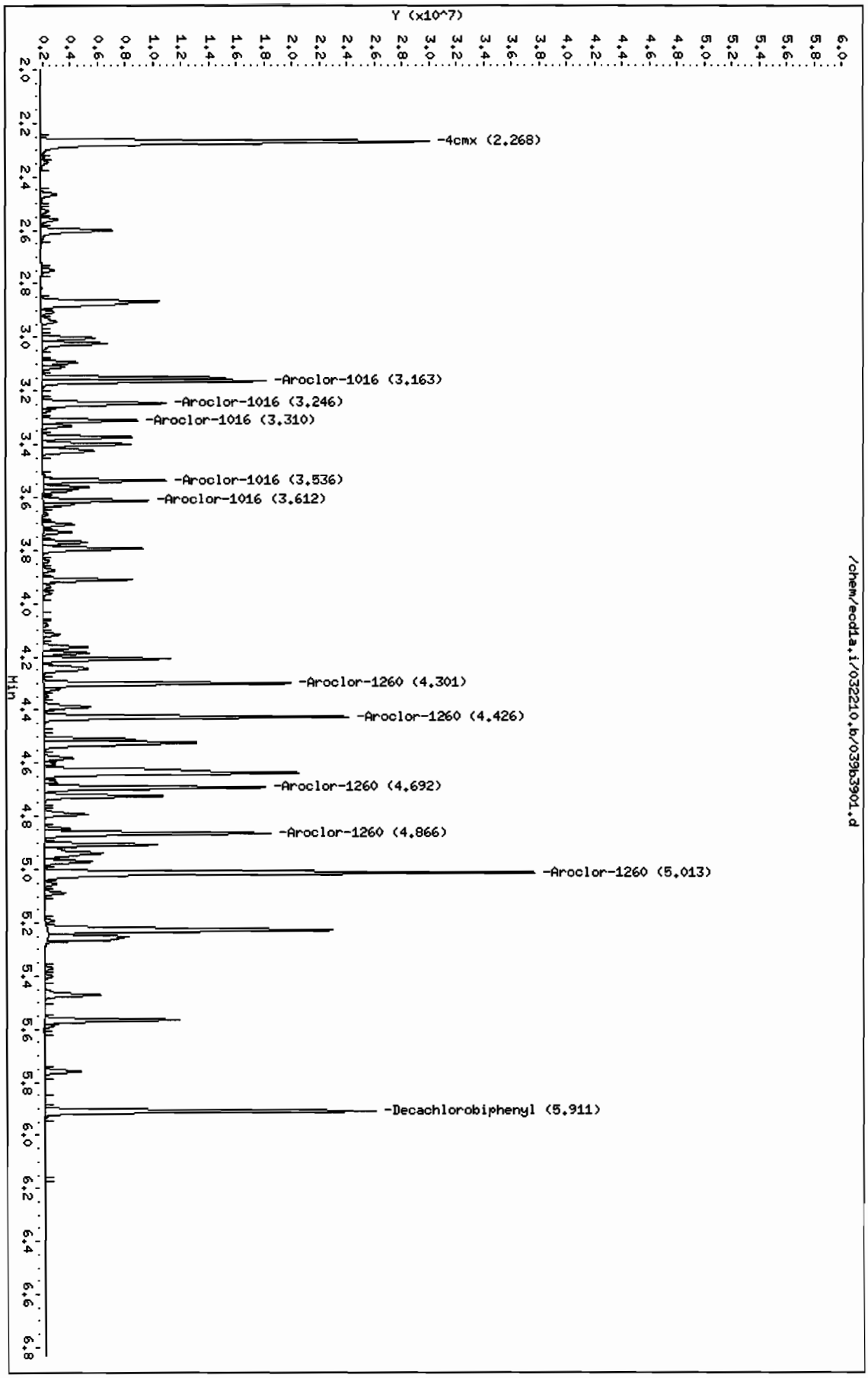

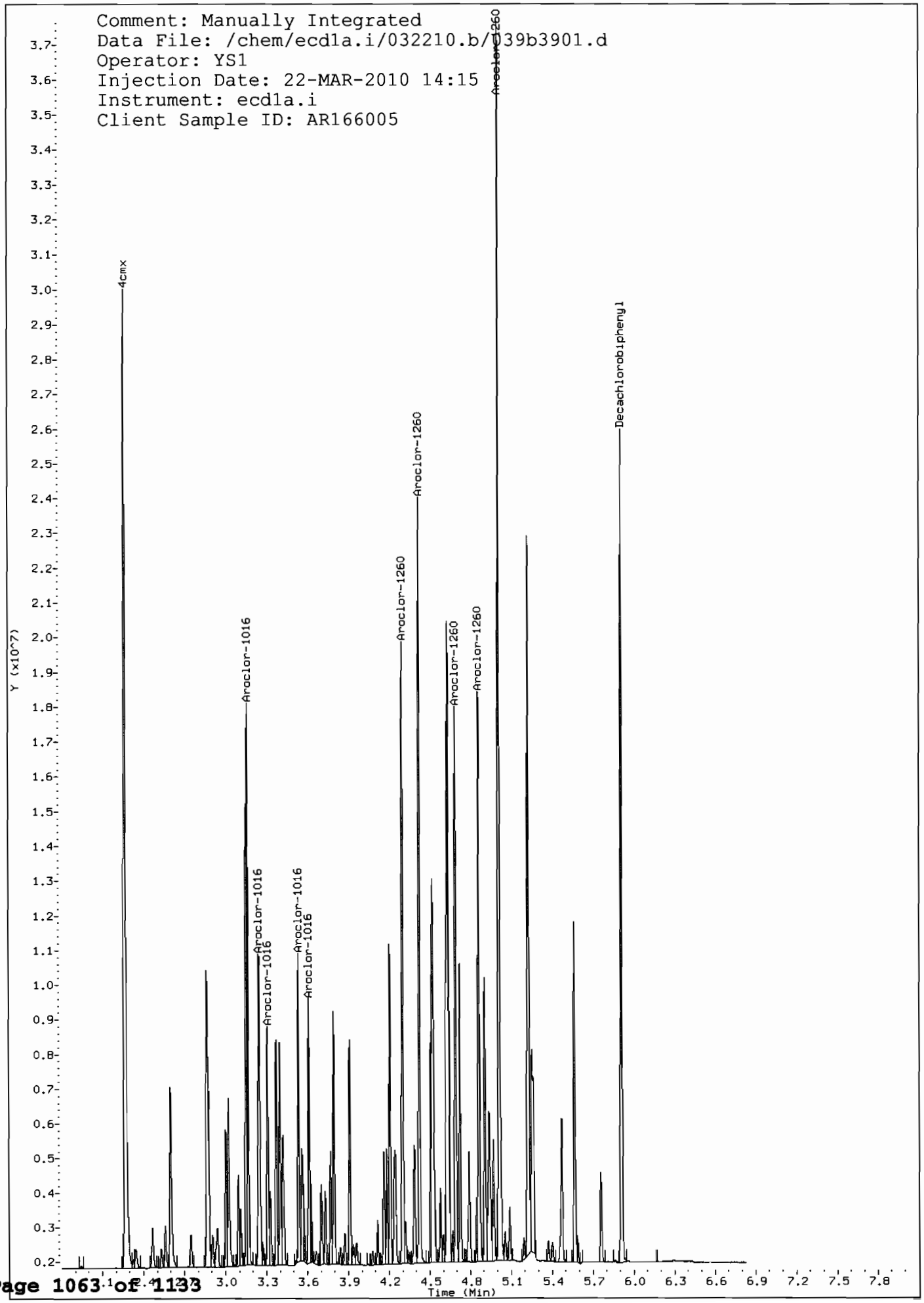
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032210.b/039b3901.d
Operator: YS1
Injection Date: 22-MAR-2010 14:15
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

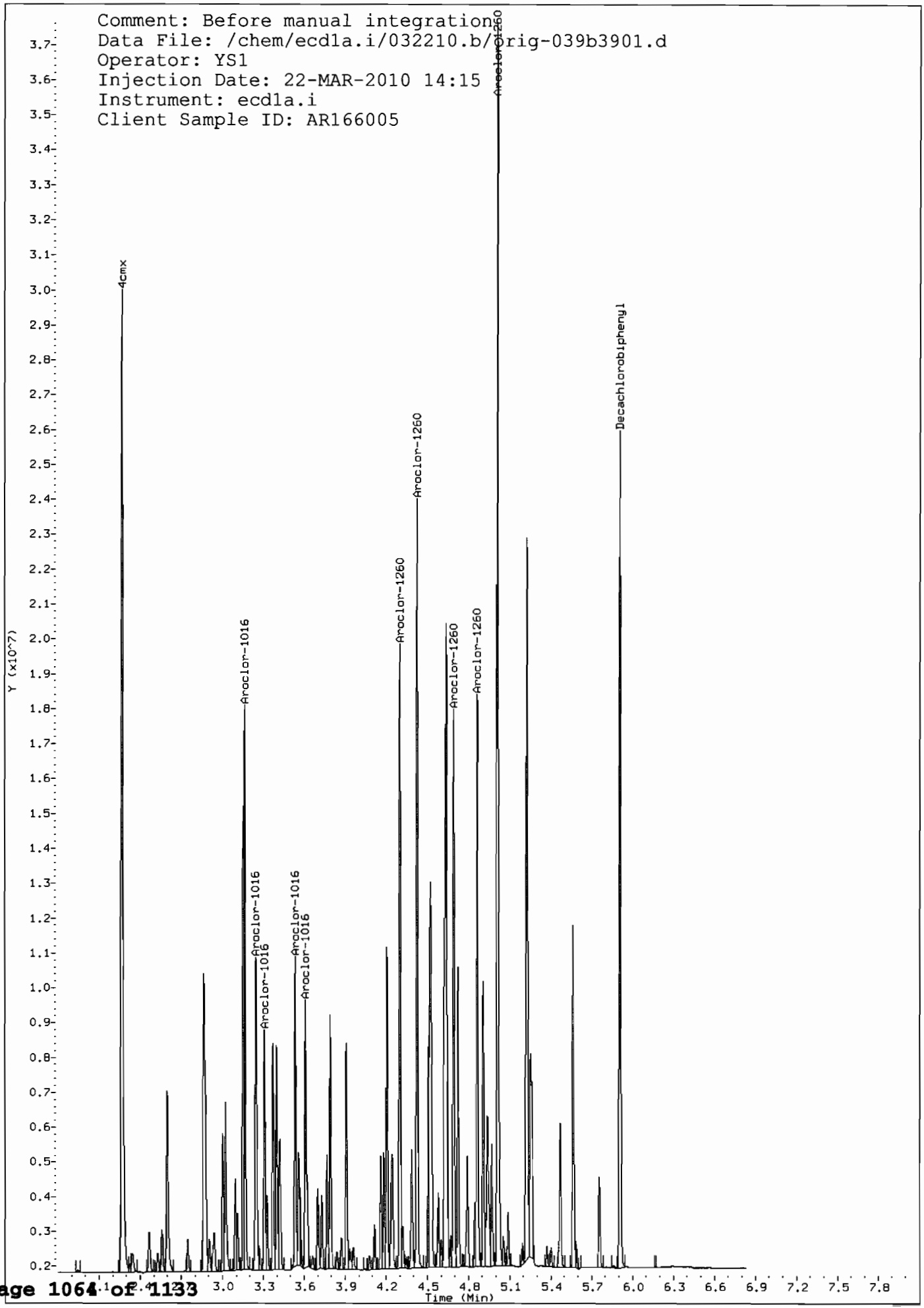
Comment: Before manual integration
Data File: /chem/ecd1a.i/032210.b/orig-039b3901.d
Operator: YS1
Injection Date: 22-MAR-2010 14:15
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/051f5101.d
Lab Smp Id: WAR100222-60 06 Client Smp ID: AR166006
Inj Date : 22-MAR-2010 16:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 06
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 23-Mar-2010 06:35 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 51 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.911	0.001	41740695	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.216	-0.002	30698588	100.000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.364	0.000	14822526	1000.00	977	80.00- 120.00	100.00
2.650	2.650	0.000	19056564	1000.00	1010	108.56- 148.56	128.56
2.730	2.730	0.000	11883418	1000.00	955	60.17- 100.17	80.17
2.768	2.768	0.000	7124432	1000.00	970	28.06- 68.06	48.06
2.978	2.978	0.000	9329797	1000.00	980	42.94- 82.94	62.94
Average of Peak Amounts =					978		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.704	-0.001	19625186	1000.00	1070	80.00- 120.00	100.00
3.865	3.866	-0.001	28850077	1000.00	1070	127.01- 167.01	147.01
4.028	4.028	0.000	30927653	1000.00	1090	137.59- 177.59	157.59
4.095	4.096	-0.001	17403520	1000.00	1080	68.68- 108.68	88.68
4.238	4.240	-0.002	18042837	1000.00	1070	71.94- 111.94	91.94
Average of Peak Amounts =					1.08e+03		

Data File: /chem/ecd1a.i/032210.b/051f5101.d

Date : 22-MAR-2010 16:42

Client ID: AR166006

Sample Info: IWAR100222-60 06

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

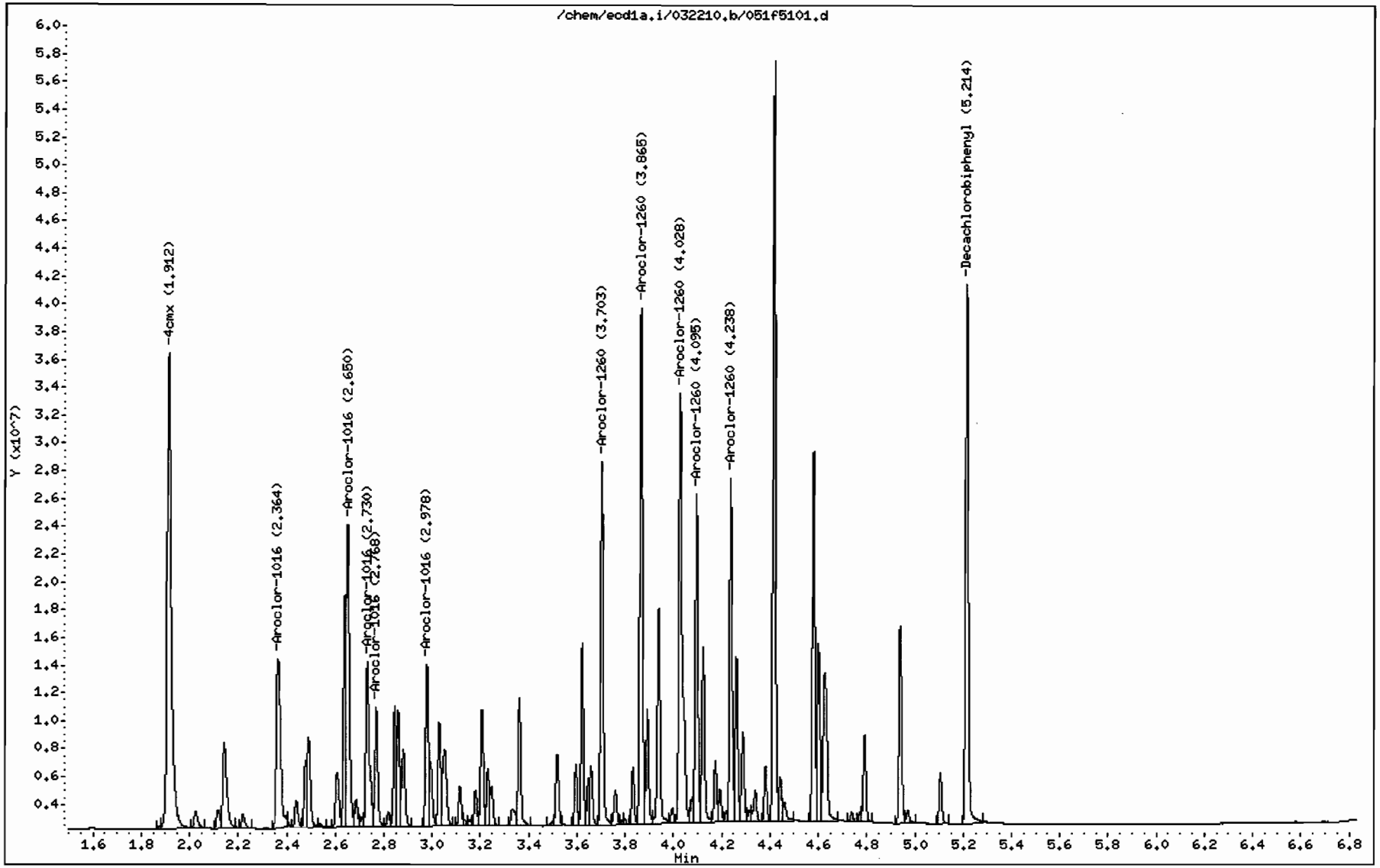

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/051b5101.d
Lab Smp Id: WAR100222-60 06 Client Smp ID: AR166006
Inj Date : 22-MAR-2010 16:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 06
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 51 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	26717795	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.911	-0.001	18148543	100.000	97.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.164	0.000	11962559	1000.00	950	80.00- 120.00	100.00(M)
3.247	3.246	0.001	7938268	1000.00	919	45.75- 85.75	66.36
3.310	3.310	0.000	4918804	1000.00	930	20.72- 60.72	41.12
3.537	3.537	0.000	6184622	1000.00	897	31.59- 71.59	51.70
3.613	3.612	0.001	5880069	1000.00	916	38.09- 78.09	58.07
Average of Peak Amounts =					923		
7 Aroclor-1260					CAS #: 11096-82-5		
4.303	4.303	0.000	12863423	1000.00	983	80.00- 120.00	100.00
4.428	4.428	0.000	15672553	1000.00	1010	101.68- 141.68	121.84
4.693	4.694	-0.001	11730961	1000.00	986	71.42- 111.42	91.20
4.865	4.867	-0.002	12173416	1000.00	990	74.52- 114.52	94.64
5.013	5.014	-0.001	27097796	1000.00	1030	190.00- 230.00	210.66
Average of Peak Amounts =					999		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032210.b/051b5101.d
Date : 22-MAR-2010 16:42
Client ID: AR166006
Sample Info: IMAR100222-60 06

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

Column phase: CLP2

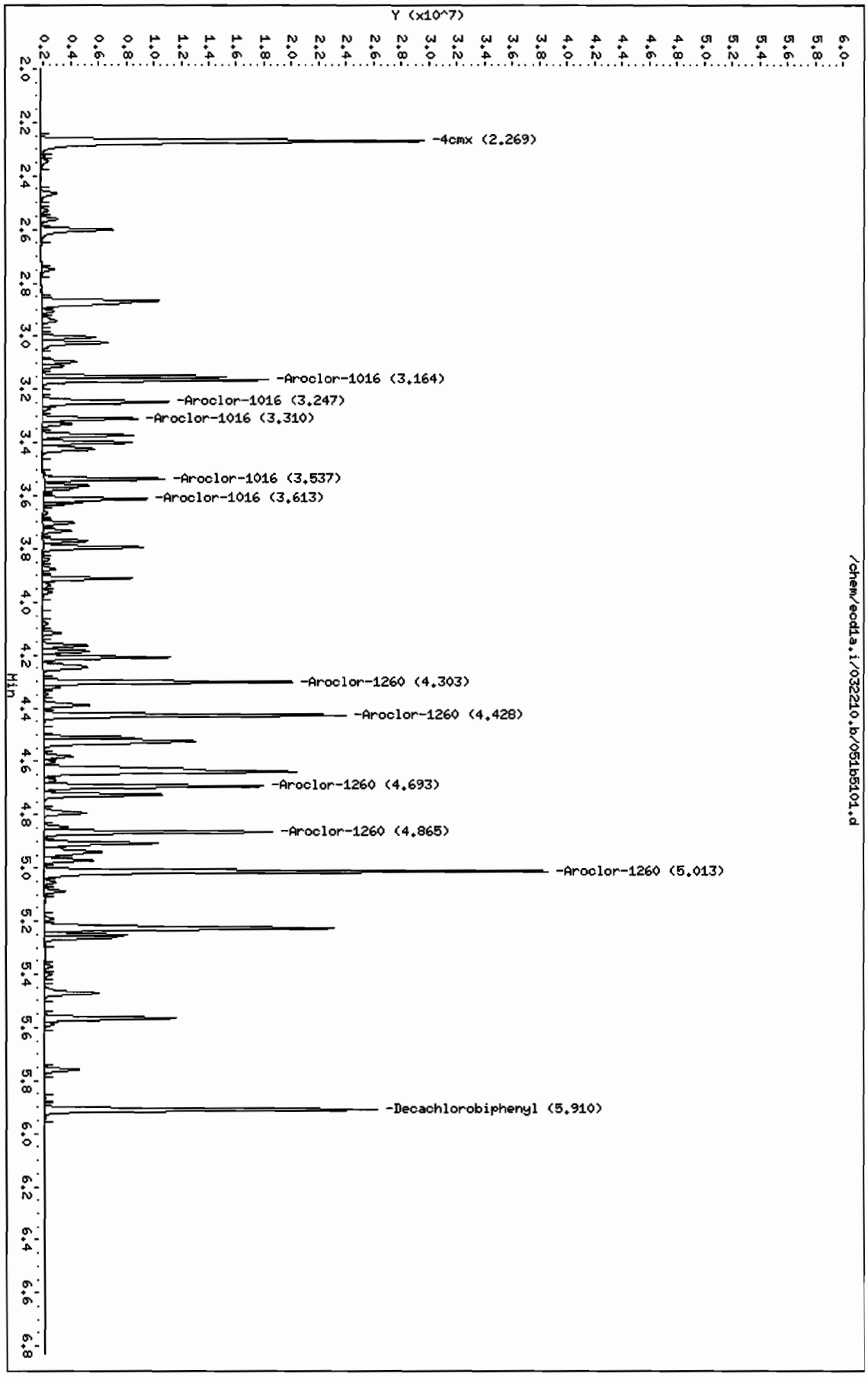

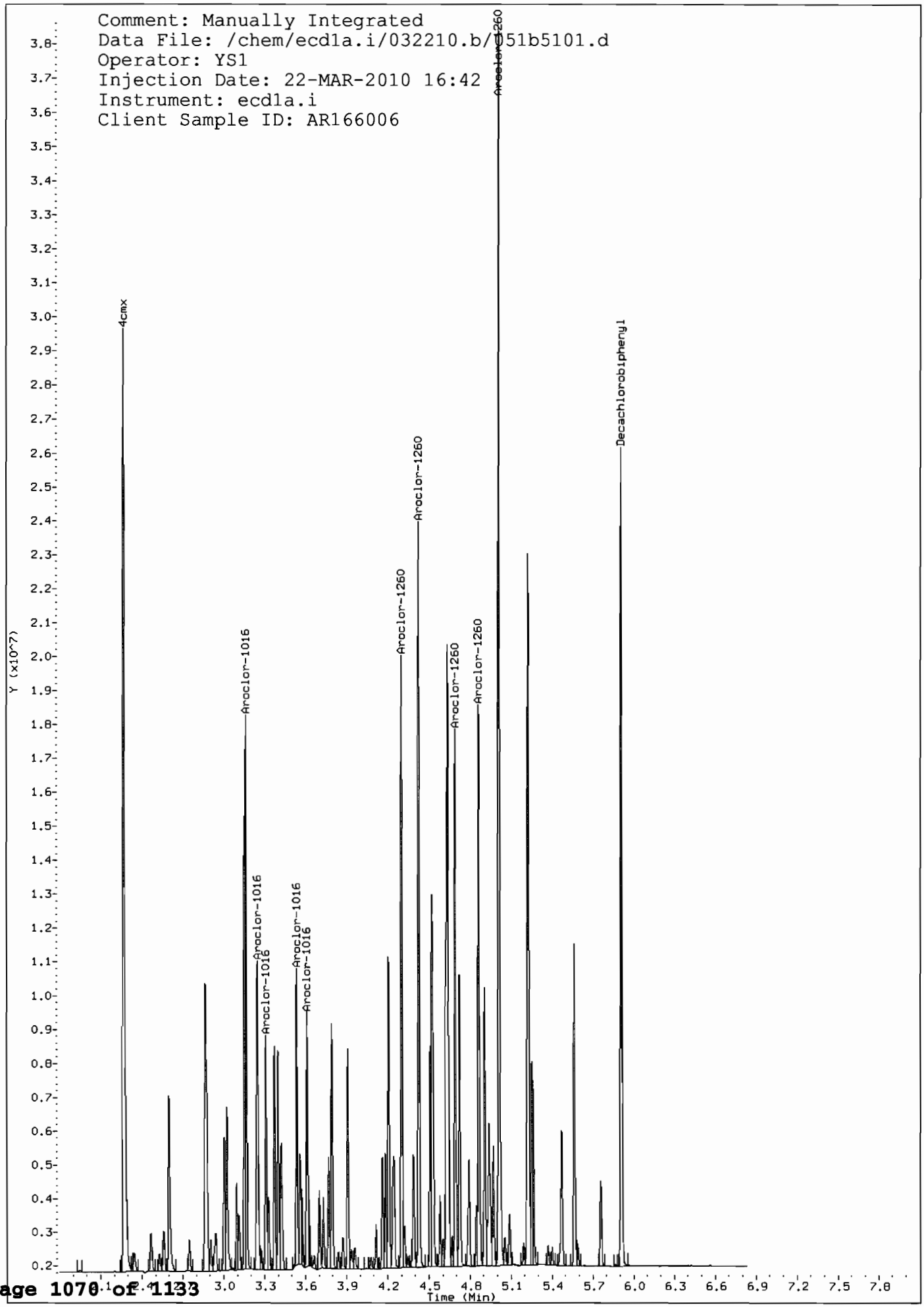
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032210.b/051b5101.d
Operator: YS1
Injection Date: 22-MAR-2010 16:42
Instrument: ecd1a.i
Client Sample ID: AR166006
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

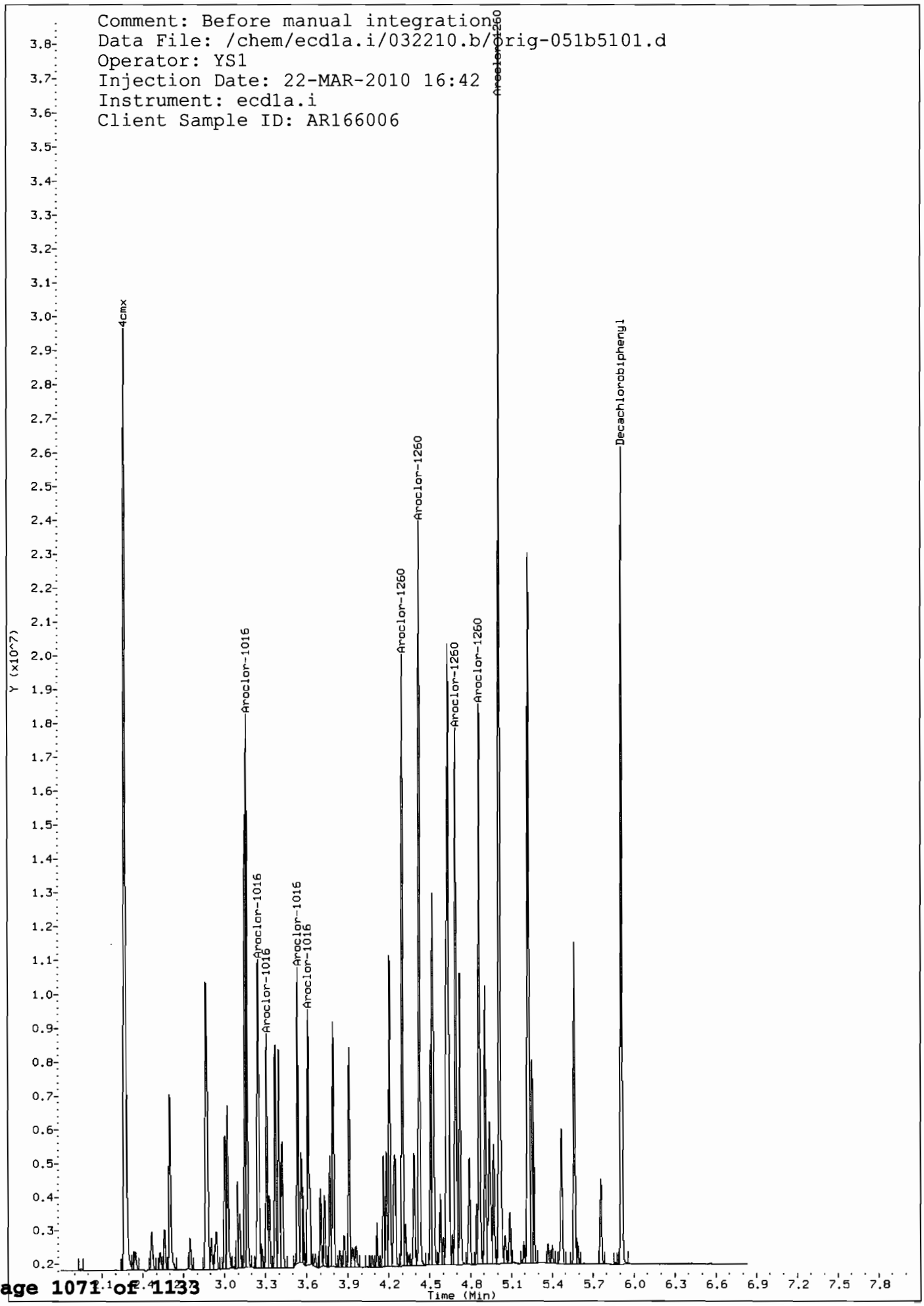
Comment: Before manual integration
Data File: /chem/ecd1a.i/032210.b/orig-051b5101.d
Operator: YS1
Injection Date: 22-MAR-2010 16:42
Instrument: ecd1a.i
Client Sample ID: AR166006
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/059f5901.d
Lab Smp Id: WAR100222-60 07 Client Smp ID: AR166007
Inj Date : 22-MAR-2010 18:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 07
Misc Info :
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 59 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.911	0.000	42036940	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobipheny1					CAS #: 2051-24-3		
5.216	5.216	0.000	29968558	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.364	0.000	14897058	1000.00	982	80.00- 120.00	100.00
2.651	2.650	0.001	19790410	1000.00	1040	112.85- 152.85	132.85
2.731	2.730	0.001	11925868	1000.00	958	60.06- 100.06	80.06
2.768	2.768	0.000	7195884	1000.00	979	28.30- 68.30	48.30
2.978	2.978	0.000	9279876	1000.00	975	42.29- 82.29	62.29
Average of Peak Amounts =					988		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.704	-0.001	19357937	1000.00	1060	80.00- 120.00	100.00
3.866	3.866	0.000	28793163	1000.00	1070	128.74- 168.74	148.74
4.027	4.028	-0.001	30770032	1000.00	1090	138.95- 178.95	158.95
4.096	4.096	0.000	17346423	1000.00	1070	69.61- 109.61	89.61
4.238	4.240	-0.002	17995939	1000.00	1070	72.96- 112.96	92.96
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd1a.i/032210.b/059F5901.d
Date : 22-MAR-2010 18:23
Client ID: AR166007
Sample Info: IWAR100222-60 07

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

Column phase: CLP1

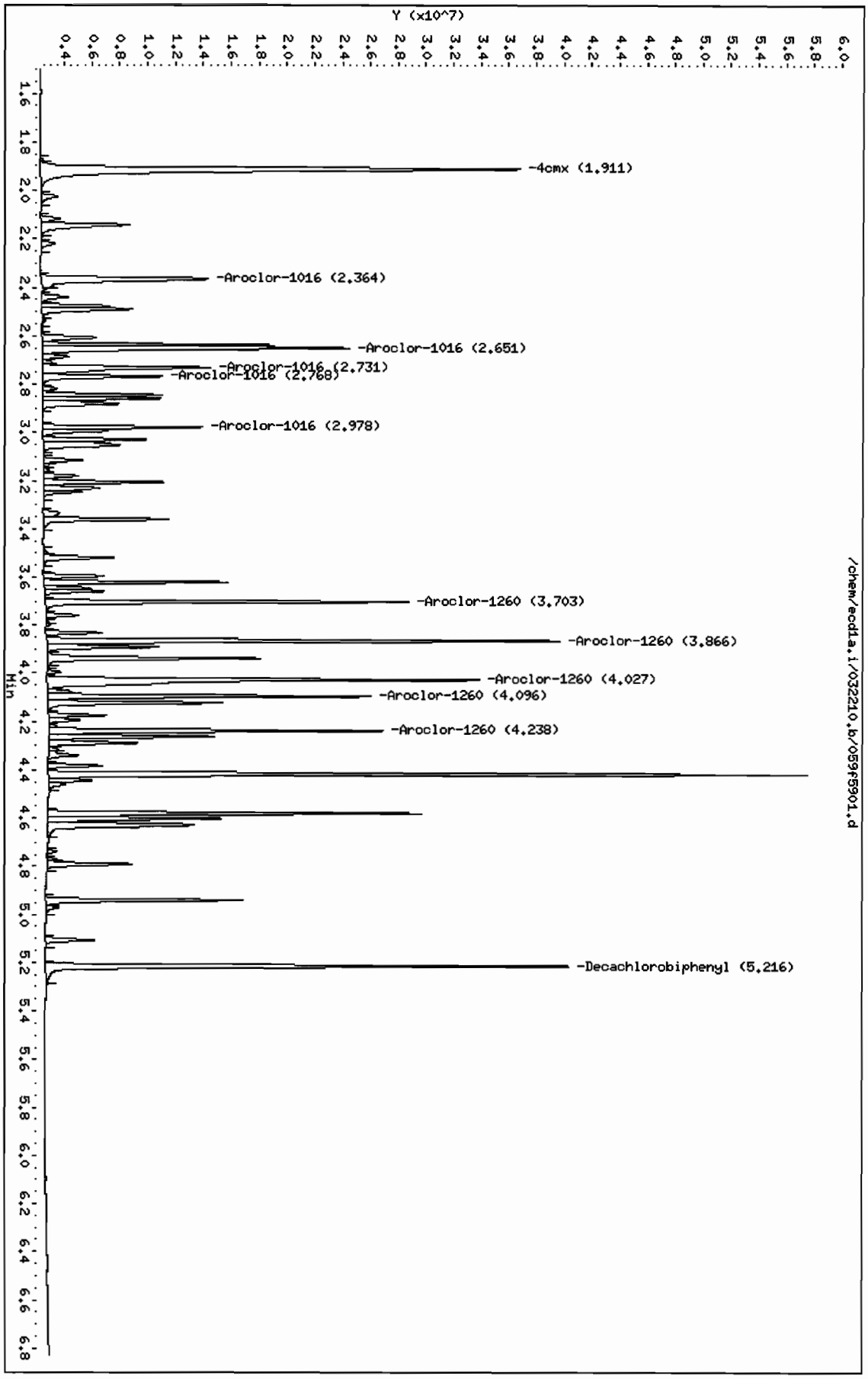

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/032210.b/059b5901.d
Lab Smp Id: WAR100222-60 07 Client Smp ID: AR166007
Inj Date : 22-MAR-2010 18:23
Operator : YS1 Inst ID: ecdla.i
Smp Info : |WAR100222-60 07
Misc Info :
Comment :
Method : /chem/ecdla.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 59 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	26845196	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.911	0.000	18000702	100.000	96.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.164	0.000	12122042	1000.00	963	80.00- 120.00	100.00(M)
3.246	3.246	0.000	7970362	1000.00	923	46.36- 86.36	65.75
3.310	3.310	0.000	4936142	1000.00	934	21.12- 61.12	40.72
3.537	3.537	0.000	6506802	1000.00	944	31.70- 71.70	53.68
3.612	3.612	0.000	6027296	1000.00	938	29.15- 69.15	59.84
Average of Peak Amounts =					940		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.303	-0.001	12863255	1000.00	983	80.00- 120.00	100.00
4.427	4.428	-0.001	15652044	1000.00	1010	101.84- 141.84	121.68
4.693	4.694	-0.001	11759940	1000.00	988	71.20- 111.20	91.42
4.866	4.867	-0.001	12158157	1000.00	989	74.64- 114.64	94.52
5.014	5.014	0.000	27013231	1000.00	1020	190.66- 230.66	210.00
Average of Peak Amounts =					998		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032210.b/059b5901.d

Date : 22-MAR-2010 18:23

Client ID: AR166007

Sample Info: IWAR100222-60 07

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

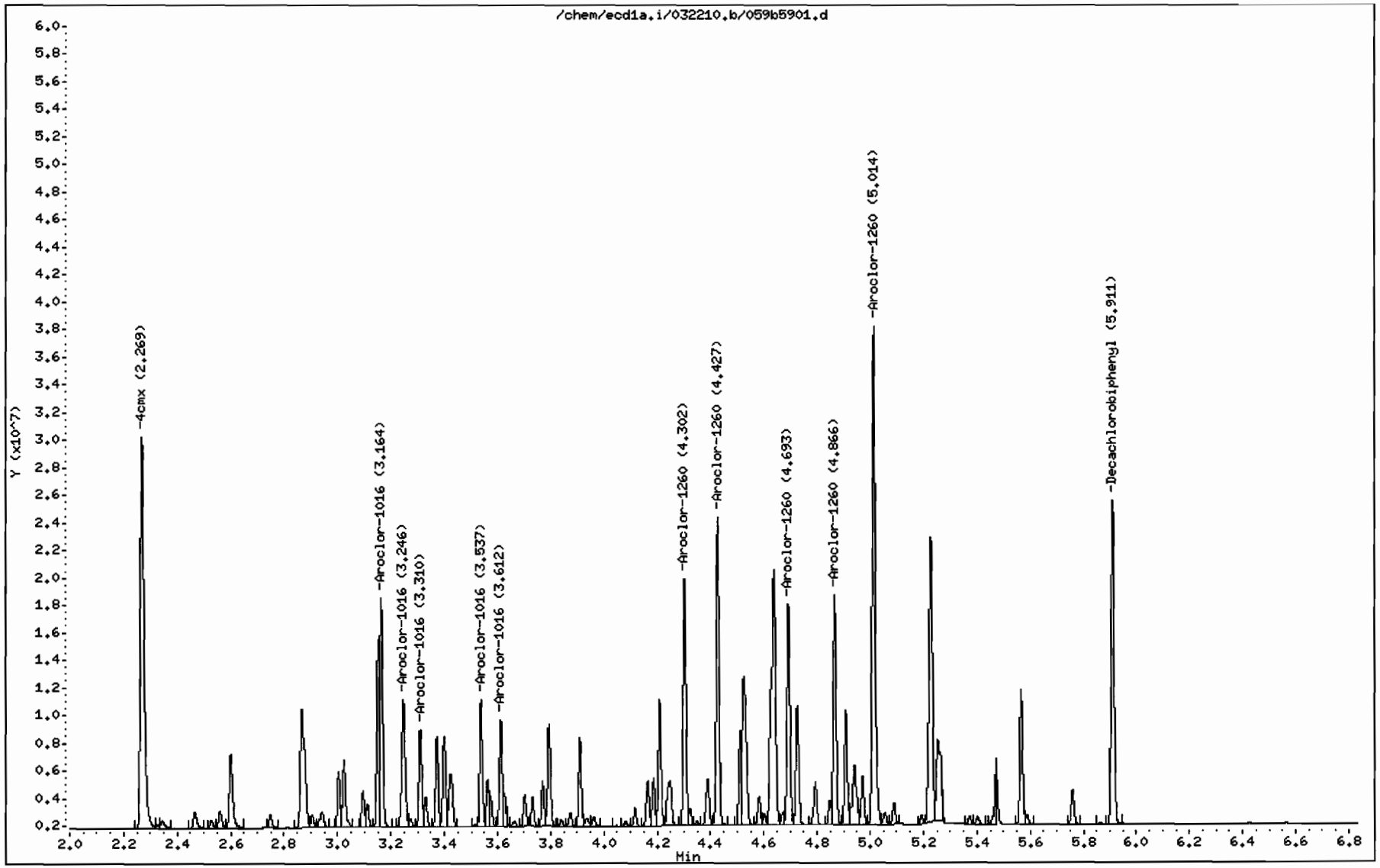

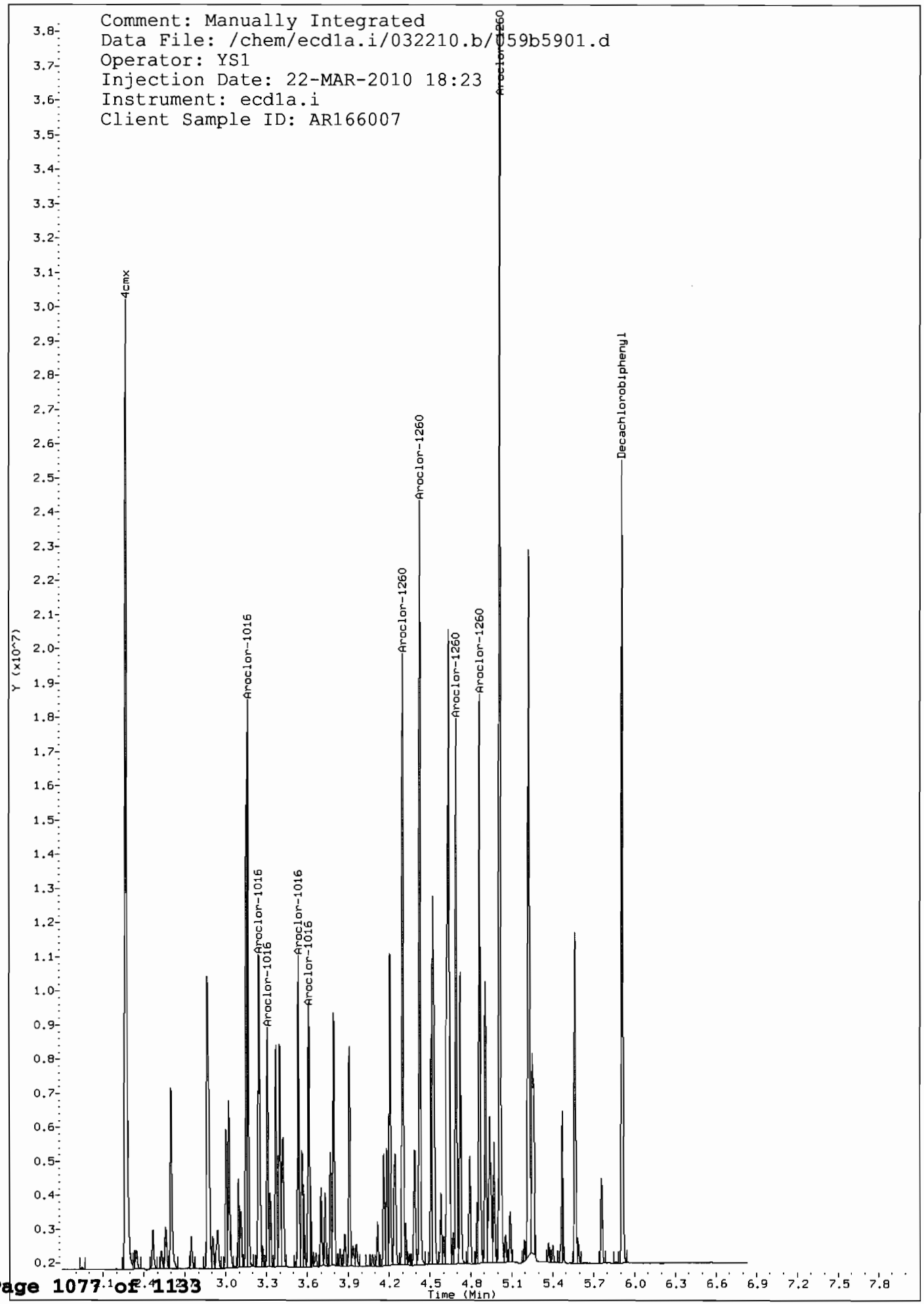
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032210.b/059b5901.d
Operator: YS1
Injection Date: 22-MAR-2010 18:23
Instrument: ecd1a.i
Client Sample ID: AR166007
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

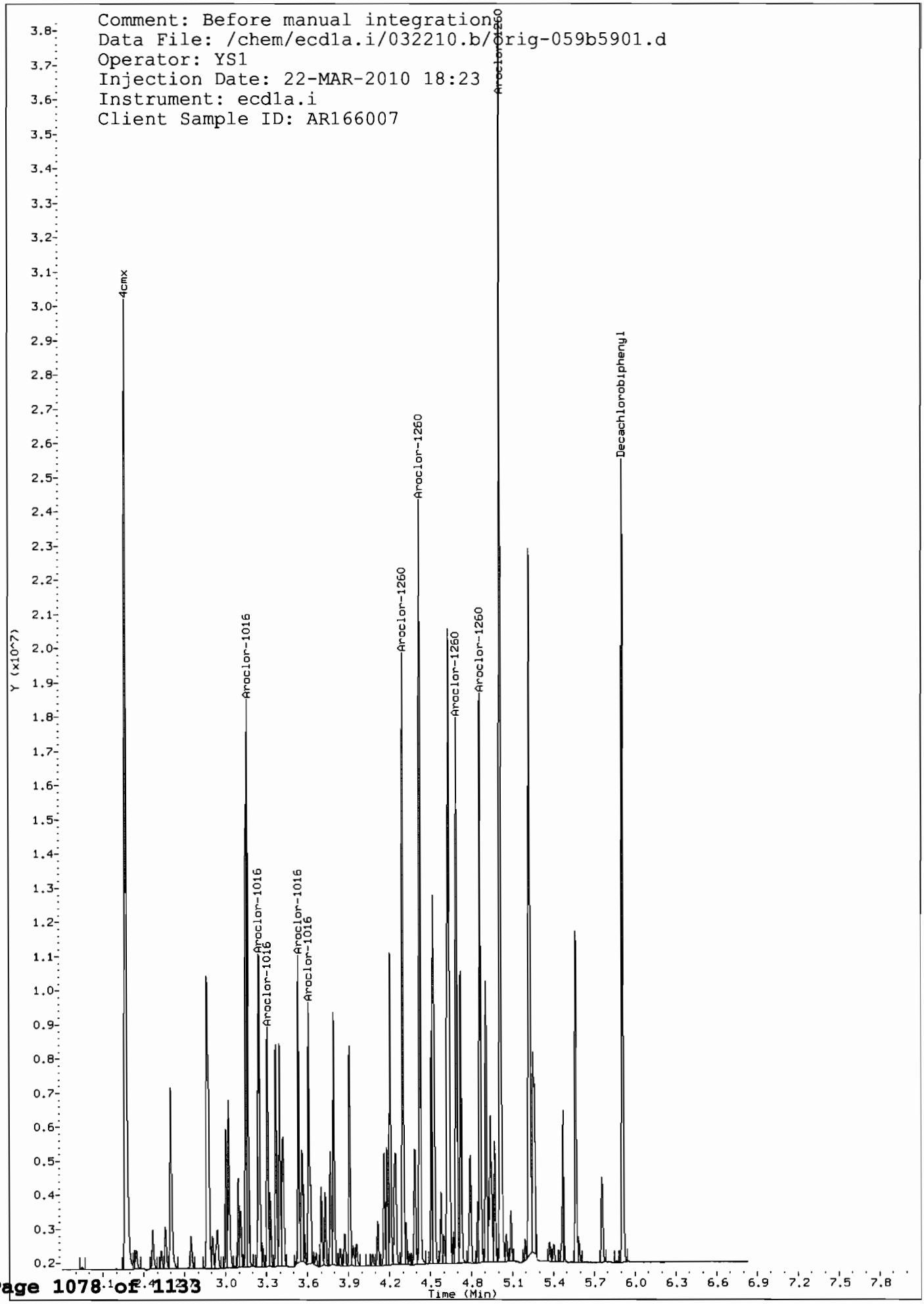
Comment: Before manual integration
Data File: /chem/ecd1a.i/032210.b/orig-059b5901.d
Operator: YS1
Injection Date: 22-MAR-2010 18:23
Instrument: ecd1a.i
Client Sample ID: AR166007
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10	1446	1.91	5.23
02	AR166001DUSE	WAR100222-60	03/11/10	1456	1.92	5.22
03	AR125401	WAR100219-54	03/11/10	1507		
04	AR124201	WAR100219-42	03/11/10	1517		
05	AR124801	WAR100223-48	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	1.92	5.22
12	AR166002	WAR100311-02	03/11/10	1641	1.92	5.22
13	AR166003	WAR100311-03	03/11/10	1652	1.92	5.22
14	AR166004	WAR100311-04	03/11/10	1702	1.91	5.22
15	AR166005	IAR100311-01	03/11/10	1713	1.92	5.22
16	AR166001	WAR100222-60	03/11/10	1724	1.91	5.22
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	1.91	5.22
04	ZZZZZ	ZZZZZ	03/11/10	2054	1.92	5.22
05	ZZZZZ	ZZZZZ	03/11/10	2105	1.92	5.22
06	ZZZZZ	ZZZZZ	03/11/10	2115	1.92	5.22
07	ZZZZZ	ZZZZZ	03/11/10	2126	1.92	5.22
08	ZZZZZ	ZZZZZ	03/11/10	2136	1.92	5.22
09	ZZZZZ	ZZZZZ	03/11/10	2147	1.92	5.22
10	ZZZZZ	ZZZZZ	03/11/10	2157	1.92	5.22
11	ZZZZZ	ZZZZZ	03/11/10	2208	1.92	5.22
12	ZZZZZ	ZZZZZ	03/11/10	2218	1.92	5.22
13	ZZZZZ	ZZZZZ	03/11/10	2229	1.92	5.22
14	AR	WAR100222-60	03/11/10	2239	1.91	5.22
15	PIBLK03	WAR100219-99	03/11/10	2250	1.91	5.22
16	ZZZZZ	ZZZZZ	03/11/10	2300	1.90	5.23
17	ZZZZZ	ZZZZZ	03/11/10	2311	1.92	5.22
18	AR	WAR100219-99	03/11/10	2321	1.91	5.22
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10	1446	2.27	5.92
02	AR166001DUSE	WAR100222-60	03/11/10	1456	2.27	5.92
03	AR125401	WAR100219-54	03/11/10	1507		
04	AR124201	WAR100219-42	03/11/10	1517		
05	AR124801	WAR100223-48	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	2.27	5.92
12	AR166002	WAR100311-02	03/11/10	1641	2.27	5.92
13	AR166003	WAR100311-03	03/11/10	1652	2.27	5.92
14	AR166004	WAR100311-04	03/11/10	1702	2.27	5.92
15	AR166005	IAR100311-01	03/11/10	1713	2.27	5.92
16	AR166001	WAR100222-60	03/11/10	1724	2.27	5.92
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	2.27	5.92
04	ZZZZZ	ZZZZZ	03/11/10	2054	2.28	5.92
05	ZZZZZ	ZZZZZ	03/11/10	2105	2.28	5.92
06	ZZZZZ	ZZZZZ	03/11/10	2115	2.28	5.92
07	ZZZZZ	ZZZZZ	03/11/10	2126	2.28	5.92
08	ZZZZZ	ZZZZZ	03/11/10	2136	2.28	5.92
09	ZZZZZ	ZZZZZ	03/11/10	2147	2.28	5.92
10	ZZZZZ	ZZZZZ	03/11/10	2157	2.28	5.92
11	ZZZZZ	ZZZZZ	03/11/10	2208	2.28	5.92
12	ZZZZZ	ZZZZZ	03/11/10	2218	2.28	5.92
13	ZZZZZ	ZZZZZ	03/11/10	2229	2.28	5.92
14	AR166002	WAR100222-60	03/11/10	2239	2.27	5.92
15	PIBLK03	WAR100219-99	03/11/10	2250	2.27	5.92
16	ZZZZZ	ZZZZZ	03/11/10	2300		5.92
17	ZZZZZ	ZZZZZ	03/11/10	2311		5.23*
18	ZZZZZ	ZZZZZ	03/11/10	2321		
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/22/10	0652	1.91	5.21
02	AR166001	WAR100222-60	03/22/10	0702	1.91	5.22
03	AR125401	WAR100219-54	03/22/10	0713		
04	AR124201	WAR100219-42	03/22/10	0723		
05	AR124801	WAR100223-48	03/22/10	0734		
06	AR126801	WAR100107-68	03/22/10	0744		
07	AR123201	WAR100104-32	03/22/10	0755		
08	AR122101	WAR100104-21	03/22/10	0805		
09	AR126201	WAR100104-62	03/22/10	0816		
10	DDTANALOGSTD	WAR091219-DD	03/22/10	0826		
11	PIBLK02	WAR100219-99	03/22/10	0837	1.91	5.22
12	ZZZZZ	ZZZZZ	03/22/10	0847	1.91	5.22
13	ZZZZZ	ZZZZZ	03/22/10	0858	1.91	5.22
14	ZZZZZ	ZZZZZ	03/22/10	0908	1.91	5.22
15	ZZZZZ	ZZZZZ	03/22/10	0921	1.91	5.22
16	ZZZZZ	ZZZZZ	03/22/10	0933	1.91	5.21
17	ZZZZZ	ZZZZZ	03/22/10	0946	1.91	5.21
18	ZZZZZ	ZZZZZ	03/22/10	0959	1.92	5.21
19	ZZZZZ	ZZZZZ	03/22/10	1011	1.91	5.21
20	ZZZZZ	ZZZZZ	03/22/10	1024	1.91	5.21
21	ZZZZZ	ZZZZZ	03/22/10	1036	1.91	5.21
22	AR166002	WAR100222-60	03/22/10	1049	1.91	5.21
23	PIBLK03	WAR100219-99	03/22/10	1100	1.91	5.22
24	ZZZZZ	ZZZZZ	03/22/10	1110	1.91	5.21
25	ZZZZZ	ZZZZZ	03/22/10	1123	1.91	5.21
26	ZZZZZ	ZZZZZ	03/22/10	1135	1.91	5.21
27	ZZZZZ	ZZZZZ	03/22/10	1148	1.91	5.21
28	ZZZZZ	ZZZZZ	03/22/10	1201	1.91	5.21
29	ZZZZZ	ZZZZZ	03/22/10	1213	1.91	5.21
30	ZZZZZ	ZZZZZ	03/22/10	1226	1.91	5.21
31	ZZZZZ	ZZZZZ	03/22/10	1239	1.91	5.21
32	ZZZZZ	ZZZZZ	03/22/10	1251	1.91	5.21

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166003	WAR100222-60	03/22/10	1304	1.91	5.22
02	PIBLK04	WAR100219-99	03/22/10	1314	1.91	5.22
03	ZZZZZ	ZZZZZ	03/22/10	1325	1.91	5.22
04	ZZZZZ	ZZZZZ	03/22/10	1337	1.91	5.22
05	ZZZZZ	ZZZZZ	03/22/10	1350	1.91	5.21
06	ZZZZZ	ZZZZZ	03/22/10	1403	1.91	5.21
07	AR166005	WAR100222-60	03/22/10	1415	1.91	5.21
08	PIBLK06	WAR100219-99	03/22/10	1426	1.91	5.22
09	PBLK01	1202076239	03/22/10	1436	1.91	5.22
10	PBLK01LCS	1202076240	03/22/10	1449	1.91	5.21
11	ZZZZZ	ZZZZZ	03/22/10	1501	1.91	5.21
12	RE46-10-13867	248815001	03/22/10	1514	1.91	5.21
13	RE46-10-13867MS	1202076241	03/22/10	1527	1.91	5.21
14	RE46-10-13867MSD	202076242	03/22/10	1539	1.91	5.21
15	RE46-10-13864	248815002	03/22/10	1552	1.91	5.21
16	RE46-10-13863	248815003	03/22/10	1605	1.91	5.21
17	RE46-10-13869	248815004	03/22/10	1617	1.91	5.21
18	RE46-10-13861	248815005	03/22/10	1630	1.91	5.21
19	AR166006	WAR100222-60	03/22/10	1642	1.91	5.21
20	PIBLK07	WAR100219-99	03/22/10	1655	1.91	5.21
21	RE46-10-13866	248815006	03/22/10	1708	1.91	5.21
22	RE46-10-13860	248815007	03/22/10	1720	1.91	5.21
23	RE46-10-13865	248815008	03/22/10	1733	1.91	5.22
24	RE46-10-13868	248815009	03/22/10	1745	1.91	5.21
25	RE46-10-13862	248815010	03/22/10	1758	1.91	5.21
26	RE46-10-13873	248815011	03/22/10	1811	1.91	5.21
27	AR166007	WAR100222-60	03/22/10	1823	1.91	5.22
28	PIBLK08	WAR100219-99	03/22/10	1836	1.91	5.21
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/22/10	0652	2.27	5.91
02	AR166001	WAR100222-60	03/22/10	0702	2.27	5.91
03	AR125401	WAR100219-54	03/22/10	0713		
04	AR124201	WAR100219-42	03/22/10	0723		
05	AR124801	WAR100223-48	03/22/10	0734		
06	AR126801	WAR100107-68	03/22/10	0744		
07	AR123201	WAR100104-32	03/22/10	0755		
08	AR122101	WAR100104-21	03/22/10	0805		
09	AR126201	WAR100104-62	03/22/10	0816		
10	DDTANALOGSTD	WAR091219-DD	03/22/10	0826		
11	PIBLK02	WAR100219-99	03/22/10	0837	2.27	5.91
12	ZZZZZ	ZZZZZ	03/22/10	0847	2.27	5.91
13	ZZZZZ	ZZZZZ	03/22/10	0858	2.27	5.91
14	ZZZZZ	ZZZZZ	03/22/10	0908	2.27	5.91
15	ZZZZZ	ZZZZZ	03/22/10	0921	2.27	5.91
16	ZZZZZ	ZZZZZ	03/22/10	0933	2.27	5.91
17	ZZZZZ	ZZZZZ	03/22/10	0946	2.27	5.91
18	ZZZZZ	ZZZZZ	03/22/10	0959	2.27	5.91
19	ZZZZZ	ZZZZZ	03/22/10	1011	2.27	5.91
20	ZZZZZ	ZZZZZ	03/22/10	1024	2.27	5.91
21	ZZZZZ	ZZZZZ	03/22/10	1036	2.27	5.91
22	AR166002	WAR100222-60	03/22/10	1049	2.27	5.91
23	PIBLK03	WAR100219-99	03/22/10	1100	2.27	5.91
24	ZZZZZ	ZZZZZ	03/22/10	1110	2.27	5.91
25	ZZZZZ	ZZZZZ	03/22/10	1123	2.27	5.91
26	ZZZZZ	ZZZZZ	03/22/10	1135	2.27	5.91
27	ZZZZZ	ZZZZZ	03/22/10	1148	2.27	5.91
28	ZZZZZ	ZZZZZ	03/22/10	1201	2.27	5.91
29	ZZZZZ	ZZZZZ	03/22/10	1213	2.27	5.91
30	ZZZZZ	ZZZZZ	03/22/10	1226	2.27	5.91
31	ZZZZZ	ZZZZZ	03/22/10	1239	2.27	5.91
32	ZZZZZ	ZZZZZ	03/22/10	1251	2.27	5.91

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2298

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166003	WAR100222-60	03/22/10	1304	2.27	5.91
02	PIBLK04	WAR100219-99	03/22/10	1314	2.27	5.91
03	ZZZZZ	ZZZZZ	03/22/10	1325	2.27	5.91
04	ZZZZZ	ZZZZZ	03/22/10	1337	2.27	5.91
05	ZZZZZ	ZZZZZ	03/22/10	1350	2.27	5.91
06	ZZZZZ	ZZZZZ	03/22/10	1403	2.27	5.91
07	AR166005	WAR100222-60	03/22/10	1415	2.27	5.91
08	PIBLK06	WAR100219-99	03/22/10	1426	2.27	5.91
09	PBLK01	1202076239	03/22/10	1436	2.27	5.91
10	PBLK01LCS	1202076240	03/22/10	1449	2.27	5.91
11	ZZZZZ	ZZZZZ	03/22/10	1501	2.27	5.91
12	RE46-10-13867	248815001	03/22/10	1514	2.27	5.91
13	RE46-10-13867MS	1202076241	03/22/10	1527	2.27	5.91
14	RE46-10-13867MSD	1202076242	03/22/10	1539	2.27	5.91
15	RE46-10-13864	248815002	03/22/10	1552	2.27	5.91
16	RE46-10-13863	248815003	03/22/10	1605	2.27	5.91
17	RE46-10-13869	248815004	03/22/10	1617	2.27	5.91
18	RE46-10-13861	248815005	03/22/10	1630	2.27	5.91
19	AR166006	WAR100222-60	03/22/10	1642	2.27	5.91
20	PIBLK07	WAR100219-99	03/22/10	1655	2.27	5.91
21	RE46-10-13866	248815006	03/22/10	1708	2.27	5.91
22	RE46-10-13860	248815007	03/22/10	1720	2.27	5.91
23	RE46-10-13865	248815008	03/22/10	1733	2.27	5.91
24	RE46-10-13868	248815009	03/22/10	1745	2.27	5.91
25	RE46-10-13862	248815010	03/22/10	1758	2.27	5.91
26	RE46-10-13873	248815011	03/22/10	1811	2.27	5.91
27	AR166007	WAR100222-60	03/22/10	1823	2.27	5.91
28	PIBLK08	WAR100219-99	03/22/10	1836	2.27	5.91
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–2298 **Client ID:** LCS for batch 967352

Lab Sample ID: 1202076240

Data File:	042f4201.d	**Data File:**	042b4201.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–MAR–10 14:49	**Analyzed:**	22–MAR–10 14:49

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							2.13
Column 1	1	2.36	2.33 – 2.39	26.9		ug/kg	
	2	2.65	2.62 – 2.68	26.9		ug/kg	
	3	2.73	2.7 – 2.76	26.3		ug/kg	
	4	2.77	2.74 – 2.8	27.1		ug/kg	
	5	2.98	2.95 – 3.01	26.4		ug/kg	
					26.7		
Column 2	1	3.16	3.13 – 3.19	26.8		ug/kg	
	2	3.25	3.22 – 3.28	25.3		ug/kg	
	3	3.31	3.28 – 3.34	25.4		ug/kg	
	4	3.54	3.51 – 3.57	26.8		ug/kg	
	5	3.61	3.58 – 3.64	26.4		ug/kg	
					26.2		
Aroclor–1260							2.25
Column 1	1	3.7	3.67 – 3.73	29		ug/kg	
	2	3.87	3.84 – 3.9	30.9		ug/kg	
	3	4.03	4 – 4.06	31.4		ug/kg	
	4	4.1	4.07 – 4.13	31.1		ug/kg	
	5	4.24	4.21 – 4.27	20.5		ug/kg	
					28.6		
Column 2	1	4.3	4.27 – 4.33	28.2		ug/kg	
	2	4.43	4.4 – 4.46	29.4		ug/kg	
	3	4.69	4.66 – 4.72	28.8		ug/kg	
	4	4.87	4.84 – 4.9	29		ug/kg	
	5	5.01	4.98 – 5.04	30.5		ug/kg	
					29.2		

Identification Summary

SDG Number: 10–2298 **Client ID:** RE46–10–13860

Lab Sample ID: 248815007

Data File:	054f5401.d	**Data File:**	054b5401.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–MAR–10 17:20	**Analyzed:**	22–MAR–10 17:20

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							3.08
Column 1	1	3.21	3.18 – 3.24	5.24		ug/kg	
	2	3.36	3.33 – 3.39	5.35		ug/kg	
	3	3.59	3.57 – 3.63	6.48		ug/kg	
	4	3.76	3.73 – 3.79	5.44		ug/kg	
	5	3.87	3.84 – 3.9	9.4		ug/kg	
					6.38		
Column 2	1	3.37	3.34 – 3.4	4.76		ug/kg	
	2	3.79	3.76 – 3.82	6.49		ug/kg	
	3	3.91	3.88 – 3.94	6.97		ug/kg	
	4	4.19	4.16 – 4.22	6.92		ug/kg	
	5	4.32	4.29 – 4.35	5.81		ug/kg	
					6.19		

Identification Summary

SDG Number: 10–2298 **Client ID:** RE46–10–13862

Lab Sample ID: 248815010

Data File:	057f5701.d	**Data File:**	057b5701.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–MAR–10 17:58	**Analyzed:**	22–MAR–10 17:58

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							20.5
Column 1	1	3.21	3.18 – 3.24	21.8		ug/kg	
	2	3.36	3.33 – 3.39	16.9		ug/kg	
	3	3.59	3.57 – 3.63	31.1		ug/kg	
	4	3.76	3.73 – 3.79	18.6		ug/kg	
	5	3.87	3.84 – 3.9	48.4		ug/kg	
					27.4		
Column 2	1	3.37	3.34 – 3.4	16		ug/kg	
	2	3.79	3.76 – 3.82	24.1		ug/kg	
	3	3.91	3.88 – 3.94	22.8		ug/kg	
	4	4.19	4.16 – 4.22	33.4		ug/kg	
	5	4.32	4.29 – 4.35	15.1		ug/kg	
					22.3		
Aroclor–1260							38.3
Column 1	1	3.7	3.67 – 3.73	19.7		ug/kg	
	2	3.87	3.84 – 3.9	28.8		ug/kg	
	3	4.03	4 – 4.06	41.8		ug/kg	
	4	4.1	4.07 – 4.13	6.42		ug/kg	
	5	4.24	4.21 – 4.27	8		ug/kg	
					20.9		
Column 2	1	4.3	4.27 – 4.33	20.2		ug/kg	
	2	4.43	4.4 – 4.46	23		ug/kg	
	3	4.7	4.66 – 4.72	10.7		ug/kg	
	4	4.87	4.84 – 4.9	7.93		ug/kg	
	5	5.01	4.98 – 5.04	9.26		ug/kg	
					14.2		

Identification Summary

SDG Number: 10–2298 **Client ID:** RE46–10–13867MS

Lab Sample ID: 1202076241

Data File:	045f4501.d	**Data File:**	045b4501.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–MAR–10 15:27	**Analyzed:**	22–MAR–10 15:27

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							3.61
Column 1	1	2.36	2.33 – 2.39	29.1		ug/kg	
	2	2.65	2.62 – 2.68	31.2		ug/kg	
	3	2.73	2.7 – 2.76	29.6		ug/kg	
	4	2.77	2.74 – 2.8	29.9		ug/kg	
	5	2.98	2.95 – 3.01	30.4		ug/kg	
					30		
Column 2	1	3.16	3.13 – 3.19	30.3		ug/kg	
	2	3.25	3.22 – 3.28	28.3		ug/kg	
	3	3.31	3.28 – 3.34	28.2		ug/kg	
	4	3.54	3.51 – 3.57	29		ug/kg	
	5	3.61	3.58 – 3.64	29.1		ug/kg	
					29		
Aroclor–1260							6.91
Column 1	1	3.7	3.67 – 3.73	34.6		ug/kg	
	2	3.86	3.84 – 3.9	34.9		ug/kg	
	3	4.03	4 – 4.06	35.8		ug/kg	
	4	4.1	4.07 – 4.13	35.2		ug/kg	
	5	4.24	4.21 – 4.27	33.3		ug/kg	
					34.8		
Column 2	1	4.3	4.27 – 4.33	31.9		ug/kg	
	2	4.43	4.4 – 4.46	32.7		ug/kg	
	3	4.69	4.66 – 4.72	32.2		ug/kg	
	4	4.87	4.84 – 4.9	31.8		ug/kg	
	5	5.01	4.98 – 5.04	33.6		ug/kg	
					32.4		

Identification Summary

SDG Number: 10–2298 **Client ID:** RE46–10–13867MSD

Lab Sample ID: 1202076242

Data File:	046f4601.d	**Data File:**	046b4601.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–MAR–10 15:39	**Analyzed:**	22–MAR–10 15:39

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							4.47
Column 1	1	2.36	2.33 – 2.39	28		ug/kg	
	2	2.65	2.62 – 2.68	29.5		ug/kg	
	3	2.73	2.7 – 2.76	27.6		ug/kg	
	4	2.77	2.74 – 2.8	27.7		ug/kg	
	5	2.98	2.95 – 3.01	28.1		ug/kg	
					28.2		
Column 2	1	3.16	3.13 – 3.19	28.5		ug/kg	
	2	3.25	3.22 – 3.28	26.5		ug/kg	
	3	3.31	3.28 – 3.34	26.1		ug/kg	
	4	3.54	3.51 – 3.57	26.2		ug/kg	
	5	3.61	3.58 – 3.64	27.4		ug/kg	
					26.9		
Aroclor–1260							6.33
Column 1	1	3.7	3.67 – 3.73	33.1		ug/kg	
	2	3.86	3.84 – 3.9	33.5		ug/kg	
	3	4.03	4 – 4.06	34.2		ug/kg	
	4	4.09	4.07 – 4.13	34.1		ug/kg	
	5	4.24	4.21 – 4.27	32.8		ug/kg	
					33.5		
Column 2	1	4.3	4.27 – 4.33	30.7		ug/kg	
	2	4.43	4.4 – 4.46	31.7		ug/kg	
	3	4.69	4.66 – 4.72	31.4		ug/kg	
	4	4.87	4.84 – 4.9	30.8		ug/kg	
	5	5.01	4.98 – 5.04	32.8		ug/kg	
					31.5		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2298			**Matrix:**	SOIL
Lab Sample ID:	1202076239				
Client Sample:	QC for batch 967352	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 967352	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/22/2010 14:36	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	041f4101–1.d	**Column:**	1 CLP1	**Level:**	LOW
	041b4101–1.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/041f4101.d
Lab Smp Id: 1202076239 Client Smp ID: PBLK01
Inj Date : 22-MAR-2010 14:36
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076239|1|
Misc Info : |ECD82P_1S|967354|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 23-Mar-2010 06:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 41 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.911	0.002	65658761	168.562	5.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.216	-0.001	49873986	167.965	5.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/041f4101.d

Page 1

Date : 22-MAR-2010 14:36

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: |120207623911|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

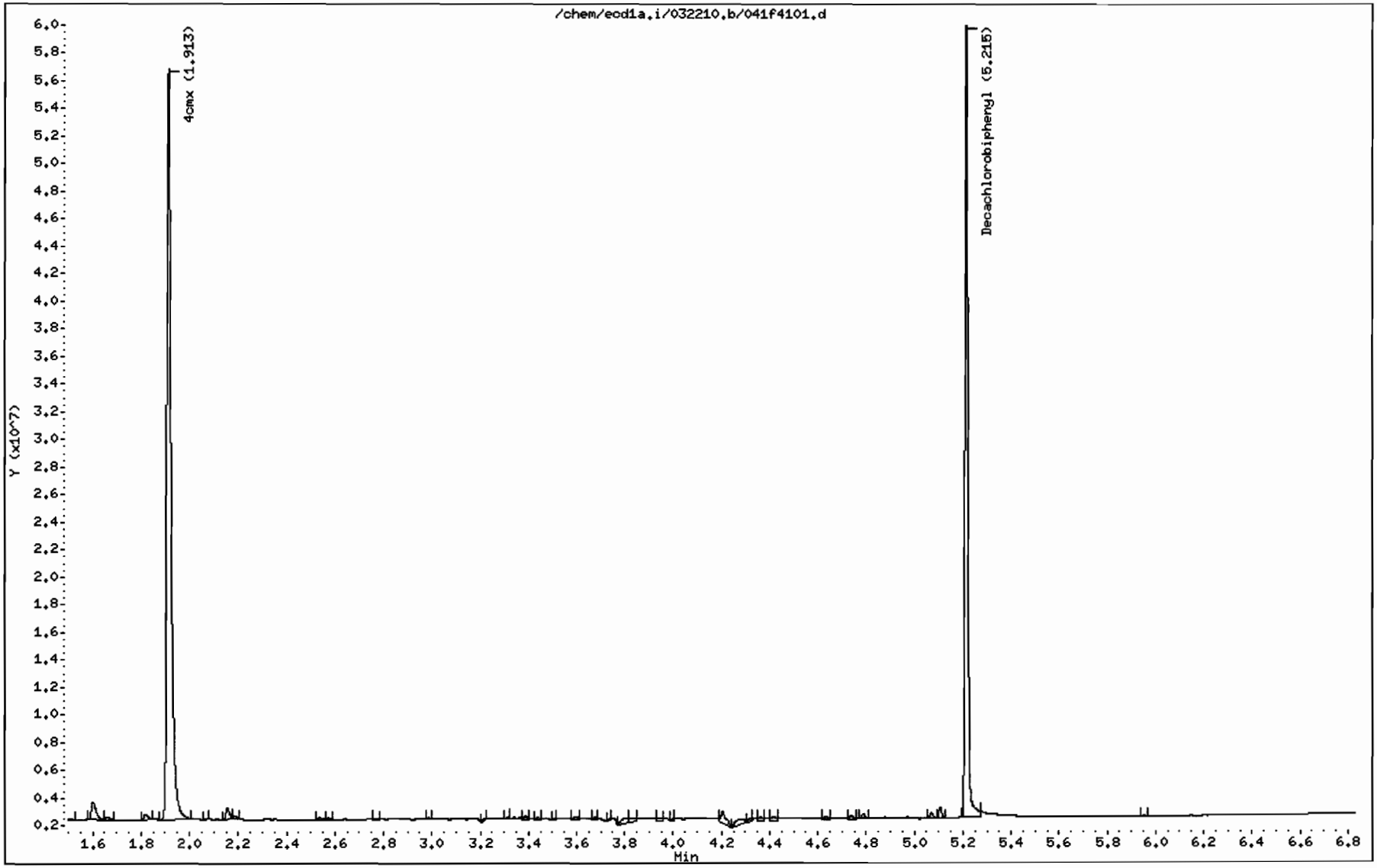

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/041b4101.d
Lab Smp Id: 1202076239 Client Smp ID: PBLK01
Inj Date : 22-MAR-2010 14:36
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076239|1|
Misc Info : |ECD82P_1S|967354|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 41 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.269	0.001	42038098	160.247	5.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.911	0.000	31647305	169.080	5.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032210.b/041b4101.d

Page 1

Date : 22-MAR-2010 14:36

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: |1202076239|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

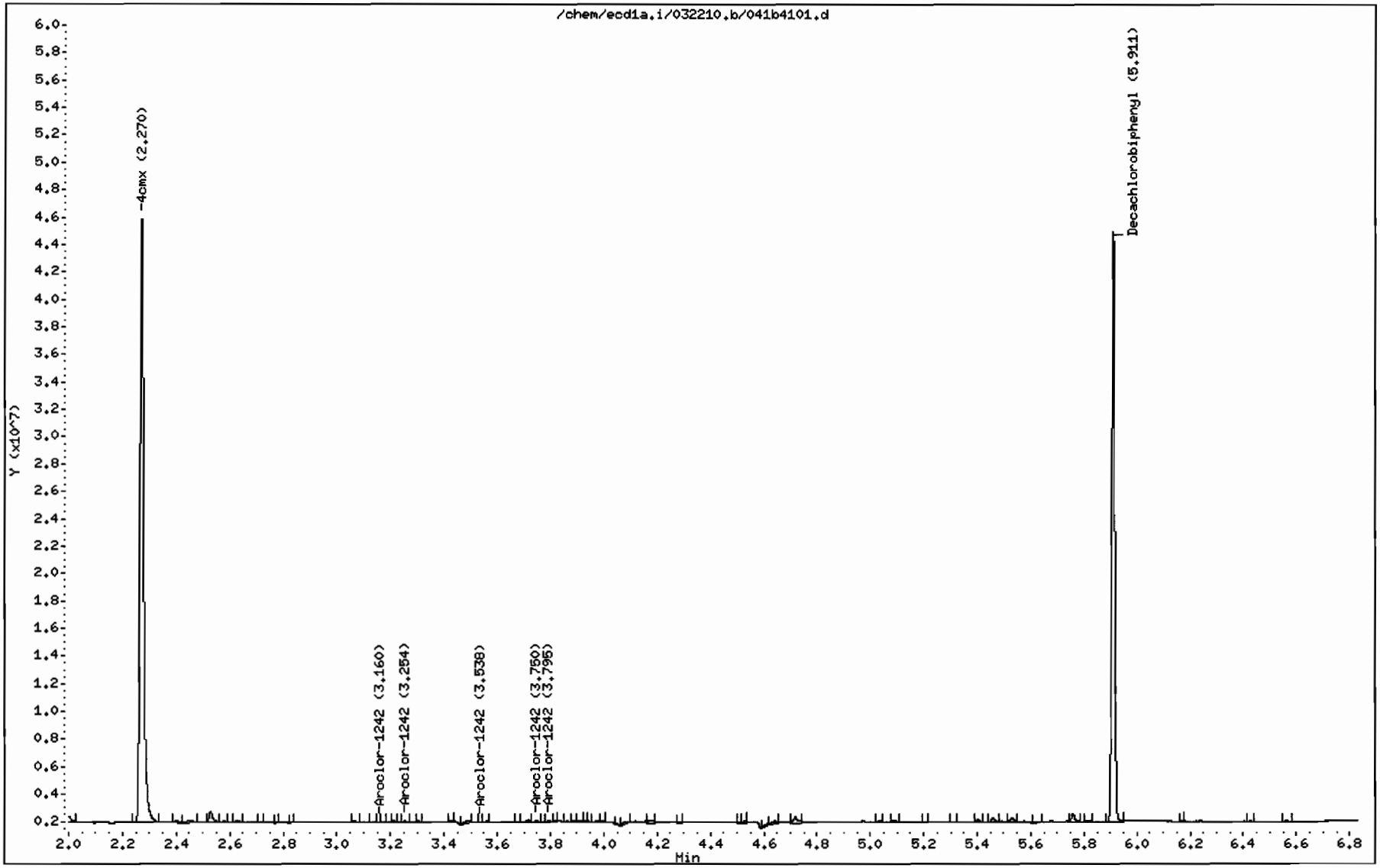

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2298**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076240**				
Client Sample:	**QC for batch 967352**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967352**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967354**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/22/2010 14:49**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/21/2010 11:56**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**042f4201–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	042b4201–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		26.7	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		29.2	ug/kg	1.11	3.33	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/042f4201.d
Lab Smp Id: 1202076240 Client Smp ID: PBLK01LCS
Inj Date : 22-MAR-2010 14:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076240|1|
Misc Info : |ECD82P_1S|967354|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 42 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.911	0.000	67190555	172.494	5.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.216	-0.001	51649045	173.943	5.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.364	0.000	12233707	806.079	26.9	80.00- 120.00	100.00
2.650	2.650	0.000	15300457	808.019	26.9	112.85- 152.85	125.07
2.730	2.730	0.000	9832516	790.258	26.3	60.06- 100.06	80.37
2.768	2.768	0.000	5969711	812.391	27.1	28.30- 68.30	48.80
2.978	2.978	0.000	7536594	791.844	26.4	42.29- 82.29	61.61

Average of Peak Concentrations = 26.7

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.704	-0.001	15944481	869.853	29.0	80.00- 120.00	100.00
3.865	3.866	-0.001	24899857	925.995	30.9	128.74- 168.74	156.17
4.027	4.028	-0.001	26643801	940.968	31.4	138.95- 178.95	167.10
4.095	4.096	-0.001	15064135	932.309	31.1	69.61- 109.61	94.48
4.238	4.240	-0.002	10337990	614.893	20.5	72.96- 112.96	64.84
			Average of Peak Concentrations =		28.6		

Data File: /chem/ecdia.i/032210.b/042f4201.d
Date : 22-MAR-2010 14:49
Client ID: PBLK01LCS
Sample Info: 1120207624011
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

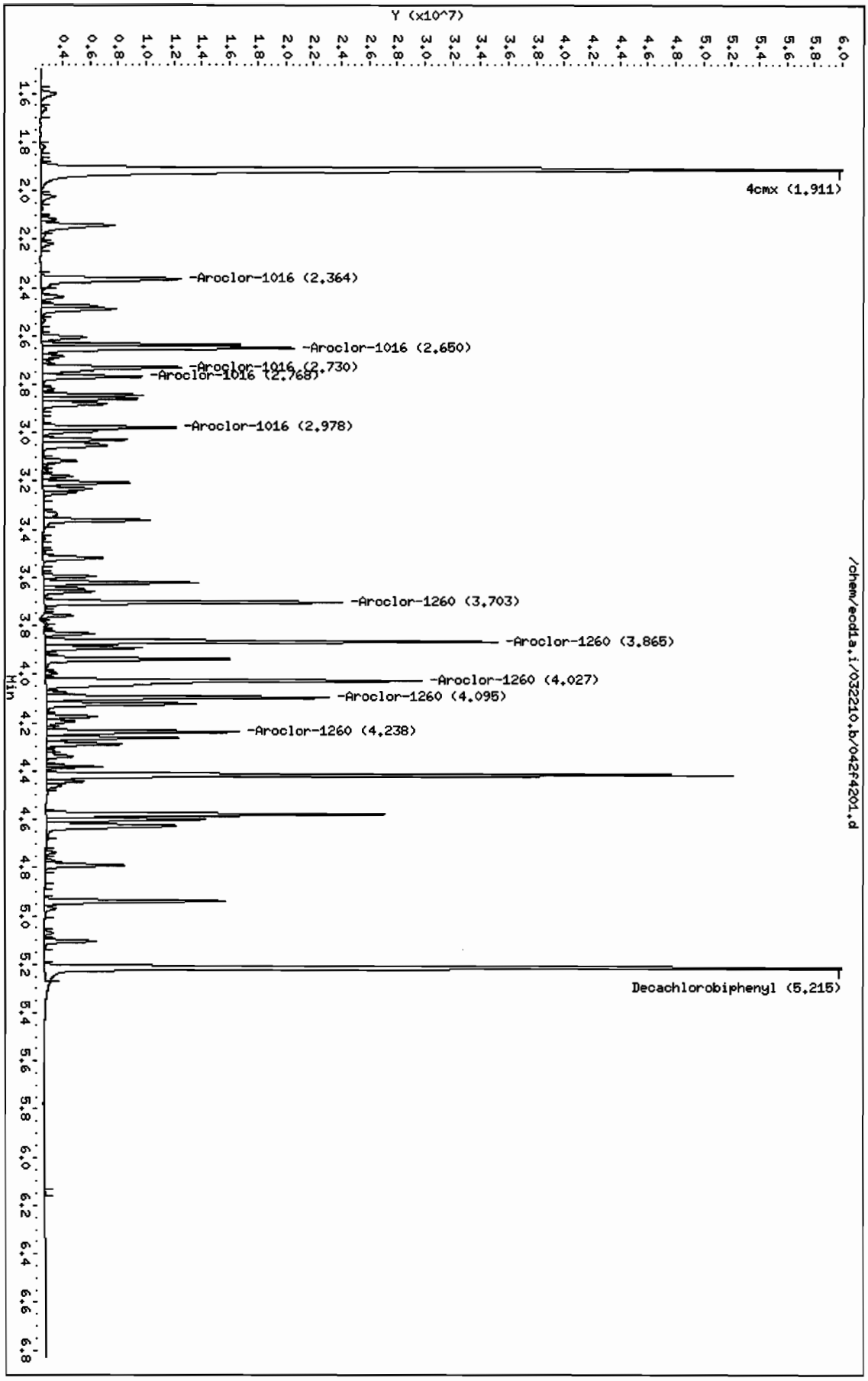

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/042b4201.d
Lab Smp Id: 1202076240 Client Smp ID: PBLK01LCS
Inj Date : 22-MAR-2010 14:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076240|1|
Misc Info : |ECD82P_1S|967354|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 42 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.269	0.001	43077658	164.210	5.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.911	-0.001	32391735	173.057	5.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.164	0.000	10131411	805.040	26.8	80.00- 120.00	100.00(M)
3.247	3.246	0.001	6557207	759.445	25.3	45.75- 85.75	64.72
3.310	3.310	0.000	4032030	762.683	25.4	20.72- 60.72	39.80
3.537	3.537	0.000	5536906	803.298	26.8	31.59- 71.59	54.65
3.612	3.612	0.000	5096163	793.478	26.4	38.09- 78.09	60.60

Average of Peak Concentrations = 26.1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.303	-0.001	11086063	847.543	28.2	80.00- 120.00	100.00
4.427	4.428	-0.001	13725840	882.746	29.4	101.68- 141.68	123.81
4.692	4.694	-0.002	10289223	864.926	28.8	71.42- 111.42	92.81
4.865	4.867	-0.002	10690021	869.870	29.0	74.52- 114.52	96.43
5.013	5.014	-0.001	24189815	916.467	30.5	190.00- 230.00	218.20
			Average of Peak Concentrations =		29.2		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032210.b/042b4201.d

Date : 22-MAR-2010 14:49

Client ID: PBLK01LCS

Sample Info: |1202076240|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

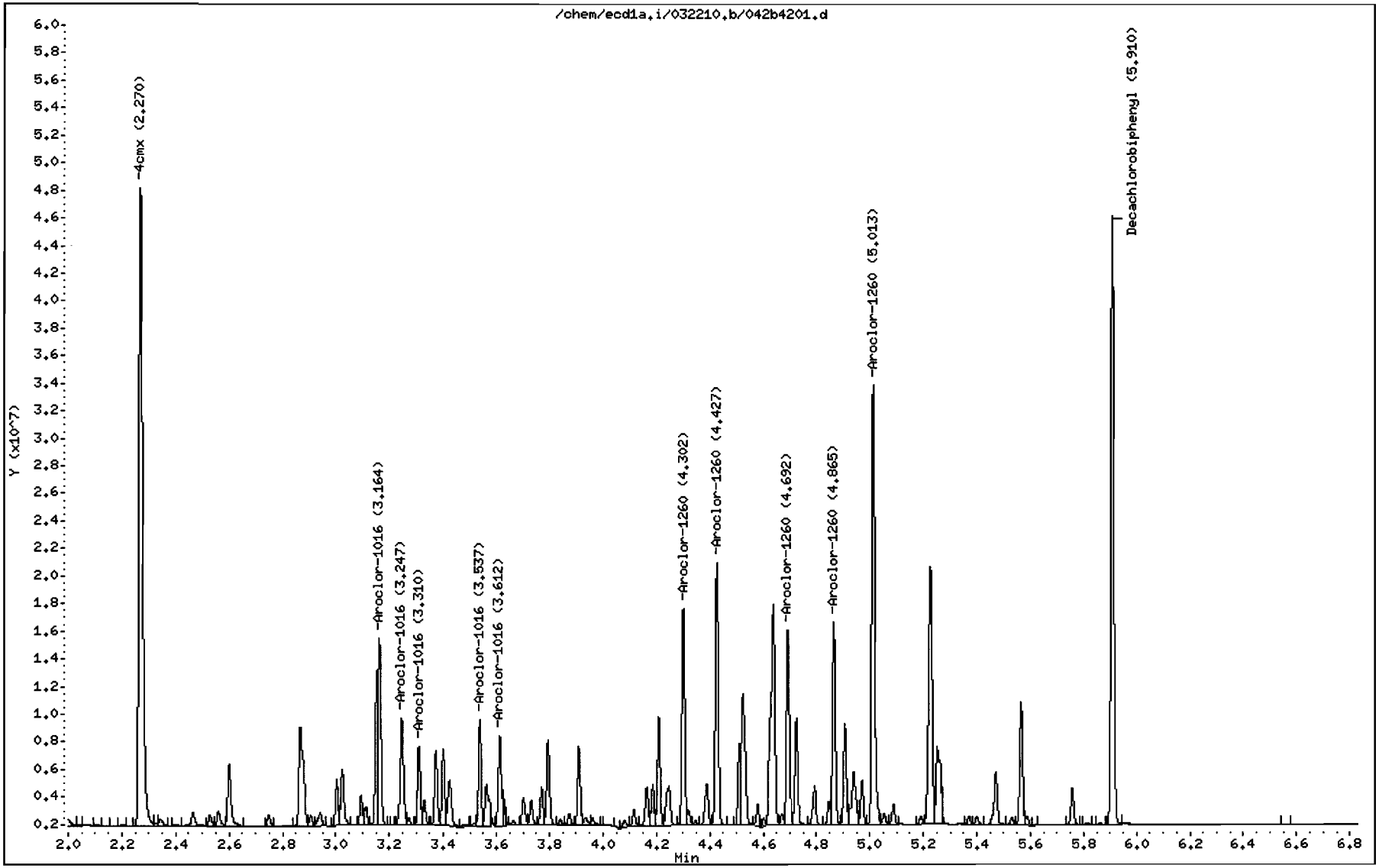

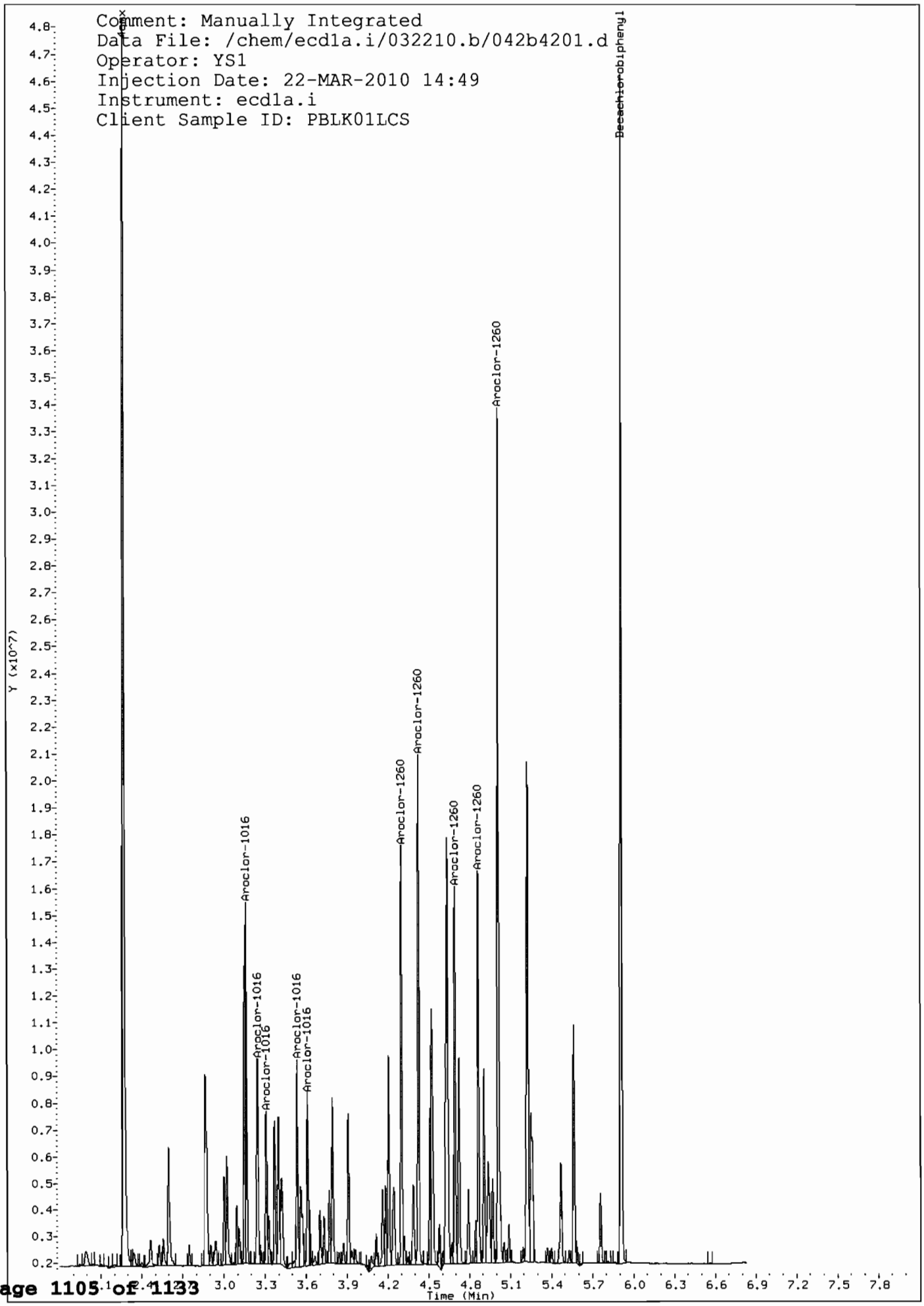
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032210.b/042b4201.d
Operator: YS1
Injection Date: 22-MAR-2010 14:49
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Aroclor-1016
Y (x10^7)
Time (Min)

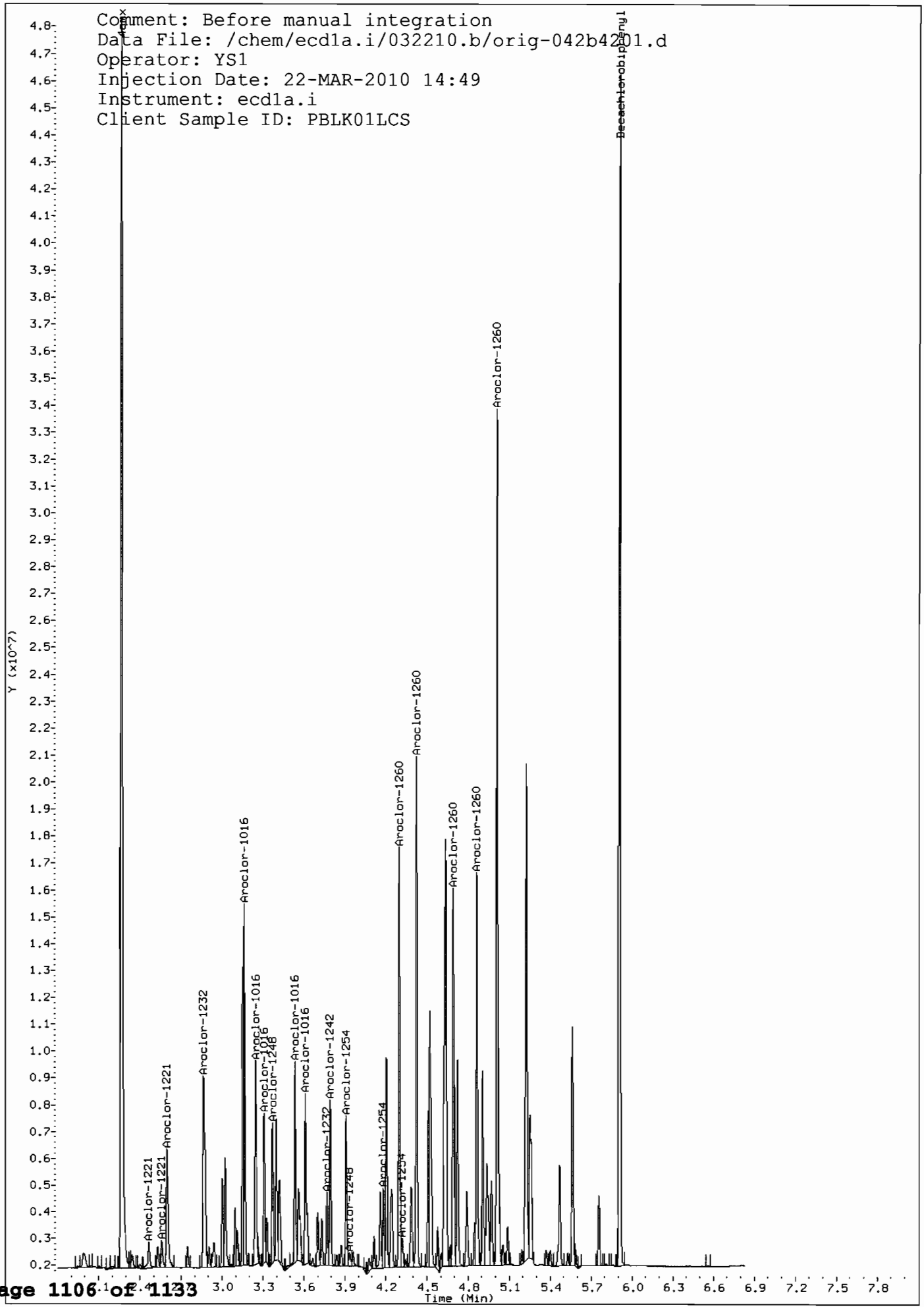
Comment: Before manual integration
Data File: /chem/ecd1a.i/032210.b/orig-042b4201.d
Operator: YS1
Injection Date: 22-MAR-2010 14:49
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1242
Aroclor-1254
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1221
Aroclor-1221
Aroclor-1221
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202076241	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.9
Client Sample:	QC for batch 967352	**Client:**	LANL010	**Project:**	QC
Client ID:	RE46–10–13867MS	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/22/2010 15:27	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	045f4501.d	**Column:**	1 CLP1	**Level:**	LOW
	045b4501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		30.0	ug/kg	1.20	3.62	1
11104–28–2	Aroclor–1221	U	3.62	ug/kg	1.20	3.62	1
11141–16–5	Aroclor–1232	U	3.62	ug/kg	1.20	3.62	1
53469–21–9	Aroclor–1242	U	3.62	ug/kg	1.20	3.62	1
12672–29–6	Aroclor–1248	U	3.62	ug/kg	1.20	3.62	1
11097–69–1	Aroclor–1254	U	3.62	ug/kg	1.20	3.62	1
11096–82–5	Aroclor–1260		34.8	ug/kg	1.20	3.62	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/045f4501.d
Lab Smp Id: 1202076241 Client Smp ID: RE46-10-13867MS
Inj Date : 22-MAR-2010 15:27
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076241|1|
Misc Info : |ECD82P_1S|967354|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 45 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	7.89670	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.911	0.001	67061303	172.163	6.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.216	-0.003	51796414	174.440	6.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.364	-0.001	12207368	804.344	29.1	80.00- 120.00	100.00
2.650	2.650	0.000	16319154	861.816	31.2	112.85- 152.85	133.68
2.730	2.730	0.000	10183504	818.468	29.6	60.06- 100.06	83.42
2.768	2.768	0.000	6067950	825.760	29.9	28.30- 68.30	49.71
2.978	2.978	0.000	7996453	840.160	30.4	42.29- 82.29	65.51
Average of Peak Concentrations =					30.0		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.704	-0.001	17542369	957.026	34.6	80.00- 120.00	100.00
3.864	3.866	-0.002	25982113	966.243	34.9	128.74- 168.74	148.11
4.027	4.028	-0.001	27999070	988.832	35.8	138.95- 178.95	159.61
4.095	4.096	-0.001	15723720	973.131	35.2	69.61- 109.61	89.63
4.237	4.240	-0.003	15501078	921.988	33.3	72.96- 112.96	88.36
		Average of Peak Concentrations =			34.8		

Data File: /chem/ecd1a.i/032210.b/045f4501.d
Date : 22-MAR-2010 15:27
Client ID: RE46-10-13867MS
Sample Info: |1202076241|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

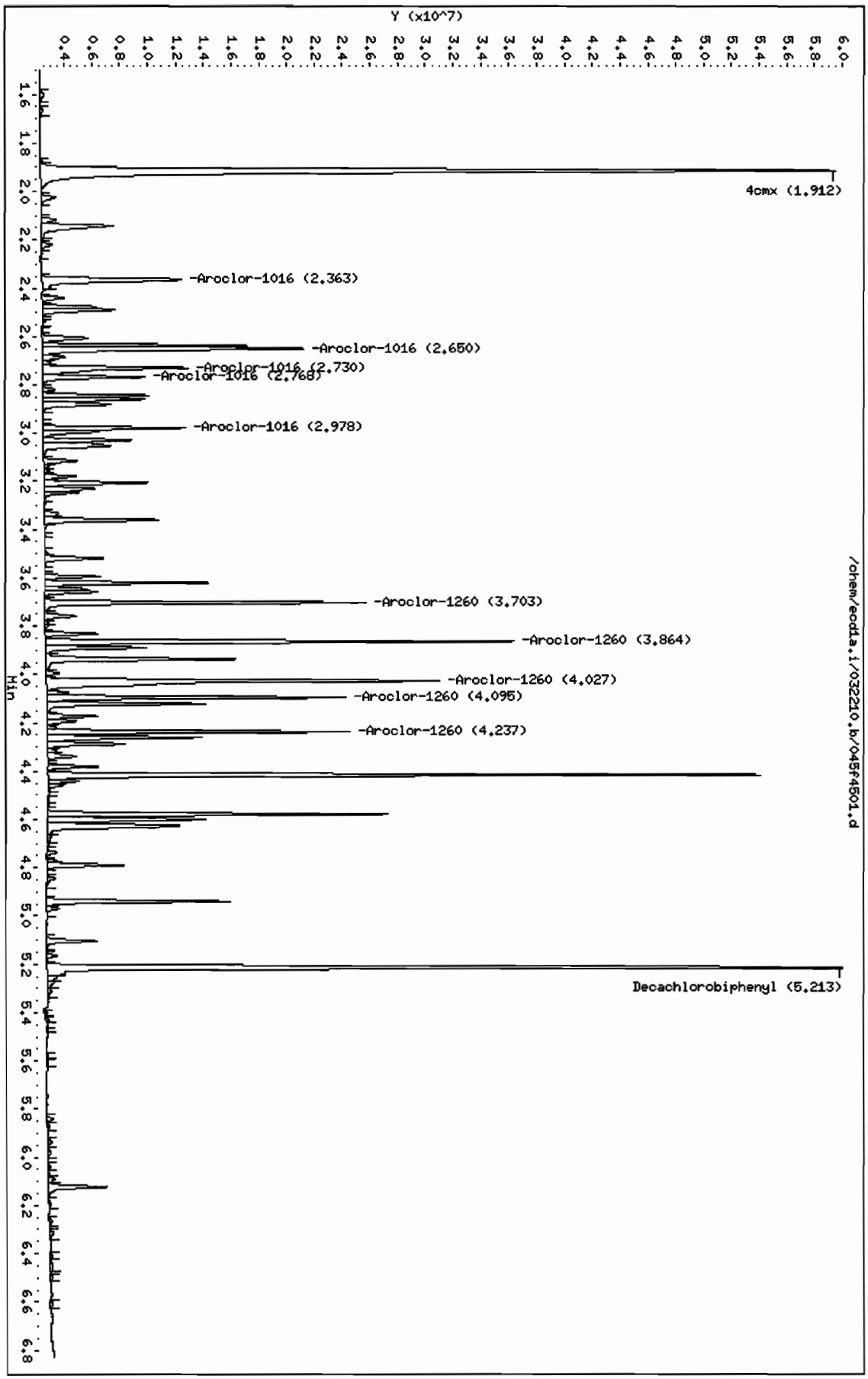

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/045b4501.d
Lab Smp Id: 1202076241 Client Smp ID: RE46-10-13867MS
Inj Date : 22-MAR-2010 15:27
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076241|1|
Misc Info : |ECD82P_1S|967354|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 45 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	7.89670	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.269	0.001	43011796	163.959	5.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.911	-0.001	31541491	168.515	6.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.163	3.164	-0.001	10535756	837.169	30.3	80.00- 120.00	100.00(M)
3.247	3.246	0.001	6764989	783.510	28.3	45.75- 85.75	64.21
3.310	3.310	0.000	4116211	778.607	28.2	20.72- 60.72	39.07
3.537	3.537	0.000	5518077	800.566	29.0	31.59- 71.59	52.37
3.612	3.612	0.000	5161521	803.654	29.1	38.09- 78.09	59.19

Average of Peak Concentrations = 29.0

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.303	-0.001	11540718	882.302	31.9	80.00- 120.00	100.00
4.427	4.428	-0.001	14057861	904.099	32.7	101.68- 141.68	121.81
4.693	4.694	-0.001	10598266	890.905	32.2	71.42- 111.42	91.83
4.866	4.867	-0.001	10811712	879.772	31.8	74.52- 114.52	93.68
5.013	5.014	-0.001	24517455	928.880	33.6	190.00- 230.00	212.44
			Average of Peak Concentrations =		32.4		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032210.b/045b4501.d

Date : 22-MAR-2010 15:27

Client ID: RE46-10-13867MS

Sample Info: |1202076241|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

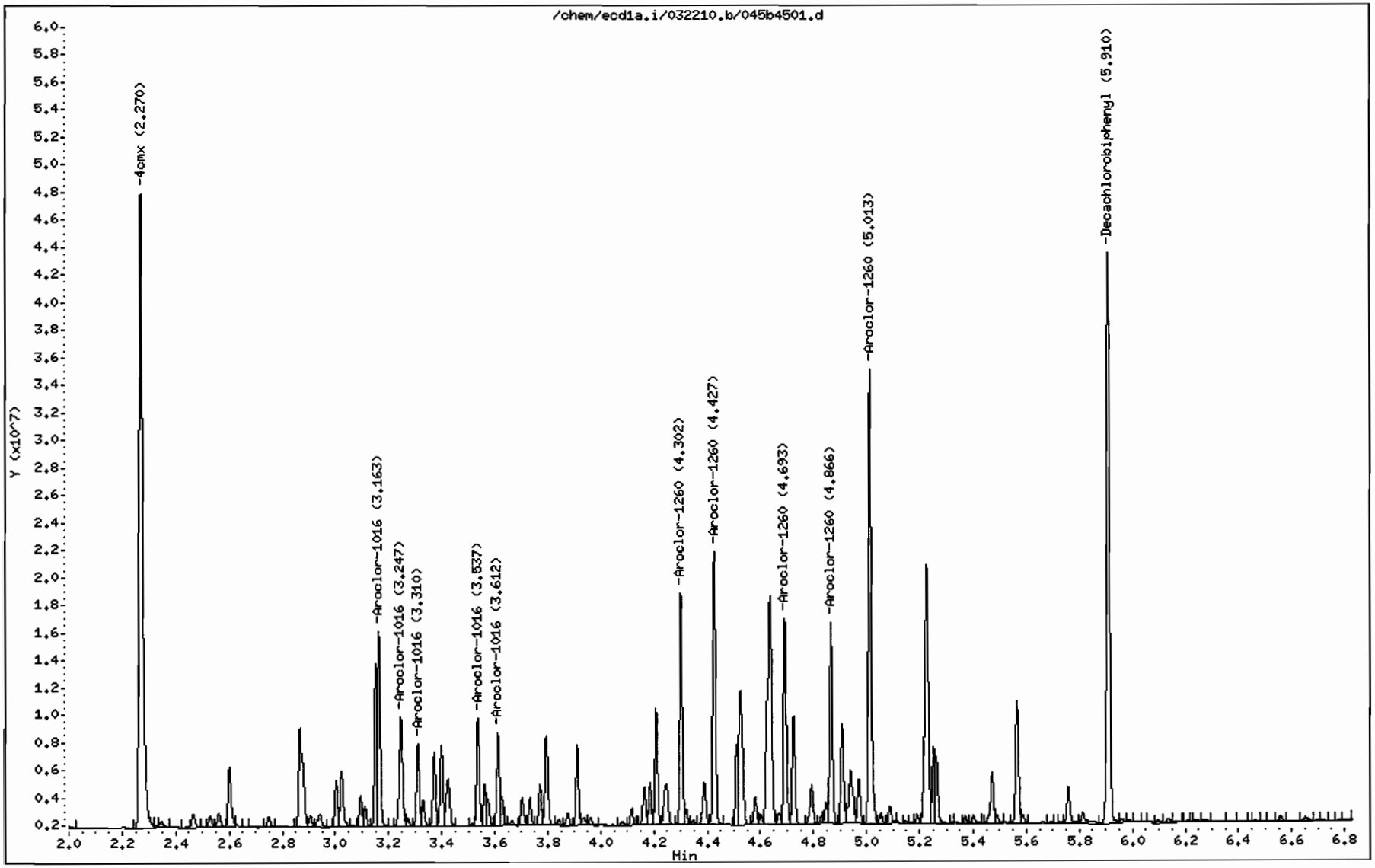

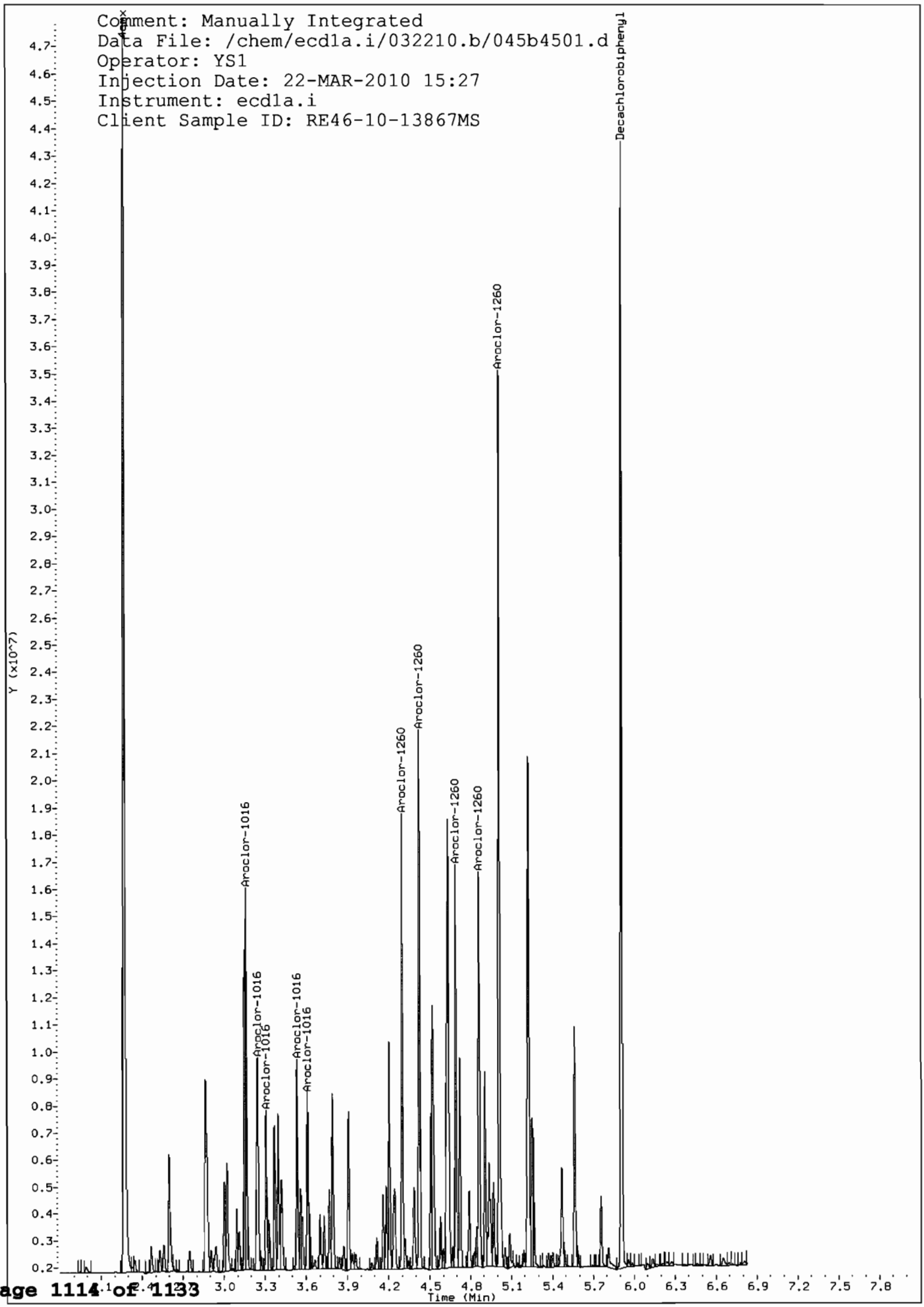
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032210.b/045b4501.d
Operator: YS1
Injection Date: 22-MAR-2010 15:27
Instrument: ecd1a.i
Client Sample ID: RE46-10-13867MS
Tetrachlorobiphenyl
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
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Y (x10^7)
Time (Min)

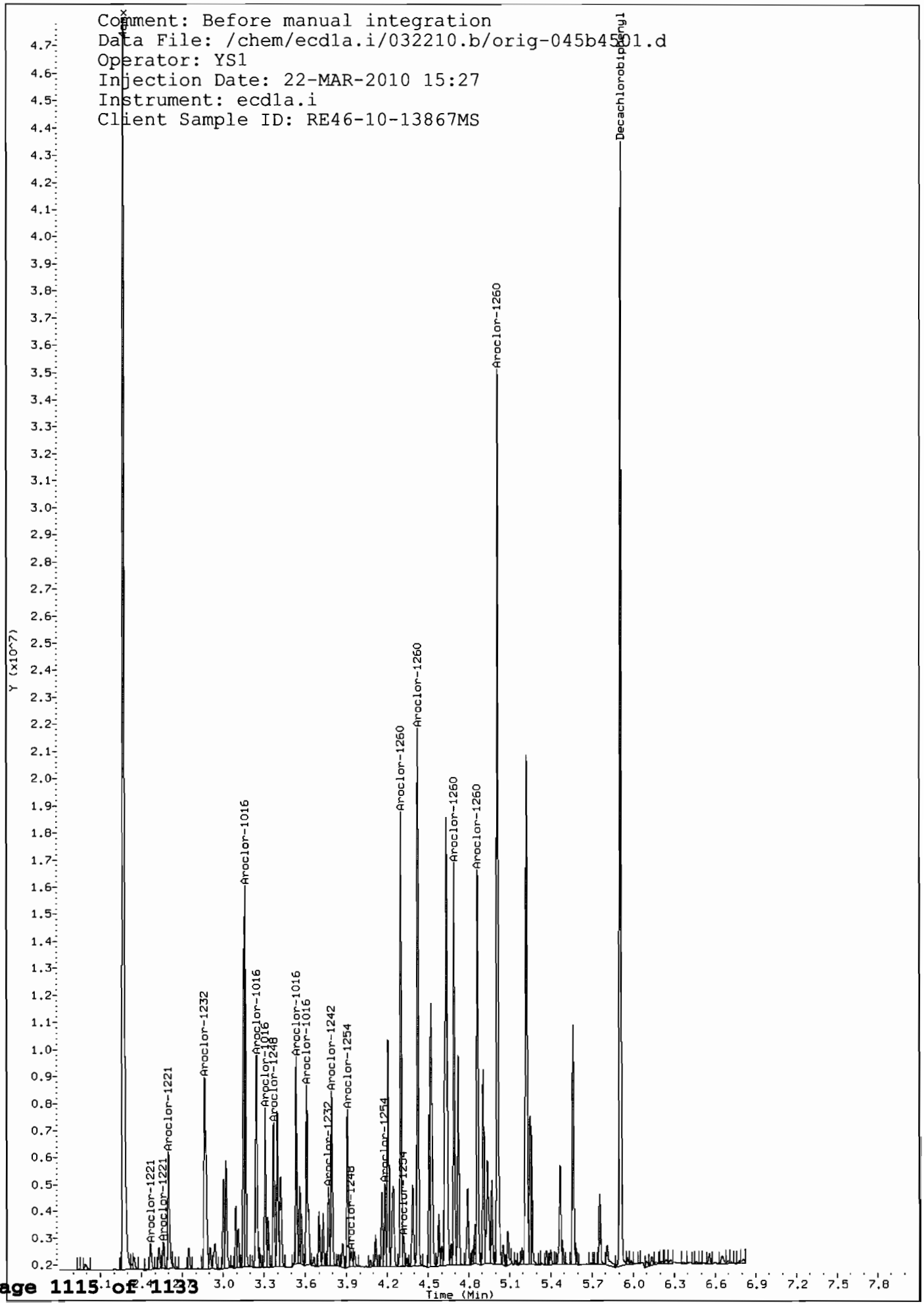
Comment: Before manual integration
Data File: /chem/ecd1a.i/032210.b/orig-045b4501.d
Operator: YS1
Injection Date: 22-MAR-2010 15:27
Instrument: ecd1a.i
Client Sample ID: RE46-10-13867MS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Aroclor-1242
Aroclor-1232
Aroclor-1254
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1232
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2298	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202076242	**Date Received:**	03/05/2010 10:20	**%Moisture:**	7.9
Client Sample:	QC for batch 967352	**Client:**	LANL010	**Project:**	QC
Client ID:	RE46–10–13867MSD	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967354	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/22/2010 15:39	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/21/2010 11:56	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	046f4601.d	**Column:**	1 CLP1	**Level:**	LOW
	046b4601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		28.2	ug/kg	1.20	3.61	1
11104–28–2	Aroclor–1221	U	3.61	ug/kg	1.20	3.61	1
11141–16–5	Aroclor–1232	U	3.61	ug/kg	1.20	3.61	1
53469–21–9	Aroclor–1242	U	3.61	ug/kg	1.20	3.61	1
12672–29–6	Aroclor–1248	U	3.61	ug/kg	1.20	3.61	1
11097–69–1	Aroclor–1254	U	3.61	ug/kg	1.20	3.61	1
11096–82–5	Aroclor–1260		33.5	ug/kg	1.20	3.61	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/046f4601.d
Lab Smp Id: 1202076242 Client Smp ID: RE46-10-13867MSD
Inj Date : 22-MAR-2010 15:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076242|1|
Misc Info : |ECD82P_1S|967354|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-F-8082-031110b.m
Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 46 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	7.89670	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.911	0.001	65849314	169.051	6.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.216	-0.001	54123842	182.278	6.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.364	-0.001	11754979	774.536	28.0	80.00- 120.00	100.00
2.650	2.650	0.000	15457311	816.302	29.5	112.85- 152.85	131.50
2.730	2.730	0.000	9502968	763.772	27.6	60.06- 100.06	80.84
2.767	2.768	-0.001	5632669	766.525	27.7	28.30- 68.30	47.92
2.977	2.978	-0.001	7402773	777.784	28.1	42.29- 82.29	62.98

Average of Peak Concentrations = 28.2

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.704	-0.002	16778714	915.364	33.0	80.00- 120.00	100.00
3.865	3.866	-0.001	24955969	928.082	33.5	128.74- 168.74	148.74
4.027	4.028	-0.001	26816461	947.066	34.2	138.95- 178.95	159.82
4.094	4.096	-0.002	15269171	944.999	34.1	69.61- 109.61	91.00
4.237	4.240	-0.003	15263812	907.876	32.8	72.96- 112.96	90.97
Average of Peak Concentrations =					33.5		

Data File: /chem/ecd1a.i/032210.b/046f4601.d
Date : 22-MAR-2010 15:39
Client ID: RE46-10-13867MSD
Sample Info: |1202076242|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

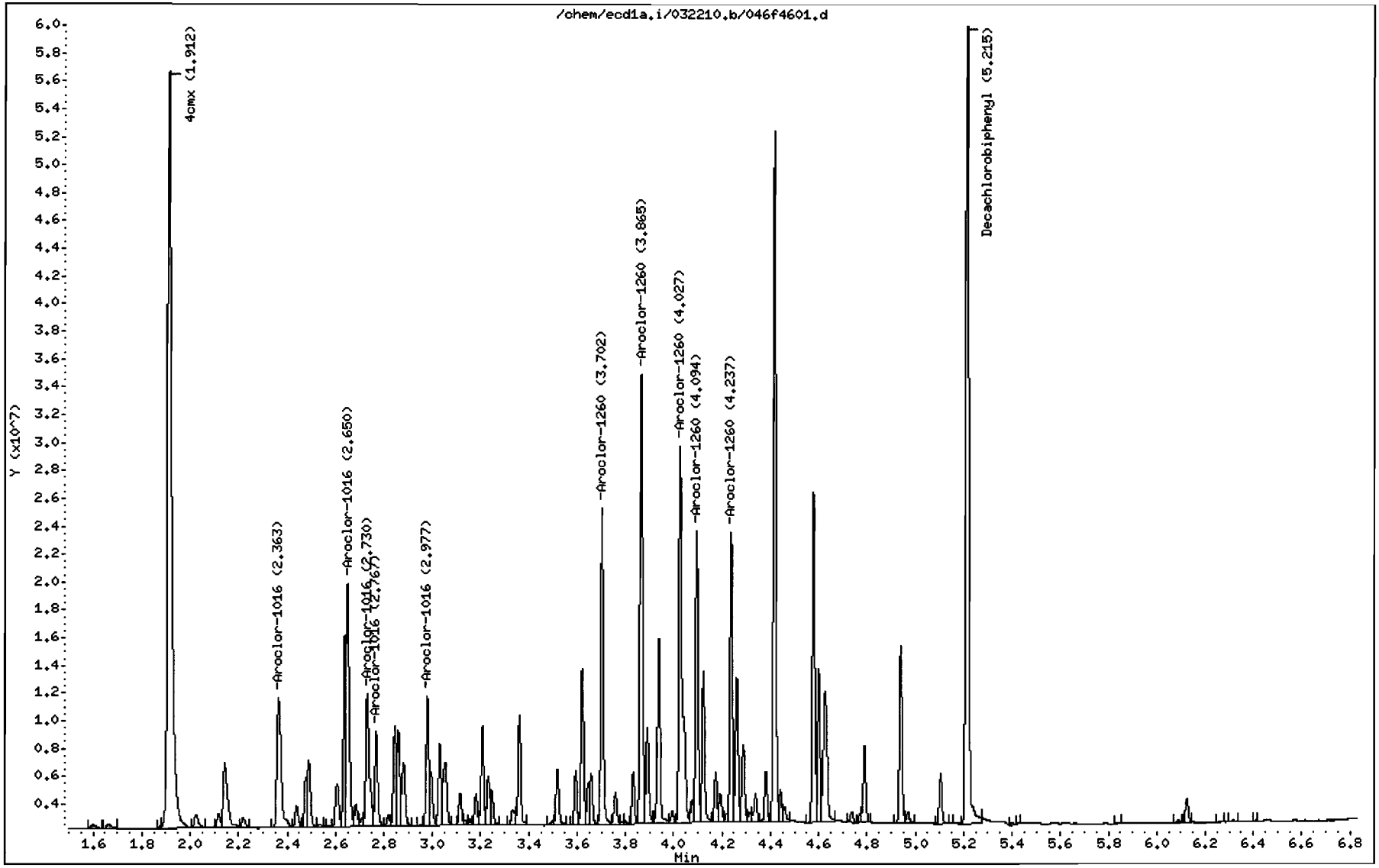

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/046b4601.d
Lab Smp Id: 1202076242 Client Smp ID: RE46-10-13867MSD
Inj Date : 22-MAR-2010 15:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076242|1|
Misc Info : |ECD82P_1S|967354|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 46 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2298.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	7.89670	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	41996406	160.088	5.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.911	-0.001	31828685	170.049	6.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.163	3.164	-0.001	9928604	788.925	28.5	80.00- 120.00	100.00(M)
3.247	3.246	0.001	6344173	734.772	26.5	45.75- 85.75	63.90
3.310	3.310	0.000	3816956	722.001	26.1	20.72- 60.72	38.44
3.537	3.537	0.000	4999539	725.336	26.2	31.59- 71.59	50.35
3.612	3.612	0.000	4865554	757.572	27.4	38.09- 78.09	57.77
Average of Peak Concentrations =					26.9		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.303	-0.001	11118231	850.003	30.7	80.00- 120.00	100.00
4.427	4.428	-0.001	13650594	877.907	31.7	101.68- 141.68	122.78
4.692	4.694	-0.002	10335147	868.787	31.4	71.42- 111.42	92.96
4.866	4.867	-0.001	10471741	852.108	30.8	74.52- 114.52	94.19
5.012	5.014	-0.002	24009318	909.629	32.8	190.00- 230.00	215.95
Average of Peak Concentrations =					31.5		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032210.b/046b4601.d

Date : 22-MAR-2010 15:39

Client ID: RE46-10-13867MSD

Sample Info: |1202076242|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

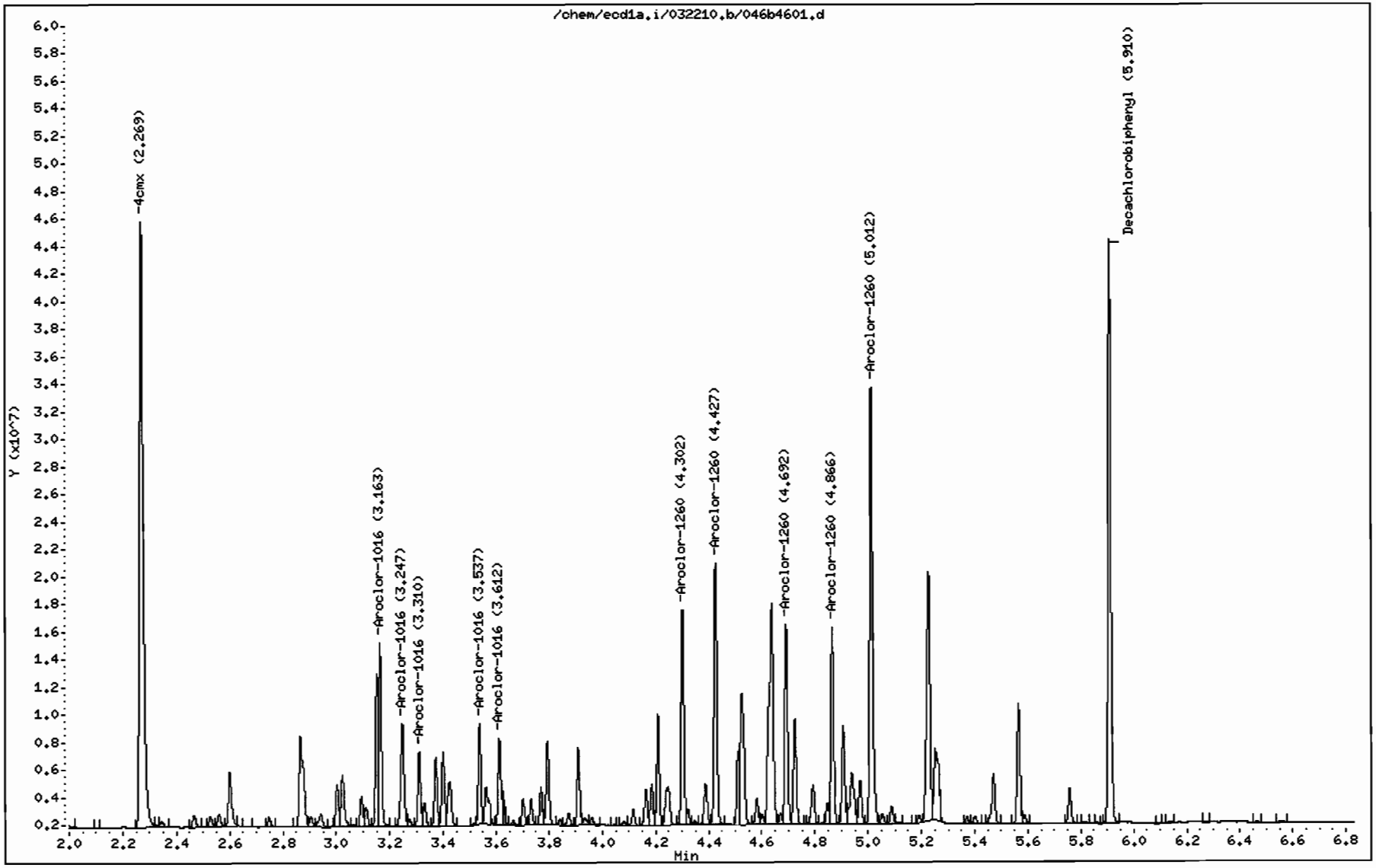

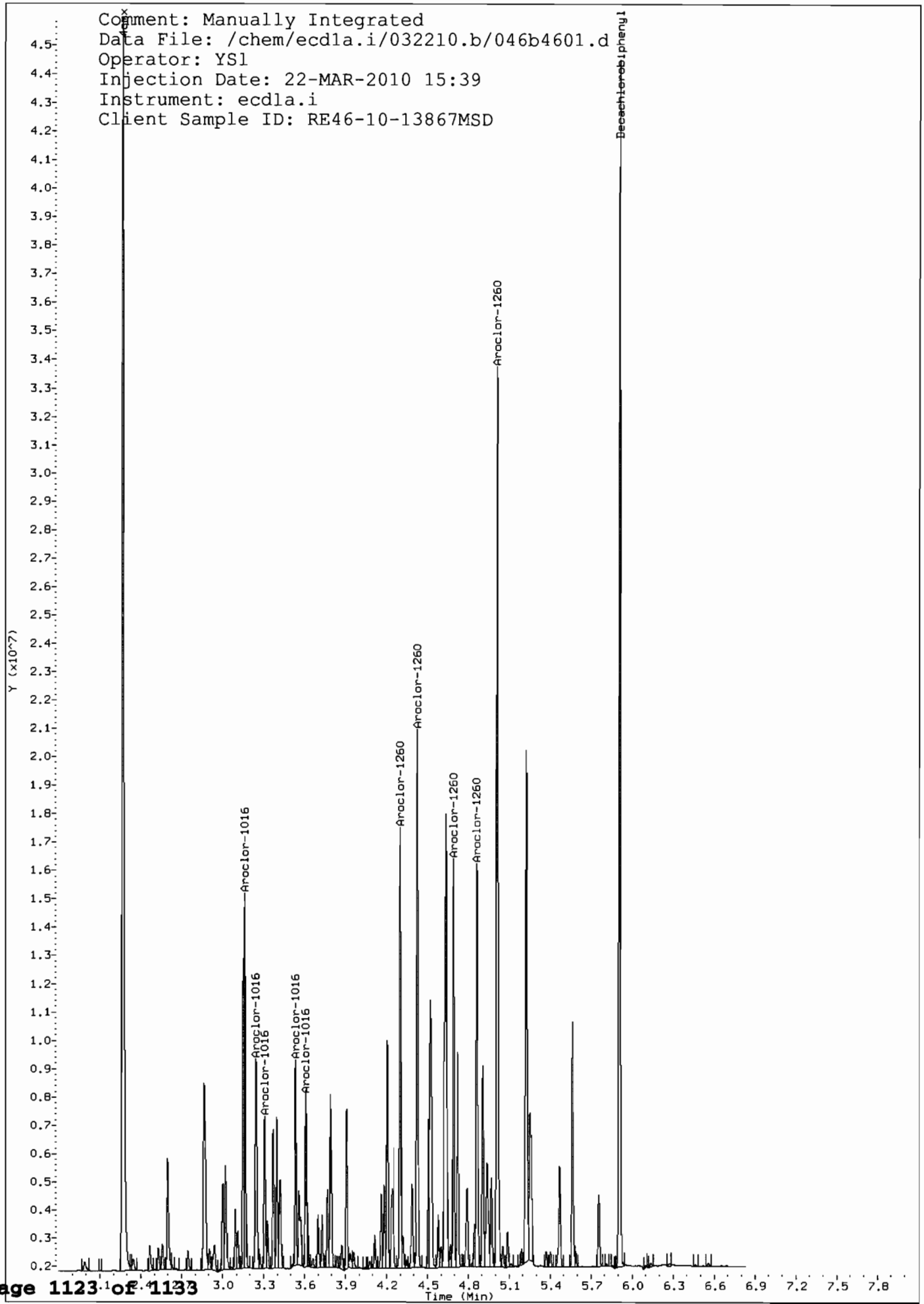
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032210.b/046b4601.d
Operator: YS1
Injection Date: 22-MAR-2010 15:39
Instrument: ecd1a.i
Client Sample ID: RE46-10-13867MSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Y (x10^7)
Time (Min)

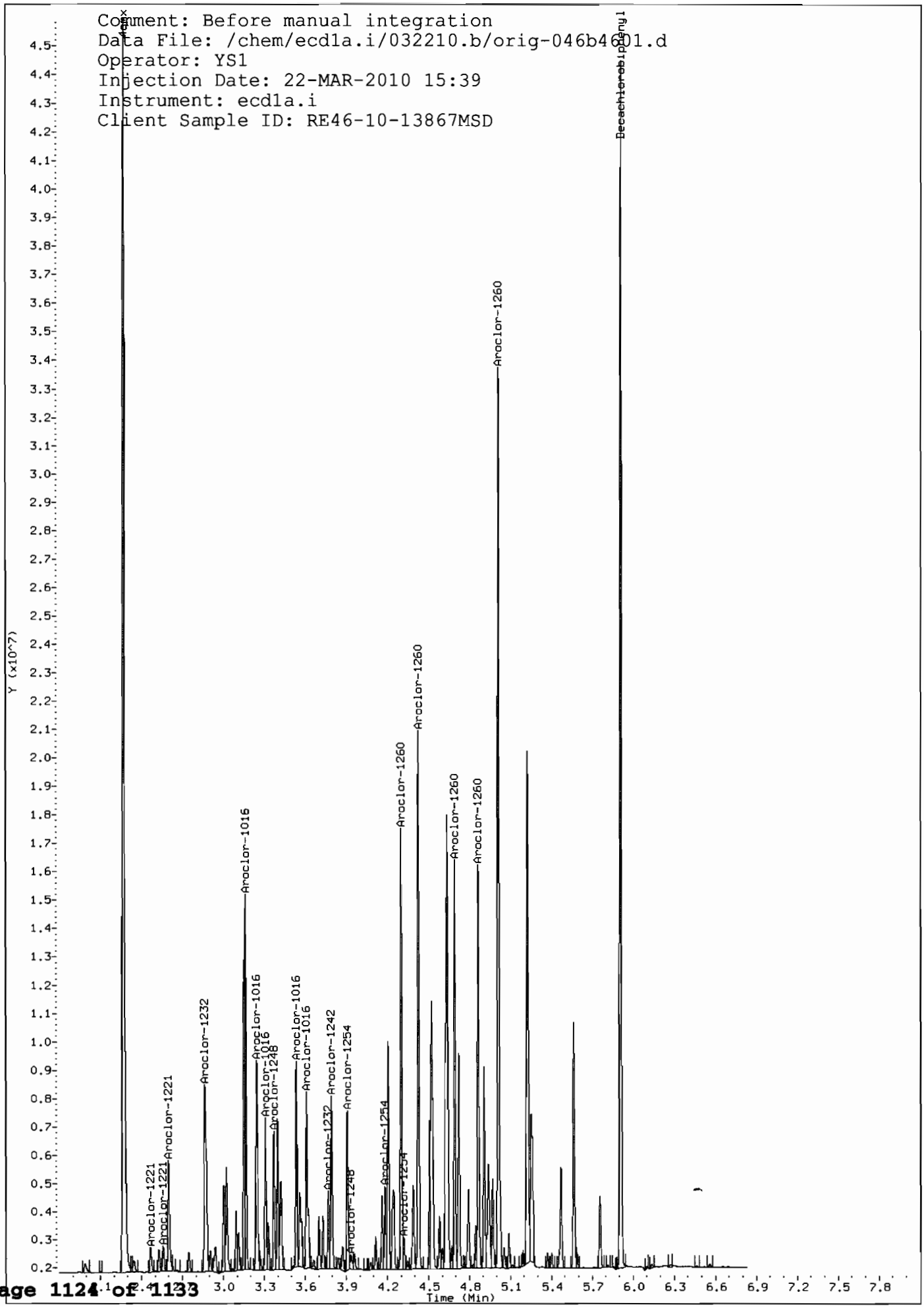
Comment: Before manual integration
Data File: /chem/ecd1a.i/032210.b/orig-046b4601.d
Operator: YS1
Injection Date: 22-MAR-2010 15:39
Instrument: ecd1a.i
Client Sample ID: RE46-10-13867MSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
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Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1221
Aroclor-1221
Aroclor-1221
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/12/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/031110b.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	11-MAR-2010 14:46		031110b	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	11-MAR-2010 14:56		031110b	1.0		DUSE RE-ICAL
003f0301.d	WAR100219-54	YS1	11-MAR-2010 15:07		031110b	1.0		DUSE RE-ICAL
004f0401.d	WAR100219-42	YS1	11-MAR-2010 15:17		031110b	1.0		DUSE RE-ICAL
005f0501.d	WAR100223-48	YS1	11-MAR-2010 15:28		031110b	1.0		DUSE RE-ICAL
006f0601.d	WAR100107-68	YS1	11-MAR-2010 15:38		031110b	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	11-MAR-2010 15:49		031110b	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	11-MAR-2010 15:59		031110b	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	11-MAR-2010 16:10		031110b	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	11-MAR-2010 16:21		031110b	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100311-01	YS1	11-MAR-2010 16:31		031110b	1.0		AR1660 I-CAL LEVEL 1
012f1201.d	WAR100311-02	YS1	11-MAR-2010 16:41		031110b	1.0		AR1660 I-CAL LEVEL 2
013f1301.d	WAR100311-03	YS1	11-MAR-2010 16:52		031110b	1.0		AR1660 I-CAL LEVEL 3
014f1401.d	WAR100311-04	YS1	11-MAR-2010 17:02		031110b	1.0		AR1660 I-CAL LEVEL 4
015f1501.d	IAR100311-01	YS1	11-MAR-2010 17:13		031110b	1.0		AR1660 I-CAL LEVEL 5

Instrument Batch: /chem/ecd1a.i/031110b.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100222-60 01	YS1	11-MAR-2010 17:24		031110b	1.0		PASSED ON BOTH COLUMNS
017f1701.d	WAR100311-05	YS1	11-MAR-2010 17:34		031110b	1.0		AR1254 I-CAL LEVEL 1
018f1801.d	WAR100311-06	YS1	11-MAR-2010 17:45		031110b	1.0		AR1254 I-CAL LEVEL 2
019f1901.d	WAR100311-07	YS1	11-MAR-2010 17:55		031110b	1.0		AR1254 I-CAL LEVEL 3
020f2001.d	WAR100311-08	YS1	11-MAR-2010 18:06		031110b	1.0		AR1254 I-CAL LEVEL 4
021f2101.d	IAR100219-02	YS1	11-MAR-2010 18:16		031110b	1.0		AR1254 I-CAL LEVEL 5
022f2201.d	WAR100219-54	YS1	11-MAR-2010 18:27		031110b	1.0		PASSED ON BOTH COLUMNS
023f2301.d	WAR100311-09	YS1	11-MAR-2010 18:37		031110b	1.0		AR1242 I-CAL LEVEL 1
024f2401.d	WAR100311-10	YS1	11-MAR-2010 18:48		031110b	1.0		AR1242 I-CAL LEVEL 2
025f2501.d	WAR100311-11	YS1	11-MAR-2010 18:58		031110b	1.0		AR1242 I-CAL LEVEL 3
026f2601.d	WAR100311-12	YS1	11-MAR-2010 19:09		031110b	1.0		AR1242 I-CAL LEVEL 4
027f2701.d	IAR100219-01	YS1	11-MAR-2010 19:19		031110b	1.0		AR1242 I-CAL LEVEL 5
028f2801.d	WAR100219-42	YS1	11-MAR-2010 19:30		031110b	1.0		PASSED ON BOTH COLUMNS
029f2901.d	WAR100311-13	YS1	11-MAR-2010 19:40		031110b	1.0		AR1248 I-CAL LEVEL 1
030f3001.d	WAR100311-14	YS1	11-MAR-2010 19:51		031110b	1.0		AR1248 I-CAL LEVEL 2
031f3101.d	WAR100311-15	YS1	11-MAR-2010 20:01		031110b	1.0		AR1248 I-CAL LEVEL 3
032f3201.d	WAR100311-16	YS1	11-MAR-2010 20:12		031110b	1.0		AR1248 I-CAL LEVEL 4
033f3301.d	IAR100211-01	YS1	11-MAR-2010 20:22		031110b	1.0		AR1248 I-CAL LEVEL 5
034f3401.d	WAR100223-48	YS1	11-MAR-2010 20:33		031110b	1.0		PASSED ON BOTH COLUMNS
035f3501.d	WAR100219-99 02	YS1	11-MAR-2010 20:44		031110b	1.0		CLEAN

Instrument Batch: /chem/ecd1a.i/031110b.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202067743	YS1	11-MAR-2010 20:54	963869	246954	1.0	MB	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
037f3701.d	1202067744	YS1	11-MAR-2010 21:05	963869	246954	1.0	LCS	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
038f3801.d	246954003	YS1	11-MAR-2010 21:15	963869	246954	1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
039f3901.d	1202067745	YS1	11-MAR-2010 21:26	963869	246954	1.0	MS	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
040f4001.d	1202067746	YS1	11-MAR-2010 21:36	963869	246954	1.0	MSD	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT

041f4101.d	246954006	YS1	11-MAR-2010 21:47	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
042f4201.d	246954007	YS1	11-MAR-2010 21:57	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
043f4301.d	246954009	YS1	11-MAR-2010 22:08	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
044f4401.d	246954012	YS1	11-MAR-2010 22:18	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
045f4501.d	246954014	YS1	11-MAR-2010 22:29	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
046f4601.d	WAR100222-60 02	YS1	11-MAR-2010 22:39		031110b		1.0		PASSED ON BOTH COLUMNS
046f4901.d	WAR100222-60 03	YS1	11-MAR-2010 23:11		031110b		1.0		CLEAN
047f4701.d	WAR100219-99 03	YS1	11-MAR-2010 22:50		031210		1.0		
047f5001.d	WAR100219-99 04	YS1	11-MAR-2010 23:21		031110b		1.0		
048f4801.d	WE100311-07SCR	YS1	11-MAR-2010 23:00		031110b		1.0		LCS CSREEN FOR PREP

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/23/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/032210.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	22-MAR-2010 06:52		032210	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	22-MAR-2010 07:02		032210	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YS1	22-MAR-2010 07:13		032210	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YS1	22-MAR-2010 07:23		032210	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR100223-48	YS1	22-MAR-2010 07:34		032210	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100107-68	YS1	22-MAR-2010 07:44		032210	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	22-MAR-2010 07:55		032210	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	22-MAR-2010 08:05		032210	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	22-MAR-2010 08:16		032210	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	22-MAR-2010 08:26		032210	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100219-99 02	YS1	22-MAR-2010 08:37		032210	1.0		CLEAN
012f1201.d	1202074817	YS1	22-MAR-2010 08:47	966771	10-2216	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202074818	YS1	22-MAR-2010 08:58	966771	10-2216	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	248556002	YS1	22-MAR-2010 09:08	966771	10-2216	1.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
015f1501.d	248556003	YS1	22-MAR-2010 09:21	966771	10-2216	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/032210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	248556004	YS1	22-MAR-2010 09:33	966771	10-2216		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
017f1701.d	248556005	YS1	22-MAR-2010 09:46	966771	10-2216		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	248556006	YS1	22-MAR-2010 09:59	966771	10-2216		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	248556007	YS1	22-MAR-2010 10:11	966771	10-2216		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	248556008	YS1	22-MAR-2010 10:24	966771	10-2216		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	248660002	YS1	22-MAR-2010 10:36	966771	10-2244		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	WAR100222-60 02	YS1	22-MAR-2010 10:49		032210		1.0		PASSED ON BOTH COLUMNS
023f2301.d	WAR100219-99 03	YS1	22-MAR-2010 11:00		032210		1.0		CLEAN
024f2401.d	248702001	YS1	22-MAR-2010 11:10	966771	10-2264		5.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
025f2501.d	248702002	YS1	22-MAR-2010 11:23	966771	10-2264		1.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
026f2601.d	248747001	YS1	22-MAR-2010 11:35	966771	10-2279		1.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
027f2701.d	248747002	YS1	22-MAR-2010 11:48	966771	10-2279		1.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
028f2801.d	248747003	YS1	22-MAR-2010 12:01	966771	10-2279		5.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
029f2901.d	248747004	YS1	22-MAR-2010 12:13	966771	10-2279		1.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
030f3001.d	248747005	YS1	22-MAR-2010 12:26	966771	10-2279		5.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
031f3101.d	248747006	YS1	22-MAR-2010 12:39	966771	10-2279		5.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
032f3201.d	248747007	YS1	22-MAR-2010 12:51	966771	10-2279		5.0	LANL	DUSE RE DUE TO BLANK CONTAMINATION
033f3301.d	WAR100222-60 03	YS1	22-MAR-2010 13:04		032210		1.0		PASSED ON BOTH COLUMNS
034f3401.d	WAR100219-99 04	YS1	22-MAR-2010 13:14		032210		1.0		CLEAN
035f3501.d	248824001	YS1	22-MAR-2010 13:25	966771	10-2305		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/032210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202074819	YS1	22-MAR-2010 13:37	966771	10-2305	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	1202074820	YS1	22-MAR-2010 13:50	966771	10-2305	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	248824002	YS1	22-MAR-2010 14:03	966771	10-2305	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	WAR100222-60 05	YS1	22-MAR-2010 14:15		032210	1.0		PASSED ON BOTH COLUMNS
040f4001.d	WAR100219-99 06	YS1	22-MAR-2010 14:26		032210	1.0		CLEAN

041f4101.d	1202076239	YS1	22-MAR-2010 14:36	967354	10-2298		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
042f4201.d	1202076240	YS1	22-MAR-2010 14:49	967354	10-2298		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
043f4301.d	248506002	YS1	22-MAR-2010 15:01	967354	10-2193		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	248815001	YS1	22-MAR-2010 15:14	967354	10-2298		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	1202076241	YS1	22-MAR-2010 15:27	967354	10-2298		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	1202076242	YS1	22-MAR-2010 15:39	967354	10-2298		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	248815002	YS1	22-MAR-2010 15:52	967354	10-2298		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
048f4801.d	248815003	YS1	22-MAR-2010 16:05	967354	10-2298		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	248815004	YS1	22-MAR-2010 16:17	967354	10-2298		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	248815005	YS1	22-MAR-2010 16:30	967354	10-2298		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	WAR100222-60 06	YS1	22-MAR-2010 16:42		032210		1.0		PASSED ON BOTH COLUMNS
052f5201.d	WAR100219-99 07	YS1	22-MAR-2010 16:55		032210		1.0		CLEAN
053f5301.d	248815006	YS1	22-MAR-2010 17:08	967354	10-2298		5.0	LANL	DUSE RE
054f5401.d	248815007	YS1	22-MAR-2010 17:20	967354	10-2298		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	248815008	YS1	22-MAR-2010 17:33	967354	10-2298		5.0	LANL	DUSE RE

Instrument Batch: /chem/ecd1a.i/032210.b Page: 3

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	248815009	YS1	22-MAR-2010 17:45	967354	10-2298	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	248815010	YS1	22-MAR-2010 17:58	967354	10-2298	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	248815011	YS1	22-MAR-2010 18:11	967354	10-2298	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	WAR100222-60 07	YS1	22-MAR-2010 18:23		032210	1.0		PASSED ON BOTH COLUMNS
060f6001.d	WAR100219-99 08	YS1	22-MAR-2010 18:36		032210	1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 967352 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL–OA–E–010 REV# 18

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202076239 MB	21–MAR–2010 11:56:00	30	H2SO4/KMl2		2	9	1	0.03333
1202076240 LCS	21–MAR–2010 11:56:00	30	H2SO4/KMl2		2	9	1	0.03333
248506002 – 2	21–MAR–2010 11:56:00	30.18	H2SO4/KMl2		2	9	1	0.03313
248815001	21–MAR–2010 11:56:00	30.14	H2SO4/KMl2		2	9	1	0.03318
1202076241 MS (248815001)	21–MAR–2010 11:56:00	30.02	H2SO4/KMl2		2	9	1	0.03331
1202076242 MSD (248815001)	21–MAR–2010 11:56:00	30.07	H2SO4/KMl2		2	9	1	0.03326
248815002	21–MAR–2010 11:56:00	30.16	H2SO4/KMl2		2	9	1	0.03316
248815003	21–MAR–2010 11:56:00	30.05	H2SO4/KMl2		2	9	1	0.03328
248815004	21–MAR–2010 11:56:00	30.05	H2SO4/KMl2		2	9	1	0.03328
248815005	21–MAR–2010 11:56:00	30.19	H2SO4/KMl2		2	9	1	0.03312
248815006	21–MAR–2010 11:56:00	30.16	H2SO4/KMl2		2	9	1	0.03316
248815007	21–MAR–2010 11:56:00	30.07	H2SO4/KMl2		2	9	1	0.03326
248815008	21–MAR–2010 11:56:00	30.12	H2SO4/KMl2		2	9	1	0.0332
248815009	21–MAR–2010 11:56:00	30.14	H2SO4/KMl2		2	9	1	0.03318
248815010	21–MAR–2010 11:56:00	30.19	H2SO4/KMl2		2	9	1	0.03312
248815011	21–MAR–2010 11:56:00	30.07	H2SO4/KMl2		2	9	1	0.03326

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202076240	PCB Laboratory Control	WE100311–07	1	mL
MS	1202076241	PCB Laboratory Control	WE100311–07	1	mL
MSD	1202076242	PCB Laboratory Control	WE100311–07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100310–16	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1273823–B1	150	mL
REGNT	All	Hexane	1279345–B2	150	mL
REGNT	All	5% Potassium Permanganate	B1275177–F	5	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 3/21/10
Clean up Initials: AJS
Verified By: AV
Final Solvent: Hexane
Clean Up SOP: GL–OA–E–037

Friday, March 05, 2010

REQUEST NUMBER: 10-2318

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-2318
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/5/2010
TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE46-10-11924	S	3/3/2010	
	EPA:901.1	1	RE46-10-11924	S	3/3/2010	
	HASL-300:AM-241	1	RE46-10-11924	S	3/3/2010	
	HASL-300:ISOPU	1	RE46-10-11924	S	3/3/2010	
	HASL-300:ISOTH	1	RE46-10-11924	S	3/3/2010	
	HASL-300:ISOU	1	RE46-10-11924	S	3/3/2010	
	SW-846:6020	1	RE46-10-11924	S	3/3/2010	
	SW-846:6850	1	RE46-10-11924	S	3/3/2010	
	SW-846:7471A	1	RE46-10-11924	S	3/3/2010	
	SW-846:8082	1	RE46-10-11924	S	3/3/2010	

Friday, March 05, 2010

REQUEST NUMBER: 10-2318

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE46-10-11924	S	3/3/2010	
	SW-846:8270C	1	RE46-10-11924	S	3/3/2010	
	SW-846:9012A	1	RE46-10-11924	S	3/3/2010	

Final Page of REQUEST NUMBER 10-2318

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2318C

REQUEST NUMBER: 10-2318

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-11924	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-11924	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-11924	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-11924	1	POLY	Met+NO3+CL04+CN	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/5/10	3:00				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2611 **EVENT NAME:** SWMU 46-002

SAMPLE ID: RE46-10-11924 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-3-10	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		0945	SUB-MEDIA:	SOIL	
PRS ID:	46-002	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611376		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ BOREHOLE DIRECTION:

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	

SAMPLE DESC: sand + weathered tuff, brn (7.5YR 4/3) wet

SAMPLE COMMENTS: —

LOCATION DESC: 2-4

FIELD SCREENING/MEASUREMENT RESULTS:

PID = NA Samples < MDA

α = 6 dpm

β = 755

COLLECTED BY (PRINT) J. [illegible] **REVIEWED BY (PRINT)** M. [illegible]

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [illegible]	3-4-10	(Printed Name) Sherri Sherwood	3-4-10
(Signature)	1745	(Signature) Sherri Sherwood	1745
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2318 VALIDATION DATE: 6/8/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV and/or CCV %Ds were >20% for acetone, carbon disulfide and methylene chloride. The associated sample results were NDs and, thus, were qualified UJ,V7c.
2. It should be noted that the MS/MSD analyses were performed on a LANL sample from a different RN and the parent sample raw data were not included in the data package. However, MS/MSD analyses are not required for this method and, thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 06/15/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/8/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☐	☐	☒	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☐	☒	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☐	☒	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2318	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248865001	**Date Received:**	03/06/2010 09:15	**%Moisture:**	17.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-11924	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965481	**Inst:**	VOA3.I	**Dilution:**	1
Run Date:	03/15/2010 19:16	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/15/2010 17:14	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031510V3\3D115.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.21	ug/kg	0.410	1.21	
74-87-3	Chloromethane	U	1.21	ug/kg	0.362	1.21	
75-01-4	Vinyl chloride	U	1.21	ug/kg	0.362	1.21	
74-83-9	Bromomethane	U	1.21	ug/kg	0.362	1.21	
75-00-3	Chloroethane	U	1.21	ug/kg	0.362	1.21	
75-69-4	Trichlorofluoromethane	U	1.21	ug/kg	0.362	1.21	
67-64-1	Acetone	U	6.04	ug/kg	2.00	6.04	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.21	ug/kg	0.362	1.21	
74-88-4	Iodomethane	U	6.04	ug/kg	1.93	6.04	
75-09-2	Methylene chloride	U	6.04	ug/kg	2.41	6.04	UJ,V7c
75-15-0	Carbon disulfide	U	6.04	ug/kg	1.51	6.04	UJ,V7c
156-60-5	trans-1,2-Dichloroethylene	U	1.21	ug/kg	0.362	1.21	
75-34-3	1,1-Dichloroethane	U	1.21	ug/kg	0.362	1.21	
78-93-3	2-Butanone	U	6.04	ug/kg	1.81	6.04	
156-59-2	cis-1,2-Dichloroethylene	U	1.21	ug/kg	0.362	1.21	
594-20-7	2,2-Dichloropropane	U	1.21	ug/kg	0.362	1.21	
67-66-3	Chloroform	U	1.21	ug/kg	0.362	1.21	
74-97-5	Bromochloromethane	U	1.21	ug/kg	0.398	1.21	
71-55-6	1,1,1-Trichloroethane	U	1.21	ug/kg	0.362	1.21	
563-58-6	1,1-Dichloropropene	U	1.21	ug/kg	0.362	1.21	
56-23-5	Carbon tetrachloride	U	1.21	ug/kg	0.362	1.21	
107-06-2	1,2-Dichloroethane	U	1.21	ug/kg	0.362	1.21	
71-43-2	Benzene	U	1.21	ug/kg	0.362	1.21	
79-01-6	Trichloroethylene	U	1.21	ug/kg	0.398	1.21	
78-87-5	1,2-Dichloropropane	U	1.21	ug/kg	0.362	1.21	
75-27-4	Bromodichloromethane	U	1.21	ug/kg	0.362	1.21	
74-95-3	Dibromomethane	U	1.21	ug/kg	0.362	1.21	
108-10-1	4-Methyl-2-pentanone	U	6.04	ug/kg	1.51	6.04	
10061-01-5	cis-1,3-Dichloropropylene	U	1.21	ug/kg	0.362	1.21	
108-88-3	Toluene	U	1.21	ug/kg	0.362	1.21	
10061-02-6	trans-1,3-Dichloropropylene	U	1.21	ug/kg	0.362	1.21	
79-00-5	1,1,2-Trichloroethane	U	1.21	ug/kg	0.362	1.21	
591-78-6	2-Hexanone	U	6.04	ug/kg	1.81	6.04	
142-28-9	1,3-Dichloropropane	U	1.21	ug/kg	0.362	1.21	
127-18-4	Tetrachloroethylene	U	1.21	ug/kg	0.362	1.21	
124-48-1	Dibromochloromethane	U	1.21	ug/kg	0.362	1.21	
106-93-4	1,2-Dibromoethane	U	1.21	ug/kg	0.362	1.21	
108-90-7	Chlorobenzene	U	1.21	ug/kg	0.362	1.21	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2318	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248865001	**Date Received:**	03/06/2010 09:15	**%Moisture:**	17.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-11924	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965481	**Inst:**	VOA3.I	**Dilution:**	1
Run Date:	03/15/2010 19:16	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/15/2010 17:14	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031510V3\3D115.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.21	ug/kg	0.362	1.21
179601-23-1	m,p-Xylenes	U	2.41	ug/kg	0.362	2.41
95-47-6	o-Xylene	U	1.21	ug/kg	0.362	1.21
100-42-5	Styrene	U	1.21	ug/kg	0.362	1.21
75-25-2	Bromoform	U	1.21	ug/kg	0.362	1.21
79-34-5	1,1,2,2-Tetrachloroethane	U	1.21	ug/kg	0.362	1.21
96-18-4	1,2,3-Trichloropropane	U	1.21	ug/kg	0.362	1.21
108-86-1	Bromobenzene	U	1.21	ug/kg	0.362	1.21
103-65-1	n-Propylbenzene	U	1.21	ug/kg	0.362	1.21
95-49-8	2-Chlorotoluene	U	1.21	ug/kg	0.362	1.21
98-82-8	Isopropylbenzene	U	1.21	ug/kg	0.362	1.21
108-67-8	1,3,5-Trimethylbenzene	U	1.21	ug/kg	0.362	1.21
106-43-4	4-Chlorotoluene	U	1.21	ug/kg	0.362	1.21
98-06-6	tert-Butylbenzene	U	1.21	ug/kg	0.362	1.21
95-63-6	1,2,4-Trimethylbenzene	U	1.21	ug/kg	0.362	1.21
135-98-8	sec-Butylbenzene	U	1.21	ug/kg	0.362	1.21
99-87-6	4-Isopropyltoluene	U	1.21	ug/kg	0.362	1.21
541-73-1	1,3-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21
106-46-7	1,4-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21
104-51-8	n-Butylbenzene	U	1.21	ug/kg	0.362	1.21
96-12-8	1,2-Dibromo-3-chloropropane	U	1.21	ug/kg	0.362	1.21
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.04	ug/kg	1.93	6.04
630-20-6	1,1,1,2-Tetrachloroethane	U	1.21	ug/kg	0.362	1.21
95-50-1	1,2-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2318 VALIDATION DATE: 6/8/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV and/or CCV %Ds were >20% for pyridine; 2-methyl-4,6-dinitrophenol; benzyl alcohol; benzoic acid; 4-chloroaniline; hexachlorocyclopentadiene; p-nitroaniline; indeno(1,2,3-cd)pyrene; dibenzo(a,h)anthracene and benzo(g,h,i)perylene. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. It should be noted that a few MS/MSD %Rs and RPDs were not within the laboratory's QC limits. It should also be noted that the MS/MSD analyses were performed on a LANL sample from a different RN and the parent sample raw data were not included in the data package. However, MS/MSD analyses are not required for this method and, thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 06/15/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/8/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☐	☒	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☐	☒	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2318	Date Collected:	03/03/2010 12:00	Matrix:	S
Lab Sample ID:	248865001	Date Received:	03/06/2010 09:15	%Moisture:	17.2
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-11924	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965816	Inst:	MSD7.I	Dilution:	1
Run Date:	03/23/2010 14:37	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	03/16/2010 21:37	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s7c2313.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	402	ug/kg	80.4	402	
108-95-2	Phenol	U	402	ug/kg	80.4	402	
95-57-8	2-Chlorophenol	U	402	ug/kg	80.4	402	
106-46-7	1,4-Dichlorobenzene	U	402	ug/kg	80.4	402	
621-64-7	N-Nitrosodipropylamine	U	402	ug/kg	80.4	402	
59-50-7	4-Chloro-3-methylphenol	U	402	ug/kg	80.4	402	
83-32-9	Acenaphthene	U	40.2	ug/kg	13.3	40.2	
121-14-2	2,4-Dinitrotoluene	U	402	ug/kg	40.2	402	
100-02-7	4-Nitrophenol	U	402	ug/kg	133	402	
87-86-5	Pentachlorophenol	U	402	ug/kg	101	402	
129-00-0	Pyrene	U	40.2	ug/kg	12.1	40.2	
110-86-1	Pyridine	U	402	ug/kg	80.4	402	UJ,SV7c
62-53-3	Aniline	U	402	ug/kg	121	402	
111-44-4	bis(2-Chloroethyl) ether	U	402	ug/kg	80.4	402	
541-73-1	1,3-Dichlorobenzene	U	402	ug/kg	80.4	402	
100-51-6	Benzyl alcohol	U	402	ug/kg	121	402	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	402	ug/kg	80.4	402	
108-60-1	bis(2-Chloroisopropyl)ether	U	402	ug/kg	80.4	402	
95-48-7	o-Cresol	U	402	ug/kg	80.4	402	
65794-96-9	m,p-Cresols	U	402	ug/kg	121	402	
67-72-1	Hexachloroethane	U	402	ug/kg	80.4	402	
98-95-3	Nitrobenzene	U	402	ug/kg	80.4	402	
78-59-1	Isophorone	U	402	ug/kg	80.4	402	
88-75-5	2-Nitrophenol	U	402	ug/kg	80.4	402	
105-67-9	2,4-Dimethylphenol	U	402	ug/kg	141	402	
111-91-1	bis(2-Chloroethoxy)methane	U	402	ug/kg	80.4	402	
120-83-2	2,4-Dichlorophenol	U	402	ug/kg	80.4	402	
65-85-0	Benzoic acid	U	804	ug/kg	201	804	UJ,SV7c
91-20-3	Naphthalene	U	40.2	ug/kg	12.1	40.2	
106-47-8	4-Chloroaniline	U	402	ug/kg	80.4	402	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	402	ug/kg	80.4	402	
91-57-6	2-Methylnaphthalene	U	40.2	ug/kg	8.04	40.2	
77-47-4	Hexachlorocyclopentadiene	U	402	ug/kg	80.4	402	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	402	ug/kg	80.4	402	
95-95-4	2,4,5-Trichlorophenol	U	402	ug/kg	80.4	402	
91-58-7	2-Chloronaphthalene	U	40.2	ug/kg	13.3	40.2	
88-74-4	2-Nitroaniline	U	402	ug/kg	80.4	402	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	402	ug/kg	80.4	402	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2318	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248865001	**Date Received:**	03/06/2010 09:15	**%Moisture:**	17.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-11924	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965816	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/23/2010 14:37	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/16/2010 21:37	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s7c2313.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	402	ug/kg	80.4	402	
606-20-2	2,6-Dinitrotoluene	U	402	ug/kg	40.2	402	
208-96-8	Acenaphthylene	U	40.2	ug/kg	12.1	40.2	
51-28-5	2,4-Dinitrophenol	U	804	ug/kg	153	804	
132-64-9	Dibenzofuran	U	402	ug/kg	80.4	402	
84-66-2	Diethylphthalate	U	402	ug/kg	80.4	402	
86-73-7	Fluorene	U	40.2	ug/kg	12.1	40.2	
7005-72-3	4-Chlorophenylphenylether	U	402	ug/kg	80.4	402	
534-52-1	2-Methyl-4,6-dinitrophenol	U	402	ug/kg	80.4	402	UJ,SV7c
100-01-6	4-Nitroaniline	U	402	ug/kg	121	402	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	402	ug/kg	80.4	402	
122-66-7	Azobenzene	U	402	ug/kg	80.4	402	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	402	ug/kg	80.4	402	
118-74-1	Hexachlorobenzene	U	402	ug/kg	80.4	402	
85-01-8	Phenanthrene	U	40.2	ug/kg	12.1	40.2	
120-12-7	Anthracene	U	40.2	ug/kg	8.04	40.2	
84-74-2	Di-n-butylphthalate	U	402	ug/kg	80.4	402	
206-44-0	Fluoranthene	U	40.2	ug/kg	12.1	40.2	
85-68-7	Butylbenzylphthalate	U	402	ug/kg	80.4	402	
56-55-3	Benzo(a)anthracene	U	40.2	ug/kg	12.1	40.2	
91-94-1	3,3'-Dichlorobenzidine	U	402	ug/kg	121	402	
218-01-9	Chrysene	U	40.2	ug/kg	12.1	40.2	
117-81-7	bis(2-Ethylhexyl)phthalate	U	402	ug/kg	80.4	402	
117-84-0	Di-n-octylphthalate	U	402	ug/kg	80.4	402	
205-99-2	Benzo(b)fluoranthene	U	40.2	ug/kg	12.1	40.2	
207-08-9	Benzo(k)fluoranthene	U	40.2	ug/kg	12.1	40.2	
50-32-8	Benzo(a)pyrene	U	40.2	ug/kg	12.1	40.2	
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.2	ug/kg	12.1	40.2	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	40.2	ug/kg	12.1	40.2	
191-24-2	Benzo(ghi)perylene	U	40.2	ug/kg	12.1	40.2	
120-82-1	1,2,4-Trichlorobenzene	U	402	ug/kg	80.4	402	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	498	ug/kg		J

ETM
6/8/10

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2318 VALIDATION DATE: 6/8/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS/MSD %R calculations were performed incorrectly. The parent sample result was < the MDL and, thus, a result of 0 ug/kg should have been used to calculate the %Rs. The laboratory subtracted the parent sample concentrations. The %Rs were within the acceptance limits when calculated correctly. It should be noted that the parent samples for the MS/MSD was a LANL sample from another RN and that the raw data for the parent sample was not included in the data package. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 06/15/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/8/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☐	☒	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☐	☒	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-11924

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2318

GEL Sample ID: 248865001

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.604	2.41	0.604	ug/kg	U	1	28-MAR-10 17:32	per0328027a
	Perchlorate Isotope Ratio						1	28-MAR-10 17:32	per0328027a
14797-73-0	Perchlorate-101	.604	2.41	0.604	ug/kg	U	1	28-MAR-10 17:32	per0328027a
	Perchlorate-O(18)			6.06	ug/kg		1	28-MAR-10 17:32	per0328027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2318 VALIDATION DATE: 6/8/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from a different RN and the parent sample raw data were not included in the data package. However, MS/MSD analyses are not required for this method and, thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 06/15/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/8/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2318	**Date Collected:**	03/03/2010 12:00	**Matrix:**	S
Lab Sample ID:	248865001	**Date Received:**	03/06/2010 09:15	**%Moisture:**	17.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–11924	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967400	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/23/2010 11:15	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 11:11	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	020f2001.d	**Column:**	1 CLP1	**Level:**	LOW
	020b2001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.02	ug/kg	1.34	4.02	1
11104–28–2	Aroclor–1221	U	4.02	ug/kg	1.34	4.02	1
11141–16–5	Aroclor–1232	U	4.02	ug/kg	1.34	4.02	1
53469–21–9	Aroclor–1242	U	4.02	ug/kg	1.34	4.02	1
12672–29–6	Aroclor–1248	U	4.02	ug/kg	1.34	4.02	1
11097–69–1	Aroclor–1254	U	4.02	ug/kg	1.34	4.02	1
11096–82–5	Aroclor–1260	U	4.02	ug/kg	1.34	4.02	1

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2318 VALIDATION DATE: 6/15/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the MB, Al and K were detected. The K sample result was a detect >5X but ≤50X the blank concentration and, thus, was qualified J,I4a. The Al sample result was a detect >50X the blank concentration and, thus, was not qualified, based on professional judgment.
2. In the ICB, K was detected. The associated sample result was a detect >5X the blank concentration and, thus, was not qualified.
3. The LCS %R was < the laboratory's LAL but ≥10% for Sb. The associated sample result was an ND and, thus, was qualified UJ,I12a.
4. The MS %Rs were > the laboratory's UAL for Al, Mn, K and Na. The associated sample results were detects and, thus, were qualified J+,I6b. The MS %R was also > the laboratory's UAL for Fe. However, the associated parent sample concentration was >4X the spike concentration. Thus, the associated sample results were not qualified,

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

based on professional judgment.

5. The duplicate RPDs for Ca and Cr were >35% and both the parent sample and duplicate sample results were ≥5X the PQLs. The associated sample results were detects and, thus, were qualified J,I10a.
6. It should be noted that all the matrix QC analyses were performed on a LANL sample from different a RN and that the raw data for the parent sample were not included in the data package. No sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 06/15/10

VALIDATOR'S SIGNATURE: Eric T. Mik DATE: 6/15/10

Form 5118-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☒	☐	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2318 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248865001 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-11924 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	J+,I6b	1640000	ug/kg		7820	23000	23000	1	P	HSC	04/01/10 09:30	033110B-1	964012
7440-36-0	Antimony	UJ,I12a	1150	ug/kg	U	379	1150	1150	1	P	HSC	04/01/10 09:30	033110B-1	964012
7440-38-2	Arsenic		927	ug/kg	J	227	1140	1140	2	MS	BCD1	05/17/10 14:26	100517-3	964014
7440-39-3	Barium		14200	ug/kg		115	575	575	1	P	HSC	04/01/10 09:30	033110B-1	964012
7440-41-7	Beryllium		417	ug/kg		22.7	114	114	2	MS	PRB	05/17/10 20:42	100517-4	964014
7440-43-9	Cadmium		575	ug/kg	U	115	575	575	1	P	HSC	04/01/10 09:30	033110B-1	964012
7440-70-2	Calcium	J,I10a	554000	ug/kg		9250	28900	28900	1	P	LS	04/13/10 15:47	041310A-2	974047
7440-47-3	Chromium	J,I10a	1120	ug/kg		172	575	575	1	P	HSC	04/01/10 09:30	033110B-1	964012
7440-48-4	Cobalt		540	ug/kg	J	172	575	575	1	P	HSC	04/01/10 09:30	033110B-1	964012
7440-50-8	Copper		1520	ug/kg		345	1150	1150	1	P	HSC	04/01/10 09:30	033110B-1	964012
7439-89-6	Iron		5250000	ug/kg		9200	28700	28700	1	P	HSC	04/01/10 09:30	033110B-1	964012
7439-92-1	Lead		2940	ug/kg		287	1150	1150	1	P	HSC	04/01/10 09:30	033110B-1	964012
7439-95-4	Magnesium		307000	ug/kg		9770	34500	34500	1	P	HSC	04/01/10 09:30	033110B-1	964012
7439-96-5	Manganese	J+,I6b	216000	ug/kg		230	1150	1150	1	P	HSC	04/01/10 09:30	033110B-1	964012
7439-97-6	Mercury		14	ug/kg	U	4.77	14	14	1	AV	JXL1	03/24/10 10:16	032410S1-5	967600
7440-02-0	Nickel		1460	ug/kg		114	455	455	2	MS	BCD1	05/17/10 14:26	100517-3	964014
7440-09-7	Potassium	J,I4a	309000	ug/kg		7360	28700	28700	1	P	HSC	04/01/10 09:30	033110B-1	964012
7782-49-2	Selenium		1140	ug/kg	U	568	1140	1140	2	MS	BCD1	05/17/10 14:26	100517-3	964014
7440-22-4	Silver		575	ug/kg	U	115	575	575	1	P	HSC	04/01/10 09:30	033110B-1	964012
7440-23-5	Sodium	J+,I6b	142000	ug/kg		8050	28700	28700	1	P	HSC	04/01/10 09:30	033110B-1	964012
7440-28-0	Thallium		227	ug/kg	U	68.2	227	227	2	MS	BCD1	05/17/10 14:26	100517-3	964014
7440-62-2	Vanadium		2760	ug/kg		115	575	575	1	P	HSC	04/01/10 09:30	033110B-1	964012
7440-66-6	Zinc		16800	ug/kg		379	1150	1150	1	P	HSC	04/01/10 09:30	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.525	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.531	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.516	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.522	g	50	mL	04/12/10	BXA1

ETM
6/15/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2318 VALIDATION DATE: 6/8/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The total CN analysis for the sample was performed >1X but ≤2X the applicable HT requirement. The associated sample result was an ND and, thus, was qualified UJ,I9.
2. It should be noted that the total CN matrix QC analyses were performed on a LANL sample from a different RN. No sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 06/15/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/8/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2318

Client Sample ID:	RE46-10-11924	Project:	LANL01004
Sample ID:	248865001	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	17.2%		

ameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis											
)012A Cyanide, Total "Dry Weight Corrected"											
nide, Total	HUh	ND	UJ,I9	72.0	265	ug/kg	1	AXC2 03/18/10	1334	962273	1
Chromatography											
: 300.0 Nitrate in Soil "Dry Weight Corrected"											
ate-N		1.55		0.362	1.21	mg/kg	1	VH1 03/30/10	0251	968640	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

ETM
6/8/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2318 VALIDATION DATE: 6/8/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The gamma spec sample results that were rejected by the laboratory due to spectral interference or low abundance were qualified R,R5a. In the QC samples, several results were also rejected by the laboratory. No sample data were qualified as a result.
2. It should be noted that all the gamma spec duplicate analyses were performed on LANL samples from different RNs. No sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 06/15/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 6/8/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☐	☒	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-11924
Sample ID: 248865001
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 06-MAR-10
Collector: Client
Moisture: 17.2%

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
s Received"													
Alpha Spec Analysis													
241 "Dry Weight Corrected"													
ericium-241	U	0.0108		0.0274	+/-0.00542	0.050	pCi/g		MXE1	03/23/10	1335	962716	2
PU "Dry Weight Corrected"													
tonium-238	U	0.00392		0.0228	+/-0.00323	0.050	pCi/g		MXE1	03/24/10	1126	962718	3
tonium-239/240	U	0.00192		0.0193	+/-0.00423	0.050	pCi/g						
TH "Dry Weight Corrected"													
rium-228		1.83		0.198	+/-0.190	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
rium-230		1.13		0.249	+/-0.131	0.100	pCi/g						
rium-232		1.68		0.106	+/-0.174	0.100	pCi/g						
U "Dry Weight Corrected"													
nium-233/234		0.865		0.104	+/-0.0842	0.100	pCi/g		MXE1	03/24/10	1155	962721	6
nium-235/236	U	0.050		0.0634	+/-0.0155	0.100	pCi/g						
nium-238		0.865		0.073	+/-0.0844	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.0331		0.194	+/-0.0634	0.200	pCi/g		MXR1	03/24/10	2031	962633	7
muth-211	UI	4.97	R,R5a	0.380	+/-0.328		pCi/g						
muth-214		1.45		0.140	+/-0.112	0.200	pCi/g						
lmium-109	UI	4.64	R,R5a	1.16	+/-0.498		pCi/g						
ium-139	U	-0.00785		0.0556	+/-0.0172	0.050	pCi/g						
ium-134	UI	0.186	R,R5a	0.121	+/-0.0392	0.100	pCi/g						
ium-137	U	-0.00483		0.0676	+/-0.0204	0.100	pCi/g						
alt-60	U	0.00342		0.0767	+/-0.0231	0.100	pCi/g						
opium-152	U	-0.0727		0.166	+/-0.0519	0.200	pCi/g						
thanum-140	U	0.00		0.223	+/-0.00		pCi/g						
d-212		2.15		0.100	+/-0.121	0.100	pCi/g						
d-214		1.81		0.137	+/-0.129	0.100	pCi/g						
rcury-203	U	0.00704		0.0784	+/-0.0233	0.100	pCi/g						
assium-40		37.6		0.549	+/-1.90	1.00	pCi/g						
lium-223	U	0.0225		1.08	+/-0.366		pCi/g						

ETM
6/8/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-11924
Sample ID: 248865001

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
lium-224	UI	4.76	R,R5a	1.07	+/-0.588		pCi/g						
lium-226		1.45		0.140	+/-0.112		pCi/g						
lium-228		2.33		0.240	+/-0.212	0.500	pCi/g						
henium-106	U	0.00957		0.581	+/-0.172	0.800	pCi/g						
lium-22	U	0.0139		0.0838	+/-0.0247	0.080	pCi/g						
ontium-85	UI	0.0982	R,R5a	0.0855	+/-0.0228		pCi/g						
llium-208		0.733		0.0624	+/-0.0608	0.080	pCi/g						
rium-227	U	0.00143		0.471	+/-0.138		pCi/g						
rium-231	U	0.0225		1.08	+/-0.366		pCi/g						
rium-234		3.26		1.74	+/-0.913	2.00	pCi/g						
-113	U	-0.0142		0.0893	+/-0.0274	0.100	pCi/g						
nium-235	U	-0.0307		0.372	+/-0.115	0.500	pCi/g						
ium-88	U	-0.00821		0.0557	+/-0.0176	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery %	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	68.4	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	82.7	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	75.1	(50%-105%)
nium-232 Tracer	ISOU "Dry Weight Corrected"	85.7	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported

ETM
6/8/10

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2318C

REQUEST NUMBER: 10-2318

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248865%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-11924	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-11924	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-11924	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-11924	1	POLY	Met+NO3+CL04+CN	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/5/10	3:00	Greg Tyler		3-6-10	0915
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Friday, March 05, 2010

REQUEST NUMBER: 10-2318

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-2318
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/5/2010
TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE46-10-11924	S	3/3/2010	
	EPA:901.1	1	RE46-10-11924	S	3/3/2010	
	HASL-300:AM-241	1	RE46-10-11924	S	3/3/2010	
	HASL-300:ISOPU	1	RE46-10-11924	S	3/3/2010	
	HASL-300:ISOTH	1	RE46-10-11924	S	3/3/2010	
	HASL-300:ISOU	1	RE46-10-11924	S	3/3/2010	
	SW-846:6020	1	RE46-10-11924	S	3/3/2010	
	SW-846:6850	1	RE46-10-11924	S	3/3/2010	
	SW-846:7471A	1	RE46-10-11924	S	3/3/2010	

Friday, March 05, 2010

REQUEST NUMBER: 10-2318

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE46-10-11924	S	3/3/2010	
	SW-846:8270C	1	RE46-10-11924	S	3/3/2010	
	SW-846:9012A	1	RE46-10-11924	S	3/3/2010	

Final Page of REQUEST NUMBER 10-2318

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

March 12, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 248865
SDG: 10-2318

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 06, 2010, and analyzed for GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Valerie Davis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2318
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 248865
SDG: 10-2318

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 248865
SDG # : 10-2318

March 12, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The sample arrived at GEL Laboratories LLC, Charleston, South Carolina on March 06, 2010 for analysis. The sample was prepared/analyzed within the required holding time. Shipping container temperature was checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following sample:

Laboratory ID	Client ID
248865001	RE46-10-11924

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Valerie Davis

Valerie Davis

Project Manager

List of current GEL Certifications as of 12 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2318C

REQUEST NUMBER: 10-2318

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248865%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-11924	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-11924	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-11924	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-11924	1	POLY	Met+NO3+CL04+CN	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/5/10	3:00	Greg Tyler	Greg Tyler	3-6-10	0915
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Friday, March 05, 2010

REQUEST NUMBER: 10-2318

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-2318
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/5/2010
TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE46-10-11924	S	3/3/2010	
	EPA:901.1	1	RE46-10-11924	S	3/3/2010	
	HASL-300:AM-241	1	RE46-10-11924	S	3/3/2010	
	HASL-300:ISOPU	1	RE46-10-11924	S	3/3/2010	
	HASL-300:ISOTH	1	RE46-10-11924	S	3/3/2010	
	HASL-300:ISOU	1	RE46-10-11924	S	3/3/2010	
	SW-846:6020	1	RE46-10-11924	S	3/3/2010	
	SW-846:6850	1	RE46-10-11924	S	3/3/2010	
	SW-846:7471A	1	RE46-10-11924	S	3/3/2010	
	SW-846:8082	1	RE46-10-11924	S	3/3/2010	

Friday, March 05, 2010

REQUEST NUMBER: 10-2318

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE46-10-11924	S	3/3/2010	
	SW-846:8270C	1	RE46-10-11924	S	3/3/2010	
	SW-846:9012A	1	RE46-10-11924	S	3/3/2010	

Final Page of REQUEST NUMBER 10-2318

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2318**
Received By: Greg Tyler	**Date Received: 3/6/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **2,3,5C** **11C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:
7209 7850 3782 2C
7209 7850 3808 3C
7209 7850 3793 5C
7209 7850 3771 11C

PM (or PMA) review: Initials _____ Date 3/8/10

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05MAR10
ACTWGT: 31.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

2°

FedEx Express

3 of 3 ### SATURDAY ### A1
MPS# 0263 7209 7850 3782 PRIORITY OVERNIGHT
Mstr# 7209 7850 3760 0201

X0 CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05MAR10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2450

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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2 of 2 ### SATURDAY ### A1
MPS# 0263 7209 7850 3808 PRIORITY OVERNIGHT
Mstr# 7209 7850 3760 0201

X0 CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

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5°

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1 of 2 ### SATURDAY ### A1
TRK# 0201 7209 7850 3793 PRIORITY OVERNIGHT
MASTER

X0 CHSA

29407
SC-US
CHS

LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

11°

FedEx Express

2 of 3 ### SATURDAY ### A1
MPS# 0263 7209 7850 3771 PRIORITY OVERNIGHT
Mstr# 7209 7850 3760 0201

X0 CHSA

29407
SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2318

Method/Analysis Information

Procedure: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method: SW846 8260B
Prep Method: SW846 5030
Analytical Batch Number: 965481
Prep Batch Number: 965477

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
248865001	RE46-10-11924
1202071635	Method Blank (MB)
1202071638	Laboratory Control Sample (LCS)
1202071639	Laboratory Control Sample (LCS)
1202071636	248824001(RE46-10-11926) Post Spike (PS)
1202071637	248824001(RE46-10-11926) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration

All initial calibration requirements have been met for this sample delivery groups (SDG). A second source

initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248824001 (RE46-10-11926) was designated for spike analysis.

Matrix Spike (PS) Recovery Statement
The spike recoveries were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for this SDG.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and

dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
A Data Exception Document was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this sample delivery group/work order. The tentatively identified compounds included some silanols. These compounds were due to column or septum bleed and were not native to the affected samples. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA3.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2318 GEL Work Order: 248865

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 30 MAR 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248865001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11924**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 19:16**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:14**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D115.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.21	ug/kg	0.410	1.21
74-87-3	Chloromethane	U	1.21	ug/kg	0.362	1.21
75-01-4	Vinyl chloride	U	1.21	ug/kg	0.362	1.21
74-83-9	Bromomethane	U	1.21	ug/kg	0.362	1.21
75-00-3	Chloroethane	U	1.21	ug/kg	0.362	1.21
75-69-4	Trichlorofluoromethane	U	1.21	ug/kg	0.362	1.21
67-64-1	Acetone	U	6.04	ug/kg	2.00	6.04
75-35-4	1,1-Dichloroethylene	U	1.21	ug/kg	0.362	1.21
74-88-4	Iodomethane	U	6.04	ug/kg	1.93	6.04
75-09-2	Methylene chloride	U	6.04	ug/kg	2.41	6.04
75-15-0	Carbon disulfide	U	6.04	ug/kg	1.51	6.04
156-60-5	trans-1,2-Dichloroethylene	U	1.21	ug/kg	0.362	1.21
75-34-3	1,1-Dichloroethane	U	1.21	ug/kg	0.362	1.21
78-93-3	2-Butanone	U	6.04	ug/kg	1.81	6.04
156-59-2	cis-1,2-Dichloroethylene	U	1.21	ug/kg	0.362	1.21
594-20-7	2,2-Dichloropropane	U	1.21	ug/kg	0.362	1.21
67-66-3	Chloroform	U	1.21	ug/kg	0.362	1.21
74-97-5	Bromochloromethane	U	1.21	ug/kg	0.398	1.21
71-55-6	1,1,1-Trichloroethane	U	1.21	ug/kg	0.362	1.21
563-58-6	1,1-Dichloropropene	U	1.21	ug/kg	0.362	1.21
56-23-5	Carbon tetrachloride	U	1.21	ug/kg	0.362	1.21
107-06-2	1,2-Dichloroethane	U	1.21	ug/kg	0.362	1.21
71-43-2	Benzene	U	1.21	ug/kg	0.362	1.21
79-01-6	Trichloroethylene	U	1.21	ug/kg	0.398	1.21
78-87-5	1,2-Dichloropropane	U	1.21	ug/kg	0.362	1.21
75-27-4	Bromodichloromethane	U	1.21	ug/kg	0.362	1.21
74-95-3	Dibromomethane	U	1.21	ug/kg	0.362	1.21
108-10-1	4-Methyl-2-pentanone	U	6.04	ug/kg	1.51	6.04
10061-01-5	cis-1,3-Dichloropropylene	U	1.21	ug/kg	0.362	1.21
108-88-3	Toluene	U	1.21	ug/kg	0.362	1.21
10061-02-6	trans-1,3-Dichloropropylene	U	1.21	ug/kg	0.362	1.21
79-00-5	1,1,2-Trichloroethane	U	1.21	ug/kg	0.362	1.21
591-78-6	2-Hexanone	U	6.04	ug/kg	1.81	6.04
142-28-9	1,3-Dichloropropane	U	1.21	ug/kg	0.362	1.21
127-18-4	Tetrachloroethylene	U	1.21	ug/kg	0.362	1.21
124-48-1	Dibromochloromethane	U	1.21	ug/kg	0.362	1.21
106-93-4	1,2-Dibromoethane	U	1.21	ug/kg	0.362	1.21
108-90-7	Chlorobenzene	U	1.21	ug/kg	0.362	1.21

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248865001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11924**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 19:16**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:14**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D115.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.21	ug/kg	0.362	1.21
179601-23-1	m,p-Xylenes	U	2.41	ug/kg	0.362	2.41
95-47-6	o-Xylene	U	1.21	ug/kg	0.362	1.21
100-42-5	Styrene	U	1.21	ug/kg	0.362	1.21
75-25-2	Bromoform	U	1.21	ug/kg	0.362	1.21
79-34-5	1,1,2,2-Tetrachloroethane	U	1.21	ug/kg	0.362	1.21
96-18-4	1,2,3-Trichloropropane	U	1.21	ug/kg	0.362	1.21
108-86-1	Bromobenzene	U	1.21	ug/kg	0.362	1.21
103-65-1	n-Propylbenzene	U	1.21	ug/kg	0.362	1.21
95-49-8	2-Chlorotoluene	U	1.21	ug/kg	0.362	1.21
98-82-8	Isopropylbenzene	U	1.21	ug/kg	0.362	1.21
108-67-8	1,3,5-Trimethylbenzene	U	1.21	ug/kg	0.362	1.21
106-43-4	4-Chlorotoluene	U	1.21	ug/kg	0.362	1.21
98-06-6	tert-Butylbenzene	U	1.21	ug/kg	0.362	1.21
95-63-6	1,2,4-Trimethylbenzene	U	1.21	ug/kg	0.362	1.21
135-98-8	sec-Butylbenzene	U	1.21	ug/kg	0.362	1.21
99-87-6	4-Isopropyltoluene	U	1.21	ug/kg	0.362	1.21
541-73-1	1,3-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21
106-46-7	1,4-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21
104-51-8	n-Butylbenzene	U	1.21	ug/kg	0.362	1.21
96-12-8	1,2-Dibromo-3-chloropropane	U	1.21	ug/kg	0.362	1.21
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.04	ug/kg	1.93	6.04
630-20-6	1,1,1,2-Tetrachloroethane	U	1.21	ug/kg	0.362	1.21
95-50-1	1,2-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-2318

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202071638	LCS for batch 965477	104	103	105
1202071639	LCS for batch 965477	104	102	107
1202071635	MB for batch 965477	98	110	100
248865001	RE46-10-11924	95	102	95

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(66%-134%)
TOL	= Toluene-d8	(71%-128%)
BFB	= Bromofluorobenzene	(65%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2318**	**Sample Type:**	**Post Spike**
Client ID:	**RE46-10-11926PS**	**Matrix:**	**S**
Lab Sample ID:	**1202071636**	**%Moisture:**	**1.8**
Instrument:	**VOA3.I**	**Analysis Date:**	**03/17/2010 03:30**
Analyst:	**CDS1**	**Prep Batch ID:**	**965477**
Purge Vol:	**5 mL**	**Batch ID:**	**965481**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	43.4	87	39-148
74-87-3	PS	Chloromethane	50.0	0.00	U	53.1	106	42-131
75-01-4	PS	Vinyl chloride	50.0	0.00	U	56.0	112	50-127
74-83-9	PS	Bromomethane	50.0	0.00	U	57.4	115	26-135
75-00-3	PS	Chloroethane	50.0	0.00	U	55.3	111	54-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	49.2	98	55-138
67-64-1	PS	Acetone	250	4.23	J	224	88	20-144
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	46.8	94	55-128
74-88-4	PS	Iodomethane	250	0.00	U	228	91	47-132
75-09-2	PS	Methylene chloride	50.0	0.00	U	44.7	89	56-123
75-15-0	PS	Carbon disulfide	250	0.00	U	245	98	53-133
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	47.9	96	57-119
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	52.1	104	62-125
78-93-3	PS	2-Butanone	250	0.00	U	245	98	30-150
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	51.4	103	60-124
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	51.1	102	56-129
67-66-3	PS	Chloroform	50.0	0.00	U	49.8	100	62-120
74-97-5	PS	Bromochloromethane	50.0	0.00	U	52.6	105	51-135
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	47.3	95	58-129
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	49.9	100	59-126
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	50.7	101	55-132
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	46.8	94	54-121

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2318
Client ID: RE46-10-11926PS
Lab Sample ID: 1202071636
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 1.8
Analysis Date: 03/17/2010 03:30
Prep Batch ID 965477
Batch ID: 965481
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	48.7	97	58-120
79-01-6	PS	Trichloroethylene	50.0	0.00	U	50.7	101	54-130
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	54.7	109	59-121
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	55.2	110	57-130
74-95-3	PS	Dibromomethane	50.0	0.00	U	53.1	106	57-124
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	258	103	40-137
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	55.4	111	50-131
108-88-3	PS	Toluene	50.0	0.00	U	47.9	96	54-119
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	53.1	106	47-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	51.2	102	60-130
591-78-6	PS	2-Hexanone	250	0.00	U	245	98	30-139
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	51.2	102	59-125
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	48.4	97	50-126
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	55.7	111	54-131
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	49.3	99	55-127
108-90-7	PS	Chlorobenzene	50.0	0.00	U	48.7	97	50-130
100-41-4	PS	Ethylbenzene	50.0	0.00	U	47.9	96	50-121
179601-23-1	PS	m,p-Xylenes	100	0.00	U	98.0	98	47-125
95-47-6	PS	o-Xylene	50.0	0.00	U	50.3	101	51-127
100-42-5	PS	Styrene	50.0	0.00	U	52.2	104	41-136
75-25-2	PS	Bromoform	50.0	0.00	U	47.2	94	48-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	49.2	98	52-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2318
Client ID: RE46-10-11926PS
Lab Sample ID: 1202071636
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 1.8
Analysis Date: 03/17/2010 03:30
Prep Batch ID: 965477
Batch ID: 965481

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	49.1	98	56-139
108-86-1	PS	Bromobenzene	50.0	0.00	U	49.0	98	54-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	47.7	95	46-127
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	48.7	97	47-130
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	47.4	95	42-126
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	48.5	97	44-132
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	46.7	93	46-127
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	50.8	102	48-136
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	48.4	97	42-132
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	48.5	97	47-130
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	48.7	97	36-142
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	47.0	94	41-130
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	47.3	95	41-126
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	50.5	101	37-136
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	43.6	87	42-143
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	54.2	108	58-127
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	49.3	99	42-128

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2318
Client ID: RE46-10-11926PSD
Lab Sample ID: 1202071637
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 1.8
Analysis Date: 03/17/2010 03:59
Prep Batch ID: 965477
Batch ID: 965481
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	41.6	83	39-148	4	0-19
74-87-3	PSD	Chloromethane	50.0	0.00	U	46.0	92	42-131	14	0-23
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	50.7	101	50-127	10	0-23
74-83-9	PSD	Bromomethane	50.0	0.00	U	51.2	102	26-135	11	0-22
75-00-3	PSD	Chloroethane	50.0	0.00	U	50.1	100	54-128	10	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	46.4	93	55-138	6	0-21
67-64-1	PSD	Acetone	250	4.23	J	202	79	20-144	11	0-22
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	43.5	87	55-128	7	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	218	87	47-132	4	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	41.8	84	56-123	7	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	233	93	53-133	5	0-22
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	43.8	88	57-119	9	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	45.8	92	62-125	13	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	225	90	30-150	9	0-21
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	47.7	95	60-124	8	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	48.0	96	56-129	6	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	46.6	93	62-120	7	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	47.6	95	51-135	10	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	44.8	90	58-129	5	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	46.3	93	59-126	7	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	48.0	96	55-132	6	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	45.0	90	54-121	4	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2318
Client ID: RE46-10-11926PSD
Lab Sample ID: 1202071637
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 1.8
Analysis Date: 03/17/2010 03:59
Prep Batch ID: 965477
Batch ID: 965481
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	46.4	93	58-120	5	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	46.2	92	54-130	9	0-23
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	49.9	100	59-121	9	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	50.7	101	57-130	8	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	48.6	97	57-124	9	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	261	104	40-137	1	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	51.1	102	50-131	8	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	46.3	93	54-119	4	0-23
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	49.9	100	47-133	6	0-24
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	48.7	97	60-130	5	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	241	97	30-139	2	0-21
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	48.1	96	59-125	6	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	44.7	89	50-126	8	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	52.7	105	54-131	6	0-23
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	46.2	92	55-127	6	0-23
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	46.3	93	50-130	5	0-24
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	45.3	91	50-121	5	0-24
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	92.2	92	47-125	6	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	50.5	101	51-127	0	0-24
100-42-5	PSD	Styrene	50.0	0.00	U	52.4	105	41-136	0	0-24
75-25-2	PSD	Bromoform	50.0	0.00	U	44.1	88	48-143	7	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	45.8	92	52-129	7	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2318
Client ID: RE46-10-11926PSD
Lab Sample ID: 1202071637
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 1.8
Analysis Date: 03/17/2010 03:59
Prep Batch ID: 965477
Batch ID: 965481
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	44.6	89	56-139	9	0-34
108-86-1	PSD	Bromobenzene	50.0	0.00	U	45.0	90	54-125	9	0-22
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	44.3	89	46-127	7	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	44.8	90	47-130	8	0-24
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	44.5	89	42-126	6	0-22
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	45.0	90	44-132	8	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	43.6	87	46-127	7	0-26
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	46.3	93	48-136	9	0-24
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	44.8	90	42-132	8	0-26
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	45.3	91	47-130	7	0-27
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	44.9	90	36-142	8	0-27
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	42.6	85	41-130	10	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	43.4	87	41-126	9	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	44.9	90	37-136	12	0-29
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	39.9	80	42-143	9	0-21
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	51.7	103	58-127	5	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	43.2	86	42-128	13	0-24

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2318 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 965477 **Matrix:** SOIL

Lab Sample ID: 1202071638

Instrument: VOA3.I **Analysis Date:** 03/15/2010 12:59 **Dilution:** 1

Analyst: CDS1 **Prep Batch ID:** 965477

Purge Vol: 5 mL **Batch ID:** 965481

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	39.0	78	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	40.1	80	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	44.5	89	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	45.4	91	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	46.1	92	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	44.7	89	73-143
67-64-1	LCS	Acetone	250	0.0	186	74	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	41.3	83	71-129
74-88-4	LCS	Iodomethane	250	0.0	204	82	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	39.4	79	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	212	85	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	42.0	84	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	43.8	88	73-120
78-93-3	LCS	2-Butanone	250	0.0	203	81	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	44.4	89	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	48.0	96	73-134
67-66-3	LCS	Chloroform	50.0	0.0	43.8	88	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	44.3	89	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	43.4	87	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	43.9	88	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	45.9	92	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	43.1	86	65-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2318 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 965477 **Matrix:** SOIL

Lab Sample ID: 1202071638

Instrument: VOA3.I **Analysis Date:** 03/15/2010 12:59 **Dilution:** 1

Analyst: CDS1 **Prep Batch ID:** 965477

Purge Vol: 5 mL **Batch ID:** 965481

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	43.0	86	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	42.2	84	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	45.8	92	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	48.1	96	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	45.6	91	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	239	96	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	49.0	98	78-127
108-88-3	LCS	Toluene	50.0	0.0	41.9	84	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	49.6	99	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	46.0	92	75-120
591-78-6	LCS	2-Hexanone	250	0.0	217	87	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	45.8	92	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	42.6	85	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	49.8	100	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	44.9	90	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	42.8	86	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	41.6	83	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	86.0	86	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	45.2	90	76-122
100-42-5	LCS	Styrene	50.0	0.0	46.9	94	75-125
75-25-2	LCS	Bromoform	50.0	0.0	45.1	90	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	47.3	95	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2318 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 965477 **Matrix:** SOIL

Lab Sample ID: 1202071638

Instrument: VOA3.I **Analysis Date:** 03/15/2010 12:59 **Dilution:** 1

Analyst: CDS1 **Prep Batch ID:** 965477

Purge Vol: 5 mL **Batch ID:** 965481

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	45.8	92	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	44.8	90	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	44.7	89	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	44.8	90	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	44.3	89	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	45.1	90	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	44.5	89	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	46.0	92	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	45.2	90	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	45.2	90	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	46.0	92	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	42.7	85	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	43.1	86	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	44.0	88	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	38.4	77	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	46.9	94	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	42.8	86	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2318**
Client ID: **LCS for batch 965477**
Lab Sample ID: **1202071639**
Instrument: **VOA3.I**
Analyst: **CDS1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **03/15/2010 13:57**
Dilution: 1
Prep Batch ID: **965477**
Batch ID: **965481**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	257	103	67-140

Method Blank Summary

SDG Number:	10-2318	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965477	Instrument ID:	VOA3.I	Data File:	031510V3\3D108SBLA.D
Lab Sample ID:	1202071635	Prep Date:	03/15/2010 11:00	Analyzed:	03/15/10 14:55
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 965477	1202071638	031510V3\3D104SLLA.D	03/15/10	1259
02 LCS for batch 965477	1202071639	031510V3\3D106SSLA.D	03/15/10	1357
03 RE46-10-11924	248865001	031510V3\3D115.D	03/15/10	1916

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2318

Instrument ID: VOA3.I **Injection Date/Time:** 15-MAR-10 11:35

Column Description: DB-624 **Lab File ID** 031510V3\3D101.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	18.7
75	30.0 - 60.0% of mass 95	47.4
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	82.7
175	5.0 -9.0% of mass 174	7
176	95.0 - 101.0% of mass 174	97.6
177	5.0 - 9.0% of mass 176	6.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]01	W3VM100315-01	031510V3\3D102.D	15-MAR-10 12:01
BLK01LCS	1202071638	031510V3\3D104SLLA.D	15-MAR-10 12:59
CCVMIX[B]02	W3VM100315-04	031510V3\3D105.D	15-MAR-10 13:28
BLK01SLCS	1202071639	031510V3\3D106SSLA.D	15-MAR-10 13:57
BLK01	1202071635	031510V3\3D108SBLA.D	15-MAR-10 14:55
RE46-10-11924	248865001	031510V3\3D115.D	15-MAR-10 19:16

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2318

Instrument ID: VOA3.1 **Injection Date/Time:** 26-FEB-10 09:25

Column Description: DB-624 **Lab File ID** 022610V3\3A501.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	17.8
75	30.0 - 60.0% of mass 95	47
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	82.6
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	97.7
177	5.0 - 9.0% of mass 176	6.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W3VM100226-01	022610V3\3A503.D	26-FEB-10 10:23
ICALMIX[A]	W3VM100226-02	022610V3\3A504.D	26-FEB-10 10:53
ICALMIX[A]	W3VM100226-03	022610V3\3A505.D	26-FEB-10 11:23
ICALMIX[A]	W3VM100226-04	022610V3\3A506.D	26-FEB-10 11:52
ICALMIX[A]	W3VM100226-05	022610V3\3A507.D	26-FEB-10 12:22
ICALMIX[A]	W3VM100226-07	022610V3\3A509.D	26-FEB-10 13:21
ICALMIX[A]	W3VM100226-08	022610V3\3A511.D	26-FEB-10 14:20
ICVMIX[A]01	W3VM100226-10	022610V3\3A513.D	26-FEB-10 15:19
ICALMIX[B]	W3VM100226-11	022610V3\3A515.D	26-FEB-10 16:17
ICALMIX[B]	W3VM100226-12	022610V3\3A516.D	26-FEB-10 16:46
ICALMIX[B]	W3VM100226-13	022610V3\3A517.D	26-FEB-10 17:15
ICALMIX[B]	W3VM100226-14	022610V3\3A518.D	26-FEB-10 17:45
ICALMIX[B]	W3VM100226-15	022610V3\3A519.D	26-FEB-10 18:14
ICALMIX[B]	W3VM100226-16	022610V3\3A520.D	26-FEB-10 18:43
ICALMIX[B]	W3VM100226-17	022610V3\3A521.D	26-FEB-10 19:14
ICVMIX[B]02	W3VM100226-18	022610V3\3A523.D	26-FEB-10 20:12

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2318

Instrument: VOA3.I

STD Analysis Time: 15-MAR-10 12:01

GC Column: DB-624

Data File: C:\msdchem\1\DATA\031510V3\3D102.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	784353		12.2	594883		15.9	329307		18.4
Upper Limit	1568706		12.7	1189766		16.4	658614		18.9
Lower Limit	392177		11.7	297442		15.4	164654		17.9
Sample ID									
BLK01LCS	802994		12.2	643533		15.9	327390		18.4
BLK01SLCS	829608		12.2	652329		15.9	325545		18.4
BLK01	742288		12.2	535571		15.9	275889		18.4
RE46-10-11924	657642		12.2	500478		15.9	245721		18.4

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248865001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11924**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 19:16**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:14**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D115.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.21	ug/kg	0.410	1.21
74-87-3	Chloromethane	U	1.21	ug/kg	0.362	1.21
75-01-4	Vinyl chloride	U	1.21	ug/kg	0.362	1.21
74-83-9	Bromomethane	U	1.21	ug/kg	0.362	1.21
75-00-3	Chloroethane	U	1.21	ug/kg	0.362	1.21
75-69-4	Trichlorofluoromethane	U	1.21	ug/kg	0.362	1.21
67-64-1	Acetone	U	6.04	ug/kg	2.00	6.04
75-35-4	1,1-Dichloroethylene	U	1.21	ug/kg	0.362	1.21
74-88-4	Iodomethane	U	6.04	ug/kg	1.93	6.04
75-09-2	Methylene chloride	U	6.04	ug/kg	2.41	6.04
75-15-0	Carbon disulfide	U	6.04	ug/kg	1.51	6.04
156-60-5	trans-1,2-Dichloroethylene	U	1.21	ug/kg	0.362	1.21
75-34-3	1,1-Dichloroethane	U	1.21	ug/kg	0.362	1.21
78-93-3	2-Butanone	U	6.04	ug/kg	1.81	6.04
156-59-2	cis-1,2-Dichloroethylene	U	1.21	ug/kg	0.362	1.21
594-20-7	2,2-Dichloropropane	U	1.21	ug/kg	0.362	1.21
67-66-3	Chloroform	U	1.21	ug/kg	0.362	1.21
74-97-5	Bromochloromethane	U	1.21	ug/kg	0.398	1.21
71-55-6	1,1,1-Trichloroethane	U	1.21	ug/kg	0.362	1.21
563-58-6	1,1-Dichloropropene	U	1.21	ug/kg	0.362	1.21
56-23-5	Carbon tetrachloride	U	1.21	ug/kg	0.362	1.21
107-06-2	1,2-Dichloroethane	U	1.21	ug/kg	0.362	1.21
71-43-2	Benzene	U	1.21	ug/kg	0.362	1.21
79-01-6	Trichloroethylene	U	1.21	ug/kg	0.398	1.21
78-87-5	1,2-Dichloropropane	U	1.21	ug/kg	0.362	1.21
75-27-4	Bromodichloromethane	U	1.21	ug/kg	0.362	1.21
74-95-3	Dibromomethane	U	1.21	ug/kg	0.362	1.21
108-10-1	4-Methyl-2-pentanone	U	6.04	ug/kg	1.51	6.04
10061-01-5	cis-1,3-Dichloropropylene	U	1.21	ug/kg	0.362	1.21
108-88-3	Toluene	U	1.21	ug/kg	0.362	1.21
10061-02-6	trans-1,3-Dichloropropylene	U	1.21	ug/kg	0.362	1.21
79-00-5	1,1,2-Trichloroethane	U	1.21	ug/kg	0.362	1.21
591-78-6	2-Hexanone	U	6.04	ug/kg	1.81	6.04
142-28-9	1,3-Dichloropropane	U	1.21	ug/kg	0.362	1.21
127-18-4	Tetrachloroethylene	U	1.21	ug/kg	0.362	1.21
124-48-1	Dibromochloromethane	U	1.21	ug/kg	0.362	1.21
106-93-4	1,2-Dibromoethane	U	1.21	ug/kg	0.362	1.21
108-90-7	Chlorobenzene	U	1.21	ug/kg	0.362	1.21

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248865001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11924**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 19:16**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:14**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D115.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.21	ug/kg	0.362	1.21
179601-23-1	m,p-Xylenes	U	2.41	ug/kg	0.362	2.41
95-47-6	o-Xylene	U	1.21	ug/kg	0.362	1.21
100-42-5	Styrene	U	1.21	ug/kg	0.362	1.21
75-25-2	Bromoform	U	1.21	ug/kg	0.362	1.21
79-34-5	1,1,2,2-Tetrachloroethane	U	1.21	ug/kg	0.362	1.21
96-18-4	1,2,3-Trichloropropane	U	1.21	ug/kg	0.362	1.21
108-86-1	Bromobenzene	U	1.21	ug/kg	0.362	1.21
103-65-1	n-Propylbenzene	U	1.21	ug/kg	0.362	1.21
95-49-8	2-Chlorotoluene	U	1.21	ug/kg	0.362	1.21
98-82-8	Isopropylbenzene	U	1.21	ug/kg	0.362	1.21
108-67-8	1,3,5-Trimethylbenzene	U	1.21	ug/kg	0.362	1.21
106-43-4	4-Chlorotoluene	U	1.21	ug/kg	0.362	1.21
98-06-6	tert-Butylbenzene	U	1.21	ug/kg	0.362	1.21
95-63-6	1,2,4-Trimethylbenzene	U	1.21	ug/kg	0.362	1.21
135-98-8	sec-Butylbenzene	U	1.21	ug/kg	0.362	1.21
99-87-6	4-Isopropyltoluene	U	1.21	ug/kg	0.362	1.21
541-73-1	1,3-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21
106-46-7	1,4-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21
104-51-8	n-Butylbenzene	U	1.21	ug/kg	0.362	1.21
96-12-8	1,2-Dibromo-3-chloropropane	U	1.21	ug/kg	0.362	1.21
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.04	ug/kg	1.93	6.04
630-20-6	1,1,1,2-Tetrachloroethane	U	1.21	ug/kg	0.362	1.21
95-50-1	1,2-Dichlorobenzene	U	1.21	ug/kg	0.362	1.21

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D115.D
Acq On : 15 Mar 2010 7:16 pm
Operator : CDS1
InstName : VOA3
Sample : |248865001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 16 13:32:26 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	657869	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	500478	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	242556	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	657642	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	500478	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	245721	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	191180	47.38	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 94.76%					
43) Toluene-d8	14.165	14.165	0.894	98	684050	50.79	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 101.58%					
61) Bromofluorobenzene	17.130	17.130	0.930	95	231385	47.31	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 94.62%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.999	7.987	0.654	43	371	N.D.		
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	0.000	8.449	0.000		0	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	3836	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D115.D
Acq On : 15 Mar 2010 7:16 pm
Operator : CDS1
InstName : VOA3
Sample : |248865001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 16 13:32:26 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44)	Toluene	0.000	14.248	0.000		0	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47)	2-Hexanone	0.000	14.888	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52)	Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54)	Ethylbenzene	16.074	15.968	1.014	91	960	N.D.	
55)	m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56)	o-Xylene	0.000	16.549	0.000		0	N.D.	
57)	Styrene	0.000	16.549	0.000		0	N.D.	
59)	Bromoform	0.000	16.821	0.000		0	N.D.	
60)	Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64)	Bromobenzene	0.000	17.343	0.000		0	N.D.	
65)	n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66)	1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000	17.628	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	476	N.D.	
71)	sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72)	4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	0.000	18.351	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	0.000	18.434	0.000		0	N.D.	
75)	n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80)	Naphthalene	21.351	21.351	1.160	128	191	N.D.	
81)	1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85)	Acrolein	0.000	7.750	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88)	Allyl chloride	0.000	8.556	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90)	Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91)	Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94)	Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D115.D
Acq On : 15 Mar 2010 7:16 pm
Operator : CDS1
InstName : VOA3
Sample : |248865001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 16 13:32:26 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	10.726	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97)	Tetrahydrofuran	11.094	11.094	0.907	42	938	N.D.	
98)	Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108)	Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110)	Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111)	Benzyl chloride	0.000	18.553	0.000		0	N.D.	
112)	bis(2-Chloroisopropyl)...	19.051	18.980	1.035	45	1028	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D115.D
Acq On : 15 Mar 2010 7:16 pm
Operator : CDS1
InstName : VOA3
Sample : |248865001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 16 13:32:26 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

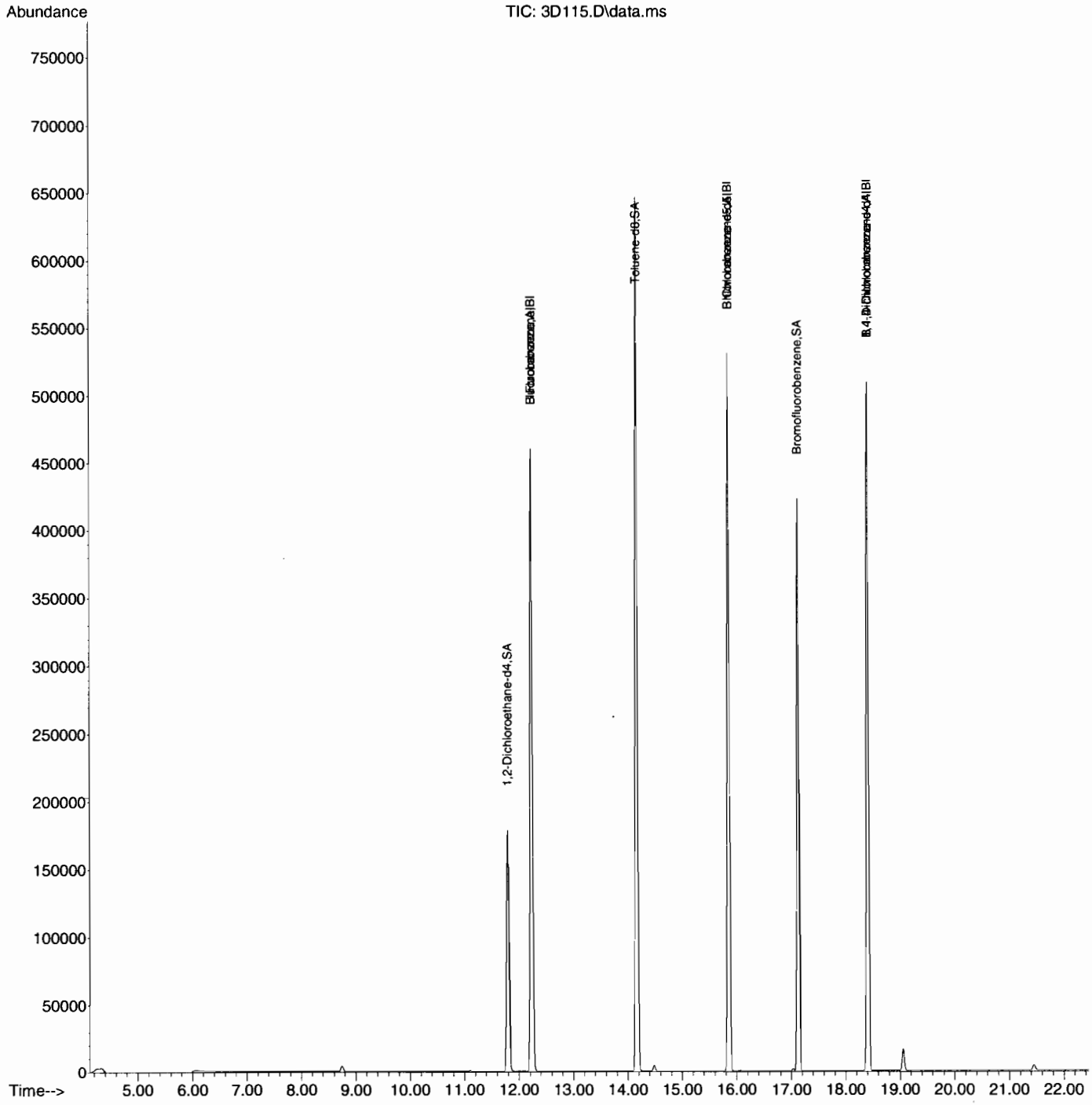

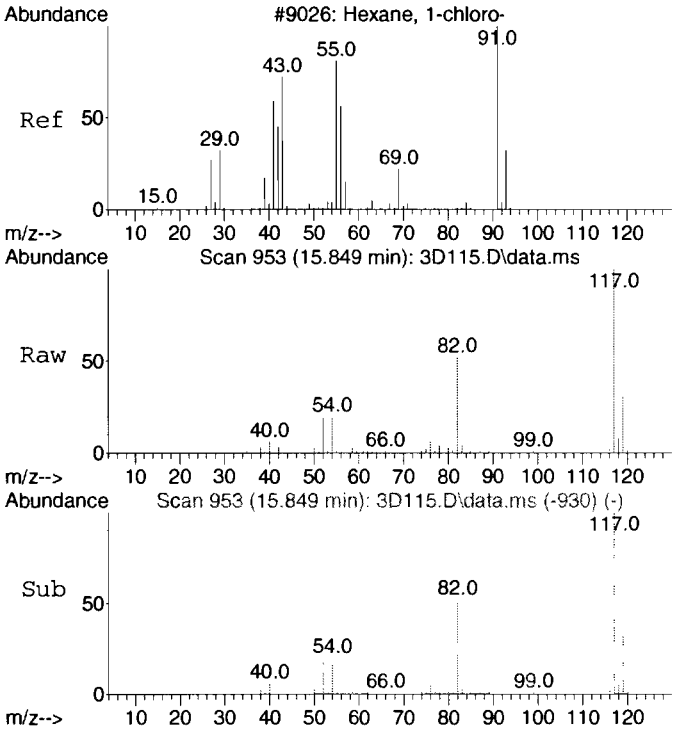

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.98 ug/L
RT: 15.849 min Scan# 953
Delta R.T. 0.095 min
Lab File: 3D115.D
Acq: 15 Mar 2010 7:16 pm

Tgt Ion: 55 Resp: 4410

Ion	Ratio	Lower	Upper
55	100		
91	10.7	119.7	179.7#
56	61.8	29.6	89.6

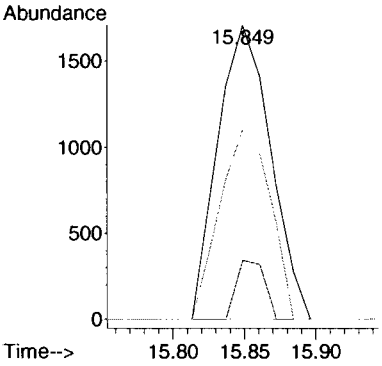

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D115.D
Acq On : 15 Mar 2010 7:16 pm
Operator : CDS1
Sample : |248865001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D115.D
Acq On : 15 Mar 2010 7:16 pm
Operator : CDS1
Sample : |248865001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\022610V3\3A511.D

Injection Date	Mix	Calibration File
26 Feb 2010 2:20 pm	A	C:\msdchem\1\DATA\022610V3\3A511.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\022610V3\3A515.D

Injection Date	Mix	Calibration File
26 Feb 2010 10:23 am	A	C:\msdchem\1\DATA\022610V3\3A503.D
26 Feb 2010 4:17 pm	B	C:\msdchem\1\DATA\022610V3\3A515.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\022610V3\3A516.D

Injection Date	Mix	Calibration File
26 Feb 2010 10:53 am	A	C:\msdchem\1\DATA\022610V3\3A504.D
26 Feb 2010 4:46 pm	B	C:\msdchem\1\DATA\022610V3\3A516.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\022610V3\3A517.D

Injection Date	Mix	Calibration File
26 Feb 2010 11:23 am	A	C:\msdchem\1\DATA\022610V3\3A505.D
26 Feb 2010 5:15 pm	B	C:\msdchem\1\DATA\022610V3\3A517.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\022610V3\3A518.D

Injection Date	Mix	Calibration File
26 Feb 2010 11:52 am	A	C:\msdchem\1\DATA\022610V3\3A506.D
26 Feb 2010 5:45 pm	B	C:\msdchem\1\DATA\022610V3\3A518.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\022610V3\3A519.D

Injection Date	Mix	Calibration File
26 Feb 2010 12:22 pm	A	C:\msdchem\1\DATA\022610V3\3A507.D
26 Feb 2010 6:14 pm	B	C:\msdchem\1\DATA\022610V3\3A519.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\022610V3\3A520.D

Injection Date	Mix	Calibration File
26 Feb 2010 12:52 pm	A	C:\msdchem\1\DATA\022610V3\3A508.D
26 Feb 2010 6:43 pm	B	C:\msdchem\1\DATA\022610V3\3A520.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\022610V3\3A521.D

Injection Date	Mix	Calibration File
26 Feb 2010 1:21 pm	A	C:\msdchem\1\DATA\022610V3\3A509.D
26 Feb 2010 7:14 pm	B	C:\msdchem\1\DATA\022610V3\3A521.D

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane 0.0023 | 0.1374 | 0.00		2277 265306	5491	18101	26429	54755		LINR		0.9995
3)MPA Chloromethane		0.2616031 0.2242101	0.2323936	0.2502915	0.2201181	0.2227574	0.2352	AVRG		7.2040
4)MCA Vinyl chloride		0.2541011 0.2406996	0.2352067	0.2551214	0.2262592	0.2268934	0.2397	AVRG		5.3131
5)MA Bromomethane		0.2072141 0.1976563	0.1833422	0.1967047	0.1853018	0.1905574	0.1935	AVRG		4.5923
6)MA Chloroethane		0.1439835 0.1609703	0.1515516	0.1635666	0.1519987	0.1571248	0.1549	AVRG		4.6177
7)MA Trichlorofluoromethane		0.3275129 0.3295311	0.3205552	0.3526688	0.3230757	0.3256797	0.3298	AVRG		3.5251
8)MA Ethyl ether		0.1632206 0.1815809	0.1588711	0.1698610	0.1702956	0.1792069	0.1705	AVRG		5.1616
9)MA Acetone		0.2512718 0.1922869	0.2223648	0.2033793	0.2013304	0.1941089	0.2108	AVRG		10.6879
10)MCA 1,1-Dichloroethylene		0.3242442 0.3458620	0.3114878	0.3387494	0.3630812	0.3504022	0.3390	AVRG		5.4902
11)MA Iodomethane		0.4294534 0.4190581	0.4178005	0.4292890	0.4418386	0.4343625	0.4286	AVRG		2.1314
12)MA Acetonitrile		0.0402682 0.0326505	0.0382372	0.0366367	0.0366463	0.0346505	0.0365	AVRG		7.2968
13)MA Methyl acetate		0.2076535 0.1795084	0.1923167	0.1885164	0.1826725	0.1780487	0.1881	AVRG		5.8454
14)MA Carbon disulfide		0.7600850 0.7072909	0.7160095	0.7724256	0.7803354	0.7507584	0.7478	AVRG		4.0011
15)MA Methylene chloride		0.2643832	0.3707264	0.3129119	0.2978783	0.2772388	0.3046	AVRG		13.5875
16)MA tert-Butyl methyl ether		0.6294121 0.6487595	0.7724787	0.6242810	0.6481214	0.6521856	0.6625	AVRG		8.3090

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle		0.2879134 0.3121953	0.3205825	0.3159418	0.3271093	0.3199899	0.3140	AVRG		4.3640
18)MA Vinyl acetate		0.3708955 0.3676321	0.3562677	0.3763507	0.3961861	0.3992501	0.3778	AVRG		4.4531
19)MPA 1,1-Dichloroethane		0.3891895 0.3840108	0.3951156	0.3902567	0.4064048	0.4023760	0.3946	AVRG		2.1516
20)MA 2-Butanone		0.2176096 0.2243453	0.2073927	0.2035761	0.2041258	0.2025725	0.2099	AVRG		4.2679
21)MA cis-1,2-Dichloroethylene		0.3148132 0.3490691	0.3479486	0.3487669	0.3618816	0.3617607	0.3474	AVRG		4.9575
22)MA 2,2-Dichloropropane		0.2273085 0.2579670	0.2285154	0.2406765	0.2548518	0.2523942	0.2436	AVRG		5.5433
23)MA Bromochloromethane		0.1225494 0.1324406	0.1224921	0.1286731	0.1292831	0.1318949	0.1279	AVRG		3.4433
24)MCA Chloroform		0.3924582 0.4048216	0.3828801	0.4055065	0.4179002	0.4123718	0.4027	AVRG		3.2088
25)MA 1,1,1-Trichloroethane		0.3013633 0.3457650	0.3029120	0.3266748	0.3385056	0.3468985	0.3270	AVRG		6.2937
26)MA Cyclohexane		0.3569848 0.3650756	0.3431964	0.3658950	0.3821484	0.3830406	0.3661	AVRG		4.1489
27)MA 1,1-Dichloropropene		0.2585487 0.2772380	0.2705751	0.2830943	0.2924361	0.2851494	0.2778	AVRG		4.3171
28)MA Carbon tetrachloride		0.2621925 0.3083052	0.2521945	0.2910993	0.2979444	0.3040173	0.2860	AVRG		8.1269
29)SA 1,2-Dichloroethane-d4		0.3048163 0.3054923	0.3038023	0.3043099	0.3120712	0.3093640	0.3066	AVRG		1.0820
30)MA 1,2-Dichloroethane		0.3206540 0.3078525	0.3189165	0.3150473	0.3121416	0.3149056	0.3149	AVRG		1.4658
31)MA Benzene		0.8925155 0.8492594	0.8667581	0.8810794	0.9114586	0.8881848	0.8815	AVRG		2.4438

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene		0.3909578 0.4052279	0.4007418	0.4027450	0.4153084	0.4060418	0.4035	AVRG		1.9651
33)MA n-Butyl alcohol -0.0153 | 0.0095 | 0.00	6147	13646 1801412	26068	68644	152277	327782		LINR	#	0.9998
34)MA Trichloroethylene		0.2185741 0.2296824	0.2169080	0.2293622	0.2366375	0.2345330	0.2276	AVRG		3.5852
35)MCA 1,2-Dichloropropane		0.2132156 0.2142021	0.2089330	0.2127484	0.2202776	0.2222368	0.2153	AVRG		2.3272
36)MA Methylcyclohexane		0.3768113 0.3724753	0.3477301	0.3812230	0.3983542	0.3842014	0.3768	AVRG		4.4451
37)MA Dibromomethane		0.1343382 0.1494473	0.1372676	0.1528224	0.1446250	0.1484067	0.1445	AVRG		5.0347
38)MA Bromodichloromethane		0.2494928 0.3062115	0.2501461	0.2659550	0.2845010	0.2930440	0.2749	AVRG		8.5160
39)MA 2-Chloroethylvinyl ether -0.0077 | 0.0716 | 0.00		4198 681672	8783	24673	52943	116501		LINR		0.9993
40)MA cis-1,3-Dichloropropylen		0.2842160 0.3552871	0.2817182	0.2936149	0.3215129	0.3379201	0.3124	AVRG		9.7753
42)MA 4-Methyl-2-pentanone		0.1126917 0.1280754	0.1194132	0.1148631	0.1259371	0.1238311	0.1208	AVRG		5.1220
43)SA Toluene-d8		1.3518916 1.3270201	1.3510408	1.3495094	1.3589702	1.3350480	1.3456	AVRG		0.8917
44)MCA Toluene		1.2887421 1.1259558	1.1909009	1.1756455	1.2234448	1.1780655	1.1971	AVRG		4.5776
45)MA trans-1,3-Dichloropropyl		0.3431112 0.4100913	0.3410400	0.3336466	0.3709023	0.3844142	0.3639	AVRG		8.2205
46)MA 1,1,2-Trichloroethane		0.2078616 0.2076847	0.2077071	0.1987867	0.2114831	0.2074057	0.2068	AVRG		2.0427
47)MA 2-Hexanone		0.3084722 0.3216425	0.3020269	0.2974837	0.3127201	0.3081516	0.3084	AVRG		2.7277

Response Factor Report VOA3
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Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane		0.4572956 0.4094379	0.4237014	0.4156022	0.4398228	0.4312282	0.4295	AVRG		4.0479
49)MA Tetrachloroethylene		0.2354138 0.2179223	0.2323932	0.2334344	0.2470356	0.2330730	0.2332	AVRG		3.9786
50)MA Dibromochloromethane		0.2494340 0.3164834	0.2429278	0.2628701	0.2793324	0.2903839	0.2736	AVRG		10.0684
51)MA 1,2-Dibromoethane		0.2700109 0.2763561	0.2529708	0.2593241	0.2696286	0.2675353	0.2660	AVRG		3.1600
52)MPA Chlorobenzene		0.8011741 0.7610658	0.8025255	0.7738711	0.7949044	0.7811634	0.7858	AVRG		2.1101
53)MA 1,1,1,2-Tetrachloroethan		0.2596875 0.2989609	0.2347810	0.2665300	0.2764643	0.2846701	0.2702	AVRG		8.2002
54)MCA Ethylbenzene		1.2936945 1.1837419	1.2319507	1.2102932	1.2614568	1.2410204	1.2370	AVRG		3.1107
55)MA m,p-Xylenes		0.4932529 0.4920194	0.4670689	0.4844705	0.5068089	0.5057304	0.4916	AVRG		2.9988
56)MA o-Xylene		0.4360212 0.5137219	0.4710369	0.4978140	0.5103853	0.5178328	0.4911	AVRG		6.4898
57)MA Styrene		0.7238189 0.8665230	0.7084516	0.7473548	0.8145164	0.8437693	0.7841	AVRG		8.4573
59)MPA Bromoform -0.0118 | 0.3968 | 0.00		1705 319914	3889	10263	22941	51759		LINR		0.9991
60)MA Isopropylbenzene		2.4693419 2.4666939	2.3478839	2.4305203	2.6280982	2.5248171	2.4779	AVRG		3.7905
61)SA Bromofluorobenzene		1.0117596 1.0073171	1.0079856	1.0046478	1.0271820	0.9900732	1.0082	AVRG		1.1861
62)MPA 1,1,2,2-Tetrachloroethan		0.7433905 0.6532974	0.6459507	0.6400614	0.6862034	0.6503548	0.6699	AVRG		5.8917
63)MA 1,2,3-Trichloropropane		0.1757257 0.1837154	0.1959634	0.1795787	0.1879136	0.1821393	0.1842	AVRG		3.8379

Response Factor Report VOA3
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Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene		0.6990069 0.6475703	0.6629458	0.6426559	0.6822975	0.6563265	0.6651	AVRG		3.2511
65)MA n-Propylbenzene		2.9422568 2.7493829	2.7629100	2.8065839	3.0179028	2.9094149	2.8647	AVRG		3.7765
66)MA 1,3,5-Trimethylbenzene		2.0469325 2.0860717	1.9298056	2.0787279	2.1864852	2.1459569	2.0790	AVRG		4.2684
67)MA 2-Chlorotoluene		0.6347272 0.6139231	0.5819245	0.6222625	0.6463357	0.6062180	0.6176	AVRG		3.6616
68)MA 4-Chlorotoluene		1.8471368 1.7388256	1.7078987	1.7755335	1.8322518	1.7621182	1.7773	AVRG		3.0224
69)MA tert-Butylbenzene		0.4350706 0.4655259	0.4117658	0.4362952	0.4645460	0.4550383	0.4447	AVRG		4.6980
70)MA 1,2,4-Trimethylbenzene		2.0659938 2.1467458	1.9676109	2.0841121	2.2405674	2.1433822	2.1081	AVRG		4.3668
71)MA sec-Butylbenzene		2.7144952 2.7936401	2.6279901	2.7422793	2.9803647	2.8483307	2.7845	AVRG		4.3601
72)MA 4-Isopropyltoluene		2.0910379 2.2836300	2.0254634	2.1899010	2.3425800	2.3301522	2.2105	AVRG		5.9346
73)MA 1,3-Dichlorobenzene		1.1816611 1.1098192	1.0951751	1.1217743	1.1796527	1.1299381	1.1363	AVRG		3.1927
74)MA 1,4-Dichlorobenzene		1.3881352 1.2545517	1.2944681	1.2955782	1.3126890	1.2684404	1.3023	AVRG		3.6030
75)MA n-Butylbenzene		2.0697504 2.1295339	1.9510321	2.1190961	2.2016901	2.1409973	2.1020	AVRG		4.0558
76)MA 1,2-Dichlorobenzene		1.4165185 1.2532868	1.2799703	1.2581950	1.2909697	1.2572560	1.2927	AVRG		4.8305
77)MA 1,2-Dibromo-3-chloroprop -0.0053 | 0.1663 | 0.00		781 133971	1316	4274	9282	21730		LINR		0.9992
78)MA 1,2,4-Trichlorobenzene		0.9378991 0.8776912	0.8250578	0.8776677	0.8575450	0.8402688	0.8694	AVRG		4.5388

Response Factor Report VOA3
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Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene		0.4091917 0.4355717	0.4158585	0.4369926	0.4600403	0.4549497	0.4354	AVRG		4.6622
80)MA Naphthalene		2.2751115 2.3480964	2.1617013	2.1746687	2.2434688	2.2115010	2.2358	AVRG		3.1009
81)MA 1,2,3-Trichlorobenzene		0.9335860 0.7911532	0.8654297	0.8480960	0.8344446	0.8213539	0.8490	AVRG		5.7093
83)B Chlorotrifluoroethylene	0.1190819	0.1377014	0.1479953	0.1454693	0.1461092	0.1375422	0.1390	AVRG		7.7082
84)B 2-Chloro-1,1,1-trifluoro	0.2942342	0.2744057 0.2773425	0.2713970	0.2898784	0.2919948	0.2691515	0.2812	AVRG		3.7411
85)B Acrolein -0.0015 | 0.0265 | 0.00		1403	3279	9512	24236	47814		LINR		0.9980
86)B Trichlorotrifluoroethane	0.0734506	0.0898388 0.0724274	0.0811825	0.0933924	0.0875572	0.0810551	0.0827	AVRG		9.6856
87)B Isopropyl Alcohol	0.0206065	0.0174188 0.0200712	0.0174588	0.0177164	0.0190216	0.0189562	0.0187	AVRG		6.8216
88)B Allyl chloride	0.2938643	0.3045021 0.2697421	0.2795530	0.3208515	0.3079574	0.2971171	0.2962	AVRG		5.8443
89)B tert-Butyl Alcohol	0.0349488	0.0300975 0.0331829	0.0289918	0.0293445	0.0310667	0.0319348	0.0314	AVRG		6.8727
90)B Acrylonitrile	0.0926929	0.0889918 0.0836840	0.0785965	0.0934529	0.0907204	0.0916199	0.0885	AVRG		6.1568
91)B Isopropyl ether	0.7305681	0.6865236 0.7509827	0.6893026	0.6900478	0.7296397	0.6892134	0.7095	AVRG		3.7716
92)B 2-Chloro-1,3-butadiene	0.2761391	0.2345953 0.2553679	0.2329521	0.2695636	0.2673914	0.2659065	0.2574	AVRG		6.7158
93)B Ethyl tert-butyl ether	0.7134150	0.6338255 0.7361818	0.6463766	0.6459686	0.7027133	0.6637324	0.6775	AVRG		5.8516
94)B Ethyl acetate	0.2226895	0.2406210 0.1965077	0.2049246	0.2259259	0.2193049	0.2193727	0.2185	AVRG		6.5572

Response Factor Report VOA3
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Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile		0.0354359	0.0304722	0.0353374	0.0357550	0.0362016				
	0.0366098	0.0331975					0.0347	AVRG		6.2330
96)B Methacrylonitrile		0.1322547	0.1231819	0.1389465	0.1368367	0.1375294				
	0.1390662	0.1243633					0.1332	AVRG		5.1183
97)B Tetrahydrofuran		0.0752463	0.0706133	0.0751958	0.0749912	0.0750971				
	0.0756568	0.0677925					0.0735	AVRG		4.1654
98)B Isobutyl alcohol		0.0091276	0.0080827	0.0096923	0.0095609	0.0099136				
	0.0108529	0.0089532					0.0095	AVRG	#	9.1336
99)B Methyl tert-amyl ether		0.6223530	0.5817259	0.6074483	0.6202135	0.5992109				
	0.6618921	0.6872022					0.6257	AVRG		5.8728
100)B Methyl methacrylate		0.1333805	0.1253282	0.1490333	0.1503818	0.1513841				
	0.1563346	0.1427461					0.1441	AVRG		7.6851
101)B 1,4-Dioxane		0.0028392	0.0029697	0.0031861	0.0031487	0.0031801				
	0.0032585	0.0028687					0.0031	AVRG	#	5.5087
102)B 2-Nitropropane		3847	6920	21607	47943	108855				
-0.0069 | 0.0652 | 0.00	309988	607260						LINR		0.9989
104)B Ethyl methacrylate		0.2946797	0.2932699	0.3534190	0.3617355	0.3690872				
	0.3689686	0.3358201					0.3396	AVRG		9.7609
106)B 1-Chlorohexane		0.4130883	0.4136660	0.4742347	0.4785112	0.4453676				
	0.4681816	0.4784814					0.4531	AVRG		6.4850
107)B cis-1,4-Dichloro-2-buten		0.1509128	0.1467436	0.1638729	0.1731162	0.1801043				
	0.1861930	0.1732163					0.1677	AVRG		8.7458
108)B Cyclohexanone		0.0187731	0.0165114	0.0196026	0.0193252	0.0220481				
							0.0193	AVRG		10.2864
109)B trans-1,4-Dichloro-2-but		0.1519917	0.1386168	0.1673497	0.1662643	0.1735759				
	0.1812394	0.1661826					0.1636	AVRG		8.6349
110)B Pentachloroethane		5968	11742	24680	71270	130274				
-0.0301 | 0.2226 | 0.00	415588							LINR		0.9942
111)B Benzyl chloride		20461	40373	116221	266770	576558				
-0.0257 | 0.8064 | 0.00	1588109	3095519						LINR		0.9988

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
12)B bis(2-Chloroisopropyl)et		0.3201400	0.3187359	0.3223401	0.3177936	0.3358707				
	0.3429568	0.3045391					0.3232	AVRG		3.9104

#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-2318

Instrument ID: VOA3.I **Injection Date** 26-FEB-10 15:19

Data File: 022610V3\3A513.D **Init. Cal. Date(s)** 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100226-10 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.3066	0.3003		.01		-2.05479	30		Averaged	
S	Toluene-d8	1.3456	1.32808		.01		-1.30202	30		Averaged	
S	Bromofluorobenzene	1.0082	0.98895		.01		-1.90934	30		Averaged	
	Dichlorodifluoromethane	50	54.65	50			9.3	30		Linear	
	Chloromethane	0.2352	0.22356		.1		-4.94898	30		Averaged	spcc
	Vinyl chloride	0.2397	0.25527		.01		6.49562	20		Averaged	ccc
	Bromomethane	0.1935	0.20362		.01		5.22997	30		Averaged	
	Chloroethane	0.1549	0.1638		.01		5.74564	30		Averaged	
	Trichlorofluoromethane	0.3298	0.35359		.01		7.21346	30		Averaged	
	Ethyl ether	0.1705	0.17805		.01		4.42815	30		Averaged	
	Acetone	0.2108	0.15587		.01		-26.05787	40		Averaged	
	1,1-Dichloroethylene	0.339	0.33566		.01		-0.98525	20		Averaged	ccc
	Iodomethane	0.4286	0.405		.01		-5.5063	30		Averaged	
	Carbon disulfide	0.7478	0.73439		.01		-1.79326	30		Averaged	
	Acetonitrile	0.0365	0.03221		.01		-11.75342	30		Averaged	
	Methyl acetate	0.1881	0.16656		.01		-11.45136	40		Averaged	
	Methylene chloride	0.3046	0.26555		.01		-12.82009	30		Averaged	
	tert-Butyl methyl ether	0.6625	0.62916		.01		-5.03245	30		Averaged	
	trans-1,2-Dichloroethylene	0.314	0.30972		.01		-1.36306	30		Averaged	
	Vinyl acetate	0.3778	0.41502		.01		9.85177	40		Averaged	
	1,1-Dichloroethane	0.3946	0.38617		.1		-2.13634	30		Averaged	spcc
	2-Butanone	0.2099	0.1738		.01		-17.19867	40		Averaged	
	cis-1,2-Dichloroethylene	0.3474	0.34931		.01		0.5498	30		Averaged	
	2,2-Dichloropropane	0.2436	0.25483		.01		4.61002	30		Averaged	
	Bromochloromethane	0.1279	0.12754		.01		-0.28147	30		Averaged	
	Chloroform	0.4027	0.40211		.01		-0.14651	20		Averaged	ccc
	1,1,1-Trichloroethane	0.327	0.34021		.01		4.03976	30		Averaged	
	Cyclohexane	0.3661	0.3763		.01		2.78612	30		Averaged	
	1,1-Dichloropropene	0.2778	0.28616		.01		3.00936	30		Averaged	
	Carbon tetrachloride	0.286	0.31003		.01		8.4021	30		Averaged	
	1,2-Dichloroethane	0.3149	0.30336		.01		-3.66466	30		Averaged	
	Benzene	0.8815	0.86018		.01		-2.4186	30		Averaged	
	Cyclohexene	0.4035	0.39817		.01		-1.32094	30		Averaged	
	n-Butyl alcohol	5000	4762.41	5000			-4.7518	40		Linear	
	Trichloroethylene	0.2276	0.22899		.01		0.61072	30		Averaged	
	1,2-Dichloropropane	0.2153	0.2176		.01		1.06828	20		Averaged	ccc
	Methylcyclohexane	0.3768	0.38727		.01		2.77866	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Dat** 26-FEB-10 15:19

Data File: 022610V3\3A513.D **Init. Cal. Date(s)** 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100226-10 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1445	0.14557		.01		0.74048	30		Averaged	
Bromodichloromethane	0.2749	0.30159		.01		9.70899	30		Averaged	
2-Chloroethylvinyl ether	250	250.97	250			0.388	30		Linear	
cis-1,3-Dichloropropylene	0.3124	0.33552		.01		7.40077	30		Averaged	
4-Methyl-2-pentanone	0.1208	0.11733		.01		-2.87252	40		Averaged	
Toluene	1.1971	1.13336		.01		-5.32453	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3639	0.39665		.01		8.99973	30		Averaged	
1,1,2-Trichloroethane	0.2068	0.20353		.01		-1.58124	30		Averaged	
1,3-Dichloropropane	0.4295	0.41333		.01		-3.76484	30		Averaged	
2-Hexanone	0.3084	0.26421		.01		-14.32879	40		Averaged	
Tetrachloroethylene	0.2332	0.22732		.01		-2.52144	30		Averaged	
Dibromochloromethane	0.2736	0.30228		.01		10.48246	30		Averaged	
1,2-Dibromoethane	0.266	0.26681		.01		0.30451	30		Averaged	
Chlorobenzene	0.7858	0.77084		.3		-1.90379	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.2702	0.28898		.01		6.95041	30		Averaged	
Ethylbenzene	1.237	1.21385		.01		-1.87146	20		Averaged	ccc
m,p-Xylenes	0.4916	0.49098		.01		-0.12612	30		Averaged	
o-Xylene	0.4911	0.51577		.01		5.02342	30		Averaged	
Styrene	0.7841	0.86736		.01		10.61854	30		Averaged	
Bromoform	50	46.48	50			-7.04	30		Linear	spcc
Isopropylbenzene	2.4779	2.50374		.01		1.04282	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6699	0.64527		.3		-3.67667	30		Averaged	spcc
1,2,3-Trichloropropane	0.1842	0.18044		.01		-2.04126	30		Averaged	
Bromobenzene	0.6651	0.65372		.01		-1.71102	30		Averaged	
n-Propylbenzene	2.8647	2.836		.01		-1.00185	30		Averaged	
2-Chlorotoluene	0.6176	0.6121		.01		-0.89054	30		Averaged	
1,3,5-Trimethylbenzene	2.079	2.11644		.01		1.80087	30		Averaged	
4-Chlorotoluene	1.7773	1.77993		.01		0.14798	30		Averaged	
tert-Butylbenzene	0.4447	0.4734		.01		6.45379	30		Averaged	
1,2,4-Trimethylbenzene	2.1081	2.12508		.01		0.80546	30		Averaged	
sec-Butylbenzene	2.7845	2.84065		.01		2.01652	30		Averaged	
4-Isopropyltoluene	2.2105	2.33061		.01		5.43361	30		Averaged	
1,3-Dichlorobenzene	1.1363	1.12222		.01		-1.23911	30		Averaged	
1,4-Dichlorobenzene	1.3023	1.27042		.01		-2.44798	30		Averaged	
n-Butylbenzene	2.102	2.16723		.01		3.10324	30		Averaged	
1,2-Dichlorobenzene	1.2927	1.25397		.01		-2.99605	30		Averaged	
1,2-Dibromo-3-chloropropane	50	46.4	50			-7.2	30		Linear	

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Dat** 26-FEB-10 15:19

Data File: 022610V3\3A513.D **Init. Cal. Date(s)** 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100226-10 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8694	0.86027		.01		-1.05015	30		Averaged
Hexachlorobutadiene	0.4354	0.44974		.01		3.29352	30		Averaged
Naphthalene	2.2358	2.24989		.01		0.6302	30		Averaged
1,2,3-Trichlorobenzene	0.849	0.81257		.01		-4.29093	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A513.D
Acq On : 26 Feb 2010 3:19 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-10|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[A]ULT 0220-01B+0224-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 01 10:53:10 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	936508	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	752375	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	394353	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	936346	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	752423	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	402226	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	281232	48.97	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	999214	49.35	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	389997	49.05	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	142729	54.65	ug/L	99
3) Chloromethane	5.216	5.216	0.426	50	209362	47.52	ug/L	100
4) Vinyl chloride	5.528	5.528	0.452	62	239062	53.24	ug/L	99
5) Bromomethane	6.291	6.291	0.514	94	190692	52.63	ug/L	99
6) Chloroethane	6.493	6.493	0.531	64	153397	52.88	ug/L	100
7) Trichlorofluoromethane	7.062	7.062	0.577	101	331143	53.60	ug/L	99
8) Ethyl ether	7.501	7.512	0.613	59	166741	52.21	ug/L	98
9) Acetone	7.987	7.987	0.653	43	729886	184.87	ug/L	100
10) 1,1-Dichloroethylene	7.987	7.987	0.653	61	314346	49.51	ug/L	100
11) Iodomethane	8.272	8.271	0.676	142	1896419	236.21	ug/L	100
12) Acetonitrile	8.450	8.449	0.691	41	754198	1102.74	ug/L	99
13) Methyl acetate	8.521	8.520	0.697	43	779924	221.35	ug/L	99
14) Carbon disulfide	8.438	8.449	0.690	76	3438823	245.51	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	248687	43.59	ug/L	100
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	589212	47.48	ug/L	100
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753	61	290052	49.32	ug/L	100
18) Vinyl acetate	9.837	9.837	0.804	43	1943338	274.65	ug/L	100
19) 1,1-Dichloroethane	9.861	9.860	0.806	63	361653	48.94	ug/L	100
20) 2-Butanone	10.643	10.643	0.870	43	813812	206.96	ug/L	100
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	327129	50.28	ug/L	100
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	238652	52.30	ug/L	99
23) Bromochloromethane	11.035	11.034	0.902	128	119446	49.87	ug/L	98
24) Chloroform	11.094	11.094	0.907	83	376583	49.93	ug/L	100
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	318612	52.02	ug/L	99
26) Cyclohexane	11.533	11.532	0.943	56	352411	51.40	ug/L	100
27) 1,1-Dichloropropene	11.628	11.627	0.951	75	267994	51.50	ug/L	100
28) Carbon tetrachloride	11.663	11.663	0.953	117	290345	54.21	ug/L	100
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	284097	48.16	ug/L	99
31) Benzene	11.912	11.912	0.974	78	805562	48.79	ug/L	100
32) Cyclohexene	12.054	12.054	0.985	67	372888	49.34	ug/L	100
33) n-Butyl alcohol	12.398	12.398	1.014	56	828859	4762.41	ug/L	100
34) Trichloroethylene	12.695	12.695	1.038	95	214451	50.30	ug/L	100
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	203783	50.54	ug/L	99
36) Methylcyclohexane	12.991	12.991	1.062	83	362681	51.39	ug/L	100
37) Dibromomethane	13.134	13.133	1.074	93	136326	50.38	ug/L	99
38) Bromodichloromethane	13.288	13.288	1.086	83	282443	54.86	ug/L	100
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	329400	250.97	ug/L	99
40) cis-1,3-Dichloropropylene	13.810	13.809	1.129	75	314220	53.70	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A513.D
Acq On : 26 Feb 2010 3:19 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-10|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[A]ULT 0220-01B+0224-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 01 10:53:10 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	441398	242.82	ug/L	100
44) Toluene	14.248	14.248	0.899	91	852708	47.34	ug/L	100
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	298433	54.51	ug/L	99
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	153130	49.20	ug/L	100
47) 2-Hexanone	14.889	14.888	0.939	43	993918	214.17	ug/L	99
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	310982	48.12	ug/L	95
49) Tetrachloroethylene	14.912	14.912	0.941	164	171028	48.74	ug/L	99
50) Dibromochloromethane	15.173	15.173	0.957	129	227430	55.25	ug/L	100
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	200741	50.16	ug/L	99
52) Chlorobenzene	15.885	15.885	1.002	112	579962	49.05	ug/L	99
53) 1,1,1,2-Tetrachloroethane	15.956	15.956	1.007	131	217421	53.48	ug/L	99
54) Ethylbenzene	15.968	15.968	1.007	91	913268	49.06	ug/L	100
55) m,p-Xylenes	16.086	16.086	1.015	106	738806	99.88	ug/L	99
56) o-Xylene	16.549	16.549	1.044	106	388050	52.51	ug/L	99
57) Styrene	16.549	16.549	1.044	104	652578	55.31	ug/L	99
59) Bromoform	16.810	16.821	0.913	173	140794	46.48	ug/L	99
60) Isopropylbenzene	16.928	16.928	0.919	105	987356	50.52	ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	254466	48.16	ug/L	100
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	71156	48.99	ug/L	95
64) Bromobenzene	17.343	17.343	0.942	156	257796	49.14	ug/L	99
65) n-Propylbenzene	17.367	17.367	0.943	91	1118385	49.50	ug/L	99
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	834626	50.90	ug/L	100
67) 2-Chlorotoluene	17.521	17.521	0.952	126	241382	49.56	ug/L	98
68) 4-Chlorotoluene	17.628	17.628	0.957	91	701921	50.07	ug/L	100
69) tert-Butylbenzene	17.913	17.912	0.973	134	186686	53.23	ug/L	99
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	838030	50.40	ug/L	99
71) sec-Butylbenzene	18.150	18.150	0.986	105	1120217	51.01	ug/L	100
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	919082	52.72	ug/L	100
73) 1,3-Dichlorobenzene	18.351	18.351	0.997	146	442549	49.38	ug/L	100
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	500995	48.78	ug/L	100
75) n-Butylbenzene	18.743	18.742	1.018	91	854654	51.55	ug/L	99
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	494507	48.50	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	58785	46.40	ug/L	97
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	339251	49.48	ug/L	99
79) Hexachlorobutadiene	21.126	21.126	1.148	225	177358	51.64	ug/L	100
80) Naphthalene	21.352	21.351	1.160	128	887252	50.32	ug/L	100
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	320439	47.85	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88) Allyl chloride	8.450	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.173	9.090	0.750		0m	N.D.	d	
91) Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.643	10.679	0.870		0m	N.D.	d	
95) Propionitrile	10.643	10.726	0.870		0m	N.D.	d	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.		
97) Tetrahydrofuran	11.106	11.094	0.908		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A513.D
Acq On : 26 Feb 2010 3:19 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-10|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[A]ULT 0220-01B+0224-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 01 10:53:10 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	11.533	11.556	0.943		0m	N.D.	d
99)	Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100)	Methyl methacrylate	12.991	12.991	1.062		0m	N.D.	d
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106)	1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108)	Cyclohexanone	16.928	17.082	0.919		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110)	Pentachloroethane	17.984	17.983	0.977		0m	N.D.	d
111)	Benzyl chloride	18.399	18.553	0.999		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A513.D
Acq On    : 26 Feb 2010   3:19 pm
Operator  : CDS1
InstName  : VOA3
Sample    : |W3VM100226-10|ICV|1|VOA|1|
Misc      : ICV  5mL - MIX[A]ULT 0220-01B+0224-01
ALS Vial  : 13   Sample Multiplier: 1

Quant Time: Mar 01 10:53:10 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE
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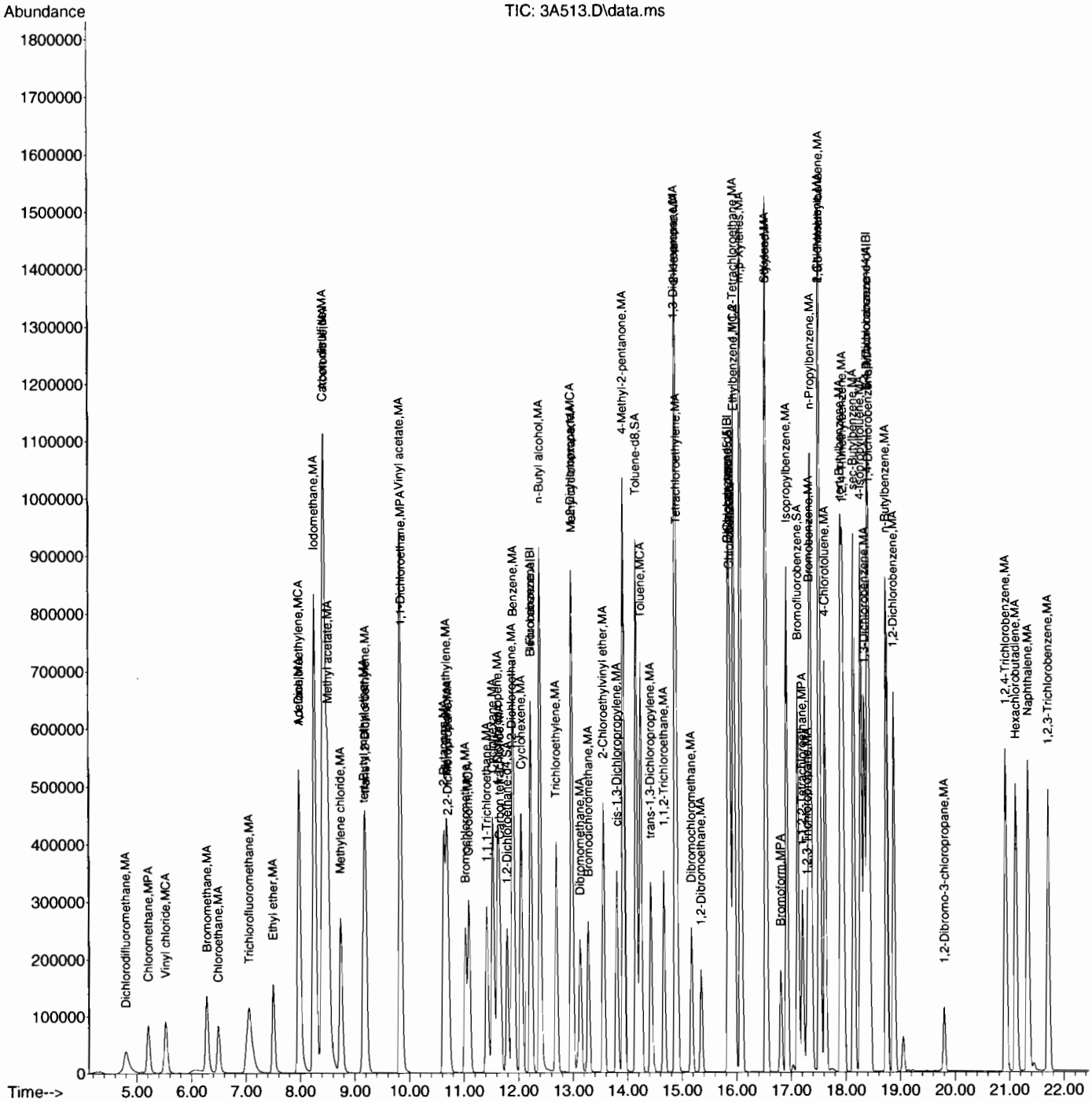

Continuing Calibration Summary

Client SDG: 10-2318

Instrument ID: VOA3.I **Injection Dat** 26-FEB-10 20:12

Data File: 022610V3\3A523.D **Init. Cal. Date(s)** 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100226-18 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.3066	0.29676		.01		-3.20939	30		Averaged
S	Toluene-d8	1.3456	1.38683		.01		3.06406	30		Averaged
S	Bromofluorobenzene	1.0082	1.01858		.01		1.02956	30		Averaged
	Chlorotrifluoroethylene	0.139	0.1017		.01		-26.83453	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.2812	0.26227		.01		-6.73186	30		Averaged
	Acrolein	250	371.65	250			48.66	30	*	Linear
	Trichlorotrifluoroethane	0.0827	0.08123		.01		-1.77751	30		Averaged
	Isopropyl Alcohol	0.0187	0.01839		.01		-1.65775	40		Averaged
	Allyl chloride	0.2962	0.29625		.01		0.01688	30		Averaged
	tert-Butyl Alcohol	0.0314	0.02994		.01		-4.64968	40		Averaged
	Acrylonitrile	0.0885	0.08974		.01		1.40113	30		Averaged
	Isopropyl ether	0.7095	0.67398		.01		-5.00634	30		Averaged
	2-Chloro-1,3-butadiene	0.2574	0.29403		.01		14.23077	30		Averaged
	Ethyl tert-butyl ether	0.6775	0.64733		.01		-4.45314	30		Averaged
	Ethyl acetate	0.2185	0.20232		.01		-7.40503	40		Averaged
	Propionitrile	0.0347	0.03535		.01		1.8732	30		Averaged
	Methacrylonitrile	0.1332	0.13306		.01		-0.10511	30		Averaged
	Tetrahydrofuran	0.0735	0.07446		.01		1.30612	30		Averaged
	Isobutyl alcohol	0.0095	0.00964		.01		1.47368	40		Averaged
	Methyl tert-amyl ether	0.6257	0.59791		.01		-4.44143	30		Averaged
	Methyl methacrylate	0.1441	0.15252		.01		5.84316	30		Averaged
	1,4-Dioxane	0.0031	0.00297		.01		-4.19355	40		Averaged
	2-Nitropropane	250	261.34	250			4.536	30		Linear
	Ethyl methacrylate	0.3396	0.37143		.01		9.37279	30		Averaged
	1-Chlorohexane	0.4531	0.43436		.01		-4.13595	30		Averaged
	cis-1,4-Dichloro-2-butene	0.1677	0.19341		.01		15.33095	30		Averaged
	Cyclohexanone	0.0193	0.04804		.01		148.91192	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.1636	0.18335		.01		12.07213	30		Averaged
	Pentachloroethane	250	256.05	250			2.42	30		Linear
	Benzyl chloride	250	251.22	250			0.488	30		Linear
	bis(2-Chloroisopropyl)ether	0.3232	0.31962		.01		-1.10767	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A523.D
Acq On : 26 Feb 2010 8:12 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-18|ICV|1|VOA|1|
Misc : GEL 5mL - MIX[B] 215-08A+125-08D
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 01 09:53:34 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	950148	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	727148	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	372193	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	949803	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	727332	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	379636	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	281968	48.39	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	1008431	51.53	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	379109	50.52	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	5.736	5.528	0.469		0m	N.D.	d	
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.987	7.987	0.653		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.975	7.987	0.652		0m	N.D.	d	
11) Iodomethane	8.260	8.271	0.675		0m	N.D.	d	
12) Acetonitrile	8.556	8.449	0.699		0m	N.D.	d	
13) Methyl acetate	8.532	8.520	0.698		0m	N.D.	d	
14) Carbon disulfide	8.556	8.449	0.699		0m	N.D.	d	
15) Methylene chloride	8.746	8.746	0.715		0m	N.D.	d	
16) tert-Butyl methyl ether	9.173	9.173	0.750		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	9.884	9.837	0.808		0m	N.D.	d	
19) 1,1-Dichloroethane	10.003	9.860	0.818		0m	N.D.	d	
20) 2-Butanone	10.679	10.643	0.873		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.679	10.691	0.873		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	11.556	11.532	0.945		0m	N.D.	d	
27) 1,1-Dichloropropene	11.556	11.627	0.945		0m	N.D.	d	
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	11.912	11.912	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	12.706	12.695	1.039		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	12.991	12.991	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A523.D
Acq On : 26 Feb 2010 8:12 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-18|ICV|1|VOA|1|
Misc : GEL 5mL - MIX[B] 215-08A+125-08D
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 01 09:53:34 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.			
44) Toluene	14.248	14.248	0.899		0m	N.D.	d		
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.			
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.			
47) 2-Hexanone	14.888	14.888	0.939		0m	N.D.	d		
48) 1,3-Dichloropropane	14.924	14.888	0.942		0m	N.D.	d		
49) Tetrachloroethylene	14.912	14.912	0.941		0m	N.D.	d		
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.			
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.			
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.			
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.			
54) Ethylbenzene	15.968	15.968	1.007		0m	N.D.	d		
55) m,p-Xylenes	0.000	16.086	0.000		0	N.D.			
56) o-Xylene	0.000	16.549	0.000		0	N.D.			
57) Styrene	16.549	16.549	1.044		0m	N.D.	d		
59) Bromoform	0.000	16.821	0.000		0	N.D.			
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.			
62) 1,1,2,2-Tetrachloroethane	17.260	17.213	0.938		0m	N.D.	d		
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.			
64) Bromobenzene	0.000	17.343	0.000		0	N.D.			
65) n-Propylbenzene	17.367	17.367	0.943		0m	N.D.	d		
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952		0m	N.D.	d		
67) 2-Chlorotoluene	17.521	17.521	0.952		0m	N.D.	d		
68) 4-Chlorotoluene	17.628	17.628	0.957		0m	N.D.	d		
69) tert-Butylbenzene	17.983	17.912	0.977		0m	N.D.	d		
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976		0m	N.D.	d		
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.			
72) 4-Isopropyltoluene	18.280	18.280	0.993		0m	N.D.	d		
73) 1,3-Dichlorobenzene	18.339	18.351	0.996		0m	N.D.	d		
74) 1,4-Dichlorobenzene	18.434	18.434	1.001		0m	N.D.	d		
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.			
76) 1,2-Dichlorobenzene	18.885	18.885	1.026		0m	N.D.	d		
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.			
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137		0m	N.D.	d		
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.			
80) Naphthalene	21.351	21.351	1.160		0m	N.D.	d		
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.			
83) Chlorotrifluoroethylene	4.711	4.711	0.385	116	289790	109.76	ug/L	100	
84) 2-Chloro-1,1,1-trifluo...	5.751	5.751	0.470	118	747303	139.90	ug/L	100	
85) Acrolein	7.750	7.750	0.634	56	185578	371.65	ug/L	99	E
86) Trichlorotrifluoroethane	7.975	7.975	0.652	85	385754	245.55	ug/L	99	
87) Isopropyl Alcohol	8.141	8.141	0.666	45	873506	2452.46	ug/L	99	
88) Allyl chloride	8.556	8.556	0.699	41	1406915	250.02	ug/L	100	
89) tert-Butyl Alcohol	8.793	8.793	0.719	59	1422034	2386.59	ug/L	99	
90) Acrylonitrile	9.090	9.090	0.743	53	426191	253.41	ug/L	100	
91) Isopropyl ether	9.884	9.884	0.808	45	640147	47.50	ug/L	99	
92) 2-Chloro-1,3-butadiene	10.003	10.003	0.818	53	279268	57.11	ug/L	100	
93) Ethyl tert-butyl ether	10.406	10.406	0.851	59	614840	47.78	ug/L	100	
94) Ethyl acetate	10.679	10.679	0.873	43	960817	231.51	ug/L	100	
95) Propionitrile	10.726	10.726	0.877	54	167873	254.56	ug/L	99	
96) Methacrylonitrile	10.951	10.951	0.895	41	631884	249.79	ug/L	99	
97) Tetrahydrofuran	11.094	11.094	0.907	42	353594	253.21	ug/L	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A523.D
Acq On : 26 Feb 2010 8:12 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-18|ICV|1|VOA|1|
Misc : GEL 5mL - MIX[B] 215-08A+125-08D
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 01 09:53:34 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
98)	Isobutyl alcohol	11.556	11.556	0.945	41	457824	2549.09	ug/L	99	
99)	Methyl tert-amyl ether	11.971	11.971	0.979	73	567900	47.78	ug/L	99	
100)	Methyl methacrylate	12.991	12.991	1.062	69	724331	264.64	ug/L	100	
101)	1,4-Dioxane	13.098	13.098	1.071	88	141128	2424.39	ug/L	100	
102)	2-Nitropropane	13.525	13.525	1.106	43	317134	261.34	ug/L	100	
104)	Ethyl methacrylate	14.450	14.450	0.912	69	1350775	273.46	ug/L	100	
106)	1-Chlorohexane	15.754	15.754	0.856	55	164899	47.93	ug/L	100	
107)	cis-1,4-Dichloro-2-butene	16.964	16.964	0.921	53	367128	288.26	ug/L	99	
108)	Cyclohexanone	17.082	17.082	0.928	42	455921	3119.00	ug/L	99	E
109)	trans-1,4-Dichloro-2-b...	17.260	17.260	0.938	53	348032	280.18	ug/L	100	
110)	Pentachloroethane	17.983	17.983	0.977	167	421398	256.05	ug/L	100	E
111)	Benzyl chloride	18.553	18.553	1.008	91	1528395	251.22	ug/L	100	
112)	bis(2-Chloroisopropyl)...	18.980	18.980	1.031	45	606689	247.23	ug/L	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A523.D
Acq On : 26 Feb 2010 8:12 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-18|ICV|1|VOA|1|
Misc : GEL 5mL - MIX[B] 215-08A+125-08D
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 01 09:53:34 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

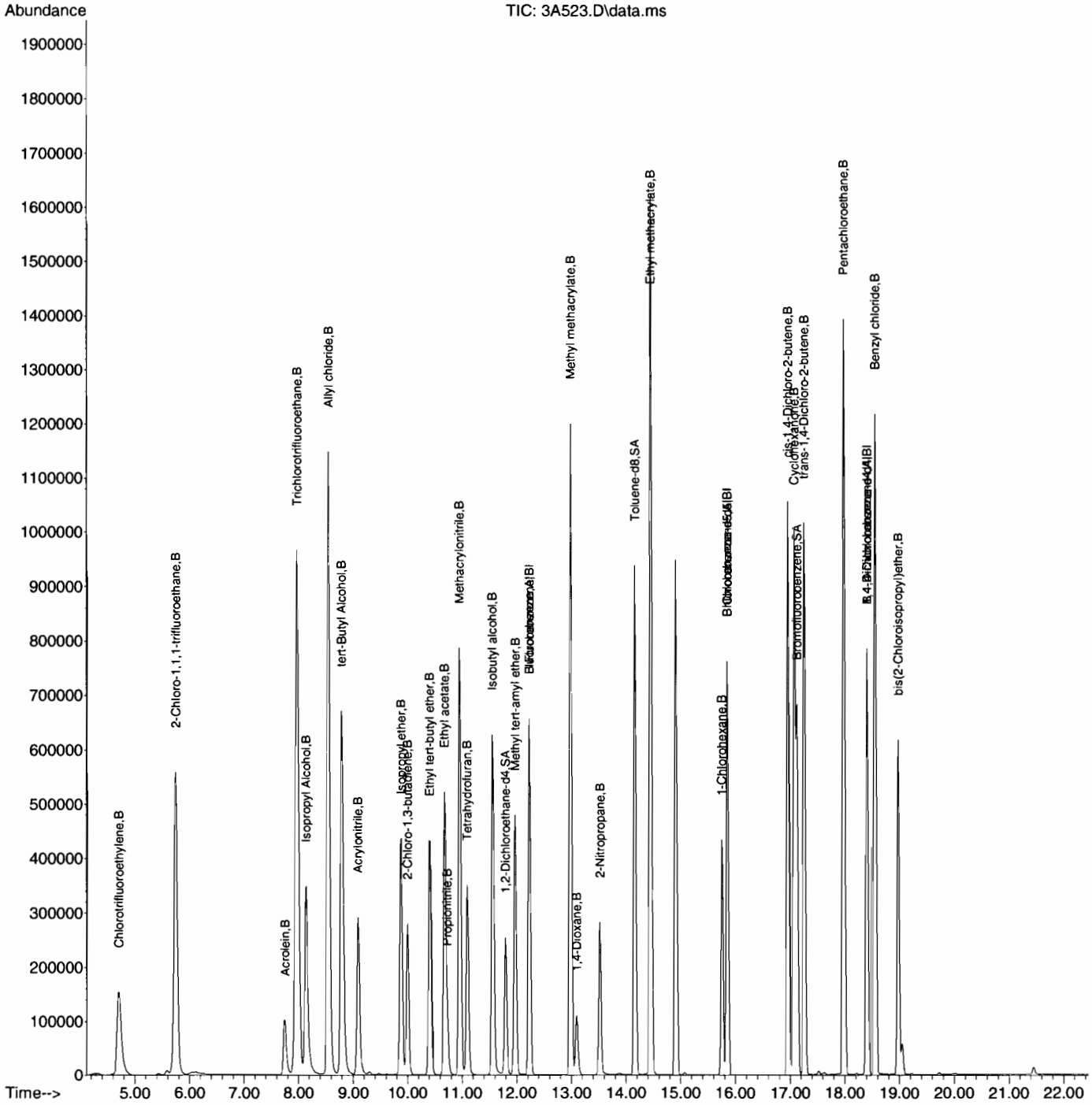

Continuing Calibration Summary

Client SDG: 10-2318

Instrument ID: VOA3.I **Injection Date** 15-MAR-10 12:01

Data File: 031510V3\3D102.D **Init. Cal. Date(s)** 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100315-01 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.3066	0.31311		.01		2.12329	30		Averaged	
S	Toluene-d8	1.3456	1.3673		.01		1.61266	30		Averaged	
S	Bromofluorobenzene	1.0082	0.98008		.01		-2.78913	30		Averaged	
	Dichlorodifluoromethane	50	53.66	50			7.32	30		Linear	
	Chloromethane	0.2352	0.25864		.1		9.96599	30		Averaged	spcc
	Vinyl chloride	0.2397	0.26345		.01		9.90822	20		Averaged	ccc
	Bromomethane	0.1935	0.22248		.01		14.97674	30		Averaged	
	Chloroethane	0.1549	0.17801		.01		14.9193	30		Averaged	
	Trichlorofluoromethane	0.3298	0.35552		.01		7.79867	30		Averaged	
	Ethyl ether	0.1705	0.19854		.01		16.44575	30		Averaged	
	Acetone	0.2108	0.18873		.01		-10.46964	40		Averaged	
	1,1-Dichloroethylene	0.339	0.27472		.01		-18.96165	20		Averaged	ccc
	Iodomethane	0.4286	0.34916		.01		-18.53476	30		Averaged	
	Carbon disulfide	0.7478	0.5741		.01		-23.22814	30		Averaged	
	Acetonitrile	0.0365	0.03171		.01		-13.12329	30		Averaged	
	Methyl acetate	0.1881	0.17678		.01		-6.01808	40		Averaged	
	Methylene chloride	0.3046	0.2386		.01		-21.66776	30		Averaged	
	tert-Butyl methyl ether	0.6625	0.574		.01		-13.35849	30		Averaged	
	trans-1,2-Dichloroethylene	0.314	0.26297		.01		-16.25159	30		Averaged	
	Vinyl acetate	0.3778	0.45367		.01		20.08205	40		Averaged	
	1,1-Dichloroethane	0.3946	0.34485		.1		-12.6077	30		Averaged	spcc
	2-Butanone	0.2099	0.21717		.01		3.46355	40		Averaged	
	cis-1,2-Dichloroethylene	0.3474	0.31135		.01		-10.37709	30		Averaged	
	2,2-Dichloropropane	0.2436	0.22463		.01		-7.78736	30		Averaged	
	Bromochloromethane	0.1279	0.12214		.01		-4.50352	30		Averaged	
	Chloroform	0.4027	0.3595		.01		-10.72759	20		Averaged	ccc
	1,1,1-Trichloroethane	0.327	0.27557		.01		-15.72783	30		Averaged	
	Cyclohexane	0.3661	0.28504		.01		-22.14149	30		Averaged	
	1,1-Dichloropropene	0.2778	0.23489		.01		-15.44636	30		Averaged	
	Carbon tetrachloride	0.286	0.2525		.01		-11.71329	30		Averaged	
	1,2-Dichloroethane	0.3149	0.28124		.01		-10.68911	30		Averaged	
	Benzene	0.8815	0.76649		.01		-13.04708	30		Averaged	
	Cyclohexene	0.4035	0.33596		.01		-16.73854	30		Averaged	
	n-Butyl alcohol	5000	4604.17	5000			-7.9166	40		Linear	
	Trichloroethylene	0.2276	0.19647		.01		-13.6775	30		Averaged	
	1,2-Dichloropropane	0.2153	0.20789		.01		-3.44171	20		Averaged	ccc
	Methylcyclohexane	0.3768	0.30822		.01		-18.20064	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Date** 15-MAR-10 12:01

Data File: 031510V3\3D102.D **Init. Cal. Date(s)** 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100315-01 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1445	0.14231		.01		-1.51557	30		Averaged	
Bromodichloromethane	0.2749	0.27974		.01		1.76064	30		Averaged	
2-Chloroethylvinyl ether	250	242.3	250			-3.08	30		Linear	
cis-1,3-Dichloropropylene	0.3124	0.3109		.01		-0.48015	30		Averaged	
4-Methyl-2-pentanone	0.1208	0.12975		.01		7.40894	40		Averaged	
Toluene	1.1971	1.0633		.01		-11.17701	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3639	0.38929		.01		6.97719	30		Averaged	
1,1,2-Trichloroethane	0.2068	0.20965		.01		1.37814	30		Averaged	
1,3-Dichloropropane	0.4295	0.41905		.01		-2.43306	30		Averaged	
2-Hexanone	0.3084	0.35012		.01		13.52789	40		Averaged	
Tetrachloroethylene	0.2332	0.20454		.01		-12.28988	30		Averaged	
Dibromochloromethane	0.2736	0.30198		.01		10.37281	30		Averaged	
1,2-Dibromoethane	0.266	0.26112		.01		-1.83459	30		Averaged	
Chlorobenzene	0.7858	0.70056		.3		-10.84754	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.2702	0.28011		.01		3.66765	30		Averaged	
Ethylbenzene	1.237	1.1044		.01		-10.71948	20		Averaged	ccc
m,p-Xylenes	0.4916	0.45166		.01		-8.12449	30		Averaged	
o-Xylene	0.4911	0.48085		.01		-2.08715	30		Averaged	
Styrene	0.7841	0.80025		.01		2.05969	30		Averaged	
Bromoform	50	46.28	50			-7.44	30		Linear	spcc
Isopropylbenzene	2.4779	2.1856		.01		-11.79628	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6699	0.67036		.3		0.06867	30		Averaged	spcc
1,2,3-Trichloropropane	0.1842	0.17505		.01		-4.96743	30		Averaged	
Bromobenzene	0.6651	0.63439		.01		-4.61735	30		Averaged	
n-Propylbenzene	2.8647	2.60512		.01		-9.06133	30		Averaged	
2-Chlorotoluene	0.6176	0.56583		.01		-8.38245	30		Averaged	
1,3,5-Trimethylbenzene	2.079	1.93176		.01		-7.08225	30		Averaged	
4-Chlorotoluene	1.7773	1.63582		.01		-7.96039	30		Averaged	
tert-Butylbenzene	0.4447	0.41794		.01		-6.01754	30		Averaged	
1,2,4-Trimethylbenzene	2.1081	1.95856		.01		-7.09359	30		Averaged	
sec-Butylbenzene	2.7845	2.52607		.01		-9.28102	30		Averaged	
4-Isopropyltoluene	2.2105	2.0605		.01		-6.7858	30		Averaged	
1,3-Dichlorobenzene	1.1363	1.04214		.01		-8.28654	30		Averaged	
1,4-Dichlorobenzene	1.3023	1.21872		.01		-6.41788	30		Averaged	
n-Butylbenzene	2.102	1.97355		.01		-6.11085	30		Averaged	
1,2-Dichlorobenzene	1.2927	1.19639		.01		-7.4503	30		Averaged	
1,2-Dibromo-3-chloropropane	50	41.62	50			-16.76	30		Linear	

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Dat** 15-MAR-10 12:01

Data File: 031510V3\3D102.D **Init. Cal. Date(s)** 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100315-01 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8694	0.8239		.01		-5.23349	30		Averaged
Hexachlorobutadiene	0.4354	0.38389		.01		-11.8305	30		Averaged
Naphthalene	2.2358	2.0216		.01		-9.58046	30		Averaged
1,2,3-Trichlorobenzene	0.849	0.74274		.01		-12.5159	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D102.D
Acq On : 15 Mar 2010 12:01 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-01|CCV|1|VOA|1|
Misc : CCV 5ML - MIX[A] 222-07B+106-07D
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 12:47:03 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	784581	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	594921	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	322629	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	784353	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	594883	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	329307	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	245660	51.05	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	813436	50.81	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	316202	48.61	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	117420	53.66	ug/L	96
3) Chloromethane	5.216	5.216	0.426	50	202927	54.98	ug/L	99
4) Vinyl chloride	5.528	5.528	0.452	62	206701	54.95	ug/L	99
5) Bromomethane	6.279	6.291	0.513	94	174555	57.50	ug/L	99
6) Chloroethane	6.493	6.493	0.531	64	139662	57.47	ug/L	99
7) Trichlorofluoromethane	7.050	7.062	0.576	101	278933	53.89	ug/L	100
8) Ethyl ether	7.501	7.512	0.613	59	155770	58.22	ug/L	98
9) Acetone	7.975	7.987	0.652	43	740386	223.84	ug/L	99
10) 1,1-Dichloroethylene	7.975	7.987	0.652	61	215543	40.52	ug/L	100
11) Iodomethane	8.272	8.271	0.676	142	1369704	203.64	ug/L	99
12) Acetonitrile	8.449	8.449	0.691	41	621916	1085.41	ug/L	99
13) Methyl acetate	8.521	8.520	0.697	43	693497	234.93	ug/L	100
14) Carbon disulfide	8.438	8.449	0.690	76	2252151	191.93	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	187202	39.16	ug/L	98
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	450353	43.32	ug/L	100
17) trans-1,2-Dichloroethy...	9.197	9.208	0.752	61	206322	41.88	ug/L	99
18) Vinyl acetate	9.837	9.837	0.804	43	1779688	300.23	ug/L	99
19) 1,1-Dichloroethane	9.849	9.860	0.805	63	270565	43.70	ug/L	100
20) 2-Butanone	10.631	10.643	0.869	43	851946	258.62	ug/L	99
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	244282	44.82	ug/L	100
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	176240	46.10	ug/L	96
23) Bromochloromethane	11.035	11.034	0.902	128	95830	47.75	ug/L	98
24) Chloroform	11.094	11.094	0.907	83	282054	44.64	ug/L	100
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	216204	42.13	ug/L	99
26) Cyclohexane	11.533	11.532	0.943	56	223637	38.93	ug/L	99
27) 1,1-Dichloropropene	11.616	11.627	0.950	75	184293	42.27	ug/L	98
28) Carbon tetrachloride	11.663	11.663	0.953	117	198109	44.15	ug/L	100
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	220657	44.65	ug/L	99
31) Benzene	11.912	11.912	0.974	78	601370	43.47	ug/L	99
32) Cyclohexene	12.054	12.054	0.985	67	263588	41.63	ug/L	100
33) n-Butyl alcohol	12.398	12.398	1.014	56	670924	4604.17	ug/L	98
34) Trichloroethylene	12.695	12.695	1.038	95	154146	43.16	ug/L	98
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	163110	48.29	ug/L	99
36) Methylcyclohexane	12.979	12.991	1.061	83	241824	40.90	ug/L	99
37) Dibromomethane	13.134	13.133	1.074	93	111655	49.25	ug/L	99
38) Bromodichloromethane	13.276	13.288	1.085	83	219476	50.88	ug/L	99
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	266211	242.30	ug/L	98
40) cis-1,3-Dichloropropylene	13.809	13.809	1.129	75	243927	49.76	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D102.D
Acq On : 15 Mar 2010 12:01 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-01|CCV|1|VOA|1|
Misc : CCV 5ML - MIX[A] 222-07B+106-07D
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 12:47:03 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	385943	268.51	ug/L	96
44) Toluene	14.248	14.248	0.899	91	632578	44.41	ug/L	99
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	231596	53.49	ug/L	98
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	124727	50.68	ug/L	98
47) 2-Hexanone	14.889	14.888	0.939	43	1041467	283.80	ug/L	98
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	249304	48.78	ug/L	94
49) Tetrachloroethylene	14.912	14.912	0.941	164	121686	43.85	ug/L	98
50) Dibromochloromethane	15.173	15.173	0.957	129	179652	55.19	ug/L	99
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	155345	49.09	ug/L	100
52) Chlorobenzene	15.885	15.885	1.002	112	416779	44.58	ug/L	99
53) 1,1,1,2-Tetrachloroethane	15.944	15.956	1.006	131	166643	51.84	ug/L	99
54) Ethylbenzene	15.968	15.968	1.007	91	657033	44.64	ug/L	100
55) m,p-Xylenes	16.086	16.086	1.015	106	537405	91.88	ug/L	100
56) o-Xylene	16.537	16.549	1.043	106	286067	48.95	ug/L	98
57) Styrene	16.549	16.549	1.044	104	476086	51.03	ug/L	99
59) Bromoform	16.810	16.821	0.913	173	114683	46.28	ug/L	99
60) Isopropylbenzene	16.928	16.928	0.919	105	705139	44.10	ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	216276	50.04	ug/L	100
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	56477	47.52	ug/L	97
64) Bromobenzene	17.343	17.343	0.942	156	204673	47.69	ug/L	98
65) n-Propylbenzene	17.367	17.367	0.943	91	840487	45.47	ug/L	99
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	623241	46.46	ug/L	99
67) 2-Chlorotoluene	17.521	17.521	0.952	126	182552	45.81	ug/L	99
68) 4-Chlorotoluene	17.628	17.628	0.957	91	527763	46.02	ug/L	100
69) tert-Butylbenzene	17.913	17.912	0.973	134	134841	46.99	ug/L	98
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	631889	46.45	ug/L	99
71) sec-Butylbenzene	18.150	18.150	0.986	105	814985	45.36	ug/L	100
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	664776	46.61	ug/L	99
73) 1,3-Dichlorobenzene	18.339	18.351	0.996	146	336225	45.86	ug/L	99
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	393194	46.79	ug/L	99
75) n-Butylbenzene	18.743	18.742	1.018	91	636726	46.94	ug/L	100
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	385989	46.27	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	42965	41.62	ug/L	97
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	265814	47.39	ug/L	99
79) Hexachlorobutadiene	21.126	21.126	1.148	225	123855	44.08	ug/L	98
80) Naphthalene	21.351	21.351	1.160	128	652226	45.21	ug/L	100
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	239629	43.74	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88) Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.161	9.090	0.749		0m	N.D.	d	
91) Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.631	10.679	0.869		0m	N.D.	d	
95) Propionitrile	10.631	10.726	0.869		0m	N.D.	d	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.		
97) Tetrahydrofuran	11.094	11.094	0.907		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D102.D
Acq On : 15 Mar 2010 12:01 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-01|CCV|1|VOA|1|
Misc : CCV 5ML - MIX[A] 222-07B+106-07D
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 12:47:03 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	11.533	11.556	0.943		0m	N.D.	d
99)	Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100)	Methyl methacrylate	12.979	12.991	1.061		0m	N.D.	d
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104)	Ethyl methacrylate	14.450	14.450	0.912		0m	N.D.	d
106)	1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108)	Cyclohexanone	16.916	17.082	0.919		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110)	Pentachloroethane	17.984	17.983	0.977		0m	N.D.	d
111)	Benzyl chloride	18.553	18.553	1.008		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D102.D
Acq On    : 15 Mar 2010  12:01 pm
Operator  : CDS1
InstName  : VOA3
Sample    : |W3VM100315-01|CCV|1|VOA|1|
Misc      : CCV 5ML - MIX[A] 222-07B+106-07D
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 15 12:47:03 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE
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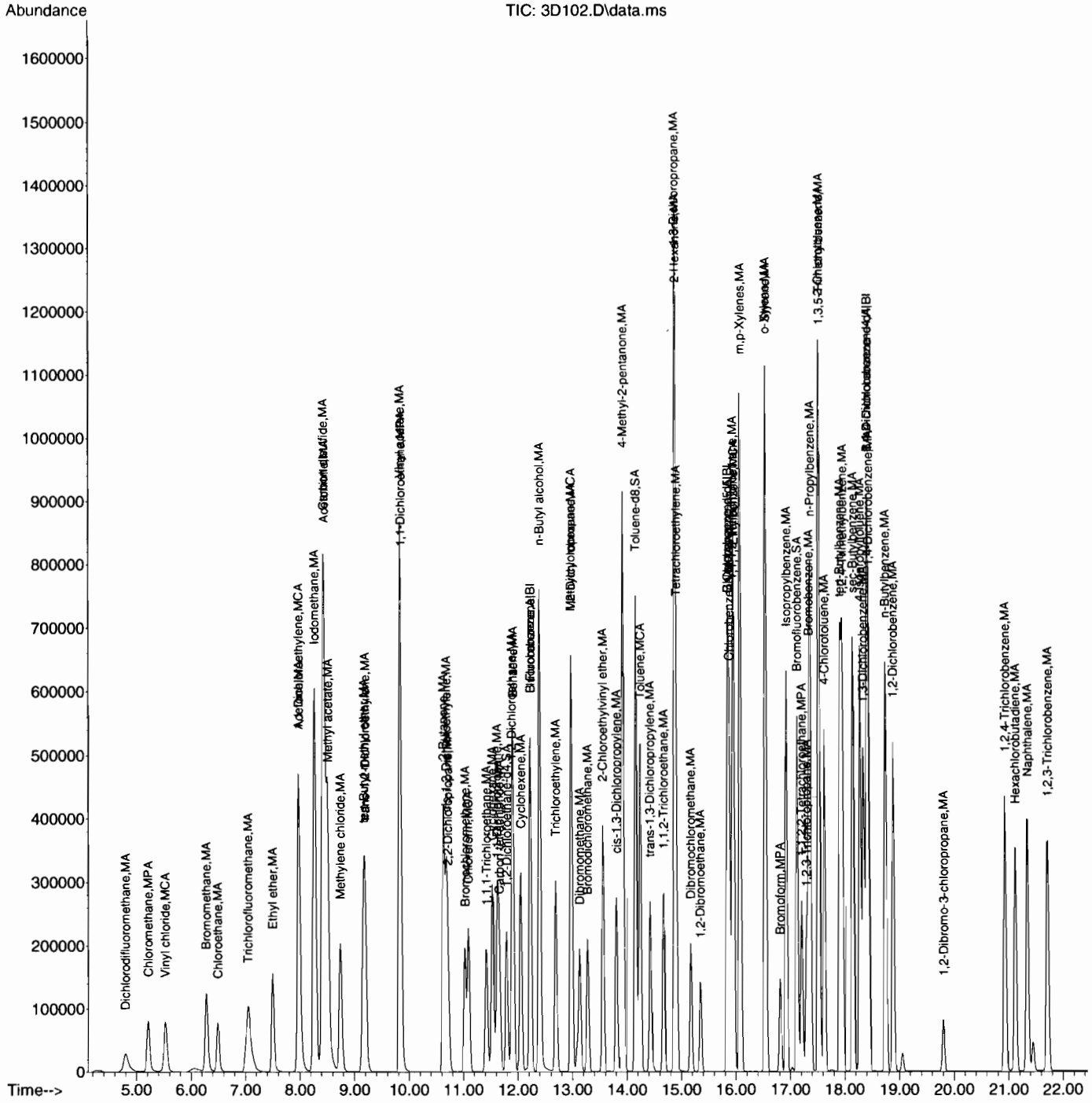

Continuing Calibration Summary

Client SDG: 10-2318

Instrument ID: VOA3.I **Injection Date** 15-MAR-10 13:28

Data File: 031510V3\3D105.D **Init. Cal. Date(s)** 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100315-04 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.3066	0.32084		.01		4.64449	30		Averaged
S	Toluene-d8	1.3456	1.36977		.01		1.79622	30		Averaged
S	Bromofluorobenzene	1.0082	1.03822		.01		2.97758	30		Averaged
	Chlorotrifluoroethylene	0.139	0.09108		.01		-34.47482	30	*	Averaged
	2-Chloro-1,1,1-trifluoroethane	0.2812	0.2751		.01		-2.16927	30		Averaged
	Acrolein	250	359.44	250			43.776	30	*	Linear
	Trichlorotrifluoroethane	0.0827	0.07844		.01		-5.15115	30		Averaged
	Isopropyl Alcohol	0.0187	0.01943		.01		3.90374	40		Averaged
	Allyl chloride	0.2962	0.32442		.01		9.52735	30		Averaged
	tert-Butyl Alcohol	0.0314	0.032		.01		1.91083	40		Averaged
	Acrylonitrile	0.0885	0.09132		.01		3.18644	30		Averaged
	Isopropyl ether	0.7095	0.73692		.01		3.86469	30		Averaged
	2-Chloro-1,3-butadiene	0.2574	0.2843		.01		10.45066	30		Averaged
	Ethyl tert-butyl ether	0.6775	0.71812		.01		5.99557	30		Averaged
	Ethyl acetate	0.2185	0.22871		.01		4.67277	40		Averaged
	Propionitrile	0.0347	0.03594		.01		3.57349	30		Averaged
	Methacrylonitrile	0.1332	0.14154		.01		6.26126	30		Averaged
	Tetrahydrofuran	0.0735	0.07457		.01		1.45578	30		Averaged
	Isobutyl alcohol	0.0095	0.01055		.01		11.05263	40		Averaged
	Methyl tert-amyl ether	0.6257	0.66191		.01		5.78712	30		Averaged
	Methyl methacrylate	0.1441	0.16635		.01		15.44067	30		Averaged
	1,4-Dioxane	0.0031	0.0028		.01		-9.67742	40		Averaged
	2-Nitropropane	250	264.22	250			5.688	30		Linear
	Ethyl methacrylate	0.3396	0.39503		.01		16.32214	30		Averaged
	1-Chlorohexane	0.4531	0.46672		.01		3.00596	30		Averaged
	cis-1,4-Dichloro-2-butene	0.1677	0.2192		.01		30.7096	30	*	Averaged
	Cyclohexanone	0.0193	0.04101		.01		112.48705	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.1636	0.20769		.01		26.94988	30		Averaged
	Pentachloroethane	250	477.87	250			91.148	30	*	Linear
	Benzyl chloride	250	412.07	250			64.828	30	*	Linear
	bis(2-Chloroisopropyl)ether	0.3232	0.32921		.01		1.85953	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D105.D
Acq On : 15 Mar 2010 1:28 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-04|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5mL - MIX[B] UVM100215-06/UVM100226-02A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 13:51:30 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	778153	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	622042	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	292110	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	777926	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	622222	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	297882	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	249664	52.32	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	852057	50.90	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	303273	51.49	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	5.201	5.216	0.425		0m	N.D.	d	
4) Vinyl chloride	5.736	5.528	0.469		0m	N.D.	d	
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.987	7.987	0.653		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.963	7.987	0.651		0m	N.D.	d	
11) Iodomethane	8.271	8.271	0.676		0m	N.D.	d	
12) Acetonitrile	8.556	8.449	0.699		0m	N.D.	d	
13) Methyl acetate	8.532	8.520	0.698		0m	N.D.	d	
14) Carbon disulfide	8.556	8.449	0.699		0m	N.D.	d	
15) Methylene chloride	8.746	8.746	0.715		0m	N.D.	d	
16) tert-Butyl methyl ether	9.173	9.173	0.750		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	9.884	9.837	0.808		0m	N.D.	d	
19) 1,1-Dichloroethane	10.003	9.860	0.818		0m	N.D.	d	
20) 2-Butanone	10.679	10.643	0.873		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.679	10.691	0.873		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	11.556	11.532	0.945		0m	N.D.	d	
27) 1,1-Dichloropropene	11.568	11.627	0.946		0m	N.D.	d	
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	11.912	11.912	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	12.410	12.398	1.015		0m	N.D.	d	
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	12.991	12.991	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D105.D
Acq On : 15 Mar 2010 1:28 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-04|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5mL - MIX[B] UVM100215-06/UVM100226-02A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 13:51:30 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42) 4-Methyl-2-pentanone	13.928	13.928	0.879		0m	N.D.	d		
44) Toluene	14.248	14.248	0.899		0m	N.D.	d		
45) trans-1,3-Dichloroprop...	14.438	14.426	0.911		0m	N.D.	d		
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.			
47) 2-Hexanone	14.888	14.888	0.939		0m	N.D.	d		
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.			
49) Tetrachloroethylene	14.912	14.912	0.941		0m	N.D.	d		
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.			
51) 1,2-Dibromoethane	15.351	15.351	0.969		0m	N.D.	d		
52) Chlorobenzene	15.885	15.885	1.002		0m	N.D.	d		
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.			
54) Ethylbenzene	15.968	15.968	1.007		0m	N.D.	d		
55) m,p-Xylenes	16.086	16.086	1.015		0m	N.D.	d		
56) o-Xylene	16.549	16.549	1.044		0m	N.D.	d		
57) Styrene	16.549	16.549	1.044		0m	N.D.	d		
59) Bromoform	0.000	16.821	0.000		0	N.D.			
60) Isopropylbenzene	16.928	16.928	0.919		0m	N.D.	d		
62) 1,1,2,2-Tetrachloroethane	17.260	17.213	0.938		0m	N.D.	d		
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.			
64) Bromobenzene	17.343	17.343	0.942		0m	N.D.	d		
65) n-Propylbenzene	17.367	17.367	0.943		0m	N.D.	d		
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952		0m	N.D.	d		
67) 2-Chlorotoluene	17.521	17.521	0.952		0m	N.D.	d		
68) 4-Chlorotoluene	17.628	17.628	0.957		0m	N.D.	d		
69) tert-Butylbenzene	17.983	17.912	0.977		0m	N.D.	d		
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976		0m	N.D.	d		
71) sec-Butylbenzene	18.150	18.150	0.986		0m	N.D.	d		
72) 4-Isopropyltoluene	18.280	18.280	0.993		0m	N.D.	d		
73) 1,3-Dichlorobenzene	18.351	18.351	0.997		0m	N.D.	d		
74) 1,4-Dichlorobenzene	18.434	18.434	1.001		0m	N.D.	d		
75) n-Butylbenzene	18.742	18.742	1.018		0m	N.D.	d		
76) 1,2-Dichlorobenzene	18.885	18.885	1.026		0m	N.D.	d		
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.			
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137		0m	N.D.	d		
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.			
80) Naphthalene	21.351	21.351	1.160		0m	N.D.	d		
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180		0m	N.D.	d		
83) Chlorotrifluoroethylene	4.696	4.711	0.384	116	212557	98.30	ug/L	97	
84) 2-Chloro-1,1,1-trifluo...	5.751	5.751	0.470	118	642017	146.74	ug/L	100	
85) Acrolein	7.750	7.750	0.634	56	146962	359.44	ug/L	97	E
86) Trichlorotrifluoroethane	7.975	7.975	0.652	85	305095	237.11	ug/L	99	
87) Isopropyl Alcohol	8.141	8.141	0.666	45	755841	2590.97	ug/L	99	
88) Allyl chloride	8.556	8.556	0.699	41	1261863	273.79	ug/L	99	
89) tert-Butyl Alcohol	8.793	8.793	0.719	59	1244742	2550.60	ug/L	99	
90) Acrylonitrile	9.090	9.090	0.743	53	355198	257.86	ug/L	99	
91) Isopropyl ether	9.884	9.884	0.808	45	573273	51.94	ug/L	100	
92) 2-Chloro-1,3-butadiene	10.003	10.003	0.818	53	221165	55.22	ug/L	99	
93) Ethyl tert-butyl ether	10.406	10.406	0.851	59	558648	53.00	ug/L	98	
94) Ethyl acetate	10.679	10.679	0.873	43	889594	261.71	ug/L	100	
95) Propionitrile	10.726	10.726	0.877	54	139790	258.81	ug/L	99	
96) Methacrylonitrile	10.951	10.951	0.895	41	550546	265.72	ug/L	100	
97) Tetrahydrofuran	11.094	11.094	0.907	42	290032	253.58	ug/L	100	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D105.D
Acq On : 15 Mar 2010 1:28 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-04|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5mL - MIX[B] UVM100215-06/UVM100226-02A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 13:51:30 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
98) Isobutyl alcohol	11.556	11.556	0.945	41	410305	2789.26	ug/L	99	
99) Methyl tert-amyl ether	11.971	11.971	0.979	73	514914	52.89	ug/L	99	
100) Methyl methacrylate	12.991	12.991	1.062	69	647046	288.64	ug/L	98	
101) 1,4-Dioxane	13.098	13.098	1.071	88	108818	2282.36	ug/L	99	
102) 2-Nitropropane	13.525	13.525	1.106	43	262665	264.22	ug/L	97	
104) Ethyl methacrylate	14.450	14.450	0.912	69	1228990	290.83	ug/L	100	
106) 1-Chlorohexane	15.754	15.754	0.856	55	139026	51.51	ug/L	99	
107) cis-1,4-Dichloro-2-butene	16.964	16.964	0.921	53	326476	326.70	ug/L	97	
108) Cyclohexanone	17.082	17.082	0.928	42	305436	2662.98	ug/L	99	E
109) trans-1,4-Dichloro-2-b...	17.260	17.260	0.938	53	309336	317.37	ug/L	98	
110) Pentachloroethane	17.983	17.983	0.977	167	624873	477.87	ug/L	96	E
111) Benzyl chloride	18.553	18.553	1.008	91	1972013	412.07	ug/L	99	
112) bis(2-Chloroisopropyl)...	18.980	18.980	1.031	45	490327	254.65	ug/L	96	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D105.D
Acq On    : 15 Mar 2010   1:28 pm
Operator  : CDS1
InstName  : VOA3
Sample    : |W3VM100315-04|CCV|1|VOA|1|VOA8260BL|
Misc      : CCV 5mL - MIX[B] UVM100215-06/UVM100226-02A
ALS Vial  : 5   Sample Multiplier: 1

Quant Time: Mar 15 13:51:30 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE
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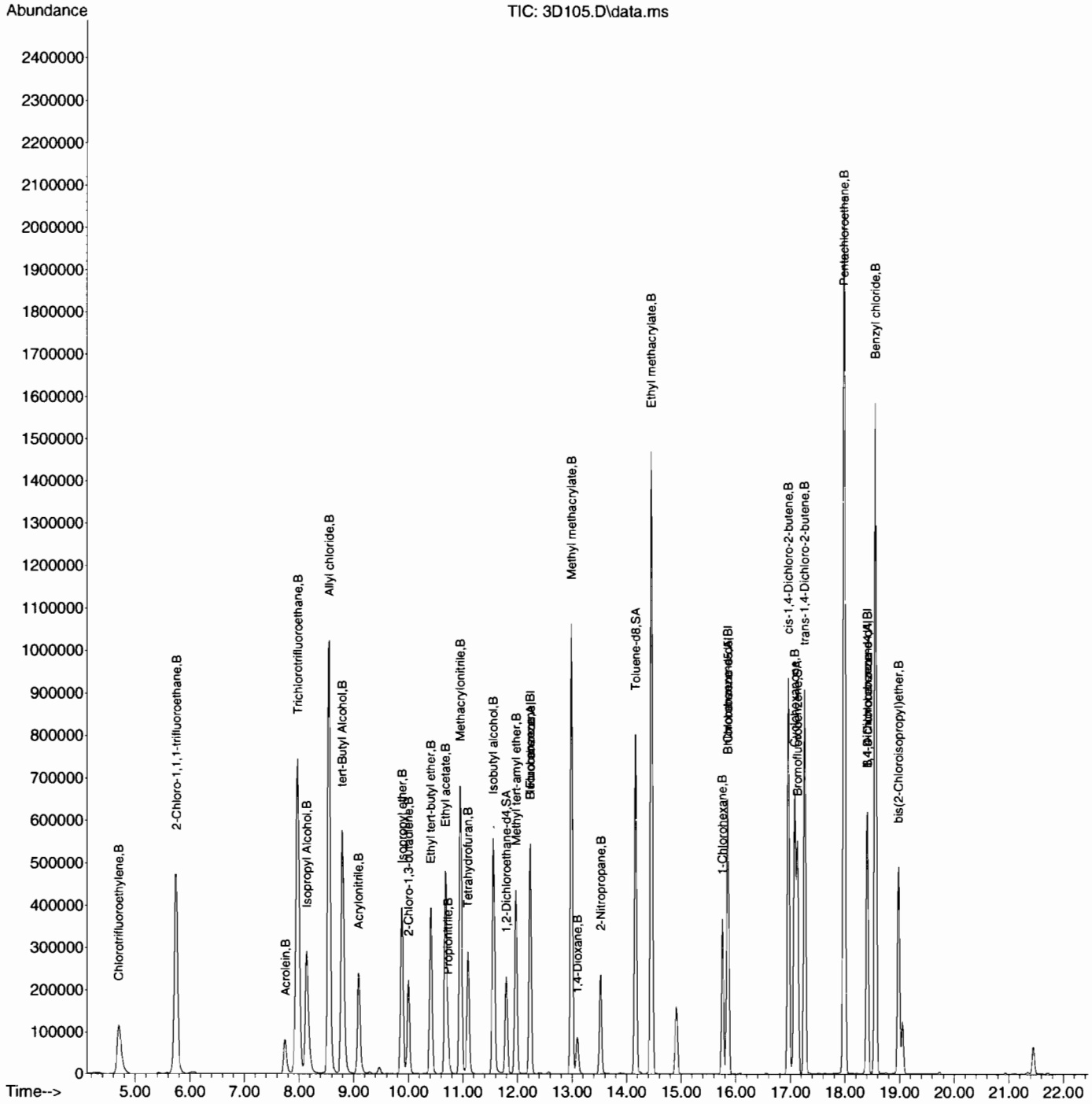

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A501.D
Acq On : 26 Feb 2010 9:25 am
Operator : CDS1
Sample : |UVM100203-02|BFB|1|VOA|1|
Misc : BFB 5mL N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Title : Volatile Organics 8260B SubList :
Last Update : Sat Feb 27 06:30:11 2010

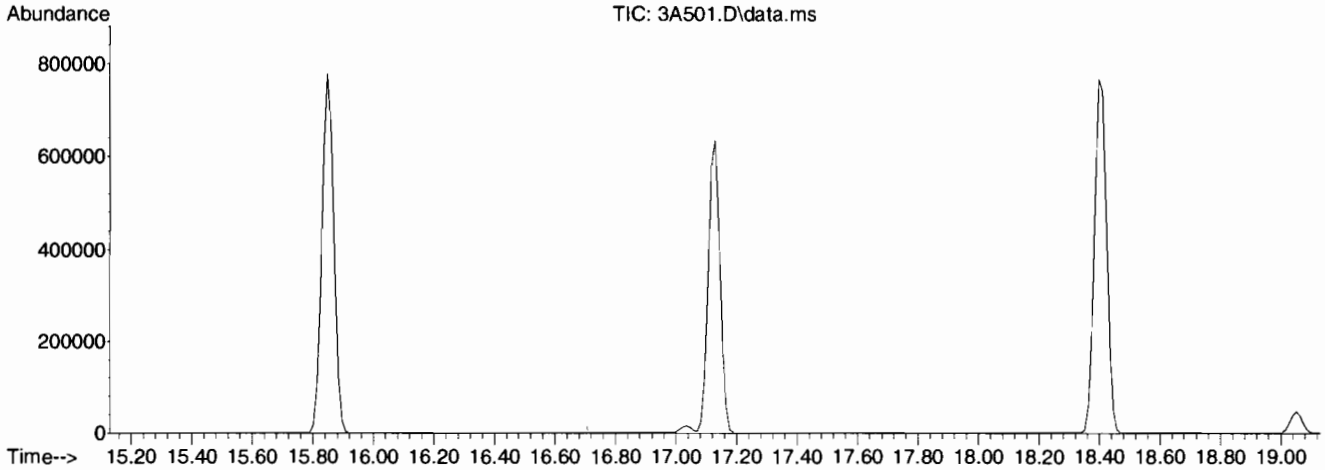

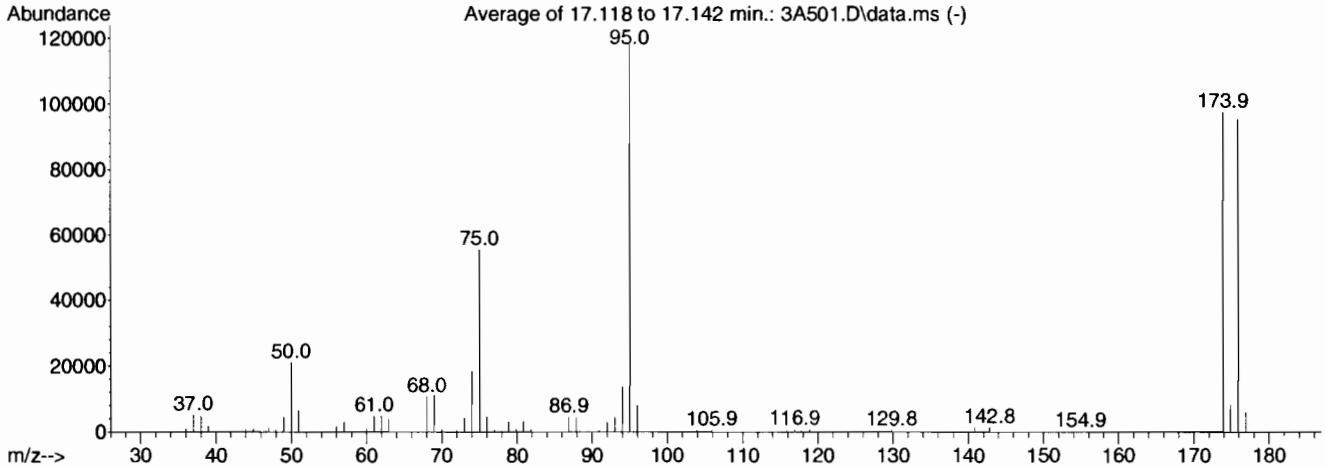

Spectrum Information: Average of 17.118 to 17.142 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	20991	PASS
75	95	30	60	47.0	55499	PASS
95	95	100	100	100.0	118061	PASS
96	95	5	9	6.7	7933	PASS
173	174	0.00	2	0.5	458	PASS
174	95	50	100	82.6	97544	PASS
175	174	5	9	7.1	6941	PASS
176	174	95	101	97.7	95341	PASS
177	176	5	9	6.4	6099	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D101.D
Acq On : 15 Mar 2010 11:35 am
Operator : CDS1
Sample : |UVM100217-02|BFB|1|VOA|1|
Misc : BFB 5mL N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Mar 01 09:52:36 2010

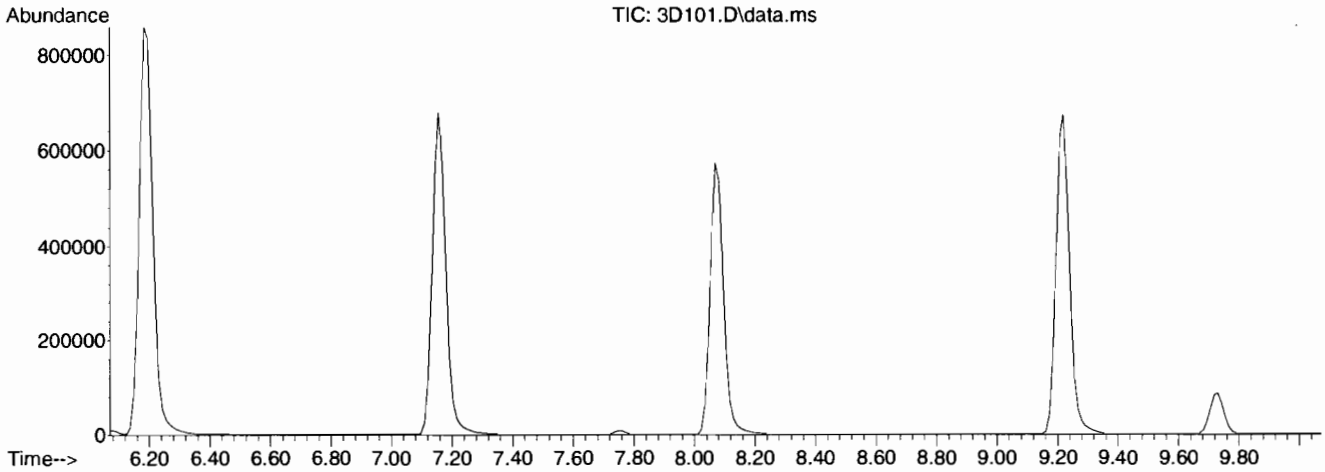

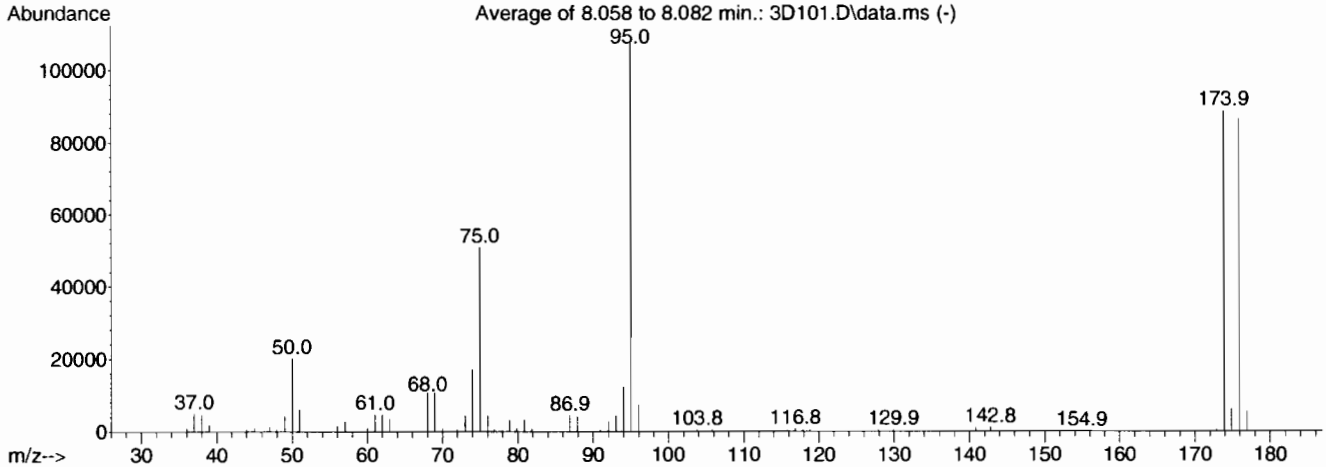

AutoFind: Scans 296, 297, 298; Background Corrected with Scan 289

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.7	20029	PASS
75	95	30	60	47.4	50859	PASS
95	95	100	100	100.0	107189	PASS
96	95	5	9	6.8	7248	PASS
173	174	0.00	2	0.5	467	PASS
174	95	50	100	82.7	88688	PASS
175	174	5	9	7.0	6200	PASS
176	174	95	101	97.6	86552	PASS
177	176	5	9	6.3	5415	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071635**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 14:55**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 11:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D108SBLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071635**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 14:55**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 11:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D108SBLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D108SBLA.D
Acq On : 15 Mar 2010 2:55 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071635|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 22 07:21:15 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	742457	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	535571	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	272142	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	742288	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	535571	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	275889	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	224132	49.22	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 98.44%					
43) Toluene-d8	14.165	14.165	0.894	98	794662	55.13	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 110.26%					
61) Bromofluorobenzene	17.130	17.130	0.930	95	274822	50.08	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 100.16%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	8.011	7.987	0.655	43	581	N.D.		
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	8.426	8.449	0.689	76	1178	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	1051	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D108SBLA.D
Acq On : 15 Mar 2010 2:55 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071635|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 22 07:21:15 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	14.248	14.248	0.899	91	3502	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	0.000	14.888	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	16.086	15.968	1.015	91	366	N.D.	
55) m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	0.000	16.549	0.000		0	N.D.	
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68) 4-Chlorotoluene	17.628	17.628	0.957	91	179	N.D.	
69) tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	17.960	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	18.351	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	18.434	0.000		0	N.D.	
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.352	21.351	1.160	128	1697	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	0.000	7.750	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88) Allyl chloride	0.000	8.556	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D108SBLA.D
Acq On : 15 Mar 2010 2:55 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071635|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 22 07:21:15 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	10.726	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108)	Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110)	Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111)	Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	19.051	18.980	1.035	45	1826	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D108SBLA.D
Acq On : 15 Mar 2010 2:55 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071635|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 22 07:21:15 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

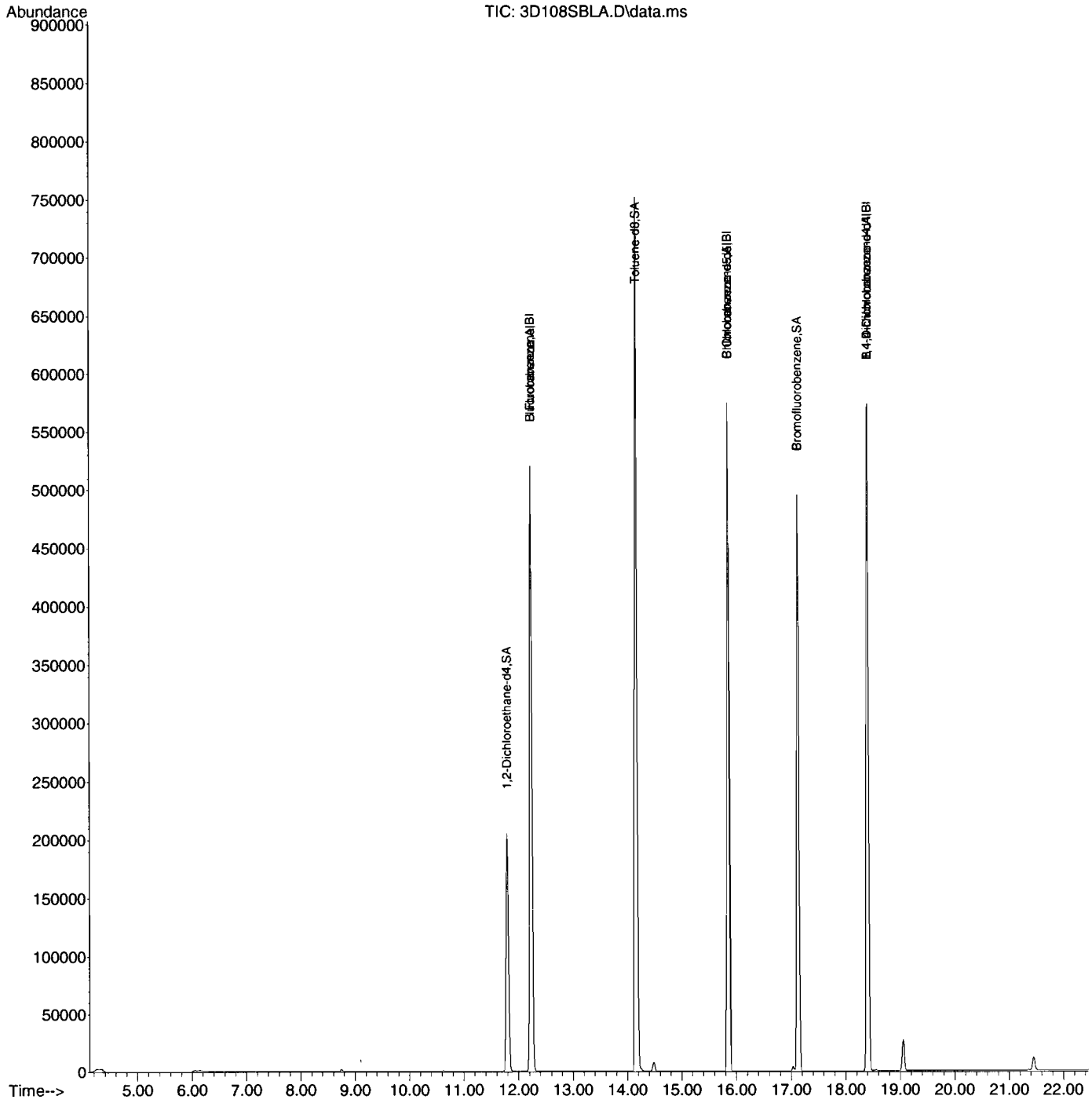

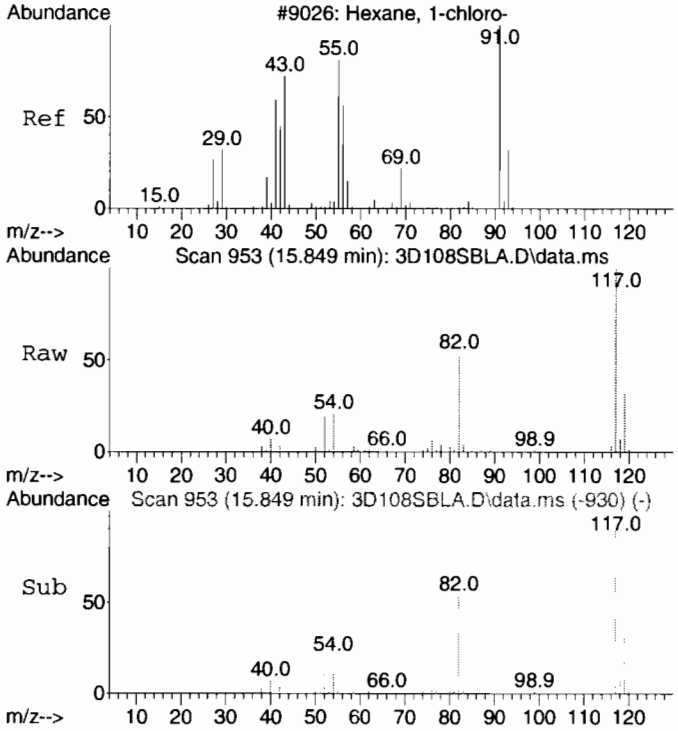

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.98 ug/L
RT: 15.849 min Scan# 953
Delta R.T. 0.095 min
Lab File: 3D108SBLA.D
Acq: 15 Mar 2010 2:55 pm

Tgt Ion: 55 Resp: 4950

Ion	Ratio	Lower	Upper
55	100		
91	9.4	119.7	179.7#
56	62.0	29.6	89.6

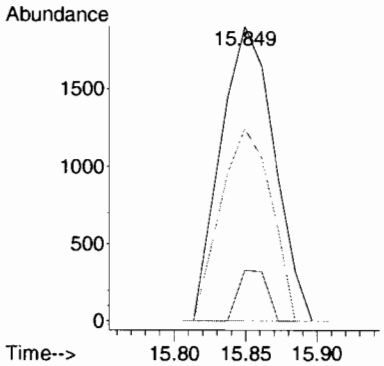

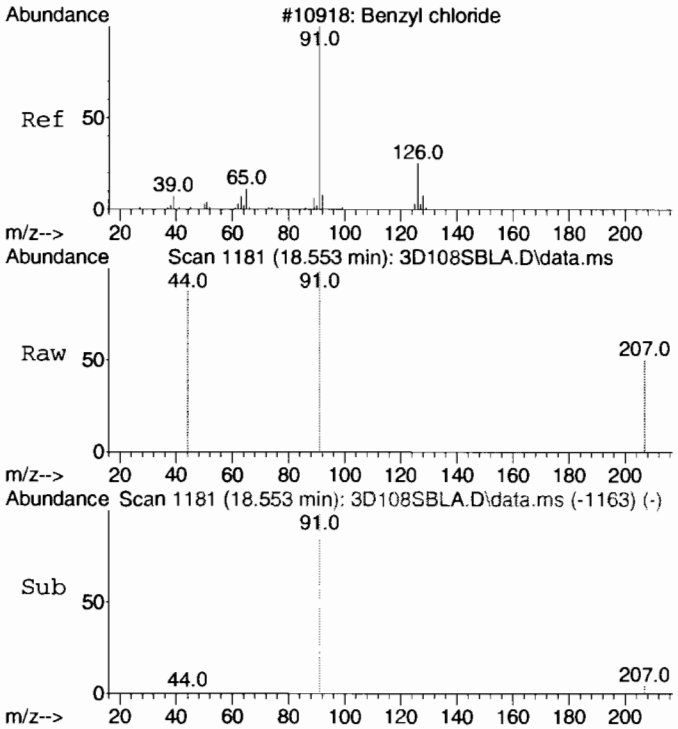

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 1.93 ug/L
RT: 18.553 min Scan# 1181
Delta R.T. 0.000 min
Lab File: 3D108SBLA.D
Acq: 15 Mar 2010 2:55 pm

Tgt Ion: 91 Resp: 1488

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.8
65	0.0	0.0	41.3

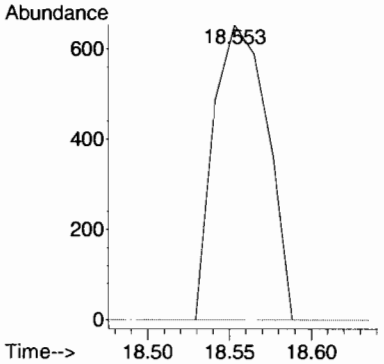

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D108SBLA.D
Acq On : 15 Mar 2010 2:55 pm
Operator : CDS1
Sample : |1202071635|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D108SBLA.D
Acq On : 15 Mar 2010 2:55 pm
Operator : CDS1
Sample : |1202071635|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071638**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 12:59**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 11:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D104SLLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		39.0	ug/kg	0.340	1.00
74-87-3	Chloromethane		40.1	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		44.5	ug/kg	0.300	1.00
74-83-9	Bromomethane		45.4	ug/kg	0.300	1.00
75-00-3	Chloroethane		46.1	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		44.7	ug/kg	0.300	1.00
67-64-1	Acetone		186	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		41.3	ug/kg	0.300	1.00
74-88-4	Iodomethane		204	ug/kg	1.60	5.00
75-09-2	Methylene chloride		39.4	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		212	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		42.0	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		43.8	ug/kg	0.300	1.00
78-93-3	2-Butanone		203	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		44.4	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		48.0	ug/kg	0.300	1.00
67-66-3	Chloroform		43.8	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		44.3	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		43.4	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		43.9	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		45.9	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		43.1	ug/kg	0.300	1.00
71-43-2	Benzene		43.0	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		42.2	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		45.8	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		48.1	ug/kg	0.300	1.00
74-95-3	Dibromomethane		45.6	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		239	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		49.0	ug/kg	0.300	1.00
108-88-3	Toluene		41.9	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		49.6	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		46.0	ug/kg	0.300	1.00
591-78-6	2-Hexanone		217	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		45.8	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		42.6	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		49.8	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		44.9	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		42.8	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071638**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 12:59**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 11:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D104SLLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		41.6	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		86.0	ug/kg	0.300	2.00
95-47-6	o-Xylene		45.2	ug/kg	0.300	1.00
100-42-5	Styrene		46.9	ug/kg	0.300	1.00
75-25-2	Bromoform		45.1	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		47.3	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		45.8	ug/kg	0.300	1.00
108-86-1	Bromobenzene		44.8	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		44.7	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		44.8	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		44.3	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		45.1	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		44.5	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		46.0	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		45.2	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		45.2	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		46.0	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		42.7	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		43.1	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		44.0	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		38.4	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		46.9	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		42.8	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D104SLLA.D
Acq On : 15 Mar 2010 12:59 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071638|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[A] SOIL 0305-01A+0313-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 13:25:54 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	803297	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	643492	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	320562	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	802994	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	643533	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	327390	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	256935	52.15	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 104.30%					
43) Toluene-d8	14.165	14.165	0.894	98	894528	51.65	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 103.30%					
61) Bromofluorobenzene	17.130	17.130	0.930	95	338580	52.38	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 104.76%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	87868	39.00	ug/L	99
3) Chloromethane	5.216	5.216	0.426	50	151653	40.13	ug/L	99
4) Vinyl chloride	5.528	5.528	0.452	62	171210	44.46	ug/L	99
5) Bromomethane	6.291	6.291	0.514	94	140955	45.35	ug/L	100
6) Chloroethane	6.493	6.493	0.531	64	114734	46.11	ug/L	98
7) Trichlorofluoromethane	7.062	7.062	0.577	101	236658	44.66	ug/L	100
8) Ethyl ether	7.513	7.512	0.614	59	128019	46.73	ug/L	98
9) Acetone	7.987	7.987	0.653	43	628253	185.51	ug/L	99
10) 1,1-Dichloroethylene	7.987	7.987	0.653	61	224715	41.26	ug/L	99
11) Iodomethane	8.272	8.271	0.676	142	1404157	203.90	ug/L	100
12) Acetonitrile	8.449	8.449	0.691	41	616586	1051.04	ug/L	98
13) Methyl acetate	8.521	8.520	0.697	43	662193	219.10	ug/L	99
14) Carbon disulfide	8.449	8.449	0.691	76	2542365	211.61	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	192999	39.43	ug/L	97
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	449805	42.26	ug/L	99
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753	61	212074	42.04	ug/L	100
18) Vinyl acetate	9.837	9.837	0.804	43	1683563	277.40	ug/L	100
19) 1,1-Dichloroethane	9.861	9.860	0.806	63	277781	43.82	ug/L	100
20) 2-Butanone	10.643	10.643	0.870	43	686353	203.49	ug/L	99
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	247556	44.36	ug/L	99
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	187714	47.96	ug/L	99
23) Bromochloromethane	11.035	11.034	0.902	128	90936	44.26	ug/L	97
24) Chloroform	11.094	11.094	0.907	83	283267	43.79	ug/L	100
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	227809	43.36	ug/L	99
26) Cyclohexane	11.533	11.532	0.943	56	252623	42.96	ug/L	99
27) 1,1-Dichloropropene	11.628	11.627	0.951	75	196022	43.91	ug/L	99
28) Carbon tetrachloride	11.663	11.663	0.953	117	210783	45.88	ug/L	100
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	218078	43.10	ug/L	99
31) Benzene	11.912	11.912	0.974	78	609092	43.01	ug/L	100
32) Cyclohexene	12.054	12.054	0.985	67	267339	41.24	ug/L	99
33) n-Butyl alcohol	12.398	12.398	1.014	56	657853	4412.70	ug/L	98
34) Trichloroethylene	12.695	12.695	1.038	95	154308	42.20	ug/L	100
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	158544	45.84	ug/L	100
36) Methylcyclohexane	12.991	12.991	1.062	83	257327	42.51	ug/L	99
37) Dibromomethane	13.134	13.133	1.074	93	105856	45.60	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D104SLLA.D
Acq On : 15 Mar 2010 12:59 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071638|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[A] SOIL 0305-01A+0313-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 13:25:54 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38)	Bromodichloromethane	13.288	13.288	1.086	83	212359	48.08	ug/L	99
39)	2-Chloroethylvinyl ether	13.560	13.560	1.109	63	286321	254.25	ug/L	98
40)	cis-1,3-Dichloropropylene	13.809	13.809	1.129	75	245917	49.00	ug/L	100
42)	4-Methyl-2-pentanone	13.928	13.928	0.879	58	372217	239.41	ug/L	98
44)	Toluene	14.248	14.248	0.899	91	645887	41.92	ug/L	99
45)	trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	232081	49.56	ug/L	99
46)	1,1,2-Trichloroethane	14.675	14.675	0.926	83	122458	46.01	ug/L	100
47)	2-Hexanone	14.889	14.888	0.939	43	862884	217.39	ug/L	99
48)	1,3-Dichloropropane	14.877	14.888	0.939	76	253371	45.84	ug/L	95
49)	Tetrachloroethylene	14.912	14.912	0.941	164	127749	42.56	ug/L	98
50)	Dibromochloromethane	15.173	15.173	0.957	129	175230	49.77	ug/L	99
51)	1,2-Dibromoethane	15.351	15.351	0.969	107	153687	44.90	ug/L	99
52)	Chlorobenzene	15.885	15.885	1.002	112	432357	42.75	ug/L	99
53)	1,1,1,2-Tetrachloroethane	15.956	15.956	1.007	131	163219	46.94	ug/L	99
54)	Ethylbenzene	15.968	15.968	1.007	91	661651	41.56	ug/L	100
55)	m,p-Xylenes	16.086	16.086	1.015	106	543766	85.95	ug/L	99
56)	o-Xylene	16.549	16.549	1.044	106	285938	45.24	ug/L	99
57)	Styrene	16.549	16.549	1.044	104	473631	46.94	ug/L	99
59)	Bromoform	16.810	16.821	0.913	173	110960	45.11	ug/L	100
60)	Isopropylbenzene	16.928	16.928	0.919	105	704037	44.32	ug/L	100
62)	1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	203146	47.30	ug/L	99
63)	1,2,3-Trichloropropane	17.296	17.308	0.939	110	54127	45.84	ug/L	99
64)	Bromobenzene	17.343	17.343	0.942	156	191184	44.83	ug/L	99
65)	n-Propylbenzene	17.367	17.367	0.943	91	820480	44.67	ug/L	99
66)	1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	601275	45.11	ug/L	100
67)	2-Chlorotoluene	17.521	17.521	0.952	126	177446	44.82	ug/L	99
68)	4-Chlorotoluene	17.628	17.628	0.957	91	507473	44.54	ug/L	100
69)	tert-Butylbenzene	17.913	17.912	0.973	134	131051	45.96	ug/L	100
70)	1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	610938	45.20	ug/L	99
71)	sec-Butylbenzene	18.150	18.150	0.986	105	806506	45.18	ug/L	100
72)	4-Isopropyltoluene	18.280	18.280	0.993	119	651174	45.95	ug/L	99
73)	1,3-Dichlorobenzene	18.339	18.351	0.996	146	310777	42.66	ug/L	99
74)	1,4-Dichlorobenzene	18.434	18.434	1.001	146	359730	43.08	ug/L	99
75)	n-Butylbenzene	18.743	18.742	1.018	91	593293	44.02	ug/L	99
76)	1,2-Dichlorobenzene	18.885	18.885	1.026	146	354600	42.79	ug/L	99
77)	1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	39209	38.36	ug/L	98
78)	1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	238667	42.82	ug/L	100
79)	Hexachlorobutadiene	21.126	21.126	1.148	225	114635	41.06	ug/L	98
80)	Naphthalene	21.351	21.351	1.160	128	602887	42.06	ug/L	100
81)	1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	226558	41.62	ug/L	98
83)	Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85)	Acrolein	0.000	7.750	0.000		0	N.D.		
86)	Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87)	Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88)	Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89)	tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90)	Acrylonitrile	9.173	9.090	0.750		0m	N.D.	d	
91)	Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93)	Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94)	Ethyl acetate	10.643	10.679	0.870		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D104SLLA.D
Acq On : 15 Mar 2010 12:59 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071638|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[A] SOIL 0305-01A+0313-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 13:25:54 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	10.643	10.726	0.870		0m	N.D.	d
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97)	Tetrahydrofuran	11.106	11.094	0.908		0m	N.D.	d
98)	Isobutyl alcohol	11.533	11.556	0.943		0m	N.D.	d
99)	Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100)	Methyl methacrylate	12.991	12.991	1.062		0m	N.D.	d
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106)	1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108)	Cyclohexanone	16.928	17.082	0.919		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110)	Pentachloroethane	17.984	17.983	0.977		0m	N.D.	d
111)	Benzyl chloride	18.399	18.553	0.999		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D104SLLA.D
Acq On : 15 Mar 2010 12:59 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071638|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[A] SOIL 0305-01A+0313-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 13:25:54 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

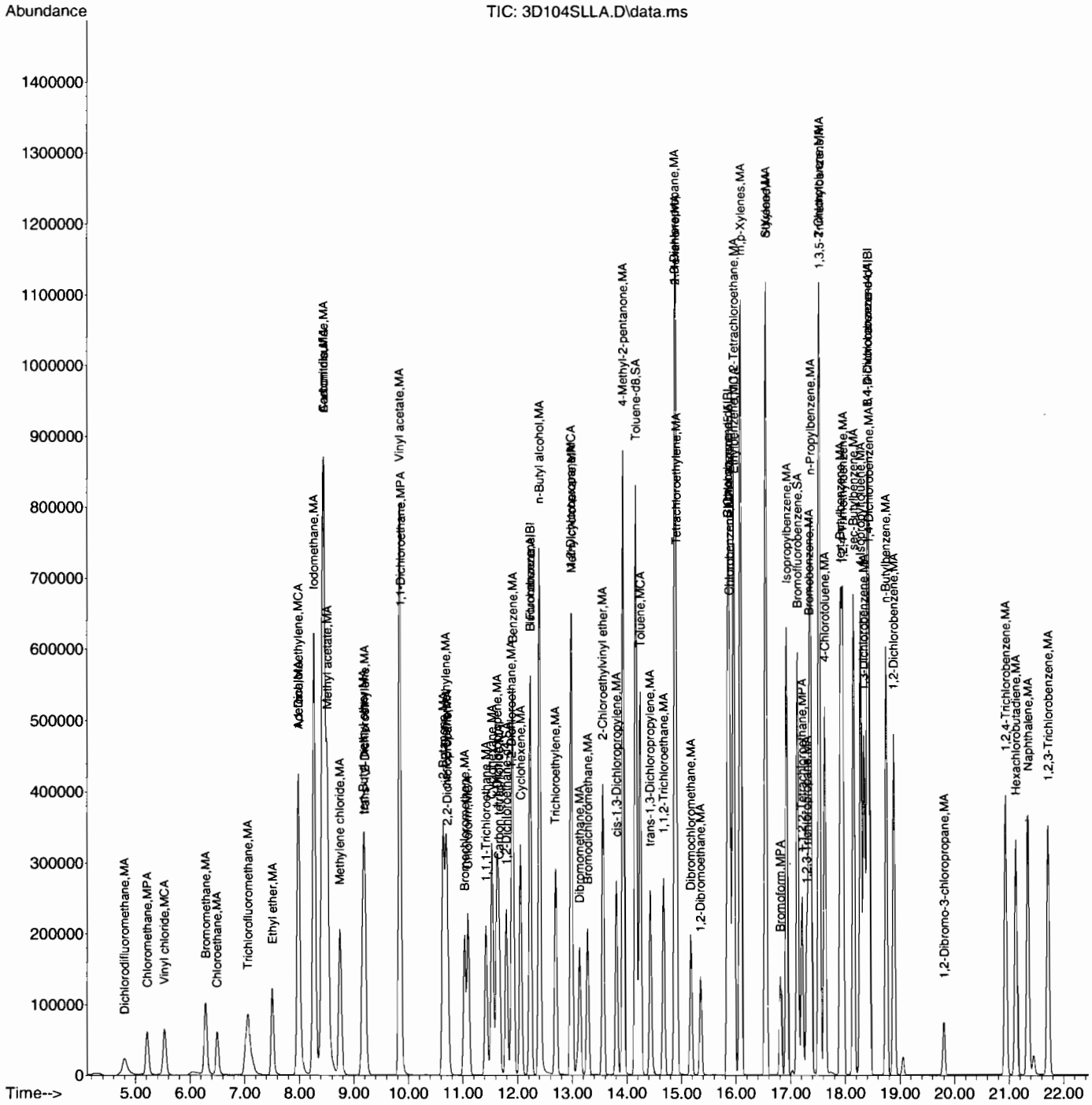

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071639**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 13:57**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 11:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D106SSLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071639**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 13:57**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 11:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D106SSLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		257	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D106SSLA.D
Acq On : 15 Mar 2010 1:57 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071639|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[B] SOIL 0215-08B/0226-02A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 20:36:13 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	829898	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	652133	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	319369	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	829608	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	652329	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	325545	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	264047	51.88	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery =		103.76%			
43) Toluene-d8	14.165	14.165	0.894	98	897163	51.12	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery =		102.24%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	343302	53.31	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery =		106.62%			

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	5.201	5.216	0.425		0m	N.D.	d	
4) Vinyl chloride	5.528	5.528	0.452		0m	N.D.	d	
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.987	7.987	0.653		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.975	7.987	0.652		0m	N.D.	d	
11) Iodomethane	8.271	8.271	0.676		0m	N.D.	d	
12) Acetonitrile	8.556	8.449	0.699		0m	N.D.	d	
13) Methyl acetate	8.532	8.520	0.698		0m	N.D.	d	
14) Carbon disulfide	8.556	8.449	0.699		0m	N.D.	d	
15) Methylene chloride	8.746	8.746	0.715		0m	N.D.	d	
16) tert-Butyl methyl ether	9.173	9.173	0.750		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	9.884	9.837	0.808		0m	N.D.	d	
19) 1,1-Dichloroethane	10.003	9.860	0.818		0m	N.D.	d	
20) 2-Butanone	10.679	10.643	0.873		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.679	10.691	0.873		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	11.556	11.532	0.945		0m	N.D.	d	
27) 1,1-Dichloropropene	11.556	11.627	0.945		0m	N.D.	d	
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	11.912	11.912	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	12.410	12.398	1.015		0m	N.D.	d	
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	12.991	12.991	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D106SSLA.D
Acq On : 15 Mar 2010 1:57 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071639|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[B] SOIL 0215-08B/0226-02A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 20:36:13 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38)	Bromodichloromethane	0.000	13.288	0.000		0	N.D.			
39)	2-Chloroethylvinyl ether	13.560	13.560	1.109		0m	N.D.	d		
40)	cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.			
42)	4-Methyl-2-pentanone	13.928	13.928	0.879		0m	N.D.	d		
44)	Toluene	14.248	14.248	0.899		0m	N.D.	d		
45)	trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.			
46)	1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.			
47)	2-Hexanone	14.888	14.888	0.939		0m	N.D.	d		
48)	1,3-Dichloropropane	14.936	14.888	0.942		0m	N.D.	d		
49)	Tetrachloroethylene	14.912	14.912	0.941		0m	N.D.	d		
50)	Dibromochloromethane	0.000	15.173	0.000		0	N.D.			
51)	1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.			
52)	Chlorobenzene	15.885	15.885	1.002		0m	N.D.	d		
53)	1,1,1,2-Tetrachloroethane	15.944	15.956	1.006		0m	N.D.	d		
54)	Ethylbenzene	16.086	15.968	1.015		0m	N.D.	d		
55)	m,p-Xylenes	16.086	16.086	1.015		0m	N.D.	d		
56)	o-Xylene	0.000	16.549	0.000		0	N.D.			
57)	Styrene	16.549	16.549	1.044		0m	N.D.	d		
59)	Bromoform	0.000	16.821	0.000		0	N.D.			
60)	Isopropylbenzene	16.928	16.928	0.919		0m	N.D.	d		
62)	1,1,2,2-Tetrachloroethane	17.260	17.213	0.938		0m	N.D.	d		
63)	1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.			
64)	Bromobenzene	17.343	17.343	0.942		0m	N.D.	d		
65)	n-Propylbenzene	17.367	17.367	0.943		0m	N.D.	d		
66)	1,3,5-Trimethylbenzene	17.533	17.533	0.952		0m	N.D.	d		
67)	2-Chlorotoluene	17.521	17.521	0.952		0m	N.D.	d		
68)	4-Chlorotoluene	17.628	17.628	0.957		0m	N.D.	d		
69)	tert-Butylbenzene	17.983	17.912	0.977		0m	N.D.	d		
70)	1,2,4-Trimethylbenzene	17.960	17.960	0.976		0m	N.D.	d		
71)	sec-Butylbenzene	18.150	18.150	0.986		0m	N.D.	d		
72)	4-Isopropyltoluene	18.280	18.280	0.993		0m	N.D.	d		
73)	1,3-Dichlorobenzene	18.339	18.351	0.996		0m	N.D.	d		
74)	1,4-Dichlorobenzene	18.434	18.434	1.001		0m	N.D.	d		
75)	n-Butylbenzene	18.742	18.742	1.018		0m	N.D.	d		
76)	1,2-Dichlorobenzene	18.885	18.885	1.026		0m	N.D.	d		
77)	1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.			
78)	1,2,4-Trichlorobenzene	20.936	20.936	1.137		0m	N.D.	d		
79)	Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.			
80)	Naphthalene	21.339	21.351	1.159		0m	N.D.	d		
81)	1,2,3-Trichlorobenzene	21.719	21.719	1.180		0m	N.D.	d		
83)	Chlorotrifluoroethylene	4.711	4.711	0.385	116	208902	90.59	ug/L	96	
84)	2-Chloro-1,1,1-trifluo...	5.751	5.751	0.470	118	638717	136.90	ug/L	99	
85)	Acrolein	7.750	7.750	0.634	56	175964	403.20	ug/L	96	E
86)	Trichlorotrifluoroethane	7.975	7.975	0.652	85	353295	257.47	ug/L	99	
87)	Isopropyl Alcohol	8.141	8.141	0.666	45	850130	2732.64	ug/L	99	
88)	Allyl chloride	8.556	8.556	0.699	41	1280687	260.56	ug/L	99	
89)	tert-Butyl Alcohol	8.805	8.793	0.720	59	1401889	2693.65	ug/L	99	
90)	Acrylonitrile	9.101	9.090	0.744	53	371173	252.67	ug/L	99	
91)	Isopropyl ether	9.884	9.884	0.808	45	573075	48.68	ug/L	99	
92)	2-Chloro-1,3-butadiene	10.003	10.003	0.818	53	243443	57.00	ug/L	100	
93)	Ethyl tert-butyl ether	10.418	10.406	0.852	59	558375	49.68	ug/L	100	
94)	Ethyl acetate	10.679	10.679	0.873	43	856888	236.38	ug/L	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D106SSLA.D
Acq On : 15 Mar 2010 1:57 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071639|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[B] SOIL 0215-08B/0226-02A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 20:36:13 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
95)	Propionitrile	10.726	10.726	0.877	54	146508	254.35	ug/L	99	
96)	Methacrylonitrile	10.951	10.951	0.895	41	557771	252.44	ug/L	99	
97)	Tetrahydrofuran	11.094	11.094	0.907	42	306325	251.14	ug/L	100	
98)	Isobutyl alcohol	11.556	11.556	0.945	41	406506	2591.28	ug/L	99	
99)	Methyl tert-amyl ether	11.971	11.971	0.979	73	520853	50.17	ug/L	99	
100)	Methyl methacrylate	12.991	12.991	1.062	69	654894	273.94	ug/L	98	
101)	1,4-Dioxane	13.098	13.098	1.071	88	119799	2356.15	ug/L	96	
102)	2-Nitropropane	13.525	13.525	1.106	43	280870	264.91	ug/L	99	
104)	Ethyl methacrylate	14.450	14.450	0.912	69	1231311	277.94	ug/L	99	
106)	1-Chlorohexane	15.754	15.754	0.856	55	143250	48.56	ug/L	98	
107)	cis-1,4-Dichloro-2-butene	16.964	16.964	0.921	53	362919	332.31	ug/L	97	
108)	Cyclohexanone	17.082	17.082	0.928	42	658680	5254.80	ug/L	99	E
109)	trans-1,4-Dichloro-2-b...	17.260	17.260	0.938	53	344615	323.52	ug/L	97	
110)	Pentachloroethane	17.983	17.983	0.977	167	629813	441.25	ug/L	95	E
111)	Benzyl chloride	18.553	18.553	1.008	91	2055943	393.18	ug/L	100	
112)	bis(2-Chloroisopropyl)...	18.980	18.980	1.031	45	531589	252.62	ug/L	97	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D106SSLA.D
Acq On : 15 Mar 2010 1:57 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071639|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[B] SOIL 0215-08B/0226-02A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 20:36:13 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

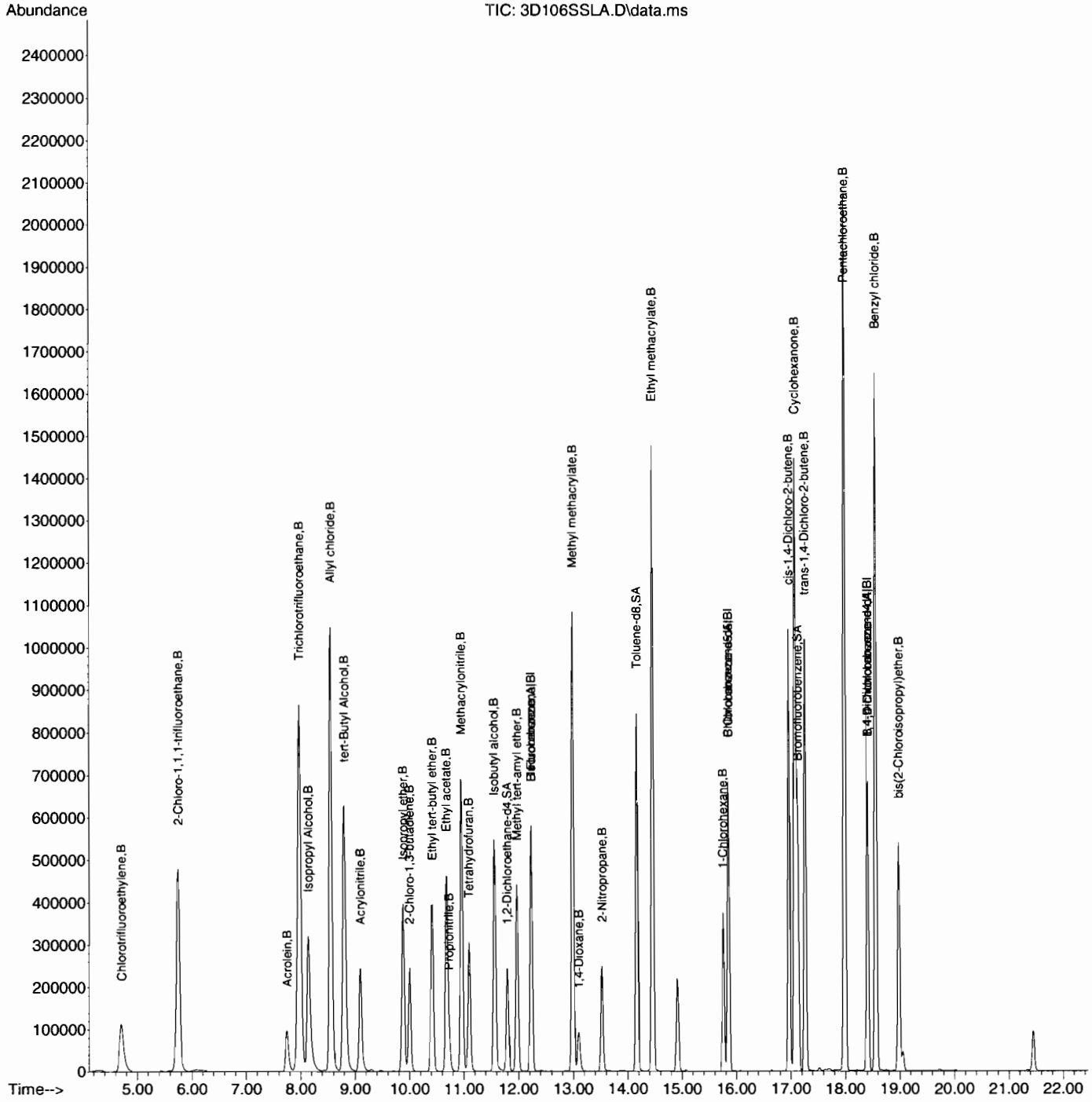

Miscellaneous

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **965477** Verified by: _____

Analyst: Gelester Baskett
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 14
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202071635 MB	15-MAR-2010 11:00:00	Soil	5	5	1	
1202071638 LCS	15-MAR-2010 11:02:00	Soil	5	5	1	
1202071639 LCS	15-MAR-2010 11:04:00	Soil	5	5	1	
248824001	15-MAR-2010 17:10:00	Soil	5	5	1	
248824002	15-MAR-2010 17:12:00	Soil	5	5	1	
248865001	15-MAR-2010 17:14:00	Soil	5	5	1	
248866001	15-MAR-2010 17:16:00	Soil	5	5	1	
248866002	15-MAR-2010 17:18:00	Soil	5	5	1	
248866003	15-MAR-2010 17:20:00	Misc Solid	5	5	1	
249055001	15-MAR-2010 17:22:00	Soil	5	5	1	
249055002	15-MAR-2010 17:24:00	Soil	5	5	1	
1202074003 MB	16-MAR-2010 16:45:00	Soil	5	5	1	
1202074004 LCS	16-MAR-2010 16:47:00	Soil	5	5	1	
1202074005 LCS	16-MAR-2010 16:49:00	Soil	5	5	1	
1202071636 PS (248824001)	16-MAR-2010 20:52:00	Soil	5	5	1	
1202071637 PSD (248824001)	16-MAR-2010 20:54:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D238.D
Acq On : 17 Mar 2010 3:30 am
Operator : CDS1
InstName : VOA3
Sample : |1202071636|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MS 248824001 MIX[A]
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Mar 17 10:36:41 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	614578	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	513485	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	261566	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	614640	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	513452	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	265865	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	179938	47.74	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery =		95.48%			
43) Toluene-d8	14.165	14.165	0.894	98	699814	50.64	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery =		101.28%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	244017	46.27	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery =		92.54%			

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	74734	43.44	ug/L	100
3) Chloromethane	5.216	5.216	0.426	50	153527	53.10	ug/L	99
4) Vinyl chloride	5.528	5.528	0.452	62	165116	56.04	ug/L	99
5) Bromomethane	6.279	6.291	0.513	94	136449	57.38	ug/L	98
6) Chloroethane	6.493	6.493	0.531	64	105182	55.26	ug/L	98
7) Trichlorofluoromethane	7.062	7.062	0.577	101	199600	49.23	ug/L	99
8) Ethyl ether	7.501	7.512	0.613	59	106856	50.99	ug/L	98
9) Acetone	7.975	7.987	0.652	43	581647	224.49	ug/L	99
10) 1,1-Dichloroethylene	7.987	7.987	0.653	61	194831	46.76	ug/L	99
11) Iodomethane	8.271	8.271	0.676	142	1200039	227.77	ug/L	99
12) Acetonitrile	8.449	8.449	0.691	41	519095	1156.56	ug/L	99
13) Methyl acetate	8.520	8.520	0.697	43	535205	231.46	ug/L	99
14) Carbon disulfide	8.437	8.449	0.690	76	2251933	244.99	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	167272	44.67	ug/L	99
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	351891	43.21	ug/L	99
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753	61	185014	47.94	ug/L	100
18) Vinyl acetate	9.837	9.837	0.804	43	1281969	276.09	ug/L	100
19) 1,1-Dichloroethane	9.849	9.860	0.805	63	252459	52.06	ug/L	100
20) 2-Butanone	10.643	10.643	0.870	43	632599	245.15	ug/L	99
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	219611	51.43	ug/L	100
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	153056	51.11	ug/L	94
23) Bromochloromethane	11.034	11.034	0.902	128	82607	52.55	ug/L	96
24) Chloroform	11.094	11.094	0.907	83	246370	49.78	ug/L	99
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	190272	47.34	ug/L	97
26) Cyclohexane	11.532	11.532	0.943	56	218326	48.52	ug/L	98
27) 1,1-Dichloropropene	11.627	11.627	0.951	75	170497	49.92	ug/L	99
28) Carbon tetrachloride	11.663	11.663	0.953	117	178336	50.74	ug/L	99
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	181004	46.76	ug/L	100
31) Benzene	11.912	11.912	0.974	78	528154	48.74	ug/L	100
32) Cyclohexene	12.054	12.054	0.985	67	231445	46.67	ug/L	99
33) n-Butyl alcohol	12.398	12.398	1.014	56	534252	4679.08	ug/L	97
34) Trichloroethylene	12.695	12.695	1.038	95	141904	50.72	ug/L	100
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	144693	54.68	ug/L	100
36) Methylcyclohexane	12.991	12.991	1.062	83	235494	50.85	ug/L	99
37) Dibromomethane	13.133	13.133	1.074	93	94346	53.12	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D238.D
Acq On : 17 Mar 2010 3:30 am
Operator : CDS1
InstName : VOA3
Sample : |1202071636|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MS 248824001 MIX[A]
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Mar 17 10:36:41 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	13.276	13.288	1.085	83	186405	55.17	ug/L	99
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	273541	316.15	ug/L	98
40) cis-1,3-Dichloropropylene	13.809	13.809	1.129	75	212644	55.38	ug/L	98
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	320377	258.24	ug/L	97
44) Toluene	14.248	14.248	0.899	91	588916	47.90	ug/L	99
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	198223	53.05	ug/L	99
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	108699	51.18	ug/L	100
47) 2-Hexanone	14.888	14.888	0.939	43	775704	244.91	ug/L	98
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	225980	51.23	ug/L	96
49) Tetrachloroethylene	14.912	14.912	0.941	164	116008	48.44	ug/L	97
50) Dibromochloromethane	15.173	15.173	0.957	129	156404	55.67	ug/L	98
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	134516	49.25	ug/L	99
52) Chlorobenzene	15.885	15.885	1.002	112	392728	48.67	ug/L	99
53) 1,1,1,2-Tetrachloroethane	15.944	15.956	1.006	131	150241	54.15	ug/L	98
54) Ethylbenzene	15.956	15.968	1.007	91	607878	47.85	ug/L	100
55) m,p-Xylenes	16.086	16.086	1.015	106	494450	97.95	ug/L	98
56) o-Xylene	16.537	16.549	1.043	106	253682	50.30	ug/L	99
57) Styrene	16.549	16.549	1.044	104	420362	52.20	ug/L	97
59) Bromoform	16.810	16.821	0.913	173	94795	47.16	ug/L	99
60) Isopropylbenzene	16.928	16.928	0.919	105	614110	47.38	ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	172555	49.24	ug/L	99
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	47254	49.05	ug/L	99
64) Bromobenzene	17.343	17.343	0.942	156	170343	48.96	ug/L	98
65) n-Propylbenzene	17.367	17.367	0.943	91	714762	47.69	ug/L	99
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	527615	48.51	ug/L	99
67) 2-Chlorotoluene	17.521	17.521	0.952	126	157441	48.73	ug/L	100
68) 4-Chlorotoluene	17.628	17.628	0.957	91	434611	46.74	ug/L	99
69) tert-Butylbenzene	17.912	17.912	0.973	134	118152	50.79	ug/L	97
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	533306	48.36	ug/L	99
71) sec-Butylbenzene	18.150	18.150	0.986	105	706128	48.48	ug/L	100
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	563455	48.73	ug/L	100
73) 1,3-Dichlorobenzene	18.339	18.351	0.996	146	279586	47.03	ug/L	99
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	321929	47.25	ug/L	99
75) n-Butylbenzene	18.742	18.742	1.018	91	555193	50.49	ug/L	99
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	333426	49.30	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	36570	43.62	ug/L	99
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	205910	45.28	ug/L	100
79) Hexachlorobutadiene	21.126	21.126	1.148	225	107328	47.12	ug/L	99
80) Naphthalene	21.351	21.351	1.160	128	528303	45.17	ug/L	100
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	193409	43.55	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88) Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.161	9.090	0.749		0m	N.D.	d	
91) Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.643	10.679	0.870		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D238.D
Acq On : 17 Mar 2010 3:30 am
Operator : CDS1
InstName : VOA3
Sample : |1202071636|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MS 248824001 MIX[A]
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Mar 17 10:36:41 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	10.643	10.726	0.870		0m	N.D.	d
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97)	Tetrahydrofuran	11.094	11.094	0.907		0m	N.D.	d
98)	Isobutyl alcohol	11.532	11.556	0.943		0m	N.D.	d
99)	Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100)	Methyl methacrylate	12.979	12.991	1.061		0m	N.D.	d
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106)	1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108)	Cyclohexanone	16.916	17.082	0.919		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110)	Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111)	Benzyl chloride	18.410	18.553	1.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D238.D
Acq On    : 17 Mar 2010   3:30 am
Operator  : CDS1
InstName  : VOA3
Sample    : |1202071636|965481|1|VOA|1|VOA8260BS|
Misc      : LANL 5G - SOIL MS 248824001 MIX[A]
ALS Vial  : 49   Sample Multiplier: 1

Quant Time: Mar 17 10:36:41 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE
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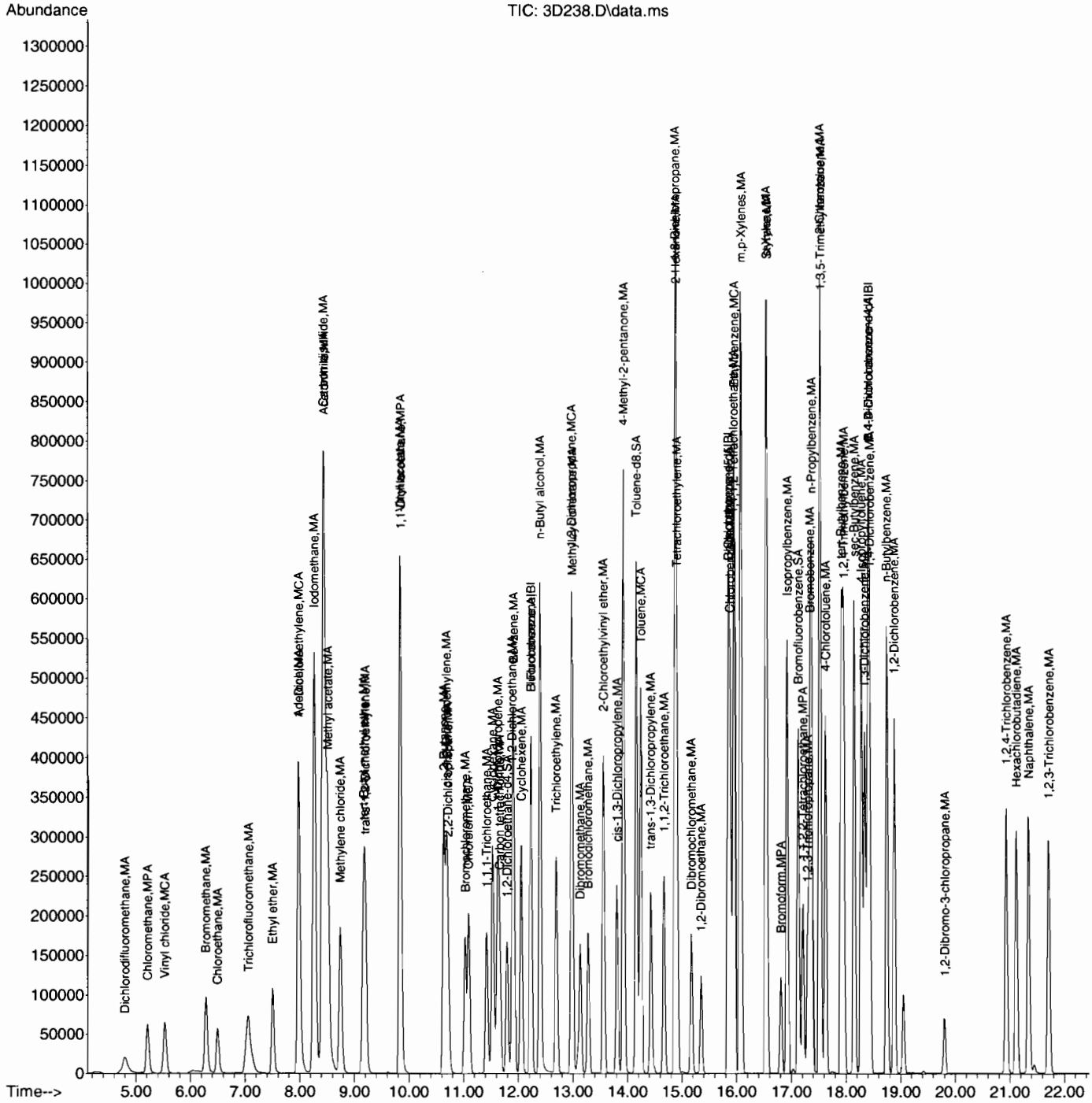

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D239.D
Acq On : 17 Mar 2010 3:59 am
Operator : CDS1
InstName : VOA3
Sample : |1202071637|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248824001 MIX[A]
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Mar 17 10:36:44 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	691762	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	539887	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	300543	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	691767	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	539921	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	306367	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	220757	52.03	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery =		104.06%			
43) Toluene-d8	14.165	14.165	0.894	98	780096	53.69	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery =		107.38%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	290776	47.98	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery =		95.96%			

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	80617	41.60	ug/L	100
3) Chloromethane	5.216	5.216	0.426	50	149788	46.03	ug/L	99
4) Vinyl chloride	5.528	5.528	0.452	62	168221	50.72	ug/L	100
5) Bromomethane	6.291	6.291	0.514	94	137021	51.19	ug/L	99
6) Chloroethane	6.493	6.493	0.531	64	107429	50.14	ug/L	99
7) Trichlorofluoromethane	7.062	7.062	0.577	101	211592	46.37	ug/L	100
8) Ethyl ether	7.501	7.512	0.613	59	113970	48.31	ug/L	99
9) Acetone	7.975	7.987	0.652	43	589208	202.04	ug/L	99
10) 1,1-Dichloroethylene	7.987	7.987	0.653	61	204171	43.54	ug/L	99
11) Iodomethane	8.271	8.271	0.676	142	1294581	218.30	ug/L	99
12) Acetonitrile	8.449	8.449	0.691	41	541220	1071.31	ug/L	99
13) Methyl acetate	8.520	8.520	0.697	43	569620	218.86	ug/L	99
14) Carbon disulfide	8.449	8.449	0.691	76	2407802	232.72	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	175972	41.75	ug/L	100
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	377212	41.15	ug/L	98
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753	61	190176	43.78	ug/L	99
18) Vinyl acetate	9.837	9.837	0.804	43	1360441	260.30	ug/L	100
19) 1,1-Dichloroethane	9.849	9.860	0.805	63	250053	45.81	ug/L	100
20) 2-Butanone	10.643	10.643	0.870	43	652824	224.76	ug/L	99
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	229246	47.70	ug/L	99
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	161725	47.98	ug/L	95
23) Bromochloromethane	11.034	11.034	0.902	128	84256	47.62	ug/L	96
24) Chloroform	11.094	11.094	0.907	83	259471	46.58	ug/L	99
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	202879	44.84	ug/L	98
26) Cyclohexane	11.533	11.532	0.943	56	230856	45.58	ug/L	99
27) 1,1-Dichloropropene	11.616	11.627	0.950	75	178057	46.32	ug/L	99
28) Carbon tetrachloride	11.663	11.663	0.953	117	189905	48.00	ug/L	100
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	196064	45.00	ug/L	100
31) Benzene	11.912	11.912	0.974	78	565450	46.36	ug/L	99
32) Cyclohexene	12.054	12.054	0.985	67	249201	44.64	ug/L	99
33) n-Butyl alcohol	12.398	12.398	1.014	56	595375	4633.41	ug/L	98
34) Trichloroethylene	12.695	12.695	1.038	95	145398	46.17	ug/L	99
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	148689	49.92	ug/L	100
36) Methylcyclohexane	12.991	12.991	1.062	83	242514	46.52	ug/L	99
37) Dibromomethane	13.133	13.133	1.074	93	97087	48.57	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D239.D
Acq On : 17 Mar 2010 3:59 am
Operator : CDS1
InstName : VOA3
Sample : |1202071637|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248824001 MIX[A]
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Mar 17 10:36:44 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	13.276	13.288	1.085	83	192854	50.71	ug/L	100
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	265380	273.24	ug/L	99
40) cis-1,3-Dichloropropylene	13.809	13.809	1.129	75	220866	51.10	ug/L	99
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	340650	261.16	ug/L	97
44) Toluene	14.248	14.248	0.899	91	597806	46.25	ug/L	99
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	195843	49.85	ug/L	98
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	108663	48.66	ug/L	98
47) 2-Hexanone	14.888	14.888	0.939	43	803434	241.26	ug/L	98
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	223183	48.12	ug/L	99
49) Tetrachloroethylene	14.912	14.912	0.941	164	112519	44.68	ug/L	99
50) Dibromochloromethane	15.173	15.173	0.957	129	155647	52.69	ug/L	99
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	132631	46.18	ug/L	99
52) Chlorobenzene	15.885	15.885	1.002	112	393078	46.33	ug/L	99
53) 1,1,1,2-Tetrachloroethane	15.944	15.956	1.006	131	150928	51.73	ug/L	98
54) Ethylbenzene	15.956	15.968	1.007	91	605245	45.31	ug/L	100
55) m,p-Xylenes	16.086	16.086	1.015	106	489400	92.21	ug/L	100
56) o-Xylene	16.537	16.549	1.043	106	268016	50.54	ug/L	100
57) Styrene	16.549	16.549	1.044	104	443327	52.36	ug/L	97
59) Bromoform	16.810	16.821	0.913	173	101504	44.05	ug/L	98
60) Isopropylbenzene	16.928	16.928	0.919	105	661985	44.45	ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	184372	45.79	ug/L	97
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	49395	44.62	ug/L	98
64) Bromobenzene	17.343	17.343	0.942	156	179714	44.95	ug/L	98
65) n-Propylbenzene	17.367	17.367	0.943	91	763039	44.31	ug/L	100
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	562043	44.98	ug/L	98
67) 2-Chlorotoluene	17.521	17.521	0.952	126	166270	44.79	ug/L	98
68) 4-Chlorotoluene	17.628	17.628	0.957	91	465639	43.59	ug/L	100
69) tert-Butylbenzene	17.912	17.912	0.973	134	123837	46.33	ug/L	99
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	567509	44.79	ug/L	99
71) sec-Butylbenzene	18.150	18.150	0.986	105	758438	45.31	ug/L	100
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	596806	44.92	ug/L	99
73) 1,3-Dichlorobenzene	18.339	18.351	0.996	146	290905	42.59	ug/L	100
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	339510	43.37	ug/L	99
75) n-Butylbenzene	18.743	18.742	1.018	91	567169	44.89	ug/L	100
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	336005	43.24	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	38333	39.93	ug/L	100
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	209178	40.03	ug/L	98
79) Hexachlorobutadiene	21.126	21.126	1.148	225	109597	41.87	ug/L	99
80) Naphthalene	21.340	21.351	1.159	128	553179	41.16	ug/L	100
81) 1,2,3-Trichlorobenzene	21.707	21.719	1.179	180	201043	39.39	ug/L	98
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88) Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.173	9.090	0.750		0m	N.D.	d	
91) Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.643	10.679	0.870		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D239.D
Acq On : 17 Mar 2010 3:59 am
Operator : CDS1
InstName : VOA3
Sample : |1202071637|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248824001 MIX[A]
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Mar 17 10:36:44 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	10.643	10.726	0.870		0m	N.D.		d
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.		
97)	Tetrahydrofuran	11.094	11.094	0.907		0m	N.D.		d
98)	Isobutyl alcohol	11.533	11.556	0.943		0m	N.D.		d
99)	Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.		d
100)	Methyl methacrylate	12.979	12.991	1.061		0m	N.D.		d
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.		
102)	2-Nitropropane	13.560	13.525	1.109		0m	N.D.		d
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.		
106)	1-Chlorohexane	15.849	15.754	0.861		0m	N.D.		d
107)	cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.		d
108)	Cyclohexanone	16.916	17.082	0.919		0m	N.D.		d
109)	trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.		d
110)	Pentachloroethane	17.984	17.983	0.977		0m	N.D.		d
111)	Benzyl chloride	18.399	18.553	0.999		0m	N.D.		d
112)	bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.		d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D239.D
Acq On : 17 Mar 2010 3:59 am
Operator : CDS1
InstName : VOA3
Sample : |1202071637|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248824001 MIX[A]
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Mar 17 10:36:44 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

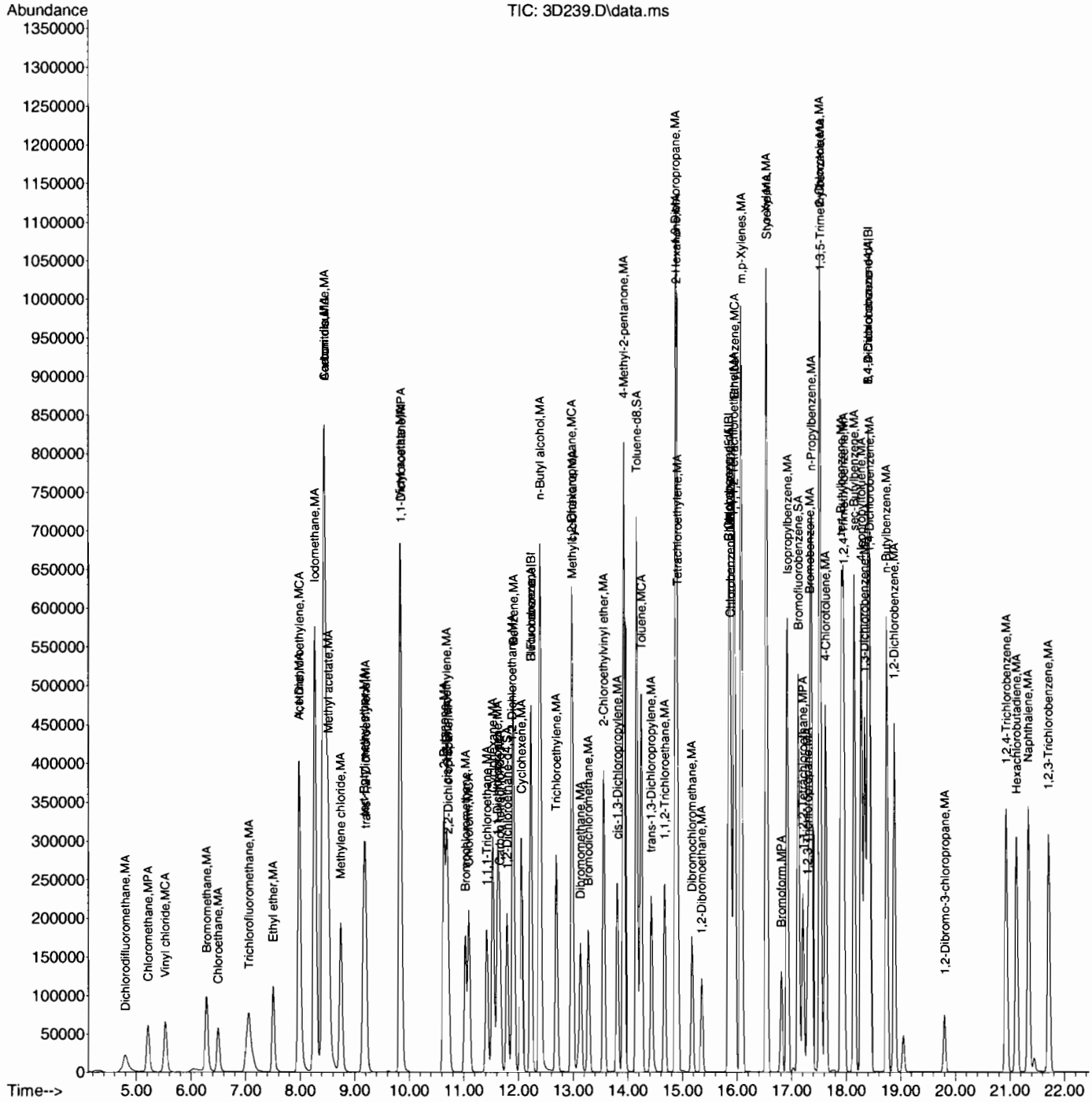

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D113.D
Acq On : 15 Mar 2010 6:18 pm
Operator : CDS1
InstName : VOA3
Sample : |248824001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 13:29:56 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	699066	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	544216	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	272110	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	698738	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	544271	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	275274	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	223463	52.12	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 104.24%					
43) Toluene-d8	14.165	14.165	0.894	98	758958	51.82	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 103.64%					
61) Bromofluorobenzene	17.130	17.130	0.930	95	258931	47.19	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 94.38%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.999	7.987	0.654	43	12462	4.23	ug/L	93
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	0.000	8.449	0.000		0	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	2962	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D113.D
Acq On : 15 Mar 2010 6:18 pm
Operator : CDS1
InstName : VOA3
Sample : |248824001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 13:29:56 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44)	Toluene	0.000	14.248	0.000		0	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47)	2-Hexanone	0.000	14.888	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52)	Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54)	Ethylbenzene	0.000	15.968	0.000		0	N.D.	
55)	m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56)	o-Xylene	0.000	16.549	0.000		0	N.D.	
57)	Styrene	0.000	16.549	0.000		0	N.D.	
59)	Bromoform	0.000	16.821	0.000		0	N.D.	
60)	Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64)	Bromobenzene	0.000	17.343	0.000		0	N.D.	
65)	n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66)	1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000	17.628	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	0.000	17.960	0.000		0	N.D.	
71)	sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72)	4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	0.000	18.351	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	0.000	18.434	0.000		0	N.D.	
75)	n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80)	Naphthalene	21.351	21.351	1.160	128	383	N.D.	
81)	1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85)	Acrolein	0.000	7.750	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88)	Allyl chloride	0.000	8.556	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90)	Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91)	Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94)	Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D113.D
Acq On : 15 Mar 2010 6:18 pm
Operator : CDS1
InstName : VOA3
Sample : |248824001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 13:29:56 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	10.726	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108)	Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110)	Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111)	Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	0.000	18.980	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D113.D
Acq On : 15 Mar 2010 6:18 pm
Operator : CDS1
InstName : VOA3
Sample : |248824001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 13:29:56 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

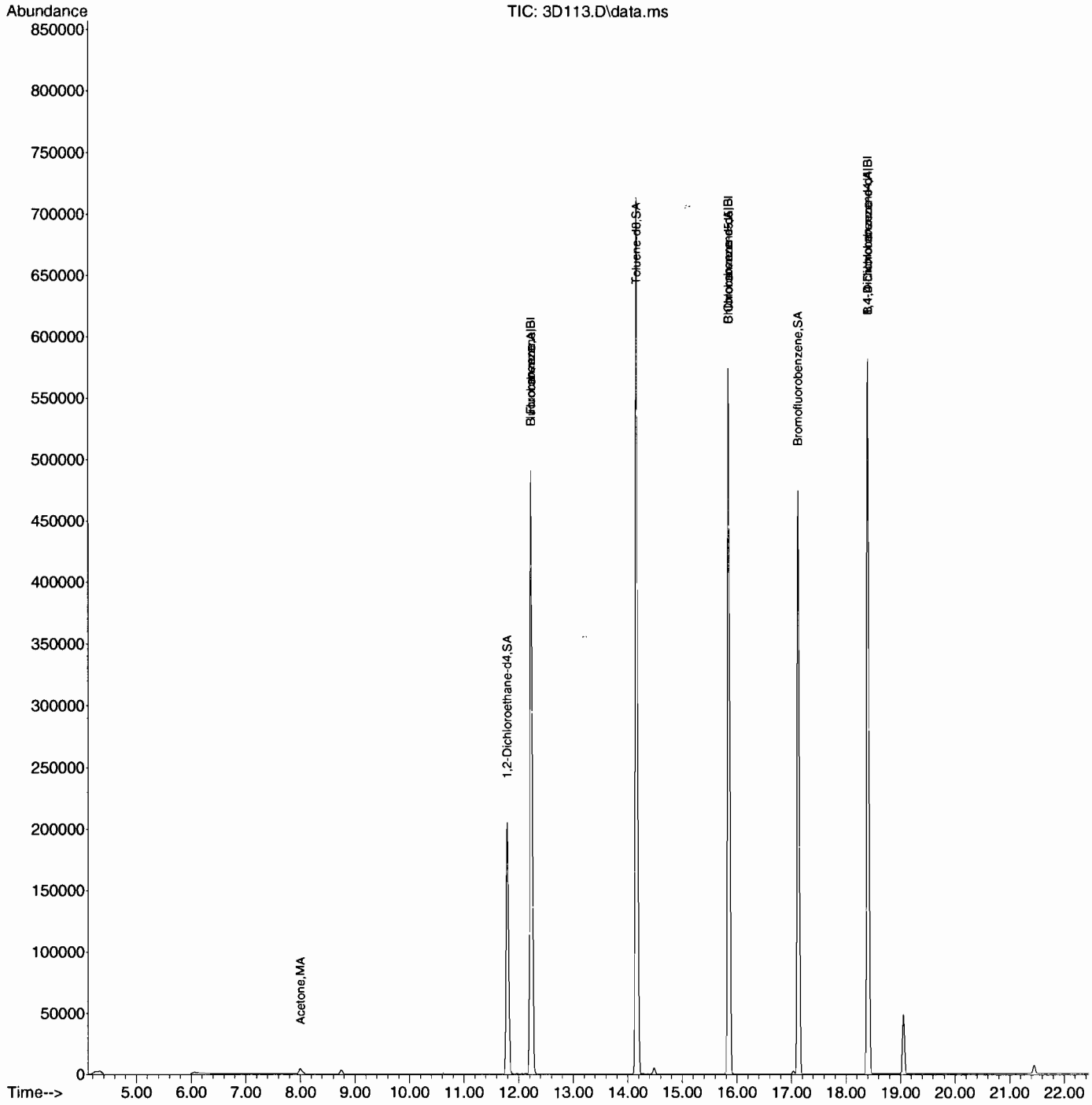

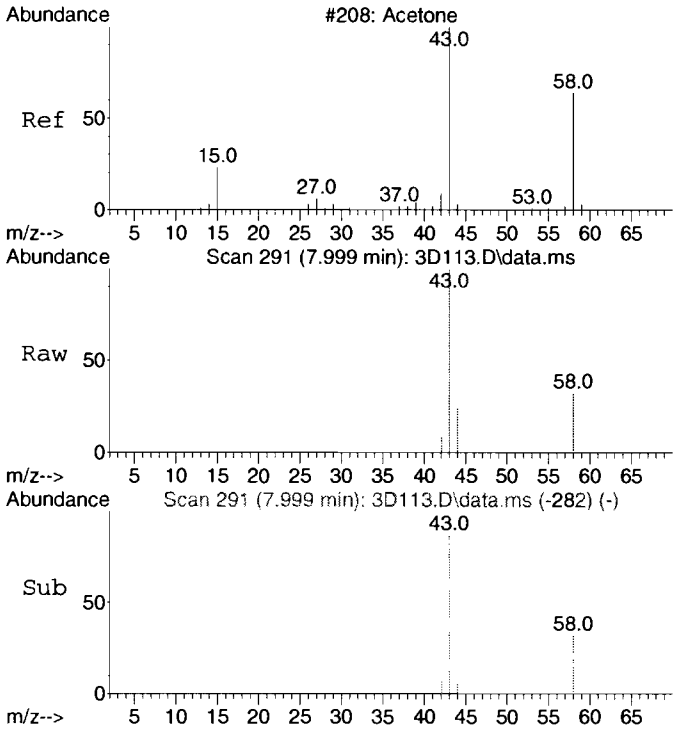

#9
Acetone
Concen: 4.23 ug/L
RT: 7.999 min Scan# 291
Delta R.T. 0.012 min
Lab File: 3D113.D
Acq: 15 Mar 2010 6:18 pm

Tgt Ion: 43 Resp: 12462

Ion	Ratio	Lower	Upper
43	100		
58	28.3	2.5	62.5

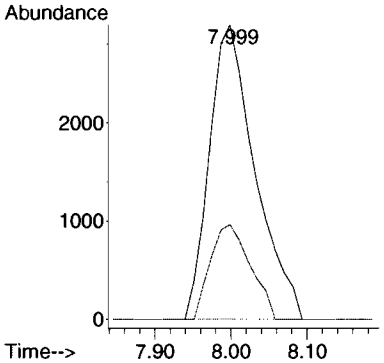

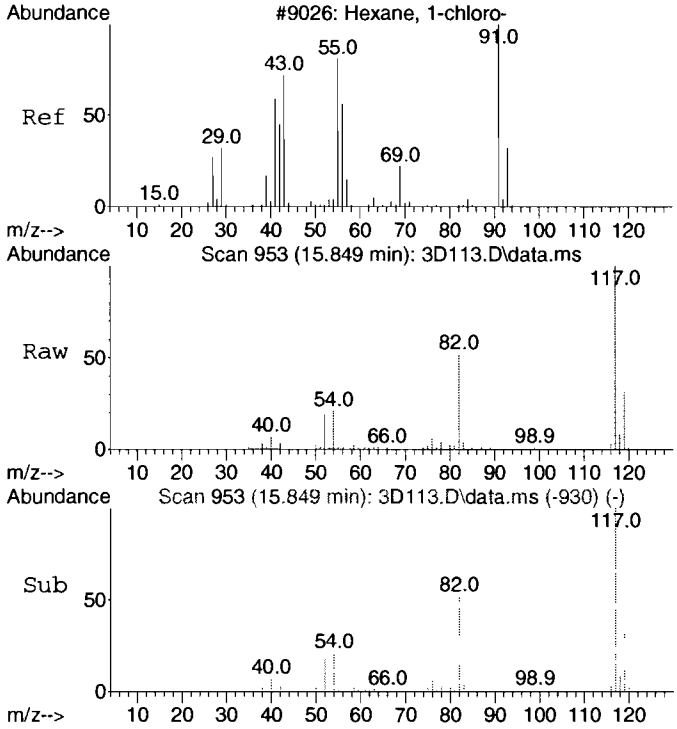

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.85 ug/L
RT: 15.849 min Scan# 953
Delta R.T. 0.095 min
Lab File: 3D113.D
Acq: 15 Mar 2010 6:18 pm

Tgt Ion: 55 Resp: 4606

Ion	Ratio	Lower	Upper
55	100		
91	15.6	119.7	179.7#
56	65.7	29.6	89.6

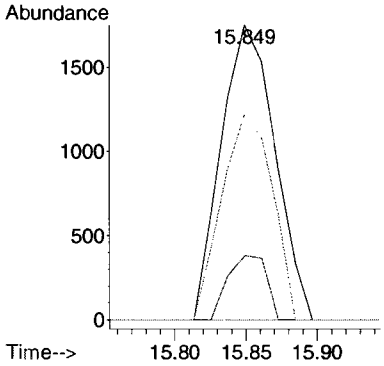

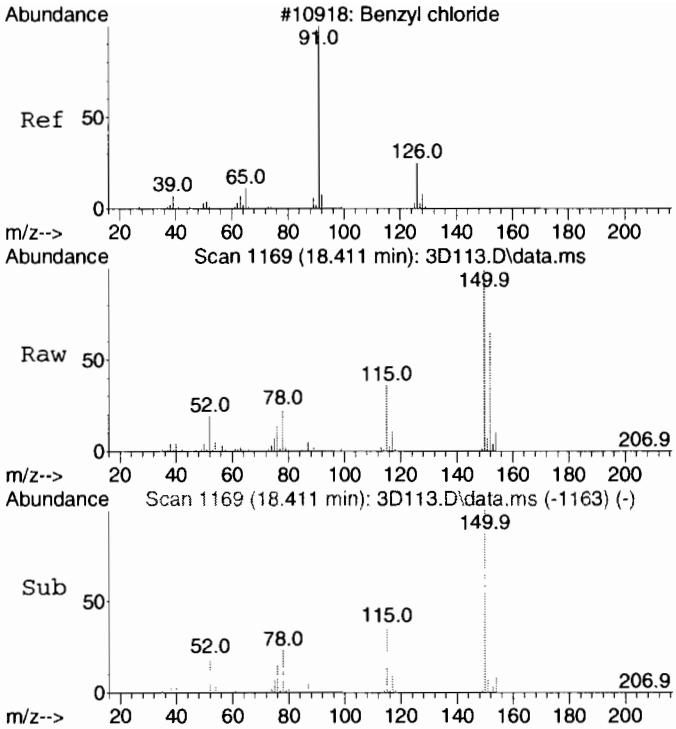

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 1.68 ug/L
RT: 18.411 min Scan# 1169
Delta R.T. -0.142 min
Lab File: 3D113.D
Acq: 15 Mar 2010 6:18 pm

Tgt Ion: 91 Resp: 376

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.8
65	564.9	0.0	41.3#

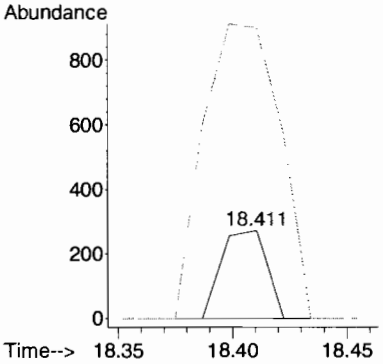

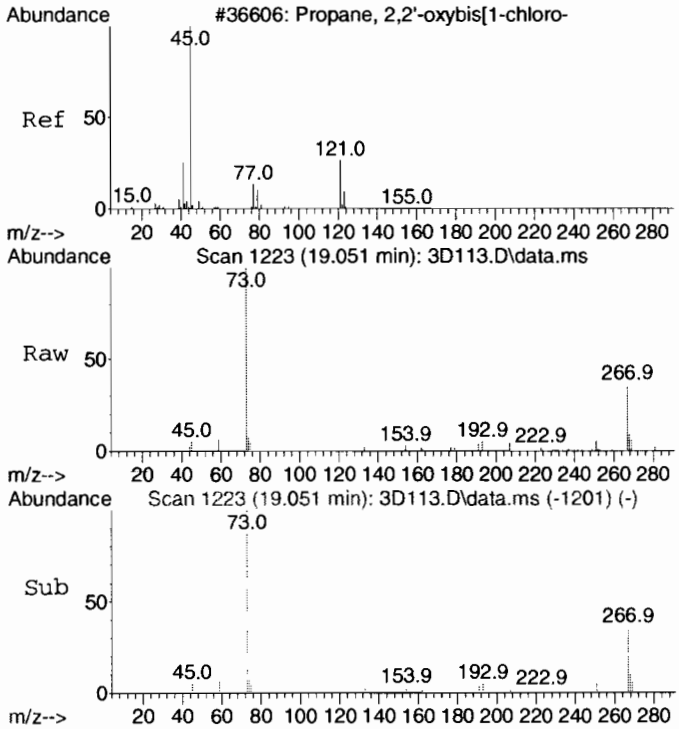

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 1.75 ug/L
RT: 19.051 min Scan# 1223
Delta R.T. 0.071 min
Lab File: 3D113.D
Acq: 15 Mar 2010 6:18 pm

Tgt Ion: 45 Resp: 3113

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	59.6

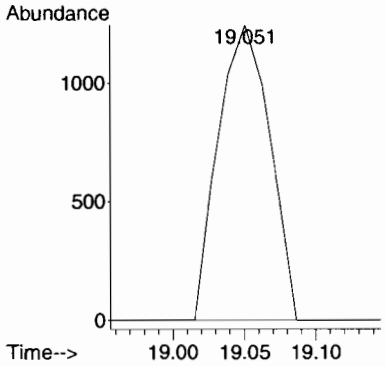

Library Search Compound Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D113.D
Acq On    : 15 Mar 2010   6:18 pm
Operator  : CDS1
Sample    : |248824001|965481|1|VOA|1|VOA8260BS|
Misc      : LANL 5G - SOIL
ALS Vial  : 13   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P
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No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D113.D
Acq On    : 15 Mar 2010   6:18 pm
Operator  : CDS1
Sample    : |248824001|965481|1|VOA|1|VOA8260BS|
Misc      : LANL 5G - SOIL
ALS Vial  : 13   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P

                                                  |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response  |#    RT     Resp  Conc|
-----------------------------------------------------------------------------
```

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA3

Date: 2/26/2010 Method 8260/624 Operator: CDS1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1435

CALIBRATION & CC INFORMATION:

Initial Calibration Da _____

(See pg. _____ for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 022610V3

	Daily Standard Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
IS	UVM100203-01	1	1	1	
SS	UVM100203-02	1	1	1	
LONG ICV	W3VM100226-10			5+5	
BFB	UVM100203-02				1
SHORT ICV	W3VM100226-18			5+5	

Purge Amount	
5	Water Purge Vol:
5	Soil Purge Wt.
n/a	Mid level ext. MeOH Vol:
n/a	ul
n/a	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
2/26/2010	9:25	3A501.D	UVM100203-02	-----	BFB	5ml	1	N/A	1	w	CDS1	N/A	O	
2/26/2010	9:54	3A502.D	1202---	-----	BLANK	5ml	1	N/A	2	w	CDS1	N/A	x	clean-up blank
2/26/2010	10:23	3A503.D	W3VM100226-01	VSTD001	ICAL	5uL ea.	1	N/A	3	w	CDS1	N/A	O	UVM100106-02D+UVM100202-02D
2/26/2010	10:53	3A504.D	W3VM100226-02	VSTD002	ICAL	5uL ea.	1	N/A	4	w	CDS1	N/A	O	UVM100106-03D+UVM100202-03D
2/26/2010	11:23	3A505.D	W3VM100226-03	VSTD005	ICAL	5uL ea.	1	N/A	5	w	CDS1	N/A	O	UVM100106-04D+UVM100202-04D
2/26/2010	11:52	3A506.D	W3VM100226-04	VSTD010	ICAL	5uL ea.	1	N/A	6	w	CDS1	N/A	O	UVM100106-05D+UVM100202-05D
2/26/2010	12:22	3A507.D	W3VM100226-05	VSTD020	ICAL	5uL ea.	1	N/A	7	w	CDS1	N/A	O	UVM100106-06D+UVM100202-06D
2/26/2010	12:52	3A508.D	W3VM100226-06	VSTD050	ICAL	5uL ea.	1	N/A	8	w	CDS1	N/A	X	UVM100106-07D+UVM100202-07D gases low
2/26/2010	13:21	3A509.D	W3VM100226-07	VSTD100	ICAL	5uL ea.	1	N/A	9	w	CDS1	N/A	O	UVM100106-08D+UVM100202-08D
2/26/2010	13:50	3A510.D	1202---	GEL	BLANK	5ml	1	N/A	10	w	CDS1	N/A	x	clean-up blank
2/26/2010	14:20	3A511.D	W3VM100226-08	VSTD0005	ICAL	5uL ea.	1	N/A	11	w	CDS1	N/A	O	UVM100106-01D+UVM100202-01D
2/26/2010	14:49	3A512.D	W3VM100226-09	-----	ICV	5uL ea.	1	N/A	12	w	CDS1	N/A	X	UVM100126-02E+IVM100224-01 freon high
2/26/2010	15:19	3A513.D	W3VM100226-10	-----	ICV	5uL ea.	1	N/A	13	w	CDS1	N/A	O	UVM100220-01B+IVM100224-01
2/26/2010	15:48	3A514.D	1202---	-----	BLANK	5ml	1	N/A	14	w	CDS1	N/A	x	
2/26/2010	16:17	3A515.D	W3VM100226-11	VSTD005S	ICAL	5uL ea.	1	N/A	15	w	CDS1	N/A	O	UVM100125-01E+UVM100215-01
2/26/2010	16:46	3A516.D	W3VM100226-12	VSTD010S	ICAL	5uL ea.	1	N/A	16	w	CDS1	N/A	O	UVM100125-02E+UVM100215-02
2/26/2010	17:15	3A517.D	W3VM100226-13	VSTD025S	ICAL	5uL ea.	1	N/A	17	w	CDS1	N/A	O	UVM100125-03E+UVM100215-03
2/26/2010	17:45	3A518.D	W3VM100226-14	VSTD050S	ICAL	5uL ea.	1	N/A	18	w	CDS1	N/A	O	UVM100125-04E+UVM100215-04
2/26/2010	18:14	3A519.D	W3VM100226-15	VSTD100S	ICAL	5uL ea.	1	N/A	19	w	CDS1	N/A	O	UVM100125-05E+UVM100215-05
2/26/2010	18:43	3A520.D	W3VM100226-16	VSTD250S	ICAL	5uL ea.	1	N/A	20	w	CDS1	N/A	O	UVM100125-06E+UVM100215-06
2/26/2010	19:14	3A521.D	W3VM100226-17	VSTD500S	ICAL	5uL ea.	1	N/A	21	w	CDS1	N/A	O	UVM100125-07E+UVM100215-07
2/26/2010	19:43	3A522.D	1202---	-----	BLANK	5ml	1	N/A	22	w	CDS1	N/A	x	clean-up blank
2/26/2010	20:12	3A523.D	W3VM100226-18	-----	ICV	5uL ea.	1	N/A	23	w	CDS1	N/A	O	UVM100215-08A+UVM100125-08D

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA3

Date: 3/15/2010 Method 8260/624 Operator: GRB

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1435

CALIBRATION & CC INFORMATION:

Initial Calibration Da 2/26/2010

(See pg. 26 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 031510V3

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W3VM100315-01		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100217-02	1	1	1	
LCS/MS	W3VM100315-02/03			5+5	
BFB	UVM100217-02				1
Short CCV	W3VM100315-04		5+5		
Short LCS	W3VM100315-05			5+5	

Purge Amount

5	Water Purge Vol:
5	Soil Purge Wt.
n/a	Mid level ext. MeOH Vol:
n/a	ul
n/a	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3/15/2010	11:35	3D101.D	UVM100217-02	-----	BFB	5ml	1	N/A	1	w	GRB	N/A	O	
3/15/2010	12:01	3D102.D	W3VM100315-01	-----	CCV	5ml	1	N/A	2	w	GRB	N/A	O	UVM100222-07B+UVM10106-07D
3/15/2010	12:30	3D103.D	W3VM100315-02	-----	LCS	5ml	1	N/A	3	w	GRB	N/A	O	UVM100305-01A+IVM100313-01
3/15/2010	12:59	3D104.D	W3VM100315-03	-----	LCS	5G	1	N/A	4	s	GRB	N/A	O	UVM100305-01A+IVM100313-01
3/15/2010	13:28	3D105.D	W3VM100315-04	-----	CCV	5ml	1	N/A	5	w	GRB	N/A	O	UVM100215-06+UVM100226-02A
3/15/2010	13:57	3D106.D	W3VM100315-05	-----	LCS	5G	1	N/A	6	s	GRB	N/A	O	UVM10215-08B+UVM100226-02A
3/15/2010	14:26	3D107.D	120206-----	-----	BLANK	5ML	1	N/A	7	w	GRB	N/A	O	
3/15/2010	14:55	3D108.D	120206-----	-----	BLANK	5G	1	N/A	8	s	GRB	N/A	O	
3/15/2010	16:22	3D109.D	1202068711	SUBR	965440	0.5ML	10	N/A	9	w	GRB	N/A	O	TUMBLE BLANK
3/15/2010	16:51	3D110.D	1202068735	SUBR	965434	0.5ML	10	N/A	10	w	GRB	N/A	O	TUMBLE BLANK conf. by 3D213
3/15/2010	17:20	3D111.D	248571002	SUBR	965440	0.5ML	10	N/A	11	w	GRB	N/A	O	
3/15/2010	17:49	3D112.D	248571001	SUBR	965434	0.5ML	10	N/A	12	w	GRB	N/A	O	
3/15/2010	18:18	3D113.D	248824001	LANL	965481	5G	1	N/A	13	s	GRB	N/A	O	
3/15/2010	18:47	3D114.D	248824002	LANL	965481	5G	1	N/A	14	s	GRB	N/A	O	
3/15/2010	19:16	3D115.D	248865001	LANL	965481	5G	1	N/A	15	s	GRB	N/A	O	
3/15/2010	19:45	3D116.D	248866001	LANL	965481	5G	1	N/A	16	s	GRB	N/A	O	
3/15/2010	20:14	3D117.D	248866002	LANL	965481	5G	1	N/A	17	s	GRB	N/A	O	
3/15/2010	20:42	3D118.D	248866003	LANL	965481	5G	1	N/A	18	s	GRB	N/A	O	
3/15/2010	21:11	3D119.D	249055001	LANL	965481	5G	1	N/A	19	s	GRB	N/A	O	
3/15/2010	21:40	3D120.D	249055002	LANL	965481	5G	1	N/A	20	s	GRB	N/A	O	
3/15/2010	22:09	3D121.D	1202070491	LANL	965062	5G	1	N/A	21	s	GRB	N/A	O	MS 248794013
3/15/2010	22:37	3D122.D	1202070492	LANL	965062	5G	1	N/A	22	s	GRB	N/A	O	MSD 248794013
3/15/2010	23:06	3D123.D	1202071636	LANL	965481	5G	1	N/A	23	s	GRB	N/A	X	MS 248824001; SEE 3D238
3/15/2010	23:35	3D124.D	1202071637	LANL	965481	5G	1	N/A	24	s	GRB	N/A	X	MSD 248824001; SEE 3D239

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA3

Date: 3/16/2010 Method 8260/624 Operator: GRB

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1435

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 2/26/2010

(See pg. 26 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 031610V3pm

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W3VM100316-05		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100217-02	1	1	1	
LCS/MS	W3VM100316-07			5+5	
BFB	UVM100217-02				1
SHORT CCV	W3VM100316-08		5+5		
SHORT LCS	W3VM100316-09			5+5	

Purge Amount

5	Water Purge Vol:
5	Soil Purge Wt.
n/a	Mid level ext. MeOH Vol:
n/a	ul
n/a	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3/16/2010	17:01	3D216.D	UVM100217-02	GEL	BFB2	5ml	1	N/A	27	w	GRB	N/A	O	
3/16/2010	17:27	3D217.D	W3VM100316-05	GEL	CCV	5ml	1	N/A	28	w	GRB	N/A	O	UVM100314-07A+UVM100315-07A
3/16/2010	17:56	3D218.D	W3VM100316-06	GEL	LCS	5ml	1	N/A	29	w	GRB	N/A	X	UVM100305-01B+IVM100316-01
3/16/2010	18:25	3D219.D	W3VM100316-07	GEL	LCS	5G	1	N/A	30	s	GRB	N/A	O	UVM100305-01B+IVM100316-01
3/16/2010	18:54	3D220.D	W3VM100316-08	GEL	CCV	5ml	1	N/A	31	w	GRB	N/A	O	UVM100304-06+UVM100226-02A
3/16/2010	19:23	3D221.D	W3VM100316-09	GEL	LCS	5G	1	N/A	32	s	GRB	N/A	O	UVM100215-08B+UVM100226-02A
3/16/2010	19:52	3D222.D	120206-----	BLANK	BLANK	5ML	1	N/A	33	w	GRB	N/A	X	NOT USED
3/16/2010	20:20	3D223.D	120206-----	BLANK	BLANK	5G	1	N/A	34	s	GRB	N/A	O	
3/16/2010	20:49	3D224.D	249061002	LANL	965972	5G	1	N/A	35	s	GRB	N/A	O	
3/16/2010	21:18	3D225.D	249061003	LANL	965972	5G	1	N/A	36	s	GRB	N/A	O	
3/16/2010	21:48	3D226.D	249061004	LANL	965972	5G	1	N/A	37	s	GRB	N/A	O	
3/16/2010	22:17	3D227.D	249061005	LANL	965972	5G	1	N/A	38	s	GRB	N/A	O	
3/16/2010	22:45	3D228.D	249081001	LANL	965972	5G	1	N/A	39	s	GRB	N/A	O	
3/16/2010	23:14	3D229.D	249081002	LANL	965972	5G	1	N/A	40	s	GRB	N/A	O	
3/16/2010	23:42	3D230.D	249081003	LANL	965972	5G	1	N/A	41	s	GRB	N/A	O	
3/17/2010	0:11	3D231.D	249081004	LANL	965972	5G	1	N/A	42	s	GRB	N/A	O	
3/17/2010	0:39	3D232.D	249101002	LANL	965972	5G	1	N/A	43	s	GRB	N/A	O	
3/17/2010	1:08	3D233.D	249101003	LANL	965972	5G	1	N/A	44	s	GRB	N/A	O	
3/17/2010	1:36	3D234.D	249101004	LANL	965972	5G	1	N/A	45	s	GRB	N/A	O	
3/17/2010	2:05	3D235.D	249101005	LANL	965972	5G	1	N/A	46	s	GRB	N/A	O	
3/17/2010	2:33	3D236.D	249101006	LANL	965972	5G	1	N/A	47	s	GRB	N/A	O	
3/17/2010	3:02	3D237.D	249101007	LANL	965972	5G	1	N/A	48	s	GRB	N/A	O	
3/17/2010	3:30	3D238.D	1202071636	LANL	965481	5G	1	N/A	49	s	GRB	N/A	O	MS 248824001 MIX[A]; RERUN OF 3D123
3/17/2010	3:59	3D239.D	1202071637	LANL	965481	5G	1	N/A	50	s	GRB	N/A	O	MSD 248824001 MIX[A]; RERUN OF 3D124
3/17/2010	4:27	3D240.D	1202072971	LANL	965972	5G	1	N/A	51	s	GRB	N/A	O	MS 249081001 MIX[A]
3/17/2010	4:56	3D241.D	1202072972	LANL	965972	5G	1	N/A	1	s	GRB	N/A	O	MSD 249081001 MIX[A]

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2318

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	965816
Prep Batch Number:	965812

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
248865001	RE46-10-11924
1202072534	Method Blank (MB)
1202072535	Laboratory Control Sample (LCS)
1202072536	249057002(RE16-10-2787) Matrix Spike (MS)
1202072537	249057002(RE16-10-2787) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 249057002 (RE16-10-2787) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the acceptance limits except for low recoveries of Benzyl alcohol and Hexachlorocyclopentadiene. Several polycyclic aromatic hydrocarbon (PAH) recoveries were high above the acceptance limits possibly due to the presence of these compounds in the parent sample.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the acceptance limits except for low recoveries of Benzyl alcohol and Hexachlorocyclopentadiene. The low recoveries confirmed in the MS and were attributed to matrix interference.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent differences (RPD) were within the acceptance limits except for 4-Chloroaniline.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report (DER ID 809844) was generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

The Semi-Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD7.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2318 GEL Work Order: 248865

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

E Organics--Concentration of the target analyte exceeds the instrument calibration range

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Pat Steele **Name: Patricia Steele**

Date: 01 APR 2010 **Title: Group Leader**
Laboratory Manager

Roadmap for LANL 10-2318 SVOA

This roadmap was analyzed by jos00786 on 03-26-2010, 11:37.
This roadmap was packaged by CHA01131 on 03-30-2010, 14:48.
This roadmap was packaged by dan01134 on 03-31-2010, 08:38.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD7.i/s032310.b/s7c2313.d	248865001	23-MAR-2010	14:37	10-2318.sub	RE46-10-11924	1	965816	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD7.i/s032310.b/s7c2306-3.d	1202072534	mb	23-MAR-2010	12:05	10-2318.sub	SBLK01	1	965816	
☐	N	/chem/MSD7.i/s032310.b/s7c2307-3.d	1202072535	lcs	23-MAR-2010	12:27	10-2318.sub	SBLK01LCS	1	965816	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248865001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11924**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.1**	**Dilution:**	**1**
Run Date:	**03/23/2010 14:37**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2313.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	402	ug/kg	80.4	402
108-95-2	Phenol	U	402	ug/kg	80.4	402
95-57-8	2-Chlorophenol	U	402	ug/kg	80.4	402
106-46-7	1,4-Dichlorobenzene	U	402	ug/kg	80.4	402
621-64-7	N-Nitrosodipropylamine	U	402	ug/kg	80.4	402
59-50-7	4-Chloro-3-methylphenol	U	402	ug/kg	80.4	402
83-32-9	Acenaphthene	U	40.2	ug/kg	13.3	40.2
121-14-2	2,4-Dinitrotoluene	U	402	ug/kg	40.2	402
100-02-7	4-Nitrophenol	U	402	ug/kg	133	402
87-86-5	Pentachlorophenol	U	402	ug/kg	101	402
129-00-0	Pyrene	U	40.2	ug/kg	12.1	40.2
110-86-1	Pyridine	U	402	ug/kg	80.4	402
62-53-3	Aniline	U	402	ug/kg	121	402
111-44-4	bis(2-Chloroethyl) ether	U	402	ug/kg	80.4	402
541-73-1	1,3-Dichlorobenzene	U	402	ug/kg	80.4	402
100-51-6	Benzyl alcohol	U	402	ug/kg	121	402
95-50-1	1,2-Dichlorobenzene	U	402	ug/kg	80.4	402
108-60-1	bis(2-Chloroisopropyl)ether	U	402	ug/kg	80.4	402
95-48-7	o-Cresol	U	402	ug/kg	80.4	402
65794-96-9	m,p-Cresols	U	402	ug/kg	121	402
67-72-1	Hexachloroethane	U	402	ug/kg	80.4	402
98-95-3	Nitrobenzene	U	402	ug/kg	80.4	402
78-59-1	Isophorone	U	402	ug/kg	80.4	402
88-75-5	2-Nitrophenol	U	402	ug/kg	80.4	402
105-67-9	2,4-Dimethylphenol	U	402	ug/kg	141	402
111-91-1	bis(2-Chloroethoxy)methane	U	402	ug/kg	80.4	402
120-83-2	2,4-Dichlorophenol	U	402	ug/kg	80.4	402
65-85-0	Benzoic acid	U	804	ug/kg	201	804
91-20-3	Naphthalene	U	40.2	ug/kg	12.1	40.2
106-47-8	4-Chloroaniline	U	402	ug/kg	80.4	402
87-68-3	Hexachlorobutadiene	U	402	ug/kg	80.4	402
91-57-6	2-Methylnaphthalene	U	40.2	ug/kg	8.04	40.2
77-47-4	Hexachlorocyclopentadiene	U	402	ug/kg	80.4	402
88-06-2	2,4,6-Trichlorophenol	U	402	ug/kg	80.4	402
95-95-4	2,4,5-Trichlorophenol	U	402	ug/kg	80.4	402
91-58-7	2-Chloronaphthalene	U	40.2	ug/kg	13.3	40.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	402	ug/kg	80.4	402
99-09-2	3-Nitroaniline	U	402	ug/kg	80.4	402

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248865001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11924**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 14:37**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2313.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	402	ug/kg	80.4	402
606-20-2	2,6-Dinitrotoluene	U	402	ug/kg	40.2	402
208-96-8	Acenaphthylene	U	40.2	ug/kg	12.1	40.2
51-28-5	2,4-Dinitrophenol	U	804	ug/kg	153	804
132-64-9	Dibenzofuran	U	402	ug/kg	80.4	402
84-66-2	Diethylphthalate	U	402	ug/kg	80.4	402
86-73-7	Fluorene	U	40.2	ug/kg	12.1	40.2
7005-72-3	4-Chlorophenylphenylether	U	402	ug/kg	80.4	402
534-52-1	2-Methyl-4,6-dinitrophenol	U	402	ug/kg	80.4	402
100-01-6	4-Nitroaniline	U	402	ug/kg	121	402
	p-Nitroaniline					
122-39-4	Diphenylamine	U	402	ug/kg	80.4	402
122-66-7	Azobenzene	U	402	ug/kg	80.4	402
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	402	ug/kg	80.4	402
118-74-1	Hexachlorobenzene	U	402	ug/kg	80.4	402
85-01-8	Phenanthrene	U	40.2	ug/kg	12.1	40.2
120-12-7	Anthracene	U	40.2	ug/kg	8.04	40.2
84-74-2	Di-n-butylphthalate	U	402	ug/kg	80.4	402
206-44-0	Fluoranthene	U	40.2	ug/kg	12.1	40.2
85-68-7	Butylbenzylphthalate	U	402	ug/kg	80.4	402
56-55-3	Benzo(a)anthracene	U	40.2	ug/kg	12.1	40.2
91-94-1	3,3'-Dichlorobenzidine	U	402	ug/kg	121	402
218-01-9	Chrysene	U	40.2	ug/kg	12.1	40.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	402	ug/kg	80.4	402
117-84-0	Di-n-octylphthalate	U	402	ug/kg	80.4	402
205-99-2	Benzo(b)fluoranthene	U	40.2	ug/kg	12.1	40.2
207-08-9	Benzo(k)fluoranthene	U	40.2	ug/kg	12.1	40.2
50-32-8	Benzo(a)pyrene	U	40.2	ug/kg	12.1	40.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.2	ug/kg	12.1	40.2
53-70-3	Dibenzo(a,h)anthracene	U	40.2	ug/kg	12.1	40.2
191-24-2	Benzo(ghi)perylene	U	40.2	ug/kg	12.1	40.2
120-82-1	1,2,4-Trichlorobenzene	U	402	ug/kg	80.4	402

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	498	ug/kg		J

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-2318

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202072534	MB for batch 965812	72	69	78	85	88	93
1202072535	LCS for batch 965812	73	70	75	79	94	88
248865001	RE46-10-11924	58	56	65	70	80	88

Surrogate		Acceptance Limits
2FP	= 2-Fluorophenol	(29%-99%)
PHL	= Phenol-d5	(33%-98%)
NBZ	= Nitrobenzene-d5	(31%-105%)
FBP	= 2-Fluorobiphenyl	(25%-109%)
TBP	= 2,4,6-Tribromophenol	(37%-106%)
TPH	= p-Terphenyl-d14	(13%-150%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2318
Client ID: LCS for batch 965812
Lab Sample ID: 1202072535
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 12:27
Dilution: 1
Prep Batch ID: 965812
Batch ID: 965816

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	877	53	22-114
108-95-2	LCS	Phenol	1670	0.0	1170	70	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1340	81	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1250	75	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1270	76	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1280	77	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	1430	86	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1460	87	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	1440	86	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	1590	96	27-116
129-00-0	LCS	Pyrene	1670	0.0	1270	76	42-113
110-86-1	LCS	Pyridine	1670	0.0	952	57	8-125
62-53-3	LCS	Aniline	1670	0.0	979	59	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1050	63	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1190	71	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	695	42	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1320	79	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1160	70	28-117
95-48-7	LCS	o-Cresol	1670	0.0	1250	75	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1470	88	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	1260	75	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	1220	73	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2318
Client ID: LCS for batch 965812
Lab Sample ID: 1202072535
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 12:27
Dilution: 1
Prep Batch ID: 965812
Batch ID: 965816

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1180	71	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	1320	79	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1310	78	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1150	69	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1300	78	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	3600	108	22-138
91-20-3	LCS	Naphthalene	1670	0.0	1240	74	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	832	50	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1370	82	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1300	78	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1190	71	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1560	93	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1650	99	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1270	76	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1260	76	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1290	77	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	1510	91	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1430	86	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	1390	84	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1780	107	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	1410	85	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	1610	96	51-126

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2318
Client ID: LCS for batch 965812
Lab Sample ID: 1202072535
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 12:27
Dilution: 1
Prep Batch ID: 965812
Batch ID: 965816

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1490	89	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1500	90	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1540	92	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1560	94	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	1360	81	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1380	83	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1410	85	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1390	83	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	1410	85	46-107
120-12-7	LCS	Anthracene	1670	0.0	1400	84	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1580	95	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1490	90	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1450	87	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1360	82	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1330	80	36-103
218-01-9	LCS	Chrysene	1670	0.0	1450	87	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1540	92	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1400	84	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1400	84	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1410	85	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1470	88	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1840	111	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2318
Client ID: LCS for batch 965812
Lab Sample ID: 1202072535
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 12:27
Dilution: 1
Prep Batch ID: 965812
Batch ID: 965816

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1880	113	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1810	109	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1280	77	32-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2318**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE16-10-2787MS**	**Matrix:**	**S**
Lab Sample ID:	**1202072536**	**%Moisture:**	**15.9**
Instrument:	**MSD7.I**	**Analysis Date:**	**03/23/2010 16:47**
Analyst:	**JMB3**	**Prep Batch ID**	**965812**
Inj. Vol:	**.5 uL**	**Batch ID:**	**965816**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1970	0.00	U	567	29	27-98
108-95-2	MS	Phenol	1970	0.00	U	878	44	33-94
95-57-8	MS	2-Chlorophenol	1970	0.00	U	954	48	29-96
106-46-7	MS	1,4-Dichlorobenzene	1970	0.00	U	840	43	27-96
621-64-7	MS	N-Nitrosodipropylamine	1970	0.00	U	922	47	29-102
59-50-7	MS	4-Chloro-3-methylphenol	1970	0.00	U	1350	68	29-110
83-32-9	MS	Acenaphthene	1970	342		1760	72	17-109
121-14-2	MS	2,4-Dinitrotoluene	1970	0.00	U	1360	69	33-107
100-02-7	MS	4-Nitrophenol	1970	0.00	U	1170	59	15-110
87-86-5	MS	Pentachlorophenol	1970	0.00	U	1470	74	23-110
129-00-0	MS	Pyrene	1970	1940		3840	96	24-118
110-86-1	MS	Pyridine	1970	0.00	U	568	29	25-102
62-53-3	MS	Aniline	1970	0.00	U	832	42	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	1970	0.00	U	721	37	29-96
541-73-1	MS	1,3-Dichlorobenzene	1970	0.00	U	785	40	26-97
100-51-6	MS	Benzyl alcohol	1970	0.00	U	0.00	0 *	19-112
95-50-1	MS	1,2-Dichlorobenzene	1970	0.00	U	897	45	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	1970	0.00	U	830	42	28-103
95-48-7	MS	o-Cresol	1970	0.00	U	1120	57	32-107
65794-96-9	MS	m,p-Cresols	1970	0.00	U	1110	56	33-115
67-72-1	MS	Hexachloroethane	1970	0.00	U	774	39	25-100
98-95-3	MS	Nitrobenzene	1970	0.00	U	1000	51	27-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2318
Client ID: RE16-10-2787MS
Lab Sample ID: 1202072536
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 15.9
Analysis Date: 03/23/2010 16:47
Prep Batch ID: 965812
Batch ID: 965816
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1970	0.00	U	939	48	29-104
88-75-5	MS	2-Nitrophenol	1970	0.00	U	924	47	26-102
105-67-9	MS	2,4-Dimethylphenol	1970	0.00	U	836	42	22-104
111-91-1	MS	bis(2-Chloroethoxy)methane	1970	0.00	U	916	46	27-101
120-83-2	MS	2,4-Dichlorophenol	1970	0.00	U	1190	60	26-103
65-85-0	MS	Benzoic acid	3950	0.00	U	2320	59	13-131
91-20-3	MS	Naphthalene	1970	223		1300	54	23-103
106-47-8	MS	4-Chloroaniline	1970	0.00	U	997	50	26-103
87-68-3	MS	Hexachlorobutadiene	1970	0.00	U	1010	51	28-101
91-57-6	MS	2-Methylnaphthalene	1970	96.3		1240	58	27-106
77-47-4	MS	Hexachlorocyclopentadiene	1970	0.00	U	358	18 *	24-117
88-06-2	MS	2,4,6-Trichlorophenol	1970	0.00	U	1360	69	26-105
95-95-4	MS	2,4,5-Trichlorophenol	1970	0.00	U	1700	86	30-110
91-58-7	MS	2-Chloronaphthalene	1970	0.00	U	1110	56	28-102
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1970	0.00	U	1200	61	33-106
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1970	0.00	U	1040	52	33-116
131-11-3	MS	Dimethylphthalate	1970	0.00	U	1440	73	38-113
606-20-2	MS	2,6-Dinitrotoluene	1970	0.00	U	1360	69	29-107
208-96-8	MS	Acenaphthylene	1970	0.00	U	1300	66	25-108
51-28-5	MS	2,4-Dinitrophenol	1970	0.00	U	941	48	14-102
132-64-9	MS	Dibenzofuran	1970	191	J	1590	71	35-112
84-66-2	MS	Diethylphthalate	1970	0.00	U	1570	80	36-122

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2318**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE16-10-2787MS**	**Matrix:**	**S**
Lab Sample ID:	**1202072536**	**%Moisture:**	**15.9**
Instrument:	**MSD7.I**	**Analysis Date:**	**03/23/2010 16:47**
Analyst:	**JMB3**	**Prep Batch ID:**	**965812**
Inj. Vol:	**.5 uL**	**Batch ID:**	**965816**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1970	366		1960	81	33-105
7005-72-3	MS	4-Chlorophenylphenylether	1970	0.00	U	1420	72	30-110
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1970	0.00	U	756	38	26-97
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1970	0.00	U	1480	75	28-135
122-39-4	MS	Diphenylamine	1970	0.00	U	1410	71	33-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1970	0.00	U	1400	71	31-113
101-55-3	MS	4-Bromophenylphenylether	1970	0.00	U	1450	73	31-109
118-74-1	MS	Hexachlorobenzene	1970	0.00	U	1350	68	37-99
85-01-8	MS	Phenanthrene	1970	2390		4770	120 *	29-109
120-12-7	MS	Anthracene	1970	596		2220	82	19-118
84-74-2	MS	Di-n-butylphthalate	1970	0.00	U	1560	79	39-123
206-44-0	MS	Fluoranthene	1970	2340		4580	113	33-114
85-68-7	MS	Butylbenzylphthalate	1970	0.00	U	1420	72	35-131
56-55-3	MS	Benzo(a)anthracene	1970	990		2750	89	30-111
91-94-1	MS	3,3'-Dichlorobenzidine	1970	0.00	U	1260	64	30-124
218-01-9	MS	Chrysene	1970	1020		2680	84	32-108
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1970	89.0	J	1560	74	37-129
117-84-0	MS	Di-n-octylphthalate	1970	0.00	U	1550	79	31-143
205-99-2	MS	Benzo(b)fluoranthene	1970	1480		2710	62	29-118
207-08-9	MS	Benzo(k)fluoranthene	1970	0.00	U	2420	122 *	32-118
50-32-8	MS	Benzo(a)pyrene	1970	923		2750	93	33-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1970	0.00	U	2560	130 *	29-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2318**
Client ID: **RE16-10-2787MS**
Lab Sample ID: **1202072536**
Instrument: **MSD7.I**
Analyst: **JMB3**
Inj. Vol: **.5 uL**

Sample Type: **Matrix Spike**
Matrix: **S**
%Moisture: **15.9**
Analysis Date: **03/23/2010 16:47**
Prep Batch ID: **965812**
Batch ID: **965816**
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1970	0.00	U	1980	100	27-119
191-24-2	MS	Benzo(ghi)perylene	1970	0.00	U	2520	128 *	28-112
120-82-1	MS	1,2,4-Trichlorobenzene	1970	0.00	U	980	50	28-99

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2318
Client ID: RE16-10-2787MSD
Lab Sample ID: 1202072537
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 15.9
Analysis Date: 03/23/2010 17:09
Prep Batch ID: 965812
Batch ID: 965816
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1980	0.00	U	558	28	27-98	2	0-30
108-95-2	MSD Phenol	1980	0.00	U	812	41	33-94	8	0-30
95-57-8	MSD 2-Chlorophenol	1980	0.00	U	944	48	29-96	1	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1980	0.00	U	815	41	27-96	3	0-30
621-64-7	MSD N-Nitrosodipropylamine	1980	0.00	U	879	44	29-102	5	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1980	0.00	U	1170	59	29-110	14	0-30
83-32-9	MSD Acenaphthene	1980	342		1530	60	17-109	14	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1980	0.00	U	1210	61	33-107	11	0-30
100-02-7	MSD 4-Nitrophenol	1980	0.00	U	1050	53	15-110	11	0-30
87-86-5	MSD Pentachlorophenol	1980	0.00	U	1290	65	23-110	13	0-30
129-00-0	MSD Pyrene	1980	1940		3650	86	24-118	5	0-30
110-86-1	MSD Pyridine	1980	0.00	U	545	28	25-102	4	0-30
62-53-3	MSD Aniline	1980	0.00	U	694	35	18-109	18	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1980	0.00	U	689	35	29-96	5	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1980	0.00	U	776	39	26-97	1	0-30
100-51-6	MSD Benzyl alcohol	1980	0.00	U	0.00	0 *	19-112	0	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1980	0.00	U	858	43	30-97	4	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1980	0.00	U	790	40	28-103	5	0-30
95-48-7	MSD o-Cresol	1980	0.00	U	1120	56	32-107	0	0-30
65794-96-9	MSD m,p-Cresols	1980	0.00	U	1210	61	33-115	9	0-30
67-72-1	MSD Hexachloroethane	1980	0.00	U	751	38	25-100	3	0-30
98-95-3	MSD Nitrobenzene	1980	0.00	U	939	47	27-106	7	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2318**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE16-10-2787MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202072537**	**%Moisture:**	**15.9**
Instrument:	**MSD7.I**	**Analysis Date:**	**03/23/2010 17:09**
Analyst:	**JMB3**	**Prep Batch ID:**	**965812**
Inj. Vol:	**.5 uL**	**Batch ID:**	**965816**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD	Isophorone	1980	0.00	U	876	44	29-104	7	0-30
88-75-5	MSD	2-Nitrophenol	1980	0.00	U	900	45	26-102	3	0-30
105-67-9	MSD	2,4-Dimethylphenol	1980	0.00	U	725	37	22-104	14	0-30
111-91-1	MSD	bis(2-Chloroethoxy)methane	1980	0.00	U	858	43	27-101	7	0-30
120-83-2	MSD	2,4-Dichlorophenol	1980	0.00	U	1080	54	26-103	10	0-30
65-85-0	MSD	Benzoic acid	3960	0.00	U	1960	49	13-131	17	0-30
91-20-3	MSD	Naphthalene	1980	223		1210	50	23-103	7	0-30
106-47-8	MSD	4-Chloroaniline	1980	0.00	U	575	29	26-103	54 *	0-30
87-68-3	MSD	Hexachlorobutadiene	1980	0.00	U	977	49	28-101	3	0-30
91-57-6	MSD	2-Methylnaphthalene	1980	96.3		1150	53	27-106	8	0-30
77-47-4	MSD	Hexachlorocyclopentadiene	1980	0.00	U	299	15 *	24-117	18	0-30
88-06-2	MSD	2,4,6-Trichlorophenol	1980	0.00	U	1190	60	26-105	13	0-30
95-95-4	MSD	2,4,5-Trichlorophenol	1980	0.00	U	1500	76	30-110	13	0-30
91-58-7	MSD	2-Chloronaphthalene	1980	0.00	U	1000	51	28-102	10	0-30
88-74-4	MSD	2-Nitroaniline *o-Nitroaniline*	1980	0.00	U	1030	52	33-106	15	0-30
99-09-2	MSD	3-Nitroaniline *m-Nitroaniline*	1980	0.00	U	801	40	33-116	26	0-30
131-11-3	MSD	Dimethylphthalate	1980	0.00	U	1270	64	38-113	13	0-30
606-20-2	MSD	2,6-Dinitrotoluene	1980	0.00	U	1190	60	29-107	13	0-30
208-96-8	MSD	Acenaphthylene	1980	0.00	U	1160	58	25-108	11	0-30
51-28-5	MSD	2,4-Dinitrophenol	1980	0.00	U	854	43	14-102	10	0-30
132-64-9	MSD	Dibenzofuran	1980	191	J	1430	62	35-112	11	0-30
84-66-2	MSD	Diethylphthalate	1980	0.00	U	1360	69	36-122	14	0-30

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2318

Client ID: RE16-10-2787MSD

Lab Sample ID: 1202072537

Instrument: MSD7.I

Analyst: JMB3

Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate

Matrix: S

%Moisture: 15.9

Analysis Date: 03/23/2010 17:09

Dilution: 1

Prep Batch ID: 965812

Batch ID: 965816

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD Fluorene	1980	366		1740	69	33-105	12	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	1980	0.00	U	1260	64	30-110	12	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	1980	0.00	U	678	34	26-97	11	0-30
100-01-6	MSD 4-Nitroaniline *p-Nitroaniline*	1980	0.00	U	1310	66	28-135	13	0-30
122-39-4	MSD Diphenylamine	1980	0.00	U	1250	63	33-109	12	0-30
122-66-7	MSD Azobenzene *1,2-Diphenylhydrazine*	1980	0.00	U	1240	63	31-113	12	0-30
101-55-3	MSD 4-Bromophenylphenylether	1980	0.00	U	1240	63	31-109	16	0-30
118-74-1	MSD Hexachlorobenzene	1980	0.00	U	1170	59	37-99	14	0-30
85-01-8	MSD Phenanthrene	1980	2390		4290	96	29-109	11	0-30
120-12-7	MSD Anthracene	1980	596		2010	71	19-118	10	0-30
84-74-2	MSD Di-n-butylphthalate	1980	0.00	U	1320	67	39-123	17	0-30
206-44-0	MSD Fluoranthene	1980	2340		4110	89	33-114	11	0-30
85-68-7	MSD Butylbenzylphthalate	1980	0.00	U	1300	66	35-131	9	0-30
56-55-3	MSD Benzo(a)anthracene	1980	990		2410	72	30-111	13	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	1980	0.00	U	1010	51	30-124	22	0-30
218-01-9	MSD Chrysene	1980	1020		2400	70	32-108	11	0-30
117-81-7	MSD bis(2-Ethylhexyl)phthalate	1980	89.0	J	1400	66	37-129	11	0-30
117-84-0	MSD Di-n-octylphthalate	1980	0.00	U	1440	73	31-143	7	0-30
205-99-2	MSD Benzo(b)fluoranthene	1980	1480		2520	53	29-118	7	0-30
207-08-9	MSD Benzo(k)fluoranthene	1980	0.00	U	2070	105	32-118	15	0-30
50-32-8	MSD Benzo(a)pyrene	1980	923		2390	74	33-115	14	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	1980	0.00	U	2160	109	29-114	17	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2318**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE16-10-2787MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202072537**	**%Moisture:**	**15.9**
Instrument:	**MSD7.I**	**Analysis Date:**	**03/23/2010 17:09**
Analyst:	**JMB3**	**Prep Batch ID:**	**965812**
Inj. Vol:	**.5 uL**	**Batch ID:**	**965816**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD	Dibenzo(a,h)anthracene	1980	0.00	U	1740	88	27-119	13	0-30
191-24-2	MSD	Benzo(ghi)perylene	1980	0.00	U	2100	106	28-112	18	0-30
120-82-1	MSD	1,2,4-Trichlorobenzene	1980	0.00	U	917	46	28-99	7	0-30

Method Blank Summary

SDG Number:	10-2318	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965812	Instrument ID:	MSD7.I	Data File:	s7c2306-1.d
Lab Sample ID:	1202072534	Prep Date:	03/16/2010 21:37	Analyzed:	03/23/10 12:05
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 965812	1202072535	s7c2307-1.d	03/23/10	1227
02 RE46-10-11924	248865001	s7c2313.d	03/23/10	1437

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2318

Instrument ID: MSD7.1 **Injection Date/Time:** 26-FEB-10 10:23

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s022610.b/s7b2601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	59.4
68	Less than 2% of mass 69	0.6
69	Mass 69 Relative Abundance	48.9
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	54.1
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.2
365	Greater than 1% of mass 198	2.7
441	Present, but less than mass 443	79.7
442	Greater than 40% of mass 198	71.6
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100225-08	s7b2603.d	26-FEB-10 11:07
MEGA040	WBN100225-05.1	s7b2606.d	26-FEB-10 12:19
MEGA050	WBN100225-04	s7b2607.d	26-FEB-10 12:43
MEGA080	WBN100225-03	s7b2608.d	26-FEB-10 13:07
MEGA100	WBN100225-02	s7b2609.d	26-FEB-10 13:32
MEGA120	WBN100225-01	s7b2610.d	26-FEB-10 13:56
MEGA010	WBN100225-07	s7b2612.d	26-FEB-10 14:44
MEGA020	WBN100225-06	s7b2613.d	26-FEB-10 15:08
MEGAICV	WBN100225-09.1	s7b2614.d	26-FEB-10 15:33

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2318

Instrument ID: MSD7.I **Injection Date/Time:** 26-FEB-10 16:00

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s022610.b/s7b2615.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	59
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	49.2
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	55.5
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.7
441	Present, but less than mass 443	78.7
442	Greater than 40% of mass 198	68.1
443	17 - 23% of mass 442	19.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN100218-01	s7b2617.d	26-FEB-10 16:34
AP020	WBN100218-02	s7b2618.d	26-FEB-10 16:56
AP040	WBN100218-03.1	s7b2619.d	26-FEB-10 17:17
AP050	WBN100218-04	s7b2620.d	26-FEB-10 17:39
AP080	WBN100218-05	s7b2621.d	26-FEB-10 18:00
AP100	WBN100218-06	s7b2622.d	26-FEB-10 18:22
AP120	WBN100218-07	s7b2623.d	26-FEB-10 18:43
APICV	WBN100218-08.1	s7b2638.d	27-FEB-10 00:07

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2318

Instrument ID: MSD7.I **Injection Date/Time:** 23-MAR-10 11:08

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s032310.b/s7c2303.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	56.3
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	49
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	54.2
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	7.1
275	10 - 30% of mass 198	23.9
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	77.2
442	Greater than 40% of mass 198	61.2
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-05.2	s7c2304.d	23-MAR-10 11:20
APCVS	WBN100312-03.3	s7c2305.d	23-MAR-10 11:44
SBLK01	1202072534	s7c2306-1.d	23-MAR-10 12:05
SBLK01LCS	1202072535	s7c2307-1.d	23-MAR-10 12:27
RE46-10-11924	248865001	s7c2313.d	23-MAR-10 14:37

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2318

Instrument: MSD7.I

STD Analysis Time: 23-MAR-10 11:20

GC Column: J&W DB-5MS

Data File: s7c2304.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	273307		3.87	1124363		4.74	583433		5.99	1092463		7.15	838935		9.55	588840		11.2
Upper Limit	546614		4.37	2248726		5.24	1166866		6.49	2184926		7.65	1677870		10.1	1177680		11.7
Lower Limit	136654		3.37	562182		4.24	291717		5.49	546232		6.65	419468		9.05	294420		10.7
Sample ID																		
BLK01	212090		3.87	794132		4.73	461044		5.98	834040		7.14	651822		9.54	489529		11.2
BLK01LCS	226223		3.87	939533		4.73	485896		5.98	944400		7.14	801200		9.55	620288		11.2
RE46-10-11924	237492		3.87	886179		4.73	518632		5.98	955224		7.14	692461		9.54	467695		11.2

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248865001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11924**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 14:37**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2313.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	402	ug/kg	80.4	402
108-95-2	Phenol	U	402	ug/kg	80.4	402
95-57-8	2-Chlorophenol	U	402	ug/kg	80.4	402
106-46-7	1,4-Dichlorobenzene	U	402	ug/kg	80.4	402
621-64-7	N-Nitrosodipropylamine	U	402	ug/kg	80.4	402
59-50-7	4-Chloro-3-methylphenol	U	402	ug/kg	80.4	402
83-32-9	Acenaphthene	U	40.2	ug/kg	13.3	40.2
121-14-2	2,4-Dinitrotoluene	U	402	ug/kg	40.2	402
100-02-7	4-Nitrophenol	U	402	ug/kg	133	402
87-86-5	Pentachlorophenol	U	402	ug/kg	101	402
129-00-0	Pyrene	U	40.2	ug/kg	12.1	40.2
110-86-1	Pyridine	U	402	ug/kg	80.4	402
62-53-3	Aniline	U	402	ug/kg	121	402
111-44-4	bis(2-Chloroethyl) ether	U	402	ug/kg	80.4	402
541-73-1	1,3-Dichlorobenzene	U	402	ug/kg	80.4	402
100-51-6	Benzyl alcohol	U	402	ug/kg	121	402
95-50-1	1,2-Dichlorobenzene	U	402	ug/kg	80.4	402
108-60-1	bis(2-Chloroisopropyl)ether	U	402	ug/kg	80.4	402
95-48-7	o-Cresol	U	402	ug/kg	80.4	402
65794-96-9	m,p-Cresols	U	402	ug/kg	121	402
67-72-1	Hexachloroethane	U	402	ug/kg	80.4	402
98-95-3	Nitrobenzene	U	402	ug/kg	80.4	402
78-59-1	Isophorone	U	402	ug/kg	80.4	402
88-75-5	2-Nitrophenol	U	402	ug/kg	80.4	402
105-67-9	2,4-Dimethylphenol	U	402	ug/kg	141	402
111-91-1	bis(2-Chloroethoxy)methane	U	402	ug/kg	80.4	402
120-83-2	2,4-Dichlorophenol	U	402	ug/kg	80.4	402
65-85-0	Benzoic acid	U	804	ug/kg	201	804
91-20-3	Naphthalene	U	40.2	ug/kg	12.1	40.2
106-47-8	4-Chloroaniline	U	402	ug/kg	80.4	402
87-68-3	Hexachlorobutadiene	U	402	ug/kg	80.4	402
91-57-6	2-Methylnaphthalene	U	40.2	ug/kg	8.04	40.2
77-47-4	Hexachlorocyclopentadiene	U	402	ug/kg	80.4	402
88-06-2	2,4,6-Trichlorophenol	U	402	ug/kg	80.4	402
95-95-4	2,4,5-Trichlorophenol	U	402	ug/kg	80.4	402
91-58-7	2-Chloronaphthalene	U	40.2	ug/kg	13.3	40.2
88-74-4	2-Nitroaniline	U	402	ug/kg	80.4	402
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	402	ug/kg	80.4	402

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248865001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11924**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 14:37**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2313.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	402	ug/kg	80.4	402
606-20-2	2,6-Dinitrotoluene	U	402	ug/kg	40.2	402
208-96-8	Acenaphthylene	U	40.2	ug/kg	12.1	40.2
51-28-5	2,4-Dinitrophenol	U	804	ug/kg	153	804
132-64-9	Dibenzofuran	U	402	ug/kg	80.4	402
84-66-2	Diethylphthalate	U	402	ug/kg	80.4	402
86-73-7	Fluorene	U	40.2	ug/kg	12.1	40.2
7005-72-3	4-Chlorophenylphenylether	U	402	ug/kg	80.4	402
534-52-1	2-Methyl-4,6-dinitrophenol	U	402	ug/kg	80.4	402
100-01-6	4-Nitroaniline	U	402	ug/kg	121	402
	p-Nitroaniline					
122-39-4	Diphenylamine	U	402	ug/kg	80.4	402
122-66-7	Azobenzene	U	402	ug/kg	80.4	402
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	402	ug/kg	80.4	402
118-74-1	Hexachlorobenzene	U	402	ug/kg	80.4	402
85-01-8	Phenanthrene	U	40.2	ug/kg	12.1	40.2
120-12-7	Anthracene	U	40.2	ug/kg	8.04	40.2
84-74-2	Di-n-butylphthalate	U	402	ug/kg	80.4	402
206-44-0	Fluoranthene	U	40.2	ug/kg	12.1	40.2
85-68-7	Butylbenzylphthalate	U	402	ug/kg	80.4	402
56-55-3	Benzo(a)anthracene	U	40.2	ug/kg	12.1	40.2
91-94-1	3,3'-Dichlorobenzidine	U	402	ug/kg	121	402
218-01-9	Chrysene	U	40.2	ug/kg	12.1	40.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	402	ug/kg	80.4	402
117-84-0	Di-n-octylphthalate	U	402	ug/kg	80.4	402
205-99-2	Benzo(b)fluoranthene	U	40.2	ug/kg	12.1	40.2
207-08-9	Benzo(k)fluoranthene	U	40.2	ug/kg	12.1	40.2
50-32-8	Benzo(a)pyrene	U	40.2	ug/kg	12.1	40.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.2	ug/kg	12.1	40.2
53-70-3	Dibenzo(a,h)anthracene	U	40.2	ug/kg	12.1	40.2
191-24-2	Benzo(ghi)perylene	U	40.2	ug/kg	12.1	40.2
120-82-1	1,2,4-Trichlorobenzene	U	402	ug/kg	80.4	402

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	498	ug/kg		J

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2313.d
Lab Smp Id: 248865001 Client Smp ID: RE46-10-11924
Inj Date : 23-MAR-2010 14:37
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248865001|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2318.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	17.15310	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	237492	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	886179	40.0000	
* 46 Acenaphthene-d10	164	5.983	5.988	(1.000)	518632	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	955224	40.0000	
* 91 Chrysene-d12	240	9.542	9.552	(1.000)	692461	40.0000	
* 98 Perylene-d12	264	11.155	11.165	(1.000)	467695	40.0000	
$ 3 2-Fluorophenol	112	3.065	3.061	(0.792)	358657	58.1012	2340
$ 5 Phenol-d5	99	3.585	3.590	(0.927)	436296	56.3722	2270
$ 20 Nitrobenzene-d5	82	4.226	4.235	(0.893)	218507	32.6919	1310
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	451286	34.9153	1400
$ 60 2,4,6-Tribromophenol	329	6.576	6.576	(1.099)	119721	79.8514	3210
$ 81 p-Terphenyl-d14	244	8.516	8.521	(0.892)	544637	43.9026	1760

ION RATIO REPORT

SV REPORT

Data file: s7c2313.d
Report Date: 03/23/2010 15:13
Lab. ID: 248865001 SampleType: SAMPLE
Injection Date: 23-MAR-2010 14:37
Operator: JMB3 Instrument: MSD7.i
Sample Info: |248865001|965816|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2318
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	28860	3.59	3.66	80-120	100	(T)
93	596	3.55	3.66	229-289	2	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	33961	4.23	4.12	80-120	100	(T)
42	30121	4.23	4.12	74-134	89	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	93586	5.98	5.75	80-120	100	(T)
164	518632	5.98	5.75	0- 40	554	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	66752	5.98	5.81	80-120	100	(T)
63	756	5.98	5.81	66-126	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	66752	5.98	6.10	80-120	100	(T)
89	897	5.98	6.10	43-103	1	(QT)
63	756	5.98	6.10	22- 82	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	6437	6.57	6.39	80-120	100	(T)
165	6705	6.57	6.39	61-121	104	(T)
167	2412	6.57	6.39	0- 44	37	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	495	6.58	6.41	80-120	100	(T)
105	1074	6.57	6.41	14- 74	217	(QT)
51	1180	6.57	6.41	41-101	238	(QT)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	9047	6.57	6.75	80-120	100	(T)
141	70073	6.57	6.75	61-121	775	(QT)
250	17704	6.58	6.75	69-129	196	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2313.d
Lab Smp Id: 248865001 Client Smp ID: RE46-10-11924
Inj Date : 23-MAR-2010 14:37
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248865001|965816|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2318.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	17.15310	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.870	1575747	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.902	487896	12.3851304	498	0		0	10

Data File: /chem/MSD7.i/s032310.b/s7c2313.d

Date : 23-MAR-2010 14:37

Client ID: RE46-10-11924

Sample Info: |2488650011965816|1|SVMI1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Page 1

Instrument: MSD7.i

Operator: JMB3

Column diameter: 0.20

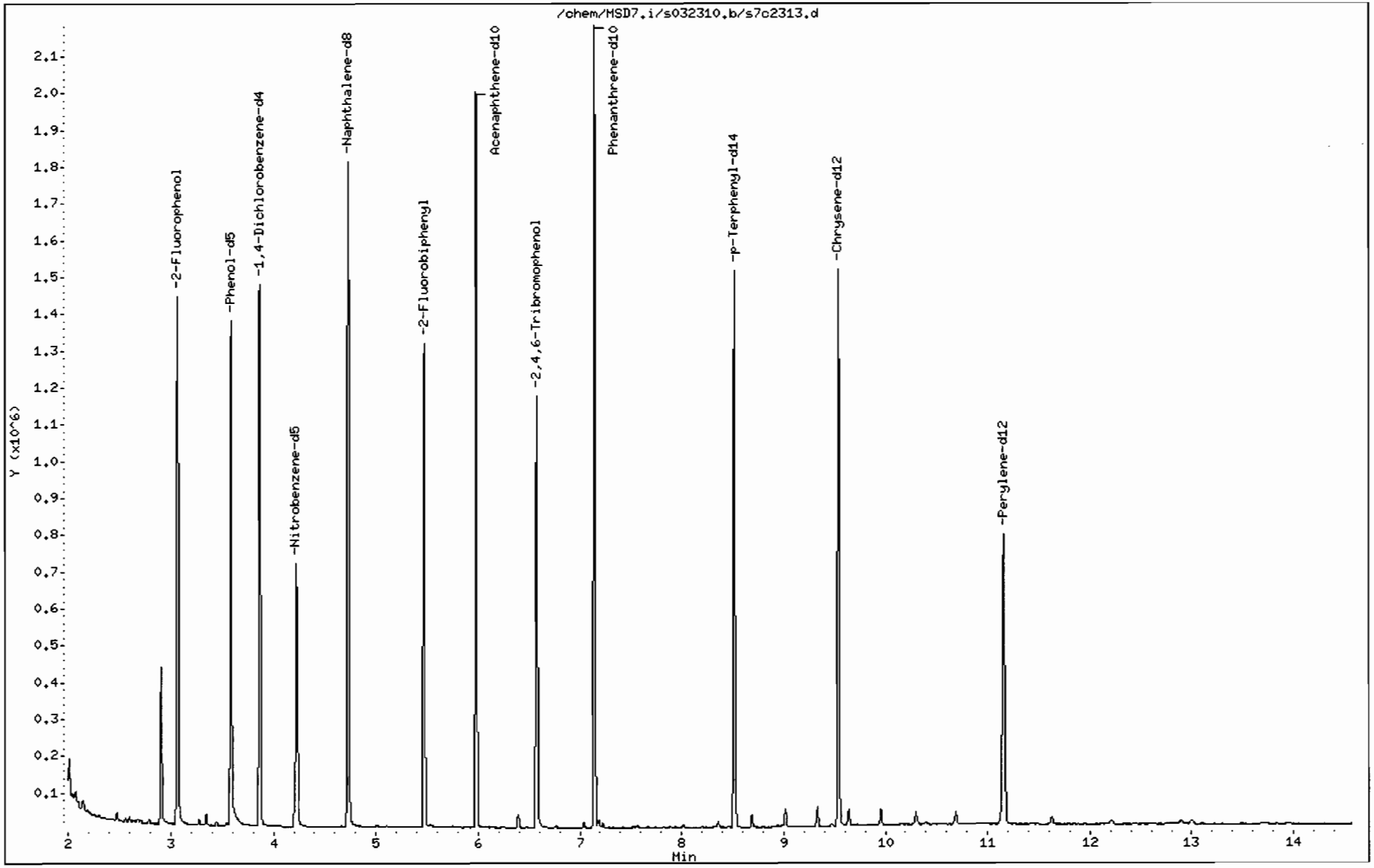

Data File: /chem/MSD7.i/s032310.b/s7c2313.d

Date : 23-MAR-2010 14:37

Client ID: RE46-10-11924 Instrument: MSD7.i

Sample Info: |2488650011965816|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116

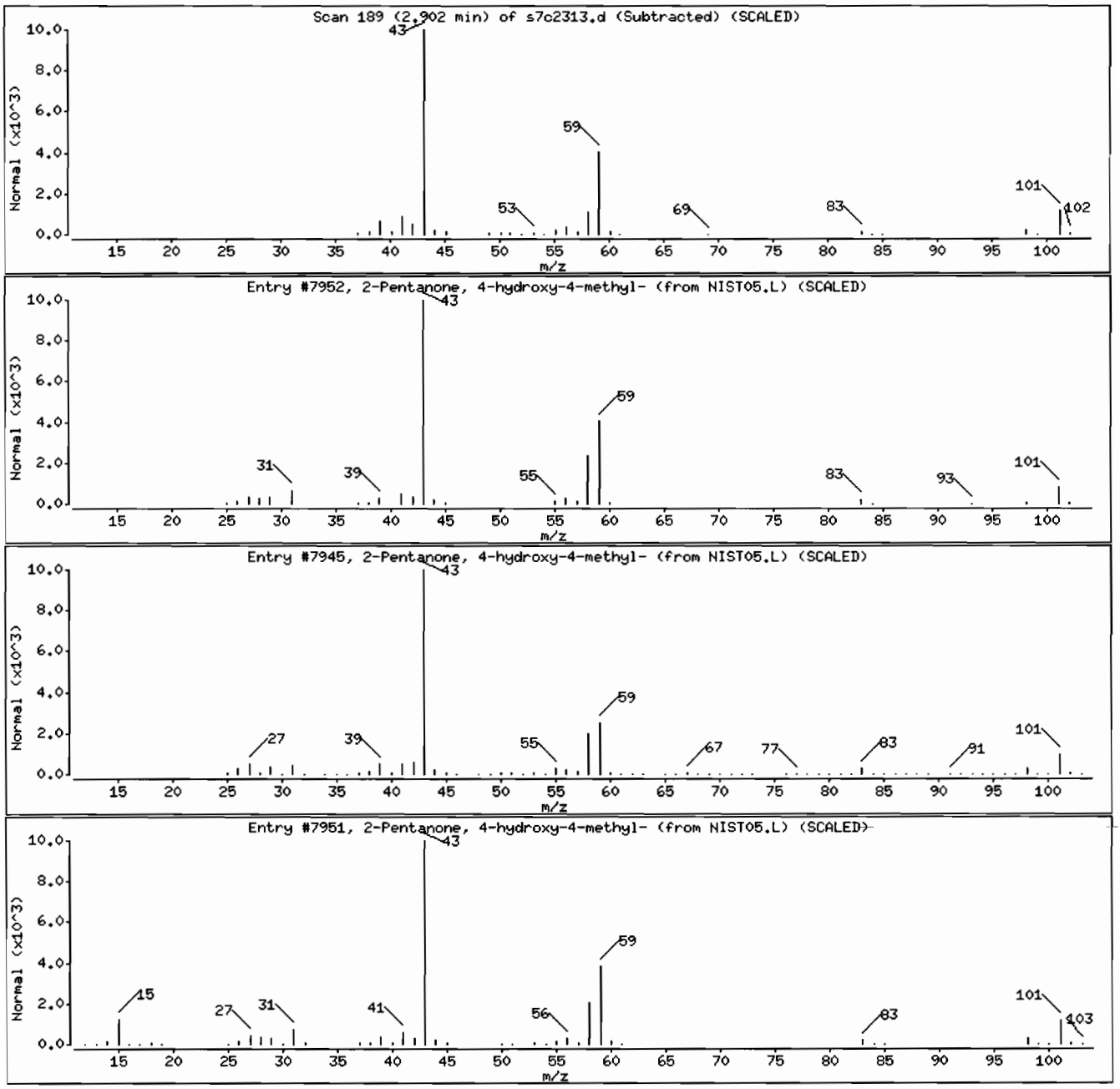

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 23-Mar-2010 12:32

Calibration History

Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Start Cal Date: 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
26-FEB-2010 11:07	MEGA	/chem/MSD7.i/s022610.b/s7b2603.d
Cal Level: 2 , Cal Amount: 10.00000		
26-FEB-2010 21:36	NEV	/chem/MSD7.i/s022610.b/s7b2631.d
26-FEB-2010 19:05	PEST	/chem/MSD7.i/s022610.b/s7b2624.d
26-FEB-2010 16:34	AP12	/chem/MSD7.i/s022610.b/s7b2617.d
26-FEB-2010 14:44	MEGA	/chem/MSD7.i/s022610.b/s7b2612.d
Cal Level: 3 , Cal Amount: 20.00000		
26-FEB-2010 21:58	NEV	/chem/MSD7.i/s022610.b/s7b2632.d
26-FEB-2010 19:26	PEST	/chem/MSD7.i/s022610.b/s7b2625.d
26-FEB-2010 16:56	AP12	/chem/MSD7.i/s022610.b/s7b2618.d
26-FEB-2010 15:08	MEGA	/chem/MSD7.i/s022610.b/s7b2613.d
Cal Level: 4 , Cal Amount: 40.00000		
26-FEB-2010 22:19	NEV	/chem/MSD7.i/s022610.b/s7b2633.d
26-FEB-2010 19:48	PEST	/chem/MSD7.i/s022610.b/s7b2626.d
26-FEB-2010 17:17	AP12	/chem/MSD7.i/s022610.b/s7b2619.d
26-FEB-2010 12:19	MEGA	/chem/MSD7.i/s022610.b/s7b2606.d
Cal Level: 5 , Cal Amount: 50.00000		
26-FEB-2010 22:40	NEV	/chem/MSD7.i/s022610.b/s7b2634.d
26-FEB-2010 20:09	PEST	/chem/MSD7.i/s022610.b/s7b2627.d
26-FEB-2010 17:39	AP12	/chem/MSD7.i/s022610.b/s7b2620.d
26-FEB-2010 12:43	MEGA	/chem/MSD7.i/s022610.b/s7b2607.d
Cal Level: 6 , Cal Amount: 80.00000		
26-FEB-2010 23:02	NEV	/chem/MSD7.i/s022610.b/s7b2635.d
26-FEB-2010 20:31	PEST	/chem/MSD7.i/s022610.b/s7b2628.d
26-FEB-2010 18:00	AP12	/chem/MSD7.i/s022610.b/s7b2621.d
26-FEB-2010 13:07	MEGA	/chem/MSD7.i/s022610.b/s7b2608.d
Cal Level: 7 , Cal Amount: 100.00000		
26-FEB-2010 23:24	NEV	/chem/MSD7.i/s022610.b/s7b2636.d
26-FEB-2010 20:52	PEST	/chem/MSD7.i/s022610.b/s7b2629.d
26-FEB-2010 18:22	AP12	/chem/MSD7.i/s022610.b/s7b2622.d
26-FEB-2010 13:32	MEGA	/chem/MSD7.i/s022610.b/s7b2609.d

Cal Level: 8 , Cal Amount: 120.00000		
26-FEB-2010 23:46	NEV	/chem/MSD7.i/s022610.b/s7b2637.d
26-FEB-2010 21:14	PEST	/chem/MSD7.i/s022610.b/s7b2630.d
26-FEB-2010 18:43	AP12	/chem/MSD7.i/s022610.b/s7b2623.d
26-FEB-2010 13:56	MEGA	/chem/MSD7.i/s022610.b/s7b2610.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
23-MAR-2010 11:20	MEGA	/chem/MSD7.i/s032310.b/s7c2304.d
Ccal Level: 4 , Ccal Amount: 40.0		
23-MAR-2010 11:44	AP12	/chem/MSD7.i/s032310.b/s7c2305.d
Ccal Level: 4 , Ccal Amount: 40.0		
23-MAR-2010 10:41	MEGA	/chem/MSD7.i/s032310.b/s7c2302.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Calibration File Names:
Level 1: /chem/MSD7.i/s022610.b/s7b2603.d
Level 2: /chem/MSD7.i/s022610.b/s7b2631.d
Level 3: /chem/MSD7.i/s022610.b/s7b2632.d
Level 4: /chem/MSD7.i/s022610.b/s7b2633.d
Level 5: /chem/MSD7.i/s022610.b/s7b2634.d
Level 6: /chem/MSD7.i/s022610.b/s7b2635.d
Level 7: /chem/MSD7.i/s022610.b/s7b2636.d
Level 8: /chem/MSD7.i/s022610.b/s7b2637.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.70129	0.69307	0.69919	0.69205	0.70435					
	0.72207	0.68805					AVRG		0.70001		1.61027
2 Pyridine	+++++	0.94944	0.95786	0.97202	0.96726	0.96770					
	0.98956	0.94873					AVRG		0.96465		1.47919
4 Aniline	+++++	0.63884	0.62715	0.61554	0.61939	0.61456					
	0.63008	0.60716					AVRG		0.62182		1.73598
209 Benzaldehyde	+++++	0.95833	0.92226	0.84939	0.85637	0.79340					
	0.79412	0.72945					AVRG		0.84333		9.38003
6 Phenol	+++++	1.32624	1.33308	1.29840	1.28556	1.27125					
	1.30161	1.24826					AVRG		1.29492		2.29936

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Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	+++++	1.10103	1.14462	1.07089	1.07731	1.02082					
	1.03135	0.97582					AVRG		1.06026		5.26596
8 2-Chlorophenol	+++++	1.05514	1.03806	0.97770	0.97692	0.96049					
	0.98254	0.94585					AVRG		0.99096		4.06684
203 n-Decane	+++++	2.18082	2.07044	1.82788	1.73590	1.49542					
	+++++	+++++					AVRG		1.86209		14.62211
9 1,3-Dichlorobenzene	+++++	1.32145	1.29459	1.24409	1.22768	1.22115					
	1.22709	1.17739					AVRG		1.24478		3.88965
11 1,4-Dichlorobenzene	+++++	1.25354	1.24697	1.20326	1.18250	1.16238					
	1.17850	1.13378					AVRG		1.19442		3.65492
12 Benzyl alcohol	+++++	0.67067	0.67376	0.66588	0.67064	0.67714					
	0.69639	0.66876					AVRG		0.67475		1.51022
13 1,2-Dichlorobenzene	+++++	1.18780	1.16188	1.10021	1.10063	1.06192					
	1.06520	1.01341					AVRG		1.09872		5.47171
14 bis(2-Chloroisopropyl)ether	+++++	2.84346	2.77975	2.54436	2.49732	2.25102					
	2.22248	2.05488					AVRG		2.45618		12.00760
15 o-Cresol	+++++	0.82975	0.83763	0.79686	0.80251	0.77550					
	0.77566	0.73522					AVRG		0.79330		4.42431

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Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.19544	1.16930	1.11939	1.09905	1.06063					
	1.05199	1.05015					AVRG		1.10656		5.25990
17 N-Nitrosodipropylamine	+++++	0.78986	0.78126	0.76761	0.76071	0.69101					
	0.68312	0.68292					AVRG		0.73664		6.60276
18 m,p-Cresols	+++++	1.06688	1.08137	1.06240	1.06282	1.06806					
	1.09460	1.06712					AVRG		1.07190		1.10409
19 Hexachloroethane	+++++	0.47830	0.48853	0.45909	0.46017	0.45910					
	0.46127	0.44002					AVRG		0.46378		3.35369
21 Nitrobenzene	+++++	0.32599	0.31564	0.28441	0.27994	0.26223					
	0.25178	0.23906					AVRG		0.27987		11.47927
22 Isophorone	+++++	0.60055	0.58304	0.55409	0.54916	0.51583					
	0.50295	0.47946					AVRG		0.54073		8.06835
23 2-Nitrophenol	+++++	0.15519	0.14330	0.13006	0.13093	0.12549					
	0.12051	0.11450					AVRG		0.13143		10.52994
24 2,4-Dimethylphenol	+++++	114168	218277	376135	452448	745396					
	905563	998411					WLINR	-0.12517	0.21482		0.99550
25 bis(2-Chloroethoxy)methane	+++++	0.33736	0.32731	0.30205	0.29544	0.27901					
	0.27212	0.25761					AVRG		0.29584		9.81641

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.23284	0.23115	0.21499	0.21340	0.20610					
	0.19857	0.18877					AVRG		0.21226		7.61142
27 Benzoic acid	+++++	+++++	0.09399	0.10823	0.11656	0.13120					
	0.13489	0.14008					AVRG		0.12083		14.68354
28 1,2,4-Trichlorobenzene	+++++	0.29769	0.28901	0.26508	0.25660	0.24189					
	0.23181	0.21987					AVRG		0.25742		11.19881
30 Naphthalene	0.86793	0.85653	0.82594	0.76646	0.74263	0.69647					
	0.66692	0.62198					AVRG		0.75561		11.96904
204 alpha-Terpineol	+++++	0.36073	0.33018	0.30395	0.29238	0.25678					
	+++++	+++++					AVRG		0.30880		12.69973
31 4-Chloroaniline	+++++	0.39138	0.38394	0.36323	0.35125	0.34226					
	0.33031	0.31443					AVRG		0.35383		7.86879
189 Caprolactam	+++++	0.07270	0.07721	0.07751	0.07660	0.07453					
	0.07119	0.07132					AVRG		0.07444		3.68543
32 Hexachlorobutadiene	+++++	0.15432	0.14969	0.13784	0.13578	0.12669					
	0.12160	0.11448					AVRG		0.13434		10.80519
33 4-Chloro-3-methylphenol	+++++	0.23968	0.24055	0.23641	0.23018	0.22561					
	0.21618	0.20719					AVRG		0.22797		5.51338

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Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
34 2-Methylnaphthalene	0.60775	0.60694	0.59172	0.55334	0.53860	0.50400					
	0.48115	0.45486					AVRG		0.54229		10.77312
35 1-Methylnaphthalene	0.59454	0.58640	0.56002	0.52389	0.50625	0.47447					
	0.45314	0.42590					AVRG		0.51558		12.04862
36 Hexachlorocyclopentadiene	+++++	0.17760	0.20342	0.20161	0.19061	0.22063					
	0.18724	0.17253					AVRG		0.19338		8.54937
208 1,1'-Biphenyl	+++++	1.26811	1.22170	1.13538	1.10081	1.02216					
	0.99895	0.96709					AVRG		1.10203		10.36141
205 2,3-Dichloroaniline	+++++	0.55167	0.53296	0.49182	0.48955	0.47670					
	0.46688	0.45276					AVRG		0.49462		7.19612
37 2,4,6-Trichlorophenol	+++++	0.28591	0.29017	0.28397	0.28642	0.27709					
	0.27579	0.26511					AVRG		0.28064		3.05262
38 2,4,5-Trichlorophenol	+++++	0.30067	0.30400	0.27441	0.27725	0.27297					
	0.27188	0.27453					AVRG		0.28225		4.90941
40 2-Chloronaphthalene	0.98968	0.98865	0.96920	0.92181	0.91661	0.88930					
	0.87923	0.85223					AVRG		0.92584		5.61667
42 o-Nitroaniline	+++++	0.32650	0.33651	0.32632	0.33065	0.32955					
	0.32556	0.31936					AVRG		0.32778		1.61097

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Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
41 m-Nitroaniline	+++++	0.22126	0.24562	0.23943	0.24325	0.24756					
	0.23907	0.23834					AVRG		0.23922		3.62078
43 Dimethylphthalate	+++++	1.14209	1.13350	1.05960	1.05899	1.02333					
	1.02706	0.99596					AVRG		1.06293		5.23993
44 2,6-Dinitrotoluene	+++++	0.26499	0.26039	0.24328	0.24493	0.23535					
	0.23967	0.22978					AVRG		0.24549		5.23468
45 Acenaphthylene	1.61531	1.62844	1.56002	1.45485	1.44949	1.39892					
	1.39129	1.34156					AVRG		1.47998		7.30956
47 Acenaphthene	0.94291	0.93284	0.92839	0.86375	0.86944	0.84726					
	0.85153	0.80716					AVRG		0.88041		5.54006
48 2,4-Dinitrophenol	+++++	+++++	22189	53016	65432	148984					
	192071	221189					LINR	0.35875	0.10576		0.99409
49 Dibenzofuran	+++++	1.35809	1.33389	1.22166	1.23984	1.19392					
	1.18290	1.13131					AVRG		1.23737		6.61916
50 2,4-Dinitrotoluene	+++++	0.32035	0.33058	0.31874	0.32457	0.32389					
	0.32862	0.31860					AVRG		0.32362		1.46117
51 Diethylphthalate	+++++	1.16778	1.15242	1.07866	1.08210	1.05762					
	1.05225	1.02521					AVRG		1.08801		4.86063

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Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
52 4-Nitrophenol	+++++	0.12189	0.15319	0.16924	0.16712	0.17578					
	0.17989	0.17224					AVRG		0.16277		12.22482
53 Fluorene	1.15003	1.14913	1.10994	1.00309	1.00564	0.97807					
	0.97276	0.93722					AVRG		1.03823		8.16853
54 4-Chlorophenylphenylether	+++++	0.55230	0.54732	0.51155	0.51708	0.50214					
	0.50180	0.47955					AVRG		0.51596		5.03023
55 2-Methyl-4,6-dinitrophenol	+++++	14243	47063	96235	119327	243903					
	311718	360208					LINR	0.20375	0.08692		0.99607
56 p-Nitroaniline	+++++	0.16936	0.20880	0.22482	0.21785	0.23101					
	0.23233	0.22347					AVRG		0.21538		10.12479
133 Diphenylamine	+++++	0.52306	0.50517	0.46428	0.46066	0.45126					
	0.45503	0.43996					AVRG		0.47134		6.50344
58 1,2-Diphenylhydrazine	+++++	0.65962	0.63737	0.59463	0.58510	0.56518					
	0.56834	0.54070					AVRG		0.59299		7.08469
59 Tributylphosphate	+++++	1.33867	1.16678	1.14080	1.10893	1.04610					
	1.01650	0.99882					AVRG		1.11666		10.42695
61 4-Bromophenylphenylether	+++++	0.17755	0.17375	0.16178	0.16189	0.15944					
	0.16098	0.15611					AVRG		0.16450		4.82846

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63 Hexachlorobenzene	+++++	0.17131	0.16786	0.15738	0.15772	0.15513					
	0.15658	0.15273					AVRG		0.15982		4.34833
207 Atrazine	+++++	0.04508	0.04317	0.03751	0.03999	0.03673					
	0.03600	0.03123					AVRG		0.03853		12.10180
65 Pentachlorophenol	+++++	0.05499	0.07351	0.07546	0.07788	0.08148					
	0.08346	0.08259					AVRG		0.07563		12.99894
206 n-Octadecane	+++++	0.66517	0.62877	0.54339	0.51312	0.41990					
	0.38282	0.35591					AVRG		0.50130		23.99535 <-
68 Phenanthrene	0.92440	0.87829	0.87153	0.80635	0.79576	0.77327					
	0.77180	0.74515					AVRG		0.82082		7.68182
69 Anthracene	0.90440	0.90373	0.89117	0.81712	0.81109	0.79018					
	0.78315	0.74963					AVRG		0.83131		7.25516
72 Di-n-butylphthalate	+++++	1.13584	1.12517	1.05910	1.04864	1.00051					
	0.99703	0.95438					AVRG		1.04581		6.45939
76 Fluoranthene	0.90224	0.97031	0.96017	0.89278	0.88802	0.86786					
	0.84840	0.81005					AVRG		0.89248		6.00409
77 Benzidine	+++++	0.40653	0.36246	0.36565	0.35403	0.36544					
	0.41263	0.35213					AVRG		0.37412		6.64046

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.32405	1.35159	1.31284	1.20723	1.21760	1.15073					
	1.26280	1.28250					AVRG		1.26367		5.36819
85 Butylbenzylphthalate	+++++	0.59662	0.60220	0.59072	0.60132	0.58013					
	0.61922	0.61621					AVRG		0.60092		2.27892
89 Benzo(a)anthracene	1.05093	0.96816	0.96328	0.93178	0.93105	0.93332					
	0.96025	0.93255					AVRG		0.95891		4.21524
90 3,3'-Dichlorobenzidine	+++++	0.26681	0.28620	0.29510	0.27316	0.27699					
	0.29106	0.26436					AVRG		0.27910		4.28355
92 Chrysene	0.89020	0.89976	0.89113	0.83925	0.84009	0.82315					
	0.84100	0.80174					AVRG		0.85329		4.21177
93 bis(2-Ethylhexyl)phthalate	+++++	0.80809	0.78600	0.73624	0.76057	0.74158					
	0.75155	0.74362					AVRG		0.76109		3.48672
94 Di-n-octylphthalate	+++++	1.52295	1.51090	1.49260	1.57749	1.70881					
	1.68585	1.74490					AVRG		1.60621		6.52248
95 Benzo(b)fluoranthene	1.02704	1.09919	1.10279	1.13249	1.13619	1.13403					
	1.17324	1.16918					AVRG		1.12177		4.15603
96 Benzo(k)fluoranthene	1.03689	1.14562	1.11676	0.99048	1.02425	1.04585					
	1.04682	1.02719					AVRG		1.05423		4.86067

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97 Benzo(a)pyrene	0.82018	0.92251	0.95324	0.92574	0.93085	0.93108					
	0.94872	0.92614					AVRG		0.91981		4.54058
99 Indeno(1,2,3-cd)pyrene	0.61793	0.62224	0.69390	0.69944	0.67832	0.64625					
	0.68582	0.64752					AVRG		0.66143		4.85925
100 Dibenzo(a,h)anthracene	0.47565	0.47818	0.54251	0.56597	0.53673	0.52054					
	0.55040	0.52332					AVRG		0.52416		6.20836
101 Benzo(ghi)perylene	0.56533	0.53785	0.58606	0.57992	0.55056	0.51978					
	0.55186	0.52150					AVRG		0.55161		4.48630
102 1,4-Dioxane	+++++	0.36384	0.36610	0.33417	0.33077	0.31979					
	0.31717	0.31403					AVRG		0.33513		6.45342
103 Methyl methacrylate	+++++	0.21020	0.20726	0.19621	0.19212	0.18889					
	0.18592	0.18875					AVRG		0.19562		4.88183
104 Ethyl methacrylate	+++++	0.79610	0.79733	0.75341	0.75358	0.72166					
	0.71755	0.72015					AVRG		0.75140		4.58534
105 2-Picoline	+++++	1.22561	1.21665	1.13966	1.12899	1.08441					
	1.07670	1.07757					AVRG		1.13566		5.59082
106 N-Nitrosomethylethylamine	+++++	0.47452	0.46462	0.43928	0.44021	0.42769					
	0.42281	0.42081					AVRG		0.44142		4.71501

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.54758	0.54286	0.49884	0.51161	0.49538					
	0.49709	0.45892					AVRG		0.50747		6.00086
108 N-Nitrosodiethylamine	+++++	0.49539	0.49681	0.46847	0.46768	0.45500					
	0.45400	0.45358					AVRG		0.47013		3.99967
109 Ethyl Methanesulfonate	+++++	0.65591	0.64231	0.61640	0.62051	0.60576					
	0.60616	0.59583					AVRG		0.62041		3.46816
110 Pentachloroethane	+++++	0.33091	0.32767	0.30927	0.31189	0.29650					
	0.29355	0.28904					AVRG		0.30840		5.34098
111 N-Nitrosopyrrolidine	+++++	0.51068	0.50360	0.49590	0.49956	0.48726					
	0.47931	0.47906					AVRG		0.49363		2.46520
113 N-Nitrosomorpholine	+++++	0.93269	0.89548	0.84559	0.81841	0.76963					
	0.74142	0.69563					AVRG		0.81412		10.39747
114 o-Toluidine	+++++	1.66749	1.62690	1.57357	1.54322	1.47535					
	1.45788	1.43454					AVRG		1.53985		5.74695
115 N-Nitrosopiperidine	+++++	0.13839	0.13649	0.13206	0.12980	0.12760					
	0.12960	0.12740					AVRG		0.13162		3.26869
116 a,a-Dimethylphenethylamine	+++++	0.91907	0.96417	0.99553	0.99366	0.99806					
	1.00353	0.99978					AVRG		0.98197		3.12063

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	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.13478	0.13459	0.13266	0.13072	0.12464					
	0.12191	0.12398					AVRG		0.12904		4.19259
118 2,6-Dichlorophenol	+++++	0.20253	0.20749	0.20261	0.20410	0.20112					
	0.20199	0.19907					AVRG		0.20270		1.29027
119 Hexachloropropene	+++++	0.10438	0.10831	0.10725	0.10671	0.10478					
	0.10645	0.09827					AVRG		0.10516		3.16694
120 p-Phenylenediamine	+++++	0.25668	0.25068	0.22690	0.21252	0.19855					
	0.19547	+++++					AVRG		0.22347		11.63559
121 N-Nitrosodi-n-butylamine	+++++	0.23441	0.23451	0.20097	0.18967	0.18327					
	0.18394	0.17781					AVRG		0.20065		12.05548
122 Safrole	+++++	0.20181	0.19524	0.18624	0.18455	0.17874					
	0.17654	0.17363					AVRG		0.18525		5.52554
123 1,2,4,5-Tetrachlorobenzene	+++++	0.44061	0.42948	0.40210	0.39235	0.37114					
	0.36184	0.35421					AVRG		0.39310		8.45898
124 Isosafrole	+++++	0.35170	0.34949	0.33088	0.32487	0.31439					
	0.31016	0.30561					AVRG		0.32673		5.63612
125 1,4-Naphthoquinone	+++++	84638	151030	288344	333563	495061					
	+++++	+++++					LINR	-0.21821	0.24057		0.99067

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	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.16835	0.17531	0.16597	0.17132	0.16929					
	0.16971	0.16651					AVRG		0.16950		1.86258
127 Pentachlorobenzene	+++++	0.37874	0.37429	0.35898	0.35476	0.34124					
	0.33507	0.33064					AVRG		0.35339		5.31101
128 1-Naphthylamine	+++++	0.93808	0.91662	0.87727	0.86662	0.82419					
	0.81523	0.76509					AVRG		0.85758		7.04454
129 2-Naphthylamine	+++++	1.00958	0.98980	0.95445	0.92796	0.89640					
	0.87021	0.81954					AVRG		0.92399		7.28200
130 2,3,4,6-Tetrachlorophenol	+++++	0.21848	0.23607	0.22847	0.23258	0.23782					
	0.24128	0.23864					AVRG		0.23333		3.33623
131 5-Nitro-o-toluidine	+++++	0.26504	0.27296	0.28000	0.27202	0.27408					
	0.27596	0.26950					AVRG		0.27279		1.74037
132 Thionazin	+++++	0.15991	0.16333	0.16125	0.15716	0.15263					
	0.15093	0.15034					AVRG		0.15651		3.35420
134 Sulfotepp	+++++	0.08069	0.08457	0.08225	0.08109	0.08247					
	0.08302	0.08521					AVRG		0.08276		2.01929
135 Phorate	+++++	0.38094	0.39212	0.38013	0.37064	0.35768					
	0.35368	0.35136					AVRG		0.36950		4.24438

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	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.09043	0.10798	0.11736	0.11408	0.12051					
	0.12517	0.12301					AVRG		0.11408		10.44181
137 Phenacetin	+++++	0.25499	0.26014	0.25425	0.24643	0.24758					
	0.25182	0.24676					AVRG		0.25171		2.03791
138 Diallate	+++++	0.24308	0.23259	0.21969	0.22000	0.21354					
	0.20757	0.20177					AVRG		0.21975		6.48800
139 Dimethoate	+++++	0.19708	0.21294	0.21778	0.21356	0.21259					
	0.21588	0.21951					AVRG		0.21276		3.47043
140 4-Aminobiphenyl	+++++	0.52229	0.52744	0.56450	0.55560	0.53372					
	0.51979	0.49365					AVRG		0.53100		4.44590
141 Pentachloronitrobenzene	+++++	0.06861	0.06544	0.05979	0.05907	0.05327					
	0.04994	0.04776					AVRG		0.05770		13.49738
142 Pronamide	+++++	0.27668	0.26559	0.24232	0.23613	0.21408					
	0.19922	0.18795					AVRG		0.23171		14.29562
143 Dinoseb	+++++	21314	69548	148150	183225	380967					
	493335	540450					LINR	0.20422	0.13388		0.99412
144 Disulfoton	+++++	0.27927	0.28869	0.28141	0.27781	0.27141					
	0.26930	0.27042					AVRG		0.27690		2.53496

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	100 Level 7	120 Level 8										
145 Methyl parathion	+++++	0.16580	0.18496	0.19619	0.19321	0.19447						
	0.19781	0.20132					AVRG		0.19054		6.30793	
146 4-Nitroquinoline-1-oxide	+++++	0.02797	0.02417	0.02069	0.01676	0.01596						
	0.01632	0.01115					AVRG		0.01900		29.85349	<-
147 Methapyrilene	+++++	0.53870	0.51095	0.46211	0.46851	0.42818						
	0.41014	0.36742					AVRG		0.45514		12.92653	
148 Isodrin	+++++	0.11198	0.10591	0.10106	0.10099	0.09653						
	0.09427	0.09263					AVRG		0.10048		6.77327	
149 Aramite	+++++	0.04288	0.04473	0.04328	0.04492	0.04294						
	0.04216	0.03955					AVRG		0.04292		4.18340	
150 Kepone	+++++	0.06821	0.06688	0.06300	0.06292	0.06376						
	0.06429	0.06037					AVRG		0.06421		4.07909	
151 p-(Dimethylamino)azobenzene	+++++	0.31886	0.31858	0.30561	0.32564	0.30896						
	0.29295	0.31135					AVRG		0.31171		3.43876	
152 Chlorobenzilate	+++++	0.28015	0.27293	0.26692	0.28307	0.27552						
	0.25667	0.28081					AVRG		0.27373		3.40002	
153 3,3'-Dimethylbenzidine	+++++	0.54411	0.53267	0.52587	0.52765	0.52481						
	0.53500	0.48082					AVRG		0.52442		3.87777	

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154 Famphur	+++++	0.39508	0.41129	0.40963	0.41295	0.41166						
	0.40965	0.43249					AVRG		0.41182		2.65732	
155 2-Acetylaminofluorene	+++++	0.26940	0.30220	0.33126	0.30846	0.31630						
	0.33855	0.30308					AVRG		0.30989		7.29418	
157 7,12Dimethylbenz(a)anthracene	+++++	0.52071	0.52087	0.48902	0.53422	0.51784						
	0.48120	0.52556					AVRG		0.51277		3.85020	
158 3-Methylcholanthrene	+++++	0.37699	0.38496	0.38662	0.36457	0.36689						
	0.36907	0.35258					AVRG		0.37167		3.24545	
26 Phthalic anhydride	+++++	19947	70183	158750	199408	349686						
	444882	524437					LINR	0.08827	0.11204		0.99920	
173 Carbazole	0.74030	0.66266	0.66768	0.67537	0.66904	0.68801						
	0.68838	0.65933					AVRG		0.68135		3.83434	
174 Hexachlorophene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
179 Dibenzo(a,e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
184 p-Benzoquinone	+++++	0.19714	0.23527	0.25694	0.31440	0.23557						
	0.31801	0.30125					AVRG		0.26551		17.51997	<-
191 Parathion	+++++	0.05144	0.05751	0.06005	0.05987	0.06048						
	0.06192	0.06233					AVRG		0.05908		6.29535	
192 Methoxychlor	+++++	0.56403	0.62279	0.57547	0.58466	0.59921						
	0.60284	0.57646					AVRG		0.58935		3.40697	
210 m-Toluidine	+++++	1.18361	1.14196	1.27790	1.40428	1.45000						
	1.57819	1.58735					AVRG		1.37475		13.05381	
211 p-Toluidine	+++++	1.19395	1.14859	1.22108	1.12140	1.12246						
	1.05038	0.88521					AVRG		1.10616		10.11699	
212 Cis Diallate	+++++	0.24942	0.23954	0.22264	0.22308	0.21957						
	0.22207	0.21623					AVRG		0.22751		5.34742	
213 Trans Diallate	+++++	0.28598	0.27364	0.25845	0.25883	0.25122						
	0.24420	0.23737					AVRG		0.25853		6.48800	
214 1,4-Dinitrobenzene	+++++	0.18254	0.19379	0.19206	0.19366	0.19651						
	0.20200	0.19895					AVRG		0.19422		3.18627	
215 2-Ethoxyethanol	+++++	0.93089	0.91998	0.93387	0.92416	0.93722						
	0.95789	0.91578					AVRG		0.93140		1.49848	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
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Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
216 Methylenebis(2-chloroaniline)	+++++	0.12024	0.12176	0.13402	0.13327	0.14612					
	0.14401	0.13627					AVRG		0.13367		7.42615
226 2,2'-Dichlorobenzil	+++++	0.74065	0.73565	0.70509	+++++	0.72929					
	0.68011	0.68665					AVRG		0.71291		3.64786
227 4-Chlorothioanisole	+++++	0.24526	0.24532	0.24448	+++++	0.24005					
	0.23939	0.23754					AVRG		0.24201		1.41023
228 4-Chlorothiophenol	+++++	44415	134478	332577	+++++	710506					
	861327	1051275					LINR	0.12298	0.22403		0.99993
229 bis(p-Chlorophenyl)sulfone	+++++	0.43969	0.42531	0.39518	+++++	0.40060					
	0.37609	0.37535					AVRG		0.40204		6.48066
230 bis(p-Chlorophenyl)disulfide	+++++	0.15840	0.15651	0.15172	+++++	0.15893					
	0.15153	0.15686					AVRG		0.15566		2.08939
231 Diphenyl disulfide	+++++	0.21133	0.20952	0.20464	+++++	0.20130					
	0.19738	0.19810					AVRG		0.20371		2.86119
232 Diphenyl sulfide	+++++	0.80314	0.78782	0.74734	+++++	0.71349					
	0.70255	0.67955					AVRG		0.73898		6.65171
233 Phenyl sulfone	+++++	0.41846	0.41107	0.39335	+++++	0.38576					
	0.38088	0.37013					AVRG		0.39328		4.68458

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
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Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
234 Hydroxymethyl phthalimide	+++++	34368	69527	111795	+++++	219245						
	238854	310774					LINR	-0.17168	0.10332		0.99434	
235 Phthalic acid	+++++	10272	35793	103964	+++++	317426						
	377273	+++++					LINR	0.28377	0.10603		0.99240	
236 Thiophenol	+++++	0.72677	0.87316	0.98094	+++++	1.05176						
	1.04045	1.04474					AVRG		0.95297		13.61346	
237 bis(Chloromethyl)ether	+++++	0.87445	0.86289	0.81012	+++++	0.81952						
	0.78408	0.78451					AVRG		0.82259		4.68064	
238 Octachlorostyrene	+++++	0.05791	0.05657	0.05363	+++++	0.05348						
	0.05255	0.05173					AVRG		0.05431		4.42948	
239 Dibenzo(a,h)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
240 Benzo(j)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
241 Dibenzo(a,j)acridine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
242 Dibenz(a,h)acridine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
243 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
244 2,4-Toluene Diisocyanate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
245 Dibenzo(a,i)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
246 1-Nitropyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
247 5-Methylchrysene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
248 Dibenzo(a,l)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
249 7H-Dibenzo(c,g)carbazole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
250 1-Hexanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
251 Propylene glycol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
M 222 Trichlorophenols	+++++	0.29329	0.29709	0.27919	0.28184	0.27503						
	0.27383	0.26982					AVRG		0.28144		3.62457	
M 223 Tetrachlorophenols	+++++	0.21848	0.23607	0.22847	0.23258	0.23782						
	0.24128	0.23864					AVRG		0.23333		3.33623	
M 224 Benzo(b,k)fluoranthene	1.03196	1.12240	1.10977	1.06149	1.08022	1.08994						
	1.11003	1.09819					AVRG		1.08800		2.72527	
M 225 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 3 2-Fluorophenol	+++++	1.02520	1.04766	1.03008	1.03008	1.04425						
	1.06812	1.03245					AVRG		1.03969		1.43708	
$ 5 Phenol-d5	+++++	1.28367	1.32223	1.29638	1.30385	1.30539						
	1.33151	1.28181					AVRG		1.30355		1.41909	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.34547	0.33539	0.30609	0.30256	0.28769						
	0.27238	0.26228					AVRG		0.30169		10.19977	

GEL Laboratories LLC

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Start Cal Date : 26-FEB-2010 11:07
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Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
$ 39 2-Fluorobiphenyl	+++++	1.14787	1.07616	0.99829	0.98540	0.94271					
	0.93181	0.89582					AVRG		0.99687		8.84048
$ 60 2,4,6-Tribromophenol	+++++	0.10553	0.11240	0.11152	0.11625	0.11870					
	0.12293	0.12210					AVRG		0.11563		5.40333
$ 81 p-Terphenyl-d14	+++++	0.74292	0.72004	0.68997	0.69903	0.67156					
	0.74275	0.74998					AVRG		0.71661		4.24404

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
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Integrator : HP RTE
Method file : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 23-Mar-2010 12:31 jos00786

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 26-FEB-2010 15:33
Lab File ID: s7b2614.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.03969	1.02471	1.02471	0.000	-1.44120	60.00000	Averaged
$ 5 Phenol-d5	1.30355	1.24864	1.24864	0.000	-4.21259	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.30169	0.31799	0.31799	0.000	5.40220	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.99687	1.05207	1.05207	0.000	5.53779	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11563	0.11567	0.11567	0.000	0.03425	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.71661	0.79589	0.79589	0.000	11.06334	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.70001	0.65798	0.65798	0.000	-6.00450	60.00000	Averaged
2 Pyridine	0.96465	0.72626	0.72626	0.000	-24.71254	60.00000	Averaged
4 Aniline	0.62182	0.56215	0.56215	0.000	-9.59489	60.00000	Averaged
6 Phenol	1.29492	1.27998	1.27998	0.001	-1.15360	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06026	0.99193	0.99193	0.000	-6.44459	60.00000	Averaged
8 2-Chlorophenol	0.99096	0.96977	0.96977	0.000	-2.13776	60.00000	Averaged
203 n-Decane	1.86209	1.65806	1.65806	0.000	-10.95712	60.00000	Averaged
9 1,3-Dichlorobenzene	1.24478	1.24430	1.24430	0.000	-0.03834	60.00000	Averaged
11 1,4-Dichlorobenzene	1.19442	1.15499	1.15499	0.001	-3.30123	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.09872	1.05382	1.05382	0.000	-4.08631	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.45618	2.41690	2.41690	0.000	-1.59921	60.00000	Averaged
12 Benzyl alcohol	0.67475	0.65730	0.65730	0.000	-2.58575	60.00000	Averaged
15 o-Cresol	0.79330	0.75691	0.75691	0.000	-4.58754	60.00000	Averaged
18 m,p-Cresols	1.07190	1.06639	1.06639	0.000	-0.51397	60.00000	Averaged
17 N-Nitrosodipropylamine	0.73664	0.73992	0.73992	0.050	0.44576	60.00000	Averaged spcc
19 Hexachloroethane	0.46378	0.45091	0.45091	0.000	-2.77548	60.00000	Averaged
21 Nitrobenzene	0.27987	0.28434	0.28434	0.000	1.60052	60.00000	Averaged
22 Isophorone	0.54073	0.52607	0.52607	0.000	-2.71011	60.00000	Averaged
23 2-Nitrophenol	0.13143	0.13812	0.13812	0.001	5.09665	20.00000	Averaged ccc
24 2,4-Dimethylphenol	43.02153	40.00000	0.25793	0.000	7.55381	60.00000	Wt Linear
25 bis(2-Chloroethoxy)methane	0.29584	0.27846	0.27846	0.000	-5.87687	60.00000	Averaged
26 2,4-Dichlorophenol	0.21226	0.22457	0.22457	0.001	5.80057	20.00000	Averaged ccc
27 Benzoic acid	0.12083	0.13464	0.13464	0.000	11.43046	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.25742	0.26054	0.26054	0.000	1.21085	60.00000	Averaged
30 Naphthalene	0.75561	0.72974	0.72974	0.000	-3.42291	60.00000	Averaged
204 alpha-Terpineol	0.30880	0.27565	0.27565	0.000	-10.73794	60.00000	Averaged
31 4-Chloroaniline	0.35383	0.33113	0.33113	0.000	-6.41578	60.00000	Averaged
32 Hexachlorobutadiene	0.13434	0.14044	0.14044	0.001	4.53770	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.22797	0.23911	0.23911	0.001	4.88549	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54229	0.55783	0.55783	0.000	2.86468	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 26-FEB-2010 15:33
Lab File ID: s7b2614.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.51558	0.51162	0.51162	0.000	-0.76796	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.19338	0.18004	0.18004	0.050	-6.89835	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.49462	0.48886	0.48886	0.000	-1.16475	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.28064	0.29372	0.29372	0.001	4.66295	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.28225	0.31248	0.31248	0.000	10.71318	60.00000	Averaged	
40	2-Chloronaphthalene	0.92584	0.93034	0.93034	0.000	0.48600	60.00000	Averaged	
42	o-Nitroaniline	0.32778	0.32450	0.32450	0.000	-1.00006	60.00000	Averaged	
41	m-Nitroaniline	0.23922	0.23795	0.23795	0.000	-0.52859	60.00000	Averaged	
43	Dimethylphthalate	1.06293	1.06181	1.06181	0.000	-0.10595	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.24549	0.24572	0.24572	0.000	0.09588	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.32362	0.32061	0.32061	0.000	-0.93059	60.00000	Averaged	
45	Acenaphthylene	1.47998	1.47925	1.47925	0.000	-0.04942	60.00000	Averaged	
47	Acenaphthene	0.88041	0.84456	0.84456	0.001	-4.07267	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	40.39092	40.00000	0.06885	0.050	0.97730	60.00000	Linear	spcc
49	Dibenzofuran	1.23737	1.25843	1.25843	0.000	1.70156	60.00000	Averaged	
51	Diethylphthalate	1.08801	1.08709	1.08709	0.000	-0.08413	60.00000	Averaged	
52	4-Nitrophenol	0.16277	0.17018	0.17018	0.050	4.55207	60.00000	Averaged	spcc
53	Fluorene	1.03823	0.98765	0.98765	0.000	-4.87233	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.51596	0.50557	0.50557	0.000	-2.01472	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	49.60025	40.00000	0.09008	0.000	24.00062	60.00000	Linear	
56	p-Nitroaniline	0.21538	0.21035	0.21035	0.000	-2.33542	60.00000	Averaged	
133	Diphenylamine	0.47134	0.46815	0.46815	0.001	-0.67705	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.59299	0.59852	0.59852	0.000	0.93248	60.00000	Averaged	
61	4-Bromophenylphenylether	0.16450	0.15861	0.15861	0.000	-3.58149	60.00000	Averaged	
63	Hexachlorobenzene	0.15982	0.15792	0.15792	0.000	-1.18714	60.00000	Averaged	
65	Pentachlorophenol	0.07563	0.08477	0.08477	0.001	12.08882	20.00000	Averaged	ccc
206	n-Octadecane	0.50130	0.54494	0.54494	0.000	8.70577	60.00000	Averaged	
68	Phenanthrene	0.82082	0.79129	0.79129	0.000	-3.59795	60.00000	Averaged	
69	Anthracene	0.83131	0.80745	0.80745	0.000	-2.86980	60.00000	Averaged	
72	Di-n-butylphthalate	1.04581	1.05484	1.05484	0.000	0.86325	60.00000	Averaged	
76	Fluoranthene	0.89248	0.89895	0.89895	0.001	0.72511	20.00000	Averaged	ccc
79	Pyrene	1.26367	1.20352	1.20352	0.000	-4.76014	60.00000	Averaged	
85	Butylbenzylphthalate	0.60092	0.60984	0.60984	0.000	1.48432	60.00000	Averaged	
89	Benzo(a)anthracene	0.95891	0.88471	0.88471	0.000	-7.73823	60.00000	Averaged	
92	Chrysene	0.85329	0.81713	0.81713	0.000	-4.23770	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.76109	0.74913	0.74913	0.000	-1.57123	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 26-FEB-2010 15:33
Lab File ID: s7b2614.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.60621	1.58412	1.58412	0.001	-1.37539	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	1.12177	1.06463	1.06463	0.000	-5.09364	60.00000	Averaged	
96 Benzo(k)fluoranthene	1.05423	1.04564	1.04564	0.000	-0.81471	60.00000	Averaged	
97 Benzo(a)pyrene	0.91981	0.90053	0.90053	0.001	-2.09622	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	0.66143	0.60388	0.60388	0.000	-8.69961	60.00000	Averaged	
100 Dibenzo(a,h)anthracene	0.52416	0.47011	0.47011	0.000	-10.31204	60.00000	Averaged	
101 Benzo(ghi)perylene	0.55161	0.49780	0.49780	0.000	-9.75514	60.00000	Averaged	
126 m-Dinitrobenzene	0.16950	0.17152	0.17152	0.000	1.19636	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.23333	0.23665	0.23665	0.000	1.42249	60.00000	Averaged	
143 Dinoseb	41.77834	40.00000	0.11249	0.000	4.44585	60.00000	Linear	
173 Carbazole	0.68135	0.69533	0.69533	0.000	2.05237	60.00000	Averaged	
184 p-Benzoquinone	0.26551	0.19230	0.19230	0.000	-27.57330	60.00000	Averaged	
192 Methoxychlor	0.58935	0.62587	0.62587	0.000	6.19688	60.00000	Averaged	
211 p-Toluidine	1.10616	0.97036	0.97036	0.000	-12.27617	60.00000	Averaged	
210 m-Toluidine	1.37475	1.21251	1.21251	0.000	-11.80169	60.00000	Averaged	
215 2-Ethoxyethanol	0.93140	0.93581	0.93581	0.000	0.47324	60.00000	Averaged	
26 Phthalic anhydride	51.56333	40.00000	0.13454	0.000	28.90832	60.00000	Linear	
214 1,4-Dinitrobenzene	0.19422	0.19244	0.19244	0.000	-0.91506	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	0.13367	0.13777	0.13777	0.000	3.06814	60.00000	Averaged	
M 222 Trichlorophenols	0.28144	0.30310	0.30310	0.000	7.69664	60.00000	Averaged	
M 223 Tetrachlorophenols	0.23333	0.23665	0.23665	0.000	1.42249	60.00000	Averaged	
M 224 Benzo(b,k)fluoranthene	1.08800	1.05514	1.05514	0.000	-3.02057	60.00000	Averaged	

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s022610.b/s7b2614.d
Lab Smp Id: WBN100225-09.1 Client Smp ID: MEGAICV
Inj Date : 26-FEB-2010 15:33
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100225-09.1|ICV|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN100217-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m
Meth Date : 27-Feb-2010 08:41 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 15:08 Cal File: s7b2613.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.951	3.947	(1.000)	398783	40.0000	
* 29 Naphthalene-d8	136	4.818	4.818	(1.000)	1519686	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.070	(1.000)	819814	40.0000	
* 67 Phenanthrene-d10	188	7.250	7.245	(1.000)	1483884	40.0000	
* 91 Chrysene-d12	240	9.658	9.653	(1.000)	1119677	40.0000	
* 98 Perylene-d12	264	11.338	11.333	(1.000)	753913	40.0000	
$ 3 2-Fluorophenol	112	3.133	3.133	(0.793)	408636	40.0000	39.4
$ 5 Phenol-d5	99	3.663	3.658	(0.927)	497935	40.0000	38.3
$ 20 Nitrobenzene-d5	82	4.313	4.312	(0.895)	483245	40.0000	42.2
$ 39 2-Fluorobiphenyl	172	5.560	5.560	(0.915)	862503	40.0000	42.2
$ 60 2,4,6-Tribromophenol	329	6.672	6.672	(1.098)	94831	40.0000	40.0
$ 81 p-Terphenyl-d14	244	8.622	8.622	(0.893)	891139	40.0000	44.4
1 N-Methyl-N-nitrosomethylamine	74	2.444	2.444	(0.619)	262390	40.0000	37.6
2 Pyridine	79	2.473	2.478	(0.626)	289621	40.0000	30.1
4 Aniline	66	3.735	3.735	(0.945)	224177	40.0000	36.2
6 Phenol	94	3.672	3.667	(0.929)	510433	40.0000	39.5
7 bis(2-Chloroethyl) ether	63	3.749	3.749	(0.949)	395566	40.0000	37.4
8 2-Chlorophenol	128	3.817	3.812	(0.966)	386729	40.0000	39.1
203 n-Decane	43	3.802	3.802	(0.962)	661206	40.0000	35.6
9 1,3-Dichlorobenzene	146	3.918	3.918	(0.991)	496206	40.0000	40.0
11 1,4-Dichlorobenzene	146	3.966	3.961	(1.004)	460590	40.0000	38.7
13 1,2-Dichlorobenzene	146	4.067	4.067	(1.029)	420246	40.0000	38.4
14 bis(2-Chloroisopropyl)ether	45	4.096	4.096	(1.037)	963819	40.0000	39.4
12 Benzyl alcohol	108	4.014	4.014	(1.016)	262120	40.0000	39.0
15 o-Cresol	107	4.067	4.067	(1.029)	301843	40.0000	38.2
18 m,p-Cresols	107	4.168	4.168	(1.055)	425256	40.0000	39.8
17 N-Nitrosodipropylamine	70	4.192	4.192	(1.061)	295069	40.0000	40.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
19 Hexachloroethane	117	4.298	4.298	(1.088)	179815	40.0000	38.9
21 Nitrobenzene	77	4.327	4.327	(0.898)	432114	40.0000	40.6
22 Isophorone	82	4.481	4.486	(0.930)	799464	40.0000	38.9
23 2-Nitrophenol	139	4.544	4.544	(0.943)	209904	40.0000	42.0
24 2,4-Dimethylphenol	122	4.534	4.534	(0.941)	391978	40.0000	43.0
25 bis(2-Chloroethoxy)methane	93	4.601	4.601	(0.955)	423168	40.0000	37.6
26 2,4-Dichlorophenol	162	4.703	4.703	(0.976)	341282	40.0000	42.3
27 Benzoic acid	105	4.592	4.592	(0.953)	204606	40.0000	44.6
28 1,2,4-Trichlorobenzene	180	4.770	4.770	(0.990)	395939	40.0000	40.5
30 Naphthalene	128	4.837	4.837	(1.004)	1108980	40.0000	38.6
204 alpha-Terpineol	59	4.809	4.808	(0.998)	418894	40.0000	35.7
31 4-Chloroaniline	127	4.847	4.847	(1.006)	503209	40.0000	37.4
32 Hexachlorobutadiene	225	4.900	4.900	(1.017)	213421	40.0000	41.8
33 4-Chloro-3-methylphenol	107	5.155	5.155	(1.070)	363372	40.0000	42.0
34 2-Methylnaphthalene	142	5.314	5.314	(1.103)	847725	40.0000	41.1
35 1-Methylnaphthalene	142	5.391	5.391	(1.119)	777496	40.0000	39.7
36 Hexachlorocyclopentadiene	237	5.420	5.420	(0.892)	147596	40.0000	37.2
205 2,3-Dichloroaniline	161	5.512	5.512	(0.907)	400773	40.0000	39.5
37 2,4,6-Trichlorophenol	196	5.502	5.502	(0.906)	240799	40.0000	41.9
38 2,4,5-Trichlorophenol	196	5.526	5.526	(0.910)	256177	40.0000	44.3
40 2-Chloronaphthalene	162	5.670	5.670	(0.933)	762704	40.0000	40.2
42 o-Nitroaniline	65	5.723	5.723	(0.942)	266029	40.0000	39.6
41 m-Nitroaniline	138	6.022	6.022	(0.991)	195077	40.0000	39.8
43 Dimethylphthalate	163	5.839	5.839	(0.961)	870483	40.0000	40.0
44 2,6-Dinitrotoluene	165	5.892	5.892	(0.970)	201445	40.0000	40.0
50 2,4-Dinitrotoluene	165	6.186	6.186	(1.018)	262842	40.0000	39.6
45 Acenaphthylene	152	5.974	5.974	(0.983)	1212713	40.0000	40.0
47 Acenaphthene	154	6.099	6.099	(1.004)	692379	40.0000	38.4
48 2,4-Dinitrophenol	184	6.089	6.089	(1.002)	56443	40.0000	40.4
49 Dibenzofuran	168	6.224	6.224	(1.025)	1031677	40.0000	40.7
51 Diethylphthalate	149	6.345	6.345	(1.044)	891212	40.0000	40.0
52 4-Nitrophenol	139	6.104	6.104	(1.005)	139513	40.0000	41.8
53 Fluorene	166	6.489	6.489	(1.068)	809688	40.0000	38.0
54 4-Chlorophenylphenylether	204	6.460	6.460	(1.063)	414472	40.0000	39.2
55 2-Methyl-4,6-dinitrophenol	198	6.499	6.499	(0.896)	133661	40.0000	49.6
56 p-Nitroaniline	138	6.479	6.484	(1.067)	172445	40.0000	39.1
133 Diphenylamine	169	6.552	6.552	(0.904)	694684	40.0000	39.7
58 1,2-Diphenylhydrazine	77	6.590	6.585	(0.909)	888138	40.0000	40.4
61 4-Bromophenylphenylether	248	6.850	6.850	(0.945)	235353	40.0000	38.6
63 Hexachlorobenzene	284	6.922	6.922	(0.955)	234334	40.0000	39.5
65 Pentachlorophenol	266	7.072	7.067	(0.975)	125785	40.0000	44.8
206 n-Octadecane	57	7.062	7.062	(0.974)	808626	40.0000	43.5
68 Phenanthrene	178	7.269	7.269	(1.003)	1174179	40.0000	38.6
69 Anthracene	178	7.313	7.312	(1.009)	1198165	40.0000	38.8
72 Di-n-butylphthalate	149	7.669	7.669	(1.058)	1565255	40.0000	40.3
76 Fluoranthene	202	8.309	8.309	(1.146)	1333938	40.0000	40.3
79 Pyrene	202	8.526	8.526	(0.883)	1347549	40.0000	38.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
85 Butylbenzylphthalate	149	9.056	9.056	(0.938)	682818	40.0000	40.6
89 Benzo(a)anthracene	228	9.643	9.643	(0.998)	990591	40.0000	36.9
92 Chrysene	228	9.682	9.682	(1.002)	914923	40.0000	38.3
93 bis(2-Ethylhexyl)phthalate	149	9.581	9.580	(0.992)	838787	40.0000	39.4
94 Di-n-octylphthalate	149	10.235	10.240	(0.903)	1194290	40.0000	39.4
95 Benzo(b)fluoranthene	252	10.818	10.818	(0.954)	802637	40.0000	38.0
96 Benzo(k)fluoranthene	252	10.852	10.857	(0.957)	788325	40.0000	39.7
97 Benzo(a)pyrene	252	11.256	11.256	(0.993)	678918	40.0000	39.2
99 Indeno(1,2,3-cd)pyrene	276	13.091	13.096	(1.155)	455276	40.0000	36.5
100 Dibenzo(a,h)anthracene	278	13.105	13.110	(1.156)	354422	40.0000	35.9
101 Benzo(ghi)perylene	276	13.625	13.635	(1.202)	375295	40.0000	36.1
126 m-Dinitrobenzene	168	5.873	5.873	(0.967)	140617	40.0000	40.5
130 2,3,4,6-Tetrachlorophenol	232	6.301	6.301	(1.037)	194010	40.0000	40.6
143 Dinoseb	211	7.192	7.192	(0.992)	166919	40.0000	41.8
173 Carbazole	167	7.423	7.428	(1.024)	1031789	40.0000	40.8
184 p-Benzoquinone	54	3.431	3.431	(0.868)	76686	40.0000	29.0
192 Methoxychlor	227	9.528	9.527	(0.987)	700776	40.0000	42.5
211 p-Toluidine	106	4.226	4.226	(1.069)	386963	40.0000	35.1
210 m-Toluidine	106	4.250	4.250	(1.076)	483528	40.0000	35.3
215 2-Ethoxyethanol	59	2.290	2.290	(0.580)	373183	40.0000	40.2
26 Phthalic anhydride	104	5.348	5.348	(1.110)	204452	40.0000	51.6
214 1,4-Dinitrobenzene	75	5.815	5.815	(0.957)	157765	40.0000	39.6
216 Methylenebis(2-chloroaniline)	231	9.585	9.585	(0.993)	154259	40.0000	41.2
M 222 Trichlorophenols	196				496977	80.0000	86.2
M 223 Tetrachlorophenols	232				194010	40.0000	40.6
M 224 Benzo(b,k)fluoranthene	252				1590962	80.0000	77.6

Data File: /chem/MSD7.i/s022610.b/s7b2614.d
Date : 26-FEB-2010 15:33
Client ID: MEGAICV
Sample Info: IWBN100225-09.1|ICV|1|SVMF|1|MEGAICV

Instrument: MSD7.i

Operator: JMB3
Column diameter: 0.20

Column phase: J&W DB-5MS

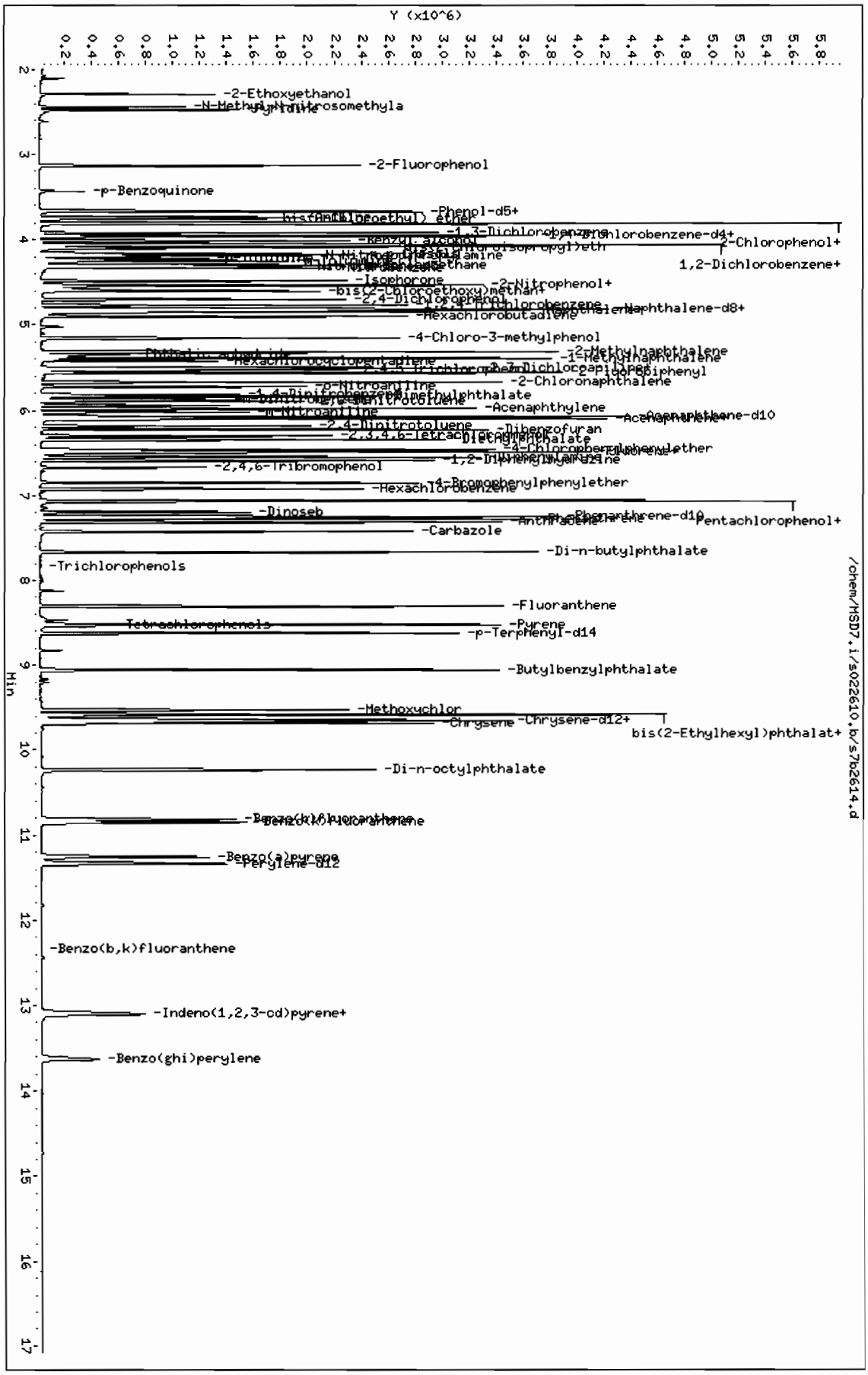

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 27-FEB-2010 00:07
Lab File ID: s7b2638.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84333	0.72762	0.72762	0.000	-13.72062	60.00000	Averaged
16 Acetophenone	1.10656	1.09035	1.09035	0.000	-1.46517	60.00000	Averaged
189 Caprolactam	0.07444	0.08269	0.08269	0.000	11.09028	60.00000	Averaged
208 1,1'-Biphenyl	1.10203	1.18702	1.18702	0.000	7.71210	60.00000	Averaged
207 Atrazine	0.03853	0.04597	0.04597	0.000	19.30469	60.00000	Averaged
77 Benzidine	0.37412	0.37290	0.37290	0.000	-0.32808	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27910	0.28354	0.28354	0.000	1.59226	60.00000	Averaged
102 1,4-Dioxane	0.33513	0.40939	0.40939	0.000	22.16131	60.00000	Averaged
103 Methyl methacrylate	0.19562	0.23961	0.23961	0.000	22.48803	60.00000	Averaged
104 Ethyl methacrylate	0.75140	0.90901	0.90901	0.000	20.97589	60.00000	Averaged
105 2-Picoline	1.13566	1.16769	1.16769	0.000	2.82042	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44142	0.47438	0.47438	0.000	7.46654	60.00000	Averaged
107 Methyl methanesulfonate	0.50747	0.54617	0.54617	0.000	7.62707	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47013	0.49911	0.49911	0.000	6.16504	60.00000	Averaged
109 Ethyl Methanesulfonate	0.62041	0.76141	0.76141	0.000	22.72687	60.00000	Averaged
110 Pentachloroethane	0.30840	0.42036	0.42036	0.000	36.30233	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49363	0.51936	0.51936	0.000	5.21438	60.00000	Averaged
113 N-Nitrosomorpholine	0.81412	0.89271	0.89271	0.000	9.65373	60.00000	Averaged
114 o-Toluidine	1.53985	1.58233	1.58233	0.000	2.75855	60.00000	Averaged
115 N-Nitrosopiperidine	0.13162	0.14324	0.14324	0.000	8.82907	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.98197	1.03595	1.03595	0.000	5.49667	60.00000	Averaged
118 2,6-Dichlorophenol	0.20270	0.18717	0.18717	0.000	-7.66350	60.00000	Averaged
119 Hexachloropropene	0.10516	0.16353	0.16353	0.000	55.49743	60.00000	Averaged
120 p-Phenylenediamine	0.22347	0.22273	0.22273	0.000	-0.33095	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.20065	0.21517	0.21517	0.000	7.23239	60.00000	Averaged
122 Safrole	0.18525	0.22522	0.22522	0.000	21.57952	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.39310	0.44447	0.44447	0.000	13.06636	60.00000	Averaged
124 Isosafrole	0.32673	0.44824	0.44824	0.000	37.18926	60.00000	Averaged
125 1,4-Naphthoquinone	42.42497	40.00000	0.30765	0.000	6.06244	60.00000	Linear
127 Pentachlorobenzene	0.35339	0.38326	0.38326	0.000	8.45157	60.00000	Averaged
128 1-Naphthylamine	0.85758	0.95943	0.95943	0.000	11.87595	60.00000	Averaged
129 2-Naphthylamine	0.92399	1.06906	1.06906	0.000	15.70067	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27279	0.29252	0.29252	0.000	7.23152	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11408	0.15190	0.15190	0.000	33.15347	60.00000	Averaged
137 Phenacetin	0.25171	0.26740	0.26740	0.000	6.23101	60.00000	Averaged
138 Diallate	0.21975	0.22151	0.22151	0.000	0.80197	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 27-FEB-2010 00:07
Lab File ID: s7b2638.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.22751	0.29963	0.29963	0.000	31.70163	60.00000	Averaged
213 Trans Diallate	0.25853	0.26060	0.26060	0.000	0.80197	60.00000	Averaged
140 4-Aminobiphenyl	0.53100	0.61459	0.61459	0.000	15.74304	60.00000	Averaged
141 Pentachloronitrobenzene	0.05770	0.06484	0.06484	0.000	12.37888	60.00000	Averaged
142 Pronamide	0.23171	0.26428	0.26428	0.000	14.05423	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01900	0.02204	0.02204	0.000	15.97890	60.00000	Averaged
147 Methapyrilene	0.45514	0.56955	0.56955	0.000	25.13562	60.00000	Averaged
148 Isodrin	0.10048	0.10103	0.10103	0.000	0.54771	60.00000	Averaged
149 Aramite	0.04292	0.04771	0.04771	0.000	11.14909	60.00000	Averaged
150 Kepone	0.06421	0.06503	0.06503	0.000	1.28262	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31171	0.34212	0.34212	0.000	9.75602	60.00000	Averaged
152 Chlorobenzilate	0.27373	0.25521	0.25521	0.000	-6.76399	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52442	0.55141	0.55141	0.000	5.14612	60.00000	Averaged
155 2-Acetylaminofluorene	0.30989	0.30947	0.30947	0.000	-0.13679	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51277	0.54729	0.54729	0.000	6.73130	60.00000	Averaged
158 3-Methylcholanthrene	0.37167	0.40941	0.40941	0.000	10.15366	60.00000	Averaged

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Data file : /chem/MSD7.i/s022610.b/s7b2638.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV
Inj Date : 27-FEB-2010 00:07
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100218-08.1|ICV|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN100217-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m
Meth Date : 01-Mar-2010 10:44 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 38 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.952	3.952	(1.000)	457703	40.0000	
* 29 Naphthalene-d8	136	4.818	4.818	(1.000)	1628008	40.0000	
* 46 Acenaphthene-d10	164	6.070	6.070	(1.000)	931821	40.0000	
* 67 Phenanthrene-d10	188	7.245	7.245	(1.000)	1617850	40.0000	
* 91 Chrysene-d12	240	9.653	9.653	(1.000)	1288003	40.0000	
* 98 Perylene-d12	264	11.333	11.333	(1.000)	857015	40.0000	
209 Benzaldehyde	77	3.672	3.672	(0.929)	333034	40.0000	34.5
16 Acetophenone	105	4.202	4.202	(1.063)	499057	40.0000	39.4
189 Caprolactam	113	5.093	5.093	(1.057)	134623	40.0000	44.4
208 1,1'-Biphenyl	154	5.642	5.642	(0.929)	1106090	40.0000	43.1
207 Atrazine	173	6.947	6.947	(0.959)	74372	40.0000	47.7
77 Benzidine	184	8.396	8.396	(0.870)	480291	40.0000	39.9
90 3,3'-Dichlorobenzidine	252	9.590	9.590	(0.994)	365203	40.0000	40.6
102 1,4-Dioxane	88	2.290	2.290	(0.580)	187381	40.0000	48.9
103 Methyl methacrylate	100	2.285	2.285	(0.578)	109670	40.0000	49.0
104 Ethyl methacrylate	69	2.656	2.656	(0.672)	416056	40.0000	48.4
105 2-Picoline	93	2.844	2.844	(0.720)	534455	40.0000	41.1
106 N-Nitrosomethylethylamine	88	2.887	2.887	(0.731)	217124	40.0000	43.0
107 Methyl methanesulfonate	80	3.042	3.042	(0.770)	249986	40.0000	43.0
108 N-Nitrosodiethylamine	102	3.277	3.277	(0.829)	228446	40.0000	42.5
109 Ethyl Methanesulfonate	79	3.436	3.436	(0.870)	348500	40.0000	49.1
110 Pentachloroethane	167	3.773	3.773	(0.955)	192400	40.0000	54.5
111 N-Nitrosopyrrolidine	100	4.188	4.188	(1.060)	237715	40.0000	42.1
113 N-Nitrosomorpholine	56	4.212	4.212	(1.066)	408598	40.0000	43.9
114 o-Toluidine	106	4.226	4.226	(1.069)	724237	40.0000	41.1
115 N-Nitrosopiperidine	114	4.428	4.428	(0.919)	233195	40.0000	43.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.684	4.684	(0.972)	1686530	40.0000	42.2
118 2,6-Dichlorophenol	162	4.857	4.857	(1.008)	304708	40.0000	36.9
119 Hexachloropropene	213	4.891	4.891	(1.015)	266225	40.0000	62.2
120 p-Phenylenediamine	108	5.093	5.093	(1.057)	362600	40.0000	39.9
121 N-Nitrosodi-n-butylamine	84	5.064	5.064	(1.051)	350292	40.0000	42.9
122 Safrole	162	5.228	5.228	(1.085)	366667	40.0000	48.6
123 1,2,4,5-Tetrachlorobenzene	216	5.430	5.430	(0.894)	414165	40.0000	45.2
124 Isosafrole	162	5.598	5.598	(0.922)	417676	40.0000	54.9
125 1,4-Naphthoquinone	158	5.786	5.786	(0.953)	286671	40.0000	42.4
127 Pentachlorobenzene	250	6.191	6.191	(1.020)	357126	40.0000	43.4
128 1-Naphthylamine	143	6.277	6.277	(1.034)	894018	40.0000	44.8
129 2-Naphthylamine	143	6.335	6.335	(1.044)	996175	40.0000	46.3
131 5-Nitro-o-toluidine	152	6.475	6.475	(1.067)	272578	40.0000	42.9
136 1,3,5-Trinitrobenzene	75	6.720	6.720	(0.928)	245746	40.0000	53.3
137 Phenacetin	108	6.769	6.769	(0.934)	432605	40.0000	42.5(Q)
138 Diallate	86	6.759	6.759	(0.933)	358370	40.0000	40.3
212 Cis Diallate	86	6.836	6.836	(0.944)	72714	6.00000	7.9
213 Trans Diallate	86	6.759	6.759	(0.933)	358370	34.0000	34.3
140 4-Aminobiphenyl	169	7.062	7.062	(0.975)	994319	40.0000	46.3
141 Pentachloronitrobenzene	237	7.082	7.082	(0.977)	104897	40.0000	45.0(Q)
142 Pronamide	173	7.077	7.077	(0.977)	427557	40.0000	45.6
146 4-Nitroquinoline-1-oxide	101	7.910	7.910	(1.092)	35650	40.0000	46.4
147 Methapyrilene	58	7.948	7.948	(1.097)	921442	40.0000	50.0
148 Isodrin	193	8.175	8.175	(1.128)	163454	40.0000	40.2
149 Aramite	185	8.569	8.569	(1.183)	77182	40.0000	44.4
150 Kepone	272	9.162	9.162	(1.264)	105206	40.0000	40.5
151 p-(Dimethylamino)azobenzene	120	8.752	8.752	(0.907)	440648	40.0000	43.9
152 Chlorobenzilate	251	8.781	8.781	(0.910)	328712	40.0000	37.3
153 3,3'-Dimethylbenzidine	212	9.065	9.065	(0.939)	710215	40.0000	42.0
155 2-Acetylaminofluorene	181	9.311	9.311	(0.965)	398598	40.0000	39.9
157 7,12Dimethylbenz(a)anthracene	256	10.794	10.794	(0.952)	469035	40.0000	42.7
158 3-Methylcholanthrene	268	11.738	11.738	(1.036)	350866	40.0000	44.1

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s022610.b/s7b2638.d
Date : 27-FEB-2010 00:07
Client ID: APICV
Sample Info: IWBN100218-08,1|ICV|1|SVMF|1|APICV
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

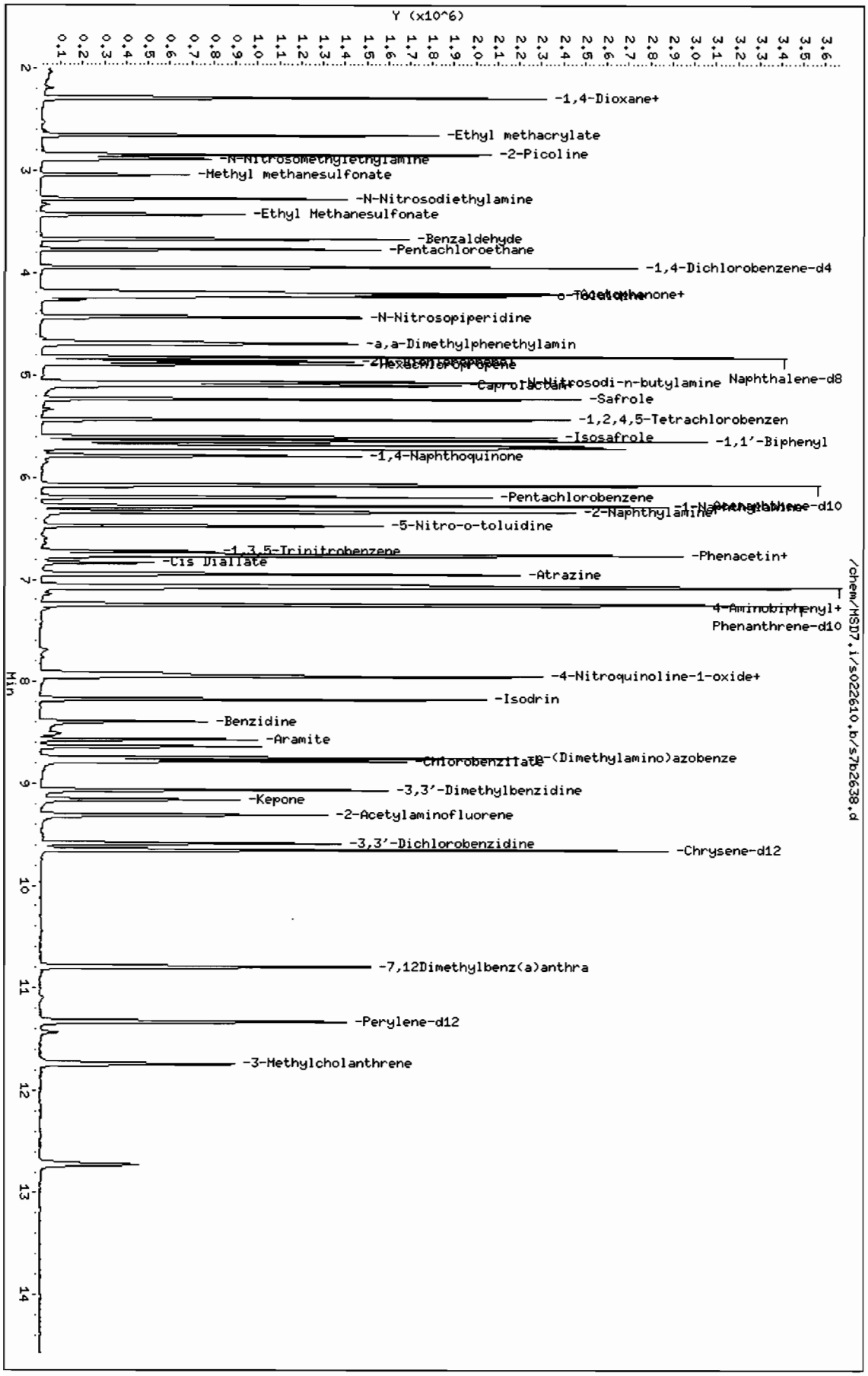

Page 1

Data File: /chem/MSD7.i/s032310.b/s7c2304.d
Report Date: 23-Mar-2010 21:26

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7c2304.d
Analysis Type:
Lab Sample ID: WBN100309-05.2
Method: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m

Injection Date: 23-MAR-2010 11:20
Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Init. Cal. Times: 11:07 23:46
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$	3 2-Fluorophenol	1.03969	0.91803	0.91803	0.000	-11.70182	60.00000	Averaged	
$	5 Phenol-d5	1.30355	1.20141	1.20141	0.000	-7.83572	60.00000	Averaged	
$	20 Nitrobenzene-d5	0.30169	0.25865	0.25865	0.000	-14.26680	60.00000	Averaged	
$	39 2-Fluorobiphenyl	0.99687	1.05135	1.05135	0.000	5.46546	60.00000	Averaged	
$	60 2,4,6-Tribromophenol	0.11563	0.12038	0.12038	0.000	4.09967	60.00000	Averaged	
$	81 p-Terphenyl-d14	0.71661	0.72891	0.72891	0.000	1.71661	60.00000	Averaged	
	1 N-Methyl-N-nitrosomethylami	0.70001	0.58020	0.58020	0.000	-17.11539	60.00000	Averaged	
	2 Pyridine	0.96465	0.82573	0.82573	0.000	-14.40082	60.00000	Averaged	
	4 Aniline	0.62182	0.53515	0.53515	0.000	-13.93829	60.00000	Averaged	
	6 Phenol	1.29492	1.18070	1.18070	0.001	-8.82047	20.00000	Averaged	ccc
	7 bis(2-Chloroethyl) ether	1.06026	0.86931	0.86931	0.000	-18.01027	60.00000	Averaged	
	8 2-Chlorophenol	0.99096	0.98665	0.98665	0.000	-0.43533	60.00000	Averaged	
	203 n-Decane	1.86209	1.77849	1.77849	0.000	-4.48954	60.00000	Averaged	
	9 1,3-Dichlorobenzene	1.24478	1.22347	1.22347	0.000	-1.71184	60.00000	Averaged	
	11 1,4-Dichlorobenzene	1.19442	1.20934	1.20934	0.001	1.24909	20.00000	Averaged	ccc
	13 1,2-Dichlorobenzene	1.09872	1.15131	1.15131	0.000	4.78612	60.00000	Averaged	
	14 bis(2-Chloroisopropyl)ether	2.45618	2.13540	2.13540	0.000	-13.06001	60.00000	Averaged	
	12 Benzyl alcohol	0.67475	0.44750	0.44750	0.000	-33.67952	60.00000	Averaged	
	15 o-Cresol	0.79330	0.77010	0.77010	0.000	-2.92438	60.00000	Averaged	
	18 m,p-Cresols	1.07190	0.95599	0.95599	0.000	-10.81267	60.00000	Averaged	
	17 N-Nitrosodipropylamine	0.73664	0.69003	0.69003	0.050	-6.32741	60.00000	Averaged	spcc
	19 Hexachloroethane	0.46378	0.48670	0.48670	0.000	4.94194	60.00000	Averaged	
	21 Nitrobenzene	0.27987	0.25865	0.25865	0.000	-7.58062	60.00000	Averaged	
	22 Isophorone	0.54073	0.49648	0.49648	0.000	-8.18310	60.00000	Averaged	
	23 2-Nitrophenol	0.13143	0.12978	0.12978	0.001	-1.25266	20.00000	Averaged	ccc
	24 2,4-Dimethylphenol	37.62053	40.00000	0.22893	0.000	-5.94868	60.00000	Wt Linear	
	25 bis(2-Chloroethoxy)methane	0.29584	0.26929	0.26929	0.000	-8.97562	60.00000	Averaged	
	26 2,4-Dichlorophenol	0.21226	0.20896	0.20896	0.001	-1.55768	20.00000	Averaged	ccc
	27 Benzoic acid	0.12083	0.09529	0.09529	0.000	-21.13072	60.00000	Averaged	
	28 1,2,4-Trichlorobenzene	0.25742	0.25769	0.25769	0.000	0.10418	60.00000	Averaged	
	30 Naphthalene	0.75561	0.71585	0.71585	0.000	-5.26195	60.00000	Averaged	
	204 alpha-Terpineol	0.30880	0.25223	0.25223	0.000	-18.32031	60.00000	Averaged	
	31 4-Chloroaniline	0.35383	0.26228	0.26228	0.000	-25.87429	60.00000	Averaged	
	32 Hexachlorobutadiene	0.13434	0.14510	0.14510	0.001	8.00678	20.00000	Averaged	ccc
	33 4-Chloro-3-methylphenol	0.22797	0.21914	0.21914	0.001	-3.87447	20.00000	Averaged	ccc
	34 2-Methylnaphthalene	0.54229	0.52861	0.52861	0.000	-2.52398	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7c2304.d
Analysis Type:
Lab Sample ID: WBN100309-05.2 Quant Type: ISTD
Method: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m

Injection Date: 23-MAR-2010 11:20
Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Init. Cal. Times: 11:07 23:46

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.51558	0.50504	0.50504	0.000	-2.04369	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.19338	0.14973	0.14973	0.050	-22.57119	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.49462	0.52962	0.52962	0.000	7.07627	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.28064	0.31173	0.31173	0.001	11.07865	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.28225	0.31673	0.31673	0.000	12.21880	60.00000	Averaged	
40	2-Chloronaphthalene	0.92584	0.93821	0.93821	0.000	1.33582	60.00000	Averaged	
42	o-Nitroaniline	0.32778	0.29706	0.29706	0.000	-9.37217	60.00000	Averaged	
41	m-Nitroaniline	0.23922	0.21505	0.21505	0.000	-10.10242	60.00000	Averaged	
43	Dimethylphthalate	1.06293	1.11559	1.11559	0.000	4.95394	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.24549	0.25514	0.25514	0.000	3.93149	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.32362	0.32767	0.32767	0.000	1.25184	60.00000	Averaged	
45	Acenaphthylene	1.47998	1.48156	1.48156	0.000	0.10635	60.00000	Averaged	
47	Acenaphthene	0.88041	0.93458	0.93458	0.001	6.15283	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	40.57835	40.00000	0.06934	0.050	1.44587	60.00000	Linear	spcc
49	Dibenzofuran	1.23737	1.26882	1.26882	0.000	2.54117	60.00000	Averaged	
51	Diethylphthalate	1.08801	1.18574	1.18574	0.000	8.98292	60.00000	Averaged	
52	4-Nitrophenol	0.16277	0.14180	0.14180	0.050	-12.87961	60.00000	Averaged	spcc
53	Fluorene	1.03823	1.11364	1.11364	0.000	7.26305	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.51596	0.55027	0.55027	0.000	6.64814	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	35.86803	40.00000	0.06023	0.000	-10.32992	60.00000	Linear	
56	p-Nitroaniline	0.21538	0.16030	0.16030	0.000	-25.57412	60.00000	Averaged	
133	Diphenylamine	0.47134	0.46472	0.46472	0.001	-1.40465	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.59299	0.56069	0.56069	0.000	-5.44809	60.00000	Averaged	
61	4-Bromophenylphenylether	0.16450	0.17153	0.17153	0.000	4.27443	60.00000	Averaged	
63	Hexachlorobenzene	0.15982	0.16975	0.16975	0.000	6.21384	60.00000	Averaged	
65	Pentachlorophenol	0.07563	0.08349	0.08349	0.001	10.40100	20.00000	Averaged	ccc
206	n-Octadecane	0.50130	0.48028	0.48028	0.000	-4.19222	60.00000	Averaged	
68	Phenanthrene	0.82082	0.85199	0.85199	0.000	3.79714	60.00000	Averaged	
69	Anthracene	0.83131	0.83370	0.83370	0.000	0.28733	60.00000	Averaged	
72	Di-n-butylphthalate	1.04581	1.13575	1.13575	0.000	8.60042	60.00000	Averaged	
76	Fluoranthene	0.89248	0.94125	0.94125	0.001	5.46505	20.00000	Averaged	ccc
79	Pyrene	1.26367	1.28608	1.28608	0.000	1.77366	60.00000	Averaged	
85	Butylbenzylphthalate	0.60092	0.63425	0.63425	0.000	5.54736	60.00000	Averaged	
89	Benzo(a)anthracene	0.95891	0.93434	0.93434	0.000	-2.56272	60.00000	Averaged	
92	Chrysene	0.85329	0.85189	0.85189	0.000	-0.16412	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.76109	0.84008	0.84008	0.000	10.37866	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 23-MAR-2010 11:20
Lab File ID: s7c2304.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100309-05.2 Quant Type: ISTD
Method: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.60621	1.77806	1.77806	0.001	10.69855	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	1.12177	1.12158	1.12158	0.000	-0.01705	60.00000	Averaged	
96 Benzo(k)fluoranthene	1.05423	1.10589	1.10589	0.000	4.90023	60.00000	Averaged	
97 Benzo(a)pyrene	0.91981	0.96595	0.96595	0.001	5.01684	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	0.66143	0.82101	0.82101	0.000	24.12780	60.00000	Averaged	
100 Dibenzo(a,h)anthracene	0.52416	0.65126	0.65126	0.000	24.24740	60.00000	Averaged	
101 Benzo(ghi)perylene	0.55161	0.68110	0.68110	0.000	23.47493	60.00000	Averaged	
126 m-Dinitrobenzene	0.16950	0.16941	0.16941	0.000	-0.05090	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.23333	0.26346	0.26346	0.000	12.91298	60.00000	Averaged	
143 Dinoseb	34.11006	40.00000	0.08682	0.000	-14.72485	0.000e+00	Linear	<-
173 Carbazole	0.68135	0.51110	0.51110	0.000	-24.98629	60.00000	Averaged	
184 p-Benzoquinone	0.26551	0.27469	0.27469	0.000	3.45855	60.00000	Averaged	
192 Methoxychlor	0.58935	0.66272	0.66272	0.000	12.44930	60.00000	Averaged	
211 p-Toluidine	1.10616	0.94703	0.94703	0.000	-14.38512	60.00000	Averaged	
210 m-Toluidine	1.37475	1.15828	1.15828	0.000	-15.74665	60.00000	Averaged	
215 2-Ethoxyethanol	0.93140	0.56604	0.56604	0.000	-39.22629	60.00000	Averaged	
26 Phthalic anhydride	35.19694	40.00000	0.08869	0.000	-12.00766	0.000e+00	Linear	<-
214 1,4-Dinitrobenzene	0.19422	0.19793	0.19793	0.000	1.91061	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	0.13367	0.10954	0.10954	0.000	-18.05290	60.00000	Averaged	
M 222 Trichlorophenols	0.28144	0.31423	0.31423	0.000	11.65029	60.00000	Averaged	
M 223 Tetrachlorophenols	0.23333	0.26346	0.26346	0.000	12.91298	60.00000	Averaged	
M 224 Benzo(b,k)fluoranthene	1.08800	1.11373	1.11373	0.000	2.36529	60.00000	Averaged	

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2304.d
Lab Smp Id: WBN100309-05.2 Client Smp ID: MEGACVS
Inj Date : 23-MAR-2010 11:20
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100309-05.2|CVS|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 llo00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	273307	40.0000	
* 29 Naphthalene-d8	136	4.736	4.736	(1.000)	1124363	40.0000	
* 46 Acenaphthene-d10	164	5.988	5.988	(1.000)	583433	40.0000	
* 67 Phenanthrene-d10	188	7.149	7.149	(1.000)	1092463	40.0000	
* 91 Chrysene-d12	240	9.552	9.552	(1.000)	838935	40.0000	
* 98 Perylene-d12	264	11.165	11.165	(1.000)	588840	40.0000	
$ 3 2-Fluorophenol	112	3.061	3.061	(0.791)	250904	40.0000	35.3
$ 5 Phenol-d5	99	3.590	3.590	(0.928)	328353	40.0000	36.9
$ 20 Nitrobenzene-d5	82	4.235	4.235	(0.894)	290817	40.0000	34.3
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.914)	613392	40.0000	42.2
$ 60 2,4,6-Tribromophenol	329	6.576	6.576	(1.098)	70231	40.0000	41.6
$ 81 p-Terphenyl-d14	244	8.521	8.521	(0.892)	611508	40.0000	40.7
1 N-Methyl-N-nitrosomethylamine	74	2.382	2.382	(0.615)	158573	40.0000	33.2
2 Pyridine	79	2.415	2.415	(0.624)	225679	40.0000	34.2
4 Aniline	66	3.658	3.658	(0.945)	146259	40.0000	34.4
6 Phenol	94	3.595	3.595	(0.929)	322693	40.0000	36.5
7 bis(2-Chloroethyl) ether	63	3.672	3.672	(0.949)	237588	40.0000	32.8
8 2-Chlorophenol	128	3.735	3.735	(0.965)	269657	40.0000	39.8
203 n-Deoane	43	3.720	3.720	(0.961)	486075	40.0000	38.2
9 1,3-Dichlorobenzene	146	3.836	3.836	(0.991)	334383	40.0000	39.3
11 1,4-Dichlorobenzene	146	3.884	3.884	(1.004)	330521	40.0000	40.5
13 1,2-Dichlorobenzene	146	3.985	3.985	(1.030)	314660	40.0000	41.9
14 bis(2-Chloroisopropyl)ether	45	4.014	4.014	(1.037)	583621	40.0000	34.8
12 Benzyl alcohol	108	3.937	3.937	(1.017)	122304	40.0000	26.5
15 o-Cresol	107	3.990	3.990	(1.031)	210475	40.0000	38.8
18 m,p-Cresols	107	4.091	4.091	(1.057)	261280	40.0000	35.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.115	4.115	(1.063)	188590	40.0000	37.5
19 Hexachloroethane	117	4.211	4.211	(1.088)	133019	40.0000	42.0
21 Nitrobenzene	77	4.245	4.245	(0.896)	290816	40.0000	37.0
22 Isophorone	82	4.399	4.399	(0.929)	558222	40.0000	36.7
23 2-Nitrophenol	139	4.457	4.457	(0.941)	145919	40.0000	39.5
24 2,4-Dimethylphenol	122	4.452	4.452	(0.940)	257398	40.0000	37.6
25 bis(2-Chloroethoxy)methane	93	4.520	4.520	(0.954)	302780	40.0000	36.4
26 2,4-Dichlorophenol	162	4.621	4.621	(0.976)	234942	40.0000	39.4
27 Benzoic acid	105	4.515	4.515	(0.953)	107146	40.0000	31.5
28 1,2,4-Trichlorobenzene	180	4.683	4.683	(0.989)	289739	40.0000	40.0
30 Naphthalene	128	4.751	4.751	(1.003)	804872	40.0000	37.9
204 alpha-Terpineol	59	4.727	4.727	(0.998)	283599	40.0000	32.7
31 4-Chloroaniline	127	4.765	4.765	(1.006)	294895	40.0000	29.6
32 Hexachlorobutadiene	225	4.813	4.813	(1.016)	163143	40.0000	43.2
33 4-Chloro-3-methylphenol	107	5.078	5.078	(1.072)	246393	40.0000	38.4
34 2-Methylnaphthalene	142	5.227	5.227	(1.104)	594346	40.0000	39.0
35 1-Methylnaphthalene	142	5.304	5.304	(1.120)	567847	40.0000	39.2
36 Hexachlorocyclopentadiene	237	5.333	5.333	(0.891)	87357	40.0000	31.0
205 2,3-Dichloroaniline	161	5.425	5.425	(0.906)	308998	40.0000	42.8
37 2,4,6-Trichlorophenol	196	5.420	5.420	(0.905)	181873	40.0000	44.4
38 2,4,5-Trichlorophenol	196	5.444	5.444	(0.909)	184792	40.0000	44.9
40 2-Chloronaphthalene	162	5.584	5.584	(0.932)	547380	40.0000	40.5
42 o-Nitroaniline	65	5.642	5.642	(0.942)	173313	40.0000	36.2
41 m-Nitroaniline	138	5.935	5.935	(0.991)	125468	40.0000	36.0
43 Dimethylphthalate	163	5.752	5.752	(0.961)	650871	40.0000	42.0
44 2,6-Dinitrotoluene	165	5.805	5.805	(0.969)	148855	40.0000	41.6
50 2,4-Dinitrotoluene	165	6.104	6.104	(1.019)	191176	40.0000	40.5
45 Acenaphthylene	152	5.887	5.887	(0.983)	864390	40.0000	40.0
47 Acenaphthene	154	6.012	6.012	(1.004)	545266	40.0000	42.5
48 2,4-Dinitrophenol	184	6.008	6.008	(1.003)	40458	40.0000	40.6
49 Dibenzofuran	168	6.133	6.133	(1.024)	740269	40.0000	41.0
51 Diethylphthalate	149	6.258	6.258	(1.045)	691800	40.0000	43.6
52 4-Nitrophenol	139	6.027	6.027	(1.006)	82733	40.0000	34.8
53 Fluorene	166	6.393	6.393	(1.068)	649735	40.0000	42.9
54 4-Chlorophenylphenylether	204	6.369	6.369	(1.064)	321043	40.0000	42.6
55 2-Methyl-4,6-dinitrophenol	198	6.412	6.412	(0.897)	65803	40.0000	35.9
56 p-Nitroaniline	138	6.393	6.393	(1.068)	93522	40.0000	29.8
133 Diphenylamine	169	6.460	6.460	(0.904)	507693	40.0000	39.4
58 1,2-Diphenylhydrazine	77	6.494	6.494	(0.908)	612529	40.0000	37.8
61 4-Bromophenylphenylether	248	6.754	6.754	(0.945)	187389	40.0000	41.7
63 Hexachlorobenzene	284	6.826	6.826	(0.955)	185443	40.0000	42.5
65 Pentachlorophenol	266	6.975	6.975	(0.976)	91211	40.0000	44.2
206 n-Octadecane	57	6.966	6.966	(0.974)	524690	40.0000	38.3
68 Phenanthrene	178	7.168	7.168	(1.003)	930765	40.0000	41.5
69 Anthracene	178	7.211	7.211	(1.009)	910783	40.0000	40.1
72 Di-n-butylphthalate	149	7.568	7.568	(1.059)	1240767	40.0000	43.4
76 Fluoranthene	202	8.203	8.203	(1.148)	1028284	40.0000	42.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	8.420	8.420	(0.882)	1078939	40.0000	40.7
85 Butylbenzylphthalate	149	8.954	8.954	(0.937)	532095	40.0000	42.2
89 Benzo(a)anthracene	228	9.537	9.537	(0.998)	783851	40.0000	39.0
92 Chrysene	228	9.571	9.571	(1.002)	714681	40.0000	39.9
93 bis(2-Ethylhexyl)phthalate	149	9.475	9.475	(0.992)	704775	40.0000	44.2
94 Di-n-octylphthalate	149	10.110	10.110	(0.906)	1046990	40.0000	44.3
95 Benzo(b)fluoranthene	252	10.669	10.669	(0.956)	660429	40.0000	40.0
96 Benzo(k)fluoranthene	252	10.702	10.702	(0.959)	651194	40.0000	42.0
97 Benzo(a)pyrene	252	11.092	11.092	(0.994)	568791	40.0000	42.0
99 Indeno(1,2,3-cd)pyrene	276	12.850	12.850	(1.151)	483446	40.0000	49.6
100 Dibenzo(a,h)anthracene	278	12.864	12.864	(1.152)	383487	40.0000	49.7
101 Benzo(ghi)perylene	276	13.365	13.365	(1.197)	401057	40.0000	49.4
126 m-Dinitrobenzene	168	5.791	5.791	(0.967)	98839	40.0000	40.0
130 2,3,4,6-Tetrachlorophenol	232	6.215	6.215	(1.038)	153713	40.0000	45.2
143 Dinoseb	211	7.096	7.096	(0.993)	94851	40.0000	34.1
173 Carbazole	167	7.327	7.327	(1.025)	558361	40.0000	30.0
184 p-Benzoquinone	54	3.359	3.359	(0.868)	75076	40.0000	41.4
192 Methoxychlor	227	9.422	9.422	(0.986)	555981	40.0000	45.0
211 p-Toluidine	106	4.149	4.149	(1.072)	258831	40.0000	34.2
210 m-Toluidine	106	4.168	4.168	(1.077)	316565	40.0000	33.7
215 2-Ethoxyethanol	59	2.228	2.228	(0.576)	154704	40.0000	24.3
26 Phthalic anhydride	104	5.266	5.266	(1.112)	99725	40.0000	35.2
214 1,4-Dinitrobenzene	75	5.733	5.733	(0.957)	115478	40.0000	40.8
216 Methylenebis(2-chloroaniline)	231	9.479	9.479	(0.992)	91896	40.0000	32.8
M 222 Trichlorophenols	196				366665	80.0000	89.3
M 223 Tetrachlorophenols	232				153713	40.0000	45.2
M 224 Benzo(b,k)fluoranthene	252				1311623	80.0000	81.9

Data File: /chem/MSD7.i/s032310.b/s7c2304.d
Date : 23-MAR-2010 11:20
Client ID: MEGACVS
Sample Info: IWBN100309-05,2ICVSI1ISVMF11MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

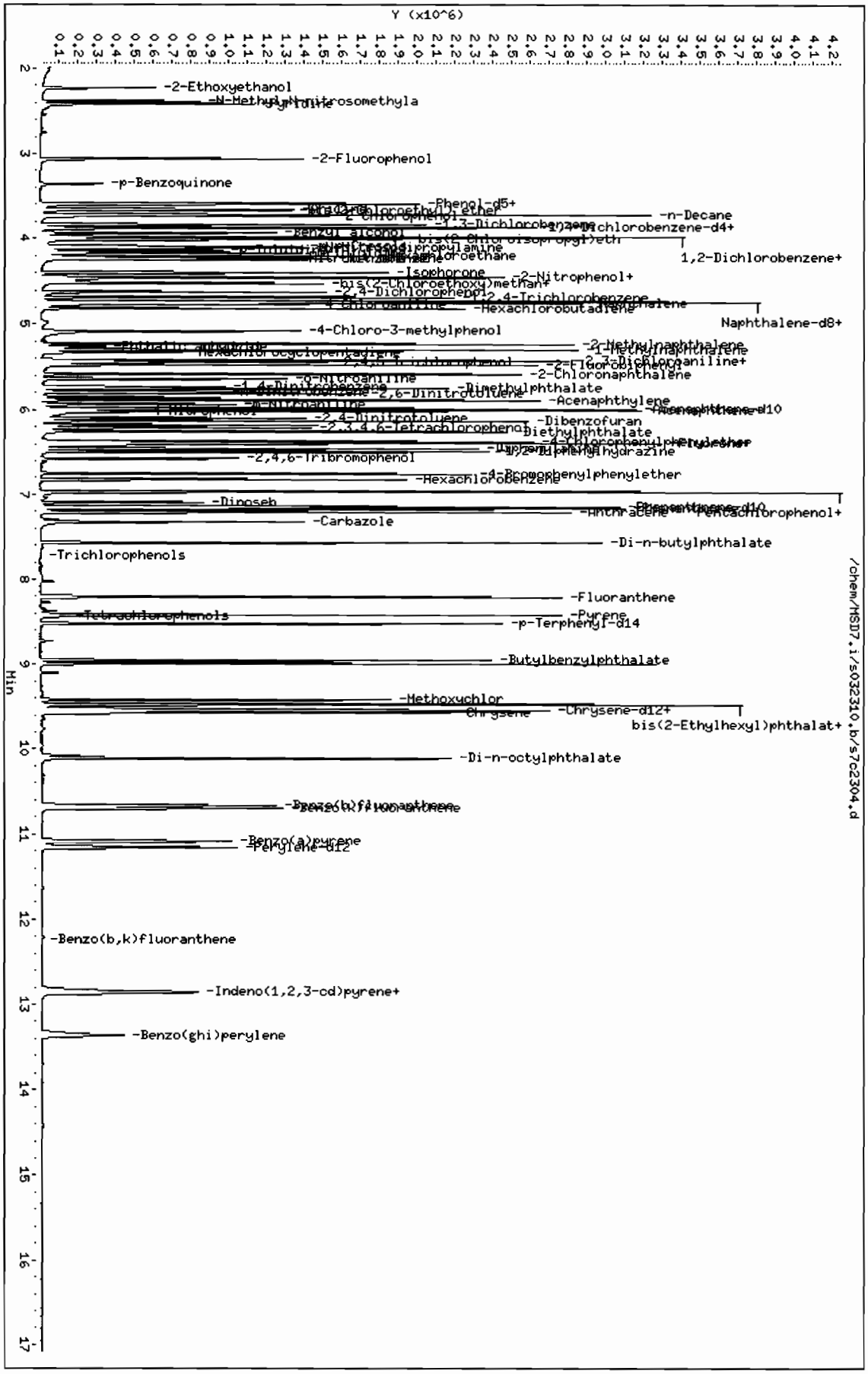

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 23-MAR-2010 11:44
Lab File ID: s7c2305.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100312-03.3 Quant Type: ISTD
Method: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84333	0.75807	0.75807	0.000	-10.11007	60.00000	Averaged
16 Acetophenone	1.10656	1.06363	1.06363	0.000	-3.87987	60.00000	Averaged
189 Caprolactam	0.07444	0.06894	0.06894	0.000	-7.38678	60.00000	Averaged
208 1,1'-Biphenyl	1.10203	1.07705	1.07705	0.000	-2.26678	60.00000	Averaged
207 Atrazine	0.03853	0.03910	0.03910	0.000	1.46831	60.00000	Averaged
77 Benzidine	0.37412	0.25316	0.25316	0.000	-32.33350	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27910	0.29158	0.29158	0.000	4.47259	60.00000	Averaged
102 1,4-Dioxane	0.33513	0.29303	0.29303	0.000	-12.56163	60.00000	Averaged
103 Methyl methacrylate	0.19562	0.16315	0.16315	0.000	-16.59795	60.00000	Averaged
104 Ethyl methacrylate	0.75140	0.65104	0.65104	0.000	-13.35616	60.00000	Averaged
105 2-Picoline	1.13566	0.98400	0.98400	0.000	-13.35448	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44142	0.36742	0.36742	0.000	-16.76400	60.00000	Averaged
107 Methyl methanesulfonate	0.50747	0.48507	0.48507	0.000	-4.41439	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47013	0.41533	0.41533	0.000	-11.65634	60.00000	Averaged
109 Ethyl Methanesulfonate	0.62041	0.54112	0.54112	0.000	-12.78094	60.00000	Averaged
110 Pentachloroethane	0.30840	0.30810	0.30810	0.000	-0.09946	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49363	0.43565	0.43565	0.000	-11.74544	60.00000	Averaged
113 N-Nitrosomorpholine	0.81412	0.68703	0.68703	0.000	-15.61083	60.00000	Averaged
114 o-Toluidine	1.53985	1.36699	1.36699	0.000	-11.22581	60.00000	Averaged
115 N-Nitrosopiperidine	0.13162	0.11093	0.11093	0.000	-15.71858	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.98197	0.68336	0.68336	0.000	-30.40973	60.00000	Averaged
118 2,6-Dichlorophenol	0.20270	0.19978	0.19978	0.000	-1.43886	60.00000	Averaged
119 Hexachloropropene	0.10516	0.09910	0.09910	0.000	-5.76825	60.00000	Averaged
120 p-Phenylenediamine	0.22347	0.21110	0.21110	0.000	-5.53489	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.20065	0.17777	0.17777	0.000	-11.40282	60.00000	Averaged
122 Safrole	0.18525	0.17692	0.17692	0.000	-4.49636	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.39310	0.42000	0.42000	0.000	6.84292	60.00000	Averaged
124 Isosafrole	0.32673	0.30557	0.30557	0.000	-6.47666	60.00000	Averaged
125 1,4-Naphthoquinone	37.53688	40.00000	0.27825	0.000	-6.15781	60.00000	Linear
127 Pentachlorobenzene	0.35339	0.36005	0.36005	0.000	1.88416	60.00000	Averaged
128 1-Naphthylamine	0.85758	0.85977	0.85977	0.000	0.25520	60.00000	Averaged
129 2-Naphthylamine	0.92399	0.89480	0.89480	0.000	-3.15949	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27279	0.25322	0.25322	0.000	-7.17535	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11408	0.12479	0.12479	0.000	9.39245	60.00000	Averaged
137 Phenacetin	0.25171	0.24182	0.24182	0.000	-3.92905	60.00000	Averaged
138 Diallate	0.21975	0.19981	0.19981	0.000	-9.07542	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 23-MAR-2010 11:44
Lab File ID: s7c2305.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100312-03.3 Quant Type: ISTD
Method: /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.22751	0.18843	0.18843	0.000	-17.17525	60.00000	Averaged
213 Trans Diallate	0.25853	0.23506	0.23506	0.000	-9.07542	60.00000	Averaged
140 4-Aminobiphenyl	0.53100	0.53765	0.53765	0.000	1.25230	60.00000	Averaged
141 Pentachloronitrobenzene	0.05770	0.07300	0.07300	0.000	26.51884	60.00000	Averaged
142 Pronamide	0.23171	0.26252	0.26252	0.000	13.29864	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01900	0.01373	0.01373	0.000	-27.71392	60.00000	Averaged
147 Methapyrilene	0.45514	0.43349	0.43349	0.000	-4.75761	60.00000	Averaged
148 Isodrin	0.10048	0.10284	0.10284	0.000	2.34849	60.00000	Averaged
149 Aramite	0.04292	0.04196	0.04196	0.000	-2.22911	60.00000	Averaged
150 Kepone	0.06421	0.06777	0.06777	0.000	5.54917	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31171	0.29226	0.29226	0.000	-6.23841	60.00000	Averaged
152 Chlorobenzilate	0.27373	0.28147	0.28147	0.000	2.82846	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52442	0.47689	0.47689	0.000	-9.06329	60.00000	Averaged
155 2-Acetylaminofluorene	0.30989	0.33948	0.33948	0.000	9.54586	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51277	0.49167	0.49167	0.000	-4.11601	60.00000	Averaged
158 3-Methylcholanthrene	0.37167	0.38925	0.38925	0.000	4.73039	60.00000	Averaged

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Data file : /chem/MSD7.i/s032310.b/s7c2305.d
Lab Smp Id: WBN100312-03.3 Client Smp ID: APCVS
Inj Date : 23-MAR-2010 11:44
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100312-03.3|CVS|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	316377	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	1165260	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	674951	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	1208754	40.0000	
* 91 Chrysene-d12	240	9.542	9.552	(1.000)	1041062	40.0000	
* 98 Perylene-d12	264	11.160	11.165	(1.000)	805555	40.0000	
209 Benzaldehyde	77	3.595	3.595	(0.929)	239836	40.0000	36.0
16 Acetophenone	105	4.120	4.120	(1.065)	336509	40.0000	38.4
189 Caprolactam	113	5.011	5.011	(1.059)	80330	40.0000	37.0
208 1,1'-Biphenyl	154	5.550	5.550	(0.928)	726956	40.0000	39.1
207 Atrazine	173	6.855	6.855	(0.960)	47258	40.0000	40.6
77 Benzidine	184	8.295	8.295	(0.869)	263551	40.0000	27.1
90 3,3'-Dichlorobenzidine	252	9.479	9.479	(0.993)	303554	40.0000	41.8
102 1,4-Dioxane	88	2.237	2.237	(0.578)	92707	40.0000	35.0
103 Methyl methacrylate	100	2.228	2.228	(0.576)	51617	40.0000	33.4
104 Ethyl methacrylate	69	2.589	2.589	(0.669)	205974	40.0000	34.6
105 2-Picoline	93	2.781	2.781	(0.719)	311314	40.0000	34.6
106 N-Nitrosomethylethylamine	88	2.820	2.820	(0.729)	116243	40.0000	33.3
107 Methyl methanesulfonate	80	2.974	2.974	(0.769)	153464	40.0000	38.2
108 N-Nitrosodiethylamine	102	3.205	3.205	(0.828)	131401	40.0000	35.3
109 Ethyl Methanesulfonate	79	3.359	3.359	(0.868)	171197	40.0000	34.9
110 Pentachloroethane	167	3.696	3.696	(0.955)	97474	40.0000	40.0
111 N-Nitrosopyrrolidine	100	4.110	4.110	(1.062)	137829	40.0000	35.3
113 N-Nitrosomorpholine	56	4.130	4.130	(1.067)	217361	40.0000	33.8
114 o-Toluidine	106	4.144	4.144	(1.071)	432485	40.0000	35.5
115 N-Nitrosopiperidine	114	4.342	4.342	(0.918)	129263	40.0000	33.7
116 a,a-Dimethylphenethylamine	58	4.587	4.587	(0.969)	796288	40.0000	27.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
118 2,6-Dichlorophenol	162	4.775	4.775	(1.009)	232800	40.0000	39.4
119 Hexachloropropene	213	4.799	4.799	(1.014)	115475	40.0000	37.7
120 p-Phenylenediamine	108	5.011	5.011	(1.059)	245983	40.0000	37.8
121 N-Nitrosodi-n-butylamine	84	4.977	4.977	(1.052)	207152	40.0000	35.4
122 Safrole	162	5.141	5.141	(1.087)	206157	40.0000	38.2
123 1,2,4,5-Tetrachlorobenzene	216	5.343	5.343	(0.893)	283482	40.0000	42.7
124 Isosafrole	162	5.512	5.512	(0.921)	206243	40.0000	37.4
125 1,4-Naphthoquinone	158	5.699	5.699	(0.953)	187804	40.0000	37.5
127 Pentachlorobenzene	250	6.099	6.099	(1.019)	243014	40.0000	40.8
128 1-Naphthylamine	143	6.186	6.186	(1.034)	580305	40.0000	40.1
129 2-Naphthylamine	143	6.244	6.244	(1.043)	603944	40.0000	38.7
131 5-Nitro-o-toluidine	152	6.383	6.383	(1.067)	170911	40.0000	37.1
136 1,3,5-Trinitrobenzene	75	6.643	6.643	(0.930)	150842	40.0000	43.8
137 Phenacetin	108	6.677	6.677	(0.935)	292302	40.0000	38.4(Q)
138 Diallate	86	6.662	6.662	(0.933)	241515	40.0000	36.4
212 Cis Diallate	86	6.740	6.740	(0.943)	34165	6.00000	5.0
213 Trans Diallate	86	6.662	6.662	(0.933)	241515	34.0000	30.9
140 4-Aminobiphenyl	169	6.966	6.966	(0.975)	649883	40.0000	40.5
141 Pentachloronitrobenzene	237	6.985	6.985	(0.978)	88234	40.0000	50.6(Q)
142 Pronamide	173	6.980	6.980	(0.977)	317327	40.0000	45.3
146 4-Nitroquinoline-1-oxide	101	7.813	7.813	(1.094)	16601	40.0000	28.9
147 Methapyrilene	58	7.847	7.847	(1.098)	523983	40.0000	38.1
148 Isodrin	193	8.064	8.064	(1.129)	124309	40.0000	40.9
149 Aramite	185	8.468	8.468	(1.185)	50724	40.0000	39.1
150 Kepone	272	9.046	9.046	(1.266)	81914	40.0000	42.2
151 p-(Dimethylamino)azobenzene	120	8.646	8.646	(0.906)	304262	40.0000	37.5
152 Chlorobenzilate	251	8.675	8.675	(0.909)	293025	40.0000	41.1
153 3,3'-Dimethylbenzidine	212	8.959	8.959	(0.939)	496473	40.0000	36.4
155 2-Acetylaminofluorene	181	9.205	9.205	(0.965)	353415	40.0000	43.8
157 7,12Dimethylbenz(a)anthracene	256	10.640	10.640	(0.953)	396065	40.0000	38.4
158 3-Methylcholanthrene	268	11.550	11.550	(1.035)	313561	40.0000	41.9

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s032310.b/s7c2305.d
Date : 23-MAR-2010 11:44
Client ID: APCVS
Sample Info: IWBN100312-03,3ICVSI1ISVMFI1IAPCVS
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

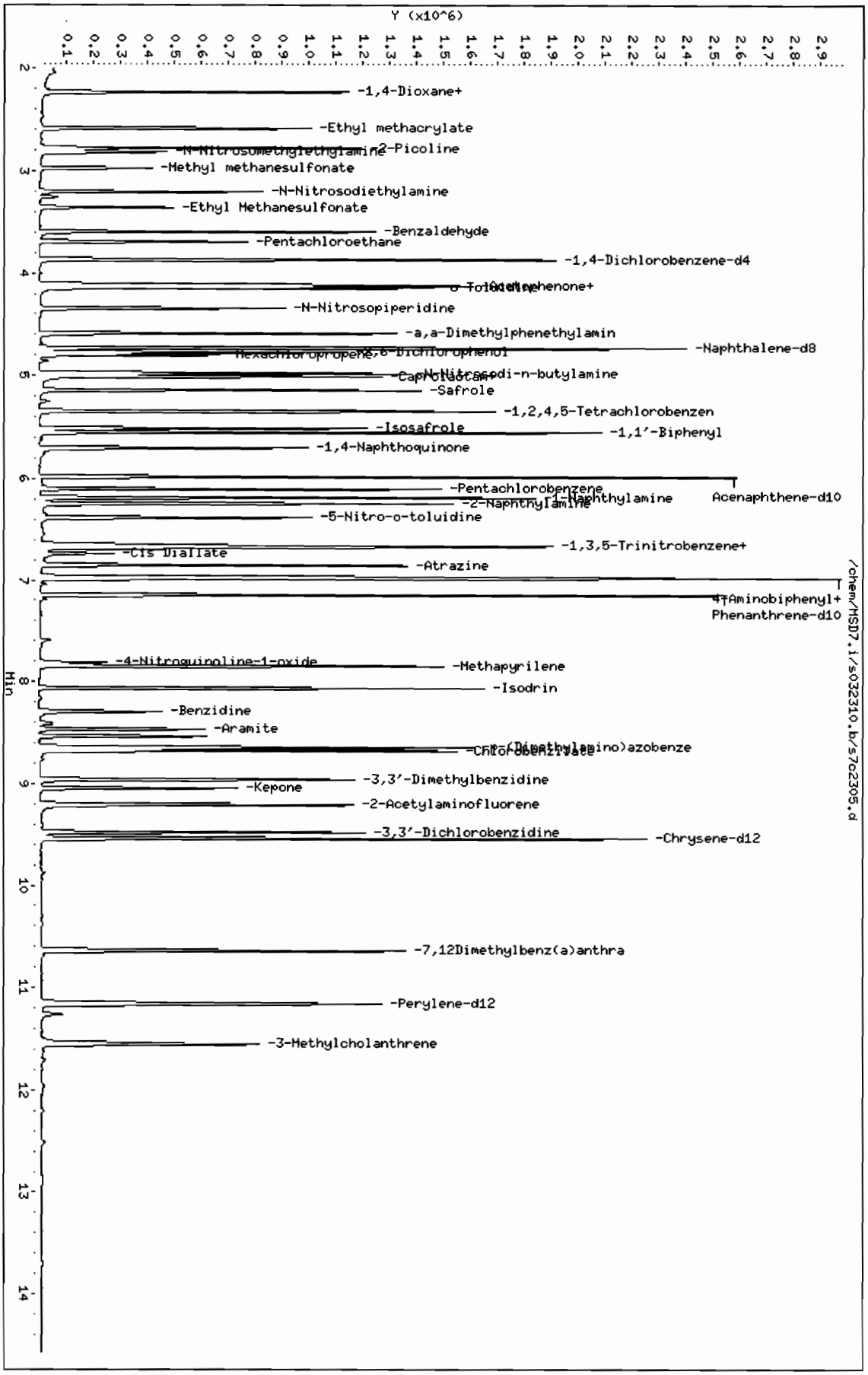

QC Data

Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

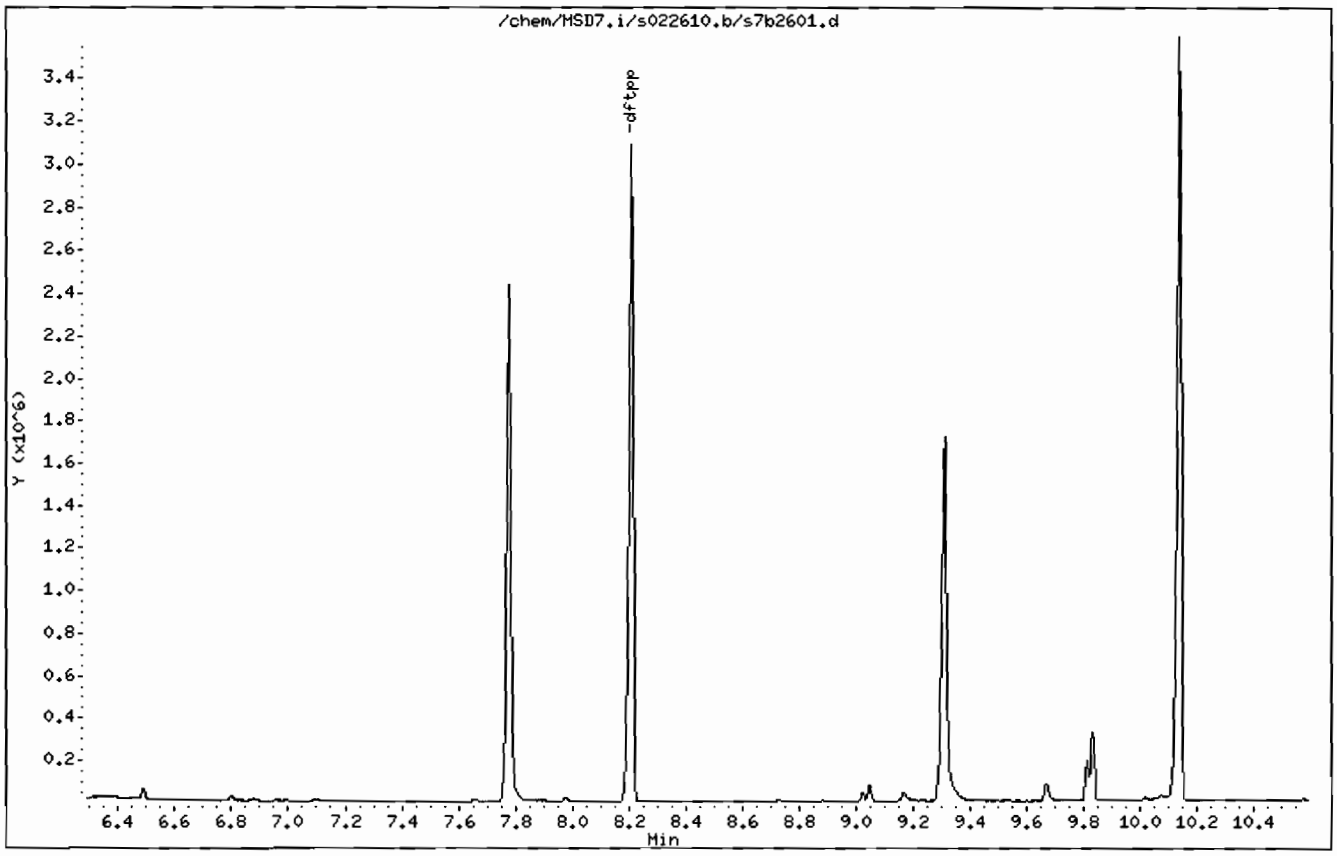

Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: IWBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

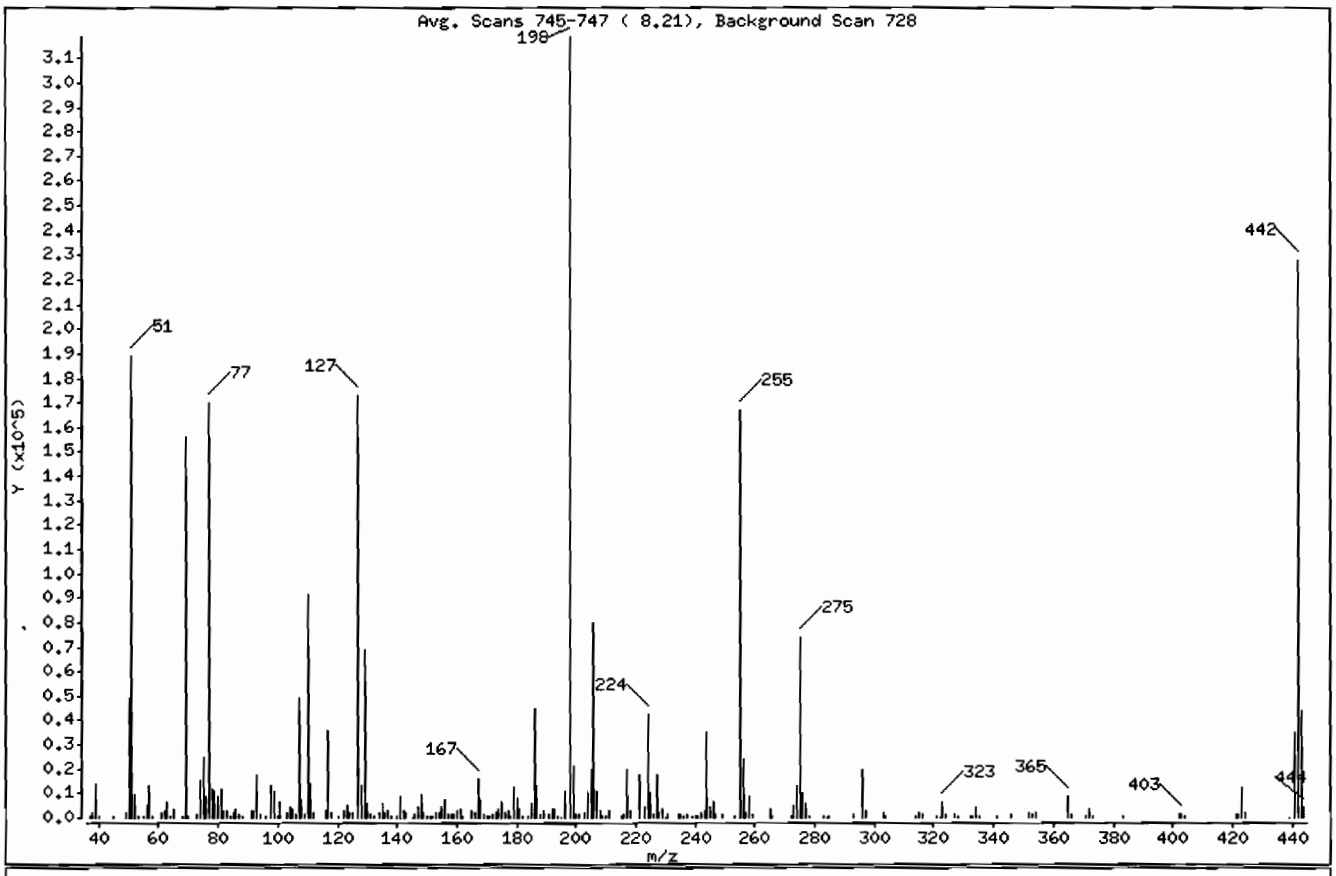

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	59.41
68	Less than 2.00% of mass 69	0.28 (0.57)
69	Mass 69 relative abundance	48.94
70	Less than 2.00% of mass 69	0.28 (0.58)
127	40.00 - 60.00% of mass 198	54.14
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.65
275	10.00 - 30.00% of mass 198	23.16
365	Greater than 1.00% of mass 198	2.69
441	Present, but less than mass 443	10.95
442	Greater than 40.00% of mass 198	71.59
443	17.00 - 23.00% of mass 442	13.73 (19.18)

Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2601.d
Spectrum: Avg. Scans 745-747 (8.21), Background Scan 728
Location of Maximum: 198.00
Number of points: 228

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	852	117.00	35928	184.00	921	259.00	1456
38.00	2311	118.00	2505	185.00	5984	265.00	3673
39.00	13932	120.00	682	186.00	44920	266.00	602
40.00	778	122.00	3034	187.00	13079	272.00	686
45.00	617	123.00	4902	188.00	1326	273.00	5148
49.00	1836	124.00	2350	189.00	2753	274.00	13060
50.00	49024	125.00	2075	191.00	1303	275.00	73880
51.00	189504	127.00	172736	192.00	3677	276.00	10097
52.00	9606	128.00	13398	193.00	3924	277.00	5801
53.00	380	129.00	68952	194.00	852	278.00	937
55.00	641	130.00	5708	195.00	213	283.00	683
56.00	5212	131.00	1162	196.00	10681	284.00	363
57.00	12872	132.00	774	198.00	319040	285.00	980
58.00	597	134.00	2028	199.00	21208	293.00	1331
61.00	2326	135.00	5642	200.00	1647	296.00	19728
62.00	2698	136.00	2275	201.00	1773	297.00	2776
63.00	6781	137.00	2609	203.00	2366	303.00	2464
64.00	1046	138.00	715	204.00	10630	304.00	574
65.00	3631	140.00	969	205.00	19512	314.00	904
68.00	888	141.00	8721	206.00	79824	315.00	2209
69.00	156160	142.00	2698	207.00	10932	316.00	1138
70.00	900	143.00	1961	208.00	3049	321.00	715
73.00	1515	145.00	363	209.00	797	322.00	167
74.00	15266	146.00	1578	210.00	844	323.00	6440
75.00	24672	147.00	4519	211.00	3224	324.00	1313
76.00	8506	148.00	9607	215.00	827	327.00	1174
77.00	169984	149.00	1988	216.00	1701	328.00	565
78.00	11795	150.00	396	217.00	20024	332.00	397
79.00	11177	151.00	1094	218.00	2713	333.00	714
80.00	8792	152.00	647	221.00	17472	334.00	4276
81.00	12077	153.00	2565	223.00	4593	335.00	1100
82.00	3170	154.00	2159	224.00	42376	341.00	531
83.00	3008	155.00	4724	225.00	10621	346.00	1286
84.00	636	156.00	7141	226.00	1169	352.00	1989
85.00	2044	157.00	1513	227.00	17440	353.00	1401

Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2601.d

Spectrum: Avg. Scans 745-747 (8.21), Background Scan 728

Location of Maximum: 198.00

Number of points: 228

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	3508	158.00	1749	228.00	2469	354.00	2183
87.00	1630	159.00	1243	229.00	3883	365.00	8577
88.00	419	160.00	2579	230.00	356	366.00	1114
91.00	2741	161.00	3950	231.00	1525	371.00	644
92.00	3230	162.00	1019	234.00	1203	372.00	3384
93.00	17792	165.00	2876	235.00	1368	373.00	853
94.00	1291	166.00	2290	236.00	770	383.00	796
96.00	998	167.00	15920	237.00	1366	402.00	1481
98.00	13554	168.00	7335	239.00	754	403.00	1754
99.00	10824	169.00	1371	240.00	398	404.00	734
100.00	976	170.00	409	241.00	1037	421.00	1467
101.00	6705	171.00	753	242.00	2373	422.00	1498
103.00	2265	172.00	1523	243.00	2625	423.00	12418
104.00	4074	173.00	1979	244.00	35000	424.00	2370
105.00	3826	174.00	3403	245.00	4542	439.00	178
106.00	1433	175.00	6519	246.00	6439	441.00	34928
107.00	49056	176.00	1866	247.00	1293	442.00	228416
108.00	7671	177.00	3004	249.00	1244	443.00	43808
109.00	1301	178.00	1078	253.00	913	444.00	4114
110.00	91472	179.00	12442	255.00	167552		
111.00	13914	180.00	8233	256.00	24184		
112.00	1881	181.00	3774	257.00	1884		
116.00	2779	182.00	632	258.00	9098		

Data File: /chem/MSD7.i/s022610.b/s7b2615.d

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

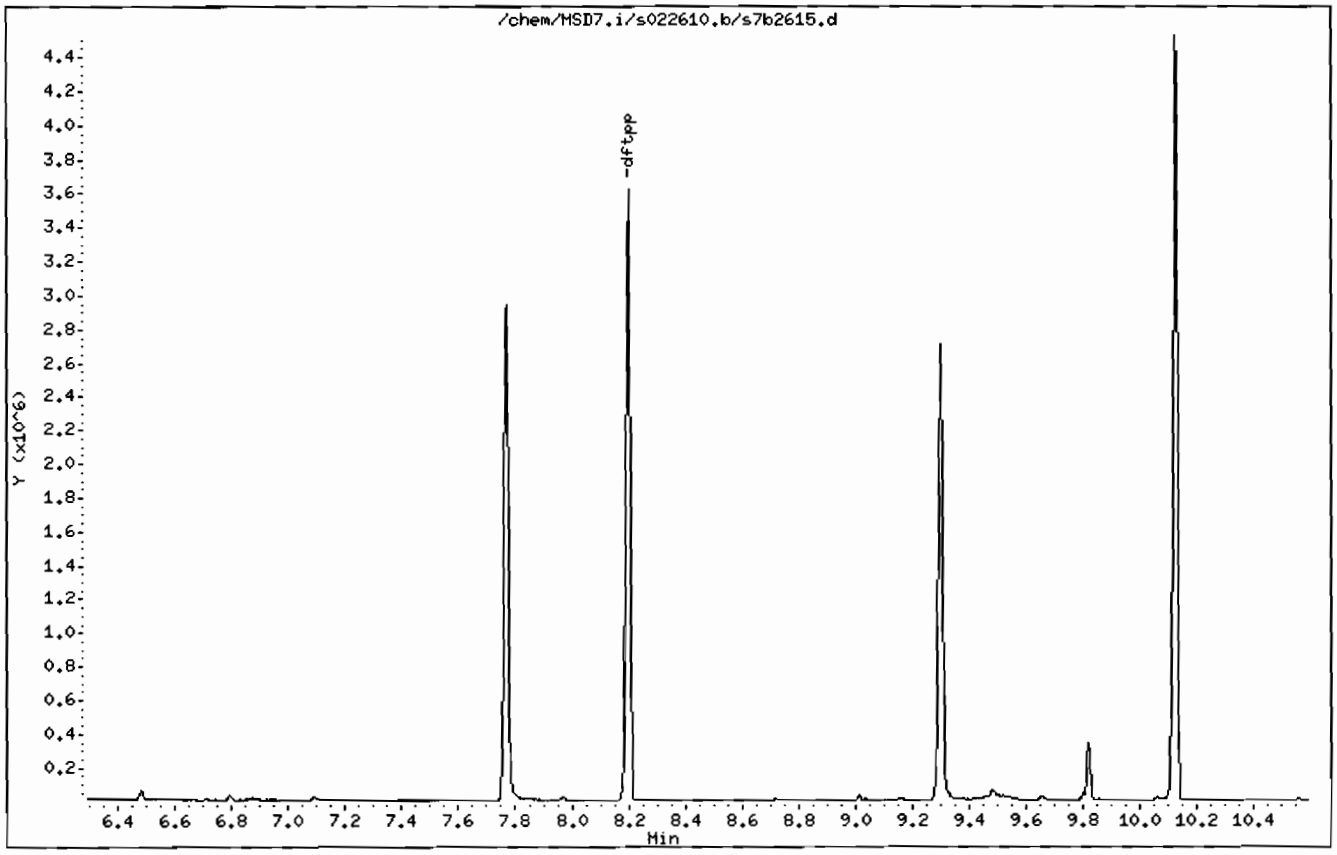

Data File: /chem/MSD7.i/s022610.b/s7b2615.d

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

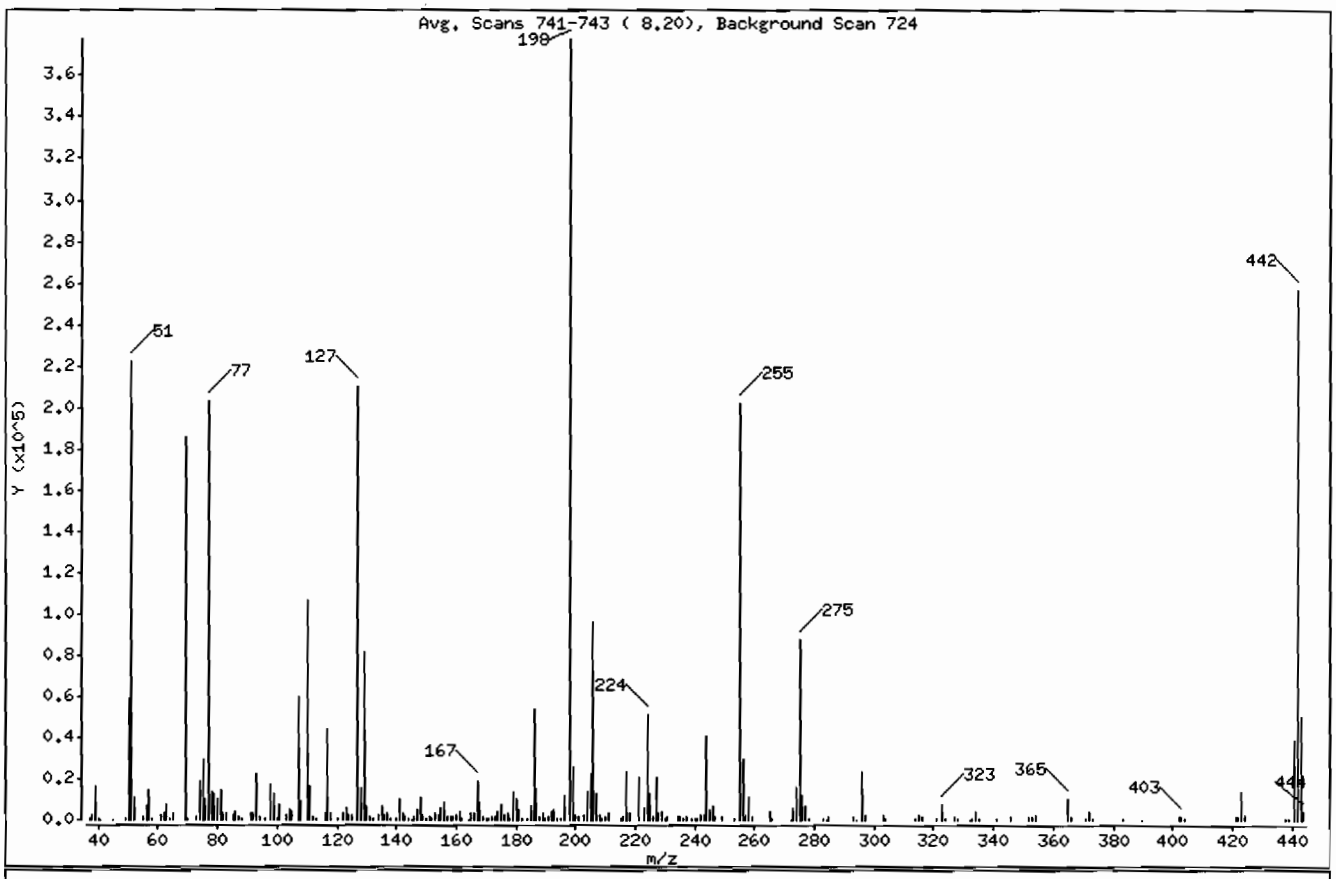

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	58.98
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	49.16
70	Less than 2.00% of mass 69	0.23 (0.48)
127	40.00 - 60.00% of mass 198	55.53
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.90
275	10.00 - 30.00% of mass 198	23.32
365	Greater than 1.00% of mass 198	2.65
441	Present, but less than mass 443	10.42
442	Greater than 40.00% of mass 198	68.13
443	17.00 - 23.00% of mass 442	13.23 (19.42)

Data File: /chem/MSD7.i/s022610.b/s7b2615.d

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2615.d

Spectrum: Avg. Scans 741-743 (8.20), Background Scan 724

Location of Maximum: 198.00

Number of points: 230

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1029	122.00	3738	185.00	6817	259.00	1573
38.00	2784	123.00	5796	186.00	54064	265.00	4325
39.00	16736	124.00	2600	187.00	15706	266.00	746
40.00	804	125.00	2612	188.00	1673	272.00	197
41.00	215	127.00	209728	189.00	3494	273.00	6106
45.00	168	128.00	15827	190.00	586	274.00	15839
49.00	1187	129.00	81240	191.00	1632	275.00	88080
50.00	59008	130.00	6686	192.00	4589	276.00	11832
51.00	222720	131.00	1427	193.00	4997	277.00	7181
52.00	11067	132.00	774	194.00	1040	278.00	1002
55.00	1479	134.00	2449	195.00	704	283.00	768
56.00	6807	135.00	6597	196.00	12441	284.00	411
57.00	14992	136.00	2742	198.00	377728	285.00	1383
58.00	682	137.00	3143	199.00	26056	293.00	1754
61.00	2681	138.00	765	200.00	2198	294.00	170
62.00	3163	140.00	1042	201.00	1902	296.00	23352
63.00	8062	141.00	10317	203.00	2941	297.00	3003
64.00	939	142.00	3584	204.00	13735	303.00	2912
65.00	3873	143.00	2145	205.00	22256	304.00	698
69.00	185664	144.00	648	206.00	96224	314.00	1230
70.00	883	145.00	345	207.00	12868	315.00	2658
73.00	1613	146.00	1896	208.00	3012	316.00	1427
74.00	18712	147.00	5046	209.00	1028	321.00	683
75.00	29592	148.00	11656	210.00	1417	323.00	8017
76.00	10277	149.00	2428	211.00	3685	324.00	1216
77.00	203520	150.00	602	215.00	982	327.00	1441
78.00	14043	151.00	1527	216.00	2051	328.00	748
79.00	13422	152.00	713	217.00	23848	332.00	363
80.00	10653	153.00	3096	218.00	3211	333.00	806
81.00	14622	154.00	2344	221.00	20792	334.00	4623
82.00	3466	155.00	5720	223.00	5862	335.00	1233
83.00	3303	156.00	8256	224.00	50920	341.00	795
85.00	2661	157.00	1579	225.00	13061	346.00	1522
86.00	3911	158.00	1721	226.00	1598	352.00	1965
87.00	1716	159.00	1403	227.00	20944	353.00	1542

Date : 26-FEB-2010 16:00

Client ID: DFTPP Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s7b2615.d
Spectrum: Avg. Scans 741-743 (8.20), Background Scan 724
Location of Maximum: 198.00
Number of points: 230

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	720	160.00	3002	228.00	3044	354.00	2372
91.00	3449	161.00	4728	229.00	4594	365.00	10014
92.00	3788	162.00	1233	230.00	617	366.00	1587
93.00	22184	164.00	176	231.00	1861	371.00	636
94.00	1680	165.00	3703	234.00	1383	372.00	3986
96.00	1049	166.00	3066	235.00	1556	373.00	896
98.00	17120	167.00	18856	236.00	1121	383.00	902
99.00	13353	168.00	9050	237.00	1622	390.00	167
100.00	1116	169.00	1603	239.00	883	402.00	1434
101.00	7543	170.00	665	240.00	677	403.00	2148
103.00	2685	171.00	809	241.00	1127	404.00	602
104.00	5030	172.00	1695	242.00	2573	421.00	1921
105.00	4545	173.00	2042	243.00	2934	422.00	1955
107.00	59544	174.00	4069	244.00	40392	423.00	14077
108.00	9676	175.00	7514	245.00	5448	424.00	2851
110.00	106720	176.00	2522	246.00	7235	438.00	613
111.00	16672	177.00	3771	247.00	1622	439.00	1021
112.00	2022	178.00	1302	249.00	1526	441.00	39344
113.00	647	179.00	14261	253.00	985	442.00	257344
116.00	3383	180.00	9998	255.00	202432	443.00	49984
117.00	44664	181.00	4790	256.00	29912	444.00	4586
118.00	3115	182.00	817	257.00	2724		
120.00	706	184.00	1225	258.00	11156		

Data File: /chem/MSD7.i/s032310.b/s7c2303.d

Date : 23-MAR-2010 11:08

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

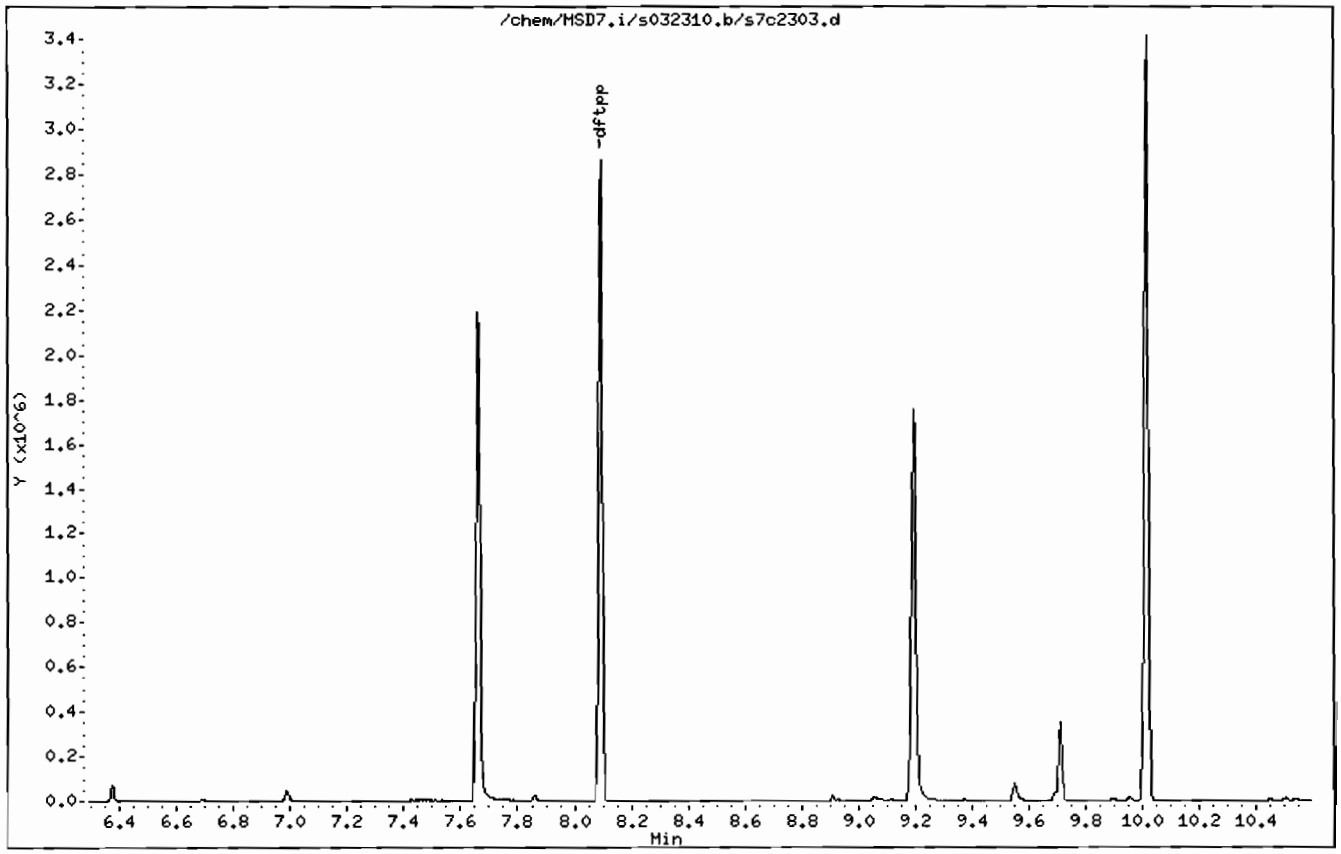

Data File: /chem/MSD7.i/s032310.b/s7c2303.d

Date : 23-MAR-2010 11:08

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

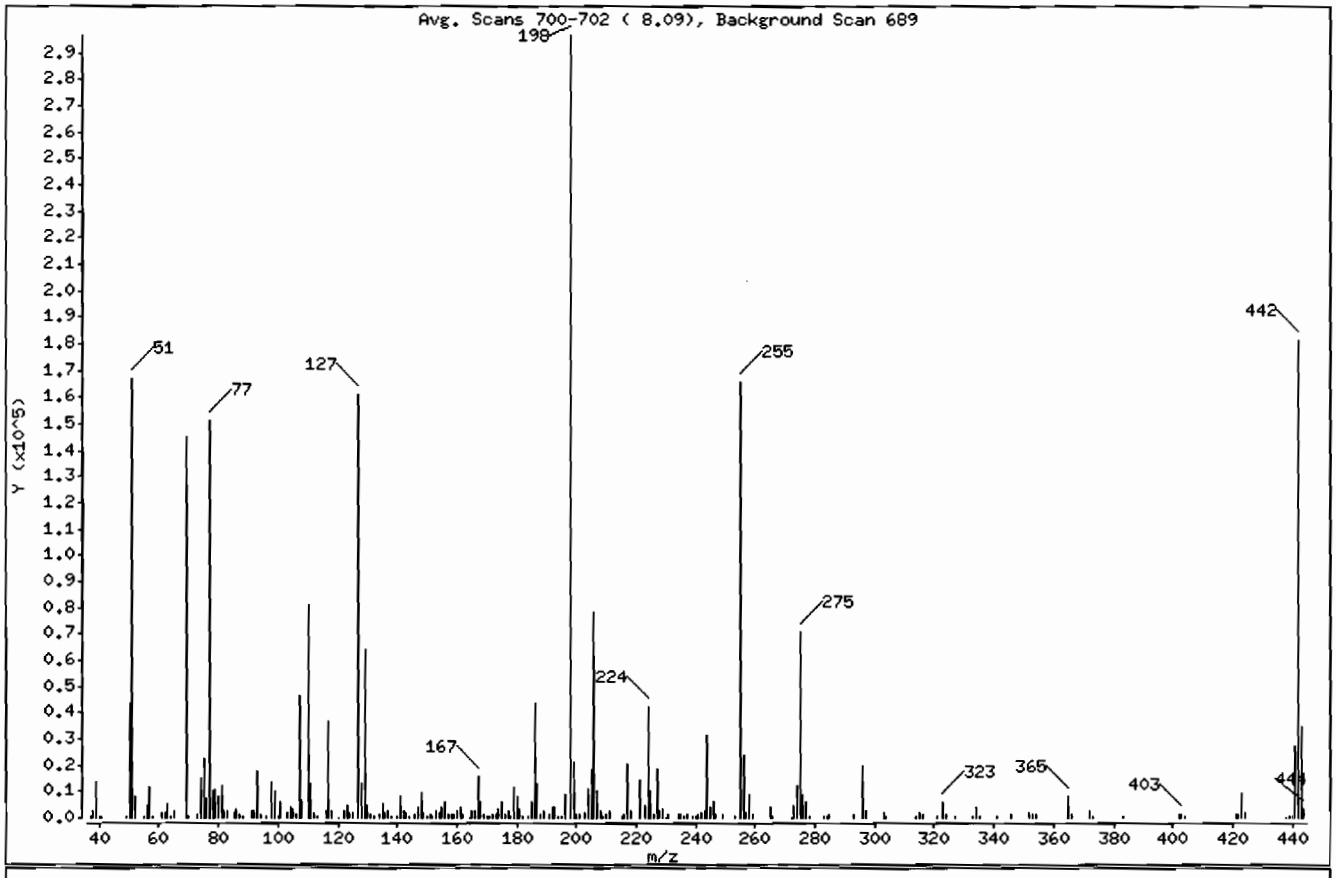

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	56.32
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	49.02
70	Less than 2.00% of mass 69	0.22 (0.46)
127	40.00 - 60.00% of mass 198	54.24
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.14
275	10.00 - 30.00% of mass 198	23.93
365	Greater than 1.00% of mass 198	2.86
441	Present, but less than mass 443	9.13
442	Greater than 40.00% of mass 198	61.18
443	17.00 - 23.00% of mass 442	11.82 (19.32)

Data File: /chem/MSD7.i/s032310.b/s7c2303.d

Date : 23-MAR-2010 11:08

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7c2303.d
Spectrum: Avg. Scans 700-702 (8.09), Background Scan 689
Location of Maximum: 198.00
Number of points: 224

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	911	120.00	167	184.00	1001	258.00	8963
38.00	2452	122.00	3007	185.00	5994	259.00	1524
39.00	13717	123.00	5114	186.00	43816	265.00	4121
40.00	754	124.00	1946	187.00	12737	266.00	718
41.00	604	125.00	1972	188.00	1169	272.00	334
49.00	422	127.00	160896	189.00	2898	273.00	4841
50.00	43728	128.00	12965	191.00	1434	274.00	12592
51.00	167104	129.00	64008	192.00	3791	275.00	70992
52.00	8120	130.00	5029	193.00	3946	276.00	8987
55.00	896	131.00	1160	194.00	897	277.00	6375
56.00	4901	132.00	636	195.00	546	278.00	1022
57.00	11360	134.00	1696	196.00	9097	283.00	547
58.00	441	135.00	5276	198.00	296704	284.00	359
61.00	1851	136.00	2266	199.00	21192	285.00	1172
62.00	2049	137.00	2668	200.00	1685	293.00	1419
63.00	5728	138.00	682	201.00	1333	296.00	19880
64.00	931	140.00	760	203.00	2128	297.00	2574
65.00	2724	141.00	8142	204.00	11112	303.00	2270
69.00	145408	142.00	2618	205.00	18312	304.00	581
70.00	667	143.00	2050	206.00	78728	314.00	1002
73.00	1186	144.00	381	207.00	10327	315.00	2196
74.00	14722	146.00	1405	208.00	2952	316.00	1091
75.00	22800	147.00	4223	209.00	966	321.00	616
76.00	7828	148.00	9518	210.00	1158	323.00	6010
77.00	151744	149.00	1772	211.00	2775	324.00	1132
78.00	10176	150.00	550	215.00	810	327.00	979
79.00	10584	151.00	1090	216.00	1650	333.00	608
80.00	8422	152.00	592	217.00	20576	334.00	4125
81.00	12041	153.00	2606	218.00	3014	335.00	1015
82.00	2898	154.00	1824	221.00	14085	341.00	630
83.00	2563	155.00	4426	223.00	4456	346.00	1355
85.00	1871	156.00	6443	224.00	42008	352.00	1762
86.00	3204	157.00	1261	225.00	10455	353.00	1238
87.00	1466	158.00	1260	226.00	1129	354.00	1480
88.00	368	159.00	1028	227.00	18592	365.00	8500

Data File: /chem/MSD7.i/s032310.b/s7c2303.d

Date : 23-MAR-2010 11:08

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01,2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7c2303.d
Spectrum: Avg. Scans 700-702 (8.09), Background Scan 689
Location of Maximum: 198.00
Number of points: 224

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	2636	160.00	2424	228.00	2651	366.00	1186
92.00	2595	161.00	3835	229.00	3615	372.00	2979
93.00	17888	162.00	1032	230.00	175	373.00	781
94.00	1184	164.00	168	231.00	1578	383.00	759
96.00	851	165.00	2930	234.00	1225	402.00	1290
98.00	13771	166.00	2569	235.00	1267	403.00	1676
99.00	10067	167.00	15715	236.00	884	404.00	671
100.00	890	168.00	6264	237.00	1285	421.00	1339
101.00	5972	169.00	1306	239.00	570	422.00	1419
103.00	1983	170.00	791	240.00	661	423.00	9683
104.00	3983	171.00	770	241.00	1282	424.00	1990
105.00	3658	172.00	1290	242.00	2205	438.00	166
106.00	1216	173.00	1697	243.00	2531	439.00	700
107.00	46232	174.00	3084	244.00	31344	440.00	785
108.00	7109	175.00	5997	245.00	4379	441.00	27080
110.00	80840	176.00	1535	246.00	6478	442.00	181504
111.00	12753	177.00	2950	247.00	1388	443.00	35072
112.00	1737	178.00	959	249.00	1075	444.00	3183
113.00	374	179.00	11424	253.00	936		
116.00	2818	180.00	7910	255.00	166080		
117.00	36816	181.00	3648	256.00	23920		
118.00	2706	182.00	697	257.00	1995		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072534**				
Client Sample:	**QC for batch 965812**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965812**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:05**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2306-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072534**				
Client Sample:	**QC for batch 965812**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965812**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:05**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2306-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.9	552	ug/kg		J

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Data file : /chem/MSD7.i/s032310.b/s7c2306-3.d
Lab Smp Id: 1202072534 Client Smp ID: SBLK01
Inj Date : 23-MAR-2010 12:05
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202072534|965816|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2318.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	212090	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	794132	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	461044	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	834040	40.0000	
* 91 Chrysene-d12	240	9.542	9.552	(1.000)	651822	40.0000	
* 98 Perylene-d12	264	11.155	11.165	(1.000)	489529	40.0000	
$ 3 2-Fluorophenol	112	3.065	3.061	(0.792)	398773	72.3370	2410
$ 5 Phenol-d5	99	3.585	3.590	(0.927)	475179	68.7495	2290
$ 20 Nitrobenzene-d5	82	4.226	4.235	(0.893)	234985	39.2323	1310
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	487590	42.4361	1410
$ 60 2,4,6-Tribromophenol	329	6.576	6.576	(1.099)	117619	88.2483	2940
$ 81 p-Terphenyl-d14	244	8.516	8.521	(0.892)	542209	46.4318	1550

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Data file : /chem/MSD7.i/s032310.b/s7c2306-3.d
Lab Smp Id: 1202072534 Client Smp ID: SBLK01
Inj Date : 23-MAR-2010 12:05
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202072534|965816|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2318.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.870	1381743	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.902	572547	16.5746279	552	0		0	10

Data File: /chem/MSD7.i/s032310.b/s7c2306-3.d

Date : 23-MAR-2010 12:05

Client ID: SBLK01

Sample Info: |1202072534|965816|1|SVMI1|MB

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Page 1

Instrument: MSD7.i

Operator: JMB3

Column diameter: 0.20

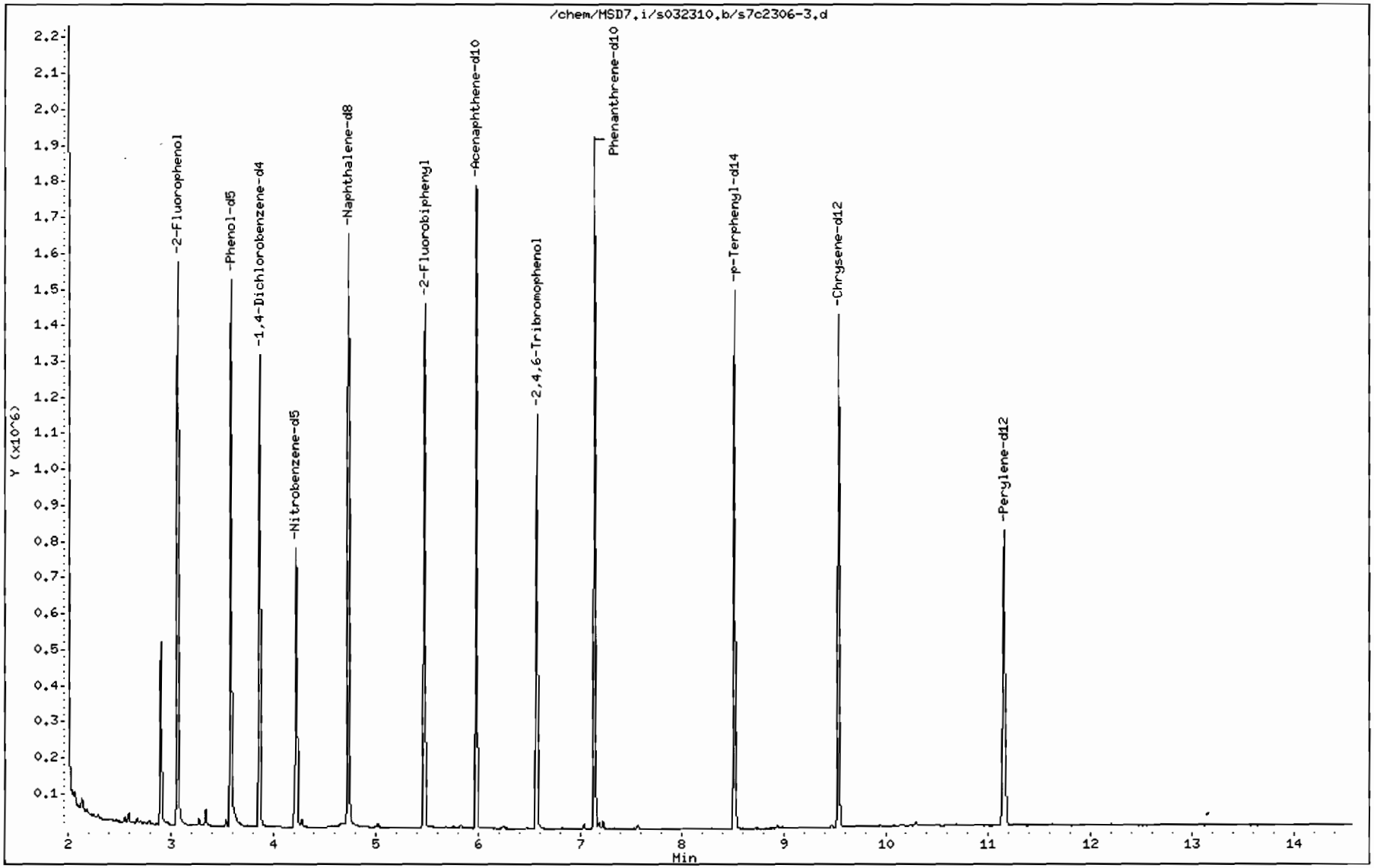

Data File: /chem/MSD7.i/s032310.b/s7c2306-3.d

Date : 23-MAR-2010 12:05

Client ID: SBLK01

Instrument: MSD7.i

Sample Info: |1202072534|965816|1|SVM|1|MB

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116

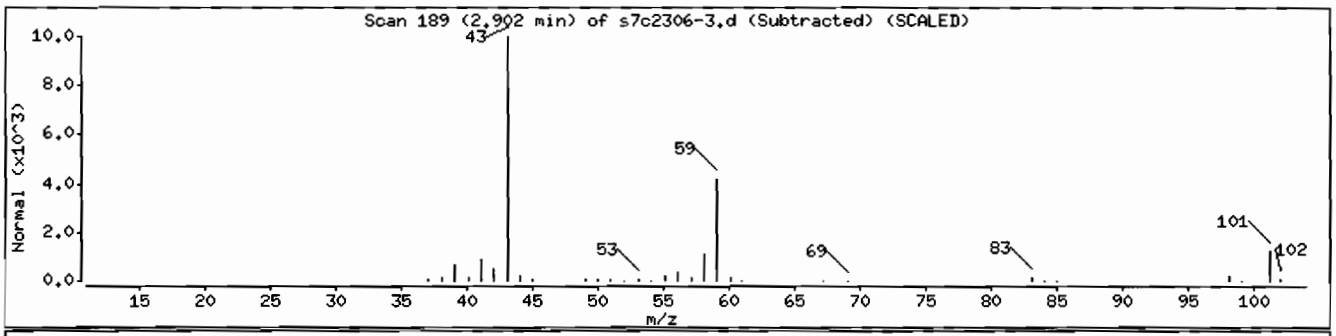

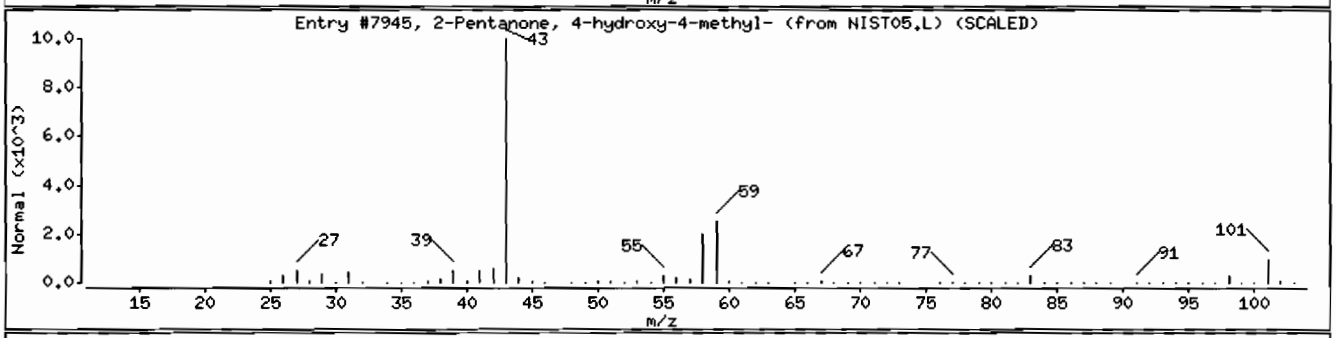

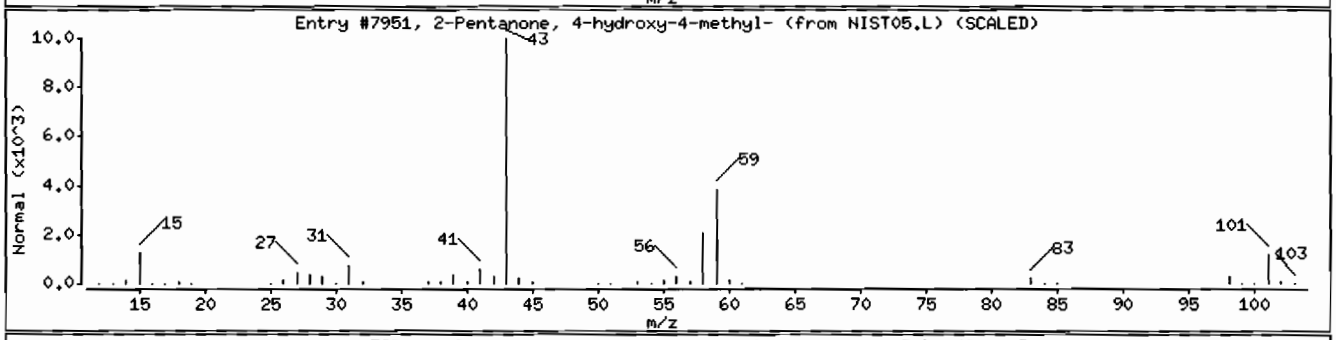

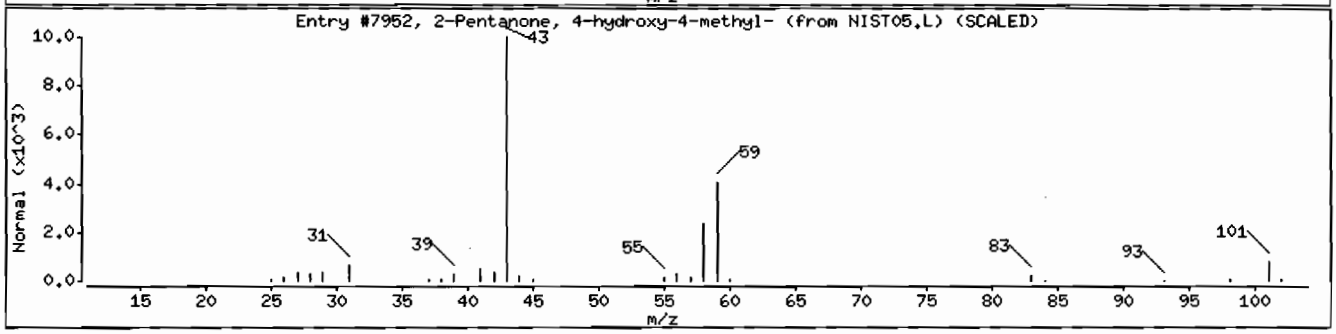

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072535**				
Client Sample:	**QC for batch 965812**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965812**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:27**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2307-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		877	ug/kg	66.7	333
108-95-2	Phenol		1170	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1340	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1250	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1270	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1280	ug/kg	66.7	333
83-32-9	Acenaphthene		1430	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1460	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1440	ug/kg	110	333
87-86-5	Pentachlorophenol		1590	ug/kg	83.3	333
129-00-0	Pyrene		1270	ug/kg	10.0	33.3
110-86-1	Pyridine		952	ug/kg	66.7	333
62-53-3	Aniline		979	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1050	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1190	ug/kg	66.7	333
100-51-6	Benzyl alcohol		695	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1320	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1160	ug/kg	66.7	333
95-48-7	o-Cresol		1250	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1470	ug/kg	100	333
67-72-1	Hexachloroethane		1260	ug/kg	66.7	333
98-95-3	Nitrobenzene		1220	ug/kg	66.7	333
78-59-1	Isophorone		1180	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1320	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1310	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1150	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1300	ug/kg	66.7	333
65-85-0	Benzoic acid		3600	ug/kg	167	667
91-20-3	Naphthalene		1240	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		832	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1370	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1300	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1190	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1560	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1650	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1270	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1260	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1290	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072535**				
Client Sample:	**QC for batch 965812**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965812**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965816**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:27**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/16/2010 21:37**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2307-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1510	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1430	ug/kg	33.3	333
208-96-8	Acenaphthylene		1390	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1780	ug/kg	127	667
132-64-9	Dibenzofuran		1410	ug/kg	66.7	333
84-66-2	Diethylphthalate		1610	ug/kg	66.7	333
86-73-7	Fluorene		1490	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1500	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1540	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1560	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1360	ug/kg	66.7	333
122-66-7	Azobenzene		1380	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1410	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1390	ug/kg	66.7	333
85-01-8	Phenanthrene		1410	ug/kg	10.0	33.3
120-12-7	Anthracene		1400	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1580	ug/kg	66.7	333
206-44-0	Fluoranthene		1490	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1450	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1360	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1330	ug/kg	100	333
218-01-9	Chrysene		1450	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1540	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1400	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1400	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1410	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1470	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1840	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1880	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1810	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1280	ug/kg	66.7	333

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032310.b/s7c2307-3.d
Lab Smp Id: 1202072535 Client Smp ID: SBLK01LCS
Inj Date : 23-MAR-2010 12:27
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202072535|965816|1|SVM|1|LCS
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 12:32 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2318.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	226223	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	939533	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	485896	40.0000	
* 67 Phenanthrene-d10	188	7.144	7.149	(1.000)	944400	40.0000	
* 91 Chrysene-d12	240	9.547	9.552	(1.000)	801200	40.0000	
* 98 Perylene-d12	264	11.160	11.165	(1.000)	620288	40.0000	
$ 3 2-Fluorophenol	112	3.066	3.061	(0.792)	428064	72.7992	2430
$ 5 Phenol-d5	99	3.586	3.590	(0.927)	515028	69.8597	2330
$ 20 Nitrobenzene-d5	82	4.231	4.235	(0.894)	264525	37.3294	1240
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	480102	39.6473	1320
$ 60 2,4,6-Tribromophenol	329	6.581	6.576	(1.100)	132636	94.4256	3150
$ 81 p-Terphenyl-d14	244	8.516	8.521	(0.892)	632377	44.0568	1470

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.595	3.595	(0.929)	256347	35.0034	1170
8 2-Chlorophenol	128	3.735	3.735	(0.965)	226027	40.3300	1340
11 1,4-Dichlorobenzene	146	3.879	3.884	(1.002)	254109	37.6172	1250
17 N-Nitrosodipropylamine	70	4.106	4.115	(1.061)	158424	38.0267	1270(Q)
28 1,2,4-Trichlorobenzene	180	4.683	4.683	(0.990)	232002	38.3700	1280
33 4-Chloro-3-methylphenol	107	5.083	5.078	(1.074)	205859	38.4445	1280
47 Acenaphthene	154	6.008	6.012	(1.004)	457471	42.7754	1420
50 2,4-Dinitrotoluene	165	6.099	6.104	(1.019)	171792	43.6999	1460
52 4-Nitrophenol	139	6.032	6.027	(1.008)	85337	43.1605	1440
65 Pentachlorophenol	266	6.976	6.975	(0.976)	85282	47.7633	1590
79 Pyrene	202	8.415	8.420	(0.881)	963188	38.0537	1270
2 Pyridine	79	2.430	2.415	(0.628)	155876	28.5714	952
4 Aniline	66	3.653	3.658	(0.944)	103262	29.3631	979(Q)
7 bis(2-Chloroethyl) ether	63	3.667	3.672	(0.948)	188099	31.3686	1040(Q)
9 1,3-Dichlorobenzene	146	3.836	3.836	(0.991)	251338	35.7017	1190
12 Benzyl alcohol	108	3.937	3.937	(1.017)	79540	20.8433	695
13 1,2-Dichlorobenzene	146	3.980	3.985	(1.029)	245542	39.5150	1320
14 bis(2-Chloroisopropyl)ether	45	4.009	4.014	(1.036)	483228	34.7868	1160
15 o-Cresol	107	3.990	3.990	(1.031)	168116	37.4708	1250
18 m,p-Cresols	107	4.086	4.091	(1.056)	267382	44.1066	1470
19 Hexachloroethane	117	4.212	4.211	(1.088)	98849	37.6861	1260
21 Nitrobenzene	77	4.245	4.245	(0.897)	240534	36.5911	1220
22 Isophorone	82	4.395	4.399	(0.929)	449837	35.4181	1180
23 2-Nitrophenol	139	4.457	4.457	(0.942)	122314	39.6227	1320
24 2,4-Dimethylphenol	122	4.452	4.452	(0.941)	222986	39.1864	1310
25 bis(2-Chloroethoxy)methane	93	4.515	4.520	(0.954)	238922	34.3828	1150
26 2,4-Dichlorophenol	162	4.621	4.621	(0.977)	193770	38.8653	1300
27 Benzoic acid	105	4.529	4.515	(0.957)	306469	107.987	3600
30 Naphthalene	128	4.746	4.751	(1.003)	657644	37.0547	1240
31 4-Chloroaniline	127	4.765	4.765	(1.007)	207359	24.9505	832
32 Hexachlorobutadiene	225	4.814	4.813	(1.017)	130023	41.2057	1370
34 2-Methylnaphthalene	142	5.228	5.227	(1.105)	496140	38.9509	1300
36 Hexachlorocyclopentadiene	237	5.329	5.333	(0.891)	83725	35.6425	1190
37 2,4,6-Trichlorophenol	196	5.415	5.420	(0.905)	159117	46.6752	1560
38 2,4,5-Trichlorophenol	196	5.449	5.444	(0.911)	169552	49.4530	1650
40 2-Chloronaphthalene	162	5.579	5.584	(0.932)	428658	38.1147	1270
42 o-Nitroaniline	65	5.637	5.642	(0.942)	150558	37.8131	1260
41 m-Nitroaniline	138	5.931	5.935	(0.991)	112428	38.6899	1290
43 Dimethylphthalate	163	5.743	5.752	(0.960)	584679	45.2824	1510
44 2,6-Dinitrotoluene	165	5.801	5.805	(0.969)	127837	42.8695	1430
45 Acenaphthylene	152	5.883	5.887	(0.983)	750816	41.7631	1390
48 2,4-Dinitrophenol	184	6.008	6.008	(1.004)	50286	53.4936	1780(Q)
49 Dibenzofuran	168	6.133	6.133	(1.025)	636987	42.3786	1410
51 Diethylphthalate	149	6.253	6.258	(1.045)	636534	48.1623	1600
53 Fluorene	166	6.393	6.393	(1.068)	562312	44.5860	1490
54 4-Chlorophenylphenylether	204	6.369	6.369	(1.064)	281702	44.9457	1500
55 2-Methyl-4,6-dinitrophenol	198	6.412	6.412	(0.898)	77985	46.1495	1540

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.393	6.393	(1.068)	122351	46.7655	1560
133 Diphenylamine	169	6.456	6.460	(0.904)	453406	40.7430	1360
58 1,2-Diphenylhydrazine	77	6.494	6.494	(0.909)	581372	41.5249	1380
61 4-Bromophenylphenylether	248	6.754	6.754	(0.945)	164502	42.3561	1410
63 Hexachlorobenzene	284	6.821	6.826	(0.955)	156846	41.5676	1380
68 Phenanthrene	178	7.168	7.168	(1.003)	820766	42.3521	1410
69 Anthracene	178	7.212	7.211	(1.009)	825418	42.0548	1400
72 Di-n-butylphthalate	149	7.568	7.568	(1.059)	1172383	47.4812	1580
76 Fluoranthene	202	8.203	8.203	(1.148)	943175	44.7609	1490
85 Butylbenzylphthalate	149	8.950	8.954	(0.937)	523002	43.4519	1450
89 Benzo(a)anthracene	228	9.533	9.537	(0.998)	784988	40.8698	1360
90 3,3'-Dichlorobenzidine	252	9.484	9.479	(0.993)	222613	39.8210	1330
92 Chrysene	228	9.571	9.571	(1.003)	741126	43.3625	1440
93 bis(2-Ethylhexyl)phthalate	149	9.475	9.475	(0.992)	704741	46.2287	1540
94 Di-n-octylphthalate	149	10.110	10.110	(0.906)	1046698	42.0228	1400
95 Benzo(b)fluoranthene	252	10.664	10.669	(0.956)	731111	42.0288	1400
96 Benzo(k)fluoranthene	252	10.698	10.702	(0.959)	690839	42.2578	1410
97 Benzo(a)pyrene	252	11.088	11.092	(0.994)	629891	44.1607	1470
99 Indeno(1,2,3-cd)pyrene	276	12.850	12.850	(1.151)	566773	55.2579	1840
100 Dibenzo(a,h)anthracene	278	12.865	12.864	(1.153)	458386	56.3939	1880
101 Benzo(ghi)perylene	276	13.365	13.365	(1.198)	465103	54.3733	1810
1 N-Methyl-N-nitrosomethylamine	74	2.391	2.382	(0.618)	104126	26.3013	877

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s032310.b/s7c2307-3.d
Date : 23-MAR-2010 12:27
Client ID: SBLK01LCS
Sample Info: 1120207253519658161|1|SVM|1|LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

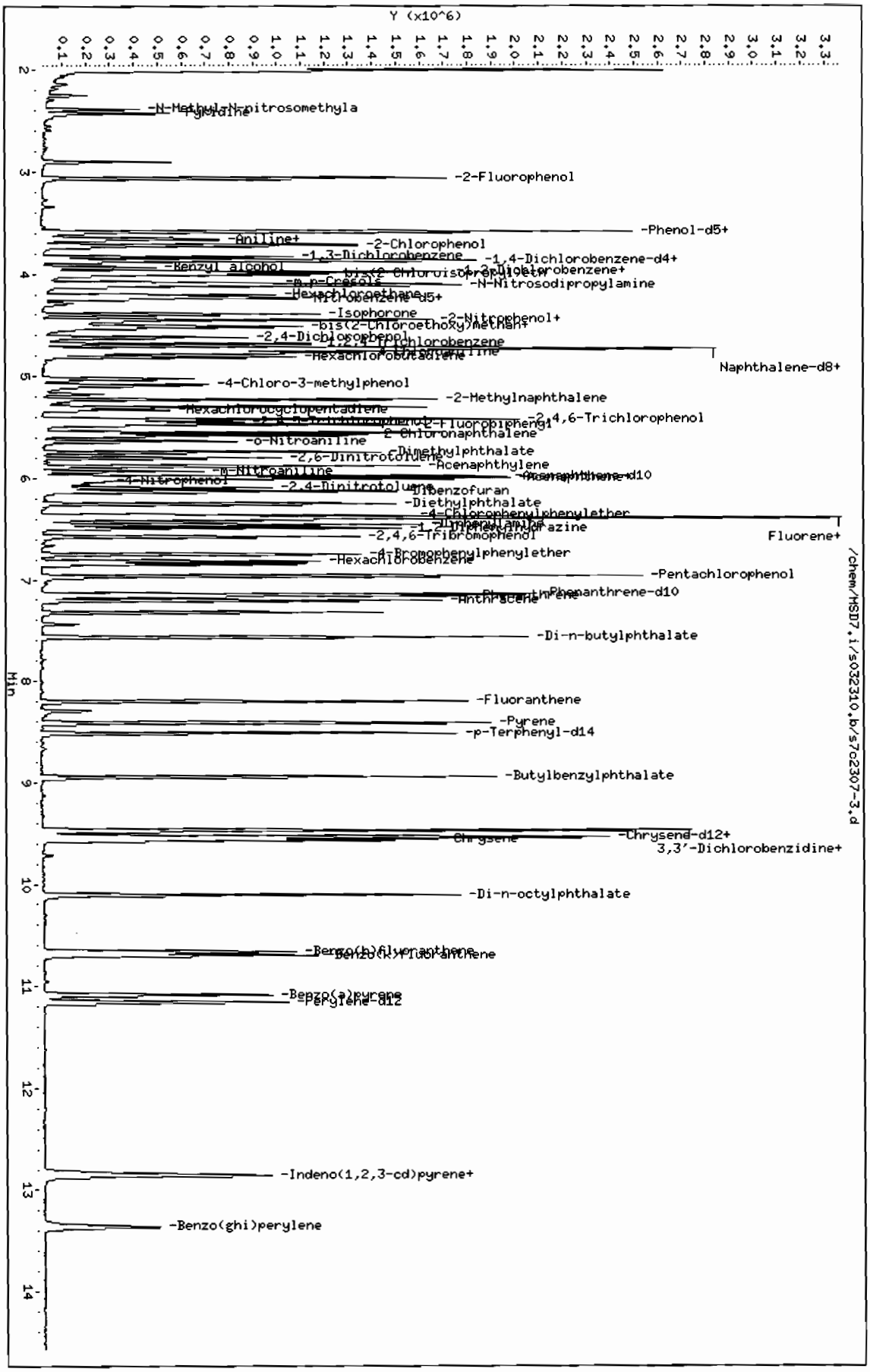

Page 1

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 965812 **Verified by:** _____

Analyst: Alberto Velasco

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202072534 MB	16-MAR-2010 21:37:00	30	1	0.03333
1202072535 LCS	16-MAR-2010 21:37:00	30	1	0.03333
248815001	16-MAR-2010 21:37:00	30.01	1	0.03332
248815002	16-MAR-2010 21:37:00	30.08	1	0.03324
248815003	16-MAR-2010 21:37:00	30.18	1	0.03313
248815004	16-MAR-2010 21:37:00	30.1	1	0.03322
248815005	16-MAR-2010 21:37:00	30.04	1	0.03329
248815006	16-MAR-2010 21:37:00	30.05	1	0.03328
248815007	16-MAR-2010 21:37:00	30.07	1	0.03326
248815008	16-MAR-2010 21:37:00	30.13	1	0.03319
248815009	16-MAR-2010 21:37:00	30.17	1	0.03315
248815010	16-MAR-2010 21:37:00	30.17	1	0.03315
248815011	16-MAR-2010 21:37:00	30.08	1	0.03324
248824001	16-MAR-2010 21:37:00	30.16	1	0.03316
248824002	16-MAR-2010 21:37:00	30.17	1	0.03315
248865001	16-MAR-2010 21:37:00	30.02	1	0.03331
249057002	16-MAR-2010 21:37:00	30.02	1	0.03331
1202072536 MS (249057002)	16-MAR-2010 21:37:00	30.11	1	0.03321
1202072537 MSD (249057002)	16-MAR-2010 21:37:00	30.02	1	0.03331
249057003	16-MAR-2010 21:37:00	30.17	1	0.03315

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202072535	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
LCS	1202072535	BENZIDINE LCS	UE100310-23	1	mL
MS	1202072536	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MS	1202072536	BENZIDINE LCS	UE100310-23	1	mL
MSD	1202072537	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MSD	1202072537	BENZIDINE LCS	UE100310-23	1	mL
SURR	All	BNA for all Surrogate	UE100310-10	1	mL
REGNT	All	Acetone	1273823-B1	150	mL
REGNT	All	Methylene Chloride	1286042-D	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: AJS

Final Solvent: CH2Cl2

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
25-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
965816	See Below		

Potentially affected work order(s)(SDG): 248815(10-2298),248824(10-2305),248865(10-2318),249057(10-2350)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Yield for Surrogates

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. MS 1202072536 and MSD 1202072537 failed spike recovery limits. Please see the QC summary report for specific failures.	1,2. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.
2. The relative percent difference between MS 1202072536 and MSD 1202072537 failed acceptance limits for one or more target analytes. Please see the QC summary report for specific failures.	
3. Sample 248815003 failed surrogate recovery limits. Please see the QC summary report for specific failures.	3. Surrogate recoveries were not within the acceptance limit. The sample was re-extracted and confirmed the results. Matrix interference has been demonstrated. The initial results are reported.

Originator's Name:

Josh Brooks 26-MAR-10

Data Validator/Group Leader:

Cameron Bearden 29-MAR-10

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD7

DATE: 02/25/2010 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1965 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100217-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s022610.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s7b2601-D.d	WBN100207-01	JMB3	26-FEB-2010 10:23	DFTPP	s022610	1.0	DFTPP	8270d TUNE: MEGA
s7b2601.d	WBN100207-01	JMB3	26-FEB-2010 10:23	DFTPP	s022610	1.0	DFTPP	8270c TUNE: MEGA
s7b2602.d	INSTBLANK	JMB3	26-FEB-2010 10:35	IB	s022610	1.0	INSTBLANK	
s7b2603.d	WBN100225-08	JMB3	26-FEB-2010 11:07	ICAL	s022610	1.0	MEGA001	
s7b2604.d	WBN100225-07	JMB3	26-FEB-2010 11:31	ICAL	s022610	1.0	MEGA010	DUSE: see s7b2612
s7b2605.d	WBN100225-06	JMB3	26-FEB-2010 11:55	ICAL	s022610	1.0	MEGA020	DUSE: see s7b2613
s7b2606.d	WBN100225-05.1	JMB3	26-FEB-2010 12:19	ICAL	s022610	1.0	MEGA040	
s7b2607.d	WBN100225-04	JMB3	26-FEB-2010 12:43	ICAL	s022610	1.0	MEGA050	
s7b2608.d	WBN100225-03	JMB3	26-FEB-2010 13:07	ICAL	s022610	1.0	MEGA080	
s7b2609.d	WBN100225-02	JMB3	26-FEB-2010 13:32	ICAL	s022610	1.0	MEGA100	
s7b2610.d	WBN100225-01	JMB3	26-FEB-2010 13:56	ICAL	s022610	1.0	MEGA120	
s7b2611.d	INSTBLANK	JMB3	26-FEB-2010 14:19	IB	s022610	1.0	INSTBLANK	
s7b2612-D.d	WBN100225-07	JMB3	26-FEB-2010 14:44	ICAL	s022610	1.0	MEGA010	8270d
s7b2612.d	WBN100225-07	JMB3	26-FEB-2010 14:44	ICAL	s022610	1.0	MEGA010	
s7b2613-D.d	WBN100225-06	JMB3	26-FEB-2010 15:08	ICAL	s022610	1.0	MEGA020	8270d
s7b2613.d	WBN100225-06	JMB3	26-FEB-2010 15:08	ICAL	s022610	1.0	MEGA020	
s7b2614-625.d	WBN100225-09.1	JMB3	26-FEB-2010 15:33	ICV	s022610	1.0	MEGAICV	625 MEGA ICV
s7b2614-D.d	WBN100225-09.1	JMB3	26-FEB-2010 15:33	ICV	s022610	1.0	MEGAICV	8270d MEGA ICV
s7b2614.d	WBN100225-09.1	JMB3	26-FEB-2010 15:33	ICV	s022610	1.0	MEGAICV	8270c MEGA ICV

s7b2615-D.d	WBN100207-01	JMB3	26-FEB-2010 16:00	DFTPP	s022610	1.0	DFTPP	8270d TUNE: AP - PEST - NEV
s7b2615.d	WBN100207-01	JMB3	26-FEB-2010 16:00	DFTPP	s022610	1.0	DFTPP	8270c TUNE: AP - PEST - NEV
s7b2616.d	INSTBLANK	JMB3	26-FEB-2010 16:13	IB	s022610	1.0	INSTBLANK	
s7b2617-D.d	WBN100218-01	JMB3	26-FEB-2010 16:34	ICAL	s022610	1.0	AP010	8270d
s7b2617.d	WBN100218-01	JMB3	26-FEB-2010 16:34	ICAL	s022610	1.0	AP010	
s7b2618.d	WBN100218-02	JMB3	26-FEB-2010 16:56	ICAL	s022610	1.0	AP020	
s7b2619.d	WBN100218-03.1	JMB3	26-FEB-2010 17:17	ICAL	s022610	1.0	AP040	
s7b2620.d	WBN100218-04	JMB3	26-FEB-2010 17:39	ICAL	s022610	1.0	AP050	
s7b2621.d	WBN100218-05	JMB3	26-FEB-2010 18:00	ICAL	s022610	1.0	AP080	
s7b2622.d	WBN100218-06	JMB3	26-FEB-2010 18:22	ICAL	s022610	1.0	AP100	
s7b2623.d	WBN100218-07	JMB3	26-FEB-2010 18:43	ICAL	s022610	1.0	AP120	
s7b2624.d	WBN100205-25	JMB3	26-FEB-2010 19:05	ICAL	s022610	1.0	PEST010	
s7b2625.d	WBN100205-24	JMB3	26-FEB-2010 19:26	ICAL	s022610	1.0	PEST020	
s7b2626.d	WBN100205-23.1	JMB3	26-FEB-2010 19:48	ICAL	s022610	1.0	PEST040	
s7b2627.d	WBN100205-22	JMB3	26-FEB-2010 20:09	ICAL	s022610	1.0	PEST050	
s7b2628.d	WBN100205-21	JMB3	26-FEB-2010 20:31	ICAL	s022610	1.0	PEST080	
s7b2629.d	WBN100205-20	JMB3	26-FEB-2010 20:52	ICAL	s022610	1.0	PEST100	
s7b2630.d	WBN100205-19	JMB3	26-FEB-2010 21:14	ICAL	s022610	1.0	PEST120	
s7b2631.d	UBN100127-01	JMB3	26-FEB-2010 21:36	ICAL	s022610	1.0	NEV010	
s7b2632.d	UBN100127-02	JMB3	26-FEB-2010 21:58	ICAL	s022610	1.0	NEV020	
s7b2633.d	UBN100127-03	JMB3	26-FEB-2010 22:19	ICAL	s022610	1.0	NEV040	
s7b2634.d	UBN100127-04	JMB3	26-FEB-2010 22:40	ICAL	s022610	1.0	NEV050	
s7b2635.d	UBN100127-05	JMB3	26-FEB-2010 23:02	ICAL	s022610	1.0	NEV080	
s7b2636.d	UBN100127-06	JMB3	26-FEB-2010 23:24	ICAL	s022610	1.0	NEV100	
s7b2637.d	UBN100127-07	JMB3	26-FEB-2010 23:46	ICAL	s022610	1.0	NEV120	
s7b2638-625.d	WBN100218-08.1	JMB3	27-FEB-2010 00:07	ICV	s022610	1.0	APICV	625 AP ICV
s7b2638-D.d	WBN100218-08.1	JMB3	27-FEB-2010 00:07	ICV	s022610	1.0	APICV	8270d AP ICV

s7b2638.d	WBN100218-08.1	JMB3	27-FEB-2010 00:07	ICV	s022610	1.0	APICV	8270d AP ICV
s7b2639-625.d	WBN100205-26.1	JMB3	27-FEB-2010 00:29	ICV	s022610	1.0	PESTICV	625 PEST ICV
s7b2639-D.d	WBN100205-26.1	JMB3	27-FEB-2010 00:29	ICV	s022610	1.0	PESTICV	8270d PEST ICV
s7b2639.d	WBN100205-26.1	JMB3	27-FEB-2010 00:29	ICV	s022610	1.0	PESTICV	8270c PEST ICV
s7b2640-625.d	WBN100225-05.2	JMB3	27-FEB-2010 00:50	CVS	s022610	1.0	MEGACVS	DUSE: 625 MEGA CVS - fails some analytes >20%
s7b2641-625.d	WBN100218-03.1	JMB3	27-FEB-2010 01:15	CVS	s022610	1.0	APCVS	DUSE: 625 AP CVS
s7b2642-625.d	WBN100225-05.1	JMB3	27-FEB-2010 08:38	CVS	s022610	1.0	MEGACVS	DUSE: 625 MEGA CVS - fails some analytes >20%

Instrument Batch: /chem/MSD7.i/s022610.b

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD7

DATE: 03/26/2010 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 2000 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100319-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s032310.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s7c2301.d	WBN100306-01.2	JMB3	23-MAR-2010 10:27	DFTPP	s032310	1.0	DFTPP	DUSE
s7c2302.d	WBN100309-05.2	JMB3	23-MAR-2010 10:41	CVS	s032310	1.0	MEGACVS	DUSE
s7c2303.d	WBN100306-01.2	JMB3	23-MAR-2010 11:08	DFTPP	s032310	1.0	DFTPP	8270c TUNE: PASSES
s7c2304.d	WBN100309-05.2	JMB3	23-MAR-2010 11:20	CVS	s032310	1.0	MEGACVS	8270c MEGA CVS (IS1: 202889)
s7c2305.d	WBN100312-03.3	JMB3	23-MAR-2010 11:44	CVS	s032310	1.0	APCVS	8270c AP CVS
s7c2306-1.d	1202072534	JMB3	23-MAR-2010 12:05	965816	10-2298	1.0	MB	
s7c2306-2.d	1202072534	JMB3	23-MAR-2010 12:05	965816	10-2305	1.0	MB	
s7c2306-3.d	1202072534	JMB3	23-MAR-2010 12:05	965816	10-2318	1.0	MB	
s7c2306.d	1202072534	JMB3	23-MAR-2010 12:05	965816	10-2350	1.0	MB	
s7c2307-1.d	1202072535	JMB3	23-MAR-2010 12:27	965816	10-2298	1.0	LCS	
s7c2307-2.d	1202072535	JMB3	23-MAR-2010 12:27	965816	10-2305	1.0	LCS	
s7c2307-3.d	1202072535	JMB3	23-MAR-2010 12:27	965816	10-2318	1.0	LCS	
s7c2307.d	1202072535	JMB3	23-MAR-2010 12:27	965816	10-2350	1.0	LCS	
s7c2308.d	248815003	JMB3	23-MAR-2010 12:48	965816	10-2298	1.0	LANL	REPORT: fails surr - rx s5c2525 confirms failure
s7c2309.d	248815004	JMB3	23-MAR-2010 13:10	965816	10-2298	1.0	LANL	
s7c2310.d	248815008	JMB3	23-MAR-2010 13:32	965816	10-2298	1.0	LANL	
s7c2311.d	248824001	JMB3	23-MAR-2010 13:54	965816	10-2305	1.0	LANL	
s7c2312.d	248824002	JMB3	23-MAR-2010 14:15	965816	10-2305	1.0	LANL	
s7c2313.d	248865001	JMB3	23-MAR-2010 14:37	965816	10-2318	1.0	LANL	

s7c2314.d	248815003	JMB3	23-MAR-2010 14:59	965816	10-2298	1.0	LANL	DUSE: rerun of s7c2308 - still fails surr
s7c2315.d	248689009	JMB3	23-MAR-2010 15:20	965401	10-2261	5.0	LANL	REPORT: diluted analysis of s7c2221 for OR hits
s7c2316.d	248689012	JMB3	23-MAR-2010 15:42	965401	10-2261	1.0	LANL	
s7c2317.d	248815001	JMB3	23-MAR-2010 16:03	965816	10-2298	1.0	LANL	
s7c2318.d	249057002	JMB3	23-MAR-2010 16:25	965816	10-2350	1.0	LANL	
s7c2319.d	1202072536	JMB3	23-MAR-2010 16:47	965816	10-2350	1.0	MS_LANL	
s7c2320.d	1202072537	JMB3	23-MAR-2010 17:09	965816	10-2350	1.0	MSD_LANL	
s7c2321.d	248815002	JMB3	23-MAR-2010 17:30	965816	10-2298	1.0	LANL	
s7c2322.d	248815005	JMB3	23-MAR-2010 17:52	965816	10-2298	1.0	LANL	
s7c2323.d	248815006	JMB3	23-MAR-2010 18:13	965816	10-2298	1.0	LANL	
s7c2324.d	248815007	JMB3	23-MAR-2010 18:35	965816	10-2298	10.0	LANL	
s7c2325.d	248815009	JMB3	23-MAR-2010 18:56	965816	10-2298	1.0	LANL	
s7c2326.d	248815010	JMB3	23-MAR-2010 19:18	965816	10-2298	1.0	LANL	
s7c2327.d	248815011	JMB3	23-MAR-2010 19:39	965816	10-2298	1.0	LANL	
s7c2328.d	249057003	JMB3	23-MAR-2010 20:01	965816	10-2350	1.0	LANL	REPORT: all except OR hits - see s7c2416 for 10x analysis
s7c2329.d	248815006	JMB3	23-MAR-2010 20:23	965816	10-2298	1.0	LANL	DUSE: see s7c2323
s7c2330.d	248815007	JMB3	23-MAR-2010 20:45	965816	10-2298	10.0	LANL	DUSE: see s7c2324
s7c2331.d	248815009	JMB3	23-MAR-2010 21:06	965816	10-2298	1.0	LANL	DUSE: see s7c2325
s7c2332.d	248815010	JMB3	23-MAR-2010 21:28	965816	10-2298	1.0	LANL	DUSE: see s7c2326
s7c2333.d	248815011	JMB3	23-MAR-2010 21:50	965816	10-2298	1.0	LANL	DUSE: see s7c2327
s7c2334.d	249057003	JMB3	23-MAR-2010 22:12	965816	10-2350	1.0	LANL	DUSE: see s7c2328

Instrument Batch: /chem/MSD7.i/s032310.b

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Data file : /chem/MSD7.i/s032310.b/s7c2319.d
Lab Smp Id: 1202072536 Client Smp ID: RE16-10-2787MS
Inj Date : 23-MAR-2010 16:47
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202072536|965816|1|SVM|1|MS_LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 llo00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 17 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2350.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.11000	weight of sample
M	15.90390	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	225132	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	905141	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	494000	40.0000	
* 67 Phenanthrene-d10	188	7.149	7.149	(1.000)	943093	40.0000	
* 91 Chrysene-d12	240	9.552	9.552	(1.000)	746222	40.0000	
* 98 Perylene-d12	264	11.170	11.165	(1.000)	451209	40.0000	
$ 3 2-Fluorophenol	112	3.070	3.061	(0.793)	232082	39.6606	1570
$ 5 Phenol-d5	99	3.590	3.590	(0.928)	322788	43.9959	1740
$ 20 Nitrobenzene-d5	82	4.231	4.235	(0.894)	160651	23.5322	929
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	368331	29.9181	1180
$ 60 2,4,6-Tribromophenol	329	6.581	6.576	(1.100)	111202	77.8677	3080
$ 81 p-Terphenyl-d14	244	8.521	8.521	(0.892)	484225	36.2207	1430

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.600	3.595	(0.930)	162046	22.2341	878
8 2-Chlorophenol	128	3.735	3.735	(0.965)	134712	24.1531	954
11 1,4-Dichlorobenzene	146	3.879	3.884	(1.002)	143036	21.2770	840
17 N-Nitrosodipropylamine	70	4.106	4.115	(1.061)	96753	23.3363	922(Q)
28 1,2,4-Trichlorobenzene	180	4.683	4.683	(0.990)	144551	24.8151	980
33 4-Chloro-3-methylphenol	107	5.093	5.078	(1.076)	176352	34.1854	1350
47 Acenaphthene	154	6.008	6.012	(1.004)	485486	44.6502	1760
50 2,4-Dinitrotoluene	165	6.099	6.104	(1.019)	137188	34.3249	1360
52 4-Nitrophenol	139	6.051	6.027	(1.011)	59420	29.5595	1170
65 Pentachlorophenol	266	6.980	6.975	(0.976)	66225	37.1415	1470
79 Pyrene	202	8.425	8.420	(0.882)	2290170	97.1463	3840(R)
2 Pyridine	79	2.425	2.415	(0.627)	78053	14.3761	568
4 Aniline	66	3.653	3.658	(0.944)	73724	21.0654	832(Q)
7 bis(2-Chloroethyl) ether	63	3.672	3.672	(0.949)	108984	18.2630	721(Q)
9 1,3-Dichlorobenzene	146	3.836	3.836	(0.991)	139326	19.8867	785
13 1,2-Dichlorobenzene	146	3.985	3.985	(1.030)	140399	22.7039	897
14 bis(2-Chloroisopropyl)ether	45	4.014	4.014	(1.037)	290709	21.0291	830
15 o-Cresol	107	3.990	3.990	(1.031)	126185	28.2612	1120
18 m,p-Cresols	107	4.086	4.091	(1.056)	169277	28.0588	1110
19 Hexachloroethane	117	4.212	4.211	(1.088)	51165	19.6012	774
21 Nitrobenzene	77	4.245	4.245	(0.897)	160874	25.4028	1000
22 Isophorone	82	4.394	4.399	(0.929)	290895	23.7740	939
23 2-Nitrophenol	139	4.457	4.457	(0.942)	69575	23.3947	924
24 2,4-Dimethylphenol	122	4.452	4.452	(0.941)	127213	21.1632	836
25 bis(2-Chloroethoxy)methane	93	4.520	4.520	(0.955)	155291	23.1967	916
26 2,4-Dichlorophenol	162	4.626	4.621	(0.978)	144810	30.1488	1190
27 Benzoic acid	105	4.515	4.515	(0.954)	160844	58.8284	2320
30 Naphthalene	128	4.746	4.751	(1.003)	561749	32.8541	1300
31 4-Chloroaniline	127	4.765	4.765	(1.007)	202135	25.2460	997
32 Hexachlorobutadiene	225	4.813	4.813	(1.017)	77714	25.5642	1010
34 2-Methylnaphthalene	142	5.228	5.227	(1.105)	385392	31.4059	1240
36 Hexachlorocyclopentadiene	237	5.333	5.333	(0.891)	21670	9.07377	358(aR)
37 2,4,6-Trichlorophenol	196	5.420	5.420	(0.906)	119577	34.5012	1360
38 2,4,5-Trichlorophenol	196	5.454	5.444	(0.911)	150019	43.0381	1700
40 2-Chloronaphthalene	162	5.584	5.584	(0.933)	321771	28.1414	1110
42 o-Nitroaniline	65	5.642	5.642	(0.943)	122576	30.2803	1200
41 m-Nitroaniline	138	5.935	5.935	(0.992)	77535	26.2444	1040
43 Dimethylphthalate	163	5.748	5.752	(0.961)	478878	36.4798	1440
44 2,6-Dinitrotoluene	165	5.805	5.805	(0.970)	104154	34.3545	1360
45 Acenaphthylene	152	5.882	5.887	(0.983)	600283	32.8422	1300
48 2,4-Dinitrophenol	184	6.012	6.008	(1.005)	12362	23.8151	940(Q)
49 Dibenzofuran	168	6.133	6.133	(1.025)	617147	40.3851	1590
51 Diethylphthalate	149	6.253	6.258	(1.045)	534667	39.7910	1570
53 Fluorene	166	6.393	6.393	(1.068)	637786	49.7408	1960
54 4-Chlorophenylphenylether	204	6.369	6.369	(1.064)	229461	36.0100	1420
55 2-Methyl-4,6-dinitrophenol	198	6.412	6.412	(0.897)	22523	19.1400	756(Q)
56 p-Nitroaniline	138	6.393	6.393	(1.068)	99804	37.5217	1480

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.455	6.460	(0.903)	395871	35.6222	1410
58 1,2-Diphenylhydrazine	77	6.494	6.494	(0.908)	495911	35.4699	1400
61 4-Bromophenylphenylether	248	6.754	6.754	(0.945)	142352	36.7037	1450
63 Hexachlorobenzene	284	6.826	6.826	(0.955)	128834	34.1911	1350
68 Phenanthrene	178	7.173	7.168	(1.003)	2338618	120.842	4770(AR)
69 Anthracene	178	7.211	7.211	(1.009)	1101894	56.2190	2220
72 Di-n-butylphthalate	149	7.573	7.568	(1.059)	972086	39.4238	1560
76 Fluoranthene	202	8.208	8.203	(1.148)	2438945	115.907	4580(R)
85 Butylbenzylphthalate	149	8.955	8.954	(0.937)	403963	36.0346	1420
89 Benzo(a)anthracene	228	9.542	9.537	(0.999)	1245751	69.6375	2750(R)
90 3,3'-Dichlorobenzidine	252	9.489	9.479	(0.993)	165841	31.8513	1260
92 Chrysene	228	9.576	9.571	(1.003)	1081264	67.9245	2680(R)
93 bis(2-Ethylhexyl)phthalate	149	9.475	9.475	(0.992)	559679	39.4179	1560
94 Di-n-octylphthalate	149	10.115	10.110	(0.906)	711517	39.2703	1550
95 Benzo(b)fluoranthene	252	10.678	10.669	(0.956)	866808	68.5018	2700(R)
96 Benzo(k)fluoranthene	252	10.707	10.702	(0.959)	727609	61.1848	2420(R)
97 Benzo(a)pyrene	252	11.102	11.092	(0.994)	722438	69.6284	2750(R)
99 Indeno(1,2,3-cd)pyrene	276	12.889	12.850	(1.154)	483535	64.8080	2560(R)
100 Dibenzo(a,h)anthracene	278	12.903	12.864	(1.155)	296459	50.1396	1980
101 Benzo(ghi)perylene	276	13.423	13.365	(1.202)	396740	63.7615	2520(R)
1 N-Methyl-N-nitrosomethylamine	74	2.386	2.382	(0.617)	56576	14.3599	567

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD7.i/s032310.b/s7c2319.d
Date : 23-MAR-2010 16:47
Client ID: RE16-10-2787MS
Sample Info: I120207253619658161I|SVMI1|MS_LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

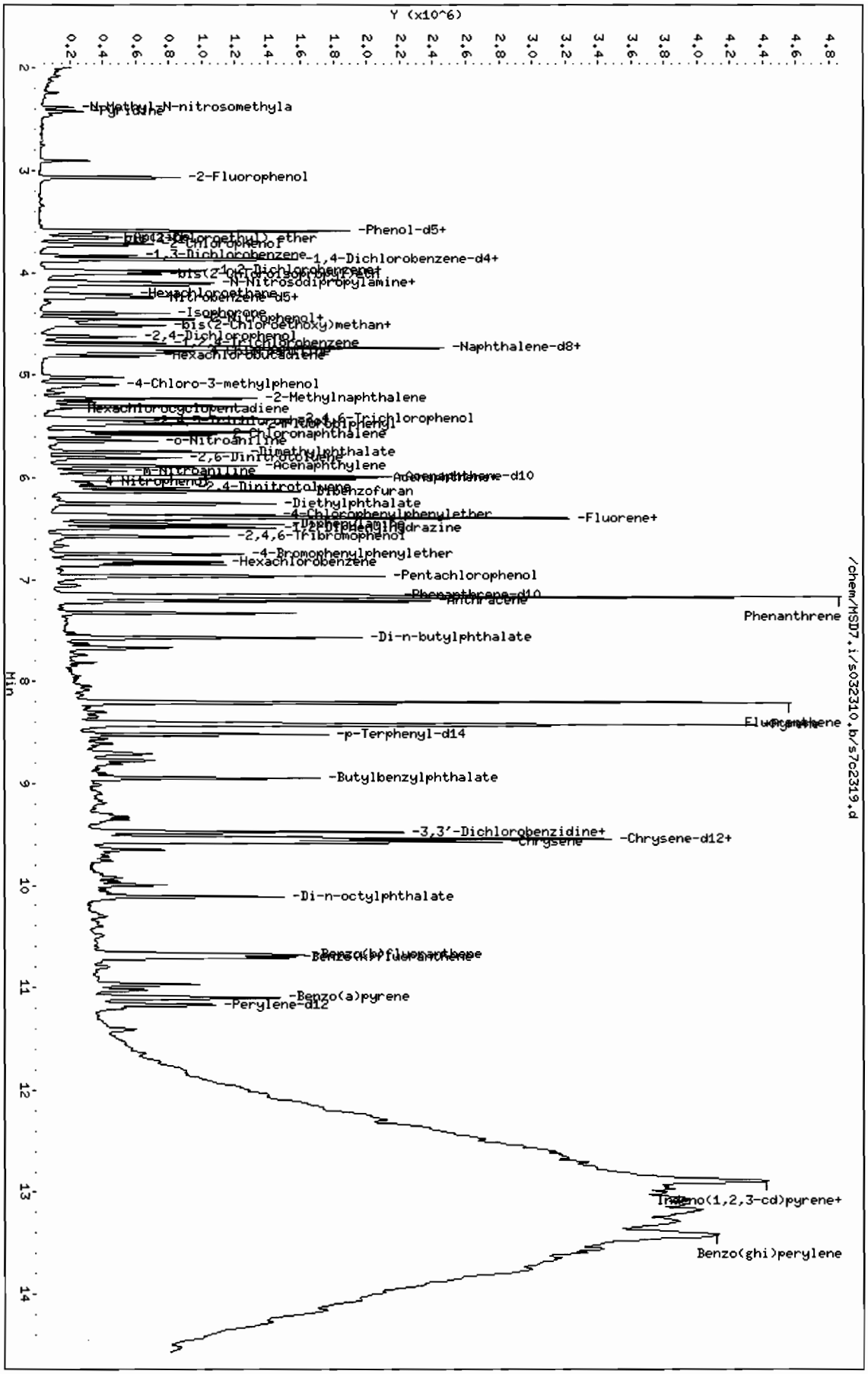

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Data file : /chem/MSD7.i/s032310.b/s7c2320.d
Lab Smp Id: 1202072537 Client Smp ID: RE16-10-2787MSD
Inj Date : 23-MAR-2010 17:09
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202072537|965816|1|SVM|1|MSD_LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 23-Mar-2010 21:26 llo00884 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 18 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2350.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	15.90390	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.870	3.870	(1.000)	253745	40.0000	
* 29 Naphthalene-d8	136	4.732	4.736	(1.000)	1011308	40.0000	
* 46 Acenaphthene-d10	164	5.984	5.988	(1.000)	550848	40.0000	
* 67 Phenanthrene-d10	188	7.149	7.149	(1.000)	1032560	40.0000	
* 91 Chrysene-d12	240	9.552	9.552	(1.000)	759960	40.0000	
* 98 Perylene-d12	264	11.170	11.165	(1.000)	412409	40.0000	
$ 3 2-Fluorophenol	112	3.070	3.061	(0.793)	259112	39.2866	1560
$ 5 Phenol-d5	99	3.590	3.590	(0.928)	336706	40.7179	1610
$ 20 Nitrobenzene-d5	82	4.231	4.235	(0.894)	171524	22.4873	891
$ 39 2-Fluorobiphenyl	172	5.473	5.473	(0.915)	358741	26.1320	1040
$ 60 2,4,6-Tribromophenol	329	6.581	6.576	(1.100)	100754	63.2706	2510
$ 81 p-Terphenyl-d14	244	8.521	8.521	(0.892)	449265	32.9982	1310

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.600	3.595	(0.930)	168375	20.4974	812
8 2-Chlorophenol	128	3.735	3.735	(0.965)	149865	23.8400	944
11 1,4-Dichlorobenzene	146	3.879	3.884	(1.002)	155874	20.5721	815
17 N-Nitrosodipropylamine	70	4.106	4.115	(1.061)	103667	22.1844	879(Q)
28 1,2,4-Trichlorobenzene	180	4.683	4.683	(0.990)	150657	23.1482	917
33 4-Chloro-3-methylphenol	107	5.093	5.078	(1.076)	170149	29.5204	1170
47 Acenaphthene	154	6.008	6.012	(1.004)	469464	38.7208	1530
50 2,4-Dinitrotoluene	165	6.099	6.104	(1.019)	136640	30.6596	1210
52 4-Nitrophenol	139	6.051	6.027	(1.011)	59381	26.4916	1050
65 Pentachlorophenol	266	6.980	6.975	(0.976)	63346	32.4486	1280
79 Pyrene	202	8.425	8.420	(0.882)	2211712	92.1223	3650(R)
2 Pyridine	79	2.430	2.415	(0.628)	84149	13.7512	545
4 Aniline	66	3.653	3.658	(0.944)	69084	17.5137	694(Q)
7 bis(2-Chloroethyl) ether	63	3.672	3.672	(0.949)	116944	17.3871	689(Q)
9 1,3-Dichlorobenzene	146	3.836	3.836	(0.991)	154790	19.6026	776
13 1,2-Dichlorobenzene	146	3.985	3.985	(1.030)	150934	21.6552	858
14 bis(2-Chloroisopropyl)ether	45	4.014	4.014	(1.037)	310606	19.9348	790
15 o-Cresol	107	3.990	3.990	(1.031)	142152	28.2472	1120
18 m,p-Cresols	107	4.091	4.091	(1.057)	208365	30.6433	1210
19 Hexachloroethane	117	4.211	4.211	(1.088)	55795	18.9646	751
21 Nitrobenzene	77	4.245	4.245	(0.897)	167734	23.7055	939
22 Isophorone	82	4.394	4.399	(0.929)	302274	22.1106	876
23 2-Nitrophenol	139	4.457	4.457	(0.942)	75475	22.7143	900
24 2,4-Dimethylphenol	122	4.452	4.452	(0.941)	126667	18.3154	725
25 bis(2-Chloroethoxy)methane	93	4.520	4.520	(0.955)	161967	21.6541	858
26 2,4-Dichlorophenol	162	4.621	4.621	(0.977)	146159	27.2352	1080
27 Benzoic acid	105	4.515	4.515	(0.954)	150845	49.3794	1960
30 Naphthalene	128	4.751	4.751	(1.004)	582078	30.4693	1210
31 4-Chloroaniline	127	4.765	4.765	(1.007)	129758	14.5050	574
32 Hexachlorobutadiene	225	4.813	4.813	(1.017)	83748	24.6570	977
34 2-Methylnaphthalene	142	5.228	5.227	(1.105)	396901	28.9483	1150
36 Hexachlorocyclopentadiene	237	5.333	5.333	(0.891)	20102	7.54855	299(aR)
37 2,4,6-Trichlorophenol	196	5.420	5.420	(0.906)	116492	30.1424	1190
38 2,4,5-Trichlorophenol	196	5.454	5.444	(0.911)	146960	37.8095	1500
40 2-Chloronaphthalene	162	5.584	5.584	(0.933)	322686	25.3089	1000
42 o-Nitroaniline	65	5.642	5.642	(0.943)	117793	26.0957	1030
41 m-Nitroaniline	138	5.935	5.935	(0.992)	66607	20.2187	801
43 Dimethylphthalate	163	5.748	5.752	(0.961)	467733	31.9537	1260
44 2,6-Dinitrotoluene	165	5.805	5.805	(0.970)	101443	30.0072	1190
45 Acenaphthylene	152	5.882	5.887	(0.983)	595164	29.2017	1160
48 2,4-Dinitrophenol	184	6.012	6.008	(1.005)	10505	21.5632	854(Q)
49 Dibenzofuran	168	6.133	6.133	(1.025)	614063	36.0364	1430
51 Diethylphthalate	149	6.253	6.258	(1.045)	515638	34.4145	1360
53 Fluorene	166	6.393	6.393	(1.068)	626903	43.8463	1740
54 4-Chlorophenylphenylether	204	6.369	6.369	(1.064)	226116	31.8230	1260
55 2-Methyl-4,6-dinitrophenol	198	6.412	6.412	(0.897)	20099	17.1075	678(Q)
56 p-Nitroaniline	138	6.393	6.393	(1.068)	97850	32.9906	1310

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.460	6.460	(0.904)	382461	31.4336	1240
58 1,2-Diphenylhydrazine	77	6.494	6.494	(0.908)	478968	31.2897	1240
61 4-Bromophenylphenylether	248	6.754	6.754	(0.945)	132997	31.3204	1240
63 Hexachlorobenzene	284	6.826	6.826	(0.955)	122110	29.5987	1170
68 Phenanthrene	178	7.173	7.168	(1.003)	2296239	108.371	4290(R)
69 Anthracene	178	7.211	7.211	(1.009)	1086771	50.6431	2010
72 Di-n-butylphthalate	149	7.573	7.568	(1.059)	897846	33.2579	1320
76 Fluoranthene	202	8.208	8.203	(1.148)	2390232	103.750	4110(R)
85 Butylbenzylphthalate	149	8.955	8.954	(0.937)	374241	32.7799	1300
89 Benzo(a)anthracene	228	9.542	9.537	(0.999)	1107735	60.8030	2410(R)
90 3,3'-Dichlorobenzidine	252	9.489	9.479	(0.993)	135081	25.4746	1010
92 Chrysene	228	9.581	9.571	(1.003)	982772	60.6212	2400(R)
93 bis(2-Ethylhexyl)phthalate	149	9.475	9.475	(0.992)	511111	35.3466	1400
94 Di-n-octylphthalate	149	10.115	10.110	(0.906)	601814	36.3405	1440
95 Benzo(b)fluoranthene	252	10.678	10.669	(0.956)	734778	63.5309	2520(R)
96 Benzo(k)fluoranthene	252	10.707	10.702	(0.959)	568066	52.2630	2070
97 Benzo(a)pyrene	252	11.097	11.092	(0.994)	572698	60.3894	2390(R)
99 Indeno(1,2,3-cd)pyrene	276	12.884	12.850	(1.153)	372724	54.6560	2160
100 Dibenzo(a,h)anthracene	278	12.903	12.864	(1.155)	236851	43.8269	1740
101 Benzo(ghi)perylene	276	13.428	13.365	(1.202)	302116	53.1221	2100
1 N-Methyl-N-nitrosomethylamine	74	2.391	2.382	(0.618)	62569	14.0902	558

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD7.i/s032310.b/s7c2320.d
Date : 23-MAR-2010 17:09
Client ID: RE16-10-2787MSD
Sample Info: 1120207253719658161 1|SVM|1|MSD_LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

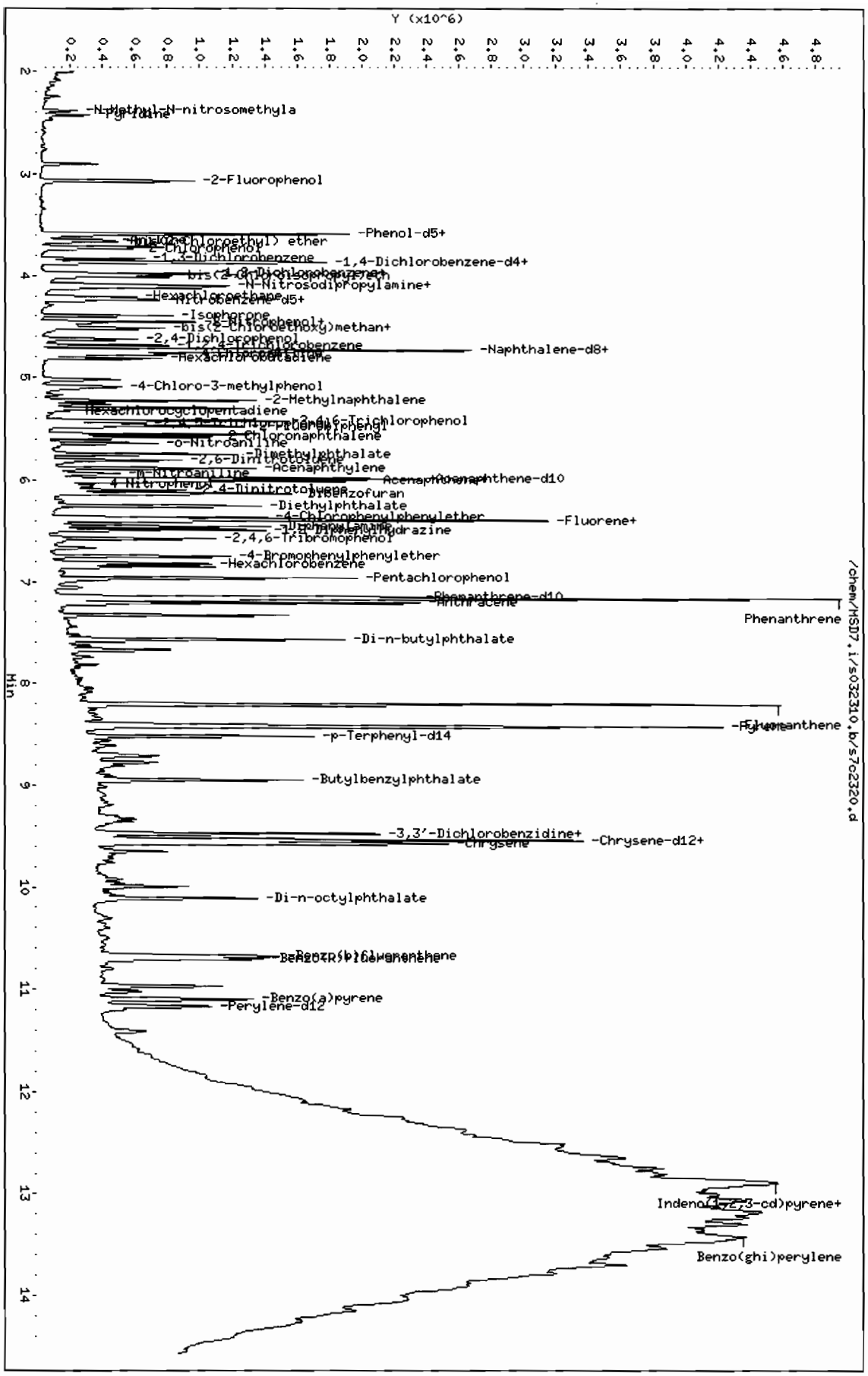

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2318

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	964450
Prep Batch Number:	964449

Sample Analysis

Sample ID	Client ID
248865001	RE46-10-11924
1202069102	Interference Check Sample (ICS)
1202069098	Method Blank (MB)
1202069099	Laboratory Control Sample (LCS)
1202069100	248863002(RE46-10-12930) Matrix Spike (MS)
1202069101	248863002(RE46-10-12930) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

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CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 248863002 (RE46-10-12930) from SDG 10-2315 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

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Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
The SDG required re-analysis the following day due to failure of a bracketing CCV/CRI. The re-analysis passed acceptance criteria and is reported.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather M Maier **Date:** 04/01/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-11924

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2318

GEL Sample ID: 248865001

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.604	2.41	0.604	ug/kg	U	1	28-MAR-10 17:32	per0328027a
	Perchlorate Isotope Ratio						1	28-MAR-10 17:32	per0328027a
14797-73-0	Perchlorate-101	.604	2.41	0.604	ug/kg	U	1	28-MAR-10 17:32	per0328027a
	Perchlorate-O(18)			6.06	ug/kg		1	28-MAR-10 17:32	per0328027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2318

Extract Batch Code: 964449

Date Filtered: 19–MAR–10

Matrix: SOIL

Sample ID: 1202069099

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.99	ug/kg	99.3		70 – 130
Perchlorate Isotope Ratio		3.25				–
Perchlorate–101	2.00	1.95	ug/kg	97.7		70 – 130
Perchlorate–O(18)		5.01	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2318

Extract Batch Code: 964449

Date Filtered: 19–MAR–10

Matrix: SOIL

Sample ID: 1202069102

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.27	ug/kg	113		70 – 130
Perchlorate Isotope Ratio		3.31				
Perchlorate–101	2.00	2.19	ug/kg	110		70 – 130
Perchlorate–O(18)		5.43	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Tuesday, March 30, 2010 12:46:03 PM Eastern Standard Time
Printed: Tuesday, March 30, 2010 12:46:36 PM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032810a.mdb 29 Mar 2010 09:32:17
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032810a.cdb 29 Mar 2010 09:32:40

Name: per0328017a
Date: 28-Mar-2010
Time: 16:06:59
ID: 1202069102 | LANL | 964450 | Soil | ICS | 1 |
Vial: 1:3,E

CW 03-30-10

Perchlorate

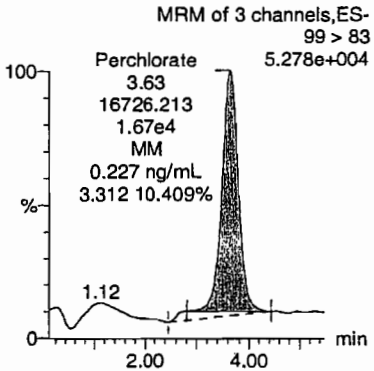

Perchlorate

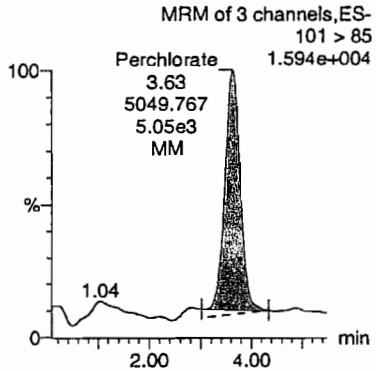

Perchlorate-101

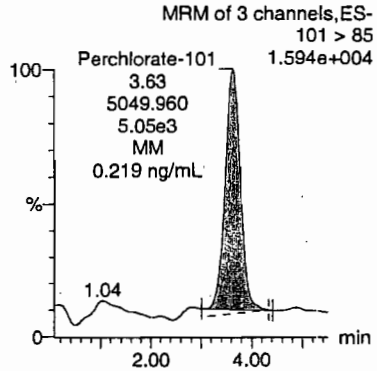

Perchlorate-O(18)

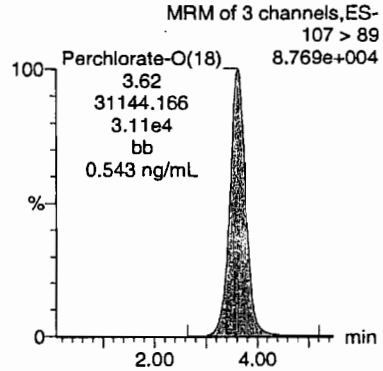

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202069102	Perchlorate	99 > 83	3.63	16726.213	16726.213	MM	30-Mar-10	12:44:48	0.2269	113.43	13.43	383.646	3.31
1202069102	Perchlorate-101	101 > 85	3.63	5049.960	5049.960	MM	30-Mar-10	12:46:03	0.2192	109.62	9.62	187.196	
1202069102	Perchlorate-O(18)	107 > 89	3.62	31144.166	31144.166	bb			0.5432	108.64	8.64	7675.1...	

MMT 3/30/10

$$\frac{16726.213}{5049.960} = 3.3121$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–2318

Extract Batch Code: 964449

Date Extracted: 19–MAR–10

GEL MS/PS ID: 1202069100

Client ID: RE46–10–12930

GEL MSD/PSD ID: 1202069101

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.18	0.444	ug/kg	2.44	91.4	2.48	93.1	1.51	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.21		3.23		0		–
Perchlorate–101	2.18	0.387	ug/kg	2.43	93.6	2.46	94.8	1.08	30	75 – 125
Perchlorate–O(18)	0	5.38	ug/kg	5.34		5.49		2.73		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2318

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	28-MAR-10	per0328001a	IPB001
Perchlorate-101	0.00	0	NA	28-MAR-10	per0328001a	IPB001
Perchlorate	0.00	0	NA	28-MAR-10	per0328002a	IPB001
Perchlorate-101	0.00	0	NA	28-MAR-10	per0328002a	IPB001

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2318

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	28–MAR–10	per0328008a	IPB002
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328008a	IPB002
Perchlorate	0.00	0	NA	28–MAR–10	per0328010a	IPB003
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328010a	IPB003
Perchlorate	0.00	0	NA	28–MAR–10	per0328014a	IPB004
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328014a	IPB004
Perchlorate	0.00	0	NA	28–MAR–10	per0328023a	IPB005
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328023a	IPB005
Perchlorate	0.00	0	NA	28–MAR–10	per0328036a	IPB006
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328036a	IPB006

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Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Page 27 of 194

Name: per0328008a
Date: 28-Mar-2010
Time: 14:50:04
ID: IPB002
Vial: 1:1,A

CWW 03-29-10

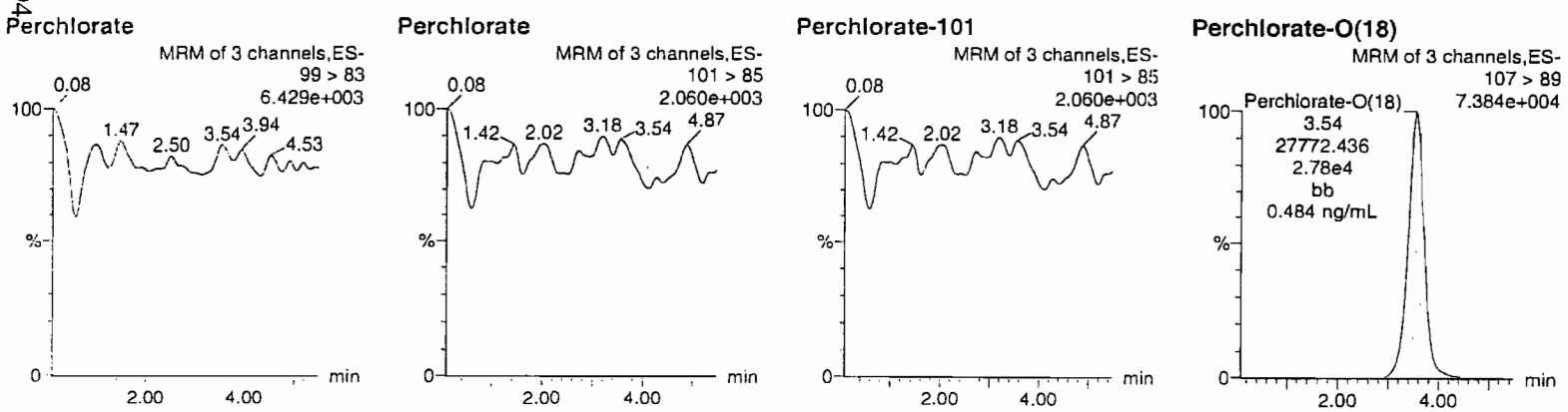

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	3.54	27772.436	27772.436	bb			0.4844	96.88	-3.12	4963.3...	

MAT 3/30/10

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Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Page 194

Name: per0328014a
Date: 28-Mar-2010
Time: 15:41:19
ID: IPB004
Vial: 1:1,A

CWW
03-29-10

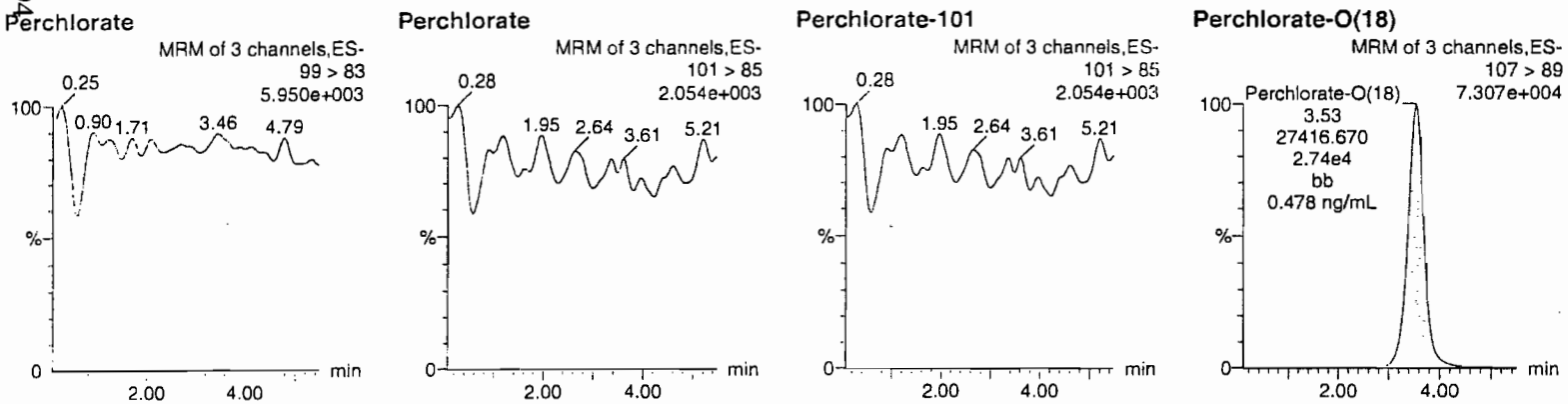

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	3.53	27416.670	27416.670	bb			0.4782	95.64	-4.36	1369.3...	

MATT
3/30/10

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Page 27 of 494

Name: per0328023a
Date: 28-Mar-2010
Time: 16:58:12
ID: IPB005
Vial: 1:1,A

03-29-10

Perchlorate

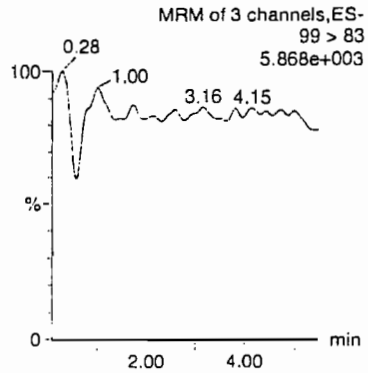

Perchlorate

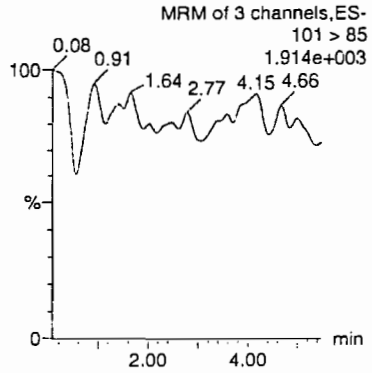

Perchlorate-101

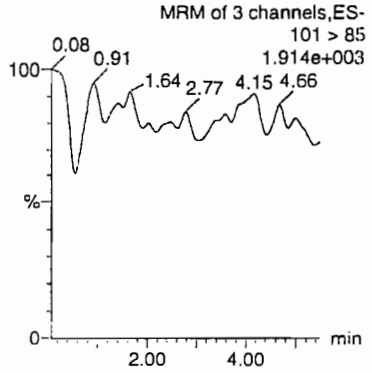

Perchlorate-O(18)

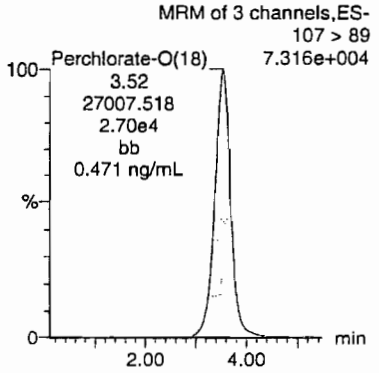

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	3.52	27007.518	27007.518	bb			0.4711	94.21	-5.79	913.616	

MATT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWJ 01-09-08

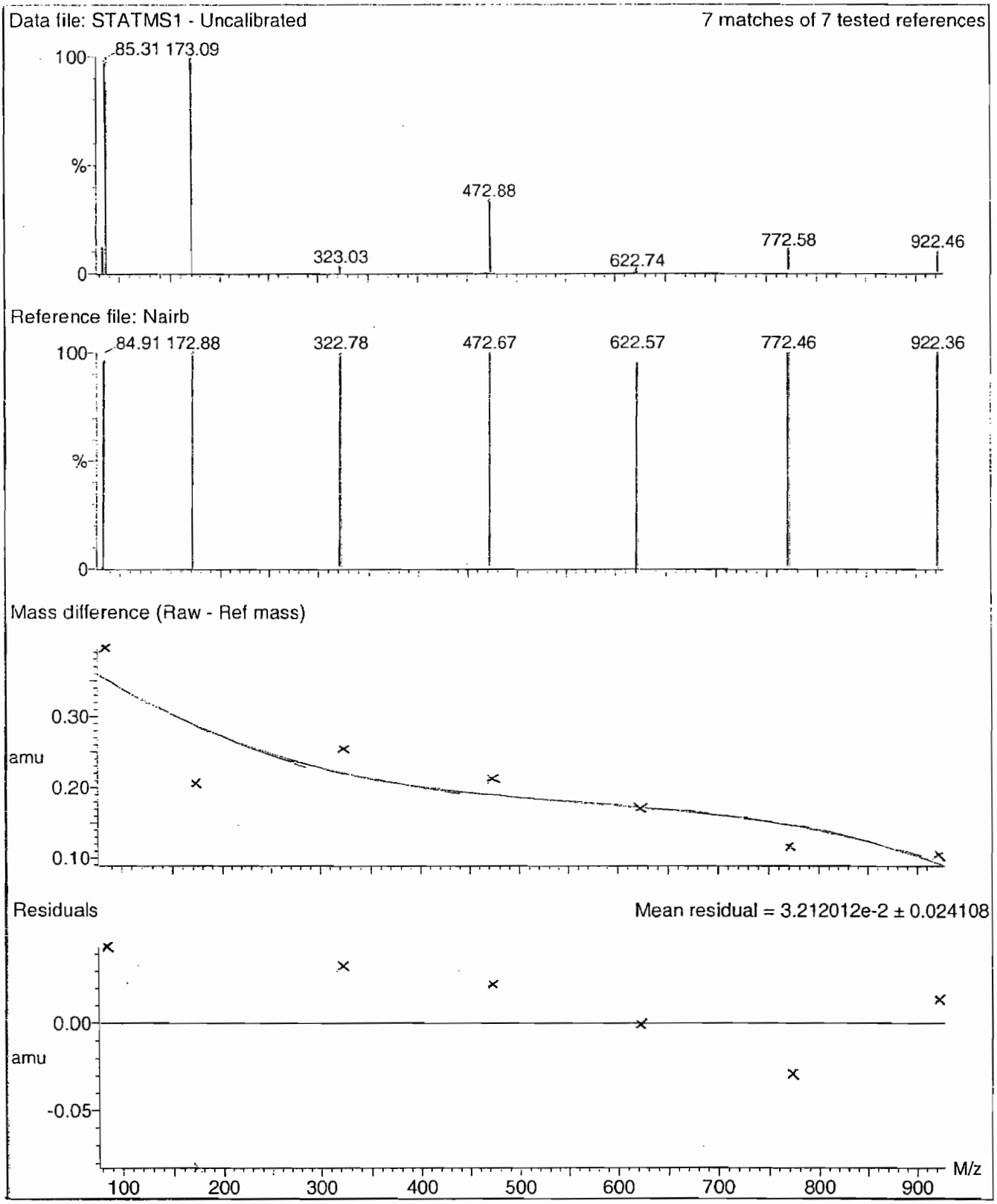

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

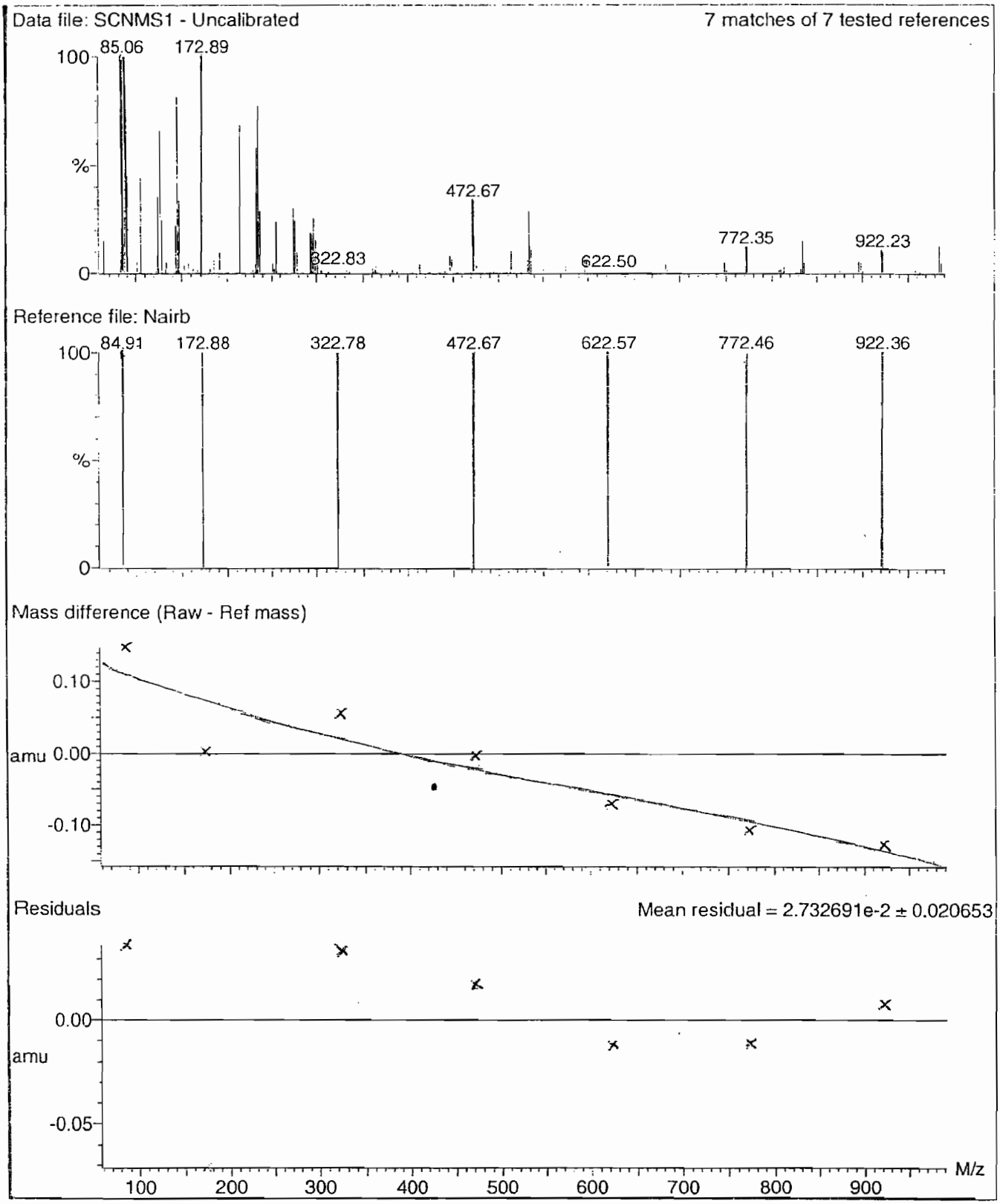

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Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

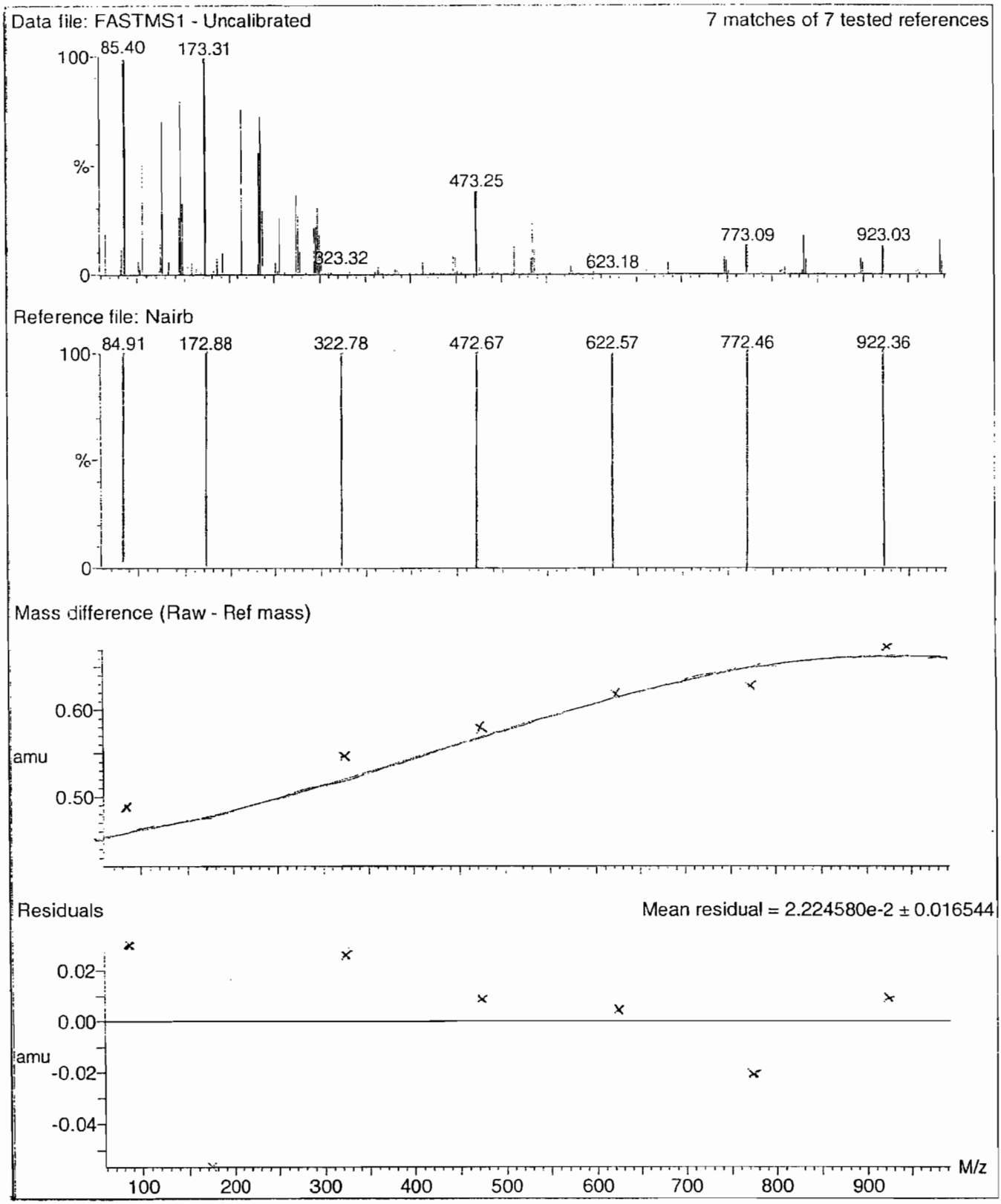

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

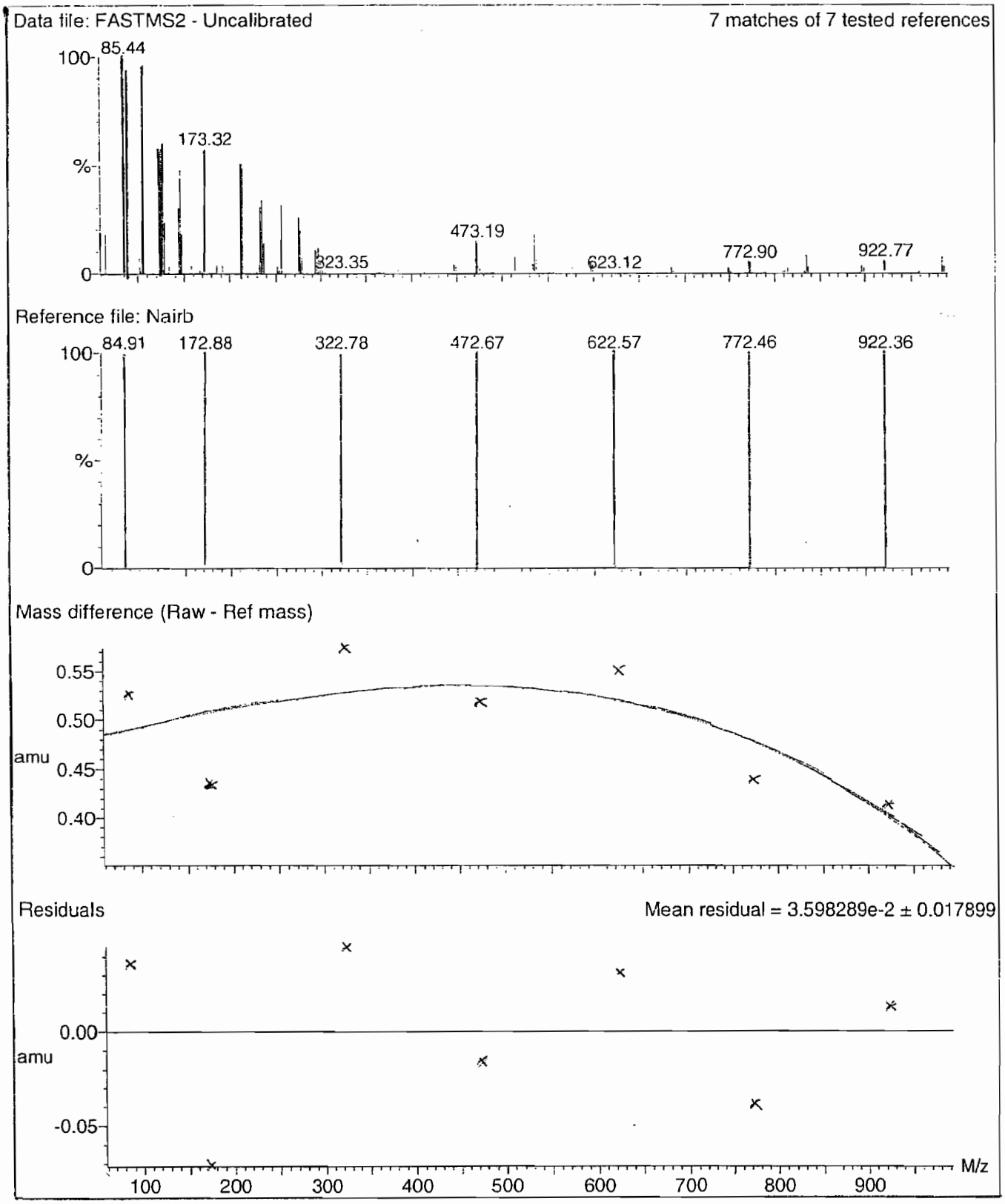

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Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

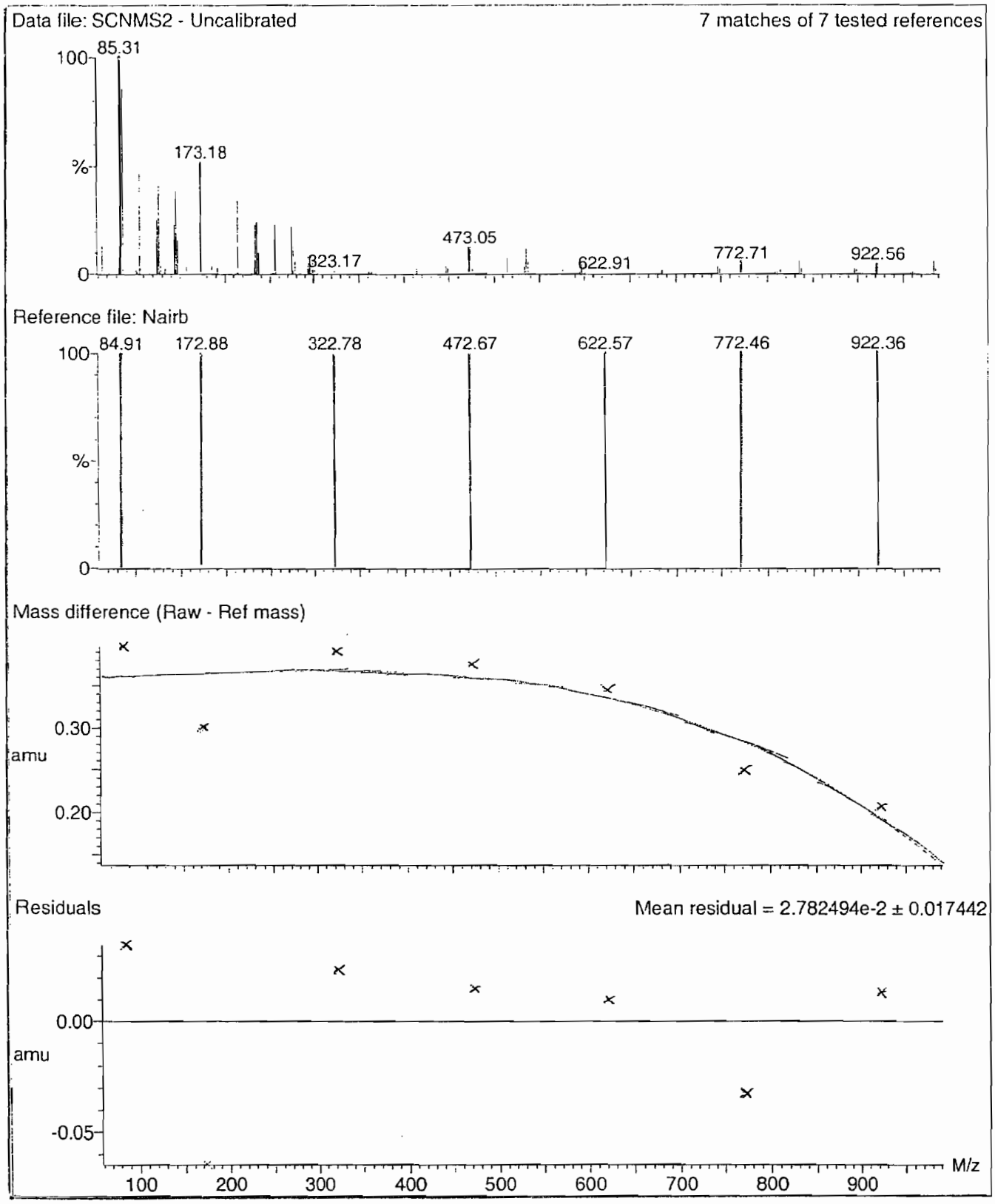

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Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

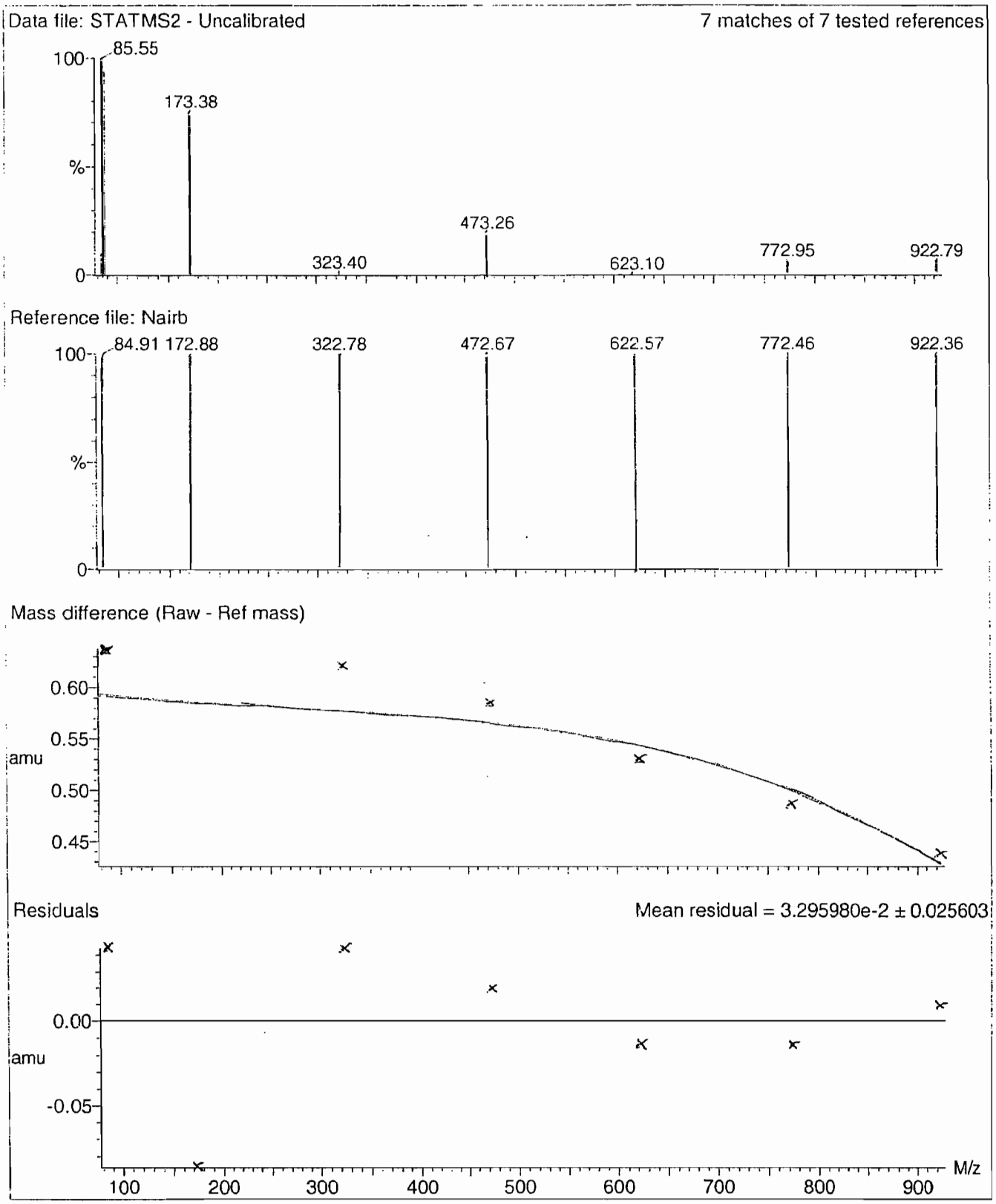

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Sunday, March 28, 2010 11:58:51 Eastern Standard Time

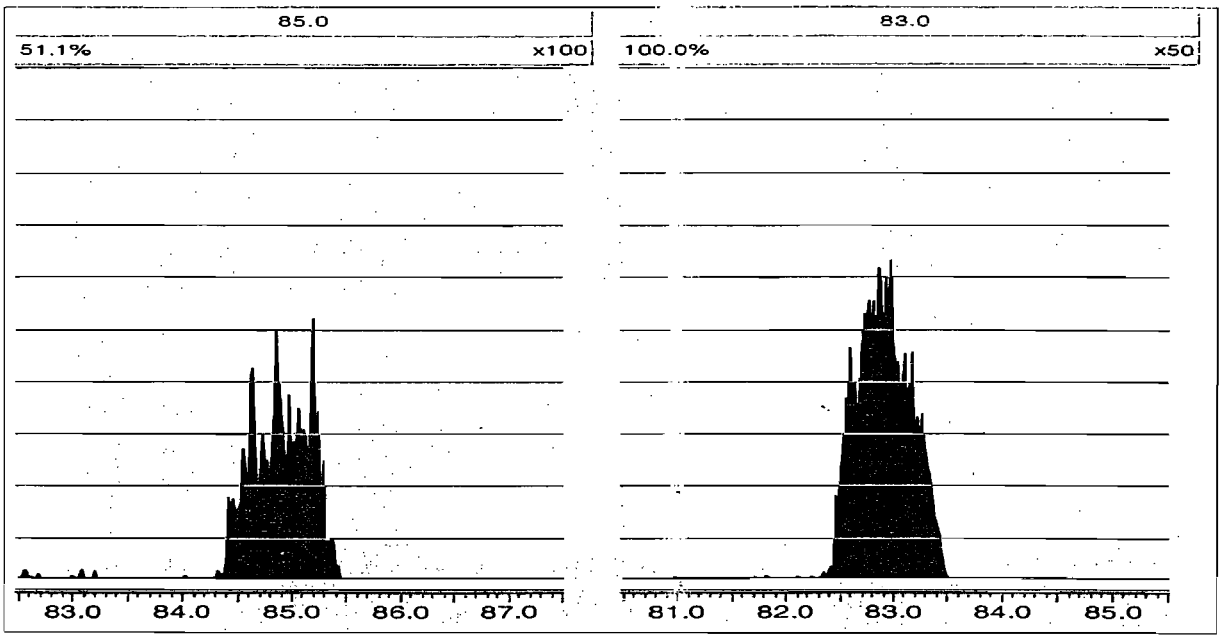

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2318

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0328006a**	**28–MAR–10**	**28421.6**				
Lower Area Limit			**14210.8**				
Upper Area Limit			**56843.2**				
1202069098	per0328015a	28–MAR–10 15:49	27626.8	3.53			
1202069099	per0328016a	28–MAR–10 15:58	28717.2	3.53	3.54503	1.004	
1202069102	per0328017a	28–MAR–10 16:06	31144.2	3.62	3.63188	1.003	
248865001	per0328027a	28–MAR–10 17:32	28805.4	3.53			

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-11924

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2318

GEL Sample ID: 248865001

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.604	2.41	0.604	ug/kg	U	1	28-MAR-10 17:32	per0328027a
	Perchlorate Isotope Ratio						1	28-MAR-10 17:32	per0328027a
14797-73-0	Perchlorate-101	.604	2.41	0.604	ug/kg	U	1	28-MAR-10 17:32	per0328027a
	Perchlorate-O(18)			6.06	ug/kg		1	28-MAR-10 17:32	per0328027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328027a
Date: 28-Mar-2010
Time: 17:32:19
ID: 248865001
Vial: 1:4,F

|LANL|964450|30120|1|2A

WO 03-29-10

Perchlorate

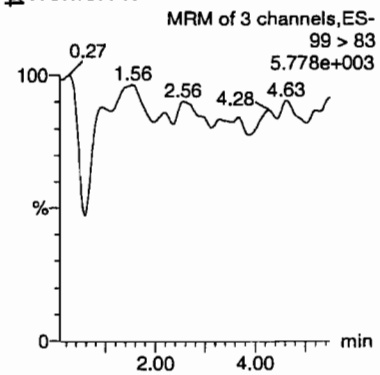

Perchlorate

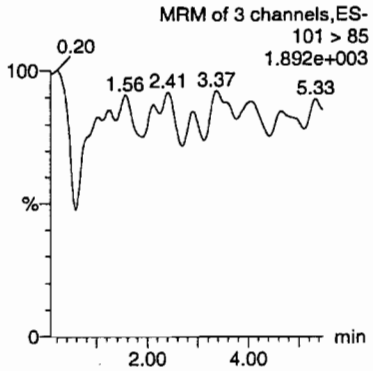

Perchlorate-101

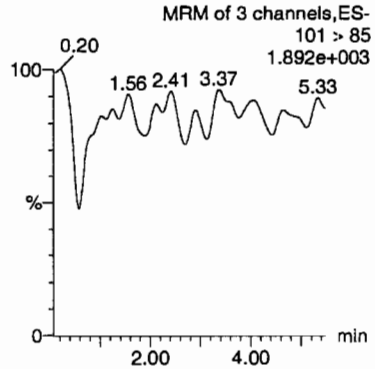

Perchlorate-O(18)

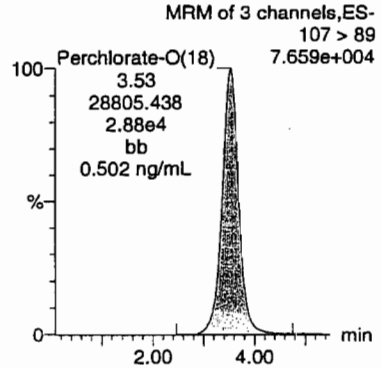

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248865001	Perchlorate	99 > 83											0.00
248865001	Perchlorate-101	101 > 85											
248865001	Perchlorate-O(18)	107 > 89	3.53	28805.438	28805.438	bb			0.5024	100.48	0.48	2298.0...	

MATT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2318

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 28–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 73726.48

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2318

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 28–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 23033

Response Type: External Standard

Curve Type: RF

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The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032810a.mdb 29 Mar 2010 09:32:17
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032810a.cdb 29 Mar 2010 09:32:40

Page 103 of 494

Compound name: Perchlorate
Response Factor: 73726.5
RRF SD: 1732.62, % Relative SD: 2.35006
Response type: External Std, Area
Curve type: RF

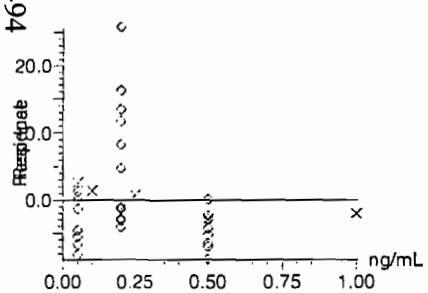

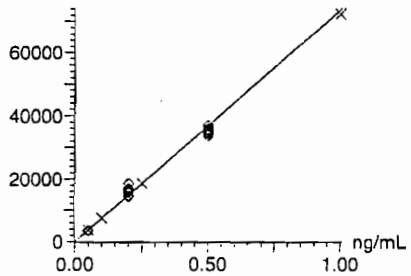

CWW
03-29-10

Compound name: Perchlorate-101
Response Factor: 23033
RRF SD: 903.383, % Relative SD: 3.92213
Response type: External Std, Area
Curve type: RF

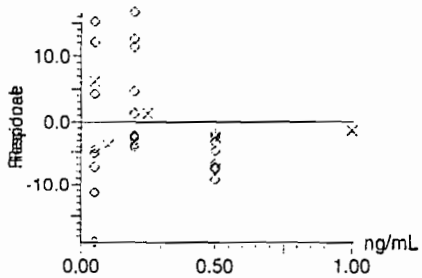

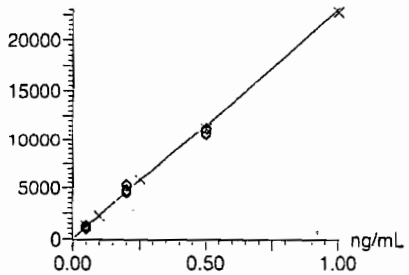

MEH
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 57333.8
RRF SD: 1178.71, % Relative SD: 2.05586
Response type: External Std, Area
Curve type: RF

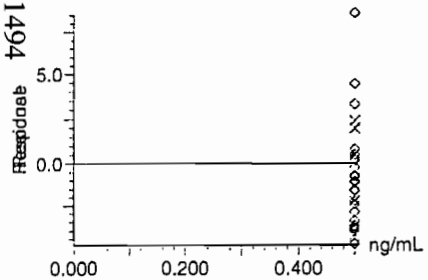

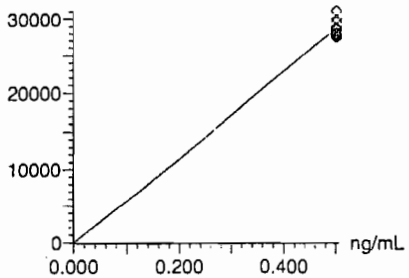

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Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2318

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	97.61	28–MAR–10 14:58	per0328009a
Perchlorate Isotope Ratio		3.19		28–MAR–10 14:58	per0328009a
Perchlorate–101	.5	.49	98.08	28–MAR–10 14:58	per0328009a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Pers

CWO 03-29-10

Name: per0328009a
Date: 28-Mar-2010
Time: 14:58:36
ID: WCL100326-06ICV
Vial: 1:2,A

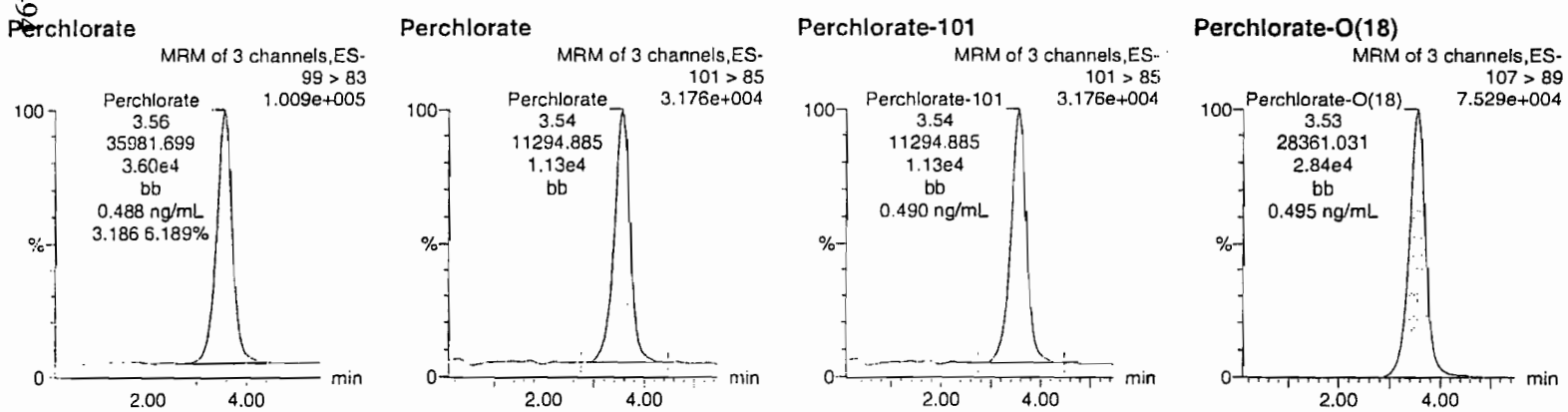

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06ICV	Perchlorate	99 > 83	3.56	35981.699	35981.699	bb			0.4880	97.61	-2.39	915.246	3.19
WCL100326-06ICV	Perchlorate-101	101 > 85	3.54	11294.885	11294.885	bb			0.4904	98.08	-1.92	276.628	
WCL100326-06ICV	Perchlorate-O(18)	107 > 89	3.53	28361.031	28361.031	bb			0.4947	98.93	-1.07	3706.3...	

LMT 3/30/10

$$\frac{35981.699}{73726.5} = 0.4880$$

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2318

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.47	94.8	28–MAR–10 16:49	per0328022a
Perchlorate Isotope Ratio		3.28		28–MAR–10 16:49	per0328022a
Perchlorate–101	.5	.46	92.59	28–MAR–10 16:49	per0328022a
Perchlorate	.5	.5	100.11	28–MAR–10 18:40	per0328035a
Perchlorate Isotope Ratio		3.31		28–MAR–10 18:40	per0328035a
Perchlorate–101	.5	.48	96.74	28–MAR–10 18:40	per0328035a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Page 2 of 49

Name: per0328022a
Date: 28-Mar-2010
Time: 16:49:40
ID: WCL100326-06CCV
Vial: 1:2,A

Para
03-29-10

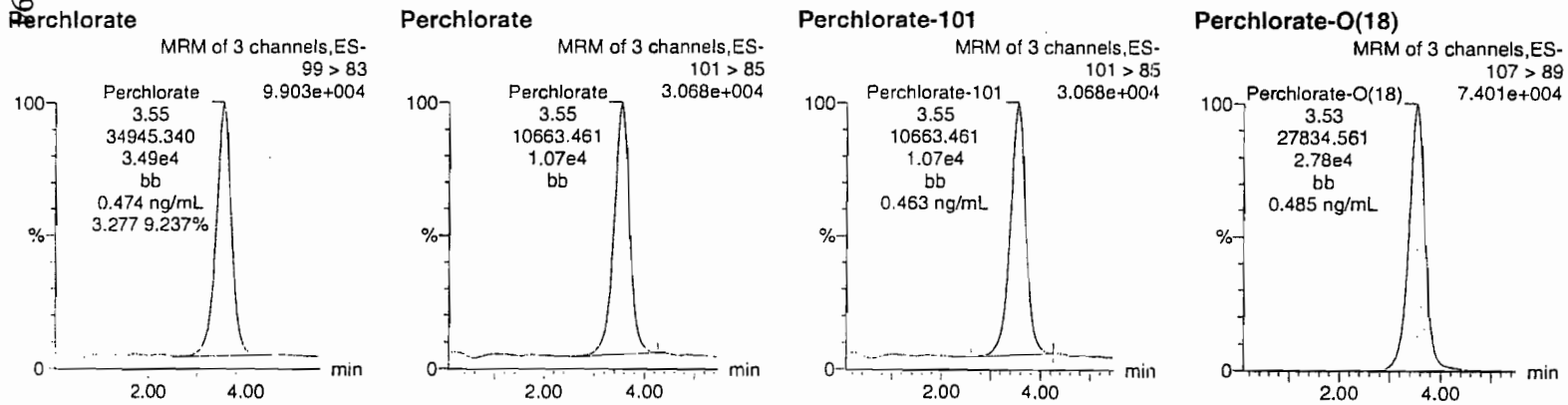

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.55	34945.340	34945.340	bb			0.4740	94.80	-5.20	432.965	3.28
WCL100326-06CCV	Perchlorate-101	101 > 85	3.55	10663.461	10663.461	bb			0.4630	92.59	-7.41	677.245	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.53	27834.561	27834.561	bb			0.4855	97.10	-2.90	5758.9...	

MHT 7/30/10

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Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328035a
Date: 28-Mar-2010
Time: 18:40:39
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
03-29-10

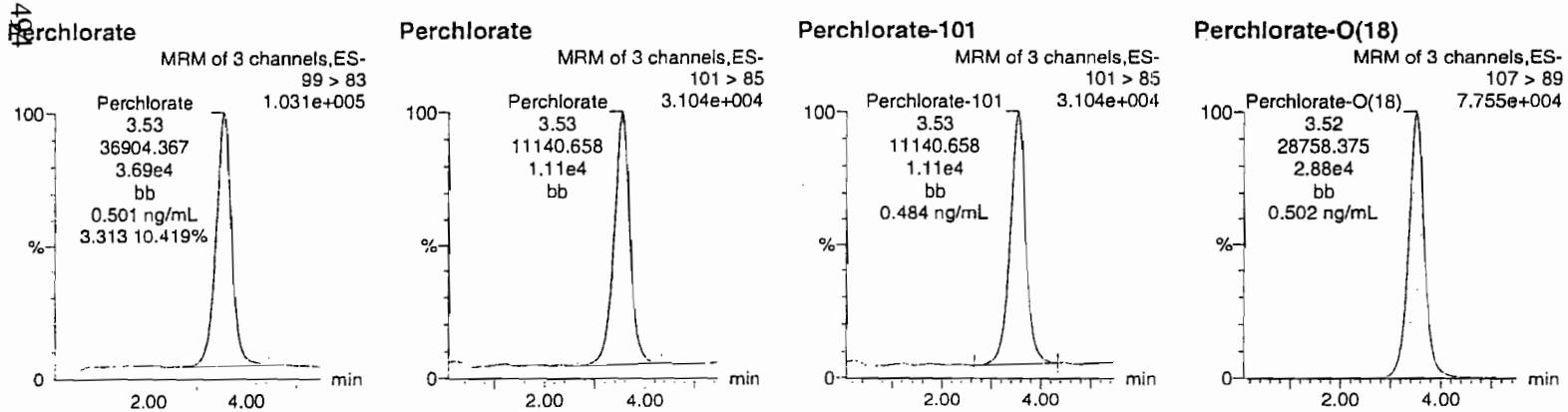

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.53	36904.367	36904.367	bb			0.5006	100.11	0.11	986.950	3.31
WCL100326-06CCV	Perchlorate-101	101 > 85	3.53	11140.658	11140.658	bb			0.4837	96.74	-3.26	547.613	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.52	28758.375	28758.375	bb			0.5016	100.32	0.32	150.701	

Matt 3/30/10

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2318

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	94.53	28-MAR-10 15:15	per0328011a
Perchlorate Isotope Ratio		2.7		28-MAR-10 15:15	per0328011a
Perchlorate-101	.05	.06	112.08	28-MAR-10 15:15	per0328011a
Perchlorate	.05	.05	98.65	28-MAR-10 17:06	per0328024a
Perchlorate Isotope Ratio		3.41		28-MAR-10 17:06	per0328024a
Perchlorate-101	.05	.05	92.66	28-MAR-10 17:06	per0328024a
Perchlorate	.05	.05	93.38	28-MAR-10 18:57	per0328037a
Perchlorate Isotope Ratio		3.15		28-MAR-10 18:57	per0328037a
Perchlorate-101	.05	.05	94.74	28-MAR-10 18:57	per0328037a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328011a
Date: 28-Mar-2010
Time: 15:15:40
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
aw
03-29-10

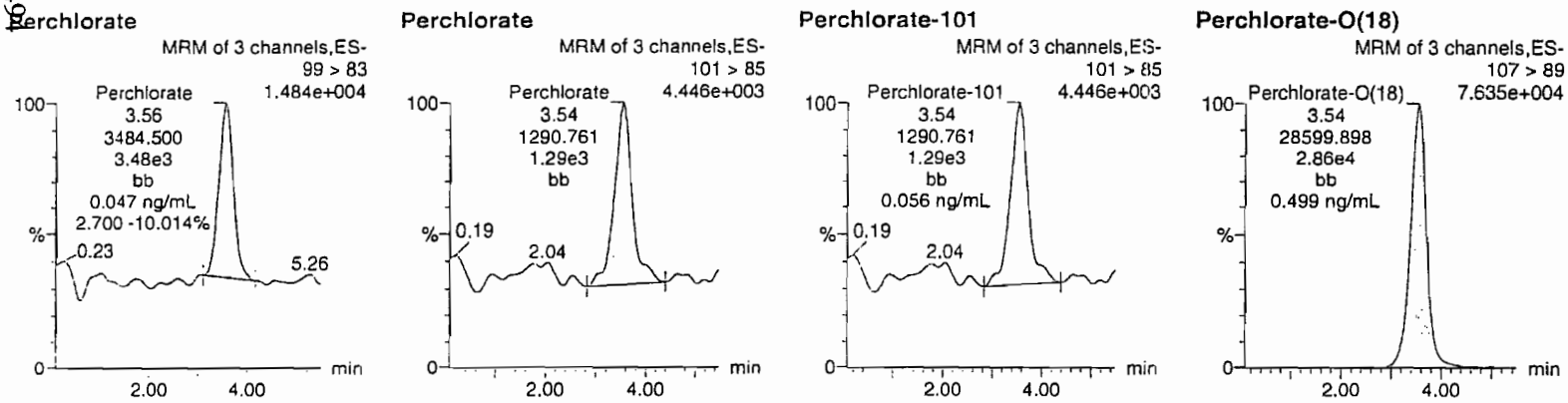

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.56	3484.500	3484.500	bb			0.0473	94.53	-5.47	43.366	2.70
WCL100326-07CRI	Perchlorate-101	101 > 85	3.54	1290.761	1290.761	bb			0.0560	112.08	12.08	18.604	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.54	28599.898	28599.898	bb			0.4988	99.77	-0.23	3124.1...	

MMT
3/30/10

$$\frac{3484.500}{1290.761} = 2.6996$$

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Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328024a
Date: 28-Mar-2010
Time: 17:06:44
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
aw
03-24-10

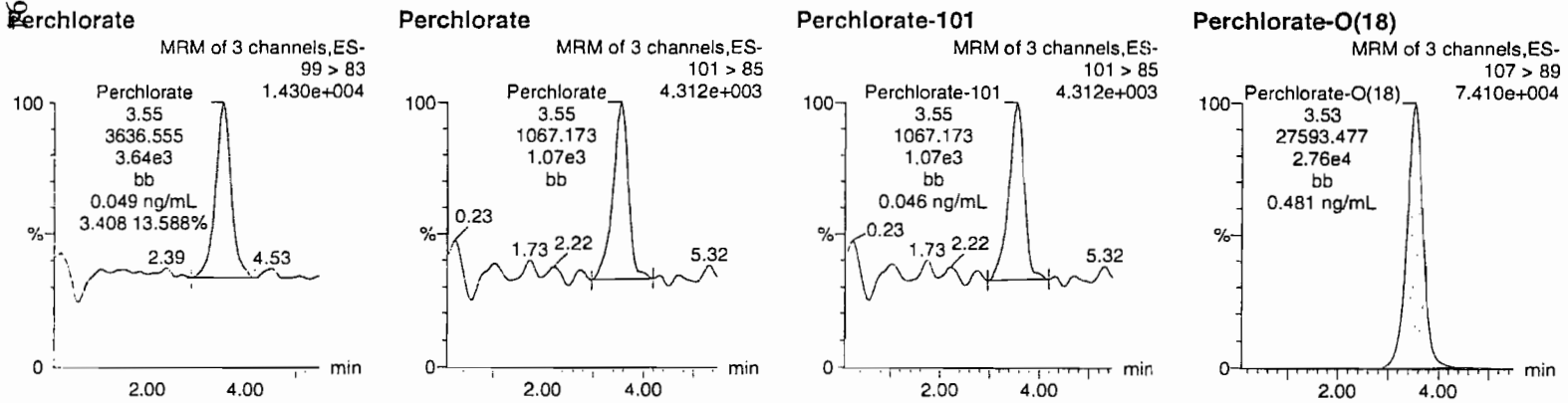

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.55	3636.555	3636.555	bb			0.0493	98.65	-1.35	51.357	3.41
WCL100326-07CRI	Perchlorate-101	101 > 85	3.55	1067.173	1067.173	bb			0.0463	92.66	-7.34	20.263	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.53	27593.477	27593.477	bb			0.4813	96.26	-3.74	1525.0...	

MMT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328037a
Date: 28-Mar-2010
Time: 18:57:43
ID: WCL100326-07CRI
Vial: 1:2,B

Perrs
03-29-10

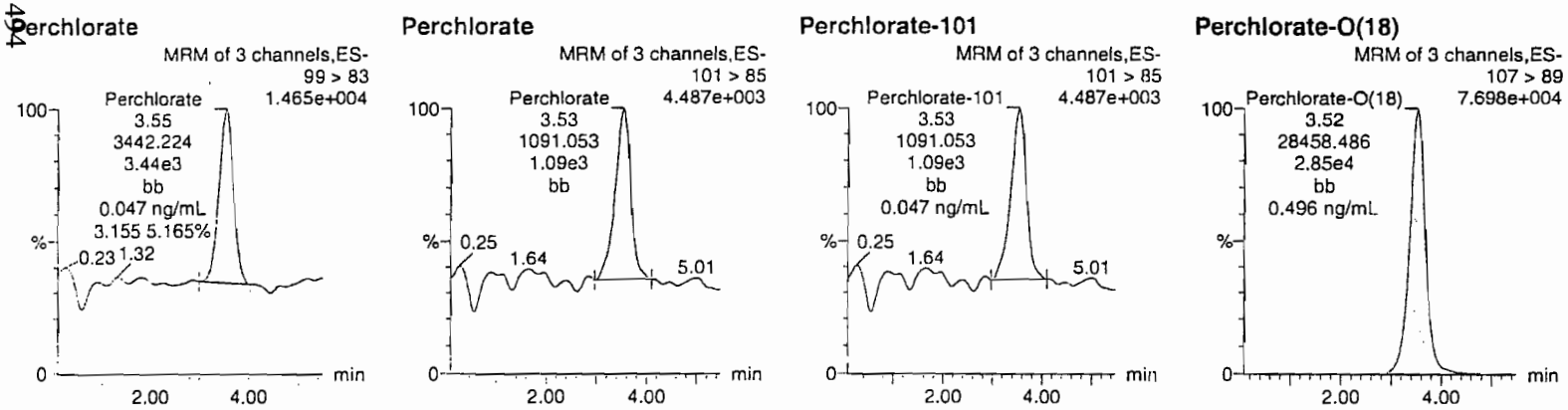

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.55	3442.224	3442.224	bb			0.0467	93.38	-6.62	71.164	3.15
WCL100326-07CRI	Perchlorate-101	101 > 85	3.53	1091.053	1091.053	bb			0.0474	94.74	-5.26	28.828	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.52	28458.486	28458.486	bb			0.4964	99.27	-0.73	6519.7...	

MMT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 19-MAR-10

GEL Job No (SDG): 10-2318

GEL Sample ID: 1202069098

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	28-MAR-10 15:49	per0328015a
	Perchlorate Isotope Ratio						1	28-MAR-10 15:49	per0328015a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	28-MAR-10 15:49	per0328015a
	Perchlorate-O(18)			4.82	ug/kg		1	28-MAR-10 15:49	per0328015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328015a
Date: 28-Mar-2010
Time: 15:49:54
ID: 1202069098
Vial: 1:3,C

|LANC|964450|20120|MB|1|RA

03-29-10

Perchlorate

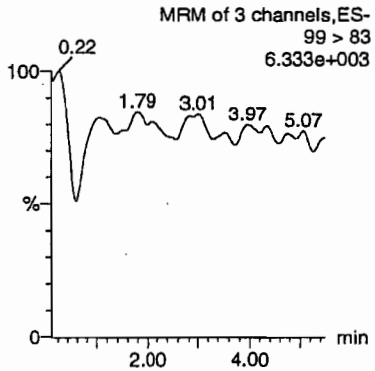

Perchlorate

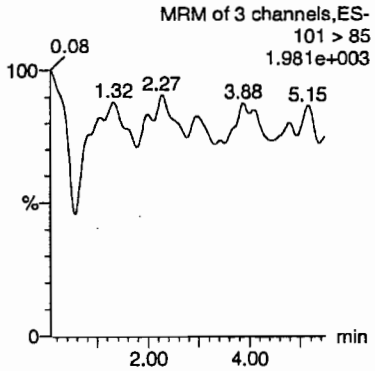

Perchlorate-101

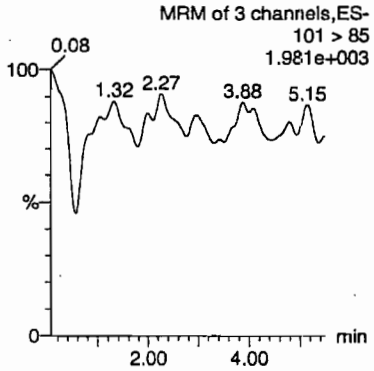

Perchlorate-O(18)

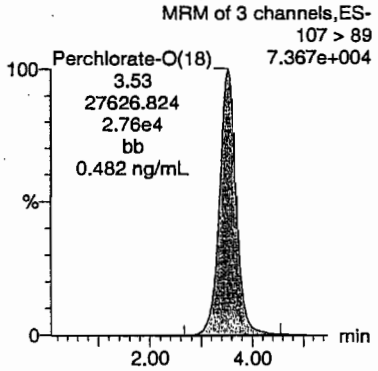

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N Ion Ratio
1202069098	Perchlorate	99 > 83										0.00
1202069098	Perchlorate-101	101 > 85										
1202069098	Perchlorate-O(18)	107 > 89	3.53	27626.824	27626.824	bb			0.4819	96.37	-3.63	1342.5...

MAT 3/30/10

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 19–MAR–10

GEL Job No (SDG): 10–2318

GEL Sample ID: 1202069099

Date Filtered: 19–MAR–10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.5	2	1.99	ug/kg	J	1	28–MAR–10 15:58	per0328016a
	Perchlorate Isotope Ratio			3.25			1	28–MAR–10 15:58	per0328016a
14797–73–0	Perchlorate–101	.5	2	1.95	ug/kg	J	1	28–MAR–10 15:58	per0328016a
	Perchlorate–O(18)			5.01	ug/kg		1	28–MAR–10 15:58	per0328016a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328016a
Date: 28-Mar-2010
Time: 15:58:26
ID: 1202069099
Vial: 1:3,D

|LCMS|964450|SDLCD|LCS|1|

CWO 03-29-10

Perchlorate

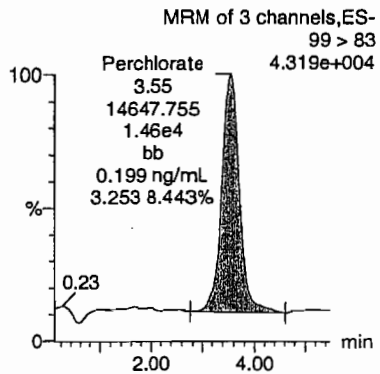

Perchlorate

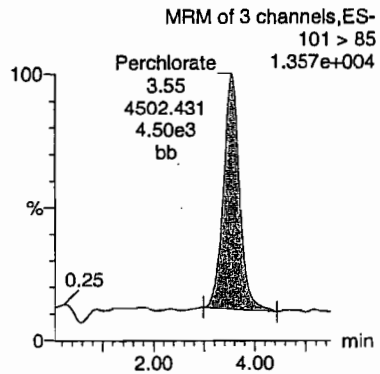

Perchlorate-101

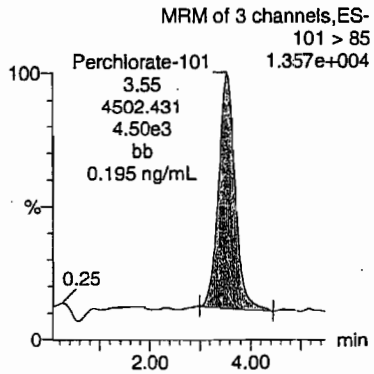

Perchlorate-O(18)

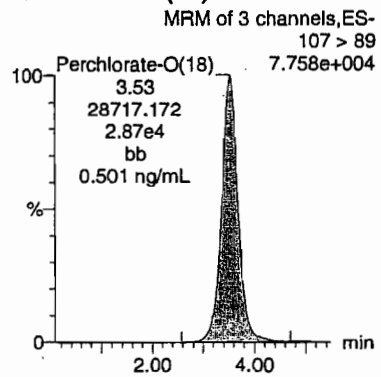

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	µg/mL	%Rec	%Dev	S/N	Ion Ratio
1202069099	Perchlorate	99 > 83	3.55	14647.755	14647.755	bb			0.1987	99.34	-0.66	189.751	3.25
1202069099	Perchlorate-101	101 > 85	3.55	4502.431	4502.431	bb			0.1955	97.74	-2.26	143.529	
1202069099	Perchlorate-O(18)	107 > 89	3.53	28717.172	28717.172	bb			0.5009	100.18	0.18	2220.8...	

MWT 3/30/10

$$\frac{14647.755}{73726.5} = 0.1987$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 964449 **Verified by:** _____

Analyst: Kaylie Westmoreland **Lab SOP:** GL-OA-E-067 REV# 6

Method: SW846 6850 Modified **Instrument:** MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202069098 MB	19-MAR-2010 14:27:00	2	20	10
1202069099 LCS	19-MAR-2010 14:27:00	2	20	10
248863001	19-MAR-2010 14:27:00	2	20	10
248863002	19-MAR-2010 14:27:00	2	20	10
1202069100 MS (248863002)	19-MAR-2010 14:27:00	2	20	10
1202069101 MSD (248863002)	19-MAR-2010 14:27:00	2	20	10
248863003	19-MAR-2010 14:27:00	2	20	10
248863004	19-MAR-2010 14:27:00	2	20	10
248865001	19-MAR-2010 14:27:00	2	20	10
248866001	19-MAR-2010 14:27:00	2	20	10
248866002	19-MAR-2010 14:27:00	2	20	10
248867001	19-MAR-2010 14:27:00	2	20	10
248867002	19-MAR-2010 14:27:00	2	20	10
248867003	19-MAR-2010 14:27:00	2	20	10
248867004	19-MAR-2010 14:27:00	2	20	10
249055001	19-MAR-2010 14:27:00	2	20	10
249055002	19-MAR-2010 14:27:00	2	20	10
249057002	19-MAR-2010 14:27:00	2	20	10
249057003	19-MAR-2010 14:27:00	2	20	10
249064002	19-MAR-2010 14:27:00	2	20	10
249064003	19-MAR-2010 14:27:00	2	20	10
249064004	19-MAR-2010 14:27:00	2	20	10
249064005	19-MAR-2010 14:27:00	2	20	10
1202069102 ICS	19-MAR-2010 14:27:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202069102	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
LCS	1202069099	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
MS	1202069100	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
MSD	1202069101	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL

Comments:

Desalting Cartridges used: 100224-1-Ba & 100223-1-H

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS#2

Date: 03/28/10
Extr. Injection Volume: 20uL
Sequence Number: per032810a
Initial Calibration Date: 03/28/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1284736
Standard-Samp Reagent Lot#:: 1284736

Reviewed BY: [illegible]
Date: 3/30/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100326-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0328001a	IPB001	CWW	3/28/2010 13:50			1		USE	B
per0328002a	IPB001	CWW	3/28/2010 13:58			1		USE	B
per0328003a	WCLICAL-01	CWW	3/28/2010 14:07			1		USE	I
per0328004a	WCLICAL-02	CWW	3/28/2010 14:16			1		USE	I
per0328005a	WCLICAL-03	CWW	3/28/2010 14:24			1		USE	I
per0328006a	WCLICAL-04	CWW	3/28/2010 14:33			1		USE	I
per0328007a	WCLICAL-05	CWW	3/28/2010 14:41			1		USE	I
per0328008a	IPB002	CWW	3/28/2010 14:50			1		USE	B
per0328009a	WCLICV	CWW	3/28/2010 14:58			1		USE	C
per0328010a	IPB003	CWW	3/28/2010 15:07			1		USE	B
per0328011a	WCLCRI	CWW	3/28/2010 15:15			1		USE	C
per0328012a	249376001	CWW	3/28/2010 15:24	966566	10-2446	1	LANL	USE	S
per0328013a	249376004	CWW	3/28/2010 15:32	966566	10-2446	1	LANL	USE	S
per0328014a	IPB004	CWW	3/28/2010 15:41			1		USE	B
per0328015a	1202069098	CWW	3/28/2010 15:49	964450	VARIOUS	1	LANL	USE	S
per0328016a	1202069099	CWW	3/28/2010 15:58	964450	VARIOUS	1	LANL	USE	S
per0328017a	1202069102	CWW	3/28/2010 16:06	964450	VARIOUS	1	LANL	USE	S
per0328018a	248863001	CWW	3/28/2010 16:15	964450	10-2315	1	LANL	USE	S
per0328019a	248863002	CWW	3/28/2010 16:24	964450	10-2315	1	LANL	USE	S
per0328020a	1202069100	CWW	3/28/2010 16:32	964450	10-2315	1	LANL	USE	S
per0328021a	1202069101	CWW	3/28/2010 16:41	964450	10-2315	1	LANL	USE	S
per0328022a	WCLCCV	CWW	3/28/2010 16:49			1		USE	C
per0328023a	IPB005	CWW	3/28/2010 16:58			1		USE	B
per0328024a	WCLCRI	CWW	3/28/2010 17:06			1		USE	C
per0328025a	248863003	CWW	3/28/2010 17:15	964450	10-2315	1	LANL	USE	S
per0328026a	248863004	CWW	3/28/2010 17:23	964450	10-2315	1	LANL	USE	S
per0328027a	248865001	CWW	3/28/2010 17:32	964450	10-2318	1	LANL	USE	S
per0328028a	248866001	CWW	3/28/2010 17:40	964450	10-2319	1	LANL	USE	S
per0328029a	248866002	CWW	3/28/2010 17:49	964450	10-2319	1	LANL	USE	S

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per0328030a	248867001	CWW	3/28/2010 17:57	964450	10-2320	1	LANL	USE	S
per0328031a	248867002	CWW	3/28/2010 18:06	964450	10-2320	1	LANL	USE	S
per0328032a	248867003	CWW	3/28/2010 18:15	964450	10-2320	1	LANL	USE	S
per0328033a	248867004	CWW	3/28/2010 18:23	964450	10-2320	1	LANL	USE	S
per0328034a	249055001	CWW	3/28/2010 18:32	964450	10-2349	1	LANL	USE	S
per0328035a	WCLCCV	CWW	3/28/2010 18:40			1		USE	C
per0328036a	IPB006	CWW	3/28/2010 18:49			1		USE	B
per0328037a	WCLCRI	CWW	3/28/2010 18:57			1		USE	C
per0328038a	1202068347	CWW	3/28/2010 19:06	964122	VARIOUS	1	LANL	USE	S
per0328039a	1202068348	CWW	3/28/2010 19:15	964122	VARIOUS	1	LANL	USE	S
per0328040a	1202068351	CWW	3/28/2010 19:23	964122	VARIOUS	1	LANL	USE	S
per0328041a	248814001	CWW	3/28/2010 19:32	964122	10-2303	1	LANL	USE	S
per0328042a	248814002	CWW	3/28/2010 19:40	964122	10-2303	1	LANL	USE	S
per0328043a	248814003	CWW	3/28/2010 19:49	964122	10-2303	1	LANL	USE	S
per0328044a	248814004	CWW	3/28/2010 19:57	964122	10-2303	1	LANL	USE	S
per0328045a	248814005	CWW	3/28/2010 20:06	964122	10-2303	1	LANL	USE	S
per0328046a	248814006	CWW	3/28/2010 20:14	964122	10-2303	1	LANL	USE	S
per0328047a	248814007	CWW	3/28/2010 20:23	964122	10-2303	1	LANL	USE	S
per0328048a	WCLCCV	CWW	3/28/2010 20:31			1		USE	C
per0328049a	IPB007	CWW	3/28/2010 20:40			1		USE	B
per0328050a	WCLCRI	CWW	3/28/2010 20:49			1		USE	C
per0328051a	248814008	CWW	3/28/2010 20:57	964122	10-2303	1	LANL	USE	S
per0328052a	248814009	CWW	3/28/2010 21:06	964122	10-2303	1	LANL	USE	S
per0328053a	248860001	CWW	3/28/2010 21:14	964122	10-2313	1	LANL	USE	S
per0328054a	1202068349	CWW	3/28/2010 21:23	964122	10-2313	1	LANL	USE	S
per0328055a	1202068350	CWW	3/28/2010 21:31	964122	10-2313	1	LANL	USE	S
per0328056a	248860002	CWW	3/28/2010 21:40	964122	10-2313	1	LANL	USE	S
per0328057a	248860003	CWW	3/28/2010 21:48	964122	10-2313	1	LANL	USE	S
per0328058a	248860004	CWW	3/28/2010 21:57	964122	10-2313	1	LANL	USE	S
per0328059a	248860005	CWW	3/28/2010 22:05	964122	10-2313	1	LANL	USE	S
per0328060a	248860006	CWW	3/28/2010 22:14	964122	10-2313	1	LANL	USE	S
per0328061a	WCLCCV	CWW	3/28/2010 22:23			1		USE	C
per0328062a	IPB008	CWW	3/28/2010 22:31			1		USE	B
per0328063a	WCLCRI	CWW	3/28/2010 22:40			1		USE	C
per0328064a	248860007	CWW	3/28/2010 22:48	964122	10-2313	1	LANL	USE	S
per0328065a	248860008	CWW	3/28/2010 22:57	964122	10-2313	1	LANL	USE	S
per0328066a	248860009	CWW	3/28/2010 23:06	964122	10-2313	1	LANL	USE	S

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per0328067a	IPB009	CWW	3/28/2010 23:14			1		USE	B
per0328068a	1202069103	CWW	3/28/2010 23:23	964453	10-2357	1	LANL	USE	S
per0328069a	1202069104	CWW	3/28/2010 23:32	964453	10-2357	1	LANL	USE	S
per0328070a	1202069107	CWW	3/28/2010 23:40	964453	10-2357	1	LANL	USE	S
per0328071a	249076003	CWW	3/28/2010 23:49	964453	10-2357	1	LANL	USE	S
per0328072a	1202069105	CWW	3/28/2010 23:57	964453	10-2357	1	LANL	USE	S
per0328073a	1202069106	CWW	3/29/2010 0:06	964453	10-2357	1	LANL	USE	S
per0328074a	WCLCCV	CWW	3/29/2010 0:15			1		USE	C
per0328075a	IPB010	CWW	3/29/2010 0:23			1		USE	B
per0328076a	WCLCRI	CWW	3/29/2010 0:32			1		USE	C
per0328077a	249076004	CWW	3/29/2010 0:41	964453	10-2357	1	LANL	USE	S
per0328078a	249076005	CWW	3/29/2010 0:50	964453	10-2357	1	LANL	USE	S
per0328079a	249076006	CWW	3/29/2010 0:58	964453	10-2357	1	LANL	USE	S
per0328080a	249076007	CWW	3/29/2010 1:07	964453	10-2357	1	LANL	USE	S
per0328081a	249076008	CWW	3/29/2010 1:15	964453	10-2357	1	LANL	USE	S
per0328082a	249076009	CWW	3/29/2010 1:24	964453	10-2357	1	LANL	USE	S
per0328083a	249076010	CWW	3/29/2010 1:32	964453	10-2357	1	LANL	USE	S
per0328084a	249076011	CWW	3/29/2010 1:41	964453	10-2357	1	LANL	USE	S
per0328085a	249076012	CWW	3/29/2010 1:49	964453	10-2357	1	LANL	USE	S
per0328086a	249076013	CWW	3/29/2010 1:58	964453	10-2357	1	LANL	USE	S
per0328087a	WCLCCV	CWW	3/29/2010 2:07			1		USE	C
per0328088a	IPB011	CWW	3/29/2010 2:15			1		USE	B
per0328089a	WCLCRI	CWW	3/29/2010 2:24			1		USE	C
per0328090a	249076014	CWW	3/29/2010 2:32	964453	10-2357	1	LANL	USE	S
per0328091a	249076015	CWW	3/29/2010 2:41	964453	10-2357	1	LANL	USE	S
per0328092a	249076016	CWW	3/29/2010 2:50	964453	10-2357	1	LANL	USE	S
per0328093a	249076017	CWW	3/29/2010 2:58	964453	10-2357	1	LANL	USE	S
per0328094a	249076018	CWW	3/29/2010 3:07	964453	10-2357	1	LANL	USE	S
per0328095a	249076019	CWW	3/29/2010 3:15	964453	10-2357	1	LANL	USE	S
per0328096a	249076020	CWW	3/29/2010 3:24	964453	10-2357	1	LANL	USE	S
per0328097a	WCLCCV	CWW	3/29/2010 3:33			1		USE	C
per0328098a	IPB012	CWW	3/29/2010 3:41			1		USE	B
per0328099a	WCLCRI	CWW	3/29/2010 3:50			1		USE	C

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328020a
Date: 28-Mar-2010
Time: 16:32:35
ID: 1202069100
Vial: 1:4,B

|LZNL|964450|50120|MS|1|RA

CWJ 03-29-10

Perchlorate

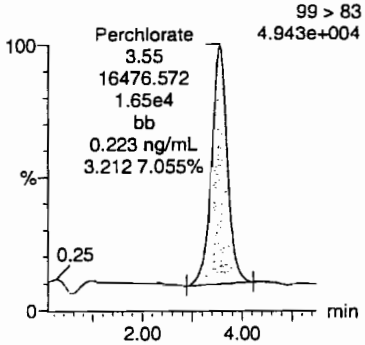

Perchlorate

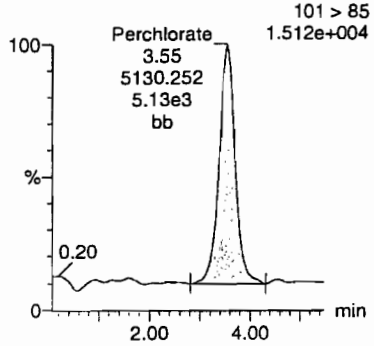

Perchlorate-101

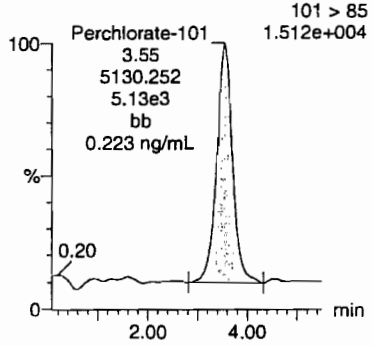

Perchlorate-O(18)

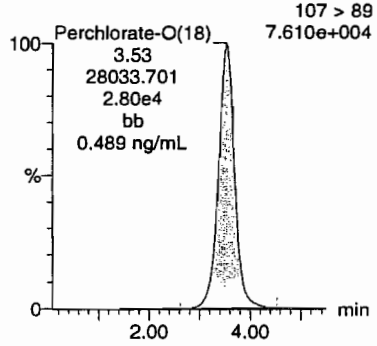

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202069100	Perchlorate	99 > 83	3.55	16476.572	16476.572	bb			0.2235	111.74	11.74	415.614	3.21
1202069100	Perchlorate-101	101 > 85	3.55	5130.252	5130.252	bb			0.2227	111.37	11.37	223.625	
1202069100	Perchlorate-O(18)	107 > 89	3.53	28033.701	28033.701	bb			0.4890	97.79	-2.21	2506.9...	

LMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328021a
Date: 28-Mar-2010
Time: 16:41:07
ID: 1202069101
Vial: 1:4,C

|LANL|964450|30220|MSO|1|OA

WW 03-24-10

Perchlorate

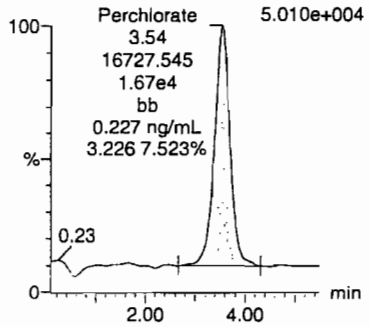

Perchlorate

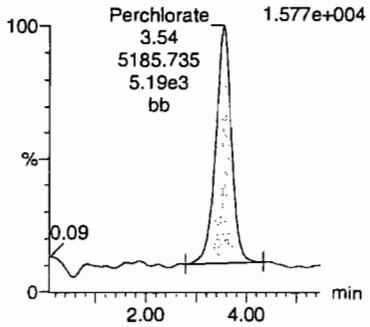

Perchlorate-101

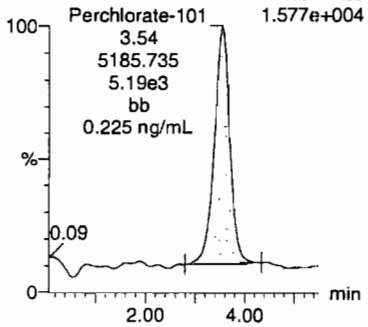

Perchlorate-O(18)

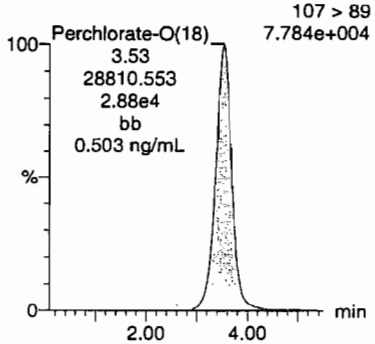

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202069101	Perchlorate	99 > 83	3.54	16727.545	16727.545	bb			0.2269	113.44	13.44	246.005	3.23
1202069101	Perchlorate-101	101 > 85	3.54	5185.735	5185.735	bb			0.2251	112.57	12.57	104.512	
1202069101	Perchlorate-O(18)	107 > 89	3.53	28810.553	28810.553	bb			0.5025	100.50	0.50	11052....	

MT 3/30/10

$$\frac{16727.545 \mid 10 \mid 100}{73726.5 \mid \mid 41.54} = 2.48$$

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2318

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	967400
Prep Batch Number:	967399

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
248865001	RE46-10-11924
1202076363	Method Blank (MB)
1202076364	Laboratory Control Sample (LCS)
1202076365	248863002(RE46-10-12930) Matrix Spike (MS)
1202076366	248863002(RE46-10-12930) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix from another SDG (10-2315) was selected for the matrix spike and matrix spike duplicate analysis for this batch..

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 4/1/10

Roadmap for LANL 10-2318 PCB

This roadmap was analyzed by yip00818 on 03-24-2010, 09:10.
This roadmap was packaged by sha01289 on 04-01-2010, 05:30.
This roadmap was validated by jim01140 on 04-01-2010, 09:16.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032310a.b/020f2001.d	248865001	sample	23-MAR-2010	11:15	10-2318.sub	RE46-10-11924	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032310a.b/020b2001.d	248865001	sample	23-MAR-2010	11:15	10-2318.sub	RE46-10-11924	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032310a.b/012f1201-1.d	1202076363	mb	23-MAR-2010	09:39	10-2318.sub	PBLK01	1.00000	967400	
☐	N	/chem/ecd1a.i/032310a.b/013f1301-1.d	1202076364	lcs	23-MAR-2010	09:49	10-2318.sub	PBLK01LCS	1.00000	967400	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032310a.b/012b1201-1.d	1202076363	mb	23-MAR-2010	09:39	10-2318.sub	PBLK01	1.00000	967400	
☐	N	/chem/ecd1a.i/032310a.b/013b1301-1.d	1202076364	lcs	23-MAR-2010	09:49	10-2318.sub	PBLK01LCS	1.00000	967400	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248865001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11924**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 11:15**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**020f2001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	020b2001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.02	ug/kg	1.34	4.02	1
11104-28-2	Aroclor-1221	U	4.02	ug/kg	1.34	4.02	1
11141-16-5	Aroclor-1232	U	4.02	ug/kg	1.34	4.02	1
53469-21-9	Aroclor-1242	U	4.02	ug/kg	1.34	4.02	1
12672-29-6	Aroclor-1248	U	4.02	ug/kg	1.34	4.02	1
11097-69-1	Aroclor-1254	U	4.02	ug/kg	1.34	4.02	1
11096-82-5	Aroclor-1260	U	4.02	ug/kg	1.34	4.02	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-2318

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202076363	MB for batch 967399	71	68	86	78
1202076364	LCS for batch 967399	77	73	85	78
248865001	RE46-10-11924	56	54	57	58

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%-120%)
DCB = Decachlorobiphenyl	(30%-116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2318
Client ID: LCS for batch 967399
Lab Sample ID: 1202076364
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 09:49
Dilution: 1
Prep Batch ID: 967399
Batch ID: 967400

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	23.8	71	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	27.3	82	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2315
Client ID: RE46-10-12930MS
Lab Sample ID: 1202076365
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 8.5
Analysis Date: 03/23/2010 10:25
Prep Batch ID: 967399
Batch ID: 967400

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	36.4	0.00	U	18.0	49	23-119
11096-82-5	MS	Aroclor-1260	36.4	0.00	U	22.4	62	28-124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2315
Client ID: RE46–10–12930MSD
Lab Sample ID: 1202076366
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 8.5
Analysis Date: 03/23/2010 10:37
Prep Batch ID: 967399
Batch ID: 967400
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	36.4	0.00	U	21.3	59	23–119	17	0–28
11096–82–5	MSD Aroclor–1260	36.4	0.00	U	25.9	71	28–124	15	0–30

Method Blank Summary

SDG Number:	10-2318	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 967399	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	012b1201-1.d 012f1201-1.d
Lab Sample ID:	1202076363				
Column:	CLP2 CLP1	Prep Date:	03/22/2010 11:11	Analyzed:	03/23/10 09:39
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 967399	1202076364	013f1301-1.d 013b1301-1.d	03/23/10	0949
04 RE46-10-11924	248865001	020f2001.d 020b2001.d	03/23/10	1115

SAMPLE
DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2318**	**Date Collected:**	**03/03/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248865001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–11924**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 11:15**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**020f2001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	020b2001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.02	ug/kg	1.34	4.02	1
11104–28–2	Aroclor–1221	U	4.02	ug/kg	1.34	4.02	1
11141–16–5	Aroclor–1232	U	4.02	ug/kg	1.34	4.02	1
53469–21–9	Aroclor–1242	U	4.02	ug/kg	1.34	4.02	1
12672–29–6	Aroclor–1248	U	4.02	ug/kg	1.34	4.02	1
11097–69–1	Aroclor–1254	U	4.02	ug/kg	1.34	4.02	1
11096–82–5	Aroclor–1260	U	4.02	ug/kg	1.34	4.02	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/020f2001.d
Lab Smp Id: 248865001 Client Smp ID: RE46-10-11924
Inj Date : 23-MAR-2010 11:15
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248865001|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-11924|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2318.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	17.15310	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.913	-0.001	43401676	111.423	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.217	-0.003	34102554	114.850	4.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/020f2001.d

Page 1

Date : 23-MAR-2010 11:15

Client ID: RE46-10-11924

Instrument: ecd1a.i

Sample Info: |248865001|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

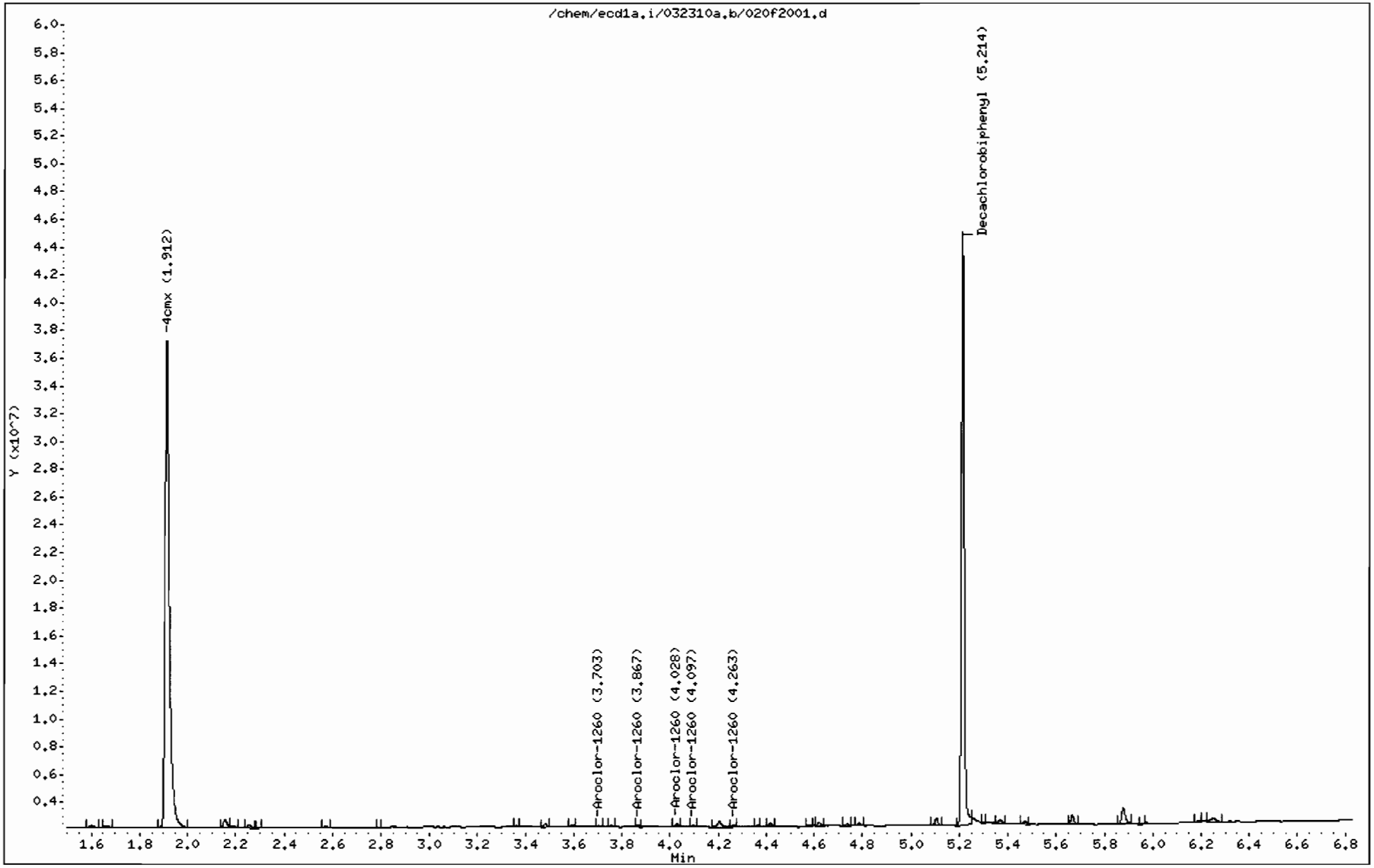

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/020b2001.d
Lab Smp Id: 248865001 Client Smp ID: RE46-10-11924
Inj Date : 23-MAR-2010 11:15
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248865001|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-11924|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:51 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2318.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	17.15310	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	28477789	108.556	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	21874009	116.865	4.7	80.00- 120.00	100.00

Data File: /chem/ecdia.i/032310a.b/020b2001.d
Date : 23-MAR-2010 11:15
Client ID: RE46-10-11924
Sample Info: 1248865001|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

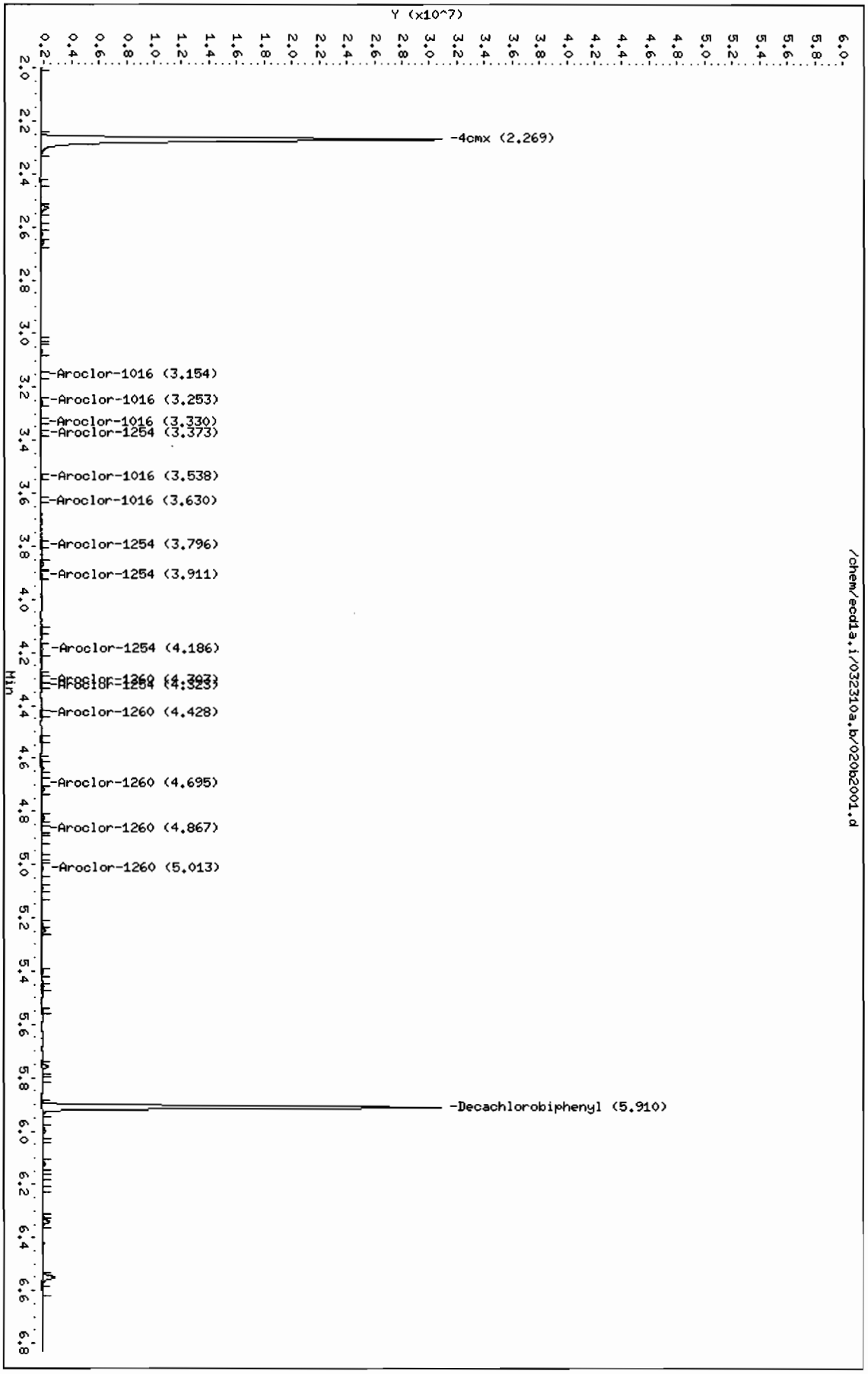

STANDARDS DATA

Report Date: 25-Mar-2010 05:51

Calibration History

Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032f3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029f2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023f2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017f1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033f3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030f3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024f2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018f1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034f3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031f3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025f2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019f1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035f3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032f3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026f2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020f2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014f1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009f0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008f0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007f0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010f1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036f3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033f3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027f2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021f2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 07:53	AR1660	/chem/ecd1a.i/032310a.b/002f0201.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 01:19	AR1660	/chem/ecd1a.i/032310a.b/087f8701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 23:38	AR1660	/chem/ecd1a.i/032310a.b/079f7901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 21:06	AR1660	/chem/ecd1a.i/032310a.b/067f6701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 18:35	AR1660	/chem/ecd1a.i/032310a.b/055f5501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:03	AR1660	/chem/ecd1a.i/032310a.b/048f4801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 15:17	AR1660	/chem/ecd1a.i/032310a.b/040f4001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:25	AR1660	/chem/ecd1a.i/032310a.b/031f3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:04	AR1660	/chem/ecd1a.i/032310a.b/029f2901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 11:28	AR1660	/chem/ecd1a.i/032310a.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:07	AR1262	/chem/ecd1a.i/032310a.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:56	AR1221	/chem/ecd1a.i/032310a.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:46	AR1232	/chem/ecd1a.i/032310a.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:35	AR1268	/chem/ecd1a.i/032310a.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:25	AR1248	/chem/ecd1a.i/032310a.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:14	AR1242	/chem/ecd1a.i/032310a.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:04	AR1254	/chem/ecd1a.i/032310a.b/003f0301.d

Report Date: 24-Mar-2010 08:34

Calibration History

Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029b2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023b2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017b1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030b3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024b2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018b1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031b3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025b2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019b1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032b3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026b2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020b2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014b1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009b0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008b0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007b0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010b1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033b3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027b2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021b2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 01:19	AR1660	/chem/ecd1a.i/032310a.b/087b8701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 23:38	AR1660	/chem/ecd1a.i/032310a.b/079b7901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 21:06	AR1660	/chem/ecd1a.i/032310a.b/067b6701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 18:35	AR1660	/chem/ecd1a.i/032310a.b/055b5501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:03	AR1660	/chem/ecd1a.i/032310a.b/048b4801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 15:17	AR1660	/chem/ecd1a.i/032310a.b/040b4001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:25	AR1660	/chem/ecd1a.i/032310a.b/031b3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:04	AR1660	/chem/ecd1a.i/032310a.b/029b2901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 11:28	AR1660	/chem/ecd1a.i/032310a.b/021b2101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:07	AR1262	/chem/ecd1a.i/032310a.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:56	AR1221	/chem/ecd1a.i/032310a.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:46	AR1232	/chem/ecd1a.i/032310a.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:35	AR1268	/chem/ecd1a.i/032310a.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:25	AR1248	/chem/ecd1a.i/032310a.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:14	AR1242	/chem/ecd1a.i/032310a.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:04	AR1254	/chem/ecd1a.i/032310a.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 07:53	AR1660	/chem/ecd1a.i/032310a.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Mar-2010 05:50 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks ,	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.365	2.335-2.395	1.518e+04
	2.651	2.621-2.681	1.894e+04
	2.732	2.702-2.762	1.244e+04
	2.770	2.740-2.800	7.348e+03
	2.980	2.950-3.010	9.518e+03
63 4,4-DDD	3.888	3.868-3.908	3.140e+05
64 4,4-DDE	3.539	3.519-3.559	3.727e+05
62 4,4-DDT	4.052	4.032-4.072	2.363e+05
2 Aroclor-1221	2.025	1.994-2.054	4.466e+03
	2.117	2.087-2.147	2.447e+03
	2.143	2.113-2.173	1.083e+04
3 Aroclor-1232	2.364	2.334-2.394	6.667e+03
	2.651	2.621-2.681	8.344e+03
	2.731	2.701-2.761	5.531e+03
	2.845	2.816-2.876	2.649e+03
	3.232	3.202-3.262	3.555e+03
4 Aroclor-1242	2.364	2.334-2.394	1.233e+04
	2.652	2.622-2.682	1.490e+04
	2.769	2.739-2.799	5.896e+03
	2.979	2.949-3.009	7.735e+03
	3.233	3.203-3.263	7.285e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.847	2.817-2.877	1.000e+04
	2.979	2.949-3.009	1.314e+04
	3.233	3.203-3.263	1.430e+04
	3.365	3.335-3.395	1.190e+04
	3.597	3.567-3.627	8.005e+03
6 Aroclor-1254	3.208	3.178-3.238	1.326e+04
	3.363	3.333-3.393	1.783e+04
	3.597	3.567-3.627	2.237e+04
	3.759	3.729-3.789	1.649e+04
	3.868	3.838-3.898	1.596e+04
7 Aroclor-1260	3.705	3.675-3.735	1.833e+04
	3.867	3.837-3.897	2.689e+04
	4.030	4.000-4.060	2.832e+04
	4.097	4.067-4.127	1.616e+04
	4.240	4.210-4.270	1.681e+04
8 Aroclor-1262	3.704	3.674-3.734	1.423e+04
	3.866	3.836-3.896	1.874e+04
	4.097	4.067-4.127	2.315e+04
	4.239	4.209-4.269	2.110e+04
	4.418	4.388-4.448	4.350e+04
9 Aroclor-1268	4.604	4.574-4.634	4.848e+04
	4.627	4.597-4.657	5.448e+04
	4.739	4.709-4.769	3.862e+04
	4.942	4.912-4.972	1.635e+04
	5.107	5.077-5.137	1.121e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
11 4cmx	1.913	1.883-1.943	3.895e+05
12 Decachlorobiphenyl	5.217	5.187-5.247	2.969e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Mar-2010 06:13 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.165	3.135-3.195	1.258e+04
	3.248	3.218-3.278	8.634e+03
	3.311	3.281-3.341	5.287e+03
	3.538	3.508-3.568	6.893e+03
	3.614	3.584-3.644	6.423e+03
62 4,4-DDT	4.642	4.622-4.662	7.489e+04
63 4,4-DDE	4.111	4.091-4.131	2.469e+05
64 4,4-DDD	4.455	4.435-4.475	1.989e+05
2 Aroclor-1221	2.466	2.436-2.496	3.250e+03
	2.560	2.530-2.590	2.084e+03
	2.601	2.571-2.631	7.320e+03
3 Aroclor-1232	2.867	2.837-2.897	5.054e+03
	3.165	3.135-3.195	5.712e+03
	3.247	3.217-3.277	3.888e+03
	3.538	3.508-3.568	2.840e+03
	3.771	3.741-3.801	2.821e+03
4 Aroclor-1242	3.165	3.135-3.195	1.014e+04
	3.248	3.218-3.278	7.097e+03
	3.538	3.508-3.568	5.514e+03
	3.772	3.742-3.802	5.722e+03
	3.799	3.769-3.829	6.370e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.374	3.344-3.404	7.604e+03
	3.538	3.509-3.568	9.470e+03
	3.772	3.742-3.802	1.093e+04
	3.799	3.769-3.829	1.216e+04
	3.936	3.906-3.966	1.181e+04
6 Aroclor-1254	3.373	3.343-3.403	6.021e+03
	3.795	3.765-3.825	1.082e+04
	3.912	3.882-3.942	1.193e+04
	4.188	4.158-4.218	1.644e+04
	4.323	4.293-4.353	1.212e+04
7 Aroclor-1260	4.304	4.274-4.334	1.308e+04
	4.428	4.398-4.458	1.555e+04
	4.695	4.665-4.725	1.190e+04
	4.867	4.837-4.897	1.229e+04
	5.015	4.985-5.045	2.639e+04
8 Aroclor-1262	4.428	4.398-4.458	1.160e+04
	4.693	4.663-4.723	1.620e+04
	4.866	4.836-4.896	1.484e+04
	5.013	4.983-5.043	2.937e+04
	5.227	5.197-5.257	2.065e+04
9 Aroclor-1268	5.226	5.196-5.256	3.730e+04
	5.254	5.224-5.284	3.492e+04
	5.403	5.373-5.433	2.658e+04
	5.568	5.538-5.598	1.223e+04
	5.760	5.730-5.790	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.270	2.240-2.300	2.623e+05
$ 12 Decachlorobiphenyl	5.912	5.882-5.942	1.872e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Cal Date : 25-Mar-2010 05:50 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032f3201.d
Level 2: /chem/ecd1a.i/022210.b/033f3301.d
Level 3: /chem/ecd1a.i/022210.b/034f3401.d
Level 4: /chem/ecd1a.i/022210.b/035f3501.d
Level 5: /chem/ecd1a.i/022210.b/036f3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	17517	15916	14941	14342	13168	15177	10.833
(2)	20378	19291	18809	18310	17891	18936	5.082
(3)	13830	13020	12255	11836	11271	12442	8.071
(4)	7957	7573	7201	7091	6919	7348	5.665
(5)	10680	9850	9332	8998	8729	9518	8.119
63 4,4-DDD	+++++	+++++	+++++	313980	+++++	313980	0.000
64 4,4-DDE	+++++	+++++	+++++	372684	+++++	372684	0.000
62 4,4-DDT	+++++	+++++	+++++	236265	+++++	236265	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4466	+++++	4466	0.000
(2)	+++++	+++++	+++++	2447	+++++	2447	0.000
(3)	+++++	+++++	+++++	10828	+++++	10828	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6667	+++++	6667	0.000
(2)	+++++	+++++	+++++	8344	+++++	8344	0.000
(3)	+++++	+++++	+++++	5531	+++++	5531	0.000
(4)	+++++	+++++	+++++	2649	+++++	2649	0.000
(5)	+++++	+++++	+++++	3555	+++++	3555	0.000
4 Aroclor-1242(1)	14179	12973	12200	11692	10617	12332	10.871
(2)	16141	15119	14927	14559	13766	14903	5.801
(3)	6352	6182	5816	5703	5424	5896	6.324
(4)	8823	8005	7582	7293	6975	7735	9.260
(5)	7955	7511	7149	7022	6787	7285	6.273
5 Aroclor-1248(1)	11183	10572	9738	9526	8980	10000	8.748
(2)	14876	13683	12753	12517	11873	13140	8.885
(3)	15448	14508	14083	13911	13564	14303	5.068
(4)	13161	12385	11501	11480	10960	11898	7.335
(5)	8649	8385	7955	7608	7427	8005	6.411

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Cal Date : 25-Mar-2010 05:50 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	15079	13757	12872	12576	12027	13262	8.998
(2)	20126	18408	17163	17147	16322	17833	8.313
(3)	24516	23104	21642	21571	21024	22371	6.372
(4)	18056	17097	15691	15840	15766	16490	6.365
(5)	18024	16683	15151	15091	14874	15964	8.504
7 Aroclor-1260(1)	20231	18737	18018	17739	16925	18330	6.792
(2)	29345	27114	26401	26314	25275	26890	5.656
(3)	30716	28501	27786	27176	27398	28315	5.062
(4)	17775	16311	15776	15627	15300	16158	6.034
(5)	18203	16850	16463	16434	16114	16813	4.876
8 Aroclor-1262(1)	+++++	+++++	+++++	14232	+++++	14232	0.000
(2)	+++++	+++++	+++++	18742	+++++	18742	0.000
(3)	+++++	+++++	+++++	23151	+++++	23151	0.000
(4)	+++++	+++++	+++++	21098	+++++	21098	0.000
(5)	+++++	+++++	+++++	43500	+++++	43500	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 4cmx	407603	391717	384007	385362	378927	389523	2.846
12 Decachlorobiphenyl	324859	292709	291687	292552	282844	296930	5.438

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Cal Date : 24-Mar-2010 06:13 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032b3201.d
Level 2: /chem/ecd1a.i/022210.b/033b3301.d
Level 3: /chem/ecd1a.i/022210.b/034b3401.d
Level 4: /chem/ecd1a.i/022210.b/035b3501.d
Level 5: /chem/ecd1a.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14376	12782	12025	12307	11436	12585	8.846
(2)	10090	9074	8445	8099	7462	8634	11.594
(3)	6137	5472	5151	4973	4701	5287	10.435
(4)	7962	7103	6817	6522	6060	6893	10.318
(5)	7497	6686	6263	5965	5703	6423	10.948
62 4,4-DDT	+++++	+++++	+++++	74891	+++++	74891	0.000
63 4,4-DDE	+++++	+++++	+++++	246875	+++++	246875	0.000
64 4,4-DDD	+++++	+++++	+++++	198885	+++++	198885	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3250	+++++	3250	0.000
(2)	+++++	+++++	+++++	2084	+++++	2084	0.000
(3)	+++++	+++++	+++++	7320	+++++	7320	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	5054	+++++	5054	0.000
(2)	+++++	+++++	+++++	5712	+++++	5712	0.000
(3)	+++++	+++++	+++++	3888	+++++	3888	0.000
(4)	+++++	+++++	+++++	2840	+++++	2840	0.000
(5)	+++++	+++++	+++++	2821	+++++	2821	0.000
4 Aroclor-1242(1)	11230	10514	10117	9526	9309	10139	7.634
(2)	8350	7546	6909	6642	6036	7097	12.487
(3)	6442	5836	5387	5177	4727	5514	11.868
(4)	6626	6011	5573	5400	4999	5722	10.877
(5)	7365	6655	6241	6005	5582	6370	10.658
5 Aroclor-1248(1)	9056	8166	7435	6980	6383	7604	13.684
(2)	11093	10088	9257	8814	8097	9470	12.242
(3)	12505	11602	10677	10284	9581	10930	10.466
(4)	13890	12873	11986	11379	10657	12157	10.405
(5)	13590	12468	11541	11009	10453	11812	10.502

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Cal Date : 24-Mar-2010 06:13 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7300	6493	5824	5480	5009	6021	14.886
(2)	12825	11548	10490	9974	9262	10820	12.909
(3)	14182	12643	11550	11031	10262	11934	12.788
(4)	19027	17317	15983	15442	14439	16442	10.826
(5)	14064	13049	11651	11174	10640	12116	11.634
7 Aroclor-1260(1)	15189	13569	12744	12369	11530	13080	10.610
(2)	17885	16016	15152	14853	13838	15549	9.776
(3)	13812	12250	11562	11271	10585	11896	10.311
(4)	14218	12635	11954	11625	11015	12289	9.981
(5)	29595	26825	25949	25629	23976	26395	7.824
8 Aroclor-1262(1)	+++++	+++++	+++++	11597	+++++	11597	0.000
(2)	+++++	+++++	+++++	16200	+++++	16200	0.000
(3)	+++++	+++++	+++++	14838	+++++	14838	0.000
(4)	+++++	+++++	+++++	29366	+++++	29366	0.000
(5)	+++++	+++++	+++++	20651	+++++	20651	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	286554	267083	258607	255362	244057	262333	6.044
$ 12 Decachlorobiphenyl	217815	191410	181026	177515	168101	187173	10.178

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2318

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 0753

Lab File ID: 002F0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14904.311	0.01	-1.8	15.0
(2)	18935.774	19020.222	0.01	0.4	15.0
(3)	12442.153	11642.076	0.01	-6.4	15.0
(4)	7348.319	7018.563	0.01	-4.5	15.0
(5)	9517.775	9050.523	0.01	-4.9	15.0
Aroclor-1260	18330.091	18974.465	0.01	3.5	15.0
(2)	26889.831	28338.651	0.01	5.4	15.0
(3)	28315.304	30220.802	0.01	6.7	15.0
(4)	16157.873	17084.332	0.01	5.7	15.0
(5)	16812.669	17877.750	0.01	6.3	15.0
4cmx	389523.02	413156.93	0.01	6.1	15.0
Decachlorobiphenyl	296930.38	316393.35	0.01	6.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2318

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 0753

Lab File ID: 002B0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11580.435	0.01	-8.0	15.0
(2)	8634.207	7799.455	0.01	-9.7	15.0
(3)	5286.637	4831.888	0.01	-8.6	15.0
(4)	6892.719	6341.985	0.01	-8.0	15.0
(5)	6422.564	5935.096	0.01	-7.6	15.0
Aroclor-1260	13080.231	12744.147	0.01	-2.6	15.0
(2)	15549.023	15548.972	0.01	-0.0	15.0
(3)	11896.069	11720.380	0.01	-1.5	15.0
(4)	12289.216	12237.561	0.01	-0.4	15.0
(5)	26394.638	27173.631	0.01	3.0	15.0
4cmx	262332.66	262353.40	0.01	0.0	15.0
Decachlorobiphenyl	187173.38	185867.43	0.01	-0.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2318

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 1128

Lab File ID: 021F2101 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14292.984	0.01	-5.8	15.0
(2)	18935.774	18014.083	0.01	-4.9	15.0
(3)	12442.153	11433.112	0.01	-8.1	15.0
(4)	7348.319	6916.561	0.01	-5.9	15.0
(5)	9517.775	8921.011	0.01	-6.3	15.0
Aroclor-1260	18330.091	18917.453	0.01	3.2	15.0
(2)	26889.831	27896.153	0.01	3.7	15.0
(3)	28315.304	29772.954	0.01	5.1	15.0
(4)	16157.873	16821.466	0.01	4.1	15.0
(5)	16812.669	17522.638	0.01	4.2	15.0
4cmx	389523.02	401450.50	0.01	3.1	15.0
Decachlorobiphenyl	296930.38	291093.56	0.01	-2.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2318

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 1128

Lab File ID: 021B2101 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11869.406	0.01	-5.7	15.0
(2)	8634.207	7752.072	0.01	-10.2	15.0
(3)	5286.637	4807.813	0.01	-9.0	15.0
(4)	6892.719	6307.203	0.01	-8.5	15.0
(5)	6422.564	5822.450	0.01	-9.3	15.0
Aroclor-1260	13080.231	12629.591	0.01	-3.4	15.0
(2)	15549.023	15357.793	0.01	-1.2	15.0
(3)	11896.069	11596.776	0.01	-2.5	15.0
(4)	12289.216	12072.542	0.01	-1.8	15.0
(5)	26394.638	26797.242	0.01	1.5	15.0
4cmx	262332.66	259327.12	0.01	-1.1	15.0
Decachlorobiphenyl	187173.38	181181.45	0.01	-3.2	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/002f0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 23-MAR-2010 07:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:52 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.913	0.000	41315693	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.217	5.217	0.000	31639335	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.365	2.365	0.000	14904311	1000.00	982	80.00- 120.00	100.00
2.651	2.651	0.000	19020221	1000.00	1000	107.62- 147.62	127.62
2.732	2.732	0.000	11642075	1000.00	936	58.11- 98.11	78.11
2.770	2.770	0.000	7018562	1000.00	955	27.09- 67.09	47.09
2.980	2.980	0.000	9050522	1000.00	951	40.72- 80.72	60.72
Average of Peak Amounts =					966		
7 Aroclor-1260					CAS #: 11096-82-5		
3.705	3.705	0.000	18974465	1000.00	1040	80.00- 120.00	100.00
3.867	3.867	0.000	28338650	1000.00	1050	129.35- 169.35	149.35
4.030	4.030	0.000	30220801	1000.00	1070	139.27- 179.27	159.27
4.097	4.097	0.000	17084331	1000.00	1060	70.04- 110.04	90.04
4.240	4.240	0.000	17877749	1000.00	1060	74.22- 114.22	94.22
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd1a.i/032310a.b/002f0201.d

Date : 23-MAR-2010 07:53

Client ID: AR166001

Sample Info: IWAR100222-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

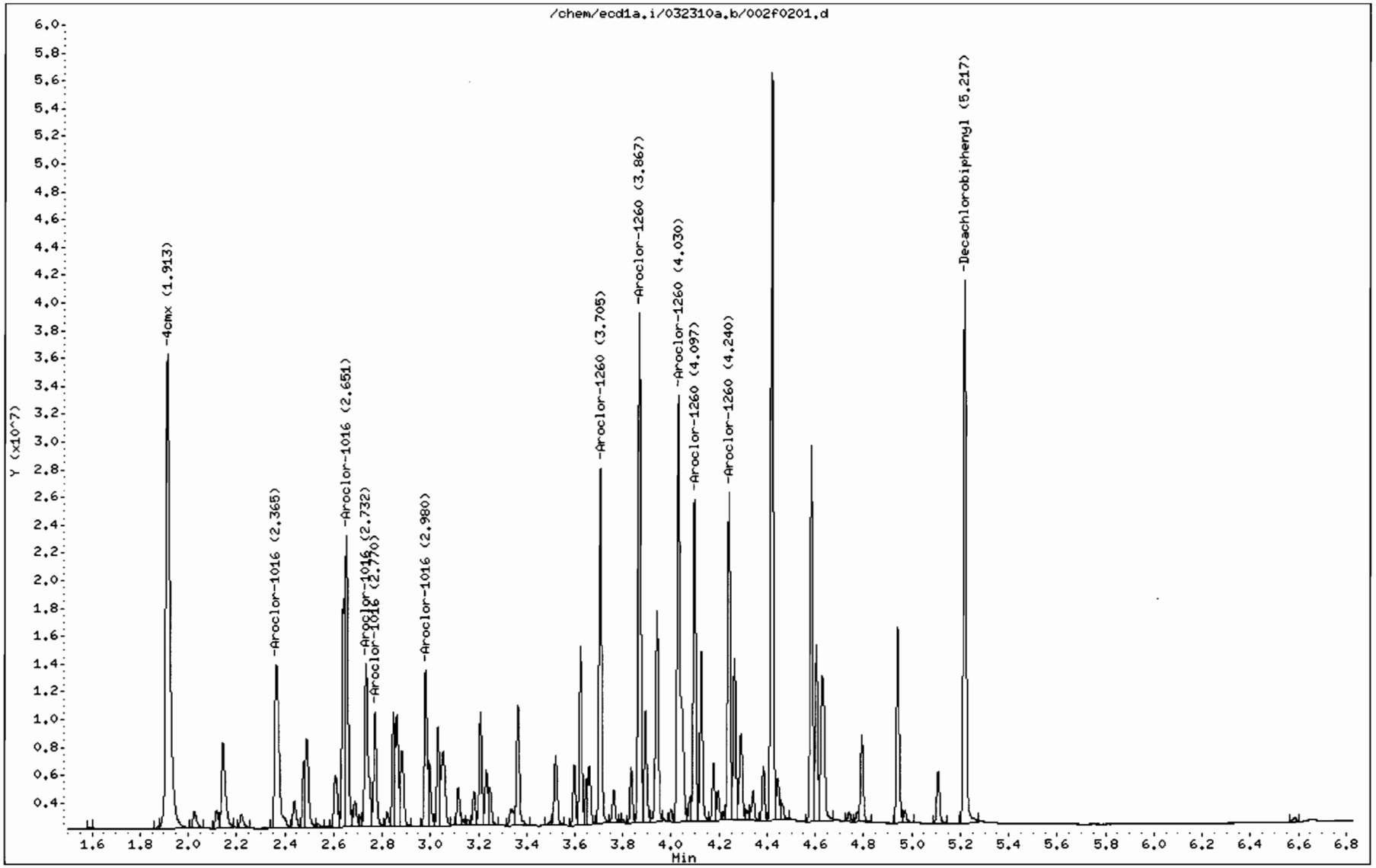

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/002b0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 23-MAR-2010 07:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	26235340	100.000	100	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.912	5.912	0.000	18586743	100.000	99.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.165	3.165	0.000	11580435	1000.00	920	80.00- 120.00	100.00(M)
3.248	3.248	0.000	7799455	1000.00	903	45.31- 85.31	67.35
3.311	3.311	0.000	4831888	1000.00	914	20.51- 60.51	41.72
3.538	3.538	0.000	6341985	1000.00	920	33.14- 73.14	54.76
3.614	3.614	0.000	5935096	1000.00	924	29.05- 69.05	51.25
Average of Peak Amounts =					916		
7 Aroclor-1260					CAS #: 11096-82-5		
4.304	4.304	0.000	12744147	1000.00	974	80.00- 120.00	100.00
4.428	4.428	0.000	15548972	1000.00	1000	101.60- 141.60	122.01
4.695	4.695	0.000	11720380	1000.00	985	71.82- 111.82	91.97
4.867	4.867	0.000	12237561	1000.00	996	75.59- 115.59	96.02
5.015	5.015	0.000	27173631	1000.00	1030	192.18- 232.18	213.22
Average of Peak Amounts =					997		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/002b0201.d

Date : 23-MAR-2010 07:53

Client ID: AR166001

Sample Info: IWAR100222-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

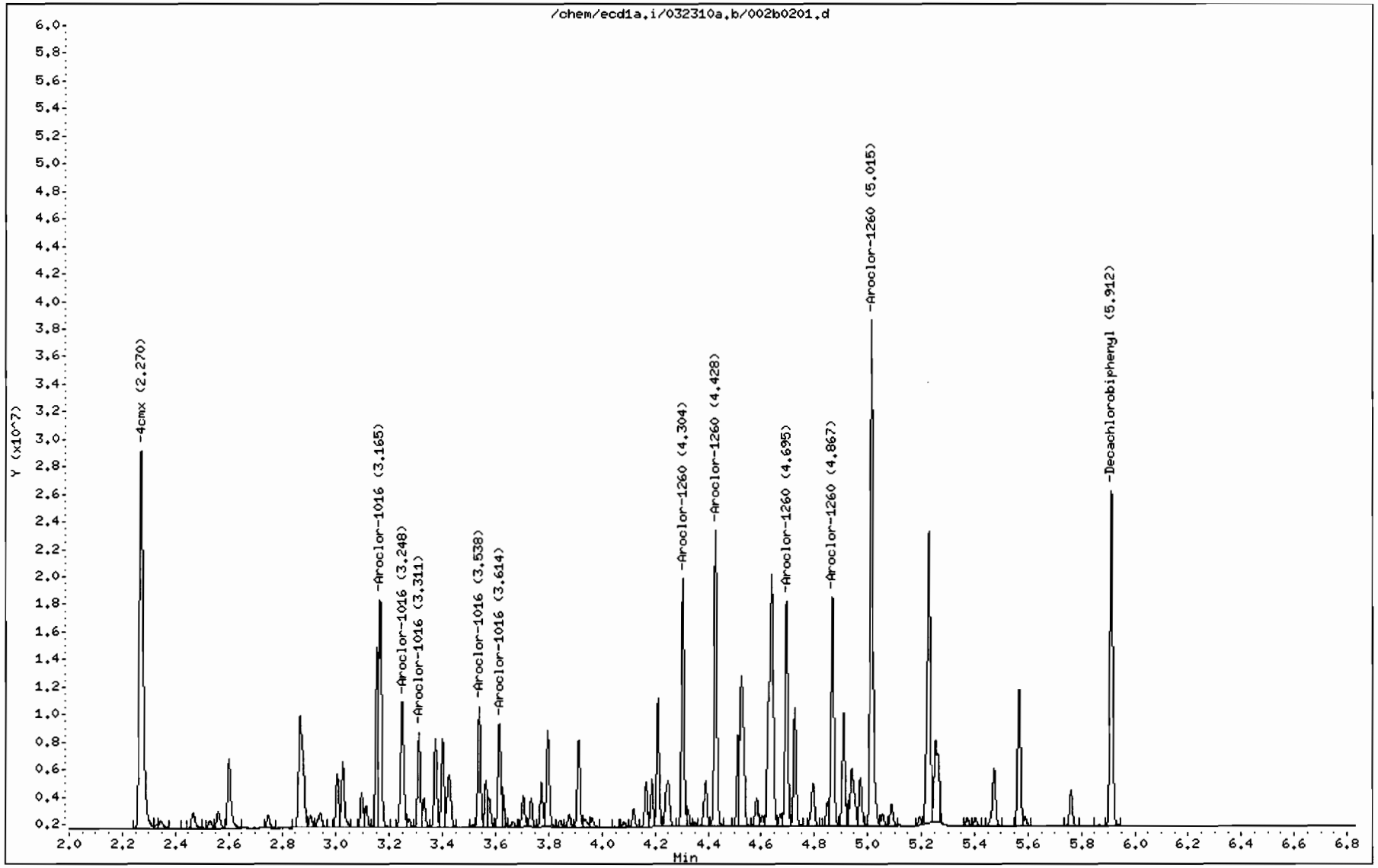

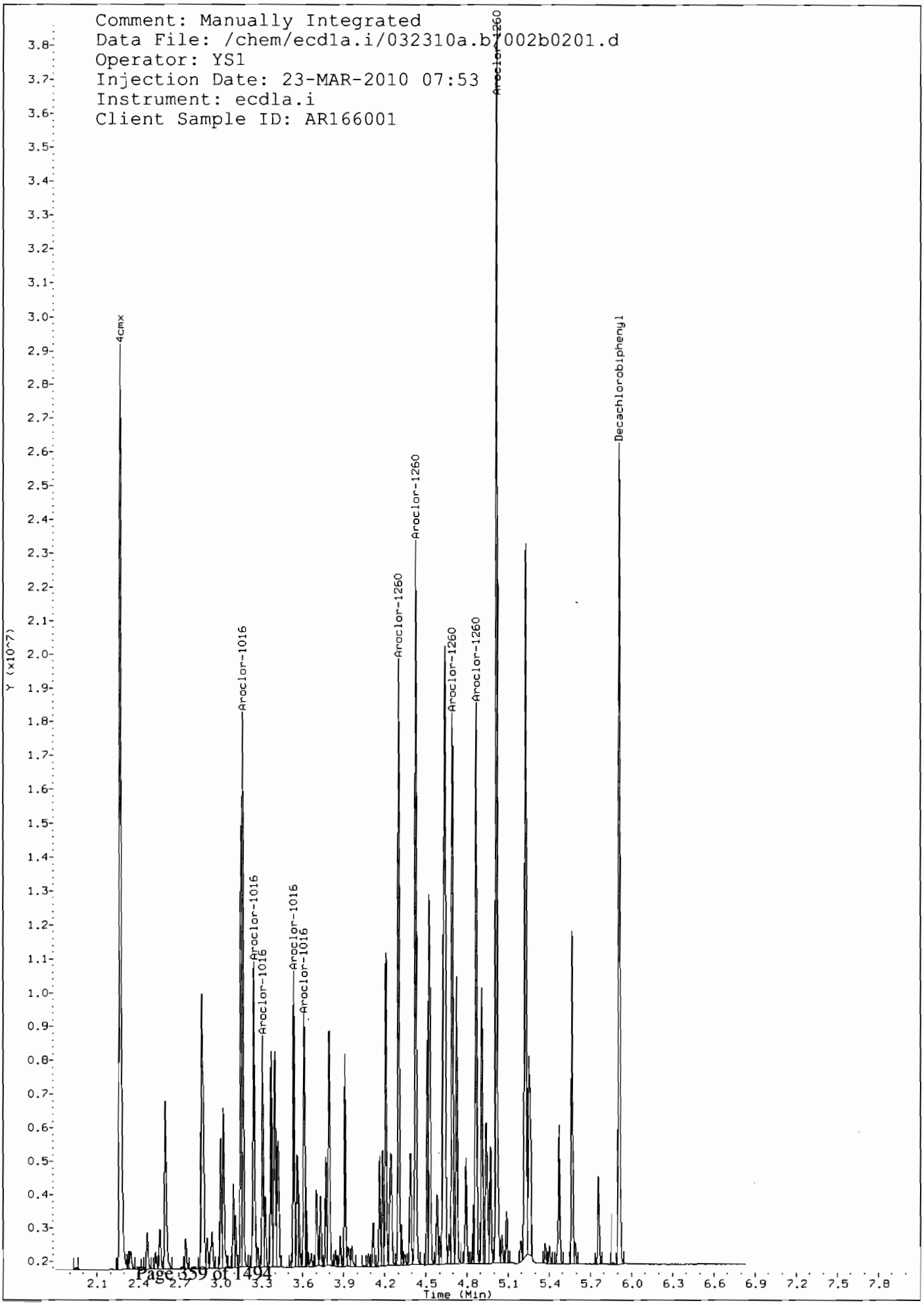
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/002b0201.d
Operator: YS1
Injection Date: 23-MAR-2010 07:53
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

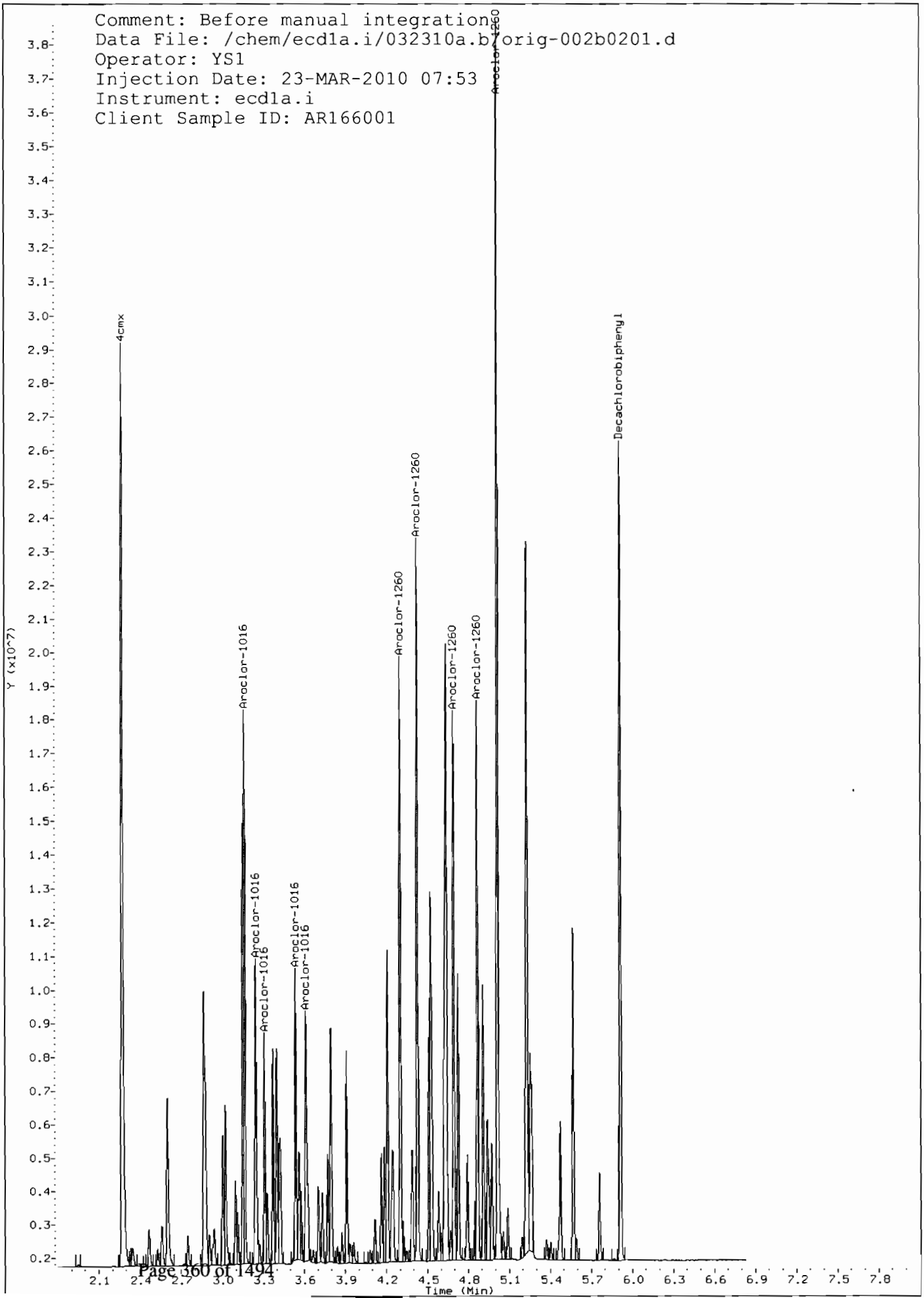
Comment: Before manual integration
Data File: /chem/ecd1a.i/032310a.b/orig-002b0201.d
Operator: YS1
Injection Date: 23-MAR-2010 07:53
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 23-MAR-2010 08:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.208	3.208	0.000	12967036	1000.00	978	80.00- 120.00	100.00
3.363	3.363	0.000	17361430	1000.00	974	113.89- 153.89	133.89
3.597	3.597	0.000	22829689	1000.00	1020	156.06- 196.06	176.06
3.759	3.759	0.000	16956788	1000.00	1030	110.77- 150.77	130.77
3.868	3.868	0.000	16896192	1000.00	1060	110.30- 150.30	130.30

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032310a.b/003f0301.d

Date : 23-MAR-2010 08:04

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

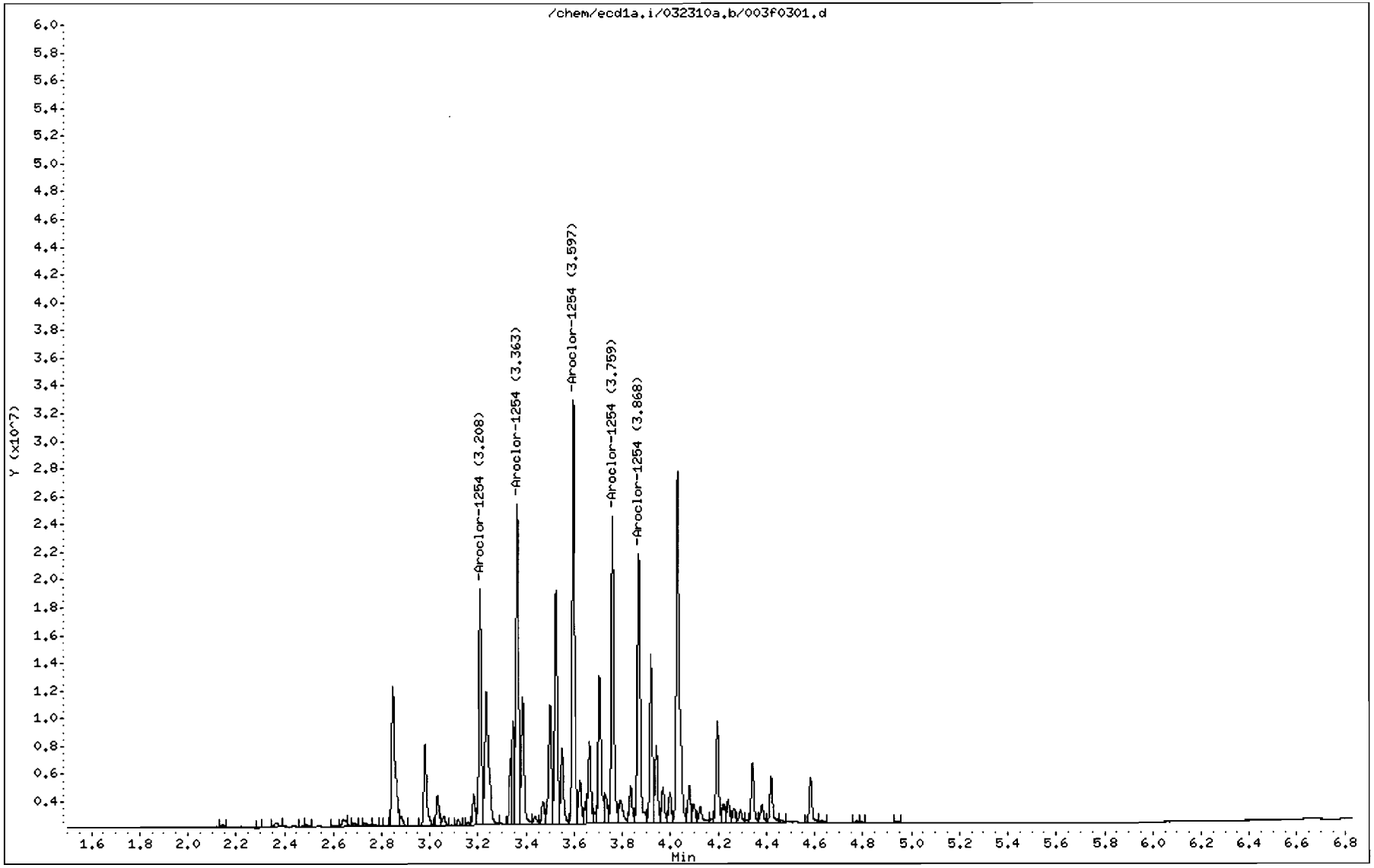

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 23-MAR-2010 08:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.373	3.373	0.000	5514362	1000.00	916	80.00- 120.00	100.00
3.795	3.795	0.000	10031897	1000.00	927	161.92- 201.92	181.92
3.912	3.912	0.000	11116209	1000.00	932	181.59- 221.59	201.59
4.188	4.188	0.000	15547782	1000.00	946	261.95- 301.95	281.95
4.323	4.323	0.000	11313436	1000.00	934	185.16- 225.16	205.16
Average of Peak Amounts =					931		

Data File: /chem/ecd1a.i/032310a.b/003b0301.d

Date : 23-MAR-2010 08:04

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

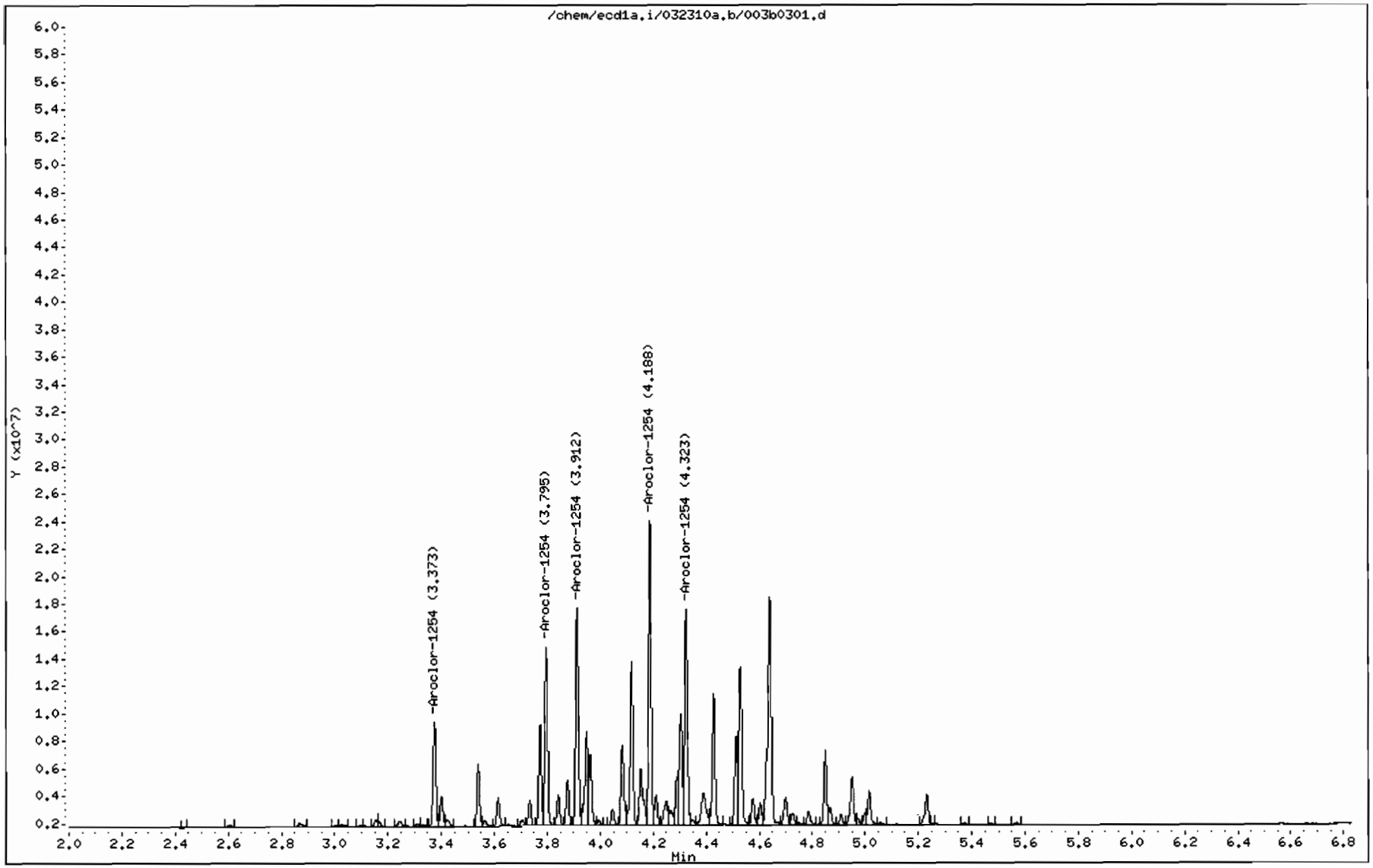

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/004f0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 23-MAR-2010 08:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.364	2.364	0.000	12529932	1000.00	1020	80.00- 120.00	100.00
2.652	2.652	0.000	15449624	1000.00	1040	103.30- 143.30	123.30
2.769	2.769	0.000	5907302	1000.00	1000	27.15- 67.15	47.15
2.979	2.979	0.000	7663511	1000.00	991	41.16- 81.16	61.16
3.233	3.233	0.000	7372131	1000.00	1010	38.84- 78.84	58.84

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032310a.b/004f0401.d

Page 1

Date : 23-MAR-2010 08:14

Client ID: AR124201

Instrument: ecd1a.i

Sample Info: IWAR100219-42

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

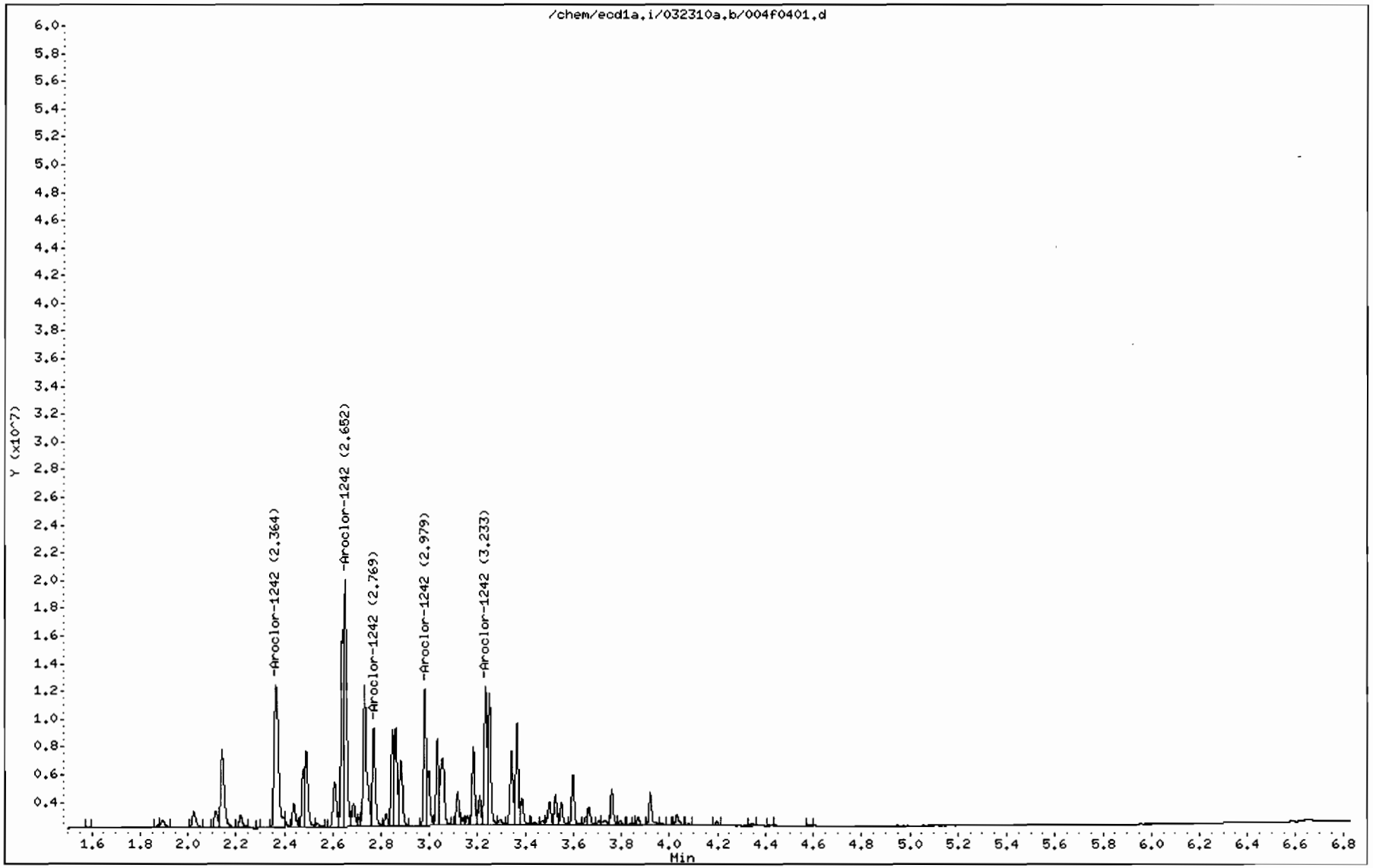

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/004b0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 23-MAR-2010 08:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.165	3.165	0.000	9989319	1000.00	985	80.00- 120.00	100.00
3.248	3.248	0.000	6594356	1000.00	929	46.01- 86.01	66.01
3.538	3.538	0.000	5227592	1000.00	948	32.33- 72.33	52.33
3.772	3.772	0.000	5504861	1000.00	962	35.11- 75.11	55.11
3.799	3.799	0.000	6141848	1000.00	964	41.48- 81.48	61.48
Average of Peak Amounts =					958		

Data File: /chem/ecd1a.i/032310a.b/004b0401.d

Page 1

Date : 23-MAR-2010 08:14

Client ID: AR124201

Instrument: ecd1a.i

Sample Info: IWAR100219-42

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

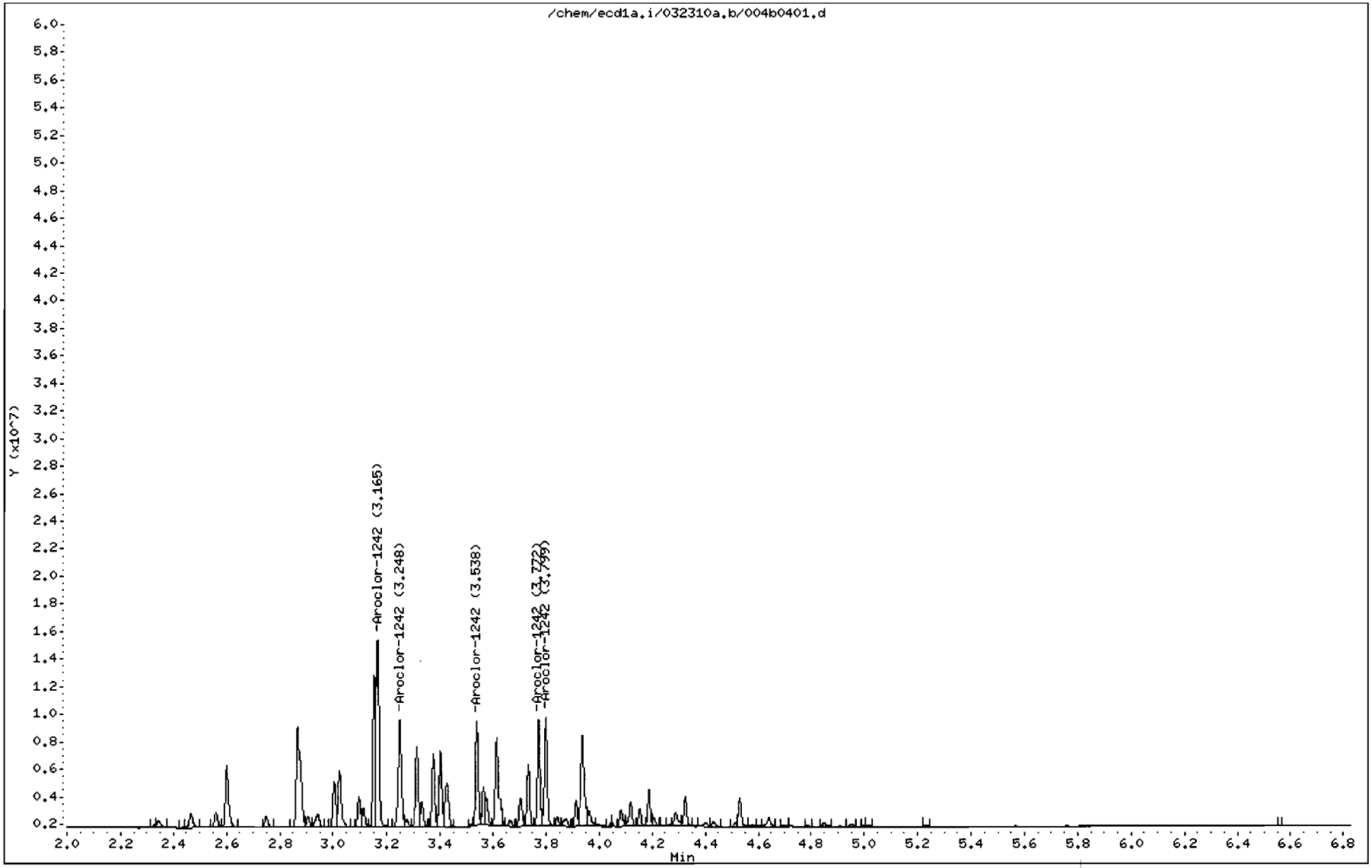

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 23-MAR-2010 08:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
2.847	2.847	0.000	10050677	1000.00	1000	80.00- 120.00	100.00
2.979	2.979	0.000	13265173	1000.00	1010	111.98- 151.98	131.98
3.233	3.233	0.000	14344935	1000.00	1000	122.73- 162.73	142.73
3.365	3.365	0.000	11923879	1000.00	1000	98.64- 138.64	118.64
3.597	3.597	0.000	7748802	1000.00	968	57.10- 97.10	77.10
Average of Peak Amounts =					998		

Data File: /chem/ecd1a.i/032310a.b/005f0501.d

Page 1

Date : 23-MAR-2010 08:25

Client ID: AR124801

Instrument: ecd1a.i

Sample Info: IWAR100223-48

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

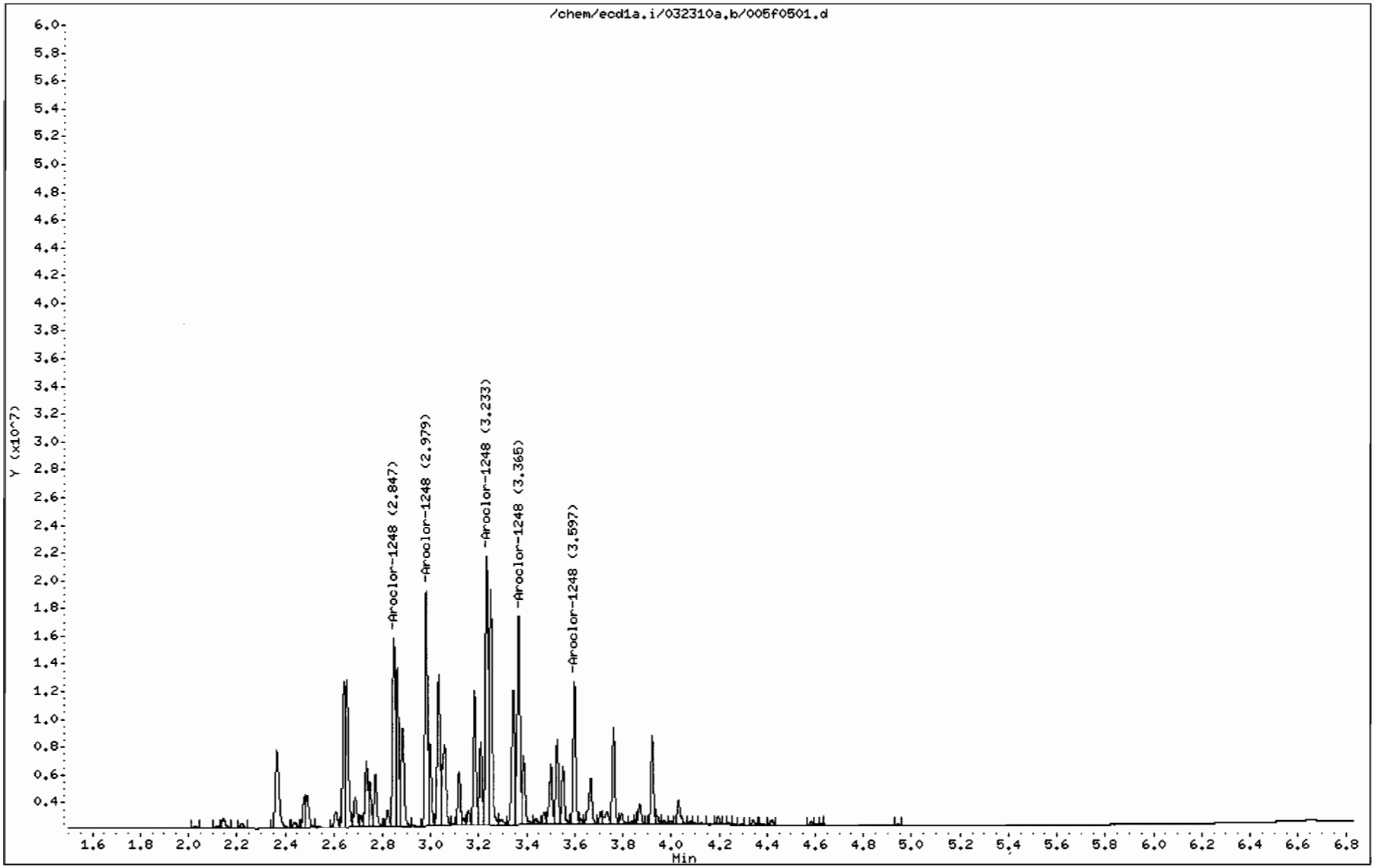

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 23-MAR-2010 08:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.374	3.374	0.000	7199782	1000.00	947	80.00- 120.00	100.00
3.538	3.538	0.000	9052406	1000.00	956	105.73- 145.73	125.73
3.772	3.772	0.000	10456838	1000.00	957	125.24- 165.24	145.24
3.799	3.799	0.000	11728900	1000.00	965	142.91- 182.91	162.91
3.936	3.936	0.000	11323085	1000.00	958	137.27- 177.27	157.27
Average of Peak Amounts =					957		

Data File: /chem/ecd1a.i/032310a.b/005b0501.d

Date : 23-MAR-2010 08:25

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

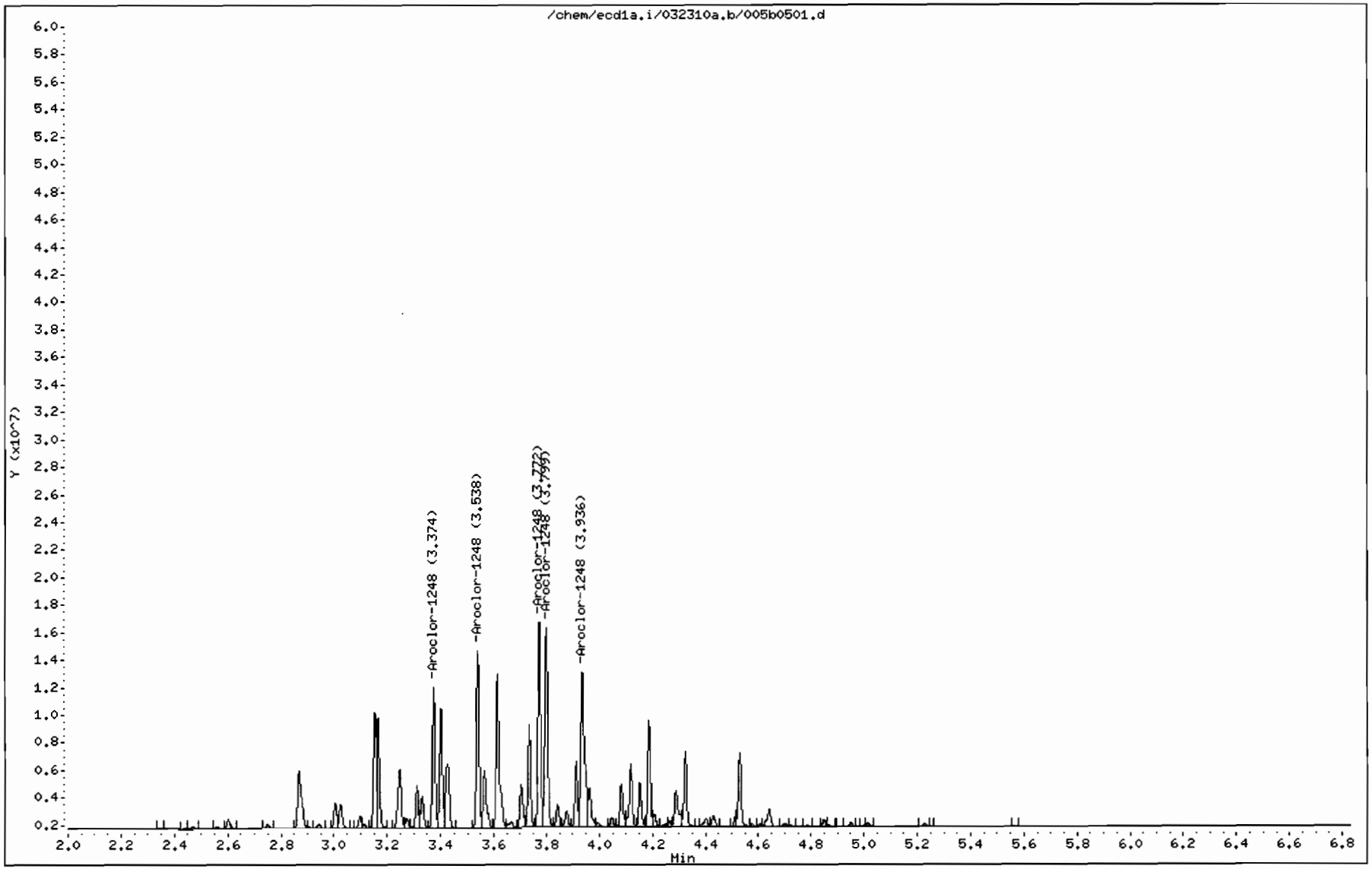

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/007f0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 23-MAR-2010 08:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.364	2.364	0.000	7062304	1000.00	1060	80.00- 120.00	100.00
2.651	2.651	0.000	9115443	1000.00	1090	109.07- 149.07	129.07
2.731	2.731	0.000	5834361	1000.00	1050	62.61- 102.61	82.61
2.845	2.845	0.000	2821856	1000.00	1060	19.96- 59.96	39.96
3.232	3.232	0.000	3909059	1000.00	1100	35.35- 75.35	55.35

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd1a.i/032310a.b/007f0701.d
Date : 23-MAR-2010 08:46
Client ID: AR123201
Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

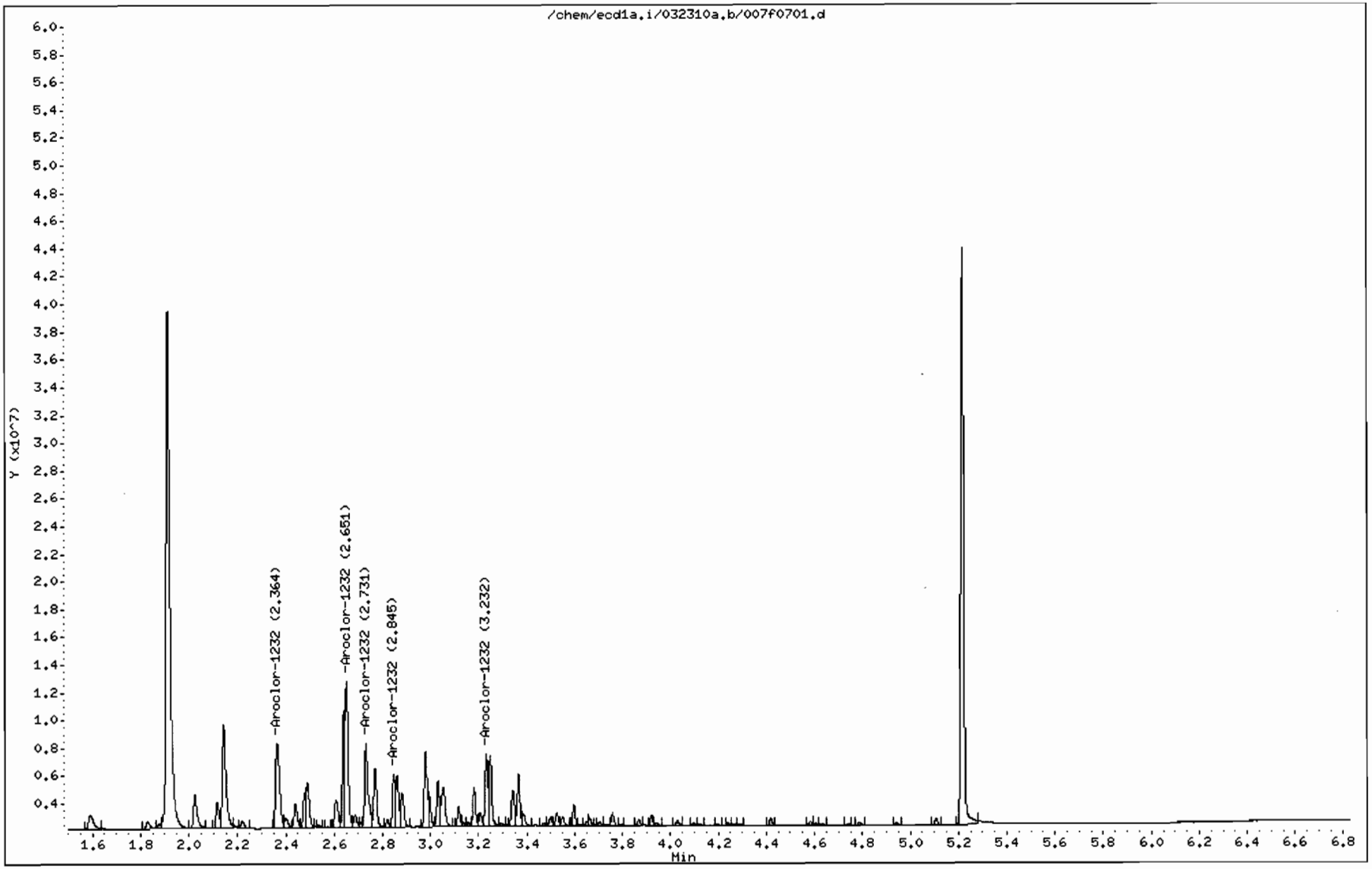

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/007b0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 23-MAR-2010 08:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.867	2.867	0.000	5247172	1000.00	1040	80.00- 120.00	100.00
3.165	3.165	0.000	5974577	1000.00	1040	93.86- 133.86	113.86
3.247	3.247	0.000	4031708	1000.00	1040	56.84- 96.84	76.84
3.538	3.538	0.000	3003761	1000.00	1060	37.25- 77.25	57.25
3.771	3.771	0.000	2991304	1000.00	1060	37.01- 77.01	57.01

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/032310a.b/007b0701.d

Page 1

Date : 23-MAR-2010 08:46

Client ID: AR123201

Instrument: ecd1a.i

Sample Info: IWAR100104-32

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

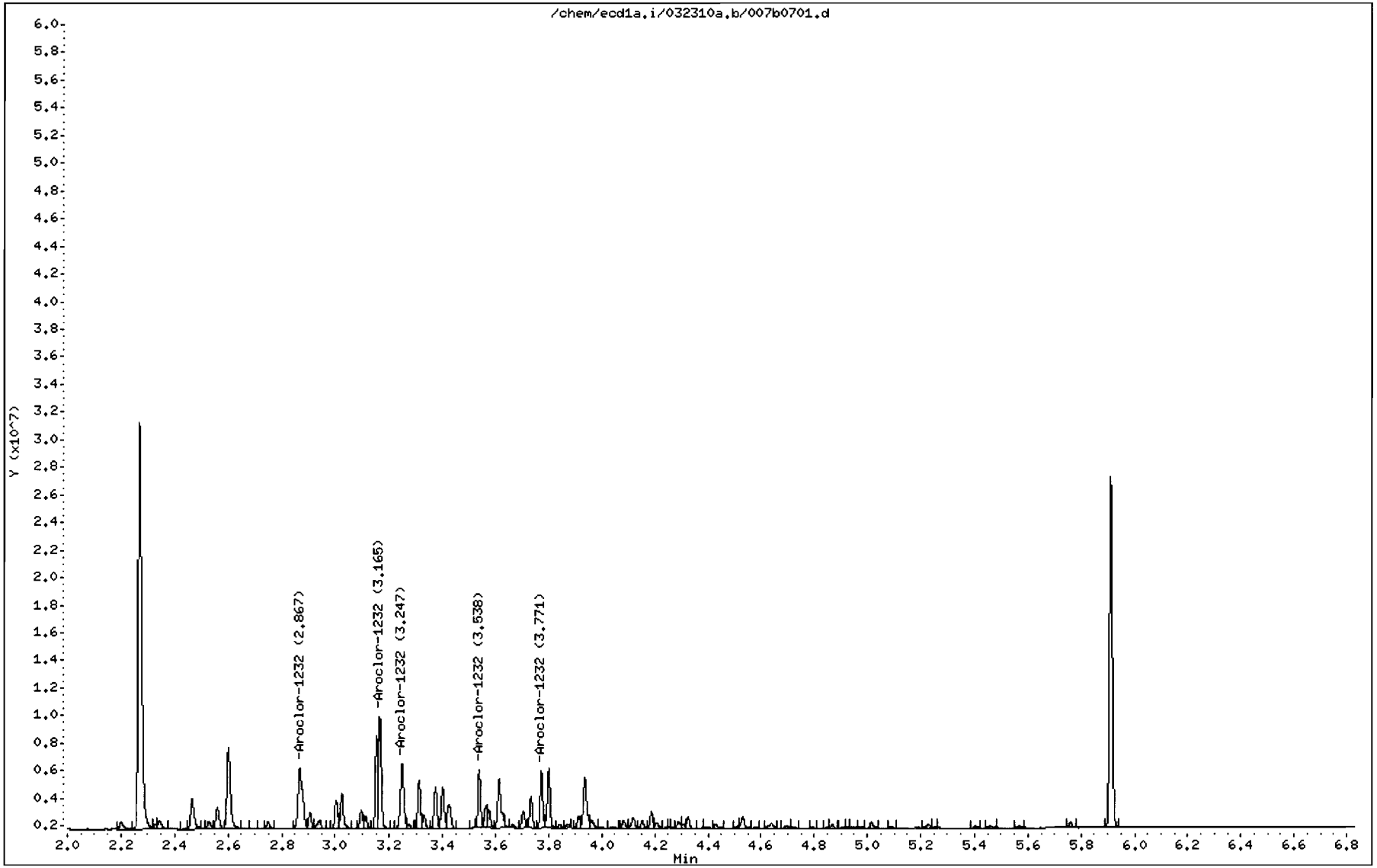

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/008f0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 23-MAR-2010 08:56
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.025	2.025	0.000	4670074	1000.00	1040	80.00- 120.00	100.00
2.117	2.117	0.000	2571490	1000.00	1050	35.06- 75.06	55.06
2.143	2.143	0.000	11386000	1000.00	1050	223.81- 263.81	243.81

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/032310a.b/008f0801.d

Page 1

Date : 23-MAR-2010 08:56

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: IWAR100104-21

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

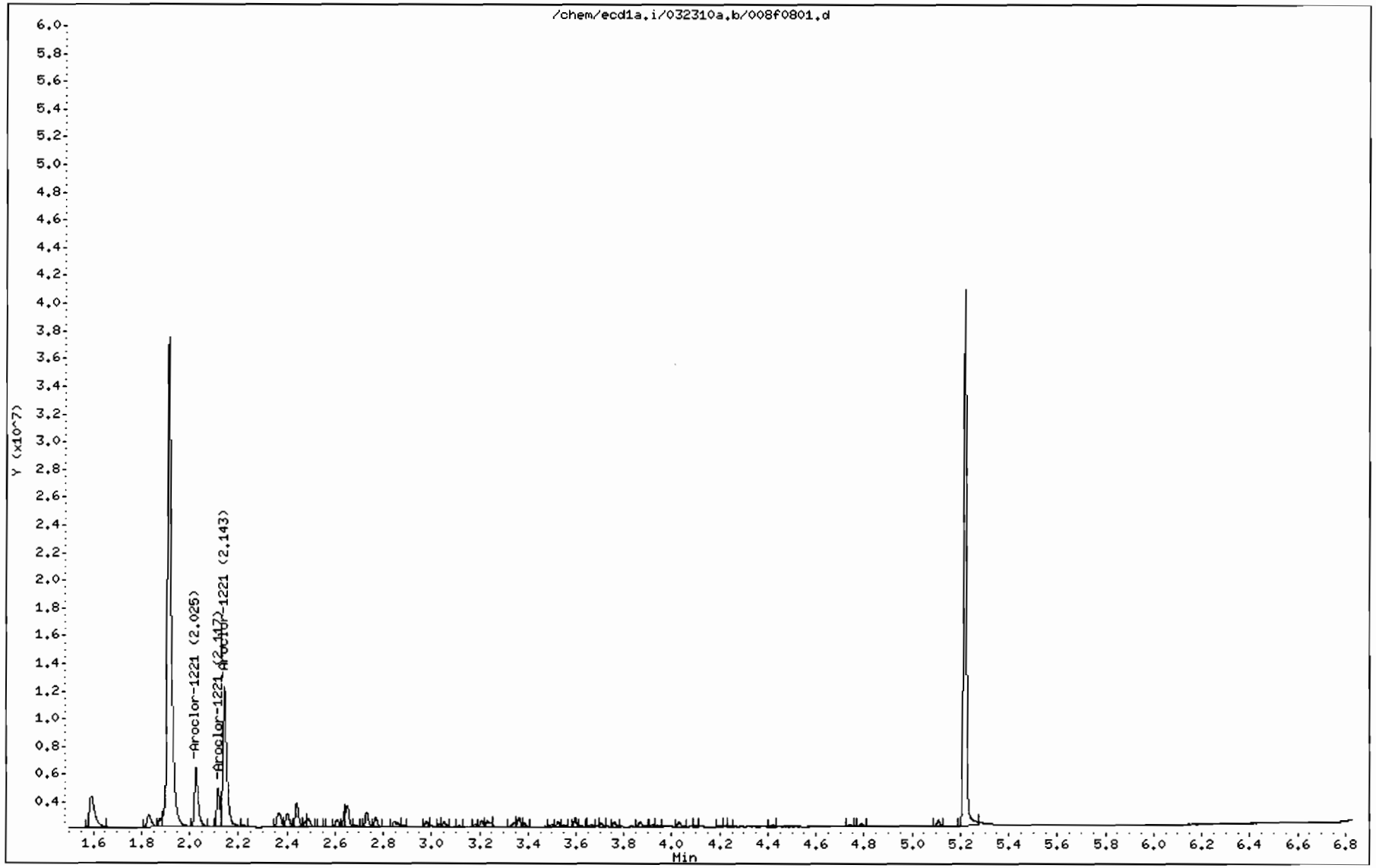

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/008b0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 23-MAR-2010 08:56
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.466	2.466	0.000	3437472	1000.00	1060	80.00- 120.00	100.00
2.560	2.560	0.000	2167005	1000.00	1040	43.04- 83.04	63.04
2.601	2.601	0.000	7383393	1000.00	1010	194.79- 234.79	214.79

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/032310a.b/008b0801.d

Page 1

Date : 23-MAR-2010 08:56

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: IWAR100104-21

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

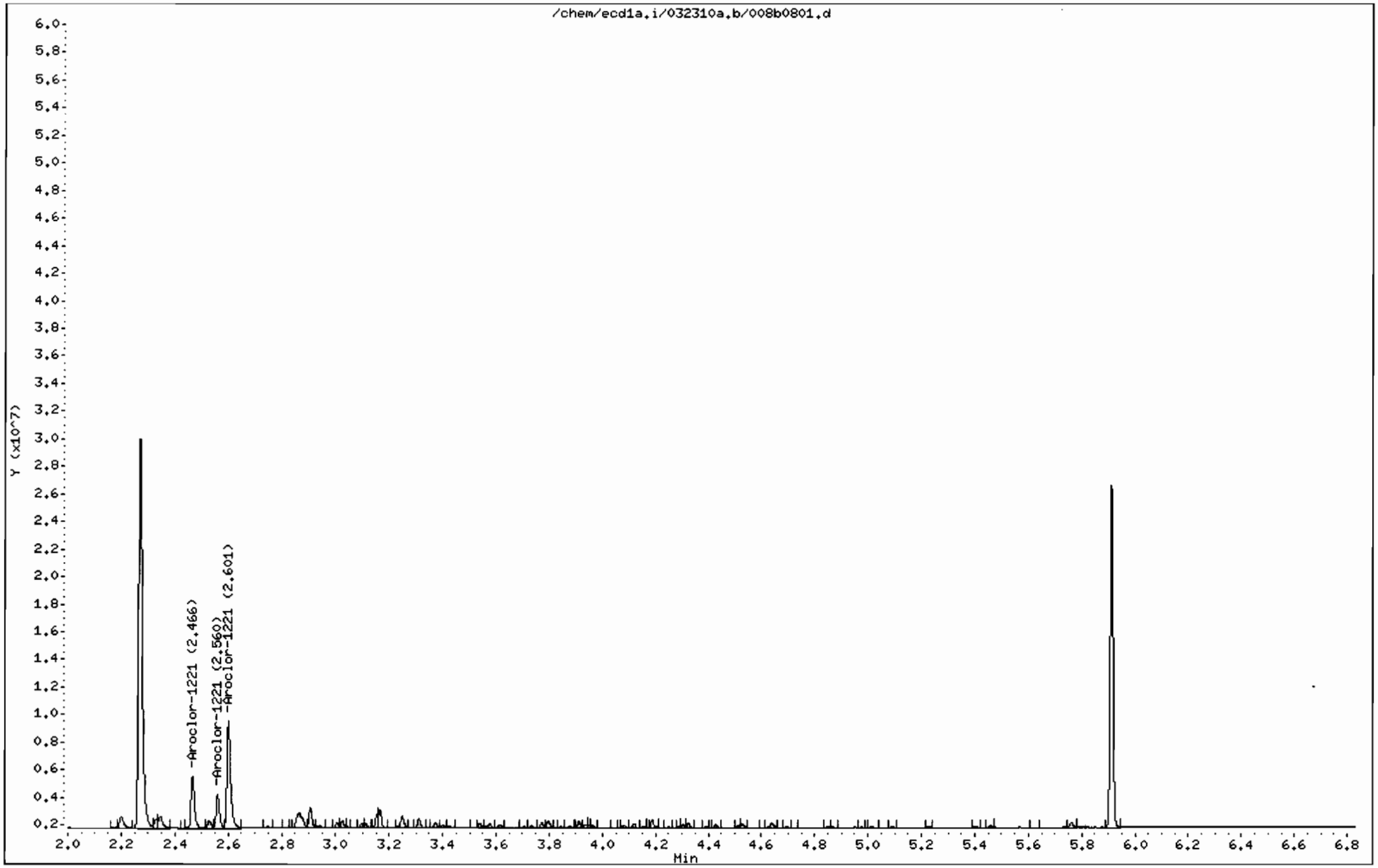

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/021f2101.d
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002
Inj Date : 23-MAR-2010 11:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:54 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	40145050	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	29109356	100.000	98.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.365	-0.001	14292984	1000.00	942	80.00- 120.00	100.00
2.650	2.651	-0.001	18014082	1000.00	951	106.03- 146.03	126.03
2.731	2.732	-0.001	11433112	1000.00	919	59.99- 99.99	79.99
2.768	2.770	-0.002	6916561	1000.00	941	28.39- 68.39	48.39
2.978	2.980	-0.002	8921011	1000.00	937	42.42- 82.42	62.42
Average of Peak Amounts =					938		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	18917452	1000.00	1030	80.00- 120.00	100.00
3.866	3.867	-0.001	27896153	1000.00	1040	127.46- 167.46	147.46
4.027	4.030	-0.003	29772954	1000.00	1050	137.38- 177.38	157.38
4.096	4.097	-0.001	16821466	1000.00	1040	68.92- 108.92	88.92
4.238	4.240	-0.002	17522638	1000.00	1040	72.63- 112.63	92.63
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd1a.i/032310a.b/021f2101.d
Date : 23-MAR-2010 11:28
Client ID: AR166002
Sample Info: IWAR100222-60 02

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

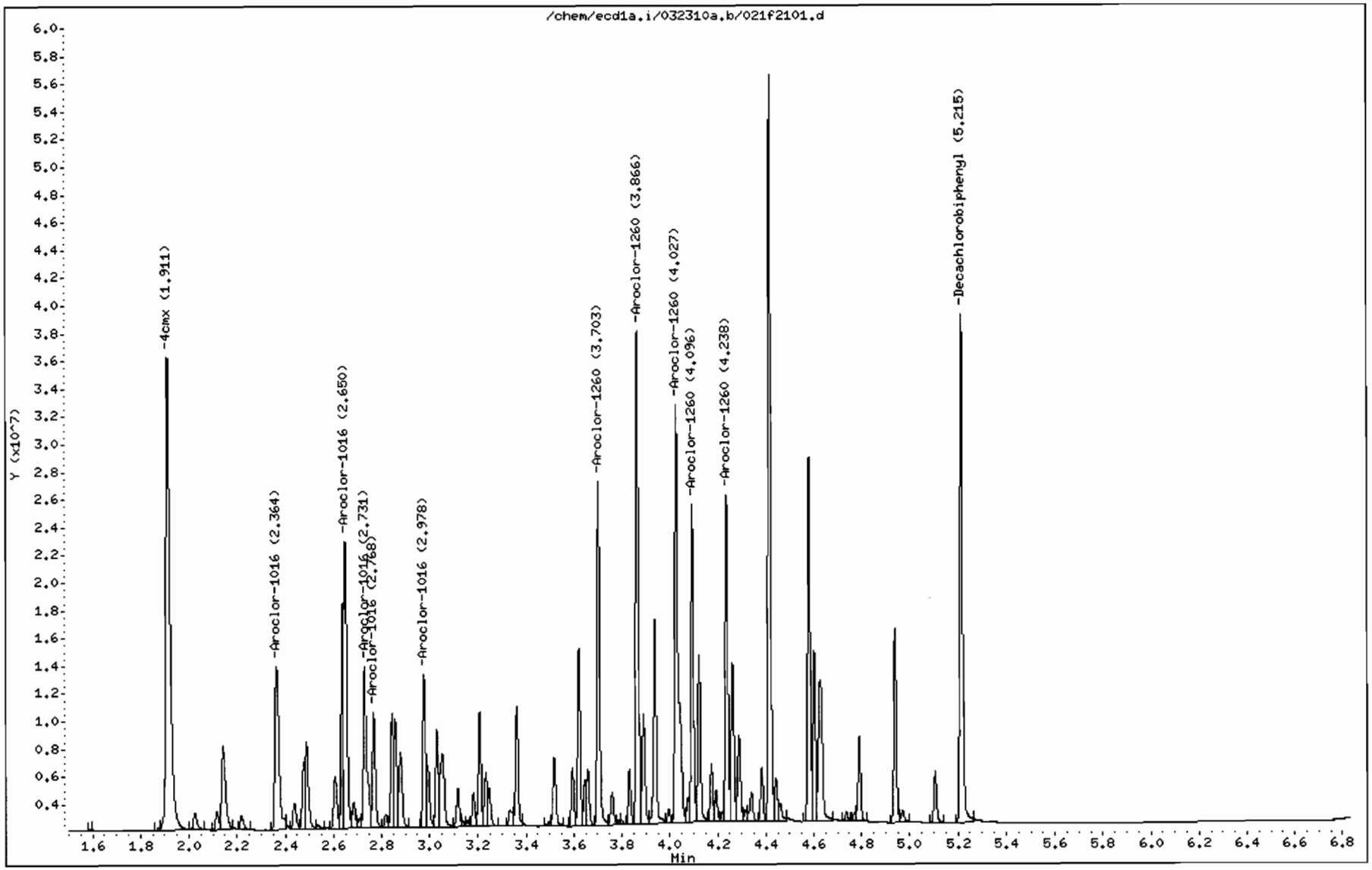

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/021b2101.d
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002
Inj Date : 23-MAR-2010 11:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	25932712	100.000	98.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	18118145	100.000	96.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	11869406	1000.00	943	80.00- 120.00	100.00(M)
3.247	3.248	-0.001	7752072	1000.00	898	45.31- 85.31	65.31
3.311	3.311	0.000	4807813	1000.00	909	20.51- 60.51	40.51
3.537	3.538	-0.001	6307202	1000.00	915	31.09- 71.09	53.14
3.612	3.614	-0.002	5822449	1000.00	906	37.88- 77.88	59.40
Average of Peak Amounts =					914		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	12629591	1000.00	966	80.00- 120.00	100.00
4.427	4.428	-0.001	15357793	1000.00	988	101.60- 141.60	121.60
4.693	4.695	-0.002	11596776	1000.00	975	71.82- 111.82	91.82
4.866	4.867	-0.001	12072542	1000.00	982	75.59- 115.59	95.59
5.013	5.015	-0.002	26797242	1000.00	1020	192.18- 232.18	212.18
Average of Peak Amounts =					985		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdia.i/032310a.b/021b2101.d
Date : 23-MAR-2010 11:28
Client ID: AR166002
Sample Info: IWAR100222-60 02

Instrument: ecdia.i
Operator: YS1
Column phase: CLP2
Column diameter: 0.25

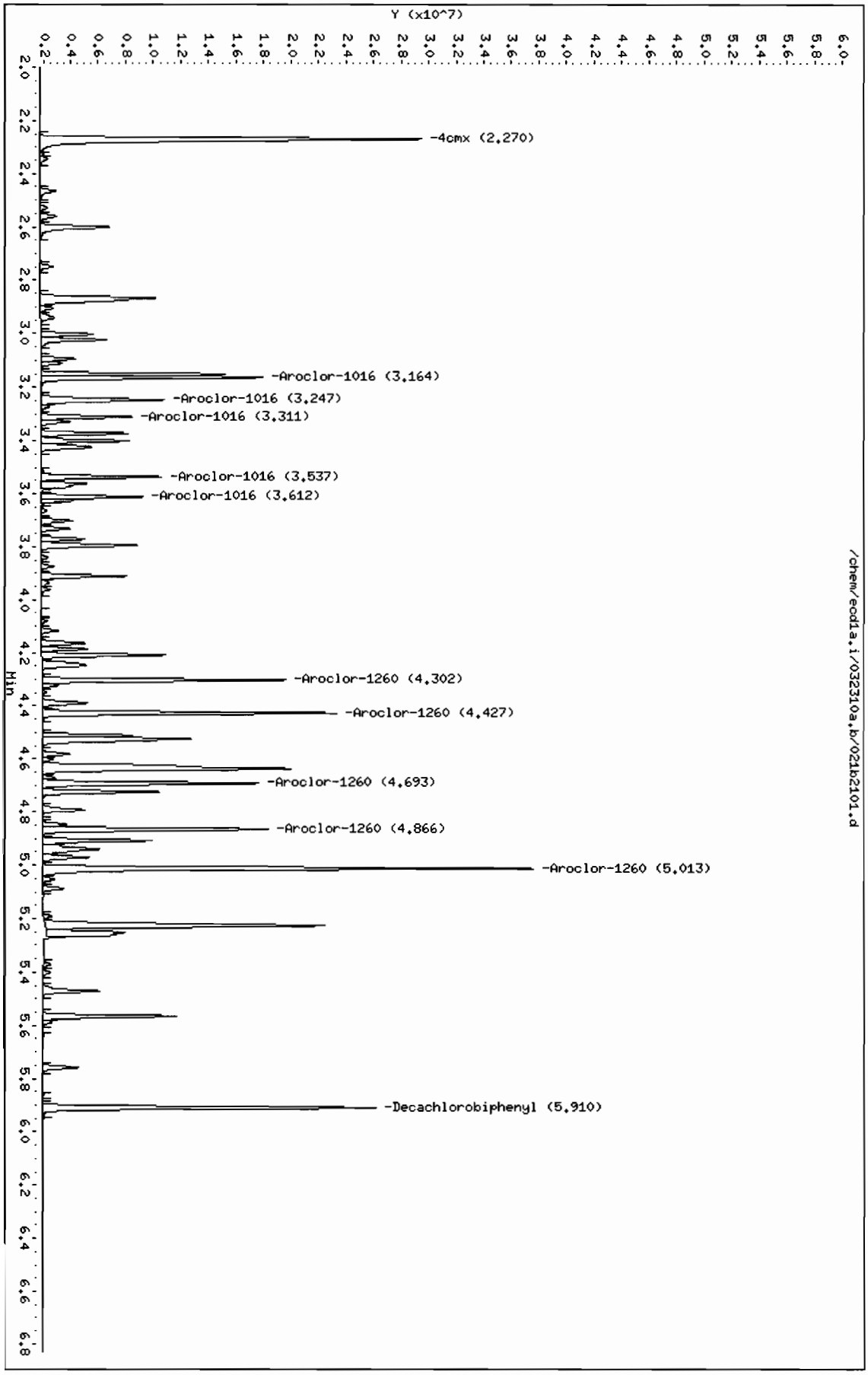

Page 1

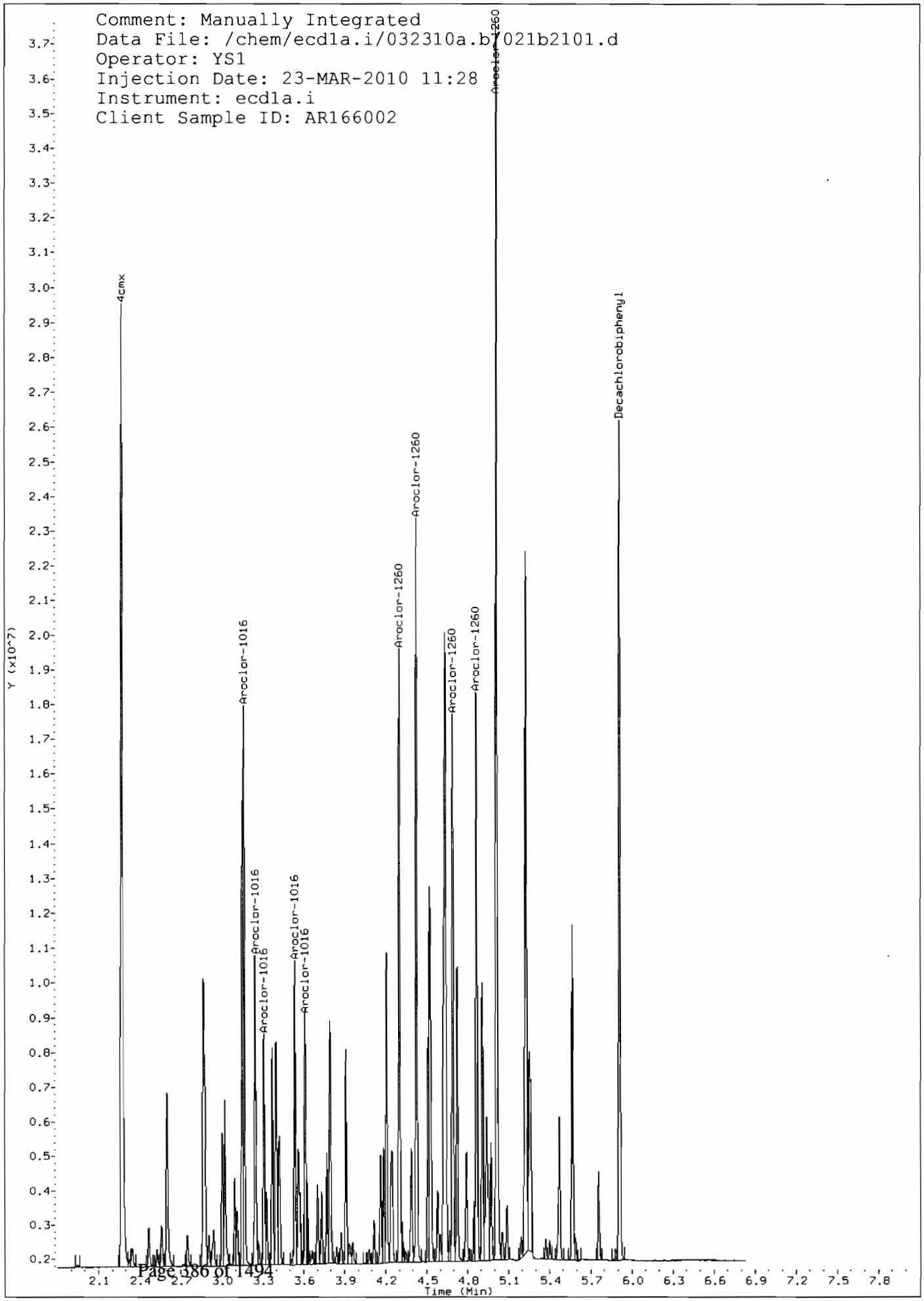
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/021b2101.d
Operator: YS1
Injection Date: 23-MAR-2010 11:28
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

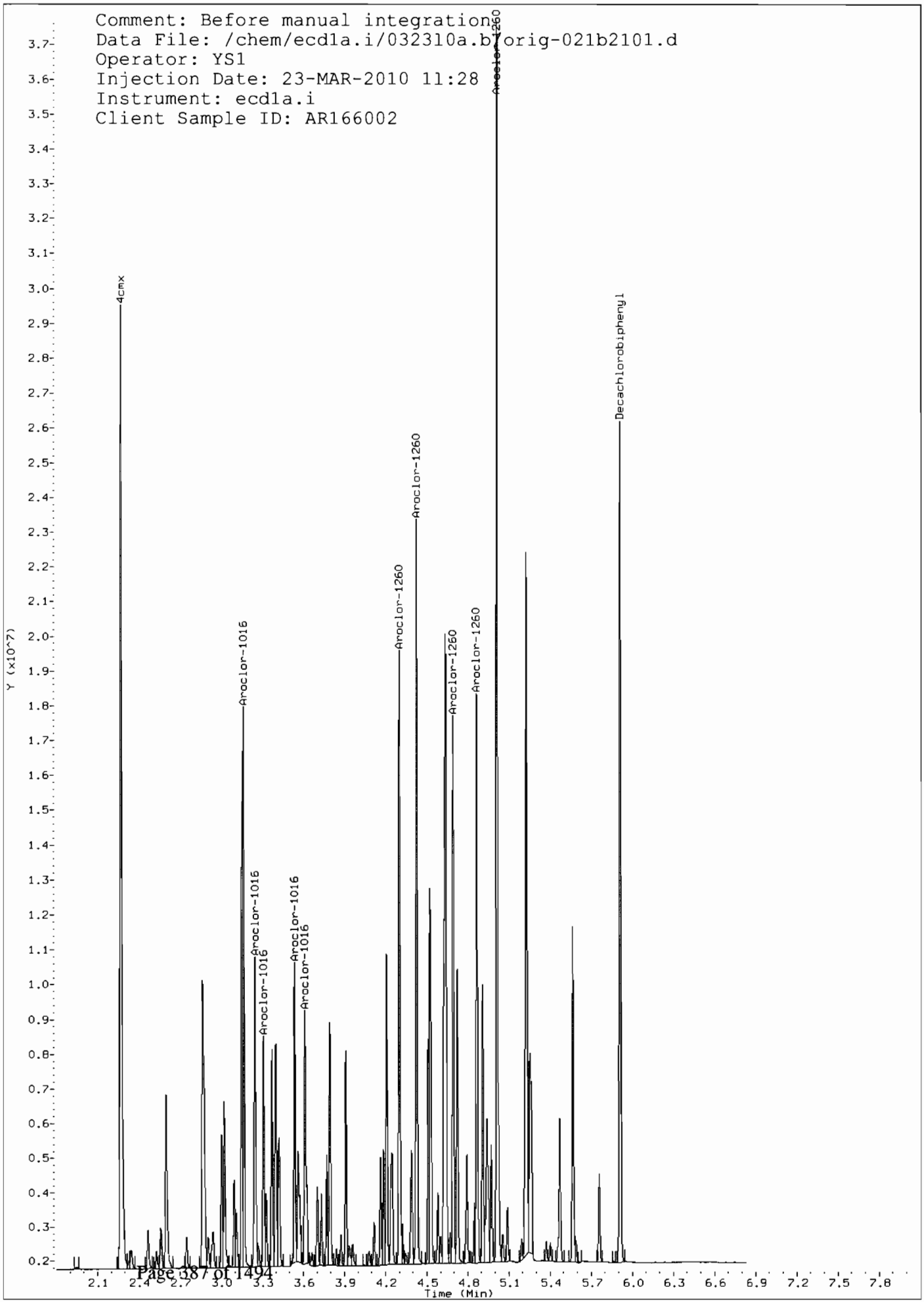
Comment: Before manual integration
Data File: /chem/ecd1a.i/032310a.b/orig-021b2101.d
Operator: YS1
Injection Date: 23-MAR-2010 11:28
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2318

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10	1446	1.91	5.23
02	AR166001DUSE	WAR100222-60	03/11/10	1456	1.92	5.22
03	AR125401	WAR100219-54	03/11/10	1507		
04	AR124201	WAR100219-42	03/11/10	1517		
05	AR124801	WAR100223-48	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	1.92	5.22
12	AR166002	WAR100311-02	03/11/10	1641	1.92	5.22
13	AR166003	WAR100311-03	03/11/10	1652	1.92	5.22
14	AR166004	WAR100311-04	03/11/10	1702	1.91	5.22
15	AR166005	IAR100311-01	03/11/10	1713	1.92	5.22
16	AR166001	WAR100222-60	03/11/10	1724	1.91	5.22
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2318

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	1.91	5.22
04	ZZZZZ	ZZZZZ	03/11/10	2054	1.92	5.22
05	ZZZZZ	ZZZZZ	03/11/10	2105	1.92	5.22
06	ZZZZZ	ZZZZZ	03/11/10	2115	1.92	5.22
07	ZZZZZ	ZZZZZ	03/11/10	2126	1.92	5.22
08	ZZZZZ	ZZZZZ	03/11/10	2136	1.92	5.22
09	ZZZZZ	ZZZZZ	03/11/10	2147	1.92	5.22
10	ZZZZZ	ZZZZZ	03/11/10	2157	1.92	5.22
11	ZZZZZ	ZZZZZ	03/11/10	2208	1.92	5.22
12	ZZZZZ	ZZZZZ	03/11/10	2218	1.92	5.22
13	ZZZZZ	ZZZZZ	03/11/10	2229	1.92	5.22
14	AR	WAR100222-60	03/11/10	2239	1.91	5.22
15	PIBLK03	WAR100219-99	03/11/10	2250	1.91	5.22
16	ZZZZZ	ZZZZZ	03/11/10	2300	1.90	5.23
17	ZZZZZ	ZZZZZ	03/11/10	2311	1.92	5.22
18	AR	WAR100219-99	03/11/10	2321	1.91	5.22
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2318

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10	1446	2.27	5.92
02	AR166001DUSE	WAR100222-60	03/11/10	1456	2.27	5.92
03	AR125401	WAR100219-54	03/11/10	1507		
04	AR124201	WAR100219-42	03/11/10	1517		
05	AR124801	WAR100223-48	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	2.27	5.92
12	AR166002	WAR100311-02	03/11/10	1641	2.27	5.92
13	AR166003	WAR100311-03	03/11/10	1652	2.27	5.92
14	AR166004	WAR100311-04	03/11/10	1702	2.27	5.92
15	AR166005	IAR100311-01	03/11/10	1713	2.27	5.92
16	AR166001	WAR100222-60	03/11/10	1724	2.27	5.92
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2318

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	2.27	5.92
04	ZZZZZ	ZZZZZ	03/11/10	2054	2.28	5.92
05	ZZZZZ	ZZZZZ	03/11/10	2105	2.28	5.92
06	ZZZZZ	ZZZZZ	03/11/10	2115	2.28	5.92
07	ZZZZZ	ZZZZZ	03/11/10	2126	2.28	5.92
08	ZZZZZ	ZZZZZ	03/11/10	2136	2.28	5.92
09	ZZZZZ	ZZZZZ	03/11/10	2147	2.28	5.92
10	ZZZZZ	ZZZZZ	03/11/10	2157	2.28	5.92
11	ZZZZZ	ZZZZZ	03/11/10	2208	2.28	5.92
12	ZZZZZ	ZZZZZ	03/11/10	2218	2.28	5.92
13	ZZZZZ	ZZZZZ	03/11/10	2229	2.28	5.92
14	AR166002	WAR100222-60	03/11/10	2239	2.27	5.92
15	PIBLK03	WAR100219-99	03/11/10	2250	2.27	5.92
16	ZZZZZ	ZZZZZ	03/11/10	2300		5.92
17	ZZZZZ	ZZZZZ	03/11/10	2311		5.23*
18	ZZZZZ	ZZZZZ	03/11/10	2321		
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2318

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/23/10	0743	1.91	5.22
02	AR166001	WAR100222-60	03/23/10	0753	1.91	5.22
03	AR125401	WAR100219-54	03/23/10	0804		
04	AR124201	WAR100219-42	03/23/10	0814		
05	AR124801	WAR100223-48	03/23/10	0825		
06	AR126801	WAR100107-68	03/23/10	0835		
07	AR123201	WAR100104-32	03/23/10	0846		
08	AR122101	WAR100104-21	03/23/10	0856		
09	AR126201	WAR100104-62	03/23/10	0907		
10	DDTANALOGSTD	WAR091219-DD	03/23/10	0918		
11	PIBLK02	WAR100219-99	03/23/10	0928	1.91	5.22
12	PBLK01	1202076363	03/23/10	0939	1.91	5.22
13	PBLK01LCS	1202076364	03/23/10	0949	1.91	5.22
14	ZZZZZ	ZZZZZ	03/23/10	1000	1.91	5.22
15	ZZZZZ	ZZZZZ	03/23/10	1012	1.91	5.22
16	ZZZZZ	ZZZZZ	03/23/10	1025	1.91	5.22
17	ZZZZZ	ZZZZZ	03/23/10	1037	1.91	5.22
18	ZZZZZ	ZZZZZ	03/23/10	1050	1.91	5.21
19	ZZZZZ	ZZZZZ	03/23/10	1103	1.91	5.21
20	RE46-10-11924	248865001	03/23/10	1115	1.91	5.21
21	AR166002	WAR100222-60	03/23/10	1128	1.91	5.21
22	PIBLK03	WAR100219-99	03/23/10	1138	1.91	5.22
23	ZZZZZ	ZZZZZ	03/23/10	1149	1.91	5.22
24	ZZZZZ	ZZZZZ	03/23/10	1201	1.91	5.21
25	ZZZZZ	ZZZZZ	03/23/10	1214	1.91	5.21
26	ZZZZZ	ZZZZZ	03/23/10	1226	1.91	5.21
27	ZZZZZ	ZZZZZ	03/23/10	1239	1.91	5.21
28	ZZZZZ	ZZZZZ	03/23/10	1252	1.91	5.21
29	AR166003	WAR100222-60	03/23/10	1304	1.91	5.21
30	PIBLK04	WAR100219-99	03/23/10	1315	1.91	5.22
31	AR166004	WAR100222-60	03/23/10	1325	1.91	5.22
32	PIBLK05	WAR100219-99	03/23/10	1336	1.91	5.22

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2318

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/23/10	0743	2.27	5.91
02	AR166001	WAR100222-60	03/23/10	0753	2.27	5.91
03	AR125401	WAR100219-54	03/23/10	0804		
04	AR124201	WAR100219-42	03/23/10	0814		
05	AR124801	WAR100223-48	03/23/10	0825		
06	AR126801	WAR100107-68	03/23/10	0835		
07	AR123201	WAR100104-32	03/23/10	0846		
08	AR122101	WAR100104-21	03/23/10	0856		
09	AR126201	WAR100104-62	03/23/10	0907		
10	DDTANALOGSTD	WAR091219-DD	03/23/10	0918		
11	PIBLK02	WAR100219-99	03/23/10	0928	2.27	5.91
12	PBLK01	1202076363	03/23/10	0939	2.27	5.91
13	PBLK01LCS	1202076364	03/23/10	0949	2.27	5.91
14	ZZZZZ	ZZZZZ	03/23/10	1000	2.27	5.91
15	ZZZZZ	ZZZZZ	03/23/10	1012	2.27	5.91
16	ZZZZZ	ZZZZZ	03/23/10	1025	2.27	5.91
17	ZZZZZ	ZZZZZ	03/23/10	1037	2.27	5.91
18	ZZZZZ	ZZZZZ	03/23/10	1050	2.27	5.91
19	ZZZZZ	ZZZZZ	03/23/10	1103	2.27	5.91
20	RE46-10-11924	248865001	03/23/10	1115	2.27	5.91
21	AR166002	WAR100222-60	03/23/10	1128	2.27	5.91
22	PIBLK03	WAR100219-99	03/23/10	1138	2.27	5.91
23	ZZZZZ	ZZZZZ	03/23/10	1149	2.27	5.91
24	ZZZZZ	ZZZZZ	03/23/10	1201	2.27	5.91
25	ZZZZZ	ZZZZZ	03/23/10	1214	2.27	5.91
26	ZZZZZ	ZZZZZ	03/23/10	1226	2.27	5.91
27	ZZZZZ	ZZZZZ	03/23/10	1239	2.27	5.91
28	ZZZZZ	ZZZZZ	03/23/10	1252	2.27	5.91
29	AR166003	WAR100222-60	03/23/10	1304	2.27	5.91
30	PIBLK04	WAR100219-99	03/23/10	1315	2.27	5.91
31	AR166004	WAR100222-60	03/23/10	1325	2.27	5.91
32	PIBLK05	WAR100219-99	03/23/10	1336	2.27	5.91

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10-2318 **Client ID:** LCS for batch 967399

Lab Sample ID: 1202076364

Data File:	013f1301.d	**Data File:**	013b1301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23-MAR-10 09:49	**Analyzed:**	23-MAR-10 09:49

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							5.14
Column 1	1	2.36	2.33 – 2.39	24.4		ug/kg	
	2	2.65	2.62 – 2.68	24.3		ug/kg	
	3	2.73	2.7 – 2.76	23.2		ug/kg	
	4	2.77	2.74 – 2.8	23.4		ug/kg	
	5	2.98	2.95 – 3.01	23.7		ug/kg	
					23.8		
Column 2	1	3.17	3.13 – 3.19	23.3		ug/kg	
	2	3.25	3.22 – 3.28	22.5		ug/kg	
	3	3.31	3.28 – 3.34	21.3		ug/kg	
	4	3.54	3.51 – 3.57	23		ug/kg	
	5	3.61	3.58 – 3.64	22.9		ug/kg	
					22.6		
Aroclor-1260							5.4
Column 1	1	3.71	3.68 – 3.74	26.4		ug/kg	
	2	3.87	3.84 – 3.9	27.2		ug/kg	
	3	4.03	4 – 4.06	27.9		ug/kg	
	4	4.1	4.07 – 4.13	27.5		ug/kg	
	5	4.24	4.21 – 4.27	27.6		ug/kg	
					27.3		
Column 2	1	4.3	4.27 – 4.33	24.9		ug/kg	
	2	4.43	4.4 – 4.46	25.8		ug/kg	
	3	4.69	4.66 – 4.72	25.6		ug/kg	
	4	4.87	4.84 – 4.9	25.9		ug/kg	
	5	5.02	4.98 – 5.04	27		ug/kg	
					25.9		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2318**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076363**				
Client Sample:	**QC for batch 967399**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 967399**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 09:39**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**012f1201–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	012b1201–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/012f1201-1.d
Lab Smp Id: 1202076363 Client Smp ID: PBLK01
Inj Date : 23-MAR-2010 09:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076363|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2318.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.913	0.000	55677539	142.938	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.216	5.217	-0.001	50797679	171.076	5.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/012f1201-1.d

Page 1

Date : 23-MAR-2010 09:39

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: 1120207636311

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

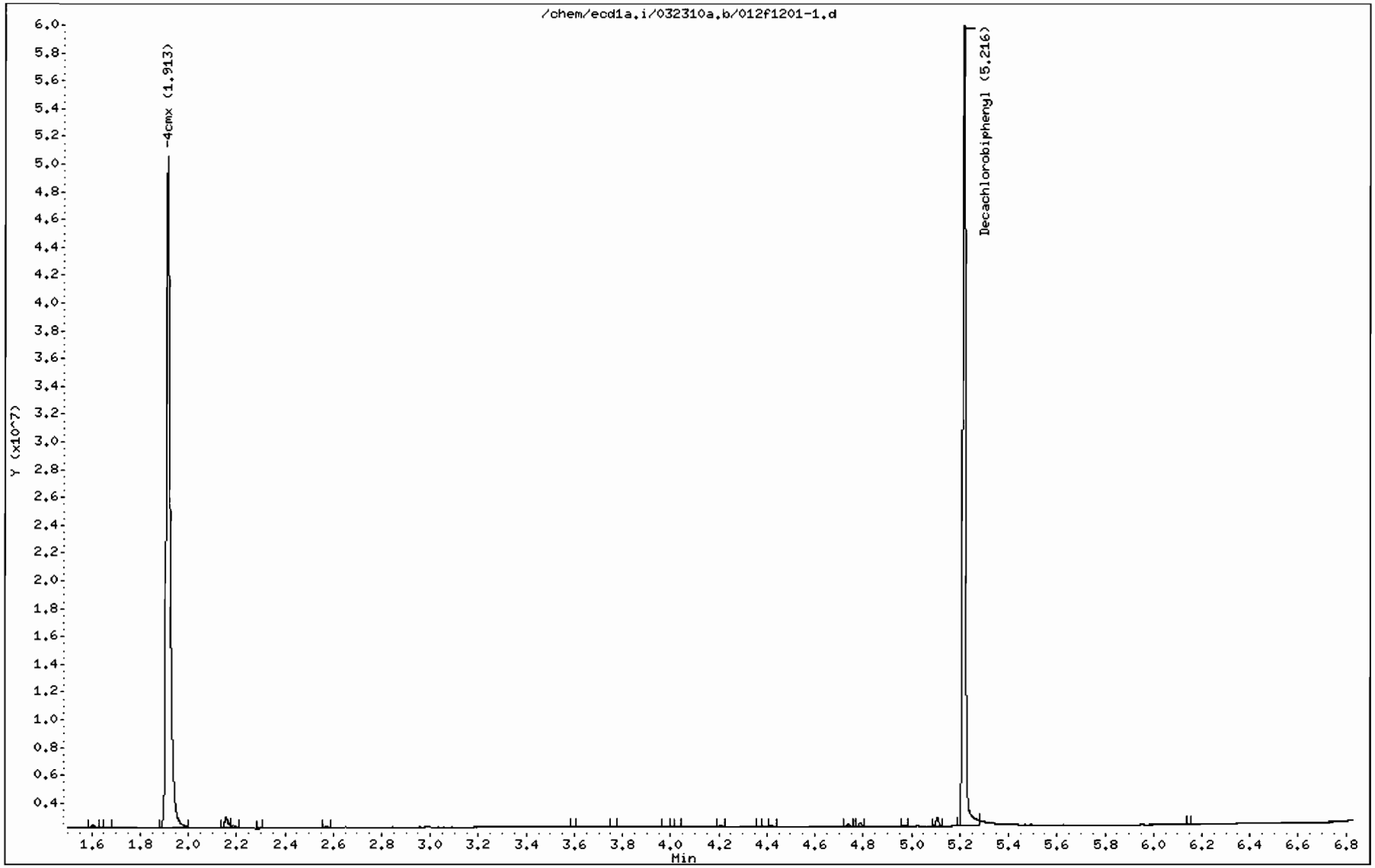

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/012b1201-1.d
Lab Smp Id: 1202076363 Client Smp ID: PBLK01
Inj Date : 23-MAR-2010 09:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076363|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2318.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	35680599	136.013	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.912	-0.001	29195098	155.979	5.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/012b1201-1.d

Page 1

Date : 23-MAR-2010 09:39

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: 1120207636311

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

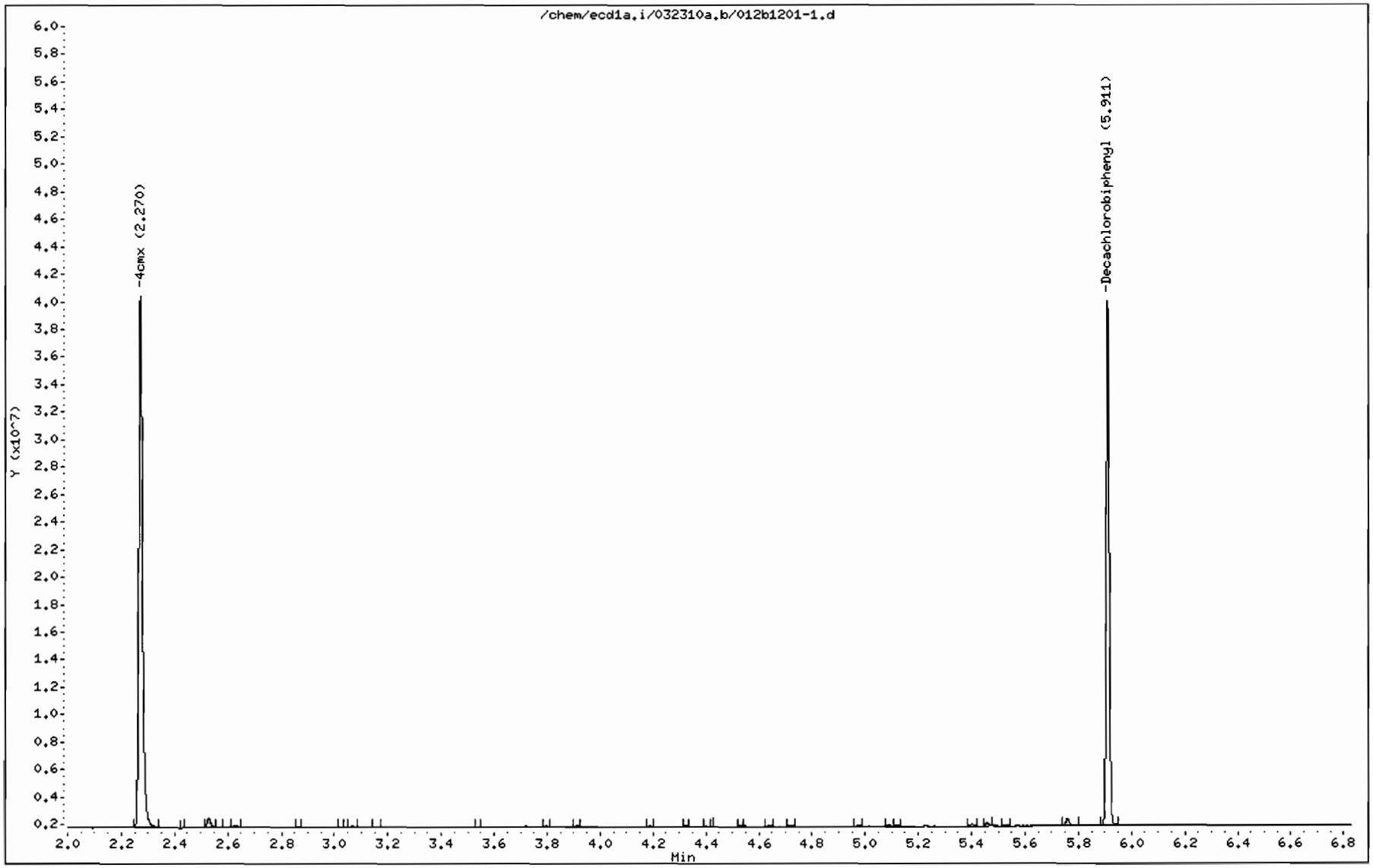

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2318**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076364**				
Client Sample:	**QC for batch 967399**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967399**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 09:49**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**013f1301-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	013b1301-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		23.8	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		27.3	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/013f1301-1.d
Lab Smp Id: 1202076364 Client Smp ID: PBLK01LCS
Inj Date : 23-MAR-2010 09:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076364|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2318.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.913	0.000	59940461	153.882	5.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.217	5.217	0.000	50553608	170.254	5.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.365	-0.001	11111108	732.111	24.4	80.00- 120.00	100.00
2.652	2.651	0.001	13777452	727.589	24.2	107.62- 147.62	124.00
2.732	2.732	0.000	8677264	697.409	23.2	58.11- 98.11	78.10
2.769	2.770	-0.001	5163605	702.692	23.4	27.09- 67.09	46.47

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.980	2.980	0.000	6764549	710.728	23.7	40.72- 80.72	60.88
Average of Peak Concentrations =					23.8		
7 Aroclor-1260					CAS #: 11096-82-5		
3.705	3.705	0.000	14522007	792.250	26.4	80.00- 120.00	100.00
3.868	3.867	0.001	21910267	814.816	27.2	129.35- 169.35	150.88
4.029	4.030	-0.001	23662778	835.689	27.8	139.27- 179.27	162.94
4.098	4.097	0.001	13316018	824.119	27.5	70.04- 110.04	91.70
4.240	4.240	0.000	13902474	826.905	27.6	74.22- 114.22	95.73
Average of Peak Concentrations =					27.3		

Data File: /chem/ecd1a.i/032310a.b/013f1301-1.d
Date : 23-MAR-2010 09:49
Client ID: PBLK01LCS
Sample Info: 1120207636411I
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

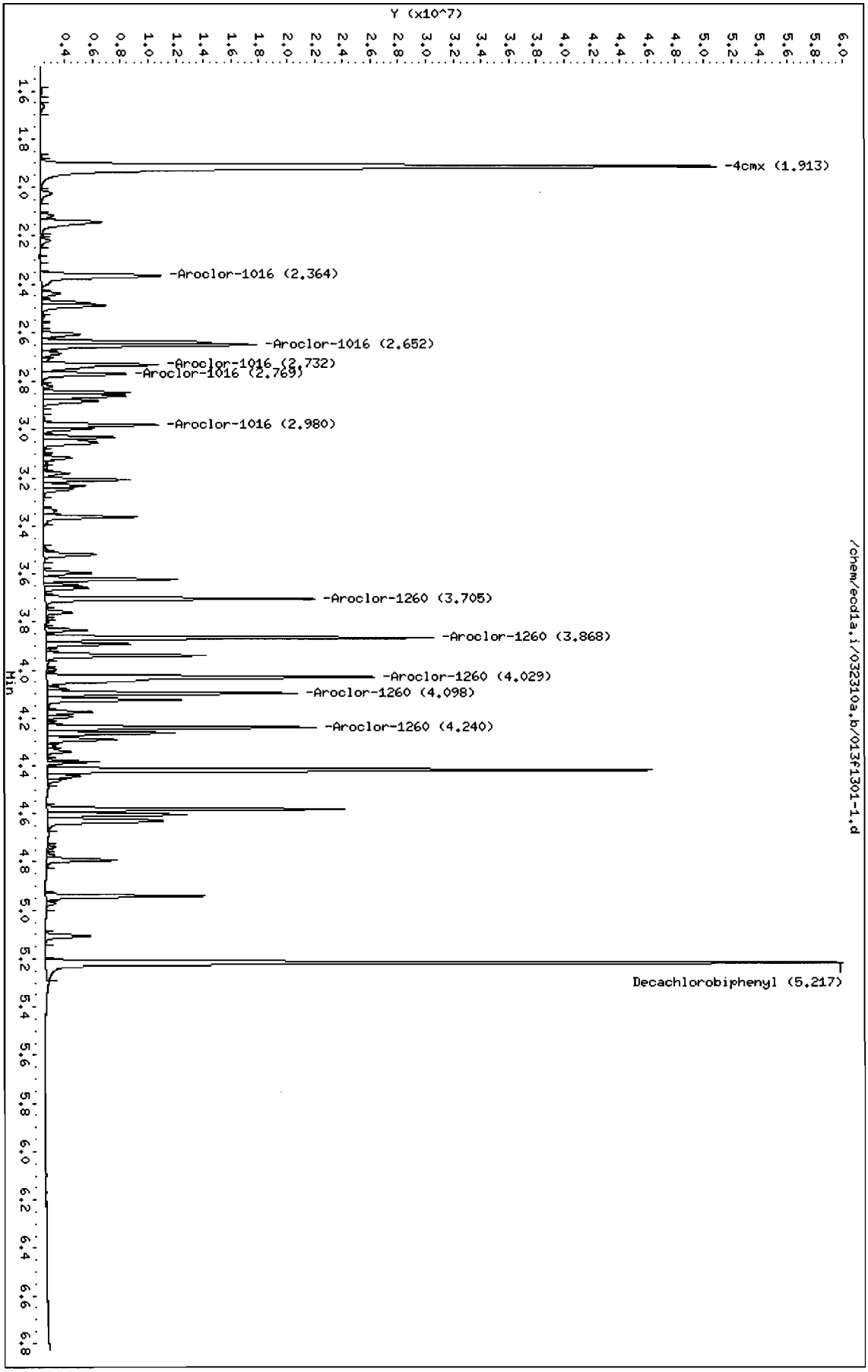

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/013b1301-1.d
Lab Smp Id: 1202076364 Client Smp ID: PBLK01LCS
Inj Date : 23-MAR-2010 09:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076364|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2318.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	38124510	145.329	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.912	5.912	0.000	29193722	155.972	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.165	3.165	0.000	8815970	700.515	23.4	80.00- 120.00	100.00(M)
3.248	3.248	0.000	5826181	674.779	22.5	45.31- 85.31	66.09
3.311	3.311	0.000	3380212	639.388	21.3	20.51- 60.51	38.34
3.538	3.538	0.000	4755018	689.861	23.0	33.14- 73.14	53.94

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.613	3.614	-0.001	4412224	686.988	22.9	29.05- 69.05	50.05
Average of Peak Concentrations =					22.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.303	4.304	-0.001	9774555	747.277	24.9	80.00- 120.00	100.00
4.428	4.428	0.000	12027985	773.552	25.8	101.60- 141.60	123.05
4.693	4.695	-0.002	9150944	769.241	25.6	71.82- 111.82	93.62
4.867	4.867	0.000	9545846	776.766	25.9	75.59- 115.59	97.66
5.015	5.015	0.000	21419564	811.512	27.0	192.18- 232.18	219.14
Average of Peak Concentrations =					25.8		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/013b1301-1.d

Date : 23-MAR-2010 09:49

Client ID: PBLK01LCS

Sample Info: |1202076364|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

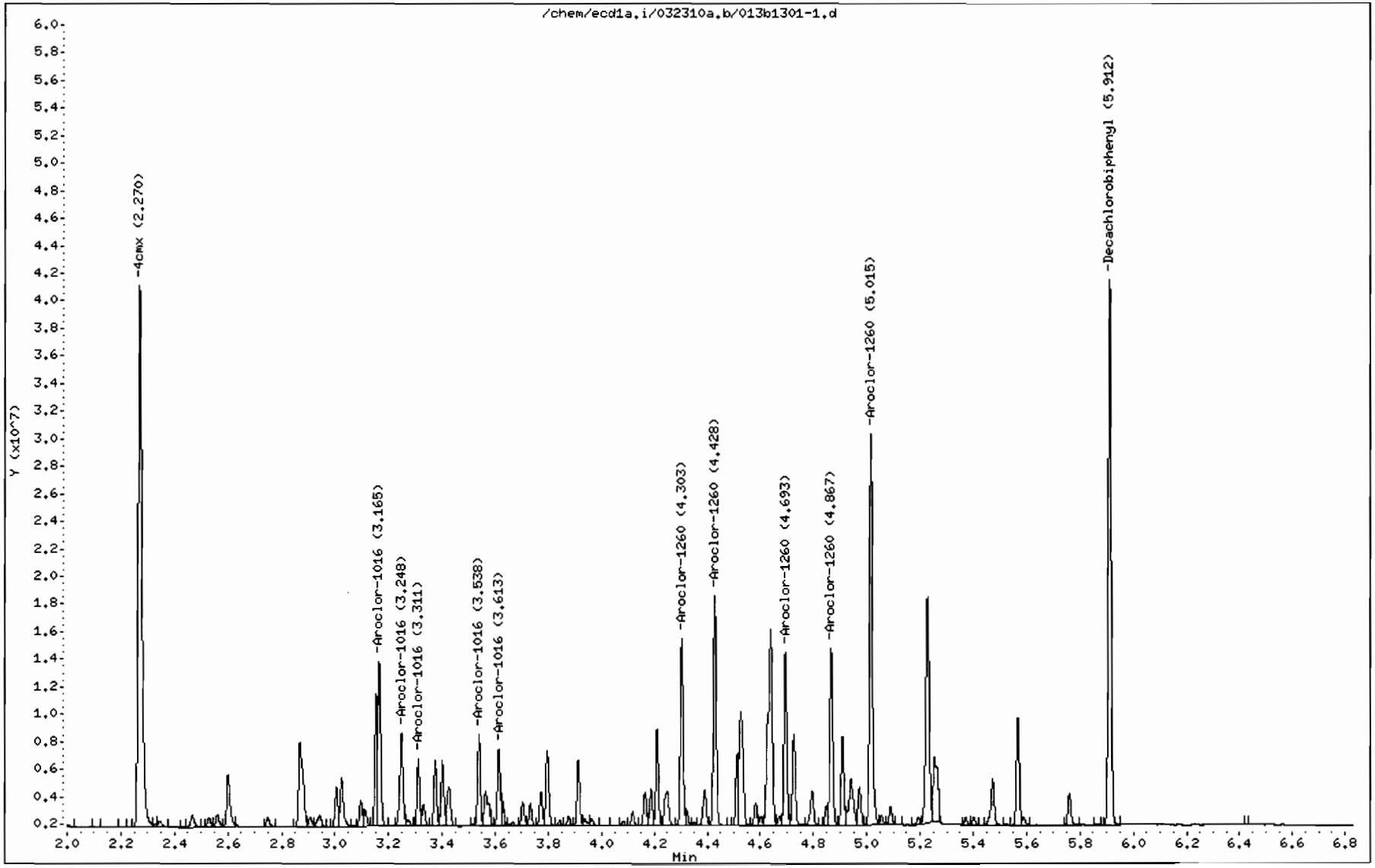

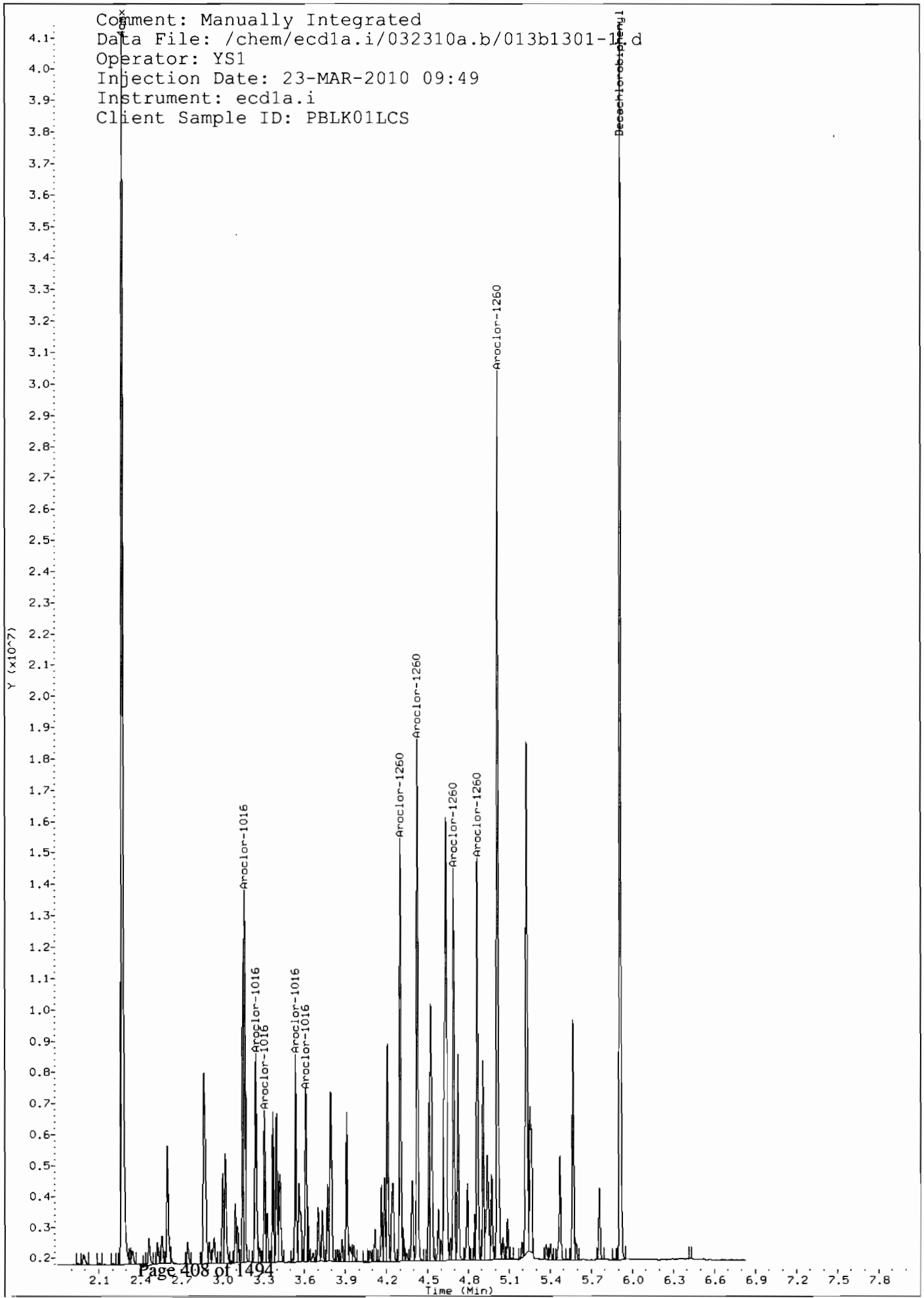
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/013b1301-1.d
Operator: YS1
Injection Date: 23-MAR-2010 09:49
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Y (x10^7)
Time (Min)

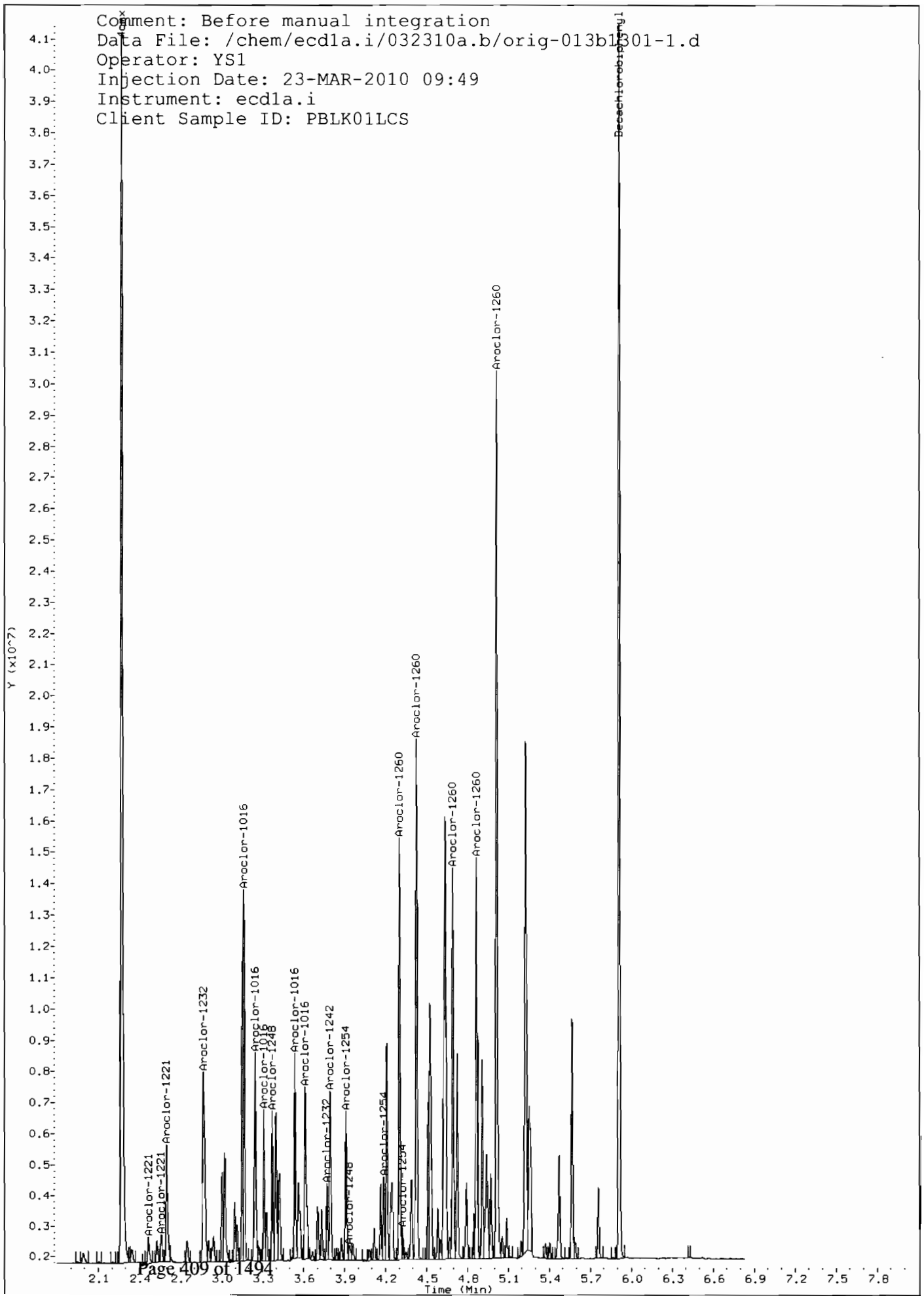
Comment: Before manual integration
Data File: /chem/ecd1a.i/032310a.b/orig-013b1301-1.d
Operator: YS1
Injection Date: 23-MAR-2010 09:49
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1254
Aroclor-1248
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/12/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/031110b.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	11-MAR-2010 14:46		031110b	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	11-MAR-2010 14:56		031110b	1.0		DUSE RE-ICAL
003f0301.d	WAR100219-54	YS1	11-MAR-2010 15:07		031110b	1.0		DUSE RE-ICAL
004f0401.d	WAR100219-42	YS1	11-MAR-2010 15:17		031110b	1.0		DUSE RE-ICAL
005f0501.d	WAR100223-48	YS1	11-MAR-2010 15:28		031110b	1.0		DUSE RE-ICAL
006f0601.d	WAR100107-68	YS1	11-MAR-2010 15:38		031110b	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	11-MAR-2010 15:49		031110b	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	11-MAR-2010 15:59		031110b	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	11-MAR-2010 16:10		031110b	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	11-MAR-2010 16:21		031110b	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100311-01	YS1	11-MAR-2010 16:31		031110b	1.0		AR1660 I-CAL LEVEL 1
012f1201.d	WAR100311-02	YS1	11-MAR-2010 16:41		031110b	1.0		AR1660 I-CAL LEVEL 2
013f1301.d	WAR100311-03	YS1	11-MAR-2010 16:52		031110b	1.0		AR1660 I-CAL LEVEL 3
014f1401.d	WAR100311-04	YS1	11-MAR-2010 17:02		031110b	1.0		AR1660 I-CAL LEVEL 4
015f1501.d	IAR100311-01	YS1	11-MAR-2010 17:13		031110b	1.0		AR1660 I-CAL LEVEL 5

Instrument Batch: /chem/ecd1a.i/031110b.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100222-60 01	YS1	11-MAR-2010 17:24		031110b	1.0	PASSED ON BOTH COLUMNS
017f1701.d	WAR100311-05	YS1	11-MAR-2010 17:34		031110b	1.0	AR1254 I-CAL LEVEL 1
018f1801.d	WAR100311-06	YS1	11-MAR-2010 17:45		031110b	1.0	AR1254 I-CAL LEVEL 2
019f1901.d	WAR100311-07	YS1	11-MAR-2010 17:55		031110b	1.0	AR1254 I-CAL LEVEL 3
020f2001.d	WAR100311-08	YS1	11-MAR-2010 18:06		031110b	1.0	AR1254 I-CAL LEVEL 4
021f2101.d	IAR100219-02	YS1	11-MAR-2010 18:16		031110b	1.0	AR1254 I-CAL LEVEL 5
022f2201.d	WAR100219-54	YS1	11-MAR-2010 18:27		031110b	1.0	PASSED ON BOTH COLUMNS
023f2301.d	WAR100311-09	YS1	11-MAR-2010 18:37		031110b	1.0	AR1242 I-CAL LEVEL 1
024f2401.d	WAR100311-10	YS1	11-MAR-2010 18:48		031110b	1.0	AR1242 I-CAL LEVEL 2
025f2501.d	WAR100311-11	YS1	11-MAR-2010 18:58		031110b	1.0	AR1242 I-CAL LEVEL 3
026f2601.d	WAR100311-12	YS1	11-MAR-2010 19:09		031110b	1.0	AR1242 I-CAL LEVEL 4
027f2701.d	IAR100219-01	YS1	11-MAR-2010 19:19		031110b	1.0	AR1242 I-CAL LEVEL 5
028f2801.d	WAR100219-42	YS1	11-MAR-2010 19:30		031110b	1.0	PASSED ON BOTH COLUMNS
029f2901.d	WAR100311-13	YS1	11-MAR-2010 19:40		031110b	1.0	AR1248 I-CAL LEVEL 1
030f3001.d	WAR100311-14	YS1	11-MAR-2010 19:51		031110b	1.0	AR1248 I-CAL LEVEL 2
031f3101.d	WAR100311-15	YS1	11-MAR-2010 20:01		031110b	1.0	AR1248 I-CAL LEVEL 3
032f3201.d	WAR100311-16	YS1	11-MAR-2010 20:12		031110b	1.0	AR1248 I-CAL LEVEL 4
033f3301.d	IAR100211-01	YS1	11-MAR-2010 20:22		031110b	1.0	AR1248 I-CAL LEVEL 5
034f3401.d	WAR100223-48	YS1	11-MAR-2010 20:33		031110b	1.0	PASSED ON BOTH COLUMNS
035f3501.d	WAR100219-99 02	YS1	11-MAR-2010 20:44		031110b	1.0	CLEAN

Instrument Batch: /chem/ecd1a.i/031110b.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202067743	YS1	11-MAR-2010 20:54	963869	246954	1.0	MB	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
037f3701.d	1202067744	YS1	11-MAR-2010 21:05	963869	246954	1.0	LCS	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
038f3801.d	246954003	YS1	11-MAR-2010 21:15	963869	246954	1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
039f3901.d	1202067745	YS1	11-MAR-2010 21:26	963869	246954	1.0	MS	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
040f4001.d	1202067746	YS1	11-MAR-2010 21:36	963869	246954	1.0	MSD	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT

041f4101.d	246954006	YS1	11-MAR-2010 21:47	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
042f4201.d	246954007	YS1	11-MAR-2010 21:57	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
043f4301.d	246954009	YS1	11-MAR-2010 22:08	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
044f4401.d	246954012	YS1	11-MAR-2010 22:18	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
045f4501.d	246954014	YS1	11-MAR-2010 22:29	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
046f4601.d	WAR100222-60 02	YS1	11-MAR-2010 22:39		031110b		1.0		PASSED ON BOTH COLUMNS
046f4901.d	WAR100222-60 03	YS1	11-MAR-2010 23:11		031110b		1.0		CLEAN
047f4701.d	WAR100219-99 03	YS1	11-MAR-2010 22:50		031210		1.0		
047f5001.d	WAR100219-99 04	YS1	11-MAR-2010 23:21		031110b		1.0		
048f4801.d	WE100311-07SCR	YS1	11-MAR-2010 23:00		031110b		1.0		LCS CSREEN FOR PREP

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/24/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/032310a.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	23-MAR-2010 07:43		032310a	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	23-MAR-2010 07:53		032310a	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YS1	23-MAR-2010 08:04		032310a	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YS1	23-MAR-2010 08:14		032310a	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR100223-48	YS1	23-MAR-2010 08:25		032310a	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100107-68	YS1	23-MAR-2010 08:35		032310a	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	23-MAR-2010 08:46		032310a	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	23-MAR-2010 08:56		032310a	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	23-MAR-2010 09:07		032310a	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	23-MAR-2010 09:18		032310a	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100219-99 02	YS1	23-MAR-2010 09:28		032310a	1.0		CLEAN
012f1201.d	1202076363	YS1	23-MAR-2010 09:39	967400	10-2315	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202076364	YS1	23-MAR-2010 09:49	967400	10-2315	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	248863001	YS1	23-MAR-2010 10:00	967400	10-2315	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	248863002	YS1	23-MAR-2010 10:12		032310a	1.0		UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/032310a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	1202076365	YS1	23-MAR-2010 10:25	967400	10-2315	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
017f1701.d	1202076366	YS1	23-MAR-2010 10:37	967400	10-2315	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	248863003	YS1	23-MAR-2010 10:50	967400	10-2315	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	248863004	YS1	23-MAR-2010 11:03	967400	10-2315	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	248865001	YS1	23-MAR-2010 11:15	967400	10-2318	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	WAR100222-60 02	YS1	23-MAR-2010 11:28		032310a	1.0		PASSED ON BOTH COLUMNS
022f2201.d	WAR100219-99 03	YS1	23-MAR-2010 11:38		032310a	1.0		CLEAN
023f2301.d	248866001	YS1	23-MAR-2010 11:49	967400	10-2319	1.0	LANL	DUSE
024f2401.d	248866002	YS1	23-MAR-2010 12:01	967400	10-2319	1.0	LANL	DUSE RR
025f2501.d	248867001	YS1	23-MAR-2010 12:14	967400	10-2320	1.0	LANL	DUSE RR RE SURROGATE LOW
026f2601.d	248867002	YS1	23-MAR-2010 12:26	967400	10-2320	1.0	LANL	DUSE RR RE SURROGATE LOW
027f2701.d	248867003	YS1	23-MAR-2010 12:39	967400	10-2320	1.0	LANL	DUSE RR
028f2801.d	248867004	YS1	23-MAR-2010 12:52	967400	10-2320	1.0	LANL	DUSE RR
029f2901.d	WAR100222-60 03	YS1	23-MAR-2010 13:04		032310a	1.0		AR1016 LOW ON BACK
030f3001.d	WAR100219-99 04	YS1	23-MAR-2010 13:15		032310a	1.0		CLEAN
031f3101.d	WAR100222-60 05	YS1	23-MAR-2010 13:25		032310a	1.0		PASSED ON BOTH COLUMNS
032f3201.d	WAR100219-99 06	YS1	23-MAR-2010 13:36		032310a	1.0		CLEAN
033f3301.d	249180001	YS1	23-MAR-2010 13:46	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	249180002	YS1	23-MAR-2010 13:59	967400	10-2398	1.0	LANL	RE SURROGATE LOW
035f3501.d	249180003	YS1	23-MAR-2010 14:12	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	249180004	YS1	23-MAR-2010 14:24	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	249180005	YS1	23-MAR-2010 14:37	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	249180006	YS1	23-MAR-2010 14:50	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	249180008	YS1	23-MAR-2010 15:02	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	WAR100222-60 05	YS1	23-MAR-2010 15:17		032310a	1.0		PASSED ON BOTH COLUMNS

041f4101.d	WAR100219-99 06	YS1	23-MAR-2010 15:27			032310a	1.0		CLEAN
042f4201.d	1202077651	YS1	23-MAR-2010 15:40	967870	249699		1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
043f4301.d	1202077652	YS1	23-MAR-2010 15:52	967870	249699		1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
044f4401.d	249572001	YS1	23-MAR-2010 16:05	967870	249572		10.0	ENRG	UPLOAD BOTH COLUMNS, USE FRONT
045f4501.d	249699001	YS1	23-MAR-2010 16:19	967870	249699		5.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
046f4601.d	1202077653	YS1	23-MAR-2010 16:34	967870	249699		5.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
047f4701.d	1202077654	YS1	23-MAR-2010 16:48	967870	249699		5.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
048f4801.d	WAR100222-60 06	YS1	23-MAR-2010 17:03			032310a	1.0		PASSED ON BOTH COLUMNS
049f4901.d	WAR100219-99 07	YS1	23-MAR-2010 17:15			032310a	1.0		CLEAN
050f5001.d	249699002	YS1	23-MAR-2010 17:28	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
051f5101.d	249699003	YS1	23-MAR-2010 17:41	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
052f5201.d	249699004	YS1	23-MAR-2010 17:53	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
053f5301.d	249699005	YS1	23-MAR-2010 18:06	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
054f5401.d	249699006	YS1	23-MAR-2010 18:20	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
055f5501.d	WAR100222-60 07	YS1	23-MAR-2010 18:35			032310a	1.0		PASSED ON BOTH COLUMNS

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	WAR100219-99 08	YS1	23-MAR-2010 18:47			032310a	1.0		CLEAN
057f5701.d	1202076035	YS1	23-MAR-2010 19:00	967272	10-2261		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	1202076036	YS1	23-MAR-2010 19:13	967272	10-2261		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	248689001	YS1	23-MAR-2010 19:25	967272	10-2261		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	1202076037	YS1	23-MAR-2010 19:38	967272	10-2261		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	1202076038	YS1	23-MAR-2010 19:50	967272	10-2261		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
062f6201.d	248689003	YS1	23-MAR-2010 20:03	967272	10-2261		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	248689005	YS1	23-MAR-2010 20:16	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	248689006	YS1	23-MAR-2010 20:28	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	248689007	YS1	23-MAR-2010 20:41	967272	10-2261		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	248689008	YS1	23-MAR-2010 20:54	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	WAR100222-60 08	YS1	23-MAR-2010 21:06		032310a		1.0		PASSED ON BOTH COLUMNS
068f6801.d	WAR100219-99 09	YS1	23-MAR-2010 21:19		032310a		1.0		CLEAN
069f6901.d	248689009	YS1	23-MAR-2010 21:32	967272	10-2261		50.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	248689010	YS1	23-MAR-2010 21:44	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	248689011	YS1	23-MAR-2010 21:57	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
072f7201.d	248689012	YS1	23-MAR-2010 22:09	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	248689013	YS1	23-MAR-2010 22:22	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	248689014	YS1	23-MAR-2010 22:35	967272	10-2261		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	248689015	YS1	23-MAR-2010 22:47	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	248689016	YS1	23-MAR-2010 23:00	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	248689017	YS1	23-MAR-2010 23:13	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	248689018	YS1	23-MAR-2010 23:25	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	WAR100222-60 09	YS1	23-MAR-2010 23:38		032310a	1.0		PASSED ON BOTH COLUMNS
080f8001.d	WAR100219-99 10	YS1	23-MAR-2010 23:50		032310a	1.0		CLEAN
081f8101.d	248866001	YS1	24-MAR-2010 00:03	967400	10-2319	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	248866002	YS1	24-MAR-2010 00:16	967400	10-2319	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
083f8301.d	248867001	YS1	24-MAR-2010 00:28	967400	10-2320	1.0	LANL	RE SURROGATE LOW
084f8401.d	248867002	YS1	24-MAR-2010 00:41	967400	10-2320	1.0	LANL	RE SURROGATE LOW
085f8501.d	248867003	YS1	24-MAR-2010 00:54	967400	10-2320	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	248867004	YS1	24-MAR-2010 01:06	967400	10-2320	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	WAR100222-60 10	YS1	24-MAR-2010 01:19		032310a	1.0		PASSED ON BOTH COLUMNS
088f8801.d	WAR100219-99 11	YS1	24-MAR-2010 01:31		032310a	1.0		CLEAN
089f8901.d		YS1	24-MAR-2010 02:42		032310a	1.0		DUSE SCREEN

090f9001.d	YS1	24-MAR-2010 03:52	032310a	1.0	DUSE SCREEN	

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/016b1601.d
Lab Smp Id: 1202076365 Client Smp ID: RE46-10-12930MS
Inj Date : 23-MAR-2010 10:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076365|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 16 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	23544458	89.7504	3.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.912	-0.001	21341456	114.020	4.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	6432404	511.118	18.6	80.00- 120.00	100.00(M)
3.246	3.248	-0.002	4305536	498.660	18.2	45.31- 85.31	66.94
3.310	3.311	-0.001	2619092	495.417	18.0	20.51- 60.51	40.72
3.537	3.538	-0.001	3430764	497.737	18.1	31.09- 71.09	53.34

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.612	3.614	-0.002	2837720	441.836	16.1	37.88- 77.88	54.31
Average of Peak Concentrations =					17.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	8098250	619.121	22.5	80.00- 120.00	100.00(M)
4.427	4.428	-0.001	8587128	552.262	20.1	101.60- 141.60	106.04
4.693	4.695	-0.002	7202376	605.442	22.0	71.82- 111.82	88.94
4.866	4.867	-0.001	7186212	584.758	21.3	75.59- 115.59	88.74
5.014	5.015	-0.001	16513408	625.635	22.8	192.18- 232.18	203.91
Average of Peak Concentrations =					21.7		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/016b1601.d
Date : 23-MAR-2010 10:25
Client ID: RE46-10-12930MS
Sample Info: |1202076365|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

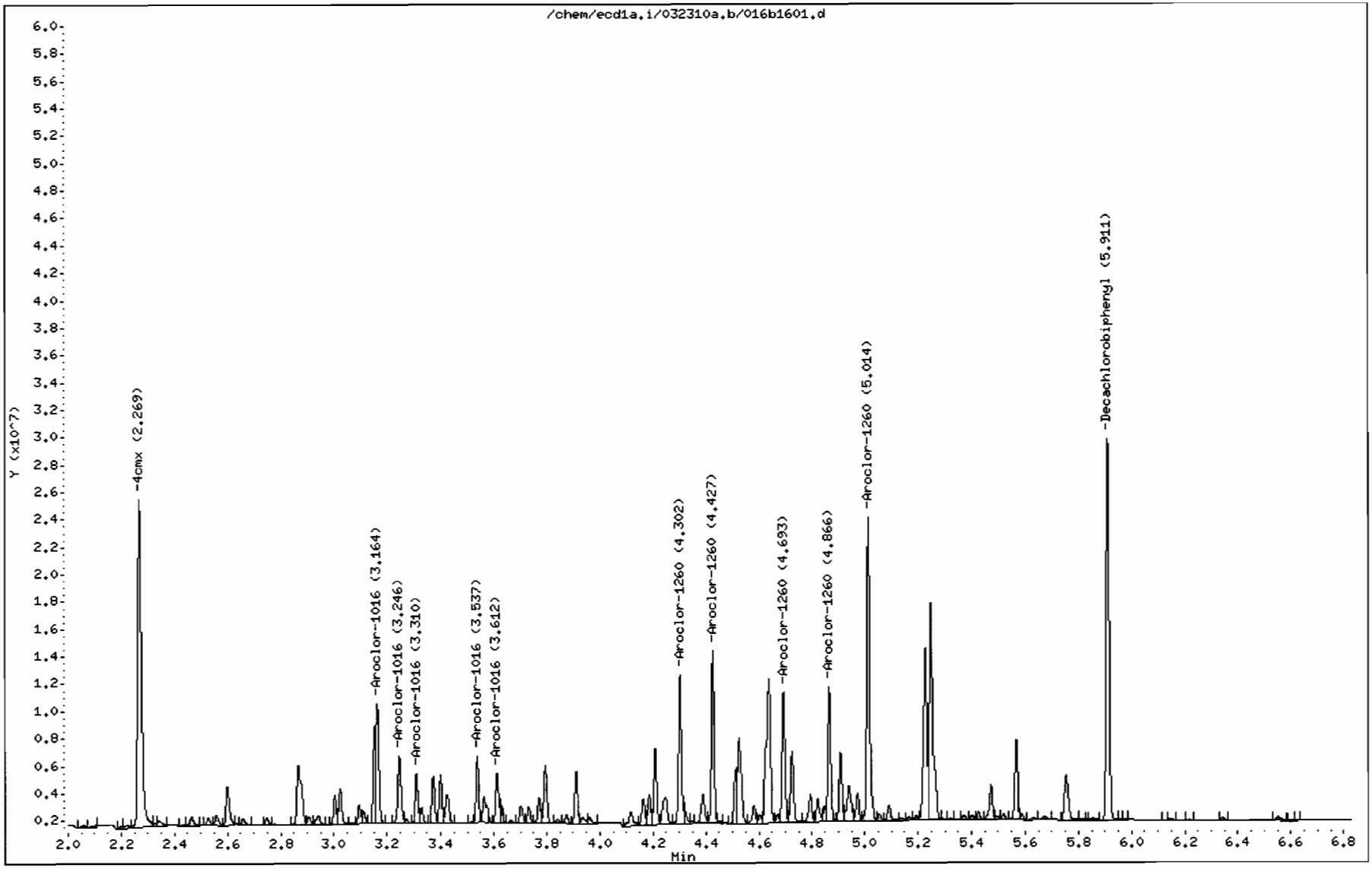

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/016f1601.d
Lab Smp Id: 1202076365 Client Smp ID: RE46-10-12930MS
Inj Date : 23-MAR-2010 10:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076365|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 16 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.913	-0.003	38311340	98.3545	3.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	33890889	114.137	4.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.365	-0.002	7409790	488.231	17.8	80.00- 120.00	100.00
2.650	2.651	-0.001	10039875	530.207	19.3	107.62- 147.62	135.49
2.730	2.732	-0.002	6163757	495.393	18.0	58.11- 98.11	83.18
2.768	2.770	-0.002	3669626	499.383	18.2	27.09- 67.09	49.52

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.978	2.980	-0.002	4381218	460.320	16.8	40.72- 80.72	59.13
Average of Peak Concentrations =					18.0		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	11269491	614.808	22.4	80.00- 120.00	100.00
3.865	3.867	-0.002	16550116	615.479	22.4	129.35- 169.35	146.86
4.027	4.030	-0.003	17484112	617.479	22.5	139.27- 179.27	155.15
4.095	4.097	-0.002	10164870	629.097	22.9	70.04- 110.04	90.20
4.238	4.240	-0.002	10013847	595.613	21.7	74.22- 114.22	88.86
Average of Peak Concentrations =					22.4		

Data File: /chem/ecd1a.i/032310a.b/016f1601.d

Date : 23-MAR-2010 10:25

Client ID: RE46-10-12930MS

Sample Info: |1202076365|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

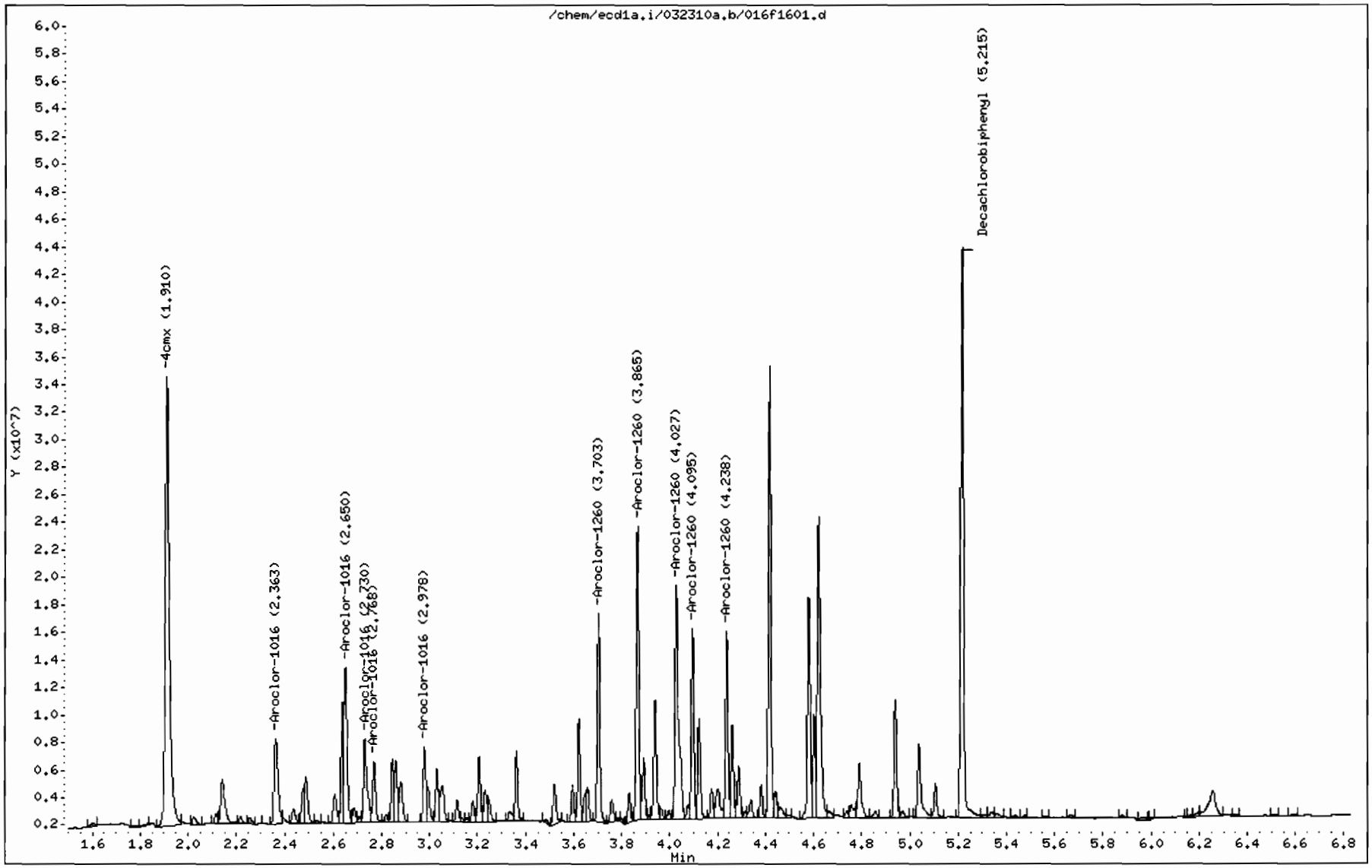

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/017b1701.d
Lab Smp Id: 1202076366 Client Smp ID: RE46-10-12930MSD
Inj Date : 23-MAR-2010 10:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076366|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 17 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	30645536	116.819	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	25077158	133.978	4.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	7682155	610.423	22.2	80.00- 120.00	100.00(M)
3.247	3.248	-0.001	5009387	580.179	21.1	45.31- 85.31	65.21
3.310	3.311	-0.001	3050696	577.058	21.0	20.51- 60.51	39.71
3.537	3.538	-0.001	3967793	575.650	21.0	31.09- 71.09	51.65

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.612	3.614	-0.002	3481107	542.012	19.7	37.88- 77.88	55.05
Average of Peak Concentrations =					21.0		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	8714119	666.205	24.2	80.00- 120.00	100.00
4.427	4.428	-0.001	10606333	682.122	24.8	101.60- 141.60	121.71
4.693	4.695	-0.002	8095314	680.503	24.8	71.82- 111.82	92.90
4.866	4.867	-0.001	8341264	678.747	24.7	75.59- 115.59	95.72
5.014	5.015	-0.001	18790623	711.911	25.9	192.18- 232.18	215.63
Average of Peak Concentrations =					24.9		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/017b1701.d

Date : 23-MAR-2010 10:37

Client ID: RE46-10-12930MSD

Sample Info: |1202076366|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

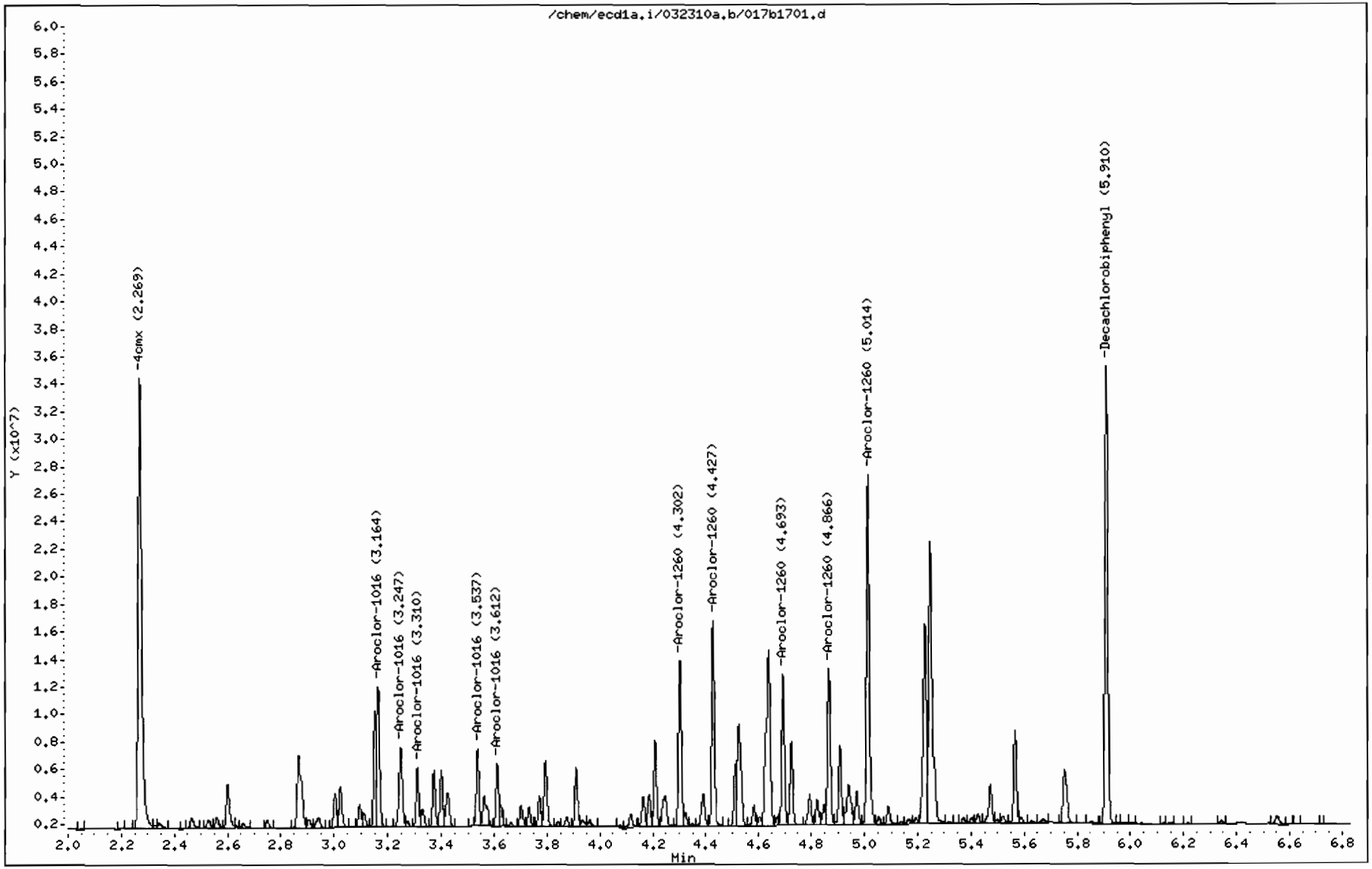

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/017f1701.d
Lab Smp Id: 1202076366 Client Smp ID: RE46-10-12930MSD
Inj Date : 23-MAR-2010 10:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076366|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 17 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2244.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	47813392	122.749	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	43027538	144.908	5.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.365	-0.002	9107248	600.077	21.8	80.00- 120.00	100.00
2.650	2.651	-0.001	11740813	620.033	22.6	107.62- 147.62	128.92
2.730	2.732	-0.002	7057387	567.216	20.6	58.11- 98.11	77.49
2.768	2.770	-0.002	4170651	567.565	20.7	27.09- 67.09	45.79

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.978	2.980	-0.002	5475533	575.295	20.9	40.72- 80.72	60.12
		Average of Peak Concentrations =			21.3		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	12582459	686.437	25.0	80.00- 120.00	100.00
3.865	3.867	-0.002	19194350	713.814	26.0	129.35- 169.35	152.55
4.028	4.030	-0.002	20553278	725.872	26.4	139.27- 179.27	163.35
4.095	4.097	-0.002	11550117	714.829	26.0	70.04- 110.04	91.80
4.238	4.240	-0.002	11954440	711.038	25.9	74.22- 114.22	95.01
		Average of Peak Concentrations =			25.9		

Data File: /chem/ecdia.i/032310a.b/017f1701.d
Date : 23-MAR-2010 10:37
Client ID: RE46-10-12930MSD
Sample Info: 1120207636611
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

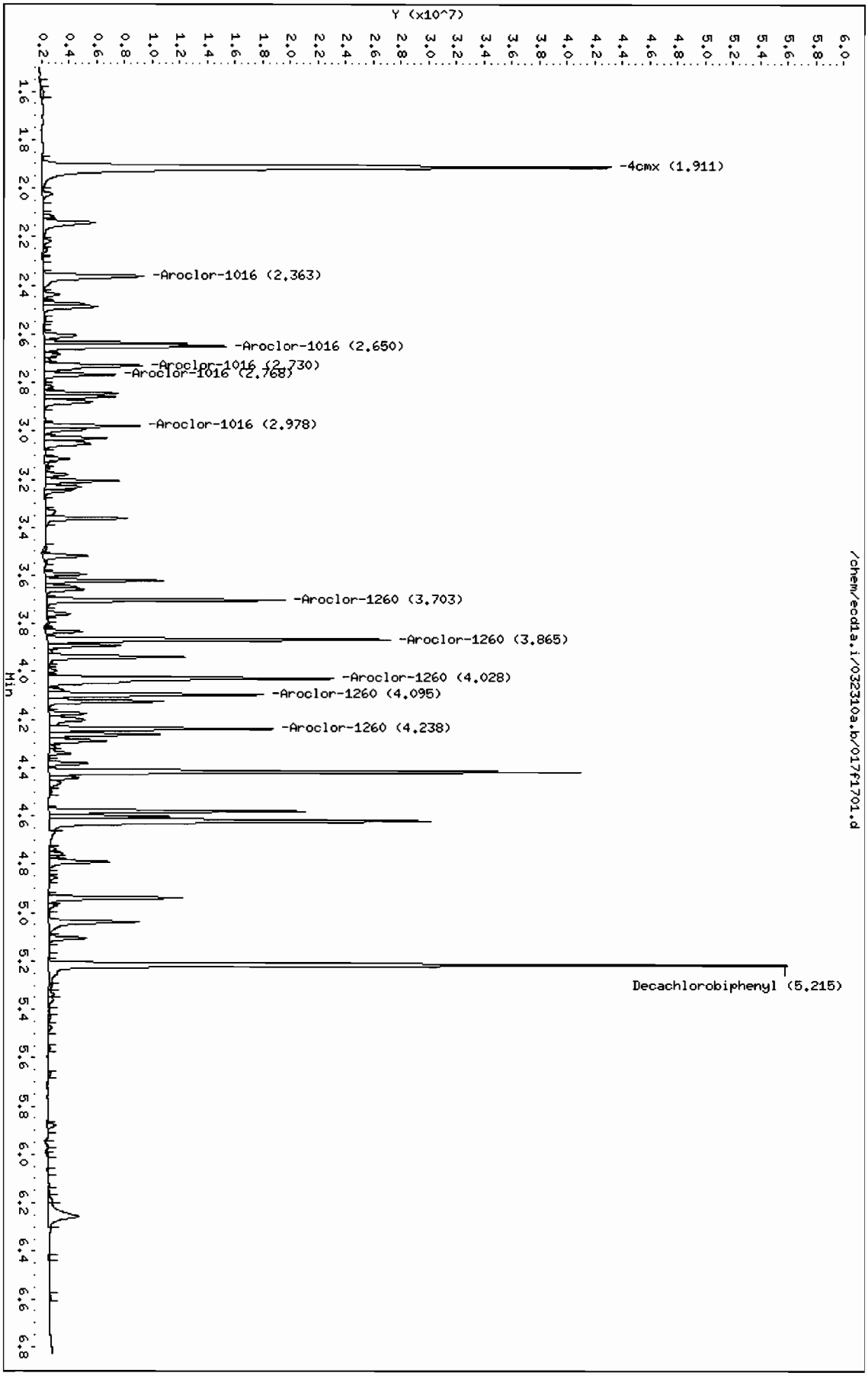

Page 1

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 967399 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202076363 MB	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
1202076364 LCS	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
248863001	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
248863002	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
1202076365 MS (248863002)	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
1202076366 MSD (248863002)	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248863003	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
248863004	22-MAR-2010 11:11:00	30.04	H2SO4/KMnl		1	8	1	0.03329
248865001	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248866001	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248866002	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
248867001	22-MAR-2010 11:11:00	30.08	H2SO4/KMnl		1	8	1	0.03324
248867002	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248867003	22-MAR-2010 11:11:00	30.02	H2SO4/KMnl		1	8	1	0.03331
248867004	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
249180001	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
249180002	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
249180003	22-MAR-2010 11:11:00	30.07	H2SO4/KMnl		1	8	1	0.03326
249180004	22-MAR-2010 11:11:00	30.09	H2SO4/KMnl		1	8	1	0.03323
249180005	22-MAR-2010 11:11:00	30.09	H2SO4/KMnl		1	8	1	0.03323
249180006	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
249180008	22-MAR-2010 11:11:00	30.09	H2SO4/KMnl		1	8	1	0.03323

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202076364	PCB Laboratory Control	WE100311-07	1	mL
MS	1202076365	PCB Laboratory Control	WE100311-07	1	mL
MSD	1202076366	PCB Laboratory Control	WE100311-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100310-16	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1273823-B1	150	mL
REGNT	All	Hexane	1279341-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 03/22/2010
Clean up Initials: RWH
Verified By: JAM
Final Solvent: Hexane
Clean Up SOP: GL-OA-E-037

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2318

Sample Analysis

Sample ID	Client ID
248865001	RE46-10-11924
1202068097	Method Blank (MB) **ICP**
1202092701	Method Blank (MB) **ICP**
1202068102	Laboratory Control Sample (LCS)
1202092702	Laboratory Control Sample (LCS)
1202068099	248860001(RE46-10-13782L) Serial Dilution (SD)
1202068098	248860001(RE46-10-13782D) Sample Duplicate (DUP)
1202068100	248860001(RE46-10-13782S) Matrix Spike (MS)
1202068101	248860001(RE46-10-13782SD) Matrix Spike Duplicate (MSD)
1202068103	Method Blank (MB) **ICP-MS**
1202068108	Laboratory Control Sample (LCS)
1202068105	248860001(RE46-10-13782L) Serial Dilution (SD)
1202068104	248860001(RE46-10-13782D) Sample Duplicate (DUP)
1202068106	248860001(RE46-10-13782S) Matrix Spike (MS)
1202068107	248860001(RE46-10-13782SD) Matrix Spike Duplicate (MSD)
1202076821	Method Blank (MB) **CVAA**
1202076822	Laboratory Control Sample (LCS)
1202076831	248834001(RE46-10-13867L) Serial Dilution (SD)
1202076823	248834001(RE46-10-13867D) Sample Duplicate (DUP)
1202076824	248834001(RE46-10-13867S) Matrix Spike (MS)
1202076832	248834001(RE46-10-13867SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch: 964012, 974047, 964014 and 967600
Prep Batch : 964011, 974044, 964013 and 967599

Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-009 REV# 20, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS analyzed with this SDG met the acceptance criteria of percent recovery with the exception of antimony. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 248860001 (RE46-10-13782)-ICP and ICP-MS and 248834001 (RE46-10-13867)-CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, manganese, potassium and sodium as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, manganese, potassium and sodium as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of calcium and chromium as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D) with the exception of potassium as indicated by the "E" qualifier.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER ID 814416 and 816871. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
No additional comments were needed for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nikki A. Elmore **Date:** 5-20-10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2318 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248865001 **BASIS:** Dry Weight **DATE COLLECTED** 03-MAR-10

CLIENT ID: RE46-10-11924 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1640000	ug/kg		7820	23000	23000	1	P	HSC	04/01/10 09:30	033110B-1	964012
7440-36-0	Antimony	1150	ug/kg	U	379	1150	1150	1	P	HSC	04/01/10 09:30	033110B-1	964012
7440-38-2	Arsenic	927	ug/kg	J	227	1140	1140	2	MS	BCD1	05/17/10 14:26	100517-3	964014
7440-39-3	Barium	14200	ug/kg		115	575	575	1	P	HSC	04/01/10 09:30	033110B-1	964012
7440-41-7	Beryllium	417	ug/kg		22.7	114	114	2	MS	PRB	05/17/10 20:42	100517-4	964014
7440-43-9	Cadmium	575	ug/kg	U	115	575	575	1	P	HSC	04/01/10 09:30	033110B-1	964012
7440-70-2	Calcium	554000	ug/kg		9250	28900	28900	1	P	LS	04/13/10 15:47	041310A-2	974047
7440-47-3	Chromium	1120	ug/kg		172	575	575	1	P	HSC	04/01/10 09:30	033110B-1	964012
7440-48-4	Cobalt	540	ug/kg	J	172	575	575	1	P	HSC	04/01/10 09:30	033110B-1	964012
7440-50-8	Copper	1520	ug/kg		345	1150	1150	1	P	HSC	04/01/10 09:30	033110B-1	964012
7439-89-6	Iron	5250000	ug/kg		9200	28700	28700	1	P	HSC	04/01/10 09:30	033110B-1	964012
7439-92-1	Lead	2940	ug/kg		287	1150	1150	1	P	HSC	04/01/10 09:30	033110B-1	964012
7439-95-4	Magnesium	307000	ug/kg		9770	34500	34500	1	P	HSC	04/01/10 09:30	033110B-1	964012
7439-96-5	Manganese	216000	ug/kg		230	1150	1150	1	P	HSC	04/01/10 09:30	033110B-1	964012
7439-97-6	Mercury	14	ug/kg	U	4.77	14	14	1	AV	JXL1	03/24/10 10:16	032410S1-5	967600
7440-02-0	Nickel	1460	ug/kg		114	455	455	2	MS	BCD1	05/17/10 14:26	100517-3	964014
7440-09-7	Potassium	309000	ug/kg		7360	28700	28700	1	P	HSC	04/01/10 09:30	033110B-1	964012
7782-49-2	Selenium	1140	ug/kg	U	568	1140	1140	2	MS	BCD1	05/17/10 14:26	100517-3	964014
7440-22-4	Silver	575	ug/kg	U	115	575	575	1	P	HSC	04/01/10 09:30	033110B-1	964012
7440-23-5	Sodium	142000	ug/kg		8050	28700	28700	1	P	HSC	04/01/10 09:30	033110B-1	964012
7440-28-0	Thallium	227	ug/kg	U	68.2	227	227	2	MS	BCD1	05/17/10 14:26	100517-3	964014
7440-62-2	Vanadium	2760	ug/kg		115	575	575	1	P	HSC	04/01/10 09:30	033110B-1	964012
7440-66-6	Zinc	16800	ug/kg		379	1150	1150	1	P	HSC	04/01/10 09:30	033110B-1	964012

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964012	964011	SW846 3050B	0.525	g	50	mL	03/13/10	AXG2
964014	964013	SW846 3050B	0.531	g	50	mL	03/13/10	AXG2
967600	967599	SW846 7471A Prep	0.516	g	30	mL	03/23/10	TXB3
974047	974044	SW846 3050B	0.522	g	50	mL	04/12/10	BXA1

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.12	ug/L	5	ug/L	102.4	90.0 – 110.0	AV	24-MAR-10 09:36	032410S1-5
	Aluminum	5150	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Antimony	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Barium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Cadmium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Chromium	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Cobalt	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Copper	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Lead	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Magnesium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Manganese	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Potassium	2520	ug/L	2500	ug/L	100.7	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Silver	258	ug/L	250	ug/L	103.3	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Sodium	2510	ug/L	2500	ug/L	100.5	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	31-MAR-10 18:47	033110B-1
	Calcium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	13-APR-10 14:05	041310A-2
	Arsenic	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	17-MAY-10 12:10	100517-3
	Nickel	51.1	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	17-MAY-10 12:10	100517-3
	Selenium	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	17-MAY-10 12:10	100517-3
	Thallium	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	17-MAY-10 12:10	100517-3
	Beryllium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	17-MAY-10 19:19	100517-4
CCV01										
	Mercury	5.03	ug/L	5	ug/L	100.6	80.0 – 120.0	AV	24-MAR-10 09:41	032410S1-5
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Antimony	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Barium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Cadmium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 18:59	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Magnesium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Manganese	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Potassium	5700	ug/L	5000	ug/L	113.9	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Vanadium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31–MAR–10 18:59	033110B–1
	Calcium	5190	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	13–APR–10 14:19	041310A–2
	Arsenic	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	17–MAY–10 12:30	100517–3
	Nickel	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	17–MAY–10 12:30	100517–3
	Selenium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	17–MAY–10 12:30	100517–3
	Thallium	48.5	ug/L	50	ug/L	96.9	90.0 – 110.0	MS	17–MAY–10 12:30	100517–3
	Beryllium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	17–MAY–10 19:27	100517–4
CCV02										
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 – 120.0	AV	24–MAR–10 10:01	032410S1–5
	Aluminum	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Antimony	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Barium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Cadmium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Chromium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Iron	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Lead	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Magnesium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	31–MAR–10 19:06	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5070	ug/L	5000	ug/L	101.5	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Silver	493	ug/L	500	ug/L	98.7	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Zinc	490	ug/L	500	ug/L	97.9	90.0 - 110.0	P	31-MAR-10 19:06	033110B-1
	Calcium	5080	ug/L	5000	ug/L	101.6	90.0 - 110.0	P	13-APR-10 14:26	041310A-2
	Arsenic	50	ug/L	50	ug/L	100.1	90.0 - 110.0	MS	17-MAY-10 12:43	100517-3
	Nickel	51.4	ug/L	50	ug/L	102.8	90.0 - 110.0	MS	17-MAY-10 12:43	100517-3
	Selenium	50.5	ug/L	50	ug/L	101	90.0 - 110.0	MS	17-MAY-10 12:43	100517-3
	Thallium	50.5	ug/L	50	ug/L	100.9	90.0 - 110.0	MS	17-MAY-10 12:43	100517-3
	Beryllium	48	ug/L	50	ug/L	96	90.0 - 110.0	MS	17-MAY-10 19:32	100517-4
CCV03										
	Mercury	5.29	ug/L	5	ug/L	105.7	80.0 - 120.0	AV	24-MAR-10 10:21	032410S1-5
	Aluminum	4980	ug/L	5000	ug/L	99.7	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Antimony	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Barium	491	ug/L	500	ug/L	98.3	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Cadmium	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Chromium	490	ug/L	500	ug/L	97.9	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Cobalt	493	ug/L	500	ug/L	98.7	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Copper	490	ug/L	500	ug/L	98	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Iron	4950	ug/L	5000	ug/L	99	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Lead	497	ug/L	500	ug/L	99.3	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Manganese	495	ug/L	500	ug/L	99	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Potassium	4970	ug/L	5000	ug/L	99.4	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Silver	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Vanadium	494	ug/L	500	ug/L	98.7	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Zinc	489	ug/L	500	ug/L	97.9	90.0 - 110.0	P	31-MAR-10 19:27	033110B-1
	Calcium	5070	ug/L	5000	ug/L	101.5	90.0 - 110.0	P	13-APR-10 14:34	041310A-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	50	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	17-MAY-10 13:20	100517-3
	Nickel	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	17-MAY-10 13:20	100517-3
	Selenium	50.3	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	17-MAY-10 13:20	100517-3
	Thallium	49.5	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	17-MAY-10 13:20	100517-3
	Beryllium	47.7	ug/L	50	ug/L	95.4	90.0 – 110.0	MS	17-MAY-10 19:53	100517-4
CCV04										
	Aluminum	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Antimony	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Barium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Cadmium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Chromium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Copper	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Iron	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Magnesium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Potassium	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Silver	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Sodium	9730	ug/L	10000	ug/L	97.3	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Vanadium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Zinc	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31-MAR-10 19:48	033110B-1
	Calcium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	13-APR-10 15:11	041310A-2
	Arsenic	49.2	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	17-MAY-10 14:10	100517-3
	Nickel	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	17-MAY-10 14:10	100517-3
	Selenium	50.9	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	17-MAY-10 14:10	100517-3
	Thallium	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	17-MAY-10 14:10	100517-3
	Beryllium	48.7	ug/L	50	ug/L	97.5	90.0 – 110.0	MS	17-MAY-10 20:11	100517-4
CCV05										
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	31-MAR-10 20:18	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Barium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Cadmium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Chromium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Copper	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Iron	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Lead	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Magnesium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Manganese	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Potassium	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Silver	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Sodium	9760	ug/L	10000	ug/L	97.6	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Vanadium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Zinc	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 20:18	033110B–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	13–APR–10 15:31	041310A–2
	Arsenic	49.3	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	17–MAY–10 14:31	100517–3
	Nickel	49.8	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	17–MAY–10 14:31	100517–3
	Selenium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	17–MAY–10 14:31	100517–3
	Thallium	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	17–MAY–10 14:31	100517–3
	Beryllium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	17–MAY–10 20:29	100517–4
CCV06										
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Antimony	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Barium	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Cadmium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Chromium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Copper	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1
	Iron	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	31–MAR–10 20:46	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Manganese	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Potassium	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Silver	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Sodium	9750	ug/L	10000	ug/L	97.5	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Vanadium	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Zinc	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31-MAR-10 20:46	033110B-1
	Calcium	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	13-APR-10 15:49	041310A-2
	Beryllium	51.7	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	17-MAY-10 20:43	100517-4
CCV07										
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Antimony	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Barium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Cadmium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Chromium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Copper	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Iron	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Manganese	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Silver	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Sodium	9770	ug/L	10000	ug/L	97.7	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Vanadium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
	Zinc	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31-MAR-10 21:16	033110B-1
CCV08										
	Aluminum	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1
	Antimony	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	31-MAR-10 21:39	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Cadmium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Chromium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Cobalt	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Copper	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Iron	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Manganese	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Potassium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Silver	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Sodium	9710	ug/L	10000	ug/L	97.1	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Vanadium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
	Zinc	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:39	033110B–1
CCV09										
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Antimony	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Barium	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Cadmium	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Chromium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Cobalt	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Iron	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Lead	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Magnesium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Manganese	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Potassium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Silver	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Sodium	9660	ug/L	10000	ug/L	96.6	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1
	Vanadium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 21:55	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31-MAR-10 21:55	033110B-1
CCV10										
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Antimony	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Cadmium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Chromium	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Cobalt	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Copper	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Iron	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Lead	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Magnesium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Manganese	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Silver	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Sodium	9610	ug/L	10000	ug/L	96.1	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Vanadium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
	Zinc	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31-MAR-10 22:12	033110B-1
CCV11										
	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Antimony	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Barium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Cadmium	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Chromium	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Cobalt	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Copper	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Iron	4800	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Lead	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Magnesium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Manganese	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	4800	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Silver	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Sodium	9560	ug/L	10000	ug/L	95.6	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Vanadium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
	Zinc	472	ug/L	500	ug/L	94.5	90.0 – 110.0	P	31-MAR-10 22:35	033110B-1
CCV12										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Antimony	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Barium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Cadmium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Chromium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Cobalt	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Copper	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Lead	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Magnesium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Manganese	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Silver	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Sodium	9590	ug/L	10000	ug/L	95.9	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Vanadium	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
	Zinc	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31-MAR-10 22:56	033110B-1
CCV13										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Antimony	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Cadmium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Chromium	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	31-MAR-10 23:18	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Lead	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Magnesium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Manganese	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Potassium	4800	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Silver	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Sodium	9620	ug/L	10000	ug/L	96.2	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Vanadium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
	Zinc	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	31–MAR–10 23:18	033110B–1
CCV14										
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Antimony	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Barium	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Cadmium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Chromium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Copper	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Lead	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Magnesium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Manganese	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Potassium	4790	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Silver	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Sodium	9600	ug/L	10000	ug/L	96	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Vanadium	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
	Zinc	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	31–MAR–10 23:44	033110B–1
CCV15										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Antimony	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Barium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 00:02	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Chromium	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Cobalt	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Iron	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Lead	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Magnesium	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Manganese	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Potassium	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Silver	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Sodium	9580	ug/L	10000	ug/L	95.8	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Vanadium	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
	Zinc	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	01–APR–10 00:02	033110B–1
CCV16										
	Aluminum	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Antimony	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Barium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Cadmium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Chromium	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Cobalt	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Lead	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Magnesium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Manganese	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Potassium	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Silver	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Sodium	9650	ug/L	10000	ug/L	96.5	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Vanadium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	01–APR–10 00:18	033110B–1
	Zinc	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01–APR–10 00:18	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV17										
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Antimony	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Barium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Cadmium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Chromium	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Cobalt	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Copper	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Iron	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Lead	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Magnesium	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Manganese	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Potassium	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Silver	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Sodium	9630	ug/L	10000	ug/L	96.3	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Vanadium	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
	Zinc	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	01–APR–10 00:42	033110B–1
CCV18										
	Aluminum	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Antimony	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Cadmium	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Chromium	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Cobalt	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Copper	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Iron	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Lead	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Magnesium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Manganese	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Potassium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	01–APR–10 01:06	033110B–1
	Silver	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 01:06	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	9660	ug/L	10000	ug/L	96.6	90.0 - 110.0	P	01-APR-10 01:06	033110B-1
	Vanadium	481	ug/L	500	ug/L	96.3	90.0 - 110.0	P	01-APR-10 01:06	033110B-1
	Zinc	474	ug/L	500	ug/L	94.8	90.0 - 110.0	P	01-APR-10 01:06	033110B-1
CCV19										
	Aluminum	4980	ug/L	5000	ug/L	99.5	90.0 - 110.0	P	01-APR-10 01:30	033110B-1
	Antimony	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	01-APR-10 01:30	033110B-1
	Barium	478	ug/L	500	ug/L	95.6	90.0 - 110.0	P	01-APR-10 01:30	033110B-1
	Cadmium	474	ug/L	500	ug/L	94.9	90.0 - 110.0	P	01-APR-10 01:30	033110B-1
	Chromium	474	ug/L	500	ug/L	94.9	90.0 - 110.0	P	01-APR-10 01:30	033110B-1
	Cobalt	478	ug/L	500	ug/L	95.6	90.0 - 110.0	P	01-APR-10 01:30	033110B-1
	Copper	476	ug/L	500	ug/L	95.2	90.0 - 110.0	P	01-APR-10 01:30	033110B-1
	Iron	4830	ug/L	5000	ug/L	96.6	90.0 - 110.0	P	01-APR-10 01:30	033110B-1
	Lead	482	ug/L	500	ug/L	96.4	90.0 - 110.0	P	01-APR-10 01:30	033110B-1
	Magnesium	4990	ug/L	5000	ug/L	99.7	90.0 - 110.0	P	01-APR-10 01:30	033110B-1
	Manganese	480	ug/L	500	ug/L	95.9	90.0 - 110.0	P	01-APR-10 01:30	033110B-1
	Potassium	5020	ug/L	5000	ug/L	100.3	90.0 - 110.0	P	01-APR-10 01:30	033110B-1
	Silver	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	01-APR-10 01:30	033110B-1
	Sodium	9650	ug/L	10000	ug/L	96.5	90.0 - 110.0	P	01-APR-10 01:30	033110B-1
	Vanadium	480	ug/L	500	ug/L	96	90.0 - 110.0	P	01-APR-10 01:30	033110B-1
	Zinc	473	ug/L	500	ug/L	94.6	90.0 - 110.0	P	01-APR-10 01:30	033110B-1
CCV20										
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 - 110.0	P	01-APR-10 01:53	033110B-1
	Antimony	480	ug/L	500	ug/L	96	90.0 - 110.0	P	01-APR-10 01:53	033110B-1
	Barium	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	01-APR-10 01:53	033110B-1
	Cadmium	477	ug/L	500	ug/L	95.5	90.0 - 110.0	P	01-APR-10 01:53	033110B-1
	Chromium	475	ug/L	500	ug/L	95.1	90.0 - 110.0	P	01-APR-10 01:53	033110B-1
	Cobalt	480	ug/L	500	ug/L	96	90.0 - 110.0	P	01-APR-10 01:53	033110B-1
	Copper	477	ug/L	500	ug/L	95.5	90.0 - 110.0	P	01-APR-10 01:53	033110B-1
	Iron	4810	ug/L	5000	ug/L	96.3	90.0 - 110.0	P	01-APR-10 01:53	033110B-1
	Lead	482	ug/L	500	ug/L	96.3	90.0 - 110.0	P	01-APR-10 01:53	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Manganese	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Potassium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Silver	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Sodium	9700	ug/L	10000	ug/L	97	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Vanadium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
	Zinc	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01–APR–10 01:53	033110B–1
CCV21										
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Antimony	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Barium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Cadmium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Chromium	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Cobalt	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Iron	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Lead	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Magnesium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Manganese	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Potassium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Silver	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Sodium	9830	ug/L	10000	ug/L	98.3	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Vanadium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
	Zinc	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	01–APR–10 02:19	033110B–1
CCV22										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Antimony	475	ug/L	500	ug/L	95	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Barium	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Cadmium	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	01–APR–10 02:47	033110B–1
	Chromium	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	01–APR–10 02:47	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Iron	4780	ug/L	5000	ug/L	95.5	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Lead	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Magnesium	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Manganese	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Potassium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Silver	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Sodium	11600	ug/L	10000	ug/L	115.7	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Vanadium	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
	Zinc	470	ug/L	500	ug/L	94.1	90.0 – 110.0	P	01-APR-10 02:47	033110B-1
CCV23										
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Antimony	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Barium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Cadmium	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Chromium	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Cobalt	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Iron	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Lead	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Magnesium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Manganese	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Potassium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Silver	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Sodium	10300	ug/L	10000	ug/L	102.8	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Vanadium	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
	Zinc	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	01-APR-10 03:13	033110B-1
CCV24										
	Aluminum	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	01-APR-10 04:39	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Barium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Cadmium	475	ug/L	500	ug/L	95	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Chromium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Cobalt	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Iron	4790	ug/L	5000	ug/L	95.8	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Lead	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Magnesium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Manganese	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Potassium	4810	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Silver	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Vanadium	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
	Zinc	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	01–APR–10 04:39	033110B–1
CCV25										
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Antimony	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Barium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Cadmium	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Chromium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Cobalt	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Copper	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Iron	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Lead	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Magnesium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Manganese	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Potassium	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Silver	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01–APR–10 05:03	033110B–1
	Sodium	9800	ug/L	10000	ug/L	98	90.0 – 110.0	P	01–APR–10 05:03	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	481	ug/L	500	ug/L	96.1	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
	Zinc	473	ug/L	500	ug/L	94.7	90.0 - 110.0	P	01-APR-10 05:03	033110B-1
CCV26										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Antimony	474	ug/L	500	ug/L	94.8	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Barium	477	ug/L	500	ug/L	95.5	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Cadmium	476	ug/L	500	ug/L	95.1	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Chromium	474	ug/L	500	ug/L	94.7	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Cobalt	480	ug/L	500	ug/L	96	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Copper	477	ug/L	500	ug/L	95.4	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Iron	4810	ug/L	5000	ug/L	96.1	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Lead	478	ug/L	500	ug/L	95.7	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Magnesium	4880	ug/L	5000	ug/L	97.6	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Manganese	480	ug/L	500	ug/L	96	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Potassium	4910	ug/L	5000	ug/L	98.2	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Silver	476	ug/L	500	ug/L	95.2	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Sodium	9780	ug/L	10000	ug/L	97.8	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Vanadium	480	ug/L	500	ug/L	96	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
	Zinc	473	ug/L	500	ug/L	94.7	90.0 - 110.0	P	01-APR-10 05:25	033110B-1
CCV27										
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 - 110.0	P	01-APR-10 05:48	033110B-1
	Antimony	478	ug/L	500	ug/L	95.5	90.0 - 110.0	P	01-APR-10 05:48	033110B-1
	Barium	477	ug/L	500	ug/L	95.3	90.0 - 110.0	P	01-APR-10 05:48	033110B-1
	Cadmium	474	ug/L	500	ug/L	94.8	90.0 - 110.0	P	01-APR-10 05:48	033110B-1
	Chromium	473	ug/L	500	ug/L	94.6	90.0 - 110.0	P	01-APR-10 05:48	033110B-1
	Cobalt	480	ug/L	500	ug/L	95.9	90.0 - 110.0	P	01-APR-10 05:48	033110B-1
	Copper	477	ug/L	500	ug/L	95.3	90.0 - 110.0	P	01-APR-10 05:48	033110B-1
	Iron	4800	ug/L	5000	ug/L	96.1	90.0 - 110.0	P	01-APR-10 05:48	033110B-1
	Lead	482	ug/L	500	ug/L	96.5	90.0 - 110.0	P	01-APR-10 05:48	033110B-1
	Magnesium	4870	ug/L	5000	ug/L	97.5	90.0 - 110.0	P	01-APR-10 05:48	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Potassium	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Silver	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Sodium	9740	ug/L	10000	ug/L	97.4	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Vanadium	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
	Zinc	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01-APR-10 05:48	033110B-1
CCV28										
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Antimony	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Barium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Cadmium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Chromium	475	ug/L	500	ug/L	94.9	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Cobalt	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Iron	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Lead	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Magnesium	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Manganese	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Potassium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Silver	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Sodium	9740	ug/L	10000	ug/L	97.4	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Vanadium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
	Zinc	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	01-APR-10 06:04	033110B-1
CCV29										
	Aluminum	4810	ug/L	5000	ug/L	96.3	90.0 – 110.0	P	01-APR-10 06:27	033110B-1
	Antimony	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	01-APR-10 06:27	033110B-1
	Barium	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	01-APR-10 06:27	033110B-1
	Cadmium	463	ug/L	500	ug/L	92.7	90.0 – 110.0	P	01-APR-10 06:27	033110B-1
	Chromium	463	ug/L	500	ug/L	92.6	90.0 – 110.0	P	01-APR-10 06:27	033110B-1
	Cobalt	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	01-APR-10 06:27	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	467	ug/L	500	ug/L	93.5	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
	Iron	4690	ug/L	5000	ug/L	93.7	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
	Lead	470	ug/L	500	ug/L	94	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
	Magnesium	4780	ug/L	5000	ug/L	95.5	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
	Manganese	469	ug/L	500	ug/L	93.8	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
	Potassium	4760	ug/L	5000	ug/L	95.3	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
	Silver	466	ug/L	500	ug/L	93.1	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
	Sodium	9490	ug/L	10000	ug/L	94.9	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
	Vanadium	470	ug/L	500	ug/L	94	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
	Zinc	461	ug/L	500	ug/L	92.2	90.0 - 110.0	P	01-APR-10 06:27	033110B-1
CCV30										
	Aluminum	4860	ug/L	5000	ug/L	97.2	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Antimony	460	ug/L	500	ug/L	92.1	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Barium	468	ug/L	500	ug/L	93.6	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Cadmium	465	ug/L	500	ug/L	93	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Chromium	464	ug/L	500	ug/L	92.8	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Cobalt	470	ug/L	500	ug/L	94	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Copper	468	ug/L	500	ug/L	93.5	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Iron	4730	ug/L	5000	ug/L	94.5	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Lead	466	ug/L	500	ug/L	93.2	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Magnesium	4820	ug/L	5000	ug/L	96.3	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Manganese	471	ug/L	500	ug/L	94.1	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Potassium	4830	ug/L	5000	ug/L	96.5	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Silver	466	ug/L	500	ug/L	93.3	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Sodium	9560	ug/L	10000	ug/L	95.6	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Vanadium	471	ug/L	500	ug/L	94.2	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
	Zinc	461	ug/L	500	ug/L	92.3	90.0 - 110.0	P	01-APR-10 06:50	033110B-1
CCV31										
	Aluminum	4870	ug/L	5000	ug/L	97.3	90.0 - 110.0	P	01-APR-10 07:15	033110B-1
	Antimony	458	ug/L	500	ug/L	91.6	90.0 - 110.0	P	01-APR-10 07:15	033110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Cadmium	462	ug/L	500	ug/L	92.4	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Chromium	462	ug/L	500	ug/L	92.4	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Cobalt	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Copper	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Iron	4710	ug/L	5000	ug/L	94.2	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Lead	465	ug/L	500	ug/L	93	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Magnesium	4770	ug/L	5000	ug/L	95.4	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Manganese	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Potassium	4840	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Silver	464	ug/L	500	ug/L	92.9	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Sodium	9480	ug/L	10000	ug/L	94.8	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Vanadium	469	ug/L	500	ug/L	93.9	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
	Zinc	459	ug/L	500	ug/L	91.7	90.0 – 110.0	P	01-APR-10 07:15	033110B-1
CCV32										
	Aluminum	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Antimony	461	ug/L	500	ug/L	92.1	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Barium	469	ug/L	500	ug/L	93.7	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Cadmium	464	ug/L	500	ug/L	92.8	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Chromium	464	ug/L	500	ug/L	92.8	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Cobalt	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Copper	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Iron	4710	ug/L	5000	ug/L	94.2	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Lead	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Magnesium	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Manganese	470	ug/L	500	ug/L	93.9	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Potassium	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Silver	466	ug/L	500	ug/L	93.1	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Sodium	9500	ug/L	10000	ug/L	95	90.0 – 110.0	P	01-APR-10 07:36	033110B-1
	Vanadium	470	ug/L	500	ug/L	94	90.0 – 110.0	P	01-APR-10 07:36	033110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	460	ug/L	500	ug/L	92.1	90.0 – 110.0	P	01–APR–10 07:36	033110B–1
CCV33										
	Aluminum	4900	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Antimony	460	ug/L	500	ug/L	92	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Barium	468	ug/L	500	ug/L	93.5	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Cadmium	461	ug/L	500	ug/L	92.2	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Chromium	462	ug/L	500	ug/L	92.5	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Cobalt	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Copper	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Iron	4730	ug/L	5000	ug/L	94.5	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Lead	464	ug/L	500	ug/L	92.7	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Magnesium	4790	ug/L	5000	ug/L	95.8	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Manganese	469	ug/L	500	ug/L	93.9	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Potassium	4850	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Silver	465	ug/L	500	ug/L	93	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Sodium	9530	ug/L	10000	ug/L	95.3	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Vanadium	471	ug/L	500	ug/L	94.1	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
	Zinc	458	ug/L	500	ug/L	91.6	90.0 – 110.0	P	01–APR–10 08:00	033110B–1
CCV34										
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Antimony	465	ug/L	500	ug/L	92.9	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Barium	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Cadmium	462	ug/L	500	ug/L	92.5	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Chromium	463	ug/L	500	ug/L	92.6	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Cobalt	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Copper	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Iron	4750	ug/L	5000	ug/L	95.1	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Lead	468	ug/L	500	ug/L	93.5	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Magnesium	4770	ug/L	5000	ug/L	95.4	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Manganese	470	ug/L	500	ug/L	93.9	90.0 – 110.0	P	01–APR–10 08:22	033110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Silver	465	ug/L	500	ug/L	93	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Sodium	9510	ug/L	10000	ug/L	95.1	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Vanadium	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
	Zinc	459	ug/L	500	ug/L	91.8	90.0 – 110.0	P	01–APR–10 08:22	033110B–1
CCV35										
	Aluminum	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Antimony	463	ug/L	500	ug/L	92.5	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Barium	470	ug/L	500	ug/L	94	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Cadmium	464	ug/L	500	ug/L	92.9	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Chromium	465	ug/L	500	ug/L	92.9	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Cobalt	470	ug/L	500	ug/L	94	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Copper	470	ug/L	500	ug/L	93.9	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Iron	4730	ug/L	5000	ug/L	94.6	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Lead	469	ug/L	500	ug/L	93.8	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Magnesium	4850	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Manganese	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Potassium	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Silver	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Sodium	9550	ug/L	10000	ug/L	95.5	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Vanadium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
	Zinc	461	ug/L	500	ug/L	92.3	90.0 – 110.0	P	01–APR–10 08:55	033110B–1
CCV36										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Antimony	462	ug/L	500	ug/L	92.3	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Barium	469	ug/L	500	ug/L	93.8	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Cadmium	464	ug/L	500	ug/L	92.8	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Chromium	465	ug/L	500	ug/L	93.1	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Cobalt	469	ug/L	500	ug/L	93.7	90.0 – 110.0	P	01–APR–10 09:15	033110B–1
	Copper	469	ug/L	500	ug/L	93.8	90.0 – 110.0	P	01–APR–10 09:15	033110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2318

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	4740	ug/L	5000	ug/L	94.8	90.0 - 110.0	P	01-APR-10 09:15	033110B-1
	Lead	467	ug/L	500	ug/L	93.4	90.0 - 110.0	P	01-APR-10 09:15	033110B-1
	Magnesium	4830	ug/L	5000	ug/L	96.6	90.0 - 110.0	P	01-APR-10 09:15	033110B-1
	Manganese	470	ug/L	500	ug/L	94	90.0 - 110.0	P	01-APR-10 09:15	033110B-1
	Potassium	4840	ug/L	5000	ug/L	96.9	90.0 - 110.0	P	01-APR-10 09:15	033110B-1
	Silver	466	ug/L	500	ug/L	93.3	90.0 - 110.0	P	01-APR-10 09:15	033110B-1
	Sodium	9530	ug/L	10000	ug/L	95.3	90.0 - 110.0	P	01-APR-10 09:15	033110B-1
	Vanadium	472	ug/L	500	ug/L	94.4	90.0 - 110.0	P	01-APR-10 09:15	033110B-1
	Zinc	461	ug/L	500	ug/L	92.2	90.0 - 110.0	P	01-APR-10 09:15	033110B-1
CCV37										
	Aluminum	4840	ug/L	5000	ug/L	96.9	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Antimony	455	ug/L	500	ug/L	91.1	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Barium	462	ug/L	500	ug/L	92.4	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Cadmium	457	ug/L	500	ug/L	91.5	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Chromium	457	ug/L	500	ug/L	91.5	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Cobalt	461	ug/L	500	ug/L	92.3	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Copper	462	ug/L	500	ug/L	92.4	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Iron	4670	ug/L	5000	ug/L	93.4	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Lead	461	ug/L	500	ug/L	92.2	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Magnesium	4750	ug/L	5000	ug/L	95	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Manganese	464	ug/L	500	ug/L	92.7	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Potassium	4760	ug/L	5000	ug/L	95.1	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Silver	460	ug/L	500	ug/L	92	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Sodium	9410	ug/L	10000	ug/L	94.1	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Vanadium	465	ug/L	500	ug/L	93	90.0 - 110.0	P	01-APR-10 09:32	033110B-1
	Zinc	454	ug/L	500	ug/L	90.7	90.0 - 110.0	P	01-APR-10 09:32	033110B-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-2318

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS4,ICPMS7,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.129	ug/L	.2	ug/L	64.5	70.0 – 130.0	AV	24-MAR-10 09:39	032410S1-5
	Nickel	2.4	ug/L	2	ug/L	119.8	70.0 – 130.0	MS	17-MAY-10 12:18	100517-3
	Thallium	1.25	ug/L	1	ug/L	124.7	70.0 – 130.0	MS	17-MAY-10 12:18	100517-3
	Arsenic	6.42	ug/L	5	ug/L	128.4	70.0 – 130.0	MS	17-MAY-10 12:18	100517-3
	Selenium	5.94	ug/L	5	ug/L	118.9	70.0 – 130.0	MS	17-MAY-10 12:18	100517-3
	Beryllium	.574	ug/L	.5	ug/L	114.8	70.0 – 130.0	MS	17-MAY-10 19:22	100517-4
PQL01										
	Aluminum	204	ug/L	200	ug/L	101.9	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Iron	102	ug/L	100	ug/L	102.4	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Magnesium	311	ug/L	300	ug/L	103.7	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Potassium	150	ug/L	150	ug/L	99.9	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Sodium	280	ug/L	300	ug/L	93.3	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Barium	4.99	ug/L	5	ug/L	99.9	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Chromium	4.91	ug/L	5	ug/L	98.3	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Copper	10	ug/L	10	ug/L	100	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Zinc	10.1	ug/L	10	ug/L	101	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Vanadium	4.74	ug/L	5	ug/L	94.8	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Cobalt	5.18	ug/L	5	ug/L	103.6	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Cadmium	5.05	ug/L	5	ug/L	101	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Antimony	9.66	ug/L	10	ug/L	96.6	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Silver	4.61	ug/L	5	ug/L	92.3	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Manganese	10.3	ug/L	10	ug/L	103.1	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Lead	11.2	ug/L	10	ug/L	112	70.0 – 130.0	P	31-MAR-10 18:51	033110B-1
	Calcium	209	ug/L	200	ug/L	104.7	70.0 – 130.0	P	13-APR-10 14:10	041310A-2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	–0.078	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 09:37	032410S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 18:48	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 18:48	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 18:48	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 18:48	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 18:48	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 18:48	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 18:48	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	13–APR–10 14:07	041310A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	17–MAY–10 12:14	100517–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–MAY–10 12:14	100517–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	17–MAY–10 12:14	100517–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	17–MAY–10 12:14	100517–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–MAY–10 19:21	100517–4
CCB01										
	Mercury	–0.081	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 09:42	032410S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:01	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:01	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:01	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:01	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Potassium	298.29	+/–250		64.0	250	SOL	P	31–MAR–10 19:01	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Sodium	140.13	+/–250	J	70.0	250	SOL	P	31–MAR–10 19:01	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:01	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:01	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	13–APR–10 14:21	041310A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	17–MAY–10 12:35	100517–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–MAY–10 12:35	100517–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	17–MAY–10 12:35	100517–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	17–MAY–10 12:35	100517–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–MAY–10 19:29	100517–4
CCB02										
	Mercury	–0.081	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 10:02	032410S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:08	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:08	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:08	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:08	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:08	033110B–1
	Potassium	98.66	+/–250	J	64.0	250	SOL	P	31–MAR–10 19:08	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:08	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 19:08	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:08	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 19:08	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	13-APR-10 14:28	041310A-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	17-MAY-10 12:47	100517-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	17-MAY-10 12:47	100517-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	17-MAY-10 12:47	100517-3
	Thallium	0.4	+/-1	J	0.3	1.0	SOL	MS	17-MAY-10 12:47	100517-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	17-MAY-10 19:34	100517-4
CCB03										
	Mercury	-0.077	+/-.2	J	0.068	0.2	SOL	AV	24-MAR-10 10:22	032410S1-5
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 19:29	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 19:29	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:29	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:29	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 19:29	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 19:29	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 19:29	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 19:29	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 19:29	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 19:29	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 19:29	033110B-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 19:29	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:29	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 19:29	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 19:29	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 19:29	033110B-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	13-APR-10 14:36	041310A-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	17-MAY-10 13:24	100517-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	17-MAY-10 13:24	100517-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	17-MAY-10 13:24	100517-3

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	17–MAY–10 13:24	100517–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–MAY–10 19:54	100517–4
CCB04										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 19:50	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 19:50	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 19:50	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 19:50	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 19:50	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	13–APR–10 15:14	041310A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	17–MAY–10 14:14	100517–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–MAY–10 14:14	100517–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	17–MAY–10 14:14	100517–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	17–MAY–10 14:14	100517–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–MAY–10 20:13	100517–4
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 20:21	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:21	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 20:21	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Silver	–1.07	+/–5	J	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 20:21	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:21	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:21	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	13–APR–10 15:33	041310A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	17–MAY–10 14:35	100517–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–MAY–10 14:35	100517–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	17–MAY–10 14:35	100517–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	17–MAY–10 14:35	100517–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–MAY–10 20:30	100517–4
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 20:48	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 20:48	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 20:48	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 20:48	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 20:48	033110B–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	13–APR–10 15:51	041310A–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–MAY–10 20:45	100517–4
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 21:18	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:18	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 21:18	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 21:18	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 21:18	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 21:18	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:18	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:18	033110B–1
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 21:41	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:41	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 21:41	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 21:41	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 21:41	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 21:41	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:41	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:41	033110B–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 21:57	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 21:57	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 21:57	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 21:57	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 21:57	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 21:57	033110B–1
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 22:14	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:14	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:14	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 22:14	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 22:14	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 22:14	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 22:14	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:14	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:14	033110B–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 22:37	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:37	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 22:37	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 22:37	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 22:37	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 22:37	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:37	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:37	033110B–1
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 22:58	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:58	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 22:58	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 22:58	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 22:58	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 22:58	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 22:58	033110B–1
CCB13										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 23:20	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 23:20	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 23:20	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 23:20	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 23:20	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 23:20	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:20	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 23:20	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB14										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	31–MAR–10 23:46	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 23:46	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	31–MAR–10 23:46	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	31–MAR–10 23:46	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	31–MAR–10 23:46	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	31–MAR–10 23:46	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	31–MAR–10 23:46	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	31–MAR–10 23:46	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	31–MAR–10 23:46	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	31–MAR–10 23:46	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	31–MAR–10 23:46	033110B–1
CCB15										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 00:04	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 00:04	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:04	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:04	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 00:04	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 00:04	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 00:04	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 00:04	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 00:04	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 00:04	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 00:04	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–APR–10 00:04	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:04	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 00:04	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:04	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 00:04	033110B–1
CCB16										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 00:20	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 00:20	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:20	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:20	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 00:20	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 00:20	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 00:20	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 00:20	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 00:20	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 00:20	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 00:20	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–APR–10 00:20	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:20	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 00:20	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:20	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 00:20	033110B–1
CCB17										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 00:45	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 00:45	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:45	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:45	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 00:45	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 00:45	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 00:45	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 00:45	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 00:45	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 00:45	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 00:45	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	130.01	+/–250	J	64.0	250	SOL	P	01–APR–10 00:45	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:45	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 00:45	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 00:45	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 00:45	033110B–1
CCB18										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 01:09	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 01:09	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:09	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:09	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 01:09	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 01:09	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 01:09	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 01:09	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 01:09	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 01:09	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 01:09	033110B–1
	Potassium	195.24	+/–250	J	64.0	250	SOL	P	01–APR–10 01:09	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:09	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 01:09	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:09	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 01:09	033110B–1
CCB19										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 01:32	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 01:32	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:32	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:32	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 01:32	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 01:32	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 01:32	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 01:32	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 01:32	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 01:32	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 01:32	033110B–1
	Potassium	168.28	+/–250	J	64.0	250	SOL	P	01–APR–10 01:32	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:32	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 01:32	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:32	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 01:32	033110B–1
CCB20										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 01:55	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 01:55	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:55	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:55	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 01:55	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 01:55	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 01:55	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 01:55	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 01:55	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 01:55	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 01:55	033110B–1
	Potassium	90.72	+/–250	J	64.0	250	SOL	P	01–APR–10 01:55	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:55	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 01:55	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 01:55	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 01:55	033110B–1
CCB21										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 02:21	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 02:21	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:21	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:21	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 02:21	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 02:21	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 02:21	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 02:21	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 02:21	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 02:21	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 02:21	033110B–1
	Potassium	135.28	+/–250	J	64.0	250	SOL	P	01–APR–10 02:21	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:21	033110B–1
	Sodium	101.82	+/–250	J	70.0	250	SOL	P	01–APR–10 02:21	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:21	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 02:21	033110B–1
CCB22										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 02:49	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 02:49	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:49	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:49	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 02:49	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 02:49	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 02:49	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 02:49	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 02:49	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 02:49	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 02:49	033110B–1
	Potassium	180.17	+/–250	J	64.0	250	SOL	P	01–APR–10 02:49	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:49	033110B–1
	Sodium	1333.6	+/–250		70.0	250	SOL	P	01–APR–10 02:49	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 02:49	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 02:49	033110B–1
CCB23										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 03:15	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 03:15	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 03:15	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 03:15	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 03:15	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 03:15	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 03:15	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 03:15	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 03:15	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 03:15	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 03:15	033110B–1
	Potassium	79.28	+/–250	J	64.0	250	SOL	P	01–APR–10 03:15	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 03:15	033110B–1
	Sodium	570.33	+/–250		70.0	250	SOL	P	01–APR–10 03:15	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 03:15	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 03:15	033110B–1
CCB24										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 04:41	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 04:41	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 04:41	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 04:41	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 04:41	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 04:41	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 04:41	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 04:41	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 04:41	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 04:41	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 04:41	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–APR–10 04:41	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 04:41	033110B–1
	Sodium	192.35	+/–250	J	70.0	250	SOL	P	01–APR–10 04:41	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 04:41	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 04:41	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB25										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 05:05	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 05:05	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:05	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:05	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 05:05	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 05:05	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 05:05	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 05:05	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 05:05	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 05:05	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 05:05	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–APR–10 05:05	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:05	033110B–1
	Sodium	165.15	+/–250	J	70.0	250	SOL	P	01–APR–10 05:05	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:05	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 05:05	033110B–1
CCB26										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 05:27	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 05:27	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:27	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:27	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 05:27	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 05:27	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 05:27	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 05:27	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 05:27	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 05:27	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 05:27	033110B–1
	Potassium	94.5	+/–250	J	64.0	250	SOL	P	01–APR–10 05:27	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:27	033110B–1
	Sodium	132.11	+/–250	J	70.0	250	SOL	P	01–APR–10 05:27	033110B–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:27	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 05:27	033110B–1
CCB27										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 05:51	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 05:51	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:51	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:51	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 05:51	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 05:51	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 05:51	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 05:51	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 05:51	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 05:51	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 05:51	033110B–1
	Potassium	118.7	+/–250	J	64.0	250	SOL	P	01–APR–10 05:51	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:51	033110B–1
	Sodium	102.83	+/–250	J	70.0	250	SOL	P	01–APR–10 05:51	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 05:51	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 05:51	033110B–1
CCB28										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 06:06	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 06:06	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:06	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:06	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 06:06	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 06:06	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 06:06	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 06:06	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 06:06	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 06:06	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 06:06	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	99.52	+/–250	J	64.0	250	SOL	P	01–APR–10 06:06	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:06	033110B–1
	Sodium	93.82	+/–250	J	70.0	250	SOL	P	01–APR–10 06:06	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:06	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 06:06	033110B–1
CCB29										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 06:29	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 06:29	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:29	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:29	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 06:29	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 06:29	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 06:29	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 06:29	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 06:29	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 06:29	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 06:29	033110B–1
	Potassium	99.45	+/–250	J	64.0	250	SOL	P	01–APR–10 06:29	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:29	033110B–1
	Sodium	89.6	+/–250	J	70.0	250	SOL	P	01–APR–10 06:29	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:29	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 06:29	033110B–1
CCB30										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 06:52	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 06:52	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:52	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:52	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 06:52	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 06:52	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 06:52	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 06:52	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 06:52	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 06:52	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 06:52	033110B–1
	Potassium	95.07	+/–250	J	64.0	250	SOL	P	01–APR–10 06:52	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:52	033110B–1
	Sodium	72.63	+/–250	J	70.0	250	SOL	P	01–APR–10 06:52	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 06:52	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 06:52	033110B–1
CCB31										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 07:17	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 07:17	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:17	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:17	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 07:17	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 07:17	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 07:17	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 07:17	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 07:17	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 07:17	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 07:17	033110B–1
	Potassium	79.16	+/–250	J	64.0	250	SOL	P	01–APR–10 07:17	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:17	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 07:17	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:17	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 07:17	033110B–1
CCB32										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 07:38	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 07:38	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:38	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 07:38	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 07:38	033110B–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 07:38	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 07:38	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 07:38	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 07:38	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 07:38	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 07:38	033110B-1
	Potassium	82.92	+/-250	J	64.0	250	SOL	P	01-APR-10 07:38	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 07:38	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	01-APR-10 07:38	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 07:38	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 07:38	033110B-1
CCB33										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 08:02	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 08:02	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 08:02	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 08:02	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 08:02	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 08:02	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 08:02	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 08:02	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 08:02	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 08:02	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 08:02	033110B-1
	Potassium	103.22	+/-250	J	64.0	250	SOL	P	01-APR-10 08:02	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 08:02	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	01-APR-10 08:02	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 08:02	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 08:02	033110B-1
CCB34										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 08:25	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 08:25	033110B-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 08:25	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 08:25	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 08:25	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 08:25	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 08:25	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 08:25	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 08:25	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 08:25	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 08:25	033110B-1
	Potassium	107.1	+/-250	J	64.0	250	SOL	P	01-APR-10 08:25	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 08:25	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	01-APR-10 08:25	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 08:25	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 08:25	033110B-1
CCB35										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-APR-10 08:58	033110B-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 08:58	033110B-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 08:58	033110B-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 08:58	033110B-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 08:58	033110B-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-APR-10 08:58	033110B-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-APR-10 08:58	033110B-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-APR-10 08:58	033110B-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-APR-10 08:58	033110B-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-APR-10 08:58	033110B-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-APR-10 08:58	033110B-1
	Potassium	103.04	+/-250	J	64.0	250	SOL	P	01-APR-10 08:58	033110B-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 08:58	033110B-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	01-APR-10 08:58	033110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-APR-10 08:58	033110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-APR-10 08:58	033110B-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB36										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 09:17	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 09:17	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:17	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:17	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 09:17	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 09:17	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 09:17	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 09:17	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 09:17	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 09:17	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 09:17	033110B–1
	Potassium	83.14	+/–250	J	64.0	250	SOL	P	01–APR–10 09:17	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:17	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 09:17	033110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:17	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 09:17	033110B–1
CCB37										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–APR–10 09:34	033110B–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 09:34	033110B–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:34	033110B–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:34	033110B–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 09:34	033110B–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–APR–10 09:34	033110B–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–APR–10 09:34	033110B–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–APR–10 09:34	033110B–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–APR–10 09:34	033110B–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–APR–10 09:34	033110B–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–APR–10 09:34	033110B–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–APR–10 09:34	033110B–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:34	033110B–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–APR–10 09:34	033110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2318

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–APR–10 09:34	033110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–APR–10 09:34	033110B–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2318

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202068097								
	Chromium	149	ug/kg	+/–496	U	P	149	496
	Cobalt	149	ug/kg	+/–496	U	P	149	496
	Copper	298	ug/kg	+/–992	U	P	298	992
	Iron	7940	ug/kg	+/–24800	U	P	7940	24800
	Lead	248	ug/kg	+/–992	U	P	248	992
	Magnesium	8430	ug/kg	+/–29800	U	P	8430	29800
	Manganese	198	ug/kg	+/–992	U	P	198	992
	Potassium	8970	ug/kg	+/–24800	J	P	6350	24800
	Silver	99.2	ug/kg	+/–496	U	P	99.2	496
	Cadmium	99.2	ug/kg	+/–496	U	P	99.2	496
	Barium	99.2	ug/kg	+/–496	U	P	99.2	496
	Antimony	327	ug/kg	+/–992	U	P	327	992
	Aluminum	7060	ug/kg	+/–19800	J	P	6750	19800
	Sodium	6940	ug/kg	+/–24800	U	P	6940	24800
	Vanadium	99.2	ug/kg	+/–496	U	P	99.2	496
	Zinc	327	ug/kg	+/–992	U	P	327	992
1202068103								
	Arsenic	194	ug/kg	+/–969	U	MS	194	969
	Beryllium	19.4	ug/kg	+/–96.9	U	MS	19.4	96.9
	Nickel	96.9	ug/kg	+/–388	U	MS	96.9	388
	Selenium	484	ug/kg	+/–969	U	MS	484	969
	Thallium	58.1	ug/kg	+/–194	U	MS	58.1	194
1202076821								
	Mercury	–4.62	ug/kg	+/–11.1	J	AV	3.78	11.1
1202092701								
	Calcium	7840	ug/kg	+/–24500	U	P	7840	24500

METALS
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Interference Check Sample

SDG No: 10–2318

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	502000	ug/L	500000	ug/L	100	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Antimony	0.296	ug/L					31–MAR–10 18:53	033110B–1
	Barium	0.205	ug/L					31–MAR–10 18:53	033110B–1
	Cadmium	–1.97	ug/L					31–MAR–10 18:53	033110B–1
	Chromium	1.07	ug/L					31–MAR–10 18:53	033110B–1
	Cobalt	–6.06	ug/L					31–MAR–10 18:53	033110B–1
	Copper	4.63	ug/L					31–MAR–10 18:53	033110B–1
	Iron	190000	ug/L	200000	ug/L	95	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Lead	–4.1	ug/L					31–MAR–10 18:53	033110B–1
	Magnesium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	31–MAR–10 18:53	033110B–1
	Manganese	3.58	ug/L					31–MAR–10 18:53	033110B–1
	Potassium	–119.0	ug/L					31–MAR–10 18:53	033110B–1
	Silver	–2.44	ug/L					31–MAR–10 18:53	033110B–1
	Sodium	38.8	ug/L					31–MAR–10 18:53	033110B–1
	Vanadium	–0.082	ug/L					31–MAR–10 18:53	033110B–1
	Zinc	8.58	ug/L					31–MAR–10 18:53	033110B–1
ICSAB01									
	Aluminum	507000	ug/L	500000	ug/L	101	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Antimony	504	ug/L	500	ug/L	101	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Barium	499	ug/L	500	ug/L	99.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Cadmium	476	ug/L	500	ug/L	95.3	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Chromium	484	ug/L	500	ug/L	96.7	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Cobalt	442	ug/L	500	ug/L	88.5	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Copper	542	ug/L	500	ug/L	108	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Iron	192000	ug/L	200000	ug/L	96	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Lead	464	ug/L	500	ug/L	92.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Magnesium	485000	ug/L	500000	ug/L	97	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Manganese	486	ug/L	500	ug/L	97.2	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Potassium	5550	ug/L	5000	ug/L	111	80.0 – 120.0	31–MAR–10 18:55	033110B–1

METALS
–4–
Interference Check Sample

SDG No: 10–2318

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silver	267	ug/L	250	ug/L	107	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Sodium	5330	ug/L	5000	ug/L	107	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Vanadium	513	ug/L	500	ug/L	103	80.0 – 120.0	31–MAR–10 18:55	033110B–1
	Zinc	494	ug/L	500	ug/L	98.8	80.0 – 120.0	31–MAR–10 18:55	033110B–1

METALS
–4–
Interference Check Sample

SDG No: 10–2318

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Calcium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	13–APR–10 14:13	041310A–2
ICSAB01									
	Calcium	503000	ug/L	500000	ug/L	101	80.0 – 120.0	13–APR–10 14:15	041310A–2

METALS
-4-
Interference Check Sample

SDG No: 10-2318

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.243	ug/L					17-MAY-10 12:22	100517-3
	Nickel	2.72	ug/L					17-MAY-10 12:22	100517-3
	Selenium	-0.603	ug/L					17-MAY-10 12:22	100517-3
	Thallium	0.071	ug/L					17-MAY-10 12:22	100517-3
ICSAB01									
	Arsenic	20.4	ug/L	20	ug/L	102	80.0 - 120.0	17-MAY-10 12:26	100517-3
	Nickel	21.2	ug/L	23.31	ug/L	90.9	80.0 - 120.0	17-MAY-10 12:26	100517-3
	Selenium	21.2	ug/L	20	ug/L	106	80.0 - 120.0	17-MAY-10 12:26	100517-3
	Thallium	17.3	ug/L	20	ug/L	86.6	80.0 - 120.0	17-MAY-10 12:26	100517-3

METALS
–4–
Interference Check Sample

SDG No: 10–2318

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS7

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.128	ug/L					17–MAY–10 19:24	100517–4
ICSAB01									
	Beryllium	21.6	ug/L	20	ug/L	108	80.0 – 120.0	17–MAY–10 19:26	100517–4

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-2318 **Client ID** RE46-10-13782S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 86

Sample ID: 248860001 **Spike ID:** 1202068100

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg	75-125	2750000		1080000		576000	291	N	P
Antimony	ug/kg	75-125	50500		379	U	57600	87.6		P
Barium	ug/kg	75-125	68400		10600		57600	100		P
Cadmium	ug/kg	75-125	53800		115	U	57600	93.3		P
Calcium	ug/kg	75-125	706000		167000		543000	99.1		P
Chromium	ug/kg	75-125	56800		3310		57600	92.7		P
Cobalt	ug/kg	75-125	53100		296	J	57600	91.6		P
Copper	ug/kg	75-125	58200		1090	J	57600	99.1		P
Iron	ug/kg		5590000		4290000		576000	225	N/A	P
Lead	ug/kg	75-125	56900		2650		57600	94.1		P
Magnesium	ug/kg	75-125	653000		52700		576000	104		P
Manganese	ug/kg	75-125	257000		180000		57600	133	N	P
Potassium	ug/kg	75-125	1230000		396000		576000	145	N	P
Silver	ug/kg	75-125	53300		115	U	57600	92.5		P
Sodium	ug/kg	75-125	1160000		345000		576000	142	N	P
Vanadium	ug/kg	75-125	54700		1020		57600	93.2		P
Zinc	ug/kg	75-125	69100		13700		57600	96.1		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2318 **Client ID** RE46–10–13782SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 86

Sample ID: 248860001 **Spike ID:** 1202068101

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg	75–125	2530000		1080000		571000	254	N	P
Antimony	ug/kg	75–125	49200		379	U	57100	86.3		P
Barium	ug/kg	75–125	64500		10600		57100	94.3		P
Cadmium	ug/kg	75–125	52400		115	U	57100	91.9		P
Calcium	ug/kg	75–125	759000		167000		542000	109		P
Chromium	ug/kg	75–125	55100		3310		57100	90.7		P
Cobalt	ug/kg	75–125	51800		296	J	57100	90.3		P
Copper	ug/kg	75–125	56900		1090	J	57100	97.7		P
Iron	ug/kg		5290000		4290000		571000	176	N/A	P
Lead	ug/kg	75–125	55400		2650		57100	92.4		P
Magnesium	ug/kg	75–125	640000		52700		571000	103		P
Manganese	ug/kg	75–125	259000		180000		57100	139	N	P
Potassium	ug/kg	75–125	1170000		396000		571000	135	N	P
Silver	ug/kg	75–125	51900		115	U	57100	90.9		P
Sodium	ug/kg	75–125	1100000		345000		571000	133	N	P
Vanadium	ug/kg	75–125	53700		1020		57100	92.3		P
Zinc	ug/kg	75–125	68400		13700		57100	95.9		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2318 **Client ID** RE46–10–13782S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 86

Sample ID: 248860001 **Spike ID:** 1202068106

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	8440		223	U	9220	89.3		MS
Beryllium	ug/kg	75–125	5540		181		5760	93		MS
Nickel	ug/kg	75–125	6150		756		5760	93.5		MS
Selenium	ug/kg	75–125	2100		556	U	2310	86.2		MS
Thallium	ug/kg	75–125	10200		87.2	J	11500	87.8		MS

METALS
-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-2318 **Client ID** RE46-10-13782SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 86

Sample ID: 248860001 **Spike ID:** 1202068107

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75-125	8520		223	U	9040	92		MS
Beryllium	ug/kg	75-125	5460		181		5650	93.4		MS
Nickel	ug/kg	75-125	5910		756		5650	91.2		MS
Selenium	ug/kg	75-125	2140		556	U	2260	89.8		MS
Thallium	ug/kg	75-125	10100		87.2	J	11300	88.4		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2318 **Client ID** RE46–10–13867S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.1

Sample ID: 248834001 **Spike ID:** 1202076824

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	123		4.39	U	121	101		AV

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-2318 **Client ID** RE46-10-13867SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.1

Sample ID: 248834001 **Spike ID:** 1202076832

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	137		4.39	U	128	107		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2318

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13782D

Sample ID: 248860001 **Duplicate ID:** 1202068098 **Percent Solids for Dup:** 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	1080000		1060000		1.88		P
Antimony	ug/kg		379	U	370	U			P
Barium	ug/kg	+/–20%	10600		11000		2.94		P
Cadmium	ug/kg		115	U	112	U			P
Calcium	ug/kg	+/–20%	167000		623000		115	*	P
Chromium	ug/kg	+/–20%	3310		4210		23.8	*	P
Cobalt	ug/kg	+/–561	296	J	287	J	2.91		P
Copper	ug/kg	+/–1120	1090	J	1050	J	4.01		P
Iron	ug/kg	+/–20%	4290000		4240000		1.13		P
Lead	ug/kg	+/–1120	2650		2780		4.5		P
Magnesium	ug/kg	+/–33600	52700		63000		17.9		P
Manganese	ug/kg	+/–20%	180000		181000		.228		P
Potassium	ug/kg	+/–20%	396000		378000		4.63		P
Silver	ug/kg		115	U	112	U			P
Sodium	ug/kg	+/–20%	345000		336000		2.77		P
Vanadium	ug/kg	+/–561	1020		1150		12.1		P
Zinc	ug/kg	+/–20%	13700		13200		4.22		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2318

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13782SD

Sample ID: 1202068100 **Duplicate ID:** 1202068101 **Percent Solids for Dup:** 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	2750000		2530000		8.51		P
Antimony	ug/kg	+/–20	50500		49200		2.53		P
Barium	ug/kg	+/–20	68400		64500		5.92		P
Cadmium	ug/kg	+/–20	53800		52400		2.49		P
Calcium	ug/kg	+/–20	706000		759000		7.27		P
Chromium	ug/kg	+/–20	56800		55100		3		P
Cobalt	ug/kg	+/–20	53100		51800		2.34		P
Copper	ug/kg	+/–20	58200		56900		2.39		P
Iron	ug/kg	+/–20	5590000		5290000		5.41		P
Lead	ug/kg	+/–20	56900		55400		2.62		P
Magnesium	ug/kg	+/–20	653000		640000		2.12		P
Manganese	ug/kg	+/–20	257000		259000		.958		P
Potassium	ug/kg	+/–20	1230000		1170000		5.14		P
Silver	ug/kg	+/–20	53300		51900		2.73		P
Sodium	ug/kg	+/–20	1160000		1100000		5.06		P
Vanadium	ug/kg	+/–20	54700		53700		1.91		P
Zinc	ug/kg	+/–20	69100		68400		.987		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2318

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13782SD

Sample ID: 1202068106 **Duplicate ID:** 1202068107 **Percent Solids for Dup:** 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	8440		8520		.936		MS
Beryllium	ug/kg	+/–20	5540		5460		1.47		MS
Nickel	ug/kg	+/–20	6150		5910		3.88		MS
Selenium	ug/kg	+/–20	2100		2140		2.03		MS
Thallium	ug/kg	+/–20	10200		10100		1.23		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2318

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13867D

Sample ID: 248834001 **Duplicate ID:** 1202076823 **Percent Solids for Dup:** 92.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg		4.39	U	3.83	U			AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2318

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13867SD

Sample ID: 1202076824 **Duplicate ID:** 1202076832 **Percent Solids for Dup:** 92.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	123		137		11.3		AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2318

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202068108								
	Beryllium	ug/kg	77600	78900		102	84–116	MS
	Nickel	ug/kg	134000	154000		115	78–123	MS
	Selenium	ug/kg	286000	296000		103	77–123	MS
	Thallium	ug/kg	121000	123000		102	78–122	MS
	Arsenic	ug/kg	104000	107000		103	78–123	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2318

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202076822								
	Mercury	ug/kg	5150	4660		90.5	71.6–128.3	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2318

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202092702								
	Calcium	ug/kg	9870000	9750000		98.8	83–117	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2318 **Client ID** RE46–10–13782L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248860001 **Serial Dilution ID:** 1202068099

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	9400		9700		3.19		10	P
Antimony	3.3	U	16.5	U				P
Barium	92.7		92		.755		10	P
Cadmium	1	U	5	U				P
Calcium	1610		1690		4.97			P
Chromium	28.9		28.9		0			P
Cobalt	2.58	J	7.5	U	100			P
Copper	9.5	J	15	U	100			P
Iron	37300		37800		1.34		10	P
Lead	23.1		17.5	J	24.5			P
Magnesium	459		454	J	1.2			P
Manganese	1570		1580		.318		10	P
Potassium	3450		3830		10.9	E	10	P
Silver	1	U	5	U				P
Sodium	3010		3190		5.81			P
Vanadium	8.91		6.6	J	25.9			P
Zinc	120		117		2.5			P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2318 **Client ID** RE46-10-13867L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248834001 **Serial Dilution ID:** 1202076831

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.068	U	.34	U				AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2318 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 964011							
1202068097	MB for batch 964011	MB	S	13-MAR-10	.504g	50mL	
1202068102	LCS for batch 964011	LCS	S	13-MAR-10	.506g	50mL	
1202068100	RE46-10-13782S	MS	S	13-MAR-10	.504g	50mL	
1202068101	RE46-10-13782SD	MSD	S	13-MAR-10	.509g	50mL	
1202068098	RE46-10-13782D	DUP	S	13-MAR-10	.518g	50mL	
248865001	RE46-10-11924	SAMPLE	S	13-MAR-10	.525g	50mL	
Batch Number 974044							
1202092701	MB for batch 974044	MB	S	12-APR-10	.51g	50mL	
1202092702	LCS for batch 974044	LCS	S	12-APR-10	.509g	50mL	
1202068100	RE46-10-13782S	MS	S	12-APR-10	.535g	50mL	
1202068101	RE46-10-13782SD	MSD	S	12-APR-10	.536g	50mL	
1202068098	RE46-10-13782D	DUP	S	12-APR-10	.509g	50mL	
248865001	RE46-10-11924	SAMPLE	S	12-APR-10	.522g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2318 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	964013						
1202068103	MB for batch 964013	MB	S	13-MAR-10	.516g	50mL	
1202068108	LCS for batch 964013	LCS	S	13-MAR-10	.502g	50mL	
1202068106	RE46-10-13782S	MS	S	13-MAR-10	.504g	50mL	
1202068107	RE46-10-13782SD	MSD	S	13-MAR-10	.514g	50mL	
1202068104	RE46-10-13782D	DUP	S	13-MAR-10	.507g	50mL	
248865001	RE46-10-11924	SAMPLE	S	13-MAR-10	.531g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2318 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 967599							
1202076821	MB for batch 967599	MB	S	23-MAR-10	.539g	30mL	
1202076822	LCS for batch 967599	LCS	S	23-MAR-10	.203g	30mL	
1202076824	RE46-10-13867S	MS	S	23-MAR-10	.538g	30mL	
1202076832	RE46-10-13867SD	MSD	S	23-MAR-10	.51g	30mL	
1202076823	RE46-10-13867D	DUP	S	23-MAR-10	.578g	30mL	
248865001	RE46-10-11924	SAMPLE	S	23-MAR-10	.516g	30mL	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 24-MAR-10 **End Date:** 24-MAR-10

Client Sdg: 10-2318
Method AV
Data File: 032410S1-5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	09:26:00															X								
S0.2	1	09:27:00															X								
S0.5	1	09:29:00															X								
S2.0	1	09:31:00															X								
S5.0	1	09:32:00															X								
S10.0	1	09:34:00															X								
ICV01	1	09:36:00															X								
ICB01	1	09:37:00															X								
CRDL01	1	09:39:00															X								
CCV01	1	09:41:00															X								
CCB01	1	09:42:00															X								
1202076821	1	09:44:00															X								
1202076822	10	09:46:00															X								
ZZZZZZ	1	09:47:00																							
1202076823	1	09:49:00															X								
1202076824	1	09:51:00															X								
1202076832	1	09:52:00															X								
1202076831	5	09:54:00															X								
ZZZZZZ	1	09:56:00																							
ZZZZZZ	1	09:57:00																							
ZZZZZZ	1	09:59:00																							
CCV02	1	10:01:00															X								
CCB02	1	10:02:00															X								
ZZZZZZ	1	10:04:00																							
ZZZZZZ	1	10:06:00																							
ZZZZZZ	1	10:07:00																							
ZZZZZZ	1	10:09:00																							
ZZZZZZ	1	10:11:00																							
ZZZZZZ	1	10:12:00																							
ZZZZZZ	1	10:14:00																							
248865001	1	10:16:00															X								
ZZZZZZ	1	10:17:00																							
ZZZZZZ	10	10:19:00																							
CCV03	1	10:21:00															X								
CCB03	1	10:22:00															X								

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 31–MAR–10 **End Date:** 01–APR–10

Client Sdg: 10–2318
Method P
Data File: 033110B–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	18:36:30	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
S0.1	1	18:39:45		X		X		X		X	X	X		X		X			X		X			X	X
S0.5	1	18:41:56	X	X		X		X		X	X	X		X	X	X			X		X			X	X
SCAL	1	18:43:55	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
S10	1	18:45:59	X										X		X							X			
ICV01	1	18:47:03	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ICB01	1	18:48:09	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
PQL01	1	18:51:18	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ICSA01	1	18:53:20	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ICSAB01	1	18:55:20	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
LR01	1	18:56:26	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
LR02	1	18:57:44	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCV01	1	18:59:11	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB01	1	19:01:26	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCV02	1	19:06:03	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB02	1	19:08:04	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:11:15																							
ZZZZZZ	1	19:14:12																							
ZZZZZZ	1	19:16:26																							
ZZZZZZ	1	19:19:36																							
ZZZZZZ	1	19:22:32																							
ZZZZZZ	5	19:24:31																							
CCV03	1	19:27:41	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB03	1	19:29:42	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:32:54																							
ZZZZZZ	1	19:35:52																							
ZZZZZZ	1	19:38:50																							
ZZZZZZ	1	19:41:46																							
ZZZZZZ	1	19:44:56																							
CCV04	1	19:48:07	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB04	1	19:50:08	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:53:03																							
ZZZZZZ	1	19:56:16																							
ZZZZZZ	1	19:58:29																							
ZZZZZZ	1	20:01:35																							
ZZZZZZ	1	20:04:41																							
ZZZZZZ	1	20:06:41																							
ZZZZZZ	5	20:09:37																							
ZZZZZZ	1	20:12:33																							
ZZZZZZ	1	20:15:43																							

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Samp No.	D/F	Run Time																							
CCV05	1	20:18:48	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB05	1	20:21:03	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	20:23:58																							
ZZZZZZ	1	20:27:11																							
ZZZZZZ	1	20:29:10																							
ZZZZZZ	1	20:31:22																							
ZZZZZZ	1	20:33:33																							
ZZZZZZ	5	20:35:32																							
ZZZZZZ	1	20:37:44																							
ZZZZZZ	1	20:40:49																							
ZZZZZZ	1	20:43:41																							
CCV06	1	20:46:32	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB06	1	20:48:32	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	20:51:27																							
ZZZZZZ	1	20:54:35																							
ZZZZZZ	1	20:56:32																							
ZZZZZZ	1	20:59:23																							
ZZZZZZ	1	21:02:28																							
ZZZZZZ	1	21:04:25																							
ZZZZZZ	1	21:06:36																							
ZZZZZZ	1	21:08:29																							
ZZZZZZ	1	21:11:20																							
ZZZZZZ	1	21:13:18																							
CCV07	1	21:16:09	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB07	1	21:18:10	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	21:21:05																							
ZZZZZZ	1	21:24:03																							
ZZZZZZ	1	21:25:25																							
ZZZZZZ	1	21:27:23																							
ZZZZZZ	1	21:29:21																							
ZZZZZZ	1	21:31:35																							
ZZZZZZ	1	21:33:49																							
ZZZZZZ	5	21:36:00																							
ZZZZZZ	1	21:37:59																							
CCV08	1	21:39:57	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB08	1	21:41:59	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	21:45:10																							
ZZZZZZ	1	21:47:26																							
ZZZZZZ	1	21:49:39																							
ZZZZZZ	1	21:51:37																							

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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	21:53:37																							
CCV09	1	21:55:36	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB09	1	21:57:52	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	22:00:49																							
ZZZZZZ	1	22:03:08																							
ZZZZZZ	1	22:04:17																							
ZZZZZZ	1	22:06:21																							
ZZZZZZ	1	22:08:25																							
ZZZZZZ	1	22:09:31																							
ZZZZZZ	5	22:10:38																							
CCV10	1	22:12:55	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB10	1	22:14:56	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	22:17:55																							
ZZZZZZ	1	22:20:16																							
ZZZZZZ	1	22:22:28																							
ZZZZZZ	1	22:24:31																							
ZZZZZZ	1	22:26:43																							
ZZZZZZ	1	22:28:56																							
ZZZZZZ	1	22:31:00																							
ZZZZZZ	1	22:33:18																							
CCV11	1	22:35:22	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB11	1	22:37:38	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	22:40:36																							
ZZZZZZ	1	22:42:56																							
ZZZZZZ	1	22:45:10																							
ZZZZZZ	1	22:47:27																							
ZZZZZZ	1	22:49:44																							
ZZZZZZ	1	22:52:02																							
ZZZZZZ	1	22:54:05																							
CCV12	1	22:56:09	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB12	1	22:58:10	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	23:01:21																							
ZZZZZZ	1	23:04:20																							
ZZZZZZ	1	23:05:42																							
ZZZZZZ	1	23:07:45																							
ZZZZZZ	1	23:09:49																							
ZZZZZZ	1	23:10:55																							
ZZZZZZ	5	23:12:15																							
ZZZZZZ	1	23:14:18																							
ZZZZZZ	1	23:16:21																							

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Samp No.	D/F	Run Time																							
CCV13	1	23:18:25	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB13	1	23:20:27	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	23:23:24																							
ZZZZZZ	1	23:25:39																							
ZZZZZZ	1	23:27:42																							
ZZZZZZ	1	23:29:46																							
ZZZZZZ	1	23:32:03																							
ZZZZZZ	1	23:34:01																							
ZZZZZZ	1	23:35:59																							
ZZZZZZ	1	23:38:03																							
ZZZZZZ	1	23:40:15																							
ZZZZZZ	1	23:42:14																							
CCV14	1	23:44:28	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB14	1	23:46:45	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	23:49:43																							
ZZZZZZ	1	23:52:03																							
ZZZZZZ	1	23:53:26																							
ZZZZZZ	1	23:55:39																							
ZZZZZZ	1	23:57:37																							
ZZZZZZ	1	23:58:56																							
ZZZZZZ	5	00:00:16																							
CCV15	1	00:02:20	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB15	1	00:04:36	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	00:07:33																							
ZZZZZZ	1	00:09:52																							
ZZZZZZ	1	00:11:51																							
ZZZZZZ	1	00:14:05																							
ZZZZZZ	1	00:16:18																							
CCV16	1	00:18:32	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB16	1	00:20:34	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	00:23:30																							
ZZZZZZ	1	00:25:35																							
ZZZZZZ	1	00:27:34																							
ZZZZZZ	1	00:29:47																							
ZZZZZZ	1	00:31:45																							
ZZZZZZ	1	00:32:52																							
ZZZZZZ	5	00:34:14																							
ZZZZZZ	1	00:36:32																							
ZZZZZZ	1	00:38:31																							
ZZZZZZ	1	00:40:31																							

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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
CCV17	1	00:42:50	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB17	1	00:45:05	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	00:48:01																							
ZZZZZZ	1	00:50:02																							
ZZZZZZ	1	00:52:07																							
ZZZZZZ	1	00:54:13																							
ZZZZZZ	1	00:56:19																							
ZZZZZZ	1	00:58:24																							
ZZZZZZ	1	01:00:44																							
ZZZZZZ	1	01:02:48																							
ZZZZZZ	1	01:04:53																							
CCV18	1	01:06:58	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB18	1	01:09:13	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	01:12:23																							
ZZZZZZ	1	01:14:32																							
ZZZZZZ	1	01:16:37																							
ZZZZZZ	1	01:18:37																							
ZZZZZZ	1	01:20:36																							
ZZZZZZ	1	01:22:35																							
ZZZZZZ	1	01:24:54																							
ZZZZZZ	1	01:27:13																							
ZZZZZZ	1	01:29:14																							
CCV19	1	01:30:35	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB19	1	01:32:36	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	01:35:33																							
ZZZZZZ	1	01:38:33																							
ZZZZZZ	1	01:40:33																							
ZZZZZZ	1	01:43:44																							
ZZZZZZ	1	01:45:43																							
ZZZZZZ	1	01:48:35																							
ZZZZZZ	5	01:50:35																							
CCV20	1	01:53:27	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB20	1	01:55:42	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	01:58:53																							
ZZZZZZ	1	02:01:52																							
ZZZZZZ	1	02:03:52																							
ZZZZZZ	1	02:05:58																							
ZZZZZZ	1	02:08:18																							
ZZZZZZ	1	02:10:34																							
ZZZZZZ	5	02:12:46																							

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Samp No.	D/F	Run Time																							
ZZZZZZ	1	02:15:05																							
ZZZZZZ	1	02:17:05																							
CCV21	1	02:19:04	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB21	1	02:21:19	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	02:24:16																							
ZZZZZZ	1	02:27:15																							
ZZZZZZ	1	02:29:15																							
ZZZZZZ	1	02:31:36																							
ZZZZZZ	1	02:33:57																							
ZZZZZZ	1	02:36:19																							
ZZZZZZ	5	02:38:32																							
ZZZZZZ	1	02:40:32																							
ZZZZZZ	1	02:43:48																							
CCV22	1	02:47:00	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB22	1	02:49:00	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	02:51:56																							
ZZZZZZ	1	02:55:08																							
ZZZZZZ	1	02:57:07																							
ZZZZZZ	1	02:59:05																							
ZZZZZZ	1	03:01:03																							
ZZZZZZ	1	03:03:16																							
ZZZZZZ	1	03:05:15																							
ZZZZZZ	5	03:07:15																							
ZZZZZZ	1	03:09:13																							
ZZZZZZ	1	03:11:11																							
CCV23	1	03:13:23	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB23	1	03:15:38	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCV24	1	04:39:15	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB24	1	04:41:28	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	10	04:59:03																							
ZZZZZZ	10	05:01:17																							
CCV25	1	05:03:28	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB25	1	05:05:28	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	05:08:37																							
ZZZZZZ	1	05:10:42																							
ZZZZZZ	1	05:12:05																							
ZZZZZZ	1	05:14:18																							
ZZZZZZ	1	05:16:31																							
ZZZZZZ	1	05:17:52																							
ZZZZZZ	5	05:18:59																							

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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	05:21:10																							
ZZZZZZ	1	05:23:08																							
CCV26	1	05:25:20	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB26	1	05:27:22	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	05:30:31																							
ZZZZZZ	1	05:32:34																							
ZZZZZZ	1	05:34:39																							
ZZZZZZ	1	05:36:38																							
ZZZZZZ	1	05:38:37																							
ZZZZZZ	1	05:40:50																							
ZZZZZZ	1	05:42:48																							
ZZZZZZ	1	05:44:48																							
ZZZZZZ	1	05:46:47																							
CCV27	1	05:48:46	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB27	1	05:51:01	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	10	05:58:10																							
ZZZZZZ	10	06:00:24																							
ZZZZZZ	10	06:02:36																							
CCV28	1	06:04:33	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB28	1	06:06:33	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCV29	1	06:27:45	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB29	1	06:29:44	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	06:32:41																							
ZZZZZZ	1	06:35:40																							
ZZZZZZ	1	06:37:02																							
ZZZZZZ	1	06:39:05																							
ZZZZZZ	1	06:41:22																							
ZZZZZZ	1	06:42:29																							
ZZZZZZ	5	06:43:33																							
ZZZZZZ	1	06:45:50																							
ZZZZZZ	1	06:48:08																							
CCV30	1	06:50:12	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB30	1	06:52:13	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	06:55:08																							
ZZZZZZ	1	06:57:13																							
ZZZZZZ	1	06:59:12																							
ZZZZZZ	1	07:01:10																							
ZZZZZZ	1	07:03:08																							
ZZZZZZ	1	07:05:20																							
ZZZZZZ	1	07:07:23																							

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Samp No.	D/F	Run Time																							
ZZZZZZ	1	07:09:21																							
ZZZZZZ	1	07:11:34																							
ZZZZZZ	1	07:13:32																							
CCV31	1	07:15:44	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB31	1	07:17:46	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	07:20:41																							
ZZZZZZ	1	07:22:59																							
ZZZZZZ	1	07:24:09																							
ZZZZZZ	1	07:26:13																							
ZZZZZZ	1	07:28:16																							
ZZZZZZ	1	07:29:20																							
ZZZZZZ	5	07:30:25																							
ZZZZZZ	1	07:32:28																							
ZZZZZZ	1	07:34:32																							
CCV32	1	07:36:36	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB32	1	07:38:37	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	07:41:46																							
ZZZZZZ	1	07:44:01																							
ZZZZZZ	1	07:46:06																							
ZZZZZZ	1	07:48:04																							
ZZZZZZ	1	07:50:23																							
ZZZZZZ	1	07:52:35																							
ZZZZZZ	1	07:54:33																							
ZZZZZZ	1	07:56:36																							
ZZZZZZ	1	07:58:53																							
CCV33	1	08:00:59	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB33	1	08:02:58	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	08:06:08																							
ZZZZZZ	1	08:08:22																							
ZZZZZZ	1	08:10:26																							
ZZZZZZ	1	08:12:38																							
ZZZZZZ	1	08:14:36																							
ZZZZZZ	1	08:16:34																							
ZZZZZZ	1	08:18:34																							
ZZZZZZ	1	08:20:47																							
CCV34	1	08:22:47	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB34	1	08:25:02	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
1202068097	1	08:40:59	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
1202068102	1	08:44:11	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	08:45:33																							

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Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
1202068098	1	08:47:45	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
1202068100	1	08:49:44	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
1202068101	1	08:51:44	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
1202068099	5	08:53:43	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCV35	1	08:55:59	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB35	1	08:58:01	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	09:00:56																							
ZZZZZZ	1	09:02:56																							
ZZZZZZ	1	09:04:54																							
ZZZZZZ	1	09:07:06																							
ZZZZZZ	1	09:09:05																							
ZZZZZZ	1	09:11:22																							
ZZZZZZ	1	09:13:20																							
CCV36	1	09:15:23	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB36	1	09:17:23	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	09:20:19																							
ZZZZZZ	1	09:22:25																							
ZZZZZZ	1	09:24:29																							
ZZZZZZ	1	09:26:41																							
ZZZZZZ	1	09:28:53																							
248865001	1	09:30:57	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCV37	1	09:32:56	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X
CCB37	1	09:34:57	X	X		X		X		X	X	X	X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 13–APR–10 **End Date:** 13–APR–10

Client Sdg: 10–2318
Method P
Data File: 041310A–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	13:54:24							X																
S0.1	1	13:57:35																							
S0.5	1	13:59:33							X																
SCAL	1	14:01:45							X																
S10	1	14:04:02							X																
ICV01	1	14:05:06							X																
ICB01	1	14:07:19							X																
PQL01	1	14:10:15							X																
ICSA01	1	14:13:27							X																
ICSAB01	1	14:15:41							X																
LR01	1	14:17:01							X																
LR02	1	14:18:05							X																
CCV01	1	14:19:32							X																
CCB01	1	14:21:34							X																
CCV02	1	14:26:05							X																
CCB02	1	14:28:18							X																
LR03	1	14:31:14							X																
CCV03	1	14:34:12							X																
CCB03	1	14:36:13							X																
1202092701	1	14:56:34							X																
1202092702	1	14:59:33							X																
ZZZZZZ	1	15:00:56																							
1202068098	1	15:03:09							X																
1202068100	1	15:05:07							X																
1202068101	1	15:07:20							X																
1202068099	5	15:09:34							X																
CCV04	1	15:11:51							X																
CCB04	1	15:14:07							X																
ZZZZZZ	1	15:17:03																							
ZZZZZZ	1	15:19:04																							
ZZZZZZ	1	15:21:16																							
ZZZZZZ	1	15:23:14																							
ZZZZZZ	1	15:25:12																							
ZZZZZZ	1	15:27:30																							
ZZZZZZ	1	15:29:29																							
CCV05	1	15:31:46							X																
CCB05	1	15:33:46							X																
ZZZZZZ	1	15:36:56																							
ZZZZZZ	1	15:39:16																							
ZZZZZZ	1	15:41:20																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	15:43:19																						
ZZZZZZ	1	15:45:23																						
248865001	1	15:47:21						X																
CCV06	1	15:49:39						X																
CCB06	1	15:51:40						X																

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS7
Start Date: 17-MAY-10 **End Date:** 17-MAY-10

Client Sdg: 10-2318
Method MS
Data File: 100517-4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	19:14:26					X																		
S10	1	19:16:05					X																		
S100	1	19:17:45					X																		
ICV01	1	19:19:25					X																		
ICB01	1	19:21:06					X																		
CRDL01	1	19:22:47					X																		
ICSA01	1	19:24:27					X																		
ICSAB01	1	19:26:07					X																		
CCV01	1	19:27:48					X																		
CCB01	1	19:29:30					X																		
LR01	1	19:31:10					X																		
CCV02	1	19:32:50					X																		
CCB02	1	19:34:32					X																		
ZZZZZZ	2	19:38:01																							
ZZZZZZ	2	19:39:41																							
ZZZZZZ	1000	19:41:21																							
ZZZZZZ	1000	19:43:01																							
ZZZZZZ	1000	19:44:41																							
ZZZZZZ	1000	19:46:22																							
ZZZZZZ	5000	19:48:03																							
ZZZZZZ	1000	19:49:43																							
ZZZZZZ	1000	19:51:23																							
CCV03	1	19:53:04					X																		
CCB03	1	19:54:46					X																		
ZZZZZZ	1000	19:56:26																							
ZZZZZZ	100	19:58:06																							
ZZZZZZ	1000	19:59:46																							
ZZZZZZ	1000	20:01:27																							
ZZZZZZ	10000	20:03:08																							
ZZZZZZ	1000	20:04:48																							
ZZZZZZ	1000	20:06:29																							
ZZZZZZ	10000	20:08:09																							
ZZZZZZ	1000	20:09:49																							
CCV04	1	20:11:30					X																		
CCB04	1	20:13:12					X																		
1202068103	2	20:16:38					X																		
1202068108	40	20:17:52					X																		
ZZZZZZ	2	20:19:06																							
1202068104	2	20:20:20					X																		
1202068106	2	20:21:35					X																		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
1202068107	2	20:22:49					X																		
1202068105	10	20:24:04					X																		
ZZZZZZ	2	20:25:18																							
ZZZZZZ	2	20:26:33																							
ZZZZZZ	2	20:27:47																							
CCV05	1	20:29:02					X																		
CCB05	1	20:30:19					X																		
ZZZZZZ	2	20:31:33																							
ZZZZZZ	2	20:32:47																							
ZZZZZZ	2	20:34:02																							
ZZZZZZ	2	20:35:17																							
ZZZZZZ	2	20:36:31																							
ZZZZZZ	2	20:37:46																							
ZZZZZZ	2	20:39:00																							
ZZZZZZ	2	20:40:15																							
ZZZZZZ	2	20:41:29																							
248865001	2	20:42:44					X																		
CCV06	1	20:43:59					X																		
CCB06	1	20:45:15					X																		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 17–MAY–10 **End Date:** 17–MAY–10

Client Sdg: 10–2318
Method MS
Data File: 100517–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	11:58:00			X													X		X			X		
S10	1	12:02:00			X													X		X			X		
S100	1	12:06:00			X													X		X			X		
ICV01	1	12:10:00			X													X		X			X		
ICB01	1	12:14:00			X													X		X			X		
CRDL01	1	12:18:00			X													X		X			X		
ICSA01	1	12:22:00			X													X		X			X		
ICSAB01	1	12:26:00			X													X		X			X		
CCV01	1	12:30:00			X													X		X			X		
CCB01	1	12:35:00			X													X		X			X		
LR01	1	12:39:00			X													X		X			X		
CCV02	1	12:43:00			X													X		X			X		
CCB02	1	12:47:00			X													X		X			X		
1202068103	2	12:51:00			X													X		X			X		
1202068108	40	12:55:00			X													X		X			X		
ZZZZZZ	2	12:59:00																							
1202068104	2	13:03:00			X													X		X			X		
1202068106	2	13:08:00			X													X		X			X		
1202068107	2	13:12:00			X													X		X			X		
1202068105	10	13:16:00			X													X		X			X		
CCV03	1	13:20:00			X													X		X			X		
CCB03	1	13:24:00			X													X		X			X		
ZZZZZZ	2	13:28:00																							
ZZZZZZ	2	13:32:00																							
ZZZZZZ	2	13:37:00																							
ZZZZZZ	2	13:41:00																							
ZZZZZZ	2	13:45:00																							
ZZZZZZ	2	13:49:00																							
ZZZZZZ	2	13:53:00																							
ZZZZZZ	2	13:57:00																							
ZZZZZZ	2	14:01:00																							
ZZZZZZ	2	14:06:00																							
CCV04	1	14:10:00			X													X		X			X		
CCB04	1	14:14:00			X													X		X			X		
ZZZZZZ	2	14:18:00																							
ZZZZZZ	2	14:22:00																							
248865001	2	14:26:00			X													X		X			X		
CCV05	1	14:31:00			X													X		X			X		
CCB05	1	14:35:00			X													X		X			X		

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2318

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2318

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2318

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2318
Effective Dates: 22-MAR-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2318
Effective Dates: 22-MAR-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2318
Effective Dates: 22-MAR-10

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-2318
Contract: LANL01004
Instrument: OPTIMA4 **Effective Dates:** 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2318
Effective Dates: 22-MAR-10

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2318
Effective Dates: 22-MAR-10

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–2318

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2318

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS7

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2318

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS4

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 051810

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

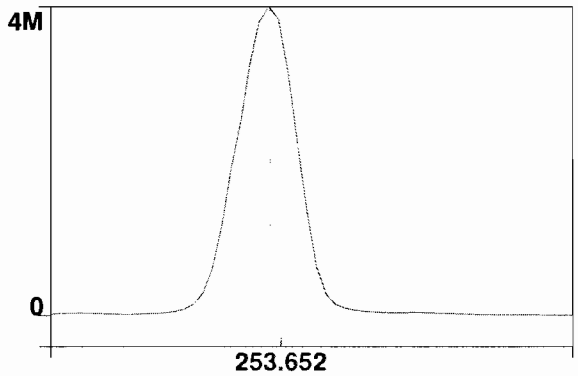

Intensity: 4417067.9 cps
Conc:

1

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Analysis Begun

Start Time: 3/31/2010 18:36:27 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/31/2010 18:36:30**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	146983.1	146983.1	101	%	18:37:03
1	Al 396.153Radial†	-46.6	-46.3	[0.00]	µg/L	18:37:23
1	Ca 317.933Radial†	562.9	558.9	[0.00]	µg/L	18:37:23
1	Fe 238.204 Radial†	148.8	147.8	[0.00]	µg/L	18:37:23
1	K 766.490 Radial†	1565.6	1554.3	[0.00]	µg/L	18:37:03
1	Mg 279.077 IEC†	207.4	205.9	[0.00]	µg/L	18:37:23
1	Na 589.592 Radial†	1216.0	1207.3	[0.00]	µg/L	18:37:03
1	Sr 421.552†	-110.9	-110.1	[0.00]	µg/L	18:37:03
1	Sc 361.383	1704607.6	1704607.6	99.208	%	18:38:25
1	Y 371.029	1018376.3	1018376.3	99.190	%	18:38:25
1	Ag 328.068†	3963.8	3995.4	[0.00]	µg/L	18:38:27
1	As 188.979†	-17.7	-17.9	[0.00]	µg/L	18:38:48
1	B 249.677†	3489.7	3517.5	[0.00]	µg/L	18:38:27
1	Ba 233.527†	-145.9	-147.0	[0.00]	µg/L	18:38:48
1	Be 313.107†	-965.4	-973.1	[0.00]	µg/L	18:38:27
1	Cd 226.502†	-106.0	-106.8	[0.00]	µg/L	18:38:48
1	Co 228.616†	-174.9	-176.3	[0.00]	µg/L	18:38:48
1	Cr 267.716†	129.8	130.8	[0.00]	µg/L	18:38:48
1	Cu 324.752†	2846.5	2869.3	[0.00]	µg/L	18:38:27
1	Mn 257.610†	253.9	255.9	[0.00]	µg/L	18:38:48
1	Mo 202.031†	-24.9	-25.1	[0.00]	µg/L	18:38:48
1	Ni 231.604†	-72.6	-73.1	[0.00]	µg/L	18:38:48
1	P 214.914†	-29.6	-29.8	[0.00]	µg/L	18:38:48
1	Pb 220.353†	106.5	107.4	[0.00]	µg/L	18:38:48
1	S 181.975 Axial†	102.6	103.4	[0.00]	µg/L	18:38:48
1	Sb 206.836†	81.9	82.6	[0.00]	µg/L	18:38:48
1	Se 196.026†	14.5	14.6	[0.00]	µg/L	18:38:48
1	SiO2†	1812.7	1827.1	[0.00]	µg/L	18:38:27
1	Si 251.611†	747.0	752.9	[0.00]	µg/L	18:38:27
1	Sn 189.927†	-6.9	-6.9	[0.00]	µg/L	18:38:48
1	Ti 334.940†	920.6	928.0	[0.00]	µg/L	18:38:27
1	Tl 190.801†	-108.2	-109.0	[0.00]	µg/L	18:38:48
1	U 409.014†	-161.2	-162.4	[0.00]	µg/L	18:38:27
1	V 292.402†	343.5	346.2	[0.00]	µg/L	18:38:27
1	Zn 213.857†	560.7	565.2	[0.00]	µg/L	18:38:48
2	Sc RADIAL	145077.9	145077.9	99.4	%	18:37:25
2	Al 396.153Radial†	-80.7	-81.2	[0.00]	µg/L	18:37:45
2	Ca 317.933Radial†	555.7	559.0	[0.00]	µg/L	18:37:45
2	Fe 238.204 Radial†	152.0	152.9	[0.00]	µg/L	18:37:45
2	K 766.490 Radial†	1581.8	1591.1	[0.00]	µg/L	18:37:25
2	Mg 279.077 IEC†	207.4	208.6	[0.00]	µg/L	18:37:45
2	Na 589.592 Radial†	1309.5	1317.2	[0.00]	µg/L	18:37:25
2	Sr 421.552†	-50.0	-50.3	[0.00]	µg/L	18:37:25
2	Sc 361.383	1730517.4	1730517.4	100.72	%	18:38:50
2	Y 371.029	1034150.1	1034150.1	100.73	%	18:38:50
2	Ag 328.068†	4314.8	4284.1	[0.00]	µg/L	18:38:52
2	As 188.979†	-23.3	-23.2	[0.00]	µg/L	18:39:12

2	B 249.677†	3487.4	3462.6	[0.00]	µg/L	18:38:52
2	Ba 233.527†	-138.3	-137.3	[0.00]	µg/L	18:39:12
2	Be 313.107†	-1181.9	-1173.5	[0.00]	µg/L	18:38:52
2	Cd 226.502†	-128.3	-127.3	[0.00]	µg/L	18:39:12
2	Co 228.616†	-207.1	-205.6	[0.00]	µg/L	18:39:12
2	Cr 267.716†	187.0	185.7	[0.00]	µg/L	18:39:12
2	Cu 324.752†	3037.7	3016.1	[0.00]	µg/L	18:38:52
2	Mn 257.610†	235.4	233.7	[0.00]	µg/L	18:39:12
2	Mo 202.031†	-14.8	-14.7	[0.00]	µg/L	18:39:12
2	Ni 231.604†	-77.5	-77.0	[0.00]	µg/L	18:39:12
2	P 214.914†	-7.1	-7.0	[0.00]	µg/L	18:39:12
2	Pb 220.353†	82.7	82.1	[0.00]	µg/L	18:39:12
2	S 181.975 Axial†	101.1	100.4	[0.00]	µg/L	18:39:12
2	Sb 206.836†	84.6	84.0	[0.00]	µg/L	18:39:12
2	Se 196.026†	9.6	9.5	[0.00]	µg/L	18:39:12
2	SiO2†	1764.6	1752.0	[0.00]	µg/L	18:38:52
2	Si 251.611†	909.0	902.5	[0.00]	µg/L	18:38:52
2	Sn 189.927†	4.1	4.0	[0.00]	µg/L	18:39:12
2	Ti 334.940†	1042.4	1035.0	[0.00]	µg/L	18:38:52
2	Tl 190.801†	-124.1	-123.3	[0.00]	µg/L	18:39:12
2	U 409.014†	-390.5	-387.7	[0.00]	µg/L	18:38:52
2	V 292.402†	355.1	352.6	[0.00]	µg/L	18:38:52
2	Zn 213.857†	564.8	560.8	[0.00]	µg/L	18:39:12
3	Sc RADIAL	145728.3	145728.3	99.9	%	18:37:47
3	Al 396.153Radial†	-62.0	-62.1	[0.00]	µg/L	18:38:07
3	Ca 317.933Radial†	563.1	563.9	[0.00]	µg/L	18:38:07
3	Fe 238.204 Radial†	143.5	143.7	[0.00]	µg/L	18:38:07
3	K 766.490 Radial†	1486.8	1488.8	[0.00]	µg/L	18:37:47
3	Mg 279.077 IEC†	157.4	157.6	[0.00]	µg/L	18:38:07
3	Na 589.592 Radial†	1346.0	1347.9	[0.00]	µg/L	18:37:47
3	Sr 421.552†	-245.1	-245.5	[0.00]	µg/L	18:37:47
3	Sc 361.383	1719527.8	1719527.8	100.08	%	18:39:14
3	Y 371.029	1027539.8	1027539.8	100.08	%	18:39:14
3	Ag 328.068†	3997.7	3994.6	[0.00]	µg/L	18:39:16
3	As 188.979†	-20.0	-20.0	[0.00]	µg/L	18:39:36
3	B 249.677†	3540.3	3537.6	[0.00]	µg/L	18:39:16
3	Ba 233.527†	-123.3	-123.2	[0.00]	µg/L	18:39:36
3	Be 313.107†	-1048.2	-1047.4	[0.00]	µg/L	18:39:16
3	Cd 226.502†	-120.5	-120.4	[0.00]	µg/L	18:39:36
3	Co 228.616†	-189.2	-189.0	[0.00]	µg/L	18:39:36
3	Cr 267.716†	219.3	219.2	[0.00]	µg/L	18:39:36
3	Cu 324.752†	3033.6	3031.3	[0.00]	µg/L	18:39:16
3	Mn 257.610†	222.3	222.2	[0.00]	µg/L	18:39:36
3	Mo 202.031†	-20.4	-20.4	[0.00]	µg/L	18:39:36
3	Ni 231.604†	-79.5	-79.4	[0.00]	µg/L	18:39:36
3	P 214.914†	-17.1	-17.1	[0.00]	µg/L	18:39:36
3	Pb 220.353†	69.7	69.7	[0.00]	µg/L	18:39:36
3	S 181.975 Axial†	111.4	111.3	[0.00]	µg/L	18:39:36
3	Sb 206.836†	76.0	76.0	[0.00]	µg/L	18:39:36
3	Se 196.026†	21.7	21.7	[0.00]	µg/L	18:39:36
3	SiO2†	1748.3	1747.0	[0.00]	µg/L	18:39:16
3	Si 251.611†	854.9	854.3	[0.00]	µg/L	18:39:16
3	Sn 189.927†	-0.5	-0.5	[0.00]	µg/L	18:39:36
3	Ti 334.940†	895.3	894.7	[0.00]	µg/L	18:39:16
3	Tl 190.801†	-117.8	-117.8	[0.00]	µg/L	18:39:36
3	U 409.014†	-259.7	-259.5	[0.00]	µg/L	18:39:16
3	V 292.402†	512.9	512.6	[0.00]	µg/L	18:39:16
3	Zn 213.857†	567.7	567.3	[0.00]	µg/L	18:39:36

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1718217.6	13004.50	0.76%	100.00	%
Sc RADIAL	145929.8	968.46	0.66%	100	%
Y 371.029	1026688.7	7921.26	0.77%	100.000	%
Ag 328.068†	4091.4	166.92	4.08%	[0.00]	µg/L
Al 396.153Radial†	-63.2	17.46	27.63%	[0.00]	µg/L
As 188.979†	-20.4	2.68	13.16%	[0.00]	µg/L
B 249.677†	3505.9	38.80	1.11%	[0.00]	µg/L
Ba 233.527†	-135.9	11.99	8.83%	[0.00]	µg/L

Be 313.107†	-1064.7	101.30	9.51%	[0.00]	µg/L
Ca 317.933Radial†	560.6	2.89	0.52%	[0.00]	µg/L
Cd 226.502†	-118.2	10.43	8.83%	[0.00]	µg/L
Co 228.616†	-190.3	14.72	7.73%	[0.00]	µg/L
Cr 267.716†	178.6	44.62	24.99%	[0.00]	µg/L
Cu 324.752†	2972.2	89.48	3.01%	[0.00]	µg/L
Fe 238.204 Radial†	148.1	4.61	3.11%	[0.00]	µg/L
K 766.490 Radial†	1544.8	51.81	3.35%	[0.00]	µg/L
Mg 279.077 IEC†	190.7	28.69	15.04%	[0.00]	µg/L
Mn 257.610†	237.3	17.14	7.23%	[0.00]	µg/L
Mo 202.031†	-20.1	5.18	25.80%	[0.00]	µg/L
Na 589.592 Radial†	1290.8	73.89	5.72%	[0.00]	µg/L
Ni 231.604†	-76.5	3.18	4.16%	[0.00]	µg/L
P 214.914†	-18.0	11.42	63.61%	[0.00]	µg/L
Pb 220.353†	86.4	19.23	22.27%	[0.00]	µg/L
S 181.975 Axial†	105.1	5.63	5.36%	[0.00]	µg/L
Sb 206.836†	80.8	4.27	5.29%	[0.00]	µg/L
Se 196.026†	15.3	6.14	40.18%	[0.00]	µg/L
SiO2†	1775.4	44.90	2.53%	[0.00]	µg/L
Si 251.611†	836.6	76.33	9.12%	[0.00]	µg/L
Sn 189.927†	-1.1	5.51	492.60%	[0.00]	µg/L
Sr 421.552†	-135.3	99.98	73.90%	[0.00]	µg/L
Ti 334.940†	952.5	73.33	7.70%	[0.00]	µg/L
Tl 190.801†	-116.7	7.17	6.15%	[0.00]	µg/L
U 409.014†	-269.9	113.01	41.87%	[0.00]	µg/L
V 292.402†	403.8	94.24	23.34%	[0.00]	µg/L
Zn 213.857†	564.4	3.32	0.59%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/31/2010 18:39:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	144945.8	144945.8	99.3	%	18:40:16
1	K 766.490 Radial†	4177.9	2661.5	[1000]	µg/L	18:40:16
1	Sr 421.552†	48790.2	49256.8	[100]	µg/L	18:40:16
1	Sc 361.383	1738207.5	1738207.5	101.16	%	18:40:38
1	Y 371.029	1035658.2	1035658.2	100.87	%	18:40:38
1	Ag 328.068†	31505.9	27052.2	[100]	µg/L	18:40:40
1	As 188.979†	319.4	336.1	[100]	µg/L	18:41:00
1	B 249.677†	10182.7	6559.7	[100]	µg/L	18:40:40
1	Ba 233.527†	25238.0	25083.6	[100]	µg/L	18:40:40
1	Be 313.107†	372065.7	368851.5	[100]	µg/L	18:40:38
1	Cd 226.502†	16206.1	16137.9	[100]	µg/L	18:40:40
1	Co 228.616†	8180.0	8276.3	[100]	µg/L	18:41:00
1	Cr 267.716†	13182.1	12852.0	[100]	µg/L	18:40:40
1	Cu 324.752†	28766.5	25463.5	[100]	µg/L	18:40:40
1	Mn 257.610†	84629.1	83418.6	[100]	µg/L	18:40:40
1	Mo 202.031†	3388.6	3369.7	[100]	µg/L	18:41:00
1	Ni 231.604†	8784.7	8760.2	[100]	µg/L	18:40:40
1	P 214.914†	2330.2	2321.4	[500]	µg/L	18:41:00
1	Pb 220.353†	1931.7	1823.1	[100]	µg/L	18:41:00
1	S 181.975 Axial†	386.6	277.1	[200]	µg/L	18:41:00
1	Sb 206.836†	932.6	841.0	[100]	µg/L	18:41:00
1	Se 196.026†	288.8	270.2	[100]	µg/L	18:41:00
1	SiO2†	12629.3	10708.7	[1069.5]	µg/L	18:40:40
1	Si 251.611†	34601.6	33367.1	[500]	µg/L	18:40:40
1	Sn 189.927†	1637.3	1619.6	[100]	µg/L	18:41:00
1	Ti 334.940†	108213.7	106016.7	[100]	µg/L	18:40:40
1	Tl 190.801†	724.1	832.5	[100]	µg/L	18:41:00
1	U 409.014†	1714.9	1965.0	[100]	µg/L	18:40:40
1	V 292.402†	20866.1	20222.4	[100]	µg/L	18:40:40
1	Zn 213.857†	18689.8	17910.4	[100]	µg/L	18:40:40
2	Sc RADIAL	144384.1	144384.1	98.9	%	18:40:18
2	K 766.490 Radial†	4099.7	2598.8	[1000]	µg/L	18:40:18
2	Sr 421.552†	48913.4	49572.3	[100]	µg/L	18:40:18
2	Sc 361.383	1718136.8	1718136.8	99.995	%	18:41:02
2	Y 371.029	1023615.0	1023615.0	99.701	%	18:41:02
2	Ag 328.068†	31474.0	27384.1	[100]	µg/L	18:41:04
2	As 188.979†	316.2	336.6	[100]	µg/L	18:41:24
2	B 249.677†	10249.3	6743.9	[100]	µg/L	18:41:04
2	Ba 233.527†	25403.3	25540.3	[100]	µg/L	18:41:04
2	Be 313.107†	368011.0	369093.1	[100]	µg/L	18:41:02
2	Cd 226.502†	16403.0	16522.0	[100]	µg/L	18:41:04
2	Co 228.616†	8194.1	8384.8	[100]	µg/L	18:41:24
2	Cr 267.716†	13299.6	13121.6	[100]	µg/L	18:41:04
2	Cu 324.752†	29042.8	26072.0	[100]	µg/L	18:41:04
2	Mn 257.610†	85481.9	85248.7	[100]	µg/L	18:41:04
2	Mo 202.031†	3415.9	3436.2	[100]	µg/L	18:41:24
2	Ni 231.604†	9104.3	9181.2	[100]	µg/L	18:41:04
2	P 214.914†	2327.9	2346.0	[500]	µg/L	18:41:24
2	Pb 220.353†	1943.3	1857.0	[100]	µg/L	18:41:24
2	S 181.975 Axial†	382.9	277.8	[200]	µg/L	18:41:24
2	Sb 206.836†	933.1	852.4	[100]	µg/L	18:41:24
2	Se 196.026†	282.7	267.4	[100]	µg/L	18:41:24
2	SiO2†	12728.6	10953.9	[1069.5]	µg/L	18:41:04
2	Si 251.611†	35105.7	34270.8	[500]	µg/L	18:41:04
2	Sn 189.927†	1643.4	1644.6	[100]	µg/L	18:41:24
2	Ti 334.940†	109258.0	108310.6	[100]	µg/L	18:41:04
2	Tl 190.801†	742.2	858.9	[100]	µg/L	18:41:24
2	U 409.014†	1747.4	2017.4	[100]	µg/L	18:41:04
2	V 292.402†	20863.1	20460.2	[100]	µg/L	18:41:04

2	Zn 213.857†	18913.1	18349.6	[100]	µg/L	18:41:04
3	Sc RADIAL	144888.2	144888.2	99.3	%	18:40:20
3	K 766.490 Radial†	4194.1	2679.5	[1000]	µg/L	18:40:20
3	Sr 421.552†	48878.7	49365.4	[100]	µg/L	18:40:20
3	Sc 361.383	1720712.1	1720712.1	100.15	%	18:41:26
3	Y 371.029	1025149.2	1025149.2	99.850	%	18:41:26
3	Ag 328.068†	30653.6	26517.7	[100]	µg/L	18:41:28
3	As 188.979†	311.4	331.3	[100]	µg/L	18:41:48
3	B 249.677†	10032.3	6511.9	[100]	µg/L	18:41:28
3	Ba 233.527†	24571.6	24671.8	[100]	µg/L	18:41:28
3	Be 313.107†	369363.0	369892.2	[100]	µg/L	18:41:26
3	Cd 226.502†	15800.2	15895.5	[100]	µg/L	18:41:28
3	Co 228.616†	7941.4	8120.2	[100]	µg/L	18:41:48
3	Cr 267.716†	12878.6	12681.3	[100]	µg/L	18:41:28
3	Cu 324.752†	28237.0	25223.9	[100]	µg/L	18:41:28
3	Mn 257.610†	82709.3	82352.2	[100]	µg/L	18:41:28
3	Mo 202.031†	3317.5	3332.8	[100]	µg/L	18:41:48
3	Ni 231.604†	8579.1	8643.1	[100]	µg/L	18:41:28
3	P 214.914†	2246.6	2261.3	[500]	µg/L	18:41:48
3	Pb 220.353†	1888.8	1799.7	[100]	µg/L	18:41:48
3	S 181.975 Axial†	370.3	264.7	[200]	µg/L	18:41:48
3	Sb 206.836†	914.8	832.6	[100]	µg/L	18:41:48
3	Se 196.026†	294.0	278.3	[100]	µg/L	18:41:48
3	SiO2†	12365.6	10572.3	[1069.5]	µg/L	18:41:28
3	Si 251.611†	33612.6	32727.3	[500]	µg/L	18:41:28
3	Sn 189.927†	1589.9	1588.8	[100]	µg/L	18:41:48
3	Ti 334.940†	106005.7	104899.5	[100]	µg/L	18:41:28
3	Tl 190.801†	699.9	815.6	[100]	µg/L	18:41:48
3	U 409.014†	1493.0	1760.7	[100]	µg/L	18:41:28
3	V 292.402†	20303.9	19870.7	[100]	µg/L	18:41:28
3	Zn 213.857†	18249.8	17659.0	[100]	µg/L	18:41:28

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1725685.5	10920.55	0.63%	100.43	%
Sc RADIAL	144739.3	309.02	0.21%	99.2	%
Y 371.029	1028140.8	6555.30	0.64%	100.14	%
Ag 328.068†	26984.7	437.11	1.62%	[100]	µg/L
As 188.979†	334.7	2.93	0.88%	[100]	µg/L
B 249.677†	6605.2	122.52	1.85%	[100]	µg/L
Ba 233.527†	25098.6	434.45	1.73%	[100]	µg/L
Be 313.107†	369278.9	544.69	0.15%	[100]	µg/L
Cd 226.502†	16185.1	315.91	1.95%	[100]	µg/L
Co 228.616†	8260.4	133.02	1.61%	[100]	µg/L
Cr 267.716†	12885.0	222.00	1.72%	[100]	µg/L
Cu 324.752†	25586.4	437.23	1.71%	[100]	µg/L
K 766.490 Radial†	2646.6	42.33	1.60%	[1000]	µg/L
Mn 257.610†	83673.1	1464.94	1.75%	[100]	µg/L
Mo 202.031†	3379.6	52.39	1.55%	[100]	µg/L
Ni 231.604†	8861.5	282.97	3.19%	[100]	µg/L
P 214.914†	2309.6	43.55	1.89%	[500]	µg/L
Pb 220.353†	1826.6	28.83	1.58%	[100]	µg/L
S 181.975 Axial†	273.2	7.39	2.70%	[200]	µg/L
Sb 206.836†	842.0	9.91	1.18%	[100]	µg/L
Se 196.026†	272.0	5.61	2.06%	[100]	µg/L
SiO2†	10744.9	193.37	1.80%	[1069.5]	µg/L
Si 251.611†	33455.1	775.50	2.32%	[500]	µg/L
Sn 189.927†	1617.7	27.99	1.73%	[100]	µg/L
Sr 421.552†	49398.1	160.32	0.32%	[100]	µg/L
Ti 334.940†	106408.9	1739.07	1.63%	[100]	µg/L
Tl 190.801†	835.7	21.85	2.61%	[100]	µg/L
U 409.014†	1914.4	135.63	7.09%	[100]	µg/L
V 292.402†	20184.4	296.62	1.47%	[100]	µg/L
Zn 213.857†	17973.0	349.52	1.94%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/31/2010 18:41:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139976.0	139976.0	95.9	%	18:42:27
1	Al 396.153Radial†	25919.4	27085.0	[5000]	µg/L	18:42:27
1	Ca 317.933Radial†	87385.1	90541.3	[5000]	µg/L	18:42:27
1	K 766.490 Radial†	14430.7	13499.7	[5000]	µg/L	18:42:27
1	Mg 279.077 IEC†	13338.9	13715.6	[5000]	µg/L	18:42:27
1	Sr 421.552†	229015.2	238891.4	[500]	µg/L	18:42:25
1	Sc 361.383	1645400.7	1645400.7	95.762	%	18:42:40
1	Y 371.029	975342.9	975342.9	94.999	%	18:42:40
1	Ag 328.068†	131294.3	133013.3	[500]	µg/L	18:42:40
1	As 188.979†	1571.6	1661.5	[500]	µg/L	18:43:00
1	B 249.677†	35172.1	33222.7	[500]	µg/L	18:42:40
1	Ba 233.527†	117348.5	122677.6	[500]	µg/L	18:42:40
1	Be 313.107†	1744827.1	1823108.9	[500]	µg/L	18:42:40
1	Cd 226.502†	75312.3	78763.4	[500]	µg/L	18:42:40
1	Co 228.616†	38245.0	40127.8	[500]	µg/L	18:42:40
1	Cr 267.716†	60545.4	63046.3	[500]	µg/L	18:42:40
1	Cu 324.752†	123884.9	126395.2	[500]	µg/L	18:42:40
1	Mn 257.610†	385575.1	402401.4	[500]	µg/L	18:42:40
1	Mo 202.031†	16410.2	17156.5	[500]	µg/L	18:43:00
1	Ni 231.604†	41126.2	43022.7	[500]	µg/L	18:42:40
1	P 214.914†	11303.9	11822.1	[2500]	µg/L	18:43:00
1	Pb 220.353†	8787.6	9090.2	[500]	µg/L	18:43:00
1	S 181.975 Axial†	1381.6	1337.7	[1000]	µg/L	18:43:00
1	Sb 206.836†	4130.5	4232.5	[500]	µg/L	18:43:00
1	Se 196.026†	1340.7	1384.8	[500]	µg/L	18:43:00
1	SiO2†	54250.1	54875.6	[5347.5]	µg/L	18:42:40
1	Si 251.611†	163679.1	170086.1	[2500]	µg/L	18:42:40
1	Sn 189.927†	7746.5	8090.4	[500]	µg/L	18:43:00
1	Ti 334.940†	510093.6	531715.2	[500]	µg/L	18:42:40
1	Tl 190.801†	3808.0	4093.2	[500]	µg/L	18:43:00
1	U 409.014†	6985.6	7564.6	[500]	µg/L	18:42:40
1	V 292.402†	96986.0	100874.3	[500]	µg/L	18:42:40
1	Zn 213.857†	84527.8	87704.2	[500]	µg/L	18:42:40
2	Sc RADIAL	141210.3	141210.3	96.8	%	18:42:31
2	Al 396.153Radial†	26176.8	27114.9	[5000]	µg/L	18:42:31
2	Ca 317.933Radial†	88277.8	90667.6	[5000]	µg/L	18:42:31
2	K 766.490 Radial†	14658.6	13603.8	[5000]	µg/L	18:42:31
2	Mg 279.077 IEC†	13508.7	13769.5	[5000]	µg/L	18:42:31
2	Sr 421.552†	232944.0	240864.6	[500]	µg/L	18:42:29
2	Sc 361.383	1687203.1	1687203.1	98.195	%	18:43:03
2	Y 371.029	998510.1	998510.1	97.255	%	18:43:03
2	Ag 328.068†	134607.0	132990.0	[500]	µg/L	18:43:03
2	As 188.979†	1586.5	1636.0	[500]	µg/L	18:43:23
2	B 249.677†	36433.6	33597.5	[500]	µg/L	18:43:03
2	Ba 233.527†	121232.8	123597.1	[500]	µg/L	18:43:03
2	Be 313.107†	1799842.1	1833991.9	[500]	µg/L	18:43:03
2	Cd 226.502†	78158.8	79713.7	[500]	µg/L	18:43:03
2	Co 228.616†	39721.5	40642.0	[500]	µg/L	18:43:03
2	Cr 267.716†	62227.1	63192.4	[500]	µg/L	18:43:03
2	Cu 324.752†	127576.9	126949.9	[500]	µg/L	18:43:03
2	Mn 257.610†	397913.1	404990.4	[500]	µg/L	18:43:03
2	Mo 202.031†	16475.5	16798.5	[500]	µg/L	18:43:23
2	Ni 231.604†	42320.9	43175.4	[500]	µg/L	18:43:03
2	P 214.914†	11321.5	11547.6	[2500]	µg/L	18:43:23
2	Pb 220.353†	8841.9	8918.0	[500]	µg/L	18:43:23
2	S 181.975 Axial†	1404.5	1325.2	[1000]	µg/L	18:43:23
2	Sb 206.836†	4150.6	4146.1	[500]	µg/L	18:43:23
2	Se 196.026†	1352.6	1362.2	[500]	µg/L	18:43:23
2	SiO2†	55913.1	55165.5	[5347.5]	µg/L	18:43:03

2	Si 251.611†	169027.8	171298.3	[2500]	µg/L	18:43:03
2	Sn 189.927†	7793.7	7938.1	[500]	µg/L	18:43:23
2	Ti 334.940†	524282.8	532967.8	[500]	µg/L	18:43:03
2	Tl 190.801†	3829.1	4016.1	[500]	µg/L	18:43:23
2	U 409.014†	7204.4	7606.8	[500]	µg/L	18:43:03
2	V 292.402†	99476.3	100901.1	[500]	µg/L	18:43:03
2	Zn 213.857†	87574.3	88619.7	[500]	µg/L	18:43:03
3	Sc RADIAL	139845.9	139845.9	95.8	%	18:42:35
3	Al 396.153Radial†	25970.7	27163.8	[5000]	µg/L	18:42:35
3	Ca 317.933Radial†	87048.7	90275.0	[5000]	µg/L	18:42:35
3	K 766.490 Radial†	14322.7	13401.0	[5000]	µg/L	18:42:35
3	Mg 279.077 IEC†	13177.9	13560.5	[5000]	µg/L	18:42:35
3	Sr 421.552†	232490.3	242739.9	[500]	µg/L	18:42:33
3	Sc 361.383	1671427.9	1671427.9	97.277	%	18:43:26
3	Y 371.029	990579.4	990579.4	96.483	%	18:43:26
3	Ag 328.068†	132744.3	132368.9	[500]	µg/L	18:43:26
3	As 188.979†	1563.8	1627.9	[500]	µg/L	18:43:46
3	B 249.677†	35824.9	33321.9	[500]	µg/L	18:43:26
3	Ba 233.527†	119283.9	122759.0	[500]	µg/L	18:43:26
3	Be 313.107†	1775117.0	1825874.0	[500]	µg/L	18:43:26
3	Cd 226.502†	77044.3	79319.2	[500]	µg/L	18:43:26
3	Co 228.616†	39106.1	40391.2	[500]	µg/L	18:43:26
3	Cr 267.716†	61510.3	63053.6	[500]	µg/L	18:43:26
3	Cu 324.752†	125724.5	126271.8	[500]	µg/L	18:43:26
3	Mn 257.610†	391730.1	402458.9	[500]	µg/L	18:43:26
3	Mo 202.031†	16447.7	16928.2	[500]	µg/L	18:43:46
3	Ni 231.604†	41833.4	43081.0	[500]	µg/L	18:43:26
3	P 214.914†	11306.9	11641.3	[2500]	µg/L	18:43:46
3	Pb 220.353†	8817.9	8978.4	[500]	µg/L	18:43:46
3	S 181.975 Axial†	1403.6	1337.8	[1000]	µg/L	18:43:46
3	Sb 206.836†	4107.1	4141.3	[500]	µg/L	18:43:46
3	Se 196.026†	1356.4	1379.1	[500]	µg/L	18:43:46
3	SiO2†	55098.9	54865.9	[5347.5]	µg/L	18:43:26
3	Si 251.611†	166541.0	170366.5	[2500]	µg/L	18:43:26
3	Sn 189.927†	7776.3	7995.1	[500]	µg/L	18:43:46
3	Ti 334.940†	517688.6	531228.1	[500]	µg/L	18:43:26
3	Tl 190.801†	3841.1	4065.3	[500]	µg/L	18:43:46
3	U 409.014†	7259.9	7733.0	[500]	µg/L	18:43:26
3	V 292.402†	98243.7	100590.2	[500]	µg/L	18:43:26
3	Zn 213.857†	86383.4	88237.2	[500]	µg/L	18:43:26

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1668010.6	21109.69	1.27%	97.078	%
Sc RADIAL	140344.1	753.01	0.54%	96.2	%
Y 371.029	988144.1	11774.03	1.19%	96.246	%
Ag 328.068†	132790.8	365.49	0.28%	[500]	µg/L
Al 396.153Radial†	27121.2	39.74	0.15%	[5000]	µg/L
As 188.979†	1641.8	17.55	1.07%	[500]	µg/L
B 249.677†	33380.7	194.18	0.58%	[500]	µg/L
Ba 233.527†	123011.2	509.04	0.41%	[500]	µg/L
Be 313.107†	1827658.3	5656.67	0.31%	[500]	µg/L
Ca 317.933Radial†	90494.7	200.40	0.22%	[5000]	µg/L
Cd 226.502†	79265.5	477.42	0.60%	[500]	µg/L
Co 228.616†	40387.0	257.10	0.64%	[500]	µg/L
Cr 267.716†	63097.4	82.35	0.13%	[500]	µg/L
Cu 324.752†	126538.9	361.18	0.29%	[500]	µg/L
K 766.490 Radial†	13501.5	101.39	0.75%	[5000]	µg/L
Mg 279.077 IEC†	13681.9	108.49	0.79%	[5000]	µg/L
Mn 257.610†	403283.6	1478.44	0.37%	[500]	µg/L
Mo 202.031†	16961.0	181.25	1.07%	[500]	µg/L
Ni 231.604†	43093.0	77.04	0.18%	[500]	µg/L
P 214.914†	11670.4	139.54	1.20%	[2500]	µg/L
Pb 220.353†	8995.5	87.32	0.97%	[500]	µg/L
S 181.975 Axial†	1333.6	7.24	0.54%	[1000]	µg/L
Sb 206.836†	4173.3	51.32	1.23%	[500]	µg/L
Se 196.026†	1375.4	11.73	0.85%	[500]	µg/L
SiO2†	54969.0	170.25	0.31%	[5347.5]	µg/L
Si 251.611†	170583.6	634.61	0.37%	[2500]	µg/L

Sn 189.927†	8007.9	76.96	0.96%	[500] µg/L
Sr 421.552†	240832.0	1924.44	0.80%	[500] µg/L
Ti 334.940†	531970.4	897.45	0.17%	[500] µg/L
Tl 190.801†	4058.2	39.03	0.96%	[500] µg/L
U 409.014†	7634.8	87.65	1.15%	[500] µg/L
V 292.402†	100788.5	172.29	0.17%	[500] µg/L
Zn 213.857†	88187.0	459.83	0.52%	[500] µg/L

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Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/31/2010 18:43:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	140246.3	140246.3	96.1	%	18:44:26
1	Al 396.153Radial†	52689.3	54887.7	[10000]	µg/L	18:44:26
1	Ca 317.933Radial†	176157.7	182735.9	[10000]	µg/L	18:44:26
1	Fe 238.204 Radial†	157034.9	163250.7	[10000]	µg/L	18:44:26
1	K 766.490 Radial†	27864.8	27449.2	[10000]	µg/L	18:44:26
1	Mg 279.077 IEC†	26628.7	27517.1	[10000]	µg/L	18:44:26
1	Na 589.592 Radial†	71367.5	72968.9	[10000]	µg/L	18:44:26
1	Sr 421.552†	465887.4	484902.9	[1000]	µg/L	18:44:24
1	Sc 361.383	1660058.9	1660058.9	96.615	%	18:44:39
1	Y 371.029	978012.9	978012.9	95.259	%	18:44:39
1	Ag 328.068†	268618.1	273937.5	[1000]	µg/L	18:44:41
1	As 188.979†	3193.8	3326.1	[1000]	µg/L	18:45:01
1	B 249.677†	69762.5	68700.7	[1000]	µg/L	18:44:41
1	Ba 233.527†	242316.3	250941.5	[1000]	µg/L	18:44:41
1	Be 313.107†	3555578.2	3681209.5	[1000]	µg/L	18:44:39
1	Cd 226.502†	156604.8	162209.5	[1000]	µg/L	18:44:41
1	Co 228.616†	78951.1	81907.4	[1000]	µg/L	18:44:41
1	Cr 267.716†	125005.7	129206.6	[1000]	µg/L	18:44:41
1	Cu 324.752†	255303.1	261275.2	[1000]	µg/L	18:44:41
1	Mn 257.610†	781879.7	809034.9	[1000]	µg/L	18:44:39
1	Mo 202.031†	33228.9	34413.1	[1000]	µg/L	18:44:41
1	Ni 231.604†	84765.4	87811.6	[1000]	µg/L	18:44:41
1	P 214.914†	22636.2	23447.2	[5000]	µg/L	18:45:01
1	Pb 220.353†	17407.6	17931.0	[1000]	µg/L	18:45:01
1	S 181.975 Axial†	2706.2	2696.0	[2000]	µg/L	18:45:01
1	Sb 206.836†	8264.7	8473.4	[1000]	µg/L	18:45:01
1	Se 196.026†	2709.4	2789.0	[1000]	µg/L	18:45:01
1	SiO2†	108329.2	110349.0	[10695]	µg/L	18:44:41
1	Si 251.611†	331285.5	342055.2	[5000]	µg/L	18:44:41
1	Sn 189.927†	15541.6	16087.2	[1000]	µg/L	18:45:01
1	Ti 334.940†	1037686.9	1073088.8	[1000]	µg/L	18:44:39
1	Tl 190.801†	7778.7	8167.9	[1000]	µg/L	18:45:01
1	U 409.014†	16858.3	17718.8	[1000]	µg/L	18:44:41
1	V 292.402†	201478.5	208133.3	[1000]	µg/L	18:44:41
1	Zn 213.857†	174510.7	180060.2	[1000]	µg/L	18:44:41
2	Sc RADIAL	138844.4	138844.4	95.1	%	18:44:30
2	Al 396.153Radial†	52161.3	54886.4	[10000]	µg/L	18:44:30
2	Ca 317.933Radial†	173493.6	181786.6	[10000]	µg/L	18:44:30
2	Fe 238.204 Radial†	154887.4	162643.3	[10000]	µg/L	18:44:30
2	K 766.490 Radial†	27455.0	27311.3	[10000]	µg/L	18:44:30
2	Mg 279.077 IEC†	26420.5	27578.1	[10000]	µg/L	18:44:30
2	Na 589.592 Radial†	70508.9	72816.3	[10000]	µg/L	18:44:30
2	Sr 421.552†	460810.9	484461.8	[1000]	µg/L	18:44:28
2	Sc 361.383	1689699.6	1689699.6	98.340	%	18:45:04
2	Y 371.029	993860.1	993860.1	96.802	%	18:45:04
2	Ag 328.068†	266910.5	267323.9	[1000]	µg/L	18:45:06
2	As 188.979†	3218.4	3293.1	[1000]	µg/L	18:45:26
2	B 249.677†	69508.7	67175.9	[1000]	µg/L	18:45:06
2	Ba 233.527†	241134.5	245340.1	[1000]	µg/L	18:45:06
2	Be 313.107†	3627090.7	3689371.8	[1000]	µg/L	18:45:04
2	Cd 226.502†	155509.2	158252.0	[1000]	µg/L	18:45:06
2	Co 228.616†	78490.7	80005.8	[1000]	µg/L	18:45:06
2	Cr 267.716†	124369.4	126289.8	[1000]	µg/L	18:45:06
2	Cu 324.752†	253180.3	254481.2	[1000]	µg/L	18:45:06
2	Mn 257.610†	797903.6	811133.0	[1000]	µg/L	18:45:04
2	Mo 202.031†	33052.4	33630.3	[1000]	µg/L	18:45:06
2	Ni 231.604†	84350.1	85850.2	[1000]	µg/L	18:45:06
2	P 214.914†	22849.9	23253.5	[5000]	µg/L	18:45:26
2	Pb 220.353†	17581.2	17791.6	[1000]	µg/L	18:45:26

2	S 181.975 Axial†	2749.5	2690.8	[2000]	µg/L	18:45:26
2	Sb 206.836†	8294.0	8353.2	[1000]	µg/L	18:45:26
2	Se 196.026†	2710.1	2740.6	[1000]	µg/L	18:45:26
2	SiO2†	107785.0	107828.8	[10695]	µg/L	18:45:06
2	Si 251.611†	329317.5	334039.0	[5000]	µg/L	18:45:06
2	Sn 189.927†	15680.3	15946.1	[1000]	µg/L	18:45:26
2	Ti 334.940†	1057357.1	1074250.2	[1000]	µg/L	18:45:04
2	Tl 190.801†	7829.0	8077.8	[1000]	µg/L	18:45:26
2	U 409.014†	16641.8	17192.5	[1000]	µg/L	18:45:06
2	V 292.402†	200063.6	203036.4	[1000]	µg/L	18:45:06
2	Zn 213.857†	173774.1	176142.5	[1000]	µg/L	18:45:06
3	Sc RADIAL	142431.7	142431.7	97.6	%	18:44:34
3	Al 396.153Radial†	53146.2	54514.7	[10000]	µg/L	18:44:34
3	Ca 317.933Radial†	178392.5	182213.1	[10000]	µg/L	18:44:34
3	Fe 238.204 Radial†	159216.9	162979.1	[10000]	µg/L	18:44:34
3	K 766.490 Radial†	28289.6	27439.6	[10000]	µg/L	18:44:34
3	Mg 279.077 IEC†	27285.4	27764.8	[10000]	µg/L	18:44:34
3	Na 589.592 Radial†	72542.7	73033.5	[10000]	µg/L	18:44:34
3	Sr 421.552†	461335.7	472801.1	[1000]	µg/L	18:44:32
3	Sc 361.383	1671450.9	1671450.9	97.278	%	18:45:29
3	Y 371.029	984698.6	984698.6	95.910	%	18:45:29
3	Ag 328.068†	268839.9	272270.6	[1000]	µg/L	18:45:31
3	As 188.979†	3207.1	3317.1	[1000]	µg/L	18:45:51
3	B 249.677†	69920.1	68370.5	[1000]	µg/L	18:45:31
3	Ba 233.527†	242785.5	249714.4	[1000]	µg/L	18:45:31
3	Be 313.107†	3559181.4	3659831.0	[1000]	µg/L	18:45:29
3	Cd 226.502†	156473.3	160969.5	[1000]	µg/L	18:45:31
3	Co 228.616†	79020.9	81422.2	[1000]	µg/L	18:45:31
3	Cr 267.716†	125294.1	128621.2	[1000]	µg/L	18:45:31
3	Cu 324.752†	255275.0	259445.3	[1000]	µg/L	18:45:31
3	Mn 257.610†	783171.7	804847.3	[1000]	µg/L	18:45:29
3	Mo 202.031†	33174.1	34122.4	[1000]	µg/L	18:45:31
3	Ni 231.604†	84877.1	87328.4	[1000]	µg/L	18:45:31
3	P 214.914†	22811.2	23467.5	[5000]	µg/L	18:45:51
3	Pb 220.353†	17557.7	17962.6	[1000]	µg/L	18:45:51
3	S 181.975 Axial†	2739.9	2711.5	[2000]	µg/L	18:45:51
3	Sb 206.836†	8307.3	8458.9	[1000]	µg/L	18:45:51
3	Se 196.026†	2720.6	2781.4	[1000]	µg/L	18:45:51
3	SiO2†	108495.7	109756.0	[10695]	µg/L	18:45:31
3	Si 251.611†	331529.5	339969.0	[5000]	µg/L	18:45:31
3	Sn 189.927†	15666.1	16105.6	[1000]	µg/L	18:45:51
3	Ti 334.940†	1040566.4	1068728.6	[1000]	µg/L	18:45:29
3	Tl 190.801†	7842.2	8178.3	[1000]	µg/L	18:45:51
3	U 409.014†	16964.7	17709.3	[1000]	µg/L	18:45:31
3	V 292.402†	201223.5	206449.9	[1000]	µg/L	18:45:31
3	Zn 213.857†	174624.2	178945.7	[1000]	µg/L	18:45:31

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1673736.5	14951.98	0.89%	97.411	%
Sc RADIAL	140507.5	1807.88	1.29%	96.3	%
Y 371.029	985523.8	7955.77	0.81%	95.991	%
Ag 328.068†	271177.3	3439.65	1.27%	[1000]	µg/L
Al 396.153Radial†	54762.9	214.99	0.39%	[10000]	µg/L
As 188.979†	3312.1	17.04	0.51%	[1000]	µg/L
B 249.677†	68082.4	802.18	1.18%	[1000]	µg/L
Ba 233.527†	248665.4	2944.35	1.18%	[1000]	µg/L
Be 313.107†	3676804.1	15255.21	0.41%	[1000]	µg/L
Ca 317.933Radial†	182245.2	475.46	0.26%	[10000]	µg/L
Cd 226.502†	160477.0	2024.24	1.26%	[1000]	µg/L
Co 228.616†	81111.8	988.08	1.22%	[1000]	µg/L
Cr 267.716†	128039.2	1543.01	1.21%	[1000]	µg/L
Cu 324.752†	258400.5	3515.45	1.36%	[1000]	µg/L
Fe 238.204 Radial†	162957.7	304.26	0.19%	[10000]	µg/L
K 766.490 Radial†	27400.1	77.00	0.28%	[10000]	µg/L
Mg 279.077 IEC†	27620.0	129.06	0.47%	[10000]	µg/L
Mn 257.610†	808338.4	3200.20	0.40%	[1000]	µg/L
Mo 202.031†	34055.3	395.69	1.16%	[1000]	µg/L
Na 589.592 Radial†	72939.6	111.55	0.15%	[10000]	µg/L

Ni 231.604†	86996.7	1021.87	1.17%	[1000]	µg/L
P 214.914†	23389.4	118.12	0.51%	[5000]	µg/L
Pb 220.353†	17895.1	91.02	0.51%	[1000]	µg/L
S 181.975 Axial†	2699.4	10.77	0.40%	[2000]	µg/L
Sb 206.836†	8428.5	65.64	0.78%	[1000]	µg/L
Se 196.026†	2770.3	26.05	0.94%	[1000]	µg/L
SiO2†	109311.3	1317.66	1.21%	[10695]	µg/L
Si 251.611†	338687.7	4158.85	1.23%	[5000]	µg/L
Sn 189.927†	16046.3	87.25	0.54%	[1000]	µg/L
Sr 421.552†	480721.9	6863.20	1.43%	[1000]	µg/L
Ti 334.940†	1072022.5	2911.16	0.27%	[1000]	µg/L
Tl 190.801†	8141.3	55.30	0.68%	[1000]	µg/L
U 409.014†	17540.2	301.14	1.72%	[1000]	µg/L
V 292.402†	205873.2	2596.95	1.26%	[1000]	µg/L
Zn 213.857†	178382.8	2018.56	1.13%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/31/2010 18:45:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139343.3	139343.3	95.5	%	18:46:28
1	Al 396.153Radial†	256543.2	268732.8	[50000]	µg/L	18:46:28
1	Ca 317.933Radial†	856588.9	896517.6	[50000]	µg/L	18:46:28
1	Fe 238.204 Radial†	309603.0	324089.2	[20000]	µg/L	18:46:28
1	Mg 279.077 IEC†	128261.6	134133.6	[50000]	µg/L	18:46:28
1	Na 589.592 Radial†	141053.4	146429.9	[20000]	µg/L	18:46:28
1	Sc 361.383	1636602.8	1636602.8	95.250	%	18:46:50
1	Y 371.029	965973.5	965973.5	94.086	%	18:46:50
2	Sc RADIAL	137624.0	137624.0	94.3	%	18:46:30
2	Al 396.153Radial†	254363.4	269777.6	[50000]	µg/L	18:46:30
2	Ca 317.933Radial†	846244.8	896755.8	[50000]	µg/L	18:46:30
2	Fe 238.204 Radial†	305781.9	324087.9	[20000]	µg/L	18:46:30
2	Mg 279.077 IEC†	126264.9	133694.4	[50000]	µg/L	18:46:30
2	Na 589.592 Radial†	139489.2	146616.7	[20000]	µg/L	18:46:30
2	Sc 361.383	1622381.6	1622381.6	94.422	%	18:46:53
2	Y 371.029	956849.7	956849.7	93.198	%	18:46:53
3	Sc RADIAL	137980.0	137980.0	94.6	%	18:46:32
3	Al 396.153Radial†	255245.7	270015.0	[50000]	µg/L	18:46:32
3	Ca 317.933Radial†	849307.2	897679.9	[50000]	µg/L	18:46:32
3	Fe 238.204 Radial†	306725.7	324249.8	[20000]	µg/L	18:46:32
3	Mg 279.077 IEC†	127087.0	134218.4	[50000]	µg/L	18:46:32
3	Na 589.592 Radial†	139780.8	146543.6	[20000]	µg/L	18:46:32
3	Sc 361.383	1649813.3	1649813.3	96.019	%	18:46:56
3	Y 371.029	972430.3	972430.3	94.715	%	18:46:56

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1636265.9	13718.97	0.84%	95.230	%
Sc RADIAL	138315.8	907.47	0.66%	94.8	%
Y 371.029	965084.5	7828.26	0.81%	94.000	%
Al 396.153Radial†	269508.5	682.17	0.25%	[50000]	µg/L
Ca 317.933Radial†	896984.4	613.95	0.07%	[50000]	µg/L
Fe 238.204 Radial†	324142.3	93.07	0.03%	[20000]	µg/L
Mg 279.077 IEC†	134015.5	281.29	0.21%	[50000]	µg/L
Na 589.592 Radial†	146530.1	94.09	0.06%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	270.1	0.00000	0.999966	
Al 396.153Radial	3	Lin Thru 0	0.0	5.394	0.00000	0.999995	
As 188.979	3	Lin Thru 0	0.0	3.307	0.00000	0.999994	
B 249.677	3	Lin Thru 0	0.0	67.80	0.00000	0.999967	
Ba 233.527	3	Lin Thru 0	0.0	248.2	0.00000	0.999990	
Be 313.107	3	Lin Thru 0	0.0	3673	0.00000	0.999997	
Ca 317.933Radial	3	Lin Thru 0	0.0	17.95	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	160.1	0.00000	0.999988	
Co 228.616	3	Lin Thru 0	0.0	81.06	0.00000	0.999997	
Cr 267.716	3	Lin Thru 0	0.0	127.7	0.00000	0.999983	
Cu 324.752	3	Lin Thru 0	0.0	257.3	0.00000	0.999966	
Fe 238.204 Radia	2	Lin Thru 0	0.0	16.22	0.00000	0.999998	
K 766.490 Radial	3	Lin Thru 0	0.0	2.731	0.00000	0.999979	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.684	0.00000	0.999981	
Mn 257.610	3	Lin Thru 0	0.0	808.2	0.00000	0.999995	
Mo 202.031	3	Lin Thru 0	0.0	34.03	0.00000	0.999999	
Na 589.592 Radia	2	Lin Thru 0	0.0	7.320	0.00000	0.999998	

Ni 231.604	3	Lin Thru 0	0.0	86.85	0.00000	0.999991
P 214.914	3	Lin Thru 0	0.0	4.675	0.00000	0.999999
Pb 220.353	3	Lin Thru 0	0.0	17.92	0.00000	0.999996
S 181.975 Axial	3	Lin Thru 0	0.0	1.347	0.00000	0.999988
Sb 206.836	3	Lin Thru 0	0.0	8.412	0.00000	0.999992
Se 196.026	3	Lin Thru 0	0.0	2.766	0.00000	0.999995
SiO2	3	Lin Thru 0	0.0	10.23	0.00000	0.999996
Si 251.611	3	Lin Thru 0	0.0	67.83	0.00000	0.999995
Sn 189.927	3	Lin Thru 0	0.0	16.04	0.00000	0.999999
Sr 421.552	3	Lin Thru 0	0.0	481.0	0.00000	0.999997
Ti 334.940	3	Lin Thru 0	0.0	1070	0.00000	0.999995
Tl 190.801	3	Lin Thru 0	0.0	8.138	0.00000	0.999996
U 409.014	3	Lin Thru 0	0.0	17.10	0.00000	0.998547
V 292.402	3	Lin Thru 0	0.0	205.0	0.00000	0.999964
Zn 213.857	3	Lin Thru 0	0.0	178.0	0.00000	0.999990

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/31/2010 18:47:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142728.0	142728.0	97.8	%			18:47:35
1	Al 396.153Radial†	27196.1	27869.4	5141.6	µg/L	5141.6	ppb	18:47:35
1	Ca 317.933Radial†	89393.1	90837.9	5060.0	µg/L	5060.0	ppb	18:47:35
1	Fe 238.204 Radial†	80412.9	82068.7	5058.2	µg/L	5058.2	ppb	18:47:35
1	K 766.490 Radial†	8352.4	6995.0	2558.1	µg/L	2558.1	ppb	18:47:35
1	Mg 279.077 IEC†	14148.2	14274.9	5327.6	µg/L	5327.6	ppb	18:47:35
1	Na 589.592 Radial†	19150.9	18289.7	2496.3	µg/L	2496.3	ppb	18:47:35
1	Sr 421.552†	250356.1	256107.6	532.39	µg/L	532.39	ppb	18:47:33
1	Sc 361.383	1677195.1	1677195.1	97.612	%			18:47:48
1	Y 371.029	995806.6	995806.6	96.992	%			18:47:48
1	Ag 328.068†	70215.3	67841.3	257.54	µg/L	257.54	ppb	18:47:48
1	As 188.979†	1526.8	1584.5	486.58	µg/L	486.58	ppb	18:47:50
1	B 249.677†	37075.8	34476.8	506.67	µg/L	506.67	ppb	18:47:48
1	Ba 233.527†	122696.8	125833.7	507.50	µg/L	507.50	ppb	18:47:48
1	Be 313.107†	933729.3	957632.1	260.88	µg/L	260.88	ppb	18:47:48
1	Cd 226.502†	77657.9	79675.5	497.37	µg/L	497.37	ppb	18:47:48
1	Co 228.616†	40998.4	42191.5	520.85	µg/L	520.85	ppb	18:47:50
1	Cr 267.716†	62225.7	63569.1	497.75	µg/L	497.75	ppb	18:47:50
1	Cu 324.752†	130541.7	130762.4	509.73	µg/L	509.73	ppb	18:47:48
1	Mn 257.610†	407677.2	417411.4	516.24	µg/L	516.24	ppb	18:47:48
1	Mo 202.031†	18097.1	18559.8	545.92	µg/L	545.92	ppb	18:47:50
1	Ni 231.604†	43663.1	44807.6	515.93	µg/L	515.93	ppb	18:47:50
1	P 214.914†	11760.6	12066.2	2571.9	µg/L	2571.9	ppb	18:47:50
1	Pb 220.353†	9089.2	9225.1	516.68	µg/L	516.68	ppb	18:47:50
1	S 181.975 Axial†	3477.6	3457.6	2572.2	µg/L	2572.2	ppb	18:47:50
1	Sb 206.836†	4253.6	4276.8	510.30	µg/L	510.30	ppb	18:47:50
1	Se 196.026†	6905.2	7058.8	2550	µg/L	2550	ppb	18:47:50
1	SiO2†	106599.4	107431.3	10477	µg/L	10477	ppb	18:47:48
1	Si 251.611†	325209.4	332327.1	4888.6	µg/L	4888.6	ppb	18:47:48
1	Sn 189.927†	8509.6	8718.8	545.19	µg/L	545.19	ppb	18:47:50
1	Ti 334.940†	517306.5	529006.8	493.58	µg/L	493.58	ppb	18:47:48
1	Tl 190.801†	4208.4	4428.0	551.50	µg/L	551.50	ppb	18:47:50
1	U 409.014†	7246.7	7693.8	480.75	µg/L	480.75	ppb	18:47:48
1	V 292.402†	101371.8	103447.4	511.74	µg/L	511.74	ppb	18:47:48
1	Zn 213.857†	89039.6	90653.0	505.19	µg/L	505.19	ppb	18:47:48
2	Sc RADIAL	141472.3	141472.3	96.9	%			18:47:39
2	Al 396.153Radial†	26888.4	27798.8	5129.2	µg/L	5129.2	ppb	18:47:39
2	Ca 317.933Radial†	88063.7	90277.8	5028.8	µg/L	5028.8	ppb	18:47:39
2	Fe 238.204 Radial†	79583.4	81942.8	5050.5	µg/L	5050.5	ppb	18:47:39
2	K 766.490 Radial†	8113.5	6824.4	2495.6	µg/L	2495.6	ppb	18:47:39
2	Mg 279.077 IEC†	13969.8	14219.3	5306.5	µg/L	5306.5	ppb	18:47:39
2	Na 589.592 Radial†	19176.1	18489.5	2523.7	µg/L	2523.7	ppb	18:47:39
2	Sr 421.552†	244831.9	252681.3	525.27	µg/L	525.27	ppb	18:47:37
2	Sc 361.383	1698788.6	1698788.6	98.869	%			18:47:53
2	Y 371.029	1007373.3	1007373.3	98.119	%			18:47:53
2	Ag 328.068†	71291.0	68014.9	258.16	µg/L	258.16	ppb	18:47:53
2	As 188.979†	1532.9	1570.8	482.29	µg/L	482.29	ppb	18:47:55
2	B 249.677†	37726.0	34651.6	509.29	µg/L	509.29	ppb	18:47:53
2	Ba 233.527†	124221.9	125778.5	507.27	µg/L	507.27	ppb	18:47:53
2	Be 313.107†	946768.4	958661.3	261.16	µg/L	261.16	ppb	18:47:53
2	Cd 226.502†	78878.8	79899.1	498.76	µg/L	498.76	ppb	18:47:53
2	Co 228.616†	40427.2	41079.9	507.13	µg/L	507.13	ppb	18:47:55
2	Cr 267.716†	61613.4	62139.5	486.55	µg/L	486.55	ppb	18:47:55
2	Cu 324.752†	131991.8	130529.2	508.81	µg/L	508.81	ppb	18:47:53
2	Mn 257.610†	413215.3	417704.0	516.60	µg/L	516.60	ppb	18:47:53
2	Mo 202.031†	17824.6	18048.5	530.89	µg/L	530.89	ppb	18:47:55
2	Ni 231.604†	43042.2	43611.0	502.15	µg/L	502.15	ppb	18:47:55
2	P 214.914†	11581.1	11731.5	2500.3	µg/L	2500.3	ppb	18:47:55
2	Pb 220.353†	8959.4	8975.5	502.70	µg/L	502.70	ppb	18:47:55

2	S 181.975 Axial†	3387.2	3320.9	2470.5 µg/L	2470.5 ppb	18:47:55
2	Sb 206.836†	4183.4	4150.4	495.20 µg/L	495.20 ppb	18:47:55
2	Se 196.026†	6756.5	6818.5	2470 µg/L	2470 ppb	18:47:55
2	SiO2†	108026.4	107486.5	10483 µg/L	10483 ppb	18:47:53
2	Si 251.611†	330001.8	332939.4	4897.9 µg/L	4897.9 ppb	18:47:53
2	Sn 189.927†	8332.5	8429.0	527.12 µg/L	527.12 ppb	18:47:55
2	Ti 334.940†	523598.9	528634.8	493.24 µg/L	493.24 ppb	18:47:53
2	Tl 190.801†	4130.1	4294.0	535.11 µg/L	535.11 ppb	18:47:55
2	U 409.014†	7323.1	7676.7	479.70 µg/L	479.70 ppb	18:47:53
2	V 292.402†	102428.7	103196.4	510.32 µg/L	510.32 ppb	18:47:53
2	Zn 213.857†	90500.4	90971.0	507.07 µg/L	507.07 ppb	18:47:53
3	Sc RADIAL	141074.5	141074.5	96.7 %		18:47:43
3	Al 396.153Radial†	27024.0	28017.2	5169.9 µg/L	5169.9 ppb	18:47:43
3	Ca 317.933Radial†	88402.3	90884.2	5062.6 µg/L	5062.6 ppb	18:47:43
3	Fe 238.204 Radial†	79763.1	82360.1	5076.2 µg/L	5076.2 ppb	18:47:43
3	K 766.490 Radial†	8103.8	6838.0	2500.5 µg/L	2500.5 ppb	18:47:43
3	Mg 279.077 IEC†	14069.6	14363.2	5360.0 µg/L	5360.0 ppb	18:47:43
3	Na 589.592 Radial†	19066.5	18431.9	2515.8 µg/L	2515.8 ppb	18:47:43
3	Sr 421.552†	247012.7	255649.2	531.44 µg/L	531.44 ppb	18:47:41
3	Sc 361.383	1692022.5	1692022.5	98.475 %		18:47:58
3	Y 371.029	1004104.0	1004104.0	97.800 %		18:47:58
3	Ag 328.068†	71156.1	68166.3	258.74 µg/L	258.74 ppb	18:47:58
3	As 188.979†	1530.4	1574.5	483.34 µg/L	483.34 ppb	18:48:00
3	B 249.677†	37553.2	34628.7	508.97 µg/L	508.97 ppb	18:47:58
3	Ba 233.527†	123711.5	125762.6	507.21 µg/L	507.21 ppb	18:47:58
3	Be 313.107†	941930.7	957578.0	260.87 µg/L	260.87 ppb	18:47:58
3	Cd 226.502†	78415.4	79747.6	497.81 µg/L	497.81 ppb	18:47:58
3	Co 228.616†	39781.6	40587.8	501.06 µg/L	501.06 ppb	18:48:00
3	Cr 267.716†	60612.6	61372.4	480.54 µg/L	480.54 ppb	18:48:00
3	Cu 324.752†	131599.2	130664.3	509.34 µg/L	509.34 ppb	18:47:58
3	Mn 257.610†	411605.2	417740.2	516.64 µg/L	516.64 ppb	18:47:58
3	Mo 202.031†	17622.4	17915.3	526.98 µg/L	526.98 ppb	18:48:00
3	Ni 231.604†	42378.9	43111.5	496.40 µg/L	496.40 ppb	18:48:00
3	P 214.914†	11404.8	11599.3	2472.0 µg/L	2472.0 ppb	18:48:00
3	Pb 220.353†	8867.2	8918.1	499.49 µg/L	499.49 ppb	18:48:00
3	S 181.975 Axial†	3288.2	3234.1	2406.0 µg/L	2406.0 ppb	18:48:00
3	Sb 206.836†	4104.8	4087.6	487.75 µg/L	487.75 ppb	18:48:00
3	Se 196.026†	6722.3	6811.1	2460 µg/L	2460 ppb	18:48:00
3	SiO2†	107577.1	107467.2	10482 µg/L	10482 ppb	18:47:58
3	Si 251.611†	328691.1	332943.1	4898.1 µg/L	4898.1 ppb	18:47:58
3	Sn 189.927†	8196.6	8324.7	520.62 µg/L	520.62 ppb	18:48:00
3	Ti 334.940†	522557.7	529695.2	494.23 µg/L	494.23 ppb	18:47:58
3	Tl 190.801†	3987.3	4165.7	519.39 µg/L	519.39 ppb	18:48:00
3	U 409.014†	7372.3	7756.3	484.40 µg/L	484.40 ppb	18:47:58
3	V 292.402†	102179.3	103357.4	511.03 µg/L	511.03 ppb	18:47:58
3	Zn 213.857†	89790.3	90616.0	505.12 µg/L	505.12 ppb	18:47:58

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1689335.4	98.319	%	0.6428				0.65%
Sc RADIAL	141758.3	97.1	%	0.59				0.61%
Y 371.029	1002428.0	97.637	%	0.5808				0.59%
Ag 328.068†	68007.5	258.15	µg/L	0.601	258.15	ppb	0.601	0.23%
QC value within limits for Ag 328.068 Recovery = 103.26%								
Al 396.153Radial†	27895.2	5146.9	µg/L	20.85	5146.9	ppb	20.85	0.41%
QC value within limits for Al 396.153Radial Recovery = 102.94%								
As 188.979†	1576.6	484.07	µg/L	2.239	484.07	ppb	2.239	0.46%
QC value within limits for As 188.979 Recovery = 96.81%								
B 249.677†	34585.7	508.31	µg/L	1.434	508.31	ppb	1.434	0.28%
QC value within limits for B 249.677 Recovery = 101.66%								
Ba 233.527†	125791.6	507.32	µg/L	0.154	507.32	ppb	0.154	0.03%
QC value within limits for Ba 233.527 Recovery = 101.46%								
Be 313.107†	957957.1	260.97	µg/L	0.166	260.97	ppb	0.166	0.06%
QC value within limits for Be 313.107 Recovery = 104.39%								
Ca 317.933Radial†	90666.6	5050.5	µg/L	18.80	5050.5	ppb	18.80	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.01%								
Cd 226.502†	79774.1	497.98	µg/L	0.711	497.98	ppb	0.711	0.14%
QC value within limits for Cd 226.502 Recovery = 99.60%								
Co 228.616†	41286.4	509.68	µg/L	10.138	509.68	ppb	10.138	1.99%

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   QC value within limits for Co 228.616  Recovery = 101.94%
Cr 267.716†            62360.3      488.28 µg/L         8.733      488.28 ppb          8.733   1.79%
   QC value within limits for Cr 267.716  Recovery = 97.66%
Cu 324.752†           130652.0      509.29 µg/L         0.460      509.29 ppb          0.460   0.09%
   QC value within limits for Cu 324.752  Recovery = 101.86%
Fe 238.204 Radial†     82123.9      5061.6 µg/L         13.19      5061.6 ppb          13.19   0.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.23%
K 766.490 Radial†       6885.8      2518.1 µg/L         34.72      2518.1 ppb          34.72   1.38%
   QC value within limits for K 766.490 Radial  Recovery = 100.72%
Mg 279.077 IEC†        14285.8      5331.4 µg/L         26.95      5331.4 ppb          26.95   0.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.63%
Mn 257.610†           417618.5      516.49 µg/L         0.223      516.49 ppb          0.223   0.04%
   QC value within limits for Mn 257.610  Recovery = 103.30%
Mo 202.031†            18174.5      534.59 µg/L         9.999      534.59 ppb          9.999   1.87%
   QC value within limits for Mo 202.031  Recovery = 106.92%
Na 589.592 Radial†     18403.7      2511.9 µg/L         14.08      2511.9 ppb          14.08   0.56%
   QC value within limits for Na 589.592 Radial  Recovery = 100.48%
Ni 231.604†            43843.4      504.82 µg/L        10.036      504.82 ppb         10.036   1.99%
   QC value within limits for Ni 231.604  Recovery = 100.96%
P 214.914†             11799.0      2514.8 µg/L         51.47      2514.8 ppb          51.47   2.05%
   QC value within limits for P 214.914  Recovery = 100.59%
Pb 220.353†             9039.6      506.29 µg/L         9.140      506.29 ppb          9.140   1.81%
   QC value within limits for Pb 220.353  Recovery = 101.26%
S 181.975 Axial†        3337.5      2482.9 µg/L         83.76      2482.9 ppb          83.76   3.37%
   QC value within limits for S 181.975 Axial  Recovery = 99.32%
Sb 206.836†             4171.6      497.75 µg/L        11.489      497.75 ppb         11.489   2.31%
   QC value within limits for Sb 206.836  Recovery = 99.55%
Se 196.026†             6896.1        2500 µg/L          50.9        2500 ppb           50.9   2.04%
   QC value within limits for Se 196.026  Recovery = 99.81%
SiO2†                 107461.7       10481 µg/L           3.1       10481 ppb            3.1   0.03%
   QC value within limits for SiO2  Recovery = 98.00%
Si 251.611†           332736.6      4894.9 µg/L          5.44      4894.9 ppb           5.44   0.11%
   QC value within limits for Si 251.611  Recovery = 97.90%
Sn 189.927†             8490.8      530.98 µg/L        12.731      530.98 ppb         12.731   2.40%
   QC value within limits for Sn 189.927  Recovery = 106.20%
Sr 421.552†           254812.7      529.70 µg/L         3.867      529.70 ppb          3.867   0.73%
   QC value within limits for Sr 421.552  Recovery = 105.94%
Ti 334.940†           529112.2      493.68 µg/L         0.501      493.68 ppb          0.501   0.10%
   QC value within limits for Ti 334.940  Recovery = 98.74%
Tl 190.801†             4295.9      535.33 µg/L        16.060      535.33 ppb         16.060   3.00%
   QC value within limits for Tl 190.801  Recovery = 107.07%
U 409.014†              7709.0      481.62 µg/L         2.468      481.62 ppb          2.468   0.51%
   QC value within limits for U 409.014  Recovery = 96.32%
V 292.402†            103333.7      511.03 µg/L         0.714      511.03 ppb          0.714   0.14%
   QC value within limits for V 292.402  Recovery = 102.21%
Zn 213.857†            90746.7      505.79 µg/L         1.109      505.79 ppb          1.109   0.22%
   QC value within limits for Zn 213.857  Recovery = 101.16%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/31/2010 18:48:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141820.7	141820.7	97.2	%			18:48:38
1	Al 396.153Radial†	-23.3	39.2	7.2759	µg/L	7.2759	ppb	18:48:58
1	Ca 317.933Radial†	601.1	58.0	3.2284	µg/L	3.2284	ppb	18:48:58
1	Fe 238.204 Radial†	172.3	29.2	1.7975	µg/L	1.7975	ppb	18:48:58
1	K 766.490 Radial†	1651.6	154.7	56.635	µg/L	56.635	ppb	18:48:38
1	Mg 279.077 IEC†	178.4	-7.1	-2.6584	µg/L	-2.6584	ppb	18:48:58
1	Na 589.592 Radial†	1421.8	172.2	23.470	µg/L	23.470	ppb	18:48:38
1	Sr 421.552†	-137.1	-5.8	-0.0120	µg/L	-0.0120	ppb	18:48:38
1	Sc 361.383	1683915.8	1683915.8	98.004	%			18:50:00
1	Y 371.029	1008438.2	1008438.2	98.222	%			18:50:00
1	Ag 328.068†	3988.4	-21.8	-0.0966	µg/L	-0.0966	ppb	18:50:02
1	As 188.979†	-16.6	3.4	1.0196	µg/L	1.0196	ppb	18:50:22
1	B 249.677†	3689.5	258.8	3.8157	µg/L	3.8157	ppb	18:50:02
1	Ba 233.527†	-144.6	-11.7	-0.0475	µg/L	-0.0475	ppb	18:50:22
1	Be 313.107†	-835.0	212.7	0.0556	µg/L	0.0556	ppb	18:50:02
1	Cd 226.502†	-86.3	30.1	0.1877	µg/L	0.1877	ppb	18:50:22
1	Co 228.616†	-156.6	30.5	0.3761	µg/L	0.3761	ppb	18:50:22
1	Cr 267.716†	188.6	13.8	0.1142	µg/L	0.1142	ppb	18:50:22
1	Cu 324.752†	2866.9	-46.9	-0.1882	µg/L	-0.1882	ppb	18:50:02
1	Mn 257.610†	237.6	5.2	0.0065	µg/L	0.0065	ppb	18:50:22
1	Mo 202.031†	-20.5	-0.8	-0.0238	µg/L	-0.0238	ppb	18:50:22
1	Ni 231.604†	-85.2	-10.4	-0.1202	µg/L	-0.1202	ppb	18:50:22
1	P 214.914†	-19.5	-2.0	-0.4133	µg/L	-0.4133	ppb	18:50:22
1	Pb 220.353†	104.1	19.8	1.1130	µg/L	1.1130	ppb	18:50:22
1	S 181.975 Axial†	94.9	-8.2	-6.0991	µg/L	-6.0991	ppb	18:50:22
1	Sb 206.836†	83.0	3.9	0.4581	µg/L	0.4581	ppb	18:50:22
1	Se 196.026†	16.9	2.0	0.709	µg/L	0.709	ppb	18:50:22
1	SiO2†	1750.1	10.4	1.0001	µg/L	1.0001	ppb	18:50:22
1	Si 251.611†	692.5	-130.0	-1.9216	µg/L	-1.9216	ppb	18:50:02
1	Sn 189.927†	12.8	14.2	0.8842	µg/L	0.8842	ppb	18:50:22
1	Ti 334.940†	967.2	34.4	0.0355	µg/L	0.0355	ppb	18:50:02
1	Tl 190.801†	-113.3	1.1	0.1286	µg/L	0.1286	ppb	18:50:22
1	U 409.014†	-392.4	-130.5	-7.6641	µg/L	-7.6641	ppb	18:50:02
1	V 292.402†	288.2	-109.7	-0.5404	µg/L	-0.5404	ppb	18:50:02
1	Zn 213.857†	580.6	28.0	0.1584	µg/L	0.1584	ppb	18:50:22
2	Sc RADIAL	141475.5	141475.5	96.9	%			18:49:00
2	Al 396.153Radial†	-59.5	1.9	0.3293	µg/L	0.3293	ppb	18:49:20
2	Ca 317.933Radial†	582.6	40.4	2.2485	µg/L	2.2485	ppb	18:49:20
2	Fe 238.204 Radial†	177.4	34.9	2.1506	µg/L	2.1506	ppb	18:49:20
2	K 766.490 Radial†	1678.4	186.4	68.259	µg/L	68.259	ppb	18:49:00
2	Mg 279.077 IEC†	195.6	11.1	4.1266	µg/L	4.1266	ppb	18:49:20
2	Na 589.592 Radial†	1313.4	64.0	8.6800	µg/L	8.6800	ppb	18:49:00
2	Sr 421.552†	-263.2	-136.2	-0.2832	µg/L	-0.2832	ppb	18:49:00
2	Sc 361.383	1681105.0	1681105.0	97.840	%			18:50:24
2	Y 371.029	1006809.9	1006809.9	98.064	%			18:50:24
2	Ag 328.068†	3899.5	-105.8	-0.4010	µg/L	-0.4010	ppb	18:50:26
2	As 188.979†	-14.2	5.9	1.7810	µg/L	1.7810	ppb	18:50:47
2	B 249.677†	3479.7	50.7	0.7461	µg/L	0.7461	ppb	18:50:26
2	Ba 233.527†	-126.1	7.0	0.0284	µg/L	0.0284	ppb	18:50:47
2	Be 313.107†	-932.6	111.6	0.0281	µg/L	0.0281	ppb	18:50:26
2	Cd 226.502†	-94.6	21.5	0.1342	µg/L	0.1342	ppb	18:50:47
2	Co 228.616†	-159.1	27.7	0.3416	µg/L	0.3416	ppb	18:50:47
2	Cr 267.716†	205.7	31.7	0.2541	µg/L	0.2541	ppb	18:50:47
2	Cu 324.752†	2760.4	-150.9	-0.5921	µg/L	-0.5921	ppb	18:50:26
2	Mn 257.610†	248.9	17.1	0.0210	µg/L	0.0210	ppb	18:50:47
2	Mo 202.031†	-6.8	13.1	0.3848	µg/L	0.3848	ppb	18:50:47
2	Ni 231.604†	-77.1	-2.3	-0.0264	µg/L	-0.0264	ppb	18:50:47
2	P 214.914†	-8.5	9.3	1.9937	µg/L	1.9937	ppb	18:50:47
2	Pb 220.353†	88.9	4.5	0.2582	µg/L	0.2582	ppb	18:50:47

2	S 181.975 Axial†	97.2	-5.7	-4.2111 µg/L	-4.2111 ppb	18:50:47
2	Sb 206.836†	84.7	5.7	0.6836 µg/L	0.6836 ppb	18:50:47
2	Se 196.026†	31.5	16.9	6.11 µg/L	6.11 ppb	18:50:47
2	SiO2†	1754.7	18.0	1.7515 µg/L	1.7515 ppb	18:50:47
2	Si 251.611†	708.6	-112.3	-1.6605 µg/L	-1.6605 ppb	18:50:26
2	Sn 189.927†	-0.8	0.3	0.0171 µg/L	0.0171 ppb	18:50:47
2	Ti 334.940†	917.4	-14.9	-0.0112 µg/L	-0.0112 ppb	18:50:26
2	Tl 190.801†	-109.7	4.5	0.5537 µg/L	0.5537 ppb	18:50:47
2	U 409.014†	-392.0	-130.8	-7.6468 µg/L	-7.6468 ppb	18:50:26
2	V 292.402†	396.5	1.4	0.0068 µg/L	0.0068 ppb	18:50:26
2	Zn 213.857†	557.8	5.7	0.0323 µg/L	0.0323 ppb	18:50:47
3	Sc RADIAL	140788.0	140788.0	96.5 %		18:49:22
3	Al 396.153Radial†	-53.3	8.0	1.4950 µg/L	1.4950 ppb	18:49:42
3	Ca 317.933Radial†	570.5	30.7	1.7106 µg/L	1.7106 ppb	18:49:42
3	Fe 238.204 Radial†	153.8	11.4	0.7002 µg/L	0.7002 ppb	18:49:42
3	K 766.490 Radial†	1509.3	19.7	7.1988 µg/L	7.1988 ppb	18:49:22
3	Mg 279.077 IEC†	187.5	3.6	1.3339 µg/L	1.3339 ppb	18:49:42
3	Na 589.592 Radial†	1241.2	-4.3	-0.5891 µg/L	-0.5891 ppb	18:49:22
3	Sr 421.552†	-62.3	70.7	0.1469 µg/L	0.1469 ppb	18:49:22
3	Sc 361.383	1702475.2	1702475.2	99.084 %		18:50:49
3	Y 371.029	1019278.2	1019278.2	99.278 %		18:50:49
3	Ag 328.068†	3893.2	-162.2	-0.6047 µg/L	-0.6047 ppb	18:50:51
3	As 188.979†	-11.0	9.3	2.8073 µg/L	2.8073 ppb	18:51:11
3	B 249.677†	3493.6	20.0	0.2957 µg/L	0.2957 ppb	18:50:51
3	Ba 233.527†	-155.1	-20.7	-0.0837 µg/L	-0.0837 ppb	18:51:11
3	Be 313.107†	-918.7	137.5	0.0367 µg/L	0.0367 ppb	18:50:51
3	Cd 226.502†	-90.2	27.2	0.1697 µg/L	0.1697 ppb	18:51:11
3	Co 228.616†	-191.5	-3.0	-0.0369 µg/L	-0.0369 ppb	18:51:11
3	Cr 267.716†	192.8	16.1	0.1277 µg/L	0.1277 ppb	18:51:11
3	Cu 324.752†	2902.8	-42.6	-0.1675 µg/L	-0.1675 ppb	18:50:51
3	Mn 257.610†	221.1	-14.1	-0.0175 µg/L	-0.0175 ppb	18:51:11
3	Mo 202.031†	-27.6	-7.7	-0.2274 µg/L	-0.2274 ppb	18:51:11
3	Ni 231.604†	-80.3	-4.5	-0.0519 µg/L	-0.0519 ppb	18:51:11
3	P 214.914†	-10.6	7.3	1.5639 µg/L	1.5639 ppb	18:51:11
3	Pb 220.353†	87.5	1.9	0.1068 µg/L	0.1068 ppb	18:51:11
3	S 181.975 Axial†	108.2	4.2	3.0845 µg/L	3.0845 ppb	18:51:11
3	Sb 206.836†	65.7	-14.5	-1.7326 µg/L	-1.7326 ppb	18:51:11
3	Se 196.026†	1.4	-13.8	-5.00 µg/L	-5.00 ppb	18:51:11
3	SiO2†	1771.9	13.0	1.2622 µg/L	1.2622 ppb	18:51:11
3	Si 251.611†	804.4	-24.7	-0.3658 µg/L	-0.3658 ppb	18:50:51
3	Sn 189.927†	10.9	12.2	0.7583 µg/L	0.7583 ppb	18:51:11
3	Ti 334.940†	1048.8	105.9	0.0999 µg/L	0.0999 ppb	18:50:51
3	Tl 190.801†	-119.3	-3.7	-0.4558 µg/L	-0.4558 ppb	18:51:11
3	U 409.014†	-309.5	-42.5	-2.4891 µg/L	-2.4891 ppb	18:50:51
3	V 292.402†	382.0	-18.2	-0.0926 µg/L	-0.0926 ppb	18:50:51
3	Zn 213.857†	566.8	7.7	0.0435 µg/L	0.0435 ppb	18:51:11

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1689165.4	98.309	%	0.6758				0.69%
Sc RADIAL	141361.4	96.9	%	0.36				0.37%
Y 371.029	1011508.8	98.521	%	0.6601				0.67%
Ag 328.068†	-96.6	-0.3674	µg/L	0.25571	-0.3674	ppb	0.25571	69.60%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	16.4	3.0334	µg/L	3.72004	3.0334	ppb	3.72004	122.63%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	1.8693	µg/L	0.89713	1.8693	ppb	0.89713	47.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	109.8	1.6192	µg/L	1.91554	1.6192	ppb	1.91554	118.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.5	-0.0343	µg/L	0.05718	-0.0343	ppb	0.05718	166.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	153.9	0.0401	µg/L	0.01409	0.0401	ppb	0.01409	35.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	43.0	2.3958	µg/L	0.76955	2.3958	ppb	0.76955	32.12%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	26.3	0.1639	µg/L	0.02723	0.1639	ppb	0.02723	16.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.4	0.2269	µg/L	0.22917	0.2269	ppb	0.22917	100.99%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                20.5      0.1654 µg/L       0.07718      0.1654 ppb        0.07718  46.67%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -80.1     -0.3159 µg/L       0.23936     -0.3159 ppb        0.23936  75.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         25.1      1.5494 µg/L       0.75637      1.5494 ppb        0.75637  48.82%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         120.3      44.031 µg/L       32.4227      44.031 ppb        32.4227  73.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.5      0.9341 µg/L       3.41013      0.9341 ppb        3.41013 365.09%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                2.7      0.0033 µg/L       0.01944      0.0033 ppb        0.01944 582.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.5      0.0446 µg/L       0.31176      0.0446 ppb        0.31176 699.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        77.3      10.520 µg/L       12.1345      10.520 ppb        12.1345 115.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -5.7     -0.0661 µg/L       0.04849     -0.0661 ppb        0.04849  73.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 4.9      1.0481 µg/L       1.28372      1.0481 ppb        1.28372 122.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                8.7      0.4927 µg/L       0.54252      0.4927 ppb        0.54252 110.12%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.2     -2.4085 µg/L       4.84991     -2.4085 ppb        4.84991 201.36%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -1.6     -0.1970 µg/L       1.33468     -0.1970 ppb        1.33468 677.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.7       0.603 µg/L        5.5558       0.603 ppb         5.5558 920.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     13.8      1.3380 µg/L       0.38138      1.3380 ppb        0.38138  28.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -89.0     -1.3160 µg/L       0.83316     -1.3160 ppb        0.83316  63.31%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                8.9      0.5532 µg/L       0.46851      0.5532 ppb        0.46851  84.69%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -23.8     -0.0494 µg/L       0.21749     -0.0494 ppb        0.21749 439.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               41.8      0.0414 µg/L       0.05575      0.0414 ppb        0.05575 134.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.6      0.0755 µg/L       0.50686      0.0755 ppb        0.50686 671.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -101.3     -5.9334 µg/L       2.98281     -5.9334 ppb        2.98281  50.27%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -42.2     -0.2088 µg/L       0.29151     -0.2088 ppb        0.29151 139.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               13.8      0.0780 µg/L       0.06978      0.0780 ppb        0.06978  89.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 3/31/2010 18:51:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	140861.4	140861.4	96.5	%			18:51:48
1	Al 396.153Radial†	987.6	1086.3	200.96	µg/L	200.96	ppb	18:51:50
1	Ca 317.933Radial†	4191.0	3781.2	210.63	µg/L	210.63	ppb	18:51:50
1	Fe 238.204 Radial†	1792.5	1708.9	105.32	µg/L	105.32	ppb	18:51:50
1	K 766.490 Radial†	1849.3	371.1	135.70	µg/L	135.70	ppb	18:51:48
1	Mg 279.077 IEC†	1004.6	850.0	316.85	µg/L	316.85	ppb	18:51:50
1	Na 589.592 Radial†	3218.7	2043.7	279.07	µg/L	279.07	ppb	18:51:50
1	Sr 421.552†	2356.1	2576.2	5.3541	µg/L	5.3541	ppb	18:51:50
1	Sc 361.383	1696993.3	1696993.3	98.765	%			18:52:02
1	Y 371.029	1016566.5	1016566.5	99.014	%			18:52:02
1	Ag 328.068†	5094.4	1066.7	4.0516	µg/L	4.0516	ppb	18:52:04
1	As 188.979†	82.8	104.2	31.603	µg/L	31.603	ppb	18:52:24
1	B 249.677†	6532.0	3107.8	45.816	µg/L	45.816	ppb	18:52:04
1	Ba 233.527†	1080.9	1230.2	4.9619	µg/L	4.9619	ppb	18:52:24
1	Be 313.107†	16638.5	17911.3	4.8913	µg/L	4.8913	ppb	18:52:04
1	Cd 226.502†	682.8	809.6	5.0479	µg/L	5.0479	ppb	18:52:24
1	Co 228.616†	230.9	424.1	5.2325	µg/L	5.2325	ppb	18:52:24
1	Cr 267.716†	759.8	590.7	4.5885	µg/L	4.5885	ppb	18:52:24
1	Cu 324.752†	5375.4	2470.4	9.6665	µg/L	9.6665	ppb	18:52:04
1	Mn 257.610†	8461.3	8329.9	10.294	µg/L	10.294	ppb	18:52:04
1	Mo 202.031†	297.2	321.0	9.4457	µg/L	9.4457	ppb	18:52:24
1	Ni 231.604†	359.2	440.2	5.0686	µg/L	5.0686	ppb	18:52:24
1	P 214.914†	662.2	688.4	147.09	µg/L	147.09	ppb	18:52:24
1	Pb 220.353†	275.6	192.6	10.753	µg/L	10.753	ppb	18:52:24
1	S 181.975 Axial†	231.8	129.7	96.360	µg/L	96.360	ppb	18:52:24
1	Sb 206.836†	150.3	71.3	8.5656	µg/L	8.5656	ppb	18:52:24
1	Se 196.026†	92.5	78.4	28.4	µg/L	28.4	ppb	18:52:24
1	SiO2†	3882.7	2155.9	210.31	µg/L	210.31	ppb	18:52:04
1	Si 251.611†	7564.5	6822.6	100.39	µg/L	100.39	ppb	18:52:04
1	Sn 189.927†	162.8	165.9	10.360	µg/L	10.360	ppb	18:52:24
1	Ti 334.940†	6150.6	5275.0	4.8870	µg/L	4.8870	ppb	18:52:04
1	Tl 190.801†	46.5	163.8	20.204	µg/L	20.204	ppb	18:52:24
1	U 409.014†	536.3	812.9	47.827	µg/L	47.827	ppb	18:52:04
1	V 292.402†	1270.3	882.4	4.4384	µg/L	4.4384	ppb	18:52:04
1	Zn 213.857†	2321.2	1785.9	9.9841	µg/L	9.9841	ppb	18:52:24
2	Sc RADIAL	140936.7	140936.7	96.6	%			18:51:52
2	Al 396.153Radial†	972.6	1070.3	198.01	µg/L	198.01	ppb	18:51:54
2	Ca 317.933Radial†	4253.2	3843.3	214.09	µg/L	214.09	ppb	18:51:54
2	Fe 238.204 Radial†	1742.6	1656.2	102.08	µg/L	102.08	ppb	18:51:54
2	K 766.490 Radial†	1908.6	431.4	157.79	µg/L	157.79	ppb	18:51:52
2	Mg 279.077 IEC†	969.9	813.6	303.26	µg/L	303.26	ppb	18:51:54
2	Na 589.592 Radial†	3291.7	2117.5	289.13	µg/L	289.13	ppb	18:51:54
2	Sr 421.552†	2245.5	2460.3	5.1132	µg/L	5.1132	ppb	18:51:54
2	Sc 361.383	1687966.3	1687966.3	98.239	%			18:52:26
2	Y 371.029	1011019.5	1011019.5	98.474	%			18:52:26
2	Ag 328.068†	5292.9	1296.4	4.8998	µg/L	4.8998	ppb	18:52:28
2	As 188.979†	83.0	104.8	31.803	µg/L	31:803	ppb	18:52:48
2	B 249.677†	6698.9	3313.0	48.843	µg/L	48.843	ppb	18:52:28
2	Ba 233.527†	1087.4	1242.7	5.0120	µg/L	5.0120	ppb	18:52:48
2	Be 313.107†	16507.3	17867.9	4.8796	µg/L	4.8796	ppb	18:52:28
2	Cd 226.502†	680.2	810.6	5.0545	µg/L	5.0545	ppb	18:52:48
2	Co 228.616†	236.4	430.9	5.3167	µg/L	5.3167	ppb	18:52:48
2	Cr 267.716†	835.7	672.2	5.2260	µg/L	5.2260	ppb	18:52:48
2	Cu 324.752†	5528.6	2655.4	10.385	µg/L	10.385	ppb	18:52:28
2	Mn 257.610†	8398.7	8312.0	10.272	µg/L	10.272	ppb	18:52:28
2	Mo 202.031†	283.2	308.3	9.0728	µg/L	9.0728	ppb	18:52:48
2	Ni 231.604†	357.6	440.5	5.0722	µg/L	5.0722	ppb	18:52:48
2	P 214.914†	662.1	691.9	147.84	µg/L	147.84	ppb	18:52:48
2	Pb 220.353†	294.5	213.4	11.913	µg/L	11.913	ppb	18:52:48

2	S 181.975 Axial†	239.0	138.2	102.73 µg/L	102.73 ppb	18:52:48
2	Sb 206.836†	162.6	84.7	10.140 µg/L	10.140 ppb	18:52:48
2	Se 196.026†	98.4	84.9	30.8 µg/L	30.8 ppb	18:52:48
2	SiO2†	3912.9	2207.6	215.37 µg/L	215.37 ppb	18:52:28
2	Si 251.611†	7475.2	6772.6	99.658 µg/L	99.658 ppb	18:52:28
2	Sn 189.927†	165.0	169.0	10.554 µg/L	10.554 ppb	18:52:48
2	Ti 334.940†	5906.4	5059.7	4.6867 µg/L	4.6867 ppb	18:52:28
2	Tl 190.801†	41.0	158.5	19.548 µg/L	19.548 ppb	18:52:48
2	U 409.014†	539.0	818.5	48.142 µg/L	48.142 ppb	18:52:28
2	V 292.402†	1219.4	837.5	4.2189 µg/L	4.2189 ppb	18:52:28
2	Zn 213.857†	2338.9	1816.4	10.155 µg/L	10.155 ppb	18:52:48
3	Sc RADIAL	141853.7	141853.7	97.2 %		18:51:56
3	Al 396.153Radial†	1054.0	1147.5	212.32 µg/L	212.32 ppb	18:51:58
3	Ca 317.933Radial†	4255.4	3817.1	212.63 µg/L	212.63 ppb	18:51:58
3	Fe 238.204 Radial†	1716.2	1617.5	99.690 µg/L	99.690 ppb	18:51:58
3	K 766.490 Radial†	1916.0	426.3	155.92 µg/L	155.92 ppb	18:51:56
3	Mg 279.077 IEC†	1001.3	839.3	312.86 µg/L	312.86 ppb	18:51:58
3	Na 589.592 Radial†	3186.5	1987.3	271.34 µg/L	271.34 ppb	18:51:58
3	Sr 421.552†	2248.0	2447.8	5.0873 µg/L	5.0873 ppb	18:51:58
3	Sc 361.383	1703589.6	1703589.6	99.149 %		18:52:50
3	Y 371.029	1020076.1	1020076.1	99.356 %		18:52:50
3	Ag 328.068†	5329.5	1283.9	4.8863 µg/L	4.8863 ppb	18:52:52
3	As 188.979†	68.9	89.8	27.263 µg/L	27.263 ppb	18:53:13
3	B 249.677†	6826.1	3378.8	49.814 µg/L	49.814 ppb	18:52:52
3	Ba 233.527†	1095.4	1240.7	5.0047 µg/L	5.0047 ppb	18:53:13
3	Be 313.107†	16765.5	17974.2	4.9127 µg/L	4.9127 ppb	18:52:52
3	Cd 226.502†	685.3	809.4	5.0473 µg/L	5.0473 ppb	18:53:13
3	Co 228.616†	212.4	404.5	4.9910 µg/L	4.9910 ppb	18:53:13
3	Cr 267.716†	807.3	635.7	4.9297 µg/L	4.9297 ppb	18:53:13
3	Cu 324.752†	5461.8	2536.5	9.9340 µg/L	9.9340 ppb	18:52:52
3	Mn 257.610†	8558.8	8395.0	10.374 µg/L	10.374 ppb	18:52:52
3	Mo 202.031†	286.1	308.6	9.0804 µg/L	9.0804 ppb	18:53:13
3	Ni 231.604†	341.2	420.7	4.8437 µg/L	4.8437 ppb	18:53:13
3	P 214.914†	668.0	691.7	147.81 µg/L	147.81 ppb	18:53:13
3	Pb 220.353†	280.1	196.2	10.941 µg/L	10.941 ppb	18:53:13
3	S 181.975 Axial†	229.3	126.2	93.811 µg/L	93.811 ppb	18:53:13
3	Sb 206.836†	165.2	85.8	10.280 µg/L	10.280 ppb	18:53:13
3	Se 196.026†	109.6	95.3	34.5 µg/L	34.5 ppb	18:53:13
3	SiO2†	3891.1	2149.2	209.66 µg/L	209.66 ppb	18:52:52
3	Si 251.611†	7576.0	6804.5	100.13 µg/L	100.13 ppb	18:52:52
3	Sn 189.927†	163.2	165.7	10.345 µg/L	10.345 ppb	18:53:13
3	Ti 334.940†	6177.6	5278.1	4.8843 µg/L	4.8843 ppb	18:52:52
3	Tl 190.801†	27.8	144.7	17.868 µg/L	17.868 ppb	18:53:13
3	U 409.014†	779.2	1055.8	62.094 µg/L	62.094 ppb	18:52:52
3	V 292.402†	1501.4	1110.5	5.5591 µg/L	5.5591 ppb	18:52:52
3	Zn 213.857†	2359.0	1814.8	10.149 µg/L	10.149 ppb	18:53:13

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1696183.1	98.718	%	0.4565				0.46%
Sc RADIAL	141217.3	96.8	%	0.38				0.39%
Y 371.029	1015887.4	98.948	%	0.4448				0.45%
Ag 328.068†	1215.7	4.6126	µg/L	0.48588	4.6126	ppb	0.48588	10.53%
QC value within limits for Ag 328.068 Recovery = 92.25%								
Al 396.153Radial†	1101.4	203.76	µg/L	7.553	203.76	ppb	7.553	3.71%
QC value within limits for Al 396.153Radial Recovery = 101.88%								
As 188.979†	99.6	30.223	µg/L	2.5657	30.223	ppb	2.5657	8.49%
QC value within limits for As 188.979 Recovery = 100.74%								
B 249.677†	3266.5	48.158	µg/L	2.0851	48.158	ppb	2.0851	4.33%
QC value within limits for B 249.677 Recovery = 96.32%								
Ba 233.527†	1237.9	4.9928	µg/L	0.02706	4.9928	ppb	0.02706	0.54%
QC value within limits for Ba 233.527 Recovery = 99.86%								
Be 313.107†	17917.8	4.8945	µg/L	0.01680	4.8945	ppb	0.01680	0.34%
QC value within limits for Be 313.107 Recovery = 97.89%								
Ca 317.933Radial†	3813.9	212.45	µg/L	1.736	212.45	ppb	1.736	0.82%
QC value within limits for Ca 317.933Radial Recovery = 106.22%								
Cd 226.502†	809.8	5.0499	µg/L	0.00397	5.0499	ppb	0.00397	0.08%
QC value within limits for Cd 226.502 Recovery = 101.00%								
Co 228.616†	419.8	5.1801	µg/L	0.16905	5.1801	ppb	0.16905	3.26%

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   QC value within limits for Co 228.616  Recovery = 103.60%
Cr 267.716†              632.8      4.9147 µg/L       0.31903      4.9147 ppb        0.31903   6.49%
   QC value within limits for Cr 267.716  Recovery = 98.29%
Cu 324.752†             2554.1      9.9952 µg/L       0.36319      9.9952 ppb        0.36319   3.63%
   QC value within limits for Cu 324.752  Recovery = 99.95%
Fe 238.204 Radial†      1660.8      102.36 µg/L         2.828      102.36 ppb          2.828   2.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.36%
K 766.490 Radial†        409.6      149.80 µg/L        12.246      149.80 ppb         12.246   8.17%
   QC value within limits for K 766.490 Radial  Recovery = 99.87%
Mg 279.077 IEC†          834.3      310.99 µg/L         6.984      310.99 ppb          6.984   2.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.66%
Mn 257.610†             8345.6      10.313 µg/L        0.0539      10.313 ppb         0.0539   0.52%
   QC value within limits for Mn 257.610  Recovery = 103.13%
Mo 202.031†              312.7      9.1996 µg/L       0.21314      9.1996 ppb        0.21314   2.32%
   QC value within limits for Mo 202.031  Recovery = 92.00%
Na 589.592 Radial†      2049.5      279.85 µg/L         8.919      279.85 ppb          8.919   3.19%
   QC value within limits for Na 589.592 Radial  Recovery = 93.28%
Ni 231.604†              433.8      4.9948 µg/L       0.13089      4.9948 ppb        0.13089   2.62%
   QC value within limits for Ni 231.604  Recovery = 99.90%
P 214.914†               690.7      147.58 µg/L         0.423      147.58 ppb          0.423   0.29%
   QC value within limits for P 214.914  Recovery = 98.39%
Pb 220.353†              200.7      11.202 µg/L        0.6223      11.202 ppb         0.6223   5.56%
   QC value within limits for Pb 220.353  Recovery = 112.02%
S 181.975 Axial†         131.4      97.634 µg/L        4.5940      97.634 ppb         4.5940   4.71%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†               80.6      9.6618 µg/L       0.95194      9.6618 ppb        0.95194   9.85%
   QC value within limits for Sb 206.836  Recovery = 96.62%
Se 196.026†               86.2        31.2 µg/L          3.09        31.2 ppb           3.09   9.88%
   QC value within limits for Se 196.026  Recovery = 104.17%
SiO2†                   2170.9      211.78 µg/L         3.127      211.78 ppb          3.127   1.48%
   QC value within limits for SiO2  Recovery = 99.43%
Si 251.611†             6799.9      100.06 µg/L         0.371      100.06 ppb          0.371   0.37%
   QC value within limits for Si 251.611  Recovery = 100.06%
Sn 189.927†              166.9      10.420 µg/L        0.1167      10.420 ppb         0.1167   1.12%
   QC value within limits for Sn 189.927  Recovery = 104.20%
Sr 421.552†             2494.8      5.1849 µg/L       0.14714      5.1849 ppb        0.14714   2.84%
   QC value within limits for Sr 421.552  Recovery = 103.70%
Ti 334.940†             5204.3      4.8193 µg/L       0.11489      4.8193 ppb        0.11489   2.38%
   QC value within limits for Ti 334.940  Recovery = 96.39%
Tl 190.801†              155.6      19.207 µg/L        1.2048      19.207 ppb         1.2048   6.27%
   QC value within limits for Tl 190.801  Recovery = 96.03%
U 409.014†               895.8      52.688 µg/L        8.1477      52.688 ppb         8.1477  15.46%
   QC value within limits for U 409.014  Recovery = 105.38%
V 292.402†               943.5      4.7388 µg/L       0.71883      4.7388 ppb        0.71883  15.17%
   QC value within limits for V 292.402  Recovery = 94.78%
Zn 213.857†             1805.7      10.096 µg/L        0.0971      10.096 ppb         0.0971   0.96%
   QC value within limits for Zn 213.857  Recovery = 100.96%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 3/31/2010 18:53:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	132242.6	132242.6	90.6	%			18:53:53
1	Al 396.153Radial†	2422897.8	2673731.8	495710	µg/L	495710	ppb	18:53:51
1	Ca 317.933Radial†	7691621.4	8487146.3	472770	µg/L	472770	ppb	18:53:51
1	Fe 238.204 Radial†	2755313.8	3040341.6	187390	µg/L	187390	ppb	18:53:51
1	K 766.490 Radial†	1640.2	265.2	-138.93	µg/L	-138.93	ppb	18:53:53
1	Mg 279.077 IEC†	1160629.2	1280564.0	476960	µg/L	476960	ppb	18:53:51
1	Na 589.592 Radial†	1484.0	346.8	47.294	µg/L	47.294	ppb	18:53:53
1	Sr 421.552†	1473.7	1761.6	-0.0382	µg/L	-0.0382	ppb	18:53:53
1	Sc 361.383	1517022.4	1517022.4	88.290	%			18:54:06
1	Y 371.029	894868.4	894868.4	87.161	%			18:54:06
1	Ag 328.068†	6255.0	2993.2	-1.9729	µg/L	-1.9729	ppb	18:54:06
1	As 188.979†	-100.1	-93.0	13.877	µg/L	13.877	ppb	18:54:26
1	B 249.677†	3380.9	323.4	4.7554	µg/L	4.7554	ppb	18:54:06
1	Ba 233.527†	434.1	627.6	0.1345	µg/L	0.1345	ppb	18:54:26
1	Be 313.107†	-1147.6	-235.1	-0.0621	µg/L	-0.0621	ppb	18:54:06
1	Cd 226.502†	2412.4	2850.5	-1.8998	µg/L	-1.8998	ppb	18:54:26
1	Co 228.616†	123.8	330.6	-5.6944	µg/L	-5.6944	ppb	18:54:26
1	Cr 267.716†	198.7	46.5	1.0479	µg/L	1.0479	ppb	18:54:26
1	Cu 324.752†	-5619.3	-9336.8	3.9046	µg/L	3.9046	ppb	18:54:06
1	Mn 257.610†	16860.5	18859.4	3.9217	µg/L	3.9217	ppb	18:54:06
1	Mo 202.031†	-556.1	-609.8	-1.7911	µg/L	-1.7911	ppb	18:54:26
1	Ni 231.604†	185.4	286.5	3.2984	µg/L	3.2984	ppb	18:54:26
1	P 214.914†	178.3	219.9	29.959	µg/L	29.959	ppb	18:54:26
1	Pb 220.353†	-392.3	-530.7	-4.9340	µg/L	-4.9340	ppb	18:54:26
1	S 181.975 Axial†	184.5	103.9	77.024	µg/L	77.024	ppb	18:54:26
1	Sb 206.836†	109.1	42.8	-0.8364	µg/L	-0.8364	ppb	18:54:26
1	Se 196.026†	-143.5	-177.8	0.756	µg/L	0.756	ppb	18:54:26
1	SiO2†	1661.3	106.3	10.857	µg/L	10.857	ppb	18:54:26
1	Si 251.611†	457.4	-318.5	-4.4771	µg/L	-4.4771	ppb	18:54:26
1	Sn 189.927†	41.8	48.5	3.1002	µg/L	3.1002	ppb	18:54:26
1	Ti 334.940†	22402.5	24421.1	-3.7208	µg/L	-3.7208	ppb	18:54:06
1	Tl 190.801†	-159.3	-63.8	-7.4175	µg/L	-7.4175	ppb	18:54:26
1	U 409.014†	-141.4	109.7	-14.558	µg/L	-14.558	ppb	18:54:06
1	V 292.402†	4081.9	4219.5	0.6141	µg/L	0.6141	ppb	18:54:06
1	Zn 213.857†	4369.0	4384.0	8.5615	µg/L	8.5615	ppb	18:54:26
2	Sc RADIAL	132040.0	132040.0	90.5	%			18:53:58
2	Al 396.153Radial†	2444947.4	2702202.7	500990	µg/L	500990	ppb	18:53:56
2	Ca 317.933Radial†	7800125.3	8620085.6	480170	µg/L	480170	ppb	18:53:56
2	Fe 238.204 Radial†	2791790.4	3085319.9	190160	µg/L	190160	ppb	18:53:56
2	K 766.490 Radial†	1740.8	379.1	-100.42	µg/L	-100.42	ppb	18:53:58
2	Mg 279.077 IEC†	1178560.0	1302345.9	485070	µg/L	485070	ppb	18:53:56
2	Na 589.592 Radial†	1410.4	267.9	36.479	µg/L	36.479	ppb	18:53:58
2	Sr 421.552†	1434.5	1720.7	-0.1811	µg/L	-0.1811	ppb	18:53:58
2	Sc 361.383	1500109.7	1500109.7	87.306	%			18:54:29
2	Y 371.029	884042.0	884042.0	86.106	%			18:54:29
2	Ag 328.068†	6203.9	3014.6	-2.1211	µg/L	-2.1211	ppb	18:54:29
2	As 188.979†	-119.9	-117.0	7.2444	µg/L	7.2444	ppb	18:54:49
2	B 249.677†	3505.1	508.8	7.4908	µg/L	7.4908	ppb	18:54:29
2	Ba 233.527†	482.5	688.5	0.3435	µg/L	0.3435	ppb	18:54:49
2	Be 313.107†	-1215.4	-327.4	-0.0902	µg/L	-0.0902	ppb	18:54:29
2	Cd 226.502†	2441.6	2914.8	-1.7901	µg/L	-1.7901	ppb	18:54:49
2	Co 228.616†	105.8	311.5	-6.0736	µg/L	-6.0736	ppb	18:54:49
2	Cr 267.716†	217.8	70.9	1.2432	µg/L	1.2432	ppb	18:54:49
2	Cu 324.752†	-5483.5	-9253.0	4.8451	µg/L	4.8451	ppb	18:54:29
2	Mn 257.610†	16639.0	18821.0	3.5450	µg/L	3.5450	ppb	18:54:29
2	Mo 202.031†	-590.4	-656.1	-2.8945	µg/L	-2.8945	ppb	18:54:49
2	Ni 231.604†	122.0	216.3	2.4904	µg/L	2.4904	ppb	18:54:49
2	P 214.914†	170.4	213.2	27.815	µg/L	27.815	ppb	18:54:49
2	Pb 220.353†	-391.2	-534.5	-4.9028	µg/L	-4.9028	ppb	18:54:49

2	S 181.975 Axial†	176.5	97.2	71.982	µg/L	71.982 ppb	18:54:49
2	Sb 206.836†	116.0	52.0	0.1714	µg/L	0.1714 ppb	18:54:49
2	Se 196.026†	-172.4	-212.7	-10.9	µg/L	-10.9 ppb	18:54:49
2	SiO2†	1633.2	95.3	9.7946	µg/L	9.7946 ppb	18:54:49
2	Si 251.611†	508.3	-254.3	-3.5215	µg/L	-3.5215 ppb	18:54:49
2	Sn 189.927†	60.8	70.8	4.4873	µg/L	4.4873 ppb	18:54:49
2	Ti 334.940†	21754.3	23964.7	-4.6112	µg/L	-4.6112 ppb	18:54:29
2	Tl 190.801†	-183.8	-93.9	-11.124	µg/L	-11.124 ppb	18:54:49
2	U 409.014†	-286.0	-57.7	-24.699	µg/L	-24.699 ppb	18:54:29
2	V 292.402†	3918.7	4084.7	-0.3553	µg/L	-0.3553 ppb	18:54:29
2	Zn 213.857†	4368.9	4439.7	8.6032	µg/L	8.6032 ppb	18:54:49
3	Sc RADIAL	128528.5	128528.5	88.1	%		18:54:02
3	Al 396.153Radial†	2425420.2	2753857.9	510560	µg/L	510560 ppb	18:54:00
3	Ca 317.933Radial†	7690261.2	8730875.1	486340	µg/L	486340 ppb	18:54:00
3	Fe 238.204 Radial†	2749581.2	3121695.4	192400	µg/L	192400 ppb	18:54:00
3	K 766.490 Radial†	1659.5	339.4	-118.61	µg/L	-118.61 ppb	18:54:02
3	Mg 279.077 IEC†	1158065.5	1314663.8	489660	µg/L	489660 ppb	18:54:00
3	Na 589.592 Radial†	1347.0	238.6	32.485	µg/L	32.485 ppb	18:54:02
3	Sr 421.552†	1492.5	1829.9	-0.0025	µg/L	-0.0025 ppb	18:54:02
3	Sc 361.383	1514195.4	1514195.4	88.126	%		18:54:52
3	Y 371.029	891947.3	891947.3	86.876	%		18:54:52
3	Ag 328.068†	6032.7	2754.1	-3.2379	µg/L	-3.2379 ppb	18:54:52
3	As 188.979†	-108.0	-102.2	12.211	µg/L	12.211 ppb	18:55:12
3	B 249.677†	3436.5	393.7	5.7936	µg/L	5.7936 ppb	18:54:52
3	Ba 233.527†	448.2	644.5	0.1380	µg/L	0.1380 ppb	18:55:12
3	Be 313.107†	-1158.8	-250.2	-0.0644	µg/L	-0.0644 ppb	18:54:52
3	Cd 226.502†	2438.6	2885.4	-2.2095	µg/L	-2.2095 ppb	18:55:12
3	Co 228.616†	90.0	292.5	-6.4255	µg/L	-6.4255 ppb	18:55:12
3	Cr 267.716†	181.2	27.0	0.9095	µg/L	0.9095 ppb	18:55:12
3	Cu 324.752†	-5570.7	-9293.5	5.1506	µg/L	5.1506 ppb	18:54:52
3	Mn 257.610†	16733.6	18751.0	3.2706	µg/L	3.2706 ppb	18:54:52
3	Mo 202.031†	-556.7	-611.6	-1.4146	µg/L	-1.4146 ppb	18:55:12
3	Ni 231.604†	136.4	231.3	2.6634	µg/L	2.6634 ppb	18:55:12
3	P 214.914†	188.3	231.6	32.331	µg/L	32.331 ppb	18:55:12
3	Pb 220.353†	-364.7	-500.2	-2.4766	µg/L	-2.4766 ppb	18:55:12
3	S 181.975 Axial†	176.2	94.9	70.345	µg/L	70.345 ppb	18:55:12
3	Sb 206.836†	127.8	64.2	1.5521	µg/L	1.5521 ppb	18:55:12
3	Se 196.026†	-157.0	-193.4	-3.16	µg/L	-3.16 ppb	18:55:12
3	SiO2†	1710.0	165.0	16.582	µg/L	16.582 ppb	18:55:12
3	Si 251.611†	438.9	-338.5	-4.7759	µg/L	-4.7759 ppb	18:55:12
3	Sn 189.927†	52.5	60.6	3.8554	µg/L	3.8554 ppb	18:55:12
3	Ti 334.940†	21892.4	23889.7	-4.9005	µg/L	-4.9005 ppb	18:54:52
3	Tl 190.801†	-161.6	-66.7	-7.7840	µg/L	-7.7840 ppb	18:55:12
3	U 409.014†	-54.1	208.5	-9.3710	µg/L	-9.3710 ppb	18:54:52
3	V 292.402†	3967.3	4098.1	-0.5042	µg/L	-0.5042 ppb	18:54:52
3	Zn 213.857†	4428.1	4460.3	8.5816	µg/L	8.5816 ppb	18:55:12

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1510442.5	87.908	%	0.5273				0.60%
Sc RADIAL	130937.0	89.7	%	1.43				1.59%
Y 371.029	890285.9	86.714	%	0.5456				0.63%
Ag 328.068†	2920.6	-2.4440	µg/L	0.69159	-2.4440	ppb	0.69159	28.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2709930.8	502420	µg/L	7530.6	502420	ppb	7530.6	1.50%
QC value within limits for Al 396.153Radial Recovery = 100.48%								
As 188.979†	-104.0	11.111	µg/L	3.4505	11.111	ppb	3.4505	31.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	408.6	6.0133	µg/L	1.38084	6.0133	ppb	1.38084	22.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	653.5	0.2053	µg/L	0.11966	0.2053	ppb	0.11966	58.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-270.9	-0.0722	µg/L	0.01558	-0.0722	ppb	0.01558	21.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8612702.4	479760	µg/L	6797.7	479760	ppb	6797.7	1.42%
QC value within limits for Ca 317.933Radial Recovery = 95.95%								
Cd 226.502†	2883.6	-1.9665	µg/L	0.21751	-1.9665	ppb	0.21751	11.06%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	311.5	-6.0645	µg/L	0.36562	-6.0645	ppb	0.36562	6.03%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                48.1      1.0668 µg/L       0.16765      1.0668 ppb        0.16765  15.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -9294.4      4.6334 µg/L       0.64943      4.6334 ppb        0.64943  14.02%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    3082452.3      189980 µg/L        2511.7      189980 ppb         2511.7   1.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.99%
K 766.490 Radial†         327.9     -119.32 µg/L        19.263     -119.32 ppb         19.263  16.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       1299191.2      483900 µg/L        6431.4      483900 ppb         6431.4   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.78%
Mn 257.610†             18810.4      3.5791 µg/L       0.32691      3.5791 ppb        0.32691   9.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -625.9     -2.0334 µg/L       0.76912     -2.0334 ppb        0.76912  37.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        284.5      38.753 µg/L        7.6619      38.753 ppb         7.6619  19.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               244.7      2.8174 µg/L       0.42544      2.8174 ppb        0.42544  15.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                221.6      30.035 µg/L        2.2592      30.035 ppb         2.2592   7.52%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -521.8     -4.1045 µg/L       1.40989     -4.1045 ppb        1.40989  34.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           98.7      73.117 µg/L        3.4814      73.117 ppb         3.4814   4.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                53.0      0.2957 µg/L       1.19909      0.2957 ppb        1.19909 405.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -194.6       -4.44 µg/L         5.948       -4.44 ppb          5.948 133.85%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     122.2      12.411 µg/L        3.6511      12.411 ppb         3.6511  29.42%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -303.8     -4.2582 µg/L       0.65524     -4.2582 ppb        0.65524  15.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                60.0      3.8143 µg/L       0.69446      3.8143 ppb        0.69446  18.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              1770.7     -0.0740 µg/L       0.09453     -0.0740 ppb        0.09453 127.80%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             24091.8     -4.4108 µg/L       0.61484     -4.4108 ppb        0.61484  13.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -74.8     -8.7751 µg/L       2.04236     -8.7751 ppb        2.04236  23.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                86.8     -16.209 µg/L        7.7964     -16.209 ppb         7.7964  48.10%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              4134.1     -0.0818 µg/L       0.60724     -0.0818 ppb        0.60724 742.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             4428.0      8.5821 µg/L       0.02081      8.5821 ppb        0.02081   0.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 3/31/2010 18:55:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128923.7	128923.7	88.3	%			18:55:52
1	Al 396.153Radial†	2441585.6	2763714.4	512370	µg/L	512370	ppb	18:55:50
1	Ca 317.933Radial†	7758514.8	8781367.4	489160	µg/L	489160	ppb	18:55:50
1	Fe 238.204 Radial†	2782554.2	3149448.4	194110	µg/L	194110	ppb	18:55:50
1	K 766.490 Radial†	15194.3	15653.8	5486.8	µg/L	5486.8	ppb	18:55:52
1	Mg 279.077 IEC†	1148118.0	1299373.7	483970	µg/L	483970	ppb	18:55:52
1	Na 589.592 Radial†	35618.0	39025.6	5326.3	µg/L	5326.3	ppb	18:55:52
1	Sr 421.552†	218553.1	247517.3	510.75	µg/L	510.75	ppb	18:55:52
1	Sc 361.383	1501848.4	1501848.4	87.407	%			18:56:05
1	Y 371.029	885934.6	885934.6	86.290	%			18:56:05
1	Ag 328.068†	68208.1	73943.4	266.87	µg/L	266.87	ppb	18:56:05
1	As 188.979†	1287.3	1493.1	500.98	µg/L	500.98	ppb	18:56:07
1	B 249.677†	33851.7	35222.8	517.92	µg/L	517.92	ppb	18:56:05
1	Ba 233.527†	108371.1	124119.8	498.16	µg/L	498.16	ppb	18:56:05
1	Be 313.107†	784555.4	898650.0	244.84	µg/L	244.84	ppb	18:56:05
1	Cd 226.502†	69032.6	79096.3	473.84	µg/L	473.84	ppb	18:56:05
1	Co 228.616†	31520.5	36252.0	437.70	µg/L	437.70	ppb	18:56:07
1	Cr 267.716†	53782.3	61352.1	481.07	µg/L	481.07	ppb	18:56:07
1	Cu 324.752†	114717.9	128272.9	540.53	µg/L	540.53	ppb	18:56:05
1	Mn 257.610†	356699.6	407851.6	484.93	µg/L	484.93	ppb	18:56:05
1	Mo 202.031†	13953.9	15984.3	486.45	µg/L	486.45	ppb	18:56:07
1	Ni 231.604†	34191.5	39194.0	451.29	µg/L	451.29	ppb	18:56:07
1	P 214.914†	10448.2	11971.4	2535.7	µg/L	2535.7	ppb	18:56:07
1	Pb 220.353†	6755.9	7642.9	453.53	µg/L	453.53	ppb	18:56:07
1	S 181.975 Axial†	3250.1	3613.3	2687.1	µg/L	2687.1	ppb	18:56:07
1	Sb 206.836†	3785.3	4249.8	500.40	µg/L	500.40	ppb	18:56:07
1	Se 196.026†	5624.0	6419.0	2390	µg/L	2390	ppb	18:56:07
1	SiO2†	99846.0	112455.3	10971	µg/L	10971	ppb	18:56:05
1	Si 251.611†	306352.4	349651.7	5145.5	µg/L	5145.5	ppb	18:56:05
1	Sn 189.927†	6636.1	7593.3	475.14	µg/L	475.14	ppb	18:56:07
1	Ti 334.940†	496139.0	566664.5	502.37	µg/L	502.37	ppb	18:56:05
1	Tl 190.801†	3058.5	3615.8	452.56	µg/L	452.56	ppb	18:56:07
1	U 409.014†	7410.9	8748.5	521.43	µg/L	521.43	ppb	18:56:05
1	V 292.402†	94726.2	107969.5	513.01	µg/L	513.01	ppb	18:56:05
1	Zn 213.857†	80178.7	91165.5	492.35	µg/L	492.35	ppb	18:56:05
2	Sc RADIAL	130306.5	130306.5	89.3	%			18:55:57
2	Al 396.153Radial†	2425762.3	2716664.8	503640	µg/L	503640	ppb	18:55:54
2	Ca 317.933Radial†	7696197.0	8618379.7	480080	µg/L	480080	ppb	18:55:54
2	Fe 238.204 Radial†	2760250.1	3091044.9	190510	µg/L	190510	ppb	18:55:54
2	K 766.490 Radial†	15576.4	15899.2	5580.2	µg/L	5580.2	ppb	18:55:57
2	Mg 279.077 IEC†	1163916.5	1303274.7	485430	µg/L	485430	ppb	18:55:57
2	Na 589.592 Radial†	35962.5	38983.4	5320.4	µg/L	5320.4	ppb	18:55:57
2	Sr 421.552†	221063.2	247703.0	511.20	µg/L	511.20	ppb	18:55:57
2	Sc 361.383	1503774.7	1503774.7	87.519	%			18:56:10
2	Y 371.029	887039.9	887039.9	86.398	%			18:56:10
2	Ag 328.068†	68293.1	73940.5	267.10	µg/L	267.10	ppb	18:56:10
2	As 188.979†	1349.3	1562.1	521.08	µg/L	521.08	ppb	18:56:12
2	B 249.677†	33920.1	35251.3	518.32	µg/L	518.32	ppb	18:56:10
2	Ba 233.527†	108643.6	124272.4	498.82	µg/L	498.82	ppb	18:56:10
2	Be 313.107†	786963.6	900251.8	245.27	µg/L	245.27	ppb	18:56:10
2	Cd 226.502†	69426.5	79445.1	476.40	µg/L	476.40	ppb	18:56:10
2	Co 228.616†	32044.4	36804.3	444.70	µg/L	444.70	ppb	18:56:12
2	Cr 267.716†	54375.8	61951.4	485.63	µg/L	485.63	ppb	18:56:12
2	Cu 324.752†	115372.1	128852.4	542.29	µg/L	542.29	ppb	18:56:10
2	Mn 257.610†	357810.4	408598.0	485.80	µg/L	485.80	ppb	18:56:10
2	Mo 202.031†	14059.7	16084.7	489.29	µg/L	489.29	ppb	18:56:12
2	Ni 231.604†	34695.4	39719.6	457.34	µg/L	457.34	ppb	18:56:12
2	P 214.914†	10657.1	12194.8	2584.0	µg/L	2584.0	ppb	18:56:12
2	Pb 220.353†	7007.7	7920.6	468.62	µg/L	468.62	ppb	18:56:12

2	S 181.975 Axial†	3226.8	3581.8	2663.8 µg/L	2663.8 ppb	18:56:12
2	Sb 206.836†	3801.0	4262.2	501.96 µg/L	501.96 ppb	18:56:12
2	Se 196.026†	5730.0	6531.8	2430 µg/L	2430 ppb	18:56:12
2	SiO2†	100449.1	112998.1	11024 µg/L	11024 ppb	18:56:10
2	Si 251.611†	307929.3	351004.4	5165.3 µg/L	5165.3 ppb	18:56:10
2	Sn 189.927†	6796.2	7766.5	485.94 µg/L	485.94 ppb	18:56:12
2	Ti 334.940†	498020.9	568087.6	503.35 µg/L	503.35 ppb	18:56:10
2	Tl 190.801†	3159.1	3726.2	466.12 µg/L	466.12 ppb	18:56:12
2	U 409.014†	7207.8	8505.6	507.68 µg/L	507.68 ppb	18:56:10
2	V 292.402†	94912.3	108043.3	513.79 µg/L	513.79 ppb	18:56:10
2	Zn 213.857†	80541.8	91462.8	494.31 µg/L	494.31 ppb	18:56:10
3	Sc RADIAL	130048.3	130048.3	89.1 %		18:56:01
3	Al 396.153Radial†	2433855.1	2731140.9	506330 µg/L	506330 ppb	18:55:59
3	Ca 317.933Radial†	7718645.4	8660686.5	482430 µg/L	482430 ppb	18:55:59
3	Fe 238.204 Radial†	2766938.5	3104689.2	191350 µg/L	191350 ppb	18:55:59
3	K 766.490 Radial†	15537.1	15889.7	5575.7 µg/L	5575.7 ppb	18:56:01
3	Mg 279.077 IEC†	1162812.5	1304624.6	485930 µg/L	485930 ppb	18:56:01
3	Na 589.592 Radial†	36095.8	39213.0	5351.8 µg/L	5351.8 ppb	18:56:01
3	Sr 421.552†	220343.8	247387.5	510.53 µg/L	510.53 ppb	18:56:01
3	Sc 361.383	1505253.1	1505253.1	87.605 %		18:56:15
3	Y 371.029	887796.9	887796.9	86.472 %		18:56:15
3	Ag 328.068†	68315.0	73888.9	266.85 µg/L	266.85 ppb	18:56:15
3	As 188.979†	1427.8	1650.2	547.91 µg/L	547.91 ppb	18:56:17
3	B 249.677†	34091.4	35408.8	520.64 µg/L	520.64 ppb	18:56:15
3	Ba 233.527†	108923.3	124469.7	499.60 µg/L	499.60 ppb	18:56:15
3	Be 313.107†	788697.2	901347.5	245.57 µg/L	245.57 ppb	18:56:15
3	Cd 226.502†	69816.9	79812.9	478.61 µg/L	478.61 ppb	18:56:15
3	Co 228.616†	32104.8	36837.3	445.06 µg/L	445.06 ppb	18:56:17
3	Cr 267.716†	54241.6	61737.2	483.97 µg/L	483.97 ppb	18:56:17
3	Cu 324.752†	115315.5	128658.2	541.67 µg/L	541.67 ppb	18:56:15
3	Mn 257.610†	358650.2	409155.1	486.47 µg/L	486.47 ppb	18:56:15
3	Mo 202.031†	13985.2	15983.9	486.37 µg/L	486.37 ppb	18:56:17
3	Ni 231.604†	34565.9	39532.8	455.19 µg/L	455.19 ppb	18:56:17
3	P 214.914†	10680.3	12209.4	2587.2 µg/L	2587.2 ppb	18:56:17
3	Pb 220.353†	7037.5	7946.8	470.21 µg/L	470.21 ppb	18:56:17
3	S 181.975 Axial†	3275.8	3634.2	2702.6 µg/L	2702.6 ppb	18:56:17
3	Sb 206.836†	3858.4	4323.5	509.22 µg/L	509.22 ppb	18:56:17
3	Se 196.026†	5760.2	6559.9	2440 µg/L	2440 ppb	18:56:17
3	SiO2†	100355.9	112779.0	11003 µg/L	11003 ppb	18:56:15
3	Si 251.611†	307749.7	350453.9	5157.2 µg/L	5157.2 ppb	18:56:15
3	Sn 189.927†	6900.6	7878.0	492.90 µg/L	492.90 ppb	18:56:17
3	Ti 334.940†	498757.3	568369.4	503.63 µg/L	503.63 ppb	18:56:15
3	Tl 190.801†	3121.0	3679.2	460.34 µg/L	460.34 ppb	18:56:17
3	U 409.014†	7255.1	8551.4	510.28 µg/L	510.28 ppb	18:56:15
3	V 292.402†	95008.3	108046.4	513.68 µg/L	513.68 ppb	18:56:15
3	Zn 213.857†	80688.3	91539.7	494.68 µg/L	494.68 ppb	18:56:15

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1503625.4	87.511	%	0.0994				0.11%
Sc RADIAL	129759.5	88.9	%	0.50				0.57%
Y 371.029	886923.8	86.387	%	0.0912				0.11%
Ag 328.068†	73924.3	266.94	µg/L	0.141	266.94	ppb	0.141	0.05%
QC value within limits for Ag 328.068 Recovery = 106.78%								
Al 396.153Radial†	2737173.4	507450	µg/L	4467.8	507450	ppb	4467.8	0.88%
QC value within limits for Al 396.153Radial Recovery = 101.49%								
As 188.979†	1568.5	523.32	µg/L	23.543	523.32	ppb	23.543	4.50%
QC value within limits for As 188.979 Recovery = 104.66%								
B 249.677†	35294.3	518.96	µg/L	1.468	518.96	ppb	1.468	0.28%
QC value within limits for B 249.677 Recovery = 103.79%								
Ba 233.527†	124287.3	498.86	µg/L	0.724	498.86	ppb	0.724	0.15%
QC value within limits for Ba 233.527 Recovery = 99.77%								
Be 313.107†	900083.1	245.23	µg/L	0.367	245.23	ppb	0.367	0.15%
QC value within limits for Be 313.107 Recovery = 98.09%								
Ca 317.933Radial†	8686811.2	483890	µg/L	4711.2	483890	ppb	4711.2	0.97%
QC value within limits for Ca 317.933Radial Recovery = 96.78%								
Cd 226.502†	79451.4	476.29	µg/L	2.386	476.29	ppb	2.386	0.50%
QC value within limits for Cd 226.502 Recovery = 95.26%								
Co 228.616†	36631.2	442.49	µg/L	4.152	442.49	ppb	4.152	0.94%

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   QC value within limits for Co 228.616  Recovery = 88.50%
Cr 267.716†            61680.2      483.56 µg/L         2.310      483.56 ppb          2.310   0.48%
   QC value within limits for Cr 267.716  Recovery = 96.71%
Cu 324.752†           128594.5      541.50 µg/L         0.893      541.50 ppb          0.893   0.16%
   QC value within limits for Cu 324.752  Recovery = 108.30%
Fe 238.204 Radial†   3115060.8      191990 µg/L        1883.0      191990 ppb         1883.0   0.98%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.00%
K 766.490 Radial†      15814.2      5547.6 µg/L         52.66      5547.6 ppb          52.66   0.95%
   QC value within limits for K 766.490 Radial  Recovery = 110.95%
Mg 279.077 IEC†      1302424.3      485110 µg/L        1017.4      485110 ppb         1017.4   0.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.02%
Mn 257.610†           408534.9      485.73 µg/L         0.774      485.73 ppb          0.774   0.16%
   QC value within limits for Mn 257.610  Recovery = 97.15%
Mo 202.031†            16017.6      487.37 µg/L         1.662      487.37 ppb          1.662   0.34%
   QC value within limits for Mo 202.031  Recovery = 97.47%
Na 589.592 Radial†     39074.0      5332.8 µg/L         16.68      5332.8 ppb          16.68   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 106.66%
Ni 231.604†            39482.1      454.61 µg/L         3.068      454.61 ppb          3.068   0.67%
   QC value within limits for Ni 231.604  Recovery = 90.92%
P 214.914†             12125.2      2569.0 µg/L         28.88      2569.0 ppb          28.88   1.12%
   QC value within limits for P 214.914  Recovery = 102.76%
Pb 220.353†             7836.8      464.12 µg/L         9.210      464.12 ppb          9.210   1.98%
   QC value within limits for Pb 220.353  Recovery = 92.82%
S 181.975 Axial†        3609.8      2684.5 µg/L         19.56      2684.5 ppb          19.56   0.73%
   QC value within limits for S 181.975 Axial  Recovery = 107.38%
Sb 206.836†             4278.5      503.86 µg/L         4.707      503.86 ppb          4.707   0.93%
   QC value within limits for Sb 206.836  Recovery = 100.77%
Se 196.026†             6503.6       2420 µg/L          26.4        2420 ppb           26.4   1.09%
   QC value within limits for Se 196.026  Recovery = 96.73%
SiO2†                 112744.1       10999 µg/L          26.6       10999 ppb           26.6   0.24%
   QC value within limits for SiO2  Recovery = 102.85%
Si 251.611†           350370.0      5156.0 µg/L         9.97      5156.0 ppb           9.97   0.19%
   QC value within limits for Si 251.611  Recovery = 103.12%
Sn 189.927†             7745.9      484.66 µg/L         8.948      484.66 ppb          8.948   1.85%
   QC value within limits for Sn 189.927  Recovery = 96.93%
Sr 421.552†           247536.0      510.83 µg/L         0.344      510.83 ppb          0.344   0.07%
   QC value within limits for Sr 421.552  Recovery = 102.17%
Ti 334.940†           567707.2      503.12 µg/L         0.662      503.12 ppb          0.662   0.13%
   QC value within limits for Ti 334.940  Recovery = 100.62%
Tl 190.801†             3673.7      459.67 µg/L         6.804      459.67 ppb          6.804   1.48%
   QC value within limits for Tl 190.801  Recovery = 91.93%
U 409.014†              8601.8      513.13 µg/L         7.307      513.13 ppb          7.307   1.42%
   QC value within limits for U 409.014  Recovery = 102.63%
V 292.402†            108019.7      513.49 µg/L         0.422      513.49 ppb          0.422   0.08%
   QC value within limits for V 292.402  Recovery = 102.70%
Zn 213.857†            91389.3      493.78 µg/L         1.251      493.78 ppb          1.251   0.25%
   QC value within limits for Zn 213.857  Recovery = 98.76%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 3/31/2010 18:56:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	128043.7	128043.7	87.7	%			18:56:58
1	Al 396.153Radial†	2381304.8	2714005.3	503180	µg/L	503180	ppb	18:56:56
1	Ca 317.933Radial†	7611014.0	8673613.0	483150	µg/L	483150	ppb	18:56:56
1	Fe 238.204 Radial†	6523125.5	7434173.2	458200	µg/L	458200	ppb	18:56:56
1	K 766.490 Radial†	2256.7	1027.2	53.040	µg/L	53.040	ppb	18:56:58
1	Mg 279.077 IEC†	1139739.5	1298755.6	483500	µg/L	483500	ppb	18:56:56
1	Na 589.592 Radial†	3271680.6	3727401.1	509210	µg/L	509210	ppb	18:56:56
1	Sr 421.552†	5079.9	5924.8	8.5355	µg/L	8.5355	ppb	18:56:58
1	Sc 361.383	1451583.4	1451583.4	84.482	%			18:57:26
1	Y 371.029	852879.4	852879.4	83.071	%			18:57:26
1	Ag 328.068†	2264.1	-1411.5	-0.2309	µg/L	-0.2309	ppb	18:57:26
1	As 188.979†	-305.1	-340.8	-0.3436	µg/L	-0.3436	ppb	18:57:28
1	B 249.677†	4415.2	1720.3	25.330	µg/L	25.330	ppb	18:57:26
1	Ba 233.527†	738.1	1009.5	-1.7895	µg/L	-1.7895	ppb	18:57:28
1	Be 313.107†	-15542.1	-17332.3	0.1527	µg/L	0.1527	ppb	18:57:26
1	Cd 226.502†	6136.8	7382.3	-2.0728	µg/L	-2.0728	ppb	18:57:28
1	Co 228.616†	663.9	976.1	-11.855	µg/L	-11.855	ppb	18:57:28
1	Cr 267.716†	326.4	207.8	-1.0531	µg/L	-1.0531	ppb	18:57:28
1	Cu 324.752†	-15976.1	-21882.9	8.0863	µg/L	8.0863	ppb	18:57:26
1	Mn 257.610†	18213.2	21321.4	5.9920	µg/L	5.9920	ppb	18:57:26
1	Mo 202.031†	-937.6	-1089.8	-5.0578	µg/L	-5.0578	ppb	18:57:26
1	Ni 231.604†	147.8	251.5	2.8954	µg/L	2.8954	ppb	18:57:28
1	P 214.914†	945.2	1136.8	44.272	µg/L	44.272	ppb	18:57:28
1	Pb 220.353†	-112.1	-219.1	-7.8626	µg/L	-7.8626	ppb	18:57:28
1	S 181.975 Axial†	176.1	103.3	76.471	µg/L	76.471	ppb	18:57:28
1	Sb 206.836†	186.9	140.4	7.1485	µg/L	7.1485	ppb	18:57:28
1	Se 196.026†	-404.8	-494.4	-4.21	µg/L	-4.21	ppb	18:57:28
1	SiO2†	1963.2	548.4	54.447	µg/L	54.447	ppb	18:57:28
1	Si 251.611†	-2032.7	-3242.6	-47.410	µg/L	-47.410	ppb	18:57:28
1	Sn 189.927†	64.2	77.1	4.9002	µg/L	4.9002	ppb	18:57:28
1	Ti 334.940†	26623.1	30560.8	-4.8606	µg/L	-4.8606	ppb	18:57:26
1	Tl 190.801†	-158.4	-70.8	-8.1165	µg/L	-8.1165	ppb	18:57:28
1	U 409.014†	232638.7	275640.9	16036	µg/L	16036	ppb	18:57:26
1	V 292.402†	7227.0	8150.7	1.9065	µg/L	1.9065	ppb	18:57:28
1	Zn 213.857†	8608.4	9625.2	9.4603	µg/L	9.4603	ppb	18:57:28
2	Sc RADIAL	127587.1	127587.1	87.4	%			18:57:03
2	Al 396.153Radial†	2344707.9	2681859.2	497220	µg/L	497220	ppb	18:57:01
2	Ca 317.933Radial†	7463583.8	8536029.3	475490	µg/L	475490	ppb	18:57:01
2	Fe 238.204 Radial†	6391908.1	7310696.0	450590	µg/L	450590	ppb	18:57:01
2	K 766.490 Radial†	2390.9	1189.8	117.32	µg/L	117.32	ppb	18:57:03
2	Mg 279.077 IEC†	1114206.6	1274200.4	474360	µg/L	474360	ppb	18:57:01
2	Na 589.592 Radial†	3209939.6	3670127.4	501380	µg/L	501380	ppb	18:57:01
2	Sr 421.552†	5135.8	6009.4	8.7715	µg/L	8.7715	ppb	18:57:03
2	Sc 361.383	1456448.3	1456448.3	84.765	%			18:57:30
2	Y 371.029	856251.9	856251.9	83.399	%			18:57:30
2	Ag 328.068†	2013.8	-1715.7	-1.0926	µg/L	-1.0926	ppb	18:57:30
2	As 188.979†	-237.9	-260.3	22.297	µg/L	22.297	ppb	18:57:32
2	B 249.677†	4229.1	1483.4	21.834	µg/L	21.834	ppb	18:57:30
2	Ba 233.527†	835.0	1121.0	-1.2428	µg/L	-1.2428	ppb	18:57:32
2	Be 313.107†	-15397.0	-17099.7	0.2214	µg/L	0.2214	ppb	18:57:30
2	Cd 226.502†	6036.4	7239.5	-2.1644	µg/L	-2.1644	ppb	18:57:32
2	Co 228.616†	696.8	1012.4	-11.010	µg/L	-11.010	ppb	18:57:32
2	Cr 267.716†	355.9	241.2	-0.9572	µg/L	-0.9572	ppb	18:57:32
2	Cu 324.752†	-16236.3	-22126.7	5.7984	µg/L	5.7984	ppb	18:57:30
2	Mn 257.610†	18248.7	21291.3	6.3374	µg/L	6.3374	ppb	18:57:30
2	Mo 202.031†	-933.0	-1080.6	-5.2559	µg/L	-5.2559	ppb	18:57:30
2	Ni 231.604†	134.2	234.9	2.7046	µg/L	2.7046	ppb	18:57:32
2	P 214.914†	1061.2	1269.9	76.619	µg/L	76.619	ppb	18:57:32
2	Pb 220.353†	-99.7	-204.1	-7.1629	µg/L	-7.1629	ppb	18:57:32

2	S 181.975 Axial†	67.9	-24.9	-18.790 µg/L	-18.790 ppb	18:57:32
2	Sb 206.836†	102.8	40.5	-4.5964 µg/L	-4.5964 ppb	18:57:32
2	Se 196.026†	-406.6	-495.0	-7.05 µg/L	-7.05 ppb	18:57:32
2	SiO2†	1830.8	384.5	38.395 µg/L	38.395 ppb	18:57:32
2	Si 251.611†	-1934.6	-3118.9	-45.598 µg/L	-45.598 ppb	18:57:32
2	Sn 189.927†	82.4	98.3	6.2185 µg/L	6.2185 ppb	18:57:32
2	Ti 334.940†	25364.2	28970.4	-5.8085 µg/L	-5.8085 ppb	18:57:30
2	Tl 190.801†	-211.8	-133.2	-15.794 µg/L	-15.794 ppb	18:57:32
2	U 409.014†	233675.5	275944.1	16055 µg/L	16055 ppb	18:57:30
2	V 292.402†	7224.5	8119.2	2.5727 µg/L	2.5727 ppb	18:57:32
2	Zn 213.857†	8699.2	9698.3	10.651 µg/L	10.651 ppb	18:57:32
3	Sc RADIAL	127845.5	127845.5	87.6 %		18:57:07
3	Al 396.153Radial†	2359012.1	2692767.9	499240 µg/L	499240 ppb	18:57:05
3	Ca 317.933Radial†	7510342.6	8572152.9	477500 µg/L	477500 ppb	18:57:05
3	Fe 238.204 Radial†	6434548.4	7344595.4	452680 µg/L	452680 ppb	18:57:05
3	K 766.490 Radial†	2440.5	1241.0	134.70 µg/L	134.70 ppb	18:57:07
3	Mg 279.077 IEC†	1121897.2	1280403.8	476670 µg/L	476670 ppb	18:57:05
3	Na 589.592 Radial†	3229732.0	3685301.0	503460 µg/L	503460 ppb	18:57:05
3	Sr 421.552†	4859.4	5682.0	8.0751 µg/L	8.0751 ppb	18:57:07
3	Sc 361.383	1472435.6	1472435.6	85.696 %		18:57:35
3	Y 371.029	865581.1	865581.1	84.308 %		18:57:35
3	Ag 328.068†	2006.5	-1749.9	-1.2878 µg/L	-1.2878 ppb	18:57:35
3	As 188.979†	-242.4	-262.5	22.088 µg/L	22.088 ppb	18:57:37
3	B 249.677†	4311.3	1525.1	22.443 µg/L	22.443 ppb	18:57:35
3	Ba 233.527†	597.3	832.8	-2.4315 µg/L	-2.4315 ppb	18:57:37
3	Be 313.107†	-15503.1	-17026.2	0.2432 µg/L	0.2432 ppb	18:57:35
3	Cd 226.502†	5998.3	7117.7	-3.1440 µg/L	-3.1440 ppb	18:57:37
3	Co 228.616†	825.0	1153.0	-9.3850 µg/L	-9.3850 ppb	18:57:37
3	Cr 267.716†	265.1	130.8	-1.7837 µg/L	-1.7837 ppb	18:57:37
3	Cu 324.752†	-16427.6	-22141.9	6.1120 µg/L	6.1120 ppb	18:57:35
3	Mn 257.610†	18616.4	21486.6	6.4820 µg/L	6.4820 ppb	18:57:35
3	Mo 202.031†	-951.0	-1089.6	-5.3968 µg/L	-5.3968 ppb	18:57:35
3	Ni 231.604†	238.5	354.9	4.0862 µg/L	4.0862 ppb	18:57:37
3	P 214.914†	1053.2	1246.9	70.775 µg/L	70.775 ppb	18:57:37
3	Pb 220.353†	-34.4	-126.5	-2.7794 µg/L	-2.7794 ppb	18:57:37
3	S 181.975 Axial†	188.2	114.6	84.800 µg/L	84.800 ppb	18:57:37
3	Sb 206.836†	165.1	111.8	3.8601 µg/L	3.8601 ppb	18:57:37
3	Se 196.026†	-442.3	-531.4	-19.5 µg/L	-19.5 ppb	18:57:37
3	SiO2†	1893.1	433.7	43.156 µg/L	43.156 ppb	18:57:37
3	Si 251.611†	-1908.7	-3063.9	-44.810 µg/L	-44.810 ppb	18:57:37
3	Sn 189.927†	139.3	163.7	10.296 µg/L	10.296 ppb	18:57:37
3	Ti 334.940†	26025.3	29416.9	-5.5292 µg/L	-5.5292 ppb	18:57:35
3	Tl 190.801†	-218.6	-138.4	-16.446 µg/L	-16.446 ppb	18:57:37
3	U 409.014†	236329.7	276048.2	16061 µg/L	16061 ppb	18:57:35
3	V 292.402†	7144.2	7933.0	1.4413 µg/L	1.4413 ppb	18:57:37
3	Zn 213.857†	8714.2	9604.4	9.9077 µg/L	9.9077 ppb	18:57:37

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1460155.8	84.981	%	0.6349				0.75%
Sc RADIAL	127825.4	87.6	%	0.16				0.18%
Y 371.029	858237.5	83.593	%	0.6409				0.77%
Ag 328.068†	-1625.7	-0.8704	µg/L	0.56237	-0.8704	ppb	0.56237	64.61%
Al 396.153Radial†	2696210.8	499880	µg/L	3030.8	499880	ppb	3030.8	0.61%
QC value within limits for Al 396.153Radial Recovery = 99.98%								
As 188.979†	-287.9	14.680	µg/L	13.0115	14.680	ppb	13.0115	88.63%
B 249.677†	1576.2	23.202	µg/L	1.8679	23.202	ppb	1.8679	8.05%
Ba 233.527†	987.8	-1.8213	µg/L	0.59497	-1.8213	ppb	0.59497	32.67%
Be 313.107†	-17152.7	0.2058	µg/L	0.04725	0.2058	ppb	0.04725	22.96%
Ca 317.933Radial†	8593931.8	478720	µg/L	3973.4	478720	ppb	3973.4	0.83%
QC value within limits for Ca 317.933Radial Recovery = 95.74%								
Cd 226.502†	7246.5	-2.4604	µg/L	0.59380	-2.4604	ppb	0.59380	24.13%
Co 228.616†	1047.2	-10.750	µg/L	1.2554	-10.750	ppb	1.2554	11.68%
Cr 267.716†	193.3	-1.2647	µg/L	0.45201	-1.2647	ppb	0.45201	35.74%
Cu 324.752†	-22050.5	6.6655	µg/L	1.24035	6.6655	ppb	1.24035	18.61%
Fe 238.204 Radial†	7363154.9	453820	µg/L	3932.0	453820	ppb	3932.0	0.87%
QC value within limits for Fe 238.204 Radial Recovery = 90.76%								
K 766.490 Radial†	1152.7	101.69	µg/L	43.017	101.69	ppb	43.017	42.30%
Mg 279.077 IEC†	1284453.2	478180	µg/L	4754.0	478180	ppb	4754.0	0.99%

QC value within limits for Mg 279.077 IEC Recovery = 95.64%

Mn 257.610†	21366.4	6.2705 µg/L	0.25177	6.2705 ppb	0.25177	4.02%
Mo 202.031†	-1086.7	-5.2368 µg/L	0.17026	-5.2368 ppb	0.17026	3.25%
Na 589.592 Radial†	3694276.5	504680 µg/L	4053.7	504680 ppb	4053.7	0.80%

QC value within limits for Na 589.592 Radial Recovery = 100.94%

Ni 231.604†	280.4	3.2287 µg/L	0.74869	3.2287 ppb	0.74869	23.19%
P 214.914†	1217.9	63.889 µg/L	17.2380	63.889 ppb	17.2380	26.98%
Pb 220.353†	-183.2	-5.9350 µg/L	2.75510	-5.9350 ppb	2.75510	46.42%
S 181.975 Axial†	64.3	47.494 µg/L	57.5543	47.494 ppb	57.5543	121.18%
Sb 206.836†	97.6	2.1374 µg/L	6.05903	2.1374 ppb	6.05903	283.48%
Se 196.026†	-506.9	-10.3 µg/L	8.13	-10.3 ppb	8.13	79.29%
SiO2†	455.6	45.333 µg/L	8.2442	45.333 ppb	8.2442	18.19%
Si 251.611†	-3141.8	-45.939 µg/L	1.3330	-45.939 ppb	1.3330	2.90%
Sn 189.927†	113.0	7.1383 µg/L	2.81321	7.1383 ppb	2.81321	39.41%
Sr 421.552†	5872.1	8.4607 µg/L	0.35414	8.4607 ppb	0.35414	4.19%
Ti 334.940†	29649.4	-5.3994 µg/L	0.48710	-5.3994 ppb	0.48710	9.02%
Tl 190.801†	-114.1	-13.452 µg/L	4.6323	-13.452 ppb	4.6323	34.44%
U 409.014†	275877.8	16051 µg/L	13.0	16051 ppb	13.0	0.08%

QC value within limits for U 409.014 Recovery = 107.00%

V 292.402†	8067.6	1.9735 µg/L	0.56868	1.9735 ppb	0.56868	28.82%
Zn 213.857†	9642.6	10.006 µg/L	0.6012	10.006 ppb	0.6012	6.01%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 3/31/2010 18:57:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138428.5	138428.5	94.9	%			18:58:18
1	Al 396.153Radial†	2589.6	2793.1	65.979	µg/L	65.979	ppb	18:58:20
1	Ca 317.933Radial†	2182.0	1739.6	96.903	µg/L	96.903	ppb	18:58:20
1	Fe 238.204 Radial†	-202.3	-361.4	-22.274	µg/L	-22.274	ppb	18:58:20
1	K 766.490 Radial†	763320.3	803139.1	294040	µg/L	294040	ppb	18:58:18
1	Mg 279.077 IEC†	-318.7	-526.7	41.787	µg/L	41.787	ppb	18:58:20
1	Na 589.592 Radial†	4722.3	3687.4	242.24	µg/L	242.24	ppb	18:58:18
1	Sr 421.552†	4464241.5	4706289.3	9784.1	µg/L	9784.1	ppb	18:58:15
1	Sc 361.383	1644054.1	1644054.1	95.684	%			18:58:42
1	Y 371.029	958940.9	958940.9	93.401	%			18:58:42
1	Ag 328.068†	-28181.7	-33544.4	-7.2060	µg/L	-7.2060	ppb	18:58:44
1	As 188.979†	32117.0	33586.2	10409	µg/L	10409	ppb	18:58:44
1	B 249.677†	322787.1	333842.2	4891.3	µg/L	4891.3	ppb	18:58:42
1	Ba 233.527†	3263599.9	3410957.3	13754	µg/L	13754	ppb	18:58:42
1	Be 313.107†	10059777.2	10514640.1	2862.8	µg/L	2862.8	ppb	18:58:38
1	Cd 226.502†	1463937.1	1530093.7	9561.7	µg/L	9561.7	ppb	18:58:42
1	Co 228.616†	720309.4	752993.0	9307.6	µg/L	9307.6	ppb	18:58:42
1	Cr 267.716†	2891693.7	3021959.9	23671	µg/L	23671	ppb	18:58:42
1	Cu 324.752†	4894436.4	5112253.1	19872	µg/L	19872	ppb	18:58:42
1	Mn 257.610†	7191165.6	7515323.1	9298.7	µg/L	9298.7	ppb	18:58:42
1	Mo 202.031†	316742.4	331050.8	9732.5	µg/L	9732.5	ppb	18:58:44
1	Ni 231.604†	799875.1	836034.2	9626.3	µg/L	9626.3	ppb	18:58:42
1	P 214.914†	68547.5	71657.7	15093	µg/L	15093	ppb	18:58:44
1	Pb 220.353†	401154.4	419164.2	23428	µg/L	23428	ppb	18:58:42
1	S 181.975 Axial†	67316.5	70248.1	52247	µg/L	52247	ppb	18:58:44
1	Sb 206.836†	80773.2	84336.1	9841.1	µg/L	9841.1	ppb	18:58:44
1	Se 196.026†	26033.9	27193.0	9830	µg/L	9830	ppb	18:58:44
1	SiO2†	974638.1	1016828.8	98967	µg/L	98967	ppb	18:58:42
1	Si 251.611†	3010622.9	3145596.0	46180	µg/L	46180	ppb	18:58:42
1	Sn 189.927†	151635.6	158477.0	9912.7	µg/L	9912.7	ppb	18:58:44
1	Ti 334.940†	10132846.9	10588988.8	9885.3	µg/L	9885.3	ppb	18:58:38
1	Tl 190.801†	74051.0	77508.1	9673.9	µg/L	9673.9	ppb	18:58:44
1	U 409.014†	-10469.2	-10671.6	-21.061	µg/L	-21.061	ppb	18:58:44
1	V 292.402†	1944343.2	2031649.1	10104	µg/L	10104	ppb	18:58:42
1	Zn 213.857†	2422227.0	2530929.6	14143	µg/L	14143	ppb	18:58:42
2	Sc RADIAL	138489.8	138489.8	94.9	%			18:58:24
2	Al 396.153Radial†	2632.4	2837.1	80.052	µg/L	80.052	ppb	18:58:26
2	Ca 317.933Radial†	2111.9	1664.8	92.734	µg/L	92.734	ppb	18:58:26
2	Fe 238.204 Radial†	-168.1	-325.2	-20.046	µg/L	-20.046	ppb	18:58:26
2	K 766.490 Radial†	768501.7	808242.3	295910	µg/L	295910	ppb	18:58:24
2	Mg 279.077 IEC†	-343.1	-552.3	29.128	µg/L	29.128	ppb	18:58:26
2	Na 589.592 Radial†	4657.2	3616.6	230.89	µg/L	230.89	ppb	18:58:24
2	Sr 421.552†	4443237.9	4682072.2	9733.8	µg/L	9733.8	ppb	18:58:22
2	Sc 361.383	1654174.4	1654174.4	96.273	%			18:58:52
2	Y 371.029	964160.7	964160.7	93.910	%			18:58:52
2	Ag 328.068†	-27980.3	-33155.0	-5.4230	µg/L	-5.4230	ppb	18:58:54
2	As 188.979†	31657.2	32903.2	10204	µg/L	10204	ppb	18:58:54
2	B 249.677†	326358.6	335488.1	4915.4	µg/L	4915.4	ppb	18:58:52
2	Ba 233.527†	3296633.7	3424402.5	13809	µg/L	13809	ppb	18:58:52
2	Be 313.107†	10113068.4	10505672.2	2860.3	µg/L	2860.3	ppb	18:58:48
2	Cd 226.502†	1483425.3	1540976.0	9629.7	µg/L	9629.7	ppb	18:58:52
2	Co 228.616†	729085.8	757503.5	9363.3	µg/L	9363.3	ppb	18:58:52
2	Cr 267.716†	2922280.8	3035241.6	23775	µg/L	23775	ppb	18:58:52
2	Cu 324.752†	4934401.1	5122469.9	19912	µg/L	19912	ppb	18:58:52
2	Mn 257.610†	7264987.1	7546022.1	9336.7	µg/L	9336.7	ppb	18:58:52
2	Mo 202.031†	314514.5	326711.4	9605.0	µg/L	9605.0	ppb	18:58:54
2	Ni 231.604†	809217.8	840624.1	9679.2	µg/L	9679.2	ppb	18:58:52
2	P 214.914†	67979.1	70628.9	14873	µg/L	14873	ppb	18:58:54
2	Pb 220.353†	406432.6	422081.8	23591	µg/L	23591	ppb	18:58:52

2	S 181.975 Axial†	66600.5	69074.0	51374 µg/L	51374 ppb	18:58:54
2	Sb 206.836†	80074.2	83093.5	9689.8 µg/L	9689.8 ppb	18:58:54
2	Se 196.026†	25686.7	26665.9	9640 µg/L	9640 ppb	18:58:54
2	SiO2†	986400.6	1022814.9	99557 µg/L	99557 ppb	18:58:52
2	Si 251.611†	3046941.6	3164070.8	46455 µg/L	46455 ppb	18:58:52
2	Sn 189.927†	150469.1	156295.8	9776.7 µg/L	9776.7 ppb	18:58:54
2	Ti 334.940†	10189195.0	10582728.8	9879.4 µg/L	9879.4 ppb	18:58:48
2	Tl 190.801†	73611.8	76578.5	9559.6 µg/L	9559.6 ppb	18:58:54
2	U 409.014†	-10364.3	-10495.7	-9.0352 µg/L	-9.0352 ppb	18:58:54
2	V 292.402†	1961854.5	2037406.1	10131 µg/L	10131 ppb	18:58:52
2	Zn 213.857†	2448683.7	2542922.9	14210 µg/L	14210 ppb	18:58:52
3	Sc RADIAL	137437.4	137437.4	94.2 %		18:58:31
3	Al 396.153Radial†	2618.6	2843.6	77.986 µg/L	77.986 ppb	18:58:33
3	Ca 317.933Radial†	2227.5	1804.6	100.52 µg/L	100.52 ppb	18:58:33
3	Fe 238.204 Radial†	-164.9	-323.2	-19.923 µg/L	-19.923 ppb	18:58:33
3	K 766.490 Radial†	765491.4	811247.2	297010 µg/L	297010 ppb	18:58:31
3	Mg 279.077 IEC†	-295.0	-503.9	48.881 µg/L	48.881 ppb	18:58:33
3	Na 589.592 Radial†	4456.0	3440.6	205.87 µg/L	205.87 ppb	18:58:31
3	Sr 421.552†	4441067.4	4715621.3	9803.5 µg/L	9803.5 ppb	18:58:29
3	Sc 361.383	1660837.4	1660837.4	96.660 %		18:59:01
3	Y 371.029	967825.2	967825.2	94.267 %		18:59:01
3	Ag 328.068†	-28451.9	-33526.3	-6.5821 µg/L	-6.5821 ppb	18:59:04
3	As 188.979†	32300.2	33436.5	10365 µg/L	10365 ppb	18:59:04
3	B 249.677†	328722.2	336573.4	4931.3 µg/L	4931.3 ppb	18:59:01
3	Ba 233.527†	3317615.9	3432372.0	13841 µg/L	13841 ppb	18:59:01
3	Be 313.107†	10133998.6	10485182.6	2854.7 µg/L	2854.7 ppb	18:58:58
3	Cd 226.502†	1494854.9	1546618.8	9664.9 µg/L	9664.9 ppb	18:59:01
3	Co 228.616†	734092.5	759645.0	9389.8 µg/L	9389.8 ppb	18:59:01
3	Cr 267.716†	2940364.9	3041773.0	23826 µg/L	23826 ppb	18:59:01
3	Cu 324.752†	4964197.6	5132733.3	19952 µg/L	19952 ppb	18:59:01
3	Mn 257.610†	7309991.3	7562306.7	9356.8 µg/L	9356.8 ppb	18:59:01
3	Mo 202.031†	318101.3	329111.4	9675.5 µg/L	9675.5 ppb	18:59:04
3	Ni 231.604†	815203.0	843443.9	9711.6 µg/L	9711.6 ppb	18:59:01
3	P 214.914†	69129.8	71536.1	15067 µg/L	15067 ppb	18:59:04
3	Pb 220.353†	409679.7	423747.3	23684 µg/L	23684 ppb	18:59:01
3	S 181.975 Axial†	67967.3	70210.4	52219 µg/L	52219 ppb	18:59:04
3	Sb 206.836†	81066.4	83786.4	9772.6 µg/L	9772.6 ppb	18:59:04
3	Se 196.026†	26138.8	27026.6	9770 µg/L	9770 ppb	18:59:04
3	SiO2†	993772.6	1026331.1	99898 µg/L	99898 ppb	18:59:01
3	Si 251.611†	3070650.4	3175901.7	46628 µg/L	46628 ppb	18:59:01
3	Sn 189.927†	152708.7	157985.7	9882.0 µg/L	9882.0 ppb	18:59:04
3	Ti 334.940†	10211863.8	10563720.7	9861.6 µg/L	9861.6 ppb	18:58:58
3	Tl 190.801†	74486.4	77176.5	9633.0 µg/L	9633.0 ppb	18:59:04
3	U 409.014†	-10678.1	-10777.2	-24.287 µg/L	-24.287 ppb	18:59:04
3	V 292.402†	1973672.0	2041456.5	10152 µg/L	10152 ppb	18:59:01
3	Zn 213.857†	2465384.0	2549996.1	14250 µg/L	14250 ppb	18:59:01

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1653021.9	96.206	%	0.4918				0.51%
Sc RADIAL	138118.6	94.6	%	0.40				0.43%
Y 371.029	963642.3	93.859	%	0.4349				0.46%
Ag 328.068†	-33408.6	-6.4037	µg/L	0.90480	-6.4037	ppb	0.90480	14.13%
Al 396.153Radial†	2824.6	74.672	µg/L	7.5994	74.672	ppb	7.5994	10.18%
As 188.979†	33308.6	10326	µg/L	108.5	10326	ppb	108.5	1.05%
QC value within limits for As 188.979 Recovery = 103.26%								
B 249.677†	335301.2	4912.7	µg/L	20.14	4912.7	ppb	20.14	0.41%
QC value within limits for B 249.677 Recovery = 98.25%								
Ba 233.527†	3422577.3	13801	µg/L	43.6	13801	ppb	43.6	0.32%
QC value within limits for Ba 233.527 Recovery = 92.01%								
Be 313.107†	10501831.6	2859.3	µg/L	4.11	2859.3	ppb	4.11	0.14%
QC value within limits for Be 313.107 Recovery = 95.31%								
Ca 317.933Radial†	1736.3	96.720	µg/L	3.8970	96.720	ppb	3.8970	4.03%
Cd 226.502†	1539229.5	9618.8	µg/L	52.49	9618.8	ppb	52.49	0.55%
QC value within limits for Cd 226.502 Recovery = 96.19%								
Co 228.616†	756713.8	9353.6	µg/L	41.95	9353.6	ppb	41.95	0.45%
QC value within limits for Co 228.616 Recovery = 93.54%								
Cr 267.716†	3032991.5	23758	µg/L	79.1	23758	ppb	79.1	0.33%
QC value within limits for Cr 267.716 Recovery = 95.03%								

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Cu 324.752†          5122485.4       19912 µg/L          39.8       19912 ppb          39.8   0.20%
   QC value within limits for Cu 324.752  Recovery = 99.56%
Fe 238.204 Radial†      -336.6     -20.748 µg/L        1.3234     -20.748 ppb        1.3234   6.38%
K 766.490 Radial†     807542.9      295650 µg/L        1500.7      295650 ppb        1500.7   0.51%
   QC value within limits for K 766.490 Radial  Recovery = 98.55%
Mg 279.077 IEC†         -527.6      39.932 µg/L       10.0061      39.932 ppb       10.0061  25.06%
Mn 257.610†          7541217.3      9330.7 µg/L         29.52      9330.7 ppb         29.52   0.32%
   QC value within limits for Mn 257.610  Recovery = 93.31%
Mo 202.031†           328957.9      9671.0 µg/L         63.88      9671.0 ppb         63.88   0.66%
   QC value within limits for Mo 202.031  Recovery = 96.71%
Na 589.592 Radial†      3581.5      226.33 µg/L        18.607      226.33 ppb        18.607   8.22%
Ni 231.604†           840034.1      9672.4 µg/L         43.06      9672.4 ppb         43.06   0.45%
   QC value within limits for Ni 231.604  Recovery = 96.72%
P 214.914†             71274.3      15011 µg/L         120.3       15011 ppb         120.3   0.80%
   QC value within limits for P 214.914  Recovery = 100.07%
Pb 220.353†           421664.4      23568 µg/L         129.3       23568 ppb         129.3   0.55%
   QC value within limits for Pb 220.353  Recovery = 94.27%
S 181.975 Axial†       69844.2      51947 µg/L         496.0       51947 ppb         496.0   0.95%
   QC value within limits for S 181.975 Axial  Recovery = 103.89%
Sb 206.836†            83738.7      9767.8 µg/L         75.75      9767.8 ppb         75.75   0.78%
   QC value within limits for Sb 206.836  Recovery = 97.68%
Se 196.026†            26961.8       9750 µg/L          97.4        9750 ppb          97.4   1.00%
   QC value within limits for Se 196.026  Recovery = 97.47%
SiO2†                1021991.6      99474 µg/L         471.0       99474 ppb         471.0   0.47%
   QC value within limits for SiO2  Recovery = 92.97%
Si 251.611†          3161856.2      46421 µg/L         225.8       46421 ppb         225.8   0.49%
   QC value within limits for Si 251.611  Recovery = 92.84%
Sn 189.927†           157586.2      9857.1 µg/L         71.32      9857.1 ppb         71.32   0.72%
   QC value within limits for Sn 189.927  Recovery = 98.57%
Sr 421.552†          4701327.6      9773.8 µg/L         36.00      9773.8 ppb         36.00   0.37%
   QC value within limits for Sr 421.552  Recovery = 97.74%
Ti 334.940†         10578479.4      9875.4 µg/L         12.32      9875.4 ppb         12.32   0.12%
   QC value within limits for Ti 334.940  Recovery = 98.75%
Tl 190.801†            77087.7      9622.1 µg/L         57.90      9622.1 ppb         57.90   0.60%
   QC value within limits for Tl 190.801  Recovery = 96.22%
U 409.014†            -10648.1     -18.128 µg/L        8.0380     -18.128 ppb        8.0380  44.34%
V 292.402†           2036837.3      10129 µg/L          24.0       10129 ppb          24.0   0.24%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†          2541282.9      14201 µg/L          53.8       14201 ppb          53.8   0.38%
   QC value within limits for Zn 213.857  Recovery = 94.68%
All analyte(s) passed QC.
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Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 18:59:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142139.5	142139.5	97.4	%			18:59:45
1	Al 396.153Radial†	26433.8	27201.9	5020.1	µg/L	5020.1	ppb	18:59:45
1	Ca 317.933Radial†	88689.7	90494.1	5040.9	µg/L	5040.9	ppb	18:59:45
1	Fe 238.204 Radial†	79307.5	81274.2	5009.2	µg/L	5009.2	ppb	18:59:45
1	K 766.490 Radial†	16771.4	15673.9	5734.3	µg/L	5734.3	ppb	18:59:45
1	Mg 279.077 IEC†	13660.1	13833.7	5162.1	µg/L	5162.1	ppb	18:59:45
1	Na 589.592 Radial†	73293.1	73956.7	10098	µg/L	10098	ppb	18:59:45
1	Sr 421.552†	230485.0	236766.3	492.18	µg/L	492.18	ppb	18:59:42
1	Sc 361.383	1685039.5	1685039.5	98.069	%			19:00:11
1	Y 371.029	998501.4	998501.4	97.255	%			19:00:11
1	Ag 328.068†	132676.3	131197.3	491.97	µg/L	491.97	ppb	19:00:11
1	As 188.979†	1601.0	1652.9	507.06	µg/L	507.06	ppb	19:00:31
1	B 249.677†	36255.7	33463.6	491.81	µg/L	491.81	ppb	19:00:11
1	Ba 233.527†	119950.7	122448.3	493.83	µg/L	493.83	ppb	19:00:11
1	Be 313.107†	1777442.6	1813504.8	493.92	µg/L	493.92	ppb	19:00:11
1	Cd 226.502†	77121.2	78757.9	491.64	µg/L	491.64	ppb	19:00:11
1	Co 228.616†	39140.7	40101.7	495.05	µg/L	495.05	ppb	19:00:11
1	Cr 267.716†	61794.1	62832.3	491.97	µg/L	491.97	ppb	19:00:11
1	Cu 324.752†	126997.2	126525.5	493.24	µg/L	493.24	ppb	19:00:11
1	Mn 257.610†	392842.9	400340.6	495.12	µg/L	495.12	ppb	19:00:11
1	Mo 202.031†	16539.5	16885.3	496.69	µg/L	496.69	ppb	19:00:31
1	Ni 231.604†	41890.8	42792.1	492.72	µg/L	492.72	ppb	19:00:11
1	P 214.914†	11336.8	11578.0	2467.8	µg/L	2467.8	ppb	19:00:31
1	Pb 220.353†	8936.3	9025.8	505.42	µg/L	505.42	ppb	19:00:31
1	S 181.975 Axial†	1440.2	1363.5	1016.7	µg/L	1016.7	ppb	19:00:31
1	Sb 206.836†	4150.3	4151.2	494.66	µg/L	494.66	ppb	19:00:31
1	Se 196.026†	1355.8	1367.2	496	µg/L	496	ppb	19:00:31
1	SiO2†	55729.4	55051.3	5359.5	µg/L	5359.5	ppb	19:00:11
1	Si 251.611†	167770.7	170237.6	2499.9	µg/L	2499.9	ppb	19:00:11
1	Sn 189.927†	7832.4	7987.8	499.62	µg/L	499.62	ppb	19:00:31
1	Ti 334.940†	519447.4	528722.7	493.33	µg/L	493.33	ppb	19:00:11
1	Tl 190.801†	3833.0	4025.2	501.97	µg/L	501.97	ppb	19:00:31
1	U 409.014†	7396.5	7812.0	486.67	µg/L	486.67	ppb	19:00:11
1	V 292.402†	98795.4	100336.9	496.05	µg/L	496.05	ppb	19:00:11
1	Zn 213.857†	87637.0	88798.1	494.94	µg/L	494.94	ppb	19:00:11
2	Sc RADIAL	141405.1	141405.1	96.9	%			18:59:49
2	Al 396.153Radial†	26316.7	27222.0	5023.9	µg/L	5023.9	ppb	18:59:49
2	Ca 317.933Radial†	88132.2	90391.6	5035.2	µg/L	5035.2	ppb	18:59:49
2	Fe 238.204 Radial†	78428.2	80789.6	4979.4	µg/L	4979.4	ppb	18:59:49
2	K 766.490 Radial†	16577.4	15563.0	5693.7	µg/L	5693.7	ppb	18:59:49
2	Mg 279.077 IEC†	13417.4	13656.1	5095.9	µg/L	5095.9	ppb	18:59:49
2	Na 589.592 Radial†	72730.8	73767.2	10072	µg/L	10072	ppb	18:59:49
2	Sr 421.552†	231214.8	238748.4	496.30	µg/L	496.30	ppb	18:59:47
2	Sc 361.383	1693366.2	1693366.2	98.554	%			19:00:35
2	Y 371.029	1002117.3	1002117.3	97.607	%			19:00:35
2	Ag 328.068†	134028.3	131903.9	494.57	µg/L	494.57	ppb	19:00:35
2	As 188.979†	1592.6	1636.4	502.08	µg/L	502.08	ppb	19:00:55
2	B 249.677†	36515.2	33545.2	493.02	µg/L	493.02	ppb	19:00:35
2	Ba 233.527†	120680.2	122587.1	494.39	µg/L	494.39	ppb	19:00:35
2	Be 313.107†	1789722.9	1817053.1	494.89	µg/L	494.89	ppb	19:00:35
2	Cd 226.502†	77769.6	79029.1	493.33	µg/L	493.33	ppb	19:00:35
2	Co 228.616†	39338.4	40106.1	495.11	µg/L	495.11	ppb	19:00:35
2	Cr 267.716†	62316.9	63052.8	493.70	µg/L	493.70	ppb	19:00:35
2	Cu 324.752†	127673.8	126575.3	493.42	µg/L	493.42	ppb	19:00:35
2	Mn 257.610†	395604.2	401172.7	496.16	µg/L	496.16	ppb	19:00:35
2	Mo 202.031†	16605.0	16868.7	496.20	µg/L	496.20	ppb	19:00:55
2	Ni 231.604†	42250.6	42947.2	494.51	µg/L	494.51	ppb	19:00:35
2	P 214.914†	11392.0	11577.2	2467.6	µg/L	2467.6	ppb	19:00:55
2	Pb 220.353†	8993.4	9039.0	506.15	µg/L	506.15	ppb	19:00:55

2	S 181.975 Axial†	1441.0	1357.1	1011.9 µg/L	1011.9 ppb	19:00:55
2	Sb 206.836†	4173.3	4153.7	494.93 µg/L	494.93 ppb	19:00:55
2	Se 196.026†	1369.6	1374.4	499 µg/L	499 ppb	19:00:55
2	SiO2†	55740.1	54782.8	5333.3 µg/L	5333.3 ppb	19:00:35
2	Si 251.611†	168764.7	170404.9	2502.4 µg/L	2502.4 ppb	19:00:35
2	Sn 189.927†	7855.7	7972.1	498.64 µg/L	498.64 ppb	19:00:55
2	Ti 334.940†	522510.2	529225.9	493.80 µg/L	493.80 ppb	19:00:35
2	Tl 190.801†	3874.1	4047.6	504.73 µg/L	504.73 ppb	19:00:55
2	U 409.014†	7341.8	7719.4	481.23 µg/L	481.23 ppb	19:00:35
2	V 292.402†	99158.5	100210.0	495.43 µg/L	495.43 ppb	19:00:35
2	Zn 213.857†	88086.4	88814.8	495.03 µg/L	495.03 ppb	19:00:35
3	Sc RADIAL	143105.8	143105.8	98.1 %		18:59:53
3	Al 396.153Radial†	26546.6	27133.7	5007.7 µg/L	5007.7 ppb	18:59:53
3	Ca 317.933Radial†	89145.0	90343.6	5032.5 µg/L	5032.5 ppb	18:59:53
3	Fe 238.204 Radial†	79321.5	80738.7	4976.2 µg/L	4976.2 ppb	18:59:53
3	K 766.490 Radial†	16684.6	15469.1	5659.4 µg/L	5659.4 ppb	18:59:53
3	Mg 279.077 IEC†	13656.7	13735.5	5125.4 µg/L	5125.4 ppb	18:59:53
3	Na 589.592 Radial†	73452.5	73611.2	10051 µg/L	10051 ppb	18:59:53
3	Sr 421.552†	233202.1	237939.3	494.62 µg/L	494.62 ppb	18:59:51
3	Sc 361.383	1698557.6	1698557.6	98.856 %		19:00:58
3	Y 371.029	1005300.2	1005300.2	97.917 %		19:00:58
3	Ag 328.068†	134027.1	131487.0	493.03 µg/L	493.03 ppb	19:00:58
3	As 188.979†	1600.3	1639.2	502.90 µg/L	502.90 ppb	19:01:18
3	B 249.677†	36626.1	33544.1	493.00 µg/L	493.00 ppb	19:00:58
3	Ba 233.527†	120865.6	122400.4	493.64 µg/L	493.64 ppb	19:00:58
3	Be 313.107†	1794818.7	1816657.7	494.78 µg/L	494.78 ppb	19:00:58
3	Cd 226.502†	77952.7	78973.1	492.98 µg/L	492.98 ppb	19:00:58
3	Co 228.616†	39410.3	40056.7	494.50 µg/L	494.50 ppb	19:00:58
3	Cr 267.716†	62267.5	62809.6	491.79 µg/L	491.79 ppb	19:00:58
3	Cu 324.752†	127710.6	126216.6	492.03 µg/L	492.03 ppb	19:00:58
3	Mn 257.610†	396581.9	400934.9	495.86 µg/L	495.86 ppb	19:00:58
3	Mo 202.031†	16557.8	16769.5	493.29 µg/L	493.29 ppb	19:01:18
3	Ni 231.604†	42318.2	42884.5	493.78 µg/L	493.78 ppb	19:00:58
3	P 214.914†	11368.7	11518.2	2455.0 µg/L	2455.0 ppb	19:01:18
3	Pb 220.353†	8920.7	8937.6	500.48 µg/L	500.48 ppb	19:01:18
3	S 181.975 Axial†	1449.3	1361.0	1014.8 µg/L	1014.8 ppb	19:01:18
3	Sb 206.836†	4163.9	4131.2	492.23 µg/L	492.23 ppb	19:01:18
3	Se 196.026†	1367.7	1368.2	497 µg/L	497 ppb	19:01:18
3	SiO2†	55966.4	54838.9	5338.9 µg/L	5338.9 ppb	19:00:58
3	Si 251.611†	169027.1	170146.9	2498.6 µg/L	2498.6 ppb	19:00:58
3	Sn 189.927†	7816.0	7907.6	494.62 µg/L	494.62 ppb	19:01:18
3	Ti 334.940†	523522.3	528629.3	493.24 µg/L	493.24 ppb	19:00:58
3	Tl 190.801†	3828.1	3989.1	497.54 µg/L	497.54 ppb	19:01:18
3	U 409.014†	7431.2	7787.1	485.18 µg/L	485.18 ppb	19:00:58
3	V 292.402†	99434.0	100181.1	495.25 µg/L	495.25 ppb	19:00:58
3	Zn 213.857†	87848.2	88300.5	492.15 µg/L	492.15 ppb	19:00:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1692321.1	98.493	%	0.3969				0.40%
Sc RADIAL	142216.8	97.5	%	0.58				0.60%
Y 371.029	1001973.0	97.593	%	0.3313				0.34%
Ag 328.068†	131529.4	493.19	µg/L	1.309	493.19	ppb	1.309	0.27%
QC value within limits for Ag 328.068 Recovery = 98.64%								
Al 396.153Radial†	27185.9	5017.2	µg/L	8.50	5017.2	ppb	8.50	0.17%
QC value within limits for Al 396.153Radial Recovery = 100.34%								
As 188.979†	1642.8	504.02	µg/L	2.669	504.02	ppb	2.669	0.53%
QC value within limits for As 188.979 Recovery = 100.80%								
B 249.677†	33517.6	492.61	µg/L	0.690	492.61	ppb	0.690	0.14%
QC value within limits for B 249.677 Recovery = 98.52%								
Ba 233.527†	122478.6	493.95	µg/L	0.391	493.95	ppb	0.391	0.08%
QC value within limits for Ba 233.527 Recovery = 98.79%								
Be 313.107†	1815738.5	494.53	µg/L	0.529	494.53	ppb	0.529	0.11%
QC value within limits for Be 313.107 Recovery = 98.91%								
Ca 317.933Radial†	90409.8	5036.2	µg/L	4.28	5036.2	ppb	4.28	0.09%
QC value within limits for Ca 317.933Radial Recovery = 100.72%								
Cd 226.502†	78920.1	492.65	µg/L	0.896	492.65	ppb	0.896	0.18%
QC value within limits for Cd 226.502 Recovery = 98.53%								
Co 228.616†	40088.2	494.89	µg/L	0.337	494.89	ppb	0.337	0.07%

```
   QC value within limits for Co 228.616  Recovery = 98.98%
Cr 267.716†            62898.2      492.49 µg/L         1.054      492.49 ppb          1.054   0.21%
   QC value within limits for Cr 267.716  Recovery = 98.50%
Cu 324.752†           126439.1      492.90 µg/L         0.756      492.90 ppb          0.756   0.15%
   QC value within limits for Cu 324.752  Recovery = 98.58%
Fe 238.204 Radial†     80934.2      4988.3 µg/L         18.22      4988.3 ppb          18.22   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.77%
K 766.490 Radial†      15568.7      5695.8 µg/L         37.52      5695.8 ppb          37.52   0.66%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 113.92%
Mg 279.077 IEC†        13741.8      5127.8 µg/L         33.15      5127.8 ppb          33.15   0.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.56%
Mn 257.610†           400816.1      495.71 µg/L         0.532      495.71 ppb          0.532   0.11%
   QC value within limits for Mn 257.610  Recovery = 99.14%
Mo 202.031†            16841.2      495.39 µg/L         1.841      495.39 ppb          1.841   0.37%
   QC value within limits for Mo 202.031  Recovery = 99.08%
Na 589.592 Radial†     73778.4       10074 µg/L          23.6       10074 ppb           23.6   0.23%
   QC value within limits for Na 589.592 Radial  Recovery = 100.74%
Ni 231.604†            42874.6      493.67 µg/L         0.898      493.67 ppb          0.898   0.18%
   QC value within limits for Ni 231.604  Recovery = 98.73%
P 214.914†             11557.8      2463.5 µg/L          7.33      2463.5 ppb           7.33   0.30%
   QC value within limits for P 214.914  Recovery = 98.54%
Pb 220.353†             9000.8      504.02 µg/L         3.083      504.02 ppb          3.083   0.61%
   QC value within limits for Pb 220.353  Recovery = 100.80%
S 181.975 Axial†        1360.5      1014.5 µg/L          2.43      1014.5 ppb           2.43   0.24%
   QC value within limits for S 181.975 Axial  Recovery = 101.45%
Sb 206.836†             4145.4      493.94 µg/L         1.484      493.94 ppb          1.484   0.30%
   QC value within limits for Sb 206.836  Recovery = 98.79%
Se 196.026†             1370.0         497 µg/L           1.4         497 ppb            1.4   0.28%
   QC value within limits for Se 196.026  Recovery = 99.49%
SiO2†                  54891.0      5343.9 µg/L         13.80      5343.9 ppb          13.80   0.26%
   QC value within limits for SiO2  Recovery = 99.93%
Si 251.611†           170263.1      2500.3 µg/L          1.90      2500.3 ppb           1.90   0.08%
   QC value within limits for Si 251.611  Recovery = 100.01%
Sn 189.927†             7955.8      497.63 µg/L         2.649      497.63 ppb          2.649   0.53%
   QC value within limits for Sn 189.927  Recovery = 99.53%
Sr 421.552†           237818.0      494.37 µg/L         2.072      494.37 ppb          2.072   0.42%
   QC value within limits for Sr 421.552  Recovery = 98.87%
Ti 334.940†           528859.3      493.46 µg/L         0.302      493.46 ppb          0.302   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.69%
Tl 190.801†             4020.6      501.41 µg/L         3.629      501.41 ppb          3.629   0.72%
   QC value within limits for Tl 190.801  Recovery = 100.28%
U 409.014†              7772.9      484.36 µg/L         2.811      484.36 ppb          2.811   0.58%
   QC value within limits for U 409.014  Recovery = 96.87%
V 292.402†            100242.7      495.58 µg/L         0.417      495.58 ppb          0.417   0.08%
   QC value within limits for V 292.402  Recovery = 99.12%
Zn 213.857†            88637.8      494.04 µg/L         1.641      494.04 ppb          1.641   0.33%
   QC value within limits for Zn 213.857  Recovery = 98.81%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:01:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	142576.4	142576.4	97.7	%			19:01:55
1	Al 396.153Radial†	57.6	122.1	22.616	µg/L	22.616	ppb	19:02:15
1	Ca 317.933Radial†	950.3	412.1	22.954	µg/L	22.954	ppb	19:02:15
1	Fe 238.204 Radial†	408.4	269.9	16.636	µg/L	16.636	ppb	19:02:15
1	K 766.490 Radial†	2351.3	861.8	315.49	µg/L	315.49	ppb	19:01:55
1	Mg 279.077 IEC†	256.3	71.6	26.675	µg/L	26.675	ppb	19:02:15
1	Na 589.592 Radial†	2324.7	1088.6	148.44	µg/L	148.44	ppb	19:01:55
1	Sr 421.552†	-47.4	86.8	0.1802	µg/L	0.1802	ppb	19:01:55
1	Sc 361.383	1712993.6	1712993.6	99.696	%			19:03:03
1	Y 371.029	1024574.5	1024574.5	99.794	%			19:03:03
1	Ag 328.068†	3862.6	-217.0	-0.8055	µg/L	-0.8055	ppb	19:03:05
1	As 188.979†	-11.7	8.6	2.6096	µg/L	2.6096	ppb	19:03:25
1	B 249.677†	3681.1	186.4	2.7486	µg/L	2.7486	ppb	19:03:05
1	Ba 233.527†	-102.8	32.7	0.1316	µg/L	0.1316	ppb	19:03:25
1	Be 313.107†	-845.8	216.4	0.0592	µg/L	0.0592	ppb	19:03:05
1	Cd 226.502†	-69.1	48.9	0.3038	µg/L	0.3038	ppb	19:03:25
1	Co 228.616†	-171.2	18.6	0.2289	µg/L	0.2289	ppb	19:03:25
1	Cr 267.716†	235.5	57.6	0.4508	µg/L	0.4508	ppb	19:03:25
1	Cu 324.752†	3139.9	177.3	0.6930	µg/L	0.6930	ppb	19:03:05
1	Mn 257.610†	387.8	151.7	0.1866	µg/L	0.1866	ppb	19:03:25
1	Mo 202.031†	-0.9	19.2	0.5643	µg/L	0.5643	ppb	19:03:25
1	Ni 231.604†	-84.9	-8.7	-0.0996	µg/L	-0.0996	ppb	19:03:25
1	P 214.914†	-24.3	-6.5	-1.3891	µg/L	-1.3891	ppb	19:03:25
1	Pb 220.353†	141.3	55.4	3.0911	µg/L	3.0911	ppb	19:03:25
1	S 181.975 Axial†	113.5	8.8	6.5060	µg/L	6.5060	ppb	19:03:25
1	Sb 206.836†	76.0	-4.6	-0.5451	µg/L	-0.5451	ppb	19:03:25
1	Se 196.026†	20.7	5.5	2.01	µg/L	2.01	ppb	19:03:25
1	SiO2†	1808.7	38.9	3.7615	µg/L	3.7615	ppb	19:03:25
1	Si 251.611†	1158.0	325.0	4.7734	µg/L	4.7734	ppb	19:03:05
1	Sn 189.927†	23.2	24.4	1.5199	µg/L	1.5199	ppb	19:03:25
1	Ti 334.940†	1109.4	160.3	0.1476	µg/L	0.1476	ppb	19:03:05
1	Tl 190.801†	-105.0	11.4	1.4002	µg/L	1.4002	ppb	19:03:25
1	U 409.014†	-251.8	17.3	0.9993	µg/L	0.9993	ppb	19:03:05
1	V 292.402†	359.4	-43.3	-0.2046	µg/L	-0.2046	ppb	19:03:05
1	Zn 213.857†	837.7	275.9	1.5483	µg/L	1.5483	ppb	19:03:25
2	Sc RADIAL	143802.6	143802.6	98.5	%			19:02:17
2	Al 396.153Radial†	-23.6	39.2	7.2646	µg/L	7.2646	ppb	19:02:37
2	Ca 317.933Radial†	724.5	174.6	9.7279	µg/L	9.7279	ppb	19:02:37
2	Fe 238.204 Radial†	241.4	96.9	5.9704	µg/L	5.9704	ppb	19:02:37
2	K 766.490 Radial†	2344.6	834.5	305.50	µg/L	305.50	ppb	19:02:17
2	Mg 279.077 IEC†	184.0	-4.0	-1.5026	µg/L	-1.5026	ppb	19:02:37
2	Na 589.592 Radial†	2222.6	964.7	131.52	µg/L	131.52	ppb	19:02:17
2	Sr 421.552†	-22.7	112.3	0.2333	µg/L	0.2333	ppb	19:02:17
2	Sc 361.383	1715539.4	1715539.4	99.844	%			19:03:27
2	Y 371.029	1025697.2	1025697.2	99.903	%			19:03:27
2	Ag 328.068†	4157.7	72.8	0.2757	µg/L	0.2757	ppb	19:03:30
2	As 188.979†	-16.7	3.7	1.1138	µg/L	1.1138	ppb	19:03:50
2	B 249.677†	3652.6	152.4	2.2465	µg/L	2.2465	ppb	19:03:30
2	Ba 233.527†	-103.8	31.9	0.1289	µg/L	0.1289	ppb	19:03:50
2	Be 313.107†	-800.4	263.0	0.0711	µg/L	0.0711	ppb	19:03:30
2	Cd 226.502†	-101.0	17.0	0.1059	µg/L	0.1059	ppb	19:03:50
2	Co 228.616†	-175.3	14.7	0.1813	µg/L	0.1813	ppb	19:03:50
2	Cr 267.716†	251.6	73.5	0.5772	µg/L	0.5772	ppb	19:03:50
2	Cu 324.752†	3073.4	105.9	0.4112	µg/L	0.4112	ppb	19:03:30
2	Mn 257.610†	351.3	114.6	0.1418	µg/L	0.1418	ppb	19:03:50
2	Mo 202.031†	-12.8	7.2	0.2126	µg/L	0.2126	ppb	19:03:50
2	Ni 231.604†	-67.1	9.3	0.1072	µg/L	0.1072	ppb	19:03:50
2	P 214.914†	-27.6	-9.7	-2.0622	µg/L	-2.0622	ppb	19:03:50
2	Pb 220.353†	95.6	9.4	0.5244	µg/L	0.5244	ppb	19:03:50

2	S 181.975 Axial†	105.7	0.8	0.6240 µg/L	0.6240 ppb	19:03:50
2	Sb 206.836†	85.0	4.3	0.5093 µg/L	0.5093 ppb	19:03:50
2	Se 196.026†	19.1	3.9	1.40 µg/L	1.40 ppb	19:03:50
2	SiO2†	1782.4	9.8	0.9335 µg/L	0.9335 ppb	19:03:50
2	Si 251.611†	944.9	109.8	1.6073 µg/L	1.6073 ppb	19:03:30
2	Sn 189.927†	21.6	22.8	1.4197 µg/L	1.4197 ppb	19:03:50
2	Ti 334.940†	960.9	9.8	0.0100 µg/L	0.0100 ppb	19:03:30
2	Tl 190.801†	-107.7	8.8	1.0828 µg/L	1.0828 ppb	19:03:50
2	U 409.014†	-298.4	-28.9	-1.6511 µg/L	-1.6511 ppb	19:03:30
2	V 292.402†	549.1	146.2	0.7161 µg/L	0.7161 ppb	19:03:30
2	Zn 213.857†	814.7	251.5	1.4114 µg/L	1.4114 ppb	19:03:50
3	Sc RADIAL	143637.2	143637.2	98.4 %		19:02:39
3	Al 396.153Radial†	-43.2	19.4	3.5840 µg/L	3.5840 ppb	19:03:00
3	Ca 317.933Radial†	715.6	166.4	9.2706 µg/L	9.2706 ppb	19:03:00
3	Fe 238.204 Radial†	242.5	98.3	6.0580 µg/L	6.0580 ppb	19:03:00
3	K 766.490 Radial†	2256.9	748.2	273.88 µg/L	273.88 ppb	19:02:39
3	Mg 279.077 IEC†	205.1	17.7	6.5824 µg/L	6.5824 ppb	19:03:00
3	Na 589.592 Radial†	2284.1	1029.7	140.43 µg/L	140.43 ppb	19:02:39
3	Sr 421.552†	11.7	147.2	0.3060 µg/L	0.3060 ppb	19:02:39
3	Sc 361.383	1722456.3	1722456.3	100.25 %		19:03:52
3	Y 371.029	1029533.6	1029533.6	100.28 %		19:03:52
3	Ag 328.068†	4007.1	-94.2	-0.3350 µg/L	-0.3350 ppb	19:03:54
3	As 188.979†	-18.8	1.6	0.4750 µg/L	0.4750 ppb	19:04:14
3	B 249.677†	3639.8	125.0	1.8421 µg/L	1.8421 ppb	19:03:54
3	Ba 233.527†	-117.1	19.1	0.0776 µg/L	0.0776 ppb	19:04:14
3	Be 313.107†	-721.4	345.0	0.0939 µg/L	0.0939 ppb	19:03:54
3	Cd 226.502†	-93.0	25.4	0.1581 µg/L	0.1581 ppb	19:04:14
3	Co 228.616†	-173.2	17.6	0.2167 µg/L	0.2167 ppb	19:04:14
3	Cr 267.716†	211.6	32.5	0.2552 µg/L	0.2552 ppb	19:04:14
3	Cu 324.752†	3092.5	112.7	0.4392 µg/L	0.4392 ppb	19:03:54
3	Mn 257.610†	342.1	104.0	0.1284 µg/L	0.1284 ppb	19:04:14
3	Mo 202.031†	-15.6	4.5	0.1336 µg/L	0.1336 ppb	19:04:14
3	Ni 231.604†	-90.2	-13.4	-0.1547 µg/L	-0.1547 ppb	19:04:14
3	P 214.914†	-22.3	-4.2	-0.9047 µg/L	-0.9047 ppb	19:04:14
3	Pb 220.353†	117.3	30.6	1.7079 µg/L	1.7079 ppb	19:04:14
3	S 181.975 Axial†	114.1	8.7	6.4890 µg/L	6.4890 ppb	19:04:14
3	Sb 206.836†	80.1	-1.0	-0.1107 µg/L	-0.1107 ppb	19:04:14
3	Se 196.026†	9.2	-6.1	-2.20 µg/L	-2.20 ppb	19:04:14
3	SiO2†	1811.5	31.7	3.0742 µg/L	3.0742 ppb	19:04:14
3	Si 251.611†	907.7	68.9	1.0043 µg/L	1.0043 ppb	19:03:54
3	Sn 189.927†	22.3	23.4	1.4577 µg/L	1.4577 ppb	19:04:14
3	Ti 334.940†	846.3	-108.3	-0.1015 µg/L	-0.1015 ppb	19:03:54
3	Tl 190.801†	-114.4	2.6	0.3215 µg/L	0.3215 ppb	19:04:14
3	U 409.014†	-270.6	-0.0	0.0667 µg/L	0.0667 ppb	19:03:54
3	V 292.402†	646.7	241.3	1.1790 µg/L	1.1790 ppb	19:03:54
3	Zn 213.857†	803.7	237.3	1.3332 µg/L	1.3332 ppb	19:04:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716996.5	99.929	%	0.2850				0.29%
Sc RADIAL	143338.8	98.2	%	0.46				0.46%
Y 371.029	1026601.8	99.992	%	0.2533				0.25%
Ag 328.068†	-79.5	-0.2883	µg/L	0.54213	-0.2883	ppb	0.54213	188.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	60.2	11.155	µg/L	10.0946	11.155	ppb	10.0946	90.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.6	1.3995	µg/L	1.09560	1.3995	ppb	1.09560	78.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	154.6	2.2791	µg/L	0.45415	2.2791	ppb	0.45415	19.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	27.9	0.1127	µg/L	0.03047	0.1127	ppb	0.03047	27.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	274.8	0.0748	µg/L	0.01765	0.0748	ppb	0.01765	23.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	251.0	13.984	µg/L	7.7715	13.984	ppb	7.7715	55.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	30.5	0.1893	µg/L	0.10254	0.1893	ppb	0.10254	54.18%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.0	0.2090	µg/L	0.02473	0.2090	ppb	0.02473	11.83%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              54.5      0.4277 µg/L       0.16226      0.4277 ppb        0.16226  37.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             132.0      0.5144 µg/L       0.15523      0.5144 ppb        0.15523  30.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      155.0      9.5549 µg/L       6.13280      9.5549 ppb        6.13280  64.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       814.8      298.29 µg/L        21.721      298.29 ppb         21.721   7.28%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          28.4      10.585 µg/L       14.5091      10.585 ppb        14.5091 137.07%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             123.4      0.1523 µg/L       0.03051      0.1523 ppb        0.03051  20.04%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.3      0.3035 µg/L       0.22930      0.3035 ppb        0.22930  75.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      1027.7      140.13 µg/L         8.461      140.13 ppb          8.461   6.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.3     -0.0490 µg/L       0.13810     -0.0490 ppb        0.13810 281.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -6.8     -1.4520 µg/L       0.58130     -1.4520 ppb        0.58130  40.03%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              31.8      1.7745 µg/L       1.28462      1.7745 ppb        1.28462  72.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.1      4.5397 µg/L       3.39110      4.5397 ppb        3.39110  74.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.4     -0.0489 µg/L       0.52991     -0.0489 ppb        0.52991 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.1       0.402 µg/L        2.2740       0.402 ppb         2.2740 564.97%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    26.8      2.5897 µg/L       1.47490      2.5897 ppb        1.47490  56.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             167.9      2.4617 µg/L       2.02458      2.4617 ppb        2.02458  82.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              23.5      1.4657 µg/L       0.05055      1.4657 ppb        0.05055   3.45%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             115.4      0.2398 µg/L       0.06313      0.2398 ppb        0.06313  26.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              20.6      0.0187 µg/L       0.12478      0.0187 ppb        0.12478 667.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.6      0.9348 µg/L       0.55437      0.9348 ppb        0.55437  59.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -3.9     -0.1950 µg/L       1.34448     -0.1950 ppb        1.34448 689.39%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              114.7      0.5635 µg/L       0.70433      0.5635 ppb        0.70433 125.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             254.9      1.4310 µg/L       0.10892      1.4310 ppb        0.10892   7.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

==========

Analysis Begun

Start Time: 3/31/2010 19:06:02 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 3/31/2010 18:15:19**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/31/2010 19:06:03**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	142053.7	142053.7	97.3	%			19:06:36
1	Al 396.153Radial†	26187.8	26965.5	4976.4	µg/L	4976.4	ppb	19:06:36
1	Ca 317.933Radial†	87895.1	89732.8	4998.5	µg/L	4998.5	ppb	19:06:36
1	Fe 238.204 Radial†	78245.6	80232.5	4945.0	µg/L	4945.0	ppb	19:06:36

1	K 766.490 Radial†	15026.3	13891.5	5081.8 µg/L	5081.8 ppb	19:06:36
1	Mg 279.077 IEC†	13439.2	13615.2	5080.7 µg/L	5080.7 ppb	19:06:36
1	Na 589.592 Radial†	71676.4	72341.3	9878.2 µg/L	9878.2 ppb	19:06:36
1	Sr 421.552†	230855.8	237290.2	493.27 µg/L	493.27 ppb	19:06:34
1	Sc 361.383	1692635.7	1692635.7	98.511 %		19:06:49
1	Y 371.029	1002740.0	1002740.0	97.667 %		19:06:49
1	Ag 328.068†	133490.2	131416.3	492.76 µg/L	492.76 ppb	19:06:49
1	As 188.979†	1592.7	1637.1	502.26 µg/L	502.26 ppb	19:07:09
1	B 249.677†	36019.4	33057.9	485.83 µg/L	485.83 ppb	19:06:49
1	Ba 233.527†	119977.2	121926.4	491.73 µg/L	491.73 ppb	19:06:49
1	Be 313.107†	1788795.8	1816895.8	494.84 µg/L	494.84 ppb	19:06:49
1	Cd 226.502†	77305.4	78591.9	490.61 µg/L	490.61 ppb	19:06:49
1	Co 228.616†	39248.1	40031.6	494.19 µg/L	494.19 ppb	19:06:49
1	Cr 267.716†	61675.1	62428.6	488.81 µg/L	488.81 ppb	19:06:49
1	Cu 324.752†	126554.7	125495.2	489.22 µg/L	489.22 ppb	19:06:49
1	Mn 257.610†	394217.2	399938.0	494.63 µg/L	494.63 ppb	19:06:49
1	Mo 202.031†	16588.6	16859.4	495.93 µg/L	495.93 ppb	19:07:09
1	Ni 231.604†	41959.1	42669.8	491.31 µg/L	491.31 ppb	19:06:49
1	P 214.914†	11467.5	11658.8	2485.2 µg/L	2485.2 ppb	19:07:09
1	Pb 220.353†	8908.4	8956.6	501.56 µg/L	501.56 ppb	19:07:09
1	S 181.975 Axial†	1431.0	1347.6	1004.9 µg/L	1004.9 ppb	19:07:09
1	Sb 206.836†	4198.6	4181.2	498.27 µg/L	498.27 ppb	19:07:09
1	Se 196.026†	1378.4	1384.0	502 µg/L	502 ppb	19:07:09
1	SiO2†	55424.9	54487.2	5304.4 µg/L	5304.4 ppb	19:06:49
1	Si 251.611†	167452.8	169147.1	2483.8 µg/L	2483.8 ppb	19:06:49
1	Sn 189.927†	7877.5	7997.7	500.23 µg/L	500.23 ppb	19:07:09
1	Ti 334.940†	520670.2	527586.9	492.28 µg/L	492.28 ppb	19:06:49
1	Tl 190.801†	3872.9	4048.2	504.78 µg/L	504.78 ppb	19:07:09
1	U 409.014†	7291.5	7671.6	478.40 µg/L	478.40 ppb	19:06:49
1	V 292.402†	98968.4	100060.4	494.68 µg/L	494.68 ppb	19:06:49
1	Zn 213.857†	86928.5	87677.9	488.67 µg/L	488.67 ppb	19:06:49
2	Sc RADIAL	141682.9	141682.9	97.1 %		19:06:40
2	Al 396.153Radial†	26223.0	27072.3	4996.3 µg/L	4996.3 ppb	19:06:40
2	Ca 317.933Radial†	87546.1	89609.7	4991.6 µg/L	4991.6 ppb	19:06:40
2	Fe 238.204 Radial†	78166.5	80361.4	4953.0 µg/L	4953.0 ppb	19:06:40
2	K 766.490 Radial†	14890.1	13791.7	5045.3 µg/L	5045.3 ppb	19:06:40
2	Mg 279.077 IEC†	13407.1	13618.3	5081.7 µg/L	5081.7 ppb	19:06:40
2	Na 589.592 Radial†	71442.4	72293.1	9871.6 µg/L	9871.6 ppb	19:06:40
2	Sr 421.552†	234429.9	241592.0	502.22 µg/L	502.22 ppb	19:06:38
2	Sc 361.383	1693933.2	1693933.2	98.587 %		19:07:12
2	Y 371.029	1002754.3	1002754.3	97.669 %		19:07:12
2	Ag 328.068†	133887.2	131715.3	493.86 µg/L	493.86 ppb	19:07:12
2	As 188.979†	1584.7	1627.8	499.44 µg/L	499.44 ppb	19:07:32
2	B 249.677†	36086.4	33097.9	486.42 µg/L	486.42 ppb	19:07:12
2	Ba 233.527†	120244.1	122103.7	492.44 µg/L	492.44 ppb	19:07:12
2	Be 313.107†	1788194.1	1814894.6	494.30 µg/L	494.30 ppb	19:07:12
2	Cd 226.502†	77647.5	78878.9	492.40 µg/L	492.40 ppb	19:07:12
2	Co 228.616†	39316.5	40070.5	494.67 µg/L	494.67 ppb	19:07:12
2	Cr 267.716†	61922.8	62632.0	490.40 µg/L	490.40 ppb	19:07:12
2	Cu 324.752†	126725.3	125569.8	489.51 µg/L	489.51 ppb	19:07:12
2	Mn 257.610†	394218.9	399633.2	494.25 µg/L	494.25 ppb	19:07:12
2	Mo 202.031†	16463.2	16719.3	491.81 µg/L	491.81 ppb	19:07:32
2	Ni 231.604†	42154.2	42835.0	493.21 µg/L	493.21 ppb	19:07:12
2	P 214.914†	11314.3	11494.4	2450.0 µg/L	2450.0 ppb	19:07:32
2	Pb 220.353†	8825.1	8865.3	496.44 µg/L	496.44 ppb	19:07:32
2	S 181.975 Axial†	1411.2	1326.4	989.11 µg/L	989.11 ppb	19:07:32
2	Sb 206.836†	4167.4	4146.3	494.02 µg/L	494.02 ppb	19:07:32
2	Se 196.026†	1363.3	1367.5	497 µg/L	497 ppb	19:07:32
2	SiO2†	55444.1	54463.6	5302.3 µg/L	5302.3 ppb	19:07:12
2	Si 251.611†	167875.0	169445.1	2488.3 µg/L	2488.3 ppb	19:07:12
2	Sn 189.927†	7786.1	7898.8	494.07 µg/L	494.07 ppb	19:07:32
2	Ti 334.940†	520698.2	527210.5	491.92 µg/L	491.92 ppb	19:07:12
2	Tl 190.801†	3845.2	4017.0	500.93 µg/L	500.93 ppb	19:07:32
2	U 409.014†	7348.6	7723.9	481.39 µg/L	481.39 ppb	19:07:12
2	V 292.402†	98856.0	99869.4	493.71 µg/L	493.71 ppb	19:07:12
2	Zn 213.857†	87044.0	87727.5	488.93 µg/L	488.93 ppb	19:07:12
3	Sc RADIAL	140290.8	140290.8	96.1 %		19:06:44
3	Al 396.153Radial†	26121.4	27234.6	5026.5 µg/L	5026.5 ppb	19:06:44
3	Ca 317.933Radial†	86648.1	89570.3	4989.4 µg/L	4989.4 ppb	19:06:44
3	Fe 238.204 Radial†	77524.7	80492.7	4961.1 µg/L	4961.1 ppb	19:06:44
3	K 766.490 Radial†	14881.5	13934.9	5097.7 µg/L	5097.7 ppb	19:06:44

3	Mg 279.077 IEC†	13262.2	13604.5	5076.6 µg/L	5076.6 ppb	19:06:44
3	Na 589.592 Radial†	70817.9	72373.6	9882.6 µg/L	9882.6 ppb	19:06:44
3	Sr 421.552†	230738.3	240148.1	499.21 µg/L	499.21 ppb	19:06:42
3	Sc 361.383	1701566.9	1701566.9	99.031 %		19:07:35
3	Y 371.029	1007094.6	1007094.6	98.092 %		19:07:35
3	Ag 328.068†	134475.4	131699.9	493.82 µg/L	493.82 ppb	19:07:35
3	As 188.979†	1593.4	1629.4	499.91 µg/L	499.91 ppb	19:07:55
3	B 249.677†	36488.9	33340.1	489.99 µg/L	489.99 ppb	19:07:35
3	Ba 233.527†	120822.0	122140.2	492.59 µg/L	492.59 ppb	19:07:35
3	Be 313.107†	1801771.9	1820467.8	495.82 µg/L	495.82 ppb	19:07:35
3	Cd 226.502†	78139.4	79022.2	493.29 µg/L	493.29 ppb	19:07:35
3	Co 228.616†	39662.8	40241.2	496.77 µg/L	496.77 ppb	19:07:35
3	Cr 267.716†	62197.1	62627.2	490.36 µg/L	490.36 ppb	19:07:35
3	Cu 324.752†	127822.8	126101.4	491.58 µg/L	491.58 ppb	19:07:35
3	Mn 257.610†	397277.8	400928.1	495.85 µg/L	495.85 ppb	19:07:35
3	Mo 202.031†	16490.8	16672.2	490.43 µg/L	490.43 ppb	19:07:55
3	Ni 231.604†	42326.5	42817.2	493.01 µg/L	493.01 ppb	19:07:35
3	P 214.914†	11342.9	11471.9	2445.2 µg/L	2445.2 ppb	19:07:55
3	Pb 220.353†	8843.5	8843.7	495.23 µg/L	495.23 ppb	19:07:55
3	S 181.975 Axial†	1419.8	1328.6	990.72 µg/L	990.72 ppb	19:07:55
3	Sb 206.836†	4178.4	4138.4	493.07 µg/L	493.07 ppb	19:07:55
3	Se 196.026†	1363.2	1361.3	494 µg/L	494 ppb	19:07:55
3	SiO2†	56222.5	54997.3	5354.5 µg/L	5354.5 ppb	19:07:35
3	Si 251.611†	169502.3	170324.4	2501.3 µg/L	2501.3 ppb	19:07:35
3	Sn 189.927†	7808.9	7886.4	493.30 µg/L	493.30 ppb	19:07:55
3	Ti 334.940†	523661.8	527833.6	492.50 µg/L	492.50 ppb	19:07:35
3	Tl 190.801†	3856.9	4011.4	500.25 µg/L	500.25 ppb	19:07:55
3	U 409.014†	7413.7	7756.2	483.37 µg/L	483.37 ppb	19:07:35
3	V 292.402†	99576.3	100146.9	495.05 µg/L	495.05 ppb	19:07:35
3	Zn 213.857†	87808.2	88103.1	491.04 µg/L	491.04 ppb	19:07:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1696045.3	98.710	%	0.2809				0.28%
Sc RADIAL	141342.5	96.9	%	0.64				0.66%
Y 371.029	1004196.3	97.809	%	0.2445				0.25%
Ag 328.068†	131610.5	493.48	µg/L	0.624	493.48	ppb	0.624	0.13%
QC value within limits for Ag 328.068 Recovery = 98.70%								
Al 396.153Radial†	27090.8	4999.7	µg/L	25.24	4999.7	ppb	25.24	0.50%
QC value within limits for Al 396.153Radial Recovery = 99.99%								
As 188.979†	1631.4	500.54	µg/L	1.508	500.54	ppb	1.508	0.30%
QC value within limits for As 188.979 Recovery = 100.11%								
B 249.677†	33165.3	487.41	µg/L	2.247	487.41	ppb	2.247	0.46%
QC value within limits for B 249.677 Recovery = 97.48%								
Ba 233.527†	122056.8	492.25	µg/L	0.460	492.25	ppb	0.460	0.09%
QC value within limits for Ba 233.527 Recovery = 98.45%								
Be 313.107†	1817419.4	494.99	µg/L	0.769	494.99	ppb	0.769	0.16%
QC value within limits for Be 313.107 Recovery = 99.00%								
Ca 317.933Radial†	89637.6	4993.2	µg/L	4.72	4993.2	ppb	4.72	0.09%
QC value within limits for Ca 317.933Radial Recovery = 99.86%								
Cd 226.502†	78831.0	492.10	µg/L	1.368	492.10	ppb	1.368	0.28%
QC value within limits for Cd 226.502 Recovery = 98.42%								
Co 228.616†	40114.4	495.21	µg/L	1.376	495.21	ppb	1.376	0.28%
QC value within limits for Co 228.616 Recovery = 99.04%								
Cr 267.716†	62562.6	489.86	µg/L	0.907	489.86	ppb	0.907	0.19%
QC value within limits for Cr 267.716 Recovery = 97.97%								
Cu 324.752†	125722.1	490.10	µg/L	1.288	490.10	ppb	1.288	0.26%
QC value within limits for Cu 324.752 Recovery = 98.02%								
Fe 238.204 Radial†	80362.2	4953.0	µg/L	8.02	4953.0	ppb	8.02	0.16%
QC value within limits for Fe 238.204 Radial Recovery = 99.06%								
K 766.490 Radial†	13872.7	5074.9	µg/L	26.88	5074.9	ppb	26.88	0.53%
QC value within limits for K 766.490 Radial Recovery = 101.50%								
Mg 279.077 IEC†	13612.7	5079.7	µg/L	2.74	5079.7	ppb	2.74	0.05%
QC value within limits for Mg 279.077 IEC Recovery = 101.59%								
Mn 257.610†	400166.4	494.91	µg/L	0.838	494.91	ppb	0.838	0.17%
QC value within limits for Mn 257.610 Recovery = 98.98%								
Mo 202.031†	16750.3	492.72	µg/L	2.861	492.72	ppb	2.861	0.58%
QC value within limits for Mo 202.031 Recovery = 98.54%								
Na 589.592 Radial†	72336.0	9877.5	µg/L	5.51	9877.5	ppb	5.51	0.06%

```
   QC value within limits for Na 589.592 Radial  Recovery = 98.77%
Ni 231.604†            42774.0      492.51 µg/L         1.044      492.51 ppb          1.044   0.21%
   QC value within limits for Ni 231.604  Recovery = 98.50%
P 214.914†             11541.7      2460.1 µg/L         21.83      2460.1 ppb          21.83   0.89%
   QC value within limits for P 214.914  Recovery = 98.40%
Pb 220.353†             8888.5      497.74 µg/L         3.356      497.74 ppb          3.356   0.67%
   QC value within limits for Pb 220.353  Recovery = 99.55%
S 181.975 Axial†        1334.2      994.90 µg/L         8.662      994.90 ppb          8.662   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 99.49%
Sb 206.836†             4155.3      495.12 µg/L         2.767      495.12 ppb          2.767   0.56%
   QC value within limits for Sb 206.836  Recovery = 99.02%
Se 196.026†             1370.9         498 µg/L           4.2         498 ppb            4.2   0.85%
   QC value within limits for Se 196.026  Recovery = 99.56%
SiO2†                  54649.4      5320.4 µg/L         29.56      5320.4 ppb          29.56   0.56%
   QC value within limits for SiO2  Recovery = 99.49%
Si 251.611†           169638.9      2491.1 µg/L          9.08      2491.1 ppb           9.08   0.36%
   QC value within limits for Si 251.611  Recovery = 99.65%
Sn 189.927†             7927.7      495.87 µg/L         3.802      495.87 ppb          3.802   0.77%
   QC value within limits for Sn 189.927  Recovery = 99.17%
Sr 421.552†           239676.8      498.23 µg/L         4.551      498.23 ppb          4.551   0.91%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           527543.7      492.23 µg/L         0.293      492.23 ppb          0.293   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.45%
Tl 190.801†             4025.5      501.99 µg/L         2.440      501.99 ppb          2.440   0.49%
   QC value within limits for Tl 190.801  Recovery = 100.40%
U 409.014†              7717.2      481.05 µg/L         2.502      481.05 ppb          2.502   0.52%
   QC value within limits for U 409.014  Recovery = 96.21%
V 292.402†            100025.5      494.48 µg/L         0.691      494.48 ppb          0.691   0.14%
   QC value within limits for V 292.402  Recovery = 98.90%
Zn 213.857†            87836.2      489.55 µg/L         1.301      489.55 ppb          1.301   0.27%
   QC value within limits for Zn 213.857  Recovery = 97.91%
All analyte(s) passed QC.
```

Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/31/2010 19:08:04**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143606.3	143606.3	98.4	%			19:08:33
1	Al 396.153Radial†	-40.6	21.9	4.0709	µg/L	4.0709	ppb	19:08:53
1	Ca 317.933Radial†	593.8	42.8	2.3863	µg/L	2.3863	ppb	19:08:53
1	Fe 238.204 Radial†	181.2	36.0	2.2211	µg/L	2.2211	ppb	19:08:53
1	K 766.490 Radial†	1807.5	291.9	106.87	µg/L	106.87	ppb	19:08:33
1	Mg 279.077 IEC†	167.1	-20.9	-7.7799	µg/L	-7.7799	ppb	19:08:53
1	Na 589.592 Radial†	1829.3	568.1	77.508	µg/L	77.508	ppb	19:08:33
1	Sr 421.552†	-159.2	-26.5	-0.0550	µg/L	-0.0550	ppb	19:08:33
1	Sc 361.383	1699498.0	1699498.0	98.911	%			19:09:55
1	Y 371.029	1016806.2	1016806.2	99.037	%			19:09:55
1	Ag 328.068†	3769.0	-280.8	-1.0378	µg/L	-1.0378	ppb	19:09:57
1	As 188.979†	-4.4	15.9	4.8042	µg/L	4.8042	ppb	19:10:17
1	B 249.677†	3588.4	122.0	1.7978	µg/L	1.7978	ppb	19:09:57
1	Ba 233.527†	-115.2	19.4	0.0783	µg/L	0.0783	ppb	19:10:17
1	Be 313.107†	-954.3	99.8	0.0273	µg/L	0.0273	ppb	19:09:57
1	Cd 226.502†	-91.5	25.7	0.1602	µg/L	0.1602	ppb	19:10:17
1	Co 228.616†	-158.7	29.9	0.3690	µg/L	0.3690	ppb	19:10:17
1	Cr 267.716†	173.6	-3.0	-0.0236	µg/L	-0.0236	ppb	19:10:17
1	Cu 324.752†	3195.6	258.6	1.0054	µg/L	1.0054	ppb	19:09:57
1	Mn 257.610†	286.5	52.4	0.0651	µg/L	0.0651	ppb	19:10:17
1	Mo 202.031†	-26.1	-6.3	-0.1854	µg/L	-0.1854	ppb	19:10:17
1	Ni 231.604†	-117.6	-42.4	-0.4885	µg/L	-0.4885	ppb	19:10:17
1	P 214.914†	-30.3	-12.6	-2.7014	µg/L	-2.7014	ppb	19:10:17
1	Pb 220.353†	88.8	3.4	0.1879	µg/L	0.1879	ppb	19:10:17
1	S 181.975 Axial†	97.0	-6.9	-5.1546	µg/L	-5.1546	ppb	19:10:17
1	Sb 206.836†	72.1	-8.0	-0.9474	µg/L	-0.9474	ppb	19:10:17
1	Se 196.026†	15.9	0.8	0.281	µg/L	0.281	ppb	19:10:17
1	SiO2†	1782.8	27.1	2.6348	µg/L	2.6348	ppb	19:09:57
1	Si 251.611†	842.6	15.3	0.2204	µg/L	0.2204	ppb	19:09:57
1	Sn 189.927†	17.4	18.7	1.1657	µg/L	1.1657	ppb	19:10:17
1	Ti 334.940†	982.6	40.9	0.0388	µg/L	0.0388	ppb	19:09:57
1	Tl 190.801†	-115.4	-0.0	-0.0031	µg/L	-0.0031	ppb	19:10:17
1	U 409.014†	-263.1	3.9	0.2381	µg/L	0.2381	ppb	19:09:57
1	V 292.402†	432.1	33.1	0.1592	µg/L	0.1592	ppb	19:09:57
1	Zn 213.857†	662.7	105.6	0.5956	µg/L	0.5956	ppb	19:10:17
2	Sc RADIAL	143906.0	143906.0	98.6	%			19:08:55
2	Al 396.153Radial†	-30.9	31.9	5.9210	µg/L	5.9210	ppb	19:09:15
2	Ca 317.933Radial†	576.5	24.0	1.3374	µg/L	1.3374	ppb	19:09:15
2	Fe 238.204 Radial†	194.8	49.4	3.0451	µg/L	3.0451	ppb	19:09:15
2	K 766.490 Radial†	1821.8	302.6	110.79	µg/L	110.79	ppb	19:08:55
2	Mg 279.077 IEC†	181.6	-6.5	-2.4285	µg/L	-2.4285	ppb	19:09:15
2	Na 589.592 Radial†	1674.8	407.6	55.585	µg/L	55.585	ppb	19:08:55
2	Sr 421.552†	-76.3	57.9	0.1204	µg/L	0.1204	ppb	19:08:55
2	Sc 361.383	1701303.0	1701303.0	99.016	%			19:10:20
2	Y 371.029	1018421.2	1018421.2	99.195	%			19:10:20
2	Ag 328.068†	4174.8	124.9	0.4507	µg/L	0.4507	ppb	19:10:22
2	As 188.979†	-9.4	10.9	3.3020	µg/L	3.3020	ppb	19:10:42
2	B 249.677†	3516.0	45.1	0.6647	µg/L	0.6647	ppb	19:10:22
2	Ba 233.527†	-149.1	-14.7	-0.0595	µg/L	-0.0595	ppb	19:10:42
2	Be 313.107†	-839.9	216.4	0.0569	µg/L	0.0569	ppb	19:10:22
2	Cd 226.502†	-102.1	15.1	0.0939	µg/L	0.0939	ppb	19:10:42
2	Co 228.616†	-188.6	-0.1	-0.0019	µg/L	-0.0019	ppb	19:10:42
2	Cr 267.716†	211.4	34.9	0.2788	µg/L	0.2788	ppb	19:10:42
2	Cu 324.752†	2916.8	-26.4	-0.1080	µg/L	-0.1080	ppb	19:10:22
2	Mn 257.610†	284.4	50.0	0.0619	µg/L	0.0619	ppb	19:10:42
2	Mo 202.031†	-25.0	-5.2	-0.1530	µg/L	-0.1530	ppb	19:10:42
2	Ni 231.604†	-103.9	-28.5	-0.3278	µg/L	-0.3278	ppb	19:10:42
2	P 214.914†	-33.0	-15.3	-3.2711	µg/L	-3.2711	ppb	19:10:42
2	Pb 220.353†	114.7	29.5	1.6503	µg/L	1.6503	ppb	19:10:42

2	S 181.975 Axial†	99.7	-4.4	-3.2387 µg/L	-3.2387 ppb	19:10:42
2	Sb 206.836†	76.2	-3.9	-0.4635 µg/L	-0.4635 ppb	19:10:42
2	Se 196.026†	16.5	1.4	0.491 µg/L	0.491 ppb	19:10:42
2	SiO2†	1763.9	6.1	0.5919 µg/L	0.5919 ppb	19:10:22
2	Si 251.611†	911.5	84.0	1.2359 µg/L	1.2359 ppb	19:10:22
2	Sn 189.927†	8.3	9.5	0.5950 µg/L	0.5950 ppb	19:10:42
2	Ti 334.940†	886.7	-57.0	-0.0503 µg/L	-0.0503 ppb	19:10:22
2	Tl 190.801†	-114.1	1.5	0.1759 µg/L	0.1759 ppb	19:10:42
2	U 409.014†	-383.3	-117.2	-6.8703 µg/L	-6.8703 ppb	19:10:22
2	V 292.402†	344.9	-55.5	-0.2761 µg/L	-0.2761 ppb	19:10:22
2	Zn 213.857†	648.7	90.7	0.5114 µg/L	0.5114 ppb	19:10:42
3	Sc RADIAL	142315.2	142315.2	97.5 %		19:09:17
3	Al 396.153Radial†	-52.2	9.6	1.7667 µg/L	1.7667 ppb	19:09:37
3	Ca 317.933Radial†	577.3	31.3	1.7458 µg/L	1.7458 ppb	19:09:37
3	Fe 238.204 Radial†	193.7	50.5	3.1105 µg/L	3.1105 ppb	19:09:37
3	K 766.490 Radial†	1715.2	213.9	78.318 µg/L	78.318 ppb	19:09:17
3	Mg 279.077 IEC†	194.2	8.4	3.1563 µg/L	3.1563 ppb	19:09:37
3	Na 589.592 Radial†	1682.9	434.8	59.332 µg/L	59.332 ppb	19:09:17
3	Sr 421.552†	-204.0	-73.9	-0.1537 µg/L	-0.1537 ppb	19:09:17
3	Sc 361.383	1707432.2	1707432.2	99.372 %		19:10:44
3	Y 371.029	1021900.0	1021900.0	99.534 %		19:10:44
3	Ag 328.068†	4053.2	-12.6	-0.0528 µg/L	-0.0528 ppb	19:10:46
3	As 188.979†	-2.3	18.1	5.4690 µg/L	5.4690 ppb	19:11:06
3	B 249.677†	3514.8	31.1	0.4591 µg/L	0.4591 ppb	19:10:46
3	Ba 233.527†	-138.9	-3.9	-0.0159 µg/L	-0.0159 ppb	19:11:06
3	Be 313.107†	-1076.7	-18.8	-0.0056 µg/L	-0.0056 ppb	19:10:46
3	Cd 226.502†	-100.3	17.3	0.1074 µg/L	0.1074 ppb	19:11:06
3	Co 228.616†	-200.8	-11.7	-0.1450 µg/L	-0.1450 ppb	19:11:06
3	Cr 267.716†	180.7	3.3	0.0269 µg/L	0.0269 ppb	19:11:06
3	Cu 324.752†	3029.2	76.1	0.2948 µg/L	0.2948 ppb	19:10:46
3	Mn 257.610†	296.9	61.5	0.0760 µg/L	0.0760 ppb	19:11:06
3	Mo 202.031†	-3.7	16.3	0.4802 µg/L	0.4802 ppb	19:11:06
3	Ni 231.604†	-90.5	-14.6	-0.1676 µg/L	-0.1676 ppb	19:11:06
3	P 214.914†	-14.2	3.7	0.7799 µg/L	0.7799 ppb	19:11:06
3	Pb 220.353†	92.0	6.2	0.3485 µg/L	0.3485 ppb	19:11:06
3	S 181.975 Axial†	108.0	3.6	2.6796 µg/L	2.6796 ppb	19:11:06
3	Sb 206.836†	87.9	7.6	0.9107 µg/L	0.9107 ppb	19:11:06
3	Se 196.026†	15.0	-0.2	-0.060 µg/L	-0.060 ppb	19:11:06
3	SiO2†	1735.7	-28.7	-2.8190 µg/L	-2.8190 ppb	19:10:46
3	Si 251.611†	790.1	-41.5	-0.6182 µg/L	-0.6182 ppb	19:10:46
3	Sn 189.927†	-1.2	-0.1	-0.0053 µg/L	-0.0053 ppb	19:11:06
3	Ti 334.940†	766.5	-181.2	-0.1688 µg/L	-0.1688 ppb	19:10:46
3	Tl 190.801†	-101.0	15.0	1.8436 µg/L	1.8436 ppb	19:11:06
3	U 409.014†	-295.6	-27.6	-1.6324 µg/L	-1.6324 ppb	19:10:46
3	V 292.402†	332.8	-68.9	-0.3322 µg/L	-0.3322 ppb	19:10:46
3	Zn 213.857†	625.3	64.8	0.3648 µg/L	0.3648 ppb	19:11:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1702744.4	99.099	%	0.2420				0.24%
Sc RADIAL	143275.8	98.2	%	0.58				0.59%
Y 371.029	1019042.5	99.255	%	0.2535				0.26%
Ag 328.068†	-56.2	-0.2133	µg/L	0.75716	-0.2133	ppb	0.75716	354.96%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	21.2	3.9195	µg/L	2.08128	3.9195	ppb	2.08128	53.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	15.0	4.5251	µg/L	1.11017	4.5251	ppb	1.11017	24.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	66.0	0.9738	µg/L	0.72094	0.9738	ppb	0.72094	74.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.3	0.0009	µg/L	0.07043	0.0009	ppb	0.07043	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	99.2	0.0262	µg/L	0.03124	0.0262	ppb	0.03124	119.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	32.7	1.8232	µg/L	0.52869	1.8232	ppb	0.52869	29.00%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.4	0.1205	µg/L	0.03504	0.1205	ppb	0.03504	29.08%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.0	0.0740	µg/L	0.26530	0.0740	ppb	0.26530	358.50%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              11.7      0.0940 µg/L       0.16198      0.0940 ppb        0.16198 172.24%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             102.8      0.3974 µg/L       0.56376      0.3974 ppb        0.56376 141.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       45.3      2.7923 µg/L       0.49571      2.7923 ppb        0.49571  17.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       269.5     98.660 µg/L       17.7254     98.660 ppb        17.7254  17.97%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -6.3     -2.3507 µg/L       5.46855     -2.3507 ppb        5.46855 232.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              54.6      0.0677 µg/L       0.00738      0.0677 ppb        0.00738  10.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.6      0.0473 µg/L       0.37526      0.0473 ppb        0.37526 793.90%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      470.2     64.142 µg/L       11.7262     64.142 ppb        11.7262  18.28%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -28.5     -0.3280 µg/L       0.16046     -0.3280 ppb        0.16046  48.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.1     -1.7309 µg/L       2.19296     -1.7309 ppb        2.19296 126.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              13.0      0.7289 µg/L       0.80200      0.7289 ppb        0.80200 110.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.6     -1.9046 µg/L       4.08395     -1.9046 ppb        4.08395 214.43%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.4     -0.1667 µg/L       0.96394     -0.1667 ppb        0.96394 578.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.7       0.238 µg/L        0.2782       0.238 ppb         0.2782 117.02%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     1.5      0.1359 µg/L       2.75534      0.1359 ppb        2.75534 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              19.3      0.2794 µg/L       0.92845      0.2794 ppb        0.92845 332.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.4      0.5851 µg/L       0.58554      0.5851 ppb        0.58554 100.07%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -14.1     -0.0294 µg/L       0.13885     -0.0294 ppb        0.13885 471.87%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -65.8     -0.0601 µg/L       0.10414     -0.0601 ppb        0.10414 173.25%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.5      0.6721 µg/L       1.01847      0.6721 ppb        1.01847 151.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -47.0     -2.7549 µg/L       3.68475     -2.7549 ppb        3.68475 133.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -30.4     -0.1497 µg/L       0.26898     -0.1497 ppb        0.26898 179.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              87.0      0.4906 µg/L       0.11682      0.4906 ppb        0.11682  23.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/31/2010 19:27:41**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	144745.8	144745.8	99.2	%			19:28:15
1	Al 396.153Radial†	26764.4	27046.5	4991.6	µg/L	4991.6	ppb	19:28:15
1	Ca 317.933Radial†	89467.8	89639.1	4993.2	µg/L	4993.2	ppb	19:28:15
1	Fe 238.204 Radial†	79722.2	80226.2	4944.7	µg/L	4944.7	ppb	19:28:15
1	K 766.490 Radial†	14982.5	13560.3	4960.6	µg/L	4960.6	ppb	19:28:15
1	Mg 279.077 IEC†	13759.9	13681.8	5105.4	µg/L	5105.4	ppb	19:28:15
1	Na 589.592 Radial†	72591.2	71894.2	9817.2	µg/L	9817.2	ppb	19:28:15
1	Sr 421.552†	234529.9	236583.6	491.80	µg/L	491.80	ppb	19:28:12
1	Sc 361.383	1725305.4	1725305.4	100.41	%			19:28:27
1	Y 371.029	1020728.0	1020728.0	99.419	%			19:28:27
1	Ag 328.068†	136300.1	131648.8	493.59	µg/L	493.59	ppb	19:28:27
1	As 188.979†	1633.4	1647.0	505.23	µg/L	505.23	ppb	19:28:47
1	B 249.677†	36849.8	33192.5	487.82	µg/L	487.82	ppb	19:28:27
1	Ba 233.527†	122221.5	121855.2	491.44	µg/L	491.44	ppb	19:28:27
1	Be 313.107†	1820741.4	1814326.2	494.14	µg/L	494.14	ppb	19:28:27
1	Cd 226.502†	78844.9	78639.2	490.90	µg/L	490.90	ppb	19:28:27
1	Co 228.616†	39847.3	39874.0	492.24	µg/L	492.24	ppb	19:28:27
1	Cr 267.716†	62843.9	62407.1	488.65	µg/L	488.65	ppb	19:28:27
1	Cu 324.752†	129009.2	125507.0	489.26	µg/L	489.26	ppb	19:28:27
1	Mn 257.610†	401352.4	399466.3	494.04	µg/L	494.04	ppb	19:28:27
1	Mo 202.031†	16754.7	16705.9	491.42	µg/L	491.42	ppb	19:28:47
1	Ni 231.604†	42787.5	42688.2	491.52	µg/L	491.52	ppb	19:28:27
1	P 214.914†	11575.7	11546.1	2461.1	µg/L	2461.1	ppb	19:28:47
1	Pb 220.353†	8987.5	8864.2	496.39	µg/L	496.39	ppb	19:28:47
1	S 181.975 Axial†	1425.3	1314.4	980.21	µg/L	980.21	ppb	19:28:47
1	Sb 206.836†	4236.7	4138.5	493.11	µg/L	493.11	ppb	19:28:47
1	Se 196.026†	1383.3	1362.3	495	µg/L	495	ppb	19:28:47
1	SiO2†	56481.4	54474.0	5303.3	µg/L	5303.3	ppb	19:28:27
1	Si 251.611†	170572.5	169035.2	2482.3	µg/L	2482.3	ppb	19:28:27
1	Sn 189.927†	7932.0	7900.5	494.17	µg/L	494.17	ppb	19:28:47
1	Ti 334.940†	529379.1	526251.8	491.03	µg/L	491.03	ppb	19:28:27
1	Tl 190.801†	3920.2	4020.8	501.40	µg/L	501.40	ppb	19:28:47
1	U 409.014†	7328.3	7568.1	472.22	µg/L	472.22	ppb	19:28:27
1	V 292.402†	100463.2	99646.7	492.61	µg/L	492.61	ppb	19:28:27
1	Zn 213.857†	88617.6	87689.1	488.73	µg/L	488.73	ppb	19:28:27
2	Sc RADIAL	143128.0	143128.0	98.1	%			19:28:19
2	Al 396.153Radial†	26390.4	26970.3	4977.5	µg/L	4977.5	ppb	19:28:19
2	Ca 317.933Radial†	88547.9	89720.6	4997.8	µg/L	4997.8	ppb	19:28:19
2	Fe 238.204 Radial†	78967.6	80365.3	4953.2	µg/L	4953.2	ppb	19:28:19
2	K 766.490 Radial†	14857.2	13603.3	4976.3	µg/L	4976.3	ppb	19:28:19
2	Mg 279.077 IEC†	13593.0	13668.4	5100.4	µg/L	5100.4	ppb	19:28:19
2	Na 589.592 Radial†	71676.1	71788.4	9802.7	µg/L	9802.7	ppb	19:28:19
2	Sr 421.552†	234348.1	239070.9	496.98	µg/L	496.98	ppb	19:28:17
2	Sc 361.383	1734628.6	1734628.6	100.96	%			19:28:51
2	Y 371.029	1025716.4	1025716.4	99.905	%			19:28:51
2	Ag 328.068†	136816.4	131430.6	492.82	µg/L	492.82	ppb	19:28:51
2	As 188.979†	1631.9	1636.9	502.17	µg/L	502.17	ppb	19:29:11
2	B 249.677†	37069.7	33213.1	488.12	µg/L	488.12	ppb	19:28:51
2	Ba 233.527†	122992.1	121964.3	491.88	µg/L	491.88	ppb	19:28:51
2	Be 313.107†	1838526.2	1822196.9	496.29	µg/L	496.29	ppb	19:28:51
2	Cd 226.502†	79892.7	79255.0	494.75	µg/L	494.75	ppb	19:28:51
2	Co 228.616†	40292.1	40101.3	495.05	µg/L	495.05	ppb	19:28:51
2	Cr 267.716†	63389.6	62611.4	490.23	µg/L	490.23	ppb	19:28:51
2	Cu 324.752†	129959.6	125757.9	490.25	µg/L	490.25	ppb	19:28:51
2	Mn 257.610†	404701.1	400635.0	495.49	µg/L	495.49	ppb	19:28:51
2	Mo 202.031†	16826.1	16687.0	490.86	µg/L	490.86	ppb	19:29:11
2	Ni 231.604†	43211.3	42879.0	493.72	µg/L	493.72	ppb	19:28:51
2	P 214.914†	11647.2	11554.9	2462.9	µg/L	2462.9	ppb	19:29:11
2	Pb 220.353†	9025.0	8853.2	495.76	µg/L	495.76	ppb	19:29:11

2	S 181.975 Axial†	1448.9	1330.1	991.87 µg/L	991.87 ppb	19:29:11
2	Sb 206.836†	4260.0	4138.9	493.13 µg/L	493.13 ppb	19:29:11
2	Se 196.026†	1384.1	1355.7	492 µg/L	492 ppb	19:29:11
2	SiO2†	56922.3	54608.4	5316.4 µg/L	5316.4 ppb	19:28:51
2	Si 251.611†	172250.5	169784.3	2493.3 µg/L	2493.3 ppb	19:28:51
2	Sn 189.927†	7982.8	7908.4	494.67 µg/L	494.67 ppb	19:29:11
2	Ti 334.940†	533116.5	527120.2	491.83 µg/L	491.83 ppb	19:28:51
2	Tl 190.801†	3941.1	4020.5	501.37 µg/L	501.37 ppb	19:29:11
2	U 409.014†	7625.6	7823.4	487.25 µg/L	487.25 ppb	19:28:51
2	V 292.402†	101346.4	99983.8	494.26 µg/L	494.26 ppb	19:28:51
2	Zn 213.857†	89423.9	88013.5	490.54 µg/L	490.54 ppb	19:28:51
3	Sc RADIAL	145496.7	145496.7	99.7 %		19:28:23
3	Al 396.153Radial†	26858.9	27002.0	4983.3 µg/L	4983.3 ppb	19:28:23
3	Ca 317.933Radial†	90156.6	89864.4	5005.8 µg/L	5005.8 ppb	19:28:23
3	Fe 238.204 Radial†	80315.1	80406.1	4955.7 µg/L	4955.7 ppb	19:28:23
3	K 766.490 Radial†	15083.0	13583.2	4968.9 µg/L	4968.9 ppb	19:28:23
3	Mg 279.077 IEC†	13878.0	13728.6	5122.9 µg/L	5122.9 ppb	19:28:23
3	Na 589.592 Radial†	72879.8	71805.9	9805.1 µg/L	9805.1 ppb	19:28:23
3	Sr 421.552†	234221.7	235054.0	488.62 µg/L	488.62 ppb	19:28:21
3	Sc 361.383	1725210.5	1725210.5	100.41 %		19:29:14
3	Y 371.029	1019973.4	1019973.4	99.346 %		19:29:14
3	Ag 328.068†	135997.1	131354.5	492.51 µg/L	492.51 ppb	19:29:14
3	As 188.979†	1616.1	1629.9	500.07 µg/L	500.07 ppb	19:29:34
3	B 249.677†	36719.7	33065.0	485.94 µg/L	485.94 ppb	19:29:14
3	Ba 233.527†	122082.7	121723.7	490.91 µg/L	490.91 ppb	19:29:14
3	Be 313.107†	1823924.9	1817596.6	495.03 µg/L	495.03 ppb	19:29:14
3	Cd 226.502†	79138.6	78936.0	492.75 µg/L	492.75 ppb	19:29:14
3	Co 228.616†	39917.6	39946.1	493.13 µg/L	493.13 ppb	19:29:14
3	Cr 267.716†	63023.3	62589.2	490.08 µg/L	490.08 ppb	19:29:14
3	Cu 324.752†	129255.3	125759.2	490.24 µg/L	490.24 ppb	19:29:14
3	Mn 257.610†	401870.3	400004.1	494.71 µg/L	494.71 ppb	19:29:14
3	Mo 202.031†	16781.3	16733.4	492.23 µg/L	492.23 ppb	19:29:34
3	Ni 231.604†	42953.4	42855.8	493.45 µg/L	493.45 ppb	19:29:14
3	P 214.914†	11608.1	11579.0	2468.1 µg/L	2468.1 ppb	19:29:34
3	Pb 220.353†	9009.0	8886.1	497.61 µg/L	497.61 ppb	19:29:34
3	S 181.975 Axial†	1440.9	1330.0	991.78 µg/L	991.78 ppb	19:29:34
3	Sb 206.836†	4230.2	4132.2	492.36 µg/L	492.36 ppb	19:29:34
3	Se 196.026†	1386.3	1365.4	496 µg/L	496 ppb	19:29:34
3	SiO2†	56734.1	54728.8	5328.1 µg/L	5328.1 ppb	19:29:14
3	Si 251.611†	171053.5	169523.6	2489.4 µg/L	2489.4 ppb	19:29:14
3	Sn 189.927†	7957.3	7926.1	495.77 µg/L	495.77 ppb	19:29:34
3	Ti 334.940†	529976.9	526876.1	491.61 µg/L	491.61 ppb	19:29:14
3	Tl 190.801†	3905.9	4006.8	499.68 µg/L	499.68 ppb	19:29:34
3	U 409.014†	7243.0	7483.6	467.35 µg/L	467.35 ppb	19:29:14
3	V 292.402†	100691.8	99879.9	493.76 µg/L	493.76 ppb	19:29:14
3	Zn 213.857†	88689.8	87765.9	489.15 µg/L	489.15 ppb	19:29:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1728381.5	100.59	%	0.315				0.31%
Sc RADIAL	144456.8	99.0	%	0.83				0.84%
Y 371.029	1022139.3	99.557	%	0.3040				0.31%
Ag 328.068†	131478.0	492.97	µg/L	0.557	492.97	ppb	0.557	0.11%
QC value within limits for Ag 328.068 Recovery = 98.59%								
Al 396.153Radial†	27006.3	4984.1	µg/L	7.09	4984.1	ppb	7.09	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.68%								
As 188.979†	1637.9	502.49	µg/L	2.596	502.49	ppb	2.596	0.52%
QC value within limits for As 188.979 Recovery = 100.50%								
B 249.677†	33156.9	487.29	µg/L	1.181	487.29	ppb	1.181	0.24%
QC value within limits for B 249.677 Recovery = 97.46%								
Ba 233.527†	121847.7	491.41	µg/L	0.486	491.41	ppb	0.486	0.10%
QC value within limits for Ba 233.527 Recovery = 98.28%								
Be 313.107†	1818039.9	495.15	µg/L	1.079	495.15	ppb	1.079	0.22%
QC value within limits for Be 313.107 Recovery = 99.03%								
Ca 317.933Radial†	89741.4	4998.9	µg/L	6.35	4998.9	ppb	6.35	0.13%
QC value within limits for Ca 317.933Radial Recovery = 99.98%								
Cd 226.502†	78943.4	492.80	µg/L	1.924	492.80	ppb	1.924	0.39%
QC value within limits for Cd 226.502 Recovery = 98.56%								
Co 228.616†	39973.8	493.47	µg/L	1.433	493.47	ppb	1.433	0.29%

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   QC value within limits for Co 228.616  Recovery = 98.69%
Cr 267.716†            62535.9      489.65 µg/L        0.875      489.65 ppb          0.875   0.18%
   QC value within limits for Cr 267.716  Recovery = 97.93%
Cu 324.752†           125674.7      489.91 µg/L        0.568      489.91 ppb          0.568   0.12%
   QC value within limits for Cu 324.752  Recovery = 97.98%
Fe 238.204 Radial†     80332.5      4951.2 µg/L         5.81      4951.2 ppb           5.81   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.02%
K 766.490 Radial†      13582.3      4968.6 µg/L         7.88      4968.6 ppb           7.88   0.16%
   QC value within limits for K 766.490 Radial  Recovery = 99.37%
Mg 279.077 IEC†        13692.9      5109.5 µg/L        11.80      5109.5 ppb          11.80   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.19%
Mn 257.610†           400035.1      494.75 µg/L        0.724      494.75 ppb          0.724   0.15%
   QC value within limits for Mn 257.610  Recovery = 98.95%
Mo 202.031†            16708.8      491.50 µg/L        0.686      491.50 ppb          0.686   0.14%
   QC value within limits for Mo 202.031  Recovery = 98.30%
Na 589.592 Radial†     71829.5      9808.4 µg/L         7.75      9808.4 ppb           7.75   0.08%
   QC value within limits for Na 589.592 Radial  Recovery = 98.08%
Ni 231.604†            42807.7      492.90 µg/L        1.199      492.90 ppb          1.199   0.24%
   QC value within limits for Ni 231.604  Recovery = 98.58%
P 214.914†             11560.0      2464.0 µg/L         3.63      2464.0 ppb           3.63   0.15%
   QC value within limits for P 214.914  Recovery = 98.56%
Pb 220.353†             8867.8      496.59 µg/L        0.942      496.59 ppb          0.942   0.19%
   QC value within limits for Pb 220.353  Recovery = 99.32%
S 181.975 Axial†        1324.9      987.95 µg/L        6.702      987.95 ppb          6.702   0.68%
   QC value within limits for S 181.975 Axial  Recovery = 98.80%
Sb 206.836†             4136.5      492.87 µg/L        0.436      492.87 ppb          0.436   0.09%
   QC value within limits for Sb 206.836  Recovery = 98.57%
Se 196.026†             1361.2         494 µg/L          1.8         494 ppb            1.8   0.36%
   QC value within limits for Se 196.026  Recovery = 98.85%
SiO2†                  54603.7      5315.9 µg/L        12.44      5315.9 ppb          12.44   0.23%
   QC value within limits for SiO2  Recovery = 99.41%
Si 251.611†           169447.7      2488.3 µg/L         5.61      2488.3 ppb           5.61   0.23%
   QC value within limits for Si 251.611  Recovery = 99.53%
Sn 189.927†             7911.7      494.87 µg/L        0.819      494.87 ppb          0.819   0.17%
   QC value within limits for Sn 189.927  Recovery = 98.97%
Sr 421.552†           236902.8      492.47 µg/L        4.215      492.47 ppb          4.215   0.86%
   QC value within limits for Sr 421.552  Recovery = 98.49%
Ti 334.940†           526749.4      491.49 µg/L        0.416      491.49 ppb          0.416   0.08%
   QC value within limits for Ti 334.940  Recovery = 98.30%
Tl 190.801†             4016.0      500.82 µg/L        0.981      500.82 ppb          0.981   0.20%
   QC value within limits for Tl 190.801  Recovery = 100.16%
U 409.014†              7625.0      475.61 µg/L       10.374      475.61 ppb         10.374   2.18%
   QC value within limits for U 409.014  Recovery = 95.12%
V 292.402†             99836.8      493.54 µg/L        0.847      493.54 ppb          0.847   0.17%
   QC value within limits for V 292.402  Recovery = 98.71%
Zn 213.857†            87822.9      489.47 µg/L        0.946      489.47 ppb          0.946   0.19%
   QC value within limits for Zn 213.857  Recovery = 97.89%
All analyte(s) passed QC.
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Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:29:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145475.6	145475.6	99.7	%			19:30:11
1	Al 396.153Radial†	-75.1	-12.2	-2.2232	µg/L	-2.2232	ppb	19:30:31
1	Ca 317.933Radial†	587.7	29.0	1.6154	µg/L	1.6154	ppb	19:30:31
1	Fe 238.204 Radial†	164.7	17.2	1.0571	µg/L	1.0571	ppb	19:30:31
1	K 766.490 Radial†	1612.2	72.5	26.524	µg/L	26.524	ppb	19:30:11
1	Mg 279.077 IEC†	187.3	-2.8	-1.0689	µg/L	-1.0689	ppb	19:30:31
1	Na 589.592 Radial†	1489.8	203.6	27.794	µg/L	27.794	ppb	19:30:11
1	Sr 421.552†	-307.3	-173.0	-0.3597	µg/L	-0.3597	ppb	19:30:11
1	Sc 361.383	1698492.9	1698492.9	98.852	%			19:31:33
1	Y 371.029	1016683.6	1016683.6	99.025	%			19:31:33
1	Ag 328.068†	3801.1	-246.1	-0.8975	µg/L	-0.8975	ppb	19:31:35
1	As 188.979†	-17.7	2.5	0.7531	µg/L	0.7531	ppb	19:31:55
1	B 249.677†	3427.3	-38.8	-0.5719	µg/L	-0.5719	ppb	19:31:35
1	Ba 233.527†	-135.5	-1.2	-0.0047	µg/L	-0.0047	ppb	19:31:55
1	Be 313.107†	-787.7	267.8	0.0745	µg/L	0.0745	ppb	19:31:35
1	Cd 226.502†	-126.1	-9.3	-0.0586	µg/L	-0.0586	ppb	19:31:55
1	Co 228.616†	-187.3	0.8	0.0098	µg/L	0.0098	ppb	19:31:55
1	Cr 267.716†	185.7	9.3	0.0694	µg/L	0.0694	ppb	19:31:55
1	Cu 324.752†	2920.3	-18.0	-0.0655	µg/L	-0.0655	ppb	19:31:35
1	Mn 257.610†	272.9	38.8	0.0481	µg/L	0.0481	ppb	19:31:55
1	Mo 202.031†	-42.5	-22.9	-0.6735	µg/L	-0.6735	ppb	19:31:55
1	Ni 231.604†	-89.8	-14.3	-0.1646	µg/L	-0.1646	ppb	19:31:55
1	P 214.914†	-7.3	10.6	2.2741	µg/L	2.2741	ppb	19:31:55
1	Pb 220.353†	105.5	20.3	1.1296	µg/L	1.1296	ppb	19:31:55
1	S 181.975 Axial†	107.5	3.7	2.7631	µg/L	2.7631	ppb	19:31:55
1	Sb 206.836†	82.4	2.5	0.2868	µg/L	0.2868	ppb	19:31:55
1	Se 196.026†	15.9	0.8	0.284	µg/L	0.284	ppb	19:31:55
1	SiO2†	1750.8	-4.2	-0.4021	µg/L	-0.4021	ppb	19:31:55
1	Si 251.611†	831.1	4.2	0.0667	µg/L	0.0667	ppb	19:31:35
1	Sn 189.927†	9.7	11.0	0.6833	µg/L	0.6833	ppb	19:31:55
1	Ti 334.940†	1069.9	129.8	0.1193	µg/L	0.1193	ppb	19:31:35
1	Tl 190.801†	-107.7	7.8	0.9584	µg/L	0.9584	ppb	19:31:55
1	U 409.014†	-179.0	88.9	5.2323	µg/L	5.2323	ppb	19:31:35
1	V 292.402†	528.0	130.3	0.6323	µg/L	0.6323	ppb	19:31:35
1	Zn 213.857†	590.7	33.1	0.1869	µg/L	0.1869	ppb	19:31:55
2	Sc RADIAL	144319.0	144319.0	98.9	%			19:30:33
2	Al 396.153Radial†	-78.7	-16.4	-3.0556	µg/L	-3.0556	ppb	19:30:53
2	Ca 317.933Radial†	611.2	57.5	3.2020	µg/L	3.2020	ppb	19:30:53
2	Fe 238.204 Radial†	171.3	25.1	1.5453	µg/L	1.5453	ppb	19:30:53
2	K 766.490 Radial†	1571.9	44.7	16.347	µg/L	16.347	ppb	19:30:33
2	Mg 279.077 IEC†	180.9	-7.8	-2.8873	µg/L	-2.8873	ppb	19:30:53
2	Na 589.592 Radial†	1390.8	115.6	15.771	µg/L	15.771	ppb	19:30:33
2	Sr 421.552†	-219.7	-86.8	-0.1805	µg/L	-0.1805	ppb	19:30:33
2	Sc 361.383	1734133.7	1734133.7	100.93	%			19:31:58
2	Y 371.029	1037702.6	1037702.6	101.07	%			19:31:58
2	Ag 328.068†	3823.7	-302.8	-1.1204	µg/L	-1.1204	ppb	19:32:00
2	As 188.979†	-14.9	5.6	1.6918	µg/L	1.6918	ppb	19:32:20
2	B 249.677†	3536.1	-2.3	-0.0340	µg/L	-0.0340	ppb	19:32:00
2	Ba 233.527†	-136.5	0.6	0.0024	µg/L	0.0024	ppb	19:32:20
2	Be 313.107†	-795.6	276.4	0.0756	µg/L	0.0756	ppb	19:32:00
2	Cd 226.502†	-86.6	32.4	0.2024	µg/L	0.2024	ppb	19:32:20
2	Co 228.616†	-173.2	18.7	0.2305	µg/L	0.2305	ppb	19:32:20
2	Cr 267.716†	178.6	-1.6	-0.0131	µg/L	-0.0131	ppb	19:32:20
2	Cu 324.752†	2720.4	-276.8	-1.0746	µg/L	-1.0746	ppb	19:32:00
2	Mn 257.610†	233.8	-5.6	-0.0068	µg/L	-0.0068	ppb	19:32:20
2	Mo 202.031†	-11.0	9.2	0.2711	µg/L	0.2711	ppb	19:32:20
2	Ni 231.604†	-67.5	9.6	0.1106	µg/L	0.1106	ppb	19:32:20
2	P 214.914†	-23.6	-5.5	-1.1584	µg/L	-1.1584	ppb	19:32:20
2	Pb 220.353†	95.4	8.1	0.4532	µg/L	0.4532	ppb	19:32:20

2	S 181.975 Axial†	102.0	-4.0	-2.9595 µg/L	-2.9595 ppb	19:32:20
2	Sb 206.836†	80.5	-1.1	-0.1231 µg/L	-0.1231 ppb	19:32:20
2	Se 196.026†	11.1	-4.2	-1.53 µg/L	-1.53 ppb	19:32:20
2	SiO2†	1780.0	-11.7	-1.1573 µg/L	-1.1573 ppb	19:32:20
2	Si 251.611†	833.5	-10.8	-0.1648 µg/L	-0.1648 ppb	19:32:00
2	Sn 189.927†	4.9	6.0	0.3748 µg/L	0.3748 ppb	19:32:20
2	Ti 334.940†	959.8	-1.5	-0.0015 µg/L	-0.0015 ppb	19:32:00
2	Tl 190.801†	-121.4	-3.6	-0.4439 µg/L	-0.4439 ppb	19:32:20
2	U 409.014†	-253.2	19.1	1.1109 µg/L	1.1109 ppb	19:32:00
2	V 292.402†	396.6	-10.8	-0.0495 µg/L	-0.0495 ppb	19:32:00
2	Zn 213.857†	608.7	38.7	0.2171 µg/L	0.2171 ppb	19:32:20
3	Sc RADIAL	143412.5	143412.5	98.3 %		19:30:55
3	Al 396.153Radial†	-61.2	0.9	0.1676 µg/L	0.1676 ppb	19:31:15
3	Ca 317.933Radial†	592.5	42.3	2.3561 µg/L	2.3561 ppb	19:31:15
3	Fe 238.204 Radial†	168.4	23.2	1.4324 µg/L	1.4324 ppb	19:31:15
3	K 766.490 Radial†	1616.9	100.5	36.805 µg/L	36.805 ppb	19:30:55
3	Mg 279.077 IEC†	171.0	-16.7	-6.2040 µg/L	-6.2040 ppb	19:31:15
3	Na 589.592 Radial†	1303.8	35.9	4.8761 µg/L	4.8761 ppb	19:30:55
3	Sr 421.552†	-236.1	-105.0	-0.2183 µg/L	-0.2183 ppb	19:30:55
3	Sc 361.383	1715805.0	1715805.0	99.860 %		19:32:22
3	Y 371.029	1026242.1	1026242.1	99.956 %		19:32:22
3	Ag 328.068†	4010.0	-75.8	-0.2851 µg/L	-0.2851 ppb	19:32:24
3	As 188.979†	-13.5	6.8	2.0688 µg/L	2.0688 ppb	19:32:44
3	B 249.677†	3513.5	12.5	0.1850 µg/L	0.1850 ppb	19:32:24
3	Ba 233.527†	-128.9	6.8	0.0274 µg/L	0.0274 ppb	19:32:44
3	Be 313.107†	-697.9	365.9	0.0986 µg/L	0.0986 ppb	19:32:24
3	Cd 226.502†	-106.1	12.0	0.0747 µg/L	0.0747 ppb	19:32:44
3	Co 228.616†	-189.4	0.6	0.0078 µg/L	0.0078 ppb	19:32:44
3	Cr 267.716†	196.4	18.1	0.1446 µg/L	0.1446 ppb	19:32:44
3	Cu 324.752†	2902.2	-65.9	-0.2591 µg/L	-0.2591 ppb	19:32:24
3	Mn 257.610†	273.8	36.9	0.0459 µg/L	0.0459 ppb	19:32:44
3	Mo 202.031†	-16.2	3.9	0.1137 µg/L	0.1137 ppb	19:32:44
3	Ni 231.604†	-88.7	-12.3	-0.1412 µg/L	-0.1412 ppb	19:32:44
3	P 214.914†	-24.0	-6.1	-1.2988 µg/L	-1.2988 ppb	19:32:44
3	Pb 220.353†	103.9	17.7	0.9897 µg/L	0.9897 ppb	19:32:44
3	S 181.975 Axial†	107.4	2.5	1.8491 µg/L	1.8491 ppb	19:32:44
3	Sb 206.836†	83.4	2.7	0.3244 µg/L	0.3244 ppb	19:32:44
3	Se 196.026†	19.7	4.5	1.61 µg/L	1.61 ppb	19:32:44
3	SiO2†	1808.2	35.4	3.4538 µg/L	3.4538 ppb	19:32:44
3	Si 251.611†	977.1	141.9	2.0894 µg/L	2.0894 ppb	19:32:24
3	Sn 189.927†	2.2	3.3	0.2061 µg/L	0.2061 ppb	19:32:44
3	Ti 334.940†	999.8	48.7	0.0474 µg/L	0.0474 ppb	19:32:24
3	Tl 190.801†	-111.5	5.0	0.6198 µg/L	0.6198 ppb	19:32:44
3	U 409.014†	-328.9	-59.4	-3.4761 µg/L	-3.4761 ppb	19:32:24
3	V 292.402†	400.2	-3.0	-0.0153 µg/L	-0.0153 ppb	19:32:24
3	Zn 213.857†	599.5	35.9	0.2028 µg/L	0.2028 ppb	19:32:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716143.9	99.879	%	1.0373				1.04%
Sc RADIAL	144402.4	99.0	%	0.71				0.72%
Y 371.029	1026876.1	100.02	%	1.025				1.02%
Ag 328.068†	-208.2	-0.7677	µg/L	0.43252	-0.7677	ppb	0.43252	56.34%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.2	-1.7037	µg/L	1.67317	-1.7037	ppb	1.67317	98.21%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.0	1.5046	µg/L	0.67750	1.5046	ppb	0.67750	45.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-9.5	-0.1403	µg/L	0.38951	-0.1403	ppb	0.38951	277.57%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0084	µg/L	0.01681	0.0084	ppb	0.01681	200.54%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	303.4	0.0829	µg/L	0.01359	0.0829	ppb	0.01359	16.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	42.9	2.3912	µg/L	0.79388	2.3912	ppb	0.79388	33.20%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.7	0.0728	µg/L	0.13050	0.0728	ppb	0.13050	179.15%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.7	0.0827	µg/L	0.12800	0.0827	ppb	0.12800	154.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.6      0.0669 µg/L       0.07889      0.0669 ppb        0.07889 117.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -120.3     -0.4664 µg/L       0.53553     -0.4664 ppb        0.53553 114.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         21.8      1.3449 µg/L       0.25554      1.3449 ppb        0.25554  19.00%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          72.5      26.559 µg/L       10.2293      26.559 ppb        10.2293  38.52%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -9.1     -3.3867 µg/L       2.60377     -3.3867 ppb        2.60377  76.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                23.4      0.0291 µg/L       0.03107      0.0291 ppb        0.03107 106.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.3     -0.0962 µg/L       0.50606     -0.0962 ppb        0.50606 525.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        118.4      16.147 µg/L       11.4636      16.147 ppb        11.4636  70.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.7     -0.0651 µg/L       0.15260     -0.0651 ppb        0.15260 234.56%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.3     -0.0611 µg/L       2.02349     -0.0611 ppb        2.02349 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.4      0.8575 µg/L       0.35710      0.8575 ppb        0.35710  41.64%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.7      0.5509 µg/L       3.07426      0.5509 ppb        3.07426 558.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.4      0.1627 µg/L       0.24819      0.1627 ppb        0.24819 152.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.3       0.122 µg/L        1.5761       0.122 ppb         1.5761 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       6.5      0.6315 µg/L       2.47323      0.6315 ppb        2.47323 391.67%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                45.1      0.6638 µg/L       1.24006      0.6638 ppb        1.24006 186.82%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.8      0.4214 µg/L       0.24200      0.4214 ppb        0.24200  57.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -121.6     -0.2528 µg/L       0.09445     -0.2528 ppb        0.09445  37.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                59.0      0.0550 µg/L       0.06076      0.0550 ppb        0.06076 110.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.1      0.3781 µg/L       0.73174      0.3781 ppb        0.73174 193.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 16.2      0.9557 µg/L       4.35630      0.9557 ppb        4.35630 455.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 38.8      0.1892 µg/L       0.38415      0.1892 ppb        0.38415 203.07%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                35.9      0.2023 µg/L       0.01507      0.2023 ppb        0.01507   7.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 19:48:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142074.6	142074.6	97.4	%			19:48:41
1	Al 396.153Radial†	26307.3	27084.3	4998.9	µg/L	4998.9	ppb	19:48:41
1	Ca 317.933Radial†	86883.3	88680.2	4939.8	µg/L	4939.8	ppb	19:48:41
1	Fe 238.204 Radial†	77361.0	79312.1	4888.3	µg/L	4888.3	ppb	19:48:41
1	K 766.490 Radial†	14600.0	13451.4	4920.7	µg/L	4920.7	ppb	19:48:41
1	Mg 279.077 IEC†	13319.4	13490.1	5033.8	µg/L	5033.8	ppb	19:48:41
1	Na 589.592 Radial†	70751.2	71380.2	9747.0	µg/L	9747.0	ppb	19:48:41
1	Sr 421.552†	226373.4	232651.3	483.63	µg/L	483.63	ppb	19:48:39
1	Sc 361.383	1707292.7	1707292.7	99.364	%			19:48:54
1	Y 371.029	1010159.7	1010159.7	98.390	%			19:48:54
1	Ag 328.068†	133110.0	129870.3	486.98	µg/L	486.98	ppb	19:48:54
1	As 188.979†	1576.3	1606.7	492.97	µg/L	492.97	ppb	19:49:14
1	B 249.677†	35756.1	32479.0	477.32	µg/L	477.32	ppb	19:48:54
1	Ba 233.527†	119643.5	120545.0	486.15	µg/L	486.15	ppb	19:48:54
1	Be 313.107†	1782114.7	1794583.1	488.77	µg/L	488.77	ppb	19:48:54
1	Cd 226.502†	76871.1	77481.2	483.67	µg/L	483.67	ppb	19:48:54
1	Co 228.616†	39104.8	39545.3	488.18	µg/L	488.18	ppb	19:48:54
1	Cr 267.716†	61488.3	61703.2	483.11	µg/L	483.11	ppb	19:48:54
1	Cu 324.752†	126677.7	124516.1	485.41	µg/L	485.41	ppb	19:48:54
1	Mn 257.610†	392328.2	394601.4	488.03	µg/L	488.03	ppb	19:48:54
1	Mo 202.031†	16345.9	16470.5	484.49	µg/L	484.49	ppb	19:49:14
1	Ni 231.604†	41875.3	42219.8	486.13	µg/L	486.13	ppb	19:48:54
1	P 214.914†	11193.1	11282.7	2404.8	µg/L	2404.8	ppb	19:49:14
1	Pb 220.353†	8730.4	8699.9	487.18	µg/L	487.18	ppb	19:49:14
1	S 181.975 Axial†	1383.4	1287.2	959.96	µg/L	959.96	ppb	19:49:14
1	Sb 206.836†	4107.0	4052.4	482.84	µg/L	482.84	ppb	19:49:14
1	Se 196.026†	1342.1	1335.4	485	µg/L	485	ppb	19:49:14
1	SiO2†	55335.6	53914.4	5248.9	µg/L	5248.9	ppb	19:48:54
1	Si 251.611†	167076.9	167309.4	2457.0	µg/L	2457.0	ppb	19:48:54
1	Sn 189.927†	7693.0	7743.4	484.36	µg/L	484.36	ppb	19:49:14
1	Ti 334.940†	519233.7	521603.7	486.68	µg/L	486.68	ppb	19:48:54
1	Tl 190.801†	3814.7	3955.8	493.34	µg/L	493.34	ppb	19:49:14
1	U 409.014†	7610.9	7929.5	493.08	µg/L	493.08	ppb	19:48:54
1	V 292.402†	98525.0	98751.7	488.17	µg/L	488.17	ppb	19:48:54
1	Zn 213.857†	86407.4	86395.9	481.51	µg/L	481.51	ppb	19:48:54
2	Sc RADIAL	141314.4	141314.4	96.8	%			19:48:45
2	Al 396.153Radial†	26070.1	26984.8	4980.3	µg/L	4980.3	ppb	19:48:45
2	Ca 317.933Radial†	86198.1	88452.8	4927.2	µg/L	4927.2	ppb	19:48:45
2	Fe 238.204 Radial†	76905.6	79269.3	4885.7	µg/L	4885.7	ppb	19:48:45
2	K 766.490 Radial†	14469.9	13397.8	4901.1	µg/L	4901.1	ppb	19:48:45
2	Mg 279.077 IEC†	13056.5	13292.2	4960.2	µg/L	4960.2	ppb	19:48:45
2	Na 589.592 Radial†	70248.5	71252.1	9729.5	µg/L	9729.5	ppb	19:48:45
2	Sr 421.552†	230623.8	238291.3	495.36	µg/L	495.36	ppb	19:48:43
2	Sc 361.383	1705432.9	1705432.9	99.256	%			19:49:17
2	Y 371.029	1009468.8	1009468.8	98.323	%			19:49:17
2	Ag 328.068†	133787.0	130698.5	490.05	µg/L	490.05	ppb	19:49:17
2	As 188.979†	1570.4	1602.5	491.73	µg/L	491.73	ppb	19:49:37
2	B 249.677†	35970.0	32733.8	481.06	µg/L	481.06	ppb	19:49:17
2	Ba 233.527†	120220.9	121258.0	489.03	µg/L	489.03	ppb	19:49:17
2	Be 313.107†	1787251.2	1801714.0	490.71	µg/L	490.71	ppb	19:49:17
2	Cd 226.502†	77339.1	78037.0	487.14	µg/L	487.14	ppb	19:49:17
2	Co 228.616†	39270.6	39755.3	490.78	µg/L	490.78	ppb	19:49:17
2	Cr 267.716†	61757.1	62041.5	485.78	µg/L	485.78	ppb	19:49:17
2	Cu 324.752†	126820.0	124798.5	486.50	µg/L	486.50	ppb	19:49:17
2	Mn 257.610†	394508.1	397228.3	491.28	µg/L	491.28	ppb	19:49:17
2	Mo 202.031†	16426.8	16570.0	487.42	µg/L	487.42	ppb	19:49:37
2	Ni 231.604†	41982.9	42374.1	487.91	µg/L	487.91	ppb	19:49:17
2	P 214.914†	11261.9	11364.3	2422.2	µg/L	2422.2	ppb	19:49:37
2	Pb 220.353†	8823.1	8802.9	492.95	µg/L	492.95	ppb	19:49:37

2	S 181.975 Axial†	1396.0	1301.4	970.49 µg/L	970.49 ppb	19:49:37
2	Sb 206.836†	4148.9	4099.2	488.41 µg/L	488.41 ppb	19:49:37
2	Se 196.026†	1355.8	1350.7	490 µg/L	490 ppb	19:49:37
2	SiO2†	55442.9	54083.1	5265.3 µg/L	5265.3 ppb	19:49:17
2	Si 251.611†	167481.5	167900.5	2465.6 µg/L	2465.6 ppb	19:49:17
2	Sn 189.927†	7735.0	7794.1	487.53 µg/L	487.53 ppb	19:49:37
2	Ti 334.940†	520412.2	523360.9	488.34 µg/L	488.34 ppb	19:49:17
2	Tl 190.801†	3830.1	3975.4	495.78 µg/L	495.78 ppb	19:49:37
2	U 409.014†	7376.5	7701.7	479.90 µg/L	479.90 ppb	19:49:17
2	V 292.402†	98853.0	99190.2	490.34 µg/L	490.34 ppb	19:49:17
2	Zn 213.857†	86774.5	86860.6	484.11 µg/L	484.11 ppb	19:49:17
3	Sc RADIAL	143116.0	143116.0	98.1 %		19:48:49
3	Al 396.153Radial†	26236.6	26815.6	4949.0 µg/L	4949.0 ppb	19:48:49
3	Ca 317.933Radial†	87307.0	88462.9	4927.7 µg/L	4927.7 ppb	19:48:49
3	Fe 238.204 Radial†	77796.7	79178.1	4880.1 µg/L	4880.1 ppb	19:48:49
3	K 766.490 Radial†	14380.3	13118.2	4798.8 µg/L	4798.8 ppb	19:48:49
3	Mg 279.077 IEC†	13346.6	13418.3	5007.1 µg/L	5007.1 ppb	19:48:49
3	Na 589.592 Radial†	71057.8	71164.1	9717.6 µg/L	9717.6 ppb	19:48:49
3	Sr 421.552†	230412.2	235077.6	488.67 µg/L	488.67 ppb	19:48:47
3	Sc 361.383	1721387.2	1721387.2	100.18 %		19:49:40
3	Y 371.029	1018897.4	1018897.4	99.241 %		19:49:40
3	Ag 328.068†	134640.8	130301.5	488.57 µg/L	488.57 ppb	19:49:40
3	As 188.979†	1609.9	1627.2	499.20 µg/L	499.20 ppb	19:50:00
3	B 249.677†	36341.2	32768.4	481.57 µg/L	481.57 ppb	19:49:40
3	Ba 233.527†	121012.1	120925.1	487.69 µg/L	487.69 ppb	19:49:40
3	Be 313.107†	1805276.3	1803016.9	491.06 µg/L	491.06 ppb	19:49:40
3	Cd 226.502†	78051.9	78026.4	487.08 µg/L	487.08 ppb	19:49:40
3	Co 228.616†	39637.9	39755.2	490.78 µg/L	490.78 ppb	19:49:40
3	Cr 267.716†	62404.8	62111.3	486.33 µg/L	486.33 ppb	19:49:40
3	Cu 324.752†	128037.0	124829.0	486.61 µg/L	486.61 ppb	19:49:40
3	Mn 257.610†	397828.4	396858.6	490.82 µg/L	490.82 ppb	19:49:40
3	Mo 202.031†	16520.4	16510.1	485.66 µg/L	485.66 ppb	19:50:00
3	Ni 231.604†	42275.1	42273.8	486.75 µg/L	486.75 ppb	19:49:40
3	P 214.914†	11329.3	11326.4	2414.1 µg/L	2414.1 ppb	19:50:00
3	Pb 220.353†	8851.7	8749.0	489.94 µg/L	489.94 ppb	19:50:00
3	S 181.975 Axial†	1397.8	1290.2	962.16 µg/L	962.16 ppb	19:50:00
3	Sb 206.836†	4164.3	4075.8	485.60 µg/L	485.60 ppb	19:50:00
3	Se 196.026†	1362.5	1344.7	488 µg/L	488 ppb	19:50:00
3	SiO2†	55884.7	54006.4	5257.8 µg/L	5257.8 ppb	19:49:40
3	Si 251.611†	169043.3	167895.4	2465.6 µg/L	2465.6 ppb	19:49:40
3	Sn 189.927†	7803.9	7790.6	487.31 µg/L	487.31 ppb	19:50:00
3	Ti 334.940†	525263.4	523343.7	488.32 µg/L	488.32 ppb	19:49:40
3	Tl 190.801†	3853.4	3963.0	494.25 µg/L	494.25 ppb	19:50:00
3	U 409.014†	7327.8	7584.2	473.02 µg/L	473.02 ppb	19:49:40
3	V 292.402†	99734.3	99146.8	490.11 µg/L	490.11 ppb	19:49:40
3	Zn 213.857†	87677.5	86951.6	484.63 µg/L	484.63 ppb	19:49:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1711370.9	99.602	%	0.5077				0.51%
Sc RADIAL	142168.3	97.4	%	0.62				0.64%
Y 371.029	1012841.9	98.651	%	0.5119				0.52%
Ag 328.068†	130290.1	488.54	µg/L	1.538	488.54	ppb	1.538	0.31%
QC value within limits for Ag 328.068 Recovery = 97.71%								
Al 396.153Radial†	26961.6	4976.1	µg/L	25.20	4976.1	ppb	25.20	0.51%
QC value within limits for Al 396.153Radial Recovery = 99.52%								
As 188.979†	1612.2	494.63	µg/L	4.004	494.63	ppb	4.004	0.81%
QC value within limits for As 188.979 Recovery = 98.93%								
B 249.677†	32660.4	479.98	µg/L	2.326	479.98	ppb	2.326	0.48%
QC value within limits for B 249.677 Recovery = 96.00%								
Ba 233.527†	120909.3	487.62	µg/L	1.439	487.62	ppb	1.439	0.30%
QC value within limits for Ba 233.527 Recovery = 97.52%								
Be 313.107†	1799771.3	490.18	µg/L	1.233	490.18	ppb	1.233	0.25%
QC value within limits for Be 313.107 Recovery = 98.04%								
Ca 317.933Radial†	88532.0	4931.6	µg/L	7.16	4931.6	ppb	7.16	0.15%
QC value within limits for Ca 317.933Radial Recovery = 98.63%								
Cd 226.502†	77848.2	485.96	µg/L	1.986	485.96	ppb	1.986	0.41%
QC value within limits for Cd 226.502 Recovery = 97.19%								
Co 228.616†	39685.3	489.91	µg/L	1.497	489.91	ppb	1.497	0.31%

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   QC value within limits for Co 228.616  Recovery = 97.98%
Cr 267.716†            61952.0      485.07 µg/L         1.718      485.07 ppb          1.718   0.35%
   QC value within limits for Cr 267.716  Recovery = 97.01%
Cu 324.752†           124714.6      486.17 µg/L         0.662      486.17 ppb          0.662   0.14%
   QC value within limits for Cu 324.752  Recovery = 97.23%
Fe 238.204 Radial†     79253.2      4884.7 µg/L          4.22      4884.7 ppb           4.22   0.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.69%
K 766.490 Radial†      13322.5      4873.5 µg/L         65.48      4873.5 ppb          65.48   1.34%
   QC value within limits for K 766.490 Radial  Recovery = 97.47%
Mg 279.077 IEC†        13400.2      5000.4 µg/L         37.28      5000.4 ppb          37.28   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.01%
Mn 257.610†           396229.4      490.04 µg/L         1.761      490.04 ppb          1.761   0.36%
   QC value within limits for Mn 257.610  Recovery = 98.01%
Mo 202.031†            16516.9      485.86 µg/L         1.472      485.86 ppb          1.472   0.30%
   QC value within limits for Mo 202.031  Recovery = 97.17%
Na 589.592 Radial†     71265.4      9731.4 µg/L         14.79      9731.4 ppb          14.79   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 97.31%
Ni 231.604†            42289.2      486.93 µg/L         0.902      486.93 ppb          0.902   0.19%
   QC value within limits for Ni 231.604  Recovery = 97.39%
P 214.914†             11324.5      2413.7 µg/L          8.72      2413.7 ppb           8.72   0.36%
   QC value within limits for P 214.914  Recovery = 96.55%
Pb 220.353†             8750.6      490.02 µg/L         2.885      490.02 ppb          2.885   0.59%
   QC value within limits for Pb 220.353  Recovery = 98.00%
S 181.975 Axial†        1292.9      964.20 µg/L         5.551      964.20 ppb          5.551   0.58%
   QC value within limits for S 181.975 Axial  Recovery = 96.42%
Sb 206.836†             4075.8      485.62 µg/L         2.784      485.62 ppb          2.784   0.57%
   QC value within limits for Sb 206.836  Recovery = 97.12%
Se 196.026†             1343.6         488 µg/L           2.8         488 ppb            2.8   0.57%
   QC value within limits for Se 196.026  Recovery = 97.58%
SiO2†                  54001.3      5257.4 µg/L          8.20      5257.4 ppb           8.20   0.16%
   QC value within limits for SiO2  Recovery = 98.31%
Si 251.611†           167701.8      2462.7 µg/L          4.98      2462.7 ppb           4.98   0.20%
   QC value within limits for Si 251.611  Recovery = 98.51%
Sn 189.927†             7776.0      486.40 µg/L         1.771      486.40 ppb          1.771   0.36%
   QC value within limits for Sn 189.927  Recovery = 97.28%
Sr 421.552†           235340.1      489.22 µg/L         5.882      489.22 ppb          5.882   1.20%
   QC value within limits for Sr 421.552  Recovery = 97.84%
Ti 334.940†           522769.4      487.78 µg/L         0.949      487.78 ppb          0.949   0.19%
   QC value within limits for Ti 334.940  Recovery = 97.56%
Tl 190.801†             3964.8      494.46 µg/L         1.233      494.46 ppb          1.233   0.25%
   QC value within limits for Tl 190.801  Recovery = 98.89%
U 409.014†              7738.5      482.00 µg/L        10.196      482.00 ppb         10.196   2.12%
   QC value within limits for U 409.014  Recovery = 96.40%
V 292.402†             99029.6      489.54 µg/L         1.192      489.54 ppb          1.192   0.24%
   QC value within limits for V 292.402  Recovery = 97.91%
Zn 213.857†            86736.0      483.41 µg/L         1.671      483.41 ppb          1.671   0.35%
   QC value within limits for Zn 213.857  Recovery = 96.68%
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 19:50:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	143600.6	143600.6	98.4	%			19:50:37
1	Al 396.153Radial†	-51.1	11.3	2.1044	µg/L	2.1044	ppb	19:50:57
1	Ca 317.933Radial†	586.6	35.5	1.9797	µg/L	1.9797	ppb	19:50:57
1	Fe 238.204 Radial†	144.0	-1.8	-0.1088	µg/L	-0.1088	ppb	19:50:57
1	K 766.490 Radial†	1486.8	-33.9	-12.412	µg/L	-12.412	ppb	19:50:37
1	Mg 279.077 IEC†	173.5	-14.4	-5.3870	µg/L	-5.3870	ppb	19:50:57
1	Na 589.592 Radial†	1458.3	191.2	26.130	µg/L	26.130	ppb	19:50:37
1	Sr 421.552†	-289.3	-158.8	-0.3301	µg/L	-0.3301	ppb	19:50:37
1	Sc 361.383	1727301.6	1727301.6	100.53	%			19:51:45
1	Y 371.029	1033229.5	1033229.5	100.64	%			19:51:45
1	Ag 328.068†	3918.0	-194.0	-0.7232	µg/L	-0.7232	ppb	19:51:47
1	As 188.979†	-11.4	9.0	2.7325	µg/L	2.7325	ppb	19:52:07
1	B 249.677†	3507.2	-17.2	-0.2546	µg/L	-0.2546	ppb	19:52:07
1	Ba 233.527†	-159.6	-22.9	-0.0923	µg/L	-0.0923	ppb	19:52:07
1	Be 313.107†	-960.5	109.3	0.0290	µg/L	0.0290	ppb	19:51:47
1	Cd 226.502†	-87.8	30.8	0.1926	µg/L	0.1926	ppb	19:52:07
1	Co 228.616†	-159.6	31.5	0.3887	µg/L	0.3887	ppb	19:52:07
1	Cr 267.716†	221.5	41.8	0.3292	µg/L	0.3292	ppb	19:52:07
1	Cu 324.752†	2909.7	-77.8	-0.3046	µg/L	-0.3046	ppb	19:51:47
1	Mn 257.610†	275.7	37.0	0.0460	µg/L	0.0460	ppb	19:52:07
1	Mo 202.031†	-30.5	-10.3	-0.3033	µg/L	-0.3033	ppb	19:52:07
1	Ni 231.604†	-82.7	-5.8	-0.0664	µg/L	-0.0664	ppb	19:52:07
1	P 214.914†	-17.8	0.3	0.0611	µg/L	0.0611	ppb	19:52:07
1	Pb 220.353†	92.7	5.8	0.3254	µg/L	0.3254	ppb	19:52:07
1	S 181.975 Axial†	92.1	-13.5	-10.016	µg/L	-10.016	ppb	19:52:07
1	Sb 206.836†	70.2	-11.0	-1.3187	µg/L	-1.3187	ppb	19:52:07
1	Se 196.026†	23.8	8.4	3.03	µg/L	3.03	ppb	19:52:07
1	SiO2†	1746.0	-38.6	-3.7620	µg/L	-3.7620	ppb	19:52:07
1	Si 251.611†	804.0	-36.7	-0.5381	µg/L	-0.5381	ppb	19:51:47
1	Sn 189.927†	-0.2	0.9	0.0546	µg/L	0.0546	ppb	19:52:07
1	Ti 334.940†	954.9	-2.7	-0.0011	µg/L	-0.0011	ppb	19:51:47
1	Tl 190.801†	-118.5	-1.2	-0.1445	µg/L	-0.1445	ppb	19:52:07
1	U 409.014†	-315.9	-44.3	-2.6009	µg/L	-2.6009	ppb	19:51:47
1	V 292.402†	377.6	-28.1	-0.1408	µg/L	-0.1408	ppb	19:51:47
1	Zn 213.857†	598.1	30.5	0.1719	µg/L	0.1719	ppb	19:52:07
2	Sc RADIAL	143131.7	143131.7	98.1	%			19:50:59
2	Al 396.153Radial†	-32.2	30.3	5.6296	µg/L	5.6296	ppb	19:51:19
2	Ca 317.933Radial†	576.7	27.4	1.5269	µg/L	1.5269	ppb	19:51:19
2	Fe 238.204 Radial†	158.7	13.7	0.8423	µg/L	0.8423	ppb	19:51:19
2	K 766.490 Radial†	1675.4	163.4	59.819	µg/L	59.819	ppb	19:50:59
2	Mg 279.077 IEC†	212.3	25.7	9.5785	µg/L	9.5785	ppb	19:51:19
2	Na 589.592 Radial†	1429.9	167.0	22.764	µg/L	22.764	ppb	19:50:59
2	Sr 421.552†	-273.0	-143.1	-0.2975	µg/L	-0.2975	ppb	19:50:59
2	Sc 361.383	1718494.8	1718494.8	100.02	%			19:52:09
2	Y 371.029	1028699.8	1028699.8	100.20	%			19:52:09
2	Ag 328.068†	4047.8	-44.2	-0.1507	µg/L	-0.1507	ppb	19:52:11
2	As 188.979†	-18.3	2.1	0.6206	µg/L	0.6206	ppb	19:52:32
2	B 249.677†	3519.8	13.3	0.1962	µg/L	0.1962	ppb	19:52:32
2	Ba 233.527†	-147.0	-11.2	-0.0449	µg/L	-0.0449	ppb	19:52:32
2	Be 313.107†	-767.5	297.4	0.0836	µg/L	0.0836	ppb	19:52:11
2	Cd 226.502†	-96.5	21.7	0.1357	µg/L	0.1357	ppb	19:52:32
2	Co 228.616†	-176.2	14.1	0.1739	µg/L	0.1739	ppb	19:52:32
2	Cr 267.716†	180.3	1.7	0.0063	µg/L	0.0063	ppb	19:52:32
2	Cu 324.752†	2889.0	-83.7	-0.3176	µg/L	-0.3176	ppb	19:52:11
2	Mn 257.610†	264.9	27.6	0.0338	µg/L	0.0338	ppb	19:52:32
2	Mo 202.031†	-22.6	-2.5	-0.0728	µg/L	-0.0728	ppb	19:52:32
2	Ni 231.604†	-57.5	19.1	0.2195	µg/L	0.2195	ppb	19:52:32
2	P 214.914†	4.9	22.9	4.9039	µg/L	4.9039	ppb	19:52:32
2	Pb 220.353†	90.9	4.5	0.2430	µg/L	0.2430	ppb	19:52:32

2	S 181.975 Axial†	92.8	-12.3	-9.1413 µg/L	-9.1413 ppb	19:52:32
2	Sb 206.836†	91.0	10.1	1.2060 µg/L	1.2060 ppb	19:52:32
2	Se 196.026†	23.4	8.1	2.95 µg/L	2.95 ppb	19:52:32
2	SiO2†	1770.3	-5.4	-0.5347 µg/L	-0.5347 ppb	19:52:32
2	Si 251.611†	816.5	-20.2	-0.3025 µg/L	-0.3025 ppb	19:52:11
2	Sn 189.927†	13.1	14.3	0.8887 µg/L	0.8887 ppb	19:52:32
2	Ti 334.940†	824.8	-127.9	-0.1238 µg/L	-0.1238 ppb	19:52:11
2	Tl 190.801†	-110.8	5.9	0.7247 µg/L	0.7247 ppb	19:52:32
2	U 409.014†	-118.9	151.0	8.8426 µg/L	8.8426 ppb	19:52:11
2	V 292.402†	441.7	37.8	0.1896 µg/L	0.1896 ppb	19:52:11
2	Zn 213.857†	569.1	4.5	0.0243 µg/L	0.0243 ppb	19:52:32
3	Sc RADIAL	142404.0	142404.0	97.6 %		19:51:21
3	Al 396.153Radial†	-37.8	24.5	4.5543 µg/L	4.5543 ppb	19:51:41
3	Ca 317.933Radial†	603.4	57.8	3.2194 µg/L	3.2194 ppb	19:51:41
3	Fe 238.204 Radial†	154.3	10.0	0.6188 µg/L	0.6188 ppb	19:51:41
3	K 766.490 Radial†	1584.3	78.7	28.824 µg/L	28.824 ppb	19:51:21
3	Mg 279.077 IEC†	168.4	-18.1	-6.7588 µg/L	-6.7588 ppb	19:51:41
3	Na 589.592 Radial†	1217.4	-43.3	-5.9413 µg/L	-5.9413 ppb	19:51:21
3	Sr 421.552†	-213.0	-83.0	-0.1726 µg/L	-0.1726 ppb	19:51:21
3	Sc 361.383	1725113.7	1725113.7	100.40 %		19:52:34
3	Y 371.029	1032434.0	1032434.0	100.56 %		19:52:34
3	Ag 328.068†	4136.4	28.4	0.1103 µg/L	0.1103 ppb	19:52:36
3	As 188.979†	-21.2	-0.8	-0.2286 µg/L	-0.2286 ppb	19:52:56
3	B 249.677†	3487.8	-32.0	-0.4730 µg/L	-0.4730 ppb	19:52:56
3	Ba 233.527†	-148.1	-11.7	-0.0471 µg/L	-0.0471 ppb	19:52:56
3	Be 313.107†	-958.9	109.7	0.0307 µg/L	0.0307 ppb	19:52:36
3	Cd 226.502†	-100.1	18.5	0.1156 µg/L	0.1156 ppb	19:52:56
3	Co 228.616†	-181.7	9.3	0.1151 µg/L	0.1151 ppb	19:52:56
3	Cr 267.716†	179.3	-0.0	-0.0022 µg/L	-0.0022 ppb	19:52:56
3	Cu 324.752†	2944.1	-39.9	-0.1527 µg/L	-0.1527 ppb	19:52:36
3	Mn 257.610†	258.6	20.3	0.0254 µg/L	0.0254 ppb	19:52:56
3	Mo 202.031†	-33.3	-13.1	-0.3839 µg/L	-0.3839 ppb	19:52:56
3	Ni 231.604†	-89.6	-12.8	-0.1471 µg/L	-0.1471 ppb	19:52:56
3	P 214.914†	-5.5	12.5	2.6899 µg/L	2.6899 ppb	19:52:56
3	Pb 220.353†	86.1	-0.6	-0.0367 µg/L	-0.0367 ppb	19:52:56
3	S 181.975 Axial†	105.1	-0.4	-0.3195 µg/L	-0.3195 ppb	19:52:56
3	Sb 206.836†	78.4	-2.7	-0.3234 µg/L	-0.3234 ppb	19:52:56
3	Se 196.026†	32.5	17.1	6.18 µg/L	6.18 ppb	19:52:56
3	SiO2†	1714.4	-67.8	-6.6340 µg/L	-6.6340 ppb	19:52:56
3	Si 251.611†	948.1	107.7	1.5850 µg/L	1.5850 ppb	19:52:36
3	Sn 189.927†	18.5	19.5	1.2178 µg/L	1.2178 ppb	19:52:56
3	Ti 334.940†	1054.7	98.0	0.0910 µg/L	0.0910 ppb	19:52:36
3	Tl 190.801†	-105.2	11.9	1.4675 µg/L	1.4675 ppb	19:52:56
3	U 409.014†	-221.6	49.1	2.8801 µg/L	2.8801 ppb	19:52:36
3	V 292.402†	431.8	26.3	0.1262 µg/L	0.1262 ppb	19:52:36
3	Zn 213.857†	567.6	1.0	0.0065 µg/L	0.0065 ppb	19:52:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1723636.7	100.32	%	0.267				0.27%
Sc RADIAL	143045.4	98.0	%	0.41				0.42%
Y 371.029	1031454.4	100.46	%	0.236				0.23%
Ag 328.068†	-69.9	-0.2546	µg/L	0.42634	-0.2546	ppb	0.42634	167.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	22.0	4.0961	µg/L	1.80672	4.0961	ppb	1.80672	44.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.4	1.0415	µg/L	1.52480	1.0415	ppb	1.52480	146.41%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-12.0	-0.1771	µg/L	0.34126	-0.1771	ppb	0.34126	192.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-15.2	-0.0614	µg/L	0.02676	-0.0614	ppb	0.02676	43.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	172.1	0.0478	µg/L	0.03107	0.0478	ppb	0.03107	65.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	40.2	2.2420	µg/L	0.87622	2.2420	ppb	0.87622	39.08%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.7	0.1480	µg/L	0.03996	0.1480	ppb	0.03996	27.01%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.3	0.2259	µg/L	0.14405	0.2259	ppb	0.14405	63.76%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.5      0.1111 µg/L       0.18892      0.1111 ppb        0.18892 170.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -67.1     -0.2583 µg/L       0.09167     -0.2583 ppb        0.09167  35.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          7.3      0.4508 µg/L       0.49733      0.4508 ppb        0.49733 110.33%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          69.4      25.411 µg/L       36.2364      25.411 ppb        36.2364 142.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.3     -0.8557 µg/L       9.06232     -0.8557 ppb        9.06232 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                28.3      0.0350 µg/L       0.01036      0.0350 ppb        0.01036  29.56%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -8.6     -0.2533 µg/L       0.16143     -0.2533 ppb        0.16143  63.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        105.0      14.318 µg/L       17.6253      14.318 ppb        17.6253 123.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.2      0.0020 µg/L       0.19262      0.0020 ppb        0.19262 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 11.9      2.5516 µg/L       2.42435      2.5516 ppb        2.42435  95.01%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.2      0.1772 µg/L       0.18975      0.1772 ppb        0.18975 107.07%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -8.7     -6.4924 µg/L       5.36374     -6.4924 ppb        5.36374  82.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.2     -0.1454 µg/L       1.27176     -0.1454 ppb        1.27176 874.71%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                11.2        4.05 µg/L         1.843        4.05 ppb          1.843  45.47%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -37.2     -3.6436 µg/L       3.05138     -3.6436 ppb        3.05138  83.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                16.9      0.2481 µg/L       1.16372      0.2481 ppb        1.16372 469.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                11.6      0.7204 µg/L       0.59961      0.7204 ppb        0.59961  83.23%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -128.3     -0.2667 µg/L       0.08309     -0.2667 ppb        0.08309  31.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -10.9     -0.0113 µg/L       0.10776     -0.0113 ppb        0.10776 953.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.6      0.6826 µg/L       0.80682      0.6826 ppb        0.80682 118.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 51.9      3.0406 µg/L       5.72342      3.0406 ppb        5.72342 188.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 12.0      0.0584 µg/L       0.17533      0.0584 ppb        0.17533 300.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                12.0      0.0676 µg/L       0.09081      0.0676 ppb        0.09081 134.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 20:18:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143153.1	143153.1	98.1	%			20:19:22
1	Al 396.153Radial†	26168.1	26738.9	4934.8	µg/L	4934.8	ppb	20:19:22
1	Ca 317.933Radial†	87812.2	88954.8	4955.1	µg/L	4955.1	ppb	20:19:22
1	Fe 238.204 Radial†	78188.9	79557.4	4903.4	µg/L	4903.4	ppb	20:19:22
1	K 766.490 Radial†	14678.9	13418.9	4908.8	µg/L	4908.8	ppb	20:19:22
1	Mg 279.077 IEC†	13438.9	13508.9	5040.9	µg/L	5040.9	ppb	20:19:22
1	Na 589.592 Radial†	71303.4	71395.6	9749.1	µg/L	9749.1	ppb	20:19:22
1	Sr 421.552†	231815.5	236447.2	491.52	µg/L	491.52	ppb	20:19:20
1	Sc 361.383	1733210.9	1733210.9	100.87	%			20:19:49
1	Y 371.029	1024566.6	1024566.6	99.793	%			20:19:49
1	Ag 328.068†	135811.2	130544.9	489.48	µg/L	489.48	ppb	20:19:49
1	As 188.979†	1620.4	1626.8	499.06	µg/L	499.06	ppb	20:20:09
1	B 249.677†	36886.7	33061.7	485.90	µg/L	485.90	ppb	20:19:49
1	Ba 233.527†	122122.4	121201.8	488.80	µg/L	488.80	ppb	20:19:49
1	Be 313.107†	1820796.8	1806110.5	491.91	µg/L	491.91	ppb	20:19:49
1	Cd 226.502†	79174.4	78607.7	490.71	µg/L	490.71	ppb	20:19:49
1	Co 228.616†	39967.4	39811.9	491.48	µg/L	491.48	ppb	20:19:49
1	Cr 267.716†	62802.0	62080.2	486.08	µg/L	486.08	ppb	20:19:49
1	Cu 324.752†	129193.6	125103.8	487.69	µg/L	487.69	ppb	20:19:49
1	Mn 257.610†	400949.3	397243.5	491.30	µg/L	491.30	ppb	20:19:49
1	Mo 202.031†	16640.3	16516.4	485.85	µg/L	485.85	ppb	20:20:09
1	Ni 231.604†	42932.4	42637.5	490.94	µg/L	490.94	ppb	20:19:49
1	P 214.914†	11516.5	11434.8	2437.3	µg/L	2437.3	ppb	20:20:09
1	Pb 220.353†	8939.2	8775.5	491.41	µg/L	491.41	ppb	20:20:09
1	S 181.975 Axial†	1432.0	1314.6	980.26	µg/L	980.26	ppb	20:20:09
1	Sb 206.836†	4200.0	4082.8	486.45	µg/L	486.45	ppb	20:20:09
1	Se 196.026†	1380.3	1353.0	491	µg/L	491	ppb	20:20:09
1	SiO2†	56585.0	54320.2	5288.5	µg/L	5288.5	ppb	20:19:49
1	Si 251.611†	171480.3	169160.3	2484.2	µg/L	2484.2	ppb	20:19:49
1	Sn 189.927†	7899.9	7832.7	489.93	µg/L	489.93	ppb	20:20:09
1	Ti 334.940†	528670.3	523144.4	488.13	µg/L	488.13	ppb	20:19:49
1	Tl 190.801†	3879.4	3962.5	494.19	µg/L	494.19	ppb	20:20:09
1	U 409.014†	7456.1	7661.5	477.56	µg/L	477.56	ppb	20:19:49
1	V 292.402†	100505.8	99232.6	490.53	µg/L	490.53	ppb	20:19:49
1	Zn 213.857†	88711.3	87379.4	487.00	µg/L	487.00	ppb	20:19:49
2	Sc RADIAL	145636.2	145636.2	99.8	%			20:19:26
2	Al 396.153Radial†	26516.1	26632.7	4915.0	µg/L	4915.0	ppb	20:19:26
2	Ca 317.933Radial†	89356.1	88975.7	4956.3	µg/L	4956.3	ppb	20:19:26
2	Fe 238.204 Radial†	79820.2	79833.0	4920.4	µg/L	4920.4	ppb	20:19:26
2	K 766.490 Radial†	14884.7	13369.9	4890.9	µg/L	4890.9	ppb	20:19:26
2	Mg 279.077 IEC†	13655.2	13492.0	5034.7	µg/L	5034.7	ppb	20:19:26
2	Na 589.592 Radial†	72574.2	71429.7	9753.8	µg/L	9753.8	ppb	20:19:26
2	Sr 421.552†	229556.2	230154.3	478.44	µg/L	478.44	ppb	20:19:24
2	Sc 361.383	1728845.1	1728845.1	100.62	%			20:20:12
2	Y 371.029	1022537.6	1022537.6	99.596	%			20:20:12
2	Ag 328.068†	135255.7	130332.9	488.71	µg/L	488.71	ppb	20:20:12
2	As 188.979†	1619.6	1630.0	500.04	µg/L	500.04	ppb	20:20:32
2	B 249.677†	36772.6	33040.7	485.59	µg/L	485.59	ppb	20:20:12
2	Ba 233.527†	121898.2	121284.8	489.14	µg/L	489.14	ppb	20:20:12
2	Be 313.107†	1814391.8	1804303.2	491.42	µg/L	491.42	ppb	20:20:12
2	Cd 226.502†	79019.6	78652.0	490.98	µg/L	490.98	ppb	20:20:12
2	Co 228.616†	39865.2	39810.5	491.46	µg/L	491.46	ppb	20:20:12
2	Cr 267.716†	62636.0	62072.4	486.01	µg/L	486.01	ppb	20:20:12
2	Cu 324.752†	128465.8	124703.9	486.15	µg/L	486.15	ppb	20:20:12
2	Mn 257.610†	400168.4	397471.3	491.58	µg/L	491.58	ppb	20:20:12
2	Mo 202.031†	16701.4	16618.8	488.86	µg/L	488.86	ppb	20:20:32
2	Ni 231.604†	42806.4	42619.8	490.74	µg/L	490.74	ppb	20:20:12
2	P 214.914†	11559.5	11506.4	2452.7	µg/L	2452.7	ppb	20:20:32
2	Pb 220.353†	8967.3	8825.8	494.22	µg/L	494.22	ppb	20:20:32

2	S 181.975 Axial†	1438.1	1324.2	987.46 µg/L	987.46 ppb	20:20:32
2	Sb 206.836†	4222.2	4115.5	490.38 µg/L	490.38 ppb	20:20:32
2	Se 196.026†	1378.4	1354.7	492 µg/L	492 ppb	20:20:32
2	SiO2†	56546.5	54423.5	5298.4 µg/L	5298.4 ppb	20:20:12
2	Si 251.611†	170798.4	168911.9	2480.5 µg/L	2480.5 ppb	20:20:12
2	Sn 189.927†	7975.7	7927.8	495.86 µg/L	495.86 ppb	20:20:32
2	Ti 334.940†	527695.2	523498.9	488.46 µg/L	488.46 ppb	20:20:12
2	Tl 190.801†	3917.6	4010.2	500.05 µg/L	500.05 ppb	20:20:32
2	U 409.014†	7647.3	7870.2	489.74 µg/L	489.74 ppb	20:20:12
2	V 292.402†	100177.9	99158.3	490.21 µg/L	490.21 ppb	20:20:12
2	Zn 213.857†	88577.4	87468.5	487.50 µg/L	487.50 ppb	20:20:12
3	Sc RADIAL	145946.5	145946.5	100 %		20:19:30
3	Al 396.153Radial†	26926.1	26986.3	4980.6 µg/L	4980.6 ppb	20:19:30
3	Ca 317.933Radial†	89888.2	89317.4	4975.3 µg/L	4975.3 ppb	20:19:30
3	Fe 238.204 Radial†	79999.4	79842.2	4921.0 µg/L	4921.0 ppb	20:19:30
3	K 766.490 Radial†	15067.7	13521.2	4946.3 µg/L	4946.3 ppb	20:19:30
3	Mg 279.077 IEC†	13820.0	13627.7	5085.2 µg/L	5085.2 ppb	20:19:30
3	Na 589.592 Radial†	72903.4	71604.2	9777.6 µg/L	9777.6 ppb	20:19:30
3	Sr 421.552†	233932.9	234041.4	486.52 µg/L	486.52 ppb	20:19:28
3	Sc 361.383	1729036.7	1729036.7	100.63 %		20:20:35
3	Y 371.029	1022141.3	1022141.3	99.557 %		20:20:35
3	Ag 328.068†	135415.2	130476.4	489.24 µg/L	489.24 ppb	20:20:35
3	As 188.979†	1624.2	1634.3	501.36 µg/L	501.36 ppb	20:20:55
3	B 249.677†	36712.7	32977.1	484.65 µg/L	484.65 ppb	20:20:35
3	Ba 233.527†	121713.3	121087.6	488.34 µg/L	488.34 ppb	20:20:35
3	Be 313.107†	1816122.4	1805823.1	491.83 µg/L	491.83 ppb	20:20:35
3	Cd 226.502†	78922.7	78547.0	490.33 µg/L	490.33 ppb	20:20:35
3	Co 228.616†	39794.6	39735.9	490.54 µg/L	490.54 ppb	20:20:35
3	Cr 267.716†	62716.2	62145.2	486.58 µg/L	486.58 ppb	20:20:35
3	Cu 324.752†	128635.8	124858.6	486.75 µg/L	486.75 ppb	20:20:35
3	Mn 257.610†	399725.7	396987.2	490.98 µg/L	490.98 ppb	20:20:35
3	Mo 202.031†	16642.9	16558.8	487.09 µg/L	487.09 ppb	20:20:55
3	Ni 231.604†	42654.8	42464.4	488.95 µg/L	488.95 ppb	20:20:35
3	P 214.914†	11489.1	11435.1	2437.4 µg/L	2437.4 ppb	20:20:55
3	Pb 220.353†	8938.2	8795.9	492.55 µg/L	492.55 ppb	20:20:55
3	S 181.975 Axial†	1425.7	1311.7	978.16 µg/L	978.16 ppb	20:20:55
3	Sb 206.836†	4196.0	4088.9	487.18 µg/L	487.18 ppb	20:20:55
3	Se 196.026†	1380.4	1356.5	493 µg/L	493 ppb	20:20:55
3	SiO2†	56405.9	54277.6	5284.2 µg/L	5284.2 ppb	20:20:35
3	Si 251.611†	170675.9	168771.4	2478.4 µg/L	2478.4 ppb	20:20:35
3	Sn 189.927†	7906.9	7858.6	491.55 µg/L	491.55 ppb	20:20:55
3	Ti 334.940†	526963.4	522713.5	487.72 µg/L	487.72 ppb	20:20:35
3	Tl 190.801†	3898.2	3990.5	497.62 µg/L	497.62 ppb	20:20:55
3	U 409.014†	7622.6	7844.8	488.24 µg/L	488.24 ppb	20:20:35
3	V 292.402†	100122.2	99092.0	489.87 µg/L	489.87 ppb	20:20:35
3	Zn 213.857†	88619.8	87500.9	487.69 µg/L	487.69 ppb	20:20:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1730364.2	100.71	%	0.144				0.14%
Sc RADIAL	144911.9	99.3	%	1.05				1.06%
Y 371.029	1023081.8	99.649	%	0.1267				0.13%
Ag 328.068†	130451.4	489.14	µg/L	0.396	489.14	ppb	0.396	0.08%
QC value within limits for Ag 328.068 Recovery = 97.83%								
Al 396.153Radial†	26786.0	4943.5	µg/L	33.66	4943.5	ppb	33.66	0.68%
QC value within limits for Al 396.153Radial Recovery = 98.87%								
As 188.979†	1630.4	500.15	µg/L	1.155	500.15	ppb	1.155	0.23%
QC value within limits for As 188.979 Recovery = 100.03%								
B 249.677†	33026.5	485.38	µg/L	0.648	485.38	ppb	0.648	0.13%
QC value within limits for B 249.677 Recovery = 97.08%								
Ba 233.527†	121191.4	488.76	µg/L	0.399	488.76	ppb	0.399	0.08%
QC value within limits for Ba 233.527 Recovery = 97.75%								
Be 313.107†	1805412.3	491.72	µg/L	0.263	491.72	ppb	0.263	0.05%
QC value within limits for Be 313.107 Recovery = 98.34%								
Ca 317.933Radial†	89082.6	4962.3	µg/L	11.34	4962.3	ppb	11.34	0.23%
QC value within limits for Ca 317.933Radial Recovery = 99.25%								
Cd 226.502†	78602.2	490.67	µg/L	0.330	490.67	ppb	0.330	0.07%
QC value within limits for Cd 226.502 Recovery = 98.13%								
Co 228.616†	39786.1	491.16	µg/L	0.537	491.16	ppb	0.537	0.11%

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   QC value within limits for Co 228.616  Recovery = 98.23%
Cr 267.716†            62099.2      486.22 µg/L         0.311      486.22 ppb          0.311   0.06%
   QC value within limits for Cr 267.716  Recovery = 97.24%
Cu 324.752†           124888.8      486.86 µg/L         0.777      486.86 ppb          0.777   0.16%
   QC value within limits for Cu 324.752  Recovery = 97.37%
Fe 238.204 Radial†     79744.2      4914.9 µg/L          9.97      4914.9 ppb           9.97   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.30%
K 766.490 Radial†      13436.7      4915.3 µg/L         28.26      4915.3 ppb          28.26   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 98.31%
Mg 279.077 IEC†        13542.9      5053.6 µg/L         27.54      5053.6 ppb          27.54   0.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.07%
Mn 257.610†           397234.0      491.28 µg/L         0.301      491.28 ppb          0.301   0.06%
   QC value within limits for Mn 257.610  Recovery = 98.26%
Mo 202.031†            16564.7      487.26 µg/L         1.512      487.26 ppb          1.512   0.31%
   QC value within limits for Mo 202.031  Recovery = 97.45%
Na 589.592 Radial†     71476.5      9760.2 µg/L         15.27      9760.2 ppb          15.27   0.16%
   QC value within limits for Na 589.592 Radial  Recovery = 97.60%
Ni 231.604†            42573.9      490.21 µg/L         1.097      490.21 ppb          1.097   0.22%
   QC value within limits for Ni 231.604  Recovery = 98.04%
P 214.914†             11458.8      2442.5 µg/L          8.83      2442.5 ppb           8.83   0.36%
   QC value within limits for P 214.914  Recovery = 97.70%
Pb 220.353†             8799.1      492.73 µg/L         1.412      492.73 ppb          1.412   0.29%
   QC value within limits for Pb 220.353  Recovery = 98.55%
S 181.975 Axial†        1316.8      981.96 µg/L         4.877      981.96 ppb          4.877   0.50%
   QC value within limits for S 181.975 Axial  Recovery = 98.20%
Sb 206.836†             4095.7      488.00 µg/L         2.090      488.00 ppb          2.090   0.43%
   QC value within limits for Sb 206.836  Recovery = 97.60%
Se 196.026†             1354.7         492 µg/L           0.6         492 ppb            0.6   0.13%
   QC value within limits for Se 196.026  Recovery = 98.38%
SiO2†                  54340.4      5290.4 µg/L          7.26      5290.4 ppb           7.26   0.14%
   QC value within limits for SiO2  Recovery = 98.93%
Si 251.611†           168947.8      2481.0 µg/L          2.92      2481.0 ppb           2.92   0.12%
   QC value within limits for Si 251.611  Recovery = 99.24%
Sn 189.927†             7873.0      492.45 µg/L         3.064      492.45 ppb          3.064   0.62%
   QC value within limits for Sn 189.927  Recovery = 98.49%
Sr 421.552†           233547.6      485.49 µg/L         6.601      485.49 ppb          6.601   1.36%
   QC value within limits for Sr 421.552  Recovery = 97.10%
Ti 334.940†           523118.9      488.10 µg/L         0.369      488.10 ppb          0.369   0.08%
   QC value within limits for Ti 334.940  Recovery = 97.62%
Tl 190.801†             3987.7      497.29 µg/L         2.942      497.29 ppb          2.942   0.59%
   QC value within limits for Tl 190.801  Recovery = 99.46%
U 409.014†              7792.1      485.18 µg/L         6.641      485.18 ppb          6.641   1.37%
   QC value within limits for U 409.014  Recovery = 97.04%
V 292.402†             99160.9      490.20 µg/L         0.333      490.20 ppb          0.333   0.07%
   QC value within limits for V 292.402  Recovery = 98.04%
Zn 213.857†            87449.6      487.40 µg/L         0.359      487.40 ppb          0.359   0.07%
   QC value within limits for Zn 213.857  Recovery = 97.48%
All analyte(s) passed QC.
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Sequence No.: 28 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/31/2010 20:21:03**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	146174.9	146174.9	100	%			20:21:32
1	Al 396.153Radial†	-79.4	-16.1	-2.9762	µg/L	-2.9762	ppb	20:21:52
1	Ca 317.933Radial†	607.9	46.3	2.5767	µg/L	2.5767	ppb	20:21:52
1	Fe 238.204 Radial†	175.5	27.1	1.6726	µg/L	1.6726	ppb	20:21:52
1	K 766.490 Radial†	1577.3	29.9	10.948	µg/L	10.948	ppb	20:21:32
1	Mg 279.077 IEC†	206.8	15.8	5.8733	µg/L	5.8733	ppb	20:21:52
1	Na 589.592 Radial†	1475.9	182.7	24.946	µg/L	24.946	ppb	20:21:32
1	Sr 421.552†	-270.2	-134.5	-0.2796	µg/L	-0.2796	ppb	20:21:32
1	Sc 361.383	1719316.1	1719316.1	100.06	%			20:22:40
1	Y 371.029	1027520.1	1027520.1	100.08	%			20:22:40
1	Ag 328.068†	3648.5	-445.2	-1.6556	µg/L	-1.6556	ppb	20:22:42
1	As 188.979†	-10.6	9.8	2.9605	µg/L	2.9605	ppb	20:23:02
1	B 249.677†	3416.1	-91.9	-1.3568	µg/L	-1.3568	ppb	20:22:42
1	Ba 233.527†	-134.2	1.8	0.0069	µg/L	0.0069	ppb	20:23:02
1	Be 313.107†	-785.4	279.8	0.0750	µg/L	0.0750	ppb	20:22:42
1	Cd 226.502†	-108.1	10.2	0.0635	µg/L	0.0635	ppb	20:23:02
1	Co 228.616†	-170.8	19.6	0.2418	µg/L	0.2418	ppb	20:23:02
1	Cr 267.716†	211.4	32.7	0.2593	µg/L	0.2593	ppb	20:23:02
1	Cu 324.752†	2952.3	-21.8	-0.0873	µg/L	-0.0873	ppb	20:22:42
1	Mn 257.610†	205.0	-32.4	-0.0403	µg/L	-0.0403	ppb	20:23:02
1	Mo 202.031†	-26.7	-6.6	-0.1949	µg/L	-0.1949	ppb	20:23:02
1	Ni 231.604†	-85.9	-9.3	-0.1075	µg/L	-0.1075	ppb	20:23:02
1	P 214.914†	-27.5	-9.5	-2.0307	µg/L	-2.0307	ppb	20:23:02
1	Pb 220.353†	49.6	-36.9	-2.0549	µg/L	-2.0549	ppb	20:23:02
1	S 181.975 Axial†	90.7	-14.4	-10.672	µg/L	-10.672	ppb	20:23:02
1	Sb 206.836†	90.3	9.4	1.1175	µg/L	1.1175	ppb	20:23:02
1	Se 196.026†	14.0	-1.3	-0.483	µg/L	-0.483	ppb	20:23:02
1	SiO2†	1815.4	38.8	3.7882	µg/L	3.7882	ppb	20:22:42
1	Si 251.611†	978.4	141.2	2.0787	µg/L	2.0787	ppb	20:22:42
1	Sn 189.927†	12.7	13.8	0.8612	µg/L	0.8612	ppb	20:23:02
1	Ti 334.940†	944.8	-8.3	-0.0067	µg/L	-0.0067	ppb	20:22:42
1	Tl 190.801†	-123.6	-6.9	-0.8478	µg/L	-0.8478	ppb	20:23:02
1	U 409.014†	-334.8	-64.7	-3.7948	µg/L	-3.7948	ppb	20:22:42
1	V 292.402†	364.6	-39.5	-0.1962	µg/L	-0.1962	ppb	20:22:42
1	Zn 213.857†	609.9	45.1	0.2536	µg/L	0.2536	ppb	20:23:02
2	Sc RADIAL	146261.6	146261.6	100	%			20:21:54
2	Al 396.153Radial†	-54.4	8.9	1.6620	µg/L	1.6620	ppb	20:22:14
2	Ca 317.933Radial†	618.8	56.9	3.1671	µg/L	3.1671	ppb	20:22:14
2	Fe 238.204 Radial†	170.1	21.6	1.3318	µg/L	1.3318	ppb	20:22:14
2	K 766.490 Radial†	1690.5	141.9	51.938	µg/L	51.938	ppb	20:21:54
2	Mg 279.077 IEC†	158.6	-32.4	-12.093	µg/L	-12.093	ppb	20:22:14
2	Na 589.592 Radial†	1436.5	142.5	19.415	µg/L	19.415	ppb	20:21:54
2	Sr 421.552†	-283.2	-147.2	-0.3061	µg/L	-0.3061	ppb	20:21:54
2	Sc 361.383	1736802.1	1736802.1	101.08	%			20:23:04
2	Y 371.029	1037454.3	1037454.3	101.05	%			20:23:04
2	Ag 328.068†	3948.2	-185.4	-0.6882	µg/L	-0.6882	ppb	20:23:06
2	As 188.979†	-24.7	-4.1	-1.2374	µg/L	-1.2374	ppb	20:23:27
2	B 249.677†	3576.8	32.6	0.4812	µg/L	0.4812	ppb	20:23:06
2	Ba 233.527†	-102.2	34.7	0.1396	µg/L	0.1396	ppb	20:23:27
2	Be 313.107†	-962.5	112.5	0.0317	µg/L	0.0317	ppb	20:23:06
2	Cd 226.502†	-108.2	11.1	0.0694	µg/L	0.0694	ppb	20:23:27
2	Co 228.616†	-196.2	-3.8	-0.0464	µg/L	-0.0464	ppb	20:23:27
2	Cr 267.716†	207.6	26.8	0.2073	µg/L	0.2073	ppb	20:23:27
2	Cu 324.752†	2974.7	-29.3	-0.1113	µg/L	-0.1113	ppb	20:23:06
2	Mn 257.610†	216.8	-22.8	-0.0277	µg/L	-0.0277	ppb	20:23:27
2	Mo 202.031†	-26.2	-5.9	-0.1726	µg/L	-0.1726	ppb	20:23:27
2	Ni 231.604†	-83.0	-5.6	-0.0648	µg/L	-0.0648	ppb	20:23:27
2	P 214.914†	-18.2	-0.1	-0.0033	µg/L	-0.0033	ppb	20:23:27
2	Pb 220.353†	96.9	9.5	0.5245	µg/L	0.5245	ppb	20:23:27

2	S 181.975 Axial†	101.1	-5.0	-3.7428 µg/L	-3.7428 ppb		20:23:27
2	Sb 206.836†	77.7	-4.0	-0.4743 µg/L	-0.4743 ppb		20:23:27
2	Se 196.026†	10.0	-5.3	-1.93 µg/L	-1.93 ppb		20:23:27
2	SiO2†	1822.3	27.5	2.6742 µg/L	2.6742 ppb		20:23:06
2	Si 251.611†	856.2	10.5	0.1497 µg/L	0.1497 ppb		20:23:06
2	Sn 189.927†	15.8	16.8	1.0464 µg/L	1.0464 ppb		20:23:27
2	Ti 334.940†	965.6	2.7	0.0021 µg/L	0.0021 ppb		20:23:06
2	Tl 190.801†	-105.1	12.7	1.5599 µg/L	1.5599 ppb		20:23:27
2	U 409.014†	-213.8	58.4	3.3839 µg/L	3.3839 ppb		20:23:06
2	V 292.402†	306.8	-100.3	-0.4881 µg/L	-0.4881 ppb		20:23:06
2	Zn 213.857†	601.0	30.1	0.1695 µg/L	0.1695 ppb		20:23:27
3	Sc RADIAL	145163.3	145163.3	99.5 %			20:22:16
3	Al 396.153Radial†	-66.5	-3.7	-0.6680 µg/L	-0.6680 ppb		20:22:36
3	Ca 317.933Radial†	599.5	42.1	2.3456 µg/L	2.3456 ppb		20:22:36
3	Fe 238.204 Radial†	160.3	13.1	0.8047 µg/L	0.8047 ppb		20:22:36
3	K 766.490 Radial†	1445.8	-91.3	-33.426 µg/L	-33.426 ppb		20:22:16
3	Mg 279.077 IEC†	163.3	-26.5	-9.9007 µg/L	-9.9007 ppb		20:22:36
3	Na 589.592 Radial†	1438.5	155.3	21.242 µg/L	21.242 ppb		20:22:16
3	Sr 421.552†	-217.7	-83.6	-0.1738 µg/L	-0.1738 ppb		20:22:16
3	Sc 361.383	1747018.8	1747018.8	101.68 %			20:23:29
3	Y 371.029	1043372.0	1043372.0	101.62 %			20:23:29
3	Ag 328.068†	3928.6	-227.6	-0.8550 µg/L	-0.8550 ppb		20:23:31
3	As 188.979†	-14.6	6.0	1.8114 µg/L	1.8114 ppb		20:23:51
3	B 249.677†	3628.2	62.5	0.9207 µg/L	0.9207 ppb		20:23:31
3	Ba 233.527†	-150.3	-11.9	-0.0482 µg/L	-0.0482 ppb		20:23:51
3	Be 313.107†	-1063.0	19.3	0.0023 µg/L	0.0023 ppb		20:23:31
3	Cd 226.502†	-104.1	15.8	0.0984 µg/L	0.0984 ppb		20:23:51
3	Co 228.616†	-183.5	9.9	0.1217 µg/L	0.1217 ppb		20:23:51
3	Cr 267.716†	179.0	-2.6	-0.0122 µg/L	-0.0122 ppb		20:23:51
3	Cu 324.752†	3108.9	85.4	0.3239 µg/L	0.3239 ppb		20:23:31
3	Mn 257.610†	215.7	-25.1	-0.0307 µg/L	-0.0307 ppb		20:23:51
3	Mo 202.031†	-32.3	-11.7	-0.3450 µg/L	-0.3450 ppb		20:23:51
3	Ni 231.604†	-84.7	-6.8	-0.0779 µg/L	-0.0779 ppb		20:23:51
3	P 214.914†	-27.0	-8.6	-1.8417 µg/L	-1.8417 ppb		20:23:51
3	Pb 220.353†	93.1	5.2	0.2966 µg/L	0.2966 ppb		20:23:51
3	S 181.975 Axial†	107.7	0.8	0.6238 µg/L	0.6238 ppb		20:23:51
3	Sb 206.836†	73.2	-8.8	-1.0551 µg/L	-1.0551 ppb		20:23:51
3	Se 196.026†	-3.4	-18.6	-6.74 µg/L	-6.74 ppb		20:23:51
3	SiO2†	1790.0	-14.9	-1.4424 µg/L	-1.4424 ppb		20:23:31
3	Si 251.611†	917.7	66.0	0.9787 µg/L	0.9787 ppb		20:23:31
3	Sn 189.927†	-2.4	-1.3	-0.0792 µg/L	-0.0792 ppb		20:23:51
3	Ti 334.940†	1230.7	257.8	0.2458 µg/L	0.2458 ppb		20:23:31
3	Tl 190.801†	-121.9	-3.2	-0.3892 µg/L	-0.3892 ppb		20:23:51
3	U 409.014†	-444.6	-167.4	-9.7866 µg/L	-9.7866 ppb		20:23:31
3	V 292.402†	407.2	-3.3	-0.0267 µg/L	-0.0267 ppb		20:23:31
3	Zn 213.857†	572.9	-1.0	-0.0054 µg/L	-0.0054 ppb		20:23:51

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1734379.0	100.94	%	0.815				0.81%
Sc RADIAL	145866.6	100.0	%	0.42				0.42%
Y 371.029	1036115.5	100.92	%	0.780				0.77%
Ag 328.068†	-286.1	-1.0663	µg/L	0.51712	-1.0663	ppb	0.51712	48.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.6	-0.6608	µg/L	2.31909	-0.6608	ppb	2.31909	350.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.9	1.1781	µg/L	2.16942	1.1781	ppb	2.16942	184.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1.0	0.0150	µg/L	1.20824	0.0150	ppb	1.20824	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.2	0.0328	µg/L	0.09650	0.0328	ppb	0.09650	294.60%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	137.2	0.0363	µg/L	0.03660	0.0363	ppb	0.03660	100.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	48.4	2.6965	µg/L	0.42361	2.6965	ppb	0.42361	15.71%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	12.4	0.0771	µg/L	0.01869	0.0771	ppb	0.01869	24.25%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.6	0.1057	µg/L	0.14474	0.1057	ppb	0.14474	136.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                19.0      0.1515 µg/L       0.14414      0.1515 ppb        0.14414  95.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                11.4      0.0418 µg/L       0.24463      0.0418 ppb        0.24463 585.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         20.6      1.2697 µg/L       0.43727      1.2697 ppb        0.43727  34.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          26.8      9.8201 µg/L      42.69298      9.8201 ppb       42.69298 434.75%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -14.4     -5.3735 µg/L       9.80148     -5.3735 ppb        9.80148 182.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -26.8     -0.0329 µg/L       0.00657     -0.0329 ppb        0.00657  19.97%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -8.1     -0.2375 µg/L       0.09374     -0.2375 ppb        0.09374  39.47%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        160.1      21.868 µg/L        2.8179      21.868 ppb         2.8179  12.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -7.2     -0.0834 µg/L       0.02187     -0.0834 ppb        0.02187  26.22%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.1     -1.2919 µg/L       1.11996     -1.2919 ppb        1.11996  86.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -7.4     -0.4112 µg/L       1.42800     -0.4112 ppb        1.42800 347.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -6.2     -4.5969 µg/L       5.69602     -4.5969 ppb        5.69602 123.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.1     -0.1373 µg/L       1.12485     -0.1373 ppb        1.12485 819.31%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -8.4       -3.05 µg/L         3.277       -3.05 ppb          3.277 107.40%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      17.1      1.6733 µg/L       2.75522      1.6733 ppb        2.75522 164.66%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                72.6      1.0690 µg/L       0.96766      1.0690 ppb        0.96766  90.52%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 9.8      0.6095 µg/L       0.60356      0.6095 ppb        0.60356  99.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -121.8     -0.2532 µg/L       0.06998     -0.2532 ppb        0.06998  27.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                84.1      0.0804 µg/L       0.14329      0.0804 ppb        0.14329 178.21%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.9      0.1076 µg/L       1.27840      0.1076 ppb        1.27840 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -57.9     -3.3992 µg/L       6.59417     -3.3992 ppb        6.59417 193.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -47.7     -0.2370 µg/L       0.23337     -0.2370 ppb        0.23337  98.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                24.7      0.1393 µg/L       0.13213      0.1393 ppb        0.13213  94.89%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 38
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 20:46:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	142658.3	142658.3	97.8	%			20:47:06
1	Al 396.153Radial†	26173.0	26836.4	4953.1	µg/L	4953.1	ppb	20:47:06
1	Ca 317.933Radial†	86811.8	88242.0	4915.4	µg/L	4915.4	ppb	20:47:06
1	Fe 238.204 Radial†	77308.1	78932.9	4864.9	µg/L	4864.9	ppb	20:47:06
1	K 766.490 Radial†	14453.8	13240.4	4843.5	µg/L	4843.5	ppb	20:47:06
1	Mg 279.077 IEC†	13219.2	13331.7	4974.8	µg/L	4974.8	ppb	20:47:06
1	Na 589.592 Radial†	70981.3	71318.3	9738.6	µg/L	9738.6	ppb	20:47:06
1	Sr 421.552†	229479.6	234877.4	488.26	µg/L	488.26	ppb	20:47:04
1	Sc 361.383	1717986.8	1717986.8	99.987	%			20:47:18
1	Y 371.029	1016974.2	1016974.2	99.054	%			20:47:18
1	Ag 328.068†	133861.9	129788.4	486.66	µg/L	486.66	ppb	20:47:18
1	As 188.979†	1570.9	1591.4	488.31	µg/L	488.31	ppb	20:47:39
1	B 249.677†	35888.7	32387.7	475.97	µg/L	475.97	ppb	20:47:18
1	Ba 233.527†	120089.3	120241.3	484.93	µg/L	484.93	ppb	20:47:18
1	Be 313.107†	1788228.5	1789533.4	487.39	µg/L	487.39	ppb	20:47:18
1	Cd 226.502†	77187.6	77316.2	482.64	µg/L	482.64	ppb	20:47:18
1	Co 228.616†	39259.0	39454.6	487.07	µg/L	487.07	ppb	20:47:18
1	Cr 267.716†	61734.0	61563.8	482.03	µg/L	482.03	ppb	20:47:18
1	Cu 324.752†	127051.0	124095.8	483.76	µg/L	483.76	ppb	20:47:18
1	Mn 257.610†	394153.9	393969.6	487.25	µg/L	487.25	ppb	20:47:18
1	Mo 202.031†	16323.5	16345.7	480.82	µg/L	480.82	ppb	20:47:39
1	Ni 231.604†	42025.4	42107.6	484.84	µg/L	484.84	ppb	20:47:18
1	P 214.914†	11165.4	11184.8	2383.9	µg/L	2383.9	ppb	20:47:39
1	Pb 220.353†	8721.1	8635.9	483.61	µg/L	483.61	ppb	20:47:39
1	S 181.975 Axial†	1384.6	1279.7	954.32	µg/L	954.32	ppb	20:47:39
1	Sb 206.836†	4121.5	4041.3	481.48	µg/L	481.48	ppb	20:47:39
1	Se 196.026†	1330.1	1315.0	478	µg/L	478	ppb	20:47:39
1	SiO2†	55658.0	53890.1	5246.7	µg/L	5246.7	ppb	20:47:18
1	Si 251.611†	168475.5	167661.6	2462.2	µg/L	2462.2	ppb	20:47:18
1	Sn 189.927†	7694.7	7696.9	481.46	µg/L	481.46	ppb	20:47:39
1	Ti 334.940†	521521.0	520638.5	485.79	µg/L	485.79	ppb	20:47:18
1	Tl 190.801†	3795.7	3912.8	488.05	µg/L	488.05	ppb	20:47:39
1	U 409.014†	7470.6	7741.5	482.06	µg/L	482.06	ppb	20:47:18
1	V 292.402†	99032.8	98642.4	487.59	µg/L	487.59	ppb	20:47:18
1	Zn 213.857†	86847.2	86294.4	480.95	µg/L	480.95	ppb	20:47:18
2	Sc RADIAL	142003.0	142003.0	97.3	%			20:47:10
2	Al 396.153Radial†	25928.5	26708.7	4929.4	µg/L	4929.4	ppb	20:47:10
2	Ca 317.933Radial†	86471.0	88301.6	4918.7	µg/L	4918.7	ppb	20:47:10
2	Fe 238.204 Radial†	76877.1	78854.9	4860.1	µg/L	4860.1	ppb	20:47:10
2	K 766.490 Radial†	14481.3	13337.0	4878.8	µg/L	4878.8	ppb	20:47:10
2	Mg 279.077 IEC†	13250.2	13425.9	5009.9	µg/L	5009.9	ppb	20:47:10
2	Na 589.592 Radial†	70794.9	71461.8	9758.2	µg/L	9758.2	ppb	20:47:10
2	Sr 421.552†	230824.3	237342.5	493.38	µg/L	493.38	ppb	20:47:08
2	Sc 361.383	1705978.0	1705978.0	99.288	%			20:47:42
2	Y 371.029	1010151.3	1010151.3	98.389	%			20:47:42
2	Ag 328.068†	132428.5	129287.2	484.78	µg/L	484.78	ppb	20:47:42
2	As 188.979†	1571.4	1603.0	491.82	µg/L	491.82	ppb	20:48:02
2	B 249.677†	35678.8	32428.9	476.59	µg/L	476.59	ppb	20:47:42
2	Ba 233.527†	119061.0	120051.1	484.16	µg/L	484.16	ppb	20:47:42
2	Be 313.107†	1771852.0	1785628.8	486.33	µg/L	486.33	ppb	20:47:42
2	Cd 226.502†	76647.7	77315.8	482.64	µg/L	482.64	ppb	20:47:42
2	Co 228.616†	38849.5	39318.5	485.39	µg/L	485.39	ppb	20:47:42
2	Cr 267.716†	61408.7	61670.7	482.88	µg/L	482.88	ppb	20:47:42
2	Cu 324.752†	125575.7	123504.5	481.46	µg/L	481.46	ppb	20:47:42
2	Mn 257.610†	390410.2	392973.9	486.01	µg/L	486.01	ppb	20:47:42
2	Mo 202.031†	16220.6	16357.1	481.16	µg/L	481.16	ppb	20:48:02
2	Ni 231.604†	41645.6	42020.9	483.84	µg/L	483.84	ppb	20:47:42
2	P 214.914†	11149.7	11247.7	2397.4	µg/L	2397.4	ppb	20:48:02
2	Pb 220.353†	8713.0	8689.1	486.58	µg/L	486.58	ppb	20:48:02

2	S 181.975 Axial†	1386.6	1291.5	963.10 µg/L	963.10 ppb	20:48:02
2	Sb 206.836†	4077.2	4025.7	479.62 µg/L	479.62 ppb	20:48:02
2	Se 196.026†	1343.8	1338.2	486 µg/L	486 ppb	20:48:02
2	SiO2†	55264.2	53885.3	5246.2 µg/L	5246.2 ppb	20:47:42
2	Si 251.611†	166831.6	167191.9	2455.3 µg/L	2455.3 ppb	20:47:42
2	Sn 189.927†	7685.8	7742.0	484.27 µg/L	484.27 ppb	20:48:02
2	Ti 334.940†	517135.3	519893.0	485.10 µg/L	485.10 ppb	20:47:42
2	Tl 190.801†	3798.0	3941.9	491.62 µg/L	491.62 ppb	20:48:02
2	U 409.014†	7240.4	7562.3	471.53 µg/L	471.53 ppb	20:47:42
2	V 292.402†	98205.8	98506.6	486.93 µg/L	486.93 ppb	20:47:42
2	Zn 213.857†	85981.0	86033.4	479.49 µg/L	479.49 ppb	20:47:42
3	Sc RADIAL	143540.2	143540.2	98.4 %		20:47:14
3	Al 396.153Radial†	26297.7	26798.6	4945.9 µg/L	4945.9 ppb	20:47:14
3	Ca 317.933Radial†	87479.0	88374.7	4922.8 µg/L	4922.8 ppb	20:47:14
3	Fe 238.204 Radial†	77829.6	78977.1	4867.7 µg/L	4867.7 ppb	20:47:14
3	K 766.490 Radial†	14541.2	13238.5	4842.8 µg/L	4842.8 ppb	20:47:14
3	Mg 279.077 IEC†	13331.1	13362.3	4986.3 µg/L	4986.3 ppb	20:47:14
3	Na 589.592 Radial†	71517.8	71417.6	9752.2 µg/L	9752.2 ppb	20:47:14
3	Sr 421.552†	229529.4	233485.7	485.36 µg/L	485.36 ppb	20:47:12
3	Sc 361.383	1697774.9	1697774.9	98.810 %		20:48:05
3	Y 371.029	1005288.7	1005288.7	97.916 %		20:48:05
3	Ag 328.068†	132337.3	129839.4	486.83 µg/L	486.83 ppb	20:48:05
3	As 188.979†	1566.3	1605.5	492.60 µg/L	492.60 ppb	20:48:25
3	B 249.677†	35561.4	32483.7	477.39 µg/L	477.39 ppb	20:48:05
3	Ba 233.527†	118631.6	120195.8	484.75 µg/L	484.75 ppb	20:48:05
3	Be 313.107†	1768996.7	1791361.7	487.89 µg/L	487.89 ppb	20:48:05
3	Cd 226.502†	76298.6	77335.5	482.76 µg/L	482.76 ppb	20:48:05
3	Co 228.616†	38681.6	39337.6	485.62 µg/L	485.62 ppb	20:48:05
3	Cr 267.716†	61122.4	61679.8	482.95 µg/L	482.95 ppb	20:48:05
3	Cu 324.752†	125325.9	123862.7	482.85 µg/L	482.85 ppb	20:48:05
3	Mn 257.610†	389691.1	394146.1	487.47 µg/L	487.47 ppb	20:48:05
3	Mo 202.031†	16294.8	16511.0	485.68 µg/L	485.68 ppb	20:48:25
3	Ni 231.604†	41366.1	41940.7	482.92 µg/L	482.92 ppb	20:48:05
3	P 214.914†	11228.3	11381.4	2426.0 µg/L	2426.0 ppb	20:48:25
3	Pb 220.353†	8735.3	8754.1	490.22 µg/L	490.22 ppb	20:48:25
3	S 181.975 Axial†	1387.1	1298.7	968.51 µg/L	968.51 ppb	20:48:25
3	Sb 206.836†	4142.3	4111.4	489.88 µg/L	489.88 ppb	20:48:25
3	Se 196.026†	1325.9	1326.6	482 µg/L	482 ppb	20:48:25
3	SiO2†	55019.2	53906.4	5248.0 µg/L	5248.0 ppb	20:48:05
3	Si 251.611†	166054.7	167217.6	2455.6 µg/L	2455.6 ppb	20:48:05
3	Sn 189.927†	7713.9	7807.9	488.38 µg/L	488.38 ppb	20:48:25
3	Ti 334.940†	515323.4	520575.8	485.74 µg/L	485.74 ppb	20:48:05
3	Tl 190.801†	3789.8	3952.1	492.88 µg/L	492.88 ppb	20:48:25
3	U 409.014†	7240.2	7597.3	473.61 µg/L	473.61 ppb	20:48:05
3	V 292.402†	97793.8	98567.5	487.28 µg/L	487.28 ppb	20:48:05
3	Zn 213.857†	85880.1	86349.8	481.27 µg/L	481.27 ppb	20:48:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1707246.6	99.361	%	0.5916				0.60%
Sc RADIAL	142733.8	97.8	%	0.53				0.54%
Y 371.029	1010804.8	98.453	%	0.5717				0.58%
Ag 328.068†	129638.4	486.09	µg/L	1.137	486.09	ppb	1.137	0.23%
QC value within limits for Ag 328.068 Recovery = 97.22%								
Al 396.153Radial†	26781.2	4942.8	µg/L	12.14	4942.8	ppb	12.14	0.25%
QC value within limits for Al 396.153Radial Recovery = 98.86%								
As 188.979†	1600.0	490.91	µg/L	2.283	490.91	ppb	2.283	0.47%
QC value within limits for As 188.979 Recovery = 98.18%								
B 249.677†	32433.4	476.65	µg/L	0.713	476.65	ppb	0.713	0.15%
QC value within limits for B 249.677 Recovery = 95.33%								
Ba 233.527†	120162.7	484.61	µg/L	0.401	484.61	ppb	0.401	0.08%
QC value within limits for Ba 233.527 Recovery = 96.92%								
Be 313.107†	1788841.3	487.20	µg/L	0.798	487.20	ppb	0.798	0.16%
QC value within limits for Be 313.107 Recovery = 97.44%								
Ca 317.933Radial†	88306.1	4919.0	µg/L	3.70	4919.0	ppb	3.70	0.08%
QC value within limits for Ca 317.933Radial Recovery = 98.38%								
Cd 226.502†	77322.5	482.68	µg/L	0.070	482.68	ppb	0.070	0.01%
QC value within limits for Cd 226.502 Recovery = 96.54%								
Co 228.616†	39370.2	486.02	µg/L	0.909	486.02	ppb	0.909	0.19%

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   QC value within limits for Co 228.616  Recovery = 97.20%
Cr 267.716†            61638.1      482.62 µg/L         0.509      482.62 ppb          0.509   0.11%
   QC value within limits for Cr 267.716  Recovery = 96.52%
Cu 324.752†           123821.0      482.69 µg/L         1.162      482.69 ppb          1.162   0.24%
   QC value within limits for Cu 324.752  Recovery = 96.54%
Fe 238.204 Radial†     78921.6      4864.2 µg/L          3.82      4864.2 ppb           3.82   0.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.28%
K 766.490 Radial†      13272.0      4855.1 µg/L         20.61      4855.1 ppb          20.61   0.42%
   QC value within limits for K 766.490 Radial  Recovery = 97.10%
Mg 279.077 IEC†        13373.3      4990.3 µg/L         17.90      4990.3 ppb          17.90   0.36%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.81%
Mn 257.610†           393696.5      486.91 µg/L         0.783      486.91 ppb          0.783   0.16%
   QC value within limits for Mn 257.610  Recovery = 97.38%
Mo 202.031†            16404.6      482.56 µg/L         2.714      482.56 ppb          2.714   0.56%
   QC value within limits for Mo 202.031  Recovery = 96.51%
Na 589.592 Radial†     71399.2      9749.7 µg/L         10.02      9749.7 ppb          10.02   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 97.50%
Ni 231.604†            42023.1      483.87 µg/L         0.961      483.87 ppb          0.961   0.20%
   QC value within limits for Ni 231.604  Recovery = 96.77%
P 214.914†             11271.3      2402.4 µg/L         21.48      2402.4 ppb          21.48   0.89%
   QC value within limits for P 214.914  Recovery = 96.10%
Pb 220.353†             8693.1      486.80 µg/L         3.313      486.80 ppb          3.313   0.68%
   QC value within limits for Pb 220.353  Recovery = 97.36%
S 181.975 Axial†        1290.0      961.98 µg/L         7.160      961.98 ppb          7.160   0.74%
   QC value within limits for S 181.975 Axial  Recovery = 96.20%
Sb 206.836†             4059.4      483.66 µg/L         5.466      483.66 ppb          5.466   1.13%
   QC value within limits for Sb 206.836  Recovery = 96.73%
Se 196.026†             1326.6         482 µg/L           4.2         482 ppb            4.2   0.87%
   QC value within limits for Se 196.026  Recovery = 96.34%
SiO2†                  53893.9      5247.0 µg/L          0.96      5247.0 ppb           0.96   0.02%
   QC value within limits for SiO2  Recovery = 98.12%
Si 251.611†           167357.0      2457.7 µg/L          3.93      2457.7 ppb           3.93   0.16%
   QC value within limits for Si 251.611  Recovery = 98.31%
Sn 189.927†             7748.9      484.70 µg/L         3.480      484.70 ppb          3.480   0.72%
   QC value within limits for Sn 189.927  Recovery = 96.94%
Sr 421.552†           235235.2      489.00 µg/L         4.060      489.00 ppb          4.060   0.83%
   QC value within limits for Sr 421.552  Recovery = 97.80%
Ti 334.940†           520369.1      485.54 µg/L         0.386      485.54 ppb          0.386   0.08%
   QC value within limits for Ti 334.940  Recovery = 97.11%
Tl 190.801†             3935.6      490.85 µg/L         2.502      490.85 ppb          2.502   0.51%
   QC value within limits for Tl 190.801  Recovery = 98.17%
U 409.014†              7633.7      475.73 µg/L         5.576      475.73 ppb          5.576   1.17%
   QC value within limits for U 409.014  Recovery = 95.15%
V 292.402†             98572.2      487.27 µg/L         0.331      487.27 ppb          0.331   0.07%
   QC value within limits for V 292.402  Recovery = 97.45%
Zn 213.857†            86225.9      480.57 µg/L         0.949      480.57 ppb          0.949   0.20%
   QC value within limits for Zn 213.857  Recovery = 96.11%
All analyte(s) passed QC.
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Sequence No.: 39
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 20:48:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143100.4	143100.4	98.1	%			20:49:01
1	Al 396.153Radial†	-68.2	-6.4	-1.1706	µg/L	-1.1706	ppb	20:49:21
1	Ca 317.933Radial†	633.3	85.2	4.7476	µg/L	4.7476	ppb	20:49:21
1	Fe 238.204 Radial†	162.0	17.1	1.0551	µg/L	1.0551	ppb	20:49:21
1	K 766.490 Radial†	1505.7	-9.3	-3.4148	µg/L	-3.4148	ppb	20:49:01
1	Mg 279.077 IEC†	188.6	1.6	0.6053	µg/L	0.6053	ppb	20:49:21
1	Na 589.592 Radial†	1635.8	377.3	51.550	µg/L	51.550	ppb	20:49:01
1	Sr 421.552†	-135.1	-2.5	-0.0052	µg/L	-0.0052	ppb	20:49:01
1	Sc 361.383	1714287.6	1714287.6	99.771	%			20:50:09
1	Y 371.029	1025603.7	1025603.7	99.894	%			20:50:09
1	Ag 328.068†	3929.0	-153.4	-0.5739	µg/L	-0.5739	ppb	20:50:11
1	As 188.979†	-14.7	5.7	1.7126	µg/L	1.7126	ppb	20:50:31
1	B 249.677†	3483.3	-14.6	-0.2161	µg/L	-0.2161	ppb	20:50:31
1	Ba 233.527†	-124.6	11.0	0.0445	µg/L	0.0445	ppb	20:50:31
1	Be 313.107†	-819.1	243.7	0.0640	µg/L	0.0640	ppb	20:50:11
1	Cd 226.502†	-96.3	21.7	0.1352	µg/L	0.1352	ppb	20:50:31
1	Co 228.616†	-181.4	8.5	0.1049	µg/L	0.1049	ppb	20:50:31
1	Cr 267.716†	159.9	-18.3	-0.1371	µg/L	-0.1371	ppb	20:50:31
1	Cu 324.752†	2837.6	-128.1	-0.5041	µg/L	-0.5041	ppb	20:50:11
1	Mn 257.610†	255.9	19.2	0.0238	µg/L	0.0238	ppb	20:50:31
1	Mo 202.031†	-30.3	-10.3	-0.3020	µg/L	-0.3020	ppb	20:50:31
1	Ni 231.604†	-89.5	-13.2	-0.1520	µg/L	-0.1520	ppb	20:50:31
1	P 214.914†	-14.0	3.9	0.8495	µg/L	0.8495	ppb	20:50:31
1	Pb 220.353†	127.8	41.7	2.3324	µg/L	2.3324	ppb	20:50:31
1	S 181.975 Axial†	105.4	0.6	0.4193	µg/L	0.4193	ppb	20:50:31
1	Sb 206.836†	61.7	-18.9	-2.2534	µg/L	-2.2534	ppb	20:50:31
1	Se 196.026†	16.8	1.6	0.564	µg/L	0.564	ppb	20:50:31
1	SiO2†	1750.1	-21.3	-2.0737	µg/L	-2.0737	ppb	20:50:31
1	Si 251.611†	904.3	69.8	1.0310	µg/L	1.0310	ppb	20:50:11
1	Sn 189.927†	3.7	4.9	0.3040	µg/L	0.3040	ppb	20:50:31
1	Ti 334.940†	1043.2	93.0	0.0902	µg/L	0.0902	ppb	20:50:11
1	Tl 190.801†	-125.6	-9.3	-1.1347	µg/L	-1.1347	ppb	20:50:31
1	U 409.014†	-400.9	-131.9	-7.6954	µg/L	-7.6954	ppb	20:50:11
1	V 292.402†	469.6	66.9	0.3171	µg/L	0.3171	ppb	20:50:11
1	Zn 213.857†	595.1	32.0	0.1811	µg/L	0.1811	ppb	20:50:31
2	Sc RADIAL	142884.5	142884.5	97.9	%			20:49:23
2	Al 396.153Radial†	-69.1	-7.4	-1.3818	µg/L	-1.3818	ppb	20:49:43
2	Ca 317.933Radial†	615.2	67.8	3.7747	µg/L	3.7747	ppb	20:49:43
2	Fe 238.204 Radial†	156.5	11.7	0.7231	µg/L	0.7231	ppb	20:49:43
2	K 766.490 Radial†	1609.8	99.3	36.354	µg/L	36.354	ppb	20:49:23
2	Mg 279.077 IEC†	180.2	-6.7	-2.4821	µg/L	-2.4821	ppb	20:49:43
2	Na 589.592 Radial†	1524.3	266.0	36.311	µg/L	36.311	ppb	20:49:23
2	Sr 421.552†	-167.8	-36.0	-0.0750	µg/L	-0.0750	ppb	20:49:23
2	Sc 361.383	1705708.0	1705708.0	99.272	%			20:50:33
2	Y 371.029	1021576.7	1021576.7	99.502	%			20:50:33
2	Ag 328.068†	3789.2	-274.4	-1.0230	µg/L	-1.0230	ppb	20:50:35
2	As 188.979†	-3.7	16.6	5.0206	µg/L	5.0206	ppb	20:50:56
2	B 249.677†	3504.5	24.3	0.3589	µg/L	0.3589	ppb	20:50:56
2	Ba 233.527†	-135.1	-0.3	-0.0007	µg/L	-0.0007	ppb	20:50:56
2	Be 313.107†	-1027.1	30.1	0.0056	µg/L	0.0056	ppb	20:50:35
2	Cd 226.502†	-117.9	-0.5	-0.0035	µg/L	-0.0035	ppb	20:50:56
2	Co 228.616†	-184.4	4.6	0.0565	µg/L	0.0565	ppb	20:50:56
2	Cr 267.716†	197.3	20.1	0.1648	µg/L	0.1648	ppb	20:50:56
2	Cu 324.752†	2986.4	36.0	0.1330	µg/L	0.1330	ppb	20:50:35
2	Mn 257.610†	208.3	-27.5	-0.0339	µg/L	-0.0339	ppb	20:50:56
2	Mo 202.031†	-10.1	9.9	0.2925	µg/L	0.2925	ppb	20:50:56
2	Ni 231.604†	-71.6	4.4	0.0504	µg/L	0.0504	ppb	20:50:56
2	P 214.914†	-25.7	-7.9	-1.7048	µg/L	-1.7048	ppb	20:50:56
2	Pb 220.353†	88.5	2.8	0.1610	µg/L	0.1610	ppb	20:50:56

2	S 181.975 Axial†	98.5	-5.8	-4.3120 µg/L	-4.3120 ppb		20:50:56
2	Sb 206.836†	86.1	5.9	0.7055 µg/L	0.7055 ppb		20:50:56
2	Se 196.026†	6.1	-9.2	-3.32 µg/L	-3.32 ppb		20:50:56
2	SiO2†	1800.3	38.1	3.7206 µg/L	3.7206 ppb		20:50:56
2	Si 251.611†	941.5	111.8	1.6453 µg/L	1.6453 ppb		20:50:35
2	Sn 189.927†	-2.9	-1.8	-0.1151 µg/L	-0.1151 ppb		20:50:56
2	Ti 334.940†	825.1	-121.4	-0.1096 µg/L	-0.1096 ppb		20:50:35
2	Tl 190.801†	-103.9	12.0	1.4793 µg/L	1.4793 ppb		20:50:56
2	U 409.014†	-414.7	-147.9	-8.6275 µg/L	-8.6275 ppb		20:50:35
2	V 292.402†	468.7	68.3	0.3311 µg/L	0.3311 ppb		20:50:35
2	Zn 213.857†	586.6	26.4	0.1479 µg/L	0.1479 ppb		20:50:56
3	Sc RADIAL	143556.4	143556.4	98.4 %			20:49:45
3	Al 396.153Radial†	-49.6	12.8	2.3684 µg/L	2.3684 ppb		20:50:05
3	Ca 317.933Radial†	619.9	69.5	3.8728 µg/L	3.8728 ppb		20:50:05
3	Fe 238.204 Radial†	160.9	15.5	0.9527 µg/L	0.9527 ppb		20:50:05
3	K 766.490 Radial†	1716.2	199.8	73.139 µg/L	73.139 ppb		20:49:45
3	Mg 279.077 IEC†	179.3	-8.5	-3.1618 µg/L	-3.1618 ppb		20:50:05
3	Na 589.592 Radial†	1571.2	306.3	41.786 µg/L	41.786 ppb		20:49:45
3	Sr 421.552†	-111.1	22.4	0.0465 µg/L	0.0465 ppb		20:49:45
3	Sc 361.383	1721625.0	1721625.0	100.20 %			20:50:58
3	Y 371.029	1030085.4	1030085.4	100.33 %			20:50:58
3	Ag 328.068†	3859.6	-239.4	-0.8861 µg/L	-0.8861 ppb		20:51:00
3	As 188.979†	-27.5	-7.1	-2.1453 µg/L	-2.1453 ppb		20:51:20
3	B 249.677†	3491.5	-21.3	-0.3158 µg/L	-0.3158 ppb		20:51:20
3	Ba 233.527†	-142.3	-6.2	-0.0248 µg/L	-0.0248 ppb		20:51:20
3	Be 313.107†	-950.3	116.3	0.0315 µg/L	0.0315 ppb		20:51:00
3	Cd 226.502†	-122.0	-3.6	-0.0224 µg/L	-0.0224 ppb		20:51:20
3	Co 228.616†	-167.0	23.7	0.2921 µg/L	0.2921 ppb		20:51:20
3	Cr 267.716†	146.9	-32.0	-0.2498 µg/L	-0.2498 ppb		20:51:20
3	Cu 324.752†	3019.8	41.6	0.1616 µg/L	0.1616 ppb		20:51:00
3	Mn 257.610†	238.8	1.0	0.0014 µg/L	0.0014 ppb		20:51:20
3	Mo 202.031†	-20.4	-0.3	-0.0095 µg/L	-0.0095 ppb		20:51:20
3	Ni 231.604†	-92.9	-16.2	-0.1861 µg/L	-0.1861 ppb		20:51:20
3	P 214.914†	-16.8	1.2	0.2638 µg/L	0.2638 ppb		20:51:20
3	Pb 220.353†	96.5	9.9	0.5545 µg/L	0.5545 ppb		20:51:20
3	S 181.975 Axial†	97.9	-7.4	-5.4692 µg/L	-5.4692 ppb		20:51:20
3	Sb 206.836†	70.1	-10.9	-1.2853 µg/L	-1.2853 ppb		20:51:20
3	Se 196.026†	24.0	8.7	3.13 µg/L	3.13 ppb		20:51:20
3	SiO2†	1761.3	-17.6	-1.7243 µg/L	-1.7243 ppb		20:51:20
3	Si 251.611†	890.7	52.3	0.7682 µg/L	0.7682 ppb		20:51:00
3	Sn 189.927†	7.5	8.6	0.5361 µg/L	0.5361 ppb		20:51:20
3	Ti 334.940†	901.9	-52.4	-0.0483 µg/L	-0.0483 ppb		20:51:00
3	Tl 190.801†	-111.0	5.9	0.7212 µg/L	0.7212 ppb		20:51:20
3	U 409.014†	-279.5	-9.1	-0.5238 µg/L	-0.5238 ppb		20:51:00
3	V 292.402†	424.3	19.7	0.0944 µg/L	0.0944 ppb		20:51:00
3	Zn 213.857†	577.4	11.9	0.0677 µg/L	0.0677 ppb		20:51:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1713873.5	99.747	%	0.4637				0.46%
Sc RADIAL	143180.4	98.1	%	0.24				0.24%
Y 371.029	1025755.3	99.909	%	0.4146				0.41%
Ag 328.068†	-222.4	-0.8276	µg/L	0.23017	-0.8276	ppb	0.23017	27.81%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.3	-0.0614	µg/L	2.10685	-0.0614	ppb	2.10685	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.1	1.5293	µg/L	3.58647	1.5293	ppb	3.58647	234.51%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-3.9	-0.0576	µg/L	0.36418	-0.0576	ppb	0.36418	631.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.5	0.0063	µg/L	0.03518	0.0063	ppb	0.03518	557.71%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	130.0	0.0337	µg/L	0.02929	0.0337	ppb	0.02929	86.91%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	74.2	4.1317	µg/L	0.53563	4.1317	ppb	0.53563	12.96%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.9	0.0364	µg/L	0.08602	0.0364	ppb	0.08602	236.18%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.3	0.1512	µg/L	0.12445	0.1512	ppb	0.12445	82.31%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -10.0     -0.0740 µg/L       0.21436     -0.0740 ppb        0.21436 289.62%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -16.8     -0.0698 µg/L       0.37636     -0.0698 ppb        0.37636 538.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        14.8      0.9103 µg/L       0.16999      0.9103 ppb        0.16999  18.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         96.6      35.359 µg/L       38.2865      35.359 ppb        38.2865 108.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -4.5     -1.6795 µg/L       2.00766     -1.6795 ppb        2.00766 119.54%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -2.4     -0.0029 µg/L       0.02906     -0.0029 ppb        0.02906 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.2     -0.0064 µg/L       0.29725     -0.0064 ppb        0.29725 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       316.6      43.216 µg/L        7.7194      43.216 ppb         7.7194  17.86%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -8.3     -0.0959 µg/L       0.12783     -0.0959 ppb        0.12783 133.28%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.9     -0.1972 µg/L       1.33806     -0.1972 ppb        1.33806 678.62%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               18.1      1.0159 µg/L       1.15693      1.0159 ppb        1.15693 113.88%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.2     -3.1206 µg/L       3.11977     -3.1206 ppb        3.11977  99.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -8.0     -0.9444 µg/L       1.50862     -0.9444 ppb        1.50862 159.74%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.4       0.124 µg/L        3.2508       0.124 ppb         3.2508 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -0.2     -0.0258 µg/L       3.24918     -0.0258 ppb        3.24918 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               78.0      1.1482 µg/L       0.45012      1.1482 ppb        0.45012  39.20%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.9      0.2417 µg/L       0.33003      0.2417 ppb        0.33003 136.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -5.4     -0.0112 µg/L       0.06093     -0.0112 ppb        0.06093 542.16%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -26.9     -0.0226 µg/L       0.10236     -0.0226 ppb        0.10236 453.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.9      0.3552 µg/L       1.34488      0.3552 ppb        1.34488 378.59%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -96.3     -5.6156 µg/L       4.43418     -5.6156 ppb        4.43418  78.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                51.6      0.2475 µg/L       0.13284      0.2475 ppb        0.13284  53.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               23.4      0.1323 µg/L       0.05829      0.1323 ppb        0.05829  44.08%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 50
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/31/2010 21:16:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140518.4	140518.4	96.3	%			21:16:42
1	Al 396.153Radial†	25783.9	26840.0	4953.4	µg/L	4953.4	ppb	21:16:42
1	Ca 317.933Radial†	85524.3	88257.2	4916.3	µg/L	4916.3	ppb	21:16:42
1	Fe 238.204 Radial†	76323.1	79114.2	4876.1	µg/L	4876.1	ppb	21:16:42
1	K 766.490 Radial†	14404.9	13414.9	4907.4	µg/L	4907.4	ppb	21:16:42
1	Mg 279.077 IEC†	13081.5	13394.6	4998.4	µg/L	4998.4	ppb	21:16:42
1	Na 589.592 Radial†	70242.3	71656.5	9784.8	µg/L	9784.8	ppb	21:16:42
1	Sr 421.552†	226316.6	235167.3	488.86	µg/L	488.86	ppb	21:16:40
1	Sc 361.383	1669103.9	1669103.9	97.142	%			21:16:55
1	Y 371.029	989417.5	989417.5	96.370	%			21:16:55
1	Ag 328.068†	129569.0	129290.2	484.77	µg/L	484.77	ppb	21:16:55
1	As 188.979†	1551.4	1617.4	496.19	µg/L	496.19	ppb	21:17:15
1	B 249.677†	34680.4	32195.0	473.14	µg/L	473.14	ppb	21:16:55
1	Ba 233.527†	116237.8	119794.0	483.13	µg/L	483.13	ppb	21:16:55
1	Be 313.107†	1725182.2	1777010.7	483.98	µg/L	483.98	ppb	21:16:55
1	Cd 226.502†	74430.6	76738.9	479.03	µg/L	479.03	ppb	21:16:55
1	Co 228.616†	37838.5	39142.2	483.21	µg/L	483.21	ppb	21:16:55
1	Cr 267.716†	59798.9	61379.9	480.59	µg/L	480.59	ppb	21:16:55
1	Cu 324.752†	122989.1	123635.9	481.97	µg/L	481.97	ppb	21:16:55
1	Mn 257.610†	381507.5	392496.1	485.42	µg/L	485.42	ppb	21:16:55
1	Mo 202.031†	16149.2	16644.5	489.61	µg/L	489.61	ppb	21:17:15
1	Ni 231.604†	40427.6	41693.7	480.07	µg/L	480.07	ppb	21:16:55
1	P 214.914†	11040.4	11383.2	2426.3	µg/L	2426.3	ppb	21:17:15
1	Pb 220.353†	8616.0	8783.1	491.85	µg/L	491.85	ppb	21:17:15
1	S 181.975 Axial†	1370.2	1305.5	973.53	µg/L	973.53	ppb	21:17:15
1	Sb 206.836†	4075.4	4114.5	490.34	µg/L	490.34	ppb	21:17:15
1	Se 196.026†	1325.8	1349.6	490	µg/L	490	ppb	21:17:15
1	SiO2†	53789.9	53597.3	5217.7	µg/L	5217.7	ppb	21:16:55
1	Si 251.611†	162739.1	166691.2	2447.8	µg/L	2447.8	ppb	21:16:55
1	Sn 189.927†	7604.8	7829.7	489.73	µg/L	489.73	ppb	21:17:15
1	Ti 334.940†	504929.9	518835.1	484.11	µg/L	484.11	ppb	21:16:55
1	Tl 190.801†	3752.3	3979.4	496.21	µg/L	496.21	ppb	21:17:15
1	U 409.014†	7197.9	7679.6	478.26	µg/L	478.26	ppb	21:16:55
1	V 292.402†	95634.0	98044.3	484.76	µg/L	484.76	ppb	21:16:55
1	Zn 213.857†	83598.9	85494.4	476.49	µg/L	476.49	ppb	21:16:55
2	Sc RADIAL	141583.7	141583.7	97.0	%			21:16:47
2	Al 396.153Radial†	25881.7	26739.3	4934.9	µg/L	4934.9	ppb	21:16:47
2	Ca 317.933Radial†	85790.3	87863.1	4894.3	µg/L	4894.3	ppb	21:16:47
2	Fe 238.204 Radial†	76348.3	78543.7	4841.0	µg/L	4841.0	ppb	21:16:47
2	K 766.490 Radial†	14349.6	13245.3	4845.3	µg/L	4845.3	ppb	21:16:47
2	Mg 279.077 IEC†	13161.7	13375.0	4991.0	µg/L	4991.0	ppb	21:16:47
2	Na 589.592 Radial†	70371.9	71241.2	9728.1	µg/L	9728.1	ppb	21:16:47
2	Sr 421.552†	225549.9	232608.6	483.54	µg/L	483.54	ppb	21:16:44
2	Sc 361.383	1700896.9	1700896.9	98.992	%			21:17:18
2	Y 371.029	1006820.6	1006820.6	98.065	%			21:17:18
2	Ag 328.068†	132249.7	129505.0	485.59	µg/L	485.59	ppb	21:17:18
2	As 188.979†	1564.2	1600.5	491.07	µg/L	491.07	ppb	21:17:38
2	B 249.677†	35612.0	32468.8	477.17	µg/L	477.17	ppb	21:17:18
2	Ba 233.527†	119305.1	120655.9	486.60	µg/L	486.60	ppb	21:17:18
2	Be 313.107†	1771257.8	1790359.7	487.62	µg/L	487.62	ppb	21:17:18
2	Cd 226.502†	76605.7	77504.0	483.82	µg/L	483.82	ppb	21:17:18
2	Co 228.616†	38857.8	39443.8	486.94	µg/L	486.94	ppb	21:17:18
2	Cr 267.716†	61346.5	61792.6	483.83	µg/L	483.83	ppb	21:17:18
2	Cu 324.752†	126079.4	124391.1	484.90	µg/L	484.90	ppb	21:17:18
2	Mn 257.610†	390683.2	394424.4	487.81	µg/L	487.81	ppb	21:17:18
2	Mo 202.031†	16315.1	16501.3	485.39	µg/L	485.39	ppb	21:17:38
2	Ni 231.604†	41564.0	42063.8	484.33	µg/L	484.33	ppb	21:17:18
2	P 214.914†	11170.5	11302.2	2409.0	µg/L	2409.0	ppb	21:17:38
2	Pb 220.353†	8716.3	8718.6	488.24	µg/L	488.24	ppb	21:17:38

2	S 181.975 Axial†	1376.8	1285.7	958.84 µg/L	958.84 ppb	21:17:38
2	Sb 206.836†	4095.5	4056.4	483.32 µg/L	483.32 ppb	21:17:38
2	Se 196.026†	1341.9	1340.3	487 µg/L	487 ppb	21:17:38
2	SiO2†	55368.1	54156.5	5272.5 µg/L	5272.5 ppb	21:17:18
2	Si 251.611†	166631.9	167492.1	2459.6 µg/L	2459.6 ppb	21:17:18
2	Sn 189.927†	7705.9	7785.5	486.98 µg/L	486.98 ppb	21:17:38
2	Ti 334.940†	516370.1	520675.9	485.83 µg/L	485.83 ppb	21:17:18
2	Tl 190.801†	3799.4	3954.7	493.19 µg/L	493.19 ppb	21:17:38
2	U 409.014†	7223.0	7566.5	471.79 µg/L	471.79 ppb	21:17:18
2	V 292.402†	97908.7	98501.9	486.96 µg/L	486.96 ppb	21:17:18
2	Zn 213.857†	86115.5	86428.0	481.70 µg/L	481.70 ppb	21:17:18
3	Sc RADIAL	140610.0	140610.0	96.4 %		21:16:51
3	Al 396.153Radial†	25934.1	26978.5	4979.2 µg/L	4979.2 ppb	21:16:51
3	Ca 317.933Radial†	85400.8	88071.2	4905.9 µg/L	4905.9 ppb	21:16:51
3	Fe 238.204 Radial†	76011.3	78739.0	4853.0 µg/L	4853.0 ppb	21:16:51
3	K 766.490 Radial†	14473.0	13475.8	4929.7 µg/L	4929.7 ppb	21:16:51
3	Mg 279.077 IEC†	13077.3	13381.4	4993.4 µg/L	4993.4 ppb	21:16:51
3	Na 589.592 Radial†	70342.7	71713.3	9792.5 µg/L	9792.5 ppb	21:16:51
3	Sr 421.552†	223908.2	232514.8	483.35 µg/L	483.35 ppb	21:16:49
3	Sc 361.383	1690270.1	1690270.1	98.373 %		21:17:42
3	Y 371.029	1001275.7	1001275.7	97.525 %		21:17:42
3	Ag 328.068†	131972.5	130063.1	487.66 µg/L	487.66 ppb	21:17:42
3	As 188.979†	1560.3	1606.5	492.89 µg/L	492.89 ppb	21:18:02
3	B 249.677†	35493.5	32574.4	478.72 µg/L	478.72 ppb	21:17:42
3	Ba 233.527†	118281.0	120372.5	485.46 µg/L	485.46 ppb	21:17:42
3	Be 313.107†	1758207.7	1788343.2	487.07 µg/L	487.07 ppb	21:17:42
3	Cd 226.502†	76039.5	77415.0	483.26 µg/L	483.26 ppb	21:17:42
3	Co 228.616†	38697.3	39527.5	487.97 µg/L	487.97 ppb	21:17:42
3	Cr 267.716†	61022.9	61853.3	484.31 µg/L	484.31 ppb	21:17:42
3	Cu 324.752†	124975.7	124069.9	483.65 µg/L	483.65 ppb	21:17:42
3	Mn 257.610†	388217.6	394399.3	487.78 µg/L	487.78 ppb	21:17:42
3	Mo 202.031†	16264.5	16553.5	486.93 µg/L	486.93 ppb	21:18:02
3	Ni 231.604†	41303.6	42063.1	484.33 µg/L	484.33 ppb	21:17:42
3	P 214.914†	11171.7	11374.3	2424.5 µg/L	2424.5 ppb	21:18:02
3	Pb 220.353†	8697.8	8755.2	490.29 µg/L	490.29 ppb	21:18:02
3	S 181.975 Axial†	1394.3	1312.3	978.61 µg/L	978.61 ppb	21:18:02
3	Sb 206.836†	4104.7	4091.7	487.54 µg/L	487.54 ppb	21:18:02
3	Se 196.026†	1335.6	1342.4	487 µg/L	487 ppb	21:18:02
3	SiO2†	54853.9	53985.5	5255.7 µg/L	5255.7 ppb	21:17:42
3	Si 251.611†	165452.6	167351.7	2457.5 µg/L	2457.5 ppb	21:17:42
3	Sn 189.927†	7688.5	7816.7	488.93 µg/L	488.93 ppb	21:18:02
3	Ti 334.940†	512939.3	520467.8	485.64 µg/L	485.64 ppb	21:17:42
3	Tl 190.801†	3797.1	3976.5	495.87 µg/L	495.87 ppb	21:18:02
3	U 409.014†	7116.8	7504.3	468.21 µg/L	468.21 ppb	21:17:42
3	V 292.402†	97506.3	98714.7	488.01 µg/L	488.01 ppb	21:17:42
3	Zn 213.857†	85518.8	86368.4	481.37 µg/L	481.37 ppb	21:17:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1686757.0	98.169	%	0.9420				0.96%
Sc RADIAL	140904.0	96.6	%	0.40				0.42%
Y 371.029	999171.3	97.320	%	0.8659				0.89%
Ag 328.068†	129619.5	486.01	µg/L	1.489	486.01	ppb	1.489	0.31%
QC value within limits for Ag 328.068 Recovery = 97.20%								
Al 396.153Radial†	26852.6	4955.8	µg/L	22.23	4955.8	ppb	22.23	0.45%
QC value within limits for Al 396.153Radial Recovery = 99.12%								
As 188.979†	1608.1	493.38	µg/L	2.596	493.38	ppb	2.596	0.53%
QC value within limits for As 188.979 Recovery = 98.68%								
B 249.677†	32412.8	476.35	µg/L	2.879	476.35	ppb	2.879	0.60%
QC value within limits for B 249.677 Recovery = 95.27%								
Ba 233.527†	120274.1	485.06	µg/L	1.771	485.06	ppb	1.771	0.37%
QC value within limits for Ba 233.527 Recovery = 97.01%								
Be 313.107†	1785237.9	486.22	µg/L	1.958	486.22	ppb	1.958	0.40%
QC value within limits for Be 313.107 Recovery = 97.24%								
Ca 317.933Radial†	88063.9	4905.5	µg/L	10.98	4905.5	ppb	10.98	0.22%
QC value within limits for Ca 317.933Radial Recovery = 98.11%								
Cd 226.502†	77219.3	482.04	µg/L	2.617	482.04	ppb	2.617	0.54%
QC value within limits for Cd 226.502 Recovery = 96.41%								
Co 228.616†	39371.2	486.04	µg/L	2.502	486.04	ppb	2.502	0.51%

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   QC value within limits for Co 228.616  Recovery = 97.21%
Cr 267.716†            61675.3      482.91 µg/L         2.021      482.91 ppb          2.021   0.42%
   QC value within limits for Cr 267.716  Recovery = 96.58%
Cu 324.752†           124032.3      483.51 µg/L         1.468      483.51 ppb          1.468   0.30%
   QC value within limits for Cu 324.752  Recovery = 96.70%
Fe 238.204 Radial†     78799.0      4856.7 µg/L         17.87      4856.7 ppb          17.87   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.13%
K 766.490 Radial†      13378.7      4894.1 µg/L         43.71      4894.1 ppb          43.71   0.89%
   QC value within limits for K 766.490 Radial  Recovery = 97.88%
Mg 279.077 IEC†        13383.7      4994.3 µg/L          3.76      4994.3 ppb           3.76   0.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.89%
Mn 257.610†           393773.3      487.00 µg/L         1.369      487.00 ppb          1.369   0.28%
   QC value within limits for Mn 257.610  Recovery = 97.40%
Mo 202.031†            16566.4      487.31 µg/L         2.131      487.31 ppb          2.131   0.44%
   QC value within limits for Mo 202.031  Recovery = 97.46%
Na 589.592 Radial†     71537.0      9768.5 µg/L         35.17      9768.5 ppb          35.17   0.36%
   QC value within limits for Na 589.592 Radial  Recovery = 97.68%
Ni 231.604†            41940.2      482.91 µg/L         2.458      482.91 ppb          2.458   0.51%
   QC value within limits for Ni 231.604  Recovery = 96.58%
P 214.914†             11353.2      2419.9 µg/L          9.51      2419.9 ppb           9.51   0.39%
   QC value within limits for P 214.914  Recovery = 96.80%
Pb 220.353†             8752.3      490.13 µg/L         1.809      490.13 ppb          1.809   0.37%
   QC value within limits for Pb 220.353  Recovery = 98.03%
S 181.975 Axial†        1301.2      970.33 µg/L        10.267      970.33 ppb         10.267   1.06%
   QC value within limits for S 181.975 Axial  Recovery = 97.03%
Sb 206.836†             4087.6      487.07 µg/L         3.532      487.07 ppb          3.532   0.73%
   QC value within limits for Sb 206.836  Recovery = 97.41%
Se 196.026†             1344.1         488 µg/L           1.8         488 ppb            1.8   0.36%
   QC value within limits for Se 196.026  Recovery = 97.61%
SiO2†                  53913.1      5248.7 µg/L         28.09      5248.7 ppb          28.09   0.54%
   QC value within limits for SiO2  Recovery = 98.15%
Si 251.611†           167178.3      2455.0 µg/L          6.34      2455.0 ppb           6.34   0.26%
   QC value within limits for Si 251.611  Recovery = 98.20%
Sn 189.927†             7810.6      488.55 µg/L         1.414      488.55 ppb          1.414   0.29%
   QC value within limits for Sn 189.927  Recovery = 97.71%
Sr 421.552†           233430.2      485.25 µg/L         3.129      485.25 ppb          3.129   0.64%
   QC value within limits for Sr 421.552  Recovery = 97.05%
Ti 334.940†           519992.9      485.19 µg/L         0.943      485.19 ppb          0.943   0.19%
   QC value within limits for Ti 334.940  Recovery = 97.04%
Tl 190.801†             3970.2      495.09 µg/L         1.653      495.09 ppb          1.653   0.33%
   QC value within limits for Tl 190.801  Recovery = 99.02%
U 409.014†              7583.5      472.76 µg/L         5.091      472.76 ppb          5.091   1.08%
   QC value within limits for U 409.014  Recovery = 94.55%
V 292.402†             98420.3      486.58 µg/L         1.660      486.58 ppb          1.660   0.34%
   QC value within limits for V 292.402  Recovery = 97.32%
Zn 213.857†            86097.0      479.85 µg/L         2.921      479.85 ppb          2.921   0.61%
   QC value within limits for Zn 213.857  Recovery = 95.97%
All analyte(s) passed QC.
```

Sequence No.: 51
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/31/2010 21:18:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142340.5	142340.5	97.5	%			21:18:39
1	Al 396.153Radial†	-77.4	-16.2	-2.9808	µg/L	-2.9808	ppb	21:18:59
1	Ca 317.933Radial†	613.3	68.2	3.7996	µg/L	3.7996	ppb	21:18:59
1	Fe 238.204 Radial†	174.0	30.3	1.8673	µg/L	1.8673	ppb	21:18:59
1	K 766.490 Radial†	1617.0	113.0	41.366	µg/L	41.366	ppb	21:18:39
1	Mg 279.077 IEC†	173.7	-12.6	-4.7201	µg/L	-4.7201	ppb	21:18:59
1	Na 589.592 Radial†	1689.2	441.0	60.210	µg/L	60.210	ppb	21:18:39
1	Sr 421.552†	-87.4	45.7	0.0949	µg/L	0.0949	ppb	21:18:39
1	Sc 361.383	1691761.1	1691761.1	98.460	%			21:19:47
1	Y 371.029	1013835.9	1013835.9	98.748	%			21:19:47
1	Ag 328.068†	3999.1	-29.8	-0.1074	µg/L	-0.1074	ppb	21:19:49
1	As 188.979†	-10.2	10.0	3.0117	µg/L	3.0117	ppb	21:20:09
1	B 249.677†	3413.6	-39.0	-0.5756	µg/L	-0.5756	ppb	21:19:49
1	Ba 233.527†	-138.5	-4.8	-0.0197	µg/L	-0.0197	ppb	21:20:09
1	Be 313.107†	-974.4	75.0	0.0212	µg/L	0.0212	ppb	21:19:49
1	Cd 226.502†	-119.6	-3.3	-0.0208	µg/L	-0.0208	ppb	21:20:09
1	Co 228.616†	-162.5	25.3	0.3117	µg/L	0.3117	ppb	21:20:09
1	Cr 267.716†	206.6	31.2	0.2430	µg/L	0.2430	ppb	21:20:09
1	Cu 324.752†	2962.7	36.8	0.1452	µg/L	0.1452	ppb	21:19:49
1	Mn 257.610†	261.8	28.6	0.0356	µg/L	0.0356	ppb	21:20:09
1	Mo 202.031†	-32.6	-13.1	-0.3839	µg/L	-0.3839	ppb	21:20:09
1	Ni 231.604†	-104.8	-29.9	-0.3447	µg/L	-0.3447	ppb	21:20:09
1	P 214.914†	-11.4	6.4	1.3624	µg/L	1.3624	ppb	21:20:09
1	Pb 220.353†	75.5	-9.7	-0.5434	µg/L	-0.5434	ppb	21:20:09
1	S 181.975 Axial†	111.4	8.1	5.9955	µg/L	5.9955	ppb	21:20:09
1	Sb 206.836†	80.6	1.0	0.1122	µg/L	0.1122	ppb	21:20:09
1	Se 196.026†	3.3	-12.0	-4.33	µg/L	-4.33	ppb	21:20:09
1	SiO2†	1809.6	62.5	6.1130	µg/L	6.1130	ppb	21:20:09
1	Si 251.611†	946.2	124.4	1.8365	µg/L	1.8365	ppb	21:19:49
1	Sn 189.927†	4.9	6.1	0.3820	µg/L	0.3820	ppb	21:20:09
1	Ti 334.940†	770.9	-169.6	-0.1590	µg/L	-0.1590	ppb	21:19:49
1	Tl 190.801†	-120.5	-5.8	-0.7102	µg/L	-0.7102	ppb	21:20:09
1	U 409.014†	-225.3	41.0	2.4000	µg/L	2.4000	ppb	21:19:49
1	V 292.402†	398.1	0.6	0.0014	µg/L	0.0014	ppb	21:19:49
1	Zn 213.857†	596.3	41.2	0.2333	µg/L	0.2333	ppb	21:20:09
2	Sc RADIAL	140388.8	140388.8	96.2	%			21:19:01
2	Al 396.153Radial†	-40.1	21.6	4.0106	µg/L	4.0106	ppb	21:19:21
2	Ca 317.933Radial†	583.2	45.7	2.5430	µg/L	2.5430	ppb	21:19:21
2	Fe 238.204 Radial†	163.9	22.3	1.3738	µg/L	1.3738	ppb	21:19:21
2	K 766.490 Radial†	1756.0	280.5	102.70	µg/L	102.70	ppb	21:19:01
2	Mg 279.077 IEC†	185.4	2.0	0.7420	µg/L	0.7420	ppb	21:19:21
2	Na 589.592 Radial†	1757.4	535.9	73.122	µg/L	73.122	ppb	21:19:01
2	Sr 421.552†	-150.8	-21.5	-0.0447	µg/L	-0.0447	ppb	21:19:01
2	Sc 361.383	1725840.2	1725840.2	100.44	%			21:20:11
2	Y 371.029	1031661.1	1031661.1	100.48	%			21:20:11
2	Ag 328.068†	4128.5	18.9	0.0653	µg/L	0.0653	ppb	21:20:13
2	As 188.979†	-6.9	13.5	4.0841	µg/L	4.0841	ppb	21:20:34
2	B 249.677†	3476.1	-45.2	-0.6676	µg/L	-0.6676	ppb	21:20:13
2	Ba 233.527†	-122.5	13.9	0.0557	µg/L	0.0557	ppb	21:20:34
2	Be 313.107†	-1003.4	65.7	0.0171	µg/L	0.0171	ppb	21:20:13
2	Cd 226.502†	-100.9	17.7	0.1106	µg/L	0.1106	ppb	21:20:34
2	Co 228.616†	-165.4	25.6	0.3157	µg/L	0.3157	ppb	21:20:34
2	Cr 267.716†	175.4	-3.9	-0.0289	µg/L	-0.0289	ppb	21:20:34
2	Cu 324.752†	2951.3	-34.0	-0.1338	µg/L	-0.1338	ppb	21:20:13
2	Mn 257.610†	228.4	-9.9	-0.0123	µg/L	-0.0123	ppb	21:20:34
2	Mo 202.031†	-29.3	-9.0	-0.2659	µg/L	-0.2659	ppb	21:20:34
2	Ni 231.604†	-82.5	-5.6	-0.0645	µg/L	-0.0645	ppb	21:20:34
2	P 214.914†	-14.3	3.8	0.8123	µg/L	0.8123	ppb	21:20:34
2	Pb 220.353†	82.1	-4.7	-0.2595	µg/L	-0.2595	ppb	21:20:34

2	S 181.975 Axial†	91.3	-14.1	-10.498 µg/L	-10.498 ppb	21:20:34
2	Sb 206.836†	71.7	-9.4	-1.1204 µg/L	-1.1204 ppb	21:20:34
2	Se 196.026†	16.3	0.9	0.337 µg/L	0.337 ppb	21:20:34
2	SiO2†	1744.2	-38.9	-3.7990 µg/L	-3.7990 ppb	21:20:34
2	Si 251.611†	837.7	-2.5	-0.0368 µg/L	-0.0368 ppb	21:20:13
2	Sn 189.927†	6.2	7.3	0.4532 µg/L	0.4532 ppb	21:20:34
2	Ti 334.940†	756.2	-199.7	-0.1855 µg/L	-0.1855 ppb	21:20:13
2	Tl 190.801†	-123.1	-5.9	-0.7309 µg/L	-0.7309 ppb	21:20:34
2	U 409.014†	-314.2	-43.0	-2.5195 µg/L	-2.5195 ppb	21:20:13
2	V 292.402†	382.0	-23.5	-0.1192 µg/L	-0.1192 ppb	21:20:13
2	Zn 213.857†	586.1	19.1	0.1074 µg/L	0.1074 ppb	21:20:34
3	Sc RADIAL	142445.8	142445.8	97.6 %		21:19:23
3	Al 396.153Radial†	-90.2	-29.2	-5.4175 µg/L	-5.4175 ppb	21:19:43
3	Ca 317.933Radial†	593.8	47.8	2.6599 µg/L	2.6599 ppb	21:19:43
3	Fe 238.204 Radial†	167.0	23.0	1.4166 µg/L	1.4166 ppb	21:19:43
3	K 766.490 Radial†	1597.6	91.9	33.647 µg/L	33.647 ppb	21:19:23
3	Mg 279.077 IEC†	184.4	-1.8	-0.6658 µg/L	-0.6658 ppb	21:19:43
3	Na 589.592 Radial†	1758.3	510.5	69.717 µg/L	69.717 ppb	21:19:23
3	Sr 421.552†	-153.0	-21.4	-0.0445 µg/L	-0.0445 ppb	21:19:23
3	Sc 361.383	1713474.3	1713474.3	99.724 %		21:20:36
3	Y 371.029	1024068.4	1024068.4	99.745 %		21:20:36
3	Ag 328.068†	4150.2	70.3	0.2535 µg/L	0.2535 ppb	21:20:38
3	As 188.979†	-9.9	10.5	3.1681 µg/L	3.1681 ppb	21:20:58
3	B 249.677†	3600.1	104.2	1.5371 µg/L	1.5371 ppb	21:20:38
3	Ba 233.527†	-126.3	9.2	0.0373 µg/L	0.0373 ppb	21:20:58
3	Be 313.107†	-965.7	96.3	0.0240 µg/L	0.0240 ppb	21:20:38
3	Cd 226.502†	-105.6	12.3	0.0767 µg/L	0.0767 ppb	21:20:58
3	Co 228.616†	-193.8	-4.0	-0.0492 µg/L	-0.0492 ppb	21:20:58
3	Cr 267.716†	191.2	13.1	0.1087 µg/L	0.1087 ppb	21:20:58
3	Cu 324.752†	2975.4	11.4	0.0383 µg/L	0.0383 ppb	21:20:38
3	Mn 257.610†	236.4	-0.2	-0.0002 µg/L	-0.0002 ppb	21:20:58
3	Mo 202.031†	-19.1	0.9	0.0276 µg/L	0.0276 ppb	21:20:58
3	Ni 231.604†	-66.0	10.3	0.1188 µg/L	0.1188 ppb	21:20:58
3	P 214.914†	-5.2	12.7	2.7193 µg/L	2.7193 ppb	21:20:58
3	Pb 220.353†	57.4	-28.8	-1.6039 µg/L	-1.6039 ppb	21:20:58
3	S 181.975 Axial†	102.3	-2.4	-1.8005 µg/L	-1.8005 ppb	21:20:58
3	Sb 206.836†	78.7	-1.9	-0.2267 µg/L	-0.2267 ppb	21:20:58
3	Se 196.026†	18.0	2.8	0.995 µg/L	0.995 ppb	21:20:58
3	SiO2†	1745.8	-24.7	-2.4280 µg/L	-2.4280 ppb	21:20:58
3	Si 251.611†	1027.5	193.7	2.8516 µg/L	2.8516 ppb	21:20:38
3	Sn 189.927†	9.3	10.4	0.6506 µg/L	0.6506 ppb	21:20:58
3	Ti 334.940†	1090.0	140.5	0.1344 µg/L	0.1344 ppb	21:20:38
3	Tl 190.801†	-127.7	-11.4	-1.3953 µg/L	-1.3953 ppb	21:20:58
3	U 409.014†	-395.2	-126.4	-7.3813 µg/L	-7.3813 ppb	21:20:38
3	V 292.402†	441.4	38.8	0.1850 µg/L	0.1850 ppb	21:20:38
3	Zn 213.857†	582.7	19.9	0.1107 µg/L	0.1107 ppb	21:20:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1710358.5	99.543	%	1.0041				1.01%
Sc RADIAL	141725.0	97.1	%	0.79				0.82%
Y 371.029	1023188.4	99.659	%	0.8713				0.87%
Ag 328.068†	19.8	0.0705	µg/L	0.18052	0.0705	ppb	0.18052	256.19%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.9	-1.4626	µg/L	4.89399	-1.4626	ppb	4.89399	334.61%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.3	3.4213	µg/L	0.57932	3.4213	ppb	0.57932	16.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	6.7	0.0980	µg/L	1.24716	0.0980	ppb	1.24716	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.1	0.0244	µg/L	0.03927	0.0244	ppb	0.03927	160.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	79.0	0.0208	µg/L	0.00345	0.0208	ppb	0.00345	16.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	53.9	3.0008	µg/L	0.69420	3.0008	ppb	0.69420	23.13%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.9	0.0555	µg/L	0.06825	0.0555	ppb	0.06825	123.01%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	15.6	0.1927	µg/L	0.20954	0.1927	ppb	0.20954	108.73%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              13.5      0.1076 µg/L       0.13596      0.1076 ppb        0.13596 126.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               4.7      0.0166 µg/L       0.14075      0.0166 ppb        0.14075 850.04%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       25.2      1.5526 µg/L       0.27342      1.5526 ppb        0.27342  17.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       161.8      59.237 µg/L       37.8362      59.237 ppb        37.8362  63.87%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -4.1     -1.5480 µg/L       2.83593     -1.5480 ppb        2.83593 183.20%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               6.2      0.0077 µg/L       0.02490      0.0077 ppb        0.02490 322.21%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -7.1     -0.2074 µg/L       0.21190     -0.2074 ppb        0.21190 102.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      495.8      67.683 µg/L        6.6920      67.683 ppb         6.6920   9.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -8.4     -0.0968 µg/L       0.23339     -0.0968 ppb        0.23339 241.07%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                7.6      1.6313 µg/L       0.98157      1.6313 ppb        0.98157  60.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -14.4     -0.8023 µg/L       0.70858     -0.8023 ppb        0.70858  88.32%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.8     -2.1010 µg/L       8.25080     -2.1010 ppb        8.25080 392.71%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.4     -0.4117 µg/L       0.63677     -0.4117 ppb        0.63677 154.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.8      -0.998 µg/L        2.9005      -0.998 ppb         2.9005 290.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -0.4     -0.0380 µg/L       5.37088     -0.0380 ppb        5.37088 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             105.2      1.5504 µg/L       1.46530      1.5504 ppb        1.46530  94.51%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.9      0.4953 µg/L       0.13914      0.4953 ppb        0.13914  28.09%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               0.9      0.0019 µg/L       0.08056      0.0019 ppb        0.08056 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -76.2     -0.0700 µg/L       0.17755     -0.0700 ppb        0.17755 253.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -7.7     -0.9455 µg/L       0.38970     -0.9455 ppb        0.38970  41.22%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -42.8     -2.5003 µg/L       4.89065     -2.5003 ppb        4.89065 195.61%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                5.3      0.0224 µg/L       0.15317      0.0224 ppb        0.15317 684.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              26.7      0.1505 µg/L       0.07173      0.1505 ppb        0.07173  47.67%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 61
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 21:39:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143665.7	143665.7	98.4	%			21:40:31
1	Al 396.153Radial†	26354.7	26833.2	4952.4	µg/L	4952.4	ppb	21:40:31
1	Ca 317.933Radial†	87317.1	88132.5	4909.3	µg/L	4909.3	ppb	21:40:31
1	Fe 238.204 Radial†	78178.3	79262.3	4885.2	µg/L	4885.2	ppb	21:40:31
1	K 766.490 Radial†	14683.9	13370.5	4891.1	µg/L	4891.1	ppb	21:40:31
1	Mg 279.077 IEC†	13397.8	13418.2	5007.1	µg/L	5007.1	ppb	21:40:31
1	Na 589.592 Radial†	71164.9	70995.6	9694.5	µg/L	9694.5	ppb	21:40:31
1	Sr 421.552†	233220.3	237030.9	492.73	µg/L	492.73	ppb	21:40:29
1	Sc 361.383	1721068.9	1721068.9	100.17	%			21:40:44
1	Y 371.029	1018507.5	1018507.5	99.203	%			21:40:44
1	Ag 328.068†	133737.4	129424.5	485.29	µg/L	485.29	ppb	21:40:44
1	As 188.979†	1607.1	1624.8	498.43	µg/L	498.43	ppb	21:41:04
1	B 249.677†	35997.3	32431.8	476.62	µg/L	476.62	ppb	21:40:44
1	Ba 233.527†	120429.2	120365.5	485.43	µg/L	485.43	ppb	21:40:44
1	Be 313.107†	1795349.9	1793440.3	488.46	µg/L	488.46	ppb	21:40:44
1	Cd 226.502†	77524.8	77514.6	483.88	µg/L	483.88	ppb	21:40:44
1	Co 228.616†	39299.3	39424.5	486.69	µg/L	486.69	ppb	21:40:44
1	Cr 267.716†	61864.3	61583.2	482.19	µg/L	482.19	ppb	21:40:44
1	Cu 324.752†	127127.0	123944.2	483.17	µg/L	483.17	ppb	21:40:44
1	Mn 257.610†	395346.6	394454.4	487.85	µg/L	487.85	ppb	21:40:44
1	Mo 202.031†	16480.7	16473.5	484.58	µg/L	484.58	ppb	21:41:04
1	Ni 231.604†	41947.7	41954.7	483.08	µg/L	483.08	ppb	21:40:44
1	P 214.914†	11320.1	11319.3	2412.7	µg/L	2412.7	ppb	21:41:04
1	Pb 220.353†	8845.0	8744.0	489.65	µg/L	489.65	ppb	21:41:04
1	S 181.975 Axial†	1407.4	1300.0	969.45	µg/L	969.45	ppb	21:41:04
1	Sb 206.836†	4164.4	4076.7	485.74	µg/L	485.74	ppb	21:41:04
1	Se 196.026†	1354.0	1336.4	485	µg/L	485	ppb	21:41:04
1	SiO2†	55679.1	53811.5	5238.8	µg/L	5238.8	ppb	21:40:44
1	Si 251.611†	168734.5	167618.4	2461.5	µg/L	2461.5	ppb	21:40:44
1	Sn 189.927†	7779.1	7767.4	485.85	µg/L	485.85	ppb	21:41:04
1	Ti 334.940†	522596.2	520777.9	485.92	µg/L	485.92	ppb	21:40:44
1	Tl 190.801†	3874.4	3984.7	496.88	µg/L	496.88	ppb	21:41:04
1	U 409.014†	7407.3	7664.9	477.49	µg/L	477.49	ppb	21:40:44
1	V 292.402†	98914.4	98346.8	486.18	µg/L	486.18	ppb	21:40:44
1	Zn 213.857†	87152.2	86443.4	481.80	µg/L	481.80	ppb	21:40:44
2	Sc RADIAL	145456.2	145456.2	99.7	%			21:40:35
2	Al 396.153Radial†	26834.6	26985.2	4980.5	µg/L	4980.5	ppb	21:40:35
2	Ca 317.933Radial†	88881.4	88610.2	4935.9	µg/L	4935.9	ppb	21:40:35
2	Fe 238.204 Radial†	79662.0	79773.3	4916.7	µg/L	4916.7	ppb	21:40:35
2	K 766.490 Radial†	14845.0	13348.6	4883.1	µg/L	4883.1	ppb	21:40:35
2	Mg 279.077 IEC†	13510.7	13364.0	4986.9	µg/L	4986.9	ppb	21:40:35
2	Na 589.592 Radial†	72176.6	71120.8	9711.6	µg/L	9711.6	ppb	21:40:35
2	Sr 421.552†	230930.1	231817.3	481.90	µg/L	481.90	ppb	21:40:33
2	Sc 361.383	1718468.2	1718468.2	100.01	%			21:41:07
2	Y 371.029	1016391.1	1016391.1	98.997	%			21:41:07
2	Ag 328.068†	133896.2	129785.3	486.62	µg/L	486.62	ppb	21:41:07
2	As 188.979†	1611.9	1632.1	500.64	µg/L	500.64	ppb	21:41:27
2	B 249.677†	36060.3	32549.2	478.36	µg/L	478.36	ppb	21:41:07
2	Ba 233.527†	120340.6	120458.9	485.81	µg/L	485.81	ppb	21:41:07
2	Be 313.107†	1792650.3	1793453.6	488.45	µg/L	488.45	ppb	21:41:07
2	Cd 226.502†	77583.4	77690.3	484.97	µg/L	484.97	ppb	21:41:07
2	Co 228.616†	39213.4	39398.0	486.37	µg/L	486.37	ppb	21:41:07
2	Cr 267.716†	61991.1	61803.5	483.93	µg/L	483.93	ppb	21:41:07
2	Cu 324.752†	127061.9	124071.2	483.66	µg/L	483.66	ppb	21:41:07
2	Mn 257.610†	395040.3	394745.5	488.21	µg/L	488.21	ppb	21:41:07
2	Mo 202.031†	16505.0	16522.7	486.03	µg/L	486.03	ppb	21:41:27
2	Ni 231.604†	42190.5	42260.9	486.60	µg/L	486.60	ppb	21:41:07
2	P 214.914†	11360.6	11376.9	2425.0	µg/L	2425.0	ppb	21:41:27
2	Pb 220.353†	8840.9	8753.2	490.18	µg/L	490.18	ppb	21:41:27

2	S 181.975 Axial†	1398.8	1293.6	964.68 µg/L	964.68 ppb	21:41:27
2	Sb 206.836†	4174.1	4092.7	487.64 µg/L	487.64 ppb	21:41:27
2	Se 196.026†	1355.3	1339.8	486 µg/L	486 ppb	21:41:27
2	SiO2†	55809.3	54025.8	5259.7 µg/L	5259.7 ppb	21:41:07
2	Si 251.611†	168475.9	167614.8	2461.4 µg/L	2461.4 ppb	21:41:07
2	Sn 189.927†	7806.2	7806.1	488.27 µg/L	488.27 ppb	21:41:27
2	Ti 334.940†	521521.1	520492.6	485.66 µg/L	485.66 ppb	21:41:07
2	Tl 190.801†	3825.2	3941.3	491.55 µg/L	491.55 ppb	21:41:27
2	U 409.014†	7087.5	7356.3	459.54 µg/L	459.54 ppb	21:41:07
2	V 292.402†	99089.1	98670.9	487.77 µg/L	487.77 ppb	21:41:07
2	Zn 213.857†	87415.4	86838.2	483.99 µg/L	483.99 ppb	21:41:07
3	Sc RADIAL	143191.9	143191.9	98.1 %		21:40:39
3	Al 396.153Radial†	26557.8	27128.8	5007.1 µg/L	5007.1 ppb	21:40:39
3	Ca 317.933Radial†	87348.5	88458.0	4927.5 µg/L	4927.5 ppb	21:40:39
3	Fe 238.204 Radial†	78236.9	79584.7	4905.1 µg/L	4905.1 ppb	21:40:39
3	K 766.490 Radial†	14659.9	13395.4	4900.3 µg/L	4900.3 ppb	21:40:39
3	Mg 279.077 IEC†	13262.5	13325.4	4972.5 µg/L	4972.5 ppb	21:40:39
3	Na 589.592 Radial†	71088.0	71156.4	9716.5 µg/L	9716.5 ppb	21:40:39
3	Sr 421.552†	229311.5	233831.2	486.08 µg/L	486.08 ppb	21:40:37
3	Sc 361.383	1712233.1	1712233.1	99.652 %		21:41:30
3	Y 371.029	1012145.6	1012145.6	98.583 %		21:41:30
3	Ag 328.068†	133864.3	130240.8	488.35 µg/L	488.35 ppb	21:41:30
3	As 188.979†	1597.0	1622.9	497.89 µg/L	497.89 ppb	21:41:50
3	B 249.677†	36087.2	32707.4	480.68 µg/L	480.68 ppb	21:41:30
3	Ba 233.527†	120029.4	120584.8	486.32 µg/L	486.32 ppb	21:41:30
3	Be 313.107†	1789689.6	1797009.6	489.43 µg/L	489.43 ppb	21:41:30
3	Cd 226.502†	77607.6	77997.0	486.89 µg/L	486.89 ppb	21:41:30
3	Co 228.616†	39237.2	39564.7	488.42 µg/L	488.42 ppb	21:41:30
3	Cr 267.716†	61895.9	61933.7	484.93 µg/L	484.93 ppb	21:41:30
3	Cu 324.752†	126699.8	124170.4	484.06 µg/L	484.06 ppb	21:41:30
3	Mn 257.610†	394236.6	395377.2	488.99 µg/L	488.99 ppb	21:41:30
3	Mo 202.031†	16435.8	16513.3	485.75 µg/L	485.75 ppb	21:41:50
3	Ni 231.604†	42100.7	42324.4	487.33 µg/L	487.33 ppb	21:41:30
3	P 214.914†	11331.6	11389.1	2427.6 µg/L	2427.6 ppb	21:41:50
3	Pb 220.353†	8803.4	8747.8	489.86 µg/L	489.86 ppb	21:41:50
3	S 181.975 Axial†	1399.9	1299.7	969.26 µg/L	969.26 ppb	21:41:50
3	Sb 206.836†	4147.7	4081.4	486.29 µg/L	486.29 ppb	21:41:50
3	Se 196.026†	1361.2	1350.7	490 µg/L	490 ppb	21:41:50
3	SiO2†	55566.3	53985.2	5255.7 µg/L	5255.7 ppb	21:41:30
3	Si 251.611†	168537.6	168290.1	2471.4 µg/L	2471.4 ppb	21:41:30
3	Sn 189.927†	7783.2	7811.5	488.60 µg/L	488.60 ppb	21:41:50
3	Ti 334.940†	520012.8	520877.8	486.02 µg/L	486.02 ppb	21:41:30
3	Tl 190.801†	3855.0	3985.2	496.95 µg/L	496.95 ppb	21:41:50
3	U 409.014†	7438.0	7733.9	481.69 µg/L	481.69 ppb	21:41:30
3	V 292.402†	98978.3	98920.4	489.01 µg/L	489.01 ppb	21:41:30
3	Zn 213.857†	86968.8	86708.3	483.25 µg/L	483.25 ppb	21:41:30

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1717256.7	99.944	%	0.2643				0.26%
Sc RADIAL	144104.6	98.7	%	0.82				0.83%
Y 371.029	1015681.4	98.928	%	0.3156				0.32%
Ag 328.068†	129816.8	486.75	µg/L	1.535	486.75	ppb	1.535	0.32%
QC value within limits for Ag 328.068 Recovery = 97.35%								
Al 396.153Radial†	26982.4	4980.0	µg/L	27.38	4980.0	ppb	27.38	0.55%
QC value within limits for Al 396.153Radial Recovery = 99.60%								
As 188.979†	1626.6	498.99	µg/L	1.460	498.99	ppb	1.460	0.29%
QC value within limits for As 188.979 Recovery = 99.80%								
B 249.677†	32562.8	478.55	µg/L	2.037	478.55	ppb	2.037	0.43%
QC value within limits for B 249.677 Recovery = 95.71%								
Ba 233.527†	120469.8	485.85	µg/L	0.444	485.85	ppb	0.444	0.09%
QC value within limits for Ba 233.527 Recovery = 97.17%								
Be 313.107†	1794634.5	488.78	µg/L	0.562	488.78	ppb	0.562	0.12%
QC value within limits for Be 313.107 Recovery = 97.76%								
Ca 317.933Radial†	88400.3	4924.2	µg/L	13.59	4924.2	ppb	13.59	0.28%
QC value within limits for Ca 317.933Radial Recovery = 98.48%								
Cd 226.502†	77734.0	485.25	µg/L	1.525	485.25	ppb	1.525	0.31%
QC value within limits for Cd 226.502 Recovery = 97.05%								
Co 228.616†	39462.4	487.16	µg/L	1.106	487.16	ppb	1.106	0.23%

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   QC value within limits for Co 228.616  Recovery = 97.43%
Cr 267.716†            61773.5      483.68 µg/L         1.389      483.68 ppb          1.389   0.29%
   QC value within limits for Cr 267.716  Recovery = 96.74%
Cu 324.752†           124061.9      483.63 µg/L         0.443      483.63 ppb          0.443   0.09%
   QC value within limits for Cu 324.752  Recovery = 96.73%
Fe 238.204 Radial†     79540.1      4902.4 µg/L         15.93      4902.4 ppb          15.93   0.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.05%
K 766.490 Radial†      13371.5      4891.5 µg/L          8.58      4891.5 ppb           8.58   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 97.83%
Mg 279.077 IEC†        13369.2      4988.8 µg/L         17.36      4988.8 ppb          17.36   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.78%
Mn 257.610†           394859.0      488.35 µg/L         0.584      488.35 ppb          0.584   0.12%
   QC value within limits for Mn 257.610  Recovery = 97.67%
Mo 202.031†            16503.2      485.45 µg/L         0.769      485.45 ppb          0.769   0.16%
   QC value within limits for Mo 202.031  Recovery = 97.09%
Na 589.592 Radial†     71090.9      9707.5 µg/L         11.54      9707.5 ppb          11.54   0.12%
   QC value within limits for Na 589.592 Radial  Recovery = 97.08%
Ni 231.604†            42180.0      485.67 µg/L         2.276      485.67 ppb          2.276   0.47%
   QC value within limits for Ni 231.604  Recovery = 97.13%
P 214.914†             11361.8      2421.7 µg/L          7.97      2421.7 ppb           7.97   0.33%
   QC value within limits for P 214.914  Recovery = 96.87%
Pb 220.353†             8748.3      489.90 µg/L         0.268      489.90 ppb          0.268   0.05%
   QC value within limits for Pb 220.353  Recovery = 97.98%
S 181.975 Axial†        1297.8      967.80 µg/L         2.698      967.80 ppb          2.698   0.28%
   QC value within limits for S 181.975 Axial  Recovery = 96.78%
Sb 206.836†             4083.6      486.56 µg/L         0.979      486.56 ppb          0.979   0.20%
   QC value within limits for Sb 206.836  Recovery = 97.31%
Se 196.026†             1342.3         487 µg/L           2.7         487 ppb            2.7   0.55%
   QC value within limits for Se 196.026  Recovery = 97.48%
SiO2†                  53940.8      5251.4 µg/L         11.08      5251.4 ppb          11.08   0.21%
   QC value within limits for SiO2  Recovery = 98.20%
Si 251.611†           167841.1      2464.8 µg/L          5.72      2464.8 ppb           5.72   0.23%
   QC value within limits for Si 251.611  Recovery = 98.59%
Sn 189.927†             7795.0      487.58 µg/L         1.501      487.58 ppb          1.501   0.31%
   QC value within limits for Sn 189.927  Recovery = 97.52%
Sr 421.552†           234226.5      486.90 µg/L         5.466      486.90 ppb          5.466   1.12%
   QC value within limits for Sr 421.552  Recovery = 97.38%
Ti 334.940†           520716.1      485.87 µg/L         0.182      485.87 ppb          0.182   0.04%
   QC value within limits for Ti 334.940  Recovery = 97.17%
Tl 190.801†             3970.4      495.13 µg/L         3.095      495.13 ppb          3.095   0.63%
   QC value within limits for Tl 190.801  Recovery = 99.03%
U 409.014†              7585.0      472.91 µg/L        11.768      472.91 ppb         11.768   2.49%
   QC value within limits for U 409.014  Recovery = 94.58%
V 292.402†             98646.0      487.65 µg/L         1.415      487.65 ppb          1.415   0.29%
   QC value within limits for V 292.402  Recovery = 97.53%
Zn 213.857†            86663.3      483.01 µg/L         1.115      483.01 ppb          1.115   0.23%
   QC value within limits for Zn 213.857  Recovery = 96.60%
All analyte(s) passed QC.
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Sequence No.: 62
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 21:41:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143435.3	143435.3	98.3	%			21:42:30
1	Al 396.153Radial†	-56.2	6.0	1.1301	µg/L	1.1301	ppb	21:42:50
1	Ca 317.933Radial†	581.9	31.5	1.7535	µg/L	1.7535	ppb	21:42:50
1	Fe 238.204 Radial†	220.1	75.9	4.6750	µg/L	4.6750	ppb	21:42:50
1	K 766.490 Radial†	1630.1	113.7	41.604	µg/L	41.604	ppb	21:42:30
1	Mg 279.077 IEC†	185.9	-1.6	-0.5986	µg/L	-0.5986	ppb	21:42:50
1	Na 589.592 Radial†	1456.5	191.1	26.064	µg/L	26.064	ppb	21:42:30
1	Sr 421.552†	-303.2	-173.2	-0.3600	µg/L	-0.3600	ppb	21:42:30
1	Sc 361.383	1716104.0	1716104.0	99.877	%			21:43:52
1	Y 371.029	1026337.9	1026337.9	99.966	%			21:43:52
1	Ag 328.068†	4103.4	17.0	0.0542	µg/L	0.0542	ppb	21:43:54
1	As 188.979†	-11.9	8.5	2.5574	µg/L	2.5574	ppb	21:44:14
1	B 249.677†	3527.0	25.5	0.3738	µg/L	0.3738	ppb	21:43:54
1	Ba 233.527†	-143.0	-7.3	-0.0298	µg/L	-0.0298	ppb	21:44:14
1	Be 313.107†	-770.0	293.7	0.0782	µg/L	0.0782	ppb	21:43:54
1	Cd 226.502†	-77.7	40.4	0.2520	µg/L	0.2520	ppb	21:44:14
1	Co 228.616†	-153.6	36.5	0.4505	µg/L	0.4505	ppb	21:44:14
1	Cr 267.716†	176.1	-2.3	-0.0133	µg/L	-0.0133	ppb	21:44:14
1	Cu 324.752†	3046.8	78.3	0.3006	µg/L	0.3006	ppb	21:43:54
1	Mn 257.610†	328.7	91.9	0.1137	µg/L	0.1137	ppb	21:44:14
1	Mo 202.031†	-27.4	-7.4	-0.2173	µg/L	-0.2173	ppb	21:44:14
1	Ni 231.604†	-77.8	-1.3	-0.0154	µg/L	-0.0154	ppb	21:44:14
1	P 214.914†	-3.8	14.1	3.0202	µg/L	3.0202	ppb	21:44:14
1	Pb 220.353†	91.6	5.4	0.3025	µg/L	0.3025	ppb	21:44:14
1	S 181.975 Axial†	84.3	-20.7	-15.370	µg/L	-15.370	ppb	21:44:14
1	Sb 206.836†	85.3	4.6	0.5436	µg/L	0.5436	ppb	21:44:14
1	Se 196.026†	18.7	3.4	1.24	µg/L	1.24	ppb	21:44:14
1	SiO2†	1789.6	16.4	1.6035	µg/L	1.6035	ppb	21:44:14
1	Si 251.611†	934.5	99.0	1.4600	µg/L	1.4600	ppb	21:43:54
1	Sn 189.927†	6.5	7.6	0.4757	µg/L	0.4757	ppb	21:44:14
1	Ti 334.940†	967.5	16.2	0.0175	µg/L	0.0175	ppb	21:43:54
1	Tl 190.801†	-127.3	-10.8	-1.3305	µg/L	-1.3305	ppb	21:44:14
1	U 409.014†	-367.5	-98.1	-5.7438	µg/L	-5.7438	ppb	21:43:54
1	V 292.402†	375.1	-28.2	-0.1442	µg/L	-0.1442	ppb	21:43:54
1	Zn 213.857†	580.1	16.4	0.0915	µg/L	0.0915	ppb	21:44:14
2	Sc RADIAL	141870.3	141870.3	97.2	%			21:42:52
2	Al 396.153Radial†	-65.2	-3.9	-0.6977	µg/L	-0.6977	ppb	21:43:12
2	Ca 317.933Radial†	617.6	74.7	4.1593	µg/L	4.1593	ppb	21:43:12
2	Fe 238.204 Radial†	216.5	74.5	4.5946	µg/L	4.5946	ppb	21:43:12
2	K 766.490 Radial†	1775.2	281.2	102.95	µg/L	102.95	ppb	21:42:52
2	Mg 279.077 IEC†	182.1	-3.4	-1.2877	µg/L	-1.2877	ppb	21:43:12
2	Na 589.592 Radial†	1482.8	234.5	31.940	µg/L	31.940	ppb	21:42:52
2	Sr 421.552†	-167.3	-36.8	-0.0764	µg/L	-0.0764	ppb	21:42:52
2	Sc 361.383	1723490.8	1723490.8	100.31	%			21:44:16
2	Y 371.029	1031447.1	1031447.1	100.46	%			21:44:16
2	Ag 328.068†	4201.6	97.3	0.3501	µg/L	0.3501	ppb	21:44:18
2	As 188.979†	-15.3	5.1	1.5573	µg/L	1.5573	ppb	21:44:38
2	B 249.677†	3665.3	148.2	2.1841	µg/L	2.1841	ppb	21:44:18
2	Ba 233.527†	-146.0	-9.7	-0.0400	µg/L	-0.0400	ppb	21:44:38
2	Be 313.107†	-1050.7	17.2	0.0045	µg/L	0.0045	ppb	21:44:18
2	Cd 226.502†	-111.8	6.7	0.0414	µg/L	0.0414	ppb	21:44:38
2	Co 228.616†	-164.6	26.2	0.3234	µg/L	0.3234	ppb	21:44:38
2	Cr 267.716†	226.4	47.1	0.3695	µg/L	0.3695	ppb	21:44:38
2	Cu 324.752†	2823.9	-156.9	-0.6096	µg/L	-0.6096	ppb	21:44:18
2	Mn 257.610†	284.0	45.8	0.0568	µg/L	0.0568	ppb	21:44:38
2	Mo 202.031†	-36.4	-16.2	-0.4763	µg/L	-0.4763	ppb	21:44:38
2	Ni 231.604†	-100.6	-23.8	-0.2736	µg/L	-0.2736	ppb	21:44:38
2	P 214.914†	-35.6	-17.5	-3.7362	µg/L	-3.7362	ppb	21:44:38
2	Pb 220.353†	84.0	-2.6	-0.1459	µg/L	-0.1459	ppb	21:44:38

2	S 181.975 Axial†	89.5	-15.8	-11.745	µg/L	-11.745 ppb	21:44:38
2	Sb 206.836†	89.4	8.3	0.9755	µg/L	0.9755 ppb	21:44:38
2	Se 196.026†	9.9	-5.4	-1.96	µg/L	-1.96 ppb	21:44:38
2	SiO2†	1777.4	-3.4	-0.3192	µg/L	-0.3192 ppb	21:44:38
2	Si 251.611†	834.3	-4.8	-0.0658	µg/L	-0.0658 ppb	21:44:18
2	Sn 189.927†	1.7	2.8	0.1770	µg/L	0.1770 ppb	21:44:38
2	Ti 334.940†	895.6	-59.6	-0.0554	µg/L	-0.0554 ppb	21:44:18
2	Tl 190.801†	-122.5	-5.4	-0.6750	µg/L	-0.6750 ppb	21:44:38
2	U 409.014†	-282.1	-11.3	-0.7096	µg/L	-0.7096 ppb	21:44:18
2	V 292.402†	242.6	-162.0	-0.7943	µg/L	-0.7943 ppb	21:44:18
2	Zn 213.857†	573.6	7.4	0.0434	µg/L	0.0434 ppb	21:44:38
3	Sc RADIAL	144958.5	144958.5	99.3	%		21:43:14
3	Al 396.153Radial†	-37.5	25.5	4.7369	µg/L	4.7369 ppb	21:43:34
3	Ca 317.933Radial†	583.6	27.0	1.5021	µg/L	1.5021 ppb	21:43:34
3	Fe 238.204 Radial†	192.7	45.8	2.8253	µg/L	2.8253 ppb	21:43:34
3	K 766.490 Radial†	1497.6	-37.2	-13.616	µg/L	-13.616 ppb	21:43:14
3	Mg 279.077 IEC†	178.6	-10.9	-4.0718	µg/L	-4.0718 ppb	21:43:34
3	Na 589.592 Radial†	1440.0	158.8	21.708	µg/L	21.708 ppb	21:43:14
3	Sr 421.552†	-197.6	-63.6	-0.1322	µg/L	-0.1322 ppb	21:43:14
3	Sc 361.383	1740188.5	1740188.5	101.28	%		21:44:40
3	Y 371.029	1039891.9	1039891.9	101.29	%		21:44:40
3	Ag 328.068†	3928.5	-212.5	-0.7881	µg/L	-0.7881 ppb	21:44:42
3	As 188.979†	-8.6	11.9	3.6004	µg/L	3.6004 ppb	21:45:02
3	B 249.677†	3552.8	2.1	0.0294	µg/L	0.0294 ppb	21:44:42
3	Ba 233.527†	-133.9	3.6	0.0140	µg/L	0.0140 ppb	21:45:02
3	Be 313.107†	-962.7	114.2	0.0329	µg/L	0.0329 ppb	21:44:42
3	Cd 226.502†	-89.8	29.5	0.1840	µg/L	0.1840 ppb	21:45:02
3	Co 228.616†	-162.5	29.8	0.3679	µg/L	0.3679 ppb	21:45:02
3	Cr 267.716†	179.3	-1.5	-0.0165	µg/L	-0.0165 ppb	21:45:02
3	Cu 324.752†	2942.1	-67.2	-0.2559	µg/L	-0.2559 ppb	21:44:42
3	Mn 257.610†	335.1	93.6	0.1159	µg/L	0.1159 ppb	21:45:02
3	Mo 202.031†	-28.8	-8.4	-0.2468	µg/L	-0.2468 ppb	21:45:02
3	Ni 231.604†	-82.6	-5.1	-0.0583	µg/L	-0.0583 ppb	21:45:02
3	P 214.914†	-27.4	-9.1	-1.9410	µg/L	-1.9410 ppb	21:45:02
3	Pb 220.353†	64.5	-22.7	-1.2712	µg/L	-1.2712 ppb	21:45:02
3	S 181.975 Axial†	101.1	-5.2	-3.8697	µg/L	-3.8697 ppb	21:45:02
3	Sb 206.836†	85.4	3.5	0.4065	µg/L	0.4065 ppb	21:45:02
3	Se 196.026†	13.5	-2.0	-0.710	µg/L	-0.710 ppb	21:45:02
3	SiO2†	1812.3	14.0	1.3744	µg/L	1.3744 ppb	21:45:02
3	Si 251.611†	970.3	121.4	1.7924	µg/L	1.7924 ppb	21:44:42
3	Sn 189.927†	1.9	3.0	0.1856	µg/L	0.1856 ppb	21:45:02
3	Ti 334.940†	941.7	-22.7	-0.0233	µg/L	-0.0233 ppb	21:44:42
3	Tl 190.801†	-117.2	1.0	0.1129	µg/L	0.1129 ppb	21:45:02
3	U 409.014†	-171.3	100.7	5.8492	µg/L	5.8492 ppb	21:44:42
3	V 292.402†	265.0	-142.2	-0.6925	µg/L	-0.6925 ppb	21:44:42
3	Zn 213.857†	580.1	8.4	0.0472	µg/L	0.0472 ppb	21:45:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726594.5	100.49	%	0.718				0.71%
Sc RADIAL	143421.3	98.3	%	1.06				1.08%
Y 371.029	1032559.0	100.57	%	0.667				0.66%
Ag 328.068†	-32.7	-0.1280	µg/L	0.59056	-0.1280	ppb	0.59056	461.54%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.2	1.7231	µg/L	2.76540	1.7231	ppb	2.76540	160.49%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.5	2.5717	µg/L	1.02165	2.5717	ppb	1.02165	39.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	58.6	0.8625	µg/L	1.15748	0.8625	ppb	1.15748	134.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.5	-0.0186	µg/L	0.02870	-0.0186	ppb	0.02870	154.38%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	141.7	0.0385	µg/L	0.03721	0.0385	ppb	0.03721	96.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	44.4	2.4716	µg/L	1.46699	2.4716	ppb	1.46699	59.35%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	25.6	0.1591	µg/L	0.10748	0.1591	ppb	0.10748	67.54%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	30.9	0.3806	µg/L	0.06452	0.3806	ppb	0.06452	16.95%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.5      0.1132 µg/L       0.22191      0.1132 ppb        0.22191 195.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -48.6     -0.1883 µg/L       0.45884     -0.1883 ppb        0.45884 243.64%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       65.4      4.0316 µg/L       1.04544      4.0316 ppb        1.04544  25.93%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       119.2      43.647 µg/L       58.3112      43.647 ppb        58.3112 133.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -5.3     -1.9860 µg/L       1.83888     -1.9860 ppb        1.83888  92.59%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              77.1      0.0955 µg/L       0.03352      0.0955 ppb        0.03352  35.12%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -10.7     -0.3135 µg/L       0.14177     -0.3135 ppb        0.14177  45.22%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      194.8      26.570 µg/L        5.1349      26.570 ppb         5.1349  19.33%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -10.1     -0.1158 µg/L       0.13833     -0.1158 ppb        0.13833 119.49%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.2     -0.8857 µg/L       3.49964     -0.8857 ppb        3.49964 395.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.6     -0.3715 µg/L       0.81072     -0.3715 ppb        0.81072 218.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -13.9     -10.328 µg/L        5.8795     -10.328 ppb         5.8795  56.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.5      0.6419 µg/L       0.29695      0.6419 ppb        0.29695  46.26%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.3      -0.475 µg/L        1.6120      -0.475 ppb         1.6120 339.40%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     9.0      0.8862 µg/L       1.05021      0.8862 ppb        1.05021 118.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              71.9      1.0622 µg/L       0.99095      1.0622 ppb        0.99095  93.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.5      0.2794 µg/L       0.17000      0.2794 ppb        0.17000  60.84%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -91.2     -0.1896 µg/L       0.15021     -0.1896 ppb        0.15021  79.25%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -22.1     -0.0204 µg/L       0.03654     -0.0204 ppb        0.03654 179.40%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -5.1     -0.6309 µg/L       0.72270     -0.6309 ppb        0.72270 114.55%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -2.9     -0.2014 µg/L       5.81317     -0.2014 ppb        5.81317 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -110.8     -0.5437 µg/L       0.34967     -0.5437 ppb        0.34967  64.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              10.7      0.0607 µg/L       0.02675      0.0607 ppb        0.02675  44.07%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 68
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 21:55:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	142583.3	142583.3	97.7	%			21:56:11
1	Al 396.153Radial†	26125.5	26801.9	4946.6	µg/L	4946.6	ppb	21:56:11
1	Ca 317.933Radial†	86256.4	87720.3	4886.4	µg/L	4886.4	ppb	21:56:11
1	Fe 238.204 Radial†	77373.7	79041.6	4871.6	µg/L	4871.6	ppb	21:56:11
1	K 766.490 Radial†	14581.9	13379.4	4894.4	µg/L	4894.4	ppb	21:56:11
1	Mg 279.077 IEC†	13220.1	13339.7	4977.8	µg/L	4977.8	ppb	21:56:11
1	Na 589.592 Radial†	70221.6	70578.9	9637.6	µg/L	9637.6	ppb	21:56:11
1	Sr 421.552†	231094.9	236654.1	491.95	µg/L	491.95	ppb	21:56:08
1	Sc 361.383	1721792.2	1721792.2	100.21	%			21:56:38
1	Y 371.029	1018476.9	1018476.9	99.200	%			21:56:38
1	Ag 328.068†	132257.1	127891.1	479.55	µg/L	479.55	ppb	21:56:38
1	As 188.979†	1611.5	1628.5	499.47	µg/L	499.47	ppb	21:56:58
1	B 249.677†	35480.1	31900.5	468.81	µg/L	468.81	ppb	21:56:38
1	Ba 233.527†	119040.9	118929.6	479.64	µg/L	479.64	ppb	21:56:38
1	Be 313.107†	1767471.5	1764866.8	480.67	µg/L	480.67	ppb	21:56:38
1	Cd 226.502†	76426.9	76386.5	476.83	µg/L	476.83	ppb	21:56:38
1	Co 228.616†	38708.1	38818.0	479.20	µg/L	479.20	ppb	21:56:38
1	Cr 267.716†	61091.8	60786.4	475.95	µg/L	475.95	ppb	21:56:38
1	Cu 324.752†	125542.2	122309.4	476.81	µg/L	476.81	ppb	21:56:38
1	Mn 257.610†	389445.6	388399.8	480.36	µg/L	480.36	ppb	21:56:38
1	Mo 202.031†	16429.4	16415.4	482.87	µg/L	482.87	ppb	21:56:58
1	Ni 231.604†	41557.9	41548.1	478.40	µg/L	478.40	ppb	21:56:38
1	P 214.914†	11328.9	11323.4	2413.6	µg/L	2413.6	ppb	21:56:58
1	Pb 220.353†	8812.2	8707.5	487.61	µg/L	487.61	ppb	21:56:58
1	S 181.975 Axial†	1392.1	1284.2	957.66	µg/L	957.66	ppb	21:56:58
1	Sb 206.836†	4144.5	4055.1	483.24	µg/L	483.24	ppb	21:56:58
1	Se 196.026†	1364.7	1346.6	489	µg/L	489	ppb	21:56:58
1	SiO2†	55188.2	53298.2	5188.7	µg/L	5188.7	ppb	21:56:38
1	Si 251.611†	166961.4	165778.2	2434.4	µg/L	2434.4	ppb	21:56:38
1	Sn 189.927†	7776.6	7761.6	485.47	µg/L	485.47	ppb	21:56:58
1	Ti 334.940†	514606.5	512585.6	478.27	µg/L	478.27	ppb	21:56:38
1	Tl 190.801†	3826.9	3935.6	490.75	µg/L	490.75	ppb	21:56:58
1	U 409.014†	7289.4	7544.1	470.15	µg/L	470.15	ppb	21:56:38
1	V 292.402†	98070.8	97463.4	481.83	µg/L	481.83	ppb	21:56:38
1	Zn 213.857†	85920.7	85177.9	474.72	µg/L	474.72	ppb	21:56:38
2	Sc RADIAL	143543.2	143543.2	98.4	%			21:56:15
2	Al 396.153Radial†	26329.4	26830.4	4951.8	µg/L	4951.8	ppb	21:56:15
2	Ca 317.933Radial†	87214.1	88103.5	4907.7	µg/L	4907.7	ppb	21:56:15
2	Fe 238.204 Radial†	78175.0	79326.6	4889.2	µg/L	4889.2	ppb	21:56:15
2	K 766.490 Radial†	14759.5	13460.1	4923.9	µg/L	4923.9	ppb	21:56:15
2	Mg 279.077 IEC†	13306.4	13336.9	4976.8	µg/L	4976.8	ppb	21:56:15
2	Na 589.592 Radial†	70918.2	70806.4	9668.6	µg/L	9668.6	ppb	21:56:15
2	Sr 421.552†	232565.2	236567.1	491.77	µg/L	491.77	ppb	21:56:13
2	Sc 361.383	1725354.7	1725354.7	100.42	%			21:57:01
2	Y 371.029	1021259.3	1021259.3	99.471	%			21:57:01
2	Ag 328.068†	133310.0	128667.2	482.44	µg/L	482.44	ppb	21:57:01
2	As 188.979†	1621.3	1635.0	501.47	µg/L	501.47	ppb	21:57:21
2	B 249.677†	36007.3	32352.4	475.47	µg/L	475.47	ppb	21:57:01
2	Ba 233.527†	119720.2	119360.8	481.38	µg/L	481.38	ppb	21:57:01
2	Be 313.107†	1782951.5	1776640.9	483.88	µg/L	483.88	ppb	21:57:01
2	Cd 226.502†	77092.6	76891.9	479.99	µg/L	479.99	ppb	21:57:01
2	Co 228.616†	39093.6	39122.2	482.96	µg/L	482.96	ppb	21:57:01
2	Cr 267.716†	61575.2	61141.9	478.73	µg/L	478.73	ppb	21:57:01
2	Cu 324.752†	126592.7	123096.8	479.87	µg/L	479.87	ppb	21:57:01
2	Mn 257.610†	393017.2	391154.2	483.76	µg/L	483.76	ppb	21:57:01
2	Mo 202.031†	16523.6	16475.3	484.63	µg/L	484.63	ppb	21:57:21
2	Ni 231.604†	41848.9	41752.3	480.75	µg/L	480.75	ppb	21:57:01
2	P 214.914†	11396.2	11367.0	2422.9	µg/L	2422.9	ppb	21:57:21
2	Pb 220.353†	8867.2	8744.1	489.65	µg/L	489.65	ppb	21:57:21

2	S 181.975 Axial†	1408.6	1297.7	967.74 µg/L	967.74 ppb	21:57:21
2	Sb 206.836†	4160.8	4062.8	484.14 µg/L	484.14 ppb	21:57:21
2	Se 196.026†	1350.1	1329.2	483 µg/L	483 ppb	21:57:21
2	SiO2†	55415.3	53410.7	5199.6 µg/L	5199.6 ppb	21:57:01
2	Si 251.611†	167453.3	165924.1	2436.5 µg/L	2436.5 ppb	21:57:01
2	Sn 189.927†	7843.1	7811.7	488.60 µg/L	488.60 ppb	21:57:21
2	Ti 334.940†	518046.3	514950.8	480.48 µg/L	480.48 ppb	21:57:01
2	Tl 190.801†	3874.0	3974.7	495.58 µg/L	495.58 ppb	21:57:21
2	U 409.014†	7327.0	7566.6	471.56 µg/L	471.56 ppb	21:57:01
2	V 292.402†	98567.7	97756.1	483.29 µg/L	483.29 ppb	21:57:01
2	Zn 213.857†	86827.5	85903.9	478.78 µg/L	478.78 ppb	21:57:01
3	Sc RADIAL	146360.8	146360.8	100 %		21:56:19
3	Al 396.153Radial†	26877.7	26861.7	4957.8 µg/L	4957.8 ppb	21:56:19
3	Ca 317.933Radial†	89496.1	88672.0	4939.4 µg/L	4939.4 ppb	21:56:19
3	Fe 238.204 Radial†	80024.7	79640.9	4908.6 µg/L	4908.6 ppb	21:56:19
3	K 766.490 Radial†	15000.5	13411.5	4906.1 µg/L	4906.1 ppb	21:56:19
3	Mg 279.077 IEC†	13753.4	13522.1	5045.7 µg/L	5045.7 ppb	21:56:19
3	Na 589.592 Radial†	72413.6	70909.6	9682.7 µg/L	9682.7 ppb	21:56:19
3	Sr 421.552†	230747.3	230203.0	478.54 µg/L	478.54 ppb	21:56:17
3	Sc 361.383	1718966.4	1718966.4	100.04 %		21:57:24
3	Y 371.029	1017028.5	1017028.5	99.059 %		21:57:24
3	Ag 328.068†	132653.9	128504.7	481.80 µg/L	481.80 ppb	21:57:24
3	As 188.979†	1590.5	1610.2	493.94 µg/L	493.94 ppb	21:57:44
3	B 249.677†	35824.6	32303.1	474.74 µg/L	474.74 ppb	21:57:24
3	Ba 233.527†	119070.9	119154.9	480.55 µg/L	480.55 ppb	21:57:24
3	Be 313.107†	1772306.3	1772598.9	482.78 µg/L	482.78 ppb	21:57:24
3	Cd 226.502†	76616.2	76701.1	478.79 µg/L	478.79 ppb	21:57:24
3	Co 228.616†	38830.3	39003.7	481.49 µg/L	481.49 ppb	21:57:24
3	Cr 267.716†	61234.2	61029.0	477.86 µg/L	477.86 ppb	21:57:24
3	Cu 324.752†	125521.6	122494.7	477.53 µg/L	477.53 ppb	21:57:24
3	Mn 257.610†	389961.8	389554.7	481.78 µg/L	481.78 ppb	21:57:24
3	Mo 202.031†	16335.5	16348.5	480.91 µg/L	480.91 ppb	21:57:44
3	Ni 231.604†	41630.1	41688.5	480.01 µg/L	480.01 ppb	21:57:24
3	P 214.914†	11241.7	11254.8	2398.9 µg/L	2398.9 ppb	21:57:44
3	Pb 220.353†	8795.7	8705.5	487.50 µg/L	487.50 ppb	21:57:44
3	S 181.975 Axial†	1388.4	1282.7	956.57 µg/L	956.57 ppb	21:57:44
3	Sb 206.836†	4126.6	4043.9	481.85 µg/L	481.85 ppb	21:57:44
3	Se 196.026†	1345.6	1329.7	483 µg/L	483 ppb	21:57:44
3	SiO2†	54983.2	53183.9	5177.6 µg/L	5177.6 ppb	21:57:24
3	Si 251.611†	166469.4	165560.3	2431.2 µg/L	2431.2 ppb	21:57:24
3	Sn 189.927†	7725.1	7722.8	483.05 µg/L	483.05 ppb	21:57:44
3	Ti 334.940†	514909.1	513732.3	479.34 µg/L	479.34 ppb	21:57:24
3	Tl 190.801†	3822.2	3937.2	490.94 µg/L	490.94 ppb	21:57:44
3	U 409.014†	7179.0	7445.8	464.34 µg/L	464.34 ppb	21:57:24
3	V 292.402†	97706.1	97259.8	480.82 µg/L	480.82 ppb	21:57:24
3	Zn 213.857†	86111.6	85509.7	476.57 µg/L	476.57 ppb	21:57:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1722037.8	100.22	%	0.186				0.19%
Sc RADIAL	144162.4	98.8	%	1.35				1.36%
Y 371.029	1018921.6	99.243	%	0.2094				0.21%
Ag 328.068†	128354.3	481.26	µg/L	1.519	481.26	ppb	1.519	0.32%
QC value within limits for Ag 328.068 Recovery = 96.25%								
Al 396.153Radial†	26831.3	4952.1	µg/L	5.59	4952.1	ppb	5.59	0.11%
QC value within limits for Al 396.153Radial Recovery = 99.04%								
As 188.979†	1624.5	498.29	µg/L	3.898	498.29	ppb	3.898	0.78%
QC value within limits for As 188.979 Recovery = 99.66%								
B 249.677†	32185.3	473.01	µg/L	3.650	473.01	ppb	3.650	0.77%
QC value within limits for B 249.677 Recovery = 94.60%								
Ba 233.527†	119148.4	480.52	µg/L	0.870	480.52	ppb	0.870	0.18%
QC value within limits for Ba 233.527 Recovery = 96.10%								
Be 313.107†	1771368.9	482.44	µg/L	1.629	482.44	ppb	1.629	0.34%
QC value within limits for Be 313.107 Recovery = 96.49%								
Ca 317.933Radial†	88165.3	4911.2	µg/L	26.67	4911.2	ppb	26.67	0.54%
QC value within limits for Ca 317.933Radial Recovery = 98.22%								
Cd 226.502†	76659.8	478.54	µg/L	1.594	478.54	ppb	1.594	0.33%
QC value within limits for Cd 226.502 Recovery = 95.71%								
Co 228.616†	38981.3	481.22	µg/L	1.892	481.22	ppb	1.892	0.39%

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   QC value within limits for Co 228.616  Recovery = 96.24%
Cr 267.716†            60985.7      477.51 µg/L         1.423      477.51 ppb          1.423   0.30%
   QC value within limits for Cr 267.716  Recovery = 95.50%
Cu 324.752†           122633.6      478.07 µg/L         1.603      478.07 ppb          1.603   0.34%
   QC value within limits for Cu 324.752  Recovery = 95.61%
Fe 238.204 Radial†     79336.4      4889.8 µg/L         18.48      4889.8 ppb          18.48   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.80%
K 766.490 Radial†      13417.0      4908.2 µg/L         14.87      4908.2 ppb          14.87   0.30%
   QC value within limits for K 766.490 Radial  Recovery = 98.16%
Mg 279.077 IEC†        13399.6      5000.1 µg/L         39.49      5000.1 ppb          39.49   0.79%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.00%
Mn 257.610†           389702.9      481.97 µg/L         1.712      481.97 ppb          1.712   0.36%
   QC value within limits for Mn 257.610  Recovery = 96.39%
Mo 202.031†            16413.1      482.80 µg/L         1.864      482.80 ppb          1.864   0.39%
   QC value within limits for Mo 202.031  Recovery = 96.56%
Na 589.592 Radial†     70765.0      9663.0 µg/L         23.10      9663.0 ppb          23.10   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 96.63%
Ni 231.604†            41663.0      479.72 µg/L         1.203      479.72 ppb          1.203   0.25%
   QC value within limits for Ni 231.604  Recovery = 95.94%
P 214.914†             11315.0      2411.8 µg/L         12.10      2411.8 ppb          12.10   0.50%
   QC value within limits for P 214.914  Recovery = 96.47%
Pb 220.353†             8719.0      488.25 µg/L         1.215      488.25 ppb          1.215   0.25%
   QC value within limits for Pb 220.353  Recovery = 97.65%
S 181.975 Axial†        1288.2      960.66 µg/L         6.158      960.66 ppb          6.158   0.64%
   QC value within limits for S 181.975 Axial  Recovery = 96.07%
Sb 206.836†             4053.9      483.08 µg/L         1.155      483.08 ppb          1.155   0.24%
   QC value within limits for Sb 206.836  Recovery = 96.62%
Se 196.026†             1335.2         485 µg/L           3.6         485 ppb            3.6   0.74%
   QC value within limits for Se 196.026  Recovery = 96.96%
SiO2†                  53297.6      5188.7 µg/L         10.99      5188.7 ppb          10.99   0.21%
   QC value within limits for SiO2  Recovery = 97.03%
Si 251.611†           165754.2      2434.1 µg/L          2.66      2434.1 ppb           2.66   0.11%
   QC value within limits for Si 251.611  Recovery = 97.36%
Sn 189.927†             7765.4      485.71 µg/L         2.782      485.71 ppb          2.782   0.57%
   QC value within limits for Sn 189.927  Recovery = 97.14%
Sr 421.552†           234474.7      487.42 µg/L         7.692      487.42 ppb          7.692   1.58%
   QC value within limits for Sr 421.552  Recovery = 97.48%
Ti 334.940†           513756.2      479.37 µg/L         1.105      479.37 ppb          1.105   0.23%
   QC value within limits for Ti 334.940  Recovery = 95.87%
Tl 190.801†             3949.2      492.42 µg/L         2.733      492.42 ppb          2.733   0.56%
   QC value within limits for Tl 190.801  Recovery = 98.48%
U 409.014†              7518.8      468.68 µg/L         3.825      468.68 ppb          3.825   0.82%
   QC value within limits for U 409.014  Recovery = 93.74%
V 292.402†             97493.1      481.98 µg/L         1.241      481.98 ppb          1.241   0.26%
   QC value within limits for V 292.402  Recovery = 96.40%
Zn 213.857†            85530.5      476.69 µg/L         2.032      476.69 ppb          2.032   0.43%
   QC value within limits for Zn 213.857  Recovery = 95.34%
All analyte(s) passed QC.
```

Sequence No.: 69
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 21:57:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143488.6	143488.6	98.3	%			21:58:23
1	Al 396.153Radial†	-31.2	31.5	5.8461	µg/L	5.8461	ppb	21:58:43
1	Ca 317.933Radial†	626.0	76.1	4.2401	µg/L	4.2401	ppb	21:58:43
1	Fe 238.204 Radial†	255.1	111.3	6.8602	µg/L	6.8602	ppb	21:58:43
1	K 766.490 Radial†	1658.0	141.4	51.764	µg/L	51.764	ppb	21:58:23
1	Mg 279.077 IEC†	183.2	-4.4	-1.6504	µg/L	-1.6504	ppb	21:58:43
1	Na 589.592 Radial†	1420.1	153.5	20.919	µg/L	20.919	ppb	21:58:23
1	Sr 421.552†	-123.6	9.6	0.0200	µg/L	0.0200	ppb	21:58:23
1	Sc 361.383	1741228.6	1741228.6	101.34	%			21:59:30
1	Y 371.029	1041005.9	1041005.9	101.39	%			21:59:30
1	Ag 328.068†	3951.0	-192.6	-0.7198	µg/L	-0.7198	ppb	21:59:33
1	As 188.979†	-17.3	3.3	0.9894	µg/L	0.9894	ppb	21:59:53
1	B 249.677†	3598.6	45.2	0.6651	µg/L	0.6651	ppb	21:59:33
1	Ba 233.527†	-97.3	39.9	0.1606	µg/L	0.1606	ppb	21:59:53
1	Be 313.107†	-658.8	414.6	0.1114	µg/L	0.1114	ppb	21:59:33
1	Cd 226.502†	-98.4	21.1	0.1311	µg/L	0.1311	ppb	21:59:53
1	Co 228.616†	-161.8	30.7	0.3780	µg/L	0.3780	ppb	21:59:53
1	Cr 267.716†	182.4	1.5	0.0155	µg/L	0.0155	ppb	21:59:53
1	Cu 324.752†	3144.1	130.4	0.5038	µg/L	0.5038	ppb	21:59:33
1	Mn 257.610†	336.5	94.8	0.1174	µg/L	0.1174	ppb	21:59:53
1	Mo 202.031†	-24.2	-3.8	-0.1104	µg/L	-0.1104	ppb	21:59:53
1	Ni 231.604†	-79.3	-1.7	-0.0200	µg/L	-0.0200	ppb	21:59:53
1	P 214.914†	-16.3	1.8	0.3858	µg/L	0.3858	ppb	21:59:53
1	Pb 220.353†	84.1	-3.4	-0.1849	µg/L	-0.1849	ppb	21:59:53
1	S 181.975 Axial†	105.7	-0.8	-0.5879	µg/L	-0.5879	ppb	21:59:53
1	Sb 206.836†	91.1	9.1	1.0753	µg/L	1.0753	ppb	21:59:53
1	Se 196.026†	16.7	1.2	0.419	µg/L	0.419	ppb	21:59:53
1	SiO2†	1811.1	11.8	1.1639	µg/L	1.1639	ppb	21:59:53
1	Si 251.611†	939.6	90.6	1.3388	µg/L	1.3388	ppb	21:59:33
1	Sn 189.927†	-4.7	-3.6	-0.2217	µg/L	-0.2217	ppb	21:59:53
1	Ti 334.940†	1178.8	210.6	0.1990	µg/L	0.1990	ppb	21:59:33
1	Tl 190.801†	-99.6	18.4	2.2591	µg/L	2.2591	ppb	21:59:53
1	U 409.014†	-357.9	-83.3	-4.8719	µg/L	-4.8719	ppb	21:59:33
1	V 292.402†	400.4	-8.7	-0.0477	µg/L	-0.0477	ppb	21:59:33
1	Zn 213.857†	586.5	14.3	0.0794	µg/L	0.0794	ppb	21:59:53
2	Sc RADIAL	142543.2	142543.2	97.7	%			21:58:45
2	Al 396.153Radial†	-54.4	7.5	1.4064	µg/L	1.4064	ppb	21:59:05
2	Ca 317.933Radial†	611.6	65.6	3.6535	µg/L	3.6535	ppb	21:59:05
2	Fe 238.204 Radial†	253.5	111.4	6.8653	µg/L	6.8653	ppb	21:59:05
2	K 766.490 Radial†	1678.4	173.5	63.518	µg/L	63.518	ppb	21:58:45
2	Mg 279.077 IEC†	176.5	-10.0	-3.7286	µg/L	-3.7286	ppb	21:59:05
2	Na 589.592 Radial†	1442.2	185.7	25.313	µg/L	25.313	ppb	21:58:45
2	Sr 421.552†	-245.0	-115.6	-0.2403	µg/L	-0.2403	ppb	21:58:45
2	Sc 361.383	1719454.2	1719454.2	100.07	%			21:59:55
2	Y 371.029	1027865.1	1027865.1	100.11	%			21:59:55
2	Ag 328.068†	4168.7	74.3	0.2835	µg/L	0.2835	ppb	21:59:57
2	As 188.979†	-13.3	7.1	2.1498	µg/L	2.1498	ppb	22:00:17
2	B 249.677†	3486.4	-22.0	-0.3249	µg/L	-0.3249	ppb	21:59:57
2	Ba 233.527†	-114.3	21.7	0.0871	µg/L	0.0871	ppb	22:00:17
2	Be 313.107†	-912.6	152.8	0.0438	µg/L	0.0438	ppb	21:59:57
2	Cd 226.502†	-107.0	11.3	0.0695	µg/L	0.0695	ppb	22:00:17
2	Co 228.616†	-180.3	10.1	0.1246	µg/L	0.1246	ppb	22:00:17
2	Cr 267.716†	201.1	22.4	0.1701	µg/L	0.1701	ppb	22:00:17
2	Cu 324.752†	3016.0	41.6	0.1688	µg/L	0.1688	ppb	21:59:57
2	Mn 257.610†	311.1	73.6	0.0912	µg/L	0.0912	ppb	22:00:17
2	Mo 202.031†	-34.1	-14.0	-0.4113	µg/L	-0.4113	ppb	22:00:17
2	Ni 231.604†	-98.0	-21.4	-0.2463	µg/L	-0.2463	ppb	22:00:17
2	P 214.914†	-36.4	-18.4	-3.9363	µg/L	-3.9363	ppb	22:00:17
2	Pb 220.353†	83.9	-2.5	-0.1482	µg/L	-0.1482	ppb	22:00:17

2	S 181.975 Axial†	99.2	-5.9	-4.3840 µg/L	-4.3840 ppb	22:00:17
2	Sb 206.836†	64.9	-16.0	-1.9121 µg/L	-1.9121 ppb	22:00:17
2	Se 196.026†	15.3	0.0	0.021 µg/L	0.021 ppb	22:00:17
2	SiO2†	1788.3	11.6	1.1476 µg/L	1.1476 ppb	22:00:17
2	Si 251.611†	930.7	93.5	1.3835 µg/L	1.3835 ppb	21:59:57
2	Sn 189.927†	-0.8	0.3	0.0189 µg/L	0.0189 ppb	22:00:17
2	Ti 334.940†	1073.2	119.9	0.1093 µg/L	0.1093 ppb	21:59:57
2	Tl 190.801†	-128.3	-11.5	-1.4187 µg/L	-1.4187 ppb	22:00:17
2	U 409.014†	-143.3	126.7	7.4052 µg/L	7.4052 ppb	21:59:57
2	V 292.402†	396.1	-8.0	-0.0385 µg/L	-0.0385 ppb	21:59:57
2	Zn 213.857†	572.5	7.7	0.0442 µg/L	0.0442 ppb	22:00:17
3	Sc RADIAL	144454.1	144454.1	99.0 %		21:59:07
3	Al 396.153Radial†	-50.8	11.9	2.2219 µg/L	2.2219 ppb	21:59:27
3	Ca 317.933Radial†	619.6	65.3	3.6394 µg/L	3.6394 ppb	21:59:27
3	Fe 238.204 Radial†	231.3	85.6	5.2750 µg/L	5.2750 ppb	21:59:27
3	K 766.490 Radial†	1512.1	-17.2	-6.3033 µg/L	-6.3033 ppb	21:59:07
3	Mg 279.077 IEC†	192.0	3.2	1.1976 µg/L	1.1976 ppb	21:59:27
3	Na 589.592 Radial†	1347.2	70.1	9.5868 µg/L	9.5868 ppb	21:59:07
3	Sr 421.552†	-129.4	4.5	0.0094 µg/L	0.0094 ppb	21:59:07
3	Sc 361.383	1726759.9	1726759.9	100.50 %		22:00:19
3	Y 371.029	1032580.6	1032580.6	100.57 %		22:00:19
3	Ag 328.068†	4194.8	82.6	0.3040 µg/L	0.3040 ppb	22:00:21
3	As 188.979†	-19.7	0.7	0.2129 µg/L	0.2129 ppb	22:00:41
3	B 249.677†	3651.6	127.6	1.8815 µg/L	1.8815 ppb	22:00:21
3	Ba 233.527†	-116.8	19.7	0.0794 µg/L	0.0794 ppb	22:00:41
3	Be 313.107†	-870.8	198.2	0.0524 µg/L	0.0524 ppb	22:00:21
3	Cd 226.502†	-85.6	33.0	0.2057 µg/L	0.2057 ppb	22:00:41
3	Co 228.616†	-171.1	20.1	0.2475 µg/L	0.2475 ppb	22:00:41
3	Cr 267.716†	156.8	-22.6	-0.1724 µg/L	-0.1724 ppb	22:00:41
3	Cu 324.752†	2930.7	-56.0	-0.2209 µg/L	-0.2209 ppb	22:00:21
3	Mn 257.610†	308.3	69.5	0.0859 µg/L	0.0859 ppb	22:00:41
3	Mo 202.031†	-28.4	-8.1	-0.2389 µg/L	-0.2389 ppb	22:00:41
3	Ni 231.604†	-67.6	9.2	0.1060 µg/L	0.1060 ppb	22:00:41
3	P 214.914†	-14.4	3.6	0.7813 µg/L	0.7813 ppb	22:00:41
3	Pb 220.353†	81.9	-4.8	-0.2670 µg/L	-0.2670 ppb	22:00:41
3	S 181.975 Axial†	100.0	-5.5	-4.1081 µg/L	-4.1081 ppb	22:00:41
3	Sb 206.836†	58.7	-22.4	-2.6589 µg/L	-2.6589 ppb	22:00:41
3	Se 196.026†	9.4	-5.9	-2.14 µg/L	-2.14 ppb	22:00:41
3	SiO2†	1781.8	-2.4	-0.2353 µg/L	-0.2353 ppb	22:00:41
3	Si 251.611†	974.4	133.0	1.9607 µg/L	1.9607 ppb	22:00:21
3	Sn 189.927†	6.8	7.8	0.4886 µg/L	0.4886 ppb	22:00:41
3	Ti 334.940†	1012.5	55.0	0.0535 µg/L	0.0535 ppb	22:00:21
3	Tl 190.801†	-115.8	1.4	0.1780 µg/L	0.1780 ppb	22:00:41
3	U 409.014†	-360.3	-88.6	-5.1619 µg/L	-5.1619 ppb	22:00:21
3	V 292.402†	483.1	77.0	0.3681 µg/L	0.3681 ppb	22:00:21
3	Zn 213.857†	572.8	5.5	0.0300 µg/L	0.0300 ppb	22:00:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729147.6	100.64	%	0.645				0.64%
Sc RADIAL	143495.3	98.3	%	0.65				0.67%
Y 371.029	1033817.2	100.69	%	0.648				0.64%
Ag 328.068†	-11.9	-0.0441	µg/L	0.58526	-0.0441	ppb	0.58526	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	17.0	3.1581	µg/L	2.36331	3.1581	ppb	2.36331	74.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.7	1.1173	µg/L	0.97478	1.1173	ppb	0.97478	87.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.3	0.7405	µg/L	1.10513	0.7405	ppb	1.10513	149.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	27.1	0.1090	µg/L	0.04480	0.1090	ppb	0.04480	41.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	255.2	0.0692	µg/L	0.03680	0.0692	ppb	0.03680	53.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	69.0	3.8443	µg/L	0.34280	3.8443	ppb	0.34280	8.92%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	21.8	0.1354	µg/L	0.06821	0.1354	ppb	0.06821	50.36%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.3	0.2500	µg/L	0.12669	0.2500	ppb	0.12669	50.67%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 0.4      0.0044 µg/L       0.17156      0.0044 ppb        0.17156 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                38.7      0.1505 µg/L       0.36269      0.1505 ppb        0.36269 240.92%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        102.8      6.3335 µg/L       0.91666      6.3335 ppb        0.91666  14.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          99.2      36.326 µg/L       37.3832      36.326 ppb        37.3832 102.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -3.7     -1.3938 µg/L       2.47310     -1.3938 ppb        2.47310 177.43%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                79.3      0.0982 µg/L       0.01685      0.0982 ppb        0.01685  17.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -8.6     -0.2535 µg/L       0.15099     -0.2535 ppb        0.15099  59.56%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        136.4      18.606 µg/L        8.1142      18.606 ppb         8.1142  43.61%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -4.6     -0.0534 µg/L       0.17854     -0.0534 ppb        0.17854 334.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.3     -0.9231 µg/L       2.61701     -0.9231 ppb        2.61701 283.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -3.6     -0.2000 µg/L       0.06080     -0.2000 ppb        0.06080  30.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.1     -3.0267 µg/L       2.11654     -3.0267 ppb        2.11654  69.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -9.8     -1.1652 µg/L       1.97594     -1.1652 ppb        1.97594 169.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.6      -0.566 µg/L        1.3761      -0.566 ppb         1.3761 243.25%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       7.0      0.6921 µg/L       0.80317      0.6921 ppb        0.80317 116.05%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               105.7      1.5610 µg/L       0.34690      1.5610 ppb        0.34690  22.22%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.5      0.0953 µg/L       0.36125      0.0953 ppb        0.36125 379.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -33.8     -0.0703 µg/L       0.14733     -0.0703 ppb        0.14733 209.53%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               128.5      0.1206 µg/L       0.07341      0.1206 ppb        0.07341  60.86%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.8      0.3394 µg/L       1.84422      0.3394 ppb        1.84422 543.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -15.1     -0.8762 µg/L       7.17337     -0.8762 ppb        7.17337 818.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 20.1      0.0940 µg/L       0.23744      0.0940 ppb        0.23744 252.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 9.2      0.0512 µg/L       0.02545      0.0512 ppb        0.02545  49.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 77
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 22:12:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144265.2	144265.2	98.9	%			22:13:29
1	Al 396.153Radial†	26382.4	26750.0	4937.0	µg/L	4937.0	ppb	22:13:29
1	Ca 317.933Radial†	86791.9	87232.7	4859.2	µg/L	4859.2	ppb	22:13:29
1	Fe 238.204 Radial†	77447.1	78192.6	4819.3	µg/L	4819.3	ppb	22:13:29
1	K 766.490 Radial†	14619.5	13243.4	4844.7	µg/L	4844.7	ppb	22:13:29
1	Mg 279.077 IEC†	13211.3	13173.0	4915.8	µg/L	4915.8	ppb	22:13:29
1	Na 589.592 Radial†	70822.8	70349.2	9606.2	µg/L	9606.2	ppb	22:13:29
1	Sr 421.552†	230249.1	233041.1	484.44	µg/L	484.44	ppb	22:13:27
1	Sc 361.383	1718218.3	1718218.3	100.00	%			22:13:42
1	Y 371.029	1017558.5	1017558.5	99.111	%			22:13:42
1	Ag 328.068†	131861.6	127770.2	479.08	µg/L	479.08	ppb	22:13:42
1	As 188.979†	1610.7	1631.1	500.23	µg/L	500.23	ppb	22:14:02
1	B 249.677†	35422.2	31916.3	469.05	µg/L	469.05	ppb	22:13:42
1	Ba 233.527†	118202.1	118337.9	477.26	µg/L	477.26	ppb	22:13:42
1	Be 313.107†	1762457.8	1763521.9	480.31	µg/L	480.31	ppb	22:13:42
1	Cd 226.502†	75826.8	75945.0	474.08	µg/L	474.08	ppb	22:13:42
1	Co 228.616†	38510.6	38700.9	477.76	µg/L	477.76	ppb	22:13:42
1	Cr 267.716†	60814.9	60636.3	474.77	µg/L	474.77	ppb	22:13:42
1	Cu 324.752†	125406.1	122433.9	477.29	µg/L	477.29	ppb	22:13:42
1	Mn 257.610†	388459.2	388221.8	480.14	µg/L	480.14	ppb	22:13:42
1	Mo 202.031†	16438.1	16458.2	484.12	µg/L	484.12	ppb	22:14:02
1	Ni 231.604†	41348.4	41424.9	476.98	µg/L	476.98	ppb	22:13:42
1	P 214.914†	11268.3	11286.3	2405.7	µg/L	2405.7	ppb	22:14:02
1	Pb 220.353†	8791.6	8705.2	487.48	µg/L	487.48	ppb	22:14:02
1	S 181.975 Axial†	1392.6	1287.6	960.21	µg/L	960.21	ppb	22:14:02
1	Sb 206.836†	4153.0	4072.2	485.30	µg/L	485.30	ppb	22:14:02
1	Se 196.026†	1350.2	1334.9	485	µg/L	485	ppb	22:14:02
1	SiO2†	54803.6	53028.2	5162.3	µg/L	5162.3	ppb	22:13:42
1	Si 251.611†	165311.8	164475.2	2415.2	µg/L	2415.2	ppb	22:13:42
1	Sn 189.927†	7742.7	7743.8	484.36	µg/L	484.36	ppb	22:14:02
1	Ti 334.940†	513691.3	512738.5	478.42	µg/L	478.42	ppb	22:13:42
1	Tl 190.801†	3841.3	3958.0	493.49	µg/L	493.49	ppb	22:14:02
1	U 409.014†	7369.5	7639.3	475.58	µg/L	475.58	ppb	22:13:42
1	V 292.402†	97334.2	96930.4	479.25	µg/L	479.25	ppb	22:13:42
1	Zn 213.857†	85434.2	84869.8	473.01	µg/L	473.01	ppb	22:13:42
2	Sc RADIAL	145847.8	145847.8	99.9	%			22:13:33
2	Al 396.153Radial†	26431.3	26509.4	4892.7	µg/L	4892.7	ppb	22:13:33
2	Ca 317.933Radial†	87616.4	87105.0	4852.1	µg/L	4852.1	ppb	22:13:33
2	Fe 238.204 Radial†	78290.7	78186.6	4818.9	µg/L	4818.9	ppb	22:13:33
2	K 766.490 Radial†	14711.5	13175.0	4819.6	µg/L	4819.6	ppb	22:13:33
2	Mg 279.077 IEC†	13383.0	13199.9	4925.6	µg/L	4925.6	ppb	22:13:33
2	Na 589.592 Radial†	71537.8	70287.2	9597.8	µg/L	9597.8	ppb	22:13:33
2	Sr 421.552†	230007.1	230271.7	478.68	µg/L	478.68	ppb	22:13:31
2	Sc 361.383	1739608.4	1739608.4	101.24	%			22:14:05
2	Y 371.029	1028848.9	1028848.9	100.21	%			22:14:05
2	Ag 328.068†	134324.7	128581.6	482.14	µg/L	482.14	ppb	22:14:05
2	As 188.979†	1606.6	1607.2	493.02	µg/L	493.02	ppb	22:14:25
2	B 249.677†	36291.4	32339.3	475.28	µg/L	475.28	ppb	22:14:05
2	Ba 233.527†	120672.3	119324.3	481.23	µg/L	481.23	ppb	22:14:05
2	Be 313.107†	1801555.4	1780467.6	484.92	µg/L	484.92	ppb	22:14:05
2	Cd 226.502†	77540.6	76705.4	478.83	µg/L	478.83	ppb	22:14:05
2	Co 228.616†	39324.4	39031.1	481.84	µg/L	481.84	ppb	22:14:05
2	Cr 267.716†	61962.6	61022.1	477.79	µg/L	477.79	ppb	22:14:05
2	Cu 324.752†	127723.3	123180.5	480.19	µg/L	480.19	ppb	22:14:05
2	Mn 257.610†	396691.5	391576.4	484.29	µg/L	484.29	ppb	22:14:05
2	Mo 202.031†	16408.8	16227.1	477.33	µg/L	477.33	ppb	22:14:25
2	Ni 231.604†	42066.6	41625.8	479.29	µg/L	479.29	ppb	22:14:05
2	P 214.914†	11256.1	11135.6	2373.5	µg/L	2373.5	ppb	22:14:25
2	Pb 220.353†	8760.6	8566.5	479.72	µg/L	479.72	ppb	22:14:25

2	S 181.975 Axial†	1379.1	1257.1	937.49 µg/L	937.49 ppb	22:14:25
2	Sb 206.836†	4126.7	3995.1	476.00 µg/L	476.00 ppb	22:14:25
2	Se 196.026†	1344.9	1313.1	477 µg/L	477 ppb	22:14:25
2	SiO2†	55878.0	53415.5	5200.4 µg/L	5200.4 ppb	22:14:05
2	Si 251.611†	168787.2	165875.2	2436.0 µg/L	2436.0 ppb	22:14:05
2	Sn 189.927†	7780.5	7685.9	480.76 µg/L	480.76 ppb	22:14:25
2	Ti 334.940†	523148.0	515762.7	481.24 µg/L	481.24 ppb	22:14:05
2	Tl 190.801†	3840.1	3909.5	487.59 µg/L	487.59 ppb	22:14:25
2	U 409.014†	7476.8	7654.7	476.77 µg/L	476.77 ppb	22:14:05
2	V 292.402†	99532.4	97904.8	483.95 µg/L	483.95 ppb	22:14:05
2	Zn 213.857†	87491.3	85851.1	478.50 µg/L	478.50 ppb	22:14:05
3	Sc RADIAL	145510.3	145510.3	99.7 %		22:13:37
3	Al 396.153Radial†	26649.3	26789.4	4944.6 µg/L	4944.6 ppb	22:13:37
3	Ca 317.933Radial†	87905.2	87598.0	4879.6 µg/L	4879.6 ppb	22:13:37
3	Fe 238.204 Radial†	78514.4	78592.6	4844.0 µg/L	4844.0 ppb	22:13:37
3	K 766.490 Radial†	14626.3	13123.7	4800.8 µg/L	4800.8 ppb	22:13:37
3	Mg 279.077 IEC†	13367.9	13215.7	4931.5 µg/L	4931.5 ppb	22:13:37
3	Na 589.592 Radial†	71662.6	70578.3	9637.6 µg/L	9637.6 ppb	22:13:37
3	Sr 421.552†	228923.8	229719.0	477.53 µg/L	477.53 ppb	22:13:35
3	Sc 361.383	1738267.6	1738267.6	101.17 %		22:14:28
3	Y 371.029	1027936.3	1027936.3	100.12 %		22:14:28
3	Ag 328.068†	134212.1	128572.7	482.09 µg/L	482.09 ppb	22:14:28
3	As 188.979†	1598.1	1600.0	490.84 µg/L	490.84 ppb	22:14:48
3	B 249.677†	36163.6	32240.6	473.82 µg/L	473.82 ppb	22:14:28
3	Ba 233.527†	120556.5	119301.7	481.14 µg/L	481.14 ppb	22:14:28
3	Be 313.107†	1796851.1	1777190.1	484.03 µg/L	484.03 ppb	22:14:28
3	Cd 226.502†	77464.7	76689.4	478.73 µg/L	478.73 ppb	22:14:28
3	Co 228.616†	39399.0	39134.9	483.12 µg/L	483.12 ppb	22:14:28
3	Cr 267.716†	61725.8	60835.3	476.33 µg/L	476.33 ppb	22:14:28
3	Cu 324.752†	127349.1	122907.9	479.13 µg/L	479.13 ppb	22:14:28
3	Mn 257.610†	395160.9	390365.7	482.79 µg/L	482.79 ppb	22:14:28
3	Mo 202.031†	16361.5	16192.8	476.33 µg/L	476.33 ppb	22:14:48
3	Ni 231.604†	41980.9	41573.2	478.68 µg/L	478.68 ppb	22:14:28
3	P 214.914†	11184.1	11073.0	2360.1 µg/L	2360.1 ppb	22:14:48
3	Pb 220.353†	8741.7	8554.5	479.05 µg/L	479.05 ppb	22:14:48
3	S 181.975 Axial†	1393.5	1272.4	948.88 µg/L	948.88 ppb	22:14:48
3	Sb 206.836†	4119.1	3990.8	475.48 µg/L	475.48 ppb	22:14:48
3	Se 196.026†	1344.8	1314.0	477 µg/L	477 ppb	22:14:48
3	SiO2†	55631.5	53214.4	5180.9 µg/L	5180.9 ppb	22:14:28
3	Si 251.611†	168426.4	165647.1	2432.6 µg/L	2432.6 ppb	22:14:28
3	Sn 189.927†	7707.1	7619.3	476.60 µg/L	476.60 ppb	22:14:48
3	Ti 334.940†	521295.0	514329.6	479.91 µg/L	479.91 ppb	22:14:28
3	Tl 190.801†	3816.8	3889.5	485.09 µg/L	485.09 ppb	22:14:48
3	U 409.014†	7397.3	7581.9	472.42 µg/L	472.42 ppb	22:14:28
3	V 292.402†	99170.7	97623.1	482.55 µg/L	482.55 ppb	22:14:28
3	Zn 213.857†	87280.4	85709.2	477.71 µg/L	477.71 ppb	22:14:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732031.4	100.80	%	0.697				0.69%
Sc RADIAL	145207.8	99.5	%	0.57				0.57%
Y 371.029	1024781.2	99.814	%	0.6109				0.61%
Ag 328.068†	128308.2	481.10	µg/L	1.752	481.10	ppb	1.752	0.36%
QC value within limits for Ag 328.068 Recovery = 96.22%								
Al 396.153Radial†	26682.9	4924.7	µg/L	28.05	4924.7	ppb	28.05	0.57%
QC value within limits for Al 396.153Radial Recovery = 98.49%								
As 188.979†	1612.8	494.70	µg/L	4.918	494.70	ppb	4.918	0.99%
QC value within limits for As 188.979 Recovery = 98.94%								
B 249.677†	32165.4	472.71	µg/L	3.255	472.71	ppb	3.255	0.69%
QC value within limits for B 249.677 Recovery = 94.54%								
Ba 233.527†	118988.0	479.88	µg/L	2.269	479.88	ppb	2.269	0.47%
QC value within limits for Ba 233.527 Recovery = 95.98%								
Be 313.107†	1773726.5	483.09	µg/L	2.447	483.09	ppb	2.447	0.51%
QC value within limits for Be 313.107 Recovery = 96.62%								
Ca 317.933Radial†	87311.9	4863.6	µg/L	14.25	4863.6	ppb	14.25	0.29%
QC value within limits for Ca 317.933Radial Recovery = 97.27%								
Cd 226.502†	76446.6	477.21	µg/L	2.714	477.21	ppb	2.714	0.57%
QC value within limits for Cd 226.502 Recovery = 95.44%								
Co 228.616†	38955.6	480.91	µg/L	2.798	480.91	ppb	2.798	0.58%

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   QC value within limits for Co 228.616  Recovery = 96.18%
Cr 267.716†            60831.2      476.30 µg/L          1.512      476.30 ppb          1.512   0.32%
   QC value within limits for Cr 267.716  Recovery = 95.26%
Cu 324.752†           122840.8      478.87 µg/L          1.470      478.87 ppb          1.470   0.31%
   QC value within limits for Cu 324.752  Recovery = 95.77%
Fe 238.204 Radial†     78324.0      4827.4 µg/L         14.34      4827.4 ppb         14.34   0.30%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.55%
K 766.490 Radial†      13180.7      4821.7 µg/L         21.99      4821.7 ppb         21.99   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 96.43%
Mg 279.077 IEC†        13196.2      4924.3 µg/L          7.93      4924.3 ppb          7.93   0.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.49%
Mn 257.610†           390054.6      482.41 µg/L          2.102      482.41 ppb          2.102   0.44%
   QC value within limits for Mn 257.610  Recovery = 96.48%
Mo 202.031†            16292.7      479.26 µg/L          4.241      479.26 ppb          4.241   0.88%
   QC value within limits for Mo 202.031  Recovery = 95.85%
Na 589.592 Radial†     70404.9      9613.9 µg/L         20.97      9613.9 ppb         20.97   0.22%
   QC value within limits for Na 589.592 Radial  Recovery = 96.14%
Ni 231.604†            41541.3      478.32 µg/L          1.200      478.32 ppb          1.200   0.25%
   QC value within limits for Ni 231.604  Recovery = 95.66%
P 214.914†             11165.0      2379.7 µg/L         23.45      2379.7 ppb         23.45   0.99%
   QC value within limits for P 214.914  Recovery = 95.19%
Pb 220.353†             8608.8      482.08 µg/L          4.685      482.08 ppb          4.685   0.97%
   QC value within limits for Pb 220.353  Recovery = 96.42%
S 181.975 Axial†        1272.4      948.86 µg/L         11.360      948.86 ppb         11.360   1.20%
   QC value within limits for S 181.975 Axial  Recovery = 94.89%
Sb 206.836†             4019.3      478.92 µg/L          5.524      478.92 ppb          5.524   1.15%
   QC value within limits for Sb 206.836  Recovery = 95.78%
Se 196.026†             1320.7         480 µg/L            4.5         480 ppb            4.5   0.93%
   QC value within limits for Se 196.026  Recovery = 95.91%
SiO2†                  53219.4      5181.2 µg/L         19.05      5181.2 ppb         19.05   0.37%
   QC value within limits for SiO2  Recovery = 96.89%
Si 251.611†           165332.5      2427.9 µg/L         11.15      2427.9 ppb         11.15   0.46%
   QC value within limits for Si 251.611  Recovery = 97.12%
Sn 189.927†             7683.0      480.57 µg/L          3.879      480.57 ppb          3.879   0.81%
   QC value within limits for Sn 189.927  Recovery = 96.11%
Sr 421.552†           231010.6      480.22 µg/L          3.701      480.22 ppb          3.701   0.77%
   QC value within limits for Sr 421.552  Recovery = 96.04%
Ti 334.940†           514276.9      479.86 µg/L          1.412      479.86 ppb          1.412   0.29%
   QC value within limits for Ti 334.940  Recovery = 95.97%
Tl 190.801†             3919.0      488.72 µg/L          4.311      488.72 ppb          4.311   0.88%
   QC value within limits for Tl 190.801  Recovery = 97.74%
U 409.014†              7625.3      474.92 µg/L          2.247      474.92 ppb          2.247   0.47%
   QC value within limits for U 409.014  Recovery = 94.98%
V 292.402†             97486.1      481.92 µg/L          2.411      481.92 ppb          2.411   0.50%
   QC value within limits for V 292.402  Recovery = 96.38%
Zn 213.857†            85476.7      476.40 µg/L          2.970      476.40 ppb          2.970   0.62%
   QC value within limits for Zn 213.857  Recovery = 95.28%
All analyte(s) passed QC.
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Sequence No.: 78
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 22:14:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144616.5	144616.5	99.1	%			22:15:27
1	Al 396.153Radial†	-140.4	-78.5	-14.533	µg/L	-14.533	ppb	22:15:27
1	Ca 317.933Radial†	605.1	50.0	2.7853	µg/L	2.7853	ppb	22:15:47
1	Fe 238.204 Radial†	190.6	44.2	2.7255	µg/L	2.7255	ppb	22:15:47
1	K 766.490 Radial†	1690.5	161.1	58.992	µg/L	58.992	ppb	22:15:27
1	Mg 279.077 IEC†	189.8	0.8	0.2999	µg/L	0.2999	ppb	22:15:47
1	Na 589.592 Radial†	1316.3	37.4	5.0628	µg/L	5.0628	ppb	22:15:27
1	Sr 421.552†	-196.7	-63.2	-0.1315	µg/L	-0.1315	ppb	22:15:27
1	Sc 361.383	1731481.4	1731481.4	100.77	%			22:16:34
1	Y 371.029	1035707.2	1035707.2	100.88	%			22:16:34
1	Ag 328.068†	4207.6	84.0	0.3025	µg/L	0.3025	ppb	22:16:37
1	As 188.979†	-21.2	-0.7	-0.1971	µg/L	-0.1971	ppb	22:16:57
1	B 249.677†	3625.9	92.2	1.3590	µg/L	1.3590	ppb	22:16:37
1	Ba 233.527†	-157.7	-20.7	-0.0841	µg/L	-0.0841	ppb	22:16:57
1	Be 313.107†	-910.7	160.9	0.0444	µg/L	0.0444	ppb	22:16:37
1	Cd 226.502†	-114.4	4.7	0.0290	µg/L	0.0290	ppb	22:16:57
1	Co 228.616†	-176.3	15.4	0.1898	µg/L	0.1898	ppb	22:16:57
1	Cr 267.716†	195.1	15.0	0.1155	µg/L	0.1155	ppb	22:16:57
1	Cu 324.752†	2860.5	-133.6	-0.5170	µg/L	-0.5170	ppb	22:16:37
1	Mn 257.610†	321.7	82.0	0.1014	µg/L	0.1014	ppb	22:16:57
1	Mo 202.031†	-34.6	-14.3	-0.4198	µg/L	-0.4198	ppb	22:16:57
1	Ni 231.604†	-65.6	11.4	0.1312	µg/L	0.1312	ppb	22:16:57
1	P 214.914†	-28.4	-10.2	-2.1783	µg/L	-2.1783	ppb	22:16:57
1	Pb 220.353†	66.3	-20.6	-1.1536	µg/L	-1.1536	ppb	22:16:57
1	S 181.975 Axial†	101.3	-4.5	-3.3505	µg/L	-3.3505	ppb	22:16:57
1	Sb 206.836†	79.6	-1.9	-0.2288	µg/L	-0.2288	ppb	22:16:57
1	Se 196.026†	12.5	-2.8	-1.02	µg/L	-1.02	ppb	22:16:57
1	SiO2†	1786.4	-2.7	-0.2591	µg/L	-0.2591	ppb	22:16:57
1	Si 251.611†	1082.1	237.2	3.4988	µg/L	3.4988	ppb	22:16:37
1	Sn 189.927†	9.2	10.2	0.6390	µg/L	0.6390	ppb	22:16:57
1	Ti 334.940†	1075.1	114.3	0.1060	µg/L	0.1060	ppb	22:16:37
1	Tl 190.801†	-105.3	12.2	1.4953	µg/L	1.4953	ppb	22:16:57
1	U 409.014†	-238.6	33.2	1.8871	µg/L	1.8871	ppb	22:16:37
1	V 292.402†	220.7	-184.8	-0.9046	µg/L	-0.9046	ppb	22:16:37
1	Zn 213.857†	605.7	36.6	0.2048	µg/L	0.2048	ppb	22:16:57
2	Sc RADIAL	144344.2	144344.2	98.9	%			22:15:49
2	Al 396.153Radial†	-228.5	-167.8	-31.103	µg/L	-31.103	ppb	22:15:49
2	Ca 317.933Radial†	612.9	59.1	3.2922	µg/L	3.2922	ppb	22:16:09
2	Fe 238.204 Radial†	199.9	54.0	3.3254	µg/L	3.3254	ppb	22:16:09
2	K 766.490 Radial†	1458.2	-70.5	-25.815	µg/L	-25.815	ppb	22:15:49
2	Mg 279.077 IEC†	169.1	-19.8	-7.3659	µg/L	-7.3659	ppb	22:16:09
2	Na 589.592 Radial†	1297.4	20.8	2.8708	µg/L	2.8708	ppb	22:15:49
2	Sr 421.552†	-320.5	-188.8	-0.3925	µg/L	-0.3925	ppb	22:15:49
2	Sc 361.383	1722284.8	1722284.8	100.24	%			22:16:59
2	Y 371.029	1030621.8	1030621.8	100.38	%			22:16:59
2	Ag 328.068†	3896.9	-203.7	-0.7475	µg/L	-0.7475	ppb	22:17:01
2	As 188.979†	-7.9	12.5	3.7833	µg/L	3.7833	ppb	22:17:21
2	B 249.677†	3506.6	-7.6	-0.1120	µg/L	-0.1120	ppb	22:17:01
2	Ba 233.527†	-125.5	10.7	0.0428	µg/L	0.0428	ppb	22:17:21
2	Be 313.107†	-756.3	310.2	0.0866	µg/L	0.0866	ppb	22:17:01
2	Cd 226.502†	-110.8	7.7	0.0475	µg/L	0.0475	ppb	22:17:21
2	Co 228.616†	-191.9	-1.2	-0.0145	µg/L	-0.0145	ppb	22:17:21
2	Cr 267.716†	200.7	21.6	0.1639	µg/L	0.1639	ppb	22:17:21
2	Cu 324.752†	2989.4	10.2	0.0458	µg/L	0.0458	ppb	22:17:01
2	Mn 257.610†	314.3	76.3	0.0947	µg/L	0.0947	ppb	22:17:21
2	Mo 202.031†	-21.3	-1.1	-0.0337	µg/L	-0.0337	ppb	22:17:21
2	Ni 231.604†	-74.0	2.7	0.0313	µg/L	0.0313	ppb	22:17:21
2	P 214.914†	-16.7	1.3	0.2808	µg/L	0.2808	ppb	22:17:21
2	Pb 220.353†	91.3	4.7	0.2555	µg/L	0.2555	ppb	22:17:21

2	S 181.975 Axial†	95.8	-9.5	-7.0189 µg/L	-7.0189 ppb	22:17:21
2	Sb 206.836†	59.0	-22.0	-2.6184 µg/L	-2.6184 ppb	22:17:21
2	Se 196.026†	19.9	4.6	1.68 µg/L	1.68 ppb	22:17:21
2	SiO2†	1789.5	9.9	0.9655 µg/L	0.9655 ppb	22:17:21
2	Si 251.611†	1004.6	165.6	2.4397 µg/L	2.4397 ppb	22:17:01
2	Sn 189.927†	5.2	6.3	0.3919 µg/L	0.3919 ppb	22:17:21
2	Ti 334.940†	826.1	-128.4	-0.1222 µg/L	-0.1222 ppb	22:17:01
2	Tl 190.801†	-126.0	-9.1	-1.1150 µg/L	-1.1150 ppb	22:17:21
2	U 409.014†	-147.1	123.1	7.1898 µg/L	7.1898 ppb	22:17:01
2	V 292.402†	373.1	-31.5	-0.1489 µg/L	-0.1489 ppb	22:17:01
2	Zn 213.857†	593.5	27.6	0.1540 µg/L	0.1540 ppb	22:17:21
3	Sc RADIAL	145056.9	145056.9	99.4 %		22:16:11
3	Al 396.153Radial†	-231.1	-169.3	-31.367 µg/L	-31.367 ppb	22:16:11
3	Ca 317.933Radial†	599.6	42.6	2.3739 µg/L	2.3739 ppb	22:16:31
3	Fe 238.204 Radial†	195.6	48.6	2.9983 µg/L	2.9983 ppb	22:16:31
3	K 766.490 Radial†	1826.4	292.6	107.12 µg/L	107.12 ppb	22:16:11
3	Mg 279.077 IEC†	196.4	6.8	2.5372 µg/L	2.5372 ppb	22:16:31
3	Na 589.592 Radial†	1266.4	-16.8	-2.3909 µg/L	-2.3909 ppb	22:16:11
3	Sr 421.552†	-165.7	-31.4	-0.0654 µg/L	-0.0654 ppb	22:16:11
3	Sc 361.383	1742676.0	1742676.0	101.42 %		22:17:23
3	Y 371.029	1041139.7	1041139.7	101.41 %		22:17:23
3	Ag 328.068†	4264.5	113.3	0.4163 µg/L	0.4163 ppb	22:17:25
3	As 188.979†	-11.3	9.2	2.7834 µg/L	2.7834 ppb	22:17:45
3	B 249.677†	3554.8	-1.0	-0.0144 µg/L	-0.0144 ppb	22:17:25
3	Ba 233.527†	-135.5	2.2	0.0087 µg/L	0.0087 ppb	22:17:45
3	Be 313.107†	-714.6	360.1	0.0972 µg/L	0.0972 ppb	22:17:25
3	Cd 226.502†	-111.8	8.0	0.0493 µg/L	0.0493 ppb	22:17:45
3	Co 228.616†	-185.9	7.0	0.0867 µg/L	0.0867 ppb	22:17:45
3	Cr 267.716†	198.7	17.4	0.1382 µg/L	0.1382 ppb	22:17:45
3	Cu 324.752†	2855.8	-156.5	-0.6100 µg/L	-0.6100 ppb	22:17:25
3	Mn 257.610†	318.4	76.7	0.0948 µg/L	0.0948 ppb	22:17:45
3	Mo 202.031†	-37.1	-16.5	-0.4859 µg/L	-0.4859 ppb	22:17:45
3	Ni 231.604†	-94.7	-16.9	-0.1940 µg/L	-0.1940 ppb	22:17:45
3	P 214.914†	-18.0	0.2	0.0565 µg/L	0.0565 ppb	22:17:45
3	Pb 220.353†	70.5	-16.9	-0.9439 µg/L	-0.9439 ppb	22:17:45
3	S 181.975 Axial†	101.6	-4.9	-3.6429 µg/L	-3.6429 ppb	22:17:45
3	Sb 206.836†	72.7	-9.2	-1.0967 µg/L	-1.0967 ppb	22:17:45
3	Se 196.026†	9.5	-5.9	-2.14 µg/L	-2.14 ppb	22:17:45
3	SiO2†	1777.4	-22.9	-2.2297 µg/L	-2.2297 ppb	22:17:45
3	Si 251.611†	827.6	-20.5	-0.2986 µg/L	-0.2986 ppb	22:17:25
3	Sn 189.927†	4.4	5.4	0.3390 µg/L	0.3390 ppb	22:17:45
3	Ti 334.940†	1103.2	135.2	0.1273 µg/L	0.1273 ppb	22:17:25
3	Tl 190.801†	-112.8	5.5	0.6715 µg/L	0.6715 ppb	22:17:45
3	U 409.014†	-323.3	-48.8	-2.8536 µg/L	-2.8536 ppb	22:17:25
3	V 292.402†	418.1	8.4	0.0344 µg/L	0.0344 ppb	22:17:25
3	Zn 213.857†	602.9	30.0	0.1695 µg/L	0.1695 ppb	22:17:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732147.4	100.81	%	0.594				0.59%
Sc RADIAL	144672.5	99.1	%	0.25				0.25%
Y 371.029	1035822.9	100.89	%	0.512				0.51%
Ag 328.068†	-2.2	-0.0096	µg/L	0.64157	-0.0096	ppb	0.64157	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-138.5	-25.667	µg/L	9.6439	-25.667	ppb	9.6439	37.57%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	2.1232	µg/L	2.07069	2.1232	ppb	2.07069	97.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	27.9	0.4109	µg/L	0.82253	0.4109	ppb	0.82253	200.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.6	-0.0109	µg/L	0.06567	-0.0109	ppb	0.06567	605.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	277.1	0.0761	µg/L	0.02793	0.0761	ppb	0.02793	36.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	50.6	2.8171	µg/L	0.45995	2.8171	ppb	0.45995	16.33%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.8	0.0420	µg/L	0.01123	0.0420	ppb	0.01123	26.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.1	0.0873	µg/L	0.10216	0.0873	ppb	0.10216	116.98%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                18.0      0.1392 µg/L       0.02421      0.1392 ppb        0.02421  17.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -93.3     -0.3604 µg/L       0.35483     -0.3604 ppb        0.35483  98.44%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         48.9      3.0164 µg/L       0.30037      3.0164 ppb        0.30037   9.96%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         127.7     46.766 µg/L       67.3062     46.766 ppb        67.3062 143.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.0     -1.5096 µg/L       5.19362     -1.5096 ppb        5.19362 344.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                78.3      0.0969 µg/L       0.00386      0.0969 ppb        0.00386   3.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -10.7     -0.3132 µg/L       0.24424     -0.3132 ppb        0.24424  77.99%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         13.8      1.8476 µg/L       3.83078      1.8476 ppb        3.83078 207.34%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -0.9     -0.0105 µg/L       0.16660     -0.0105 ppb        0.16660 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.9     -0.6137 µg/L       1.35968     -0.6137 ppb        1.35968 221.57%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -10.9     -0.6140 µg/L       0.76029     -0.6140 ppb        0.76029 123.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -6.3     -4.6708 µg/L       2.03882     -4.6708 ppb        2.03882  43.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -11.0     -1.3147 µg/L       1.20959     -1.3147 ppb        1.20959  92.01%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.4      -0.495 µg/L        1.9625      -0.495 ppb         1.9625 396.16%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      -5.2     -0.5078 µg/L       1.61206     -0.5078 ppb        1.61206 317.46%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               127.4      1.8800 µg/L       1.95958      1.8800 ppb        1.95958 104.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.3      0.4566 µg/L       0.16011      0.4566 ppb        0.16011  35.06%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -94.5     -0.1965 µg/L       0.17296     -0.1965 ppb        0.17296  88.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                40.4      0.0370 µg/L       0.13834      0.0370 ppb        0.13834 373.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.9      0.3506 µg/L       1.33442      0.3506 ppb        1.33442 380.62%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 35.8      2.0744 µg/L       5.02435      2.0744 ppb        5.02435 242.20%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -69.3     -0.3397 µg/L       0.49772     -0.3397 ppb        0.49772 146.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                31.4      0.1761 µg/L       0.02602      0.1761 ppb        0.02602  14.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 87
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 22:35:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146768.4	146768.4	101	%			22:35:57
1	Al 396.153Radial†	26541.6	26453.2	4882.0	µg/L	4882.0	ppb	22:35:57
1	Ca 317.933Radial†	87649.0	86587.6	4823.3	µg/L	4823.3	ppb	22:35:57
1	Fe 238.204 Radial†	78561.3	77964.3	4805.2	µg/L	4805.2	ppb	22:35:57
1	K 766.490 Radial†	14622.8	12994.5	4753.5	µg/L	4753.5	ppb	22:35:57
1	Mg 279.077 IEC†	13408.4	13141.1	4903.8	µg/L	4903.8	ppb	22:35:57
1	Na 589.592 Radial†	71672.4	69972.1	9554.8	µg/L	9554.8	ppb	22:35:57
1	Sr 421.552†	232413.6	231220.9	480.66	µg/L	480.66	ppb	22:35:55
1	Sc 361.383	1722923.1	1722923.1	100.27	%			22:36:24
1	Y 371.029	1019811.3	1019811.3	99.330	%			22:36:24
1	Ag 328.068†	132254.4	127801.8	479.17	µg/L	479.17	ppb	22:36:24
1	As 188.979†	1604.2	1620.1	496.89	µg/L	496.89	ppb	22:36:44
1	B 249.677†	35283.6	31681.3	465.60	µg/L	465.60	ppb	22:36:24
1	Ba 233.527†	118323.2	118135.9	476.44	µg/L	476.44	ppb	22:36:24
1	Be 313.107†	1761219.9	1757474.5	478.66	µg/L	478.66	ppb	22:36:24
1	Cd 226.502†	75730.6	75642.0	472.19	µg/L	472.19	ppb	22:36:24
1	Co 228.616†	38400.5	38485.9	475.11	µg/L	475.11	ppb	22:36:24
1	Cr 267.716†	60661.3	60317.0	472.27	µg/L	472.27	ppb	22:36:24
1	Cu 324.752†	125755.4	122439.8	477.30	µg/L	477.30	ppb	22:36:24
1	Mn 257.610†	387911.3	386614.6	478.15	µg/L	478.15	ppb	22:36:24
1	Mo 202.031†	16408.6	16383.8	481.94	µg/L	481.94	ppb	22:36:44
1	Ni 231.604†	41320.9	41284.6	475.36	µg/L	475.36	ppb	22:36:24
1	P 214.914†	11214.8	11202.1	2387.7	µg/L	2387.7	ppb	22:36:44
1	Pb 220.353†	8739.6	8629.4	483.24	µg/L	483.24	ppb	22:36:44
1	S 181.975 Axial†	1375.5	1266.7	944.65	µg/L	944.65	ppb	22:36:44
1	Sb 206.836†	4120.0	4027.9	480.04	µg/L	480.04	ppb	22:36:44
1	Se 196.026†	1343.5	1324.5	481	µg/L	481	ppb	22:36:44
1	SiO2†	54771.8	52846.8	5144.7	µg/L	5144.7	ppb	22:36:24
1	Si 251.611†	165253.5	163965.6	2407.7	µg/L	2407.7	ppb	22:36:24
1	Sn 189.927†	7717.2	7697.3	481.45	µg/L	481.45	ppb	22:36:44
1	Ti 334.940†	514309.0	511951.9	477.69	µg/L	477.69	ppb	22:36:24
1	Tl 190.801†	3827.4	3933.6	490.49	µg/L	490.49	ppb	22:36:44
1	U 409.014†	7235.3	7485.4	466.50	µg/L	466.50	ppb	22:36:24
1	V 292.402†	97370.2	96700.5	478.09	µg/L	478.09	ppb	22:36:24
1	Zn 213.857†	85150.2	84353.3	470.11	µg/L	470.11	ppb	22:36:24
2	Sc RADIAL	145116.2	145116.2	99.4	%			22:36:01
2	Al 396.153Radial†	26297.2	26507.8	4892.7	µg/L	4892.7	ppb	22:36:01
2	Ca 317.933Radial†	86940.1	86866.9	4838.8	µg/L	4838.8	ppb	22:36:01
2	Fe 238.204 Radial†	77803.3	78091.3	4813.1	µg/L	4813.1	ppb	22:36:01
2	K 766.490 Radial†	14545.6	13082.4	4785.7	µg/L	4785.7	ppb	22:36:01
2	Mg 279.077 IEC†	13274.5	13158.2	4909.9	µg/L	4909.9	ppb	22:36:01
2	Na 589.592 Radial†	70981.1	70088.2	9570.6	µg/L	9570.6	ppb	22:36:01
2	Sr 421.552†	232627.8	234067.2	486.57	µg/L	486.57	ppb	22:35:59
2	Sc 361.383	1750269.1	1750269.1	101.87	%			22:36:47
2	Y 371.029	1035573.7	1035573.7	100.87	%			22:36:47
2	Ag 328.068†	134676.3	128118.7	480.37	µg/L	480.37	ppb	22:36:47
2	As 188.979†	1582.5	1573.9	482.89	µg/L	482.89	ppb	22:37:07
2	B 249.677†	35971.3	31806.7	467.44	µg/L	467.44	ppb	22:36:47
2	Ba 233.527†	120638.2	118564.9	478.17	µg/L	478.17	ppb	22:36:47
2	Be 313.107†	1795938.6	1764115.6	480.47	µg/L	480.47	ppb	22:36:47
2	Cd 226.502†	77211.3	75915.5	473.90	µg/L	473.90	ppb	22:36:47
2	Co 228.616†	39183.6	38656.4	477.21	µg/L	477.21	ppb	22:36:47
2	Cr 267.716†	61805.5	60495.1	473.67	µg/L	473.67	ppb	22:36:47
2	Cu 324.752†	127636.0	122326.5	476.86	µg/L	476.86	ppb	22:36:47
2	Mn 257.610†	395566.1	388085.1	479.97	µg/L	479.97	ppb	22:36:47
2	Mo 202.031†	16264.4	15986.6	470.26	µg/L	470.26	ppb	22:37:07
2	Ni 231.604†	42110.5	41415.9	476.87	µg/L	476.87	ppb	22:36:47
2	P 214.914†	11123.1	10937.4	2331.1	µg/L	2331.1	ppb	22:37:07
2	Pb 220.353†	8695.2	8449.6	473.18	µg/L	473.18	ppb	22:37:07

2	S 181.975 Axial†	1380.2	1249.8	932.06 µg/L	932.06 ppb	22:37:07
2	Sb 206.836†	4108.8	3952.7	470.89 µg/L	470.89 ppb	22:37:07
2	Se 196.026†	1336.5	1296.8	471 µg/L	471 ppb	22:37:07
2	SiO2†	55876.6	53078.0	5167.8 µg/L	5167.8 ppb	22:36:47
2	Si 251.611†	168292.8	164374.4	2414.0 µg/L	2414.0 ppb	22:36:47
2	Sn 189.927†	7640.8	7502.0	469.28 µg/L	469.28 ppb	22:37:07
2	Ti 334.940†	522795.1	512268.9	477.98 µg/L	477.98 ppb	22:36:47
2	Tl 190.801†	3793.4	3840.6	479.07 µg/L	479.07 ppb	22:37:07
2	U 409.014†	7388.2	7522.7	468.79 µg/L	468.79 ppb	22:36:47
2	V 292.402†	99257.8	97036.4	479.62 µg/L	479.62 ppb	22:36:47
2	Zn 213.857†	87026.0	84867.9	472.99 µg/L	472.99 ppb	22:36:47
3	Sc RADIAL	145049.2	145049.2	99.4 %		22:36:05
3	Al 396.153Radial†	26335.5	26558.6	4901.9 µg/L	4901.9 ppb	22:36:05
3	Ca 317.933Radial†	86672.0	86637.6	4826.1 µg/L	4826.1 ppb	22:36:05
3	Fe 238.204 Radial†	77423.0	77745.0	4791.7 µg/L	4791.7 ppb	22:36:05
3	K 766.490 Radial†	14708.1	13252.7	4848.1 µg/L	4848.1 ppb	22:36:05
3	Mg 279.077 IEC†	13164.0	13053.2	4870.9 µg/L	4870.9 ppb	22:36:05
3	Na 589.592 Radial†	70826.5	69965.7	9553.9 µg/L	9553.9 ppb	22:36:05
3	Sr 421.552†	229385.5	230913.4	480.02 µg/L	480.02 ppb	22:36:03
3	Sc 361.383	1736886.0	1736886.0	101.09 %		22:37:10
3	Y 371.029	1026663.5	1026663.5	99.998 %		22:37:10
3	Ag 328.068†	133353.0	127828.3	479.31 µg/L	479.31 ppb	22:37:10
3	As 188.979†	1594.0	1597.2	489.96 µg/L	489.96 ppb	22:37:30
3	B 249.677†	35849.9	31958.7	469.68 µg/L	469.68 ppb	22:37:10
3	Ba 233.527†	119879.0	118726.4	478.82 µg/L	478.82 ppb	22:37:10
3	Be 313.107†	1785527.0	1767400.4	481.37 µg/L	481.37 ppb	22:37:10
3	Cd 226.502†	76637.4	75931.9	474.00 µg/L	474.00 ppb	22:37:10
3	Co 228.616†	38956.3	38727.9	478.10 µg/L	478.10 ppb	22:37:10
3	Cr 267.716†	61487.6	60648.2	474.86 µg/L	474.86 ppb	22:37:10
3	Cu 324.752†	126940.5	122603.9	477.95 µg/L	477.95 ppb	22:37:10
3	Mn 257.610†	392870.7	388410.8	480.37 µg/L	480.37 ppb	22:37:10
3	Mo 202.031†	16306.3	16151.1	475.10 µg/L	475.10 ppb	22:37:30
3	Ni 231.604†	41574.5	41204.2	474.44 µg/L	474.44 ppb	22:37:10
3	P 214.914†	11178.5	11076.3	2360.8 µg/L	2360.8 ppb	22:37:30
3	Pb 220.353†	8729.7	8549.5	478.76 µg/L	478.76 ppb	22:37:30
3	S 181.975 Axial†	1377.2	1257.3	937.66 µg/L	937.66 ppb	22:37:30
3	Sb 206.836†	4126.4	4001.2	476.72 µg/L	476.72 ppb	22:37:30
3	Se 196.026†	1332.7	1303.1	473 µg/L	473 ppb	22:37:30
3	SiO2†	55324.3	52954.3	5155.5 µg/L	5155.5 ppb	22:37:10
3	Si 251.611†	167461.4	164825.0	2420.5 µg/L	2420.5 ppb	22:37:10
3	Sn 189.927†	7692.4	7610.8	476.07 µg/L	476.07 ppb	22:37:30
3	Ti 334.940†	518784.6	512256.1	477.97 µg/L	477.97 ppb	22:37:10
3	Tl 190.801†	3813.8	3889.5	485.08 µg/L	485.08 ppb	22:37:30
3	U 409.014†	7519.5	7708.6	479.68 µg/L	479.68 ppb	22:37:10
3	V 292.402†	98557.8	97094.7	479.97 µg/L	479.97 ppb	22:37:10
3	Zn 213.857†	86550.8	85056.1	474.07 µg/L	474.07 ppb	22:37:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1736692.7	101.08	%	0.796				0.79%
Sc RADIAL	145644.6	99.8	%	0.67				0.67%
Y 371.029	1027349.5	100.06	%	0.770				0.77%
Ag 328.068†	127916.2	479.62	µg/L	0.654	479.62	ppb	0.654	0.14%
QC value within limits for Ag 328.068 Recovery = 95.92%								
Al 396.153Radial†	26506.5	4892.2	µg/L	9.94	4892.2	ppb	9.94	0.20%
QC value within limits for Al 396.153Radial Recovery = 97.84%								
As 188.979†	1597.1	489.91	µg/L	7.000	489.91	ppb	7.000	1.43%
QC value within limits for As 188.979 Recovery = 97.98%								
B 249.677†	31815.6	467.57	µg/L	2.043	467.57	ppb	2.043	0.44%
QC value within limits for B 249.677 Recovery = 93.51%								
Ba 233.527†	118475.7	477.81	µg/L	1.229	477.81	ppb	1.229	0.26%
QC value within limits for Ba 233.527 Recovery = 95.56%								
Be 313.107†	1762996.8	480.17	µg/L	1.379	480.17	ppb	1.379	0.29%
QC value within limits for Be 313.107 Recovery = 96.03%								
Ca 317.933Radial†	86697.4	4829.4	µg/L	8.30	4829.4	ppb	8.30	0.17%
QC value within limits for Ca 317.933Radial Recovery = 96.59%								
Cd 226.502†	75829.8	473.36	µg/L	1.017	473.36	ppb	1.017	0.21%
QC value within limits for Cd 226.502 Recovery = 94.67%								
Co 228.616†	38623.4	476.81	µg/L	1.535	476.81	ppb	1.535	0.32%

```
   QC value within limits for Co 228.616  Recovery = 95.36%
Cr 267.716†            60486.8      473.60 µg/L         1.293      473.60 ppb          1.293   0.27%
   QC value within limits for Cr 267.716  Recovery = 94.72%
Cu 324.752†           122456.7      477.37 µg/L         0.545      477.37 ppb          0.545   0.11%
   QC value within limits for Cu 324.752  Recovery = 95.47%
Fe 238.204 Radial†     77933.5      4803.3 µg/L         10.80      4803.3 ppb          10.80   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.07%
K 766.490 Radial†      13109.8      4795.8 µg/L         48.06      4795.8 ppb          48.06   1.00%
   QC value within limits for K 766.490 Radial  Recovery = 95.92%
Mg 279.077 IEC†        13117.5      4894.9 µg/L         20.99      4894.9 ppb          20.99   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.90%
Mn 257.610†           387703.5      479.50 µg/L         1.185      479.50 ppb          1.185   0.25%
   QC value within limits for Mn 257.610  Recovery = 95.90%
Mo 202.031†            16173.9      475.77 µg/L         5.865      475.77 ppb          5.865   1.23%
   QC value within limits for Mo 202.031  Recovery = 95.15%
Na 589.592 Radial†     70008.7      9559.8 µg/L          9.43      9559.8 ppb           9.43   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 95.60%
Ni 231.604†            41301.6      475.56 µg/L         1.231      475.56 ppb          1.231   0.26%
   QC value within limits for Ni 231.604  Recovery = 95.11%
P 214.914†             11071.9      2359.9 µg/L         28.31      2359.9 ppb          28.31   1.20%
   QC value within limits for P 214.914  Recovery = 94.39%
Pb 220.353†             8542.8      478.39 µg/L         5.044      478.39 ppb          5.044   1.05%
   QC value within limits for Pb 220.353  Recovery = 95.68%
S 181.975 Axial†        1257.9      938.13 µg/L         6.311      938.13 ppb          6.311   0.67%
   QC value within limits for S 181.975 Axial  Recovery = 93.81%
Sb 206.836†             3994.0      475.89 µg/L         4.631      475.89 ppb          4.631   0.97%
   QC value within limits for Sb 206.836  Recovery = 95.18%
Se 196.026†             1308.1         475 µg/L           5.3         475 ppb            5.3   1.11%
   QC value within limits for Se 196.026  Recovery = 95.00%
SiO2†                  52959.7      5156.0 µg/L         11.56      5156.0 ppb          11.56   0.22%
   QC value within limits for SiO2  Recovery = 96.42%
Si 251.611†           164388.3      2414.1 µg/L          6.40      2414.1 ppb           6.40   0.27%
   QC value within limits for Si 251.611  Recovery = 96.56%
Sn 189.927†             7603.3      475.60 µg/L         6.099      475.60 ppb          6.099   1.28%
   QC value within limits for Sn 189.927  Recovery = 95.12%
Sr 421.552†           232067.2      482.42 µg/L         3.615      482.42 ppb          3.615   0.75%
   QC value within limits for Sr 421.552  Recovery = 96.48%
Ti 334.940†           512159.0      477.88 µg/L         0.166      477.88 ppb          0.166   0.03%
   QC value within limits for Ti 334.940  Recovery = 95.58%
Tl 190.801†             3887.9      484.88 µg/L         5.710      484.88 ppb          5.710   1.18%
   QC value within limits for Tl 190.801  Recovery = 96.98%
U 409.014†              7572.3      471.66 µg/L         7.041      471.66 ppb          7.041   1.49%
   QC value within limits for U 409.014  Recovery = 94.33%
V 292.402†             96943.8      479.22 µg/L         0.996      479.22 ppb          0.996   0.21%
   QC value within limits for V 292.402  Recovery = 95.84%
Zn 213.857†            84759.1      472.39 µg/L         2.045      472.39 ppb          2.045   0.43%
   QC value within limits for Zn 213.857  Recovery = 94.48%
All analyte(s) passed QC.
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Sequence No.: 88
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 22:37:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146107.1	146107.1	100	%			22:38:09
1	Al 396.153Radial†	-28.6	34.6	6.4326	µg/L	6.4326	ppb	22:38:29
1	Ca 317.933Radial†	565.6	4.4	0.2431	µg/L	0.2431	ppb	22:38:29
1	Fe 238.204 Radial†	221.6	73.2	4.5130	µg/L	4.5130	ppb	22:38:29
1	K 766.490 Radial†	1670.7	123.9	45.355	µg/L	45.355	ppb	22:38:09
1	Mg 279.077 IEC†	188.3	-2.7	-1.0050	µg/L	-1.0050	ppb	22:38:29
1	Na 589.592 Radial†	1308.8	16.4	2.2067	µg/L	2.2067	ppb	22:38:09
1	Sr 421.552†	-138.0	-2.6	-0.0053	µg/L	-0.0053	ppb	22:38:09
1	Sc 361.383	1751605.7	1751605.7	101.94	%			22:39:16
1	Y 371.029	1046872.7	1046872.7	101.97	%			22:39:16
1	Ag 328.068†	3943.9	-222.7	-0.8222	µg/L	-0.8222	ppb	22:39:19
1	As 188.979†	-21.0	-0.2	-0.0602	µg/L	-0.0602	ppb	22:39:39
1	B 249.677†	3436.3	-135.1	-1.9931	µg/L	-1.9931	ppb	22:39:19
1	Ba 233.527†	-130.5	7.8	0.0313	µg/L	0.0313	ppb	22:39:39
1	Be 313.107†	-714.8	363.6	0.1002	µg/L	0.1002	ppb	22:39:19
1	Cd 226.502†	-97.0	23.1	0.1438	µg/L	0.1438	ppb	22:39:39
1	Co 228.616†	-170.5	23.0	0.2839	µg/L	0.2839	ppb	22:39:39
1	Cr 267.716†	208.7	26.1	0.2018	µg/L	0.2018	ppb	22:39:39
1	Cu 324.752†	2943.0	-85.3	-0.3274	µg/L	-0.3274	ppb	22:39:19
1	Mn 257.610†	329.7	86.2	0.1066	µg/L	0.1066	ppb	22:39:39
1	Mo 202.031†	-31.9	-11.2	-0.3304	µg/L	-0.3304	ppb	22:39:39
1	Ni 231.604†	-81.9	-3.9	-0.0443	µg/L	-0.0443	ppb	22:39:39
1	P 214.914†	-23.2	-4.8	-1.0060	µg/L	-1.0060	ppb	22:39:39
1	Pb 220.353†	102.8	14.4	0.8016	µg/L	0.8016	ppb	22:39:39
1	S 181.975 Axial†	97.2	-9.7	-7.2332	µg/L	-7.2332	ppb	22:39:39
1	Sb 206.836†	61.0	-21.0	-2.4992	µg/L	-2.4992	ppb	22:39:39
1	Se 196.026†	8.3	-7.1	-2.58	µg/L	-2.58	ppb	22:39:39
1	SiO2†	1795.0	-14.6	-1.4272	µg/L	-1.4272	ppb	22:39:39
1	Si 251.611†	1014.2	158.3	2.3344	µg/L	2.3344	ppb	22:39:19
1	Sn 189.927†	9.8	10.8	0.6712	µg/L	0.6712	ppb	22:39:39
1	Ti 334.940†	912.7	-57.2	-0.0550	µg/L	-0.0550	ppb	22:39:19
1	Tl 190.801†	-104.8	13.9	1.7060	µg/L	1.7060	ppb	22:39:39
1	U 409.014†	-207.3	66.5	3.8783	µg/L	3.8783	ppb	22:39:19
1	V 292.402†	371.1	-39.7	-0.1942	µg/L	-0.1942	ppb	22:39:19
1	Zn 213.857†	603.0	27.1	0.1525	µg/L	0.1525	ppb	22:39:39
2	Sc RADIAL	143516.2	143516.2	98.3	%			22:38:31
2	Al 396.153Radial†	-59.7	2.6	0.4739	µg/L	0.4739	ppb	22:38:51
2	Ca 317.933Radial†	574.3	23.4	1.3043	µg/L	1.3043	ppb	22:38:51
2	Fe 238.204 Radial†	211.6	67.1	4.1330	µg/L	4.1330	ppb	22:38:51
2	K 766.490 Radial†	1530.2	11.2	4.0876	µg/L	4.0876	ppb	22:38:31
2	Mg 279.077 IEC†	186.7	-0.9	-0.3295	µg/L	-0.3295	ppb	22:38:51
2	Na 589.592 Radial†	1309.3	40.6	5.5370	µg/L	5.5370	ppb	22:38:31
2	Sr 421.552†	-195.1	-63.1	-0.1312	µg/L	-0.1312	ppb	22:38:31
2	Sc 361.383	1725150.1	1725150.1	100.40	%			22:39:41
2	Y 371.029	1031944.0	1031944.0	100.51	%			22:39:41
2	Ag 328.068†	3865.7	-241.3	-0.8900	µg/L	-0.8900	ppb	22:39:43
2	As 188.979†	-15.4	5.0	1.5151	µg/L	1.5151	ppb	22:40:03
2	B 249.677†	3665.2	144.6	2.1317	µg/L	2.1317	ppb	22:39:43
2	Ba 233.527†	-135.5	0.9	0.0032	µg/L	0.0032	ppb	22:40:03
2	Be 313.107†	-881.3	187.0	0.0526	µg/L	0.0526	ppb	22:39:43
2	Cd 226.502†	-123.0	-4.3	-0.0274	µg/L	-0.0274	ppb	22:40:03
2	Co 228.616†	-162.8	28.2	0.3479	µg/L	0.3479	ppb	22:40:03
2	Cr 267.716†	195.8	16.5	0.1246	µg/L	0.1246	ppb	22:40:03
2	Cu 324.752†	2834.1	-149.5	-0.5757	µg/L	-0.5757	ppb	22:39:43
2	Mn 257.610†	312.2	73.7	0.0911	µg/L	0.0911	ppb	22:40:03
2	Mo 202.031†	-20.8	-0.7	-0.0196	µg/L	-0.0196	ppb	22:40:03
2	Ni 231.604†	-63.9	12.8	0.1478	µg/L	0.1478	ppb	22:40:03
2	P 214.914†	-29.3	-11.2	-2.4036	µg/L	-2.4036	ppb	22:40:03
2	Pb 220.353†	74.7	-12.0	-0.6719	µg/L	-0.6719	ppb	22:40:03

2	S 181.975 Axial†	114.1	8.6	6.4080 µg/L	6.4080 ppb	22:40:03
2	Sb 206.836†	83.7	2.5	0.2984 µg/L	0.2984 ppb	22:40:03
2	Se 196.026†	7.4	-7.9	-2.83 µg/L	-2.83 ppb	22:40:03
2	SiO2†	1757.4	-25.0	-2.4389 µg/L	-2.4389 ppb	22:40:03
2	Si 251.611†	1016.3	175.6	2.5912 µg/L	2.5912 ppb	22:39:43
2	Sn 189.927†	-5.9	-4.8	-0.2983 µg/L	-0.2983 ppb	22:40:03
2	Ti 334.940†	1008.8	52.2	0.0465 µg/L	0.0465 ppb	22:39:43
2	Tl 190.801†	-108.8	8.3	1.0191 µg/L	1.0191 ppb	22:40:03
2	U 409.014†	-175.4	95.2	5.5468 µg/L	5.5468 ppb	22:39:43
2	V 292.402†	347.2	-58.0	-0.2792 µg/L	-0.2792 ppb	22:39:43
2	Zn 213.857†	581.3	14.6	0.0808 µg/L	0.0808 ppb	22:40:03
3	Sc RADIAL	142981.4	142981.4	98.0 %		22:38:53
3	Al 396.153Radial†	-63.0	-1.1	-0.2113 µg/L	-0.2113 ppb	22:39:13
3	Ca 317.933Radial†	581.1	32.5	1.8108 µg/L	1.8108 ppb	22:39:13
3	Fe 238.204 Radial†	194.5	50.4	3.1050 µg/L	3.1050 ppb	22:39:13
3	K 766.490 Radial†	1679.9	169.7	62.139 µg/L	62.139 ppb	22:38:53
3	Mg 279.077 IEC†	195.7	9.0	3.3615 µg/L	3.3615 ppb	22:39:13
3	Na 589.592 Radial†	1209.6	-56.3	-7.7449 µg/L	-7.7449 ppb	22:38:53
3	Sr 421.552†	-420.0	-293.4	-0.6100 µg/L	-0.6100 ppb	22:38:53
3	Sc 361.383	1753013.9	1753013.9	102.03 %		22:40:05
3	Y 371.029	1047401.1	1047401.1	102.02 %		22:40:05
3	Ag 328.068†	4060.3	-111.6	-0.4113 µg/L	-0.4113 ppb	22:40:07
3	As 188.979†	-11.1	9.5	2.8753 µg/L	2.8753 ppb	22:40:27
3	B 249.677†	3619.9	42.1	0.6207 µg/L	0.6207 ppb	22:40:07
3	Ba 233.527†	-139.2	-0.6	-0.0023 µg/L	-0.0023 ppb	22:40:27
3	Be 313.107†	-869.8	212.1	0.0585 µg/L	0.0585 ppb	22:40:07
3	Cd 226.502†	-85.5	34.4	0.2145 µg/L	0.2145 ppb	22:40:27
3	Co 228.616†	-181.0	12.9	0.1588 µg/L	0.1588 ppb	22:40:27
3	Cr 267.716†	175.3	-6.8	-0.0550 µg/L	-0.0550 ppb	22:40:27
3	Cu 324.752†	3044.4	11.7	0.0483 µg/L	0.0483 ppb	22:40:07
3	Mn 257.610†	307.5	64.2	0.0793 µg/L	0.0793 ppb	22:40:27
3	Mo 202.031†	-12.0	8.3	0.2441 µg/L	0.2441 ppb	22:40:27
3	Ni 231.604†	-69.0	8.9	0.1028 µg/L	0.1028 ppb	22:40:27
3	P 214.914†	-27.3	-8.8	-1.8805 µg/L	-1.8805 ppb	22:40:27
3	Pb 220.353†	81.8	-6.2	-0.3453 µg/L	-0.3453 ppb	22:40:27
3	S 181.975 Axial†	99.7	-7.4	-5.4573 µg/L	-5.4573 ppb	22:40:27
3	Sb 206.836†	92.0	9.3	1.1113 µg/L	1.1113 ppb	22:40:27
3	Se 196.026†	22.0	6.3	2.27 µg/L	2.27 ppb	22:40:27
3	SiO2†	1796.0	-15.0	-1.4822 µg/L	-1.4822 ppb	22:40:27
3	Si 251.611†	1008.2	151.7	2.2299 µg/L	2.2299 ppb	22:40:07
3	Sn 189.927†	5.8	6.8	0.4238 µg/L	0.4238 ppb	22:40:27
3	Ti 334.940†	774.2	-193.7	-0.1822 µg/L	-0.1822 ppb	22:40:07
3	Tl 190.801†	-131.2	-12.0	-1.4719 µg/L	-1.4719 ppb	22:40:27
3	U 409.014†	-231.1	43.4	2.5310 µg/L	2.5310 ppb	22:40:07
3	V 292.402†	394.8	-16.8	-0.0781 µg/L	-0.0781 ppb	22:40:07
3	Zn 213.857†	584.2	8.2	0.0446 µg/L	0.0446 ppb	22:40:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1743256.5	101.46	%	0.914				0.90%
Sc RADIAL	144201.5	98.8	%	1.15				1.16%
Y 371.029	1042072.6	101.50	%	0.855				0.84%
Ag 328.068†	-191.9	-0.7079	µg/L	0.25904	-0.7079	ppb	0.25904	36.59%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.0	2.2317	µg/L	3.65416	2.2317	ppb	3.65416	163.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.8	1.4434	µg/L	1.46904	1.4434	ppb	1.46904	101.78%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	17.2	0.2531	µg/L	2.08681	0.2531	ppb	2.08681	824.51%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.7	0.0107	µg/L	0.01797	0.0107	ppb	0.01797	167.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	254.2	0.0704	µg/L	0.02593	0.0704	ppb	0.02593	36.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	20.1	1.1194	µg/L	0.80006	1.1194	ppb	0.80006	71.47%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.7	0.1103	µg/L	0.12437	0.1103	ppb	0.12437	112.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	21.4	0.2635	µg/L	0.09616	0.2635	ppb	0.09616	36.49%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              11.9      0.0905 µg/L       0.13175      0.0905 ppb        0.13175 145.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -74.4     -0.2849 µg/L       0.31418     -0.2849 ppb        0.31418 110.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       63.6      3.9170 µg/L       0.72840      3.9170 ppb        0.72840  18.60%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       101.6      37.194 µg/L       29.8738      37.194 ppb        29.8738  80.32%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.8      0.6757 µg/L       2.35038      0.6757 ppb        2.35038 347.86%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              74.7      0.0923 µg/L       0.01373      0.0923 ppb        0.01373  14.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -1.2     -0.0353 µg/L       0.28757     -0.0353 ppb        0.28757 814.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        0.2     -0.0004 µg/L       6.91054     -0.0004 ppb        6.91054 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               6.0      0.0687 µg/L       0.10050      0.0687 ppb        0.10050 146.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.3     -1.7634 µg/L       0.70616     -1.7634 ppb        0.70616  40.05%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -1.2     -0.0719 µg/L       0.77383     -0.0719 ppb        0.77383 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.8     -2.0942 µg/L       7.41644     -2.0942 ppb        7.41644 354.14%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.0     -0.3632 µg/L       1.89399     -0.3632 ppb        1.89399 521.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.9       -1.05 µg/L         2.877       -1.05 ppb          2.877 275.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -18.2     -1.7828 µg/L       0.56893     -1.7828 ppb        0.56893  31.91%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             161.9      2.3852 µg/L       0.18594      2.3852 ppb        0.18594   7.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.3      0.2656 µg/L       0.50378      0.2656 ppb        0.50378 189.70%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -119.7     -0.2488 µg/L       0.31901     -0.2488 ppb        0.31901 128.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -66.2     -0.0636 µg/L       0.11461     -0.0636 ppb        0.11461 180.26%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.4      0.4177 µg/L       1.67214      0.4177 ppb        1.67214 400.28%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               68.3      3.9854 µg/L       1.51076      3.9854 ppb        1.51076  37.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -38.2     -0.1839 µg/L       0.10096     -0.1839 ppb        0.10096  54.91%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              16.6      0.0927 µg/L       0.05489      0.0927 ppb        0.05489  59.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 96
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 22:56:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145631.0	145631.0	99.8	%			22:56:43
1	Al 396.153Radial†	26317.9	26435.1	4879.0	µg/L	4879.0	ppb	22:56:43
1	Ca 317.933Radial†	87097.4	86715.5	4830.4	µg/L	4830.4	ppb	22:56:43
1	Fe 238.204 Radial†	78015.7	78027.6	4809.1	µg/L	4809.1	ppb	22:56:43
1	K 766.490 Radial†	14649.7	13135.0	4805.0	µg/L	4805.0	ppb	22:56:43
1	Mg 279.077 IEC†	13278.4	13115.0	4893.9	µg/L	4893.9	ppb	22:56:43
1	Na 589.592 Radial†	71207.1	70062.4	9567.1	µg/L	9567.1	ppb	22:56:43
1	Sr 421.552†	231874.1	232485.1	483.29	µg/L	483.29	ppb	22:56:41
1	Sc 361.383	1757611.7	1757611.7	102.29	%			22:56:56
1	Y 371.029	1039190.8	1039190.8	101.22	%			22:56:56
1	Ag 328.068†	134897.1	127782.2	479.15	µg/L	479.15	ppb	22:56:56
1	As 188.979†	1621.9	1605.9	492.61	µg/L	492.61	ppb	22:57:16
1	B 249.677†	36392.3	32070.7	471.32	µg/L	471.32	ppb	22:56:56
1	Ba 233.527†	121741.3	119148.6	480.52	µg/L	480.52	ppb	22:56:56
1	Be 313.107†	1813624.8	1774040.0	483.17	µg/L	483.17	ppb	22:56:56
1	Cd 226.502†	78396.2	76757.2	479.15	µg/L	479.15	ppb	22:56:56
1	Co 228.616†	39678.3	38979.3	481.20	µg/L	481.20	ppb	22:56:56
1	Cr 267.716†	62522.7	60942.8	477.17	µg/L	477.17	ppb	22:56:56
1	Cu 324.752†	128539.8	122686.5	478.27	µg/L	478.27	ppb	22:56:56
1	Mn 257.610†	399485.0	390293.9	482.70	µg/L	482.70	ppb	22:56:56
1	Mo 202.031†	16513.7	16163.7	475.47	µg/L	475.47	ppb	22:57:16
1	Ni 231.604†	42651.4	41771.9	480.97	µg/L	480.97	ppb	22:56:56
1	P 214.914†	11360.0	11123.4	2370.9	µg/L	2370.9	ppb	22:57:16
1	Pb 220.353†	8842.6	8558.1	479.24	µg/L	479.24	ppb	22:57:16
1	S 181.975 Axial†	1375.6	1239.7	924.58	µg/L	924.58	ppb	22:57:16
1	Sb 206.836†	4166.7	3992.4	475.65	µg/L	475.65	ppb	22:57:16
1	Se 196.026†	1353.0	1307.4	475	µg/L	475	ppb	22:57:16
1	SiO2†	56776.4	53728.4	5231.1	µg/L	5231.1	ppb	22:56:56
1	Si 251.611†	171826.2	167138.4	2454.6	µg/L	2454.6	ppb	22:56:56
1	Sn 189.927†	7798.3	7624.6	476.93	µg/L	476.93	ppb	22:57:16
1	Ti 334.940†	526436.4	513684.7	479.31	µg/L	479.31	ppb	22:56:56
1	Tl 190.801†	3828.8	3859.7	481.43	µg/L	481.43	ppb	22:57:16
1	U 409.014†	7470.8	7573.2	471.86	µg/L	471.86	ppb	22:56:56
1	V 292.402†	100068.8	97422.2	481.57	µg/L	481.57	ppb	22:56:56
1	Zn 213.857†	87978.3	85442.0	476.19	µg/L	476.19	ppb	22:56:56
2	Sc RADIAL	144482.4	144482.4	99.0	%			22:56:47
2	Al 396.153Radial†	26344.0	26671.1	4922.7	µg/L	4922.7	ppb	22:56:47
2	Ca 317.933Radial†	86633.5	86940.8	4842.9	µg/L	4842.9	ppb	22:56:47
2	Fe 238.204 Radial†	77683.1	78313.2	4826.7	µg/L	4826.7	ppb	22:56:47
2	K 766.490 Radial†	14601.3	13202.8	4829.8	µg/L	4829.8	ppb	22:56:47
2	Mg 279.077 IEC†	13248.2	13190.2	4922.0	µg/L	4922.0	ppb	22:56:47
2	Na 589.592 Radial†	70771.3	70189.4	9584.4	µg/L	9584.4	ppb	22:56:47
2	Sr 421.552†	233206.6	235678.1	489.92	µg/L	489.92	ppb	22:56:45
2	Sc 361.383	1751539.4	1751539.4	101.94	%			22:57:19
2	Y 371.029	1035412.0	1035412.0	100.85	%			22:57:19
2	Ag 328.068†	134751.3	128096.4	480.32	µg/L	480.32	ppb	22:57:19
2	As 188.979†	1631.1	1620.5	497.03	µg/L	497.03	ppb	22:57:39
2	B 249.677†	36471.6	32271.9	474.29	µg/L	474.29	ppb	22:57:19
2	Ba 233.527†	121221.0	119050.7	480.13	µg/L	480.13	ppb	22:57:19
2	Be 313.107†	1805248.5	1771969.6	482.61	µg/L	482.61	ppb	22:57:19
2	Cd 226.502†	78107.8	76740.0	479.04	µg/L	479.04	ppb	22:57:19
2	Co 228.616†	39424.5	38864.8	479.79	µg/L	479.79	ppb	22:57:19
2	Cr 267.716†	62345.8	60981.1	477.48	µg/L	477.48	ppb	22:57:19
2	Cu 324.752†	127964.1	122557.5	477.76	µg/L	477.76	ppb	22:57:19
2	Mn 257.610†	398107.9	390296.9	482.71	µg/L	482.71	ppb	22:57:19
2	Mo 202.031†	16505.0	16211.0	476.86	µg/L	476.86	ppb	22:57:39
2	Ni 231.604†	42337.4	41608.5	479.09	µg/L	479.09	ppb	22:57:19
2	P 214.914†	11365.0	11166.7	2380.1	µg/L	2380.1	ppb	22:57:39
2	Pb 220.353†	8862.8	8607.8	482.03	µg/L	482.03	ppb	22:57:39

2	S 181.975 Axial†	1404.8	1273.1	949.37 µg/L	949.37 ppb	22:57:39
2	Sb 206.836†	4167.5	4007.4	477.45 µg/L	477.45 ppb	22:57:39
2	Se 196.026†	1357.3	1316.2	478 µg/L	478 ppb	22:57:39
2	SiO2†	56527.9	53677.1	5226.0 µg/L	5226.0 ppb	22:57:19
2	Si 251.611†	170943.4	166854.8	2450.4 µg/L	2450.4 ppb	22:57:19
2	Sn 189.927†	7812.4	7664.9	479.44 µg/L	479.44 ppb	22:57:39
2	Ti 334.940†	524724.5	513789.4	479.40 µg/L	479.40 ppb	22:57:19
2	Tl 190.801†	3882.8	3925.7	489.55 µg/L	489.55 ppb	22:57:39
2	U 409.014†	7388.4	7517.7	468.65 µg/L	468.65 ppb	22:57:19
2	V 292.402†	99869.4	97565.6	482.28 µg/L	482.28 ppb	22:57:19
2	Zn 213.857†	87691.1	85458.4	476.30 µg/L	476.30 ppb	22:57:19
3	Sc RADIAL	144138.2	144138.2	98.8 %		22:56:51
3	Al 396.153Radial†	26172.1	26560.6	4902.1 µg/L	4902.1 ppb	22:56:51
3	Ca 317.933Radial†	86609.0	87124.9	4853.2 µg/L	4853.2 ppb	22:56:51
3	Fe 238.204 Radial†	77490.8	78305.8	4826.3 µg/L	4826.3 ppb	22:56:51
3	K 766.490 Radial†	14542.9	13178.9	4821.0 µg/L	4821.0 ppb	22:56:51
3	Mg 279.077 IEC†	13135.4	13108.0	4891.4 µg/L	4891.4 ppb	22:56:51
3	Na 589.592 Radial†	70800.9	70390.1	9611.9 µg/L	9611.9 ppb	22:56:51
3	Sr 421.552†	232137.5	235158.2	488.84 µg/L	488.84 ppb	22:56:49
3	Sc 361.383	1748212.6	1748212.6	101.75 %		22:57:42
3	Y 371.029	1033770.3	1033770.3	100.69 %		22:57:42
3	Ag 328.068†	134805.9	128401.6	481.45 µg/L	481.45 ppb	22:57:42
3	As 188.979†	1610.5	1603.2	491.81 µg/L	491.81 ppb	22:58:02
3	B 249.677†	36492.0	32359.9	475.58 µg/L	475.58 ppb	22:57:42
3	Ba 233.527†	121511.9	119562.9	482.19 µg/L	482.19 ppb	22:57:42
3	Be 313.107†	1811861.4	1781839.1	485.29 µg/L	485.29 ppb	22:57:42
3	Cd 226.502†	78364.1	77137.8	481.53 µg/L	481.53 ppb	22:57:42
3	Co 228.616†	39460.6	38973.8	481.13 µg/L	481.13 ppb	22:57:42
3	Cr 267.716†	62297.9	61050.5	478.02 µg/L	478.02 ppb	22:57:42
3	Cu 324.752†	128147.5	122976.6	479.39 µg/L	479.39 ppb	22:57:42
3	Mn 257.610†	398765.2	391686.1	484.43 µg/L	484.43 ppb	22:57:42
3	Mo 202.031†	16552.7	16288.7	479.14 µg/L	479.14 ppb	22:58:02
3	Ni 231.604†	42492.4	41839.9	481.76 µg/L	481.76 ppb	22:57:42
3	P 214.914†	11389.8	11212.3	2389.9 µg/L	2389.9 ppb	22:58:02
3	Pb 220.353†	8877.9	8639.2	483.79 µg/L	483.79 ppb	22:58:02
3	S 181.975 Axial†	1392.1	1263.1	942.01 µg/L	942.01 ppb	22:58:02
3	Sb 206.836†	4168.0	4015.6	478.46 µg/L	478.46 ppb	22:58:02
3	Se 196.026†	1374.8	1335.9	485 µg/L	485 ppb	22:58:02
3	SiO2†	56586.5	53840.3	5241.9 µg/L	5241.9 ppb	22:57:42
3	Si 251.611†	171481.5	167702.7	2462.9 µg/L	2462.9 ppb	22:57:42
3	Sn 189.927†	7818.8	7685.8	480.75 µg/L	480.75 ppb	22:58:02
3	Ti 334.940†	524855.7	514897.9	480.44 µg/L	480.44 ppb	22:57:42
3	Tl 190.801†	3874.8	3925.0	489.48 µg/L	489.48 ppb	22:58:02
3	U 409.014†	7274.8	7419.8	462.99 µg/L	462.99 ppb	22:57:42
3	V 292.402†	99852.2	97735.2	483.13 µg/L	483.13 ppb	22:57:42
3	Zn 213.857†	87879.4	85807.2	478.24 µg/L	478.24 ppb	22:57:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1752454.6	101.99	%	0.277				0.27%
Sc RADIAL	144750.5	99.2	%	0.54				0.54%
Y 371.029	1036124.4	100.92	%	0.271				0.27%
Ag 328.068†	128093.4	480.30	µg/L	1.150	480.30	ppb	1.150	0.24%
QC value within limits for Ag 328.068 Recovery = 96.06%								
Al 396.153Radial†	26555.6	4901.2	µg/L	21.86	4901.2	ppb	21.86	0.45%
QC value within limits for Al 396.153Radial Recovery = 98.02%								
As 188.979†	1609.8	493.81	µg/L	2.810	493.81	ppb	2.810	0.57%
QC value within limits for As 188.979 Recovery = 98.76%								
B 249.677†	32234.2	473.73	µg/L	2.187	473.73	ppb	2.187	0.46%
QC value within limits for B 249.677 Recovery = 94.75%								
Ba 233.527†	119254.1	480.95	µg/L	1.096	480.95	ppb	1.096	0.23%
QC value within limits for Ba 233.527 Recovery = 96.19%								
Be 313.107†	1775949.6	483.69	µg/L	1.416	483.69	ppb	1.416	0.29%
QC value within limits for Be 313.107 Recovery = 96.74%								
Ca 317.933Radial†	86927.1	4842.2	µg/L	11.42	4842.2	ppb	11.42	0.24%
QC value within limits for Ca 317.933Radial Recovery = 96.84%								
Cd 226.502†	76878.3	479.91	µg/L	1.404	479.91	ppb	1.404	0.29%
QC value within limits for Cd 226.502 Recovery = 95.98%								
Co 228.616†	38939.3	480.71	µg/L	0.798	480.71	ppb	0.798	0.17%

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   QC value within limits for Co 228.616  Recovery = 96.14%
Cr 267.716†            60991.5      477.56 µg/L         0.432      477.56 ppb          0.432   0.09%
   QC value within limits for Cr 267.716  Recovery = 95.51%
Cu 324.752†           122740.2      478.47 µg/L         0.832      478.47 ppb          0.832   0.17%
   QC value within limits for Cu 324.752  Recovery = 95.69%
Fe 238.204 Radial†     78215.5      4820.7 µg/L         10.03      4820.7 ppb          10.03   0.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.41%
K 766.490 Radial†      13172.2      4818.6 µg/L         12.58      4818.6 ppb          12.58   0.26%
   QC value within limits for K 766.490 Radial  Recovery = 96.37%
Mg 279.077 IEC†        13137.7      4902.4 µg/L         16.98      4902.4 ppb          16.98   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.05%
Mn 257.610†           390759.0      483.28 µg/L         0.994      483.28 ppb          0.994   0.21%
   QC value within limits for Mn 257.610  Recovery = 96.66%
Mo 202.031†            16221.2      477.16 µg/L         1.856      477.16 ppb          1.856   0.39%
   QC value within limits for Mo 202.031  Recovery = 95.43%
Na 589.592 Radial†     70214.0      9587.8 µg/L         22.57      9587.8 ppb          22.57   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 95.88%
Ni 231.604†            41740.1      480.61 µg/L         1.369      480.61 ppb          1.369   0.28%
   QC value within limits for Ni 231.604  Recovery = 96.12%
P 214.914†             11167.5      2380.3 µg/L          9.50      2380.3 ppb           9.50   0.40%
   QC value within limits for P 214.914  Recovery = 95.21%
Pb 220.353†             8601.7      481.69 µg/L         2.292      481.69 ppb          2.292   0.48%
   QC value within limits for Pb 220.353  Recovery = 96.34%
S 181.975 Axial†        1258.6      938.65 µg/L        12.730      938.65 ppb         12.730   1.36%
   QC value within limits for S 181.975 Axial  Recovery = 93.87%
Sb 206.836†             4005.1      477.19 µg/L         1.420      477.19 ppb          1.420   0.30%
   QC value within limits for Sb 206.836  Recovery = 95.44%
Se 196.026†             1319.8         479 µg/L           5.3         479 ppb            5.3   1.10%
   QC value within limits for Se 196.026  Recovery = 95.85%
SiO2†                  53748.6      5233.0 µg/L          8.10      5233.0 ppb           8.10   0.15%
   QC value within limits for SiO2  Recovery = 97.86%
Si 251.611†           167232.0      2456.0 µg/L          6.34      2456.0 ppb           6.34   0.26%
   QC value within limits for Si 251.611  Recovery = 98.24%
Sn 189.927†             7658.4      479.04 µg/L         1.940      479.04 ppb          1.940   0.41%
   QC value within limits for Sn 189.927  Recovery = 95.81%
Sr 421.552†           234440.5      487.35 µg/L         3.562      487.35 ppb          3.562   0.73%
   QC value within limits for Sr 421.552  Recovery = 97.47%
Ti 334.940†           514124.0      479.72 µg/L         0.631      479.72 ppb          0.631   0.13%
   QC value within limits for Ti 334.940  Recovery = 95.94%
Tl 190.801†             3903.4      486.82 µg/L         4.666      486.82 ppb          4.666   0.96%
   QC value within limits for Tl 190.801  Recovery = 97.36%
U 409.014†              7503.6      467.83 µg/L         4.493      467.83 ppb          4.493   0.96%
   QC value within limits for U 409.014  Recovery = 93.57%
V 292.402†             97574.3      482.33 µg/L         0.781      482.33 ppb          0.781   0.16%
   QC value within limits for V 292.402  Recovery = 96.47%
Zn 213.857†            85569.2      476.91 µg/L         1.152      476.91 ppb          1.152   0.24%
   QC value within limits for Zn 213.857  Recovery = 95.38%
All analyte(s) passed QC.
```

Sequence No.: 97 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/31/2010 22:58:10**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141781.4	141781.4	97.2	%			22:58:41
1	Al 396.153Radial†	-65.9	-4.6	-0.8469	µg/L	-0.8469	ppb	22:59:01
1	Ca 317.933Radial†	606.5	63.7	3.5473	µg/L	3.5473	ppb	22:59:01
1	Fe 238.204 Radial†	221.5	79.9	4.9227	µg/L	4.9227	ppb	22:59:01
1	K 766.490 Radial†	1686.2	190.7	69.835	µg/L	69.835	ppb	22:58:41
1	Mg 279.077 IEC†	181.6	-3.8	-1.4362	µg/L	-1.4362	ppb	22:59:01
1	Na 589.592 Radial†	1287.3	34.2	4.6057	µg/L	4.6057	ppb	22:58:41
1	Sr 421.552†	-190.2	-60.5	-0.1257	µg/L	-0.1257	ppb	22:58:41
1	Sc 361.383	1743048.5	1743048.5	101.45	%			23:00:02
1	Y 371.029	1041073.0	1041073.0	101.40	%			23:00:02
1	Ag 328.068†	4154.9	4.3	0.0197	µg/L	0.0197	ppb	23:00:05
1	As 188.979†	-19.4	1.2	0.3644	µg/L	0.3644	ppb	23:00:25
1	B 249.677†	3572.5	15.7	0.2315	µg/L	0.2315	ppb	23:00:05
1	Ba 233.527†	-115.3	22.2	0.0893	µg/L	0.0893	ppb	23:00:25
1	Be 313.107†	-922.1	155.7	0.0428	µg/L	0.0428	ppb	23:00:05
1	Cd 226.502†	-111.2	8.6	0.0533	µg/L	0.0533	ppb	23:00:25
1	Co 228.616†	-179.8	13.1	0.1612	µg/L	0.1612	ppb	23:00:25
1	Cr 267.716†	180.6	-0.5	-0.0052	µg/L	-0.0052	ppb	23:00:25
1	Cu 324.752†	2865.9	-147.1	-0.5698	µg/L	-0.5698	ppb	23:00:05
1	Mn 257.610†	329.0	87.1	0.1078	µg/L	0.1078	ppb	23:00:25
1	Mo 202.031†	-23.8	-3.4	-0.1000	µg/L	-0.1000	ppb	23:00:25
1	Ni 231.604†	-90.2	-12.4	-0.1430	µg/L	-0.1430	ppb	23:00:25
1	P 214.914†	-18.9	-0.7	-0.1360	µg/L	-0.1360	ppb	23:00:25
1	Pb 220.353†	97.7	10.0	0.5542	µg/L	0.5542	ppb	23:00:25
1	S 181.975 Axial†	106.4	-0.2	-0.1288	µg/L	-0.1288	ppb	23:00:25
1	Sb 206.836†	101.1	18.9	2.2415	µg/L	2.2415	ppb	23:00:25
1	Se 196.026†	15.2	-0.3	-0.115	µg/L	-0.115	ppb	23:00:25
1	SiO2†	1920.2	117.5	11.486	µg/L	11.486	ppb	23:00:25
1	Si 251.611†	1352.7	496.8	7.3252	µg/L	7.3252	ppb	23:00:05
1	Sn 189.927†	0.5	1.6	0.0974	µg/L	0.0974	ppb	23:00:25
1	Ti 334.940†	839.4	-125.1	-0.1173	µg/L	-0.1173	ppb	23:00:05
1	Tl 190.801†	-111.8	6.4	0.7917	µg/L	0.7917	ppb	23:00:25
1	U 409.014†	-248.6	24.8	1.4614	µg/L	1.4614	ppb	23:00:05
1	V 292.402†	448.0	37.9	0.1842	µg/L	0.1842	ppb	23:00:05
1	Zn 213.857†	592.5	19.7	0.1113	µg/L	0.1113	ppb	23:00:25
2	Sc RADIAL	145003.3	145003.3	99.4	%			22:59:03
2	Al 396.153Radial†	-37.6	25.3	4.6756	µg/L	4.6756	ppb	22:59:23
2	Ca 317.933Radial†	575.8	18.9	1.0553	µg/L	1.0553	ppb	22:59:23
2	Fe 238.204 Radial†	212.8	66.1	4.0710	µg/L	4.0710	ppb	22:59:23
2	K 766.490 Radial†	1744.9	211.3	77.353	µg/L	77.353	ppb	22:59:03
2	Mg 279.077 IEC†	193.4	3.9	1.4593	µg/L	1.4593	ppb	22:59:23
2	Na 589.592 Radial†	1264.0	-18.7	-2.6277	µg/L	-2.6277	ppb	22:59:03
2	Sr 421.552†	-251.3	-117.6	-0.2446	µg/L	-0.2446	ppb	22:59:03
2	Sc 361.383	1760622.4	1760622.4	102.47	%			23:00:27
2	Y 371.029	1051993.8	1051993.8	102.46	%			23:00:27
2	Ag 328.068†	3995.9	-191.7	-0.7159	µg/L	-0.7159	ppb	23:00:29
2	As 188.979†	-7.1	13.4	4.0498	µg/L	4.0498	ppb	23:00:49
2	B 249.677†	3525.8	-65.0	-0.9588	µg/L	-0.9588	ppb	23:00:29
2	Ba 233.527†	-156.5	-16.9	-0.0684	µg/L	-0.0684	ppb	23:00:49
2	Be 313.107†	-952.5	135.1	0.0377	µg/L	0.0377	ppb	23:00:29
2	Cd 226.502†	-136.2	-14.7	-0.0924	µg/L	-0.0924	ppb	23:00:49
2	Co 228.616†	-206.8	-11.5	-0.1422	µg/L	-0.1422	ppb	23:00:49
2	Cr 267.716†	203.7	20.2	0.1559	µg/L	0.1559	ppb	23:00:49
2	Cu 324.752†	2945.2	-98.0	-0.3777	µg/L	-0.3777	ppb	23:00:29
2	Mn 257.610†	295.4	51.0	0.0631	µg/L	0.0631	ppb	23:00:49
2	Mo 202.031†	-5.0	15.2	0.4464	µg/L	0.4464	ppb	23:00:49
2	Ni 231.604†	-100.3	-21.4	-0.2461	µg/L	-0.2461	ppb	23:00:49
2	P 214.914†	-24.8	-6.2	-1.3412	µg/L	-1.3412	ppb	23:00:49
2	Pb 220.353†	104.7	15.8	0.8832	µg/L	0.8832	ppb	23:00:49

2	S 181.975 Axial†	95.9	-11.5	-8.5333 µg/L	-8.5333 ppb		23:00:49
2	Sb 206.836†	88.7	5.7	0.6835 µg/L	0.6835 ppb		23:00:49
2	Se 196.026†	21.7	5.9	2.15 µg/L	2.15 ppb		23:00:49
2	SiO2†	1898.9	77.8	7.5925 µg/L	7.5925 ppb		23:00:49
2	Si 251.611†	1381.8	512.0	7.5445 µg/L	7.5445 ppb		23:00:29
2	Sn 189.927†	-7.0	-5.7	-0.3531 µg/L	-0.3531 ppb		23:00:49
2	Ti 334.940†	1192.4	211.2	0.1959 µg/L	0.1959 ppb		23:00:29
2	Tl 190.801†	-124.7	-5.0	-0.6143 µg/L	-0.6143 ppb		23:00:49
2	U 409.014†	-223.7	51.6	2.9674 µg/L	2.9674 ppb		23:00:29
2	V 292.402†	244.3	-165.3	-0.7998 µg/L	-0.7998 ppb		23:00:29
2	Zn 213.857†	583.4	4.9	0.0292 µg/L	0.0292 ppb		23:00:49
3	Sc RADIAL	144406.4	144406.4	99.0 %			22:59:25
3	Al 396.153Radial†	-65.2	-2.7	-0.5137 µg/L	-0.5137 ppb		22:59:45
3	Ca 317.933Radial†	603.1	48.9	2.7231 µg/L	2.7231 ppb		22:59:45
3	Fe 238.204 Radial†	209.2	63.3	3.9000 µg/L	3.9000 ppb		22:59:45
3	K 766.490 Radial†	1469.9	-59.4	-21.748 µg/L	-21.748 ppb		22:59:25
3	Mg 279.077 IEC†	181.9	-6.9	-2.5712 µg/L	-2.5712 ppb		22:59:45
3	Na 589.592 Radial†	1182.1	-96.2	-13.128 µg/L	-13.128 ppb		22:59:25
3	Sr 421.552†	-255.8	-123.2	-0.2561 µg/L	-0.2561 ppb		22:59:25
3	Sc 361.383	1746264.7	1746264.7	101.63 %			23:00:51
3	Y 371.029	1044189.6	1044189.6	101.70 %			23:00:51
3	Ag 328.068†	4224.2	64.9	0.2383 µg/L	0.2383 ppb		23:00:53
3	As 188.979†	-13.6	7.0	2.1128 µg/L	2.1128 ppb		23:01:13
3	B 249.677†	3523.5	-39.0	-0.5757 µg/L	-0.5757 ppb		23:00:53
3	Ba 233.527†	-133.8	4.2	0.0170 µg/L	0.0170 ppb		23:01:13
3	Be 313.107†	-788.4	289.0	0.0783 µg/L	0.0783 ppb		23:00:53
3	Cd 226.502†	-90.0	29.6	0.1844 µg/L	0.1844 ppb		23:01:13
3	Co 228.616†	-170.7	22.4	0.2760 µg/L	0.2760 ppb		23:01:13
3	Cr 267.716†	211.8	29.8	0.2347 µg/L	0.2347 ppb		23:01:13
3	Cu 324.752†	2885.9	-132.7	-0.5161 µg/L	-0.5161 ppb		23:00:53
3	Mn 257.610†	381.2	137.9	0.1707 µg/L	0.1707 ppb		23:01:13
3	Mo 202.031†	-12.3	8.0	0.2345 µg/L	0.2345 ppb		23:01:13
3	Ni 231.604†	-88.3	-10.3	-0.1190 µg/L	-0.1190 ppb		23:01:13
3	P 214.914†	-16.7	1.5	0.3230 µg/L	0.3230 ppb		23:01:13
3	Pb 220.353†	101.8	13.8	0.7699 µg/L	0.7699 ppb		23:01:13
3	S 181.975 Axial†	95.5	-11.1	-8.2190 µg/L	-8.2190 ppb		23:01:13
3	Sb 206.836†	89.0	6.7	0.8032 µg/L	0.8032 ppb		23:01:13
3	Se 196.026†	12.4	-3.0	-1.09 µg/L	-1.09 ppb		23:01:13
3	SiO2†	1870.7	65.3	6.3610 µg/L	6.3610 ppb		23:01:13
3	Si 251.611†	1192.8	337.1	4.9610 µg/L	4.9610 ppb		23:00:53
3	Sn 189.927†	11.3	12.3	0.7657 µg/L	0.7657 ppb		23:01:13
3	Ti 334.940†	1019.6	50.7	0.0482 µg/L	0.0482 ppb		23:00:53
3	Tl 190.801†	-120.0	-1.4	-0.1679 µg/L	-0.1679 ppb		23:01:13
3	U 409.014†	-299.5	-24.8	-1.4500 µg/L	-1.4500 ppb		23:00:53
3	V 292.402†	406.4	-3.9	-0.0172 µg/L	-0.0172 ppb		23:00:53
3	Zn 213.857†	589.9	16.1	0.0909 µg/L	0.0909 ppb		23:01:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1749978.5	101.85	%	0.545				0.53%
Sc RADIAL	143730.4	98.5	%	1.17				1.19%
Y 371.029	1045752.1	101.86	%	0.548				0.54%
Ag 328.068†	-40.8	-0.1526	µg/L	0.49988	-0.1526	ppb	0.49988	327.49%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.0	1.1050	µg/L	3.09673	1.1050	ppb	3.09673	280.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.2	2.1757	µg/L	1.84349	2.1757	ppb	1.84349	84.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-29.4	-0.4343	µg/L	0.60762	-0.4343	ppb	0.60762	139.91%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.2	0.0126	µg/L	0.07891	0.0126	ppb	0.07891	623.91%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.3	0.0529	µg/L	0.02208	0.0529	ppb	0.02208	41.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	43.8	2.4419	µg/L	1.26955	2.4419	ppb	1.26955	51.99%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.8	0.0484	µg/L	0.13846	0.0484	ppb	0.13846	286.00%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.0	0.0983	µg/L	0.21607	0.0983	ppb	0.21607	219.74%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              16.5      0.1285 µg/L       0.12227      0.1285 ppb        0.12227  95.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -125.9     -0.4879 µg/L       0.09911     -0.4879 ppb        0.09911  20.31%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       69.7      4.2979 µg/L       0.54779      4.2979 ppb        0.54779  12.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       114.2     41.813 µg/L       55.1735     41.813 ppb        55.1735 131.95%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.3     -0.8494 µg/L       2.07835     -0.8494 ppb        2.07835 244.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              92.0      0.1138 µg/L       0.05404      0.1138 ppb        0.05404  47.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.6      0.1936 µg/L       0.27547      0.1936 ppb        0.27547 142.26%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -26.9     -3.7166 µg/L       8.91683     -3.7166 ppb        8.91683 239.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -14.7     -0.1693 µg/L       0.06752     -0.1693 ppb        0.06752  39.87%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.8     -0.3847 µg/L       0.85955     -0.3847 ppb        0.85955 223.42%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              13.2      0.7358 µg/L       0.16715      0.7358 ppb        0.16715  22.72%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -7.6     -5.6270 µg/L       4.76418     -5.6270 ppb        4.76418  84.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              10.4      1.2427 µg/L       0.86705      1.2427 ppb        0.86705  69.77%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.9       0.315 µg/L        1.6662       0.315 ppb         1.6662 528.34%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    86.8      8.4797 µg/L       2.67504      8.4797 ppb        2.67504  31.55%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             448.6      6.6103 µg/L       1.43246      6.6103 ppb        1.43246  21.67%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.7      0.1700 µg/L       0.56292      0.1700 ppb        0.56292 331.12%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -100.4     -0.2088 µg/L       0.07220     -0.2088 ppb        0.07220  34.57%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              45.6      0.0423 µg/L       0.15668      0.0423 ppb        0.15668 370.64%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.0      0.0032 µg/L       0.71841      0.0032 ppb        0.71841 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               17.2      0.9930 µg/L       2.24566      0.9930 ppb        2.24566 226.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -43.8     -0.2109 µg/L       0.51982     -0.2109 ppb        0.51982 246.42%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              13.5      0.0771 µg/L       0.04274      0.0771 ppb        0.04274  55.43%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 107
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 23:18:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144621.4	144621.4	99.1	%			23:18:59
1	Al 396.153Radial†	26323.5	26624.9	4914.2	µg/L	4914.2	ppb	23:18:59
1	Ca 317.933Radial†	86890.8	87116.3	4852.7	µg/L	4852.7	ppb	23:18:59
1	Fe 238.204 Radial†	77681.3	78236.0	4822.0	µg/L	4822.0	ppb	23:18:59
1	K 766.490 Radial†	14559.5	13146.4	4809.1	µg/L	4809.1	ppb	23:18:59
1	Mg 279.077 IEC†	13260.2	13189.4	4921.6	µg/L	4921.6	ppb	23:18:59
1	Na 589.592 Radial†	71065.1	70417.2	9615.6	µg/L	9615.6	ppb	23:18:59
1	Sr 421.552†	226802.4	228989.5	476.02	µg/L	476.02	ppb	23:18:57
1	Sc 361.383	1740302.6	1740302.6	101.29	%			23:19:12
1	Y 371.029	1028952.4	1028952.4	100.22	%			23:19:12
1	Ag 328.068†	133614.5	127827.5	479.30	µg/L	479.30	ppb	23:19:12
1	As 188.979†	1600.2	1600.2	490.89	µg/L	490.89	ppb	23:19:32
1	B 249.677†	35788.1	31828.1	467.74	µg/L	467.74	ppb	23:19:12
1	Ba 233.527†	120219.9	118830.1	479.24	µg/L	479.24	ppb	23:19:12
1	Be 313.107†	1792744.0	1771058.2	482.36	µg/L	482.36	ppb	23:19:12
1	Cd 226.502†	77213.0	76351.3	476.62	µg/L	476.62	ppb	23:19:12
1	Co 228.616†	39286.0	38977.8	481.18	µg/L	481.18	ppb	23:19:12
1	Cr 267.716†	61813.7	60850.7	476.45	µg/L	476.45	ppb	23:19:12
1	Cu 324.752†	127063.4	122478.8	477.46	µg/L	477.46	ppb	23:19:12
1	Mn 257.610†	394634.0	389388.7	481.58	µg/L	481.58	ppb	23:19:12
1	Mo 202.031†	16315.2	16128.2	474.43	µg/L	474.43	ppb	23:19:32
1	Ni 231.604†	42026.4	41569.6	478.64	µg/L	478.64	ppb	23:19:12
1	P 214.914†	11190.5	11066.4	2358.7	µg/L	2358.7	ppb	23:19:32
1	Pb 220.353†	8740.7	8543.3	478.42	µg/L	478.42	ppb	23:19:32
1	S 181.975 Axial†	1377.8	1255.2	936.10	µg/L	936.10	ppb	23:19:32
1	Sb 206.836†	4144.7	4011.3	477.89	µg/L	477.89	ppb	23:19:32
1	Se 196.026†	1340.6	1308.3	475	µg/L	475	ppb	23:19:32
1	SiO2†	55627.7	53146.4	5174.3	µg/L	5174.3	ppb	23:19:12
1	Si 251.611†	168264.2	165292.3	2427.4	µg/L	2427.4	ppb	23:19:12
1	Sn 189.927†	7681.2	7584.9	474.45	µg/L	474.45	ppb	23:19:32
1	Ti 334.940†	520666.2	513106.3	478.76	µg/L	478.76	ppb	23:19:12
1	Tl 190.801†	3808.4	3876.8	483.51	µg/L	483.51	ppb	23:19:32
1	U 409.014†	7415.2	7590.9	472.81	µg/L	472.81	ppb	23:19:12
1	V 292.402†	98786.7	97129.3	480.13	µg/L	480.13	ppb	23:19:12
1	Zn 213.857†	87000.0	85331.6	475.59	µg/L	475.59	ppb	23:19:12
2	Sc RADIAL	142472.1	142472.1	97.6	%			23:19:03
2	Al 396.153Radial†	25927.4	26619.8	4913.0	µg/L	4913.0	ppb	23:19:03
2	Ca 317.933Radial†	85608.6	87125.7	4853.2	µg/L	4853.2	ppb	23:19:03
2	Fe 238.204 Radial†	76614.2	78325.4	4827.5	µg/L	4827.5	ppb	23:19:03
2	K 766.490 Radial†	14271.1	13072.6	4782.1	µg/L	4782.1	ppb	23:19:03
2	Mg 279.077 IEC†	13162.7	13291.5	4959.8	µg/L	4959.8	ppb	23:19:03
2	Na 589.592 Radial†	70188.6	70601.3	9640.7	µg/L	9640.7	ppb	23:19:03
2	Sr 421.552†	229468.1	235172.4	488.87	µg/L	488.87	ppb	23:19:01
2	Sc 361.383	1723519.2	1723519.2	100.31	%			23:19:35
2	Y 371.029	1019447.3	1019447.3	99.295	%			23:19:35
2	Ag 328.068†	132544.4	128045.3	480.11	µg/L	480.11	ppb	23:19:35
2	As 188.979†	1616.7	1632.0	500.53	µg/L	500.53	ppb	23:19:55
2	B 249.677†	35773.7	32157.7	472.61	µg/L	472.61	ppb	23:19:35
2	Ba 233.527†	119609.8	119377.7	481.45	µg/L	481.45	ppb	23:19:35
2	Be 313.107†	1778804.5	1774397.6	483.27	µg/L	483.27	ppb	23:19:35
2	Cd 226.502†	76467.8	76350.8	476.61	µg/L	476.61	ppb	23:19:35
2	Co 228.616†	38765.7	38836.8	479.44	µg/L	479.44	ppb	23:19:35
2	Cr 267.716†	61178.2	60811.4	476.15	µg/L	476.15	ppb	23:19:35
2	Cu 324.752†	126162.4	122802.1	478.71	µg/L	478.71	ppb	23:19:35
2	Mn 257.610†	391126.3	389685.9	481.95	µg/L	481.95	ppb	23:19:35
2	Mo 202.031†	16388.5	16358.2	481.19	µg/L	481.19	ppb	23:19:55
2	Ni 231.604†	41688.5	41636.7	479.42	µg/L	479.42	ppb	23:19:35
2	P 214.914†	11227.5	11210.9	2389.5	µg/L	2389.5	ppb	23:19:55
2	Pb 220.353†	8752.6	8639.3	483.80	µg/L	483.80	ppb	23:19:55

2	S 181.975 Axial†	1387.2	1277.9	952.97 µg/L	952.97 ppb	23:19:55
2	Sb 206.836†	4153.3	4059.7	483.76 µg/L	483.76 ppb	23:19:55
2	Se 196.026†	1345.0	1325.6	481 µg/L	481 ppb	23:19:55
2	SiO2†	55194.2	53249.1	5184.0 µg/L	5184.0 ppb	23:19:35
2	Si 251.611†	166652.6	165303.4	2427.5 µg/L	2427.5 ppb	23:19:35
2	Sn 189.927†	7721.4	7698.8	481.56 µg/L	481.56 ppb	23:19:55
2	Ti 334.940†	516481.7	513940.5	479.54 µg/L	479.54 ppb	23:19:35
2	Tl 190.801†	3825.6	3930.5	490.14 µg/L	490.14 ppb	23:19:55
2	U 409.014†	7186.2	7434.0	463.72 µg/L	463.72 ppb	23:19:35
2	V 292.402†	98156.4	97450.7	481.75 µg/L	481.75 ppb	23:19:35
2	Zn 213.857†	86133.5	85304.1	475.43 µg/L	475.43 ppb	23:19:35
3	Sc RADIAL	143809.9	143809.9	98.5 %		23:19:07
3	Al 396.153Radial†	26240.2	26690.2	4926.1 µg/L	4926.1 ppb	23:19:07
3	Ca 317.933Radial†	86148.8	86858.1	4838.3 µg/L	4838.3 ppb	23:19:07
3	Fe 238.204 Radial†	77300.3	78291.6	4825.4 µg/L	4825.4 ppb	23:19:07
3	K 766.490 Radial†	14495.5	13164.4	4815.7 µg/L	4815.7 ppb	23:19:07
3	Mg 279.077 IEC†	13104.6	13107.1	4891.0 µg/L	4891.0 ppb	23:19:07
3	Na 589.592 Radial†	70560.3	70309.6	9600.9 µg/L	9600.9 ppb	23:19:07
3	Sr 421.552†	228660.9	232166.8	482.62 µg/L	482.62 ppb	23:19:05
3	Sc 361.383	1735011.3	1735011.3	100.98 %		23:19:58
3	Y 371.029	1026280.7	1026280.7	99.960 %		23:19:58
3	Ag 328.068†	133432.9	128050.0	480.14 µg/L	480.14 ppb	23:19:58
3	As 188.979†	1602.2	1607.1	492.96 µg/L	492.96 ppb	23:20:18
3	B 249.677†	35929.6	32076.0	471.40 µg/L	471.40 ppb	23:19:58
3	Ba 233.527†	120028.3	119002.3	479.93 µg/L	479.93 ppb	23:19:58
3	Be 313.107†	1790709.1	1774441.1	483.28 µg/L	483.28 ppb	23:19:58
3	Cd 226.502†	76990.5	76363.5	476.69 µg/L	476.69 ppb	23:19:58
3	Co 228.616†	38992.1	38805.0	479.05 µg/L	479.05 ppb	23:19:58
3	Cr 267.716†	61553.2	60778.9	475.89 µg/L	475.89 ppb	23:19:58
3	Cu 324.752†	126757.9	122558.7	477.77 µg/L	477.77 ppb	23:19:58
3	Mn 257.610†	393545.3	389498.8	481.72 µg/L	481.72 ppb	23:19:58
3	Mo 202.031†	16392.4	16253.8	478.12 µg/L	478.12 ppb	23:20:18
3	Ni 231.604†	41888.6	41559.7	478.53 µg/L	478.53 ppb	23:19:58
3	P 214.914†	11251.6	11160.7	2378.8 µg/L	2378.8 ppb	23:20:18
3	Pb 220.353†	8767.6	8596.3	481.39 µg/L	481.39 ppb	23:20:18
3	S 181.975 Axial†	1362.8	1244.5	928.19 µg/L	928.19 ppb	23:20:18
3	Sb 206.836†	4134.8	4013.9	478.27 µg/L	478.27 ppb	23:20:18
3	Se 196.026†	1346.5	1318.2	479 µg/L	479 ppb	23:20:18
3	SiO2†	55432.8	53120.9	5171.6 µg/L	5171.6 ppb	23:19:58
3	Si 251.611†	167686.3	165226.7	2426.4 µg/L	2426.4 ppb	23:19:58
3	Sn 189.927†	7743.2	7669.3	479.72 µg/L	479.72 ppb	23:20:18
3	Ti 334.940†	520000.5	514014.7	479.61 µg/L	479.61 ppb	23:19:58
3	Tl 190.801†	3827.1	3906.8	487.22 µg/L	487.22 ppb	23:20:18
3	U 409.014†	7368.8	7567.3	471.52 µg/L	471.52 ppb	23:19:58
3	V 292.402†	98829.1	97468.7	481.82 µg/L	481.82 ppb	23:19:58
3	Zn 213.857†	86772.4	85368.1	475.79 µg/L	475.79 ppb	23:19:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1732944.4	100.86	%	0.499				0.50%
Sc RADIAL	143634.5	98.4	%	0.74				0.76%
Y 371.029	1024893.5	99.825	%	0.4775				0.48%
Ag 328.068†	127974.3	479.85	µg/L	0.478	479.85	ppb	0.478	0.10%
QC value within limits for Ag 328.068 Recovery = 95.97%								
Al 396.153Radial†	26645.0	4917.8	µg/L	7.28	4917.8	ppb	7.28	0.15%
QC value within limits for Al 396.153Radial Recovery = 98.36%								
As 188.979†	1613.1	494.79	µg/L	5.073	494.79	ppb	5.073	1.03%
QC value within limits for As 188.979 Recovery = 98.96%								
B 249.677†	32020.6	470.58	µg/L	2.536	470.58	ppb	2.536	0.54%
QC value within limits for B 249.677 Recovery = 94.12%								
Ba 233.527†	119070.1	480.21	µg/L	1.130	480.21	ppb	1.130	0.24%
QC value within limits for Ba 233.527 Recovery = 96.04%								
Be 313.107†	1773298.9	482.97	µg/L	0.528	482.97	ppb	0.528	0.11%
QC value within limits for Be 313.107 Recovery = 96.59%								
Ca 317.933Radial†	87033.4	4848.1	µg/L	8.46	4848.1	ppb	8.46	0.17%
QC value within limits for Ca 317.933Radial Recovery = 96.96%								
Cd 226.502†	76355.2	476.64	µg/L	0.045	476.64	ppb	0.045	0.01%
QC value within limits for Cd 226.502 Recovery = 95.33%								
Co 228.616†	38873.2	479.89	µg/L	1.134	479.89	ppb	1.134	0.24%

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   QC value within limits for Co 228.616  Recovery = 95.98%
Cr 267.716†            60813.7      476.16 µg/L         0.280      476.16 ppb          0.280   0.06%
   QC value within limits for Cr 267.716  Recovery = 95.23%
Cu 324.752†           122613.2      477.98 µg/L         0.651      477.98 ppb          0.651   0.14%
   QC value within limits for Cu 324.752  Recovery = 95.60%
Fe 238.204 Radial†     78284.3      4825.0 µg/L          2.78      4825.0 ppb           2.78   0.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.50%
K 766.490 Radial†      13127.8      4802.3 µg/L         17.82      4802.3 ppb          17.82   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 96.05%
Mg 279.077 IEC†        13196.0      4924.2 µg/L         34.46      4924.2 ppb          34.46   0.70%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.48%
Mn 257.610†           389524.5      481.75 µg/L         0.185      481.75 ppb          0.185   0.04%
   QC value within limits for Mn 257.610  Recovery = 96.35%
Mo 202.031†            16246.8      477.91 µg/L         3.385      477.91 ppb          3.385   0.71%
   QC value within limits for Mo 202.031  Recovery = 95.58%
Na 589.592 Radial†     70442.7      9619.1 µg/L         20.17      9619.1 ppb          20.17   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 96.19%
Ni 231.604†            41588.7      478.86 µg/L         0.483      478.86 ppb          0.483   0.10%
   QC value within limits for Ni 231.604  Recovery = 95.77%
P 214.914†             11146.0      2375.7 µg/L         15.67      2375.7 ppb          15.67   0.66%
   QC value within limits for P 214.914  Recovery = 95.03%
Pb 220.353†             8593.0      481.20 µg/L         2.697      481.20 ppb          2.697   0.56%
   QC value within limits for Pb 220.353  Recovery = 96.24%
S 181.975 Axial†        1259.2      939.09 µg/L        12.659      939.09 ppb         12.659   1.35%
   QC value within limits for S 181.975 Axial  Recovery = 93.91%
Sb 206.836†             4028.3      479.97 µg/L         3.284      479.97 ppb          3.284   0.68%
   QC value within limits for Sb 206.836  Recovery = 95.99%
Se 196.026†             1317.4         478 µg/L           3.1         478 ppb            3.1   0.65%
   QC value within limits for Se 196.026  Recovery = 95.67%
SiO2†                  53172.1      5176.6 µg/L          6.53      5176.6 ppb           6.53   0.13%
   QC value within limits for SiO2  Recovery = 96.80%
Si 251.611†           165274.1      2427.1 µg/L          0.62      2427.1 ppb           0.62   0.03%
   QC value within limits for Si 251.611  Recovery = 97.08%
Sn 189.927†             7651.0      478.58 µg/L         3.688      478.58 ppb          3.688   0.77%
   QC value within limits for Sn 189.927  Recovery = 95.72%
Sr 421.552†           232109.6      482.50 µg/L         6.428      482.50 ppb          6.428   1.33%
   QC value within limits for Sr 421.552  Recovery = 96.50%
Ti 334.940†           513687.1      479.31 µg/L         0.472      479.31 ppb          0.472   0.10%
   QC value within limits for Ti 334.940  Recovery = 95.86%
Tl 190.801†             3904.7      486.96 µg/L         3.327      486.96 ppb          3.327   0.68%
   QC value within limits for Tl 190.801  Recovery = 97.39%
U 409.014†              7530.7      469.35 µg/L         4.918      469.35 ppb          4.918   1.05%
   QC value within limits for U 409.014  Recovery = 93.87%
V 292.402†             97349.6      481.23 µg/L         0.958      481.23 ppb          0.958   0.20%
   QC value within limits for V 292.402  Recovery = 96.25%
Zn 213.857†            85334.6      475.60 µg/L         0.184      475.60 ppb          0.184   0.04%
   QC value within limits for Zn 213.857  Recovery = 95.12%
All analyte(s) passed QC.
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Sequence No.: 108
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 23:20:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144721.0	144721.0	99.2	%			23:20:58
1	Al 396.153Radial†	-83.6	-21.0	-3.8947	µg/L	-3.8947	ppb	23:21:18
1	Ca 317.933Radial†	580.4	24.7	1.3750	µg/L	1.3750	ppb	23:21:18
1	Fe 238.204 Radial†	196.1	49.7	3.0605	µg/L	3.0605	ppb	23:21:18
1	K 766.490 Radial†	1602.1	70.7	25.883	µg/L	25.883	ppb	23:20:58
1	Mg 279.077 IEC†	205.0	16.0	5.9406	µg/L	5.9406	ppb	23:21:18
1	Na 589.592 Radial†	1213.9	-66.8	-9.1423	µg/L	-9.1423	ppb	23:20:58
1	Sr 421.552†	-55.9	78.9	0.1640	µg/L	0.1640	ppb	23:20:58
1	Sc 361.383	1740172.6	1740172.6	101.28	%			23:22:05
1	Y 371.029	1040560.6	1040560.6	101.35	%			23:22:05
1	Ag 328.068†	3851.9	-288.0	-1.0737	µg/L	-1.0737	ppb	23:22:08
1	As 188.979†	-3.9	16.5	4.9867	µg/L	4.9867	ppb	23:22:28
1	B 249.677†	3520.7	-29.6	-0.4370	µg/L	-0.4370	ppb	23:22:08
1	Ba 233.527†	-128.4	9.1	0.0366	µg/L	0.0366	ppb	23:22:28
1	Be 313.107†	-942.4	134.2	0.0343	µg/L	0.0343	ppb	23:22:08
1	Cd 226.502†	-109.3	10.3	0.0637	µg/L	0.0637	ppb	23:22:28
1	Co 228.616†	-168.6	23.8	0.2936	µg/L	0.2936	ppb	23:22:28
1	Cr 267.716†	186.3	5.4	0.0484	µg/L	0.0484	ppb	23:22:28
1	Cu 324.752†	2967.4	-42.3	-0.1696	µg/L	-0.1696	ppb	23:22:08
1	Mn 257.610†	341.2	99.6	0.1230	µg/L	0.1230	ppb	23:22:28
1	Mo 202.031†	-26.0	-5.6	-0.1652	µg/L	-0.1652	ppb	23:22:28
1	Ni 231.604†	-86.6	-8.9	-0.1030	µg/L	-0.1030	ppb	23:22:28
1	P 214.914†	2.1	20.0	4.2896	µg/L	4.2896	ppb	23:22:28
1	Pb 220.353†	89.4	1.9	0.1123	µg/L	0.1123	ppb	23:22:28
1	S 181.975 Axial†	95.7	-10.5	-7.8226	µg/L	-7.8226	ppb	23:22:28
1	Sb 206.836†	91.9	9.9	1.1769	µg/L	1.1769	ppb	23:22:28
1	Se 196.026†	23.5	7.9	2.85	µg/L	2.85	ppb	23:22:28
1	SiO2†	1814.1	15.9	1.5390	µg/L	1.5390	ppb	23:22:28
1	Si 251.611†	917.6	69.4	1.0187	µg/L	1.0187	ppb	23:22:08
1	Sn 189.927†	16.5	17.4	1.0880	µg/L	1.0880	ppb	23:22:28
1	Ti 334.940†	1176.4	209.1	0.1979	µg/L	0.1979	ppb	23:22:08
1	Tl 190.801†	-110.5	7.6	0.9307	µg/L	0.9307	ppb	23:22:28
1	U 409.014†	-401.5	-126.5	-7.3869	µg/L	-7.3869	ppb	23:22:08
1	V 292.402†	444.8	35.4	0.1657	µg/L	0.1657	ppb	23:22:08
1	Zn 213.857†	587.2	15.4	0.0869	µg/L	0.0869	ppb	23:22:28
2	Sc RADIAL	144189.3	144189.3	98.8	%			23:21:20
2	Al 396.153Radial†	-42.6	20.1	3.7335	µg/L	3.7335	ppb	23:21:40
2	Ca 317.933Radial†	605.6	52.4	2.9175	µg/L	2.9175	ppb	23:21:40
2	Fe 238.204 Radial†	235.5	90.2	5.5587	µg/L	5.5587	ppb	23:21:40
2	K 766.490 Radial†	1804.3	281.3	102.99	µg/L	102.99	ppb	23:21:20
2	Mg 279.077 IEC†	185.5	-3.0	-1.1298	µg/L	-1.1298	ppb	23:21:40
2	Na 589.592 Radial†	1392.4	118.4	16.088	µg/L	16.088	ppb	23:21:20
2	Sr 421.552†	-172.0	-38.8	-0.0807	µg/L	-0.0807	ppb	23:21:20
2	Sc 361.383	1750632.4	1750632.4	101.89	%			23:22:30
2	Y 371.029	1045632.3	1045632.3	101.85	%			23:22:30
2	Ag 328.068†	3884.1	-279.2	-1.0517	µg/L	-1.0517	ppb	23:22:32
2	As 188.979†	-9.6	10.9	3.2935	µg/L	3.2935	ppb	23:22:52
2	B 249.677†	3509.8	-61.1	-0.9032	µg/L	-0.9032	ppb	23:22:32
2	Ba 233.527†	-114.7	23.2	0.0931	µg/L	0.0931	ppb	23:22:52
2	Be 313.107†	-767.6	311.3	0.0822	µg/L	0.0822	ppb	23:22:32
2	Cd 226.502†	-108.6	11.6	0.0718	µg/L	0.0718	ppb	23:22:52
2	Co 228.616†	-145.0	48.0	0.5919	µg/L	0.5919	ppb	23:22:52
2	Cr 267.716†	155.6	-25.9	-0.1960	µg/L	-0.1960	ppb	23:22:52
2	Cu 324.752†	2910.6	-115.5	-0.4545	µg/L	-0.4545	ppb	23:22:32
2	Mn 257.610†	337.8	94.3	0.1167	µg/L	0.1167	ppb	23:22:52
2	Mo 202.031†	-28.0	-7.4	-0.2186	µg/L	-0.2186	ppb	23:22:52
2	Ni 231.604†	-82.4	-4.3	-0.0499	µg/L	-0.0499	ppb	23:22:52
2	P 214.914†	-26.2	-7.8	-1.6582	µg/L	-1.6582	ppb	23:22:52
2	Pb 220.353†	84.8	-3.2	-0.1707	µg/L	-0.1707	ppb	23:22:52

2	S 181.975 Axial†	94.4	-12.4	-9.1963 µg/L	-9.1963 ppb	23:22:52
2	Sb 206.836†	90.2	7.7	0.9179 µg/L	0.9179 ppb	23:22:52
2	Se 196.026†	18.0	2.4	0.844 µg/L	0.844 ppb	23:22:52
2	SiO2†	1787.8	-20.7	-2.0247 µg/L	-2.0247 ppb	23:22:52
2	Si 251.611†	881.0	28.1	0.4136 µg/L	0.4136 ppb	23:22:32
2	Sn 189.927†	7.3	8.3	0.5186 µg/L	0.5186 ppb	23:22:52
2	Ti 334.940†	950.4	-19.7	-0.0148 µg/L	-0.0148 ppb	23:22:32
2	Tl 190.801†	-105.4	13.3	1.6208 µg/L	1.6208 ppb	23:22:52
2	U 409.014†	-420.2	-142.5	-8.3714 µg/L	-8.3714 ppb	23:22:32
2	V 292.402†	279.7	-129.3	-0.6400 µg/L	-0.6400 ppb	23:22:32
2	Zn 213.857†	564.2	-10.7	-0.0598 µg/L	-0.0598 ppb	23:22:52
3	Sc RADIAL	144369.9	144369.9	98.9 %		23:21:42
3	Al 396.153Radial†	-72.5	-10.1	-1.8730 µg/L	-1.8730 ppb	23:22:02
3	Ca 317.933Radial†	584.3	30.1	1.6744 µg/L	1.6744 ppb	23:22:02
3	Fe 238.204 Radial†	204.0	58.1	3.5807 µg/L	3.5807 ppb	23:22:02
3	K 766.490 Radial†	1674.9	148.2	54.270 µg/L	54.270 ppb	23:21:42
3	Mg 279.077 IEC†	184.9	-3.8	-1.4254 µg/L	-1.4254 ppb	23:22:02
3	Na 589.592 Radial†	1285.3	8.4	1.0985 µg/L	1.0985 ppb	23:21:42
3	Sr 421.552†	-188.2	-55.0	-0.1143 µg/L	-0.1143 ppb	23:21:42
3	Sc 361.383	1741492.2	1741492.2	101.35 %		23:22:54
3	Y 371.029	1040823.4	1040823.4	101.38 %		23:22:54
3	Ag 328.068†	4356.2	206.6	0.7527 µg/L	0.7527 ppb	23:22:56
3	As 188.979†	-10.3	10.2	3.0901 µg/L	3.0901 ppb	23:23:16
3	B 249.677†	3495.4	-57.2	-0.8448 µg/L	-0.8448 ppb	23:22:56
3	Ba 233.527†	-104.9	32.3	0.1301 µg/L	0.1301 ppb	23:23:16
3	Be 313.107†	-758.4	316.4	0.0840 µg/L	0.0840 ppb	23:22:56
3	Cd 226.502†	-93.1	26.3	0.1638 µg/L	0.1638 ppb	23:23:16
3	Co 228.616†	-177.9	14.8	0.1826 µg/L	0.1826 ppb	23:23:16
3	Cr 267.716†	215.5	34.0	0.2721 µg/L	0.2721 ppb	23:23:16
3	Cu 324.752†	2926.0	-85.3	-0.3369 µg/L	-0.3369 ppb	23:22:56
3	Mn 257.610†	318.8	77.2	0.0956 µg/L	0.0956 ppb	23:23:16
3	Mo 202.031†	-22.0	-1.7	-0.0489 µg/L	-0.0489 ppb	23:23:16
3	Ni 231.604†	-129.1	-50.8	-0.5854 µg/L	-0.5854 ppb	23:23:16
3	P 214.914†	-27.8	-9.5	-2.0268 µg/L	-2.0268 ppb	23:23:16
3	Pb 220.353†	99.2	11.4	0.6440 µg/L	0.6440 ppb	23:23:16
3	S 181.975 Axial†	104.2	-2.2	-1.6435 µg/L	-1.6435 ppb	23:23:16
3	Sb 206.836†	80.2	-1.7	-0.2024 µg/L	-0.2024 ppb	23:23:16
3	Se 196.026†	-2.8	-18.0	-6.52 µg/L	-6.52 ppb	23:23:16
3	SiO2†	1785.7	-13.5	-1.3191 µg/L	-1.3191 ppb	23:23:16
3	Si 251.611†	942.5	93.3	1.3760 µg/L	1.3760 ppb	23:22:56
3	Sn 189.927†	-0.1	1.0	0.0628 µg/L	0.0628 ppb	23:23:16
3	Ti 334.940†	1040.9	74.5	0.0726 µg/L	0.0726 ppb	23:22:56
3	Tl 190.801†	-122.9	-4.6	-0.5664 µg/L	-0.5664 ppb	23:23:16
3	U 409.014†	-398.4	-123.1	-7.2165 µg/L	-7.2165 ppb	23:22:56
3	V 292.402†	352.1	-56.4	-0.2799 µg/L	-0.2799 ppb	23:22:56
3	Zn 213.857†	592.9	20.6	0.1194 µg/L	0.1194 ppb	23:23:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1744099.1	101.51	%	0.332				0.33%
Sc RADIAL	144426.7	99.0	%	0.19				0.19%
Y 371.029	1042338.8	101.52	%	0.278				0.27%
Ag 328.068†	-120.2	-0.4576	µg/L	1.04821	-0.4576	ppb	1.04821	229.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.7	-0.6781	µg/L	3.95199	-0.6781	ppb	3.95199	582.82%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	12.5	3.7901	µg/L	1.04128	3.7901	ppb	1.04128	27.47%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-49.3	-0.7283	µg/L	0.25394	-0.7283	ppb	0.25394	34.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	21.5	0.0866	µg/L	0.04706	0.0866	ppb	0.04706	54.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	254.0	0.0668	µg/L	0.02820	0.0668	ppb	0.02820	42.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	35.7	1.9890	µg/L	0.81790	1.9890	ppb	0.81790	41.12%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.1	0.0998	µg/L	0.05561	0.0998	ppb	0.05561	55.74%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	28.9	0.3560	µg/L	0.21172	0.3560	ppb	0.21172	59.47%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                4.5      0.0415 µg/L       0.23416      0.0415 ppb        0.23416 564.27%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -81.0     -0.3203 µg/L       0.14318     -0.3203 ppb        0.14318  44.70%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        66.0      4.0666 µg/L       1.31807      4.0666 ppb        1.31807  32.41%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        166.7      61.047 µg/L       38.9970      61.047 ppb        38.9970  63.88%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            3.0      1.1285 µg/L       4.17006      1.1285 ppb        4.17006 369.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               90.4      0.1118 µg/L       0.01435      0.1118 ppb        0.01435  12.84%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -4.9     -0.1442 µg/L       0.08677     -0.1442 ppb        0.08677  60.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        20.0      2.6814 µg/L      12.68942      2.6814 ppb       12.68942 473.24%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -21.4     -0.2461 µg/L       0.29505     -0.2461 ppb        0.29505 119.90%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.9      0.2015 µg/L       3.54518      0.2015 ppb        3.54518 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                3.4      0.1952 µg/L       0.41363      0.1952 ppb        0.41363 211.92%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -8.4     -6.2208 µg/L       4.02315     -6.2208 ppb        4.02315  64.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.3      0.6308 µg/L       0.73310      0.6308 ppb        0.73310 116.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.6      -0.941 µg/L        4.9356      -0.941 ppb         4.9356 524.57%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -6.1     -0.6016 µg/L       1.88709     -0.6016 ppb        1.88709 313.69%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               63.6      0.9361 µg/L       0.48651      0.9361 ppb        0.48651  51.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                8.9      0.5565 µg/L       0.51367      0.5565 ppb        0.51367  92.31%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -5.0     -0.0103 µg/L       0.15190     -0.0103 ppb        0.15190 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               87.9      0.0852 µg/L       0.10689      0.0852 ppb        0.10689 125.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.4      0.6617 µg/L       1.11813      0.6617 ppb        1.11813 168.98%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -130.7     -7.6583 µg/L       0.62345     -7.6583 ppb        0.62345   8.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -50.1     -0.2514 µg/L       0.40359     -0.2514 ppb        0.40359 160.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                8.4      0.0488 µg/L       0.09550      0.0488 ppb        0.09550 195.59%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 119
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/31/2010 23:44:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144132.6	144132.6	98.8	%			23:45:03
1	Al 396.153Radial†	26296.2	26687.3	4925.8	µg/L	4925.8	ppb	23:45:03
1	Ca 317.933Radial†	86285.0	86800.3	4835.1	µg/L	4835.1	ppb	23:45:03
1	Fe 238.204 Radial†	77336.8	78153.0	4816.9	µg/L	4816.9	ppb	23:45:03
1	K 766.490 Radial†	14372.8	13007.2	4758.2	µg/L	4758.2	ppb	23:45:03
1	Mg 279.077 IEC†	13164.6	13138.1	4902.5	µg/L	4902.5	ppb	23:45:03
1	Na 589.592 Radial†	70648.2	70238.4	9591.2	µg/L	9591.2	ppb	23:45:03
1	Sr 421.552†	230039.5	233043.2	484.45	µg/L	484.45	ppb	23:45:01
1	Sc 361.383	1743955.0	1743955.0	101.50	%			23:45:30
1	Y 371.029	1030705.1	1030705.1	100.39	%			23:45:30
1	Ag 328.068†	134389.6	128314.9	481.13	µg/L	481.13	ppb	23:45:30
1	As 188.979†	1617.5	1614.0	495.08	µg/L	495.08	ppb	23:45:50
1	B 249.677†	36323.2	32281.3	474.42	µg/L	474.42	ppb	23:45:30
1	Ba 233.527†	120941.4	119292.4	481.10	µg/L	481.10	ppb	23:45:30
1	Be 313.107†	1804931.8	1779359.2	484.62	µg/L	484.62	ppb	23:45:30
1	Cd 226.502†	77856.9	76826.1	479.58	µg/L	479.58	ppb	23:45:30
1	Co 228.616†	39432.5	39040.8	481.96	µg/L	481.96	ppb	23:45:30
1	Cr 267.716†	62111.2	61016.0	477.74	µg/L	477.74	ppb	23:45:30
1	Cu 324.752†	127832.7	122973.9	479.39	µg/L	479.39	ppb	23:45:30
1	Mn 257.610†	396902.5	390807.7	483.34	µg/L	483.34	ppb	23:45:30
1	Mo 202.031†	16367.7	16146.2	474.96	µg/L	474.96	ppb	23:45:50
1	Ni 231.604†	42121.9	41576.8	478.73	µg/L	478.73	ppb	23:45:30
1	P 214.914†	11245.4	11097.4	2365.3	µg/L	2365.3	ppb	23:45:50
1	Pb 220.353†	8777.1	8561.2	479.42	µg/L	479.42	ppb	23:45:50
1	S 181.975 Axial†	1374.9	1249.5	931.87	µg/L	931.87	ppb	23:45:50
1	Sb 206.836†	4133.7	3991.9	475.58	µg/L	475.58	ppb	23:45:50
1	Se 196.026†	1363.1	1327.7	482	µg/L	482	ppb	23:45:50
1	SiO2†	56167.1	53562.8	5214.9	µg/L	5214.9	ppb	23:45:30
1	Si 251.611†	170045.6	166699.5	2448.2	µg/L	2448.2	ppb	23:45:30
1	Sn 189.927†	7739.8	7626.7	477.06	µg/L	477.06	ppb	23:45:50
1	Ti 334.940†	523080.4	514408.2	479.98	µg/L	479.98	ppb	23:45:30
1	Tl 190.801†	3815.6	3875.9	483.43	µg/L	483.43	ppb	23:45:50
1	U 409.014†	7450.4	7610.3	474.06	µg/L	474.06	ppb	23:45:30
1	V 292.402†	99368.6	97498.3	481.94	µg/L	481.94	ppb	23:45:30
1	Zn 213.857†	87576.9	85720.0	477.77	µg/L	477.77	ppb	23:45:30
2	Sc RADIAL	143500.3	143500.3	98.3	%			23:45:07
2	Al 396.153Radial†	26117.8	26623.2	4913.8	µg/L	4913.8	ppb	23:45:07
2	Ca 317.933Radial†	85980.2	86875.2	4839.3	µg/L	4839.3	ppb	23:45:07
2	Fe 238.204 Radial†	77018.6	78174.4	4818.2	µg/L	4818.2	ppb	23:45:07
2	K 766.490 Radial†	14350.9	13049.0	4773.5	µg/L	4773.5	ppb	23:45:07
2	Mg 279.077 IEC†	13097.3	13128.4	4899.0	µg/L	4899.0	ppb	23:45:07
2	Na 589.592 Radial†	70405.7	70306.9	9600.5	µg/L	9600.5	ppb	23:45:07
2	Sr 421.552†	230191.6	234224.0	486.90	µg/L	486.90	ppb	23:45:05
2	Sc 361.383	1741142.3	1741142.3	101.33	%			23:45:53
2	Y 371.029	1028976.3	1028976.3	100.22	%			23:45:53
2	Ag 328.068†	133876.6	128022.6	480.04	µg/L	480.04	ppb	23:45:53
2	As 188.979†	1611.4	1610.6	494.02	µg/L	494.02	ppb	23:46:13
2	B 249.677†	36111.0	32129.7	472.20	µg/L	472.20	ppb	23:45:53
2	Ba 233.527†	120384.6	118935.4	479.66	µg/L	479.66	ppb	23:45:53
2	Be 313.107†	1798241.9	1775630.2	483.61	µg/L	483.61	ppb	23:45:53
2	Cd 226.502†	77471.2	76569.4	477.98	µg/L	477.98	ppb	23:45:53
2	Co 228.616†	39116.7	38792.0	478.89	µg/L	478.89	ppb	23:45:53
2	Cr 267.716†	61760.5	60768.7	475.81	µg/L	475.81	ppb	23:45:53
2	Cu 324.752†	127313.2	122664.7	478.18	µg/L	478.18	ppb	23:45:53
2	Mn 257.610†	395198.2	389757.6	482.04	µg/L	482.04	ppb	23:45:53
2	Mo 202.031†	16425.2	16229.0	477.39	µg/L	477.39	ppb	23:46:13
2	Ni 231.604†	42030.8	41554.0	478.46	µg/L	478.46	ppb	23:45:53
2	P 214.914†	11285.9	11155.2	2377.7	µg/L	2377.7	ppb	23:46:13
2	Pb 220.353†	8805.0	8602.7	481.74	µg/L	481.74	ppb	23:46:13

2	S 181.975 Axial†	1386.2	1262.9	941.84 µg/L	941.84 ppb	23:46:13
2	Sb 206.836†	4124.1	3989.0	475.29 µg/L	475.29 ppb	23:46:13
2	Se 196.026†	1357.9	1324.8	481 µg/L	481 ppb	23:46:13
2	SiO2†	55814.1	53303.9	5189.5 µg/L	5189.5 ppb	23:45:53
2	Si 251.611†	169030.5	165968.4	2437.3 µg/L	2437.3 ppb	23:45:53
2	Sn 189.927†	7760.3	7659.3	479.09 µg/L	479.09 ppb	23:46:13
2	Ti 334.940†	520780.4	512971.1	478.64 µg/L	478.64 ppb	23:45:53
2	Tl 190.801†	3842.4	3908.4	487.42 µg/L	487.42 ppb	23:46:13
2	U 409.014†	7450.4	7622.2	474.73 µg/L	474.73 ppb	23:45:53
2	V 292.402†	99152.5	97443.2	481.69 µg/L	481.69 ppb	23:45:53
2	Zn 213.857†	86966.1	85256.7	475.17 µg/L	475.17 ppb	23:45:53
3	Sc RADIAL	141926.1	141926.1	97.3 %		23:45:11
3	Al 396.153Radial†	25922.6	26717.1	4931.1 µg/L	4931.1 ppb	23:45:11
3	Ca 317.933Radial†	85061.3	86900.2	4840.7 µg/L	4840.7 ppb	23:45:11
3	Fe 238.204 Radial†	76232.3	78234.7	4821.9 µg/L	4821.9 ppb	23:45:11
3	K 766.490 Radial†	14404.4	13266.0	4852.9 µg/L	4852.9 ppb	23:45:11
3	Mg 279.077 IEC†	13020.1	13196.7	4924.4 µg/L	4924.4 ppb	23:45:11
3	Na 589.592 Radial†	69631.1	70304.6	9600.1 µg/L	9600.1 ppb	23:45:11
3	Sr 421.552†	231949.9	238628.3	496.06 µg/L	496.06 ppb	23:45:09
3	Sc 361.383	1729820.2	1729820.2	100.68 %		23:46:16
3	Y 371.029	1022158.2	1022158.2	99.559 %		23:46:16
3	Ag 328.068†	132876.1	127893.4	479.56 µg/L	479.56 ppb	23:46:16
3	As 188.979†	1593.5	1603.2	491.79 µg/L	491.79 ppb	23:46:36
3	B 249.677†	35994.3	32247.0	473.92 µg/L	473.92 ppb	23:46:16
3	Ba 233.527†	119768.8	119101.4	480.33 µg/L	480.33 ppb	23:46:16
3	Be 313.107†	1786026.7	1775111.9	483.47 µg/L	483.47 ppb	23:46:16
3	Cd 226.502†	76950.6	76552.6	477.87 µg/L	477.87 ppb	23:46:16
3	Co 228.616†	38889.1	38818.6	479.22 µg/L	479.22 ppb	23:46:16
3	Cr 267.716†	61424.2	60833.7	476.31 µg/L	476.31 ppb	23:46:16
3	Cu 324.752†	126247.1	122428.1	477.27 µg/L	477.27 ppb	23:46:16
3	Mn 257.610†	392394.3	389525.1	481.75 µg/L	481.75 ppb	23:46:16
3	Mo 202.031†	16372.3	16282.5	478.96 µg/L	478.96 ppb	23:46:36
3	Ni 231.604†	41712.3	41509.0	477.95 µg/L	477.95 ppb	23:46:16
3	P 214.914†	11238.3	11180.9	2383.2 µg/L	2383.2 ppb	23:46:36
3	Pb 220.353†	8781.7	8636.4	483.62 µg/L	483.62 ppb	23:46:36
3	S 181.975 Axial†	1376.5	1262.2	941.29 µg/L	941.29 ppb	23:46:36
3	Sb 206.836†	4136.7	4028.2	479.97 µg/L	479.97 ppb	23:46:36
3	Se 196.026†	1358.7	1334.3	485 µg/L	485 ppb	23:46:36
3	SiO2†	55649.6	53501.0	5208.7 µg/L	5208.7 ppb	23:46:16
3	Si 251.611†	167782.3	165820.3	2435.1 µg/L	2435.1 ppb	23:46:16
3	Sn 189.927†	7733.5	7682.7	480.55 µg/L	480.55 ppb	23:46:36
3	Ti 334.940†	517675.9	513251.1	478.89 µg/L	478.89 ppb	23:46:16
3	Tl 190.801†	3823.0	3914.0	488.10 µg/L	488.10 ppb	23:46:36
3	U 409.014†	7497.8	7717.4	480.25 µg/L	480.25 ppb	23:46:16
3	V 292.402†	98366.1	97302.5	481.02 µg/L	481.02 ppb	23:46:16
3	Zn 213.857†	86593.9	85448.7	476.25 µg/L	476.25 ppb	23:46:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1738305.8	101.17	%	0.435				0.43%
Sc RADIAL	143186.3	98.1	%	0.78				0.79%
Y 371.029	1027279.9	100.06	%	0.440				0.44%
Ag 328.068†	128076.9	480.24	µg/L	0.801	480.24	ppb	0.801	0.17%
QC value within limits for Ag 328.068 Recovery = 96.05%								
Al 396.153Radial†	26675.9	4923.5	µg/L	8.88	4923.5	ppb	8.88	0.18%
QC value within limits for Al 396.153Radial Recovery = 98.47%								
As 188.979†	1609.3	493.63	µg/L	1.680	493.63	ppb	1.680	0.34%
QC value within limits for As 188.979 Recovery = 98.73%								
B 249.677†	32219.3	473.51	µg/L	1.168	473.51	ppb	1.168	0.25%
QC value within limits for B 249.677 Recovery = 94.70%								
Ba 233.527†	119109.7	480.37	µg/L	0.719	480.37	ppb	0.719	0.15%
QC value within limits for Ba 233.527 Recovery = 96.07%								
Be 313.107†	1776700.4	483.90	µg/L	0.630	483.90	ppb	0.630	0.13%
QC value within limits for Be 313.107 Recovery = 96.78%								
Ca 317.933Radial†	86858.6	4838.4	µg/L	2.90	4838.4	ppb	2.90	0.06%
QC value within limits for Ca 317.933Radial Recovery = 96.77%								
Cd 226.502†	76649.4	478.48	µg/L	0.958	478.48	ppb	0.958	0.20%
QC value within limits for Cd 226.502 Recovery = 95.70%								
Co 228.616†	38883.8	480.02	µg/L	1.687	480.02	ppb	1.687	0.35%

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   QC value within limits for Co 228.616  Recovery = 96.00%
Cr 267.716†            60872.8      476.62 µg/L         1.005      476.62 ppb          1.005   0.21%
   QC value within limits for Cr 267.716  Recovery = 95.32%
Cu 324.752†           122688.9      478.28 µg/L         1.061      478.28 ppb          1.061   0.22%
   QC value within limits for Cu 324.752  Recovery = 95.66%
Fe 238.204 Radial†     78187.4      4819.0 µg/L          2.61      4819.0 ppb           2.61   0.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.38%
K 766.490 Radial†      13107.4      4794.9 µg/L         50.84      4794.9 ppb          50.84   1.06%
   QC value within limits for K 766.490 Radial  Recovery = 95.90%
Mg 279.077 IEC†        13154.4      4908.6 µg/L         13.80      4908.6 ppb          13.80   0.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.17%
Mn 257.610†           390030.2      482.38 µg/L         0.846      482.38 ppb          0.846   0.18%
   QC value within limits for Mn 257.610  Recovery = 96.48%
Mo 202.031†            16219.2      477.10 µg/L         2.018      477.10 ppb          2.018   0.42%
   QC value within limits for Mo 202.031  Recovery = 95.42%
Na 589.592 Radial†     70283.3      9597.3 µg/L          5.29      9597.3 ppb           5.29   0.06%
   QC value within limits for Na 589.592 Radial  Recovery = 95.97%
Ni 231.604†            41546.6      478.38 µg/L         0.397      478.38 ppb          0.397   0.08%
   QC value within limits for Ni 231.604  Recovery = 95.68%
P 214.914†             11144.5      2375.4 µg/L          9.15      2375.4 ppb           9.15   0.39%
   QC value within limits for P 214.914  Recovery = 95.02%
Pb 220.353†             8600.1      481.59 µg/L         2.106      481.59 ppb          2.106   0.44%
   QC value within limits for Pb 220.353  Recovery = 96.32%
S 181.975 Axial†        1258.2      938.33 µg/L         5.605      938.33 ppb          5.605   0.60%
   QC value within limits for S 181.975 Axial  Recovery = 93.83%
Sb 206.836†             4003.0      476.94 µg/L         2.622      476.94 ppb          2.622   0.55%
   QC value within limits for Sb 206.836  Recovery = 95.39%
Se 196.026†             1329.0         483 µg/L           1.8         483 ppb            1.8   0.37%
   QC value within limits for Se 196.026  Recovery = 96.51%
SiO2†                  53455.9      5204.4 µg/L         13.25      5204.4 ppb          13.25   0.25%
   QC value within limits for SiO2  Recovery = 97.32%
Si 251.611†           166162.8      2440.2 µg/L          6.98      2440.2 ppb           6.98   0.29%
   QC value within limits for Si 251.611  Recovery = 97.61%
Sn 189.927†             7656.2      478.90 µg/L         1.752      478.90 ppb          1.752   0.37%
   QC value within limits for Sn 189.927  Recovery = 95.78%
Sr 421.552†           235298.5      489.13 µg/L         6.119      489.13 ppb          6.119   1.25%
   QC value within limits for Sr 421.552  Recovery = 97.83%
Ti 334.940†           513543.5      479.17 µg/L         0.712      479.17 ppb          0.712   0.15%
   QC value within limits for Ti 334.940  Recovery = 95.83%
Tl 190.801†             3899.5      486.32 µg/L         2.525      486.32 ppb          2.525   0.52%
   QC value within limits for Tl 190.801  Recovery = 97.26%
U 409.014†              7650.0      476.34 µg/L         3.400      476.34 ppb          3.400   0.71%
   QC value within limits for U 409.014  Recovery = 95.27%
V 292.402†             97414.7      481.55 µg/L         0.473      481.55 ppb          0.473   0.10%
   QC value within limits for V 292.402  Recovery = 96.31%
Zn 213.857†            85475.1      476.40 µg/L         1.307      476.40 ppb          1.307   0.27%
   QC value within limits for Zn 213.857  Recovery = 95.28%
All analyte(s) passed QC.
```

Sequence No.: 120
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/31/2010 23:46:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143139.1	143139.1	98.1	%			23:47:16
1	Al 396.153Radial†	-44.4	17.9	3.3413	µg/L	3.3413	ppb	23:47:36
1	Ca 317.933Radial†	582.0	32.8	1.8256	µg/L	1.8256	ppb	23:47:36
1	Fe 238.204 Radial†	254.9	111.7	6.8857	µg/L	6.8857	ppb	23:47:36
1	K 766.490 Radial†	1616.9	103.6	37.929	µg/L	37.929	ppb	23:47:16
1	Mg 279.077 IEC†	177.5	-9.8	-3.6543	µg/L	-3.6543	ppb	23:47:36
1	Na 589.592 Radial†	1371.1	107.0	14.589	µg/L	14.589	ppb	23:47:16
1	Sr 421.552†	-218.3	-87.3	-0.1815	µg/L	-0.1815	ppb	23:47:16
1	Sc 361.383	1721067.2	1721067.2	100.17	%			23:48:23
1	Y 371.029	1029992.5	1029992.5	100.32	%			23:48:23
1	Ag 328.068†	4263.3	164.8	0.5898	µg/L	0.5898	ppb	23:48:26
1	As 188.979†	-17.1	3.3	0.9838	µg/L	0.9838	ppb	23:48:46
1	B 249.677†	3587.8	76.0	1.1202	µg/L	1.1202	ppb	23:48:26
1	Ba 233.527†	-139.7	-3.6	-0.0153	µg/L	-0.0153	ppb	23:48:46
1	Be 313.107†	-1283.0	-216.2	-0.0609	µg/L	-0.0609	ppb	23:48:26
1	Cd 226.502†	-112.6	5.8	0.0354	µg/L	0.0354	ppb	23:48:46
1	Co 228.616†	-173.9	16.7	0.2052	µg/L	0.2052	ppb	23:48:46
1	Cr 267.716†	180.0	1.2	0.0142	µg/L	0.0142	ppb	23:48:46
1	Cu 324.752†	2926.2	-50.8	-0.2020	µg/L	-0.2020	ppb	23:48:26
1	Mn 257.610†	341.1	103.2	0.1279	µg/L	0.1279	ppb	23:48:46
1	Mo 202.031†	-33.0	-12.8	-0.3775	µg/L	-0.3775	ppb	23:48:46
1	Ni 231.604†	-84.7	-8.0	-0.0923	µg/L	-0.0923	ppb	23:48:46
1	P 214.914†	-12.9	5.1	1.1019	µg/L	1.1019	ppb	23:48:46
1	Pb 220.353†	98.0	11.4	0.6420	µg/L	0.6420	ppb	23:48:46
1	S 181.975 Axial†	101.0	-4.2	-3.1438	µg/L	-3.1438	ppb	23:48:46
1	Sb 206.836†	91.8	10.9	1.2860	µg/L	1.2860	ppb	23:48:46
1	Se 196.026†	14.8	-0.5	-0.177	µg/L	-0.177	ppb	23:48:46
1	SiO2†	1836.2	57.8	5.6538	µg/L	5.6538	ppb	23:48:46
1	Si 251.611†	1107.2	268.8	3.9640	µg/L	3.9640	ppb	23:48:26
1	Sn 189.927†	7.5	8.6	0.5360	µg/L	0.5360	ppb	23:48:46
1	Ti 334.940†	947.2	-6.9	-0.0034	µg/L	-0.0034	ppb	23:48:26
1	Tl 190.801†	-108.0	8.8	1.0752	µg/L	1.0752	ppb	23:48:46
1	U 409.014†	-383.9	-113.4	-6.6898	µg/L	-6.6898	ppb	23:48:26
1	V 292.402†	195.1	-209.0	-1.0288	µg/L	-1.0288	ppb	23:48:26
1	Zn 213.857†	592.8	27.4	0.1540	µg/L	0.1540	ppb	23:48:46
2	Sc RADIAL	142955.7	142955.7	98.0	%			23:47:38
2	Al 396.153Radial†	-78.4	-16.8	-3.1397	µg/L	-3.1397	ppb	23:47:58
2	Ca 317.933Radial†	568.8	20.0	1.1154	µg/L	1.1154	ppb	23:47:58
2	Fe 238.204 Radial†	246.3	103.3	6.3692	µg/L	6.3692	ppb	23:47:58
2	K 766.490 Radial†	1462.0	-52.3	-19.161	µg/L	-19.161	ppb	23:47:38
2	Mg 279.077 IEC†	183.1	-3.8	-1.4109	µg/L	-1.4109	ppb	23:47:58
2	Na 589.592 Radial†	1236.3	-28.8	-3.9154	µg/L	-3.9154	ppb	23:47:38
2	Sr 421.552†	-279.2	-149.7	-0.3112	µg/L	-0.3112	ppb	23:47:38
2	Sc 361.383	1746509.7	1746509.7	101.65	%			23:48:48
2	Y 371.029	1042959.8	1042959.8	101.58	%			23:48:48
2	Ag 328.068†	4265.0	104.5	0.3736	µg/L	0.3736	ppb	23:48:50
2	As 188.979†	-11.7	8.8	2.6655	µg/L	2.6655	ppb	23:49:10
2	B 249.677†	3506.2	-56.5	-0.8332	µg/L	-0.8332	ppb	23:48:50
2	Ba 233.527†	-121.9	16.0	0.0640	µg/L	0.0640	ppb	23:49:10
2	Be 313.107†	-723.9	352.5	0.0944	µg/L	0.0944	ppb	23:48:50
2	Cd 226.502†	-117.5	2.6	0.0156	µg/L	0.0156	ppb	23:49:10
2	Co 228.616†	-180.5	12.8	0.1572	µg/L	0.1572	ppb	23:49:10
2	Cr 267.716†	177.3	-4.1	-0.0284	µg/L	-0.0284	ppb	23:49:10
2	Cu 324.752†	3022.2	1.1	0.0009	µg/L	0.0009	ppb	23:48:50
2	Mn 257.610†	312.9	70.6	0.0874	µg/L	0.0874	ppb	23:49:10
2	Mo 202.031†	-8.4	11.8	0.3482	µg/L	0.3482	ppb	23:49:10
2	Ni 231.604†	-112.1	-33.8	-0.3893	µg/L	-0.3893	ppb	23:49:10
2	P 214.914†	-28.4	-10.0	-2.1529	µg/L	-2.1529	ppb	23:49:10
2	Pb 220.353†	61.6	-25.8	-1.4338	µg/L	-1.4338	ppb	23:49:10

2	S 181.975 Axial†	110.6	3.7	2.7632 µg/L	2.7632 ppb		23:49:10
2	Sb 206.836†	80.8	-1.3	-0.1519 µg/L	-0.1519 ppb		23:49:10
2	Se 196.026†	7.2	-8.2	-2.97 µg/L	-2.97 ppb		23:49:10
2	SiO2†	1816.0	11.2	1.0819 µg/L	1.0819 ppb		23:49:10
2	Si 251.611†	1081.7	227.6	3.3494 µg/L	3.3494 ppb		23:48:50
2	Sn 189.927†	2.0	3.1	0.1923 µg/L	0.1923 ppb		23:49:10
2	Ti 334.940†	932.7	-34.9	-0.0304 µg/L	-0.0304 ppb		23:48:50
2	Tl 190.801†	-106.3	12.1	1.4842 µg/L	1.4842 ppb		23:49:10
2	U 409.014†	-364.3	-88.6	-5.2117 µg/L	-5.2117 ppb		23:48:50
2	V 292.402†	290.2	-118.3	-0.5776 µg/L	-0.5776 ppb		23:48:50
2	Zn 213.857†	597.7	23.6	0.1343 µg/L	0.1343 ppb		23:49:10
3	Sc RADIAL	142060.8	142060.8	97.3 %			23:48:00
3	Al 396.153Radial†	-74.7	-13.5	-2.5097 µg/L	-2.5097 ppb		23:48:20
3	Ca 317.933Radial†	575.1	30.2	1.6799 µg/L	1.6799 ppb		23:48:20
3	Fe 238.204 Radial†	223.1	81.1	4.9991 µg/L	4.9991 ppb		23:48:20
3	K 766.490 Radial†	1632.6	132.3	48.447 µg/L	48.447 ppb		23:48:00
3	Mg 279.077 IEC†	208.7	23.7	8.8315 µg/L	8.8315 ppb		23:48:20
3	Na 589.592 Radial†	1308.6	53.4	7.2507 µg/L	7.2507 ppb		23:48:00
3	Sr 421.552†	-258.5	-130.3	-0.2709 µg/L	-0.2709 ppb		23:48:00
3	Sc 361.383	1726289.1	1726289.1	100.47 %			23:49:12
3	Y 371.029	1031437.7	1031437.7	100.46 %			23:49:12
3	Ag 328.068†	4170.2	59.3	0.2058 µg/L	0.2058 ppb		23:49:14
3	As 188.979†	-17.6	2.8	0.8598 µg/L	0.8598 ppb		23:49:34
3	B 249.677†	3575.5	52.9	0.7802 µg/L	0.7802 ppb		23:49:14
3	Ba 233.527†	-111.6	24.8	0.0994 µg/L	0.0994 ppb		23:49:34
3	Be 313.107†	-874.1	194.7	0.0518 µg/L	0.0518 ppb		23:49:14
3	Cd 226.502†	-142.0	-23.1	-0.1448 µg/L	-0.1448 ppb		23:49:34
3	Co 228.616†	-193.8	-2.6	-0.0317 µg/L	-0.0317 ppb		23:49:34
3	Cr 267.716†	191.0	11.5	0.0933 µg/L	0.0933 ppb		23:49:34
3	Cu 324.752†	2976.0	-10.1	-0.0417 µg/L	-0.0417 ppb		23:49:14
3	Mn 257.610†	330.2	91.4	0.1127 µg/L	0.1127 ppb		23:49:34
3	Mo 202.031†	-17.5	2.7	0.0796 µg/L	0.0796 ppb		23:49:34
3	Ni 231.604†	-80.8	-3.9	-0.0446 µg/L	-0.0446 ppb		23:49:34
3	P 214.914†	-31.6	-13.5	-2.8878 µg/L	-2.8878 ppb		23:49:34
3	Pb 220.353†	72.3	-14.4	-0.8013 µg/L	-0.8013 ppb		23:49:34
3	S 181.975 Axial†	108.9	3.3	2.4479 µg/L	2.4479 ppb		23:49:34
3	Sb 206.836†	90.6	9.4	1.1111 µg/L	1.1111 ppb		23:49:34
3	Se 196.026†	27.8	12.4	4.47 µg/L	4.47 ppb		23:49:34
3	SiO2†	1848.9	64.9	6.3403 µg/L	6.3403 ppb		23:49:34
3	Si 251.611†	1214.9	372.7	5.4917 µg/L	5.4917 ppb		23:49:14
3	Sn 189.927†	3.0	4.1	0.2558 µg/L	0.2558 ppb		23:49:34
3	Ti 334.940†	1155.8	197.9	0.1859 µg/L	0.1859 ppb		23:49:14
3	Tl 190.801†	-94.9	22.3	2.7336 µg/L	2.7336 ppb		23:49:34
3	U 409.014†	-341.4	-69.9	-4.1301 µg/L	-4.1301 ppb		23:49:14
3	V 292.402†	256.5	-148.5	-0.7266 µg/L	-0.7266 ppb		23:49:14
3	Zn 213.857†	589.1	22.0	0.1232 µg/L	0.1232 ppb		23:49:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1731288.6	100.76	%	0.782				0.78%
Sc RADIAL	142718.5	97.8	%	0.40				0.40%
Y 371.029	1034796.7	100.79	%	0.692				0.69%
Ag 328.068†	109.5	0.3897	µg/L	0.19255	0.3897	ppb	0.19255	49.40%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.1	-0.7694	µg/L	3.57387	-0.7694	ppb	3.57387	464.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.0	1.5030	µg/L	1.00867	1.5030	ppb	1.00867	67.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	24.1	0.3557	µg/L	1.04358	0.3557	ppb	1.04358	293.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.4	0.0494	µg/L	0.05873	0.0494	ppb	0.05873	118.93%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	110.4	0.0284	µg/L	0.08023	0.0284	ppb	0.08023	282.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	27.7	1.5403	µg/L	0.37512	1.5403	ppb	0.37512	24.35%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-4.9	-0.0313	µg/L	0.09882	-0.0313	ppb	0.09882	315.68%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.0	0.1102	µg/L	0.12522	0.1102	ppb	0.12522	113.62%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                2.9      0.0263 µg/L       0.06173      0.0263 ppb        0.06173 234.26%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -20.0     -0.0809 µg/L       0.10696     -0.0809 ppb        0.10696 132.15%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        98.7      6.0847 µg/L       0.97498      6.0847 ppb        0.97498  16.02%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         61.2     22.405 µg/L       36.3791     22.405 ppb        36.3791 162.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            3.4      1.2555 µg/L       6.65627      1.2555 ppb        6.65627 530.18%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               88.4      0.1093 µg/L       0.02047      0.1093 ppb        0.02047  18.73%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                0.6      0.0168 µg/L       0.36692      0.0168 ppb        0.36692 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        43.9      5.9749 µg/L       9.31815      5.9749 ppb        9.31815 155.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -15.2     -0.1754 µg/L       0.18674     -0.1754 ppb        0.18674 106.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -6.1     -1.3129 µg/L       2.12332     -1.3129 ppb        2.12332 161.72%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -9.6     -0.5310 µg/L       1.06398     -0.5310 ppb        1.06398 200.37%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.9      0.6891 µg/L       3.32317      0.6891 ppb        3.32317 482.25%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                6.3      0.7484 µg/L       0.78460      0.7484 ppb        0.78460 104.84%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.2       0.441 µg/L        3.7613       0.441 ppb         3.7613 853.72%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     44.6      4.3586 µg/L       2.85844      4.3586 ppb        2.85844  65.58%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              289.7      4.2683 µg/L       1.10310      4.2683 ppb        1.10310  25.84%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.3      0.3280 µg/L       0.18288      0.3280 ppb        0.18288  55.75%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -122.4     -0.2545 µg/L       0.06637     -0.2545 ppb        0.06637  26.08%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               52.0      0.0507 µg/L       0.11782      0.0507 ppb        0.11782 232.33%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               14.4      1.7643 µg/L       0.86396      1.7643 ppb        0.86396  48.97%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -90.6     -5.3439 µg/L       1.28496     -5.3439 ppb        1.28496  24.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -158.6     -0.7777 µg/L       0.22990     -0.7777 ppb        0.22990  29.56%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               24.3      0.1372 µg/L       0.01563      0.1372 ppb        0.01563  11.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 128
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/1/2010 0:02:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142272.6	142272.6	97.5	%			00:02:55
1	Al 396.153Radial†	25834.9	26562.2	4902.5	µg/L	4902.5	ppb	00:02:55
1	Ca 317.933Radial†	85088.7	86715.4	4830.4	µg/L	4830.4	ppb	00:02:55
1	Fe 238.204 Radial†	76256.0	78068.0	4811.6	µg/L	4811.6	ppb	00:02:55
1	K 766.490 Radial†	14327.9	13151.4	4811.0	µg/L	4811.0	ppb	00:02:55
1	Mg 279.077 IEC†	13155.4	13302.9	4964.0	µg/L	4964.0	ppb	00:02:55
1	Na 589.592 Radial†	69875.1	70380.5	9610.5	µg/L	9610.5	ppb	00:02:55
1	Sr 421.552†	226540.9	232499.5	483.31	µg/L	483.31	ppb	00:02:53
1	Sc 361.383	1723344.7	1723344.7	100.30	%			00:03:22
1	Y 371.029	1018123.7	1018123.7	99.166	%			00:03:22
1	Ag 328.068†	131945.7	127461.8	477.92	µg/L	477.92	ppb	00:03:22
1	As 188.979†	1604.1	1619.7	496.75	µg/L	496.75	ppb	00:03:42
1	B 249.677†	35591.1	31979.3	469.98	µg/L	469.98	ppb	00:03:22
1	Ba 233.527†	118724.6	118507.2	477.94	µg/L	477.94	ppb	00:03:22
1	Be 313.107†	1771703.0	1767496.7	481.39	µg/L	481.39	ppb	00:03:22
1	Cd 226.502†	76335.7	76226.8	475.84	µg/L	475.84	ppb	00:03:22
1	Co 228.616†	38760.4	38835.4	479.42	µg/L	479.42	ppb	00:03:22
1	Cr 267.716†	60900.3	60540.6	474.03	µg/L	474.03	ppb	00:03:22
1	Cu 324.752†	125251.0	121906.2	475.23	µg/L	475.23	ppb	00:03:22
1	Mn 257.610†	389076.6	387681.8	479.47	µg/L	479.47	ppb	00:03:22
1	Mo 202.031†	16257.1	16228.8	477.38	µg/L	477.38	ppb	00:03:42
1	Ni 231.604†	41472.4	41425.6	476.99	µg/L	476.99	ppb	00:03:22
1	P 214.914†	11164.5	11149.2	2376.4	µg/L	2376.4	ppb	00:03:42
1	Pb 220.353†	8662.0	8549.9	478.80	µg/L	478.80	ppb	00:03:42
1	S 181.975 Axial†	1361.8	1252.7	934.24	µg/L	934.24	ppb	00:03:42
1	Sb 206.836†	4090.1	3997.1	476.28	µg/L	476.28	ppb	00:03:42
1	Se 196.026†	1338.2	1318.9	479	µg/L	479	ppb	00:03:42
1	SiO2†	54668.7	52730.7	5133.5	µg/L	5133.5	ppb	00:03:22
1	Si 251.611†	165532.9	164203.9	2411.3	µg/L	2411.3	ppb	00:03:22
1	Sn 189.927†	7662.0	7640.4	477.90	µg/L	477.90	ppb	00:03:42
1	Ti 334.940†	512908.7	510430.3	476.26	µg/L	476.26	ppb	00:03:22
1	Tl 190.801†	3797.9	3903.2	486.73	µg/L	486.73	ppb	00:03:42
1	U 409.014†	7179.6	7428.1	463.23	µg/L	463.23	ppb	00:03:22
1	V 292.402†	97641.8	96947.5	479.26	µg/L	479.26	ppb	00:03:22
1	Zn 213.857†	85689.4	84870.1	473.01	µg/L	473.01	ppb	00:03:22
2	Sc RADIAL	141674.6	141674.6	97.1	%			00:02:59
2	Al 396.153Radial†	25757.6	26594.5	4908.2	µg/L	4908.2	ppb	00:02:59
2	Ca 317.933Radial†	84226.0	86195.1	4801.4	µg/L	4801.4	ppb	00:02:59
2	Fe 238.204 Radial†	75439.4	77557.1	4780.1	µg/L	4780.1	ppb	00:02:59
2	K 766.490 Radial†	14248.6	13131.7	4803.8	µg/L	4803.8	ppb	00:02:59
2	Mg 279.077 IEC†	12899.8	13096.5	4887.2	µg/L	4887.2	ppb	00:02:59
2	Na 589.592 Radial†	69141.1	69926.9	9548.6	µg/L	9548.6	ppb	00:02:59
2	Sr 421.552†	226612.3	233553.9	485.51	µg/L	485.51	ppb	00:02:57
2	Sc 361.383	1708258.8	1708258.8	99.420	%			00:03:45
2	Y 371.029	1010097.1	1010097.1	98.384	%			00:03:45
2	Ag 328.068†	130950.0	127622.0	478.53	µg/L	478.53	ppb	00:03:45
2	As 188.979†	1596.3	1626.0	498.65	µg/L	498.65	ppb	00:04:05
2	B 249.677†	35330.7	32030.8	470.74	µg/L	470.74	ppb	00:03:45
2	Ba 233.527†	117712.3	118534.4	478.05	µg/L	478.05	ppb	00:03:45
2	Be 313.107†	1753739.6	1765028.3	480.72	µg/L	480.72	ppb	00:03:45
2	Cd 226.502†	75285.2	75842.3	473.44	µg/L	473.44	ppb	00:03:45
2	Co 228.616†	38223.9	38637.1	476.98	µg/L	476.98	ppb	00:03:45
2	Cr 267.716†	60168.0	60340.2	472.45	µg/L	472.45	ppb	00:03:45
2	Cu 324.752†	124409.3	122162.4	476.22	µg/L	476.22	ppb	00:03:45
2	Mn 257.610†	385236.3	387244.9	478.93	µg/L	478.93	ppb	00:03:45
2	Mo 202.031†	16271.7	16386.7	482.02	µg/L	482.02	ppb	00:04:05
2	Ni 231.604†	41015.7	41331.3	475.90	µg/L	475.90	ppb	00:03:45
2	P 214.914†	11176.6	11259.7	2400.0	µg/L	2400.0	ppb	00:04:05
2	Pb 220.353†	8757.4	8722.1	488.42	µg/L	488.42	ppb	00:04:05

2	S 181.975 Axial†	1369.4	1272.3	948.85 µg/L	948.85 ppb	00:04:05
2	Sb 206.836†	4104.3	4047.4	482.36 µg/L	482.36 ppb	00:04:05
2	Se 196.026†	1334.2	1326.7	482 µg/L	482 ppb	00:04:05
2	SiO2†	54367.2	52908.8	5150.7 µg/L	5150.7 ppb	00:03:45
2	Si 251.611†	164236.7	164357.7	2413.5 µg/L	2413.5 ppb	00:03:45
2	Sn 189.927†	7684.5	7730.4	483.52 µg/L	483.52 ppb	00:04:05
2	Ti 334.940†	509083.5	511098.8	476.89 µg/L	476.89 ppb	00:03:45
2	Tl 190.801†	3778.4	3917.1	488.46 µg/L	488.46 ppb	00:04:05
2	U 409.014†	7230.8	7542.9	469.95 µg/L	469.95 ppb	00:03:45
2	V 292.402†	96807.6	96968.1	479.41 µg/L	479.41 ppb	00:03:45
2	Zn 213.857†	85025.4	84956.7	473.50 µg/L	473.50 ppb	00:03:45
3	Sc RADIAL	141547.4	141547.4	97.0 %		00:03:03
3	Al 396.153Radial†	25657.4	26515.0	4893.6 µg/L	4893.6 ppb	00:03:03
3	Ca 317.933Radial†	84401.5	86454.0	4815.8 µg/L	4815.8 ppb	00:03:03
3	Fe 238.204 Radial†	75869.9	78070.8	4811.8 µg/L	4811.8 ppb	00:03:03
3	K 766.490 Radial†	14363.1	13263.0	4851.8 µg/L	4851.8 ppb	00:03:03
3	Mg 279.077 IEC†	13049.5	13262.8	4949.1 µg/L	4949.1 ppb	00:03:03
3	Na 589.592 Radial†	69248.3	70101.5	9572.4 µg/L	9572.4 ppb	00:03:03
3	Sr 421.552†	225485.7	232602.1	483.53 µg/L	483.53 ppb	00:03:01
3	Sc 361.383	1723903.5	1723903.5	100.33 %		00:04:08
3	Y 371.029	1019569.4	1019569.4	99.307 %		00:04:08
3	Ag 328.068†	132444.2	127916.0	479.62 µg/L	479.62 ppb	00:04:08
3	As 188.979†	1613.5	1628.6	499.46 µg/L	499.46 ppb	00:04:28
3	B 249.677†	35582.2	31958.9	469.67 µg/L	469.67 ppb	00:04:08
3	Ba 233.527†	119047.5	118790.7	479.08 µg/L	479.08 ppb	00:04:08
3	Be 313.107†	1772270.1	1767489.4	481.39 µg/L	481.39 ppb	00:04:08
3	Cd 226.502†	76487.5	76353.5	476.63 µg/L	476.63 ppb	00:04:08
3	Co 228.616†	38833.9	38896.2	480.17 µg/L	480.17 ppb	00:04:08
3	Cr 267.716†	61033.0	60653.2	474.91 µg/L	474.91 ppb	00:04:08
3	Cu 324.752†	125468.6	122082.6	475.91 µg/L	475.91 ppb	00:04:08
3	Mn 257.610†	389266.3	387745.1	479.55 µg/L	479.55 ppb	00:04:08
3	Mo 202.031†	16339.7	16305.9	479.65 µg/L	479.65 ppb	00:04:28
3	Ni 231.604†	41581.8	41521.1	478.09 µg/L	478.09 ppb	00:04:08
3	P 214.914†	11255.6	11236.5	2395.1 µg/L	2395.1 ppb	00:04:28
3	Pb 220.353†	8754.3	8639.1	483.78 µg/L	483.78 ppb	00:04:28
3	S 181.975 Axial†	1381.4	1271.8	948.44 µg/L	948.44 ppb	00:04:28
3	Sb 206.836†	4114.1	4019.7	478.99 µg/L	478.99 ppb	00:04:28
3	Se 196.026†	1349.5	1329.8	483 µg/L	483 ppb	00:04:28
3	SiO2†	54853.6	52897.3	5149.7 µg/L	5149.7 ppb	00:04:08
3	Si 251.611†	165883.5	164499.8	2415.6 µg/L	2415.6 ppb	00:04:08
3	Sn 189.927†	7726.9	7702.6	481.78 µg/L	481.78 ppb	00:04:28
3	Ti 334.940†	513749.8	511102.8	476.89 µg/L	476.89 ppb	00:04:08
3	Tl 190.801†	3835.7	3939.7	491.22 µg/L	491.22 ppb	00:04:28
3	U 409.014†	7224.4	7470.4	465.75 µg/L	465.75 ppb	00:04:08
3	V 292.402†	97852.6	97126.1	480.16 µg/L	480.16 ppb	00:04:08
3	Zn 213.857†	85877.0	85029.4	473.89 µg/L	473.89 ppb	00:04:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1718502.3	100.02	%	0.517				0.52%
Sc RADIAL	141831.6	97.2	%	0.27				0.27%
Y 371.029	1015930.0	98.952	%	0.4970				0.50%
Ag 328.068†	127666.6	478.69	µg/L	0.860	478.69	ppb	0.860	0.18%
QC value within limits for Ag 328.068 Recovery = 95.74%								
Al 396.153Radial†	26557.2	4901.4	µg/L	7.37	4901.4	ppb	7.37	0.15%
QC value within limits for Al 396.153Radial Recovery = 98.03%								
As 188.979†	1624.7	498.29	µg/L	1.393	498.29	ppb	1.393	0.28%
QC value within limits for As 188.979 Recovery = 99.66%								
B 249.677†	31989.7	470.13	µg/L	0.552	470.13	ppb	0.552	0.12%
QC value within limits for B 249.677 Recovery = 94.03%								
Ba 233.527†	118610.7	478.35	µg/L	0.631	478.35	ppb	0.631	0.13%
QC value within limits for Ba 233.527 Recovery = 95.67%								
Be 313.107†	1766671.5	481.16	µg/L	0.387	481.16	ppb	0.387	0.08%
QC value within limits for Be 313.107 Recovery = 96.23%								
Ca 317.933Radial†	86454.8	4815.9	µg/L	14.49	4815.9	ppb	14.49	0.30%
QC value within limits for Ca 317.933Radial Recovery = 96.32%								
Cd 226.502†	76140.8	475.30	µg/L	1.661	475.30	ppb	1.661	0.35%
QC value within limits for Cd 226.502 Recovery = 95.06%								
Co 228.616†	38789.5	478.86	µg/L	1.671	478.86	ppb	1.671	0.35%

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   QC value within limits for Co 228.616  Recovery = 95.77%
Cr 267.716†            60511.3      473.80 µg/L         1.244      473.80 ppb          1.244   0.26%
   QC value within limits for Cr 267.716  Recovery = 94.76%
Cu 324.752†           122050.4      475.79 µg/L         0.509      475.79 ppb          0.509   0.11%
   QC value within limits for Cu 324.752  Recovery = 95.16%
Fe 238.204 Radial†     77898.6      4801.2 µg/L         18.23      4801.2 ppb          18.23   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.02%
K 766.490 Radial†      13182.1      4822.2 µg/L         25.92      4822.2 ppb          25.92   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 96.44%
Mg 279.077 IEC†        13220.7      4933.4 µg/L         40.70      4933.4 ppb          40.70   0.82%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.67%
Mn 257.610†           387557.3      479.32 µg/L         0.335      479.32 ppb          0.335   0.07%
   QC value within limits for Mn 257.610  Recovery = 95.86%
Mo 202.031†            16307.1      479.68 µg/L         2.318      479.68 ppb          2.318   0.48%
   QC value within limits for Mo 202.031  Recovery = 95.94%
Na 589.592 Radial†     70136.3      9577.2 µg/L         31.25      9577.2 ppb          31.25   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 95.77%
Ni 231.604†            41426.0      476.99 µg/L         1.093      476.99 ppb          1.093   0.23%
   QC value within limits for Ni 231.604  Recovery = 95.40%
P 214.914†             11215.1      2390.5 µg/L         12.46      2390.5 ppb          12.46   0.52%
   QC value within limits for P 214.914  Recovery = 95.62%
Pb 220.353†             8637.0      483.66 µg/L         4.812      483.66 ppb          4.812   0.99%
   QC value within limits for Pb 220.353  Recovery = 96.73%
S 181.975 Axial†        1265.6      943.84 µg/L         8.319      943.84 ppb          8.319   0.88%
   QC value within limits for S 181.975 Axial  Recovery = 94.38%
Sb 206.836†             4021.4      479.21 µg/L         3.045      479.21 ppb          3.045   0.64%
   QC value within limits for Sb 206.836  Recovery = 95.84%
Se 196.026†             1325.1         481 µg/L           2.0         481 ppb            2.0   0.42%
   QC value within limits for Se 196.026  Recovery = 96.23%
SiO2†                  52845.6      5144.6 µg/L          9.64      5144.6 ppb           9.64   0.19%
   QC value within limits for SiO2  Recovery = 96.21%
Si 251.611†           164353.8      2413.5 µg/L          2.15      2413.5 ppb           2.15   0.09%
   QC value within limits for Si 251.611  Recovery = 96.54%
Sn 189.927†             7691.1      481.07 µg/L         2.875      481.07 ppb          2.875   0.60%
   QC value within limits for Sn 189.927  Recovery = 96.21%
Sr 421.552†           232885.1      484.12 µg/L         1.209      484.12 ppb          1.209   0.25%
   QC value within limits for Sr 421.552  Recovery = 96.82%
Ti 334.940†           510877.3      476.68 µg/L         0.363      476.68 ppb          0.363   0.08%
   QC value within limits for Ti 334.940  Recovery = 95.34%
Tl 190.801†             3920.0      488.80 µg/L         2.267      488.80 ppb          2.267   0.46%
   QC value within limits for Tl 190.801  Recovery = 97.76%
U 409.014†              7480.5      466.31 µg/L         3.394      466.31 ppb          3.394   0.73%
   QC value within limits for U 409.014  Recovery = 93.26%
V 292.402†             97013.9      479.61 µg/L         0.482      479.61 ppb          0.482   0.10%
   QC value within limits for V 292.402  Recovery = 95.92%
Zn 213.857†            84952.0      473.47 µg/L         0.445      473.47 ppb          0.445   0.09%
   QC value within limits for Zn 213.857  Recovery = 94.69%
All analyte(s) passed QC.
```

Sequence No.: 129 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 4/1/2010 0:04:36**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143892.3	143892.3	98.6	%			00:05:07
1	Al 396.153Radial†	-53.6	8.8	1.6408	µg/L	1.6408	ppb	00:05:27
1	Ca 317.933Radial†	596.6	44.5	2.4784	µg/L	2.4784	ppb	00:05:27
1	Fe 238.204 Radial†	205.5	60.3	3.7183	µg/L	3.7183	ppb	00:05:27
1	K 766.490 Radial†	1617.6	95.8	35.061	µg/L	35.061	ppb	00:05:07
1	Mg 279.077 IEC†	160.3	-28.1	-10.484	µg/L	-10.484	ppb	00:05:27
1	Na 589.592 Radial†	1235.1	-38.2	-5.2555	µg/L	-5.2555	ppb	00:05:07
1	Sr 421.552†	-186.7	-54.0	-0.1123	µg/L	-0.1123	ppb	00:05:07
1	Sc 361.383	1744559.9	1744559.9	101.53	%			00:06:14
1	Y 371.029	1042741.7	1042741.7	101.56	%			00:06:14
1	Ag 328.068†	4186.7	32.1	0.1193	µg/L	0.1193	ppb	00:06:17
1	As 188.979†	-18.7	2.0	0.5980	µg/L	0.5980	ppb	00:06:37
1	B 249.677†	3571.6	11.8	0.1730	µg/L	0.1730	ppb	00:06:17
1	Ba 233.527†	-139.2	-1.2	-0.0046	µg/L	-0.0046	ppb	00:06:37
1	Be 313.107†	-1043.9	36.6	0.0085	µg/L	0.0085	ppb	00:06:17
1	Cd 226.502†	-108.8	11.0	0.0685	µg/L	0.0685	ppb	00:06:37
1	Co 228.616†	-174.1	18.9	0.2327	µg/L	0.2327	ppb	00:06:37
1	Cr 267.716†	183.3	2.0	0.0199	µg/L	0.0199	ppb	00:06:37
1	Cu 324.752†	3077.4	58.7	0.2245	µg/L	0.2245	ppb	00:06:17
1	Mn 257.610†	338.8	96.5	0.1197	µg/L	0.1197	ppb	00:06:37
1	Mo 202.031†	-20.8	-0.4	-0.0123	µg/L	-0.0123	ppb	00:06:37
1	Ni 231.604†	-93.1	-15.2	-0.1747	µg/L	-0.1747	ppb	00:06:37
1	P 214.914†	-36.4	-17.9	-3.8259	µg/L	-3.8259	ppb	00:06:37
1	Pb 220.353†	57.3	-30.0	-1.6686	µg/L	-1.6686	ppb	00:06:37
1	S 181.975 Axial†	88.1	-18.3	-13.601	µg/L	-13.601	ppb	00:06:37
1	Sb 206.836†	79.5	-2.5	-0.2998	µg/L	-0.2998	ppb	00:06:37
1	Se 196.026†	9.3	-6.1	-2.21	µg/L	-2.21	ppb	00:06:37
1	SiO2†	1791.0	-11.4	-1.1250	µg/L	-1.1250	ppb	00:06:37
1	Si 251.611†	1010.1	158.3	2.3292	µg/L	2.3292	ppb	00:06:17
1	Sn 189.927†	11.2	12.2	0.7593	µg/L	0.7593	ppb	00:06:37
1	Ti 334.940†	1000.8	33.1	0.0339	µg/L	0.0339	ppb	00:06:17
1	Tl 190.801†	-110.0	8.4	1.0319	µg/L	1.0319	ppb	00:06:37
1	U 409.014†	-359.2	-83.8	-4.8714	µg/L	-4.8714	ppb	00:06:17
1	V 292.402†	522.7	111.1	0.5380	µg/L	0.5380	ppb	00:06:17
1	Zn 213.857†	593.2	19.8	0.1119	µg/L	0.1119	ppb	00:06:37
2	Sc RADIAL	143483.1	143483.1	98.3	%			00:05:29
2	Al 396.153Radial†	-16.6	46.3	8.5924	µg/L	8.5924	ppb	00:05:49
2	Ca 317.933Radial†	577.4	26.6	1.4835	µg/L	1.4835	ppb	00:05:49
2	Fe 238.204 Radial†	204.6	60.0	3.6989	µg/L	3.6989	ppb	00:05:49
2	K 766.490 Radial†	1704.3	188.6	69.053	µg/L	69.053	ppb	00:05:29
2	Mg 279.077 IEC†	189.1	1.6	0.6009	µg/L	0.6009	ppb	00:05:49
2	Na 589.592 Radial†	1220.1	-49.9	-6.8835	µg/L	-6.8835	ppb	00:05:29
2	Sr 421.552†	-161.7	-29.2	-0.0607	µg/L	-0.0607	ppb	00:05:29
2	Sc 361.383	1736410.2	1736410.2	101.06	%			00:06:39
2	Y 371.029	1038399.6	1038399.6	101.14	%			00:06:39
2	Ag 328.068†	4135.3	0.6	-0.0060	µg/L	-0.0060	ppb	00:06:41
2	As 188.979†	-19.2	1.4	0.4208	µg/L	0.4208	ppb	00:07:01
2	B 249.677†	3492.1	-50.3	-0.7427	µg/L	-0.7427	ppb	00:06:41
2	Ba 233.527†	-117.3	19.8	0.0792	µg/L	0.0792	ppb	00:07:01
2	Be 313.107†	-747.8	324.8	0.0886	µg/L	0.0886	ppb	00:06:41
2	Cd 226.502†	-105.9	13.4	0.0831	µg/L	0.0831	ppb	00:07:01
2	Co 228.616†	-184.9	7.4	0.0911	µg/L	0.0911	ppb	00:07:01
2	Cr 267.716†	192.3	11.7	0.0910	µg/L	0.0910	ppb	00:07:01
2	Cu 324.752†	2966.8	-36.5	-0.1408	µg/L	-0.1408	ppb	00:06:41
2	Mn 257.610†	298.6	58.2	0.0720	µg/L	0.0720	ppb	00:07:01
2	Mo 202.031†	-25.8	-5.5	-0.1614	µg/L	-0.1614	ppb	00:07:01
2	Ni 231.604†	-94.3	-16.8	-0.1933	µg/L	-0.1933	ppb	00:07:01
2	P 214.914†	-43.0	-24.6	-5.2673	µg/L	-5.2673	ppb	00:07:01
2	Pb 220.353†	50.6	-36.3	-2.0267	µg/L	-2.0267	ppb	00:07:01

2	S 181.975 Axial†	98.0	-8.1	-5.9976 µg/L	-5.9976 ppb	00:07:01
2	Sb 206.836†	73.1	-8.5	-1.0121 µg/L	-1.0121 ppb	00:07:01
2	Se 196.026†	7.4	-8.0	-2.88 µg/L	-2.88 ppb	00:07:01
2	SiO2†	1801.8	7.6	0.7460 µg/L	0.7460 ppb	00:07:01
2	Si 251.611†	1048.9	201.3	2.9711 µg/L	2.9711 ppb	00:06:41
2	Sn 189.927†	-3.4	-2.2	-0.1383 µg/L	-0.1383 ppb	00:07:01
2	Ti 334.940†	957.4	-5.2	-0.0051 µg/L	-0.0051 ppb	00:06:41
2	Tl 190.801†	-118.7	-0.7	-0.0961 µg/L	-0.0961 ppb	00:07:01
2	U 409.014†	-264.8	7.9	0.4182 µg/L	0.4182 ppb	00:06:41
2	V 292.402†	254.9	-151.6	-0.7409 µg/L	-0.7409 ppb	00:06:41
2	Zn 213.857†	612.2	41.4	0.2335 µg/L	0.2335 ppb	00:07:01
3	Sc RADIAL	142535.7	142535.7	97.7 %		00:05:51
3	Al 396.153Radial†	-83.5	-22.3	-4.1548 µg/L	-4.1548 ppb	00:06:11
3	Ca 317.933Radial†	597.4	51.0	2.8434 µg/L	2.8434 ppb	00:06:11
3	Fe 238.204 Radial†	191.0	47.4	2.9218 µg/L	2.9218 ppb	00:06:11
3	K 766.490 Radial†	1524.6	16.2	5.9151 µg/L	5.9151 ppb	00:05:51
3	Mg 279.077 IEC†	219.6	34.1	12.715 µg/L	12.715 ppb	00:06:11
3	Na 589.592 Radial†	1205.9	-56.2	-7.6775 µg/L	-7.6775 ppb	00:05:51
3	Sr 421.552†	-165.9	-34.5	-0.0718 µg/L	-0.0718 ppb	00:05:51
3	Sc 361.383	1751391.9	1751391.9	101.93 %		00:07:03
3	Y 371.029	1047163.4	1047163.4	101.99 %		00:07:03
3	Ag 328.068†	4086.1	-82.7	-0.3037 µg/L	-0.3037 ppb	00:07:05
3	As 188.979†	-20.4	0.3	0.0989 µg/L	0.0989 ppb	00:07:25
3	B 249.677†	3537.9	-35.0	-0.5172 µg/L	-0.5172 ppb	00:07:05
3	Ba 233.527†	-136.9	1.6	0.0063 µg/L	0.0063 ppb	00:07:25
3	Be 313.107†	-940.8	141.7	0.0400 µg/L	0.0400 ppb	00:07:05
3	Cd 226.502†	-99.2	20.8	0.1299 µg/L	0.1299 ppb	00:07:25
3	Co 228.616†	-163.1	30.3	0.3737 µg/L	0.3737 ppb	00:07:25
3	Cr 267.716†	180.0	-1.9	-0.0191 µg/L	-0.0191 ppb	00:07:25
3	Cu 324.752†	2988.8	-40.1	-0.1508 µg/L	-0.1508 ppb	00:07:05
3	Mn 257.610†	300.0	57.1	0.0701 µg/L	0.0701 ppb	00:07:25
3	Mo 202.031†	-9.2	11.0	0.3249 µg/L	0.3249 ppb	00:07:25
3	Ni 231.604†	-68.4	9.4	0.1086 µg/L	0.1086 ppb	00:07:25
3	P 214.914†	-25.2	-6.8	-1.4485 µg/L	-1.4485 ppb	00:07:25
3	Pb 220.353†	102.3	13.9	0.7747 µg/L	0.7747 ppb	00:07:25
3	S 181.975 Axial†	101.0	-6.0	-4.4167 µg/L	-4.4167 ppb	00:07:25
3	Sb 206.836†	94.0	11.4	1.3649 µg/L	1.3649 ppb	00:07:25
3	Se 196.026†	14.1	-1.5	-0.521 µg/L	-0.521 ppb	00:07:25
3	SiO2†	1807.8	-1.8	-0.1882 µg/L	-0.1882 ppb	00:07:25
3	Si 251.611†	933.4	79.1	1.1603 µg/L	1.1603 ppb	00:07:05
3	Sn 189.927†	4.0	5.0	0.3117 µg/L	0.3117 ppb	00:07:25
3	Ti 334.940†	864.7	-104.2	-0.1002 µg/L	-0.1002 ppb	00:07:05
3	Tl 190.801†	-114.3	4.5	0.5538 µg/L	0.5538 ppb	00:07:25
3	U 409.014†	-194.1	79.5	4.6318 µg/L	4.6318 ppb	00:07:05
3	V 292.402†	357.1	-53.4	-0.2545 µg/L	-0.2545 ppb	00:07:05
3	Zn 213.857†	596.1	20.4	0.1133 µg/L	0.1133 ppb	00:07:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1744120.7	101.51	%	0.437				0.43%
Sc RADIAL	143303.7	98.2	%	0.48				0.49%
Y 371.029	1042768.2	101.57	%	0.427				0.42%
Ag 328.068†	-16.6	-0.0635	µg/L	0.21725	-0.0635	ppb	0.21725	342.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.9	2.0261	µg/L	6.38236	2.0261	ppb	6.38236	315.00%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	0.3726	µg/L	0.25303	0.3726	ppb	0.25303	67.91%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-24.5	-0.3623	µg/L	0.47710	-0.3623	ppb	0.47710	131.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.7	0.0270	µg/L	0.04553	0.0270	ppb	0.04553	168.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	167.7	0.0457	µg/L	0.04035	0.0457	ppb	0.04035	88.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	40.7	2.2684	µg/L	0.70382	2.2684	ppb	0.70382	31.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	15.1	0.0938	µg/L	0.03210	0.0938	ppb	0.03210	34.21%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.9	0.2325	µg/L	0.14130	0.2325	ppb	0.14130	60.78%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                3.9      0.0306 µg/L       0.05579      0.0306 ppb        0.05579 182.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -5.9     -0.0224 µg/L       0.21387     -0.0224 ppb        0.21387 955.96%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        55.9      3.4463 µg/L       0.45435      3.4463 ppb        0.45435  13.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        100.2     36.676 µg/L       31.5999     36.676 ppb        31.5999  86.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.5      0.9439 µg/L      11.60357      0.9439 ppb       11.60357 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               70.6      0.0873 µg/L       0.02814      0.0873 ppb        0.02814  32.24%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.7      0.0504 µg/L       0.24911      0.0504 ppb        0.24911 494.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -48.1     -6.6055 µg/L       1.23471     -6.6055 ppb        1.23471  18.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -7.5     -0.0864 µg/L       0.16920     -0.0864 ppb        0.16920 195.76%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -16.4     -3.5139 µg/L       1.92839     -3.5139 ppb        1.92839  54.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -17.4     -0.9735 µg/L       1.52458     -0.9735 ppb        1.52458 156.60%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -10.8     -8.0052 µg/L       4.91049     -8.0052 ppb        4.91049  61.34%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                0.1      0.0176 µg/L       1.21991      0.0176 ppb        1.21991 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -5.2       -1.87 µg/L         1.214       -1.87 ppb          1.214  64.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -1.9     -0.1891 µg/L       0.93549     -0.1891 ppb        0.93549 494.80%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              146.3      2.1535 µg/L       0.91811      2.1535 ppb        0.91811  42.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.0      0.3109 µg/L       0.44879      0.3109 ppb        0.44879 144.35%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -39.2     -0.0816 µg/L       0.02715     -0.0816 ppb        0.02715  33.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -25.4     -0.0238 µg/L       0.06900     -0.0238 ppb        0.06900 289.80%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.1      0.4965 µg/L       0.56617      0.4965 ppb        0.56617 114.03%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 1.2      0.0595 µg/L       4.76174      0.0595 ppb        4.76174 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -31.3     -0.1525 µg/L       0.64551     -0.1525 ppb        0.64551 423.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               27.2      0.1529 µg/L       0.06978      0.1529 ppb        0.06978  45.64%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 135
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 0:18:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143693.3	143693.3	98.5	%			00:19:06
1	Al 396.153Radial†	26289.1	26761.5	4939.5	µg/L	4939.5	ppb	00:19:06
1	Ca 317.933Radial†	86223.9	87005.4	4846.5	µg/L	4846.5	ppb	00:19:06
1	Fe 238.204 Radial†	77323.2	78378.5	4830.8	µg/L	4830.8	ppb	00:19:06
1	K 766.490 Radial†	14642.3	13325.5	4874.7	µg/L	4874.7	ppb	00:19:06
1	Mg 279.077 IEC†	13274.7	13290.6	4959.3	µg/L	4959.3	ppb	00:19:06
1	Na 589.592 Radial†	70897.3	70710.0	9655.5	µg/L	9655.5	ppb	00:19:06
1	Sr 421.552†	232660.3	236416.7	491.46	µg/L	491.46	ppb	00:19:04
1	Sc 361.383	1732669.7	1732669.7	100.84	%			00:19:19
1	Y 371.029	1023558.0	1023558.0	99.695	%			00:19:19
1	Ag 328.068†	133158.4	127956.3	479.77	µg/L	479.77	ppb	00:19:19
1	As 188.979†	1602.0	1609.0	493.54	µg/L	493.54	ppb	00:19:39
1	B 249.677†	35761.2	31957.0	469.65	µg/L	469.65	ppb	00:19:19
1	Ba 233.527†	119556.3	118694.9	478.69	µg/L	478.69	ppb	00:19:19
1	Be 313.107†	1785943.3	1772111.6	482.65	µg/L	482.65	ppb	00:19:19
1	Cd 226.502†	76830.5	76307.9	476.34	µg/L	476.34	ppb	00:19:19
1	Co 228.616†	38954.2	38819.6	479.23	µg/L	479.23	ppb	00:19:19
1	Cr 267.716†	61438.6	60747.5	475.65	µg/L	475.65	ppb	00:19:19
1	Cu 324.752†	126552.0	122524.2	477.63	µg/L	477.63	ppb	00:19:19
1	Mn 257.610†	392610.6	389098.6	481.22	µg/L	481.22	ppb	00:19:19
1	Mo 202.031†	16258.5	16143.0	474.86	µg/L	474.86	ppb	00:19:39
1	Ni 231.604†	41699.2	41427.9	477.01	µg/L	477.01	ppb	00:19:19
1	P 214.914†	11155.2	11080.1	2361.6	µg/L	2361.6	ppb	00:19:39
1	Pb 220.353†	8723.1	8564.0	479.58	µg/L	479.58	ppb	00:19:39
1	S 181.975 Axial†	1371.1	1254.6	935.65	µg/L	935.65	ppb	00:19:39
1	Sb 206.836†	4108.1	3993.0	475.73	µg/L	475.73	ppb	00:19:39
1	Se 196.026†	1329.1	1302.7	473	µg/L	473	ppb	00:19:39
1	SiO2†	54892.2	52659.0	5126.6	µg/L	5126.6	ppb	00:19:19
1	Si 251.611†	165952.1	163731.3	2404.4	µg/L	2404.4	ppb	00:19:19
1	Sn 189.927†	7677.7	7614.8	476.32	µg/L	476.32	ppb	00:19:39
1	Ti 334.940†	518688.0	513409.1	479.05	µg/L	479.05	ppb	00:19:19
1	Tl 190.801†	3776.5	3861.7	481.67	µg/L	481.67	ppb	00:19:39
1	U 409.014†	7234.1	7443.7	464.23	µg/L	464.23	ppb	00:19:19
1	V 292.402†	98487.7	97262.4	480.77	µg/L	480.77	ppb	00:19:19
1	Zn 213.857†	86132.8	84849.9	472.89	µg/L	472.89	ppb	00:19:19
2	Sc RADIAL	143019.1	143019.1	98.0	%			00:19:11
2	Al 396.153Radial†	26072.5	26666.3	4922.0	µg/L	4922.0	ppb	00:19:11
2	Ca 317.933Radial†	85527.1	86707.1	4829.9	µg/L	4829.9	ppb	00:19:11
2	Fe 238.204 Radial†	76547.8	77957.5	4804.8	µg/L	4804.8	ppb	00:19:11
2	K 766.490 Radial†	14325.9	13072.7	4782.1	µg/L	4782.1	ppb	00:19:11
2	Mg 279.077 IEC†	13110.0	13186.1	4920.4	µg/L	4920.4	ppb	00:19:11
2	Na 589.592 Radial†	70292.2	70432.0	9617.6	µg/L	9617.6	ppb	00:19:11
2	Sr 421.552†	230289.2	235111.2	488.74	µg/L	488.74	ppb	00:19:08
2	Sc 361.383	1739470.1	1739470.1	101.24	%			00:19:42
2	Y 371.029	1026926.3	1026926.3	100.02	%			00:19:42
2	Ag 328.068†	133611.7	127887.8	479.55	µg/L	479.55	ppb	00:19:42
2	As 188.979†	1611.8	1612.5	494.58	µg/L	494.58	ppb	00:20:03
2	B 249.677†	36044.8	32098.6	471.73	µg/L	471.73	ppb	00:19:42
2	Ba 233.527†	120143.8	118811.8	479.16	µg/L	479.16	ppb	00:19:42
2	Be 313.107†	1795420.8	1774549.5	483.31	µg/L	483.31	ppb	00:19:42
2	Cd 226.502†	77193.5	76368.5	476.73	µg/L	476.73	ppb	00:19:42
2	Co 228.616†	39216.7	38927.8	480.56	µg/L	480.56	ppb	00:19:42
2	Cr 267.716†	61736.3	60803.5	476.08	µg/L	476.08	ppb	00:19:42
2	Cu 324.752†	127273.9	122746.7	478.50	µg/L	478.50	ppb	00:19:42
2	Mn 257.610†	394321.6	389266.6	481.43	µg/L	481.43	ppb	00:19:42
2	Mo 202.031†	16252.9	16074.4	472.85	µg/L	472.85	ppb	00:20:03
2	Ni 231.604†	41949.4	41513.4	478.00	µg/L	478.00	ppb	00:19:42
2	P 214.914†	11147.1	11028.9	2350.7	µg/L	2350.7	ppb	00:20:03
2	Pb 220.353†	8700.2	8507.6	476.42	µg/L	476.42	ppb	00:20:03

2	S 181.975 Axial†	1373.5	1251.6	933.42 µg/L	933.42 ppb	00:20:03
2	Sb 206.836†	4110.6	3979.5	474.09 µg/L	474.09 ppb	00:20:03
2	Se 196.026†	1335.2	1303.6	473 µg/L	473 ppb	00:20:03
2	SiO2†	55200.8	52751.0	5135.7 µg/L	5135.7 ppb	00:19:42
2	Si 251.611†	166801.0	163926.5	2407.3 µg/L	2407.3 ppb	00:19:42
2	Sn 189.927†	7667.4	7574.8	473.83 µg/L	473.83 ppb	00:20:03
2	Ti 334.940†	521126.8	513807.3	479.42 µg/L	479.42 ppb	00:19:42
2	Tl 190.801†	3808.6	3878.7	483.77 µg/L	483.77 ppb	00:20:03
2	U 409.014†	7502.8	7681.0	478.15 µg/L	478.15 ppb	00:19:42
2	V 292.402†	99014.7	97401.2	481.44 µg/L	481.44 ppb	00:19:42
2	Zn 213.857†	86840.8	85215.4	474.94 µg/L	474.94 ppb	00:19:42
3	Sc RADIAL	143471.6	143471.6	98.3 %		00:19:15
3	Al 396.153Radial†	26187.7	26699.6	4927.9 µg/L	4927.9 ppb	00:19:15
3	Ca 317.933Radial†	86128.1	87043.2	4848.6 µg/L	4848.6 ppb	00:19:15
3	Fe 238.204 Radial†	76980.1	78150.9	4816.7 µg/L	4816.7 ppb	00:19:15
3	K 766.490 Radial†	14484.8	13188.2	4824.4 µg/L	4824.4 ppb	00:19:15
3	Mg 279.077 IEC†	13105.7	13139.6	4903.2 µg/L	4903.2 ppb	00:19:15
3	Na 589.592 Radial†	70971.5	70896.7	9681.1 µg/L	9681.1 ppb	00:19:15
3	Sr 421.552†	228010.1	232051.9	482.38 µg/L	482.38 ppb	00:19:13
3	Sc 361.383	1723745.5	1723745.5	100.32 %		00:20:06
3	Y 371.029	1018567.1	1018567.1	99.209 %		00:20:06
3	Ag 328.068†	132594.6	128078.0	480.26 µg/L	480.26 ppb	00:20:06
3	As 188.979†	1613.1	1628.3	499.38 µg/L	499.38 ppb	00:20:26
3	B 249.677†	35759.3	32138.8	472.33 µg/L	472.33 ppb	00:20:06
3	Ba 233.527†	118916.1	118670.6	478.60 µg/L	478.60 ppb	00:20:06
3	Be 313.107†	1776332.6	1771700.7	482.54 µg/L	482.54 ppb	00:20:06
3	Cd 226.502†	76456.3	76329.3	476.48 µg/L	476.48 ppb	00:20:06
3	Co 228.616†	38757.5	38823.5	479.27 µg/L	479.27 ppb	00:20:06
3	Cr 267.716†	61060.8	60686.4	475.16 µg/L	475.16 ppb	00:20:06
3	Cu 324.752†	125991.6	122615.4	477.99 µg/L	477.99 ppb	00:20:06
3	Mn 257.610†	390315.2	388826.2	480.89 µg/L	480.89 ppb	00:20:06
3	Mo 202.031†	16307.2	16275.0	478.74 µg/L	478.74 ppb	00:20:26
3	Ni 231.604†	41420.9	41364.6	476.28 µg/L	476.28 ppb	00:20:06
3	P 214.914†	11239.1	11221.0	2391.8 µg/L	2391.8 ppb	00:20:26
3	Pb 220.353†	8736.0	8621.6	482.80 µg/L	482.80 ppb	00:20:26
3	S 181.975 Axial†	1373.7	1264.3	942.85 µg/L	942.85 ppb	00:20:26
3	Sb 206.836†	4128.8	4034.7	480.77 µg/L	480.77 ppb	00:20:26
3	Se 196.026†	1340.4	1320.9	480 µg/L	480 ppb	00:20:26
3	SiO2†	54541.9	52591.7	5119.8 µg/L	5119.8 ppb	00:20:06
3	Si 251.611†	164960.5	163595.0	2402.3 µg/L	2402.3 ppb	00:20:06
3	Sn 189.927†	7724.8	7701.2	481.70 µg/L	481.70 ppb	00:20:26
3	Ti 334.940†	516519.7	513910.8	479.51 µg/L	479.51 ppb	00:20:06
3	Tl 190.801†	3789.6	3894.1	485.67 µg/L	485.67 ppb	00:20:26
3	U 409.014†	7419.9	7666.0	477.31 µg/L	477.31 ppb	00:20:06
3	V 292.402†	98262.8	97543.9	482.19 µg/L	482.19 ppb	00:20:06
3	Zn 213.857†	86081.7	85241.2	475.10 µg/L	475.10 ppb	00:20:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1731961.8	100.80	%	0.459				0.46%
Sc RADIAL	143394.7	98.3	%	0.24				0.24%
Y 371.029	1023017.1	99.642	%	0.4096				0.41%
Ag 328.068†	127974.1	479.86	µg/L	0.363	479.86	ppb	0.363	0.08%
QC value within limits for Ag 328.068 Recovery = 95.97%								
Al 396.153Radial†	26709.1	4929.8	µg/L	8.93	4929.8	ppb	8.93	0.18%
QC value within limits for Al 396.153Radial Recovery = 98.60%								
As 188.979†	1616.6	495.84	µg/L	3.115	495.84	ppb	3.115	0.63%
QC value within limits for As 188.979 Recovery = 99.17%								
B 249.677†	32064.8	471.24	µg/L	1.407	471.24	ppb	1.407	0.30%
QC value within limits for B 249.677 Recovery = 94.25%								
Ba 233.527†	118725.8	478.82	µg/L	0.303	478.82	ppb	0.303	0.06%
QC value within limits for Ba 233.527 Recovery = 95.76%								
Be 313.107†	1772787.2	482.83	µg/L	0.420	482.83	ppb	0.420	0.09%
QC value within limits for Be 313.107 Recovery = 96.57%								
Ca 317.933Radial†	86918.5	4841.7	µg/L	10.25	4841.7	ppb	10.25	0.21%
QC value within limits for Ca 317.933Radial Recovery = 96.83%								
Cd 226.502†	76335.3	476.52	µg/L	0.194	476.52	ppb	0.194	0.04%
QC value within limits for Cd 226.502 Recovery = 95.30%								
Co 228.616†	38857.0	479.69	µg/L	0.758	479.69	ppb	0.758	0.16%

```
   QC value within limits for Co 228.616  Recovery = 95.94%
Cr 267.716†            60745.8      475.63 µg/L         0.458      475.63 ppb          0.458   0.10%
   QC value within limits for Cr 267.716  Recovery = 95.13%
Cu 324.752†           122628.7      478.04 µg/L         0.438      478.04 ppb          0.438   0.09%
   QC value within limits for Cu 324.752  Recovery = 95.61%
Fe 238.204 Radial†     78162.3      4817.4 µg/L         12.99      4817.4 ppb          12.99   0.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.35%
K 766.490 Radial†      13195.4      4827.1 µg/L         46.33      4827.1 ppb          46.33   0.96%
   QC value within limits for K 766.490 Radial  Recovery = 96.54%
Mg 279.077 IEC†        13205.4      4927.6 µg/L         28.77      4927.6 ppb          28.77   0.58%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.55%
Mn 257.610†           389063.8      481.18 µg/L         0.275      481.18 ppb          0.275   0.06%
   QC value within limits for Mn 257.610  Recovery = 96.24%
Mo 202.031†            16164.1      475.48 µg/L         2.996      475.48 ppb          2.996   0.63%
   QC value within limits for Mo 202.031  Recovery = 95.10%
Na 589.592 Radial†     70679.5      9651.4 µg/L         31.92      9651.4 ppb          31.92   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 96.51%
Ni 231.604†            41435.3      477.10 µg/L         0.860      477.10 ppb          0.860   0.18%
   QC value within limits for Ni 231.604  Recovery = 95.42%
P 214.914†             11110.0      2368.0 µg/L         21.28      2368.0 ppb          21.28   0.90%
   QC value within limits for P 214.914  Recovery = 94.72%
Pb 220.353†             8564.4      479.60 µg/L         3.191      479.60 ppb          3.191   0.67%
   QC value within limits for Pb 220.353  Recovery = 95.92%
S 181.975 Axial†        1256.8      937.31 µg/L         4.928      937.31 ppb          4.928   0.53%
   QC value within limits for S 181.975 Axial  Recovery = 93.73%
Sb 206.836†             4002.4      476.86 µg/L         3.479      476.86 ppb          3.479   0.73%
   QC value within limits for Sb 206.836  Recovery = 95.37%
Se 196.026†             1309.1         475 µg/L           3.7         475 ppb            3.7   0.78%
   QC value within limits for Se 196.026  Recovery = 95.07%
SiO2†                  52667.2      5127.4 µg/L          7.96      5127.4 ppb           7.96   0.16%
   QC value within limits for SiO2  Recovery = 95.88%
Si 251.611†           163751.0      2404.7 µg/L          2.52      2404.7 ppb           2.52   0.10%
   QC value within limits for Si 251.611  Recovery = 96.19%
Sn 189.927†             7630.3      477.28 µg/L         4.026      477.28 ppb          4.026   0.84%
   QC value within limits for Sn 189.927  Recovery = 95.46%
Sr 421.552†           234526.6      487.53 µg/L         4.658      487.53 ppb          4.658   0.96%
   QC value within limits for Sr 421.552  Recovery = 97.51%
Ti 334.940†           513709.0      479.33 µg/L         0.247      479.33 ppb          0.247   0.05%
   QC value within limits for Ti 334.940  Recovery = 95.87%
Tl 190.801†             3878.2      483.70 µg/L         1.997      483.70 ppb          1.997   0.41%
   QC value within limits for Tl 190.801  Recovery = 96.74%
U 409.014†              7596.9      473.23 µg/L         7.805      473.23 ppb          7.805   1.65%
   QC value within limits for U 409.014  Recovery = 94.65%
V 292.402†             97402.5      481.47 µg/L         0.711      481.47 ppb          0.711   0.15%
   QC value within limits for V 292.402  Recovery = 96.29%
Zn 213.857†            85102.2      474.31 µg/L         1.230      474.31 ppb          1.230   0.26%
   QC value within limits for Zn 213.857  Recovery = 94.86%
All analyte(s) passed QC.
```

Sequence No.: 136
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 0:20:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143009.9	143009.9	98.0	%			00:21:03
1	Al 396.153Radial†	-51.4	10.8	1.9902	µg/L	1.9902	ppb	00:21:23
1	Ca 317.933Radial†	642.8	95.4	5.3133	µg/L	5.3133	ppb	00:21:23
1	Fe 238.204 Radial†	242.1	99.0	6.0996	µg/L	6.0996	ppb	00:21:23
1	K 766.490 Radial†	1742.8	233.6	85.512	µg/L	85.512	ppb	00:21:03
1	Mg 279.077 IEC†	198.4	11.8	4.3899	µg/L	4.3899	ppb	00:21:23
1	Na 589.592 Radial†	1320.5	56.6	7.6578	µg/L	7.6578	ppb	00:21:03
1	Sr 421.552†	-179.2	-47.6	-0.0989	µg/L	-0.0989	ppb	00:21:03
1	Sc 361.383	1732574.4	1732574.4	100.84	%			00:22:11
1	Y 371.029	1034944.7	1034944.7	100.80	%			00:22:11
1	Ag 328.068†	3967.9	-156.4	-0.6012	µg/L	-0.6012	ppb	00:22:13
1	As 188.979†	-22.3	-1.8	-0.5282	µg/L	-0.5282	ppb	00:22:33
1	B 249.677†	3471.6	-63.1	-0.9312	µg/L	-0.9312	ppb	00:22:13
1	Ba 233.527†	-105.4	31.3	0.1257	µg/L	0.1257	ppb	00:22:33
1	Be 313.107†	-924.2	148.2	0.0371	µg/L	0.0371	ppb	00:22:13
1	Cd 226.502†	-101.6	17.5	0.1086	µg/L	0.1086	ppb	00:22:33
1	Co 228.616†	-161.2	30.5	0.3758	µg/L	0.3758	ppb	00:22:33
1	Cr 267.716†	181.5	1.4	0.0194	µg/L	0.0194	ppb	00:22:33
1	Cu 324.752†	2984.5	-12.4	-0.0561	µg/L	-0.0561	ppb	00:22:13
1	Mn 257.610†	353.9	113.7	0.1405	µg/L	0.1405	ppb	00:22:33
1	Mo 202.031†	-15.2	5.0	0.1471	µg/L	0.1471	ppb	00:22:33
1	Ni 231.604†	-82.1	-4.9	-0.0564	µg/L	-0.0564	ppb	00:22:33
1	P 214.914†	-21.6	-3.4	-0.7405	µg/L	-0.7405	ppb	00:22:33
1	Pb 220.353†	58.7	-28.2	-1.5645	µg/L	-1.5645	ppb	00:22:33
1	S 181.975 Axial†	95.1	-10.7	-7.9545	µg/L	-7.9545	ppb	00:22:33
1	Sb 206.836†	91.5	9.9	1.1817	µg/L	1.1817	ppb	00:22:33
1	Se 196.026†	8.6	-6.7	-2.43	µg/L	-2.43	ppb	00:22:33
1	SiO2†	1790.8	0.6	0.0484	µg/L	0.0484	ppb	00:22:13
1	Si 251.611†	1020.2	175.2	2.5808	µg/L	2.5808	ppb	00:22:13
1	Sn 189.927†	0.3	1.4	0.0914	µg/L	0.0914	ppb	00:22:33
1	Ti 334.940†	1320.8	357.3	0.3381	µg/L	0.3381	ppb	00:22:13
1	Tl 190.801†	-122.8	-5.1	-0.6310	µg/L	-0.6310	ppb	00:22:33
1	U 409.014†	-460.1	-186.4	-10.938	µg/L	-10.938	ppb	00:22:13
1	V 292.402†	259.1	-146.8	-0.7228	µg/L	-0.7228	ppb	00:22:13
1	Zn 213.857†	639.8	70.1	0.3935	µg/L	0.3935	ppb	00:22:33
2	Sc RADIAL	145208.1	145208.1	99.5	%			00:21:25
2	Al 396.153Radial†	-65.6	-2.7	-0.5302	µg/L	-0.5302	ppb	00:21:45
2	Ca 317.933Radial†	617.9	60.4	3.3625	µg/L	3.3625	ppb	00:21:45
2	Fe 238.204 Radial†	235.5	88.5	5.4567	µg/L	5.4567	ppb	00:21:45
2	K 766.490 Radial†	1643.3	106.7	39.066	µg/L	39.066	ppb	00:21:25
2	Mg 279.077 IEC†	181.7	-8.1	-2.9996	µg/L	-2.9996	ppb	00:21:45
2	Na 589.592 Radial†	1254.4	-30.2	-4.1540	µg/L	-4.1540	ppb	00:21:25
2	Sr 421.552†	-222.0	-87.8	-0.1826	µg/L	-0.1826	ppb	00:21:25
2	Sc 361.383	1746141.6	1746141.6	101.63	%			00:22:35
2	Y 371.029	1043093.8	1043093.8	101.60	%			00:22:35
2	Ag 328.068†	4083.1	-73.6	-0.2839	µg/L	-0.2839	ppb	00:22:37
2	As 188.979†	-16.6	4.0	1.2226	µg/L	1.2226	ppb	00:22:58
2	B 249.677†	3623.9	60.1	0.8842	µg/L	0.8842	ppb	00:22:37
2	Ba 233.527†	-136.2	1.9	0.0073	µg/L	0.0073	ppb	00:22:58
2	Be 313.107†	-917.5	161.8	0.0425	µg/L	0.0425	ppb	00:22:37
2	Cd 226.502†	-112.9	7.1	0.0435	µg/L	0.0435	ppb	00:22:58
2	Co 228.616†	-155.9	36.9	0.4553	µg/L	0.4553	ppb	00:22:58
2	Cr 267.716†	191.2	9.5	0.0788	µg/L	0.0788	ppb	00:22:58
2	Cu 324.752†	3030.9	10.2	0.0363	µg/L	0.0363	ppb	00:22:37
2	Mn 257.610†	340.6	97.9	0.1212	µg/L	0.1212	ppb	00:22:58
2	Mo 202.031†	-3.6	16.6	0.4868	µg/L	0.4868	ppb	00:22:58
2	Ni 231.604†	-126.7	-48.2	-0.5549	µg/L	-0.5549	ppb	00:22:58
2	P 214.914†	-18.2	0.0	-0.0021	µg/L	-0.0021	ppb	00:22:58
2	Pb 220.353†	80.1	-7.6	-0.4191	µg/L	-0.4191	ppb	00:22:58

2	S 181.975 Axial†	92.6	-14.0	-10.355 µg/L	-10.355 ppb	00:22:58
2	Sb 206.836†	74.8	-7.3	-0.8573 µg/L	-0.8573 ppb	00:22:58
2	Se 196.026†	29.6	13.8	5.00 µg/L	5.00 ppb	00:22:58
2	SiO2†	1807.1	2.8	0.2551 µg/L	0.2551 ppb	00:22:37
2	Si 251.611†	912.7	61.5	0.8976 µg/L	0.8976 ppb	00:22:37
2	Sn 189.927†	5.4	6.4	0.3994 µg/L	0.3994 ppb	00:22:58
2	Ti 334.940†	911.5	-55.7	-0.0496 µg/L	-0.0496 ppb	00:22:37
2	Tl 190.801†	-107.6	10.8	1.3219 µg/L	1.3219 ppb	00:22:58
2	U 409.014†	-364.0	-88.2	-5.1839 µg/L	-5.1839 ppb	00:22:37
2	V 292.402†	324.6	-84.4	-0.4104 µg/L	-0.4104 ppb	00:22:37
2	Zn 213.857†	602.5	28.4	0.1627 µg/L	0.1627 ppb	00:22:58
3	Sc RADIAL	142939.6	142939.6	98.0 %		00:21:47
3	Al 396.153Radial†	-66.5	-4.7	-0.8930 µg/L	-0.8930 ppb	00:22:07
3	Ca 317.933Radial†	598.8	50.7	2.8256 µg/L	2.8256 ppb	00:22:07
3	Fe 238.204 Radial†	216.5	73.0	4.4964 µg/L	4.4964 ppb	00:22:07
3	K 766.490 Radial†	1593.8	82.4	30.155 µg/L	30.155 ppb	00:21:47
3	Mg 279.077 IEC†	176.4	-10.6	-3.9486 µg/L	-3.9486 ppb	00:22:07
3	Na 589.592 Radial†	1336.7	73.9	10.067 µg/L	10.067 ppb	00:21:47
3	Sr 421.552†	-79.1	54.6	0.1134 µg/L	0.1134 ppb	00:21:47
3	Sc 361.383	1720285.6	1720285.6	100.12 %		00:23:00
3	Y 371.029	1027937.7	1027937.7	100.12 %		00:23:00
3	Ag 328.068†	3952.7	-143.5	-0.5516 µg/L	-0.5516 ppb	00:23:02
3	As 188.979†	-14.9	5.5	1.6581 µg/L	1.6581 ppb	00:23:22
3	B 249.677†	3577.4	67.2	0.9901 µg/L	0.9901 ppb	00:23:02
3	Ba 233.527†	-138.9	-2.8	-0.0116 µg/L	-0.0116 ppb	00:23:22
3	Be 313.107†	-853.9	211.9	0.0539 µg/L	0.0539 ppb	00:23:02
3	Cd 226.502†	-97.9	20.4	0.1268 µg/L	0.1268 ppb	00:23:22
3	Co 228.616†	-169.6	20.9	0.2575 µg/L	0.2575 ppb	00:23:22
3	Cr 267.716†	194.2	15.4	0.1307 µg/L	0.1307 ppb	00:23:22
3	Cu 324.752†	2897.3	-78.4	-0.3143 µg/L	-0.3143 ppb	00:23:02
3	Mn 257.610†	316.9	79.2	0.0982 µg/L	0.0982 ppb	00:23:22
3	Mo 202.031†	-2.4	17.7	0.5206 µg/L	0.5206 ppb	00:23:22
3	Ni 231.604†	-79.7	-3.1	-0.0357 µg/L	-0.0357 ppb	00:23:22
3	P 214.914†	-14.8	3.1	0.6703 µg/L	0.6703 ppb	00:23:22
3	Pb 220.353†	65.3	-21.2	-1.1703 µg/L	-1.1703 ppb	00:23:22
3	S 181.975 Axial†	96.4	-8.8	-6.5340 µg/L	-6.5340 ppb	00:23:22
3	Sb 206.836†	95.7	14.7	1.7585 µg/L	1.7585 ppb	00:23:22
3	Se 196.026†	27.8	12.5	4.51 µg/L	4.51 ppb	00:23:22
3	SiO2†	1722.4	-55.0	-5.4009 µg/L	-5.4009 ppb	00:23:02
3	Si 251.611†	906.7	69.0	1.0061 µg/L	1.0061 ppb	00:23:02
3	Sn 189.927†	9.3	10.4	0.6455 µg/L	0.6455 ppb	00:23:22
3	Ti 334.940†	750.5	-203.0	-0.1841 µg/L	-0.1841 ppb	00:23:02
3	Tl 190.801†	-113.2	3.6	0.4390 µg/L	0.4390 ppb	00:23:22
3	U 409.014†	-484.4	-213.9	-12.531 µg/L	-12.531 ppb	00:23:02
3	V 292.402†	320.4	-83.8	-0.4117 µg/L	-0.4117 ppb	00:23:02
3	Zn 213.857†	604.4	39.2	0.2202 µg/L	0.2202 ppb	00:23:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733000.6	100.86	%	0.753				0.75%
Sc RADIAL	143719.2	98.5	%	0.88				0.90%
Y 371.029	1035325.4	100.84	%	0.739				0.73%
Ag 328.068†	-124.5	-0.4789	µg/L	0.17068	-0.4789	ppb	0.17068	35.64%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.1	0.1890	µg/L	1.57038	0.1890	ppb	1.57038	830.86%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.6	0.7841	µg/L	1.15723	0.7841	ppb	1.15723	147.58%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	21.4	0.3144	µg/L	1.08004	0.3144	ppb	1.08004	343.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.1	0.0405	µg/L	0.07440	0.0405	ppb	0.07440	183.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	174.0	0.0445	µg/L	0.00860	0.0445	ppb	0.00860	19.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	68.8	3.8338	µg/L	1.30912	3.8338	ppb	1.30912	34.15%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	15.0	0.0930	µg/L	0.04379	0.0930	ppb	0.04379	47.11%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	29.4	0.3629	µg/L	0.09956	0.3629	ppb	0.09956	27.44%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.8      0.0763 µg/L       0.05570      0.0763 ppb        0.05570  73.02%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -26.9     -0.1114 µg/L       0.18174     -0.1114 ppb        0.18174 163.21%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         86.8      5.3509 µg/L       0.80679      5.3509 ppb        0.80679  15.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         140.9      51.578 µg/L       29.7235      51.578 ppb        29.7235  57.63%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.3     -0.8527 µg/L       4.56498     -0.8527 ppb        4.56498 535.33%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                96.9      0.1200 µg/L       0.02117      0.1200 ppb        0.02117  17.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.1      0.3848 µg/L       0.20656      0.3848 ppb        0.20656  53.68%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         33.4      4.5235 µg/L       7.61088      4.5235 ppb        7.61088 168.25%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -18.7     -0.2157 µg/L       0.29398     -0.2157 ppb        0.29398 136.32%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.1     -0.0241 µg/L       0.70567     -0.0241 ppb        0.70567 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -19.0     -1.0513 µg/L       0.58190     -1.0513 ppb        0.58190  55.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -11.2     -8.2812 µg/L       1.93130     -8.2812 ppb        1.93130  23.32%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.8      0.6943 µg/L       1.37431      0.6943 ppb        1.37431 197.94%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.5        2.36 µg/L         4.154        2.36 ppb          4.154 176.05%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -17.2     -1.6992 µg/L       3.20748     -1.6992 ppb        3.20748 188.77%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               101.9      1.4948 µg/L       0.94203      1.4948 ppb        0.94203  63.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.1      0.3788 µg/L       0.27765      0.3788 ppb        0.27765  73.30%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -26.9     -0.0560 µg/L       0.15260     -0.0560 ppb        0.15260 272.31%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                32.9      0.0348 µg/L       0.27113      0.0348 ppb        0.27113 779.57%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.1      0.3767 µg/L       0.97795      0.3767 ppb        0.97795 259.64%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -162.8     -9.5509 µg/L       3.86489     -9.5509 ppb        3.86489  40.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -105.0     -0.5150 µg/L       0.18000     -0.5150 ppb        0.18000  34.95%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                45.9      0.2588 µg/L       0.12016      0.2588 ppb        0.12016  46.42%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 147
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 0:42:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145422.4	145422.4	99.7	%			00:43:24
1	Al 396.153Radial†	26455.2	26610.7	4911.5	µg/L	4911.5	ppb	00:43:24
1	Ca 317.933Radial†	86831.3	86573.7	4822.5	µg/L	4822.5	ppb	00:43:24
1	Fe 238.204 Radial†	77746.7	77869.8	4799.4	µg/L	4799.4	ppb	00:43:24
1	K 766.490 Radial†	15151.4	13659.4	4997.0	µg/L	4997.0	ppb	00:43:24
1	Mg 279.077 IEC†	13235.9	13091.4	4885.2	µg/L	4885.2	ppb	00:43:24
1	Na 589.592 Radial†	71616.2	70575.3	9637.0	µg/L	9637.0	ppb	00:43:24
1	Sr 421.552†	232582.8	233529.5	485.46	µg/L	485.46	ppb	00:43:22
1	Sc 361.383	1743598.2	1743598.2	101.48	%			00:43:51
1	Y 371.029	1031066.0	1031066.0	100.43	%			00:43:51
1	Ag 328.068†	133467.0	127432.8	477.84	µg/L	477.84	ppb	00:43:51
1	As 188.979†	1622.1	1618.8	496.49	µg/L	496.49	ppb	00:44:11
1	B 249.677†	35840.6	31813.0	467.53	µg/L	467.53	ppb	00:43:51
1	Ba 233.527†	120186.4	118572.7	478.20	µg/L	478.20	ppb	00:43:51
1	Be 313.107†	1790824.1	1765820.8	480.94	µg/L	480.94	ppb	00:43:51
1	Cd 226.502†	76550.4	75554.3	471.64	µg/L	471.64	ppb	00:43:51
1	Co 228.616†	38943.5	38566.9	476.11	µg/L	476.11	ppb	00:43:51
1	Cr 267.716†	61701.1	60624.4	474.67	µg/L	474.67	ppb	00:43:51
1	Cu 324.752†	126928.7	122108.9	476.02	µg/L	476.02	ppb	00:43:51
1	Mn 257.610†	393495.6	387530.4	479.28	µg/L	479.28	ppb	00:43:51
1	Mo 202.031†	16401.2	16182.5	476.02	µg/L	476.02	ppb	00:44:11
1	Ni 231.604†	41723.3	41192.5	474.30	µg/L	474.30	ppb	00:43:51
1	P 214.914†	11221.8	11076.4	2360.8	µg/L	2360.8	ppb	00:44:11
1	Pb 220.353†	8738.0	8524.4	477.36	µg/L	477.36	ppb	00:44:11
1	S 181.975 Axial†	1370.2	1245.2	928.69	µg/L	928.69	ppb	00:44:11
1	Sb 206.836†	4135.6	3994.6	475.95	µg/L	475.95	ppb	00:44:11
1	Se 196.026†	1352.3	1317.3	478	µg/L	478	ppb	00:44:11
1	SiO2†	55049.3	52472.6	5108.4	µg/L	5108.4	ppb	00:43:51
1	Si 251.611†	166176.8	162921.3	2392.5	µg/L	2392.5	ppb	00:43:51
1	Sn 189.927†	7712.3	7601.2	475.47	µg/L	475.47	ppb	00:44:11
1	Ti 334.940†	521331.2	512790.0	478.47	µg/L	478.47	ppb	00:43:51
1	Tl 190.801†	3813.4	3874.6	483.26	µg/L	483.26	ppb	00:44:11
1	U 409.014†	7540.1	7700.2	479.18	µg/L	479.18	ppb	00:43:51
1	V 292.402†	98936.9	97093.0	479.96	µg/L	479.96	ppb	00:43:51
1	Zn 213.857†	85977.6	84161.6	469.05	µg/L	469.05	ppb	00:43:51
2	Sc RADIAL	145725.8	145725.8	99.9	%			00:43:28
2	Al 396.153Radial†	26577.9	26678.3	4924.3	µg/L	4924.3	ppb	00:43:28
2	Ca 317.933Radial†	86949.3	86510.4	4819.0	µg/L	4819.0	ppb	00:43:28
2	Fe 238.204 Radial†	77908.9	77869.8	4799.4	µg/L	4799.4	ppb	00:43:28
2	K 766.490 Radial†	15116.5	13592.9	4972.6	µg/L	4972.6	ppb	00:43:28
2	Mg 279.077 IEC†	13204.2	13032.0	4862.9	µg/L	4862.9	ppb	00:43:28
2	Na 589.592 Radial†	71600.4	70409.8	9614.4	µg/L	9614.4	ppb	00:43:28
2	Sr 421.552†	232081.7	232541.8	483.40	µg/L	483.40	ppb	00:43:26
2	Sc 361.383	1761627.7	1761627.7	102.53	%			00:44:14
2	Y 371.029	1041782.4	1041782.4	101.47	%			00:44:14
2	Ag 328.068†	135437.6	128008.7	479.98	µg/L	479.98	ppb	00:44:14
2	As 188.979†	1618.9	1599.4	490.58	µg/L	490.58	ppb	00:44:34
2	B 249.677†	36451.8	32047.6	470.98	µg/L	470.98	ppb	00:44:14
2	Ba 233.527†	121402.3	118546.6	478.09	µg/L	478.09	ppb	00:44:14
2	Be 313.107†	1815831.0	1772149.9	482.66	µg/L	482.66	ppb	00:44:14
2	Cd 226.502†	77854.0	76053.7	474.76	µg/L	474.76	ppb	00:44:14
2	Co 228.616†	39625.6	38839.4	479.47	µg/L	479.47	ppb	00:44:14
2	Cr 267.716†	62161.5	60451.1	473.32	µg/L	473.32	ppb	00:44:14
2	Cu 324.752†	128573.2	122432.6	477.28	µg/L	477.28	ppb	00:44:14
2	Mn 257.610†	398371.0	388317.0	480.26	µg/L	480.26	ppb	00:44:14
2	Mo 202.031†	16410.2	16025.9	471.42	µg/L	471.42	ppb	00:44:34
2	Ni 231.604†	42364.7	41397.3	476.66	µg/L	476.66	ppb	00:44:14
2	P 214.914†	11239.3	10980.3	2340.3	µg/L	2340.3	ppb	00:44:34
2	Pb 220.353†	8812.8	8509.3	476.51	µg/L	476.51	ppb	00:44:34

2	S 181.975 Axial†	1368.5	1229.8	917.16 µg/L	917.16 ppb	00:44:34
2	Sb 206.836†	4132.0	3949.3	470.52 µg/L	470.52 ppb	00:44:34
2	Se 196.026†	1324.7	1276.8	464 µg/L	464 ppb	00:44:34
2	SiO2†	55692.7	52545.0	5115.6 µg/L	5115.6 ppb	00:44:14
2	Si 251.611†	168404.8	163418.4	2399.9 µg/L	2399.9 ppb	00:44:14
2	Sn 189.927†	7723.1	7533.9	471.28 µg/L	471.28 ppb	00:44:34
2	Ti 334.940†	526897.4	512961.1	478.63 µg/L	478.63 ppb	00:44:14
2	Tl 190.801†	3822.8	3845.3	479.65 µg/L	479.65 ppb	00:44:34
2	U 409.014†	7487.3	7572.7	471.77 µg/L	471.77 ppb	00:44:14
2	V 292.402†	100123.8	97252.7	480.69 µg/L	480.69 ppb	00:44:14
2	Zn 213.857†	87731.8	85005.5	473.77 µg/L	473.77 ppb	00:44:14
3	Sc RADIAL	145384.0	145384.0	99.6 %		00:43:32
3	Al 396.153Radial†	26816.5	26980.4	4980.1 µg/L	4980.1 ppb	00:43:32
3	Ca 317.933Radial†	87178.4	86945.1	4843.2 µg/L	4843.2 ppb	00:43:32
3	Fe 238.204 Radial†	78269.7	78415.4	4833.0 µg/L	4833.0 ppb	00:43:32
3	K 766.490 Radial†	15108.8	13620.7	4982.8 µg/L	4982.8 ppb	00:43:32
3	Mg 279.077 IEC†	13407.1	13266.7	4950.4 µg/L	4950.4 ppb	00:43:32
3	Na 589.592 Radial†	71569.6	70547.5	9633.2 µg/L	9633.2 ppb	00:43:32
3	Sr 421.552†	232881.6	233891.1	486.21 µg/L	486.21 ppb	00:43:30
3	Sc 361.383	1742785.1	1742785.1	101.43 %		00:44:37
3	Y 371.029	1031123.9	1031123.9	100.43 %		00:44:37
3	Ag 328.068†	133463.3	127490.6	478.04 µg/L	478.04 ppb	00:44:37
3	As 188.979†	1602.4	1600.2	490.85 µg/L	490.85 ppb	00:44:57
3	B 249.677†	35982.1	31968.9	469.83 µg/L	469.83 ppb	00:44:37
3	Ba 233.527†	120198.2	118639.6	478.47 µg/L	478.47 ppb	00:44:37
3	Be 313.107†	1793841.1	1769618.6	481.97 µg/L	481.97 ppb	00:44:37
3	Cd 226.502†	76743.1	75779.4	473.04 µg/L	473.04 ppb	00:44:37
3	Co 228.616†	39088.6	38727.9	478.09 µg/L	478.09 ppb	00:44:37
3	Cr 267.716†	61579.9	60533.3	473.97 µg/L	473.97 ppb	00:44:37
3	Cu 324.752†	127002.6	122240.1	476.52 µg/L	476.52 ppb	00:44:37
3	Mn 257.610†	393720.4	387932.9	479.78 µg/L	479.78 ppb	00:44:37
3	Mo 202.031†	16368.1	16157.5	475.29 µg/L	475.29 ppb	00:44:57
3	Ni 231.604†	41714.9	41203.3	474.43 µg/L	474.43 ppb	00:44:37
3	P 214.914†	11213.9	11073.8	2360.3 µg/L	2360.3 ppb	00:44:57
3	Pb 220.353†	8765.9	8556.0	479.14 µg/L	479.14 ppb	00:44:57
3	S 181.975 Axial†	1369.3	1244.9	928.45 µg/L	928.45 ppb	00:44:57
3	Sb 206.836†	4132.6	3993.6	475.83 µg/L	475.83 ppb	00:44:57
3	Se 196.026†	1350.4	1316.1	478 µg/L	478 ppb	00:44:57
3	SiO2†	54988.6	52438.1	5105.0 µg/L	5105.0 ppb	00:44:37
3	Si 251.611†	166378.2	163196.2	2396.5 µg/L	2396.5 ppb	00:44:37
3	Sn 189.927†	7736.3	7628.4	477.16 µg/L	477.16 ppb	00:44:57
3	Ti 334.940†	521282.1	512981.2	478.65 µg/L	478.65 ppb	00:44:37
3	Tl 190.801†	3826.1	3888.8	485.00 µg/L	485.00 ppb	00:44:57
3	U 409.014†	7233.1	7401.1	461.69 µg/L	461.69 ppb	00:44:37
3	V 292.402†	98911.9	97113.8	480.04 µg/L	480.04 ppb	00:44:37
3	Zn 213.857†	86546.2	84761.8	472.42 µg/L	472.42 ppb	00:44:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1749337.0	101.81	%	0.620				0.61%
Sc RADIAL	145510.7	99.7	%	0.13				0.13%
Y 371.029	1034657.4	100.78	%	0.601				0.60%
Ag 328.068†	127644.0	478.62	µg/L	1.180	478.62	ppb	1.180	0.25%
QC value within limits for Ag 328.068 Recovery = 95.72%								
Al 396.153Radial†	26756.5	4938.6	µg/L	36.47	4938.6	ppb	36.47	0.74%
QC value within limits for Al 396.153Radial Recovery = 98.77%								
As 188.979†	1606.1	492.64	µg/L	3.336	492.64	ppb	3.336	0.68%
QC value within limits for As 188.979 Recovery = 98.53%								
B 249.677†	31943.2	469.45	µg/L	1.755	469.45	ppb	1.755	0.37%
QC value within limits for B 249.677 Recovery = 93.89%								
Ba 233.527†	118586.3	478.25	µg/L	0.193	478.25	ppb	0.193	0.04%
QC value within limits for Ba 233.527 Recovery = 95.65%								
Be 313.107†	1769196.4	481.85	µg/L	0.866	481.85	ppb	0.866	0.18%
QC value within limits for Be 313.107 Recovery = 96.37%								
Ca 317.933Radial†	86676.4	4828.2	µg/L	13.08	4828.2	ppb	13.08	0.27%
QC value within limits for Ca 317.933Radial Recovery = 96.56%								
Cd 226.502†	75795.8	473.15	µg/L	1.563	473.15	ppb	1.563	0.33%
QC value within limits for Cd 226.502 Recovery = 94.63%								
Co 228.616†	38711.4	477.89	µg/L	1.690	477.89	ppb	1.690	0.35%

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   QC value within limits for Co 228.616  Recovery = 95.58%
Cr 267.716†            60536.3      473.99 µg/L         0.676      473.99 ppb          0.676   0.14%
   QC value within limits for Cr 267.716  Recovery = 94.80%
Cu 324.752†           122260.5      476.61 µg/L         0.631      476.61 ppb          0.631   0.13%
   QC value within limits for Cu 324.752  Recovery = 95.32%
Fe 238.204 Radial†     78051.7      4810.6 µg/L         19.41      4810.6 ppb          19.41   0.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.21%
K 766.490 Radial†      13624.4      4984.1 µg/L         12.24      4984.1 ppb          12.24   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 99.68%
Mg 279.077 IEC†        13130.0      4899.5 µg/L         45.49      4899.5 ppb          45.49   0.93%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.99%
Mn 257.610†           387926.8      479.77 µg/L         0.487      479.77 ppb          0.487   0.10%
   QC value within limits for Mn 257.610  Recovery = 95.95%
Mo 202.031†            16121.9      474.24 µg/L         2.474      474.24 ppb          2.474   0.52%
   QC value within limits for Mo 202.031  Recovery = 94.85%
Na 589.592 Radial†     70510.9      9628.2 µg/L         12.09      9628.2 ppb          12.09   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 96.28%
Ni 231.604†            41264.4      475.13 µg/L         1.327      475.13 ppb          1.327   0.28%
   QC value within limits for Ni 231.604  Recovery = 95.03%
P 214.914†             11043.5      2353.8 µg/L         11.71      2353.8 ppb          11.71   0.50%
   QC value within limits for P 214.914  Recovery = 94.15%
Pb 220.353†             8529.9      477.67 µg/L         1.340      477.67 ppb          1.340   0.28%
   QC value within limits for Pb 220.353  Recovery = 95.53%
S 181.975 Axial†        1240.0      924.77 µg/L         6.587      924.77 ppb          6.587   0.71%
   QC value within limits for S 181.975 Axial  Recovery = 92.48%
Sb 206.836†             3979.2      474.10 µg/L         3.102      474.10 ppb          3.102   0.65%
   QC value within limits for Sb 206.836  Recovery = 94.82%
Se 196.026†             1303.4         473 µg/L           8.3         473 ppb            8.3   1.76%
   QC value within limits for Se 196.026  Recovery = 94.66%
SiO2†                  52485.2      5109.7 µg/L          5.44      5109.7 ppb           5.44   0.11%
   QC value within limits for SiO2  Recovery = 95.55%
Si 251.611†           163178.7      2396.3 µg/L          3.71      2396.3 ppb           3.71   0.15%
   QC value within limits for Si 251.611  Recovery = 95.85%
Sn 189.927†             7587.8      474.63 µg/L         3.030      474.63 ppb          3.030   0.64%
   QC value within limits for Sn 189.927  Recovery = 94.93%
Sr 421.552†           233320.8      485.02 µg/L         1.452      485.02 ppb          1.452   0.30%
   QC value within limits for Sr 421.552  Recovery = 97.00%
Ti 334.940†           512910.7      478.58 µg/L         0.100      478.58 ppb          0.100   0.02%
   QC value within limits for Ti 334.940  Recovery = 95.72%
Tl 190.801†             3869.6      482.64 µg/L         2.728      482.64 ppb          2.728   0.57%
   QC value within limits for Tl 190.801  Recovery = 96.53%
U 409.014†              7558.0      470.88 µg/L         8.779      470.88 ppb          8.779   1.86%
   QC value within limits for U 409.014  Recovery = 94.18%
V 292.402†             97153.2      480.23 µg/L         0.396      480.23 ppb          0.396   0.08%
   QC value within limits for V 292.402  Recovery = 96.05%
Zn 213.857†            84643.0      471.74 µg/L         2.432      471.74 ppb          2.432   0.52%
   QC value within limits for Zn 213.857  Recovery = 94.35%
All analyte(s) passed QC.
```

Sequence No.: 148
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 0:45:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145813.7	145813.7	99.9	%			00:45:34
1	Al 396.153Radial†	-21.5	41.7	7.7141	µg/L	7.7141	ppb	00:45:54
1	Ca 317.933Radial†	660.7	100.6	5.6043	µg/L	5.6043	ppb	00:45:54
1	Fe 238.204 Radial†	255.4	107.5	6.6275	µg/L	6.6275	ppb	00:45:54
1	K 766.490 Radial†	1930.6	387.4	141.83	µg/L	141.83	ppb	00:45:34
1	Mg 279.077 IEC†	169.2	-21.4	-7.9590	µg/L	-7.9590	ppb	00:45:54
1	Na 589.592 Radial†	1419.6	130.0	17.627	µg/L	17.627	ppb	00:45:34
1	Sr 421.552†	-123.1	12.1	0.0251	µg/L	0.0251	ppb	00:45:34
1	Sc 361.383	1750408.8	1750408.8	101.87	%			00:46:42
1	Y 371.029	1046340.0	1046340.0	101.91	%			00:46:42
1	Ag 328.068†	4173.7	5.5	0.0313	µg/L	0.0313	ppb	00:46:44
1	As 188.979†	-12.6	8.0	2.4214	µg/L	2.4214	ppb	00:47:04
1	B 249.677†	3555.6	-15.7	-0.2323	µg/L	-0.2323	ppb	00:47:04
1	Ba 233.527†	-101.3	36.4	0.1474	µg/L	0.1474	ppb	00:47:04
1	Be 313.107†	-795.6	283.7	0.0772	µg/L	0.0772	ppb	00:46:44
1	Cd 226.502†	-95.6	24.3	0.1514	µg/L	0.1514	ppb	00:47:04
1	Co 228.616†	-179.6	14.0	0.1728	µg/L	0.1728	ppb	00:47:04
1	Cr 267.716†	177.0	-4.8	-0.0365	µg/L	-0.0365	ppb	00:47:04
1	Cu 324.752†	2909.7	-116.1	-0.4503	µg/L	-0.4503	ppb	00:46:44
1	Mn 257.610†	386.8	142.4	0.1765	µg/L	0.1765	ppb	00:47:04
1	Mo 202.031†	-2.5	17.7	0.5193	µg/L	0.5193	ppb	00:47:04
1	Ni 231.604†	-67.3	10.4	0.1201	µg/L	0.1201	ppb	00:47:04
1	P 214.914†	-26.0	-7.6	-1.6208	µg/L	-1.6208	ppb	00:47:04
1	Pb 220.353†	94.4	6.3	0.3548	µg/L	0.3548	ppb	00:47:04
1	S 181.975 Axial†	101.3	-5.6	-4.1728	µg/L	-4.1728	ppb	00:47:04
1	Sb 206.836†	78.6	-3.7	-0.4248	µg/L	-0.4248	ppb	00:47:04
1	Se 196.026†	14.9	-0.6	-0.221	µg/L	-0.221	ppb	00:47:04
1	SiO2†	1836.9	27.8	2.6939	µg/L	2.6939	ppb	00:47:04
1	Si 251.611†	938.9	85.0	1.2435	µg/L	1.2435	ppb	00:46:44
1	Sn 189.927†	6.9	7.9	0.4933	µg/L	0.4933	ppb	00:47:04
1	Ti 334.940†	1245.9	270.5	0.2536	µg/L	0.2536	ppb	00:46:44
1	Tl 190.801†	-106.7	11.9	1.4748	µg/L	1.4748	ppb	00:47:04
1	U 409.014†	-279.4	-4.3	-0.1987	µg/L	-0.1987	ppb	00:46:44
1	V 292.402†	610.8	195.8	0.9591	µg/L	0.9591	ppb	00:46:44
1	Zn 213.857†	602.2	26.7	0.1490	µg/L	0.1490	ppb	00:47:04
2	Sc RADIAL	145033.3	145033.3	99.4	%			00:45:56
2	Al 396.153Radial†	-65.1	-2.3	-0.4158	µg/L	-0.4158	ppb	00:46:16
2	Ca 317.933Radial†	657.9	101.4	5.6466	µg/L	5.6466	ppb	00:46:16
2	Fe 238.204 Radial†	255.9	109.4	6.7397	µg/L	6.7397	ppb	00:46:16
2	K 766.490 Radial†	1898.9	365.8	133.93	µg/L	133.93	ppb	00:45:56
2	Mg 279.077 IEC†	184.6	-5.0	-1.8665	µg/L	-1.8665	ppb	00:46:16
2	Na 589.592 Radial†	1425.5	143.5	19.480	µg/L	19.480	ppb	00:45:56
2	Sr 421.552†	-181.0	-46.9	-0.0975	µg/L	-0.0975	ppb	00:45:56
2	Sc 361.383	1733689.5	1733689.5	100.90	%			00:47:06
2	Y 371.029	1035932.6	1035932.6	100.90	%			00:47:06
2	Ag 328.068†	4170.2	41.6	0.1255	µg/L	0.1255	ppb	00:47:08
2	As 188.979†	-26.8	-6.2	-1.8781	µg/L	-1.8781	ppb	00:47:28
2	B 249.677†	3534.2	-3.2	-0.0484	µg/L	-0.0484	ppb	00:47:28
2	Ba 233.527†	-142.6	-5.5	-0.0225	µg/L	-0.0225	ppb	00:47:28
2	Be 313.107†	-653.6	416.9	0.1076	µg/L	0.1076	ppb	00:47:08
2	Cd 226.502†	-96.3	22.8	0.1415	µg/L	0.1415	ppb	00:47:28
2	Co 228.616†	-179.3	12.7	0.1558	µg/L	0.1558	ppb	00:47:28
2	Cr 267.716†	198.6	18.3	0.1585	µg/L	0.1585	ppb	00:47:28
2	Cu 324.752†	3088.6	88.8	0.3301	µg/L	0.3301	ppb	00:47:08
2	Mn 257.610†	332.3	92.1	0.1140	µg/L	0.1140	ppb	00:47:28
2	Mo 202.031†	-28.0	-7.7	-0.2262	µg/L	-0.2262	ppb	00:47:28
2	Ni 231.604†	-93.8	-16.5	-0.1899	µg/L	-0.1899	ppb	00:47:28
2	P 214.914†	-21.8	-3.7	-0.7885	µg/L	-0.7885	ppb	00:47:28
2	Pb 220.353†	61.7	-25.2	-1.3944	µg/L	-1.3944	ppb	00:47:28

2	S 181.975 Axial†	90.5	-15.4	-11.437 µg/L	-11.437 ppb	00:47:28
2	Sb 206.836†	79.2	-2.4	-0.2858 µg/L	-0.2858 ppb	00:47:28
2	Se 196.026†	19.9	4.4	1.59 µg/L	1.59 ppb	00:47:28
2	SiO2†	1761.9	-29.2	-2.8510 µg/L	-2.8510 ppb	00:47:28
2	Si 251.611†	952.2	107.2	1.5818 µg/L	1.5818 ppb	00:47:08
2	Sn 189.927†	1.6	2.7	0.1708 µg/L	0.1708 ppb	00:47:28
2	Ti 334.940†	1138.7	176.0	0.1727 µg/L	0.1727 ppb	00:47:08
2	Tl 190.801†	-112.9	4.8	0.5868 µg/L	0.5868 ppb	00:47:28
2	U 409.014†	-610.9	-335.5	-19.639 µg/L	-19.639 ppb	00:47:08
2	V 292.402†	335.6	-71.2	-0.3633 µg/L	-0.3633 ppb	00:47:08
2	Zn 213.857†	609.0	39.1	0.2201 µg/L	0.2201 ppb	00:47:28
3	Sc RADIAL	144640.1	144640.1	99.1 %		00:46:18
3	Al 396.153Radial†	-16.5	46.5	8.6229 µg/L	8.6229 ppb	00:46:38
3	Ca 317.933Radial†	641.2	86.3	4.8083 µg/L	4.8083 ppb	00:46:38
3	Fe 238.204 Radial†	234.4	88.4	5.4482 µg/L	5.4482 ppb	00:46:38
3	K 766.490 Radial†	1840.5	312.1	114.26 µg/L	114.26 ppb	00:46:18
3	Mg 279.077 IEC†	179.1	-10.0	-3.7407 µg/L	-3.7407 ppb	00:46:38
3	Na 589.592 Radial†	1296.3	17.0	2.2230 µg/L	2.2230 ppb	00:46:18
3	Sr 421.552†	-133.6	0.5	0.0010 µg/L	0.0010 ppb	00:46:18
3	Sc 361.383	1767241.8	1767241.8	102.85 %		00:47:31
3	Y 371.029	1055815.3	1055815.3	102.84 %		00:47:31
3	Ag 328.068†	4233.0	24.2	0.0732 µg/L	0.0732 ppb	00:47:33
3	As 188.979†	-18.4	2.5	0.7561 µg/L	0.7561 ppb	00:47:53
3	B 249.677†	3514.8	-88.6	-1.3075 µg/L	-1.3075 ppb	00:47:53
3	Ba 233.527†	-120.1	19.1	0.0763 µg/L	0.0763 ppb	00:47:53
3	Be 313.107†	-970.1	121.5	0.0322 µg/L	0.0322 ppb	00:47:33
3	Cd 226.502†	-78.9	41.4	0.2583 µg/L	0.2583 ppb	00:47:53
3	Co 228.616†	-184.4	11.0	0.1355 µg/L	0.1355 ppb	00:47:53
3	Cr 267.716†	190.1	6.2	0.0509 µg/L	0.0509 ppb	00:47:53
3	Cu 324.752†	2968.8	-85.8	-0.3350 µg/L	-0.3350 ppb	00:47:33
3	Mn 257.610†	335.2	88.6	0.1098 µg/L	0.1098 ppb	00:47:53
3	Mo 202.031†	-18.5	2.1	0.0614 µg/L	0.0614 ppb	00:47:53
3	Ni 231.604†	-69.8	8.6	0.0995 µg/L	0.0995 ppb	00:47:53
3	P 214.914†	-21.0	-2.5	-0.5265 µg/L	-0.5265 ppb	00:47:53
3	Pb 220.353†	70.5	-17.8	-0.9923 µg/L	-0.9923 ppb	00:47:53
3	S 181.975 Axial†	109.4	1.3	0.9740 µg/L	0.9740 ppb	00:47:53
3	Sb 206.836†	82.2	-0.9	-0.1044 µg/L	-0.1044 ppb	00:47:53
3	Se 196.026†	22.8	6.9	2.49 µg/L	2.49 ppb	00:47:53
3	SiO2†	1817.9	-7.9	-0.7787 µg/L	-0.7787 ppb	00:47:53
3	Si 251.611†	954.5	91.5	1.3450 µg/L	1.3450 ppb	00:47:33
3	Sn 189.927†	5.8	6.8	0.4211 µg/L	0.4211 ppb	00:47:53
3	Ti 334.940†	1018.9	38.1	0.0372 µg/L	0.0372 ppb	00:47:33
3	Tl 190.801†	-118.1	1.9	0.2233 µg/L	0.2233 ppb	00:47:53
3	U 409.014†	-329.7	-50.7	-3.0245 µg/L	-3.0245 ppb	00:47:33
3	V 292.402†	193.7	-215.4	-1.0528 µg/L	-1.0528 ppb	00:47:33
3	Zn 213.857†	612.8	31.3	0.1753 µg/L	0.1753 ppb	00:47:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1750446.7	101.88	%	0.976				0.96%
Sc RADIAL	145162.4	99.5	%	0.41				0.41%
Y 371.029	1046029.3	101.88	%	0.969				0.95%
Ag 328.068†	23.8	0.0767	µg/L	0.04716	0.0767	ppb	0.04716	61.52%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	28.7	5.3071	µg/L	4.97697	5.3071	ppb	4.97697	93.78%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.4	0.4331	µg/L	2.16790	0.4331	ppb	2.16790	500.51%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-35.9	-0.5294	µg/L	0.68010	-0.5294	ppb	0.68010	128.47%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.7	0.0671	µg/L	0.08530	0.0671	ppb	0.08530	127.20%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	274.1	0.0723	µg/L	0.03793	0.0723	ppb	0.03793	52.45%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	96.1	5.3530	µg/L	0.47226	5.3530	ppb	0.47226	8.82%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	29.5	0.1837	µg/L	0.06479	0.1837	ppb	0.06479	35.27%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.6	0.1547	µg/L	0.01867	0.1547	ppb	0.01867	12.07%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                6.6      0.0576 µg/L       0.09767      0.0576 ppb        0.09767 169.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -37.7     -0.1518 µg/L       0.42126     -0.1518 ppb        0.42126 277.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       101.8      6.2718 µg/L       0.71549      6.2718 ppb        0.71549  11.41%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        355.1      130.01 µg/L        14.197      130.01 ppb         14.197  10.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -12.1     -4.5221 µg/L       3.12050     -4.5221 ppb        3.12050  69.01%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              107.7      0.1334 µg/L       0.03737      0.1334 ppb        0.03737  28.01%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.0      0.1182 µg/L       0.37600      0.1182 ppb        0.37600 318.18%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        96.8      13.110 µg/L        9.4739      13.110 ppb         9.4739  72.26%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                0.9      0.0099 µg/L       0.17332      0.0099 ppb        0.17332 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.6     -0.9786 µg/L       0.57141     -0.9786 ppb        0.57141  58.39%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -12.3     -0.6773 µg/L       0.91616     -0.6773 ppb        0.91616 135.26%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -6.6     -4.8786 µg/L       6.23561     -4.8786 ppb        6.23561 127.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.3     -0.2716 µg/L       0.16066     -0.2716 ppb        0.16066  59.14%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.6        1.28 µg/L         1.379        1.28 ppb          1.379 107.38%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -3.1     -0.3119 µg/L       2.80175     -0.3119 ppb        2.80175 898.16%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               94.6      1.3901 µg/L       0.17359      1.3901 ppb        0.17359  12.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.8      0.3617 µg/L       0.16924      0.3617 ppb        0.16924  46.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -11.4     -0.0238 µg/L       0.06494     -0.0238 ppb        0.06494 273.03%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              161.5      0.1545 µg/L       0.10934      0.1545 ppb        0.10934  70.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.2      0.7616 µg/L       0.64382      0.7616 ppb        0.64382  84.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -130.2     -7.6208 µg/L      10.50370     -7.6208 ppb       10.50370 137.83%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -30.3     -0.1523 µg/L       1.02242     -0.1523 ppb        1.02242 671.32%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               32.4      0.1815 µg/L       0.03598      0.1815 ppb        0.03598  19.83%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 158
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 1:06:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146522.6	146522.6	100	%			01:07:32
1	Al 396.153Radial†	26773.8	26728.7	4933.4	µg/L	4933.4	ppb	01:07:32
1	Ca 317.933Radial†	87529.0	86614.3	4824.8	µg/L	4824.8	ppb	01:07:32
1	Fe 238.204 Radial†	78541.6	78075.8	4812.1	µg/L	4812.1	ppb	01:07:32
1	K 766.490 Radial†	15525.2	13917.7	5091.5	µg/L	5091.5	ppb	01:07:32
1	Mg 279.077 IEC†	13414.6	13169.6	4914.3	µg/L	4914.3	ppb	01:07:32
1	Na 589.592 Radial†	72095.2	70512.7	9628.4	µg/L	9628.4	ppb	01:07:32
1	Sr 421.552†	235357.5	234540.5	487.56	µg/L	487.56	ppb	01:07:30
1	Sc 361.383	1762084.8	1762084.8	102.55	%			01:07:59
1	Y 371.029	1041330.1	1041330.1	101.43	%			01:07:59
1	Ag 328.068†	134973.9	127522.4	478.16	µg/L	478.16	ppb	01:07:59
1	As 188.979†	1631.3	1611.1	494.16	µg/L	494.16	ppb	01:08:19
1	B 249.677†	36407.7	31995.5	470.22	µg/L	470.22	ppb	01:07:59
1	Ba 233.527†	121835.6	118938.4	479.67	µg/L	479.67	ppb	01:07:59
1	Be 313.107†	1812562.4	1768503.2	481.66	µg/L	481.66	ppb	01:07:59
1	Cd 226.502†	77806.6	75987.8	474.35	µg/L	474.35	ppb	01:07:59
1	Co 228.616†	39537.1	38743.2	478.28	µg/L	478.28	ppb	01:07:59
1	Cr 267.716†	62417.9	60685.5	475.17	µg/L	475.17	ppb	01:07:59
1	Cu 324.752†	128335.3	122168.2	476.24	µg/L	476.24	ppb	01:07:59
1	Mn 257.610†	398229.3	388078.1	479.96	µg/L	479.96	ppb	01:07:59
1	Mo 202.031†	16581.6	16188.8	476.21	µg/L	476.21	ppb	01:08:19
1	Ni 231.604†	42325.1	41347.9	476.09	µg/L	476.09	ppb	01:07:59
1	P 214.914†	11363.6	11098.7	2365.6	µg/L	2365.6	ppb	01:08:19
1	Pb 220.353†	8809.5	8503.8	476.23	µg/L	476.23	ppb	01:08:19
1	S 181.975 Axial†	1388.1	1248.5	931.12	µg/L	931.12	ppb	01:08:19
1	Sb 206.836†	4172.3	3987.6	475.12	µg/L	475.12	ppb	01:08:19
1	Se 196.026†	1355.6	1306.5	474	µg/L	474	ppb	01:08:19
1	SiO2†	55579.1	52420.1	5103.2	µg/L	5103.2	ppb	01:07:59
1	Si 251.611†	167664.3	162653.7	2388.5	µg/L	2388.5	ppb	01:07:59
1	Sn 189.927†	7816.4	7622.9	476.82	µg/L	476.82	ppb	01:08:19
1	Ti 334.940†	526571.2	512509.7	478.21	µg/L	478.21	ppb	01:07:59
1	Tl 190.801†	3871.8	3892.1	485.40	µg/L	485.40	ppb	01:08:19
1	U 409.014†	7269.4	7358.4	459.25	µg/L	459.25	ppb	01:07:59
1	V 292.402†	100190.2	97292.2	480.93	µg/L	480.93	ppb	01:07:59
1	Zn 213.857†	87537.1	84793.4	472.58	µg/L	472.58	ppb	01:07:59
2	Sc RADIAL	146791.9	146791.9	101	%			01:07:36
2	Al 396.153Radial†	27048.5	26952.8	4975.0	µg/L	4975.0	ppb	01:07:36
2	Ca 317.933Radial†	87767.1	86691.0	4829.0	µg/L	4829.0	ppb	01:07:36
2	Fe 238.204 Radial†	78690.1	78079.8	4812.4	µg/L	4812.4	ppb	01:07:36
2	K 766.490 Radial†	15502.6	13866.8	5072.9	µg/L	5072.9	ppb	01:07:36
2	Mg 279.077 IEC†	13437.6	13167.9	4913.6	µg/L	4913.6	ppb	01:07:36
2	Na 589.592 Radial†	72405.6	70689.6	9652.5	µg/L	9652.5	ppb	01:07:36
2	Sr 421.552†	234136.0	232896.1	484.14	µg/L	484.14	ppb	01:07:34
2	Sc 361.383	1778604.4	1778604.4	103.51	%			01:08:22
2	Y 371.029	1050375.8	1050375.8	102.31	%			01:08:22
2	Ag 328.068†	136891.1	128152.0	480.51	µg/L	480.51	ppb	01:08:22
2	As 188.979†	1644.9	1609.4	493.66	µg/L	493.66	ppb	01:08:42
2	B 249.677†	36899.1	32140.4	472.35	µg/L	472.35	ppb	01:08:22
2	Ba 233.527†	123076.9	119034.1	480.06	µg/L	480.06	ppb	01:08:22
2	Be 313.107†	1839423.0	1778036.1	484.26	µg/L	484.26	ppb	01:08:22
2	Cd 226.502†	78945.9	76383.7	476.82	µg/L	476.82	ppb	01:08:22
2	Co 228.616†	40112.8	38941.2	480.73	µg/L	480.73	ppb	01:08:22
2	Cr 267.716†	63218.4	60893.4	476.79	µg/L	476.79	ppb	01:08:22
2	Cu 324.752†	130086.8	122697.9	478.30	µg/L	478.30	ppb	01:08:22
2	Mn 257.610†	403480.0	389543.9	481.77	µg/L	481.77	ppb	01:08:22
2	Mo 202.031†	16656.0	16110.6	473.91	µg/L	473.91	ppb	01:08:42
2	Ni 231.604†	42857.3	41478.7	477.60	µg/L	477.60	ppb	01:08:22
2	P 214.914†	11457.7	11086.6	2363.0	µg/L	2363.0	ppb	01:08:42
2	Pb 220.353†	8947.0	8556.9	479.18	µg/L	479.18	ppb	01:08:42

2	S 181.975 Axial†	1398.9	1246.4	929.54	µg/L	929.54 ppb	01:08:42
2	Sb 206.836†	4203.2	3979.6	474.11	µg/L	474.11 ppb	01:08:42
2	Se 196.026†	1349.5	1288.4	468	µg/L	468 ppb	01:08:42
2	SiO2†	56478.7	52785.7	5139.0	µg/L	5139.0 ppb	01:08:22
2	Si 251.611†	170057.2	163446.9	2400.2	µg/L	2400.2 ppb	01:08:22
2	Sn 189.927†	7878.0	7611.7	476.13	µg/L	476.13 ppb	01:08:42
2	Ti 334.940†	533494.1	514428.5	480.00	µg/L	480.00 ppb	01:08:22
2	Tl 190.801†	3890.7	3875.3	483.36	µg/L	483.36 ppb	01:08:42
2	U 409.014†	7435.4	7452.8	464.82	µg/L	464.82 ppb	01:08:22
2	V 292.402†	101287.4	97444.7	481.66	µg/L	481.66 ppb	01:08:22
2	Zn 213.857†	88719.7	85143.1	474.54	µg/L	474.54 ppb	01:08:22
3	Sc RADIAL	146092.3	146092.3	100	%		01:07:40
3	Al 396.153Radial†	26892.5	26925.8	4970.0	µg/L	4970.0 ppb	01:07:40
3	Ca 317.933Radial†	87875.3	87217.0	4858.3	µg/L	4858.3 ppb	01:07:40
3	Fe 238.204 Radial†	78732.4	78496.7	4838.1	µg/L	4838.1 ppb	01:07:40
3	K 766.490 Radial†	15647.7	14085.6	5152.9	µg/L	5152.9 ppb	01:07:40
3	Mg 279.077 IEC†	13491.9	13286.2	4957.7	µg/L	4957.7 ppb	01:07:40
3	Na 589.592 Radial†	72348.8	70977.5	9691.8	µg/L	9691.8 ppb	01:07:40
3	Sr 421.552†	235009.5	234883.4	488.27	µg/L	488.27 ppb	01:07:38
3	Sc 361.383	1770348.4	1770348.4	103.03	%		01:08:45
3	Y 371.029	1045407.1	1045407.1	101.82	%		01:08:45
3	Ag 328.068†	136122.4	128022.6	480.04	µg/L	480.04 ppb	01:08:45
3	As 188.979†	1638.1	1610.2	493.91	µg/L	493.91 ppb	01:09:05
3	B 249.677†	36651.5	32066.4	471.25	µg/L	471.25 ppb	01:08:45
3	Ba 233.527†	122673.9	119197.4	480.72	µg/L	480.72 ppb	01:08:45
3	Be 313.107†	1829445.6	1776639.3	483.88	µg/L	483.88 ppb	01:08:45
3	Cd 226.502†	78812.0	76609.4	478.23	µg/L	478.23 ppb	01:08:45
3	Co 228.616†	40059.1	39069.8	482.31	µg/L	482.31 ppb	01:08:45
3	Cr 267.716†	62827.7	60799.1	476.05	µg/L	476.05 ppb	01:08:45
3	Cu 324.752†	129210.5	122433.4	477.28	µg/L	477.28 ppb	01:08:45
3	Mn 257.610†	402215.3	390134.2	482.50	µg/L	482.50 ppb	01:08:45
3	Mo 202.031†	16594.4	16125.8	474.36	µg/L	474.36 ppb	01:09:05
3	Ni 231.604†	42691.2	41510.6	477.96	µg/L	477.96 ppb	01:08:45
3	P 214.914†	11386.0	11068.7	2359.2	µg/L	2359.2 ppb	01:09:05
3	Pb 220.353†	8898.6	8550.2	478.81	µg/L	478.81 ppb	01:09:05
3	S 181.975 Axial†	1408.3	1261.7	940.94	µg/L	940.94 ppb	01:09:05
3	Sb 206.836†	4205.9	4001.2	476.70	µg/L	476.70 ppb	01:09:05
3	Se 196.026†	1357.9	1302.6	473	µg/L	473 ppb	01:09:05
3	SiO2†	56197.3	52767.1	5137.2	µg/L	5137.2 ppb	01:08:45
3	Si 251.611†	169573.7	163743.8	2404.6	µg/L	2404.6 ppb	01:08:45
3	Sn 189.927†	7850.8	7620.8	476.69	µg/L	476.69 ppb	01:09:05
3	Ti 334.940†	530475.4	513902.1	479.51	µg/L	479.51 ppb	01:08:45
3	Tl 190.801†	3897.8	3899.7	486.34	µg/L	486.34 ppb	01:09:05
3	U 409.014†	7446.2	7496.8	467.41	µg/L	467.41 ppb	01:08:45
3	V 292.402†	100857.9	97484.1	481.85	µg/L	481.85 ppb	01:08:45
3	Zn 213.857†	88341.1	85175.3	474.71	µg/L	474.71 ppb	01:08:45

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1770345.9	103.03	%	0.481				0.47%
Sc RADIAL	146468.9	100	%	0.2				0.24%
Y 371.029	1045704.3	101.85	%	0.441				0.43%
Ag 328.068†	127899.0	479.57	µg/L	1.241	479.57	ppb	1.241	0.26%
QC value within limits for Ag 328.068 Recovery = 95.91%								
Al 396.153Radial†	26869.1	4959.5	µg/L	22.74	4959.5	ppb	22.74	0.46%
QC value within limits for Al 396.153Radial Recovery = 99.19%								
As 188.979†	1610.2	493.91	µg/L	0.253	493.91	ppb	0.253	0.05%
QC value within limits for As 188.979 Recovery = 98.78%								
B 249.677†	32067.4	471.27	µg/L	1.065	471.27	ppb	1.065	0.23%
QC value within limits for B 249.677 Recovery = 94.25%								
Ba 233.527†	119056.6	480.15	µg/L	0.528	480.15	ppb	0.528	0.11%
QC value within limits for Ba 233.527 Recovery = 96.03%								
Be 313.107†	1774392.9	483.27	µg/L	1.403	483.27	ppb	1.403	0.29%
QC value within limits for Be 313.107 Recovery = 96.65%								
Ca 317.933Radial†	86840.8	4837.4	µg/L	18.28	4837.4	ppb	18.28	0.38%
QC value within limits for Ca 317.933Radial Recovery = 96.75%								
Cd 226.502†	76327.0	476.46	µg/L	1.965	476.46	ppb	1.965	0.41%
QC value within limits for Cd 226.502 Recovery = 95.29%								
Co 228.616†	38918.0	480.44	µg/L	2.030	480.44	ppb	2.030	0.42%

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   QC value within limits for Co 228.616  Recovery = 96.09%
Cr 267.716†            60792.6      476.00 µg/L         0.813      476.00 ppb          0.813   0.17%
   QC value within limits for Cr 267.716  Recovery = 95.20%
Cu 324.752†           122433.2      477.28 µg/L         1.032      477.28 ppb          1.032   0.22%
   QC value within limits for Cu 324.752  Recovery = 95.46%
Fe 238.204 Radial†     78217.4      4820.8 µg/L         14.91      4820.8 ppb          14.91   0.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.42%
K 766.490 Radial†      13956.7      5105.8 µg/L         41.90      5105.8 ppb          41.90   0.82%
   QC value within limits for K 766.490 Radial  Recovery = 102.12%
Mg 279.077 IEC†        13207.9      4928.5 µg/L         25.24      4928.5 ppb          25.24   0.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.57%
Mn 257.610†           389252.0      481.41 µg/L         1.309      481.41 ppb          1.309   0.27%
   QC value within limits for Mn 257.610  Recovery = 96.28%
Mo 202.031†            16141.8      474.83 µg/L         1.219      474.83 ppb          1.219   0.26%
   QC value within limits for Mo 202.031  Recovery = 94.97%
Na 589.592 Radial†     70726.6      9657.6 µg/L         32.02      9657.6 ppb          32.02   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 96.58%
Ni 231.604†            41445.7      477.22 µg/L         0.992      477.22 ppb          0.992   0.21%
   QC value within limits for Ni 231.604  Recovery = 95.44%
P 214.914†             11084.6      2362.6 µg/L          3.23      2362.6 ppb           3.23   0.14%
   QC value within limits for P 214.914  Recovery = 94.50%
Pb 220.353†             8537.0      478.07 µg/L         1.609      478.07 ppb          1.609   0.34%
   QC value within limits for Pb 220.353  Recovery = 95.61%
S 181.975 Axial†        1252.2      933.87 µg/L         6.179      933.87 ppb          6.179   0.66%
   QC value within limits for S 181.975 Axial  Recovery = 93.39%
Sb 206.836†             3989.5      475.31 µg/L         1.305      475.31 ppb          1.305   0.27%
   QC value within limits for Sb 206.836  Recovery = 95.06%
Se 196.026†             1299.2         472 µg/L          3.5         472 ppb            3.5   0.73%
   QC value within limits for Se 196.026  Recovery = 94.36%
SiO2†                  52657.7      5126.5 µg/L         20.17      5126.5 ppb          20.17   0.39%
   QC value within limits for SiO2  Recovery = 95.87%
Si 251.611†           163281.5      2397.8 µg/L          8.32      2397.8 ppb           8.32   0.35%
   QC value within limits for Si 251.611  Recovery = 95.91%
Sn 189.927†             7618.4      476.55 µg/L         0.370      476.55 ppb          0.370   0.08%
   QC value within limits for Sn 189.927  Recovery = 95.31%
Sr 421.552†           234106.7      486.66 µg/L         2.208      486.66 ppb          2.208   0.45%
   QC value within limits for Sr 421.552  Recovery = 97.33%
Ti 334.940†           513613.4      479.24 µg/L         0.924      479.24 ppb          0.924   0.19%
   QC value within limits for Ti 334.940  Recovery = 95.85%
Tl 190.801†             3889.0      485.03 µg/L         1.526      485.03 ppb          1.526   0.31%
   QC value within limits for Tl 190.801  Recovery = 97.01%
U 409.014†              7436.0      463.82 µg/L         4.171      463.82 ppb          4.171   0.90%
   QC value within limits for U 409.014  Recovery = 92.76%
V 292.402†             97407.0      481.48 µg/L         0.487      481.48 ppb          0.487   0.10%
   QC value within limits for V 292.402  Recovery = 96.30%
Zn 213.857†            85037.3      473.94 µg/L         1.182      473.94 ppb          1.182   0.25%
   QC value within limits for Zn 213.857  Recovery = 94.79%
All analyte(s) passed QC.
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Sequence No.: 159
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 1:09:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146128.5	146128.5	100	%			01:09:42
1	Al 396.153Radial†	21.7	84.8	15.716	µg/L	15.716	ppb	01:10:02
1	Ca 317.933Radial†	736.1	174.5	9.7222	µg/L	9.7222	ppb	01:10:02
1	Fe 238.204 Radial†	312.8	164.3	10.127	µg/L	10.127	ppb	01:10:02
1	K 766.490 Radial†	2113.9	566.2	207.29	µg/L	207.29	ppb	01:09:42
1	Mg 279.077 IEC†	213.9	22.9	8.5204	µg/L	8.5204	ppb	01:10:02
1	Na 589.592 Radial†	1401.2	108.5	14.644	µg/L	14.644	ppb	01:09:42
1	Sr 421.552†	-140.7	-5.2	-0.0110	µg/L	-0.0110	ppb	01:09:42
1	Sc 361.383	1779002.1	1779002.1	103.54	%			01:11:04
1	Y 371.029	1062055.8	1062055.8	103.44	%			01:11:04
1	Ag 328.068†	4011.9	-216.6	-0.7870	µg/L	-0.7870	ppb	01:11:06
1	As 188.979†	-3.3	17.2	5.2109	µg/L	5.2109	ppb	01:11:26
1	B 249.677†	3579.4	-48.7	-0.7204	µg/L	-0.7204	ppb	01:11:06
1	Ba 233.527†	-100.8	38.5	0.1554	µg/L	0.1554	ppb	01:11:26
1	Be 313.107†	-912.4	183.5	0.0524	µg/L	0.0524	ppb	01:11:06
1	Cd 226.502†	-113.0	9.1	0.0554	µg/L	0.0554	ppb	01:11:26
1	Co 228.616†	-162.1	33.7	0.4158	µg/L	0.4158	ppb	01:11:26
1	Cr 267.716†	218.6	32.5	0.2490	µg/L	0.2490	ppb	01:11:26
1	Cu 324.752†	2858.4	-211.5	-0.8135	µg/L	-0.8135	ppb	01:11:06
1	Mn 257.610†	394.6	143.8	0.1776	µg/L	0.1776	ppb	01:11:26
1	Mo 202.031†	-10.8	9.7	0.2849	µg/L	0.2849	ppb	01:11:26
1	Ni 231.604†	-102.3	-22.3	-0.2566	µg/L	-0.2566	ppb	01:11:26
1	P 214.914†	-11.8	6.6	1.4104	µg/L	1.4104	ppb	01:11:26
1	Pb 220.353†	58.5	-29.9	-1.6702	µg/L	-1.6702	ppb	01:11:26
1	S 181.975 Axial†	94.9	-13.4	-9.9448	µg/L	-9.9448	ppb	01:11:26
1	Sb 206.836†	73.9	-9.4	-1.1181	µg/L	-1.1181	ppb	01:11:26
1	Se 196.026†	3.0	-12.4	-4.47	µg/L	-4.47	ppb	01:11:26
1	SiO2†	1673.9	-158.6	-15.514	µg/L	-15.514	ppb	01:11:06
1	Si 251.611†	875.4	8.9	0.1281	µg/L	0.1281	ppb	01:11:06
1	Sn 189.927†	-1.0	0.1	0.0104	µg/L	0.0104	ppb	01:11:26
1	Ti 334.940†	1332.9	334.8	0.3090	µg/L	0.3090	ppb	01:11:06
1	Tl 190.801†	-105.0	15.3	1.8866	µg/L	1.8866	ppb	01:11:26
1	U 409.014†	-139.3	135.4	7.9422	µg/L	7.9422	ppb	01:11:06
1	V 292.402†	520.5	98.9	0.4905	µg/L	0.4905	ppb	01:11:06
1	Zn 213.857†	599.7	14.8	0.0844	µg/L	0.0844	ppb	01:11:26
2	Sc RADIAL	146813.6	146813.6	101	%			01:10:04
2	Al 396.153Radial†	-26.8	36.6	6.7739	µg/L	6.7739	ppb	01:10:24
2	Ca 317.933Radial†	799.6	234.2	13.044	µg/L	13.044	ppb	01:10:24
2	Fe 238.204 Radial†	380.9	230.5	14.206	µg/L	14.206	ppb	01:10:24
2	K 766.490 Radial†	2016.0	459.1	168.07	µg/L	168.07	ppb	01:10:04
2	Mg 279.077 IEC†	199.3	7.4	2.7300	µg/L	2.7300	ppb	01:10:24
2	Na 589.592 Radial†	1532.0	232.0	31.539	µg/L	31.539	ppb	01:10:04
2	Sr 421.552†	-276.0	-139.1	-0.2892	µg/L	-0.2892	ppb	01:10:04
2	Sc 361.383	1772846.3	1772846.3	103.18	%			01:11:28
2	Y 371.029	1058367.3	1058367.3	103.09	%			01:11:28
2	Ag 328.068†	3953.0	-260.2	-0.9687	µg/L	-0.9687	ppb	01:11:30
2	As 188.979†	-11.1	9.6	2.9020	µg/L	2.9020	ppb	01:11:51
2	B 249.677†	3504.7	-109.2	-1.6118	µg/L	-1.6118	ppb	01:11:30
2	Ba 233.527†	-93.1	45.6	0.1835	µg/L	0.1835	ppb	01:11:51
2	Be 313.107†	-921.0	172.1	0.0458	µg/L	0.0458	ppb	01:11:30
2	Cd 226.502†	-118.2	3.6	0.0212	µg/L	0.0212	ppb	01:11:51
2	Co 228.616†	-173.4	22.3	0.2745	µg/L	0.2745	ppb	01:11:51
2	Cr 267.716†	185.2	0.9	0.0101	µg/L	0.0101	ppb	01:11:51
2	Cu 324.752†	2984.8	-79.4	-0.3090	µg/L	-0.3090	ppb	01:11:30
2	Mn 257.610†	358.6	110.3	0.1363	µg/L	0.1363	ppb	01:11:51
2	Mo 202.031†	-18.5	2.1	0.0628	µg/L	0.0628	ppb	01:11:51
2	Ni 231.604†	-79.0	-0.0	-0.0005	µg/L	-0.0005	ppb	01:11:51
2	P 214.914†	-17.7	0.8	0.1744	µg/L	0.1744	ppb	01:11:51
2	Pb 220.353†	91.7	2.4	0.1393	µg/L	0.1393	ppb	01:11:51

2	S 181.975 Axial†	93.2	-14.7	-10.902 µg/L	-10.902 ppb	01:11:51
2	Sb 206.836†	88.1	4.5	0.5418 µg/L	0.5418 ppb	01:11:51
2	Se 196.026†	30.0	13.8	4.99 µg/L	4.99 ppb	01:11:51
2	SiO2†	1856.5	23.9	2.3278 µg/L	2.3278 ppb	01:11:30
2	Si 251.611†	711.9	-146.6	-2.1655 µg/L	-2.1655 ppb	01:11:30
2	Sn 189.927†	7.1	8.0	0.4985 µg/L	0.4985 ppb	01:11:51
2	Ti 334.940†	1070.6	85.1	0.0810 µg/L	0.0810 ppb	01:11:30
2	Tl 190.801†	-109.4	10.7	1.3129 µg/L	1.3129 ppb	01:11:51
2	U 409.014†	-338.3	-58.0	-3.3954 µg/L	-3.3954 ppb	01:11:30
2	V 292.402†	407.5	-8.8	-0.0463 µg/L	-0.0463 ppb	01:11:30
2	Zn 213.857†	608.7	25.6	0.1424 µg/L	0.1424 ppb	01:11:51
3	Sc RADIAL	143813.7	143813.7	98.5 %		01:10:26
3	Al 396.153Radial†	-37.9	24.7	4.5852 µg/L	4.5852 ppb	01:10:46
3	Ca 317.933Radial†	675.0	124.4	6.9283 µg/L	6.9283 ppb	01:10:46
3	Fe 238.204 Radial†	268.6	124.4	7.6689 µg/L	7.6689 ppb	01:10:46
3	K 766.490 Radial†	2088.7	574.6	210.37 µg/L	210.37 ppb	01:10:26
3	Mg 279.077 IEC†	196.5	8.7	3.2166 µg/L	3.2166 ppb	01:10:46
3	Na 589.592 Radial†	1456.5	187.1	25.377 µg/L	25.377 ppb	01:10:26
3	Sr 421.552†	-185.3	-52.7	-0.1097 µg/L	-0.1097 ppb	01:10:26
3	Sc 361.383	1766720.8	1766720.8	102.82 %		01:11:53
3	Y 371.029	1055436.7	1055436.7	102.80 %		01:11:53
3	Ag 328.068†	4141.9	-63.2	-0.2377 µg/L	-0.2377 ppb	01:11:55
3	As 188.979†	-13.9	6.9	2.0745 µg/L	2.0745 ppb	01:12:15
3	B 249.677†	3478.7	-122.7	-1.8116 µg/L	-1.8116 ppb	01:11:55
3	Ba 233.527†	-110.8	28.1	0.1129 µg/L	0.1129 ppb	01:12:15
3	Be 313.107†	-876.4	212.4	0.0574 µg/L	0.0574 ppb	01:11:55
3	Cd 226.502†	-103.6	17.5	0.1084 µg/L	0.1084 ppb	01:12:15
3	Co 228.616†	-163.0	31.7	0.3914 µg/L	0.3914 ppb	01:12:15
3	Cr 267.716†	182.9	-0.6	-0.0038 µg/L	-0.0038 ppb	01:12:15
3	Cu 324.752†	2678.2	-367.6	-1.4282 µg/L	-1.4282 ppb	01:11:55
3	Mn 257.610†	398.1	149.9	0.1853 µg/L	0.1853 ppb	01:12:15
3	Mo 202.031†	-22.2	-1.5	-0.0432 µg/L	-0.0432 ppb	01:12:15
3	Ni 231.604†	-66.6	11.8	0.1354 µg/L	0.1354 ppb	01:12:15
3	P 214.914†	-21.4	-2.9	-0.5979 µg/L	-0.5979 ppb	01:12:15
3	Pb 220.353†	84.0	-4.7	-0.2620 µg/L	-0.2620 ppb	01:12:15
3	S 181.975 Axial†	104.4	-3.6	-2.6485 µg/L	-2.6485 ppb	01:12:15
3	Sb 206.836†	79.6	-3.4	-0.4028 µg/L	-0.4028 ppb	01:12:15
3	Se 196.026†	9.2	-6.3	-2.29 µg/L	-2.29 ppb	01:12:15
3	SiO2†	1792.3	-32.2	-3.1590 µg/L	-3.1590 ppb	01:11:55
3	Si 251.611†	915.0	53.3	0.7827 µg/L	0.7827 ppb	01:11:55
3	Sn 189.927†	8.6	9.4	0.5891 µg/L	0.5891 ppb	01:12:15
3	Ti 334.940†	1052.9	71.4	0.0672 µg/L	0.0672 ppb	01:11:55
3	Tl 190.801†	-98.3	21.1	2.5907 µg/L	2.5907 ppb	01:12:15
3	U 409.014†	-302.2	-24.1	-1.4147 µg/L	-1.4147 ppb	01:11:55
3	V 292.402†	386.4	-28.0	-0.1388 µg/L	-0.1388 ppb	01:11:55
3	Zn 213.857†	594.9	14.1	0.0789 µg/L	0.0789 ppb	01:12:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1772856.4	103.18	%	0.357				0.35%
Sc RADIAL	145585.3	99.8	%	1.08				1.08%
Y 371.029	1058619.9	103.11	%	0.323				0.31%
Ag 328.068†	-180.0	-0.6645	µg/L	0.38057	-0.6645	ppb	0.38057	57.27%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	48.7	9.0249	µg/L	5.89678	9.0249	ppb	5.89678	65.34%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.2	3.3958	µg/L	1.62548	3.3958	ppb	1.62548	47.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-93.6	-1.3813	µg/L	0.58098	-1.3813	ppb	0.58098	42.06%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	37.4	0.1506	µg/L	0.03553	0.1506	ppb	0.03553	23.59%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	189.3	0.0519	µg/L	0.00580	0.0519	ppb	0.00580	11.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	177.7	9.8982	µg/L	3.06173	9.8982	ppb	3.06173	30.93%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.1	0.0617	µg/L	0.04391	0.0617	ppb	0.04391	71.22%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	29.3	0.3606	µg/L	0.07550	0.3606	ppb	0.07550	20.94%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              10.9      0.0851 µg/L       0.14212      0.0851 ppb        0.14212 167.04%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -219.5     -0.8502 µg/L       0.56051     -0.8502 ppb        0.56051  65.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       173.1      10.667 µg/L        3.3019      10.667 ppb         3.3019  30.95%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        533.3      195.24 µg/L        23.585      195.24 ppb         23.585  12.08%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           13.0      4.8223 µg/L       3.21185      4.8223 ppb        3.21185  66.60%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              134.7      0.1664 µg/L       0.02633      0.1664 ppb        0.02633  15.82%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               3.4       0.1015 µg/L       0.16744      0.1015 ppb        0.16744 165.00%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       175.9      23.853 µg/L        8.5497      23.853 ppb         8.5497  35.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -3.5     -0.0406 µg/L       0.19901     -0.0406 ppb        0.19901 490.53%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                1.5       0.3289 µg/L       1.01302      0.3289 ppb        1.01302 307.97%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -10.7     -0.5976 µg/L       0.95031     -0.5976 ppb        0.95031 159.02%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -10.5     -7.8319 µg/L       4.51438     -7.8319 ppb        4.51438  57.64%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.8     -0.3264 µg/L       0.83261     -0.3264 ppb        0.83261 255.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -1.6      -0.590 µg/L        4.9553      -0.590 ppb         4.9553 839.18%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -55.7     -5.4482 µg/L       9.13833     -5.4482 ppb        9.13833 167.73%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -28.1     -0.4183 µg/L       1.54819     -0.4183 ppb        1.54819 370.16%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.9      0.3660 µg/L       0.31130      0.3660 ppb        0.31130  85.06%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -65.7     -0.1366 µg/L       0.14107     -0.1366 ppb        0.14107 103.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              163.8      0.1524 µg/L       0.13582      0.1524 ppb        0.13582  89.12%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               15.7      1.9301 µg/L       0.63996      1.9301 ppb        0.63996  33.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                17.8      1.0440 µg/L       6.05550      1.0440 ppb        6.05550 580.00%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                20.7      0.1018 µg/L       0.33976      0.1018 ppb        0.33976 333.78%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               18.2      0.1019 µg/L       0.03517      0.1019 ppb        0.03517  34.52%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 169
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 1:30:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142269.6	142269.6	97.5	%			01:31:08
1	Al 396.153Radial†	26265.9	27004.9	4984.5	µg/L	4984.5	ppb	01:31:08
1	Ca 317.933Radial†	85749.5	87395.0	4868.2	µg/L	4868.2	ppb	01:31:08
1	Fe 238.204 Radial†	76157.7	77968.9	4805.5	µg/L	4805.5	ppb	01:31:08
1	K 766.490 Radial†	14863.6	13701.2	5012.2	µg/L	5012.2	ppb	01:31:08
1	Mg 279.077 IEC†	13087.6	13233.6	4938.2	µg/L	4938.2	ppb	01:31:08
1	Na 589.592 Radial†	70110.3	70623.2	9643.5	µg/L	9643.5	ppb	01:31:08
1	Sr 421.552†	227619.3	233610.5	485.62	µg/L	485.62	ppb	01:31:06
1	Sc 361.383	1737460.4	1737460.4	101.12	%			01:31:21
1	Y 371.029	1026728.3	1026728.3	100.00	%			01:31:21
1	Ag 328.068†	133485.2	127915.4	479.59	µg/L	479.59	ppb	01:31:21
1	As 188.979†	1620.0	1622.4	497.58	µg/L	497.58	ppb	01:31:41
1	B 249.677†	35927.2	32023.4	470.63	µg/L	470.63	ppb	01:31:21
1	Ba 233.527†	119703.8	118513.9	477.96	µg/L	477.96	ppb	01:31:21
1	Be 313.107†	1789882.8	1771124.1	482.37	µg/L	482.37	ppb	01:31:21
1	Cd 226.502†	77069.2	76333.9	476.51	µg/L	476.51	ppb	01:31:21
1	Co 228.616†	38976.7	38735.3	478.19	µg/L	478.19	ppb	01:31:21
1	Cr 267.716†	61508.0	60648.2	474.88	µg/L	474.88	ppb	01:31:21
1	Cu 324.752†	126624.4	122249.8	476.55	µg/L	476.55	ppb	01:31:21
1	Mn 257.610†	392973.5	388384.0	480.34	µg/L	480.34	ppb	01:31:21
1	Mo 202.031†	16410.6	16248.9	477.97	µg/L	477.97	ppb	01:31:41
1	Ni 231.604†	41598.2	41214.0	474.55	µg/L	474.55	ppb	01:31:21
1	P 214.914†	11285.5	11178.5	2382.7	µg/L	2382.7	ppb	01:31:41
1	Pb 220.353†	8747.8	8564.6	479.64	µg/L	479.64	ppb	01:31:41
1	S 181.975 Axial†	1374.4	1254.1	935.33	µg/L	935.33	ppb	01:31:41
1	Sb 206.836†	4142.8	4016.1	478.53	µg/L	478.53	ppb	01:31:41
1	Se 196.026†	1343.3	1313.1	477	µg/L	477	ppb	01:31:41
1	SiO2†	54906.9	52523.5	5113.2	µg/L	5113.2	ppb	01:31:21
1	Si 251.611†	165514.0	162844.3	2391.3	µg/L	2391.3	ppb	01:31:21
1	Sn 189.927†	7741.6	7657.0	478.94	µg/L	478.94	ppb	01:31:41
1	Ti 334.940†	519154.2	512451.9	478.16	µg/L	478.16	ppb	01:31:21
1	Tl 190.801†	3844.3	3918.4	488.62	µg/L	488.62	ppb	01:31:41
1	U 409.014†	7036.4	7228.4	451.59	µg/L	451.59	ppb	01:31:21
1	V 292.402†	98555.4	97060.1	479.81	µg/L	479.81	ppb	01:31:21
1	Zn 213.857†	86480.2	84958.0	473.52	µg/L	473.52	ppb	01:31:21
2	Sc RADIAL	145492.3	145492.3	99.7	%			01:31:12
2	Al 396.153Radial†	26699.5	26843.0	4954.3	µg/L	4954.3	ppb	01:31:12
2	Ca 317.933Radial†	88239.7	87944.4	4898.8	µg/L	4898.8	ppb	01:31:12
2	Fe 238.204 Radial†	78454.6	78542.4	4840.9	µg/L	4840.9	ppb	01:31:12
2	K 766.490 Radial†	15155.4	13656.2	4995.8	µg/L	4995.8	ppb	01:31:12
2	Mg 279.077 IEC†	13542.7	13392.7	4997.5	µg/L	4997.5	ppb	01:31:12
2	Na 589.592 Radial†	71767.1	70692.1	9653.0	µg/L	9653.0	ppb	01:31:12
2	Sr 421.552†	228188.0	229009.4	476.06	µg/L	476.06	ppb	01:31:10
2	Sc 361.383	1723000.0	1723000.0	100.28	%			01:31:44
2	Y 371.029	1017920.8	1017920.8	99.146	%			01:31:44
2	Ag 328.068†	131837.8	127380.5	477.62	µg/L	477.62	ppb	01:31:44
2	As 188.979†	1612.3	1628.2	499.35	µg/L	499.35	ppb	01:32:04
2	B 249.677†	35506.1	31901.7	468.84	µg/L	468.84	ppb	01:31:44
2	Ba 233.527†	118538.3	118345.2	477.28	µg/L	477.28	ppb	01:31:44
2	Be 313.107†	1770416.1	1766566.8	481.14	µg/L	481.14	ppb	01:31:44
2	Cd 226.502†	75820.7	75728.5	472.72	µg/L	472.72	ppb	01:31:44
2	Co 228.616†	38468.3	38551.9	475.92	µg/L	475.92	ppb	01:31:44
2	Cr 267.716†	60774.3	60427.1	473.14	µg/L	473.14	ppb	01:31:44
2	Cu 324.752†	125187.6	121867.9	475.08	µg/L	475.08	ppb	01:31:44
2	Mn 257.610†	388045.5	386731.2	478.29	µg/L	478.29	ppb	01:31:44
2	Mo 202.031†	16407.0	16381.6	481.87	µg/L	481.87	ppb	01:32:04
2	Ni 231.604†	41306.7	41268.5	475.18	µg/L	475.18	ppb	01:31:44
2	P 214.914†	11273.6	11260.3	2400.2	µg/L	2400.2	ppb	01:32:04
2	Pb 220.353†	8792.2	8681.5	486.15	µg/L	486.15	ppb	01:32:04

2	S 181.975 Axial†	1379.3	1270.4	947.45 µg/L	947.45 ppb	01:32:04
2	Sb 206.836†	4139.2	4046.9	482.29 µg/L	482.29 ppb	01:32:04
2	Se 196.026†	1342.4	1323.4	481 µg/L	481 ppb	01:32:04
2	SiO2†	54127.5	52201.9	5081.6 µg/L	5081.6 ppb	01:31:44
2	Si 251.611†	163587.2	162296.6	2383.1 µg/L	2383.1 ppb	01:31:44
2	Sn 189.927†	7748.5	7728.1	483.38 µg/L	483.38 ppb	01:32:04
2	Ti 334.940†	513666.6	511288.3	477.06 µg/L	477.06 ppb	01:31:44
2	Tl 190.801†	3848.1	3954.1	493.00 µg/L	493.00 ppb	01:32:04
2	U 409.014†	7224.9	7474.7	465.94 µg/L	465.94 ppb	01:31:44
2	V 292.402†	97625.8	96951.0	479.31 µg/L	479.31 ppb	01:31:44
2	Zn 213.857†	85297.5	84496.3	470.92 µg/L	470.92 ppb	01:31:44
3	Sc RADIAL	144017.2	144017.2	98.7 %		01:31:16
3	Al 396.153Radial†	26612.6	27029.2	4989.1 µg/L	4989.1 ppb	01:31:16
3	Ca 317.933Radial†	87344.0	87943.4	4898.8 µg/L	4898.8 ppb	01:31:16
3	Fe 238.204 Radial†	77641.1	78524.1	4839.7 µg/L	4839.7 ppb	01:31:16
3	K 766.490 Radial†	15113.2	13769.2	5037.1 µg/L	5037.1 ppb	01:31:16
3	Mg 279.077 IEC†	13475.2	13463.5	5023.8 µg/L	5023.8 ppb	01:31:16
3	Na 589.592 Radial†	71081.3	70734.5	9658.7 µg/L	9658.7 ppb	01:31:16
3	Sr 421.552†	230195.4	233387.7	485.16 µg/L	485.16 ppb	01:31:14
3	Sc 361.383	1737670.0	1737670.0	101.13 %		01:32:07
3	Y 371.029	1026144.0	1026144.0	99.947 %		01:32:07
3	Ag 328.068†	133325.2	127741.3	478.98 µg/L	478.98 ppb	01:32:07
3	As 188.979†	1614.3	1616.6	495.84 µg/L	495.84 ppb	01:32:27
3	B 249.677†	36063.6	32154.0	472.55 µg/L	472.55 ppb	01:32:07
3	Ba 233.527†	119791.6	118586.4	478.26 µg/L	478.26 ppb	01:32:07
3	Be 313.107†	1794420.6	1775397.7	483.54 µg/L	483.54 ppb	01:32:07
3	Cd 226.502†	76706.1	75965.7	474.21 µg/L	474.21 ppb	01:32:07
3	Co 228.616†	39092.4	38845.1	479.54 µg/L	479.54 ppb	01:32:07
3	Cr 267.716†	61552.9	60685.3	475.16 µg/L	475.16 ppb	01:32:07
3	Cu 324.752†	126672.9	122282.6	476.70 µg/L	476.70 ppb	01:32:07
3	Mn 257.610†	392785.8	388151.5	480.05 µg/L	480.05 ppb	01:32:07
3	Mo 202.031†	16368.2	16205.0	476.69 µg/L	476.69 ppb	01:32:27
3	Ni 231.604†	41743.6	41352.8	476.15 µg/L	476.15 ppb	01:32:07
3	P 214.914†	11241.9	11134.0	2373.1 µg/L	2373.1 ppb	01:32:27
3	Pb 220.353†	8768.9	8584.4	480.73 µg/L	480.73 ppb	01:32:27
3	S 181.975 Axial†	1366.4	1246.1	929.32 µg/L	929.32 ppb	01:32:27
3	Sb 206.836†	4129.1	4002.1	476.84 µg/L	476.84 ppb	01:32:27
3	Se 196.026†	1336.5	1306.3	474 µg/L	474 ppb	01:32:27
3	SiO2†	54817.6	52428.6	5104.0 µg/L	5104.0 ppb	01:32:07
3	Si 251.611†	165658.0	162967.0	2393.1 µg/L	2393.1 ppb	01:32:07
3	Sn 189.927†	7715.6	7630.3	477.28 µg/L	477.28 ppb	01:32:27
3	Ti 334.940†	519188.2	512423.6	478.12 µg/L	478.12 ppb	01:32:07
3	Tl 190.801†	3815.9	3889.9	485.12 µg/L	485.12 ppb	01:32:27
3	U 409.014†	7283.4	7471.8	465.86 µg/L	465.86 ppb	01:32:07
3	V 292.402†	98744.6	97235.4	480.66 µg/L	480.66 ppb	01:32:07
3	Zn 213.857†	86568.5	85035.0	473.94 µg/L	473.94 ppb	01:32:07

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732710.1	100.84	%	0.489				0.49%
Sc RADIAL	143926.4	98.6	%	1.11				1.12%
Y 371.029	1023597.7	99.699	%	0.4797				0.48%
Ag 328.068†	127679.1	478.73	µg/L	1.007	478.73	ppb	1.007	0.21%
QC value within limits for Ag 328.068 Recovery = 95.75%								
Al 396.153Radial†	26959.0	4976.0	µg/L	18.89	4976.0	ppb	18.89	0.38%
QC value within limits for Al 396.153Radial Recovery = 99.52%								
As 188.979†	1622.4	497.59	µg/L	1.754	497.59	ppb	1.754	0.35%
QC value within limits for As 188.979 Recovery = 99.52%								
B 249.677†	32026.3	470.67	µg/L	1.854	470.67	ppb	1.854	0.39%
QC value within limits for B 249.677 Recovery = 94.13%								
Ba 233.527†	118481.8	477.83	µg/L	0.498	477.83	ppb	0.498	0.10%
QC value within limits for Ba 233.527 Recovery = 95.57%								
Be 313.107†	1771029.5	482.35	µg/L	1.202	482.35	ppb	1.202	0.25%
QC value within limits for Be 313.107 Recovery = 96.47%								
Ca 317.933Radial†	87760.9	4888.6	µg/L	17.65	4888.6	ppb	17.65	0.36%
QC value within limits for Ca 317.933Radial Recovery = 97.77%								
Cd 226.502†	76009.3	474.48	µg/L	1.907	474.48	ppb	1.907	0.40%
QC value within limits for Cd 226.502 Recovery = 94.90%								
Co 228.616†	38710.8	477.88	µg/L	1.828	477.88	ppb	1.828	0.38%

```
   QC value within limits for Co 228.616  Recovery = 95.58%
Cr 267.716†            60586.9      474.39 µg/L        1.096      474.39 ppb          1.096   0.23%
   QC value within limits for Cr 267.716  Recovery = 94.88%
Cu 324.752†           122133.4      476.11 µg/L        0.893      476.11 ppb          0.893   0.19%
   QC value within limits for Cu 324.752  Recovery = 95.22%
Fe 238.204 Radial†     78345.1      4828.7 µg/L        20.09      4828.7 ppb          20.09   0.42%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.57%
K 766.490 Radial†      13708.9      5015.0 µg/L        20.81      5015.0 ppb          20.81   0.42%
   QC value within limits for K 766.490 Radial  Recovery = 100.30%
Mg 279.077 IEC†        13363.2      4986.5 µg/L        43.85      4986.5 ppb          43.85   0.88%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.73%
Mn 257.610†           387755.6      479.56 µg/L        1.108      479.56 ppb          1.108   0.23%
   QC value within limits for Mn 257.610  Recovery = 95.91%
Mo 202.031†            16278.5      478.84 µg/L        2.702      478.84 ppb          2.702   0.56%
   QC value within limits for Mo 202.031  Recovery = 95.77%
Na 589.592 Radial†     70683.3      9651.7 µg/L         7.67      9651.7 ppb           7.67   0.08%
   QC value within limits for Na 589.592 Radial  Recovery = 96.52%
Ni 231.604†            41278.5      475.29 µg/L        0.805      475.29 ppb          0.805   0.17%
   QC value within limits for Ni 231.604  Recovery = 95.06%
P 214.914†             11190.9      2385.3 µg/L        13.71      2385.3 ppb          13.71   0.57%
   QC value within limits for P 214.914  Recovery = 95.41%
Pb 220.353†             8610.1      482.17 µg/L        3.492      482.17 ppb          3.492   0.72%
   QC value within limits for Pb 220.353  Recovery = 96.43%
S 181.975 Axial†        1256.9      937.36 µg/L        9.234      937.36 ppb          9.234   0.99%
   QC value within limits for S 181.975 Axial  Recovery = 93.74%
Sb 206.836†             4021.7      479.22 µg/L        2.786      479.22 ppb          2.786   0.58%
   QC value within limits for Sb 206.836  Recovery = 95.84%
Se 196.026†             1314.3         477 µg/L          3.1         477 ppb            3.1   0.65%
   QC value within limits for Se 196.026  Recovery = 95.45%
SiO2†                  52384.6      5099.6 µg/L        16.25      5099.6 ppb          16.25   0.32%
   QC value within limits for SiO2  Recovery = 95.36%
Si 251.611†           162702.6      2389.2 µg/L         5.32      2389.2 ppb           5.32   0.22%
   QC value within limits for Si 251.611  Recovery = 95.57%
Sn 189.927†             7671.8      479.87 µg/L        3.150      479.87 ppb          3.150   0.66%
   QC value within limits for Sn 189.927  Recovery = 95.97%
Sr 421.552†           232002.6      482.28 µg/L        5.394      482.28 ppb          5.394   1.12%
   QC value within limits for Sr 421.552  Recovery = 96.46%
Ti 334.940†           512054.6      477.78 µg/L        0.622      477.78 ppb          0.622   0.13%
   QC value within limits for Ti 334.940  Recovery = 95.56%
Tl 190.801†             3920.8      488.92 µg/L        3.950      488.92 ppb          3.950   0.81%
   QC value within limits for Tl 190.801  Recovery = 97.78%
U 409.014†              7391.6      461.13 µg/L        8.265      461.13 ppb          8.265   1.79%
   QC value within limits for U 409.014  Recovery = 92.23%
V 292.402†             97082.1      479.92 µg/L        0.679      479.92 ppb          0.679   0.14%
   QC value within limits for V 292.402  Recovery = 95.98%
Zn 213.857†            84829.8      472.79 µg/L        1.636      472.79 ppb          1.636   0.35%
   QC value within limits for Zn 213.857  Recovery = 94.56%
All analyte(s) passed QC.
```

Sequence No.: 170 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/1/2010 1:32:36**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144650.2	144650.2	99.1	%			01:33:05
1	Al 396.153Radial†	55.6	119.3	22.113	µg/L	22.113	ppb	01:33:25
1	Ca 317.933Radial†	1021.9	470.4	26.200	µg/L	26.200	ppb	01:33:25
1	Fe 238.204 Radial†	306.2	160.8	9.9101	µg/L	9.9101	ppb	01:33:25
1	K 766.490 Radial†	1926.7	399.0	146.05	µg/L	146.05	ppb	01:33:05
1	Mg 279.077 IEC†	254.5	66.1	24.617	µg/L	24.617	ppb	01:33:25
1	Na 589.592 Radial†	1387.7	109.2	14.783	µg/L	14.783	ppb	01:33:05
1	Sr 421.552†	-207.2	-73.8	-0.1536	µg/L	-0.1536	ppb	01:33:05
1	Sc 361.383	1731773.4	1731773.4	100.79	%			01:34:13
1	Y 371.029	1034993.2	1034993.2	100.81	%			01:34:13
1	Ag 328.068†	4219.4	95.0	0.3480	µg/L	0.3480	ppb	01:34:15
1	As 188.979†	-14.9	5.6	1.6865	µg/L	1.6865	ppb	01:34:35
1	B 249.677†	3568.7	34.9	0.5127	µg/L	0.5127	ppb	01:34:15
1	Ba 233.527†	-137.0	-0.1	-0.0009	µg/L	-0.0009	ppb	01:34:35
1	Be 313.107†	-780.2	290.6	0.0800	µg/L	0.0800	ppb	01:34:15
1	Cd 226.502†	-91.2	27.8	0.1726	µg/L	0.1726	ppb	01:34:35
1	Co 228.616†	-160.4	31.2	0.3844	µg/L	0.3844	ppb	01:34:35
1	Cr 267.716†	211.8	31.6	0.2451	µg/L	0.2451	ppb	01:34:35
1	Cu 324.752†	2967.0	-28.5	-0.1059	µg/L	-0.1059	ppb	01:34:15
1	Mn 257.610†	310.1	70.4	0.0862	µg/L	0.0862	ppb	01:34:35
1	Mo 202.031†	-19.2	1.0	0.0313	µg/L	0.0313	ppb	01:34:35
1	Ni 231.604†	-38.5	38.4	0.4416	µg/L	0.4416	ppb	01:34:35
1	P 214.914†	-26.9	-8.7	-1.8628	µg/L	-1.8628	ppb	01:34:35
1	Pb 220.353†	65.3	-21.6	-1.2051	µg/L	-1.2051	ppb	01:34:35
1	S 181.975 Axial†	106.1	0.2	0.1331	µg/L	0.1331	ppb	01:34:35
1	Sb 206.836†	73.4	-8.0	-0.9578	µg/L	-0.9578	ppb	01:34:35
1	Se 196.026†	15.6	0.2	0.068	µg/L	0.068	ppb	01:34:35
1	SiO2†	1796.3	6.8	0.6595	µg/L	0.6595	ppb	01:34:35
1	Si 251.611†	840.5	-2.6	-0.0425	µg/L	-0.0425	ppb	01:34:15
1	Sn 189.927†	7.4	8.4	0.5243	µg/L	0.5243	ppb	01:34:35
1	Ti 334.940†	956.0	-4.0	-0.0063	µg/L	-0.0063	ppb	01:34:15
1	Tl 190.801†	-113.8	3.8	0.4619	µg/L	0.4619	ppb	01:34:35
1	U 409.014†	-221.8	49.8	2.8783	µg/L	2.8783	ppb	01:34:15
1	V 292.402†	291.0	-115.1	-0.5590	µg/L	-0.5590	ppb	01:34:15
1	Zn 213.857†	611.2	42.0	0.2323	µg/L	0.2323	ppb	01:34:35
2	Sc RADIAL	143480.2	143480.2	98.3	%			01:33:27
2	Al 396.153Radial†	35.4	99.2	18.400	µg/L	18.400	ppb	01:33:47
2	Ca 317.933Radial†	923.3	378.5	21.086	µg/L	21.086	ppb	01:33:47
2	Fe 238.204 Radial†	279.8	136.5	8.4133	µg/L	8.4133	ppb	01:33:47
2	K 766.490 Radial†	2033.7	523.6	191.70	µg/L	191.70	ppb	01:33:27
2	Mg 279.077 IEC†	230.6	43.8	16.325	µg/L	16.325	ppb	01:33:47
2	Na 589.592 Radial†	1388.8	121.8	16.463	µg/L	16.463	ppb	01:33:27
2	Sr 421.552†	-108.3	25.1	0.0520	µg/L	0.0520	ppb	01:33:27
2	Sc 361.383	1749816.9	1749816.9	101.84	%			01:34:37
2	Y 371.029	1045017.7	1045017.7	101.79	%			01:34:37
2	Ag 328.068†	4151.7	-14.6	-0.0529	µg/L	-0.0529	ppb	01:34:40
2	As 188.979†	-13.8	6.8	2.0524	µg/L	2.0524	ppb	01:35:00
2	B 249.677†	3626.5	55.1	0.8113	µg/L	0.8113	ppb	01:34:40
2	Ba 233.527†	-104.2	33.5	0.1349	µg/L	0.1349	ppb	01:35:00
2	Be 313.107†	-899.2	181.7	0.0507	µg/L	0.0507	ppb	01:34:40
2	Cd 226.502†	-104.7	15.4	0.0953	µg/L	0.0953	ppb	01:35:00
2	Co 228.616†	-169.5	23.9	0.2945	µg/L	0.2945	ppb	01:35:00
2	Cr 267.716†	201.1	18.9	0.1446	µg/L	0.1446	ppb	01:35:00
2	Cu 324.752†	2829.6	-193.8	-0.7479	µg/L	-0.7479	ppb	01:34:40
2	Mn 257.610†	297.6	54.9	0.0673	µg/L	0.0673	ppb	01:35:00
2	Mo 202.031†	-24.5	-4.0	-0.1177	µg/L	-0.1177	ppb	01:35:00
2	Ni 231.604†	-90.3	-12.1	-0.1396	µg/L	-0.1396	ppb	01:35:00
2	P 214.914†	-13.7	4.5	0.9779	µg/L	0.9779	ppb	01:35:00
2	Pb 220.353†	69.0	-18.6	-1.0426	µg/L	-1.0426	ppb	01:35:00

2	S 181.975 Axial†	90.5	-16.2	-12.038 µg/L	-12.038 ppb	01:35:00
2	Sb 206.836†	72.9	-9.3	-1.1038 µg/L	-1.1038 ppb	01:35:00
2	Se 196.026†	26.1	10.3	3.74 µg/L	3.74 ppb	01:35:00
2	SiO2†	1690.9	-115.0	-11.246 µg/L	-11.246 ppb	01:35:00
2	Si 251.611†	970.1	116.0	1.7095 µg/L	1.7095 ppb	01:34:40
2	Sn 189.927†	4.5	5.5	0.3461 µg/L	0.3461 ppb	01:35:00
2	Ti 334.940†	1033.1	61.9	0.0554 µg/L	0.0554 ppb	01:34:40
2	Tl 190.801†	-109.0	9.6	1.1795 µg/L	1.1795 ppb	01:35:00
2	U 409.014†	-207.0	66.6	3.8786 µg/L	3.8786 ppb	01:34:40
2	V 292.402†	361.7	-48.6	-0.2362 µg/L	-0.2362 ppb	01:34:40
2	Zn 213.857†	609.4	34.0	0.1917 µg/L	0.1917 ppb	01:35:00
3	Sc RADIAL	144046.9	144046.9	98.7 %		01:33:49
3	Al 396.153Radial†	17.0	80.4	14.927 µg/L	14.927 ppb	01:34:10
3	Ca 317.933Radial†	885.2	336.2	18.727 µg/L	18.727 ppb	01:34:10
3	Fe 238.204 Radial†	250.9	106.1	6.5367 µg/L	6.5367 ppb	01:34:10
3	K 766.490 Radial†	1975.4	456.4	167.09 µg/L	167.09 ppb	01:33:49
3	Mg 279.077 IEC†	216.2	28.3	10.536 µg/L	10.536 ppb	01:34:10
3	Na 589.592 Radial†	1284.3	10.3	1.2517 µg/L	1.2517 ppb	01:33:49
3	Sr 421.552†	-129.3	4.3	0.0087 µg/L	0.0087 ppb	01:33:49
3	Sc 361.383	1747720.5	1747720.5	101.72 %		01:35:02
3	Y 371.029	1042519.0	1042519.0	101.54 %		01:35:02
3	Ag 328.068†	4083.2	-77.1	-0.2760 µg/L	-0.2760 ppb	01:35:04
3	As 188.979†	-23.1	-2.4	-0.7100 µg/L	-0.7100 ppb	01:35:24
3	B 249.677†	3447.3	-116.8	-1.7241 µg/L	-1.7241 ppb	01:35:04
3	Ba 233.527†	-100.7	36.9	0.1482 µg/L	0.1482 ppb	01:35:24
3	Be 313.107†	-1007.0	74.7	0.0236 µg/L	0.0236 ppb	01:35:04
3	Cd 226.502†	-108.8	11.3	0.0697 µg/L	0.0697 ppb	01:35:24
3	Co 228.616†	-158.9	34.1	0.4206 µg/L	0.4206 ppb	01:35:24
3	Cr 267.716†	198.6	16.7	0.1225 µg/L	0.1225 ppb	01:35:24
3	Cu 324.752†	2971.0	-51.4	-0.1894 µg/L	-0.1894 ppb	01:35:04
3	Mn 257.610†	275.0	33.1	0.0405 µg/L	0.0405 ppb	01:35:24
3	Mo 202.031†	-29.3	-8.8	-0.2571 µg/L	-0.2571 ppb	01:35:24
3	Ni 231.604†	-102.1	-23.9	-0.2749 µg/L	-0.2749 ppb	01:35:24
3	P 214.914†	-27.0	-8.6	-1.8213 µg/L	-1.8213 ppb	01:35:24
3	Pb 220.353†	72.1	-15.5	-0.8740 µg/L	-0.8740 ppb	01:35:24
3	S 181.975 Axial†	95.4	-11.3	-8.3648 µg/L	-8.3648 ppb	01:35:24
3	Sb 206.836†	83.3	1.1	0.1275 µg/L	0.1275 ppb	01:35:24
3	Se 196.026†	15.1	-0.5	-0.158 µg/L	-0.158 ppb	01:35:24
3	SiO2†	1778.9	-26.5	-2.5941 µg/L	-2.5941 ppb	01:35:24
3	Si 251.611†	839.8	-10.9	-0.1611 µg/L	-0.1611 ppb	01:35:04
3	Sn 189.927†	6.7	7.7	0.4774 µg/L	0.4774 ppb	01:35:24
3	Ti 334.940†	921.8	-46.3	-0.0480 µg/L	-0.0480 ppb	01:35:04
3	Tl 190.801†	-117.9	0.8	0.0949 µg/L	0.0949 ppb	01:35:24
3	U 409.014†	-88.3	183.1	10.689 µg/L	10.689 ppb	01:35:04
3	V 292.402†	353.6	-56.1	-0.2694 µg/L	-0.2694 ppb	01:35:04
3	Zn 213.857†	615.1	40.3	0.2274 µg/L	0.2274 ppb	01:35:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1743103.6	101.45	%	0.574				0.57%
Sc RADIAL	144059.1	98.7	%	0.40				0.41%
Y 371.029	1040843.3	101.38	%	0.508				0.50%
Ag 328.068†	1.1	0.0064	µg/L	0.31617	0.0064	ppb	0.31617	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	99.6	18.480	µg/L	3.5934	18.480	ppb	3.5934	19.45%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.3	1.0096	µg/L	1.50042	1.0096	ppb	1.50042	148.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-9.0	-0.1334	µg/L	1.38566	-0.1334	ppb	1.38566	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	23.4	0.0941	µg/L	0.08251	0.0941	ppb	0.08251	87.72%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	182.3	0.0514	µg/L	0.02823	0.0514	ppb	0.02823	54.91%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	395.0	22.004	µg/L	3.8206	22.004	ppb	3.8206	17.36%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	18.2	0.1125	µg/L	0.05357	0.1125	ppb	0.05357	47.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	29.7	0.3665	µg/L	0.06493	0.3665	ppb	0.06493	17.72%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              22.4      0.1708 µg/L       0.06537      0.1708 ppb        0.06537  38.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -91.2     -0.3477 µg/L       0.34907     -0.3477 ppb        0.34907 100.39%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      134.5      8.2867 µg/L       1.69027      8.2867 ppb        1.69027  20.40%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       459.7      168.28 µg/L        22.848      168.28 ppb         22.848  13.58%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          46.1      17.159 µg/L        7.0777      17.159 ppb         7.0777  41.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              52.8      0.0647 µg/L       0.02293      0.0647 ppb        0.02293  35.46%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -3.9     -0.1145 µg/L       0.14420     -0.1145 ppb        0.14420 125.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       80.4      10.833 µg/L        8.3397      10.833 ppb         8.3397  76.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.8      0.0091 µg/L       0.38069      0.0091 ppb        0.38069 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.3     -0.9020 µg/L       1.62822     -0.9020 ppb        1.62822 180.50%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -18.6     -1.0406 µg/L       0.16556     -1.0406 ppb        0.16556  15.91%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -9.1     -6.7567 µg/L       6.24300     -6.7567 ppb        6.24300  92.40%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -5.4     -0.6447 µg/L       0.67274     -0.6447 ppb        0.67274 104.35%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.3        1.22 µg/L         2.190        1.22 ppb          2.190 179.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -44.9     -4.3935 µg/L       6.15338     -4.3935 ppb        6.15338 140.06%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              34.1      0.5020 µg/L       1.04746      0.5020 ppb        1.04746 208.67%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.2      0.4493 µg/L       0.09239      0.4493 ppb        0.09239  20.57%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -14.8     -0.0310 µg/L       0.10839     -0.0310 ppb        0.10839 350.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               3.9      0.0003 µg/L       0.05203      0.0003 ppb        0.05203 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               4.7      0.5788 µg/L       0.55162      0.5788 ppb        0.55162  95.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               99.8      5.8153 µg/L       4.25029      5.8153 ppb        4.25029  73.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -73.3     -0.3549 µg/L       0.17756     -0.3549 ppb        0.17756  50.04%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              38.8      0.2171 µg/L       0.02218      0.2171 ppb        0.02218  10.22%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 178
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 1:53:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144889.1	144889.1	99.3	%			01:54:01
1	Al 396.153Radial†	26444.1	26697.2	4927.6	µg/L	4927.6	ppb	01:54:01
1	Ca 317.933Radial†	86941.0	87004.9	4846.5	µg/L	4846.5	ppb	01:54:01
1	Fe 238.204 Radial†	77758.3	78168.7	4817.8	µg/L	4817.8	ppb	01:54:01
1	K 766.490 Radial†	14897.6	13459.8	4923.9	µg/L	4923.9	ppb	01:54:01
1	Mg 279.077 IEC†	13366.3	13271.6	4952.3	µg/L	4952.3	ppb	01:54:01
1	Na 589.592 Radial†	71709.3	70933.5	9686.0	µg/L	9686.0	ppb	01:54:01
1	Sr 421.552†	230601.0	232392.6	483.09	µg/L	483.09	ppb	01:53:59
1	Sc 361.383	1732100.0	1732100.0	100.81	%			01:54:28
1	Y 371.029	1023099.6	1023099.6	99.650	%			01:54:28
1	Ag 328.068†	133137.6	127979.1	479.85	µg/L	479.85	ppb	01:54:28
1	As 188.979†	1612.3	1619.7	496.76	µg/L	496.76	ppb	01:54:48
1	B 249.677†	35874.9	32081.5	471.48	µg/L	471.48	ppb	01:54:28
1	Ba 233.527†	119611.7	118788.9	479.07	µg/L	479.07	ppb	01:54:28
1	Be 313.107†	1788545.3	1775275.2	483.50	µg/L	483.50	ppb	01:54:28
1	Cd 226.502†	76870.4	76372.5	476.75	µg/L	476.75	ppb	01:54:28
1	Co 228.616†	38991.6	38869.4	479.84	µg/L	479.84	ppb	01:54:28
1	Cr 267.716†	61212.0	60542.8	474.05	µg/L	474.05	ppb	01:54:28
1	Cu 324.752†	126385.1	122399.9	477.14	µg/L	477.14	ppb	01:54:28
1	Mn 257.610†	391844.9	388467.0	480.44	µg/L	480.44	ppb	01:54:28
1	Mo 202.031†	16253.3	16143.1	474.86	µg/L	474.86	ppb	01:54:48
1	Ni 231.604†	41701.3	41443.5	477.19	µg/L	477.19	ppb	01:54:28
1	P 214.914†	11179.5	11107.9	2367.6	µg/L	2367.6	ppb	01:54:48
1	Pb 220.353†	8738.5	8582.1	480.59	µg/L	480.59	ppb	01:54:48
1	S 181.975 Axial†	1413.8	1297.4	967.45	µg/L	967.45	ppb	01:54:48
1	Sb 206.836†	4129.4	4015.5	478.42	µg/L	478.42	ppb	01:54:48
1	Se 196.026†	1321.4	1295.6	470	µg/L	470	ppb	01:54:48
1	SiO2†	54758.0	52543.7	5115.3	µg/L	5115.3	ppb	01:54:28
1	Si 251.611†	165491.5	163328.5	2398.5	µg/L	2398.5	ppb	01:54:28
1	Sn 189.927†	7680.8	7620.3	476.66	µg/L	476.66	ppb	01:54:48
1	Ti 334.940†	517868.9	512765.7	478.45	µg/L	478.45	ppb	01:54:28
1	Tl 190.801†	3805.2	3891.4	485.31	µg/L	485.31	ppb	01:54:48
1	U 409.014†	7130.8	7343.6	458.38	µg/L	458.38	ppb	01:54:28
1	V 292.402†	98453.8	97260.9	480.75	µg/L	480.75	ppb	01:54:28
1	Zn 213.857†	86275.4	85019.5	473.84	µg/L	473.84	ppb	01:54:28
2	Sc RADIAL	144090.9	144090.9	98.7	%			01:54:05
2	Al 396.153Radial†	26312.9	26711.9	4930.1	µg/L	4930.1	ppb	01:54:05
2	Ca 317.933Radial†	86199.8	86739.3	4831.7	µg/L	4831.7	ppb	01:54:05
2	Fe 238.204 Radial†	77277.1	78115.2	4814.5	µg/L	4814.5	ppb	01:54:05
2	K 766.490 Radial†	14795.3	13439.4	4916.4	µg/L	4916.4	ppb	01:54:05
2	Mg 279.077 IEC†	13254.1	13232.5	4937.8	µg/L	4937.8	ppb	01:54:05
2	Na 589.592 Radial†	71224.5	70842.7	9673.6	µg/L	9673.6	ppb	01:54:05
2	Sr 421.552†	226568.0	229594.7	477.28	µg/L	477.28	ppb	01:54:03
2	Sc 361.383	1743024.7	1743024.7	101.44	%			01:54:51
2	Y 371.029	1028485.3	1028485.3	100.17	%			01:54:51
2	Ag 328.068†	133695.0	127700.8	478.84	µg/L	478.84	ppb	01:54:51
2	As 188.979†	1633.2	1630.3	499.98	µg/L	499.98	ppb	01:55:11
2	B 249.677†	35991.2	31973.1	469.88	µg/L	469.88	ppb	01:54:51
2	Ba 233.527†	120399.9	118822.2	479.21	µg/L	479.21	ppb	01:54:51
2	Be 313.107†	1803686.2	1779080.5	484.55	µg/L	484.55	ppb	01:54:51
2	Cd 226.502†	77645.9	76659.1	478.54	µg/L	478.54	ppb	01:54:51
2	Co 228.616†	39225.9	38858.0	479.70	µg/L	479.70	ppb	01:54:51
2	Cr 267.716†	61891.8	60832.4	476.31	µg/L	476.31	ppb	01:54:51
2	Cu 324.752†	127393.6	122608.3	477.96	µg/L	477.96	ppb	01:54:51
2	Mn 257.610†	395069.2	389209.2	481.36	µg/L	481.36	ppb	01:54:51
2	Mo 202.031†	16503.6	16288.8	479.15	µg/L	479.15	ppb	01:55:11
2	Ni 231.604†	41973.3	41452.5	477.30	µg/L	477.30	ppb	01:54:51
2	P 214.914†	11383.8	11239.8	2395.8	µg/L	2395.8	ppb	01:55:11
2	Pb 220.353†	8825.3	8613.3	482.34	µg/L	482.34	ppb	01:55:11

2	S 181.975 Axial†	1446.2	1320.5	984.64 µg/L	984.64 ppb	01:55:11
2	Sb 206.836†	4171.5	4031.4	480.35 µg/L	480.35 ppb	01:55:11
2	Se 196.026†	1358.8	1324.1	481 µg/L	481 ppb	01:55:11
2	SiO2†	55126.8	52566.8	5117.4 µg/L	5117.4 ppb	01:54:51
2	Si 251.611†	166831.3	163620.3	2402.7 µg/L	2402.7 ppb	01:54:51
2	Sn 189.927†	7808.6	7698.6	481.54 µg/L	481.54 ppb	01:55:11
2	Ti 334.940†	521492.7	513118.1	478.77 µg/L	478.77 ppb	01:54:51
2	Tl 190.801†	3856.9	3918.7	488.67 µg/L	488.67 ppb	01:55:11
2	U 409.014†	7461.6	7625.3	474.87 µg/L	474.87 ppb	01:54:51
2	V 292.402†	99126.3	97311.7	481.07 µg/L	481.07 ppb	01:54:51
2	Zn 213.857†	86941.8	85140.0	474.52 µg/L	474.52 ppb	01:54:51
3	Sc RADIAL	143189.9	143189.9	98.1 %		01:54:09
3	Al 396.153Radial†	26288.8	26855.0	4956.7 µg/L	4956.7 ppb	01:54:09
3	Ca 317.933Radial†	85899.6	86982.7	4845.3 µg/L	4845.3 ppb	01:54:09
3	Fe 238.204 Radial†	76674.9	77993.9	4807.1 µg/L	4807.1 ppb	01:54:09
3	K 766.490 Radial†	14694.1	13430.5	4913.1 µg/L	4913.1 ppb	01:54:09
3	Mg 279.077 IEC†	13109.4	13169.5	4914.3 µg/L	4914.3 ppb	01:54:09
3	Na 589.592 Radial†	71187.8	71259.1	9730.5 µg/L	9730.5 ppb	01:54:09
3	Sr 421.552†	229587.3	234115.6	486.67 µg/L	486.67 ppb	01:54:07
3	Sc 361.383	1732756.5	1732756.5	100.85 %		01:55:14
3	Y 371.029	1023226.1	1023226.1	99.663 %		01:55:14
3	Ag 328.068†	132868.9	127662.6	478.70 µg/L	478.70 ppb	01:55:14
3	As 188.979†	1613.1	1619.9	496.83 µg/L	496.83 ppb	01:55:34
3	B 249.677†	36177.8	32368.3	475.71 µg/L	475.71 ppb	01:55:14
3	Ba 233.527†	119703.3	118834.8	479.26 µg/L	479.26 ppb	01:55:14
3	Be 313.107†	1791615.1	1777647.1	484.16 µg/L	484.16 ppb	01:55:14
3	Cd 226.502†	76911.2	76384.1	476.82 µg/L	476.82 ppb	01:55:14
3	Co 228.616†	38990.6	38853.8	479.65 µg/L	479.65 ppb	01:55:14
3	Cr 267.716†	61496.0	60801.5	476.06 µg/L	476.06 ppb	01:55:14
3	Cu 324.752†	126455.9	122422.6	477.24 µg/L	477.24 ppb	01:55:14
3	Mn 257.610†	392850.6	389317.1	481.49 µg/L	481.49 ppb	01:55:14
3	Mo 202.031†	16363.5	16246.3	477.90 µg/L	477.90 ppb	01:55:34
3	Ni 231.604†	41768.3	41494.4	477.78 µg/L	477.78 ppb	01:55:14
3	P 214.914†	11227.0	11150.7	2376.7 µg/L	2376.7 ppb	01:55:34
3	Pb 220.353†	8769.4	8609.4	482.12 µg/L	482.12 ppb	01:55:34
3	S 181.975 Axial†	1409.8	1292.9	964.13 µg/L	964.13 ppb	01:55:34
3	Sb 206.836†	4149.1	4033.4	480.58 µg/L	480.58 ppb	01:55:34
3	Se 196.026†	1348.9	1322.3	480 µg/L	480 ppb	01:55:34
3	SiO2†	54793.8	52558.7	5116.7 µg/L	5116.7 ppb	01:55:14
3	Si 251.611†	165958.9	163729.8	2404.3 µg/L	2404.3 ppb	01:55:14
3	Sn 189.927†	7740.4	7676.6	480.17 µg/L	480.17 ppb	01:55:34
3	Ti 334.940†	518815.4	513509.7	479.14 µg/L	479.14 ppb	01:55:14
3	Tl 190.801†	3816.6	3901.3	486.54 µg/L	486.54 ppb	01:55:34
3	U 409.014†	7409.2	7616.9	474.38 µg/L	474.38 ppb	01:55:14
3	V 292.402†	98541.2	97310.6	481.05 µg/L	481.05 ppb	01:55:14
3	Zn 213.857†	86396.5	85107.2	474.34 µg/L	474.34 ppb	01:55:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1735960.4	101.03	%	0.357				0.35%
Sc RADIAL	144056.6	98.7	%	0.58				0.59%
Y 371.029	1024937.0	99.829	%	0.2994				0.30%
Ag 328.068†	127780.9	479.13	µg/L	0.627	479.13	ppb	0.627	0.13%
QC value within limits for Ag 328.068 Recovery = 95.83%								
Al 396.153Radial†	26754.7	4938.1	µg/L	16.14	4938.1	ppb	16.14	0.33%
QC value within limits for Al 396.153Radial Recovery = 98.76%								
As 188.979†	1623.3	497.86	µg/L	1.841	497.86	ppb	1.841	0.37%
QC value within limits for As 188.979 Recovery = 99.57%								
B 249.677†	32141.0	472.36	µg/L	3.012	472.36	ppb	3.012	0.64%
QC value within limits for B 249.677 Recovery = 94.47%								
Ba 233.527†	118815.3	479.18	µg/L	0.096	479.18	ppb	0.096	0.02%
QC value within limits for Ba 233.527 Recovery = 95.84%								
Be 313.107†	1777334.3	484.07	µg/L	0.526	484.07	ppb	0.526	0.11%
QC value within limits for Be 313.107 Recovery = 96.81%								
Ca 317.933Radial†	86909.0	4841.2	µg/L	8.21	4841.2	ppb	8.21	0.17%
QC value within limits for Ca 317.933Radial Recovery = 96.82%								
Cd 226.502†	76471.9	477.37	µg/L	1.013	477.37	ppb	1.013	0.21%
QC value within limits for Cd 226.502 Recovery = 95.47%								
Co 228.616†	38860.4	479.73	µg/L	0.099	479.73	ppb	0.099	0.02%

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   QC value within limits for Co 228.616  Recovery = 95.95%
Cr 267.716†            60725.6      475.47 µg/L         1.238      475.47 ppb          1.238   0.26%
   QC value within limits for Cr 267.716  Recovery = 95.09%
Cu 324.752†           122476.9      477.45 µg/L         0.449      477.45 ppb          0.449   0.09%
   QC value within limits for Cu 324.752  Recovery = 95.49%
Fe 238.204 Radial†     78092.6      4813.1 µg/L          5.52      4813.1 ppb           5.52   0.11%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.26%
K 766.490 Radial†      13443.2      4917.8 µg/L          5.50      4917.8 ppb           5.50   0.11%
   QC value within limits for K 766.490 Radial  Recovery = 98.36%
Mg 279.077 IEC†        13224.5      4934.8 µg/L         19.15      4934.8 ppb          19.15   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.70%
Mn 257.610†           388997.8      481.10 µg/L         0.573      481.10 ppb          0.573   0.12%
   QC value within limits for Mn 257.610  Recovery = 96.22%
Mo 202.031†            16226.1      477.30 µg/L         2.201      477.30 ppb          2.201   0.46%
   QC value within limits for Mo 202.031  Recovery = 95.46%
Na 589.592 Radial†     71011.8      9696.7 µg/L         29.92      9696.7 ppb          29.92   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 96.97%
Ni 231.604†            41463.5      477.42 µg/L         0.312      477.42 ppb          0.312   0.07%
   QC value within limits for Ni 231.604  Recovery = 95.48%
P 214.914†             11166.1      2380.0 µg/L         14.38      2380.0 ppb          14.38   0.60%
   QC value within limits for P 214.914  Recovery = 95.20%
Pb 220.353†             8601.6      481.68 µg/L         0.950      481.68 ppb          0.950   0.20%
   QC value within limits for Pb 220.353  Recovery = 96.34%
S 181.975 Axial†        1303.6      972.07 µg/L        11.009      972.07 ppb         11.009   1.13%
   QC value within limits for S 181.975 Axial  Recovery = 97.21%
Sb 206.836†             4026.7      479.79 µg/L         1.184      479.79 ppb          1.184   0.25%
   QC value within limits for Sb 206.836  Recovery = 95.96%
Se 196.026†             1314.0         477 µg/L           5.8         477 ppb            5.8   1.21%
   QC value within limits for Se 196.026  Recovery = 95.43%
SiO2†                  52556.4      5116.5 µg/L          1.05      5116.5 ppb           1.05   0.02%
   QC value within limits for SiO2  Recovery = 95.68%
Si 251.611†           163559.6      2401.8 µg/L          3.02      2401.8 ppb           3.02   0.13%
   QC value within limits for Si 251.611  Recovery = 96.07%
Sn 189.927†             7665.2      479.46 µg/L         2.517      479.46 ppb          2.517   0.53%
   QC value within limits for Sn 189.927  Recovery = 95.89%
Sr 421.552†           232034.3      482.35 µg/L         4.743      482.35 ppb          4.743   0.98%
   QC value within limits for Sr 421.552  Recovery = 96.47%
Ti 334.940†           513131.2      478.79 µg/L         0.346      478.79 ppb          0.346   0.07%
   QC value within limits for Ti 334.940  Recovery = 95.76%
Tl 190.801†             3903.8      486.84 µg/L         1.702      486.84 ppb          1.702   0.35%
   QC value within limits for Tl 190.801  Recovery = 97.37%
U 409.014†              7528.6      469.21 µg/L         9.385      469.21 ppb          9.385   2.00%
   QC value within limits for U 409.014  Recovery = 93.84%
V 292.402†             97294.4      480.96 µg/L         0.176      480.96 ppb          0.176   0.04%
   QC value within limits for V 292.402  Recovery = 96.19%
Zn 213.857†            85088.9      474.23 µg/L         0.349      474.23 ppb          0.349   0.07%
   QC value within limits for Zn 213.857  Recovery = 94.85%
All analyte(s) passed QC.
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Sequence No.: 179
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 1:55:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145551.6	145551.6	99.7	%			01:56:11
1	Al 396.153Radial†	-65.8	-2.8	-0.5143	µg/L	-0.5143	ppb	01:56:31
1	Ca 317.933Radial†	666.6	107.8	6.0037	µg/L	6.0037	ppb	01:56:31
1	Fe 238.204 Radial†	142.8	-5.0	-0.3060	µg/L	-0.3060	ppb	01:56:31
1	K 766.490 Radial†	1839.3	299.3	109.59	µg/L	109.59	ppb	01:56:11
1	Mg 279.077 IEC†	181.2	-9.0	-3.3548	µg/L	-3.3548	ppb	01:56:31
1	Na 589.592 Radial†	1588.0	301.3	41.070	µg/L	41.070	ppb	01:56:11
1	Sr 421.552†	-333.1	-198.7	-0.4132	µg/L	-0.4132	ppb	01:56:11
1	Sc 361.383	1751779.3	1751779.3	101.95	%			01:57:33
1	Y 371.029	1045514.8	1045514.8	101.83	%			01:57:33
1	Ag 328.068†	4128.8	-41.7	-0.1593	µg/L	-0.1593	ppb	01:57:35
1	As 188.979†	-12.8	7.8	2.3692	µg/L	2.3692	ppb	01:57:55
1	B 249.677†	3541.5	-32.3	-0.4767	µg/L	-0.4767	ppb	01:57:35
1	Ba 233.527†	-108.9	29.0	0.1170	µg/L	0.1170	ppb	01:57:55
1	Be 313.107†	-1073.9	11.4	0.0014	µg/L	0.0014	ppb	01:57:35
1	Cd 226.502†	-112.0	8.4	0.0522	µg/L	0.0522	ppb	01:57:55
1	Co 228.616†	-179.5	14.2	0.1753	µg/L	0.1753	ppb	01:57:55
1	Cr 267.716†	181.7	-0.3	0.0020	µg/L	0.0020	ppb	01:57:55
1	Cu 324.752†	3003.9	-25.8	-0.1050	µg/L	-0.1050	ppb	01:57:35
1	Mn 257.610†	273.3	30.8	0.0383	µg/L	0.0383	ppb	01:57:55
1	Mo 202.031†	-22.7	-2.2	-0.0633	µg/L	-0.0633	ppb	01:57:55
1	Ni 231.604†	-96.5	-18.1	-0.2088	µg/L	-0.2088	ppb	01:57:55
1	P 214.914†	-18.3	0.0	0.0166	µg/L	0.0166	ppb	01:57:55
1	Pb 220.353†	65.4	-22.2	-1.2353	µg/L	-1.2353	ppb	01:57:55
1	S 181.975 Axial†	114.5	7.3	5.3871	µg/L	5.3871	ppb	01:57:55
1	Sb 206.836†	62.6	-19.4	-2.3048	µg/L	-2.3048	ppb	01:57:55
1	Se 196.026†	0.8	-14.5	-5.25	µg/L	-5.25	ppb	01:57:55
1	SiO2†	1800.8	-9.1	-0.8957	µg/L	-0.8957	ppb	01:57:35
1	Si 251.611†	889.3	35.7	0.5242	µg/L	0.5242	ppb	01:57:35
1	Sn 189.927†	7.5	8.5	0.5302	µg/L	0.5302	ppb	01:57:55
1	Ti 334.940†	969.2	-1.9	0.0010	µg/L	0.0010	ppb	01:57:35
1	Tl 190.801†	-112.3	6.6	0.8079	µg/L	0.8079	ppb	01:57:55
1	U 409.014†	-372.7	-95.6	-5.5813	µg/L	-5.5813	ppb	01:57:35
1	V 292.402†	449.1	36.7	0.1747	µg/L	0.1747	ppb	01:57:35
1	Zn 213.857†	603.1	27.2	0.1540	µg/L	0.1540	ppb	01:57:55
2	Sc RADIAL	142463.2	142463.2	97.6	%			01:56:33
2	Al 396.153Radial†	-76.0	-14.7	-2.7386	µg/L	-2.7386	ppb	01:56:53
2	Ca 317.933Radial†	631.4	86.2	4.8021	µg/L	4.8021	ppb	01:56:53
2	Fe 238.204 Radial†	165.0	20.9	1.2889	µg/L	1.2889	ppb	01:56:53
2	K 766.490 Radial†	1754.3	252.2	92.343	µg/L	92.343	ppb	01:56:33
2	Mg 279.077 IEC†	178.3	-8.0	-2.9828	µg/L	-2.9828	ppb	01:56:53
2	Na 589.592 Radial†	1488.6	234.0	31.890	µg/L	31.890	ppb	01:56:33
2	Sr 421.552†	-267.3	-138.5	-0.2880	µg/L	-0.2880	ppb	01:56:33
2	Sc 361.383	1744511.1	1744511.1	101.53	%			01:57:57
2	Y 371.029	1040880.2	1040880.2	101.38	%			01:57:57
2	Ag 328.068†	4095.8	-57.3	-0.2333	µg/L	-0.2333	ppb	01:58:00
2	As 188.979†	-19.9	0.8	0.2405	µg/L	0.2405	ppb	01:58:20
2	B 249.677†	3689.6	128.1	1.8892	µg/L	1.8892	ppb	01:58:00
2	Ba 233.527†	-127.7	10.1	0.0404	µg/L	0.0404	ppb	01:58:20
2	Be 313.107†	-779.7	296.7	0.0769	µg/L	0.0769	ppb	01:58:00
2	Cd 226.502†	-116.8	3.2	0.0196	µg/L	0.0196	ppb	01:58:20
2	Co 228.616†	-181.5	11.6	0.1430	µg/L	0.1430	ppb	01:58:20
2	Cr 267.716†	210.9	29.2	0.2383	µg/L	0.2383	ppb	01:58:20
2	Cu 324.752†	3046.1	27.9	0.0982	µg/L	0.0982	ppb	01:58:00
2	Mn 257.610†	284.4	42.8	0.0531	µg/L	0.0531	ppb	01:58:20
2	Mo 202.031†	-4.2	15.9	0.4681	µg/L	0.4681	ppb	01:58:20
2	Ni 231.604†	-89.6	-11.8	-0.1354	µg/L	-0.1354	ppb	01:58:20
2	P 214.914†	-29.1	-10.7	-2.2834	µg/L	-2.2834	ppb	01:58:20
2	Pb 220.353†	83.5	-4.1	-0.2188	µg/L	-0.2188	ppb	01:58:20

2	S 181.975 Axial†	133.9	26.8	19.886 µg/L	19.886 ppb	01:58:20
2	Sb 206.836†	67.1	-14.7	-1.7443 µg/L	-1.7443 ppb	01:58:20
2	Se 196.026†	24.1	8.4	3.04 µg/L	3.04 ppb	01:58:20
2	SiO2†	1798.4	-4.0	-0.4169 µg/L	-0.4169 ppb	01:58:00
2	Si 251.611†	966.5	115.4	1.6906 µg/L	1.6906 ppb	01:58:00
2	Sn 189.927†	9.5	10.5	0.6536 µg/L	0.6536 ppb	01:58:20
2	Ti 334.940†	894.2	-71.8	-0.0616 µg/L	-0.0616 ppb	01:58:00
2	Tl 190.801†	-110.7	7.6	0.9340 µg/L	0.9340 ppb	01:58:20
2	U 409.014†	-495.6	-218.2	-12.786 µg/L	-12.786 ppb	01:58:00
2	V 292.402†	320.0	-88.6	-0.4349 µg/L	-0.4349 ppb	01:58:00
2	Zn 213.857†	606.1	32.5	0.1834 µg/L	0.1834 ppb	01:58:20
3	Sc RADIAL	143784.8	143784.8	98.5 %		01:56:55
3	Al 396.153Radial†	-72.4	-10.2	-1.8918 µg/L	-1.8918 ppb	01:57:15
3	Ca 317.933Radial†	626.3	75.1	4.1820 µg/L	4.1820 ppb	01:57:15
3	Fe 238.204 Radial†	157.5	11.8	0.7268 µg/L	0.7268 ppb	01:57:15
3	K 766.490 Radial†	1711.0	191.8	70.214 µg/L	70.214 ppb	01:56:55
3	Mg 279.077 IEC†	214.1	26.6	9.9191 µg/L	9.9191 ppb	01:57:15
3	Na 589.592 Radial†	1356.1	85.6	11.626 µg/L	11.626 ppb	01:56:55
3	Sr 421.552†	-269.5	-138.2	-0.2874 µg/L	-0.2874 ppb	01:56:55
3	Sc 361.383	1767911.3	1767911.3	102.89 %		01:58:22
3	Y 371.029	1054011.1	1054011.1	102.66 %		01:58:22
3	Ag 328.068†	4196.4	-13.0	-0.0637 µg/L	-0.0637 ppb	01:58:24
3	As 188.979†	-5.7	14.8	4.4830 µg/L	4.4830 ppb	01:58:44
3	B 249.677†	3663.7	54.9	0.8087 µg/L	0.8087 ppb	01:58:24
3	Ba 233.527†	-114.6	24.5	0.0982 µg/L	0.0982 ppb	01:58:44
3	Be 313.107†	-1093.4	2.1	-0.0012 µg/L	-0.0012 ppb	01:58:24
3	Cd 226.502†	-92.8	28.0	0.1751 µg/L	0.1751 ppb	01:58:44
3	Co 228.616†	-185.7	9.8	0.1208 µg/L	0.1208 ppb	01:58:44
3	Cr 267.716†	201.6	17.3	0.1401 µg/L	0.1401 ppb	01:58:44
3	Cu 324.752†	2911.8	-142.3	-0.5572 µg/L	-0.5572 ppb	01:58:24
3	Mn 257.610†	263.8	19.2	0.0233 µg/L	0.0233 ppb	01:58:44
3	Mo 202.031†	-26.6	-5.8	-0.1698 µg/L	-0.1698 ppb	01:58:44
3	Ni 231.604†	-69.8	8.7	0.0998 µg/L	0.0998 ppb	01:58:44
3	P 214.914†	-16.2	2.2	0.4867 µg/L	0.4867 ppb	01:58:44
3	Pb 220.353†	83.9	-4.8	-0.2669 µg/L	-0.2669 ppb	01:58:44
3	S 181.975 Axial†	120.1	11.7	8.6560 µg/L	8.6560 ppb	01:58:44
3	Sb 206.836†	85.7	2.5	0.2913 µg/L	0.2913 ppb	01:58:44
3	Se 196.026†	9.9	-5.6	-2.04 µg/L	-2.04 ppb	01:58:44
3	SiO2†	1848.3	21.0	2.0528 µg/L	2.0528 ppb	01:58:24
3	Si 251.611†	874.0	12.9	0.1899 µg/L	0.1899 ppb	01:58:24
3	Sn 189.927†	4.6	5.5	0.3453 µg/L	0.3453 ppb	01:58:44
3	Ti 334.940†	814.2	-161.2	-0.1490 µg/L	-0.1490 ppb	01:58:24
3	Tl 190.801†	-128.8	-8.5	-1.0474 µg/L	-1.0474 ppb	01:58:44
3	U 409.014†	-381.6	-101.0	-5.9442 µg/L	-5.9442 ppb	01:58:24
3	V 292.402†	270.2	-141.1	-0.6936 µg/L	-0.6936 ppb	01:58:24
3	Zn 213.857†	596.7	15.5	0.0866 µg/L	0.0866 ppb	01:58:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1754733.9	102.13	%	0.697				0.68%
Sc RADIAL	143933.2	98.6	%	1.06				1.08%
Y 371.029	1046802.0	101.96	%	0.649				0.64%
Ag 328.068†	-37.3	-0.1521	µg/L	0.08501	-0.1521	ppb	0.08501	55.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.2	-1.7149	µg/L	1.12269	-1.7149	ppb	1.12269	65.47%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.8	2.3642	µg/L	2.12124	2.3642	ppb	2.12124	89.72%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.2	0.7404	µg/L	1.18445	0.7404	ppb	1.18445	159.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	21.2	0.0852	µg/L	0.03992	0.0852	ppb	0.03992	46.87%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	103.4	0.0257	µg/L	0.04438	0.0257	ppb	0.04438	172.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	89.7	4.9959	µg/L	0.92619	4.9959	ppb	0.92619	18.54%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	13.2	0.0823	µg/L	0.08201	0.0823	ppb	0.08201	99.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.9	0.1464	µg/L	0.02744	0.1464	ppb	0.02744	18.74%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              15.4      0.1268 µg/L       0.11872      0.1268 ppb        0.11872  93.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -46.7     -0.1880 µg/L       0.33551     -0.1880 ppb        0.33551 178.43%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        9.2      0.5699 µg/L       0.80892      0.5699 ppb        0.80892 141.94%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       247.8      90.715 µg/L       19.7374      90.715 ppb        19.7374  21.76%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.2      1.1938 µg/L       7.55858      1.1938 ppb        7.55858 633.14%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              30.9      0.0382 µg/L       0.01490      0.0382 ppb        0.01490  38.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.7      0.0783 µg/L       0.34173      0.0783 ppb        0.34173 436.17%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      207.0      28.195 µg/L       15.0656      28.195 ppb        15.0656  53.43%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -7.1     -0.0815 µg/L       0.16123     -0.0815 ppb        0.16123 197.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.8     -0.5934 µg/L       1.48237     -0.5934 ppb        1.48237 249.82%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -10.4     -0.5737 µg/L       0.57348     -0.5737 ppb        0.57348  99.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         15.2      11.310 µg/L        7.6051      11.310 ppb         7.6051  67.24%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -10.5     -1.2526 µg/L       1.36613     -1.2526 ppb        1.36613 109.06%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.9      -1.42 µg/L         4.177       -1.42 ppb          4.177 294.77%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     2.6      0.2467 µg/L       1.58234      0.2467 ppb        1.58234 641.29%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              54.7      0.8015 µg/L       0.78785      0.8015 ppb        0.78785  98.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.2      0.5097 µg/L       0.15517      0.5097 ppb        0.15517  30.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            -158.5     -0.3295 µg/L       0.07245     -0.3295 ppb        0.07245  21.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -78.3     -0.0699 µg/L       0.07531     -0.0699 ppb        0.07531 107.82%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.9      0.2315 µg/L       1.10938      0.2315 ppb        1.10938 479.17%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -138.3     -8.1038 µg/L       4.05883     -8.1038 ppb        4.05883  50.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -64.3     -0.3180 µg/L       0.44583     -0.3180 ppb        0.44583 140.21%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              25.1      0.1413 µg/L       0.04962      0.1413 ppb        0.04962  35.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 189
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 2:19:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142482.1	142482.1	97.6	%			02:19:37
1	Al 396.153Radial†	25864.4	26553.4	4900.9	µg/L	4900.9	ppb	02:19:37
1	Ca 317.933Radial†	85331.9	86836.1	4837.1	µg/L	4837.1	ppb	02:19:37
1	Fe 238.204 Radial†	75728.7	77413.1	4771.3	µg/L	4771.3	ppb	02:19:37
1	K 766.490 Radial†	14888.6	13704.1	5013.3	µg/L	5013.3	ppb	02:19:37
1	Mg 279.077 IEC†	12988.0	13111.5	4892.7	µg/L	4892.7	ppb	02:19:37
1	Na 589.592 Radial†	71527.5	71967.5	9827.2	µg/L	9827.2	ppb	02:19:37
1	Sr 421.552†	227636.6	233280.1	484.94	µg/L	484.94	ppb	02:19:35
1	Sc 361.383	1730429.7	1730429.7	100.71	%			02:20:04
1	Y 371.029	1022608.2	1022608.2	99.603	%			02:20:04
1	Ag 328.068†	131919.2	126896.9	475.83	µg/L	475.83	ppb	02:20:04
1	As 188.979†	1608.5	1617.5	496.07	µg/L	496.07	ppb	02:20:24
1	B 249.677†	35428.5	31672.6	465.47	µg/L	465.47	ppb	02:20:04
1	Ba 233.527†	118521.9	117821.3	475.17	µg/L	475.17	ppb	02:20:04
1	Be 313.107†	1771161.4	1759726.5	479.27	µg/L	479.27	ppb	02:20:04
1	Cd 226.502†	75681.8	75265.9	469.84	µg/L	469.84	ppb	02:20:04
1	Co 228.616†	38563.9	38482.0	475.06	µg/L	475.06	ppb	02:20:04
1	Cr 267.716†	60790.8	60183.2	471.23	µg/L	471.23	ppb	02:20:04
1	Cu 324.752†	125721.3	121861.9	475.05	µg/L	475.05	ppb	02:20:04
1	Mn 257.610†	388444.5	385465.8	476.73	µg/L	476.73	ppb	02:20:04
1	Mo 202.031†	16270.9	16176.2	475.83	µg/L	475.83	ppb	02:20:24
1	Ni 231.604†	41269.7	41054.9	472.72	µg/L	472.72	ppb	02:20:04
1	P 214.914†	11152.5	11091.7	2364.2	µg/L	2364.2	ppb	02:20:24
1	Pb 220.353†	8708.1	8560.3	479.37	µg/L	479.37	ppb	02:20:24
1	S 181.975 Axial†	1839.5	1721.4	1282.3	µg/L	1282.3	ppb	02:20:24
1	Sb 206.836†	4096.9	3987.2	475.12	µg/L	475.12	ppb	02:20:24
1	Se 196.026†	1319.7	1295.1	470	µg/L	470	ppb	02:20:24
1	SiO2†	54111.4	51954.2	5057.7	µg/L	5057.7	ppb	02:20:04
1	Si 251.611†	163829.4	161836.7	2376.5	µg/L	2376.5	ppb	02:20:04
1	Sn 189.927†	7696.6	7643.4	478.09	µg/L	478.09	ppb	02:20:24
1	Ti 334.940†	514200.9	509619.5	475.51	µg/L	475.51	ppb	02:20:04
1	Tl 190.801†	3756.8	3847.0	479.82	µg/L	479.82	ppb	02:20:24
1	U 409.014†	7265.9	7484.6	466.47	µg/L	466.47	ppb	02:20:04
1	V 292.402†	97858.9	96764.5	478.34	µg/L	478.34	ppb	02:20:04
1	Zn 213.857†	85251.2	84085.2	468.63	µg/L	468.63	ppb	02:20:04
2	Sc RADIAL	143417.3	143417.3	98.3	%			02:19:41
2	Al 396.153Radial†	26013.9	26532.9	4897.2	µg/L	4897.2	ppb	02:19:41
2	Ca 317.933Radial†	85954.2	86899.4	4840.6	µg/L	4840.6	ppb	02:19:41
2	Fe 238.204 Radial†	76353.0	77542.5	4779.2	µg/L	4779.2	ppb	02:19:41
2	K 766.490 Radial†	14792.4	13506.7	4941.0	µg/L	4941.0	ppb	02:19:41
2	Mg 279.077 IEC†	13150.5	13190.2	4921.9	µg/L	4921.9	ppb	02:19:41
2	Na 589.592 Radial†	72142.5	72115.6	9847.5	µg/L	9847.5	ppb	02:19:41
2	Sr 421.552†	229319.1	233471.7	485.34	µg/L	485.34	ppb	02:19:39
2	Sc 361.383	1743349.5	1743349.5	101.46	%			02:20:27
2	Y 371.029	1028716.5	1028716.5	100.20	%			02:20:27
2	Ag 328.068†	133300.6	127287.6	477.31	µg/L	477.31	ppb	02:20:27
2	As 188.979†	1596.4	1593.8	488.89	µg/L	488.89	ppb	02:20:47
2	B 249.677†	35997.3	31972.5	469.88	µg/L	469.88	ppb	02:20:27
2	Ba 233.527†	120018.6	118424.3	477.60	µg/L	477.60	ppb	02:20:27
2	Be 313.107†	1796503.1	1771669.7	482.53	µg/L	482.53	ppb	02:20:27
2	Cd 226.502†	77106.3	76113.0	475.13	µg/L	475.13	ppb	02:20:27
2	Co 228.616†	39051.0	38678.3	477.48	µg/L	477.48	ppb	02:20:27
2	Cr 267.716†	61466.3	60401.6	472.94	µg/L	472.94	ppb	02:20:27
2	Cu 324.752†	126763.9	121964.2	475.45	µg/L	475.45	ppb	02:20:27
2	Mn 257.610†	393146.3	387241.5	478.93	µg/L	478.93	ppb	02:20:27
2	Mo 202.031†	16303.2	16088.2	473.25	µg/L	473.25	ppb	02:20:47
2	Ni 231.604†	41851.6	41324.8	475.83	µg/L	475.83	ppb	02:20:27
2	P 214.914†	11183.1	11039.8	2353.0	µg/L	2353.0	ppb	02:20:47
2	Pb 220.353†	8703.6	8491.7	475.54	µg/L	475.54	ppb	02:20:47

2	S 181.975 Axial†	1799.8	1668.8	1243.2 µg/L	1243.2 ppb	02:20:47
2	Sb 206.836†	4122.9	3982.7	474.52 µg/L	474.52 ppb	02:20:47
2	Se 196.026†	1342.9	1308.3	475 µg/L	475 ppb	02:20:47
2	SiO2†	55076.9	52507.6	5111.9 µg/L	5111.9 ppb	02:20:27
2	Si 251.611†	165962.8	162733.8	2389.7 µg/L	2389.7 ppb	02:20:27
2	Sn 189.927†	7680.9	7571.3	473.60 µg/L	473.60 ppb	02:20:47
2	Ti 334.940†	519896.2	511448.9	477.22 µg/L	477.22 ppb	02:20:27
2	Tl 190.801†	3764.8	3827.2	477.42 µg/L	477.42 ppb	02:20:47
2	U 409.014†	7312.8	7477.3	466.23 µg/L	466.23 ppb	02:20:27
2	V 292.402†	99237.6	97403.3	481.44 µg/L	481.44 ppb	02:20:27
2	Zn 213.857†	86569.5	84757.1	472.38 µg/L	472.38 ppb	02:20:27
3	Sc RADIAL	142522.4	142522.4	97.7 %		02:19:45
3	Al 396.153Radial†	26049.5	26735.5	4934.6 µg/L	4934.6 ppb	02:19:45
3	Ca 317.933Radial†	85524.1	87008.2	4846.7 µg/L	4846.7 ppb	02:19:45
3	Fe 238.204 Radial†	76071.6	77742.2	4791.5 µg/L	4791.5 ppb	02:19:45
3	K 766.490 Radial†	14775.5	13584.0	4969.3 µg/L	4969.3 ppb	02:19:45
3	Mg 279.077 IEC†	13130.2	13253.4	4945.6 µg/L	4945.6 ppb	02:19:45
3	Na 589.592 Radial†	71535.5	71954.9	9825.5 µg/L	9825.5 ppb	02:19:45
3	Sr 421.552†	230430.6	236074.9	490.75 µg/L	490.75 ppb	02:19:43
3	Sc 361.383	1739029.7	1739029.7	101.21 %		02:20:50
3	Y 371.029	1026889.1	1026889.1	100.02 %		02:20:50
3	Ag 328.068†	133069.1	127385.2	477.66 µg/L	477.66 ppb	02:20:50
3	As 188.979†	1625.4	1626.3	498.73 µg/L	498.73 ppb	02:21:10
3	B 249.677†	35984.4	32047.9	470.99 µg/L	470.99 ppb	02:20:50
3	Ba 233.527†	119885.1	118586.2	478.26 µg/L	478.26 ppb	02:20:50
3	Be 313.107†	1792265.9	1771881.4	482.58 µg/L	482.58 ppb	02:20:50
3	Cd 226.502†	76820.8	76019.6	474.55 µg/L	474.55 ppb	02:20:50
3	Co 228.616†	39099.9	38822.3	479.26 µg/L	479.26 ppb	02:20:50
3	Cr 267.716†	61364.7	60451.8	473.33 µg/L	473.33 ppb	02:20:50
3	Cu 324.752†	126363.1	121878.6	475.12 µg/L	475.12 ppb	02:20:50
3	Mn 257.610†	392632.0	387695.9	479.49 µg/L	479.49 ppb	02:20:50
3	Mo 202.031†	16380.6	16204.6	476.67 µg/L	476.67 ppb	02:21:10
3	Ni 231.604†	41859.0	41434.6	477.09 µg/L	477.09 ppb	02:20:50
3	P 214.914†	11258.2	11141.4	2374.8 µg/L	2374.8 ppb	02:21:10
3	Pb 220.353†	8758.8	8567.6	479.78 µg/L	479.78 ppb	02:21:10
3	S 181.975 Axial†	1801.3	1674.7	1247.6 µg/L	1247.6 ppb	02:21:10
3	Sb 206.836†	4138.4	4008.0	477.59 µg/L	477.59 ppb	02:21:10
3	Se 196.026†	1350.9	1319.5	479 µg/L	479 ppb	02:21:10
3	SiO2†	54848.5	52416.7	5102.8 µg/L	5102.8 ppb	02:20:50
3	Si 251.611†	165580.0	162761.9	2390.1 µg/L	2390.1 ppb	02:20:50
3	Sn 189.927†	7757.7	7666.0	479.50 µg/L	479.50 ppb	02:21:10
3	Ti 334.940†	519132.4	511967.1	477.70 µg/L	477.70 ppb	02:20:50
3	Tl 190.801†	3760.5	3832.2	478.02 µg/L	478.02 ppb	02:21:10
3	U 409.014†	7409.7	7590.9	472.81 µg/L	472.81 ppb	02:20:50
3	V 292.402†	98761.8	97176.0	480.37 µg/L	480.37 ppb	02:20:50
3	Zn 213.857†	86374.1	84776.0	472.48 µg/L	472.48 ppb	02:20:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1737602.9	101.13	%	0.383				0.38%
Sc RADIAL	142807.3	97.9	%	0.36				0.37%
Y 371.029	1026071.2	99.940	%	0.3054				0.31%
Ag 328.068†	127189.9	476.93	µg/L	0.975	476.93	ppb	0.975	0.20%
QC value within limits for Ag 328.068 Recovery = 95.39%								
Al 396.153Radial†	26607.3	4910.9	µg/L	20.62	4910.9	ppb	20.62	0.42%
QC value within limits for Al 396.153Radial Recovery = 98.22%								
As 188.979†	1612.5	494.56	µg/L	5.091	494.56	ppb	5.091	1.03%
QC value within limits for As 188.979 Recovery = 98.91%								
B 249.677†	31897.6	468.78	µg/L	2.921	468.78	ppb	2.921	0.62%
QC value within limits for B 249.677 Recovery = 93.76%								
Ba 233.527†	118277.3	477.01	µg/L	1.625	477.01	ppb	1.625	0.34%
QC value within limits for Ba 233.527 Recovery = 95.40%								
Be 313.107†	1767759.2	481.46	µg/L	1.895	481.46	ppb	1.895	0.39%
QC value within limits for Be 313.107 Recovery = 96.29%								
Ca 317.933Radial†	86914.6	4841.5	µg/L	4.85	4841.5	ppb	4.85	0.10%
QC value within limits for Ca 317.933Radial Recovery = 96.83%								
Cd 226.502†	75799.5	473.17	µg/L	2.901	473.17	ppb	2.901	0.61%
QC value within limits for Cd 226.502 Recovery = 94.63%								
Co 228.616†	38660.9	477.27	µg/L	2.108	477.27	ppb	2.108	0.44%

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   QC value within limits for Co 228.616  Recovery = 95.45%
Cr 267.716†            60345.5      472.50 µg/L         1.117      472.50 ppb          1.117   0.24%
   QC value within limits for Cr 267.716  Recovery = 94.50%
Cu 324.752†           121901.6      475.21 µg/L         0.213      475.21 ppb          0.213   0.04%
   QC value within limits for Cu 324.752  Recovery = 95.04%
Fe 238.204 Radial†     77565.9      4780.7 µg/L         10.22      4780.7 ppb          10.22   0.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.61%
K 766.490 Radial†      13598.3      4974.5 µg/L         36.41      4974.5 ppb          36.41   0.73%
   QC value within limits for K 766.490 Radial  Recovery = 99.49%
Mg 279.077 IEC†        13185.0      4920.1 µg/L         26.48      4920.1 ppb          26.48   0.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.40%
Mn 257.610†           386801.1      478.38 µg/L         1.457      478.38 ppb          1.457   0.30%
   QC value within limits for Mn 257.610  Recovery = 95.68%
Mo 202.031†            16156.3      475.25 µg/L         1.783      475.25 ppb          1.783   0.38%
   QC value within limits for Mo 202.031  Recovery = 95.05%
Na 589.592 Radial†     72012.7      9833.4 µg/L         12.23      9833.4 ppb          12.23   0.12%
   QC value within limits for Na 589.592 Radial  Recovery = 98.33%
Ni 231.604†            41271.4      475.21 µg/L         2.249      475.21 ppb          2.249   0.47%
   QC value within limits for Ni 231.604  Recovery = 95.04%
P 214.914†             11091.0      2364.0 µg/L         10.88      2364.0 ppb          10.88   0.46%
   QC value within limits for P 214.914  Recovery = 94.56%
Pb 220.353†             8539.8      478.23 µg/L         2.340      478.23 ppb          2.340   0.49%
   QC value within limits for Pb 220.353  Recovery = 95.65%
S 181.975 Axial†        1688.3      1257.7 µg/L         21.41      1257.7 ppb          21.41   1.70%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = 125.77%
Sb 206.836†             3992.6      475.74 µg/L         1.625      475.74 ppb          1.625   0.34%
   QC value within limits for Sb 206.836  Recovery = 95.15%
Se 196.026†             1307.6         475 µg/L           4.4         475 ppb            4.4   0.93%
   QC value within limits for Se 196.026  Recovery = 94.96%
SiO2†                  52292.8      5090.8 µg/L         29.05      5090.8 ppb          29.05   0.57%
   QC value within limits for SiO2  Recovery = 95.20%
Si 251.611†           162444.1      2385.4 µg/L          7.77      2385.4 ppb           7.77   0.33%
   QC value within limits for Si 251.611  Recovery = 95.42%
Sn 189.927†             7626.9      477.06 µg/L         3.084      477.06 ppb          3.084   0.65%
   QC value within limits for Sn 189.927  Recovery = 95.41%
Sr 421.552†           234275.6      487.01 µg/L         3.246      487.01 ppb          3.246   0.67%
   QC value within limits for Sr 421.552  Recovery = 97.40%
Ti 334.940†           511011.8      476.81 µg/L         1.149      476.81 ppb          1.149   0.24%
   QC value within limits for Ti 334.940  Recovery = 95.36%
Tl 190.801†             3835.5      478.42 µg/L         1.250      478.42 ppb          1.250   0.26%
   QC value within limits for Tl 190.801  Recovery = 95.68%
U 409.014†              7517.6      468.51 µg/L         3.732      468.51 ppb          3.732   0.80%
   QC value within limits for U 409.014  Recovery = 93.70%
V 292.402†             97114.6      480.05 µg/L         1.572      480.05 ppb          1.572   0.33%
   QC value within limits for V 292.402  Recovery = 96.01%
Zn 213.857†            84539.4      471.17 µg/L         2.196      471.17 ppb          2.196   0.47%
   QC value within limits for Zn 213.857  Recovery = 94.23%
QC Failed.  Continue with analysis.
```

Sequence No.: 190 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/1/2010 2:21:19**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142533.7	142533.7	97.7	%			02:21:48
1	Al 396.153Radial†	-46.3	15.8	2.9384	µg/L	2.9384	ppb	02:22:08
1	Ca 317.933Radial†	812.0	270.8	15.085	µg/L	15.085	ppb	02:22:08
1	Fe 238.204 Radial†	148.9	4.3	0.2664	µg/L	0.2664	ppb	02:22:08
1	K 766.490 Radial†	1893.6	393.9	144.21	µg/L	144.21	ppb	02:21:48
1	Mg 279.077 IEC†	191.4	5.2	1.9452	µg/L	1.9452	ppb	02:22:08
1	Na 589.592 Radial†	2030.7	788.2	107.55	µg/L	107.55	ppb	02:21:48
1	Sr 421.552†	35.6	171.7	0.3569	µg/L	0.3569	ppb	02:21:48
1	Sc 361.383	1757302.0	1757302.0	102.27	%			02:22:56
1	Y 371.029	1047691.3	1047691.3	102.05	%			02:22:56
1	Ag 328.068†	4173.8	-10.5	-0.0333	µg/L	-0.0333	ppb	02:22:58
1	As 188.979†	-24.8	-3.9	-1.1733	µg/L	-1.1733	ppb	02:23:18
1	B 249.677†	3656.0	68.8	1.0136	µg/L	1.0136	ppb	02:22:58
1	Ba 233.527†	-145.3	-6.2	-0.0251	µg/L	-0.0251	ppb	02:23:18
1	Be 313.107†	-953.7	132.2	0.0373	µg/L	0.0373	ppb	02:22:58
1	Cd 226.502†	-109.3	11.3	0.0707	µg/L	0.0707	ppb	02:23:18
1	Co 228.616†	-176.7	17.5	0.2164	µg/L	0.2164	ppb	02:23:18
1	Cr 267.716†	172.3	-10.1	-0.0824	µg/L	-0.0824	ppb	02:23:18
1	Cu 324.752†	2966.4	-71.8	-0.2751	µg/L	-0.2751	ppb	02:22:58
1	Mn 257.610†	287.6	44.0	0.0543	µg/L	0.0543	ppb	02:23:18
1	Mo 202.031†	-24.1	-3.5	-0.1021	µg/L	-0.1021	ppb	02:23:18
1	Ni 231.604†	-64.1	13.9	0.1596	µg/L	0.1596	ppb	02:23:18
1	P 214.914†	-11.1	7.1	1.5277	µg/L	1.5277	ppb	02:23:18
1	Pb 220.353†	81.6	-6.6	-0.3717	µg/L	-0.3717	ppb	02:23:18
1	S 181.975 Axial†	419.7	305.3	226.72	µg/L	226.72	ppb	02:23:18
1	Sb 206.836†	83.6	0.9	0.1126	µg/L	0.1126	ppb	02:23:18
1	Se 196.026†	22.7	6.9	2.50	µg/L	2.50	ppb	02:23:18
1	SiO2†	1807.8	-7.8	-0.7674	µg/L	-0.7674	ppb	02:23:18
1	Si 251.611†	1015.5	156.3	2.3014	µg/L	2.3014	ppb	02:22:58
1	Sn 189.927†	11.0	11.9	0.7393	µg/L	0.7393	ppb	02:23:18
1	Ti 334.940†	1008.0	33.1	0.0294	µg/L	0.0294	ppb	02:22:58
1	Tl 190.801†	-73.5	44.8	5.5056	µg/L	5.5056	ppb	02:23:18
1	U 409.014†	-199.5	74.9	4.3804	µg/L	4.3804	ppb	02:22:58
1	V 292.402†	420.5	7.4	0.0374	µg/L	0.0374	ppb	02:22:58
1	Zn 213.857†	628.6	50.2	0.2812	µg/L	0.2812	ppb	02:23:18
2	Sc RADIAL	140995.2	140995.2	96.6	%			02:22:10
2	Al 396.153Radial†	-49.6	11.8	2.2042	µg/L	2.2042	ppb	02:22:30
2	Ca 317.933Radial†	775.8	242.4	13.501	µg/L	13.501	ppb	02:22:30
2	Fe 238.204 Radial†	150.8	8.0	0.4928	µg/L	0.4928	ppb	02:22:30
2	K 766.490 Radial†	1849.8	369.8	135.37	µg/L	135.37	ppb	02:22:10
2	Mg 279.077 IEC†	181.9	-2.5	-0.9202	µg/L	-0.9202	ppb	02:22:30
2	Na 589.592 Radial†	2008.5	787.9	107.52	µg/L	107.52	ppb	02:22:10
2	Sr 421.552†	-96.1	35.9	0.0745	µg/L	0.0745	ppb	02:22:10
2	Sc 361.383	1746876.6	1746876.6	101.67	%			02:23:21
2	Y 371.029	1042581.7	1042581.7	101.55	%			02:23:21
2	Ag 328.068†	4096.2	-62.4	-0.2478	µg/L	-0.2478	ppb	02:23:23
2	As 188.979†	-17.8	2.8	0.8504	µg/L	0.8504	ppb	02:23:43
2	B 249.677†	3611.1	45.9	0.6766	µg/L	0.6766	ppb	02:23:23
2	Ba 233.527†	-113.1	24.6	0.0985	µg/L	0.0985	ppb	02:23:43
2	Be 313.107†	-508.9	564.1	0.1524	µg/L	0.1524	ppb	02:23:23
2	Cd 226.502†	-89.1	30.5	0.1906	µg/L	0.1906	ppb	02:23:43
2	Co 228.616†	-178.9	14.3	0.1770	µg/L	0.1770	ppb	02:23:43
2	Cr 267.716†	186.9	5.3	0.0438	µg/L	0.0438	ppb	02:23:43
2	Cu 324.752†	2747.0	-270.3	-1.0536	µg/L	-1.0536	ppb	02:23:23
2	Mn 257.610†	273.0	31.2	0.0387	µg/L	0.0387	ppb	02:23:43
2	Mo 202.031†	-29.7	-9.1	-0.2682	µg/L	-0.2682	ppb	02:23:43
2	Ni 231.604†	-105.3	-27.1	-0.3115	µg/L	-0.3115	ppb	02:23:43
2	P 214.914†	-22.0	-3.6	-0.7656	µg/L	-0.7656	ppb	02:23:43
2	Pb 220.353†	78.2	-9.5	-0.5265	µg/L	-0.5265	ppb	02:23:43

2	S 181.975 Axial†	415.2	303.3	225.21 µg/L	225.21 ppb	02:23:43
2	Sb 206.836†	72.3	-9.7	-1.1644 µg/L	-1.1644 ppb	02:23:43
2	Se 196.026†	13.2	-2.3	-0.833 µg/L	-0.833 ppb	02:23:43
2	SiO2†	1822.3	17.1	1.6785 µg/L	1.6785 ppb	02:23:43
2	Si 251.611†	1063.6	209.5	3.0940 µg/L	3.0940 ppb	02:23:23
2	Sn 189.927†	-4.2	-3.0	-0.1854 µg/L	-0.1854 ppb	02:23:43
2	Ti 334.940†	904.9	-62.5	-0.0564 µg/L	-0.0564 ppb	02:23:23
2	Tl 190.801†	-70.1	47.7	5.8552 µg/L	5.8552 ppb	02:23:43
2	U 409.014†	-342.8	-67.3	-3.9879 µg/L	-3.9879 ppb	02:23:23
2	V 292.402†	211.0	-196.3	-0.9629 µg/L	-0.9629 ppb	02:23:23
2	Zn 213.857†	601.6	27.3	0.1562 µg/L	0.1562 ppb	02:23:43
3	Sc RADIAL	142382.8	142382.8	97.6 %		02:22:32
3	Al 396.153Radial†	-56.5	5.3	0.9959 µg/L	0.9959 ppb	02:22:53
3	Ca 317.933Radial†	740.0	197.9	11.024 µg/L	11.024 ppb	02:22:53
3	Fe 238.204 Radial†	137.9	-6.8	-0.4201 µg/L	-0.4201 ppb	02:22:53
3	K 766.490 Radial†	1843.8	344.9	126.26 µg/L	126.26 ppb	02:22:32
3	Mg 279.077 IEC†	185.6	-0.4	-0.1653 µg/L	-0.1653 ppb	02:22:53
3	Na 589.592 Radial†	1905.7	662.4	90.378 µg/L	90.378 ppb	02:22:32
3	Sr 421.552†	-190.5	-59.9	-0.1247 µg/L	-0.1247 ppb	02:22:32
3	Sc 361.383	1733759.3	1733759.3	100.90 %		02:23:45
3	Y 371.029	1035483.6	1035483.6	100.86 %		02:23:45
3	Ag 328.068†	3971.4	-155.6	-0.5722 µg/L	-0.5722 ppb	02:23:47
3	As 188.979†	-15.3	5.2	1.5781 µg/L	1.5781 ppb	02:24:07
3	B 249.677†	3495.0	-42.2	-0.6226 µg/L	-0.6226 ppb	02:23:47
3	Ba 233.527†	-129.0	8.0	0.0318 µg/L	0.0318 ppb	02:24:07
3	Be 313.107†	-783.0	288.7	0.0811 µg/L	0.0811 ppb	02:23:47
3	Cd 226.502†	-94.8	24.2	0.1513 µg/L	0.1513 ppb	02:24:07
3	Co 228.616†	-199.6	-7.5	-0.0925 µg/L	-0.0925 ppb	02:24:07
3	Cr 267.716†	165.2	-14.9	-0.1233 µg/L	-0.1233 ppb	02:24:07
3	Cu 324.752†	3082.5	82.7	0.3282 µg/L	0.3282 ppb	02:23:47
3	Mn 257.610†	277.9	38.1	0.0471 µg/L	0.0471 ppb	02:24:07
3	Mo 202.031†	-27.7	-7.4	-0.2175 µg/L	-0.2175 ppb	02:24:07
3	Ni 231.604†	-100.3	-22.8	-0.2630 µg/L	-0.2630 ppb	02:24:07
3	P 214.914†	3.0	20.9	4.4747 µg/L	4.4747 ppb	02:24:07
3	Pb 220.353†	86.0	-1.2	-0.0714 µg/L	-0.0714 ppb	02:24:07
3	S 181.975 Axial†	402.3	293.6	218.02 µg/L	218.02 ppb	02:24:07
3	Sb 206.836†	82.0	0.5	0.0548 µg/L	0.0548 ppb	02:24:07
3	Se 196.026†	21.9	6.5	2.35 µg/L	2.35 ppb	02:24:07
3	SiO2†	1796.2	4.7	0.4621 µg/L	0.4621 ppb	02:24:07
3	Si 251.611†	1001.5	155.9	2.2994 µg/L	2.2994 ppb	02:23:47
3	Sn 189.927†	4.7	5.8	0.3603 µg/L	0.3603 ppb	02:24:07
3	Ti 334.940†	986.8	25.4	0.0207 µg/L	0.0207 ppb	02:23:47
3	Tl 190.801†	-44.3	72.8	8.9372 µg/L	8.9372 ppb	02:24:07
3	U 409.014†	-127.6	143.4	8.3576 µg/L	8.3576 ppb	02:23:47
3	V 292.402†	301.5	-105.0	-0.5092 µg/L	-0.5092 ppb	02:23:47
3	Zn 213.857†	581.7	12.1	0.0693 µg/L	0.0693 ppb	02:24:07

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1745979.3	101.62	%	0.687				0.68%
Sc RADIAL	141970.6	97.3	%	0.58				0.60%
Y 371.029	1041918.9	101.48	%	0.597				0.59%
Ag 328.068†	-76.2	-0.2844	µg/L	0.27132	-0.2844	ppb	0.27132	95.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.0	2.0462	µg/L	0.98085	2.0462	ppb	0.98085	47.94%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.4	0.4184	µg/L	1.42565	0.4184	ppb	1.42565	340.75%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	24.2	0.3559	µg/L	0.86394	0.3559	ppb	0.86394	242.77%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.8	0.0350	µg/L	0.06186	0.0350	ppb	0.06186	176.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	328.3	0.0903	µg/L	0.05810	0.0903	ppb	0.05810	64.34%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	237.0	13.203	µg/L	2.0466	13.203	ppb	2.0466	15.50%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	22.0	0.1375	µg/L	0.06111	0.1375	ppb	0.06111	44.43%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.1	0.1003	µg/L	0.16815	0.1003	ppb	0.16815	167.65%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -6.6     -0.0540 µg/L       0.08710     -0.0540 ppb        0.08710 161.40%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -86.5     -0.3335 µg/L       0.69273     -0.3335 ppb        0.69273 207.71%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.8      0.1130 µg/L       0.47541      0.1130 ppb        0.47541 420.63%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       369.6      135.28 µg/L         8.974      135.28 ppb          8.974   6.63%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.8      0.2866 µg/L       1.48517      0.2866 ppb        1.48517 518.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              37.8      0.0467 µg/L       0.00782      0.0467 ppb        0.00782  16.75%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -6.7     -0.1959 µg/L       0.08513     -0.1959 ppb        0.08513  43.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      746.2      101.82 µg/L         9.907      101.82 ppb          9.907   9.73%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -12.0     -0.1383 µg/L       0.25912     -0.1383 ppb        0.25912 187.35%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                8.1      1.7456 µg/L       2.62689      1.7456 ppb        2.62689 150.49%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -5.7     -0.3232 µg/L       0.23141     -0.3232 ppb        0.23141  71.60%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        300.7      223.31 µg/L         4.649      223.31 ppb          4.649   2.08%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.8     -0.3323 µg/L       0.72115     -0.3323 ppb        0.72115 217.00%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.7        1.34 µg/L         1.882        1.34 ppb          1.882 140.61%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     4.7      0.4577 µg/L       1.22296      0.4577 ppb        1.22296 267.19%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             173.9      2.5649 µg/L       0.45818      2.5649 ppb        0.45818  17.86%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.9      0.3047 µg/L       0.46487      0.3047 ppb        0.46487 152.55%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              49.2      0.1022 µg/L       0.24199      0.1022 ppb        0.24199 236.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -1.3     -0.0021 µg/L       0.04720     -0.0021 ppb        0.04720 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              55.1      6.7660 µg/L       1.88839      6.7660 ppb        1.88839  27.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               50.3      2.9167 µg/L       6.30153      2.9167 ppb        6.30153 216.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -98.0     -0.4782 µg/L       0.50087     -0.4782 ppb        0.50087 104.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              29.9      0.1689 µg/L       0.10651      0.1689 ppb        0.10651  63.06%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 200
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 2:47:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144350.1	144350.1	98.9	%			02:47:33
1	Al 396.153Radial†	26228.7	26578.9	4905.8	µg/L	4905.8	ppb	02:47:33
1	Ca 317.933Radial†	86007.1	86387.7	4812.1	µg/L	4812.1	ppb	02:47:33
1	Fe 238.204 Radial†	76839.4	77532.2	4778.6	µg/L	4778.6	ppb	02:47:33
1	K 766.490 Radial†	15343.0	13966.1	5108.9	µg/L	5108.9	ppb	02:47:33
1	Mg 279.077 IEC†	13163.3	13116.7	4894.5	µg/L	4894.5	ppb	02:47:33
1	Na 589.592 Radial†	85523.5	85168.6	11631	µg/L	11631	ppb	02:47:33
1	Sr 421.552†	229491.2	232137.9	482.56	µg/L	482.56	ppb	02:47:31
1	Sc 361.383	1735080.7	1735080.7	100.98	%			02:47:46
1	Y 371.029	1023835.7	1023835.7	99.722	%			02:47:46
1	Ag 328.068†	132112.4	126737.1	475.24	µg/L	475.24	ppb	02:47:46
1	As 188.979†	1600.3	1605.1	492.29	µg/L	492.29	ppb	02:48:06
1	B 249.677†	35710.3	31857.4	468.19	µg/L	468.19	ppb	02:47:46
1	Ba 233.527†	119099.4	118077.7	476.20	µg/L	476.20	ppb	02:47:46
1	Be 313.107†	1782783.3	1766521.3	481.13	µg/L	481.13	ppb	02:47:46
1	Cd 226.502†	75967.8	75347.7	470.35	µg/L	470.35	ppb	02:47:46
1	Co 228.616†	38757.3	38570.9	476.16	µg/L	476.16	ppb	02:47:46
1	Cr 267.716†	60943.8	60172.9	471.14	µg/L	471.14	ppb	02:47:46
1	Cu 324.752†	126054.9	121857.5	475.04	µg/L	475.04	ppb	02:47:46
1	Mn 257.610†	390617.1	386583.5	478.11	µg/L	478.11	ppb	02:47:46
1	Mo 202.031†	16192.2	16054.9	472.27	µg/L	472.27	ppb	02:48:06
1	Ni 231.604†	41343.1	41017.9	472.29	µg/L	472.29	ppb	02:47:46
1	P 214.914†	11104.9	11015.0	2347.7	µg/L	2347.7	ppb	02:48:06
1	Pb 220.353†	8631.3	8461.0	473.82	µg/L	473.82	ppb	02:48:06
1	S 181.975 Axial†	1898.0	1774.5	1321.7	µg/L	1321.7	ppb	02:48:06
1	Sb 206.836†	4090.9	3970.4	473.06	µg/L	473.06	ppb	02:48:06
1	Se 196.026†	1334.9	1306.7	474	µg/L	474	ppb	02:48:06
1	SiO2†	54695.2	52388.2	5100.2	µg/L	5100.2	ppb	02:47:46
1	Si 251.611†	165090.7	162649.7	2388.5	µg/L	2388.5	ppb	02:47:46
1	Sn 189.927†	7654.2	7581.0	474.20	µg/L	474.20	ppb	02:48:06
1	Ti 334.940†	517218.9	511239.5	477.02	µg/L	477.02	ppb	02:47:46
1	Tl 190.801†	3732.0	3812.4	475.58	µg/L	475.58	ppb	02:48:06
1	U 409.014†	7426.6	7624.3	474.65	µg/L	474.65	ppb	02:47:46
1	V 292.402†	98126.3	96768.8	478.33	µg/L	478.33	ppb	02:47:46
1	Zn 213.857†	85631.0	84234.3	469.47	µg/L	469.47	ppb	02:47:46
2	Sc RADIAL	143197.9	143197.9	98.1	%			02:47:37
2	Al 396.153Radial†	26070.2	26630.7	4915.4	µg/L	4915.4	ppb	02:47:37
2	Ca 317.933Radial†	85328.2	86395.4	4812.6	µg/L	4812.6	ppb	02:47:37
2	Fe 238.204 Radial†	76209.4	77515.2	4777.6	µg/L	4777.6	ppb	02:47:37
2	K 766.490 Radial†	15238.0	13983.9	5115.5	µg/L	5115.5	ppb	02:47:37
2	Mg 279.077 IEC†	12996.4	13053.6	4871.0	µg/L	4871.0	ppb	02:47:37
2	Na 589.592 Radial†	84353.8	84672.3	11563	µg/L	11563	ppb	02:47:37
2	Sr 421.552†	228444.9	232938.2	484.23	µg/L	484.23	ppb	02:47:35
2	Sc 361.383	1729977.8	1729977.8	100.68	%			02:48:09
2	Y 371.029	1021138.1	1021138.1	99.459	%			02:48:09
2	Ag 328.068†	132255.3	127264.8	477.20	µg/L	477.20	ppb	02:48:09
2	As 188.979†	1600.4	1609.8	493.75	µg/L	493.75	ppb	02:48:29
2	B 249.677†	35924.0	32173.9	472.86	µg/L	472.86	ppb	02:48:09
2	Ba 233.527†	118874.7	118202.5	476.71	µg/L	476.71	ppb	02:48:09
2	Be 313.107†	1779803.9	1768769.7	481.74	µg/L	481.74	ppb	02:48:09
2	Cd 226.502†	76106.7	75707.5	472.60	µg/L	472.60	ppb	02:48:09
2	Co 228.616†	38701.0	38628.3	476.87	µg/L	476.87	ppb	02:48:09
2	Cr 267.716†	61014.5	60421.2	473.09	µg/L	473.09	ppb	02:48:09
2	Cu 324.752†	126154.1	122324.3	476.85	µg/L	476.85	ppb	02:48:09
2	Mn 257.610†	389925.2	387037.3	478.68	µg/L	478.68	ppb	02:48:09
2	Mo 202.031†	16171.0	16081.2	473.04	µg/L	473.04	ppb	02:48:29
2	Ni 231.604†	41427.6	41222.5	474.65	µg/L	474.65	ppb	02:48:09
2	P 214.914†	11099.7	11042.2	2353.5	µg/L	2353.5	ppb	02:48:29
2	Pb 220.353†	8601.5	8456.6	473.58	µg/L	473.58	ppb	02:48:29

2	S 181.975 Axial†	1845.1	1727.5	1286.8 µg/L	1286.8 ppb	02:48:29
2	Sb 206.836†	4100.2	3991.5	475.56 µg/L	475.56 ppb	02:48:29
2	Se 196.026†	1327.8	1303.5	473 µg/L	473 ppb	02:48:29
2	SiO2†	54326.1	52181.4	5080.0 µg/L	5080.0 ppb	02:48:09
2	Si 251.611†	164905.6	162948.1	2392.9 µg/L	2392.9 ppb	02:48:09
2	Sn 189.927†	7653.3	7602.4	475.54 µg/L	475.54 ppb	02:48:29
2	Ti 334.940†	516285.7	511823.6	477.57 µg/L	477.57 ppb	02:48:09
2	Tl 190.801†	3663.6	3755.4	468.58 µg/L	468.58 ppb	02:48:29
2	U 409.014†	7377.7	7597.4	473.10 µg/L	473.10 ppb	02:48:09
2	V 292.402†	97929.6	96860.1	478.79 µg/L	478.79 ppb	02:48:09
2	Zn 213.857†	85635.6	84489.1	470.89 µg/L	470.89 ppb	02:48:09
3	Sc RADIAL	145242.2	145242.2	99.5 %		02:47:41
3	Al 396.153Radial†	26268.1	26455.7	4882.8 µg/L	4882.8 ppb	02:47:41
3	Ca 317.933Radial†	86324.1	86172.1	4800.1 µg/L	4800.1 ppb	02:47:41
3	Fe 238.204 Radial†	77185.1	77402.4	4770.6 µg/L	4770.6 ppb	02:47:41
3	K 766.490 Radial†	15378.8	13906.8	5087.2 µg/L	5087.2 ppb	02:47:41
3	Mg 279.077 IEC†	13138.0	13009.5	4854.7 µg/L	4854.7 ppb	02:47:41
3	Na 589.592 Radial†	85226.4	84339.0	11517 µg/L	11517 ppb	02:47:41
3	Sr 421.552†	228321.6	229537.8	477.16 µg/L	477.16 ppb	02:47:39
3	Sc 361.383	1722897.8	1722897.8	100.27 %		02:48:32
3	Y 371.029	1017279.7	1017279.7	99.084 %		02:48:32
3	Ag 328.068†	131579.2	127130.4	476.70 µg/L	476.70 ppb	02:48:32
3	As 188.979†	1572.0	1588.0	487.15 µg/L	487.15 ppb	02:48:52
3	B 249.677†	35666.5	32063.7	471.23 µg/L	471.23 ppb	02:48:32
3	Ba 233.527†	118266.8	118081.4	476.22 µg/L	476.22 ppb	02:48:32
3	Be 313.107†	1769881.6	1766138.5	481.02 µg/L	481.02 ppb	02:48:32
3	Cd 226.502†	75739.9	75652.3	472.25 µg/L	472.25 ppb	02:48:32
3	Co 228.616†	38545.9	38631.5	476.90 µg/L	476.90 ppb	02:48:32
3	Cr 267.716†	60533.7	60190.7	471.28 µg/L	471.28 ppb	02:48:32
3	Cu 324.752†	125338.4	122025.7	475.69 µg/L	475.69 ppb	02:48:32
3	Mn 257.610†	387950.9	386659.8	478.21 µg/L	478.21 ppb	02:48:32
3	Mo 202.031†	16180.5	16156.6	475.26 µg/L	475.26 ppb	02:48:52
3	Ni 231.604†	41057.6	41022.6	472.35 µg/L	472.35 ppb	02:48:32
3	P 214.914†	11090.2	11078.0	2361.2 µg/L	2361.2 ppb	02:48:52
3	Pb 220.353†	8596.5	8486.8	475.26 µg/L	475.26 ppb	02:48:52
3	S 181.975 Axial†	1808.3	1698.3	1265.1 µg/L	1265.1 ppb	02:48:52
3	Sb 206.836†	4086.2	3994.3	475.96 µg/L	475.96 ppb	02:48:52
3	Se 196.026†	1329.9	1311.0	476 µg/L	476 ppb	02:48:52
3	SiO2†	54093.6	52171.3	5078.9 µg/L	5078.9 ppb	02:48:32
3	Si 251.611†	163851.5	162569.8	2387.3 µg/L	2387.3 ppb	02:48:32
3	Sn 189.927†	7645.7	7626.1	477.02 µg/L	477.02 ppb	02:48:52
3	Ti 334.940†	513965.1	511616.4	477.38 µg/L	477.38 ppb	02:48:32
3	Tl 190.801†	3647.7	3754.5	468.47 µg/L	468.47 ppb	02:48:52
3	U 409.014†	7387.3	7637.1	475.41 µg/L	475.41 ppb	02:48:32
3	V 292.402†	97466.6	96798.1	478.51 µg/L	478.51 ppb	02:48:32
3	Zn 213.857†	85311.1	84515.0	471.05 µg/L	471.05 ppb	02:48:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729318.8	100.65	%	0.356				0.35%
Sc RADIAL	144263.4	98.9	%	0.70				0.71%
Y 371.029	1020751.1	99.422	%	0.3209				0.32%
Ag 328.068†	127044.1	476.38	µg/L	1.017	476.38	ppb	1.017	0.21%
QC value within limits for Ag 328.068 Recovery = 95.28%								
Al 396.153Radial†	26555.1	4901.3	µg/L	16.73	4901.3	ppb	16.73	0.34%
QC value within limits for Al 396.153Radial Recovery = 98.03%								
As 188.979†	1601.0	491.06	µg/L	3.468	491.06	ppb	3.468	0.71%
QC value within limits for As 188.979 Recovery = 98.21%								
B 249.677†	32031.7	470.76	µg/L	2.368	470.76	ppb	2.368	0.50%
QC value within limits for B 249.677 Recovery = 94.15%								
Ba 233.527†	118120.5	476.38	µg/L	0.286	476.38	ppb	0.286	0.06%
QC value within limits for Ba 233.527 Recovery = 95.28%								
Be 313.107†	1767143.2	481.30	µg/L	0.387	481.30	ppb	0.387	0.08%
QC value within limits for Be 313.107 Recovery = 96.26%								
Ca 317.933Radial†	86318.4	4808.3	µg/L	7.06	4808.3	ppb	7.06	0.15%
QC value within limits for Ca 317.933Radial Recovery = 96.17%								
Cd 226.502†	75569.2	471.73	µg/L	1.211	471.73	ppb	1.211	0.26%
QC value within limits for Cd 226.502 Recovery = 94.35%								
Co 228.616†	38610.2	476.64	µg/L	0.421	476.64	ppb	0.421	0.09%

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   QC value within limits for Co 228.616  Recovery = 95.33%
Cr 267.716†            60261.6      471.83 µg/L         1.086      471.83 ppb          1.086   0.23%
   QC value within limits for Cr 267.716  Recovery = 94.37%
Cu 324.752†           122069.2      475.86 µg/L         0.918      475.86 ppb          0.918   0.19%
   QC value within limits for Cu 324.752  Recovery = 95.17%
Fe 238.204 Radial†     77483.3      4775.6 µg/L          4.35      4775.6 ppb           4.35   0.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.51%
K 766.490 Radial†      13952.3      5103.9 µg/L         14.77      5103.9 ppb          14.77   0.29%
   QC value within limits for K 766.490 Radial  Recovery = 102.08%
Mg 279.077 IEC†        13059.9      4873.4 µg/L         20.02      4873.4 ppb          20.02   0.41%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.47%
Mn 257.610†           386760.2      478.33 µg/L         0.301      478.33 ppb          0.301   0.06%
   QC value within limits for Mn 257.610  Recovery = 95.67%
Mo 202.031†            16097.6      473.52 µg/L         1.551      473.52 ppb          1.551   0.33%
   QC value within limits for Mo 202.031  Recovery = 94.70%
Na 589.592 Radial†     84726.6       11570 µg/L          57.0       11570 ppb           57.0   0.49%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 115.70%
Ni 231.604†            41087.6      473.09 µg/L         1.345      473.09 ppb          1.345   0.28%
   QC value within limits for Ni 231.604  Recovery = 94.62%
P 214.914†             11045.1      2354.2 µg/L          6.76      2354.2 ppb           6.76   0.29%
   QC value within limits for P 214.914  Recovery = 94.17%
Pb 220.353†             8468.1      474.22 µg/L         0.911      474.22 ppb          0.911   0.19%
   QC value within limits for Pb 220.353  Recovery = 94.84%
S 181.975 Axial†        1733.4      1291.2 µg/L         28.53      1291.2 ppb          28.53   2.21%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = 129.12%
Sb 206.836†             3985.4      474.86 µg/L         1.568      474.86 ppb          1.568   0.33%
   QC value within limits for Sb 206.836  Recovery = 94.97%
Se 196.026†             1307.1         475 µg/L           1.4         475 ppb            1.4   0.29%
   QC value within limits for Se 196.026  Recovery = 94.93%
SiO2†                  52247.0      5086.4 µg/L         12.02      5086.4 ppb          12.02   0.24%
   QC value within limits for SiO2  Recovery = 95.12%
Si 251.611†           162722.5      2389.6 µg/L          2.95      2389.6 ppb           2.95   0.12%
   QC value within limits for Si 251.611  Recovery = 95.58%
Sn 189.927†             7603.1      475.58 µg/L         1.408      475.58 ppb          1.408   0.30%
   QC value within limits for Sn 189.927  Recovery = 95.12%
Sr 421.552†           231538.0      481.32 µg/L         3.696      481.32 ppb          3.696   0.77%
   QC value within limits for Sr 421.552  Recovery = 96.26%
Ti 334.940†           511559.8      477.32 µg/L         0.278      477.32 ppb          0.278   0.06%
   QC value within limits for Ti 334.940  Recovery = 95.46%
Tl 190.801†             3774.1      470.88 µg/L         4.075      470.88 ppb          4.075   0.87%
   QC value within limits for Tl 190.801  Recovery = 94.18%
U 409.014†              7619.6      474.39 µg/L         1.174      474.39 ppb          1.174   0.25%
   QC value within limits for U 409.014  Recovery = 94.88%
V 292.402†             96809.0      478.54 µg/L         0.232      478.54 ppb          0.232   0.05%
   QC value within limits for V 292.402  Recovery = 95.71%
Zn 213.857†            84412.8      470.47 µg/L         0.867      470.47 ppb          0.867   0.18%
   QC value within limits for Zn 213.857  Recovery = 94.09%
QC Failed.  Continue with analysis.
```

Sequence No.: 201 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/1/2010 2:49:00**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143285.4	143285.4	98.2	%			02:49:29
1	Al 396.153Radial†	-71.7	-9.8	-1.8058	µg/L	-1.8058	ppb	02:49:49
1	Ca 317.933Radial†	595.1	45.5	2.5347	µg/L	2.5347	ppb	02:49:49
1	Fe 238.204 Radial†	146.6	1.2	0.0760	µg/L	0.0760	ppb	02:49:49
1	K 766.490 Radial†	1934.3	425.2	155.46	µg/L	155.46	ppb	02:49:29
1	Mg 279.077 IEC†	167.1	-20.5	-7.6406	µg/L	-7.6406	ppb	02:49:49
1	Na 589.592 Radial†	11220.6	10136.9	1384.7	µg/L	1384.7	ppb	02:49:29
1	Sr 421.552†	-193.9	-62.2	-0.1292	µg/L	-0.1292	ppb	02:49:29
1	Sc 361.383	1752326.8	1752326.8	101.99	%			02:50:37
1	Y 371.029	1044520.1	1044520.1	101.74	%			02:50:37
1	Ag 328.068†	3984.9	-184.1	-0.6824	µg/L	-0.6824	ppb	02:50:39
1	As 188.979†	-14.0	6.6	1.9969	µg/L	1.9969	ppb	02:50:59
1	B 249.677†	3624.3	47.8	0.7042	µg/L	0.7042	ppb	02:50:39
1	Ba 233.527†	-123.5	14.7	0.0593	µg/L	0.0593	ppb	02:50:59
1	Be 313.107†	-829.9	251.0	0.0684	µg/L	0.0684	ppb	02:50:39
1	Cd 226.502†	-84.0	35.8	0.2237	µg/L	0.2237	ppb	02:50:59
1	Co 228.616†	-162.6	30.8	0.3804	µg/L	0.3804	ppb	02:50:59
1	Cr 267.716†	186.9	4.7	0.0364	µg/L	0.0364	ppb	02:50:59
1	Cu 324.752†	2988.3	-42.0	-0.1631	µg/L	-0.1631	ppb	02:50:39
1	Mn 257.610†	271.5	29.0	0.0361	µg/L	0.0361	ppb	02:50:59
1	Mo 202.031†	-30.2	-9.6	-0.2810	µg/L	-0.2810	ppb	02:50:59
1	Ni 231.604†	-95.4	-17.1	-0.1966	µg/L	-0.1966	ppb	02:50:59
1	P 214.914†	-38.5	-19.8	-4.2327	µg/L	-4.2327	ppb	02:50:59
1	Pb 220.353†	75.5	-12.4	-0.6917	µg/L	-0.6917	ppb	02:50:59
1	S 181.975 Axial†	433.7	320.2	237.80	µg/L	237.80	ppb	02:50:59
1	Sb 206.836†	88.2	5.6	0.6633	µg/L	0.6633	ppb	02:50:59
1	Se 196.026†	18.1	2.5	0.898	µg/L	0.898	ppb	02:50:59
1	SiO2†	1786.4	-23.7	-2.3127	µg/L	-2.3127	ppb	02:50:59
1	Si 251.611†	933.6	78.8	1.1640	µg/L	1.1640	ppb	02:50:39
1	Sn 189.927†	3.6	4.6	0.2882	µg/L	0.2882	ppb	02:50:59
1	Ti 334.940†	1101.4	127.4	0.1196	µg/L	0.1196	ppb	02:50:39
1	Tl 190.801†	-18.8	98.2	12.068	µg/L	12.068	ppb	02:50:59
1	U 409.014†	-269.8	5.3	0.3076	µg/L	0.3076	ppb	02:50:39
1	V 292.402†	393.5	-18.0	-0.0903	µg/L	-0.0903	ppb	02:50:39
1	Zn 213.857†	640.1	63.2	0.3564	µg/L	0.3564	ppb	02:50:59
2	Sc RADIAL	142448.9	142448.9	97.6	%			02:49:51
2	Al 396.153Radial†	-80.1	-18.9	-3.4987	µg/L	-3.4987	ppb	02:50:11
2	Ca 317.933Radial†	604.0	58.1	3.2391	µg/L	3.2391	ppb	02:50:11
2	Fe 238.204 Radial†	136.7	-8.1	-0.4962	µg/L	-0.4962	ppb	02:50:11
2	K 766.490 Radial†	1971.5	474.9	173.64	µg/L	173.64	ppb	02:49:51
2	Mg 279.077 IEC†	181.3	-4.9	-1.8347	µg/L	-1.8347	ppb	02:50:11
2	Na 589.592 Radial†	11007.1	9985.3	1364.0	µg/L	1364.0	ppb	02:49:51
2	Sr 421.552†	-296.7	-168.7	-0.3506	µg/L	-0.3506	ppb	02:49:51
2	Sc 361.383	1743448.5	1743448.5	101.47	%			02:51:01
2	Y 371.029	1039864.1	1039864.1	101.28	%			02:51:01
2	Ag 328.068†	4186.0	34.1	0.0996	µg/L	0.0996	ppb	02:51:04
2	As 188.979†	-18.5	2.2	0.6509	µg/L	0.6509	ppb	02:51:24
2	B 249.677†	3669.2	110.2	1.6256	µg/L	1.6256	ppb	02:51:04
2	Ba 233.527†	-125.5	12.1	0.0485	µg/L	0.0485	ppb	02:51:24
2	Be 313.107†	-764.5	311.2	0.0800	µg/L	0.0800	ppb	02:51:04
2	Cd 226.502†	-111.8	8.0	0.0499	µg/L	0.0499	ppb	02:51:24
2	Co 228.616†	-195.5	-2.4	-0.0291	µg/L	-0.0291	ppb	02:51:24
2	Cr 267.716†	178.0	-3.1	-0.0126	µg/L	-0.0126	ppb	02:51:24
2	Cu 324.752†	3031.4	15.3	0.0464	µg/L	0.0464	ppb	02:51:04
2	Mn 257.610†	270.9	29.7	0.0368	µg/L	0.0368	ppb	02:51:24
2	Mo 202.031†	-18.7	1.6	0.0481	µg/L	0.0481	ppb	02:51:24
2	Ni 231.604†	-92.0	-14.2	-0.1629	µg/L	-0.1629	ppb	02:51:24
2	P 214.914†	-21.9	-3.6	-0.7804	µg/L	-0.7804	ppb	02:51:24
2	Pb 220.353†	94.2	6.4	0.3702	µg/L	0.3702	ppb	02:51:24

2	S 181.975 Axial†	418.8	307.7	228.47 µg/L	228.47 ppb	02:51:24
2	Sb 206.836†	71.8	-10.1	-1.1978 µg/L	-1.1978 ppb	02:51:24
2	Se 196.026†	10.4	-5.0	-1.84 µg/L	-1.84 ppb	02:51:24
2	SiO2†	1814.8	13.2	1.2903 µg/L	1.2903 ppb	02:51:24
2	Si 251.611†	895.5	45.9	0.6794 µg/L	0.6794 ppb	02:51:04
2	Sn 189.927†	-7.6	-6.4	-0.3979 µg/L	-0.3979 ppb	02:51:24
2	Ti 334.940†	806.3	-157.9	-0.1409 µg/L	-0.1409 ppb	02:51:04
2	Tl 190.801†	-3.5	113.3	13.912 µg/L	13.912 ppb	02:51:24
2	U 409.014†	-544.2	-266.5	-15.615 µg/L	-15.615 ppb	02:51:04
2	V 292.402†	282.2	-125.7	-0.6229 µg/L	-0.6229 ppb	02:51:04
2	Zn 213.857†	590.2	17.3	0.0980 µg/L	0.0980 ppb	02:51:24
3	Sc RADIAL	145771.5	145771.5	99.9 %		02:50:13
3	Al 396.153Radial†	-87.3	-24.2	-4.4567 µg/L	-4.4567 ppb	02:50:33
3	Ca 317.933Radial†	622.8	62.9	3.5055 µg/L	3.5055 ppb	02:50:33
3	Fe 238.204 Radial†	153.4	5.5	0.3375 µg/L	0.3375 ppb	02:50:33
3	K 766.490 Radial†	2120.5	578.0	211.41 µg/L	211.41 ppb	02:50:13
3	Mg 279.077 IEC†	197.6	7.1	2.6404 µg/L	2.6404 ppb	02:50:33
3	Na 589.592 Radial†	10446.1	9166.6	1252.1 µg/L	1252.1 ppb	02:50:13
3	Sr 421.552†	-272.9	-137.9	-0.2867 µg/L	-0.2867 ppb	02:50:13
3	Sc 361.383	1749649.9	1749649.9	101.83 %		02:51:26
3	Y 371.029	1043874.1	1043874.1	101.67 %		02:51:26
3	Ag 328.068†	3981.6	-181.3	-0.6631 µg/L	-0.6631 ppb	02:51:28
3	As 188.979†	-17.4	3.3	0.9850 µg/L	0.9850 ppb	02:51:48
3	B 249.677†	3525.0	-44.2	-0.6527 µg/L	-0.6527 ppb	02:51:28
3	Ba 233.527†	-136.8	1.5	0.0057 µg/L	0.0057 ppb	02:51:48
3	Be 313.107†	-989.5	93.0	0.0288 µg/L	0.0288 ppb	02:51:28
3	Cd 226.502†	-106.6	13.6	0.0847 µg/L	0.0847 ppb	02:51:48
3	Co 228.616†	-172.6	20.8	0.2569 µg/L	0.2569 ppb	02:51:48
3	Cr 267.716†	208.9	26.6	0.1986 µg/L	0.1986 ppb	02:51:48
3	Cu 324.752†	2628.4	-391.1	-1.5098 µg/L	-1.5098 ppb	02:51:28
3	Mn 257.610†	274.5	32.3	0.0398 µg/L	0.0398 ppb	02:51:48
3	Mo 202.031†	-38.7	-17.9	-0.5273 µg/L	-0.5273 ppb	02:51:48
3	Ni 231.604†	-80.2	-2.2	-0.0256 µg/L	-0.0256 ppb	02:51:48
3	P 214.914†	-9.6	8.5	1.8368 µg/L	1.8368 ppb	02:51:48
3	Pb 220.353†	66.4	-21.2	-1.1913 µg/L	-1.1913 ppb	02:51:48
3	S 181.975 Axial†	404.6	292.3	217.02 µg/L	217.02 ppb	02:51:48
3	Sb 206.836†	87.9	5.5	0.6461 µg/L	0.6461 ppb	02:51:48
3	Se 196.026†	5.0	-10.4	-3.73 µg/L	-3.73 ppb	02:51:48
3	SiO2†	1783.0	-24.4	-2.3667 µg/L	-2.3667 ppb	02:51:48
3	Si 251.611†	951.4	97.7	1.4500 µg/L	1.4500 ppb	02:51:28
3	Sn 189.927†	-5.8	-4.6	-0.2885 µg/L	-0.2885 ppb	02:51:48
3	Ti 334.940†	790.5	-176.3	-0.1697 µg/L	-0.1697 ppb	02:51:28
3	Tl 190.801†	34.7	150.7	18.513 µg/L	18.513 ppb	02:51:48
3	U 409.014†	-71.7	199.5	11.634 µg/L	11.634 ppb	02:51:28
3	V 292.402†	308.0	-101.3	-0.4907 µg/L	-0.4907 ppb	02:51:28
3	Zn 213.857†	628.3	52.6	0.2965 µg/L	0.2965 ppb	02:51:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1748475.0	101.76	%	0.265				0.26%
Sc RADIAL	143835.3	98.6	%	1.18				1.20%
Y 371.029	1042752.8	101.56	%	0.246				0.24%
Ag 328.068†	-110.4	-0.4153	µg/L	0.44602	-0.4153	ppb	0.44602	107.40%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-17.6	-3.2537	µg/L	1.34234	-3.2537	ppb	1.34234	41.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.0	1.2109	µg/L	0.70088	1.2109	ppb	0.70088	57.88%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	38.0	0.5590	µg/L	1.14606	0.5590	ppb	1.14606	205.01%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.5	0.0379	µg/L	0.02832	0.0379	ppb	0.02832	74.82%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	218.4	0.0591	µg/L	0.02684	0.0591	ppb	0.02684	45.41%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	55.5	3.0931	µg/L	0.50159	3.0931	ppb	0.50159	16.22%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.1	0.1194	µg/L	0.09196	0.1194	ppb	0.09196	77.00%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	16.4	0.2027	µg/L	0.21008	0.2027	ppb	0.21008	103.62%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.4      0.0741 µg/L       0.11055      0.0741 ppb        0.11055 149.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -139.3     -0.5421 µg/L       0.84454     -0.5421 ppb        0.84454 155.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.4     -0.0276 µg/L       0.42641     -0.0276 ppb        0.42641 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         492.7      180.17 µg/L        28.541      180.17 ppb         28.541  15.84%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -6.1     -2.2783 µg/L       5.15483     -2.2783 ppb        5.15483 226.26%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               30.3      0.0376 µg/L       0.00196      0.0376 ppb        0.00196   5.21%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -8.6     -0.2534 µg/L       0.28865     -0.2534 ppb        0.28865 113.92%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       9762.9      1333.6 µg/L         71.33      1333.6 ppb          71.33   5.35%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -11.2     -0.1284 µg/L       0.09057     -0.1284 ppb        0.09057  70.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -5.0     -1.0588 µg/L       3.04432     -1.0588 ppb        3.04432 287.53%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -9.0     -0.5043 µg/L       0.79745     -0.5043 ppb        0.79745 158.14%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         306.7      227.76 µg/L        10.409      227.76 ppb         10.409   4.57%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                0.4      0.0372 µg/L       1.06958      0.0372 ppb        1.06958 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -4.3       -1.56 µg/L         2.327       -1.56 ppb          2.327 149.47%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -11.7     -1.1297 µg/L       2.09595     -1.1297 ppb        2.09595 185.53%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               74.2      1.0978 µg/L       0.38957      1.0978 ppb        0.38957  35.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -2.1     -0.1327 µg/L       0.36862     -0.1327 ppb        0.36862 277.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -122.9     -0.2555 µg/L       0.11395     -0.2555 ppb        0.11395  44.59%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -68.9     -0.0636 µg/L       0.15935     -0.0636 ppb        0.15935 250.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              120.7      14.831 µg/L        3.3194      14.831 ppb         3.3194  22.38%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -20.6     -1.2243 µg/L      13.68877     -1.2243 ppb       13.68877 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -81.6     -0.4013 µg/L       0.27732     -0.4013 ppb        0.27732  69.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               44.4      0.2503 µg/L       0.13524      0.2503 ppb        0.13524  54.03%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 212 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/1/2010 3:13:23**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141609.9	141609.9	97.0	%			03:13:57
1	Al 396.153Radial†	25900.5	26753.8	4938.0	µg/L	4938.0	ppb	03:13:57
1	Ca 317.933Radial†	84686.8	86709.6	4830.1	µg/L	4830.1	ppb	03:13:57
1	Fe 238.204 Radial†	75392.8	77544.5	4779.4	µg/L	4779.4	ppb	03:13:57
1	K 766.490 Radial†	14527.6	13426.0	4911.4	µg/L	4911.4	ppb	03:13:57
1	Mg 279.077 IEC†	12920.6	13124.0	4897.4	µg/L	4897.4	ppb	03:13:57
1	Na 589.592 Radial†	74132.9	75103.5	10256	µg/L	10256	ppb	03:13:57
1	Sr 421.552†	227259.6	234327.5	487.12	µg/L	487.12	ppb	03:13:55
1	Sc 361.383	1724519.1	1724519.1	100.37	%			03:14:24
1	Y 371.029	1016919.2	1016919.2	99.048	%			03:14:24
1	Ag 328.068†	131759.4	127186.5	476.91	µg/L	476.91	ppb	03:14:24
1	As 188.979†	1617.4	1631.9	500.43	µg/L	500.43	ppb	03:14:44
1	B 249.677†	35573.7	31937.8	469.37	µg/L	469.37	ppb	03:14:24
1	Ba 233.527†	118495.9	118198.7	476.69	µg/L	476.69	ppb	03:14:24
1	Be 313.107†	1772888.7	1767475.2	481.39	µg/L	481.39	ppb	03:14:24
1	Cd 226.502†	76042.0	75882.4	473.69	µg/L	473.69	ppb	03:14:24
1	Co 228.616†	38682.7	38731.7	478.14	µg/L	478.14	ppb	03:14:24
1	Cr 267.716†	60883.2	60482.1	473.56	µg/L	473.56	ppb	03:14:24
1	Cu 324.752†	125481.8	122051.1	475.79	µg/L	475.79	ppb	03:14:24
1	Mn 257.610†	388799.5	387141.5	478.80	µg/L	478.80	ppb	03:14:24
1	Mo 202.031†	16283.3	16243.8	477.82	µg/L	477.82	ppb	03:14:44
1	Ni 231.604†	41425.2	41350.3	476.12	µg/L	476.12	ppb	03:14:24
1	P 214.914†	11209.4	11186.4	2384.4	µg/L	2384.4	ppb	03:14:44
1	Pb 220.353†	8704.1	8585.9	480.80	µg/L	480.80	ppb	03:14:44
1	S 181.975 Axial†	1493.0	1382.4	1030.6	µg/L	1030.6	ppb	03:14:44
1	Sb 206.836†	4161.7	4065.7	484.45	µg/L	484.45	ppb	03:14:44
1	Se 196.026†	1343.1	1322.9	480	µg/L	480	ppb	03:14:44
1	SiO2†	54169.2	52195.9	5081.2	µg/L	5081.2	ppb	03:14:24
1	Si 251.611†	163798.3	162363.2	2384.2	µg/L	2384.2	ppb	03:14:24
1	Sn 189.927†	7708.8	7681.8	480.49	µg/L	480.49	ppb	03:14:44
1	Ti 334.940†	514144.0	511312.8	477.09	µg/L	477.09	ppb	03:14:24
1	Tl 190.801†	3782.7	3885.5	484.56	µg/L	484.56	ppb	03:14:44
1	U 409.014†	7391.9	7634.8	475.26	µg/L	475.26	ppb	03:14:24
1	V 292.402†	97528.5	96768.3	478.40	µg/L	478.40	ppb	03:14:24
1	Zn 213.857†	85289.7	84413.7	470.45	µg/L	470.45	ppb	03:14:24
2	Sc RADIAL	143935.9	143935.9	98.6	%			03:14:01
2	Al 396.153Radial†	26331.1	26759.0	4939.2	µg/L	4939.2	ppb	03:14:01
2	Ca 317.933Radial†	86594.3	87233.3	4859.2	µg/L	4859.2	ppb	03:14:01
2	Fe 238.204 Radial†	76913.8	77831.2	4797.0	µg/L	4797.0	ppb	03:14:01
2	K 766.490 Radial†	14816.5	13476.9	4930.0	µg/L	4930.0	ppb	03:14:01
2	Mg 279.077 IEC†	13220.5	13212.9	4930.4	µg/L	4930.4	ppb	03:14:01
2	Na 589.592 Radial†	75550.6	75306.4	10283	µg/L	10283	ppb	03:14:01
2	Sr 421.552†	228497.8	231798.4	481.86	µg/L	481.86	ppb	03:13:59
2	Sc 361.383	1738137.6	1738137.6	101.16	%			03:14:47
2	Y 371.029	1025437.7	1025437.7	99.878	%			03:14:47
2	Ag 328.068†	132376.0	126767.5	475.37	µg/L	475.37	ppb	03:14:47
2	As 188.979†	1591.5	1593.6	488.85	µg/L	488.85	ppb	03:15:07
2	B 249.677†	35851.5	31934.8	469.33	µg/L	469.33	ppb	03:14:47
2	Ba 233.527†	119360.5	118128.5	476.41	µg/L	476.41	ppb	03:14:47
2	Be 313.107†	1783349.2	1763975.7	480.43	µg/L	480.43	ppb	03:14:47
2	Cd 226.502†	76462.8	75704.7	472.58	µg/L	472.58	ppb	03:14:47
2	Co 228.616†	38867.0	38611.9	476.66	µg/L	476.66	ppb	03:14:47
2	Cr 267.716†	61200.5	60320.6	472.29	µg/L	472.29	ppb	03:14:47
2	Cu 324.752†	126080.6	121663.5	474.29	µg/L	474.29	ppb	03:14:47
2	Mn 257.610†	391256.7	386535.4	478.05	µg/L	478.05	ppb	03:14:47
2	Mo 202.031†	16230.4	16064.5	472.55	µg/L	472.55	ppb	03:15:07
2	Ni 231.604†	41463.0	41064.4	472.83	µg/L	472.83	ppb	03:14:47
2	P 214.914†	11143.5	11033.8	2351.8	µg/L	2351.8	ppb	03:15:07
2	Pb 220.353†	8645.1	8459.7	473.74	µg/L	473.74	ppb	03:15:07

2	S 181.975 Axial†	1480.0	1357.9	1012.4 µg/L	1012.4 ppb	03:15:07
2	Sb 206.836†	4116.5	3988.5	475.20 µg/L	475.20 ppb	03:15:07
2	Se 196.026†	1336.1	1305.6	474 µg/L	474 ppb	03:15:07
2	SiO2†	54693.6	52291.4	5090.8 µg/L	5090.8 ppb	03:14:47
2	Si 251.611†	165270.6	162539.9	2386.9 µg/L	2386.9 ppb	03:14:47
2	Sn 189.927†	7648.8	7562.3	473.03 µg/L	473.03 ppb	03:15:07
2	Ti 334.940†	517308.4	510427.2	476.26 µg/L	476.26 ppb	03:14:47
2	Tl 190.801†	3752.9	3826.6	477.32 µg/L	477.32 ppb	03:15:07
2	U 409.014†	7552.0	7735.3	481.16 µg/L	481.16 ppb	03:14:47
2	V 292.402†	98376.4	96845.2	478.71 µg/L	478.71 ppb	03:14:47
2	Zn 213.857†	86281.1	84727.8	472.24 µg/L	472.24 ppb	03:14:47
3	Sc RADIAL	140443.4	140443.4	96.2 %		03:14:05
3	Al 396.153Radial†	25676.7	26743.0	4936.2 µg/L	4936.2 ppb	03:14:05
3	Ca 317.933Radial†	83864.4	86579.9	4822.8 µg/L	4822.8 ppb	03:14:05
3	Fe 238.204 Radial†	74604.1	77370.4	4768.6 µg/L	4768.6 ppb	03:14:05
3	K 766.490 Radial†	14449.6	13469.3	4927.2 µg/L	4927.2 ppb	03:14:05
3	Mg 279.077 IEC†	12779.0	13087.5	4883.7 µg/L	4883.7 ppb	03:14:05
3	Na 589.592 Radial†	73771.5	75362.6	10291 µg/L	10291 ppb	03:14:05
3	Sr 421.552†	229430.1	238528.0	495.85 µg/L	495.85 ppb	03:14:03
3	Sc 361.383	1744274.4	1744274.4	101.52 %		03:15:10
3	Y 371.029	1028879.6	1028879.6	100.21 %		03:15:10
3	Ag 328.068†	133589.1	127502.1	478.11 µg/L	478.11 ppb	03:15:10
3	As 188.979†	1613.5	1609.8	493.74 µg/L	493.74 ppb	03:15:30
3	B 249.677†	36166.0	32119.8	472.05 µg/L	472.05 ppb	03:15:10
3	Ba 233.527†	120009.6	118352.7	477.31 µg/L	477.31 ppb	03:15:10
3	Be 313.107†	1795578.5	1769820.0	482.02 µg/L	482.02 ppb	03:15:10
3	Cd 226.502†	77434.5	76396.0	476.90 µg/L	476.90 ppb	03:15:10
3	Co 228.616†	39130.1	38735.9	478.19 µg/L	478.19 ppb	03:15:10
3	Cr 267.716†	61711.0	60610.6	474.57 µg/L	474.57 ppb	03:15:10
3	Cu 324.752†	126753.5	121887.8	475.15 µg/L	475.15 ppb	03:15:10
3	Mn 257.610†	393731.0	387612.0	479.39 µg/L	479.39 ppb	03:15:10
3	Mo 202.031†	16276.7	16053.6	472.23 µg/L	472.23 ppb	03:15:30
3	Ni 231.604†	41761.2	41213.9	474.55 µg/L	474.55 ppb	03:15:10
3	P 214.914†	11200.9	11051.6	2355.6 µg/L	2355.6 ppb	03:15:30
3	Pb 220.353†	8718.4	8501.8	476.10 µg/L	476.10 ppb	03:15:30
3	S 181.975 Axial†	1486.9	1359.7	1013.6 µg/L	1013.6 ppb	03:15:30
3	Sb 206.836†	4107.0	3964.8	472.37 µg/L	472.37 ppb	03:15:30
3	Se 196.026†	1339.3	1304.0	474 µg/L	474 ppb	03:15:30
3	SiO2†	55056.5	52458.7	5107.1 µg/L	5107.1 ppb	03:15:10
3	Si 251.611†	166125.1	162806.9	2390.8 µg/L	2390.8 ppb	03:15:10
3	Sn 189.927†	7727.3	7613.0	476.20 µg/L	476.20 ppb	03:15:30
3	Ti 334.940†	520001.8	511281.2	477.06 µg/L	477.06 ppb	03:15:10
3	Tl 190.801†	3778.8	3839.0	478.87 µg/L	478.87 ppb	03:15:30
3	U 409.014†	7370.2	7530.0	469.31 µg/L	469.31 ppb	03:15:10
3	V 292.402†	99255.0	97368.5	481.27 µg/L	481.27 ppb	03:15:10
3	Zn 213.857†	86767.5	84906.9	473.24 µg/L	473.24 ppb	03:15:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1735643.7	101.01	%	0.588				0.58%
Sc RADIAL	141996.4	97.3	%	1.22				1.25%
Y 371.029	1023745.5	99.713	%	0.5997				0.60%
Ag 328.068†	127152.0	476.79	µg/L	1.372	476.79	ppb	1.372	0.29%
QC value within limits for Ag 328.068 Recovery = 95.36%								
Al 396.153Radial†	26751.9	4937.8	µg/L	1.49	4937.8	ppb	1.49	0.03%
QC value within limits for Al 396.153Radial Recovery = 98.76%								
As 188.979†	1611.8	494.34	µg/L	5.814	494.34	ppb	5.814	1.18%
QC value within limits for As 188.979 Recovery = 98.87%								
B 249.677†	31997.5	470.25	µg/L	1.562	470.25	ppb	1.562	0.33%
QC value within limits for B 249.677 Recovery = 94.05%								
Ba 233.527†	118226.6	476.81	µg/L	0.463	476.81	ppb	0.463	0.10%
QC value within limits for Ba 233.527 Recovery = 95.36%								
Be 313.107†	1767090.3	481.28	µg/L	0.799	481.28	ppb	0.799	0.17%
QC value within limits for Be 313.107 Recovery = 96.26%								
Ca 317.933Radial†	86840.9	4837.4	µg/L	19.27	4837.4	ppb	19.27	0.40%
QC value within limits for Ca 317.933Radial Recovery = 96.75%								
Cd 226.502†	75994.4	474.39	µg/L	2.244	474.39	ppb	2.244	0.47%
QC value within limits for Cd 226.502 Recovery = 94.88%								
Co 228.616†	38693.1	477.67	µg/L	0.870	477.67	ppb	0.870	0.18%

```
   QC value within limits for Co 228.616  Recovery = 95.53%
Cr 267.716†            60471.1      473.47 µg/L         1.143      473.47 ppb          1.143   0.24%
   QC value within limits for Cr 267.716  Recovery = 94.69%
Cu 324.752†           121867.4      475.08 µg/L         0.752      475.08 ppb          0.752   0.16%
   QC value within limits for Cu 324.752  Recovery = 95.02%
Fe 238.204 Radial†     77582.0      4781.7 µg/L         14.34      4781.7 ppb          14.34   0.30%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.63%
K 766.490 Radial†      13457.4      4922.9 µg/L         10.06      4922.9 ppb          10.06   0.20%
   QC value within limits for K 766.490 Radial  Recovery = 98.46%
Mg 279.077 IEC†        13141.5      4903.8 µg/L         24.00      4903.8 ppb          24.00   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.08%
Mn 257.610†           387096.3      478.75 µg/L         0.669      478.75 ppb          0.669   0.14%
   QC value within limits for Mn 257.610  Recovery = 95.75%
Mo 202.031†            16120.7      474.20 µg/L         3.139      474.20 ppb          3.139   0.66%
   QC value within limits for Mo 202.031  Recovery = 94.84%
Na 589.592 Radial†     75257.5       10277 µg/L          18.6       10277 ppb           18.6   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 102.77%
Ni 231.604†            41209.5      474.50 µg/L         1.647      474.50 ppb          1.647   0.35%
   QC value within limits for Ni 231.604  Recovery = 94.90%
P 214.914†             11090.6      2363.9 µg/L         17.85      2363.9 ppb          17.85   0.75%
   QC value within limits for P 214.914  Recovery = 94.56%
Pb 220.353†             8515.8      476.88 µg/L         3.596      476.88 ppb          3.596   0.75%
   QC value within limits for Pb 220.353  Recovery = 95.38%
S 181.975 Axial†        1366.7      1018.9 µg/L         10.18      1018.9 ppb          10.18   1.00%
   QC value within limits for S 181.975 Axial  Recovery = 101.89%
Sb 206.836†             4006.3      477.34 µg/L         6.318      477.34 ppb          6.318   1.32%
   QC value within limits for Sb 206.836  Recovery = 95.47%
Se 196.026†             1310.8         476 µg/L           3.8         476 ppb            3.8   0.80%
   QC value within limits for Se 196.026  Recovery = 95.20%
SiO2†                  52315.3      5093.0 µg/L         13.10      5093.0 ppb          13.10   0.26%
   QC value within limits for SiO2  Recovery = 95.24%
Si 251.611†           162570.0      2387.3 µg/L          3.34      2387.3 ppb           3.34   0.14%
   QC value within limits for Si 251.611  Recovery = 95.49%
Sn 189.927†             7619.0      476.57 µg/L         3.740      476.57 ppb          3.740   0.78%
   QC value within limits for Sn 189.927  Recovery = 95.31%
Sr 421.552†           234884.6      488.27 µg/L         7.067      488.27 ppb          7.067   1.45%
   QC value within limits for Sr 421.552  Recovery = 97.65%
Ti 334.940†           511007.1      476.80 µg/L         0.473      476.80 ppb          0.473   0.10%
   QC value within limits for Ti 334.940  Recovery = 95.36%
Tl 190.801†             3850.4      480.25 µg/L         3.815      480.25 ppb          3.815   0.79%
   QC value within limits for Tl 190.801  Recovery = 96.05%
U 409.014†              7633.4      475.24 µg/L         5.925      475.24 ppb          5.925   1.25%
   QC value within limits for U 409.014  Recovery = 95.05%
V 292.402†             96994.0      479.46 µg/L         1.574      479.46 ppb          1.574   0.33%
   QC value within limits for V 292.402  Recovery = 95.89%
Zn 213.857†            84682.8      471.98 µg/L         1.410      471.98 ppb          1.410   0.30%
   QC value within limits for Zn 213.857  Recovery = 94.40%
All analyte(s) passed QC.
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Sequence No.: 213
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 3:15:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146013.2	146013.2	100	%			03:16:07
1	Al 396.153Radial†	-89.2	-25.9	-4.8031	µg/L	-4.8031	ppb	03:16:27
1	Ca 317.933Radial†	761.2	200.2	11.150	µg/L	11.150	ppb	03:16:27
1	Fe 238.204 Radial†	162.9	14.7	0.9060	µg/L	0.9060	ppb	03:16:27
1	K 766.490 Radial†	1654.3	108.5	39.646	µg/L	39.646	ppb	03:16:07
1	Mg 279.077 IEC†	192.8	2.0	0.7445	µg/L	0.7445	ppb	03:16:27
1	Na 589.592 Radial†	5426.7	4132.8	564.56	µg/L	564.56	ppb	03:16:07
1	Sr 421.552†	-218.9	-83.4	-0.1736	µg/L	-0.1736	ppb	03:16:07
1	Sc 361.383	1755516.5	1755516.5	102.17	%			03:17:15
1	Y 371.029	1046303.4	1046303.4	101.91	%			03:17:15
1	Ag 328.068†	4349.4	165.6	0.6100	µg/L	0.6100	ppb	03:17:17
1	As 188.979†	-32.6	-11.5	-3.4798	µg/L	-3.4798	ppb	03:17:37
1	B 249.677†	3627.4	44.4	0.6533	µg/L	0.6533	ppb	03:17:17
1	Ba 233.527†	-142.6	-3.7	-0.0155	µg/L	-0.0155	ppb	03:17:37
1	Be 313.107†	-765.9	315.0	0.0874	µg/L	0.0874	ppb	03:17:17
1	Cd 226.502†	-98.0	22.3	0.1390	µg/L	0.1390	ppb	03:17:37
1	Co 228.616†	-150.7	42.8	0.5276	µg/L	0.5276	ppb	03:17:37
1	Cr 267.716†	198.5	15.7	0.1183	µg/L	0.1183	ppb	03:17:37
1	Cu 324.752†	3047.8	10.9	0.0471	µg/L	0.0471	ppb	03:17:17
1	Mn 257.610†	326.4	82.2	0.1017	µg/L	0.1017	ppb	03:17:37
1	Mo 202.031†	-26.4	-5.8	-0.1704	µg/L	-0.1704	ppb	03:17:37
1	Ni 231.604†	-110.3	-31.4	-0.3616	µg/L	-0.3616	ppb	03:17:37
1	P 214.914†	-26.0	-7.5	-1.5967	µg/L	-1.5967	ppb	03:17:37
1	Pb 220.353†	82.4	-5.8	-0.3262	µg/L	-0.3262	ppb	03:17:37
1	S 181.975 Axial†	207.3	97.8	72.634	µg/L	72.634	ppb	03:17:37
1	Sb 206.836†	77.7	-4.8	-0.5732	µg/L	-0.5732	ppb	03:17:37
1	Se 196.026†	14.9	-0.7	-0.237	µg/L	-0.237	ppb	03:17:37
1	SiO2†	1831.7	17.5	1.7076	µg/L	1.7076	ppb	03:17:37
1	Si 251.611†	802.8	-50.8	-0.7486	µg/L	-0.7486	ppb	03:17:17
1	Sn 189.927†	3.5	4.5	0.2809	µg/L	0.2809	ppb	03:17:37
1	Ti 334.940†	712.4	-255.3	-0.2405	µg/L	-0.2405	ppb	03:17:17
1	Tl 190.801†	-96.0	22.8	2.7858	µg/L	2.7858	ppb	03:17:37
1	U 409.014†	-181.9	91.8	5.3242	µg/L	5.3242	ppb	03:17:17
1	V 292.402†	247.6	-161.5	-0.7853	µg/L	-0.7853	ppb	03:17:17
1	Zn 213.857†	614.2	36.7	0.2080	µg/L	0.2080	ppb	03:17:37
2	Sc RADIAL	141829.3	141829.3	97.2	%			03:16:29
2	Al 396.153Radial†	-77.3	-16.3	-3.0254	µg/L	-3.0254	ppb	03:16:49
2	Ca 317.933Radial†	693.9	153.4	8.5423	µg/L	8.5423	ppb	03:16:49
2	Fe 238.204 Radial†	133.5	-10.7	-0.6592	µg/L	-0.6592	ppb	03:16:49
2	K 766.490 Radial†	1842.1	350.6	128.27	µg/L	128.27	ppb	03:16:29
2	Mg 279.077 IEC†	213.2	28.7	10.681	µg/L	10.681	ppb	03:16:49
2	Na 589.592 Radial†	5347.1	4210.9	575.15	µg/L	575.15	ppb	03:16:29
2	Sr 421.552†	-126.7	4.9	0.0101	µg/L	0.0101	ppb	03:16:29
2	Sc 361.383	1757358.9	1757358.9	102.28	%			03:17:39
2	Y 371.029	1047817.2	1047817.2	102.06	%			03:17:39
2	Ag 328.068†	4203.5	18.4	0.0721	µg/L	0.0721	ppb	03:17:42
2	As 188.979†	-7.7	12.8	3.8720	µg/L	3.8720	ppb	03:18:02
2	B 249.677†	3621.3	34.7	0.5123	µg/L	0.5123	ppb	03:17:42
2	Ba 233.527†	-113.1	25.3	0.1018	µg/L	0.1018	ppb	03:18:02
2	Be 313.107†	-827.3	255.9	0.0718	µg/L	0.0718	ppb	03:17:42
2	Cd 226.502†	-109.0	11.6	0.0724	µg/L	0.0724	ppb	03:18:02
2	Co 228.616†	-206.5	-11.6	-0.1430	µg/L	-0.1430	ppb	03:18:02
2	Cr 267.716†	179.5	-3.1	-0.0299	µg/L	-0.0299	ppb	03:18:02
2	Cu 324.752†	2992.6	-46.2	-0.1738	µg/L	-0.1738	ppb	03:17:42
2	Mn 257.610†	319.5	75.1	0.0925	µg/L	0.0925	ppb	03:18:02
2	Mo 202.031†	-17.2	3.2	0.0951	µg/L	0.0951	ppb	03:18:02
2	Ni 231.604†	-94.1	-15.5	-0.1782	µg/L	-0.1782	ppb	03:18:02
2	P 214.914†	-17.1	1.3	0.2745	µg/L	0.2745	ppb	03:18:02
2	Pb 220.353†	67.0	-20.9	-1.1697	µg/L	-1.1697	ppb	03:18:02

2	S 181.975 Axial†	199.8	90.3	67.037 µg/L	67.037 ppb	03:18:02
2	Sb 206.836†	85.0	2.3	0.2720 µg/L	0.2720 ppb	03:18:02
2	Se 196.026†	11.9	-3.7	-1.31 µg/L	-1.31 ppb	03:18:02
2	SiO2†	1802.0	-13.5	-1.3278 µg/L	-1.3278 ppb	03:18:02
2	Si 251.611†	853.5	-2.1	-0.0332 µg/L	-0.0332 ppb	03:17:42
2	Sn 189.927†	2.7	3.8	0.2351 µg/L	0.2351 ppb	03:18:02
2	Ti 334.940†	1024.2	48.8	0.0421 µg/L	0.0421 ppb	03:17:42
2	Tl 190.801†	-77.9	40.5	4.9714 µg/L	4.9714 ppb	03:18:02
2	U 409.014†	-154.4	118.9	6.9321 µg/L	6.9321 ppb	03:17:42
2	V 292.402†	333.3	-77.9	-0.3746 µg/L	-0.3746 ppb	03:17:42
2	Zn 213.857†	602.9	25.1	0.1422 µg/L	0.1422 ppb	03:18:02
3	Sc RADIAL	143153.6	143153.6	98.1 %		03:16:51
3	Al 396.153Radial†	-75.1	-13.4	-2.4564 µg/L	-2.4564 ppb	03:17:11
3	Ca 317.933Radial†	714.7	168.0	9.3594 µg/L	9.3594 ppb	03:17:11
3	Fe 238.204 Radial†	146.0	0.7	0.0418 µg/L	0.0418 ppb	03:17:11
3	K 766.490 Radial†	1703.0	191.3	69.930 µg/L	69.930 ppb	03:16:51
3	Mg 279.077 IEC†	177.5	-9.7	-3.6301 µg/L	-3.6301 ppb	03:17:11
3	Na 589.592 Radial†	5368.9	4182.2	571.28 µg/L	571.28 ppb	03:16:51
3	Sr 421.552†	-157.6	-25.4	-0.0529 µg/L	-0.0529 ppb	03:16:51
3	Sc 361.383	1742509.2	1742509.2	101.41 %		03:18:04
3	Y 371.029	1039202.5	1039202.5	101.22 %		03:18:04
3	Ag 328.068†	4021.3	-126.2	-0.4729 µg/L	-0.4729 ppb	03:18:06
3	As 188.979†	-17.7	2.9	0.8639 µg/L	0.8639 ppb	03:18:26
3	B 249.677†	3474.3	-80.0	-1.1801 µg/L	-1.1801 ppb	03:18:06
3	Ba 233.527†	-135.7	2.0	0.0074 µg/L	0.0074 ppb	03:18:26
3	Be 313.107†	-1003.8	74.8	0.0214 µg/L	0.0214 ppb	03:18:06
3	Cd 226.502†	-66.8	52.3	0.3269 µg/L	0.3269 ppb	03:18:26
3	Co 228.616†	-182.8	10.1	0.1245 µg/L	0.1245 ppb	03:18:26
3	Cr 267.716†	178.6	-2.5	-0.0225 µg/L	-0.0225 ppb	03:18:26
3	Cu 324.752†	2996.2	-17.8	-0.0665 µg/L	-0.0665 ppb	03:18:06
3	Mn 257.610†	303.6	62.1	0.0770 µg/L	0.0770 ppb	03:18:26
3	Mo 202.031†	-36.1	-15.6	-0.4577 µg/L	-0.4577 ppb	03:18:26
3	Ni 231.604†	-76.5	1.0	0.0119 µg/L	0.0119 ppb	03:18:26
3	P 214.914†	-26.3	-8.0	-1.7122 µg/L	-1.7122 ppb	03:18:26
3	Pb 220.353†	16.7	-69.9	-3.9062 µg/L	-3.9062 ppb	03:18:26
3	S 181.975 Axial†	199.1	91.3	67.801 µg/L	67.801 ppb	03:18:26
3	Sb 206.836†	75.6	-6.2	-0.7491 µg/L	-0.7491 ppb	03:18:26
3	Se 196.026†	21.3	5.7	2.07 µg/L	2.07 ppb	03:18:26
3	SiO2†	1802.2	1.7	0.1875 µg/L	0.1875 ppb	03:18:26
3	Si 251.611†	978.5	128.3	1.8991 µg/L	1.8991 ppb	03:18:06
3	Sn 189.927†	-5.2	-4.0	-0.2499 µg/L	-0.2499 ppb	03:18:26
3	Ti 334.940†	957.8	-8.1	-0.0083 µg/L	-0.0083 ppb	03:18:06
3	Tl 190.801†	-79.3	38.5	4.7229 µg/L	4.7229 ppb	03:18:26
3	U 409.014†	-215.9	57.0	3.2904 µg/L	3.2904 ppb	03:18:06
3	V 292.402†	245.3	-161.9	-0.7924 µg/L	-0.7924 ppb	03:18:06
3	Zn 213.857†	594.0	21.4	0.1198 µg/L	0.1198 ppb	03:18:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1751794.9	101.95	%	0.471				0.46%
Sc RADIAL	143665.3	98.4	%	1.47				1.49%
Y 371.029	1044441.0	101.73	%	0.448				0.44%
Ag 328.068†	19.3	0.0697	µg/L	0.54146	0.0697	ppb	0.54146	776.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-18.5	-3.4283	µg/L	1.22412	-3.4283	ppb	1.22412	35.71%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.4	0.4187	µg/L	3.69605	0.4187	ppb	3.69605	882.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-0.3	-0.0048	µg/L	1.02026	-0.0048	ppb	1.02026	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.9	0.0312	µg/L	0.06218	0.0312	ppb	0.06218	199.06%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	215.2	0.0602	µg/L	0.03450	0.0602	ppb	0.03450	57.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	173.8	9.6837	µg/L	1.33353	9.6837	ppb	1.33353	13.77%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	28.7	0.1794	µg/L	0.13199	0.1794	ppb	0.13199	73.56%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	13.8	0.1697	µg/L	0.33756	0.1697	ppb	0.33756	198.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                3.4      0.0219 µg/L       0.08351      0.0219 ppb        0.08351 380.68%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -17.7     -0.0644 µg/L       0.11047     -0.0644 ppb        0.11047 171.52%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.6      0.0962 µg/L       0.78405      0.0962 ppb        0.78405 815.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        216.8      79.281 µg/L       45.0446      79.281 ppb        45.0446  56.82%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            7.0      2.5984 µg/L       7.33330      2.5984 ppb        7.33330 282.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               73.1      0.0904 µg/L       0.01246      0.0904 ppb        0.01246  13.78%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -6.0     -0.1777 µg/L       0.27645     -0.1777 ppb        0.27645 155.60%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      4175.3      570.33 µg/L         5.360      570.33 ppb          5.360   0.94%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -15.3     -0.1760 µg/L       0.18678     -0.1760 ppb        0.18678 106.15%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.7     -1.0115 µg/L       1.11516     -1.0115 ppb        1.11516 110.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -32.2     -1.8007 µg/L       1.87157     -1.8007 ppb        1.87157 103.93%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          93.1      69.157 µg/L        3.0351      69.157 ppb         3.0351   4.39%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.9     -0.3501 µg/L       0.54589     -0.3501 ppb        0.54589 155.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.5       0.172 µg/L        1.7265       0.172 ppb         1.7265 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      1.9      0.1891 µg/L       1.51771      0.1891 ppb        1.51771 802.57%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               25.1      0.3725 µg/L       1.36967      0.3725 ppb        1.36967 367.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.4      0.0887 µg/L       0.29412      0.0887 ppb        0.29412 331.60%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -34.7     -0.0721 µg/L       0.09333     -0.0721 ppb        0.09333 129.40%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -71.5     -0.0689 µg/L       0.15073     -0.0689 ppb        0.15073 218.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               33.9      4.1600 µg/L       1.19656      4.1600 ppb        1.19656  28.76%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                89.3      5.1822 µg/L       1.82498      5.1822 ppb        1.82498  35.22%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -133.8     -0.6508 µg/L       0.23918     -0.6508 ppb        0.23918  36.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               27.7      0.1566 µg/L       0.04589      0.1566 ppb        0.04589  29.30%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

==========

Analysis Begun

Start Time: 4/1/2010 4:39:11 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/1/2010 4:39:15**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143287.7	143287.7	98.2	%			04:39:48
1	Al 396.153Radial†	26097.1	26641.5	4917.1	µg/L	4917.1	ppb	04:39:48
1	Ca 317.933Radial†	85617.7	86635.8	4826.0	µg/L	4826.0	ppb	04:39:48
1	Fe 238.204 Radial†	76602.7	77867.1	4799.3	µg/L	4799.3	ppb	04:39:48
1	K 766.490 Radial†	14400.8	13121.5	4800.0	µg/L	4800.0	ppb	04:39:48
1	Mg 279.077 IEC†	13124.0	13175.3	4916.5	µg/L	4916.5	ppb	04:39:48
1	Na 589.592 Radial†	72250.3	72291.7	9871.7	µg/L	9871.7	ppb	04:39:48
1	Sr 421.552†	228422.2	232769.3	483.88	µg/L	483.88	ppb	04:39:46
1	Sc 361.383	1726307.9	1726307.9	100.47	%			04:40:15
1	Y 371.029	1017838.7	1017838.7	99.138	%			04:40:15
1	Ag 328.068†	131459.1	126751.6	475.29	µg/L	475.29	ppb	04:40:15
1	As 188.979†	1615.7	1628.5	499.42	µg/L	499.42	ppb	04:40:35
1	B 249.677†	35679.8	32006.7	470.38	µg/L	470.38	ppb	04:40:15
1	Ba 233.527†	118546.6	118126.9	476.40	µg/L	476.40	ppb	04:40:15
1	Be 313.107†	1779033.6	1771761.0	482.55	µg/L	482.55	ppb	04:40:15
1	Cd 226.502†	76138.3	75899.6	473.80	µg/L	473.80	ppb	04:40:15
1	Co 228.616†	38752.8	38761.5	478.51	µg/L	478.51	ppb	04:40:15
1	Cr 267.716†	60891.1	60427.2	473.15	µg/L	473.15	ppb	04:40:15
1	Cu 324.752†	125489.3	121928.9	475.31	µg/L	475.31	ppb	04:40:15
1	Mn 257.610†	389201.0	387139.7	478.80	µg/L	478.80	ppb	04:40:15
1	Mo 202.031†	16304.5	16248.1	477.95	µg/L	477.95	ppb	04:40:35
1	Ni 231.604†	41496.9	41378.9	476.45	µg/L	476.45	ppb	04:40:15
1	P 214.914†	11260.2	11225.4	2392.7	µg/L	2392.7	ppb	04:40:35
1	Pb 220.353†	8733.2	8605.9	481.93	µg/L	481.93	ppb	04:40:35
1	S 181.975 Axial†	1431.2	1319.5	983.83	µg/L	983.83	ppb	04:40:35
1	Sb 206.836†	4117.8	4017.7	478.76	µg/L	478.76	ppb	04:40:35
1	Se 196.026†	1330.5	1309.0	475	µg/L	475	ppb	04:40:35
1	SiO2†	54190.9	52161.5	5077.8	µg/L	5077.8	ppb	04:40:15
1	Si 251.611†	164264.5	162658.1	2388.5	µg/L	2388.5	ppb	04:40:15
1	Sn 189.927†	7744.6	7709.4	482.20	µg/L	482.20	ppb	04:40:35
1	Ti 334.940†	513495.3	510136.3	476.00	µg/L	476.00	ppb	04:40:15
1	Tl 190.801†	3787.9	3886.8	484.71	µg/L	484.71	ppb	04:40:35
1	U 409.014†	7087.0	7323.7	457.14	µg/L	457.14	ppb	04:40:15
1	V 292.402†	97888.5	97025.9	479.64	µg/L	479.64	ppb	04:40:15
1	Zn 213.857†	85804.6	84838.1	472.83	µg/L	472.83	ppb	04:40:15
2	Sc RADIAL	142551.2	142551.2	97.7	%			04:39:52
2	Al 396.153Radial†	25918.7	26596.2	4908.8	µg/L	4908.8	ppb	04:39:52
2	Ca 317.933Radial†	85143.9	86601.2	4824.0	µg/L	4824.0	ppb	04:39:52
2	Fe 238.204 Radial†	76012.3	77665.7	4786.8	µg/L	4786.8	ppb	04:39:52
2	K 766.490 Radial†	14216.0	13008.1	4758.5	µg/L	4758.5	ppb	04:39:52
2	Mg 279.077 IEC†	13129.0	13249.5	4944.1	µg/L	4944.1	ppb	04:39:52
2	Na 589.592 Radial†	71942.3	72356.6	9880.6	µg/L	9880.6	ppb	04:39:52
2	Sr 421.552†	228072.6	233613.4	485.63	µg/L	485.63	ppb	04:39:50
2	Sc 361.383	1732601.9	1732601.9	100.84	%			04:40:38
2	Y 371.029	1021854.8	1021854.8	99.529	%			04:40:38
2	Ag 328.068†	132036.8	126849.2	475.64	µg/L	475.64	ppb	04:40:38
2	As 188.979†	1613.9	1620.8	497.09	µg/L	497.09	ppb	04:40:58

2	B 249.677†	35753.7	31951.0	469.56 µg/L	469.56 ppb	04:40:38
2	Ba 233.527†	119080.4	118227.7	476.81 µg/L	476.81 ppb	04:40:38
2	Be 313.107†	1784759.1	1771006.5	482.34 µg/L	482.34 ppb	04:40:38
2	Cd 226.502†	76654.3	76136.1	475.28 µg/L	475.28 ppb	04:40:38
2	Co 228.616†	38853.1	38720.8	478.01 µg/L	478.01 ppb	04:40:38
2	Cr 267.716†	61138.8	60452.7	473.35 µg/L	473.35 ppb	04:40:38
2	Cu 324.752†	125614.8	121599.7	474.02 µg/L	474.02 ppb	04:40:38
2	Mn 257.610†	390618.9	387138.6	478.80 µg/L	478.80 ppb	04:40:38
2	Mo 202.031†	16345.0	16229.4	477.40 µg/L	477.40 ppb	04:40:58
2	Ni 231.604†	41628.9	41359.8	476.23 µg/L	476.23 ppb	04:40:38
2	P 214.914†	11287.1	11211.3	2389.8 µg/L	2389.8 ppb	04:40:58
2	Pb 220.353†	8756.9	8597.8	481.48 µg/L	481.48 ppb	04:40:58
2	S 181.975 Axial†	1433.6	1316.6	981.73 µg/L	981.73 ppb	04:40:58
2	Sb 206.836†	4163.7	4048.4	482.39 µg/L	482.39 ppb	04:40:58
2	Se 196.026†	1356.8	1330.3	483 µg/L	483 ppb	04:40:58
2	SiO2†	54513.7	52285.8	5090.0 µg/L	5090.0 ppb	04:40:38
2	Si 251.611†	164749.7	162545.4	2386.9 µg/L	2386.9 ppb	04:40:38
2	Sn 189.927†	7762.2	7698.9	481.55 µg/L	481.55 ppb	04:40:58
2	Ti 334.940†	515261.7	510031.4	475.90 µg/L	475.90 ppb	04:40:38
2	Tl 190.801†	3793.6	3878.7	483.72 µg/L	483.72 ppb	04:40:58
2	U 409.014†	6995.8	7207.6	450.31 µg/L	450.31 ppb	04:40:38
2	V 292.402†	98077.2	96859.1	478.82 µg/L	478.82 ppb	04:40:38
2	Zn 213.857†	86253.0	84972.5	473.59 µg/L	473.59 ppb	04:40:38
3	Sc RADIAL	145083.0	145083.0	99.4 %		04:39:56
3	Al 396.153Radial†	26230.8	26447.1	4880.9 µg/L	4880.9 ppb	04:39:56
3	Ca 317.933Radial†	86647.7	86592.8	4823.6 µg/L	4823.6 ppb	04:39:56
3	Fe 238.204 Radial†	77399.8	77703.5	4789.2 µg/L	4789.2 ppb	04:39:56
3	K 766.490 Radial†	14738.6	13279.9	4858.0 µg/L	4858.0 ppb	04:39:56
3	Mg 279.077 IEC†	13305.7	13192.7	4923.1 µg/L	4923.1 ppb	04:39:56
3	Na 589.592 Radial†	73184.6	72321.0	9875.6 µg/L	9875.6 ppb	04:39:56
3	Sr 421.552†	226923.1	228382.9	474.76 µg/L	474.76 ppb	04:39:54
3	Sc 361.383	1715600.7	1715600.7	99.848 %		04:41:01
3	Y 371.029	1011465.9	1011465.9	98.517 %		04:41:01
3	Ag 328.068†	131101.9	127210.5	477.01 µg/L	477.01 ppb	04:41:01
3	As 188.979†	1621.5	1644.3	504.20 µg/L	504.20 ppb	04:41:21
3	B 249.677†	35572.5	32120.8	472.07 µg/L	472.07 ppb	04:41:01
3	Ba 233.527†	117882.9	118198.6	476.69 µg/L	476.69 ppb	04:41:01
3	Be 313.107†	1768142.0	1771903.7	482.59 µg/L	482.59 ppb	04:41:01
3	Cd 226.502†	76042.9	76277.0	476.16 µg/L	476.16 ppb	04:41:01
3	Co 228.616†	38526.8	38775.8	478.69 µg/L	478.69 ppb	04:41:01
3	Cr 267.716†	60518.3	60432.1	473.17 µg/L	473.17 ppb	04:41:01
3	Cu 324.752†	124833.7	122051.9	475.80 µg/L	475.80 ppb	04:41:01
3	Mn 257.610†	387412.1	387765.8	479.57 µg/L	479.57 ppb	04:41:01
3	Mo 202.031†	16333.0	16378.0	481.77 µg/L	481.77 ppb	04:41:21
3	Ni 231.604†	41283.4	41422.9	476.95 µg/L	476.95 ppb	04:41:01
3	P 214.914†	11331.2	11366.5	2422.9 µg/L	2422.9 ppb	04:41:21
3	Pb 220.353†	8778.6	8705.6	487.49 µg/L	487.49 ppb	04:41:21
3	S 181.975 Axial†	1431.3	1328.5	990.54 µg/L	990.54 ppb	04:41:21
3	Sb 206.836†	4139.6	4065.1	484.45 µg/L	484.45 ppb	04:41:21
3	Se 196.026†	1365.1	1351.9	491 µg/L	491 ppb	04:41:21
3	SiO2†	53906.3	52213.2	5082.7 µg/L	5082.7 ppb	04:41:01
3	Si 251.611†	163125.7	162537.9	2386.7 µg/L	2386.7 ppb	04:41:01
3	Sn 189.927†	7757.8	7770.8	486.03 µg/L	486.03 ppb	04:41:21
3	Ti 334.940†	510802.1	510628.7	476.45 µg/L	476.45 ppb	04:41:01
3	Tl 190.801†	3813.8	3936.3	490.80 µg/L	490.80 ppb	04:41:21
3	U 409.014†	7313.0	7594.1	472.95 µg/L	472.95 ppb	04:41:01
3	V 292.402†	97247.2	96991.7	479.52 µg/L	479.52 ppb	04:41:01
3	Zn 213.857†	85421.1	84987.0	473.67 µg/L	473.67 ppb	04:41:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1724836.8	100.39	%	0.500				0.50%
Sc RADIAL	143640.6	98.4	%	0.89				0.91%
Y 371.029	1017053.1	99.061	%	0.5103				0.52%
Ag 328.068†	126937.1	475.98	µg/L	0.908	475.98	ppb	0.908	0.19%
QC value within limits for Ag 328.068 Recovery = 95.20%								
Al 396.153Radial†	26561.6	4902.3	µg/L	18.96	4902.3	ppb	18.96	0.39%
QC value within limits for Al 396.153Radial Recovery = 98.05%								
As 188.979†	1631.2	500.24	µg/L	3.626	500.24	ppb	3.626	0.72%

```
   QC value within limits for As 188.979  Recovery = 100.05%
B 249.677†            32026.2      470.67 µg/L        1.276      470.67 ppb          1.276   0.27%
   QC value within limits for B 249.677  Recovery = 94.13%
Ba 233.527†          118184.4      476.64 µg/L        0.209      476.64 ppb          0.209   0.04%
   QC value within limits for Ba 233.527  Recovery = 95.33%
Be 313.107†         1771557.1      482.49 µg/L        0.134      482.49 ppb          0.134   0.03%
   QC value within limits for Be 313.107  Recovery = 96.50%
Ca 317.933Radial†     86610.0      4824.5 µg/L         1.27      4824.5 ppb           1.27   0.03%
   QC value within limits for Ca 317.933Radial  Recovery = 96.49%
Cd 226.502†           76104.3      475.08 µg/L        1.192      475.08 ppb          1.192   0.25%
   QC value within limits for Cd 226.502  Recovery = 95.02%
Co 228.616†           38752.7      478.40 µg/L        0.352      478.40 ppb          0.352   0.07%
   QC value within limits for Co 228.616  Recovery = 95.68%
Cr 267.716†           60437.3      473.22 µg/L        0.111      473.22 ppb          0.111   0.02%
   QC value within limits for Cr 267.716  Recovery = 94.64%
Cu 324.752†          121860.2      475.04 µg/L        0.917      475.04 ppb          0.917   0.19%
   QC value within limits for Cu 324.752  Recovery = 95.01%
Fe 238.204 Radial†    77745.4      4791.8 µg/L         6.60      4791.8 ppb           6.60   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.84%
K 766.490 Radial†     13136.5      4805.5 µg/L        49.98      4805.5 ppb          49.98   1.04%
   QC value within limits for K 766.490 Radial  Recovery = 96.11%
Mg 279.077 IEC†       13205.8      4927.9 µg/L        14.43      4927.9 ppb          14.43   0.29%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.56%
Mn 257.610†          387348.0      479.06 µg/L        0.448      479.06 ppb          0.448   0.09%
   QC value within limits for Mn 257.610  Recovery = 95.81%
Mo 202.031†           16285.2      479.04 µg/L        2.378      479.04 ppb          2.378   0.50%
   QC value within limits for Mo 202.031  Recovery = 95.81%
Na 589.592 Radial†    72323.1      9875.9 µg/L         4.46      9875.9 ppb           4.46   0.05%
   QC value within limits for Na 589.592 Radial  Recovery = 98.76%
Ni 231.604†           41387.2      476.54 µg/L        0.373      476.54 ppb          0.373   0.08%
   QC value within limits for Ni 231.604  Recovery = 95.31%
P 214.914†            11267.7      2401.8 µg/L        18.34      2401.8 ppb          18.34   0.76%
   QC value within limits for P 214.914  Recovery = 96.07%
Pb 220.353†            8636.4      483.63 µg/L        3.350      483.63 ppb          3.350   0.69%
   QC value within limits for Pb 220.353  Recovery = 96.73%
S 181.975 Axial†       1321.5      985.37 µg/L        4.601      985.37 ppb          4.601   0.47%
   QC value within limits for S 181.975 Axial  Recovery = 98.54%
Sb 206.836†            4043.7      481.86 µg/L        2.883      481.86 ppb          2.883   0.60%
   QC value within limits for Sb 206.836  Recovery = 96.37%
Se 196.026†            1330.4         483 µg/L          7.8         483 ppb            7.8   1.61%
   QC value within limits for Se 196.026  Recovery = 96.61%
SiO2†                 52220.2      5083.5 µg/L         6.12      5083.5 ppb           6.12   0.12%
   QC value within limits for SiO2  Recovery = 95.06%
Si 251.611†          162580.5      2387.3 µg/L         1.01      2387.3 ppb           1.01   0.04%
   QC value within limits for Si 251.611  Recovery = 95.49%
Sn 189.927†            7726.3      483.26 µg/L        2.422      483.26 ppb          2.422   0.50%
   QC value within limits for Sn 189.927  Recovery = 96.65%
Sr 421.552†          231588.5      481.42 µg/L        5.838      481.42 ppb          5.838   1.21%
   QC value within limits for Sr 421.552  Recovery = 96.28%
Ti 334.940†          510265.5      476.11 µg/L        0.294      476.11 ppb          0.294   0.06%
   QC value within limits for Ti 334.940  Recovery = 95.22%
Tl 190.801†            3900.6      486.41 µg/L        3.834      486.41 ppb          3.834   0.79%
   QC value within limits for Tl 190.801  Recovery = 97.28%
U 409.014†             7375.1      460.13 µg/L       11.614      460.13 ppb         11.614   2.52%
   QC value within limits for U 409.014  Recovery = 92.03%
V 292.402†            96958.9      479.33 µg/L        0.445      479.33 ppb          0.445   0.09%
   QC value within limits for V 292.402  Recovery = 95.87%
Zn 213.857†           84932.5      473.36 µg/L        0.461      473.36 ppb          0.461   0.10%
   QC value within limits for Zn 213.857  Recovery = 94.67%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 4:41:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143373.6	143373.6	98.2	%			04:41:57
1	Al 396.153Radial†	-59.0	3.2	0.6063	µg/L	0.6063	ppb	04:42:17
1	Ca 317.933Radial†	610.3	60.6	3.3742	µg/L	3.3742	ppb	04:42:17
1	Fe 238.204 Radial†	143.9	-1.6	-0.1011	µg/L	-0.1011	ppb	04:42:17
1	K 766.490 Radial†	1628.1	112.4	41.110	µg/L	41.110	ppb	04:41:57
1	Mg 279.077 IEC†	185.8	-1.6	-0.5987	µg/L	-0.5987	ppb	04:42:17
1	Na 589.592 Radial†	2734.6	1492.5	203.86	µg/L	203.86	ppb	04:41:57
1	Sr 421.552†	-214.3	-82.8	-0.1722	µg/L	-0.1722	ppb	04:41:57
1	Sc 361.383	1732099.1	1732099.1	100.81	%			04:43:19
1	Y 371.029	1032748.2	1032748.2	100.59	%			04:43:19
1	Ag 328.068†	4008.6	-114.9	-0.4361	µg/L	-0.4361	ppb	04:43:21
1	As 188.979†	-17.1	3.4	1.0343	µg/L	1.0343	ppb	04:43:41
1	B 249.677†	3528.4	-5.8	-0.0861	µg/L	-0.0861	ppb	04:43:41
1	Ba 233.527†	-146.5	-9.4	-0.0381	µg/L	-0.0381	ppb	04:43:41
1	Be 313.107†	-845.1	226.4	0.0592	µg/L	0.0592	ppb	04:43:21
1	Cd 226.502†	-90.7	28.2	0.1764	µg/L	0.1764	ppb	04:43:41
1	Co 228.616†	-169.3	22.3	0.2757	µg/L	0.2757	ppb	04:43:41
1	Cr 267.716†	178.0	-2.0	-0.0096	µg/L	-0.0096	ppb	04:43:41
1	Cu 324.752†	2996.2	-0.0	-0.0066	µg/L	-0.0066	ppb	04:43:21
1	Mn 257.610†	282.8	43.2	0.0535	µg/L	0.0535	ppb	04:43:41
1	Mo 202.031†	-29.9	-9.5	-0.2805	µg/L	-0.2805	ppb	04:43:41
1	Ni 231.604†	-73.9	3.2	0.0369	µg/L	0.0369	ppb	04:43:41
1	P 214.914†	-36.9	-18.6	-3.9857	µg/L	-3.9857	ppb	04:43:41
1	Pb 220.353†	70.2	-16.8	-0.9308	µg/L	-0.9308	ppb	04:43:41
1	S 181.975 Axial†	133.9	27.8	20.636	µg/L	20.636	ppb	04:43:41
1	Sb 206.836†	78.1	-3.3	-0.3983	µg/L	-0.3983	ppb	04:43:41
1	Se 196.026†	32.9	17.4	6.28	µg/L	6.28	ppb	04:43:41
1	SiO2†	1779.2	-10.4	-1.0120	µg/L	-1.0120	ppb	04:43:41
1	Si 251.611†	845.5	2.1	0.0358	µg/L	0.0358	ppb	04:43:21
1	Sn 189.927†	-2.5	-1.4	-0.0870	µg/L	-0.0870	ppb	04:43:41
1	Ti 334.940†	882.6	-77.0	-0.0685	µg/L	-0.0685	ppb	04:43:21
1	Tl 190.801†	-105.8	11.7	1.4409	µg/L	1.4409	ppb	04:43:41
1	U 409.014†	-411.3	-138.2	-8.0813	µg/L	-8.0813	ppb	04:43:21
1	V 292.402†	394.9	-12.0	-0.0670	µg/L	-0.0670	ppb	04:43:21
1	Zn 213.857†	593.5	24.3	0.1361	µg/L	0.1361	ppb	04:43:41
2	Sc RADIAL	143802.0	143802.0	98.5	%			04:42:19
2	Al 396.153Radial†	-54.2	8.2	1.5220	µg/L	1.5220	ppb	04:42:39
2	Ca 317.933Radial†	610.8	59.2	3.2991	µg/L	3.2991	ppb	04:42:39
2	Fe 238.204 Radial†	141.6	-4.4	-0.2687	µg/L	-0.2687	ppb	04:42:39
2	K 766.490 Radial†	1509.8	-12.6	-4.6466	µg/L	-4.6466	ppb	04:42:19
2	Mg 279.077 IEC†	191.0	3.1	1.1672	µg/L	1.1672	ppb	04:42:39
2	Na 589.592 Radial†	2525.6	1272.1	173.79	µg/L	173.79	ppb	04:42:19
2	Sr 421.552†	-133.7	-0.4	-0.0008	µg/L	-0.0008	ppb	04:42:19
2	Sc 361.383	1725107.0	1725107.0	100.40	%			04:43:43
2	Y 371.029	1028743.2	1028743.2	100.20	%			04:43:43
2	Ag 328.068†	4338.9	230.2	0.8513	µg/L	0.8513	ppb	04:43:45
2	As 188.979†	-24.2	-3.8	-1.1405	µg/L	-1.1405	ppb	04:44:06
2	B 249.677†	3556.5	36.4	0.5369	µg/L	0.5369	ppb	04:44:06
2	Ba 233.527†	-138.7	-2.3	-0.0093	µg/L	-0.0093	ppb	04:44:06
2	Be 313.107†	-958.2	110.3	0.0305	µg/L	0.0305	ppb	04:43:45
2	Cd 226.502†	-124.6	-5.9	-0.0369	µg/L	-0.0369	ppb	04:44:06
2	Co 228.616†	-183.4	7.7	0.0945	µg/L	0.0945	ppb	04:44:06
2	Cr 267.716†	193.1	13.7	0.1062	µg/L	0.1062	ppb	04:44:06
2	Cu 324.752†	2935.8	-48.1	-0.1859	µg/L	-0.1859	ppb	04:43:45
2	Mn 257.610†	275.2	36.8	0.0455	µg/L	0.0455	ppb	04:44:06
2	Mo 202.031†	-24.3	-4.1	-0.1207	µg/L	-0.1207	ppb	04:44:06
2	Ni 231.604†	-96.5	-19.6	-0.2260	µg/L	-0.2260	ppb	04:44:06
2	P 214.914†	-28.9	-10.9	-2.3173	µg/L	-2.3173	ppb	04:44:06
2	Pb 220.353†	68.9	-17.7	-0.9902	µg/L	-0.9902	ppb	04:44:06

2	S 181.975 Axial†	144.6	39.0	28.959	µg/L	28.959 ppb	04:44:06
2	Sb 206.836†	82.8	1.6	0.1930	µg/L	0.1930 ppb	04:44:06
2	Se 196.026†	13.2	-2.1	-0.772	µg/L	-0.772 ppb	04:44:06
2	SiO2†	1774.3	-8.1	-0.7975	µg/L	-0.7975 ppb	04:44:06
2	Si 251.611†	687.2	-152.1	-2.2442	µg/L	-2.2442 ppb	04:43:45
2	Sn 189.927†	7.2	8.3	0.5190	µg/L	0.5190 ppb	04:44:06
2	Ti 334.940†	945.0	-11.3	-0.0112	µg/L	-0.0112 ppb	04:43:45
2	Tl 190.801†	-90.8	26.2	3.2215	µg/L	3.2215 ppb	04:44:06
2	U 409.014†	-245.8	25.1	1.4530	µg/L	1.4530 ppb	04:43:45
2	V 292.402†	358.7	-46.5	-0.2265	µg/L	-0.2265 ppb	04:43:45
2	Zn 213.857†	578.1	11.4	0.0658	µg/L	0.0658 ppb	04:44:06
3	Sc RADIAL	141813.5	141813.5	97.2	%		04:42:41
3	Al 396.153Radial†	-65.8	-4.5	-0.8345	µg/L	-0.8345 ppb	04:43:01
3	Ca 317.933Radial†	618.1	75.5	4.2049	µg/L	4.2049 ppb	04:43:01
3	Fe 238.204 Radial†	142.6	-1.4	-0.0853	µg/L	-0.0853 ppb	04:43:01
3	K 766.490 Radial†	1729.0	234.4	85.796	µg/L	85.796 ppb	04:42:41
3	Mg 279.077 IEC†	198.0	13.1	4.8715	µg/L	4.8715 ppb	04:43:01
3	Na 589.592 Radial†	2673.4	1460.2	199.40	µg/L	199.40 ppb	04:42:41
3	Sr 421.552†	-143.1	-12.0	-0.0250	µg/L	-0.0250 ppb	04:42:41
3	Sc 361.383	1732501.7	1732501.7	100.83	%		04:44:08
3	Y 371.029	1032645.9	1032645.9	100.58	%		04:44:08
3	Ag 328.068†	3993.4	-130.9	-0.4838	µg/L	-0.4838 ppb	04:44:10
3	As 188.979†	-18.1	2.4	0.7230	µg/L	0.7230 ppb	04:44:30
3	B 249.677†	3533.8	-1.3	-0.0196	µg/L	-0.0196 ppb	04:44:30
3	Ba 233.527†	-129.6	7.4	0.0296	µg/L	0.0296 ppb	04:44:30
3	Be 313.107†	-1067.5	6.0	0.0021	µg/L	0.0021 ppb	04:44:10
3	Cd 226.502†	-108.9	10.2	0.0637	µg/L	0.0637 ppb	04:44:30
3	Co 228.616†	-170.6	21.1	0.2607	µg/L	0.2607 ppb	04:44:30
3	Cr 267.716†	195.5	15.4	0.1189	µg/L	0.1189 ppb	04:44:30
3	Cu 324.752†	2879.6	-116.3	-0.4504	µg/L	-0.4504 ppb	04:44:10
3	Mn 257.610†	262.7	23.2	0.0286	µg/L	0.0286 ppb	04:44:30
3	Mo 202.031†	-19.1	1.1	0.0321	µg/L	0.0321 ppb	04:44:30
3	Ni 231.604†	-96.0	-18.7	-0.2148	µg/L	-0.2148 ppb	04:44:30
3	P 214.914†	-20.0	-1.8	-0.3852	µg/L	-0.3852 ppb	04:44:30
3	Pb 220.353†	56.6	-30.2	-1.6887	µg/L	-1.6887 ppb	04:44:30
3	S 181.975 Axial†	141.1	34.9	25.923	µg/L	25.923 ppb	04:44:30
3	Sb 206.836†	81.1	-0.4	-0.0510	µg/L	-0.0510 ppb	04:44:30
3	Se 196.026†	12.9	-2.5	-0.899	µg/L	-0.899 ppb	04:44:30
3	SiO2†	1779.3	-10.8	-1.0593	µg/L	-1.0593 ppb	04:44:30
3	Si 251.611†	861.9	18.2	0.2649	µg/L	0.2649 ppb	04:44:10
3	Sn 189.927†	5.8	6.8	0.4260	µg/L	0.4260 ppb	04:44:30
3	Ti 334.940†	938.4	-21.9	-0.0215	µg/L	-0.0215 ppb	04:44:10
3	Tl 190.801†	-79.9	37.4	4.5956	µg/L	4.5956 ppb	04:44:30
3	U 409.014†	-243.8	28.1	1.6356	µg/L	1.6356 ppb	04:44:10
3	V 292.402†	389.1	-17.9	-0.0856	µg/L	-0.0856 ppb	04:44:10
3	Zn 213.857†	585.6	16.3	0.0935	µg/L	0.0935 ppb	04:44:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729902.6	100.68	%	0.242				0.24%
Sc RADIAL	142996.4	98.0	%	0.72				0.73%
Y 371.029	1031379.1	100.46	%	0.222				0.22%
Ag 328.068†	-5.2	-0.0229	µg/L	0.75745	-0.0229	ppb	0.75745	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.3	0.4313	µg/L	1.18793	0.4313	ppb	1.18793	275.45%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.7	0.2056	µg/L	1.17610	0.2056	ppb	1.17610	571.96%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	9.8	0.1437	µg/L	0.34209	0.1437	ppb	0.34209	237.99%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.4	-0.0059	µg/L	0.03400	-0.0059	ppb	0.03400	572.37%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	114.2	0.0306	µg/L	0.02853	0.0306	ppb	0.02853	93.24%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	65.1	3.6261	µg/L	0.50270	3.6261	ppb	0.50270	13.86%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.9	0.0678	µg/L	0.10671	0.0678	ppb	0.10671	157.49%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.0	0.2103	µg/L	0.10057	0.2103	ppb	0.10057	47.83%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.0      0.0718 µg/L       0.07083      0.0718 ppb        0.07083  98.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -54.8     -0.2143 µg/L       0.22327     -0.2143 ppb        0.22327 104.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.5     -0.1517 µg/L       0.10163     -0.1517 ppb        0.10163  67.00%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         111.4      40.753 µg/L       45.2224      40.753 ppb        45.2224 110.97%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             4.9      1.8133 µg/L       2.79173      1.8133 ppb        2.79173 153.96%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                34.4      0.0425 µg/L       0.01273      0.0425 ppb        0.01273  29.95%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -4.2     -0.1230 µg/L       0.15627     -0.1230 ppb        0.15627 127.01%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       1408.3      192.35 µg/L        16.225      192.35 ppb         16.225   8.43%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -11.7     -0.1346 µg/L       0.14863     -0.1346 ppb        0.14863 110.41%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -10.5     -2.2294 µg/L       1.80186     -2.2294 ppb        1.80186  80.82%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -21.6     -1.2032 µg/L       0.42148     -1.2032 ppb        0.42148  35.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           33.9      25.173 µg/L        4.2121      25.173 ppb         4.2121  16.73%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.7     -0.0854 µg/L       0.29713     -0.0854 ppb        0.29713 347.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.3       1.54 µg/L         4.109        1.54 ppb          4.109 267.42%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      -9.8     -0.9563 µg/L       0.13954     -0.9563 ppb        0.13954  14.59%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -43.9     -0.6479 µg/L       1.38724     -0.6479 ppb        1.38724 214.13%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.6      0.2860 µg/L       0.32637      0.2860 ppb        0.32637 114.11%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -31.7     -0.0660 µg/L       0.09279     -0.0660 ppb        0.09279 140.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -36.7     -0.0337 µg/L       0.03052     -0.0337 ppb        0.03052  90.51%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                25.1      3.0860 µg/L       1.58170      3.0860 ppb        1.58170  51.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -28.3     -1.6643 µg/L       5.55810     -1.6643 ppb        5.55810 333.97%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -25.5     -0.1264 µg/L       0.08722     -0.1264 ppb        0.08722  69.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                17.4      0.0985 µg/L       0.03542      0.0985 ppb        0.03542  35.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 5:03:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142807.7	142807.7	97.9	%			05:04:01
1	Al 396.153Radial†	25827.6	26455.4	4882.8	µg/L	4882.8	ppb	05:04:01
1	Ca 317.933Radial†	85131.8	86432.4	4814.6	µg/L	4814.6	ppb	05:04:01
1	Fe 238.204 Radial†	76139.6	77656.0	4786.2	µg/L	4786.2	ppb	05:04:01
1	K 766.490 Radial†	14464.3	13235.7	4841.8	µg/L	4841.8	ppb	05:04:01
1	Mg 279.077 IEC†	13031.2	13125.4	4897.8	µg/L	4897.8	ppb	05:04:01
1	Na 589.592 Radial†	71380.8	71650.5	9784.0	µg/L	9784.0	ppb	05:04:01
1	Sr 421.552†	227350.2	232455.8	483.22	µg/L	483.22	ppb	05:03:59
1	Sc 361.383	1717799.5	1717799.5	99.976	%			05:04:14
1	Y 371.029	1012953.8	1012953.8	98.662	%			05:04:14
1	Ag 328.068†	130945.5	126886.0	475.82	µg/L	475.82	ppb	05:04:14
1	As 188.979†	1607.9	1628.6	499.44	µg/L	499.44	ppb	05:04:34
1	B 249.677†	35595.1	32097.9	471.73	µg/L	471.73	ppb	05:04:14
1	Ba 233.527†	118233.7	118398.3	477.50	µg/L	477.50	ppb	05:04:14
1	Be 313.107†	1774199.8	1775696.3	483.62	µg/L	483.62	ppb	05:04:14
1	Cd 226.502†	76081.9	76218.6	475.79	µg/L	475.79	ppb	05:04:14
1	Co 228.616†	38613.8	38813.5	479.15	µg/L	479.15	ppb	05:04:14
1	Cr 267.716†	60590.4	60426.6	473.13	µg/L	473.13	ppb	05:04:14
1	Cu 324.752†	125518.0	122576.4	477.83	µg/L	477.83	ppb	05:04:14
1	Mn 257.610†	388744.5	388601.9	480.61	µg/L	480.61	ppb	05:04:14
1	Mo 202.031†	16098.9	16122.9	474.27	µg/L	474.27	ppb	05:04:34
1	Ni 231.604†	41299.4	41386.0	476.53	µg/L	476.53	ppb	05:04:14
1	P 214.914†	11164.5	11185.1	2384.1	µg/L	2384.1	ppb	05:04:34
1	Pb 220.353†	8658.1	8573.8	480.12	µg/L	480.12	ppb	05:04:34
1	S 181.975 Axial†	1400.4	1295.7	966.14	µg/L	966.14	ppb	05:04:34
1	Sb 206.836†	4069.8	3989.9	475.40	µg/L	475.40	ppb	05:04:34
1	Se 196.026†	1337.9	1323.0	480	µg/L	480	ppb	05:04:34
1	SiO2†	54209.1	52446.9	5105.9	µg/L	5105.9	ppb	05:04:14
1	Si 251.611†	164159.3	163362.7	2399.0	µg/L	2399.0	ppb	05:04:14
1	Sn 189.927†	7642.2	7645.2	478.20	µg/L	478.20	ppb	05:04:34
1	Ti 334.940†	511471.4	510643.4	476.46	µg/L	476.46	ppb	05:04:14
1	Tl 190.801†	3776.4	3894.0	485.62	µg/L	485.62	ppb	05:04:34
1	U 409.014†	7331.2	7602.9	473.54	µg/L	473.54	ppb	05:04:14
1	V 292.402†	97611.9	97231.8	480.62	µg/L	480.62	ppb	05:04:14
1	Zn 213.857†	85344.1	84800.5	472.62	µg/L	472.62	ppb	05:04:14
2	Sc RADIAL	142177.1	142177.1	97.4	%			05:04:05
2	Al 396.153Radial†	25933.0	26680.7	4924.5	µg/L	4924.5	ppb	05:04:05
2	Ca 317.933Radial†	84882.8	86562.6	4821.9	µg/L	4821.9	ppb	05:04:05
2	Fe 238.204 Radial†	75981.4	77838.8	4797.5	µg/L	4797.5	ppb	05:04:05
2	K 766.490 Radial†	14617.1	13458.2	4923.2	µg/L	4923.2	ppb	05:04:05
2	Mg 279.077 IEC†	13046.8	13200.5	4925.8	µg/L	4925.8	ppb	05:04:05
2	Na 589.592 Radial†	71119.0	71705.3	9791.4	µg/L	9791.4	ppb	05:04:05
2	Sr 421.552†	226461.7	232574.3	483.47	µg/L	483.47	ppb	05:04:03
2	Sc 361.383	1718896.3	1718896.3	100.04	%			05:04:37
2	Y 371.029	1012872.8	1012872.8	98.654	%			05:04:37
2	Ag 328.068†	131183.7	127040.5	476.38	µg/L	476.38	ppb	05:04:37
2	As 188.979†	1601.5	1621.2	497.20	µg/L	497.20	ppb	05:04:57
2	B 249.677†	35702.0	32182.0	472.96	µg/L	472.96	ppb	05:04:37
2	Ba 233.527†	118547.9	118637.0	478.46	µg/L	478.46	ppb	05:04:37
2	Be 313.107†	1777707.2	1778070.0	484.27	µg/L	484.27	ppb	05:04:37
2	Cd 226.502†	76355.4	76443.4	477.19	µg/L	477.19	ppb	05:04:37
2	Co 228.616†	38719.9	38894.9	480.16	µg/L	480.16	ppb	05:04:37
2	Cr 267.716†	60616.0	60413.5	473.03	µg/L	473.03	ppb	05:04:37
2	Cu 324.752†	125459.3	122437.5	477.29	µg/L	477.29	ppb	05:04:37
2	Mn 257.610†	388816.5	388425.7	480.39	µg/L	480.39	ppb	05:04:37
2	Mo 202.031†	16138.4	16152.1	475.13	µg/L	475.13	ppb	05:04:57
2	Ni 231.604†	41418.0	41478.1	477.59	µg/L	477.59	ppb	05:04:37
2	P 214.914†	11169.5	11183.1	2383.7	µg/L	2383.7	ppb	05:04:57
2	Pb 220.353†	8675.4	8585.6	480.78	µg/L	480.78	ppb	05:04:57

2	S 181.975 Axial†	1419.5	1313.8	979.63 µg/L	979.63 ppb	05:04:57
2	Sb 206.836†	4079.9	3997.5	476.31 µg/L	476.31 ppb	05:04:57
2	Se 196.026†	1332.5	1316.7	478 µg/L	478 ppb	05:04:57
2	SiO2†	54300.2	52503.4	5111.4 µg/L	5111.4 ppb	05:04:37
2	Si 251.611†	164532.5	163631.0	2402.9 µg/L	2402.9 ppb	05:04:37
2	Sn 189.927†	7645.3	7643.4	478.09 µg/L	478.09 ppb	05:04:57
2	Ti 334.940†	511854.9	510700.3	476.52 µg/L	476.52 ppb	05:04:37
2	Tl 190.801†	3771.1	3886.3	484.66 µg/L	484.66 ppb	05:04:57
2	U 409.014†	7189.9	7456.9	465.01 µg/L	465.01 ppb	05:04:37
2	V 292.402†	97709.7	97267.3	480.79 µg/L	480.79 ppb	05:04:37
2	Zn 213.857†	85652.3	85054.1	474.04 µg/L	474.04 ppb	05:04:37
3	Sc RADIAL	142516.5	142516.5	97.7 %		05:04:10
3	Al 396.153Radial†	26016.1	26702.4	4928.5 µg/L	4928.5 ppb	05:04:10
3	Ca 317.933Radial†	85309.6	86792.2	4834.7 µg/L	4834.7 ppb	05:04:10
3	Fe 238.204 Radial†	76361.8	78042.5	4810.1 µg/L	4810.1 ppb	05:04:10
3	K 766.490 Radial†	14534.2	13337.5	4879.1 µg/L	4879.1 ppb	05:04:10
3	Mg 279.077 IEC†	13094.3	13217.2	4932.1 µg/L	4932.1 ppb	05:04:10
3	Na 589.592 Radial†	71498.7	71920.3	9820.8 µg/L	9820.8 ppb	05:04:10
3	Sr 421.552†	226956.2	232527.1	483.37 µg/L	483.37 ppb	05:04:07
3	Sc 361.383	1715888.7	1715888.7	99.864 %		05:05:00
3	Y 371.029	1012085.0	1012085.0	98.578 %		05:05:00
3	Ag 328.068†	130932.7	127019.0	476.29 µg/L	476.29 ppb	05:05:00
3	As 188.979†	1600.5	1623.0	497.74 µg/L	497.74 ppb	05:05:21
3	B 249.677†	35703.4	32246.0	473.91 µg/L	473.91 ppb	05:05:00
3	Ba 233.527†	118252.2	118548.6	478.10 µg/L	478.10 ppb	05:05:00
3	Be 313.107†	1772238.1	1775708.2	483.62 µg/L	483.62 ppb	05:05:00
3	Cd 226.502†	75982.3	76203.6	475.70 µg/L	475.70 ppb	05:05:00
3	Co 228.616†	38592.7	38835.4	479.42 µg/L	479.42 ppb	05:05:00
3	Cr 267.716†	60479.0	60382.5	472.79 µg/L	472.79 ppb	05:05:00
3	Cu 324.752†	125163.3	122361.0	476.99 µg/L	476.99 ppb	05:05:00
3	Mn 257.610†	387741.8	388030.8	479.90 µg/L	479.90 ppb	05:05:00
3	Mo 202.031†	16166.2	16208.2	476.78 µg/L	476.78 ppb	05:05:21
3	Ni 231.604†	41397.3	41530.0	478.19 µg/L	478.19 ppb	05:05:00
3	P 214.914†	11229.6	11262.8	2400.7 µg/L	2400.7 ppb	05:05:21
3	Pb 220.353†	8666.5	8591.9	481.14 µg/L	481.14 ppb	05:05:21
3	S 181.975 Axial†	1402.0	1298.8	968.50 µg/L	968.50 ppb	05:05:21
3	Sb 206.836†	4079.3	4004.1	477.12 µg/L	477.12 ppb	05:05:21
3	Se 196.026†	1348.8	1335.4	485 µg/L	485 ppb	05:05:21
3	SiO2†	54197.4	52495.6	5110.5 µg/L	5110.5 ppb	05:05:00
3	Si 251.611†	164034.6	163420.6	2399.8 µg/L	2399.8 ppb	05:05:00
3	Sn 189.927†	7674.5	7686.0	480.75 µg/L	480.75 ppb	05:05:21
3	Ti 334.940†	510082.1	509821.9	475.70 µg/L	475.70 ppb	05:05:00
3	Tl 190.801†	3787.1	3908.9	487.43 µg/L	487.43 ppb	05:05:21
3	U 409.014†	7110.7	7390.3	461.07 µg/L	461.07 ppb	05:05:00
3	V 292.402†	97399.7	97128.1	480.12 µg/L	480.12 ppb	05:05:00
3	Zn 213.857†	85456.2	85007.8	473.77 µg/L	473.77 ppb	05:05:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1717528.2	99.960	%	0.0886				0.09%
Sc RADIAL	142500.4	97.7	%	0.22				0.22%
Y 371.029	1012637.2	98.631	%	0.0467				0.05%
Ag 328.068†	126981.9	476.17	µg/L	0.302	476.17	ppb	0.302	0.06%
QC value within limits for Ag 328.068 Recovery = 95.23%								
Al 396.153Radial†	26612.8	4911.9	µg/L	25.30	4911.9	ppb	25.30	0.52%
QC value within limits for Al 396.153Radial Recovery = 98.24%								
As 188.979†	1624.3	498.13	µg/L	1.168	498.13	ppb	1.168	0.23%
QC value within limits for As 188.979 Recovery = 99.63%								
B 249.677†	32175.3	472.87	µg/L	1.095	472.87	ppb	1.095	0.23%
QC value within limits for B 249.677 Recovery = 94.57%								
Ba 233.527†	118528.0	478.02	µg/L	0.486	478.02	ppb	0.486	0.10%
QC value within limits for Ba 233.527 Recovery = 95.60%								
Be 313.107†	1776491.5	483.84	µg/L	0.372	483.84	ppb	0.372	0.08%
QC value within limits for Be 313.107 Recovery = 96.77%								
Ca 317.933Radial†	86595.7	4823.7	µg/L	10.15	4823.7	ppb	10.15	0.21%
QC value within limits for Ca 317.933Radial Recovery = 96.47%								
Cd 226.502†	76288.5	476.23	µg/L	0.839	476.23	ppb	0.839	0.18%
QC value within limits for Cd 226.502 Recovery = 95.25%								
Co 228.616†	38847.9	479.58	µg/L	0.520	479.58	ppb	0.520	0.11%

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   QC value within limits for Co 228.616  Recovery = 95.92%
Cr 267.716†            60407.5      472.98 µg/L         0.173      472.98 ppb          0.173   0.04%
   QC value within limits for Cr 267.716  Recovery = 94.60%
Cu 324.752†           122458.3      477.37 µg/L         0.427      477.37 ppb          0.427   0.09%
   QC value within limits for Cu 324.752  Recovery = 95.47%
Fe 238.204 Radial†     77845.8      4797.9 µg/L         11.92      4797.9 ppb          11.92   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.96%
K 766.490 Radial†      13343.8      4881.4 µg/L         40.76      4881.4 ppb          40.76   0.83%
   QC value within limits for K 766.490 Radial  Recovery = 97.63%
Mg 279.077 IEC†        13181.0      4918.5 µg/L         18.24      4918.5 ppb          18.24   0.37%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.37%
Mn 257.610†           388352.8      480.30 µg/L         0.362      480.30 ppb          0.362   0.08%
   QC value within limits for Mn 257.610  Recovery = 96.06%
Mo 202.031†            16161.0      475.39 µg/L         1.275      475.39 ppb          1.275   0.27%
   QC value within limits for Mo 202.031  Recovery = 95.08%
Na 589.592 Radial†     71758.7      9798.8 µg/L         19.47      9798.8 ppb          19.47   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 97.99%
Ni 231.604†            41464.7      477.44 µg/L         0.840      477.44 ppb          0.840   0.18%
   QC value within limits for Ni 231.604  Recovery = 95.49%
P 214.914†             11210.3      2389.5 µg/L          9.72      2389.5 ppb           9.72   0.41%
   QC value within limits for P 214.914  Recovery = 95.58%
Pb 220.353†             8583.8      480.68 µg/L         0.522      480.68 ppb          0.522   0.11%
   QC value within limits for Pb 220.353  Recovery = 96.14%
S 181.975 Axial†        1302.8      971.42 µg/L         7.208      971.42 ppb          7.208   0.74%
   QC value within limits for S 181.975 Axial  Recovery = 97.14%
Sb 206.836†             3997.2      476.28 µg/L         0.861      476.28 ppb          0.861   0.18%
   QC value within limits for Sb 206.836  Recovery = 95.26%
Se 196.026†             1325.0         481 µg/L           3.4         481 ppb            3.4   0.71%
   QC value within limits for Se 196.026  Recovery = 96.22%
SiO2†                  52482.0      5109.3 µg/L          2.96      5109.3 ppb           2.96   0.06%
   QC value within limits for SiO2  Recovery = 95.54%
Si 251.611†           163471.4      2400.6 µg/L          2.08      2400.6 ppb           2.08   0.09%
   QC value within limits for Si 251.611  Recovery = 96.02%
Sn 189.927†             7658.2      479.01 µg/L         1.501      479.01 ppb          1.501   0.31%
   QC value within limits for Sn 189.927  Recovery = 95.80%
Sr 421.552†           232519.1      483.36 µg/L         0.124      483.36 ppb          0.124   0.03%
   QC value within limits for Sr 421.552  Recovery = 96.67%
Ti 334.940†           510388.5      476.23 µg/L         0.458      476.23 ppb          0.458   0.10%
   QC value within limits for Ti 334.940  Recovery = 95.25%
Tl 190.801†             3896.4      485.90 µg/L         1.405      485.90 ppb          1.405   0.29%
   QC value within limits for Tl 190.801  Recovery = 97.18%
U 409.014†              7483.4      466.54 µg/L         6.373      466.54 ppb          6.373   1.37%
   QC value within limits for U 409.014  Recovery = 93.31%
V 292.402†             97209.1      480.51 µg/L         0.345      480.51 ppb          0.345   0.07%
   QC value within limits for V 292.402  Recovery = 96.10%
Zn 213.857†            84954.1      473.48 µg/L         0.754      473.48 ppb          0.754   0.16%
   QC value within limits for Zn 213.857  Recovery = 94.70%
All analyte(s) passed QC.
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Sequence No.: 4 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/1/2010 5:05:28**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145743.0	145743.0	99.9	%			05:05:57
1	Al 396.153Radial†	-25.5	37.7	6.9946	µg/L	6.9946	ppb	05:06:17
1	Ca 317.933Radial†	624.7	64.9	3.6148	µg/L	3.6148	ppb	05:06:17
1	Fe 238.204 Radial†	160.3	12.4	0.7656	µg/L	0.7656	ppb	05:06:17
1	K 766.490 Radial†	1619.2	76.5	27.962	µg/L	27.962	ppb	05:05:57
1	Mg 279.077 IEC†	177.4	-13.0	-4.8668	µg/L	-4.8668	ppb	05:06:17
1	Na 589.592 Radial†	2580.0	1292.5	176.54	µg/L	176.54	ppb	05:05:57
1	Sr 421.552†	-206.7	-71.7	-0.1490	µg/L	-0.1490	ppb	05:05:57
1	Sc 361.383	1758359.3	1758359.3	102.34	%			05:07:19
1	Y 371.029	1047204.1	1047204.1	102.00	%			05:07:19
1	Ag 328.068†	4319.7	129.7	0.4450	µg/L	0.4450	ppb	05:07:21
1	As 188.979†	-5.9	14.6	4.3999	µg/L	4.3999	ppb	05:07:41
1	B 249.677†	3629.0	40.2	0.5931	µg/L	0.5931	ppb	05:07:21
1	Ba 233.527†	-169.9	-30.2	-0.1218	µg/L	-0.1218	ppb	05:07:41
1	Be 313.107†	-1022.3	65.7	0.0101	µg/L	0.0101	ppb	05:07:21
1	Cd 226.502†	-89.3	30.9	0.1929	µg/L	0.1929	ppb	05:07:41
1	Co 228.616†	-193.1	1.7	0.0204	µg/L	0.0204	ppb	05:07:41
1	Cr 267.716†	166.1	-16.3	-0.1072	µg/L	-0.1072	ppb	05:07:41
1	Cu 324.752†	2915.1	-123.7	-0.5021	µg/L	-0.5021	ppb	05:07:21
1	Mn 257.610†	289.9	46.0	0.0571	µg/L	0.0571	ppb	05:07:41
1	Mo 202.031†	-26.5	-5.8	-0.1707	µg/L	-0.1707	ppb	05:07:41
1	Ni 231.604†	-96.2	-17.5	-0.2015	µg/L	-0.2015	ppb	05:07:41
1	P 214.914†	-38.6	-19.8	-4.2211	µg/L	-4.2211	ppb	05:07:41
1	Pb 220.353†	57.3	-30.4	-1.6754	µg/L	-1.6754	ppb	05:07:41
1	S 181.975 Axial†	137.0	28.8	21.413	µg/L	21.413	ppb	05:07:41
1	Sb 206.836†	81.3	-1.4	-0.1639	µg/L	-0.1639	ppb	05:07:41
1	Se 196.026†	14.5	-1.1	-0.428	µg/L	-0.428	ppb	05:07:41
1	SiO2†	1795.9	-20.4	-2.0072	µg/L	-2.0072	ppb	05:07:41
1	Si 251.611†	842.2	-13.6	-0.2043	µg/L	-0.2043	ppb	05:07:21
1	Sn 189.927†	14.5	15.3	0.9535	µg/L	0.9535	ppb	05:07:41
1	Ti 334.940†	896.1	-76.9	-0.0607	µg/L	-0.0607	ppb	05:07:21
1	Tl 190.801†	-107.4	11.8	1.4419	µg/L	1.4419	ppb	05:07:41
1	U 409.014†	-728.7	-442.1	-25.868	µg/L	-25.868	ppb	05:07:21
1	V 292.402†	356.0	-55.9	-0.2924	µg/L	-0.2924	ppb	05:07:21
1	Zn 213.857†	611.8	33.4	0.1892	µg/L	0.1892	ppb	05:07:41
2	Sc RADIAL	143898.7	143898.7	98.6	%			05:06:19
2	Al 396.153Radial†	-55.8	6.7	1.2330	µg/L	1.2330	ppb	05:06:39
2	Ca 317.933Radial†	606.4	54.4	3.0284	µg/L	3.0284	ppb	05:06:39
2	Fe 238.204 Radial†	158.8	12.9	0.7968	µg/L	0.7968	ppb	05:06:39
2	K 766.490 Radial†	1417.0	-107.8	-39.494	µg/L	-39.494	ppb	05:06:19
2	Mg 279.077 IEC†	183.4	-4.7	-1.7523	µg/L	-1.7523	ppb	05:06:39
2	Na 589.592 Radial†	2345.9	1088.2	148.69	µg/L	148.69	ppb	05:06:19
2	Sr 421.552†	-178.6	-45.8	-0.0953	µg/L	-0.0953	ppb	05:06:19
2	Sc 361.383	1742400.7	1742400.7	101.41	%			05:07:43
2	Y 371.029	1037760.1	1037760.1	101.08	%			05:07:43
2	Ag 328.068†	4154.9	5.9	0.0126	µg/L	0.0126	ppb	05:07:46
2	As 188.979†	-12.6	8.0	2.4108	µg/L	2.4108	ppb	05:08:06
2	B 249.677†	3668.4	111.6	1.6444	µg/L	1.6444	ppb	05:07:46
2	Ba 233.527†	-119.9	17.6	0.0702	µg/L	0.0702	ppb	05:08:06
2	Be 313.107†	-953.3	124.6	0.0347	µg/L	0.0347	ppb	05:07:46
2	Cd 226.502†	-98.5	21.1	0.1314	µg/L	0.1314	ppb	05:08:06
2	Co 228.616†	-169.6	23.1	0.2846	µg/L	0.2846	ppb	05:08:06
2	Cr 267.716†	210.1	28.6	0.2214	µg/L	0.2214	ppb	05:08:06
2	Cu 324.752†	3022.7	8.5	0.0356	µg/L	0.0356	ppb	05:07:46
2	Mn 257.610†	280.0	38.8	0.0481	µg/L	0.0481	ppb	05:08:06
2	Mo 202.031†	-19.8	0.6	0.0163	µg/L	0.0163	ppb	05:08:06
2	Ni 231.604†	-119.3	-41.2	-0.4741	µg/L	-0.4741	ppb	05:08:06
2	P 214.914†	-19.4	-1.2	-0.2554	µg/L	-0.2554	ppb	05:08:06
2	Pb 220.353†	78.8	-8.6	-0.4842	µg/L	-0.4842	ppb	05:08:06

2	S 181.975 Axial†	123.0	16.3	12.075	µg/L	12.075	ppb	05:08:06
2	Sb 206.836†	74.6	-7.2	-0.8639	µg/L	-0.8639	ppb	05:08:06
2	Se 196.026†	21.6	6.0	2.19	µg/L	2.19	ppb	05:08:06
2	SiO2†	1761.0	-38.8	-3.8022	µg/L	-3.8022	ppb	05:08:06
2	Si 251.611†	806.3	-41.5	-0.6147	µg/L	-0.6147	ppb	05:07:46
2	Sn 189.927†	5.9	6.9	0.4326	µg/L	0.4326	ppb	05:08:06
2	Ti 334.940†	926.6	-38.8	-0.0372	µg/L	-0.0372	ppb	05:07:46
2	Tl 190.801†	-119.0	-0.7	-0.0930	µg/L	-0.0930	ppb	05:08:06
2	U 409.014†	-227.2	45.8	2.6178	µg/L	2.6178	ppb	05:07:46
2	V 292.402†	193.5	-213.0	-1.0360	µg/L	-1.0360	ppb	05:07:46
2	Zn 213.857†	609.0	36.1	0.2058	µg/L	0.2058	ppb	05:08:06
3	Sc RADIAL	142638.4	142638.4	97.7	%			05:06:41
3	Al 396.153Radial†	-22.0	40.7	7.5557	µg/L	7.5557	ppb	05:07:01
3	Ca 317.933Radial†	630.0	84.0	4.6771	µg/L	4.6771	ppb	05:07:01
3	Fe 238.204 Radial†	132.8	-12.2	-0.7538	µg/L	-0.7538	ppb	05:07:01
3	K 766.490 Radial†	1613.6	106.1	38.801	µg/L	38.801	ppb	05:06:41
3	Mg 279.077 IEC†	175.0	-11.7	-4.3601	µg/L	-4.3601	ppb	05:07:01
3	Na 589.592 Radial†	2479.7	1246.1	170.20	µg/L	170.20	ppb	05:06:41
3	Sr 421.552†	-208.4	-77.9	-0.1620	µg/L	-0.1620	ppb	05:06:41
3	Sc 361.383	1738163.3	1738163.3	101.16	%			05:08:08
3	Y 371.029	1035970.5	1035970.5	100.90	%			05:08:08
3	Ag 328.068†	4302.8	162.0	0.5833	µg/L	0.5833	ppb	05:08:10
3	As 188.979†	-21.8	-1.2	-0.3610	µg/L	-0.3610	ppb	05:08:30
3	B 249.677†	3574.8	27.9	0.4114	µg/L	0.4114	ppb	05:08:10
3	Ba 233.527†	-149.0	-11.4	-0.0465	µg/L	-0.0465	ppb	05:08:30
3	Be 313.107†	-873.2	201.5	0.0526	µg/L	0.0526	ppb	05:08:10
3	Cd 226.502†	-120.0	-0.4	-0.0024	µg/L	-0.0024	ppb	05:08:30
3	Co 228.616†	-182.7	9.7	0.1193	µg/L	0.1193	ppb	05:08:30
3	Cr 267.716†	174.3	-6.2	-0.0433	µg/L	-0.0433	ppb	05:08:30
3	Cu 324.752†	2971.9	-34.4	-0.1402	µg/L	-0.1402	ppb	05:08:10
3	Mn 257.610†	245.6	5.5	0.0070	µg/L	0.0070	ppb	05:08:30
3	Mo 202.031†	-34.6	-14.1	-0.4150	µg/L	-0.4150	ppb	05:08:30
3	Ni 231.604†	-92.5	-15.0	-0.1724	µg/L	-0.1724	ppb	05:08:30
3	P 214.914†	-13.5	4.6	0.9950	µg/L	0.9950	ppb	05:08:30
3	Pb 220.353†	106.1	18.5	1.0399	µg/L	1.0399	ppb	05:08:30
3	S 181.975 Axial†	143.8	37.1	27.534	µg/L	27.534	ppb	05:08:30
3	Sb 206.836†	58.1	-23.4	-2.7867	µg/L	-2.7867	ppb	05:08:30
3	Se 196.026†	4.1	-11.2	-4.05	µg/L	-4.05	ppb	05:08:30
3	SiO2†	1756.7	-38.8	-3.7752	µg/L	-3.7752	ppb	05:08:30
3	Si 251.611†	899.3	52.4	0.7804	µg/L	0.7804	ppb	05:08:10
3	Sn 189.927†	-7.1	-5.9	-0.3704	µg/L	-0.3704	ppb	05:08:30
3	Ti 334.940†	1084.8	119.8	0.1155	µg/L	0.1155	ppb	05:08:10
3	Tl 190.801†	-119.1	-1.1	-0.1349	µg/L	-0.1349	ppb	05:08:30
3	U 409.014†	-403.1	-128.6	-7.5533	µg/L	-7.5533	ppb	05:08:10
3	V 292.402†	284.4	-122.7	-0.6080	µg/L	-0.6080	ppb	05:08:10
3	Zn 213.857†	580.8	9.7	0.0558	µg/L	0.0558	ppb	05:08:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1746307.8	101.63	%	0.620				0.61%
Sc RADIAL	144093.4	98.7	%	1.07				1.08%
Y 371.029	1040311.6	101.33	%	0.588				0.58%
Ag 328.068†	99.2	0.3470	µg/L	0.29770	0.3470	ppb	0.29770	85.80%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	28.3	5.2611	µg/L	3.49970	5.2611	ppb	3.49970	66.52%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.1	2.1499	µg/L	2.39113	2.1499	ppb	2.39113	111.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	59.9	0.8830	µg/L	0.66564	0.8830	ppb	0.66564	75.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.0	-0.0327	µg/L	0.09673	-0.0327	ppb	0.09673	295.93%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	130.6	0.0325	µg/L	0.02135	0.0325	ppb	0.02135	65.76%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	67.7	3.7735	µg/L	0.83573	3.7735	ppb	0.83573	22.15%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.2	0.1073	µg/L	0.09986	0.1073	ppb	0.09986	93.05%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.5	0.1414	µg/L	0.13348	0.1414	ppb	0.13348	94.37%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                2.0      0.0236 µg/L       0.17422      0.0236 ppb        0.17422 737.23%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -49.9     -0.2022 µg/L       0.27414     -0.2022 ppb        0.27414 135.56%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         4.4      0.2695 µg/L       0.88639      0.2695 ppb        0.88639 328.85%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         24.9      9.0894 µg/L      42.42237      9.0894 ppb       42.42237 466.72%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -9.8     -3.6597 µg/L       1.67122     -3.6597 ppb        1.67122  45.67%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               30.1      0.0374 µg/L       0.02669      0.0374 ppb        0.02669  71.39%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -6.4     -0.1898 µg/L       0.21627     -0.1898 ppb        0.21627 113.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      1208.9      165.15 µg/L        14.597      165.15 ppb         14.597   8.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -24.5     -0.2827 µg/L       0.16642     -0.2827 ppb        0.16642  58.87%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -5.5     -1.1605 µg/L       2.72331     -1.1605 ppb        2.72331 234.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -6.8     -0.3732 µg/L       1.36106     -0.3732 ppb        1.36106 364.65%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          27.4      20.340 µg/L        7.7851      20.340 ppb         7.7851  38.27%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -10.7     -1.2715 µg/L       1.35806     -1.2715 ppb        1.35806 106.81%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.1      -0.764 µg/L        3.1328      -0.764 ppb         3.1328 410.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -32.7     -3.1949 µg/L       1.02864     -3.1949 ppb        1.02864  32.20%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -0.9     -0.0129 µg/L       0.71695     -0.0129 ppb        0.71695 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.4      0.3386 µg/L       0.66691      0.3386 ppb        0.66691 196.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -65.1     -0.1354 µg/L       0.03536     -0.1354 ppb        0.03536  26.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                1.4      0.0059 µg/L       0.09568      0.0059 ppb        0.09568 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.3      0.4047 µg/L       0.89852      0.4047 ppb        0.89852 222.02%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -175.0     -10.268 µg/L       14.4354     -10.268 ppb        14.4354 140.59%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -130.5     -0.6455 µg/L       0.37319     -0.6455 ppb        0.37319  57.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               26.4      0.1503 µg/L       0.08227      0.1503 ppb        0.08227  54.74%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/1/2010 5:25:20**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142109.2	142109.2	97.4	%			05:25:54
1	Al 396.153Radial†	25776.4	26532.6	4897.2	µg/L	4897.2	ppb	05:25:54
1	Ca 317.933Radial†	84821.4	86541.3	4820.7	µg/L	4820.7	ppb	05:25:54
1	Fe 238.204 Radial†	76100.5	77998.3	4807.3	µg/L	4807.3	ppb	05:25:54
1	K 766.490 Radial†	14457.5	13301.4	4865.9	µg/L	4865.9	ppb	05:25:54
1	Mg 279.077 IEC†	12927.9	13084.8	4882.6	µg/L	4882.6	ppb	05:25:54
1	Na 589.592 Radial†	70953.9	71570.7	9773.1	µg/L	9773.1	ppb	05:25:54
1	Sr 421.552†	225114.8	231302.2	480.83	µg/L	480.83	ppb	05:25:52
1	Sc 361.383	1720021.0	1720021.0	100.10	%			05:26:07
1	Y 371.029	1014640.3	1014640.3	98.826	%			05:26:07
1	Ag 328.068†	131353.4	127124.2	476.69	µg/L	476.69	ppb	05:26:07
1	As 188.979†	1548.2	1566.9	480.79	µg/L	480.79	ppb	05:26:27
1	B 249.677†	35677.1	32133.8	472.25	µg/L	472.25	ppb	05:26:07
1	Ba 233.527†	118456.3	118468.0	477.78	µg/L	477.78	ppb	05:26:07
1	Be 313.107†	1773301.1	1772506.5	482.75	µg/L	482.75	ppb	05:26:07
1	Cd 226.502†	76144.4	76182.7	475.57	µg/L	475.57	ppb	05:26:07
1	Co 228.616†	38814.2	38963.8	481.01	µg/L	481.01	ppb	05:26:07
1	Cr 267.716†	60767.8	60525.5	473.92	µg/L	473.92	ppb	05:26:07
1	Cu 324.752†	125732.9	122628.8	478.03	µg/L	478.03	ppb	05:26:07
1	Mn 257.610†	389049.0	388403.8	480.37	µg/L	480.37	ppb	05:26:07
1	Mo 202.031†	16074.3	16077.5	472.94	µg/L	472.94	ppb	05:26:27
1	Ni 231.604†	41434.5	41467.6	477.47	µg/L	477.47	ppb	05:26:07
1	P 214.914†	11070.6	11076.9	2360.9	µg/L	2360.9	ppb	05:26:27
1	Pb 220.353†	8624.5	8529.0	477.63	µg/L	477.63	ppb	05:26:27
1	S 181.975 Axial†	1382.5	1276.0	951.51	µg/L	951.51	ppb	05:26:27
1	Sb 206.836†	4042.7	3957.6	471.52	µg/L	471.52	ppb	05:26:27
1	Se 196.026†	1318.0	1301.4	473	µg/L	473	ppb	05:26:27
1	SiO2†	54725.0	52892.3	5149.5	µg/L	5149.5	ppb	05:26:07
1	Si 251.611†	165361.4	164351.5	2413.6	µg/L	2413.6	ppb	05:26:07
1	Sn 189.927†	7550.2	7543.4	471.86	µg/L	471.86	ppb	05:26:27
1	Ti 334.940†	512626.4	511136.4	476.93	µg/L	476.93	ppb	05:26:07
1	Tl 190.801†	3775.0	3887.7	484.84	µg/L	484.84	ppb	05:26:27
1	U 409.014†	7058.9	7321.4	457.10	µg/L	457.10	ppb	05:26:07
1	V 292.402†	97846.4	97340.0	481.12	µg/L	481.12	ppb	05:26:07
1	Zn 213.857†	85664.4	85010.2	473.79	µg/L	473.79	ppb	05:26:07
2	Sc RADIAL	141199.5	141199.5	96.8	%			05:25:58
2	Al 396.153Radial†	25565.2	26484.9	4888.2	µg/L	4888.2	ppb	05:25:58
2	Ca 317.933Radial†	84361.1	86626.7	4825.4	µg/L	4825.4	ppb	05:25:58
2	Fe 238.204 Radial†	75494.7	77875.7	4799.8	µg/L	4799.8	ppb	05:25:58
2	K 766.490 Radial†	14378.9	13315.8	4871.1	µg/L	4871.1	ppb	05:25:58
2	Mg 279.077 IEC†	12864.9	13105.1	4890.3	µg/L	4890.3	ppb	05:25:58
2	Na 589.592 Radial†	70502.5	71573.6	9773.5	µg/L	9773.5	ppb	05:25:58
2	Sr 421.552†	225485.6	233174.7	484.72	µg/L	484.72	ppb	05:25:56
2	Sc 361.383	1714706.6	1714706.6	99.796	%			05:26:30
2	Y 371.029	1012156.1	1012156.1	98.585	%			05:26:30
2	Ag 328.068†	130751.1	126927.5	475.95	µg/L	475.95	ppb	05:26:30
2	As 188.979†	1581.6	1605.2	492.35	µg/L	492.35	ppb	05:26:50
2	B 249.677†	35530.5	32097.4	471.72	µg/L	471.72	ppb	05:26:30
2	Ba 233.527†	118013.0	118390.5	477.47	µg/L	477.47	ppb	05:26:30
2	Be 313.107†	1765713.5	1770393.6	482.18	µg/L	482.18	ppb	05:26:30
2	Cd 226.502†	75961.6	76235.3	475.89	µg/L	475.89	ppb	05:26:30
2	Co 228.616†	38581.1	38850.4	479.61	µg/L	479.61	ppb	05:26:30
2	Cr 267.716†	60576.5	60522.0	473.88	µg/L	473.88	ppb	05:26:30
2	Cu 324.752†	125190.1	122474.3	477.44	µg/L	477.44	ppb	05:26:30
2	Mn 257.610†	388016.0	388573.2	480.57	µg/L	480.57	ppb	05:26:30
2	Mo 202.031†	16143.1	16196.2	476.42	µg/L	476.42	ppb	05:26:50
2	Ni 231.604†	41114.6	41275.3	475.25	µg/L	475.25	ppb	05:26:30
2	P 214.914†	11143.5	11184.3	2383.9	µg/L	2383.9	ppb	05:26:50
2	Pb 220.353†	8667.0	8598.3	481.49	µg/L	481.49	ppb	05:26:50

2	S 181.975 Axial†	1406.7	1304.5	972.73 µg/L	972.73 ppb	05:26:50
2	Sb 206.836†	4072.2	3999.7	476.57 µg/L	476.57 ppb	05:26:50
2	Se 196.026†	1332.7	1320.2	479 µg/L	479 ppb	05:26:50
2	SiO2†	54308.5	52644.4	5125.1 µg/L	5125.1 ppb	05:26:30
2	Si 251.611†	164475.8	163976.0	2408.0 µg/L	2408.0 ppb	05:26:30
2	Sn 189.927†	7621.3	7638.0	477.75 µg/L	477.75 ppb	05:26:50
2	Ti 334.940†	510463.7	510556.4	476.39 µg/L	476.39 ppb	05:26:30
2	Tl 190.801†	3772.9	3897.3	486.00 µg/L	486.00 ppb	05:26:50
2	U 409.014†	7234.6	7519.3	468.54 µg/L	468.54 ppb	05:26:30
2	V 292.402†	97054.2	96849.2	478.77 µg/L	478.77 ppb	05:26:30
2	Zn 213.857†	85259.7	84869.8	473.02 µg/L	473.02 ppb	05:26:30
3	Sc RADIAL	140766.0	140766.0	96.5 %		05:26:03
3	Al 396.153Radial†	25588.2	26590.1	4907.9 µg/L	4907.9 ppb	05:26:03
3	Ca 317.933Radial†	83962.6	86482.1	4817.4 µg/L	4817.4 ppb	05:26:03
3	Fe 238.204 Radial†	75418.7	78037.2	4809.7 µg/L	4809.7 ppb	05:26:03
3	K 766.490 Radial†	14639.8	13632.1	4986.9 µg/L	4986.9 ppb	05:26:03
3	Mg 279.077 IEC†	12762.5	13040.0	4865.9 µg/L	4865.9 ppb	05:26:03
3	Na 589.592 Radial†	70478.6	71773.2	9800.7 µg/L	9800.7 ppb	05:26:03
3	Sr 421.552†	226456.8	234899.3	488.30 µg/L	488.30 ppb	05:26:01
3	Sc 361.383	1728398.3	1728398.3	100.59 %		05:26:54
3	Y 371.029	1020054.8	1020054.8	99.354 %		05:26:54
3	Ag 328.068†	131808.1	126940.3	475.98 µg/L	475.98 ppb	05:26:54
3	As 188.979†	1576.6	1587.7	487.06 µg/L	487.06 ppb	05:27:14
3	B 249.677†	35623.6	31907.9	468.93 µg/L	468.93 ppb	05:26:54
3	Ba 233.527†	118888.6	118324.1	477.20 µg/L	477.20 ppb	05:26:54
3	Be 313.107†	1775775.0	1766380.0	481.08 µg/L	481.08 ppb	05:26:54
3	Cd 226.502†	76473.6	76141.3	475.31 µg/L	475.31 ppb	05:26:54
3	Co 228.616†	38807.3	38769.0	478.60 µg/L	478.60 ppb	05:26:54
3	Cr 267.716†	60978.6	60440.9	473.26 µg/L	473.26 ppb	05:26:54
3	Cu 324.752†	125716.1	122003.4	475.59 µg/L	475.59 ppb	05:26:54
3	Mn 257.610†	390074.1	387539.2	479.30 µg/L	479.30 ppb	05:26:54
3	Mo 202.031†	16123.4	16048.6	472.08 µg/L	472.08 ppb	05:27:14
3	Ni 231.604†	41447.0	41279.4	475.30 µg/L	475.30 ppb	05:26:54
3	P 214.914†	11104.3	11056.9	2356.7 µg/L	2356.7 ppb	05:27:14
3	Pb 220.353†	8630.8	8493.6	475.65 µg/L	475.65 ppb	05:27:14
3	S 181.975 Axial†	1393.5	1280.2	954.65 µg/L	954.65 ppb	05:27:14
3	Sb 206.836†	4077.0	3972.1	473.24 µg/L	473.24 ppb	05:27:14
3	Se 196.026†	1316.6	1293.6	470 µg/L	470 ppb	05:27:14
3	SiO2†	54892.1	52793.4	5139.9 µg/L	5139.9 ppb	05:26:54
3	Si 251.611†	165940.5	164126.5	2410.3 µg/L	2410.3 ppb	05:26:54
3	Sn 189.927†	7579.1	7535.6	471.37 µg/L	471.37 ppb	05:27:14
3	Ti 334.940†	513415.9	509439.2	475.35 µg/L	475.35 ppb	05:26:54
3	Tl 190.801†	3764.6	3859.1	481.31 µg/L	481.31 ppb	05:27:14
3	U 409.014†	7012.8	7241.4	452.32 µg/L	452.32 ppb	05:26:54
3	V 292.402†	97958.8	96978.0	479.34 µg/L	479.34 ppb	05:26:54
3	Zn 213.857†	85992.9	84922.0	473.31 µg/L	473.31 ppb	05:26:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1721042.0	100.16	%	0.402				0.40%
Sc RADIAL	141358.2	96.9	%	0.47				0.48%
Y 371.029	1015617.1	98.922	%	0.3934				0.40%
Ag 328.068†	126997.3	476.21	µg/L	0.419	476.21	ppb	0.419	0.09%
QC value within limits for Ag 328.068 Recovery = 95.24%								
Al 396.153Radial†	26535.9	4897.7	µg/L	9.87	4897.7	ppb	9.87	0.20%
QC value within limits for Al 396.153Radial Recovery = 97.95%								
As 188.979†	1586.6	486.74	µg/L	5.788	486.74	ppb	5.788	1.19%
QC value within limits for As 188.979 Recovery = 97.35%								
B 249.677†	32046.4	470.96	µg/L	1.785	470.96	ppb	1.785	0.38%
QC value within limits for B 249.677 Recovery = 94.19%								
Ba 233.527†	118394.2	477.48	µg/L	0.291	477.48	ppb	0.291	0.06%
QC value within limits for Ba 233.527 Recovery = 95.50%								
Be 313.107†	1769760.0	482.00	µg/L	0.848	482.00	ppb	0.848	0.18%
QC value within limits for Be 313.107 Recovery = 96.40%								
Ca 317.933Radial†	86550.0	4821.2	µg/L	4.05	4821.2	ppb	4.05	0.08%
QC value within limits for Ca 317.933Radial Recovery = 96.42%								
Cd 226.502†	76186.5	475.59	µg/L	0.295	475.59	ppb	0.295	0.06%
QC value within limits for Cd 226.502 Recovery = 95.12%								
Co 228.616†	38861.1	479.74	µg/L	1.208	479.74	ppb	1.208	0.25%

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   QC value within limits for Co 228.616  Recovery = 95.95%
Cr 267.716†            60496.1      473.68 µg/L         0.370      473.68 ppb          0.370   0.08%
   QC value within limits for Cr 267.716  Recovery = 94.74%
Cu 324.752†           122368.8      477.02 µg/L         1.270      477.02 ppb          1.270   0.27%
   QC value within limits for Cu 324.752  Recovery = 95.40%
Fe 238.204 Radial†     77970.4      4805.6 µg/L          5.20      4805.6 ppb           5.20   0.11%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.11%
K 766.490 Radial†      13416.5      4908.0 µg/L         68.42      4908.0 ppb          68.42   1.39%
   QC value within limits for K 766.490 Radial  Recovery = 98.16%
Mg 279.077 IEC†        13076.6      4879.6 µg/L         12.46      4879.6 ppb          12.46   0.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.59%
Mn 257.610†           388172.1      480.08 µg/L         0.686      480.08 ppb          0.686   0.14%
   QC value within limits for Mn 257.610  Recovery = 96.02%
Mo 202.031†            16107.4      473.81 µg/L         2.300      473.81 ppb          2.300   0.49%
   QC value within limits for Mo 202.031  Recovery = 94.76%
Na 589.592 Radial†     71639.1      9782.4 µg/L         15.80      9782.4 ppb          15.80   0.16%
   QC value within limits for Na 589.592 Radial  Recovery = 97.82%
Ni 231.604†            41340.7      476.01 µg/L         1.265      476.01 ppb          1.265   0.27%
   QC value within limits for Ni 231.604  Recovery = 95.20%
P 214.914†             11106.0      2367.2 µg/L         14.66      2367.2 ppb          14.66   0.62%
   QC value within limits for P 214.914  Recovery = 94.69%
Pb 220.353†             8540.3      478.26 µg/L         2.974      478.26 ppb          2.974   0.62%
   QC value within limits for Pb 220.353  Recovery = 95.65%
S 181.975 Axial†        1286.9      959.63 µg/L        11.455      959.63 ppb         11.455   1.19%
   QC value within limits for S 181.975 Axial  Recovery = 95.96%
Sb 206.836†             3976.5      473.78 µg/L         2.571      473.78 ppb          2.571   0.54%
   QC value within limits for Sb 206.836  Recovery = 94.76%
Se 196.026†             1305.0         474 µg/L           5.0         474 ppb            5.0   1.05%
   QC value within limits for Se 196.026  Recovery = 94.78%
SiO2†                  52776.7      5138.2 µg/L         12.30      5138.2 ppb          12.30   0.24%
   QC value within limits for SiO2  Recovery = 96.09%
Si 251.611†           164151.3      2410.6 µg/L          2.83      2410.6 ppb           2.83   0.12%
   QC value within limits for Si 251.611  Recovery = 96.43%
Sn 189.927†             7572.3      473.66 µg/L         3.553      473.66 ppb          3.553   0.75%
   QC value within limits for Sn 189.927  Recovery = 94.73%
Sr 421.552†           233125.4      484.62 µg/L         3.740      484.62 ppb          3.740   0.77%
   QC value within limits for Sr 421.552  Recovery = 96.92%
Ti 334.940†           510377.3      476.22 µg/L         0.804      476.22 ppb          0.804   0.17%
   QC value within limits for Ti 334.940  Recovery = 95.24%
Tl 190.801†             3881.4      484.05 µg/L         2.444      484.05 ppb          2.444   0.50%
   QC value within limits for Tl 190.801  Recovery = 96.81%
U 409.014†              7360.7      459.32 µg/L         8.335      459.32 ppb          8.335   1.81%
   QC value within limits for U 409.014  Recovery = 91.86%
V 292.402†             97055.7      479.74 µg/L         1.225      479.74 ppb          1.225   0.26%
   QC value within limits for V 292.402  Recovery = 95.95%
Zn 213.857†            84934.0      473.37 µg/L         0.390      473.37 ppb          0.390   0.08%
   QC value within limits for Zn 213.857  Recovery = 94.67%
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 5:27:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145094.0	145094.0	99.4	%			05:27:51
1	Al 396.153Radial†	-59.9	3.0	0.5652	µg/L	0.5652	ppb	05:28:11
1	Ca 317.933Radial†	628.5	71.6	3.9876	µg/L	3.9876	ppb	05:28:11
1	Fe 238.204 Radial†	231.1	84.3	5.1988	µg/L	5.1988	ppb	05:28:11
1	K 766.490 Radial†	1820.3	286.0	104.68	µg/L	104.68	ppb	05:27:51
1	Mg 279.077 IEC†	165.9	-23.8	-8.8786	µg/L	-8.8786	ppb	05:28:11
1	Na 589.592 Radial†	2325.2	1047.8	143.05	µg/L	143.05	ppb	05:27:51
1	Sr 421.552†	-266.7	-132.9	-0.2764	µg/L	-0.2764	ppb	05:27:51
1	Sc 361.383	1722926.7	1722926.7	100.27	%			05:29:12
1	Y 371.029	1027333.0	1027333.0	100.06	%			05:29:12
1	Ag 328.068†	4191.9	89.0	0.3300	µg/L	0.3300	ppb	05:29:14
1	As 188.979†	-14.3	6.1	1.8420	µg/L	1.8420	ppb	05:29:35
1	B 249.677†	3542.8	27.2	0.3995	µg/L	0.3995	ppb	05:29:14
1	Ba 233.527†	-162.8	-26.5	-0.1069	µg/L	-0.1069	ppb	05:29:35
1	Be 313.107†	-852.4	214.6	0.0591	µg/L	0.0591	ppb	05:29:14
1	Cd 226.502†	-86.1	32.3	0.2010	µg/L	0.2010	ppb	05:29:35
1	Co 228.616†	-156.4	34.4	0.4236	µg/L	0.4236	ppb	05:29:35
1	Cr 267.716†	203.5	24.4	0.1896	µg/L	0.1896	ppb	05:29:35
1	Cu 324.752†	2961.9	-18.5	-0.0692	µg/L	-0.0692	ppb	05:29:14
1	Mn 257.610†	392.9	154.6	0.1916	µg/L	0.1916	ppb	05:29:35
1	Mo 202.031†	-28.3	-8.1	-0.2386	µg/L	-0.2386	ppb	05:29:35
1	Ni 231.604†	-88.9	-12.2	-0.1403	µg/L	-0.1403	ppb	05:29:35
1	P 214.914†	-15.1	2.9	0.6266	µg/L	0.6266	ppb	05:29:35
1	Pb 220.353†	85.7	-0.9	-0.0513	µg/L	-0.0513	ppb	05:29:35
1	S 181.975 Axial†	131.0	25.6	19.013	µg/L	19.013	ppb	05:29:35
1	Sb 206.836†	80.9	-0.1	-0.0219	µg/L	-0.0219	ppb	05:29:35
1	Se 196.026†	19.7	4.3	1.57	µg/L	1.57	ppb	05:29:35
1	SiO2†	1905.1	124.5	12.167	µg/L	12.167	ppb	05:29:35
1	Si 251.611†	1275.1	435.1	6.4120	µg/L	6.4120	ppb	05:29:14
1	Sn 189.927†	11.4	12.5	0.7792	µg/L	0.7792	ppb	05:29:35
1	Ti 334.940†	919.0	-36.1	-0.0338	µg/L	-0.0338	ppb	05:29:14
1	Tl 190.801†	-127.5	-10.5	-1.2909	µg/L	-1.2909	ppb	05:29:35
1	U 409.014†	-235.2	35.4	2.0582	µg/L	2.0582	ppb	05:29:14
1	V 292.402†	370.1	-34.7	-0.1702	µg/L	-0.1702	ppb	05:29:14
1	Zn 213.857†	634.8	68.7	0.3862	µg/L	0.3862	ppb	05:29:35
2	Sc RADIAL	144080.7	144080.7	98.7	%			05:28:13
2	Al 396.153Radial†	-53.3	9.2	1.7250	µg/L	1.7250	ppb	05:28:33
2	Ca 317.933Radial†	591.5	38.5	2.1464	µg/L	2.1464	ppb	05:28:33
2	Fe 238.204 Radial†	210.0	64.6	3.9798	µg/L	3.9798	ppb	05:28:33
2	K 766.490 Radial†	1746.6	224.2	82.066	µg/L	82.066	ppb	05:28:13
2	Mg 279.077 IEC†	193.0	4.8	1.7636	µg/L	1.7636	ppb	05:28:33
2	Na 589.592 Radial†	2300.1	1038.8	141.84	µg/L	141.84	ppb	05:28:13
2	Sr 421.552†	-165.2	-32.0	-0.0666	µg/L	-0.0666	ppb	05:28:13
2	Sc 361.383	1740859.5	1740859.5	101.32	%			05:29:37
2	Y 371.029	1036711.8	1036711.8	100.98	%			05:29:37
2	Ag 328.068†	4348.9	200.9	0.7572	µg/L	0.7572	ppb	05:29:39
2	As 188.979†	-20.1	0.5	0.1512	µg/L	0.1512	ppb	05:29:59
2	B 249.677†	3481.8	-69.4	-1.0237	µg/L	-1.0237	ppb	05:29:39
2	Ba 233.527†	-139.2	-1.6	-0.0061	µg/L	-0.0061	ppb	05:29:59
2	Be 313.107†	-922.0	154.7	0.0434	µg/L	0.0434	ppb	05:29:39
2	Cd 226.502†	-72.0	47.2	0.2941	µg/L	0.2941	ppb	05:29:59
2	Co 228.616†	-175.5	17.1	0.2107	µg/L	0.2107	ppb	05:29:59
2	Cr 267.716†	196.7	15.6	0.1188	µg/L	0.1188	ppb	05:29:59
2	Cu 324.752†	2833.0	-176.1	-0.6798	µg/L	-0.6798	ppb	05:29:39
2	Mn 257.610†	379.8	137.6	0.1701	µg/L	0.1701	ppb	05:29:59
2	Mo 202.031†	-32.1	-11.6	-0.3419	µg/L	-0.3419	ppb	05:29:59
2	Ni 231.604†	-73.2	4.3	0.0493	µg/L	0.0493	ppb	05:29:59
2	P 214.914†	-25.7	-7.4	-1.5832	µg/L	-1.5832	ppb	05:29:59
2	Pb 220.353†	91.3	3.7	0.2019	µg/L	0.2019	ppb	05:29:59

2	S 181.975 Axial†	123.5	16.9	12.513 µg/L	12.513 ppb	05:29:59
2	Sb 206.836†	64.2	-17.5	-2.0852 µg/L	-2.0852 ppb	05:29:59
2	Se 196.026†	10.7	-4.7	-1.68 µg/L	-1.68 ppb	05:29:59
2	SiO2†	1876.6	76.9	7.5240 µg/L	7.5240 ppb	05:29:59
2	Si 251.611†	1432.5	577.3	8.5170 µg/L	8.5170 ppb	05:29:39
2	Sn 189.927†	-4.1	-2.9	-0.1802 µg/L	-0.1802 ppb	05:29:59
2	Ti 334.940†	871.5	-92.4	-0.0882 µg/L	-0.0882 ppb	05:29:39
2	Tl 190.801†	-105.4	12.6	1.5543 µg/L	1.5543 ppb	05:29:59
2	U 409.014†	-197.5	74.9	4.4195 µg/L	4.4195 ppb	05:29:39
2	V 292.402†	546.5	135.6	0.6611 µg/L	0.6611 ppb	05:29:39
2	Zn 213.857†	610.3	38.0	0.2130 µg/L	0.2130 ppb	05:29:59
3	Sc RADIAL	142537.5	142537.5	97.7 %		05:28:35
3	Al 396.153Radial†	-60.6	1.2	0.2221 µg/L	0.2221 ppb	05:28:55
3	Ca 317.933Radial†	625.4	79.7	4.4403 µg/L	4.4403 ppb	05:28:55
3	Fe 238.204 Radial†	216.0	73.0	4.4993 µg/L	4.4993 ppb	05:28:55
3	K 766.490 Radial†	1767.0	264.3	96.750 µg/L	96.750 ppb	05:28:35
3	Mg 279.077 IEC†	187.3	1.1	0.4011 µg/L	0.4011 ppb	05:28:55
3	Na 589.592 Radial†	2058.1	816.3	111.43 µg/L	111.43 ppb	05:28:35
3	Sr 421.552†	-153.3	-21.6	-0.0450 µg/L	-0.0450 ppb	05:28:35
3	Sc 361.383	1734315.4	1734315.4	100.94 %		05:30:01
3	Y 371.029	1034008.1	1034008.1	100.71 %		05:30:01
3	Ag 328.068†	3960.1	-168.1	-0.6218 µg/L	-0.6218 ppb	05:30:03
3	As 188.979†	-1.8	18.5	5.6093 µg/L	5.6093 ppb	05:30:23
3	B 249.677†	3485.6	-52.6	-0.7772 µg/L	-0.7772 ppb	05:30:03
3	Ba 233.527†	-157.6	-20.3	-0.0820 µg/L	-0.0820 ppb	05:30:23
3	Be 313.107†	-656.4	414.4	0.1129 µg/L	0.1129 ppb	05:30:03
3	Cd 226.502†	-113.8	5.5	0.0337 µg/L	0.0337 ppb	05:30:23
3	Co 228.616†	-169.5	22.4	0.2758 µg/L	0.2758 ppb	05:30:23
3	Cr 267.716†	226.0	45.3	0.3548 µg/L	0.3548 ppb	05:30:23
3	Cu 324.752†	2923.9	-75.5	-0.2921 µg/L	-0.2921 ppb	05:30:03
3	Mn 257.610†	366.0	125.3	0.1550 µg/L	0.1550 ppb	05:30:23
3	Mo 202.031†	-25.2	-4.9	-0.1429 µg/L	-0.1429 ppb	05:30:23
3	Ni 231.604†	-101.4	-24.0	-0.2758 µg/L	-0.2758 ppb	05:30:23
3	P 214.914†	-13.1	5.0	1.0675 µg/L	1.0675 ppb	05:30:23
3	Pb 220.353†	64.9	-22.1	-1.2346 µg/L	-1.2346 ppb	05:30:23
3	S 181.975 Axial†	129.8	23.6	17.494 µg/L	17.494 ppb	05:30:23
3	Sb 206.836†	87.0	5.4	0.6334 µg/L	0.6334 ppb	05:30:23
3	Se 196.026†	10.7	-4.7	-1.70 µg/L	-1.70 ppb	05:30:23
3	SiO2†	1882.5	89.6	8.7541 µg/L	8.7541 ppb	05:30:23
3	Si 251.611†	1382.2	532.8	7.8517 µg/L	7.8517 ppb	05:30:03
3	Sn 189.927†	11.8	12.8	0.7982 µg/L	0.7982 ppb	05:30:23
3	Ti 334.940†	879.1	-81.6	-0.0764 µg/L	-0.0764 ppb	05:30:03
3	Tl 190.801†	-116.9	0.8	0.1011 µg/L	0.1011 ppb	05:30:23
3	U 409.014†	-266.9	5.4	0.3199 µg/L	0.3199 ppb	05:30:03
3	V 292.402†	413.0	5.4	0.0263 µg/L	0.0263 ppb	05:30:03
3	Zn 213.857†	613.4	43.3	0.2445 µg/L	0.2445 ppb	05:30:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1732700.5	100.84	%	0.528				0.52%
Sc RADIAL	143904.1	98.6	%	0.88				0.89%
Y 371.029	1032684.3	100.58	%	0.470				0.47%
Ag 328.068†	40.6	0.1551	µg/L	0.70592	0.1551	ppb	0.70592	455.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.5	0.8374	µg/L	0.78760	0.8374	ppb	0.78760	94.05%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.4	2.5342	µg/L	2.79413	2.5342	ppb	2.79413	110.26%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-31.6	-0.4672	µg/L	0.76060	-0.4672	ppb	0.76060	162.81%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-16.1	-0.0650	µg/L	0.05251	-0.0650	ppb	0.05251	80.77%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	261.2	0.0718	µg/L	0.03646	0.0718	ppb	0.03646	50.77%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	63.3	3.5248	µg/L	1.21495	3.5248	ppb	1.21495	34.47%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	28.3	0.1763	µg/L	0.13198	0.1763	ppb	0.13198	74.87%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	24.6	0.3034	µg/L	0.10911	0.3034	ppb	0.10911	35.97%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              28.4      0.2211 µg/L       0.12108      0.2211 ppb        0.12108  54.77%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -90.0     -0.3471 µg/L       0.30898     -0.3471 ppb        0.30898  89.03%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       74.0      4.5593 µg/L       0.61170      4.5593 ppb        0.61170  13.42%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       258.2      94.499 µg/L       11.4743      94.499 ppb        11.4743  12.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -6.0     -2.2380 µg/L       5.79119     -2.2380 ppb        5.79119 258.77%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             139.1      0.1722 µg/L       0.01838      0.1722 ppb        0.01838  10.67%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -8.2     -0.2411 µg/L       0.09951     -0.2411 ppb        0.09951  41.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      967.6      132.11 µg/L        17.919      132.11 ppb         17.919  13.56%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -10.6     -0.1222 µg/L       0.16331     -0.1222 ppb        0.16331 133.60%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.1      0.0370 µg/L       1.42036      0.0370 ppb        1.42036 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.4     -0.3613 µg/L       0.76677     -0.3613 ppb        0.76677 212.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         22.0      16.340 µg/L        3.4002      16.340 ppb         3.4002  20.81%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.1     -0.4912 µg/L       1.41878     -0.4912 ppb        1.41878 288.83%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.7      -0.603 µg/L        1.8834      -0.603 ppb         1.8834 312.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    97.0      9.4816 µg/L       2.40526      9.4816 ppb        2.40526  25.37%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             515.1      7.5935 µg/L       1.07596      7.5935 ppb        1.07596  14.17%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.5      0.4657 µg/L       0.55945      0.4657 ppb        0.55945 120.12%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -62.2     -0.1293 µg/L       0.12779     -0.1293 ppb        0.12779  98.81%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -70.0     -0.0661 µg/L       0.02865     -0.0661 ppb        0.02865  43.32%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.0      0.1215 µg/L       1.42267      0.1215 ppb        1.42267 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               38.6      2.2659 µg/L       2.05768      2.2659 ppb        2.05768  90.81%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               35.4      0.1724 µg/L       0.43447      0.1724 ppb        0.43447 252.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              50.0      0.2812 µg/L       0.09229      0.2812 ppb        0.09229  32.82%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 5:48:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143412.4	143412.4	98.3	%			05:49:20
1	Al 396.153Radial†	26401.8	26928.4	4970.4	µg/L	4970.4	ppb	05:49:20
1	Ca 317.933Radial†	85354.2	86291.8	4806.8	µg/L	4806.8	ppb	05:49:20
1	Fe 238.204 Radial†	76673.8	77871.6	4799.5	µg/L	4799.5	ppb	05:49:20
1	K 766.490 Radial†	14895.1	13611.7	4979.5	µg/L	4979.5	ppb	05:49:20
1	Mg 279.077 IEC†	13059.8	13098.4	4887.8	µg/L	4887.8	ppb	05:49:20
1	Na 589.592 Radial†	71028.8	70984.7	9692.9	µg/L	9692.9	ppb	05:49:20
1	Sr 421.552†	229178.2	233336.3	485.05	µg/L	485.05	ppb	05:49:18
1	Sc 361.383	1730211.6	1730211.6	100.70	%			05:49:47
1	Y 371.029	1019921.2	1019921.2	99.341	%			05:49:47
1	Ag 328.068†	132371.2	127362.2	477.57	µg/L	477.57	ppb	05:49:47
1	As 188.979†	1580.3	1589.7	487.69	µg/L	487.69	ppb	05:50:07
1	B 249.677†	35992.5	32237.1	473.77	µg/L	473.77	ppb	05:49:47
1	Ba 233.527†	119122.3	118432.3	477.63	µg/L	477.63	ppb	05:49:47
1	Be 313.107†	1783529.6	1772230.7	482.68	µg/L	482.68	ppb	05:49:47
1	Cd 226.502†	76519.0	76106.7	475.09	µg/L	475.09	ppb	05:49:47
1	Co 228.616†	39087.0	39006.3	481.53	µg/L	481.53	ppb	05:49:47
1	Cr 267.716†	61067.6	60465.7	473.44	µg/L	473.44	ppb	05:49:47
1	Cu 324.752†	126249.6	122402.2	477.15	µg/L	477.15	ppb	05:49:47
1	Mn 257.610†	390842.1	387895.4	479.74	µg/L	479.74	ppb	05:49:47
1	Mo 202.031†	16272.1	16179.3	475.93	µg/L	475.93	ppb	05:50:07
1	Ni 231.604†	41554.3	41342.8	476.03	µg/L	476.03	ppb	05:49:47
1	P 214.914†	11229.3	11169.4	2380.7	µg/L	2380.7	ppb	05:50:07
1	Pb 220.353†	8733.4	8586.5	480.84	µg/L	480.84	ppb	05:50:07
1	S 181.975 Axial†	1425.4	1310.4	977.11	µg/L	977.11	ppb	05:50:07
1	Sb 206.836†	4105.8	3996.5	476.20	µg/L	476.20	ppb	05:50:07
1	Se 196.026†	1349.6	1324.9	481	µg/L	481	ppb	05:50:07
1	SiO2†	54887.0	52731.2	5133.6	µg/L	5133.6	ppb	05:49:47
1	Si 251.611†	166441.0	164450.6	2415.0	µg/L	2415.0	ppb	05:49:47
1	Sn 189.927†	7680.6	7628.5	477.17	µg/L	477.17	ppb	05:50:07
1	Ti 334.940†	515593.8	511067.1	476.86	µg/L	476.86	ppb	05:49:47
1	Tl 190.801†	3810.3	3900.6	486.41	µg/L	486.41	ppb	05:50:07
1	U 409.014†	7255.0	7474.6	465.99	µg/L	465.99	ppb	05:49:47
1	V 292.402†	98177.3	97092.9	479.95	µg/L	479.95	ppb	05:49:47
1	Zn 213.857†	86203.6	85041.6	473.98	µg/L	473.98	ppb	05:49:47
2	Sc RADIAL	142196.1	142196.1	97.4	%			05:49:24
2	Al 396.153Radial†	26051.6	26798.8	4946.2	µg/L	4946.2	ppb	05:49:24
2	Ca 317.933Radial†	84815.3	86481.7	4817.4	µg/L	4817.4	ppb	05:49:24
2	Fe 238.204 Radial†	76151.2	78002.6	4807.6	µg/L	4807.6	ppb	05:49:24
2	K 766.490 Radial†	14651.7	13491.6	4935.5	µg/L	4935.5	ppb	05:49:24
2	Mg 279.077 IEC†	12902.3	13050.4	4870.0	µg/L	4870.0	ppb	05:49:24
2	Na 589.592 Radial†	70951.4	71523.6	9766.6	µg/L	9766.6	ppb	05:49:24
2	Sr 421.552†	226963.0	233057.6	484.48	µg/L	484.48	ppb	05:49:22
2	Sc 361.383	1711422.3	1711422.3	99.605	%			05:50:10
2	Y 371.029	1009637.8	1009637.8	98.339	%			05:50:10
2	Ag 328.068†	130850.2	127278.3	477.22	µg/L	477.22	ppb	05:50:10
2	As 188.979†	1598.7	1625.4	498.49	µg/L	498.49	ppb	05:50:30
2	B 249.677†	35154.5	31788.2	467.16	µg/L	467.16	ppb	05:50:10
2	Ba 233.527†	117404.2	118006.2	475.92	µg/L	475.92	ppb	05:50:10
2	Be 313.107†	1756284.2	1764322.3	480.52	µg/L	480.52	ppb	05:50:10
2	Cd 226.502†	75197.1	75613.9	472.01	µg/L	472.01	ppb	05:50:10
2	Co 228.616†	38365.9	38708.5	477.85	µg/L	477.85	ppb	05:50:10
2	Cr 267.716†	60355.4	60416.4	473.07	µg/L	473.07	ppb	05:50:10
2	Cu 324.752†	124533.5	122055.7	475.79	µg/L	475.79	ppb	05:50:10
2	Mn 257.610†	385706.8	387001.0	478.63	µg/L	478.63	ppb	05:50:10
2	Mo 202.031†	16262.3	16346.9	480.85	µg/L	480.85	ppb	05:50:30
2	Ni 231.604†	41042.2	41281.7	475.33	µg/L	475.33	ppb	05:50:10
2	P 214.914†	11266.0	11328.7	2414.8	µg/L	2414.8	ppb	05:50:30
2	Pb 220.353†	8729.0	8677.3	485.93	µg/L	485.93	ppb	05:50:30

2	S 181.975 Axial†	1419.3	1319.9	984.19 µg/L	984.19 ppb	05:50:30
2	Sb 206.836†	4110.4	4045.9	482.15 µg/L	482.15 ppb	05:50:30
2	Se 196.026†	1329.1	1319.1	479 µg/L	479 ppb	05:50:30
2	SiO2†	54209.3	52649.2	5125.4 µg/L	5125.4 ppb	05:50:10
2	Si 251.611†	164109.6	163924.7	2407.1 µg/L	2407.1 ppb	05:50:10
2	Sn 189.927†	7715.7	7747.5	484.58 µg/L	484.58 ppb	05:50:30
2	Ti 334.940†	508781.4	509849.0	475.74 µg/L	475.74 ppb	05:50:10
2	Tl 190.801†	3813.9	3945.7	491.95 µg/L	491.95 ppb	05:50:30
2	U 409.014†	6854.2	7151.3	447.01 µg/L	447.01 ppb	05:50:10
2	V 292.402†	96859.0	96839.8	478.75 µg/L	478.75 ppb	05:50:10
2	Zn 213.857†	84794.5	84566.7	471.31 µg/L	471.31 ppb	05:50:10
3	Sc RADIAL	141335.7	141335.7	96.9 %		05:49:28
3	Al 396.153Radial†	26120.4	27032.6	4989.8 µg/L	4989.8 ppb	05:49:28
3	Ca 317.933Radial†	84304.0	86483.7	4817.5 µg/L	4817.5 ppb	05:49:28
3	Fe 238.204 Radial†	75608.4	77917.9	4802.4 µg/L	4802.4 ppb	05:49:28
3	K 766.490 Radial†	14536.3	13464.0	4925.4 µg/L	4925.4 ppb	05:49:28
3	Mg 279.077 IEC†	12814.7	13040.5	4866.2 µg/L	4866.2 ppb	05:49:28
3	Na 589.592 Radial†	70539.5	71541.6	9769.1 µg/L	9769.1 ppb	05:49:28
3	Sr 421.552†	227249.7	234771.7	488.04 µg/L	488.04 ppb	05:49:26
3	Sc 361.383	1733201.8	1733201.8	100.87 %		05:50:33
3	Y 371.029	1022663.1	1022663.1	99.608 %		05:50:33
3	Ag 328.068†	132633.2	127395.2	477.67 µg/L	477.67 ppb	05:50:33
3	As 188.979†	1582.5	1589.2	487.52 µg/L	487.52 ppb	05:50:53
3	B 249.677†	36094.1	32276.2	474.35 µg/L	474.35 ppb	05:50:33
3	Ba 233.527†	119057.4	118163.9	476.55 µg/L	476.55 ppb	05:50:33
3	Be 313.107†	1787762.0	1773370.8	482.99 µg/L	482.99 ppb	05:50:33
3	Cd 226.502†	76586.0	76042.1	474.69 µg/L	474.69 ppb	05:50:33
3	Co 228.616†	38990.5	38843.7	479.52 µg/L	479.52 ppb	05:50:33
3	Cr 267.716†	61083.4	60376.7	472.75 µg/L	472.75 ppb	05:50:33
3	Cu 324.752†	126318.2	122253.9	476.57 µg/L	476.57 ppb	05:50:33
3	Mn 257.610†	391061.7	387443.6	479.18 µg/L	479.18 ppb	05:50:33
3	Mo 202.031†	16268.9	16148.3	475.02 µg/L	475.02 ppb	05:50:53
3	Ni 231.604†	41668.5	41384.8	476.52 µg/L	476.52 ppb	05:50:33
3	P 214.914†	11230.7	11151.6	2376.9 µg/L	2376.9 ppb	05:50:53
3	Pb 220.353†	8738.5	8576.5	480.29 µg/L	480.29 ppb	05:50:53
3	S 181.975 Axial†	1428.3	1310.9	977.43 µg/L	977.43 ppb	05:50:53
3	Sb 206.836†	4099.1	3982.8	474.57 µg/L	474.57 ppb	05:50:53
3	Se 196.026†	1336.9	1310.1	476 µg/L	476 ppb	05:50:53
3	SiO2†	55101.1	52849.4	5145.2 µg/L	5145.2 ppb	05:50:33
3	Si 251.611†	166788.7	164510.2	2415.9 µg/L	2415.9 ppb	05:50:33
3	Sn 189.927†	7690.0	7624.6	476.92 µg/L	476.92 ppb	05:50:53
3	Ti 334.940†	516020.5	510606.7	476.44 µg/L	476.44 ppb	05:50:33
3	Tl 190.801†	3800.5	3884.3	484.40 µg/L	484.40 ppb	05:50:53
3	U 409.014†	7160.9	7368.9	459.75 µg/L	459.75 ppb	05:50:33
3	V 292.402†	98149.4	96897.1	478.98 µg/L	478.98 ppb	05:50:33
3	Zn 213.857†	86284.5	84974.1	473.60 µg/L	473.60 ppb	05:50:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1724945.2	100.39	%	0.687				0.68%
Sc RADIAL	142314.7	97.5	%	0.72				0.73%
Y 371.029	1017407.4	99.096	%	0.6688				0.67%
Ag 328.068†	127345.2	477.49	µg/L	0.237	477.49	ppb	0.237	0.05%
QC value within limits for Ag 328.068 Recovery = 95.50%								
Al 396.153Radial†	26919.9	4968.8	µg/L	21.86	4968.8	ppb	21.86	0.44%
QC value within limits for Al 396.153Radial Recovery = 99.38%								
As 188.979†	1601.5	491.23	µg/L	6.288	491.23	ppb	6.288	1.28%
QC value within limits for As 188.979 Recovery = 98.25%								
B 249.677†	32100.5	471.76	µg/L	3.994	471.76	ppb	3.994	0.85%
QC value within limits for B 249.677 Recovery = 94.35%								
Ba 233.527†	118200.8	476.70	µg/L	0.868	476.70	ppb	0.868	0.18%
QC value within limits for Ba 233.527 Recovery = 95.34%								
Be 313.107†	1769974.6	482.06	µg/L	1.344	482.06	ppb	1.344	0.28%
QC value within limits for Be 313.107 Recovery = 96.41%								
Ca 317.933Radial†	86419.1	4813.9	µg/L	6.14	4813.9	ppb	6.14	0.13%
QC value within limits for Ca 317.933Radial Recovery = 96.28%								
Cd 226.502†	75920.9	473.93	µg/L	1.674	473.93	ppb	1.674	0.35%
QC value within limits for Cd 226.502 Recovery = 94.79%								
Co 228.616†	38852.9	479.64	µg/L	1.841	479.64	ppb	1.841	0.38%

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   QC value within limits for Co 228.616  Recovery = 95.93%
Cr 267.716†            60419.6      473.09 µg/L         0.346      473.09 ppb          0.346   0.07%
   QC value within limits for Cr 267.716  Recovery = 94.62%
Cu 324.752†           122237.3      476.51 µg/L         0.684      476.51 ppb          0.684   0.14%
   QC value within limits for Cu 324.752  Recovery = 95.30%
Fe 238.204 Radial†     77930.7      4803.2 µg/L          4.09      4803.2 ppb           4.09   0.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.06%
K 766.490 Radial†      13522.5      4946.8 µg/L         28.77      4946.8 ppb          28.77   0.58%
   QC value within limits for K 766.490 Radial  Recovery = 98.94%
Mg 279.077 IEC†        13063.1      4874.6 µg/L         11.52      4874.6 ppb          11.52   0.24%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.49%
Mn 257.610†           387446.7      479.18 µg/L         0.553      479.18 ppb          0.553   0.12%
   QC value within limits for Mn 257.610  Recovery = 95.84%
Mo 202.031†            16224.9      477.27 µg/L         3.139      477.27 ppb          3.139   0.66%
   QC value within limits for Mo 202.031  Recovery = 95.45%
Na 589.592 Radial†     71350.0      9742.9 µg/L         43.25      9742.9 ppb          43.25   0.44%
   QC value within limits for Na 589.592 Radial  Recovery = 97.43%
Ni 231.604†            41336.4      475.96 µg/L         0.597      475.96 ppb          0.597   0.13%
   QC value within limits for Ni 231.604  Recovery = 95.19%
P 214.914†             11216.5      2390.8 µg/L         20.86      2390.8 ppb          20.86   0.87%
   QC value within limits for P 214.914  Recovery = 95.63%
Pb 220.353†             8613.4      482.35 µg/L         3.112      482.35 ppb          3.112   0.65%
   QC value within limits for Pb 220.353  Recovery = 96.47%
S 181.975 Axial†        1313.7      979.57 µg/L         4.000      979.57 ppb          4.000   0.41%
   QC value within limits for S 181.975 Axial  Recovery = 97.96%
Sb 206.836†             4008.4      477.64 µg/L         3.993      477.64 ppb          3.993   0.84%
   QC value within limits for Sb 206.836  Recovery = 95.53%
Se 196.026†             1318.0         479 µg/L           2.7         479 ppb            2.7   0.56%
   QC value within limits for Se 196.026  Recovery = 95.72%
SiO2†                  52743.2      5134.7 µg/L          9.97      5134.7 ppb           9.97   0.19%
   QC value within limits for SiO2  Recovery = 96.02%
Si 251.611†           164295.2      2412.7 µg/L          4.82      2412.7 ppb           4.82   0.20%
   QC value within limits for Si 251.611  Recovery = 96.51%
Sn 189.927†             7666.9      479.55 µg/L         4.353      479.55 ppb          4.353   0.91%
   QC value within limits for Sn 189.927  Recovery = 95.91%
Sr 421.552†           233721.9      485.86 µg/L         1.912      485.86 ppb          1.912   0.39%
   QC value within limits for Sr 421.552  Recovery = 97.17%
Ti 334.940†           510507.6      476.35 µg/L         0.570      476.35 ppb          0.570   0.12%
   QC value within limits for Ti 334.940  Recovery = 95.27%
Tl 190.801†             3910.2      487.59 µg/L         3.906      487.59 ppb          3.906   0.80%
   QC value within limits for Tl 190.801  Recovery = 97.52%
U 409.014†              7331.6      457.58 µg/L         9.674      457.58 ppb          9.674   2.11%
   QC value within limits for U 409.014  Recovery = 91.52%
V 292.402†             96943.2      479.23 µg/L         0.636      479.23 ppb          0.636   0.13%
   QC value within limits for V 292.402  Recovery = 95.85%
Zn 213.857†            84860.8      472.96 µg/L         1.440      472.96 ppb          1.440   0.30%
   QC value within limits for Zn 213.857  Recovery = 94.59%
All analyte(s) passed QC.
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Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 5:51:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143857.1	143857.1	98.6	%			05:51:30
1	Al 396.153Radial†	-190.3	-129.8	-24.073	µg/L	-24.073	ppb	05:51:30
1	Ca 317.933Radial†	662.4	111.4	6.2040	µg/L	6.2040	ppb	05:51:50
1	Fe 238.204 Radial†	240.6	95.9	5.9120	µg/L	5.9120	ppb	05:51:50
1	K 766.490 Radial†	1827.4	309.0	113.10	µg/L	113.10	ppb	05:51:30
1	Mg 279.077 IEC†	175.4	-12.8	-4.7672	µg/L	-4.7672	ppb	05:51:50
1	Na 589.592 Radial†	2010.1	748.3	102.12	µg/L	102.12	ppb	05:51:30
1	Sr 421.552†	-121.3	12.2	0.0254	µg/L	0.0254	ppb	05:51:30
1	Sc 361.383	1744647.3	1744647.3	101.54	%			05:52:38
1	Y 371.029	1039852.7	1039852.7	101.28	%			05:52:38
1	Ag 328.068†	4231.3	75.8	0.2964	µg/L	0.2964	ppb	05:52:40
1	As 188.979†	-7.4	13.0	3.9399	µg/L	3.9399	ppb	05:53:00
1	B 249.677†	3576.6	16.5	0.2423	µg/L	0.2423	ppb	05:52:40
1	Ba 233.527†	-119.0	18.7	0.0755	µg/L	0.0755	ppb	05:53:00
1	Be 313.107†	-677.2	397.7	0.1113	µg/L	0.1113	ppb	05:52:40
1	Cd 226.502†	-106.3	13.5	0.0838	µg/L	0.0838	ppb	05:53:00
1	Co 228.616†	-169.0	23.9	0.2944	µg/L	0.2944	ppb	05:53:00
1	Cr 267.716†	182.7	1.3	0.0029	µg/L	0.0029	ppb	05:53:00
1	Cu 324.752†	2933.5	-83.2	-0.3139	µg/L	-0.3139	ppb	05:52:40
1	Mn 257.610†	360.3	117.6	0.1457	µg/L	0.1457	ppb	05:53:00
1	Mo 202.031†	-13.1	7.1	0.2103	µg/L	0.2103	ppb	05:53:00
1	Ni 231.604†	-81.2	-3.4	-0.0393	µg/L	-0.0393	ppb	05:53:00
1	P 214.914†	-3.1	15.0	3.1893	µg/L	3.1893	ppb	05:53:00
1	Pb 220.353†	103.2	15.2	0.8412	µg/L	0.8412	ppb	05:53:00
1	S 181.975 Axial†	129.0	22.0	16.316	µg/L	16.316	ppb	05:53:00
1	Sb 206.836†	84.3	2.2	0.2646	µg/L	0.2646	ppb	05:53:00
1	Se 196.026†	21.1	5.5	2.01	µg/L	2.01	ppb	05:53:00
1	SiO2†	1943.3	138.5	13.536	µg/L	13.536	ppb	05:52:40
1	Si 251.611†	1317.1	460.6	6.7875	µg/L	6.7875	ppb	05:52:40
1	Sn 189.927†	-1.7	-0.6	-0.0361	µg/L	-0.0361	ppb	05:53:00
1	Ti 334.940†	1048.3	79.9	0.0710	µg/L	0.0710	ppb	05:52:40
1	Tl 190.801†	-113.2	5.2	0.6447	µg/L	0.6447	ppb	05:53:00
1	U 409.014†	-98.4	172.9	10.129	µg/L	10.129	ppb	05:52:40
1	V 292.402†	473.1	62.1	0.3114	µg/L	0.3114	ppb	05:52:40
1	Zn 213.857†	651.9	77.6	0.4356	µg/L	0.4356	ppb	05:53:00
2	Sc RADIAL	142277.4	142277.4	97.5	%			05:51:52
2	Al 396.153Radial†	-195.3	-137.1	-25.405	µg/L	-25.405	ppb	05:51:52
2	Ca 317.933Radial†	631.6	87.2	4.8601	µg/L	4.8601	ppb	05:52:12
2	Fe 238.204 Radial†	243.7	101.8	6.2746	µg/L	6.2746	ppb	05:52:12
2	K 766.490 Radial†	1831.8	334.1	122.30	µg/L	122.30	ppb	05:51:52
2	Mg 279.077 IEC†	198.1	12.5	4.6598	µg/L	4.6598	ppb	05:52:12
2	Na 589.592 Radial†	1973.8	733.7	100.12	µg/L	100.12	ppb	05:51:52
2	Sr 421.552†	-198.1	-68.0	-0.1413	µg/L	-0.1413	ppb	05:51:52
2	Sc 361.383	1755613.8	1755613.8	102.18	%			05:53:02
2	Y 371.029	1045342.2	1045342.2	101.82	%			05:53:02
2	Ag 328.068†	4084.8	-93.6	-0.3512	µg/L	-0.3512	ppb	05:53:05
2	As 188.979†	-11.6	9.0	2.7333	µg/L	2.7333	ppb	05:53:25
2	B 249.677†	3520.0	-60.9	-0.8996	µg/L	-0.8996	ppb	05:53:05
2	Ba 233.527†	-151.0	-11.9	-0.0485	µg/L	-0.0485	ppb	05:53:25
2	Be 313.107†	-734.9	345.5	0.0944	µg/L	0.0944	ppb	05:53:05
2	Cd 226.502†	-81.7	38.3	0.2382	µg/L	0.2382	ppb	05:53:25
2	Co 228.616†	-166.1	27.8	0.3426	µg/L	0.3426	ppb	05:53:25
2	Cr 267.716†	197.3	14.5	0.1126	µg/L	0.1126	ppb	05:53:25
2	Cu 324.752†	2823.4	-209.0	-0.8098	µg/L	-0.8098	ppb	05:53:05
2	Mn 257.610†	296.5	52.9	0.0653	µg/L	0.0653	ppb	05:53:25
2	Mo 202.031†	-26.0	-5.3	-0.1565	µg/L	-0.1565	ppb	05:53:25
2	Ni 231.604†	-104.8	-26.1	-0.3005	µg/L	-0.3005	ppb	05:53:25
2	P 214.914†	-27.4	-8.8	-1.8872	µg/L	-1.8872	ppb	05:53:25
2	Pb 220.353†	67.2	-20.6	-1.1524	µg/L	-1.1524	ppb	05:53:25

2	S 181.975 Axial†	133.6	25.7	19.101	µg/L	19.101 ppb	05:53:25
2	Sb 206.836†	85.0	2.4	0.2820	µg/L	0.2820 ppb	05:53:25
2	Se 196.026†	5.0	-10.4	-3.75	µg/L	-3.75 ppb	05:53:25
2	SiO2†	1920.1	103.8	10.144	µg/L	10.144 ppb	05:53:05
2	Si 251.611†	1212.7	350.3	5.1635	µg/L	5.1635 ppb	05:53:05
2	Sn 189.927†	6.6	7.5	0.4712	µg/L	0.4712 ppb	05:53:25
2	Ti 334.940†	1263.1	283.7	0.2643	µg/L	0.2643 ppb	05:53:05
2	Tl 190.801†	-114.3	4.8	0.5878	µg/L	0.5878 ppb	05:53:25
2	U 409.014†	-255.6	19.7	1.1243	µg/L	1.1243 ppb	05:53:05
2	V 292.402†	308.3	-102.1	-0.4992	µg/L	-0.4992 ppb	05:53:05
2	Zn 213.857†	622.2	44.6	0.2519	µg/L	0.2519 ppb	05:53:25
3	Sc RADIAL	143992.1	143992.1	98.7	%		05:52:14
3	Al 396.153Radial†	-137.4	-76.1	-14.103	µg/L	-14.103 ppb	05:52:14
3	Ca 317.933Radial†	645.0	93.1	5.1853	µg/L	5.1853 ppb	05:52:34
3	Fe 238.204 Radial†	216.1	70.9	4.3718	µg/L	4.3718 ppb	05:52:34
3	K 766.490 Radial†	1849.6	329.7	120.69	µg/L	120.69 ppb	05:52:14
3	Mg 279.077 IEC†	181.7	-6.5	-2.4380	µg/L	-2.4380 ppb	05:52:34
3	Na 589.592 Radial†	2041.7	778.4	106.23	µg/L	106.23 ppb	05:52:14
3	Sr 421.552†	-161.6	-28.5	-0.0593	µg/L	-0.0593 ppb	05:52:14
3	Sc 361.383	1751304.2	1751304.2	101.93	%		05:53:27
3	Y 371.029	1043123.9	1043123.9	101.60	%		05:53:27
3	Ag 328.068†	4042.1	-125.7	-0.4738	µg/L	-0.4738 ppb	05:53:29
3	As 188.979†	-14.7	5.9	1.7883	µg/L	1.7883 ppb	05:53:49
3	B 249.677†	3573.4	-0.0	-0.0007	µg/L	-0.0007 ppb	05:53:29
3	Ba 233.527†	-123.8	14.4	0.0582	µg/L	0.0582 ppb	05:53:49
3	Be 313.107†	-862.8	218.2	0.0565	µg/L	0.0565 ppb	05:53:29
3	Cd 226.502†	-104.2	16.0	0.0993	µg/L	0.0993 ppb	05:53:49
3	Co 228.616†	-189.1	4.8	0.0589	µg/L	0.0589 ppb	05:53:49
3	Cr 267.716†	233.6	50.6	0.4042	µg/L	0.4042 ppb	05:53:49
3	Cu 324.752†	2978.5	-50.0	-0.2016	µg/L	-0.2016 ppb	05:53:29
3	Mn 257.610†	332.2	88.6	0.1098	µg/L	0.1098 ppb	05:53:49
3	Mo 202.031†	-22.9	-2.4	-0.0712	µg/L	-0.0712 ppb	05:53:49
3	Ni 231.604†	-83.0	-4.9	-0.0567	µg/L	-0.0567 ppb	05:53:49
3	P 214.914†	-31.5	-13.0	-2.7749	µg/L	-2.7749 ppb	05:53:49
3	Pb 220.353†	87.3	-0.8	-0.0374	µg/L	-0.0374 ppb	05:53:49
3	S 181.975 Axial†	135.1	27.5	20.442	µg/L	20.442 ppb	05:53:49
3	Sb 206.836†	71.7	-10.5	-1.2527	µg/L	-1.2527 ppb	05:53:49
3	Se 196.026†	24.8	9.1	3.28	µg/L	3.28 ppb	05:53:49
3	SiO2†	1960.3	147.9	14.451	µg/L	14.451 ppb	05:53:29
3	Si 251.611†	1381.3	518.6	7.6414	µg/L	7.6414 ppb	05:53:29
3	Sn 189.927†	11.5	12.4	0.7700	µg/L	0.7700 ppb	05:53:49
3	Ti 334.940†	924.1	-45.9	-0.0388	µg/L	-0.0388 ppb	05:53:29
3	Tl 190.801†	-113.9	4.9	0.6058	µg/L	0.6058 ppb	05:53:49
3	U 409.014†	-442.0	-163.8	-9.5606	µg/L	-9.5606 ppb	05:53:29
3	V 292.402†	473.5	60.7	0.2903	µg/L	0.2903 ppb	05:53:29
3	Zn 213.857†	619.3	43.1	0.2421	µg/L	0.2421 ppb	05:53:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1750521.8	101.88	%	0.322				0.32%
Sc RADIAL	143375.5	98.2	%	0.65				0.66%
Y 371.029	1042772.9	101.57	%	0.269				0.26%
Ag 328.068†	-47.8	-0.1762	µg/L	0.41384	-0.1762	ppb	0.41384	234.86%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-114.3	-21.194	µg/L	6.1769	-21.194	ppb	6.1769	29.14%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.3	2.8205	µg/L	1.07844	2.8205	ppb	1.07844	38.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-14.8	-0.2194	µg/L	0.60155	-0.2194	ppb	0.60155	274.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.1	0.0284	µg/L	0.06714	0.0284	ppb	0.06714	236.17%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	320.5	0.0874	µg/L	0.02807	0.0874	ppb	0.02807	32.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	97.2	5.4165	µg/L	0.70116	5.4165	ppb	0.70116	12.94%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	22.6	0.1404	µg/L	0.08503	0.1404	ppb	0.08503	60.56%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.8	0.2320	µg/L	0.15179	0.2320	ppb	0.15179	65.44%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              22.2      0.1732 µg/L       0.20743      0.1732 ppb        0.20743 119.74%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -114.0     -0.4418 µg/L       0.32363     -0.4418 ppb        0.32363  73.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       89.6      5.5195 µg/L       1.01034      5.5195 ppb        1.01034  18.30%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       324.2      118.70 µg/L         4.914      118.70 ppb          4.914   4.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.3     -0.8485 µg/L       4.91038     -0.8485 ppb        4.91038 578.73%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              86.4      0.1069 µg/L       0.04026      0.1069 ppb        0.04026  37.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -0.2     -0.0058 µg/L       0.19198     -0.0058 ppb        0.19198 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      753.5      102.83 µg/L         3.115      102.83 ppb          3.115   3.03%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -11.5     -0.1322 µg/L       0.14601     -0.1322 ppb        0.14601 110.48%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.3     -0.4909 µg/L       3.21789     -0.4909 ppb        3.21789 655.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -2.1     -0.1162 µg/L       0.99914     -0.1162 ppb        0.99914 859.83%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         25.1      18.620 µg/L        2.1044      18.620 ppb         2.1044  11.30%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.0     -0.2354 µg/L       0.88107     -0.2354 ppb        0.88107 374.30%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.4       0.512 µg/L        3.7435       0.512 ppb         3.7435 730.53%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   130.1      12.710 µg/L        2.2688      12.710 ppb         2.2688  17.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             443.2      6.5308 µg/L       1.25874      6.5308 ppb        1.25874  19.27%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.4      0.4017 µg/L       0.40750      0.4017 ppb        0.40750 101.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -28.1     -0.0584 µg/L       0.08335     -0.0584 ppb        0.08335 142.66%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             105.9      0.0989 µg/L       0.15342      0.0989 ppb        0.15342 155.20%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.0      0.6127 µg/L       0.02907      0.6127 ppb        0.02907   4.74%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                9.6      0.5642 µg/L       9.85669      0.5642 ppb        9.85669 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                6.9      0.0342 µg/L       0.46201      0.0342 ppb        0.46201 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              55.1      0.3099 µg/L       0.10900      0.3099 ppb        0.10900  35.18%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 6:04:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142848.8	142848.8	97.9	%			06:05:06
1	Al 396.153Radial†	26284.1	26914.2	4967.7	µg/L	4967.7	ppb	06:05:06
1	Ca 317.933Radial†	85756.1	87045.1	4848.8	µg/L	4848.8	ppb	06:05:06
1	Fe 238.204 Radial†	76615.7	78120.0	4814.8	µg/L	4814.8	ppb	06:05:06
1	K 766.490 Radial†	14635.7	13406.6	4904.4	µg/L	4904.4	ppb	06:05:06
1	Mg 279.077 IEC†	13109.8	13201.8	4926.4	µg/L	4926.4	ppb	06:05:06
1	Na 589.592 Radial†	71209.9	71454.9	9757.2	µg/L	9757.2	ppb	06:05:06
1	Sr 421.552†	229336.0	234417.5	487.30	µg/L	487.30	ppb	06:05:04
1	Sc 361.383	1722533.9	1722533.9	100.25	%			06:05:19
1	Y 371.029	1016004.9	1016004.9	98.959	%			06:05:19
1	Ag 328.068†	131502.2	127081.2	476.52	µg/L	476.52	ppb	06:05:19
1	As 188.979†	1603.1	1619.4	496.68	µg/L	496.68	ppb	06:05:39
1	B 249.677†	35665.3	32070.0	471.31	µg/L	471.31	ppb	06:05:19
1	Ba 233.527†	118687.8	118526.2	478.01	µg/L	478.01	ppb	06:05:19
1	Be 313.107†	1774677.2	1771294.9	482.42	µg/L	482.42	ppb	06:05:19
1	Cd 226.502†	76426.8	76353.5	476.63	µg/L	476.63	ppb	06:05:19
1	Co 228.616†	38731.3	38824.5	479.29	µg/L	479.29	ppb	06:05:19
1	Cr 267.716†	61003.8	60672.4	475.06	µg/L	475.06	ppb	06:05:19
1	Cu 324.752†	125233.2	121947.2	475.39	µg/L	475.39	ppb	06:05:19
1	Mn 257.610†	388434.4	387223.8	478.90	µg/L	478.90	ppb	06:05:19
1	Mo 202.031†	16274.4	16253.7	478.11	µg/L	478.11	ppb	06:05:39
1	Ni 231.604†	41552.7	41525.1	478.13	µg/L	478.13	ppb	06:05:19
1	P 214.914†	11262.8	11252.5	2398.5	µg/L	2398.5	ppb	06:05:39
1	Pb 220.353†	8749.1	8640.8	483.88	µg/L	483.88	ppb	06:05:39
1	S 181.975 Axial†	1398.8	1290.2	962.13	µg/L	962.13	ppb	06:05:39
1	Sb 206.836†	4130.9	4039.7	481.34	µg/L	481.34	ppb	06:05:39
1	Se 196.026†	1348.3	1329.7	483	µg/L	483	ppb	06:05:39
1	SiO2†	54482.6	52570.7	5117.8	µg/L	5117.8	ppb	06:05:19
1	Si 251.611†	165149.6	163899.2	2406.8	µg/L	2406.8	ppb	06:05:19
1	Sn 189.927†	7696.2	7678.0	480.25	µg/L	480.25	ppb	06:05:39
1	Ti 334.940†	511528.2	509293.9	475.20	µg/L	475.20	ppb	06:05:19
1	Tl 190.801†	3814.7	3921.9	489.01	µg/L	489.01	ppb	06:05:39
1	U 409.014†	7216.3	7468.1	465.59	µg/L	465.59	ppb	06:05:19
1	V 292.402†	97722.3	97073.6	479.89	µg/L	479.89	ppb	06:05:19
1	Zn 213.857†	85933.0	85153.3	474.59	µg/L	474.59	ppb	06:05:19
2	Sc RADIAL	143157.1	143157.1	98.1	%			06:05:11
2	Al 396.153Radial†	26258.8	26830.6	4952.3	µg/L	4952.3	ppb	06:05:11
2	Ca 317.933Radial†	85806.3	86907.6	4841.1	µg/L	4841.1	ppb	06:05:11
2	Fe 238.204 Radial†	76698.8	78036.1	4809.7	µg/L	4809.7	ppb	06:05:11
2	K 766.490 Radial†	14842.8	13585.5	4969.9	µg/L	4969.9	ppb	06:05:11
2	Mg 279.077 IEC†	13118.0	13181.3	4918.7	µg/L	4918.7	ppb	06:05:11
2	Na 589.592 Radial†	71063.7	71149.2	9715.4	µg/L	9715.4	ppb	06:05:11
2	Sr 421.552†	227333.3	231871.5	482.01	µg/L	482.01	ppb	06:05:08
2	Sc 361.383	1723631.7	1723631.7	100.32	%			06:05:42
2	Y 371.029	1016796.5	1016796.5	99.036	%			06:05:42
2	Ag 328.068†	131746.9	127241.7	477.09	µg/L	477.09	ppb	06:05:42
2	As 188.979†	1596.7	1612.1	494.45	µg/L	494.45	ppb	06:06:03
2	B 249.677†	35726.6	32108.4	471.89	µg/L	471.89	ppb	06:05:42
2	Ba 233.527†	118582.9	118346.3	477.29	µg/L	477.29	ppb	06:05:42
2	Be 313.107†	1774613.3	1770103.8	482.09	µg/L	482.09	ppb	06:05:42
2	Cd 226.502†	76324.6	76203.0	475.69	µg/L	475.69	ppb	06:05:42
2	Co 228.616†	38620.9	38689.9	477.62	µg/L	477.62	ppb	06:05:42
2	Cr 267.716†	60898.2	60528.3	473.95	µg/L	473.95	ppb	06:05:42
2	Cu 324.752†	125590.6	122223.9	476.44	µg/L	476.44	ppb	06:05:42
2	Mn 257.610†	388871.4	387412.6	479.14	µg/L	479.14	ppb	06:05:42
2	Mo 202.031†	16208.5	16177.7	475.88	µg/L	475.88	ppb	06:06:03
2	Ni 231.604†	41345.4	41292.0	475.45	µg/L	475.45	ppb	06:05:42
2	P 214.914†	11244.3	11227.0	2393.1	µg/L	2393.1	ppb	06:06:03
2	Pb 220.353†	8700.1	8586.4	480.84	µg/L	480.84	ppb	06:06:03

2	S 181.975 Axial†	1408.7	1299.2	968.77 µg/L	968.77 ppb	06:06:03
2	Sb 206.836†	4113.4	4019.6	478.94 µg/L	478.94 ppb	06:06:03
2	Se 196.026†	1341.4	1321.9	480 µg/L	480 ppb	06:06:03
2	SiO2†	54603.8	52657.0	5126.3 µg/L	5126.3 ppb	06:05:42
2	Si 251.611†	165044.8	163689.8	2403.8 µg/L	2403.8 ppb	06:05:42
2	Sn 189.927†	7680.7	7657.7	478.98 µg/L	478.98 ppb	06:06:03
2	Ti 334.940†	512566.6	510004.0	475.88 µg/L	475.88 ppb	06:05:42
2	Tl 190.801†	3806.4	3911.1	487.71 µg/L	487.71 ppb	06:06:03
2	U 409.014†	6895.7	7144.0	446.60 µg/L	446.60 ppb	06:05:42
2	V 292.402†	97622.9	96912.5	479.06 µg/L	479.06 ppb	06:05:42
2	Zn 213.857†	85650.2	84816.7	472.72 µg/L	472.72 ppb	06:05:42
3	Sc RADIAL	141046.6	141046.6	96.7 %		06:05:15
3	Al 396.153Radial†	25865.4	26824.1	4951.0 µg/L	4951.0 ppb	06:05:15
3	Ca 317.933Radial†	84124.5	86476.5	4817.1 µg/L	4817.1 ppb	06:05:15
3	Fe 238.204 Radial†	75443.5	77907.3	4801.7 µg/L	4801.7 ppb	06:05:15
3	K 766.490 Radial†	14628.9	13590.6	4971.7 µg/L	4971.7 ppb	06:05:15
3	Mg 279.077 IEC†	12956.9	13214.8	4931.2 µg/L	4931.2 ppb	06:05:15
3	Na 589.592 Radial†	70294.6	71437.4	9754.8 µg/L	9754.8 ppb	06:05:15
3	Sr 421.552†	227562.4	235576.2	489.71 µg/L	489.71 ppb	06:05:13
3	Sc 361.383	1728559.5	1728559.5	100.60 %		06:06:06
3	Y 371.029	1019765.4	1019765.4	99.326 %		06:06:06
3	Ag 328.068†	131608.2	126729.4	475.23 µg/L	475.23 ppb	06:06:06
3	As 188.979†	1615.5	1626.2	498.73 µg/L	498.73 ppb	06:06:26
3	B 249.677†	35907.2	32186.5	473.03 µg/L	473.03 ppb	06:06:06
3	Ba 233.527†	118992.7	118416.6	477.57 µg/L	477.57 ppb	06:06:06
3	Be 313.107†	1782275.3	1772676.8	482.80 µg/L	482.80 ppb	06:06:06
3	Cd 226.502†	76844.3	76502.7	477.56 µg/L	477.56 ppb	06:06:06
3	Co 228.616†	38816.6	38774.7	478.67 µg/L	478.67 ppb	06:06:06
3	Cr 267.716†	61167.4	60622.9	474.68 µg/L	474.68 ppb	06:06:06
3	Cu 324.752†	125851.5	122126.3	476.08 µg/L	476.08 ppb	06:06:06
3	Mn 257.610†	390603.4	388029.2	479.90 µg/L	479.90 ppb	06:06:06
3	Mo 202.031†	16349.4	16271.6	478.64 µg/L	478.64 ppb	06:06:26
3	Ni 231.604†	41595.0	41422.7	476.95 µg/L	476.95 ppb	06:06:06
3	P 214.914†	11332.2	11282.4	2404.9 µg/L	2404.9 ppb	06:06:26
3	Pb 220.353†	8802.7	8663.7	485.16 µg/L	485.16 ppb	06:06:26
3	S 181.975 Axial†	1418.6	1305.1	973.15 µg/L	973.15 ppb	06:06:26
3	Sb 206.836†	4127.2	4021.6	479.21 µg/L	479.21 ppb	06:06:26
3	Se 196.026†	1358.4	1335.0	485 µg/L	485 ppb	06:06:26
3	SiO2†	55113.6	53008.4	5160.6 µg/L	5160.6 ppb	06:06:06
3	Si 251.611†	165801.1	163972.6	2407.9 µg/L	2407.9 ppb	06:06:06
3	Sn 189.927†	7751.7	7706.5	482.02 µg/L	482.02 ppb	06:06:26
3	Ti 334.940†	514213.3	510184.3	476.04 µg/L	476.04 ppb	06:06:06
3	Tl 190.801†	3835.7	3929.4	489.97 µg/L	489.97 ppb	06:06:26
3	U 409.014†	7159.6	7386.7	460.91 µg/L	460.91 ppb	06:06:06
3	V 292.402†	98291.0	97299.1	480.99 µg/L	480.99 ppb	06:06:06
3	Zn 213.857†	86223.5	85143.2	474.54 µg/L	474.54 ppb	06:06:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1724908.4	100.39	%	0.187				0.19%
Sc RADIAL	142350.8	97.5	%	0.78				0.80%
Y 371.029	1017522.3	99.107	%	0.1931				0.19%
Ag 328.068†	127017.5	476.28	µg/L	0.952	476.28	ppb	0.952	0.20%
QC value within limits for Ag 328.068 Recovery = 95.26%								
Al 396.153Radial†	26856.3	4957.0	µg/L	9.30	4957.0	ppb	9.30	0.19%
QC value within limits for Al 396.153Radial Recovery = 99.14%								
As 188.979†	1619.2	496.62	µg/L	2.139	496.62	ppb	2.139	0.43%
QC value within limits for As 188.979 Recovery = 99.32%								
B 249.677†	32121.6	472.08	µg/L	0.876	472.08	ppb	0.876	0.19%
QC value within limits for B 249.677 Recovery = 94.42%								
Ba 233.527†	118429.7	477.62	µg/L	0.366	477.62	ppb	0.366	0.08%
QC value within limits for Ba 233.527 Recovery = 95.52%								
Be 313.107†	1771358.5	482.44	µg/L	0.353	482.44	ppb	0.353	0.07%
QC value within limits for Be 313.107 Recovery = 96.49%								
Ca 317.933Radial†	86809.7	4835.6	µg/L	16.53	4835.6	ppb	16.53	0.34%
QC value within limits for Ca 317.933Radial Recovery = 96.71%								
Cd 226.502†	76353.1	476.63	µg/L	0.937	476.63	ppb	0.937	0.20%
QC value within limits for Cd 226.502 Recovery = 95.33%								
Co 228.616†	38763.0	478.53	µg/L	0.840	478.53	ppb	0.840	0.18%

```
   QC value within limits for Co 228.616  Recovery = 95.71%
Cr 267.716†            60607.9      474.56 µg/L         0.566      474.56 ppb          0.566   0.12%
   QC value within limits for Cr 267.716  Recovery = 94.91%
Cu 324.752†           122099.1      475.97 µg/L         0.537      475.97 ppb          0.537   0.11%
   QC value within limits for Cu 324.752  Recovery = 95.19%
Fe 238.204 Radial†     78021.2      4808.7 µg/L          6.60      4808.7 ppb           6.60   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.17%
K 766.490 Radial†      13527.5      4948.6 µg/L         38.37      4948.6 ppb          38.37   0.78%
   QC value within limits for K 766.490 Radial  Recovery = 98.97%
Mg 279.077 IEC†        13199.3      4925.4 µg/L          6.33      4925.4 ppb           6.33   0.13%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.51%
Mn 257.610†           387555.2      479.31 µg/L         0.521      479.31 ppb          0.521   0.11%
   QC value within limits for Mn 257.610  Recovery = 95.86%
Mo 202.031†            16234.3      477.55 µg/L         1.466      477.55 ppb          1.466   0.31%
   QC value within limits for Mo 202.031  Recovery = 95.51%
Na 589.592 Radial†     71347.2      9742.5 µg/L         23.47      9742.5 ppb          23.47   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 97.42%
Ni 231.604†            41413.3      476.84 µg/L         1.345      476.84 ppb          1.345   0.28%
   QC value within limits for Ni 231.604  Recovery = 95.37%
P 214.914†             11254.0      2398.8 µg/L          5.93      2398.8 ppb           5.93   0.25%
   QC value within limits for P 214.914  Recovery = 95.95%
Pb 220.353†             8630.3      483.29 µg/L         2.215      483.29 ppb          2.215   0.46%
   QC value within limits for Pb 220.353  Recovery = 96.66%
S 181.975 Axial†        1298.2      968.01 µg/L         5.544      968.01 ppb          5.544   0.57%
   QC value within limits for S 181.975 Axial  Recovery = 96.80%
Sb 206.836†             4027.0      479.83 µg/L         1.314      479.83 ppb          1.314   0.27%
   QC value within limits for Sb 206.836  Recovery = 95.97%
Se 196.026†             1328.8         482 µg/L           2.4         482 ppb            2.4   0.50%
   QC value within limits for Se 196.026  Recovery = 96.50%
SiO2†                  52745.4      5134.9 µg/L         22.63      5134.9 ppb          22.63   0.44%
   QC value within limits for SiO2  Recovery = 96.02%
Si 251.611†           163853.8      2406.2 µg/L          2.13      2406.2 ppb           2.13   0.09%
   QC value within limits for Si 251.611  Recovery = 96.25%
Sn 189.927†             7680.7      480.42 µg/L         1.529      480.42 ppb          1.529   0.32%
   QC value within limits for Sn 189.927  Recovery = 96.08%
Sr 421.552†           233955.1      486.34 µg/L         3.940      486.34 ppb          3.940   0.81%
   QC value within limits for Sr 421.552  Recovery = 97.27%
Ti 334.940†           509827.4      475.71 µg/L         0.442      475.71 ppb          0.442   0.09%
   QC value within limits for Ti 334.940  Recovery = 95.14%
Tl 190.801†             3920.8      488.90 µg/L         1.135      488.90 ppb          1.135   0.23%
   QC value within limits for Tl 190.801  Recovery = 97.78%
U 409.014†              7332.9      457.70 µg/L         9.895      457.70 ppb          9.895   2.16%
   QC value within limits for U 409.014  Recovery = 91.54%
V 292.402†             97095.1      479.98 µg/L         0.967      479.98 ppb          0.967   0.20%
   QC value within limits for V 292.402  Recovery = 96.00%
Zn 213.857†            85037.8      473.95 µg/L         1.068      473.95 ppb          1.068   0.23%
   QC value within limits for Zn 213.857  Recovery = 94.79%
All analyte(s) passed QC.
```

Sequence No.: 5
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 6:06:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141464.9	141464.9	96.9	%			06:07:02
1	Al 396.153Radial†	-69.9	-8.9	-1.6257	µg/L	-1.6257	ppb	06:07:22
1	Ca 317.933Radial†	620.8	79.8	4.4479	µg/L	4.4479	ppb	06:07:22
1	Fe 238.204 Radial†	188.4	46.2	2.8471	µg/L	2.8471	ppb	06:07:22
1	K 766.490 Radial†	1672.9	180.9	66.223	µg/L	66.223	ppb	06:07:02
1	Mg 279.077 IEC†	181.5	-3.5	-1.3105	µg/L	-1.3105	ppb	06:07:22
1	Na 589.592 Radial†	2015.0	787.8	107.57	µg/L	107.57	ppb	06:07:02
1	Sr 421.552†	-160.4	-30.2	-0.0629	µg/L	-0.0629	ppb	06:07:02
1	Sc 361.383	1739256.7	1739256.7	101.22	%			06:08:10
1	Y 371.029	1037512.8	1037512.8	101.05	%			06:08:10
1	Ag 328.068†	4217.1	74.7	0.2549	µg/L	0.2549	ppb	06:08:12
1	As 188.979†	-29.9	-9.2	-2.7714	µg/L	-2.7714	ppb	06:08:32
1	B 249.677†	3555.1	6.2	0.0910	µg/L	0.0910	ppb	06:08:12
1	Ba 233.527†	-107.8	29.4	0.1178	µg/L	0.1178	ppb	06:08:32
1	Be 313.107†	-895.9	179.7	0.0448	µg/L	0.0448	ppb	06:08:12
1	Cd 226.502†	-119.8	-0.2	-0.0016	µg/L	-0.0016	ppb	06:08:32
1	Co 228.616†	-192.4	0.3	0.0035	µg/L	0.0035	ppb	06:08:32
1	Cr 267.716†	247.4	65.8	0.5261	µg/L	0.5261	ppb	06:08:32
1	Cu 324.752†	2980.0	-28.3	-0.1208	µg/L	-0.1208	ppb	06:08:12
1	Mn 257.610†	284.9	44.2	0.0548	µg/L	0.0548	ppb	06:08:32
1	Mo 202.031†	-36.1	-15.6	-0.4591	µg/L	-0.4591	ppb	06:08:32
1	Ni 231.604†	-102.1	-24.4	-0.2804	µg/L	-0.2804	ppb	06:08:32
1	P 214.914†	-26.6	-8.3	-1.7798	µg/L	-1.7798	ppb	06:08:32
1	Pb 220.353†	103.2	15.6	0.8803	µg/L	0.8803	ppb	06:08:32
1	S 181.975 Axial†	117.0	10.5	7.8121	µg/L	7.8121	ppb	06:08:32
1	Sb 206.836†	71.9	-9.8	-1.1826	µg/L	-1.1826	ppb	06:08:32
1	Se 196.026†	30.7	15.1	5.45	µg/L	5.45	ppb	06:08:32
1	SiO2†	1811.8	14.5	1.4364	µg/L	1.4364	ppb	06:08:32
1	Si 251.611†	1024.9	175.9	2.6015	µg/L	2.6015	ppb	06:08:12
1	Sn 189.927†	-6.3	-5.1	-0.3193	µg/L	-0.3193	ppb	06:08:32
1	Ti 334.940†	984.3	19.9	0.0242	µg/L	0.0242	ppb	06:08:12
1	Tl 190.801†	-119.7	-1.6	-0.1978	µg/L	-0.1978	ppb	06:08:32
1	U 409.014†	-508.9	-232.9	-13.640	µg/L	-13.640	ppb	06:08:12
1	V 292.402†	323.8	-83.9	-0.4213	µg/L	-0.4213	ppb	06:08:12
1	Zn 213.857†	596.6	24.9	0.1416	µg/L	0.1416	ppb	06:08:32
2	Sc RADIAL	141541.1	141541.1	97.0	%			06:07:24
2	Al 396.153Radial†	-92.5	-32.2	-5.9364	µg/L	-5.9364	ppb	06:07:44
2	Ca 317.933Radial†	647.1	106.6	5.9380	µg/L	5.9380	ppb	06:07:44
2	Fe 238.204 Radial†	166.0	23.1	1.4211	µg/L	1.4211	ppb	06:07:44
2	K 766.490 Radial†	1883.9	397.6	145.54	µg/L	145.54	ppb	06:07:24
2	Mg 279.077 IEC†	188.4	3.5	1.2984	µg/L	1.2984	ppb	06:07:44
2	Na 589.592 Radial†	1902.0	670.2	91.429	µg/L	91.429	ppb	06:07:24
2	Sr 421.552†	-162.1	-31.8	-0.0662	µg/L	-0.0662	ppb	06:07:24
2	Sc 361.383	1753065.4	1753065.4	102.03	%			06:08:34
2	Y 371.029	1044680.5	1044680.5	101.75	%			06:08:34
2	Ag 328.068†	4104.7	-68.3	-0.2518	µg/L	-0.2518	ppb	06:08:36
2	As 188.979†	-5.8	14.7	4.4380	µg/L	4.4380	ppb	06:08:57
2	B 249.677†	3555.2	-21.3	-0.3162	µg/L	-0.3162	ppb	06:08:36
2	Ba 233.527†	-108.8	29.2	0.1173	µg/L	0.1173	ppb	06:08:57
2	Be 313.107†	-992.9	91.6	0.0261	µg/L	0.0261	ppb	06:08:36
2	Cd 226.502†	-129.6	-8.8	-0.0553	µg/L	-0.0553	ppb	06:08:57
2	Co 228.616†	-159.5	34.0	0.4197	µg/L	0.4197	ppb	06:08:57
2	Cr 267.716†	159.1	-22.7	-0.1807	µg/L	-0.1807	ppb	06:08:57
2	Cu 324.752†	2960.7	-70.3	-0.2696	µg/L	-0.2696	ppb	06:08:36
2	Mn 257.610†	249.8	7.6	0.0093	µg/L	0.0093	ppb	06:08:57
2	Mo 202.031†	-38.7	-17.9	-0.5247	µg/L	-0.5247	ppb	06:08:57
2	Ni 231.604†	-95.8	-17.4	-0.2000	µg/L	-0.2000	ppb	06:08:57
2	P 214.914†	-25.9	-7.4	-1.5857	µg/L	-1.5857	ppb	06:08:57
2	Pb 220.353†	91.9	3.7	0.2024	µg/L	0.2024	ppb	06:08:57

2	S 181.975 Axial†	117.0	9.6	7.1513 µg/L	7.1513 ppb	06:08:57
2	Sb 206.836†	80.1	-2.3	-0.2809 µg/L	-0.2809 ppb	06:08:57
2	Se 196.026†	9.0	-6.4	-2.31 µg/L	-2.31 ppb	06:08:57
2	SiO2†	1834.9	23.0	2.2679 µg/L	2.2679 ppb	06:08:57
2	Si 251.611†	1128.6	269.6	3.9822 µg/L	3.9822 ppb	06:08:36
2	Sn 189.927†	-1.4	-0.3	-0.0169 µg/L	-0.0169 ppb	06:08:57
2	Ti 334.940†	1073.2	99.3	0.0913 µg/L	0.0913 ppb	06:08:36
2	Tl 190.801†	-124.6	-5.4	-0.6669 µg/L	-0.6669 ppb	06:08:57
2	U 409.014†	-207.9	66.1	3.8481 µg/L	3.8481 ppb	06:08:36
2	V 292.402†	352.2	-58.6	-0.2898 µg/L	-0.2898 ppb	06:08:36
2	Zn 213.857†	609.0	32.5	0.1836 µg/L	0.1836 ppb	06:08:57
3	Sc RADIAL	144453.8	144453.8	99.0 %		06:07:46
3	Al 396.153Radial†	-42.6	20.2	3.7469 µg/L	3.7469 ppb	06:08:06
3	Ca 317.933Radial†	626.5	72.3	4.0283 µg/L	4.0283 ppb	06:08:06
3	Fe 238.204 Radial†	173.7	27.3	1.6854 µg/L	1.6854 ppb	06:08:06
3	K 766.490 Radial†	1763.8	237.1	86.784 µg/L	86.784 ppb	06:07:46
3	Mg 279.077 IEC†	167.7	-21.3	-7.9299 µg/L	-7.9299 ppb	06:08:06
3	Na 589.592 Radial†	1875.8	604.1	82.457 µg/L	82.457 ppb	06:07:46
3	Sr 421.552†	-228.9	-96.0	-0.1996 µg/L	-0.1996 ppb	06:07:46
3	Sc 361.383	1745062.4	1745062.4	101.56 %		06:08:59
3	Y 371.029	1040171.5	1040171.5	101.31 %		06:08:59
3	Ag 328.068†	4134.6	-20.3	-0.0602 µg/L	-0.0602 ppb	06:09:01
3	As 188.979†	-25.0	-4.3	-1.2996 µg/L	-1.2996 ppb	06:09:21
3	B 249.677†	3548.1	-12.4	-0.1830 µg/L	-0.1830 ppb	06:09:01
3	Ba 233.527†	-155.6	-17.4	-0.0701 µg/L	-0.0701 ppb	06:09:21
3	Be 313.107†	-930.2	148.8	0.0443 µg/L	0.0443 ppb	06:09:01
3	Cd 226.502†	-114.6	5.4	0.0333 µg/L	0.0333 ppb	06:09:21
3	Co 228.616†	-195.2	-1.9	-0.0238 µg/L	-0.0238 ppb	06:09:21
3	Cr 267.716†	183.3	1.9	0.0050 µg/L	0.0050 ppb	06:09:21
3	Cu 324.752†	2946.5	-71.0	-0.2656 µg/L	-0.2656 ppb	06:09:01
3	Mn 257.610†	289.0	47.2	0.0588 µg/L	0.0588 ppb	06:09:21
3	Mo 202.031†	-22.9	-2.5	-0.0730 µg/L	-0.0730 ppb	06:09:21
3	Ni 231.604†	-82.4	-4.6	-0.0527 µg/L	-0.0527 ppb	06:09:21
3	P 214.914†	-14.4	3.8	0.8236 µg/L	0.8236 ppb	06:09:21
3	Pb 220.353†	97.7	9.8	0.5376 µg/L	0.5376 ppb	06:09:21
3	S 181.975 Axial†	113.1	6.3	4.7120 µg/L	4.7120 ppb	06:09:21
3	Sb 206.836†	70.8	-11.2	-1.3260 µg/L	-1.3260 ppb	06:09:21
3	Se 196.026†	8.7	-6.7	-2.39 µg/L	-2.39 ppb	06:09:21
3	SiO2†	1871.0	66.8	6.5242 µg/L	6.5242 ppb	06:09:21
3	Si 251.611†	887.7	37.5	0.5500 µg/L	0.5500 ppb	06:09:01
3	Sn 189.927†	7.2	8.2	0.5133 µg/L	0.5133 ppb	06:09:21
3	Ti 334.940†	729.6	-234.2	-0.2232 µg/L	-0.2232 ppb	06:09:01
3	Tl 190.801†	-130.3	-11.6	-1.4299 µg/L	-1.4299 ppb	06:09:21
3	U 409.014†	-56.7	214.0	12.514 µg/L	12.514 ppb	06:09:01
3	V 292.402†	408.3	-1.8	-0.0011 µg/L	-0.0011 ppb	06:09:01
3	Zn 213.857†	612.1	38.3	0.2153 µg/L	0.2153 ppb	06:09:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1745794.8	101.60	%	0.404				0.40%
Sc RADIAL	142486.6	97.6	%	1.17				1.20%
Y 371.029	1040788.3	101.37	%	0.353				0.35%
Ag 328.068†	-4.6	-0.0190	µg/L	0.25586	-0.0190	ppb	0.25586	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.9	-1.2717	µg/L	4.85131	-1.2717	ppb	4.85131	381.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.4	0.1223	µg/L	3.80923	0.1223	ppb	3.80923	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-9.2	-0.1361	µg/L	0.20761	-0.1361	ppb	0.20761	152.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.7	0.0550	µg/L	0.10831	0.0550	ppb	0.10831	196.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	140.0	0.0384	µg/L	0.01065	0.0384	ppb	0.01065	27.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	86.3	4.8047	µg/L	1.00363	4.8047	ppb	1.00363	20.89%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-1.2	-0.0078	µg/L	0.04462	-0.0078	ppb	0.04462	568.50%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.8	0.1331	µg/L	0.24853	0.1331	ppb	0.24853	186.69%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              15.0      0.1168 µg/L       0.36641      0.1168 ppb        0.36641 313.73%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -56.5     -0.2187 µg/L       0.08480     -0.2187 ppb        0.08480  38.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       32.2      1.9846 µg/L       0.75860      1.9846 ppb        0.75860  38.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       271.9      99.516 µg/L       41.1633      99.516 ppb        41.1633  41.36%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -7.1     -2.6474 µg/L       4.75720     -2.6474 ppb        4.75720 179.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              33.0      0.0409 µg/L       0.02746      0.0409 ppb        0.02746  67.07%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -12.0     -0.3523 µg/L       0.24406     -0.3523 ppb        0.24406  69.28%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      687.4      93.818 µg/L       12.7246      93.818 ppb        12.7246  13.56%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -15.4     -0.1777 µg/L       0.11551     -0.1777 ppb        0.11551  65.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.0     -0.8473 µg/L       1.45028     -0.8473 ppb        1.45028 171.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               9.7      0.5401 µg/L       0.33897      0.5401 ppb        0.33897  62.76%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          8.8      6.5585 µg/L       1.63285      6.5585 ppb        1.63285  24.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -7.8     -0.9298 µg/L       0.56654     -0.9298 ppb        0.56654  60.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.7       0.246 µg/L        4.5033       0.246 ppb         4.5033 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    34.8      3.4095 µg/L       2.72927      3.4095 ppb        2.72927  80.05%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             161.0      2.3779 µg/L       1.72699      2.3779 ppb        1.72699  72.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.9      0.0591 µg/L       0.42147      0.0591 ppb        0.42147 713.75%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -52.7     -0.1095 µg/L       0.07802     -0.1095 ppb        0.07802  71.22%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -38.3     -0.0359 µg/L       0.16561     -0.0359 ppb        0.16561 461.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -6.2     -0.7649 µg/L       0.62189     -0.7649 ppb        0.62189  81.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               15.8      0.9074 µg/L      13.32231      0.9074 ppb       13.32231 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -48.1     -0.2374 µg/L       0.21493     -0.2374 ppb        0.21493  90.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              31.9      0.1802 µg/L       0.03700      0.1802 ppb        0.03700  20.54%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/1/2010 6:27:43 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/1/2010 6:27:45**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142254.8	142254.8	97.5	%			06:28:17
1	Al 396.153Radial†	25351.8	26070.0	4811.6	µg/L	4811.6	ppb	06:28:17
1	Ca 317.933Radial†	82833.4	84412.8	4702.1	µg/L	4702.1	ppb	06:28:17
1	Fe 238.204 Radial†	74224.8	75994.2	4683.8	µg/L	4683.8	ppb	06:28:17
1	K 766.490 Radial†	14203.4	13025.6	4765.0	µg/L	4765.0	ppb	06:28:17
1	Mg 279.077 IEC†	12729.5	12867.6	4801.7	µg/L	4801.7	ppb	06:28:17
1	Na 589.592 Radial†	69060.0	69553.3	9497.6	µg/L	9497.6	ppb	06:28:17
1	Sr 421.552†	223018.1	228914.8	475.86	µg/L	475.86	ppb	06:28:15
1	Sc 361.383	1709225.5	1709225.5	99.477	%			06:28:30
1	Y 371.029	1008536.9	1008536.9	98.232	%			06:28:30
1	Ag 328.068†	127499.0	124078.4	465.29	µg/L	465.29	ppb	06:28:30
1	As 188.979†	1559.7	1588.3	487.09	µg/L	487.09	ppb	06:28:50
1	B 249.677†	34379.1	31054.0	456.37	µg/L	456.37	ppb	06:28:30
1	Ba 233.527†	114708.8	115448.1	465.60	µg/L	465.60	ppb	06:28:30
1	Be 313.107†	1722557.3	1732684.2	471.91	µg/L	471.91	ppb	06:28:30
1	Cd 226.502†	73453.0	73957.6	461.67	µg/L	461.67	ppb	06:28:30
1	Co 228.616†	37435.6	37822.8	466.92	µg/L	466.92	ppb	06:28:30
1	Cr 267.716†	58912.5	59043.9	462.30	µg/L	462.30	ppb	06:28:30
1	Cu 324.752†	121839.3	119508.1	465.88	µg/L	465.88	ppb	06:28:30
1	Mn 257.610†	376566.3	378310.1	467.88	µg/L	467.88	ppb	06:28:30
1	Mo 202.031†	15809.6	15912.8	468.09	µg/L	468.09	ppb	06:28:50
1	Ni 231.604†	40079.7	40367.1	464.80	µg/L	464.80	ppb	06:28:30
1	P 214.914†	10882.7	10957.9	2335.7	µg/L	2335.7	ppb	06:28:50
1	Pb 220.353†	8419.0	8376.9	469.10	µg/L	469.10	ppb	06:28:50
1	S 181.975 Axial†	1354.7	1256.8	937.21	µg/L	937.21	ppb	06:28:50
1	Sb 206.836†	3976.4	3916.5	466.71	µg/L	466.71	ppb	06:28:50
1	Se 196.026†	1296.0	1287.5	468	µg/L	468	ppb	06:28:50
1	SiO2†	51445.1	49940.4	4861.2	µg/L	4861.2	ppb	06:28:30
1	Si 251.611†	155651.5	155633.8	2285.2	µg/L	2285.2	ppb	06:28:30
1	Sn 189.927†	7454.8	7495.1	468.81	µg/L	468.81	ppb	06:28:50
1	Ti 334.940†	496730.0	498390.7	465.03	µg/L	465.03	ppb	06:28:30
1	Tl 190.801†	3688.4	3824.5	476.91	µg/L	476.91	ppb	06:28:50
1	U 409.014†	7196.3	7504.0	467.06	µg/L	467.06	ppb	06:28:30
1	V 292.402†	94845.1	94940.3	469.34	µg/L	469.34	ppb	06:28:30
1	Zn 213.857†	82623.8	82494.0	459.76	µg/L	459.76	ppb	06:28:30
2	Sc RADIAL	142096.3	142096.3	97.4	%			06:28:21
2	Al 396.153Radial†	25425.8	26174.9	4831.2	µg/L	4831.2	ppb	06:28:21
2	Ca 317.933Radial†	82979.4	84657.4	4715.8	µg/L	4715.8	ppb	06:28:21
2	Fe 238.204 Radial†	74308.8	76165.4	4694.4	µg/L	4694.4	ppb	06:28:21
2	K 766.490 Radial†	14267.2	13107.3	4794.9	µg/L	4794.9	ppb	06:28:21
2	Mg 279.077 IEC†	12650.1	12800.7	4776.7	µg/L	4776.7	ppb	06:28:21
2	Na 589.592 Radial†	68986.7	69557.0	9498.1	µg/L	9498.1	ppb	06:28:21
2	Sr 421.552†	223055.3	229208.2	476.47	µg/L	476.47	ppb	06:28:19
2	Sc 361.383	1720198.8	1720198.8	100.12	%			06:28:53
2	Y 371.029	1013824.9	1013824.9	98.747	%			06:28:53
2	Ag 328.068†	128161.3	123922.3	464.69	µg/L	464.69	ppb	06:28:53
2	As 188.979†	1572.8	1591.3	488.02	µg/L	488.02	ppb	06:29:13

2	B 249.677†	34759.1	31213.1	458.71 µg/L	458.71 ppb	06:28:53
2	Ba 233.527†	115738.2	115740.7	466.78 µg/L	466.78 ppb	06:28:53
2	Be 313.107†	1738612.5	1737674.9	473.26 µg/L	473.26 ppb	06:28:53
2	Cd 226.502†	74240.3	74273.0	463.64 µg/L	463.64 ppb	06:28:53
2	Co 228.616†	37829.3	37976.1	468.81 µg/L	468.81 ppb	06:28:53
2	Cr 267.716†	59360.9	59114.0	462.86 µg/L	462.86 ppb	06:28:53
2	Cu 324.752†	123058.6	119944.7	467.56 µg/L	467.56 ppb	06:28:53
2	Mn 257.610†	379406.8	378732.6	468.40 µg/L	468.40 ppb	06:28:53
2	Mo 202.031†	15799.9	15801.8	464.82 µg/L	464.82 ppb	06:29:13
2	Ni 231.604†	40270.8	40300.9	464.04 µg/L	464.04 ppb	06:28:53
2	P 214.914†	10903.0	10908.4	2325.1 µg/L	2325.1 ppb	06:29:13
2	Pb 220.353†	8483.6	8387.5	469.70 µg/L	469.70 ppb	06:29:13
2	S 181.975 Axial†	1349.2	1242.6	926.62 µg/L	926.62 ppb	06:29:13
2	Sb 206.836†	3983.6	3898.2	464.48 µg/L	464.48 ppb	06:29:13
2	Se 196.026†	1289.4	1272.6	462 µg/L	462 ppb	06:29:13
2	SiO2†	52137.7	50302.3	4896.7 µg/L	4896.7 ppb	06:28:53
2	Si 251.611†	157050.5	156033.0	2291.1 µg/L	2291.1 ppb	06:28:53
2	Sn 189.927†	7489.7	7482.2	468.01 µg/L	468.01 ppb	06:29:13
2	Ti 334.940†	500704.0	499174.8	465.77 µg/L	465.77 ppb	06:28:53
2	Tl 190.801†	3707.3	3819.7	476.32 µg/L	476.32 ppb	06:29:13
2	U 409.014†	6877.2	7139.1	445.73 µg/L	445.73 ppb	06:28:53
2	V 292.402†	95466.4	94952.6	469.36 µg/L	469.36 ppb	06:28:53
2	Zn 213.857†	83420.7	82760.2	461.25 µg/L	461.25 ppb	06:28:53
3	Sc RADIAL	142990.0	142990.0	98.0 %		06:28:25
3	Al 396.153Radial†	25399.8	25985.2	4795.9 µg/L	4795.9 ppb	06:28:25
3	Ca 317.933Radial†	83117.4	84265.6	4693.9 µg/L	4693.9 ppb	06:28:25
3	Fe 238.204 Radial†	74586.1	75971.4	4682.4 µg/L	4682.4 ppb	06:28:25
3	K 766.490 Radial†	14192.8	12939.8	4733.6 µg/L	4733.6 ppb	06:28:25
3	Mg 279.077 IEC†	12667.0	12736.8	4753.0 µg/L	4753.0 ppb	06:28:25
3	Na 589.592 Radial†	69339.7	69474.5	9486.8 µg/L	9486.8 ppb	06:28:25
3	Sr 421.552†	223827.0	228564.0	475.13 µg/L	475.13 ppb	06:28:23
3	Sc 361.383	1705034.2	1705034.2	99.233 %		06:29:16
3	Y 371.029	1005547.4	1005547.4	97.941 %		06:29:16
3	Ag 328.068†	127662.0	124557.7	467.06 µg/L	467.06 ppb	06:29:16
3	As 188.979†	1560.2	1592.6	488.42 µg/L	488.42 ppb	06:29:36
3	B 249.677†	34496.6	31257.5	459.37 µg/L	459.37 ppb	06:29:16
3	Ba 233.527†	115151.6	116177.8	468.54 µg/L	468.54 ppb	06:29:16
3	Be 313.107†	1725198.8	1739602.9	473.79 µg/L	473.79 ppb	06:29:16
3	Cd 226.502†	73700.4	74388.4	464.37 µg/L	464.37 ppb	06:29:16
3	Co 228.616†	37478.0	37958.1	468.59 µg/L	468.59 ppb	06:29:16
3	Cr 267.716†	59005.2	59282.8	464.19 µg/L	464.19 ppb	06:29:16
3	Cu 324.752†	122158.9	120131.2	468.28 µg/L	468.28 ppb	06:29:16
3	Mn 257.610†	377644.3	380327.0	470.38 µg/L	470.38 ppb	06:29:16
3	Mo 202.031†	15792.1	15934.3	468.72 µg/L	468.72 ppb	06:29:36
3	Ni 231.604†	40233.2	40620.8	467.72 µg/L	467.72 ppb	06:29:16
3	P 214.914†	10905.3	11007.5	2346.3 µg/L	2346.3 ppb	06:29:36
3	Pb 220.353†	8444.2	8423.1	471.70 µg/L	471.70 ppb	06:29:36
3	S 181.975 Axial†	1340.7	1246.0	929.22 µg/L	929.22 ppb	06:29:36
3	Sb 206.836†	3978.4	3928.4	468.11 µg/L	468.11 ppb	06:29:36
3	Se 196.026†	1276.1	1270.7	461 µg/L	461 ppb	06:29:36
3	SiO2†	51678.2	50302.4	4896.5 µg/L	4896.5 ppb	06:29:16
3	Si 251.611†	156314.3	156686.4	2300.7 µg/L	2300.7 ppb	06:29:16
3	Sn 189.927†	7464.4	7523.3	470.57 µg/L	470.57 ppb	06:29:36
3	Ti 334.940†	497732.0	500628.0	467.13 µg/L	467.13 ppb	06:29:16
3	Tl 190.801†	3700.1	3845.4	479.51 µg/L	479.51 ppb	06:29:36
3	U 409.014†	6783.9	7106.3	443.92 µg/L	443.92 ppb	06:29:16
3	V 292.402†	94974.4	95304.9	471.12 µg/L	471.12 ppb	06:29:16
3	Zn 213.857†	82842.8	82918.9	462.12 µg/L	462.12 ppb	06:29:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1711486.1	99.608	%	0.4558				0.46%
Sc RADIAL	142447.0	97.6	%	0.33				0.33%
Y 371.029	1009303.1	98.307	%	0.4083				0.42%
Ag 328.068†	124186.1	465.68	µg/L	1.232	465.68	ppb	1.232	0.26%
QC value within limits for Ag 328.068 Recovery = 93.14%								
Al 396.153Radial†	26076.7	4812.9	µg/L	17.71	4812.9	ppb	17.71	0.37%
QC value within limits for Al 396.153Radial Recovery = 96.26%								
As 188.979†	1590.7	487.84	µg/L	0.680	487.84	ppb	0.680	0.14%

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   QC value within limits for As 188.979  Recovery = 97.57%
B 249.677†            31174.9      458.15 µg/L         1.574      458.15 ppb          1.574   0.34%
   QC value within limits for B 249.677  Recovery = 91.63%
Ba 233.527†          115788.9      466.97 µg/L         1.481      466.97 ppb          1.481   0.32%
   QC value within limits for Ba 233.527  Recovery = 93.39%
Be 313.107†         1736654.0      472.99 µg/L         0.968      472.99 ppb          0.968   0.20%
   QC value within limits for Be 313.107  Recovery = 94.60%
Ca 317.933Radial†     84445.3      4703.9 µg/L         11.02      4703.9 ppb          11.02   0.23%
   QC value within limits for Ca 317.933Radial  Recovery = 94.08%
Cd 226.502†           74206.4      463.23 µg/L         1.393      463.23 ppb          1.393   0.30%
   QC value within limits for Cd 226.502  Recovery = 92.65%
Co 228.616†           37919.0      468.11 µg/L         1.035      468.11 ppb          1.035   0.22%
   QC value within limits for Co 228.616  Recovery = 93.62%
Cr 267.716†           59146.9      463.12 µg/L         0.970      463.12 ppb          0.970   0.21%
   QC value within limits for Cr 267.716  Recovery = 92.62%
Cu 324.752†          119861.3      467.24 µg/L         1.232      467.24 ppb          1.232   0.26%
   QC value within limits for Cu 324.752  Recovery = 93.45%
Fe 238.204 Radial†    76043.7      4686.9 µg/L          6.54      4686.9 ppb           6.54   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.74%
K 766.490 Radial†     13024.2      4764.5 µg/L         30.66      4764.5 ppb          30.66   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 95.29%
Mg 279.077 IEC†       12801.7      4777.1 µg/L         24.37      4777.1 ppb          24.37   0.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.54%
Mn 257.610†          379123.2      468.89 µg/L         1.317      468.89 ppb          1.317   0.28%
   QC value within limits for Mn 257.610  Recovery = 93.78%
Mo 202.031†           15882.9      467.21 µg/L         2.090      467.21 ppb          2.090   0.45%
   QC value within limits for Mo 202.031  Recovery = 93.44%
Na 589.592 Radial†    69528.3      9494.2 µg/L          6.34      9494.2 ppb           6.34   0.07%
   QC value within limits for Na 589.592 Radial  Recovery = 94.94%
Ni 231.604†           40429.6      465.52 µg/L         1.944      465.52 ppb          1.944   0.42%
   QC value within limits for Ni 231.604  Recovery = 93.10%
P 214.914†            10957.9      2335.7 µg/L         10.59      2335.7 ppb          10.59   0.45%
   QC value within limits for P 214.914  Recovery = 93.43%
Pb 220.353†            8395.9      470.17 µg/L         1.361      470.17 ppb          1.361   0.29%
   QC value within limits for Pb 220.353  Recovery = 94.03%
S 181.975 Axial†       1248.5      931.02 µg/L         5.521      931.02 ppb          5.521   0.59%
   QC value within limits for S 181.975 Axial  Recovery = 93.10%
Sb 206.836†            3914.3      466.43 µg/L         1.834      466.43 ppb          1.834   0.39%
   QC value within limits for Sb 206.836  Recovery = 93.29%
Se 196.026†            1277.0         464 µg/L           3.3         464 ppb            3.3   0.72%
   QC value within limits for Se 196.026  Recovery = 92.74%
SiO2†                 50181.7      4884.8 µg/L         20.44      4884.8 ppb          20.44   0.42%
   QC value within limits for SiO2  Recovery = 91.35%
Si 251.611†          156117.7      2292.3 µg/L          7.82      2292.3 ppb           7.82   0.34%
   QC value within limits for Si 251.611  Recovery = 91.69%
Sn 189.927†            7500.2      469.13 µg/L         1.312      469.13 ppb          1.312   0.28%
   QC value within limits for Sn 189.927  Recovery = 93.83%
Sr 421.552†          228895.7      475.82 µg/L         0.670      475.82 ppb          0.670   0.14%
   QC value within limits for Sr 421.552  Recovery = 95.16%
Ti 334.940†          499397.8      465.98 µg/L         1.066      465.98 ppb          1.066   0.23%
   QC value within limits for Ti 334.940  Recovery = 93.20%
Tl 190.801†            3829.9      477.58 µg/L         1.698      477.58 ppb          1.698   0.36%
   QC value within limits for Tl 190.801  Recovery = 95.52%
U 409.014†             7249.8      452.24 µg/L        12.870      452.24 ppb         12.870   2.85%
   QC value within limits for U 409.014  Recovery = 90.45%
V 292.402†            95066.0      469.94 µg/L         1.022      469.94 ppb          1.022   0.22%
   QC value within limits for V 292.402  Recovery = 93.99%
Zn 213.857†           82724.4      461.04 µg/L         1.197      461.04 ppb          1.197   0.26%
   QC value within limits for Zn 213.857  Recovery = 92.21%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 6:29:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142437.0	142437.0	97.6	%			06:30:13
1	Al 396.153Radial†	-264.5	-207.8	-38.519	µg/L	-38.519	ppb	06:30:13
1	Ca 317.933Radial†	646.6	101.9	5.6752	µg/L	5.6752	ppb	06:30:33
1	Fe 238.204 Radial†	170.0	26.1	1.6062	µg/L	1.6062	ppb	06:30:33
1	K 766.490 Radial†	1709.6	206.7	75.676	µg/L	75.676	ppb	06:30:13
1	Mg 279.077 IEC†	178.7	-7.7	-2.8591	µg/L	-2.8591	ppb	06:30:33
1	Na 589.592 Radial†	1934.1	690.7	94.296	µg/L	94.296	ppb	06:30:13
1	Sr 421.552†	-70.7	62.8	0.1305	µg/L	0.1305	ppb	06:30:13
1	Sc 361.383	1727133.1	1727133.1	100.52	%			06:31:21
1	Y 371.029	1029243.1	1029243.1	100.25	%			06:31:21
1	Ag 328.068†	4082.8	-29.6	-0.1055	µg/L	-0.1055	ppb	06:31:23
1	As 188.979†	-17.7	2.7	0.8318	µg/L	0.8318	ppb	06:31:43
1	B 249.677†	3469.9	-53.9	-0.7957	µg/L	-0.7957	ppb	06:31:23
1	Ba 233.527†	-140.5	-3.9	-0.0161	µg/L	-0.0161	ppb	06:31:43
1	Be 313.107†	-798.9	270.0	0.0757	µg/L	0.0757	ppb	06:31:23
1	Cd 226.502†	-112.3	6.5	0.0401	µg/L	0.0401	ppb	06:31:43
1	Co 228.616†	-180.6	10.7	0.1314	µg/L	0.1314	ppb	06:31:43
1	Cr 267.716†	197.5	17.9	0.1345	µg/L	0.1345	ppb	06:31:43
1	Cu 324.752†	3041.8	53.9	0.2156	µg/L	0.2156	ppb	06:31:23
1	Mn 257.610†	261.0	22.4	0.0278	µg/L	0.0278	ppb	06:31:43
1	Mo 202.031†	-23.5	-3.3	-0.0969	µg/L	-0.0969	ppb	06:31:43
1	Ni 231.604†	-113.3	-36.2	-0.4169	µg/L	-0.4169	ppb	06:31:43
1	P 214.914†	-25.7	-7.6	-1.6214	µg/L	-1.6214	ppb	06:31:43
1	Pb 220.353†	75.0	-11.7	-0.6633	µg/L	-0.6633	ppb	06:31:43
1	S 181.975 Axial†	112.8	7.2	5.3207	µg/L	5.3207	ppb	06:31:43
1	Sb 206.836†	71.6	-9.6	-1.1441	µg/L	-1.1441	ppb	06:31:43
1	Se 196.026†	22.4	7.0	2.55	µg/L	2.55	ppb	06:31:43
1	SiO2†	1753.3	-31.1	-3.0512	µg/L	-3.0512	ppb	06:31:43
1	Si 251.611†	758.7	-81.8	-1.2113	µg/L	-1.2113	ppb	06:31:23
1	Sn 189.927†	14.5	15.5	0.9660	µg/L	0.9660	ppb	06:31:43
1	Ti 334.940†	832.4	-124.4	-0.1189	µg/L	-0.1189	ppb	06:31:23
1	Tl 190.801†	-134.3	-16.9	-2.0804	µg/L	-2.0804	ppb	06:31:43
1	U 409.014†	-144.5	126.1	7.3508	µg/L	7.3508	ppb	06:31:23
1	V 292.402†	324.9	-80.6	-0.3886	µg/L	-0.3886	ppb	06:31:23
1	Zn 213.857†	590.9	23.5	0.1334	µg/L	0.1334	ppb	06:31:43
2	Sc RADIAL	142082.4	142082.4	97.4	%			06:30:35
2	Al 396.153Radial†	-251.5	-195.1	-36.147	µg/L	-36.147	ppb	06:30:35
2	Ca 317.933Radial†	615.4	71.5	3.9821	µg/L	3.9821	ppb	06:30:55
2	Fe 238.204 Radial†	161.6	17.9	1.1031	µg/L	1.1031	ppb	06:30:55
2	K 766.490 Radial†	1860.0	365.6	133.83	µg/L	133.83	ppb	06:30:35
2	Mg 279.077 IEC†	190.9	5.4	2.0027	µg/L	2.0027	ppb	06:30:55
2	Na 589.592 Radial†	2043.7	808.3	110.30	µg/L	110.30	ppb	06:30:35
2	Sr 421.552†	-138.2	-6.7	-0.0139	µg/L	-0.0139	ppb	06:30:35
2	Sc 361.383	1744201.5	1744201.5	101.51	%			06:31:46
2	Y 371.029	1039175.9	1039175.9	101.22	%			06:31:46
2	Ag 328.068†	4330.8	174.9	0.6455	µg/L	0.6455	ppb	06:31:48
2	As 188.979†	-1.2	19.1	5.7890	µg/L	5.7890	ppb	06:32:08
2	B 249.677†	3476.4	-81.3	-1.1995	µg/L	-1.1995	ppb	06:31:48
2	Ba 233.527†	-110.4	27.1	0.1090	µg/L	0.1090	ppb	06:32:08
2	Be 313.107†	-822.7	254.2	0.0692	µg/L	0.0692	ppb	06:31:48
2	Cd 226.502†	-100.5	19.2	0.1197	µg/L	0.1197	ppb	06:32:08
2	Co 228.616†	-173.6	19.3	0.2384	µg/L	0.2384	ppb	06:32:08
2	Cr 267.716†	196.6	15.1	0.1180	µg/L	0.1180	ppb	06:32:08
2	Cu 324.752†	2788.4	-225.4	-0.8755	µg/L	-0.8755	ppb	06:31:48
2	Mn 257.610†	300.8	59.0	0.0729	µg/L	0.0729	ppb	06:32:08
2	Mo 202.031†	-33.8	-13.2	-0.3873	µg/L	-0.3873	ppb	06:32:08
2	Ni 231.604†	-73.8	3.8	0.0442	µg/L	0.0442	ppb	06:32:08
2	P 214.914†	-28.1	-9.7	-2.0766	µg/L	-2.0766	ppb	06:32:08
2	Pb 220.353†	86.9	-0.8	-0.0481	µg/L	-0.0481	ppb	06:32:08

2	S 181.975 Axial†	99.7	-6.8	-5.0788 µg/L	-5.0788 ppb	06:32:08
2	Sb 206.836†	68.8	-13.0	-1.5530 µg/L	-1.5530 ppb	06:32:08
2	Se 196.026†	19.9	4.3	1.57 µg/L	1.57 ppb	06:32:08
2	SiO2†	1780.5	-21.4	-2.0759 µg/L	-2.0759 ppb	06:32:08
2	Si 251.611†	990.9	139.5	2.0624 µg/L	2.0624 ppb	06:31:48
2	Sn 189.927†	-1.2	-0.1	-0.0044 µg/L	-0.0044 ppb	06:32:08
2	Ti 334.940†	899.3	-66.7	-0.0624 µg/L	-0.0624 ppb	06:31:48
2	Tl 190.801†	-123.0	-4.5	-0.5578 µg/L	-0.5578 ppb	06:32:08
2	U 409.014†	-273.1	0.9	0.0412 µg/L	0.0412 ppb	06:31:48
2	V 292.402†	373.6	-35.8	-0.1780 µg/L	-0.1780 ppb	06:31:48
2	Zn 213.857†	599.5	26.2	0.1467 µg/L	0.1467 ppb	06:32:08
3	Sc RADIAL	142957.2	142957.2	98.0 %		06:30:57
3	Al 396.153Radial†	-270.8	-213.2	-39.533 µg/L	-39.533 ppb	06:30:57
3	Ca 317.933Radial†	645.8	98.6	5.4929 µg/L	5.4929 ppb	06:31:18
3	Fe 238.204 Radial†	151.9	6.9	0.4263 µg/L	0.4263 ppb	06:31:18
3	K 766.490 Radial†	1751.1	242.7	88.850 µg/L	88.850 ppb	06:30:57
3	Mg 279.077 IEC†	199.0	12.4	4.6386 µg/L	4.6386 ppb	06:31:18
3	Na 589.592 Radial†	1725.5	470.6	64.209 µg/L	64.209 ppb	06:30:57
3	Sr 421.552†	-148.0	-15.8	-0.0329 µg/L	-0.0329 ppb	06:30:57
3	Sc 361.383	1746609.7	1746609.7	101.65 %		06:32:10
3	Y 371.029	1040286.8	1040286.8	101.32 %		06:32:10
3	Ag 328.068†	3940.8	-214.7	-0.7963 µg/L	-0.7963 ppb	06:32:12
3	As 188.979†	-11.6	9.0	2.7184 µg/L	2.7184 ppb	06:32:32
3	B 249.677†	3585.2	21.1	0.3100 µg/L	0.3100 ppb	06:32:12
3	Ba 233.527†	-118.6	19.2	0.0770 µg/L	0.0770 ppb	06:32:32
3	Be 313.107†	-993.1	87.8	0.0252 µg/L	0.0252 ppb	06:32:12
3	Cd 226.502†	-88.0	31.6	0.1970 µg/L	0.1970 ppb	06:32:32
3	Co 228.616†	-178.2	15.0	0.1849 µg/L	0.1849 ppb	06:32:32
3	Cr 267.716†	188.9	7.3	0.0532 µg/L	0.0532 ppb	06:32:32
3	Cu 324.752†	3035.3	13.7	0.0571 µg/L	0.0571 ppb	06:32:12
3	Mn 257.610†	265.0	23.4	0.0287 µg/L	0.0287 ppb	06:32:32
3	Mo 202.031†	-15.5	4.8	0.1409 µg/L	0.1409 ppb	06:32:32
3	Ni 231.604†	-130.8	-52.2	-0.6005 µg/L	-0.6005 ppb	06:32:32
3	P 214.914†	-23.0	-4.6	-0.9969 µg/L	-0.9969 ppb	06:32:32
3	Pb 220.353†	60.4	-26.9	-1.5089 µg/L	-1.5089 ppb	06:32:32
3	S 181.975 Axial†	111.8	4.9	3.6683 µg/L	3.6683 ppb	06:32:32
3	Sb 206.836†	67.9	-14.1	-1.6687 µg/L	-1.6687 ppb	06:32:32
3	Se 196.026†	16.3	0.7	0.275 µg/L	0.275 ppb	06:32:32
3	SiO2†	1774.8	-29.4	-2.8940 µg/L	-2.8940 ppb	06:32:32
3	Si 251.611†	970.8	118.5	1.7392 µg/L	1.7392 ppb	06:32:12
3	Sn 189.927†	12.6	13.5	0.8437 µg/L	0.8437 ppb	06:32:32
3	Ti 334.940†	940.4	-27.4	-0.0276 µg/L	-0.0276 ppb	06:32:12
3	Tl 190.801†	-115.7	2.9	0.3509 µg/L	0.3509 ppb	06:32:32
3	U 409.014†	-199.4	73.7	4.2787 µg/L	4.2787 ppb	06:32:12
3	V 292.402†	297.6	-111.1	-0.5373 µg/L	-0.5373 ppb	06:32:12
3	Zn 213.857†	584.0	10.1	0.0598 µg/L	0.0598 ppb	06:32:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1739314.8	101.23	%	0.618				0.61%
Sc RADIAL	142492.2	97.6	%	0.30				0.31%
Y 371.029	1036235.3	100.93	%	0.592				0.59%
Ag 328.068†	-23.1	-0.0854	µg/L	0.72113	-0.0854	ppb	0.72113	844.11%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-205.4	-38.066	µg/L	1.7374	-38.066	ppb	1.7374	4.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	10.3	3.1131	µg/L	2.50205	3.1131	ppb	2.50205	80.37%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-38.0	-0.5618	µg/L	0.78148	-0.5618	ppb	0.78148	139.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	14.1	0.0567	µg/L	0.06498	0.0567	ppb	0.06498	114.71%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	204.0	0.0567	µg/L	0.02749	0.0567	ppb	0.02749	48.47%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	90.7	5.0501	µg/L	0.92933	5.0501	ppb	0.92933	18.40%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.1	0.1190	µg/L	0.07846	0.1190	ppb	0.07846	65.95%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	15.0	0.1849	µg/L	0.05350	0.1849	ppb	0.05350	28.93%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              13.4      0.1019 µg/L       0.04297      0.1019 ppb        0.04297  42.19%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -52.6     -0.2009 µg/L       0.58952     -0.2009 ppb        0.58952 293.42%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       17.0      1.0452 µg/L       0.59209      1.0452 ppb        0.59209  56.65%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       271.7      99.450 µg/L       30.4895      99.450 ppb        30.4895  30.66%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.4      1.2607 µg/L       3.80350      1.2607 ppb        3.80350 301.69%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              34.9      0.0432 µg/L       0.02579      0.0432 ppb        0.02579  59.72%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -3.9     -0.1145 µg/L       0.26452     -0.1145 ppb        0.26452 231.11%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      656.5      89.602 µg/L       23.4021      89.602 ppb        23.4021  26.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -28.2     -0.3244 µg/L       0.33218     -0.3244 ppb        0.33218 102.39%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -7.3     -1.5650 µg/L       0.54207     -1.5650 ppb        0.54207  34.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -13.2     -0.7401 µg/L       0.73343     -0.7401 ppb        0.73343  99.10%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.8      1.3034 µg/L       5.58858      1.3034 ppb        5.58858 428.77%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -12.2     -1.4553 µg/L       0.27561     -1.4553 ppb        0.27561  18.94%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               4.0       1.46 µg/L         1.139        1.46 ppb          1.139  77.90%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -27.3     -2.6737 µg/L       0.52363     -2.6737 ppb        0.52363  19.58%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              58.7      0.8634 µg/L       1.80402      0.8634 ppb        1.80402 208.94%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.7      0.6018 µg/L       0.52852      0.6018 ppb        0.52852  87.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              13.4      0.0279 µg/L       0.08939      0.0279 ppb        0.08939 320.26%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -72.8     -0.0696 µg/L       0.04609     -0.0696 ppb        0.04609  66.18%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -6.2     -0.7624 µg/L       1.22852     -0.7624 ppb        1.22852 161.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               66.9      3.8902 µg/L       3.67023      3.8902 ppb        3.67023  94.34%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -75.8     -0.3679 µg/L       0.18055     -0.3679 ppb        0.18055  49.07%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              19.9      0.1133 µg/L       0.04681      0.1133 ppb        0.04681  41.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 6:50:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143844.4	143844.4	98.6	%			06:50:47
1	Al 396.153Radial†	25788.9	26226.0	4840.9	µg/L	4840.9	ppb	06:50:47
1	Ca 317.933Radial†	84255.8	84916.7	4730.2	µg/L	4730.2	ppb	06:50:47
1	Fe 238.204 Radial†	75761.9	76712.2	4728.1	µg/L	4728.1	ppb	06:50:47
1	K 766.490 Radial†	14566.5	13232.9	4840.9	µg/L	4840.9	ppb	06:50:47
1	Mg 279.077 IEC†	12924.3	12920.9	4821.4	µg/L	4821.4	ppb	06:50:47
1	Na 589.592 Radial†	70314.2	70042.8	9564.4	µg/L	9564.4	ppb	06:50:47
1	Sr 421.552†	225416.9	228820.2	475.67	µg/L	475.67	ppb	06:50:44
1	Sc 361.383	1738802.7	1738802.7	101.20	%			06:50:59
1	Y 371.029	1024681.2	1024681.2	99.804	%			06:50:59
1	Ag 328.068†	129631.3	124005.2	465.02	µg/L	465.02	ppb	06:50:59
1	As 188.979†	1581.0	1582.6	485.39	µg/L	485.39	ppb	06:51:19
1	B 249.677†	35075.1	31154.0	457.84	µg/L	457.84	ppb	06:50:59
1	Ba 233.527†	117058.2	115808.2	467.05	µg/L	467.05	ppb	06:50:59
1	Be 313.107†	1762033.6	1742238.2	474.51	µg/L	474.51	ppb	06:50:59
1	Cd 226.502†	75208.7	74436.5	464.66	µg/L	464.66	ppb	06:50:59
1	Co 228.616†	38308.7	38045.5	469.67	µg/L	469.67	ppb	06:50:59
1	Cr 267.716†	60115.1	59224.8	463.73	µg/L	463.73	ppb	06:50:59
1	Cu 324.752†	124300.0	119856.3	467.23	µg/L	467.23	ppb	06:50:59
1	Mn 257.610†	385186.9	380389.5	470.45	µg/L	470.45	ppb	06:50:59
1	Mo 202.031†	15845.4	15677.9	461.18	µg/L	461.18	ppb	06:51:19
1	Ni 231.604†	40875.3	40467.9	465.96	µg/L	465.96	ppb	06:50:59
1	P 214.914†	10897.9	10786.9	2299.1	µg/L	2299.1	ppb	06:51:19
1	Pb 220.353†	8501.2	8314.1	465.59	µg/L	465.59	ppb	06:51:19
1	S 181.975 Axial†	1349.3	1228.3	916.01	µg/L	916.01	ppb	06:51:19
1	Sb 206.836†	3999.9	3871.7	461.25	µg/L	461.25	ppb	06:51:19
1	Se 196.026†	1285.5	1255.0	456	µg/L	456	ppb	06:51:19
1	SiO2†	52927.4	50525.5	4918.7	µg/L	4918.7	ppb	06:50:59
1	Si 251.611†	159817.6	157089.0	2306.8	µg/L	2306.8	ppb	06:50:59
1	Sn 189.927†	7465.8	7378.6	461.55	µg/L	461.55	ppb	06:51:19
1	Ti 334.940†	507519.3	500558.4	467.06	µg/L	467.06	ppb	06:50:59
1	Tl 190.801†	3702.1	3775.0	470.84	µg/L	470.84	ppb	06:51:19
1	U 409.014†	7100.0	7285.8	454.39	µg/L	454.39	ppb	06:50:59
1	V 292.402†	96772.7	95223.2	470.64	µg/L	470.64	ppb	06:50:59
1	Zn 213.857†	84427.7	82863.8	461.82	µg/L	461.82	ppb	06:50:59
2	Sc RADIAL	142781.7	142781.7	97.8	%			06:50:51
2	Al 396.153Radial†	25806.6	26438.8	4880.2	µg/L	4880.2	ppb	06:50:51
2	Ca 317.933Radial†	83572.5	84854.5	4726.7	µg/L	4726.7	ppb	06:50:51
2	Fe 238.204 Radial†	75153.5	76662.4	4725.0	µg/L	4725.0	ppb	06:50:51
2	K 766.490 Radial†	14406.6	13179.5	4821.3	µg/L	4821.3	ppb	06:50:51
2	Mg 279.077 IEC†	12796.4	12887.8	4809.1	µg/L	4809.1	ppb	06:50:51
2	Na 589.592 Radial†	69989.1	70241.4	9591.5	µg/L	9591.5	ppb	06:50:51
2	Sr 421.552†	227567.6	232720.4	483.78	µg/L	483.78	ppb	06:50:49
2	Sc 361.383	1732312.8	1732312.8	100.82	%			06:51:23
2	Y 371.029	1021720.9	1021720.9	99.516	%			06:51:23
2	Ag 328.068†	129719.1	124572.2	467.10	µg/L	467.10	ppb	06:51:23
2	As 188.979†	1588.2	1595.6	489.32	µg/L	489.32	ppb	06:51:43
2	B 249.677†	35156.8	31364.8	460.95	µg/L	460.95	ppb	06:51:23
2	Ba 233.527†	116694.9	115881.2	467.35	µg/L	467.35	ppb	06:51:23
2	Be 313.107†	1753037.6	1739838.5	473.85	µg/L	473.85	ppb	06:51:23
2	Cd 226.502†	74807.8	74317.3	463.92	µg/L	463.92	ppb	06:51:23
2	Co 228.616†	38055.2	37935.8	468.31	µg/L	468.31	ppb	06:51:23
2	Cr 267.716†	59835.7	59170.3	463.31	µg/L	463.31	ppb	06:51:23
2	Cu 324.752†	123823.7	119844.0	467.18	µg/L	467.18	ppb	06:51:23
2	Mn 257.610†	383468.0	380110.6	470.11	µg/L	470.11	ppb	06:51:23
2	Mo 202.031†	15844.0	15735.2	462.87	µg/L	462.87	ppb	06:51:43
2	Ni 231.604†	40639.5	40385.3	465.01	µg/L	465.01	ppb	06:51:23
2	P 214.914†	10909.8	10839.0	2310.2	µg/L	2310.2	ppb	06:51:43
2	Pb 220.353†	8480.2	8324.8	466.20	µg/L	466.20	ppb	06:51:43

2	S 181.975 Axial†	1346.9	1230.9	917.91 µg/L	917.91 ppb	06:51:43
2	Sb 206.836†	3980.2	3867.0	460.73 µg/L	460.73 ppb	06:51:43
2	Se 196.026†	1300.3	1274.5	463 µg/L	463 ppb	06:51:43
2	SiO2†	52827.4	50622.2	4928.0 µg/L	4928.0 ppb	06:51:23
2	Si 251.611†	159326.9	157194.0	2308.3 µg/L	2308.3 ppb	06:51:23
2	Sn 189.927†	7476.6	7416.8	463.94 µg/L	463.94 ppb	06:51:43
2	Ti 334.940†	505139.1	500076.4	466.61 µg/L	466.61 ppb	06:51:23
2	Tl 190.801†	3698.1	3784.7	472.04 µg/L	472.04 ppb	06:51:43
2	U 409.014†	6942.0	7155.4	446.72 µg/L	446.72 ppb	06:51:23
2	V 292.402†	96267.9	95080.8	469.96 µg/L	469.96 ppb	06:51:23
2	Zn 213.857†	83720.5	82474.9	459.64 µg/L	459.64 ppb	06:51:23
3	Sc RADIAL	143836.3	143836.3	98.6 %		06:50:55
3	Al 396.153Radial†	25907.3	26347.6	4863.4 µg/L	4863.4 ppb	06:50:55
3	Ca 317.933Radial†	84074.3	84737.4	4720.2 µg/L	4720.2 ppb	06:50:55
3	Fe 238.204 Radial†	75677.4	76630.7	4723.0 µg/L	4723.0 ppb	06:50:55
3	K 766.490 Radial†	14497.0	13163.2	4815.3 µg/L	4815.3 ppb	06:50:55
3	Mg 279.077 IEC†	12916.7	12914.0	4818.8 µg/L	4818.8 ppb	06:50:55
3	Na 589.592 Radial†	70095.9	69825.3	9534.7 µg/L	9534.7 ppb	06:50:55
3	Sr 421.552†	224937.6	228346.7	474.68 µg/L	474.68 ppb	06:50:53
3	Sc 361.383	1745167.1	1745167.1	101.57 %		06:51:46
3	Y 371.029	1027608.6	1027608.6	100.09 %		06:51:46
3	Ag 328.068†	130622.1	124513.6	466.91 µg/L	466.91 ppb	06:51:46
3	As 188.979†	1580.0	1575.9	483.36 µg/L	483.36 ppb	06:52:06
3	B 249.677†	35677.0	31620.2	464.70 µg/L	464.70 ppb	06:51:46
3	Ba 233.527†	117945.5	116260.0	468.87 µg/L	468.87 ppb	06:51:46
3	Be 313.107†	1774480.0	1748142.5	476.11 µg/L	476.11 ppb	06:51:46
3	Cd 226.502†	75852.8	74799.7	466.93 µg/L	466.93 ppb	06:51:46
3	Co 228.616†	38673.3	38266.4	472.39 µg/L	472.39 ppb	06:51:46
3	Cr 267.716†	60484.3	59371.7	464.88 µg/L	464.88 ppb	06:51:46
3	Cu 324.752†	125032.7	120129.7	468.29 µg/L	468.29 ppb	06:51:46
3	Mn 257.610†	387230.7	381013.6	471.22 µg/L	471.22 ppb	06:51:46
3	Mo 202.031†	15902.9	15677.4	461.17 µg/L	461.17 ppb	06:52:06
3	Ni 231.604†	41266.5	40705.8	468.70 µg/L	468.70 ppb	06:51:46
3	P 214.914†	10969.1	10817.6	2305.7 µg/L	2305.7 ppb	06:52:06
3	Pb 220.353†	8529.9	8311.8	465.47 µg/L	465.47 ppb	06:52:06
3	S 181.975 Axial†	1357.3	1231.3	918.20 µg/L	918.20 ppb	06:52:06
3	Sb 206.836†	3998.4	3855.8	459.36 µg/L	459.36 ppb	06:52:06
3	Se 196.026†	1305.2	1269.7	461 µg/L	461 ppb	06:52:06
3	SiO2†	53325.5	50726.6	4938.3 µg/L	4938.3 ppb	06:51:46
3	Si 251.611†	161035.0	157711.7	2315.9 µg/L	2315.9 ppb	06:51:46
3	Sn 189.927†	7518.0	7403.0	463.08 µg/L	463.08 ppb	06:52:06
3	Ti 334.940†	510430.4	501595.6	468.03 µg/L	468.03 ppb	06:51:46
3	Tl 190.801†	3716.0	3775.3	470.89 µg/L	470.89 ppb	06:52:06
3	U 409.014†	7028.8	7190.1	448.87 µg/L	448.87 ppb	06:51:46
3	V 292.402†	97382.5	95474.9	471.87 µg/L	471.87 ppb	06:51:46
3	Zn 213.857†	84926.8	83050.9	462.85 µg/L	462.85 ppb	06:51:46

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1738760.9	101.20	%	0.374				0.37%
Sc RADIAL	143487.5	98.3	%	0.42				0.43%
Y 371.029	1024670.2	99.803	%	0.2867				0.29%
Ag 328.068†	124363.7	466.34	µg/L	1.151	466.34	ppb	1.151	0.25%
QC value within limits for Ag 328.068 Recovery = 93.27%								
Al 396.153Radial†	26337.5	4861.5	µg/L	19.75	4861.5	ppb	19.75	0.41%
QC value within limits for Al 396.153Radial Recovery = 97.23%								
As 188.979†	1584.7	486.02	µg/L	3.027	486.02	ppb	3.027	0.62%
QC value within limits for As 188.979 Recovery = 97.20%								
B 249.677†	31379.7	461.16	µg/L	3.438	461.16	ppb	3.438	0.75%
QC value within limits for B 249.677 Recovery = 92.23%								
Ba 233.527†	115983.2	467.76	µg/L	0.978	467.76	ppb	0.978	0.21%
QC value within limits for Ba 233.527 Recovery = 93.55%								
Be 313.107†	1743406.4	474.83	µg/L	1.164	474.83	ppb	1.164	0.25%
QC value within limits for Be 313.107 Recovery = 94.97%								
Ca 317.933Radial†	84836.2	4725.7	µg/L	5.07	4725.7	ppb	5.07	0.11%
QC value within limits for Ca 317.933Radial Recovery = 94.51%								
Cd 226.502†	74517.8	465.17	µg/L	1.570	465.17	ppb	1.570	0.34%
QC value within limits for Cd 226.502 Recovery = 93.03%								
Co 228.616†	38082.6	470.13	µg/L	2.078	470.13	ppb	2.078	0.44%

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   QC value within limits for Co 228.616  Recovery = 94.03%
Cr 267.716†            59255.6      463.97 µg/L         0.816      463.97 ppb          0.816   0.18%
   QC value within limits for Cr 267.716  Recovery = 92.79%
Cu 324.752†           119943.3      467.57 µg/L         0.628      467.57 ppb          0.628   0.13%
   QC value within limits for Cu 324.752  Recovery = 93.51%
Fe 238.204 Radial†     76668.4      4725.4 µg/L          2.53      4725.4 ppb           2.53   0.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.51%
K 766.490 Radial†      13191.9      4825.8 µg/L         13.36      4825.8 ppb          13.36   0.28%
   QC value within limits for K 766.490 Radial  Recovery = 96.52%
Mg 279.077 IEC†        12907.6      4816.4 µg/L          6.48      4816.4 ppb           6.48   0.13%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.33%
Mn 257.610†           380504.6      470.59 µg/L         0.572      470.59 ppb          0.572   0.12%
   QC value within limits for Mn 257.610  Recovery = 94.12%
Mo 202.031†            15696.8      461.74 µg/L         0.976      461.74 ppb          0.976   0.21%
   QC value within limits for Mo 202.031  Recovery = 92.35%
Na 589.592 Radial†     70036.5      9563.5 µg/L         28.43      9563.5 ppb          28.43   0.30%
   QC value within limits for Na 589.592 Radial  Recovery = 95.64%
Ni 231.604†            40519.7      466.55 µg/L         1.916      466.55 ppb          1.916   0.41%
   QC value within limits for Ni 231.604  Recovery = 93.31%
P 214.914†             10814.5      2305.0 µg/L          5.61      2305.0 ppb           5.61   0.24%
   QC value within limits for P 214.914  Recovery = 92.20%
Pb 220.353†             8316.9      465.75 µg/L         0.390      465.75 ppb          0.390   0.08%
   QC value within limits for Pb 220.353  Recovery = 93.15%
S 181.975 Axial†        1230.1      917.38 µg/L         1.192      917.38 ppb          1.192   0.13%
   QC value within limits for S 181.975 Axial  Recovery = 91.74%
Sb 206.836†             3864.8      460.45 µg/L         0.981      460.45 ppb          0.981   0.21%
   QC value within limits for Sb 206.836  Recovery = 92.09%
Se 196.026†             1266.4         460 µg/L           3.7         460 ppb            3.7   0.80%
   QC value within limits for Se 196.026  Recovery = 91.98%
SiO2†                  50624.8      4928.3 µg/L          9.82      4928.3 ppb           9.82   0.20%
   QC value within limits for SiO2  Recovery = 92.16%
Si 251.611†           157331.5      2310.3 µg/L          4.92      2310.3 ppb           4.92   0.21%
   QC value within limits for Si 251.611  Recovery = 92.41%
Sn 189.927†             7399.5      462.85 µg/L         1.208      462.85 ppb          1.208   0.26%
   QC value within limits for Sn 189.927  Recovery = 92.57%
Sr 421.552†           229962.4      478.04 µg/L         4.990      478.04 ppb          4.990   1.04%
   QC value within limits for Sr 421.552  Recovery = 95.61%
Ti 334.940†           500743.5      467.23 µg/L         0.725      467.23 ppb          0.725   0.16%
   QC value within limits for Ti 334.940  Recovery = 93.45%
Tl 190.801†             3778.3      471.26 µg/L         0.677      471.26 ppb          0.677   0.14%
   QC value within limits for Tl 190.801  Recovery = 94.25%
U 409.014†              7210.4      449.99 µg/L         3.955      449.99 ppb          3.955   0.88%
   QC value less than the lower limit for U 409.014  Recovery = 90.00%
V 292.402†             95259.6      470.83 µg/L         0.969      470.83 ppb          0.969   0.21%
   QC value within limits for V 292.402  Recovery = 94.17%
Zn 213.857†            82796.5      461.44 µg/L         1.639      461.44 ppb          1.639   0.36%
   QC value within limits for Zn 213.857  Recovery = 92.29%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 6:52:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144633.2	144633.2	99.1	%			06:52:42
1	Al 396.153Radial†	-68.4	-5.8	-1.0604	µg/L	-1.0604	ppb	06:53:02
1	Ca 317.933Radial†	627.1	72.2	4.0193	µg/L	4.0193	ppb	06:53:02
1	Fe 238.204 Radial†	233.5	87.5	5.3928	µg/L	5.3928	ppb	06:53:02
1	K 766.490 Radial†	1744.4	215.2	78.786	µg/L	78.786	ppb	06:52:42
1	Mg 279.077 IEC†	179.5	-9.6	-3.5729	µg/L	-3.5729	ppb	06:53:02
1	Na 589.592 Radial†	1752.6	477.5	65.161	µg/L	65.161	ppb	06:52:42
1	Sr 421.552†	-155.4	-21.5	-0.0447	µg/L	-0.0447	ppb	06:52:42
1	Sc 361.383	1733964.7	1733964.7	100.92	%			06:53:50
1	Y 371.029	1033335.7	1033335.7	100.65	%			06:53:50
1	Ag 328.068†	3981.0	-146.5	-0.5452	µg/L	-0.5452	ppb	06:53:52
1	As 188.979†	-23.1	-2.6	-0.7719	µg/L	-0.7719	ppb	06:54:12
1	B 249.677†	3532.8	-5.2	-0.0776	µg/L	-0.0776	ppb	06:54:12
1	Ba 233.527†	-131.9	5.2	0.0210	µg/L	0.0210	ppb	06:54:12
1	Be 313.107†	-928.7	144.4	0.0373	µg/L	0.0373	ppb	06:53:52
1	Cd 226.502†	-128.3	-9.0	-0.0567	µg/L	-0.0567	ppb	06:54:12
1	Co 228.616†	-169.5	22.4	0.2756	µg/L	0.2756	ppb	06:54:12
1	Cr 267.716†	204.4	24.0	0.1936	µg/L	0.1936	ppb	06:54:12
1	Cu 324.752†	2997.4	-2.1	-0.0126	µg/L	-0.0126	ppb	06:53:52
1	Mn 257.610†	376.2	135.5	0.1678	µg/L	0.1678	ppb	06:54:12
1	Mo 202.031†	-28.0	-7.7	-0.2256	µg/L	-0.2256	ppb	06:54:12
1	Ni 231.604†	-89.9	-12.5	-0.1442	µg/L	-0.1442	ppb	06:54:12
1	P 214.914†	-16.5	1.6	0.3492	µg/L	0.3492	ppb	06:54:12
1	Pb 220.353†	87.5	0.3	0.0206	µg/L	0.0206	ppb	06:54:12
1	S 181.975 Axial†	110.0	3.9	2.9188	µg/L	2.9188	ppb	06:54:12
1	Sb 206.836†	75.8	-5.7	-0.6867	µg/L	-0.6867	ppb	06:54:12
1	Se 196.026†	7.0	-8.4	-3.02	µg/L	-3.02	ppb	06:54:12
1	SiO2†	1830.0	38.1	3.7253	µg/L	3.7253	ppb	06:54:12
1	Si 251.611†	1070.4	224.1	3.3062	µg/L	3.3062	ppb	06:53:52
1	Sn 189.927†	-0.2	0.9	0.0580	µg/L	0.0580	ppb	06:54:12
1	Ti 334.940†	1176.4	213.2	0.2022	µg/L	0.2022	ppb	06:53:52
1	Tl 190.801†	-127.5	-9.7	-1.1871	µg/L	-1.1871	ppb	06:54:12
1	U 409.014†	-385.9	-112.5	-6.5491	µg/L	-6.5491	ppb	06:53:52
1	V 292.402†	504.0	95.6	0.4597	µg/L	0.4597	ppb	06:53:52
1	Zn 213.857†	627.6	57.5	0.3235	µg/L	0.3235	ppb	06:54:12
2	Sc RADIAL	144549.4	144549.4	99.1	%			06:53:04
2	Al 396.153Radial†	-66.1	-3.6	-0.6440	µg/L	-0.6440	ppb	06:53:24
2	Ca 317.933Radial†	630.2	75.6	4.2130	µg/L	4.2130	ppb	06:53:24
2	Fe 238.204 Radial†	209.7	63.5	3.9168	µg/L	3.9168	ppb	06:53:24
2	K 766.490 Radial†	1826.5	299.2	109.53	µg/L	109.53	ppb	06:53:04
2	Mg 279.077 IEC†	186.3	-2.6	-0.9787	µg/L	-0.9787	ppb	06:53:24
2	Na 589.592 Radial†	1914.4	641.9	87.598	µg/L	87.598	ppb	06:53:04
2	Sr 421.552†	-167.6	-33.9	-0.0705	µg/L	-0.0705	ppb	06:53:04
2	Sc 361.383	1749772.9	1749772.9	101.84	%			06:54:14
2	Y 371.029	1042212.3	1042212.3	101.51	%			06:54:14
2	Ag 328.068†	4047.6	-116.8	-0.4517	µg/L	-0.4517	ppb	06:54:16
2	As 188.979†	-10.3	10.2	3.0888	µg/L	3.0888	ppb	06:54:37
2	B 249.677†	3499.3	-69.7	-1.0282	µg/L	-1.0282	ppb	06:54:37
2	Ba 233.527†	-107.2	30.6	0.1230	µg/L	0.1230	ppb	06:54:37
2	Be 313.107†	-1027.0	56.2	0.0118	µg/L	0.0118	ppb	06:54:16
2	Cd 226.502†	-124.9	-4.4	-0.0280	µg/L	-0.0280	ppb	06:54:37
2	Co 228.616†	-180.8	12.8	0.1577	µg/L	0.1577	ppb	06:54:37
2	Cr 267.716†	221.6	39.0	0.3148	µg/L	0.3148	ppb	06:54:37
2	Cu 324.752†	2983.5	-42.5	-0.1744	µg/L	-0.1744	ppb	06:54:16
2	Mn 257.610†	338.1	94.7	0.1173	µg/L	0.1173	ppb	06:54:37
2	Mo 202.031†	-32.1	-11.5	-0.3367	µg/L	-0.3367	ppb	06:54:37
2	Ni 231.604†	-88.8	-10.7	-0.1227	µg/L	-0.1227	ppb	06:54:37
2	P 214.914†	-17.5	0.7	0.1629	µg/L	0.1629	ppb	06:54:37
2	Pb 220.353†	69.6	-18.0	-0.9973	µg/L	-0.9973	ppb	06:54:37

2	S 181.975 Axial†	96.6	-10.2	-7.5881 µg/L	-7.5881 ppb	06:54:37
2	Sb 206.836†	74.0	-8.1	-0.9755 µg/L	-0.9755 ppb	06:54:37
2	Se 196.026†	13.5	-2.0	-0.745 µg/L	-0.745 ppb	06:54:37
2	SiO2†	1845.3	36.6	3.5813 µg/L	3.5813 ppb	06:54:37
2	Si 251.611†	1001.8	147.2	2.1707 µg/L	2.1707 ppb	06:54:16
2	Sn 189.927†	7.7	8.6	0.5383 µg/L	0.5383 ppb	06:54:37
2	Ti 334.940†	1051.0	79.5	0.0792 µg/L	0.0792 ppb	06:54:16
2	Tl 190.801†	-106.8	11.8	1.4462 µg/L	1.4462 ppb	06:54:37
2	U 409.014†	-479.7	-201.2	-11.784 µg/L	-11.784 ppb	06:54:16
2	V 292.402†	330.2	-79.6	-0.3988 µg/L	-0.3988 ppb	06:54:16
2	Zn 213.857†	607.0	31.7	0.1784 µg/L	0.1784 ppb	06:54:37
3	Sc RADIAL	142441.9	142441.9	97.6 %		06:53:26
3	Al 396.153Radial†	-51.7	10.2	1.9232 µg/L	1.9232 ppb	06:53:46
3	Ca 317.933Radial†	620.5	75.1	4.1845 µg/L	4.1845 ppb	06:53:46
3	Fe 238.204 Radial†	216.2	73.4	4.5263 µg/L	4.5263 ppb	06:53:46
3	K 766.490 Radial†	1766.2	264.7	96.906 µg/L	96.906 ppb	06:53:26
3	Mg 279.077 IEC†	171.5	-15.0	-5.6050 µg/L	-5.6050 ppb	06:53:46
3	Na 589.592 Radial†	1726.0	477.4	65.136 µg/L	65.136 ppb	06:53:26
3	Sr 421.552†	-147.2	-15.5	-0.0323 µg/L	-0.0323 ppb	06:53:26
3	Sc 361.383	1739482.2	1739482.2	101.24 %		06:54:39
3	Y 371.029	1036358.4	1036358.4	100.94 %		06:54:39
3	Ag 328.068†	4348.3	203.8	0.7416 µg/L	0.7416 ppb	06:54:41
3	As 188.979†	-11.6	8.8	2.6733 µg/L	2.6733 ppb	06:55:01
3	B 249.677†	3500.3	-48.4	-0.7140 µg/L	-0.7140 ppb	06:55:01
3	Ba 233.527†	-129.2	8.3	0.0326 µg/L	0.0326 ppb	06:55:01
3	Be 313.107†	-933.4	142.7	0.0379 µg/L	0.0379 ppb	06:54:41
3	Cd 226.502†	-123.7	-4.0	-0.0256 µg/L	-0.0256 ppb	06:55:01
3	Co 228.616†	-184.7	7.9	0.0972 µg/L	0.0972 ppb	06:55:01
3	Cr 267.716†	159.4	-21.1	-0.1630 µg/L	-0.1630 ppb	06:55:01
3	Cu 324.752†	3020.7	11.5	0.0429 µg/L	0.0429 ppb	06:54:41
3	Mn 257.610†	327.3	86.0	0.1066 µg/L	0.1066 ppb	06:55:01
3	Mo 202.031†	-39.0	-18.5	-0.5424 µg/L	-0.5424 ppb	06:55:01
3	Ni 231.604†	-116.1	-38.2	-0.4397 µg/L	-0.4397 ppb	06:55:01
3	P 214.914†	-19.9	-1.7	-0.3559 µg/L	-0.3559 ppb	06:55:01
3	Pb 220.353†	78.3	-9.1	-0.5065 µg/L	-0.5065 ppb	06:55:01
3	S 181.975 Axial†	111.6	5.2	3.8338 µg/L	3.8338 ppb	06:55:01
3	Sb 206.836†	81.6	-0.2	-0.0275 µg/L	-0.0275 ppb	06:55:01
3	Se 196.026†	5.2	-10.2	-3.68 µg/L	-3.68 ppb	06:55:01
3	SiO2†	1803.0	5.6	0.5590 µg/L	0.5590 ppb	06:55:01
3	Si 251.611†	1132.3	281.9	4.1624 µg/L	4.1624 ppb	06:54:41
3	Sn 189.927†	0.1	1.2	0.0775 µg/L	0.0775 ppb	06:55:01
3	Ti 334.940†	1053.6	88.1	0.0842 µg/L	0.0842 ppb	06:54:41
3	Tl 190.801†	-105.8	12.2	1.4893 µg/L	1.4893 ppb	06:55:01
3	U 409.014†	-325.3	-51.5	-3.0531 µg/L	-3.0531 ppb	06:54:41
3	V 292.402†	251.0	-155.8	-0.7691 µg/L	-0.7691 ppb	06:54:41
3	Zn 213.857†	649.7	77.3	0.4369 µg/L	0.4369 ppb	06:55:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1741073.3	101.33	%	0.467				0.46%
Sc RADIAL	143874.8	98.6	%	0.85				0.86%
Y 371.029	1037302.1	101.03	%	0.440				0.44%
Ag 328.068†	-19.8	-0.0851	µg/L	0.71750	-0.0851	ppb	0.71750	843.15%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.3	0.0729	µg/L	1.61581	0.0729	ppb	1.61581	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.5	1.6634	µg/L	2.11924	1.6634	ppb	2.11924	127.41%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-41.1	-0.6066	µg/L	0.48430	-0.6066	ppb	0.48430	79.84%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	14.7	0.0589	µg/L	0.05582	0.0589	ppb	0.05582	94.82%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	114.4	0.0290	µg/L	0.01494	0.0290	ppb	0.01494	51.51%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	74.3	4.1389	µg/L	0.10460	4.1389	ppb	0.10460	2.53%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-5.8	-0.0368	µg/L	0.01731	-0.0368	ppb	0.01731	47.05%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	14.3	0.1768	µg/L	0.09071	0.1768	ppb	0.09071	51.30%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.0      0.1151 µg/L       0.24835      0.1151 ppb        0.24835 215.69%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -11.0     -0.0480 µg/L       0.11290     -0.0480 ppb        0.11290 235.07%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       74.8      4.6120 µg/L       0.74173      4.6120 ppb        0.74173  16.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       259.7      95.073 µg/L       15.4520      95.073 ppb        15.4520  16.25%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -9.1     -3.3855 µg/L       2.31885     -3.3855 ppb        2.31885  68.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             105.4      0.1306 µg/L       0.03271      0.1306 ppb        0.03271  25.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -12.5     -0.3682 µg/L       0.16075     -0.3682 ppb        0.16075  43.65%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      532.3      72.632 µg/L       12.9611      72.632 ppb        12.9611  17.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -20.5     -0.2356 µg/L       0.17715     -0.2356 ppb        0.17715  75.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.2      0.0521 µg/L       0.36541      0.0521 ppb        0.36541 701.97%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -8.9     -0.4944 µg/L       0.50904     -0.4944 ppb        0.50904 102.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.4     -0.2785 µg/L       6.34683     -0.2785 ppb        6.34683 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -4.7     -0.5632 µg/L       0.48593     -0.5632 ppb        0.48593  86.28%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -6.9       -2.48 µg/L         1.540       -2.48 ppb          1.540  62.03%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     26.8      2.6219 µg/L       1.78796      2.6219 ppb        1.78796  68.19%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             217.7      3.2131 µg/L       0.99909      3.2131 ppb        0.99909  31.09%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.6      0.2246 µg/L       0.27185      0.2246 ppb        0.27185 121.04%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -23.6     -0.0492 µg/L       0.01953     -0.0492 ppb        0.01953  39.72%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             127.0      0.1219 µg/L       0.06963      0.1219 ppb        0.06963  57.13%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               4.8      0.5828 µg/L       1.53292      0.5828 ppb        1.53292 263.02%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -121.7     -7.1289 µg/L       4.39443     -7.1289 ppb        4.39443  61.64%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -46.6     -0.2361 µg/L       0.63031     -0.2361 ppb        0.63031 267.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               55.5      0.3129 µg/L       0.12957      0.3129 ppb        0.12957  41.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 7:15:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143231.7	143231.7	98.2	%			07:16:18
1	Al 396.153Radial†	25811.0	26360.4	4865.8	µg/L	4865.8	ppb	07:16:18
1	Ca 317.933Radial†	83249.0	84256.6	4693.4	µg/L	4693.4	ppb	07:16:18
1	Fe 238.204 Radial†	75045.0	76310.5	4703.3	µg/L	4703.3	ppb	07:16:18
1	K 766.490 Radial†	14476.5	13204.4	4830.5	µg/L	4830.5	ppb	07:16:18
1	Mg 279.077 IEC†	12766.9	12816.7	4782.5	µg/L	4782.5	ppb	07:16:18
1	Na 589.592 Radial†	69514.8	69533.5	9494.8	µg/L	9494.8	ppb	07:16:18
1	Sr 421.552†	225787.8	230176.3	478.49	µg/L	478.49	ppb	07:16:16
1	Sc 361.383	1750472.3	1750472.3	101.88	%			07:16:31
1	Y 371.029	1032081.8	1032081.8	100.53	%			07:16:31
1	Ag 328.068†	130816.8	124315.0	466.14	µg/L	466.14	ppb	07:16:31
1	As 188.979†	1591.5	1582.5	485.34	µg/L	485.34	ppb	07:16:51
1	B 249.677†	35273.1	31117.3	457.31	µg/L	457.31	ppb	07:16:31
1	Ba 233.527†	117743.1	115709.4	466.65	µg/L	466.65	ppb	07:16:31
1	Be 313.107†	1769884.6	1738336.9	473.44	µg/L	473.44	ppb	07:16:31
1	Cd 226.502†	75237.5	73969.4	461.75	µg/L	461.75	ppb	07:16:31
1	Co 228.616†	38300.7	37785.3	466.46	µg/L	466.46	ppb	07:16:31
1	Cr 267.716†	60334.7	59044.4	462.32	µg/L	462.32	ppb	07:16:31
1	Cu 324.752†	124729.7	119459.2	465.67	µg/L	465.67	ppb	07:16:31
1	Mn 257.610†	386052.5	378701.8	468.37	µg/L	468.37	ppb	07:16:31
1	Mo 202.031†	15962.9	15688.8	461.50	µg/L	461.50	ppb	07:16:51
1	Ni 231.604†	41025.4	40346.0	464.56	µg/L	464.56	ppb	07:16:31
1	P 214.914†	10932.1	10748.7	2290.9	µg/L	2290.9	ppb	07:16:51
1	Pb 220.353†	8545.2	8301.4	464.89	µg/L	464.89	ppb	07:16:51
1	S 181.975 Axial†	1344.3	1214.5	905.73	µg/L	905.73	ppb	07:16:51
1	Sb 206.836†	4008.2	3853.5	459.12	µg/L	459.12	ppb	07:16:51
1	Se 196.026†	1297.1	1257.9	457	µg/L	457	ppb	07:16:51
1	SiO2†	52974.9	50223.4	4889.2	µg/L	4889.2	ppb	07:16:31
1	Si 251.611†	160634.4	156838.0	2303.1	µg/L	2303.1	ppb	07:16:31
1	Sn 189.927†	7507.2	7370.0	461.01	µg/L	461.01	ppb	07:16:51
1	Ti 334.940†	509488.3	499147.7	465.74	µg/L	465.74	ppb	07:16:31
1	Tl 190.801†	3735.0	3782.9	471.81	µg/L	471.81	ppb	07:16:51
1	U 409.014†	7000.5	7141.4	445.88	µg/L	445.88	ppb	07:16:31
1	V 292.402†	97221.7	95026.5	469.68	µg/L	469.68	ppb	07:16:31
1	Zn 213.857†	84347.9	82229.2	458.27	µg/L	458.27	ppb	07:16:31
2	Sc RADIAL	143830.0	143830.0	98.6	%			07:16:22
2	Al 396.153Radial†	25997.1	26439.8	4880.6	µg/L	4880.6	ppb	07:16:22
2	Ca 317.933Radial†	83529.5	84188.4	4689.6	µg/L	4689.6	ppb	07:16:22
2	Fe 238.204 Radial†	75506.4	76460.6	4712.6	µg/L	4712.6	ppb	07:16:22
2	K 766.490 Radial†	14487.3	13154.1	4812.0	µg/L	4812.0	ppb	07:16:22
2	Mg 279.077 IEC†	12725.8	12720.9	4746.8	µg/L	4746.8	ppb	07:16:22
2	Na 589.592 Radial†	69625.8	69351.5	9470.0	µg/L	9470.0	ppb	07:16:22
2	Sr 421.552†	226337.7	229777.2	477.66	µg/L	477.66	ppb	07:16:20
2	Sc 361.383	1752200.8	1752200.8	101.98	%			07:16:54
2	Y 371.029	1031083.0	1031083.0	100.43	%			07:16:54
2	Ag 328.068†	130131.1	123515.9	463.20	µg/L	463.20	ppb	07:16:54
2	As 188.979†	1570.4	1560.3	478.61	µg/L	478.61	ppb	07:17:14
2	B 249.677†	35303.3	31112.7	457.24	µg/L	457.24	ppb	07:16:54
2	Ba 233.527†	117702.2	115555.3	466.03	µg/L	466.03	ppb	07:16:54
2	Be 313.107†	1772824.2	1739505.8	473.77	µg/L	473.77	ppb	07:16:54
2	Cd 226.502†	75437.4	74092.5	462.51	µg/L	462.51	ppb	07:16:54
2	Co 228.616†	38435.2	37880.0	467.63	µg/L	467.63	ppb	07:16:54
2	Cr 267.716†	60494.4	59142.5	463.07	µg/L	463.07	ppb	07:16:54
2	Cu 324.752†	125065.3	119667.5	466.50	µg/L	466.50	ppb	07:16:54
2	Mn 257.610†	386854.1	379114.0	468.88	µg/L	468.88	ppb	07:16:54
2	Mo 202.031†	15890.6	15602.5	458.97	µg/L	458.97	ppb	07:17:14
2	Ni 231.604†	40997.7	40279.1	463.78	µg/L	463.78	ppb	07:16:54
2	P 214.914†	10932.4	10738.3	2288.7	µg/L	2288.7	ppb	07:17:14
2	Pb 220.353†	8481.9	8231.0	460.94	µg/L	460.94	ppb	07:17:14

2	S 181.975 Axial†	1343.4	1212.2	904.05 µg/L	904.05 ppb	07:17:14
2	Sb 206.836†	3985.9	3827.7	456.01 µg/L	456.01 ppb	07:17:14
2	Se 196.026†	1302.9	1262.3	458 µg/L	458 ppb	07:17:14
2	SiO2†	53203.1	50395.9	4906.1 µg/L	4906.1 ppb	07:16:54
2	Si 251.611†	160563.7	156613.1	2299.8 µg/L	2299.8 ppb	07:16:54
2	Sn 189.927†	7505.7	7361.2	460.47 µg/L	460.47 ppb	07:17:14
2	Ti 334.940†	509577.5	498741.9	465.36 µg/L	465.36 ppb	07:16:54
2	Tl 190.801†	3714.7	3759.3	468.90 µg/L	468.90 ppb	07:17:14
2	U 409.014†	7323.9	7451.8	464.00 µg/L	464.00 ppb	07:16:54
2	V 292.402†	97209.2	94920.0	469.15 µg/L	469.15 ppb	07:16:54
2	Zn 213.857†	84688.5	82481.6	459.69 µg/L	459.69 ppb	07:16:54
3	Sc RADIAL	145082.6	145082.6	99.4 %		07:16:26
3	Al 396.153Radial†	26074.1	26289.6	4852.5 µg/L	4852.5 ppb	07:16:26
3	Ca 317.933Radial†	84338.7	84270.6	4694.2 µg/L	4694.2 ppb	07:16:26
3	Fe 238.204 Radial†	76184.1	76480.8	4713.8 µg/L	4713.8 ppb	07:16:26
3	K 766.490 Radial†	14759.8	13301.2	4865.9 µg/L	4865.9 ppb	07:16:26
3	Mg 279.077 IEC†	12907.4	12792.0	4773.4 µg/L	4773.4 ppb	07:16:26
3	Na 589.592 Radial†	70316.5	69436.3	9481.5 µg/L	9481.5 ppb	07:16:26
3	Sr 421.552†	225883.1	227337.3	472.58 µg/L	472.58 ppb	07:16:24
3	Sc 361.383	1740208.6	1740208.6	101.28 %		07:17:17
3	Y 371.029	1024774.2	1024774.2	99.814 %		07:17:17
3	Ag 328.068†	129441.3	123714.1	463.91 µg/L	463.91 ppb	07:17:17
3	As 188.979†	1581.9	1582.2	485.25 µg/L	485.25 ppb	07:17:37
3	B 249.677†	35141.2	31191.2	458.40 µg/L	458.40 ppb	07:17:17
3	Ba 233.527†	116769.3	115429.5	465.53 µg/L	465.53 ppb	07:17:17
3	Be 313.107†	1754966.8	1733854.0	472.22 µg/L	472.22 ppb	07:17:17
3	Cd 226.502†	74790.7	73963.8	461.71 µg/L	461.71 ppb	07:17:17
3	Co 228.616†	37989.5	37699.7	465.40 µg/L	465.40 ppb	07:17:17
3	Cr 267.716†	59786.0	58851.9	460.81 µg/L	460.81 ppb	07:17:17
3	Cu 324.752†	124076.7	119536.5	465.97 µg/L	465.97 ppb	07:17:17
3	Mn 257.610†	383042.2	377964.4	467.45 µg/L	467.45 ppb	07:17:17
3	Mo 202.031†	15970.9	15789.2	464.45 µg/L	464.45 ppb	07:17:37
3	Ni 231.604†	40665.5	40228.1	463.20 µg/L	463.20 ppb	07:17:17
3	P 214.914†	10982.3	10861.5	2315.0 µg/L	2315.0 ppb	07:17:37
3	Pb 220.353†	8559.5	8364.9	468.44 µg/L	468.44 ppb	07:17:37
3	S 181.975 Axial†	1355.7	1233.5	919.92 µg/L	919.92 ppb	07:17:37
3	Sb 206.836†	3981.6	3850.4	458.82 µg/L	458.82 ppb	07:17:37
3	Se 196.026†	1286.4	1254.8	456 µg/L	456 ppb	07:17:37
3	SiO2†	52793.3	50350.8	4901.5 µg/L	4901.5 ppb	07:17:17
3	Si 251.611†	159252.9	156403.8	2296.6 µg/L	2296.6 ppb	07:17:17
3	Sn 189.927†	7511.8	7418.0	464.00 µg/L	464.00 ppb	07:17:37
3	Ti 334.940†	505621.1	498279.0	464.94 µg/L	464.94 ppb	07:17:17
3	Tl 190.801†	3705.1	3775.0	470.82 µg/L	470.82 ppb	07:17:37
3	U 409.014†	6917.7	7100.1	443.43 µg/L	443.43 ppb	07:17:17
3	V 292.402†	96535.4	94911.7	469.14 µg/L	469.14 ppb	07:17:17
3	Zn 213.857†	83785.0	82161.8	457.90 µg/L	457.90 ppb	07:17:17

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1747627.2	101.71	%	0.377				0.37%
Sc RADIAL	144048.1	98.7	%	0.65				0.66%
Y 371.029	1029313.0	100.26	%	0.386				0.38%
Ag 328.068†	123848.3	464.42	µg/L	1.536	464.42	ppb	1.536	0.33%
QC value within limits for Ag 328.068 Recovery = 92.88%								
Al 396.153Radial†	26363.3	4866.3	µg/L	14.06	4866.3	ppb	14.06	0.29%
QC value within limits for Al 396.153Radial Recovery = 97.33%								
As 188.979†	1575.0	483.07	µg/L	3.863	483.07	ppb	3.863	0.80%
QC value within limits for As 188.979 Recovery = 96.61%								
B 249.677†	31140.4	457.65	µg/L	0.653	457.65	ppb	0.653	0.14%
QC value within limits for B 249.677 Recovery = 91.53%								
Ba 233.527†	115564.7	466.07	µg/L	0.565	466.07	ppb	0.565	0.12%
QC value within limits for Ba 233.527 Recovery = 93.21%								
Be 313.107†	1737232.2	473.14	µg/L	0.815	473.14	ppb	0.815	0.17%
QC value within limits for Be 313.107 Recovery = 94.63%								
Ca 317.933Radial†	84238.5	4692.4	µg/L	2.45	4692.4	ppb	2.45	0.05%
QC value within limits for Ca 317.933Radial Recovery = 93.85%								
Cd 226.502†	74008.6	461.99	µg/L	0.454	461.99	ppb	0.454	0.10%
QC value within limits for Cd 226.502 Recovery = 92.40%								
Co 228.616†	37788.3	466.49	µg/L	1.113	466.49	ppb	1.113	0.24%

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   QC value within limits for Co 228.616  Recovery = 93.30%
Cr 267.716†            59013.0      462.07 µg/L         1.151      462.07 ppb          1.151   0.25%
   QC value within limits for Cr 267.716  Recovery = 92.41%
Cu 324.752†           119554.4      466.05 µg/L         0.418      466.05 ppb          0.418   0.09%
   QC value within limits for Cu 324.752  Recovery = 93.21%
Fe 238.204 Radial†     76417.3      4709.9 µg/L          5.74      4709.9 ppb           5.74   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.20%
K 766.490 Radial†      13219.9      4836.1 µg/L         27.38      4836.1 ppb          27.38   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 96.72%
Mg 279.077 IEC†        12776.5      4767.6 µg/L         18.58      4767.6 ppb          18.58   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.35%
Mn 257.610†           378593.4      468.23 µg/L         0.721      468.23 ppb          0.721   0.15%
   QC value within limits for Mn 257.610  Recovery = 93.65%
Mo 202.031†            15693.5      461.64 µg/L         2.746      461.64 ppb          2.746   0.59%
   QC value within limits for Mo 202.031  Recovery = 92.33%
Na 589.592 Radial†     69440.4      9482.1 µg/L         12.43      9482.1 ppb          12.43   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 94.82%
Ni 231.604†            40284.4      463.85 µg/L         0.681      463.85 ppb          0.681   0.15%
   QC value within limits for Ni 231.604  Recovery = 92.77%
P 214.914†             10782.8      2298.2 µg/L         14.60      2298.2 ppb          14.60   0.64%
   QC value within limits for P 214.914  Recovery = 91.93%
Pb 220.353†             8299.1      464.75 µg/L         3.754      464.75 ppb          3.754   0.81%
   QC value within limits for Pb 220.353  Recovery = 92.95%
S 181.975 Axial†        1220.1      909.90 µg/L         8.718      909.90 ppb          8.718   0.96%
   QC value within limits for S 181.975 Axial  Recovery = 90.99%
Sb 206.836†             3843.9      457.98 µg/L         1.718      457.98 ppb          1.718   0.38%
   QC value within limits for Sb 206.836  Recovery = 91.60%
Se 196.026†             1258.3         457 µg/L           1.4         457 ppb            1.4   0.30%
   QC value within limits for Se 196.026  Recovery = 91.39%
SiO2†                  50323.4      4898.9 µg/L          8.76      4898.9 ppb           8.76   0.18%
   QC value within limits for SiO2  Recovery = 91.61%
Si 251.611†           156618.3      2299.8 µg/L          3.23      2299.8 ppb           3.23   0.14%
   QC value within limits for Si 251.611  Recovery = 91.99%
Sn 189.927†             7383.1      461.83 µg/L         1.904      461.83 ppb          1.904   0.41%
   QC value within limits for Sn 189.927  Recovery = 92.37%
Sr 421.552†           229097.0      476.24 µg/L         3.195      476.24 ppb          3.195   0.67%
   QC value within limits for Sr 421.552  Recovery = 95.25%
Ti 334.940†           498722.9      465.35 µg/L         0.405      465.35 ppb          0.405   0.09%
   QC value within limits for Ti 334.940  Recovery = 93.07%
Tl 190.801†             3772.4      470.51 µg/L         1.479      470.51 ppb          1.479   0.31%
   QC value within limits for Tl 190.801  Recovery = 94.10%
U 409.014†              7231.1      451.10 µg/L        11.236      451.10 ppb         11.236   2.49%
   QC value within limits for U 409.014  Recovery = 90.22%
V 292.402†             94952.7      469.32 µg/L         0.308      469.32 ppb          0.308   0.07%
   QC value within limits for V 292.402  Recovery = 93.86%
Zn 213.857†            82290.9      458.62 µg/L         0.946      458.62 ppb          0.946   0.21%
   QC value within limits for Zn 213.857  Recovery = 91.72%
All analyte(s) passed QC.
```

Sequence No.: 25 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/1/2010 7:17:46**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144894.0	144894.0	99.3	%			07:18:15
1	Al 396.153Radial†	-60.2	2.5	0.4745	µg/L	0.4745	ppb	07:18:35
1	Ca 317.933Radial†	650.2	94.2	5.2485	µg/L	5.2485	ppb	07:18:35
1	Fe 238.204 Radial†	260.9	114.7	7.0666	µg/L	7.0666	ppb	07:18:35
1	K 766.490 Radial†	1743.9	211.6	77.460	µg/L	77.460	ppb	07:18:15
1	Mg 279.077 IEC†	168.3	-21.2	-7.8905	µg/L	-7.8905	ppb	07:18:35
1	Na 589.592 Radial†	1784.9	506.9	69.180	µg/L	69.180	ppb	07:18:15
1	Sr 421.552†	-213.5	-79.7	-0.1658	µg/L	-0.1658	ppb	07:18:15
1	Sc 361.383	1770863.5	1770863.5	103.06	%			07:19:23
1	Y 371.029	1054490.2	1054490.2	102.71	%			07:19:23
1	Ag 328.068†	4158.3	-56.7	-0.2179	µg/L	-0.2179	ppb	07:19:25
1	As 188.979†	-13.5	7.3	2.2031	µg/L	2.2031	ppb	07:19:45
1	B 249.677†	3391.4	-215.3	-3.1773	µg/L	-3.1773	ppb	07:19:25
1	Ba 233.527†	-132.3	7.5	0.0299	µg/L	0.0299	ppb	07:19:45
1	Be 313.107†	-856.5	233.6	0.0622	µg/L	0.0622	ppb	07:19:25
1	Cd 226.502†	-126.3	-4.4	-0.0280	µg/L	-0.0280	ppb	07:19:45
1	Co 228.616†	-166.9	28.3	0.3493	µg/L	0.3493	ppb	07:19:45
1	Cr 267.716†	189.8	5.6	0.0481	µg/L	0.0481	ppb	07:19:45
1	Cu 324.752†	3068.4	4.9	0.0163	µg/L	0.0163	ppb	07:19:25
1	Mn 257.610†	366.1	117.9	0.1462	µg/L	0.1462	ppb	07:19:45
1	Mo 202.031†	-24.1	-3.4	-0.0984	µg/L	-0.0984	ppb	07:19:45
1	Ni 231.604†	-96.2	-16.9	-0.1942	µg/L	-0.1942	ppb	07:19:45
1	P 214.914†	-30.9	-12.1	-2.5847	µg/L	-2.5847	ppb	07:19:45
1	Pb 220.353†	45.1	-42.6	-2.3754	µg/L	-2.3754	ppb	07:19:45
1	S 181.975 Axial†	97.2	-10.7	-7.9562	µg/L	-7.9562	ppb	07:19:45
1	Sb 206.836†	73.2	-9.8	-1.1686	µg/L	-1.1686	ppb	07:19:45
1	Se 196.026†	23.2	7.3	2.62	µg/L	2.62	ppb	07:19:45
1	SiO2†	1871.6	40.6	3.9693	µg/L	3.9693	ppb	07:19:45
1	Si 251.611†	1059.6	191.5	2.8238	µg/L	2.8238	ppb	07:19:25
1	Sn 189.927†	0.3	1.4	0.0884	µg/L	0.0884	ppb	07:19:45
1	Ti 334.940†	1196.8	208.7	0.1977	µg/L	0.1977	ppb	07:19:25
1	Tl 190.801†	-120.5	-0.2	-0.0259	µg/L	-0.0259	ppb	07:19:45
1	U 409.014†	-361.9	-81.3	-4.7620	µg/L	-4.7620	ppb	07:19:25
1	V 292.402†	384.8	-30.5	-0.1536	µg/L	-0.1536	ppb	07:19:25
1	Zn 213.857†	611.3	28.7	0.1616	µg/L	0.1616	ppb	07:19:45
2	Sc RADIAL	145521.1	145521.1	99.7	%			07:18:37
2	Al 396.153Radial†	-35.2	27.9	5.1474	µg/L	5.1474	ppb	07:18:57
2	Ca 317.933Radial†	623.9	65.1	3.6261	µg/L	3.6261	ppb	07:18:57
2	Fe 238.204 Radial†	222.2	74.7	4.6055	µg/L	4.6055	ppb	07:18:57
2	K 766.490 Radial†	1793.6	253.9	92.936	µg/L	92.936	ppb	07:18:37
2	Mg 279.077 IEC†	165.1	-25.1	-9.3623	µg/L	-9.3623	ppb	07:18:57
2	Na 589.592 Radial†	1538.6	252.1	34.354	µg/L	34.354	ppb	07:18:37
2	Sr 421.552†	-146.5	-11.7	-0.0243	µg/L	-0.0243	ppb	07:18:37
2	Sc 361.383	1759397.0	1759397.0	102.40	%			07:19:47
2	Y 371.029	1047911.7	1047911.7	102.07	%			07:19:47
2	Ag 328.068†	4258.3	67.2	0.2316	µg/L	0.2316	ppb	07:19:49
2	As 188.979†	-12.7	7.9	2.4012	µg/L	2.4012	ppb	07:20:10
2	B 249.677†	3505.2	-82.7	-1.2213	µg/L	-1.2213	ppb	07:19:49
2	Ba 233.527†	-104.4	33.9	0.1364	µg/L	0.1364	ppb	07:20:10
2	Be 313.107†	-1051.8	37.5	0.0076	µg/L	0.0076	ppb	07:19:49
2	Cd 226.502†	-125.2	-4.0	-0.0256	µg/L	-0.0256	ppb	07:20:10
2	Co 228.616†	-173.0	21.4	0.2638	µg/L	0.2638	ppb	07:20:10
2	Cr 267.716†	207.8	24.3	0.1972	µg/L	0.1972	ppb	07:20:10
2	Cu 324.752†	2833.5	-205.0	-0.8032	µg/L	-0.8032	ppb	07:19:49
2	Mn 257.610†	340.4	95.2	0.1182	µg/L	0.1182	ppb	07:20:10
2	Mo 202.031†	-4.2	16.0	0.4695	µg/L	0.4695	ppb	07:20:10
2	Ni 231.604†	-70.6	7.6	0.0871	µg/L	0.0871	ppb	07:20:10
2	P 214.914†	-18.2	0.2	0.0525	µg/L	0.0525	ppb	07:20:10
2	Pb 220.353†	52.6	-35.0	-1.9478	µg/L	-1.9478	ppb	07:20:10

2	S 181.975 Axial†	114.5	6.7	5.0067 µg/L	5.0067 ppb	07:20:10
2	Sb 206.836†	82.8	0.0	0.0059 µg/L	0.0059 ppb	07:20:10
2	Se 196.026†	17.9	2.2	0.800 µg/L	0.800 ppb	07:20:10
2	SiO2†	1868.1	49.0	4.7661 µg/L	4.7661 ppb	07:20:10
2	Si 251.611†	1373.5	504.8	7.4316 µg/L	7.4316 ppb	07:19:49
2	Sn 189.927†	9.6	10.5	0.6533 µg/L	0.6533 ppb	07:20:10
2	Ti 334.940†	1069.2	91.6	0.0899 µg/L	0.0899 ppb	07:19:49
2	Tl 190.801†	-122.3	-2.7	-0.3381 µg/L	-0.3381 ppb	07:20:10
2	U 409.014†	-424.3	-144.5	-8.4800 µg/L	-8.4800 ppb	07:19:49
2	V 292.402†	294.1	-116.6	-0.5692 µg/L	-0.5692 ppb	07:19:49
2	Zn 213.857†	656.8	77.0	0.4324 µg/L	0.4324 ppb	07:20:10
3	Sc RADIAL	146586.0	146586.0	100 %		07:18:59
3	Al 396.153Radial†	-94.7	-31.1	-5.7709 µg/L	-5.7709 ppb	07:19:19
3	Ca 317.933Radial†	627.7	64.3	3.5843 µg/L	3.5843 ppb	07:19:19
3	Fe 238.204 Radial†	209.2	60.2	3.7093 µg/L	3.7093 ppb	07:19:19
3	K 766.490 Radial†	1735.8	183.3	67.094 µg/L	67.094 ppb	07:18:59
3	Mg 279.077 IEC†	202.0	10.4	3.8715 µg/L	3.8715 ppb	07:19:19
3	Na 589.592 Radial†	1601.1	303.1	41.345 µg/L	41.345 ppb	07:18:59
3	Sr 421.552†	-166.1	-30.0	-0.0625 µg/L	-0.0625 ppb	07:18:59
3	Sc 361.383	1760888.9	1760888.9	102.48 %		07:20:12
3	Y 371.029	1048920.3	1048920.3	102.17 %		07:20:12
3	Ag 328.068†	4208.1	14.8	0.0389 µg/L	0.0389 ppb	07:20:14
3	As 188.979†	-5.2	15.3	4.6193 µg/L	4.6193 ppb	07:20:34
3	B 249.677†	3595.2	2.2	0.0320 µg/L	0.0320 ppb	07:20:14
3	Ba 233.527†	-113.4	25.2	0.1014 µg/L	0.1014 ppb	07:20:34
3	Be 313.107†	-831.8	253.1	0.0658 µg/L	0.0658 ppb	07:20:14
3	Cd 226.502†	-79.9	40.2	0.2505 µg/L	0.2505 ppb	07:20:34
3	Co 228.616†	-186.7	8.2	0.1004 µg/L	0.1004 ppb	07:20:34
3	Cr 267.716†	164.0	-18.5	-0.1369 µg/L	-0.1369 ppb	07:20:34
3	Cu 324.752†	2963.0	-81.0	-0.3227 µg/L	-0.3227 ppb	07:20:14
3	Mn 257.610†	342.7	97.2	0.1201 µg/L	0.1201 ppb	07:20:34
3	Mo 202.031†	-17.0	3.5	0.1023 µg/L	0.1023 ppb	07:20:34
3	Ni 231.604†	-117.2	-37.8	-0.4353 µg/L	-0.4353 ppb	07:20:34
3	P 214.914†	-46.5	-27.4	-5.8531 µg/L	-5.8531 ppb	07:20:34
3	Pb 220.353†	64.1	-23.8	-1.3218 µg/L	-1.3218 ppb	07:20:34
3	S 181.975 Axial†	98.0	-9.4	-6.9851 µg/L	-6.9851 ppb	07:20:34
3	Sb 206.836†	75.4	-7.2	-0.8539 µg/L	-0.8539 ppb	07:20:34
3	Se 196.026†	23.0	7.1	2.57 µg/L	2.57 ppb	07:20:34
3	SiO2†	1939.7	117.3	11.456 µg/L	11.456 ppb	07:20:34
3	Si 251.611†	1281.6	414.0	6.0982 µg/L	6.0982 ppb	07:20:14
3	Sn 189.927†	8.6	9.5	0.5921 µg/L	0.5921 ppb	07:20:34
3	Ti 334.940†	988.0	11.5	0.0148 µg/L	0.0148 ppb	07:20:14
3	Tl 190.801†	-115.0	4.5	0.5455 µg/L	0.5455 ppb	07:20:34
3	U 409.014†	-457.5	-176.5	-10.337 µg/L	-10.337 ppb	07:20:14
3	V 292.402†	360.5	-52.1	-0.2609 µg/L	-0.2609 ppb	07:20:14
3	Zn 213.857†	610.0	30.8	0.1755 µg/L	0.1755 ppb	07:20:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1763716.4	102.65	%	0.363				0.35%
Sc RADIAL	145667.0	99.8	%	0.59				0.59%
Y 371.029	1050440.7	102.31	%	0.345				0.34%
Ag 328.068†	8.4	0.0175	µg/L	0.22552	0.0175	ppb	0.22552	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.2	-0.0497	µg/L	5.47798	-0.0497	ppb	5.47798	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	10.2	3.0745	µg/L	1.34146	3.0745	ppb	1.34146	43.63%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-98.6	-1.4555	µg/L	1.61740	-1.4555	ppb	1.61740	111.12%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	22.2	0.0892	µg/L	0.05424	0.0892	ppb	0.05424	60.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	174.7	0.0452	µg/L	0.03257	0.0452	ppb	0.03257	72.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	74.6	4.1530	µg/L	0.94897	4.1530	ppb	0.94897	22.85%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.6	0.0656	µg/L	0.16011	0.0656	ppb	0.16011	244.04%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	19.3	0.2378	µg/L	0.12645	0.2378	ppb	0.12645	53.17%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                3.8      0.0361 µg/L       0.16737      0.0361 ppb        0.16737 462.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -93.7     -0.3699 µg/L       0.41180     -0.3699 ppb        0.41180 111.34%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        83.2      5.1271 µg/L       1.73839      5.1271 ppb        1.73839  33.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        216.2      79.163 µg/L       13.0045      79.163 ppb        13.0045  16.43%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -12.0     -4.4604 µg/L       7.25307     -4.4604 ppb        7.25307 162.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              103.4      0.1281 µg/L       0.01567      0.1281 ppb        0.01567  12.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.4      0.1578 µg/L       0.28799      0.1578 ppb        0.28799 182.51%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       354.0      48.293 µg/L       18.4231      48.293 ppb        18.4231  38.15%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -15.7     -0.1808 µg/L       0.26146     -0.1808 ppb        0.26146 144.62%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -13.1     -2.7951 µg/L       2.95840     -2.7951 ppb        2.95840 105.84%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -33.8     -1.8816 µg/L       0.52992     -1.8816 ppb        0.52992  28.16%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.5     -3.3115 µg/L       7.22011     -3.3115 ppb        7.22011 218.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -5.7     -0.6722 µg/L       0.60798     -0.6722 ppb        0.60798  90.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.5        2.00 µg/L         1.038        2.00 ppb          1.038  51.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     69.0      6.7304 µg/L       4.11166      6.7304 ppb        4.11166  61.09%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              370.1      5.4512 µg/L       2.37108      5.4512 ppb        2.37108  43.50%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                7.1      0.4446 µg/L       0.30998      0.4446 ppb        0.30998  69.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -40.5     -0.0842 µg/L       0.07323     -0.0842 ppb        0.07323  86.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              103.9      0.1008 µg/L       0.09194      0.1008 ppb        0.09194  91.24%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.5      0.0605 µg/L       0.44806      0.0605 ppb        0.44806 740.90%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -134.1     -7.8596 µg/L       2.83865     -7.8596 ppb        2.83865  36.12%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -66.4     -0.3279 µg/L       0.21579     -0.3279 ppb        0.21579  65.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                45.5      0.2565 µg/L       0.15245      0.2565 ppb        0.15245  59.43%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 35
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 7:36:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146332.2	146332.2	100	%			07:37:10
1	Al 396.153Radial†	26483.2	26473.6	4886.8	µg/L	4886.8	ppb	07:37:10
1	Ca 317.933Radial†	85410.3	84614.8	4713.4	µg/L	4713.4	ppb	07:37:10
1	Fe 238.204 Radial†	76905.7	76546.1	4717.8	µg/L	4717.8	ppb	07:37:10
1	K 766.490 Radial†	14725.5	13140.2	4806.9	µg/L	4806.9	ppb	07:37:10
1	Mg 279.077 IEC†	13076.5	12849.9	4794.9	µg/L	4794.9	ppb	07:37:10
1	Na 589.592 Radial†	70949.5	69463.5	9485.3	µg/L	9485.3	ppb	07:37:10
1	Sr 421.552†	227490.4	227000.0	471.88	µg/L	471.88	ppb	07:37:08
1	Sc 361.383	1755231.6	1755231.6	102.15	%			07:37:23
1	Y 371.029	1032858.8	1032858.8	100.60	%			07:37:23
1	Ag 328.068†	131287.2	124427.2	466.57	µg/L	466.57	ppb	07:37:23
1	As 188.979†	1606.3	1592.8	488.46	µg/L	488.46	ppb	07:37:43
1	B 249.677†	35587.4	31331.1	460.45	µg/L	460.45	ppb	07:37:23
1	Ba 233.527†	118532.4	116168.7	468.50	µg/L	468.50	ppb	07:37:23
1	Be 313.107†	1788909.7	1752250.2	477.23	µg/L	477.23	ppb	07:37:23
1	Cd 226.502†	76081.4	74595.2	465.65	µg/L	465.65	ppb	07:37:23
1	Co 228.616†	38631.1	38006.8	469.19	µg/L	469.19	ppb	07:37:23
1	Cr 267.716†	60873.7	59411.5	465.19	µg/L	465.19	ppb	07:37:23
1	Cu 324.752†	125667.5	120045.2	467.96	µg/L	467.96	ppb	07:37:23
1	Mn 257.610†	389098.7	380656.2	470.78	µg/L	470.78	ppb	07:37:23
1	Mo 202.031†	15951.4	15635.1	459.93	µg/L	459.93	ppb	07:37:43
1	Ni 231.604†	41430.3	40633.1	467.86	µg/L	467.86	ppb	07:37:23
1	P 214.914†	10955.5	10742.4	2289.6	µg/L	2289.6	ppb	07:37:43
1	Pb 220.353†	8573.3	8306.1	465.15	µg/L	465.15	ppb	07:37:43
1	S 181.975 Axial†	1341.1	1207.7	900.72	µg/L	900.72	ppb	07:37:43
1	Sb 206.836†	3999.7	3834.5	456.79	µg/L	456.79	ppb	07:37:43
1	Se 196.026†	1291.4	1248.9	454	µg/L	454	ppb	07:37:43
1	SiO2†	53486.7	50583.4	4924.4	µg/L	4924.4	ppb	07:37:23
1	Si 251.611†	161279.1	157041.5	2306.1	µg/L	2306.1	ppb	07:37:23
1	Sn 189.927†	7483.5	7326.8	458.32	µg/L	458.32	ppb	07:37:43
1	Ti 334.940†	511921.3	500173.5	466.70	µg/L	466.70	ppb	07:37:23
1	Tl 190.801†	3750.3	3787.9	472.43	µg/L	472.43	ppb	07:37:43
1	U 409.014†	7033.0	7154.6	446.72	µg/L	446.72	ppb	07:37:23
1	V 292.402†	97690.8	95226.9	470.65	µg/L	470.65	ppb	07:37:23
1	Zn 213.857†	85107.7	82748.5	461.16	µg/L	461.16	ppb	07:37:23
2	Sc RADIAL	144707.9	144707.9	99.2	%			07:37:14
2	Al 396.153Radial†	26071.0	26354.4	4864.4	µg/L	4864.4	ppb	07:37:14
2	Ca 317.933Radial†	84110.0	84259.6	4693.6	µg/L	4693.6	ppb	07:37:14
2	Fe 238.204 Radial†	75848.7	76341.0	4705.2	µg/L	4705.2	ppb	07:37:14
2	K 766.490 Radial†	14646.3	13225.2	4838.1	µg/L	4838.1	ppb	07:37:14
2	Mg 279.077 IEC†	12854.6	12772.4	4766.2	µg/L	4766.2	ppb	07:37:14
2	Na 589.592 Radial†	70049.9	69350.6	9469.8	µg/L	9469.8	ppb	07:37:14
2	Sr 421.552†	225976.1	228019.4	474.00	µg/L	474.00	ppb	07:37:12
2	Sc 361.383	1732373.4	1732373.4	100.82	%			07:37:46
2	Y 371.029	1019781.4	1019781.4	99.327	%			07:37:46
2	Ag 328.068†	128939.1	123794.1	464.22	µg/L	464.22	ppb	07:37:46
2	As 188.979†	1606.1	1613.3	494.68	µg/L	494.68	ppb	07:38:06
2	B 249.677†	34981.4	31189.6	458.37	µg/L	458.37	ppb	07:37:46
2	Ba 233.527†	116962.9	116143.0	468.40	µg/L	468.40	ppb	07:37:46
2	Be 313.107†	1757200.1	1743906.2	474.96	µg/L	474.96	ppb	07:37:46
2	Cd 226.502†	74602.4	74111.0	462.63	µg/L	462.63	ppb	07:37:46
2	Co 228.616†	37925.3	37805.7	466.71	µg/L	466.71	ppb	07:37:46
2	Cr 267.716†	59873.6	59205.8	463.58	µg/L	463.58	ppb	07:37:46
2	Cu 324.752†	123849.5	119865.3	467.26	µg/L	467.26	ppb	07:37:46
2	Mn 257.610†	382644.8	379280.8	469.08	µg/L	469.08	ppb	07:37:46
2	Mo 202.031†	15964.6	15854.2	466.36	µg/L	466.36	ppb	07:38:06
2	Ni 231.604†	40667.9	40412.1	465.32	µg/L	465.32	ppb	07:37:46
2	P 214.914†	10979.6	10907.8	2324.9	µg/L	2324.9	ppb	07:38:06
2	Pb 220.353†	8578.3	8421.9	471.62	µg/L	471.62	ppb	07:38:06

2	S 181.975 Axial†	1356.5	1240.4	925.03 µg/L	925.03 ppb	07:38:06
2	Sb 206.836†	4023.2	3909.5	465.83 µg/L	465.83 ppb	07:38:06
2	Se 196.026†	1307.9	1282.0	466 µg/L	466 ppb	07:38:06
2	SiO2†	52465.9	50261.8	4892.7 µg/L	4892.7 ppb	07:37:46
2	Si 251.611†	158344.0	156213.6	2293.7 µg/L	2293.7 ppb	07:37:46
2	Sn 189.927†	7531.9	7471.5	467.34 µg/L	467.34 ppb	07:38:06
2	Ti 334.940†	504721.3	499644.5	466.21 µg/L	466.21 ppb	07:37:46
2	Tl 190.801†	3747.8	3833.9	478.07 µg/L	478.07 ppb	07:38:06
2	U 409.014†	6972.2	7185.1	448.44 µg/L	448.44 ppb	07:37:46
2	V 292.402†	96211.2	95021.2	469.71 µg/L	469.71 ppb	07:37:46
2	Zn 213.857†	83793.7	82544.6	460.03 µg/L	460.03 ppb	07:37:46
3	Sc RADIAL	141223.7	141223.7	96.8 %		07:37:18
3	Al 396.153Radial†	25588.7	26504.6	4892.4 µg/L	4892.4 ppb	07:37:18
3	Ca 317.933Radial†	81996.3	84168.1	4688.5 µg/L	4688.5 ppb	07:37:18
3	Fe 238.204 Radial†	74078.2	76398.7	4708.7 µg/L	4708.7 ppb	07:37:18
3	K 766.490 Radial†	14283.7	13215.0	4834.3 µg/L	4834.3 ppb	07:37:18
3	Mg 279.077 IEC†	12579.8	12808.3	4779.5 µg/L	4779.5 ppb	07:37:18
3	Na 589.592 Radial†	68912.4	69918.0	9547.3 µg/L	9547.3 ppb	07:37:18
3	Sr 421.552†	225704.2	233360.7	485.11 µg/L	485.11 ppb	07:37:16
3	Sc 361.383	1737200.3	1737200.3	101.10 %		07:38:09
3	Y 371.029	1023000.6	1023000.6	99.641 %		07:38:09
3	Ag 328.068†	129804.6	124294.8	466.08 µg/L	466.08 ppb	07:38:09
3	As 188.979†	1584.4	1587.5	486.86 µg/L	486.86 ppb	07:38:29
3	B 249.677†	35144.5	31254.5	459.33 µg/L	459.33 ppb	07:38:09
3	Ba 233.527†	117342.7	116196.3	468.62 µg/L	468.62 ppb	07:38:09
3	Be 313.107†	1762901.5	1744702.7	475.18 µg/L	475.18 ppb	07:38:09
3	Cd 226.502†	74911.5	74211.1	463.25 µg/L	463.25 ppb	07:38:09
3	Co 228.616†	38084.9	37859.1	467.37 µg/L	467.37 ppb	07:38:09
3	Cr 267.716†	60063.8	59228.9	463.76 µg/L	463.76 ppb	07:38:09
3	Cu 324.752†	123874.8	119549.0	466.03 µg/L	466.03 ppb	07:38:09
3	Mn 257.610†	383642.9	379213.5	469.00 µg/L	469.00 ppb	07:38:09
3	Mo 202.031†	15929.7	15775.7	464.06 µg/L	464.06 ppb	07:38:29
3	Ni 231.604†	40689.2	40321.1	464.27 µg/L	464.27 ppb	07:38:09
3	P 214.914†	10943.5	10841.9	2310.9 µg/L	2310.9 ppb	07:38:29
3	Pb 220.353†	8527.3	8347.7	467.48 µg/L	467.48 ppb	07:38:29
3	S 181.975 Axial†	1341.1	1221.4	910.88 µg/L	910.88 ppb	07:38:29
3	Sb 206.836†	3977.1	3852.9	459.06 µg/L	459.06 ppb	07:38:29
3	Se 196.026†	1304.9	1275.4	463 µg/L	463 ppb	07:38:29
3	SiO2†	52742.2	50390.5	4905.4 µg/L	4905.4 ppb	07:38:09
3	Si 251.611†	159183.6	156607.6	2299.6 µg/L	2299.6 ppb	07:38:09
3	Sn 189.927†	7518.9	7437.9	465.24 µg/L	465.24 ppb	07:38:29
3	Ti 334.940†	505645.2	499167.4	465.76 µg/L	465.76 ppb	07:38:09
3	Tl 190.801†	3722.8	3798.8	473.75 µg/L	473.75 ppb	07:38:29
3	U 409.014†	7129.1	7321.1	456.39 µg/L	456.39 ppb	07:38:09
3	V 292.402†	96480.4	95022.4	469.70 µg/L	469.70 ppb	07:38:09
3	Zn 213.857†	83941.5	82459.8	459.57 µg/L	459.57 ppb	07:38:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1741601.8	101.36	%	0.701				0.69%
Sc RADIAL	144087.9	98.7	%	1.79				1.81%
Y 371.029	1025213.6	99.856	%	0.6637				0.66%
Ag 328.068†	124172.0	465.62	µg/L	1.242	465.62	ppb	1.242	0.27%
QC value within limits for Ag 328.068 Recovery = 93.12%								
Al 396.153Radial†	26444.2	4881.2	µg/L	14.80	4881.2	ppb	14.80	0.30%
QC value within limits for Al 396.153Radial Recovery = 97.62%								
As 188.979†	1597.9	490.00	µg/L	4.134	490.00	ppb	4.134	0.84%
QC value within limits for As 188.979 Recovery = 98.00%								
B 249.677†	31258.4	459.38	µg/L	1.040	459.38	ppb	1.040	0.23%
QC value within limits for B 249.677 Recovery = 91.88%								
Ba 233.527†	116169.3	468.51	µg/L	0.107	468.51	ppb	0.107	0.02%
QC value within limits for Ba 233.527 Recovery = 93.70%								
Be 313.107†	1746953.0	475.79	µg/L	1.253	475.79	ppb	1.253	0.26%
QC value within limits for Be 313.107 Recovery = 95.16%								
Ca 317.933Radial†	84347.5	4698.5	µg/L	13.15	4698.5	ppb	13.15	0.28%
QC value within limits for Ca 317.933Radial Recovery = 93.97%								
Cd 226.502†	74305.8	463.85	µg/L	1.597	463.85	ppb	1.597	0.34%
QC value within limits for Cd 226.502 Recovery = 92.77%								
Co 228.616†	37890.5	467.76	µg/L	1.285	467.76	ppb	1.285	0.27%

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   QC value within limits for Co 228.616  Recovery = 93.55%
Cr 267.716†            59282.1      464.18 µg/L         0.885      464.18 ppb          0.885   0.19%
   QC value within limits for Cr 267.716  Recovery = 92.84%
Cu 324.752†           119819.8      467.08 µg/L         0.973      467.08 ppb          0.973   0.21%
   QC value within limits for Cu 324.752  Recovery = 93.42%
Fe 238.204 Radial†     76428.6      4710.6 µg/L          6.52      4710.6 ppb           6.52   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.21%
K 766.490 Radial†      13193.5      4826.4 µg/L         16.99      4826.4 ppb          16.99   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 96.53%
Mg 279.077 IEC†        12810.2      4780.2 µg/L         14.35      4780.2 ppb          14.35   0.30%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.60%
Mn 257.610†           379716.8      469.62 µg/L         1.007      469.62 ppb          1.007   0.21%
   QC value within limits for Mn 257.610  Recovery = 93.92%
Mo 202.031†            15755.0      463.45 µg/L         3.262      463.45 ppb          3.262   0.70%
   QC value within limits for Mo 202.031  Recovery = 92.69%
Na 589.592 Radial†     69577.4      9500.8 µg/L         41.02      9500.8 ppb          41.02   0.43%
   QC value within limits for Na 589.592 Radial  Recovery = 95.01%
Ni 231.604†            40455.5      465.82 µg/L         1.848      465.82 ppb          1.848   0.40%
   QC value within limits for Ni 231.604  Recovery = 93.16%
P 214.914†             10830.7      2308.5 µg/L         17.82      2308.5 ppb          17.82   0.77%
   QC value within limits for P 214.914  Recovery = 92.34%
Pb 220.353†             8358.6      468.08 µg/L         3.280      468.08 ppb          3.280   0.70%
   QC value within limits for Pb 220.353  Recovery = 93.62%
S 181.975 Axial†        1223.2      912.21 µg/L        12.211      912.21 ppb         12.211   1.34%
   QC value within limits for S 181.975 Axial  Recovery = 91.22%
Sb 206.836†             3865.6      460.56 µg/L         4.702      460.56 ppb          4.702   1.02%
   QC value within limits for Sb 206.836  Recovery = 92.11%
Se 196.026†             1268.7         461 µg/L           6.3         461 ppb            6.3   1.37%
   QC value within limits for Se 196.026  Recovery = 92.15%
SiO2†                  50411.9      4907.5 µg/L         15.98      4907.5 ppb          15.98   0.33%
   QC value within limits for SiO2  Recovery = 91.77%
Si 251.611†           156620.9      2299.8 µg/L          6.18      2299.8 ppb           6.18   0.27%
   QC value within limits for Si 251.611  Recovery = 91.99%
Sn 189.927†             7412.1      463.64 µg/L         4.721      463.64 ppb          4.721   1.02%
   QC value within limits for Sn 189.927  Recovery = 92.73%
Sr 421.552†           229460.1      477.00 µg/L         7.102      477.00 ppb          7.102   1.49%
   QC value within limits for Sr 421.552  Recovery = 95.40%
Ti 334.940†           499661.8      466.22 µg/L         0.472      466.22 ppb          0.472   0.10%
   QC value within limits for Ti 334.940  Recovery = 93.24%
Tl 190.801†             3806.8      474.75 µg/L         2.949      474.75 ppb          2.949   0.62%
   QC value within limits for Tl 190.801  Recovery = 94.95%
U 409.014†              7220.3      450.52 µg/L         5.160      450.52 ppb          5.160   1.15%
   QC value within limits for U 409.014  Recovery = 90.10%
V 292.402†             95090.2      470.02 µg/L         0.547      470.02 ppb          0.547   0.12%
   QC value within limits for V 292.402  Recovery = 94.00%
Zn 213.857†            82584.3      460.25 µg/L         0.820      460.25 ppb          0.820   0.18%
   QC value within limits for Zn 213.857  Recovery = 92.05%
All analyte(s) passed QC.
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Sequence No.: 36
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 7:38:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144865.0	144865.0	99.3	%			07:39:06
1	Al 396.153Radial†	-66.2	-3.5	-0.6374	µg/L	-0.6374	ppb	07:39:26
1	Ca 317.933Radial†	646.3	90.4	5.0369	µg/L	5.0369	ppb	07:39:26
1	Fe 238.204 Radial†	209.7	63.1	3.8916	µg/L	3.8916	ppb	07:39:26
1	K 766.490 Radial†	1684.9	152.5	55.831	µg/L	55.831	ppb	07:39:06
1	Mg 279.077 IEC†	193.5	4.2	1.5669	µg/L	1.5669	ppb	07:39:26
1	Na 589.592 Radial†	1877.6	600.6	82.000	µg/L	82.000	ppb	07:39:06
1	Sr 421.552†	-73.3	61.5	0.1277	µg/L	0.1277	ppb	07:39:06
1	Sc 361.383	1773972.1	1773972.1	103.24	%			07:40:28
1	Y 371.029	1054718.2	1054718.2	102.73	%			07:40:28
1	Ag 328.068†	4048.7	-169.9	-0.6302	µg/L	-0.6302	ppb	07:40:30
1	As 188.979†	-24.0	-2.9	-0.8728	µg/L	-0.8728	ppb	07:40:50
1	B 249.677†	3528.9	-87.9	-1.2976	µg/L	-1.2976	ppb	07:40:30
1	Ba 233.527†	-121.1	18.6	0.0744	µg/L	0.0744	ppb	07:40:50
1	Be 313.107†	-1294.9	-189.5	-0.0502	µg/L	-0.0502	ppb	07:40:30
1	Cd 226.502†	-130.2	-7.9	-0.0499	µg/L	-0.0499	ppb	07:40:50
1	Co 228.616†	-161.9	33.5	0.4127	µg/L	0.4127	ppb	07:40:50
1	Cr 267.716†	184.3	-0.1	-0.0047	µg/L	-0.0047	ppb	07:40:50
1	Cu 324.752†	2904.6	-158.9	-0.6127	µg/L	-0.6127	ppb	07:40:30
1	Mn 257.610†	324.4	76.9	0.0951	µg/L	0.0951	ppb	07:40:50
1	Mo 202.031†	-23.3	-2.5	-0.0725	µg/L	-0.0725	ppb	07:40:50
1	Ni 231.604†	-135.9	-55.1	-0.6345	µg/L	-0.6345	ppb	07:40:50
1	P 214.914†	-41.1	-21.9	-4.6744	µg/L	-4.6744	ppb	07:40:50
1	Pb 220.353†	68.5	-20.0	-1.1214	µg/L	-1.1214	ppb	07:40:50
1	S 181.975 Axial†	100.6	-7.6	-5.6585	µg/L	-5.6585	ppb	07:40:50
1	Sb 206.836†	68.4	-14.6	-1.7404	µg/L	-1.7404	ppb	07:40:50
1	Se 196.026†	18.3	2.5	0.908	µg/L	0.908	ppb	07:40:50
1	SiO2†	1820.7	-11.9	-1.1560	µg/L	-1.1560	ppb	07:40:50
1	Si 251.611†	1068.4	198.3	2.9249	µg/L	2.9249	ppb	07:40:30
1	Sn 189.927†	-3.3	-2.1	-0.1293	µg/L	-0.1293	ppb	07:40:50
1	Ti 334.940†	988.4	4.8	0.0025	µg/L	0.0025	ppb	07:40:30
1	Tl 190.801†	-106.3	13.7	1.6801	µg/L	1.6801	ppb	07:40:50
1	U 409.014†	-194.8	81.2	4.7170	µg/L	4.7170	ppb	07:40:30
1	V 292.402†	299.5	-113.7	-0.5526	µg/L	-0.5526	ppb	07:40:30
1	Zn 213.857†	620.0	36.1	0.2071	µg/L	0.2071	ppb	07:40:50
2	Sc RADIAL	144677.4	144677.4	99.1	%			07:39:28
2	Al 396.153Radial†	-26.2	36.8	6.7962	µg/L	6.7962	ppb	07:39:48
2	Ca 317.933Radial†	616.3	61.0	3.3989	µg/L	3.3989	ppb	07:39:48
2	Fe 238.204 Radial†	188.1	41.6	2.5644	µg/L	2.5644	ppb	07:39:48
2	K 766.490 Radial†	1793.5	264.2	96.730	µg/L	96.730	ppb	07:39:28
2	Mg 279.077 IEC†	186.7	-2.4	-0.8687	µg/L	-0.8687	ppb	07:39:48
2	Na 589.592 Radial†	1666.4	390.0	53.197	µg/L	53.197	ppb	07:39:28
2	Sr 421.552†	-22.1	112.9	0.2348	µg/L	0.2348	ppb	07:39:28
2	Sc 361.383	1735344.8	1735344.8	101.00	%			07:40:52
2	Y 371.029	1033478.9	1033478.9	100.66	%			07:40:52
2	Ag 328.068†	4113.3	-18.7	-0.0838	µg/L	-0.0838	ppb	07:40:54
2	As 188.979†	-13.0	7.5	2.2661	µg/L	2.2661	ppb	07:41:15
2	B 249.677†	3521.9	-18.8	-0.2777	µg/L	-0.2777	ppb	07:40:54
2	Ba 233.527†	-142.6	-5.3	-0.0217	µg/L	-0.0217	ppb	07:41:15
2	Be 313.107†	-1309.9	-232.3	-0.0650	µg/L	-0.0650	ppb	07:40:54
2	Cd 226.502†	-113.5	5.9	0.0362	µg/L	0.0362	ppb	07:41:15
2	Co 228.616†	-176.9	15.2	0.1873	µg/L	0.1873	ppb	07:41:15
2	Cr 267.716†	160.2	-20.0	-0.1524	µg/L	-0.1524	ppb	07:41:15
2	Cu 324.752†	2852.4	-148.0	-0.5794	µg/L	-0.5794	ppb	07:40:54
2	Mn 257.610†	315.5	75.1	0.0930	µg/L	0.0930	ppb	07:41:15
2	Mo 202.031†	-7.2	12.9	0.3792	µg/L	0.3792	ppb	07:41:15
2	Ni 231.604†	-99.6	-22.1	-0.2540	µg/L	-0.2540	ppb	07:41:15
2	P 214.914†	-15.0	3.1	0.6539	µg/L	0.6539	ppb	07:41:15
2	Pb 220.353†	70.7	-16.4	-0.9094	µg/L	-0.9094	ppb	07:41:15

2	S 181.975 Axial†	109.8	3.6	2.7121	µg/L	2.7121 ppb	07:41:15
2	Sb 206.836†	77.7	-3.8	-0.4510	µg/L	-0.4510 ppb	07:41:15
2	Se 196.026†	17.9	2.5	0.895	µg/L	0.895 ppb	07:41:15
2	SiO2†	1835.6	42.1	4.1047	µg/L	4.1047 ppb	07:41:15
2	Si 251.611†	942.4	96.6	1.4199	µg/L	1.4199 ppb	07:40:54
2	Sn 189.927†	-4.2	-3.0	-0.1897	µg/L	-0.1897 ppb	07:41:15
2	Ti 334.940†	926.0	-35.7	-0.0308	µg/L	-0.0308 ppb	07:40:54
2	Tl 190.801†	-106.4	11.4	1.3896	µg/L	1.3896 ppb	07:41:15
2	U 409.014†	-370.7	-97.2	-5.7184	µg/L	-5.7184 ppb	07:40:54
2	V 292.402†	279.0	-127.6	-0.6232	µg/L	-0.6232 ppb	07:40:54
2	Zn 213.857†	604.2	33.8	0.1918	µg/L	0.1918 ppb	07:41:15
3	Sc RADIAL	144023.3	144023.3	98.7	%		07:39:50
3	Al 396.153Radial†	-82.0	-19.8	-3.6906	µg/L	-3.6906 ppb	07:40:10
3	Ca 317.933Radial†	602.8	50.2	2.7958	µg/L	2.7958 ppb	07:40:10
3	Fe 238.204 Radial†	180.4	34.7	2.1375	µg/L	2.1375 ppb	07:40:10
3	K 766.490 Radial†	1784.0	262.8	96.205	µg/L	96.205 ppb	07:39:50
3	Mg 279.077 IEC†	175.6	-12.7	-4.7423	µg/L	-4.7423 ppb	07:40:10
3	Na 589.592 Radial†	1732.1	464.3	63.340	µg/L	63.340 ppb	07:39:50
3	Sr 421.552†	-195.2	-62.5	-0.1299	µg/L	-0.1299 ppb	07:39:50
3	Sc 361.383	1741408.4	1741408.4	101.35	%		07:41:17
3	Y 371.029	1036750.9	1036750.9	100.98	%		07:41:17
3	Ag 328.068†	4133.8	-12.7	-0.0489	µg/L	-0.0489 ppb	07:41:19
3	As 188.979†	-23.0	-2.3	-0.6982	µg/L	-0.6982 ppb	07:41:39
3	B 249.677†	3567.6	14.2	0.2094	µg/L	0.2094 ppb	07:41:19
3	Ba 233.527†	-111.8	25.5	0.1031	µg/L	0.1031 ppb	07:41:39
3	Be 313.107†	-1058.7	20.1	0.0047	µg/L	0.0047 ppb	07:41:19
3	Cd 226.502†	-95.9	23.6	0.1471	µg/L	0.1471 ppb	07:41:39
3	Co 228.616†	-177.4	15.3	0.1888	µg/L	0.1888 ppb	07:41:39
3	Cr 267.716†	169.4	-11.4	-0.0874	µg/L	-0.0874 ppb	07:41:39
3	Cu 324.752†	2962.9	-48.8	-0.1916	µg/L	-0.1916 ppb	07:41:19
3	Mn 257.610†	307.6	66.3	0.0822	µg/L	0.0822 ppb	07:41:39
3	Mo 202.031†	-10.0	10.2	0.3008	µg/L	0.3008 ppb	07:41:39
3	Ni 231.604†	-92.4	-14.6	-0.1686	µg/L	-0.1686 ppb	07:41:39
3	P 214.914†	-29.9	-11.6	-2.4772	µg/L	-2.4772 ppb	07:41:39
3	Pb 220.353†	85.8	-1.7	-0.0930	µg/L	-0.0930 ppb	07:41:39
3	S 181.975 Axial†	103.2	-3.3	-2.4139	µg/L	-2.4139 ppb	07:41:39
3	Sb 206.836†	82.0	0.1	0.0120	µg/L	0.0120 ppb	07:41:39
3	Se 196.026†	16.4	0.9	0.318	µg/L	0.318 ppb	07:41:39
3	SiO2†	1798.2	-1.1	-0.1172	µg/L	-0.1172 ppb	07:41:39
3	Si 251.611†	1068.4	217.6	3.2043	µg/L	3.2043 ppb	07:41:19
3	Sn 189.927†	-2.9	-1.8	-0.1096	µg/L	-0.1096 ppb	07:41:39
3	Ti 334.940†	1014.3	48.3	0.0467	µg/L	0.0467 ppb	07:41:19
3	Tl 190.801†	-117.5	0.7	0.0900	µg/L	0.0900 ppb	07:41:39
3	U 409.014†	-319.9	-45.8	-2.6697	µg/L	-2.6697 ppb	07:41:19
3	V 292.402†	434.4	24.9	0.1219	µg/L	0.1219 ppb	07:41:19
3	Zn 213.857†	631.5	58.7	0.3307	µg/L	0.3307 ppb	07:41:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1750241.8	101.86	%	1.209				1.19%
Sc RADIAL	144521.9	99.0	%	0.30				0.31%
Y 371.029	1041649.4	101.46	%	1.114				1.10%
Ag 328.068†	-67.1	-0.2543	µg/L	0.32602	-0.2543	ppb	0.32602	128.19%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.5	0.8227	µg/L	5.39375	0.8227	ppb	5.39375	655.58%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.8	0.2317	µg/L	1.76401	0.2317	ppb	1.76401	761.32%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-30.8	-0.4553	µg/L	0.76905	-0.4553	ppb	0.76905	168.90%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.9	0.0519	µg/L	0.06535	0.0519	ppb	0.06535	125.85%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-133.9	-0.0368	µg/L	0.03667	-0.0368	ppb	0.03667	99.59%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	67.2	3.7438	µg/L	1.15972	3.7438	ppb	1.15972	30.98%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.2	0.0445	µg/L	0.09877	0.0445	ppb	0.09877	222.10%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	21.3	0.2629	µg/L	0.12972	0.2629	ppb	0.12972	49.34%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -10.5     -0.0815 µg/L       0.07399     -0.0815 ppb        0.07399  90.79%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -118.6     -0.4613 µg/L       0.23410     -0.4613 ppb        0.23410  50.75%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        46.5      2.8645 µg/L       0.91478      2.8645 ppb        0.91478  31.94%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        226.5      82.922 µg/L       23.4629      82.922 ppb        23.4629  28.30%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -3.6     -1.3480 µg/L       3.18177     -1.3480 ppb        3.18177 236.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               72.8      0.0901 µg/L       0.00694      0.0901 ppb        0.00694   7.70%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                6.9      0.2025 µg/L       0.24136      0.2025 ppb        0.24136 119.21%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       485.0      66.179 µg/L       14.6100      66.179 ppb        14.6100  22.08%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -30.6     -0.3524 µg/L       0.24803     -0.3524 ppb        0.24803  70.39%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -10.1     -2.1659 µg/L       2.67771     -2.1659 ppb        2.67771 123.63%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -12.7     -0.7079 µg/L       0.54301     -0.7079 ppb        0.54301  76.70%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.4     -1.7867 µg/L       4.22040     -1.7867 ppb        4.22040 236.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -6.1     -0.7264 µg/L       0.90810     -0.7264 ppb        0.90810 125.01%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.0       0.707 µg/L        0.3367       0.707 ppb         0.3367  47.63%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      9.7      0.9439 µg/L       2.78623      0.9439 ppb        2.78623 295.20%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              170.8      2.5163 µg/L       0.95980      2.5163 ppb        0.95980  38.14%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -2.3     -0.1429 µg/L       0.04173     -0.1429 ppb        0.04173  29.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               37.3      0.0775 µg/L       0.18746      0.0775 ppb        0.18746 241.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                5.8      0.0061 µg/L       0.03889      0.0061 ppb        0.03889 633.97%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.6      1.0532 µg/L       0.84670      1.0532 ppb        0.84670  80.39%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -20.6     -1.2237 µg/L       5.36587     -1.2237 ppb        5.36587 438.49%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -72.1     -0.3513 µg/L       0.41132     -0.3513 ppb        0.41132 117.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               42.9      0.2432 µg/L       0.07619      0.2432 ppb        0.07619  31.33%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 46
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 8:00:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145715.3	145715.3	99.9	%			08:01:32
1	Al 396.153Radial†	26381.9	26484.0	4888.7	µg/L	4888.7	ppb	08:01:32
1	Ca 317.933Radial†	85101.3	84666.0	4716.2	µg/L	4716.2	ppb	08:01:32
1	Fe 238.204 Radial†	76948.8	76914.0	4740.5	µg/L	4740.5	ppb	08:01:32
1	K 766.490 Radial†	14844.0	13321.1	4873.1	µg/L	4873.1	ppb	08:01:32
1	Mg 279.077 IEC†	13019.7	12848.2	4794.2	µg/L	4794.2	ppb	08:01:32
1	Na 589.592 Radial†	71029.4	69843.2	9537.1	µg/L	9537.1	ppb	08:01:32
1	Sr 421.552†	226733.7	227202.7	472.30	µg/L	472.30	ppb	08:01:30
1	Sc 361.383	1733278.7	1733278.7	100.88	%			08:01:44
1	Y 371.029	1020878.7	1020878.7	99.434	%			08:01:44
1	Ag 328.068†	128877.0	123665.7	463.80	µg/L	463.80	ppb	08:01:44
1	As 188.979†	1571.7	1578.4	484.08	µg/L	484.08	ppb	08:02:05
1	B 249.677†	34899.0	31089.9	456.91	µg/L	456.91	ppb	08:01:44
1	Ba 233.527†	116754.5	115875.8	467.32	µg/L	467.32	ppb	08:01:44
1	Be 313.107†	1755392.5	1741204.0	474.24	µg/L	474.24	ppb	08:01:44
1	Cd 226.502†	74106.8	73581.0	459.31	µg/L	459.31	ppb	08:01:44
1	Co 228.616†	37838.7	37700.2	465.41	µg/L	465.41	ppb	08:01:44
1	Cr 267.716†	59758.3	59060.5	462.42	µg/L	462.42	ppb	08:01:44
1	Cu 324.752†	124172.2	120121.0	468.28	µg/L	468.28	ppb	08:01:44
1	Mn 257.610†	383112.4	379546.1	469.41	µg/L	469.41	ppb	08:01:44
1	Mo 202.031†	15799.6	15682.4	461.32	µg/L	461.32	ppb	08:02:05
1	Ni 231.604†	40408.5	40133.9	462.11	µg/L	462.11	ppb	08:01:44
1	P 214.914†	10759.6	10684.0	2277.0	µg/L	2277.0	ppb	08:02:05
1	Pb 220.353†	8394.7	8235.4	461.17	µg/L	461.17	ppb	08:02:05
1	S 181.975 Axial†	1311.6	1195.1	891.37	µg/L	891.37	ppb	08:02:05
1	Sb 206.836†	3976.3	3860.9	459.99	µg/L	459.99	ppb	08:02:05
1	Se 196.026†	1284.2	1257.8	457	µg/L	457	ppb	08:02:05
1	SiO2†	52555.6	50323.5	4899.0	µg/L	4899.0	ppb	08:01:44
1	Si 251.611†	158981.4	156763.4	2302.0	µg/L	2302.0	ppb	08:01:44
1	Sn 189.927†	7415.3	7352.0	459.90	µg/L	459.90	ppb	08:02:05
1	Ti 334.940†	506659.0	501304.0	467.74	µg/L	467.74	ppb	08:01:44
1	Tl 190.801†	3686.3	3771.0	470.38	µg/L	470.38	ppb	08:02:05
1	U 409.014†	7619.8	7823.5	485.81	µg/L	485.81	ppb	08:01:44
1	V 292.402†	96428.5	95186.8	470.48	µg/L	470.48	ppb	08:01:44
1	Zn 213.857†	83338.3	82049.7	457.27	µg/L	457.27	ppb	08:01:44
2	Sc RADIAL	142027.8	142027.8	97.3	%			08:01:36
2	Al 396.153Radial†	25747.8	26518.3	4894.9	µg/L	4894.9	ppb	08:01:36
2	Ca 317.933Radial†	82471.3	84176.5	4689.0	µg/L	4689.0	ppb	08:01:36
2	Fe 238.204 Radial†	74613.7	76515.5	4715.9	µg/L	4715.9	ppb	08:01:36
2	K 766.490 Radial†	14349.4	13198.9	4828.4	µg/L	4828.4	ppb	08:01:36
2	Mg 279.077 IEC†	12706.1	12864.4	4800.4	µg/L	4800.4	ppb	08:01:36
2	Na 589.592 Radial†	69331.4	69945.4	9551.1	µg/L	9551.1	ppb	08:01:36
2	Sr 421.552†	226873.5	233241.8	484.86	µg/L	484.86	ppb	08:01:34
2	Sc 361.383	1733104.6	1733104.6	100.87	%			08:02:08
2	Y 371.029	1021120.9	1021120.9	99.458	%			08:02:08
2	Ag 328.068†	129426.2	124223.1	465.82	µg/L	465.82	ppb	08:02:08
2	As 188.979†	1592.6	1599.3	490.42	µg/L	490.42	ppb	08:02:28
2	B 249.677†	35033.3	31226.5	458.92	µg/L	458.92	ppb	08:02:08
2	Ba 233.527†	116849.2	115981.4	467.75	µg/L	467.75	ppb	08:02:08
2	Be 313.107†	1758090.3	1744053.5	475.00	µg/L	475.00	ppb	08:02:08
2	Cd 226.502†	74443.5	73922.3	461.45	µg/L	461.45	ppb	08:02:08
2	Co 228.616†	37979.7	37843.7	467.18	µg/L	467.18	ppb	08:02:08
2	Cr 267.716†	59778.2	59086.2	462.64	µg/L	462.64	ppb	08:02:08
2	Cu 324.752†	124226.8	120187.5	468.52	µg/L	468.52	ppb	08:02:08
2	Mn 257.610†	383186.5	379657.8	469.55	µg/L	469.55	ppb	08:02:08
2	Mo 202.031†	15940.4	15823.5	465.46	µg/L	465.46	ppb	08:02:28
2	Ni 231.604†	40586.3	40314.2	464.19	µg/L	464.19	ppb	08:02:08
2	P 214.914†	10880.3	10804.8	2302.9	µg/L	2302.9	ppb	08:02:28
2	Pb 220.353†	8511.6	8352.1	467.72	µg/L	467.72	ppb	08:02:28

2	S 181.975 Axial†	1348.0	1231.4	918.34 µg/L	918.34 ppb	08:02:28
2	Sb 206.836†	4000.0	3884.8	462.89 µg/L	462.89 ppb	08:02:28
2	Se 196.026†	1293.9	1267.5	460 µg/L	460 ppb	08:02:28
2	SiO2†	52562.2	50335.3	4900.0 µg/L	4900.0 ppb	08:02:08
2	Si 251.611†	159042.6	156839.9	2303.0 µg/L	2303.0 ppb	08:02:08
2	Sn 189.927†	7463.6	7400.6	462.92 µg/L	462.92 ppb	08:02:28
2	Ti 334.940†	506039.5	500740.2	467.23 µg/L	467.23 ppb	08:02:08
2	Tl 190.801†	3699.3	3784.2	471.98 µg/L	471.98 ppb	08:02:28
2	U 409.014†	7125.9	7334.6	457.19 µg/L	457.19 ppb	08:02:08
2	V 292.402†	96287.2	95056.4	469.87 µg/L	469.87 ppb	08:02:08
2	Zn 213.857†	83549.5	82267.4	458.48 µg/L	458.48 ppb	08:02:08
3	Sc RADIAL	143341.2	143341.2	98.2 %		08:01:40
3	Al 396.153Radial†	26044.6	26578.1	4906.2 µg/L	4906.2 ppb	08:01:40
3	Ca 317.933Radial†	83104.8	84044.9	4681.6 µg/L	4681.6 ppb	08:01:40
3	Fe 238.204 Radial†	75412.0	76625.7	4722.7 µg/L	4722.7 ppb	08:01:40
3	K 766.490 Radial†	14496.9	13214.0	4833.9 µg/L	4833.9 ppb	08:01:40
3	Mg 279.077 IEC†	12748.0	12787.5	4771.6 µg/L	4771.6 ppb	08:01:40
3	Na 589.592 Radial†	69624.2	69590.7	9502.6 µg/L	9502.6 ppb	08:01:40
3	Sr 421.552†	225785.0	229997.6	478.11 µg/L	478.11 ppb	08:01:38
3	Sc 361.383	1744356.0	1744356.0	101.52 %		08:02:31
3	Y 371.029	1026919.1	1026919.1	100.02 %		08:02:31
3	Ag 328.068†	130072.0	124031.6	465.13 µg/L	465.13 ppb	08:02:31
3	As 188.979†	1587.7	1584.3	485.87 µg/L	485.87 ppb	08:02:51
3	B 249.677†	35315.9	31280.9	459.71 µg/L	459.71 ppb	08:02:31
3	Ba 233.527†	117642.8	116015.8	467.89 µg/L	467.89 ppb	08:02:31
3	Be 313.107†	1771054.6	1745580.9	475.42 µg/L	475.42 ppb	08:02:31
3	Cd 226.502†	74986.7	73981.3	461.82 µg/L	461.82 ppb	08:02:31
3	Co 228.616†	38300.5	37916.9	468.08 µg/L	468.08 ppb	08:02:31
3	Cr 267.716†	60087.1	59008.1	462.03 µg/L	462.03 ppb	08:02:31
3	Cu 324.752†	125055.9	120209.8	468.61 µg/L	468.61 ppb	08:02:31
3	Mn 257.610†	385650.6	379634.5	469.52 µg/L	469.52 ppb	08:02:31
3	Mo 202.031†	15861.8	15644.2	460.19 µg/L	460.19 ppb	08:02:51
3	Ni 231.604†	40921.5	40384.8	465.00 µg/L	465.00 ppb	08:02:31
3	P 214.914†	10852.0	10707.3	2282.0 µg/L	2282.0 ppb	08:02:51
3	Pb 220.353†	8455.9	8242.8	461.61 µg/L	461.61 ppb	08:02:51
3	S 181.975 Axial†	1319.7	1194.9	891.17 µg/L	891.17 ppb	08:02:51
3	Sb 206.836†	3977.3	3836.9	457.12 µg/L	457.12 ppb	08:02:51
3	Se 196.026†	1290.9	1256.3	456 µg/L	456 ppb	08:02:51
3	SiO2†	52909.6	50341.4	4900.8 µg/L	4900.8 ppb	08:02:31
3	Si 251.611†	160085.1	156849.7	2303.3 µg/L	2303.3 ppb	08:02:31
3	Sn 189.927†	7427.1	7317.0	457.71 µg/L	457.71 ppb	08:02:51
3	Ti 334.940†	509665.6	501076.0	467.54 µg/L	467.54 ppb	08:02:31
3	Tl 190.801†	3698.9	3760.1	469.03 µg/L	469.03 ppb	08:02:51
3	U 409.014†	7194.6	7356.7	458.58 µg/L	458.58 ppb	08:02:31
3	V 292.402†	97277.5	95416.1	471.57 µg/L	471.57 ppb	08:02:31
3	Zn 213.857†	84150.2	82324.8	458.80 µg/L	458.80 ppb	08:02:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1736913.1	101.09	%	0.375				0.37%
Sc RADIAL	143694.8	98.5	%	1.28				1.30%
Y 371.029	1022972.9	99.638	%	0.3331				0.33%
Ag 328.068†	123973.4	464.92	µg/L	1.028	464.92	ppb	1.028	0.22%
QC value within limits for Ag 328.068 Recovery = 92.98%								
Al 396.153Radial†	26526.8	4896.6	µg/L	8.88	4896.6	ppb	8.88	0.18%
QC value within limits for Al 396.153Radial Recovery = 97.93%								
As 188.979†	1587.3	486.79	µg/L	3.266	486.79	ppb	3.266	0.67%
QC value within limits for As 188.979 Recovery = 97.36%								
B 249.677†	31199.1	458.51	µg/L	1.446	458.51	ppb	1.446	0.32%
QC value within limits for B 249.677 Recovery = 91.70%								
Ba 233.527†	115957.7	467.65	µg/L	0.294	467.65	ppb	0.294	0.06%
QC value within limits for Ba 233.527 Recovery = 93.53%								
Be 313.107†	1743612.8	474.89	µg/L	0.600	474.89	ppb	0.600	0.13%
QC value within limits for Be 313.107 Recovery = 94.98%								
Ca 317.933Radial†	84295.8	4695.6	µg/L	18.23	4695.6	ppb	18.23	0.39%
QC value within limits for Ca 317.933Radial Recovery = 93.91%								
Cd 226.502†	73828.2	460.86	µg/L	1.352	460.86	ppb	1.352	0.29%
QC value within limits for Cd 226.502 Recovery = 92.17%								
Co 228.616†	37820.3	466.89	µg/L	1.360	466.89	ppb	1.360	0.29%

```
   QC value within limits for Co 228.616  Recovery = 93.38%
Cr 267.716†            59051.6      462.36 µg/L         0.309      462.36 ppb          0.309   0.07%
   QC value within limits for Cr 267.716  Recovery = 92.47%
Cu 324.752†           120172.8      468.47 µg/L         0.166      468.47 ppb          0.166   0.04%
   QC value within limits for Cu 324.752  Recovery = 93.69%
Fe 238.204 Radial†     76685.1      4726.4 µg/L         12.68      4726.4 ppb          12.68   0.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.53%
K 766.490 Radial†      13244.6      4845.2 µg/L         24.40      4845.2 ppb          24.40   0.50%
   QC value within limits for K 766.490 Radial  Recovery = 96.90%
Mg 279.077 IEC†        12833.4      4788.8 µg/L         15.15      4788.8 ppb          15.15   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.78%
Mn 257.610†           379612.8      469.49 µg/L         0.073      469.49 ppb          0.073   0.02%
   QC value within limits for Mn 257.610  Recovery = 93.90%
Mo 202.031†            15716.7      462.32 µg/L         2.775      462.32 ppb          2.775   0.60%
   QC value within limits for Mo 202.031  Recovery = 92.46%
Na 589.592 Radial†     69793.1      9530.3 µg/L         24.94      9530.3 ppb          24.94   0.26%
   QC value within limits for Na 589.592 Radial  Recovery = 95.30%
Ni 231.604†            40277.6      463.77 µg/L         1.490      463.77 ppb          1.490   0.32%
   QC value within limits for Ni 231.604  Recovery = 92.75%
P 214.914†             10732.1      2287.3 µg/L         13.70      2287.3 ppb          13.70   0.60%
   QC value within limits for P 214.914  Recovery = 91.49%
Pb 220.353†             8276.8      463.50 µg/L         3.661      463.50 ppb          3.661   0.79%
   QC value within limits for Pb 220.353  Recovery = 92.70%
S 181.975 Axial†        1207.1      900.29 µg/L        15.630      900.29 ppb         15.630   1.74%
   QC value within limits for S 181.975 Axial  Recovery = 90.03%
Sb 206.836†             3860.9      460.00 µg/L         2.884      460.00 ppb          2.884   0.63%
   QC value within limits for Sb 206.836  Recovery = 92.00%
Se 196.026†             1260.5         458 µg/L           2.2         458 ppb            2.2   0.48%
   QC value within limits for Se 196.026  Recovery = 91.55%
SiO2†                  50333.4      4899.9 µg/L          0.91      4899.9 ppb           0.91   0.02%
   QC value within limits for SiO2  Recovery = 91.63%
Si 251.611†           156817.7      2302.8 µg/L          0.69      2302.8 ppb           0.69   0.03%
   QC value within limits for Si 251.611  Recovery = 92.11%
Sn 189.927†             7356.5      460.18 µg/L         2.617      460.18 ppb          2.617   0.57%
   QC value within limits for Sn 189.927  Recovery = 92.04%
Sr 421.552†           230147.4      478.43 µg/L         6.283      478.43 ppb          6.283   1.31%
   QC value within limits for Sr 421.552  Recovery = 95.69%
Ti 334.940†           501040.1      467.50 µg/L         0.260      467.50 ppb          0.260   0.06%
   QC value within limits for Ti 334.940  Recovery = 93.50%
Tl 190.801†             3771.8      470.46 µg/L         1.474      470.46 ppb          1.474   0.31%
   QC value within limits for Tl 190.801  Recovery = 94.09%
U 409.014†              7504.9      467.19 µg/L        16.134      467.19 ppb         16.134   3.45%
   QC value within limits for U 409.014  Recovery = 93.44%
V 292.402†             95219.8      470.64 µg/L         0.860      470.64 ppb          0.860   0.18%
   QC value within limits for V 292.402  Recovery = 94.13%
Zn 213.857†            82214.0      458.18 µg/L         0.807      458.18 ppb          0.807   0.18%
   QC value within limits for Zn 213.857  Recovery = 91.64%
All analyte(s) passed QC.
```

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/1/2010 8:02:58**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145628.2	145628.2	99.8	%			08:03:27
1	Al 396.153Radial†	-41.4	21.8	4.0267	µg/L	4.0267	ppb	08:03:47
1	Ca 317.933Radial†	662.1	102.9	5.7304	µg/L	5.7304	ppb	08:03:47
1	Fe 238.204 Radial†	220.3	72.7	4.4780	µg/L	4.4780	ppb	08:03:47
1	K 766.490 Radial†	1855.8	314.9	115.28	µg/L	115.28	ppb	08:03:27
1	Mg 279.077 IEC†	185.7	-4.6	-1.7242	µg/L	-1.7242	ppb	08:03:47
1	Na 589.592 Radial†	1645.9	358.5	48.877	µg/L	48.877	ppb	08:03:27
1	Sr 421.552†	-216.0	-81.2	-0.1688	µg/L	-0.1688	ppb	08:03:27
1	Sc 361.383	1772962.4	1772962.4	103.19	%			08:04:49
1	Y 371.029	1055359.7	1055359.7	102.79	%			08:04:49
1	Ag 328.068†	3845.9	-364.2	-1.3449	µg/L	-1.3449	ppb	08:04:51
1	As 188.979†	-19.6	1.4	0.4131	µg/L	0.4131	ppb	08:05:11
1	B 249.677†	3453.9	-158.7	-2.3413	µg/L	-2.3413	ppb	08:05:11
1	Ba 233.527†	-154.1	-13.5	-0.0539	µg/L	-0.0539	ppb	08:05:11
1	Be 313.107†	-982.1	112.9	0.0301	µg/L	0.0301	ppb	08:04:51
1	Cd 226.502†	-101.4	19.9	0.1238	µg/L	0.1238	ppb	08:05:11
1	Co 228.616†	-169.9	25.6	0.3161	µg/L	0.3161	ppb	08:05:11
1	Cr 267.716†	209.9	24.9	0.1968	µg/L	0.1968	ppb	08:05:11
1	Cu 324.752†	2963.7	-100.0	-0.3898	µg/L	-0.3898	ppb	08:04:51
1	Mn 257.610†	342.0	94.2	0.1166	µg/L	0.1166	ppb	08:05:11
1	Mo 202.031†	-15.5	5.0	0.1485	µg/L	0.1485	ppb	08:05:11
1	Ni 231.604†	-76.3	2.6	0.0298	µg/L	0.0298	ppb	08:05:11
1	P 214.914†	-34.8	-15.8	-3.3664	µg/L	-3.3664	ppb	08:05:11
1	Pb 220.353†	88.2	-0.9	-0.0505	µg/L	-0.0505	ppb	08:05:11
1	S 181.975 Axial†	106.5	-1.8	-1.3434	µg/L	-1.3434	ppb	08:05:11
1	Sb 206.836†	82.2	-1.2	-0.1403	µg/L	-0.1403	ppb	08:05:11
1	Se 196.026†	9.5	-6.1	-2.19	µg/L	-2.19	ppb	08:05:11
1	SiO2†	1849.6	17.1	1.6601	µg/L	1.6601	ppb	08:05:11
1	Si 251.611†	1439.7	558.6	8.2303	µg/L	8.2303	ppb	08:04:51
1	Sn 189.927†	8.5	9.4	0.5836	µg/L	0.5836	ppb	08:05:11
1	Ti 334.940†	1110.7	123.9	0.1168	µg/L	0.1168	ppb	08:04:51
1	Tl 190.801†	-120.9	-0.5	-0.0523	µg/L	-0.0523	ppb	08:05:11
1	U 409.014†	-317.2	-37.5	-2.1586	µg/L	-2.1586	ppb	08:04:51
1	V 292.402†	536.8	116.5	0.5684	µg/L	0.5684	ppb	08:04:51
1	Zn 213.857†	622.5	38.8	0.2178	µg/L	0.2178	ppb	08:05:11
2	Sc RADIAL	144736.8	144736.8	99.2	%			08:03:49
2	Al 396.153Radial†	-5.4	57.8	10.716	µg/L	10.716	ppb	08:04:09
2	Ca 317.933Radial†	638.8	83.5	4.6507	µg/L	4.6507	ppb	08:04:09
2	Fe 238.204 Radial†	199.0	52.5	3.2358	µg/L	3.2358	ppb	08:04:09
2	K 766.490 Radial†	1832.5	302.9	110.87	µg/L	110.87	ppb	08:03:49
2	Mg 279.077 IEC†	172.3	-17.0	-6.3459	µg/L	-6.3459	ppb	08:04:09
2	Na 589.592 Radial†	1559.6	281.7	38.384	µg/L	38.384	ppb	08:03:49
2	Sr 421.552†	-158.9	-25.0	-0.0520	µg/L	-0.0520	ppb	08:03:49
2	Sc 361.383	1755862.9	1755862.9	102.19	%			08:05:13
2	Y 371.029	1046433.4	1046433.4	101.92	%			08:05:13
2	Ag 328.068†	4113.9	-65.7	-0.2519	µg/L	-0.2519	ppb	08:05:15
2	As 188.979†	-10.1	10.4	3.1568	µg/L	3.1568	ppb	08:05:36
2	B 249.677†	3507.8	-73.3	-1.0826	µg/L	-1.0826	ppb	08:05:36
2	Ba 233.527†	-110.8	27.5	0.1103	µg/L	0.1103	ppb	08:05:36
2	Be 313.107†	-1103.6	-15.2	-0.0050	µg/L	-0.0050	ppb	08:05:15
2	Cd 226.502†	-117.5	3.3	0.0199	µg/L	0.0199	ppb	08:05:36
2	Co 228.616†	-168.0	25.9	0.3197	µg/L	0.3197	ppb	08:05:36
2	Cr 267.716†	175.1	-7.2	-0.0542	µg/L	-0.0542	ppb	08:05:36
2	Cu 324.752†	3054.7	17.0	0.0642	µg/L	0.0642	ppb	08:05:15
2	Mn 257.610†	329.2	84.8	0.1052	µg/L	0.1052	ppb	08:05:36
2	Mo 202.031†	-20.1	0.4	0.0130	µg/L	0.0130	ppb	08:05:36
2	Ni 231.604†	-91.7	-13.2	-0.1524	µg/L	-0.1524	ppb	08:05:36
2	P 214.914†	-21.8	-3.3	-0.7117	µg/L	-0.7117	ppb	08:05:36
2	Pb 220.353†	84.3	-3.9	-0.2136	µg/L	-0.2136	ppb	08:05:36

2	S 181.975 Axial†	104.3	-3.0	-2.2411 µg/L	-2.2411 ppb	08:05:36
2	Sb 206.836†	89.8	7.0	0.8387 µg/L	0.8387 ppb	08:05:36
2	Se 196.026†	1.4	-13.9	-5.02 µg/L	-5.02 ppb	08:05:36
2	SiO2†	1846.4	31.5	3.0716 µg/L	3.0716 ppb	08:05:36
2	Si 251.611†	1143.4	282.3	4.1596 µg/L	4.1596 ppb	08:05:15
2	Sn 189.927†	4.4	5.4	0.3386 µg/L	0.3386 ppb	08:05:36
2	Ti 334.940†	1120.6	144.0	0.1364 µg/L	0.1364 ppb	08:05:15
2	Tl 190.801†	-106.6	12.4	1.5171 µg/L	1.5171 ppb	08:05:36
2	U 409.014†	-325.4	-48.5	-2.8597 µg/L	-2.8597 ppb	08:05:15
2	V 292.402†	323.4	-87.3	-0.4283 µg/L	-0.4283 ppb	08:05:15
2	Zn 213.857†	622.8	45.0	0.2539 µg/L	0.2539 ppb	08:05:36
3	Sc RADIAL	145477.8	145477.8	99.7 %		08:04:11
3	Al 396.153Radial†	-77.3	-14.3	-2.6373 µg/L	-2.6373 ppb	08:04:31
3	Ca 317.933Radial†	622.0	63.4	3.5300 µg/L	3.5300 ppb	08:04:31
3	Fe 238.204 Radial†	209.6	62.1	3.8302 µg/L	3.8302 ppb	08:04:31
3	K 766.490 Radial†	1767.4	228.1	83.522 µg/L	83.522 ppb	08:04:11
3	Mg 279.077 IEC†	189.8	-0.3	-0.1200 µg/L	-0.1200 ppb	08:04:31
3	Na 589.592 Radial†	1542.1	256.1	34.912 µg/L	34.912 ppb	08:04:11
3	Sr 421.552†	-247.0	-112.5	-0.2339 µg/L	-0.2339 ppb	08:04:11
3	Sc 361.383	1757498.0	1757498.0	102.29 %		08:05:38
3	Y 371.029	1046163.2	1046163.2	101.90 %		08:05:38
3	Ag 328.068†	4081.5	-101.1	-0.3861 µg/L	-0.3861 ppb	08:05:40
3	As 188.979†	-21.7	-0.9	-0.2729 µg/L	-0.2729 ppb	08:06:00
3	B 249.677†	3497.6	-86.4	-1.2757 µg/L	-1.2757 ppb	08:06:00
3	Ba 233.527†	-117.5	20.9	0.0838 µg/L	0.0838 ppb	08:06:00
3	Be 313.107†	-1224.2	-132.1	-0.0374 µg/L	-0.0374 ppb	08:05:40
3	Cd 226.502†	-120.6	0.3	0.0016 µg/L	0.0016 ppb	08:06:00
3	Co 228.616†	-167.5	26.5	0.3275 µg/L	0.3275 ppb	08:06:00
3	Cr 267.716†	212.2	28.9	0.2299 µg/L	0.2299 ppb	08:06:00
3	Cu 324.752†	2960.9	-77.5	-0.3044 µg/L	-0.3044 ppb	08:05:40
3	Mn 257.610†	341.8	96.9	0.1199 µg/L	0.1199 ppb	08:06:00
3	Mo 202.031†	-35.9	-15.0	-0.4404 µg/L	-0.4404 ppb	08:06:00
3	Ni 231.604†	-80.0	-1.7	-0.0190 µg/L	-0.0190 ppb	08:06:00
3	P 214.914†	-29.9	-11.3	-2.4030 µg/L	-2.4030 ppb	08:06:00
3	Pb 220.353†	74.9	-13.1	-0.7302 µg/L	-0.7302 ppb	08:06:00
3	S 181.975 Axial†	96.2	-11.0	-8.1599 µg/L	-8.1599 ppb	08:06:00
3	Sb 206.836†	86.8	4.0	0.4695 µg/L	0.4695 ppb	08:06:00
3	Se 196.026†	25.3	9.5	3.43 µg/L	3.43 ppb	08:06:00
3	SiO2†	1863.2	46.2	4.5164 µg/L	4.5164 ppb	08:06:00
3	Si 251.611†	1191.6	328.4	4.8443 µg/L	4.8443 ppb	08:05:40
3	Sn 189.927†	7.1	8.1	0.5052 µg/L	0.5052 ppb	08:06:00
3	Ti 334.940†	1016.0	40.7	0.0401 µg/L	0.0401 ppb	08:05:40
3	Tl 190.801†	-114.6	4.6	0.5612 µg/L	0.5612 ppb	08:06:00
3	U 409.014†	-360.8	-82.8	-4.8696 µg/L	-4.8696 ppb	08:05:40
3	V 292.402†	312.2	-98.5	-0.4880 µg/L	-0.4880 ppb	08:05:40
3	Zn 213.857†	619.5	41.2	0.2313 µg/L	0.2313 ppb	08:06:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1762107.8	102.55	%	0.549				0.54%
Sc RADIAL	145280.9	99.6	%	0.33				0.33%
Y 371.029	1049318.7	102.20	%	0.510				0.50%
Ag 328.068†	-177.0	-0.6610	µg/L	0.59608	-0.6610	ppb	0.59608	90.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	21.7	4.0352	µg/L	6.67681	4.0352	ppb	6.67681	165.46%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.6	1.0990	µg/L	1.81480	1.0990	ppb	1.81480	165.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-106.1	-1.5665	µg/L	0.67790	-1.5665	ppb	0.67790	43.27%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.6	0.0468	µg/L	0.08818	0.0468	ppb	0.08818	188.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-11.5	-0.0041	µg/L	0.03377	-0.0041	ppb	0.03377	820.09%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	83.2	4.6370	µg/L	1.10025	4.6370	ppb	1.10025	23.73%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.8	0.0484	µg/L	0.06589	0.0484	ppb	0.06589	136.09%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	26.0	0.3211	µg/L	0.00580	0.3211	ppb	0.00580	1.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              15.5      0.1242 µg/L       0.15538      0.1242 ppb        0.15538 125.13%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -53.5     -0.2100 µg/L       0.24125     -0.2100 ppb        0.24125 114.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       62.4      3.8480 µg/L       0.62128      3.8480 ppb        0.62128  16.15%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       282.0      103.22 µg/L        17.204      103.22 ppb         17.204  16.67%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -7.3     -2.7300 µg/L       3.23251     -2.7300 ppb        3.23251 118.41%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              92.0      0.1139 µg/L       0.00772      0.1139 ppb        0.00772   6.77%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -3.2     -0.0930 µg/L       0.30846     -0.0930 ppb        0.30846 331.79%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      298.8      40.725 µg/L        7.2706      40.725 ppb         7.2706  17.85%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.1     -0.0472 µg/L       0.09431     -0.0472 ppb        0.09431 199.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -10.1     -2.1604 µg/L       1.34386     -2.1604 ppb        1.34386  62.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.0     -0.3314 µg/L       0.35480     -0.3314 ppb        0.35480 107.05%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -5.3     -3.9148 µg/L       3.70368     -3.9148 ppb        3.70368  94.61%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.3      0.3893 µg/L       0.49436      0.3893 ppb        0.49436 126.99%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.5       -1.26 µg/L         4.304       -1.26 ppb          4.304 341.67%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    31.6      3.0827 µg/L       1.42818      3.0827 ppb        1.42818  46.33%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             389.8      5.7447 µg/L       2.17958      5.7447 ppb        2.17958  37.94%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.6      0.4758 µg/L       0.12512      0.4758 ppb        0.12512  26.30%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -72.9     -0.1515 µg/L       0.09218     -0.1515 ppb        0.09218  60.83%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             102.9      0.0978 µg/L       0.05090      0.0978 ppb        0.05090  52.07%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.5      0.6753 µg/L       0.79088      0.6753 ppb        0.79088 117.11%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -56.3     -3.2960 µg/L       1.40720     -3.2960 ppb        1.40720  42.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -23.1     -0.1160 µg/L       0.59344     -0.1160 ppb        0.59344 511.79%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              41.7      0.2343 µg/L       0.01822      0.2343 ppb        0.01822   7.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 56
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 8:22:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145023.7	145023.7	99.4	%			08:23:21
1	Al 396.153Radial†	26605.8	26835.2	4953.8	µg/L	4953.8	ppb	08:23:21
1	Ca 317.933Radial†	84755.5	84724.4	4719.5	µg/L	4719.5	ppb	08:23:21
1	Fe 238.204 Radial†	77816.7	78154.8	4817.0	µg/L	4817.0	ppb	08:23:21
1	K 766.490 Radial†	14700.0	13247.0	4846.0	µg/L	4846.0	ppb	08:23:21
1	Mg 279.077 IEC†	12943.9	12834.1	4788.9	µg/L	4788.9	ppb	08:23:21
1	Na 589.592 Radial†	70170.3	69317.9	9465.4	µg/L	9465.4	ppb	08:23:21
1	Sr 421.552†	226954.7	228507.9	475.02	µg/L	475.02	ppb	08:23:19
1	Sc 361.383	1749033.4	1749033.4	101.79	%			08:23:48
1	Y 371.029	1029735.6	1029735.6	100.30	%			08:23:48
1	Ag 328.068†	130447.0	124057.3	465.21	µg/L	465.21	ppb	08:23:48
1	As 188.979†	1579.9	1572.5	482.32	µg/L	482.32	ppb	08:24:08
1	B 249.677†	35292.3	31164.6	458.00	µg/L	458.00	ppb	08:23:48
1	Ba 233.527†	118145.5	116199.8	468.63	µg/L	468.63	ppb	08:23:48
1	Be 313.107†	1777066.9	1746821.9	475.75	µg/L	475.75	ppb	08:23:48
1	Cd 226.502†	75442.6	74231.6	463.37	µg/L	463.37	ppb	08:23:48
1	Co 228.616†	38412.6	37926.1	468.19	µg/L	468.19	ppb	08:23:48
1	Cr 267.716†	60277.2	59036.6	462.26	µg/L	462.26	ppb	08:23:48
1	Cu 324.752†	125110.5	119934.0	467.54	µg/L	467.54	ppb	08:23:48
1	Mn 257.610†	386877.6	379824.1	469.75	µg/L	469.75	ppb	08:23:48
1	Mo 202.031†	15949.4	15688.4	461.50	µg/L	461.50	ppb	08:24:08
1	Ni 231.604†	40898.3	40254.3	463.50	µg/L	463.50	ppb	08:23:48
1	P 214.914†	10941.0	10766.2	2294.6	µg/L	2294.6	ppb	08:24:08
1	Pb 220.353†	8516.9	8280.5	463.72	µg/L	463.72	ppb	08:24:08
1	S 181.975 Axial†	1334.7	1206.2	899.56	µg/L	899.56	ppb	08:24:08
1	Sb 206.836†	4023.3	3871.6	461.28	µg/L	461.28	ppb	08:24:08
1	Se 196.026†	1307.6	1269.3	461	µg/L	461	ppb	08:24:08
1	SiO2†	53301.9	50587.4	4924.7	µg/L	4924.7	ppb	08:23:48
1	Si 251.611†	160785.6	157116.2	2307.2	µg/L	2307.2	ppb	08:23:48
1	Sn 189.927†	7513.4	7382.2	461.78	µg/L	461.78	ppb	08:24:08
1	Ti 334.940†	510901.2	500947.2	467.43	µg/L	467.43	ppb	08:23:48
1	Tl 190.801†	3716.2	3767.4	469.92	µg/L	469.92	ppb	08:24:08
1	U 409.014†	7026.6	7172.7	447.77	µg/L	447.77	ppb	08:23:48
1	V 292.402†	97429.9	95309.5	471.05	µg/L	471.05	ppb	08:23:48
1	Zn 213.857†	84520.6	82467.0	459.60	µg/L	459.60	ppb	08:23:48
2	Sc RADIAL	143346.3	143346.3	98.2	%			08:23:25
2	Al 396.153Radial†	26087.0	26620.4	4913.7	µg/L	4913.7	ppb	08:23:25
2	Ca 317.933Radial†	83586.5	84532.3	4708.8	µg/L	4708.8	ppb	08:23:25
2	Fe 238.204 Radial†	75427.7	76638.9	4723.6	µg/L	4723.6	ppb	08:23:25
2	K 766.490 Radial†	14587.0	13305.1	4867.3	µg/L	4867.3	ppb	08:23:25
2	Mg 279.077 IEC†	12683.7	12721.6	4747.3	µg/L	4747.3	ppb	08:23:25
2	Na 589.592 Radial†	69837.0	69804.9	9531.9	µg/L	9531.9	ppb	08:23:25
2	Sr 421.552†	226513.3	230730.9	479.64	µg/L	479.64	ppb	08:23:23
2	Sc 361.383	1731973.2	1731973.2	100.80	%			08:24:11
2	Y 371.029	1020279.7	1020279.7	99.376	%			08:24:11
2	Ag 328.068†	129413.4	124294.2	466.09	µg/L	466.09	ppb	08:24:11
2	As 188.979†	1610.6	1618.1	496.13	µg/L	496.13	ppb	08:24:31
2	B 249.677†	35094.6	31310.0	460.14	µg/L	460.14	ppb	08:24:11
2	Ba 233.527†	117004.6	116211.2	468.68	µg/L	468.68	ppb	08:24:11
2	Be 313.107†	1761232.0	1748308.7	476.16	µg/L	476.16	ppb	08:24:11
2	Cd 226.502†	74492.8	74019.4	462.06	µg/L	462.06	ppb	08:24:11
2	Co 228.616†	38028.9	37917.2	468.09	µg/L	468.09	ppb	08:24:11
2	Cr 267.716†	59832.9	59179.1	463.37	µg/L	463.37	ppb	08:24:11
2	Cu 324.752†	124054.0	120096.5	468.16	µg/L	468.16	ppb	08:24:11
2	Mn 257.610†	383564.9	380281.3	470.32	µg/L	470.32	ppb	08:24:11
2	Mo 202.031†	16033.2	15925.9	468.47	µg/L	468.47	ppb	08:24:31
2	Ni 231.604†	40607.5	40361.5	464.73	µg/L	464.73	ppb	08:24:11
2	P 214.914†	10972.8	10903.6	2324.0	µg/L	2324.0	ppb	08:24:31
2	Pb 220.353†	8523.2	8369.1	468.69	µg/L	468.69	ppb	08:24:31

2	S 181.975 Axial†	1342.3	1226.6	914.79 µg/L	914.79 ppb	08:24:31
2	Sb 206.836†	4035.3	3922.4	467.40 µg/L	467.40 ppb	08:24:31
2	Se 196.026†	1310.9	1285.2	467 µg/L	467 ppb	08:24:31
2	SiO2†	52742.2	50547.9	4920.6 µg/L	4920.6 ppb	08:24:11
2	Si 251.611†	159439.6	157336.7	2310.3 µg/L	2310.3 ppb	08:24:11
2	Sn 189.927†	7564.4	7505.5	469.46 µg/L	469.46 ppb	08:24:31
2	Ti 334.940†	505818.2	500848.4	467.34 µg/L	467.34 ppb	08:24:11
2	Tl 190.801†	3743.1	3830.0	477.62 µg/L	477.62 ppb	08:24:31
2	U 409.014†	6991.6	7206.0	449.76 µg/L	449.76 ppb	08:24:11
2	V 292.402†	96520.6	95350.2	471.34 µg/L	471.34 ppb	08:24:11
2	Zn 213.857†	83581.5	82353.3	458.96 µg/L	458.96 ppb	08:24:11
3	Sc RADIAL	144444.1	144444.1	99.0 %		08:23:29
3	Al 396.153Radial†	26227.0	26560.0	4902.5 µg/L	4902.5 ppb	08:23:29
3	Ca 317.933Radial†	84057.6	84361.6	4699.3 µg/L	4699.3 ppb	08:23:29
3	Fe 238.204 Radial†	75889.7	76522.2	4716.4 µg/L	4716.4 ppb	08:23:29
3	K 766.490 Radial†	14794.5	13401.9	4902.7 µg/L	4902.7 ppb	08:23:29
3	Mg 279.077 IEC†	12835.8	12777.1	4767.9 µg/L	4767.9 ppb	08:23:29
3	Na 589.592 Radial†	70359.5	69792.3	9530.1 µg/L	9530.1 ppb	08:23:29
3	Sr 421.552†	226221.0	228683.1	475.38 µg/L	475.38 ppb	08:23:27
3	Sc 361.383	1743351.1	1743351.1	101.46 %		08:24:34
3	Y 371.029	1026255.2	1026255.2	99.958 %		08:24:34
3	Ag 328.068†	129719.8	123758.3	464.11 µg/L	464.11 ppb	08:24:34
3	As 188.979†	1630.0	1626.9	498.78 µg/L	498.78 ppb	08:24:54
3	B 249.677†	35324.2	31309.0	460.13 µg/L	460.13 ppb	08:24:34
3	Ba 233.527†	117524.8	115966.4	467.69 µg/L	467.69 ppb	08:24:34
3	Be 313.107†	1769070.4	1744630.9	475.16 µg/L	475.16 ppb	08:24:34
3	Cd 226.502†	74950.5	73988.1	461.86 µg/L	461.86 ppb	08:24:34
3	Co 228.616†	38305.8	37943.9	468.41 µg/L	468.41 ppb	08:24:34
3	Cr 267.716†	60179.9	59133.7	463.01 µg/L	463.01 ppb	08:24:34
3	Cu 324.752†	124985.9	120211.8	468.61 µg/L	468.61 ppb	08:24:34
3	Mn 257.610†	384879.8	379093.8	468.85 µg/L	468.85 ppb	08:24:34
3	Mo 202.031†	16125.2	15912.8	468.09 µg/L	468.09 ppb	08:24:54
3	Ni 231.604†	40765.7	40254.5	463.50 µg/L	463.50 ppb	08:24:34
3	P 214.914†	11079.6	10937.8	2331.3 µg/L	2331.3 ppb	08:24:54
3	Pb 220.353†	8613.8	8403.2	470.58 µg/L	470.58 ppb	08:24:54
3	S 181.975 Axial†	1358.6	1234.0	920.26 µg/L	920.26 ppb	08:24:54
3	Sb 206.836†	4040.8	3901.7	464.95 µg/L	464.95 ppb	08:24:54
3	Se 196.026†	1297.8	1263.8	459 µg/L	459 ppb	08:24:54
3	SiO2†	52914.0	50375.8	4903.7 µg/L	4903.7 ppb	08:24:34
3	Si 251.611†	159915.1	156773.1	2302.0 µg/L	2302.0 ppb	08:24:34
3	Sn 189.927†	7612.7	7504.1	469.37 µg/L	469.37 ppb	08:24:54
3	Ti 334.940†	508439.6	500157.0	466.68 µg/L	466.68 ppb	08:24:34
3	Tl 190.801†	3764.4	3826.9	477.21 µg/L	477.21 ppb	08:24:54
3	U 409.014†	7195.6	7361.8	458.81 µg/L	458.81 ppb	08:24:34
3	V 292.402†	96989.0	95186.9	470.54 µg/L	470.54 ppb	08:24:34
3	Zn 213.857†	84147.5	82370.0	459.06 µg/L	459.06 ppb	08:24:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1741452.6	101.35	%	0.506				0.50%
Sc RADIAL	144271.4	98.9	%	0.58				0.59%
Y 371.029	1025423.5	99.877	%	0.4658				0.47%
Ag 328.068†	124036.6	465.14	µg/L	0.993	465.14	ppb	0.993	0.21%
QC value within limits for Ag 328.068 Recovery = 93.03%								
Al 396.153Radial†	26671.9	4923.3	µg/L	27.00	4923.3	ppb	27.00	0.55%
QC value within limits for Al 396.153Radial Recovery = 98.47%								
As 188.979†	1605.8	492.41	µg/L	8.838	492.41	ppb	8.838	1.79%
QC value within limits for As 188.979 Recovery = 98.48%								
B 249.677†	31261.2	459.42	µg/L	1.234	459.42	ppb	1.234	0.27%
QC value within limits for B 249.677 Recovery = 91.88%								
Ba 233.527†	116125.8	468.33	µg/L	0.556	468.33	ppb	0.556	0.12%
QC value within limits for Ba 233.527 Recovery = 93.67%								
Be 313.107†	1746587.1	475.69	µg/L	0.502	475.69	ppb	0.502	0.11%
QC value within limits for Be 313.107 Recovery = 95.14%								
Ca 317.933Radial†	84539.4	4709.2	µg/L	10.11	4709.2	ppb	10.11	0.21%
QC value within limits for Ca 317.933Radial Recovery = 94.18%								
Cd 226.502†	74079.7	462.43	µg/L	0.821	462.43	ppb	0.821	0.18%
QC value within limits for Cd 226.502 Recovery = 92.49%								
Co 228.616†	37929.1	468.23	µg/L	0.168	468.23	ppb	0.168	0.04%

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   QC value within limits for Co 228.616  Recovery = 93.65%
Cr 267.716†            59116.5      462.88 µg/L         0.567      462.88 ppb          0.567   0.12%
   QC value within limits for Cr 267.716  Recovery = 92.58%
Cu 324.752†           120080.8      468.10 µg/L         0.539      468.10 ppb          0.539   0.12%
   QC value within limits for Cu 324.752  Recovery = 93.62%
Fe 238.204 Radial†     77105.3      4752.3 µg/L         56.13      4752.3 ppb          56.13   1.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.05%
K 766.490 Radial†      13318.0      4872.0 µg/L         28.65      4872.0 ppb          28.65   0.59%
   QC value within limits for K 766.490 Radial  Recovery = 97.44%
Mg 279.077 IEC†        12777.6      4768.0 µg/L         20.83      4768.0 ppb          20.83   0.44%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.36%
Mn 257.610†           379733.1      469.64 µg/L         0.741      469.64 ppb          0.741   0.16%
   QC value within limits for Mn 257.610  Recovery = 93.93%
Mo 202.031†            15842.4      466.02 µg/L         3.920      466.02 ppb          3.920   0.84%
   QC value within limits for Mo 202.031  Recovery = 93.20%
Na 589.592 Radial†     69638.4      9509.1 µg/L         37.90      9509.1 ppb          37.90   0.40%
   QC value within limits for Na 589.592 Radial  Recovery = 95.09%
Ni 231.604†            40290.1      463.91 µg/L         0.712      463.91 ppb          0.712   0.15%
   QC value within limits for Ni 231.604  Recovery = 92.78%
P 214.914†             10869.2      2316.7 µg/L         19.45      2316.7 ppb          19.45   0.84%
   QC value within limits for P 214.914  Recovery = 92.67%
Pb 220.353†             8350.9      467.66 µg/L         3.541      467.66 ppb          3.541   0.76%
   QC value within limits for Pb 220.353  Recovery = 93.53%
S 181.975 Axial†        1222.2      911.54 µg/L        10.724      911.54 ppb         10.724   1.18%
   QC value within limits for S 181.975 Axial  Recovery = 91.15%
Sb 206.836†             3898.6      464.54 µg/L         3.085      464.54 ppb          3.085   0.66%
   QC value within limits for Sb 206.836  Recovery = 92.91%
Se 196.026†             1272.7         462 µg/L           4.0         462 ppb            4.0   0.87%
   QC value within limits for Se 196.026  Recovery = 92.44%
SiO2†                  50503.7      4916.3 µg/L         11.11      4916.3 ppb          11.11   0.23%
   QC value within limits for SiO2  Recovery = 91.94%
Si 251.611†           157075.3      2306.5 µg/L          4.20      2306.5 ppb           4.20   0.18%
   QC value within limits for Si 251.611  Recovery = 92.26%
Sn 189.927†             7463.9      466.87 µg/L         4.413      466.87 ppb          4.413   0.95%
   QC value within limits for Sn 189.927  Recovery = 93.37%
Sr 421.552†           229307.3      476.68 µg/L         2.570      476.68 ppb          2.570   0.54%
   QC value within limits for Sr 421.552  Recovery = 95.34%
Ti 334.940†           500650.9      467.15 µg/L         0.405      467.15 ppb          0.405   0.09%
   QC value within limits for Ti 334.940  Recovery = 93.43%
Tl 190.801†             3808.1      474.92 µg/L         4.331      474.92 ppb          4.331   0.91%
   QC value within limits for Tl 190.801  Recovery = 94.98%
U 409.014†              7246.8      452.11 µg/L         5.885      452.11 ppb          5.885   1.30%
   QC value within limits for U 409.014  Recovery = 90.42%
V 292.402†             95282.2      470.97 µg/L         0.402      470.97 ppb          0.402   0.09%
   QC value within limits for V 292.402  Recovery = 94.19%
Zn 213.857†            82396.7      459.21 µg/L         0.343      459.21 ppb          0.343   0.07%
   QC value within limits for Zn 213.857  Recovery = 91.84%
All analyte(s) passed QC.
```

Sequence No.: 57
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 8:25:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144745.7	144745.7	99.2	%			08:25:31
1	Al 396.153Radial†	-27.7	35.3	6.5646	µg/L	6.5646	ppb	08:25:51
1	Ca 317.933Radial†	686.9	132.0	7.3520	µg/L	7.3520	ppb	08:25:51
1	Fe 238.204 Radial†	256.6	110.6	6.8188	µg/L	6.8188	ppb	08:25:51
1	K 766.490 Radial†	1924.7	395.7	144.85	µg/L	144.85	ppb	08:25:31
1	Mg 279.077 IEC†	168.4	-20.9	-7.7958	µg/L	-7.7958	ppb	08:25:51
1	Na 589.592 Radial†	1474.1	195.3	26.557	µg/L	26.557	ppb	08:25:31
1	Sr 421.552†	-51.7	83.1	0.1727	µg/L	0.1727	ppb	08:25:31
1	Sc 361.383	1769762.7	1769762.7	103.00	%			08:26:53
1	Y 371.029	1053390.5	1053390.5	102.60	%			08:26:53
1	Ag 328.068†	4618.3	392.4	1.4458	µg/L	1.4458	ppb	08:26:55
1	As 188.979†	-14.6	6.2	1.8706	µg/L	1.8706	ppb	08:27:15
1	B 249.677†	3508.6	-99.5	-1.4694	µg/L	-1.4694	ppb	08:27:15
1	Ba 233.527†	-137.1	2.8	0.0105	µg/L	0.0105	ppb	08:27:15
1	Be 313.107†	-1055.8	39.6	0.0111	µg/L	0.0111	ppb	08:26:55
1	Cd 226.502†	-122.4	-0.7	-0.0050	µg/L	-0.0050	ppb	08:27:15
1	Co 228.616†	-156.4	38.4	0.4739	µg/L	0.4739	ppb	08:27:15
1	Cr 267.716†	199.8	15.4	0.1201	µg/L	0.1201	ppb	08:27:15
1	Cu 324.752†	3018.4	-41.7	-0.1604	µg/L	-0.1604	ppb	08:26:55
1	Mn 257.610†	318.5	71.9	0.0893	µg/L	0.0893	ppb	08:27:15
1	Mo 202.031†	-35.0	-13.9	-0.4098	µg/L	-0.4098	ppb	08:27:15
1	Ni 231.604†	-100.7	-21.2	-0.2445	µg/L	-0.2445	ppb	08:27:15
1	P 214.914†	-26.8	-8.1	-1.7258	µg/L	-1.7258	ppb	08:27:15
1	Pb 220.353†	73.7	-14.8	-0.8297	µg/L	-0.8297	ppb	08:27:15
1	S 181.975 Axial†	91.9	-15.9	-11.791	µg/L	-11.791	ppb	08:27:15
1	Sb 206.836†	77.0	-6.0	-0.7256	µg/L	-0.7256	ppb	08:27:15
1	Se 196.026†	21.8	5.9	2.14	µg/L	2.14	ppb	08:27:15
1	SiO2†	1841.7	12.7	1.2473	µg/L	1.2473	ppb	08:27:15
1	Si 251.611†	1073.9	206.1	3.0429	µg/L	3.0429	ppb	08:26:55
1	Sn 189.927†	0.3	1.4	0.0868	µg/L	0.0868	ppb	08:27:15
1	Ti 334.940†	935.5	-44.3	-0.0410	µg/L	-0.0410	ppb	08:26:55
1	Tl 190.801†	-104.0	15.7	1.9265	µg/L	1.9265	ppb	08:27:15
1	U 409.014†	-261.3	16.2	0.9099	µg/L	0.9099	ppb	08:26:55
1	V 292.402†	273.6	-138.1	-0.6776	µg/L	-0.6776	ppb	08:26:55
1	Zn 213.857†	628.6	45.8	0.2585	µg/L	0.2585	ppb	08:27:15
2	Sc RADIAL	144804.5	144804.5	99.2	%			08:25:53
2	Al 396.153Radial†	-75.9	-13.2	-2.4545	µg/L	-2.4545	ppb	08:26:13
2	Ca 317.933Radial†	627.1	71.4	3.9763	µg/L	3.9763	ppb	08:26:13
2	Fe 238.204 Radial†	218.2	71.7	4.4221	µg/L	4.4221	ppb	08:26:13
2	K 766.490 Radial†	1766.9	235.9	86.349	µg/L	86.349	ppb	08:25:53
2	Mg 279.077 IEC†	149.5	-40.0	-14.917	µg/L	-14.917	ppb	08:26:13
2	Na 589.592 Radial†	1524.4	245.5	33.460	µg/L	33.460	ppb	08:25:53
2	Sr 421.552†	-211.2	-77.6	-0.1613	µg/L	-0.1613	ppb	08:25:53
2	Sc 361.383	1768953.0	1768953.0	102.95	%			08:27:17
2	Y 371.029	1052168.6	1052168.6	102.48	%			08:27:17
2	Ag 328.068†	4066.8	-141.2	-0.5193	µg/L	-0.5193	ppb	08:27:19
2	As 188.979†	-10.9	9.8	2.9563	µg/L	2.9563	ppb	08:27:39
2	B 249.677†	3510.5	-96.1	-1.4180	µg/L	-1.4180	ppb	08:27:39
2	Ba 233.527†	-145.8	-5.8	-0.0233	µg/L	-0.0233	ppb	08:27:39
2	Be 313.107†	-1214.9	-115.4	-0.0305	µg/L	-0.0305	ppb	08:27:19
2	Cd 226.502†	-104.8	16.4	0.1019	µg/L	0.1019	ppb	08:27:39
2	Co 228.616†	-188.7	7.1	0.0870	µg/L	0.0870	ppb	08:27:39
2	Cr 267.716†	203.0	18.6	0.1441	µg/L	0.1441	ppb	08:27:39
2	Cu 324.752†	3044.7	-14.8	-0.0549	µg/L	-0.0549	ppb	08:27:19
2	Mn 257.610†	318.6	72.2	0.0899	µg/L	0.0899	ppb	08:27:39
2	Mo 202.031†	-21.7	-1.0	-0.0303	µg/L	-0.0303	ppb	08:27:39
2	Ni 231.604†	-90.0	-10.9	-0.1258	µg/L	-0.1258	ppb	08:27:39
2	P 214.914†	-33.3	-14.4	-3.0832	µg/L	-3.0832	ppb	08:27:39
2	Pb 220.353†	78.5	-10.2	-0.5691	µg/L	-0.5691	ppb	08:27:39

2	S 181.975 Axial†	107.6	-0.5	-0.3868 µg/L	-0.3868 ppb	08:27:39
2	Sb 206.836†	91.7	8.2	0.9770 µg/L	0.9770 ppb	08:27:39
2	Se 196.026†	16.8	1.1	0.394 µg/L	0.394 ppb	08:27:39
2	SiO2†	1854.5	26.0	2.5390 µg/L	2.5390 ppb	08:27:39
2	Si 251.611†	1065.5	198.4	2.9257 µg/L	2.9257 ppb	08:27:19
2	Sn 189.927†	-2.7	-1.5	-0.0929 µg/L	-0.0929 ppb	08:27:39
2	Ti 334.940†	1005.0	23.6	0.0221 µg/L	0.0221 ppb	08:27:19
2	Tl 190.801†	-112.9	7.0	0.8619 µg/L	0.8619 ppb	08:27:39
2	U 409.014†	-227.1	49.3	2.8851 µg/L	2.8851 ppb	08:27:19
2	V 292.402†	420.7	4.9	0.0256 µg/L	0.0256 ppb	08:27:19
2	Zn 213.857†	625.3	42.9	0.2415 µg/L	0.2415 ppb	08:27:39
3	Sc RADIAL	144272.3	144272.3	98.9 %		08:26:15
3	Al 396.153Radial†	-71.2	-8.8	-1.6381 µg/L	-1.6381 ppb	08:26:35
3	Ca 317.933Radial†	630.6	77.2	4.3029 µg/L	4.3029 ppb	08:26:35
3	Fe 238.204 Radial†	172.8	26.7	1.6431 µg/L	1.6431 ppb	08:26:35
3	K 766.490 Radial†	1770.5	246.1	90.098 µg/L	90.098 ppb	08:26:15
3	Mg 279.077 IEC†	185.3	-3.3	-1.2328 µg/L	-1.2328 ppb	08:26:35
3	Na 589.592 Radial†	1475.1	201.2	27.407 µg/L	27.407 ppb	08:26:15
3	Sr 421.552†	-177.7	-44.5	-0.0925 µg/L	-0.0925 ppb	08:26:15
3	Sc 361.383	1768766.0	1768766.0	102.94 %		08:27:41
3	Y 371.029	1051479.0	1051479.0	102.41 %		08:27:41
3	Ag 328.068†	4233.5	21.2	0.0627 µg/L	0.0627 ppb	08:27:43
3	As 188.979†	-7.1	13.5	4.0791 µg/L	4.0791 ppb	08:28:04
3	B 249.677†	3482.5	-122.9	-1.8145 µg/L	-1.8145 ppb	08:28:04
3	Ba 233.527†	-134.9	4.8	0.0196 µg/L	0.0196 ppb	08:28:04
3	Be 313.107†	-1281.6	-180.3	-0.0533 µg/L	-0.0533 ppb	08:27:43
3	Cd 226.502†	-88.4	32.4	0.2018 µg/L	0.2018 ppb	08:28:04
3	Co 228.616†	-167.4	27.7	0.3422 µg/L	0.3422 ppb	08:28:04
3	Cr 267.716†	208.1	23.6	0.1956 µg/L	0.1956 ppb	08:28:04
3	Cu 324.752†	2964.7	-92.2	-0.3696 µg/L	-0.3696 ppb	08:27:43
3	Mn 257.610†	336.0	89.1	0.1103 µg/L	0.1103 ppb	08:28:04
3	Mo 202.031†	-17.3	3.3	0.0976 µg/L	0.0976 ppb	08:28:04
3	Ni 231.604†	-105.3	-25.8	-0.2966 µg/L	-0.2966 ppb	08:28:04
3	P 214.914†	-67.2	-47.3	-10.108 µg/L	-10.108 ppb	08:28:04
3	Pb 220.353†	51.8	-36.1	-2.0017 µg/L	-2.0017 ppb	08:28:04
3	S 181.975 Axial†	100.5	-7.5	-5.5440 µg/L	-5.5440 ppb	08:28:04
3	Sb 206.836†	75.8	-7.2	-0.8535 µg/L	-0.8535 ppb	08:28:04
3	Se 196.026†	20.7	4.8	1.72 µg/L	1.72 ppb	08:28:04
3	SiO2†	1863.3	34.7	3.3872 µg/L	3.3872 ppb	08:28:04
3	Si 251.611†	1029.6	163.6	2.4093 µg/L	2.4093 ppb	08:27:43
3	Sn 189.927†	2.0	3.1	0.1911 µg/L	0.1911 ppb	08:28:04
3	Ti 334.940†	930.6	-48.6	-0.0395 µg/L	-0.0395 ppb	08:27:43
3	Tl 190.801†	-112.4	7.5	0.9172 µg/L	0.9172 ppb	08:28:04
3	U 409.014†	-524.4	-239.5	-13.996 µg/L	-13.996 ppb	08:27:43
3	V 292.402†	446.7	30.1	0.1391 µg/L	0.1391 ppb	08:27:43
3	Zn 213.857†	632.8	50.3	0.2847 µg/L	0.2847 ppb	08:28:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769160.5	102.96	%	0.031				0.03%
Sc RADIAL	144607.5	99.1	%	0.20				0.20%
Y 371.029	1052346.0	102.50	%	0.094				0.09%
Ag 328.068†	90.8	0.3297	µg/L	1.00938	0.3297	ppb	1.00938	306.14%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.4	0.8240	µg/L	4.98825	0.8240	ppb	4.98825	605.37%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.8	2.9687	µg/L	1.10430	2.9687	ppb	1.10430	37.20%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-106.2	-1.5673	µg/L	0.21560	-1.5673	ppb	0.21560	13.76%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.6	0.0023	µg/L	0.02260	0.0023	ppb	0.02260	993.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-85.4	-0.0243	µg/L	0.03266	-0.0243	ppb	0.03266	134.56%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	93.5	5.2104	µg/L	1.86189	5.2104	ppb	1.86189	35.73%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.0	0.0996	µg/L	0.10342	0.0996	ppb	0.10342	103.86%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	24.4	0.3010	µg/L	0.19673	0.3010	ppb	0.19673	65.35%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                19.2      0.1532 µg/L       0.03857      0.1532 ppb        0.03857  25.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -49.6     -0.1950 µg/L       0.16021     -0.1950 ppb        0.16021  82.18%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         69.7      4.2947 µg/L       2.59021      4.2947 ppb        2.59021  60.31%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         292.5      107.10 µg/L        32.747      107.10 ppb         32.747  30.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -21.4     -7.9817 µg/L       6.84380     -7.9817 ppb        6.84380  85.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                77.7      0.0965 µg/L       0.01199      0.0965 ppb        0.01199  12.42%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.9     -0.1142 µg/L       0.26387     -0.1142 ppb        0.26387 231.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        214.0      29.141 µg/L        3.7642      29.141 ppb         3.7642  12.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -19.3     -0.2223 µg/L       0.08755     -0.2223 ppb        0.08755  39.38%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -23.3     -4.9725 µg/L       4.49935     -4.9725 ppb        4.49935  90.49%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -20.3     -1.1335 µg/L       0.76307     -1.1335 ppb        0.76307  67.32%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -8.0     -5.9073 µg/L       5.71085     -5.9073 ppb        5.71085  96.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.7     -0.2007 µg/L       1.02189     -0.2007 ppb        1.02189 509.13%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.9        1.42 µg/L         0.912        1.42 ppb          0.912  64.28%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      24.4      2.3912 µg/L       1.07760      2.3912 ppb        1.07760  45.07%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               189.3      2.7926 µg/L       0.33713      2.7926 ppb        0.33713  12.07%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.0      0.0616 µg/L       0.14369      0.0616 ppb        0.14369 233.07%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -13.0     -0.0270 µg/L       0.17639     -0.0270 ppb        0.17639 652.33%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -23.1     -0.0194 µg/L       0.03603     -0.0194 ppb        0.03603 185.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                10.1      1.2352 µg/L       0.59930      1.2352 ppb        0.59930  48.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -58.0     -3.4005 µg/L       9.22934     -3.4005 ppb        9.22934 271.41%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -34.4     -0.1710 µg/L       0.44239     -0.1710 ppb        0.44239 258.77%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                46.4      0.2616 µg/L       0.02175      0.2616 ppb        0.02175   8.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/1/2010 8:40:55
Plasma On Time: 3/29/2010 18:07:58
Logged In Analyst: optima4
Technique: ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 077C0022701
Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif
Batch ID:
Results Data Set: 033110B
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1
Autosampler Location: 301
Sample ID: 1202068097|964012|1
Date Collected: 4/1/2010 8:40:59
Analyst: HSC
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:

Replicate Data: 1202068097|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140881.9	140881.9	96.5	%			08:41:30
1	Al 396.153Radial†	367.0	443.4	82.224	µg/L	82.224	ppb	08:41:30
1	Ca 317.933Radial†	4206.8	3797.0	211.51	µg/L	211.51	ppb	08:41:51
1	Fe 238.204 Radial†	526.4	397.1	24.476	µg/L	24.476	ppb	08:41:51
1	K 766.490 Radial†	1730.6	247.8	90.665	µg/L	90.665	ppb	08:41:30
1	Mg 279.077 IEC†	192.3	8.4	3.1108	µg/L	3.1108	ppb	08:41:51
1	Na 589.592 Radial†	1709.5	479.9	65.485	µg/L	65.485	ppb	08:41:30
1	Sr 421.552†	708.6	869.3	1.8056	µg/L	1.8056	ppb	08:41:30
1	Sc 361.383	1729701.0	1729701.0	100.67	%			08:42:52
1	Y 371.029	1026851.4	1026851.4	100.02	%			08:42:52
1	Ag 328.068†	4245.6	126.1	0.4491	µg/L	0.4491	ppb	08:42:54
1	As 188.979†	-20.5	-0.0	-0.0052	µg/L	-0.0052	ppb	08:43:15
1	B 249.677†	4090.3	557.3	8.2173	µg/L	8.2173	ppb	08:42:54
1	Ba 233.527†	-34.7	101.3	0.4078	µg/L	0.4078	ppb	08:43:15
1	Be 313.107†	-946.1	124.9	0.0317	µg/L	0.0317	ppb	08:42:54
1	Cd 226.502†	-100.3	18.6	0.1133	µg/L	0.1133	ppb	08:43:15
1	Co 228.616†	-160.5	30.9	0.3807	µg/L	0.3807	ppb	08:43:15
1	Cr 267.716†	229.2	49.1	0.3907	µg/L	0.3907	ppb	08:43:15
1	Cu 324.752†	3162.4	169.2	0.6551	µg/L	0.6551	ppb	08:42:54
1	Mn 257.610†	807.0	564.4	0.6981	µg/L	0.6981	ppb	08:43:15
1	Mo 202.031†	-35.4	-15.1	-0.4438	µg/L	-0.4438	ppb	08:43:15
1	Ni 231.604†	-101.6	-24.4	-0.2809	µg/L	-0.2809	ppb	08:43:15
1	P 214.914†	-5.4	12.6	2.7088	µg/L	2.7088	ppb	08:43:15
1	Pb 220.353†	64.9	-21.9	-1.2155	µg/L	-1.2155	ppb	08:43:15
1	S 181.975 Axial†	118.0	12.1	8.9957	µg/L	8.9957	ppb	08:43:15
1	Sb 206.836†	65.7	-15.6	-1.8604	µg/L	-1.8604	ppb	08:43:15
1	Se 196.026†	-0.7	-16.0	-5.78	µg/L	-5.78	ppb	08:43:15
1	SiO2†	2178.9	389.0	38.022	µg/L	38.022	ppb	08:42:54
1	Si 251.611†	2264.9	1413.3	20.835	µg/L	20.835	ppb	08:42:54
1	Sn 189.927†	16.8	17.8	1.1137	µg/L	1.1137	ppb	08:43:15
1	Ti 334.940†	1413.2	451.3	0.4298	µg/L	0.4298	ppb	08:42:54
1	Tl 190.801†	-118.1	-0.6	-0.0774	µg/L	-0.0774	ppb	08:43:15
1	U 409.014†	-400.5	-127.9	-7.4849	µg/L	-7.4849	ppb	08:42:54
1	V 292.402†	359.5	-46.7	-0.2386	µg/L	-0.2386	ppb	08:42:54
1	Zn 213.857†	779.1	209.5	1.1752	µg/L	1.1752	ppb	08:43:15
2	Sc RADIAL	142756.2	142756.2	97.8	%			08:41:53
2	Al 396.153Radial†	294.0	363.8	67.454	µg/L	67.454	ppb	08:41:53
2	Ca 317.933Radial†	4232.7	3766.2	209.79	µg/L	209.79	ppb	08:42:13
2	Fe 238.204 Radial†	549.3	413.4	25.477	µg/L	25.477	ppb	08:42:13
2	K 766.490 Radial†	1883.2	380.3	139.18	µg/L	139.18	ppb	08:41:53
2	Mg 279.077 IEC†	199.1	12.8	4.7364	µg/L	4.7364	ppb	08:42:13
2	Na 589.592 Radial†	1534.1	277.5	37.779	µg/L	37.779	ppb	08:41:53
2	Sr 421.552†	724.0	875.4	1.8182	µg/L	1.8182	ppb	08:41:53
2	Sc 361.383	1747084.4	1747084.4	101.68	%			08:43:17
2	Y 371.029	1036479.7	1036479.7	100.95	%			08:43:17
2	Ag 328.068†	4325.6	162.7	0.5983	µg/L	0.5983	ppb	08:43:19
2	As 188.979†	-15.3	5.3	1.6012	µg/L	1.6012	ppb	08:43:39

2	B 249.677†	4207.4	632.0	9.3198	µg/L	9.3198 ppb	08:43:19
2	Ba 233.527†	-1.9	134.0	0.5398	µg/L	0.5398 ppb	08:43:39
2	Be 313.107†	-1233.5	-148.5	-0.0403	µg/L	-0.0403 ppb	08:43:19
2	Cd 226.502†	-145.5	-24.9	-0.1585	µg/L	-0.1585 ppb	08:43:39
2	Co 228.616†	-169.1	24.0	0.2954	µg/L	0.2954 ppb	08:43:39
2	Cr 267.716†	203.1	21.2	0.1662	µg/L	0.1662 ppb	08:43:39
2	Cu 324.752†	3192.4	167.4	0.6549	µg/L	0.6549 ppb	08:43:19
2	Mn 257.610†	820.7	569.8	0.7048	µg/L	0.7048 ppb	08:43:39
2	Mo 202.031†	-26.4	-5.9	-0.1729	µg/L	-0.1729 ppb	08:43:39
2	Ni 231.604†	-82.4	-4.5	-0.0520	µg/L	-0.0520 ppb	08:43:39
2	P 214.914†	-10.9	7.3	1.5597	µg/L	1.5597 ppb	08:43:39
2	Pb 220.353†	72.7	-14.9	-0.8280	µg/L	-0.8280 ppb	08:43:39
2	S 181.975 Axial†	114.5	7.6	5.6329	µg/L	5.6329 ppb	08:43:39
2	Sb 206.836†	61.3	-20.5	-2.4404	µg/L	-2.4404 ppb	08:43:39
2	Se 196.026†	10.1	-5.3	-1.91	µg/L	-1.91 ppb	08:43:39
2	SiO2†	2234.6	422.3	41.266	µg/L	41.266 ppb	08:43:19
2	Si 251.611†	2303.2	1428.6	21.057	µg/L	21.057 ppb	08:43:19
2	Sn 189.927†	17.4	18.3	1.1397	µg/L	1.1397 ppb	08:43:39
2	Ti 334.940†	1216.3	243.7	0.2326	µg/L	0.2326 ppb	08:43:19
2	Tl 190.801†	-108.5	10.0	1.2275	µg/L	1.2275 ppb	08:43:39
2	U 409.014†	-269.2	5.1	0.3120	µg/L	0.3120 ppb	08:43:19
2	V 292.402†	428.5	17.6	0.0823	µg/L	0.0823 ppb	08:43:19
2	Zn 213.857†	789.5	212.0	1.1874	µg/L	1.1874 ppb	08:43:39
3	Sc RADIAL	141970.3	141970.3	97.3	%		08:42:15
3	Al 396.153Radial†	274.1	344.9	63.952	µg/L	63.952 ppb	08:42:15
3	Ca 317.933Radial†	4185.5	3741.6	208.42	µg/L	208.42 ppb	08:42:35
3	Fe 238.204 Radial†	546.3	413.4	25.479	µg/L	25.479 ppb	08:42:35
3	K 766.490 Radial†	1613.2	113.4	41.449	µg/L	41.449 ppb	08:42:15
3	Mg 279.077 IEC†	212.6	27.8	10.346	µg/L	10.346 ppb	08:42:35
3	Na 589.592 Radial†	1464.9	214.9	29.326	µg/L	29.326 ppb	08:42:15
3	Sr 421.552†	608.0	760.2	1.5788	µg/L	1.5788 ppb	08:42:15
3	Sc 361.383	1738671.6	1738671.6	101.19	%		08:43:41
3	Y 371.029	1032012.1	1032012.1	100.52	%		08:43:41
3	Ag 328.068†	4025.3	-113.4	-0.4197	µg/L	-0.4197 ppb	08:43:43
3	As 188.979†	-13.0	7.5	2.2760	µg/L	2.2760 ppb	08:44:03
3	B 249.677†	4068.0	514.3	7.5838	µg/L	7.5838 ppb	08:43:43
3	Ba 233.527†	-35.7	100.6	0.4043	µg/L	0.4043 ppb	08:44:03
3	Be 313.107†	-1120.4	-42.5	-0.0076	µg/L	-0.0076 ppb	08:43:43
3	Cd 226.502†	-123.8	-4.1	-0.0283	µg/L	-0.0283 ppb	08:44:03
3	Co 228.616†	-171.1	21.2	0.2611	µg/L	0.2611 ppb	08:44:03
3	Cr 267.716†	160.9	-19.6	-0.1635	µg/L	-0.1635 ppb	08:44:03
3	Cu 324.752†	3046.5	38.5	0.1646	µg/L	0.1646 ppb	08:43:43
3	Mn 257.610†	814.3	567.4	0.7016	µg/L	0.7016 ppb	08:44:03
3	Mo 202.031†	-21.2	-0.9	-0.0253	µg/L	-0.0253 ppb	08:44:03
3	Ni 231.604†	-74.9	2.5	0.0285	µg/L	0.0285 ppb	08:44:03
3	P 214.914†	-30.6	-12.3	-2.6310	µg/L	-2.6310 ppb	08:44:03
3	Pb 220.353†	70.9	-16.3	-0.9147	µg/L	-0.9147 ppb	08:44:03
3	S 181.975 Axial†	109.1	2.8	2.0663	µg/L	2.0663 ppb	08:44:03
3	Sb 206.836†	64.2	-17.4	-2.0663	µg/L	-2.0663 ppb	08:44:03
3	Se 196.026†	10.7	-4.7	-1.67	µg/L	-1.67 ppb	08:44:03
3	SiO2†	2285.4	483.2	47.227	µg/L	47.227 ppb	08:43:43
3	Si 251.611†	2295.2	1431.6	21.107	µg/L	21.107 ppb	08:43:43
3	Sn 189.927†	-1.6	-0.5	-0.0278	µg/L	-0.0278 ppb	08:44:03
3	Ti 334.940†	1353.1	384.6	0.3586	µg/L	0.3586 ppb	08:43:43
3	Tl 190.801†	-119.6	-1.6	-0.1929	µg/L	-0.1929 ppb	08:44:03
3	U 409.014†	-45.6	224.8	13.105	µg/L	13.105 ppb	08:43:43
3	V 292.402†	231.4	-175.1	-0.8494	µg/L	-0.8494 ppb	08:43:43
3	Zn 213.857†	752.6	179.3	1.0034	µg/L	1.0034 ppb	08:44:03

Mean Data: 1202068097|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1738485.7	101.18	%	0.506				0.50%
Sc RADIAL	141869.5	97.2	%	0.64				0.66%
Y 371.029	1031781.1	100.50	%	0.469				0.47%
Ag 328.068†	58.5	0.2093	µg/L	0.54976	0.2093	ppb	0.54976	262.73%
Al 396.153Radial†	384.0	71.210	µg/L	9.6975	71.210	ppb	9.6975	13.62%
As 188.979†	4.2	1.2906	µg/L	1.17185	1.2906	ppb	1.17185	90.80%
B 249.677†	567.8	8.3736	µg/L	0.87846	8.3736	ppb	0.87846	10.49%
Ba 233.527†	112.0	0.4506	µg/L	0.07721	0.4506	ppb	0.07721	17.14%

Be 313.107†	-22.0	-0.0054	µg/L	0.03609	-0.0054	ppb	0.03609 669.04%
Ca 317.933Radial†	3768.3	209.91	µg/L	1.545	209.91	ppb	1.545 0.74%
Cd 226.502†	-3.5	-0.0245	µg/L	0.13593	-0.0245	ppb	0.13593 554.43%
Co 228.616†	25.4	0.3124	µg/L	0.06158	0.3124	ppb	0.06158 19.71%
Cr 267.716†	16.9	0.1312	µg/L	0.27876	0.1312	ppb	0.27876 212.52%
Cu 324.752†	125.0	0.4915	µg/L	0.28317	0.4915	ppb	0.28317 57.61%
Fe 238.204 Radial†	408.0	25.144	µg/L	0.5783	25.144	ppb	0.5783 2.30%
K 766.490 Radial†	247.2	90.432	µg/L	48.8668	90.432	ppb	48.8668 54.04%
Mg 279.077 IEC†	16.3	6.0645	µg/L	3.79613	6.0645	ppb	3.79613 62.60%
Mn 257.610†	567.2	0.7015	µg/L	0.00336	0.7015	ppb	0.00336 0.48%
Mo 202.031†	-7.3	-0.2140	µg/L	0.21225	-0.2140	ppb	0.21225 99.16%
Na 589.592 Radial†	324.1	44.197	µg/L	18.9144	44.197	ppb	18.9144 42.80%
Ni 231.604†	-8.8	-0.1014	µg/L	0.16051	-0.1014	ppb	0.16051 158.24%
P 214.914†	2.5	0.5458	µg/L	2.81057	0.5458	ppb	2.81057 514.95%
Pb 220.353†	-17.7	-0.9860	µg/L	0.20338	-0.9860	ppb	0.20338 20.63%
S 181.975 Axial†	7.5	5.5649	µg/L	3.46518	5.5649	ppb	3.46518 62.27%
Sb 206.836†	-17.8	-2.1224	µg/L	0.29403	-2.1224	ppb	0.29403 13.85%
Se 196.026†	-8.7	-3.12	µg/L	2.307	-3.12	ppb	2.307 73.90%
SiO2†	431.5	42.172	µg/L	4.6689	42.172	ppb	4.6689 11.07%
Si 251.611†	1424.5	21.000	µg/L	0.1445	21.000	ppb	0.1445 0.69%
Sn 189.927†	11.9	0.7419	µg/L	0.66672	0.7419	ppb	0.66672 89.87%
Sr 421.552†	835.0	1.7342	µg/L	0.13474	1.7342	ppb	0.13474 7.77%
Ti 334.940†	359.9	0.3403	µg/L	0.09989	0.3403	ppb	0.09989 29.35%
Tl 190.801†	2.6	0.3191	µg/L	0.78885	0.3191	ppb	0.78885 247.22%
U 409.014†	34.0	1.9774	µg/L	10.39559	1.9774	ppb	10.39559 525.71%
V 292.402†	-68.1	-0.3353	µg/L	0.47331	-0.3353	ppb	0.47331 141.18%
Zn 213.857†	200.3	1.1220	µg/L	0.10286	1.1220	ppb	0.10286 9.17%

Sequence No.: 2
Sample ID: 1202068102|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 302
Date Collected: 4/1/2010 8:44:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068102|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	147882.7	147882.7	101	%			08:44:43
1	Al 396.153Radial†	466410.4	460314.2	85320	µg/L	85320	ppb	08:44:43
1	Ca 317.933Radial†	1641174.1	1618940.3	90181	µg/L	90181	ppb	08:44:43
1	Fe 238.204 Radial†	2807372.1	2770150.0	170740	µg/L	170740	ppb	08:44:41
1	K 766.490 Radial†	107267.1	104305.8	38147	µg/L	38147	ppb	08:44:43
1	Mg 279.077 IEC†	97099.7	95626.7	35494	µg/L	35494	ppb	08:44:43
1	Na 589.592 Radial†	72389.3	70142.5	9548.4	µg/L	9548.4	ppb	08:44:43
1	Sr 421.552†	1054328.6	1040540.5	2162.5	µg/L	2162.5	ppb	08:44:41
1	Sc 361.383	1735657.8	1735657.8	101.02	%			08:45:12
1	Y 371.029	1095765.7	1095765.7	106.73	%			08:45:12
1	Ag 328.068†	73282.1	68454.4	262.00	µg/L	262.00	ppb	08:45:12
1	As 188.979†	3215.1	3203.1	1029.8	µg/L	1029.8	ppb	08:45:14
1	B 249.677†	97494.9	93009.4	1368.7	µg/L	1368.7	ppb	08:45:12
1	Ba 233.527†	421234.9	417138.2	1679.6	µg/L	1679.6	ppb	08:45:12
1	Be 313.107†	2695087.1	2669071.1	726.66	µg/L	726.66	ppb	08:45:12
1	Cd 226.502†	91838.5	91033.9	551.26	µg/L	551.26	ppb	08:45:12
1	Co 228.616†	71074.2	70550.4	863.55	µg/L	863.55	ppb	08:45:12
1	Cr 267.716†	291669.9	288560.6	2265.0	µg/L	2265.0	ppb	08:45:12
1	Cu 324.752†	436514.9	429156.5	1693.9	µg/L	1693.9	ppb	08:45:12
1	Mn 257.610†	4239189.9	4196356.5	5190.3	µg/L	5190.3	ppb	08:45:12
1	Mo 202.031†	16037.6	15896.5	474.96	µg/L	474.96	ppb	08:45:14
1	Ni 231.604†	111368.4	110325.8	1270.3	µg/L	1270.3	ppb	08:45:12
1	P 214.914†	34284.4	33957.9	7150.5	µg/L	7150.5	ppb	08:45:14
1	Pb 220.353†	13468.3	13246.5	747.05	µg/L	747.05	ppb	08:45:14
1	S 181.975 Axial†	4832.9	4679.2	3478.7	µg/L	3478.7	ppb	08:45:14
1	Sb 206.836†	9749.7	9570.9	1111.2	µg/L	1111.2	ppb	08:45:14
1	Se 196.026†	7329.5	7240.6	2680	µg/L	2680	ppb	08:45:14
1	SiO2†	851669.3	841336.2	82207	µg/L	82207	ppb	08:45:12
1	Si 251.611†	2627414.7	2600177.5	38322	µg/L	38322	ppb	08:45:12
1	Sn 189.927†	14682.7	14536.3	924.06	µg/L	924.06	ppb	08:45:14
1	Ti 334.940†	5734138.2	5675568.1	5301.3	µg/L	5301.3	ppb	08:45:12
1	Tl 190.801†	8391.5	8423.8	1105.7	µg/L	1105.7	ppb	08:45:14
1	U 409.014†	-4752.5	-4434.8	-198.12	µg/L	-198.12	ppb	08:45:12
1	V 292.402†	234745.0	231982.5	1123.1	µg/L	1123.1	ppb	08:45:12
1	Zn 213.857†	971639.6	961312.0	5376.1	µg/L	5376.1	ppb	08:45:12
2	Sc RADIAL	145546.6	145546.6	99.7	%			08:44:47
2	Al 396.153Radial†	459435.9	460708.6	85393	µg/L	85393	ppb	08:44:47
2	Ca 317.933Radial†	1608481.5	1612155.1	89803	µg/L	89803	ppb	08:44:47
2	Fe 238.204 Radial†	2816807.6	2824074.6	174060	µg/L	174060	ppb	08:44:45
2	K 766.490 Radial†	104941.0	103672.5	37916	µg/L	37916	ppb	08:44:47
2	Mg 279.077 IEC†	94894.3	94953.4	35240	µg/L	35240	ppb	08:44:47
2	Na 589.592 Radial†	71208.6	70105.3	9543.5	µg/L	9543.5	ppb	08:44:47
2	Sr 421.552†	1057843.8	1060763.7	2204.6	µg/L	2204.6	ppb	08:44:45
2	Sc 361.383	1738154.5	1738154.5	101.16	%			08:45:18
2	Y 371.029	1096947.8	1096947.8	106.84	%			08:45:18
2	Ag 328.068†	73717.7	68780.7	263.19	µg/L	263.19	ppb	08:45:18
2	As 188.979†	3201.6	3185.2	1025.1	µg/L	1025.1	ppb	08:45:20
2	B 249.677†	97962.8	93333.3	1373.5	µg/L	1373.5	ppb	08:45:18
2	Ba 233.527†	422259.3	417551.8	1681.2	µg/L	1681.2	ppb	08:45:18
2	Be 313.107†	2702352.1	2672420.4	727.57	µg/L	727.57	ppb	08:45:18
2	Cd 226.502†	92134.6	91196.0	551.92	µg/L	551.92	ppb	08:45:18
2	Co 228.616†	71513.6	70883.7	867.49	µg/L	867.49	ppb	08:45:18
2	Cr 267.716†	292492.3	288958.8	2268.2	µg/L	2268.2	ppb	08:45:18
2	Cu 324.752†	437598.9	429607.3	1696.1	µg/L	1696.1	ppb	08:45:18
2	Mn 257.610†	4248676.8	4199706.6	5194.4	µg/L	5194.4	ppb	08:45:18
2	Mo 202.031†	15992.3	15829.0	473.10	µg/L	473.10	ppb	08:45:20
2	Ni 231.604†	111268.0	110068.2	1267.4	µg/L	1267.4	ppb	08:45:18
2	P 214.914†	34199.6	33825.3	7119.8	µg/L	7119.8	ppb	08:45:20
2	Pb 220.353†	13360.0	13120.4	739.91	µg/L	739.91	ppb	08:45:20

2	S 181.975 Axial†	4815.9	4655.6	3461.1	µg/L	3461.1 ppb	08:45:20
2	Sb 206.836†	9758.3	9565.6	1110.4	µg/L	1110.4 ppb	08:45:20
2	Se 196.026†	7399.5	7299.3	2700	µg/L	2700 ppb	08:45:20
2	SiO2†	853125.7	841564.8	82230	µg/L	82230 ppb	08:45:18
2	Si 251.611†	2632554.4	2601522.0	38342	µg/L	38342 ppb	08:45:18
2	Sn 189.927†	14481.2	14316.3	910.36	µg/L	910.36 ppb	08:45:20
2	Ti 334.940†	5746503.4	5679637.6	5305.1	µg/L	5305.1 ppb	08:45:18
2	Tl 190.801†	8412.2	8432.4	1106.8	µg/L	1106.8 ppb	08:45:20
2	U 409.014†	-4922.6	-4596.2	-208.32	µg/L	-208.32 ppb	08:45:18
2	V 292.402†	235044.1	231944.3	1122.6	µg/L	1122.6 ppb	08:45:18
2	Zn 213.857†	973785.5	962051.6	5379.9	µg/L	5379.9 ppb	08:45:18
3	Sc RADIAL	146634.7	146634.7	100	%		08:44:52
3	Al 396.153Radial†	464178.7	462010.3	85635	µg/L	85635 ppb	08:44:52
3	Ca 317.933Radial†	1621868.2	1613510.4	89879	µg/L	89879 ppb	08:44:52
3	Fe 238.204 Radial†	2774875.2	2761386.8	170190	µg/L	170190 ppb	08:44:50
3	K 766.490 Radial†	105966.9	103912.7	38004	µg/L	38004 ppb	08:44:52
3	Mg 279.077 IEC†	95784.9	95133.7	35311	µg/L	35311 ppb	08:44:52
3	Na 589.592 Radial†	71672.1	70036.7	9534.0	µg/L	9534.0 ppb	08:44:52
3	Sr 421.552†	1044840.8	1039953.0	2161.3	µg/L	2161.3 ppb	08:44:50
3	Sc 361.383	1760918.8	1760918.8	102.49	%		08:45:24
3	Y 371.029	1111557.7	1111557.7	108.27	%		08:45:24
3	Ag 328.068†	74591.7	68691.5	262.90	µg/L	262.90 ppb	08:45:24
3	As 188.979†	3224.2	3166.3	1018.6	µg/L	1018.6 ppb	08:45:26
3	B 249.677†	99450.3	93532.8	1376.4	µg/L	1376.4 ppb	08:45:24
3	Ba 233.527†	428621.3	418363.3	1684.6	µg/L	1684.6 ppb	08:45:24
3	Be 313.107†	2742809.3	2677362.6	728.92	µg/L	728.92 ppb	08:45:24
3	Cd 226.502†	93779.7	91623.8	555.00	µg/L	555.00 ppb	08:45:24
3	Co 228.616†	72315.0	70751.7	866.06	µg/L	866.06 ppb	08:45:24
3	Cr 267.716†	296746.8	289372.4	2271.3	µg/L	2271.3 ppb	08:45:24
3	Cu 324.752†	443355.5	429632.2	1695.7	µg/L	1695.7 ppb	08:45:24
3	Mn 257.610†	4310290.7	4205531.7	5201.6	µg/L	5201.6 ppb	08:45:24
3	Mo 202.031†	16014.0	15645.8	467.57	µg/L	467.57 ppb	08:45:26
3	Ni 231.604†	113011.5	110347.6	1270.6	µg/L	1270.6 ppb	08:45:24
3	P 214.914†	34484.9	33666.6	7088.6	µg/L	7088.6 ppb	08:45:26
3	Pb 220.353†	13379.2	12968.3	731.56	µg/L	731.56 ppb	08:45:26
3	S 181.975 Axial†	4838.6	4616.2	3431.8	µg/L	3431.8 ppb	08:45:26
3	Sb 206.836†	9748.7	9431.5	1094.4	µg/L	1094.4 ppb	08:45:26
3	Se 196.026†	7349.3	7155.8	2650	µg/L	2650 ppb	08:45:26
3	SiO2†	865980.4	843205.6	82390	µg/L	82390 ppb	08:45:24
3	Si 251.611†	2673142.9	2607484.4	38430	µg/L	38430 ppb	08:45:24
3	Sn 189.927†	14639.2	14285.3	908.45	µg/L	908.45 ppb	08:45:26
3	Ti 334.940†	5829113.7	5686808.9	5311.8	µg/L	5311.8 ppb	08:45:24
3	Tl 190.801†	8379.1	8292.6	1089.7	µg/L	1089.7 ppb	08:45:26
3	U 409.014†	-4968.8	-4578.4	-206.23	µg/L	-206.23 ppb	08:45:24
3	V 292.402†	238575.3	232386.2	1125.1	µg/L	1125.1 ppb	08:45:24
3	Zn 213.857†	989404.0	964847.2	5396.0	µg/L	5396.0 ppb	08:45:24

Mean Data: 1202068102|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1744910.4	101.55	%	0.810				0.80%
Sc RADIAL	146688.0	101	%	0.8				0.80%
Y 371.029	1101423.7	107.28	%	0.857				0.80%
Ag 328.068†	68642.2	262.70	µg/L	0.617	262.70	ppb	0.617	0.23%
Al 396.153Radial†	461011.0	85449	µg/L	164.7	85449	ppb	164.7	0.19%
As 188.979†	3184.9	1024.5	µg/L	5.63	1024.5	ppb	5.63	0.55%
B 249.677†	93291.8	1372.9	µg/L	3.89	1372.9	ppb	3.89	0.28%
Ba 233.527†	417684.4	1681.8	µg/L	2.52	1681.8	ppb	2.52	0.15%
Be 313.107†	2672951.4	727.72	µg/L	1.135	727.72	ppb	1.135	0.16%
Ca 317.933Radial†	1614868.6	89955	µg/L	200.0	89955	ppb	200.0	0.22%
Cd 226.502†	91284.6	552.73	µg/L	1.997	552.73	ppb	1.997	0.36%
Co 228.616†	70728.6	865.70	µg/L	1.995	865.70	ppb	1.995	0.23%
Cr 267.716†	288963.9	2268.2	µg/L	3.17	2268.2	ppb	3.17	0.14%
Cu 324.752†	429465.4	1695.2	µg/L	1.17	1695.2	ppb	1.17	0.07%
Fe 238.204 Radial†	2785203.8	171660	µg/L	2092.3	171660	ppb	2092.3	1.22%
K 766.490 Radial†	103963.7	38022	µg/L	117.0	38022	ppb	117.0	0.31%
Mg 279.077 IEC†	95237.9	35348	µg/L	131.0	35348	ppb	131.0	0.37%
Mn 257.610†	4200531.6	5195.5	µg/L	5.75	5195.5	ppb	5.75	0.11%
Mo 202.031†	15790.4	471.88	µg/L	3.845	471.88	ppb	3.845	0.81%
Na 589.592 Radial†	70094.8	9542.0	µg/L	7.28	9542.0	ppb	7.28	0.08%

Ni 231.604†	110247.2	1269.4	µg/L	1.79	1269.4	ppb	1.79	0.14%
P 214.914†	33816.6	7119.6	µg/L	30.97	7119.6	ppb	30.97	0.43%
Pb 220.353†	13111.8	739.51	µg/L	7.754	739.51	ppb	7.754	1.05%
S 181.975 Axial†	4650.4	3457.2	µg/L	23.66	3457.2	ppb	23.66	0.68%
Sb 206.836†	9522.7	1105.3	µg/L	9.48	1105.3	ppb	9.48	0.86%
Se 196.026†	7231.9	2670	µg/L	26.7	2670	ppb	26.7	1.00%
SiO2†	842035.5	82276	µg/L	99.9	82276	ppb	99.9	0.12%
Si 251.611†	2603061.3	38365	µg/L	57.4	38365	ppb	57.4	0.15%
Sn 189.927†	14379.3	914.29	µg/L	8.516	914.29	ppb	8.516	0.93%
Sr 421.552†	1047085.7	2176.1	µg/L	24.63	2176.1	ppb	24.63	1.13%
Ti 334.940†	5680671.5	5306.1	µg/L	5.32	5306.1	ppb	5.32	0.10%
Tl 190.801†	8383.0	1100.8	µg/L	9.56	1100.8	ppb	9.56	0.87%
U 409.014†	-4536.5	-204.22	µg/L	5.387	-204.22	ppb	5.387	2.64%
Concentration less than lower limit for U 409.014.								
V 292.402†	232104.3	1123.6	µg/L	1.32	1123.6	ppb	1.32	0.12%
Zn 213.857†	962736.9	5384.0	µg/L	10.57	5384.0	ppb	10.57	0.20%

Sequence No.: 4
Sample ID: 1202068098|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 304
Date Collected: 4/1/2010 8:47:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068098|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144572.7	144572.7	99.1	%			08:48:15
1	Al 396.153Radial†	50331.4	50867.1	9428.9	µg/L	9428.9	ppb	08:48:15
1	Ca 317.933Radial†	26205.3	25890.7	1442.2	µg/L	1442.2	ppb	08:48:17
1	Fe 238.204 Radial†	607116.8	612667.3	37761	µg/L	37761	ppb	08:48:15
1	K 766.490 Radial†	10794.4	9350.9	3420.6	µg/L	3420.6	ppb	08:48:15
1	Mg 279.077 IEC†	1708.0	1533.4	539.87	µg/L	539.87	ppb	08:48:17
1	Na 589.592 Radial†	23041.3	21966.7	2997.9	µg/L	2997.9	ppb	08:48:15
1	Sr 421.552†	31149.4	31577.1	65.636	µg/L	65.636	ppb	08:48:15
1	Sc 361.383	1741548.7	1741548.7	101.36	%			08:48:30
1	Y 371.029	1203345.8	1203345.8	117.21	%			08:48:30
1	Ag 328.068†	3716.2	-424.9	-2.4124	µg/L	-2.4124	ppb	08:48:30
1	As 188.979†	3.5	23.8	16.137	µg/L	16.137	ppb	08:48:50
1	B 249.677†	3731.4	175.6	2.5731	µg/L	2.5731	ppb	08:48:30
1	Ba 233.527†	24767.3	24571.4	98.552	µg/L	98.552	ppb	08:48:50
1	Be 313.107†	8535.5	9485.9	2.5118	µg/L	2.5118	ppb	08:48:30
1	Cd 226.502†	503.4	614.8	-0.1215	µg/L	-0.1215	ppb	08:48:50
1	Co 228.616†	189.3	377.0	2.7859	µg/L	2.7859	ppb	08:48:50
1	Cr 267.716†	4934.9	4690.2	37.826	µg/L	37.826	ppb	08:48:50
1	Cu 324.752†	4178.2	1150.1	9.7927	µg/L	9.7927	ppb	08:48:30
1	Mn 257.610†	1316224.5	1298354.1	1606.3	µg/L	1606.3	ppb	08:48:30
1	Mo 202.031†	1314.2	1316.6	40.202	µg/L	40.202	ppb	08:48:50
1	Ni 231.604†	1580.9	1636.2	18.840	µg/L	18.840	ppb	08:48:50
1	P 214.914†	1845.2	1838.4	369.22	µg/L	369.22	ppb	08:48:50
1	Pb 220.353†	546.7	453.0	25.820	µg/L	25.820	ppb	08:48:50
1	S 181.975 Axial†	805.8	690.0	512.68	µg/L	512.68	ppb	08:48:50
1	Sb 206.836†	81.4	-0.5	-0.5718	µg/L	-0.5718	ppb	08:48:50
1	Se 196.026†	-23.2	-38.1	-0.907	µg/L	-0.907	ppb	08:48:50
1	SiO2†	405305.5	398100.4	38910	µg/L	38910	ppb	08:48:30
1	Si 251.611†	1249967.5	1232385.4	18168	µg/L	18168	ppb	08:48:30
1	Sn 189.927†	118.5	118.0	9.6276	µg/L	9.6276	ppb	08:48:50
1	Ti 334.940†	731337.3	720587.2	673.30	µg/L	673.30	ppb	08:48:30
1	Tl 190.801†	-227.7	-108.0	-2.2781	µg/L	-2.2781	ppb	08:48:50
1	U 409.014†	-4347.1	-4019.0	-232.31	µg/L	-232.31	ppb	08:48:30
1	V 292.402†	3433.4	2983.6	10.347	µg/L	10.347	ppb	08:48:50
1	Zn 213.857†	22643.7	21775.9	118.64	µg/L	118.64	ppb	08:48:50
2	Sc RADIAL	144917.8	144917.8	99.3	%			08:48:19
2	Al 396.153Radial†	50640.9	51057.7	9464.2	µg/L	9464.2	ppb	08:48:19
2	Ca 317.933Radial†	25898.1	25518.4	1421.5	µg/L	1421.5	ppb	08:48:21
2	Fe 238.204 Radial†	609936.7	614047.6	37846	µg/L	37846	ppb	08:48:19
2	K 766.490 Radial†	10612.8	9142.1	3344.2	µg/L	3344.2	ppb	08:48:19
2	Mg 279.077 IEC†	1749.6	1571.1	553.87	µg/L	553.87	ppb	08:48:21
2	Na 589.592 Radial†	23158.4	22029.3	3006.5	µg/L	3006.5	ppb	08:48:19
2	Sr 421.552†	31143.6	31496.3	65.468	µg/L	65.468	ppb	08:48:19
2	Sc 361.383	1762837.7	1762837.7	102.60	%			08:48:52
2	Y 371.029	1216152.3	1216152.3	118.45	%			08:48:52
2	Ag 328.068†	3953.1	-238.3	-1.7342	µg/L	-1.7342	ppb	08:48:52
2	As 188.979†	-5.0	15.4	13.613	µg/L	13.613	ppb	08:49:12
2	B 249.677†	3638.7	40.7	0.5852	µg/L	0.5852	ppb	08:48:52
2	Ba 233.527†	24773.6	24282.4	97.386	µg/L	97.386	ppb	08:49:12
2	Be 313.107†	8496.0	9345.7	2.4713	µg/L	2.4713	ppb	08:48:52
2	Cd 226.502†	514.4	619.6	-0.1009	µg/L	-0.1009	ppb	08:49:12
2	Co 228.616†	171.5	357.5	2.5390	µg/L	2.5390	ppb	08:49:12
2	Cr 267.716†	4932.0	4628.6	37.350	µg/L	37.350	ppb	08:49:12
2	Cu 324.752†	4077.0	1001.6	9.2223	µg/L	9.2223	ppb	08:48:52
2	Mn 257.610†	1337760.1	1303662.1	1612.9	µg/L	1612.9	ppb	08:48:52
2	Mo 202.031†	1335.0	1321.3	40.343	µg/L	40.343	ppb	08:49:12
2	Ni 231.604†	1554.4	1591.5	18.325	µg/L	18.325	ppb	08:49:12
2	P 214.914†	1876.5	1847.0	371.01	µg/L	371.01	ppb	08:49:12
2	Pb 220.353†	513.3	413.9	23.648	µg/L	23.648	ppb	08:49:12

2	S 181.975 Axial†	798.7	673.4	500.38 µg/L	500.38 ppb		08:49:12
2	Sb 206.836†	77.7	-5.1	-1.1099 µg/L	-1.1099 ppb		08:49:12
2	Se 196.026†	-29.1	-43.6	-2.87 µg/L	-2.87 ppb		08:49:12
2	SiO2†	411439.7	399250.1	39022 µg/L	39022 ppb		08:48:52
2	Si 251.611†	1268544.7	1235599.3	18216 µg/L	18216 ppb		08:48:52
2	Sn 189.927†	125.7	123.6	9.9833 µg/L	9.9833 ppb		08:49:12
2	Ti 334.940†	741889.0	722158.1	674.77 µg/L	674.77 ppb		08:48:52
2	Tl 190.801†	-229.3	-106.8	-2.1037 µg/L	-2.1037 ppb		08:49:12
2	U 409.014†	-4532.2	-4147.6	-239.82 µg/L	-239.82 ppb		08:48:52
2	V 292.402†	3448.2	2957.1	10.202 µg/L	10.202 ppb		08:49:12
2	Zn 213.857†	22602.8	21466.2	116.89 µg/L	116.89 ppb		08:49:12
3	Sc RADIAL	147208.9	147208.9	101 %			08:48:23
3	Al 396.153Radial†	51303.5	50920.9	9438.9 µg/L	9438.9 ppb		08:48:23
3	Ca 317.933Radial†	25997.8	25211.3	1404.4 µg/L	1404.4 ppb		08:48:25
3	Fe 238.204 Radial†	618847.9	613322.3	37801 µg/L	37801 ppb		08:48:23
3	K 766.490 Radial†	10817.9	9179.2	3357.7 µg/L	3357.7 ppb		08:48:23
3	Mg 279.077 IEC†	1882.5	1675.4	592.76 µg/L	592.76 ppb		08:48:25
3	Na 589.592 Radial†	23349.5	21855.8	2982.8 µg/L	2982.8 ppb		08:48:23
3	Sr 421.552†	31653.6	31513.8	65.504 µg/L	65.504 ppb		08:48:23
3	Sc 361.383	1764846.5	1764846.5	102.71 %			08:49:15
3	Y 371.029	1218363.0	1218363.0	118.67 %			08:49:15
3	Ag 328.068†	4125.6	-74.8	-1.1417 µg/L	-1.1417 ppb		08:49:15
3	As 188.979†	-4.3	16.2	13.827 µg/L	13.827 ppb		08:49:35
3	B 249.677†	3766.7	161.3	2.3635 µg/L	2.3635 ppb		08:49:15
3	Ba 233.527†	24760.4	24242.0	97.225 µg/L	97.225 ppb		08:49:35
3	Be 313.107†	8440.6	9282.3	2.4503 µg/L	2.4503 ppb		08:49:15
3	Cd 226.502†	490.7	596.0	-0.2439 µg/L	-0.2439 ppb		08:49:35
3	Co 228.616†	157.1	343.2	2.3653 µg/L	2.3653 ppb		08:49:35
3	Cr 267.716†	4951.1	4641.7	37.461 µg/L	37.461 ppb		08:49:35
3	Cu 324.752†	4027.2	948.6	9.0003 µg/L	9.0003 ppb		08:49:15
3	Mn 257.610†	1339048.3	1303432.1	1612.6 µg/L	1612.6 ppb		08:49:15
3	Mo 202.031†	1338.9	1323.6	40.410 µg/L	40.410 ppb		08:49:35
3	Ni 231.604†	1563.7	1598.9	18.410 µg/L	18.410 ppb		08:49:35
3	P 214.914†	1875.5	1843.9	370.39 µg/L	370.39 ppb		08:49:35
3	Pb 220.353†	534.3	433.8	24.770 µg/L	24.770 ppb		08:49:35
3	S 181.975 Axial†	791.9	665.9	494.84 µg/L	494.84 ppb		08:49:35
3	Sb 206.836†	82.0	-1.0	-0.6196 µg/L	-0.6196 ppb		08:49:35
3	Se 196.026†	-37.3	-51.6	-5.77 µg/L	-5.77 ppb		08:49:35
3	SiO2†	413589.5	400886.7	39182 µg/L	39182 ppb		08:49:15
3	Si 251.611†	1274675.8	1240161.1	18283 µg/L	18283 ppb		08:49:15
3	Sn 189.927†	129.5	127.2	10.203 µg/L	10.203 ppb		08:49:35
3	Ti 334.940†	743130.3	722543.5	675.13 µg/L	675.13 ppb		08:49:15
3	Tl 190.801†	-252.2	-128.8	-4.8027 µg/L	-4.8027 ppb		08:49:35
3	U 409.014†	-4756.7	-4361.1	-252.28 µg/L	-252.28 ppb		08:49:15
3	V 292.402†	3478.8	2983.1	10.326 µg/L	10.326 ppb		08:49:35
3	Zn 213.857†	22574.8	21413.9	116.60 µg/L	116.60 ppb		08:49:35

Mean Data: 1202068098|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1756411.0	102.22	%	0.751				0.74%
Sc RADIAL	145566.5	99.8	%	0.98				0.98%
Y 371.029	1212620.3	118.11	%	0.790				0.67%
Ag 328.068†	-246.0	-1.7628	µg/L	0.63586	-1.7628	ppb	0.63586	36.07%
Al 396.153Radial†	50948.6	9444.0	µg/L	18.22	9444.0	ppb	18.22	0.19%
As 188.979†	18.5	14.526	µg/L	1.3996	14.526	ppb	1.3996	9.64%
B 249.677†	125.8	1.8406	µg/L	1.09222	1.8406	ppb	1.09222	59.34%
Ba 233.527†	24365.3	97.721	µg/L	0.7243	97.721	ppb	0.7243	0.74%
Be 313.107†	9371.3	2.4778	µg/L	0.03125	2.4778	ppb	0.03125	1.26%
Ca 317.933Radial†	25540.1	1422.7	µg/L	18.95	1422.7	ppb	18.95	1.33%
Cd 226.502†	610.1	-0.1555	µg/L	0.07731	-0.1555	ppb	0.07731	49.73%
Co 228.616†	359.3	2.5634	µg/L	0.21138	2.5634	ppb	0.21138	8.25%
Cr 267.716†	4653.5	37.546	µg/L	0.2490	37.546	ppb	0.2490	0.66%
Cu 324.752†	1033.4	9.3384	µg/L	0.40878	9.3384	ppb	0.40878	4.38%
Fe 238.204 Radial†	613345.7	37803	µg/L	42.6	37803	ppb	42.6	0.11%
K 766.490 Radial†	9224.1	3374.2	µg/L	40.80	3374.2	ppb	40.80	1.21%
Mg 279.077 IEC†	1593.3	562.17	µg/L	27.402	562.17	ppb	27.402	4.87%
Mn 257.610†	1301816.1	1610.6	µg/L	3.71	1610.6	ppb	3.71	0.23%
Mo 202.031†	1320.5	40.319	µg/L	0.1061	40.319	ppb	0.1061	0.26%
Na 589.592 Radial†	21950.6	2995.7	µg/L	12.01	2995.7	ppb	12.01	0.40%

Ni 231.604†	1608.9	18.525	µg/L	0.2757	18.525	ppb	0.2757	1.49%
P 214.914†	1843.1	370.21	µg/L	0.908	370.21	ppb	0.908	0.25%
Pb 220.353†	433.6	24.746	µg/L	1.0859	24.746	ppb	1.0859	4.39%
S 181.975 Axial†	676.4	502.63	µg/L	9.132	502.63	ppb	9.132	1.82%
Sb 206.836†	-2.2	-0.7671	µg/L	0.29786	-0.7671	ppb	0.29786	38.83%
Se 196.026†	-44.4	-3.18	µg/L	2.448	-3.18	ppb	2.448	76.89%
SiO2†	399412.4	39038	µg/L	136.9	39038	ppb	136.9	0.35%
Si 251.611†	1236048.6	18222	µg/L	57.6	18222	ppb	57.6	0.32%
Sn 189.927†	122.9	9.9380	µg/L	0.29034	9.9380	ppb	0.29034	2.92%
Sr 421.552†	31529.1	65.536	µg/L	0.0882	65.536	ppb	0.0882	0.13%
Ti 334.940†	721762.9	674.40	µg/L	0.970	674.40	ppb	0.970	0.14%
Tl 190.801†	-114.5	-3.0615	µg/L	1.51045	-3.0615	ppb	1.51045	49.34%
U 409.014†	-4175.9	-241.47	µg/L	10.089	-241.47	ppb	10.089	4.18%
Concentration less than lower limit for U 409.014.								
V 292.402†	2974.6	10.292	µg/L	0.0785	10.292	ppb	0.0785	0.76%
Zn 213.857†	21552.0	117.38	µg/L	1.100	117.38	ppb	1.100	0.94%

Sequence No.: 5
Sample ID: 1202068100|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 305
Date Collected: 4/1/2010 8:49:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068100|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144122.6	144122.6	98.8	%			08:50:16
1	Al 396.153Radial†	127172.0	128829.9	23861	µg/L	23861	ppb	08:50:16
1	Ca 317.933Radial†	113853.8	114720.8	6390.4	µg/L	6390.4	ppb	08:50:16
1	Fe 238.204 Radial†	783501.0	793177.4	48887	µg/L	48887	ppb	08:50:14
1	K 766.490 Radial†	30481.3	29318.7	10725	µg/L	10725	ppb	08:50:16
1	Mg 279.077 IEC†	15371.5	15373.5	5698.6	µg/L	5698.6	ppb	08:50:16
1	Na 589.592 Radial†	74373.2	74015.0	10102	µg/L	10102	ppb	08:50:16
1	Sr 421.552†	271936.6	275481.8	572.66	µg/L	572.66	ppb	08:50:14
1	Sc 361.383	1721634.6	1721634.6	100.20	%			08:50:29
1	Y 371.029	1228026.2	1228026.2	119.61	%			08:50:29
1	Ag 328.068†	128263.8	123917.8	463.67	µg/L	463.67	ppb	08:50:29
1	As 188.979†	1611.0	1628.1	509.46	µg/L	509.46	ppb	08:50:49
1	B 249.677†	35510.8	31934.4	469.38	µg/L	469.38	ppb	08:50:29
1	Ba 233.527†	147168.5	147012.2	592.25	µg/L	592.25	ppb	08:50:29
1	Be 313.107†	1798691.7	1796186.5	489.12	µg/L	489.12	ppb	08:50:29
1	Cd 226.502†	75374.5	75343.1	465.69	µg/L	465.69	ppb	08:50:29
1	Co 228.616†	37297.4	37413.7	459.70	µg/L	459.70	ppb	08:50:29
1	Cr 267.716†	62920.6	62617.2	491.59	µg/L	491.59	ppb	08:50:29
1	Cu 324.752†	131261.8	128029.1	505.23	µg/L	505.23	ppb	08:50:29
1	Mn 257.610†	1804263.3	1800445.1	2227.3	µg/L	2227.3	ppb	08:50:29
1	Mo 202.031†	17479.2	17464.6	515.46	µg/L	515.46	ppb	08:50:49
1	Ni 231.604†	41941.2	41934.5	482.85	µg/L	482.85	ppb	08:50:29
1	P 214.914†	4715.3	4723.9	975.63	µg/L	975.63	ppb	08:50:49
1	Pb 220.353†	8892.9	8788.8	493.73	µg/L	493.73	ppb	08:50:49
1	S 181.975 Axial†	7851.6	7731.0	5745.2	µg/L	5745.2	ppb	08:50:49
1	Sb 206.836†	3773.8	3685.5	438.80	µg/L	438.80	ppb	08:50:49
1	Se 196.026†	1284.1	1266.3	475	µg/L	475	ppb	08:50:49
1	SiO2†	756898.8	753621.2	73639	µg/L	73639	ppb	08:50:29
1	Si 251.611†	2323681.1	2318232.7	34168	µg/L	34168	ppb	08:50:29
1	Sn 189.927†	7465.4	7451.7	470.07	µg/L	470.07	ppb	08:50:49
1	Ti 334.940†	1762704.1	1758253.1	1642.1	µg/L	1642.1	ppb	08:50:29
1	Tl 190.801†	3537.3	3646.9	471.55	µg/L	471.55	ppb	08:50:49
1	U 409.014†	2502.1	2767.0	192.08	µg/L	192.08	ppb	08:50:29
1	V 292.402†	97680.6	97082.9	474.45	µg/L	474.45	ppb	08:50:29
1	Zn 213.857†	108539.6	107759.7	597.74	µg/L	597.74	ppb	08:50:29
2	Sc RADIAL	142988.3	142988.3	98.0	%			08:50:20
2	Al 396.153Radial†	126525.6	129191.6	23928	µg/L	23928	ppb	08:50:20
2	Ca 317.933Radial†	112419.9	114171.9	6359.8	µg/L	6359.8	ppb	08:50:20
2	Fe 238.204 Radial†	765603.6	781205.0	48149	µg/L	48149	ppb	08:50:18
2	K 766.490 Radial†	29907.4	28977.8	10601	µg/L	10601	ppb	08:50:20
2	Mg 279.077 IEC†	15131.1	15251.6	5653.7	µg/L	5653.7	ppb	08:50:20
2	Na 589.592 Radial†	73498.3	73719.4	10062	µg/L	10062	ppb	08:50:20
2	Sr 421.552†	267577.4	273217.1	567.95	µg/L	567.95	ppb	08:50:18
2	Sc 361.383	1745857.4	1745857.4	101.61	%			08:50:52
2	Y 371.029	1244503.2	1244503.2	121.22	%			08:50:52
2	Ag 328.068†	129377.7	123238.1	461.15	µg/L	461.15	ppb	08:50:52
2	As 188.979†	1622.9	1617.5	506.10	µg/L	506.10	ppb	08:51:12
2	B 249.677†	36076.9	31999.8	470.33	µg/L	470.33	ppb	08:50:52
2	Ba 233.527†	149527.9	147296.5	593.40	µg/L	593.40	ppb	08:50:52
2	Be 313.107†	1825285.3	1797452.7	489.46	µg/L	489.46	ppb	08:50:52
2	Cd 226.502†	76611.0	75516.3	466.85	µg/L	466.85	ppb	08:50:52
2	Co 228.616†	37940.4	37530.0	461.17	µg/L	461.17	ppb	08:50:52
2	Cr 267.716†	64040.9	62848.5	493.38	µg/L	493.38	ppb	08:50:52
2	Cu 324.752†	133116.6	128036.9	505.14	µg/L	505.14	ppb	08:50:52
2	Mn 257.610†	1833461.8	1804197.8	2232.0	µg/L	2232.0	ppb	08:50:52
2	Mo 202.031†	17607.6	17348.9	512.03	µg/L	512.03	ppb	08:51:12
2	Ni 231.604†	42733.9	42133.9	485.14	µg/L	485.14	ppb	08:50:52
2	P 214.914†	4763.8	4706.3	972.42	µg/L	972.42	ppb	08:51:12
2	Pb 220.353†	8960.2	8732.0	490.58	µg/L	490.58	ppb	08:51:12

2	S 181.975 Axial†	7925.2	7694.6	5718.2 µg/L	5718.2 ppb	08:51:12
2	Sb 206.836†	3805.0	3663.9	436.17 µg/L	436.17 ppb	08:51:12
2	Se 196.026†	1274.0	1238.6	465 µg/L	465 ppb	08:51:12
2	SiO2†	769065.7	755114.8	73785 µg/L	73785 ppb	08:50:52
2	Si 251.611†	2359565.5	2321373.1	34214 µg/L	34214 ppb	08:50:52
2	Sn 189.927†	7541.8	7423.5	468.32 µg/L	468.32 ppb	08:51:12
2	Ti 334.940†	1788157.3	1758895.3	1642.8 µg/L	1642.8 ppb	08:50:52
2	Tl 190.801†	3549.7	3610.2	467.05 µg/L	467.05 ppb	08:51:12
2	U 409.014†	2468.8	2699.6	188.34 µg/L	188.34 ppb	08:50:52
2	V 292.402†	99082.5	97110.1	474.63 µg/L	474.63 ppb	08:50:52
2	Zn 213.857†	110591.0	108275.8	600.70 µg/L	600.70 ppb	08:50:52
3	Sc RADIAL	144517.9	144517.9	99.0 %		08:50:24
3	Al 396.153Radial†	127748.6	129059.9	23904 µg/L	23904 ppb	08:50:24
3	Ca 317.933Radial†	114060.8	114614.6	6384.5 µg/L	6384.5 ppb	08:50:24
3	Fe 238.204 Radial†	777262.7	784708.2	48365 µg/L	48365 ppb	08:50:22
3	K 766.490 Radial†	30429.4	29181.9	10675 µg/L	10675 ppb	08:50:24
3	Mg 279.077 IEC†	15285.9	15244.5	5651.0 µg/L	5651.0 ppb	08:50:24
3	Na 589.592 Radial†	74366.6	73802.4	10073 µg/L	10073 ppb	08:50:24
3	Sr 421.552†	271449.3	274236.6	570.07 µg/L	570.07 ppb	08:50:22
3	Sc 361.383	1734240.9	1734240.9	100.93 %		08:51:15
3	Y 371.029	1237174.5	1237174.5	120.50 %		08:51:15
3	Ag 328.068†	129090.7	123806.6	463.26 µg/L	463.26 ppb	08:51:15
3	As 188.979†	1609.4	1614.9	505.34 µg/L	505.34 ppb	08:51:35
3	B 249.677†	35857.6	32020.4	470.64 µg/L	470.64 ppb	08:51:15
3	Ba 233.527†	148743.7	147505.3	594.24 µg/L	594.24 ppb	08:51:15
3	Be 313.107†	1812583.6	1796901.1	489.31 µg/L	489.31 ppb	08:51:15
3	Cd 226.502†	76098.4	75513.5	466.81 µg/L	466.81 ppb	08:51:15
3	Co 228.616†	37601.0	37443.9	460.10 µg/L	460.10 ppb	08:51:15
3	Cr 267.716†	63480.7	62715.6	492.34 µg/L	492.34 ppb	08:51:15
3	Cu 324.752†	132229.2	128035.3	505.17 µg/L	505.17 ppb	08:51:15
3	Mn 257.610†	1819647.2	1802597.5	2230.0 µg/L	2230.0 ppb	08:51:15
3	Mo 202.031†	17665.1	17521.9	517.12 µg/L	517.12 ppb	08:51:35
3	Ni 231.604†	42420.4	42105.0	484.81 µg/L	484.81 ppb	08:51:15
3	P 214.914†	4771.8	4745.6	980.67 µg/L	980.67 ppb	08:51:35
3	Pb 220.353†	8990.9	8821.4	495.58 µg/L	495.58 ppb	08:51:35
3	S 181.975 Axial†	8003.9	7824.9	5815.0 µg/L	5815.0 ppb	08:51:35
3	Sb 206.836†	3808.5	3692.5	439.66 µg/L	439.66 ppb	08:51:35
3	Se 196.026†	1301.4	1274.1	478 µg/L	478 ppb	08:51:35
3	SiO2†	763417.7	754588.8	73733 µg/L	73733 ppb	08:51:15
3	Si 251.611†	2342280.0	2319802.2	34191 µg/L	34191 ppb	08:51:15
3	Sn 189.927†	7590.3	7521.3	474.42 µg/L	474.42 ppb	08:51:35
3	Ti 334.940†	1777102.7	1759730.8	1643.5 µg/L	1643.5 ppb	08:51:15
3	Tl 190.801†	3546.0	3629.9	469.48 µg/L	469.48 ppb	08:51:35
3	U 409.014†	2474.9	2721.9	189.61 µg/L	189.61 ppb	08:51:15
3	V 292.402†	98519.9	97205.9	475.12 µg/L	475.12 ppb	08:51:15
3	Zn 213.857†	109774.4	108195.8	600.23 µg/L	600.23 ppb	08:51:15

Mean Data: 1202068100|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733911.0	100.91	%	0.705				0.70%
Sc RADIAL	143876.2	98.6	%	0.54				0.55%
Y 371.029	1236568.0	120.44	%	0.804				0.67%
Ag 328.068†	123654.2	462.69	µg/L	1.351	462.69	ppb	1.351	0.29%
Al 396.153Radial†	129027.1	23898	µg/L	34.0	23898	ppb	34.0	0.14%
As 188.979†	1620.2	506.97	µg/L	2.194	506.97	ppb	2.194	0.43%
B 249.677†	31984.9	470.12	µg/L	0.661	470.12	ppb	0.661	0.14%
Ba 233.527†	147271.3	593.30	µg/L	1.001	593.30	ppb	1.001	0.17%
Be 313.107†	1796846.8	489.30	µg/L	0.172	489.30	ppb	0.172	0.04%
Ca 317.933Radial†	114502.4	6378.2	µg/L	16.22	6378.2	ppb	16.22	0.25%
Cd 226.502†	75457.6	466.45	µg/L	0.659	466.45	ppb	0.659	0.14%
Co 228.616†	37462.5	460.32	µg/L	0.763	460.32	ppb	0.763	0.17%
Cr 267.716†	62727.1	492.44	µg/L	0.898	492.44	ppb	0.898	0.18%
Cu 324.752†	128033.8	505.18	µg/L	0.041	505.18	ppb	0.041	0.01%
Fe 238.204 Radial†	786363.5	48467	µg/L	379.4	48467	ppb	379.4	0.78%
K 766.490 Radial†	29159.5	10667	µg/L	62.8	10667	ppb	62.8	0.59%
Mg 279.077 IEC†	15289.9	5667.7	µg/L	26.72	5667.7	ppb	26.72	0.47%
Mn 257.610†	1802413.5	2229.8	µg/L	2.33	2229.8	ppb	2.33	0.10%
Mo 202.031†	17445.2	514.87	µg/L	2.597	514.87	ppb	2.597	0.50%
Na 589.592 Radial†	73845.6	10079	µg/L	20.8	10079	ppb	20.8	0.21%

Ni 231.604†	42057.8	484.26 µg/L	1.241	484.26 ppb	1.241	0.26%
P 214.914†	4725.3	976.24 µg/L	4.160	976.24 ppb	4.160	0.43%
Pb 220.353†	8780.7	493.30 µg/L	2.528	493.30 ppb	2.528	0.51%
S 181.975 Axial†	7750.2	5759.5 µg/L	49.95	5759.5 ppb	49.95	0.87%
Sb 206.836†	3680.7	438.21 µg/L	1.822	438.21 ppb	1.822	0.42%
Se 196.026†	1259.7	472 µg/L	6.8	472 ppb	6.8	1.45%
SiO2†	754441.6	73719 µg/L	74.1	73719 ppb	74.1	0.10%
Si 251.611†	2319802.7	34191 µg/L	23.2	34191 ppb	23.2	0.07%
Sn 189.927†	7465.5	470.94 µg/L	3.138	470.94 ppb	3.138	0.67%
Sr 421.552†	274311.8	570.23 µg/L	2.358	570.23 ppb	2.358	0.41%
Ti 334.940†	1758959.7	1642.8 µg/L	0.69	1642.8 ppb	0.69	0.04%
Tl 190.801†	3629.0	469.36 µg/L	2.251	469.36 ppb	2.251	0.48%
U 409.014†	2729.5	190.01 µg/L	1.902	190.01 ppb	1.902	1.00%
V 292.402†	97133.0	474.73 µg/L	0.348	474.73 ppb	0.348	0.07%
Zn 213.857†	108077.1	599.56 µg/L	1.593	599.56 ppb	1.593	0.27%

Sequence No.: 6
Sample ID: 1202068101|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 306
Date Collected: 4/1/2010 8:51:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068101|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144627.7	144627.7	99.1	%			08:52:16
1	Al 396.153Radial†	118364.8	119493.7	22130	µg/L	22130	ppb	08:52:16
1	Ca 317.933Radial†	114064.7	114531.0	6379.8	µg/L	6379.8	ppb	08:52:16
1	Fe 238.204 Radial†	745919.6	752487.0	46379	µg/L	46379	ppb	08:52:14
1	K 766.490 Radial†	29283.9	28002.7	10244	µg/L	10244	ppb	08:52:16
1	Mg 279.077 IEC†	15163.4	15109.2	5602.2	µg/L	5602.2	ppb	08:52:16
1	Na 589.592 Radial†	71571.4	70924.9	9680.1	µg/L	9680.1	ppb	08:52:16
1	Sr 421.552†	257498.7	259952.3	540.38	µg/L	540.38	ppb	08:52:14
1	Sc 361.383	1720973.6	1720973.6	100.16	%			08:52:29
1	Y 371.029	1265170.3	1265170.3	123.23	%			08:52:29
1	Ag 328.068†	125768.7	121475.9	454.45	µg/L	454.45	ppb	08:52:29
1	As 188.979†	1590.0	1607.8	502.66	µg/L	502.66	ppb	08:52:49
1	B 249.677†	34837.4	31275.8	459.68	µg/L	459.68	ppb	08:52:29
1	Ba 233.527†	140249.1	140160.4	564.67	µg/L	564.67	ppb	08:52:29
1	Be 313.107†	1770057.5	1768287.6	481.49	µg/L	481.49	ppb	08:52:29
1	Cd 226.502†	74083.7	74083.3	458.08	µg/L	458.08	ppb	08:52:29
1	Co 228.616†	36806.9	36938.2	453.93	µg/L	453.93	ppb	08:52:29
1	Cr 267.716†	61662.1	61384.8	481.91	µg/L	481.91	ppb	08:52:29
1	Cu 324.752†	129416.4	126237.0	497.81	µg/L	497.81	ppb	08:52:29
1	Mn 257.610†	1838865.6	1835683.5	2270.9	µg/L	2270.9	ppb	08:52:29
1	Mo 202.031†	17344.0	17336.3	511.58	µg/L	511.58	ppb	08:52:49
1	Ni 231.604†	41361.1	41371.3	476.36	µg/L	476.36	ppb	08:52:29
1	P 214.914†	4579.6	4590.2	948.45	µg/L	948.45	ppb	08:52:49
1	Pb 220.353†	8735.6	8635.2	485.33	µg/L	485.33	ppb	08:52:49
1	S 181.975 Axial†	7364.7	7247.9	5386.4	µg/L	5386.4	ppb	08:52:49
1	Sb 206.836†	3714.7	3627.9	432.08	µg/L	432.08	ppb	08:52:49
1	Se 196.026†	1263.4	1246.1	467	µg/L	467	ppb	08:52:49
1	SiO2†	710745.2	707831.6	69164	µg/L	69164	ppb	08:52:29
1	Si 251.611†	2181881.7	2177551.0	32094	µg/L	32094	ppb	08:52:29
1	Sn 189.927†	7406.9	7396.1	466.94	µg/L	466.94	ppb	08:52:49
1	Ti 334.940†	1866575.2	1862633.5	1739.7	µg/L	1739.7	ppb	08:52:29
1	Tl 190.801†	3447.9	3559.1	461.84	µg/L	461.84	ppb	08:52:49
1	U 409.014†	828.9	1097.4	95.030	µg/L	95.030	ppb	08:52:29
1	V 292.402†	96604.9	96046.4	469.42	µg/L	469.42	ppb	08:52:29
1	Zn 213.857†	108543.8	107805.5	598.33	µg/L	598.33	ppb	08:52:29
2	Sc RADIAL	144273.4	144273.4	98.9	%			08:52:20
2	Al 396.153Radial†	118216.6	119637.0	22157	µg/L	22157	ppb	08:52:20
2	Ca 317.933Radial†	113255.8	113995.4	6350.0	µg/L	6350.0	ppb	08:52:20
2	Fe 238.204 Radial†	744740.0	753142.0	46419	µg/L	46419	ppb	08:52:18
2	K 766.490 Radial†	29142.8	27932.6	10218	µg/L	10218	ppb	08:52:20
2	Mg 279.077 IEC†	15105.5	15088.2	5594.2	µg/L	5594.2	ppb	08:52:20
2	Na 589.592 Radial†	71259.6	70786.9	9661.3	µg/L	9661.3	ppb	08:52:20
2	Sr 421.552†	257202.8	260290.9	541.08	µg/L	541.08	ppb	08:52:18
2	Sc 361.383	1738077.6	1738077.6	101.16	%			08:52:52
2	Y 371.029	1277546.9	1277546.9	124.43	%			08:52:52
2	Ag 328.068†	126862.2	121321.2	453.89	µg/L	453.89	ppb	08:52:52
2	As 188.979†	1594.1	1596.2	499.14	µg/L	499.14	ppb	08:53:12
2	B 249.677†	35547.2	31635.1	464.98	µg/L	464.98	ppb	08:52:52
2	Ba 233.527†	141553.0	140071.4	564.31	µg/L	564.31	ppb	08:52:52
2	Be 313.107†	1787887.8	1768523.3	481.56	µg/L	481.56	ppb	08:52:52
2	Cd 226.502†	75224.1	74482.8	460.57	µg/L	460.57	ppb	08:52:52
2	Co 228.616†	37118.9	36885.1	453.28	µg/L	453.28	ppb	08:52:52
2	Cr 267.716†	62349.7	61458.7	482.49	µg/L	482.49	ppb	08:52:52
2	Cu 324.752†	130708.2	126242.5	497.84	µg/L	497.84	ppb	08:52:52
2	Mn 257.610†	1857946.9	1836479.9	2271.9	µg/L	2271.9	ppb	08:52:52
2	Mo 202.031†	17391.2	17212.6	507.95	µg/L	507.95	ppb	08:53:12
2	Ni 231.604†	41848.8	41447.2	477.23	µg/L	477.23	ppb	08:52:52
2	P 214.914†	4547.6	4513.6	932.05	µg/L	932.05	ppb	08:53:12
2	Pb 220.353†	8762.0	8575.5	481.97	µg/L	481.97	ppb	08:53:12

2	S 181.975 Axial†	7405.3	7215.6	5362.5 µg/L	5362.5 ppb	08:53:12
2	Sb 206.836†	3721.6	3598.2	428.48 µg/L	428.48 ppb	08:53:12
2	Se 196.026†	1274.7	1244.8	466 µg/L	466 ppb	08:53:12
2	SiO2†	718233.6	708251.4	69205 µg/L	69205 ppb	08:52:52
2	Si 251.611†	2205107.6	2179074.5	32116 µg/L	32116 ppb	08:52:52
2	Sn 189.927†	7423.3	7339.6	463.40 µg/L	463.40 ppb	08:53:12
2	Ti 334.940†	1882328.8	1859868.0	1737.1 µg/L	1737.1 ppb	08:52:52
2	Tl 190.801†	3460.1	3537.2	459.14 µg/L	459.14 ppb	08:53:12
2	U 409.014†	963.3	1222.2	102.36 µg/L	102.36 ppb	08:52:52
2	V 292.402†	97705.3	96185.1	470.06 µg/L	470.06 ppb	08:52:52
2	Zn 213.857†	109914.0	108093.6	599.94 µg/L	599.94 ppb	08:52:52
3	Sc RADIAL	144620.3	144620.3	99.1 %		08:52:24
3	Al 396.153Radial†	118782.3	119921.0	22209 µg/L	22209 ppb	08:52:24
3	Ca 317.933Radial†	114006.3	114478.0	6376.9 µg/L	6376.9 ppb	08:52:24
3	Fe 238.204 Radial†	744839.1	751435.1	46314 µg/L	46314 ppb	08:52:22
3	K 766.490 Radial†	29262.3	27982.5	10237 µg/L	10237 ppb	08:52:24
3	Mg 279.077 IEC†	15197.1	15144.0	5615.2 µg/L	5615.2 ppb	08:52:24
3	Na 589.592 Radial†	71619.1	70976.8	9687.2 µg/L	9687.2 ppb	08:52:24
3	Sr 421.552†	257537.6	260004.8	540.48 µg/L	540.48 ppb	08:52:22
3	Sc 361.383	1719136.9	1719136.9	100.05 %		08:53:15
3	Y 371.029	1264930.2	1264930.2	123.20 %		08:53:15
3	Ag 328.068†	125973.7	121814.9	455.75 µg/L	455.75 ppb	08:53:15
3	As 188.979†	1602.0	1621.5	506.80 µg/L	506.80 ppb	08:53:35
3	B 249.677†	34961.9	31437.3	462.06 µg/L	462.06 ppb	08:53:15
3	Ba 233.527†	140229.2	140290.1	565.19 µg/L	565.19 ppb	08:53:15
3	Be 313.107†	1770173.4	1770291.5	482.04 µg/L	482.04 ppb	08:53:15
3	Cd 226.502†	74280.9	74359.3	459.81 µg/L	459.81 ppb	08:53:15
3	Co 228.616†	36871.9	37042.5	455.22 µg/L	455.22 ppb	08:53:15
3	Cr 267.716†	61801.3	61589.7	483.50 µg/L	483.50 ppb	08:53:15
3	Cu 324.752†	129524.3	126482.8	498.77 µg/L	498.77 ppb	08:53:15
3	Mn 257.610†	1842663.8	1841441.2	2278.1 µg/L	2278.1 ppb	08:53:15
3	Mo 202.031†	17421.0	17431.8	514.39 µg/L	514.39 ppb	08:53:35
3	Ni 231.604†	41569.2	41623.5	479.26 µg/L	479.26 ppb	08:53:15
3	P 214.914†	4587.2	4602.7	951.17 µg/L	951.17 ppb	08:53:35
3	Pb 220.353†	8786.5	8695.4	488.69 µg/L	488.69 ppb	08:53:35
3	S 181.975 Axial†	7416.3	7307.3	5430.6 µg/L	5430.6 ppb	08:53:35
3	Sb 206.836†	3726.7	3643.9	434.00 µg/L	434.00 ppb	08:53:35
3	Se 196.026†	1273.3	1257.4	471 µg/L	471 ppb	08:53:35
3	SiO2†	711342.1	709186.4	69296 µg/L	69296 ppb	08:53:15
3	Si 251.611†	2184351.2	2182346.6	32164 µg/L	32164 ppb	08:53:15
3	Sn 189.927†	7445.7	7442.8	469.85 µg/L	469.85 ppb	08:53:35
3	Ti 334.940†	1866347.2	1864396.7	1741.4 µg/L	1741.4 ppb	08:53:15
3	Tl 190.801†	3491.6	3606.4	467.70 µg/L	467.70 ppb	08:53:35
3	U 409.014†	1200.5	1469.7	116.99 µg/L	116.99 ppb	08:53:15
3	V 292.402†	96956.3	96500.6	471.69 µg/L	471.69 ppb	08:53:15
3	Zn 213.857†	108797.0	108174.4	600.39 µg/L	600.39 ppb	08:53:15

Mean Data: 1202068101|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726062.7	100.46	%	0.608				0.61%
Sc RADIAL	144507.1	99.0	%	0.14				0.14%
Y 371.029	1269215.8	123.62	%	0.703				0.57%
Ag 328.068†	121537.3	454.70	µg/L	0.956	454.70	ppb	0.956	0.21%
Al 396.153Radial†	119683.9	22166	µg/L	40.2	22166	ppb	40.2	0.18%
As 188.979†	1608.5	502.86	µg/L	3.834	502.86	ppb	3.834	0.76%
B 249.677†	31449.4	462.24	µg/L	2.656	462.24	ppb	2.656	0.57%
Ba 233.527†	140174.0	564.72	µg/L	0.445	564.72	ppb	0.445	0.08%
Be 313.107†	1769034.1	481.70	µg/L	0.301	481.70	ppb	0.301	0.06%
Ca 317.933Radial†	114334.8	6368.9	µg/L	16.44	6368.9	ppb	16.44	0.26%
Cd 226.502†	74308.5	459.49	µg/L	1.277	459.49	ppb	1.277	0.28%
Co 228.616†	36955.3	454.14	µg/L	0.992	454.14	ppb	0.992	0.22%
Cr 267.716†	61477.7	482.63	µg/L	0.802	482.63	ppb	0.802	0.17%
Cu 324.752†	126320.8	498.14	µg/L	0.548	498.14	ppb	0.548	0.11%
Fe 238.204 Radial†	752354.7	46371	µg/L	53.1	46371	ppb	53.1	0.11%
K 766.490 Radial†	27972.6	10233	µg/L	13.2	10233	ppb	13.2	0.13%
Mg 279.077 IEC†	15113.8	5603.9	µg/L	10.62	5603.9	ppb	10.62	0.19%
Mn 257.610†	1837868.2	2273.6	µg/L	3.86	2273.6	ppb	3.86	0.17%
Mo 202.031†	17326.9	511.31	µg/L	3.228	511.31	ppb	3.228	0.63%
Na 589.592 Radial†	70896.2	9676.2	µg/L	13.39	9676.2	ppb	13.39	0.14%

Ni 231.604†	41480.7	477.62	µg/L	1.490	477.62	ppb	1.490	0.31%
P 214.914†	4568.8	943.89	µg/L	10.346	943.89	ppb	10.346	1.10%
Pb 220.353†	8635.4	485.33	µg/L	3.357	485.33	ppb	3.357	0.69%
S 181.975 Axial†	7256.9	5393.2	µg/L	34.55	5393.2	ppb	34.55	0.64%
Sb 206.836†	3623.4	431.52	µg/L	2.802	431.52	ppb	2.802	0.65%
Se 196.026†	1249.4	468	µg/L	2.5	468	ppb	2.5	0.53%
SiO2†	708423.1	69221	µg/L	67.7	69221	ppb	67.7	0.10%
Si 251.611†	2179657.4	32125	µg/L	36.1	32125	ppb	36.1	0.11%
Sn 189.927†	7392.8	466.73	µg/L	3.230	466.73	ppb	3.230	0.69%
Sr 421.552†	260082.7	540.65	µg/L	0.379	540.65	ppb	0.379	0.07%
Ti 334.940†	1862299.4	1739.4	µg/L	2.13	1739.4	ppb	2.13	0.12%
Tl 190.801†	3567.6	462.89	µg/L	4.379	462.89	ppb	4.379	0.95%
U 409.014†	1263.1	104.79	µg/L	11.179	104.79	ppb	11.179	10.67%
V 292.402†	96244.0	470.39	µg/L	1.171	470.39	ppb	1.171	0.25%
Zn 213.857†	108024.5	599.56	µg/L	1.083	599.56	ppb	1.083	0.18%

Sequence No.: 7
Sample ID: 1202068099|964012|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 307
Date Collected: 4/1/2010 8:53:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068099|964012|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146112.6	146112.6	100	%			08:54:13
1	Al 396.153Radial†	10325.4	10375.7	1923.3	µg/L	1923.3	ppb	08:54:15
1	Ca 317.933Radial†	5239.5	4672.4	260.27	µg/L	260.27	ppb	08:54:15
1	Fe 238.204 Radial†	122805.2	122503.5	7550.4	µg/L	7550.4	ppb	08:54:13
1	K 766.490 Radial†	3659.2	2109.9	771.86	µg/L	771.86	ppb	08:54:13
1	Mg 279.077 IEC†	496.4	305.0	107.36	µg/L	107.36	ppb	08:54:15
1	Na 589.592 Radial†	5969.8	4671.5	637.50	µg/L	637.50	ppb	08:54:13
1	Sr 421.552†	6158.7	6286.3	13.067	µg/L	13.067	ppb	08:54:15
1	Sc 361.383	1771041.6	1771041.6	103.07	%			08:54:41
1	Y 371.029	1082796.1	1082796.1	105.46	%			08:54:41
1	Ag 328.068†	4205.4	-11.4	-0.2071	µg/L	-0.2071	ppb	08:54:43
1	As 188.979†	-7.2	13.4	5.8066	µg/L	5.8066	ppb	08:55:03
1	B 249.677†	3502.9	-107.5	-1.5888	µg/L	-1.5888	ppb	08:54:43
1	Ba 233.527†	4587.0	4586.0	18.387	µg/L	18.387	ppb	08:55:03
1	Be 313.107†	1083.4	2115.8	0.5644	µg/L	0.5644	ppb	08:54:43
1	Cd 226.502†	27.4	144.8	0.1119	µg/L	0.1119	ppb	08:55:03
1	Co 228.616†	-110.0	83.6	0.6571	µg/L	0.6571	ppb	08:55:03
1	Cr 267.716†	913.8	707.9	5.7578	µg/L	5.7578	ppb	08:55:03
1	Cu 324.752†	3300.4	229.7	1.9642	µg/L	1.9642	ppb	08:54:43
1	Mn 257.610†	261210.9	253182.6	313.24	µg/L	313.24	ppb	08:54:43
1	Mo 202.031†	240.5	253.4	7.7488	µg/L	7.7488	ppb	08:55:03
1	Ni 231.604†	198.8	269.4	3.1014	µg/L	3.1014	ppb	08:55:03
1	P 214.914†	317.7	326.2	64.991	µg/L	64.991	ppb	08:55:03
1	Pb 220.353†	150.0	59.1	3.3995	µg/L	3.3995	ppb	08:55:03
1	S 181.975 Axial†	243.3	131.0	97.319	µg/L	97.319	ppb	08:55:03
1	Sb 206.836†	70.2	-12.7	-1.5944	µg/L	-1.5944	ppb	08:55:03
1	Se 196.026†	19.6	3.7	3.92	µg/L	3.92	ppb	08:55:03
1	SiO2†	80771.6	76587.1	7485.5	µg/L	7485.5	ppb	08:54:43
1	Si 251.611†	244391.1	236265.2	3483.1	µg/L	3483.1	ppb	08:54:43
1	Sn 189.927†	35.6	35.7	2.6712	µg/L	2.6712	ppb	08:55:03
1	Ti 334.940†	147623.6	142268.0	132.93	µg/L	132.93	ppb	08:54:43
1	Tl 190.801†	-132.7	-12.1	0.6681	µg/L	0.6681	ppb	08:55:03
1	U 409.014†	-957.3	-658.9	-38.090	µg/L	-38.090	ppb	08:54:43
1	V 292.402†	845.9	416.9	1.1887	µg/L	1.1887	ppb	08:54:43
1	Zn 213.857†	5006.9	4293.1	23.384	µg/L	23.384	ppb	08:55:03
2	Sc RADIAL	143732.6	143732.6	98.5	%			08:54:17
2	Al 396.153Radial†	10355.2	10576.7	1960.6	µg/L	1960.6	ppb	08:54:19
2	Ca 317.933Radial†	5249.9	4769.6	265.68	µg/L	265.68	ppb	08:54:19
2	Fe 238.204 Radial†	121146.4	122850.2	7571.7	µg/L	7571.7	ppb	08:54:17
2	K 766.490 Radial†	3621.9	2132.5	780.13	µg/L	780.13	ppb	08:54:17
2	Mg 279.077 IEC†	403.0	218.4	75.065	µg/L	75.065	ppb	08:54:19
2	Na 589.592 Radial†	5934.4	4734.3	646.07	µg/L	646.07	ppb	08:54:17
2	Sr 421.552†	6349.5	6581.9	13.681	µg/L	13.681	ppb	08:54:19
2	Sc 361.383	1776012.9	1776012.9	103.36	%			08:55:05
2	Y 371.029	1085468.2	1085468.2	105.73	%			08:55:05
2	Ag 328.068†	4316.9	85.0	0.1566	µg/L	0.1566	ppb	08:55:07
2	As 188.979†	-9.0	11.6	5.2922	µg/L	5.2922	ppb	08:55:27
2	B 249.677†	3581.0	-41.4	-0.6154	µg/L	-0.6154	ppb	08:55:07
2	Ba 233.527†	4618.0	4603.5	18.457	µg/L	18.457	ppb	08:55:27
2	Be 313.107†	625.6	1669.9	0.4444	µg/L	0.4444	ppb	08:55:07
2	Cd 226.502†	17.5	135.1	0.0489	µg/L	0.0489	ppb	08:55:27
2	Co 228.616†	-96.2	97.3	0.8242	µg/L	0.8242	ppb	08:55:27
2	Cr 267.716†	909.5	701.3	5.7033	µg/L	5.7033	ppb	08:55:27
2	Cu 324.752†	3279.3	200.4	1.8564	µg/L	1.8564	ppb	08:55:07
2	Mn 257.610†	263303.0	254497.3	314.87	µg/L	314.87	ppb	08:55:07
2	Mo 202.031†	240.4	252.7	7.7267	µg/L	7.7267	ppb	08:55:27
2	Ni 231.604†	177.4	248.2	2.8575	µg/L	2.8575	ppb	08:55:27
2	P 214.914†	320.3	327.8	65.334	µg/L	65.334	ppb	08:55:27
2	Pb 220.353†	169.9	78.0	4.4530	µg/L	4.4530	ppb	08:55:27

2	S 181.975 Axial†	243.5	130.5	96.951 µg/L	96.951 ppb		08:55:27
2	Sb 206.836†	80.5	-2.9	-0.4250 µg/L	-0.4250 ppb		08:55:27
2	Se 196.026†	21.4	5.4	4.56 µg/L	4.56 ppb		08:55:27
2	SiO2†	81545.2	77116.2	7537.2 µg/L	7537.2 ppb		08:55:07
2	Si 251.611†	246568.9	237708.5	3504.4 µg/L	3504.4 ppb		08:55:07
2	Sn 189.927†	30.7	30.8	2.3717 µg/L	2.3717 ppb		08:55:27
2	Ti 334.940†	149078.5	143274.6	133.87 µg/L	133.87 ppb		08:55:07
2	Tl 190.801†	-117.6	2.9	2.5182 µg/L	2.5182 ppb		08:55:27
2	U 409.014†	-878.5	-580.0	-33.463 µg/L	-33.463 ppb		08:55:07
2	V 292.402†	878.4	446.0	1.3303 µg/L	1.3303 ppb		08:55:07
2	Zn 213.857†	5007.2	4279.8	23.310 µg/L	23.310 ppb		08:55:27
3	Sc RADIAL	145017.0	145017.0	99.4 %			08:54:21
3	Al 396.153Radial†	10355.8	10484.2	1943.4 µg/L	1943.4 ppb		08:54:23
3	Ca 317.933Radial†	5246.8	4719.3	262.88 µg/L	262.88 ppb		08:54:23
3	Fe 238.204 Radial†	122110.4	122730.9	7564.4 µg/L	7564.4 ppb		08:54:21
3	K 766.490 Radial†	3557.3	2034.9	744.41 µg/L	744.41 ppb		08:54:21
3	Mg 279.077 IEC†	445.7	257.8	89.757 µg/L	89.757 ppb		08:54:23
3	Na 589.592 Radial†	5848.7	4594.7	627.03 µg/L	627.03 ppb		08:54:21
3	Sr 421.552†	6345.6	6520.8	13.554 µg/L	13.554 ppb		08:54:23
3	Sc 361.383	1760867.1	1760867.1	102.48 %			08:55:29
3	Y 371.029	1075239.5	1075239.5	104.73 %			08:55:29
3	Ag 328.068†	4100.4	-90.3	-0.5049 µg/L	-0.5049 ppb		08:55:31
3	As 188.979†	-5.5	15.0	6.3018 µg/L	6.3018 ppb		08:55:52
3	B 249.677†	3522.7	-68.5	-1.0142 µg/L	-1.0142 ppb		08:55:31
3	Ba 233.527†	4569.7	4594.8	18.423 µg/L	18.423 ppb		08:55:52
3	Be 313.107†	764.2	1810.4	0.4795 µg/L	0.4795 ppb		08:55:31
3	Cd 226.502†	24.2	141.8	0.0919 µg/L	0.0919 ppb		08:55:52
3	Co 228.616†	-108.1	84.8	0.6711 µg/L	0.6711 ppb		08:55:52
3	Cr 267.716†	924.4	723.4	5.8834 µg/L	5.8834 ppb		08:55:52
3	Cu 324.752†	3296.6	244.6	2.0186 µg/L	2.0186 ppb		08:55:31
3	Mn 257.610†	262916.7	256311.4	317.11 µg/L	317.11 ppb		08:55:31
3	Mo 202.031†	239.1	253.4	7.7489 µg/L	7.7489 ppb		08:55:52
3	Ni 231.604†	175.1	247.4	2.8483 µg/L	2.8483 ppb		08:55:52
3	P 214.914†	337.3	347.1	69.443 µg/L	69.443 ppb		08:55:52
3	Pb 220.353†	134.6	44.9	2.6148 µg/L	2.6148 ppb		08:55:52
3	S 181.975 Axial†	248.0	137.0	101.78 µg/L	101.78 ppb		08:55:52
3	Sb 206.836†	64.3	-18.0	-2.2253 µg/L	-2.2253 ppb		08:55:52
3	Se 196.026†	9.6	-5.9	0.456 µg/L	0.456 ppb		08:55:52
3	SiO2†	81266.5	77522.8	7577.0 µg/L	7577.0 ppb		08:55:31
3	Si 251.611†	245617.8	238832.2	3521.0 µg/L	3521.0 ppb		08:55:31
3	Sn 189.927†	28.9	29.3	2.2803 µg/L	2.2803 ppb		08:55:52
3	Ti 334.940†	148265.0	143721.4	134.29 µg/L	134.29 ppb		08:55:31
3	Tl 190.801†	-128.8	-9.0	1.0731 µg/L	1.0731 ppb		08:55:52
3	U 409.014†	-1054.6	-759.2	-43.920 µg/L	-43.920 ppb		08:55:31
3	V 292.402†	894.2	468.7	1.4355 µg/L	1.4355 ppb		08:55:31
3	Zn 213.857†	4995.0	4309.6	23.478 µg/L	23.478 ppb		08:55:52

Mean Data: 1202068099|964012|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769307.2	102.97	%	0.449				0.44%
Sc RADIAL	144954.1	99.3	%	0.82				0.82%
Y 371.029	1081168.0	105.31	%	0.517				0.49%
Ag 328.068†	-5.6	-0.1852	µg/L	0.33130	-0.1852	ppb	0.33130	178.91%
Al 396.153Radial†	10478.9	1942.4	µg/L	18.66	1942.4	ppb	18.66	0.96%
As 188.979†	13.3	5.8002	µg/L	0.50485	5.8002	ppb	0.50485	8.70%
B 249.677†	-72.5	-1.0728	µg/L	0.48936	-1.0728	ppb	0.48936	45.62%
Ba 233.527†	4594.8	18.422	µg/L	0.0352	18.422	ppb	0.0352	0.19%
Be 313.107†	1865.4	0.4961	µg/L	0.06170	0.4961	ppb	0.06170	12.44%
Ca 317.933Radial†	4720.4	262.95	µg/L	2.707	262.95	ppb	2.707	1.03%
Cd 226.502†	140.6	0.0842	µg/L	0.03222	0.0842	ppb	0.03222	38.26%
Co 228.616†	88.6	0.7174	µg/L	0.09269	0.7174	ppb	0.09269	12.92%
Cr 267.716†	710.9	5.7815	µg/L	0.09236	5.7815	ppb	0.09236	1.60%
Cu 324.752†	224.9	1.9464	µg/L	0.08255	1.9464	ppb	0.08255	4.24%
Fe 238.204 Radial†	122694.9	7562.2	µg/L	10.86	7562.2	ppb	10.86	0.14%
K 766.490 Radial†	2092.4	765.47	µg/L	18.700	765.47	ppb	18.700	2.44%
Mg 279.077 IEC†	260.4	90.728	µg/L	16.1705	90.728	ppb	16.1705	17.82%
Mn 257.610†	254663.8	315.07	µg/L	1.944	315.07	ppb	1.944	0.62%
Mo 202.031†	253.2	7.7415	µg/L	0.01279	7.7415	ppb	0.01279	0.17%
Na 589.592 Radial†	4666.8	636.87	µg/L	9.539	636.87	ppb	9.539	1.50%

Ni 231.604†	255.0	2.9357	µg/L	0.14354	2.9357	ppb	0.14354	4.89%
P 214.914†	333.7	66.590	µg/L	2.4774	66.590	ppb	2.4774	3.72%
Pb 220.353†	60.7	3.4891	µg/L	0.92235	3.4891	ppb	0.92235	26.44%
S 181.975 Axial†	132.8	98.682	µg/L	2.6861	98.682	ppb	2.6861	2.72%
Sb 206.836†	-11.2	-1.4149	µg/L	0.91345	-1.4149	ppb	0.91345	64.56%
Se 196.026†	1.1	2.98	µg/L	2.210	2.98	ppb	2.210	74.13%
SiO2†	77075.4	7533.3	µg/L	45.86	7533.3	ppb	45.86	0.61%
Si 251.611†	237602.0	3502.8	µg/L	18.97	3502.8	ppb	18.97	0.54%
Sn 189.927†	31.9	2.4411	µg/L	0.20450	2.4411	ppb	0.20450	8.38%
Sr 421.552†	6463.0	13.434	µg/L	0.3244	13.434	ppb	0.3244	2.41%
Ti 334.940†	143088.0	133.70	µg/L	0.697	133.70	ppb	0.697	0.52%
Tl 190.801†	-6.1	1.4198	µg/L	0.97254	1.4198	ppb	0.97254	68.50%
U 409.014†	-666.0	-38.491	µg/L	5.2401	-38.491	ppb	5.2401	13.61%
V 292.402†	443.9	1.3182	µg/L	0.12386	1.3182	ppb	0.12386	9.40%
Zn 213.857†	4294.2	23.391	µg/L	0.0842	23.391	ppb	0.0842	0.36%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 8:55:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142758.4	142758.4	97.8	%			08:56:33
1	Al 396.153Radial†	26037.1	26678.7	4924.6	µg/L	4924.6	ppb	08:56:33
1	Ca 317.933Radial†	83414.9	84707.3	4718.5	µg/L	4718.5	ppb	08:56:33
1	Fe 238.204 Radial†	75141.2	76662.3	4725.0	µg/L	4725.0	ppb	08:56:33
1	K 766.490 Radial†	14448.8	13225.0	4837.9	µg/L	4837.9	ppb	08:56:33
1	Mg 279.077 IEC†	12884.9	12980.4	4843.6	µg/L	4843.6	ppb	08:56:33
1	Na 589.592 Radial†	69489.9	69742.8	9523.4	µg/L	9523.4	ppb	08:56:33
1	Sr 421.552†	225279.1	230418.9	478.99	µg/L	478.99	ppb	08:56:31
1	Sc 361.383	1736865.2	1736865.2	101.09	%			08:56:46
1	Y 371.029	1021299.3	1021299.3	99.475	%			08:56:46
1	Ag 328.068†	129678.1	124194.4	465.73	µg/L	465.73	ppb	08:56:46
1	As 188.979†	1613.2	1616.2	495.56	µg/L	495.56	ppb	08:57:06
1	B 249.677†	35118.2	31235.3	459.04	µg/L	459.04	ppb	08:56:46
1	Ba 233.527†	117499.9	116374.2	469.33	µg/L	469.33	ppb	08:56:46
1	Be 313.107†	1772385.8	1754421.6	477.82	µg/L	477.82	ppb	08:56:46
1	Cd 226.502†	75369.9	74678.9	466.18	µg/L	466.18	ppb	08:56:46
1	Co 228.616†	38275.3	38054.7	469.78	µg/L	469.78	ppb	08:56:46
1	Cr 267.716†	60119.5	59295.4	464.29	µg/L	464.29	ppb	08:56:46
1	Cu 324.752†	124618.6	120308.4	468.98	µg/L	468.98	ppb	08:56:46
1	Mn 257.610†	384855.7	380486.5	470.57	µg/L	470.57	ppb	08:56:46
1	Mo 202.031†	15949.5	15798.3	464.72	µg/L	464.72	ppb	08:57:06
1	Ni 231.604†	40956.4	40593.2	467.40	µg/L	467.40	ppb	08:56:46
1	P 214.914†	10966.3	10866.6	2316.1	µg/L	2316.1	ppb	08:57:06
1	Pb 220.353†	8549.0	8370.9	468.78	µg/L	468.78	ppb	08:57:06
1	S 181.975 Axial†	1332.1	1212.7	904.46	µg/L	904.46	ppb	08:57:06
1	Sb 206.836†	4000.5	3876.7	461.90	µg/L	461.90	ppb	08:57:06
1	Se 196.026†	1301.9	1272.6	462	µg/L	462	ppb	08:57:06
1	SiO2†	52811.2	50468.9	4913.0	µg/L	4913.0	ppb	08:56:46
1	Si 251.611†	159310.8	156763.8	2301.9	µg/L	2301.9	ppb	08:56:46
1	Sn 189.927†	7502.2	7422.8	464.31	µg/L	464.31	ppb	08:57:06
1	Ti 334.940†	507828.8	501424.1	467.87	µg/L	467.87	ppb	08:56:46
1	Tl 190.801†	3732.9	3809.5	475.11	µg/L	475.11	ppb	08:57:06
1	U 409.014†	6941.1	7136.5	445.78	µg/L	445.78	ppb	08:56:46
1	V 292.402†	97091.4	95645.2	472.74	µg/L	472.74	ppb	08:56:46
1	Zn 213.857†	84330.7	82860.9	461.79	µg/L	461.79	ppb	08:56:46
2	Sc RADIAL	142316.2	142316.2	97.5	%			08:56:37
2	Al 396.153Radial†	25957.0	26679.3	4924.7	µg/L	4924.7	ppb	08:56:37
2	Ca 317.933Radial†	83031.6	84579.3	4711.4	µg/L	4711.4	ppb	08:56:37
2	Fe 238.204 Radial†	74954.1	76709.2	4727.9	µg/L	4727.9	ppb	08:56:37
2	K 766.490 Radial†	14483.4	13306.4	4867.8	µg/L	4867.8	ppb	08:56:37
2	Mg 279.077 IEC†	12823.3	12958.2	4835.3	µg/L	4835.3	ppb	08:56:37
2	Na 589.592 Radial†	69443.9	69916.4	9547.1	µg/L	9547.1	ppb	08:56:37
2	Sr 421.552†	222074.4	227848.5	473.65	µg/L	473.65	ppb	08:56:35
2	Sc 361.383	1723774.9	1723774.9	100.32	%			08:57:09
2	Y 371.029	1014397.5	1014397.5	98.803	%			08:57:09
2	Ag 328.068†	129022.9	124515.6	466.94	µg/L	466.94	ppb	08:57:09
2	As 188.979†	1594.1	1609.3	493.46	µg/L	493.46	ppb	08:57:29
2	B 249.677†	34910.7	31292.3	459.88	µg/L	459.88	ppb	08:57:09
2	Ba 233.527†	116857.7	116616.8	470.31	µg/L	470.31	ppb	08:57:09
2	Be 313.107†	1759791.1	1755182.4	478.03	µg/L	478.03	ppb	08:57:09
2	Cd 226.502†	74536.3	74414.2	464.52	µg/L	464.52	ppb	08:57:09
2	Co 228.616†	38007.8	38075.6	470.04	µg/L	470.04	ppb	08:57:09
2	Cr 267.716†	59624.3	59253.5	463.95	µg/L	463.95	ppb	08:57:09
2	Cu 324.752†	123935.8	120564.0	469.98	µg/L	469.98	ppb	08:57:09
2	Mn 257.610†	382421.3	380951.1	471.15	µg/L	471.15	ppb	08:57:09
2	Mo 202.031†	15844.9	15813.9	465.18	µg/L	465.18	ppb	08:57:29
2	Ni 231.604†	40730.4	40675.6	468.35	µg/L	468.35	ppb	08:57:09
2	P 214.914†	10855.5	10838.5	2310.1	µg/L	2310.1	ppb	08:57:29
2	Pb 220.353†	8464.3	8350.6	467.65	µg/L	467.65	ppb	08:57:29

2	S 181.975 Axial†	1335.2	1225.8	914.18	µg/L	914.18 ppb	08:57:29
2	Sb 206.836†	3961.1	3867.5	460.82	µg/L	460.82 ppb	08:57:29
2	Se 196.026†	1293.6	1274.1	463	µg/L	463 ppb	08:57:29
2	SiO2†	52498.1	50553.5	4921.2	µg/L	4921.2 ppb	08:57:09
2	Si 251.611†	158264.8	156918.0	2304.2	µg/L	2304.2 ppb	08:57:09
2	Sn 189.927†	7462.3	7439.4	465.35	µg/L	465.35 ppb	08:57:29
2	Ti 334.940†	504432.3	501853.5	468.27	µg/L	468.27 ppb	08:57:09
2	Tl 190.801†	3696.4	3801.1	474.09	µg/L	474.09 ppb	08:57:29
2	U 409.014†	7016.2	7263.5	453.22	µg/L	453.22 ppb	08:57:09
2	V 292.402†	96420.7	95706.1	473.04	µg/L	473.04 ppb	08:57:09
2	Zn 213.857†	83533.9	82700.2	460.89	µg/L	460.89 ppb	08:57:09
3	Sc RADIAL	144044.7	144044.7	98.7	%		08:56:41
3	Al 396.153Radial†	26298.2	26705.5	4929.4	µg/L	4929.4 ppb	08:56:41
3	Ca 317.933Radial†	84427.4	84971.7	4733.3	µg/L	4733.3 ppb	08:56:41
3	Fe 238.204 Radial†	76105.5	76953.4	4742.9	µg/L	4742.9 ppb	08:56:41
3	K 766.490 Radial†	14773.4	13421.9	4910.0	µg/L	4910.0 ppb	08:56:41
3	Mg 279.077 IEC†	13042.0	13022.0	4859.2	µg/L	4859.2 ppb	08:56:41
3	Na 589.592 Radial†	70484.3	70115.9	9574.3	µg/L	9574.3 ppb	08:56:41
3	Sr 421.552†	225421.9	228507.3	475.02	µg/L	475.02 ppb	08:56:39
3	Sc 361.383	1719340.6	1719340.6	100.07	%		08:57:32
3	Y 371.029	1012837.9	1012837.9	98.651	%		08:57:32
3	Ag 328.068†	128605.2	124429.8	466.60	µg/L	466.60 ppb	08:57:32
3	As 188.979†	1599.4	1618.7	496.33	µg/L	496.33 ppb	08:57:52
3	B 249.677†	35086.4	31557.5	463.79	µg/L	463.79 ppb	08:57:32
3	Ba 233.527†	116420.3	116480.1	469.76	µg/L	469.76 ppb	08:57:32
3	Be 313.107†	1754836.1	1754754.7	477.91	µg/L	477.91 ppb	08:57:32
3	Cd 226.502†	74057.1	74126.9	462.73	µg/L	462.73 ppb	08:57:32
3	Co 228.616†	37888.8	38054.4	469.78	µg/L	469.78 ppb	08:57:32
3	Cr 267.716†	59664.2	59446.7	465.48	µg/L	465.48 ppb	08:57:32
3	Cu 324.752†	123575.4	120522.5	469.81	µg/L	469.81 ppb	08:57:32
3	Mn 257.610†	381528.1	381041.7	471.26	µg/L	471.26 ppb	08:57:32
3	Mo 202.031†	15924.6	15934.3	468.72	µg/L	468.72 ppb	08:57:52
3	Ni 231.604†	40602.7	40652.7	468.09	µg/L	468.09 ppb	08:57:32
3	P 214.914†	10951.6	10962.4	2336.6	µg/L	2336.6 ppb	08:57:52
3	Pb 220.353†	8480.3	8388.4	469.77	µg/L	469.77 ppb	08:57:52
3	S 181.975 Axial†	1330.4	1224.5	913.23	µg/L	913.23 ppb	08:57:52
3	Sb 206.836†	3987.6	3904.2	465.22	µg/L	465.22 ppb	08:57:52
3	Se 196.026†	1290.5	1274.4	463	µg/L	463 ppb	08:57:52
3	SiO2†	52263.4	50453.9	4911.3	µg/L	4911.3 ppb	08:57:32
3	Si 251.611†	158147.4	157207.5	2308.4	µg/L	2308.4 ppb	08:57:32
3	Sn 189.927†	7514.1	7510.4	469.77	µg/L	469.77 ppb	08:57:52
3	Ti 334.940†	503747.9	502466.3	468.84	µg/L	468.84 ppb	08:57:32
3	Tl 190.801†	3711.9	3826.1	477.17	µg/L	477.17 ppb	08:57:52
3	U 409.014†	6796.9	7062.4	441.47	µg/L	441.47 ppb	08:57:32
3	V 292.402†	96194.9	95728.3	473.18	µg/L	473.18 ppb	08:57:32
3	Zn 213.857†	83451.1	82832.1	461.63	µg/L	461.63 ppb	08:57:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726660.2	100.49	%	0.530				0.53%
Sc RADIAL	143039.8	98.0	%	0.62				0.63%
Y 371.029	1016178.3	98.976	%	0.4386				0.44%
Ag 328.068†	124379.9	466.42	µg/L	0.621	466.42	ppb	0.621	0.13%
QC value within limits for Ag 328.068 Recovery = 93.28%								
Al 396.153Radial†	26687.9	4926.3	µg/L	2.74	4926.3	ppb	2.74	0.06%
QC value within limits for Al 396.153Radial Recovery = 98.53%								
As 188.979†	1614.7	495.12	µg/L	1.486	495.12	ppb	1.486	0.30%
QC value within limits for As 188.979 Recovery = 99.02%								
B 249.677†	31361.7	460.90	µg/L	2.537	460.90	ppb	2.537	0.55%
QC value within limits for B 249.677 Recovery = 92.18%								
Ba 233.527†	116490.4	469.80	µg/L	0.490	469.80	ppb	0.490	0.10%
QC value within limits for Ba 233.527 Recovery = 93.96%								
Be 313.107†	1754786.2	477.92	µg/L	0.105	477.92	ppb	0.105	0.02%
QC value within limits for Be 313.107 Recovery = 95.58%								
Ca 317.933Radial†	84752.8	4721.1	µg/L	11.15	4721.1	ppb	11.15	0.24%
QC value within limits for Ca 317.933Radial Recovery = 94.42%								
Cd 226.502†	74406.7	464.48	µg/L	1.725	464.48	ppb	1.725	0.37%
QC value within limits for Cd 226.502 Recovery = 92.90%								
Co 228.616†	38061.6	469.87	µg/L	0.150	469.87	ppb	0.150	0.03%

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   QC value within limits for Co 228.616  Recovery = 93.97%
Cr 267.716†            59331.9      464.57 µg/L         0.800      464.57 ppb          0.800   0.17%
   QC value within limits for Cr 267.716  Recovery = 92.91%
Cu 324.752†           120465.0      469.59 µg/L         0.535      469.59 ppb          0.535   0.11%
   QC value within limits for Cu 324.752  Recovery = 93.92%
Fe 238.204 Radial†     76775.0      4731.9 µg/L          9.63      4731.9 ppb           9.63   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.64%
K 766.490 Radial†      13317.8      4871.9 µg/L         36.22      4871.9 ppb          36.22   0.74%
   QC value within limits for K 766.490 Radial  Recovery = 97.44%
Mg 279.077 IEC†        12986.9      4846.0 µg/L         12.12      4846.0 ppb          12.12   0.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.92%
Mn 257.610†           380826.4      470.99 µg/L         0.368      470.99 ppb          0.368   0.08%
   QC value within limits for Mn 257.610  Recovery = 94.20%
Mo 202.031†            15848.8      466.21 µg/L         2.187      466.21 ppb          2.187   0.47%
   QC value within limits for Mo 202.031  Recovery = 93.24%
Na 589.592 Radial†     69925.0      9548.3 µg/L         25.47      9548.3 ppb          25.47   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 95.48%
Ni 231.604†            40640.5      467.95 µg/L         0.489      467.95 ppb          0.489   0.10%
   QC value within limits for Ni 231.604  Recovery = 93.59%
P 214.914†             10889.2      2320.9 µg/L         13.90      2320.9 ppb          13.90   0.60%
   QC value within limits for P 214.914  Recovery = 92.84%
Pb 220.353†             8370.0      468.73 µg/L         1.063      468.73 ppb          1.063   0.23%
   QC value within limits for Pb 220.353  Recovery = 93.75%
S 181.975 Axial†        1221.0      910.63 µg/L         5.357      910.63 ppb          5.357   0.59%
   QC value within limits for S 181.975 Axial  Recovery = 91.06%
Sb 206.836†             3882.8      462.65 µg/L         2.290      462.65 ppb          2.290   0.49%
   QC value within limits for Sb 206.836  Recovery = 92.53%
Se 196.026†             1273.7         463 µg/L           0.4         463 ppb            0.4   0.08%
   QC value within limits for Se 196.026  Recovery = 92.51%
SiO2†                  50492.1      4915.2 µg/L          5.30      4915.2 ppb           5.30   0.11%
   QC value within limits for SiO2  Recovery = 91.92%
Si 251.611†           156963.1      2304.8 µg/L          3.27      2304.8 ppb           3.27   0.14%
   QC value within limits for Si 251.611  Recovery = 92.19%
Sn 189.927†             7457.5      466.48 µg/L         2.901      466.48 ppb          2.901   0.62%
   QC value within limits for Sn 189.927  Recovery = 93.30%
Sr 421.552†           228924.9      475.88 µg/L         2.776      475.88 ppb          2.776   0.58%
   QC value within limits for Sr 421.552  Recovery = 95.18%
Ti 334.940†           501914.7      468.32 µg/L         0.490      468.32 ppb          0.490   0.10%
   QC value within limits for Ti 334.940  Recovery = 93.66%
Tl 190.801†             3812.3      475.45 µg/L         1.570      475.45 ppb          1.570   0.33%
   QC value within limits for Tl 190.801  Recovery = 95.09%
U 409.014†              7154.1      446.82 µg/L         5.947      446.82 ppb          5.947   1.33%
   QC value less than the lower limit for U 409.014  Recovery = 89.36%
V 292.402†             95693.2      472.99 µg/L         0.228      472.99 ppb          0.228   0.05%
   QC value within limits for V 292.402  Recovery = 94.60%
Zn 213.857†            82797.7      461.44 µg/L         0.484      461.44 ppb          0.484   0.10%
   QC value within limits for Zn 213.857  Recovery = 92.29%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 8:58:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144930.6	144930.6	99.3	%			08:58:30
1	Al 396.153Radial†	-70.5	-7.7	-1.4357	µg/L	-1.4357	ppb	08:58:50
1	Ca 317.933Radial†	780.8	225.6	12.567	µg/L	12.567	ppb	08:58:50
1	Fe 238.204 Radial†	181.0	34.2	2.1059	µg/L	2.1059	ppb	08:58:50
1	K 766.490 Radial†	1768.7	236.1	86.440	µg/L	86.440	ppb	08:58:30
1	Mg 279.077 IEC†	163.7	-25.9	-9.6408	µg/L	-9.6408	ppb	08:58:50
1	Na 589.592 Radial†	1511.7	231.3	31.523	µg/L	31.523	ppb	08:58:30
1	Sr 421.552†	-121.9	12.5	0.0259	µg/L	0.0259	ppb	08:58:30
1	Sc 361.383	1734239.5	1734239.5	100.93	%			08:59:38
1	Y 371.029	1032662.2	1032662.2	100.58	%			08:59:38
1	Ag 328.068†	4230.2	99.7	0.3770	µg/L	0.3770	ppb	08:59:40
1	As 188.979†	-3.2	17.2	5.1896	µg/L	5.1896	ppb	09:00:00
1	B 249.677†	3559.4	20.6	0.3032	µg/L	0.3032	ppb	09:00:00
1	Ba 233.527†	-110.7	26.1	0.1052	µg/L	0.1052	ppb	09:00:00
1	Be 313.107†	-798.6	273.5	0.0770	µg/L	0.0770	ppb	08:59:40
1	Cd 226.502†	-95.0	24.1	0.1502	µg/L	0.1502	ppb	09:00:00
1	Co 228.616†	-184.5	7.5	0.0931	µg/L	0.0931	ppb	09:00:00
1	Cr 267.716†	178.8	-1.5	-0.0180	µg/L	-0.0180	ppb	09:00:00
1	Cu 324.752†	3034.1	33.8	0.1385	µg/L	0.1385	ppb	08:59:40
1	Mn 257.610†	285.9	46.0	0.0573	µg/L	0.0573	ppb	09:00:00
1	Mo 202.031†	-20.1	0.2	0.0044	µg/L	0.0044	ppb	09:00:00
1	Ni 231.604†	-106.1	-28.6	-0.3297	µg/L	-0.3297	ppb	09:00:00
1	P 214.914†	-24.6	-6.4	-1.3686	µg/L	-1.3686	ppb	09:00:00
1	Pb 220.353†	52.5	-34.3	-1.9233	µg/L	-1.9233	ppb	09:00:00
1	S 181.975 Axial†	102.4	-3.6	-2.6753	µg/L	-2.6753	ppb	09:00:00
1	Sb 206.836†	83.0	1.4	0.1638	µg/L	0.1638	ppb	09:00:00
1	Se 196.026†	13.8	-1.6	-0.580	µg/L	-0.580	ppb	09:00:00
1	SiO2†	1844.8	52.4	5.1107	µg/L	5.1107	ppb	09:00:00
1	Si 251.611†	1042.4	196.2	2.8879	µg/L	2.8879	ppb	08:59:40
1	Sn 189.927†	11.4	12.4	0.7749	µg/L	0.7749	ppb	09:00:00
1	Ti 334.940†	1136.3	173.3	0.1596	µg/L	0.1596	ppb	08:59:40
1	Tl 190.801†	-103.8	13.8	1.6944	µg/L	1.6944	ppb	09:00:00
1	U 409.014†	-126.4	144.7	8.4502	µg/L	8.4502	ppb	08:59:40
1	V 292.402†	368.8	-38.4	-0.1818	µg/L	-0.1818	ppb	08:59:40
1	Zn 213.857†	603.6	33.6	0.1905	µg/L	0.1905	ppb	09:00:00
2	Sc RADIAL	143298.2	143298.2	98.2	%			08:58:52
2	Al 396.153Radial†	-36.0	26.6	4.9237	µg/L	4.9237	ppb	08:59:12
2	Ca 317.933Radial†	760.9	214.3	11.937	µg/L	11.937	ppb	08:59:12
2	Fe 238.204 Radial†	181.4	36.6	2.2582	µg/L	2.2582	ppb	08:59:12
2	K 766.490 Radial†	1814.5	303.1	110.94	µg/L	110.94	ppb	08:58:52
2	Mg 279.077 IEC†	184.9	-2.4	-0.8854	µg/L	-0.8854	ppb	08:59:12
2	Na 589.592 Radial†	1507.7	244.6	33.316	µg/L	33.316	ppb	08:58:52
2	Sr 421.552†	-138.9	-6.2	-0.0129	µg/L	-0.0129	ppb	08:58:52
2	Sc 361.383	1755637.6	1755637.6	102.18	%			09:00:02
2	Y 371.029	1044668.6	1044668.6	101.75	%			09:00:02
2	Ag 328.068†	4265.9	83.6	0.2998	µg/L	0.2998	ppb	09:00:04
2	As 188.979†	-18.0	2.7	0.8170	µg/L	0.8170	ppb	09:00:25
2	B 249.677†	3550.1	-31.5	-0.4644	µg/L	-0.4644	ppb	09:00:25
2	Ba 233.527†	-152.7	-13.6	-0.0555	µg/L	-0.0555	ppb	09:00:25
2	Be 313.107†	-922.1	162.2	0.0443	µg/L	0.0443	ppb	09:00:04
2	Cd 226.502†	-90.8	29.3	0.1829	µg/L	0.1829	ppb	09:00:25
2	Co 228.616†	-184.8	9.5	0.1166	µg/L	0.1166	ppb	09:00:25
2	Cr 267.716†	176.9	-5.4	-0.0430	µg/L	-0.0430	ppb	09:00:25
2	Cu 324.752†	3080.0	42.1	0.1643	µg/L	0.1643	ppb	09:00:04
2	Mn 257.610†	291.6	48.1	0.0595	µg/L	0.0595	ppb	09:00:25
2	Mo 202.031†	-18.4	2.1	0.0615	µg/L	0.0615	ppb	09:00:25
2	Ni 231.604†	-96.5	-18.0	-0.2070	µg/L	-0.2070	ppb	09:00:25
2	P 214.914†	-30.1	-11.5	-2.4673	µg/L	-2.4673	ppb	09:00:25
2	Pb 220.353†	51.5	-36.0	-2.0082	µg/L	-2.0082	ppb	09:00:25

2	S 181.975 Axial†	103.0	-4.2	-3.1525 µg/L	-3.1525 ppb	09:00:25
2	Sb 206.836†	76.9	-5.6	-0.6645 µg/L	-0.6645 ppb	09:00:25
2	Se 196.026†	22.4	6.6	2.40 µg/L	2.40 ppb	09:00:25
2	SiO2†	1832.3	17.9	1.7405 µg/L	1.7405 ppb	09:00:25
2	Si 251.611†	1016.9	158.7	2.3376 µg/L	2.3376 ppb	09:00:04
2	Sn 189.927†	1.7	2.8	0.1731 µg/L	0.1731 ppb	09:00:25
2	Ti 334.940†	983.2	9.7	0.0093 µg/L	0.0093 ppb	09:00:04
2	Tl 190.801†	-108.1	10.9	1.3283 µg/L	1.3283 ppb	09:00:25
2	U 409.014†	-268.6	7.0	0.3616 µg/L	0.3616 ppb	09:00:04
2	V 292.402†	242.0	-166.9	-0.8139 µg/L	-0.8139 ppb	09:00:04
2	Zn 213.857†	616.0	38.5	0.2172 µg/L	0.2172 ppb	09:00:25
3	Sc RADIAL	144059.2	144059.2	98.7 %		08:59:14
3	Al 396.153Radial†	-54.2	8.3	1.5281 µg/L	1.5281 ppb	08:59:34
3	Ca 317.933Radial†	777.7	227.2	12.655 µg/L	12.655 ppb	08:59:34
3	Fe 238.204 Radial†	170.3	24.4	1.5063 µg/L	1.5063 ppb	08:59:34
3	K 766.490 Radial†	1826.2	305.2	111.72 µg/L	111.72 ppb	08:59:14
3	Mg 279.077 IEC†	166.7	-21.8	-8.1304 µg/L	-8.1304 ppb	08:59:34
3	Na 589.592 Radial†	1416.4	144.0	19.578 µg/L	19.578 ppb	08:59:14
3	Sr 421.552†	-137.6	-4.1	-0.0087 µg/L	-0.0087 ppb	08:59:14
3	Sc 361.383	1737927.9	1737927.9	101.15 %		09:00:27
3	Y 371.029	1034400.0	1034400.0	100.75 %		09:00:27
3	Ag 328.068†	4118.6	-19.5	-0.0696 µg/L	-0.0696 ppb	09:00:29
3	As 188.979†	-12.6	7.9	2.3767 µg/L	2.3767 ppb	09:00:49
3	B 249.677†	3549.0	2.9	0.0430 µg/L	0.0430 ppb	09:00:49
3	Ba 233.527†	-111.2	25.9	0.1043 µg/L	0.1043 ppb	09:00:49
3	Be 313.107†	-1094.4	-17.3	-0.0034 µg/L	-0.0034 ppb	09:00:29
3	Cd 226.502†	-96.1	23.2	0.1446 µg/L	0.1446 ppb	09:00:49
3	Co 228.616†	-197.4	-4.8	-0.0594 µg/L	-0.0594 ppb	09:00:49
3	Cr 267.716†	181.1	0.4	0.0000 µg/L	0.0000 ppb	09:00:49
3	Cu 324.752†	2911.1	-94.1	-0.3622 µg/L	-0.3622 ppb	09:00:29
3	Mn 257.610†	288.2	47.7	0.0593 µg/L	0.0593 ppb	09:00:49
3	Mo 202.031†	-17.9	2.4	0.0695 µg/L	0.0695 ppb	09:00:49
3	Ni 231.604†	-109.0	-31.2	-0.3597 µg/L	-0.3597 ppb	09:00:49
3	P 214.914†	-40.2	-21.8	-4.6518 µg/L	-4.6518 ppb	09:00:49
3	Pb 220.353†	90.8	3.4	0.1890 µg/L	0.1890 ppb	09:00:49
3	S 181.975 Axial†	93.2	-12.9	-9.5726 µg/L	-9.5726 ppb	09:00:49
3	Sb 206.836†	63.6	-17.9	-2.1311 µg/L	-2.1311 ppb	09:00:49
3	Se 196.026†	9.0	-6.4	-2.31 µg/L	-2.31 ppb	09:00:49
3	SiO2†	1828.5	32.4	3.1530 µg/L	3.1530 ppb	09:00:49
3	Si 251.611†	1188.2	338.2	4.9816 µg/L	4.9816 ppb	09:00:29
3	Sn 189.927†	7.9	8.9	0.5579 µg/L	0.5579 ppb	09:00:49
3	Ti 334.940†	1294.5	327.3	0.3050 µg/L	0.3050 ppb	09:00:29
3	Tl 190.801†	-105.5	12.4	1.5213 µg/L	1.5213 ppb	09:00:49
3	U 409.014†	-197.6	74.5	4.3458 µg/L	4.3458 ppb	09:00:29
3	V 292.402†	365.2	-42.8	-0.2055 µg/L	-0.2055 ppb	09:00:29
3	Zn 213.857†	602.8	31.5	0.1797 µg/L	0.1797 ppb	09:00:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1742601.6	101.42	%	0.666				0.66%
Sc RADIAL	144096.0	98.7	%	0.56				0.57%
Y 371.029	1037243.6	101.03	%	0.632				0.63%
Ag 328.068†	54.6	0.2024	µg/L	0.23871	0.2024	ppb	0.23871	117.95%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.0	1.6720	µg/L	3.18216	1.6720	ppb	3.18216	190.32%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.2	2.7944	µg/L	2.21605	2.7944	ppb	2.21605	79.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-2.7	-0.0394	µg/L	0.39040	-0.0394	ppb	0.39040	991.25%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.8	0.0513	µg/L	0.09252	0.0513	ppb	0.09252	180.23%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	139.5	0.0393	µg/L	0.04044	0.0393	ppb	0.04044	102.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	222.4	12.386	µg/L	0.3917	12.386	ppb	0.3917	3.16%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	25.6	0.1592	µg/L	0.02071	0.1592	ppb	0.02071	13.01%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.1	0.0501	µg/L	0.09556	0.0501	ppb	0.09556	190.87%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.1     -0.0203 µg/L      0.02164     -0.0203 ppb       0.02164 106.44%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -6.1     -0.0198 µg/L      0.29681     -0.0198 ppb       0.29681 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       31.7      1.9568 µg/L      0.39753      1.9568 ppb       0.39753  20.32%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       281.4      103.04 µg/L       14.377      103.04 ppb        14.377  13.95%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -16.7     -6.2189 µg/L      4.68028     -6.2189 ppb       4.68028  75.26%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              47.3      0.0587 µg/L      0.00122      0.0587 ppb       0.00122   2.08%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.5      0.0451 µg/L      0.03552      0.0451 ppb       0.03552  78.75%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      206.6      28.139 µg/L       7.4683      28.139 ppb        7.4683  26.54%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -26.0     -0.2988 µg/L      0.08092     -0.2988 ppb       0.08092  27.08%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -13.2     -2.8292 µg/L      1.67125     -2.8292 ppb       1.67125  59.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -22.3     -1.2475 µg/L      1.24474     -1.2475 ppb       1.24474  99.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -6.9     -5.1335 µg/L      3.85183     -5.1335 ppb       3.85183  75.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -7.4     -0.8773 µg/L      1.16217     -0.8773 ppb       1.16217 132.47%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.5      -0.161 µg/L       2.3844      -0.161 ppb        2.3844 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    34.2      3.3348 µg/L      1.69244      3.3348 ppb       1.69244  50.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             231.0      3.4023 µg/L      1.39504      3.4023 ppb       1.39504  41.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.0      0.5020 µg/L      0.30478      0.5020 ppb       0.30478  60.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               0.7      0.0015 µg/L      0.02132      0.0015 ppb       0.02132 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             170.1      0.1579 µg/L      0.14787      0.1579 ppb       0.14787  93.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              12.3      1.5146 µg/L      0.18313      1.5146 ppb       0.18313  12.09%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               75.4      4.3859 µg/L      4.04447      4.3859 ppb       4.04447  92.22%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -82.7     -0.4004 µg/L      0.35829     -0.4004 ppb       0.35829  89.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              34.5      0.1958 µg/L      0.01928      0.1958 ppb       0.01928   9.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 9:15:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142720.5	142720.5	97.8	%			09:15:56
1	Al 396.153Radial†	25914.7	26560.7	4902.9	µg/L	4902.9	ppb	09:15:56
1	Ca 317.933Radial†	83000.0	84305.8	4696.2	µg/L	4696.2	ppb	09:15:56
1	Fe 238.204 Radial†	75111.1	76652.0	4724.4	µg/L	4724.4	ppb	09:15:56
1	K 766.490 Radial†	14402.9	13182.0	4822.2	µg/L	4822.2	ppb	09:15:56
1	Mg 279.077 IEC†	12808.8	12906.1	4815.9	µg/L	4815.9	ppb	09:15:56
1	Na 589.592 Radial†	69346.9	69615.4	9506.0	µg/L	9506.0	ppb	09:15:56
1	Sr 421.552†	227631.5	232885.3	484.12	µg/L	484.12	ppb	09:15:54
1	Sc 361.383	1739182.8	1739182.8	101.22	%			09:16:09
1	Y 371.029	1023647.0	1023647.0	99.704	%			09:16:09
1	Ag 328.068†	130007.3	124348.7	466.29	µg/L	466.29	ppb	09:16:09
1	As 188.979†	1619.6	1620.5	496.84	µg/L	496.84	ppb	09:16:29
1	B 249.677†	35111.7	31182.5	458.26	µg/L	458.26	ppb	09:16:09
1	Ba 233.527†	117413.7	116134.2	468.36	µg/L	468.36	ppb	09:16:09
1	Be 313.107†	1772413.9	1752112.9	477.20	µg/L	477.20	ppb	09:16:09
1	Cd 226.502†	75069.8	74283.1	463.70	µg/L	463.70	ppb	09:16:09
1	Co 228.616†	38210.7	37940.3	468.37	µg/L	468.37	ppb	09:16:09
1	Cr 267.716†	60298.5	59393.0	465.04	µg/L	465.04	ppb	09:16:09
1	Cu 324.752†	124427.2	119955.1	467.61	µg/L	467.61	ppb	09:16:09
1	Mn 257.610†	384985.1	380107.0	470.10	µg/L	470.10	ppb	09:16:09
1	Mo 202.031†	15882.6	15711.2	462.16	µg/L	462.16	ppb	09:16:29
1	Ni 231.604†	40915.0	40498.3	466.31	µg/L	466.31	ppb	09:16:09
1	P 214.914†	10897.8	10784.4	2298.5	µg/L	2298.5	ppb	09:16:29
1	Pb 220.353†	8501.1	8312.3	465.49	µg/L	465.49	ppb	09:16:29
1	S 181.975 Axial†	1329.6	1208.6	901.35	µg/L	901.35	ppb	09:16:29
1	Sb 206.836†	3997.2	3868.2	460.84	µg/L	460.84	ppb	09:16:29
1	Se 196.026†	1283.3	1252.5	455	µg/L	455	ppb	09:16:29
1	SiO2†	52757.6	50346.2	4901.1	µg/L	4901.1	ppb	09:16:09
1	Si 251.611†	159563.6	156803.6	2302.5	µg/L	2302.5	ppb	09:16:09
1	Sn 189.927†	7475.3	7386.3	462.03	µg/L	462.03	ppb	09:16:29
1	Ti 334.940†	507312.8	500244.8	466.76	µg/L	466.76	ppb	09:16:09
1	Tl 190.801†	3705.7	3777.7	471.18	µg/L	471.18	ppb	09:16:29
1	U 409.014†	7101.8	7286.1	454.41	µg/L	454.41	ppb	09:16:09
1	V 292.402†	96822.7	95251.7	470.80	µg/L	470.80	ppb	09:16:09
1	Zn 213.857†	84223.8	82644.1	460.58	µg/L	460.58	ppb	09:16:09
2	Sc RADIAL	143698.7	143698.7	98.5	%			09:16:00
2	Al 396.153Radial†	26180.7	26650.4	4919.4	µg/L	4919.4	ppb	09:16:00
2	Ca 317.933Radial†	83645.8	84384.0	4700.5	µg/L	4700.5	ppb	09:16:00
2	Fe 238.204 Radial†	75952.4	76983.6	4744.8	µg/L	4744.8	ppb	09:16:00
2	K 766.490 Radial†	14556.8	13238.0	4842.7	µg/L	4842.7	ppb	09:16:00
2	Mg 279.077 IEC†	12951.4	12961.8	4836.6	µg/L	4836.6	ppb	09:16:00
2	Na 589.592 Radial†	69801.9	69594.9	9503.2	µg/L	9503.2	ppb	09:16:00
2	Sr 421.552†	225333.1	228967.0	475.97	µg/L	475.97	ppb	09:15:58
2	Sc 361.383	1731776.9	1731776.9	100.79	%			09:16:32
2	Y 371.029	1018706.8	1018706.8	99.223	%			09:16:32
2	Ag 328.068†	129384.6	124280.2	466.07	µg/L	466.07	ppb	09:16:32
2	As 188.979†	1598.7	1606.6	492.65	µg/L	492.65	ppb	09:16:52
2	B 249.677†	35227.6	31445.9	462.15	µg/L	462.15	ppb	09:16:32
2	Ba 233.527†	117106.0	116324.9	469.13	µg/L	469.13	ppb	09:16:32
2	Be 313.107†	1765692.9	1752932.8	477.42	µg/L	477.42	ppb	09:16:32
2	Cd 226.502†	74778.6	74311.3	463.88	µg/L	463.88	ppb	09:16:32
2	Co 228.616†	38104.8	37996.8	469.07	µg/L	469.07	ppb	09:16:32
2	Cr 267.716†	60129.2	59479.9	465.72	µg/L	465.72	ppb	09:16:32
2	Cu 324.752†	124214.9	120270.1	468.84	µg/L	468.84	ppb	09:16:32
2	Mn 257.610†	383158.7	379921.4	469.87	µg/L	469.87	ppb	09:16:32
2	Mo 202.031†	15866.4	15762.2	463.66	µg/L	463.66	ppb	09:16:52
2	Ni 231.604†	40717.2	40474.9	466.04	µg/L	466.04	ppb	09:16:32
2	P 214.914†	10914.4	10846.9	2311.9	µg/L	2311.9	ppb	09:16:52
2	Pb 220.353†	8495.6	8342.7	467.19	µg/L	467.19	ppb	09:16:52

2	S 181.975 Axial†	1322.2	1206.8	900.03 µg/L	900.03 ppb	09:16:52
2	Sb 206.836†	3971.5	3859.6	459.83 µg/L	459.83 ppb	09:16:52
2	Se 196.026†	1292.9	1267.5	460 µg/L	460 ppb	09:16:52
2	SiO2†	52661.0	50473.3	4913.5 µg/L	4913.5 ppb	09:16:32
2	Si 251.611†	158766.1	156686.4	2300.8 µg/L	2300.8 ppb	09:16:32
2	Sn 189.927†	7490.6	7433.1	464.95 µg/L	464.95 ppb	09:16:52
2	Ti 334.940†	505365.8	500456.4	466.96 µg/L	466.96 ppb	09:16:32
2	Tl 190.801†	3703.0	3790.7	472.79 µg/L	472.79 ppb	09:16:52
2	U 409.014†	7111.9	7326.1	456.86 µg/L	456.86 ppb	09:16:32
2	V 292.402†	96842.9	95680.9	472.91 µg/L	472.91 ppb	09:16:32
2	Zn 213.857†	83738.0	82518.0	459.87 µg/L	459.87 ppb	09:16:32
3	Sc RADIAL	142406.1	142406.1	97.6 %		09:16:04
3	Al 396.153Radial†	26011.2	26718.0	4931.9 µg/L	4931.9 ppb	09:16:04
3	Ca 317.933Radial†	83220.8	84719.4	4719.2 µg/L	4719.2 ppb	09:16:04
3	Fe 238.204 Radial†	75398.1	77115.7	4752.9 µg/L	4752.9 ppb	09:16:04
3	K 766.490 Radial†	14496.2	13310.1	4869.1 µg/L	4869.1 ppb	09:16:04
3	Mg 279.077 IEC†	12824.0	12950.6	4832.5 µg/L	4832.5 ppb	09:16:04
3	Na 589.592 Radial†	69646.3	70078.8	9569.3 µg/L	9569.3 ppb	09:16:04
3	Sr 421.552†	224502.5	230192.8	478.52 µg/L	478.52 ppb	09:16:02
3	Sc 361.383	1731150.1	1731150.1	100.75 %		09:16:55
3	Y 371.029	1018095.1	1018095.1	99.163 %		09:16:55
3	Ag 328.068†	129601.7	124542.1	467.03 µg/L	467.03 ppb	09:16:55
3	As 188.979†	1607.1	1615.4	495.34 µg/L	495.34 ppb	09:17:15
3	B 249.677†	35255.6	31486.3	462.74 µg/L	462.74 ppb	09:16:55
3	Ba 233.527†	117171.4	116431.9	469.57 µg/L	469.57 ppb	09:16:55
3	Be 313.107†	1771145.4	1758978.9	479.07 µg/L	479.07 ppb	09:16:55
3	Cd 226.502†	74795.8	74355.2	464.15 µg/L	464.15 ppb	09:16:55
3	Co 228.616†	38018.1	37924.4	468.17 µg/L	468.17 ppb	09:16:55
3	Cr 267.716†	60018.6	59391.7	465.04 µg/L	465.04 ppb	09:16:55
3	Cu 324.752†	124565.0	120662.2	470.36 µg/L	470.36 ppb	09:16:55
3	Mn 257.610†	383611.7	380508.7	470.60 µg/L	470.60 ppb	09:16:55
3	Mo 202.031†	15941.9	15842.9	466.04 µg/L	466.04 ppb	09:17:15
3	Ni 231.604†	40762.3	40534.3	466.72 µg/L	466.72 ppb	09:16:55
3	P 214.914†	10932.7	10869.0	2316.6 µg/L	2316.6 ppb	09:17:15
3	Pb 220.353†	8511.1	8361.1	468.23 µg/L	468.23 ppb	09:17:15
3	S 181.975 Axial†	1334.9	1219.8	909.74 µg/L	909.74 ppb	09:17:15
3	Sb 206.836†	4006.7	3896.0	464.20 µg/L	464.20 ppb	09:17:15
3	Se 196.026†	1301.5	1276.5	464 µg/L	464 ppb	09:17:15
3	SiO2†	52640.5	50471.8	4913.2 µg/L	4913.2 ppb	09:16:55
3	Si 251.611†	159281.3	157254.8	2309.1 µg/L	2309.1 ppb	09:16:55
3	Sn 189.927†	7523.3	7468.2	467.14 µg/L	467.14 ppb	09:17:15
3	Ti 334.940†	506629.5	501892.2	468.30 µg/L	468.30 ppb	09:16:55
3	Tl 190.801†	3714.2	3803.1	474.33 µg/L	474.33 ppb	09:17:15
3	U 409.014†	7013.0	7230.5	451.28 µg/L	451.28 ppb	09:16:55
3	V 292.402†	96801.7	95674.8	472.90 µg/L	472.90 ppb	09:16:55
3	Zn 213.857†	84088.5	82895.9	461.99 µg/L	461.99 ppb	09:16:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1734036.6	100.92	%	0.260				0.26%
Sc RADIAL	142941.8	98.0	%	0.46				0.47%
Y 371.029	1020149.6	99.363	%	0.2965				0.30%
Ag 328.068†	124390.4	466.46	µg/L	0.503	466.46	ppb	0.503	0.11%
QC value within limits for Ag 328.068 Recovery = 93.29%								
Al 396.153Radial†	26643.0	4918.1	µg/L	14.55	4918.1	ppb	14.55	0.30%
QC value within limits for Al 396.153Radial Recovery = 98.36%								
As 188.979†	1614.2	494.95	µg/L	2.124	494.95	ppb	2.124	0.43%
QC value within limits for As 188.979 Recovery = 98.99%								
B 249.677†	31371.6	461.05	µg/L	2.433	461.05	ppb	2.433	0.53%
QC value within limits for B 249.677 Recovery = 92.21%								
Ba 233.527†	116297.0	469.02	µg/L	0.609	469.02	ppb	0.609	0.13%
QC value within limits for Ba 233.527 Recovery = 93.80%								
Be 313.107†	1754674.8	477.89	µg/L	1.020	477.89	ppb	1.020	0.21%
QC value within limits for Be 313.107 Recovery = 95.58%								
Ca 317.933Radial†	84469.7	4705.3	µg/L	12.24	4705.3	ppb	12.24	0.26%
QC value within limits for Ca 317.933Radial Recovery = 94.11%								
Cd 226.502†	74316.5	463.91	µg/L	0.226	463.91	ppb	0.226	0.05%
QC value within limits for Cd 226.502 Recovery = 92.78%								
Co 228.616†	37953.8	468.54	µg/L	0.469	468.54	ppb	0.469	0.10%

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   QC value within limits for Co 228.616  Recovery = 93.71%
Cr 267.716†            59421.5      465.27 µg/L         0.394      465.27 ppb          0.394   0.08%
   QC value within limits for Cr 267.716  Recovery = 93.05%
Cu 324.752†           120295.8      468.94 µg/L         1.377      468.94 ppb          1.377   0.29%
   QC value within limits for Cu 324.752  Recovery = 93.79%
Fe 238.204 Radial†     76917.1      4740.7 µg/L         14.72      4740.7 ppb          14.72   0.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.81%
K 766.490 Radial†      13243.4      4844.7 µg/L         23.50      4844.7 ppb          23.50   0.48%
   QC value within limits for K 766.490 Radial  Recovery = 96.89%
Mg 279.077 IEC†        12939.5      4828.3 µg/L         10.99      4828.3 ppb          10.99   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.57%
Mn 257.610†           380179.0      470.19 µg/L         0.371      470.19 ppb          0.371   0.08%
   QC value within limits for Mn 257.610  Recovery = 94.04%
Mo 202.031†            15772.1      463.95 µg/L         1.952      463.95 ppb          1.952   0.42%
   QC value within limits for Mo 202.031  Recovery = 92.79%
Na 589.592 Radial†     69763.0      9526.2 µg/L         37.36      9526.2 ppb          37.36   0.39%
   QC value within limits for Na 589.592 Radial  Recovery = 95.26%
Ni 231.604†            40502.5      466.36 µg/L         0.344      466.36 ppb          0.344   0.07%
   QC value within limits for Ni 231.604  Recovery = 93.27%
P 214.914†             10833.5      2309.0 µg/L          9.37      2309.0 ppb           9.37   0.41%
   QC value within limits for P 214.914  Recovery = 92.36%
Pb 220.353†             8338.7      466.97 µg/L         1.384      466.97 ppb          1.384   0.30%
   QC value within limits for Pb 220.353  Recovery = 93.39%
S 181.975 Axial†        1211.7      903.71 µg/L         5.268      903.71 ppb          5.268   0.58%
   QC value within limits for S 181.975 Axial  Recovery = 90.37%
Sb 206.836†             3874.6      461.62 µg/L         2.290      461.62 ppb          2.290   0.50%
   QC value within limits for Sb 206.836  Recovery = 92.32%
Se 196.026†             1265.5         460 µg/L           4.4         460 ppb            4.4   0.95%
   QC value within limits for Se 196.026  Recovery = 91.91%
SiO2†                  50430.5      4909.3 µg/L          7.05      4909.3 ppb           7.05   0.14%
   QC value within limits for SiO2  Recovery = 91.80%
Si 251.611†           156914.9      2304.1 µg/L          4.39      2304.1 ppb           4.39   0.19%
   QC value within limits for Si 251.611  Recovery = 92.17%
Sn 189.927†             7429.2      464.71 µg/L         2.564      464.71 ppb          2.564   0.55%
   QC value within limits for Sn 189.927  Recovery = 92.94%
Sr 421.552†           230681.7      479.54 µg/L         4.167      479.54 ppb          4.167   0.87%
   QC value within limits for Sr 421.552  Recovery = 95.91%
Ti 334.940†           500864.5      467.34 µg/L         0.838      467.34 ppb          0.838   0.18%
   QC value within limits for Ti 334.940  Recovery = 93.47%
Tl 190.801†             3790.5      472.77 µg/L         1.579      472.77 ppb          1.579   0.33%
   QC value within limits for Tl 190.801  Recovery = 94.55%
U 409.014†              7280.9      454.18 µg/L         2.800      454.18 ppb          2.800   0.62%
   QC value within limits for U 409.014  Recovery = 90.84%
V 292.402†             95535.8      472.20 µg/L         1.215      472.20 ppb          1.215   0.26%
   QC value within limits for V 292.402  Recovery = 94.44%
Zn 213.857†            82686.0      460.82 µg/L         1.078      460.82 ppb          1.078   0.23%
   QC value within limits for Zn 213.857  Recovery = 92.16%
All analyte(s) passed QC.
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Sequence No.: 18
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 9:17:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146508.3	146508.3	100	%			09:17:52
1	Al 396.153Radial†	-42.1	21.3	3.9436	µg/L	3.9436	ppb	09:18:12
1	Ca 317.933Radial†	770.8	207.2	11.540	µg/L	11.540	ppb	09:18:12
1	Fe 238.204 Radial†	236.5	87.5	5.3919	µg/L	5.3919	ppb	09:18:12
1	K 766.490 Radial†	1742.2	190.6	69.763	µg/L	69.763	ppb	09:17:52
1	Mg 279.077 IEC†	163.8	-27.5	-10.261	µg/L	-10.261	ppb	09:18:12
1	Na 589.592 Radial†	1317.5	21.5	2.8763	µg/L	2.8763	ppb	09:17:52
1	Sr 421.552†	-320.3	-183.7	-0.3821	µg/L	-0.3821	ppb	09:17:52
1	Sc 361.383	1765466.2	1765466.2	102.75	%			09:19:00
1	Y 371.029	1051106.2	1051106.2	102.38	%			09:19:00
1	Ag 328.068†	4296.1	89.7	0.3320	µg/L	0.3320	ppb	09:19:02
1	As 188.979†	-16.4	4.4	1.3323	µg/L	1.3323	ppb	09:19:22
1	B 249.677†	3441.7	-156.3	-2.3076	µg/L	-2.3076	ppb	09:19:02
1	Ba 233.527†	-137.3	2.2	0.0087	µg/L	0.0087	ppb	09:19:22
1	Be 313.107†	-1040.7	51.9	0.0154	µg/L	0.0154	ppb	09:19:02
1	Cd 226.502†	-99.2	21.7	0.1345	µg/L	0.1345	ppb	09:19:22
1	Co 228.616†	-147.6	46.6	0.5751	µg/L	0.5751	ppb	09:19:22
1	Cr 267.716†	155.6	-27.1	-0.2157	µg/L	-0.2157	ppb	09:19:22
1	Cu 324.752†	2956.0	-95.3	-0.3661	µg/L	-0.3661	ppb	09:19:02
1	Mn 257.610†	322.1	76.2	0.0947	µg/L	0.0947	ppb	09:19:22
1	Mo 202.031†	-22.1	-1.5	-0.0429	µg/L	-0.0429	ppb	09:19:22
1	Ni 231.604†	-123.3	-43.5	-0.5009	µg/L	-0.5009	ppb	09:19:22
1	P 214.914†	-51.4	-32.0	-6.8406	µg/L	-6.8406	ppb	09:19:22
1	Pb 220.353†	92.0	3.1	0.1709	µg/L	0.1709	ppb	09:19:22
1	S 181.975 Axial†	109.2	1.2	0.8829	µg/L	0.8829	ppb	09:19:22
1	Sb 206.836†	84.0	0.9	0.1132	µg/L	0.1132	ppb	09:19:22
1	Se 196.026†	6.8	-8.7	-3.12	µg/L	-3.12	ppb	09:19:22
1	SiO2†	1821.1	-3.0	-0.3026	µg/L	-0.3026	ppb	09:19:22
1	Si 251.611†	995.9	132.7	1.9521	µg/L	1.9521	ppb	09:19:02
1	Sn 189.927†	11.5	12.4	0.7701	µg/L	0.7701	ppb	09:19:22
1	Ti 334.940†	1022.8	42.9	0.0396	µg/L	0.0396	ppb	09:19:02
1	Tl 190.801†	-107.5	12.0	1.4741	µg/L	1.4741	ppb	09:19:22
1	U 409.014†	-205.5	69.9	4.0612	µg/L	4.0612	ppb	09:19:02
1	V 292.402†	329.3	-83.3	-0.4056	µg/L	-0.4056	ppb	09:19:02
1	Zn 213.857†	621.3	40.2	0.2288	µg/L	0.2288	ppb	09:19:22
2	Sc RADIAL	145418.6	145418.6	99.6	%			09:18:14
2	Al 396.153Radial†	-47.7	15.3	2.8430	µg/L	2.8430	ppb	09:18:34
2	Ca 317.933Radial†	761.0	203.1	11.314	µg/L	11.314	ppb	09:18:34
2	Fe 238.204 Radial†	223.6	76.3	4.7037	µg/L	4.7037	ppb	09:18:34
2	K 766.490 Radial†	1827.8	289.5	105.98	µg/L	105.98	ppb	09:18:14
2	Mg 279.077 IEC†	168.3	-21.8	-8.1364	µg/L	-8.1364	ppb	09:18:34
2	Na 589.592 Radial†	1409.7	123.8	16.822	µg/L	16.822	ppb	09:18:14
2	Sr 421.552†	-215.8	-81.2	-0.1690	µg/L	-0.1690	ppb	09:18:14
2	Sc 361.383	1771445.2	1771445.2	103.10	%			09:19:24
2	Y 371.029	1053904.6	1053904.6	102.65	%			09:19:24
2	Ag 328.068†	4214.4	-3.6	0.0007	µg/L	0.0007	ppb	09:19:27
2	As 188.979†	-7.8	12.8	3.8773	µg/L	3.8773	ppb	09:19:47
2	B 249.677†	3468.6	-141.6	-2.0893	µg/L	-2.0893	ppb	09:19:27
2	Ba 233.527†	-90.8	47.8	0.1926	µg/L	0.1926	ppb	09:19:47
2	Be 313.107†	-1022.4	73.0	0.0227	µg/L	0.0227	ppb	09:19:27
2	Cd 226.502†	-113.7	7.9	0.0487	µg/L	0.0487	ppb	09:19:47
2	Co 228.616†	-160.0	35.1	0.4327	µg/L	0.4327	ppb	09:19:47
2	Cr 267.716†	178.6	-5.4	-0.0490	µg/L	-0.0490	ppb	09:19:47
2	Cu 324.752†	3045.6	-18.1	-0.0621	µg/L	-0.0621	ppb	09:19:27
2	Mn 257.610†	298.5	52.3	0.0650	µg/L	0.0650	ppb	09:19:47
2	Mo 202.031†	-20.0	0.7	0.0209	µg/L	0.0209	ppb	09:19:47
2	Ni 231.604†	-121.1	-41.0	-0.4719	µg/L	-0.4719	ppb	09:19:47
2	P 214.914†	-40.3	-21.2	-4.5321	µg/L	-4.5321	ppb	09:19:47
2	Pb 220.353†	68.6	-19.9	-1.1170	µg/L	-1.1170	ppb	09:19:47

2	S 181.975 Axial†	98.3	-9.7	-7.1956 µg/L	-7.1956 ppb	09:19:47
2	Sb 206.836†	77.5	-5.7	-0.6711 µg/L	-0.6711 ppb	09:19:47
2	Se 196.026†	23.8	7.8	2.82 µg/L	2.82 ppb	09:19:47
2	SiO2†	1844.0	13.2	1.2917 µg/L	1.2917 ppb	09:19:47
2	Si 251.611†	937.2	72.5	1.0700 µg/L	1.0700 ppb	09:19:27
2	Sn 189.927†	-5.6	-4.3	-0.2703 µg/L	-0.2703 ppb	09:19:47
2	Ti 334.940†	905.9	-73.9	-0.0719 µg/L	-0.0719 ppb	09:19:27
2	Tl 190.801†	-109.5	10.5	1.2907 µg/L	1.2907 ppb	09:19:47
2	U 409.014†	-114.4	158.9	9.3055 µg/L	9.3055 ppb	09:19:27
2	V 292.402†	469.3	51.4	0.2568 µg/L	0.2568 ppb	09:19:27
2	Zn 213.857†	618.7	35.7	0.2030 µg/L	0.2030 ppb	09:19:47
3	Sc RADIAL	142887.6	142887.6	97.9 %		09:18:36
3	Al 396.153Radial†	-59.9	2.0	0.3551 µg/L	0.3551 ppb	09:18:56
3	Ca 317.933Radial†	748.3	203.7	11.345 µg/L	11.345 ppb	09:18:56
3	Fe 238.204 Radial†	192.3	48.3	2.9782 µg/L	2.9782 ppb	09:18:56
3	K 766.490 Radial†	1709.6	201.2	73.665 µg/L	73.665 ppb	09:18:36
3	Mg 279.077 IEC†	166.8	-20.3	-7.5569 µg/L	-7.5569 ppb	09:18:56
3	Na 589.592 Radial†	1256.8	-7.3	-1.0567 µg/L	-1.0567 ppb	09:18:36
3	Sr 421.552†	-290.8	-161.7	-0.3362 µg/L	-0.3362 ppb	09:18:36
3	Sc 361.383	1771549.2	1771549.2	103.10 %		09:19:49
3	Y 371.029	1053491.0	1053491.0	102.61 %		09:19:49
3	Ag 328.068†	4216.0	-2.3	-0.0293 µg/L	-0.0293 ppb	09:19:51
3	As 188.979†	-22.6	-1.5	-0.4584 µg/L	-0.4584 ppb	09:20:11
3	B 249.677†	3542.6	-70.0	-1.0335 µg/L	-1.0335 ppb	09:19:51
3	Ba 233.527†	-108.8	30.3	0.1223 µg/L	0.1223 ppb	09:20:11
3	Be 313.107†	-1076.7	20.4	-0.0001 µg/L	-0.0001 ppb	09:19:51
3	Cd 226.502†	-114.8	6.9	0.0425 µg/L	0.0425 ppb	09:20:11
3	Co 228.616†	-165.3	30.0	0.3696 µg/L	0.3696 ppb	09:20:11
3	Cr 267.716†	182.3	-1.8	0.0011 µg/L	0.0011 ppb	09:20:11
3	Cu 324.752†	3066.6	2.1	-0.0069 µg/L	-0.0069 ppb	09:19:51
3	Mn 257.610†	295.4	49.2	0.0612 µg/L	0.0612 ppb	09:20:11
3	Mo 202.031†	-5.8	14.5	0.4253 µg/L	0.4253 ppb	09:20:11
3	Ni 231.604†	-95.8	-16.4	-0.1892 µg/L	-0.1892 ppb	09:20:11
3	P 214.914†	-48.0	-28.6	-6.1161 µg/L	-6.1161 ppb	09:20:11
3	Pb 220.353†	95.0	5.7	0.3355 µg/L	0.3355 ppb	09:20:11
3	S 181.975 Axial†	105.8	-2.5	-1.8176 µg/L	-1.8176 ppb	09:20:11
3	Sb 206.836†	69.2	-13.7	-1.6256 µg/L	-1.6256 ppb	09:20:11
3	Se 196.026†	27.0	10.9	3.93 µg/L	3.93 ppb	09:20:11
3	SiO2†	1819.3	-10.8	-1.0719 µg/L	-1.0719 ppb	09:20:11
3	Si 251.611†	940.3	75.4	1.1059 µg/L	1.1059 ppb	09:19:51
3	Sn 189.927†	-1.5	-0.3	-0.0187 µg/L	-0.0187 ppb	09:20:11
3	Ti 334.940†	1117.6	131.4	0.1313 µg/L	0.1313 ppb	09:19:51
3	Tl 190.801†	-110.7	9.4	1.1507 µg/L	1.1507 ppb	09:20:11
3	U 409.014†	-606.9	-318.8	-18.627 µg/L	-18.627 ppb	09:19:51
3	V 292.402†	462.7	45.0	0.2108 µg/L	0.2108 ppb	09:19:51
3	Zn 213.857†	594.2	11.9	0.0679 µg/L	0.0679 ppb	09:20:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769486.9	102.98	%	0.203				0.20%
Sc RADIAL	144938.2	99.3	%	1.27				1.28%
Y 371.029	1052833.9	102.55	%	0.147				0.14%
Ag 328.068†	27.9	0.1011	µg/L	0.20048	0.1011	ppb	0.20048	198.24%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.9	2.3806	µg/L	1.83843	2.3806	ppb	1.83843	77.23%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.2	1.5838	µg/L	2.17878	1.5838	ppb	2.17878	137.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-122.6	-1.8101	µg/L	0.68138	-1.8101	ppb	0.68138	37.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	26.8	0.1079	µg/L	0.09277	0.1079	ppb	0.09277	86.00%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	48.4	0.0127	µg/L	0.01162	0.0127	ppb	0.01162	91.82%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	204.7	11.400	µg/L	0.1226	11.400	ppb	0.1226	1.08%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	12.1	0.0752	µg/L	0.05140	0.0752	ppb	0.05140	68.32%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	37.2	0.4591	µg/L	0.10528	0.4591	ppb	0.10528	22.93%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -11.4     -0.0879 µg/L       0.11351     -0.0879 ppb        0.11351 129.15%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -37.1     -0.1450 µg/L       0.19343     -0.1450 ppb        0.19343 133.37%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        70.7      4.3579 µg/L       1.24344      4.3579 ppb        1.24344  28.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        227.1     83.136 µg/L       19.8802     83.136 ppb        19.8802  23.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -23.2     -8.6515 µg/L       1.42383     -8.6515 ppb        1.42383  16.46%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               59.3      0.0736 µg/L       0.01835      0.0736 ppb        0.01835  24.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.6      0.1344 µg/L       0.25391      0.1344 ppb        0.25391 188.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        46.0      6.2138 µg/L       9.39480      6.2138 ppb        9.39480 151.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -33.6     -0.3873 µg/L       0.17217     -0.3873 ppb        0.17217  44.45%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -27.3     -5.8296 µg/L       1.18065     -5.8296 ppb        1.18065  20.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -3.7     -0.2035 µg/L       0.79535     -0.2035 ppb        0.79535 390.74%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.7     -2.7101 µg/L       4.11255     -2.7101 ppb        4.11255 151.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -6.2     -0.7278 µg/L       0.87080     -0.7278 ppb        0.87080 119.65%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.3      1.21 µg/L         3.790        1.21 ppb          3.790 313.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -0.2     -0.0276 µg/L       1.20554     -0.0276 ppb        1.20554 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               93.5      1.3760 µg/L       0.49927      1.3760 ppb        0.49927  36.28%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.6      0.1604 µg/L       0.54277      0.1604 ppb        0.54277 338.42%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -142.2     -0.2958 µg/L       0.11215     -0.2958 ppb        0.11215  37.92%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               33.5      0.0330 µg/L       0.10174      0.0330 ppb        0.10174 308.06%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               10.6      1.3051 µg/L       0.16220      1.3051 ppb        0.16220  12.43%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -30.0     -1.7535 µg/L      14.84641     -1.7535 ppb       14.84641 846.67%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                4.4      0.0207 µg/L       0.36987      0.0207 ppb        0.36987 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               29.3      0.1666 µg/L       0.08640      0.1666 ppb        0.08640  51.87%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: 248865001|964012|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 320
Date Collected: 4/1/2010 9:30:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248865001|964012|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	147838.4	147838.4	101	%			09:31:27
1	Al 396.153Radial†	77793.6	76852.4	14248	µg/L	14248	ppb	09:31:27
1	Ca 317.933Radial†	86033.8	84362.5	4699.3	µg/L	4699.3	ppb	09:31:29
1	Fe 238.204 Radial†	750183.1	740349.7	45631	µg/L	45631	ppb	09:31:27
1	K 766.490 Radial†	8980.9	7320.2	2675.6	µg/L	2675.6	ppb	09:31:29
1	Mg 279.077 IEC†	7625.9	7336.8	2694.5	µg/L	2694.5	ppb	09:31:29
1	Na 589.592 Radial†	10350.6	8926.1	1217.0	µg/L	1217.0	ppb	09:31:29
1	Sr 421.552†	14053.7	14007.5	29.084	µg/L	29.084	ppb	09:31:29
1	Sc 361.383	1791222.4	1791222.4	104.25	%			09:31:42
1	Y 371.029	1261945.9	1261945.9	122.91	%			09:31:42
1	Ag 328.068†	4297.6	31.0	-0.8188	µg/L	-0.8188	ppb	09:31:42
1	As 188.979†	11.1	31.0	19.712	µg/L	19.712	ppb	09:32:02
1	B 249.677†	3791.3	130.9	1.9075	µg/L	1.9075	ppb	09:31:42
1	Ba 233.527†	31887.8	30724.0	123.24	µg/L	123.24	ppb	09:32:02
1	Be 313.107†	14597.6	15067.4	4.0160	µg/L	4.0160	ppb	09:31:42
1	Cd 226.502†	644.4	736.4	-0.1921	µg/L	-0.1921	ppb	09:32:02
1	Co 228.616†	367.1	542.5	4.4354	µg/L	4.4354	ppb	09:32:02
1	Cr 267.716†	1310.5	1078.6	9.7660	µg/L	9.7660	ppb	09:32:02
1	Cu 324.752†	4763.0	1596.7	12.692	µg/L	12.692	ppb	09:31:42
1	Mn 257.610†	1578645.3	1514067.2	1873.1	µg/L	1873.1	ppb	09:31:42
1	Mo 202.031†	85.0	101.7	4.8517	µg/L	4.8517	ppb	09:32:02
1	Ni 231.604†	1231.8	1258.1	14.486	µg/L	14.486	ppb	09:32:02
1	P 214.914†	1462.7	1421.0	276.04	µg/L	276.04	ppb	09:32:02
1	Pb 220.353†	535.1	426.9	24.644	µg/L	24.644	ppb	09:32:02
1	S 181.975 Axial†	240.8	125.9	93.520	µg/L	93.520	ppb	09:32:02
1	Sb 206.836†	74.5	-9.4	-1.8025	µg/L	-1.8025	ppb	09:32:02
1	Se 196.026†	-32.7	-46.6	-1.31	µg/L	-1.31	ppb	09:32:02
1	SiO2†	478059.2	456799.6	44648	µg/L	44648	ppb	09:31:42
1	Si 251.611†	1475148.0	1414188.9	20849	µg/L	20849	ppb	09:31:42
1	Sn 189.927†	136.5	132.0	11.246	µg/L	11.246	ppb	09:32:02
1	Ti 334.940†	998293.6	956653.6	893.79	µg/L	893.79	ppb	09:31:42
1	Tl 190.801†	-257.2	-130.0	-1.9843	µg/L	-1.9843	ppb	09:32:02
1	U 409.014†	-5386.7	-4897.3	-282.68	µg/L	-282.68	ppb	09:31:42
1	V 292.402†	6752.1	6073.1	23.858	µg/L	23.858	ppb	09:32:02
1	Zn 213.857†	28400.7	26678.7	145.53	µg/L	145.53	ppb	09:32:02
2	Sc RADIAL	145500.8	145500.8	99.7	%			09:31:32
2	Al 396.153Radial†	76826.5	77116.2	14297	µg/L	14297	ppb	09:31:32
2	Ca 317.933Radial†	84976.5	84666.4	4716.3	µg/L	4716.3	ppb	09:31:34
2	Fe 238.204 Radial†	738638.0	740667.5	45650	µg/L	45650	ppb	09:31:32
2	K 766.490 Radial†	8881.7	7363.1	2691.3	µg/L	2691.3	ppb	09:31:34
2	Mg 279.077 IEC†	7422.2	7253.4	2663.4	µg/L	2663.4	ppb	09:31:34
2	Na 589.592 Radial†	10389.8	9129.7	1244.8	µg/L	1244.8	ppb	09:31:34
2	Sr 421.552†	13871.0	14047.2	29.166	µg/L	29.166	ppb	09:31:34
2	Sc 361.383	1798529.9	1798529.9	104.67	%			09:32:05
2	Y 371.029	1266760.5	1266760.5	123.38	%			09:32:05
2	Ag 328.068†	4130.6	-145.2	-1.4661	µg/L	-1.4661	ppb	09:32:05
2	As 188.979†	10.2	30.1	19.422	µg/L	19.422	ppb	09:32:25
2	B 249.677†	3806.1	130.2	1.8963	µg/L	1.8963	ppb	09:32:05
2	Ba 233.527†	31960.3	30669.0	123.02	µg/L	123.02	ppb	09:32:25
2	Be 313.107†	14886.0	15285.9	4.0777	µg/L	4.0777	ppb	09:32:05
2	Cd 226.502†	633.9	723.8	-0.2727	µg/L	-0.2727	ppb	09:32:25
2	Co 228.616†	398.2	570.7	4.7825	µg/L	4.7825	ppb	09:32:25
2	Cr 267.716†	1288.1	1052.1	9.5522	µg/L	9.5522	ppb	09:32:25
2	Cu 324.752†	5045.2	1847.7	13.675	µg/L	13.675	ppb	09:32:05
2	Mn 257.610†	1591221.7	1519929.4	1880.4	µg/L	1880.4	ppb	09:32:05
2	Mo 202.031†	105.2	120.6	5.4077	µg/L	5.4077	ppb	09:32:25
2	Ni 231.604†	1233.6	1255.0	14.451	µg/L	14.451	ppb	09:32:25
2	P 214.914†	1455.4	1408.4	273.30	µg/L	273.30	ppb	09:32:25
2	Pb 220.353†	565.7	454.1	26.161	µg/L	26.161	ppb	09:32:25

2	S 181.975 Axial†	235.5	119.9	89.069	µg/L	89.069	ppb	09:32:25
2	Sb 206.836†	84.3	-0.3	-0.7186	µg/L	-0.7186	ppb	09:32:25
2	Se 196.026†	-31.8	-45.7	-0.951	µg/L	-0.951	ppb	09:32:25
2	SiO2†	482667.2	459338.6	44896	µg/L	44896	ppb	09:32:05
2	Si 251.611†	1487768.4	1420496.5	20942	µg/L	20942	ppb	09:32:05
2	Sn 189.927†	130.2	125.5	10.848	µg/L	10.848	ppb	09:32:25
2	Ti 334.940†	1004984.2	959154.7	896.12	µg/L	896.12	ppb	09:32:05
2	Tl 190.801†	-265.1	-136.6	-2.7455	µg/L	-2.7455	ppb	09:32:25
2	U 409.014†	-5282.5	-4776.7	-275.60	µg/L	-275.60	ppb	09:32:05
2	V 292.402†	6766.2	6060.3	23.801	µg/L	23.801	ppb	09:32:25
2	Zn 213.857†	28477.6	26641.6	145.32	µg/L	145.32	ppb	09:32:25
3	Sc RADIAL	146683.4	146683.4	101	%			09:31:36
3	Al 396.153Radial†	77441.5	77106.8	14295	µg/L	14295	ppb	09:31:36
3	Ca 317.933Radial†	85002.9	84005.6	4679.4	µg/L	4679.4	ppb	09:31:38
3	Fe 238.204 Radial†	744133.3	740161.7	45619	µg/L	45619	ppb	09:31:36
3	K 766.490 Radial†	8993.0	7402.0	2705.5	µg/L	2705.5	ppb	09:31:38
3	Mg 279.077 IEC†	7431.7	7202.8	2644.6	µg/L	2644.6	ppb	09:31:38
3	Na 589.592 Radial†	10392.3	9048.2	1233.7	µg/L	1233.7	ppb	09:31:38
3	Sr 421.552†	13978.9	14042.4	29.157	µg/L	29.157	ppb	09:31:38
3	Sc 361.383	1783919.7	1783919.7	103.82	%			09:32:28
3	Y 371.029	1255383.6	1255383.6	122.27	%			09:32:28
3	Ag 328.068†	3841.5	-391.4	-2.3909	µg/L	-2.3909	ppb	09:32:28
3	As 188.979†	7.8	27.9	18.766	µg/L	18.766	ppb	09:32:48
3	B 249.677†	3745.0	101.1	1.4667	µg/L	1.4667	ppb	09:32:28
3	Ba 233.527†	31983.9	30941.8	124.12	µg/L	124.12	ppb	09:32:48
3	Be 313.107†	14723.5	15246.0	4.0614	µg/L	4.0614	ppb	09:32:28
3	Cd 226.502†	661.2	755.0	-0.0744	µg/L	-0.0744	ppb	09:32:48
3	Co 228.616†	402.3	577.8	4.8723	µg/L	4.8723	ppb	09:32:48
3	Cr 267.716†	1309.1	1082.4	9.8044	µg/L	9.8044	ppb	09:32:48
3	Cu 324.752†	4876.0	1724.2	13.175	µg/L	13.175	ppb	09:32:28
3	Mn 257.610†	1572831.2	1514666.3	1873.9	µg/L	1873.9	ppb	09:32:28
3	Mo 202.031†	101.0	117.3	5.3111	µg/L	5.3111	ppb	09:32:48
3	Ni 231.604†	1242.2	1272.9	14.657	µg/L	14.657	ppb	09:32:48
3	P 214.914†	1470.5	1434.3	278.89	µg/L	278.89	ppb	09:32:48
3	Pb 220.353†	558.8	451.8	26.045	µg/L	26.045	ppb	09:32:48
3	S 181.975 Axial†	238.8	125.0	92.832	µg/L	92.832	ppb	09:32:48
3	Sb 206.836†	77.7	-6.0	-1.3964	µg/L	-1.3964	ppb	09:32:48
3	Se 196.026†	-15.1	-29.8	4.77	µg/L	4.77	ppb	09:32:48
3	SiO2†	476731.4	457398.0	44707	µg/L	44707	ppb	09:32:28
3	Si 251.611†	1468671.3	1413743.3	20843	µg/L	20843	ppb	09:32:28
3	Sn 189.927†	146.5	142.3	11.885	µg/L	11.885	ppb	09:32:48
3	Ti 334.940†	994950.8	957354.1	894.45	µg/L	894.45	ppb	09:32:28
3	Tl 190.801†	-255.1	-129.0	-1.8518	µg/L	-1.8518	ppb	09:32:48
3	U 409.014†	-5555.4	-5080.9	-293.39	µg/L	-293.39	ppb	09:32:28
3	V 292.402†	6811.7	6157.1	24.266	µg/L	24.266	ppb	09:32:48
3	Zn 213.857†	28535.1	26919.7	146.89	µg/L	146.89	ppb	09:32:48

Mean Data: 248865001|964012|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1791224.0	104.25	%	0.425				0.41%
Sc RADIAL	146674.2	101	%	0.8				0.80%
Y 371.029	1261363.3	122.86	%	0.556				0.45%
Ag 328.068†	-168.5	-1.5586	µg/L	0.79015	-1.5586	ppb	0.79015	50.70%
Al 396.153Radial†	77025.1	14280	µg/L	27.7	14280	ppb	27.7	0.19%
As 188.979†	29.7	19.300	µg/L	0.4842	19.300	ppb	0.4842	2.51%
B 249.677†	120.8	1.7568	µg/L	0.25132	1.7568	ppb	0.25132	14.31%
Ba 233.527†	30778.3	123.46	µg/L	0.582	123.46	ppb	0.582	0.47%
Be 313.107†	15199.8	4.0517	µg/L	0.03195	4.0517	ppb	0.03195	0.79%
Ca 317.933Radial†	84344.8	4698.3	µg/L	18.43	4698.3	ppb	18.43	0.39%
Cd 226.502†	738.4	-0.1797	µg/L	0.09976	-0.1797	ppb	0.09976	55.51%
Co 228.616†	563.6	4.6967	µg/L	0.23071	4.6967	ppb	0.23071	4.91%
Cr 267.716†	1071.0	9.7075	µg/L	0.13592	9.7075	ppb	0.13592	1.40%
Cu 324.752†	1722.9	13.181	µg/L	0.4918	13.181	ppb	0.4918	3.73%
Fe 238.204 Radial†	740393.0	45633	µg/L	15.8	45633	ppb	15.8	0.03%
K 766.490 Radial†	7361.8	2690.8	µg/L	14.99	2690.8	ppb	14.99	0.56%
Mg 279.077 IEC†	7264.3	2667.5	µg/L	25.20	2667.5	ppb	25.20	0.94%
Mn 257.610†	1516221.0	1875.8	µg/L	3.99	1875.8	ppb	3.99	0.21%
Mo 202.031†	113.2	5.1902	µg/L	0.29705	5.1902	ppb	0.29705	5.72%
Na 589.592 Radial†	9034.6	1231.8	µg/L	13.99	1231.8	ppb	13.99	1.14%

Ni 231.604†	1262.0	14.531	µg/L	0.1103	14.531	ppb	0.1103	0.76%
P 214.914†	1421.2	276.08	µg/L	2.796	276.08	ppb	2.796	1.01%
Pb 220.353†	444.3	25.617	µg/L	0.8443	25.617	ppb	0.8443	3.30%
S 181.975 Axial†	123.6	91.807	µg/L	2.3961	91.807	ppb	2.3961	2.61%
Sb 206.836†	-5.2	-1.3058	µg/L	0.54760	-1.3058	ppb	0.54760	41.93%
Se 196.026†	-40.7	0.838	µg/L	3.4135	0.838	ppb	3.4135	407.29%
SiO2†	457845.4	44750	µg/L	129.7	44750	ppb	129.7	0.29%
Si 251.611†	1416142.9	20878	µg/L	55.7	20878	ppb	55.7	0.27%
Sn 189.927†	133.3	11.326	µg/L	0.5232	11.326	ppb	0.5232	4.62%
Sr 421.552†	14032.4	29.136	µg/L	0.0450	29.136	ppb	0.0450	0.15%
Ti 334.940†	957720.8	894.79	µg/L	1.204	894.79	ppb	1.204	0.13%
Tl 190.801†	-131.9	-2.1939	µg/L	0.48232	-2.1939	ppb	0.48232	21.98%
U 409.014†	-4918.3	-283.89	µg/L	8.959	-283.89	ppb	8.959	3.16%
Concentration less than lower limit for U 409.014.								
V 292.402†	6096.8	23.975	µg/L	0.2536	23.975	ppb	0.2536	1.06%
Zn 213.857†	26746.7	145.92	µg/L	0.849	145.92	ppb	0.849	0.58%

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 9:32:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144284.4	144284.4	98.9	%			09:33:30
1	Al 396.153Radial†	25868.7	26226.9	4841.2	µg/L	4841.2	ppb	09:33:30
1	Ca 317.933Radial†	83006.9	83392.9	4645.3	µg/L	4645.3	ppb	09:33:30
1	Fe 238.204 Radial†	75153.4	75862.3	4675.7	µg/L	4675.7	ppb	09:33:30
1	K 766.490 Radial†	14402.7	13022.2	4763.8	µg/L	4763.8	ppb	09:33:30
1	Mg 279.077 IEC†	12789.4	12744.5	4755.6	µg/L	4755.6	ppb	09:33:30
1	Na 589.592 Radial†	69255.5	68754.5	9388.5	µg/L	9388.5	ppb	09:33:30
1	Sr 421.552†	226479.8	229197.7	476.45	µg/L	476.45	ppb	09:33:28
1	Sc 361.383	1757367.8	1757367.8	102.28	%			09:33:43
1	Y 371.029	1034784.4	1034784.4	100.79	%			09:33:43
1	Ag 328.068†	129687.4	122706.9	460.14	µg/L	460.14	ppb	09:33:43
1	As 188.979†	1594.8	1579.6	484.39	µg/L	484.39	ppb	09:34:03
1	B 249.677†	34967.2	30682.3	450.91	µg/L	450.91	ppb	09:33:43
1	Ba 233.527†	116792.1	114326.1	461.07	µg/L	461.07	ppb	09:33:43
1	Be 313.107†	1761591.0	1723411.5	469.38	µg/L	469.38	ppb	09:33:43
1	Cd 226.502†	74712.8	73166.5	456.73	µg/L	456.73	ppb	09:33:43
1	Co 228.616†	38020.4	37363.7	461.25	µg/L	461.25	ppb	09:33:43
1	Cr 267.716†	59806.0	58295.1	456.45	µg/L	456.45	ppb	09:33:43
1	Cu 324.752†	124199.5	118460.4	461.79	µg/L	461.79	ppb	09:33:43
1	Mn 257.610†	383646.4	374862.3	463.62	µg/L	463.62	ppb	09:33:43
1	Mo 202.031†	15894.4	15560.4	457.72	µg/L	457.72	ppb	09:34:03
1	Ni 231.604†	40665.3	39835.9	458.68	µg/L	458.68	ppb	09:33:43
1	P 214.914†	10910.6	10685.5	2277.5	µg/L	2277.5	ppb	09:34:03
1	Pb 220.353†	8497.3	8221.6	460.42	µg/L	460.42	ppb	09:34:03
1	S 181.975 Axial†	1332.6	1197.8	893.35	µg/L	893.35	ppb	09:34:03
1	Sb 206.836†	3985.5	3815.9	454.67	µg/L	454.67	ppb	09:34:03
1	Se 196.026†	1284.2	1240.3	450	µg/L	450	ppb	09:34:03
1	SiO2†	52572.0	49625.5	4830.9	µg/L	4830.9	ppb	09:33:43
1	Si 251.611†	159167.2	154784.7	2272.9	µg/L	2272.9	ppb	09:33:43
1	Sn 189.927†	7490.1	7324.4	458.15	µg/L	458.15	ppb	09:34:03
1	Ti 334.940†	506158.2	493929.6	460.87	µg/L	460.87	ppb	09:33:43
1	Tl 190.801†	3716.5	3750.4	467.74	µg/L	467.74	ppb	09:34:03
1	U 409.014†	7061.9	7174.5	447.54	µg/L	447.54	ppb	09:33:43
1	V 292.402†	96679.8	94122.2	465.21	µg/L	465.21	ppb	09:33:43
1	Zn 213.857†	83757.1	81326.7	453.24	µg/L	453.24	ppb	09:33:43
2	Sc RADIAL	145148.3	145148.3	99.5	%			09:33:34
2	Al 396.153Radial†	26106.1	26309.8	4856.7	µg/L	4856.7	ppb	09:33:34
2	Ca 317.933Radial†	83440.2	83328.8	4641.7	µg/L	4641.7	ppb	09:33:34
2	Fe 238.204 Radial†	75493.5	75751.9	4668.9	µg/L	4668.9	ppb	09:33:34
2	K 766.490 Radial†	14468.2	13001.4	4756.1	µg/L	4756.1	ppb	09:33:34
2	Mg 279.077 IEC†	12865.7	12744.3	4755.4	µg/L	4755.4	ppb	09:33:34
2	Na 589.592 Radial†	69910.1	68995.7	9421.4	µg/L	9421.4	ppb	09:33:34
2	Sr 421.552†	226154.4	227507.4	472.94	µg/L	472.94	ppb	09:33:32
2	Sc 361.383	1768675.2	1768675.2	102.94	%			09:34:06
2	Y 371.029	1041358.1	1041358.1	101.43	%			09:34:06
2	Ag 328.068†	130392.7	122581.4	459.68	µg/L	459.68	ppb	09:34:06
2	As 188.979†	1600.0	1574.7	482.91	µg/L	482.91	ppb	09:34:26
2	B 249.677†	35432.1	30915.3	454.35	µg/L	454.35	ppb	09:34:06
2	Ba 233.527†	117919.7	114691.4	462.55	µg/L	462.55	ppb	09:34:06
2	Be 313.107†	1775807.2	1726210.8	470.14	µg/L	470.14	ppb	09:34:06
2	Cd 226.502†	75331.9	73301.0	457.57	µg/L	457.57	ppb	09:34:06
2	Co 228.616†	38237.7	37337.1	460.93	µg/L	460.93	ppb	09:34:06
2	Cr 267.716†	60351.6	58451.3	457.67	µg/L	457.67	ppb	09:34:06
2	Cu 324.752†	124942.0	118405.3	461.57	µg/L	461.57	ppb	09:34:06
2	Mn 257.610†	386118.6	374866.0	463.62	µg/L	463.62	ppb	09:34:06
2	Mo 202.031†	15926.5	15492.2	455.72	µg/L	455.72	ppb	09:34:26
2	Ni 231.604†	40762.5	39676.2	456.84	µg/L	456.84	ppb	09:34:06
2	P 214.914†	10965.1	10670.2	2274.2	µg/L	2274.2	ppb	09:34:26
2	Pb 220.353†	8518.0	8188.6	458.57	µg/L	458.57	ppb	09:34:26

2	S 181.975 Axial†	1308.6	1166.2	869.87 µg/L	869.87 ppb	09:34:26
2	Sb 206.836†	3992.2	3797.5	452.43 µg/L	452.43 ppb	09:34:26
2	Se 196.026†	1300.0	1247.6	453 µg/L	453 ppb	09:34:26
2	SiO2†	53013.2	49725.4	4840.7 µg/L	4840.7 ppb	09:34:06
2	Si 251.611†	160550.7	155133.9	2278.0 µg/L	2278.0 ppb	09:34:06
2	Sn 189.927†	7495.0	7282.3	455.53 µg/L	455.53 ppb	09:34:26
2	Ti 334.940†	509208.8	493729.3	460.68 µg/L	460.68 ppb	09:34:06
2	Tl 190.801†	3729.1	3739.4	466.39 µg/L	466.39 ppb	09:34:26
2	U 409.014†	7164.7	7230.2	450.79 µg/L	450.79 ppb	09:34:06
2	V 292.402†	97270.4	94091.6	465.05 µg/L	465.05 ppb	09:34:06
2	Zn 213.857†	84440.2	81466.8	454.04 µg/L	454.04 ppb	09:34:06
3	Sc RADIAL	145019.7	145019.7	99.4 %		09:33:38
3	Al 396.153Radial†	25971.4	26197.5	4835.7 µg/L	4835.7 ppb	09:33:38
3	Ca 317.933Radial†	83466.1	83429.3	4647.3 µg/L	4647.3 ppb	09:33:38
3	Fe 238.204 Radial†	75479.4	75804.9	4672.2 µg/L	4672.2 ppb	09:33:38
3	K 766.490 Radial†	14442.9	12988.8	4751.5 µg/L	4751.5 ppb	09:33:38
3	Mg 279.077 IEC†	12807.6	12697.3	4738.0 µg/L	4738.0 ppb	09:33:38
3	Na 589.592 Radial†	69801.6	68948.9	9415.0 µg/L	9415.0 ppb	09:33:38
3	Sr 421.552†	224811.3	226357.4	470.55 µg/L	470.55 ppb	09:33:36
3	Sc 361.383	1752639.0	1752639.0	102.00 %		09:34:29
3	Y 371.029	1031380.4	1031380.4	100.46 %		09:34:29
3	Ag 328.068†	129209.1	122580.1	459.67 µg/L	459.67 ppb	09:34:29
3	As 188.979†	1612.6	1601.3	490.96 µg/L	490.96 ppb	09:34:49
3	B 249.677†	35166.6	30970.0	455.15 µg/L	455.15 ppb	09:34:29
3	Ba 233.527†	116882.3	114722.6	462.67 µg/L	462.67 ppb	09:34:29
3	Be 313.107†	1760064.8	1726562.3	470.24 µg/L	470.24 ppb	09:34:29
3	Cd 226.502†	74628.5	73281.0	457.45 µg/L	457.45 ppb	09:34:29
3	Co 228.616†	37960.2	37405.0	461.76 µg/L	461.76 ppb	09:34:29
3	Cr 267.716†	59855.8	58501.7	458.07 µg/L	458.07 ppb	09:34:29
3	Cu 324.752†	124052.1	118643.6	462.49 µg/L	462.49 ppb	09:34:29
3	Mn 257.610†	382427.8	374679.8	463.39 µg/L	463.39 ppb	09:34:29
3	Mo 202.031†	15911.0	15618.6	459.44 µg/L	459.44 ppb	09:34:49
3	Ni 231.604†	40417.4	39700.1	457.12 µg/L	457.12 ppb	09:34:29
3	P 214.914†	10956.0	10758.8	2293.2 µg/L	2293.2 ppb	09:34:49
3	Pb 220.353†	8527.2	8273.3	463.31 µg/L	463.31 ppb	09:34:49
3	S 181.975 Axial†	1336.3	1205.0	898.67 µg/L	898.67 ppb	09:34:49
3	Sb 206.836†	4014.3	3854.6	459.28 µg/L	459.28 ppb	09:34:49
3	Se 196.026†	1287.9	1247.3	453 µg/L	453 ppb	09:34:49
3	SiO2†	52528.5	49721.5	4840.1 µg/L	4840.1 ppb	09:34:29
3	Si 251.611†	158492.5	154543.2	2269.3 µg/L	2269.3 ppb	09:34:29
3	Sn 189.927†	7522.2	7375.6	461.34 µg/L	461.34 ppb	09:34:49
3	Ti 334.940†	504141.1	493287.3	460.28 µg/L	460.28 ppb	09:34:29
3	Tl 190.801†	3732.6	3776.0	470.88 µg/L	470.88 ppb	09:34:49
3	U 409.014†	6944.9	7078.4	441.92 µg/L	441.92 ppb	09:34:29
3	V 292.402†	96426.9	94129.3	465.27 µg/L	465.27 ppb	09:34:29
3	Zn 213.857†	83611.1	81404.6	453.69 µg/L	453.69 ppb	09:34:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1759560.7	102.41	%	0.480				0.47%
Sc RADIAL	144817.4	99.2	%	0.32				0.32%
Y 371.029	1035841.0	100.89	%	0.494				0.49%
Ag 328.068†	122622.8	459.83	µg/L	0.271	459.83	ppb	0.271	0.06%
QC value within limits for Ag 328.068 Recovery = 91.97%								
Al 396.153Radial†	26244.8	4844.5	µg/L	10.88	4844.5	ppb	10.88	0.22%
QC value within limits for Al 396.153Radial Recovery = 96.89%								
As 188.979†	1585.2	486.09	µg/L	4.288	486.09	ppb	4.288	0.88%
QC value within limits for As 188.979 Recovery = 97.22%								
B 249.677†	30855.9	453.47	µg/L	2.253	453.47	ppb	2.253	0.50%
QC value within limits for B 249.677 Recovery = 90.69%								
Ba 233.527†	114580.0	462.10	µg/L	0.889	462.10	ppb	0.889	0.19%
QC value within limits for Ba 233.527 Recovery = 92.42%								
Be 313.107†	1725394.9	469.92	µg/L	0.470	469.92	ppb	0.470	0.10%
QC value within limits for Be 313.107 Recovery = 93.98%								
Ca 317.933Radial†	83383.7	4644.8	µg/L	2.83	4644.8	ppb	2.83	0.06%
QC value within limits for Ca 317.933Radial Recovery = 92.90%								
Cd 226.502†	73249.5	457.25	µg/L	0.453	457.25	ppb	0.453	0.10%
QC value within limits for Cd 226.502 Recovery = 91.45%								
Co 228.616†	37368.6	461.31	µg/L	0.422	461.31	ppb	0.422	0.09%

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   QC value within limits for Co 228.616  Recovery = 92.26%
Cr 267.716†            58416.0      457.40 µg/L        0.845      457.40 ppb          0.845   0.18%
   QC value within limits for Cr 267.716  Recovery = 91.48%
Cu 324.752†           118503.1      461.95 µg/L        0.481      461.95 ppb          0.481   0.10%
   QC value within limits for Cu 324.752  Recovery = 92.39%
Fe 238.204 Radial†     75806.4      4672.2 µg/L         3.40      4672.2 ppb           3.40   0.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.44%
K 766.490 Radial†      13004.1      4757.1 µg/L         6.18      4757.1 ppb           6.18   0.13%
   QC value within limits for K 766.490 Radial  Recovery = 95.14%
Mg 279.077 IEC†        12728.7      4749.7 µg/L        10.10      4749.7 ppb          10.10   0.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 94.99%
Mn 257.610†           374802.7      463.54 µg/L        0.131      463.54 ppb          0.131   0.03%
   QC value within limits for Mn 257.610  Recovery = 92.71%
Mo 202.031†            15557.1      457.63 µg/L        1.859      457.63 ppb          1.859   0.41%
   QC value within limits for Mo 202.031  Recovery = 91.53%
Na 589.592 Radial†     68899.7      9408.3 µg/L        17.48      9408.3 ppb          17.48   0.19%
   QC value within limits for Na 589.592 Radial  Recovery = 94.08%
Ni 231.604†            39737.4      457.55 µg/L        0.992      457.55 ppb          0.992   0.22%
   QC value within limits for Ni 231.604  Recovery = 91.51%
P 214.914†             10704.8      2281.6 µg/L        10.13      2281.6 ppb          10.13   0.44%
   QC value within limits for P 214.914  Recovery = 91.27%
Pb 220.353†             8227.9      460.77 µg/L        2.391      460.77 ppb          2.391   0.52%
   QC value within limits for Pb 220.353  Recovery = 92.15%
S 181.975 Axial†        1189.7      887.30 µg/L       15.326      887.30 ppb         15.326   1.73%
   QC value less than the lower limit for S 181.975 Axial  Recovery = 88.73%
Sb 206.836†             3822.6      455.46 µg/L        3.494      455.46 ppb          3.494   0.77%
   QC value within limits for Sb 206.836  Recovery = 91.09%
Se 196.026†             1245.1         452 µg/L          1.5         452 ppb            1.5   0.33%
   QC value within limits for Se 196.026  Recovery = 90.43%
SiO2†                  49690.8      4837.2 µg/L         5.54      4837.2 ppb           5.54   0.11%
   QC value within limits for SiO2  Recovery = 90.46%
Si 251.611†           154820.6      2273.4 µg/L         4.42      2273.4 ppb           4.42   0.19%
   QC value within limits for Si 251.611  Recovery = 90.94%
Sn 189.927†             7327.4      458.34 µg/L        2.913      458.34 ppb          2.913   0.64%
   QC value within limits for Sn 189.927  Recovery = 91.67%
Sr 421.552†           227687.5      473.31 µg/L        2.970      473.31 ppb          2.970   0.63%
   QC value within limits for Sr 421.552  Recovery = 94.66%
Ti 334.940†           493648.8      460.61 µg/L        0.305      460.61 ppb          0.305   0.07%
   QC value within limits for Ti 334.940  Recovery = 92.12%
Tl 190.801†             3755.2      468.34 µg/L        2.300      468.34 ppb          2.300   0.49%
   QC value within limits for Tl 190.801  Recovery = 93.67%
U 409.014†              7161.0      446.75 µg/L        4.487      446.75 ppb          4.487   1.00%
   QC value less than the lower limit for U 409.014  Recovery = 89.35%
V 292.402†             94114.4      465.18 µg/L        0.113      465.18 ppb          0.113   0.02%
   QC value within limits for V 292.402  Recovery = 93.04%
Zn 213.857†            81399.4      453.66 µg/L        0.401      453.66 ppb          0.401   0.09%
   QC value within limits for Zn 213.857  Recovery = 90.73%
QC Failed.  Continue with analysis.
```

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 9:34:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	149117.0	149117.0	102	%			09:35:26
1	Al 396.153Radial†	-36.5	27.4	5.0602	µg/L	5.0602	ppb	09:35:46
1	Ca 317.933Radial†	796.3	218.7	12.185	µg/L	12.185	ppb	09:35:46
1	Fe 238.204 Radial†	216.1	63.3	3.9041	µg/L	3.9041	ppb	09:35:46
1	K 766.490 Radial†	1658.1	77.9	28.516	µg/L	28.516	ppb	09:35:26
1	Mg 279.077 IEC†	184.1	-10.5	-3.9161	µg/L	-3.9161	ppb	09:35:46
1	Na 589.592 Radial†	1406.0	85.1	11.604	µg/L	11.604	ppb	09:35:26
1	Sr 421.552†	-178.4	-39.3	-0.0818	µg/L	-0.0818	ppb	09:35:26
1	Sc 361.383	1778233.5	1778233.5	103.49	%			09:36:34
1	Y 371.029	1058361.6	1058361.6	103.08	%			09:36:34
1	Ag 328.068†	4263.2	28.0	0.1004	µg/L	0.1004	ppb	09:36:36
1	As 188.979†	-9.8	10.9	3.3043	µg/L	3.3043	ppb	09:36:56
1	B 249.677†	3582.7	-44.1	-0.6507	µg/L	-0.6507	ppb	09:36:36
1	Ba 233.527†	-102.3	37.0	0.1490	µg/L	0.1490	ppb	09:36:56
1	Be 313.107†	-868.8	225.2	0.0624	µg/L	0.0624	ppb	09:36:36
1	Cd 226.502†	-91.2	30.0	0.1873	µg/L	0.1873	ppb	09:36:56
1	Co 228.616†	-191.5	5.2	0.0646	µg/L	0.0646	ppb	09:36:56
1	Cr 267.716†	214.5	28.7	0.2220	µg/L	0.2220	ppb	09:36:56
1	Cu 324.752†	2913.6	-157.0	-0.6065	µg/L	-0.6065	ppb	09:36:36
1	Mn 257.610†	318.7	70.7	0.0876	µg/L	0.0876	ppb	09:36:56
1	Mo 202.031†	0.4	20.5	0.6017	µg/L	0.6017	ppb	09:36:56
1	Ni 231.604†	-73.9	5.2	0.0594	µg/L	0.0594	ppb	09:36:56
1	P 214.914†	-41.3	-22.0	-4.7003	µg/L	-4.7003	ppb	09:36:56
1	Pb 220.353†	73.1	-15.7	-0.8788	µg/L	-0.8788	ppb	09:36:56
1	S 181.975 Axial†	86.2	-21.7	-16.141	µg/L	-16.141	ppb	09:36:56
1	Sb 206.836†	88.8	5.0	0.5927	µg/L	0.5927	ppb	09:36:56
1	Se 196.026†	12.6	-3.1	-1.10	µg/L	-1.10	ppb	09:36:56
1	SiO2†	1819.9	-16.9	-1.6687	µg/L	-1.6687	ppb	09:36:56
1	Si 251.611†	962.0	93.0	1.3641	µg/L	1.3641	ppb	09:36:36
1	Sn 189.927†	-3.7	-2.4	-0.1523	µg/L	-0.1523	ppb	09:36:56
1	Ti 334.940†	834.6	-146.1	-0.1374	µg/L	-0.1374	ppb	09:36:36
1	Tl 190.801†	-121.9	-1.1	-0.1417	µg/L	-0.1417	ppb	09:36:56
1	U 409.014†	-214.6	62.5	3.6191	µg/L	3.6191	ppb	09:36:36
1	V 292.402†	288.2	-125.3	-0.6019	µg/L	-0.6019	ppb	09:36:36
1	Zn 213.857†	611.2	26.1	0.1465	µg/L	0.1465	ppb	09:36:56
2	Sc RADIAL	147555.0	147555.0	101	%			09:35:48
2	Al 396.153Radial†	-77.3	-13.3	-2.4699	µg/L	-2.4699	ppb	09:36:08
2	Ca 317.933Radial†	790.4	221.1	12.318	µg/L	12.318	ppb	09:36:08
2	Fe 238.204 Radial†	202.1	51.8	3.1929	µg/L	3.1929	ppb	09:36:08
2	K 766.490 Radial†	1679.3	116.0	42.464	µg/L	42.464	ppb	09:35:48
2	Mg 279.077 IEC†	198.2	5.3	1.9713	µg/L	1.9713	ppb	09:36:08
2	Na 589.592 Radial†	1402.5	96.3	13.116	µg/L	13.116	ppb	09:35:48
2	Sr 421.552†	-157.4	-20.4	-0.0424	µg/L	-0.0424	ppb	09:35:48
2	Sc 361.383	1774778.8	1774778.8	103.29	%			09:36:58
2	Y 371.029	1055168.7	1055168.7	102.77	%			09:36:58
2	Ag 328.068†	4285.2	57.2	0.2215	µg/L	0.2215	ppb	09:37:00
2	As 188.979†	-18.5	2.4	0.7410	µg/L	0.7410	ppb	09:37:21
2	B 249.677†	3525.0	-93.3	-1.3758	µg/L	-1.3758	ppb	09:37:00
2	Ba 233.527†	-111.8	27.7	0.1117	µg/L	0.1117	ppb	09:37:21
2	Be 313.107†	-969.6	126.0	0.0358	µg/L	0.0358	ppb	09:37:00
2	Cd 226.502†	-105.2	16.4	0.1018	µg/L	0.1018	ppb	09:37:21
2	Co 228.616†	-193.7	2.7	0.0339	µg/L	0.0339	ppb	09:37:21
2	Cr 267.716†	196.8	11.9	0.0898	µg/L	0.0898	ppb	09:37:21
2	Cu 324.752†	2966.7	-100.1	-0.3843	µg/L	-0.3843	ppb	09:37:00
2	Mn 257.610†	328.5	80.8	0.0999	µg/L	0.0999	ppb	09:37:21
2	Mo 202.031†	-15.1	5.5	0.1615	µg/L	0.1615	ppb	09:37:21
2	Ni 231.604†	-102.4	-22.7	-0.2609	µg/L	-0.2609	ppb	09:37:21
2	P 214.914†	-44.2	-24.9	-5.3206	µg/L	-5.3206	ppb	09:37:21
2	Pb 220.353†	60.3	-28.0	-1.5643	µg/L	-1.5643	ppb	09:37:21

2	S 181.975 Axial†	95.5	-12.6	-9.3834	µg/L	-9.3834 ppb	09:37:21
2	Sb 206.836†	84.0	0.5	0.0616	µg/L	0.0616 ppb	09:37:21
2	Se 196.026†	4.3	-11.1	-4.01	µg/L	-4.01 ppb	09:37:21
2	SiO2†	1831.8	-1.9	-0.1945	µg/L	-0.1945 ppb	09:37:21
2	Si 251.611†	838.5	-24.8	-0.3680	µg/L	-0.3680 ppb	09:37:00
2	Sn 189.927†	0.8	1.9	0.1157	µg/L	0.1157 ppb	09:37:21
2	Ti 334.940†	945.4	-37.2	-0.0366	µg/L	-0.0366 ppb	09:37:00
2	Tl 190.801†	-113.4	6.9	0.8453	µg/L	0.8453 ppb	09:37:21
2	U 409.014†	-192.8	83.3	4.8881	µg/L	4.8881 ppb	09:37:00
2	V 292.402†	488.3	68.9	0.3413	µg/L	0.3413 ppb	09:37:00
2	Zn 213.857†	598.2	14.7	0.0841	µg/L	0.0841 ppb	09:37:21
3	Sc RADIAL	146214.0	146214.0	100	%		09:36:10
3	Al 396.153Radial†	-83.9	-20.5	-3.8025	µg/L	-3.8025 ppb	09:36:30
3	Ca 317.933Radial†	767.4	205.3	11.436	µg/L	11.436 ppb	09:36:30
3	Fe 238.204 Radial†	214.9	66.4	4.0916	µg/L	4.0916 ppb	09:36:30
3	K 766.490 Radial†	1638.4	90.5	33.126	µg/L	33.126 ppb	09:36:10
3	Mg 279.077 IEC†	176.3	-14.8	-5.5119	µg/L	-5.5119 ppb	09:36:30
3	Na 589.592 Radial†	1342.5	49.1	6.6742	µg/L	6.6742 ppb	09:36:10
3	Sr 421.552†	-105.5	30.0	0.0623	µg/L	0.0623 ppb	09:36:10
3	Sc 361.383	1792756.9	1792756.9	104.34	%		09:37:23
3	Y 371.029	1066361.6	1066361.6	103.86	%		09:37:23
3	Ag 328.068†	4459.8	183.0	0.6718	µg/L	0.6718 ppb	09:37:25
3	As 188.979†	-13.5	7.5	2.2576	µg/L	2.2576 ppb	09:37:45
3	B 249.677†	3753.0	91.1	1.3413	µg/L	1.3413 ppb	09:37:25
3	Ba 233.527†	-125.5	15.6	0.0619	µg/L	0.0619 ppb	09:37:45
3	Be 313.107†	-1179.8	-66.0	-0.0155	µg/L	-0.0155 ppb	09:37:25
3	Cd 226.502†	-117.6	5.5	0.0336	µg/L	0.0336 ppb	09:37:45
3	Co 228.616†	-151.3	45.3	0.5582	µg/L	0.5582 ppb	09:37:45
3	Cr 267.716†	227.6	39.5	0.3027	µg/L	0.3027 ppb	09:37:45
3	Cu 324.752†	3132.4	29.9	0.1238	µg/L	0.1238 ppb	09:37:25
3	Mn 257.610†	311.7	61.5	0.0763	µg/L	0.0763 ppb	09:37:45
3	Mo 202.031†	-19.0	1.8	0.0535	µg/L	0.0535 ppb	09:37:45
3	Ni 231.604†	-95.5	-15.0	-0.1726	µg/L	-0.1726 ppb	09:37:45
3	P 214.914†	-30.2	-11.0	-2.3458	µg/L	-2.3458 ppb	09:37:45
3	Pb 220.353†	50.8	-37.7	-2.1112	µg/L	-2.1112 ppb	09:37:45
3	S 181.975 Axial†	103.2	-6.2	-4.5862	µg/L	-4.5862 ppb	09:37:45
3	Sb 206.836†	70.9	-12.8	-1.5311	µg/L	-1.5311 ppb	09:37:45
3	Se 196.026†	1.1	-14.2	-5.14	µg/L	-5.14 ppb	09:37:45
3	SiO2†	1809.5	-41.1	-4.0229	µg/L	-4.0229 ppb	09:37:45
3	Si 251.611†	1160.5	275.7	4.0613	µg/L	4.0613 ppb	09:37:25
3	Sn 189.927†	3.6	4.6	0.2847	µg/L	0.2847 ppb	09:37:45
3	Ti 334.940†	915.1	-75.5	-0.0732	µg/L	-0.0732 ppb	09:37:25
3	Tl 190.801†	-103.2	17.8	2.1686	µg/L	2.1686 ppb	09:37:45
3	U 409.014†	-136.3	139.2	8.0654	µg/L	8.0654 ppb	09:37:25
3	V 292.402†	144.3	-265.5	-1.2880	µg/L	-1.2880 ppb	09:37:25
3	Zn 213.857†	597.5	8.3	0.0468	µg/L	0.0468 ppb	09:37:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1781923.0	103.71	%	0.555				0.54%
Sc RADIAL	147628.7	101	%	1.0				0.98%
Y 371.029	1059964.0	103.24	%	0.562				0.54%
Ag 328.068†	89.4	0.3312	µg/L	0.30109	0.3312	ppb	0.30109	90.90%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.1	-0.4040	µg/L	4.77889	-0.4040	ppb	4.77889	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.9	2.1010	µg/L	1.28878	2.1010	ppb	1.28878	61.34%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-15.4	-0.2284	µg/L	1.40692	-0.2284	ppb	1.40692	615.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	26.8	0.1075	µg/L	0.04372	0.1075	ppb	0.04372	40.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	95.1	0.0276	µg/L	0.03961	0.0276	ppb	0.03961	143.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	215.1	11.980	µg/L	0.4755	11.980	ppb	0.4755	3.97%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.3	0.1076	µg/L	0.07700	0.1076	ppb	0.07700	71.58%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.7	0.2189	µg/L	0.29426	0.2189	ppb	0.29426	134.42%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              26.7      0.2048 µg/L       0.10750      0.2048 ppb        0.10750  52.48%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -75.7     -0.2890 µg/L       0.37440     -0.2890 ppb        0.37440 129.55%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       60.5      3.7295 µg/L       0.47411      3.7295 ppb        0.47411  12.71%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        94.8      34.702 µg/L        7.1067      34.702 ppb         7.1067  20.48%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -6.7     -2.4856 µg/L       3.94138     -2.4856 ppb        3.94138 158.57%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              71.0      0.0879 µg/L       0.01179      0.0879 ppb        0.01179  13.41%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.3      0.2723 µg/L       0.29040      0.2723 ppb        0.29040 106.67%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       76.8      10.464 µg/L        3.3684      10.464 ppb         3.3684  32.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -10.8     -0.1247 µg/L       0.16543     -0.1247 ppb        0.16543 132.62%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -19.3     -4.1222 µg/L       1.56938     -4.1222 ppb        1.56938  38.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -27.1     -1.5181 µg/L       0.61750     -1.5181 ppb        0.61750  40.68%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -13.5     -10.037 µg/L        5.8049     -10.037 ppb         5.8049  57.84%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.5     -0.2923 µg/L       1.10521     -0.2923 ppb        1.10521 378.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -9.5      -3.41 µg/L         2.083       -3.41 ppb          2.083  61.03%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -20.0     -1.9621 µg/L       1.93100     -1.9621 ppb        1.93100  98.42%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             114.6      1.6858 µg/L       2.23212      1.6858 ppb        2.23212 132.41%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.3      0.0827 µg/L       0.22033      0.0827 ppb        0.22033 266.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -9.9     -0.0207 µg/L       0.07448     -0.0207 ppb        0.07448 360.50%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -86.3     -0.0824 µg/L       0.05103     -0.0824 ppb        0.05103  61.90%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.8      0.9574 µg/L       1.15922      0.9574 ppb        1.15922 121.09%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               95.0      5.5242 µg/L       2.29040      5.5242 ppb        2.29040  41.46%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -107.3     -0.5162 µg/L       0.81806     -0.5162 ppb        0.81806 158.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              16.4      0.0925 µg/L       0.05035      0.0925 ppb        0.05035  54.44%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/13/2010 13:54:23 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\041310.SIF
Batch ID:
Results Data Set: 041310A
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 4/13/2010 13:54:24**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	114598.4	114598.4	100	%	13:54:54
1	Al 396.153Radial†	-66.9	-66.8	[0.00]	µg/L	13:55:14
1	Ca 317.933Radial†	458.7	457.8	[0.00]	µg/L	13:55:14
1	Fe 238.204 Radial†	131.0	130.8	[0.00]	µg/L	13:55:14
1	K 766.490 Radial†	1394.5	1391.9	[0.00]	µg/L	13:54:54
1	Mg 279.077 IEC†	158.0	157.7	[0.00]	µg/L	13:55:14
1	Na 589.592 Radial†	845.2	843.7	[0.00]	µg/L	13:54:54
1	Sr 421.552†	-40.2	-40.1	[0.00]	µg/L	13:54:54
1	Sc 361.383	1709992.4	1709992.4	101.05	%	13:56:16
1	Y 371.029	967471.1	967471.1	101.09	%	13:56:16
1	Ag 328.068†	5143.2	5089.9	[0.00]	µg/L	13:56:18
1	As 188.979†	-12.9	-12.8	[0.00]	µg/L	13:56:38
1	B 249.677†	4108.0	4065.4	[0.00]	µg/L	13:56:18
1	Ba 233.527†	-146.3	-144.8	[0.00]	µg/L	13:56:38
1	Be 313.107†	-1019.9	-1009.3	[0.00]	µg/L	13:56:18
1	Cd 226.502†	-63.8	-63.1	[0.00]	µg/L	13:56:38
1	Co 228.616†	-230.4	-228.0	[0.00]	µg/L	13:56:38
1	Cr 267.716†	339.5	336.0	[0.00]	µg/L	13:56:38
1	Cu 324.752†	3232.7	3199.2	[0.00]	µg/L	13:56:18
1	Mn 257.610†	213.2	210.9	[0.00]	µg/L	13:56:38
1	Mo 202.031†	-15.1	-14.9	[0.00]	µg/L	13:56:38
1	Ni 231.604†	-59.0	-58.3	[0.00]	µg/L	13:56:38
1	P 214.914†	-15.3	-15.2	[0.00]	µg/L	13:56:38
1	Pb 220.353†	116.6	115.4	[0.00]	µg/L	13:56:38
1	S 181.975 Axial†	105.8	104.7	[0.00]	µg/L	13:56:38
1	Sb 206.836†	86.3	85.4	[0.00]	µg/L	13:56:38
1	Se 196.026†	25.6	25.3	[0.00]	µg/L	13:56:38
1	SiO2†	1749.7	1731.5	[0.00]	µg/L	13:56:18
1	Si 251.611†	784.1	776.0	[0.00]	µg/L	13:56:18
1	Sn 189.927†	10.7	10.6	[0.00]	µg/L	13:56:38
1	Ti 334.940†	888.1	878.8	[0.00]	µg/L	13:56:18
1	Tl 190.801†	-116.5	-115.3	[0.00]	µg/L	13:56:38
1	U 409.014†	-496.6	-491.4	[0.00]	µg/L	13:56:18
1	V 292.402†	543.2	537.6	[0.00]	µg/L	13:56:18
1	Zn 213.857†	623.7	617.2	[0.00]	µg/L	13:56:38
2	Sc RADIAL	115518.6	115518.6	101	%	13:55:16
2	Al 396.153Radial†	-88.5	-87.6	[0.00]	µg/L	13:55:36
2	Ca 317.933Radial†	446.9	442.5	[0.00]	µg/L	13:55:36
2	Fe 238.204 Radial†	117.0	115.8	[0.00]	µg/L	13:55:36
2	K 766.490 Radial†	1437.5	1423.4	[0.00]	µg/L	13:55:16
2	Mg 279.077 IEC†	153.1	151.6	[0.00]	µg/L	13:55:36
2	Na 589.592 Radial†	860.2	851.8	[0.00]	µg/L	13:55:16
2	Sr 421.552†	-48.4	-48.0	[0.00]	µg/L	13:55:16
2	Sc 361.383	1687736.4	1687736.4	99.732	%	13:56:40
2	Y 371.029	953891.3	953891.3	99.672	%	13:56:40
2	Ag 328.068†	5113.5	5127.2	[0.00]	µg/L	13:56:42
2	As 188.979†	-6.3	-6.3	[0.00]	µg/L	13:57:02

2	B 249.677†	4025.8	4036.6	[0.00]	µg/L	13:56:42
2	Ba 233.527†	-138.6	-139.0	[0.00]	µg/L	13:57:02
2	Be 313.107†	-1228.5	-1231.8	[0.00]	µg/L	13:56:42
2	Cd 226.502†	-61.5	-61.7	[0.00]	µg/L	13:57:02
2	Co 228.616†	-211.1	-211.6	[0.00]	µg/L	13:57:02
2	Cr 267.716†	324.0	324.9	[0.00]	µg/L	13:57:02
2	Cu 324.752†	3236.0	3244.7	[0.00]	µg/L	13:56:42
2	Mn 257.610†	221.5	222.1	[0.00]	µg/L	13:57:02
2	Mo 202.031†	-20.1	-20.2	[0.00]	µg/L	13:57:02
2	Ni 231.604†	-71.5	-71.7	[0.00]	µg/L	13:57:02
2	P 214.914†	-10.5	-10.5	[0.00]	µg/L	13:57:02
2	Pb 220.353†	123.7	124.0	[0.00]	µg/L	13:57:02
2	S 181.975 Axial†	100.6	100.8	[0.00]	µg/L	13:57:02
2	Sb 206.836†	68.9	69.1	[0.00]	µg/L	13:57:02
2	Se 196.026†	22.7	22.8	[0.00]	µg/L	13:57:02
2	SiO2†	1685.1	1689.6	[0.00]	µg/L	13:56:42
2	Si 251.611†	850.1	852.4	[0.00]	µg/L	13:56:42
2	Sn 189.927†	13.0	13.0	[0.00]	µg/L	13:57:02
2	Ti 334.940†	885.7	888.1	[0.00]	µg/L	13:56:42
2	Tl 190.801†	-111.5	-111.8	[0.00]	µg/L	13:57:02
2	U 409.014†	-313.9	-314.7	[0.00]	µg/L	13:56:42
2	V 292.402†	467.8	469.0	[0.00]	µg/L	13:56:42
2	Zn 213.857†	621.3	623.0	[0.00]	µg/L	13:57:02
3	Sc RADIAL	113047.2	113047.2	98.8	%	13:55:38
3	Al 396.153Radial†	-99.4	-100.5	[0.00]	µg/L	13:55:58
3	Ca 317.933Radial†	464.4	469.9	[0.00]	µg/L	13:55:58
3	Fe 238.204 Radial†	124.8	126.3	[0.00]	µg/L	13:55:58
3	K 766.490 Radial†	1396.0	1412.5	[0.00]	µg/L	13:55:38
3	Mg 279.077 IEC†	160.8	162.7	[0.00]	µg/L	13:55:58
3	Na 589.592 Radial†	801.0	810.5	[0.00]	µg/L	13:55:38
3	Sr 421.552†	-110.8	-112.1	[0.00]	µg/L	13:55:38
3	Sc 361.383	1679067.9	1679067.9	99.220	%	13:57:04
3	Y 371.029	949726.9	949726.9	99.237	%	13:57:04
3	Ag 328.068†	5052.1	5091.8	[0.00]	µg/L	13:57:06
3	As 188.979†	-21.0	-21.1	[0.00]	µg/L	13:57:26
3	B 249.677†	4200.8	4233.8	[0.00]	µg/L	13:57:06
3	Ba 233.527†	-152.7	-153.9	[0.00]	µg/L	13:57:26
3	Be 313.107†	-730.2	-735.9	[0.00]	µg/L	13:57:06
3	Cd 226.502†	-68.4	-68.9	[0.00]	µg/L	13:57:26
3	Co 228.616†	-239.7	-241.5	[0.00]	µg/L	13:57:26
3	Cr 267.716†	325.5	328.0	[0.00]	µg/L	13:57:26
3	Cu 324.752†	3254.3	3279.9	[0.00]	µg/L	13:57:06
3	Mn 257.610†	211.4	213.1	[0.00]	µg/L	13:57:26
3	Mo 202.031†	-29.5	-29.7	[0.00]	µg/L	13:57:26
3	Ni 231.604†	-90.9	-91.7	[0.00]	µg/L	13:57:26
3	P 214.914†	-31.7	-32.0	[0.00]	µg/L	13:57:26
3	Pb 220.353†	111.3	112.2	[0.00]	µg/L	13:57:26
3	S 181.975 Axial†	99.4	100.2	[0.00]	µg/L	13:57:26
3	Sb 206.836†	77.5	78.1	[0.00]	µg/L	13:57:26
3	Se 196.026†	11.7	11.8	[0.00]	µg/L	13:57:26
3	SiO2†	1632.7	1645.5	[0.00]	µg/L	13:57:06
3	Si 251.611†	725.5	731.2	[0.00]	µg/L	13:57:06
3	Sn 189.927†	1.7	1.7	[0.00]	µg/L	13:57:26
3	Ti 334.940†	884.4	891.3	[0.00]	µg/L	13:57:06
3	Tl 190.801†	-117.7	-118.6	[0.00]	µg/L	13:57:26
3	U 409.014†	-424.2	-427.6	[0.00]	µg/L	13:57:06
3	V 292.402†	477.7	481.5	[0.00]	µg/L	13:57:06
3	Zn 213.857†	612.9	617.7	[0.00]	µg/L	13:57:26

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1692265.5	15951.98	0.94%	100.00	%
Sc RADIAL	114388.1	1249.02	1.09%	100	%
Y 371.029	957029.8	9279.07	0.97%	100.00	%
Ag 328.068†	5103.0	21.01	0.41%	[0.00]	µg/L
Al 396.153Radial†	-85.0	17.03	20.04%	[0.00]	µg/L
As 188.979†	-13.4	7.42	55.27%	[0.00]	µg/L
B 249.677†	4111.9	106.52	2.59%	[0.00]	µg/L
Ba 233.527†	-145.9	7.51	5.15%	[0.00]	µg/L

Be 313.107†	-992.3	248.35	25.03%	[0.00] µg/L
Ca 317.933Radial†	456.7	13.71	3.00%	[0.00] µg/L
Cd 226.502†	-64.6	3.83	5.93%	[0.00] µg/L
Co 228.616†	-227.1	14.98	6.60%	[0.00] µg/L
Cr 267.716†	329.6	5.76	1.75%	[0.00] µg/L
Cu 324.752†	3241.3	40.46	1.25%	[0.00] µg/L
Fe 238.204 Radial†	124.3	7.65	6.16%	[0.00] µg/L
K 766.490 Radial†	1409.3	16.00	1.13%	[0.00] µg/L
Mg 279.077 IEC†	157.3	5.56	3.53%	[0.00] µg/L
Mn 257.610†	215.4	5.91	2.74%	[0.00] µg/L
Mo 202.031†	-21.6	7.51	34.73%	[0.00] µg/L
Na 589.592 Radial†	835.3	21.89	2.62%	[0.00] µg/L
Ni 231.604†	-73.9	16.76	22.68%	[0.00] µg/L
P 214.914†	-19.2	11.29	58.79%	[0.00] µg/L
Pb 220.353†	117.2	6.12	5.22%	[0.00] µg/L
S 181.975 Axial†	101.9	2.43	2.38%	[0.00] µg/L
Sb 206.836†	77.5	8.16	10.52%	[0.00] µg/L
Se 196.026†	20.0	7.17	35.86%	[0.00] µg/L
SiO2†	1688.9	43.02	2.55%	[0.00] µg/L
Si 251.611†	786.5	61.28	7.79%	[0.00] µg/L
Sn 189.927†	8.4	5.97	70.92%	[0.00] µg/L
Sr 421.552†	-66.7	39.51	59.22%	[0.00] µg/L
Ti 334.940†	886.1	6.48	0.73%	[0.00] µg/L
Tl 190.801†	-115.2	3.39	2.94%	[0.00] µg/L
U 409.014†	-411.2	89.46	21.75%	[0.00] µg/L
V 292.402†	496.0	36.51	7.36%	[0.00] µg/L
Zn 213.857†	619.3	3.19	0.52%	[0.00] µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 4/13/2010 13:57:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	115662.7	115662.7	101	%	13:58:06
1	K 766.490 Radial†	4010.8	2557.3	[1000]	µg/L	13:58:06
1	Sr 421.552†	40565.9	40185.6	[100]	µg/L	13:58:06
1	Sc 361.383	1679936.2	1679936.2	99.271	%	13:58:14
1	Y 371.029	946833.3	946833.3	98.935	%	13:58:14
1	Ag 328.068†	29744.5	24859.8	[100]	µg/L	13:58:16
1	As 188.979†	270.5	285.9	[100]	µg/L	13:58:36
1	B 249.677†	10722.8	6689.5	[100]	µg/L	13:58:16
1	Ba 233.527†	22383.5	22693.6	[100]	µg/L	13:58:16
1	Be 313.107†	348195.3	351743.1	[100]	µg/L	13:58:14
1	Cd 226.502†	15347.5	15524.8	[100]	µg/L	13:58:16
1	Co 228.616†	7541.4	7823.8	[100]	µg/L	13:58:36
1	Cr 267.716†	11924.3	11682.2	[100]	µg/L	13:58:16
1	Cu 324.752†	27630.0	24591.5	[100]	µg/L	13:58:16
1	Mn 257.610†	80028.7	80400.7	[100]	µg/L	13:58:16
1	Mo 202.031†	2918.0	2961.0	[100]	µg/L	13:58:36
1	Ni 231.604†	8218.6	8352.8	[100]	µg/L	13:58:16
1	P 214.914†	2141.9	2176.9	[500]	µg/L	13:58:36
1	Pb 220.353†	1756.2	1651.8	[100]	µg/L	13:58:36
1	S 181.975 Axial†	331.2	231.7	[200]	µg/L	13:58:36
1	Sb 206.836†	853.1	781.9	[100]	µg/L	13:58:36
1	Se 196.026†	269.7	251.7	[100]	µg/L	13:58:36
1	SiO2†	12030.0	10429.4	[1069.5]	µg/L	13:58:16
1	Si 251.611†	33399.6	32858.2	[500]	µg/L	13:58:16
1	Sn 189.927†	1452.7	1454.9	[100]	µg/L	13:58:36
1	Ti 334.940†	96021.2	95839.9	[100]	µg/L	13:58:16
1	Tl 190.801†	609.2	728.9	[100]	µg/L	13:58:36
1	U 409.014†	1131.7	1551.2	[100]	µg/L	13:58:16
1	V 292.402†	20487.6	20142.0	[100]	µg/L	13:58:16
1	Zn 213.857†	18222.9	17737.3	[100]	µg/L	13:58:16
2	Sc RADIAL	115417.9	115417.9	101	%	13:58:08
2	K 766.490 Radial†	4085.6	2639.9	[1000]	µg/L	13:58:08
2	Sr 421.552†	40433.3	40139.3	[100]	µg/L	13:58:08
2	Sc 361.383	1665766.3	1665766.3	98.434	%	13:58:38
2	Y 371.029	939221.7	939221.7	98.139	%	13:58:38
2	Ag 328.068†	29804.6	25175.7	[100]	µg/L	13:58:40
2	As 188.979†	273.7	291.5	[100]	µg/L	13:59:00
2	B 249.677†	10828.6	6889.0	[100]	µg/L	13:58:40
2	Ba 233.527†	22233.6	22733.2	[100]	µg/L	13:58:40
2	Be 313.107†	345908.5	352403.6	[100]	µg/L	13:58:38
2	Cd 226.502†	15193.5	15499.8	[100]	µg/L	13:58:40
2	Co 228.616†	7524.7	7871.4	[100]	µg/L	13:59:00
2	Cr 267.716†	11768.2	11625.8	[100]	µg/L	13:58:40
2	Cu 324.752†	27135.9	24326.3	[100]	µg/L	13:58:40
2	Mn 257.610†	79277.8	80323.6	[100]	µg/L	13:58:40
2	Mo 202.031†	2925.7	2993.8	[100]	µg/L	13:59:00
2	Ni 231.604†	8098.9	8301.6	[100]	µg/L	13:58:40
2	P 214.914†	2130.2	2183.3	[500]	µg/L	13:59:00
2	Pb 220.353†	1725.2	1635.4	[100]	µg/L	13:59:00
2	S 181.975 Axial†	331.6	234.9	[200]	µg/L	13:59:00
2	Sb 206.836†	876.9	813.4	[100]	µg/L	13:59:00
2	Se 196.026†	275.3	259.7	[100]	µg/L	13:59:00
2	SiO2†	11946.9	10448.0	[1069.5]	µg/L	13:58:40
2	Si 251.611†	33198.3	32939.9	[500]	µg/L	13:58:40
2	Sn 189.927†	1454.5	1469.2	[100]	µg/L	13:59:00
2	Ti 334.940†	95388.0	96019.4	[100]	µg/L	13:58:40
2	Tl 190.801†	607.6	732.5	[100]	µg/L	13:59:00
2	U 409.014†	1595.3	2031.9	[100]	µg/L	13:58:40
2	V 292.402†	20527.6	20358.1	[100]	µg/L	13:58:40

2	Zn 213.857†	18003.3	17670.4	[100]	µg/L	13:58:40
3	Sc RADIAL	114124.7	114124.7	99.8	%	13:58:10
3	K 766.490 Radial†	4003.4	2603.4	[1000]	µg/L	13:58:10
3	Sr 421.552†	40289.2	40448.9	[100]	µg/L	13:58:10
3	Sc 361.383	1688518.0	1688518.0	99.779	%	13:59:02
3	Y 371.029	951515.1	951515.1	99.424	%	13:59:02
3	Ag 328.068†	29717.6	24680.6	[100]	µg/L	13:59:04
3	As 188.979†	276.0	290.0	[100]	µg/L	13:59:24
3	B 249.677†	10763.6	6675.6	[100]	µg/L	13:59:04
3	Ba 233.527†	22593.3	22789.3	[100]	µg/L	13:59:04
3	Be 313.107†	349199.9	350967.2	[100]	µg/L	13:59:02
3	Cd 226.502†	15385.6	15484.3	[100]	µg/L	13:59:04
3	Co 228.616†	7604.2	7848.1	[100]	µg/L	13:59:24
3	Cr 267.716†	11907.6	11604.4	[100]	µg/L	13:59:04
3	Cu 324.752†	27488.5	24308.2	[100]	µg/L	13:59:04
3	Mn 257.610†	80200.2	80162.8	[100]	µg/L	13:59:04
3	Mo 202.031†	2935.2	2963.4	[100]	µg/L	13:59:24
3	Ni 231.604†	8386.7	8479.2	[100]	µg/L	13:59:04
3	P 214.914†	2144.7	2168.6	[500]	µg/L	13:59:24
3	Pb 220.353†	1733.5	1620.1	[100]	µg/L	13:59:24
3	S 181.975 Axial†	335.2	234.0	[200]	µg/L	13:59:24
3	Sb 206.836†	869.2	793.6	[100]	µg/L	13:59:24
3	Se 196.026†	288.3	269.0	[100]	µg/L	13:59:24
3	SiO2†	12124.5	10462.6	[1069.5]	µg/L	13:59:04
3	Si 251.611†	33644.8	32932.9	[500]	µg/L	13:59:04
3	Sn 189.927†	1470.0	1464.9	[100]	µg/L	13:59:24
3	Ti 334.940†	96832.1	96160.9	[100]	µg/L	13:59:04
3	Tl 190.801†	594.0	710.5	[100]	µg/L	13:59:24
3	U 409.014†	1362.6	1776.9	[100]	µg/L	13:59:04
3	V 292.402†	20719.6	20269.6	[100]	µg/L	13:59:04
3	Zn 213.857†	18019.5	17440.2	[100]	µg/L	13:59:04

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1678073.5	11489.66	0.68%	99.161	%
Sc RADIAL	115068.4	826.39	0.72%	101	%
Y 371.029	945856.7	6204.61	0.66%	98.833	%
Ag 328.068†	24905.4	250.71	1.01%	[100]	µg/L
As 188.979†	289.1	2.89	1.00%	[100]	µg/L
B 249.677†	6751.4	119.37	1.77%	[100]	µg/L
Ba 233.527†	22738.7	48.10	0.21%	[100]	µg/L
Be 313.107†	351704.7	718.98	0.20%	[100]	µg/L
Cd 226.502†	15503.0	20.42	0.13%	[100]	µg/L
Co 228.616†	7847.8	23.82	0.30%	[100]	µg/L
Cr 267.716†	11637.5	40.19	0.35%	[100]	µg/L
Cu 324.752†	24408.7	158.60	0.65%	[100]	µg/L
K 766.490 Radial†	2600.2	41.39	1.59%	[1000]	µg/L
Mn 257.610†	80295.7	121.34	0.15%	[100]	µg/L
Mo 202.031†	2972.7	18.29	0.62%	[100]	µg/L
Ni 231.604†	8377.9	91.40	1.09%	[100]	µg/L
P 214.914†	2176.3	7.35	0.34%	[500]	µg/L
Pb 220.353†	1635.8	15.87	0.97%	[100]	µg/L
S 181.975 Axial†	233.5	1.67	0.72%	[200]	µg/L
Sb 206.836†	796.3	15.92	2.00%	[100]	µg/L
Se 196.026†	260.1	8.67	3.33%	[100]	µg/L
SiO2†	10446.7	16.63	0.16%	[1069.5]	µg/L
Si 251.611†	32910.4	45.29	0.14%	[500]	µg/L
Sn 189.927†	1463.0	7.34	0.50%	[100]	µg/L
Sr 421.552†	40257.9	167.00	0.41%	[100]	µg/L
Ti 334.940†	96006.7	160.89	0.17%	[100]	µg/L
Tl 190.801†	724.0	11.79	1.63%	[100]	µg/L
U 409.014†	1786.7	240.48	13.46%	[100]	µg/L
V 292.402†	20256.6	108.66	0.54%	[100]	µg/L
Zn 213.857†	17616.0	155.82	0.88%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 4/13/2010 13:59:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	113312.7	113312.7	99.1	%	14:00:04
1	Al 396.153Radial†	21478.4	21767.2	[5000]	µg/L	14:00:04
1	Ca 317.933Radial†	61609.5	61737.4	[5000]	µg/L	14:00:04
1	K 766.490 Radial†	13916.9	12639.7	[5000]	µg/L	14:00:04
1	Mg 279.077 IEC†	9455.7	9388.1	[5000]	µg/L	14:00:04
1	Sr 421.552†	193082.9	194982.0	[500]	µg/L	14:00:02
1	Sc 361.383	1682640.5	1682640.5	99.431	%	14:00:31
1	Y 371.029	940830.0	940830.0	98.307	%	14:00:31
1	Ag 328.068†	124557.5	120167.1	[500]	µg/L	14:00:31
1	As 188.979†	1423.2	1444.7	[500]	µg/L	14:00:51
1	B 249.677†	37136.1	33236.5	[500]	µg/L	14:00:31
1	Ba 233.527†	109569.2	110341.8	[500]	µg/L	14:00:31
1	Be 313.107†	1752248.6	1763264.1	[500]	µg/L	14:00:31
1	Cd 226.502†	75136.1	75630.5	[500]	µg/L	14:00:31
1	Co 228.616†	37848.6	38292.1	[500]	µg/L	14:00:31
1	Cr 267.716†	56766.7	56761.8	[500]	µg/L	14:00:31
1	Cu 324.752†	122552.8	120012.6	[500]	µg/L	14:00:31
1	Mn 257.610†	381154.0	383119.0	[500]	µg/L	14:00:31
1	Mo 202.031†	14608.3	14713.5	[500]	µg/L	14:00:51
1	Ni 231.604†	39990.8	40293.5	[500]	µg/L	14:00:31
1	P 214.914†	10778.1	10859.0	[2500]	µg/L	14:00:51
1	Pb 220.353†	8037.0	7965.8	[500]	µg/L	14:00:51
1	S 181.975 Axial†	1254.8	1160.1	[1000]	µg/L	14:00:51
1	Sb 206.836†	3937.2	3882.2	[500]	µg/L	14:00:51
1	Se 196.026†	1285.1	1272.5	[500]	µg/L	14:00:51
1	SiO2†	52983.6	51597.8	[5347.5]	µg/L	14:00:31
1	Si 251.611†	163127.4	163274.0	[2500]	µg/L	14:00:31
1	Sn 189.927†	7126.0	7158.4	[500]	µg/L	14:00:51
1	Ti 334.940†	474216.5	476043.0	[500]	µg/L	14:00:31
1	Tl 190.801†	3404.2	3538.9	[500]	µg/L	14:00:51
1	U 409.014†	6934.6	7385.5	[500]	µg/L	14:00:31
1	V 292.402†	99950.1	100025.9	[500]	µg/L	14:00:31
1	Zn 213.857†	86546.3	86422.0	[500]	µg/L	14:00:31
2	Sc RADIAL	113273.4	113273.4	99.0	%	14:00:08
2	Al 396.153Radial†	21386.1	21681.6	[5000]	µg/L	14:00:08
2	Ca 317.933Radial†	61198.7	61344.2	[5000]	µg/L	14:00:08
2	K 766.490 Radial†	13915.4	12643.1	[5000]	µg/L	14:00:08
2	Mg 279.077 IEC†	9306.8	9241.0	[5000]	µg/L	14:00:08
2	Sr 421.552†	195960.0	197955.1	[500]	µg/L	14:00:06
2	Sc 361.383	1675433.5	1675433.5	99.005	%	14:00:54
2	Y 371.029	936252.4	936252.4	97.829	%	14:00:54
2	Ag 328.068†	124128.4	120272.4	[500]	µg/L	14:00:54
2	As 188.979†	1427.9	1455.6	[500]	µg/L	14:01:14
2	B 249.677†	37314.9	33577.9	[500]	µg/L	14:00:54
2	Ba 233.527†	109487.2	110733.0	[500]	µg/L	14:00:54
2	Be 313.107†	1745681.0	1764211.1	[500]	µg/L	14:00:54
2	Cd 226.502†	74829.2	75645.6	[500]	µg/L	14:00:54
2	Co 228.616†	37636.5	38241.7	[500]	µg/L	14:00:54
2	Cr 267.716†	56528.9	56767.1	[500]	µg/L	14:00:54
2	Cu 324.752†	121959.0	119943.0	[500]	µg/L	14:00:54
2	Mn 257.610†	379591.3	383189.4	[500]	µg/L	14:00:54
2	Mo 202.031†	14759.8	14929.7	[500]	µg/L	14:01:14
2	Ni 231.604†	39870.3	40344.7	[500]	µg/L	14:00:54
2	P 214.914†	10917.2	11046.1	[2500]	µg/L	14:01:14
2	Pb 220.353†	8142.4	8107.0	[500]	µg/L	14:01:14
2	S 181.975 Axial†	1271.8	1182.6	[1000]	µg/L	14:01:14
2	Sb 206.836†	3982.4	3944.8	[500]	µg/L	14:01:14
2	Se 196.026†	1314.2	1307.4	[500]	µg/L	14:01:14
2	SiO2†	52951.0	51794.1	[5347.5]	µg/L	14:00:54

2	Si 251.611†	163146.3	163998.8	[2500]	µg/L	14:00:54
2	Sn 189.927†	7224.3	7288.5	[500]	µg/L	14:01:14
2	Ti 334.940†	471991.2	475846.9	[500]	µg/L	14:00:54
2	Tl 190.801†	3433.8	3583.5	[500]	µg/L	14:01:14
2	U 409.014†	7090.3	7572.7	[500]	µg/L	14:00:54
2	V 292.402†	99867.3	100374.6	[500]	µg/L	14:00:54
2	Zn 213.857†	86594.2	86844.9	[500]	µg/L	14:00:54
3	Sc RADIAL	114467.9	114467.9	100	%	14:00:12
3	Al 396.153Radial†	21684.8	21754.6	[5000]	µg/L	14:00:12
3	Ca 317.933Radial†	61887.3	61387.4	[5000]	µg/L	14:00:12
3	K 766.490 Radial†	13951.7	12532.7	[5000]	µg/L	14:00:12
3	Mg 279.077 IEC†	9385.5	9221.6	[5000]	µg/L	14:00:12
3	Sr 421.552†	196872.3	196801.7	[500]	µg/L	14:00:10
3	Sc 361.383	1678505.5	1678505.5	99.187	%	14:01:17
3	Y 371.029	938771.8	938771.8	98.092	%	14:01:17
3	Ag 328.068†	124457.9	120375.2	[500]	µg/L	14:01:17
3	As 188.979†	1426.5	1451.6	[500]	µg/L	14:01:37
3	B 249.677†	37334.9	33529.0	[500]	µg/L	14:01:17
3	Ba 233.527†	109657.9	110702.7	[500]	µg/L	14:01:17
3	Be 313.107†	1753559.4	1768927.0	[500]	µg/L	14:01:17
3	Cd 226.502†	75192.1	75873.1	[500]	µg/L	14:01:17
3	Co 228.616†	37823.5	38360.6	[500]	µg/L	14:01:17
3	Cr 267.716†	56711.6	56846.9	[500]	µg/L	14:01:17
3	Cu 324.752†	122644.2	120408.3	[500]	µg/L	14:01:17
3	Mn 257.610†	381725.4	384639.3	[500]	µg/L	14:01:17
3	Mo 202.031†	14814.5	14957.6	[500]	µg/L	14:01:37
3	Ni 231.604†	40081.7	40484.2	[500]	µg/L	14:01:17
3	P 214.914†	10959.6	11068.6	[2500]	µg/L	14:01:37
3	Pb 220.353†	8165.6	8115.3	[500]	µg/L	14:01:37
3	S 181.975 Axial†	1266.2	1174.7	[1000]	µg/L	14:01:37
3	Sb 206.836†	4002.3	3957.6	[500]	µg/L	14:01:37
3	Se 196.026†	1319.2	1310.0	[500]	µg/L	14:01:37
3	SiO2†	53297.9	52046.0	[5347.5]	µg/L	14:01:17
3	Si 251.611†	163951.7	164509.2	[2500]	µg/L	14:01:17
3	Sn 189.927†	7245.9	7296.9	[500]	µg/L	14:01:37
3	Ti 334.940†	474632.8	477637.6	[500]	µg/L	14:01:17
3	Tl 190.801†	3427.0	3570.4	[500]	µg/L	14:01:37
3	U 409.014†	7331.9	7803.3	[500]	µg/L	14:01:17
3	V 292.402†	100178.9	100504.2	[500]	µg/L	14:01:17
3	Zn 213.857†	86822.2	86914.6	[500]	µg/L	14:01:17

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1678859.8	3616.52	0.22%	99.208	%
Sc RADIAL	113684.6	678.57	0.60%	99.4	%
Y 371.029	938618.1	2292.64	0.24%	98.076	%
Ag 328.068†	120271.5	104.06	0.09%	[500]	µg/L
Al 396.153Radial†	21734.5	46.26	0.21%	[5000]	µg/L
As 188.979†	1450.7	5.52	0.38%	[500]	µg/L
B 249.677†	33447.8	184.58	0.55%	[500]	µg/L
Ba 233.527†	110592.5	217.65	0.20%	[500]	µg/L
Be 313.107†	1765467.4	3033.28	0.17%	[500]	µg/L
Ca 317.933Radial†	61489.7	215.62	0.35%	[5000]	µg/L
Cd 226.502†	75716.4	135.93	0.18%	[500]	µg/L
Co 228.616†	38298.2	59.70	0.16%	[500]	µg/L
Cr 267.716†	56792.0	47.66	0.08%	[500]	µg/L
Cu 324.752†	120121.3	251.00	0.21%	[500]	µg/L
K 766.490 Radial†	12605.1	62.79	0.50%	[5000]	µg/L
Mg 279.077 IEC†	9283.6	91.05	0.98%	[5000]	µg/L
Mn 257.610†	383649.2	858.14	0.22%	[500]	µg/L
Mo 202.031†	14866.9	133.60	0.90%	[500]	µg/L
Ni 231.604†	40374.1	98.68	0.24%	[500]	µg/L
P 214.914†	10991.2	115.10	1.05%	[2500]	µg/L
Pb 220.353†	8062.7	84.03	1.04%	[500]	µg/L
S 181.975 Axial†	1172.5	11.44	0.98%	[1000]	µg/L
Sb 206.836†	3928.2	40.35	1.03%	[500]	µg/L
Se 196.026†	1296.6	20.96	1.62%	[500]	µg/L
SiO2†	51812.6	224.66	0.43%	[5347.5]	µg/L
Si 251.611†	163927.3	620.73	0.38%	[2500]	µg/L

Sn 189.927†	7247.9	77.66	1.07%	[500] µg/L
Sr 421.552†	196579.6	1498.94	0.76%	[500] µg/L
Ti 334.940†	476509.2	982.14	0.21%	[500] µg/L
Tl 190.801†	3564.3	22.94	0.64%	[500] µg/L
U 409.014†	7587.2	209.27	2.76%	[500] µg/L
V 292.402†	100301.5	247.37	0.25%	[500] µg/L
Zn 213.857†	86727.2	266.57	0.31%	[500] µg/L

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: SCAL **Date Collected: 4/13/2010 14:01:45**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	114834.2	114834.2	100	%	14:02:16
1	Al 396.153Radial†	43192.0	43109.1	[10000]	µg/L	14:02:16
1	Ca 317.933Radial†	123466.7	122530.3	[10000]	µg/L	14:02:16
1	Fe 238.204 Radial†	118908.2	118321.9	[10000]	µg/L	14:02:16
1	K 766.490 Radial†	26527.9	25015.6	[10000]	µg/L	14:02:16
1	Mg 279.077 IEC†	18679.8	18449.9	[10000]	µg/L	14:02:16
1	Na 589.592 Radial†	63912.5	62828.9	[10000]	µg/L	14:02:16
1	Sr 421.552†	390369.6	388919.6	[1000]	µg/L	14:02:14
1	Sc 361.383	1667730.2	1667730.2	98.550	%	14:02:43
1	Y 371.029	928107.5	928107.5	96.978	%	14:02:43
1	Ag 328.068†	244379.5	242871.8	[1000]	µg/L	14:02:45
1	As 188.979†	2863.0	2918.5	[1000]	µg/L	14:03:05
1	B 249.677†	70534.4	67460.1	[1000]	µg/L	14:02:45
1	Ba 233.527†	217804.1	221154.3	[1000]	µg/L	14:02:45
1	Be 313.107†	3473218.5	3525308.1	[1000]	µg/L	14:02:43
1	Cd 226.502†	149111.1	151369.4	[1000]	µg/L	14:02:45
1	Co 228.616†	74990.8	76321.1	[1000]	µg/L	14:02:45
1	Cr 267.716†	112900.0	114231.3	[1000]	µg/L	14:02:45
1	Cu 324.752†	241770.1	242085.7	[1000]	µg/L	14:02:45
1	Mn 257.610†	754879.3	765769.5	[1000]	µg/L	14:02:45
1	Mo 202.031†	29200.7	29651.9	[1000]	µg/L	14:03:05
1	Ni 231.604†	79120.1	80358.1	[1000]	µg/L	14:02:45
1	P 214.914†	21724.9	22063.7	[5000]	µg/L	14:03:05
1	Pb 220.353†	15920.8	16037.8	[1000]	µg/L	14:03:05
1	S 181.975 Axial†	2437.8	2371.7	[2000]	µg/L	14:03:05
1	Sb 206.836†	7823.2	7860.7	[1000]	µg/L	14:03:05
1	Se 196.026†	2601.2	2619.5	[1000]	µg/L	14:03:05
1	SiO2†	103588.9	103424.0	[10695]	µg/L	14:02:45
1	Si 251.611†	323493.7	327466.3	[5000]	µg/L	14:02:45
1	Sn 189.927†	14228.2	14429.1	[1000]	µg/L	14:03:05
1	Ti 334.940†	939664.2	952602.2	[1000]	µg/L	14:02:43
1	Tl 190.801†	6919.0	7136.0	[1000]	µg/L	14:03:05
1	U 409.014†	16041.0	16688.3	[1000]	µg/L	14:02:45
1	V 292.402†	200113.4	202561.4	[1000]	µg/L	14:02:45
1	Zn 213.857†	171446.6	173349.5	[1000]	µg/L	14:02:45
2	Sc RADIAL	115211.8	115211.8	101	%	14:02:20
2	Al 396.153Radial†	43071.5	42848.6	[10000]	µg/L	14:02:20
2	Ca 317.933Radial†	123899.3	122556.7	[10000]	µg/L	14:02:20
2	Fe 238.204 Radial†	118997.4	118022.3	[10000]	µg/L	14:02:20
2	K 766.490 Radial†	26508.9	24910.1	[10000]	µg/L	14:02:20
2	Mg 279.077 IEC†	18832.1	18540.1	[10000]	µg/L	14:02:20
2	Na 589.592 Radial†	63795.8	62504.4	[10000]	µg/L	14:02:20
2	Sr 421.552†	388119.6	385411.3	[1000]	µg/L	14:02:18
2	Sc 361.383	1697269.8	1697269.8	100.30	%	14:03:08
2	Y 371.029	943343.3	943343.3	98.570	%	14:03:08
2	Ag 328.068†	247249.1	241417.1	[1000]	µg/L	14:03:10
2	As 188.979†	2848.8	2853.8	[1000]	µg/L	14:03:30
2	B 249.677†	71633.5	67310.4	[1000]	µg/L	14:03:10
2	Ba 233.527†	219971.1	219468.4	[1000]	µg/L	14:03:10
2	Be 313.107†	3539239.2	3529796.4	[1000]	µg/L	14:03:08
2	Cd 226.502†	150771.2	150391.3	[1000]	µg/L	14:03:10
2	Co 228.616†	75690.7	75694.6	[1000]	µg/L	14:03:10
2	Cr 267.716†	113953.4	113287.8	[1000]	µg/L	14:03:10
2	Cu 324.752†	244569.6	240607.2	[1000]	µg/L	14:03:10
2	Mn 257.610†	762356.7	759893.6	[1000]	µg/L	14:03:10
2	Mo 202.031†	29156.4	29092.1	[1000]	µg/L	14:03:30
2	Ni 231.604†	79920.1	79758.4	[1000]	µg/L	14:03:10
2	P 214.914†	21661.3	21616.6	[5000]	µg/L	14:03:30
2	Pb 220.353†	15908.6	15744.5	[1000]	µg/L	14:03:30

2	S 181.975 Axial†	2422.7	2313.6	[2000]	µg/L	14:03:30
2	Sb 206.836†	7816.3	7715.7	[1000]	µg/L	14:03:30
2	Se 196.026†	2569.9	2542.3	[1000]	µg/L	14:03:30
2	SiO2†	105093.2	103094.5	[10695]	µg/L	14:03:10
2	Si 251.611†	327910.7	326157.4	[5000]	µg/L	14:03:10
2	Sn 189.927†	14249.2	14198.8	[1000]	µg/L	14:03:30
2	Ti 334.940†	955746.6	952042.6	[1000]	µg/L	14:03:08
2	Tl 190.801†	6944.7	7039.5	[1000]	µg/L	14:03:30
2	U 409.014†	16268.4	16631.7	[1000]	µg/L	14:03:10
2	V 292.402†	202015.2	200923.5	[1000]	µg/L	14:03:10
2	Zn 213.857†	173209.0	172079.0	[1000]	µg/L	14:03:10
3	Sc RADIAL	113957.9	113957.9	99.6	%	14:02:25
3	Al 396.153Radial†	42520.9	42766.4	[10000]	µg/L	14:02:25
3	Ca 317.933Radial†	121747.8	121750.6	[10000]	µg/L	14:02:25
3	Fe 238.204 Radial†	117098.8	117416.5	[10000]	µg/L	14:02:25
3	K 766.490 Radial†	26132.1	24821.5	[10000]	µg/L	14:02:25
3	Mg 279.077 IEC†	18381.6	18293.7	[10000]	µg/L	14:02:25
3	Na 589.592 Radial†	62818.0	62219.8	[10000]	µg/L	14:02:25
3	Sr 421.552†	388706.1	390240.0	[1000]	µg/L	14:02:22
3	Sc 361.383	1677848.1	1677848.1	99.148	%	14:03:32
3	Y 371.029	933166.9	933166.9	97.507	%	14:03:32
3	Ag 328.068†	246276.8	243290.0	[1000]	µg/L	14:03:35
3	As 188.979†	2843.5	2881.4	[1000]	µg/L	14:03:55
3	B 249.677†	71177.6	67677.3	[1000]	µg/L	14:03:35
3	Ba 233.527†	219681.3	221714.8	[1000]	µg/L	14:03:35
3	Be 313.107†	3510497.3	3541654.7	[1000]	µg/L	14:03:32
3	Cd 226.502†	150345.4	151701.8	[1000]	µg/L	14:03:35
3	Co 228.616†	75675.0	76552.3	[1000]	µg/L	14:03:35
3	Cr 267.716†	113544.7	114190.7	[1000]	µg/L	14:03:35
3	Cu 324.752†	244032.2	242887.9	[1000]	µg/L	14:03:35
3	Mn 257.610†	760280.3	766597.9	[1000]	µg/L	14:03:35
3	Mo 202.031†	29145.7	29417.8	[1000]	µg/L	14:03:55
3	Ni 231.604†	80008.0	80769.5	[1000]	µg/L	14:03:35
3	P 214.914†	21689.6	21895.2	[5000]	µg/L	14:03:55
3	Pb 220.353†	15950.0	15969.8	[1000]	µg/L	14:03:55
3	S 181.975 Axial†	2451.9	2371.0	[2000]	µg/L	14:03:55
3	Sb 206.836†	7791.6	7781.1	[1000]	µg/L	14:03:55
3	Se 196.026†	2588.0	2590.2	[1000]	µg/L	14:03:55
3	SiO2†	104932.5	104145.3	[10695]	µg/L	14:03:35
3	Si 251.611†	327564.2	329592.4	[5000]	µg/L	14:03:35
3	Sn 189.927†	14229.7	14343.6	[1000]	µg/L	14:03:55
3	Ti 334.940†	948984.7	956253.1	[1000]	µg/L	14:03:32
3	Tl 190.801†	6907.2	7081.8	[1000]	µg/L	14:03:55
3	U 409.014†	16373.1	16925.1	[1000]	µg/L	14:03:35
3	V 292.402†	201146.7	202379.1	[1000]	µg/L	14:03:35
3	Zn 213.857†	172995.9	173863.1	[1000]	µg/L	14:03:35

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1680949.4	15011.98	0.89%	99.331	%
Sc RADIAL	114668.0	643.26	0.56%	100	%
Y 371.029	934872.6	7759.83	0.83%	97.685	%
Ag 328.068†	242526.3	983.06	0.41%	[1000]	µg/L
Al 396.153Radial†	42908.0	178.94	0.42%	[10000]	µg/L
As 188.979†	2884.6	32.48	1.13%	[1000]	µg/L
B 249.677†	67482.6	184.46	0.27%	[1000]	µg/L
Ba 233.527†	220779.2	1169.24	0.53%	[1000]	µg/L
Be 313.107†	3532253.1	8445.67	0.24%	[1000]	µg/L
Ca 317.933Radial†	122279.2	457.93	0.37%	[10000]	µg/L
Cd 226.502†	151154.2	681.27	0.45%	[1000]	µg/L
Co 228.616†	76189.3	443.74	0.58%	[1000]	µg/L
Cr 267.716†	113903.3	533.40	0.47%	[1000]	µg/L
Cu 324.752†	241860.3	1156.93	0.48%	[1000]	µg/L
Fe 238.204 Radial†	117920.2	461.25	0.39%	[10000]	µg/L
K 766.490 Radial†	24915.7	97.19	0.39%	[10000]	µg/L
Mg 279.077 IEC†	18427.9	124.69	0.68%	[10000]	µg/L
Mn 257.610†	764087.0	3655.15	0.48%	[1000]	µg/L
Mo 202.031†	29387.3	281.18	0.96%	[1000]	µg/L
Na 589.592 Radial†	62517.7	304.76	0.49%	[10000]	µg/L

Ni 231.604†	80295.3	508.46	0.63%	[1000]	µg/L
P 214.914†	21858.5	225.78	1.03%	[5000]	µg/L
Pb 220.353†	15917.4	153.49	0.96%	[1000]	µg/L
S 181.975 Axial†	2352.1	33.35	1.42%	[2000]	µg/L
Sb 206.836†	7785.8	72.62	0.93%	[1000]	µg/L
Se 196.026†	2584.0	38.96	1.51%	[1000]	µg/L
SiO2†	103554.6	537.46	0.52%	[10695]	µg/L
Si 251.611†	327738.7	1733.61	0.53%	[5000]	µg/L
Sn 189.927†	14323.8	116.43	0.81%	[1000]	µg/L
Sr 421.552†	388190.3	2495.56	0.64%	[1000]	µg/L
Ti 334.940†	953632.6	2286.56	0.24%	[1000]	µg/L
Tl 190.801†	7085.8	48.40	0.68%	[1000]	µg/L
U 409.014†	16748.3	155.65	0.93%	[1000]	µg/L
V 292.402†	201954.7	897.63	0.44%	[1000]	µg/L
Zn 213.857†	173097.2	918.45	0.53%	[1000]	µg/L

Sequence No.: 5 | **Autosampler Location: 5**
Sample ID: S10 | **Date Collected: 4/13/2010 14:04:02**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	111326.0	111326.0	97.3	%	14:04:31
1	Al 396.153Radial†	205248.7	210979.2	[50000]	µg/L	14:04:31
1	Ca 317.933Radial†	590258.0	606036.7	[50000]	µg/L	14:04:31
1	Fe 238.204 Radial†	227697.9	233836.5	[20000]	µg/L	14:04:31
1	Mg 279.077 IEC†	87919.7	90180.7	[50000]	µg/L	14:04:31
1	Na 589.592 Radial†	122439.7	124972.2	[20000]	µg/L	14:04:31
1	Sc 361.383	1627528.8	1627528.8	96.175	%	14:04:53
1	Y 371.029	906736.0	906736.0	94.745	%	14:04:53
2	Sc RADIAL	110554.8	110554.8	96.6	%	14:04:33
2	Al 396.153Radial†	205614.2	212828.4	[50000]	µg/L	14:04:33
2	Ca 317.933Radial†	589278.4	609253.6	[50000]	µg/L	14:04:33
2	Fe 238.204 Radial†	227105.1	234855.2	[20000]	µg/L	14:04:33
2	Mg 279.077 IEC†	87634.1	90515.3	[50000]	µg/L	14:04:33
2	Na 589.592 Radial†	122793.8	126216.1	[20000]	µg/L	14:04:33
2	Sc 361.383	1632835.1	1632835.1	96.488	%	14:04:56
2	Y 371.029	909755.9	909755.9	95.060	%	14:04:56
3	Sc RADIAL	112055.6	112055.6	98.0	%	14:04:35
3	Al 396.153Radial†	207380.3	211781.8	[50000]	µg/L	14:04:35
3	Ca 317.933Radial†	593806.8	605710.0	[50000]	µg/L	14:04:35
3	Fe 238.204 Radial†	228996.4	233638.6	[20000]	µg/L	14:04:35
3	Mg 279.077 IEC†	88565.6	90251.7	[50000]	µg/L	14:04:35
3	Na 589.592 Radial†	123354.3	125086.6	[20000]	µg/L	14:04:35
3	Sc 361.383	1631104.2	1631104.2	96.386	%	14:04:59
3	Y 371.029	908829.1	908829.1	94.964	%	14:04:59

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1630489.4	2706.03	0.17%	96.349	%
Sc RADIAL	111312.1	750.51	0.67%	97.3	%
Y 371.029	908440.3	1547.02	0.17%	94.923	%
Al 396.153Radial†	211863.1	927.26	0.44%	[50000]	µg/L
Ca 317.933Radial†	607000.1	1958.42	0.32%	[50000]	µg/L
Fe 238.204 Radial†	234110.1	652.83	0.28%	[20000]	µg/L
Mg 279.077 IEC†	90315.9	176.28	0.20%	[50000]	µg/L
Na 589.592 Radial†	125425.0	687.53	0.55%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	242.2	0.00000	0.999991	
Al 396.153Radial	3	Lin Thru 0	0.0	4.240	0.00000	0.999994	
As 188.979	3	Lin Thru 0	0.0	2.888	0.00000	0.999997	
B 249.677	3	Lin Thru 0	0.0	67.37	0.00000	0.999994	
Ba 233.527	3	Lin Thru 0	0.0	220.9	0.00000	0.999996	
Be 313.107	3	Lin Thru 0	0.0	3532	0.00000	1.000000	
Ca 317.933Radial	3	Lin Thru 0	0.0	12.14	0.00000	0.999998	
Cd 226.502	3	Lin Thru 0	0.0	151.2	0.00000	0.999997	
Co 228.616	3	Lin Thru 0	0.0	76.29	0.00000	0.999994	
Cr 267.716	3	Lin Thru 0	0.0	113.9	0.00000	0.999997	
Cu 324.752	3	Lin Thru 0	0.0	241.6	0.00000	0.999996	
Fe 238.204 Radia	2	Lin Thru 0	0.0	11.72	0.00000	0.999996	
K 766.490 Radial	3	Lin Thru 0	0.0	2.498	0.00000	0.999982	
Mg 279.077 IEC	3	Lin Thru 0	0.0	1.808	0.00000	0.999989	
Mn 257.610	3	Lin Thru 0	0.0	765.0	0.00000	0.999989	
Mo 202.031	3	Lin Thru 0	0.0	29.46	0.00000	0.999989	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.267	0.00000	0.999999	

Ni 231.604	3	Lin Thru 0	0.0	80.41	0.00000	0.999990
P 214.914	3	Lin Thru 0	0.0	4.376	0.00000	0.999997
Pb 220.353	3	Lin Thru 0	0.0	15.96	0.00000	0.999984
S 181.975 Axial	3	Lin Thru 0	0.0	1.175	0.00000	0.999999
Sb 206.836	3	Lin Thru 0	0.0	7.801	0.00000	0.999992
Se 196.026	3	Lin Thru 0	0.0	2.586	0.00000	0.999999
SiO2	3	Lin Thru 0	0.0	9.685	0.00000	1.000000
Si 251.611	3	Lin Thru 0	0.0	65.55	0.00000	1.000000
Sn 189.927	3	Lin Thru 0	0.0	14.36	0.00000	0.999987
Sr 421.552	3	Lin Thru 0	0.0	389.3	0.00000	0.999982
Ti 334.940	3	Lin Thru 0	0.0	953.6	0.00000	1.000000
Tl 190.801	3	Lin Thru 0	0.0	7.095	0.00000	0.999995
U 409.014	3	Lin Thru 0	0.0	16.44	0.00000	0.999244
V 292.402	3	Lin Thru 0	0.0	201.7	0.00000	0.999996
Zn 213.857	3	Lin Thru 0	0.0	173.2	0.00000	0.999998

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 4/13/2010 14:05:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114679.5	114679.5	100	%			14:05:38
1	Al 396.153Radial†	22571.7	22599.3	5304.0	µg/L	5304.0	ppb	14:05:38
1	Ca 317.933Radial†	63687.7	63069.1	5193.1	µg/L	5193.1	ppb	14:05:38
1	Fe 238.204 Radial†	60965.6	60686.4	5176.8	µg/L	5176.8	ppb	14:05:38
1	K 766.490 Radial†	8120.2	6690.3	2675.0	µg/L	2675.0	ppb	14:05:38
1	Mg 279.077 IEC†	9930.8	9748.2	5400.2	µg/L	5400.2	ppb	14:05:38
1	Na 589.592 Radial†	16770.8	15892.9	2533.4	µg/L	2533.4	ppb	14:05:38
1	Sr 421.552†	213677.5	213201.3	547.63	µg/L	547.63	ppb	14:05:36
1	Sc 361.383	1688876.0	1688876.0	99.800	%			14:06:05
1	Y 371.029	946580.4	946580.4	98.908	%			14:06:05
1	Ag 328.068†	67855.6	62888.8	266.10	µg/L	266.10	ppb	14:06:05
1	As 188.979†	1375.4	1391.6	489.41	µg/L	489.41	ppb	14:06:25
1	B 249.677†	40096.8	36065.3	533.51	µg/L	533.51	ppb	14:06:05
1	Ba 233.527†	114762.7	115138.8	521.63	µg/L	521.63	ppb	14:06:05
1	Be 313.107†	932024.2	934887.1	264.84	µg/L	264.84	ppb	14:06:05
1	Cd 226.502†	77949.4	78170.4	516.56	µg/L	516.56	ppb	14:06:05
1	Co 228.616†	40261.9	40569.7	532.13	µg/L	532.13	ppb	14:06:05
1	Cr 267.716†	57854.0	57640.5	506.11	µg/L	506.11	ppb	14:06:05
1	Cu 324.752†	129322.9	126341.2	524.63	µg/L	524.63	ppb	14:06:05
1	Mn 257.610†	400247.6	400835.6	523.72	µg/L	523.72	ppb	14:06:05
1	Mo 202.031†	16189.4	16243.5	551.88	µg/L	551.88	ppb	14:06:25
1	Ni 231.604†	40843.7	40999.6	509.86	µg/L	509.86	ppb	14:06:05
1	P 214.914†	11171.5	11213.1	2553.0	µg/L	2553.0	ppb	14:06:25
1	Pb 220.353†	8354.8	8254.3	518.94	µg/L	518.94	ppb	14:06:25
1	S 181.975 Axial†	3060.5	2964.7	2527.2	µg/L	2527.2	ppb	14:06:25
1	Sb 206.836†	4037.3	3967.9	510.49	µg/L	510.49	ppb	14:06:25
1	Se 196.026†	6624.7	6618.0	2560	µg/L	2560	ppb	14:06:25
1	SiO2†	103682.7	102201.9	10530	µg/L	10530	ppb	14:06:05
1	Si 251.611†	322867.9	322729.4	4912.1	µg/L	4912.1	ppb	14:06:05
1	Sn 189.927†	7746.8	7754.0	541.65	µg/L	541.65	ppb	14:06:25
1	Ti 334.940†	480246.9	480324.6	503.05	µg/L	503.05	ppb	14:06:05
1	Tl 190.801†	3708.5	3831.2	547.46	µg/L	547.46	ppb	14:06:25
1	U 409.014†	7137.8	7563.4	491.28	µg/L	491.28	ppb	14:06:05
1	V 292.402†	103677.1	103389.1	519.79	µg/L	519.79	ppb	14:06:05
1	Zn 213.857†	90749.6	90312.4	517.37	µg/L	517.37	ppb	14:06:05
2	Sc RADIAL	114636.8	114636.8	100	%			14:05:42
2	Al 396.153Radial†	22462.2	22498.4	5280.2	µg/L	5280.2	ppb	14:05:42
2	Ca 317.933Radial†	63786.8	63191.7	5203.2	µg/L	5203.2	ppb	14:05:42
2	Fe 238.204 Radial†	61338.3	61080.9	5210.4	µg/L	5210.4	ppb	14:05:42
2	K 766.490 Radial†	7948.7	6522.2	2607.7	µg/L	2607.7	ppb	14:05:42
2	Mg 279.077 IEC†	10015.9	9836.8	5449.2	µg/L	5449.2	ppb	14:05:42
2	Na 589.592 Radial†	17084.5	16212.2	2584.4	µg/L	2584.4	ppb	14:05:42
2	Sr 421.552†	211595.0	211202.6	542.49	µg/L	542.49	ppb	14:05:40
2	Sc 361.383	1686369.4	1686369.4	99.652	%			14:06:28
2	Y 371.029	945099.5	945099.5	98.753	%			14:06:28
2	Ag 328.068†	68737.2	63874.5	270.15	µg/L	270.15	ppb	14:06:28
2	As 188.979†	1366.7	1384.9	487.07	µg/L	487.07	ppb	14:06:48
2	B 249.677†	40112.6	36141.0	534.63	µg/L	534.63	ppb	14:06:28
2	Ba 233.527†	114539.2	115085.6	521.39	µg/L	521.39	ppb	14:06:28
2	Be 313.107†	931472.8	935721.9	265.07	µg/L	265.07	ppb	14:06:28
2	Cd 226.502†	77546.0	77881.7	514.65	µg/L	514.65	ppb	14:06:28
2	Co 228.616†	40235.3	40603.0	532.57	µg/L	532.57	ppb	14:06:28
2	Cr 267.716†	57690.5	57562.5	505.42	µg/L	505.42	ppb	14:06:28
2	Cu 324.752†	129289.7	126500.4	525.29	µg/L	525.29	ppb	14:06:28
2	Mn 257.610†	399527.2	400708.7	523.55	µg/L	523.55	ppb	14:06:28
2	Mo 202.031†	16173.8	16252.0	552.17	µg/L	552.17	ppb	14:06:48
2	Ni 231.604†	40988.7	41205.9	512.43	µg/L	512.43	ppb	14:06:28
2	P 214.914†	11159.0	11217.2	2553.9	µg/L	2553.9	ppb	14:06:48
2	Pb 220.353†	8355.7	8267.7	519.78	µg/L	519.78	ppb	14:06:48

2	S 181.975 Axial†	3046.5	2955.2	2519.1 µg/L	2519.1 ppb	14:06:48
2	Sb 206.836†	4038.6	3975.2	511.43 µg/L	511.43 ppb	14:06:48
2	Se 196.026†	6613.8	6617.0	2560 µg/L	2560 ppb	14:06:48
2	SiO2†	103340.4	102012.9	10510 µg/L	10510 ppb	14:06:28
2	Si 251.611†	322880.2	323222.6	4919.7 µg/L	4919.7 ppb	14:06:28
2	Sn 189.927†	7743.2	7761.9	542.20 µg/L	542.20 ppb	14:06:48
2	Ti 334.940†	479937.5	480729.5	503.48 µg/L	503.48 ppb	14:06:28
2	Tl 190.801†	3722.2	3850.4	550.17 µg/L	550.17 ppb	14:06:48
2	U 409.014†	7060.5	7496.5	487.11 µg/L	487.11 ppb	14:06:28
2	V 292.402†	103192.9	103057.7	518.14 µg/L	518.14 ppb	14:06:28
2	Zn 213.857†	90838.9	90537.1	518.65 µg/L	518.65 ppb	14:06:28
3	Sc RADIAL	114430.7	114430.7	100 %		14:05:46
3	Al 396.153Radial†	22424.7	22501.3	5280.7 µg/L	5280.7 ppb	14:05:46
3	Ca 317.933Radial†	63949.3	63468.7	5226.0 µg/L	5226.0 ppb	14:05:46
3	Fe 238.204 Radial†	61429.3	61282.2	5227.6 µg/L	5227.6 ppb	14:05:46
3	K 766.490 Radial†	8032.3	6620.1	2646.8 µg/L	2646.8 ppb	14:05:46
3	Mg 279.077 IEC†	9978.9	9817.9	5438.8 µg/L	5438.8 ppb	14:05:46
3	Na 589.592 Radial†	17114.3	16272.6	2594.1 µg/L	2594.1 ppb	14:05:46
3	Sr 421.552†	214292.0	214278.9	550.39 µg/L	550.39 ppb	14:05:44
3	Sc 361.383	1674918.8	1674918.8	98.975 %		14:06:51
3	Y 371.029	939425.7	939425.7	98.161 %		14:06:51
3	Ag 328.068†	67277.9	62871.7	265.99 µg/L	265.99 ppb	14:06:51
3	As 188.979†	1367.5	1395.1	490.63 µg/L	490.63 ppb	14:07:11
3	B 249.677†	39754.0	36053.8	533.34 µg/L	533.34 ppb	14:06:51
3	Ba 233.527†	113771.7	115095.9	521.44 µg/L	521.44 ppb	14:06:51
3	Be 313.107†	923054.0	933606.2	264.48 µg/L	264.48 ppb	14:06:51
3	Cd 226.502†	77072.1	77934.9	515.00 µg/L	515.00 ppb	14:06:51
3	Co 228.616†	39880.0	40520.0	531.48 µg/L	531.48 ppb	14:06:51
3	Cr 267.716†	57292.2	57555.9	505.37 µg/L	505.37 ppb	14:06:51
3	Cu 324.752†	128101.8	126187.2	524.00 µg/L	524.00 ppb	14:06:51
3	Mn 257.610†	395412.4	399292.2	521.70 µg/L	521.70 ppb	14:06:51
3	Mo 202.031†	16159.2	16348.2	555.43 µg/L	555.43 ppb	14:07:11
3	Ni 231.604†	40472.1	40965.2	509.44 µg/L	509.44 ppb	14:06:51
3	P 214.914†	11108.8	11243.1	2559.8 µg/L	2559.8 ppb	14:07:11
3	Pb 220.353†	8339.6	8308.7	522.36 µg/L	522.36 ppb	14:07:11
3	S 181.975 Axial†	3051.0	2980.7	2540.8 µg/L	2540.8 ppb	14:07:11
3	Sb 206.836†	4026.5	3990.7	513.47 µg/L	513.47 ppb	14:07:11
3	Se 196.026†	6591.2	6639.5	2570 µg/L	2570 ppb	14:07:11
3	SiO2†	102622.4	101996.4	10508 µg/L	10508 ppb	14:06:51
3	Si 251.611†	320030.8	322558.8	4909.5 µg/L	4909.5 ppb	14:06:51
3	Sn 189.927†	7712.8	7784.2	543.76 µg/L	543.76 ppb	14:07:11
3	Ti 334.940†	475445.5	479483.5	502.17 µg/L	502.17 ppb	14:06:51
3	Tl 190.801†	3705.9	3859.5	551.42 µg/L	551.42 ppb	14:07:11
3	U 409.014†	7019.8	7503.7	487.47 µg/L	487.47 ppb	14:06:51
3	V 292.402†	102240.5	102803.4	516.91 µg/L	516.91 ppb	14:06:51
3	Zn 213.857†	89776.9	90087.4	516.07 µg/L	516.07 ppb	14:06:51

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1683388.1	99.475	%	0.4397				0.44%
Sc RADIAL	114582.3	100	%	0.1				0.12%
Y 371.029	943701.9	98.607	%	0.3946				0.40%
Ag 328.068†	63211.7	267.41	µg/L	2.368	267.41	ppb	2.368	0.89%
QC value within limits for Ag 328.068 Recovery = 106.96%								
Al 396.153Radial†	22533.0	5288.3	µg/L	13.59	5288.3	ppb	13.59	0.26%
QC value within limits for Al 396.153Radial Recovery = 105.77%								
As 188.979†	1390.5	489.04	µg/L	1.806	489.04	ppb	1.806	0.37%
QC value within limits for As 188.979 Recovery = 97.81%								
B 249.677†	36086.7	533.83	µg/L	0.701	533.83	ppb	0.701	0.13%
QC value within limits for B 249.677 Recovery = 106.77%								
Ba 233.527†	115106.8	521.49	µg/L	0.129	521.49	ppb	0.129	0.02%
QC value within limits for Ba 233.527 Recovery = 104.30%								
Be 313.107†	934738.4	264.80	µg/L	0.302	264.80	ppb	0.302	0.11%
QC value within limits for Be 313.107 Recovery = 105.92%								
Ca 317.933Radial†	63243.2	5207.4	µg/L	16.86	5207.4	ppb	16.86	0.32%
QC value within limits for Ca 317.933Radial Recovery = 104.15%								
Cd 226.502†	77995.7	515.41	µg/L	1.018	515.41	ppb	1.018	0.20%
QC value within limits for Cd 226.502 Recovery = 103.08%								
Co 228.616†	40564.3	532.06	µg/L	0.548	532.06	ppb	0.548	0.10%

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   QC value within limits for Co 228.616  Recovery = 106.41%
Cr 267.716†            57586.3      505.63 µg/L         0.411      505.63 ppb          0.411   0.08%
   QC value within limits for Cr 267.716  Recovery = 101.13%
Cu 324.752†           126342.9      524.64 µg/L         0.647      524.64 ppb          0.647   0.12%
   QC value within limits for Cu 324.752  Recovery = 104.93%
Fe 238.204 Radial†     61016.5      5204.9 µg/L         25.85      5204.9 ppb          25.85   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.10%
K 766.490 Radial†       6610.8      2643.2 µg/L         33.79      2643.2 ppb          33.79   1.28%
   QC value within limits for K 766.490 Radial  Recovery = 105.73%
Mg 279.077 IEC†         9800.9      5429.4 µg/L         25.81      5429.4 ppb          25.81   0.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.59%
Mn 257.610†           400278.8      522.99 µg/L         1.120      522.99 ppb          1.120   0.21%
   QC value within limits for Mn 257.610  Recovery = 104.60%
Mo 202.031†            16281.2      553.16 µg/L         1.974      553.16 ppb          1.974   0.36%
   QC value greater than the upper limit for Mo 202.031  Recovery = 110.63%
Na 589.592 Radial†     16125.9      2570.6 µg/L         32.57      2570.6 ppb          32.57   1.27%
   QC value within limits for Na 589.592 Radial  Recovery = 102.83%
Ni 231.604†            41056.9      510.58 µg/L         1.619      510.58 ppb          1.619   0.32%
   QC value within limits for Ni 231.604  Recovery = 102.12%
P 214.914†             11224.5      2555.6 µg/L          3.69      2555.6 ppb           3.69   0.14%
   QC value within limits for P 214.914  Recovery = 102.22%
Pb 220.353†             8276.9      520.36 µg/L         1.781      520.36 ppb          1.781   0.34%
   QC value within limits for Pb 220.353  Recovery = 104.07%
S 181.975 Axial†        2966.9      2529.1 µg/L         10.97      2529.1 ppb          10.97   0.43%
   QC value within limits for S 181.975 Axial  Recovery = 101.16%
Sb 206.836†             3977.9      511.79 µg/L         1.524      511.79 ppb          1.524   0.30%
   QC value within limits for Sb 206.836  Recovery = 102.36%
Se 196.026†             6624.8        2560 µg/L           4.9        2560 ppb            4.9   0.19%
   QC value within limits for Se 196.026  Recovery = 102.56%
SiO2†                 102070.4       10516 µg/L          11.8       10516 ppb           11.8   0.11%
   QC value within limits for SiO2  Recovery = 98.33%
Si 251.611†           322836.9      4913.8 µg/L          5.28      4913.8 ppb           5.28   0.11%
   QC value within limits for Si 251.611  Recovery = 98.28%
Sn 189.927†             7766.7      542.54 µg/L         1.092      542.54 ppb          1.092   0.20%
   QC value within limits for Sn 189.927  Recovery = 108.51%
Sr 421.552†           212894.3      546.84 µg/L         4.010      546.84 ppb          4.010   0.73%
   QC value within limits for Sr 421.552  Recovery = 109.37%
Ti 334.940†           480179.2      502.90 µg/L         0.666      502.90 ppb          0.666   0.13%
   QC value within limits for Ti 334.940  Recovery = 100.58%
Tl 190.801†             3847.0      549.69 µg/L         2.024      549.69 ppb          2.024   0.37%
   QC value within limits for Tl 190.801  Recovery = 109.94%
U 409.014†              7521.2      488.62 µg/L         2.313      488.62 ppb          2.313   0.47%
   QC value within limits for U 409.014  Recovery = 97.72%
V 292.402†            103083.4      518.28 µg/L         1.444      518.28 ppb          1.444   0.28%
   QC value within limits for V 292.402  Recovery = 103.66%
Zn 213.857†            90312.3      517.36 µg/L         1.289      517.36 ppb          1.289   0.25%
   QC value within limits for Zn 213.857  Recovery = 103.47%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 4/13/2010 14:07:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114752.6	114752.6	100	%			14:07:48
1	Al 396.153Radial†	-96.4	-11.1	-2.6301	µg/L	-2.6301	ppb	14:08:08
1	Ca 317.933Radial†	472.7	14.4	1.1879	µg/L	1.1879	ppb	14:08:08
1	Fe 238.204 Radial†	117.5	-7.1	-0.6073	µg/L	-0.6073	ppb	14:08:08
1	K 766.490 Radial†	1351.1	-62.5	-25.010	µg/L	-25.010	ppb	14:07:48
1	Mg 279.077 IEC†	148.2	-9.7	-5.3294	µg/L	-5.3294	ppb	14:08:08
1	Na 589.592 Radial†	797.3	-40.6	-6.4518	µg/L	-6.4518	ppb	14:07:48
1	Sr 421.552†	41.2	107.8	0.2770	µg/L	0.2770	ppb	14:07:48
1	Sc 361.383	1690118.5	1690118.5	99.873	%			14:08:56
1	Y 371.029	956294.5	956294.5	99.923	%			14:08:56
1	Ag 328.068†	5093.0	-3.5	-0.0196	µg/L	-0.0196	ppb	14:08:58
1	As 188.979†	-8.7	4.7	1.6152	µg/L	1.6152	ppb	14:09:18
1	B 249.677†	4278.5	172.0	2.5526	µg/L	2.5526	ppb	14:08:58
1	Ba 233.527†	-140.1	5.6	0.0252	µg/L	0.0252	ppb	14:09:18
1	Be 313.107†	-703.0	288.4	0.0821	µg/L	0.0821	ppb	14:08:58
1	Cd 226.502†	-36.2	28.3	0.1876	µg/L	0.1876	ppb	14:09:18
1	Co 228.616†	-224.7	2.0	0.0268	µg/L	0.0268	ppb	14:09:18
1	Cr 267.716†	311.9	-17.4	-0.1538	µg/L	-0.1538	ppb	14:09:18
1	Cu 324.752†	3170.8	-66.4	-0.2739	µg/L	-0.2739	ppb	14:08:58
1	Mn 257.610†	179.3	-35.8	-0.0466	µg/L	-0.0466	ppb	14:09:18
1	Mo 202.031†	-10.7	10.9	0.3702	µg/L	0.3702	ppb	14:09:18
1	Ni 231.604†	-56.8	17.0	0.2117	µg/L	0.2117	ppb	14:09:18
1	P 214.914†	-17.8	1.4	0.3160	µg/L	0.3160	ppb	14:09:18
1	Pb 220.353†	140.6	23.5	1.4747	µg/L	1.4747	ppb	14:09:18
1	S 181.975 Axial†	102.2	0.4	0.3564	µg/L	0.3564	ppb	14:09:18
1	Sb 206.836†	91.6	14.2	1.8263	µg/L	1.8263	ppb	14:09:18
1	Se 196.026†	30.5	10.6	4.09	µg/L	4.09	ppb	14:09:18
1	SiO2†	1732.4	45.7	4.7038	µg/L	4.7038	ppb	14:08:58
1	Si 251.611†	790.9	5.3	0.0730	µg/L	0.0730	ppb	14:08:58
1	Sn 189.927†	16.3	7.9	0.5464	µg/L	0.5464	ppb	14:09:18
1	Ti 334.940†	673.9	-211.3	-0.2217	µg/L	-0.2217	ppb	14:08:58
1	Tl 190.801†	-91.2	24.0	3.3695	µg/L	3.3695	ppb	14:09:18
1	U 409.014†	-386.7	24.0	1.4281	µg/L	1.4281	ppb	14:08:58
1	V 292.402†	378.6	-116.9	-0.5753	µg/L	-0.5753	ppb	14:08:58
1	Zn 213.857†	620.9	2.4	0.0125	µg/L	0.0125	ppb	14:09:18
2	Sc RADIAL	115224.8	115224.8	101	%			14:08:10
2	Al 396.153Radial†	-102.3	-16.6	-3.9252	µg/L	-3.9252	ppb	14:08:30
2	Ca 317.933Radial†	446.7	-13.3	-1.0910	µg/L	-1.0910	ppb	14:08:30
2	Fe 238.204 Radial†	120.7	-4.4	-0.3793	µg/L	-0.3793	ppb	14:08:30
2	K 766.490 Radial†	1465.3	45.4	18.171	µg/L	18.171	ppb	14:08:10
2	Mg 279.077 IEC†	146.3	-12.1	-6.6654	µg/L	-6.6654	ppb	14:08:30
2	Na 589.592 Radial†	1001.0	158.4	25.263	µg/L	25.263	ppb	14:08:10
2	Sr 421.552†	8.3	75.0	0.1926	µg/L	0.1926	ppb	14:08:10
2	Sc 361.383	1699339.5	1699339.5	100.42	%			14:09:20
2	Y 371.029	960943.9	960943.9	100.41	%			14:09:20
2	Ag 328.068†	5151.2	26.8	0.1058	µg/L	0.1058	ppb	14:09:22
2	As 188.979†	-15.4	-1.9	-0.6530	µg/L	-0.6530	ppb	14:09:42
2	B 249.677†	4295.4	165.6	2.4585	µg/L	2.4585	ppb	14:09:22
2	Ba 233.527†	-146.8	-0.3	-0.0013	µg/L	-0.0013	ppb	14:09:42
2	Be 313.107†	-932.7	63.5	0.0169	µg/L	0.0169	ppb	14:09:22
2	Cd 226.502†	-71.0	-6.1	-0.0403	µg/L	-0.0403	ppb	14:09:42
2	Co 228.616†	-241.1	-13.0	-0.1706	µg/L	-0.1706	ppb	14:09:42
2	Cr 267.716†	292.6	-38.2	-0.3329	µg/L	-0.3329	ppb	14:09:42
2	Cu 324.752†	3256.0	1.2	0.0017	µg/L	0.0017	ppb	14:09:22
2	Mn 257.610†	232.7	16.3	0.0216	µg/L	0.0216	ppb	14:09:42
2	Mo 202.031†	-12.9	8.8	0.2980	µg/L	0.2980	ppb	14:09:42
2	Ni 231.604†	-80.4	-6.1	-0.0761	µg/L	-0.0761	ppb	14:09:42
2	P 214.914†	9.3	28.5	6.5043	µg/L	6.5043	ppb	14:09:42
2	Pb 220.353†	121.4	3.7	0.2341	µg/L	0.2341	ppb	14:09:42

2	S 181.975 Axial†	100.9	-1.4	-1.2155 µg/L	-1.2155 ppb	14:09:42
2	Sb 206.836†	87.8	9.9	1.2793 µg/L	1.2793 ppb	14:09:42
2	Se 196.026†	32.1	12.0	4.64 µg/L	4.64 ppb	14:09:42
2	SiO2†	1730.1	34.0	3.4978 µg/L	3.4978 ppb	14:09:22
2	Si 251.611†	838.8	48.8	0.7359 µg/L	0.7359 ppb	14:09:22
2	Sn 189.927†	16.9	8.4	0.5846 µg/L	0.5846 ppb	14:09:42
2	Ti 334.940†	606.9	-281.7	-0.2934 µg/L	-0.2934 ppb	14:09:22
2	Tl 190.801†	-101.3	14.3	2.0167 µg/L	2.0167 ppb	14:09:42
2	U 409.014†	-470.4	-57.2	-3.4824 µg/L	-3.4824 ppb	14:09:22
2	V 292.402†	488.4	-9.6	-0.0482 µg/L	-0.0482 ppb	14:09:22
2	Zn 213.857†	596.9	-24.9	-0.1432 µg/L	-0.1432 ppb	14:09:42
3	Sc RADIAL	115162.2	115162.2	101 %		14:08:32
3	Al 396.153Radial†	-84.8	0.8	0.1725 µg/L	0.1725 ppb	14:08:52
3	Ca 317.933Radial†	466.4	6.5	0.5356 µg/L	0.5356 ppb	14:08:52
3	Fe 238.204 Radial†	108.8	-16.2	-1.3812 µg/L	-1.3812 ppb	14:08:52
3	K 766.490 Radial†	1435.6	16.7	6.6830 µg/L	6.6830 ppb	14:08:32
3	Mg 279.077 IEC†	149.6	-8.7	-4.8230 µg/L	-4.8230 ppb	14:08:52
3	Na 589.592 Radial†	785.9	-54.6	-8.7235 µg/L	-8.7235 ppb	14:08:32
3	Sr 421.552†	-180.5	-112.6	-0.2893 µg/L	-0.2893 ppb	14:08:32
3	Sc 361.383	1681677.0	1681677.0	99.374 %		14:09:45
3	Y 371.029	951126.6	951126.6	99.383 %		14:09:45
3	Ag 328.068†	5160.5	90.0	0.3715 µg/L	0.3715 ppb	14:09:47
3	As 188.979†	-11.6	1.7	0.6009 µg/L	0.6009 ppb	14:10:07
3	B 249.677†	4146.2	60.3	0.8958 µg/L	0.8958 ppb	14:09:47
3	Ba 233.527†	-168.9	-24.1	-0.1094 µg/L	-0.1094 ppb	14:10:07
3	Be 313.107†	-758.5	229.0	0.0662 µg/L	0.0662 ppb	14:09:47
3	Cd 226.502†	-56.0	8.3	0.0547 µg/L	0.0547 ppb	14:10:07
3	Co 228.616†	-231.7	-6.1	-0.0798 µg/L	-0.0798 ppb	14:10:07
3	Cr 267.716†	301.6	-26.2	-0.2334 µg/L	-0.2334 ppb	14:10:07
3	Cu 324.752†	3110.9	-110.8	-0.4556 µg/L	-0.4556 ppb	14:09:47
3	Mn 257.610†	215.0	1.0	0.0015 µg/L	0.0015 ppb	14:10:07
3	Mo 202.031†	-15.6	6.0	0.2022 µg/L	0.2022 ppb	14:10:07
3	Ni 231.604†	-81.9	-8.5	-0.1052 µg/L	-0.1052 ppb	14:10:07
3	P 214.914†	-9.5	9.6	2.2032 µg/L	2.2032 ppb	14:10:07
3	Pb 220.353†	118.0	1.5	0.0910 µg/L	0.0910 ppb	14:10:07
3	S 181.975 Axial†	105.4	4.2	3.5347 µg/L	3.5347 ppb	14:10:07
3	Sb 206.836†	85.9	8.9	1.1434 µg/L	1.1434 ppb	14:10:07
3	Se 196.026†	20.0	0.1	0.045 µg/L	0.045 ppb	14:10:07
3	SiO2†	1865.0	187.8	19.385 µg/L	19.385 ppb	14:09:47
3	Si 251.611†	680.5	-101.7	-1.5566 µg/L	-1.5566 ppb	14:09:47
3	Sn 189.927†	14.0	5.7	0.3944 µg/L	0.3944 ppb	14:10:07
3	Ti 334.940†	827.1	-53.8	-0.0577 µg/L	-0.0577 ppb	14:09:47
3	Tl 190.801†	-105.3	9.2	1.2991 µg/L	1.2991 ppb	14:10:07
3	U 409.014†	-336.9	72.2	4.3643 µg/L	4.3643 ppb	14:09:47
3	V 292.402†	402.5	-90.9	-0.4466 µg/L	-0.4466 ppb	14:09:47
3	Zn 213.857†	594.5	-21.1	-0.1205 µg/L	-0.1205 ppb	14:10:07

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1690378.3	99.888	%	0.5220				0.52%
Sc RADIAL	115046.5	101	%	0.2				0.22%
Y 371.029	956121.7	99.905	%	0.5131				0.51%
Ag 328.068†	37.8	0.1526	µg/L	0.19970	0.1526	ppb	0.19970	130.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.0	-2.1276	µg/L	2.09452	-2.1276	ppb	2.09452	98.45%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.5	0.5210	µg/L	1.13621	0.5210	ppb	1.13621	218.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	132.6	1.9690	µg/L	0.93057	1.9690	ppb	0.93057	47.26%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.3	-0.0285	µg/L	0.07128	-0.0285	ppb	0.07128	250.30%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.7	0.0551	µg/L	0.03397	0.0551	ppb	0.03397	61.69%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.6	0.2108	µg/L	1.17364	0.2108	ppb	1.17364	556.76%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.2	0.0673	µg/L	0.11443	0.0673	ppb	0.11443	169.97%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-5.7	-0.0745	µg/L	0.09879	-0.0745	ppb	0.09879	132.58%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -27.2     -0.2400 µg/L       0.08975     -0.2400 ppb        0.08975  37.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -58.7     -0.2426 µg/L       0.23027     -0.2426 ppb        0.23027  94.92%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -9.3     -0.7893 µg/L       0.52511     -0.7893 ppb        0.52511  66.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -0.1     -0.0519 µg/L      22.36431     -0.0519 ppb       22.36431 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -10.2     -5.6059 µg/L       0.95179     -5.6059 ppb        0.95179  16.98%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -6.2     -0.0078 µg/L       0.03504     -0.0078 ppb        0.03504 447.36%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                8.6      0.2901 µg/L       0.08425      0.2901 ppb        0.08425  29.04%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        21.1      3.3625 µg/L      19.00019      3.3625 ppb       19.00019 565.06%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                0.8      0.0101 µg/L       0.17516      0.0101 ppb        0.17516 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                13.1      3.0078 µg/L       3.17165      3.0078 ppb        3.17165 105.45%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                9.6      0.5999 µg/L       0.76094      0.5999 ppb        0.76094 126.84%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.0      0.8919 µg/L       2.41996      0.8919 ppb        2.41996 271.33%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               11.0      1.4163 µg/L       0.36149      1.4163 ppb        0.36149  25.52%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                7.6         2.92 µg/L        2.507         2.92 ppb          2.507  85.78%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     89.2      9.1955 µg/L       8.84473      9.1955 ppb        8.84473  96.19%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -15.9     -0.2492 µg/L       1.17974     -0.2492 ppb        1.17974 473.37%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                7.3      0.5085 µg/L       0.10059      0.5085 ppb        0.10059  19.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               23.4      0.0601 µg/L       0.30548      0.0601 ppb        0.30548 508.19%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -182.3     -0.1909 µg/L       0.12080     -0.1909 ppb        0.12080  63.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               15.8      2.2284 µg/L       1.05127      2.2284 ppb        1.05127  47.18%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                13.0      0.7700 µg/L       3.96451      0.7700 ppb        3.96451 514.87%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -72.5     -0.3567 µg/L       0.27480     -0.3567 ppb        0.27480  77.04%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -14.5     -0.0837 µg/L       0.08412     -0.0837 ppb        0.08412 100.47%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 4/13/2010 14:10:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	115870.6	115870.6	101	%			14:10:45
1	Al 396.153Radial†	810.3	884.9	208.26	µg/L	208.26	ppb	14:11:05
1	Ca 317.933Radial†	3005.7	2510.5	206.72	µg/L	206.72	ppb	14:11:05
1	Fe 238.204 Radial†	1327.6	1186.3	101.20	µg/L	101.20	ppb	14:11:05
1	K 766.490 Radial†	1865.8	432.7	173.03	µg/L	173.03	ppb	14:10:45
1	Mg 279.077 IEC†	734.6	567.9	314.21	µg/L	314.21	ppb	14:11:05
1	Na 589.592 Radial†	2899.0	2026.6	323.20	µg/L	323.20	ppb	14:10:45
1	Sr 421.552†	1997.7	2038.9	5.2358	µg/L	5.2358	ppb	14:10:45
1	Sc 361.383	1663979.2	1663979.2	98.328	%			14:12:07
1	Y 371.029	940482.1	940482.1	98.271	%			14:12:07
1	Ag 328.068†	6281.2	1285.0	5.4473	µg/L	5.4473	ppb	14:12:09
1	As 188.979†	77.0	91.8	31.866	µg/L	31.866	ppb	14:12:29
1	B 249.677†	7449.1	3463.8	51.400	µg/L	51.400	ppb	14:12:09
1	Ba 233.527†	997.0	1159.8	5.2549	µg/L	5.2549	ppb	14:12:29
1	Be 313.107†	16414.0	17685.4	5.0292	µg/L	5.0292	ppb	14:12:09
1	Cd 226.502†	694.9	771.3	5.0916	µg/L	5.0916	ppb	14:12:29
1	Co 228.616†	150.7	380.3	4.9857	µg/L	4.9857	ppb	14:12:29
1	Cr 267.716†	871.9	557.1	4.8352	µg/L	4.8352	ppb	14:12:29
1	Cu 324.752†	5546.8	2399.8	10.021	µg/L	10.021	ppb	14:12:09
1	Mn 257.610†	8170.6	8094.2	10.567	µg/L	10.567	ppb	14:12:09
1	Mo 202.031†	246.2	272.0	9.2460	µg/L	9.2460	ppb	14:12:29
1	Ni 231.604†	310.8	390.0	4.8505	µg/L	4.8505	ppb	14:12:29
1	P 214.914†	654.2	684.5	156.27	µg/L	156.27	ppb	14:12:29
1	Pb 220.353†	292.0	179.7	11.245	µg/L	11.245	ppb	14:12:29
1	S 181.975 Axial†	233.2	135.2	115.12	µg/L	115.12	ppb	14:12:29
1	Sb 206.836†	145.2	70.1	9.0722	µg/L	9.0722	ppb	14:12:29
1	Se 196.026†	105.9	87.7	34.0	µg/L	34.0	ppb	14:12:29
1	SiO2†	3856.6	2233.3	230.19	µg/L	230.19	ppb	14:12:09
1	Si 251.611†	7085.3	6419.3	97.730	µg/L	97.730	ppb	14:12:09
1	Sn 189.927†	157.2	151.4	10.562	µg/L	10.562	ppb	14:12:29
1	Ti 334.940†	5444.4	4650.9	4.8259	µg/L	4.8259	ppb	14:12:09
1	Tl 190.801†	37.7	153.6	21.740	µg/L	21.740	ppb	14:12:29
1	U 409.014†	766.1	1190.4	72.728	µg/L	72.728	ppb	14:12:09
1	V 292.402†	1492.2	1021.6	5.2151	µg/L	5.2151	ppb	14:12:09
1	Zn 213.857†	2410.7	1832.3	10.533	µg/L	10.533	ppb	14:12:29
2	Sc RADIAL	114830.0	114830.0	100	%			14:11:07
2	Al 396.153Radial†	801.1	883.0	207.77	µg/L	207.77	ppb	14:11:27
2	Ca 317.933Radial†	3001.9	2533.6	208.61	µg/L	208.61	ppb	14:11:27
2	Fe 238.204 Radial†	1321.5	1192.1	101.69	µg/L	101.69	ppb	14:11:27
2	K 766.490 Radial†	1794.4	378.2	151.23	µg/L	151.23	ppb	14:11:07
2	Mg 279.077 IEC†	716.3	556.2	307.76	µg/L	307.76	ppb	14:11:27
2	Na 589.592 Radial†	2678.4	1832.8	292.30	µg/L	292.30	ppb	14:11:07
2	Sr 421.552†	1964.0	2023.2	5.1955	µg/L	5.1955	ppb	14:11:07
2	Sc 361.383	1688831.4	1688831.4	99.797	%			14:12:31
2	Y 371.029	954649.8	954649.8	99.751	%			14:12:31
2	Ag 328.068†	6438.1	1348.2	5.6926	µg/L	5.6926	ppb	14:12:33
2	As 188.979†	69.6	83.2	28.900	µg/L	28.900	ppb	14:12:54
2	B 249.677†	7355.1	3258.2	48.348	µg/L	48.348	ppb	14:12:33
2	Ba 233.527†	982.1	1130.0	5.1198	µg/L	5.1198	ppb	14:12:54
2	Be 313.107†	16510.6	17536.5	4.9848	µg/L	4.9848	ppb	14:12:33
2	Cd 226.502†	697.0	763.0	5.0369	µg/L	5.0369	ppb	14:12:54
2	Co 228.616†	147.7	375.1	4.9173	µg/L	4.9173	ppb	14:12:54
2	Cr 267.716†	877.7	549.9	4.7778	µg/L	4.7778	ppb	14:12:54
2	Cu 324.752†	5271.6	2041.0	8.5292	µg/L	8.5292	ppb	14:12:33
2	Mn 257.610†	8117.5	7918.7	10.338	µg/L	10.338	ppb	14:12:33
2	Mo 202.031†	277.7	299.8	10.189	µg/L	10.189	ppb	14:12:54
2	Ni 231.604†	328.3	402.8	5.0097	µg/L	5.0097	ppb	14:12:54
2	P 214.914†	622.9	643.3	146.87	µg/L	146.87	ppb	14:12:54
2	Pb 220.353†	276.3	159.7	9.9965	µg/L	9.9965	ppb	14:12:54

2	S 181.975 Axial†	242.7	141.3	120.32 µg/L	120.32 ppb	14:12:54
2	Sb 206.836†	142.1	64.8	8.4020 µg/L	8.4020 ppb	14:12:54
2	Se 196.026†	103.9	84.1	32.6 µg/L	32.6 ppb	14:12:54
2	SiO2†	3818.6	2137.5	220.27 µg/L	220.27 ppb	14:12:33
2	Si 251.611†	7271.2	6499.4	98.941 µg/L	98.941 ppb	14:12:33
2	Sn 189.927†	158.2	150.1	10.468 µg/L	10.468 ppb	14:12:54
2	Ti 334.940†	5403.6	4528.5	4.7012 µg/L	4.7012 ppb	14:12:33
2	Tl 190.801†	23.4	138.7	19.626 µg/L	19.626 ppb	14:12:54
2	U 409.014†	654.1	1066.7	65.171 µg/L	65.171 ppb	14:12:33
2	V 292.402†	1405.2	912.0	4.6765 µg/L	4.6765 ppb	14:12:33
2	Zn 213.857†	2428.9	1814.5	10.430 µg/L	10.430 ppb	14:12:54
3	Sc RADIAL	114031.0	114031.0	99.7 %		14:11:29
3	Al 396.153Radial†	807.5	895.0	210.59 µg/L	210.59 ppb	14:11:49
3	Ca 317.933Radial†	3028.5	2581.3	212.54 µg/L	212.54 ppb	14:11:49
3	Fe 238.204 Radial†	1319.5	1199.4	102.31 µg/L	102.31 ppb	14:11:49
3	K 766.490 Radial†	1896.1	492.8	197.09 µg/L	197.09 ppb	14:11:29
3	Mg 279.077 IEC†	715.3	560.2	310.00 µg/L	310.00 ppb	14:11:49
3	Na 589.592 Radial†	2713.5	1886.7	300.87 µg/L	300.87 ppb	14:11:29
3	Sr 421.552†	2035.6	2108.7	5.4150 µg/L	5.4150 ppb	14:11:29
3	Sc 361.383	1694447.3	1694447.3	100.13 %		14:12:56
3	Y 371.029	958144.4	958144.4	100.12 %		14:12:56
3	Ag 328.068†	6291.5	1180.4	5.0125 µg/L	5.0125 ppb	14:12:58
3	As 188.979†	77.2	90.5	31.426 µg/L	31.426 ppb	14:13:18
3	B 249.677†	7438.9	3317.4	49.225 µg/L	49.225 ppb	14:12:58
3	Ba 233.527†	994.9	1139.5	5.1631 µg/L	5.1631 ppb	14:13:18
3	Be 313.107†	16605.4	17576.3	4.9982 µg/L	4.9982 ppb	14:12:58
3	Cd 226.502†	684.7	748.4	4.9403 µg/L	4.9403 ppb	14:13:18
3	Co 228.616†	182.6	409.4	5.3676 µg/L	5.3676 ppb	14:13:18
3	Cr 267.716†	877.9	547.1	4.7481 µg/L	4.7481 ppb	14:13:18
3	Cu 324.752†	5461.0	2212.7	9.2462 µg/L	9.2462 ppb	14:12:58
3	Mn 257.610†	8073.1	7847.3	10.245 µg/L	10.245 ppb	14:12:58
3	Mo 202.031†	282.0	303.3	10.306 µg/L	10.306 ppb	14:13:18
3	Ni 231.604†	315.2	388.7	4.8338 µg/L	4.8338 ppb	14:13:18
3	P 214.914†	631.4	649.8	148.34 µg/L	148.34 ppb	14:13:18
3	Pb 220.353†	277.3	159.8	9.9974 µg/L	9.9974 ppb	14:13:18
3	S 181.975 Axial†	238.8	136.6	116.33 µg/L	116.33 ppb	14:13:18
3	Sb 206.836†	169.0	91.2	11.788 µg/L	11.788 ppb	14:13:18
3	Se 196.026†	98.9	78.8	30.6 µg/L	30.6 ppb	14:13:18
3	SiO2†	3732.9	2039.2	210.12 µg/L	210.12 ppb	14:12:58
3	Si 251.611†	7118.1	6322.4	96.240 µg/L	96.240 ppb	14:12:58
3	Sn 189.927†	156.5	147.8	10.311 µg/L	10.311 ppb	14:13:18
3	Ti 334.940†	5380.9	4487.9	4.6557 µg/L	4.6557 ppb	14:12:58
3	Tl 190.801†	26.0	141.2	19.976 µg/L	19.976 ppb	14:13:18
3	U 409.014†	772.8	1183.0	72.265 µg/L	72.265 ppb	14:12:58
3	V 292.402†	1482.3	984.4	5.0412 µg/L	5.0412 ppb	14:12:58
3	Zn 213.857†	2419.2	1796.8	10.328 µg/L	10.328 ppb	14:13:18

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1682419.3	99.418	%	0.9582				0.96%
Sc RADIAL	114910.5	100	%	0.8				0.80%
Y 371.029	951092.1	99.380	%	0.9773				0.98%
Ag 328.068†	1271.2	5.3841	µg/L	0.34441	5.3841	ppb	0.34441	6.40%
QC value within limits for Ag 328.068 Recovery = 107.68%								
Al 396.153Radial†	887.6	208.87	µg/L	1.506	208.87	ppb	1.506	0.72%
QC value within limits for Al 396.153Radial Recovery = 104.44%								
As 188.979†	88.5	30.731	µg/L	1.6006	30.731	ppb	1.6006	5.21%
QC value within limits for As 188.979 Recovery = 102.44%								
B 249.677†	3346.4	49.658	µg/L	1.5711	49.658	ppb	1.5711	3.16%
QC value within limits for B 249.677 Recovery = 99.32%								
Ba 233.527†	1143.1	5.1793	µg/L	0.06899	5.1793	ppb	0.06899	1.33%
QC value within limits for Ba 233.527 Recovery = 103.59%								
Be 313.107†	17599.4	5.0041	µg/L	0.02279	5.0041	ppb	0.02279	0.46%
QC value within limits for Be 313.107 Recovery = 100.08%								
Ca 317.933Radial†	2541.8	209.29	µg/L	2.970	209.29	ppb	2.970	1.42%
QC value within limits for Ca 317.933Radial Recovery = 104.64%								
Cd 226.502†	760.9	5.0229	µg/L	0.07662	5.0229	ppb	0.07662	1.53%
QC value within limits for Cd 226.502 Recovery = 100.46%								
Co 228.616†	388.3	5.0902	µg/L	0.24268	5.0902	ppb	0.24268	4.77%

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   QC value within limits for Co 228.616  Recovery = 101.80%
Cr 267.716†              551.4      4.7870 µg/L       0.04428      4.7870 ppb        0.04428   0.93%
   QC value within limits for Cr 267.716  Recovery = 95.74%
Cu 324.752†             2217.9      9.2654 µg/L       0.74600      9.2654 ppb        0.74600   8.05%
   QC value within limits for Cu 324.752  Recovery = 92.65%
Fe 238.204 Radial†      1192.6      101.74 µg/L         0.557      101.74 ppb          0.557   0.55%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.74%
K 766.490 Radial†        434.6      173.78 µg/L        22.940      173.78 ppb         22.940  13.20%
   QC value within limits for K 766.490 Radial  Recovery = 115.86%
Mg 279.077 IEC†          561.4      310.66 µg/L         3.277      310.66 ppb          3.277   1.05%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.55%
Mn 257.610†             7953.4      10.384 µg/L        0.1659      10.384 ppb         0.1659   1.60%
   QC value within limits for Mn 257.610  Recovery = 103.84%
Mo 202.031†              291.7      9.9140 µg/L       0.58139      9.9140 ppb        0.58139   5.86%
   QC value within limits for Mo 202.031  Recovery = 99.14%
Na 589.592 Radial†      1915.4      305.46 µg/L        15.955      305.46 ppb         15.955   5.22%
   QC value within limits for Na 589.592 Radial  Recovery = 101.82%
Ni 231.604†              393.9      4.8980 µg/L       0.09710      4.8980 ppb        0.09710   1.98%
   QC value within limits for Ni 231.604  Recovery = 97.96%
P 214.914†               659.2      150.49 µg/L         5.057      150.49 ppb          5.057   3.36%
   QC value within limits for P 214.914  Recovery = 100.33%
Pb 220.353†              166.4      10.413 µg/L        0.7206      10.413 ppb         0.7206   6.92%
   QC value within limits for Pb 220.353  Recovery = 104.13%
S 181.975 Axial†         137.7      117.26 µg/L         2.721      117.26 ppb          2.721   2.32%
   QC value within limits for S 181.975 Axial  Recovery = 117.26%
Sb 206.836†               75.4      9.7541 µg/L       1.79307      9.7541 ppb        1.79307  18.38%
   QC value within limits for Sb 206.836  Recovery = 97.54%
Se 196.026†               83.5        32.4 µg/L          1.73        32.4 ppb           1.73   5.33%
   QC value within limits for Se 196.026  Recovery = 108.02%
SiO2†                   2136.7      220.19 µg/L        10.036      220.19 ppb         10.036   4.56%
   QC value within limits for SiO2  Recovery = 103.38%
Si 251.611†             6413.7      97.637 µg/L        1.3527      97.637 ppb         1.3527   1.39%
   QC value within limits for Si 251.611  Recovery = 97.64%
Sn 189.927†              149.8      10.447 µg/L        0.1268      10.447 ppb         0.1268   1.21%
   QC value within limits for Sn 189.927  Recovery = 104.47%
Sr 421.552†             2056.9      5.2821 µg/L       0.11685      5.2821 ppb        0.11685   2.21%
   QC value within limits for Sr 421.552  Recovery = 105.64%
Ti 334.940†             4555.8      4.7276 µg/L       0.08810      4.7276 ppb        0.08810   1.86%
   QC value within limits for Ti 334.940  Recovery = 94.55%
Tl 190.801†              144.5      20.447 µg/L        1.1328      20.447 ppb         1.1328   5.54%
   QC value within limits for Tl 190.801  Recovery = 102.24%
U 409.014†              1146.7      70.054 µg/L        4.2359      70.054 ppb         4.2359   6.05%
   QC value greater than the upper limit for U 409.014  Recovery = 140.11%
V 292.402†               972.7      4.9776 µg/L       0.27486      4.9776 ppb        0.27486   5.52%
   QC value within limits for V 292.402  Recovery = 99.55%
Zn 213.857†             1814.6      10.430 µg/L        0.1024      10.430 ppb         0.1024   0.98%
   QC value within limits for Zn 213.857  Recovery = 104.30%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 4/13/2010 14:13:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	106980.2	106980.2	93.5	%			14:14:00
1	Al 396.153Radial†	1974515.2	2111326.5	497910	µg/L	497910	ppb	14:13:58
1	Ca 317.933Radial†	5511724.5	5892930.0	485220	µg/L	485220	ppb	14:13:58
1	Fe 238.204 Radial†	2083707.3	2227870.4	190050	µg/L	190050	ppb	14:13:58
1	K 766.490 Radial†	1431.2	121.0	-190.93	µg/L	-190.93	ppb	14:14:00
1	Mg 279.077 IEC†	817510.7	873962.4	483170	µg/L	483170	ppb	14:13:58
1	Na 589.592 Radial†	1341.8	599.4	95.592	µg/L	95.592	ppb	14:14:00
1	Sr 421.552†	4406.5	4778.3	8.4766	µg/L	8.4766	ppb	14:14:00
1	Sc 361.383	1501217.1	1501217.1	88.710	%			14:14:28
1	Y 371.029	836125.4	836125.4	87.367	%			14:14:28
1	Ag 328.068†	7406.8	3246.4	0.0494	µg/L	0.0494	ppb	14:14:28
1	As 188.979†	-102.7	-102.3	7.1552	µg/L	7.1552	ppb	14:14:48
1	B 249.677†	4385.1	831.3	12.327	µg/L	12.327	ppb	14:14:28
1	Ba 233.527†	413.6	612.1	0.3432	µg/L	0.3432	ppb	14:14:48
1	Be 313.107†	-419.2	519.8	0.1518	µg/L	0.1518	ppb	14:14:28
1	Cd 226.502†	2374.7	2741.5	-1.8569	µg/L	-1.8569	ppb	14:14:48
1	Co 228.616†	45.4	278.2	-6.2642	µg/L	-6.2642	ppb	14:14:48
1	Cr 267.716†	304.1	13.2	0.8100	µg/L	0.8100	ppb	14:14:48
1	Cu 324.752†	-5786.3	-9763.9	0.3302	µg/L	0.3302	ppb	14:14:28
1	Mn 257.610†	15583.3	17351.1	3.0137	µg/L	3.0137	ppb	14:14:28
1	Mo 202.031†	-519.5	-564.0	-2.7952	µg/L	-2.7952	ppb	14:14:48
1	Ni 231.604†	131.5	222.1	2.7621	µg/L	2.7621	ppb	14:14:48
1	P 214.914†	142.2	179.6	22.694	µg/L	22.694	ppb	14:14:48
1	Pb 220.353†	-267.1	-418.3	-1.4748	µg/L	-1.4748	ppb	14:14:48
1	S 181.975 Axial†	153.8	71.4	60.596	µg/L	60.596	ppb	14:14:48
1	Sb 206.836†	98.4	33.4	-1.7007	µg/L	-1.7007	ppb	14:14:48
1	Se 196.026†	-138.2	-175.7	-2.00	µg/L	-2.00	ppb	14:14:48
1	SiO2†	1629.1	147.6	15.727	µg/L	15.727	ppb	14:14:48
1	Si 251.611†	537.5	-180.7	-2.5260	µg/L	-2.5260	ppb	14:14:48
1	Sn 189.927†	56.6	55.4	3.9424	µg/L	3.9424	ppb	14:14:48
1	Ti 334.940†	21752.9	23635.1	-1.9360	µg/L	-1.9360	ppb	14:14:28
1	Tl 190.801†	-180.2	-88.0	-11.939	µg/L	-11.939	ppb	14:14:48
1	U 409.014†	-140.2	253.2	-5.5257	µg/L	-5.5257	ppb	14:14:28
1	V 292.402†	4511.8	4590.0	2.4975	µg/L	2.4975	ppb	14:14:28
1	Zn 213.857†	4310.5	4239.8	8.0554	µg/L	8.0554	ppb	14:14:48
2	Sc RADIAL	105749.8	105749.8	92.4	%			14:14:05
2	Al 396.153Radial†	1957961.1	2117984.4	499480	µg/L	499480	ppb	14:14:03
2	Ca 317.933Radial†	5463069.9	5908870.5	486530	µg/L	486530	ppb	14:14:03
2	Fe 238.204 Radial†	2063257.0	2231672.3	190370	µg/L	190370	ppb	14:14:03
2	K 766.490 Radial†	1385.7	89.6	-204.14	µg/L	-204.14	ppb	14:14:05
2	Mg 279.077 IEC†	809012.1	874939.8	483710	µg/L	483710	ppb	14:14:03
2	Na 589.592 Radial†	1120.4	376.7	60.070	µg/L	60.070	ppb	14:14:05
2	Sr 421.552†	4367.7	4791.2	8.4993	µg/L	8.4993	ppb	14:14:05
2	Sc 361.383	1502151.4	1502151.4	88.766	%			14:14:51
2	Y 371.029	836238.7	836238.7	87.379	%			14:14:51
2	Ag 328.068†	7339.1	3165.0	-0.3144	µg/L	-0.3144	ppb	14:14:51
2	As 188.979†	-92.5	-90.8	11.218	µg/L	11.218	ppb	14:15:11
2	B 249.677†	4347.8	786.1	11.656	µg/L	11.656	ppb	14:14:51
2	Ba 233.527†	461.5	665.8	0.5828	µg/L	0.5828	ppb	14:15:11
2	Be 313.107†	-147.4	826.3	0.2389	µg/L	0.2389	ppb	14:14:51
2	Cd 226.502†	2372.9	2737.8	-1.9158	µg/L	-1.9158	ppb	14:15:11
2	Co 228.616†	67.0	302.5	-5.9628	µg/L	-5.9628	ppb	14:15:11
2	Cr 267.716†	242.5	-56.4	0.2028	µg/L	0.2028	ppb	14:15:11
2	Cu 324.752†	-5737.3	-9704.7	0.6382	µg/L	0.6382	ppb	14:14:51
2	Mn 257.610†	15652.7	17418.4	3.0793	µg/L	3.0793	ppb	14:14:51
2	Mo 202.031†	-518.3	-562.3	-2.7154	µg/L	-2.7154	ppb	14:15:11
2	Ni 231.604†	75.7	159.2	1.9803	µg/L	1.9803	ppb	14:15:11
2	P 214.914†	92.8	123.7	10.060	µg/L	10.060	ppb	14:15:11
2	Pb 220.353†	-260.1	-410.2	-0.8817	µg/L	-0.8817	ppb	14:15:11

2	S 181.975 Axial†	167.0	86.2	73.204 µg/L	73.204 ppb	14:15:11
2	Sb 206.836†	104.9	40.6	-0.7717 µg/L	-0.7717 ppb	14:15:11
2	Se 196.026†	-140.3	-178.0	-2.78 µg/L	-2.78 ppb	14:15:11
2	SiO2†	1573.8	84.1	9.1730 µg/L	9.1730 ppb	14:15:11
2	Si 251.611†	544.9	-172.6	-2.4035 µg/L	-2.4035 ppb	14:15:11
2	Sn 189.927†	55.8	54.5	3.8774 µg/L	3.8774 ppb	14:15:11
2	Ti 334.940†	21661.2	23516.5	-2.0703 µg/L	-2.0703 ppb	14:14:51
2	Tl 190.801†	-143.0	-45.8	-6.0016 µg/L	-6.0016 ppb	14:15:11
2	U 409.014†	-127.5	267.6	-4.6328 µg/L	-4.6328 ppb	14:14:51
2	V 292.402†	4621.3	4710.1	3.0578 µg/L	3.0578 ppb	14:14:51
2	Zn 213.857†	4373.3	4307.5	8.4302 µg/L	8.4302 ppb	14:15:11
3	Sc RADIAL	106552.2	106552.2	93.1 %		14:14:09
3	Al 396.153Radial†	1980421.5	2126147.6	501410 µg/L	501410 ppb	14:14:07
3	Ca 317.933Radial†	5539384.4	5946296.6	489610 µg/L	489610 ppb	14:14:07
3	Fe 238.204 Radial†	2093288.7	2247105.9	191690 µg/L	191690 ppb	14:14:07
3	K 766.490 Radial†	1556.6	261.8	-136.50 µg/L	-136.50 ppb	14:14:09
3	Mg 279.077 IEC†	821065.1	881289.2	487220 µg/L	487220 ppb	14:14:07
3	Na 589.592 Radial†	1396.2	663.6	105.79 µg/L	105.79 ppb	14:14:09
3	Sr 421.552†	4358.3	4745.5	8.3579 µg/L	8.3579 ppb	14:14:09
3	Sc 361.383	1510747.3	1510747.3	89.274 %		14:15:14
3	Y 371.029	840652.7	840652.7	87.840 %		14:15:14
3	Ag 328.068†	7646.6	3462.4	0.8299 µg/L	0.8299 ppb	14:15:14
3	As 188.979†	-92.6	-90.3	11.685 µg/L	11.685 ppb	14:15:34
3	B 249.677†	4303.9	709.0	10.512 µg/L	10.512 ppb	14:15:14
3	Ba 233.527†	452.0	652.2	0.5050 µg/L	0.5050 ppb	14:15:34
3	Be 313.107†	-465.6	470.7	0.1372 µg/L	0.1372 ppb	14:15:14
3	Cd 226.502†	2368.8	2718.0	-2.1851 µg/L	-2.1851 ppb	14:15:34
3	Co 228.616†	58.5	292.6	-6.1615 µg/L	-6.1615 ppb	14:15:34
3	Cr 267.716†	290.3	-4.4	0.6654 µg/L	0.6654 ppb	14:15:34
3	Cu 324.752†	-5845.0	-9788.6	0.5747 µg/L	0.5747 ppb	14:15:14
3	Mn 257.610†	15773.6	17453.4	2.9824 µg/L	2.9824 ppb	14:15:14
3	Mo 202.031†	-488.1	-525.1	-1.3367 µg/L	-1.3367 ppb	14:15:34
3	Ni 231.604†	120.6	209.0	2.5989 µg/L	2.5989 ppb	14:15:34
3	P 214.914†	134.9	170.3	20.221 µg/L	20.221 ppb	14:15:34
3	Pb 220.353†	-269.2	-418.8	-1.3372 µg/L	-1.3372 ppb	14:15:34
3	S 181.975 Axial†	166.9	85.0	72.199 µg/L	72.199 ppb	14:15:34
3	Sb 206.836†	124.6	62.0	1.9474 µg/L	1.9474 ppb	14:15:34
3	Se 196.026†	-137.9	-174.5	-0.951 µg/L	-0.951 ppb	14:15:34
3	SiO2†	1588.1	90.0	9.7554 µg/L	9.7554 ppb	14:15:34
3	Si 251.611†	625.6	-85.8	-1.0907 µg/L	-1.0907 ppb	14:15:34
3	Sn 189.927†	47.0	44.3	3.1666 µg/L	3.1666 ppb	14:15:34
3	Ti 334.940†	21809.0	23543.3	-2.2467 µg/L	-2.2467 ppb	14:15:14
3	Tl 190.801†	-146.7	-49.1	-6.4553 µg/L	-6.4553 ppb	14:15:34
3	U 409.014†	-176.6	213.4	-8.0552 µg/L	-8.0552 ppb	14:15:14
3	V 292.402†	4764.3	4840.7	3.5789 µg/L	3.5789 ppb	14:15:14
3	Zn 213.857†	4371.9	4277.8	8.1187 µg/L	8.1187 ppb	14:15:34

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1504705.3	88.917	%	0.3104				0.35%
Sc RADIAL	106427.4	93.0	%	0.55				0.59%
Y 371.029	837672.3	87.528	%	0.2698				0.31%
Ag 328.068†	3291.2	0.1883	µg/L	0.58464	0.1883	ppb	0.58464	310.52%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2118486.2	499600	µg/L	1750.6	499600	ppb	1750.6	0.35%
QC value within limits for Al 396.153Radial Recovery = 99.92%								
As 188.979†	-94.5	10.019	µg/L	2.4913	10.019	ppb	2.4913	24.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	775.5	11.498	µg/L	0.9177	11.498	ppb	0.9177	7.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	643.4	0.4770	µg/L	0.12224	0.4770	ppb	0.12224	25.63%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	605.6	0.1760	µg/L	0.05496	0.1760	ppb	0.05496	31.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5916032.3	487120	µg/L	2255.7	487120	ppb	2255.7	0.46%
QC value within limits for Ca 317.933Radial Recovery = 97.42%								
Cd 226.502†	2732.5	-1.9859	µg/L	0.17496	-1.9859	ppb	0.17496	8.81%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	291.1	-6.1295	µg/L	0.15323	-6.1295	ppb	0.15323	2.50%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -15.9      0.5594 µg/L       0.31719      0.5594 ppb        0.31719  56.70%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -9752.4      0.5144 µg/L       0.16258      0.5144 ppb        0.16258  31.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2235549.5      190700 µg/L         869.0      190700 ppb          869.0   0.46%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.35%
K 766.490 Radial†        157.5     -177.19 µg/L        35.852     -177.19 ppb         35.852  20.23%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       876730.5      484700 µg/L        2199.3      484700 ppb         2199.3   0.45%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.94%
Mn 257.610†            17407.7      3.0252 µg/L       0.04945      3.0252 ppb        0.04945   1.63%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -550.5     -2.2825 µg/L       0.82000     -2.2825 ppb        0.82000  35.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       546.6      87.152 µg/L       24.0022      87.152 ppb        24.0022  27.54%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              196.8      2.4471 µg/L       0.41242      2.4471 ppb        0.41242  16.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               157.9      17.658 µg/L        6.6952      17.658 ppb         6.6952  37.92%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -415.8     -1.2312 µg/L       0.31047     -1.2312 ppb        0.31047  25.22%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          80.9      68.666 µg/L        7.0067      68.666 ppb         7.0067  10.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               45.3     -0.1750 µg/L       1.89585     -0.1750 ppb        1.89585 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -176.1      -1.91 µg/L         0.919       -1.91 ppb          0.919  48.09%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    107.2      11.552 µg/L        3.6274      11.552 ppb         3.6274  31.40%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -146.3     -2.0067 µg/L       0.79569     -2.0067 ppb        0.79569  39.65%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               51.4      3.6621 µg/L       0.43038      3.6621 ppb        0.43038  11.75%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             4771.7      8.4446 µg/L       0.07591      8.4446 ppb        0.07591   0.90%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            23565.0     -2.0843 µg/L       0.15584     -2.0843 ppb        0.15584   7.48%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -61.0     -8.1318 µg/L       3.30453     -8.1318 ppb        3.30453  40.64%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               244.7     -6.0713 µg/L       1.77524     -6.0713 ppb        1.77524  29.24%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              4713.6      3.0447 µg/L       0.54079      3.0447 ppb        0.54079  17.76%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             4275.0      8.2014 µg/L       0.20064      8.2014 ppb        0.20064   2.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 4/13/2010 14:15:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	106223.0	106223.0	92.9	%			14:16:13
1	Al 396.153Radial†	2010708.9	2165350.9	510630	µg/L	510630	ppb	14:16:11
1	Ca 317.933Radial†	5642547.1	6075815.7	500280	µg/L	500280	ppb	14:16:11
1	Fe 238.204 Radial†	2137562.5	2301746.0	196350	µg/L	196350	ppb	14:16:11
1	K 766.490 Radial†	14643.5	14359.8	5500.8	µg/L	5500.8	ppb	14:16:13
1	Mg 279.077 IEC†	838133.6	902401.1	498910	µg/L	498910	ppb	14:16:13
1	Na 589.592 Radial†	32516.1	34180.3	5448.6	µg/L	5448.6	ppb	14:16:13
1	Sr 421.552†	192158.4	206995.7	527.81	µg/L	527.81	ppb	14:16:13
1	Sc 361.383	1499397.8	1499397.8	88.603	%			14:16:41
1	Y 371.029	834580.4	834580.4	87.205	%			14:16:41
1	Ag 328.068†	64997.7	68255.4	274.70	µg/L	274.70	ppb	14:16:41
1	As 188.979†	1188.4	1354.7	519.25	µg/L	519.25	ppb	14:16:43
1	B 249.677†	35482.5	35934.7	531.78	µg/L	531.78	ppb	14:16:41
1	Ba 233.527†	99053.3	111940.4	504.70	µg/L	504.70	ppb	14:16:41
1	Be 313.107†	774060.6	874620.5	247.79	µg/L	247.79	ppb	14:16:41
1	Cd 226.502†	68029.3	76844.5	487.67	µg/L	487.67	ppb	14:16:41
1	Co 228.616†	31628.9	35924.4	461.25	µg/L	461.25	ppb	14:16:43
1	Cr 267.716†	50218.9	56349.0	495.36	µg/L	495.36	ppb	14:16:43
1	Cu 324.752†	111159.8	122217.0	548.72	µg/L	548.72	ppb	14:16:41
1	Mn 257.610†	347052.2	391478.2	491.41	µg/L	491.41	ppb	14:16:41
1	Mo 202.031†	12828.2	14499.9	509.27	µg/L	509.27	ppb	14:16:43
1	Ni 231.604†	33045.9	37370.5	464.73	µg/L	464.73	ppb	14:16:43
1	P 214.914†	10271.0	11611.3	2626.2	µg/L	2626.2	ppb	14:16:43
1	Pb 220.353†	6372.2	7074.7	470.08	µg/L	470.08	ppb	14:16:43
1	S 181.975 Axial†	3008.4	3293.4	2806.4	µg/L	2806.4	ppb	14:16:43
1	Sb 206.836†	3712.3	4112.3	522.47	µg/L	522.47	ppb	14:16:43
1	Se 196.026†	5453.3	6134.8	2440	µg/L	2440	ppb	14:16:43
1	SiO2†	98016.0	108934.9	11227	µg/L	11227	ppb	14:16:41
1	Si 251.611†	307173.4	345898.6	5266.7	µg/L	5266.7	ppb	14:16:41
1	Sn 189.927†	6249.0	7044.4	492.37	µg/L	492.37	ppb	14:16:43
1	Ti 334.940†	459015.3	517172.4	514.39	µg/L	514.39	ppb	14:16:41
1	Tl 190.801†	2863.0	3346.5	480.00	µg/L	480.00	ppb	14:16:43
1	U 409.014†	6834.9	8125.4	504.59	µg/L	504.59	ppb	14:16:41
1	V 292.402†	96422.1	108328.9	523.44	µg/L	523.44	ppb	14:16:41
1	Zn 213.857†	81315.3	91155.5	506.04	µg/L	506.04	ppb	14:16:41
2	Sc RADIAL	103812.5	103812.5	90.8	%			14:16:18
2	Al 396.153Radial†	2013692.9	2218916.0	523260	µg/L	523260	ppb	14:16:16
2	Ca 317.933Radial†	5613708.1	6185128.6	509280	µg/L	509280	ppb	14:16:16
2	Fe 238.204 Radial†	2127616.4	2344235.8	199970	µg/L	199970	ppb	14:16:16
2	K 766.490 Radial†	14393.8	14450.8	5532.7	µg/L	5532.7	ppb	14:16:18
2	Mg 279.077 IEC†	818451.0	901670.6	498500	µg/L	498500	ppb	14:16:18
2	Na 589.592 Radial†	31974.8	34396.8	5483.1	µg/L	5483.1	ppb	14:16:18
2	Sr 421.552†	188508.5	207778.9	529.75	µg/L	529.75	ppb	14:16:18
2	Sc 361.383	1503602.0	1503602.0	88.851	%			14:16:46
2	Y 371.029	837931.6	837931.6	87.555	%			14:16:46
2	Ag 328.068†	64380.0	67355.0	270.71	µg/L	270.71	ppb	14:16:46
2	As 188.979†	1246.7	1416.6	541.50	µg/L	541.50	ppb	14:16:48
2	B 249.677†	35491.5	35832.8	530.27	µg/L	530.27	ppb	14:16:46
2	Ba 233.527†	98724.7	111258.0	501.56	µg/L	501.56	ppb	14:16:46
2	Be 313.107†	770311.0	867957.7	245.91	µg/L	245.91	ppb	14:16:46
2	Cd 226.502†	67739.4	76303.5	483.72	µg/L	483.72	ppb	14:16:46
2	Co 228.616†	31720.8	35928.0	461.11	µg/L	461.11	ppb	14:16:48
2	Cr 267.716†	50544.1	56556.5	497.29	µg/L	497.29	ppb	14:16:48
2	Cu 324.752†	110774.3	121432.3	546.02	µg/L	546.02	ppb	14:16:46
2	Mn 257.610†	345757.6	388925.9	488.08	µg/L	488.08	ppb	14:16:46
2	Mo 202.031†	12857.4	14492.3	509.15	µg/L	509.15	ppb	14:16:48
2	Ni 231.604†	33216.1	37457.8	465.82	µg/L	465.82	ppb	14:16:48
2	P 214.914†	10155.5	11448.9	2589.5	µg/L	2589.5	ppb	14:16:48
2	Pb 220.353†	6566.8	7273.6	483.18	µg/L	483.18	ppb	14:16:48

2	S 181.975 Axial†	3053.9	3335.1	2841.9 µg/L	2841.9 ppb	14:16:48
2	Sb 206.836†	3723.7	4113.4	522.45 µg/L	522.45 ppb	14:16:48
2	Se 196.026†	5491.7	6160.7	2450 µg/L	2450 ppb	14:16:48
2	SiO2†	97214.6	107723.7	11102 µg/L	11102 ppb	14:16:46
2	Si 251.611†	305391.7	342924.1	5221.3 µg/L	5221.3 ppb	14:16:46
2	Sn 189.927†	6321.2	7105.9	496.65 µg/L	496.65 ppb	14:16:48
2	Ti 334.940†	458296.4	514914.8	512.27 µg/L	512.27 ppb	14:16:46
2	Tl 190.801†	2846.1	3318.4	475.97 µg/L	475.97 ppb	14:16:48
2	U 409.014†	7352.7	8686.5	537.97 µg/L	537.97 ppb	14:16:46
2	V 292.402†	95810.2	107335.9	518.16 µg/L	518.16 ppb	14:16:46
2	Zn 213.857†	80624.4	90121.4	499.80 µg/L	499.80 ppb	14:16:46
3	Sc RADIAL	104466.8	104466.8	91.3 %		14:16:22
3	Al 396.153Radial†	1989321.2	2178332.6	513690 µg/L	513690 ppb	14:16:20
3	Ca 317.933Radial†	5538632.9	6064181.9	499320 µg/L	499320 ppb	14:16:20
3	Fe 238.204 Radial†	2098275.3	2297424.9	195980 µg/L	195980 ppb	14:16:20
3	K 766.490 Radial†	14671.2	14655.2	5618.4 µg/L	5618.4 ppb	14:16:22
3	Mg 279.077 IEC†	826093.4	904390.4	500010 µg/L	500010 ppb	14:16:22
3	Na 589.592 Radial†	32061.2	34270.8	5462.9 µg/L	5462.9 ppb	14:16:22
3	Sr 421.552†	189860.8	207958.6	530.29 µg/L	530.29 ppb	14:16:22
3	Sc 361.383	1505306.3	1505306.3	88.952 %		14:16:51
3	Y 371.029	838292.0	838292.0	87.593 %		14:16:51
3	Ag 328.068†	64553.7	67468.3	271.49 µg/L	271.49 ppb	14:16:51
3	As 188.979†	1216.9	1381.5	528.40 µg/L	528.40 ppb	14:16:53
3	B 249.677†	35439.6	35729.2	528.76 µg/L	528.76 ppb	14:16:51
3	Ba 233.527†	98763.8	111176.1	501.24 µg/L	501.24 ppb	14:16:51
3	Be 313.107†	770732.2	867449.6	245.77 µg/L	245.77 ppb	14:16:51
3	Cd 226.502†	67691.8	76163.7	483.21 µg/L	483.21 ppb	14:16:51
3	Co 228.616†	31338.1	35457.3	455.14 µg/L	455.14 ppb	14:16:53
3	Cr 267.716†	50152.5	56051.9	492.70 µg/L	492.70 ppb	14:16:53
3	Cu 324.752†	110966.1	121506.8	545.79 µg/L	545.79 ppb	14:16:51
3	Mn 257.610†	345610.7	388320.3	487.24 µg/L	487.24 ppb	14:16:51
3	Mo 202.031†	12702.0	14301.2	502.53 µg/L	502.53 ppb	14:16:53
3	Ni 231.604†	32767.5	36911.1	459.02 µg/L	459.02 ppb	14:16:53
3	P 214.914†	10142.4	11421.3	2583.9 µg/L	2583.9 ppb	14:16:53
3	Pb 220.353†	6507.1	7198.1	477.97 µg/L	477.97 ppb	14:16:53
3	S 181.975 Axial†	2928.8	3190.6	2718.9 µg/L	2718.9 ppb	14:16:53
3	Sb 206.836†	3702.7	4085.0	518.91 µg/L	518.91 ppb	14:16:53
3	Se 196.026†	5437.6	6092.9	2420 µg/L	2420 ppb	14:16:53
3	SiO2†	97419.6	107830.3	11113 µg/L	11113 ppb	14:16:51
3	Si 251.611†	305460.1	342611.7	5216.6 µg/L	5216.6 ppb	14:16:51
3	Sn 189.927†	6336.5	7115.1	497.28 µg/L	497.28 ppb	14:16:53
3	Ti 334.940†	457676.9	513634.3	510.55 µg/L	510.55 ppb	14:16:51
3	Tl 190.801†	2846.1	3314.8	475.50 µg/L	475.50 ppb	14:16:53
3	U 409.014†	7374.8	8702.0	539.52 µg/L	539.52 ppb	14:16:51
3	V 292.402†	96330.4	107798.7	520.79 µg/L	520.79 ppb	14:16:51
3	Zn 213.857†	80758.3	90169.2	500.48 µg/L	500.48 ppb	14:16:51

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1502768.7	88.802	%	0.1797				0.20%
Sc RADIAL	104834.1	91.6	%	1.09				1.19%
Y 371.029	836934.7	87.451	%	0.2139				0.24%
Ag 328.068†	67692.9	272.30	µg/L	2.114	272.30	ppb	2.114	0.78%
QC value within limits for Ag 328.068 Recovery = 108.92%								
Al 396.153Radial†	2187533.2	515860	µg/L	6589.7	515860	ppb	6589.7	1.28%
QC value within limits for Al 396.153Radial Recovery = 103.17%								
As 188.979†	1384.3	529.71	µg/L	11.182	529.71	ppb	11.182	2.11%
QC value within limits for As 188.979 Recovery = 105.94%								
B 249.677†	35832.3	530.27	µg/L	1.514	530.27	ppb	1.514	0.29%
QC value within limits for B 249.677 Recovery = 106.05%								
Ba 233.527†	111458.2	502.50	µg/L	1.911	502.50	ppb	1.911	0.38%
QC value within limits for Ba 233.527 Recovery = 100.50%								
Be 313.107†	870009.2	246.49	µg/L	1.127	246.49	ppb	1.127	0.46%
QC value within limits for Be 313.107 Recovery = 98.59%								
Ca 317.933Radial†	6108375.4	502960	µg/L	5494.0	502960	ppb	5494.0	1.09%
QC value within limits for Ca 317.933Radial Recovery = 100.59%								
Cd 226.502†	76437.2	484.87	µg/L	2.445	484.87	ppb	2.445	0.50%
QC value within limits for Cd 226.502 Recovery = 96.97%								
Co 228.616†	35769.9	459.17	µg/L	3.485	459.17	ppb	3.485	0.76%

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   QC value within limits for Co 228.616  Recovery = 91.83%
Cr 267.716†            56319.1      495.12 µg/L         2.304      495.12 ppb          2.304   0.47%
   QC value within limits for Cr 267.716  Recovery = 99.02%
Cu 324.752†           121718.7      546.84 µg/L         1.633      546.84 ppb          1.633   0.30%
   QC value within limits for Cu 324.752  Recovery = 109.37%
Fe 238.204 Radial†   2314468.9      197430 µg/L        2206.7      197430 ppb         2206.7   1.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.72%
K 766.490 Radial†      14488.6      5550.6 µg/L         60.84      5550.6 ppb          60.84   1.10%
   QC value within limits for K 766.490 Radial  Recovery = 111.01%
Mg 279.077 IEC†       902820.7      499140 µg/L         779.8      499140 ppb          779.8   0.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.83%
Mn 257.610†           389574.8      488.91 µg/L         2.206      488.91 ppb          2.206   0.45%
   QC value within limits for Mn 257.610  Recovery = 97.78%
Mo 202.031†            14431.1      506.98 µg/L         3.857      506.98 ppb          3.857   0.76%
   QC value within limits for Mo 202.031  Recovery = 101.40%
Na 589.592 Radial†     34282.6      5464.9 µg/L         17.34      5464.9 ppb          17.34   0.32%
   QC value within limits for Na 589.592 Radial  Recovery = 109.30%
Ni 231.604†            37246.4      463.19 µg/L         3.652      463.19 ppb          3.652   0.79%
   QC value within limits for Ni 231.604  Recovery = 92.64%
P 214.914†             11493.9      2599.9 µg/L         22.99      2599.9 ppb          22.99   0.88%
   QC value within limits for P 214.914  Recovery = 104.00%
Pb 220.353†             7182.1      477.08 µg/L         6.595      477.08 ppb          6.595   1.38%
   QC value within limits for Pb 220.353  Recovery = 95.42%
S 181.975 Axial†        3273.1      2789.1 µg/L         63.30      2789.1 ppb          63.30   2.27%
   QC value within limits for S 181.975 Axial  Recovery = 111.56%
Sb 206.836†             4103.6      521.27 µg/L         2.052      521.27 ppb          2.052   0.39%
   QC value within limits for Sb 206.836  Recovery = 104.25%
Se 196.026†             6129.5        2440 µg/L          13.9        2440 ppb           13.9   0.57%
   QC value within limits for Se 196.026  Recovery = 97.57%
SiO2†                 108162.9       11148 µg/L          69.2       11148 ppb           69.2   0.62%
   QC value within limits for SiO2  Recovery = 104.23%
Si 251.611†           343811.5      5234.9 µg/L         27.66      5234.9 ppb          27.66   0.53%
   QC value within limits for Si 251.611  Recovery = 104.70%
Sn 189.927†             7088.5      495.43 µg/L         2.669      495.43 ppb          2.669   0.54%
   QC value within limits for Sn 189.927  Recovery = 99.09%
Sr 421.552†           207577.7      529.28 µg/L         1.305      529.28 ppb          1.305   0.25%
   QC value within limits for Sr 421.552  Recovery = 105.86%
Ti 334.940†           515240.5      512.40 µg/L         1.923      512.40 ppb          1.923   0.38%
   QC value within limits for Ti 334.940  Recovery = 102.48%
Tl 190.801†             3326.6      477.16 µg/L         2.471      477.16 ppb          2.471   0.52%
   QC value within limits for Tl 190.801  Recovery = 95.43%
U 409.014†              8504.6      527.36 µg/L        19.736      527.36 ppb         19.736   3.74%
   QC value within limits for U 409.014  Recovery = 105.47%
V 292.402†            107821.2      520.80 µg/L         2.638      520.80 ppb          2.638   0.51%
   QC value within limits for V 292.402  Recovery = 104.16%
Zn 213.857†            90482.0      502.11 µg/L         3.421      502.11 ppb          3.421   0.68%
   QC value within limits for Zn 213.857  Recovery = 100.42%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 4/13/2010 14:17:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	101618.4	101618.4	88.8	%			14:17:33
1	Al 396.153Radial†	1943210.1	2187483.6	515880	µg/L	515880	ppb	14:17:31
1	Ca 317.933Radial†	5408483.1	6087669.7	501260	µg/L	501260	ppb	14:17:31
1	Fe 238.204 Radial†	4964166.3	5587851.5	476660	µg/L	476660	ppb	14:17:31
1	K 766.490 Radial†	1644.8	442.2	-155.17	µg/L	-155.17	ppb	14:17:33
1	Mg 279.077 IEC†	785677.1	884249.9	488620	µg/L	488620	ppb	14:17:33
1	Na 589.592 Radial†	2921118.1	3287357.7	524520	µg/L	524520	ppb	14:17:31
1	Sr 421.552†	4353.4	4967.2	8.8363	µg/L	8.8363	ppb	14:17:33
1	Sc 361.383	1451048.9	1451048.9	85.746	%			14:17:46
1	Y 371.029	805183.5	805183.5	84.134	%			14:17:46
1	Ag 328.068†	4051.2	-378.3	3.1073	µg/L	3.1073	ppb	14:17:46
1	As 188.979†	-228.7	-253.3	19.155	µg/L	19.155	ppb	14:17:48
1	B 249.677†	4969.3	1683.5	24.945	µg/L	24.945	ppb	14:17:46
1	Ba 233.527†	806.8	1086.8	-1.1700	µg/L	-1.1700	ppb	14:17:48
1	Be 313.107†	-15029.4	-16535.5	0.2344	µg/L	0.2344	ppb	14:17:46
1	Cd 226.502†	5903.4	6949.3	-4.1753	µg/L	-4.1753	ppb	14:17:48
1	Co 228.616†	637.5	970.6	-12.137	µg/L	-12.137	ppb	14:17:48
1	Cr 267.716†	504.9	259.2	0.0608	µg/L	0.0608	ppb	14:17:48
1	Cu 324.752†	-16422.5	-22393.8	3.3698	µg/L	3.3698	ppb	14:17:46
1	Mn 257.610†	17552.6	20255.1	5.8354	µg/L	5.8354	ppb	14:17:46
1	Mo 202.031†	-785.2	-894.1	-2.5554	µg/L	-2.5554	ppb	14:17:48
1	Ni 231.604†	234.8	347.7	4.3240	µg/L	4.3240	ppb	14:17:48
1	P 214.914†	968.2	1148.4	53.892	µg/L	53.892	ppb	14:17:48
1	Pb 220.353†	134.0	39.0	6.8944	µg/L	6.8944	ppb	14:17:48
1	S 181.975 Axial†	183.6	112.1	95.158	µg/L	95.158	ppb	14:17:48
1	Sb 206.836†	114.4	55.9	-2.6688	µg/L	-2.6688	ppb	14:17:48
1	Se 196.026†	-375.8	-458.2	3.88	µg/L	3.88	ppb	14:17:48
1	SiO2†	1940.8	574.5	60.057	µg/L	60.057	ppb	14:17:48
1	Si 251.611†	-2012.3	-3133.3	-47.449	µg/L	-47.449	ppb	14:17:48
1	Sn 189.927†	113.8	124.3	8.7464	µg/L	8.7464	ppb	14:17:48
1	Ti 334.940†	22993.9	25930.2	-6.2256	µg/L	-6.2256	ppb	14:17:46
1	Tl 190.801†	-239.8	-164.5	-22.560	µg/L	-22.560	ppb	14:17:48
1	U 409.014†	228975.2	267450.4	16179	µg/L	16179	ppb	14:17:46
1	V 292.402†	8387.4	9285.7	6.3554	µg/L	6.3554	ppb	14:17:48
1	Zn 213.857†	8658.3	9478.3	8.1931	µg/L	8.1931	ppb	14:17:48
2	Sc RADIAL	102321.2	102321.2	89.5	%			14:17:38
2	Al 396.153Radial†	1946639.3	2176294.8	513240	µg/L	513240	ppb	14:17:36
2	Ca 317.933Radial†	5403416.6	6040193.8	497350	µg/L	497350	ppb	14:17:36
2	Fe 238.204 Radial†	4952835.0	5536806.9	472310	µg/L	472310	ppb	14:17:36
2	K 766.490 Radial†	1697.8	488.7	-134.37	µg/L	-134.37	ppb	14:17:38
2	Mg 279.077 IEC†	789460.4	882405.5	487600	µg/L	487600	ppb	14:17:38
2	Na 589.592 Radial†	2914785.7	3257696.0	519790	µg/L	519790	ppb	14:17:36
2	Sr 421.552†	4392.5	4977.2	8.8926	µg/L	8.8926	ppb	14:17:38
2	Sc 361.383	1443441.1	1443441.1	85.296	%			14:17:51
2	Y 371.029	800939.8	800939.8	83.690	%			14:17:51
2	Ag 328.068†	4124.8	-267.2	3.7115	µg/L	3.7115	ppb	14:17:51
2	As 188.979†	-226.0	-251.6	18.808	µg/L	18.808	ppb	14:17:53
2	B 249.677†	5172.5	1952.2	28.930	µg/L	28.930	ppb	14:17:51
2	Ba 233.527†	727.0	998.2	-1.5148	µg/L	-1.5148	ppb	14:17:53
2	Be 313.107†	-15035.4	-16635.0	0.2078	µg/L	0.2078	ppb	14:17:51
2	Cd 226.502†	5968.0	7061.3	-2.9762	µg/L	-2.9762	ppb	14:17:53
2	Co 228.616†	732.9	1086.3	-10.393	µg/L	-10.393	ppb	14:17:53
2	Cr 267.716†	613.1	389.1	1.0597	µg/L	1.0597	ppb	14:17:53
2	Cu 324.752†	-16257.3	-22301.1	3.0973	µg/L	3.0973	ppb	14:17:51
2	Mn 257.610†	17311.8	20080.7	5.6594	µg/L	5.6594	ppb	14:17:51
2	Mo 202.031†	-773.8	-885.6	-2.4578	µg/L	-2.4578	ppb	14:17:53
2	Ni 231.604†	307.5	434.4	5.4020	µg/L	5.4020	ppb	14:17:53
2	P 214.914†	838.3	1002.1	22.793	µg/L	22.793	ppb	14:17:53
2	Pb 220.353†	-74.9	-205.0	-8.4162	µg/L	-8.4162	ppb	14:17:53

2	S 181.975 Axial†	172.1	99.8	84.675 µg/L	84.675 ppb	14:17:53
2	Sb 206.836†	130.0	74.9	-0.1769 µg/L	-0.1769 ppb	14:17:53
2	Se 196.026†	-357.8	-439.5	9.62 µg/L	9.62 ppb	14:17:53
2	SiO2†	1907.5	547.5	57.320 µg/L	57.320 ppb	14:17:53
2	Si 251.611†	-1844.0	-2948.4	-44.606 µg/L	-44.606 ppb	14:17:53
2	Sn 189.927†	63.4	65.9	4.6843 µg/L	4.6843 ppb	14:17:53
2	Ti 334.940†	23049.9	26137.2	-6.0299 µg/L	-6.0299 ppb	14:17:51
2	Tl 190.801†	-252.7	-181.0	-24.888 µg/L	-24.888 ppb	14:17:53
2	U 409.014†	227848.4	267536.8	16185 µg/L	16185 ppb	14:17:51
2	V 292.402†	8499.3	9468.4	7.7317 µg/L	7.7317 ppb	14:17:53
2	Zn 213.857†	8749.4	9638.3	9.5633 µg/L	9.5633 ppb	14:17:53
3	Sc RADIAL	102776.7	102776.7	89.8 %		14:17:42
3	Al 396.153Radial†	1944918.6	2164733.5	510510 µg/L	510510 ppb	14:17:40
3	Ca 317.933Radial†	5395053.8	6004110.7	494370 µg/L	494370 ppb	14:17:40
3	Fe 238.204 Radial†	4944761.9	5503278.9	469450 µg/L	469450 ppb	14:17:40
3	K 766.490 Radial†	1556.1	322.6	-199.36 µg/L	-199.36 ppb	14:17:42
3	Mg 279.077 IEC†	792672.2	882068.1	487420 µg/L	487420 ppb	14:17:42
3	Na 589.592 Radial†	2915975.4	3244576.5	517690 µg/L	517690 ppb	14:17:40
3	Sr 421.552†	4386.8	4949.1	8.8437 µg/L	8.8437 ppb	14:17:42
3	Sc 361.383	1441855.7	1441855.7	85.203 %		14:17:56
3	Y 371.029	800135.8	800135.8	83.606 %		14:17:56
3	Ag 328.068†	3930.4	-490.0	2.9115 µg/L	2.9115 ppb	14:17:56
3	As 188.979†	-223.7	-249.1	19.005 µg/L	19.005 ppb	14:17:58
3	B 249.677†	4889.6	1626.9	24.105 µg/L	24.105 ppb	14:17:56
3	Ba 233.527†	656.6	916.5	-1.8485 µg/L	-1.8485 ppb	14:17:58
3	Be 313.107†	-15019.5	-16635.6	0.2128 µg/L	0.2128 ppb	14:17:56
3	Cd 226.502†	5902.7	6992.4	-3.1320 µg/L	-3.1320 ppb	14:17:58
3	Co 228.616†	655.4	996.2	-11.425 µg/L	-11.425 ppb	14:17:58
3	Cr 267.716†	510.7	269.7	-0.0990 µg/L	-0.0990 ppb	14:17:58
3	Cu 324.752†	-16176.0	-22226.5	2.9978 µg/L	2.9978 ppb	14:17:56
3	Mn 257.610†	17396.2	20202.0	5.8328 µg/L	5.8328 ppb	14:17:56
3	Mo 202.031†	-835.6	-959.1	-5.0674 µg/L	-5.0674 ppb	14:17:58
3	Ni 231.604†	214.2	325.3	4.0460 µg/L	4.0460 ppb	14:17:58
3	P 214.914†	771.2	924.4	6.4274 µg/L	6.4274 ppb	14:17:58
3	Pb 220.353†	47.6	-61.4	0.4844 µg/L	0.4844 ppb	14:17:58
3	S 181.975 Axial†	146.3	69.7	59.070 µg/L	59.070 ppb	14:17:58
3	Sb 206.836†	223.3	184.6	13.925 µg/L	13.925 ppb	14:17:58
3	Se 196.026†	-446.7	-544.2	-31.9 µg/L	-31.9 ppb	14:17:58
3	SiO2†	1948.9	598.5	62.609 µg/L	62.609 ppb	14:17:58
3	Si 251.611†	-1800.7	-2899.9	-43.856 µg/L	-43.856 ppb	14:17:58
3	Sn 189.927†	106.8	117.0	8.2367 µg/L	8.2367 ppb	14:17:58
3	Ti 334.940†	22940.7	26038.8	-6.2021 µg/L	-6.2021 ppb	14:17:56
3	Tl 190.801†	-163.9	-77.1	-10.240 µg/L	-10.240 ppb	14:17:58
3	U 409.014†	227839.0	267819.5	16203 µg/L	16203 ppb	14:17:56
3	V 292.402†	8559.5	9550.0	8.4195 µg/L	8.4195 ppb	14:17:58
3	Zn 213.857†	8617.8	9495.1	9.0308 µg/L	9.0308 ppb	14:17:58

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1445448.6	85.415	%	0.2904				0.34%
Sc RADIAL	102238.8	89.4	%	0.51				0.57%
Y 371.029	802086.4	83.810	%	0.2834				0.34%
Ag 328.068†	-378.5	3.2434	µg/L	0.41706	3.2434	ppb	0.41706	12.86%
Al 396.153Radial†	2176170.6	513210	µg/L	2682.7	513210	ppb	2682.7	0.52%
QC value within limits for Al 396.153Radial Recovery = 102.64%								
As 188.979†	-251.3	18.989	µg/L	0.1741	18.989	ppb	0.1741	0.92%
B 249.677†	1754.2	25.993	µg/L	2.5778	25.993	ppb	2.5778	9.92%
Ba 233.527†	1000.5	-1.5111	µg/L	0.33925	-1.5111	ppb	0.33925	22.45%
Be 313.107†	-16602.0	0.2184	µg/L	0.01411	0.2184	ppb	0.01411	6.46%
Ca 317.933Radial†	6043991.4	497660	µg/L	3450.7	497660	ppb	3450.7	0.69%
QC value within limits for Ca 317.933Radial Recovery = 99.53%								
Cd 226.502†	7001.0	-3.4278	µg/L	0.65201	-3.4278	ppb	0.65201	19.02%
Co 228.616†	1017.7	-11.319	µg/L	0.8771	-11.319	ppb	0.8771	7.75%
Cr 267.716†	306.0	0.3405	µg/L	0.62793	0.3405	ppb	0.62793	184.42%
Cu 324.752†	-22307.2	3.1550	µg/L	0.19260	3.1550	ppb	0.19260	6.10%
Fe 238.204 Radial†	5542645.8	472810	µg/L	3632.9	472810	ppb	3632.9	0.77%
QC value within limits for Fe 238.204 Radial Recovery = 94.56%								
K 766.490 Radial†	417.8	-162.97	µg/L	33.187	-162.97	ppb	33.187	20.36%
Mg 279.077 IEC†	882907.8	487880	µg/L	646.5	487880	ppb	646.5	0.13%

QC value within limits for Mg 279.077 IEC Recovery = 97.58%

Mn 257.610†	20179.3	5.7759 µg/L	0.10089	5.7759 ppb	0.10089	1.75%
Mo 202.031†	-912.9	-3.3602 µg/L	1.47930	-3.3602 ppb	1.47930	44.02%
Na 589.592 Radial†	3263210.1	520670 µg/L	3497.0	520670 ppb	3497.0	0.67%

QC value within limits for Na 589.592 Radial Recovery = 104.13%

Ni 231.604†	369.1	4.5907 µg/L	0.71624	4.5907 ppb	0.71624	15.60%
P 214.914†	1024.9	27.704 µg/L	24.1102	27.704 ppb	24.1102	87.03%
Pb 220.353†	-75.8	-0.3458 µg/L	7.68897	-0.3458 ppb	7.68897	>999.9%
S 181.975 Axial†	93.9	79.634 µg/L	18.5646	79.634 ppb	18.5646	23.31%
Sb 206.836†	105.1	3.6930 µg/L	8.94807	3.6930 ppb	8.94807	242.30%
Se 196.026†	-480.7	-6.12 µg/L	22.477	-6.12 ppb	22.477	367.13%
SiO2†	573.5	59.995 µg/L	2.6451	59.995 ppb	2.6451	4.41%
Si 251.611†	-2993.9	-45.304 µg/L	1.8957	-45.304 ppb	1.8957	4.18%
Sn 189.927†	102.4	7.2225 µg/L	2.21285	7.2225 ppb	2.21285	30.64%
Sr 421.552†	4964.5	8.8575 µg/L	0.03063	8.8575 ppb	0.03063	0.35%
Ti 334.940†	26035.4	-6.1525 µg/L	0.10684	-6.1525 ppb	0.10684	1.74%
Tl 190.801†	-140.8	-19.230 µg/L	7.8717	-19.230 ppb	7.8717	40.94%
U 409.014†	267602.2	16189 µg/L	12.4	16189 ppb	12.4	0.08%

QC value within limits for U 409.014 Recovery = 107.93%

V 292.402†	9434.7	7.5022 µg/L	1.05102	7.5022 ppb	1.05102	14.01%
Zn 213.857†	9537.2	8.9291 µg/L	0.69073	8.9291 ppb	0.69073	7.74%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 4/13/2010 14:18:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113057.1	113057.1	98.8	%			14:18:39
1	Al 396.153Radial†	1979.7	2088.0	28.253	µg/L	28.253	ppb	14:18:41
1	Ca 317.933Radial†	1178.8	735.9	60.595	µg/L	60.595	ppb	14:18:41
1	Fe 238.204 Radial†	-386.1	-514.9	-43.927	µg/L	-43.927	ppb	14:18:41
1	K 766.490 Radial†	740197.3	747501.7	299210	µg/L	299210	ppb	14:18:39
1	Mg 279.077 IEC†	-269.8	-430.4	6.5176	µg/L	6.5176	ppb	14:18:41
1	Na 589.592 Radial†	2408.3	1601.3	-10.601	µg/L	-10.601	ppb	14:18:41
1	Sr 421.552†	3757575.8	3801877.0	9766.2	µg/L	9766.2	ppb	14:18:37
1	Sc 361.383	1627056.1	1627056.1	96.147	%			14:19:03
1	Y 371.029	896254.3	896254.3	93.650	%			14:19:03
1	Ag 328.068†	-21181.0	-27132.8	7.9518	µg/L	7.9518	ppb	14:19:05
1	As 188.979†	27513.5	28629.6	10175	µg/L	10175	ppb	14:19:05
1	B 249.677†	332796.8	342022.7	5043.2	µg/L	5043.2	ppb	14:19:03
1	Ba 233.527†	2731023.6	2840624.0	12868	µg/L	12868	ppb	14:19:03
1	Be 313.107†	10023230.3	10425935.4	2951.9	µg/L	2951.9	ppb	14:18:59
1	Cd 226.502†	1438589.6	1496310.2	9898.4	µg/L	9898.4	ppb	14:19:03
1	Co 228.616†	713699.8	742530.6	9750.4	µg/L	9750.4	ppb	14:19:03
1	Cr 267.716†	2691360.1	2798895.3	24585	µg/L	24585	ppb	14:19:03
1	Cu 324.752†	4756253.5	4943634.1	20471	µg/L	20471	ppb	14:19:03
1	Mn 257.610†	7004818.2	7285343.2	9522.9	µg/L	9522.9	ppb	14:19:03
1	Mo 202.031†	283045.3	294410.8	9997.4	µg/L	9997.4	ppb	14:19:05
1	Ni 231.604†	767548.0	798383.8	9928.6	µg/L	9928.6	ppb	14:19:03
1	P 214.914†	64525.6	67130.9	15097	µg/L	15097	ppb	14:19:05
1	Pb 220.353†	369576.8	384271.6	24108	µg/L	24108	ppb	14:19:03
1	S 181.975 Axial†	59080.3	61346.2	52281	µg/L	52281	ppb	14:19:05
1	Sb 206.836†	76097.6	79070.0	9941.6	µg/L	9941.6	ppb	14:19:05
1	Se 196.026†	24505.6	25467.8	9850	µg/L	9850	ppb	14:19:05
1	SiO2†	957701.9	994395.9	102250	µg/L	102250	ppb	14:19:03
1	Si 251.611†	3023960.8	3144369.1	47767	µg/L	47767	ppb	14:19:03
1	Sn 189.927†	137061.4	142546.1	9961.0	µg/L	9961.0	ppb	14:19:05
1	Ti 334.940†	9419561.6	9796194.4	10265	µg/L	10265	ppb	14:18:59
1	Tl 190.801†	65725.3	68474.7	9804.0	µg/L	9804.0	ppb	14:19:05
1	U 409.014†	-5128.7	-4923.0	316.31	µg/L	316.31	ppb	14:19:05
1	V 292.402†	1964093.0	2042314.2	10325	µg/L	10325	ppb	14:19:03
1	Zn 213.857†	2451285.7	2548909.5	14639	µg/L	14639	ppb	14:19:03
2	Sc RADIAL	111791.4	111791.4	97.7	%			14:18:45
2	Al 396.153Radial†	1955.0	2085.4	26.986	µg/L	26.986	ppb	14:18:47
2	Ca 317.933Radial†	993.7	560.0	46.110	µg/L	46.110	ppb	14:18:47
2	Fe 238.204 Radial†	-493.4	-629.1	-53.668	µg/L	-53.668	ppb	14:18:47
2	K 766.490 Radial†	738179.0	753915.8	301770	µg/L	301770	ppb	14:18:45
2	Mg 279.077 IEC†	-354.4	-520.0	-42.678	µg/L	-42.678	ppb	14:18:47
2	Na 589.592 Radial†	2259.9	1477.1	-32.705	µg/L	-32.705	ppb	14:18:47
2	Sr 421.552†	3820347.3	3909151.0	10042	µg/L	10042	ppb	14:18:43
2	Sc 361.383	1633949.6	1633949.6	96.554	%			14:19:13
2	Y 371.029	900415.6	900415.6	94.084	%			14:19:13
2	Ag 328.068†	-21328.4	-27192.6	7.1208	µg/L	7.1208	ppb	14:19:15
2	As 188.979†	27764.9	28769.3	10223	µg/L	10223	ppb	14:19:15
2	B 249.677†	332666.5	340427.5	5019.7	µg/L	5019.7	ppb	14:19:13
2	Ba 233.527†	2729926.4	2827503.9	12809	µg/L	12809	ppb	14:19:13
2	Be 313.107†	9898126.5	10252384.9	2902.7	µg/L	2902.7	ppb	14:19:09
2	Cd 226.502†	1435333.2	1486625.1	9834.3	µg/L	9834.3	ppb	14:19:13
2	Co 228.616†	711992.2	737630.4	9686.1	µg/L	9686.1	ppb	14:19:13
2	Cr 267.716†	2688281.6	2783897.3	24453	µg/L	24453	ppb	14:19:13
2	Cu 324.752†	4752584.8	4918964.2	20369	µg/L	20369	ppb	14:19:13
2	Mn 257.610†	6997905.1	7247446.3	9473.4	µg/L	9473.4	ppb	14:19:13
2	Mo 202.031†	284646.2	294826.9	10012	µg/L	10012	ppb	14:19:15
2	Ni 231.604†	766144.9	793562.6	9868.6	µg/L	9868.6	ppb	14:19:13
2	P 214.914†	64919.2	67255.4	15127	µg/L	15127	ppb	14:19:15
2	Pb 220.353†	368356.6	381386.1	23928	µg/L	23928	ppb	14:19:13

2	S 181.975 Axial†	59321.7	61337.0	52274 µg/L	52274 ppb	14:19:15
2	Sb 206.836†	76388.8	79037.6	9939.6 µg/L	9939.6 ppb	14:19:15
2	Se 196.026†	24615.4	25473.9	9850 µg/L	9850 ppb	14:19:15
2	SiO2†	958315.6	990829.1	101880 µg/L	101880 ppb	14:19:13
2	Si 251.611†	3025752.0	3132955.2	47592 µg/L	47592 ppb	14:19:13
2	Sn 189.927†	138059.0	142977.9	9990.5 µg/L	9990.5 ppb	14:19:15
2	Ti 334.940†	9311775.6	9643228.6	10105 µg/L	10105 ppb	14:19:09
2	Tl 190.801†	65883.1	68349.7	9784.6 µg/L	9784.6 ppb	14:19:15
2	U 409.014†	-5181.6	-4955.2	311.35 µg/L	311.35 ppb	14:19:15
2	V 292.402†	1962839.4	2032397.5	10276 µg/L	10276 ppb	14:19:13
2	Zn 213.857†	2447290.1	2534015.0	14554 µg/L	14554 ppb	14:19:13
3	Sc RADIAL	111474.3	111474.3	97.5 %		14:18:52
3	Al 396.153Radial†	2221.8	2364.8	85.955 µg/L	85.955 ppb	14:18:54
3	Ca 317.933Radial†	1483.9	1066.0	87.771 µg/L	87.771 ppb	14:18:54
3	Fe 238.204 Radial†	-45.9	-171.4	-14.618 µg/L	-14.618 ppb	14:18:54
3	K 766.490 Radial†	741039.7	759000.3	303810 µg/L	303810 ppb	14:18:52
3	Mg 279.077 IEC†	-288.4	-453.3	-2.2053 µg/L	-2.2053 ppb	14:18:54
3	Na 589.592 Radial†	2434.6	1662.9	-4.8658 µg/L	-4.8658 ppb	14:18:54
3	Sr 421.552†	3806040.0	3905592.2	10033 µg/L	10033 ppb	14:18:50
3	Sc 361.383	1616630.6	1616630.6	95.531 %		14:19:22
3	Y 371.029	890258.4	890258.4	93.023 %		14:19:22
3	Ag 328.068†	-22052.3	-28187.0	3.2889 µg/L	3.2889 ppb	14:19:25
3	As 188.979†	28082.0	29409.2	10445 µg/L	10445 ppb	14:19:25
3	B 249.677†	330052.1	341381.9	5033.8 µg/L	5033.8 ppb	14:19:22
3	Ba 233.527†	2708661.7	2835533.8	12845 µg/L	12845 ppb	14:19:22
3	Be 313.107†	9845255.5	10306863.5	2918.2 µg/L	2918.2 ppb	14:19:19
3	Cd 226.502†	1421588.9	1488163.3	9844.5 µg/L	9844.5 ppb	14:19:22
3	Co 228.616†	706473.4	739753.2	9714.0 µg/L	9714.0 ppb	14:19:22
3	Cr 267.716†	2665538.6	2789917.7	24506 µg/L	24506 ppb	14:19:22
3	Cu 324.752†	4720530.1	4938141.5	20449 µg/L	20449 ppb	14:19:22
3	Mn 257.610†	6940639.6	7265145.9	9496.5 µg/L	9496.5 ppb	14:19:22
3	Mo 202.031†	285828.6	299222.8	10161 µg/L	10161 ppb	14:19:25
3	Ni 231.604†	758915.0	794495.1	9880.2 µg/L	9880.2 ppb	14:19:22
3	P 214.914†	65258.4	68330.8	15372 µg/L	15372 ppb	14:19:25
3	Pb 220.353†	365201.9	382170.9	23977 µg/L	23977 ppb	14:19:22
3	S 181.975 Axial†	59689.8	62380.5	53163 µg/L	53163 ppb	14:19:25
3	Sb 206.836†	76727.7	80239.9	10095 µg/L	10095 ppb	14:19:25
3	Se 196.026†	24687.4	25822.5	9990 µg/L	9990 ppb	14:19:25
3	SiO2†	952195.5	995055.6	102310 µg/L	102310 ppb	14:19:22
3	Si 251.611†	3007396.0	3147312.2	47808 µg/L	47808 ppb	14:19:22
3	Sn 189.927†	138667.0	145146.2	10142 µg/L	10142 ppb	14:19:25
3	Ti 334.940†	9266032.1	9698662.5	10163 µg/L	10163 ppb	14:19:19
3	Tl 190.801†	66198.5	69410.9	9934.8 µg/L	9934.8 ppb	14:19:25
3	U 409.014†	-4988.6	-4810.8	321.48 µg/L	321.48 ppb	14:19:25
3	V 292.402†	1946274.3	2036835.8	10300 µg/L	10300 ppb	14:19:22
3	Zn 213.857†	2427801.1	2540767.8	14593 µg/L	14593 ppb	14:19:22

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1625878.7	96.077	%	0.5152				0.54%
Sc RADIAL	112107.6	98.0	%	0.73				0.75%
Y 371.029	895642.8	93.586	%	0.5335				0.57%
Ag 328.068†	-27504.1	6.1205	µg/L	2.48720	6.1205	ppb	2.48720	40.64%
Al 396.153Radial†	2179.4	47.065	µg/L	33.6857	47.065	ppb	33.6857	71.57%
As 188.979†	28936.0	10281	µg/L	144.0	10281	ppb	144.0	1.40%
QC value within limits for As 188.979 Recovery = 102.81%								
B 249.677†	341277.3	5032.3	µg/L	11.81	5032.3	ppb	11.81	0.23%
QC value within limits for B 249.677 Recovery = 100.65%								
Ba 233.527†	2834553.9	12841	µg/L	30.0	12841	ppb	30.0	0.23%
QC value less than the lower limit for Ba 233.527 Recovery = 85.61%								
Be 313.107†	10328394.6	2924.3	µg/L	25.13	2924.3	ppb	25.13	0.86%
QC value within limits for Be 313.107 Recovery = 97.48%								
Ca 317.933Radial†	787.3	64.825	µg/L	21.1501	64.825	ppb	21.1501	32.63%
Cd 226.502†	1490366.2	9859.1	µg/L	34.43	9859.1	ppb	34.43	0.35%
QC value within limits for Cd 226.502 Recovery = 98.59%								
Co 228.616†	739971.4	9716.8	µg/L	32.25	9716.8	ppb	32.25	0.33%
QC value within limits for Co 228.616 Recovery = 97.17%								
Cr 267.716†	2790903.4	24514	µg/L	66.3	24514	ppb	66.3	0.27%
QC value within limits for Cr 267.716 Recovery = 98.06%								

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Cu 324.752†          4933579.9       20430 µg/L          53.6       20430 ppb          53.6   0.26%
   QC value within limits for Cu 324.752  Recovery = 102.15%
Fe 238.204 Radial†      -438.5     -37.404 µg/L       20.3260     -37.404 ppb       20.3260  54.34%
K 766.490 Radial†     753472.6      301600 µg/L        2306.4      301600 ppb        2306.4   0.76%
   QC value within limits for K 766.490 Radial  Recovery = 100.53%
Mg 279.077 IEC†         -467.9     -12.789 µg/L       26.2498     -12.789 ppb       26.2498 205.26%
Mn 257.610†          7265978.4      9497.6 µg/L         24.79      9497.6 ppb         24.79   0.26%
   QC value within limits for Mn 257.610  Recovery = 94.98%
Mo 202.031†           296153.5       10057 µg/L          90.5       10057 ppb          90.5   0.90%
   QC value within limits for Mo 202.031  Recovery = 100.57%
Na 589.592 Radial†      1580.5     -16.057 µg/L       14.6997     -16.057 ppb       14.6997  91.54%
Ni 231.604†           795480.5      9892.5 µg/L         31.80      9892.5 ppb         31.80   0.32%
   QC value within limits for Ni 231.604  Recovery = 98.92%
P 214.914†             67572.3       15199 µg/L         150.5       15199 ppb         150.5   0.99%
   QC value within limits for P 214.914  Recovery = 101.32%
Pb 220.353†           382609.5       24004 µg/L          93.5       24004 ppb          93.5   0.39%
   QC value within limits for Pb 220.353  Recovery = 96.02%
S 181.975 Axial†       61687.9       52573 µg/L         511.1       52573 ppb         511.1   0.97%
   QC value within limits for S 181.975 Axial  Recovery = 105.15%
Sb 206.836†            79449.2      9992.2 µg/L         89.34      9992.2 ppb         89.34   0.89%
   QC value within limits for Sb 206.836  Recovery = 99.92%
Se 196.026†            25588.1        9890 µg/L          78.5        9890 ppb          78.5   0.79%
   QC value within limits for Se 196.026  Recovery = 98.95%
SiO2†                 993426.9      102150 µg/L         232.7      102150 ppb         232.7   0.23%
   QC value within limits for SiO2  Recovery = 95.47%
Si 251.611†          3141545.5       47723 µg/L         114.6       47723 ppb         114.6   0.24%
   QC value within limits for Si 251.611  Recovery = 95.45%
Sn 189.927†           143556.7       10031 µg/L          96.9       10031 ppb          96.9   0.97%
   QC value within limits for Sn 189.927  Recovery = 100.31%
Sr 421.552†          3872206.7      9946.8 µg/L        156.52      9946.8 ppb        156.52   1.57%
   QC value within limits for Sr 421.552  Recovery = 99.47%
Ti 334.940†          9712695.1       10178 µg/L          81.2       10178 ppb          81.2   0.80%
   QC value within limits for Ti 334.940  Recovery = 101.78%
Tl 190.801†            68745.1      9841.2 µg/L         81.71      9841.2 ppb         81.71   0.83%
   QC value within limits for Tl 190.801  Recovery = 98.41%
U 409.014†             -4896.3      316.38 µg/L         5.066      316.38 ppb         5.066   1.60%
V 292.402†           2037182.5       10300 µg/L          24.7       10300 ppb          24.7   0.24%
   QC value within limits for V 292.402  Recovery = 103.00%
Zn 213.857†          2541230.8       14595 µg/L          42.9       14595 ppb          42.9   0.29%
   QC value within limits for Zn 213.857  Recovery = 97.30%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/13/2010 14:19:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	112203.8	112203.8	98.1	%			14:20:06
1	Al 396.153Radial†	21489.9	21993.2	5162.9	µg/L	5162.9	ppb	14:20:06
1	Ca 317.933Radial†	61613.2	62355.9	5134.3	µg/L	5134.3	ppb	14:20:06
1	Fe 238.204 Radial†	59068.1	60093.7	5126.2	µg/L	5126.2	ppb	14:20:06
1	K 766.490 Radial†	15049.0	13932.7	5572.7	µg/L	5572.7	ppb	14:20:06
1	Mg 279.077 IEC†	9386.0	9411.4	5213.0	µg/L	5213.0	ppb	14:20:06
1	Na 589.592 Radial†	64068.9	64480.9	10283	µg/L	10283	ppb	14:20:04
1	Sr 421.552†	196127.7	200012.4	513.75	µg/L	513.75	ppb	14:20:04
1	Sc 361.383	1663650.0	1663650.0	98.309	%			14:20:19
1	Y 371.029	930876.1	930876.1	97.267	%			14:20:19
1	Ag 328.068†	125303.2	122355.5	511.54	µg/L	511.54	ppb	14:20:19
1	As 188.979†	1417.3	1455.1	511.27	µg/L	511.27	ppb	14:20:39
1	B 249.677†	38223.4	34769.0	514.34	µg/L	514.34	ppb	14:20:19
1	Ba 233.527†	110371.5	112415.8	509.29	µg/L	509.29	ppb	14:20:19
1	Be 313.107†	1754134.0	1785298.2	505.62	µg/L	505.62	ppb	14:20:19
1	Cd 226.502†	76017.7	77389.8	511.41	µg/L	511.41	ppb	14:20:19
1	Co 228.616†	38086.1	38968.3	511.13	µg/L	511.13	ppb	14:20:19
1	Cr 267.716†	57242.2	57897.1	508.36	µg/L	508.36	ppb	14:20:19
1	Cu 324.752†	124009.6	122901.4	510.36	µg/L	510.36	ppb	14:20:19
1	Mn 257.610†	383714.0	390098.7	509.69	µg/L	509.69	ppb	14:20:19
1	Mo 202.031†	14766.9	15042.5	511.10	µg/L	511.10	ppb	14:20:39
1	Ni 231.604†	40209.4	40974.9	509.56	µg/L	509.56	ppb	14:20:19
1	P 214.914†	10884.8	11091.3	2525.5	µg/L	2525.5	ppb	14:20:39
1	Pb 220.353†	8325.6	8351.6	524.93	µg/L	524.93	ppb	14:20:39
1	S 181.975 Axial†	1314.8	1235.5	1055.6	µg/L	1055.6	ppb	14:20:39
1	Sb 206.836†	3971.7	3962.5	509.12	µg/L	509.12	ppb	14:20:39
1	Se 196.026†	1332.0	1334.9	518	µg/L	518	ppb	14:20:39
1	SiO2†	53455.9	52686.4	5418.3	µg/L	5418.3	ppb	14:20:19
1	Si 251.611†	165269.8	167326.0	2542.3	µg/L	2542.3	ppb	14:20:19
1	Sn 189.927†	7215.1	7330.8	512.20	µg/L	512.20	ppb	14:20:39
1	Ti 334.940†	478219.0	485558.5	508.56	µg/L	508.56	ppb	14:20:19
1	Tl 190.801†	3441.0	3615.4	517.12	µg/L	517.12	ppb	14:20:39
1	U 409.014†	7002.5	7534.2	488.93	µg/L	488.93	ppb	14:20:19
1	V 292.402†	100424.5	101655.8	510.78	µg/L	510.78	ppb	14:20:19
1	Zn 213.857†	87874.3	88766.5	508.47	µg/L	508.47	ppb	14:20:19
2	Sc RADIAL	111485.0	111485.0	97.5	%			14:20:10
2	Al 396.153Radial†	21686.2	22335.9	5244.0	µg/L	5244.0	ppb	14:20:10
2	Ca 317.933Radial†	62036.2	63194.9	5203.4	µg/L	5203.4	ppb	14:20:10
2	Fe 238.204 Radial†	59099.2	60513.8	5162.1	µg/L	5162.1	ppb	14:20:10
2	K 766.490 Radial†	15114.4	14098.7	5639.1	µg/L	5639.1	ppb	14:20:10
2	Mg 279.077 IEC†	9440.1	9528.6	5277.6	µg/L	5277.6	ppb	14:20:10
2	Na 589.592 Radial†	63223.6	64034.7	10212	µg/L	10212	ppb	14:20:08
2	Sr 421.552†	193487.6	198592.8	510.10	µg/L	510.10	ppb	14:20:08
2	Sc 361.383	1684649.2	1684649.2	99.550	%			14:20:42
2	Y 371.029	942088.8	942088.8	98.439	%			14:20:42
2	Ag 328.068†	126565.4	122034.6	510.21	µg/L	510.21	ppb	14:20:42
2	As 188.979†	1414.0	1433.8	503.88	µg/L	503.88	ppb	14:21:02
2	B 249.677†	38415.8	34477.6	510.02	µg/L	510.02	ppb	14:20:42
2	Ba 233.527†	111543.9	112194.1	508.28	µg/L	508.28	ppb	14:20:42
2	Be 313.107†	1772159.3	1781163.6	504.45	µg/L	504.45	ppb	14:20:42
2	Cd 226.502†	76829.4	77241.3	510.42	µg/L	510.42	ppb	14:20:42
2	Co 228.616†	38456.0	38856.9	509.67	µg/L	509.67	ppb	14:20:42
2	Cr 267.716†	57736.0	57667.4	506.34	µg/L	506.34	ppb	14:20:42
2	Cu 324.752†	124574.4	121896.3	506.21	µg/L	506.21	ppb	14:20:42
2	Mn 257.610†	387164.3	388699.3	507.86	µg/L	507.86	ppb	14:20:42
2	Mo 202.031†	14777.1	14865.5	505.09	µg/L	505.09	ppb	14:21:02
2	Ni 231.604†	40823.3	41081.8	510.89	µg/L	510.89	ppb	14:20:42
2	P 214.914†	10900.2	10968.7	2497.5	µg/L	2497.5	ppb	14:21:02
2	Pb 220.353†	8257.1	8177.2	513.98	µg/L	513.98	ppb	14:21:02

2	S 181.975 Axial†	1299.2	1203.2	1028.0 µg/L	1028.0 ppb		14:21:02
2	Sb 206.836†	3974.3	3914.7	502.92 µg/L	502.92 ppb		14:21:02
2	Se 196.026†	1306.9	1292.8	502 µg/L	502 ppb		14:21:02
2	SiO2†	53943.0	52498.0	5399.2 µg/L	5399.2 ppb		14:20:42
2	Si 251.611†	166874.4	166842.3	2535.0 µg/L	2535.0 ppb		14:20:42
2	Sn 189.927†	7194.7	7218.9	504.40 µg/L	504.40 ppb		14:21:02
2	Ti 334.940†	481648.5	482939.9	505.80 µg/L	505.80 ppb		14:20:42
2	Tl 190.801†	3446.2	3577.0	511.67 µg/L	511.67 ppb		14:21:02
2	U 409.014†	7194.5	7638.3	495.19 µg/L	495.19 ppb		14:20:42
2	V 292.402†	101490.1	101452.9	509.71 µg/L	509.71 ppb		14:20:42
2	Zn 213.857†	88574.5	88355.7	506.08 µg/L	506.08 ppb		14:20:42
3	Sc RADIAL	111168.9	111168.9	97.2 %			14:20:14
3	Al 396.153Radial†	21699.3	22412.6	5261.7 µg/L	5261.7 ppb		14:20:14
3	Ca 317.933Radial†	62059.5	63399.8	5220.3 µg/L	5220.3 ppb		14:20:14
3	Fe 238.204 Radial†	59000.9	60585.2	5168.1 µg/L	5168.1 ppb		14:20:14
3	K 766.490 Radial†	14976.1	14000.5	5599.8 µg/L	5599.8 ppb		14:20:14
3	Mg 279.077 IEC†	9531.8	9650.4	5345.2 µg/L	5345.2 ppb		14:20:14
3	Na 589.592 Radial†	64449.2	65480.2	10443 µg/L	10443 ppb		14:20:12
3	Sr 421.552†	197345.4	203126.8	521.75 µg/L	521.75 ppb		14:20:12
3	Sc 361.383	1667850.3	1667850.3	98.557 %			14:21:05
3	Y 371.029	933777.1	933777.1	97.570 %			14:21:05
3	Ag 328.068†	124700.3	121422.8	507.67 µg/L	507.67 ppb		14:21:05
3	As 188.979†	1421.1	1455.3	511.33 µg/L	511.33 ppb		14:21:25
3	B 249.677†	37695.1	34135.0	504.94 µg/L	504.94 ppb		14:21:05
3	Ba 233.527†	109824.4	111578.0	505.49 µg/L	505.49 ppb		14:21:05
3	Be 313.107†	1748485.2	1775073.2	502.73 µg/L	502.73 ppb		14:21:05
3	Cd 226.502†	75160.0	76324.8	504.36 µg/L	504.36 ppb		14:21:05
3	Co 228.616†	37938.9	38721.3	507.89 µg/L	507.89 ppb		14:21:05
3	Cr 267.716†	56714.7	57215.3	502.36 µg/L	502.36 ppb		14:21:05
3	Cu 324.752†	122905.3	121463.2	504.43 µg/L	504.43 ppb		14:21:05
3	Mn 257.610†	382135.2	387513.8	506.31 µg/L	506.31 ppb		14:21:05
3	Mo 202.031†	14861.6	15100.8	513.08 µg/L	513.08 ppb		14:21:25
3	Ni 231.604†	40100.8	40761.7	506.91 µg/L	506.91 ppb		14:21:05
3	P 214.914†	10963.3	11143.0	2537.4 µg/L	2537.4 ppb		14:21:25
3	Pb 220.353†	8289.4	8293.5	521.29 µg/L	521.29 ppb		14:21:25
3	S 181.975 Axial†	1308.9	1226.1	1047.6 µg/L	1047.6 ppb		14:21:25
3	Sb 206.836†	3998.2	3979.2	511.37 µg/L	511.37 ppb		14:21:25
3	Se 196.026†	1335.5	1335.0	519 µg/L	519 ppb		14:21:25
3	SiO2†	53112.4	52201.0	5368.2 µg/L	5368.2 ppb		14:21:05
3	Si 251.611†	164521.7	166143.6	2524.2 µg/L	2524.2 ppb		14:21:05
3	Sn 189.927†	7246.9	7344.5	513.15 µg/L	513.15 ppb		14:21:25
3	Ti 334.940†	475815.9	481895.2	504.70 µg/L	504.70 ppb		14:21:05
3	Tl 190.801†	3458.7	3624.5	518.35 µg/L	518.35 ppb		14:21:25
3	U 409.014†	7277.3	7795.1	504.58 µg/L	504.58 ppb		14:21:05
3	V 292.402†	99997.8	100965.6	507.36 µg/L	507.36 ppb		14:21:05
3	Zn 213.857†	87256.3	87914.3	503.56 µg/L	503.56 ppb		14:21:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1672049.8	98.805	%	0.6566				0.66%
Sc RADIAL	111619.2	97.6	%	0.46				0.48%
Y 371.029	935580.6	97.759	%	0.6081				0.62%
Ag 328.068†	121937.6	509.81	µg/L	1.969	509.81	ppb	1.969	0.39%
QC value within limits for Ag 328.068 Recovery = 101.96%								
Al 396.153Radial†	22247.2	5222.9	µg/L	52.68	5222.9	ppb	52.68	1.01%
QC value within limits for Al 396.153Radial Recovery = 104.46%								
As 188.979†	1448.1	508.83	µg/L	4.283	508.83	ppb	4.283	0.84%
QC value within limits for As 188.979 Recovery = 101.77%								
B 249.677†	34460.5	509.77	µg/L	4.705	509.77	ppb	4.705	0.92%
QC value within limits for B 249.677 Recovery = 101.95%								
Ba 233.527†	112062.6	507.69	µg/L	1.966	507.69	ppb	1.966	0.39%
QC value within limits for Ba 233.527 Recovery = 101.54%								
Be 313.107†	1780511.7	504.27	µg/L	1.454	504.27	ppb	1.454	0.29%
QC value within limits for Be 313.107 Recovery = 100.85%								
Ca 317.933Radial†	62983.5	5186.0	µg/L	45.54	5186.0	ppb	45.54	0.88%
QC value within limits for Ca 317.933Radial Recovery = 103.72%								
Cd 226.502†	76985.3	508.73	µg/L	3.816	508.73	ppb	3.816	0.75%
QC value within limits for Cd 226.502 Recovery = 101.75%								
Co 228.616†	38848.8	509.56	µg/L	1.625	509.56	ppb	1.625	0.32%

```
   QC value within limits for Co 228.616  Recovery = 101.91%
Cr 267.716†            57593.3      505.69 µg/L         3.054      505.69 ppb          3.054   0.60%
   QC value within limits for Cr 267.716  Recovery = 101.14%
Cu 324.752†           122087.0      507.00 µg/L         3.044      507.00 ppb          3.044   0.60%
   QC value within limits for Cu 324.752  Recovery = 101.40%
Fe 238.204 Radial†     60397.6      5152.1 µg/L         22.65      5152.1 ppb          22.65   0.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.04%
K 766.490 Radial†      14010.6      5603.9 µg/L         33.39      5603.9 ppb          33.39   0.60%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 112.08%
Mg 279.077 IEC†         9530.1      5278.6 µg/L         66.11      5278.6 ppb          66.11   1.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.57%
Mn 257.610†           388770.6      507.95 µg/L         1.694      507.95 ppb          1.694   0.33%
   QC value within limits for Mn 257.610  Recovery = 101.59%
Mo 202.031†            15002.9      509.76 µg/L         4.159      509.76 ppb          4.159   0.82%
   QC value within limits for Mo 202.031  Recovery = 101.95%
Na 589.592 Radial†     64665.2       10313 µg/L         118.1       10313 ppb          118.1   1.15%
   QC value within limits for Na 589.592 Radial  Recovery = 103.13%
Ni 231.604†            40939.5      509.12 µg/L         2.026      509.12 ppb          2.026   0.40%
   QC value within limits for Ni 231.604  Recovery = 101.82%
P 214.914†             11067.7      2520.1 µg/L         20.46      2520.1 ppb          20.46   0.81%
   QC value within limits for P 214.914  Recovery = 100.81%
Pb 220.353†             8274.1      520.07 µg/L         5.576      520.07 ppb          5.576   1.07%
   QC value within limits for Pb 220.353  Recovery = 104.01%
S 181.975 Axial†        1221.6      1043.7 µg/L         14.19      1043.7 ppb          14.19   1.36%
   QC value within limits for S 181.975 Axial  Recovery = 104.37%
Sb 206.836†             3952.1      507.80 µg/L         4.375      507.80 ppb          4.375   0.86%
   QC value within limits for Sb 206.836  Recovery = 101.56%
Se 196.026†             1320.9         513 µg/L           9.4         513 ppb            9.4   1.83%
   QC value within limits for Se 196.026  Recovery = 102.61%
SiO2†                  52461.8      5395.2 µg/L         25.33      5395.2 ppb          25.33   0.47%
   QC value within limits for SiO2  Recovery = 100.89%
Si 251.611†           166770.6      2533.9 µg/L          9.09      2533.9 ppb          9.09   0.36%
   QC value within limits for Si 251.611  Recovery = 101.35%
Sn 189.927†             7298.0      509.92 µg/L         4.801      509.92 ppb          4.801   0.94%
   QC value within limits for Sn 189.927  Recovery = 101.98%
Sr 421.552†           200577.3      515.20 µg/L         5.957      515.20 ppb          5.957   1.16%
   QC value within limits for Sr 421.552  Recovery = 103.04%
Ti 334.940†           483464.5      506.35 µg/L         1.985      506.35 ppb          1.985   0.39%
   QC value within limits for Ti 334.940  Recovery = 101.27%
Tl 190.801†             3605.7      515.71 µg/L         3.553      515.71 ppb          3.553   0.69%
   QC value within limits for Tl 190.801  Recovery = 103.14%
U 409.014†              7655.9      496.23 µg/L         7.875      496.23 ppb          7.875   1.59%
   QC value within limits for U 409.014  Recovery = 99.25%
V 292.402†            101358.1      509.28 µg/L         1.748      509.28 ppb          1.748   0.34%
   QC value within limits for V 292.402  Recovery = 101.86%
Zn 213.857†            88345.5      506.04 µg/L         2.452      506.04 ppb          2.452   0.48%
   QC value within limits for Zn 213.857  Recovery = 101.21%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/13/2010 14:21:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114703.5	114703.5	100	%			14:22:03
1	Al 396.153Radial†	-66.8	18.4	4.2925	µg/L	4.2925	ppb	14:22:23
1	Ca 317.933Radial†	516.1	58.0	4.7733	µg/L	4.7733	ppb	14:22:23
1	Fe 238.204 Radial†	198.0	73.2	6.2429	µg/L	6.2429	ppb	14:22:23
1	K 766.490 Radial†	1866.6	452.2	180.99	µg/L	180.99	ppb	14:22:03
1	Mg 279.077 IEC†	177.2	19.3	10.704	µg/L	10.704	ppb	14:22:23
1	Na 589.592 Radial†	1301.1	462.2	73.587	µg/L	73.587	ppb	14:22:03
1	Sr 421.552†	9.1	75.8	0.1947	µg/L	0.1947	ppb	14:22:03
1	Sc 361.383	1686563.7	1686563.7	99.663	%			14:23:25
1	Y 371.029	953976.9	953976.9	99.681	%			14:23:25
1	Ag 328.068†	5099.1	13.4	0.0513	µg/L	0.0513	ppb	14:23:27
1	As 188.979†	-11.8	1.6	0.5453	µg/L	0.5453	ppb	14:23:47
1	B 249.677†	4361.4	264.2	3.9223	µg/L	3.9223	ppb	14:23:27
1	Ba 233.527†	-147.4	-2.1	-0.0092	µg/L	-0.0092	ppb	14:23:47
1	Be 313.107†	-565.2	425.2	0.1195	µg/L	0.1195	ppb	14:23:27
1	Cd 226.502†	26.6	91.3	0.6031	µg/L	0.6031	ppb	14:23:47
1	Co 228.616†	-231.0	-4.8	-0.0628	µg/L	-0.0628	ppb	14:23:47
1	Cr 267.716†	333.6	5.1	0.0475	µg/L	0.0475	ppb	14:23:47
1	Cu 324.752†	3305.5	75.4	0.3108	µg/L	0.3108	ppb	14:23:27
1	Mn 257.610†	298.5	84.1	0.1095	µg/L	0.1095	ppb	14:23:47
1	Mo 202.031†	1.8	23.4	0.7964	µg/L	0.7964	ppb	14:23:47
1	Ni 231.604†	-56.3	17.4	0.2161	µg/L	0.2161	ppb	14:23:47
1	P 214.914†	-34.6	-15.5	-3.5505	µg/L	-3.5505	ppb	14:23:47
1	Pb 220.353†	170.2	53.5	3.3582	µg/L	3.3582	ppb	14:23:47
1	S 181.975 Axial†	110.4	8.8	7.5339	µg/L	7.5339	ppb	14:23:47
1	Sb 206.836†	85.6	8.3	1.0810	µg/L	1.0810	ppb	14:23:47
1	Se 196.026†	41.2	21.4	8.27	µg/L	8.27	ppb	14:23:47
1	SiO2†	1827.2	144.5	14.891	µg/L	14.891	ppb	14:23:27
1	Si 251.611†	811.8	28.0	0.4115	µg/L	0.4115	ppb	14:23:27
1	Sn 189.927†	19.5	11.1	0.7738	µg/L	0.7738	ppb	14:23:47
1	Ti 334.940†	787.1	-96.3	-0.1005	µg/L	-0.1005	ppb	14:23:27
1	Tl 190.801†	-112.7	2.1	0.2993	µg/L	0.2993	ppb	14:23:47
1	U 409.014†	-459.7	-50.0	-3.0405	µg/L	-3.0405	ppb	14:23:27
1	V 292.402†	492.6	-1.8	-0.0030	µg/L	-0.0030	ppb	14:23:27
1	Zn 213.857†	773.5	156.8	0.9032	µg/L	0.9032	ppb	14:23:47
2	Sc RADIAL	113535.1	113535.1	99.3	%			14:22:25
2	Al 396.153Radial†	-73.2	11.2	2.6255	µg/L	2.6255	ppb	14:22:45
2	Ca 317.933Radial†	474.8	21.6	1.7819	µg/L	1.7819	ppb	14:22:45
2	Fe 238.204 Radial†	158.2	35.1	2.9908	µg/L	2.9908	ppb	14:22:45
2	K 766.490 Radial†	1863.5	468.2	187.41	µg/L	187.41	ppb	14:22:25
2	Mg 279.077 IEC†	144.2	-12.0	-6.6399	µg/L	-6.6399	ppb	14:22:45
2	Na 589.592 Radial†	1342.9	517.7	82.435	µg/L	82.435	ppb	14:22:25
2	Sr 421.552†	317.3	386.4	0.9927	µg/L	0.9927	ppb	14:22:25
2	Sc 361.383	1678691.8	1678691.8	99.198	%			14:23:50
2	Y 371.029	949781.6	949781.6	99.243	%			14:23:50
2	Ag 328.068†	5150.1	88.8	0.3809	µg/L	0.3809	ppb	14:23:52
2	As 188.979†	-9.8	3.5	1.2170	µg/L	1.2170	ppb	14:24:12
2	B 249.677†	4385.0	308.5	4.5810	µg/L	4.5810	ppb	14:23:52
2	Ba 233.527†	-128.9	15.9	0.0720	µg/L	0.0720	ppb	14:24:12
2	Be 313.107†	-506.1	482.1	0.1409	µg/L	0.1409	ppb	14:23:52
2	Cd 226.502†	23.9	88.7	0.5863	µg/L	0.5863	ppb	14:24:12
2	Co 228.616†	-244.8	-19.8	-0.2592	µg/L	-0.2592	ppb	14:24:12
2	Cr 267.716†	351.3	24.5	0.2038	µg/L	0.2038	ppb	14:24:12
2	Cu 324.752†	3267.9	53.0	0.2316	µg/L	0.2316	ppb	14:23:52
2	Mn 257.610†	264.5	51.3	0.0673	µg/L	0.0673	ppb	14:24:12
2	Mo 202.031†	-6.8	14.8	0.5025	µg/L	0.5025	ppb	14:24:12
2	Ni 231.604†	-75.1	-1.8	-0.0218	µg/L	-0.0218	ppb	14:24:12
2	P 214.914†	-22.7	-3.7	-0.8446	µg/L	-0.8446	ppb	14:24:12
2	Pb 220.353†	148.1	32.1	2.0019	µg/L	2.0019	ppb	14:24:12

2	S 181.975 Axial†	124.7	23.7	20.202	µg/L	20.202 ppb	14:24:12
2	Sb 206.836†	74.9	-2.0	-0.2562	µg/L	-0.2562 ppb	14:24:12
2	Se 196.026†	25.1	5.3	2.05	µg/L	2.05 ppb	14:24:12
2	SiO2†	1694.8	19.6	1.9987	µg/L	1.9987 ppb	14:23:52
2	Si 251.611†	1040.9	262.8	3.9963	µg/L	3.9963 ppb	14:23:52
2	Sn 189.927†	21.7	13.4	0.9346	µg/L	0.9346 ppb	14:24:12
2	Ti 334.940†	968.2	89.9	0.0888	µg/L	0.0888 ppb	14:23:52
2	Tl 190.801†	-122.2	-7.9	-1.1202	µg/L	-1.1202 ppb	14:24:12
2	U 409.014†	-168.6	241.3	14.655	µg/L	14.655 ppb	14:23:52
2	V 292.402†	429.6	-62.9	-0.2963	µg/L	-0.2963 ppb	14:23:52
2	Zn 213.857†	744.1	130.8	0.7553	µg/L	0.7553 ppb	14:24:12
3	Sc RADIAL	114385.5	114385.5	100.0	%		14:22:47
3	Al 396.153Radial†	-107.4	-22.4	-5.3267	µg/L	-5.3267 ppb	14:23:07
3	Ca 317.933Radial†	470.3	13.5	1.1156	µg/L	1.1156 ppb	14:23:07
3	Fe 238.204 Radial†	162.0	37.8	3.2207	µg/L	3.2207 ppb	14:23:07
3	K 766.490 Radial†	1913.3	504.1	201.77	µg/L	201.77 ppb	14:22:47
3	Mg 279.077 IEC†	155.6	-1.7	-0.9201	µg/L	-0.9201 ppb	14:23:07
3	Na 589.592 Radial†	1169.8	334.5	53.199	µg/L	53.199 ppb	14:22:47
3	Sr 421.552†	-78.5	-11.8	-0.0303	µg/L	-0.0303 ppb	14:22:47
3	Sc 361.383	1694798.9	1694798.9	100.15	%		14:24:14
3	Y 371.029	957606.3	957606.3	100.06	%		14:24:14
3	Ag 328.068†	5225.0	114.2	0.4742	µg/L	0.4742 ppb	14:24:16
3	As 188.979†	-7.3	6.2	2.1422	µg/L	2.1422 ppb	14:24:36
3	B 249.677†	4280.2	161.9	2.4017	µg/L	2.4017 ppb	14:24:16
3	Ba 233.527†	-129.6	16.5	0.0744	µg/L	0.0744 ppb	14:24:36
3	Be 313.107†	-705.8	287.6	0.0837	µg/L	0.0837 ppb	14:24:16
3	Cd 226.502†	-2.6	61.9	0.4093	µg/L	0.4093 ppb	14:24:36
3	Co 228.616†	-195.8	31.5	0.4132	µg/L	0.4132 ppb	14:24:36
3	Cr 267.716†	361.8	31.7	0.2720	µg/L	0.2720 ppb	14:24:36
3	Cu 324.752†	3303.6	57.4	0.2445	µg/L	0.2445 ppb	14:24:16
3	Mn 257.610†	252.2	36.4	0.0476	µg/L	0.0476 ppb	14:24:36
3	Mo 202.031†	8.9	30.5	1.0349	µg/L	1.0349 ppb	14:24:36
3	Ni 231.604†	-63.0	11.0	0.1366	µg/L	0.1366 ppb	14:24:36
3	P 214.914†	-13.2	6.0	1.3698	µg/L	1.3698 ppb	14:24:36
3	Pb 220.353†	168.9	51.5	3.2211	µg/L	3.2211 ppb	14:24:36
3	S 181.975 Axial†	105.4	3.3	2.8487	µg/L	2.8487 ppb	14:24:36
3	Sb 206.836†	86.0	8.4	1.0838	µg/L	1.0838 ppb	14:24:36
3	Se 196.026†	26.6	6.5	2.54	µg/L	2.54 ppb	14:24:36
3	SiO2†	1763.2	71.7	7.3576	µg/L	7.3576 ppb	14:24:16
3	Si 251.611†	889.8	101.9	1.5353	µg/L	1.5353 ppb	14:24:16
3	Sn 189.927†	20.6	12.2	0.8482	µg/L	0.8482 ppb	14:24:36
3	Ti 334.940†	698.1	-189.1	-0.2013	µg/L	-0.2013 ppb	14:24:16
3	Tl 190.801†	-114.9	0.5	0.0599	µg/L	0.0599 ppb	14:24:36
3	U 409.014†	-288.5	123.1	7.4564	µg/L	7.4564 ppb	14:24:16
3	V 292.402†	386.7	-109.9	-0.5283	µg/L	-0.5283 ppb	14:24:16
3	Zn 213.857†	736.4	116.0	0.6683	µg/L	0.6683 ppb	14:24:36

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1686684.8	99.670	%	0.4759				0.48%
Sc RADIAL	114208.0	99.8	%	0.53				0.53%
Y 371.029	953788.3	99.661	%	0.4092				0.41%
Ag 328.068†	72.1	0.3021	µg/L	0.22217	0.3021	ppb	0.22217	73.53%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.4	0.5304	µg/L	5.14048	0.5304	ppb	5.14048	969.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.7	1.3015	µg/L	0.80181	1.3015	ppb	0.80181	61.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	244.9	3.6350	µg/L	1.11768	3.6350	ppb	1.11768	30.75%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.1	0.0458	µg/L	0.04757	0.0458	ppb	0.04757	103.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	398.3	0.1147	µg/L	0.02892	0.1147	ppb	0.02892	25.22%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	31.1	2.5569	µg/L	1.94812	2.5569	ppb	1.94812	76.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	80.7	0.5329	µg/L	0.10738	0.5329	ppb	0.10738	20.15%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.3	0.0304	µg/L	0.34576	0.0304	ppb	0.34576	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                20.4      0.1745 µg/L       0.11508      0.1745 ppb        0.11508  65.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                61.9      0.2623 µg/L       0.04249      0.2623 ppb        0.04249  16.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         48.7      4.1515 µg/L       1.81490      4.1515 ppb        1.81490  43.72%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         474.8      190.05 µg/L        10.640      190.05 ppb         10.640   5.60%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.9      1.0481 µg/L       8.83794      1.0481 ppb        8.83794 843.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                57.3      0.0748 µg/L       0.03162      0.0748 ppb        0.03162  42.26%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                22.9      0.7779 µg/L       0.26667      0.7779 ppb        0.26667  34.28%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        438.1      69.740 µg/L       14.9928      69.740 ppb        14.9928  21.50%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.9      0.1103 µg/L       0.12111      0.1103 ppb        0.12111 109.81%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.4     -1.0084 µg/L       2.46419     -1.0084 ppb        2.46419 244.36%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                45.7      2.8604 µg/L       0.74666      2.8604 ppb        0.74666  26.10%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           12.0      10.195 µg/L        8.9773      10.195 ppb         8.9773  88.06%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.9      0.6362 µg/L       0.77281      0.6362 ppb        0.77281 121.47%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                11.1        4.29 µg/L         3.458        4.29 ppb          3.458  80.65%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      78.6      8.0823 µg/L       6.47643      8.0823 ppb        6.47643  80.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               130.9      1.9810 µg/L       1.83351      1.9810 ppb        1.83351  92.55%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                12.2      0.8522 µg/L       0.08043      0.8522 ppb        0.08043   9.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               150.2      0.3857 µg/L       0.53757      0.3857 ppb        0.53757 139.38%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -65.2     -0.0710 µg/L       0.14728     -0.0710 ppb        0.14728 207.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.8     -0.2537 µg/L       0.75993     -0.2537 ppb        0.75993 299.58%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                104.8      6.3569 µg/L       8.89875      6.3569 ppb        8.89875 139.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -58.2     -0.2759 µg/L       0.26326     -0.2759 ppb        0.26326  95.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               134.6      0.7756 µg/L       0.11877      0.7756 ppb        0.11877  15.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Analysis Begun

Start Time: 4/13/2010 14:26:03 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\041310.SIF
Batch ID:
Results Data Set: 041310A
Results Library: C:\pe\optima4\Results\Results.mdb

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 4/13/2010 13:42:53**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/13/2010 14:26:05**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114153.9	114153.9	99.8	%			14:26:37
1	Al 396.153Radial†	21542.4	21671.6	5087.5	µg/L	5087.5	ppb	14:26:37
1	Ca 317.933Radial†	62108.9	61779.5	5086.9	µg/L	5086.9	ppb	14:26:37
1	Fe 238.204 Radial†	59230.2	59227.4	5052.3	µg/L	5052.3	ppb	14:26:37

1	K 766.490 Radial†	14338.0	12958.2	5182.7 µg/L	5182.7 ppb	14:26:37
1	Mg 279.077 IEC†	9390.1	9252.0	5124.7 µg/L	5124.7 ppb	14:26:37
1	Na 589.592 Radial†	63653.4	62948.7	10039 µg/L	10039 ppb	14:26:35
1	Sr 421.552†	195196.4	195663.5	502.58 µg/L	502.58 ppb	14:26:35
1	Sc 361.383	1680728.7	1680728.7	99.318 %		14:27:04
1	Y 371.029	940068.0	940068.0	98.228 %		14:27:04
1	Ag 328.068†	125006.2	120761.3	504.94 µg/L	504.94 ppb	14:27:04
1	As 188.979†	1400.3	1423.3	500.19 µg/L	500.19 ppb	14:27:24
1	B 249.677†	37688.3	33835.1	500.49 µg/L	500.49 ppb	14:27:04
1	Ba 233.527†	110370.8	111274.3	504.12 µg/L	504.12 ppb	14:27:04
1	Be 313.107†	1757092.2	1770145.6	501.33 µg/L	501.33 ppb	14:27:04
1	Cd 226.502†	75941.1	76526.9	505.71 µg/L	505.71 ppb	14:27:04
1	Co 228.616†	38191.1	38680.3	507.35 µg/L	507.35 ppb	14:27:04
1	Cr 267.716†	57170.7	57233.5	502.52 µg/L	502.52 ppb	14:27:04
1	Cu 324.752†	123330.3	120935.6	502.22 µg/L	502.22 ppb	14:27:04
1	Mn 257.610†	383314.1	385729.9	503.98 µg/L	503.98 ppb	14:27:04
1	Mo 202.031†	14655.4	14777.6	502.10 µg/L	502.10 ppb	14:27:24
1	Ni 231.604†	40419.2	40770.6	507.02 µg/L	507.02 ppb	14:27:04
1	P 214.914†	10885.8	10979.7	2500.1 µg/L	2500.1 ppb	14:27:24
1	Pb 220.353†	8089.9	8028.3	504.63 µg/L	504.63 ppb	14:27:24
1	S 181.975 Axial†	1276.5	1183.3	1011.1 µg/L	1011.1 ppb	14:27:24
1	Sb 206.836†	3950.5	3900.1	501.06 µg/L	501.06 ppb	14:27:24
1	Se 196.026†	1309.4	1298.4	504 µg/L	504 ppb	14:27:24
1	SiO2†	53281.1	51957.9	5343.5 µg/L	5343.5 ppb	14:27:04
1	Si 251.611†	164820.3	165165.2	2509.5 µg/L	2509.5 ppb	14:27:04
1	Sn 189.927†	7145.8	7186.4	502.13 µg/L	502.13 ppb	14:27:24
1	Ti 334.940†	476912.6	479300.1	502.00 µg/L	502.00 ppb	14:27:04
1	Tl 190.801†	3402.9	3541.5	506.62 µg/L	506.62 ppb	14:27:24
1	U 409.014†	7275.3	7736.5	501.04 µg/L	501.04 ppb	14:27:04
1	V 292.402†	100833.2	101029.3	507.58 µg/L	507.58 ppb	14:27:04
1	Zn 213.857†	87704.1	87686.8	502.26 µg/L	502.26 ppb	14:27:04
2	Sc RADIAL	112326.9	112326.9	98.2 %		14:26:41
2	Al 396.153Radial†	21299.4	21775.2	5111.9 µg/L	5111.9 ppb	14:26:41
2	Ca 317.933Radial†	60862.5	61522.5	5065.7 µg/L	5065.7 ppb	14:26:41
2	Fe 238.204 Radial†	58178.2	59121.5	5043.3 µg/L	5043.3 ppb	14:26:41
2	K 766.490 Radial†	14076.1	12925.1	5169.5 µg/L	5169.5 ppb	14:26:41
2	Mg 279.077 IEC†	9290.6	9303.8	5153.3 µg/L	5153.3 ppb	14:26:41
2	Na 589.592 Radial†	63507.0	63837.0	10181 µg/L	10181 ppb	14:26:39
2	Sr 421.552†	194064.0	197691.7	507.79 µg/L	507.79 ppb	14:26:39
2	Sc 361.383	1680636.9	1680636.9	99.313 %		14:27:27
2	Y 371.029	940462.8	940462.8	98.269 %		14:27:27
2	Ag 328.068†	124086.1	119841.7	501.07 µg/L	501.07 ppb	14:27:27
2	As 188.979†	1411.5	1434.7	504.10 µg/L	504.10 ppb	14:27:47
2	B 249.677†	37543.1	33690.9	498.37 µg/L	498.37 ppb	14:27:27
2	Ba 233.527†	109743.9	110649.1	501.29 µg/L	501.29 ppb	14:27:27
2	Be 313.107†	1744655.1	1757719.0	497.81 µg/L	497.81 ppb	14:27:27
2	Cd 226.502†	75364.7	75950.8	501.90 µg/L	501.90 ppb	14:27:27
2	Co 228.616†	37791.4	38280.0	502.10 µg/L	502.10 ppb	14:27:27
2	Cr 267.716†	56795.3	56858.7	499.24 µg/L	499.24 ppb	14:27:27
2	Cu 324.752†	122589.2	120196.1	499.14 µg/L	499.14 ppb	14:27:27
2	Mn 257.610†	381076.0	383497.4	501.07 µg/L	501.07 ppb	14:27:27
2	Mo 202.031†	14700.0	14823.3	503.65 µg/L	503.65 ppb	14:27:47
2	Ni 231.604†	40042.7	40393.7	502.33 µg/L	502.33 ppb	14:27:27
2	P 214.914†	10884.7	10979.2	2500.1 µg/L	2500.1 ppb	14:27:47
2	Pb 220.353†	8154.4	8093.6	508.74 µg/L	508.74 ppb	14:27:47
2	S 181.975 Axial†	1290.7	1197.7	1023.4 µg/L	1023.4 ppb	14:27:47
2	Sb 206.836†	3962.4	3912.3	502.70 µg/L	502.70 ppb	14:27:47
2	Se 196.026†	1300.3	1289.3	501 µg/L	501 ppb	14:27:47
2	SiO2†	53006.4	51684.3	5315.2 µg/L	5315.2 ppb	14:27:27
2	Si 251.611†	164171.7	164521.1	2499.7 µg/L	2499.7 ppb	14:27:27
2	Sn 189.927†	7176.2	7217.4	504.28 µg/L	504.28 ppb	14:27:47
2	Ti 334.940†	473648.0	476039.1	498.58 µg/L	498.58 ppb	14:27:27
2	Tl 190.801†	3418.2	3557.1	508.76 µg/L	508.76 ppb	14:27:47
2	U 409.014†	7080.4	7540.6	488.82 µg/L	488.82 ppb	14:27:27
2	V 292.402†	99806.2	100000.8	502.48 µg/L	502.48 ppb	14:27:27
2	Zn 213.857†	86958.5	86940.8	497.99 µg/L	497.99 ppb	14:27:27
3	Sc RADIAL	113750.4	113750.4	99.4 %		14:26:45
3	Al 396.153Radial†	21522.5	21728.1	5100.4 µg/L	5100.4 ppb	14:26:45
3	Ca 317.933Radial†	61905.3	61795.6	5088.2 µg/L	5088.2 ppb	14:26:45
3	Fe 238.204 Radial†	59117.3	59324.4	5060.6 µg/L	5060.6 ppb	14:26:45
3	K 766.490 Radial†	14210.4	12880.8	5151.7 µg/L	5151.7 ppb	14:26:45

3	Mg 279.077 IEC†	9384.7	9279.9	5140.3 µg/L	5140.3 ppb	14:26:45
3	Na 589.592 Radial†	63260.5	62779.8	10012 µg/L	10012 ppb	14:26:43
3	Sr 421.552†	193682.0	194834.4	500.45 µg/L	500.45 ppb	14:26:43
3	Sc 361.383	1659399.4	1659399.4	98.058 %		14:27:50
3	Y 371.029	929182.0	929182.0	97.090 %		14:27:50
3	Ag 328.068†	123376.4	120717.0	504.69 µg/L	504.69 ppb	14:27:50
3	As 188.979†	1423.0	1464.6	514.48 µg/L	514.48 ppb	14:28:10
3	B 249.677†	36938.4	33558.1	496.39 µg/L	496.39 ppb	14:27:50
3	Ba 233.527†	108243.4	110533.2	500.76 µg/L	500.76 ppb	14:27:50
3	Be 313.107†	1723993.9	1759131.7	498.21 µg/L	498.21 ppb	14:27:50
3	Cd 226.502†	74111.9	75644.3	499.87 µg/L	499.87 ppb	14:27:50
3	Co 228.616†	37422.5	38390.7	503.55 µg/L	503.55 ppb	14:27:50
3	Cr 267.716†	56111.8	56893.5	499.55 µg/L	499.55 ppb	14:27:50
3	Cu 324.752†	121113.6	120271.1	499.45 µg/L	499.45 ppb	14:27:50
3	Mn 257.610†	376644.0	383888.5	501.58 µg/L	501.58 ppb	14:27:50
3	Mo 202.031†	14749.0	15062.8	511.78 µg/L	511.78 ppb	14:28:10
3	Ni 231.604†	39678.3	40538.1	504.12 µg/L	504.12 ppb	14:27:50
3	P 214.914†	10878.7	11113.4	2530.7 µg/L	2530.7 ppb	14:28:10
3	Pb 220.353†	8131.7	8175.6	513.90 µg/L	513.90 ppb	14:28:10
3	S 181.975 Axial†	1272.6	1195.9	1021.9 µg/L	1021.9 ppb	14:28:10
3	Sb 206.836†	3962.5	3963.4	509.37 µg/L	509.37 ppb	14:28:10
3	Se 196.026†	1304.8	1310.6	509 µg/L	509 ppb	14:28:10
3	SiO2†	52670.9	52025.2	5350.1 µg/L	5350.1 ppb	14:27:50
3	Si 251.611†	162195.0	164621.0	2501.0 µg/L	2501.0 ppb	14:27:50
3	Sn 189.927†	7186.8	7320.7	511.47 µg/L	511.47 ppb	14:28:10
3	Ti 334.940†	468396.3	476787.2	499.37 µg/L	499.37 ppb	14:27:50
3	Tl 190.801†	3428.1	3611.2	516.39 µg/L	516.39 ppb	14:28:10
3	U 409.014†	6949.2	7498.1	486.28 µg/L	486.28 ppb	14:27:50
3	V 292.402†	98715.7	100174.9	503.42 µg/L	503.42 ppb	14:27:50
3	Zn 213.857†	85685.9	86763.7	496.95 µg/L	496.95 ppb	14:27:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1673588.4	98.896	%	0.7261				0.73%
Sc RADIAL	113410.4	99.1	%	0.84				0.85%
Y 371.029	936570.9	97.862	%	0.6690				0.68%
Ag 328.068†	120440.0	503.57	µg/L	2.166	503.57	ppb	2.166	0.43%
QC value within limits for Ag 328.068 Recovery = 100.71%								
Al 396.153Radial†	21725.0	5099.9	µg/L	12.18	5099.9	ppb	12.18	0.24%
QC value within limits for Al 396.153Radial Recovery = 102.00%								
As 188.979†	1440.9	506.26	µg/L	7.384	506.26	ppb	7.384	1.46%
QC value within limits for As 188.979 Recovery = 101.25%								
B 249.677†	33694.7	498.42	µg/L	2.050	498.42	ppb	2.050	0.41%
QC value within limits for B 249.677 Recovery = 99.68%								
Ba 233.527†	110818.9	502.06	µg/L	1.805	502.06	ppb	1.805	0.36%
QC value within limits for Ba 233.527 Recovery = 100.41%								
Be 313.107†	1762332.1	499.12	µg/L	1.929	499.12	ppb	1.929	0.39%
QC value within limits for Be 313.107 Recovery = 99.82%								
Ca 317.933Radial†	61699.2	5080.3	µg/L	12.62	5080.3	ppb	12.62	0.25%
QC value within limits for Ca 317.933Radial Recovery = 101.61%								
Cd 226.502†	76040.7	502.49	µg/L	2.964	502.49	ppb	2.964	0.59%
QC value within limits for Cd 226.502 Recovery = 100.50%								
Co 228.616†	38450.3	504.34	µg/L	2.711	504.34	ppb	2.711	0.54%
QC value within limits for Co 228.616 Recovery = 100.87%								
Cr 267.716†	56995.2	500.43	µg/L	1.814	500.43	ppb	1.814	0.36%
QC value within limits for Cr 267.716 Recovery = 100.09%								
Cu 324.752†	120467.6	500.27	µg/L	1.693	500.27	ppb	1.693	0.34%
QC value within limits for Cu 324.752 Recovery = 100.05%								
Fe 238.204 Radial†	59224.4	5052.1	µg/L	8.66	5052.1	ppb	8.66	0.17%
QC value within limits for Fe 238.204 Radial Recovery = 101.04%								
K 766.490 Radial†	12921.4	5168.0	µg/L	15.55	5168.0	ppb	15.55	0.30%
QC value within limits for K 766.490 Radial Recovery = 103.36%								
Mg 279.077 IEC†	9278.6	5139.4	µg/L	14.37	5139.4	ppb	14.37	0.28%
QC value within limits for Mg 279.077 IEC Recovery = 102.79%								
Mn 257.610†	384371.9	502.21	µg/L	1.559	502.21	ppb	1.559	0.31%
QC value within limits for Mn 257.610 Recovery = 100.44%								
Mo 202.031†	14887.9	505.84	µg/L	5.199	505.84	ppb	5.199	1.03%
QC value within limits for Mo 202.031 Recovery = 101.17%								
Na 589.592 Radial†	63188.5	10078	µg/L	90.6	10078	ppb	90.6	0.90%

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   QC value within limits for Na 589.592 Radial  Recovery = 100.78%
Ni 231.604†            40567.4      504.49 µg/L         2.365      504.49 ppb          2.365   0.47%
   QC value within limits for Ni 231.604  Recovery = 100.90%
P 214.914†             11024.1      2510.3 µg/L         17.66      2510.3 ppb          17.66   0.70%
   QC value within limits for P 214.914  Recovery = 100.41%
Pb 220.353†             8099.2      509.09 µg/L         4.643      509.09 ppb          4.643   0.91%
   QC value within limits for Pb 220.353  Recovery = 101.82%
S 181.975 Axial†        1192.3      1018.8 µg/L          6.70      1018.8 ppb           6.70   0.66%
   QC value within limits for S 181.975 Axial  Recovery = 101.88%
Sb 206.836†             3925.3      504.37 µg/L         4.400      504.37 ppb          4.400   0.87%
   QC value within limits for Sb 206.836  Recovery = 100.87%
Se 196.026†             1299.5         505 µg/L           4.1         505 ppb            4.1   0.82%
   QC value within limits for Se 196.026  Recovery = 100.94%
SiO2†                  51889.1      5336.3 µg/L         18.54      5336.3 ppb          18.54   0.35%
   QC value within limits for SiO2  Recovery = 99.79%
Si 251.611†           164769.1      2503.4 µg/L          5.34      2503.4 ppb           5.34   0.21%
   QC value within limits for Si 251.611  Recovery = 100.14%
Sn 189.927†             7241.5      505.96 µg/L         4.894      505.96 ppb          4.894   0.97%
   QC value within limits for Sn 189.927  Recovery = 101.19%
Sr 421.552†           196063.2      503.60 µg/L         3.776      503.60 ppb          3.776   0.75%
   QC value within limits for Sr 421.552  Recovery = 100.72%
Ti 334.940†           477375.5      499.98 µg/L         1.789      499.98 ppb          1.789   0.36%
   QC value within limits for Ti 334.940  Recovery = 100.00%
Tl 190.801†             3569.9      510.59 µg/L         5.138      510.59 ppb          5.138   1.01%
   QC value within limits for Tl 190.801  Recovery = 102.12%
U 409.014†              7591.7      492.04 µg/L         7.890      492.04 ppb          7.890   1.60%
   QC value within limits for U 409.014  Recovery = 98.41%
V 292.402†            100401.6      504.49 µg/L         2.714      504.49 ppb          2.714   0.54%
   QC value within limits for V 292.402  Recovery = 100.90%
Zn 213.857†            87130.5      499.06 µg/L         2.814      499.06 ppb          2.814   0.56%
   QC value within limits for Zn 213.857  Recovery = 99.81%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/13/2010 14:28:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113653.9	113653.9	99.4	%			14:28:47
1	Al 396.153Radial†	-78.8	5.7	1.3199	µg/L	1.3199	ppb	14:29:07
1	Ca 317.933Radial†	504.0	50.5	4.1564	µg/L	4.1564	ppb	14:29:07
1	Fe 238.204 Radial†	149.0	25.7	2.1885	µg/L	2.1885	ppb	14:29:07
1	K 766.490 Radial†	1703.2	304.9	122.04	µg/L	122.04	ppb	14:28:47
1	Mg 279.077 IEC†	143.6	-12.8	-7.0943	µg/L	-7.0943	ppb	14:29:07
1	Na 589.592 Radial†	1200.5	373.0	59.404	µg/L	59.404	ppb	14:28:47
1	Sr 421.552†	-110.5	-44.5	-0.1143	µg/L	-0.1143	ppb	14:28:47
1	Sc 361.383	1691399.3	1691399.3	99.949	%			14:29:55
1	Y 371.029	955660.1	955660.1	99.857	%			14:29:55
1	Ag 328.068†	5157.4	57.0	0.2550	µg/L	0.2550	ppb	14:29:57
1	As 188.979†	-19.1	-5.7	-1.9797	µg/L	-1.9797	ppb	14:30:17
1	B 249.677†	4226.1	116.4	1.7282	µg/L	1.7282	ppb	14:29:57
1	Ba 233.527†	-138.3	7.4	0.0343	µg/L	0.0343	ppb	14:30:17
1	Be 313.107†	-633.9	358.1	0.1041	µg/L	0.1041	ppb	14:29:57
1	Cd 226.502†	-12.0	52.5	0.3472	µg/L	0.3472	ppb	14:30:17
1	Co 228.616†	-241.2	-14.2	-0.1868	µg/L	-0.1868	ppb	14:30:17
1	Cr 267.716†	340.6	11.1	0.0911	µg/L	0.0911	ppb	14:30:17
1	Cu 324.752†	3251.9	12.2	0.0580	µg/L	0.0580	ppb	14:29:57
1	Mn 257.610†	244.9	29.7	0.0391	µg/L	0.0391	ppb	14:30:17
1	Mo 202.031†	-8.7	12.9	0.4380	µg/L	0.4380	ppb	14:30:17
1	Ni 231.604†	-66.3	7.6	0.0947	µg/L	0.0947	ppb	14:30:17
1	P 214.914†	-32.7	-13.5	-3.0902	µg/L	-3.0902	ppb	14:30:17
1	Pb 220.353†	143.2	26.1	1.6291	µg/L	1.6291	ppb	14:30:17
1	S 181.975 Axial†	108.8	6.9	5.8886	µg/L	5.8886	ppb	14:30:17
1	Sb 206.836†	85.2	7.7	0.9911	µg/L	0.9911	ppb	14:30:17
1	Se 196.026†	23.1	3.2	1.23	µg/L	1.23	ppb	14:30:17
1	SiO2†	1706.4	18.4	1.8818	µg/L	1.8818	ppb	14:30:17
1	Si 251.611†	806.1	20.0	0.2965	µg/L	0.2965	ppb	14:29:57
1	Sn 189.927†	15.3	6.8	0.4769	µg/L	0.4769	ppb	14:30:17
1	Ti 334.940†	1107.9	222.4	0.2303	µg/L	0.2303	ppb	14:29:57
1	Tl 190.801†	-125.7	-10.5	-1.4720	µg/L	-1.4720	ppb	14:30:17
1	U 409.014†	-266.7	144.4	8.8224	µg/L	8.8224	ppb	14:29:57
1	V 292.402†	645.7	150.0	0.7543	µg/L	0.7543	ppb	14:29:57
1	Zn 213.857†	685.2	66.2	0.3815	µg/L	0.3815	ppb	14:30:17
2	Sc RADIAL	114946.2	114946.2	100	%			14:29:09
2	Al 396.153Radial†	-81.0	4.4	1.0084	µg/L	1.0084	ppb	14:29:29
2	Ca 317.933Radial†	441.3	-17.6	-1.4487	µg/L	-1.4487	ppb	14:29:29
2	Fe 238.204 Radial†	130.8	5.9	0.5048	µg/L	0.5048	ppb	14:29:29
2	K 766.490 Radial†	1720.0	302.4	121.05	µg/L	121.05	ppb	14:29:09
2	Mg 279.077 IEC†	144.7	-13.4	-7.3721	µg/L	-7.3721	ppb	14:29:29
2	Na 589.592 Radial†	1078.3	237.8	37.831	µg/L	37.831	ppb	14:29:09
2	Sr 421.552†	-183.0	-115.4	-0.2965	µg/L	-0.2965	ppb	14:29:09
2	Sc 361.383	1694824.4	1694824.4	100.15	%			14:30:19
2	Y 371.029	958260.6	958260.6	100.13	%			14:30:19
2	Ag 328.068†	5167.4	56.6	0.2464	µg/L	0.2464	ppb	14:30:21
2	As 188.979†	-12.8	0.7	0.2335	µg/L	0.2335	ppb	14:30:42
2	B 249.677†	4238.5	120.1	1.7822	µg/L	1.7822	ppb	14:30:21
2	Ba 233.527†	-144.3	1.7	0.0085	µg/L	0.0085	ppb	14:30:42
2	Be 313.107†	-637.9	355.4	0.1020	µg/L	0.1020	ppb	14:30:21
2	Cd 226.502†	-21.5	43.1	0.2848	µg/L	0.2848	ppb	14:30:42
2	Co 228.616†	-202.8	24.6	0.3219	µg/L	0.3219	ppb	14:30:42
2	Cr 267.716†	344.8	14.6	0.1250	µg/L	0.1250	ppb	14:30:42
2	Cu 324.752†	3314.5	68.2	0.2864	µg/L	0.2864	ppb	14:30:21
2	Mn 257.610†	263.1	47.3	0.0622	µg/L	0.0622	ppb	14:30:42
2	Mo 202.031†	-2.6	19.0	0.6453	µg/L	0.6453	ppb	14:30:42
2	Ni 231.604†	-75.6	-1.6	-0.0194	µg/L	-0.0194	ppb	14:30:42
2	P 214.914†	-11.8	7.5	1.7053	µg/L	1.7053	ppb	14:30:42
2	Pb 220.353†	124.6	7.2	0.4465	µg/L	0.4465	ppb	14:30:42

2	S 181.975 Axial†	113.2	11.1	9.4905 µg/L	9.4905 ppb	14:30:42
2	Sb 206.836†	87.2	9.5	1.2273 µg/L	1.2273 ppb	14:30:42
2	Se 196.026†	19.2	-0.8	-0.305 µg/L	-0.305 ppb	14:30:42
2	SiO2†	1686.0	-5.5	-0.5965 µg/L	-0.5965 ppb	14:30:42
2	Si 251.611†	780.4	-7.3	-0.1263 µg/L	-0.1263 ppb	14:30:21
2	Sn 189.927†	22.5	14.1	0.9778 µg/L	0.9778 ppb	14:30:42
2	Ti 334.940†	578.7	-308.3	-0.3247 µg/L	-0.3247 ppb	14:30:21
2	Tl 190.801†	-109.3	6.1	0.8535 µg/L	0.8535 ppb	14:30:42
2	U 409.014†	-335.4	76.4	4.6772 µg/L	4.6772 ppb	14:30:21
2	V 292.402†	613.5	116.6	0.5885 µg/L	0.5885 ppb	14:30:21
2	Zn 213.857†	688.5	68.1	0.3931 µg/L	0.3931 ppb	14:30:42
3	Sc RADIAL	114071.3	114071.3	99.7 %		14:29:31
3	Al 396.153Radial†	-105.0	-20.4	-4.7958 µg/L	-4.7958 ppb	14:29:51
3	Ca 317.933Radial†	458.4	2.9	0.2383 µg/L	0.2383 ppb	14:29:51
3	Fe 238.204 Radial†	142.9	19.1	1.6257 µg/L	1.6257 ppb	14:29:51
3	K 766.490 Radial†	1673.9	269.3	107.79 µg/L	107.79 ppb	14:29:31
3	Mg 279.077 IEC†	170.0	13.2	7.2865 µg/L	7.2865 ppb	14:29:51
3	Na 589.592 Radial†	1145.1	313.0	49.846 µg/L	49.846 ppb	14:29:31
3	Sr 421.552†	-23.5	43.2	0.1109 µg/L	0.1109 ppb	14:29:31
3	Sc 361.383	1677977.5	1677977.5	99.156 %		14:30:44
3	Y 371.029	949652.6	949652.6	99.229 %		14:30:44
3	Ag 328.068†	5147.0	87.8	0.3793 µg/L	0.3793 ppb	14:30:46
3	As 188.979†	-13.3	-0.0	-0.0053 µg/L	-0.0053 ppb	14:31:06
3	B 249.677†	4303.7	228.4	3.3902 µg/L	3.3902 ppb	14:30:46
3	Ba 233.527†	-122.1	22.7	0.1025 µg/L	0.1025 ppb	14:31:06
3	Be 313.107†	-774.5	211.3	0.0647 µg/L	0.0647 ppb	14:30:46
3	Cd 226.502†	13.9	78.6	0.5195 µg/L	0.5195 ppb	14:31:06
3	Co 228.616†	-207.1	18.2	0.2389 µg/L	0.2389 ppb	14:31:06
3	Cr 267.716†	368.5	42.0	0.3558 µg/L	0.3558 ppb	14:31:06
3	Cu 324.752†	3039.3	-176.1	-0.7150 µg/L	-0.7150 ppb	14:30:46
3	Mn 257.610†	305.4	92.7	0.1208 µg/L	0.1208 ppb	14:31:06
3	Mo 202.031†	-25.0	-3.6	-0.1211 µg/L	-0.1211 ppb	14:31:06
3	Ni 231.604†	-69.4	3.9	0.0490 µg/L	0.0490 ppb	14:31:06
3	P 214.914†	-5.5	13.6	3.1240 µg/L	3.1240 ppb	14:31:06
3	Pb 220.353†	129.4	13.3	0.8185 µg/L	0.8185 ppb	14:31:06
3	S 181.975 Axial†	110.5	9.5	8.0980 µg/L	8.0980 ppb	14:31:06
3	Sb 206.836†	89.8	13.0	1.6662 µg/L	1.6662 ppb	14:31:06
3	Se 196.026†	41.7	22.1	8.56 µg/L	8.56 ppb	14:31:06
3	SiO2†	1725.4	51.2	5.2768 µg/L	5.2768 ppb	14:31:06
3	Si 251.611†	790.8	11.0	0.1656 µg/L	0.1656 ppb	14:30:46
3	Sn 189.927†	17.5	9.2	0.6409 µg/L	0.6409 ppb	14:31:06
3	Ti 334.940†	911.4	33.1	0.0273 µg/L	0.0273 ppb	14:30:46
3	Tl 190.801†	-118.5	-4.2	-0.6001 µg/L	-0.6001 ppb	14:31:06
3	U 409.014†	-144.4	265.7	16.139 µg/L	16.139 ppb	14:30:46
3	V 292.402†	439.4	-52.9	-0.2511 µg/L	-0.2511 ppb	14:30:46
3	Zn 213.857†	677.0	63.4	0.3662 µg/L	0.3662 ppb	14:31:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1688067.1	99.752	%	0.5262				0.53%
Sc RADIAL	114223.8	99.9	%	0.58				0.58%
Y 371.029	954524.4	99.738	%	0.4613				0.46%
Ag 328.068†	67.1	0.2936	µg/L	0.07436	0.2936	ppb	0.07436	25.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.4	-0.8225	µg/L	3.44451	-0.8225	ppb	3.44451	418.78%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.7	-0.5838	µg/L	1.21477	-0.5838	ppb	1.21477	208.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	155.0	2.3002	µg/L	0.94435	2.3002	ppb	0.94435	41.06%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.6	0.0484	µg/L	0.04856	0.0484	ppb	0.04856	100.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	308.3	0.0903	µg/L	0.02216	0.0903	ppb	0.02216	24.55%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	11.9	0.9820	µg/L	2.87562	0.9820	ppb	2.87562	292.83%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	58.1	0.3839	µg/L	0.12156	0.3839	ppb	0.12156	31.67%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.5	0.1247	µg/L	0.27290	0.1247	ppb	0.27290	218.93%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                22.6      0.1906 µg/L       0.14402      0.1906 ppb        0.14402  75.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -31.9     -0.1236 µg/L       0.52482     -0.1236 ppb        0.52482 424.74%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         16.9      1.4397 µg/L       0.85709      1.4397 ppb        0.85709  59.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         292.2      116.96 µg/L         7.954      116.96 ppb          7.954   6.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.3     -2.3933 µg/L       8.38409     -2.3933 ppb        8.38409 350.32%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                56.6      0.0740 µg/L       0.04215      0.0740 ppb        0.04215  56.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.4      0.3208 µg/L       0.39644      0.3208 ppb        0.39644 123.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        307.9      49.027 µg/L       10.8096      49.027 ppb        10.8096  22.05%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 3.3      0.0414 µg/L       0.05744      0.0414 ppb        0.05744 138.60%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.5      0.5797 µg/L       3.25644      0.5797 ppb        3.25644 561.75%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.5      0.9647 µg/L       0.60471      0.9647 ppb        0.60471  62.68%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            9.2      7.8257 µg/L       1.81633      7.8257 ppb        1.81633  23.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                10.1      1.2949 µg/L       0.34256      1.2949 ppb        0.34256  26.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 8.1        3.16 µg/L         4.738        3.16 ppb          4.738 149.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      21.4      2.1874 µg/L       2.94855      2.1874 ppb        2.94855 134.80%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                 7.9      0.1119 µg/L       0.21646      0.1119 ppb        0.21646 193.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.0      0.6985 µg/L       0.25539      0.6985 ppb        0.25539  36.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -38.9     -0.1000 µg/L       0.20411     -0.1000 ppb        0.20411 204.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -17.6     -0.0224 µg/L       0.28080     -0.0224 ppb        0.28080 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.9     -0.4062 µg/L       1.17482     -0.4062 ppb        1.17482 289.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                162.1      9.8795 µg/L       5.80355      9.8795 ppb        5.80355  58.74%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 71.2      0.3639 µg/L       0.53902      0.3639 ppb        0.53902 148.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                65.9      0.3803 µg/L       0.01351      0.3803 ppb        0.01351   3.55%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: LR2
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 125
Date Collected: 4/13/2010 14:31:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113995.2	113995.2	99.7	%			14:31:45
1	Al 396.153Radial†	-48.5	36.3	8.5687	µg/L	8.5687	ppb	14:32:05
1	Ca 317.933Radial†	459.8	4.6	0.3828	µg/L	0.3828	ppb	14:32:05
1	Fe 238.204 Radial†	141.9	18.1	1.5472	µg/L	1.5472	ppb	14:32:05
1	K 766.490 Radial†	1600.8	197.0	78.848	µg/L	78.848	ppb	14:31:45
1	Mg 279.077 IEC†	156.9	0.1	0.0497	µg/L	0.0497	ppb	14:32:05
1	Na 589.592 Radial†	1081.4	249.9	39.797	µg/L	39.797	ppb	14:31:45
1	Sr 421.552†	-104.7	-38.4	-0.0986	µg/L	-0.0986	ppb	14:31:45
1	Sc 361.383	1699694.8	1699694.8	100.44	%			14:32:53
1	Y 371.029	963460.8	963460.8	100.67	%			14:32:53
1	Ag 328.068†	5291.1	165.0	0.6869	µg/L	0.6869	ppb	14:32:55
1	As 188.979†	-14.5	-1.0	-0.3431	µg/L	-0.3431	ppb	14:33:15
1	B 249.677†	4312.4	181.6	2.7310	µg/L	2.7310	ppb	14:32:55
1	Ba 233.527†	2284321.0	2274482.3	10296	µg/L	10296	ppb	14:32:53
1	Be 313.107†	-859.9	136.2	0.0410	µg/L	0.0410	ppb	14:32:55
1	Cd 226.502†	-51.0	13.8	0.0914	µg/L	0.0914	ppb	14:33:15
1	Co 228.616†	-994.6	-763.2	0.1239	µg/L	0.1239	ppb	14:33:15
1	Cr 267.716†	358.3	27.1	0.2314	µg/L	0.2314	ppb	14:33:15
1	Cu 324.752†	3312.8	57.0	0.2368	µg/L	0.2368	ppb	14:32:55
1	Mn 257.610†	253.1	36.6	0.0479	µg/L	0.0479	ppb	14:33:15
1	Mo 202.031†	-30.2	-8.4	-0.2866	µg/L	-0.2866	ppb	14:33:15
1	Ni 231.604†	3.9	77.8	0.9681	µg/L	0.9681	ppb	14:33:15
1	P 214.914†	-4.6	14.7	3.3583	µg/L	3.3583	ppb	14:33:15
1	Pb 220.353†	104.7	-13.0	-0.8211	µg/L	-0.8211	ppb	14:33:15
1	S 181.975 Axial†	107.8	5.4	4.5652	µg/L	4.5652	ppb	14:33:15
1	Sb 206.836†	63.6	-14.2	-1.8239	µg/L	-1.8239	ppb	14:33:15
1	Se 196.026†	30.9	10.8	4.18	µg/L	4.18	ppb	14:33:15
1	SiO2†	1567.4	-128.3	-13.245	µg/L	-13.245	ppb	14:32:55
1	Si 251.611†	600.5	-188.6	-2.8753	µg/L	-2.8753	ppb	14:32:55
1	Sn 189.927†	12.0	3.5	0.2414	µg/L	0.2414	ppb	14:33:15
1	Ti 334.940†	565.5	-323.0	-0.3421	µg/L	-0.3421	ppb	14:32:55
1	Tl 190.801†	-125.3	-9.5	-1.2914	µg/L	-1.2914	ppb	14:33:15
1	U 409.014†	-281.1	131.4	7.9683	µg/L	7.9683	ppb	14:32:55
1	V 292.402†	430.8	-67.1	-0.3293	µg/L	-0.3293	ppb	14:32:55
1	Zn 213.857†	693.0	70.6	0.4023	µg/L	0.4023	ppb	14:33:15
2	Sc RADIAL	113980.1	113980.1	99.6	%			14:32:07
2	Al 396.153Radial†	-79.3	5.4	1.2671	µg/L	1.2671	ppb	14:32:27
2	Ca 317.933Radial†	487.1	32.1	2.6449	µg/L	2.6449	ppb	14:32:27
2	Fe 238.204 Radial†	133.1	9.3	0.7949	µg/L	0.7949	ppb	14:32:27
2	K 766.490 Radial†	1637.7	234.3	93.793	µg/L	93.793	ppb	14:32:07
2	Mg 279.077 IEC†	158.1	1.4	0.7486	µg/L	0.7486	ppb	14:32:27
2	Na 589.592 Radial†	1005.0	173.3	27.562	µg/L	27.562	ppb	14:32:07
2	Sr 421.552†	-242.4	-176.5	-0.4534	µg/L	-0.4534	ppb	14:32:07
2	Sc 361.383	1697722.2	1697722.2	100.32	%			14:33:17
2	Y 371.029	962224.7	962224.7	100.54	%			14:33:17
2	Ag 328.068†	5133.7	14.2	0.0650	µg/L	0.0650	ppb	14:33:20
2	As 188.979†	-11.0	2.4	0.8425	µg/L	0.8425	ppb	14:33:40
2	B 249.677†	4297.7	171.9	2.5877	µg/L	2.5877	ppb	14:33:20
2	Ba 233.527†	2287183.7	2279978.4	10321	µg/L	10321	ppb	14:33:17
2	Be 313.107†	-928.2	67.1	0.0206	µg/L	0.0206	ppb	14:33:20
2	Cd 226.502†	-38.2	26.5	0.1757	µg/L	0.1757	ppb	14:33:40
2	Co 228.616†	-1014.8	-784.5	-0.1308	µg/L	-0.1308	ppb	14:33:40
2	Cr 267.716†	339.6	8.9	0.0736	µg/L	0.0736	ppb	14:33:40
2	Cu 324.752†	3107.4	-143.9	-0.5972	µg/L	-0.5972	ppb	14:33:20
2	Mn 257.610†	253.8	37.6	0.0492	µg/L	0.0492	ppb	14:33:40
2	Mo 202.031†	-21.4	0.3	0.0113	µg/L	0.0113	ppb	14:33:40
2	Ni 231.604†	-3.1	70.9	0.8813	µg/L	0.8813	ppb	14:33:40
2	P 214.914†	-22.7	-3.4	-0.7802	µg/L	-0.7802	ppb	14:33:40
2	Pb 220.353†	130.8	13.1	0.8184	µg/L	0.8184	ppb	14:33:40

2	S 181.975 Axial†	111.5	9.2	7.8098	µg/L	7.8098 ppb	14:33:40
2	Sb 206.836†	70.4	-7.4	-0.9458	µg/L	-0.9458 ppb	14:33:40
2	Se 196.026†	20.6	0.5	0.201	µg/L	0.201 ppb	14:33:40
2	SiO2†	1638.9	-55.2	-5.7026	µg/L	-5.7026 ppb	14:33:20
2	Si 251.611†	602.4	-186.0	-2.8385	µg/L	-2.8385 ppb	14:33:20
2	Sn 189.927†	9.4	0.9	0.0639	µg/L	0.0639 ppb	14:33:40
2	Ti 334.940†	840.7	-48.1	-0.0527	µg/L	-0.0527 ppb	14:33:20
2	Tl 190.801†	-116.1	-0.5	-0.0209	µg/L	-0.0209 ppb	14:33:40
2	U 409.014†	-324.3	88.0	5.3509	µg/L	5.3509 ppb	14:33:20
2	V 292.402†	495.1	-2.5	-0.0085	µg/L	-0.0085 ppb	14:33:20
2	Zn 213.857†	696.4	74.8	0.4279	µg/L	0.4279 ppb	14:33:40
3	Sc RADIAL	114281.6	114281.6	99.9	%		14:32:29
3	Al 396.153Radial†	-76.5	8.4	1.9890	µg/L	1.9890 ppb	14:32:49
3	Ca 317.933Radial†	458.5	2.2	0.1815	µg/L	0.1815 ppb	14:32:49
3	Fe 238.204 Radial†	124.3	0.2	0.0129	µg/L	0.0129 ppb	14:32:49
3	K 766.490 Radial†	1651.9	244.2	97.733	µg/L	97.733 ppb	14:32:29
3	Mg 279.077 IEC†	156.6	-0.6	-0.3222	µg/L	-0.3222 ppb	14:32:49
3	Na 589.592 Radial†	1055.9	221.6	35.274	µg/L	35.274 ppb	14:32:29
3	Sr 421.552†	44.9	111.7	0.2869	µg/L	0.2869 ppb	14:32:29
3	Sc 361.383	1680656.7	1680656.7	99.314	%		14:33:42
3	Y 371.029	953102.5	953102.5	99.590	%		14:33:42
3	Ag 328.068†	5323.8	257.6	1.0587	µg/L	1.0587 ppb	14:33:44
3	As 188.979†	9.0	22.5	7.7981	µg/L	7.7981 ppb	14:34:04
3	B 249.677†	4123.2	39.8	0.6267	µg/L	0.6267 ppb	14:33:44
3	Ba 233.527†	2255056.1	2270778.3	10279	µg/L	10279 ppb	14:33:42
3	Be 313.107†	-1010.1	-24.7	-0.0092	µg/L	-0.0092 ppb	14:33:44
3	Cd 226.502†	-59.6	4.5	0.0303	µg/L	0.0303 ppb	14:34:04
3	Co 228.616†	-1009.0	-789.0	-0.2305	µg/L	-0.2305 ppb	14:34:04
3	Cr 267.716†	330.2	2.8	0.0306	µg/L	0.0306 ppb	14:34:04
3	Cu 324.752†	3098.9	-121.0	-0.5130	µg/L	-0.5130 ppb	14:33:44
3	Mn 257.610†	250.6	37.0	0.0484	µg/L	0.0484 ppb	14:34:04
3	Mo 202.031†	-21.7	-0.2	-0.0078	µg/L	-0.0078 ppb	14:34:04
3	Ni 231.604†	-2.9	71.0	0.8829	µg/L	0.8829 ppb	14:34:04
3	P 214.914†	-21.9	-2.8	-0.6280	µg/L	-0.6280 ppb	14:34:04
3	Pb 220.353†	109.5	-7.0	-0.4308	µg/L	-0.4308 ppb	14:34:04
3	S 181.975 Axial†	105.6	4.4	3.7180	µg/L	3.7180 ppb	14:34:04
3	Sb 206.836†	67.8	-9.3	-1.1919	µg/L	-1.1919 ppb	14:34:04
3	Se 196.026†	17.1	-2.8	-1.08	µg/L	-1.08 ppb	14:34:04
3	SiO2†	1714.9	37.9	3.9024	µg/L	3.9024 ppb	14:33:44
3	Si 251.611†	591.0	-191.4	-2.9244	µg/L	-2.9244 ppb	14:33:44
3	Sn 189.927†	17.8	9.5	0.6586	µg/L	0.6586 ppb	14:34:04
3	Ti 334.940†	660.1	-221.4	-0.2292	µg/L	-0.2292 ppb	14:33:44
3	Tl 190.801†	-110.3	4.2	0.6391	µg/L	0.6391 ppb	14:34:04
3	U 409.014†	-526.8	-119.2	-7.2308	µg/L	-7.2308 ppb	14:33:44
3	V 292.402†	562.0	69.9	0.3418	µg/L	0.3418 ppb	14:33:44
3	Zn 213.857†	686.6	72.0	0.4117	µg/L	0.4117 ppb	14:34:04

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1692691.2	100.03	%	0.619				0.62%
Sc RADIAL	114085.6	99.7	%	0.15				0.15%
Y 371.029	959596.0	100.27	%	0.591				0.59%
Ag 328.068†	145.6	0.6036	µg/L	0.50207	0.6036	ppb	0.50207	83.19%
Al 396.153Radial†	16.7	3.9416	µg/L	4.02338	3.9416	ppb	4.02338	102.07%
As 188.979†	8.0	2.7658	µg/L	4.39825	2.7658	ppb	4.39825	159.02%
B 249.677†	131.1	1.9818	µg/L	1.17574	1.9818	ppb	1.17574	59.33%
Ba 233.527†	2275079.7	10299	µg/L	21.0	10299	ppb	21.0	0.20%
Be 313.107†	59.5	0.0175	µg/L	0.02524	0.0175	ppb	0.02524	144.48%
Ca 317.933Radial†	13.0	1.0697	µg/L	1.36783	1.0697	ppb	1.36783	127.87%
Cd 226.502†	14.9	0.0991	µg/L	0.07300	0.0991	ppb	0.07300	73.64%
Co 228.616†	-778.9	-0.0791	µg/L	0.18275	-0.0791	ppb	0.18275	231.04%
Cr 267.716†	12.9	0.1119	µg/L	0.10572	0.1119	ppb	0.10572	94.50%
Cu 324.752†	-69.3	-0.2912	µg/L	0.45915	-0.2912	ppb	0.45915	157.69%
Fe 238.204 Radial†	9.2	0.7850	µg/L	0.76722	0.7850	ppb	0.76722	97.74%
K 766.490 Radial†	225.2	90.125	µg/L	9.9622	90.125	ppb	9.9622	11.05%
Mg 279.077 IEC†	0.3	0.1587	µg/L	0.54368	0.1587	ppb	0.54368	342.54%
Mn 257.610†	37.1	0.0485	µg/L	0.00066	0.0485	ppb	0.00066	1.36%
Mo 202.031†	-2.8	-0.0944	µg/L	0.16671	-0.0944	ppb	0.16671	176.66%
Na 589.592 Radial†	214.9	34.211	µg/L	6.1864	34.211	ppb	6.1864	18.08%

Ni 231.604†	73.2	0.9107	µg/L	0.04966	0.9107	ppb	0.04966 5.45%
P 214.914†	2.8	0.6500	µg/L	2.34663	0.6500	ppb	2.34663 361.01%
Pb 220.353†	-2.3	-0.1445	µg/L	0.85646	-0.1445	ppb	0.85646 592.62%
S 181.975 Axial†	6.3	5.3644	µg/L	2.15979	5.3644	ppb	2.15979 40.26%
Sb 206.836†	-10.3	-1.3205	µg/L	0.45298	-1.3205	ppb	0.45298 34.30%
Se 196.026†	2.8	1.10	µg/L	2.742	1.10	ppb	2.742 249.22%
SiO2†	-48.5	-5.0149	µg/L	8.59419	-5.0149	ppb	8.59419 171.37%
Si 251.611†	-188.7	-2.8794	µg/L	0.04309	-2.8794	ppb	0.04309 1.50%
Sn 189.927†	4.6	0.3213	µg/L	0.30527	0.3213	ppb	0.30527 95.01%
Sr 421.552†	-34.4	-0.0884	µg/L	0.37026	-0.0884	ppb	0.37026 418.94%
Ti 334.940†	-197.5	-0.2080	µg/L	0.14588	-0.2080	ppb	0.14588 70.14%
Tl 190.801†	-1.9	-0.2244	µg/L	0.98117	-0.2244	ppb	0.98117 437.26%
U 409.014†	33.4	2.0295	µg/L	8.12569	2.0295	ppb	8.12569 400.39%
V 292.402†	0.1	0.0013	µg/L	0.33566	0.0013	ppb	0.33566 >999.9%
Zn 213.857†	72.5	0.4140	µg/L	0.01295	0.4140	ppb	0.01295 3.13%

Sequence No.: 4
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/13/2010 14:34:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113240.2	113240.2	99.0	%			14:34:45
1	Al 396.153Radial†	21302.7	21603.6	5071.5	µg/L	5071.5	ppb	14:34:45
1	Ca 317.933Radial†	61422.1	61587.9	5071.1	µg/L	5071.1	ppb	14:34:45
1	Fe 238.204 Radial†	58690.8	59161.5	5046.7	µg/L	5046.7	ppb	14:34:45
1	K 766.490 Radial†	13960.5	12692.7	5076.5	µg/L	5076.5	ppb	14:34:45
1	Mg 279.077 IEC†	9324.1	9261.3	5129.8	µg/L	5129.8	ppb	14:34:45
1	Na 589.592 Radial†	63353.4	63160.3	10073	µg/L	10073	ppb	14:34:43
1	Sr 421.552†	194495.8	196534.1	504.81	µg/L	504.81	ppb	14:34:43
1	Sc 361.383	1695901.3	1695901.3	100.21	%			14:34:58
1	Y 371.029	949027.3	949027.3	99.164	%			14:34:58
1	Ag 328.068†	126474.9	121100.8	506.32	µg/L	506.32	ppb	14:34:58
1	As 188.979†	1404.7	1415.1	497.33	µg/L	497.33	ppb	14:35:18
1	B 249.677†	37905.0	33711.8	498.66	µg/L	498.66	ppb	14:34:58
1	Ba 233.527†	111594.7	111501.3	505.14	µg/L	505.14	ppb	14:34:58
1	Be 313.107†	1775252.9	1772439.3	501.98	µg/L	501.98	ppb	14:34:58
1	Cd 226.502†	76648.7	76549.0	505.86	µg/L	505.86	ppb	14:34:58
1	Co 228.616†	38628.4	38772.6	508.56	µg/L	508.56	ppb	14:34:58
1	Cr 267.716†	57693.6	57240.2	502.58	µg/L	502.58	ppb	14:34:58
1	Cu 324.752†	124309.8	120802.1	501.66	µg/L	501.66	ppb	14:34:58
1	Mn 257.610†	387113.8	386068.5	504.43	µg/L	504.43	ppb	14:34:58
1	Mo 202.031†	14749.3	14739.3	500.80	µg/L	500.80	ppb	14:35:18
1	Ni 231.604†	40806.7	40793.2	507.30	µg/L	507.30	ppb	14:34:58
1	P 214.914†	10894.1	10890.0	2479.6	µg/L	2479.6	ppb	14:35:18
1	Pb 220.353†	8132.9	7998.2	502.75	µg/L	502.75	ppb	14:35:18
1	S 181.975 Axial†	1275.7	1171.1	1000.6	µg/L	1000.6	ppb	14:35:18
1	Sb 206.836†	3973.0	3887.0	499.35	µg/L	499.35	ppb	14:35:18
1	Se 196.026†	1303.3	1280.5	497	µg/L	497	ppb	14:35:18
1	SiO2†	53534.3	51730.6	5320.1	µg/L	5320.1	ppb	14:34:58
1	Si 251.611†	166249.2	165106.3	2508.6	µg/L	2508.6	ppb	14:34:58
1	Sn 189.927†	7192.8	7169.0	500.91	µg/L	500.91	ppb	14:35:18
1	Ti 334.940†	481280.4	479362.5	502.06	µg/L	502.06	ppb	14:34:58
1	Tl 190.801†	3429.0	3536.9	505.95	µg/L	505.95	ppb	14:35:18
1	U 409.014†	7261.9	7657.6	496.16	µg/L	496.16	ppb	14:34:58
1	V 292.402†	101442.3	100728.8	506.07	µg/L	506.07	ppb	14:34:58
1	Zn 213.857†	88554.0	87744.9	502.59	µg/L	502.59	ppb	14:34:58
2	Sc RADIAL	113959.5	113959.5	99.6	%			14:34:49
2	Al 396.153Radial†	21595.0	21761.2	5108.1	µg/L	5108.1	ppb	14:34:49
2	Ca 317.933Radial†	62072.1	61848.8	5092.6	µg/L	5092.6	ppb	14:34:49
2	Fe 238.204 Radial†	59433.7	59532.9	5078.4	µg/L	5078.4	ppb	14:34:49
2	K 766.490 Radial†	14016.3	12659.7	5063.3	µg/L	5063.3	ppb	14:34:49
2	Mg 279.077 IEC†	9458.8	9337.1	5172.0	µg/L	5172.0	ppb	14:34:49
2	Na 589.592 Radial†	63402.7	62805.9	10017	µg/L	10017	ppb	14:34:47
2	Sr 421.552†	193642.2	194437.2	499.43	µg/L	499.43	ppb	14:34:47
2	Sc 361.383	1659159.7	1659159.7	98.044	%			14:35:21
2	Y 371.029	928632.1	928632.1	97.033	%			14:35:21
2	Ag 328.068†	123758.6	121125.0	506.42	µg/L	506.42	ppb	14:35:21
2	As 188.979†	1414.2	1455.8	511.45	µg/L	511.45	ppb	14:35:41
2	B 249.677†	37102.0	33730.4	498.95	µg/L	498.95	ppb	14:35:21
2	Ba 233.527†	108638.7	110952.3	502.66	µg/L	502.66	ppb	14:35:21
2	Be 313.107†	1728125.6	1763599.8	499.48	µg/L	499.48	ppb	14:35:21
2	Cd 226.502†	74439.6	75989.5	502.15	µg/L	502.15	ppb	14:35:21
2	Co 228.616†	37438.4	38412.5	503.84	µg/L	503.84	ppb	14:35:21
2	Cr 267.716†	56224.0	57016.2	500.62	µg/L	500.62	ppb	14:35:21
2	Cu 324.752†	121370.3	120550.7	500.62	µg/L	500.62	ppb	14:35:21
2	Mn 257.610†	377917.9	385243.3	503.35	µg/L	503.35	ppb	14:35:21
2	Mo 202.031†	14788.7	15105.4	513.23	µg/L	513.23	ppb	14:35:41
2	Ni 231.604†	39745.1	40612.1	505.04	µg/L	505.04	ppb	14:35:21
2	P 214.914†	10959.6	11197.5	2549.9	µg/L	2549.9	ppb	14:35:41
2	Pb 220.353†	8172.5	8218.3	516.58	µg/L	516.58	ppb	14:35:41

2	S 181.975 Axial†	1280.9	1204.5	1029.2 µg/L	1029.2 ppb	14:35:41
2	Sb 206.836†	3988.3	3990.4	512.84 µg/L	512.84 ppb	14:35:41
2	Se 196.026†	1316.8	1323.0	514 µg/L	514 ppb	14:35:41
2	SiO2†	52510.8	51869.7	5333.9 µg/L	5333.9 ppb	14:35:21
2	Si 251.611†	162146.2	164595.0	2500.6 µg/L	2500.6 ppb	14:35:21
2	Sn 189.927†	7244.4	7380.5	515.64 µg/L	515.64 ppb	14:35:41
2	Ti 334.940†	469830.8	478319.4	500.97 µg/L	500.97 ppb	14:35:21
2	Tl 190.801†	3456.2	3640.4	520.55 µg/L	520.55 ppb	14:35:41
2	U 409.014†	7058.0	7610.1	493.28 µg/L	493.28 ppb	14:35:21
2	V 292.402†	99337.5	100823.6	506.66 µg/L	506.66 ppb	14:35:21
2	Zn 213.857†	86193.0	87293.5	500.00 µg/L	500.00 ppb	14:35:21
3	Sc RADIAL	113378.4	113378.4	99.1 %		14:34:53
3	Al 396.153Radial†	21480.8	21757.0	5107.5 µg/L	5107.5 ppb	14:34:53
3	Ca 317.933Radial†	61309.5	61398.8	5055.5 µg/L	5055.5 ppb	14:34:53
3	Fe 238.204 Radial†	58726.0	59124.6	5043.6 µg/L	5043.6 ppb	14:34:53
3	K 766.490 Radial†	13911.3	12625.9	5049.7 µg/L	5049.7 ppb	14:34:53
3	Mg 279.077 IEC†	9449.6	9376.4	5193.5 µg/L	5193.5 ppb	14:34:53
3	Na 589.592 Radial†	62979.6	62705.2	10001 µg/L	10001 ppb	14:34:51
3	Sr 421.552†	193250.1	195037.8	500.97 µg/L	500.97 ppb	14:34:51
3	Sc 361.383	1675612.4	1675612.4	99.016 %		14:35:44
3	Y 371.029	937898.4	937898.4	98.001 %		14:35:44
3	Ag 328.068†	124647.8	120783.6	505.01 µg/L	505.01 ppb	14:35:44
3	As 188.979†	1412.0	1439.4	505.75 µg/L	505.75 ppb	14:36:04
3	B 249.677†	37336.7	33595.8	496.94 µg/L	496.94 ppb	14:35:44
3	Ba 233.527†	109746.1	110982.7	502.80 µg/L	502.80 ppb	14:35:44
3	Be 313.107†	1746684.2	1765036.0	499.89 µg/L	499.89 ppb	14:35:44
3	Cd 226.502†	75488.7	76303.5	504.23 µg/L	504.23 ppb	14:35:44
3	Co 228.616†	37977.1	38581.6	506.06 µg/L	506.06 ppb	14:35:44
3	Cr 267.716†	56895.0	57130.8	501.62 µg/L	501.62 ppb	14:35:44
3	Cu 324.752†	122865.7	120845.5	501.85 µg/L	501.85 ppb	14:35:44
3	Mn 257.610†	382222.8	385806.2	504.08 µg/L	504.08 ppb	14:35:44
3	Mo 202.031†	14702.0	14869.8	505.23 µg/L	505.23 ppb	14:36:04
3	Ni 231.604†	40137.0	40609.8	505.02 µg/L	505.02 ppb	14:35:44
3	P 214.914†	10894.1	11021.6	2509.7 µg/L	2509.7 ppb	14:36:04
3	Pb 220.353†	8151.7	8115.5	510.11 µg/L	510.11 ppb	14:36:04
3	S 181.975 Axial†	1286.4	1197.2	1022.9 µg/L	1022.9 ppb	14:36:04
3	Sb 206.836†	3964.2	3926.1	504.46 µg/L	504.46 ppb	14:36:04
3	Se 196.026†	1323.1	1316.2	511 µg/L	511 ppb	14:36:04
3	SiO2†	53036.6	51874.8	5334.8 µg/L	5334.8 ppb	14:35:44
3	Si 251.611†	163924.4	164767.1	2503.4 µg/L	2503.4 ppb	14:35:44
3	Sn 189.927†	7190.9	7254.0	506.83 µg/L	506.83 ppb	14:36:04
3	Ti 334.940†	474934.0	478768.1	501.43 µg/L	501.43 ppb	14:35:44
3	Tl 190.801†	3431.8	3581.1	512.19 µg/L	512.19 ppb	14:36:04
3	U 409.014†	7271.0	7754.5	502.03 µg/L	502.03 ppb	14:35:44
3	V 292.402†	100159.4	100658.9	505.77 µg/L	505.77 ppb	14:35:44
3	Zn 213.857†	87194.3	87441.6	500.86 µg/L	500.86 ppb	14:35:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1676891.2	99.091	%	1.0875				1.10%
Sc RADIAL	113526.0	99.2	%	0.33				0.34%
Y 371.029	938519.2	98.066	%	1.0670				1.09%
Ag 328.068†	121003.1	505.92	µg/L	0.785	505.92	ppb	0.785	0.16%
QC value within limits for Ag 328.068 Recovery = 101.18%								
Al 396.153Radial†	21707.3	5095.7	µg/L	20.95	5095.7	ppb	20.95	0.41%
QC value within limits for Al 396.153Radial Recovery = 101.91%								
As 188.979†	1436.8	504.85	µg/L	7.105	504.85	ppb	7.105	1.41%
QC value within limits for As 188.979 Recovery = 100.97%								
B 249.677†	33679.3	498.18	µg/L	1.083	498.18	ppb	1.083	0.22%
QC value within limits for B 249.677 Recovery = 99.64%								
Ba 233.527†	111145.4	503.54	µg/L	1.395	503.54	ppb	1.395	0.28%
QC value within limits for Ba 233.527 Recovery = 100.71%								
Be 313.107†	1767025.0	500.45	µg/L	1.343	500.45	ppb	1.343	0.27%
QC value within limits for Be 313.107 Recovery = 100.09%								
Ca 317.933Radial†	61611.8	5073.1	µg/L	18.61	5073.1	ppb	18.61	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.46%								
Cd 226.502†	76280.6	504.08	µg/L	1.857	504.08	ppb	1.857	0.37%
QC value within limits for Cd 226.502 Recovery = 100.82%								
Co 228.616†	38588.9	506.15	µg/L	2.364	506.15	ppb	2.364	0.47%

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   QC value within limits for Co 228.616  Recovery = 101.23%
Cr 267.716†            57129.1      501.61 µg/L         0.982      501.61 ppb          0.982   0.20%
   QC value within limits for Cr 267.716  Recovery = 100.32%
Cu 324.752†           120732.8      501.38 µg/L         0.660      501.38 ppb          0.660   0.13%
   QC value within limits for Cu 324.752  Recovery = 100.28%
Fe 238.204 Radial†     59273.0      5056.2 µg/L         19.26      5056.2 ppb          19.26   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.12%
K 766.490 Radial†      12659.5      5063.2 µg/L         13.36      5063.2 ppb          13.36   0.26%
   QC value within limits for K 766.490 Radial  Recovery = 101.26%
Mg 279.077 IEC†         9324.9      5165.1 µg/L         32.42      5165.1 ppb          32.42   0.63%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.30%
Mn 257.610†           385706.0      503.95 µg/L         0.552      503.95 ppb          0.552   0.11%
   QC value within limits for Mn 257.610  Recovery = 100.79%
Mo 202.031†            14904.8      506.42 µg/L         6.300      506.42 ppb          6.300   1.24%
   QC value within limits for Mo 202.031  Recovery = 101.28%
Na 589.592 Radial†     62890.5       10030 µg/L          38.1       10030 ppb           38.1   0.38%
   QC value within limits for Na 589.592 Radial  Recovery = 100.30%
Ni 231.604†            40671.7      505.79 µg/L         1.308      505.79 ppb          1.308   0.26%
   QC value within limits for Ni 231.604  Recovery = 101.16%
P 214.914†             11036.3      2513.1 µg/L         35.25      2513.1 ppb          35.25   1.40%
   QC value within limits for P 214.914  Recovery = 100.52%
Pb 220.353†             8110.7      509.81 µg/L         6.918      509.81 ppb          6.918   1.36%
   QC value within limits for Pb 220.353  Recovery = 101.96%
S 181.975 Axial†        1190.9      1017.6 µg/L         15.02      1017.6 ppb          15.02   1.48%
   QC value within limits for S 181.975 Axial  Recovery = 101.76%
Sb 206.836†             3934.5      505.55 µg/L         6.809      505.55 ppb          6.809   1.35%
   QC value within limits for Sb 206.836  Recovery = 101.11%
Se 196.026†             1306.6         507 µg/L           8.8         507 ppb            8.8   1.74%
   QC value within limits for Se 196.026  Recovery = 101.49%
SiO2†                  51825.0      5329.6 µg/L          8.23      5329.6 ppb          8.23   0.15%
   QC value within limits for SiO2  Recovery = 99.67%
Si 251.611†           164822.8      2504.2 µg/L          4.09      2504.2 ppb          4.09   0.16%
   QC value within limits for Si 251.611  Recovery = 100.17%
Sn 189.927†             7267.8      507.79 µg/L         7.410      507.79 ppb          7.410   1.46%
   QC value within limits for Sn 189.927  Recovery = 101.56%
Sr 421.552†           195336.4      501.74 µg/L         2.774      501.74 ppb          2.774   0.55%
   QC value within limits for Sr 421.552  Recovery = 100.35%
Ti 334.940†           478816.6      501.49 µg/L         0.550      501.49 ppb          0.550   0.11%
   QC value within limits for Ti 334.940  Recovery = 100.30%
Tl 190.801†             3586.1      512.90 µg/L         7.324      512.90 ppb          7.324   1.43%
   QC value within limits for Tl 190.801  Recovery = 102.58%
U 409.014†              7674.1      497.16 µg/L         4.457      497.16 ppb          4.457   0.90%
   QC value within limits for U 409.014  Recovery = 99.43%
V 292.402†            100737.1      506.17 µg/L         0.451      506.17 ppb          0.451   0.09%
   QC value within limits for V 292.402  Recovery = 101.23%
Zn 213.857†            87493.3      501.15 µg/L         1.321      501.15 ppb          1.321   0.26%
   QC value within limits for Zn 213.857  Recovery = 100.23%
All analyte(s) passed QC.
```

Sequence No.: 5
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/13/2010 14:36:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114242.2	114242.2	99.9	%			14:36:42
1	Al 396.153Radial†	-88.0	-3.1	-0.7468	µg/L	-0.7468	ppb	14:37:02
1	Ca 317.933Radial†	474.8	18.6	1.5333	µg/L	1.5333	ppb	14:37:02
1	Fe 238.204 Radial†	138.6	14.4	1.2323	µg/L	1.2323	ppb	14:37:02
1	K 766.490 Radial†	1539.7	132.4	52.981	µg/L	52.981	ppb	14:36:42
1	Mg 279.077 IEC†	166.2	9.1	5.0516	µg/L	5.0516	ppb	14:37:02
1	Na 589.592 Radial†	961.9	127.8	20.345	µg/L	20.345	ppb	14:36:42
1	Sr 421.552†	14.8	81.5	0.2093	µg/L	0.2093	ppb	14:36:42
1	Sc 361.383	1691996.5	1691996.5	99.984	%			14:37:50
1	Y 371.029	957245.2	957245.2	100.02	%			14:37:50
1	Ag 328.068†	5292.0	189.8	0.7895	µg/L	0.7895	ppb	14:37:52
1	As 188.979†	-14.6	-1.1	-0.3903	µg/L	-0.3903	ppb	14:38:12
1	B 249.677†	4150.5	39.2	0.5812	µg/L	0.5812	ppb	14:37:52
1	Ba 233.527†	-127.0	18.8	0.0851	µg/L	0.0851	ppb	14:38:12
1	Be 313.107†	-962.6	29.6	0.0111	µg/L	0.0111	ppb	14:37:52
1	Cd 226.502†	-40.8	23.7	0.1568	µg/L	0.1568	ppb	14:38:12
1	Co 228.616†	-217.9	9.1	0.1199	µg/L	0.1199	ppb	14:38:12
1	Cr 267.716†	353.1	23.5	0.1992	µg/L	0.1992	ppb	14:38:12
1	Cu 324.752†	3176.8	-64.0	-0.2569	µg/L	-0.2569	ppb	14:37:52
1	Mn 257.610†	237.3	22.0	0.0286	µg/L	0.0286	ppb	14:38:12
1	Mo 202.031†	-10.9	10.7	0.3643	µg/L	0.3643	ppb	14:38:12
1	Ni 231.604†	-67.8	6.1	0.0753	µg/L	0.0753	ppb	14:38:12
1	P 214.914†	-11.4	7.8	1.7830	µg/L	1.7830	ppb	14:38:12
1	Pb 220.353†	158.8	41.6	2.6032	µg/L	2.6032	ppb	14:38:12
1	S 181.975 Axial†	99.1	-2.8	-2.4037	µg/L	-2.4037	ppb	14:38:12
1	Sb 206.836†	69.9	-7.6	-0.9701	µg/L	-0.9701	ppb	14:38:12
1	Se 196.026†	22.2	2.3	0.885	µg/L	0.885	ppb	14:38:12
1	SiO2†	1774.0	85.4	8.8083	µg/L	8.8083	ppb	14:37:52
1	Si 251.611†	665.0	-121.5	-1.8588	µg/L	-1.8588	ppb	14:37:52
1	Sn 189.927†	11.1	2.7	0.1856	µg/L	0.1856	ppb	14:38:12
1	Ti 334.940†	711.8	-174.1	-0.1868	µg/L	-0.1868	ppb	14:37:52
1	Tl 190.801†	-106.2	9.0	1.2653	µg/L	1.2653	ppb	14:38:12
1	U 409.014†	-261.4	149.8	9.0823	µg/L	9.0823	ppb	14:37:52
1	V 292.402†	403.2	-92.8	-0.4492	µg/L	-0.4492	ppb	14:37:52
1	Zn 213.857†	672.2	53.0	0.3056	µg/L	0.3056	ppb	14:38:12
2	Sc RADIAL	113917.7	113917.7	99.6	%			14:37:04
2	Al 396.153Radial†	-95.9	-11.3	-2.6826	µg/L	-2.6826	ppb	14:37:24
2	Ca 317.933Radial†	464.2	9.4	0.7740	µg/L	0.7740	ppb	14:37:24
2	Fe 238.204 Radial†	140.5	16.8	1.4295	µg/L	1.4295	ppb	14:37:24
2	K 766.490 Radial†	1689.6	287.3	115.00	µg/L	115.00	ppb	14:37:04
2	Mg 279.077 IEC†	147.8	-8.9	-4.9025	µg/L	-4.9025	ppb	14:37:24
2	Na 589.592 Radial†	1049.9	219.0	34.836	µg/L	34.836	ppb	14:37:04
2	Sr 421.552†	20.2	87.0	0.2234	µg/L	0.2234	ppb	14:37:04
2	Sc 361.383	1731059.2	1731059.2	102.29	%			14:38:14
2	Y 371.029	978761.8	978761.8	102.27	%			14:38:14
2	Ag 328.068†	5131.6	-86.3	-0.3506	µg/L	-0.3506	ppb	14:38:16
2	As 188.979†	-20.7	-6.8	-2.3539	µg/L	-2.3539	ppb	14:38:37
2	B 249.677†	4408.6	197.8	2.9359	µg/L	2.9359	ppb	14:38:16
2	Ba 233.527†	-104.8	43.4	0.1953	µg/L	0.1953	ppb	14:38:37
2	Be 313.107†	-908.3	104.4	0.0369	µg/L	0.0369	ppb	14:38:16
2	Cd 226.502†	-59.3	6.6	0.0431	µg/L	0.0431	ppb	14:38:37
2	Co 228.616†	-212.5	19.4	0.2538	µg/L	0.2538	ppb	14:38:37
2	Cr 267.716†	325.8	-11.1	-0.1177	µg/L	-0.1177	ppb	14:38:37
2	Cu 324.752†	3037.6	-271.8	-1.1048	µg/L	-1.1048	ppb	14:38:16
2	Mn 257.610†	235.2	14.6	0.0193	µg/L	0.0193	ppb	14:38:37
2	Mo 202.031†	-8.0	13.8	0.4674	µg/L	0.4674	ppb	14:38:37
2	Ni 231.604†	-97.0	-20.9	-0.2604	µg/L	-0.2604	ppb	14:38:37
2	P 214.914†	-8.3	11.1	2.5432	µg/L	2.5432	ppb	14:38:37
2	Pb 220.353†	95.1	-24.3	-1.5387	µg/L	-1.5387	ppb	14:38:37

2	S 181.975 Axial†	108.5	4.2	3.5409 µg/L	3.5409 ppb	14:38:37
2	Sb 206.836†	81.2	1.8	0.2409 µg/L	0.2409 ppb	14:38:37
2	Se 196.026†	36.3	15.5	6.04 µg/L	6.04 ppb	14:38:37
2	SiO2†	1745.7	17.7	1.8049 µg/L	1.8049 ppb	14:38:16
2	Si 251.611†	800.6	-3.8	-0.0680 µg/L	-0.0680 ppb	14:38:16
2	Sn 189.927†	16.1	7.3	0.5070 µg/L	0.5070 ppb	14:38:37
2	Ti 334.940†	800.5	-103.5	-0.1180 µg/L	-0.1180 ppb	14:38:16
2	Tl 190.801†	-102.4	15.2	2.1215 µg/L	2.1215 ppb	14:38:37
2	U 409.014†	-13.0	398.6	24.120 µg/L	24.120 ppb	14:38:16
2	V 292.402†	94.3	-403.9	-1.9818 µg/L	-1.9818 ppb	14:38:16
2	Zn 213.857†	673.2	38.8	0.2266 µg/L	0.2266 ppb	14:38:37
3	Sc RADIAL	114950.9	114950.9	100 %		14:37:26
3	Al 396.153Radial†	-101.6	-16.1	-3.8179 µg/L	-3.8179 ppb	14:37:46
3	Ca 317.933Radial†	468.0	9.0	0.7384 µg/L	0.7384 ppb	14:37:46
3	Fe 238.204 Radial†	137.6	12.7	1.0798 µg/L	1.0798 ppb	14:37:46
3	K 766.490 Radial†	1513.9	97.3	38.928 µg/L	38.928 ppb	14:37:26
3	Mg 279.077 IEC†	138.9	-19.1	-10.566 µg/L	-10.566 ppb	14:37:46
3	Na 589.592 Radial†	894.1	54.4	8.6531 µg/L	8.6531 ppb	14:37:26
3	Sr 421.552†	-96.9	-29.7	-0.0764 µg/L	-0.0764 ppb	14:37:26
3	Sc 361.383	1707197.9	1707197.9	100.88 %		14:38:39
3	Y 371.029	965197.5	965197.5	100.85 %		14:38:39
3	Ag 328.068†	5056.5	-90.7	-0.3684 µg/L	-0.3684 ppb	14:38:41
3	As 188.979†	-19.0	-5.4	-1.8561 µg/L	-1.8561 ppb	14:39:01
3	B 249.677†	4249.9	100.8	1.4959 µg/L	1.4959 ppb	14:38:41
3	Ba 233.527†	-122.1	24.8	0.1122 µg/L	0.1122 ppb	14:39:01
3	Be 313.107†	-636.6	361.3	0.1042 µg/L	0.1042 ppb	14:38:41
3	Cd 226.502†	-46.6	18.4	0.1215 µg/L	0.1215 ppb	14:39:01
3	Co 228.616†	-231.6	-2.5	-0.0333 µg/L	-0.0333 ppb	14:39:01
3	Cr 267.716†	354.3	21.6	0.1847 µg/L	0.1847 ppb	14:39:01
3	Cu 324.752†	3086.5	-181.8	-0.7475 µg/L	-0.7475 ppb	14:38:41
3	Mn 257.610†	254.4	36.8	0.0485 µg/L	0.0485 ppb	14:39:01
3	Mo 202.031†	-12.9	8.9	0.3007 µg/L	0.3007 ppb	14:39:01
3	Ni 231.604†	-79.3	-4.6	-0.0578 µg/L	-0.0578 ppb	14:39:01
3	P 214.914†	-7.6	11.7	2.6690 µg/L	2.6690 ppb	14:39:01
3	Pb 220.353†	131.3	13.0	0.8074 µg/L	0.8074 ppb	14:39:01
3	S 181.975 Axial†	97.1	-5.7	-4.8574 µg/L	-4.8574 ppb	14:39:01
3	Sb 206.836†	85.6	7.4	0.9467 µg/L	0.9467 ppb	14:39:01
3	Se 196.026†	23.1	2.9	1.12 µg/L	1.12 ppb	14:39:01
3	SiO2†	1790.4	85.8	8.8474 µg/L	8.8474 ppb	14:38:41
3	Si 251.611†	819.1	25.4	0.3816 µg/L	0.3816 ppb	14:38:41
3	Sn 189.927†	13.3	4.7	0.3296 µg/L	0.3296 ppb	14:39:01
3	Ti 334.940†	927.8	33.6	0.0334 µg/L	0.0334 ppb	14:38:41
3	Tl 190.801†	-118.6	-2.3	-0.3241 µg/L	-0.3241 ppb	14:39:01
3	U 409.014†	-308.3	105.6	6.4152 µg/L	6.4152 ppb	14:38:41
3	V 292.402†	471.5	-28.7	-0.1341 µg/L	-0.1341 ppb	14:38:41
3	Zn 213.857†	654.5	29.4	0.1707 µg/L	0.1707 ppb	14:39:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1710084.5	101.05	%	1.164				1.15%
Sc RADIAL	114370.3	100.0	%	0.46				0.46%
Y 371.029	967068.2	101.05	%	1.137				1.13%
Ag 328.068†	4.3	0.0235	µg/L	0.66345	0.0235	ppb	0.66345	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.2	-2.4158	µg/L	1.55284	-2.4158	ppb	1.55284	64.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.4	-1.5334	µg/L	1.02077	-1.5334	ppb	1.02077	66.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	112.6	1.6710	µg/L	1.18706	1.6710	ppb	1.18706	71.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	29.0	0.1309	µg/L	0.05743	0.1309	ppb	0.05743	43.88%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	165.1	0.0508	µg/L	0.04808	0.0508	ppb	0.04808	94.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	12.3	1.0153	µg/L	0.44900	1.0153	ppb	0.44900	44.23%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.2	0.1072	µg/L	0.05820	0.1072	ppb	0.05820	54.31%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.6	0.1134	µg/L	0.14364	0.1134	ppb	0.14364	126.62%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              11.3      0.0887 µg/L       0.17894      0.0887 ppb        0.17894 201.70%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -172.5     -0.7031 µg/L       0.42567     -0.7031 ppb        0.42567  60.55%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       14.6      1.2472 µg/L       0.17536      1.2472 ppb        0.17536  14.06%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       172.3     68.969 µg/L       40.4762     68.969 ppb        40.4762  58.69%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -6.3     -3.4723 µg/L       7.90644     -3.4723 ppb        7.90644 227.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              24.5      0.0321 µg/L       0.01496      0.0321 ppb        0.01496  46.58%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              11.1      0.3775 µg/L       0.08413      0.3775 ppb        0.08413  22.29%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      133.7     21.278 µg/L       13.1164     21.278 ppb        13.1164  61.64%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -6.5     -0.0809 µg/L       0.16906     -0.0809 ppb        0.16906 208.86%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               10.2      2.3317 µg/L       0.47937      2.3317 ppb        0.47937  20.56%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              10.1      0.6240 µg/L       2.07705      0.6240 ppb        2.07705 332.88%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.5     -1.2401 µg/L       4.31838     -1.2401 ppb        4.31838 348.24%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.5      0.0725 µg/L       0.96945      0.0725 ppb        0.96945 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               6.9         2.68 µg/L         2.908         2.68 ppb          2.908 108.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    63.0      6.4869 µg/L       4.05478      6.4869 ppb        4.05478  62.51%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -33.3     -0.5151 µg/L       1.18521     -0.5151 ppb        1.18521 230.12%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.9      0.3407 µg/L       0.16097      0.3407 ppb        0.16097  47.24%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              46.2      0.1188 µg/L       0.16919      0.1188 ppb        0.16919 142.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -81.4     -0.0905 µg/L       0.11265     -0.0905 ppb        0.11265 124.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.3      1.0209 µg/L       1.24097      1.0209 ppb        1.24097 121.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              218.0     13.206 µg/L        9.5459     13.206 ppb         9.5459  72.28%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -175.1     -0.8550 µg/L       0.98845     -0.8550 ppb        0.98845 115.61%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              40.4      0.2343 µg/L       0.06773      0.2343 ppb        0.06773  28.91%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 4/13/2010 14:56:32 **Plasma On Time:** 3/29/2010 18:07:58
Logged In Analyst: optima4 **Technique:** ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 077C0022701 **Autosampler Model:** AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\041310B.SIF
Batch ID:
Results Data Set: 041310A
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location:** 301
Sample ID: 1202092701|974047|1 **Date Collected:** 4/13/2010 14:56:34
Analyst: LS **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202092701|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	112304.8	112304.8	98.2	%			14:57:06
1	Al 396.153Radial†	-89.6	-6.3	-1.4898	µg/L	-1.4898	ppb	14:57:26
1	Ca 317.933Radial†	661.6	217.1	17.879	µg/L	17.879	ppb	14:57:26
1	Fe 238.204 Radial†	750.5	640.1	54.604	µg/L	54.604	ppb	14:57:26
1	K 766.490 Radial†	1559.5	179.1	71.691	µg/L	71.691	ppb	14:57:06
1	Mg 279.077 IEC†	168.3	14.1	7.7447	µg/L	7.7447	ppb	14:57:26
1	Na 589.592 Radial†	1066.2	250.7	39.935	µg/L	39.935	ppb	14:57:06
1	Sr 421.552†	-5.8	60.9	0.1562	µg/L	0.1562	ppb	14:57:06
1	Sc 361.383	1661156.9	1661156.9	98.162	%			14:58:13
1	Y 371.029	935087.0	935087.0	97.707	%			14:58:13
1	Ag 328.068†	5401.5	399.7	1.6339	µg/L	1.6339	ppb	14:58:16
1	As 188.979†	-10.0	3.3	1.1662	µg/L	1.1662	ppb	14:58:36
1	B 249.677†	4127.2	92.5	1.3740	µg/L	1.3740	ppb	14:58:16
1	Ba 233.527†	-65.2	79.5	0.3588	µg/L	0.3588	ppb	14:58:36
1	Be 313.107†	-993.1	-19.4	-0.0085	µg/L	-0.0085	ppb	14:58:16
1	Cd 226.502†	-69.7	-6.4	-0.0476	µg/L	-0.0476	ppb	14:58:36
1	Co 228.616†	-239.2	-16.7	-0.2207	µg/L	-0.2207	ppb	14:58:36
1	Cr 267.716†	569.4	250.4	2.2086	µg/L	2.2086	ppb	14:58:36
1	Cu 324.752†	3147.0	-35.3	-0.1464	µg/L	-0.1464	ppb	14:58:16
1	Mn 257.610†	877.4	678.5	0.8864	µg/L	0.8864	ppb	14:58:36
1	Mo 202.031†	-20.8	0.4	0.0170	µg/L	0.0170	ppb	14:58:36
1	Ni 231.604†	-12.0	61.6	0.7666	µg/L	0.7666	ppb	14:58:36
1	P 214.914†	12.6	32.1	7.3102	µg/L	7.3102	ppb	14:58:36
1	Pb 220.353†	133.3	18.6	1.1724	µg/L	1.1724	ppb	14:58:36
1	S 181.975 Axial†	120.6	20.9	17.816	µg/L	17.816	ppb	14:58:36
1	Sb 206.836†	73.9	-2.3	-0.3226	µg/L	-0.3226	ppb	14:58:36
1	Se 196.026†	5.0	-14.8	-5.73	µg/L	-5.73	ppb	14:58:36
1	SiO2†	2288.2	642.2	66.282	µg/L	66.282	ppb	14:58:16
1	Si 251.611†	2425.1	1684.0	25.674	µg/L	25.674	ppb	14:58:16
1	Sn 189.927†	38.0	30.3	2.1133	µg/L	2.1133	ppb	14:58:36
1	Ti 334.940†	1185.1	321.2	0.3399	µg/L	0.3399	ppb	14:58:16
1	Tl 190.801†	-128.9	-16.0	-2.2569	µg/L	-2.2569	ppb	14:58:36
1	U 409.014†	-562.2	-161.5	-9.8471	µg/L	-9.8471	ppb	14:58:16
1	V 292.402†	427.7	-60.3	-0.3021	µg/L	-0.3021	ppb	14:58:16
1	Zn 213.857†	900.4	298.0	1.7096	µg/L	1.7096	ppb	14:58:36
2	Sc RADIAL	112380.0	112380.0	98.2	%			14:57:28
2	Al 396.153Radial†	-57.6	26.4	6.2159	µg/L	6.2159	ppb	14:57:48
2	Ca 317.933Radial†	635.2	189.8	15.629	µg/L	15.629	ppb	14:57:48
2	Fe 238.204 Radial†	764.0	653.3	55.732	µg/L	55.732	ppb	14:57:48
2	K 766.490 Radial†	1445.6	62.1	24.859	µg/L	24.859	ppb	14:57:28
2	Mg 279.077 IEC†	178.6	24.4	13.451	µg/L	13.451	ppb	14:57:48
2	Na 589.592 Radial†	896.2	77.0	12.256	µg/L	12.256	ppb	14:57:28
2	Sr 421.552†	-83.8	-18.6	-0.0479	µg/L	-0.0479	ppb	14:57:28
2	Sc 361.383	1661153.8	1661153.8	98.162	%			14:58:38
2	Y 371.029	935237.7	935237.7	97.723	%			14:58:38
2	Ag 328.068†	5191.1	185.4	0.7581	µg/L	0.7581	ppb	14:58:40
2	As 188.979†	-23.4	-10.4	-3.5851	µg/L	-3.5851	ppb	14:59:00

2	B 249.677†	4174.0	140.2	2.0813 µg/L	2.0813 ppb		14:58:40
2	Ba 233.527†	-59.4	85.3	0.3855 µg/L	0.3855 ppb		14:59:00
2	Be 313.107†	-621.0	359.7	0.1009 µg/L	0.1009 ppb		14:58:40
2	Cd 226.502†	-71.0	-7.8	-0.0572 µg/L	-0.0572 ppb		14:59:00
2	Co 228.616†	-218.8	4.2	0.0528 µg/L	0.0528 ppb		14:59:00
2	Cr 267.716†	504.7	184.5	1.6248 µg/L	1.6248 ppb		14:59:00
2	Cu 324.752†	3154.0	-28.2	-0.1109 µg/L	-0.1109 ppb		14:58:40
2	Mn 257.610†	849.3	649.8	0.8488 µg/L	0.8488 ppb		14:59:00
2	Mo 202.031†	-20.3	0.9	0.0331 µg/L	0.0331 ppb		14:59:00
2	Ni 231.604†	-69.0	3.6	0.0448 µg/L	0.0448 ppb		14:59:00
2	P 214.914†	-0.7	18.5	4.2206 µg/L	4.2206 ppb		14:59:00
2	Pb 220.353†	145.0	30.4	1.9088 µg/L	1.9088 ppb		14:59:00
2	S 181.975 Axial†	105.9	6.0	5.0814 µg/L	5.0814 ppb		14:59:00
2	Sb 206.836†	88.3	12.4	1.5719 µg/L	1.5719 ppb		14:59:00
2	Se 196.026†	27.6	8.1	3.15 µg/L	3.15 ppb		14:59:00
2	SiO2†	2284.9	638.8	65.929 µg/L	65.929 ppb		14:58:40
2	Si 251.611†	2569.7	1831.3	27.922 µg/L	27.922 ppb		14:58:40
2	Sn 189.927†	38.2	30.5	2.1223 µg/L	2.1223 ppb		14:59:00
2	Ti 334.940†	925.8	57.0	0.0599 µg/L	0.0599 ppb		14:58:40
2	Tl 190.801†	-120.1	-7.1	-1.0056 µg/L	-1.0056 ppb		14:59:00
2	U 409.014†	-456.0	-53.3	-3.2616 µg/L	-3.2616 ppb		14:58:40
2	V 292.402†	447.3	-40.3	-0.2006 µg/L	-0.2006 ppb		14:58:40
2	Zn 213.857†	898.4	295.9	1.7023 µg/L	1.7023 ppb		14:59:00
3	Sc RADIAL	110505.9	110505.9	96.6 %			14:57:50
3	Al 396.153Radial†	-84.0	-2.0	-0.4739 µg/L	-0.4739 ppb		14:58:10
3	Ca 317.933Radial†	679.5	246.6	20.307 µg/L	20.307 ppb		14:58:10
3	Fe 238.204 Radial†	792.0	695.6	59.336 µg/L	59.336 ppb		14:58:10
3	K 766.490 Radial†	1698.8	349.2	139.78 µg/L	139.78 ppb		14:57:50
3	Mg 279.077 IEC†	155.5	3.6	1.9453 µg/L	1.9453 ppb		14:58:10
3	Na 589.592 Radial†	950.2	148.3	23.542 µg/L	23.542 ppb		14:57:50
3	Sr 421.552†	13.5	80.6	0.2070 µg/L	0.2070 ppb		14:57:50
3	Sc 361.383	1668480.8	1668480.8	98.595 %			14:59:02
3	Y 371.029	939209.7	939209.7	98.138 %			14:59:02
3	Ag 328.068†	5410.1	384.2	1.5863 µg/L	1.5863 ppb		14:59:04
3	As 188.979†	-22.9	-9.8	-3.3472 µg/L	-3.3472 ppb		14:59:24
3	B 249.677†	4126.6	73.5	1.0918 µg/L	1.0918 ppb		14:59:04
3	Ba 233.527†	-63.1	81.8	0.3695 µg/L	0.3695 ppb		14:59:24
3	Be 313.107†	-716.4	265.7	0.0771 µg/L	0.0771 ppb		14:59:04
3	Cd 226.502†	-59.2	4.5	0.0238 µg/L	0.0238 ppb		14:59:24
3	Co 228.616†	-225.4	-1.5	-0.0225 µg/L	-0.0225 ppb		14:59:24
3	Cr 267.716†	535.0	213.0	1.8673 µg/L	1.8673 ppb		14:59:24
3	Cu 324.752†	3409.7	217.0	0.9122 µg/L	0.9122 ppb		14:59:04
3	Mn 257.610†	843.4	640.0	0.8364 µg/L	0.8364 ppb		14:59:24
3	Mo 202.031†	-15.1	6.3	0.2176 µg/L	0.2176 ppb		14:59:24
3	Ni 231.604†	-46.1	27.1	0.3372 µg/L	0.3372 ppb		14:59:24
3	P 214.914†	-10.0	9.1	2.0451 µg/L	2.0451 ppb		14:59:24
3	Pb 220.353†	145.4	30.3	1.8922 µg/L	1.8922 ppb		14:59:24
3	S 181.975 Axial†	121.1	20.9	17.783 µg/L	17.783 ppb		14:59:24
3	Sb 206.836†	68.6	-8.0	-1.0440 µg/L	-1.0440 ppb		14:59:24
3	Se 196.026†	13.3	-6.5	-2.49 µg/L	-2.49 ppb		14:59:24
3	SiO2†	2424.7	770.4	79.508 µg/L	79.508 ppb		14:59:04
3	Si 251.611†	2469.2	1717.9	26.189 µg/L	26.189 ppb		14:59:04
3	Sn 189.927†	39.0	31.2	2.1700 µg/L	2.1700 ppb		14:59:24
3	Ti 334.940†	850.9	-23.1	-0.0270 µg/L	-0.0270 ppb		14:59:04
3	Tl 190.801†	-114.8	-1.2	-0.1661 µg/L	-0.1661 ppb		14:59:24
3	U 409.014†	-304.9	102.0	6.1585 µg/L	6.1585 ppb		14:59:04
3	V 292.402†	374.8	-115.9	-0.5664 µg/L	-0.5664 ppb		14:59:04
3	Zn 213.857†	886.5	279.8	1.6058 µg/L	1.6058 ppb		14:59:24

Mean Data: 1202092701|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1663597.2	98.306	%	0.2499				0.25%
Sc RADIAL	111730.2	97.7	%	0.93				0.95%
Y 371.029	936511.5	97.856	%	0.2443				0.25%
Ag 328.068†	323.1	1.3261	µg/L	0.49248	1.3261	ppb	0.49248	37.14%
Al 396.153Radial†	6.0	1.4174	µg/L	4.18655	1.4174	ppb	4.18655	295.37%
As 188.979†	-5.6	-1.9220	µg/L	2.67710	-1.9220	ppb	2.67710	139.28%
B 249.677†	102.1	1.5157	µg/L	0.50975	1.5157	ppb	0.50975	33.63%
Ba 233.527†	82.2	0.3713	µg/L	0.01341	0.3713	ppb	0.01341	3.61%

Be 313.107†	202.0	0.0565	µg/L	0.05750	0.0565	ppb	0.05750 101.76%
Ca 317.933Radial†	217.9	17.938	µg/L	2.3396	17.938	ppb	2.3396 13.04%
Cd 226.502†	-3.2	-0.0270	µg/L	0.04426	-0.0270	ppb	0.04426 163.90%
Co 228.616†	-4.7	-0.0634	µg/L	0.14126	-0.0634	ppb	0.14126 222.66%
Cr 267.716†	216.0	1.9002	µg/L	0.29328	1.9002	ppb	0.29328 15.43%
Cu 324.752†	51.2	0.2183	µg/L	0.60119	0.2183	ppb	0.60119 275.36%
Fe 238.204 Radial†	663.0	56.557	µg/L	2.4714	56.557	ppb	2.4714 4.37%
K 766.490 Radial†	196.8	78.777	µg/L	57.7877	78.777	ppb	57.7877 73.36%
Mg 279.077 IEC†	14.0	7.7138	µg/L	5.75303	7.7138	ppb	5.75303 74.58%
Mn 257.610†	656.1	0.8572	µg/L	0.02606	0.8572	ppb	0.02606 3.04%
Mo 202.031†	2.6	0.0892	µg/L	0.11146	0.0892	ppb	0.11146 124.96%
Na 589.592 Radial†	158.7	25.245	µg/L	13.9179	25.245	ppb	13.9179 55.13%
Ni 231.604†	30.8	0.3828	µg/L	0.36304	0.3828	ppb	0.36304 94.82%
P 214.914†	19.9	4.5253	µg/L	2.64574	4.5253	ppb	2.64574 58.47%
Pb 220.353†	26.5	1.6578	µg/L	0.42044	1.6578	ppb	0.42044 25.36%
S 181.975 Axial†	15.9	13.560	µg/L	7.3430	13.560	ppb	7.3430 54.15%
Sb 206.836†	0.7	0.0684	µg/L	1.35111	0.0684	ppb	1.35111 >999.9%
Se 196.026†	-4.4	-1.69	µg/L	4.492	-1.69	ppb	4.492 265.47%
SiO2†	683.8	70.573	µg/L	7.7400	70.573	ppb	7.7400 10.97%
Si 251.611†	1744.4	26.595	µg/L	1.1775	26.595	ppb	1.1775 4.43%
Sn 189.927†	30.7	2.1352	µg/L	0.03051	2.1352	ppb	0.03051 1.43%
Sr 421.552†	41.0	0.1051	µg/L	0.13489	0.1051	ppb	0.13489 128.32%
Ti 334.940†	118.4	0.1243	µg/L	0.19174	0.1243	ppb	0.19174 154.30%
Tl 190.801†	-8.1	-1.1428	µg/L	1.05216	-1.1428	ppb	1.05216 92.06%
U 409.014†	-37.6	-2.3167	µg/L	8.04454	-2.3167	ppb	8.04454 347.23%
V 292.402†	-72.2	-0.3563	µg/L	0.18881	-0.3563	ppb	0.18881 52.99%
Zn 213.857†	291.2	1.6726	µg/L	0.05791	1.6726	ppb	0.05791 3.46%

Sequence No.: 2
Sample ID: 1202092702|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 302
Date Collected: 4/13/2010 14:59:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202092702|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	118063.9	118063.9	103	%			15:00:05
1	Al 396.153Radial†	416733.7	403843.9	95214	µg/L	95214	ppb	15:00:03
1	Ca 317.933Radial†	1244203.2	1205008.9	99220	µg/L	99220	ppb	15:00:03
1	Fe 238.204 Radial†	2430978.1	2355166.7	200900	µg/L	200900	ppb	15:00:03
1	K 766.490 Radial†	113706.5	108757.1	43488	µg/L	43488	ppb	15:00:05
1	Mg 279.077 IEC†	74214.6	71746.6	39520	µg/L	39520	ppb	15:00:05
1	Na 589.592 Radial†	64287.1	61450.3	9766.1	µg/L	9766.1	ppb	15:00:05
1	Sr 421.552†	939814.1	910620.3	2338.4	µg/L	2338.4	ppb	15:00:03
1	Sc 361.383	1696759.5	1696759.5	100.27	%			15:00:34
1	Y 371.029	1020817.5	1020817.5	106.67	%			15:00:34
1	Ag 328.068†	80564.3	75247.9	320.34	µg/L	320.34	ppb	15:00:34
1	As 188.979†	2963.3	2968.9	1097.7	µg/L	1097.7	ppb	15:00:36
1	B 249.677†	108102.4	103704.1	1536.1	µg/L	1536.1	ppb	15:00:34
1	Ba 233.527†	425662.8	424681.2	1920.8	µg/L	1920.8	ppb	15:00:34
1	Be 313.107†	2866497.3	2859897.6	809.68	µg/L	809.68	ppb	15:00:34
1	Cd 226.502†	94777.7	94591.2	604.98	µg/L	604.98	ppb	15:00:34
1	Co 228.616†	73558.7	73590.9	956.50	µg/L	956.50	ppb	15:00:34
1	Cr 267.716†	277875.9	276810.3	2437.0	µg/L	2437.0	ppb	15:00:34
1	Cu 324.752†	449415.4	444983.8	1872.9	µg/L	1872.9	ppb	15:00:34
1	Mn 257.610†	4145723.4	4134527.9	5402.3	µg/L	5402.3	ppb	15:00:34
1	Mo 202.031†	15807.5	15787.3	545.01	µg/L	545.01	ppb	15:00:36
1	Ni 231.604†	111180.4	110959.8	1379.9	µg/L	1379.9	ppb	15:00:34
1	P 214.914†	36948.8	36870.2	8292.7	µg/L	8292.7	ppb	15:00:36
1	Pb 220.353†	13482.7	13329.8	843.81	µg/L	843.81	ppb	15:00:36
1	S 181.975 Axial†	4893.6	4778.7	4070.5	µg/L	4070.5	ppb	15:00:36
1	Sb 206.836†	16192.7	16072.3	2032.1	µg/L	2032.1	ppb	15:00:36
1	Se 196.026†	7475.2	7435.4	2940	µg/L	2940	ppb	15:00:36
1	SiO2†	204862.5	202631.0	20892	µg/L	20892	ppb	15:00:34
1	Si 251.611†	643583.8	641092.7	9765.3	µg/L	9765.3	ppb	15:00:34
1	Sn 189.927†	15438.4	15389.1	1092.7	µg/L	1092.7	ppb	15:00:36
1	Ti 334.940†	5979964.1	5963239.8	6252.3	µg/L	6252.3	ppb	15:00:34
1	Tl 190.801†	8283.6	8376.9	1261.8	µg/L	1261.8	ppb	15:00:36
1	U 409.014†	-3935.8	-3514.1	-150.45	µg/L	-150.45	ppb	15:00:34
1	V 292.402†	255170.7	253998.8	1248.2	µg/L	1248.2	ppb	15:00:34
1	Zn 213.857†	1047605.3	1044211.4	6001.1	µg/L	6001.1	ppb	15:00:34
2	Sc RADIAL	116835.2	116835.2	102	%			15:00:09
2	Al 396.153Radial†	415633.0	407012.5	95960	µg/L	95960	ppb	15:00:07
2	Ca 317.933Radial†	1237997.8	1211610.9	99763	µg/L	99763	ppb	15:00:07
2	Fe 238.204 Radial†	2419111.7	2368318.5	202030	µg/L	202030	ppb	15:00:07
2	K 766.490 Radial†	112779.1	109007.6	43588	µg/L	43588	ppb	15:00:09
2	Mg 279.077 IEC†	73204.5	71513.9	39390	µg/L	39390	ppb	15:00:09
2	Na 589.592 Radial†	63886.5	61713.1	9808.0	µg/L	9808.0	ppb	15:00:09
2	Sr 421.552†	934943.3	915427.4	2350.7	µg/L	2350.7	ppb	15:00:07
2	Sc 361.383	1668991.0	1668991.0	98.625	%			15:00:40
2	Y 371.029	1004287.3	1004287.3	104.94	%			15:00:40
2	Ag 328.068†	79440.8	75445.6	321.11	µg/L	321.11	ppb	15:00:40
2	As 188.979†	2975.5	3030.4	1119.3	µg/L	1119.3	ppb	15:00:42
2	B 249.677†	106145.2	103513.4	1533.2	µg/L	1533.2	ppb	15:00:40
2	Ba 233.527†	418296.4	424275.5	1918.9	µg/L	1918.9	ppb	15:00:40
2	Be 313.107†	2817224.1	2857503.3	809.00	µg/L	809.00	ppb	15:00:40
2	Cd 226.502†	92760.7	94118.8	601.73	µg/L	601.73	ppb	15:00:40
2	Co 228.616†	72350.7	73586.7	956.39	µg/L	956.39	ppb	15:00:40
2	Cr 267.716†	273051.8	276529.9	2434.6	µg/L	2434.6	ppb	15:00:40
2	Cu 324.752†	443086.8	446024.5	1877.3	µg/L	1877.3	ppb	15:00:40
2	Mn 257.610†	4076376.0	4133006.8	5400.3	µg/L	5400.3	ppb	15:00:40
2	Mo 202.031†	15771.8	16013.3	552.72	µg/L	552.72	ppb	15:00:42
2	Ni 231.604†	109113.6	110709.2	1376.8	µg/L	1376.8	ppb	15:00:40
2	P 214.914†	37163.5	37700.9	8482.1	µg/L	8482.1	ppb	15:00:42
2	Pb 220.353†	13402.6	13472.3	852.78	µg/L	852.78	ppb	15:00:42

2	S 181.975 Axial†	4951.1	4918.2	4189.3 µg/L	4189.3 ppb	15:00:42
2	Sb 206.836†	16268.0	16417.3	2076.5 µg/L	2076.5 ppb	15:00:42
2	Se 196.026†	7362.8	7445.4	2950 µg/L	2950 ppb	15:00:42
2	SiO2†	200916.1	202029.1	20830 µg/L	20830 ppb	15:00:40
2	Si 251.611†	632313.2	640344.4	9753.6 µg/L	9753.6 ppb	15:00:40
2	Sn 189.927†	15681.0	15891.2	1127.7 µg/L	1127.7 ppb	15:00:42
2	Ti 334.940†	5889768.8	5971017.1	6260.5 µg/L	6260.5 ppb	15:00:40
2	Tl 190.801†	8306.8	8537.9	1284.5 µg/L	1284.5 ppb	15:00:42
2	U 409.014†	-3892.5	-3535.6	-152.09 µg/L	-152.09 ppb	15:00:40
2	V 292.402†	250663.3	253662.8	1246.5 µg/L	1246.5 ppb	15:00:40
2	Zn 213.857†	1027517.0	1041226.6	5983.7 µg/L	5983.7 ppb	15:00:40
3	Sc RADIAL	116048.7	116048.7	101 %		15:00:14
3	Al 396.153Radial†	408327.4	402569.4	94913 µg/L	94913 ppb	15:00:12
3	Ca 317.933Radial†	1218484.6	1200591.9	98856 µg/L	98856 ppb	15:00:12
3	Fe 238.204 Radial†	2380917.1	2346723.0	200180 µg/L	200180 ppb	15:00:12
3	K 766.490 Radial†	111734.5	108726.4	43476 µg/L	43476 ppb	15:00:14
3	Mg 279.077 IEC†	72221.1	71030.3	39124 µg/L	39124 ppb	15:00:14
3	Na 589.592 Radial†	63261.0	61520.4	9777.3 µg/L	9777.3 ppb	15:00:14
3	Sr 421.552†	924479.7	911317.6	2340.2 µg/L	2340.2 ppb	15:00:12
3	Sc 361.383	1691894.2	1691894.2	99.978 %		15:00:46
3	Y 371.029	1018061.2	1018061.2	106.38 %		15:00:46
3	Ag 328.068†	80367.0	75281.7	320.47 µg/L	320.47 ppb	15:00:46
3	As 188.979†	2944.4	2958.4	1093.9 µg/L	1093.9 ppb	15:00:48
3	B 249.677†	107534.9	103446.6	1532.2 µg/L	1532.2 ppb	15:00:46
3	Ba 233.527†	422921.6	423160.3	1913.9 µg/L	1913.9 ppb	15:00:46
3	Be 313.107†	2847449.8	2849067.1	806.61 µg/L	806.61 ppb	15:00:46
3	Cd 226.502†	94138.5	94223.7	602.62 µg/L	602.62 ppb	15:00:46
3	Co 228.616†	73231.2	73474.4	955.00 µg/L	955.00 ppb	15:00:46
3	Cr 267.716†	276276.8	276007.8	2430.0 µg/L	2430.0 ppb	15:00:46
3	Cu 324.752†	446886.2	443743.0	1867.6 µg/L	1867.6 ppb	15:00:46
3	Mn 257.610†	4121383.9	4122073.2	5386.0 µg/L	5386.0 ppb	15:00:46
3	Mo 202.031†	15676.4	15701.4	542.06 µg/L	542.06 ppb	15:00:48
3	Ni 231.604†	110527.7	110625.9	1375.7 µg/L	1375.7 ppb	15:00:46
3	P 214.914†	36922.2	36949.5	8311.3 µg/L	8311.3 ppb	15:00:48
3	Pb 220.353†	13479.4	13365.1	846.00 µg/L	846.00 ppb	15:00:48
3	S 181.975 Axial†	4873.4	4772.5	4065.2 µg/L	4065.2 ppb	15:00:48
3	Sb 206.836†	16175.3	16101.3	2035.9 µg/L	2035.9 ppb	15:00:48
3	Se 196.026†	7439.1	7420.8	2940 µg/L	2940 ppb	15:00:48
3	SiO2†	203543.2	201899.0	20817 µg/L	20817 ppb	15:00:46
3	Si 251.611†	640316.9	639670.9	9743.6 µg/L	9743.6 ppb	15:00:46
3	Sn 189.927†	15455.2	15450.2	1096.9 µg/L	1096.9 ppb	15:00:48
3	Ti 334.940†	5950613.7	5951033.7	6239.5 µg/L	6239.5 ppb	15:00:46
3	Tl 190.801†	8209.1	8326.1	1254.4 µg/L	1254.4 ppb	15:00:48
3	U 409.014†	-3716.5	-3306.1	-137.96 µg/L	-137.96 ppb	15:00:46
3	V 292.402†	253708.5	253268.2	1244.6 µg/L	1244.6 ppb	15:00:46
3	Zn 213.857†	1040858.2	1040467.4	5979.5 µg/L	5979.5 ppb	15:00:46

Mean Data: 1202092702|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1685881.6	99.623	%	0.8763				0.88%
Sc RADIAL	116982.6	102	%	0.9				0.87%
Y 371.029	1014388.7	105.99	%	0.925				0.87%
Ag 328.068†	75325.1	320.64	µg/L	0.415	320.64	ppb	0.415	0.13%
Al 396.153Radial†	404475.2	95362	µg/L	539.3	95362	ppb	539.3	0.57%
As 188.979†	2985.9	1103.6	µg/L	13.70	1103.6	ppb	13.70	1.24%
B 249.677†	103554.7	1533.8	µg/L	1.98	1533.8	ppb	1.98	0.13%
Ba 233.527†	424039.0	1917.9	µg/L	3.56	1917.9	ppb	3.56	0.19%
Be 313.107†	2855489.4	808.43	µg/L	1.609	808.43	ppb	1.609	0.20%
Ca 317.933Radial†	1205737.2	99280	µg/L	456.6	99280	ppb	456.6	0.46%
Cd 226.502†	94311.2	603.11	µg/L	1.676	603.11	ppb	1.676	0.28%
Co 228.616†	73550.7	955.96	µg/L	0.834	955.96	ppb	0.834	0.09%
Cr 267.716†	276449.3	2433.9	µg/L	3.60	2433.9	ppb	3.60	0.15%
Cu 324.752†	444917.1	1872.6	µg/L	4.86	1872.6	ppb	4.86	0.26%
Fe 238.204 Radial†	2356736.1	201040	µg/L	928.4	201040	ppb	928.4	0.46%
K 766.490 Radial†	108830.3	43517	µg/L	61.5	43517	ppb	61.5	0.14%
Mg 279.077 IEC†	71430.3	39345	µg/L	201.7	39345	ppb	201.7	0.51%
Mn 257.610†	4129869.3	5396.2	µg/L	8.87	5396.2	ppb	8.87	0.16%
Mo 202.031†	15834.0	546.60	µg/L	5.508	546.60	ppb	5.508	1.01%
Na 589.592 Radial†	61561.3	9783.8	µg/L	21.66	9783.8	ppb	21.66	0.22%

Ni 231.604†	110765.0	1377.5	µg/L	2.16	1377.5	ppb	2.16	0.16%
P 214.914†	37173.5	8362.0	µg/L	104.38	8362.0	ppb	104.38	1.25%
Pb 220.353†	13389.1	847.53	µg/L	4.677	847.53	ppb	4.677	0.55%
S 181.975 Axial†	4823.1	4108.4	µg/L	70.15	4108.4	ppb	70.15	1.71%
Sb 206.836†	16197.0	2048.2	µg/L	24.62	2048.2	ppb	24.62	1.20%
Se 196.026†	7433.9	2940	µg/L	5.1	2940	ppb	5.1	0.17%
SiO2†	202186.4	20846	µg/L	40.5	20846	ppb	40.5	0.19%
Si 251.611†	640369.4	9754.2	µg/L	10.85	9754.2	ppb	10.85	0.11%
Sn 189.927†	15576.8	1105.8	µg/L	19.10	1105.8	ppb	19.10	1.73%
Sr 421.552†	912455.1	2343.1	µg/L	6.67	2343.1	ppb	6.67	0.28%
Ti 334.940†	5961763.5	6250.7	µg/L	10.57	6250.7	ppb	10.57	0.17%
Tl 190.801†	8413.6	1266.9	µg/L	15.69	1266.9	ppb	15.69	1.24%
U 409.014†	-3451.9	-146.83	µg/L	7.730	-146.83	ppb	7.730	5.26%
Concentration less than lower limit for U 409.014.								
V 292.402†	253643.3	1246.4	µg/L	1.79	1246.4	ppb	1.79	0.14%
Zn 213.857†	1041968.5	5988.1	µg/L	11.41	5988.1	ppb	11.41	0.19%

Sequence No.: 4
Sample ID: 1202068098|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 304
Date Collected: 4/13/2010 15:03:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068098|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114710.1	114710.1	100	%			15:03:39
1	Al 396.153Radial†	26669.2	26679.4	6289.3	µg/L	6289.3	ppb	15:03:39
1	Ca 317.933Radial†	66332.5	65689.5	5408.8	µg/L	5408.8	ppb	15:03:41
1	Fe 238.204 Radial†	499674.4	498147.4	42494	µg/L	42494	ppb	15:03:39
1	K 766.490 Radial†	5791.5	4366.0	1744.9	µg/L	1744.9	ppb	15:03:39
1	Mg 279.077 IEC†	1137.6	977.1	505.25	µg/L	505.25	ppb	15:03:41
1	Na 589.592 Radial†	9308.2	8446.7	1346.2	µg/L	1346.2	ppb	15:03:39
1	Sr 421.552†	28908.6	28894.2	74.180	µg/L	74.180	ppb	15:03:39
1	Sc 361.383	1687045.2	1687045.2	99.692	%			15:03:53
1	Y 371.029	1143745.3	1143745.3	119.51	%			15:03:53
1	Ag 328.068†	5010.5	-77.0	-1.3589	µg/L	-1.3589	ppb	15:03:53
1	As 188.979†	6.6	20.0	16.908	µg/L	16.908	ppb	15:04:14
1	B 249.677†	4428.0	329.8	4.8792	µg/L	4.8792	ppb	15:03:53
1	Ba 233.527†	21324.4	21536.3	96.972	µg/L	96.972	ppb	15:04:14
1	Be 313.107†	11162.6	12189.5	3.3649	µg/L	3.3649	ppb	15:03:53
1	Cd 226.502†	566.5	632.9	-0.2764	µg/L	-0.2764	ppb	15:04:14
1	Co 228.616†	137.5	365.0	2.6692	µg/L	2.6692	ppb	15:04:14
1	Cr 267.716†	3903.6	3586.0	32.755	µg/L	32.755	ppb	15:04:14
1	Cu 324.752†	4527.4	1300.1	11.352	µg/L	11.352	ppb	15:03:53
1	Mn 257.610†	1339304.6	1343233.6	1755.7	µg/L	1755.7	ppb	15:03:53
1	Mo 202.031†	1559.3	1585.8	55.527	µg/L	55.527	ppb	15:04:14
1	Ni 231.604†	1200.0	1277.7	15.889	µg/L	15.889	ppb	15:04:14
1	P 214.914†	2058.7	2084.3	448.22	µg/L	448.22	ppb	15:04:14
1	Pb 220.353†	418.5	302.6	19.552	µg/L	19.552	ppb	15:04:14
1	S 181.975 Axial†	821.9	722.5	615.19	µg/L	615.19	ppb	15:04:14
1	Sb 206.836†	83.4	6.2	0.5442	µg/L	0.5442	ppb	15:04:14
1	Se 196.026†	-12.6	-32.7	1.84	µg/L	1.84	ppb	15:04:14
1	SiO2†	116454.9	115126.3	11886	µg/L	11886	ppb	15:03:53
1	Si 251.611†	363981.1	364320.8	5556.7	µg/L	5556.7	ppb	15:03:53
1	Sn 189.927†	146.1	138.1	12.708	µg/L	12.708	ppb	15:04:14
1	Ti 334.940†	872074.8	873887.2	916.65	µg/L	916.65	ppb	15:03:53
1	Tl 190.801†	-243.0	-128.5	-4.2667	µg/L	-4.2667	ppb	15:04:14
1	U 409.014†	-5097.5	-4702.0	-283.01	µg/L	-283.01	ppb	15:03:53
1	V 292.402†	3996.5	3512.9	12.584	µg/L	12.584	ppb	15:04:14
1	Zn 213.857†	23299.9	22752.6	127.23	µg/L	127.23	ppb	15:04:14
2	Sc RADIAL	115144.3	115144.3	101	%			15:03:43
2	Al 396.153Radial†	26891.7	26800.1	6317.7	µg/L	6317.7	ppb	15:03:43
2	Ca 317.933Radial†	66945.5	66049.0	5438.4	µg/L	5438.4	ppb	15:03:45
2	Fe 238.204 Radial†	502509.8	499085.0	42574	µg/L	42574	ppb	15:03:43
2	K 766.490 Radial†	5957.4	4509.0	1802.1	µg/L	1802.1	ppb	15:03:43
2	Mg 279.077 IEC†	1132.4	967.7	499.97	µg/L	499.97	ppb	15:03:45
2	Na 589.592 Radial†	9525.8	8628.0	1375.0	µg/L	1375.0	ppb	15:03:43
2	Sr 421.552†	28915.6	28792.4	73.919	µg/L	73.919	ppb	15:03:43
2	Sc 361.383	1662112.5	1662112.5	98.218	%			15:04:16
2	Y 371.029	1127332.2	1127332.2	117.79	%			15:04:16
2	Ag 328.068†	4961.3	-51.6	-1.2774	µg/L	-1.2774	ppb	15:04:16
2	As 188.979†	-2.7	10.6	13.693	µg/L	13.693	ppb	15:04:36
2	B 249.677†	4225.9	190.6	2.8141	µg/L	2.8141	ppb	15:04:16
2	Ba 233.527†	21356.5	21889.8	98.571	µg/L	98.571	ppb	15:04:36
2	Be 313.107†	11393.0	12592.0	3.4728	µg/L	3.4728	ppb	15:04:16
2	Cd 226.502†	550.9	625.5	-0.3333	µg/L	-0.3333	ppb	15:04:36
2	Co 228.616†	119.8	349.0	2.4574	µg/L	2.4574	ppb	15:04:36
2	Cr 267.716†	3863.0	3603.4	32.927	µg/L	32.927	ppb	15:04:36
2	Cu 324.752†	4333.5	1170.8	10.812	µg/L	10.812	ppb	15:04:16
2	Mn 257.610†	1319052.0	1342766.1	1755.0	µg/L	1755.0	ppb	15:04:16
2	Mo 202.031†	1555.3	1605.2	56.188	µg/L	56.188	ppb	15:04:36
2	Ni 231.604†	1233.6	1329.9	16.538	µg/L	16.538	ppb	15:04:36
2	P 214.914†	2049.7	2106.1	453.14	µg/L	453.14	ppb	15:04:36
2	Pb 220.353†	408.6	298.8	19.325	µg/L	19.325	ppb	15:04:36

2	S 181.975 Axial†	817.9	730.8	622.25	µg/L	622.25 ppb	15:04:36
2	Sb 206.836†	70.2	-6.1	-1.0183	µg/L	-1.0183 ppb	15:04:36
2	Se 196.026†	-23.5	-43.9	-2.49	µg/L	-2.49 ppb	15:04:36
2	SiO2†	115528.0	115935.0	11969	µg/L	11969 ppb	15:04:16
2	Si 251.611†	361025.1	366788.0	5594.4	µg/L	5594.4 ppb	15:04:16
2	Sn 189.927†	137.0	131.1	12.208	µg/L	12.208 ppb	15:04:36
2	Ti 334.940†	855790.0	870429.1	913.03	µg/L	913.03 ppb	15:04:16
2	Tl 190.801†	-235.1	-124.1	-3.6858	µg/L	-3.6858 ppb	15:04:36
2	U 409.014†	-5343.9	-5029.6	-302.94	µg/L	-302.94 ppb	15:04:16
2	V 292.402†	3975.3	3551.4	12.764	µg/L	12.764 ppb	15:04:36
2	Zn 213.857†	23286.6	23089.8	129.16	µg/L	129.16 ppb	15:04:36
3	Sc RADIAL	112602.4	112602.4	98.4	%		15:03:47
3	Al 396.153Radial†	26242.8	26744.0	6304.5	µg/L	6304.5 ppb	15:03:47
3	Ca 317.933Radial†	66531.8	67130.1	5527.5	µg/L	5527.5 ppb	15:03:49
3	Fe 238.204 Radial†	490470.9	498124.7	42492	µg/L	42492 ppb	15:03:47
3	K 766.490 Radial†	5878.3	4562.3	1823.5	µg/L	1823.5 ppb	15:03:47
3	Mg 279.077 IEC†	1175.5	1036.8	538.25	µg/L	538.25 ppb	15:03:49
3	Na 589.592 Radial†	9019.4	8327.1	1327.0	µg/L	1327.0 ppb	15:03:47
3	Sr 421.552†	28544.5	29063.9	74.615	µg/L	74.615 ppb	15:03:47
3	Sc 361.383	1668281.2	1668281.2	98.583	%		15:04:39
3	Y 371.029	1131970.0	1131970.0	118.28	%		15:04:39
3	Ag 328.068†	4866.8	-166.2	-1.7480	µg/L	-1.7480 ppb	15:04:39
3	As 188.979†	9.4	23.0	17.932	µg/L	17.932 ppb	15:04:59
3	B 249.677†	4395.6	346.9	5.1321	µg/L	5.1321 ppb	15:04:39
3	Ba 233.527†	21235.9	21687.1	97.654	µg/L	97.654 ppb	15:04:59
3	Be 313.107†	11159.1	12311.9	3.3957	µg/L	3.3957 ppb	15:04:39
3	Cd 226.502†	561.1	633.8	-0.2699	µg/L	-0.2699 ppb	15:04:59
3	Co 228.616†	138.4	367.4	2.7018	µg/L	2.7018 ppb	15:04:59
3	Cr 267.716†	3833.5	3559.0	32.528	µg/L	32.528 ppb	15:04:59
3	Cu 324.752†	4274.8	1095.0	10.493	µg/L	10.493 ppb	15:04:39
3	Mn 257.610†	1320075.4	1338838.3	1749.9	µg/L	1749.9 ppb	15:04:39
3	Mo 202.031†	1534.3	1577.9	55.261	µg/L	55.261 ppb	15:04:59
3	Ni 231.604†	1226.5	1318.0	16.391	µg/L	16.391 ppb	15:04:59
3	P 214.914†	2044.6	2093.2	450.28	µg/L	450.28 ppb	15:04:59
3	Pb 220.353†	451.1	340.3	21.917	µg/L	21.917 ppb	15:04:59
3	S 181.975 Axial†	814.3	724.1	616.58	µg/L	616.58 ppb	15:04:59
3	Sb 206.836†	66.8	-9.8	-1.4980	µg/L	-1.4980 ppb	15:04:59
3	Se 196.026†	3.3	-16.6	8.02	µg/L	8.02 ppb	15:04:59
3	SiO2†	116223.8	116205.8	11997	µg/L	11997 ppb	15:04:39
3	Si 251.611†	363371.4	367809.0	5610.0	µg/L	5610.0 ppb	15:04:39
3	Sn 189.927†	146.2	139.8	12.805	µg/L	12.805 ppb	15:04:59
3	Ti 334.940†	855951.2	867370.9	909.82	µg/L	909.82 ppb	15:04:39
3	Tl 190.801†	-242.0	-130.2	-4.6011	µg/L	-4.6011 ppb	15:04:59
3	U 409.014†	-5243.4	-4907.5	-295.55	µg/L	-295.55 ppb	15:04:39
3	V 292.402†	3885.9	3445.8	12.246	µg/L	12.246 ppb	15:04:59
3	Zn 213.857†	23159.4	22873.0	127.91	µg/L	127.91 ppb	15:04:59

Mean Data: 1202068098|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1672479.6	98.831	%	0.7674				0.78%
Sc RADIAL	114152.3	99.8	%	1.19				1.19%
Y 371.029	1134349.2	118.53	%	0.884				0.75%
Ag 328.068†	-98.3	-1.4615	µg/L	0.25152	-1.4615	ppb	0.25152	17.21%
Al 396.153Radial†	26741.1	6303.9	µg/L	14.23	6303.9	ppb	14.23	0.23%
As 188.979†	17.9	16.177	µg/L	2.2120	16.177	ppb	2.2120	13.67%
B 249.677†	289.1	4.2752	µg/L	1.27159	4.2752	ppb	1.27159	29.74%
Ba 233.527†	21704.4	97.732	µg/L	0.8027	97.732	ppb	0.8027	0.82%
Be 313.107†	12364.5	3.4111	µg/L	0.05560	3.4111	ppb	0.05560	1.63%
Ca 317.933Radial†	66289.6	5458.2	µg/L	61.74	5458.2	ppb	61.74	1.13%
Cd 226.502†	630.7	-0.2932	µg/L	0.03487	-0.2932	ppb	0.03487	11.89%
Co 228.616†	360.5	2.6095	µg/L	0.13268	2.6095	ppb	0.13268	5.08%
Cr 267.716†	3582.8	32.737	µg/L	0.1999	32.737	ppb	0.1999	0.61%
Cu 324.752†	1188.6	10.886	µg/L	0.4343	10.886	ppb	0.4343	3.99%
Fe 238.204 Radial†	498452.4	42520	µg/L	46.7	42520	ppb	46.7	0.11%
K 766.490 Radial†	4479.1	1790.2	µg/L	40.62	1790.2	ppb	40.62	2.27%
Mg 279.077 IEC†	993.8	514.49	µg/L	20.746	514.49	ppb	20.746	4.03%
Mn 257.610†	1341612.7	1753.5	µg/L	3.16	1753.5	ppb	3.16	0.18%
Mo 202.031†	1589.6	55.659	µg/L	0.4770	55.659	ppb	0.4770	0.86%
Na 589.592 Radial†	8467.3	1349.4	µg/L	24.18	1349.4	ppb	24.18	1.79%

Ni 231.604†	1308.5	16.272	µg/L	0.3405	16.272	ppb	0.3405	2.09%
P 214.914†	2094.5	450.55	µg/L	2.473	450.55	ppb	2.473	0.55%
Pb 220.353†	313.9	20.265	µg/L	1.4356	20.265	ppb	1.4356	7.08%
S 181.975 Axial†	725.8	618.01	µg/L	3.737	618.01	ppb	3.737	0.60%
Sb 206.836†	-3.2	-0.6574	µg/L	1.06789	-0.6574	ppb	1.06789	162.45%
Se 196.026†	-31.1	2.45	µg/L	5.283	2.45	ppb	5.283	215.38%
SiO2†	115755.7	11951	µg/L	58.0	11951	ppb	58.0	0.49%
Si 251.611†	366306.0	5587.0	µg/L	27.36	5587.0	ppb	27.36	0.49%
Sn 189.927†	136.4	12.574	µg/L	0.3207	12.574	ppb	0.3207	2.55%
Sr 421.552†	28916.8	74.238	µg/L	0.3520	74.238	ppb	0.3520	0.47%
Ti 334.940†	870562.4	913.17	µg/L	3.416	913.17	ppb	3.416	0.37%
Tl 190.801†	-127.6	-4.1845	µg/L	0.46317	-4.1845	ppb	0.46317	11.07%
U 409.014†	-4879.7	-293.83	µg/L	10.078	-293.83	ppb	10.078	3.43%
Concentration less than lower limit for U 409.014.								
V 292.402†	3503.4	12.531	µg/L	0.2633	12.531	ppb	0.2633	2.10%
Zn 213.857†	22905.1	128.10	µg/L	0.980	128.10	ppb	0.980	0.76%

Sequence No.: 5
Sample ID: 1202068100|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 305
Date Collected: 4/13/2010 15:05:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068100|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	112245.5	112245.5	98.1	%			15:05:39
1	Al 396.153Radial†	63565.5	64863.8	15270	µg/L	15270	ppb	15:05:37
1	Ca 317.933Radial†	77815.4	78844.0	6492.0	µg/L	6492.0	ppb	15:05:39
1	Fe 238.204 Radial†	544884.2	555160.8	47357	µg/L	47357	ppb	15:05:37
1	K 766.490 Radial†	19198.6	18155.8	7261.2	µg/L	7261.2	ppb	15:05:39
1	Mg 279.077 IEC†	10498.2	10541.3	5803.1	µg/L	5803.1	ppb	15:05:39
1	Na 589.592 Radial†	40699.5	40641.1	6478.1	µg/L	6478.1	ppb	15:05:39
1	Sr 421.552†	233359.6	237880.7	611.01	µg/L	611.01	ppb	15:05:37
1	Sc 361.383	1661815.0	1661815.0	98.201	%			15:06:06
1	Y 371.029	1124210.4	1124210.4	117.47	%			15:06:06
1	Ag 328.068†	123198.0	120352.4	502.25	µg/L	502.25	ppb	15:06:06
1	As 188.979†	1386.4	1425.2	510.92	µg/L	510.92	ppb	15:06:26
1	B 249.677†	37740.7	34320.3	507.70	µg/L	507.70	ppb	15:06:06
1	Ba 233.527†	134369.6	136977.6	619.95	µg/L	619.95	ppb	15:06:06
1	Be 313.107†	1765737.0	1799084.1	509.45	µg/L	509.45	ppb	15:06:06
1	Cd 226.502†	74698.3	76131.6	498.65	µg/L	498.65	ppb	15:06:06
1	Co 228.616†	37664.9	38582.1	503.98	µg/L	503.98	ppb	15:06:06
1	Cr 267.716†	61199.8	61991.6	545.53	µg/L	545.53	ppb	15:06:06
1	Cu 324.752†	127651.3	126749.1	532.26	µg/L	532.26	ppb	15:06:06
1	Mn 257.610†	1679280.4	1709835.6	2234.6	µg/L	2234.6	ppb	15:06:06
1	Mo 202.031†	16496.3	16820.1	573.12	µg/L	573.12	ppb	15:06:26
1	Ni 231.604†	41192.0	42020.7	522.56	µg/L	522.56	ppb	15:06:06
1	P 214.914†	4385.1	4484.7	988.59	µg/L	988.59	ppb	15:06:26
1	Pb 220.353†	8233.1	8266.8	520.85	µg/L	520.85	ppb	15:06:26
1	S 181.975 Axial†	7208.3	7238.5	6163.7	µg/L	6163.7	ppb	15:06:26
1	Sb 206.836†	3843.9	3836.8	492.71	µg/L	492.71	ppb	15:06:26
1	Se 196.026†	1262.1	1265.2	506	µg/L	506	ppb	15:06:26
1	SiO2†	247615.4	250463.7	25839	µg/L	25839	ppb	15:06:06
1	Si 251.611†	779788.0	793290.1	12090	µg/L	12090	ppb	15:06:06
1	Sn 189.927†	7116.2	7238.2	509.91	µg/L	509.91	ppb	15:06:26
1	Ti 334.940†	1632000.9	1661019.0	1741.3	µg/L	1741.3	ppb	15:06:06
1	Tl 190.801†	3247.8	3422.6	506.82	µg/L	506.82	ppb	15:06:26
1	U 409.014†	3244.5	3715.2	258.52	µg/L	258.52	ppb	15:06:06
1	V 292.402†	101072.6	102428.6	509.64	µg/L	509.64	ppb	15:06:06
1	Zn 213.857†	115329.9	116823.8	666.65	µg/L	666.65	ppb	15:06:06
2	Sc RADIAL	112975.4	112975.4	98.8	%			15:05:43
2	Al 396.153Radial†	63374.0	64251.4	15126	µg/L	15126	ppb	15:05:41
2	Ca 317.933Radial†	78325.3	78848.0	6492.3	µg/L	6492.3	ppb	15:05:43
2	Fe 238.204 Radial†	544213.9	550894.7	46993	µg/L	46993	ppb	15:05:41
2	K 766.490 Radial†	19448.7	18282.6	7312.0	µg/L	7312.0	ppb	15:05:43
2	Mg 279.077 IEC†	10652.5	10628.4	5851.4	µg/L	5851.4	ppb	15:05:43
2	Na 589.592 Radial†	41168.1	40847.5	6511.0	µg/L	6511.0	ppb	15:05:43
2	Sr 421.552†	233886.8	236878.2	608.44	µg/L	608.44	ppb	15:05:41
2	Sc 361.383	1678885.1	1678885.1	99.209	%			15:06:29
2	Y 371.029	1135406.7	1135406.7	118.64	%			15:06:29
2	Ag 328.068†	123803.4	119687.1	499.45	µg/L	499.45	ppb	15:06:29
2	As 188.979†	1404.6	1429.2	512.20	µg/L	512.20	ppb	15:06:49
2	B 249.677†	37850.0	34039.8	503.54	µg/L	503.54	ppb	15:06:29
2	Ba 233.527†	135581.2	136807.6	619.19	µg/L	619.19	ppb	15:06:29
2	Be 313.107†	1779877.3	1795054.9	508.30	µg/L	508.30	ppb	15:06:29
2	Cd 226.502†	75565.0	76231.8	499.35	µg/L	499.35	ppb	15:06:29
2	Co 228.616†	37953.8	38483.3	502.70	µg/L	502.70	ppb	15:06:29
2	Cr 267.716†	61695.8	61857.9	544.37	µg/L	544.37	ppb	15:06:29
2	Cu 324.752†	128402.7	126184.8	529.85	µg/L	529.85	ppb	15:06:29
2	Mn 257.610†	1692264.9	1705536.5	2229.0	µg/L	2229.0	ppb	15:06:29
2	Mo 202.031†	16499.7	16652.8	567.43	µg/L	567.43	ppb	15:06:49
2	Ni 231.604†	41395.9	41799.8	519.81	µg/L	519.81	ppb	15:06:29
2	P 214.914†	4356.6	4410.6	971.91	µg/L	971.91	ppb	15:06:49
2	Pb 220.353†	8202.0	8150.2	513.55	µg/L	513.55	ppb	15:06:49

2	S 181.975 Axial†	7216.5	7172.1	6107.3 µg/L	6107.3 ppb		15:06:49
2	Sb 206.836†	3855.8	3809.0	489.08 µg/L	489.08 ppb		15:06:49
2	Se 196.026†	1235.3	1225.1	490 µg/L	490 ppb		15:06:49
2	SiO2†	249685.4	249986.5	25790 µg/L	25790 ppb		15:06:29
2	Si 251.611†	787076.5	792562.8	12079 µg/L	12079 ppb		15:06:29
2	Sn 189.927†	7101.2	7149.3	503.70 µg/L	503.70 ppb		15:06:49
2	Ti 334.940†	1641608.6	1653805.8	1733.8 µg/L	1733.8 ppb		15:06:29
2	Tl 190.801†	3226.4	3367.4	498.95 µg/L	498.95 ppb		15:06:49
2	U 409.014†	2739.8	3172.9	225.50 µg/L	225.50 ppb		15:06:29
2	V 292.402†	101822.1	102137.6	508.15 µg/L	508.15 ppb		15:06:29
2	Zn 213.857†	116178.9	116485.5	664.74 µg/L	664.74 ppb		15:06:29
3	Sc RADIAL	113773.0	113773.0	99.5 %			15:05:47
3	Al 396.153Radial†	63158.7	63585.2	14969 µg/L	14969 ppb		15:05:45
3	Ca 317.933Radial†	79101.9	79072.8	6510.8 µg/L	6510.8 ppb		15:05:47
3	Fe 238.204 Radial†	541868.2	544673.5	46463 µg/L	46463 ppb		15:05:45
3	K 766.490 Radial†	19473.4	18169.4	7266.7 µg/L	7266.7 ppb		15:05:47
3	Mg 279.077 IEC†	10698.0	10598.5	5835.5 µg/L	5835.5 ppb		15:05:47
3	Na 589.592 Radial†	41331.2	40719.4	6490.6 µg/L	6490.6 ppb		15:05:47
3	Sr 421.552†	233071.3	234398.1	602.07 µg/L	602.07 ppb		15:05:45
3	Sc 361.383	1667431.9	1667431.9	98.533 %			15:06:52
3	Y 371.029	1127480.6	1127480.6	117.81 %			15:06:52
3	Ag 328.068†	122832.4	119558.8	498.95 µg/L	498.95 ppb		15:06:52
3	As 188.979†	1398.3	1432.6	513.25 µg/L	513.25 ppb		15:07:13
3	B 249.677†	37665.5	34114.5	504.65 µg/L	504.65 ppb		15:06:52
3	Ba 233.527†	134815.4	136969.1	619.93 µg/L	619.93 ppb		15:06:52
3	Be 313.107†	1768465.2	1795795.9	508.52 µg/L	508.52 ppb		15:06:52
3	Cd 226.502†	74990.3	76171.7	499.01 µg/L	499.01 ppb		15:06:52
3	Co 228.616†	37591.1	38378.0	501.35 µg/L	501.35 ppb		15:06:52
3	Cr 267.716†	61186.9	61768.6	543.54 µg/L	543.54 ppb		15:06:52
3	Cu 324.752†	127923.5	126587.4	531.46 µg/L	531.46 ppb		15:06:52
3	Mn 257.610†	1681468.1	1706295.4	2230.0 µg/L	2230.0 ppb		15:06:52
3	Mo 202.031†	16568.9	16837.3	573.67 µg/L	573.67 ppb		15:07:13
3	Ni 231.604†	41096.8	41782.8	519.60 µg/L	519.60 ppb		15:06:52
3	P 214.914†	4381.1	4465.5	984.76 µg/L	984.76 ppb		15:07:13
3	Pb 220.353†	8256.3	8262.1	520.55 µg/L	520.55 ppb		15:07:13
3	S 181.975 Axial†	7256.0	7262.1	6183.9 µg/L	6183.9 ppb		15:07:13
3	Sb 206.836†	3840.9	3820.6	490.68 µg/L	490.68 ppb		15:07:13
3	Se 196.026†	1245.9	1244.5	498 µg/L	498 ppb		15:07:13
3	SiO2†	249342.8	251367.5	25932 µg/L	25932 ppb		15:06:52
3	Si 251.611†	785029.7	795934.9	12131 µg/L	12131 ppb		15:06:52
3	Sn 189.927†	7140.1	7238.1	509.86 µg/L	509.86 ppb		15:07:13
3	Ti 334.940†	1626406.6	1649743.2	1729.5 µg/L	1729.5 ppb		15:06:52
3	Tl 190.801†	3248.4	3412.0	505.20 µg/L	505.20 ppb		15:07:13
3	U 409.014†	3216.1	3675.3	256.14 µg/L	256.14 ppb		15:06:52
3	V 292.402†	100995.3	102003.5	507.63 µg/L	507.63 ppb		15:06:52
3	Zn 213.857†	115610.2	116712.7	666.11 µg/L	666.11 ppb		15:06:52

Mean Data: 1202068100|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1669377.4	98.647	%	0.5141				0.52%
Sc RADIAL	112997.9	98.8	%	0.67				0.68%
Y 371.029	1129032.6	117.97	%	0.602				0.51%
Ag 328.068†	119866.1	500.22	µg/L	1.778	500.22	ppb	1.778	0.36%
Al 396.153Radial†	64233.5	15122	µg/L	150.8	15122	ppb	150.8	1.00%
As 188.979†	1429.0	512.12	µg/L	1.166	512.12	ppb	1.166	0.23%
B 249.677†	34158.2	505.30	µg/L	2.154	505.30	ppb	2.154	0.43%
Ba 233.527†	136918.1	619.69	µg/L	0.435	619.69	ppb	0.435	0.07%
Be 313.107†	1796644.9	508.76	µg/L	0.611	508.76	ppb	0.611	0.12%
Ca 317.933Radial†	78921.6	6498.4	µg/L	10.78	6498.4	ppb	10.78	0.17%
Cd 226.502†	76178.4	499.01	µg/L	0.350	499.01	ppb	0.350	0.07%
Co 228.616†	38481.1	502.68	µg/L	1.314	502.68	ppb	1.314	0.26%
Cr 267.716†	61872.7	544.48	µg/L	0.999	544.48	ppb	0.999	0.18%
Cu 324.752†	126507.1	531.19	µg/L	1.230	531.19	ppb	1.230	0.23%
Fe 238.204 Radial†	550243.0	46938	µg/L	449.9	46938	ppb	449.9	0.96%
K 766.490 Radial†	18202.6	7280.0	µg/L	27.87	7280.0	ppb	27.87	0.38%
Mg 279.077 IEC†	10589.4	5830.0	µg/L	24.64	5830.0	ppb	24.64	0.42%
Mn 257.610†	1707222.5	2231.2	µg/L	3.00	2231.2	ppb	3.00	0.13%
Mo 202.031†	16770.1	571.41	µg/L	3.457	571.41	ppb	3.457	0.61%
Na 589.592 Radial†	40736.0	6493.2	µg/L	16.61	6493.2	ppb	16.61	0.26%

Ni 231.604†	41867.8	520.66	µg/L	1.651	520.66	ppb	1.651	0.32%
P 214.914†	4453.6	981.75	µg/L	8.738	981.75	ppb	8.738	0.89%
Pb 220.353†	8226.3	518.32	µg/L	4.132	518.32	ppb	4.132	0.80%
S 181.975 Axial†	7224.2	6151.6	µg/L	39.73	6151.6	ppb	39.73	0.65%
Sb 206.836†	3822.1	490.82	µg/L	1.820	490.82	ppb	1.820	0.37%
Se 196.026†	1244.9	498	µg/L	7.8	498	ppb	7.8	1.57%
SiO2†	250605.9	25854	µg/L	72.3	25854	ppb	72.3	0.28%
Si 251.611†	793929.3	12100	µg/L	27.0	12100	ppb	27.0	0.22%
Sn 189.927†	7208.5	507.82	µg/L	3.573	507.82	ppb	3.573	0.70%
Sr 421.552†	236385.7	607.17	µg/L	4.605	607.17	ppb	4.605	0.76%
Ti 334.940†	1654856.0	1734.9	µg/L	5.99	1734.9	ppb	5.99	0.35%
Tl 190.801†	3400.6	503.66	µg/L	4.157	503.66	ppb	4.157	0.83%
U 409.014†	3521.1	246.72	µg/L	18.414	246.72	ppb	18.414	7.46%
V 292.402†	102189.9	508.47	µg/L	1.041	508.47	ppb	1.041	0.20%
Zn 213.857†	116674.0	665.83	µg/L	0.980	665.83	ppb	0.980	0.15%

Sequence No.: 6
Sample ID: 1202068101|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 306
Date Collected: 4/13/2010 15:07:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068101|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113245.6	113245.6	99.0	%			15:07:52
1	Al 396.153Radial†	67091.9	67853.7	15975	µg/L	15975	ppb	15:07:50
1	Ca 317.933Radial†	85148.7	85550.9	7044.2	µg/L	7044.2	ppb	15:07:52
1	Fe 238.204 Radial†	603823.9	609790.9	52017	µg/L	52017	ppb	15:07:50
1	K 766.490 Radial†	19485.5	18272.8	7307.7	µg/L	7307.7	ppb	15:07:52
1	Mg 279.077 IEC†	11209.5	11165.3	6144.4	µg/L	6144.4	ppb	15:07:52
1	Na 589.592 Radial†	40761.0	40336.9	6429.5	µg/L	6429.5	ppb	15:07:52
1	Sr 421.552†	230394.5	232785.4	597.92	µg/L	597.92	ppb	15:07:50
1	Sc 361.383	1664504.7	1664504.7	98.360	%			15:08:19
1	Y 371.029	1145694.2	1145694.2	119.71	%			15:08:19
1	Ag 328.068†	123793.5	120755.2	503.82	µg/L	503.82	ppb	15:08:19
1	As 188.979†	1419.9	1457.0	523.08	µg/L	523.08	ppb	15:08:39
1	B 249.677†	37937.3	34458.1	509.74	µg/L	509.74	ppb	15:08:19
1	Ba 233.527†	135755.8	138165.8	625.28	µg/L	625.28	ppb	15:08:19
1	Be 313.107†	1777939.9	1808585.0	512.13	µg/L	512.13	ppb	15:08:19
1	Cd 226.502†	75613.7	76939.4	503.51	µg/L	503.51	ppb	15:08:19
1	Co 228.616†	37878.3	38737.1	505.78	µg/L	505.78	ppb	15:08:19
1	Cr 267.716†	62003.1	62707.5	551.95	µg/L	551.95	ppb	15:08:19
1	Cu 324.752†	128750.6	127656.6	536.68	µg/L	536.68	ppb	15:08:19
1	Mn 257.610†	1842028.6	1872534.9	2447.3	µg/L	2447.3	ppb	15:08:19
1	Mo 202.031†	16810.4	17112.4	583.24	µg/L	583.24	ppb	15:08:39
1	Ni 231.604†	41196.9	41957.9	521.78	µg/L	521.78	ppb	15:08:19
1	P 214.914†	4957.0	5058.9	1116.7	µg/L	1116.7	ppb	15:08:39
1	Pb 220.353†	8379.5	8402.0	529.37	µg/L	529.37	ppb	15:08:39
1	S 181.975 Axial†	7339.8	7360.3	6267.5	µg/L	6267.5	ppb	15:08:39
1	Sb 206.836†	3889.4	3876.8	497.83	µg/L	497.83	ppb	15:08:39
1	Se 196.026†	1244.6	1245.3	500	µg/L	500	ppb	15:08:39
1	SiO2†	224154.0	226203.6	23333	µg/L	23333	ppb	15:08:19
1	Si 251.611†	705285.1	716261.4	10915	µg/L	10915	ppb	15:08:19
1	Sn 189.927†	7188.2	7299.6	514.44	µg/L	514.44	ppb	15:08:39
1	Ti 334.940†	1704412.9	1731953.3	1815.7	µg/L	1815.7	ppb	15:08:19
1	Tl 190.801†	3274.0	3443.9	511.15	µg/L	511.15	ppb	15:08:39
1	U 409.014†	2652.1	3107.5	222.17	µg/L	222.17	ppb	15:08:19
1	V 292.402†	102186.5	103394.7	513.97	µg/L	513.97	ppb	15:08:19
1	Zn 213.857†	118208.2	119560.4	681.99	µg/L	681.99	ppb	15:08:19
2	Sc RADIAL	113889.8	113889.8	99.6	%			15:07:56
2	Al 396.153Radial†	66268.6	66643.5	15690	µg/L	15690	ppb	15:07:54
2	Ca 317.933Radial†	84948.8	84863.8	6987.6	µg/L	6987.6	ppb	15:07:56
2	Fe 238.204 Radial†	592076.4	594542.5	50717	µg/L	50717	ppb	15:07:54
2	K 766.490 Radial†	19748.9	18426.1	7369.2	µg/L	7369.2	ppb	15:07:56
2	Mg 279.077 IEC†	11235.9	11127.7	6124.7	µg/L	6124.7	ppb	15:07:56
2	Na 589.592 Radial†	40865.3	40208.8	6409.0	µg/L	6409.0	ppb	15:07:56
2	Sr 421.552†	227770.5	228833.7	587.77	µg/L	587.77	ppb	15:07:54
2	Sc 361.383	1671103.9	1671103.9	98.750	%			15:08:42
2	Y 371.029	1150278.9	1150278.9	120.19	%			15:08:42
2	Ag 328.068†	124193.1	120662.8	503.44	µg/L	503.44	ppb	15:08:42
2	As 188.979†	1415.5	1446.8	519.23	µg/L	519.23	ppb	15:09:02
2	B 249.677†	38034.9	34404.6	508.94	µg/L	508.94	ppb	15:08:42
2	Ba 233.527†	136062.3	137931.2	624.23	µg/L	624.23	ppb	15:08:42
2	Be 313.107†	1787877.4	1811510.0	512.96	µg/L	512.96	ppb	15:08:42
2	Cd 226.502†	75996.6	77023.6	504.20	µg/L	504.20	ppb	15:08:42
2	Co 228.616†	38127.3	38837.2	507.15	µg/L	507.15	ppb	15:08:42
2	Cr 267.716†	62129.3	62586.4	550.84	µg/L	550.84	ppb	15:08:42
2	Cu 324.752†	129226.0	127621.1	536.34	µg/L	536.34	ppb	15:08:42
2	Mn 257.610†	1850368.5	1873584.8	2448.6	µg/L	2448.6	ppb	15:08:42
2	Mo 202.031†	16800.2	17034.5	580.54	µg/L	580.54	ppb	15:09:02
2	Ni 231.604†	41365.4	41963.1	521.85	µg/L	521.85	ppb	15:08:42
2	P 214.914†	4935.9	5017.6	1108.1	µg/L	1108.1	ppb	15:09:02
2	Pb 220.353†	8376.8	8365.6	527.11	µg/L	527.11	ppb	15:09:02

2	S 181.975 Axial†	7328.3	7319.2	6232.5 µg/L	6232.5 ppb	15:09:02
2	Sb 206.836†	3917.6	3889.7	499.48 µg/L	499.48 ppb	15:09:02
2	Se 196.026†	1246.7	1242.5	498 µg/L	498 ppb	15:09:02
2	SiO2†	222788.8	223921.2	23098 µg/L	23098 ppb	15:08:42
2	Si 251.611†	700304.9	708386.5	10795 µg/L	10795 ppb	15:08:42
2	Sn 189.927†	7173.2	7255.7	511.38 µg/L	511.38 ppb	15:09:02
2	Ti 334.940†	1712426.4	1733225.2	1817.1 µg/L	1817.1 ppb	15:08:42
2	Tl 190.801†	3259.9	3416.5	507.29 µg/L	507.29 ppb	15:09:02
2	U 409.014†	2662.0	3107.0	222.41 µg/L	222.41 ppb	15:08:42
2	V 292.402†	102487.9	103289.7	513.55 µg/L	513.55 ppb	15:08:42
2	Zn 213.857†	118938.5	119825.4	683.65 µg/L	683.65 ppb	15:08:42
3	Sc RADIAL	114659.6	114659.6	100 %		15:08:00
3	Al 396.153Radial†	68224.5	68147.9	16045 µg/L	16045 ppb	15:07:58
3	Ca 317.933Radial†	85348.8	84689.9	6973.3 µg/L	6973.3 ppb	15:08:00
3	Fe 238.204 Radial†	610093.2	608524.0	51909 µg/L	51909 ppb	15:07:58
3	K 766.490 Radial†	19694.0	18238.1	7293.9 µg/L	7293.9 ppb	15:08:00
3	Mg 279.077 IEC†	11308.7	11124.6	6121.9 µg/L	6121.9 ppb	15:08:00
3	Na 589.592 Radial†	41088.5	40155.9	6400.7 µg/L	6400.7 ppb	15:08:00
3	Sr 421.552†	233394.1	232908.0	598.23 µg/L	598.23 ppb	15:07:58
3	Sc 361.383	1690841.3	1690841.3	99.916 %		15:09:05
3	Y 371.029	1163950.6	1163950.6	121.62 %		15:09:05
3	Ag 328.068†	125845.5	120848.5	504.22 µg/L	504.22 ppb	15:09:05
3	As 188.979†	1428.8	1443.5	518.33 µg/L	518.33 ppb	15:09:25
3	B 249.677†	38624.4	34545.0	511.02 µg/L	511.02 ppb	15:09:05
3	Ba 233.527†	138099.7	138361.9	626.17 µg/L	626.17 ppb	15:09:05
3	Be 313.107†	1814531.5	1817052.3	514.53 µg/L	514.53 ppb	15:09:05
3	Cd 226.502†	77356.6	77486.3	507.13 µg/L	507.13 ppb	15:09:05
3	Co 228.616†	38531.5	38791.1	506.49 µg/L	506.49 ppb	15:09:05
3	Cr 267.716†	62946.3	62669.7	551.62 µg/L	551.62 ppb	15:09:05
3	Cu 324.752†	130846.4	127715.3	536.90 µg/L	536.90 ppb	15:09:05
3	Mn 257.610†	1876771.4	1878136.9	2454.6 µg/L	2454.6 ppb	15:09:05
3	Mo 202.031†	16835.9	16871.7	575.06 µg/L	575.06 ppb	15:09:25
3	Ni 231.604†	42016.9	42126.2	523.87 µg/L	523.87 ppb	15:09:05
3	P 214.914†	4975.5	4998.9	1103.1 µg/L	1103.1 ppb	15:09:25
3	Pb 220.353†	8427.5	8317.4	524.06 µg/L	524.06 ppb	15:09:25
3	S 181.975 Axial†	7342.6	7246.8	6170.9 µg/L	6170.9 ppb	15:09:25
3	Sb 206.836†	3906.3	3832.1	491.98 µg/L	491.98 ppb	15:09:25
3	Se 196.026†	1247.9	1228.9	493 µg/L	493 ppb	15:09:25
3	SiO2†	228319.2	226822.6	23398 µg/L	23398 ppb	15:09:05
3	Si 251.611†	718829.7	718648.7	10952 µg/L	10952 ppb	15:09:05
3	Sn 189.927†	7195.7	7193.4	507.06 µg/L	507.06 ppb	15:09:25
3	Ti 334.940†	1735091.0	1735666.4	1819.6 µg/L	1819.6 ppb	15:09:05
3	Tl 190.801†	3277.0	3395.0	504.32 µg/L	504.32 ppb	15:09:25
3	U 409.014†	2656.9	3070.4	220.03 µg/L	220.03 ppb	15:09:05
3	V 292.402†	103970.2	103561.8	514.72 µg/L	514.72 ppb	15:09:05
3	Zn 213.857†	120765.6	120248.0	685.96 µg/L	685.96 ppb	15:09:05

Mean Data: 1202068101|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1675483.3	99.008	%	0.8098				0.82%
Sc RADIAL	113931.7	99.6	%	0.62				0.62%
Y 371.029	1153307.9	120.51	%	0.992				0.82%
Ag 328.068†	120755.5	503.83	µg/L	0.386	503.83	ppb	0.386	0.08%
Al 396.153Radial†	67548.4	15903	µg/L	188.1	15903	ppb	188.1	1.18%
As 188.979†	1449.1	520.21	µg/L	2.520	520.21	ppb	2.520	0.48%
B 249.677†	34469.2	509.90	µg/L	1.053	509.90	ppb	1.053	0.21%
Ba 233.527†	138153.0	625.23	µg/L	0.968	625.23	ppb	0.968	0.15%
Be 313.107†	1812382.5	513.21	µg/L	1.217	513.21	ppb	1.217	0.24%
Ca 317.933Radial†	85034.9	7001.7	µg/L	37.49	7001.7	ppb	37.49	0.54%
Cd 226.502†	77149.7	504.95	µg/L	1.926	504.95	ppb	1.926	0.38%
Co 228.616†	38788.4	506.47	µg/L	0.689	506.47	ppb	0.689	0.14%
Cr 267.716†	62654.6	551.47	µg/L	0.569	551.47	ppb	0.569	0.10%
Cu 324.752†	127664.4	536.64	µg/L	0.283	536.64	ppb	0.283	0.05%
Fe 238.204 Radial†	604285.8	51548	µg/L	721.8	51548	ppb	721.8	1.40%
K 766.490 Radial†	18312.3	7323.6	µg/L	40.08	7323.6	ppb	40.08	0.55%
Mg 279.077 IEC†	11139.2	6130.3	µg/L	12.30	6130.3	ppb	12.30	0.20%
Mn 257.610†	1874752.2	2450.2	µg/L	3.89	2450.2	ppb	3.89	0.16%
Mo 202.031†	17006.2	579.61	µg/L	4.166	579.61	ppb	4.166	0.72%
Na 589.592 Radial†	40233.9	6413.1	µg/L	14.85	6413.1	ppb	14.85	0.23%

Ni 231.604†	42015.7	522.50	µg/L	1.190	522.50	ppb	1.190	0.23%
P 214.914†	5025.1	1109.3	µg/L	6.87	1109.3	ppb	6.87	0.62%
Pb 220.353†	8361.7	526.85	µg/L	2.665	526.85	ppb	2.665	0.51%
S 181.975 Axial†	7308.8	6223.6	µg/L	48.90	6223.6	ppb	48.90	0.79%
Sb 206.836†	3866.2	496.43	µg/L	3.940	496.43	ppb	3.940	0.79%
Se 196.026†	1238.9	497	µg/L	3.3	497	ppb	3.3	0.67%
SiO2†	225649.1	23276	µg/L	157.9	23276	ppb	157.9	0.68%
Si 251.611†	714432.2	10887	µg/L	81.9	10887	ppb	81.9	0.75%
Sn 189.927†	7249.6	510.96	µg/L	3.712	510.96	ppb	3.712	0.73%
Sr 421.552†	231509.1	594.64	µg/L	5.954	594.64	ppb	5.954	1.00%
Ti 334.940†	1733615.0	1817.5	µg/L	1.98	1817.5	ppb	1.98	0.11%
Tl 190.801†	3418.5	507.59	µg/L	3.424	507.59	ppb	3.424	0.67%
U 409.014†	3095.0	221.54	µg/L	1.311	221.54	ppb	1.311	0.59%
V 292.402†	103415.4	514.08	µg/L	0.590	514.08	ppb	0.590	0.11%
Zn 213.857†	119877.9	683.87	µg/L	1.994	683.87	ppb	1.994	0.29%

Sequence No.: 7
Sample ID: 1202068099|974047|5
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 307
Date Collected: 4/13/2010 15:09:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068099|974047|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	116443.9	116443.9	102	%			15:10:04
1	Al 396.153Radial†	7084.6	7044.5	1660.8	µg/L	1660.8	ppb	15:10:06
1	Ca 317.933Radial†	4734.8	4194.5	345.37	µg/L	345.37	ppb	15:10:06
1	Fe 238.204 Radial†	126635.5	124275.4	10601	µg/L	10601	ppb	15:10:04
1	K 766.490 Radial†	2594.4	1139.3	455.54	µg/L	455.54	ppb	15:10:04
1	Mg 279.077 IEC†	444.4	279.2	145.63	µg/L	145.63	ppb	15:10:06
1	Na 589.592 Radial†	2877.5	1991.4	317.34	µg/L	317.34	ppb	15:10:06
1	Sr 421.552†	7792.9	7722.1	19.834	µg/L	19.834	ppb	15:10:06
1	Sc 361.383	1707083.7	1707083.7	100.88	%			15:10:32
1	Y 371.029	1001496.5	1001496.5	104.65	%			15:10:32
1	Ag 328.068†	5078.6	-68.5	-0.4956	µg/L	-0.4956	ppb	15:10:34
1	As 188.979†	-11.0	2.5	3.3456	µg/L	3.3456	ppb	15:10:54
1	B 249.677†	4232.6	84.0	1.2425	µg/L	1.2425	ppb	15:10:34
1	Ba 233.527†	5551.7	5649.3	25.443	µg/L	25.443	ppb	15:10:54
1	Be 313.107†	2281.0	3253.5	0.9054	µg/L	0.9054	ppb	15:10:34
1	Cd 226.502†	124.3	187.8	0.1289	µg/L	0.1289	ppb	15:10:54
1	Co 228.616†	-143.2	85.1	0.5891	µg/L	0.5891	ppb	15:10:54
1	Cr 267.716†	1135.0	795.5	7.2844	µg/L	7.2844	ppb	15:10:54
1	Cu 324.752†	3386.0	115.3	1.9831	µg/L	1.9831	ppb	15:10:34
1	Mn 257.610†	343069.3	339876.0	444.23	µg/L	444.23	ppb	15:10:34
1	Mo 202.031†	321.4	340.2	11.972	µg/L	11.972	ppb	15:10:54
1	Ni 231.604†	229.6	301.5	3.7493	µg/L	3.7493	ppb	15:10:54
1	P 214.914†	492.6	507.5	109.02	µg/L	109.02	ppb	15:10:54
1	Pb 220.353†	194.1	75.2	4.8036	µg/L	4.8036	ppb	15:10:54
1	S 181.975 Axial†	262.0	157.8	134.40	µg/L	134.40	ppb	15:10:54
1	Sb 206.836†	63.6	-14.5	-1.9349	µg/L	-1.9349	ppb	15:10:54
1	Se 196.026†	-1.8	-21.8	-4.79	µg/L	-4.79	ppb	15:10:54
1	SiO2†	29895.3	27946.9	2885.4	µg/L	2885.4	ppb	15:10:34
1	Si 251.611†	90312.6	88742.1	1353.5	µg/L	1353.5	ppb	15:10:34
1	Sn 189.927†	35.3	26.5	2.5075	µg/L	2.5075	ppb	15:10:54
1	Ti 334.940†	188875.3	186349.6	195.44	µg/L	195.44	ppb	15:10:34
1	Tl 190.801†	-156.0	-39.5	-2.4257	µg/L	-2.4257	ppb	15:10:54
1	U 409.014†	-1280.8	-858.4	-51.476	µg/L	-51.476	ppb	15:10:34
1	V 292.402†	1378.1	870.1	3.1287	µg/L	3.1287	ppb	15:10:34
1	Zn 213.857†	6327.2	5653.0	31.600	µg/L	31.600	ppb	15:10:54
2	Sc RADIAL	115218.5	115218.5	101	%			15:10:08
2	Al 396.153Radial†	7027.0	7061.3	1664.7	µg/L	1664.7	ppb	15:10:10
2	Ca 317.933Radial†	4625.1	4135.0	340.47	µg/L	340.47	ppb	15:10:10
2	Fe 238.204 Radial†	125912.4	124880.5	10653	µg/L	10653	ppb	15:10:08
2	K 766.490 Radial†	2747.0	1317.9	527.02	µg/L	527.02	ppb	15:10:08
2	Mg 279.077 IEC†	455.0	294.4	153.96	µg/L	153.96	ppb	15:10:10
2	Na 589.592 Radial†	2870.6	2014.6	320.97	µg/L	320.97	ppb	15:10:10
2	Sr 421.552†	7655.3	7666.8	19.692	µg/L	19.692	ppb	15:10:10
2	Sc 361.383	1712555.5	1712555.5	101.20	%			15:10:56
2	Y 371.029	1005032.5	1005032.5	105.02	%			15:10:56
2	Ag 328.068†	5253.8	88.5	0.1486	µg/L	0.1486	ppb	15:10:58
2	As 188.979†	1.1	14.5	7.5275	µg/L	7.5275	ppb	15:11:18
2	B 249.677†	4335.5	172.2	2.5515	µg/L	2.5515	ppb	15:10:58
2	Ba 233.527†	5557.1	5637.1	25.387	µg/L	25.387	ppb	15:11:18
2	Be 313.107†	2219.4	3185.4	0.8875	µg/L	0.8875	ppb	15:10:58
2	Cd 226.502†	126.0	189.1	0.1316	µg/L	0.1316	ppb	15:11:18
2	Co 228.616†	-124.8	103.7	0.8298	µg/L	0.8298	ppb	15:11:18
2	Cr 267.716†	1133.9	790.8	7.2414	µg/L	7.2414	ppb	15:11:18
2	Cu 324.752†	3501.3	218.6	2.4221	µg/L	2.4221	ppb	15:10:58
2	Mn 257.610†	340911.5	336657.1	440.02	µg/L	440.02	ppb	15:10:58
2	Mo 202.031†	335.2	352.8	12.402	µg/L	12.402	ppb	15:11:18
2	Ni 231.604†	194.4	266.0	3.3078	µg/L	3.3078	ppb	15:11:18
2	P 214.914†	494.4	507.7	109.03	µg/L	109.03	ppb	15:11:18
2	Pb 220.353†	161.1	42.0	2.7159	µg/L	2.7159	ppb	15:11:18

2	S 181.975 Axial†	260.8	155.8	132.67	µg/L	132.67 ppb	15:11:18
2	Sb 206.836†	83.7	5.2	0.5996	µg/L	0.5996 ppb	15:11:18
2	Se 196.026†	10.8	-9.3	0.060	µg/L	0.060 ppb	15:11:18
2	SiO2†	29937.0	27893.4	2879.8	µg/L	2879.8 ppb	15:10:58
2	Si 251.611†	90107.9	88253.8	1346.1	µg/L	1346.1 ppb	15:10:58
2	Sn 189.927†	50.3	41.3	3.5297	µg/L	3.5297 ppb	15:11:18
2	Ti 334.940†	187844.1	184732.5	193.74	µg/L	193.74 ppb	15:10:58
2	Tl 190.801†	-150.1	-33.0	-1.5575	µg/L	-1.5575 ppb	15:11:18
2	U 409.014†	-1207.3	-781.7	-46.903	µg/L	-46.903 ppb	15:10:58
2	V 292.402†	1194.8	684.6	2.2128	µg/L	2.2128 ppb	15:10:58
2	Zn 213.857†	6301.2	5607.2	31.332	µg/L	31.332 ppb	15:11:18
3	Sc RADIAL	115822.7	115822.7	101	%		15:10:12
3	Al 396.153Radial†	6837.8	6838.1	1612.1	µg/L	1612.1 ppb	15:10:14
3	Ca 317.933Radial†	4503.6	3991.1	328.62	µg/L	328.62 ppb	15:10:14
3	Fe 238.204 Radial†	126016.9	124331.8	10606	µg/L	10606 ppb	15:10:12
3	K 766.490 Radial†	2635.2	1193.3	477.18	µg/L	477.18 ppb	15:10:12
3	Mg 279.077 IEC†	418.0	255.5	132.47	µg/L	132.47 ppb	15:10:14
3	Na 589.592 Radial†	2825.0	1954.7	311.46	µg/L	311.46 ppb	15:10:14
3	Sr 421.552†	7617.8	7590.1	19.495	µg/L	19.495 ppb	15:10:14
3	Sc 361.383	1729193.8	1729193.8	102.18	%		15:11:20
3	Y 371.029	1014001.4	1014001.4	105.95	%		15:11:20
3	Ag 328.068†	5160.9	-52.3	-0.4331	µg/L	-0.4331 ppb	15:11:22
3	As 188.979†	6.7	20.0	9.4107	µg/L	9.4107 ppb	15:11:42
3	B 249.677†	4258.9	56.1	0.8284	µg/L	0.8284 ppb	15:11:22
3	Ba 233.527†	5585.9	5612.5	25.277	µg/L	25.277 ppb	15:11:42
3	Be 313.107†	2400.1	3341.2	0.9286	µg/L	0.9286 ppb	15:11:22
3	Cd 226.502†	104.5	166.9	-0.0103	µg/L	-0.0103 ppb	15:11:42
3	Co 228.616†	-149.1	81.1	0.5367	µg/L	0.5367 ppb	15:11:42
3	Cr 267.716†	1158.6	804.2	7.3667	µg/L	7.3667 ppb	15:11:42
3	Cu 324.752†	3446.7	131.8	2.0471	µg/L	2.0471 ppb	15:11:22
3	Mn 257.610†	342193.2	334670.0	437.43	µg/L	437.43 ppb	15:11:22
3	Mo 202.031†	330.5	345.0	12.135	µg/L	12.135 ppb	15:11:42
3	Ni 231.604†	207.6	277.1	3.4456	µg/L	3.4456 ppb	15:11:42
3	P 214.914†	473.4	482.5	103.29	µg/L	103.29 ppb	15:11:42
3	Pb 220.353†	200.4	78.9	5.0327	µg/L	5.0327 ppb	15:11:42
3	S 181.975 Axial†	266.2	158.6	135.06	µg/L	135.06 ppb	15:11:42
3	Sb 206.836†	83.4	4.1	0.4545	µg/L	0.4545 ppb	15:11:42
3	Se 196.026†	10.7	-9.5	-0.047	µg/L	-0.047 ppb	15:11:42
3	SiO2†	29257.7	26944.0	2781.8	µg/L	2781.8 ppb	15:11:22
3	Si 251.611†	88510.6	85833.9	1309.2	µg/L	1309.2 ppb	15:11:22
3	Sn 189.927†	52.0	42.5	3.6117	µg/L	3.6117 ppb	15:11:42
3	Ti 334.940†	190038.4	185093.9	194.13	µg/L	194.13 ppb	15:11:22
3	Tl 190.801†	-140.5	-22.2	-0.0294	µg/L	-0.0294 ppb	15:11:42
3	U 409.014†	-1387.8	-946.9	-56.901	µg/L	-56.901 ppb	15:11:22
3	V 292.402†	1391.8	866.1	3.1080	µg/L	3.1080 ppb	15:11:22
3	Zn 213.857†	6280.3	5526.9	30.872	µg/L	30.872 ppb	15:11:42

Mean Data: 1202068099|974047|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716277.7	101.42	%	0.680				0.67%
Sc RADIAL	115828.4	101	%	0.5				0.53%
Y 371.029	1006843.4	105.21	%	0.674				0.64%
Ag 328.068†	-10.7	-0.2600	µg/L	0.35526	-0.2600	ppb	0.35526	136.64%
Al 396.153Radial†	6981.3	1645.9	µg/L	29.31	1645.9	ppb	29.31	1.78%
As 188.979†	12.4	6.7612	µg/L	3.10430	6.7612	ppb	3.10430	45.91%
B 249.677†	104.1	1.5408	µg/L	0.89944	1.5408	ppb	0.89944	58.38%
Ba 233.527†	5633.0	25.369	µg/L	0.0848	25.369	ppb	0.0848	0.33%
Be 313.107†	3260.0	0.9072	µg/L	0.02059	0.9072	ppb	0.02059	2.27%
Ca 317.933Radial†	4106.8	338.16	µg/L	8.611	338.16	ppb	8.611	2.55%
Cd 226.502†	181.3	0.0834	µg/L	0.08116	0.0834	ppb	0.08116	97.31%
Co 228.616†	90.0	0.6519	µg/L	0.15630	0.6519	ppb	0.15630	23.98%
Cr 267.716†	796.8	7.2975	µg/L	0.06363	7.2975	ppb	0.06363	0.87%
Cu 324.752†	155.2	2.1508	µg/L	0.23715	2.1508	ppb	0.23715	11.03%
Fe 238.204 Radial†	124495.9	10620	µg/L	28.5	10620	ppb	28.5	0.27%
K 766.490 Radial†	1216.8	486.58	µg/L	36.655	486.58	ppb	36.655	7.53%
Mg 279.077 IEC†	276.4	144.02	µg/L	10.837	144.02	ppb	10.837	7.52%
Mn 257.610†	337067.7	440.56	µg/L	3.434	440.56	ppb	3.434	0.78%
Mo 202.031†	346.0	12.170	µg/L	0.2171	12.170	ppb	0.2171	1.78%
Na 589.592 Radial†	1986.9	316.59	µg/L	4.799	316.59	ppb	4.799	1.52%

Ni 231.604†	281.5	3.5009	µg/L	0.22590	3.5009	ppb	0.22590	6.45%
P 214.914†	499.2	107.11	µg/L	3.314	107.11	ppb	3.314	3.09%
Pb 220.353†	65.4	4.1840	µg/L	1.27663	4.1840	ppb	1.27663	30.51%
S 181.975 Axial†	157.4	134.04	µg/L	1.232	134.04	ppb	1.232	0.92%
Sb 206.836†	-1.7	-0.2936	µg/L	1.42324	-0.2936	ppb	1.42324	484.74%
Se 196.026†	-13.5	-1.59	µg/L	2.768	-1.59	ppb	2.768	173.94%
SiO2†	27594.8	2849.0	µg/L	58.27	2849.0	ppb	58.27	2.05%
Si 251.611†	87610.0	1336.3	µg/L	23.76	1336.3	ppb	23.76	1.78%
Sn 189.927†	36.8	3.2163	µg/L	0.61520	3.2163	ppb	0.61520	19.13%
Sr 421.552†	7659.7	19.673	µg/L	0.1701	19.673	ppb	0.1701	0.86%
Ti 334.940†	185392.0	194.44	µg/L	0.891	194.44	ppb	0.891	0.46%
Tl 190.801†	-31.6	-1.3375	µg/L	1.21317	-1.3375	ppb	1.21317	90.70%
U 409.014†	-862.3	-51.760	µg/L	5.0050	-51.760	ppb	5.0050	9.67%
Concentration less than lower limit for U 409.014.								
V 292.402†	806.9	2.8165	µg/L	0.52293	2.8165	ppb	0.52293	18.57%
Zn 213.857†	5595.7	31.268	µg/L	0.3679	31.268	ppb	0.3679	1.18%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/13/2010 15:11:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113827.0	113827.0	99.5	%			15:12:25
1	Al 396.153Radial†	21500.0	21690.9	5092.1	µg/L	5092.1	ppb	15:12:25
1	Ca 317.933Radial†	61893.6	61742.0	5083.8	µg/L	5083.8	ppb	15:12:25
1	Fe 238.204 Radial†	59191.9	59359.3	5063.6	µg/L	5063.6	ppb	15:12:25
1	K 766.490 Radial†	14025.7	12685.6	5073.6	µg/L	5073.6	ppb	15:12:25
1	Mg 279.077 IEC†	9443.3	9332.5	5169.1	µg/L	5169.1	ppb	15:12:25
1	Na 589.592 Radial†	64016.8	63497.1	10127	µg/L	10127	ppb	15:12:23
1	Sr 421.552†	196718.6	197754.9	507.95	µg/L	507.95	ppb	15:12:23
1	Sc 361.383	1690317.5	1690317.5	99.885	%			15:12:52
1	Y 371.029	946754.9	946754.9	98.926	%			15:12:52
1	Ag 328.068†	125179.7	120221.0	502.66	µg/L	502.66	ppb	15:12:52
1	As 188.979†	1390.9	1405.9	494.13	µg/L	494.13	ppb	15:13:12
1	B 249.677†	37332.3	33263.4	492.02	µg/L	492.02	ppb	15:12:52
1	Ba 233.527†	110310.6	110583.6	500.99	µg/L	500.99	ppb	15:12:52
1	Be 313.107†	1755738.9	1758754.7	498.11	µg/L	498.11	ppb	15:12:52
1	Cd 226.502†	75268.4	75419.8	498.39	µg/L	498.39	ppb	15:12:52
1	Co 228.616†	37998.6	38269.5	501.96	µg/L	501.96	ppb	15:12:52
1	Cr 267.716†	57050.2	56786.4	498.60	µg/L	498.60	ppb	15:12:52
1	Cu 324.752†	123249.9	120150.6	498.96	µg/L	498.96	ppb	15:12:52
1	Mn 257.610†	383997.1	384224.2	502.01	µg/L	502.01	ppb	15:12:52
1	Mo 202.031†	14722.9	14761.5	501.56	µg/L	501.56	ppb	15:13:12
1	Ni 231.604†	40180.9	40301.1	501.18	µg/L	501.18	ppb	15:12:52
1	P 214.914†	10888.5	10920.2	2486.6	µg/L	2486.6	ppb	15:13:12
1	Pb 220.353†	8076.5	7968.6	500.90	µg/L	500.90	ppb	15:13:12
1	S 181.975 Axial†	1272.5	1172.1	1001.5	µg/L	1001.5	ppb	15:13:12
1	Sb 206.836†	3961.2	3888.3	499.59	µg/L	499.59	ppb	15:13:12
1	Se 196.026†	1301.8	1283.3	498	µg/L	498	ppb	15:13:12
1	SiO2†	53272.9	51645.4	5311.3	µg/L	5311.3	ppb	15:12:52
1	Si 251.611†	164568.5	163971.6	2491.3	µg/L	2491.3	ppb	15:12:52
1	Sn 189.927†	7159.8	7159.6	500.26	µg/L	500.26	ppb	15:13:12
1	Ti 334.940†	477785.5	477450.0	500.06	µg/L	500.06	ppb	15:12:52
1	Tl 190.801†	3427.6	3546.8	507.34	µg/L	507.34	ppb	15:13:12
1	U 409.014†	7099.1	7518.5	487.59	µg/L	487.59	ppb	15:12:52
1	V 292.402†	100768.0	100388.1	504.37	µg/L	504.37	ppb	15:12:52
1	Zn 213.857†	87253.0	86734.2	496.80	µg/L	496.80	ppb	15:12:52
2	Sc RADIAL	113900.0	113900.0	99.6	%			15:12:29
2	Al 396.153Radial†	21398.2	21574.8	5064.8	µg/L	5064.8	ppb	15:12:29
2	Ca 317.933Radial†	61412.5	61218.9	5040.7	µg/L	5040.7	ppb	15:12:29
2	Fe 238.204 Radial†	58755.9	58883.4	5023.0	µg/L	5023.0	ppb	15:12:29
2	K 766.490 Radial†	13875.1	12525.3	5009.4	µg/L	5009.4	ppb	15:12:29
2	Mg 279.077 IEC†	9351.8	9234.5	5115.0	µg/L	5115.0	ppb	15:12:29
2	Na 589.592 Radial†	64201.6	63641.4	10150	µg/L	10150	ppb	15:12:27
2	Sr 421.552†	197257.8	198169.7	509.01	µg/L	509.01	ppb	15:12:27
2	Sc 361.383	1694008.1	1694008.1	100.10	%			15:13:15
2	Y 371.029	948333.9	948333.9	99.091	%			15:13:15
2	Ag 328.068†	125608.6	120376.4	503.30	µg/L	503.30	ppb	15:13:15
2	As 188.979†	1409.8	1421.8	499.60	µg/L	499.60	ppb	15:13:35
2	B 249.677†	37663.0	33512.3	495.71	µg/L	495.71	ppb	15:13:15
2	Ba 233.527†	110639.4	110671.4	501.39	µg/L	501.39	ppb	15:13:15
2	Be 313.107†	1758697.9	1757881.1	497.86	µg/L	497.86	ppb	15:13:15
2	Cd 226.502†	75729.3	75716.0	500.35	µg/L	500.35	ppb	15:13:15
2	Co 228.616†	38205.7	38393.5	503.59	µg/L	503.59	ppb	15:13:15
2	Cr 267.716†	57193.5	56805.0	498.76	µg/L	498.76	ppb	15:13:15
2	Cu 324.752†	123481.1	120112.8	498.80	µg/L	498.80	ppb	15:13:15
2	Mn 257.610†	384870.4	384259.1	502.06	µg/L	502.06	ppb	15:13:15
2	Mo 202.031†	14696.2	14702.7	499.55	µg/L	499.55	ppb	15:13:35
2	Ni 231.604†	40433.1	40465.5	503.22	µg/L	503.22	ppb	15:13:15
2	P 214.914†	10820.7	10828.8	2465.7	µg/L	2465.7	ppb	15:13:35
2	Pb 220.353†	8060.9	7935.4	498.81	µg/L	498.81	ppb	15:13:35

2	S 181.975 Axial†	1262.4	1159.2	990.49 µg/L	990.49 ppb	15:13:35
2	Sb 206.836†	3956.7	3875.1	497.87 µg/L	497.87 ppb	15:13:35
2	Se 196.026†	1298.2	1276.9	496 µg/L	496 ppb	15:13:35
2	SiO2†	53538.4	51794.5	5326.8 µg/L	5326.8 ppb	15:13:15
2	Si 251.611†	165310.8	164354.2	2497.2 µg/L	2497.2 ppb	15:13:15
2	Sn 189.927†	7164.3	7148.5	499.48 µg/L	499.48 ppb	15:13:35
2	Ti 334.940†	478631.0	477252.5	499.85 µg/L	499.85 ppb	15:13:15
2	Tl 190.801†	3409.6	3521.3	503.74 µg/L	503.74 ppb	15:13:35
2	U 409.014†	7182.2	7586.1	491.69 µg/L	491.69 ppb	15:13:15
2	V 292.402†	100943.1	100343.2	504.13 µg/L	504.13 ppb	15:13:15
2	Zn 213.857†	87600.5	86891.1	497.69 µg/L	497.69 ppb	15:13:15
3	Sc RADIAL	115279.9	115279.9	101 %		15:12:33
3	Al 396.153Radial†	21637.1	21554.7	5060.0 µg/L	5060.0 ppb	15:12:33
3	Ca 317.933Radial†	62333.6	61394.6	5055.2 µg/L	5055.2 ppb	15:12:33
3	Fe 238.204 Radial†	59573.9	58988.8	5032.0 µg/L	5032.0 ppb	15:12:33
3	K 766.490 Radial†	14274.5	12754.8	5101.3 µg/L	5101.3 ppb	15:12:33
3	Mg 279.077 IEC†	9515.5	9284.6	5142.7 µg/L	5142.7 ppb	15:12:33
3	Na 589.592 Radial†	64324.4	62991.5	10046 µg/L	10046 ppb	15:12:31
3	Sr 421.552†	197592.9	196131.1	503.78 µg/L	503.78 ppb	15:12:31
3	Sc 361.383	1693105.0	1693105.0	100.05 %		15:13:38
3	Y 371.029	946341.5	946341.5	98.883 %		15:13:38
3	Ag 328.068†	125984.3	120818.9	505.13 µg/L	505.13 ppb	15:13:38
3	As 188.979†	1398.8	1411.6	496.09 µg/L	496.09 ppb	15:13:58
3	B 249.677†	37768.6	33637.9	497.57 µg/L	497.57 ppb	15:13:38
3	Ba 233.527†	110664.0	110755.0	501.77 µg/L	501.77 ppb	15:13:38
3	Be 313.107†	1766246.1	1766362.8	500.26 µg/L	500.26 ppb	15:13:38
3	Cd 226.502†	76043.8	76070.7	502.69 µg/L	502.69 ppb	15:13:38
3	Co 228.616†	38292.3	38500.4	504.99 µg/L	504.99 ppb	15:13:38
3	Cr 267.716†	57378.9	57020.9	500.65 µg/L	500.65 ppb	15:13:38
3	Cu 324.752†	124234.8	120931.9	502.20 µg/L	502.20 ppb	15:13:38
3	Mn 257.610†	385821.5	385414.9	503.57 µg/L	503.57 ppb	15:13:38
3	Mo 202.031†	14755.5	14769.8	501.83 µg/L	501.83 ppb	15:13:58
3	Ni 231.604†	40482.0	40535.8	504.10 µg/L	504.10 ppb	15:13:38
3	P 214.914†	10851.3	10865.1	2473.9 µg/L	2473.9 ppb	15:13:58
3	Pb 220.353†	8084.1	7962.9	500.54 µg/L	500.54 ppb	15:13:58
3	S 181.975 Axial†	1275.6	1173.0	1002.3 µg/L	1002.3 ppb	15:13:58
3	Sb 206.836†	3958.0	3878.5	498.31 µg/L	498.31 ppb	15:13:58
3	Se 196.026†	1296.0	1275.3	495 µg/L	495 ppb	15:13:58
3	SiO2†	53963.0	52247.4	5373.4 µg/L	5373.4 ppb	15:13:38
3	Si 251.611†	166503.5	165634.4	2516.7 µg/L	2516.7 ppb	15:13:38
3	Sn 189.927†	7176.7	7164.7	500.61 µg/L	500.61 ppb	15:13:58
3	Ti 334.940†	480124.9	479000.8	501.68 µg/L	501.68 ppb	15:13:38
3	Tl 190.801†	3427.1	3540.7	506.48 µg/L	506.48 ppb	15:13:58
3	U 409.014†	7265.8	7673.4	497.00 µg/L	497.00 ppb	15:13:38
3	V 292.402†	100847.3	100301.3	503.96 µg/L	503.96 ppb	15:13:38
3	Zn 213.857†	88039.7	87376.8	500.49 µg/L	500.49 ppb	15:13:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1692476.8	100.01	%	0.114				0.11%
Sc RADIAL	114335.6	100.0	%	0.72				0.72%
Y 371.029	947143.5	98.967	%	0.1099				0.11%
Ag 328.068†	120472.1	503.70	µg/L	1.284	503.70	ppb	1.284	0.25%
QC value within limits for Ag 328.068 Recovery = 100.74%								
Al 396.153Radial†	21606.8	5072.3	µg/L	17.32	5072.3	ppb	17.32	0.34%
QC value within limits for Al 396.153Radial Recovery = 101.45%								
As 188.979†	1413.1	496.61	µg/L	2.774	496.61	ppb	2.774	0.56%
QC value within limits for As 188.979 Recovery = 99.32%								
B 249.677†	33471.2	495.10	µg/L	2.824	495.10	ppb	2.824	0.57%
QC value within limits for B 249.677 Recovery = 99.02%								
Ba 233.527†	110670.0	501.38	µg/L	0.388	501.38	ppb	0.388	0.08%
QC value within limits for Ba 233.527 Recovery = 100.28%								
Be 313.107†	1760999.5	498.74	µg/L	1.322	498.74	ppb	1.322	0.27%
QC value within limits for Be 313.107 Recovery = 99.75%								
Ca 317.933Radial†	61451.8	5059.9	µg/L	21.92	5059.9	ppb	21.92	0.43%
QC value within limits for Ca 317.933Radial Recovery = 101.20%								
Cd 226.502†	75735.5	500.48	µg/L	2.157	500.48	ppb	2.157	0.43%
QC value within limits for Cd 226.502 Recovery = 100.10%								
Co 228.616†	38387.8	503.52	µg/L	1.516	503.52	ppb	1.516	0.30%

```
   QC value within limits for Co 228.616  Recovery = 100.70%
Cr 267.716†            56870.7      499.34 µg/L         1.141      499.34 ppb          1.141   0.23%
   QC value within limits for Cr 267.716  Recovery = 99.87%
Cu 324.752†           120398.4      499.98 µg/L         1.918      499.98 ppb          1.918   0.38%
   QC value within limits for Cu 324.752  Recovery = 100.00%
Fe 238.204 Radial†     59077.2      5039.5 µg/L         21.32      5039.5 ppb          21.32   0.42%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.79%
K 766.490 Radial†      12655.2      5061.4 µg/L         47.12      5061.4 ppb          47.12   0.93%
   QC value within limits for K 766.490 Radial  Recovery = 101.23%
Mg 279.077 IEC†         9283.9      5142.3 µg/L         27.10      5142.3 ppb          27.10   0.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.85%
Mn 257.610†           384632.8      502.55 µg/L         0.886      502.55 ppb          0.886   0.18%
   QC value within limits for Mn 257.610  Recovery = 100.51%
Mo 202.031†            14744.7      500.98 µg/L         1.243      500.98 ppb          1.243   0.25%
   QC value within limits for Mo 202.031  Recovery = 100.20%
Na 589.592 Radial†     63376.7       10108 µg/L          54.5       10108 ppb           54.5   0.54%
   QC value within limits for Na 589.592 Radial  Recovery = 101.08%
Ni 231.604†            40434.1      502.83 µg/L         1.498      502.83 ppb          1.498   0.30%
   QC value within limits for Ni 231.604  Recovery = 100.57%
P 214.914†             10871.4      2475.4 µg/L         10.51      2475.4 ppb          10.51   0.42%
   QC value within limits for P 214.914  Recovery = 99.02%
Pb 220.353†             7955.6      500.08 µg/L         1.116      500.08 ppb          1.116   0.22%
   QC value within limits for Pb 220.353  Recovery = 100.02%
S 181.975 Axial†        1168.1      998.09 µg/L         6.593      998.09 ppb          6.593   0.66%
   QC value within limits for S 181.975 Axial  Recovery = 99.81%
Sb 206.836†             3880.6      498.59 µg/L         0.893      498.59 ppb          0.893   0.18%
   QC value within limits for Sb 206.836  Recovery = 99.72%
Se 196.026†             1278.5         497 µg/L           1.6         497 ppb            1.6   0.33%
   QC value within limits for Se 196.026  Recovery = 99.32%
SiO2†                  51895.7      5337.2 µg/L         32.35      5337.2 ppb          32.35   0.61%
   QC value within limits for SiO2  Recovery = 99.81%
Si 251.611†           164653.4      2501.7 µg/L         13.28      2501.7 ppb          13.28   0.53%
   QC value within limits for Si 251.611  Recovery = 100.07%
Sn 189.927†             7157.6      500.12 µg/L         0.580      500.12 ppb          0.580   0.12%
   QC value within limits for Sn 189.927  Recovery = 100.02%
Sr 421.552†           197351.9      506.91 µg/L         2.768      506.91 ppb          2.768   0.55%
   QC value within limits for Sr 421.552  Recovery = 101.38%
Ti 334.940†           477901.1      500.53 µg/L         1.002      500.53 ppb          1.002   0.20%
   QC value within limits for Ti 334.940  Recovery = 100.11%
Tl 190.801†             3536.3      505.85 µg/L         1.878      505.85 ppb          1.878   0.37%
   QC value within limits for Tl 190.801  Recovery = 101.17%
U 409.014†              7592.7      492.09 µg/L         4.717      492.09 ppb          4.717   0.96%
   QC value within limits for U 409.014  Recovery = 98.42%
V 292.402†            100344.2      504.15 µg/L         0.206      504.15 ppb          0.206   0.04%
   QC value within limits for V 292.402  Recovery = 100.83%
Zn 213.857†            87000.7      498.33 µg/L         1.926      498.33 ppb          1.926   0.39%
   QC value within limits for Zn 213.857  Recovery = 99.67%
All analyte(s) passed QC.
```

Sequence No.: 9 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/13/2010 15:14:07**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113500.1	113500.1	99.2	%			15:14:36
1	Al 396.153Radial†	-82.4	1.9	0.4328	µg/L	0.4328	ppb	15:14:56
1	Ca 317.933Radial†	460.4	7.2	0.5952	µg/L	0.5952	ppb	15:14:56
1	Fe 238.204 Radial†	139.4	16.2	1.3857	µg/L	1.3857	ppb	15:14:56
1	K 766.490 Radial†	1535.2	137.9	55.208	µg/L	55.208	ppb	15:14:36
1	Mg 279.077 IEC†	139.6	-16.6	-9.1930	µg/L	-9.1930	ppb	15:14:56
1	Na 589.592 Radial†	955.3	127.4	20.285	µg/L	20.285	ppb	15:14:36
1	Sr 421.552†	-63.6	2.6	0.0067	µg/L	0.0067	ppb	15:14:36
1	Sc 361.383	1693791.6	1693791.6	100.09	%			15:15:44
1	Y 371.029	958031.9	958031.9	100.10	%			15:15:44
1	Ag 328.068†	5169.2	61.6	0.2654	µg/L	0.2654	ppb	15:15:46
1	As 188.979†	-17.0	-3.6	-1.2485	µg/L	-1.2485	ppb	15:16:06
1	B 249.677†	4109.8	-5.8	-0.0865	µg/L	-0.0865	ppb	15:15:46
1	Ba 233.527†	-143.0	3.0	0.0139	µg/L	0.0139	ppb	15:16:06
1	Be 313.107†	-729.9	263.1	0.0762	µg/L	0.0762	ppb	15:15:46
1	Cd 226.502†	-41.6	23.0	0.1519	µg/L	0.1519	ppb	15:16:06
1	Co 228.616†	-228.0	-0.8	-0.0100	µg/L	-0.0100	ppb	15:16:06
1	Cr 267.716†	327.1	-2.8	-0.0289	µg/L	-0.0289	ppb	15:16:06
1	Cu 324.752†	3104.4	-139.7	-0.5738	µg/L	-0.5738	ppb	15:15:46
1	Mn 257.610†	254.6	39.0	0.0514	µg/L	0.0514	ppb	15:16:06
1	Mo 202.031†	-6.1	15.5	0.5271	µg/L	0.5271	ppb	15:16:06
1	Ni 231.604†	-55.3	18.7	0.2327	µg/L	0.2327	ppb	15:16:06
1	P 214.914†	-22.4	-3.1	-0.7152	µg/L	-0.7152	ppb	15:16:06
1	Pb 220.353†	145.9	28.6	1.7877	µg/L	1.7877	ppb	15:16:06
1	S 181.975 Axial†	111.5	9.5	8.0906	µg/L	8.0906	ppb	15:16:06
1	Sb 206.836†	56.6	-21.0	-2.6776	µg/L	-2.6776	ppb	15:16:06
1	Se 196.026†	24.8	4.8	1.87	µg/L	1.87	ppb	15:16:06
1	SiO2†	1713.5	23.1	2.3649	µg/L	2.3649	ppb	15:15:46
1	Si 251.611†	798.5	11.2	0.1643	µg/L	0.1643	ppb	15:15:46
1	Sn 189.927†	8.7	0.2	0.0159	µg/L	0.0159	ppb	15:16:06
1	Ti 334.940†	811.5	-75.4	-0.0806	µg/L	-0.0806	ppb	15:15:46
1	Tl 190.801†	-129.9	-14.6	-2.0488	µg/L	-2.0488	ppb	15:16:06
1	U 409.014†	-318.7	92.9	5.6673	µg/L	5.6673	ppb	15:15:46
1	V 292.402†	568.5	72.0	0.3658	µg/L	0.3658	ppb	15:15:46
1	Zn 213.857†	621.6	1.7	0.0086	µg/L	0.0086	ppb	15:16:06
2	Sc RADIAL	114112.5	114112.5	99.8	%			15:14:58
2	Al 396.153Radial†	-86.5	-1.7	-0.4209	µg/L	-0.4209	ppb	15:15:18
2	Ca 317.933Radial†	456.6	1.0	0.0813	µg/L	0.0813	ppb	15:15:18
2	Fe 238.204 Radial†	146.1	22.2	1.8909	µg/L	1.8909	ppb	15:15:18
2	K 766.490 Radial†	1472.3	66.6	26.640	µg/L	26.640	ppb	15:14:58
2	Mg 279.077 IEC†	138.1	-18.9	-10.424	µg/L	-10.424	ppb	15:15:18
2	Na 589.592 Radial†	1025.7	192.8	30.747	µg/L	30.747	ppb	15:14:58
2	Sr 421.552†	-72.7	-6.1	-0.0158	µg/L	-0.0158	ppb	15:14:58
2	Sc 361.383	1706699.4	1706699.4	100.85	%			15:16:08
2	Y 371.029	965414.3	965414.3	100.88	%			15:16:08
2	Ag 328.068†	4917.1	-227.4	-0.9462	µg/L	-0.9462	ppb	15:16:10
2	As 188.979†	-10.2	3.3	1.1430	µg/L	1.1430	ppb	15:16:31
2	B 249.677†	4215.8	68.2	1.0120	µg/L	1.0120	ppb	15:16:10
2	Ba 233.527†	-121.9	25.0	0.1132	µg/L	0.1132	ppb	15:16:31
2	Be 313.107†	-642.5	355.2	0.0993	µg/L	0.0993	ppb	15:16:10
2	Cd 226.502†	-53.4	11.6	0.0766	µg/L	0.0766	ppb	15:16:31
2	Co 228.616†	-211.1	17.7	0.2319	µg/L	0.2319	ppb	15:16:31
2	Cr 267.716†	370.1	37.4	0.3317	µg/L	0.3317	ppb	15:16:31
2	Cu 324.752†	3129.6	-138.1	-0.5752	µg/L	-0.5752	ppb	15:16:10
2	Mn 257.610†	285.9	68.2	0.0895	µg/L	0.0895	ppb	15:16:31
2	Mo 202.031†	-15.1	6.7	0.2257	µg/L	0.2257	ppb	15:16:31
2	Ni 231.604†	-104.2	-29.4	-0.3660	µg/L	-0.3660	ppb	15:16:31
2	P 214.914†	-33.6	-14.1	-3.2103	µg/L	-3.2103	ppb	15:16:31
2	Pb 220.353†	115.2	-2.9	-0.1807	µg/L	-0.1807	ppb	15:16:31

2	S 181.975 Axial†	102.9	0.1	0.0601	µg/L	0.0601 ppb	15:16:31
2	Sb 206.836†	94.4	16.1	2.0627	µg/L	2.0627 ppb	15:16:31
2	Se 196.026†	26.1	5.9	2.29	µg/L	2.29 ppb	15:16:31
2	SiO2†	1707.9	4.6	0.4717	µg/L	0.4717 ppb	15:16:10
2	Si 251.611†	743.4	-49.4	-0.7556	µg/L	-0.7556 ppb	15:16:10
2	Sn 189.927†	7.4	-1.1	-0.0757	µg/L	-0.0757 ppb	15:16:31
2	Ti 334.940†	1033.8	139.0	0.1482	µg/L	0.1482 ppb	15:16:10
2	Tl 190.801†	-116.1	0.2	0.0213	µg/L	0.0213 ppb	15:16:31
2	U 409.014†	-484.1	-68.8	-4.1938	µg/L	-4.1938 ppb	15:16:10
2	V 292.402†	466.6	-33.3	-0.1647	µg/L	-0.1647 ppb	15:16:10
2	Zn 213.857†	653.1	28.2	0.1658	µg/L	0.1658 ppb	15:16:31
3	Sc RADIAL	114670.2	114670.2	100	%		15:15:20
3	Al 396.153Radial†	-126.7	-41.4	-9.7734	µg/L	-9.7734 ppb	15:15:40
3	Ca 317.933Radial†	450.9	-6.9	-0.5714	µg/L	-0.5714 ppb	15:15:40
3	Fe 238.204 Radial†	136.2	11.6	0.9862	µg/L	0.9862 ppb	15:15:40
3	K 766.490 Radial†	1327.7	-84.8	-33.960	µg/L	-33.960 ppb	15:15:20
3	Mg 279.077 IEC†	159.6	1.8	1.0207	µg/L	1.0207 ppb	15:15:40
3	Na 589.592 Radial†	867.6	30.1	4.8405	µg/L	4.8405 ppb	15:15:20
3	Sr 421.552†	-41.8	25.0	0.0642	µg/L	0.0642 ppb	15:15:20
3	Sc 361.383	1711395.5	1711395.5	101.13	%		15:16:33
3	Y 371.029	967520.8	967520.8	101.10	%		15:16:33
3	Ag 328.068†	5244.7	83.1	0.3380	µg/L	0.3380 ppb	15:16:35
3	As 188.979†	-22.1	-8.4	-2.9176	µg/L	-2.9176 ppb	15:16:55
3	B 249.677†	4214.0	55.0	0.8161	µg/L	0.8161 ppb	15:16:35
3	Ba 233.527†	-140.0	7.4	0.0337	µg/L	0.0337 ppb	15:16:55
3	Be 313.107†	-598.3	400.7	0.1122	µg/L	0.1122 ppb	15:16:35
3	Cd 226.502†	-47.0	18.1	0.1196	µg/L	0.1196 ppb	15:16:55
3	Co 228.616†	-231.0	-1.4	-0.0180	µg/L	-0.0180 ppb	15:16:55
3	Cr 267.716†	349.7	16.1	0.1449	µg/L	0.1449 ppb	15:16:55
3	Cu 324.752†	2995.5	-279.3	-1.1595	µg/L	-1.1595 ppb	15:16:35
3	Mn 257.610†	302.7	84.0	0.1097	µg/L	0.1097 ppb	15:16:55
3	Mo 202.031†	-13.6	8.1	0.2760	µg/L	0.2760 ppb	15:16:55
3	Ni 231.604†	-67.6	7.1	0.0885	µg/L	0.0885 ppb	15:16:55
3	P 214.914†	-0.4	18.8	4.3128	µg/L	4.3128 ppb	15:16:55
3	Pb 220.353†	131.7	13.1	0.8218	µg/L	0.8218 ppb	15:16:55
3	S 181.975 Axial†	113.3	10.1	8.6167	µg/L	8.6167 ppb	15:16:55
3	Sb 206.836†	91.8	13.3	1.7045	µg/L	1.7045 ppb	15:16:55
3	Se 196.026†	17.1	-3.1	-1.20	µg/L	-1.20 ppb	15:16:55
3	SiO2†	1684.8	-22.9	-2.3847	µg/L	-2.3847 ppb	15:16:35
3	Si 251.611†	750.1	-44.8	-0.6931	µg/L	-0.6931 ppb	15:16:35
3	Sn 189.927†	22.7	14.0	0.9753	µg/L	0.9753 ppb	15:16:55
3	Ti 334.940†	852.7	-42.9	-0.0434	µg/L	-0.0434 ppb	15:16:35
3	Tl 190.801†	-124.2	-7.6	-1.0678	µg/L	-1.0678 ppb	15:16:55
3	U 409.014†	-486.3	-69.6	-4.2337	µg/L	-4.2337 ppb	15:16:35
3	V 292.402†	500.1	-1.5	-0.0070	µg/L	-0.0070 ppb	15:16:35
3	Zn 213.857†	645.9	19.3	0.1117	µg/L	0.1117 ppb	15:16:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1703962.1	100.69	%	0.539				0.53%
Sc RADIAL	114094.3	99.7	%	0.51				0.51%
Y 371.029	963655.7	100.69	%	0.521				0.52%
Ag 328.068†	-27.6	-0.1143	µg/L	0.72138	-0.1143	ppb	0.72138	631.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.7	-3.2538	µg/L	5.66220	-3.2538	ppb	5.66220	174.02%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.9	-1.0077	µg/L	2.04099	-1.0077	ppb	2.04099	202.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	39.1	0.5805	µg/L	0.58593	0.5805	ppb	0.58593	100.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.8	0.0536	µg/L	0.05256	0.0536	ppb	0.05256	98.00%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	339.7	0.0959	µg/L	0.01823	0.0959	ppb	0.01823	19.01%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.4	0.0350	µg/L	0.58468	0.0350	ppb	0.58468	>999.9%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.6	0.1160	µg/L	0.03779	0.1160	ppb	0.03779	32.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.2	0.0680	µg/L	0.14206	0.0680	ppb	0.14206	209.00%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              16.9      0.1492 µg/L       0.18032      0.1492 ppb        0.18032 120.83%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -185.7     -0.7695 µg/L       0.33775     -0.7695 ppb        0.33775  43.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       16.7      1.4210 µg/L       0.45338      1.4210 ppb        0.45338  31.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        39.9      15.962 µg/L       45.5331      15.962 ppb        45.5331 285.25%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -11.2     -6.1989 µg/L       6.28254     -6.1989 ppb        6.28254 101.35%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              63.7      0.0835 µg/L       0.02963      0.0835 ppb        0.02963  35.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.1      0.3429 µg/L       0.16148      0.3429 ppb        0.16148  47.09%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      116.8      18.624 µg/L       13.0327      18.624 ppb        13.0327  69.98%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -1.2     -0.0149 µg/L       0.31248     -0.0149 ppb        0.31248 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.5      0.1291 µg/L       3.83196      0.1291 ppb        3.83196 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              12.9      0.8096 µg/L       0.98425      0.8096 ppb        0.98425 121.58%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.6      5.5891 µg/L       4.79547      5.5891 ppb        4.79547  85.80%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.8      0.3632 µg/L       2.63947      0.3632 ppb        2.63947 726.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.6       0.987 µg/L        1.9020       0.987 ppb         1.9020 192.69%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     1.6      0.1506 µg/L       2.39104      0.1506 ppb        2.39104 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -27.6     -0.4281 µg/L       0.51403     -0.4281 ppb        0.51403 120.06%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.4      0.3052 µg/L       0.58217      0.3052 ppb        0.58217 190.76%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               7.2      0.0184 µg/L       0.04122      0.0184 ppb        0.04122 224.33%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               6.9      0.0081 µg/L       0.12277      0.0081 ppb        0.12277 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -7.3     -1.0318 µg/L       1.03554     -1.0318 ppb        1.03554 100.37%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -15.2     -0.9201 µg/L       5.70483     -0.9201 ppb        5.70483 620.03%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               12.4      0.0647 µg/L       0.27242      0.0647 ppb        0.27242 420.86%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              16.4      0.0954 µg/L       0.07984      0.0954 ppb        0.07984  83.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/13/2010 15:31:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	115943.5	115943.5	101	%			15:32:19
1	Al 396.153Radial†	21784.9	21577.6	5065.3	µg/L	5065.3	ppb	15:32:19
1	Ca 317.933Radial†	63085.9	61782.8	5087.2	µg/L	5087.2	ppb	15:32:19
1	Fe 238.204 Radial†	60474.9	59539.3	5078.9	µg/L	5078.9	ppb	15:32:19
1	K 766.490 Radial†	14088.3	12490.1	4995.3	µg/L	4995.3	ppb	15:32:19
1	Mg 279.077 IEC†	9545.4	9260.1	5129.1	µg/L	5129.1	ppb	15:32:19
1	Na 589.592 Radial†	64872.2	63166.6	10074	µg/L	10074	ppb	15:32:17
1	Sr 421.552†	200154.8	197536.3	507.39	µg/L	507.39	ppb	15:32:17
1	Sc 361.383	1701873.6	1701873.6	100.57	%			15:32:32
1	Y 371.029	953824.9	953824.9	99.665	%			15:32:32
1	Ag 328.068†	125653.4	119841.0	501.07	µg/L	501.07	ppb	15:32:32
1	As 188.979†	1409.7	1415.2	497.33	µg/L	497.33	ppb	15:32:52
1	B 249.677†	37252.4	32930.1	487.07	µg/L	487.07	ppb	15:32:32
1	Ba 233.527†	110849.7	110369.8	500.02	µg/L	500.02	ppb	15:32:32
1	Be 313.107†	1761453.1	1752501.0	496.34	µg/L	496.34	ppb	15:32:32
1	Cd 226.502†	75766.7	75403.6	498.28	µg/L	498.28	ppb	15:32:32
1	Co 228.616†	38361.7	38372.1	503.31	µg/L	503.31	ppb	15:32:32
1	Cr 267.716†	57392.4	56738.7	498.18	µg/L	498.18	ppb	15:32:32
1	Cu 324.752†	123993.5	120052.2	498.55	µg/L	498.55	ppb	15:32:32
1	Mn 257.610†	385995.4	383600.8	501.20	µg/L	501.20	ppb	15:32:32
1	Mo 202.031†	14870.9	14808.6	503.15	µg/L	503.15	ppb	15:32:52
1	Ni 231.604†	40490.9	40336.2	501.61	µg/L	501.61	ppb	15:32:32
1	P 214.914†	10942.7	10900.1	2481.9	µg/L	2481.9	ppb	15:32:52
1	Pb 220.353†	8151.9	7988.7	502.16	µg/L	502.16	ppb	15:32:52
1	S 181.975 Axial†	1285.0	1175.8	1004.7	µg/L	1004.7	ppb	15:32:52
1	Sb 206.836†	4008.0	3907.8	502.12	µg/L	502.12	ppb	15:32:52
1	Se 196.026†	1307.0	1279.6	497	µg/L	497	ppb	15:32:52
1	SiO2†	53459.6	51468.9	5293.1	µg/L	5293.1	ppb	15:32:32
1	Si 251.611†	165036.7	163318.5	2481.4	µg/L	2481.4	ppb	15:32:32
1	Sn 189.927†	7186.1	7137.1	498.69	µg/L	498.69	ppb	15:32:52
1	Ti 334.940†	480935.9	477334.7	499.94	µg/L	499.94	ppb	15:32:32
1	Tl 190.801†	3459.7	3555.4	508.54	µg/L	508.54	ppb	15:32:52
1	U 409.014†	7205.5	7576.1	490.99	µg/L	490.99	ppb	15:32:32
1	V 292.402†	101144.6	100077.6	502.85	µg/L	502.85	ppb	15:32:32
1	Zn 213.857†	87614.4	86500.4	495.44	µg/L	495.44	ppb	15:32:32
2	Sc RADIAL	114403.2	114403.2	100	%			15:32:23
2	Al 396.153Radial†	21832.2	21914.2	5144.6	µg/L	5144.6	ppb	15:32:23
2	Ca 317.933Radial†	62078.7	61613.8	5073.2	µg/L	5073.2	ppb	15:32:23
2	Fe 238.204 Radial†	59597.5	59465.3	5072.6	µg/L	5072.6	ppb	15:32:23
2	K 766.490 Radial†	14097.9	12686.8	5074.1	µg/L	5074.1	ppb	15:32:23
2	Mg 279.077 IEC†	9453.6	9295.0	5148.5	µg/L	5148.5	ppb	15:32:23
2	Na 589.592 Radial†	63824.1	62980.3	10044	µg/L	10044	ppb	15:32:21
2	Sr 421.552†	196583.2	196623.9	505.04	µg/L	505.04	ppb	15:32:21
2	Sc 361.383	1691683.2	1691683.2	99.966	%			15:32:55
2	Y 371.029	947869.3	947869.3	99.043	%			15:32:55
2	Ag 328.068†	125396.8	120337.0	503.11	µg/L	503.11	ppb	15:32:55
2	As 188.979†	1410.9	1424.8	500.64	µg/L	500.64	ppb	15:33:15
2	B 249.677†	37277.6	33178.5	490.77	µg/L	490.77	ppb	15:32:55
2	Ba 233.527†	110068.0	110251.8	499.49	µg/L	499.49	ppb	15:32:55
2	Be 313.107†	1746376.7	1747970.2	495.05	µg/L	495.05	ppb	15:32:55
2	Cd 226.502†	75233.2	75323.7	497.75	µg/L	497.75	ppb	15:32:55
2	Co 228.616†	37973.6	38213.8	501.23	µg/L	501.23	ppb	15:32:55
2	Cr 267.716†	56860.8	56550.7	496.53	µg/L	496.53	ppb	15:32:55
2	Cu 324.752†	123027.2	119828.3	497.63	µg/L	497.63	ppb	15:32:55
2	Mn 257.610†	383905.7	383822.5	501.49	µg/L	501.49	ppb	15:32:55
2	Mo 202.031†	14835.9	14862.6	504.99	µg/L	504.99	ppb	15:33:15
2	Ni 231.604†	40197.5	40285.2	500.98	µg/L	500.98	ppb	15:32:55
2	P 214.914†	10963.8	10986.7	2501.8	µg/L	2501.8	ppb	15:33:15
2	Pb 220.353†	8127.7	8013.3	503.71	µg/L	503.71	ppb	15:33:15

2	S 181.975 Axial†	1279.2	1177.7	1006.3 µg/L	1006.3 ppb	15:33:15
2	Sb 206.836†	3989.4	3913.2	502.87 µg/L	502.87 ppb	15:33:15
2	Se 196.026†	1307.2	1287.6	500 µg/L	500 ppb	15:33:15
2	SiO2†	53195.0	51524.4	5298.7 µg/L	5298.7 ppb	15:32:55
2	Si 251.611†	164561.6	163831.7	2489.1 µg/L	2489.1 ppb	15:32:55
2	Sn 189.927†	7220.7	7214.8	504.09 µg/L	504.09 ppb	15:33:15
2	Ti 334.940†	477243.2	476521.4	499.09 µg/L	499.09 ppb	15:32:55
2	Tl 190.801†	3454.9	3571.3	510.77 µg/L	510.77 ppb	15:33:15
2	U 409.014†	7180.5	7594.2	492.03 µg/L	492.03 ppb	15:32:55
2	V 292.402†	100292.9	99831.4	501.64 µg/L	501.64 ppb	15:32:55
2	Zn 213.857†	87223.1	86633.8	496.22 µg/L	496.22 ppb	15:32:55
3	Sc RADIAL	115565.4	115565.4	101 %		15:32:27
3	Al 396.153Radial†	21693.1	21557.1	5060.6 µg/L	5060.6 ppb	15:32:27
3	Ca 317.933Radial†	62348.6	61256.7	5043.8 µg/L	5043.8 ppb	15:32:27
3	Fe 238.204 Radial†	59765.5	59032.3	5035.7 µg/L	5035.7 ppb	15:32:27
3	K 766.490 Radial†	14118.7	12565.6	5025.6 µg/L	5025.6 ppb	15:32:27
3	Mg 279.077 IEC†	9418.3	9165.0	5076.5 µg/L	5076.5 ppb	15:32:27
3	Na 589.592 Radial†	63686.5	62202.4	9920.4 µg/L	9920.4 ppb	15:32:25
3	Sr 421.552†	195926.5	193997.2	498.30 µg/L	498.30 ppb	15:32:25
3	Sc 361.383	1714077.6	1714077.6	101.29 %		15:33:18
3	Y 371.029	959082.2	959082.2	100.21 %		15:33:18
3	Ag 328.068†	127424.9	120700.4	504.63 µg/L	504.63 ppb	15:33:18
3	As 188.979†	1405.4	1401.0	492.40 µg/L	492.40 ppb	15:33:38
3	B 249.677†	38032.6	33436.7	494.59 µg/L	494.59 ppb	15:33:18
3	Ba 233.527†	112015.2	110735.6	501.68 µg/L	501.68 ppb	15:33:18
3	Be 313.107†	1780228.7	1758567.3	498.05 µg/L	498.05 ppb	15:33:18
3	Cd 226.502†	76729.0	75817.2	501.02 µg/L	501.02 ppb	15:33:18
3	Co 228.616†	38739.6	38473.7	504.64 µg/L	504.64 ppb	15:33:18
3	Cr 267.716†	57886.5	56820.2	498.90 µg/L	498.90 ppb	15:33:18
3	Cu 324.752†	125228.6	120393.8	499.96 µg/L	499.96 ppb	15:33:18
3	Mn 257.610†	389981.8	384803.9	502.78 µg/L	502.78 ppb	15:33:18
3	Mo 202.031†	14878.3	14710.6	499.82 µg/L	499.82 ppb	15:33:38
3	Ni 231.604†	40973.3	40525.8	503.97 µg/L	503.97 ppb	15:33:18
3	P 214.914†	10941.3	10821.3	2463.9 µg/L	2463.9 ppb	15:33:38
3	Pb 220.353†	8147.1	7926.2	498.24 µg/L	498.24 ppb	15:33:38
3	S 181.975 Axial†	1283.1	1164.8	995.31 µg/L	995.31 ppb	15:33:38
3	Sb 206.836†	4005.5	3877.0	498.11 µg/L	498.11 ppb	15:33:38
3	Se 196.026†	1325.6	1288.7	501 µg/L	501 ppb	15:33:38
3	SiO2†	54369.8	51989.1	5346.9 µg/L	5346.9 ppb	15:33:18
3	Si 251.611†	168387.2	165458.0	2514.0 µg/L	2514.0 ppb	15:33:18
3	Sn 189.927†	7220.1	7119.8	497.49 µg/L	497.49 ppb	15:33:38
3	Ti 334.940†	485030.3	477972.0	500.61 µg/L	500.61 ppb	15:33:18
3	Tl 190.801†	3462.8	3534.0	505.53 µg/L	505.53 ppb	15:33:38
3	U 409.014†	7172.3	7492.2	485.98 µg/L	485.98 ppb	15:33:18
3	V 292.402†	102126.6	100331.0	504.07 µg/L	504.07 ppb	15:33:18
3	Zn 213.857†	88685.1	86937.2	497.95 µg/L	497.95 ppb	15:33:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1702544.8	100.61	%	0.663				0.66%
Sc RADIAL	115304.0	101	%	0.7				0.70%
Y 371.029	953592.2	99.641	%	0.5862				0.59%
Ag 328.068†	120292.8	502.94	µg/L	1.785	502.94	ppb	1.785	0.35%
QC value within limits for Ag 328.068 Recovery = 100.59%								
Al 396.153Radial†	21683.0	5090.2	µg/L	47.20	5090.2	ppb	47.20	0.93%
QC value within limits for Al 396.153Radial Recovery = 101.80%								
As 188.979†	1413.6	496.79	µg/L	4.147	496.79	ppb	4.147	0.83%
QC value within limits for As 188.979 Recovery = 99.36%								
B 249.677†	33181.8	490.81	µg/L	3.758	490.81	ppb	3.758	0.77%
QC value within limits for B 249.677 Recovery = 98.16%								
Ba 233.527†	110452.4	500.39	µg/L	1.142	500.39	ppb	1.142	0.23%
QC value within limits for Ba 233.527 Recovery = 100.08%								
Be 313.107†	1753012.8	496.48	µg/L	1.504	496.48	ppb	1.504	0.30%
QC value within limits for Be 313.107 Recovery = 99.30%								
Ca 317.933Radial†	61551.1	5068.1	µg/L	22.12	5068.1	ppb	22.12	0.44%
QC value within limits for Ca 317.933Radial Recovery = 101.36%								
Cd 226.502†	75514.8	499.01	µg/L	1.755	499.01	ppb	1.755	0.35%
QC value within limits for Cd 226.502 Recovery = 99.80%								
Co 228.616†	38353.2	503.06	µg/L	1.719	503.06	ppb	1.719	0.34%

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   QC value within limits for Co 228.616  Recovery = 100.61%
Cr 267.716†            56703.2      497.87 µg/L         1.217      497.87 ppb          1.217   0.24%
   QC value within limits for Cr 267.716  Recovery = 99.57%
Cu 324.752†           120091.4      498.71 µg/L         1.173      498.71 ppb          1.173   0.24%
   QC value within limits for Cu 324.752  Recovery = 99.74%
Fe 238.204 Radial†     59345.6      5062.4 µg/L         23.36      5062.4 ppb          23.36   0.46%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.25%
K 766.490 Radial†      12580.8      5031.7 µg/L         39.71      5031.7 ppb          39.71   0.79%
   QC value within limits for K 766.490 Radial  Recovery = 100.63%
Mg 279.077 IEC†         9240.0      5118.0 µg/L         37.25      5118.0 ppb          37.25   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.36%
Mn 257.610†           384075.7      501.82 µg/L         0.838      501.82 ppb          0.838   0.17%
   QC value within limits for Mn 257.610  Recovery = 100.36%
Mo 202.031†            14793.9      502.65 µg/L         2.618      502.65 ppb          2.618   0.52%
   QC value within limits for Mo 202.031  Recovery = 100.53%
Na 589.592 Radial†     62783.1       10013 µg/L          81.6       10013 ppb           81.6   0.82%
   QC value within limits for Na 589.592 Radial  Recovery = 100.13%
Ni 231.604†            40382.4      502.19 µg/L         1.577      502.19 ppb          1.577   0.31%
   QC value within limits for Ni 231.604  Recovery = 100.44%
P 214.914†             10902.7      2482.5 µg/L         18.92      2482.5 ppb          18.92   0.76%
   QC value within limits for P 214.914  Recovery = 99.30%
Pb 220.353†             7976.0      501.37 µg/L         2.819      501.37 ppb          2.819   0.56%
   QC value within limits for Pb 220.353  Recovery = 100.27%
S 181.975 Axial†        1172.8      1002.1 µg/L          5.93      1002.1 ppb           5.93   0.59%
   QC value within limits for S 181.975 Axial  Recovery = 100.21%
Sb 206.836†             3899.3      501.03 µg/L         2.558      501.03 ppb          2.558   0.51%
   QC value within limits for Sb 206.836  Recovery = 100.21%
Se 196.026†             1285.3         499 µg/L           1.9         499 ppb            1.9   0.38%
   QC value within limits for Se 196.026  Recovery = 99.85%
SiO2†                  51660.8      5312.9 µg/L         29.59      5312.9 ppb          29.59   0.56%
   QC value within limits for SiO2  Recovery = 99.35%
Si 251.611†           164202.7      2494.8 µg/L         17.08      2494.8 ppb          17.08   0.68%
   QC value within limits for Si 251.611  Recovery = 99.79%
Sn 189.927†             7157.3      500.09 µg/L         3.520      500.09 ppb          3.520   0.70%
   QC value within limits for Sn 189.927  Recovery = 100.02%
Sr 421.552†           196052.5      503.58 µg/L         4.720      503.58 ppb          4.720   0.94%
   QC value within limits for Sr 421.552  Recovery = 100.72%
Ti 334.940†           477276.0      499.88 µg/L         0.766      499.88 ppb          0.766   0.15%
   QC value within limits for Ti 334.940  Recovery = 99.98%
Tl 190.801†             3553.6      508.28 µg/L         2.627      508.28 ppb          2.627   0.52%
   QC value within limits for Tl 190.801  Recovery = 101.66%
U 409.014†              7554.2      489.67 µg/L         3.234      489.67 ppb          3.234   0.66%
   QC value within limits for U 409.014  Recovery = 97.93%
V 292.402†            100080.0      502.85 µg/L         1.216      502.85 ppb          1.216   0.24%
   QC value within limits for V 292.402  Recovery = 100.57%
Zn 213.857†            86690.5      496.54 µg/L         1.285      496.54 ppb          1.285   0.26%
   QC value within limits for Zn 213.857  Recovery = 99.31%
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/13/2010 15:33:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114111.8	114111.8	99.8	%			15:34:15
1	Al 396.153Radial†	-71.7	13.1	3.0730	µg/L	3.0730	ppb	15:34:35
1	Ca 317.933Radial†	472.5	16.9	1.3890	µg/L	1.3890	ppb	15:34:35
1	Fe 238.204 Radial†	152.1	28.2	2.4040	µg/L	2.4040	ppb	15:34:35
1	K 766.490 Radial†	1512.4	106.8	42.758	µg/L	42.758	ppb	15:34:15
1	Mg 279.077 IEC†	166.9	10.0	5.5128	µg/L	5.5128	ppb	15:34:35
1	Na 589.592 Radial†	963.4	130.5	20.779	µg/L	20.779	ppb	15:34:15
1	Sr 421.552†	-60.1	6.4	0.0166	µg/L	0.0166	ppb	15:34:15
1	Sc 361.383	1707720.4	1707720.4	100.91	%			15:35:37
1	Y 371.029	966443.9	966443.9	100.98	%			15:35:37
1	Ag 328.068†	4995.8	-152.4	-0.6221	µg/L	-0.6221	ppb	15:35:39
1	As 188.979†	-10.7	2.8	0.9603	µg/L	0.9603	ppb	15:35:59
1	B 249.677†	4169.6	19.9	0.2949	µg/L	0.2949	ppb	15:35:39
1	Ba 233.527†	-150.5	-3.2	-0.0145	µg/L	-0.0145	ppb	15:35:59
1	Be 313.107†	-328.9	666.4	0.1902	µg/L	0.1902	ppb	15:35:39
1	Cd 226.502†	-44.2	20.8	0.1372	µg/L	0.1372	ppb	15:35:59
1	Co 228.616†	-215.9	13.1	0.1715	µg/L	0.1715	ppb	15:35:59
1	Cr 267.716†	321.2	-11.3	-0.1035	µg/L	-0.1035	ppb	15:35:59
1	Cu 324.752†	3054.7	-214.2	-0.8822	µg/L	-0.8822	ppb	15:35:39
1	Mn 257.610†	429.9	210.6	0.2751	µg/L	0.2751	ppb	15:35:59
1	Mo 202.031†	-13.9	7.8	0.2656	µg/L	0.2656	ppb	15:35:59
1	Ni 231.604†	-71.9	2.7	0.0337	µg/L	0.0337	ppb	15:35:59
1	P 214.914†	-3.2	16.0	3.6742	µg/L	3.6742	ppb	15:35:59
1	Pb 220.353†	98.7	-19.4	-1.2192	µg/L	-1.2192	ppb	15:35:59
1	S 181.975 Axial†	103.4	0.5	0.4655	µg/L	0.4655	ppb	15:35:59
1	Sb 206.836†	81.6	3.3	0.4295	µg/L	0.4295	ppb	15:35:59
1	Se 196.026†	34.6	14.3	5.55	µg/L	5.55	ppb	15:35:59
1	SiO2†	1849.8	144.2	14.870	µg/L	14.870	ppb	15:35:39
1	Si 251.611†	1034.4	238.5	3.6292	µg/L	3.6292	ppb	15:35:39
1	Sn 189.927†	21.8	13.2	0.9199	µg/L	0.9199	ppb	15:35:59
1	Ti 334.940†	923.4	28.9	0.0279	µg/L	0.0279	ppb	15:35:39
1	Tl 190.801†	-112.2	4.1	0.5725	µg/L	0.5725	ppb	15:35:59
1	U 409.014†	-333.8	80.5	4.9007	µg/L	4.9007	ppb	15:35:39
1	V 292.402†	524.8	24.1	0.1247	µg/L	0.1247	ppb	15:35:39
1	Zn 213.857†	634.8	9.7	0.0562	µg/L	0.0562	ppb	15:35:59
2	Sc RADIAL	114949.9	114949.9	100	%			15:34:37
2	Al 396.153Radial†	-94.9	-9.5	-2.2533	µg/L	-2.2533	ppb	15:34:57
2	Ca 317.933Radial†	480.4	21.3	1.7515	µg/L	1.7515	ppb	15:34:57
2	Fe 238.204 Radial†	203.3	78.0	6.6560	µg/L	6.6560	ppb	15:34:57
2	K 766.490 Radial†	1603.2	186.1	74.491	µg/L	74.491	ppb	15:34:37
2	Mg 279.077 IEC†	168.7	10.6	5.8444	µg/L	5.8444	ppb	15:34:57
2	Na 589.592 Radial†	918.0	78.3	12.420	µg/L	12.420	ppb	15:34:37
2	Sr 421.552†	-201.1	-133.4	-0.3428	µg/L	-0.3428	ppb	15:34:37
2	Sc 361.383	1709598.0	1709598.0	101.02	%			15:36:02
2	Y 371.029	967704.1	967704.1	101.12	%			15:36:02
2	Ag 328.068†	5012.4	-141.4	-0.5720	µg/L	-0.5720	ppb	15:36:04
2	As 188.979†	-16.7	-3.1	-1.0627	µg/L	-1.0627	ppb	15:36:24
2	B 249.677†	4199.1	44.6	0.6626	µg/L	0.6626	ppb	15:36:04
2	Ba 233.527†	-140.5	6.8	0.0308	µg/L	0.0308	ppb	15:36:24
2	Be 313.107†	-794.1	206.3	0.0609	µg/L	0.0609	ppb	15:36:04
2	Cd 226.502†	-56.6	8.6	0.0562	µg/L	0.0562	ppb	15:36:24
2	Co 228.616†	-228.2	1.2	0.0150	µg/L	0.0150	ppb	15:36:24
2	Cr 267.716†	342.7	9.6	0.0784	µg/L	0.0784	ppb	15:36:24
2	Cu 324.752†	2957.2	-314.1	-1.2925	µg/L	-1.2925	ppb	15:36:04
2	Mn 257.610†	327.0	108.3	0.1413	µg/L	0.1413	ppb	15:36:24
2	Mo 202.031†	-11.0	10.7	0.3643	µg/L	0.3643	ppb	15:36:24
2	Ni 231.604†	-47.6	26.8	0.3330	µg/L	0.3330	ppb	15:36:24
2	P 214.914†	-5.4	13.9	3.1806	µg/L	3.1806	ppb	15:36:24
2	Pb 220.353†	148.8	30.1	1.8777	µg/L	1.8777	ppb	15:36:24

2	S 181.975 Axial†	111.4	8.4	7.1453 µg/L	7.1453 ppb	15:36:24
2	Sb 206.836†	79.5	1.2	0.1581 µg/L	0.1581 ppb	15:36:24
2	Se 196.026†	19.7	-0.5	-0.182 µg/L	-0.182 ppb	15:36:24
2	SiO2†	1754.6	48.0	4.9360 µg/L	4.9360 ppb	15:36:04
2	Si 251.611†	955.5	159.3	2.4224 µg/L	2.4224 ppb	15:36:04
2	Sn 189.927†	13.8	5.3	0.3665 µg/L	0.3665 ppb	15:36:24
2	Ti 334.940†	836.3	-58.2	-0.0648 µg/L	-0.0648 ppb	15:36:04
2	Tl 190.801†	-107.0	9.3	1.3185 µg/L	1.3185 ppb	15:36:24
2	U 409.014†	-280.7	133.4	8.1178 µg/L	8.1178 ppb	15:36:04
2	V 292.402†	532.9	31.5	0.1649 µg/L	0.1649 ppb	15:36:04
2	Zn 213.857†	640.2	14.4	0.0811 µg/L	0.0811 ppb	15:36:24
3	Sc RADIAL	115878.1	115878.1	101 %		15:34:59
3	Al 396.153Radial†	-65.3	20.6	4.8310 µg/L	4.8310 ppb	15:35:19
3	Ca 317.933Radial†	462.0	-0.7	-0.0547 µg/L	-0.0547 ppb	15:35:19
3	Fe 238.204 Radial†	200.7	73.9	6.3023 µg/L	6.3023 ppb	15:35:19
3	K 766.490 Radial†	1521.7	92.8	37.160 µg/L	37.160 ppb	15:34:59
3	Mg 279.077 IEC†	159.9	0.5	0.3002 µg/L	0.3002 ppb	15:35:19
3	Na 589.592 Radial†	965.1	117.4	18.701 µg/L	18.701 ppb	15:34:59
3	Sr 421.552†	-232.8	-163.1	-0.4188 µg/L	-0.4188 ppb	15:34:59
3	Sc 361.383	1713556.7	1713556.7	101.26 %		15:36:26
3	Y 371.029	969829.7	969829.7	101.34 %		15:36:26
3	Ag 328.068†	5031.8	-133.7	-0.5364 µg/L	-0.5364 ppb	15:36:28
3	As 188.979†	-11.4	2.2	0.7499 µg/L	0.7499 ppb	15:36:48
3	B 249.677†	4023.7	-138.2	-2.0514 µg/L	-2.0514 ppb	15:36:28
3	Ba 233.527†	-168.6	-20.7	-0.0933 µg/L	-0.0933 ppb	15:36:48
3	Be 313.107†	-485.1	513.3	0.1482 µg/L	0.1482 ppb	15:36:28
3	Cd 226.502†	-54.4	10.8	0.0708 µg/L	0.0708 ppb	15:36:48
3	Co 228.616†	-240.9	-10.9	-0.1430 µg/L	-0.1430 ppb	15:36:48
3	Cr 267.716†	340.3	6.4	0.0493 µg/L	0.0493 ppb	15:36:48
3	Cu 324.752†	3137.5	-142.8	-0.5825 µg/L	-0.5825 ppb	15:36:28
3	Mn 257.610†	327.9	108.5	0.1418 µg/L	0.1418 ppb	15:36:48
3	Mo 202.031†	-10.6	11.1	0.3782 µg/L	0.3782 ppb	15:36:48
3	Ni 231.604†	-74.9	-0.1	-0.0007 µg/L	-0.0007 ppb	15:36:48
3	P 214.914†	-14.6	4.8	1.1059 µg/L	1.1059 ppb	15:36:48
3	Pb 220.353†	121.7	3.0	0.1811 µg/L	0.1811 ppb	15:36:48
3	S 181.975 Axial†	105.1	1.9	1.5787 µg/L	1.5787 ppb	15:36:48
3	Sb 206.836†	80.9	2.3	0.3037 µg/L	0.3037 ppb	15:36:48
3	Se 196.026†	13.4	-6.8	-2.60 µg/L	-2.60 ppb	15:36:48
3	SiO2†	1879.5	167.3	17.253 µg/L	17.253 ppb	15:36:28
3	Si 251.611†	1041.1	241.6	3.6761 µg/L	3.6761 ppb	15:36:28
3	Sn 189.927†	19.4	10.8	0.7490 µg/L	0.7490 ppb	15:36:48
3	Ti 334.940†	826.3	-70.1	-0.0774 µg/L	-0.0774 ppb	15:36:28
3	Tl 190.801†	-101.7	14.8	2.0824 µg/L	2.0824 ppb	15:36:48
3	U 409.014†	-260.2	154.2	9.3985 µg/L	9.3985 ppb	15:36:28
3	V 292.402†	571.6	68.4	0.3492 µg/L	0.3492 ppb	15:36:28
3	Zn 213.857†	634.2	7.0	0.0403 µg/L	0.0403 ppb	15:36:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1710291.7	101.07	%	0.176				0.17%
Sc RADIAL	114979.9	101	%	0.8				0.77%
Y 371.029	967992.6	101.15	%	0.179				0.18%
Ag 328.068†	-142.5	-0.5768	µg/L	0.04303	-0.5768	ppb	0.04303	7.46%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.1	1.8835	µg/L	3.68888	1.8835	ppb	3.68888	195.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.6	0.2158	µg/L	1.11219	0.2158	ppb	1.11219	515.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-24.6	-0.3646	µg/L	1.47232	-0.3646	ppb	1.47232	403.79%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.7	-0.0257	µg/L	0.06282	-0.0257	ppb	0.06282	244.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	462.0	0.1331	µg/L	0.06596	0.1331	ppb	0.06596	49.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	12.5	1.0286	µg/L	0.95553	1.0286	ppb	0.95553	92.90%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	13.4	0.0881	µg/L	0.04318	0.0881	ppb	0.04318	49.04%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.1	0.0145	µg/L	0.15726	0.0145	ppb	0.15726	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                1.6      0.0081 µg/L       0.09770      0.0081 ppb        0.09770 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -223.7     -0.9191 µg/L       0.35640     -0.9191 ppb        0.35640  38.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        60.0      5.1208 µg/L       2.35941      5.1208 ppb        2.35941  46.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        128.6     51.470 µg/L       20.1323     51.470 ppb        20.1323  39.11%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            7.0      3.8858 µg/L       3.10964      3.8858 ppb        3.10964  80.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              142.5      0.1861 µg/L       0.07707      0.1861 ppb        0.07707  41.42%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.9      0.3361 µg/L       0.06139      0.3361 ppb        0.06139  18.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       108.7     17.300 µg/L        4.3521     17.300 ppb         4.3521  25.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                9.8      0.1220 µg/L       0.18352      0.1220 ppb        0.18352 150.45%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                11.6      2.6536 µg/L       1.36284      2.6536 ppb        1.36284  51.36%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                4.5      0.2799 µg/L       1.55080      0.2799 ppb        1.55080 554.13%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           3.6      3.0632 µg/L       3.57877      3.0632 ppb        3.57877 116.83%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                2.3      0.2971 µg/L       0.13579      0.2971 ppb        0.13579  45.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.4       0.923 µg/L        4.1854       0.923 ppb         4.1854 453.68%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    119.8     12.353 µg/L        6.5328     12.353 ppb         6.5328  52.88%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              213.2      3.2426 µg/L       0.71066      3.2426 ppb        0.71066  21.92%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                9.7      0.6785 µg/L       0.28335      0.6785 ppb        0.28335  41.76%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -96.7     -0.2484 µg/L       0.23255     -0.2484 ppb        0.23255  93.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -33.1     -0.0381 µg/L       0.05752     -0.0381 ppb        0.05752 151.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                9.4      1.3244 µg/L       0.75497      1.3244 ppb        0.75497  57.00%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               122.7      7.4723 µg/L       2.31734      7.4723 ppb        2.31734  31.01%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                41.3      0.2129 µg/L       0.11973      0.2129 ppb        0.11973  56.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               10.4      0.0592 µg/L       0.02059      0.0592 ppb        0.02059  34.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: 248865001|974047|1
Analyst: LS
Initial Sample Wt:
Dilution:

Autosampler Location: 320
Date Collected: 4/13/2010 15:47:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248865001|974047|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	113849.8	113849.8	99.5	%			15:47:53
1	Al 396.153Radial†	50242.8	50565.3	11925	µg/L	11925	ppb	15:47:53
1	Ca 317.933Radial†	58588.3	58408.5	4809.3	µg/L	4809.3	ppb	15:47:53
1	Fe 238.204 Radial†	577135.8	579739.9	49454	µg/L	49454	ppb	15:47:51
1	K 766.490 Radial†	6250.2	4870.4	1945.7	µg/L	1945.7	ppb	15:47:53
1	Mg 279.077 IEC†	4120.2	3982.3	2160.1	µg/L	2160.1	ppb	15:47:53
1	Na 589.592 Radial†	5252.5	4442.1	707.03	µg/L	707.03	ppb	15:47:53
1	Sr 421.552†	10298.4	10413.8	26.713	µg/L	26.713	ppb	15:47:53
1	Sc 361.383	1678379.3	1678379.3	99.179	%			15:48:20
1	Y 371.029	1137423.5	1137423.5	118.85	%			15:48:20
1	Ag 328.068†	5165.7	105.4	-0.5321	µg/L	-0.5321	ppb	15:48:22
1	As 188.979†	4.8	18.3	17.555	µg/L	17.555	ppb	15:48:42
1	B 249.677†	4392.0	316.4	4.6710	µg/L	4.6710	ppb	15:48:22
1	Ba 233.527†	25609.9	25967.7	116.94	µg/L	116.94	ppb	15:48:22
1	Be 313.107†	16077.2	17202.5	4.7785	µg/L	4.7785	ppb	15:48:22
1	Cd 226.502†	655.3	725.3	-0.3976	µg/L	-0.3976	ppb	15:48:42
1	Co 228.616†	349.5	579.4	5.1328	µg/L	5.1328	ppb	15:48:42
1	Cr 267.716†	1581.5	1264.9	12.545	µg/L	12.545	ppb	15:48:22
1	Cu 324.752†	4794.5	1592.9	13.609	µg/L	13.609	ppb	15:48:22
1	Mn 257.610†	1541116.7	1553651.8	2030.6	µg/L	2030.6	ppb	15:48:20
1	Mo 202.031†	124.6	147.3	7.0065	µg/L	7.0065	ppb	15:48:42
1	Ni 231.604†	1094.1	1177.1	14.638	µg/L	14.638	ppb	15:48:42
1	P 214.914†	1983.2	2018.8	430.26	µg/L	430.26	ppb	15:48:42
1	Pb 220.353†	470.7	357.4	23.107	µg/L	23.107	ppb	15:48:42
1	S 181.975 Axial†	217.6	117.4	99.958	µg/L	99.958	ppb	15:48:42
1	Sb 206.836†	63.9	-13.1	-2.3997	µg/L	-2.3997	ppb	15:48:42
1	Se 196.026†	-8.9	-29.0	5.66	µg/L	5.66	ppb	15:48:42
1	SiO2†	167707.1	167405.8	17286	µg/L	17286	ppb	15:48:22
1	Si 251.611†	527409.6	530986.7	8099.8	µg/L	8099.8	ppb	15:48:20
1	Sn 189.927†	140.2	132.9	12.649	µg/L	12.649	ppb	15:48:42
1	Ti 334.940†	952341.1	959334.3	1006.1	µg/L	1006.1	ppb	15:48:20
1	Tl 190.801†	-272.6	-159.6	-6.9269	µg/L	-6.9269	ppb	15:48:42
1	U 409.014†	-5381.6	-5014.8	-300.84	µg/L	-300.84	ppb	15:48:20
1	V 292.402†	7426.3	6991.8	28.410	µg/L	28.410	ppb	15:48:22
1	Zn 213.857†	28889.2	28508.9	159.86	µg/L	159.86	ppb	15:48:22
2	Sc RADIAL	115942.6	115942.6	101	%			15:47:57
2	Al 396.153Radial†	50718.4	50123.3	11820	µg/L	11820	ppb	15:47:57
2	Ca 317.933Radial†	59161.3	57911.3	4768.4	µg/L	4768.4	ppb	15:47:57
2	Fe 238.204 Radial†	580793.3	572881.7	48869	µg/L	48869	ppb	15:47:55
2	K 766.490 Radial†	6149.7	4658.0	1860.7	µg/L	1860.7	ppb	15:47:57
2	Mg 279.077 IEC†	4157.7	3944.6	2139.7	µg/L	2139.7	ppb	15:47:57
2	Na 589.592 Radial†	5477.6	4568.9	727.34	µg/L	727.34	ppb	15:47:57
2	Sr 421.552†	10434.6	10361.4	26.579	µg/L	26.579	ppb	15:47:57
2	Sc 361.383	1698720.2	1698720.2	100.38	%			15:48:44
2	Y 371.029	1150024.2	1150024.2	120.17	%			15:48:44
2	Ag 328.068†	5120.1	-2.3	-0.9719	µg/L	-0.9719	ppb	15:48:46
2	As 188.979†	14.3	27.6	20.649	µg/L	20.649	ppb	15:49:06
2	B 249.677†	4415.6	286.9	4.2325	µg/L	4.2325	ppb	15:48:46
2	Ba 233.527†	26528.3	26573.4	119.69	µg/L	119.69	ppb	15:48:46
2	Be 313.107†	16222.4	17153.1	4.7644	µg/L	4.7644	ppb	15:48:46
2	Cd 226.502†	644.5	706.6	-0.4601	µg/L	-0.4601	ppb	15:49:06
2	Co 228.616†	345.2	570.9	5.0549	µg/L	5.0549	ppb	15:49:06
2	Cr 267.716†	1498.4	1163.1	11.632	µg/L	11.632	ppb	15:48:46
2	Cu 324.752†	4767.2	1507.8	13.170	µg/L	13.170	ppb	15:48:46
2	Mn 257.610†	1556261.7	1550133.0	2026.0	µg/L	2026.0	ppb	15:48:44
2	Mo 202.031†	121.9	143.1	6.8410	µg/L	6.8410	ppb	15:49:06
2	Ni 231.604†	1099.9	1169.7	14.546	µg/L	14.546	ppb	15:49:06
2	P 214.914†	1976.2	1987.9	423.57	µg/L	423.57	ppb	15:49:06
2	Pb 220.353†	415.2	296.4	19.294	µg/L	19.294	ppb	15:49:06

2	S 181.975 Axial†	236.4	133.5	113.66 µg/L	113.66 ppb		15:49:06
2	Sb 206.836†	90.0	12.2	0.8553 µg/L	0.8553 ppb		15:49:06
2	Se 196.026†	-25.1	-45.0	-0.755 µg/L	-0.755 ppb		15:49:06
2	SiO2†	171549.0	169208.3	17472 µg/L	17472 ppb		15:48:46
2	Si 251.611†	533557.8	530744.0	8096.1 µg/L	8096.1 ppb		15:48:44
2	Sn 189.927†	153.1	144.1	13.423 µg/L	13.423 ppb		15:49:06
2	Ti 334.940†	962717.7	958173.5	1004.9 µg/L	1004.9 ppb		15:48:44
2	Tl 190.801†	-273.2	-156.9	-6.5771 µg/L	-6.5771 ppb		15:49:06
2	U 409.014†	-5453.0	-5021.0	-301.11 µg/L	-301.11 ppb		15:48:44
2	V 292.402†	7509.4	6984.9	28.433 µg/L	28.433 ppb		15:48:46
2	Zn 213.857†	29852.9	29120.2	163.46 µg/L	163.46 ppb		15:48:46
3	Sc RADIAL	112979.7	112979.7	98.8 %			15:48:01
3	Al 396.153Radial†	50172.4	50882.8	11999 µg/L	11999 ppb		15:48:01
3	Ca 317.933Radial†	57924.0	58189.3	4791.3 µg/L	4791.3 ppb		15:48:01
3	Fe 238.204 Radial†	578708.6	585798.3	49971 µg/L	49971 ppb		15:47:59
3	K 766.490 Radial†	6092.7	4759.4	1901.2 µg/L	1901.2 ppb		15:48:01
3	Mg 279.077 IEC†	4127.1	4021.2	2181.1 µg/L	2181.1 ppb		15:48:01
3	Na 589.592 Radial†	5218.3	4448.0	708.02 µg/L	708.02 ppb		15:48:01
3	Sr 421.552†	10282.6	10477.5	26.877 µg/L	26.877 ppb		15:48:01
3	Sc 361.383	1671651.1	1671651.1	98.782 %			15:49:09
3	Y 371.029	1131989.8	1131989.8	118.28 %			15:49:09
3	Ag 328.068†	5147.6	108.1	-0.5049 µg/L	-0.5049 ppb		15:49:11
3	As 188.979†	12.2	25.8	20.263 µg/L	20.263 ppb		15:49:31
3	B 249.677†	4194.4	134.2	1.9657 µg/L	1.9657 ppb		15:49:11
3	Ba 233.527†	26529.1	27002.1	121.61 µg/L	121.61 ppb		15:49:11
3	Be 313.107†	16436.2	17631.2	4.9023 µg/L	4.9023 ppb		15:49:11
3	Cd 226.502†	650.6	723.2	-0.4660 µg/L	-0.4660 ppb		15:49:31
3	Co 228.616†	338.1	569.3	4.9781 µg/L	4.9781 ppb		15:49:31
3	Cr 267.716†	1528.0	1217.2	12.140 µg/L	12.140 ppb		15:49:11
3	Cu 324.752†	4694.7	1511.3	13.353 µg/L	13.353 ppb		15:49:11
3	Mn 257.610†	1524007.7	1542586.1	2016.1 µg/L	2016.1 ppb		15:49:09
3	Mo 202.031†	103.3	126.2	6.3128 µg/L	6.3128 ppb		15:49:31
3	Ni 231.604†	1101.7	1189.2	14.789 µg/L	14.789 ppb		15:49:31
3	P 214.914†	1981.4	2025.0	431.35 µg/L	431.35 ppb		15:49:31
3	Pb 220.353†	408.7	296.5	19.265 µg/L	19.265 ppb		15:49:31
3	S 181.975 Axial†	237.2	138.2	117.62 µg/L	117.62 ppb		15:49:31
3	Sb 206.836†	73.9	-2.7	-1.0826 µg/L	-1.0826 ppb		15:49:31
3	Se 196.026†	-17.3	-37.5	2.55 µg/L	2.55 ppb		15:49:31
3	SiO2†	171741.3	172170.3	17778 µg/L	17778 ppb		15:49:11
3	Si 251.611†	525545.2	531239.7	8103.7 µg/L	8103.7 ppb		15:49:09
3	Sn 189.927†	138.6	131.8	12.552 µg/L	12.552 ppb		15:49:31
3	Ti 334.940†	942573.6	953311.1	999.80 µg/L	999.80 ppb		15:49:09
3	Tl 190.801†	-255.2	-143.1	-4.7078 µg/L	-4.7078 ppb		15:49:31
3	U 409.014†	-5225.8	-4879.0	-292.77 µg/L	-292.77 ppb		15:49:09
3	V 292.402†	7476.1	7072.3	28.757 µg/L	28.757 ppb		15:49:11
3	Zn 213.857†	29764.5	29512.3	165.60 µg/L	165.60 ppb		15:49:11

Mean Data: 248865001|974047|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1682916.9	99.448	%	0.8328				0.84%
Sc RADIAL	114257.4	99.9	%	1.33				1.33%
Y 371.029	1139812.5	119.10	%	0.967				0.81%
Ag 328.068†	70.4	-0.6696	µg/L	0.26215	-0.6696	ppb	0.26215	39.15%
Al 396.153Radial†	50523.8	11915	µg/L	90.0	11915	ppb	90.0	0.76%
As 188.979†	23.9	19.489	µg/L	1.6861	19.489	ppb	1.6861	8.65%
B 249.677†	245.8	3.6231	µg/L	1.45200	3.6231	ppb	1.45200	40.08%
Ba 233.527†	26514.4	119.41	µg/L	2.350	119.41	ppb	2.350	1.97%
Be 313.107†	17328.9	4.8151	µg/L	0.07591	4.8151	ppb	0.07591	1.58%
Ca 317.933Radial†	58169.7	4789.7	µg/L	20.52	4789.7	ppb	20.52	0.43%
Cd 226.502†	718.4	-0.4412	µg/L	0.03789	-0.4412	ppb	0.03789	8.59%
Co 228.616†	573.2	5.0553	µg/L	0.07734	5.0553	ppb	0.07734	1.53%
Cr 267.716†	1215.1	12.106	µg/L	0.4576	12.106	ppb	0.4576	3.78%
Cu 324.752†	1537.3	13.377	µg/L	0.2201	13.377	ppb	0.2201	1.65%
Fe 238.204 Radial†	579473.3	49431	µg/L	551.3	49431	ppb	551.3	1.12%
K 766.490 Radial†	4762.6	1902.5	µg/L	42.51	1902.5	ppb	42.51	2.23%
Mg 279.077 IEC†	3982.7	2160.3	µg/L	20.70	2160.3	ppb	20.70	0.96%
Mn 257.610†	1548790.3	2024.3	µg/L	7.39	2024.3	ppb	7.39	0.37%
Mo 202.031†	138.9	6.7201	µg/L	0.36233	6.7201	ppb	0.36233	5.39%
Na 589.592 Radial†	4486.3	714.13	µg/L	11.451	714.13	ppb	11.451	1.60%

Ni 231.604†	1178.7	14.658	µg/L	0.1228	14.658	ppb	0.1228	0.84%
P 214.914†	2010.6	428.40	µg/L	4.210	428.40	ppb	4.210	0.98%
Pb 220.353†	316.8	20.555	µg/L	2.2101	20.555	ppb	2.2101	10.75%
S 181.975 Axial†	129.7	110.41	µg/L	9.268	110.41	ppb	9.268	8.39%
Sb 206.836†	-1.2	-0.8757	µg/L	1.63738	-0.8757	ppb	1.63738	186.99%
Se 196.026†	-37.2	2.49	µg/L	3.210	2.49	ppb	3.210	129.07%
SiO2†	169594.8	17512	µg/L	248.4	17512	ppb	248.4	1.42%
Si 251.611†	530990.1	8099.9	µg/L	3.79	8099.9	ppb	3.79	0.05%
Sn 189.927†	136.3	12.875	µg/L	0.4773	12.875	ppb	0.4773	3.71%
Sr 421.552†	10417.6	26.723	µg/L	0.1493	26.723	ppb	0.1493	0.56%
Ti 334.940†	956939.7	1003.6	µg/L	3.35	1003.6	ppb	3.35	0.33%
Tl 190.801†	-153.2	-6.0706	µg/L	1.19313	-6.0706	ppb	1.19313	19.65%
U 409.014†	-4971.6	-298.24	µg/L	4.740	-298.24	ppb	4.740	1.59%
Concentration less than lower limit for U 409.014.								
V 292.402†	7016.3	28.533	µg/L	0.1940	28.533	ppb	0.1940	0.68%
Zn 213.857†	29047.1	162.97	µg/L	2.899	162.97	ppb	2.899	1.78%

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/13/2010 15:49:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	114198.9	114198.9	99.8	%			15:50:13
1	Al 396.153Radial†	21668.7	21789.6	5115.3	µg/L	5115.3	ppb	15:50:13
1	Ca 317.933Radial†	62362.3	62008.9	5105.8	µg/L	5105.8	ppb	15:50:13
1	Fe 238.204 Radial†	60169.5	60144.9	5130.6	µg/L	5130.6	ppb	15:50:13
1	K 766.490 Radial†	14195.5	12809.7	5123.3	µg/L	5123.3	ppb	15:50:13
1	Mg 279.077 IEC†	9472.1	9330.4	5168.0	µg/L	5168.0	ppb	15:50:13
1	Na 589.592 Radial†	63931.5	63202.1	10080	µg/L	10080	ppb	15:50:11
1	Sr 421.552†	196962.7	197355.7	506.92	µg/L	506.92	ppb	15:50:11
1	Sc 361.383	1691811.1	1691811.1	99.973	%			15:50:26
1	Y 371.029	947452.4	947452.4	98.999	%			15:50:26
1	Ag 328.068†	126209.9	121140.8	506.51	µg/L	506.51	ppb	15:50:26
1	As 188.979†	1396.6	1410.4	495.72	µg/L	495.72	ppb	15:50:46
1	B 249.677†	37486.6	33384.7	493.81	µg/L	493.81	ppb	15:50:26
1	Ba 233.527†	110833.5	111009.1	502.92	µg/L	502.92	ppb	15:50:26
1	Be 313.107†	1759299.1	1760764.0	498.68	µg/L	498.68	ppb	15:50:26
1	Cd 226.502†	75902.2	75987.1	502.13	µg/L	502.13	ppb	15:50:26
1	Co 228.616†	38325.1	38562.5	505.80	µg/L	505.80	ppb	15:50:26
1	Cr 267.716†	57420.7	57106.4	501.40	µg/L	501.40	ppb	15:50:26
1	Cu 324.752†	124399.5	121191.7	503.30	µg/L	503.30	ppb	15:50:26
1	Mn 257.610†	387036.4	386925.0	505.54	µg/L	505.54	ppb	15:50:26
1	Mo 202.031†	14769.0	14794.6	502.68	µg/L	502.68	ppb	15:50:46
1	Ni 231.604†	40584.5	40669.3	505.76	µg/L	505.76	ppb	15:50:26
1	P 214.914†	10843.4	10865.6	2474.0	µg/L	2474.0	ppb	15:50:46
1	Pb 220.353†	8096.3	7981.2	501.68	µg/L	501.68	ppb	15:50:46
1	S 181.975 Axial†	1259.2	1157.6	989.17	µg/L	989.17	ppb	15:50:46
1	Sb 206.836†	3983.4	3906.9	501.95	µg/L	501.95	ppb	15:50:46
1	Se 196.026†	1300.9	1281.3	498	µg/L	498	ppb	15:50:46
1	SiO2†	53634.4	51959.9	5343.8	µg/L	5343.8	ppb	15:50:26
1	Si 251.611†	165839.5	165097.5	2508.5	µg/L	2508.5	ppb	15:50:26
1	Sn 189.927†	7148.8	7142.2	499.06	µg/L	499.06	ppb	15:50:46
1	Ti 334.940†	480930.0	480173.0	502.90	µg/L	502.90	ppb	15:50:26
1	Tl 190.801†	3434.9	3551.1	507.98	µg/L	507.98	ppb	15:50:46
1	U 409.014†	7491.1	7904.3	511.19	µg/L	511.19	ppb	15:50:26
1	V 292.402†	101334.0	100865.2	506.76	µg/L	506.76	ppb	15:50:26
1	Zn 213.857†	88041.6	87445.9	500.87	µg/L	500.87	ppb	15:50:26
2	Sc RADIAL	114000.1	114000.1	99.7	%			15:50:17
2	Al 396.153Radial†	21602.4	21760.9	5108.2	µg/L	5108.2	ppb	15:50:17
2	Ca 317.933Radial†	61953.6	61707.7	5081.0	µg/L	5081.0	ppb	15:50:17
2	Fe 238.204 Radial†	59601.2	59679.7	5090.9	µg/L	5090.9	ppb	15:50:17
2	K 766.490 Radial†	14059.0	12697.6	5078.4	µg/L	5078.4	ppb	15:50:17
2	Mg 279.077 IEC†	9394.9	9269.5	5134.5	µg/L	5134.5	ppb	15:50:17
2	Na 589.592 Radial†	63296.0	62676.1	9995.9	µg/L	9995.9	ppb	15:50:15
2	Sr 421.552†	194813.1	195542.8	502.27	µg/L	502.27	ppb	15:50:15
2	Sc 361.383	1668820.4	1668820.4	98.615	%			15:50:49
2	Y 371.029	935630.4	935630.4	97.764	%			15:50:49
2	Ag 328.068†	124594.7	121242.2	506.91	µg/L	506.91	ppb	15:50:49
2	As 188.979†	1386.4	1419.2	498.80	µg/L	498.80	ppb	15:51:09
2	B 249.677†	37079.2	33488.2	495.35	µg/L	495.35	ppb	15:50:49
2	Ba 233.527†	109489.2	111173.2	503.66	µg/L	503.66	ppb	15:50:49
2	Be 313.107†	1733975.4	1759328.1	498.27	µg/L	498.27	ppb	15:50:49
2	Cd 226.502†	74876.5	75993.0	502.18	µg/L	502.18	ppb	15:50:49
2	Co 228.616†	37806.7	38564.8	505.84	µg/L	505.84	ppb	15:50:49
2	Cr 267.716†	56774.2	57242.1	502.60	µg/L	502.60	ppb	15:50:49
2	Cu 324.752†	122458.1	120937.2	502.22	µg/L	502.22	ppb	15:50:49
2	Mn 257.610†	381294.2	386435.6	504.91	µg/L	504.91	ppb	15:50:49
2	Mo 202.031†	14767.1	14996.2	509.52	µg/L	509.52	ppb	15:51:09
2	Ni 231.604†	40035.1	40671.5	505.78	µg/L	505.78	ppb	15:50:49
2	P 214.914†	10891.1	11063.3	2519.2	µg/L	2519.2	ppb	15:51:09
2	Pb 220.353†	8097.6	8094.1	508.79	µg/L	508.79	ppb	15:51:09

2	S 181.975 Axial†	1266.0	1181.8	1009.9 µg/L	1009.9 ppb	15:51:09
2	Sb 206.836†	3998.0	3976.6	510.98 µg/L	510.98 ppb	15:51:09
2	Se 196.026†	1299.7	1298.0	504 µg/L	504 ppb	15:51:09
2	SiO2†	53035.3	52091.5	5357.0 µg/L	5357.0 ppb	15:50:49
2	Si 251.611†	163571.3	165082.7	2508.1 µg/L	2508.1 ppb	15:50:49
2	Sn 189.927†	7177.9	7270.3	507.97 µg/L	507.97 ppb	15:51:09
2	Ti 334.940†	474367.8	480146.1	502.89 µg/L	502.89 ppb	15:50:49
2	Tl 190.801†	3439.3	3602.8	515.27 µg/L	515.27 ppb	15:51:09
2	U 409.014†	7077.9	7588.6	492.01 µg/L	492.01 ppb	15:50:49
2	V 292.402†	100009.6	100918.6	507.10 µg/L	507.10 ppb	15:50:49
2	Zn 213.857†	86526.3	87122.6	499.01 µg/L	499.01 ppb	15:50:49
3	Sc RADIAL	113895.8	113895.8	99.6 %		15:50:21
3	Al 396.153Radial†	21539.7	21717.8	5098.5 µg/L	5098.5 ppb	15:50:21
3	Ca 317.933Radial†	62184.2	61996.2	5104.7 µg/L	5104.7 ppb	15:50:21
3	Fe 238.204 Radial†	59787.7	59921.8	5111.6 µg/L	5111.6 ppb	15:50:21
3	K 766.490 Radial†	14019.9	12671.2	5067.8 µg/L	5067.8 ppb	15:50:21
3	Mg 279.077 IEC†	9474.1	9357.7	5183.0 µg/L	5183.0 ppb	15:50:21
3	Na 589.592 Radial†	63709.3	63149.3	10071 µg/L	10071 ppb	15:50:19
3	Sr 421.552†	195444.3	196355.6	504.35 µg/L	504.35 ppb	15:50:19
3	Sc 361.383	1698609.9	1698609.9	100.37 %		15:51:12
3	Y 371.029	951230.2	951230.2	99.394 %		15:51:12
3	Ag 328.068†	126547.3	120971.6	505.78 µg/L	505.78 ppb	15:51:12
3	As 188.979†	1376.5	1384.7	486.81 µg/L	486.81 ppb	15:51:32
3	B 249.677†	37633.2	33380.7	493.76 µg/L	493.76 ppb	15:51:12
3	Ba 233.527†	111204.6	110935.1	502.58 µg/L	502.58 ppb	15:51:12
3	Be 313.107†	1764224.4	1758627.3	498.07 µg/L	498.07 ppb	15:51:12
3	Cd 226.502†	76044.9	75825.5	501.07 µg/L	501.07 ppb	15:51:12
3	Co 228.616†	38379.2	38462.9	504.50 µg/L	504.50 ppb	15:51:12
3	Cr 267.716†	57539.6	56995.0	500.43 µg/L	500.43 ppb	15:51:12
3	Cu 324.752†	124404.7	120698.7	501.25 µg/L	501.25 ppb	15:51:12
3	Mn 257.610†	386861.2	385200.9	503.29 µg/L	503.29 ppb	15:51:12
3	Mo 202.031†	14771.7	14738.1	500.76 µg/L	500.76 ppb	15:51:32
3	Ni 231.604†	40755.9	40677.6	505.86 µg/L	505.86 ppb	15:51:12
3	P 214.914†	10869.4	10848.1	2470.0 µg/L	2470.0 ppb	15:51:32
3	Pb 220.353†	8088.2	7940.8	499.14 µg/L	499.14 ppb	15:51:32
3	S 181.975 Axial†	1275.0	1168.3	998.25 µg/L	998.25 ppb	15:51:32
3	Sb 206.836†	3977.2	3884.8	499.11 µg/L	499.11 ppb	15:51:32
3	Se 196.026†	1287.9	1263.1	491 µg/L	491 ppb	15:51:32
3	SiO2†	54075.6	52184.7	5367.0 µg/L	5367.0 ppb	15:51:12
3	Si 251.611†	166698.4	165289.3	2511.4 µg/L	2511.4 ppb	15:51:12
3	Sn 189.927†	7174.2	7139.0	498.82 µg/L	498.82 ppb	15:51:32
3	Ti 334.940†	481718.8	479033.4	501.71 µg/L	501.71 ppb	15:51:12
3	Tl 190.801†	3435.3	3537.7	506.08 µg/L	506.08 ppb	15:51:32
3	U 409.014†	7395.7	7779.4	503.48 µg/L	503.48 ppb	15:51:12
3	V 292.402†	101401.5	100526.7	505.06 µg/L	505.06 ppb	15:51:12
3	Zn 213.857†	88323.3	87374.1	500.46 µg/L	500.46 ppb	15:51:12

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1686413.8	99.654	%	0.9225				0.93%
Sc RADIAL	114031.6	99.7	%	0.13				0.13%
Y 371.029	944771.0	98.719	%	0.8504				0.86%
Ag 328.068†	121118.2	506.40	µg/L	0.571	506.40	ppb	0.571	0.11%
QC value within limits for Ag 328.068 Recovery = 101.28%								
Al 396.153Radial†	21756.1	5107.3	µg/L	8.46	5107.3	ppb	8.46	0.17%
QC value within limits for Al 396.153Radial Recovery = 102.15%								
As 188.979†	1404.8	493.78	µg/L	6.229	493.78	ppb	6.229	1.26%
QC value within limits for As 188.979 Recovery = 98.76%								
B 249.677†	33417.9	494.31	µg/L	0.903	494.31	ppb	0.903	0.18%
QC value within limits for B 249.677 Recovery = 98.86%								
Ba 233.527†	111039.2	503.05	µg/L	0.554	503.05	ppb	0.554	0.11%
QC value within limits for Ba 233.527 Recovery = 100.61%								
Be 313.107†	1759573.1	498.34	µg/L	0.310	498.34	ppb	0.310	0.06%
QC value within limits for Be 313.107 Recovery = 99.67%								
Ca 317.933Radial†	61904.3	5097.2	µg/L	14.03	5097.2	ppb	14.03	0.28%
QC value within limits for Ca 317.933Radial Recovery = 101.94%								
Cd 226.502†	75935.2	501.79	µg/L	0.629	501.79	ppb	0.629	0.13%
QC value within limits for Cd 226.502 Recovery = 100.36%								
Co 228.616†	38530.1	505.38	µg/L	0.764	505.38	ppb	0.764	0.15%

```
   QC value within limits for Co 228.616  Recovery = 101.08%
Cr 267.716†            57114.5      501.48 µg/L        1.092      501.48 ppb        1.092   0.22%
   QC value within limits for Cr 267.716  Recovery = 100.30%
Cu 324.752†           120942.5      502.26 µg/L        1.025      502.26 ppb        1.025   0.20%
   QC value within limits for Cu 324.752  Recovery = 100.45%
Fe 238.204 Radial†     59915.5      5111.0 µg/L        19.85      5111.0 ppb        19.85   0.39%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.22%
K 766.490 Radial†      12726.2      5089.8 µg/L        29.44      5089.8 ppb        29.44   0.58%
   QC value within limits for K 766.490 Radial  Recovery = 101.80%
Mg 279.077 IEC†         9319.2      5161.8 µg/L        24.85      5161.8 ppb        24.85   0.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.24%
Mn 257.610†           386187.2      504.58 µg/L        1.162      504.58 ppb        1.162   0.23%
   QC value within limits for Mn 257.610  Recovery = 100.92%
Mo 202.031†            14843.0      504.32 µg/L        4.605      504.32 ppb        4.605   0.91%
   QC value within limits for Mo 202.031  Recovery = 100.86%
Na 589.592 Radial†     63009.2       10049 µg/L         46.2       10049 ppb         46.2   0.46%
   QC value within limits for Na 589.592 Radial  Recovery = 100.49%
Ni 231.604†            40672.8      505.80 µg/L        0.054      505.80 ppb        0.054   0.01%
   QC value within limits for Ni 231.604  Recovery = 101.16%
P 214.914†             10925.7      2487.7 µg/L        27.33      2487.7 ppb        27.33   1.10%
   QC value within limits for P 214.914  Recovery = 99.51%
Pb 220.353†             8005.4      503.20 µg/L        4.999      503.20 ppb        4.999   0.99%
   QC value within limits for Pb 220.353  Recovery = 100.64%
S 181.975 Axial†        1169.2      999.09 µg/L       10.370      999.09 ppb       10.370   1.04%
   QC value within limits for S 181.975 Axial  Recovery = 99.91%
Sb 206.836†             3922.8      504.01 µg/L        6.200      504.01 ppb        6.200   1.23%
   QC value within limits for Sb 206.836  Recovery = 100.80%
Se 196.026†             1280.8         498 µg/L          6.7         498 ppb          6.7   1.36%
   QC value within limits for Se 196.026  Recovery = 99.50%
SiO2†                  52078.7      5355.9 µg/L        11.68      5355.9 ppb        11.68   0.22%
   QC value within limits for SiO2  Recovery = 100.16%
Si 251.611†           165156.5      2509.4 µg/L         1.82      2509.4 ppb         1.82   0.07%
   QC value within limits for Si 251.611  Recovery = 100.37%
Sn 189.927†             7183.9      501.95 µg/L        5.217      501.95 ppb        5.217   1.04%
   QC value within limits for Sn 189.927  Recovery = 100.39%
Sr 421.552†           196418.0      504.51 µg/L        2.333      504.51 ppb        2.333   0.46%
   QC value within limits for Sr 421.552  Recovery = 100.90%
Ti 334.940†           479784.2      502.50 µg/L        0.683      502.50 ppb        0.683   0.14%
   QC value within limits for Ti 334.940  Recovery = 100.50%
Tl 190.801†             3563.9      509.78 µg/L        4.854      509.78 ppb        4.854   0.95%
   QC value within limits for Tl 190.801  Recovery = 101.96%
U 409.014†              7757.4      502.23 µg/L        9.653      502.23 ppb        9.653   1.92%
   QC value within limits for U 409.014  Recovery = 100.45%
V 292.402†            100770.2      506.31 µg/L        1.093      506.31 ppb        1.093   0.22%
   QC value within limits for V 292.402  Recovery = 101.26%
Zn 213.857†            87314.2      500.11 µg/L        0.978      500.11 ppb        0.978   0.20%
   QC value within limits for Zn 213.857  Recovery = 100.02%
All analyte(s) passed QC.
```

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/13/2010 15:51:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	112743.2	112743.2	98.6	%			15:52:09
1	Al 396.153Radial†	-75.9	8.0	1.8688	µg/L	1.8688	ppb	15:52:29
1	Ca 317.933Radial†	483.0	33.3	2.7390	µg/L	2.7390	ppb	15:52:29
1	Fe 238.204 Radial†	190.0	68.5	5.8393	µg/L	5.8393	ppb	15:52:29
1	K 766.490 Radial†	1403.3	14.5	5.8111	µg/L	5.8111	ppb	15:52:09
1	Mg 279.077 IEC†	162.9	8.0	4.4175	µg/L	4.4175	ppb	15:52:29
1	Na 589.592 Radial†	985.9	165.0	26.315	µg/L	26.315	ppb	15:52:09
1	Sr 421.552†	-32.4	33.9	0.0870	µg/L	0.0870	ppb	15:52:09
1	Sc 361.383	1680509.1	1680509.1	99.305	%			15:53:17
1	Y 371.029	952089.9	952089.9	99.484	%			15:53:17
1	Ag 328.068†	4812.8	-256.5	-1.0336	µg/L	-1.0336	ppb	15:53:19
1	As 188.979†	-7.7	5.6	1.9569	µg/L	1.9569	ppb	15:53:39
1	B 249.677†	4126.6	43.5	0.6472	µg/L	0.6472	ppb	15:53:19
1	Ba 233.527†	-136.8	8.1	0.0365	µg/L	0.0365	ppb	15:53:39
1	Be 313.107†	-592.8	395.3	0.1193	µg/L	0.1193	ppb	15:53:19
1	Cd 226.502†	-58.9	5.3	0.0343	µg/L	0.0343	ppb	15:53:39
1	Co 228.616†	-252.3	-27.0	-0.3545	µg/L	-0.3545	ppb	15:53:39
1	Cr 267.716†	366.5	39.4	0.3272	µg/L	0.3272	ppb	15:53:39
1	Cu 324.752†	2931.9	-288.9	-1.1749	µg/L	-1.1749	ppb	15:53:19
1	Mn 257.610†	289.8	76.4	0.0997	µg/L	0.0997	ppb	15:53:39
1	Mo 202.031†	-9.0	12.5	0.4259	µg/L	0.4259	ppb	15:53:39
1	Ni 231.604†	-66.3	7.1	0.0884	µg/L	0.0884	ppb	15:53:39
1	P 214.914†	-4.1	15.1	3.4565	µg/L	3.4565	ppb	15:53:39
1	Pb 220.353†	122.3	5.9	0.3533	µg/L	0.3533	ppb	15:53:39
1	S 181.975 Axial†	110.4	9.2	7.8567	µg/L	7.8567	ppb	15:53:39
1	Sb 206.836†	92.9	16.0	2.0569	µg/L	2.0569	ppb	15:53:39
1	Se 196.026†	2.3	-17.7	-6.82	µg/L	-6.82	ppb	15:53:39
1	SiO2†	1640.9	-36.5	-3.7876	µg/L	-3.7876	ppb	15:53:19
1	Si 251.611†	770.5	-10.6	-0.1697	µg/L	-0.1697	ppb	15:53:19
1	Sn 189.927†	12.4	4.1	0.2849	µg/L	0.2849	ppb	15:53:39
1	Ti 334.940†	753.2	-127.6	-0.1442	µg/L	-0.1442	ppb	15:53:19
1	Tl 190.801†	-126.1	-11.8	-1.6586	µg/L	-1.6586	ppb	15:53:39
1	U 409.014†	-9.6	401.6	24.400	µg/L	24.400	ppb	15:53:19
1	V 292.402†	420.7	-72.3	-0.3368	µg/L	-0.3368	ppb	15:53:19
1	Zn 213.857†	633.1	18.2	0.1047	µg/L	0.1047	ppb	15:53:39
2	Sc RADIAL	113250.6	113250.6	99.0	%			15:52:31
2	Al 396.153Radial†	-90.8	-6.7	-1.6008	µg/L	-1.6008	ppb	15:52:51
2	Ca 317.933Radial†	468.3	16.2	1.3361	µg/L	1.3361	ppb	15:52:51
2	Fe 238.204 Radial†	134.7	11.8	1.0037	µg/L	1.0037	ppb	15:52:51
2	K 766.490 Radial†	1371.0	-24.5	-9.7867	µg/L	-9.7867	ppb	15:52:31
2	Mg 279.077 IEC†	160.6	4.9	2.7058	µg/L	2.7058	ppb	15:52:51
2	Na 589.592 Radial†	790.9	-36.5	-5.8144	µg/L	-5.8144	ppb	15:52:31
2	Sr 421.552†	-146.4	-81.2	-0.2085	µg/L	-0.2085	ppb	15:52:31
2	Sc 361.383	1684012.1	1684012.1	99.512	%			15:53:41
2	Y 371.029	953509.5	953509.5	99.632	%			15:53:41
2	Ag 328.068†	4964.5	-114.2	-0.4598	µg/L	-0.4598	ppb	15:53:44
2	As 188.979†	-4.5	8.9	3.0905	µg/L	3.0905	ppb	15:54:04
2	B 249.677†	3967.8	-124.7	-1.8526	µg/L	-1.8526	ppb	15:53:44
2	Ba 233.527†	-157.1	-12.0	-0.0542	µg/L	-0.0542	ppb	15:54:04
2	Be 313.107†	-715.0	273.8	0.0811	µg/L	0.0811	ppb	15:53:44
2	Cd 226.502†	-77.6	-13.4	-0.0886	µg/L	-0.0886	ppb	15:54:04
2	Co 228.616†	-196.0	30.1	0.3940	µg/L	0.3940	ppb	15:54:04
2	Cr 267.716†	326.4	-1.6	-0.0238	µg/L	-0.0238	ppb	15:54:04
2	Cu 324.752†	2934.5	-292.4	-1.2004	µg/L	-1.2004	ppb	15:53:44
2	Mn 257.610†	277.6	63.6	0.0830	µg/L	0.0830	ppb	15:54:04
2	Mo 202.031†	-15.3	6.3	0.2123	µg/L	0.2123	ppb	15:54:04
2	Ni 231.604†	-93.4	-19.9	-0.2475	µg/L	-0.2475	ppb	15:54:04
2	P 214.914†	-8.3	10.9	2.5060	µg/L	2.5060	ppb	15:54:04
2	Pb 220.353†	114.1	-2.5	-0.1651	µg/L	-0.1651	ppb	15:54:04

2	S 181.975 Axial†	109.6	8.3	7.0278 µg/L	7.0278 ppb	15:54:04
2	Sb 206.836†	88.4	11.3	1.4476 µg/L	1.4476 ppb	15:54:04
2	Se 196.026†	23.2	3.3	1.29 µg/L	1.29 ppb	15:54:04
2	SiO2†	1756.0	75.7	7.8027 µg/L	7.8027 ppb	15:53:44
2	Si 251.611†	791.6	8.9	0.1299 µg/L	0.1299 ppb	15:53:44
2	Sn 189.927†	16.5	8.2	0.5709 µg/L	0.5709 ppb	15:54:04
2	Ti 334.940†	754.0	-128.4	-0.1396 µg/L	-0.1396 ppb	15:53:44
2	Tl 190.801†	-119.3	-4.7	-0.6651 µg/L	-0.6651 ppb	15:54:04
2	U 409.014†	-217.4	192.8	11.710 µg/L	11.710 ppb	15:53:44
2	V 292.402†	447.2	-46.7	-0.2213 µg/L	-0.2213 ppb	15:53:44
2	Zn 213.857†	640.6	24.4	0.1431 µg/L	0.1431 ppb	15:54:04
3	Sc RADIAL	114599.6	114599.6	100 %		15:52:53
3	Al 396.153Radial†	-71.4	13.7	3.2003 µg/L	3.2003 ppb	15:53:13
3	Ca 317.933Radial†	464.5	6.9	0.5688 µg/L	0.5688 ppb	15:53:13
3	Fe 238.204 Radial†	134.5	10.0	0.8519 µg/L	0.8519 ppb	15:53:13
3	K 766.490 Radial†	1419.1	7.2	2.8938 µg/L	2.8938 ppb	15:52:53
3	Mg 279.077 IEC†	163.5	5.9	3.2605 µg/L	3.2605 ppb	15:53:13
3	Na 589.592 Radial†	817.2	-19.6	-3.1289 µg/L	-3.1289 ppb	15:52:53
3	Sr 421.552†	-19.5	47.2	0.1213 µg/L	0.1213 ppb	15:52:53
3	Sc 361.383	1692860.9	1692860.9	100.04 %		15:54:06
3	Y 371.029	958440.2	958440.2	100.15 %		15:54:06
3	Ag 328.068†	4930.1	-174.6	-0.7260 µg/L	-0.7260 ppb	15:54:08
3	As 188.979†	-6.7	6.7	2.3325 µg/L	2.3325 ppb	15:54:28
3	B 249.677†	4241.2	127.7	1.8954 µg/L	1.8954 ppb	15:54:08
3	Ba 233.527†	-158.5	-12.6	-0.0567 µg/L	-0.0567 ppb	15:54:28
3	Be 313.107†	-731.8	260.8	0.0728 µg/L	0.0728 ppb	15:54:08
3	Cd 226.502†	-60.1	4.5	0.0298 µg/L	0.0298 ppb	15:54:28
3	Co 228.616†	-214.0	13.1	0.1723 µg/L	0.1723 ppb	15:54:28
3	Cr 267.716†	364.5	34.7	0.3074 µg/L	0.3074 ppb	15:54:28
3	Cu 324.752†	3056.7	-185.6	-0.7708 µg/L	-0.7708 ppb	15:54:08
3	Mn 257.610†	293.0	77.6	0.1013 µg/L	0.1013 ppb	15:54:28
3	Mo 202.031†	-7.8	13.8	0.4677 µg/L	0.4677 ppb	15:54:28
3	Ni 231.604†	-55.6	18.3	0.2274 µg/L	0.2274 ppb	15:54:28
3	P 214.914†	7.1	26.3	6.0261 µg/L	6.0261 ppb	15:54:28
3	Pb 220.353†	130.2	12.9	0.8118 µg/L	0.8118 ppb	15:54:28
3	S 181.975 Axial†	100.5	-1.4	-1.2192 µg/L	-1.2192 ppb	15:54:28
3	Sb 206.836†	85.9	8.3	1.0700 µg/L	1.0700 ppb	15:54:28
3	Se 196.026†	24.4	4.4	1.69 µg/L	1.69 ppb	15:54:28
3	SiO2†	1735.5	46.0	4.7311 µg/L	4.7311 ppb	15:54:08
3	Si 251.611†	883.6	96.8	1.4659 µg/L	1.4659 ppb	15:54:08
3	Sn 189.927†	18.4	10.0	0.6950 µg/L	0.6950 ppb	15:54:28
3	Ti 334.940†	694.5	-191.8	-0.2002 µg/L	-0.2002 ppb	15:54:08
3	Tl 190.801†	-109.3	6.0	0.8435 µg/L	0.8435 ppb	15:54:28
3	U 409.014†	-465.7	-54.3	-3.3072 µg/L	-3.3072 ppb	15:54:08
3	V 292.402†	480.9	-15.3	-0.0716 µg/L	-0.0716 ppb	15:54:08
3	Zn 213.857†	614.2	-5.3	-0.0317 µg/L	-0.0317 ppb	15:54:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1685794.0	99.618	%	0.3762				0.38%
Sc RADIAL	113531.2	99.3	%	0.84				0.85%
Y 371.029	954679.9	99.754	%	0.3483				0.35%
Ag 328.068†	-181.8	-0.7398	µg/L	0.28718	-0.7398	ppb	0.28718	38.82%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.0	1.1561	µg/L	2.47862	1.1561	ppb	2.47862	214.39%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.1	2.4600	µg/L	0.57742	2.4600	ppb	0.57742	23.47%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	15.5	0.2300	µg/L	1.90854	0.2300	ppb	1.90854	829.76%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.5	-0.0248	µg/L	0.05310	-0.0248	ppb	0.05310	213.81%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	310.0	0.0911	µg/L	0.02480	0.0911	ppb	0.02480	27.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	18.8	1.5480	µg/L	1.10049	1.5480	ppb	1.10049	71.09%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-1.2	-0.0081	µg/L	0.06970	-0.0081	ppb	0.06970	857.00%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.4	0.0706	µg/L	0.38449	0.0706	ppb	0.38449	544.69%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              24.2      0.2036 µg/L       0.19715      0.2036 ppb        0.19715  96.83%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -255.6     -1.0487 µg/L       0.24099     -1.0487 ppb        0.24099  22.98%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       30.1      2.5650 µg/L       2.83671      2.5650 ppb        2.83671 110.59%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -0.9     -0.3606 µg/L       8.29253     -0.3606 ppb        8.29253 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           6.2      3.4613 µg/L       0.87335      3.4613 ppb        0.87335  25.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              72.5      0.0947 µg/L       0.01011      0.0947 ppb        0.01011  10.68%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.9      0.3686 µg/L       0.13698      0.3686 ppb        0.13698  37.16%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       36.3      5.7907 µg/L      17.82560      5.7907 ppb       17.82560 307.83%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               1.8      0.0228 µg/L       0.24419      0.0228 ppb        0.24419 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               17.4      3.9962 µg/L       1.82106      3.9962 ppb        1.82106  45.57%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               5.4      0.3333 µg/L       0.48877      0.3333 ppb        0.48877 146.63%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          5.3      4.5551 µg/L       5.01786      4.5551 ppb        5.01786 110.16%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              11.9      1.5248 µg/L       0.49800      1.5248 ppb        0.49800  32.66%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.3       -1.28 µg/L         4.799       -1.28 ppb          4.799 374.76%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    28.4      2.9154 µg/L       6.00468      2.9154 ppb        6.00468 205.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              31.7      0.4754 µg/L       0.87084      0.4754 ppb        0.87084 183.19%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.4      0.5170 µg/L       0.21032      0.5170 ppb        0.21032  40.68%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -0.0     -0.0001 µg/L       0.18133     -0.0001 ppb        0.18133 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -149.3     -0.1614 µg/L       0.03371     -0.1614 ppb        0.03371  20.89%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -3.5     -0.4934 µg/L       1.25982     -0.4934 ppb        1.25982 255.33%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              180.0      10.934 µg/L       13.8701      10.934 ppb        13.8701 126.85%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -44.8     -0.2099 µg/L       0.13298     -0.2099 ppb        0.13298  63.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              12.4      0.0720 µg/L       0.09184      0.0720 ppb        0.09184 127.47%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, May 17, 2010 11:48:24
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.1013
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1117.8	1117.844	44.525	4.0
	Mg	24.0	20310.2	20310.229	233.625	1.2
	Co	58.9	57428.2	57428.211	680.981	1.2
	Rh	102.9	100655.3	100655.253	1862.310	1.9
	In	114.9	111401.8	111401.799	2109.154	1.9
	Pb	208.0	41823.5	41823.534	183.549	0.4
⌈>	Ba	137.9	103306.7	103306.711	1183.412	1.1
⌊	Ba++	69.0	1819.1	0.018	0.000	1.8
⌈>	Ce	139.9	123182.8	123182.820	601.913	0.5
⌊	CeO	155.9	1934.6	0.016	0.000	2.1
	Bkgd	220.0	10.1	10.100	2.903	28.7

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.30	Lens Voltage
1000.00	ICP RF Power
-1800.00	Analog Stage Voltage
1200.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	5.5	1151.7
Co	59	17	6.8	44063.2
In	115	17	8.0	94714.3

ICPMS #4 TUNING REPORT

File Name: 100517.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	605	2080	0.621
Be	9.0	9.0	2043	2080	0.604
Mg	24.0	24.0	5669	2100	0.597
Mg	25.0	25.0	5954	2100	0.632
Mg	26.0	26.0	6144	2120	0.619
Co	58.9	58.9	14163	2150	0.651
Rh	102.9	102.9	24868	2240	0.658
In	114.9	114.9	27760	2275	0.635
Ce	139.9	139.9	33842	2310	0.679
Pb	206.0	206.0	49931	2485	0.686
Pb	207.0	207.0	50101	2400	0.648
Pb	208.0	208.0	50448	2510	0.683
U	238.1	238.0	57684	2520	0.643

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, May 17, 2010 11:58:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		8	
>	Sc	45		ug/L		668864	
	Ni	60		ug/L		108	
>	Ge	74		ug/L		280595	
	As	75		ug/L		379	
	Se	77		ug/L		5709	
	Se	82		ug/L		18	
	Kr	83		ug/L		67	
>	Lu	175		ug/L		122735	
	Tl	205		ug/L		174	
	U	238		ug/L		340	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Simple Linear	
Ni	60	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, May 17, 2010 12:02:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.000**	**ug/L**	2.600	1477	0.002
>	Sc	45		**ug/L**		684394	684393.607
	Ni	60	**10.000**	**ug/L**	1.356	11535	0.017
>	Ge	74		**ug/L**		288843	288843.387
	As	75	**10.000**	**ug/L**	4.386	8859	0.029
	Se	77		**ug/L**		7519	0.006
	Se	82	**10.000**	**ug/L**	4.591	751	0.003
	Kr	83		**ug/L**		67	-0.000
>	Lu	175		**ug/L**		124497	124496.719
	Tl	205	**10.000**	**ug/L**	1.033	22076	0.176
	U	238	**10.000**	**ug/L**	0.975	95159	0.762

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, May 17, 2010 12:06:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.881**	**ug/L**	2.203	13483	0.019
>	Sc	45		**ug/L**		703435	703435.144
	Ni	60	**99.997**	**ug/L**	1.011	117244	0.167
>	Ge	74		**ug/L**		296006	296006.239
	As	75	**100.006**	**ug/L**	0.963	87757	0.295
	Se	77		**ug/L**		12723	0.023
	Se	82	**100.007**	**ug/L**	1.218	7590	0.026
	Kr	83		**ug/L**		81	0.000
>	Lu	175		**ug/L**		128574	128574.052
	Tl	205	**99.986**	**ug/L**	2.892	223101	1.734
	U	238	**99.964**	**ug/L**	1.408	944901	7.347

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, May 17, 2010 12:10:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\Ianl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.257**	**ug/L**	1.011	6970	0.010
>	Sc	45		**ug/L**		722183	722183.130
	Ni	60	**51.131**	**ug/L**	1.125	61615	0.085
>	Ge	74		**ug/L**		295888	295887.827
	As	75	**51.356**	**ug/L**	1.444	45240	0.152
	Se	77		**ug/L**		10243	0.014
	Se	82	**51.285**	**ug/L**	2.078	3900	0.013
	Kr	83		**ug/L**		77	0.000
>	Lu	175		**ug/L**		126974	126974.327
	Tl	205	**50.232**	**ug/L**	2.363	110768	0.871
	U	238	**53.898**	**ug/L**	2.176	503173	3.962

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	100.513				
>	Sc	45		108.0			
	Ni	60	102.261				
>	Ge	74		105.5			
	As	75	102.712				
	Se	77					
	Se	82	102.570				
	Kr	83					
>	Lu	175		103.5			
	Tl	205	100.465				
	U	238	107.796				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, May 17, 2010 12:14:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.011	ug/L	74.699	10	0.000
>	Sc	45		ug/L		711887	711886.573
	Ni	60	0.004	ug/L	204.973	120	0.000
>	Ge	74		ug/L		296627	296626.984
	As	75	0.033	ug/L	1779.047	427	0.000
	Se	77		ug/L		7277	0.004
	Se	82	0.119	ug/L	130.901	28	0.000
	Kr	83		ug/L		72	0.000
>	Lu	175		ug/L		124741	124741.228
	Tl	205	0.201	ug/L	3.986	611	0.003
	U	238	-0.017	ug/L	1.924	193	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		106.4			
	Ni	60					
>	Ge	74		105.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, May 17, 2010 12:18:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.653**	**ug/L**	0.547	98	0.000
|>	Sc	45		**ug/L**		717000	717000.088
⌊	Ni	60	**2.396**	**ug/L**	1.520	2977	0.004
⌈>	Ge	74		**ug/L**		298862	298862.120
|	As	75	**6.419**	**ug/L**	5.752	6061	0.019
|	Se	77		**ug/L**		8236	0.007
|	Se	82	**5.943**	**ug/L**	11.664	473	0.002
⌊	Kr	83		**ug/L**		75	0.000
⌈>	Lu	175		**ug/L**		125510	125510.287
|	Tl	205	**1.247**	**ug/L**	2.467	2893	0.022
⌊	U	238	**0.311**	**ug/L**	0.408	3218	0.023

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	130.536				
|>	Sc	45		107.2			
⌊	Ni	60	119.824				
⌈>	Ge	74		106.5			
|	As	75	128.380				
|	Se	77					
|	Se	82	118.851				
⌊	Kr	83					
⌈>	Lu	175		102.3			
|	Tl	205	124.721				
⌊	U	238	155.578				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Be	9	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, May 17, 2010 12:22:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.080**	**ug/L**	49.467	19	0.000
>	Sc	45		**ug/L**		697106	697106.019
	Ni	60	**2.724**	**ug/L**	4.387	3274	0.005
>	Ge	74		**ug/L**		286731	286731.102
	As	75	**0.243**	**ug/L**	136.723	595	0.001
	Se	77		**ug/L**		8982	0.011
	Se	82	**-0.603**	**ug/L**	71.581	-26	-0.000
	Kr	83		**ug/L**		164	0.000
>	Lu	175		**ug/L**		126302	126302.171
	Tl	205	**0.071**	**ug/L**	12.522	334	0.001
	U	238	**-0.029**	**ug/L**	8.519	83	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		104.2			
	Ni	60	82.283				
>	Ge	74		102.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, May 17, 2010 12:26:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**22.745**	**ug/L**	2.167	2960	0.004
>	Sc	45		**ug/L**		676646	676646.240
	Ni	60	**21.183**	**ug/L**	2.019	23978	0.035
>	Ge	74		**ug/L**		278447	278446.868
	As	75	**20.418**	**ug/L**	0.397	17153	0.060
	Se	77		**ug/L**		8960	0.012
	Se	82	**21.201**	**ug/L**	3.099	1528	0.005
	Kr	83		**ug/L**		142	0.000
>	Lu	175		**ug/L**		121299	121299.401
	Tl	205	**17.316**	**ug/L**	0.622	36604	0.300
	U	238	**19.870**	**ug/L**	1.337	177488	1.460

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	113.724				
>	Sc	45		101.2			
	Ni	60	90.873				
>	Ge	74		99.2			
	As	75	102.091				
	Se	77					
	Se	82	106.003				
	Kr	83					
>	Lu	175		98.8			
	Tl	205	86.581				
	U	238	99.351				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 12:30:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**56.941**	**ug/L**	1.272	7629	0.011
>	Sc	45		**ug/L**		697769	697769.371
	Ni	60	**50.911**	**ug/L**	0.487	59271	0.085
>	Ge	74		**ug/L**		292247	292246.863
	As	75	**50.601**	**ug/L**	1.228	44031	0.149
	Se	77		**ug/L**		9826	0.013
	Se	82	**50.778**	**ug/L**	1.473	3814	0.013
	Kr	83		**ug/L**		80	0.000
>	Lu	175		**ug/L**		123965	123965.442
	Tl	205	**48.454**	**ug/L**	1.730	104364	0.840
	U	238	**51.738**	**ug/L**	1.201	471742	3.803

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	113.882				
>	Sc	45		104.3			
	Ni	60	101.822				
>	Ge	74		104.2			
	As	75	101.201				
	Se	77					
	Se	82	101.555				
	Kr	83					
>	Lu	175		101.0			
	Tl	205	96.907				
	U	238	103.475				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 12:35:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.014**	**ug/L**	240.980	10	0.000
>	Sc	45		**ug/L**		682770	682769.605
	Ni	60	**0.001**	**ug/L**	1455.646	112	0.000
>	Ge	74		**ug/L**		289012	289011.662
	As	75	**0.704**	**ug/L**	60.380	994	0.002
	Se	77		**ug/L**		6540	0.002
	Se	82	**0.011**	**ug/L**	2368.680	19	0.000
	Kr	83		**ug/L**		83	0.000
>	Lu	175		**ug/L**		119235	119234.535
	Tl	205	**0.198**	**ug/L**	6.184	578	0.003
	U	238	**-0.008**	**ug/L**	207.969	259	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		102.1			
	Ni	60					
>	Ge	74		103.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Monday, May 17, 2010 12:39:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 10.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1159.827**	**ug/L**	0.650	143199	0.222
>	Sc	45		**ug/L**		643663	643662.726
	Ni	60	**891.573**	**ug/L**	0.601	955774	1.485
>	Ge	74		**ug/L**		269860	269860.164
	As	75	**941.281**	**ug/L**	2.228	749726	2.778
	Se	77		**ug/L**		31926	0.098
	Se	82	**478.383**	**ug/L**	3.246	33023	0.122
	Kr	83		**ug/L**		96	0.000
>	Lu	175		**ug/L**		120018	120017.608
	Tl	205	**439.441**	**ug/L**	2.322	914839	7.622
	U	238	**4845.832**	**ug/L**	0.521	42746267	356.173

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	115.983				
>	Sc	45		96.2			
	Ni	60	89.157				
>	Ge	74		96.2			
	As	75	94.128				
	Se	77					
	Se	82	95.677				
	Kr	83					
>	Lu	175		97.8			
	Tl	205	87.888				
	U	238	96.917				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Be	9	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Tl	205	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Monday, May 17, 2010 12:43:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 11.012

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**61.381**	**ug/L**	1.594	7971	0.012
>	Sc	45		**ug/L**		676460	676459.733
	Ni	60	**51.403**	**ug/L**	1.331	58007	0.086
>	Ge	74		**ug/L**		288853	288853.124
	As	75	**50.028**	**ug/L**	2.957	43023	0.148
	Se	77		**ug/L**		9441	0.012
	Se	82	**50.477**	**ug/L**	1.874	3748	0.013
	Kr	83		**ug/L**		78	0.000
>	Lu	175		**ug/L**		120978	120977.671
	Tl	205	**50.451**	**ug/L**	1.857	106026	0.875
	U	238	**53.063**	**ug/L**	1.022	472135	3.900

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	122.762				
>	Sc	45		101.1			
	Ni	60	102.805				
>	Ge	74		102.9			
	As	75	100.057				
	Se	77					
	Se	82	100.954				
	Kr	83					
>	Lu	175		98.6			
	Tl	205	100.902				
	U	238	106.126				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Monday, May 17, 2010 12:47:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 12.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.056**	**ug/L**	76.224	15	0.000
>	Sc	45		**ug/L**		674221	674220.677
	Ni	60	**0.026**	**ug/L**	84.050	138	0.000
>	Ge	74		**ug/L**		290459	290458.783
	As	75	**0.118**	**ug/L**	519.993	494	0.000
	Se	77		**ug/L**		6580	0.002
	Se	82	**0.369**	**ug/L**	38.724	46	0.000
	Kr	83		**ug/L**		72	0.000
>	Lu	175		**ug/L**		118996	118995.843
	Tl	205	**0.400**	**ug/L**	2.105	994	0.007
	U	238	**0.076**	**ug/L**	7.348	990	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		100.8			
	Ni	60					
>	Ge	74		103.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202068103
Sample Date/Time: Monday, May 17, 2010 12:51:35
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\1202068103.014

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.011**	**ug/L**	62.891	10	0.000
>	Sc	45		**ug/L**		705960	705959.802
	Ni	60	**-0.021**	**ug/L**	49.379	90	-0.000
>	Ge	74		**ug/L**		294072	294071.836
	As	75	**-0.032**	**ug/L**	427.170	369	-0.000
	Se	77		**ug/L**		5014	-0.003
	Se	82	**-0.065**	**ug/L**	93.662	14	-0.000
	Kr	83		**ug/L**		74	0.000
>	Lu	175		**ug/L**		124810	124809.771
	Tl	205	**0.207**	**ug/L**	7.497	624	0.004
	U	238	**0.011**	**ug/L**	65.794	444	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		105.5			
	Ni	60					
>	Ge	74		104.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202068108
Sample Date/Time: Monday, May 17, 2010 12:55:42
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 964014|40|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\1202068108.015

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**25.603**	**ug/L**	2.549	3292	0.005
>	Sc	45		**ug/L**		668877	668876.686
	Ni	60	**38.733**	**ug/L**	3.038	43240	0.065
>	Ge	74		**ug/L**		290440	290439.608
	As	75	**26.808**	**ug/L**	3.682	23367	0.079
	Se	77		**ug/L**		10644	0.016
	Se	82	**74.254**	**ug/L**	3.056	5534	0.019
	Kr	83		**ug/L**		70	-0.000
>	Lu	175		**ug/L**		120483	120482.817
	Tl	205	**30.915**	**ug/L**	1.310	64776	0.536
	U	238	**0.472**	**ug/L**	3.546	4514	0.035

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		100.0			
	Ni	60					
>	Ge	74		103.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202068104
Sample Date/Time: Monday, May 17, 2010 13:03:57
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\1202068104.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.090**	**ug/L**	3.924	149	0.000
>	Sc	45		**ug/L**		672563	672562.921
	Ni	60	**5.182**	**ug/L**	1.187	5913	0.009
>	Ge	74		**ug/L**		274727	274727.386
	As	75	**1.156**	**ug/L**	40.744	1309	0.003
	Se	77		**ug/L**		3636	-0.007
	Se	82	**0.406**	**ug/L**	97.754	46	0.000
	Kr	83		**ug/L**		130	0.000
>	Lu	175		**ug/L**		130699	130698.526
	Tl	205	**0.228**	**ug/L**	5.108	703	0.004
	U	238	**3.259**	**ug/L**	3.557	31664	0.240

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		100.6			
	Ni	60					
>	Ge	74		97.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		106.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202068106
Sample Date/Time: Monday, May 17, 2010 13:08:05
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\1202068106.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**31.521**	**ug/L**	3.729	3938	0.006
>	Sc	45		**ug/L**		650123	650123.077
	Ni	60	**26.659**	**ug/L**	0.663	28968	0.044
>	Ge	74		**ug/L**		263677	263676.678
	As	75	**36.598**	**ug/L**	1.522	28830	0.108
	Se	77		**ug/L**		3876	-0.006
	Se	82	**9.092**	**ug/L**	0.289	630	0.002
	Kr	83		**ug/L**		136	0.000
>	Lu	175		**ug/L**		130726	130726.427
	Tl	205	**44.269**	**ug/L**	2.666	100551	0.768
	U	238	**27.658**	**ug/L**	1.165	266101	2.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		97.2			
	Ni	60					
>	Ge	74		94.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		106.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202068107
Sample Date/Time: Monday, May 17, 2010 13:12:14
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\1202068107.019

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**32.371**	**ug/L**	2.697	3919	0.006
>	Sc	45		**ug/L**		630053	630053.185
	Ni	60	**26.152**	**ug/L**	1.273	27539	0.044
>	Ge	74		**ug/L**		253547	253546.752
	As	75	**37.675**	**ug/L**	1.163	28529	0.111
	Se	77		**ug/L**		3581	-0.006
	Se	82	**9.463**	**ug/L**	4.459	630	0.002
	Kr	83		**ug/L**		125	0.000
>	Lu	175		**ug/L**		129562	129561.670
	Tl	205	**44.595**	**ug/L**	2.169	100372	0.774
	U	238	**28.522**	**ug/L**	3.922	271823	2.096

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		94.2			
	Ni	60					
>	Ge	74		90.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		105.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202068105
Sample Date/Time: Monday, May 17, 2010 13:16:23
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 964014|10|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\1202068105.020

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.194**	**ug/L**	7.947	29	0.000
>	Sc	45		**ug/L**		588723	588723.040
	Ni	60	**0.677**	**ug/L**	1.257	759	0.001
>	Ge	74		**ug/L**		248175	248174.644
	As	75	**0.418**	**ug/L**	19.781	641	0.001
	Se	77		**ug/L**		4172	-0.004
	Se	82	**-0.006**	**ug/L**	1617.375	15	-0.000
	Kr	83		**ug/L**		79	0.000
>	Lu	175		**ug/L**		120379	120378.609
	Tl	205	**0.099**	**ug/L**	13.981	377	0.002
	U	238	**0.694**	**ug/L**	1.895	6473	0.051

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		88.0			
	Ni	60					
>	Ge	74		88.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 13:20:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.021

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**67.865**	**ug/L**	2.191	7728	0.013
>	Sc	45		**ug/L**		593223	593223.152
	Ni	60	**49.872**	**ug/L**	2.485	49356	0.083
>	Ge	74		**ug/L**		251538	251538.005
	As	75	**50.025**	**ug/L**	1.413	37468	0.148
	Se	77		**ug/L**		7420	0.009
	Se	82	**50.330**	**ug/L**	0.939	3254	0.013
	Kr	83		**ug/L**		62	0.000
>	Lu	175		**ug/L**		116636	116636.415
	Tl	205	**49.531**	**ug/L**	0.952	100366	0.859
	U	238	**53.524**	**ug/L**	1.786	459161	3.934

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	135.731				
>	Sc	45		88.7			
	Ni	60	99.744				
>	Ge	74		89.6			
	As	75	100.049				
	Se	77					
	Se	82	100.661				
	Kr	83					
>	Lu	175		95.0			
	Tl	205	99.062				
	U	238	107.047				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 13:24:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.022

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.031**	**ug/L**	93.313	11	0.000
>	Sc	45		**ug/L**		598803	598802.884
	Ni	60	**0.010**	**ug/L**	62.042	107	0.000
>	Ge	74		**ug/L**		253671	253670.927
	As	75	**0.068**	**ug/L**	481.179	392	0.000
	Se	77		**ug/L**		4733	-0.002
	Se	82	**-0.137**	**ug/L**	154.970	7	-0.000
	Kr	83		**ug/L**		62	0.000
>	Lu	175		**ug/L**		114891	114891.032
	Tl	205	**0.184**	**ug/L**	5.706	529	0.003
	U	238	**0.013**	**ug/L**	16.971	426	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		89.5			
	Ni	60					
>	Ge	74		90.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		93.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 14:10:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**69.979**	**ug/L**	1.690	7687	0.013
>	Sc	45		**ug/L**		572221	572220.779
	Ni	60	**49.882**	**ug/L**	1.024	47629	0.083
>	Ge	74		**ug/L**		243990	243989.723
	As	75	**49.162**	**ug/L**	2.259	35723	0.145
	Se	77		**ug/L**		6512	0.006
	Se	82	**50.852**	**ug/L**	1.964	3189	0.013
	Kr	83		**ug/L**		57	-0.000
>	Lu	175		**ug/L**		116590	116589.683
	Tl	205	**51.254**	**ug/L**	1.223	103812	0.889
	U	238	**54.011**	**ug/L**	0.827	463142	3.970

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	139.958				
>	Sc	45		85.6			
	Ni	60	99.765				
>	Ge	74		87.0			
	As	75	98.324				
	Se	77					
	Se	82	101.704				
	Kr	83					
>	Lu	175		95.0			
	Tl	205	102.509				
	U	238	108.021				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 14:14:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.034

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.023	ug/L	128.213	9	0.000
>	Sc	45		ug/L		568627	568627.349
	Ni	60	-0.003	ug/L	170.524	89	-0.000
>	Ge	74		ug/L		245876	245875.926
	As	75	0.174	ug/L	78.715	458	0.001
	Se	77		ug/L		3848	-0.005
	Se	82	-0.025	ug/L	1003.662	14	-0.000
	Kr	83		ug/L		65	0.000
>	Lu	175		ug/L		115982	115981.826
	Tl	205	0.114	ug/L	13.313	395	0.002
	U	238	0.001	ug/L	209.526	334	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		85.0			
	Ni	60					
>	Ge	74		87.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 248865001
Sample Date/Time: Monday, May 17, 2010 14:26:51
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\248865001.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.549**	**ug/L**	3.558	298	0.000
>	Sc	45		**ug/L**		594361	594361.025
	Ni	60	**6.435**	**ug/L**	1.421	6467	0.011
>	Ge	74		**ug/L**		236371	236371.063
	As	75	**4.079**	**ug/L**	2.182	3164	0.012
	Se	77		**ug/L**		2586	-0.009
	Se	82	**0.563**	**ug/L**	22.486	49	0.000
	Kr	83		**ug/L**		126	0.000
>	Lu	175		**ug/L**		131383	131382.719
	Tl	205	**0.153**	**ug/L**	9.116	536	0.003
	U	238	**2.551**	**ug/L**	2.026	24993	0.187

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		88.9			
	Ni	60					
>	Ge	74		84.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		107.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 14:31:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 6.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**69.790**	**ug/L**	1.226	7634	0.013
>	Sc	45		**ug/L**		569787	569786.610
	Ni	60	**49.826**	**ug/L**	2.277	47370	0.083
>	Ge	74		**ug/L**		240492	240491.820
	As	75	**49.259**	**ug/L**	0.868	35284	0.145
	Se	77		**ug/L**		6393	0.006
	Se	82	**51.687**	**ug/L**	2.182	3194	0.013
	Kr	83		**ug/L**		60	0.000
>	Lu	175		**ug/L**		118767	118766.935
	Tl	205	**51.386**	**ug/L**	3.036	105992	0.891
	U	238	**53.606**	**ug/L**	2.817	468131	3.940

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	139.581				
>	Sc	45		85.2			
	Ni	60	99.652				
>	Ge	74		85.7			
	As	75	98.517				
	Se	77					
	Se	82	103.374				
	Kr	83					
>	Lu	175		96.8			
	Tl	205	102.773				
	U	238	107.212				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 14:35:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100517\QC Std 7.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.026**	**ug/L**	43.214	10	0.000
>	Sc	45		**ug/L**		569920	569919.700
	Ni	60	**-0.012**	**ug/L**	92.122	81	-0.000
>	Ge	74		**ug/L**		243591	243590.996
	As	75	**0.286**	**ug/L**	184.911	535	0.001
	Se	77		**ug/L**		3752	-0.005
	Se	82	**-0.010**	**ug/L**	1443.292	15	-0.000
	Kr	83		**ug/L**		61	0.000
>	Lu	175		**ug/L**		117315	117314.974
	Tl	205	**0.128**	**ug/L**	9.973	426	0.002
	U	238	**0.002**	**ug/L**	77.695	342	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		85.2			
	Ni	60					
>	Ge	74		86.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #7 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, May 17, 2010 11:11:51
Sample Description:
Method File: C:\elandata\Method\daily2.mth
Dataset File: C:\elandata\Dataset\default\Sample.549
Tuning File: C:\elandata\Tuning\Default.tun
Optimization File: C:\elandata\Optimize\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 80
Current Dead Time (ns): 80

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1543.6	1543.591	19.519	1.3
	Mg	24.0	21761.4	21761.438	545.643	2.5
	Co	58.9	65762.6	65762.589	597.892	0.9
	Rh	102.9	104925.5	104925.512	1227.139	1.2
	In	114.9	122602.1	122602.055	730.862	0.6
	Pb	208.0	75108.0	75108.025	602.402	0.8
⌈>	Ba	137.9	111138.0	111138.003	804.294	0.7
⌊	Ba++	69.0	1939.1	0.017	0.000	1.6
⌈>	Ce	139.9	139600.9	139600.892	795.223	0.6
⌊	CeO	155.9	2565.3	0.018	0.001	3.2
	Bkgd	220.0	11.5	11.500	1.696	14.7

Current Optimization File Data

Current Value	Description
0.95	Nebulizer Gas Flow
5.75	Lens Voltage
1000.00	ICP RF Power
-1525.00	Analog Stage Voltage
750.00	Pulse Stage Voltage
14.00	Discriminator Threshold
-3.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	33	5.0	3910.2
Co	59	33	6.0	92923.7
In	115	33	7.0	151737.9

Instrument #7 Tuning Report

File Name: 100517.tun
File Path: C:\Elandata\Tuning\100517.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	566	2064	0.691
Be	9.0	9.0	2009	2060	0.660
Mg	24.0	24.0	5687	2080	0.640
Mg	25.0	25.0	5880	2070	0.560
Mg	26.0	26.0	6184	2070	0.601
Co	58.9	58.9	14157	2040	0.680
Rh	102.9	102.9	24855	2030	0.669
In	114.9	114.9	27787	2033	0.651
Ce	139.9	140.0	33870	2020	0.666
Pb	206.0	205.9	49930	1980	0.720
Pb	207.0	207.0	50179	2000	0.690
Pb	208.0	208.1	50458	1990	0.670
U	238.1	238.1	57747	1980	0.709

ICPMS#7 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, May 17, 2010 19:14:26
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\Blank.227

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		10	
>	Sc	45		ug/L		691240	
	Ni	60		ug/L		52	
	Cu	63		ug/L		191	
	Cu	65		ug/L		94	
	Zn	66		ug/L		153	
	Zn	67		ug/L		3139	
	Zn	68		ug/L		301	
>	Ge	74		ug/L		222804	
>	Lu	175		ug/L		158670	
	Pb	208		ug/L		841	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
>	Lu	175					
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, May 17, 2010 19:16:05
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\Standard 1.228

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.000**	**ug/L**	.8.431	1453	0.002
>	Sc	45		**ug/L**		684508	684507.665
	Ni	60	**10.000**	**ug/L**	2.417	9835	0.014
	Cu	63		**ug/L**		22323	0.032
	Cu	65	**10.000**	**ug/L**	2.511	10510	0.015
	Zn	66	**10.000**	**ug/L**	1.545	5462	0.024
	Zn	67		**ug/L**		4447	0.006
	Zn	68		**ug/L**		3994	0.017
>	Ge	74		**ug/L**		221069	221068.813
>	Lu	175		**ug/L**		157682	157682.029
	Pb	208	**10.000**	**ug/L**	1.949	90870	0.571

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
>	Lu	175					
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, May 17, 2010 19:17:45
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\Standard 2.229

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.937**	**ug/L**	4.794	13428	0.020
>	Sc	45		**ug/L**		677233	677232.779
	Ni	60	**99.955**	**ug/L**	3.301	92568	0.137
	Cu	63		**ug/L**		206143	0.304
	Cu	65	**99.938**	**ug/L**	3.560	97009	0.143
	Zn	66	**99.931**	**ug/L**	3.310	49100	0.225
	Zn	67		**ug/L**		11565	0.039
	Zn	68		**ug/L**		35466	0.161
>	Ge	74		**ug/L**		218175	218174.647
>	Lu	175		**ug/L**		156335	156334.718
	Pb	208	**99.955**	**ug/L**	2.095	854741	5.464

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
>	Lu	175					
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, May 17, 2010 19:19:25
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 1.230

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.576**	**ug/L**	5.107	6874	0.010
>	Sc	45		**ug/L**		671371	671370.632
	Ni	60	**51.933**	**ug/L**	3.327	47704	0.071
	Cu	63		**ug/L**		105757	0.157
	Cu	65	**51.228**	**ug/L**	4.159	49330	0.073
	Zn	66	**49.891**	**ug/L**	3.920	24705	0.112
	Zn	67		**ug/L**		7638	0.021
	Zn	68		**ug/L**		18031	0.081
>	Ge	74		**ug/L**		219229	219229.377
>	Lu	175		**ug/L**		156772	156772.069
	Pb	208	**50.251**	**ug/L**	3.571	431153	2.747

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	103.152				
>	Sc	45			97.1		
	Ni	60	103.865				
	Cu	63					
	Cu	65	102.456				
	Zn	66	99.783				
	Zn	67					
	Zn	68					
>	Ge	74			98.4		
>	Lu	175			98.8		
	Pb	208	100.502				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, May 17, 2010 19:21:06
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 2.231

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.021**	**ug/L**	72.128	12	0.000
>	Sc	45		**ug/L**		656568	656568.194
	Ni	60	**-0.002**	**ug/L**	197.747	48	-0.000
	Cu	63		**ug/L**		183	0.000
	Cu	65	**0.005**	**ug/L**	309.126	94	0.000
	Zn	66	**0.014**	**ug/L**	337.368	152	0.000
	Zn	67		**ug/L**		3849	0.004
	Zn	68		**ug/L**		328	0.000
>	Ge	74		**ug/L**		212623	212622.975
>	Lu	175		**ug/L**		153730	153730.480
	Pb	208	**0.005**	**ug/L**	121.353	859	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		95.0			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.4			
>	Lu	175		96.9			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, May 17, 2010 19:22:47
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 3.232

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.574**	**ug/L**	11.565	88	0.000
>	Sc	45		**ug/L**		685667	685666.712
	Ni	60	**2.324**	**ug/L**	1.857	2231	0.003
	Cu	63		**ug/L**		2758	0.004
	Cu	65	**1.185**	**ug/L**	1.064	1258	0.002
	Zn	66	**11.706**	**ug/L**	2.386	6026	0.026
	Zn	67		**ug/L**		4693	0.007
	Zn	68		**ug/L**		4373	0.018
>	Ge	74		**ug/L**		223280	223279.648
>	Lu	175		**ug/L**		161644	161643.737
	Pb	208	**2.249**	**ug/L**	3.376	20723	0.123

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	114.766				
>	Sc	45			99.2		
	Ni	60	116.198				
	Cu	63					
	Cu	65	118.485				
	Zn	66	117.059				
	Zn	67					
	Zn	68					
>	Ge	74			100.2		
>	Lu	175			101.9		
	Pb	208	112.474				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, May 17, 2010 19:24:27
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 4.233

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.128**	**ug/L**	5.447	27	0.000
|>	Sc	45		**ug/L**		670009	670008.979
|	Ni	60	**2.702**	**ug/L**	1.459	2527	0.004
|	Cu	63		**ug/L**		4596	0.007
⌊	Cu	65	**2.405**	**ug/L**	2.411	2399	0.003
⌈	Zn	66	**3.700**	**ug/L**	2.251	1872	0.008
|	Zn	67		**ug/L**		4416	0.007
|	Zn	68		**ug/L**		774	0.002
⌊>	Ge	74		**ug/L**		208133	208132.660
⌈>	Lu	175		**ug/L**		154157	154156.965
⌊	Pb	208	**0.200**	**ug/L**	3.102	2498	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45			96.9		
|	Ni	60	81.636				
|	Cu	63					
⌊	Cu	65	71.991				
⌈	Zn	66	98.401				
|	Zn	67					
|	Zn	68					
⌊>	Ge	74			93.4		
⌈>	Lu	175			97.2		
⌊	Pb	208	105.582				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, May 17, 2010 19:26:07
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 5.234

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**21.608**	**ug/L**	4.538	2906	0.004
>	Sc	45		**ug/L**		675896	675895.835
	Ni	60	**21.301**	**ug/L**	1.434	19738	0.029
	Cu	63		**ug/L**		42313	0.062
	Cu	65	**20.600**	**ug/L**	2.216	20038	0.030
	Zn	66	**22.879**	**ug/L**	4.118	10940	0.051
	Zn	67		**ug/L**		5826	0.014
	Zn	68		**ug/L**		7242	0.033
>	Ge	74		**ug/L**		210185	210184.659
>	Lu	175		**ug/L**		155661	155661.073
	Pb	208	**18.782**	**ug/L**	2.603	160554	1.027

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	108.039				
>	Sc	45		97.8			
	Ni	60	91.380				
	Cu	63					
	Cu	65	88.261				
	Zn	66	96.293				
	Zn	67					
	Zn	68					
>	Ge	74		94.3			
>	Lu	175		98.1			
	Pb	208	93.030				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 19:27:48
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.235

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.790**	**ug/L**	3.513	6852	0.010
>	Sc	45		**ug/L**		679093	679093.039
	Ni	60	**50.479**	**ug/L**	1.951	46926	0.069
	Cu	63		**ug/L**		103892	0.153
	Cu	65	**49.870**	**ug/L**	3.283	48606	0.071
	Zn	66	**51.970**	**ug/L**	2.460	25579	0.117
	Zn	67		**ug/L**		7934	0.022
	Zn	68		**ug/L**		18236	0.082
>	Ge	74		**ug/L**		217839	217839.394
>	Lu	175		**ug/L**		160223	160223.155
	Pb	208	**49.787**	**ug/L**	2.261	436729	2.721

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	101.581				
>	Sc	45		98.2			
	Ni	60	100.957				
	Cu	63					
	Cu	65	99.741				
	Zn	66	103.940				
	Zn	67					
	Zn	68					
>	Ge	74		97.8			
>	Lu	175		101.0			
	Pb	208	99.573				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 19:29:30
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.236

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.001	ug/L	2819.688	10	-0.000
>	Sc	45		ug/L		675510	675509.526
	Ni	60	-0.005	ug/L	98.992	47	-0.000
	Cu	63		ug/L		175	-0.000
	Cu	65	0.019	ug/L	36.413	110	0.000
	Zn	66	0.008	ug/L	325.207	151	0.000
	Zn	67		ug/L		3903	0.004
	Zn	68		ug/L		320	0.000
>	Ge	74		ug/L		215388	215388.309
>	Lu	175		ug/L		156753	156752.748
	Pb	208	0.007	ug/L	100.884	888	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		97.7			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.7			
>	Lu	175		98.8			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Monday, May 17, 2010 19:31:10
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 10.237

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**990.110**	**ug/L**	5.366	129200	0.197
>	Sc	45		**ug/L**		657851	657851.118
	Ni	60	**919.268**	**ug/L**	2.831	826891	1.257
	Cu	63		**ug/L**		1843341	2.803
	Cu	65	**913.077**	**ug/L**	2.804	860602	1.309
	Zn	66	**2331.763**	**ug/L**	3.844	1098364	5.239
	Zn	67		**ug/L**		171876	0.806
	Zn	68		**ug/L**		773399	3.689
>	Ge	74		**ug/L**		209761	209761.447
>	Lu	175		**ug/L**		156503	156502.533
	Pb	208	**4471.484**	**ug/L**	3.113	38242113	244.421

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	99.011				
>	Sc	45			95.2		
	Ni	60	91.927				
	Cu	63					
	Cu	65	91.308				
	Zn	66	93.271				
	Zn	67					
	Zn	68					
>	Ge	74			94.1		
>	Lu	175			98.6		
	Pb	208	89.430				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Pb	208	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Monday, May 17, 2010 19:32:50
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 11.238

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**48.022**	**ug/L**	2.078	6311	0.010
|>	Sc	45		**ug/L**		661110	661109.797
|	Ni	60	**49.600**	**ug/L**	0.659	44897	0.068
|	Cu	63		**ug/L**		99396	0.150
⌊	Cu	65	**49.514**	**ug/L**	1.469	46997	0.071
⌈	Zn	66	**49.367**	**ug/L**	0.584	24084	0.111
|	Zn	67		**ug/L**		7686	0.022
|	Zn	68		**ug/L**		17468	0.080
⌊>	Ge	74		**ug/L**		215792	215792.038
⌈>	Lu	175		**ug/L**		160211	160211.147
⌊	Pb	208	**48.694**	**ug/L**	1.116	427268	2.662

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	96.044				
|>	Sc	45		95.6			
|	Ni	60	99.200				
|	Cu	63					
⌊	Cu	65	99.027				
⌈	Zn	66	98.734				
|	Zn	67					
|	Zn	68					
⌊>	Ge	74		96.9			
⌈>	Lu	175		101.0			
⌊	Pb	208	97.388				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Monday, May 17, 2010 19:34:32
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 12.239

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.040**	**ug/L**	28.062	15	0.000
|>	Sc	45		**ug/L**		652420	652419.659
|	Ni	60	**0.024**	**ug/L**	56.334	70	0.000
|	Cu	63		**ug/L**		251	0.000
⌊	Cu	65	**0.046**	**ug/L**	19.970	132	0.000
⌈	Zn	66	**0.034**	**ug/L**	90.203	162	0.000
|	Zn	67		**ug/L**		3934	0.004
|	Zn	68		**ug/L**		371	0.000
⌊>	Ge	74		**ug/L**		212069	212069.288
⌈>	Lu	175		**ug/L**		156839	156839.300
⌊	Pb	208	**0.071**	**ug/L**	22.845	1437	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		94.4			
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
⌊>	Ge	74		95.2			
⌈>	Lu	175		98.8			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 19:53:04
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.249

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.697**	**ug/L**	0.700	6451	0.009
>	Sc	45		**ug/L**		680462	680461.914
	Ni	60	**48.685**	**ug/L**	1.315	45359	0.067
	Cu	63		**ug/L**		100989	0.148
	Cu	65	**48.311**	**ug/L**	1.646	47200	0.069
	Zn	66	**50.387**	**ug/L**	1.616	24334	0.113
	Zn	67		**ug/L**		7656	0.022
	Zn	68		**ug/L**		17416	0.080
>	Ge	74		**ug/L**		213659	213658.654
>	Lu	175		**ug/L**		157614	157614.309
	Pb	208	**49.000**	**ug/L**	1.095	422995	2.678

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	95.394				
>	Sc	45		98.4			
	Ni	60	97.370				
	Cu	63					
	Cu	65	96.623				
	Zn	66	100.773				
	Zn	67					
	Zn	68					
>	Ge	74		95.9			
>	Lu	175		99.3			
	Pb	208	98.000				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 19:54:46
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.250

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.024**	**ug/L**	116.261	13	0.000
>	Sc	45		**ug/L**		660970	660970.038
	Ni	60	**0.001**	**ug/L**	844.290	51	0.000
	Cu	63		**ug/L**		205	0.000
	Cu	65	**0.011**	**ug/L**	166.081	100	0.000
	Zn	66	**0.005**	**ug/L**	273.895	148	0.000
	Zn	67		**ug/L**		4015	0.005
	Zn	68		**ug/L**		348	0.000
>	Ge	74		**ug/L**		212328	212328.433
>	Lu	175		**ug/L**		155125	155125.005
	Pb	208	**0.008**	**ug/L**	31.296	888	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		95.6			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.3			
>	Lu	175		97.8			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 20:11:30
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.260

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.743**	**ug/L**	2.459	6542	0.010
>	Sc	45		**ug/L**		675375	675375.490
	Ni	60	**48.522**	**ug/L**	1.896	44863	0.066
	Cu	63		**ug/L**		100860	0.149
	Cu	65	**48.654**	**ug/L**	2.941	47167	0.070
	Zn	66	**50.171**	**ug/L**	3.326	24536	0.113
	Zn	67		**ug/L**		7610	0.021
	Zn	68		**ug/L**		17616	0.080
>	Ge	74		**ug/L**		216416	216415.745
>	Lu	175		**ug/L**		157494	157494.336
	Pb	208	**48.125**	**ug/L**	2.186	415138	2.631

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	97.487				
>	Sc	45		97.7			
	Ni	60	97.044				
	Cu	63					
	Cu	65	97.307				
	Zn	66	100.341				
	Zn	67					
	Zn	68					
>	Ge	74		97.1			
>	Lu	175		99.3			
	Pb	208	96.250				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 20:13:12
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.261

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.009**	**ug/L**	135.331	11	0.000
>	Sc	45		**ug/L**		674877	674877.269
	Ni	60	**0.007**	**ug/L**	55.908	58	0.000
	Cu	63		**ug/L**		419	0.000
	Cu	65	**0.131**	**ug/L**	3.012	218	0.000
	Zn	66	**-0.010**	**ug/L**	192.270	141	-0.000
	Zn	67		**ug/L**		3991	0.005
	Zn	68		**ug/L**		360	0.000
>	Ge	74		**ug/L**		212925	212924.549
>	Lu	175		**ug/L**		152086	152086.309
	Pb.	208	**0.000**	**ug/L**	852.898	811	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		97.6			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.6			
>	Lu	175		95.9			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068103
Sample Date/Time: Monday, May 17, 2010 20:16:38
Sample Type: Sample
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\1202068103.262

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.046**	**ug/L**	107.716	16	0.000
|>	Sc	45		**ug/L**		668043	668043.314
|	Ni	60	**0.037**	**ug/L**	38.010	84	0.000
|	Cu	63		**ug/L**		1752	0.002
⌊	Cu	65	**0.771**	**ug/L**	3.341	829	0.001
⌈	Zn	66	**0.511**	**ug/L**	11.165	384	0.001
|	Zn	67		**ug/L**		3387	0.002
|	Zn	68		**ug/L**		482	0.001
⌊>	Ge	74		**ug/L**		209758	209758.271
⌈>	Lu	175		**ug/L**		159684	159683.976
⌊	Pb	208	**0.064**	**ug/L**	16.512	1405	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		96.6			
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
⌊>	Ge	74		94.1			
⌈>	Lu	175		100.6			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068108
Sample Date/Time: Monday, May 17, 2010 20:17:52
Sample Type: Sample
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 964014|40|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\1202068108.263

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**19.812**	**ug/L**	2.752	2747	0.004
|>	Sc	45		**ug/L**		696019	696018.942
|	Ni	60	**37.529**	**ug/L**	1.637	35779	0.051
|	Cu	63		**ug/L**		96451	0.138
⌊	Cu	65	**45.735**	**ug/L**	1.140	45713	0.066
⌈	Zn	66	**159.287**	**ug/L**	1.914	79622	0.358
|	Zn	67		**ug/L**		15528	0.056
|	Zn	68		**ug/L**		56742	0.254
⌊>	Ge	74		**ug/L**		222068	222068.494
⌈>	Lu	175		**ug/L**		160192	160191.668
⌊	Pb	208	**20.719**	**ug/L**	2.501	182198	1.133

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		100.7			
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
⌊>	Ge	74		99.7			
⌈>	Lu	175		101.0			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068104
Sample Date/Time: Monday, May 17, 2010 20:20:20
Sample Type: Sample
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\1202068104.265

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.836**	**ug/L**	9.269	134	0.000
>	Sc	45		**ug/L**		741935	741934.646
	Ni	60	**4.975**	**ug/L**	6.523	5094	0.007
	Cu	63		**ug/L**		7914	0.010
	Cu	65	**3.484**	**ug/L**	6.022	3798	0.005
	Zn	66	**22.305**	**ug/L**	4.909	11392	0.050
	Zn	67		**ug/L**		4625	0.007
	Zn	68		**ug/L**		8587	0.037
>	Ge	74		**ug/L**		224462	224462.073
>	Lu	175		**ug/L**		177302	177301.725
	Pb	208	**12.585**	**ug/L**	4.973	122794	0.688

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		107.3			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.7			
>	Lu	175		111.7			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068106
Sample Date/Time: Monday, May 17, 2010 20:21:35
Sample Type: Sample
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\1202068106.266

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**24.025**	**ug/L**	0.875	3450	0.005
>	Sc	45		**ug/L**		721369	721368.573
	Ni	60	**26.268**	**ug/L**	3.081	25964	0.036
	Cu	63		**ug/L**		57933	0.080
	Cu	65	**26.492**	**ug/L**	1.629	27481	0.038
	Zn	66	**45.878**	**ug/L**	1.529	22693	0.103
	Zn	67		**ug/L**		6383	0.015
	Zn	68		**ug/L**		17152	0.077
>	Ge	74		**ug/L**		218715	218714.678
>	Lu	175		**ug/L**		171389	171389.256
	Pb	208	**101.537**	**ug/L**	1.662	952104	5.550

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		104.4			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.2			
>	Lu	175		108.0			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068107
Sample Date/Time: Monday, May 17, 2010 20:22:49
Sample Type: Sample
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\1202068107.267

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**24.144**	**ug/L**	2.157	3512	0.005
>	Sc	45		**ug/L**		730752	730751.672
	Ni	60	**25.698**	**ug/L**	2.143	25736	0.035
	Cu	63		**ug/L**		60154	0.082
	Cu	65	**26.930**	**ug/L**	3.047	28295	0.039
	Zn	66	**43.148**	**ug/L**	2.707	21585	0.097
	Zn	67		**ug/L**		5997	0.013
	Zn	68		**ug/L**		16027	0.071
>	Ge	74		**ug/L**		221099	221098.527
>	Lu	175		**ug/L**		169714	169713.977
	Pb	208	**103.947**	**ug/L**	1.655	965086	5.682

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		105.7			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.2			
>	Lu	175		107.0			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202068105
Sample Date/Time: Monday, May 17, 2010 20:24:04
Sample Type: Sample
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 964014|10|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\1202068105.268

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.218**	**ug/L**	20.555	43	0.000
>	Sc	45		**ug/L**		741721	741720.690
	Ni	60	**0.651**	**ug/L**	2.258	717	0.001
	Cu	63		**ug/L**		1891	0.002
	Cu	65	**0.753**	**ug/L**	5.272	901	0.001
	Zn	66	**4.759**	**ug/L**	2.264	2617	0.011
	Zn	67		**ug/L**		3159	-0.000
	Zn	68		**ug/L**		2131	0.008
>	Ge	74		**ug/L**		230023	230022.683
>	Lu	175		**ug/L**		165161	165161.397
	Pb	208	**2.864**	**ug/L**	1.669	26733	0.157

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		107.3			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.2			
>	Lu	175		104.1			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 20:29:02
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.272

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.893**	**ug/L**	2.332	7040	0.010
>	Sc	45		**ug/L**		709882	709882.251
	Ni	60	**46.053**	**ug/L**	1.503	44767	0.063
	Cu	63		**ug/L**		100512	0.141
	Cu	65	**46.298**	**ug/L**	0.977	47196	0.066
	Zn	66	**47.927**	**ug/L**	2.199	24229	0.108
	Zn	67		**ug/L**		6741	0.016
	Zn	68		**ug/L**		17518	0.077
>	Ge	74		**ug/L**		223589	223589.116
>	Lu	175		**ug/L**		160628	160628.351
	Pb	208	**47.655**	**ug/L**	1.528	419243	2.605

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	99.786				
>	Sc	45		102.7			
	Ni	60	92.106				
	Cu	63					
	Cu	65	92.596				
	Zn	66	95.854				
	Zn	67					
	Zn	68					
>	Ge	74		100.4			
>	Lu	175		101.2			
	Pb	208	95.309				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 20:30:19
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.273

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.058**	**ug/L**	60.516	19	0.000
|>	Sc	45		**ug/L**		716290	716290.397
|	Ni	60	**0.029**	**ug/L**	121.155	83	0.000
|	Cu	63		**ug/L**		336	0.000
⌊	Cu	65	**0.062**	**ug/L**	62.917	162	0.000
⌈	Zn	66	**-0.015**	**ug/L**	54.991	145	-0.000
|	Zn	67		**ug/L**		3164	0.000
|	Zn	68		**ug/L**		281	-0.000
⌊>	Ge	74		**ug/L**		223004	223004.149
⌈>	Lu	175		**ug/L**		159216	159216.358
⌊	Pb	208	**0.070**	**ug/L**	60.918	1451	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		103.6			
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
⌊>	Ge	74		100.1			
⌈>	Lu	175		100.3			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 248865001
Sample Date/Time: Monday, May 17, 2010 20:42:44
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964014|2|prb
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\248865001.283

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.834**	**ug/L**	8.274	282	0.000
>	Sc	45		**ug/L**		745472	745471.609
	Ni	60	**6.091**	**ug/L**	2.864	6265	0.008
	Cu	63		**ug/L**		12321	0.016
	Cu	65	**5.349**	**ug/L**	3.955	5814	0.008
	Zn	66	**46.805**	**ug/L**	3.313	23373	0.105
	Zn	67		**ug/L**		5822	0.012
	Zn	68		**ug/L**		16827	0.075
>	Ge	74		**ug/L**		220855	220855.326
>	Lu	175		**ug/L**		177534	177533.684
	Pb	208	**10.391**	**ug/L**	0.714	101777	0.568

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		107.8			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.1			
>	Lu	175		111.9			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 17, 2010 20:43:59
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.284

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.668**	**ug/L**	6.105	7512	0.010
>	Sc	45		**ug/L**		732456	732455.819
	Ni	60	**45.013**	**ug/L**	3.065	45119	0.062
	Cu	63		**ug/L**		101239	0.138
	Cu	65	**44.916**	**ug/L**	3.846	47207	0.064
	Zn	66	**48.307**	**ug/L**	3.539	24520	0.109
	Zn	67		**ug/L**		6537	0.015
	Zn	68		**ug/L**		17649	0.077
>	Ge	74		**ug/L**		224639	224638.571
>	Lu	175		**ug/L**		165276	165276.048
	Pb	208	**48.152**	**ug/L**	3.638	435622	2.632

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	103.335				
>	Sc	45		106.0			
	Ni	60	90.026				
	Cu	63					
	Cu	65	89.833				
	Zn	66	96.613				
	Zn	67					
	Zn	68					
>	Ge	74		100.8			
>	Lu	175		104.2			
	Pb	208	96.303				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Cu	65	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 17, 2010 20:45:15
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\misc.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.285

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.043**	**ug/L**	129.443	16	0.000
>	Sc	45		**ug/L**		720366	720365.869
	Ni	60	**0.029**	**ug/L**	106.685	82	0.000
	Cu	63		**ug/L**		260	0.000
	Cu	65	**0.029**	**ug/L**	115.540	127	0.000
	Zn	66	**-0.037**	**ug/L**	81.828	133	-0.000
	Zn	67		**ug/L**		2936	-0.001
	Zn	68		**ug/L**		268	-0.000
>	Ge	74		**ug/L**		221544	221544.133
>	Lu	175		**ug/L**		161945	161944.859
	Pb	208	**0.081**	**ug/L**	50.325	1571	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		104.2			
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.4			
>	Lu	175		102.1			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\032410S1.SIF
Batch ID:
Results Data Set: 032410S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 3/16/2010 09:36:57**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/24/2010 09:24:39**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0007	0.0033	0.0007	09:25:32	Yes
2		[0.00]	0.0006	0.0026	0.0006	09:26:02	Yes
Mean:		[0.00]	0.0006				
SD:		0.00	0.0001				
%RSD:		0.00	7.96				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/24/2010 09:26:20**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0025	0.0155	0.0031	09:27:11	Yes
2		[0.2]	0.0025	0.0156	0.0031	09:27:40	Yes
Mean:		[0.2]	0.0025				
SD:		0.0	0.0000				
%RSD:		0.0	0.38				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01232 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/24/2010 09:28:00**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0064	0.0356	0.0070	09:28:51	Yes
2		[0.5]	0.0063	0.0345	0.0069	09:29:21	Yes
Mean:		[0.5]	0.0063				
SD:		0.0	0.0001				
%RSD:		0.0	1.27				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999934 Slope: 0.01265 Intercept: -0.00003

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/24/2010 09:29:40**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0258	0.1358	0.0265	09:30:31	Yes
2		[2.0]	0.0256	0.1334	0.0262	09:31:01	Yes
Mean:		[2.0]	0.0257				
SD:		0.0	0.0002				
%RSD:		0.0	0.65				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999988 Slope: 0.01288 Intercept: -0.00007

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/24/2010 09:31:21**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0621	0.3243	0.0627	09:32:13	Yes
2		[5.0]	0.0616	0.3190	0.0622	09:32:43	Yes
Mean:		[5.0]	0.0618				
SD:		0.0	0.0004				
%RSD:		0.0	0.58				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999865 Slope: 0.01238 Intercept: 0.00019

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/24/2010 09:33:03**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1178	0.6163	0.1185	09:33:54	Yes
2		[10.0]	0.1194	0.6216	0.1201	09:34:23	Yes
Mean:		[10.0]	0.1186				
SD:		0.0	0.0011				
%RSD:		0.0	0.95				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999718 Slope: 0.01189 Intercept: 0.00075

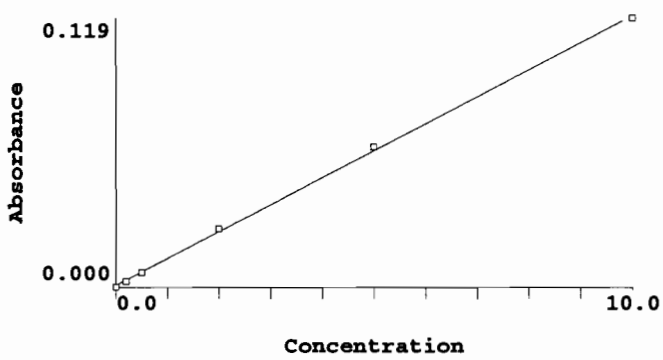

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.063	0.00	8.0
S0.2	0.0025	0.2	0.144	0.00	0.4
S0.5	0.0063	0.5	0.469	0.00	1.3
S2.0	0.0257	2.0	2.099	0.00	0.6

S5.0	0.0618	5.0	5.136	0.00	0.6
S10.0	0.1186	10.0	9.915	0.00	1.0

Correlation Coef.: 0.999718 Slope: 0.01189 Intercept: 0.00075

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/24/2010 09:34:42**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.181	5.181	0.0623	0.3260	0.0630	09:35:34	Yes
2	5.062	5.062	0.0609	0.3154	0.0616	09:36:04	Yes
Mean:	5.122	5.122	0.0616				
SD:	0.084	0.084	0.0010				
%RSD:	1.634	1.634	1.61				

QC value within limits for Hg 253.7 Recovery = 102.43%
All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/24/2010 09:36:23**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.079	-0.079	-0.0002	0.0016	0.0004	09:37:14	Yes
2	-0.077	-0.077	-0.0002	0.0018	0.0005	09:37:44	Yes
Mean:	-0.078	-0.078	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	2.384	2.384	12.14				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/24/2010 09:38:04**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.132	0.132	0.0023	0.0144	0.0030	09:38:55	Yes
2	0.126	0.126	0.0022	0.0144	0.0029	09:39:25	Yes
Mean:	0.129	0.129	0.0023				
SD:	0.005	0.005	0.0001				
%RSD:	3.623	3.623	2.44				

QC value within limits for Hg 253.7 Recovery = 64.54%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 09:39:45**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.060	5.060	0.0609	0.3200	0.0615	09:40:36	Yes
2	4.996	4.996	0.0601	0.3122	0.0608	09:41:06	Yes
Mean:	5.028	5.028	0.0605				
SD:	0.045	0.045	0.0005				
%RSD:	0.902	0.902	0.89				

QC value within limits for Hg 253.7 Recovery = 100.56%
All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 09:41:25**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.081	-0.081	-0.0002	0.0018	0.0004	09:42:15	Yes
2	-0.081	-0.081	-0.0002	0.0019	0.0004	09:42:45	Yes
Mean:	-0.081	-0.081	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.212	0.212	0.95				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202076821|967600|1 **Date Collected: 3/24/2010 09:43:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076821|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.082	-0.082	-0.0002	0.0017	0.0004	09:43:56	Yes
2	-0.085	-0.085	-0.0003	0.0016	0.0004	09:44:26	Yes
Mean:	-0.083	-0.083	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	2.755	2.755	11.15				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202076822|967600|10 **Date Collected: 3/24/2010 09:44:46**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076822|967600|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.136	3.136	0.0380	0.1988	0.0387	09:45:38	Yes
2	3.174	3.174	0.0385	0.2027	0.0391	09:46:08	Yes
Mean:	3.155	3.155	0.0383				
SD:	0.027	0.027	0.0003				
%RSD:	0.857	0.857	0.84				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 248834001|967600|1 **Date Collected: 3/24/2010 09:46:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834001|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.044	-0.044	0.0002	0.0040	0.0009	09:47:19	Yes
2	-0.050	-0.050	0.0002	0.0033	0.0008	09:47:49	Yes
Mean:	-0.047	-0.047	0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	8.317	8.317	25.32				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202076823|967600|1 **Date Collected: 3/24/2010 09:48:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076823|967600|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.062	-0.062	0.0000	0.0026	0.0007	09:48:58	Yes
2	-0.058	-0.058	0.0001	0.0030	0.0007	09:49:28	Yes
Mean:	-0.060	-0.060	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	4.586	4.586	87.83				

Sequence No.: 16 **Autosampler Location: 16**
Sample ID: 1202076824|967600|1 **Date Collected: 3/24/2010 09:49:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076824|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.035	2.035	0.0249	0.1317	0.0256	09:50:38	Yes
2	2.014	2.014	0.0247	0.1301	0.0253	09:51:08	Yes
Mean:	2.024	2.024	0.0248				
SD:	0.015	0.015	0.0002				
%RSD:	0.764	0.764	0.74				

Sequence No.: 17 **Autosampler Location: 17**
Sample ID: 1202076832|967600|1 **Date Collected: 3/24/2010 09:51:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076832|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.159	2.159	0.0264	0.1392	0.0271	09:52:17	Yes
2	2.137	2.137	0.0261	0.1372	0.0268	09:52:47	Yes
Mean:	2.148	2.148	0.0263				
SD:	0.016	0.016	0.0002				
%RSD:	0.730	0.730	0.71				

Sequence No.: 18 **Autosampler Location: 18**
Sample ID: 1202076831|967600|5 **Date Collected: 3/24/2010 09:53:06**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076831|967600|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.078	-0.078	-0.0002	0.0019	0.0005	09:53:56	Yes
2	-0.076	-0.076	-0.0002	0.0021	0.0005	09:54:26	Yes
Mean:	-0.077	-0.077	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.323	1.323	7.12				

Sequence No.: 19 **Autosampler Location: 19**
Sample ID: 248834002|967600|1 **Date Collected: 3/24/2010 09:54:45**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834002|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	10.39	10.39	0.1243	0.6528	0.1249	09:55:36	Yes
2	10.12	10.12	0.1211	0.6342	0.1218	09:56:06	Yes
Mean:	10.26	10.26	0.1227				
SD:	0.189	0.189	0.0022				
%RSD:	1.839	1.839	1.83				

Sequence No.: 20 **Autosampler Location: 20**
Sample ID: 248834003|967600|1 **Date Collected: 3/24/2010 09:56:25**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834003|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.322	0.322	0.0046	0.0264	0.0052	09:57:16	Yes
2	0.319	0.319	0.0045	0.0264	0.0052	09:57:45	Yes
Mean:	0.320	0.320	0.0046				
SD:	0.002	0.002	0.0000				
%RSD:	0.753	0.753	0.63				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 248834004|967600|1 **Date Collected: 3/24/2010 09:58:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834004|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.065	-0.065	-0.0000	0.0032	0.0006	09:58:56	Yes
2	-0.066	-0.066	-0.0000	0.0035	0.0006	09:59:26	Yes
Mean:	-0.066	-0.066	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	0.765	0.765	17.62				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 09:59:46**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.192	5.192	0.0625	0.3277	0.0631	10:00:36	Yes
2	5.091	5.091	0.0613	0.3179	0.0619	10:01:06	Yes
Mean:	5.141	5.141	0.0619				
SD:	0.072	0.072	0.0009				
%RSD:	1.399	1.399	1.38				

QC value within limits for Hg 253.7 Recovery = 102.83%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 10:01:25**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.081	-0.081	-0.0002	0.0021	0.0004	10:02:16	Yes
2	-0.082	-0.082	-0.0002	0.0023	0.0004	10:02:46	Yes
Mean:	-0.081	-0.081	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.458	0.458	2.00				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 248834005|967600|1 **Date Collected: 3/24/2010 10:03:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834005|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.910	5.910	0.0710	0.3730	0.0716	10:03:57	Yes
2	5.838	5.838	0.0702	0.3674	0.0708	10:04:27	Yes

Replicate Data: 248834010|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	17.02	17.02	0.2031	1.0792	0.2037	10:12:21	Yes
	Sample concentration is greater than that of the highest standard.						
2	17.16	17.16	0.2047	1.0826	0.2053	10:12:51	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	17.09	17.09	0.2039				
SD:	0.097	0.097	0.0012				
%RSD:	0.570	0.570	0.57				

Sample concentration is greater than that of the highest standard.

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 248834011|967600|1 **Date Collected: 3/24/2010 10:13:10**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834011|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.157	0.157	0.0026	0.0164	0.0032	10:14:00	Yes
2	0.161	0.161	0.0027	0.0166	0.0033	10:14:30	Yes
Mean:	0.159	0.159	0.0026				
SD:	0.003	0.003	0.0000				
%RSD:	1.736	1.736	1.24				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 248865001|967600|1 **Date Collected: 3/24/2010 10:14:49**
Analyst: JXL **Data Type: Original**

Replicate Data: 248865001|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.061	0.061	0.0015	0.0108	0.0021	10:15:40	Yes
2	0.067	0.067	0.0015	0.0115	0.0022	10:16:10	Yes
Mean:	0.064	0.064	0.0015				
SD:	0.005	0.005	0.0001				
%RSD:	7.100	7.100	3.59				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 1202076764|967577|1 **Date Collected: 3/24/2010 10:16:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076764|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.041	-0.041	0.0003	0.0059	0.0009	10:17:20	Yes
2	-0.035	-0.035	0.0003	0.0068	0.0010	10:17:49	Yes
Mean:	-0.038	-0.038	0.0003				
SD:	0.004	0.004	0.0000				
%RSD:	10.50	10.50	16.45				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 1202076765|967577|10 **Date Collected: 3/24/2010 10:18:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076765|967577|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.617	3.617	0.0438	0.2269	0.0444	10:19:00	Yes
2	3.532	3.532	0.0427	0.2207	0.0434	10:19:29	Yes
Mean:	3.575	3.575	0.0432				

SD:	0.060	0.060	0.0007
%RSD:	1.687	1.687	1.66

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 10:19:49**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.300	5.300	0.0638	0.3306	0.0644	10:20:39	Yes
2	5.271	5.271	0.0634	0.3268	0.0640	10:21:09	Yes
Mean:	5.286	5.286	0.0636				
SD:	0.021	0.021	0.0003				
%RSD:	0.398	0.398	0.39				

QC value within limits for Hg 253.7 Recovery = 105.71%
All analyte(s) passed QC.

==========

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 10:21:27**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.077	-0.077	-0.0002	0.0019	0.0005	10:22:19	Yes
2	-0.077	-0.077	-0.0002	0.0018	0.0005	10:22:49	Yes
Mean:	-0.077	-0.077	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.039	0.039	0.21				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 249072002|967577|1 **Date Collected: 3/24/2010 10:23:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 249072002|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.230	0.230	0.0035	0.0213	0.0041	10:23:59	Yes
2	0.239	0.239	0.0036	0.0212	0.0042	10:24:29	Yes
Mean:	0.235	0.235	0.0035				
SD:	0.006	0.006	0.0001				
%RSD:	2.731	2.731	2.16				

==========

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 249072003|967577|1 **Date Collected: 3/24/2010 10:24:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 249072003|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.306	0.306	0.0044	0.0257	0.0050	10:25:39	Yes
2	0.311	0.311	0.0044	0.0259	0.0051	10:26:09	Yes
Mean:	0.309	0.309	0.0044				
SD:	0.004	0.004	0.0000				
%RSD:	1.245	1.245	1.03				

==========

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 249072004|967577|1 **Date Collected: 3/24/2010 10:26:29**
Analyst: JXL **Data Type: Original**

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 964013.0 **Verified by:** _____
Analyst: Anthony Green
Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19
Instrument: Sartorius Balance B-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202068103 MB	13-MAR-2010 03:00:00	0.516	50	96.89922	
1202068108 LCS	13-MAR-2010 03:00:00	0.502	50	99.60159	
248860001	13-MAR-2010 03:00:00	0.522	50	95.78544	
1202068104 DUP (248860001)	13-MAR-2010 03:00:00	0.507	50	98.61933	
1202068105 SDILT (248860001)	13-MAR-2010 03:00:00	0.522	50	95.78544	
1202068106 MS (248860001)	13-MAR-2010 03:00:00	0.504	50	99.20635	
1202068107 MSD (248860001)	13-MAR-2010 03:00:00	0.514	50	97.27626	
248860002	13-MAR-2010 03:00:00	0.511	50	97.84736	
248860003	13-MAR-2010 03:00:00	0.506	50	98.81423	
248860004	13-MAR-2010 03:00:00	0.534	50	93.63296	
248860005	13-MAR-2010 03:00:00	0.51	50	98.03922	
248860006	13-MAR-2010 03:00:00	0.53	50	94.33962	
248860007	13-MAR-2010 03:00:00	0.514	50	97.27626	
248860008	13-MAR-2010 03:00:00	0.5	50	100	
248860009	13-MAR-2010 03:00:00	0.511	50	97.84736	
248863001	13-MAR-2010 03:00:00	0.5	50	100	
248863002	13-MAR-2010 03:00:00	0.552	50	90.57971	
248863003	13-MAR-2010 03:00:00	0.522	50	95.78544	
248863004	13-MAR-2010 03:00:00	0.534	50	93.63296	
248865001	13-MAR-2010 03:00:00	0.531	50	94.16196	

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202068108	Metals Soil LCS SRM ICPMS	UI062540-MS	.502	g
MS	1202068106	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MS	1202068106	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
MSD	1202068107	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MSD	1202068107	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1282566	5	mL

Comments:

Sample 248860001 consist of gray soil.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **974044.0** Verified by: _____

Analyst: Barry Audain

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202092702	Metals Soil LCS SRM ICP/Hg	UI062540-I	.509	g
MS	1202068100	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202068100	Metals Spike Mix II	UI1286774-06	.25	mL
MSD	1202068101	Metals Spike Mix I	UI1286772-01	.25	mL
MSD	1202068101	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202092701 MB	12-APR-2010 22:34:00	Soil	0.51	50	98.03922	
1202092702 LCS	12-APR-2010 22:34:00	Soil	0.509	50	98.23183	
248860001 - 2	12-APR-2010 22:34:00	Soil	0.559	50	89.44544	
1202068098 - 2 DUP (248860001)	12-APR-2010 22:34:00	Soil	0.509	50	98.23183	
1202068099 - 2 SDILT (248860001)	12-APR-2010 22:34:00	Soil	0.559	50	89.44544	
1202068100 - 2 MS (248860001)	12-APR-2010 22:34:00	Soil	0.535	50	93.45794	
1202068101 - 2 MSD (248860001)	12-APR-2010 22:34:00	Soil	0.536	50	93.28358	
248860002 - 2	12-APR-2010 22:34:00	Soil	0.513	50	97.46589	
248860003 - 2	12-APR-2010 22:34:00	Soil	0.559	50	89.44544	
248860004 - 2	12-APR-2010 22:34:00	Soil	0.527	50	94.87666	
248860005 - 2	12-APR-2010 22:34:00	Soil	0.527	50	94.87666	
248860006 - 2	12-APR-2010 22:34:00	Soil	0.52	50	96.15385	
248860007 - 2	12-APR-2010 22:34:00	Soil	0.559	50	89.44544	
248860008 - 2	12-APR-2010 22:34:00	Soil	0.514	50	97.27626	
248860009 - 2	12-APR-2010 22:34:00	Soil	0.521	50	95.96929	
248863001 - 2	12-APR-2010 22:34:00	Soil	0.535	50	93.45794	
248863002 - 2	12-APR-2010 22:34:00	Soil	0.515	50	97.08738	
248863003 - 2	12-APR-2010 22:34:00	Soil	0.533	50	93.80863	
248863004 - 2	12-APR-2010 22:34:00	Soil	0.562	50	88.96797	
248865001 - 2	12-APR-2010 22:34:00	Soil	0.522	50	95.78544	

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL

Comments:

sample#248860001 is a brown, medium soil.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **964011.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202068102	Metals Soil LCS SRM ICP/Hg	UI062540-I	.506	g
MS	1202068100	Metals Spike Mix I	UI1268741-01	.25	mL
MS	1202068100	Metals Spike Mix II	UI1268744-06	.25	mL
MSD	1202068101	Metals Spike Mix I	UI1268741-01	.25	mL
MSD	1202068101	Metals Spike Mix II	UI1268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202068097 MB	13-MAR-2010 03:00:00	Soil	0.504	50	99.20635	
1202068102 LCS	13-MAR-2010 03:00:00	Soil	0.506	50	98.81423	
248860001	13-MAR-2010 03:00:00	Soil	0.506	50	98.81423	
1202068098 DUP (248860001)	13-MAR-2010 03:00:00	Soil	0.518	50	96.5251	
1202068099 SDILT (248860001)	13-MAR-2010 03:00:00	Soil	0.509	50	98.23183	
1202068100 MS (248860001)	13-MAR-2010 03:00:00	Soil	0.504	50	99.20635	
1202068101 MSD (248860001)	13-MAR-2010 03:00:00	Soil	0.509	50	98.23183	
248860002	13-MAR-2010 03:00:00	Soil	0.503	50	99.40358	
248860003	13-MAR-2010 03:00:00	Soil	0.528	50	94.69697	
248860004	13-MAR-2010 03:00:00	Soil	0.51	50	98.03922	
248860005	13-MAR-2010 03:00:00	Soil	0.519	50	96.33911	
248860006	13-MAR-2010 03:00:00	Soil	0.514	50	97.27626	
248860007	13-MAR-2010 03:00:00	Soil	0.502	50	99.60159	
248860008	13-MAR-2010 03:00:00	Soil	0.547	50	91.40768	
248860009	13-MAR-2010 03:00:00	Soil	0.507	50	98.61933	
248863001	13-MAR-2010 03:00:00	Soil	0.508	50	98.4252	
248863002	13-MAR-2010 03:00:00	Soil	0.503	50	99.40358	
248863003	13-MAR-2010 03:00:00	Soil	0.553	50	90.41591	
248863004	13-MAR-2010 03:00:00	Soil	0.508	50	98.4252	
248865001	13-MAR-2010 03:00:00	Soil	0.525	50	95.2381	

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL

Comments:

Sample 248860001 consist of gray, soil.

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **967599.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202076822	Metals LCS Soil SRM	UI031809A	.203	g
MS	1202076824	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL
MSD	1202076832	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202076821 MB	23-MAR-2010 11:20:00	Soil	0.539	30	55.65863	
1202076822 LCS	23-MAR-2010 11:20:00	Soil	0.203	30	147.78325	
248834001	23-MAR-2010 11:20:00	Soil	0.504	30	59.52381	
1202076823 DUP (248834001)	23-MAR-2010 11:20:00	Soil	0.578	30	51.90311	
1202076824 MS (248834001)	23-MAR-2010 11:20:00	Soil	0.538	30	55.76208	
1202076832 MSD (248834001)	23-MAR-2010 11:20:00	Soil	0.51	30	58.82353	
1202076831 SDILT (248834001)	23-MAR-2010 11:20:00	Soil	0.504	30	59.52381	
248834002	23-MAR-2010 11:20:00	Soil	0.512	30	58.59375	
248834003	23-MAR-2010 11:20:00	Soil	0.522	30	57.47126	
248834004	23-MAR-2010 11:20:00	Soil	0.503	30	59.64215	
248834005	23-MAR-2010 11:20:00	Soil	0.565	30	53.09735	
248834006	23-MAR-2010 11:20:00	Soil	0.537	30	55.86592	
248834007	23-MAR-2010 11:20:00	Soil	0.591	30	50.76142	
248834008	23-MAR-2010 11:20:00	Soil	0.593	30	50.59022	
248834009	23-MAR-2010 11:20:00	Soil	0.509	30	58.9391	
248834010	23-MAR-2010 11:20:00	Soil	0.563	30	53.28597	
248834011	23-MAR-2010 11:20:00	Soil	0.574	30	52.26481	
248865001	23-MAR-2010 11:20:00	Soil	0.516	30	58.13953	

Reagent/Solvent Lot ID	Description	Amount
1255532-C	Hg reducing agent	2 mL
1274391-1	NITRIC ACID	.375 mL
1277235-A	Hydrochloric Acid Conc.	1.125 mL
1277238-C	5% KMnO4 solution	7.5 mL
WHG100323-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL
WHG100323-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL

Comments:

Sample 248834001 is a brown soil.

Digestion Start Date: 23-MAR-10 11:20

Digestion End Date: 23-MAR-10 11:50

DER Report No.: 814416
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
06-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
964012	See Below		

Potentially affected work order(s)(SDG): 248860(10-2313),248863(10-2315),248865(10-2318)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for LCS/LCSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202068100MS 2. Failed RPD for DUP: QC 1202068098DUP 3. Failed Recovery for LCS/LCSD: QC 1202068102LCS 4. Failed Recovery for MSD/PSD: QC 1202068101MSD	1./4. The matrix spike and matrix spike duplicate recovery failed outside of the control limits for aluminum,manganese,potassium and sodium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for chromium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. Silver and/or antimony did not meet the recovery acceptance criteria for the LCS. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures.

Originator's Name:

Helen Camello 09-APR-10

Data Validator/Group Leader:

Christopher Louviere 12-APR-10

DER Report No.: 816871
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
13-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
974047	See Below		

Potentially affected work order(s)(SDG): 248860(10-2313),248863(10-2315),248865(10-2318)

Application Issues:

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202068098DUP	1. The sample and sample duplicate % RPD failed outside the control limits for calcium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Christopher Louviere 13-APR-10

Data Validator/Group Leader:

Louise Smith 14-APR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Cesium	1.68 mg/kg	Chromium	236 mg/kg
Cobalt	91.2 mg/kg	Copper	174 mg/kg
Iron	18000 mg/kg	Lead	86 mg/kg
Lithium	10.6 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	755 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silver	30.1 mg/kg

Analyte	Concentration	Analyte	Concentration
Sodium	1020 mg/kg	Strontium	227 mg/kg
Thallium	121 mg/kg	Thorium	9.84 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Uranium	2.13 mg/kg	Uranium-235	.0153 mg/kg
Uranium-238	2.11 mg/kg	Vanadium	92.4 mg/kg
Zinc	594 mg/kg	Zirconium	10.6 mg/kg

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 22-APR-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	30 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	30 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	100 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	3 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	5 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL Sta **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090827-A **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 27-AUG-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090827-B **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 27-AUG-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L

Analyte	Concentration	Analyte	Concentration
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100310-49.13 **Opened:** 31-MAR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 01-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L

Analyte	Concentration	Analyte	Concentration
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100317-06 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-MAR-10 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019161
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI100317-07 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-MAR-10 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019162
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Standard Logbook

Serial ID: UI100317-08 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-MAR-10 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019163
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI100325-41 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100329-40 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008325
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L

Analyte	Concentration	Analyte	Concentration
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI100329-41 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008323
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI100329-42 **Opened:** 01-APR-10 **Amount :** 200 mL
Name: SILICON **Received:** 29-MAR-10 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 01-APR-11 **Lot Number :** 1004838
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100331-42 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 31-MAR-10 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 08-APR-11 **Lot Number :** 1019414
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100401-48 **Opened:** 02-APR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-APR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 16-APR-10 **Lot Number :** 1019463
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100405-40 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100405-41 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100407-49.3 **Opened:** 13-APR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 08-APR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 14-APR-10 **Lot Number :** 1019511
Employee: Louise Smith **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L

Analyte	Concentration	Analyte	Concentration
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100509-11 **Opened:** 09-MAY-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 09-MAY-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 09-MAY-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100515-60 **Opened:** 15-MAY-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 15-MAY-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 15-MAY-11 **Lot Number :** 1019850
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L

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Analyte	Concentration	Analyte	Concentration
Zinc	250 mg/L		

Serial ID: UI100515-61 **Opened:** 15-MAY-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 15-MAY-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 15-MAY-11 **Lot Number :** 1019850
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI1268741-01 **Opened:** 11-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1268744-06 **Opened:** 11-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI1286772-01 **Opened:** 16-MAR-10 **Lot Number :** 1019097
Name: METALSPIKE-1 **Received:** 16-MAR-10
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1286774-06 **Opened:** 16-MAR-10 **Lot Number :** 1018913
Name: METALSPIKE-2 **Received:** 16-MAR-10
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

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Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100415-03 **Opened:** 15-APR-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Standard Logbook

Serial ID: IHG100323-01 **Opened:** 23-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 23-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 24-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100323-02 **Opened:** 23-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 24-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100323-07 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100323-08 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

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Serial ID: WHG100323-09 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100323-10 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100323-11 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100323-12 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: WHG100323-14 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100331-42 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100331-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100331-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100331-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100331-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100331-43 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100331-44 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1293083
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100331-45 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100331-46 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1293083
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100331-47 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL &1%HNO3-1293083
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100413-42 **Opened:** 13-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 14-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1300128
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100413-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100413-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100413-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100413-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100413-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100413-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100413-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100413-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100413-43 **Opened:** 13-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 14-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1300128
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI100329-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI100329-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100331-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L

Standard Logbook

Serial ID: WI100413-44 **Opened:** 13-APR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 14-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1300128
Employee: Louise Smith
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI100329-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100331-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Standard Logbook

Serial ID: WI100413-45 **Opened:** 13-APR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 14-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1300128
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100413-46 **Opened:** 13-APR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 14-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1300128
Employee: Louise Smith
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100329-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI100329-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100413-47 **Opened:** 13-APR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 14-APR-10 **Solvent :** 3%HCL &1%HNO3-1300128
Employee: Louise Smith
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100517-04 **Opened:** 17-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 17-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 18-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1339608
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100517-04A **Opened:** 17-MAY-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 17-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100517-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100517-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100517-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100517-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100517-05 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 17-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100517-06 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 17-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	30 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	200 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100517-07 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 17-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 18-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1339608
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100517-08 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 17-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100517-70 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 17-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100515-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100515-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100515-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100515-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100515-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100515-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100515-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100515-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100515-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100515-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100515-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100515-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100515-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100515-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100515-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100515-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100515-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100515-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100515-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-08
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Standard Logbook

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1277235-A **Opened:** 01-MAR-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 01-MAR-11
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1282564 **Opened:** 09-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 09-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID

Comments: None

Serial ID: 1282566 **Opened:** 09-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 09-MAR-10
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1291278 **Opened:** 25-MAR-10 **Lot Number :** J 08035 L
Name: I-HNO3 **Received:** 25-MAR-10
Type: Reagent/Solvent **Expires:** 25-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1293083 **Opened:** 29-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 29-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 04-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1300128 **Opened:** 12-APR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 02-APR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 18-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1302252 **Opened:** 15-APR-10 **Lot Number :** J 10027 L
Name: I-HNO3 **Received:** 15-APR-10
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1338237 **Opened:** 13-MAY-10 **Lot Number :** J11034
Name: I-HCL **Received:** 13-MAY-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 13-MAY-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1339608 **Opened:** 17-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 17-MAY-10
Type: Reagent/Solvent **Expires:** 24-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1338237	I-HCL	36.5-38.0	80 mL	8 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2318

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	962273	**Method:**	SW9012A Cyanide and Total
Prep Batch :	962272	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
248865001	RE46-10-11924
1202064177	Method Blank (MB)
1202064178	248860009(RE46-10-13778) Sample Duplicate (DUP)
1202064179	248860009(RE46-10-13778) Matrix Spike (MS)
1202064180	248860009(RE46-10-13778) Matrix Spike Duplicate (MSD)
1202064181	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 248860009 (RE46-10-13778).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery for this sample set was within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
The following sample from this sample group was accidentally analyzed outside of the method specified holding time. See the Data Exception Report (DER) section of this narrative for more information. 248865001 (RE46-10-11924).

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202064181 (LCS).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 806199 248865001 (RE46-10-11924).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Ion Chromatography**		
Analytical Batch:	968640	**Method:**	EPA 300.0 Nitrate in Soil
Prep Batch :	968639	**Method:**	EPA 300.0 PREP

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
248865001	RE46-10-11924
1202079398	Method Blank (MB)
1202079399	248814001(RE46-10-13553) Sample Duplicate (DUP)
1202079400	248865001(RE46-10-11924) Sample Duplicate (DUP)
1202079401	248814001(RE46-10-13553) Matrix Spike (MS)
1202079402	248865001(RE46-10-11924) Matrix Spike (MS)
1202079403	248814001(RE46-10-13553) Matrix Spike Duplicate (MSD)
1202079404	248865001(RE46-10-11924) Matrix Spike Duplicate (MSD)
1202079405	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 248814001 (RE46-10-13553) and 248865001 (RE46-10-11924).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the established acceptance limits due to matrix interference: 1202079401 (RE46-10-13553).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the established acceptance limits due to matrix interference: 1202079403 (RE46-10-13553).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 811593 1202079401 (RE46-10-13553) and 1202079403 (RE46-10-13553).

Manual Integrations
Manual integrations were not required for the samples in this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer:_____ **Date:** 04/01/10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2318 GEL Work Order: 248865

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2318

Client Sample ID:	RE46-10-11924	Project:	LANL01004
Sample ID:	248865001	Client ID:	LANL010
Matrix:	S		
Collect Date:	03-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	17.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	HUh	ND	72.0	265	ug/kg	1	AXC2	03/18/10	1334	962273	1
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N		1.55	0.362	1.21	mg/kg	1	VH1	03/30/10	0251	968640	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1216	962272

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 300.0	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: April 1, 2010

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 248865

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis											
Batch 962273											
QC1202064178 248860009 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			AXC2	03/18/10 13:32
QC1202064181 LCS											
Cyanide, Total	67900				60500	ug/kg		89.1	(32%-157%)		03/18/10 13:19
QC1202064177 MB											
Cyanide, Total				U	250	ug/kg					03/18/10 13:18
QC1202064179 248860009 MS											
Cyanide, Total	5620	U	ND		5780	ug/kg		103	(26%-158%)		03/18/10 13:33
QC1202064180 248860009 MSD											
Cyanide, Total	5420	U	ND		5910	ug/kg	2.09	109	(0%-30%)		03/18/10 13:33
Ion Chromatography											
Batch 968640											
QC1202079399 248814001 DUP											
Nitrate-N		U	ND	U	ND	mg/kg	N/A			VH1	03/29/10 20:07
QC1202079400 248865001 DUP											
Nitrate-N			1.55		1.64	mg/kg	5.23 ^		(+/-1.21)		03/30/10 03:18
QC1202079405 LCS											
Nitrate-N	50.0				49.0	mg/kg		98	(90%-110%)		03/29/10 19:13
QC1202079398 MB											
Nitrate-N				U	1.00	mg/kg					03/29/10 18:47
QC1202079401 248814001 MS											
Nitrate-N	58.1	U	ND		43.7	mg/kg		75.3 *	(90%-110%)		03/29/10 20:34
QC1202079402 248865001 MS											
Nitrate-N	60.4		1.55		56.8	mg/kg		91.6	(90%-110%)		03/30/10 03:45
QC1202079403 248814001 MSD											
Nitrate-N	58.1	U	ND		43.5	mg/kg	0.562	74.9 *	(0%-20%)		03/29/10 21:01
QC1202079404 248865001 MSD											
Nitrate-N	60.4		1.55		56.9	mg/kg	0.0446	91.6	(0%-20%)		03/30/10 04:11

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

QC Summary

Workorder: 248865

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
JNX	Non Calibrated Compound
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-APR-2010 15:10

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-2318**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**18-MAR-2010 11:05:53**	**OM_3-18-2010_10-55-24**	**156**	**150**	**104**	**(90%-110%)**	**Yes**
CCV	18-MAR-2010 13:15:12	OM_3-18-2010_13-11-52	105	100	105	(90%-110%)	Yes
CCV	18-MAR-2010 13:27:39	OM_3-18-2010_13-11-52	103	100	103	(90%-110%)	Yes
CCV	18-MAR-2010 13:35:37	OM_3-18-2010_13-11-52	105	100	105	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**18-MAR-2010 11:07:43**	**OM_3-18-2010_10-55-24**	**-1.39**	**10**	**Yes**
CCB	18-MAR-2010 13:17:02	OM_3-18-2010_13-11-52	-1.63	10	Yes
CCB	18-MAR-2010 13:29:29	OM_3-18-2010_13-11-52	-1.75	10	Yes
CCB	18-MAR-2010 13:37:28	OM_3-18-2010_13-11-52	-2.08	10	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-APR-2010 15:10

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2318

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Nitrate-N

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**29-MAR-2010 17:53:00**	**100329**	**4.9061**	**5**	**98.1**	**(90%-110%)**	**Yes**
CCV	29-MAR-2010 23:15:00	100329	7.6315	7.5	102	(90%-110%)	Yes
CCV	30-MAR-2010 04:38:00	100329	4.9119	5	98.2	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**29-MAR-2010 18:20:00**	**100329**	**0**	**0.1**	**Yes**
CCB	29-MAR-2010 23:42:00	100329	0	0.1	Yes
CCB	30-MAR-2010 05:05:00	100329	0	0.1	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **962272.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064181	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202064179	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064180	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202064177 MB	18-MAR-2010 12:16:00	Soil	0.5	25	50	>12
1202064181 LCS	18-MAR-2010 12:16:00	Soil	0.25	25	100	>12
248860001	18-MAR-2010 12:16:00	Soil	0.53	25	47.16981	>12
248860002	18-MAR-2010 12:16:00	Soil	0.54	25	46.2963	>12
248860003	18-MAR-2010 12:16:00	Soil	0.55	25	45.45455	>12
248860004	18-MAR-2010 12:16:00	Soil	0.54	25	46.2963	>12
248860005	18-MAR-2010 12:16:00	Soil	0.5	25	50	>12
248860006	18-MAR-2010 12:16:00	Soil	0.51	25	49.01961	>12
248860007	18-MAR-2010 12:16:00	Soil	0.57	25	43.85965	>12
248860008	18-MAR-2010 12:16:00	Soil	0.54	25	46.2963	>12
248860009	18-MAR-2010 12:16:00	Soil	0.52	25	48.07692	>12
1202064178 DUP (248860009)	18-MAR-2010 12:16:00	Soil	0.57	25	43.85965	>12
1202064179 MS (248860009)	18-MAR-2010 12:16:00	Soil	0.55	25	45.45455	>12
1202064180 MSD (248860009)	18-MAR-2010 12:16:00	Soil	0.57	25	43.85965	>12
248865001	18-MAR-2010 12:16:00	Soil	0.57	25	43.85965	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100318-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/18/2010 10:58:44	OM_3-18-2010_10-55-24
150 ppb		1	axc2	3/18/2010 10:59:36	OM_3-18-2010_10-55-24
100 ppb		1	axc2	3/18/2010 11:00:28	OM_3-18-2010_10-55-24
50 ppb		1	axc2	3/18/2010 11:01:21	OM_3-18-2010_10-55-24
10 ppb		1	axc2	3/18/2010 11:02:14	OM_3-18-2010_10-55-24
CRDL 5.0 ppb		1	axc2	3/18/2010 11:03:08	OM_3-18-2010_10-55-24
ICAL-00		1	axc2	3/18/2010 11:04:02	OM_3-18-2010_10-55-24
ICV		1	axc2	3/18/2010 11:05:53	OM_3-18-2010_10-55-24
ICB		1	axc2	3/18/2010 11:07:43	OM_3-18-2010_10-55-24
CRDL		1	axc2	3/18/2010 11:09:33	OM_3-18-2010_10-55-24
1202068594	964227	1	axc2	3/18/2010 11:11:22	OM_3-18-2010_10-55-24
1202068598	964227	25	axc2	3/18/2010 11:12:16	OM_3-18-2010_10-55-24
249060002	964227	1	axc2	3/18/2010 11:13:09	OM_3-18-2010_10-55-24
1202068595	964227	1	axc2	3/18/2010 11:14:02	OM_3-18-2010_10-55-24
1202068596	964227	1	axc2	3/18/2010 11:14:55	OM_3-18-2010_10-55-24
1202068597	964227	1	axc2	3/18/2010 11:15:48	OM_3-18-2010_10-55-24
249064003	964227	1	axc2	3/18/2010 11:16:40	OM_3-18-2010_10-55-24
249064004	964227	1	axc2	3/18/2010 11:17:33	OM_3-18-2010_10-55-24
249064005	964227	1	axc2	3/18/2010 11:18:25	OM_3-18-2010_10-55-24
249102002	964227	1	axc2	3/18/2010 11:19:17	OM_3-18-2010_10-55-24
CCV		1	axc2	3/18/2010 11:20:10	OM_3-18-2010_10-55-24
CCB		1	axc2	3/18/2010 11:22:00	OM_3-18-2010_10-55-24
249102003	964227	1	axc2	3/18/2010 11:23:49	OM_3-18-2010_10-55-24
249102004	964227	1	axc2	3/18/2010 11:24:41	OM_3-18-2010_10-55-24
249102005	964227	1	axc2	3/18/2010 11:25:32	OM_3-18-2010_10-55-24
249102006	964227	1	axc2	3/18/2010 11:26:24	OM_3-18-2010_10-55-24
249106003	964227	1	axc2	3/18/2010 11:27:16	OM_3-18-2010_10-55-24
1202070655	965130	1	axc2	3/18/2010 11:28:09	OM_3-18-2010_10-55-24
1202070668	965130	1	axc2	3/18/2010 11:29:03	OM_3-18-2010_10-55-24
248736002	965130	1	axc2	3/18/2010 11:29:56	OM_3-18-2010_10-55-24
248990008	965130	1	axc2	3/18/2010 11:30:49	OM_3-18-2010_10-55-24
1202070656	965130	1	axc2	3/18/2010 11:31:43	OM_3-18-2010_10-55-24
CCV		1	axc2	3/18/2010 11:32:35	OM_3-18-2010_10-55-24
CCB		1	axc2	3/18/2010 11:34:25	OM_3-18-2010_10-55-24
1202070660	965130	1	axc2	3/18/2010 11:36:14	OM_3-18-2010_10-55-24
1202070664	965130	1	axc2	3/18/2010 11:37:07	OM_3-18-2010_10-55-24
248990020	965130	1	axc2	3/18/2010 11:38:00	OM_3-18-2010_10-55-24
248990033	965130	1	axc2	3/18/2010 11:38:52	OM_3-18-2010_10-55-24
248990047	965130	1	axc2	3/18/2010 11:39:45	OM_3-18-2010_10-55-24
248990060	965130	1	axc2	3/18/2010 11:40:37	OM_3-18-2010_10-55-24
248990072	965130	1	axc2	3/18/2010 11:41:29	OM_3-18-2010_10-55-24
248990083	965130	1	axc2	3/18/2010 11:42:21	OM_3-18-2010_10-55-24
249202001	965130	1	axc2	3/18/2010 11:43:13	OM_3-18-2010_10-55-24
249210001	965130	1	axc2	3/18/2010 11:44:05	OM_3-18-2010_10-55-24
CCV		1	axc2	3/18/2010 11:44:57	OM_3-18-2010_10-55-24
CCB		1	axc2	3/18/2010 11:46:47	OM_3-18-2010_10-55-24
1202070659	965130	1	axc2	3/18/2010 11:48:38	OM_3-18-2010_10-55-24
1202070663	965130	1	axc2	3/18/2010 11:49:31	OM_3-18-2010_10-55-24
1202070667	965130	1	axc2	3/18/2010 11:50:25	OM_3-18-2010_10-55-24
249210002	965130	1	axc2	3/18/2010 11:51:18	OM_3-18-2010_10-55-24
249210003	965130	1	axc2	3/18/2010 11:52:11	OM_3-18-2010_10-55-24
249210004	965130	1	axc2	3/18/2010 11:53:05	OM_3-18-2010_10-55-24
249210005	965130	1	axc2	3/18/2010 11:53:58	OM_3-18-2010_10-55-24
249210006	965130	1	axc2	3/18/2010 11:54:50	OM_3-18-2010_10-55-24
249250002	965130	1	axc2	3/18/2010 11:55:43	OM_3-18-2010_10-55-24
1202070657	965130	1	axc2	3/18/2010 11:56:36	OM_3-18-2010_10-55-24
CCV		1	axc2	3/18/2010 11:57:28	OM_3-18-2010_10-55-24
CCB		1	axc2	3/18/2010 11:59:18	OM_3-18-2010_10-55-24

1202070661	965130	1	axc2	3/18/2010	12:01:06	OM_3-18-2010_10-55-24
1202070665	965130	1	axc2	3/18/2010	12:01:59	OM_3-18-2010_10-55-24
249269001	965130	1	axc2	3/18/2010	12:02:51	OM_3-18-2010_10-55-24
249275003	965130	1	axc2	3/18/2010	12:03:43	OM_3-18-2010_10-55-24
1202070658	965130	1	axc2	3/18/2010	12:04:35	OM_3-18-2010_10-55-24
1202070662	965130	1	axc2	3/18/2010	12:05:29	OM_3-18-2010_10-55-24
1202070666	965130	1	axc2	3/18/2010	12:06:23	OM_3-18-2010_10-55-24
249326001	965130	1	axc2	3/18/2010	12:07:17	OM_3-18-2010_10-55-24
249326002	965130	1	axc2	3/18/2010	12:08:11	OM_3-18-2010_10-55-24
1202073347	966119	1	axc2	3/18/2010	12:09:04	OM_3-18-2010_10-55-24
CCV		1	axc2	3/18/2010	12:09:57	OM_3-18-2010_10-55-24
CCB		1	axc2	3/18/2010	12:11:46	OM_3-18-2010_10-55-24
1202073348	966119	25	axc2	3/18/2010	12:13:36	OM_3-18-2010_10-55-24
1202073349	966119	25	axc2	3/18/2010	12:14:28	OM_3-18-2010_10-55-24
249265001	966119	1	axc2	3/18/2010	12:15:22	OM_3-18-2010_10-55-24
249268001	966119	1	axc2	3/18/2010	12:16:14	OM_3-18-2010_10-55-24
1202068602	964230	1	axc2	3/18/2010	12:17:08	OM_3-18-2010_10-55-24
1202068607	964230	1	axc2	3/18/2010	12:18:00	OM_3-18-2010_10-55-24
1202068606	964230	1	axc2	3/18/2010	12:18:53	OM_3-18-2010_10-55-24
249066001	964230	1	axc2	3/18/2010	12:19:45	OM_3-18-2010_10-55-24
1202068603	964230	1	axc2	3/18/2010	12:20:37	OM_3-18-2010_10-55-24
1202068604	964230	1	axc2	3/18/2010	12:21:29	OM_3-18-2010_10-55-24
CCV		1	axc2	3/18/2010	12:22:22	OM_3-18-2010_10-55-24
CCB		1	axc2	3/18/2010	12:24:12	OM_3-18-2010_10-55-24
1202068605	964230	1	axc2	3/18/2010	12:26:02	OM_3-18-2010_10-55-24
249070001	964230	1	axc2	3/18/2010	12:26:57	OM_3-18-2010_10-55-24
1202068623	964235	1	axc2	3/18/2010	12:27:51	OM_3-18-2010_10-55-24
1202068626	964235	1	axc2	3/18/2010	12:28:45	OM_3-18-2010_10-55-24
1202068625	964235	1	axc2	3/18/2010	12:29:38	OM_3-18-2010_10-55-24
249066001	964235	1	axc2	3/18/2010	12:30:31	OM_3-18-2010_10-55-24
249070001	964235	1	axc2	3/18/2010	12:31:25	OM_3-18-2010_10-55-24
1202068624	964235	1	axc2	3/18/2010	12:32:18	OM_3-18-2010_10-55-24
1202073341	966115	1	axc2	3/18/2010	12:33:12	OM_3-18-2010_10-55-24
1202073342	966115	1	axc2	3/18/2010	12:34:04	OM_3-18-2010_10-55-24
CCV		1	axc2	3/18/2010	12:34:57	OM_3-18-2010_10-55-24
CCB		1	axc2	3/18/2010	12:36:47	OM_3-18-2010_10-55-24
1202073343	966115	1	axc2	3/18/2010	12:38:36	OM_3-18-2010_10-55-24
249265001	966115	1	axc2	3/18/2010	12:39:29	OM_3-18-2010_10-55-24
249268001	966115	1	axc2	3/18/2010	12:40:22	OM_3-18-2010_10-55-24
1202073367	966127	1	axc2	3/18/2010	12:41:14	OM_3-18-2010_10-55-24
1202073369	966127	250	axc2	3/18/2010	12:42:06	OM_3-18-2010_10-55-24
249013001	966127	1	axc2	3/18/2010	12:43:00	OM_3-18-2010_10-55-24
1202073368	966127	1	axc2	3/18/2010	12:43:55	OM_3-18-2010_10-55-24
249326001	965130	5	axc2	3/18/2010	12:44:48	OM_3-18-2010_10-55-24
249326002	965130	5	axc2	3/18/2010	12:45:41	OM_3-18-2010_10-55-24
1202073369	966127	500	axc2	3/18/2010	12:46:34	OM_3-18-2010_10-55-24
CCV		1	axc2	3/18/2010	12:47:26	OM_3-18-2010_10-55-24
CCB		1	axc2	3/18/2010	12:49:17	OM_3-18-2010_10-55-24

Author: axc2 Date : 3/23/2010

Original Run Filename: OM_3-18-2010_10-55-24.OMN created 3/18/2010 10:55:24
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-18-2010_10-55-24.OMN last modified 3/18/2010 12:50:22
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100318-01	1	S1	200	10.2	3/18/2010@10:58:44			200 ppb
WCN100318-02	1	S2	150	7.77	3/18/2010@10:59:36			150 ppb
WCN100318-03	1	S3	100	5.00	3/18/2010@11:00:28			100 ppb
WCN100318-04	1	S4	50.0	2.78	3/18/2010@11:01:21			50 ppb
WCN100318-05	1	S5	10.0	0.648	3/18/2010@11:02:14			10 ppb
WCN100318-06	1	S6	5.00	0.370	3/18/2010@11:03:08			CRDL 5.0 ppb
WCN100318-08	1	S7	0.00	0.0253	3/18/2010@11:04:02			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99967 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100318-07	1	S8	156	7.99	3/18/2010@11:05:53			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	3.9 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.9 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100318-08	1	S7	-1.39	0.0356	3/18/2010@11:07:43			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.39 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.39 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100318-06	1	S6	5.67	0.393	3/18/2010@11:09:33			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.67 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.67 > 2.50					
		Message	Pass					
		Action	None					
1202068594|964227|MB	1	1	-2.10	0.00	3/18/2010@11:11:22			
1202068598||LCS	1	2	25.3	1.39	3/18/2010@11:12:16		25.00	
249060002	1	3	-0.961	0.0574	3/18/2010@11:13:09			
1202068595||DUP	1	4	-1.06	0.0522	3/18/2010@11:14:02			
1202068596||MS	1	5	103	5.31	3/18/2010@11:14:55			
1202068597||MSD	1	6	98.4	5.09	3/18/2010@11:15:48			
249064003	1	7	-1.27	0.0418	3/18/2010@11:16:40			
249064004	1	8	-0.582	0.0766	3/18/2010@11:17:33			
249064005	1	9	-1.44	0.0331	3/18/2010@11:18:25			
249102002	1	10	-1.72	0.0189	3/18/2010@11:19:17			
WCN100318-03	1	S3	103	5.34	3/18/2010@11:20:10			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.4 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100318-08	1	S7	-1.43	0.0337	3/18/2010@11:22:00			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.43 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.43 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249102003	1	11	-1.48	0.0311	3/18/2010@11:23:49			
249102004	1	12	-1.26	0.0422	3/18/2010@11:24:41			
249102005	1	13	4.25	0.321	3/18/2010@11:25:32			
249102006	1	14	-1.46	0.0320	3/18/2010@11:26:24			
249106003	1	15	6.39	0.429	3/18/2010@11:27:16			
1202070655|965130|MB	1	16	-1.36	0.0371	3/18/2010@11:28:09			
1202070668||LCS	1	17	50.5	2.66	3/18/2010@11:29:03			
248736002	1	18	-0.0761	0.102	3/18/2010@11:29:56			
248990008	1	19	-1.28	0.0412	3/18/2010@11:30:49			
1202070656||DUP	1	20	-1.60	0.0252	3/18/2010@11:31:43			
WCN100318-03	1	S3	104	5.35	3/18/2010@11:32:35			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100318-08	1	S7	-1.80	0.0151	3/18/2010@11:34:25			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.80 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.80 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202070660||MS	1	21	106	5.47	3/18/2010@11:36:14			
1202070664||MSD	1	22	109	5.62	3/18/2010@11:37:07			
248990020	1	23	-2.09	4.51e-4	3/18/2010@11:38:00			
248990033	1	24	-1.50	0.0301	3/18/2010@11:38:52			
248990047	1	25	-2.09	1.42e-4	3/18/2010@11:39:45			
248990060	1	26	-1.61	0.0246	3/18/2010@11:40:37			
248990072	1	27	-2.03	0.00359	3/18/2010@11:41:29			
248990083	1	28	-2.09	9.52e-5	3/18/2010@11:42:21			
249202001	1	29	0.126	0.112	3/18/2010@11:43:13			
249210001	1	30	-1.99	0.00528	3/18/2010@11:44:05			
WCN100318-03	1	S3	104	5.37	3/18/2010@11:44:57			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100318-08	1	S7	-2.09	1.38e-4	3/18/2010@11:46:47			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-2.09 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.09 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202070659||DUP	1	31	-2.09	1.99e-4	3/18/2010@11:48:38			
1202070663||MS	1	32	80.6	4.19	3/18/2010@11:49:31			
1202070667||MSD	1	33	93.0	4.81	3/18/2010@11:50:25			
249210002	1	34	-1.96	0.00690	3/18/2010@11:51:18			
249210003	1	35	-2.09	2.61e-4	3/18/2010@11:52:11			
249210004	1	36	-1.94	0.00789	3/18/2010@11:53:05			
249210005	1	37	-2.05	0.00246	3/18/2010@11:53:58			
249210006	1	38	-1.99	0.00531	3/18/2010@11:54:50			
249250002	1	39	-1.95	0.00750	3/18/2010@11:55:43			
1202070657||DUP	1	40	-2.10	0.00	3/18/2010@11:56:36			
WCN100318-03	1	S3	104	5.39	3/18/2010@11:57:28			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100318-08	1	S7	-1.60	0.0253	3/18/2010@11:59:18			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.60 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.60 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202070661||MS	1	41	91.7	4.75	3/18/2010@12:01:06			
1202070665||MSD	1	42	106	5.45	3/18/2010@12:01:59			
249269001	1	43	-1.04	0.0532	3/18/2010@12:02:51			
249275003	1	44	-1.95	0.00731	3/18/2010@12:03:43			
1202070658||DUP	1	45	-1.69	0.0206	3/18/2010@12:04:35			
1202070662||MS	1	46	112	5.80	3/18/2010@12:05:29			
1202070666||MSD	1	47	111	5.70	3/18/2010@12:06:23			
249326001	1	48	235	12.0	3/18/2010@12:07:17			
249326002	1	49	234	11.9	3/18/2010@12:08:11			
1202073347|966119|MB	1	50	-1.55	0.0276	3/18/2010@12:09:04			
WCN100318-03	1	S3	105	5.41	3/18/2010@12:09:57			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100318-08	1	S7	-1.70	0.0198	3/18/2010@12:11:46			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.70 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.70 > -5.00					
		Message	CCB Passed					
		Action	Continue					

1202073348||LCS	1	51	29.7	1.61	3/18/2010@12:13:36		25.00	
1202073349||LCSD	1	52	29.1	1.58	3/18/2010@12:14:28		25.00	
249265001	1	53	33.0	1.78	3/18/2010@12:15:22			
249268001	1	54	-0.645	0.0734	3/18/2010@12:16:14			
1202068602|964230|MB	1	55	-2.09	2.18e-4	3/18/2010@12:17:08			
1202068607||TB	1	56	-2.09	2.63e-4	3/18/2010@12:18:00			
1202068606||LCS	1	57	27.2	1.48	3/18/2010@12:18:53		25.00	
249066001	1	58	65.4	3.42	3/18/2010@12:19:45			
1202068603||DUP	1	59	38.7	2.06	3/18/2010@12:20:37			
1202068604||MS	1	60	174	8.93	3/18/2010@12:21:29			
WCN100318-03	1	S3	106	5.45	3/18/2010@12:22:22			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	5.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100318-08	1	S7	-1.61	0.0247	3/18/2010@12:24:12			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.61 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.61 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202068605||MSD	1	61	163	8.37	3/18/2010@12:26:02			
249070001	1	62	82.9	4.30	3/18/2010@12:26:57			
1202068623|964235|MB	1	63	-1.32	0.0391	3/18/2010@12:27:51			
1202068626||TB	1	64	-2.42	-0.0162	3/18/2010@12:28:45			
1202068625||LCS	1	65	-1.70	0.0202	3/18/2010@12:29:38			
249066001	1	66	66.8	3.48	3/18/2010@12:30:31			
249070001	1	67	-1.49	0.0309	3/18/2010@12:31:25			
1202068624||DUP	1	68	69.4	3.62	3/18/2010@12:32:18			
1202073341|966115|MB	1	69	-1.49	0.0305	3/18/2010@12:33:12			
1202073342||LCS	1	70	-1.93	0.00838	3/18/2010@12:34:04			
WCN100318-03	1	S3	106	5.45	3/18/2010@12:34:57			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	5.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100318-08	1	S7	-1.56	0.0272	3/18/2010@12:36:47			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.56 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.56 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202073343||LCSD	1	71	-2.09	1.04e-4	3/18/2010@12:38:36			
249265001	1	72	74.9	3.90	3/18/2010@12:39:29			
249268001	1	73	0.916	0.152	3/18/2010@12:40:22			
1202073367|966127|MB	1	74	35.2	1.89	3/18/2010@12:41:14			
1202073369||LCS	1	75	206	10.5	3/18/2010@12:42:06		250.00	
249013001	1	76	-1.37	0.0368	3/18/2010@12:43:00			
1202073368||DUP	1	77	1.05	0.159	3/18/2010@12:43:55			
249326001|965130|	1	48	46.1	2.44	3/18/2010@12:44:48		5.00	

249326002	1	49	37.0	1.98	3/18/2010@12:45:41		5.00	
1202073369|966127|LCS	1	75	73.3	3.81	3/18/2010@12:46:34		500.00	
WCN100318-03	1	S3	106	5.46	3/18/2010@12:47:26			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100318-08	1	S7	-1.55	0.0275	3/18/2010@12:49:17			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.55 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.55 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_3-18-2010_10-55-24.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 3/23/2010

Channel 1: Current View

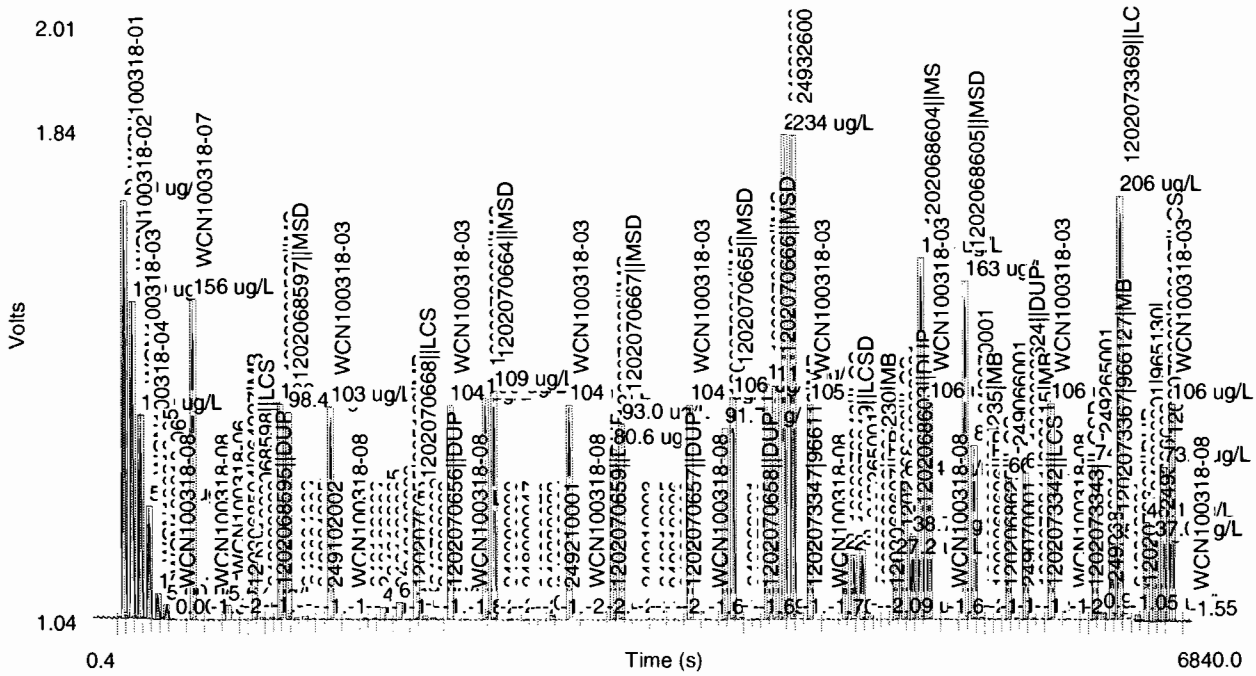
2.01
1.84
1.04
Volts
0.4
Time (s)
6840.0
2234 ug/L
206 ug/L
156 ug/L
163 ug/L
109 ug/L
103 ug/L
106 ug/L
WCN100318-07
WCN100318-03
WCN100318-08
WCN100318-02
WCN100318-04
WCN100318-05
WCN100318-01
1202068597||MSD
1202068596||DUP
1202068598||LCS
1202070668||LCS
1202070656||DUP
1202070664||MSD
1202070667||MSD
1202070657||DUP
1202070658||DUP
1202070665||MSD
1202070666||MSD
1202068604||MS
1202068605||MSD
1202073369||LC
1202073342||LCS
1202073347||LCSD
1202073367||MB
1202066127||MB
1202066603||DUP
1202066604||DUP
1202066605||DUP
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1202066634||DUP
1202066635||DUP
1202066636||DUP
1202066637||DUP
1202066638||DUP
1202066639||DUP
1202066640||DUP
1202066641||DUP
1202066642||DUP

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	3/18/2010 13:15:12	OM_3-18-2010_13-11-52
CCB		1	axc2	3/18/2010 13:17:02	OM_3-18-2010_13-11-52
1202064177	962273	1	axc2	3/18/2010 13:18:52	OM_3-18-2010_13-11-52
1202064181	962273	25	axc2	3/18/2010 13:19:45	OM_3-18-2010_13-11-52
248860001	962273	1	axc2	3/18/2010 13:20:38	OM_3-18-2010_13-11-52
248860002	962273	1	axc2	3/18/2010 13:21:31	OM_3-18-2010_13-11-52
248860003	962273	1	axc2	3/18/2010 13:22:24	OM_3-18-2010_13-11-52
248860004	962273	1	axc2	3/18/2010 13:23:17	OM_3-18-2010_13-11-52
248860005	962273	1	axc2	3/18/2010 13:24:09	OM_3-18-2010_13-11-52
248860006	962273	1	axc2	3/18/2010 13:25:02	OM_3-18-2010_13-11-52
248860007	962273	1	axc2	3/18/2010 13:25:54	OM_3-18-2010_13-11-52
248860008	962273	1	axc2	3/18/2010 13:26:47	OM_3-18-2010_13-11-52
CCV		1	axc2	3/18/2010 13:27:39	OM_3-18-2010_13-11-52
CCB		1	axc2	3/18/2010 13:29:29	OM_3-18-2010_13-11-52
248860009	962273	1	axc2	3/18/2010 13:31:18	OM_3-18-2010_13-11-52
1202064178	962273	1	axc2	3/18/2010 13:32:10	OM_3-18-2010_13-11-52
1202064179	962273	1	axc2	3/18/2010 13:33:02	OM_3-18-2010_13-11-52
1202064180	962273	1	axc2	3/18/2010 13:33:53	OM_3-18-2010_13-11-52
248865001	962273	1	axc2	3/18/2010 13:34:45	OM_3-18-2010_13-11-52
CCV		1	axc2	3/18/2010 13:35:37	OM_3-18-2010_13-11-52
CCB		1	axc2	3/18/2010 13:37:28	OM_3-18-2010_13-11-52

Author: axc2 Date : 3/18/2010

Original Run Filename: OM_3-18-2010_13-11-52.OMN created 3/18/2010 13:11:52
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-18-2010_13-11-52.OMN last modified 3/18/2010 13:38:33
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100318-03	1	S3	105	5.40	3/18/2010@13:15:12			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		4.7 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		4.7 < 10.0					
	Message		CCV Passed					
	Action		Continue					
	Calibration:		Table/Fig. 1					
WCN100318-08	1	S7	-1.63	0.0235	3/18/2010@13:17:02			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.63 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.63 > -5.00					
	Message		CCB Passed					
	Action		Continue					
1202064177|962273|MB	1	1	-1.98	0.00583	3/18/2010@13:18:52			
1202064181||LCS	1	2	24.2	1.33	3/18/2010@13:19:45		25.00	
248860001	1	3	-1.64	0.0232	3/18/2010@13:20:38			
248860002	1	4	-1.55	0.0275	3/18/2010@13:21:31			
248860003	1	5	-2.09	1.33e-4	3/18/2010@13:22:24			
248860004	1	6	-1.80	0.0149	3/18/2010@13:23:17			
248860005	1	7	-1.56	0.0272	3/18/2010@13:24:09			
248860006	1	8	-1.43	0.0336	3/18/2010@13:25:02			
248860007	1	9	-1.12	0.0496	3/18/2010@13:25:54			
248860008	1	10	-2.07	0.00121	3/18/2010@13:26:47			
WCN100318-03	1	S3	103	5.32	3/18/2010@13:27:39			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		3.1 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		3.1 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100318-08	1	S7	-1.75	0.0176	3/18/2010@13:29:29			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.75 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.75 > -5.00					
	Message		CCB Passed					
	Action		Continue					
248860009	1	11	-2.09	3.07e-4	3/18/2010@13:31:18			
1202064178||DUP	1	12	-2.34	-0.0125	3/18/2010@13:32:10			
1202064179||MS	1	13	103	5.33	3/18/2010@13:33:02			
1202064180||MSD	1	14	109	5.64	3/18/2010@13:33:53			
248865001	1	15	-1.37	0.0368	3/18/2010@13:34:45			

WCN100318-03	1	S3	105	5.44	3/18/2010@13:35:37			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100318-08	1	S7	-2.08	7.04e-4	3/18/2010@13:37:28			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.08 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.08 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_3-18-2010_13-11-52.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 3/18/2010

Channel 1: Current View

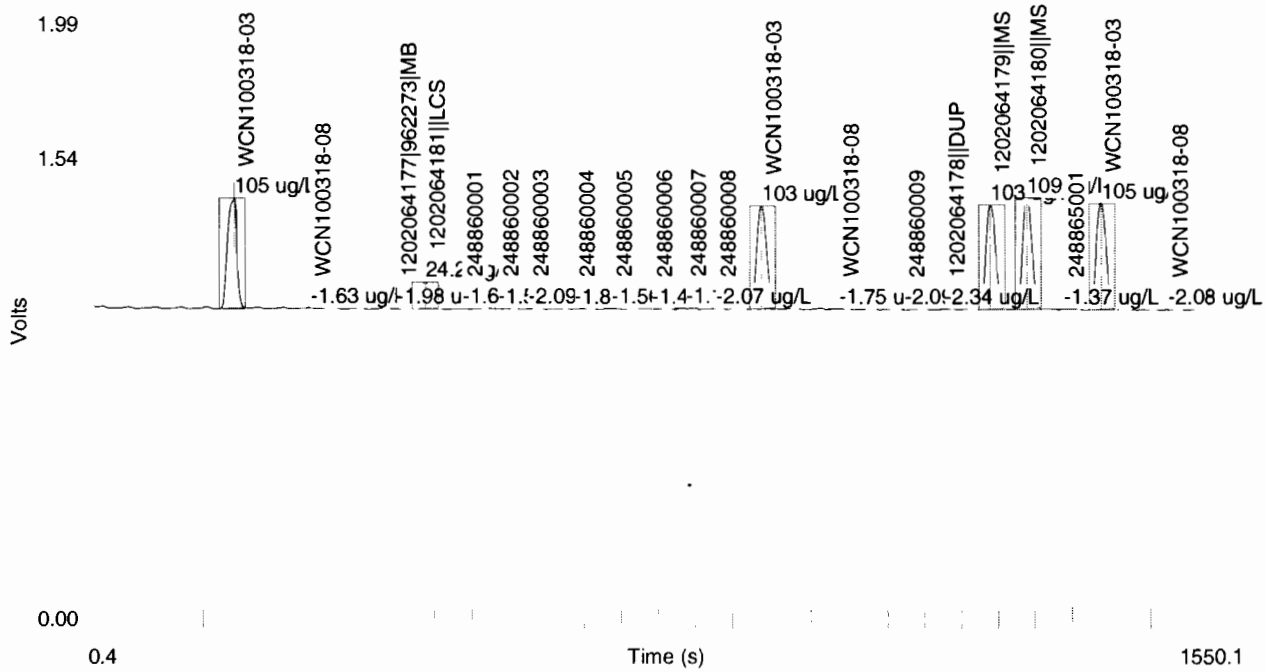

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.2	0.681	0.1	3/18/2010	10:59:47
2	150	1	7.77	0.516	-1.0	3/18/2010	11:00:39
3	100	1	5.00	0.332	3.3	3/18/2010	11:01:31
4	50.0	1	2.78	0.184	-5.5	3/18/2010	11:02:24
5	10.0	1	0.648	0.0421	-5.5	3/18/2010	11:03:17
6	5.00	1	0.370	0.0245	-2.4	3/18/2010	11:04:11
7	0.00	1	0.0253	8.95e-4		3/18/2010	11:05:05

Figure 1: TCYANIDE

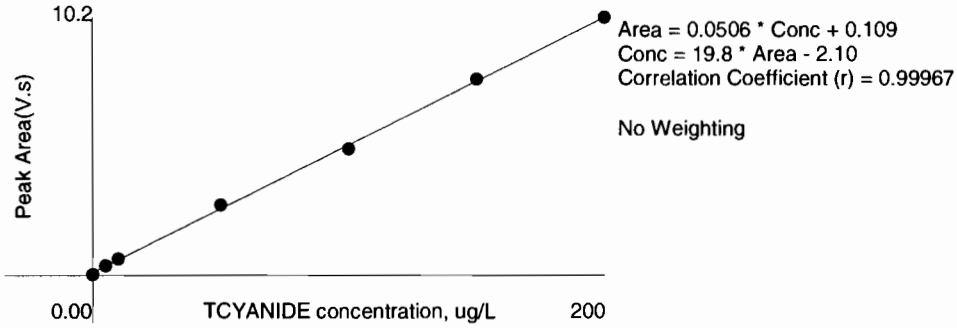

Ion Chromatography

Prep Logbook

Ion Chromatography (IC)

Batch ID: **968639.0** Verified by: _____

Analyst: Virginia Wininger

Method: EPA 300.0 PREP

Lab SOP: GL-GC-E-086 REV# 17

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202079405	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202079401	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202079402	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202079403	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202079404	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202079398 MB	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079405 LCS	29-MAR-2010 16:37:00	Soil	4	40	10	
248814001	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079399 DUP (248814001)	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079401 MS (248814001)	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079403 MSD (248814001)	29-MAR-2010 16:37:00	Soil	4	40	10	
248814002	29-MAR-2010 16:37:00	Soil	4	40	10	
248814003	29-MAR-2010 16:37:00	Soil	4	40	10	
248814004	29-MAR-2010 16:37:00	Soil	4	40	10	
248814005	29-MAR-2010 16:37:00	Soil	4	40	10	
248814006	29-MAR-2010 16:37:00	Soil	4	40	10	
248814007	29-MAR-2010 16:37:00	Soil	4	40	10	
248814008	29-MAR-2010 16:37:00	Soil	4	40	10	
248814009	29-MAR-2010 16:37:00	Soil	4	40	10	
248824001	29-MAR-2010 16:37:00	Soil	4	40	10	
248824002	29-MAR-2010 16:37:00	Soil	4	40	10	
248865001	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079400 DUP (248865001)	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079402 MS (248865001)	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079404 MSD (248865001)	29-MAR-2010 16:37:00	Soil	4	40	10	
248866001	29-MAR-2010 16:37:00	Soil	4	40	10	
248866002	29-MAR-2010 16:37:00	Soil	4	40	10	

Reagent/Solvent Lot ID	Description	Amount

Prep Logbook

Batch ID: **968639.0** Verified by: _____

Analyst: Virginia Wininger

Method: EPA 300.0 PREP

Lab SOP: GL-GC-E-086 REV# 17

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202079405	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202079401	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202079402	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202079403	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202079404	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1

Comments:

This is runlog for Sequence 100331.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	03/23/10 16:00		1	100331	MAR1
ICAL-06	03/23/10 16:27		1	100331	MAR1
ICAL-05	03/23/10 16:53		1	100331	MAR1
ICAL-04	03/23/10 17:20		1	100331	MAR1
ICAL-03	03/23/10 17:47		1	100331	MAR1
ICAL-02	03/23/10 18:14		1	100331	MAR1
ICAL-01	03/23/10 18:41		1	100331	MAR1

8 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	1.0
Vial Number:	46	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 16:00	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

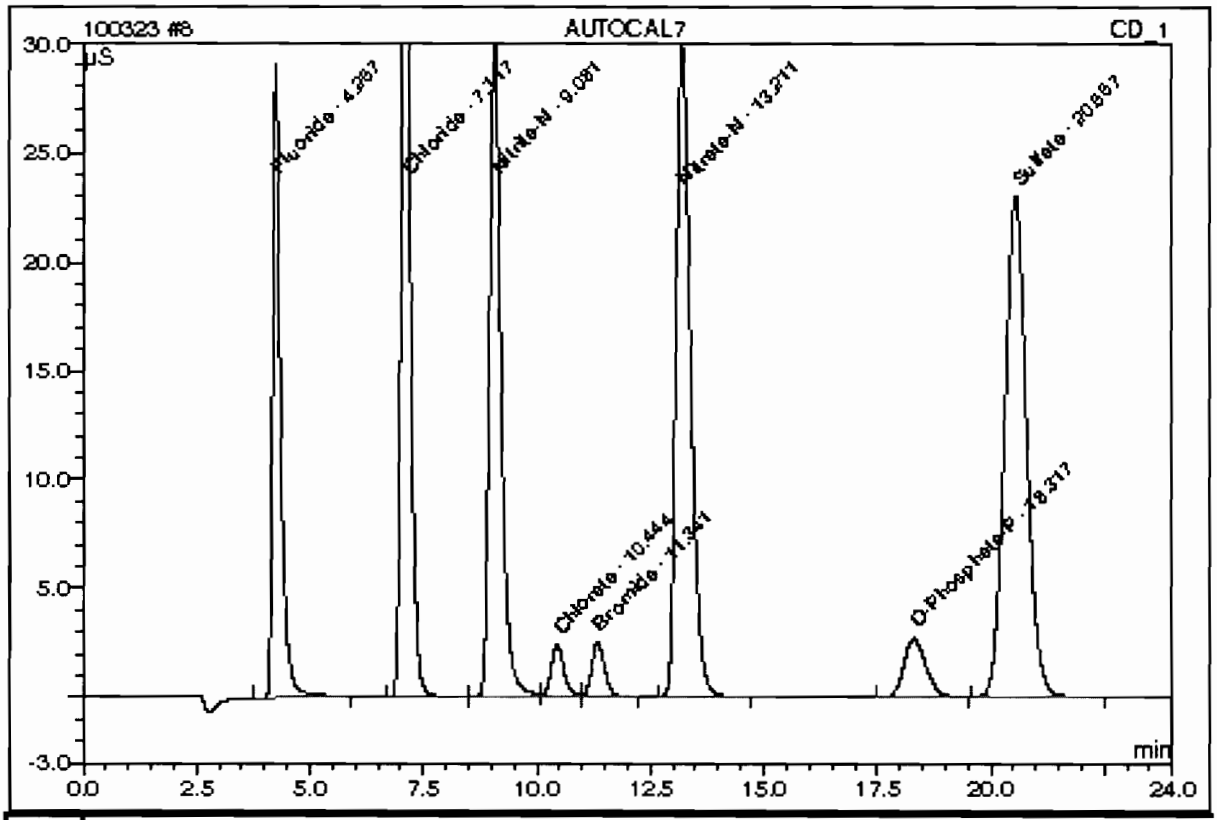

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	10.0000	10.0652		6.02041	11.75
2	7.12	Chloride	20.0000	20.3058		9.29780	18.14
3	9.08	Nitrite-N	10.0000	10.0773		8.89622	17.36
4	10.44	Chlorate	5.0000	5.0763		0.77530	1.51
5	11.34	Bromide	5.0000	5.0450		0.82220	1.60
6	13.21	Nitrate-N	10.0000	10.1395		11.02745	21.52
7	18.32	O-Phosphate-P	5.0000	5.1121		1.49471	2.92
8	20.56	Sulfate	40.0000	40.4690		12.91152	25.20
Total:				106.2901	0.000	51.246	100.00

9 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	1.0
Vial Number:	47	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 16:27	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;8056

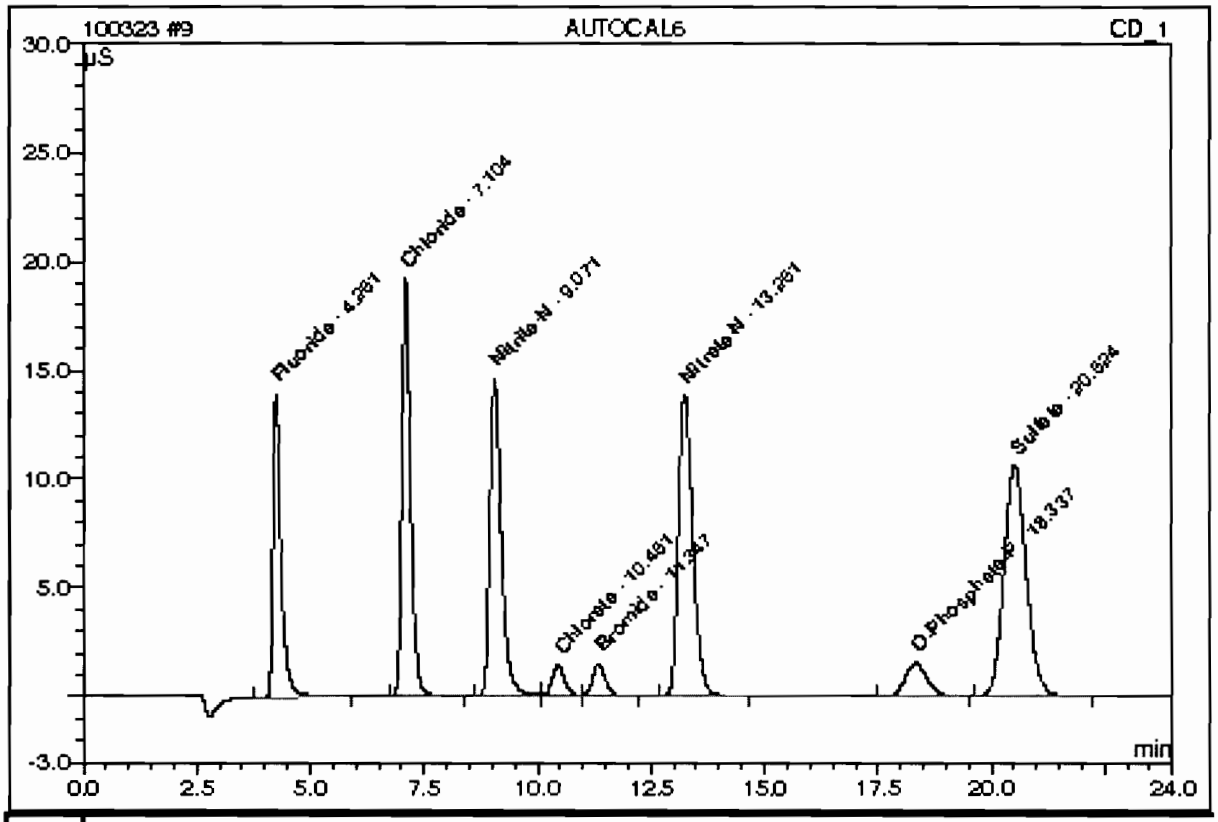

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	5.0000	4.8849		2.90201	11.92
2	7.10	Chloride	10.0000	9.4230		4.26930	17.53
3	9.07	Nitrite-N	5.0000	4.8599		4.25796	17.48
4	10.45	Chlorate	3.0000	2.9924		0.45332	1.86
5	11.35	Bromide	3.0000	3.0046		0.48728	2.00
6	13.25	Nitrate-N	5.0000	4.7372		5.09401	20.92
7	18.34	O-Phosphate-P	3.0000	2.9633		0.84358	3.46
8	20.52	Sulfate	20.0000	19.1180		6.04506	24.82
Total:				51.9833	0.000	24.353	100.00

10 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	1.0
Vial Number:	48	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 16:53	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

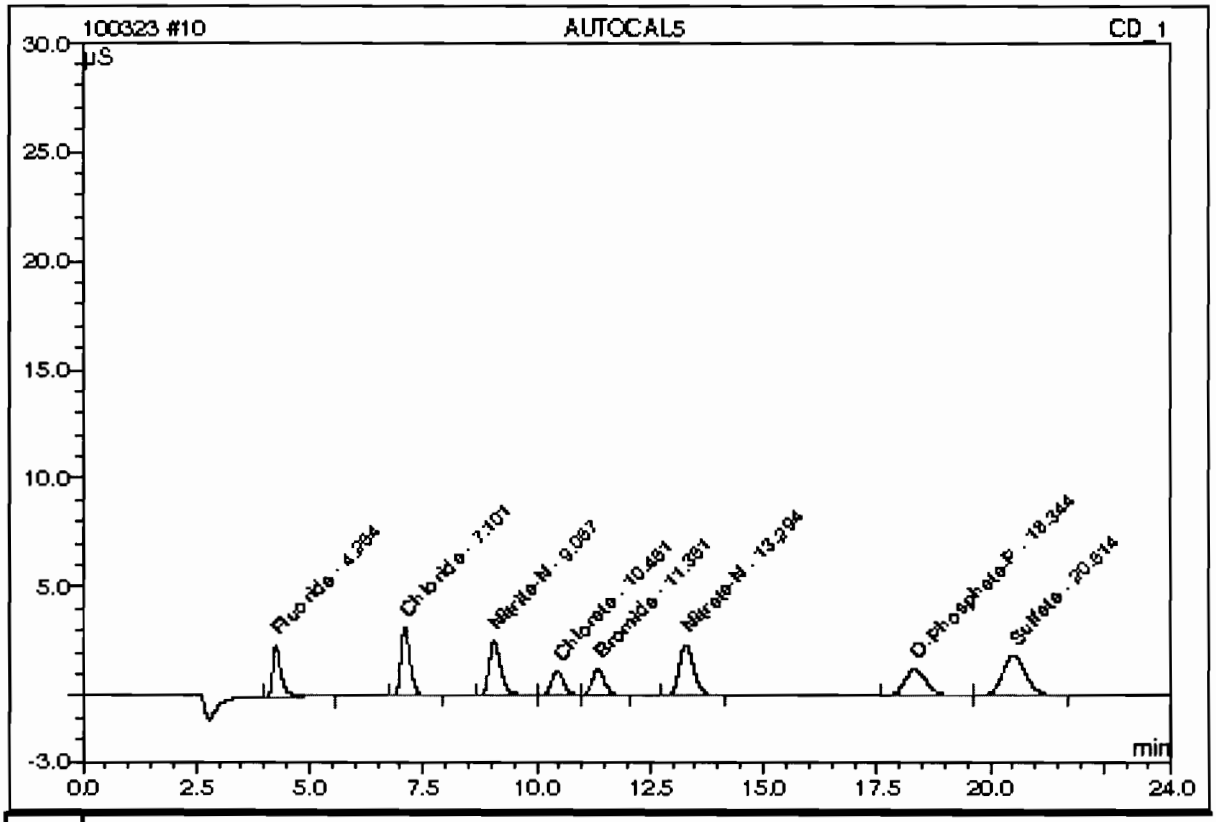

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	1.0000	0.9125		0.51078	9.53
2	7.10	Chloride	2.0000	1.7708		0.73350	13.68
3	9.07	Nitrite-N	1.0000	0.9189		0.75453	14.07
4	10.45	Chlorate	2.5000	2.3650		0.35638	6.65
5	11.35	Bromide	2.5000	2.4114		0.38991	7.27
6	13.29	Nitrate-N	1.0000	0.9005		0.88006	16.42
7	18.34	O-Phosphate-P	2.5000	2.3684		0.66331	12.37
8	20.51	Sulfate	4.0000	3.6570		1.07282	20.01
Total:				15.3047	0.000	5.361	100.00

11 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	1.0
Vial Number:	49	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 17:20	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

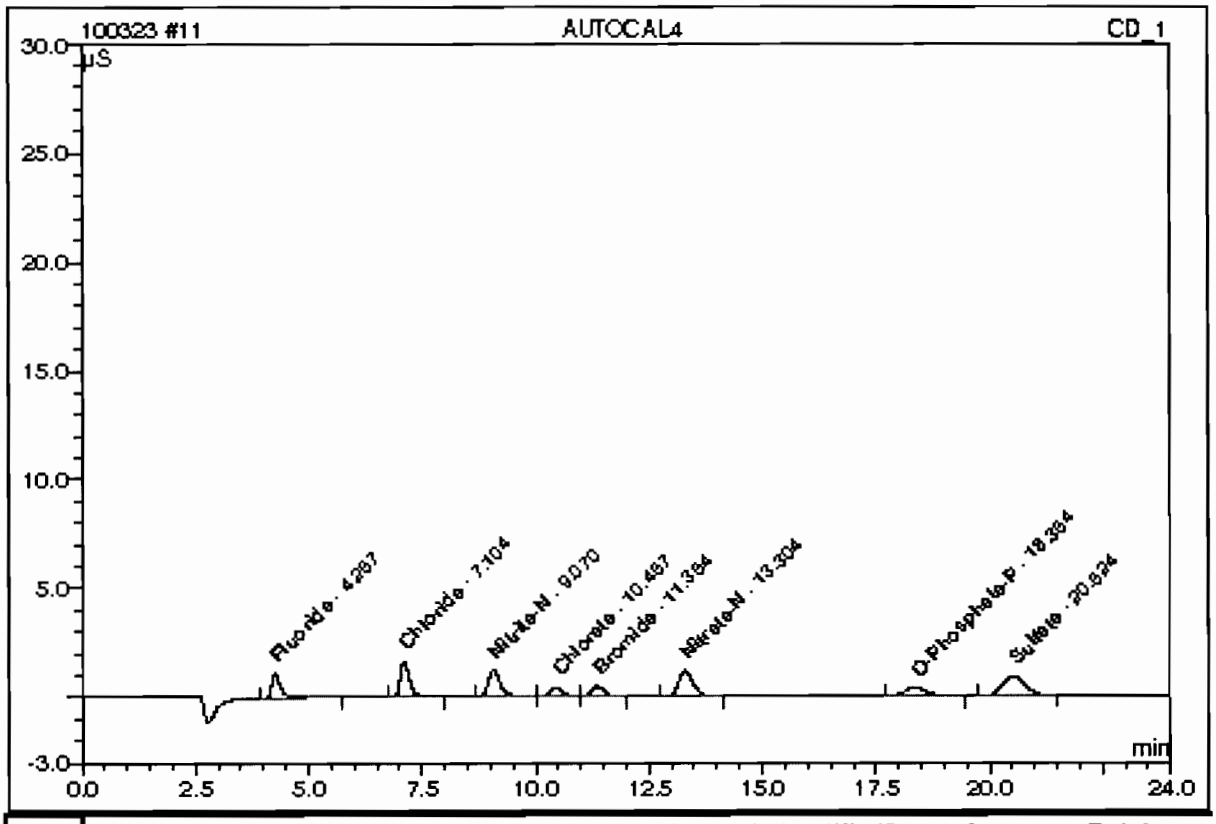

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.5000	0.5017		0.26350	10.50
2	7.10	Chloride	1.0000	1.0243		0.38857	15.49
3	9.07	Nitrite-N	0.5000	0.4901		0.37331	14.88
4	10.46	Chlorate	1.0000	0.9701		0.14085	5.61
5	11.35	Bromide	1.0000	0.9780		0.15461	6.16
6	13.30	Nitrate-N	0.5000	0.4967		0.43652	17.40
7	18.36	O-Phosphate-P	1.0000	0.8958		0.21705	8.65
8	20.52	Sulfate	2.0000	1.9836		0.53465	21.31
Total:				7.3402	0.000	2.509	100.00

12 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	1.0
Vial Number:	50	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 17:47	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC B086;300;9056

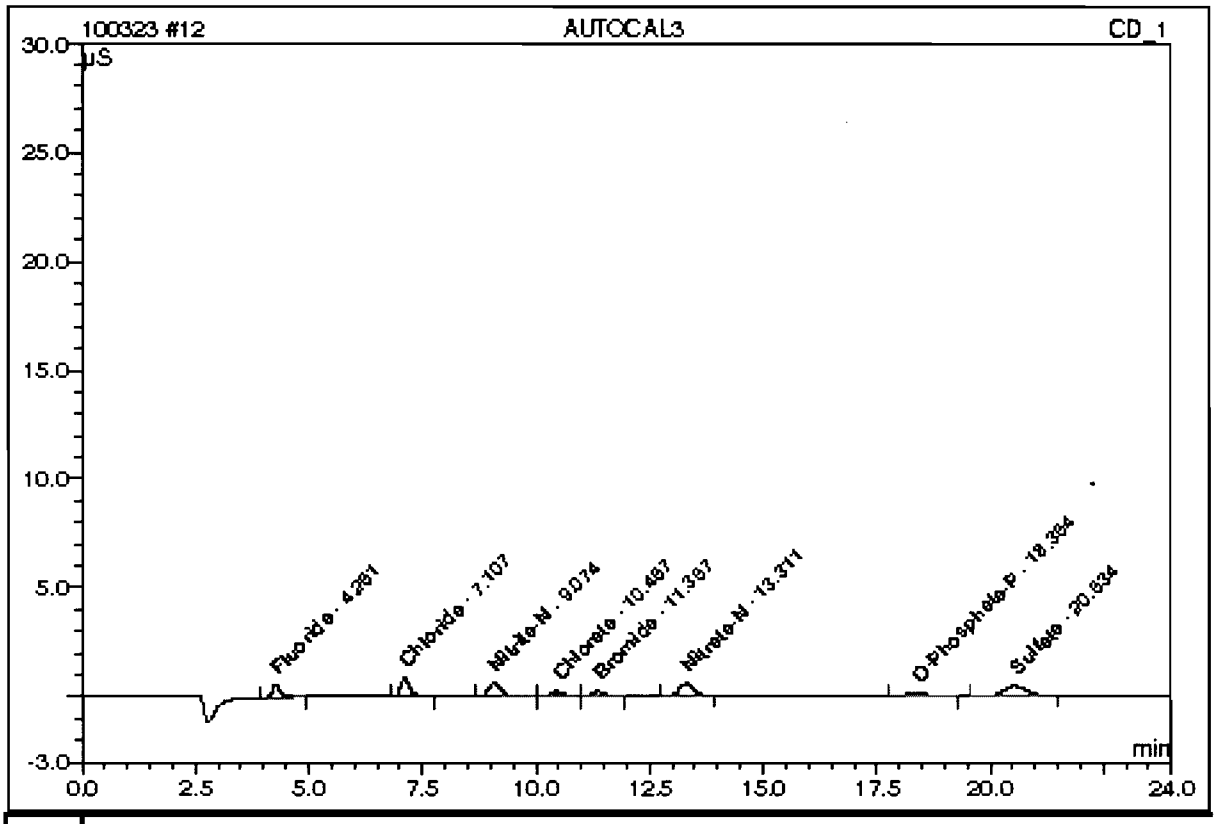

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.2500	0.2725		0.12551	10.22
2	7.11	Chloride	0.5000	0.6010		0.19297	15.72
3	9.07	Nitrite-N	0.2500	0.2827		0.18893	15.39
4	10.46	Chlorate	0.5000	0.5047		0.06895	5.62
5	11.36	Bromide	0.5000	0.4987		0.07594	6.19
6	13.31	Nitrate-N	0.2500	0.2965		0.21665	17.65
7	18.36	O-Phosphate-P	0.5000	0.4552		0.08354	6.81
8	20.53	Sulfate	1.0000	1.1764		0.27506	22.41
Total:				4.0878	0.000	1.228	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	1.0
Vial Number:	1	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:14	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

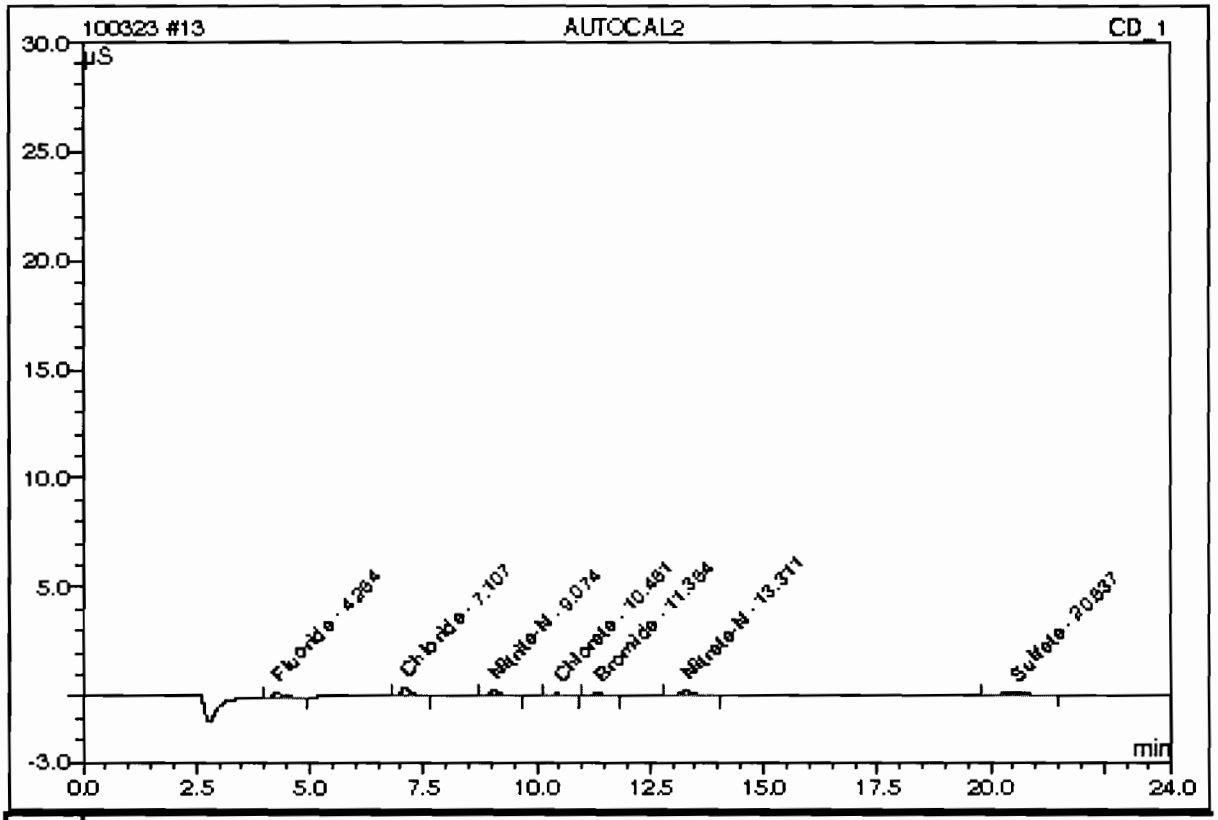

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.1000	0.1492		0.05126	10.67
2	7.11	Chloride	0.2000	0.3919		0.09636	20.06
3	9.07	Nitrite-N	0.1000	0.1509		0.07173	14.93
4	10.46	Chlorate	0.2000	0.2331		0.02698	5.62
5	11.35	Bromide	0.2000	0.2262		0.03122	6.50
6	13.31	Nitrate-N	0.1000	0.1803		0.08899	18.53
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	20.54	Sulfate	0.4000	0.6748		0.11374	23.68
Total:				2.0063	0.000	0.480	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	1.0
Vial Number:	1	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:14	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

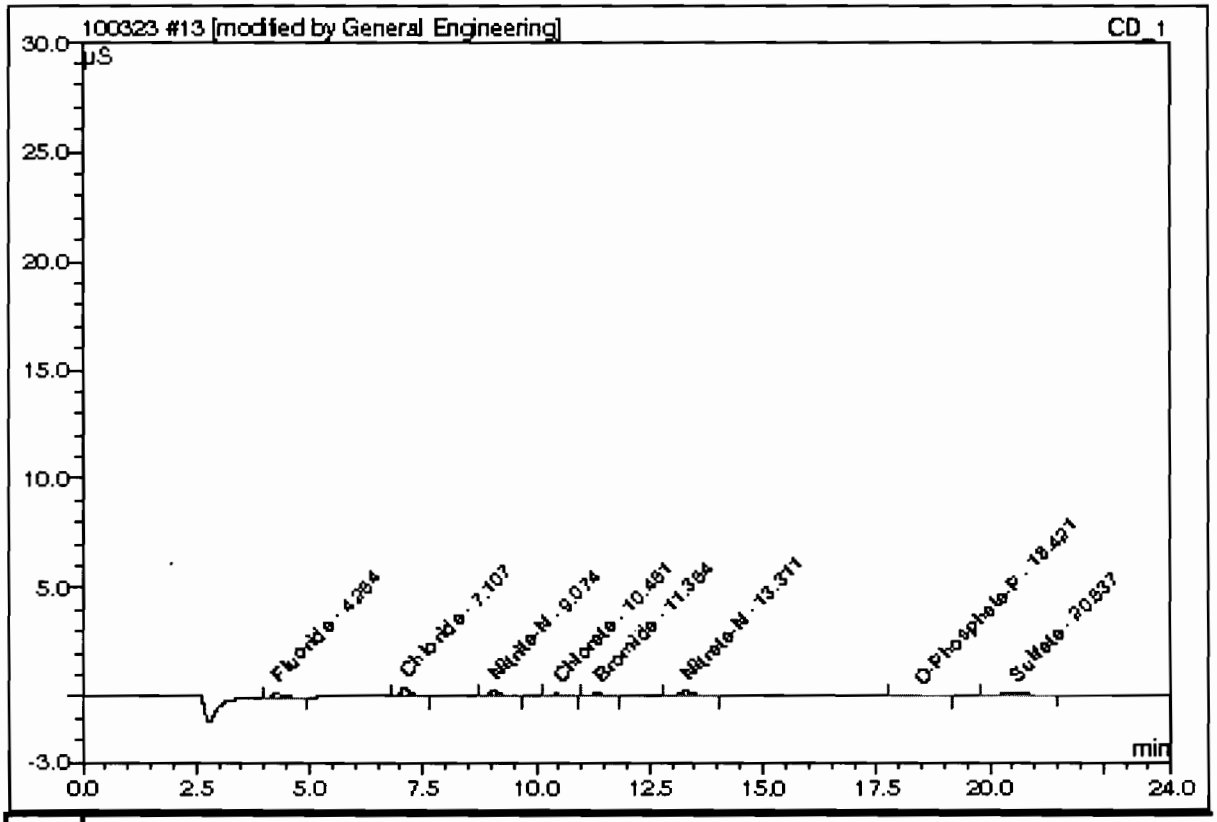

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.1000	0.1492		0.05126	10.37
2	7.11	Chloride	0.2000	0.3919		0.09636	19.50
3	9.07	Nitrite-N	0.1000	0.1509		0.07173	14.51
4	10.46	Chlorate	0.2000	0.2331		0.02698	5.46
5	11.35	Bromide	0.2000	0.2262		0.03122	6.32
6	13.31	Nitrate-N	0.1000	0.1803		0.08899	18.00
7	18.42	O-Phosphate-P	0.2000	0.2257		0.01399	2.83
8	20.54	Sulfate	0.4000	0.6748		0.11374	23.01
Total:				2.2320	0.000	0.494	100.00

14 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	1.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:41	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC B086;300;9056

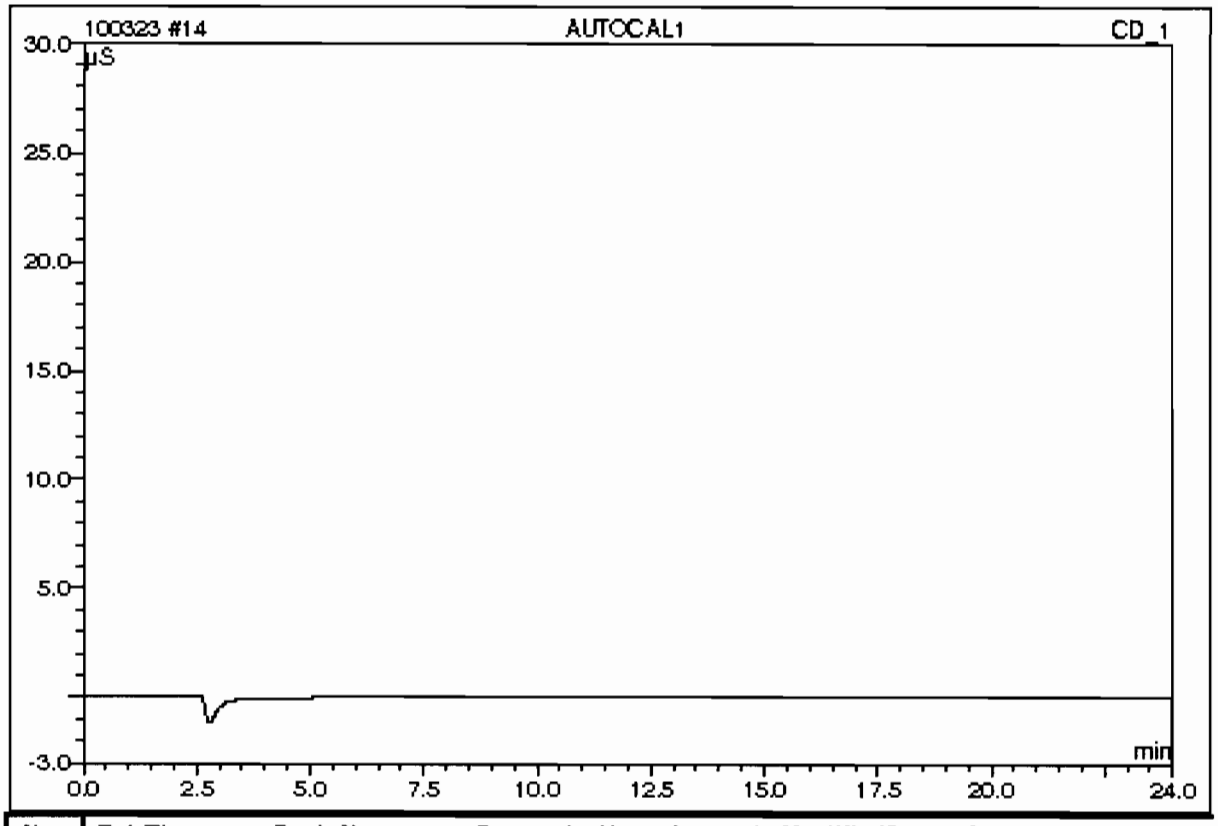

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

14 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	1.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:41	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-002712; GL GCB086;300;9056

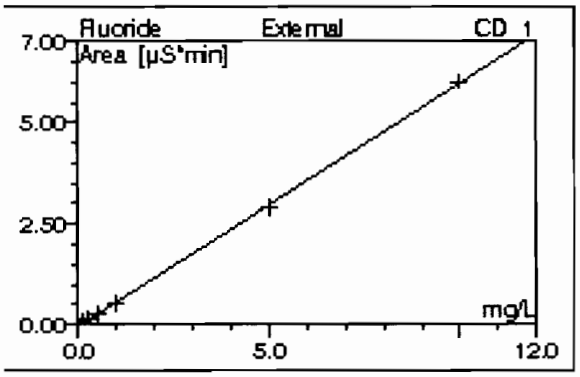

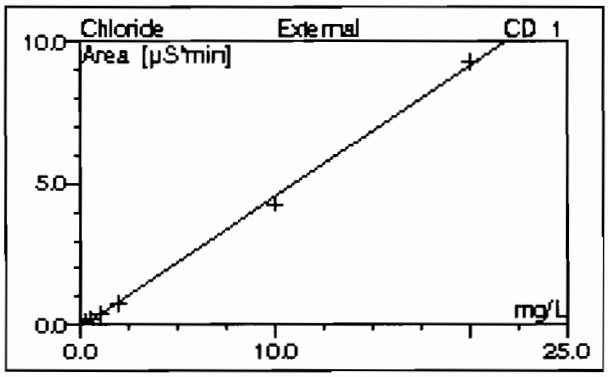

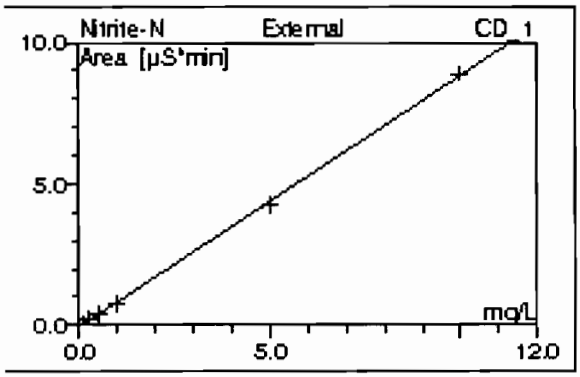

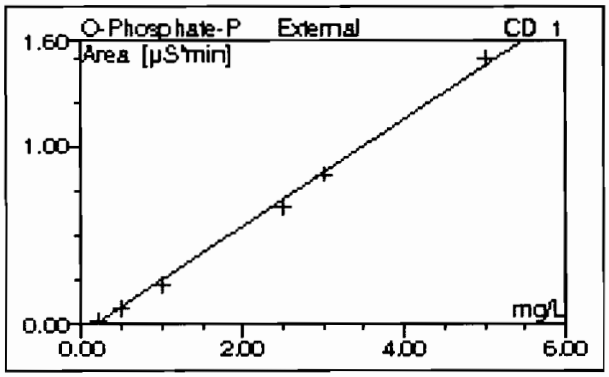

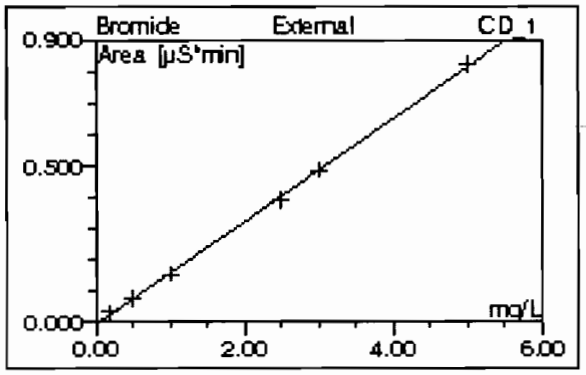

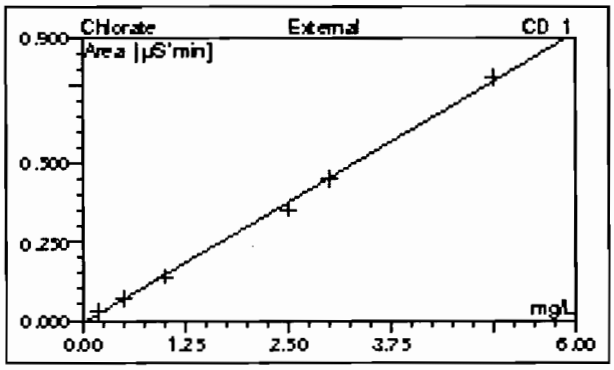

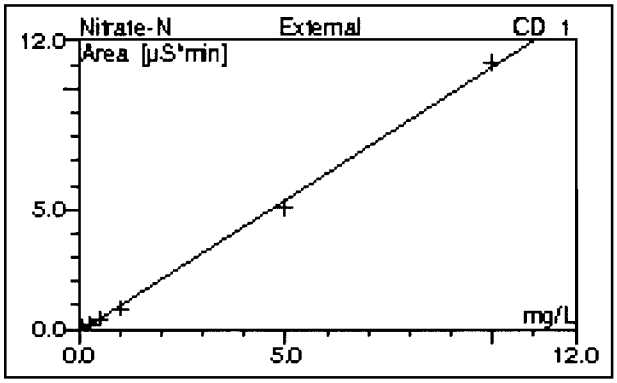

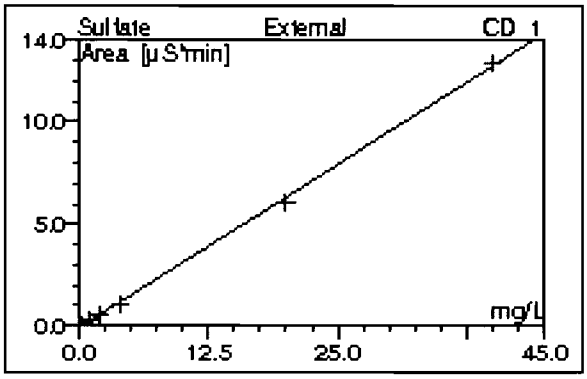

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	OLOff	99.9646	-0.0385	0.6020	0.0000
n.a.	n.a.	Chloride	OLOff	99.8347	-0.0847	0.4621	0.0000
n.a.	n.a.	Nitrite-N	OLOff	99.9547	-0.0624	0.8890	0.0000
n.a.	n.a.	Chlorate	OLOff	99.8463	-0.0090	0.1545	0.0000
n.a.	n.a.	Bromide	OLOff	99.9345	-0.0059	0.1641	0.0000
n.a.	n.a.	Nitrate-N	OLOff	99.8657	-0.1090	1.0983	0.0000
n.a.	n.a.	O-Phosphate-P	OLOff	99.7443	-0.0544	0.3030	0.0000
n.a.	n.a.	Sulfate	OLOff	99.9039	-0.1033	0.3216	0.0000
Average:				99.8811	-0.0584	0.4993	0.0000

This is runlog for Sequence 100323.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/23/10 15:33		1	100323	MAR1
ICAL-07	03/23/10 16:00		1	100323	MAR1
ICAL-06	03/23/10 16:27		1	100323	MAR1
ICAL-05	03/23/10 16:53		1	100323	MAR1
ICAL-04	03/23/10 17:20		1	100323	MAR1
ICAL-03	03/23/10 17:47		1	100323	MAR1
ICAL-02	03/23/10 18:14		1	100323	MAR1
ICAL-01	03/23/10 18:41		1	100323	MAR1
ICV	03/23/10 19:08		1	100323	MAR1
ICB	03/23/10 19:35		1	100323	MAR1
1202073661	03/23/10 20:02	966275	1	100323	MAR1
1202073665	03/23/10 20:29	966275	1	100323	MAR1
248534001	03/23/10 20:56	966275	1	100323	MAR1
1202073662	03/23/10 21:23	966275	1	100323	MAR1
1202073663	03/23/10 21:50	966275	1	100323	MAR1
1202073664	03/23/10 22:16	966275	1	100323	MAR1
248534002	03/23/10 22:43	966275	1	100323	MAR1
248534003	03/23/10 23:10	966275	1	100323	MAR1
248534004	03/23/10 23:37	966275	1	100323	MAR1

15 WIC100323-02ICV

Sample Name:	WIC100323-02ICV	*Injection Volume:*	1.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 19:08	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

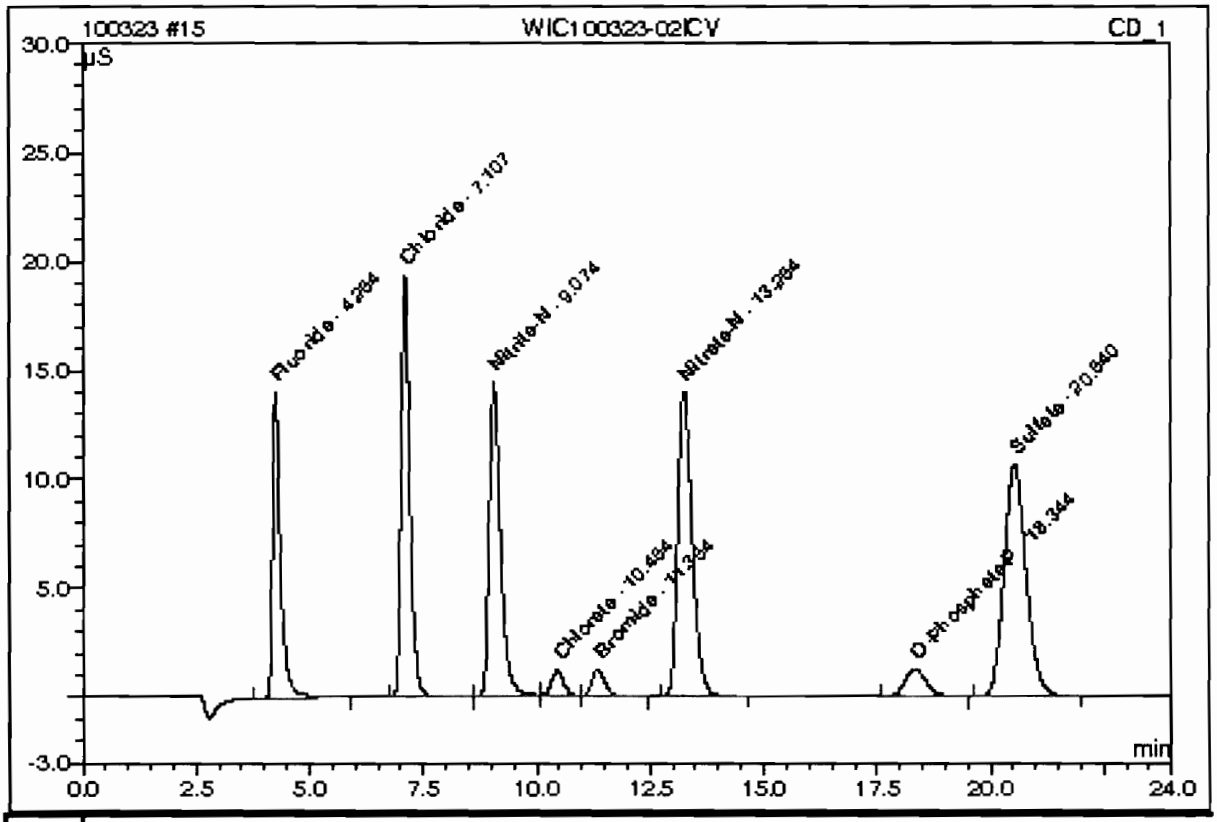

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.8960		2.90874	12.07
2	7.11	Chloride	n.a.	9.4929		4.30159	17.85
3	9.07	Nitrite-N	n.a.	4.8019		4.20641	17.46
4	10.45	Chlorate	n.a.	2.5622		0.38685	1.61
5	11.35	Bromide	n.a.	2.5972		0.42040	1.74
6	13.25	Nitrate-N	n.a.	4.7960		5.15850	21.41
7	18.34	O-Phosphate-P	n.a.	2.4576		0.69032	2.86
8	20.54	Sulfate	n.a.	19.0532		6.02422	25.00
Total:				50.6569	0.000	24.097	100.00

15 WIC100323-02ICV

Sample Name:	WIC100323-02ICV	*Injection Volume:*	1.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 19:08	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

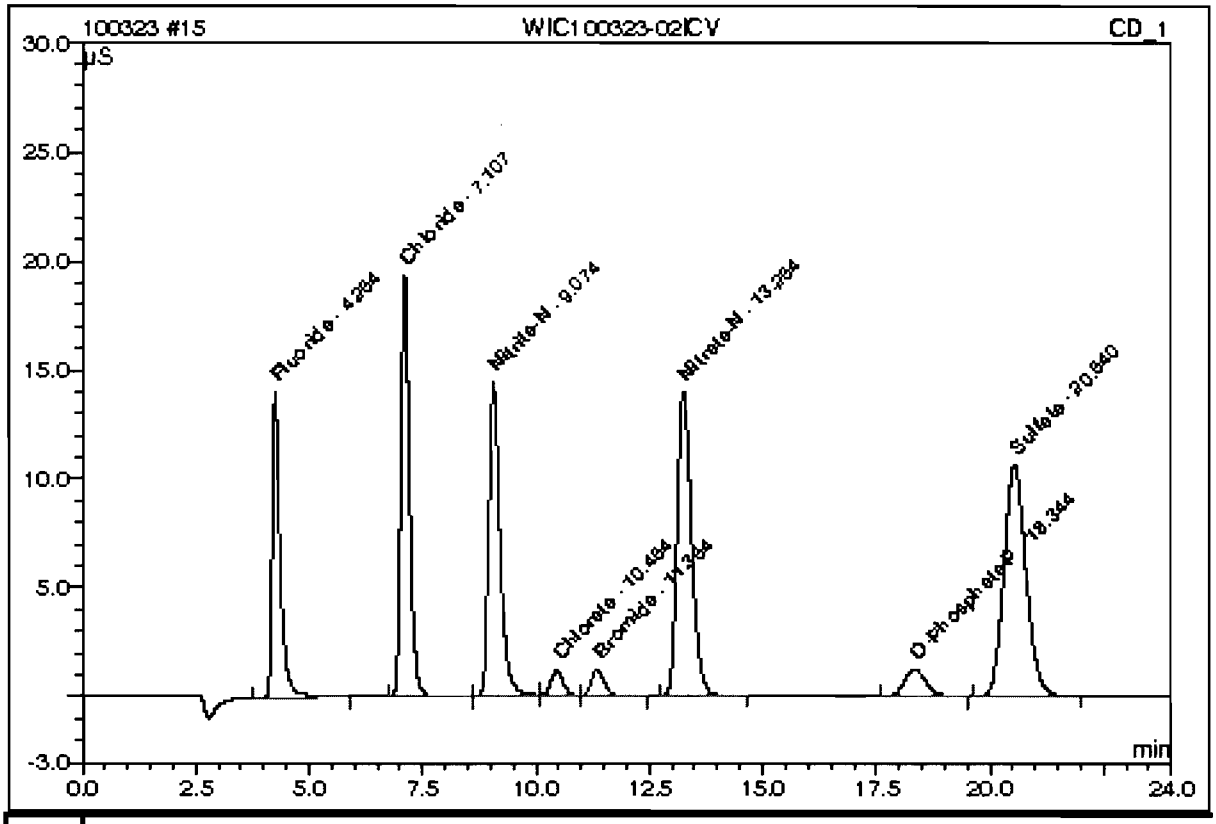

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.8960		2.90874	12.07
2	7.11	Chloride	n.a.	9.4929		4.30159	17.85
3	9.07	Nitrite-N	n.a.	4.8019		4.20641	17.46
4	10.45	Chlorate	n.a.	2.5622		0.38685	1.61
5	11.35	Bromide	n.a.	2.5972		0.42040	1.74
6	13.25	Nitrate-N	n.a.	4.7960		5.15850	21.41
7	18.34	O-Phosphate-P	n.a.	2.4576		0.69032	2.86
8	20.54	Sulfate	n.a.	19.0532		6.02422	25.00
Total:				50.6569	0.000	24.097	100.00

16 ICB

Sample Name:	ICB	*Injection Volume:*	1.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 19:35	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

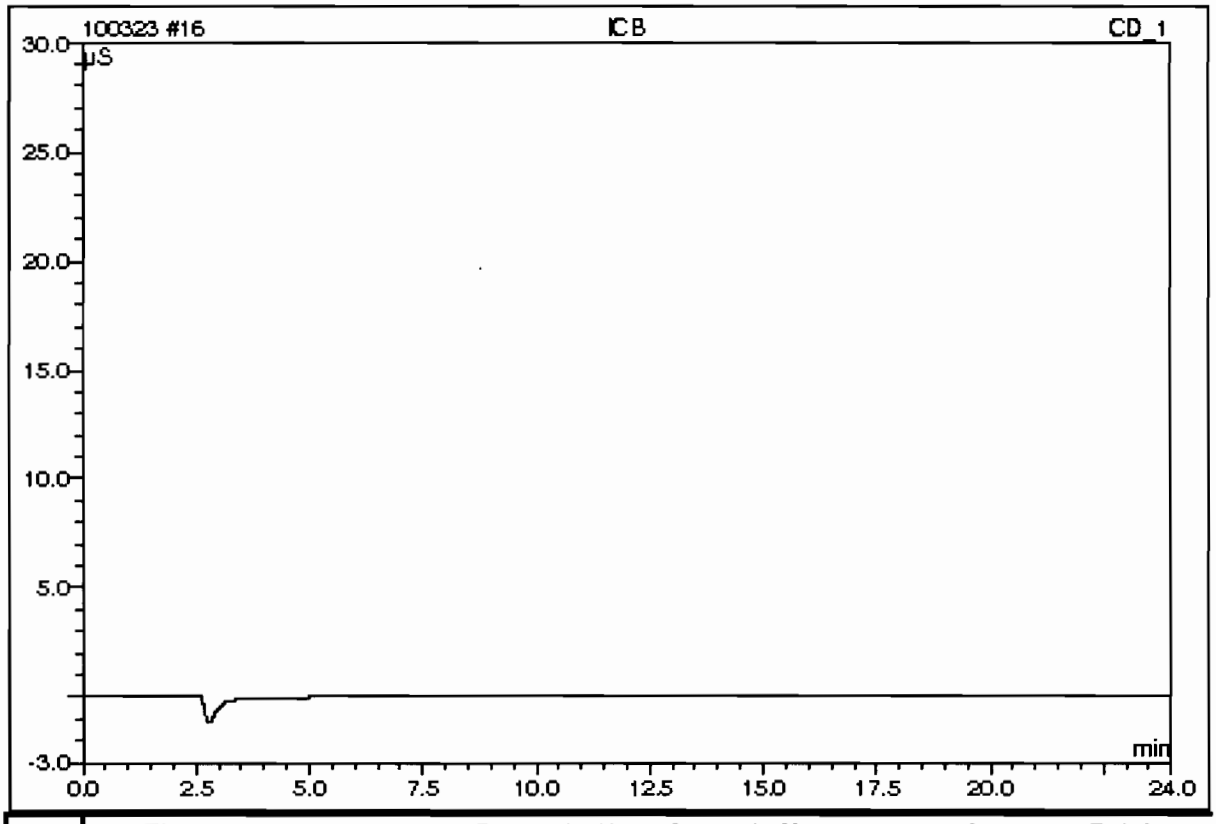

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100329.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/29/10 17:00		1	100329	VH1
BLK	03/29/10 17:26		1	100329	VH1
ICV	03/29/10 17:53		1	100329	VH1
ICB	03/29/10 18:20		1	100329	VH1
1202079398	03/29/10 18:47	968640	1	100329	VH1
1202079405	03/29/10 19:13	968640	1	100329	VH1
248814001	03/29/10 19:40	968640	1	100329	VH1
1202079399	03/29/10 20:07	968640	1	100329	VH1
1202079401	03/29/10 20:34	968640	1	100329	VH1
1202079403	03/29/10 21:01	968640	1	100329	VH1
248814002	03/29/10 21:28	968640	1	100329	VH1
248814003	03/29/10 21:55	968640	1	100329	VH1
248814004	03/29/10 22:22	968640	1	100329	VH1
248814005	03/29/10 22:49	968640	1	100329	VH1
CVH	03/29/10 23:15		1	100329	VH1
CCB	03/29/10 23:42		1	100329	VH1

16 WIC100329-02ICV

Sample Name:	WIC100329-02ICV	*Injection Volume:*	1.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 17:53	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056

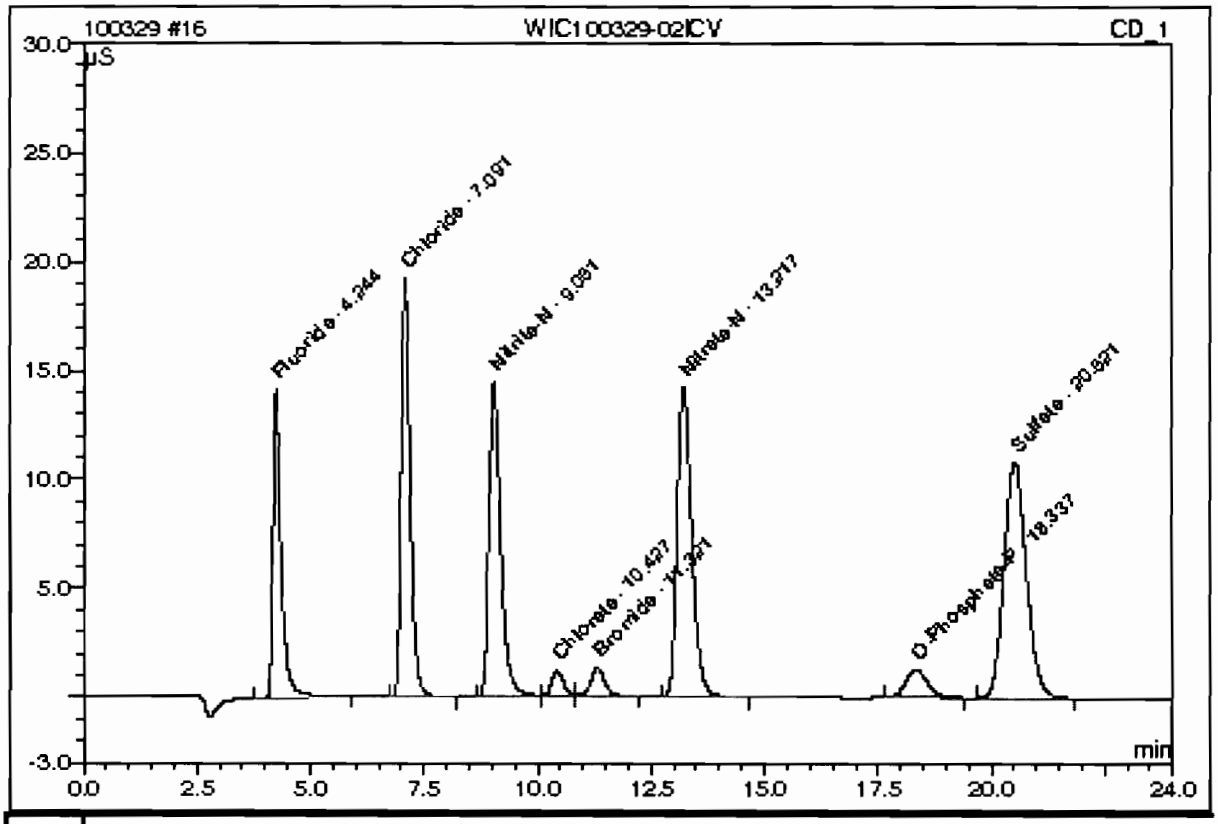

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	5.0909		3.02601	12.24
2	7.09	Chloride	n.a.	9.6162		4.35858	17.63
3	9.05	Nitrite-N	n.a.	4.8968		4.29077	17.35
4	10.43	Chlorate	n.a.	2.4223		0.36524	1.48
5	11.32	Bromide	n.a.	3.0172		0.48934	1.98
6	13.22	Nitrate-N	n.a.	4.9061		5.27947	21.35
7	18.34	O-Phosphate-P	n.a.	2.5597		0.72126	2.92
8	20.52	Sulfate	n.a.	19.5894		6.19667	25.06
Total:				52.0986	0.000	24.727	100.00

17 ICB

Sample Name:	ICB	*Injection Volume:*	1.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 18:20	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

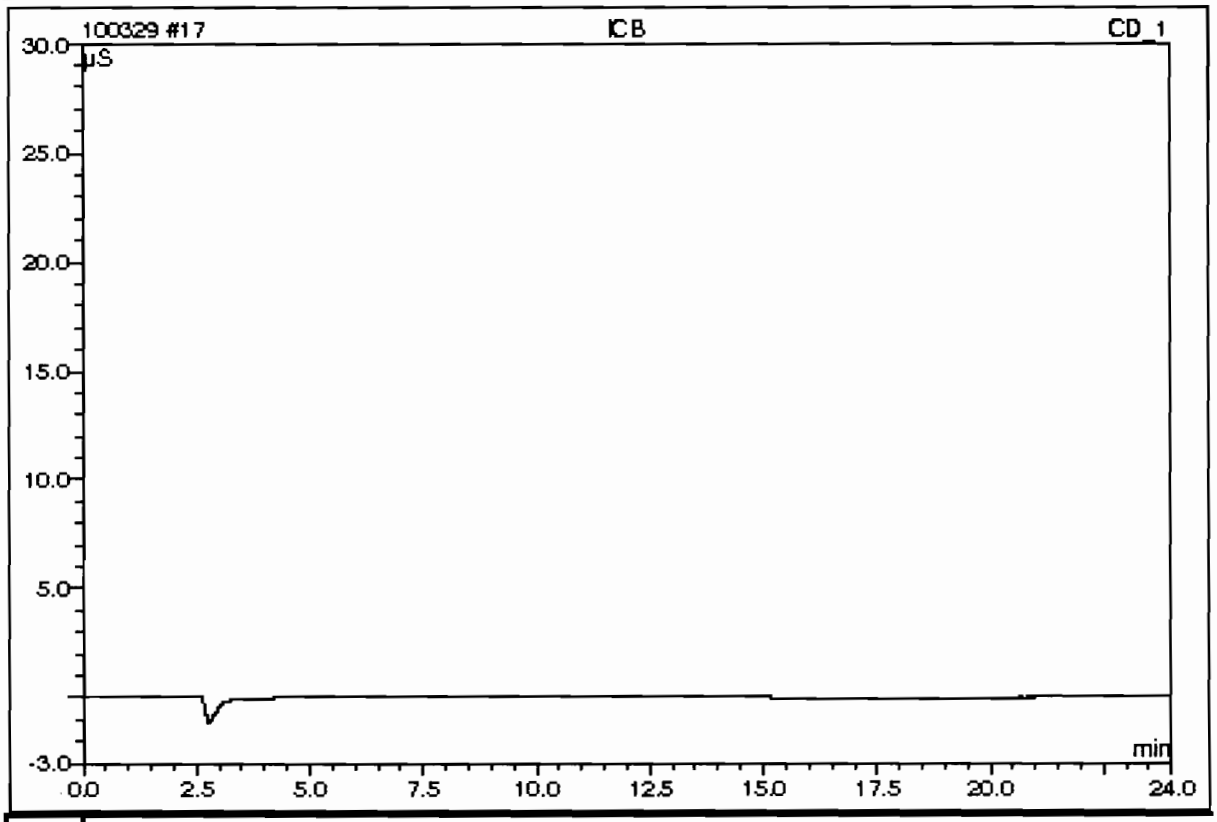

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

18 1202079398/968640/1/1/MB

Sample Name:	1202079398/968640/1/1/MB	*Injection Volume:*	1.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 18:47	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

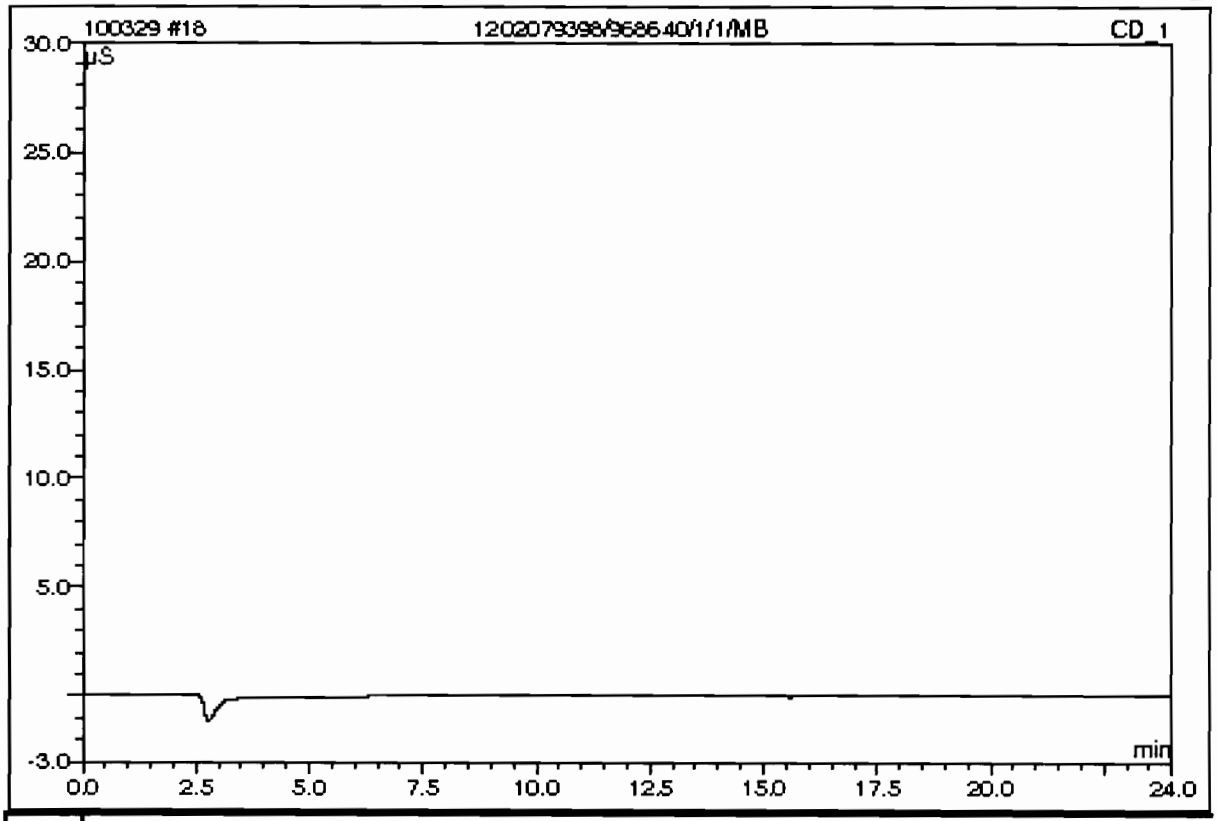

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

19 1202079405/968640/1/1/LCS

Sample Name:	1202079405/968640/1/1/LCS	*Injection Volume:*	1.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 19:13	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

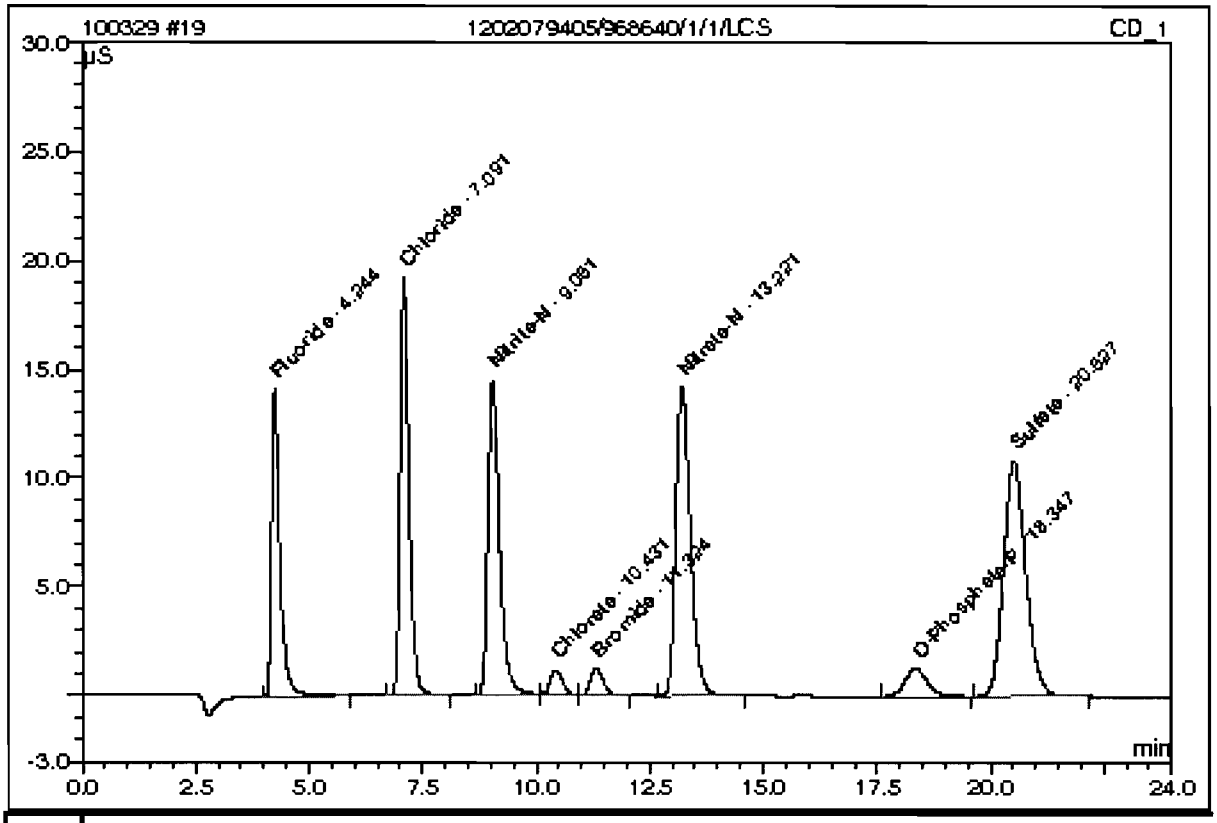

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	5.0300		2.98940	12.12
2	7.09	Chloride	n.a.	9.6004		4.35128	17.64
3	9.05	Nitrite-N	n.a.	4.9223		4.31350	17.49
4	10.43	Chlorate	n.a.	2.5905		0.39122	1.59
5	11.32	Bromide	n.a.	2.5475		0.41224	1.67
6	13.22	Nitrate-N	n.a.	4.9015		5.27443	21.38
7	18.35	O-Phosphate-P	n.a.	2.5426		0.71610	2.90
8	20.53	Sulfate	n.a.	19.6645		6.22082	25.22
Total:				51.7994	0.000	24.669	100.00

20 248814001/968640/1/1/

Sample Name:	248814001/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 19:40	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

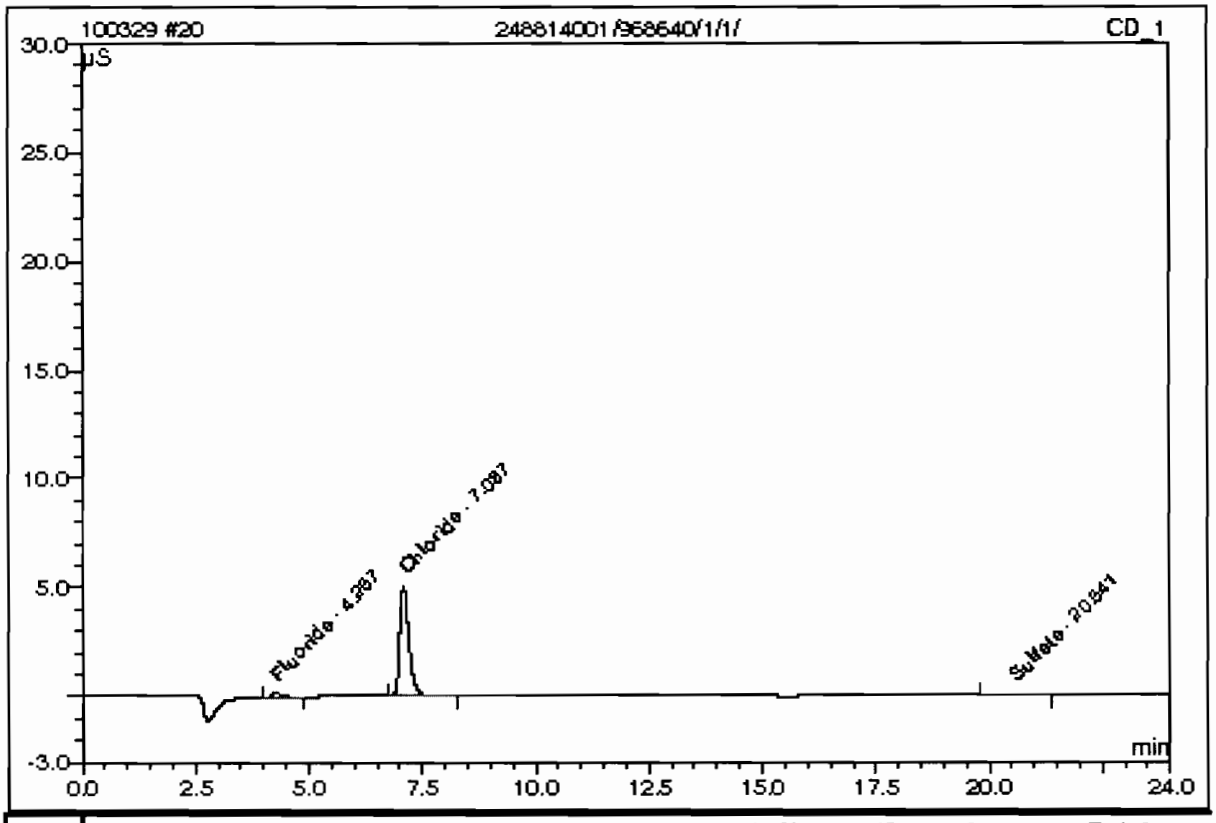

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1556		0.05514	4.22
2	7.09	Chloride	n.a.	2.7852		1.20222	92.04
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.54	Sulfate	n.a.	0.4730		0.04884	3.74
Total:				3.4138	0.000	1.306	100.00

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Version 6.80 SR7 Build 2528 (148369)

21 1202079399/968640/1/1/DUP

Sample Name:	1202079399/968640/1/1/DUP	*Injection Volume:*	1.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 20:07	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

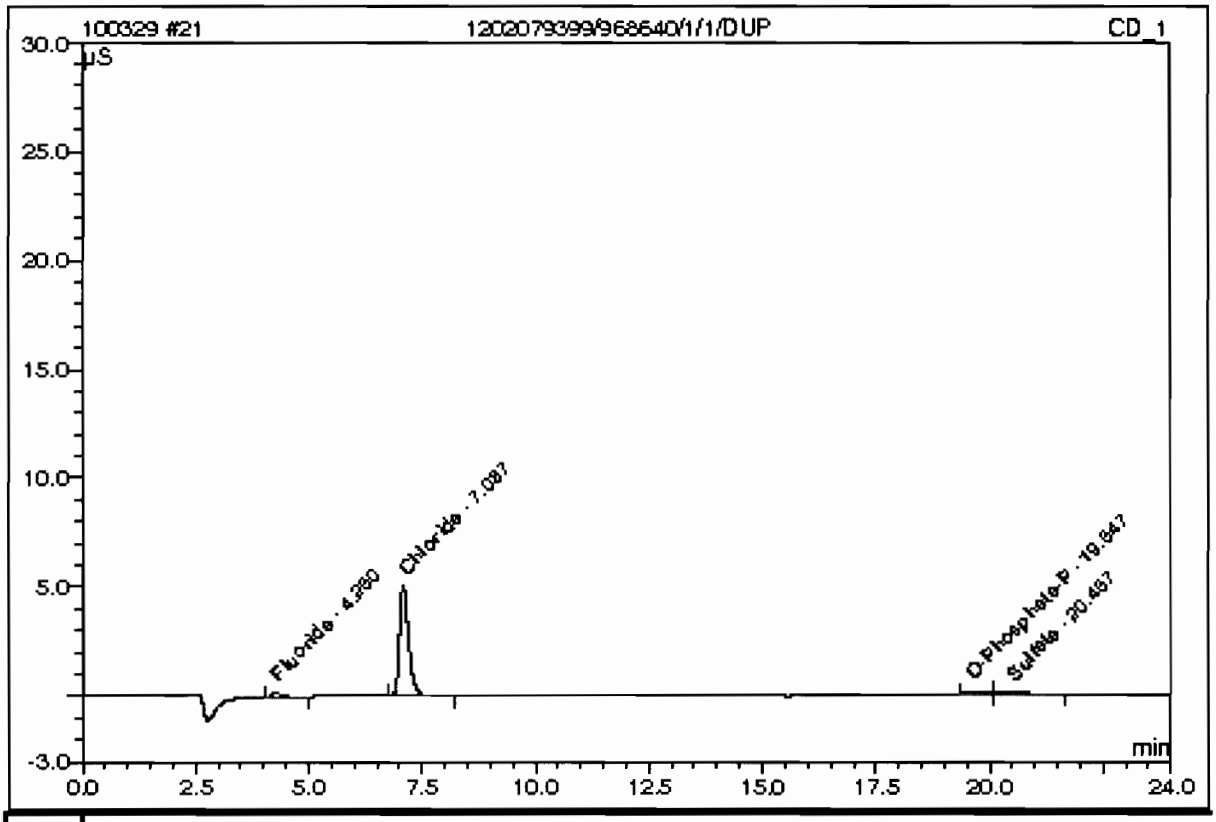

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1524		0.05323	3.63
2	7.09	Chloride	n.a.	2.7558		1.18863	80.99
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
3	19.55	O-Phosphate-P	n.a.	0.5604		0.11542	7.86
4	20.47	Sulfate	n.a.	0.6645		0.11043	7.52
Total:				4.1331	0.000	1.468	100.00

22 1202079401/968640/1/1/MS

Sample Name:	1202079401/968640/1/1/MS	*Injection Volume:*	1.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 20:34	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

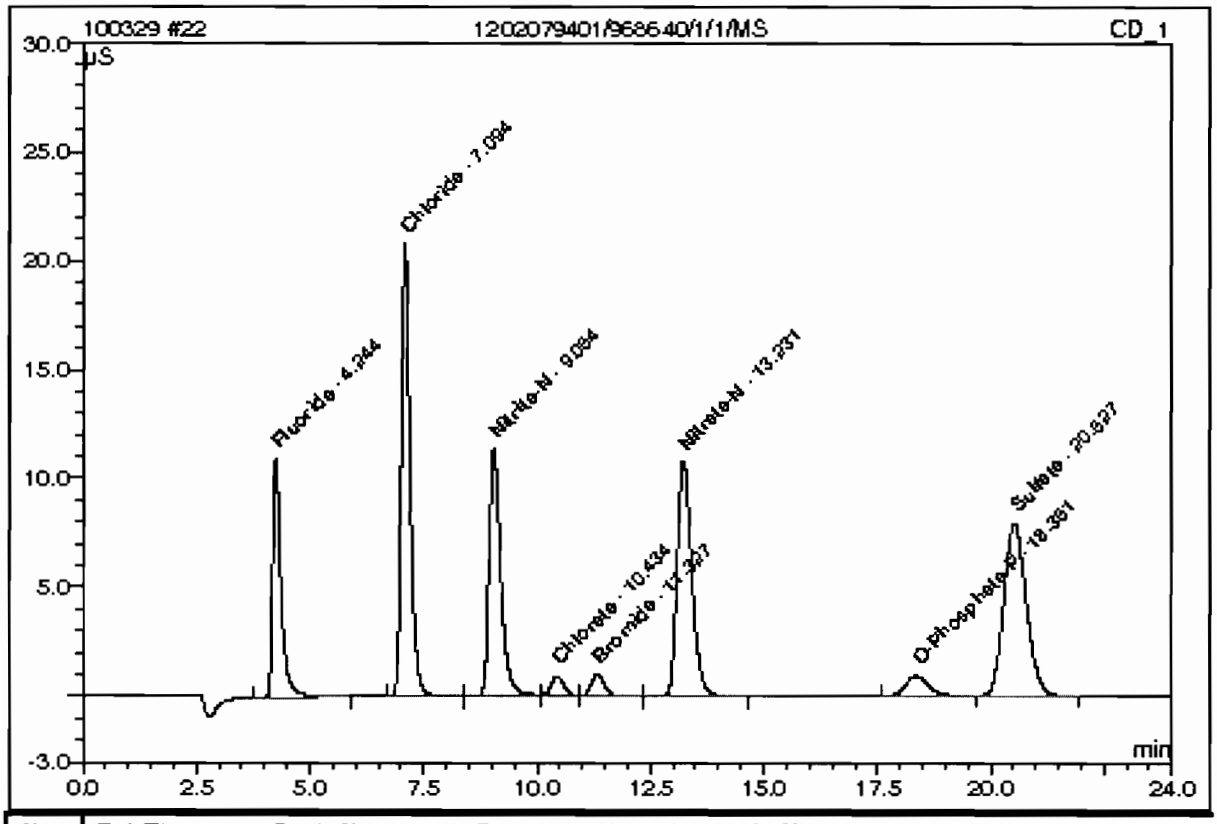

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	3.9468		2.33731	11.51
2	7.09	Chloride	n.a.	10.3461		4.69584	23.12
3	9.05	Nitrite-N	n.a.	3.8967		3.40172	16.75
4	10.43	Chlorate	n.a.	2.1056		0.31630	1.56
5	11.33	Bromide	n.a.	2.0992		0.33866	1.67
6	13.23	Nitrate-N	n.a.	3.7642		4.02533	19.82
7	18.36	O-Phosphate-P	n.a.	1.9965		0.55060	2.71
8	20.53	Sulfate	n.a.	14.7572		4.64263	22.86
Total:				42.9123	0.000	20.308	100.00

23 1202079403/968640/1/1/MSD

Sample Name:	1202079403/968640/1/1/MSD	*Injection Volume:*	1.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 21:01	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

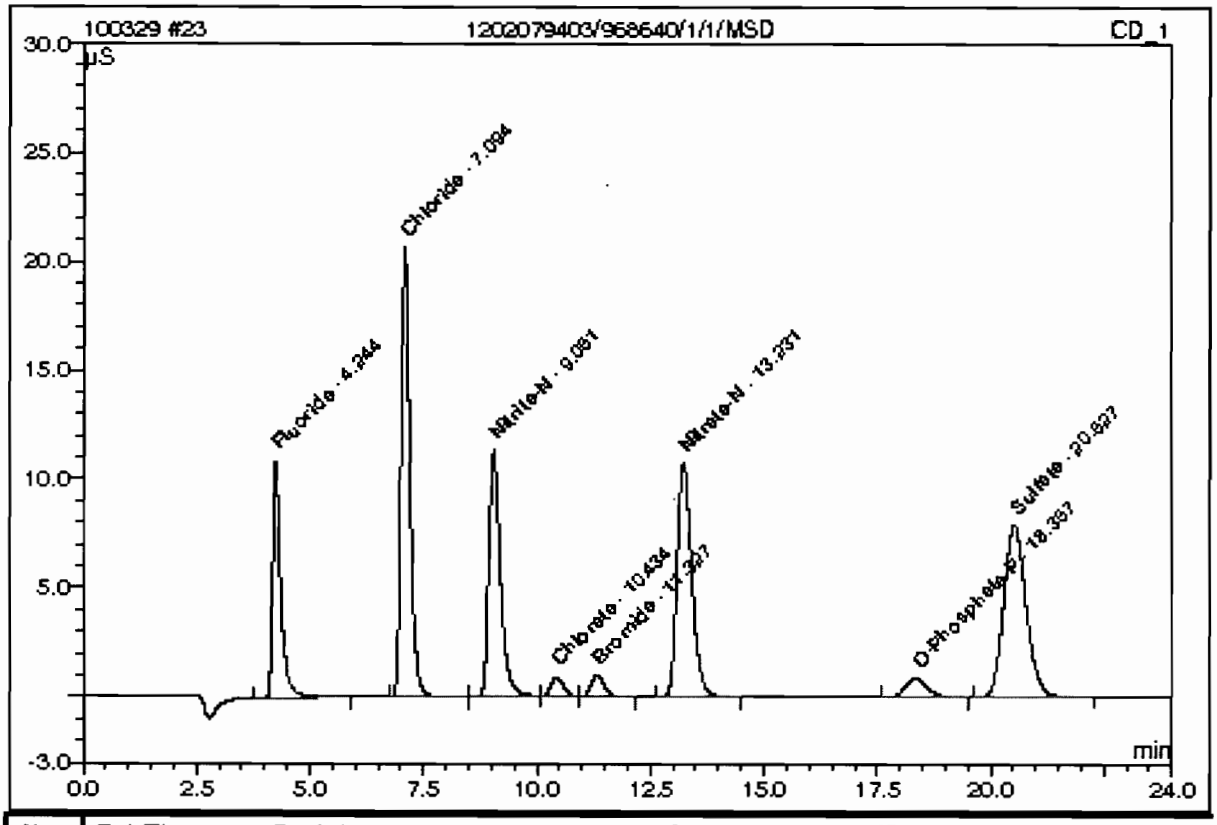

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	3.9227		2.32279	11.55
2	7.09	Chloride	n.a.	10.2975		4.67337	23.24
3	9.05	Nitrite-N	n.a.	3.8682		3.37635	16.79
4	10.43	Chlorate	n.a.	2.0549		0.30848	1.53
5	11.33	Bromide	n.a.	2.0620		0.33256	1.65
6	13.23	Nitrate-N	n.a.	3.7431		4.00210	19.90
7	18.36	O-Phosphate-P	n.a.	1.8390		0.50287	2.50
8	20.53	Sulfate	n.a.	14.6018		4.59266	22.84
Total:				42.3892	0.000	20.111	100.00

28 WIC100329-02CVH

Sample Name:	WIC100329-02CVH	*Injection Volume:*	1.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 23:15	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

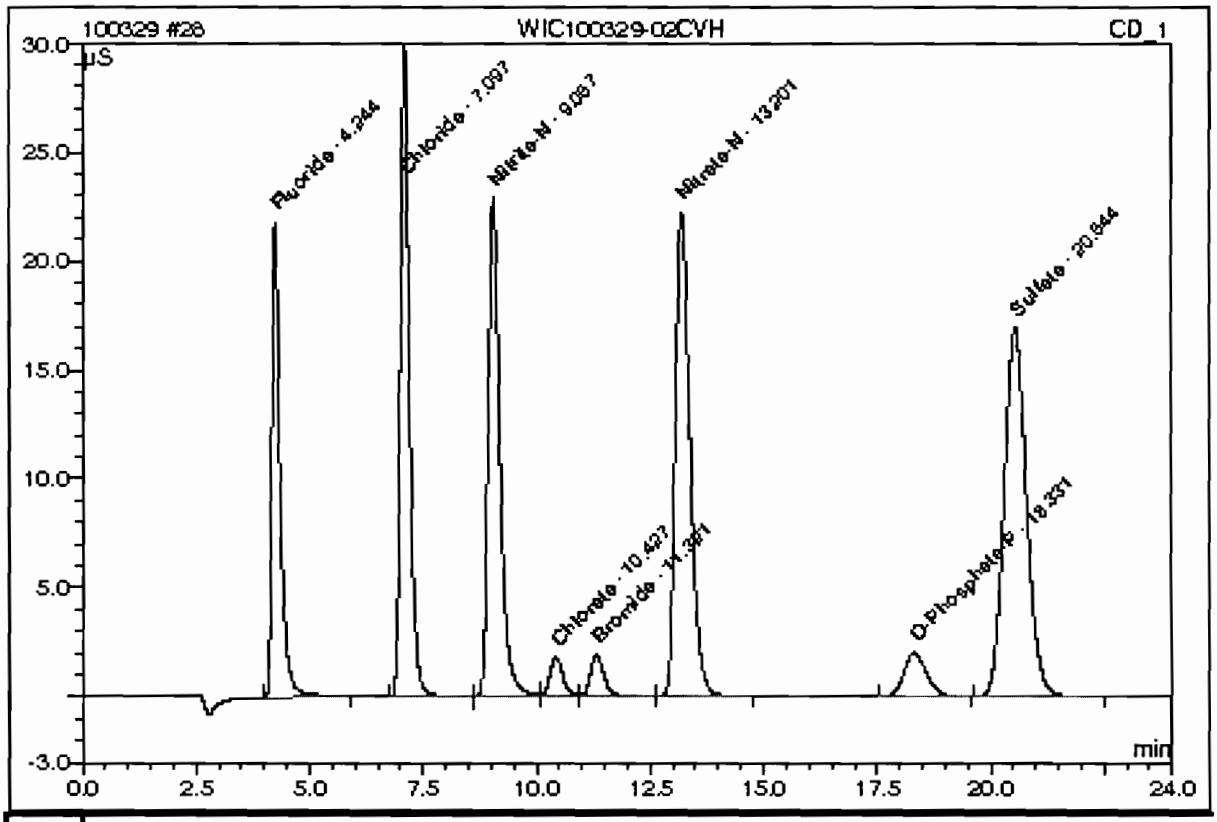

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	7.6885		4.58972	11.92
2	7.10	Chloride	n.a.	15.0164		6.85380	17.81
3	9.06	Nitrite-N	n.a.	7.6708		6.75687	17.55
4	10.43	Chlorate	n.a.	3.9182		0.59636	1.55
5	11.32	Bromide	n.a.	3.9191		0.63739	1.66
6	13.20	Nitrate-N	n.a.	7.6315		8.27283	21.49
7	18.33	O-Phosphate-P	n.a.	3.9213		1.13389	2.95
8	20.54	Sulfate	n.a.	30.3346		9.65232	25.08
Total:				80.1005	0.000	38.493	100.00

29 CCB

Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 23:42	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

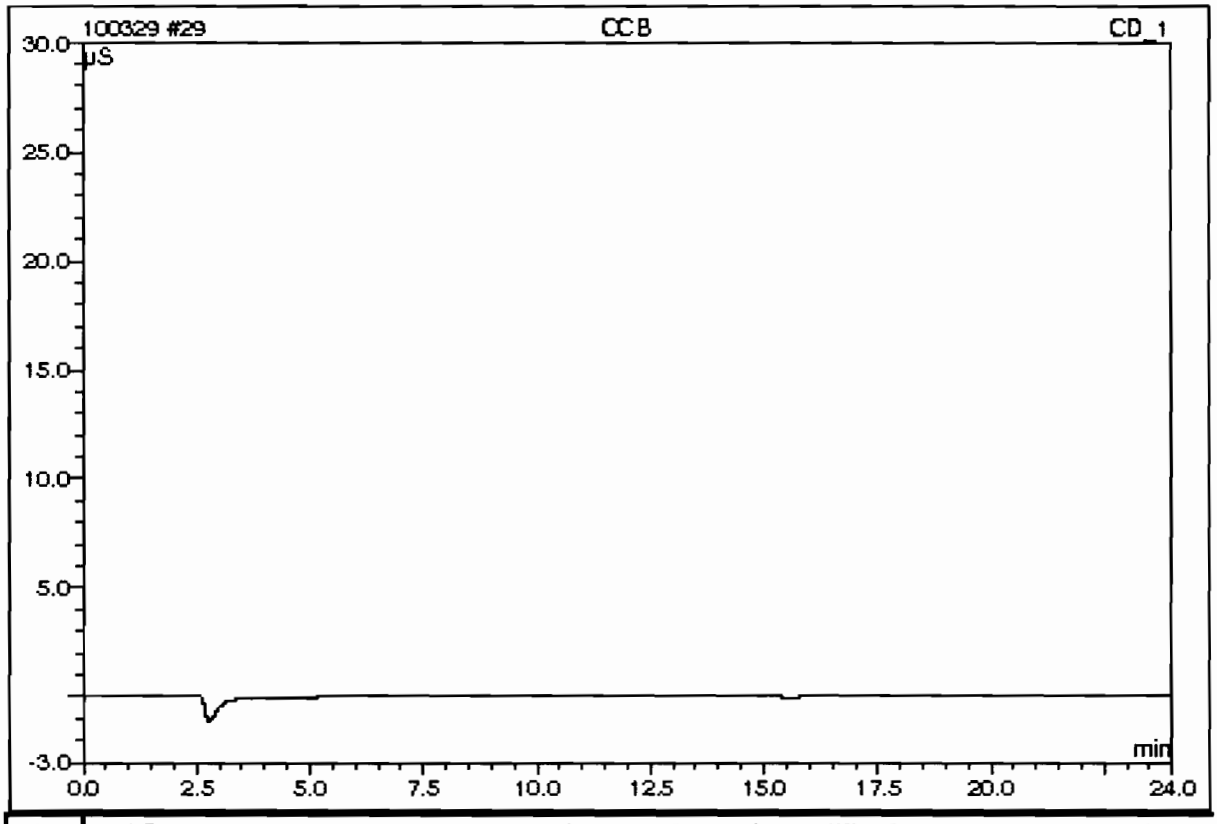

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100329.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
248814006	03/30/10 00:09	968640	1	100329	VH1
248814007	03/30/10 00:36	968640	1	100329	VH1
248814008	03/30/10 01:03	968640	1	100329	VH1
248814009	03/30/10 01:30	968640	1	100329	VH1
248824001	03/30/10 01:57	968640	1	100329	VH1
248824002	03/30/10 02:24	968640	1	100329	VH1
248865001	03/30/10 02:51	968640	1	100329	VH1
1202079400	03/30/10 03:18	968640	1	100329	VH1
1202079402	03/30/10 03:45	968640	1	100329	VH1
1202079404	03/30/10 04:11	968640	1	100329	VH1
CCV	03/30/10 04:38		1	100329	VH1
CCB	03/30/10 05:05		1	100329	VH1
248866001	03/30/10 05:32	968640	1	100329	VH1
248866002	03/30/10 05:59	968640	1	100329	VH1
CVH	03/30/10 06:26		1	100329	VH1
CCB	03/30/10 06:53		1	100329	VH1
1202083083	03/30/10 07:20	970116	1	100329	VH1
1202083086	03/30/10 07:47	970116	1	100329	VH1
248847001	03/30/10 08:14	970116	100	100329	VH1
248847003	03/30/10 08:41	970116	100	100329	VH1
248847005	03/30/10 09:07	970116	100	100329	VH1
1202083084	03/30/10 09:34	970116	100	100329	VH1
1202083085	03/30/10 10:01	970116	100	100329	VH1
248847007	03/30/10 10:28	970116	100	100329	VH1
248847009	03/30/10 10:55	970116	100	100329	VH1
CVH	03/30/10 11:22		1	100329	VH1
CCB	03/30/10 11:49		1	100329	VH1

36 248865001/968640/1/1/

Sample Name:	248865001/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	23	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 2:51	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

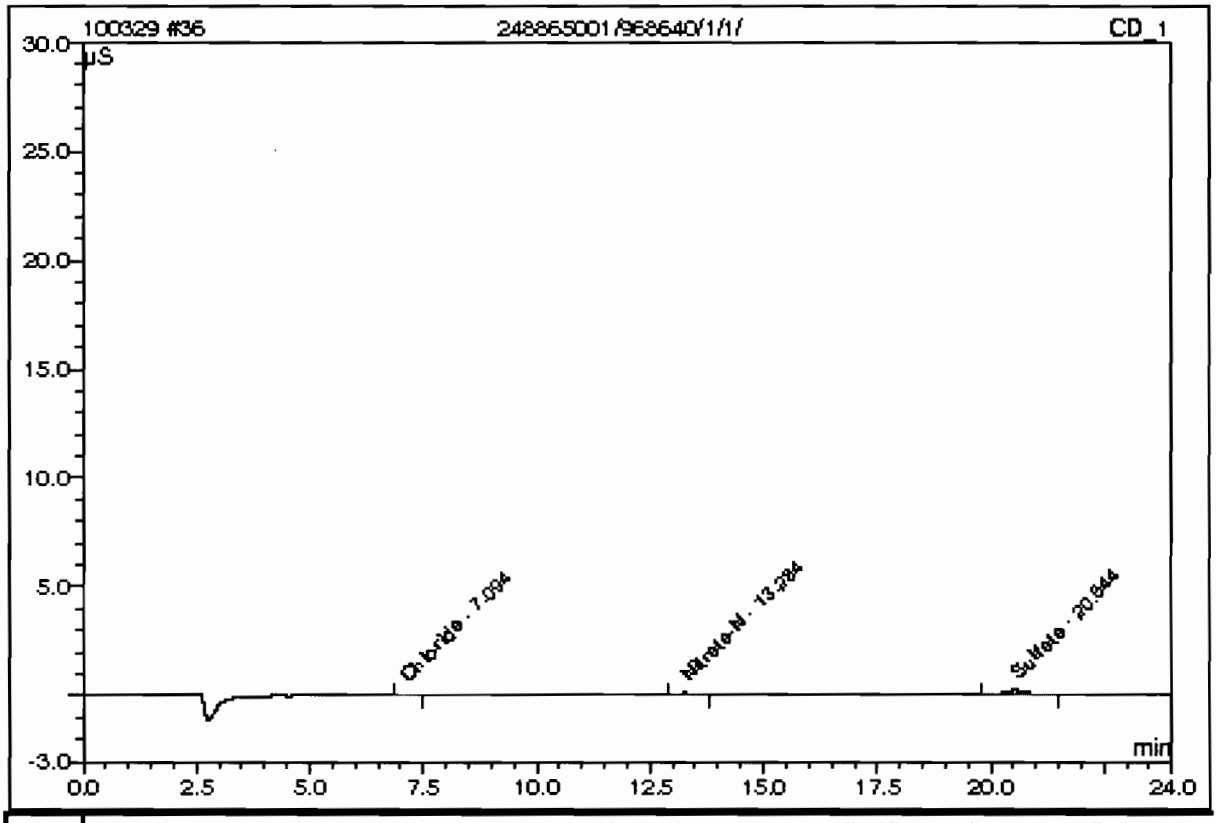

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.09	Chloride	n.a.	0.2180		0.01602	8.82
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
2	13.28	Nitrate-N	n.a.	0.1286		0.03219	17.73
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.54	Sulfate	n.a.	0.7360		0.13342	73.46
Total:				1.0826	0.000	0.182	100.00

37 1202079400/968640/1/1/DUP

Sample Name:	1202079400/968640/1/1/DUP	*Injection Volume:*	1.0
Vial Number:	24	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 3:18	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056

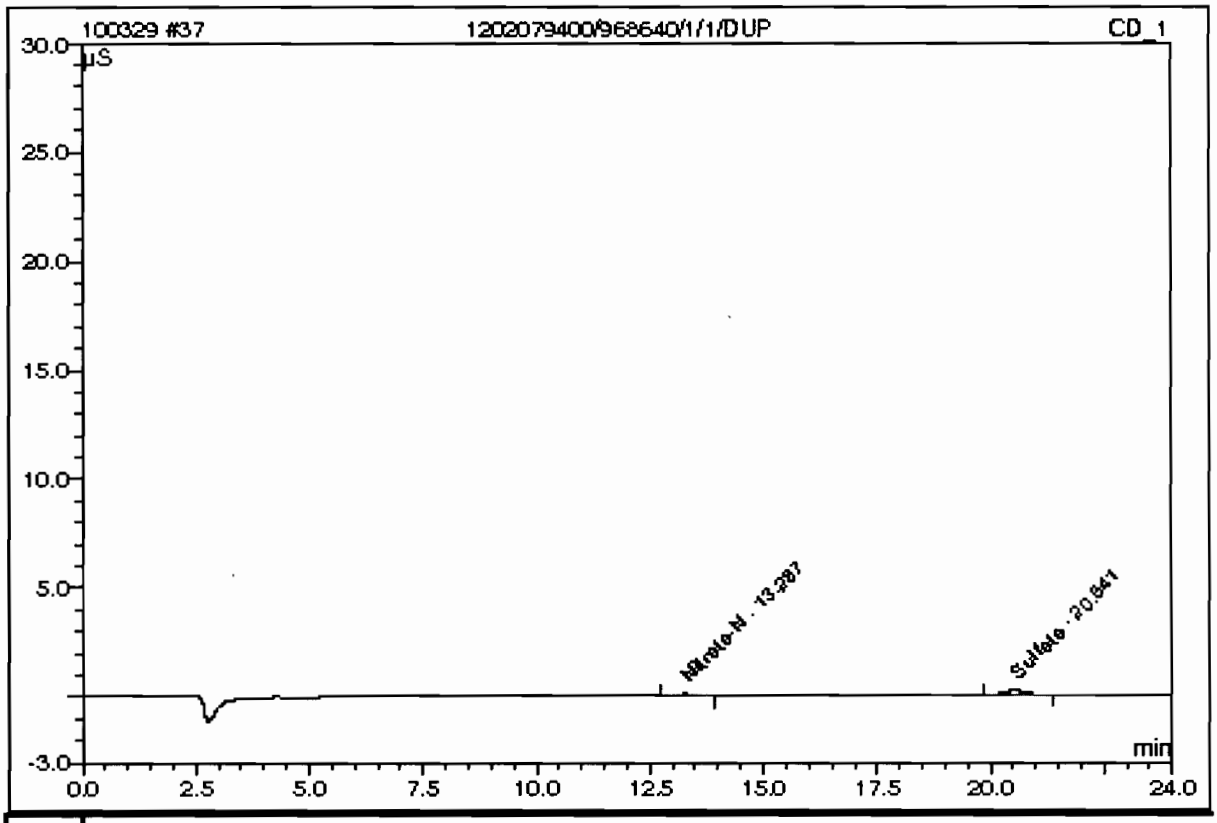

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
1	13.29	Nitrate-N	n.a.	0.1355		0.03982	23.47
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
2	20.54	Sulfate	n.a.	0.7248		0.12982	76.53
Total:				0.8603	0.000	0.170	100.00

38 1202079402/968640/1/1/MS

Sample Name:	1202079402/968640/1/1/MS	*Injection Volume:*	1.0
Vial Number:	25	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 3:45	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

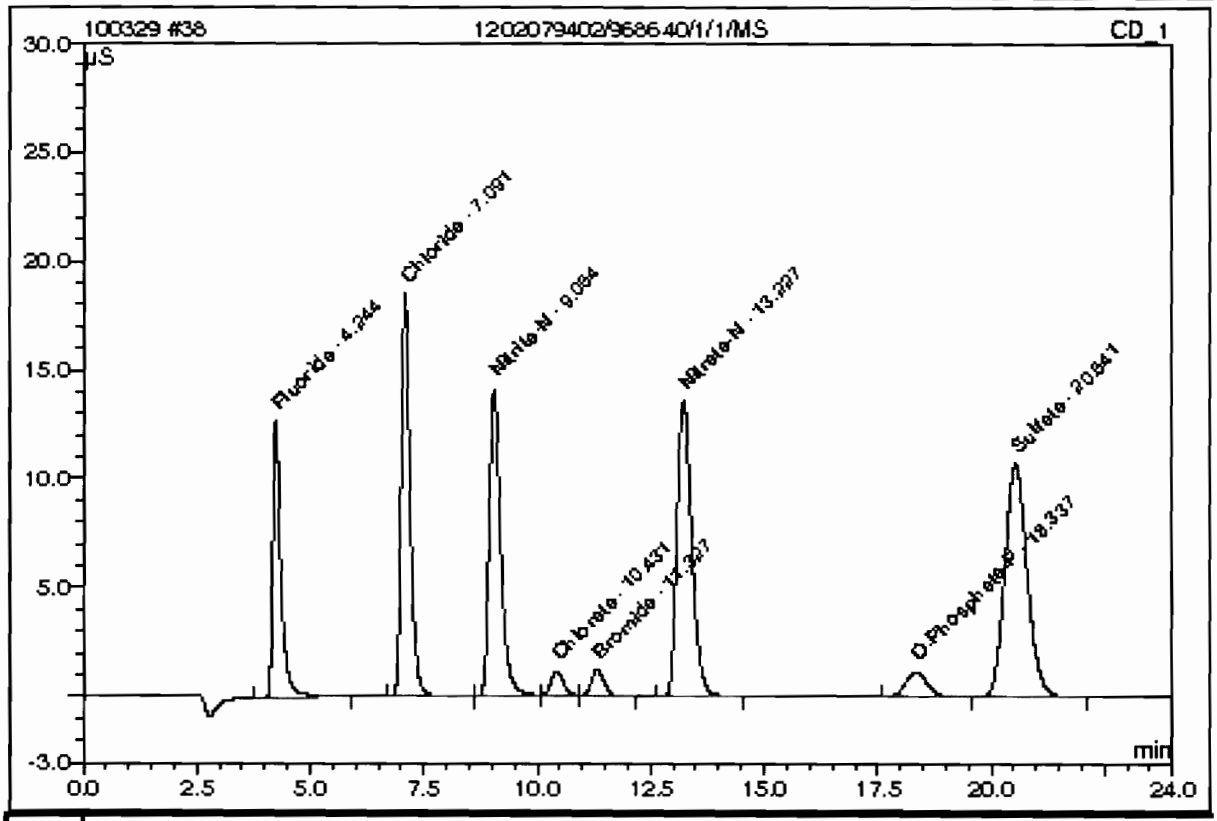

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	4.5439		2.69676	11.36
2	7.09	Chloride	n.a.	9.2811		4.20373	17.71
3	9.05	Nitrite-N	n.a.	4.7837		4.19022	17.66
4	10.43	Chlorate	n.a.	2.5201		0.38035	1.60
5	11.33	Bromide	n.a.	2.4931		0.40331	1.70
6	13.23	Nitrate-N	n.a.	4.7085		5.06242	21.33
7	18.34	O-Phosphate-P	n.a.	2.3203		0.64873	2.73
8	20.54	Sulfate	n.a.	19.4286		6.14494	25.89
Total:				50.0792	0.000	23.730	100.00

39 1202079404/968640/1/1/MSD

Sample Name:	1202079404/968640/1/1/MSD	*Injection Volume:*	1.0
Vial Number:	26	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 4:11	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

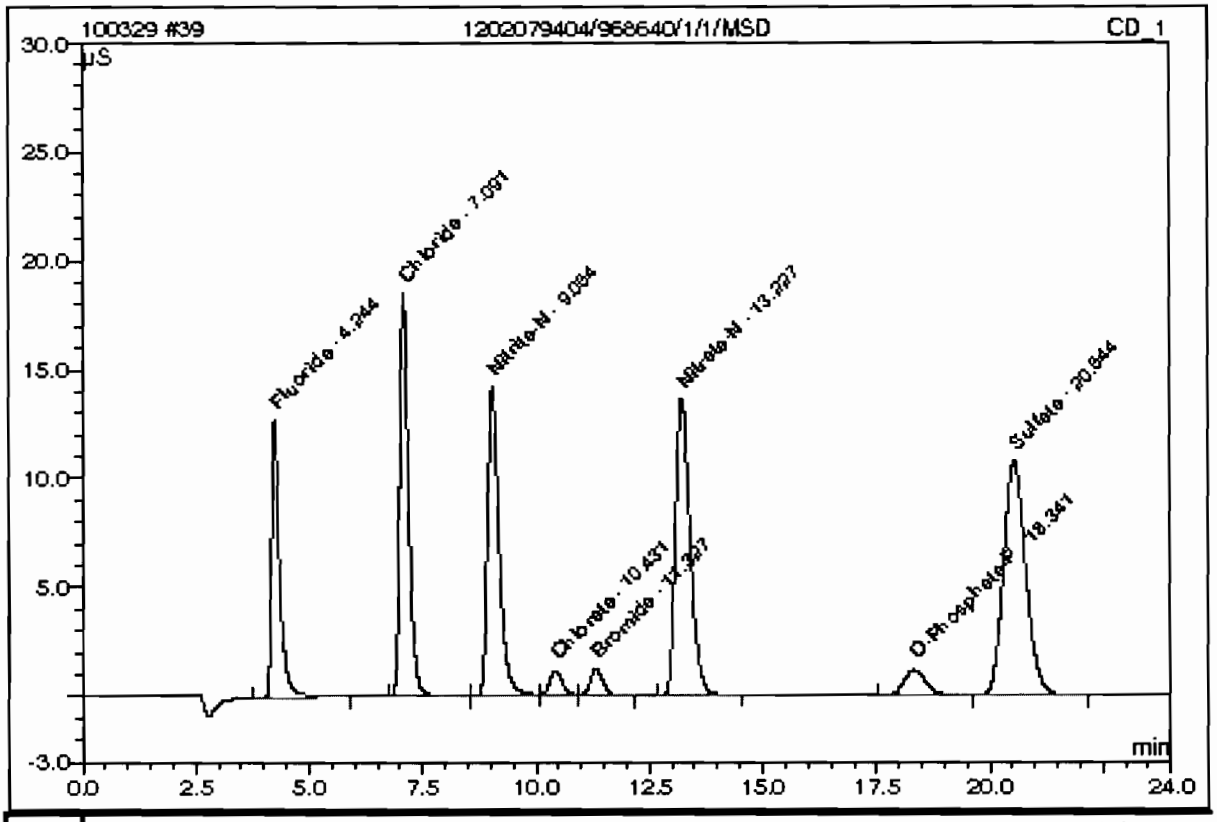

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	4.5453		2.69759	11.33
2	7.09	Chloride	n.a.	9.2944		4.20987	17.69
3	9.05	Nitrite-N	n.a.	4.8022		4.20673	17.67
4	10.43	Chlorate	n.a.	2.5162		0.37974	1.60
5	11.33	Bromide	n.a.	2.5045		0.40518	1.70
6	13.23	Nitrate-N	n.a.	4.7106		5.06479	21.28
7	18.34	O-Phosphate-P	n.a.	2.3793		0.66661	2.80
8	20.54	Sulfate	n.a.	19.5124		6.17190	25.93
Total:				50.2649	0.000	23.802	100.00

40 WIC100329-02CCV

Sample Name:	WIC100329-02CCV	*Injection Volume:*	1.0
Vial Number:	27	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 4:38	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

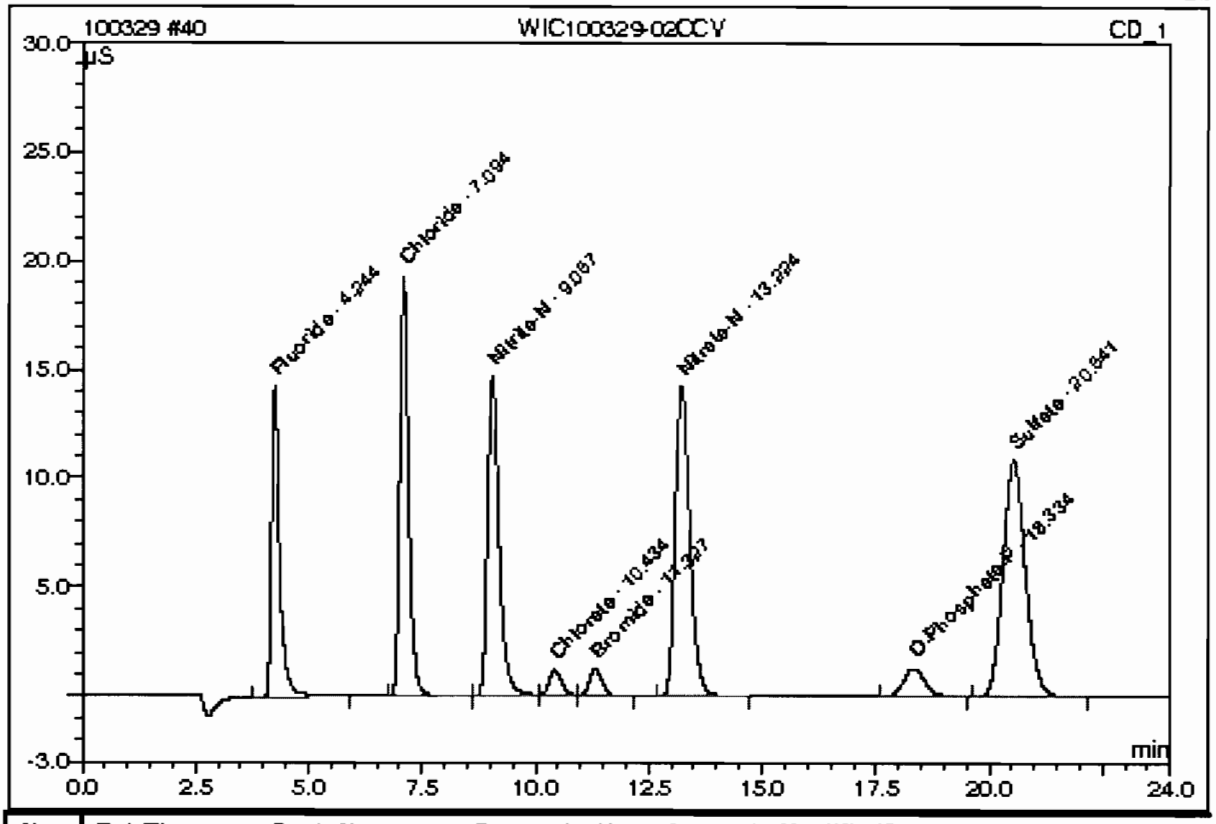

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	5.0481		3.00029	12.11
2	7.09	Chloride	n.a.	9.6466		4.37260	17.65
3	9.06	Nitrite-N	n.a.	4.9604		4.34732	17.55
4	10.43	Chlorate	n.a.	2.5856		0.39047	1.58
5	11.33	Bromide	n.a.	2.5695		0.41585	1.68
6	13.22	Nitrate-N	n.a.	4.9119		5.28580	21.34
7	18.33	O-Phosphate-P	n.a.	2.5842		0.72869	2.94
8	20.54	Sulfate	n.a.	19.6878		6.22832	25.15
Total:				51.9941	0.000	24.769	100.00

41 CCB

Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	28	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 5:05	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056

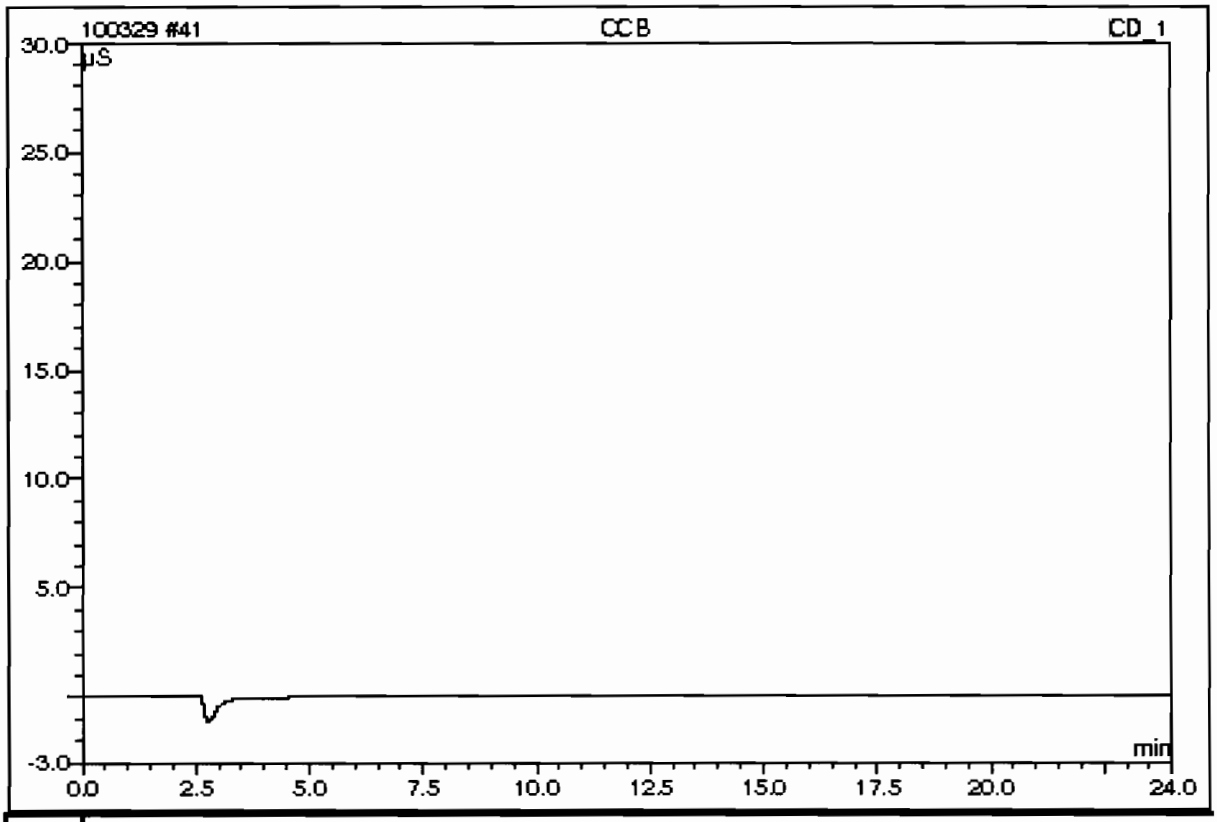

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
18-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	SW846 9012A	Solid	LANL
Batch ID:	**Sample Numbers:**		
962273	See Below		

Potentially affected work order(s)(SDG): 248860(10-2313),248865(10-2318)

Application Issues:

Sample Analyzed out of Holding

Specification and Requirements Exception Description:	DER Disposition:
1. Sample Analyzed out of Holding: 248865 001	1.Due to analyst oversight the following sample was not prepped within the method specified holding time. Sample missed holding time by less than 24 hours. As soon as oversight was noticed, sample was analyzed as quickly as possible.

Originator's Name:

Ashley Earl 18-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc 01-APR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
30-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
IC	EPA 300.0	Solid	LANL
Batch ID:	**Sample Numbers:**		
968640	See Below		

Potentially affected work order(s)(SDG): 248814(10-2303),248824(10-2305),248865(10-2318),248866(10-2319)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS, MSD/PSD: QC 1202079401MS, 1202079403MSD	1. . MS and MSD failed required acceptance limits for nitrate due to matrix interference. The MSD was performed with the QC to verify that matrix interference caused unacceptable recoveries in the spike QC.

Originator's Name:

Virginia Wininger 30-MAR-10

Data Validator/Group Leader:

Mary Sherwood 01-APR-10

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2318

Method/Analysis Information

Procedure:	**Dry Weight-Percent Moisture**
Analytical Method:	Dry Soil Prep
Analytical Batch Number:	962369

Sample ID	Client ID
248865001	RE46-10-11924
1202064417	248800001(RE11-10-1756) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 248800001 (RE11-10-1756). The QC was from LANL work order 248800.

QC Information
All of the QC samples met the required acceptance limits.

CSU
Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962716
Prep Batch Number:	962369

Sample ID	Client ID
248865001	RE46-10-11924
1202065371	Method Blank (MB)
1202065372	248866001(RE46-10-11885) Sample Duplicate (DUP)
1202065373	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories

LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202065371 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248866001 (RE46-10-11885). The QC was from LANL work order 248866.

QC Information
Refer to Data Exception Report (DER).

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG:
DER 809656 was generated due to Result is more negative than the three sigma TPU. 1. The Am-241 results for Duplicate Sample 1202065372 is more negative than three sigma TPU. 1. The Quality Control Sample 248866001 does not have a high Am-241 negative result. There is no reportable Am-241 activity in either of the samples. Reporting results.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962718
Prep Batch Number:	962369

Sample ID	Client ID
248865001	RE46-10-11924
1202065378	Method Blank (MB)
1202065379	248866001(RE46-10-11885) Sample Duplicate (DUP)
1202065380	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202065378 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248866001 (RE46-10-11885). The QC was from LANL work order 248866.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOTH**
Analytical Method:	DOE EML HASL-300, Th-01-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965814
Prep Batch Number:	962369

Sample ID	Client ID
248865001	RE46-10-11924
1202072528	Method Blank (MB)
1202072529	248867001(RE46-10-12931) Sample Duplicate (DUP)
1202072530	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-038 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202072528 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248867001 (RE46-10-12931). The QC was from LANL work order 248867.

QC Information
All of the QC samples met the required acceptance limits.

CSU

The Th230 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were recounted due to high relative percent difference/relative error ratio.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962721
Prep Batch Number:	962369

Sample ID	Client ID
248865001	RE46-10-11924
1202065398	Method Blank (MB)
1202065399	248866001(RE46-10-11885) Sample Duplicate (DUP)
1202065400	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202065398 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248866001 (RE46-10-11885). The QC was from LANL work order 248866.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U233/234 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962633
Prep Batch Number:	962369

Sample ID	Client ID
248865001	RE46-10-11924
1202065188	Method Blank (MB)
1202065189	248867001(RE46-10-12931) Sample Duplicate (DUP)
1202065190	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 19.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in July 2009, December 2009 and February 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 248867001 (RE46-10-12931). The QC was from LANL work order 248867.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank, 1202065188 (MB), results for Co-60 and Ra-224 are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank, 1202065188 (MB), results for Co-60 and Ra-224 are greater than the decision level but less than the MDC.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	248865001	RE46-10-11924
			1202065189	RE46-10-12931(248867001DUP)
		Cadmium-109	248865001	RE46-10-11924
			1202065189	RE46-10-12931(248867001DUP)
		Radium-224	248865001	RE46-10-11924
			1202065189	RE46-10-12931(248867001DUP)
UI	Data rejected due to low abundance.	Cesium-134	248865001	RE46-10-11924
			1202065189	RE46-10-12931(248867001DUP)
		Strontium-85	248865001	RE46-10-11924

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: Pamela Walker 3/31/10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
25-MAR-10	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ALPHA SPECTROMETER	DOE EML HASL-300, Am-05-RC Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
962716	See Below		

Potentially affected work order(s)(SDG): 248800(10-2290),248863(10-2315),248865(10-2318),248866(10-2319)

Application Issues:

Result is more negative than the three sigma TPU

Specification and Requirements Exception Description:	DER Disposition:
1. The Am-241 results for Duplicate Sample 1202065372 is more negative than three sigma TPU.	1. The Quality Control Sample 248866001 does not have a high Am-241 negative result. There is no reportable Am-241 activity in either of the samples. Reporting results.

Originator's Name:

Jessica Downey 25-MAR-10

Data Validator/Group Leader:

Kate Gellatly 25-MAR-10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2318 GEL Work Order: 248865

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-11924
Sample ID: 248865001
Matrix: S
Collect Date: 03-MAR-10
Receive Date: 06-MAR-10
Collector: Client
Moisture: 17.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0108	0.0274	+/-0.00542	0.050	pCi/g		MXE1	03/23/10	1335	962716	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00392	0.0228	+/-0.00323	0.050	pCi/g		MXE1	03/24/10	1126	962718	3
Plutonium-239/240	U	0.00192	0.0193	+/-0.00423	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.83	0.198	+/-0.190	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
Thorium-230		1.13	0.249	+/-0.131	0.100	pCi/g						
Thorium-232		1.68	0.106	+/-0.174	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.865	0.104	+/-0.0842	0.100	pCi/g		MXE1	03/24/10	1155	962721	6
Uranium-235/236	U	0.050	0.0634	+/-0.0155	0.100	pCi/g						
Uranium-238		0.865	0.073	+/-0.0844	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0331	0.194	+/-0.0634	0.200	pCi/g		MXR1	03/24/10	2031	962633	7
Bismuth-211	UI	4.97	0.380	+/-0.328		pCi/g						
Bismuth-214		1.45	0.140	+/-0.112	0.200	pCi/g						
Cadmium-109	UI	4.64	1.16	+/-0.498		pCi/g						
Cerium-139	U	-0.00785	0.0556	+/-0.0172	0.050	pCi/g						
Cesium-134	UI	0.186	0.121	+/-0.0392	0.100	pCi/g						
Cesium-137	U	-0.00483	0.0676	+/-0.0204	0.100	pCi/g						
Cobalt-60	U	0.00342	0.0767	+/-0.0231	0.100	pCi/g						
Europium-152	U	-0.0727	0.166	+/-0.0519	0.200	pCi/g						
Lanthanum-140	U	0.00	0.223	+/-0.00		pCi/g						
Lead-212		2.15	0.100	+/-0.121	0.100	pCi/g						
Lead-214		1.81	0.137	+/-0.129	0.100	pCi/g						
Mercury-203	U	0.00704	0.0784	+/-0.0233	0.100	pCi/g						
Potassium-40		37.6	0.549	+/-1.90	1.00	pCi/g						
Radium-223	U	0.0225	1.08	+/-0.366		pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-11924
Sample ID: 248865001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-224	Ul	4.76	1.07	+/-0.588		pCi/g						
Radium-226		1.45	0.140	+/-0.112		pCi/g						
Radium-228		2.33	0.240	+/-0.212	0.500	pCi/g						
Ruthenium-106	U	0.00957	0.581	+/-0.172	0.800	pCi/g						
Sodium-22	U	0.0139	0.0838	+/-0.0247	0.080	pCi/g						
Strontium-85	Ul	0.0982	0.0855	+/-0.0228		pCi/g						
Thallium-208		0.733	0.0624	+/-0.0608	0.080	pCi/g						
Thorium-227	U	0.00143	0.471	+/-0.138		pCi/g						
Thorium-231	U	0.0225	1.08	+/-0.366		pCi/g						
Thorium-234		3.26	1.74	+/-0.913	2.00	pCi/g						
Tin-113	U	-0.0142	0.0893	+/-0.0274	0.100	pCi/g						
Uranium-235	U	-0.0307	0.372	+/-0.115	0.500	pCi/g						
Yttrium-88	U	-0.00821	0.0557	+/-0.0176	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	68.4	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	82.7	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	75.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	85.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-11924
Sample ID: 248865001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
JNX Non Calibrated Compound
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: March 30, 2010
Page 1 of 7

Client : **Los Alamos National Laboratory**
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: **Ms. Joylene Valdez**

Workorder: **248865**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 962716										
QC1202065372 248866001 DUP										
Americium-241	U	-0.00278	U	-0.0205	pCi/g	1.21		(0-1)	MXE1	03/23/1013:35
	TPU:	+/-0.00232		+/-0.00501						
	Yield:	67.2		85.4						
QC1202065373 LCS										
Americium-241	33.1			30.0	pCi/g		90.5	(75%-125%)		03/23/1009:05
	TPU:			+/-2.30						
	Yield:			87.6						
QC1202065371 MB										
Americium-241			U	-0.00672	pCi/g					03/23/1013:34
	TPU:			+/-0.0036						
	Yield:			80.3						
Batch 962718										
QC1202065379 248866001 DUP										
Plutonium-238	U	0.00212	U	0.00361	pCi/g	0.104		(0-1)	MXE1	03/24/1010:20
	TPU:	+/-0.00263		+/-0.00453						
	Yield:	87.1		84.3						
Plutonium-239/240	U	0.00661	U	0.0051	pCi/g	0.120		(0-1)		
	TPU:	+/-0.00333		+/-0.00296						
	Yield:	87.1		84.3						
QC1202065380 LCS										
Plutonium-238				4.61	pCi/g			(75%-125%)		
	TPU:			+/-0.431						
	Yield:			81.4						
Plutonium-239/240	41.8			38.6	pCi/g		92.4	(75%-125%)		
	TPU:			+/-2.68						
	Yield:			81.4						
QC1202065378 MB										
Plutonium-238			U	-0.000958	pCi/g					
	TPU:			+/-0.00311						
	Yield:			87.7						
Plutonium-239/240			U	-0.00253	pCi/g					
	TPU:			+/-0.00348						
	Yield:			87.7						
Batch 962721										
QC1202065399 248866001 DUP										
Uranium-233/234		0.963		0.758	pCi/g	0.615		(0-1)	MXE1	03/24/1011:55
	TPU:	+/-0.0913		+/-0.075						
	Yield:	94.3		76.8						
Uranium-235/236	U	0.0178	U	0.0389	pCi/g	0.377		(0-1)		
	TPU:	+/-0.011		+/-0.017						
	Yield:	94.3		76.8						
Uranium-238		0.906		0.843	pCi/g	0.187		(0-1)		
	TPU:	+/-0.0869		+/-0.0812						

QC Summary

Workorder: 248865

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 962721										
	Yield:	94.3		76.8						
QC1202065400 LCS										
Uranium-233/234				5.99	pCi/g					
	TPU:			+/-0.541						
	Yield:			87.8						
Uranium-235/236			U	0.208	pCi/g					
	TPU:			+/-0.0668						
	Yield:			87.8						
Uranium-238	5.75			5.05	pCi/g		87.9	(75%-125%)		
	TPU:			+/-0.468						
	Yield:			87.8						
QC1202065398 MB										
Uranium-233/234			U	0.0138	pCi/g					
	TPU:			+/-0.00662						
	Yield:			82.0						
Uranium-235/236			U	0.00652	pCi/g					
	TPU:			+/-0.00488						
	Yield:			82.0						
Uranium-238			U	-0.00352	pCi/g					
	TPU:			+/-0.00498						
	Yield:			82.0						
Batch 965814										
QC1202072529 248867001 DUP										
Thorium-228		1.53		1.98	pCi/g	0.649		(0-1)	AYB1	03/29/1017:06
	TPU:	+/-0.159		+/-0.188						
	Yield:	85.0		88.3						
Thorium-230		0.881		1.24	pCi/g	0.762		(0-1)		
	TPU:	+/-0.105		+/-0.132						
	Yield:	85.0		88.3						
Thorium-232		1.36		1.62	pCi/g	0.429		(0-1)		
	TPU:	+/-0.143		+/-0.159						
	Yield:	85.0		88.3						
QC1202072530 LCS										
Thorium-228				1.33	pCi/g					03/29/1017:06
	TPU:			+/-0.201						
	Yield:			86.8						
Thorium-230	25.6			26.3	pCi/g		103	(75%-125%)		
	TPU:			+/-2.12						
	Yield:			86.8						
Thorium-232				1.10	pCi/g			(75%-125%)		
	TPU:			+/-0.172						
	Yield:			86.8						
QC1202072528 MB										
Thorium-228			U	-0.000358	pCi/g					03/29/1017:06
	TPU:			+/-0.00567						
	Yield:			93.1						
Thorium-230			U	0.00587	pCi/g					
	TPU:			+/-0.00328						
	Yield:			93.1						
Thorium-232			U	0.00141	pCi/g					

QC Summary

Workorder: 248865

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965814										
	TPU:			+/-0.00301						
	Yield:			93.1						
Rad Gamma Spec										
Batch 962633										
QC1202065189 248867001 DUP										
Americium-241	U	-0.0252	U	-0.0361	pCi/g	0.0477		(0-1)	MXR1	03/24/1023:00
	TPU:	+/-0.0965		+/-0.0183						
Bismuth-211	UI	3.83	UI	3.94	pCi/g	0.0946		(0-1)		
	TPU:	+/-0.303		+/-0.247						
Bismuth-214		1.17		1.48	pCi/g	0.715		(0-1)		
	TPU:	+/-0.103		+/-0.116						
Cadmium-109	UI	2.48	UI	4.66	pCi/g	1.14		(0-1)		
	TPU:	+/-0.596		+/-0.357						
Cerium-139	U	0.00997	U	-0.00147	pCi/g	0.207		(0-1)		
	TPU:	+/-0.0185		+/-0.00912						
Cesium-134	UI	0.141	UI	0.110	pCi/g	0.204		(0-1)		
	TPU:	+/-0.0479		+/-0.0293						
Cesium-137	UI	0.126		0.113	pCi/g	0.118		(0-1)		
	TPU:	+/-0.0246		+/-0.0324						
Cobalt-60	U	-0.0193	U	-0.000883	pCi/g	0.241		(0-1)		
	TPU:	+/-0.0213		+/-0.0169						
Europium-152	U	0.00124	U	0.0619	pCi/g	0.297		(0-1)		
	TPU:	+/-0.0666		+/-0.0356						
Lanthanum-140	U	-0.056	U	0.0733	pCi/g	0.559		(0-1)		
	TPU:	+/-0.0648		+/-0.0509						
Lead-212		1.84		1.91	pCi/g	0.165		(0-1)		
	TPU:	+/-0.111		+/-0.105						
Lead-214		1.39		1.43	pCi/g	0.0887		(0-1)		
	TPU:	+/-0.117		+/-0.0978						
Mercury-203	U	0.028	U	0.0029	pCi/g	0.308		(0-1)		
	TPU:	+/-0.0246		+/-0.0161						
Potassium-40		35.2		33.1	pCi/g	0.282		(0-1)		
	TPU:	+/-2.16		+/-1.65						
Radium-223	U	0.0653	U	0.0788	pCi/g	0.010		(0-1)		
	TPU:	+/-0.415		+/-0.260						
Radium-224	UI	4.78	UI	4.63	pCi/g	0.0588		(0-1)		
	TPU:	+/-0.778		+/-0.473						
Radium-226		1.17		1.48	pCi/g	0.715		(0-1)		
	TPU:	+/-0.103		+/-0.116						
Radium-228		1.69		1.98	pCi/g	0.356		(0-1)		
	TPU:	+/-0.213		+/-0.186						
Ruthenium-106	U	-0.102	U	0.201	pCi/g	0.492		(0-1)		
	TPU:	+/-0.172		+/-0.136						
Sodium-22	U	-0.0499	U	-0.00156	pCi/g	0.536		(0-1)		
	TPU:	+/-0.024		+/-0.0211						
Strontium-85	U	-0.18	U	0.0208	pCi/g	2.02		(0-1)		
	TPU:	+/-0.0321		+/-0.0177						
Thallium-208		0.586		0.584	pCi/g	0.0121		(0-1)		
	TPU:	+/-0.0518		+/-0.0471						
Thorium-227	U	0.00176	U	-0.102	pCi/g	0.224		(0-1)		

QC Summary

Workorder: 248865

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962633										
	TPU:	+/-0.142		+/-0.0906						
Thorium-231	U	0.0653	U	0.0788	pCi/g	0.010		(0-1)		
	TPU:	+/-0.415		+/-0.260						
Thorium-234	U	0.746		1.78	pCi/g	0.428		(0-1)		
	TPU:	+/-0.855		+/-0.350						
Tin-113	U	0.0304	U	-0.0268	pCi/g	0.631		(0-1)		
	TPU:	+/-0.0265		+/-0.0188						
Uranium-235	U	0.341	U	0.110	pCi/g	0.573		(0-1)		
	TPU:	+/-0.134		+/-0.0669						
Yttrium-88	U	-0.0065	U	0.0289	pCi/g	0.481		(0-1)		
	TPU:	+/-0.0191		+/-0.0177						
QC1202065190 LCS										
Americium-241	16.3			13.9	pCi/g		85.2	(75%-125%)		03/25/1009:16
	TPU:			+/-0.638						
Bismuth-211				3.46	pCi/g					
	TPU:			+/-0.367						
Bismuth-214				0.890	pCi/g					
	TPU:			+/-0.108						
Cadmium-109				35.4	pCi/g					
	TPU:			+/-2.11						
Cerium-139			U	0.0101	pCi/g					
	TPU:			+/-0.0215						
Cesium-134			U	0.071	pCi/g					
	TPU:			+/-0.0385						
Cesium-137	5.69			5.89	pCi/g		104	(75%-125%)		
	TPU:			+/-0.331						
Cobalt-60	6.49			6.90	pCi/g		106	(75%-125%)		
	TPU:			+/-0.337						
Europium-152			U	0.0108	pCi/g					
	TPU:			+/-0.0883						
Lanthanum-140			U	-0.0747	pCi/g					
	TPU:			+/-0.0628						
Lead-212				1.43	pCi/g					
	TPU:			+/-0.119						
Lead-214				1.26	pCi/g					
	TPU:			+/-0.138						
Mercury-203			U	-0.0163	pCi/g					
	TPU:			+/-0.0331						
Potassium-40				1.02	pCi/g					
	TPU:			+/-0.254						
Radium-223			U	-0.894	pCi/g					
	TPU:			+/-0.541						
Radium-224				2.93	pCi/g					
	TPU:			+/-0.863						
Radium-226				0.890	pCi/g					
	TPU:			+/-0.108						
Radium-228				1.59	pCi/g					
	TPU:			+/-0.301						
Ruthenium-106			U	-0.181	pCi/g					
	TPU:			+/-0.248						
Sodium-22			U	0.0353	pCi/g					

QC Summary

Workorder: 248865

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962633										
	TPU:			+/-0.0239						
Strontium-85			U	-0.0677	pCi/g					
	TPU:			+/-0.0364						
Thallium-208				0.427	pCi/g					
	TPU:			+/-0.054						
Thorium-227			U	-0.0226	pCi/g					
	TPU:			+/-0.208						
Thorium-231			U	-0.894	pCi/g					
	TPU:			+/-0.541						
Thorium-234			U	-0.854	pCi/g					
	TPU:			+/-0.967						
Tin-113			U	-0.0231	pCi/g					
	TPU:			+/-0.0386						
Uranium-235			U	-0.147	pCi/g					
	TPU:			+/-0.135						
Yttrium-88			U	0.0459	pCi/g					
	TPU:			+/-0.0238						
QC1202065188 MB										
Americium-241			U	-0.0948	pCi/g					03/24/1022:59
	TPU:			+/-0.0289						
Bismuth-211			U	0.0297	pCi/g					
	TPU:			+/-0.0459						
Bismuth-214			U	-0.0119	pCi/g					
	TPU:			+/-0.0183						
Cadmium-109			U	-0.612	pCi/g					
	TPU:			+/-0.169						
Cerium-139			U	-0.0106	pCi/g					
	TPU:			+/-0.00641						
Cesium-134			U	-0.00286	pCi/g					
	TPU:			+/-0.00786						
Cesium-137			U	-0.00571	pCi/g					
	TPU:			+/-0.00718						
Cobalt-60			U	0.0175	pCi/g					
	TPU:			+/-0.00761						
Europium-152			U	-0.017	pCi/g					
	TPU:			+/-0.0203						
Lanthanum-140			U	0.0232	pCi/g					
	TPU:			+/-0.0181						
Lead-212			U	-0.0174	pCi/g					
	TPU:			+/-0.0172						
Lead-214			U	0.0115	pCi/g					
	TPU:			+/-0.0166						
Mercury-203			U	-0.0075	pCi/g					
	TPU:			+/-0.00762						
Potassium-40			U	-0.0404	pCi/g					
	TPU:			+/-0.105						
Radium-223			U	-0.0221	pCi/g					
	TPU:			+/-0.128						
Radium-224			U	0.304	pCi/g					
	TPU:			+/-0.137						
Radium-226			U	-0.0119	pCi/g					

QC Summary

Workorder: 248865

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962633										
	TPU:			+/-0.0183						
Radium-228			U	-0.0353	pCi/g					
	TPU:			+/-0.0343						
Ruthenium-106			U	-0.0657	pCi/g					
	TPU:			+/-0.0658						
Sodium-22			U	-2.09E-06	pCi/g					
	TPU:			+/-0.00745						
Strontium-85			U	-0.0416	pCi/g					
	TPU:			+/-0.0134						
Thallium-208			U	0.00936	pCi/g					
	TPU:			+/-0.00937						
Thorium-227			U	0.0445	pCi/g					
	TPU:			+/-0.0518						
Thorium-231			U	-0.0221	pCi/g					
	TPU:			+/-0.128						
Thorium-234			U	0.199	pCi/g					
	TPU:			+/-0.296						
Tin-113			U	-0.00326	pCi/g					
	TPU:			+/-0.00929						
Uranium-235			U	-0.0127	pCi/g					
	TPU:			+/-0.0458						
Yttrium-88			U	-0.0106	pCi/g					
	TPU:			+/-0.00801						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
JNX	Non Calibrated Compound
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor

QC Summary

Workorder: **248865**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 962716 Product: AM Date: 3/25/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	✓		DER# 809656
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	✓		DER# 809656
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/25/10

Secondary Review Performed By: [signature] 3/25/10

3/16 3/26 LAW

p ✓

Am/Cm Que Sheet

08-MAR-10

Batch #: 962716 | Analyst: MXE1 | First Client Due Date: 26-MAR-10 | Internal Due Date: 16-MAR-10 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-VV | Expiration Date: 3/9/11 | Vol: 0.1

LCS Isotope(s): Am241/Cm244 | LCS Code(s): / 03/25/10 / 03/25/10 | Expiration Date: / 03/25/10 / 03/25/10 | Vol(s): / 03/25/10 / 03/25/10

Spike Isotope(s): Am241/Cm244 | Spike Code(s): / / | Expiration Date: / / | Vol(s): / /

Prep Date: 3/18/10 | Initials: ML | Pipet ID: 29-71058 | Balance ID: 50410272 | Witness: JEH 3-18-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #
248800001-1	RE11-10-1756	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	1	1	1.251	228
248800002-1	RE11-10-1762	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	2	2	1.244	229
248800003-1	RE11-10-1764	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	3	3	1.246	230
248800004-1	RE11-10-1776	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	4	4	1.241	231
248800005-1	RE11-10-1766	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	5	5	1.249	232
248800006-1	RE11-10-1763	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	6	6	1.248	233
248800007-1	RE11-10-1761	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	7	7	1.243	234
248800008-1	RE11-10-1765	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	8	8	1.252	209
248800009-1	RE11-10-1768	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	9	9	1.250	210
248800010-1	RE11-10-1767	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	10	10	1.249	211
248800011-1	RE11-10-1769	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	11	11	1.238	216
248800012-1	RE11-10-1770	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	12	12	1.250	217
248863001-1	RE46-10-12936	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	13	13	1.240	218
248863002-1	RE46-10-12930	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	14	14	1.249	239
248863003-1	RE46-10-12929	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	15	15	1.263	240
248863004-1	RE46-10-12935	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	16	16	1.238	241
248865001-1	RE46-10-11924	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	17	17	1.246	242
248866001-1	RE46-10-11885	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	18	18	1.246	235
248866002-1	RE46-10-11886	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	19	19	1.262	236
1202065371-1	MB for batch 962716	MB		.05 pCi/g	SOIL	QC ACCOUNT		20	20	1.00	237
1202065372-1	RE46-10-11885(248866001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	04-MAR-10	21	21	1.256	238
1202065373-1	LCS for batch 962716	LCS		.05 pCi/g	SOIL	QC ACCOUNT		22	22	0.106	234

SRM 0244B exp 4/30/20

Choose SOP Used: GL-RAD-A-011 / ~~GL-RAD-A-036~~

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 03/25/10

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 962716

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202065372	DUP	Americium-241	1.26 g	-0.0205	0.00501	0.0213	-.00533333	pCi/g	NO
1202065373	LCS	Americium-241	0.106 g	30.0	2.30	0.249	-.06339623	pCi/g	NO
1202065371	MB	Americium-241	1.00 g	-0.00672	0.0036	0.0278	-.00672	pCi/g	NO
248800001	RE11-10-1756	Americium-241	1.25 g	-0.00142	0.00184	0.0269	-.005376	pCi/g	NO
248800002	RE11-10-1762	Americium-241	1.24 g	0.000279	0.00171	0.0251	-.00541935	pCi/g	NO
248800003	RE11-10-1764	Americium-241	1.25 g	-0.00271	0.00219	0.026	-.005376	pCi/g	NO
248800004	RE11-10-1776	Americium-241	1.24 g	-0.00143	0.00181	0.0264	-.00541935	pCi/g	NO
248800005	RE11-10-1766	Americium-241	1.25 g	0.000633	0.00423	0.0269	-.005376	pCi/g	NO
248800006	RE11-10-1763	Americium-241	1.25 g	0.00739	0.00364	0.0258	-.005376	pCi/g	NO
248800007	RE11-10-1761	Americium-241	1.24 g	-0.00143	0.00169	0.0247	-.00541935	pCi/g	NO
248800008	RE11-10-1765	Americium-241	1.25 g	0.000668	0.0021	0.0239	-.005376	pCi/g	NO
248800009	RE11-10-1768	Americium-241	1.25 g	0.00435	0.00252	0.0212	-.005376	pCi/g	NO
248800010	RE11-10-1767	Americium-241	1.25 g	0.00846	0.00414	0.029	-.005376	pCi/g	NO
248800011	RE11-10-1769	Americium-241	1.24 g	0.00125	0.00308	0.0252	-.00541935	pCi/g	NO
248800012	RE11-10-1770	Americium-241	1.25 g	-0.0022	0.0025	0.0257	-.005376	pCi/g	NO
248863001	RE46-10-12936	Americium-241	1.24 g	-0.00357	0.0037	0.0237	-.00541935	pCi/g	NO
248863002	RE46-10-12930	Americium-241	1.25 g	0.00419	0.0033	0.0251	-.005376	pCi/g	NO
248863003	RE46-10-12929	Americium-241	1.26 g	0.0021	0.00192	0.0257	-.00533333	pCi/g	NO
248863004	RE46-10-12935	Americium-241	1.24 g	0.00411	0.00472	0.0287	-.00541935	pCi/g	NO
248865001	RE46-10-11924	Americium-241	1.24 g	0.0108	0.00542	0.0274	-.00541935	pCi/g	NO
248866001	RE46-10-11885	Americium-241	1.25 g	-0.00278	0.00232	0.0276	-.005376	pCi/g	NO
248866002	RE46-10-11886	Americium-241	1.26 g	0.00345	0.00237	0.0237	-.00533333	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962716
SAMPLE ID : S0248865001_AM
SAMPLE QTY : 1.240 G
SAMPLE DATE : 3-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 68.421

CHAMBER : 242
DETECTOR S/N : 79435
AVERAGE %EFFICIENCY : 39.5199
COUNT DATE : 23-MAR-2010 13:35:15
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B242.CNF;91
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W242.CNF;30
CAL DATE : 28-FEB-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.5568E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3151E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3151E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5509.473	122.801	8.000	5.791	1.440	2.7707	99.94000	1.08E-02	5.42E-03	1.12E-02	2.74E-02	5.37E-03
AM243	5270.000	5275.602	31.144	442.000	442.000	0.000	0.0000	99.78000	8.27E-01	6.98E-02	0.00E+00	5.07E-03	3.93E-02
CM-242	6102.000	6046.796	54.032	6.000	6.000	0.000	4.0092	100.0000	1.22E-02	5.07E-03	1.61E-02	3.73E-02	4.99E-03
CM-3/4	5795.020	5769.769	4.912	8.000	6.560	1.440	4.8510	100.0000	1.23E-02	5.69E-03	1.95E-02	4.41E-02	5.62E-03
CM-5/6	5386.000	5375.620	4.912	1.000	1.000	0.000	6.1294	86.09000	2.17E-03	2.17E-03	2.87E-02	6.32E-02	2.17E-03
CM-247	4946.000	4954.451	73.680	5.000	4.280	0.720	6.3427	79.30000	1.01E-02	5.57E-03	3.22E-02	7.08E-02	5.53E-03
CM-248	5078.600	5075.341	4.912	3.000	3.000	0.000	11.0244	91.00000	6.15E-03	3.58E-03	4.88E-02	1.03E-01	3.55E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

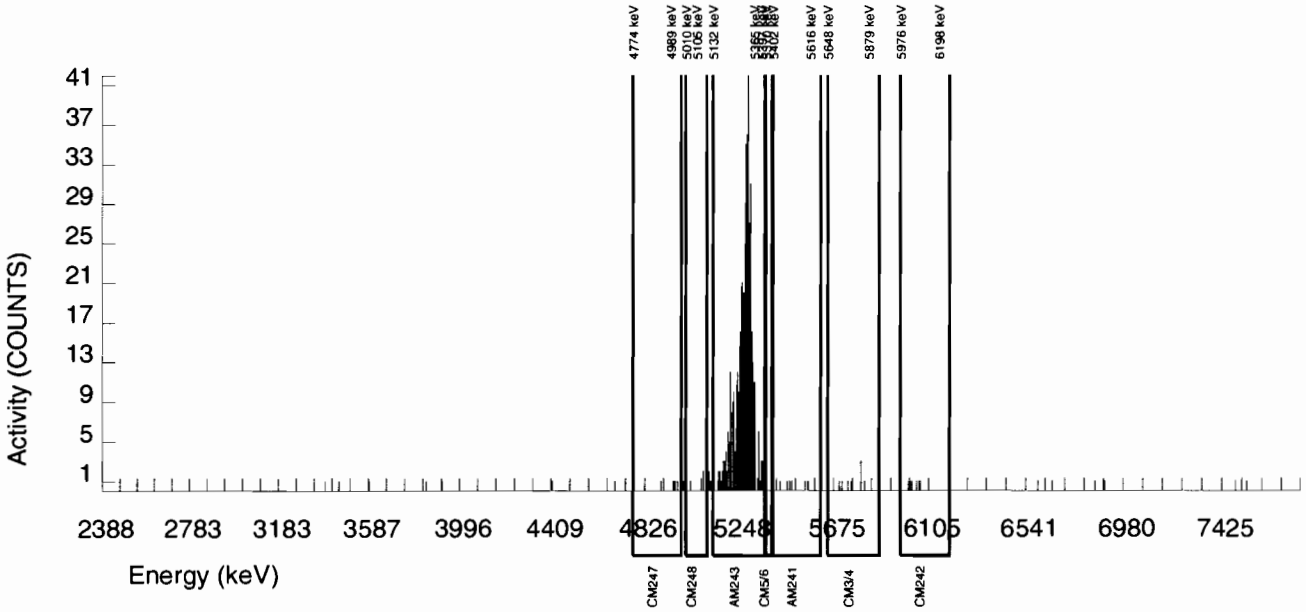

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962716	CHAMBER : 235	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248866001_AM	DETECTOR S/N : 79428	BKG FILE : B235.CNF;91
SAMPLE QTY : 1.246 G	AVERAGE %EFFICIENCY : 39.7692	BKG DATE : 21-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 23-MAR-2010 13:34:51	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W235.CNF;30
% YIELD : 67.155		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.5280E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5509.341	0.000	0.000	-1.480	0.720	2.7707	99.94000	-2.78E-03	2.32E-03	1.12E-02	2.76E-02	2.32E-03
AM243	5270.000	5277.514	39.621	438.000	436.560	1.440	1.2000	99.78000	8.23E-01	6.99E-02	4.88E-03	1.49E-02	3.95E-02
CM-242	6102.000	6068.685	19.645	2.000	2.000	0.000	4.0092	100.0000	4.09E-03	2.91E-03	1.63E-02	3.76E-02	2.89E-03
CM-3/4	5795.020	5817.650	63.845	3.000	-1.320	4.320	4.8510	100.0000	-2.49E-03	4.66E-03	1.97E-02	4.44E-02	4.66E-03
CM-5/6	5386.000	5386.670	0.000	4.000	4.000	0.000	6.1294	86.09000	8.74E-03	4.41E-03	2.89E-02	6.37E-02	4.37E-03
CM-247	4946.000	4826.137	29.467	2.000	2.000	0.000	6.3427	79.30000	4.74E-03	3.37E-03	3.24E-02	7.13E-02	3.35E-03
CM-248	5078.600	5059.530	53.920	11.000	11.000	0.000	11.0244	91.00000	2.27E-02	7.04E-03	4.91E-02	1.04E-01	6.85E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

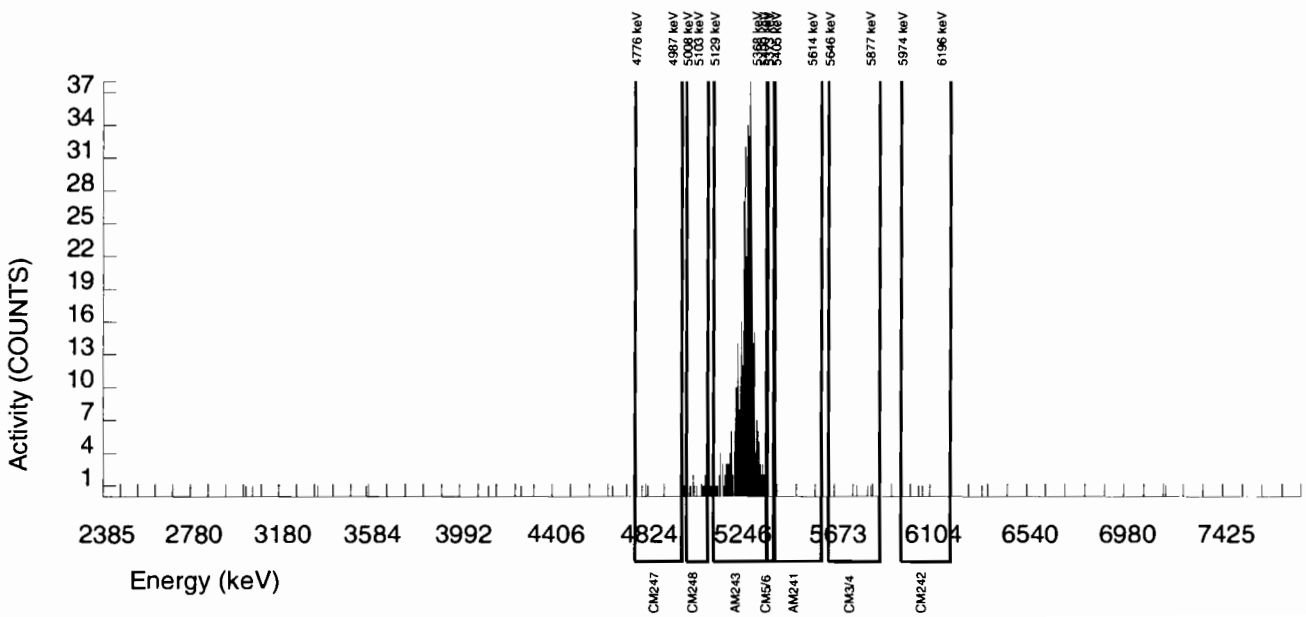

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962716
SAMPLE ID : S1202065371_AM
SAMPLE QTY : 1.000 G
SAMPLE DATE : 18-MAR-2010 00:00:00
ANALYST : MXE1
% YIELD : 80.317

CHAMBER : 237
DETECTOR S/N : 79430
AVERAGE %EFFICIENCY : 41.0426
COUNT DATE : 23-MAR-2010 13:34:58
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B237.CNF;91
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W237.CNF;30
CAL DATE : 28-FEB-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.8275E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3149E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3149E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5489.086	4.935	1.000	-3.538	3.600	2.7707	99.94000	-6.72E-03	3.60E-03	1.14E-02	2.78E-02	3.60E-03
AM243	5270.000	5280.875	53.401	541.000	538.840	2.160	1.4697	99.78000	1.02E+00	8.17E-02	6.03E-03	1.72E-02	4.43E-02
CM-242	6102.000	6076.652	113.495	4.000	4.000	0.000	4.0092	100.0000	7.78E-03	3.93E-03	1.64E-02	3.80E-02	3.89E-03
CM-3/4	5795.020	5788.000	133.233	9.000	9.000	0.000	4.8510	100.0000	1.71E-02	5.81E-03	1.99E-02	4.49E-02	5.70E-03
CM-5/6	5386.000	5382.614	0.000	9.000	8.280	0.720	6.1294	86.09000	1.83E-02	6.91E-03	2.92E-02	6.43E-02	6.80E-03
CM-247	4946.000	4910.235	83.887	3.000	2.280	0.720	6.3427	79.30000	5.46E-03	4.50E-03	3.27E-02	7.20E-02	4.49E-03
CM-248	5078.600	5067.409	6.117	8.000	8.000	0.000	11.0244	91.00000	1.67E-02	6.00E-03	4.96E-02	1.05E-01	5.90E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

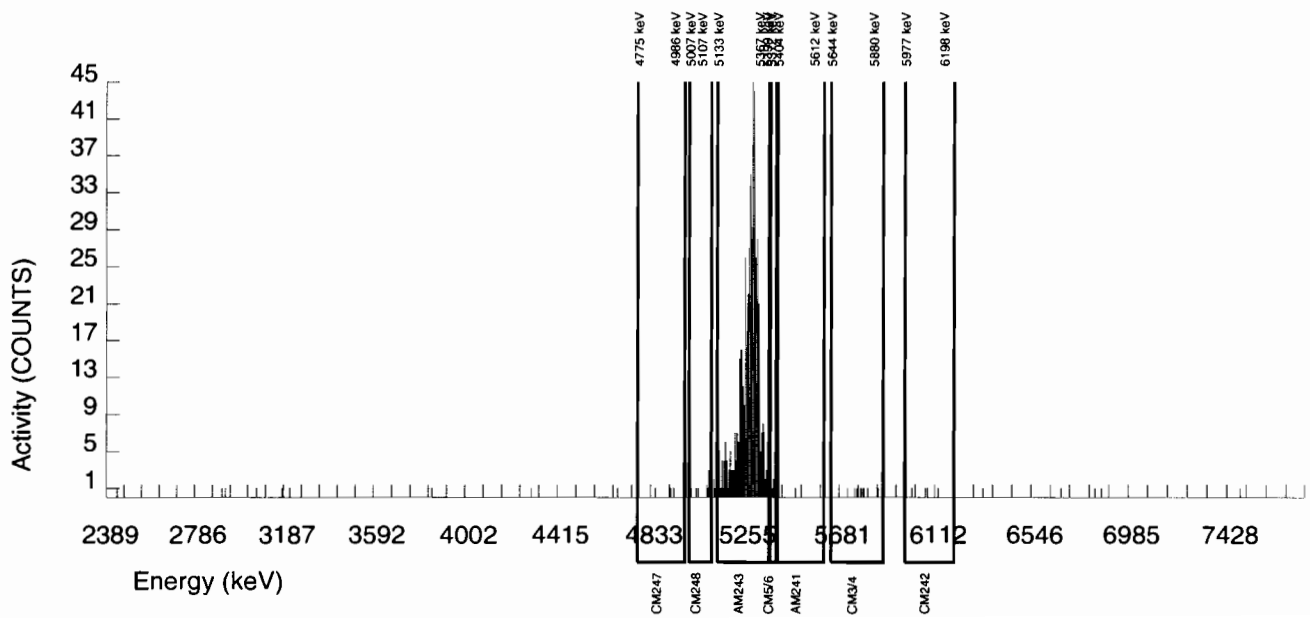

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962716	CHAMBER : 238	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202065372_AM	DETECTOR S/N : 79431	BKG FILE : B238.CNF;93
SAMPLE QTY : 1.256 G	AVERAGE %EFFICIENCY : 40.1819	BKG DATE : 21-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 23-MAR-2010 13:35:01	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W238.CNF;32
% YIELD : 85.430		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.9438E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5521.792	142.251	2.000	-14.096	15.120	2.7707	99.94000	-2.05E-02	5.01E-03	8.68E-03	2.13E-02	5.01E-03
AM243	5270.000	5273.047	38.901	564.000	561.120	2.880	1.6971	99.78000	8.16E-01	6.43E-02	5.32E-03	1.46E-02	3.46E-02
CM-242	6102.000	6021.360	63.768	4.000	4.000	0.000	4.0092	100.0000	6.31E-03	3.19E-03	1.26E-02	2.90E-02	3.16E-03
CM-3/4	5795.020	5762.755	4.905	1.000	1.000	0.000	4.8510	100.0000	1.45E-03	1.46E-03	1.52E-02	3.43E-02	1.45E-03
CM-5/6	5386.000	5383.220	0.000	3.000	2.280	0.720	6.1294	86.09000	3.84E-03	3.17E-03	2.23E-02	4.91E-02	3.16E-03
CM-247	4946.000	4925.201	58.862	12.000	11.280	0.720	6.3427	79.30000	2.06E-02	6.62E-03	2.50E-02	5.50E-02	6.47E-03
CM-248	5078.600	5056.569	49.052	17.000	16.280	0.720	11.0244	91.00000	2.60E-02	6.89E-03	3.79E-02	8.02E-02	6.67E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

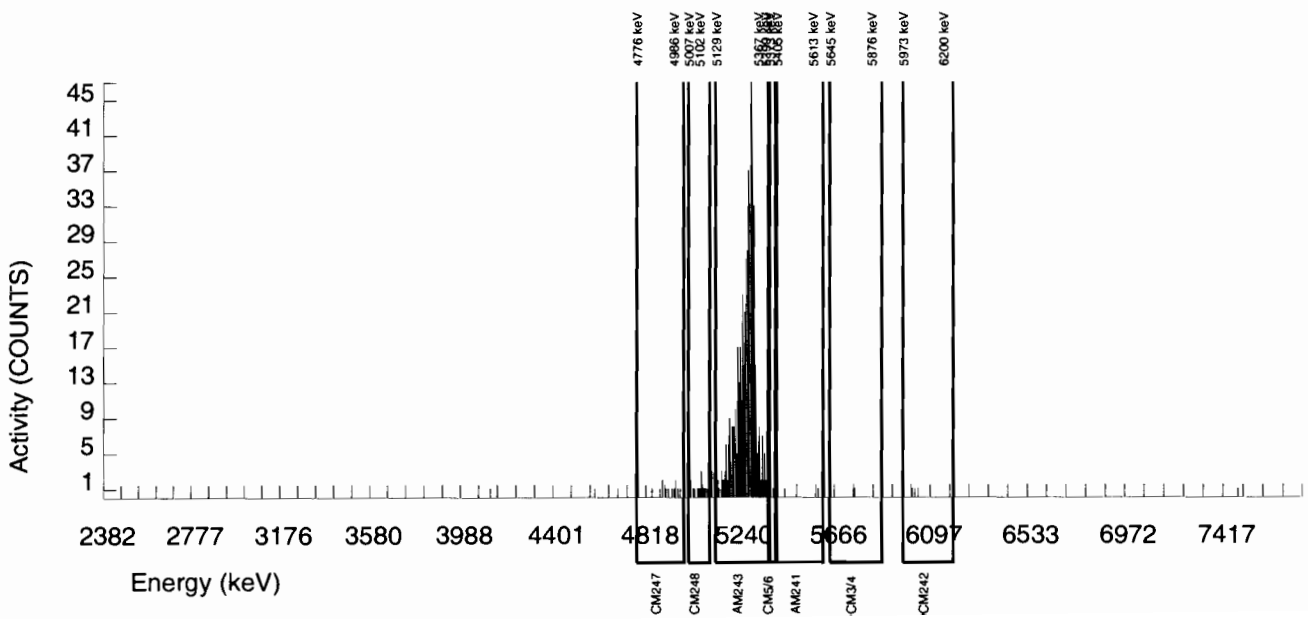

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962716	CHAMBER : 234	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202065373_AM	DETECTOR S/N : 79427	BKG FILE : B234.CNF;92
SAMPLE QTY : 0.106 G	AVERAGE %EFFICIENCY : 39.7384	BKG DATE : 21-MAR-2010
SAMPLE DATE : 18-MAR-2010 00:00:00	COUNT DATE : 23-MAR-2010 09:05:42	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W234.CNF;30
% YIELD : 87.596		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3149E+01 pCi/G	NOMINAL : 3.3149E+01 pCi/G
RESULTS : 1.9931E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5505.154	45.988	1769.000	1768.010	0.000	2.7707	99.94000	3.00E+01	2.30E+00	1.01E-01	2.49E-01	7.13E-01
AM243	5270.000	5283.462	32.436	569.000	569.000	0.000	0.0000	99.78000	9.67E+00	8.12E-01	0.00E+00	4.61E-02	4.05E-01
CM-242	6102.000	6041.672	83.537	7.000	7.000	0.000	4.0092	100.0000	1.22E-01	4.68E-02	1.47E-01	3.39E-01	4.59E-02
CM-3/4	5795.020	5735.781	156.632	8.000	7.280	0.720	4.8510	100.0000	1.24E-01	5.03E-02	1.77E-01	4.01E-01	4.95E-02
CM-5/6	5386.000	5387.921	0.000	43.000	43.000	0.000	6.1294	86.09000	8.47E-01	1.43E-01	2.60E-01	5.74E-01	1.29E-01
CM-247	4946.000	4897.436	167.075	5.000	3.560	1.440	6.3427	79.30000	7.61E-02	5.28E-02	2.93E-01	6.43E-01	5.25E-02
CM-248	5078.600	5054.535	44.226	10.000	10.000	0.000	11.0244	91.00000	1.86E-01	6.05E-02	4.43E-01	9.37E-01	5.89E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

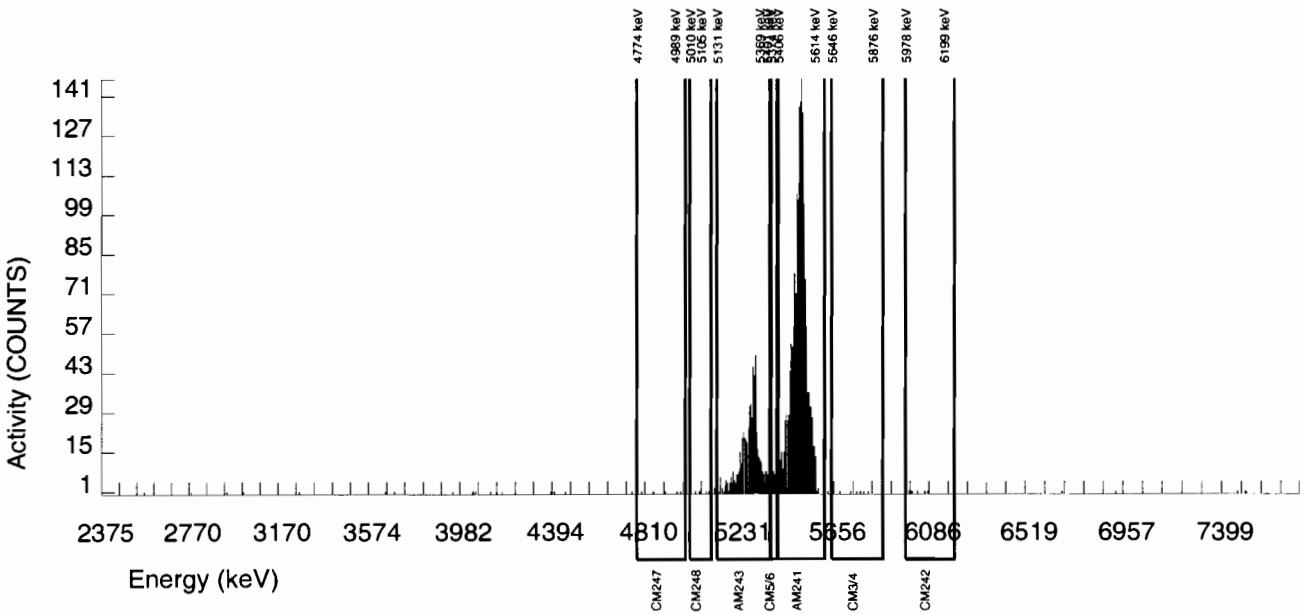

Radiochemistry Batch Checklist, Rev10

Batch# 962718 Product: Pu Date: 3/25/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If ouplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/25/10

Secondary Review Performed By: [signature] 3/25/10

3/26

LANL

pL

Plutonium Que Sheet

08-MAR-10

Batch #: 962718 Pu-236 Analyst: MXE1 First Client Due Date:26-MAR-10 Internal Due Date:16-MAR-10

Tracer Isotope(s): ~~Pu-242/Pu-238~~ Tracer Code: 1430-C Expiration Date: 3/4/11 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: NA Expiration Date: NA Vol: NA

Spike Isotope(s): Pu-239/Pu-238 Spike Code: / Expiration Date: / Vol: /

Prep Date: 3/18/10 Initials: ue Pipet ID: 29710058 Balance ID: 50410272 Witness: JEH 3-18-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/ Dry Aliquot (g / l / f)	Pu Det #
248800001-1	RE11-10-1756	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	1	1	1.251	13
248800002-1	RE11-10-1762	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	2	2	1.244	14
248800003-1	RE11-10-1764	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	3	3	1.246	16
248800004-1	RE11-10-1776	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	4	4	1.241	17
248800005-1	RE11-10-1766	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	5	5	1.249	18
248800006-1	RE11-10-1763	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	6	6	1.248	19
248800007-1	RE11-10-1761	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	7	7	1.243	20
248800008-1	RE11-10-1765	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	8	8	1.252	22
248800009-1	RE11-10-1768	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	9	9	1.250	23
248800010-1	RE11-10-1767	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	10	10	1.249	24
248800011-1	RE11-10-1769	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	11	11	1.238	101
248800012-1	RE11-10-1770	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	12	12	1.250	102
248863001-1	RE46-10-12936	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	13	13	1.240	103
248863002-1	RE46-10-12930	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	14	14	1.249	105
248863003-1	RE46-10-12929	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	15	15	1.263	107
248863004-1	RE46-10-12935	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	16	16	1.238	108
248865001-1	RE46-10-11924	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	17	17	1.240	109
248866001-1	RE46-10-11885	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	18	18	1.246	111
248866002-1	RE46-10-11886	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	19	19	1.262	112
1202065378-1	MB for batch 962718	MB		.05 pCi/g	SOIL	QC ACCOUNT		20	20	1.0	96
1202065379-1	RE46-10-11885(248866001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	04-MAR-10	21	21	1.256	97
1202065380-1	LCS for batch 962718	LCS		.05 pCi/g	SOIL	QC ACCOUNT		22	22	0.106	98

SRM 0244-B exp 4/30/20

Choose SOP Used: ~~GL-RAD-A-011~~, GL-RAD-A-036, ~~GL-RAD-A-045~~, GL-RAD-A-043

Solid Sample Dissolution by ~~LEACH~~ or DIGESTION Circle One

Data Reviewed By: [illegible] 3/25/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 962718

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202065379	DUP	Plutonium-238	1.26 g	0.00361	0.00453	0.0226	-.00076032	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0051	0.00296	0.0191	-.00200794	pCi/g	NO
1202065380	LCS	Plutonium-238	0.106 g	4.61	0.431	0.271	-.00903774	pCi/g	NO
		Plutonium-239/240	0.106 g	38.6	2.68	0.229	-.02386792	pCi/g	NO
1202065378	MB	Plutonium-238	1.00 g	-0.000958	0.00311	0.0289	-.000958	pCi/g	NO
		Plutonium-239/240	1.00 g	-0.00253	0.00348	0.0244	-.00253	pCi/g	NO
248800001	RE11-10-1756	Plutonium-238	1.25 g	0.0205	0.00787	0.0227	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00493	0.003	0.0192	-.002024	pCi/g	NO
248800002	RE11-10-1762	Plutonium-238	1.24 g	0.0119	0.0109	0.0244	-.00077258	pCi/g	NO
		Plutonium-239/240	1.24 g	-0.000589	0.00491	0.0207	-.00204032	pCi/g	NO
248800003	RE11-10-1764	Plutonium-238	1.25 g	0.0199	0.0069	0.025	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00135	0.00232	0.0211	-.002024	pCi/g	NO
248800004	RE11-10-1776	Plutonium-238	1.24 g	0.00218	0.00705	0.0301	-.00077258	pCi/g	NO
		Plutonium-239/240	1.24 g	0.0029	0.00361	0.0255	-.00204032	pCi/g	NO
248800005	RE11-10-1766	Plutonium-238	1.25 g	0.00236	0.00699	0.023	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00396	0.00326	0.0195	-.002024	pCi/g	NO
248800006	RE11-10-1763	Plutonium-238	1.25 g	0.00317	0.0094	0.031	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0326	0.00896	0.0262	-.002024	pCi/g	NO
248800007	RE11-10-1761	Plutonium-238	1.24 g	0.0123	0.00709	0.0226	-.00077258	pCi/g	NO
		Plutonium-239/240	1.24 g	0.00218	0.00271	0.0191	-.00204032	pCi/g	NO
248800008	RE11-10-1765	Plutonium-238	1.25 g	-0.0164	0.00926	0.0295	-.0007664	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0152	0.00728	0.0249	-.002024	pCi/g	NO
248800009	RE11-10-1768	Plutonium-238	1.25 g	0.00984	0.00623	0.0242	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0156	0.00612	0.0204	-.002024	pCi/g	NO
248800010	RE11-10-1767	Plutonium-238	1.25 g	0.0027	0.00633	0.0236	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0419	0.00939	0.0199	-.002024	pCi/g	NO
248800011	RE11-10-1769	Plutonium-238	1.24 g	0.00241	0.00299	0.025	-.00077258	pCi/g	NO
		Plutonium-239/240	1.24 g	0.0231	0.00706	0.0211	-.00204032	pCi/g	NO
248800012	RE11-10-1770	Plutonium-238	1.25 g	0.00332	0.00236	0.022	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00	0.00166	0.0186	-.002024	pCi/g	NO
248863001	RE46-10-12936	Plutonium-238	1.24 g	0.00531	0.00308	0.0235	-.00077258	pCi/g	NO
		Plutonium-239/240	1.24 g	0.00	0.00177	0.0199	-.00204032	pCi/g	NO
248863002	RE46-10-12930	Plutonium-238	1.25 g	0.00355	0.00252	0.0236	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00383	0.00284	0.0199	-.002024	pCi/g	NO
248863003	RE46-10-12929	Plutonium-238	1.26 g	0.00488	0.00429	0.0253	-.00076032	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00762	0.00384	0.0214	-.00200794	pCi/g	NO
248863004	RE46-10-12935	Plutonium-238	1.24 g	0.00601	0.00349	0.0266	-.00077258	pCi/g	NO
		Plutonium-239/240	1.24 g	0.00312	0.00402	0.0225	-.00204032	pCi/g	NO
248865001	RE46-10-11924	Plutonium-238	1.24 g	0.00392	0.00323	0.0228	-.00077258	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248865001	RE46-10-11924	Plutonium-239/240	1.24 g	0.00192	0.00423	0.0193	-.00204032	pCi/g	NO
248866001	RE46-10-11885	Plutonium-238	1.25 g	0.00212	0.00263	0.022	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00661	0.00333	0.0186	-.002024	pCi/g	NO
248866002	RE46-10-11886	Plutonium-238	1.26 g	0.00231	0.00287	0.024	-.00076032	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00412	0.0034	0.0203	-.00200794	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962718	CHAMBER : 109	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248865001_PU	DETECTOR S/N : 79463	BKG FILE : B109.CNF;691
SAMPLE QTY : 1.240 G	AVERAGE %EFFICIENCY : 35.5809	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 24-MAR-2010 11:26:40	BKG LIVE TIME(SEC) : 59999.99
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W109.CNF;196
% YIELD : 82.658		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0040E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.4830E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5768.548	45.872	627.000	627.000	0.000	0.0000	100.0000	1.09E+00	7.66E-02	0.00E+00	4.65E-03	4.36E-02
PU-238	5499.000	5473.139	0.000	3.000	2.280	0.720	2.4495	99.90000	3.92E-03	3.23E-03	9.07E-03	2.28E-02	3.22E-03
PU-9/0	5155.000	5110.327	152.231	4.000	1.120	2.880	1.9732	99.90000	1.92E-03	4.23E-03	7.31E-03	1.93E-02	4.23E-03
PU242	4890.000	4893.365	216.070	4.000	4.000	0.000	*******	100.0000	6.86E-03	3.45E-03	4.61E-01	9.27E-01	3.43E-03
PU-244	4589.000	4573.316	4.911	1.000	1.000	0.000	6.4609	99.90000	1.72E-03	1.72E-03	2.39E-02	5.25E-02	1.72E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

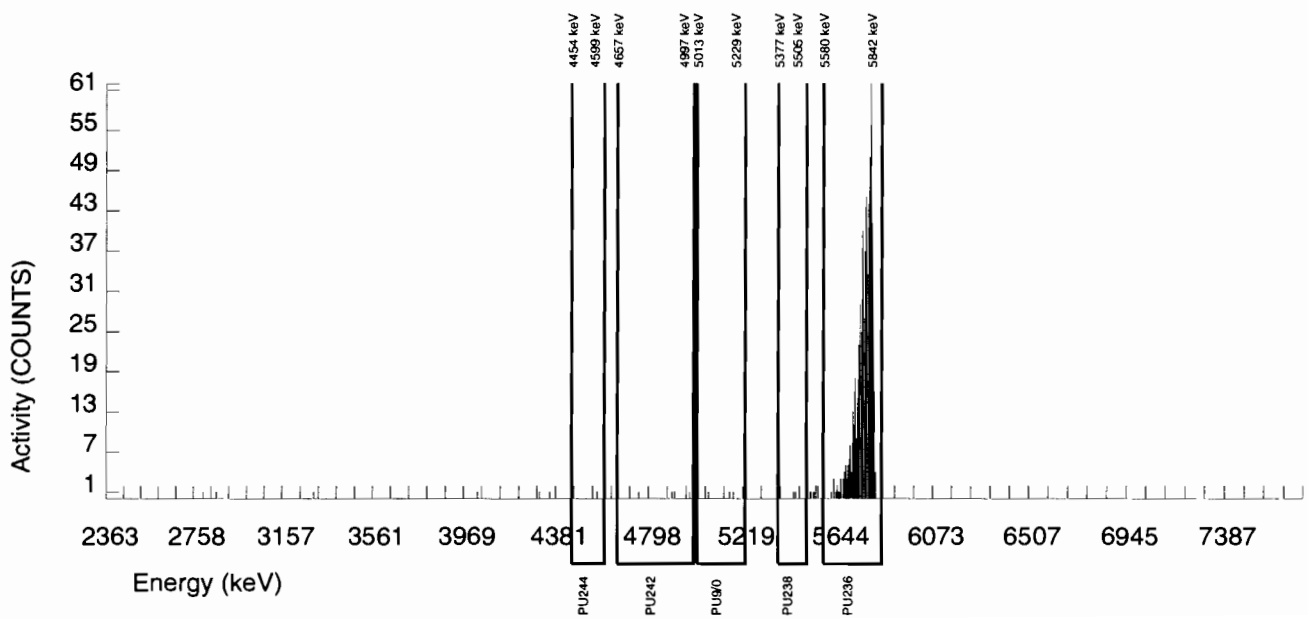

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962718	CHAMBER : 111	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248866001_PU	DETECTOR S/N : 79462	BKG FILE : B111.CNF;690
SAMPLE QTY : 1.246 G	AVERAGE %EFFICIENCY : 34.9158	BKG DATE : 21-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 24-MAR-2010 11:26:40	BKG LIVE TIME(SEC) : 59999.99
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W111.CNF;211
% YIELD : 87.054		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0020E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6134E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5766.549	43.903	648.000	648.000	0.000	0.0000	100.0000	1.09E+00	7.54E-02	0.00E+00	4.48E-03	4.26E-02
PU-238	5499.000	5422.754	29.720	2.000	1.280	0.720	2.4495	99.90000	2.12E-03	2.63E-03	8.74E-03	2.20E-02	2.63E-03
PU-9/0	5155.000	5130.161	4.953	4.000	4.000	0.000	1.9732	99.90000	6.61E-03	3.33E-03	7.04E-03	1.86E-02	3.31E-03
PU242	4890.000	4806.607	188.230	4.000	1.120	2.880	*******	100.0000	1.85E-03	4.07E-03	4.44E-01	8.93E-01	4.07E-03
PU-244	4589.000	4560.380	4.953	1.000	1.000	0.000	6.4609	99.90000	1.65E-03	1.66E-03	2.30E-02	5.06E-02	1.65E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

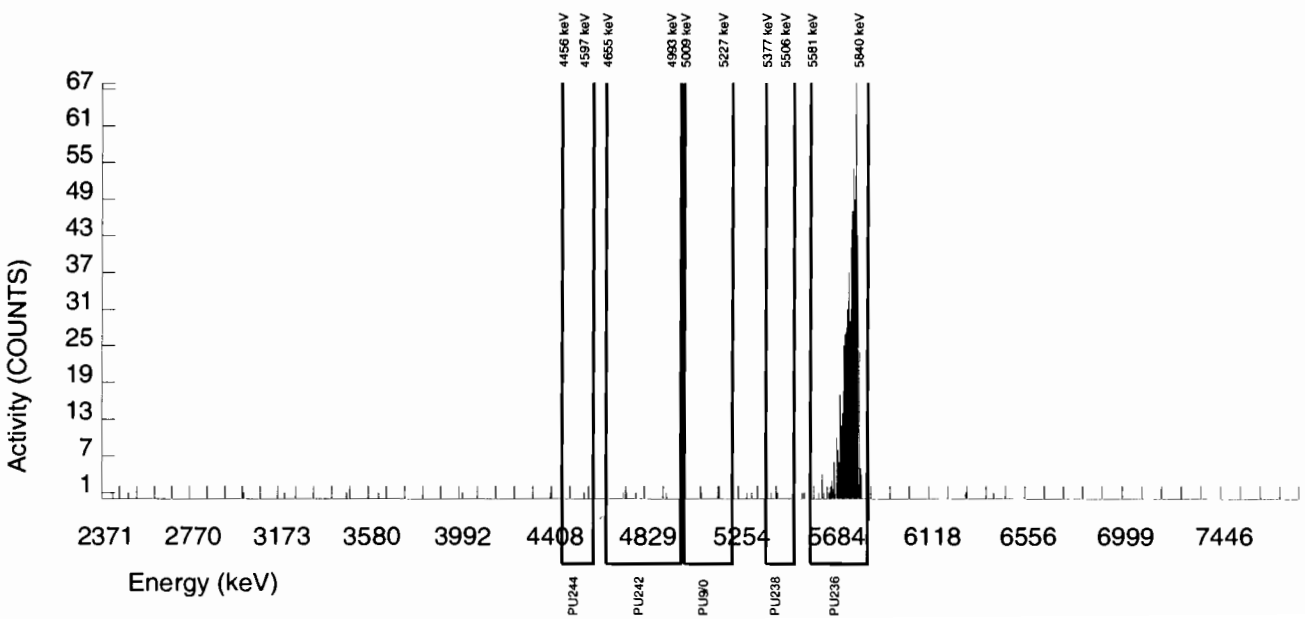

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962718
SAMPLE ID : S1202065378_PU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 18-MAR-2010 00:00:00
ANALYST : MXE1
% YIELD : 87.670

CHAMBER : 096
DETECTOR S/N : 80016
AVERAGE %EFFICIENCY : 32.7970
COUNT DATE : 24-MAR-2010 10:20:39
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B096.CNF;689
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W096.CNF;181
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9742E+00 dpm
RESULTS : 2.6075E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5772.466	28.919	613.000	613.000	0.000	0.0000	100.0000	1.34E+00	9.49E-02	0.00E+00	5.90E-03	5.41E-02
PU-238	5499.000	5399.575	4.925	1.000	-0.440	1.440	2.4495	99.90000	-9.58E-04	3.11E-03	1.15E-02	2.89E-02	3.11E-03
PU-9/0	5155.000	5112.762	4.925	1.000	-1.160	2.160	1.9732	99.90000	-2.53E-03	3.48E-03	9.27E-03	2.44E-02	3.48E-03
PU242	4890.000	4825.302	0.000	0.000	-2.880	2.880	*******	100.0000	-6.27E-03	3.82E-03	5.85E-01	1.18E+00	3.81E-03
PU-244	4589.000	4526.814	0.000	0.000	-0.720	0.720	6.4609	99.90000	-1.57E-03	2.69E-03	3.04E-02	6.66E-02	2.68E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

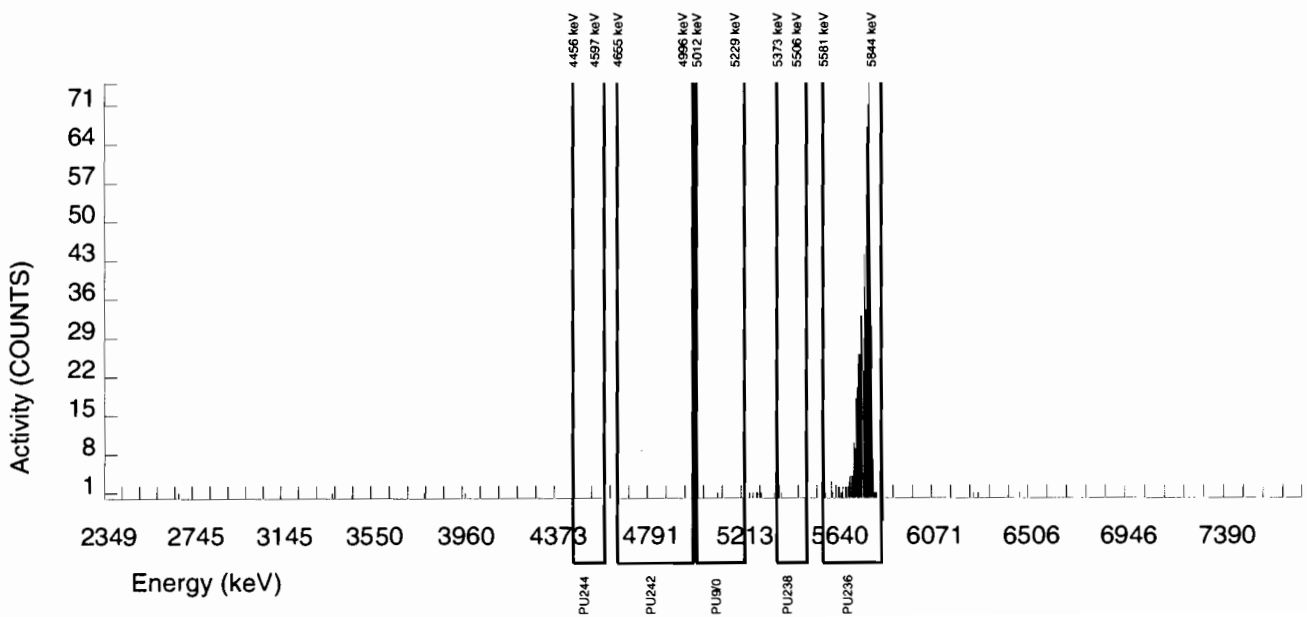

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962718
SAMPLE ID : S1202065379_PU
SAMPLE QTY : 1.256 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 84.320

CHAMBER : 097
DETECTOR S/N : 67599
AVERAGE %EFFICIENCY : 34.7742
COUNT DATE : 24-MAR-2010 10:20:39
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B097.CNF;686
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W097.CNF;195
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 3.0020E+00 dpm
RESULTS : 2.5313E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5775.399	53.625	628.000	625.120	2.880	1.6971	100.0000	1.08E+00	7.59E-02	6.22E-03	1.70E-02	4.32E-02
PU-238	5499.000	5468.490	29.576	5.000	2.120	2.880	2.4495	99.90000	3.61E-03	4.53E-03	8.99E-03	2.26E-02	4.52E-03
PU-9/0	5155.000	5162.713	59.152	3.000	3.000	0.000	1.9732	99.90000	5.10E-03	2.96E-03	7.24E-03	1.91E-02	2.95E-03
PU242	4890.000	4891.467	197.174	4.000	-1.040	5.040	*******	100.0000	-1.77E-03	4.69E-03	4.57E-01	9.18E-01	4.69E-03
PU-244	4589.000	4538.821	103.516	4.000	4.000	0.000	6.4609	99.90000	6.80E-03	3.42E-03	2.37E-02	5.20E-02	3.40E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

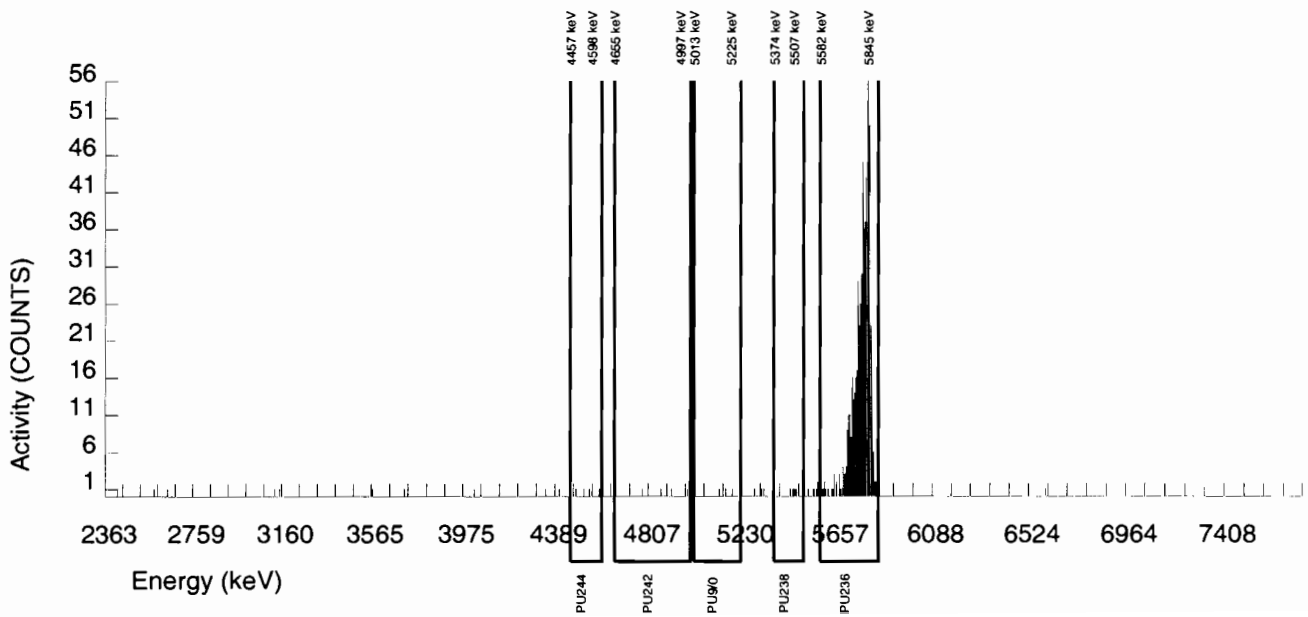

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962718
SAMPLE ID : S1202065380_PU
SAMPLE QTY : 0.106 G
SAMPLE DATE : 18-MAR-2010 00:00:00
ANALYST : MXE1
% YIELD : 81.351

CHAMBER : 098
DETECTOR S/N : 80017
AVERAGE %EFFICIENCY : 35.6488
COUNT DATE : 24-MAR-2010 10:20:39
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B098.CNF;692
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W098.CNF;200
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9742E+00 dpm
RESULTS : 2.4195E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5764.159	31.897	619.000	618.280	0.720	0.8485	100.0000	1.26E+01	9.71E-01	3.73E-02	1.30E-01	5.09E-01
PU-238	5499.000	5471.833	0.000	227.000	226.280	0.720	2.4495	99.90000	4.61E+00	4.31E-01	1.08E-01	2.71E-01	3.07E-01
PU-9/0	5155.000	5147.091	39.185	1895.000	1894.280	0.720	1.9732	99.90000	3.86E+01	2.68E+00	8.67E-02	2.29E-01	8.87E-01
PU242	4890.000	4889.764	62.747	41.000	40.280	0.720	*******	100.0000	8.20E-01	1.42E-01	5.47E+00	1.10E+01	1.31E-01
PU-244	4589.000	4547.598	0.000	5.000	4.280	0.720	6.4609	99.90000	8.72E-02	4.82E-02	2.84E-01	6.23E-01	4.79E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

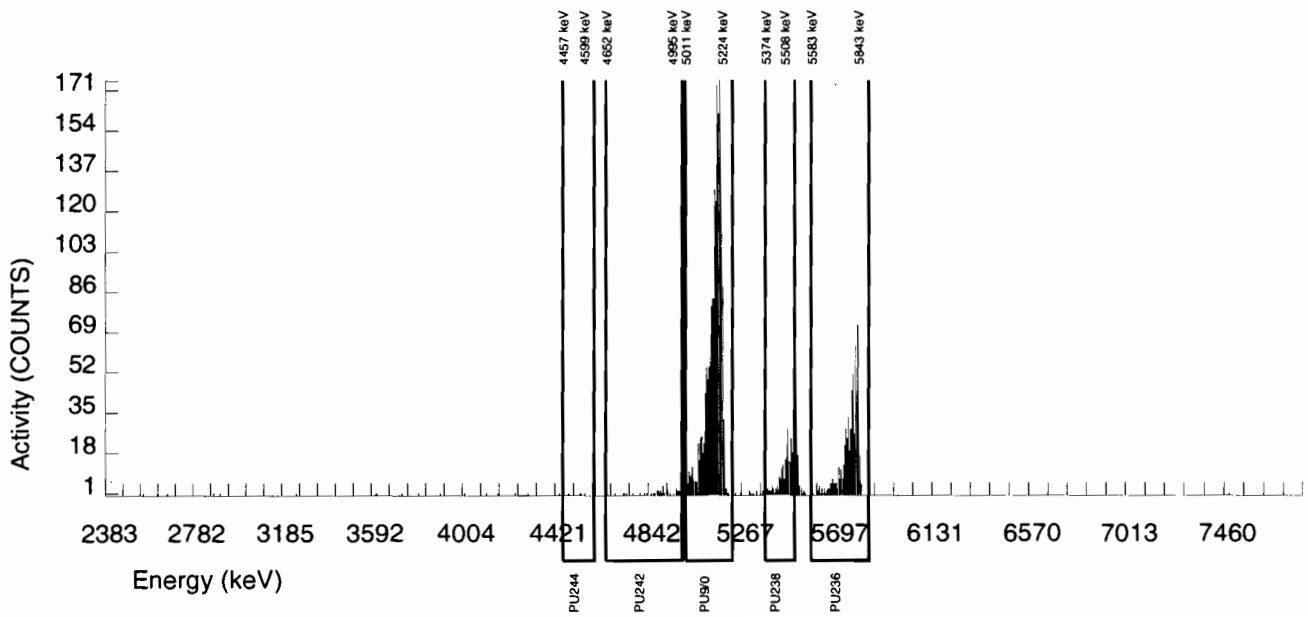

Radiochemistry Batch Checklist, Rev10

Batch# 962721 Product: U Date: 3/25/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples. < 5% of lowest activity)	✓		case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/25/10

Secondary Review Performed By: [signature] 3/25/10

3/26

LANL

PV

Uranium Que Sheet

08-MAR-10

Batch #: 962721 Analyst: MXE1 First Client Due Date:26-MAR-10 Internal Due Date:16-MAR-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: 0.1 Analyzed Sequentially with Pu

LCS Isotope: U-238 LCS Code: / Expiration Date: / Vol: / Pu-236 ID: N/A

Spike Isotope: U-238 Spike Code: NA Expiration Date: NA Vol: NA Vol.: N/A

Prep Date: 3/18/10 Initials: ME Pipet ID: 2971058 Balance ID: 50410272 Witness: JEH 3-18-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	U Det #
248800001-1	RE11-10-1756	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	1	1	0.501	115
248800002-1	RE11-10-1762	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	2	2	0.497	116
248800003-1	RE11-10-1764	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	3	3	0.501	145
248800004-1	RE11-10-1776	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	4	4	0.492	146
248800005-1	RE11-10-1766	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	5	5	0.499	147
248800006-1	RE11-10-1763	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	6	6	0.490	148
248800007-1	RE11-10-1761	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	7	7	0.494	149
248800008-1	RE11-10-1765	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	8	8	0.498	150
248800009-1	RE11-10-1768	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	9	9	0.504	151
248800010-1	RE11-10-1767	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	10	10	0.493	152
248800011-1	RE11-10-1769	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	11	11	0.494	153
248800012-1	RE11-10-1770	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	12	12	0.499	154
248863001-1	RE46-10-12936	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	13	13	0.492	155
248863002-1	RE46-10-12930	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	14	14	0.513	156
248863003-1	RE46-10-12929	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	15	15	0.515	157
248863004-1	RE46-10-12935	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	16	16	0.516	158
248865001-1	RE46-10-11924	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	17	17	0.527	159
248866001-1	RE46-10-11885	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	18	18	0.513	160
248866002-1	RE46-10-11886	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	19	19	0.511	3
1202065398-1	MB for batch 962721	MB		.1 pCi/g	SOIL	QC ACCOUNT		20	20	1.0	4
1202065399-1	RE46-10-11885(248866001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	04-MAR-10	21	21	0.500	5
1202065400-1	LCS for batch 962721	LCS		.1 pCi/g	SOIL	QC ACCOUNT		22	22	0.114	6

SRM 0244-A exp 10/31/20

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: [illegible] 3/25/10

Blank Correction Report

Batch ID 962721

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202065399	DUP	Uranium-233/234	0.500 g	0.758	0.075	0.0986	.0276	pCi/g	NO
		Uranium-235/236	0.500 g	0.0389	0.017	0.0602	.01304	pCi/g	YES
		Uranium-238	0.500 g	0.843	0.0812	0.0693	-.00704	pCi/g	NO
1202065400	LCS	Uranium-233/234	0.114 g	5.99	0.541	0.396	.121052632	pCi/g	NO
		Uranium-235/236	0.114 g	0.208	0.0668	0.242	.057192982	pCi/g	YES
		Uranium-238	0.114 g	5.05	0.468	0.278	-.03087719	pCi/g	NO
1202065398	MB	Uranium-233/234	1.00 g	0.0138	0.00662	0.0496	.0138	pCi/g	YES
		Uranium-235/236	1.00 g	0.00652	0.00488	0.0303	.00652	pCi/g	YES
		Uranium-238	1.00 g	-0.00352	0.00498	0.0349	-.00352	pCi/g	NO
248800001	RE11-10-1756	Uranium-233/234	0.501 g	0.973	0.0931	0.108	.027544910	pCi/g	NO
		Uranium-235/236	0.501 g	0.0618	0.0177	0.0662	.013013972	pCi/g	YES
		Uranium-238	0.501 g	1.03	0.0972	0.0762	-.00702595	pCi/g	NO
248800002	RE11-10-1762	Uranium-233/234	0.497 g	0.842	0.0839	0.112	.027766600	pCi/g	NO
		Uranium-235/236	0.497 g	0.0196	0.00988	0.0681	.013118712	pCi/g	YES
		Uranium-238	0.497 g	0.803	0.0809	0.0784	-.00708249	pCi/g	NO
248800003	RE11-10-1764	Uranium-233/234	0.501 g	0.834	0.0867	0.126	.027544910	pCi/g	NO
		Uranium-235/236	0.501 g	0.0717	0.022	0.0768	.013013972	pCi/g	NO
		Uranium-238	0.501 g	0.861	0.0887	0.0884	-.00702595	pCi/g	NO
248800004	RE11-10-1776	Uranium-233/234	0.492 g	1.10	0.113	0.154	.028048780	pCi/g	NO
		Uranium-235/236	0.492 g	0.0542	0.0196	0.0944	.013252033	pCi/g	YES
		Uranium-238	0.492 g	1.08	0.112	0.109	-.00715447	pCi/g	NO
248800005	RE11-10-1766	Uranium-233/234	0.499 g	0.637	0.0657	0.0962	.027655311	pCi/g	NO
		Uranium-235/236	0.499 g	0.0295	0.0114	0.0587	.013066132	pCi/g	YES
		Uranium-238	0.499 g	0.627	0.0648	0.0676	-.00705411	pCi/g	NO
248800006	RE11-10-1763	Uranium-233/234	0.490 g	1.84	0.161	0.122	.028163265	pCi/g	NO
		Uranium-235/236	0.490 g	0.0855	0.0247	0.0744	.013306122	pCi/g	NO
		Uranium-238	0.490 g	1.82	0.159	0.0857	-.00718367	pCi/g	NO
248800007	RE11-10-1761	Uranium-233/234	0.494 g	1.03	0.102	0.130	.027935223	pCi/g	NO
		Uranium-235/236	0.494 g	0.0625	0.0194	0.0792	.013198381	pCi/g	YES
		Uranium-238	0.494 g	1.06	0.105	0.0912	-.00712551	pCi/g	NO
248800008	RE11-10-1765	Uranium-233/234	0.498 g	1.34	0.127	0.131	.027710843	pCi/g	NO
		Uranium-235/236	0.498 g	0.0403	0.0155	0.0803	.013092369	pCi/g	YES
		Uranium-238	0.498 g	1.35	0.127	0.0924	-.00706827	pCi/g	NO
248800009	RE11-10-1768	Uranium-233/234	0.504 g	0.772	0.0825	0.129	.027380952	pCi/g	NO
		Uranium-235/236	0.504 g	0.0284	0.0129	0.0791	.012936508	pCi/g	YES
		Uranium-238	0.504 g	0.831	0.0872	0.091	-.00698413	pCi/g	NO
248800010	RE11-10-1767	Uranium-233/234	0.493 g	2.56	0.223	0.145	.027991886	pCi/g	NO
		Uranium-235/236	0.493 g	0.146	0.0324	0.0886	.013225152	pCi/g	NO
		Uranium-238	0.493 g	2.69	0.232	0.102	-.00713996	pCi/g	NO
248800011	RE11-10-1769	Uranium-233/234	0.494 g	2.38	0.204	0.130	.027935223	pCi/g	NO
		Uranium-235/236	0.494 g	0.103	0.0253	0.0794	.013198381	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248800011	RE11-10-1769	Uranium-238	0.494 g	2.38	0.204	0.0914	-.00712551	pCi/g	NO
248800012	RE11-10-1770	Uranium-233/234	0.499 g	0.757	0.0753	0.101	.027655311	pCi/g	NO
		Uranium-235/236	0.499 g	0.0265	0.0126	0.0616	.013066132	pCi/g	YES
		Uranium-238	0.499 g	0.783	0.0772	0.0709	-.00705411	pCi/g	NO
248863001	RE46-10-12936	Uranium-233/234	0.492 g	0.824	0.0821	0.109	.028048780	pCi/g	NO
		Uranium-235/236	0.492 g	0.0383	0.0154	0.0667	.013252033	pCi/g	YES
		Uranium-238	0.492 g	0.848	0.0839	0.0767	-.00715447	pCi/g	NO
248863002	RE46-10-12930	Uranium-233/234	0.513 g	0.713	0.0735	0.106	.026900585	pCi/g	NO
		Uranium-235/236	0.513 g	0.0606	0.0186	0.065	.012709552	pCi/g	YES
		Uranium-238	0.513 g	0.755	0.0765	0.0748	-.00686160	pCi/g	NO
248863003	RE46-10-12929	Uranium-233/234	0.515 g	0.861	0.0844	0.105	.026796117	pCi/g	NO
		Uranium-235/236	0.515 g	0.0369	0.0148	0.0642	.012660194	pCi/g	YES
		Uranium-238	0.515 g	0.749	0.0756	0.0739	-.00683495	pCi/g	NO
248863004	RE46-10-12935	Uranium-233/234	0.516 g	0.915	0.0904	0.114	.026744186	pCi/g	NO
		Uranium-235/236	0.516 g	0.0747	0.0224	0.0694	.012635659	pCi/g	NO
		Uranium-238	0.516 g	0.886	0.0881	0.0799	-.00682171	pCi/g	NO
248865001	RE46-10-11924	Uranium-233/234	0.527 g	0.865	0.0842	0.104	.026185958	pCi/g	NO
		Uranium-235/236	0.527 g	0.050	0.0155	0.0634	.012371917	pCi/g	YES
		Uranium-238	0.527 g	0.865	0.0844	0.073	-.00667932	pCi/g	NO
248866001	RE46-10-11885	Uranium-233/234	0.513 g	0.963	0.0913	0.102	.026900585	pCi/g	NO
		Uranium-235/236	0.513 g	0.0178	0.011	0.0621	.012709552	pCi/g	YES
		Uranium-238	0.513 g	0.906	0.0869	0.0715	-.00686160	pCi/g	NO
248866002	RE46-10-11886	Uranium-233/234	0.511 g	0.812	0.0752	0.0819	.027005871	pCi/g	NO
		Uranium-235/236	0.511 g	0.0323	0.0121	0.050	.012759295	pCi/g	YES
		Uranium-238	0.511 g	0.688	0.0661	0.0576	-.00688845	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962721	CHAMBER : 159	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248865001_UU	DETECTOR S/N : 76225	BKG FILE : B159.CNF;383
SAMPLE QTY : 0.527 G	AVERAGE %EFFICIENCY : 27.1076	BKG DATE : 21-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 24-MAR-2010 11:55:39	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W159.CNF;108
% YIELD : 85.681		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.8573E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.450	36.151	1049.000	1045.000	4.000	2.0000	100.0000	3.85E+00	3.03E-01	1.71E-02	4.42E-02	1.19E-01
U-3/4	4763.020	4757.302	61.642	236.000	234.941	0.000	5.4790	100.0000	8.65E-01	8.42E-02	4.69E-02	1.04E-01	5.64E-02
U-235	4391.000	4404.251	48.561	11.000	11.000	0.000	2.4127	80.90000	5.00E-02	1.55E-02	2.55E-02	6.34E-02	1.51E-02
U-238	4184.730	4189.211	52.895	236.000	235.000	1.000	3.6781	100.0000	8.65E-01	8.44E-02	3.15E-02	7.30E-02	5.67E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

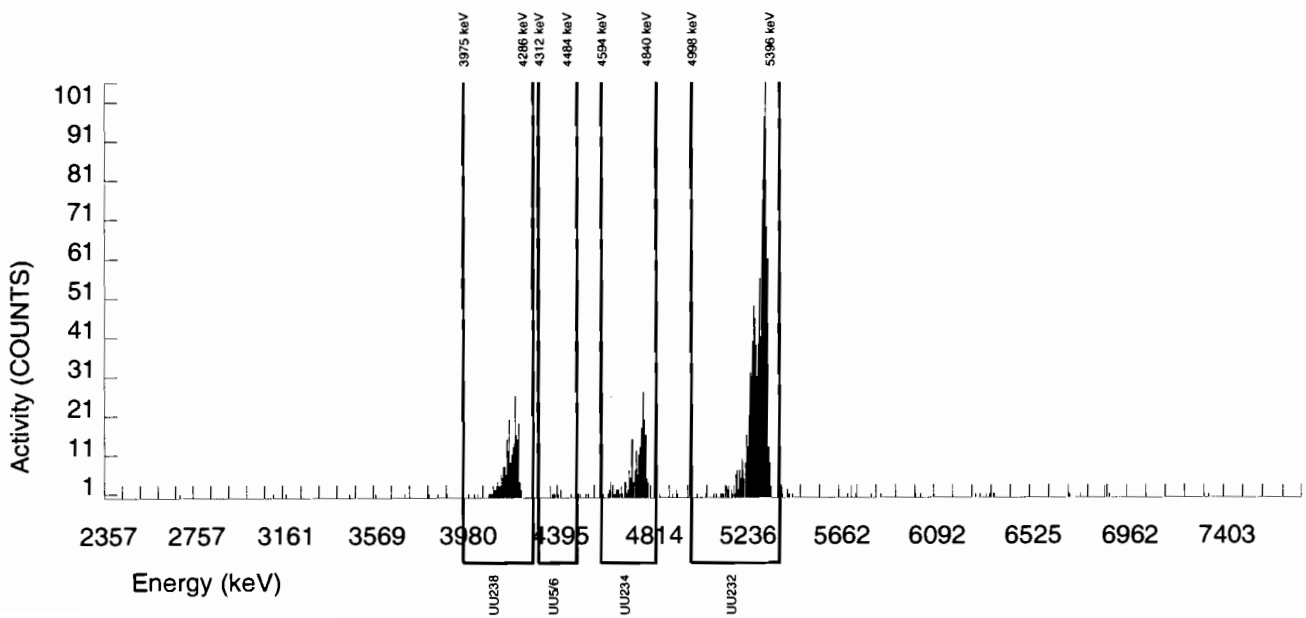

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962721
SAMPLE ID : S0248866001_UU
SAMPLE QTY : 0.513 G
SAMPLE DATE : 4-MAR-2010 00:00:00.
ANALYST : MXE1
% YIELD : 94.337

CHAMBER : 160
DETECTOR S/N : 79994
AVERAGE %EFFICIENCY : 25.7982
COUNT DATE : 24-MAR-2010 11:55:42
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B160.CNF;385
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W160.CNF;120
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5018E+00 dpm
RESULTS : 4.2469E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5308.451	32.656	1099.000	1095.000	4.000	2.0000	100.0000	3.95E+00	3.09E-01	1.68E-02	4.34E-02	1.20E-01
U-3/4	4763.020	4762.850	33.995	270.000	266.891	2.000	5.4790	100.0000	9.63E-01	9.13E-02	4.60E-02	1.02E-01	5.94E-02
U-235	4391.000	4398.664	7.332	5.000	4.000	1.000	2.4127	80.90000	1.78E-02	1.10E-02	2.50E-02	6.21E-02	1.09E-02
U-238	4184.730	4191.603	31.843	252.000	251.000	1.000	3.6781	100.0000	9.06E-01	8.69E-02	3.09E-02	7.15E-02	5.74E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

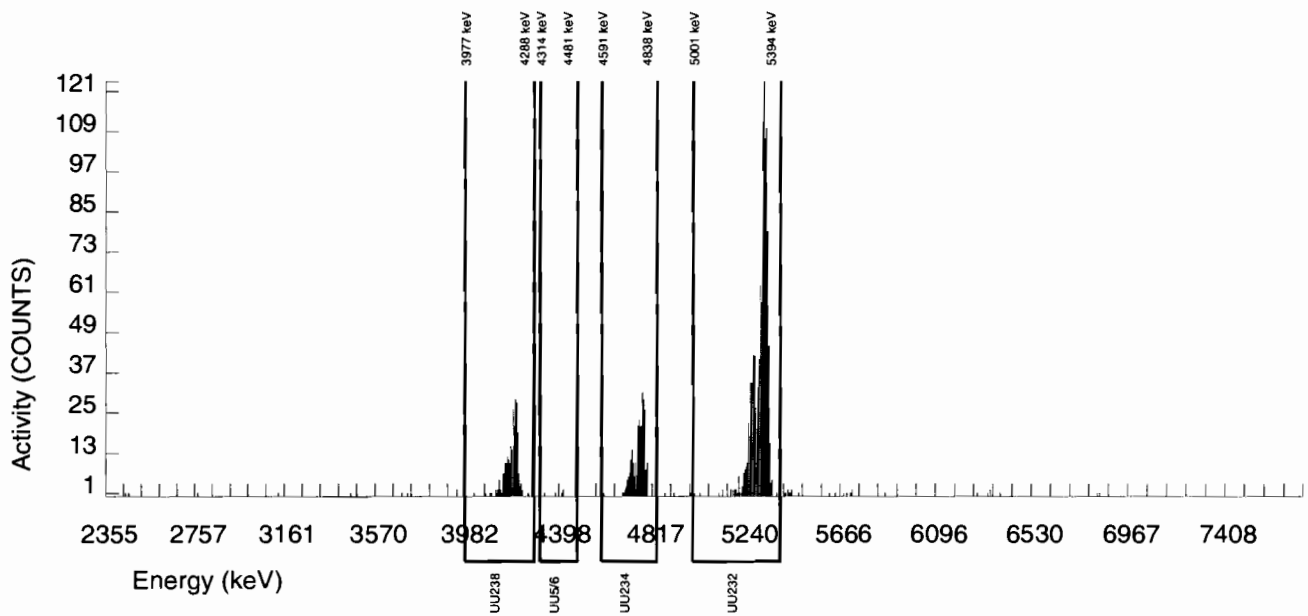

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962721	CHAMBER : 004	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202065398_UU	DETECTOR S/N : 68548	BKG FILE : B004.CNF;1129
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 31.2086	BKG DATE : 21-MAR-2010
SAMPLE DATE : 18-MAR-2010 00:00:00	COUNT DATE : 24-MAR-2010 11:55:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W004.CNF;332
% YIELD : 82.042		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5001E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.6920E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5273.533	36.911	1158.000	1152.000	6.000	2.4495	100.0000	2.03E+00	1.57E-01	1.00E-02	2.48E-02	6.00E-02
U-3/4	4763.020	4702.550	214.003	12.000	7.833	3.000	5.4790	100.0000	1.38E-02	6.62E-03	2.24E-02	4.96E-02	6.54E-03
U-235	4391.000	4366.312	92.410	4.000	3.000	1.000	2.4127	80.90000	6.52E-03	4.88E-03	1.22E-02	3.03E-02	4.86E-03
U-238	4184.730	4108.434	131.320	3.000	-2.000	5.000	3.6781	100.0000	-3.52E-03	4.98E-03	1.51E-02	3.49E-02	4.98E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

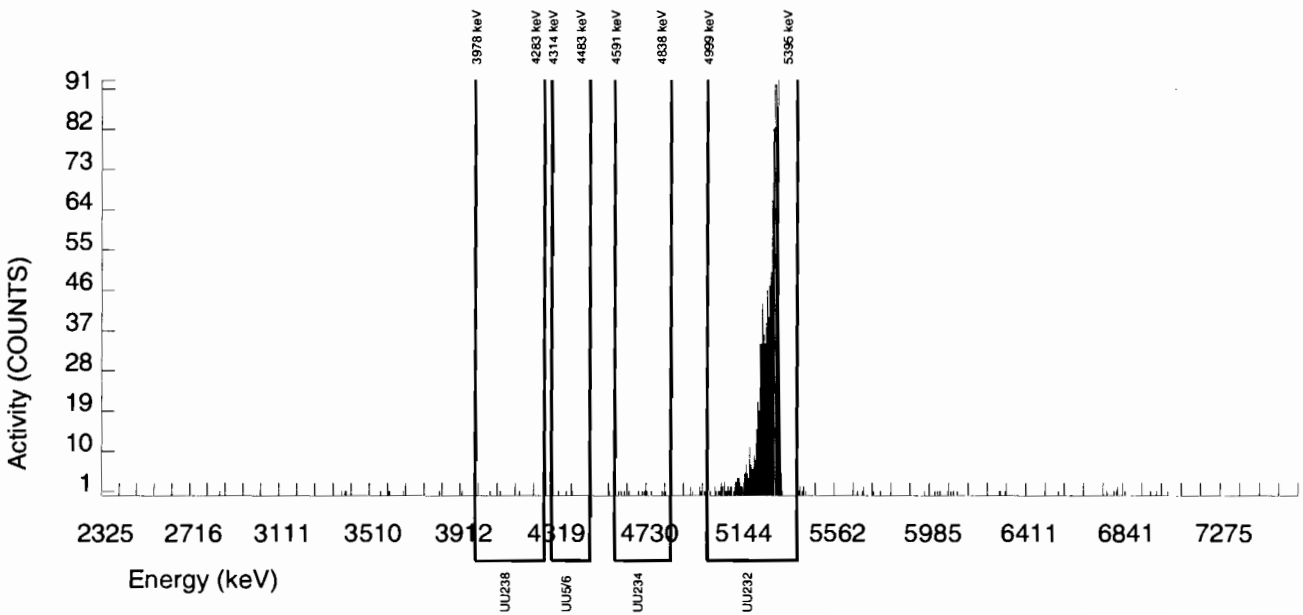

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962721	CHAMBER : 005	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202065399_UU	DETECTOR S/N : 79454	BKG FILE : B005.CNF;1115
SAMPLE QTY : 0.500 G	AVERAGE %EFFICIENCY : 33.5469	BKG DATE : 21-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 24-MAR-2010 11:55:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W005.CNF;339
% YIELD : 76.788		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5018E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.4568E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5273.021	34.245	1164.000	1159.000	5.000	2.2361	100.0000	4.06E+00	3.14E-01	1.82E-02	4.59E-02	1.20E-01
U-3/4	4763.020	4727.656	76.853	219.000	216.826	1.000	5.4790	100.0000	7.58E-01	7.50E-02	4.46E-02	9.86E-02	5.17E-02
U-235	4391.000	4409.247	63.380	12.000	9.000	3.000	2.4127	80.90000	3.89E-02	1.70E-02	2.43E-02	6.02E-02	1.67E-02
U-238	4184.730	4162.262	36.103	241.000	241.000	0.000	3.6781	100.0000	8.43E-01	8.12E-02	2.99E-02	6.93E-02	5.43E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

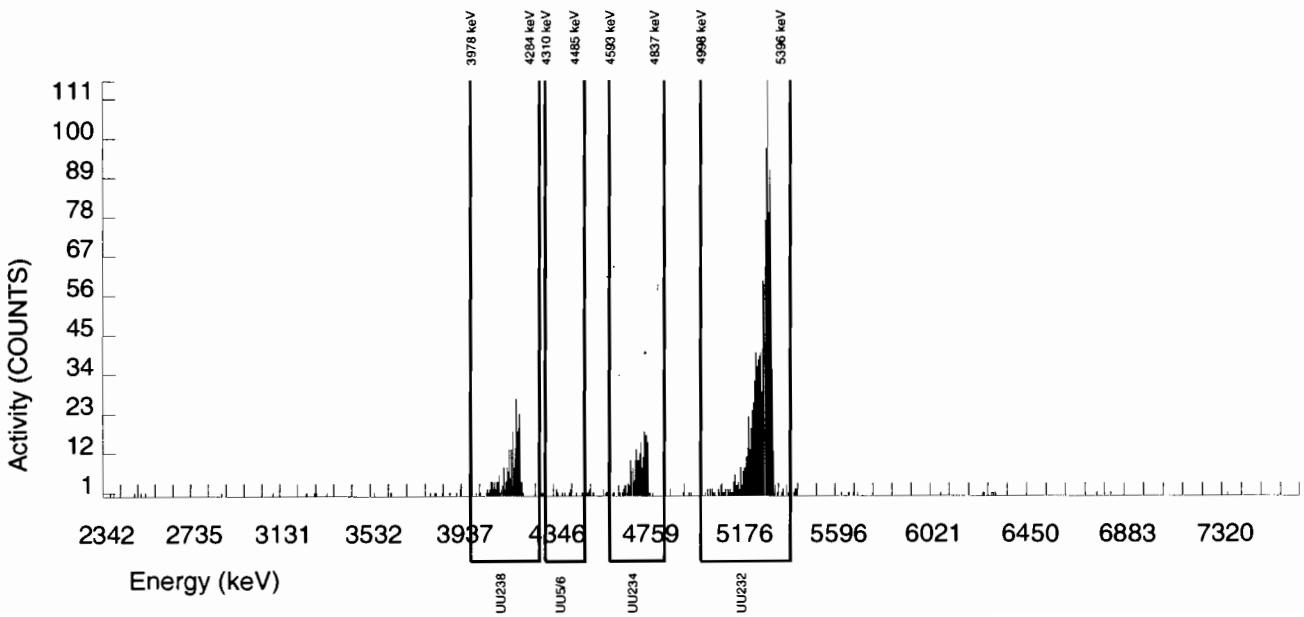

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962721	CHAMBER : 006	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202065400_UU	DETECTOR S/N : 79455	BKG FILE : B006.CNF;1128
SAMPLE QTY : 0.114 G	AVERAGE %EFFICIENCY : 32.0671	BKG DATE : 21-MAR-2010
SAMPLE DATE : 18-MAR-2010 00:00:00	COUNT DATE : 24-MAR-2010 11:55:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W006.CNF;363
% YIELD : 87.817		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5001E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9518E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.930	33.478	1268.000	1267.000	1.000	1.0000	100.0000	1.78E+01	1.44E+00	3.26E-02	1.03E-01	5.00E-01
U-3/4	4763.020	4763.992	54.364	430.000	426.716	2.000	5.4790	100.0000	5.99E+00	5.41E-01	1.79E-01	3.96E-01	2.91E-01
U-235	4391.000	4395.259	48.288	13.000	12.000	1.000	2.4127	80.90000	2.08E-01	6.68E-02	9.74E-02	2.42E-01	6.49E-02
U-238	4184.730	4188.036	45.857	360.000	360.000	0.000	3.6781	100.0000	5.05E+00	4.68E-01	1.20E-01	2.78E-01	2.66E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

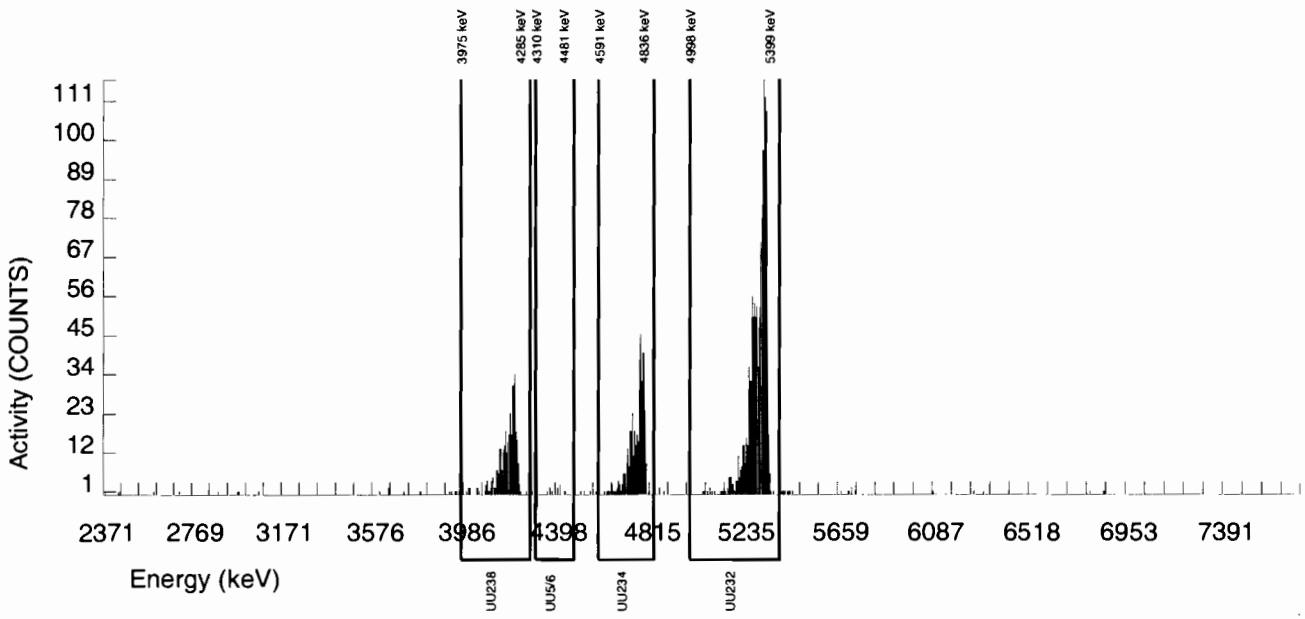

Radiochemistry Batch Checklist, Rev10

Batch# 965814 Product: Th Date: 3/30/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.		✓	DER 811473
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time	✓		
Sample was correctly preserved if required			N/A
Smears Taken for Radioactive batches			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
GC data entered into GC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	✓		DER 811473
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	✓		DER 811473
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JoLM 3/30/10

Secondary Review Performed By: [signature] 3/30/10

4/2

Thorium Que Sheet

26-MAR-10

Batch #: 965814 Analyst: AYB1 First Client Due Date:02-APR-10 Internal Due Date22-MAR-10

Tracer Isotope: Th-229 Tracer Code: 0934-L Expiration Date: 03/9/11 Vol: 0.1

LCS Isotope: Th-230 LCS Code: Expiration Date: Vol:

Spike Isotope: Th-230 Spike Code: Expiration Date: Vol:

Prep Date: 3/25/10 Initials: AYB Pipet ID: 16423/9 Balance ID: 19350208 Witness: AM 3/25/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/ Dry Aliquot (g / l / f)	Th Det #
248824001-1	RE46-10-11926	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	1	1	0.251	173
248824002-1	RE46-10-11925	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	2	2	0.250	174
248863001-1	RE46-10-12936	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	3	3	0.258	177
248863002-1	RE46-10-12930	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	4	4	0.259	178
248863003-1	RE46-10-12929	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	5	5	0.258	179
248863004-1	RE46-10-12935	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	6	6	0.257	180
248865001-1	RE46-10-11924	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	7	7	0.251	181
248867001-1	RE46-10-12931	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	8	8	0.250	182
248867002-1	RE46-10-12932	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	9	9	0.251	183
248867003-1	RE46-10-12934	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	10	10	0.256	184
248867004-1	RE46-10-12933	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	11	11	0.253	185
249179001-1	RE46-10-13437	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	12	12	0.252	186
249179002-1	RE46-10-13436	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	13	13	0.256	187
249179003-1	RE46-10-13434	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	14	14	0.259	188
249179004-1	RE46-10-13438	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	15	15	0.257	189
249179005-1	RE46-10-13435	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	16	16	0.251	190
249179006-1	RE46-10-13439	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	17	17	0.253	191
249179007-1	RE46-10-13463	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	18	18	0.251	192
1202072528-1	MB for batch 965814	MB		.1 pCi/g	SOIL	QC ACCOUNT		19	19		193
1202072529-1	RE46-10-12931(248867001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	05-MAR-10	20	20	0.259	194
1202072530-1	LCS for batch 965814	LCS		.1 pCi/g	SOIL	QC ACCOUNT		21	21	0.108	195

Data Reviewed By: JeLMI - 3/30/10

GEL Laboratories LLC, Radiochemistry Division

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Choose SOP Used: GL-RAD-A-032, GL-RAD-A-038, GL-RAD-A-043

Blank Correction Report

Batch ID 965814

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202072529	DUP	Thorium-228	0.259 g	1.98	0.188	0.164	-.00138224	pCi/g	NO
		Thorium-230	0.259 g	1.24	0.132	0.206	.022664093	pCi/g	NO
		Thorium-232	0.259 g	1.62	0.159	0.0878	.005444015	pCi/g	NO
1202072530	LCS	Thorium-228	0.108 g	1.33	0.201	0.378	-.00331481	pCi/g	NO
		Thorium-230	0.108 g	26.3	2.12	0.474	.054351852	pCi/g	NO
		Thorium-232	0.108 g	1.10	0.172	0.202	.013055556	pCi/g	NO
1202072528	MB	Thorium-228	1.00 g	-0.000358	0.00567	0.0395	-.000358	pCi/g	NO
		Thorium-230	1.00 g	0.00587	0.00328	0.0496	.00587	pCi/g	YES
		Thorium-232	1.00 g	0.00141	0.00301	0.0212	.00141	pCi/g	YES
248824001	RE46-10-11926	Thorium-228	0.251 g	1.55	0.162	0.178	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	1.18	0.129	0.223	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.72	0.171	0.0951	.005617530	pCi/g	NO
248824002	RE46-10-11925	Thorium-228	0.250 g	2.22	0.205	0.165	-.001432	pCi/g	NO
		Thorium-230	0.250 g	1.08	0.119	0.207	.02348	pCi/g	NO
		Thorium-232	0.250 g	1.95	0.184	0.0884	.00564	pCi/g	NO
248863001	RE46-10-12936	Thorium-228	0.258 g	1.84	0.186	0.184	-.00138760	pCi/g	NO
		Thorium-230	0.258 g	1.11	0.127	0.232	.022751938	pCi/g	NO
		Thorium-232	0.258 g	1.77	0.178	0.0987	.005465116	pCi/g	NO
248863002	RE46-10-12930	Thorium-228	0.259 g	1.76	0.174	0.169	-.00138224	pCi/g	NO
		Thorium-230	0.259 g	1.17	0.128	0.213	.022664093	pCi/g	NO
		Thorium-232	0.259 g	1.89	0.182	0.0906	.005444015	pCi/g	NO
248863003	RE46-10-12929	Thorium-228	0.258 g	1.94	0.184	0.161	-.00138760	pCi/g	NO
		Thorium-230	0.258 g	1.10	0.119	0.202	.022751938	pCi/g	NO
		Thorium-232	0.258 g	1.83	0.174	0.0863	.005465116	pCi/g	NO
248863004	RE46-10-12935	Thorium-228	0.257 g	1.71	0.181	0.205	-.00139300	pCi/g	NO
		Thorium-230	0.257 g	1.47	0.160	0.257	.022840467	pCi/g	NO
		Thorium-232	0.257 g	1.69	0.178	0.110	.005486381	pCi/g	NO
248865001	RE46-10-11924	Thorium-228	0.251 g	1.83	0.190	0.198	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	1.13	0.131	0.249	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.68	0.174	0.106	.005617530	pCi/g	NO
248867001	RE46-10-12931	Thorium-228	0.258 g	1.53	0.159	0.174	-.00138760	pCi/g	NO
		Thorium-230	0.258 g	0.881	0.105	0.218	.022751938	pCi/g	NO
		Thorium-232	0.258 g	1.36	0.143	0.093	.005465116	pCi/g	NO
248867002	RE46-10-12932	Thorium-228	0.251 g	1.26	0.133	0.162	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	0.971	0.110	0.203	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.21	0.128	0.0865	.005617530	pCi/g	NO
248867003	RE46-10-12934	Thorium-228	0.256 g	0.0354	0.0303	0.158	-.00139844	pCi/g	NO
		Thorium-230	0.256 g	0.00981	0.0132	0.198	.022929688	pCi/g	YES
		Thorium-232	0.256 g	-0.00151	0.0072	0.0644	.005507813	pCi/g	YES
248867004	RE46-10-12933	Thorium-228	0.253 g	1.54	0.156	0.168	-.00141502	pCi/g	NO
		Thorium-230	0.253 g	0.916	0.107	0.210	.023201581	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248867004	RE46-10-12933	Thorium-232	0.253 g	1.25	0.133	0.0897	.005573123	pCi/g	NO
249179001	RE46-10-13437	Thorium-228	0.252 g	1.83	0.190	0.203	-.00142063	pCi/g	NO
		Thorium-230	0.252 g	0.970	0.119	0.255	.023293651	pCi/g	NO
		Thorium-232	0.252 g	1.64	0.174	0.109	.005595238	pCi/g	NO
249179002	RE46-10-13436	Thorium-228	0.256 g	2.25	0.237	0.237	-.00139844	pCi/g	NO
		Thorium-230	0.256 g	2.26	0.234	0.298	.022929688	pCi/g	NO
		Thorium-232	0.256 g	1.60	0.180	0.127	.005507813	pCi/g	NO
249179003	RE46-10-13434	Thorium-228	0.259 g	2.24	0.237	0.235	-.00138224	pCi/g	NO
		Thorium-230	0.259 g	2.74	0.272	0.294	.022664093	pCi/g	NO
		Thorium-232	0.259 g	1.90	0.204	0.126	.005444015	pCi/g	NO
249179004	RE46-10-13438	Thorium-228	0.257 g	2.04	0.198	0.179	-.00139300	pCi/g	NO
		Thorium-230	0.257 g	1.31	0.141	0.224	.022840467	pCi/g	NO
		Thorium-232	0.257 g	1.91	0.186	0.0956	.005486381	pCi/g	NO
249179005	RE46-10-13435	Thorium-228	0.251 g	2.00	0.195	0.178	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	1.39	0.146	0.223	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.54	0.158	0.0953	.005617530	pCi/g	NO
249179006	RE46-10-13439	Thorium-228	0.253 g	2.04	0.201	0.186	-.00141502	pCi/g	NO
		Thorium-230	0.253 g	1.60	0.165	0.233	.023201581	pCi/g	NO
		Thorium-232	0.253 g	1.94	0.190	0.0994	.005573123	pCi/g	NO
249179007	RE46-10-13463	Thorium-228	0.251 g	2.05	0.200	0.179	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	1.14	0.127	0.224	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.81	0.179	0.0956	.005617530	pCi/g	NO

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814	CHAMBER : 181	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0248865001_TH	DETECTOR S/N : 74439	BKG FILE : B181.CNF;184
SAMPLE QTY : 0.251 G	AVERAGE %EFFICIENCY : 26.4515	BKG DATE : 28-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 17:05:39	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W181.CNF;58
% YIELD : 75.095		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.6601E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6037.083	4.974	29.000	20.000	9.000	2.0641	57.44000	8.59E-01	2.72E-01	7.55E-02	1.94E-01	2.65E-01
TH-228	5363.000	5405.215	28.961	203.000	196.843	6.000	4.1318	99.94000	1.83E+00	1.90E-01	8.69E-02	1.98E-01	1.34E-01
TH229	4900.000	4898.175	92.626	438.000	437.000	1.000	1.0000	99.52000	3.97E+00	3.48E-01	2.11E-02	6.68E-02	1.90E-01
TH-230	4671.390	4660.386	67.376	129.000	124.429	0.000	5.3214	99.70000	1.13E+00	1.31E-01	1.12E-01	2.49E-01	1.01E-01
TH-232	3972.000	3993.879	31.982	186.000	185.829	0.000	1.9427	100.0000	1.68E+00	1.74E-01	4.08E-02	1.06E-01	1.23E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

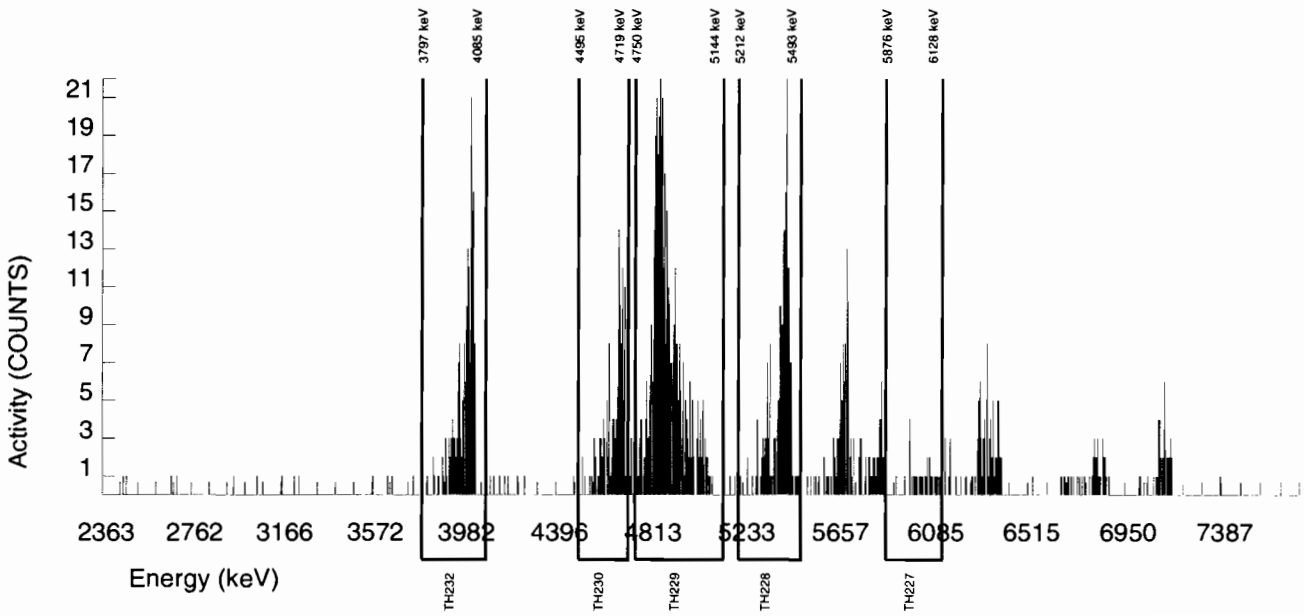

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814	CHAMBER : 182	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0248867001_TH	DETECTOR S/N : 74440	BKG FILE : B182.CNF;184
SAMPLE QTY : 0.258 G	AVERAGE %EFFICIENCY : 25.9311	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 17:05:41	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W182.CNF;58
% YIELD : 85.016		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.8794E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5993.047	0.000	16.000	8.000	8.000	2.0641	57.44000	2.80E-01	1.72E-01	6.62E-02	1.70E-01	1.71E-01
TH-228	5363.000	5404.155	39.178	195.000	187.826	7.000	4.1318	99.94000	1.53E+00	1.59E-01	7.62E-02	1.74E-01	1.15E-01
TH229	4900.000	4902.941	66.033	486.000	485.000	1.000	1.0000	99.52000	3.86E+00	3.28E-01	1.85E-02	5.86E-02	1.76E-01
TH-230	4671.390	4665.209	17.769	116.000	110.927	0.000	5.3214	99.70000	8.81E-01	1.05E-01	9.83E-02	2.18E-01	8.37E-02
TH-232	3972.000	3994.840	84.512	173.000	171.811	1.000	1.9427	100.0000	1.36E+00	1.43E-01	3.58E-02	9.30E-02	1.04E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

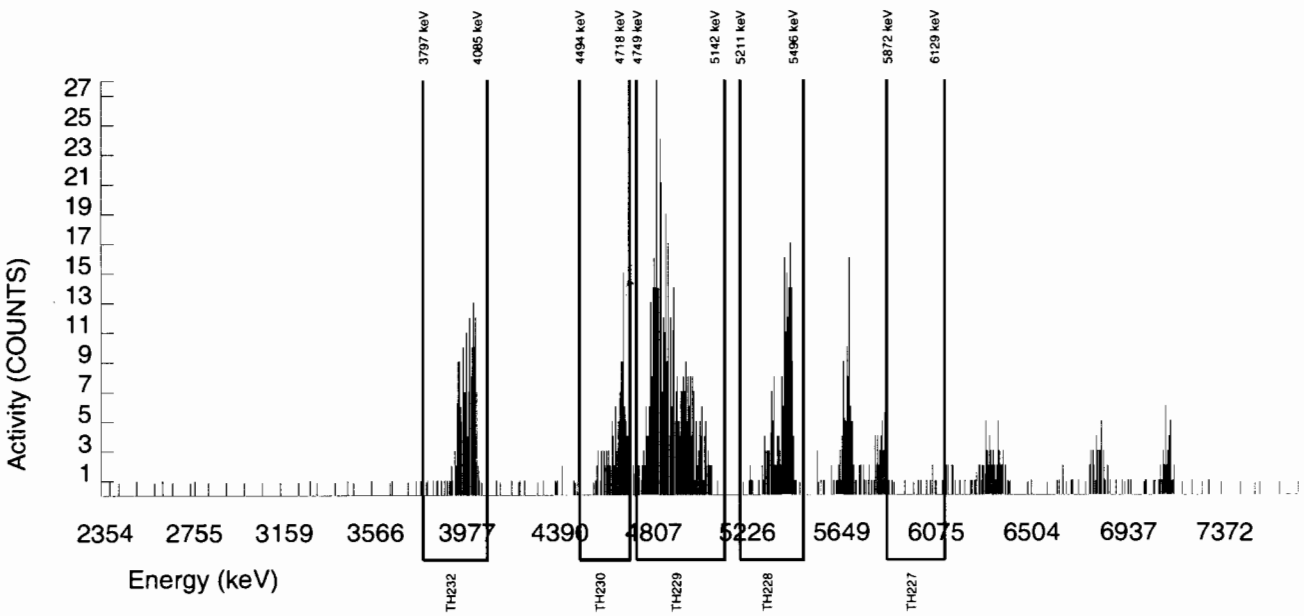

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814	CHAMBER : 193	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S1202072528_TH	DETECTOR S/N : 68627	BKG FILE : B193.CNF;168
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 26.8495	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 17:06:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W193.CNF;56
% YIELD : 93.112		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 2.0583E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5991.142	0.000	7.000	4.000	3.000	2.0641	57.44000	1.51E-02	1.20E-02	1.51E-02	3.86E-02	1.20E-02
TH-228	5363.000	5346.354	231.470	5.000	-0.198	5.000	4.1318	99.94000	-3.58E-04	5.67E-03	1.73E-02	3.95E-02	5.67E-03
TH229	4900.000	4900.657	36.674	558.000	550.000	8.000	2.8284	99.52000	9.96E-01	8.15E-02	1.19E-02	2.87E-02	4.31E-02
TH-230	4671.390	4682.640	33.859	9.000	3.247	0.000	5.3214	99.70000	5.87E-03	3.28E-03	2.24E-02	4.96E-02	3.26E-03
TH-232	3972.000	4057.201	44.324	2.000	0.785	1.000	1.9427	100.0000	1.41E-03	3.01E-03	8.14E-03	2.12E-02	3.01E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)
* BKG Sg of TH229 calculated as sqrt(BKG AREA).
* Corrections made to the following net areas due to tracer impurity:
  TH-228 , TH-230, TH-232

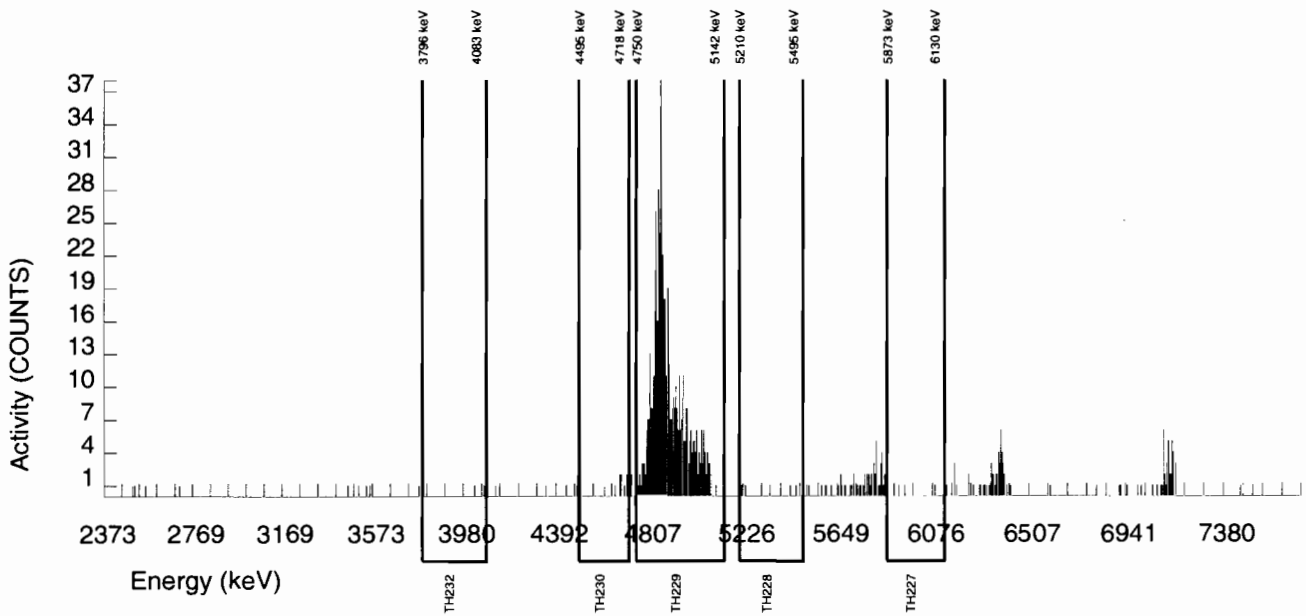

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814	CHAMBER : 194	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S1202072529_TH	DETECTOR S/N : 68635	BKG FILE : B194.CNF;166
SAMPLE QTY : 0.259 G	AVERAGE %EFFICIENCY : 26.3668	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 17:06:09	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W194.CNF;57
% YIELD : 88.265		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.9512E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6000.047	0.000	54.000	47.000	7.000	2.0641	57.44000	1.55E+00	2.80E-01	6.25E-02	1.60E-01	2.58E-01
TH-228	5363.000	5391.808	43.595	262.000	257.816	4.000	4.1318	99.94000	1.98E+00	1.88E-01	7.19E-02	1.64E-01	1.25E-01
TH229	4900.000	4894.379	86.369	512.000	512.000	0.000	0.0000	99.52000	3.84E+00	3.22E-01	0.00E+00	2.03E-02	1.70E-01
TH-230	4671.390	4656.261	78.749	173.000	165.644	2.000	5.3214	99.70000	1.24E+00	1.32E-01	9.28E-02	2.06E-01	9.76E-02
TH-232	3972.000	3986.583	94.920	217.000	216.800	0.000	1.9427	100.0000	1.62E+00	1.59E-01	3.38E-02	8.78E-02	1.10E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

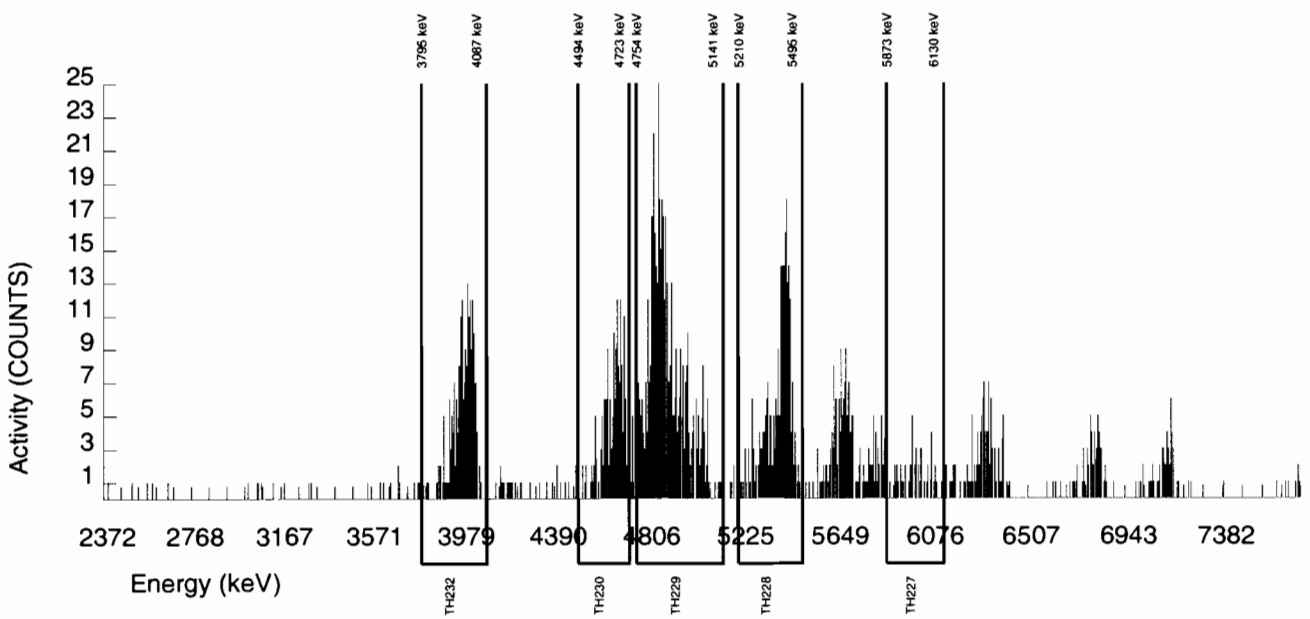

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814	CHAMBER : 195	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S1202072530_TH	DETECTOR S/N : 68636	BKG FILE : B195.CNF;173
SAMPLE QTY : 0.108 G	AVERAGE %EFFICIENCY : 27.9072	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 17:06:12	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W195.CNF;56
% YIELD : 86.814		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.9191E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5997.009	225.079	24.000	17.000	7.000	2.0641	57.44000	6.15E-01	2.07E-01	1.44E-01	3.69E-01	2.01E-01
TH-228	5363.000	5408.161	87.704	89.000	76.808	12.000	4.1318	99.94000	1.33E+00	2.01E-01	1.66E-01	3.78E-01	1.74E-01
TH229	4900.000	4905.651	44.507	549.000	533.000	16.000	4.0000	99.52000	9.22E+00	8.15E-01	1.61E-01	3.69E-01	4.11E-01
TH-230	4671.390	4669.708	35.287	1545.000	1523.425	16.000	5.3214	99.70000	2.63E+01	2.12E+00	2.14E-01	4.74E-01	6.81E-01
TH-232	3972.000	3997.294	80.579	70.000	63.792	6.000	1.9427	100.0000	1.10E+00	1.72E-01	7.78E-02	2.02E-01	1.50E-01

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

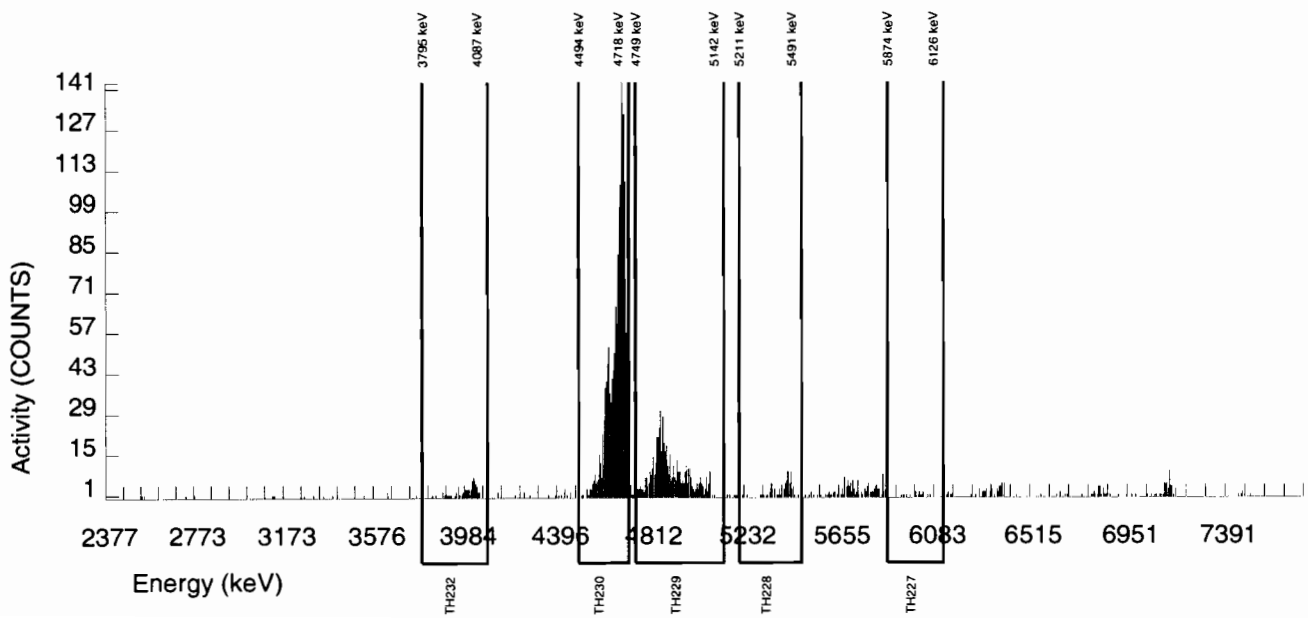

Radiochemistry Batch Checklist, Rev10

Batch# 962633 **Product:** Gamma Solid LANL **Date:** 03/26/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 3/26/10

Secondary Review Performed By: M Stamper 3/29/10

4/3

Gamma Review Checklist (for information only)

Batch #: 462633 Client: LANI

Client/Fax Due: 4/3/10

		1st Review	2nd Review	Comments:
	Change batch owner	✓		
*	Check special requirements	✓	✓	
*	Perform transcription check	✓	✓	
*	Check for peak shifts	✓	✓	
*	Ensure batch has been uploaded	✓	✓	
*	Ensure correct calculations have run	✓	✓	
*	Check LCS/MS nominals and recoveries		✓	
*	Check MB for hits	✓	✓	
*	Check to see if RDLs were met	✓	✓	
*	Check to see that precision requirements have been met (RPD/RER)		✓	
*	Check batch hits		✓	
*	Do any hits need to be verified?		no	
	Green dots: email personnel		na	
	Add any positive results that are not requested.		no	
	Enter rejected data/qualifiers		✓	
	Change batch status to review		na	
	Check e-Mail for NCRs		na	
	Check batch history sheet		na	
	Enter case narrative		✓	
	Apply correct report status to samples		✓	
	Take batch to DONE		✓	
	Compile package and save file		✓	

Make sure to reschedule samples when recounting (not when extending)

* = These steps must be performed before approving green dots for additional analysis

DO NOT REPORT

Gamma Spec Que Sheet I.G.- 3/16/10

03/08/2010

Batch #:962633 **Analyst:** MXR1 **First Client DueDate**04/03/2010 **Internal Due Date:** 03/23/2010

Gamma Spike Isotope: Mixed Gamma **Spike Code:** Na **Expiration Date:** Na **Vol:** Na **Nominal Concentration:** Na

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 10 ml **Nominal Concentration:** Cs137-5.685 Co60-6.485 Am241-16.29

Initials: US **Prep Date:** 3/9/10 **Library:** SOLID **Witness:** Na

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Wet/Dry Aliquot (1/E/F)	Detector	Sealing Date/Time (if Applicable)
248860001-1	RE46-10-13782	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF	can	125.62	15	3/9/10
248860002-1	RE46-10-13783	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		124.16	18	
248860003-1	RE46-10-13777	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		123.02	22	
248860004-1	RE46-10-13775	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		143.70	23	
248860005-1	RE46-10-13776	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		127.04	25	
248860006-1	RE46-10-13781	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		132.12	2	
248860007-1	RE46-10-13779	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		129.80	5	
248860008-1	RE46-10-13780	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		129.23	10	
248860009-1	RE46-10-13778	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		143.35	12	
248863001-1	RE46-10-12936	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		125.19	15	
248863002-1	RE46-10-12930	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		123.50	22	
248863003-1	RE46-10-12929	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		122.05	23	
248863004-1	RE46-10-12935	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		126.96	4	
248865001-1	RE46-10-11924	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 K		125.14	7	
248866001-1	RE46-10-11885	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		133.00	15	
248866002-1	RE46-10-11886	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		115.19	17	
248867001-1	RE46-10-12931	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		122.07	29	
248867002-1	RE46-10-12932	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		143.48	22	
248867003-1	RE46-10-12934	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		112.39	5	
248867004-1	RE46-10-12933	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		121.04	15	
1202065188-1	MB	MB		QC ACCOUNT	SOIL	3/9/10 K		143.70	29	
1202065189-1	DUP RE46-10-12931(248867001)	DUP		QC ACCOUNT	SOIL	05-MAR-10 12:00:00 K		122.07	21	
1202065190-1	LCS	LCS		QC ACCOUNT	SOIL	3/9/10 RF		151.73	22	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: [signature] 3/26/10

M Stamps 3/29/10

Gamma Spec Que Sheet 1.G.- 3/16/10

03/08/2010

Batch #:962633 **Analyst: MXR1** **First Client DueDate 04/03/2010** **Internal Due Date: 03/23/2010**

Gamma Spike Isotope: Mixed Gamma **Spike Code:** Na **Expiration Date:** Na **Vol:** Na **Nominal Concentration:** Na

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0 mL **Nominal Concentration:** Cs137-5.685 Co60-6.48 Am241-16.29

Initials: MS **Prep Date:** 3/9/10 **Library:** SOLID **Witness:** Na

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Wet/Dry Aliquot (1/g/F)	Detector	Sealing Date/Time (if Applicable)
248860001-1	RE46-10-13782	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF	can	125.52	15	3/9/10
248860002-1	RE46-10-13783	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		124.16	18	
248860003-1	RE46-10-13777	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		133.02	22	
248860004-1	RE46-10-13775	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		143.70	23	
248860005-1	RE46-10-13776	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		127.04	25	
248860006-1	RE46-10-13781	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		132.12	2	
248860007-1	RE46-10-13779	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		129.80	5	
248860008-1	RE46-10-13780	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		129.23	10	
248860009-1	RE46-10-13778	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		143.35	12	
248863001-1	RE46-10-12936	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		125.19	15	
248863002-1	RE46-10-12930	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		123.50	22	
248863003-1	RE46-10-12929	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		122.05	23	
248863004-1	RE46-10-12935	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		126.96	4	
248865001-1	RE46-10-11924	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 K		125.14	7	
248866001-1	RE46-10-11885	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		133.00	15	
248866002-1	RE46-10-11886	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		115.19	17	
248867001-1	RE46-10-12931	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		122.07	29	
248867002-1	RE46-10-12932	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		143.48	22	
248867003-1	RE46-10-12934	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		112.39	5	
248867004-1	RE46-10-12933	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		121.04	15	
1202065188-1	MB	MB		QC ACCOUNT	SOIL	3/9/10 K		143.70	29	
1202065189-1	DUP RE46-10-12931(248867001)	DUP		QC ACCOUNT	SOIL	05-MAR-10 12:00:00 K		122.07	21	
1202065190-1	LCS	LCS		QC ACCOUNT	SOIL	3/9/10 RF		151.73	22	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: M Stamps 3/29/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
962633	248860001	SAMPLE	24-MAR-10		Americium-241	-0.3988	0.5503	0.200
					Cerium-139	-0.0071	0.0713	0.050
					Europium-152	0.06987	0.2181	0.200
					Sodium-22	0.02774	0.101	0.080
					Thorium-234	0.3111	4.547	2.00
962633	248860002	SAMPLE	24-MAR-10		Americium-241	0.1165	0.3079	0.200
					Thorium-234	1.922	2.747	2.00
962633	248860003	SAMPLE	24-MAR-10		Americium-241	-0.02836	0.2157	0.200
					Thorium-234	0.6605	2.082	2.00
962633	248860004	SAMPLE	24-MAR-10		Americium-241	-0.15	0.3195	0.200
					Cerium-139	-0.01747	0.05093	0.050
					Thorium-234	1.76	2.867	2.00
962633	248860005	SAMPLE	24-MAR-10		Sodium-22	0.01003	0.09245	0.080
962633	248860006	SAMPLE	24-MAR-10		Americium-241	-0.1191	0.3087	0.200
					Cerium-139	-0.01638	0.0569	0.050
					Thorium-234	1.156	3.073	2.00
962633	248860007	SAMPLE	24-MAR-10		Cerium-139	-0.00892	0.05761	0.050
					Cesium-134	0.08795	0.1079	0.100
					Europium-152	0.1143	0.2013	0.200
					Sodium-22	0.00767	0.09701	0.080
962633	248860008	SAMPLE	24-MAR-10		Americium-241	0.02648	0.392	0.200
					Cerium-139	0.00647	0.05278	0.050
					Sodium-22	-0.02702	0.08143	0.080
					Thorium-234	1.437	3.271	2.00
962633	248860009	SAMPLE	24-MAR-10		Americium-241	0.08355	0.2671	0.200
					Cerium-139	-0.01125	0.05385	0.050
					Thorium-234	0.6321	2.451	2.00
962633	248863001	SAMPLE	24-MAR-10		Americium-241	-0.2062	0.5504	0.200
					Cerium-139	0.00164	0.06933	0.050
					Cesium-134	0.09766	0.1196	0.100
					Europium-152	0.00035	0.2226	0.200
					Mercury-203	0.0466	0.1027	0.100
					Sodium-22	-0.03472	0.09586	0.080
					Thorium-234	1.347	4.581	2.00
962633	248863002	SAMPLE	24-MAR-10		Americium-241	0.2093	0.245	0.200
					Cerium-139	0.02473	0.05406	0.050
962633	248863003	SAMPLE	24-MAR-10		Americium-241	0.06604	0.3876	0.200
					Cerium-139	-0.0204	0.06107	0.050
					Cesium-134	0.07323	0.1031	0.100
					Sodium-22	-0.01091	0.08483	0.080
962633	248863004	SAMPLE	24-MAR-10		Americium-241	0.1208	0.4152	0.200
					Thorium-234	-0.4912	3.22	2.00
962633	248865001	SAMPLE	24-MAR-10		Cerium-139	-0.00785	0.05556	0.050
					Sodium-22	0.01389	0.08378	0.080

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
962633	248866001	SAMPLE	24-MAR-10		Americium-241	-0.3335	0.5114	0.200
					Cerium-139	0.00101	0.06824	0.050
					Europium-152	-0.05316	0.2073	0.200
					Sodium-22	0.00914	0.09725	0.080
					Thorium-234	2.229	4.463	2.00
					Tin-113	0.02021	0.1026	0.100
962633	248866002	SAMPLE	24-MAR-10		Cerium-139	0.00257	0.05962	0.050
					Cobalt-60	0.04517	0.1039	0.100
					Sodium-22	-0.03833	0.1005	0.080
					Yttrium-88	0.0586	0.1006	0.100
962633	248867001	SAMPLE	24-MAR-10		Americium-241	-0.02518	0.3301	0.200
					Cerium-139	0.00997	0.06152	0.050
					Thorium-234	0.7463	2.926	2.00
962633	248867002	SAMPLE	24-MAR-10					
962633	248867003	SAMPLE	24-MAR-10		Cerium-139	-0.00662	0.06122	0.050
					Cesium-134	0.103	0.1249	0.100
					Sodium-22	0.02208	0.1114	0.080
962633	248867004	SAMPLE	24-MAR-10		Americium-241	-0.1815	0.3894	0.200
					Thorium-234	1.582	3.174	2.00
962633	1202065188	MB	24-MAR-10					
962633	1202065189	DUP	24-MAR-10					
962633	1202065190	LCS	25-MAR-10		Cerium-139	0.01006	0.07681	0.050
					Cesium-134	0.07098	0.1333	0.100
					Europium-152	0.01084	0.2676	0.200
					Mercury-203	-0.0163	0.1102	0.100
					Ruthenium-106	-0.1807	0.8255	0.800
					Sodium-22	0.0353	0.08544	0.080
					Thorium-234	-0.8535	3.134	2.00
					Tin-113	-0.02312	0.1307	0.100

Gamma Review Report based on Result > MDA for Batch:962633

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860001	04-MAR-10 12:00	24-MAR-10 16:15	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.904	0.2344	pCi/g	0.3102	N	911.2	3	1.685	IDENTIFIED	10.72	☐		
Annihilation Rad.		0.2352	0.04407	pCi/g	0.06345	N	510.6	1	1.904	IDENTIFIED	18.23	☐		
Bismuth-211	int	4.727	0.3554	pCi/g	0.4474	Y	352.1	2	1.367	IDENTIFIED	5.644	☐	ui	
Bismuth-212	HE	2.345	0.5085	pCi/g	1.505	N	0	7	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.243	0.1128	pCi/g	0.1403	0.200	609.4	3	1.637	IDENTIFIED	7.585	☐		
Cadmium-109	int	2.31	0.7012	pCi/g	1.92	Y	87.42	3	1.229	IDENTIFIED	29.73	☐	ui	
Cerium-143		13160	2149	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.195	0.04362	pCi/g	0.121	0.100	0	7	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma		11.45	1.686	pCi/g	4.76	N		0				☐		
Iodine-135		1.74E+21	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-212	✓	2.027	0.1428	pCi/g	0.1271	0.100	238.8	2	1.375	IDENTIFIED	3.727	☐		
Lead-214	✓	1.716	0.1374	pCi/g	0.1601	0.100	352.1	2	1.367	IDENTIFIED	5.644	☐		
Neptunium-237	HE	0.6685	0.2147	pCi/g	0.5708	N	87.42	3	1.229	IDENTIFIED	29.73	☐		
Niobium-95m	HE	0.4874	0.1088	pCi/g	0.3509	N	0	7	0	NOT_IDENTI	0	☐		
Potassium-40	✓	39.73	2.271	pCi/g	0.7555	1.00	1460	1	2.215	IDENTIFIED	2.922	☐		
Promethium-149		656.2	302.6	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Radium-224	int	3.765	0.8432	pCi/g	1.362	Y	241.8	1	1.802	IDENTIFIED	21.71	☐	ui	
Radium-226	✓	1.243	0.1128	pCi/g	0.1403	Y	609.4	3	1.637	IDENTIFIED	7.585	☐		
Radium-228	✓	1.904	0.2344	pCi/g	0.3102	0.500	911.2	3	1.685	IDENTIFIED	10.72	☐		
Strontium-85	la	0.124	0.03193	pCi/g	0.1041	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208	✓	0.5989	0.05573	pCi/g	0.06969	0.080	583.1	1	1.569	IDENTIFIED	8.104	☐		
Thorium-228	nr	2.027	0.1428	pCi/g	0.1271	N	238.8	2	1.375	IDENTIFIED	3.727	☐		
Thorium-230	nr	1.243	0.108	pCi/g	0.1403	N	609.4	3	1.637	IDENTIFIED	7.585	☐		
Thorium-232	nr	1.904	0.2344	pCi/g	0.3102	N	911.2	3	1.685	IDENTIFIED	10.72	☐		
Tin-126	HE	0.224	0.06803	pCi/g	0.1877	N	87.42	3	1.229	IDENTIFIED	29.73	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860002	04-MAR-10 12:00	24-MAR-10 16:15	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.74	0.1822	pCi/g	0.1998	N	910.8	3	1.832	IDENTIFIED	7.983	☐		
Annihilation Rad.		0.1382	0.03062	pCi/g	0.03685	N	510.4	1	2.172	IDENTIFIED	21.9	☐		
Bismuth-211	int	3.582	0.2284	pCi/g	0.278	Y	351.8	2	1.441	IDENTIFIED	5.509	☐	ui	
Bismuth-212	la nr	1.929	0.4139	pCi/g	1.053	N	0	8	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.181	0.08634	pCi/g	0.1063	0.200	609	3	1.456	IDENTIFIED	5.765	☐		
Cadmium-109	int	2.394	0.5305	pCi/g	1.314	Y	87.35	3	1.24	IDENTIFIED	21.68	☐	ui	
Cadmium-115	HE	28.61	22.72	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Cerium-143		9978	1438	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.08997	0.027	pCi/g	0.0759	0.100	0	8	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.

Gross Gamma		9.864	1.2	pCi/g	2.367	N		0				☐	
Iodine-133	HE	1.16E+05	1.38E+05	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.801	0.08331	pCi/g	0.08423	0.100	238.7	2	1.157	IDENTIFIED	2.899	☐	
Lead-214 ✔		1.3	0.09032	pCi/g	0.1011	0.100	351.8	2	1.441	IDENTIFIED	5.509	☐	
Mercury-203	la	0.06698	0.02051	pCi/g	0.06549	0.100	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Neptunium-237	HE	0.693	0.1699	pCi/g	0.4016	N	87.35	3	1.24	IDENTIFIED	21.68	☐	
Potassium-40 ✔		34.42	1.533	pCi/g	0.4415	1.00	1460	1	2.198	IDENTIFIED	2.329	☐	
Promethium-149	HE	48.72	188.4	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Radium-224	int	3.793	0.5787	pCi/g	0.9015	Y	241.6	1	1.767	IDENTIFIED	15	☐ ui	
Radium-226 ✔		1.181	0.08634	pCi/g	0.1063	Y	609	3	1.456	IDENTIFIED	5.765	☐	
Radium-228 ✔		1.74	0.1822	pCi/g	0.1998	0.500	910.8	3	1.832	IDENTIFIED	7.983	☐	
Strontium-85	la	0.09479	0.01855	pCi/g	0.06299	Y	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✔		0.5245	0.04041	pCi/g	0.04889	0.080	583	1	1.629	IDENTIFIED	6.637	☐	
Thorium-228	nr	1.801	0.08331	pCi/g	0.08423	N	238.7	2	1.157	IDENTIFIED	2.899	☐	
Thorium-230	nr	1.181	0.08052	pCi/g	0.1063	N	609	3	1.456	IDENTIFIED	5.765	☐	
Thorium-232	nr	1.74	0.1822	pCi/g	0.1998	N	910.8	3	1.832	IDENTIFIED	7.983	☐	
Tin-126	HE	0.2322	0.05146	pCi/g	0.1381	N	87.35	3	1.24	IDENTIFIED	21.68	☐	
Total Uranium		5.7742	2.32E-06	ug/g	4.0899	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860003	04-MAR-10 12:00	24-MAR-10 16:15	20.2	SAMPLE	LOAD	1	LANL	LAN1,01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.839	0.1776	pCi/g	0.2121	N	911.3	3	2.042	IDENTIFIED	6.886	☐	
Annihilation Rad.	HE	0.1044	0.03447	pCi/g	0.04102	N	511	1	2.195	IDENTIFIED	32.63	☐	
Bismuth-211	int	3.859	0.3032	pCi/g	0.3037	Y	352.1	2	1.506	IDENTIFIED	5.289	☐ ui	
Bismuth-212	HE	1.705	0.4014	pCi/g	0.9792	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		0.9632	0.09305	pCi/g	0.1009	0.200	609.3	3	1.751	IDENTIFIED	7.699	☐	
Cadmium-109	int	3.638	0.5037	pCi/g	1.089	Y	87.18	3	1.26	IDENTIFIED	13.02	☐ ui	
Cerium-143		9254	1550	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1052	0.027	pCi/g	0.07901	0.100	0	8	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.2809	0.08439	pCi/g	0.26	N	0	8	0	NOT_IDENTI	0	☐	
Gross Gamma		9.716	1.217	pCi/g	2.534	N		0				☐	
Iodine-135		1.38E+21	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.649	0.12	pCi/g	0.08777	0.100	238.8	2	1.174	IDENTIFIED	3.016	☐	
Lead-214 ✔		1.401	0.1166	pCi/g	0.1104	0.100	352.1	2	1.506	IDENTIFIED	5.289	☐	
Mercury-203	int	0.1122	0.03255	pCi/g	0.05885	0.100	278.3	1	1.976	IDENTIFIED	28.15	☐ ui	
Neptunium-237	int nr	1.053	0.1829	pCi/g	0.3199	N	87.18	3	1.26	IDENTIFIED	13.02	☐	
Niobium-95	HE	0.08004	0.02241	pCi/g	0.07112	N	0	8	0	NOT_IDENTI	0	☐	
Potassium-40 ✔		34.36	1.767	pCi/g	0.4769	1.00	1461	1	2.677	IDENTIFIED	2.342	☐	
Promethium-149	HE	84.07	214.9	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Radium-224	int	4.464	0.6253	pCi/g	0.9396	Y	241.8	1	1.789	IDENTIFIED	12.53	☐ ui	
Radium-226 ✔		0.9632	0.09305	pCi/g	0.1009	Y	609.3	3	1.751	IDENTIFIED	7.699	☐	
Radium-228 ✔		1.839	0.1776	pCi/g	0.2121	0.500	911.3	3	2.042	IDENTIFIED	6.886	☐	
Strontium-85	la	0.1674	0.02235	pCi/g	0.07408	Y	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✔		0.4779	0.04318	pCi/g	0.05092	0.080	583.3	1	1.71	IDENTIFIED	7.231	☐	
Thorium-228	nr	1.649	0.12	pCi/g	0.08777	N	238.8	2	1.174	IDENTIFIED	3.016	☐	

Thorium-230	nr	0.9632	0.08951	pCi/g	0.1009	N	609.3	3	1.751	IDENTIFIED	7.699	☐
Thorium-232	nr	1.839	0.1776	pCi/g	0.2121	N	911.3	3	2.042	IDENTIFIED	6.886	☐
Tin-126	int nr	0.3529	0.04886	pCi/g	0.1061	N	87.18	3	1.26	IDENTIFIED	13.02	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860004	04-MAR-10 12:00	24-MAR-10 16:16	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.307	0.1527	pCi/g	0.2158	N	910.1	3	1.418	IDENTIFIED	11.68	☐		
Annihilation Rad.		0.132	0.03179	pCi/g	0.04806	N	510.4	1	2.075	IDENTIFIED	24.07	☐		
Bismuth-211	int	3.065	0.2289	pCi/g	0.3357	Y	351.4	2	1.328	IDENTIFIED	7.467	☐	ui	
Bismuth-212	HE	1.668	0.4443	pCi/g	1.148	N	0	6	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	0.9447	0.07533	pCi/g	0.1276	0.200	608.6	3	1.596	IDENTIFIED	7.974	☐		
Cadmium-109	int	1.94	0.6161	pCi/g	1.444	Y	87.22	3	1.215	IDENTIFIED	31.76	☐	ui	
Cadmium-115	HE	6.572	27.39	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Cerium-143		12840	1419	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Gross Gamma		7.395	1.154	pCi/g	2.608	N		0				☐		
Lead-212	✓	1.503	0.05399	pCi/g	0.09129	0.100	238.3	2	1.214	IDENTIFIED	3.592	☐		
Lead-214	✓	1.112	0.08306	pCi/g	0.1234	0.100	351.4	2	1.328	IDENTIFIED	7.467	☐		
Neptunium-237	HE	0.5616	0.1783	pCi/g	0.4624	N	87.22	3	1.215	IDENTIFIED	31.76	☐		
Niobium-95m	la nr	0.8159	0.08629	pCi/g	0.3138	N	0	6	0	NOT_IDENTI	0	☐		
Potassium-40	✓	26.89	0.8756	pCi/g	0.6185	1.00	1459	1	2.233	IDENTIFIED	3.257	☐		
Promethium-149	HE	269.5	213.1	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Radium-224	int	3.749	0.4822	pCi/g	0.9783	Y	241.2	1	1.878	IDENTIFIED	12.86	☐	ui	
Radium-226	✓	0.9447	0.07533	pCi/g	0.1276	Y	608.6	3	1.596	IDENTIFIED	7.974	☐		
Radium-228	✓	1.307	0.1527	pCi/g	0.2158	0.500	910.1	3	1.418	IDENTIFIED	11.68	☐		
Technetium-99m		4.99E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.4531	0.03396	pCi/g	0.05076	0.080	582.5	1	1.607	IDENTIFIED	7.495	☐		
Thorium-228	nr	1.503	0.05399	pCi/g	0.09129	N	238.3	2	1.214	IDENTIFIED	3.592	☐		
Thorium-230	nr	0.9447	0.07533	pCi/g	0.1276	N	608.6	3	1.596	IDENTIFIED	7.974	☐		
Thorium-232	nr	1.307	0.1527	pCi/g	0.2158	N	910.1	3	1.418	IDENTIFIED	11.68	☐		
Tin-126	HE	0.1882	0.05977	pCi/g	0.1409	N	87.22	3	1.215	IDENTIFIED	31.76	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860005	04-MAR-10 12:00	24-MAR-10 16:16	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	2.189	0.2087	pCi/g	0.2453	N	911.2	3	1.726	IDENTIFIED	7.317	☐		
Americium-241	la	0.08707	0.0264	pCi/g	0.08642	0.200	0	6	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Annihilation Rad.		0.1253	0.03652	pCi/g	0.04992	N	510.7	1	1.386	IDENTIFIED	28.69	☐		
Bismuth-211	int	4.83	0.3333	pCi/g	0.332	Y	352	2	1.168	IDENTIFIED	4.468	☐	ui	
Bismuth-212	nr	2.414	0.4645	pCi/g	0.8466	N	727.2	1	1.246	IDENTIFIED	17.9	☐		
Bismuth-214	✓	1.424	0.1184	pCi/g	0.1131	0.200	609.4	3	1.291	IDENTIFIED	5.706	☐		
Cadmium-109	int	4.738	0.4677	pCi/g	0.7387	Y	87.32	3	1.325	IDENTIFIED	8.292	☐	ui	
Cerium-143		6943	1254	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1669	0.03531	pCi/g	0.1057	0.100	0	6	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-135	HE	0.3926	0.1399	pCi/g	0.2203	N	269.6	1	1.081	IDENTIFIED	35.12	☐		

Gadolinium-153	HE	0.1342	0.05165	pCi/g	0.09547	N	0	6	0	FAIL_ABUND	0	☐	
Gross Gamma		12.02	1.601	pCi/g	3.667	N		0				☐	
Lead-210	HE	0.884	0.3691	pCi/g	0.6106	N	46.63	1	0.7942	IDENTIFIED	41.43	☐	
Lead-212 ✔		2.029	0.13	pCi/g	0.08538	0.100	238.7	2	1.016	IDENTIFIED	2.899	☐	
Lead-214 ✔		1.753	0.1303	pCi/g	0.1159	0.100	352	2	1.168	IDENTIFIED	4.468	☐	
Neptunium-237	int nr	1.371	0.1975	pCi/g	0.2124	N	87.32	3	1.325	IDENTIFIED	8.292	☐	
Potassium-40 ✔		39.4	1.97	pCi/g	0.573	1.00	1461	1	2.056	IDENTIFIED	2.618	☐	
Promethium-149	HE	2.832	217.6	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Radium-224	int	5.003	0.6121	pCi/g	0.9162	Y	241.6	1	1.463	IDENTIFIED	11.04	☐	ui
Radium-226 ✔		1.424	0.1184	pCi/g	0.1131	Y	609.4	3	1.291	IDENTIFIED	5.706	☐	
Radium-228 ✔		2.189	0.2087	pCi/g	0.2453	0.500	911.2	3	1.726	IDENTIFIED	7.317	☐	
Technetium-99m		2.93E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208 ✔		0.6192	0.05549	pCi/g	0.05957	0.080	583.3	1	1.447	IDENTIFIED	6.971	☐	
Thorium-228	nr	2.029	0.13	pCi/g	0.08538	N	238.7	2	1.016	IDENTIFIED	2.899	☐	
Thorium-230	nr	1.424	0.1123	pCi/g	0.1131	N	609.4	3	1.291	IDENTIFIED	5.706	☐	
Thorium-232	nr	2.189	0.2087	pCi/g	0.2453	N	911.2	3	1.726	IDENTIFIED	7.317	☐	
Thorium-234 ✔		1.433	0.4637	pCi/g	0.8081	2.00	63.31	2	0.8813	IDENTIFIED	30.94	☐	
Tin-126	int nr	0.4596	0.04537	pCi/g	0.07151	N	87.32	3	1.325	IDENTIFIED	8.292	☐	
Total Uranium		4.314	1.38E-06	ug/g	1.2049	N		0				☐	
Uranium-238	HE	1.433	0.4637	pCi/g	0.8081	N	63.31	2	0.8813	IDENTIFIED	30.94	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860006	04-MAR-10 12:00	24-MAR-10 16:27	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.96	0.2006	pCi/g	0.2775	N	910.5	3	1.802	IDENTIFIED	7.993	☐		
Annihilation Rad.		0.1713	0.03991	pCi/g	0.05218	N	510	1	1.672	IDENTIFIED	22.76	☐		
Bismuth-211	int	4.181	0.3398	pCi/g	0.3571	Y	351.6	2	1.288	IDENTIFIED	5.729	☐	ui	
Bismuth-212	HE	2.312	0.5498	pCi/g	1.334	N	0	8	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔	MS 3/24/10	1.149	0.116	pCi/g	0.1318	0.200	608.8	3	1.333	IDENTIFIED	8.582	☐		
Cadmium-109	int LA	3.86	0.4886	pCi/g	1.775	Y	0	8	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Cerium-143		18790	2819	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Cesium-135	HE	0.3571	0.1005	pCi/g	0.3325	N	0	8	0	NOT_IDENTI	0	☐		
Gross Gamma		10.24	1.458	pCi/g	3.354	N		0				☐		
Iodine-135		4.33E+20	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Lead-212 ✔		1.772	0.1361	pCi/g	0.1357	0.100	238.3	2	1.13	IDENTIFIED	4.377	☐		
Lead-214 ✔		1.517	0.1302	pCi/g	0.1299	0.100	351.6	2	1.288	IDENTIFIED	5.729	☐		
Neptunium-237		1.188	0.1916	pCi/g	0.5291	N	0	8	0	NOT_IDENTI	0	☐		
Potassium-40 ✔		36.4	2.012	pCi/g	0.5121	1.00	1460	1	1.98	IDENTIFIED	2.82	☐		
Radium-224	int	3.311	0.5362	pCi/g	1.455	Y	241.4	1	1.377	IDENTIFIED	15.08	☐	ui	
Radium-226 ✔		1.149	0.116	pCi/g	0.1318	Y	608.8	3	1.333	IDENTIFIED	8.582	☐		
Radium-228 ✔		1.96	0.2006	pCi/g	0.2775	0.500	910.5	3	1.802	IDENTIFIED	7.993	☐		
Sodium-24	HE	2.04E+07	1.04E+08	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Thallium-208 ✔		0.6008	0.05471	pCi/g	0.06371	0.080	582.7	1	1.59	IDENTIFIED	7.608	☐		
Thorium-228	nr	1.772	0.1361	pCi/g	0.1357	N	238.3	2	1.13	IDENTIFIED	4.377	☐		
Thorium-230	nr	1.149	0.112	pCi/g	0.1318	N	608.8	3	1.333	IDENTIFIED	8.582	☐		
Thorium-232	nr	1.96	0.2006	pCi/g	0.2775	N	910.5	3	1.802	IDENTIFIED	7.993	☐		

Tin-126	int nr	0.3885	0.04805	pCi/g	0.1744	N	0	8	0	NOT_IDENTI	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860007	04-MAR-10 12:00	24-MAR-10 16:27	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.851	0.2352	pCi/g	0.3028	N	910.8	3	1.702	IDENTIFIED	11.01	☐	
Annihilation Rad.	HE	0.1229	0.04146	pCi/g	0.0584	N	510.3	1	1.356	IDENTIFIED	33.57	☐	
Bismuth-211	int	4.042	0.2985	pCi/g	0.3679	Y	351.4	2	1.228	IDENTIFIED	6.235	☐ ui	
Bismuth-212	HE	2.491	0.6333	pCi/g	1.563	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.406	0.106	pCi/g	0.1447	0.200	608.8	3	1.56	IDENTIFIED	6.246	☐	
Cadmium-109	int	4.826	0.462	pCi/g	1.027	Y	86.88	3	1.323	IDENTIFIED	8.78	☐ ui	
Cadmium-115	HE	21.34	33.84	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cerium-143		13840	2131	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.5718	0.1563	pCi/g	0.2743	N	269.6	1	1.231	IDENTIFIED	26.81	☐	
Gross Gamma		10.74	1.451	pCi/g	4.519	N		0				☐	
Iodine-135		2.73E+21	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212 ✓		1.883	0.1194	pCi/g	0.104	0.100	238.3	2	1.262	IDENTIFIED	3.302	☐	
Lead-214 ✓		1.467	0.1156	pCi/g	0.1351	0.100	351.4	2	1.228	IDENTIFIED	6.235	☐	
Neptunium-237	int nr	1.397	0.1983	pCi/g	0.2959	N	86.88	3	1.323	IDENTIFIED	8.78	☐	
Niobium-95m		1.082	0.1142	pCi/g	0.3633	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40 ✓		34.04	1.456	pCi/g	0.6049	1.00	1460	1	1.982	IDENTIFIED	2.936	☐	
Radium-224	int	5.411	0.7124	pCi/g	1.115	Y	241.2	1	1.859	IDENTIFIED	12.22	☐ ui	
Radium-226 ✓		1.406	0.106	pCi/g	0.1447	Y	608.8	3	1.56	IDENTIFIED	6.246	☐	
Radium-228 ✓		1.851	0.2352	pCi/g	0.3028	0.500	910.8	3	1.702	IDENTIFIED	11.01	☐	
Sodium-24		2.35E+08	1.05E+08	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Strontium-85	la	0.1105	0.02791	pCi/g	0.09269	Y	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✓		0.5723	0.04943	pCi/g	0.0694	0.080	582.9	1	1.626	IDENTIFIED	7.818	☐	
Thorium-228	nr	1.883	0.1194	pCi/g	0.104	N	238.3	2	1.262	IDENTIFIED	3.302	☐	
Thorium-230	nr	1.406	0.0993	pCi/g	0.1447	N	608.8	3	1.56	IDENTIFIED	6.246	☐	
Thorium-232	nr	1.851	0.2352	pCi/g	0.3028	N	910.8	3	1.702	IDENTIFIED	11.01	☐	
Thorium-234 ✓		1.606	0.5638	pCi/g	1.225	2.00	63.1	2	1.33	IDENTIFIED	33.92	☐	
Tin-126	int nr	0.4682	0.04481	pCi/g	0.09946	N	86.88	3	1.323	IDENTIFIED	8.78	☐	
Total Uranium		4.8301	1.68E-06	ug/g	1.8262	N		0				☐	
Uranium-238	HE	1.606	0.5638	pCi/g	1.225	N	63.1	2	1.33	IDENTIFIED	33.92	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860008	04-MAR-10 12:00	24-MAR-10 16:28	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.839	0.2138	pCi/g	0.2279	N	911.8	3	2.139	IDENTIFIED	9.826	☐	
Annihilation Rad.		0.1607	0.0345	pCi/g	0.04849	N	511.1	1	1.823	IDENTIFIED	21.04	☐	
Bismuth-211	int	3.837	0.2991	pCi/g	0.3394	Y	352	2	1.295	IDENTIFIED	6.223	☐ ui	
Bismuth-212	la nr	2.497	0.573	pCi/g	1.274	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		1.253	0.1004	pCi/g	0.1119	0.200	609.7	3	1.494	IDENTIFIED	6.328	☐	
Cadmium-109	int	2.881	0.5392	pCi/g	1.243	Y	87.04	3	1.09	IDENTIFIED	17.85	☐ ui	
Cadmium-115	HE	23.34	26.35	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	

Cerium-143	7307	1349	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		
Cesium-134 la	0.1338	0.03914	pCi/g	0.1022	0.100	0	5	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	10.4	1.353	pCi/g	3.147	N		0				☐		
Lead-212 ✔	1.839	0.1159	pCi/g	0.1016	0.100	238.7	2	1.148	IDENTIFIED	3.269	☐		
Lead-214 ✔	1.393	0.1151	pCi/g	0.1234	0.100	352	2	1.295	IDENTIFIED	6.223	☐		
Neptunium-237 HE	0.8341	0.1789	pCi/g	0.4888	N	87.04	3	1.09	IDENTIFIED	17.85	☐		
Potassium-40 ✔	37.51	2.057	pCi/g	0.5285	1.00	1462	1	2.353	IDENTIFIED	2.722	☐		
Radium-224 int	3.197	0.6352	pCi/g	1.089	Y	241.5	1	1.647	IDENTIFIED	19.26	☐	ui	
Radium-226 ✔	1.253	0.1004	pCi/g	0.1119	Y	609.7	3	1.494	IDENTIFIED	6.328	☐		
Radium-228 ✔	1.839	0.2138	pCi/g	0.2279	0.500	911.8	3	2.139	IDENTIFIED	9.826	☐		
Strontium-85 la	0.0929	0.02327	pCi/g	0.07764	Y	0	5	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔	0.552	0.05048	pCi/g	0.05923	0.080	583.7	1	1.375	IDENTIFIED	7.959	☐		
Thorium-228 nr	1.839	0.1159	pCi/g	0.1016	N	238.7	2	1.148	IDENTIFIED	3.269	☐		
Thorium-230 nr	1.253	0.09484	pCi/g	0.1119	N	609.7	3	1.494	IDENTIFIED	6.328	☐		
Thorium-232 nr	1.839	0.2138	pCi/g	0.2279	N	911.8	3	2.139	IDENTIFIED	9.826	☐		
Tin-126 int nr	0.2795	0.05231	pCi/g	0.1561	N	87.04	3	1.09	IDENTIFIED	17.85	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860009	04-MAR-10 12:00	24-MAR-10 16:28	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228 nr	1.824	0.205	pCi/g	0.2429	N	911.2	3	1.378	IDENTIFIED	9.227	☐		
Annihilation Rad.	0.1539	0.03762	pCi/g	0.04647	N	511.1	1	1.847	IDENTIFIED	24.05	☐		
Bismuth-211 int	4.1	0.293	pCi/g	0.3092	Y	351.9	2	1.073	IDENTIFIED	5.589	☐	ui	
Bismuth-212 la nr	2.37	0.4223	pCi/g	1.289	N	0	6	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔	1.188	0.1032	pCi/g	0.1096	0.200	609.3	3	1.578	IDENTIFIED	6.964	☐		
Cadmium-109 int	3.444	0.5209	pCi/g	1.185	Y	87.24	3	1.139	IDENTIFIED	14.39	☐	ui	
Cerium-143	7884	1423	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Gross Gamma	10.01	1.343	pCi/g	2.889	N		0				☐		
Iodine-135	5.18E+20	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Lead-212 ✔	1.615	0.1079	pCi/g	0.112	0.100	238.5	2	1.116	IDENTIFIED	4.604	☐		
Lead-214 ✔	1.488	0.114	pCi/g	0.1125	0.100	351.9	2	1.073	IDENTIFIED	5.589	☐		
Neptunium-237 int nr	0.9969	0.1835	pCi/g	0.3484	N	87.24	3	1.139	IDENTIFIED	14.39	☐		
Potassium-40 ✔	37.08	1.96	pCi/g	0.5342	1.00	1461	1	2.152	IDENTIFIED	2.716	☐		
Radium-224 int	2.52	0.5512	pCi/g	1.49	Y	241.5	1	2.313	IDENTIFIED	21.45	☐	ui	
Radium-226 ✔	1.188	0.1032	pCi/g	0.1096	Y	609.3	3	1.578	IDENTIFIED	6.964	☐		
Radium-228 ✔	1.824	0.205	pCi/g	0.2429	0.500	911.2	3	1.378	IDENTIFIED	9.227	☐		
Sodium-24 HE	9.62E+07	1.07E+08	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Strontium-85 la	0.1023	0.02298	pCi/g	0.08026	Y	0	6	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Technetium-99m	5.12E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Thallium-208 ✔	0.5606	0.04946	pCi/g	0.05463	0.080	583.3	1	1.432	IDENTIFIED	7.431	☐		
Thorium-228 nr	1.615	0.1079	pCi/g	0.112	N	238.5	2	1.116	IDENTIFIED	4.604	☐		
Thorium-230 nr	1.188	0.0983	pCi/g	0.1096	N	609.3	3	1.578	IDENTIFIED	6.964	☐		
Thorium-232 nr	1.824	0.205	pCi/g	0.2429	N	911.2	3	1.378	IDENTIFIED	9.227	☐		
Tin-126 int nr	0.3341	0.05053	pCi/g	0.1154	N	87.24	3	1.139	IDENTIFIED	14.39	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863001	04-MAR-10 12:00	24-MAR-10 18:28	20.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.295	0.2334	pCi/g	0.2823	N	911.2	3	1.541	IDENTIFIED	8.168	☐	
Annihilation Rad. HE	0.09426	0.0428	pCi/g	0.06554	N	510.9	1	2.12	IDENTIFIED	45.2	☐	
Bismuth-211 int	4.466	0.34	pCi/g	0.4462	Y	352	2	1.664	IDENTIFIED	5.768	☐ ui	
Bismuth-212 HE	2.245	0.4752	pCi/g	1.542	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	1.511	0.1301	pCi/g	0.151	0.200	609.3	3	1.345	IDENTIFIED	7.027	☐	
Cadmium-109 int	2.884	0.7692	pCi/g	1.933	Y	87.6	3	1.29	IDENTIFIED	25.94	☐ ui	
Cerium-143	13780	2286	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma	11.54	1.75	pCi/g	4.932	N		0				☐	
Iodine-135	2.74E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	2.086	0.1469	pCi/g	0.1232	0.100	238.8	2	1.488	IDENTIFIED	3.73	☐	
Lead-214	1.621	0.1313	pCi/g	0.1639	0.100	352	2	1.664	IDENTIFIED	5.768	☐	
Neptunium-237 HE	0.8348	0.2392	pCi/g	0.6099	N	87.6	3	1.29	IDENTIFIED	25.94	☐	
Niobium-95m la nr	0.6273	0.1117	pCi/g	0.3616	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	38.47	2.205	pCi/g	0.6976	1.00	1461	1	2.099	IDENTIFIED	2.951	☐	
Promethium-149 HE	217.2	311.1	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Radium-224 int	6.639	0.9857	pCi/g	1.32	Y	241.7	1	2.04	IDENTIFIED	13.78	☐ ui	
Radium-226	1.511	0.1301	pCi/g	0.151	Y	609.3	3	1.345	IDENTIFIED	7.027	☐	
Radium-228	2.295	0.2334	pCi/g	0.2823	0.500	911.2	3	1.541	IDENTIFIED	8.168	☐	
Strontium-85 la	0.153	0.03144	pCi/g	0.1055	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	0.6224	0.05917	pCi/g	0.08054	0.080	583.2	1	1.616	IDENTIFIED	8.335	☐	
Thorium-228 nr	2.086	0.1469	pCi/g	0.1232	N	238.8	2	1.488	IDENTIFIED	3.73	☐	
Thorium-230 nr	1.511	0.1239	pCi/g	0.151	N	609.3	3	1.345	IDENTIFIED	7.027	☐	
Thorium-232 nr	2.295	0.2334	pCi/g	0.2823	N	911.2	3	1.541	IDENTIFIED	8.168	☐	
Tin-126 nr HE	0.2798	0.07461	pCi/g	0.1889	N	87.6	3	1.29	IDENTIFIED	25.94	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863002	04-MAR-10 12:00	24-MAR-10 18:28	20.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.113	0.2065	pCi/g	0.2426	N	911.2	3	2.069	IDENTIFIED	7.046	☐	
Annihilation Rad.	0.169	0.03745	pCi/g	0.04468	N	511.1	1	2.131	IDENTIFIED	21.58	☐	
Bismuth-211 int	3.909	0.3008	pCi/g	0.3038	Y	352	2	1.434	IDENTIFIED	5.043	☐ ui	
Bismuth-212 la nr	1.9	0.383	pCi/g	1.083	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214	1.306	0.1045	pCi/g	0.1051	0.200	609.4	3	1.681	IDENTIFIED	5.469	☐	
Cadmium-109 int	2.152	0.5302	pCi/g	1.269	Y	87.14	3	0.9491	IDENTIFIED	24.18	☐ ui	
Cadmium-115 HE	24.47	25.62	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cerium-143	10480	1752	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1472	0.03475	pCi/g	0.09059	0.100	0	9	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135 HE	0.3588	0.09591	pCi/g	0.2922	N	0	9	0	NOT_IDENTI	0	☐	
Gross Gamma	11.2	1.329	pCi/g	2.337	N		0				☐	
Iodine-133 HE	23700	1.68E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212	2.103	0.1502	pCi/g	0.0976	0.100	238.7	2	1.25	IDENTIFIED	2.668	☐	
Lead-214	1.419	0.116	pCi/g	0.1125	0.100	352	2	1.434	IDENTIFIED	5.043	☐	

Neptunium-237	HE	0.623	0.1668	pCi/g	0.3903	N	87.14	3	0.9491	IDENTIFIED	24.18	☐		
Potassium-40		39.51	1.987	pCi/g	0.4874	1.00	1461	1	2.669	IDENTIFIED	2.076	☐		
Promethium-149	HE	201.7	237.1	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Radium-224	int	5.025	0.7407	pCi/g	1.045	Y	241.6	1	1.886	IDENTIFIED	13.34	☐	ui	
Radium-226		1.306	0.1045	pCi/g	0.1051	Y	609.4	3	1.681	IDENTIFIED	5.469	☐		
Radium-228		2.113	0.2065	pCi/g	0.2426	0.500	911.2	3	2.069	IDENTIFIED	7.046	☐		
Sodium-24	HE	1.10E+07	1.07E+08	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Strontium-85	la	0.1556	0.02288	pCi/g	0.08092	Y	0	9	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208		0.687	0.05449	pCi/g	0.05431	0.080	583.4	1	1.605	IDENTIFIED	5.793	☐		
Thorium-228	nr	2.103	0.1502	pCi/g	0.0976	N	238.7	2	1.25	IDENTIFIED	2.668	☐		
Thorium-230	nr	1.306	0.09861	pCi/g	0.1051	N	609.4	3	1.681	IDENTIFIED	5.469	☐		
Thorium-232	nr	2.113	0.2065	pCi/g	0.2426	N	911.2	3	2.069	IDENTIFIED	7.046	☐		
Thorium-234		3.361	0.9648	pCi/g	2.018	2.00	63.36	2	1.167	IDENTIFIED	27.29	☐		
Tin-126	HE	0.2088	0.05143	pCi/g	0.138	N	87.14	3	0.9491	IDENTIFIED	24.18	☐		
Total Uranium		10.045	2.87E-06	ug/g	3.0045	N		0				☐		
Uranium-238	HE	3.361	0.9648	pCi/g	2.018	N	63.36	2	1.167	IDENTIFIED	27.29	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863003	04-MAR-10 12:00	24-MAR-10 18:29	20.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	2.279	0.249	pCi/g	0.2666	N	910.4	3	2.049	IDENTIFIED	9.166	☐		
Annihilation Rad.		0.1521	0.04186	pCi/g	0.05416	N	510.2	1	1.559	IDENTIFIED	27.38	☐		
Bismuth-211	int	4.45	0.2897	pCi/g	0.4075	Y	351.4	2	1.394	IDENTIFIED	5.636	☐	ui	
Bismuth-212	HE	2.434	0.5602	pCi/g	1.454	N	0	5	0	FAIL_ABUND	0	☐		
Bismuth-214		1.226	0.1147	pCi/g	0.1442	0.200	608.5	3	1.533	IDENTIFIED	8.547	☐		
Cadmium-109	int	3.195	0.6337	pCi/g	1.648	Y	87.07	3	1.23	IDENTIFIED	19.23	☐	ui	
Cerium-143		18850	2639	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		
Cesium-135	HE	0.3625	0.1148	pCi/g	0.3585	N	0	5	0	NOT_IDENTI	0	☐		
Gross Gamma		10.62	1.587	pCi/g	3.815	N		0				☐		
Lead-212		2.101	0.1019	pCi/g	0.1141	0.100	238.3	2	1.185	IDENTIFIED	3.219	☐		
Lead-214		1.615	0.1142	pCi/g	0.1482	0.100	351.4	2	1.394	IDENTIFIED	5.636	☐		
Neptunium-237	int nr	0.9248	0.2075	pCi/g	0.5089	N	87.07	3	1.23	IDENTIFIED	19.23	☐		
Niobium-95m	la nr	0.9859	0.1132	pCi/g	0.3754	N	0	5	0	NOT_IDENTI	0	☐		
Potassium-40		34.11	1.641	pCi/g	0.4822	1.00	1459	1	2.423	IDENTIFIED	3.026	☐		
Radium-224	int	4.879	0.7766	pCi/g	1.223	Y	241.2	1	1.774	IDENTIFIED	15.66	☐	ui	
Radium-226		1.226	0.1147	pCi/g	0.1442	Y	608.5	3	1.533	IDENTIFIED	8.547	☐		
Radium-228		2.279	0.249	pCi/g	0.2666	0.500	910.4	3	2.049	IDENTIFIED	9.166	☐		
Sodium-24	HE	1.03E+07	1.39E+08	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		
Thallium-208		0.6091	0.04992	pCi/g	0.07139	0.080	582.5	1	1.854	IDENTIFIED	7.528	☐		
Thorium-228	nr	2.101	0.1019	pCi/g	0.1141	N	238.3	2	1.185	IDENTIFIED	3.219	☐		
Thorium-230	nr	1.226	0.11	pCi/g	0.1442	N	608.5	3	1.533	IDENTIFIED	8.547	☐		
Thorium-232	nr	2.279	0.249	pCi/g	0.2666	N	910.4	3	2.049	IDENTIFIED	9.166	☐		
Thorium-234		4.332	1.024	pCi/g	3.141	2.00	63.12	2	1.288	IDENTIFIED	21.77	☐		
Tin-126	int nr	0.3099	0.06147	pCi/g	0.1609	N	87.07	3	1.23	IDENTIFIED	19.23	☐		
Total Uranium		13.001	3.05E-06	ug/g	4.6757	N		0				☐		
Uranium-238	HE	4.332	1.024	pCi/g	3.141	N	63.12	2	1.288	IDENTIFIED	21.77	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863004	04-MAR-10 12:00	24-MAR-10 20:31	20.4	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 nr	2.23	0.2094	pCi/g	0.2551	N	911.8	3	1.771	IDENTIFIED	7.513	☐	
Annihilation Rad.	0.1789	0.03649	pCi/g	0.05063	N	511.2	1	1.886	IDENTIFIED	20.2	☐	
Bismuth-211 int	4.243	0.2798	pCi/g	0.3539	Y	352	2	1.26	IDENTIFIED	5.667	☐ ui	
Bismuth-212 HE	2.31	0.5131	pCi/g	1.349	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔	1.375	0.1023	pCi/g	0.1131	0.200	609.8	3	1.531	IDENTIFIED	6.452	☐	
Cadmium-109 int	4.326	0.6342	pCi/g	1.438	Y	87.22	3	1.161	IDENTIFIED	13.38	☐ ui	
Cadmium-115 HE	17.78	29.88	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cerium-143	6255	1239	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma	11.01	1.531	pCi/g	3.912	N		0				☐	
Iodine-135	2.60E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212 ✔	1.979	0.1013	pCi/g	0.09264	0.100	238.7	2	1.087	IDENTIFIED	3.135	☐	
Lead-214 ✔	1.54	0.1101	pCi/g	0.1287	0.100	352	2	1.26	IDENTIFIED	5.667	☐	
Mercury-203 int	0.08901	0.0408	pCi/g	0.06855	0.100	279.1	1	0.7118	IDENTIFIED	45.71	☐ ui	
Neptunium-237 int nr	1.252	0.2256	pCi/g	0.4558	N	87.22	3	1.161	IDENTIFIED	13.38	☐	
Potassium-40 ✔	34.49	1.583	pCi/g	0.5163	1.00	1462	1	2.074	IDENTIFIED	2.907	☐	
Radium-224 int	5.46	0.8092	pCi/g	0.9931	Y	241.7	1	2.05	IDENTIFIED	14.44	☐ ui	
Radium-226 ✔	1.375	0.1023	pCi/g	0.1131	Y	609.8	3	1.531	IDENTIFIED	6.452	☐	
Radium-228 ✔	2.23	0.2094	pCi/g	0.2551	0.500	911.8	3	1.771	IDENTIFIED	7.513	☐	
Strontium-85 la	0.1127	0.02507	pCi/g	0.08577	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	3.34E+22	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208 ✔	0.6579	0.04856	pCi/g	0.05717	0.080	583.6	1	1.335	IDENTIFIED	6.682	☐	
Thorium-228 nr	1.979	0.1013	pCi/g	0.09264	N	238.7	2	1.087	IDENTIFIED	3.135	☐	
Thorium-230 nr	1.375	0.09565	pCi/g	0.1131	N	609.8	3	1.531	IDENTIFIED	6.452	☐	
Thorium-232 nr	2.23	0.2094	pCi/g	0.2551	N	911.8	3	1.771	IDENTIFIED	7.513	☐	
Tin-126 int nr	0.4195	0.0615	pCi/g	0.1405	N	87.22	3	1.161	IDENTIFIED	13.38	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248865001	03-MAR-10 12:00	24-MAR-10 20:31	21.4	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 nr	2.33	0.2122	pCi/g	0.2403	N	911.5	3	1.892	IDENTIFIED	6.858	☐	
Annihilation Rad.	0.2517	0.04297	pCi/g	0.04807	N	511	1	2.055	IDENTIFIED	16.48	☐	
Bismuth-211 int	4.974	0.3277	pCi/g	0.3796	Y	352.1	2	1.28	IDENTIFIED	4.828	☐ ui	
Bismuth-212 HE	2.531	0.6066	pCi/g	1.427	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔	1.445	0.1124	pCi/g	0.14	0.200	609.6	3	1.273	IDENTIFIED	5.794	☐	
Cadmium-109 int	4.636	0.498	pCi/g	1.163	Y	87.28	3	1.063	IDENTIFIED	9.675	☐ ui	
Cadmium-115 HE	43.87	40.62	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cerium-143	13920	2558	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1857	0.03922	pCi/g	0.1211	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	12.04	1.565	pCi/g	4.152	N		0				☐	
Iodine-135	6.99E+22	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212 ✔	2.145	0.1214	pCi/g	0.1	0.100	238.8	2	1.049	IDENTIFIED	2.984	☐	

Lead-214 ✔		1.805	0.1289	pCi/g	0.1366	0.100	352.1	2	1.28	IDENTIFIED	4.828	☐		
Neptunium-237	int nr	1.34	0.2011	pCi/g	0.3388	N	87.28	3	1.063	IDENTIFIED	9.675	☐		
Potassium-40 ✔		37.59	1.901	pCi/g	0.5494	1.00	1461	1	2.019	IDENTIFIED	2.673	☐		
Radium-224	int	4.759	0.5883	pCi/g	1.072	Y	241.8	1	1.512	IDENTIFIED	11.62	☐	ui	
Radium-226 ✔		1.445	0.1124	pCi/g	0.14	Y	609.6	3	1.273	IDENTIFIED	5.794	☐		
Radium-228 ✔		2.33	0.2122	pCi/g	0.2403	0.500	911.5	3	1.892	IDENTIFIED	6.858	☐		
Sodium-24	HE	2.98E+08	4.15E+08	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Strontium-85	la	0.0982	0.02275	pCi/g	0.08554	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔		0.7326	0.06078	pCi/g	0.06242	0.080	583.3	1	1.502	IDENTIFIED	6.783	☐		
Thorium-228	nr	2.145	0.1214	pCi/g	0.1	N	238.8	2	1.049	IDENTIFIED	2.984	☐		
Thorium-230	nr	1.445	0.1058	pCi/g	0.14	N	609.6	3	1.273	IDENTIFIED	5.794	☐		
Thorium-232	nr	2.33	0.2122	pCi/g	0.2403	N	911.5	3	1.892	IDENTIFIED	6.858	☐		
Thorium-234 ✔		3.259	0.9134	pCi/g	1.741	2.00	62.62	2	1.194	IDENTIFIED	26.58	☐		
Tin-126	int nr	0.4489	0.04822	pCi/g	0.1129	N	87.28	3	1.063	IDENTIFIED	9.675	☐		
Total Uranium		9.682	2.72E-06	ug/g	2.5922	N		0				☐		
Uranium-238	HE	3.259	0.9134	pCi/g	1.741	N	62.62	2	1.194	IDENTIFIED	26.58	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248866001	04-MAR-10 12:00	24-MAR-10 20:32	20.4	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.963	0.2172	pCi/g	0.2879	N	911.3	3	1.686	IDENTIFIED	9.257	☐		
Annihilation Rad.	HE	0.1031	0.04332	pCi/g	0.06023	N	510.6	1	1.637	IDENTIFIED	41.78	☐		
Bismuth-211	int	4.116	0.3332	pCi/g	0.4596	Y	352	2	1.459	IDENTIFIED	6.393	☐	ui	
Bismuth-212	HE	2.104	0.5701	pCi/g	1.439	N	0	6	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔		1.397	0.1121	pCi/g	0.1472	0.200	609.3	3	1.5	IDENTIFIED	6.291	☐		
Cadmium-109	int	2.358	0.7274	pCi/g	2.198	Y	87.63	3	1.088	IDENTIFIED	30.22	☐	ui	
Cerium-143		12370	2167	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1276	0.03245	pCi/g	0.1081	0.100	0	6	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cobalt-58	HE	0.08646	0.03537	pCi/g	0.07687	N	809.9	1	2.813	IDENTIFIED	40.66	☐		
Gross Gamma		10.63	1.7	pCi/g	3.871	N		0				☐		
Lead-212 ✔		2.046	0.142	pCi/g	0.1263	0.100	238.8	2	1.34	IDENTIFIED	3.533	☐		
Lead-214 ✔		1.494	0.1278	pCi/g	0.1599	0.100	352	2	1.459	IDENTIFIED	6.393	☐		
Neptunium-237	HE	0.6824	0.2223	pCi/g	0.6171	N	87.63	3	1.088	IDENTIFIED	30.22	☐		
Niobium-95	HE	0.1123	0.03211	pCi/g	0.1078	N	0	6	0	NOT_IDENTI	0	☐		
Niobium-95m	HE	0.3981	0.1048	pCi/g	0.3382	N	0	6	0	NOT_IDENTI	0	☐		
Potassium-40 ✔		35.88	2.056	pCi/g	0.4818	1.00	1461	1	2.163	IDENTIFIED	2.948	☐		
Radium-224	int	5.583	0.942	pCi/g	1.353	Y	241.7	1	2.04	IDENTIFIED	15.95	☐	ui	
Radium-226 ✔		1.397	0.1121	pCi/g	0.1472	Y	609.3	3	1.5	IDENTIFIED	6.291	☐		
Radium-228 ✔		1.963	0.2172	pCi/g	0.2879	0.500	911.3	3	1.686	IDENTIFIED	9.257	☐		
Strontium-85	la	0.1346	0.0313	pCi/g	0.1033	Y	0	6	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔		0.5766	0.05722	pCi/g	0.06778	0.080	583.5	1	1.522	IDENTIFIED	8.807	☐		
Thorium-228	nr	2.046	0.142	pCi/g	0.1263	N	238.8	2	1.34	IDENTIFIED	3.533	☐		
Thorium-230	nr	1.396	0.1058	pCi/g	0.1472	N	609.3	3	1.5	IDENTIFIED	6.291	☐		
Thorium-232	nr	1.963	0.2172	pCi/g	0.2879	N	911.3	3	1.686	IDENTIFIED	9.257	☐		
Tin-126	HE	0.2287	0.07054	pCi/g	0.2142	N	87.63	3	1.088	IDENTIFIED	30.22	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248866002	04-MAR-10 12:00	24-MAR-10 20:32	20.4	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.304	0.2798	pCi/g	0.3232	N	911.2	3	1.767	IDENTIFIED	10.65	☐	
Annihilation Rad. HE	0.1405	0.04642	pCi/g	0.06209	N	511	1	1.263	IDENTIFIED	32.74	☐	
Bismuth-211 int	4.864	0.3573	pCi/g	0.397	Y	352	2	1.222	IDENTIFIED	5.676	☐ ui	
Bismuth-212 HE	1.957	0.6148	pCi/g	1.699	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓	1.652	0.1359	pCi/g	0.158	0.200	609.3	3	1.451	IDENTIFIED	6.446	☐	
Cadmium-109 int	3.853	0.5148	pCi/g	1.55	Y	87.31	3	1.019	IDENTIFIED	12.44	☐ ui	
Cerium-143	7260	1441	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1403	0.05076	pCi/g	0.1296	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	11.4	1.597	pCi/g	3.988	N		0				☐	
Lead-210 HE	1.308	0.4664	pCi/g	0.9292	N	46.62	1	0.882	IDENTIFIED	35.25	☐	
Lead-212 ✓	2.053	0.1268	pCi/g	0.1101	0.100	238.7	2	1.063	IDENTIFIED	3.534	☐	
Lead-214 ✓	1.765	0.1385	pCi/g	0.1462	0.100	352	2	1.222	IDENTIFIED	5.676	☐	
Neptunium-237 int nr	1.115	0.1894	pCi/g	0.4356	N	87.31	3	1.019	IDENTIFIED	12.44	☐	
Potassium-40 ✓	37.4	2.091	pCi/g	0.8153	1.00	1461	1	2.013	IDENTIFIED	3.398	☐	
Promethium-149 HE	410.7	267.3	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Radium-224 int	5.782	0.8164	pCi/g	1.181	Y	241.7	1	1.685	IDENTIFIED	13.37	☐ ui	
Radium-226 ✓	1.652	0.1359	pCi/g	0.158	Y	609.3	3	1.451	IDENTIFIED	6.446	☐	
Radium-228 ✓	2.304	0.2798	pCi/g	0.3232	0.500	911.2	3	1.767	IDENTIFIED	10.65	☐	
Thallium-208 ✓	0.6501	0.06073	pCi/g	0.08923	0.080	583.3	1	1.376	IDENTIFIED	8.06	☐	
Thorium-228 nr	2.053	0.1268	pCi/g	0.1101	N	238.7	2	1.063	IDENTIFIED	3.534	☐	
Thorium-230 nr	1.652	0.1287	pCi/g	0.158	N	609.3	3	1.451	IDENTIFIED	6.446	☐	
Thorium-232 nr	2.304	0.2798	pCi/g	0.3232	N	911.2	3	1.767	IDENTIFIED	10.65	☐	
Thorium-234 ✓	2.082	0.6011	pCi/g	1.25	2.00	63.29	2	1.032	IDENTIFIED	27.26	☐	
Tin-126 int nr	0.3737	0.04993	pCi/g	0.1501	N	87.31	3	1.019	IDENTIFIED	12.44	☐	
Total Uranium	6.2503	1.79E-06	ug/g	1.8624	N		0				☐	
Uranium-238 HE	2.082	0.6011	pCi/g	1.25	N	63.29	2	1.032	IDENTIFIED	27.26	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867001	05-MAR-10 12:00	24-MAR-10 20:33	19.4	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	1.693	0.2131	pCi/g	0.2795	N	911.3	3	1.621	IDENTIFIED	10.02	☐	
Annihilation Rad. HE	0.12	0.02722	pCi/g	0.1023	N	0	10	0	NOT_IDENTI	0	☐	
Barium-137m HE	0.1196	0.02324	pCi/g	0.08773	N	0	10	0	NOT_IDENTI	0	☐	
Bismuth-211 int	3.834	0.3032	pCi/g	0.3984	Y	351.8	2	1.235	IDENTIFIED	6.295	☐ ui	
Bismuth-212 nr	1.882	0.4297	pCi/g	0.8862	N	727.4	1	1.236	IDENTIFIED	21.88	☐	
Bismuth-214 ✓	1.167	0.1025	pCi/g	0.1397	0.200	609.3	3	1.276	IDENTIFIED	7.183	☐	
Cadmium-109 int	2.483	0.5959	pCi/g	1.883	Y	86.89	3	1.116	IDENTIFIED	23.54	☐ ui	
Cadmium-115 HE	5.067	24.22	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cerium-143	9059	1384	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1411	0.04788	pCi/g	0.1011	0.100	0	10	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135 HE	0.3862	0.1115	pCi/g	0.3567	N	0	10	0	NOT_IDENTI	0	☐	
Cesium-137 la	0.1263	0.02456	pCi/g	0.09268	0.100	0	10	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	10.33	1.575	pCi/g	4.849	N		0				☐	

Iodine-133	HE	79750	1.04E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-212 ✓		1.839	0.1106	pCi/g	0.1166	0.100	238.5	2	1.068	IDENTIFIED	3.363	☐	
Lead-214 ✓		1.391	0.1165	pCi/g	0.1459	0.100	351.8	2	1.235	IDENTIFIED	6.295	☐	
Neptunium-237	HE	0.7197	0.1885	pCi/g	0.5047	N	86.89	3	1.116	IDENTIFIED	23.54	☐	
Niobium-95m	la nr	0.6736	0.09957	pCi/g	0.3253	N	0	10	0	NOT_IDENTI	0	☐	
Potassium-40 ✓		35.23	2.162	pCi/g	0.5852	1.00	1461	1	1.745	IDENTIFIED	2.847	☐	
Promethium-149	HE	209.8	200.8	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Radium-224	int	4.777	0.778	pCi/g	1.248	Y	241.4	1	1.769	IDENTIFIED	15.67	☐	ui
Radium-226 ✓		1.167	0.1025	pCi/g	0.1397	Y	609.3	3	1.276	IDENTIFIED	7.183	☐	
Radium-228 ✓		1.693	0.2131	pCi/g	0.2795	0.500	911.3	3	1.621	IDENTIFIED	10.02	☐	
Thallium-208 ✓		0.5863	0.05179	pCi/g	0.06836	0.080	583	1	1.469	IDENTIFIED	7.489	☐	
Thorium-228	nr	1.839	0.1106	pCi/g	0.1166	N	238.5	2	1.068	IDENTIFIED	3.363	☐	
Thorium-230	nr	1.167	0.09777	pCi/g	0.1397	N	609.3	3	1.276	IDENTIFIED	7.183	☐	
Thorium-232	nr	1.693	0.2131	pCi/g	0.2795	N	911.3	3	1.621	IDENTIFIED	10.02	☐	
Tin-126	HE	0.2412	0.05788	pCi/g	0.1881	N	86.89	3	1.116	IDENTIFIED	23.54	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867002	05-MAR-10 12:00	24-MAR-10 20:37	19.4	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.652	0.1636	pCi/g	0.1826	N	911.5	3	1.896	IDENTIFIED	7.223	☐
Annihilation Rad.		0.1421	0.03004	pCi/g	0.03846	N	511.6	1	2.19	IDENTIFIED	20.54	☐
Bismuth-211	int	3.234	0.2646	pCi/g	0.2742	Y	352	2	1.328	IDENTIFIED	5.756	☐ ui
Bismuth-212	HE	1.511	0.3782	pCi/g	0.943	N	0	10	0	FAIL_ABUND	0	☐
Bismuth-214 ✓		1.118	0.08867	pCi/g	0.09313	0.200	609.4	3	1.568	IDENTIFIED	5.371	☐
Cadmium-109	int	2.836	0.3944	pCi/g	1.036	Y	87.18	3	1.122	IDENTIFIED	13.09	☐ ui
Cadmium-115	HE	6.266	16.61	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Cerium-143		5744	947.6	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Cesium-134	la	0.08554	0.01966	pCi/g	0.07097	0.100	0	10	0	NOT_IDENTI	0	☑ UI Data rejected due to low abundance.
Cesium-135	HE	0.2682	0.07661	pCi/g	0.2394	N	0	10	0	NOT_IDENTI	0	☐
Gross Gamma		8.782	1.158	pCi/g	2.306	N		0				☐
Iodine-135		5.73E+19	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Lead-212 ✓		1.625	0.1181	pCi/g	0.07933	0.100	238.7	2	1.262	IDENTIFIED	2.989	☐
Lead-214 ✓		1.174	0.1013	pCi/g	0.1005	0.100	352	2	1.328	IDENTIFIED	5.756	☐
Neptunium-237	int nr	0.8219	0.1431	pCi/g	0.3497	N	87.18	3	1.122	IDENTIFIED	13.09	☐
Niobium-95m	HE	0.2345	0.06596	pCi/g	0.2072	N	0	10	0	NOT_IDENTI	0	☐
Potassium-40 ✓		29.16	1.485	pCi/g	0.456	1.00	1461	1	2.847	IDENTIFIED	2.228	☐
Promethium-149	HE	69.31	146.6	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Radium-224	int	4.236	0.6252	pCi/g	0.8492	Y	241.6	1	1.886	IDENTIFIED	13.36	☐ ui
Radium-226 ✓		1.118	0.08867	pCi/g	0.09313	Y	609.4	3	1.568	IDENTIFIED	5.371	☐
Radium-228 ✓		1.652	0.1636	pCi/g	0.1826	0.500	911.5	3	1.896	IDENTIFIED	7.223	☐
Sodium-24	HE	2.66E+07	3.27E+07	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Strontium-85	la	0.144	0.01975	pCi/g	0.07095	Y	0	10	0	NOT_IDENTI	0	☑ UI Data rejected due to low abundance.
Thallium-208 ✓		0.487	0.03971	pCi/g	0.04867	0.080	583.4	1	1.765	IDENTIFIED	6.094	☐
Thorium-228	nr	1.625	0.1181	pCi/g	0.07933	N	238.7	2	1.262	IDENTIFIED	2.989	☐
Thorium-230	nr	1.118	0.08362	pCi/g	0.09313	N	609.4	3	1.568	IDENTIFIED	5.371	☐
Thorium-232	nr	1.652	0.1636	pCi/g	0.1826	N	911.5	3	1.896	IDENTIFIED	7.223	☐

Thorium-234 ✔		1.881	0.9198	pCi/g	1.667	2.00	63.04	2	1.13	IDENTIFIED	48.08	☐
Tin-126	int nr	0.2755	0.03831	pCi/g	0.1125	N	87.18	3	1.122	IDENTIFIED	13.09	☐
Total Uranium		5.674	2.74E-06	ug/g	2.4817	N		0				☐
Uranium-238	HE	1.881	0.9198	pCi/g	1.667	N	63.04	2	1.13	IDENTIFIED	48.08	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867003	05-MAR-10 12:00	24-MAR-10 20:51	19.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.575	0.2171	pCi/g	0.3616	N	911	3	1.703	IDENTIFIED	12.24	☐	
Annihilation Rad.		0.1776	0.03803	pCi/g	0.06258	N	510.2	1	1.938	IDENTIFIED	21.17	☐	
Bismuth-211	int	4.376	0.3127	pCi/g	0.4462	Y	351.6	2	1.404	IDENTIFIED	5.953	☐ ui	
Bismuth-212	HE	1.72	0.7059	pCi/g	1.543	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.334	0.1238	pCi/g	0.1637	0.200	609	3	1.417	IDENTIFIED	8.263	☐	
Cadmium-109	int	2.228	0.6204	pCi/g	1.323	Y	87.14	3	1.33	IDENTIFIED	27.58	☐ ui	
Cerium-143		11830	1907	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma		10.54	1.528	pCi/g	4.223	N		0				☐	
Iodine-133	HE	80310	1.20E+05	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-210	nr	2.127	0.5158	pCi/g	0.9645	N	45.94	1	1.211	IDENTIFIED	23.94	☐	
Lead-212 ✔		1.93	0.1255	pCi/g	0.1149	0.100	238.3	2	1.266	IDENTIFIED	3.599	☐	
Lead-214 ✔		1.588	0.1217	pCi/g	0.1574	0.100	351.6	2	1.404	IDENTIFIED	5.953	☐	
Neptunium-237	HE	0.6457	0.1921	pCi/g	0.4396	N	87.14	3	1.33	IDENTIFIED	27.58	☐	
Niobium-95	HE	0.1457	0.03373	pCi/g	0.126	N	0	6	0	NOT_IDENTI	0	☐	
Niobium-95m	la nr	1.086	0.1247	pCi/g	0.3938	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40 ✔		34.38	1.518	pCi/g	0.6877	1.00	1460	1	1.972	IDENTIFIED	3.134	☐	
Promethium-149	HE	335.9	216.6	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Radium-224	int	4.226	0.7754	pCi/g	1.231	Y	241.3	1	1.784	IDENTIFIED	17.69	☐ ui	
Radium-226 ✔		1.334	0.1238	pCi/g	0.1637	Y	609	3	1.417	IDENTIFIED	8.263	☐	
Radium-228 ✔		1.575	0.2171	pCi/g	0.3616	0.500	911	3	1.703	IDENTIFIED	12.24	☐	
Thallium-208 ✔		0.5497	0.05356	pCi/g	0.08389	0.080	582.8	1	1.312	IDENTIFIED	9.026	☐	
Thorium-228	nr	1.93	0.1255	pCi/g	0.1149	N	238.3	2	1.266	IDENTIFIED	3.599	☐	
Thorium-230	nr	1.334	0.1187	pCi/g	0.1637	N	609	3	1.417	IDENTIFIED	8.263	☐	
Thorium-232	nr	1.575	0.2171	pCi/g	0.3616	N	911	3	1.703	IDENTIFIED	12.24	☐	
Tin-126	HE	0.2164	0.06025	pCi/g	0.1283	N	87.14	3	1.33	IDENTIFIED	27.58	☐	
Total Uranium		3.9374	1.85E-06	ug/g	1.8648	N		0				☐	
Uranium-235	nvp	0.505	0.1393	pCi/g	0.4593	0.500	92.57	1	1.299	IDENTIFIED	14.7	☐ ui	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867004	05-MAR-10 12:00	24-MAR-10 22:58	19.5	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	2.029	0.1939	pCi/g	0.2151	N	911.2	3	1.785	IDENTIFIED	7.388	☐	
Annihilation Rad.		0.1353	0.03352	pCi/g	0.04351	N	511	1	2.293	IDENTIFIED	24.39	☐	
Bismuth-211	int	4.541	0.3077	pCi/g	0.3307	Y	352.1	2	1.416	IDENTIFIED	4.61	☐ ui	
Bismuth-212	HE	1.488	0.402	pCi/g	1.033	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.385	0.1061	pCi/g	0.1032	0.200	609.3	3	1.555	IDENTIFIED	5.818	☐	
Cadmium-109	int	4.474	0.6052	pCi/g	1.276	Y	87.39	3	1.575	IDENTIFIED	12.04	☐ ui	

Cerium-143		8611	1279	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.118	0.02485	pCi/g	0.08056	0.100	0	7	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-135	HE	0.3367	0.08958	pCi/g	0.2804	N	0	7	0	NOT_IDENTI	0	☐		
Gross Gamma		11.16	1.43	pCi/g	3.744	N		0				☐		
Iodine-133	HE	23680	86680	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-212		1.98	0.1308	pCi/g	0.08567	0.100	238.8	2	1.431	IDENTIFIED	2.821	☐		
Lead-214		1.648	0.1206	pCi/g	0.1174	0.100	352.1	2	1.416	IDENTIFIED	4.61	☐		
Neptunium-237	int nr	1.296	0.2219	pCi/g	0.3797	N	87.39	3	1.575	IDENTIFIED	12.04	☐		
Niobium-95m	la nr	0.5469	0.07934	pCi/g	0.2455	N	0	7	0	NOT_IDENTI	0	☐		
Potassium-40		35.67	1.924	pCi/g	0.5141	1.00	1461	1	2.08	IDENTIFIED	2.226	☐		
Radium-224	int	4.578	0.6137	pCi/g	0.9179	Y	241.7	1	1.678	IDENTIFIED	12.22	☐	ui	
Radium-226		1.385	0.1061	pCi/g	0.1032	Y	609.3	3	1.555	IDENTIFIED	5.818	☐		
Radium-228		2.029	0.1939	pCi/g	0.2151	0.500	911.2	3	1.785	IDENTIFIED	7.388	☐		
Strontium-85	la	0.1884	0.02288	pCi/g	0.07659	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208		0.5801	0.04755	pCi/g	0.05345	0.080	583.3	1	1.669	IDENTIFIED	6.803	☐		
Thorium-228	nr	1.98	0.1308	pCi/g	0.08567	N	238.8	2	1.431	IDENTIFIED	2.821	☐		
Thorium-230	nr	1.385	0.09958	pCi/g	0.1032	N	609.3	3	1.555	IDENTIFIED	5.818	☐		
Thorium-232	nr	2.029	0.1939	pCi/g	0.2151	N	911.2	3	1.785	IDENTIFIED	7.388	☐		
Tin-126	int nr	0.4344	0.05877	pCi/g	0.1249	N	87.39	3	1.575	IDENTIFIED	12.04	☐		
Total Uranium		4.7481	2.80E-06	ug/g	4.7247	N		0				☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065188		24-MAR-10 22:59	0	MB	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Cerium-143	93.1	39.91	pCi/g	0	N	0	2	0	SHORT_HLIF	0	☐	
Iodine-135	1.18E+15	0	pCi/g	0	N	0	2	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065189	05-MAR-10 12:00	24-MAR-10 23:00	19.5	DUP	LOAD	1		LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.977	0.1855	pCi/g	0.2107	N	911.1	3	1.489	IDENTIFIED	7.342	☐		
Annihilation Rad.		0.1489	0.03314	pCi/g	0.03984	N	510.8	1	1.525	IDENTIFIED	21.74	☐		
Barium-137m	HE	0.1069	0.0307	pCi/g	0.0573	N	661.7	2	1.357	IDENTIFIED	28.18	☐		
Bismuth-211	int	3.938	0.2465	pCi/g	0.2469	Y	351.9	2	1.131	IDENTIFIED	4.341	☐	ui	
Bismuth-212	la nr	2.347	0.4101	pCi/g	1.124	N	0	7	0	FAIL_ABUND	0	☐		
Bismuth-214		1.48	0.1164	pCi/g	0.1012	0.200	609.1	3	1.302	IDENTIFIED	5.174	☐		
Cadmium-109	int	4.658	0.3566	pCi/g	0.5224	Y	87.3	3	1.213	IDENTIFIED	6.062	☐	ui	
Cadmium-115	HE	7.571	17.53	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cerium-143		1929	529.2	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1096	0.02929	pCi/g	0.08081	0.100	0	7	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137		0.1129	0.03243	pCi/g	0.06053	0.100	661.7	2	1.357	IDENTIFIED	28.18	☐		
Europium-155	HE	0.1071	0.02887	pCi/g	0.09983	N	0	7	0	FAIL_ABUND	0	☐		
Gross Gamma		10.99	1.251	pCi/g	3.798	N		0				☐		
Iodine-135		4.59E+20	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-210	nr	2.719	0.2845	pCi/g	0.4671	N	46.64	1	0.6556	IDENTIFIED	9.337	☐		

Lead-212	1.91	0.1048	pCi/g	0.06247	0.100	238.5	2	0.8926	IDENTIFIED	2.271	☐	
Lead-214	1.429	0.09776	pCi/g	0.08987	0.100	351.9	2	1.131	IDENTIFIED	4.341	☐	
Neptunium-237 int nr	1.35	0.1752	pCi/g	0.1505	N	87.3	3	1.213	IDENTIFIED	6.062	☐	
Potassium-40	33.08	1.65	pCi/g	0.4812	1.00	1461	1	1.975	IDENTIFIED	2.582	☐	
Radium-224 int	4.63	0.4727	pCi/g	0.6714	Y	241.5	1	1.734	IDENTIFIED	9.192	☐	ui
Radium-226	1.48	0.1164	pCi/g	0.1012	Y	609.1	3	1.302	IDENTIFIED	5.174	☐	
Radium-228	1.977	0.1855	pCi/g	0.2107	0.500	911.1	3	1.489	IDENTIFIED	7.342	☐	
Technetium-99m	1.51E+21	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-208	0.5839	0.04711	pCi/g	0.04622	0.080	583.1	1	1.224	IDENTIFIED	5.957	☐	
Thorium-228 nr	1.91	0.1048	pCi/g	0.06247	N	238.5	2	0.8926	IDENTIFIED	2.271	☐	
Thorium-230 nr	1.479	0.1097	pCi/g	0.1011	N	609.1	3	1.302	IDENTIFIED	5.174	☐	
Thorium-232 nr	1.977	0.1855	pCi/g	0.2107	N	911.1	3	1.489	IDENTIFIED	7.342	☐	
Thorium-234	1.778	0.3504	pCi/g	0.58	2.00	63.32	2	0.7981	IDENTIFIED	17.52	☐	
Tin-126 int nr	0.4523	0.03463	pCi/g	0.05064	N	87.3	3	1.213	IDENTIFIED	6.062	☐	
Total Uranium	5.3397	1.04E-06	ug/g	0.86471	N		0				☐	
Uranium-238 nr	1.778	0.3504	pCi/g	0.58	N	63.32	2	0.7981	IDENTIFIED	17.52	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065190		25-MAR-10 09:16	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	1.589	0.3005	pCi/g	0.4709	N	911.5	3	2.202	IDENTIFIED	17.65	☐	
Americium-241	13.88	0.6378	pCi/g	0.4687	0.200	59.48	1	1.075	IDENTIFIED	2.418	☐	85.2%
Barium-137m	5.58	0.3133	pCi/g	0.08739	N	661.7	2	1.696	IDENTIFIED	1.93	☐	
Bismuth-211	3.464	0.3672	pCi/g	0.5321	Y	351.9	2	1.399	IDENTIFIED	8.86	☐	
Bismuth-214	0.8897	0.1076	pCi/g	0.1724	0.200	609.4	3	1.786	IDENTIFIED	10.6	☐	
Cadmium-109	35.43	2.107	pCi/g	1.99	Y	88.09	2	1.148	IDENTIFIED	3.59	☐	
Cerium-143	688.5	238.6	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-137	5.894	0.3313	pCi/g	0.09232	0.100	661.7	2	1.696	IDENTIFIED	1.93	☐	107.7%
Cobalt-57	0.2454	0.03596	pCi/g	0.06108	N	122	1	1.08	IDENTIFIED	14.06	☐	
Cobalt-60	6.898	0.337	pCi/g	0.07391	0.100	1333	1	2.484	IDENTIFIED	1.998	☐	106.4%
Gross Gamma	28.98	2.749	pCi/g	3.013	N		0				☐	
Iodine-135	1.47E+17	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	1.427	0.119	pCi/g	0.1487	0.100	238.7	2	1.322	IDENTIFIED	5.07	☐	
Lead-214	1.257	0.1377	pCi/g	0.1935	0.100	351.9	2	1.399	IDENTIFIED	8.86	☐	
Neptunium-237	4.949	0.6238	pCi/g	1.033	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	1.02	0.254	pCi/g	1.017	1.00	0	6	0	NOT_IDENTI	0	☐	
Radium-224	2.93	0.8629	pCi/g	1.592	Y	241.6	1	1.823	IDENTIFIED	28.78	☐	
Radium-226	0.8897	0.1076	pCi/g	0.1724	Y	609.4	3	1.786	IDENTIFIED	10.6	☐	
Radium-228	1.589	0.3005	pCi/g	0.4709	0.500	911.5	3	2.202	IDENTIFIED	17.65	☐	
Silver-110m	0.713	0.0596	pCi/g	0.1823	N	0	6	0	NOT_IDENTI	0	☐	
Technetium-99m	6.93E+12	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208	0.4272	0.05399	pCi/g	0.09842	0.080	583.4	1	1.159	IDENTIFIED	11.42	☐	
Thorium-228	1.427	0.119	pCi/g	0.1487	N	238.7	2	1.322	IDENTIFIED	5.07	☐	
Thorium-230	0.8897	0.105	pCi/g	0.1724	N	609.4	3	1.786	IDENTIFIED	10.6	☐	
Thorium-232	1.589	0.3005	pCi/g	0.4709	N	911.5	3	2.202	IDENTIFIED	17.65	☐	
Tin-126	3.456	0.2056	pCi/g	0.195	N	88.09	2	1.148	IDENTIFIED	3.59	☐	

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

MS 3/29/10

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertanty	Units	DL	RDL
962633	248867003	SAMPLE	24-MAR-10	Cerium-143	11830	1907	pCi/g	0	N
				Cesium-134	0.103	0.03425	pCi/g	0.06249	0.100
				Gross Gamma	10.54	1.528	pCi/g	2.063	N
				Iodine-133	80310	1.20E+05	pCi/g	0	N
				Lead-212	1.93	0.1255	pCi/g	0.05748	0.100
				Lead-214	1.588	0.1217	pCi/g	0.07875	0.100
				Potassium-40	34.38	1.518	pCi/g	0.3441	1.00
				Promethium-149	335.9	216.6	pCi/g	0	N
				Radium-224	4.226	0.7754	pCi/g	0.6161	Y
				Radium-226	1.334	0.1238	pCi/g	0.08192	Y
				Radium-228	1.575	0.2171	pCi/g	0.1809	0.500
				Strontium-85	0.08679	0.02844	pCi/g	0.04588	Y
				Thallium-208	0.5497	0.05356	pCi/g	0.04197	0.080
				Thorium-234	1.245	0.6213	pCi/g	0.6258	2.00
				Uranium-235	0.505	0.1393	pCi/g	0.2298	0.500
962633	248867004	SAMPLE	24-MAR-10	Bismuth-211	4.541	0.3077	pCi/g	0.1655	Y
				Bismuth-214	1.385	0.1061	pCi/g	0.05161	0.200
				Cadmium-109	4.474	0.6052	pCi/g	0.6383	Y
				Cerium-143	8611	1279	pCi/g	0	N
				Cesium-134	0.118	0.02485	pCi/g	0.0403	0.100
				Gross Gamma	11.16	1.43	pCi/g	1.834	N
				Iodine-133	23680	86680	pCi/g	0	N
				Lead-212	1.98	0.1308	pCi/g	0.04286	0.100
				Lead-214	1.648	0.1206	pCi/g	0.05875	0.100
				Potassium-40	35.67	1.924	pCi/g	0.2572	1.00
				Protactinium-234m	5.523	2.229	pCi/g	3.777	N
				Radium-224	4.578	0.6137	pCi/g	0.4592	Y
				Radium-226	1.385	0.1061	pCi/g	0.05161	Y
				Radium-228	2.029	0.1939	pCi/g	0.1076	0.500
				Strontium-85	0.1884	0.02288	pCi/g	0.03832	Y
				Thallium-208	0.5801	0.04755	pCi/g	0.02874	0.080
				Thorium-227	0.2363	0.1211	pCi/g	0.211	Y
962633	1202065188	MB	24-MAR-10	Cerium-143	93.1	39.91	pCi/g	0	N
				Cobalt-60	0.01748	0.00761	pCi/g	0.01444	0.100
				Iodine-135	1.18E+15	0	pCi/g	0	N
				Radium-224	0.3042	0.1365	pCi/g	0.2493	
962633	1202065189	DUP	24-MAR-10	Bismuth-211	3.938	0.2465	pCi/g	0.1235	Y

MS 3/29/10

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:32:38.69

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*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248865001.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:31:50
Sample ID         : G248865001           Sample quantity  : 1.25140E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.48  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.62*	189	649	1.19	124.89	120	10	2.63E-02	26.6	
2	1	74.78*	539	651	1.11	149.20	142	17	7.49E-02	9.1	2.44E+00
3	1	77.14	876	546	1.03	153.93	142	17	1.22E-01	5.5	
4	3	87.28*	379	365	1.06	174.21	165	27	5.26E-02	9.7	1.52E+00
5	3	89.91	276	400	1.18	179.47	165	27	3.84E-02	13.6	
6	3	92.88*	314	430	1.39	185.41	165	27	4.37E-02	13.8	
7	0	128.89*	68	391	0.93	257.41	254	8	9.47E-03	52.2	
8	0	186.02*	233	326	1.44	371.66	368	9	3.23E-02	15.9	
9	0	209.00	167	338	1.07	417.60	413	10	2.32E-02	22.0	
10	2	238.80*	1530	198	1.05	477.19	472	17	2.13E-01	3.0	4.33E-01
11	2	241.84*	316	261	1.51	483.28	472	17	4.39E-02	11.6	
12	0	270.06	141	335	1.69	539.71	535	14	1.96E-02	28.7	
13	0	295.42	432	194	1.17	590.42	586	10	5.99E-02	7.8	
14	0	299.89	99	182	0.89	599.36	596	8	1.38E-02	25.4	
15	0	328.47	89	204	1.43	656.51	650	12	1.24E-02	33.7	
16	0	338.32*	278	196	1.30	676.20	669	11	3.87E-02	11.6	
17	0	352.09*	788	173	1.28	703.74	699	11	1.09E-01	4.8	
18	0	409.71	39	124	1.13	818.95	815	9	5.41E-03	54.6	
19	0	463.67	120	126	1.37	926.86	922	13	1.66E-02	21.4	
20	0	511.05*	231	163	2.06	1021.60	1013	20	3.21E-02	16.5	
21	0	583.31*	514	129	1.50	1166.11	1158	17	7.14E-02	6.8	
22	0	609.60*	523	97	1.27	1218.67	1214	11	7.27E-02	5.8	
23	0	727.47*	116	119	1.53	1454.38	1448	16	1.61E-02	23.1	
24	0	795.31	89	67	1.36	1590.04	1585	11	1.24E-02	20.6	
25	0	862.06	48	91	1.76	1723.52	1714	13	6.67E-03	43.4	
26	0	911.45*	340	45	1.89	1822.30	1816	12	4.72E-02	6.9	
27	0	934.32	39	48	1.01	1868.04	1863	10	5.39E-03	36.9	
28	1	965.22*	85	46	1.98	1929.82	1921	46	1.18E-02	19.2	1.94E+00
29	1	969.44*	200	32	1.94	1938.27	1921	46	2.78E-02	9.5	
30	0	1120.81	155	71	2.01	2240.98	2233	19	2.16E-02	15.3	
31	0	1379.32	20	29	1.02	2757.94	2752	12	2.75E-03	61.4	
32	0	1461.42*	1508	15	2.02	2922.13	2913	20	2.09E-01	2.7	
33	0	1765.08*	100	7	1.83	3529.42	3522	14	1.39E-02	12.1	
34	0	1848.58	20	6	1.68	3696.41	3690	11	2.71E-03	32.5	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 22:32:41

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248865001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 3-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 20:31:50
Sample ID : G248865001 Sample quantity : 125.14 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA7 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.48 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.759E+01	3.802E+00	5.499E-01	4.722E-02	68.353
CD-109	+	88.03	*	4.636E+00	9.960E-01	1.120E+00	1.055E-01	4.141
SN-126		64.28		3.152E-01	4.596E-01	6.998E-01	1.015E-01	0.450
	+	86.94		1.866E+00	8.548E-01	4.531E-01	1.881E-01	4.119
	+	87.57	*	4.489E-01	9.645E-02	1.086E-01	1.018E-02	4.132
TL-208		277.37		7.398E-01	4.747E-01	7.488E-01	9.315E-02	0.988
	+	583.19	*	7.326E-01	1.216E-01	6.166E-02	5.892E-03	11.881
	+	860.56		6.471E-01	5.657E-01	4.987E-01	4.875E-02	1.297
BI-211		72.87		5.974E+00	2.907E+00	4.989E+00	3.937E-01	1.197
	+	351.06	*	4.974E+00	6.555E-01	3.723E-01	3.340E-02	13.360
PB-212	+	74.82		2.591E+00	5.742E-01	5.149E-01	6.502E-02	5.032
	+	77.11		2.454E+00	3.358E-01	3.011E-01	2.485E-02	8.149
	+	238.63	*	2.145E+00	2.427E-01	9.755E-02	9.378E-03	21.988
	+	300.09		2.175E+00	1.128E+00	1.364E+00	1.430E-01	1.595
BI-214	+	609.32	*	1.445E+00	2.249E-01	1.384E-01	1.438E-02	10.441
	+	1120.29		2.212E+00	7.167E-01	4.925E-01	5.312E-02	4.491
	+	1764.49		1.996E+00	5.100E-01	3.105E-01	2.554E-02	6.427
PB-214	+	74.82		4.593E+00	9.844E-01	9.126E-01	1.031E-01	5.032
	+	77.11		4.326E+00	6.913E-01	5.309E-01	6.194E-02	8.149
	+	242.00		2.691E+00	6.834E-01	5.935E-01	6.086E-02	4.534
	+	295.22		1.673E+00	3.163E-01	2.409E-01	2.588E-02	6.945
	+	351.93	*	1.805E+00	2.579E-01	1.339E-01	1.410E-02	13.476
RA-224	+	240.99	*	4.759E+00	1.177E+00	1.046E+00	8.845E-02	4.550
RA-226	+	609.32	*	1.445E+00	2.249E-01	1.384E-01	1.438E-02	10.441
	+	1120.29		2.212E+00	7.167E-01	4.925E-01	5.312E-02	4.491
	+	1764.49		1.996E+00	5.100E-01	3.105E-01	2.554E-02	6.427
AC-228	+	338.32		1.954E+00	9.326E-01	3.982E-01	1.661E-01	4.906
	+	911.20	*	2.330E+00	4.244E-01	2.388E-01	2.863E-02	9.756
	+	968.97		2.363E+00	7.314E-01	4.233E-01	1.037E-01	5.582
RA-228	+	338.32		1.954E+00	9.326E-01	3.982E-01	1.661E-01	4.906
	+	911.20	*	2.330E+00	4.244E-01	2.388E-01	2.863E-02	9.756
	+	968.97		2.363E+00	7.314E-01	4.233E-01	1.037E-01	5.582
TH-228	+	74.82		2.591E+00	5.168E-01	5.149E-01	4.189E-02	5.032
	+	77.11		2.454E+00	3.358E-01	3.011E-01	2.485E-02	8.149

Sample ID : G248865001 Acquisition date : 24-MAR-2010 20:31:50

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	2.145E+00	2.427E-01	9.755E-02	9.378E-03	21.988
	+	300.09		2.175E+00	1.730E+00	1.364E+00	8.348E-01	1.595
TH-230	+	609.32	*	1.445E+00	2.115E-01	1.384E-01	1.239E-02	10.441
	+	1120.29		2.211E+00	7.012E-01	4.924E-01	4.162E-02	4.491
	+	1764.49		1.996E+00	5.100E-01	3.105E-01	2.553E-02	6.427
TH-232	+	338.32		1.954E+00	4.833E-01	3.982E-01	3.409E-02	4.906
	+	911.20	*	2.330E+00	4.244E-01	2.388E-01	2.863E-02	9.756
	+	968.97		2.363E+00	7.314E-01	4.233E-01	1.037E-01	5.582
TH-234	+	63.29	*	3.259E+00	1.827E+00	1.668E+00	2.967E-01	1.954
	+	92.59		3.176E+00	1.127E+00	9.323E-01	2.079E-01	3.407
U-235	+	89.96		3.443E+00	1.268E+00	1.147E+00	2.850E-01	3.003
	+	93.35		2.399E+00	8.664E-01	7.028E-01	1.636E-01	3.414
		143.76	*	-3.074E-02	2.307E-01	3.601E-01	6.035E-02	-0.085
		163.33		-1.361E-01	4.817E-01	7.529E-01	1.328E-01	-0.181
	+	185.72		2.101E-01	6.905E-02	6.945E-02	5.622E-03	3.025
		205.31		2.548E-01	5.533E-01	8.318E-01	1.495E-01	0.306
NP-237	+	86.48	*	1.340E+00	4.021E-01	3.260E-01	7.470E-02	4.109
		95.86		4.939E-02	9.339E-01	1.358E+00	3.278E-01	0.036
U-238	+	63.29	*	3.259E+00	1.827E+00	1.668E+00	2.967E-01	1.954
	+	92.59		3.176E+00	9.233E-01	9.323E-01	8.530E-02	3.407
ANH-511	+	511.00	*	2.517E-01	8.593E-02	4.739E-02	4.211E-03	5.311

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.944E-01	3.772E-01	5.796E-01	5.468E-02	-0.335
NA-22		1274.54	*	1.389E-02	4.934E-02	8.368E-02	6.869E-03	0.166
NA-24		1368.63	*	2.977E+02	4.934E-02	Half-Life too short		
SC-46		889.28	*	-2.782E-02	4.952E-02	7.518E-02	6.889E-03	-0.370
	+	1120.55		3.939E-01	1.249E-01	1.636E-01	1.383E-02	2.407
V-48		944.13		-2.008E-01	1.290E+00	2.052E+00	1.865E-01	-0.098
		983.53	*	7.056E-02	1.056E-01	1.616E-01	1.455E-02	0.437
		1312.11		8.160E-05	1.166E-01	1.923E-01	1.576E-02	0.000
CR-51		320.08	*	-1.845E-01	4.388E-01	7.029E-01	6.346E-02	-0.262
MN-54		834.85	*	4.827E-02	4.372E-02	7.711E-02	7.078E-03	0.626
CO-56		846.77	*	2.632E-02	4.577E-02	7.829E-02	7.188E-03	0.336
		1037.84		2.859E-01	3.764E-01	6.690E-01	6.201E-02	0.427
		1238.28		2.694E-01	1.235E-01	2.290E-01	1.935E-02	1.176
		1771.35		-1.831E-01	3.189E-01	3.861E-01	3.171E-02	-0.474
CO-57		122.06	*	1.149E-02	2.581E-02	4.229E-02	3.639E-03	0.272
		136.47		-1.507E-03	2.246E-01	3.592E-01	3.230E-02	-0.004
CO-58		810.76	*	-8.347E-03	4.521E-02	7.267E-02	6.676E-03	-0.115
FE-59		1099.45	*	-5.112E-02	1.173E-01	1.888E-01	1.749E-02	-0.271
		1291.59		-7.825E-02	1.605E-01	2.521E-01	2.374E-02	-0.310
CO-60		1173.23		4.932E-02	5.352E-02	9.508E-02	7.737E-03	0.519
		1332.49	*	3.420E-03	4.620E-02	7.667E-02	6.281E-03	0.045
ZN-65		1115.54	*	-9.992E-03	1.200E-01	1.709E-01	1.450E-02	-0.058
SE-75		121.12		1.008E-01	1.338E-01	2.218E-01	2.455E-02	0.454

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		136.00		1.659E-02	4.314E-02	7.014E-02	5.898E-03	0.237
		264.66	*	-1.061E-02	5.539E-02	7.987E-02	6.822E-03	-0.133
		279.54		-1.155E-01	1.280E-01	1.993E-01	1.758E-02	-0.579
		400.66		8.734E-02	2.848E-01	4.710E-01	5.136E-02	0.185
SR-85		514.00	*	9.820E-02	4.550E-02	8.434E-02	7.500E-03	1.164
Y-88		898.04		-2.538E-02	5.109E-02	7.906E-02	7.270E-03	-0.321
		1836.06	*	-8.211E-03	3.519E-02	5.589E-02	4.536E-03	-0.147
Y-91		1204.77	*	1.469E+00	2.963E+01	4.936E+01	4.031E+00	0.030
NB-94		702.65	*	-3.609E-02	3.980E-02	6.121E-02	5.496E-03	-0.590
		871.09		2.341E-02	3.434E-02	5.954E-02	5.463E-03	0.393
NB-95		765.81	*	-3.223E-02	5.599E-02	8.799E-02	8.021E-03	-0.366
NB-95M		235.69	*	-1.785E-03	1.559E-01	2.296E-01	2.233E-02	-0.008
ZR-95		724.19		-1.825E-03	1.325E-01	1.890E-01	1.839E-02	-0.010
		756.73	*	3.992E-02	9.478E-02	1.604E-01	1.597E-02	0.249
MO-99		140.51		-5.533E+01	1.199E+02	1.851E+02	4.373E+01	-0.299
		181.07		3.827E+01	9.126E+01	1.463E+02	2.712E+01	0.262
		366.42		2.509E+02	5.287E+02	8.863E+02	7.508E+01	0.283
		739.50	*	-1.634E+01	6.784E+01	1.094E+02	1.752E+01	-0.149
		777.92		-2.221E+01	1.970E+02	3.199E+02	2.923E+01	-0.069
TC-99M		140.51	*	-6.056E+17	1.970E+02	Half-Life too short		
RU-103		497.08	*	1.684E-03	4.876E-02	7.817E-02	1.103E-02	0.022
	+	610.33		1.665E+01	3.360E+00	3.680E+00	6.080E-01	4.524
RH-106		621.93	*	9.565E-03	3.438E-01	5.739E-01	7.728E-02	0.017
		1050.41		-5.084E-01	2.867E+00	4.734E+00	4.156E-01	-0.107
RU-106		621.93	*	9.565E-03	3.438E-01	5.739E-01	5.129E-02	0.017
		1050.41		-5.084E-01	2.867E+00	4.734E+00	4.156E-01	-0.107
AG-108M		433.94	*	-1.355E-02	3.263E-02	5.106E-02	4.526E-03	-0.265
		614.28		9.421E-03	4.267E-02	6.322E-02	5.829E-03	0.149
		722.91		2.407E-02	4.500E-02	6.811E-02	6.331E-03	0.353
AG-110M		657.76	*	-1.873E-02	3.784E-02	6.030E-02	5.494E-03	-0.311
		677.62		1.774E-01	3.165E-01	5.477E-01	5.009E-02	0.324
		706.68		-1.536E-02	2.447E-01	4.021E-01	3.711E-02	-0.038
		763.94		-6.154E-02	2.010E-01	3.225E-01	3.012E-02	-0.191
		884.68		8.858E-03	5.795E-02	9.540E-02	8.994E-03	0.093
		937.49		6.601E-02	1.490E-01	2.197E-01	2.065E-02	0.301
		1384.29		-4.592E-03	1.752E-01	2.454E-01	2.087E-02	-0.019
		1505.03		-1.993E-01	2.926E-01	4.246E-01	3.550E-02	-0.469
SN-113		391.69	*	-1.416E-02	5.485E-02	8.770E-02	7.538E-03	-0.161
CD-115		260.90		-1.428E-04	5.485E-02	Half-Life too short		
		492.35		9.002E-05	5.485E-02	Half-Life too short		
		527.90	*	4.387E-05	5.485E-02	Half-Life too short		
SN-117M		156.02		1.524E+00	3.457E+00	5.594E+00	4.506E-01	0.273
		158.56	*	-7.341E-02	8.353E-02	1.270E-01	1.018E-02	-0.578
TE-123M		159.00	*	-6.097E-03	3.185E-02	5.011E-02	4.043E-03	-0.122
SB-124		602.73		-2.355E-02	4.811E-02	7.277E-02	6.521E-03	-0.324
		645.85		-2.048E-01	5.779E-01	9.338E-01	8.752E-02	-0.219
		722.78		2.866E-01	4.877E-01	7.419E-01	6.840E-02	0.386
		1690.97	*	-6.669E-02	9.317E-02	1.287E-01	1.118E-02	-0.518
SB-125		427.87	*	7.292E-02	9.881E-02	1.673E-01	1.458E-02	0.436

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	463.37		1.161E+00	5.088E-01	6.298E-01	5.900E-02	1.843
		600.60		2.540E-02	1.921E-01	3.237E-01	3.100E-02	0.078
		635.95		2.102E-02	2.959E-01	4.949E-01	4.746E-02	0.042
TE-125M		109.28	*	-3.241E+00	1.090E+01	1.732E+01	1.826E+00	-0.187
I-126		388.63		3.181E-01	2.910E-01	4.992E-01	4.164E-02	0.637
		666.33	*	7.080E-02	3.584E-01	6.023E-01	5.340E-02	0.118
		753.82		1.078E+00	2.933E+00	4.955E+00	4.506E-01	0.218
SB-126		414.70		7.680E-02	1.321E-01	1.966E-01	1.666E-02	0.391
		666.50		3.615E-02	1.264E-01	2.137E-01	1.894E-02	0.169
		695.00		-3.147E-02	1.284E-01	2.085E-01	1.868E-02	-0.151
		697.00		6.194E-01	4.532E-01	8.120E-01	7.278E-02	0.763
		720.70	*	3.621E-02	2.685E-01	3.893E-01	3.514E-02	0.093
		856.80		5.158E-02	8.188E-01	1.161E+00	1.066E-01	0.044
SB-127		252.40		3.335E+00	1.454E+01	2.438E+01	1.026E+01	0.137
		473.00		3.274E+00	5.403E+00	9.025E+00	1.325E+00	0.363
		685.70	*	4.180E+00	4.246E+00	7.510E+00	1.020E+00	0.557
		783.70		6.564E+00	1.290E+01	2.189E+01	3.185E+00	0.300
I-131		80.19		1.626E+00	1.013E+01	1.179E+01	1.021E+00	0.138
		284.31		2.662E-01	2.572E+00	4.282E+00	3.857E-01	0.062
		364.49	*	4.357E-02	2.191E-01	3.617E-01	3.257E-02	0.120
		636.99		1.569E+00	2.930E+00	5.059E+00	4.775E-01	0.310
TE-132		49.72		-1.960E+01	4.167E+01	6.808E+01	8.509E+00	-0.288
		111.76		1.398E+01	1.343E+02	2.166E+02	2.807E+01	0.065
		116.30		1.026E+02	1.141E+02	1.895E+02	2.451E+01	0.542
		228.16	*	4.494E-01	2.951E+00	4.976E+00	8.518E-01	0.090
BA-133		81.00		6.835E-02	1.175E-01	1.402E-01	2.176E-02	0.488
		276.40		4.751E-01	4.420E-01	6.819E-01	9.569E-02	0.697
		302.85		1.782E-01	1.797E-01	2.757E-01	3.591E-02	0.646
		356.01	*	-3.911E-03	5.117E-02	7.220E-02	9.301E-03	-0.054
		383.85		-1.310E-01	3.331E-01	5.279E-01	6.469E-02	-0.248
I-133		529.87	*	-5.449E-02	3.331E-01	Half-Life too short		
		875.33		2.014E+00	3.331E-01	Half-Life too short		
		1298.22		2.431E+01	3.331E-01	Half-Life too short		
CS-134		563.25		5.901E-01	4.166E-01	7.538E-01	6.818E-02	0.783
		569.33		6.948E-02	2.125E-01	3.638E-01	3.304E-02	0.191
		604.72		1.776E-02	4.167E-02	6.289E-02	5.647E-03	0.282
	+	795.86	*	1.857E-01	7.844E-02	1.201E-01	1.107E-02	1.545
		801.95		-2.726E-01	4.869E-01	6.748E-01	6.213E-02	-0.404
		1365.19		-1.206E-01	1.428E+00	2.323E+00	2.010E-01	-0.052
CS-135		268.22	*	2.104E-01	1.894E-01	2.951E-01	2.909E-02	0.713
I-135		546.56		-4.541E+16	1.894E-01	Half-Life too short		
		836.80		1.882E+17	1.894E-01	Half-Life too short		
		1038.76		1.717E+16	1.894E-01	Half-Life too short		
		1131.51		2.833E+16	1.894E-01	Half-Life too short		
		1260.41	*	6.985E+16	1.894E-01	Half-Life too short		
		1457.56		2.638E+18	1.894E-01	Half-Life too short		
		1678.03		-1.911E+16	1.894E-01	Half-Life too short		
		1791.20		-1.137E+17	1.894E-01	Half-Life too short		
CS-136		153.25		1.342E+00	1.310E+00	2.164E+00	2.128E-01	0.620

Sample ID : G248865001 Acquisition date : 24-MAR-2010 20:31:50

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		176.60		-9.589E-01	7.255E-01	1.160E+00	1.040E-01	-0.827
		273.65		-1.356E+00	9.166E-01	1.192E+00	1.101E-01	-1.138
		340.55		7.762E-01	2.634E-01	4.399E-01	3.912E-02	1.764
		818.51		-4.829E-02	1.089E-01	1.702E-01	1.564E-02	-0.284
		1048.07	*	4.705E-02	1.636E-01	2.811E-01	2.573E-02	0.167
		1235.36		4.575E-01	1.014E+00	1.729E+00	1.981E-01	0.265
BA-137M		661.66	*	-4.574E-03	3.853E-02	6.334E-02	5.606E-03	-0.072
CS-137		661.66	*	-4.832E-03	4.071E-02	6.692E-02	5.933E-03	-0.072
CE-139		165.86	*	-7.853E-03	3.441E-02	5.393E-02	4.266E-03	-0.146
BA-140		162.66		5.961E-01	1.216E+00	1.969E+00	1.690E-01	0.303
		304.85		-3.800E-01	2.428E+00	3.471E+00	1.016E+00	-0.109
		423.72		2.896E-01	2.891E+00	4.702E+00	1.546E+00	0.062
		537.26	*	1.656E-01	4.010E-01	6.866E-01	2.334E-01	0.241
LA-140	+	328.76		1.088E+00	7.402E-01	8.536E-01	7.740E-02	1.275
		487.02		-4.313E-02	2.134E-01	3.362E-01	3.139E-02	-0.128
		815.77		-1.458E-01	4.962E-01	7.885E-01	7.984E-02	-0.185
		1596.21	*	0.000E+00	1.376E-01	2.232E-01	1.867E-02	0.000
CE-141		145.44	*	9.321E-02	7.806E-02	1.300E-01	1.089E-02	0.717
CE-143		57.36		2.704E-02	7.806E-02	Half-Life too short		
		293.27	*	1.392E-02	7.806E-02	Half-Life too short		
		664.57		8.565E-05	7.806E-02	Half-Life too short		
		721.93		1.865E-02	7.806E-02	Half-Life too short		
CE-144		80.12		4.554E-01	3.242E+00	3.770E+00	3.220E-01	0.121
		133.52	*	-6.736E-02	2.345E-01	3.282E-01	4.974E-02	-0.205
PM-144		476.78		-6.365E-02	7.140E-02	1.060E-01	1.009E-02	-0.600
		618.01		-1.701E-02	3.634E-02	5.848E-02	5.367E-03	-0.291
		696.49	*	2.664E-02	4.083E-02	7.041E-02	6.314E-03	0.378
PR-144		696.51	*	2.049E+00	3.069E+00	5.298E+00	4.747E-01	0.387
		1489.16		-6.167E+00	1.284E+01	1.922E+01	1.605E+00	-0.321
PM-146		453.88	*	-3.209E-02	4.503E-02	6.827E-02	7.266E-03	-0.470
		633.25		2.017E-01	1.563E+00	2.622E+00	1.003E+00	0.077
		735.93		8.735E-02	1.758E-01	2.738E-01	7.712E-02	0.319
		747.24		-3.850E-02	1.100E-01	1.755E-01	2.609E-02	-0.219
ND-147	+	91.11		1.653E+00	4.787E-01	7.357E-01	7.286E-02	2.247
		319.41		-4.712E+00	5.048E+00	7.802E+00	6.694E-01	-0.604
		531.02	*	-2.922E-01	8.852E-01	1.441E+00	2.181E-01	-0.203
PM-149		285.90	*	-3.868E-04	8.852E-01	Half-Life too short		
EU-152		121.78		3.259E-02	7.302E-02	1.196E-01	1.182E-02	0.272
		244.70		8.860E-02	3.828E-01	5.708E-01	4.834E-02	0.155
		344.28	*	-7.270E-02	1.038E-01	1.623E-01	1.471E-02	-0.448
		778.90		1.697E-01	2.853E-01	4.902E-01	4.478E-02	0.346
	+	964.08		1.079E+00	4.246E-01	7.050E-01	6.380E-02	1.530
		1085.87		2.361E-02	4.326E-01	7.272E-01	6.272E-02	0.032
		1112.07		3.304E-01	3.697E-01	6.226E-01	5.289E-02	0.531
		1408.01		3.085E-01	2.127E-01	4.012E-01	3.326E-02	0.769
GD-153		69.67		4.914E-02	1.732E+00	2.553E+00	1.956E-01	0.019
		97.43	*	-1.242E-01	9.508E-02	1.272E-01	1.138E-02	-0.976
		103.18		-1.011E-01	1.189E-01	1.859E-01	1.632E-02	-0.544
EU-154		123.07		4.976E-02	5.163E-02	8.600E-02	9.734E-03	0.579

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		723.31		3.615E-02	2.121E-01	3.087E-01	3.047E-02	0.117
		873.19		-1.378E-01	3.060E-01	4.747E-01	5.840E-02	-0.290
		996.26		-5.024E-01	4.620E-01	6.549E-01	1.155E-01	-0.767
		1004.73		-2.229E-01	2.666E-01	3.934E-01	4.672E-02	-0.567
		1274.44	*	1.551E-03	1.421E-01	2.350E-01	2.600E-02	0.007
EU-155	+	86.55		5.457E-01	1.174E-01	1.896E-01	1.769E-02	2.878
		105.31	*	1.524E-01	1.115E-01	1.885E-01	1.664E-02	0.809
TB-160	+	86.79		1.533E+00	3.294E-01	5.344E-01	4.957E-02	2.869
		197.04		2.240E-01	6.002E-01	1.028E+00	8.422E-02	0.218
		215.65		2.001E-01	8.277E-01	1.405E+00	1.170E-01	0.142
	+	298.57		3.252E-01	1.675E-01	2.343E-01	2.003E-02	1.388
		879.36	*	9.979E-02	1.654E-01	2.832E-01	2.597E-02	0.352
		962.29		5.532E-01	7.651E-01	1.150E+00	1.041E-01	0.481
	+	966.15		7.993E-01	3.146E-01	5.843E-01	5.285E-02	1.368
		1177.93		-4.608E-01	4.604E-01	7.002E-01	5.701E-02	-0.658
		1271.85		-2.361E-01	8.263E-01	1.326E+00	1.087E-01	-0.178
HO-166M		80.57		-1.494E-02	3.532E-01	4.057E-01	3.484E-02	-0.037
		184.41		1.123E-01	4.084E-02	6.754E-02	5.460E-03	1.663
		280.46		-1.190E-01	9.565E-02	1.456E-01	1.237E-02	-0.817
	+	410.95		3.182E-01	3.485E-01	4.785E-01	4.044E-02	0.665
		711.68	*	-1.721E-02	7.111E-02	1.152E-01	1.037E-02	-0.149
		752.31		-1.363E-01	3.223E-01	5.119E-01	4.654E-02	-0.266
		810.29		-1.564E-02	6.525E-02	1.044E-01	9.567E-03	-0.150
TA-182		67.75		-3.966E-03	1.045E-01	1.640E-01	1.237E-02	-0.024
		100.11		1.913E-01	1.843E-01	3.096E-01	2.742E-02	0.618
		152.43		-3.138E-01	4.031E-01	6.182E-01	5.011E-02	-0.508
		222.11		8.893E-02	3.744E-01	6.346E-01	5.313E-02	0.140
	+	1121.30		1.076E+00	3.413E-01	4.437E-01	3.747E-02	2.426
		1189.05		1.353E-02	3.906E-01	6.507E-01	5.306E-02	0.021
		1221.41	*	-1.274E-02	2.412E-01	3.983E-01	3.257E-02	-0.032
		1231.02		-2.829E-01	5.613E-01	8.914E-01	7.295E-02	-0.317
IR-192	+	295.96		1.312E+00	2.332E-01	3.413E-01	2.938E-02	3.844
		308.46		-7.835E-02	1.153E-01	1.819E-01	1.567E-02	-0.431
		316.51	*	-1.631E-02	3.938E-02	6.323E-02	5.435E-03	-0.258
		468.07		-1.390E-03	8.695E-02	1.216E-01	1.138E-02	-0.011
HG-203		70.83		-3.478E-01	1.462E+00	2.129E+00	3.322E-01	-0.163
		72.87		1.632E+00	8.217E-01	1.363E+00	2.064E-01	1.197
		279.20	*	7.043E-03	4.654E-02	7.665E-02	6.677E-03	0.092
BI-207		72.81		3.232E-01	1.666E-01	2.855E-01	2.252E-02	1.132
	+	74.97		7.470E-01	1.488E-01	2.204E-01	1.777E-02	3.390
		569.70		1.366E-02	3.288E-02	5.661E-02	5.076E-03	0.241
		1063.66	*	-4.084E-02	6.280E-02	9.942E-02	8.675E-03	-0.411
		1770.23		2.843E-01	5.397E-01	8.751E-01	7.189E-02	0.325
PB-210		46.54	*	2.109E-01	1.857E+00	3.087E+00	2.870E-01	0.068
PB-211		404.85	*	-5.405E-01	9.750E-01	1.263E+00	6.108E-01	-0.428
		427.09		-1.472E-01	1.687E+00	2.706E+00	1.252E+00	-0.054
		832.01		-1.421E+00	1.373E+00	1.687E+00	8.765E-01	-0.842
BI-212	+	727.33	*	2.531E+00	1.213E+00	1.414E+00	1.803E-01	1.790
		785.37		3.337E+00	3.824E+00	6.579E+00	6.015E-01	0.507

Sample ID : G248865001 Acquisition date : 24-MAR-2010 20:31:50

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		2.003E+00	2.877E+00	5.100E+00	4.261E-01	0.393
RN-219	+	271.23		8.734E-01	5.089E-01	5.128E-01	5.205E-02	1.703
		401.81	*	1.905E-01	4.482E-01	7.450E-01	1.098E-01	0.256
RA-223		81.07		1.423E-01	2.649E-01	3.160E-01	2.730E-02	0.450
		83.79		1.375E-01	1.300E-01	1.970E-01	1.759E-02	0.698
		94.87		1.122E+00	4.682E-01	7.419E-01	6.709E-02	1.513
		144.24		1.446E-01	7.659E-01	1.211E+00	1.123E-01	0.119
		154.21		5.998E-01	4.297E-01	7.181E-01	6.431E-02	0.835
	+	269.46		6.786E-01	3.938E-01	4.014E-01	3.481E-02	1.691
		323.87	*	2.247E-02	7.317E-01	1.057E+00	1.830E-01	0.021
	+	338.28		7.754E+00	2.027E+00	2.695E+00	3.241E-01	2.878
AC-227		79.69		7.516E-02	1.399E+00	1.863E+00	3.200E-01	0.040
		235.96		8.628E-02	1.776E-01	2.687E-01	2.738E-02	0.321
		256.23	*	1.428E-03	2.762E-01	4.601E-01	5.503E-02	0.003
	+	299.98		2.393E+00	1.252E+00	1.866E+00	2.363E-01	1.282
		304.50		6.715E-02	2.099E+00	3.046E+00	5.026E-01	0.022
		334.37		9.827E-02	2.426E+00	2.950E+00	4.589E-01	0.033
TH-227		79.80		-1.831E-02	1.842E+00	2.445E+00	5.313E-01	-0.007
		235.96		8.628E-02	1.776E-01	2.687E-01	2.578E-02	0.321
		256.23	*	1.428E-03	2.762E-01	4.601E-01	6.223E-02	0.003
	+	299.98		2.393E+00	1.252E+00	1.866E+00	2.363E-01	1.282
		304.50		6.715E-02	2.099E+00	3.046E+00	5.026E-01	0.022
		334.37		9.827E-02	2.426E+00	2.950E+00	4.589E-01	0.033
TH-229		85.43		7.426E-01	2.075E-01	3.553E-01	3.239E-02	2.090
	+	88.47		6.921E-01	1.487E-01	2.429E-01	2.281E-02	2.849
		193.51	*	-2.718E-01	5.280E-01	8.725E-01	7.124E-02	-0.312
		210.85		1.944E+00	1.101E+00	1.753E+00	1.455E-01	1.109
PA-231		283.69	*	6.419E-01	1.457E+00	2.465E+00	3.579E-01	0.260
	+	301.36		1.537E+00	8.025E-01	1.218E+00	1.475E-01	1.262
TH-231		81.07		1.423E-01	2.649E-01	3.160E-01	2.730E-02	0.450
		83.79		1.375E-01	1.300E-01	1.970E-01	1.759E-02	0.698
		94.87		1.122E+00	4.682E-01	7.419E-01	6.709E-02	1.513
		144.24		1.446E-01	7.659E-01	1.211E+00	1.123E-01	0.119
		154.21		5.998E-01	4.297E-01	7.181E-01	6.431E-02	0.835
	+	269.46		6.786E-01	3.938E-01	4.014E-01	3.481E-02	1.691
		323.87	*	2.247E-02	7.317E-01	1.057E+00	1.830E-01	0.021
	+	338.28		7.754E+00	2.027E+00	2.695E+00	3.241E-01	2.878
PA-233	+	300.13		1.083E+00	5.727E-01	8.471E-01	1.253E-01	1.278
		311.90	*	5.274E-03	7.397E-02	1.203E-01	1.061E-02	0.044
		340.48		2.355E+00	9.844E-01	1.383E+00	3.325E-01	1.703
PA-234		94.67		5.558E-01	1.836E-01	2.834E-01	3.601E-02	1.961
		98.44		2.257E-02	9.946E-02	1.446E-01	8.075E-02	0.156
		111.00		6.353E-02	1.899E-01	3.091E-01	3.742E-02	0.206
		131.20		-3.019E-02	1.237E-01	1.736E-01	1.462E-02	-0.174
		569.50		1.026E-01	2.918E-01	5.003E-01	4.486E-02	0.205
		733.00		3.102E-02	4.757E-01	6.838E-01	1.530E-01	0.045
		880.51		1.614E-01	3.116E-01	5.298E-01	4.858E-02	0.305
		883.24		8.203E-02	3.427E-01	5.610E-01	3.775E-01	0.146
		926.50		-1.104E-01	1.981E-01	2.894E-01	7.367E-02	-0.381

Sample ID : G248865001 Acquisition date : 24-MAR-2010 20:31:50

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	-1.300E-02	3.591E-01	5.782E-01	1.098E-01	-0.022
		949.00		4.247E-01	5.308E-01	9.154E-01	8.313E-02	0.464
PA-234M		766.42		4.880E+00	1.376E+01	2.277E+01	1.157E+01	0.214
		1001.03	*	-4.437E-01	5.790E+00	9.308E+00	9.544E-01	-0.048
NP-239		99.53		2.042E-01	1.618E-01	2.737E-01	2.428E-02	0.746
		103.37		-7.003E-02	1.062E-01	1.674E-01	1.468E-02	-0.418
		106.12		5.207E-02	8.852E-02	1.463E-01	1.275E-02	0.356
		117.23	*	-1.509E-01	4.011E-01	6.353E-01	5.466E-02	-0.238
		228.18		3.532E-02	2.263E-01	3.818E-01	3.208E-02	0.093
		277.60		3.006E-01	2.094E-01	3.424E-01	2.907E-02	0.878
AM-241		59.54	*	-3.312E-02	1.268E-01	1.858E-01	1.473E-02	-0.178
CM-247		278.00		1.022E+00	8.557E-01	1.432E+00	1.216E-01	0.714
		287.50		2.782E-01	1.236E+00	2.070E+00	1.764E-01	0.134
		402.40	*	2.367E-02	4.048E-02	6.803E-02	5.711E-03	0.348
CF-249		252.80		-2.300E-01	1.033E+00	1.703E+00	1.445E-01	-0.135
		333.37		1.179E-01	2.861E-01	3.143E-01	2.692E-02	0.375
		388.16	*	3.761E-02	4.986E-02	8.423E-02	7.029E-03	0.447
CF-251		177.52	*	-1.391E-02	1.338E-01	2.261E-01	1.813E-02	-0.062
		227.38		-3.108E-02	3.741E-01	6.248E-01	5.248E-02	-0.050
		285.41		-1.287E+00	2.222E+00	3.556E+00	3.027E-01	-0.362

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248865001       *
* Acquisition date : 24-MAR-2010 20:31:50 Detector SN#    :                 *
* Detector ID       : GAM07               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.48     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  3-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248865001          Analyst initials: MXR1            *
* Batch Number      : 962633              Sample Quantity : 1.2514E+02 GRAM *
* Recovery          :    1.00000          Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.759E+01	3.726E+00	5.494E-01	0.000E+00
CD-109	4.636E+00	9.761E-01	1.163E+00	0.000E+00
SN-126	4.489E-01	9.452E-02	1.129E-01	0.000E+00
TL-208	7.326E-01	1.191E-01	6.242E-02	0.000E+00
BI-211	4.974E+00	6.424E-01	3.796E-01	0.000E+00
PB-212	2.145E+00	2.379E-01	1.000E-01	0.000E+00
BI-214	1.445E+00	2.204E-01	1.400E-01	0.000E+00
PB-214	1.805E+00	2.527E-01	1.366E-01	0.000E+00
RA-224	4.759E+00	1.153E+00	1.072E+00	0.000E+00
RA-226	1.445E+00	2.204E-01	1.400E-01	0.000E+00
AC-228	2.330E+00	4.159E-01	2.403E-01	0.000E+00
RA-228	2.330E+00	4.159E-01	2.403E-01	0.000E+00
TH-228	2.145E+00	2.379E-01	1.000E-01	0.000E+00
TH-230	1.445E+00	2.073E-01	1.400E-01	0.000E+00
TH-232	2.330E+00	4.159E-01	2.403E-01	0.000E+00
TH-234	3.259E+00	1.790E+00	1.741E+00	0.000E+00
U-235	-3.074E-02	2.261E-01	3.717E-01	0.000E+00
NP-237	1.340E+00	3.941E-01	3.388E-01	0.000E+00
U-238	3.259E+00	1.790E+00	1.741E+00	0.000E+00
ANH-511	2.517E-01	8.421E-02	4.807E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-1.944E-01	3.696E-01	5.884E-01	0.000E+00	NOT IDENT.
NA-22	1.389E-02	4.836E-02	8.378E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.124E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.782E-02	4.853E-02	7.565E-02	0.000E+00	FAIL ABUN
V-48	7.056E-02	1.035E-01	1.624E-01	0.000E+00	NOT IDENT.
CR-51	-1.845E-01	4.301E-01	7.175E-01	0.000E+00	NOT IDENT.
MN-54	4.827E-02	4.285E-02	7.767E-02	0.000E+00	NOT IDENT.

CO-56	2.632E-02	4.486E-02	7.884E-02	0.000E+00	NOT IDENT.
CO-57	1.149E-02	2.530E-02	4.375E-02	0.000E+00	NOT IDENT.
CO-58	-8.347E-03	4.431E-02	7.322E-02	0.000E+00	NOT IDENT.
FE-59	-5.112E-02	1.150E-01	1.894E-01	0.000E+00	NOT IDENT.
CO-60	3.420E-03	4.528E-02	7.671E-02	0.000E+00	NOT IDENT.
ZN-65	-9.992E-03	1.176E-01	1.714E-01	0.000E+00	NOT IDENT.
SE-75	-1.061E-02	5.428E-02	8.175E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.459E-02	8.554E-02	0.000E+00	NOT IDENT.
Y-88	-8.211E-03	3.449E-02	5.566E-02	0.000E+00	NOT IDENT.
Y-91	1.469E+00	2.904E+01	4.946E+01	0.000E+00	NOT IDENT.
NB-94	-3.609E-02	3.900E-02	6.180E-02	0.000E+00	NOT IDENT.
NB-95	-3.223E-02	5.487E-02	8.873E-02	0.000E+00	NOT IDENT.
NB-95M	-1.785E-03	1.528E-01	2.354E-01	0.000E+00	NOT IDENT.
ZR-95	3.992E-02	9.289E-02	1.618E-01	0.000E+00	NOT IDENT.
MO-99	-1.634E+01	6.649E+01	1.104E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.300E+24	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.684E-03	4.779E-02	7.931E-02	0.000E+00	FAIL ABUN
RH-106	9.565E-03	3.370E-01	5.805E-01	0.000E+00	NOT IDENT.
RU-106	9.565E-03	3.369E-01	5.805E-01	0.000E+00	NOT IDENT.
AG-108M	-1.355E-02	3.198E-02	5.191E-02	0.000E+00	NOT IDENT.
AG-110M	-1.873E-02	3.708E-02	6.094E-02	0.000E+00	NOT IDENT.
SN-113	-1.416E-02	5.375E-02	8.928E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	7.962E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-7.341E-02	8.186E-02	1.309E-01	0.000E+00	NOT IDENT.
TE-123M	-6.097E-03	3.122E-02	5.165E-02	0.000E+00	NOT IDENT.
SB-124	-6.669E-02	9.131E-02	1.284E-01	0.000E+00	NOT IDENT.
SB-125	7.292E-02	9.684E-02	1.701E-01	0.000E+00	FAIL ABUN
TE-125M	-3.241E+00	1.069E+01	1.795E+01	0.000E+00	NOT IDENT.
I-126	7.080E-02	3.512E-01	6.086E-01	0.000E+00	NOT IDENT.
SB-126	3.621E-02	2.631E-01	3.929E-01	0.000E+00	NOT IDENT.
SB-127	4.180E+00	4.162E+00	7.585E+00	0.000E+00	NOT IDENT.
I-131	4.357E-02	2.147E-01	3.686E-01	0.000E+00	NOT IDENT.
TE-132	4.494E-01	2.892E+00	5.104E+00	0.000E+00	NOT IDENT.
BA-133	-3.911E-03	5.015E-02	7.360E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	9.128E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.687E-02	1.211E-01	0.000E+00	FAIL ABUN
CS-135	2.104E-01	1.856E-01	3.020E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.484E+22	0.000E+00	0.000E+00	SHORT HLIF
CS-136	4.705E-02	1.603E-01	2.822E-01	0.000E+00	NOT IDENT.
BA-137M	-4.574E-03	3.776E-02	6.401E-02	0.000E+00	NOT IDENT.
CS-137	-4.832E-03	3.989E-02	6.762E-02	0.000E+00	NOT IDENT.
CE-139	-7.853E-03	3.373E-02	5.556E-02	0.000E+00	NOT IDENT.
BA-140	1.656E-01	3.930E-01	6.958E-01	0.000E+00	NOT IDENT.
LA-140	0.000E+00	1.348E-01	2.227E-01	0.000E+00	FAIL ABUN
CE-141	9.321E-02	7.650E-02	1.342E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.014E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-6.736E-02	2.299E-01	3.391E-01	0.000E+00	NOT IDENT.
PM-144	2.664E-02	4.001E-02	7.110E-02	0.000E+00	NOT IDENT.
PR-144	2.049E+00	3.008E+00	5.350E+00	0.000E+00	NOT IDENT.
PM-146	-3.209E-02	4.412E-02	6.935E-02	0.000E+00	NOT IDENT.
ND-147	-2.922E-01	8.675E-01	1.461E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	6.436E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-7.270E-02	1.017E-01	1.655E-01	0.000E+00	FAIL ABUN
GD-153	-1.242E-01	9.318E-02	1.320E-01	0.000E+00	NOT IDENT.
EU-154	1.551E-03	1.392E-01	2.353E-01	0.000E+00	NOT IDENT.
EU-155	1.524E-01	1.093E-01	1.953E-01	0.000E+00	FAIL ABUN
TB-160	9.979E-02	1.621E-01	2.850E-01	0.000E+00	FAIL ABUN
HO-166M	-1.721E-02	6.969E-02	1.163E-01	0.000E+00	FAIL ABUN
TA-182	-1.274E-02	2.364E-01	3.990E-01	0.000E+00	FAIL ABUN
IR-192	-1.631E-02	3.859E-02	6.457E-02	0.000E+00	FAIL ABUN
HG-203	7.043E-03	4.561E-02	7.840E-02	0.000E+00	NOT IDENT.
BI-207	-4.084E-02	6.155E-02	9.980E-02	0.000E+00	FAIL ABUN
PB-210	2.109E-01	1.820E+00	3.235E+00	0.000E+00	NOT IDENT.
PB-211	-5.405E-01	9.555E-01	1.285E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.189E+00	1.427E+00	0.000E+00	FAIL ABUN
RN-219	1.905E-01	4.392E-01	7.582E-01	0.000E+00	FAIL ABUN
RA-223	2.247E-02	7.171E-01	1.079E+00	0.000E+00	FAIL ABUN
AC-227	1.428E-03	2.707E-01	4.712E-01	0.000E+00	FAIL ABUN
TH-227	1.428E-03	2.707E-01	4.712E-01	0.000E+00	FAIL ABUN
TH-229	-2.718E-01	5.175E-01	8.969E-01	0.000E+00	FAIL ABUN
PA-231	6.419E-01	1.428E+00	2.521E+00	0.000E+00	FAIL ABUN
TH-231	2.247E-02	7.171E-01	1.079E+00	0.000E+00	FAIL ABUN
PA-233	5.274E-03	7.249E-02	1.228E-01	0.000E+00	FAIL ABUN
PA-234	-1.300E-02	3.519E-01	5.813E-01	0.000E+00	NOT IDENT.
PA-234M	-4.437E-01	5.674E+00	9.351E+00	0.000E+00	NOT IDENT.
NP-239	-1.509E-01	3.931E-01	6.576E-01	0.000E+00	NOT IDENT.
AM-241	-3.312E-02	1.243E-01	1.940E-01	0.000E+00	NOT IDENT.
CM-247	2.367E-02	3.967E-02	6.923E-02	0.000E+00	NOT IDENT.

CF-249	3.761E-02	4.886E-02	8.576E-02	0.000E+00 NOT IDENT.
CF-251	-1.391E-02	1.311E-01	2.327E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:32:39.63

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248865001.CNF;1
Sample date       : 3-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:31:50
Sample ID         : G248865001           Sample quantity  : 1.25140E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.48  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1508	10.66*	1.129E+00	3.759E+01	3.759E+01	10.12
CD-109	88.03	379	3.70*	6.838E+00	4.489E+00	4.636E+00	21.48
SN-126	64.28	------	9.60	4.930E+00	------ Line Not Found		------
	86.94	379	8.90	6.838E+00	1.866E+00	1.866E+00	45.80
	87.57	379	37.00*	6.838E+00	4.489E-01	4.489E-01	21.48
TL-208	277.37	------	6.60	4.401E+00	------ Line Not Found		------
	583.19	514	85.00*	2.476E+00	7.326E-01	7.326E-01	16.59
	860.56	48	12.50	1.780E+00	6.471E-01	6.471E-01	87.43
BI-211	72.87	------	1.23	5.899E+00	------ Line Not Found		------
	351.06	788	12.92*	3.680E+00	4.974E+00	4.974E+00	13.18
PB-212	74.82	539	10.28	6.070E+00	2.591E+00	2.591E+00	22.16
	77.11	876	17.10	6.260E+00	2.454E+00	2.454E+00	13.69
	238.63	1530	43.60*	4.908E+00	2.145E+00	2.145E+00	11.32
	300.09	99	3.30	4.153E+00	2.175E+00	2.175E+00	51.85
BI-214	609.32	523	45.49*	2.388E+00	1.445E+00	1.445E+00	15.56
	1120.29	155	14.92	1.413E+00	2.211E+00	2.212E+00	32.41
	1764.49	100	15.30	9.831E-01	1.996E+00	1.996E+00	25.55
PB-214	74.82	539	5.80	6.070E+00	4.592E+00	4.593E+00	21.43
	77.11	876	9.70	6.260E+00	4.326E+00	4.326E+00	15.98
	242.00	316	7.25	4.863E+00	2.691E+00	2.691E+00	25.39
	295.22	432	18.42	4.200E+00	1.673E+00	1.673E+00	18.90
	351.93	788	35.60*	3.680E+00	1.805E+00	1.805E+00	14.29
RA-224	240.99	316	4.10*	4.863E+00	4.759E+00	4.759E+00	24.72
RA-226	609.32	523	45.49*	2.388E+00	1.445E+00	1.445E+00	15.56
	1120.29	155	14.92	1.413E+00	2.211E+00	2.212E+00	32.41
	1764.49	100	15.30	9.831E-01	1.996E+00	1.996E+00	25.55
AC-228	338.32	278	11.27	3.793E+00	1.954E+00	1.954E+00	47.73
	911.20	340	25.80*	1.695E+00	2.330E+00	2.330E+00	18.22
	968.97	200	15.80	1.606E+00	2.363E+00	2.363E+00	30.96
RA-228	338.32	278	11.27	3.793E+00	1.954E+00	1.954E+00	47.73
	911.20	340	25.80*	1.695E+00	2.330E+00	2.330E+00	18.22
	968.97	200	15.80	1.606E+00	2.363E+00	2.363E+00	30.96

Sample ID : G248865001 Acquisition date : 24-MAR-2010 20:31:50

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	539	10.28	6.070E+00	2.591E+00	2.591E+00	19.95
	77.11	876	17.10	6.260E+00	2.454E+00	2.454E+00	13.69
	238.63	1530	43.60*	4.908E+00	2.145E+00	2.145E+00	11.32
	300.09	99	3.30	4.153E+00	2.175E+00	2.175E+00	79.53
TH-230	609.32	523	45.49*	2.388E+00	1.445E+00	1.445E+00	14.64
	1120.29	155	14.92	1.413E+00	2.211E+00	2.211E+00	31.71
	1764.49	100	15.30	9.831E-01	1.996E+00	1.996E+00	25.55
TH-232	338.32	278	11.27	3.793E+00	1.954E+00	1.954E+00	24.73
	911.20	340	25.80*	1.695E+00	2.330E+00	2.330E+00	18.22
	968.97	200	15.80	1.606E+00	2.363E+00	2.363E+00	30.96
TH-234	63.29	189	3.70*	4.704E+00	3.259E+00	3.259E+00	56.05
	92.59	314	4.23	7.021E+00	3.176E+00	3.176E+00	35.47
U-235	89.96	276	3.47	6.934E+00	3.443E+00	3.443E+00	36.84
	93.35	314	5.60	7.021E+00	2.399E+00	2.399E+00	36.11
	143.76	------	10.96*	6.691E+00	------	Line Not Found	------
	163.33	------	5.08	6.279E+00	------	Line Not Found	------
	185.72	233	57.20	5.813E+00	2.101E-01	2.101E-01	32.87
	205.31	------	5.01	5.451E+00	------	Line Not Found	------
NP-237	86.48	379	12.40*	6.838E+00	1.340E+00	1.340E+00	30.02
	95.86	------	2.68	7.087E+00	------	Line Not Found	------
U-238	63.29	189	3.70*	4.704E+00	3.259E+00	3.259E+00	56.05
	92.59	314	4.23	7.021E+00	3.176E+00	3.176E+00	29.07
ANH-511	511.00	231	100.00*	2.755E+00	2.517E-01	2.517E-01	34.14

Flag: "*" = Keyline

Sample ID : G248865001 Acquisition date : 24-MAR-2010 20:31:50

Total number of lines in spectrum 34
Number of unidentified lines 5
Number of lines tentatively identified by NID 29 85.29%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.759E+01	3.759E+01	0.380E+01	10.12	
CD-109	461.40D	1.03	4.489E+00	4.636E+00	0.996E+00	21.48	
SN-126	2.30E+05Y	1.00	4.489E-01	4.489E-01	0.964E-01	21.48	
TL-208	1.41E+10Y	1.00	7.326E-01	7.326E-01	1.216E-01	16.59	
BI-211	7.04E+08Y	1.00	4.974E+00	4.974E+00	0.655E+00	13.18	
PB-212	1.41E+10Y	1.00	2.145E+00	2.145E+00	0.243E+00	11.32	
BI-214	1600.00Y	1.00	1.445E+00	1.445E+00	0.225E+00	15.56	
PB-214	1600.00Y	1.00	1.805E+00	1.805E+00	0.258E+00	14.29	
RA-224	1.41E+10Y	1.00	4.759E+00	4.759E+00	1.177E+00	24.72	
RA-226	1600.00Y	1.00	1.445E+00	1.445E+00	0.225E+00	15.56	
AC-228	1.41E+10Y	1.00	2.330E+00	2.330E+00	0.424E+00	18.22	
RA-228	1.41E+10Y	1.00	2.330E+00	2.330E+00	0.424E+00	18.22	
TH-228	1.41E+10Y	1.00	2.145E+00	2.145E+00	0.243E+00	11.32	
TH-230	7.54E+04Y	1.00	1.445E+00	1.445E+00	0.212E+00	14.64	
TH-232	1.41E+10Y	1.00	2.330E+00	2.330E+00	0.424E+00	18.22	
TH-234	4.47E+09Y	1.00	3.259E+00	3.259E+00	1.827E+00	56.05	
U-235	7.04E+08Y	1.00	2.101E-01	2.101E-01	0.691E-01	32.87	K
NP-237	2.14E+06Y	1.00	1.340E+00	1.340E+00	0.402E+00	30.02	
U-238	4.47E+09Y	1.00	3.259E+00	3.259E+00	1.827E+00	56.05	
ANH-511	1.00E+09Y	1.00	2.517E-01	2.517E-01	0.859E-01	34.14	
	Total Activity :		7.873E+01	7.887E+01			

Grand Total Activity : 7.873E+01 7.887E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248865001 Acquisition date : 24-MAR-2010 20:31:50

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.89	68	391	0.93	257.41	254	8	9.47E-03	****	6.97E+00	
0	209.00	167	338	1.07	417.60	413	10	2.32E-02	44.0	5.39E+00	
0	270.06	141	335	1.69	539.71	535	14	1.96E-02	57.4	4.49E+00	T
0	328.47	89	204	1.43	656.51	650	12	1.24E-02	67.4	3.88E+00	T
0	409.71	39	124	1.13	818.95	815	9	5.41E-03	****	3.28E+00	T
0	463.67	120	126	1.37	926.86	922	13	1.66E-02	42.8	2.98E+00	T
0	727.47	116	119	1.53	1454.38	1448	16	1.61E-02	46.2	2.06E+00	T
0	795.31	89	67	1.36	1590.04	1585	11	1.24E-02	41.2	1.91E+00	T
0	934.32	39	48	1.01	1868.04	1863	10	5.39E-03	73.9	1.66E+00	
1	965.22	85	46	1.98	1929.82	1921	46	1.18E-02	38.3	1.61E+00	T
0	1379.32	20	29	1.02	2757.94	2752	12	2.75E-03	****	1.18E+00	
0	1848.58	20	6	1.68	3696.41	3690	11	2.71E-03	65.0	9.55E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:32:43.71

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248865001.CNF;1  *
* Acquisition date : 24-MAR-2010 20:31:50  Detector SN#    :                *
* Detector ID      : GAM07                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.48         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248865001            Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.25140E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58.0MS Isotope `    :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.759E+01	3.802E+00	5.499E-01	4.722E-02	68.353
CD-109	4.636E+00	9.960E-01	1.120E+00	1.055E-01	4.141
SN-126	4.489E-01	9.645E-02	1.086E-01	1.018E-02	4.132
TL-208	7.326E-01	1.216E-01	6.166E-02	5.892E-03	11.881
BI-211	4.974E+00	6.555E-01	3.723E-01	3.340E-02	13.360
PB-212	2.145E+00	2.427E-01	9.755E-02	9.378E-03	21.988
BI-214	1.445E+00	2.249E-01	1.384E-01	1.438E-02	10.441
PB-214	1.805E+00	2.579E-01	1.339E-01	1.410E-02	13.476
RA-224	4.759E+00	1.177E+00	1.046E+00	8.845E-02	4.550
RA-226	1.445E+00	2.249E-01	1.384E-01	1.438E-02	10.441
AC-228	2.330E+00	4.244E-01	2.388E-01	2.863E-02	9.756
RA-228	2.330E+00	4.244E-01	2.388E-01	2.863E-02	9.756
TH-228	2.145E+00	2.427E-01	9.755E-02	9.378E-03	21.988
TH-230	1.445E+00	2.115E-01	1.384E-01	1.239E-02	10.441
TH-232	2.330E+00	4.244E-01	2.388E-01	2.863E-02	9.756
TH-234	3.259E+00	1.827E+00	1.668E+00	2.967E-01	1.954
U-235	2.101E-01	6.905E-02	3.601E-01	6.035E-02	0.583
NP-237	1.340E+00	4.021E-01	3.260E-01	7.470E-02	4.109

Sample ID : G248865001 Acquisition date : 24-MAR-2010 20:31:50

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-238	3.259E+00	1.827E+00	1.668E+00	2.967E-01	1.954
ANH-511	2.517E-01	8.593E-02	4.739E-02	4.211E-03	5.311

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.944E-01		3.772E-01	5.796E-01	5.468E-02	-0.335
NA-22	1.389E-02		4.934E-02	8.368E-02	6.869E-03	0.166
NA-24	2.977E+02		4.145E+02	Half-Life too short		
SC-46	-2.782E-02		4.952E-02	7.518E-02	6.889E-03	-0.370
V-48	7.056E-02		1.056E-01	1.616E-01	1.455E-02	0.437
CR-51	-1.845E-01		4.388E-01	7.029E-01	6.346E-02	-0.262
MN-54	4.827E-02		4.372E-02	7.711E-02	7.078E-03	0.626
CO-56	2.632E-02		4.577E-02	7.829E-02	7.188E-03	0.336
CO-57	1.149E-02		2.581E-02	4.229E-02	3.639E-03	0.272
CO-58	-8.347E-03		4.521E-02	7.267E-02	6.676E-03	-0.115
FE-59	-5.112E-02		1.173E-01	1.888E-01	1.749E-02	-0.271
CO-60	3.420E-03		4.620E-02	7.667E-02	6.281E-03	0.045
ZN-65	-9.992E-03		1.200E-01	1.709E-01	1.450E-02	-0.058
SE-75	-1.061E-02		5.539E-02	7.987E-02	6.822E-03	-0.133
SR-85	9.820E-02		4.550E-02	8.434E-02	7.500E-03	1.164
Y-88	-8.211E-03		3.519E-02	5.589E-02	4.536E-03	-0.147
Y-91	1.469E+00		2.963E+01	4.936E+01	4.031E+00	0.030
NB-94	-3.609E-02		3.980E-02	6.121E-02	5.496E-03	-0.590
NB-95	-3.223E-02		5.599E-02	8.799E-02	8.021E-03	-0.366
NB-95M	-1.785E-03		1.559E-01	2.296E-01	2.233E-02	-0.008
ZR-95	3.992E-02		9.478E-02	1.604E-01	1.597E-02	0.249
MO-99	-1.634E+01		6.784E+01	1.094E+02	1.752E+01	-0.149
TC-99M	-6.056E+17		6.635E+17	Half-Life too short		
RU-103	1.684E-03		4.876E-02	7.817E-02	1.103E-02	0.022
RH-106	9.565E-03		3.438E-01	5.739E-01	7.728E-02	0.017
RU-106	9.565E-03		3.438E-01	5.739E-01	5.129E-02	0.017
AG-108M	-1.355E-02		3.263E-02	5.106E-02	4.526E-03	-0.265
AG-110M	-1.873E-02		3.784E-02	6.030E-02	5.494E-03	-0.311
SN-113	-1.416E-02		5.485E-02	8.770E-02	7.538E-03	-0.161
CD-115	4.387E-05		4.062E-05	Half-Life too short		
SN-117M	-7.341E-02		8.353E-02	1.270E-01	1.018E-02	-0.578
TE-123M	-6.097E-03		3.185E-02	5.011E-02	4.043E-03	-0.122
SB-124	-6.669E-02		9.317E-02	1.287E-01	1.118E-02	-0.518
SB-125	7.292E-02		9.881E-02	1.673E-01	1.458E-02	0.436
TE-125M	-3.241E+00		1.090E+01	1.732E+01	1.826E+00	-0.187
I-126	7.080E-02		3.584E-01	6.023E-01	5.340E-02	0.118
SB-126	3.621E-02		2.685E-01	3.893E-01	3.514E-02	0.093
SB-127	4.180E+00		4.246E+00	7.510E+00	1.020E+00	0.557
I-131	4.357E-02		2.191E-01	3.617E-01	3.257E-02	0.120
TE-132	4.494E-01		2.951E+00	4.976E+00	8.518E-01	0.090
BA-133	-3.911E-03		5.117E-02	7.220E-02	9.301E-03	-0.054

Sample ID : G248865001 Acquisition date : 24-MAR-2010 20:31:50

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	-5.449E-02		4.657E-01	Half-Life too short		
CS-134	1.857E-01	+	7.844E-02	1.201E-01	1.107E-02	1.545
CS-135	2.104E-01		1.894E-01	2.951E-01	2.909E-02	0.713
I-135	6.985E+16		2.798E+16	Half-Life too short		
CS-136	4.705E-02		1.636E-01	2.811E-01	2.573E-02	0.167
BA-137M	-4.574E-03		3.853E-02	6.334E-02	5.606E-03	-0.072
CS-137	-4.832E-03		4.071E-02	6.692E-02	5.933E-03	-0.072
CE-139	-7.853E-03		3.441E-02	5.393E-02	4.266E-03	-0.146
BA-140	1.656E-01		4.010E-01	6.866E-01	2.334E-01	0.241
LA-140	0.000E+00		1.376E-01	2.232E-01	1.867E-02	0.000
CE-141	9.321E-02		7.806E-02	1.300E-01	1.089E-02	0.717
CE-143	1.392E-02		2.558E-03	Half-Life too short		
CE-144	-6.736E-02		2.345E-01	3.282E-01	4.974E-02	-0.205
PM-144	2.664E-02		4.083E-02	7.041E-02	6.314E-03	0.378
PR-144	2.049E+00		3.069E+00	5.298E+00	4.747E-01	0.387
PM-146	-3.209E-02		4.503E-02	6.827E-02	7.266E-03	-0.470
ND-147	-2.922E-01		8.852E-01	1.441E+00	2.181E-01	-0.203
PM-149	-3.868E-04		3.284E-04	Half-Life too short		
EU-152	-7.270E-02		1.038E-01	1.623E-01	1.471E-02	-0.448
GD-153	-1.242E-01		9.508E-02	1.272E-01	1.138E-02	-0.976
EU-154	1.551E-03		1.421E-01	2.350E-01	2.600E-02	0.007
EU-155	1.524E-01		1.115E-01	1.885E-01	1.664E-02	0.809
TB-160	9.979E-02		1.654E-01	2.832E-01	2.597E-02	0.352
HO-166M	-1.721E-02		7.111E-02	1.152E-01	1.037E-02	-0.149
TA-182	-1.274E-02		2.412E-01	3.983E-01	3.257E-02	-0.032
IR-192	-1.631E-02		3.938E-02	6.323E-02	5.435E-03	-0.258
HG-203	7.043E-03		4.654E-02	7.665E-02	6.677E-03	0.092
BI-207	-4.084E-02		6.280E-02	9.942E-02	8.675E-03	-0.411
PB-210	2.109E-01		1.857E+00	3.087E+00	2.870E-01	0.068
PB-211	-5.405E-01		9.750E-01	1.263E+00	6.108E-01	-0.428
BI-212	2.531E+00	+	1.213E+00	1.414E+00	1.803E-01	1.790
RN-219	1.905E-01		4.482E-01	7.450E-01	1.098E-01	0.256
RA-223	2.247E-02		7.317E-01	1.057E+00	1.830E-01	0.021
AC-227	1.428E-03		2.762E-01	4.601E-01	5.503E-02	0.003
TH-227	1.428E-03		2.762E-01	4.601E-01	6.223E-02	0.003
TH-229	-2.718E-01		5.280E-01	8.725E-01	7.124E-02	-0.312
PA-231	6.419E-01		1.457E+00	2.465E+00	3.579E-01	0.260
TH-231	2.247E-02		7.317E-01	1.057E+00	1.830E-01	0.021
PA-233	5.274E-03		7.397E-02	1.203E-01	1.061E-02	0.044
PA-234	-1.300E-02		3.591E-01	5.782E-01	1.098E-01	-0.022
PA-234M	-4.437E-01		5.790E+00	9.308E+00	9.544E-01	-0.048
NP-239	-1.509E-01		4.011E-01	6.353E-01	5.466E-02	-0.238
AM-241	-3.312E-02		1.268E-01	1.858E-01	1.473E-02	-0.178
CM-247	2.367E-02		4.048E-02	6.803E-02	5.711E-03	0.348
CF-249	3.761E-02		4.986E-02	8.423E-02	7.029E-03	0.447
CF-251	-1.391E-02		1.338E-01	2.261E-01	1.813E-02	-0.062

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248865001            *
* Acquisition date : 24-MAR-2010 20:31:50 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.48     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  3-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248865001           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.2514E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.759E+01	3.726E+00	2.749E-01	1.901E+00
CD-109	4.636E+00	9.761E-01	5.819E-01	4.980E-01
SN-126	4.489E-01	9.452E-02	5.648E-02	4.822E-02
TL-208	7.326E-01	1.191E-01	3.123E-02	6.078E-02
BI-211	4.974E+00	6.424E-01	1.899E-01	3.277E-01
PB-212	2.145E+00	2.379E-01	5.003E-02	1.214E-01
BI-214	1.445E+00	2.204E-01	7.004E-02	1.124E-01
PB-214	1.805E+00	2.527E-01	6.832E-02	1.289E-01
RA-224	4.759E+00	1.153E+00	5.363E-01	5.883E-01
RA-226	1.445E+00	2.204E-01	7.004E-02	1.124E-01
AC-228	2.330E+00	4.159E-01	1.202E-01	2.122E-01
RA-228	2.330E+00	4.159E-01	1.202E-01	2.122E-01
TH-228	2.145E+00	2.379E-01	5.003E-02	1.214E-01
TH-230	1.445E+00	2.073E-01	7.004E-02	1.058E-01
TH-232	2.330E+00	4.159E-01	1.202E-01	2.122E-01
TH-234	3.259E+00	1.790E+00	8.708E-01	9.134E-01
U-235	-3.074E-02	2.261E-01	1.860E-01	1.153E-01
NP-237	1.340E+00	3.941E-01	1.695E-01	2.011E-01
U-238	3.259E+00	1.790E+00	8.708E-01	9.134E-01
ANH-511	2.517E-01	8.421E-02	2.405E-02	4.297E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.944E-01	3.696E-01	2.944E-01	1.886E-01	NOT IDENT.
NA-22	1.389E-02	4.836E-02	4.191E-02	2.467E-02	NOT IDENT.
NA-24	2.977E+08	8.124E+08	0.000E+00	4.145E+08	SHORT HLIF
SC-46	-2.782E-02	4.853E-02	3.785E-02	2.476E-02	FAIL ABUN
V-48	7.056E-02	1.035E-01	8.125E-02	5.282E-02	NOT IDENT.
CR-51	-1.845E-01	4.301E-01	3.590E-01	2.194E-01	NOT IDENT.
MN-54	4.827E-02	4.285E-02	3.886E-02	2.186E-02	NOT IDENT.

CO-56	2.632E-02	4.486E-02	3.944E-02	2.289E-02	NOT IDENT.
CO-57	1.149E-02	2.530E-02	2.189E-02	1.291E-02	NOT IDENT.
CO-58	-8.347E-03	4.431E-02	3.663E-02	2.261E-02	NOT IDENT.
FE-59	-5.112E-02	1.150E-01	9.477E-02	5.866E-02	NOT IDENT.
CO-60	3.420E-03	4.528E-02	3.838E-02	2.310E-02	NOT IDENT.
ZN-65	-9.992E-03	1.176E-01	8.577E-02	5.998E-02	NOT IDENT.
SE-75	-1.061E-02	5.428E-02	4.090E-02	2.769E-02	NOT IDENT.
SR-85	9.820E-02	4.459E-02	4.279E-02	2.275E-02	NOT IDENT.
Y-88	-8.211E-03	3.449E-02	2.785E-02	1.760E-02	NOT IDENT.
Y-91	1.469E+00	2.904E+01	2.474E+01	1.482E+01	NOT IDENT.
NB-94	-3.609E-02	3.900E-02	3.092E-02	1.990E-02	NOT IDENT.
NB-95	-3.223E-02	5.487E-02	4.439E-02	2.799E-02	NOT IDENT.
NB-95M	-1.785E-03	1.528E-01	1.178E-01	7.797E-02	NOT IDENT.
ZR-95	3.992E-02	9.289E-02	8.093E-02	4.739E-02	NOT IDENT.
MO-99	-1.634E+01	6.649E+01	5.524E+01	3.392E+01	NOT IDENT.
TC-99M	-6.056E+23	1.300E+24	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.684E-03	4.779E-02	3.968E-02	2.438E-02	FAIL ABUN
RH-106	9.565E-03	3.370E-01	2.904E-01	1.719E-01	NOT IDENT.
RU-106	9.565E-03	3.369E-01	2.904E-01	1.719E-01	NOT IDENT.
AG-108M	-1.355E-02	3.198E-02	2.597E-02	1.632E-02	NOT IDENT.
AG-110M	-1.873E-02	3.708E-02	3.049E-02	1.892E-02	NOT IDENT.
SN-113	-1.416E-02	5.375E-02	4.466E-02	2.742E-02	NOT IDENT.
CD-115	4.387E+01	7.962E+01	0.000E+00	4.062E+01	SHORT HLIF
SN-117M	-7.341E-02	8.186E-02	6.549E-02	4.176E-02	NOT IDENT.
TE-123M	-6.097E-03	3.122E-02	2.584E-02	1.593E-02	NOT IDENT.
SB-124	-6.669E-02	9.131E-02	6.422E-02	4.659E-02	NOT IDENT.
SB-125	7.292E-02	9.684E-02	8.511E-02	4.941E-02	FAIL ABUN
TE-125M	-3.241E+00	1.069E+01	8.979E+00	5.452E+00	NOT IDENT.
I-126	7.080E-02	3.512E-01	3.045E-01	1.792E-01	NOT IDENT.
SB-126	3.621E-02	2.631E-01	1.966E-01	1.343E-01	NOT IDENT.
SB-127	4.180E+00	4.162E+00	3.795E+00	2.123E+00	NOT IDENT.
I-131	4.357E-02	2.147E-01	1.844E-01	1.095E-01	NOT IDENT.
TE-132	4.494E-01	2.892E+00	2.553E+00	1.476E+00	NOT IDENT.
BA-133	-3.911E-03	5.015E-02	3.682E-02	2.558E-02	NOT IDENT.
I-133	-5.449E+04	9.128E+05	0.000E+00	4.657E+05	SHORT HLIF
CS-134	1.857E-01	7.687E-02	6.057E-02	3.922E-02	FAIL ABUN
CS-135	2.104E-01	1.856E-01	1.511E-01	9.471E-02	NOT IDENT.
I-135	6.985E+22	5.484E+22	0.000E+00	0.000E+00	SHORT HLIF
CS-136	4.705E-02	1.603E-01	1.412E-01	8.180E-02	NOT IDENT.
BA-137M	-4.574E-03	3.776E-02	3.202E-02	1.927E-02	NOT IDENT.
CS-137	-4.832E-03	3.989E-02	3.383E-02	2.035E-02	NOT IDENT.
CE-139	-7.853E-03	3.373E-02	2.780E-02	1.721E-02	NOT IDENT.
BA-140	1.656E-01	3.930E-01	3.481E-01	2.005E-01	NOT IDENT.
LA-140	0.000E+00	1.348E-01	1.114E-01	0.000E+00	FAIL ABUN
CE-141	9.321E-02	7.650E-02	6.714E-02	3.903E-02	NOT IDENT.
CE-143	1.392E+04	5.014E+03	0.000E+00	2.558E+03	SHORT HLIF
CE-144	-6.736E-02	2.299E-01	1.696E-01	1.173E-01	NOT IDENT.
PM-144	2.664E-02	4.001E-02	3.557E-02	2.041E-02	NOT IDENT.
PR-144	2.049E+00	3.008E+00	2.676E+00	1.535E+00	NOT IDENT.
PM-146	-3.209E-02	4.412E-02	3.470E-02	2.251E-02	NOT IDENT.
ND-147	-2.922E-01	8.675E-01	7.309E-01	4.426E-01	FAIL ABUN
PM-149	-3.868E+02	6.436E+02	0.000E+00	3.284E+02	SHORT HLIF
EU-152	-7.270E-02	1.017E-01	8.282E-02	5.188E-02	FAIL ABUN
GD-153	-1.242E-01	9.318E-02	6.605E-02	4.754E-02	NOT IDENT.
EU-154	1.551E-03	1.392E-01	1.177E-01	7.103E-02	NOT IDENT.
EU-155	1.524E-01	1.093E-01	9.773E-02	5.577E-02	FAIL ABUN
TB-160	9.979E-02	1.621E-01	1.426E-01	8.272E-02	FAIL ABUN
HO-166M	-1.721E-02	6.969E-02	5.820E-02	3.556E-02	FAIL ABUN
TA-182	-1.274E-02	2.364E-01	1.996E-01	1.206E-01	FAIL ABUN
IR-192	-1.631E-02	3.859E-02	3.230E-02	1.969E-02	FAIL ABUN
HG-203	7.043E-03	4.561E-02	3.922E-02	2.327E-02	NOT IDENT.
BI-207	-4.084E-02	6.155E-02	4.993E-02	3.140E-02	FAIL ABUN
PB-210	2.109E-01	1.820E+00	1.619E+00	9.286E-01	NOT IDENT.
PB-211	-5.405E-01	9.555E-01	6.430E-01	4.875E-01	NOT IDENT.
BI-212	2.531E+00	1.189E+00	7.138E-01	6.066E-01	FAIL ABUN
RN-219	1.905E-01	4.392E-01	3.793E-01	2.241E-01	FAIL ABUN
RA-223	2.247E-02	7.171E-01	5.399E-01	3.659E-01	FAIL ABUN
AC-227	1.428E-03	2.707E-01	2.357E-01	1.381E-01	FAIL ABUN
TH-227	1.428E-03	2.707E-01	2.357E-01	1.381E-01	FAIL ABUN
TH-229	-2.718E-01	5.175E-01	4.487E-01	2.640E-01	FAIL ABUN
PA-231	6.419E-01	1.428E+00	1.261E+00	7.286E-01	FAIL ABUN
TH-231	2.247E-02	7.171E-01	5.399E-01	3.659E-01	FAIL ABUN
PA-233	5.274E-03	7.249E-02	6.146E-02	3.699E-02	FAIL ABUN
PA-234	-1.300E-02	3.519E-01	2.908E-01	1.795E-01	NOT IDENT.
PA-234M	-4.437E-01	5.674E+00	4.678E+00	2.895E+00	NOT IDENT.
NP-239	-1.509E-01	3.931E-01	3.290E-01	2.006E-01	NOT IDENT.
AM-241	-3.312E-02	1.243E-01	9.707E-02	6.342E-02	NOT IDENT.
CM-247	2.367E-02	3.967E-02	3.464E-02	2.024E-02	NOT IDENT.

CF-249	3.761E-02	4.886E-02	4.290E-02	2.493E-02	NOT IDENT.
CF-251	-1.391E-02	1.311E-01	1.164E-01	6.689E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	327.6678
49.72	372.2622
57.36	0.0000
59.54	430.5872
63.29	450.5132
63.29	450.5132
64.28	475.1239
67.75	523.3621
69.67	537.4649
70.83	562.7234
72.81	528.9775
72.87	529.0447
72.87	529.0447
74.82	531.1555
74.82	531.1555
74.82	531.1555
74.97	531.3167
77.11	533.5994
77.11	533.5994
77.11	533.5994
79.69	505.8370
79.80	505.9459
80.12	491.0112
80.19	491.0775
80.57	509.7506
81.00	439.9102
81.07	439.9695
81.07	439.9695
83.79	460.6773
83.79	460.6773
85.43	388.1552
86.48	388.9108
86.55	388.9608
86.79	389.1300
86.94	389.2396
87.57	389.6875
88.03	390.0144
88.47	390.3278
89.96	391.3775
91.11	392.1831
92.59	393.2097
92.59	393.2097
93.35	393.7346
94.67	302.2457
94.87	307.0500
94.87	307.0500
95.86	338.9601
97.43	393.3697
98.44	338.8786
99.53	316.8669
100.11	329.8195
103.18	407.7544
103.37	402.5845
105.31	335.8384
106.12	359.6889
109.28	355.0837
111.00	327.0876
111.76	341.4317
116.30	294.0801
117.23	310.7327
121.12	256.9966
121.78	279.0469
122.06	280.2519
123.07	262.0996
131.20	314.8643
133.52	307.5636
136.00	294.7068

136.47	317.1518
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140.51	0.0000
143.76	355.0757
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144.24	338.4352
145.44	297.2954
152.43	349.9527
153.25	297.9936
154.21	286.9633
154.21	286.9633
156.02	311.5767
158.56	329.7246
159.00	297.8267
162.66	273.8365
163.33	310.9048
165.86	310.6865
176.60	323.6407
177.52	286.2250
181.07	262.0971
184.41	257.6415
185.72	274.6676
193.51	267.1569
197.04	254.7034
205.31	237.3516
210.85	254.6942
215.65	246.7701
222.11	229.0131
227.38	243.1113
228.16	232.1892
228.18	232.1949
235.69	257.8654
235.96	253.4561
235.96	253.4561
238.63	224.1870
238.63	224.1870
240.99	224.6704
242.00	224.8773
244.70	213.4021
252.40	211.8423
252.80	215.7017
256.23	213.5021
256.23	213.5021
260.90	0.0000
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268.22	182.5325
269.46	194.8163
269.46	194.8163
271.23	195.1044
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285.90	0.0000
287.50	153.8870
293.27	0.0000
295.22	178.7429
295.96	178.8458
298.57	125.7617
299.98	193.5719
299.98	193.5719
300.09	179.4220
300.09	179.4220
300.13	179.4275
301.36	195.3515
302.85	176.6516
304.50	194.2475
304.50	194.2475
304.85	194.2986
308.46	185.1339
311.90	169.7345

316.51	164.3454
319.41	156.7149
320.08	147.8035
323.87	139.4039
323.87	139.4039
328.76	152.7654
333.37	137.1414
334.37	153.3846
334.37	153.3846
338.28	148.9564
338.28	148.9564
338.32	148.9609
338.32	148.9609
338.32	148.9609
340.48	131.3501
340.55	131.3580
344.28	157.5141
351.06	161.7306
351.93	158.3537
356.01	132.7759
364.49	136.0142
366.42	133.0942
383.85	148.1947
388.16	156.9786
388.63	149.6988
391.69	157.3334
400.66	120.2518
401.81	123.5056
402.40	117.2160
404.85	150.6025
410.95	132.4877
414.70	110.6603
423.72	109.1252
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427.87	101.8884
433.94	120.5535
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463.37	104.0005
468.07	101.8583
473.00	90.2505
476.78	112.4963
477.60	105.9272
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492.35	0.0000
497.08	95.8957
511.00	87.6143
514.00	91.8006
527.90	0.0000
529.87	0.0000
531.02	91.6965
537.26	87.4313
546.56	0.0000
563.25	85.7866
569.33	89.7392
569.50	89.7463
569.70	88.8305
583.19	86.6063
600.60	92.9430
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609.32	116.2483
609.32	116.2483
610.33	106.8726
614.28	86.5955
618.01	99.3578
621.93	84.3653
621.93	84.3653
633.25	82.8858
635.95	81.0758
636.99	75.3875
645.85	87.1765
657.76	86.6624
661.66	85.8407
661.66	85.8407
664.57	0.0000
666.33	94.7102
666.50	95.6839

677.62	60.2033
685.70	59.4318
695.00	98.7832
696.49	88.0774
696.51	88.0774
697.00	79.2855
702.65	111.8458
706.68	89.4271
711.68	94.5305
720.70	84.0018
721.93	0.0000
722.78	69.2344
722.91	69.2378
723.31	79.1426
724.19	97.3130
727.33	66.3866
733.00	76.1351
735.93	66.7544
739.50	82.6353
747.24	81.8859
752.31	90.0505
753.82	78.0895
756.73	86.1953
763.94	103.5180
765.81	108.6196
766.42	90.5383
777.92	76.7867
778.90	63.6752
783.70	81.0039
785.37	74.9738
795.86	66.1124
801.95	75.7257
810.29	69.5290
810.76	66.4727
815.77	65.5703
818.51	63.5833
832.01	91.7161
834.85	64.9872
836.80	0.0000
846.77	56.9739
856.80	60.6390
860.56	63.4930
871.09	42.8308
873.19	62.7246
875.33	0.0000
879.36	54.4756
880.51	54.4972
883.24	65.0379
884.68	62.9707
889.28	72.5292
898.04	74.8516
911.20	56.1197
911.20	56.1197
911.20	56.1197
926.50	61.4876
937.49	58.7410
944.13	59.9361
946.00	67.4697
949.00	57.8865
962.29	73.5618
964.08	59.2418
966.15	59.2808
968.97	59.3331
968.97	59.3331
968.97	59.3331
983.53	37.9301
996.26	87.0391
1001.03	69.7328
1004.73	81.8115
1037.84	55.0879
1038.76	0.0000
1048.07	55.2563
1050.41	61.7438
1050.41	61.7438
1063.66	76.7892
1085.87	58.6600
1099.45	71.9744
1112.07	53.7827

1115.54	70.8278
1120.29	55.4757
1120.29	55.4757
1120.29	55.4757
1120.55	55.4781
1121.30	55.4902
1131.51	0.0000
1173.23	62.0113
1177.93	87.8822
1189.05	78.5633
1204.77	88.5111
1221.41	80.2036
1231.02	82.3403
1235.36	96.0110
1238.28	73.7611
1260.41	0.0000
1271.85	52.8596
1274.44	54.8538
1274.54	49.9562
1291.59	59.0234
1298.22	0.0000
1312.11	43.5041
1332.49	42.7288
1365.19	36.0542
1368.63	0.0000
1384.29	24.1455
1408.01	24.2793
1457.56	0.0000
1460.82	22.5264
1489.16	22.6696
1505.03	27.9196
1596.21	25.3066
1620.50	21.1955
1678.03	0.0000
1690.97	20.4256
1764.49	11.2178
1764.49	11.2178
1764.49	11.2178
1770.23	11.4639
1771.35	19.6567
1791.20	0.0000
1836.06	13.2656

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248865001

Total Uranium Activity	9.6820E+00	ug/g
Total Uranium Counting Unc.	5.3270E+00	ug/g
Total Uranium Tpu	2.7179E-06	ug/g
Total Uranium Mda	2.5922E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248865001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM07            *
*   SAMPLE DATE   :  3-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 20:31:50.80    SAMPLE ALQT:  125.140 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.204E+01
GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.565E+00
GROSS GAMMA MDA    (pCi/GRAM  )   : 4.152E+00
GROSS GAMMA DLC    (pCi/GRAM  )   : 2.021E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:35:03.53

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:33:15
Sample ID         : G248867001           Sample quantity  : 1.22070E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:57.45  0.8%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	74.70*	595	709	1.78	149.61	143	15	8.26E-02	10.2	6.48E+00
2	3	77.13*	699	378	0.98	154.46	143	15	9.71E-02	5.9	
3	0	86.89*	170	508	1.12	173.95	172	7	2.36E-02	23.5	
4	0	93.22*	169	756	1.39	186.60	181	10	2.35E-02	33.0	
5	0	129.40	102	529	1.21	258.87	253	12	1.41E-02	46.4	
6	0	185.85*	158	426	1.20	371.63	365	11	2.19E-02	27.7	
7	0	209.14	75	344	1.00	418.17	414	9	1.04E-02	46.1	
8	4	238.54*	1301	172	1.07	476.91	471	18	1.81E-01	3.4	1.51E+00
9	4	241.43	315	310	1.77	482.67	471	18	4.38E-02	15.7	
10	0	270.01	120	335	1.39	539.77	534	14	1.66E-02	33.7	
11	4	295.15	406	145	1.16	590.01	585	19	5.64E-02	7.0	1.26E+00
12	4	299.92	131	150	1.42	599.54	585	19	1.82E-02	18.5	
13	0	328.37	95	195	1.05	656.39	651	11	1.32E-02	30.1	
14	0	338.29	271	184	1.41	676.21	669	12	3.76E-02	11.7	
15	0	351.81	620	227	1.23	703.23	698	12	8.61E-02	6.3	
16	0	463.34	92	115	0.98	926.09	921	13	1.28E-02	26.2	
17	0	583.03*	429	125	1.47	1165.32	1158	14	5.96E-02	7.5	
18	0	609.34*	441	129	1.28	1217.91	1213	12	6.13E-02	7.2	
19	0	663.39	83	184	1.04	1325.96	1316	20	1.15E-02	41.8	
20	0	727.40	90	78	1.24	1453.93	1448	11	1.25E-02	21.9	
21	0	795.70	71	83	0.99	1590.48	1580	19	9.82E-03	33.5	
22	0	860.37	65	49	1.51	1719.81	1715	12	8.96E-03	24.9	
23	0	911.26*	257	85	1.62	1821.57	1813	14	3.57E-02	10.0	
24	4	964.31*	85	37	2.53	1927.66	1922	25	1.18E-02	18.9	1.63E+00
25	4	969.05*	171	51	2.05	1937.14	1922	25	2.38E-02	11.6	
26	0	1120.33*	113	55	2.02	2239.74	2233	13	1.56E-02	17.2	
27	0	1378.58*	26	35	1.04	2756.43	2747	14	3.66E-03	52.7	
28	0	1402.03	18	24	0.99	2803.36	2794	12	2.47E-03	60.1	
29	0	1460.89*	1478	45	1.75	2921.16	2911	20	2.05E-01	2.8	
30	0	1620.67	30	4	1.43	3240.97	3233	15	4.20E-03	22.9	
31	0	1764.57*	92	3	1.88	3529.07	3522	13	1.28E-02	12.4	
32	0	1847.98	18	7	1.33	3696.08	3689	14	2.50E-03	39.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 22:35:06

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 20:33:15
Sample ID : G248867001 Sample quantity : 122.07 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAM29 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:57.45 0.8%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.523E+01	4.325E+00	5.862E-01	6.376E-02	60.093
CD-109	+	88.03	*	2.483E+00	1.192E+00	1.820E+00	1.719E-01	1.364
SN-126		64.28		2.422E-03	6.348E-01	1.037E+00	1.537E-01	0.002
	+	86.94		1.003E+00	6.294E-01	7.645E-01	3.174E-01	1.312
	+	87.57	*	2.412E-01	1.158E-01	1.819E-01	1.710E-02	1.326
TL-208		277.37		4.630E-01	4.993E-01	7.893E-01	1.015E-01	0.587
	+	583.19	*	5.863E-01	1.036E-01	6.767E-02	6.341E-03	8.663
	+	860.56		8.343E-01	4.289E-01	5.000E-01	6.413E-02	1.668
BI-211		72.87		1.569E+01	4.825E+00	7.495E+00	6.194E-01	2.093
	+	351.06	*	3.834E+00	6.063E-01	3.919E-01	3.753E-02	9.782
BI-212	+	727.33	*	1.882E+00	8.594E-01	8.798E-01	1.150E-01	2.139
		785.37		6.275E+00	3.919E+00	6.750E+00	7.215E-01	0.930
	+	1620.50		5.596E+00	2.626E+00	3.759E+00	3.755E-01	1.489
PB-212	+	74.82		3.681E+00	8.883E-01	7.004E-01	8.989E-02	5.255
	+	77.11		2.474E+00	3.618E-01	4.007E-01	3.412E-02	6.175
	+	238.63	*	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
	+	300.09		2.841E+00	1.095E+00	1.418E+00	1.558E-01	2.003
BI-214	+	609.32	*	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
	+	1120.29		1.544E+00	5.596E-01	5.108E-01	5.962E-02	3.022
	+	1764.49		1.707E+00	4.519E-01	2.887E-01	2.622E-02	5.912
PB-214	+	74.82		6.524E+00	1.531E+00	1.241E+00	1.432E-01	5.255
	+	77.11		4.362E+00	7.323E-01	7.064E-01	8.374E-02	6.175
	+	242.00		2.702E+00	8.938E-01	6.932E-01	7.350E-02	3.897
	+	295.22		1.563E+00	2.793E-01	2.497E-01	2.806E-02	6.256
	+	351.93	*	1.391E+00	2.331E-01	1.435E-01	1.586E-02	9.695
RA-224	+	240.99	*	4.777E+00	1.556E+00	1.222E+00	1.084E-01	3.909
RA-226	+	609.32	*	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
	+	1120.29		1.544E+00	5.596E-01	5.108E-01	5.962E-02	3.022
	+	1764.49		1.707E+00	4.519E-01	2.887E-01	2.622E-02	5.912
AC-228	+	338.32		1.867E+00	8.953E-01	4.700E-01	1.966E-01	3.973
	+	911.20	*	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
	+	968.97		1.951E+00	6.782E-01	4.648E-01	1.204E-01	4.197
RA-228	+	338.32		1.867E+00	8.953E-01	4.700E-01	1.966E-01	3.973
	+	911.20	*	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		1.951E+00	6.782E-01	4.648E-01	1.204E-01	4.197
TH-228	+	74.82		3.681E+00	8.141E-01	7.004E-01	5.920E-02	5.255
	+	77.11		2.474E+00	3.618E-01	4.007E-01	3.412E-02	6.175
	+	238.63	*	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
	+	300.09		2.841E+00	2.033E+00	1.418E+00	8.694E-01	2.003
TH-230	+	609.32	*	1.167E+00	1.955E-01	1.384E-01	1.192E-02	8.437
	+	1120.29		1.544E+00	5.499E-01	5.108E-01	4.882E-02	3.022
	+	1764.49		1.707E+00	4.519E-01	2.887E-01	2.622E-02	5.912
TH-232	+	338.32		1.867E+00	4.698E-01	4.700E-01	4.316E-02	3.973
	+	911.20	*	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
	+	968.97		1.951E+00	6.782E-01	4.648E-01	1.204E-01	4.197
NP-237	+	86.48	*	7.197E-01	3.769E-01	4.879E-01	1.119E-01	1.475
		95.86		5.234E-01	1.246E+00	1.808E+00	4.364E-01	0.290

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-2.460E-02	3.972E-01	6.430E-01	6.260E-02	-0.038
NA-22		1274.54	*	-4.993E-02	4.804E-02	7.200E-02	7.188E-03	-0.693
NA-24		1368.63	*	-5.110E+01	4.804E-02	Half-Life too short		
SC-46		889.28	*	-2.542E-02	4.469E-02	6.961E-02	9.088E-03	-0.365
	+	1120.55		2.704E-01	9.634E-02	1.501E-01	1.434E-02	1.802
V-48		944.13		-8.359E-01	1.282E+00	1.980E+00	2.515E-01	-0.422
		983.53	*	-3.953E-02	9.753E-02	1.536E-01	1.863E-02	-0.257
		1312.11		-2.539E-02	1.141E-01	1.866E-01	1.981E-02	-0.136
CR-51		320.08	*	-1.087E-01	4.670E-01	7.636E-01	7.342E-02	-0.142
MN-54		834.85	*	-3.045E-02	4.396E-02	6.857E-02	8.082E-03	-0.444
CO-56		846.77	*	1.498E-02	4.718E-02	7.976E-02	9.618E-03	0.188
		1037.84		1.155E-01	3.678E-01	6.162E-01	7.129E-02	0.187
		1238.28		1.860E-01	1.184E-01	2.104E-01	2.020E-02	0.884
		1771.35		2.082E-02	2.953E-01	4.195E-01	3.789E-02	0.050
CO-57		122.06	*	2.208E-02	3.147E-02	5.225E-02	4.721E-03	0.423
		136.47		1.856E-01	2.559E-01	4.238E-01	3.937E-02	0.438
CO-58		810.76	*	-2.382E-03	4.833E-02	7.967E-02	8.971E-03	-0.030
FE-59		1099.45	*	-5.190E-02	1.038E-01	1.600E-01	1.699E-02	-0.324
		1291.59		-2.755E-02	1.360E-01	2.227E-01	2.508E-02	-0.124
CO-60		1173.23		-2.246E-02	5.635E-02	8.814E-02	7.327E-03	-0.255
		1332.49	*	-1.929E-02	4.266E-02	6.761E-02	7.415E-03	-0.285
ZN-65		1115.54	*	-6.619E-02	1.148E-01	1.464E-01	1.416E-02	-0.452
SE-75		121.12		2.459E-01	1.655E-01	2.795E-01	3.184E-02	0.880
		136.00		2.277E-02	5.162E-02	8.191E-02	7.149E-03	0.278
		264.66	*	1.681E-02	6.110E-02	9.012E-02	8.171E-03	0.187
		279.54		3.291E-02	1.346E-01	2.264E-01	2.131E-02	0.145
		400.66		1.953E-02	3.028E-01	4.982E-01	5.681E-02	0.039
SR-85		514.00	*	-1.800E-01	6.424E-02	8.613E-02	7.791E-03	-2.090
Y-88		898.04		-1.017E-02	5.214E-02	8.444E-02	1.122E-02	-0.120
		1836.06	*	-6.498E-03	3.818E-02	6.045E-02	5.169E-03	-0.108
Y-91		1204.77	*	-9.039E+00	2.724E+01	4.277E+01	3.772E+00	-0.211

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94		702.65	*	-9.570E-03	3.608E-02	5.900E-02	5.300E-03	-0.162
		871.09		3.748E-02	3.723E-02	6.606E-02	8.339E-03	0.567
NB-95		765.81	*	7.055E-02	5.146E-02	9.219E-02	9.469E-03	0.765
NB-95M		235.69	*	6.736E-01	1.991E-01	3.184E-01	3.207E-02	2.115
ZR-95		724.19		8.915E-02	1.270E-01	1.939E-01	1.955E-02	0.460
		756.73	*	2.077E-02	8.542E-02	1.443E-01	1.568E-02	0.144
MO-99		140.51		-1.268E+02	8.891E+01	1.275E+02	3.025E+01	-0.995
		181.07		-5.081E+01	7.467E+01	9.920E+01	1.850E+01	-0.512
		366.42		-2.952E+02	3.331E+02	5.187E+02	4.729E+01	-0.569
		739.50	*	5.954E+01	4.271E+01	7.590E+01	1.244E+01	0.785
		777.92		-1.019E+02	1.178E+02	1.811E+02	1.907E+01	-0.563
TC-99M		140.51	*	-9.175E+15	1.178E+02	Half-Life too short		
RU-103		497.08	*	-1.237E-02	5.221E-02	8.333E-02	1.188E-02	-0.148
	+	610.33		1.299E+01	2.825E+00	3.251E+00	5.312E-01	3.994
RH-106		621.93	*	-1.023E-01	3.442E-01	5.652E-01	7.457E-02	-0.181
		1050.41		-2.472E-01	2.962E+00	4.790E+00	5.264E-01	-0.052
RU-106		621.93	*	-1.023E-01	3.440E-01	5.652E-01	4.817E-02	-0.181
		1050.41		-2.472E-01	2.962E+00	4.790E+00	5.264E-01	-0.052
AG-108M		433.94	*	-1.315E-03	3.302E-02	5.377E-02	5.031E-03	-0.024
		614.28		-1.303E-02	4.400E-02	6.191E-02	5.487E-03	-0.210
		722.91		-1.182E-02	4.617E-02	6.396E-02	6.166E-03	-0.185
AG-110M		657.76	*	9.767E-03	4.395E-02	6.487E-02	5.515E-03	0.151
		677.62		-4.171E-01	3.367E-01	5.053E-01	4.421E-02	-0.825
		706.68		7.301E-02	2.321E-01	3.953E-01	3.676E-02	0.185
		763.94		-4.864E-02	1.859E-01	3.027E-01	3.158E-02	-0.161
		884.68		1.415E-02	5.420E-02	9.121E-02	1.198E-02	0.155
		937.49		1.227E-01	1.312E-01	2.298E-01	2.988E-02	0.534
		1384.29		4.885E-02	1.903E-01	2.833E-01	3.135E-02	0.172
		1505.03		-3.317E-01	3.144E-01	4.432E-01	4.664E-02	-0.748
SN-113		391.69	*	3.037E-02	5.294E-02	8.953E-02	8.280E-03	0.339
CD-115		260.90		-1.476E-04	5.294E-02	Half-Life too short		
		492.35		-3.479E-05	5.294E-02	Half-Life too short		
		527.90	*	5.067E-06	5.294E-02	Half-Life too short		
SN-117M		156.02		-2.836E+00	3.424E+00	5.307E+00	4.408E-01	-0.534
		158.56	*	1.580E-02	8.013E-02	1.298E-01	1.073E-02	0.122
TE-123M		159.00	*	-8.985E-03	3.464E-02	5.504E-02	4.575E-03	-0.163
SB-124		602.73		2.073E-02	5.026E-02	7.570E-02	6.553E-03	0.274
		645.85		-3.962E-01	5.572E-01	8.830E-01	7.813E-02	-0.449
		722.78		-1.171E-01	4.874E-01	6.766E-01	6.472E-02	-0.173
		1690.97	*	-4.839E-02	8.496E-02	1.248E-01	1.236E-02	-0.388
SB-125		427.87	*	-5.397E-02	1.117E-01	1.772E-01	1.636E-02	-0.305
	+	463.37		8.628E-01	4.607E-01	5.931E-01	5.769E-02	1.455
		600.60		-1.330E-01	2.086E-01	3.188E-01	2.966E-02	-0.417
		635.95		-9.029E-02	3.066E-01	5.034E-01	4.597E-02	-0.179
TE-125M		109.28	*	1.845E+00	1.305E+01	2.132E+01	2.278E+00	0.087
I-126		388.63		-1.694E-01	2.520E-01	3.973E-01	3.581E-02	-0.426
		666.33	*	2.483E-01	3.624E-01	5.558E-01	4.605E-02	0.447
		753.82		2.187E+00	2.572E+00	4.516E+00	4.525E-01	0.484
SB-126		414.70		1.935E-02	1.094E-01	1.809E-01	1.639E-02	0.107

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		666.50		9.092E-02	1.250E-01	1.925E-01	1.596E-02	0.472
		695.00		6.494E-02	1.131E-01	1.956E-01	1.728E-02	0.332
		697.00		1.064E-01	3.845E-01	6.532E-01	5.795E-02	0.163
		720.70	*	-6.002E-02	2.262E-01	3.147E-01	2.940E-02	-0.191
		856.80		2.453E-01	7.521E-01	1.107E+00	1.360E-01	0.222
SB-127		252.40		1.186E+00	1.028E+01	1.725E+01	7.244E+00	0.069
		473.00		-1.305E+00	4.007E+00	6.367E+00	9.086E-01	-0.205
		685.70	*	-2.427E-01	3.197E+00	5.310E+00	6.756E-01	-0.046
		783.70		1.078E+01	8.970E+00	1.585E+01	2.371E+00	0.680
I-131		80.19		-1.328E+01	9.677E+00	1.304E+01	1.151E+00	-1.018
		284.31		-1.311E-01	2.494E+00	4.138E+00	3.959E-01	-0.032
		364.49	*	4.339E-03	1.903E-01	3.136E-01	3.008E-02	0.014
		636.99		-2.847E+00	2.601E+00	4.009E+00	3.588E-01	-0.710
TE-132		49.72		-1.142E+02	6.056E+01	8.921E+01	1.098E+01	-1.280
		111.76		-2.708E+01	1.071E+02	1.725E+02	2.149E+01	-0.157
		116.30		1.419E+01	9.153E+01	1.494E+02	1.867E+01	0.095
		228.16	*	1.995E+00	2.269E+00	3.887E+00	6.534E-01	0.513
BA-133		81.00		-1.325E-01	1.381E-01	1.885E-01	2.945E-02	-0.703
		276.40		4.598E-01	4.828E-01	7.325E-01	1.055E-01	0.628
		302.85		-4.779E-02	1.851E-01	2.616E-01	3.515E-02	-0.183
		356.01	*	5.465E-02	5.492E-02	8.367E-02	1.114E-02	0.653
		383.85		2.454E-01	3.446E-01	5.857E-01	7.449E-02	0.419
I-133		529.87	*	7.975E-02	3.446E-01	Half-Life too short		
		875.33		4.246E-01	3.446E-01	Half-Life too short		
		1298.22		2.458E+00	3.446E-01	Half-Life too short		
CS-134		563.25		-7.646E-03	4.073E-01	6.555E-01	5.869E-02	-0.012
		569.33		-4.779E-02	2.261E-01	3.585E-01	3.212E-02	-0.133
		604.72		4.817E-03	4.603E-02	6.428E-02	5.570E-03	0.075
	+	795.86	*	1.411E-01	9.575E-02	1.005E-01	1.102E-02	1.405
		801.95		-7.164E-01	5.492E-01	6.565E-01	7.280E-02	-1.091
		1365.19		-9.385E-01	1.231E+00	1.836E+00	2.063E-01	-0.511
CS-135		268.22	*	3.862E-01	2.230E-01	3.497E-01	3.615E-02	1.104
I-135		546.56		7.085E+14	2.230E-01	Half-Life too short		
		836.80		1.538E+14	2.230E-01	Half-Life too short		
		1038.76		6.268E+13	2.230E-01	Half-Life too short		
		1131.51		-1.536E+14	2.230E-01	Half-Life too short		
		1260.41	*	-2.956E+13	2.230E-01	Half-Life too short		
		1457.56		4.530E+16	2.230E-01	Half-Life too short		
		1678.03		-4.196E+14	2.230E-01	Half-Life too short		
		1791.20		-1.634E+14	2.230E-01	Half-Life too short		
CS-136		153.25		8.770E-01	1.284E+00	2.116E+00	2.126E-01	0.414
		176.60		-3.017E-01	7.744E-01	1.219E+00	1.119E-01	-0.248
		273.65		-8.157E-01	8.916E-01	1.212E+00	1.185E-01	-0.673
		340.55		8.495E-01	2.750E-01	4.403E-01	4.179E-02	1.929
		818.51		2.060E-02	1.033E-01	1.736E-01	1.984E-02	0.119
		1048.07	*	-6.837E-02	1.522E-01	2.373E-01	2.687E-02	-0.288
		1235.36		-1.335E-01	8.882E-01	1.416E+00	1.741E-01	-0.094
BA-137M		661.66	*	1.196E-01	4.649E-02	8.699E-02	7.132E-03	1.375
CS-137		661.66	*	1.263E-01	4.912E-02	9.190E-02	7.550E-03	1.375

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-139		165.86	*	9.968E-03	3.697E-02	5.995E-02	4.886E-03	0.166
BA-140		162.66		-5.853E-01	1.271E+00	1.978E+00	1.742E-01	-0.296
		304.85		5.957E-02	2.222E+00	3.205E+00	9.436E-01	0.019
		423.72		1.372E+00	3.049E+00	5.054E+00	1.669E+00	0.271
		537.26	*	5.443E-02	4.064E-01	6.618E-01	2.251E-01	0.082
LA-140	+	328.76		1.028E+00	6.276E-01	8.132E-01	7.851E-02	1.264
		487.02		1.024E-01	2.040E-01	3.416E-01	3.279E-02	0.300
		815.77		5.523E-02	4.708E-01	7.859E-01	9.541E-02	0.070
		1596.21	*	-5.603E-02	1.297E-01	2.019E-01	2.042E-02	-0.278
CE-141		145.44	*	2.067E-02	8.851E-02	1.438E-01	1.243E-02	0.144
CE-143		57.36		-4.083E-03	8.851E-02	Half-Life too short		
		293.27	*	9.059E-03	8.851E-02	Half-Life too short		
	+	664.57		3.267E-02	8.851E-02	Half-Life too short		
		721.93		3.150E-03	8.851E-02	Half-Life too short		
CE-144		80.12		-1.372E+00	3.510E+00	4.963E+00	4.335E-01	-0.276
		133.52	*	-1.194E-01	2.813E-01	3.872E-01	5.940E-02	-0.308
PM-144		476.78		-1.607E-02	7.645E-02	1.225E-01	1.203E-02	-0.131
		618.01		3.137E-02	3.593E-02	6.247E-02	5.495E-03	0.502
		696.49	*	2.249E-02	3.890E-02	6.731E-02	5.968E-03	0.334
PR-144		696.51	*	1.183E+00	2.949E+00	5.047E+00	4.473E-01	0.234
		1489.16		-1.855E+01	1.447E+01	1.933E+01	2.045E+00	-0.960
PM-146		453.88	*	4.661E-02	4.888E-02	8.387E-02	9.219E-03	0.556
		633.25		1.239E+00	1.657E+00	2.800E+00	1.068E+00	0.442
		735.93		6.594E-02	1.720E-01	2.920E-01	8.281E-02	0.226
		747.24		1.615E-03	1.099E-01	1.829E-01	2.810E-02	0.009
ND-147		91.11		3.945E-01	8.282E-01	8.768E-01	8.695E-02	0.450
		319.41		5.101E-01	4.970E+00	8.269E+00	7.602E-01	0.062
		531.02	*	6.399E-01	8.369E-01	1.416E+00	2.149E-01	0.452
PM-149		285.90	*	2.098E-04	8.369E-01	Half-Life too short		
EU-152		121.78		9.315E-02	8.904E-02	1.492E-01	1.530E-02	0.624
		244.70		2.638E-01	4.226E-01	6.370E-01	5.670E-02	0.414
		344.28	*	1.243E-03	1.332E-01	1.907E-01	1.841E-02	0.007
		778.90		-1.723E-01	2.934E-01	4.635E-01	4.890E-02	-0.372
	+	964.08		1.041E+00	4.136E-01	6.716E-01	8.341E-02	1.551
		1085.87		-3.718E-01	4.914E-01	7.449E-01	7.667E-02	-0.499
		1112.07		3.569E-02	3.773E-01	5.531E-01	5.386E-02	0.065
		1408.01		1.721E-01	2.304E-01	3.742E-01	4.051E-02	0.460
GD-153		69.67		4.578E-01	2.424E+00	3.527E+00	2.864E-01	0.130
		97.43	*	1.264E-01	1.174E-01	1.737E-01	1.560E-02	0.728
		103.18		-3.733E-02	1.318E-01	2.124E-01	1.885E-02	-0.176
EU-154		123.07		-2.435E-02	6.909E-02	1.016E-01	1.183E-02	-0.240
		723.31		-5.521E-02	2.133E-01	2.956E-01	3.015E-02	-0.187
		873.19		-1.445E-01	3.166E-01	5.000E-01	7.546E-02	-0.289
		996.26		2.408E-01	4.333E-01	7.364E-01	1.423E-01	0.327
		1004.73		-2.723E-01	2.563E-01	3.747E-01	5.302E-02	-0.727
		1274.44	*	-1.385E-01	1.364E-01	2.045E-01	2.543E-02	-0.677
EU-155	+	86.55		2.930E-01	1.406E-01	2.263E-01	2.123E-02	1.295
		105.31	*	-1.860E-02	1.299E-01	2.104E-01	1.884E-02	-0.088
TB-160	+	86.79		8.081E-01	3.879E-01	6.164E-01	5.746E-02	1.311

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		197.04		-8.149E-02	6.858E-01	1.128E+00	9.551E-02	-0.072
		215.65		1.483E-01	9.179E-01	1.513E+00	1.310E-01	0.098
	+	298.57		4.167E-01	1.585E-01	2.563E-01	2.348E-02	1.626
		879.36	*	-1.272E-02	1.675E-01	2.741E-01	3.514E-02	-0.046
		962.29		1.587E+00	7.975E-01	1.309E+00	1.629E-01	1.213
		966.15		1.473E+00	3.728E-01	6.551E-01	8.117E-02	2.249
		1177.93		1.951E-01	4.861E-01	8.105E-01	6.798E-02	0.241
		1271.85		-4.315E-01	7.518E-01	1.184E+00	1.175E-01	-0.365
HO-166M		80.57		-5.202E-01	3.950E-01	5.339E-01	4.682E-02	-0.974
	+	184.41		1.165E-01	6.530E-02	8.328E-02	6.943E-03	1.398
		280.46		-5.871E-02	1.022E-01	1.655E-01	1.506E-02	-0.355
		410.95		2.596E-01	2.868E-01	4.914E-01	4.447E-02	0.528
		711.68	*	-2.686E-02	7.282E-02	1.106E-01	1.013E-02	-0.243
		752.31		-1.723E-01	3.262E-01	5.208E-01	5.201E-02	-0.331
		810.29		2.619E-02	6.938E-02	1.179E-01	1.325E-02	0.222
TA-182		67.75		-4.754E-02	1.540E-01	2.322E-01	1.870E-02	-0.205
		100.11		5.709E-03	2.155E-01	3.517E-01	3.137E-02	0.016
		152.43		2.453E-01	4.389E-01	7.207E-01	6.029E-02	0.340
		222.11		-1.690E-01	4.247E-01	7.018E-01	6.116E-02	-0.241
	+	1121.30		7.422E-01	2.644E-01	4.184E-01	3.989E-02	1.774
		1189.05		-1.402E-01	3.688E-01	5.760E-01	4.934E-02	-0.243
		1221.41	*	-2.094E-01	2.591E-01	3.905E-01	3.550E-02	-0.536
		1231.02		-7.762E-01	6.271E-01	9.056E-01	8.375E-02	-0.857
IR-192	+	295.96		1.202E+00	2.005E-01	3.338E-01	3.076E-02	3.602
		308.46		2.599E-02	1.170E-01	1.961E-01	1.808E-02	0.133
		316.51	*	2.985E-02	4.093E-02	7.011E-02	6.455E-03	0.426
		468.07		-4.780E-03	8.830E-02	1.234E-01	1.198E-02	-0.039
HG-203		70.83		1.177E+00	2.003E+00	2.946E+00	4.662E-01	0.399
		72.87		4.161E+00	1.388E+00	1.988E+00	3.049E-01	2.093
		279.20	*	2.803E-02	4.929E-02	8.391E-02	7.810E-03	0.334
BI-207		72.81		8.380E-01	2.751E-01	4.267E-01	3.525E-02	1.964
	+	74.97		1.061E+00	2.344E-01	3.014E-01	2.526E-02	3.520
		569.70		8.771E-03	3.466E-02	5.682E-02	5.025E-03	0.154
		1063.66	*	1.272E-02	5.727E-02	9.518E-02	1.022E-02	0.134
		1770.23		3.546E-01	4.794E-01	8.056E-01	7.282E-02	0.440
PB-210		46.54	*	7.241E-01	4.304E+00	7.269E+00	6.936E-01	0.100
PB-211		404.85	*	-3.471E-01	8.807E-01	1.385E+00	6.711E-01	-0.251
		427.09		-2.108E-01	1.896E+00	3.074E+00	1.425E+00	-0.069
		832.01		1.985E-01	1.158E+00	1.931E+00	1.013E+00	0.103
RN-219	+	271.23		7.402E-01	5.055E-01	5.237E-01	5.566E-02	1.414
		401.81	*	9.623E-02	4.678E-01	7.753E-01	1.172E-01	0.124
RA-223		81.07		-2.935E-01	3.101E-01	4.273E-01	3.764E-02	-0.687
		83.79		1.111E-01	1.782E-01	2.606E-01	2.356E-02	0.426
		94.87		1.663E+00	6.599E-01	1.018E+00	9.232E-02	1.633
		144.24		7.337E-01	8.846E-01	1.447E+00	1.378E-01	0.507
		154.21		6.837E-01	4.592E-01	7.753E-01	7.122E-02	0.882
	+	269.46		5.751E-01	3.916E-01	4.113E-01	3.791E-02	1.398
		323.87	*	6.526E-02	8.300E-01	1.198E+00	2.111E-01	0.054
	+	338.28		7.410E+00	1.967E+00	2.612E+00	3.260E-01	2.837

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227		79.69		5.276E-02	1.753E+00	2.525E+00	4.362E-01	0.021
		235.96		1.428E+00	2.794E-01	4.283E-01	4.506E-02	3.334
		256.23	*	1.762E-03	2.844E-01	4.751E-01	5.848E-02	0.004
	+	299.98		3.126E+00	1.224E+00	1.890E+00	2.472E-01	1.654
		304.50		1.194E+00	2.084E+00	3.107E+00	5.227E-01	0.384
		334.37		7.957E-02	3.145E+00	3.022E+00	4.807E-01	0.026
TH-227		79.80		-1.771E-01	2.305E+00	3.304E+00	7.207E-01	-0.054
		235.96		1.428E+00	2.750E-01	4.283E-01	4.260E-02	3.334
		256.23	*	1.762E-03	2.844E-01	4.751E-01	6.573E-02	0.004
	+	299.98		3.126E+00	1.224E+00	1.890E+00	2.472E-01	1.654
		304.50		1.194E+00	2.084E+00	3.107E+00	5.227E-01	0.384
		334.37		7.957E-02	3.145E+00	3.022E+00	4.807E-01	0.026
TH-229	+	85.43		6.071E-01	2.914E-01	4.747E-01	4.363E-02	1.279
		88.47		-4.030E-02	2.879E-01	2.949E-01	2.775E-02	-0.137
		193.51	*	-3.620E-01	6.550E-01	1.019E+00	8.593E-02	-0.355
		210.85		2.298E+00	1.223E+00	1.934E+00	1.665E-01	1.188
PA-231		283.69	*	-1.594E-01	1.695E+00	2.807E+00	4.177E-01	-0.057
	+	301.36		2.008E+00	7.830E-01	1.227E+00	1.539E-01	1.637
TH-231		81.07		-2.935E-01	3.101E-01	4.273E-01	3.764E-02	-0.687
		83.79		1.111E-01	1.782E-01	2.606E-01	2.356E-02	0.426
		94.87		1.663E+00	6.599E-01	1.018E+00	9.232E-02	1.633
		144.24		7.337E-01	8.846E-01	1.447E+00	1.378E-01	0.507
		154.21		6.837E-01	4.592E-01	7.753E-01	7.122E-02	0.882
	+	269.46		5.751E-01	3.916E-01	4.113E-01	3.791E-02	1.398
		323.87	*	6.526E-02	8.300E-01	1.198E+00	2.111E-01	0.054
	+	338.28		7.410E+00	1.967E+00	2.612E+00	3.260E-01	2.837
PA-233	+	300.13		1.414E+00	5.644E-01	8.567E-01	1.298E-01	1.651
		311.90	*	1.334E-02	7.383E-02	1.234E-01	1.162E-02	0.108
		340.48		2.945E+00	1.163E+00	1.530E+00	3.714E-01	1.925
PA-234	+	94.67		5.338E-01	3.585E-01	3.838E-01	4.883E-02	1.391
		98.44		7.603E-02	1.266E-01	1.823E-01	1.018E-01	0.417
		111.00		-3.363E-02	2.351E-01	3.801E-01	4.660E-02	-0.088
		131.20		1.253E-01	1.455E-01	2.142E-01	1.880E-02	0.585
		569.50		3.634E-02	3.047E-01	4.950E-01	4.377E-02	0.073
		733.00		-5.555E-01	5.400E-01	6.687E-01	1.511E-01	-0.831
		880.51		1.957E-01	3.122E-01	5.395E-01	6.931E-02	0.363
		883.24		2.430E-01	3.577E-01	5.561E-01	3.776E-01	0.437
		926.50		3.674E-03	1.975E-01	3.247E-01	8.785E-02	0.011
		946.00	*	4.000E-01	3.700E-01	6.427E-01	1.346E-01	0.622
		949.00		5.016E-02	5.518E-01	9.112E-01	1.151E-01	0.055
PA-234M		766.42		1.013E+01	1.469E+01	2.340E+01	1.195E+01	0.433
		1001.03	*	-2.274E+00	5.690E+00	9.072E+00	1.167E+00	-0.251
TH-234		63.29	*	7.463E-01	1.709E+00	2.818E+00	5.091E-01	0.265
	+	92.59		1.981E+00	1.379E+00	1.650E+00	3.679E-01	1.201
U-235		89.96		-2.479E+00	2.017E+00	1.813E+00	4.508E-01	-1.367
	+	93.35		1.496E+00	1.046E+00	1.221E+00	2.843E-01	1.226
		143.76	*	3.406E-01	2.688E-01	4.377E-01	7.397E-02	0.778
		163.33		-5.112E-01	5.572E-01	8.396E-01	1.490E-01	-0.609
	+	185.72		1.466E-01	8.220E-02	1.052E-01	8.784E-03	1.393

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		205.31		2.507E-01	6.241E-01	9.330E-01	1.690E-01	0.269
U-238		63.29	*	7.463E-01	1.709E+00	2.818E+00	5.091E-01	0.265
	+	92.59		1.981E+00	1.319E+00	1.650E+00	1.512E-01	1.201
NP-239		99.53		3.516E-02	1.990E-01	3.206E-01	2.863E-02	0.110
		103.37		2.603E-02	1.173E-01	1.927E-01	1.709E-02	0.135
		106.12		3.422E-02	1.028E-01	1.692E-01	1.498E-02	0.202
		117.23	*	-2.888E-01	5.135E-01	8.153E-01	7.282E-02	-0.354
		228.18		2.344E-01	2.661E-01	4.594E-01	4.028E-02	0.510
		277.60		1.705E-01	2.281E-01	3.587E-01	3.261E-02	0.475
AM-241		59.54	*	-2.518E-02	1.931E-01	3.177E-01	2.742E-02	-0.079
CM-247		278.00		4.777E-01	9.370E-01	1.509E+00	1.372E-01	0.317
		287.50		4.054E-02	1.455E+00	2.359E+00	2.154E-01	0.017
		402.40	*	7.683E-03	4.300E-02	7.117E-02	6.425E-03	0.108
CF-249		252.80		6.513E-01	1.053E+00	1.806E+00	1.617E-01	0.361
		333.37		6.435E-02	3.328E-01	3.279E-01	3.013E-02	0.196
		388.16	*	-1.102E-02	4.693E-02	7.600E-02	6.851E-03	-0.145
CF-251		177.52	*	1.016E-01	1.582E-01	2.596E-01	2.145E-02	0.392
		227.38		3.744E-01	4.306E-01	7.435E-01	6.514E-02	0.504
		285.41		-6.903E-01	2.563E+00	4.208E+00	3.838E-01	-0.164
ANH-511		511.00	*	1.200E-01	5.445E-02	1.011E-01	9.151E-03	1.187

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                               2040 Savage Road                            *
*                             Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001       *
* Acquisition date : 24-MAR-2010 20:33:15 Detector SN#    :                 *
* Detector ID       : GAM29                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:57.45      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       :  5-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248867001           Analyst initials: MXR1           *
* Batch Number      : 962633               Sample Quantity : 1.2207E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.523E+01	4.238E+00	5.852E-01	0.000E+00
CD-109	2.483E+00	1.168E+00	1.883E+00	0.000E+00
SN-126	2.412E-01	1.134E-01	1.881E-01	0.000E+00
TL-208	5.863E-01	1.015E-01	6.836E-02	0.000E+00
BI-211	3.834E+00	5.942E-01	3.984E-01	0.000E+00
BI-212	1.882E+00	8.422E-01	8.862E-01	0.000E+00
PB-212	1.839E+00	2.167E-01	1.166E-01	0.000E+00
BI-214	1.167E+00	2.009E-01	1.397E-01	0.000E+00
PB-214	1.391E+00	2.284E-01	1.459E-01	0.000E+00
RA-224	4.777E+00	1.525E+00	1.248E+00	0.000E+00
RA-226	1.167E+00	2.009E-01	1.397E-01	0.000E+00
AC-228	1.693E+00	4.177E-01	2.795E-01	0.000E+00
RA-228	1.693E+00	4.177E-01	2.795E-01	0.000E+00
TH-228	1.839E+00	2.167E-01	1.166E-01	0.000E+00
TH-230	1.167E+00	1.916E-01	1.397E-01	0.000E+00
TH-232	1.693E+00	4.177E-01	2.795E-01	0.000E+00
NP-237	7.197E-01	3.694E-01	5.047E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.460E-02	3.893E-01	6.512E-01	0.000E+00	NOT IDENT.
NA-22	-4.993E-02	4.708E-02	7.200E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.825E+07	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.542E-02	4.380E-02	6.993E-02	0.000E+00	FAIL ABUN
V-48	-3.953E-02	9.558E-02	1.541E-01	0.000E+00	NOT IDENT.
CR-51	-1.087E-01	4.577E-01	7.772E-01	0.000E+00	NOT IDENT.
MN-54	-3.045E-02	4.308E-02	6.895E-02	0.000E+00	NOT IDENT.
CO-56	1.498E-02	4.624E-02	8.018E-02	0.000E+00	NOT IDENT.
CO-57	2.208E-02	3.084E-02	5.382E-02	0.000E+00	NOT IDENT.
CO-58	-2.382E-03	4.736E-02	8.013E-02	0.000E+00	NOT IDENT.

FE-59	-5.190E-02	1.017E-01	1.603E-01	0.000E+00	NOT IDENT.
CO-60	-1.929E-02	4.181E-02	6.757E-02	0.000E+00	NOT IDENT.
ZN-65	-6.619E-02	1.125E-01	1.466E-01	0.000E+00	NOT IDENT.
SE-75	1.681E-02	5.988E-02	9.194E-02	0.000E+00	NOT IDENT.
SR-85	-1.800E-01	6.295E-02	8.714E-02	0.000E+00	NOT IDENT.
Y-88	-6.498E-03	3.742E-02	6.016E-02	0.000E+00	NOT IDENT.
Y-91	-9.039E+00	2.670E+01	4.280E+01	0.000E+00	NOT IDENT.
NB-94	-9.570E-03	3.536E-02	5.945E-02	0.000E+00	NOT IDENT.
NB-95	7.055E-02	5.043E-02	9.280E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.952E-01	3.253E-01	0.000E+00	NOT IDENT.
ZR-95	2.077E-02	8.372E-02	1.453E-01	0.000E+00	NOT IDENT.
MO-99	5.954E+01	4.185E+01	7.643E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.787E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.237E-02	5.116E-02	8.435E-02	0.000E+00	FAIL ABUN
RH-106	-1.023E-01	3.373E-01	5.704E-01	0.000E+00	NOT IDENT.
RU-106	-1.023E-01	3.371E-01	5.704E-01	0.000E+00	NOT IDENT.
AG-108M	-1.315E-03	3.236E-02	5.452E-02	0.000E+00	NOT IDENT.
AG-110M	9.767E-03	4.308E-02	6.543E-02	0.000E+00	NOT IDENT.
SN-113	3.037E-02	5.188E-02	9.089E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	4.747E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	1.580E-02	7.853E-02	1.333E-01	0.000E+00	NOT IDENT.
TE-123M	-8.985E-03	3.395E-02	5.651E-02	0.000E+00	NOT IDENT.
SB-124	-4.839E-02	8.326E-02	1.244E-01	0.000E+00	NOT IDENT.
SB-125	-5.397E-02	1.094E-01	1.796E-01	0.000E+00	FAIL ABUN
TE-125M	1.845E+00	1.279E+01	2.199E+01	0.000E+00	NOT IDENT.
I-126	2.483E-01	3.551E-01	5.605E-01	0.000E+00	NOT IDENT.
SB-126	-6.002E-02	2.217E-01	3.171E-01	0.000E+00	NOT IDENT.
SB-127	-2.427E-01	3.134E+00	5.353E+00	0.000E+00	NOT IDENT.
I-131	4.339E-03	1.865E-01	3.186E-01	0.000E+00	NOT IDENT.
TE-132	1.995E+00	2.223E+00	3.973E+00	0.000E+00	NOT IDENT.
BA-133	5.465E-02	5.382E-02	8.504E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.030E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.384E-02	1.011E-01	0.000E+00	FAIL ABUN
CS-135	0.000E+00	2.186E-01	3.567E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.521E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.837E-02	1.491E-01	2.379E-01	0.000E+00	NOT IDENT.
BA-137M	0.000E+00	4.556E-02	8.773E-02	0.000E+00	NOT IDENT.
CS-137	0.000E+00	4.813E-02	9.268E-02	0.000E+00	NOT IDENT.
CE-139	9.968E-03	3.623E-02	6.152E-02	0.000E+00	NOT IDENT.
BA-140	5.443E-02	3.983E-01	6.692E-01	0.000E+00	NOT IDENT.
LA-140	-5.603E-02	1.271E-01	2.013E-01	0.000E+00	FAIL ABUN
CE-141	2.067E-02	8.674E-02	1.478E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.713E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.194E-01	2.756E-01	3.983E-01	0.000E+00	NOT IDENT.
PM-144	2.249E-02	3.812E-02	6.784E-02	0.000E+00	NOT IDENT.
PR-144	1.183E+00	2.890E+00	5.086E+00	0.000E+00	NOT IDENT.
PM-146	4.661E-02	4.790E-02	8.499E-02	0.000E+00	NOT IDENT.
ND-147	6.399E-01	8.201E-01	1.432E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	3.935E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	1.243E-03	1.306E-01	1.939E-01	0.000E+00	FAIL ABUN
GD-153	1.264E-01	1.150E-01	1.794E-01	0.000E+00	NOT IDENT.
EU-154	-1.385E-01	1.337E-01	2.045E-01	0.000E+00	NOT IDENT.
EU-155	-1.860E-02	1.273E-01	2.171E-01	0.000E+00	FAIL ABUN
TB-160	-1.272E-02	1.641E-01	2.754E-01	0.000E+00	FAIL ABUN
HO-166M	-2.686E-02	7.137E-02	1.115E-01	0.000E+00	FAIL ABUN
TA-182	-2.094E-01	2.540E-01	3.907E-01	0.000E+00	FAIL ABUN
IR-192	2.985E-02	4.011E-02	7.137E-02	0.000E+00	FAIL ABUN
HG-203	2.803E-02	4.830E-02	8.555E-02	0.000E+00	NOT IDENT.
BI-207	1.272E-02	5.612E-02	9.541E-02	0.000E+00	FAIL ABUN
PB-210	7.241E-01	4.218E+00	7.575E+00	0.000E+00	NOT IDENT.
PB-211	-3.471E-01	8.631E-01	1.405E+00	0.000E+00	NOT IDENT.
RN-219	9.623E-02	4.585E-01	7.869E-01	0.000E+00	FAIL ABUN
RA-223	6.526E-02	8.134E-01	1.219E+00	0.000E+00	FAIL ABUN
AC-227	1.762E-03	2.787E-01	4.849E-01	0.000E+00	FAIL ABUN
TH-227	1.762E-03	2.787E-01	4.849E-01	0.000E+00	FAIL ABUN
TH-229	-3.620E-01	6.419E-01	1.044E+00	0.000E+00	FAIL ABUN
PA-231	-1.594E-01	1.661E+00	2.861E+00	0.000E+00	FAIL ABUN
TH-231	6.526E-02	8.134E-01	1.219E+00	0.000E+00	FAIL ABUN
PA-233	1.334E-02	7.235E-02	1.257E-01	0.000E+00	FAIL ABUN
PA-234	4.000E-01	3.626E-01	6.452E-01	0.000E+00	FAIL ABUN
PA-234M	-2.274E+00	5.577E+00	9.101E+00	0.000E+00	NOT IDENT.
TH-234	7.463E-01	1.675E+00	2.926E+00	0.000E+00	FAIL ABUN
U-235	3.406E-01	2.635E-01	4.499E-01	0.000E+00	FAIL ABUN
U-238	7.463E-01	1.675E+00	2.926E+00	0.000E+00	FAIL ABUN
NP-239	-2.888E-01	5.032E-01	8.402E-01	0.000E+00	NOT IDENT.
AM-241	-2.518E-02	1.892E-01	3.301E-01	0.000E+00	NOT IDENT.
CM-247	7.683E-03	4.214E-02	7.223E-02	0.000E+00	NOT IDENT.
CF-249	-1.102E-02	4.599E-02	7.716E-02	0.000E+00	NOT IDENT.

CF-251	1.016E-01	1.550E-01	2.662E-01	0.000E+00 NOT IDENT.
ANH-511	0.000E+00	5.336E-02	1.023E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:35:04.49

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:33:15
Sample ID         : G248867001           Sample quantity  : 1.22070E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:57.45  0.8%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1478	10.66*	1.210E+00	3.523E+01	3.523E+01	12.28
CD-109	88.03	170	3.70*	5.857E+00	2.412E+00	2.483E+00	47.99
SN-126	64.28	------	9.60	3.540E+00	------ Line Not Found		------
	86.94	170	8.90	5.857E+00	1.003E+00	1.003E+00	62.77
	87.57	170	37.00*	5.857E+00	2.412E-01	2.412E-01	47.99
TL-208	277.37	------	6.60	4.524E+00	------ Line Not Found		------
	583.19	429	85.00*	2.646E+00	5.863E-01	5.863E-01	17.67
	860.56	65	12.50	1.903E+00	8.343E-01	8.343E-01	51.41
BI-211	72.87	------	1.23	4.632E+00	------ Line Not Found		------
	351.06	620	12.92*	3.848E+00	3.834E+00	3.834E+00	15.82
BI-212	727.33	90	6.67*	2.204E+00	1.882E+00	1.882E+00	45.67
	785.37	------	1.10	2.062E+00	------ Line Not Found		------
	1620.50	30	1.47	1.130E+00	5.596E+00	5.596E+00	46.93
PB-212	74.82	595	10.28	4.832E+00	3.681E+00	3.681E+00	24.13
	77.11	699	17.10	5.079E+00	2.474E+00	2.474E+00	14.62
	238.63	1301	43.60*	4.991E+00	1.839E+00	1.839E+00	12.03
	300.09	131	3.30	4.293E+00	2.841E+00	2.841E+00	38.52
BI-214	609.32	441	45.49*	2.554E+00	1.167E+00	1.167E+00	17.56
	1120.29	113	14.92	1.503E+00	1.544E+00	1.544E+00	36.25
	1764.49	92	15.30	1.081E+00	1.707E+00	1.707E+00	26.48
PB-214	74.82	595	5.80	4.832E+00	6.524E+00	6.524E+00	23.47
	77.11	699	9.70	5.079E+00	4.362E+00	4.362E+00	16.79
	242.00	315	7.25	4.953E+00	2.701E+00	2.702E+00	33.09
	295.22	406	18.42	4.340E+00	1.562E+00	1.563E+00	17.87
	351.93	620	35.60*	3.848E+00	1.391E+00	1.391E+00	16.75
RA-224	240.99	315	4.10*	4.953E+00	4.777E+00	4.777E+00	32.57
RA-226	609.32	441	45.49*	2.554E+00	1.167E+00	1.167E+00	17.56
	1120.29	113	14.92	1.503E+00	1.544E+00	1.544E+00	36.25
	1764.49	92	15.30	1.081E+00	1.707E+00	1.707E+00	26.48
AC-228	338.32	271	11.27	3.954E+00	1.867E+00	1.867E+00	47.95
	911.20	257	25.80*	1.808E+00	1.693E+00	1.693E+00	25.18
	968.97	171	15.80	1.711E+00	1.951E+00	1.951E+00	34.77

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	271	11.27	3.954E+00	1.867E+00	1.867E+00	47.95
	911.20	257	25.80*	1.808E+00	1.693E+00	1.693E+00	25.18
	968.97	171	15.80	1.711E+00	1.951E+00	1.951E+00	34.77
TH-228	74.82	595	10.28	4.832E+00	3.681E+00	3.681E+00	22.12
	77.11	699	17.10	5.079E+00	2.474E+00	2.474E+00	14.62
	238.63	1301	43.60*	4.991E+00	1.839E+00	1.839E+00	12.03
	300.09	131	3.30	4.293E+00	2.841E+00	2.841E+00	71.56
TH-230	609.32	441	45.49*	2.554E+00	1.167E+00	1.167E+00	16.75
	1120.29	113	14.92	1.503E+00	1.544E+00	1.544E+00	35.62
	1764.49	92	15.30	1.081E+00	1.707E+00	1.707E+00	26.48
TH-232	338.32	271	11.27	3.954E+00	1.867E+00	1.867E+00	25.16
	911.20	257	25.80*	1.808E+00	1.693E+00	1.693E+00	25.18
	968.97	171	15.80	1.711E+00	1.951E+00	1.951E+00	34.77
NP-237	86.48	170	12.40*	5.857E+00	7.197E-01	7.197E-01	52.37
	95.86	------	2.68	6.306E+00	------	Line Not Found	------

Flag: "*" = Keyline

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

Total number of lines in spectrum 32
Number of unidentified lines 5
Number of lines tentatively identified by NID 27 84.38%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.523E+01	3.523E+01	0.432E+01	12.28	
CD-109	461.40D	1.03	2.412E+00	2.483E+00	1.192E+00	47.99	
SN-126	2.30E+05Y	1.00	2.412E-01	2.412E-01	1.158E-01	47.99	
TL-208	1.41E+10Y	1.00	5.863E-01	5.863E-01	1.036E-01	17.67	
BI-211	7.04E+08Y	1.00	3.834E+00	3.834E+00	0.606E+00	15.82	
BI-212	1.41E+10Y	1.00	1.882E+00	1.882E+00	0.859E+00	45.67	
PB-212	1.41E+10Y	1.00	1.839E+00	1.839E+00	0.221E+00	12.03	
BI-214	1600.00Y	1.00	1.167E+00	1.167E+00	0.205E+00	17.56	
PB-214	1600.00Y	1.00	1.391E+00	1.391E+00	0.233E+00	16.75	
RA-224	1.41E+10Y	1.00	4.777E+00	4.777E+00	1.556E+00	32.57	
RA-226	1600.00Y	1.00	1.167E+00	1.167E+00	0.205E+00	17.56	
AC-228	1.41E+10Y	1.00	1.693E+00	1.693E+00	0.426E+00	25.18	
RA-228	1.41E+10Y	1.00	1.693E+00	1.693E+00	0.426E+00	25.18	
TH-228	1.41E+10Y	1.00	1.839E+00	1.839E+00	0.221E+00	12.03	
TH-230	7.54E+04Y	1.00	1.167E+00	1.167E+00	0.196E+00	16.75	
TH-232	1.41E+10Y	1.00	1.693E+00	1.693E+00	0.426E+00	25.18	
NP-237	2.14E+06Y	1.00	7.197E-01	7.197E-01	3.769E-01	52.37	
	Total Activity :		6.333E+01	6.340E+01			

Grand Total Activity : 6.333E+01 6.340E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	93.22	169	756	1.39	186.60	181	10	2.35E-02	65.9	6.20E+00	T
0	129.40	102	529	1.21	258.87	253	12	1.41E-02	92.8	6.64E+00	
0	185.85	158	426	1.20	371.63	365	11	2.19E-02	55.5	5.79E+00	T
0	209.14	75	344	1.00	418.17	414	9	1.04E-02	92.2	5.41E+00	
0	270.01	120	335	1.39	539.77	534	14	1.66E-02	67.5	4.61E+00	T
0	328.37	95	195	1.05	656.39	651	11	1.32E-02	60.3	4.04E+00	T
0	463.34	92	115	0.98	926.09	921	13	1.28E-02	52.5	3.16E+00	T
0	663.39	83	184	1.04	1325.96	1316	20	1.15E-02	83.7	2.38E+00	T
0	795.70	71	83	0.99	1590.48	1580	19	9.82E-03	66.9	2.04E+00	T
4	964.31	85	37	2.53	1927.66	1922	25	1.18E-02	37.7	1.72E+00	T
0	1378.58	26	35	1.04	2756.43	2747	14	3.66E-03	****	1.26E+00	
0	1402.03	18	24	0.99	2803.36	2794	12	2.47E-03	****	1.25E+00	
0	1847.98	18	7	1.33	3696.08	3689	14	2.50E-03	78.2	1.06E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:35:08.79

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1 *
* Acquisition date  : 24-MAR-2010 20:33:15  Detector SN#     :             *
* Detector ID       : GAM29                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:57.45          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 5-MAR-2010 12:00:00.  Nuclide Library : SOLID        *
* Sample ID         : G248867001            Analyst initials: MXR1         *
* Batch Number      : 962633                Sample Quantity : 1.22070E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.523E+01	4.325E+00	5.862E-01	6.376E-02	60.093
CD-109	2.483E+00	1.192E+00	1.820E+00	1.719E-01	1.364
SN-126	2.412E-01	1.158E-01	1.819E-01	1.710E-02	1.326
TL-208	5.863E-01	1.036E-01	6.767E-02	6.341E-03	8.663
BI-211	3.834E+00	6.063E-01	3.919E-01	3.753E-02	9.782
BI-212	1.882E+00	8.594E-01	8.798E-01	1.150E-01	2.139
PB-212	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
BI-214	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
PB-214	1.391E+00	2.331E-01	1.435E-01	1.586E-02	9.695
RA-224	4.777E+00	1.556E+00	1.222E+00	1.084E-01	3.909
RA-226	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
AC-228	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
RA-228	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
TH-228	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
TH-230	1.167E+00	1.955E-01	1.384E-01	1.192E-02	8.437
TH-232	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
NP-237	7.197E-01	3.769E-01	4.879E-01	1.119E-01	1.475

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.460E-02		3.972E-01	6.430E-01	6.260E-02	-0.038

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	-4.993E-02		4.804E-02	7.200E-02	7.188E-03	-0.693
NA-24	-5.110E+01		4.503E+01	Half-Life too short		
SC-46	-2.542E-02		4.469E-02	6.961E-02	9.088E-03	-0.365
V-48	-3.953E-02		9.753E-02	1.536E-01	1.863E-02	-0.257
CR-51	-1.087E-01		4.670E-01	7.636E-01	7.342E-02	-0.142
MN-54	-3.045E-02		4.396E-02	6.857E-02	8.082E-03	-0.444
CO-56	1.498E-02		4.718E-02	7.976E-02	9.618E-03	0.188
CO-57	2.208E-02		3.147E-02	5.225E-02	4.721E-03	0.423
CO-58	-2.382E-03		4.833E-02	7.967E-02	8.971E-03	-0.030
FE-59	-5.190E-02		1.038E-01	1.600E-01	1.699E-02	-0.324
CO-60	-1.929E-02		4.266E-02	6.761E-02	7.415E-03	-0.285
ZN-65	-6.619E-02		1.148E-01	1.464E-01	1.416E-02	-0.452
SE-75	1.681E-02		6.110E-02	9.012E-02	8.171E-03	0.187
SR-85	-1.800E-01		6.424E-02	8.613E-02	7.791E-03	-2.090
Y-88	-6.498E-03		3.818E-02	6.045E-02	5.169E-03	-0.108
Y-91	-9.039E+00		2.724E+01	4.277E+01	3.772E+00	-0.211
NB-94	-9.570E-03		3.608E-02	5.900E-02	5.300E-03	-0.162
NB-95	7.055E-02		5.146E-02	9.219E-02	9.469E-03	0.765
NB-95M	6.736E-01		1.991E-01	3.184E-01	3.207E-02	2.115
ZR-95	2.077E-02		8.542E-02	1.443E-01	1.568E-02	0.144
MO-99	5.954E+01		4.271E+01	7.590E+01	1.244E+01	0.785
TC-99M	-9.175E+15		3.463E+15	Half-Life too short		
RU-103	-1.237E-02		5.221E-02	8.333E-02	1.188E-02	-0.148
RH-106	-1.023E-01		3.442E-01	5.652E-01	7.457E-02	-0.181
RU-106	-1.023E-01		3.440E-01	5.652E-01	4.817E-02	-0.181
AG-108M	-1.315E-03		3.302E-02	5.377E-02	5.031E-03	-0.024
AG-110M	9.767E-03		4.395E-02	6.487E-02	5.515E-03	0.151
SN-113	3.037E-02		5.294E-02	8.953E-02	8.280E-03	0.339
CD-115	5.067E-06		2.422E-05	Half-Life too short		
SN-117M	1.580E-02		8.013E-02	1.298E-01	1.073E-02	0.122
TE-123M	-8.985E-03		3.464E-02	5.504E-02	4.575E-03	-0.163
SB-124	-4.839E-02		8.496E-02	1.248E-01	1.236E-02	-0.388
SB-125	-5.397E-02		1.117E-01	1.772E-01	1.636E-02	-0.305
TE-125M	1.845E+00		1.305E+01	2.132E+01	2.278E+00	0.087
I-126	2.483E-01		3.624E-01	5.558E-01	4.605E-02	0.447
SB-126	-6.002E-02		2.262E-01	3.147E-01	2.940E-02	-0.191
SB-127	-2.427E-01		3.197E+00	5.310E+00	6.756E-01	-0.046
I-131	4.339E-03		1.903E-01	3.136E-01	3.008E-02	0.014
TE-132	1.995E+00		2.269E+00	3.887E+00	6.534E-01	0.513
BA-133	5.465E-02		5.492E-02	8.367E-02	1.114E-02	0.653
I-133	7.975E-02		1.036E-01	Half-Life too short		
CS-134	1.411E-01	+	9.575E-02	1.005E-01	1.102E-02	1.405
CS-135	3.862E-01		2.230E-01	3.497E-01	3.615E-02	1.104
I-135	-2.956E+13		1.797E+14	Half-Life too short		
CS-136	-6.837E-02		1.522E-01	2.373E-01	2.687E-02	-0.288
BA-137M	1.196E-01		4.649E-02	8.699E-02	7.132E-03	1.375
CS-137	1.263E-01		4.912E-02	9.190E-02	7.550E-03	1.375
CE-139	9.968E-03		3.697E-02	5.995E-02	4.886E-03	0.166

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-140	5.443E-02		4.064E-01	6.618E-01	2.251E-01	0.082
LA-140	-5.603E-02		1.297E-01	2.019E-01	2.042E-02	-0.278
CE-141	2.067E-02		8.851E-02	1.438E-01	1.243E-02	0.144
CE-143	9.059E-03		1.384E-03	Half-Life too short		
CE-144	-1.194E-01		2.813E-01	3.872E-01	5.940E-02	-0.308
PM-144	2.249E-02		3.890E-02	6.731E-02	5.968E-03	0.334
PR-144	1.183E+00		2.949E+00	5.047E+00	4.473E-01	0.234
PM-146	4.661E-02		4.888E-02	8.387E-02	9.219E-03	0.556
ND-147	6.399E-01		8.369E-01	1.416E+00	2.149E-01	0.452
PM-149	2.098E-04		2.008E-04	Half-Life too short		
EU-152	1.243E-03		1.332E-01	1.907E-01	1.841E-02	0.007
GD-153	1.264E-01		1.174E-01	1.737E-01	1.560E-02	0.728
EU-154	-1.385E-01		1.364E-01	2.045E-01	2.543E-02	-0.677
EU-155	-1.860E-02		1.299E-01	2.104E-01	1.884E-02	-0.088
TB-160	-1.272E-02		1.675E-01	2.741E-01	3.514E-02	-0.046
HO-166M	-2.686E-02		7.282E-02	1.106E-01	1.013E-02	-0.243
TA-182	-2.094E-01		2.591E-01	3.905E-01	3.550E-02	-0.536
IR-192	2.985E-02		4.093E-02	7.011E-02	6.455E-03	0.426
HG-203	2.803E-02		4.929E-02	8.391E-02	7.810E-03	0.334
BI-207	1.272E-02		5.727E-02	9.518E-02	1.022E-02	0.134
PB-210	7.241E-01		4.304E+00	7.269E+00	6.936E-01	0.100
PB-211	-3.471E-01		8.807E-01	1.385E+00	6.711E-01	-0.251
RN-219	9.623E-02		4.678E-01	7.753E-01	1.172E-01	0.124
RA-223	6.526E-02		8.300E-01	1.198E+00	2.111E-01	0.054
AC-227	1.762E-03		2.844E-01	4.751E-01	5.848E-02	0.004
TH-227	1.762E-03		2.844E-01	4.751E-01	6.573E-02	0.004
TH-229	-3.620E-01		6.550E-01	1.019E+00	8.593E-02	-0.355
PA-231	-1.594E-01		1.695E+00	2.807E+00	4.177E-01	-0.057
TH-231	6.526E-02		8.300E-01	1.198E+00	2.111E-01	0.054
PA-233	1.334E-02		7.383E-02	1.234E-01	1.162E-02	0.108
PA-234	4.000E-01		3.700E-01	6.427E-01	1.346E-01	0.622
PA-234M	-2.274E+00		5.690E+00	9.072E+00	1.167E+00	-0.251
TH-234	7.463E-01		1.709E+00	2.818E+00	5.091E-01	0.265
U-235	3.406E-01		2.688E-01	4.377E-01	7.397E-02	0.778
U-238	7.463E-01		1.709E+00	2.818E+00	5.091E-01	0.265
NP-239	-2.888E-01		5.135E-01	8.153E-01	7.282E-02	-0.354
AM-241	-2.518E-02		1.931E-01	3.177E-01	2.742E-02	-0.079
CM-247	7.683E-03		4.300E-02	7.117E-02	6.425E-03	0.108
CF-249	-1.102E-02		4.693E-02	7.600E-02	6.851E-03	-0.145
CF-251	1.016E-01		1.582E-01	2.596E-01	2.145E-02	0.392
ANH-511	1.200E-01		5.445E-02	1.011E-01	9.151E-03	1.187

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248867001            *
* Acquisition date : 24-MAR-2010 20:33:15 Detector SN#    :                 *
* Detector ID      : GAM29                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:57.45     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  5-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248867001           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.2207E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.523E+01	4.238E+00	2.928E-01	2.162E+00
CD-109	2.483E+00	1.168E+00	9.418E-01	5.959E-01
SN-126	2.412E-01	1.134E-01	9.410E-02	5.788E-02
TL-208	5.863E-01	1.015E-01	3.420E-02	5.179E-02
BI-211	3.834E+00	5.942E-01	1.993E-01	3.032E-01
BI-212	1.882E+00	8.422E-01	4.434E-01	4.297E-01
PB-212	1.839E+00	2.167E-01	5.832E-02	1.106E-01
BI-214	1.167E+00	2.009E-01	6.989E-02	1.025E-01
PB-214	1.391E+00	2.284E-01	7.299E-02	1.165E-01
RA-224	4.777E+00	1.525E+00	6.245E-01	7.780E-01
RA-226	1.167E+00	2.009E-01	6.989E-02	1.025E-01
AC-228	1.693E+00	4.177E-01	1.398E-01	2.131E-01
RA-228	1.693E+00	4.177E-01	1.398E-01	2.131E-01
TH-228	1.839E+00	2.167E-01	5.832E-02	1.106E-01
TH-230	1.167E+00	1.916E-01	6.988E-02	9.777E-02
TH-232	1.693E+00	4.177E-01	1.398E-01	2.131E-01
NP-237	7.197E-01	3.694E-01	2.525E-01	1.885E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.460E-02	3.893E-01	3.258E-01	1.986E-01	NOT IDENT.
NA-22	-4.993E-02	4.708E-02	3.602E-02	2.402E-02	NOT IDENT.
NA-24	-5.110E+07	8.825E+07	0.000E+00	4.503E+07	SHORT HLIF
SC-46	-2.542E-02	4.380E-02	3.499E-02	2.234E-02	FAIL ABUN
V-48	-3.953E-02	9.558E-02	7.708E-02	4.876E-02	NOT IDENT.
CR-51	-1.087E-01	4.577E-01	3.888E-01	2.335E-01	NOT IDENT.
MN-54	-3.045E-02	4.308E-02	3.449E-02	2.198E-02	NOT IDENT.
CO-56	1.498E-02	4.624E-02	4.011E-02	2.359E-02	NOT IDENT.
CO-57	2.208E-02	3.084E-02	2.692E-02	1.573E-02	NOT IDENT.
CO-58	-2.382E-03	4.736E-02	4.009E-02	2.416E-02	NOT IDENT.

FE-59	-5.190E-02	1.017E-01	8.020E-02	5.189E-02	NOT IDENT.
CO-60	-1.929E-02	4.181E-02	3.381E-02	2.133E-02	NOT IDENT.
ZN-65	-6.619E-02	1.125E-01	7.336E-02	5.739E-02	NOT IDENT.
SE-75	1.681E-02	5.988E-02	4.600E-02	3.055E-02	NOT IDENT.
SR-85	-1.800E-01	6.295E-02	4.360E-02	3.212E-02	NOT IDENT.
Y-88	-6.498E-03	3.742E-02	3.010E-02	1.909E-02	NOT IDENT.
Y-91	-9.039E+00	2.670E+01	2.141E+01	1.362E+01	NOT IDENT.
NB-94	-9.570E-03	3.536E-02	2.974E-02	1.804E-02	NOT IDENT.
NB-95	7.055E-02	5.043E-02	4.643E-02	2.573E-02	NOT IDENT.
NB-95M	6.736E-01	1.952E-01	1.628E-01	9.957E-02	NOT IDENT.
ZR-95	2.077E-02	8.372E-02	7.270E-02	4.271E-02	NOT IDENT.
MO-99	5.954E+01	4.185E+01	3.824E+01	2.135E+01	NOT IDENT.
TC-99M	-9.175E+21	6.787E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.237E-02	5.116E-02	4.220E-02	2.610E-02	FAIL ABUN
RH-106	-1.023E-01	3.373E-01	2.854E-01	1.721E-01	NOT IDENT.
RU-106	-1.023E-01	3.371E-01	2.854E-01	1.720E-01	NOT IDENT.
AG-108M	-1.315E-03	3.236E-02	2.728E-02	1.651E-02	NOT IDENT.
AG-110M	9.767E-03	4.308E-02	3.273E-02	2.198E-02	NOT IDENT.
SN-113	3.037E-02	5.188E-02	4.547E-02	2.647E-02	NOT IDENT.
CD-115	5.067E+00	4.747E+01	0.000E+00	2.422E+01	SHORT HLIF
SN-117M	1.580E-02	7.853E-02	6.668E-02	4.007E-02	NOT IDENT.
TE-123M	-8.985E-03	3.395E-02	2.827E-02	1.732E-02	NOT IDENT.
SB-124	-4.839E-02	8.326E-02	6.223E-02	4.248E-02	NOT IDENT.
SB-125	-5.397E-02	1.094E-01	8.988E-02	5.584E-02	FAIL ABUN
TE-125M	1.845E+00	1.279E+01	1.100E+01	6.525E+00	NOT IDENT.
I-126	2.483E-01	3.551E-01	2.804E-01	1.812E-01	NOT IDENT.
SB-126	-6.002E-02	2.217E-01	1.586E-01	1.131E-01	NOT IDENT.
SB-127	-2.427E-01	3.134E+00	2.678E+00	1.599E+00	NOT IDENT.
I-131	4.339E-03	1.865E-01	1.594E-01	9.513E-02	NOT IDENT.
TE-132	1.995E+00	2.223E+00	1.987E+00	1.134E+00	NOT IDENT.
BA-133	5.465E-02	5.382E-02	4.255E-02	2.746E-02	NOT IDENT.
I-133	7.975E+04	2.030E+05	0.000E+00	1.036E+05	SHORT HLIF
CS-134	1.411E-01	9.384E-02	5.058E-02	4.788E-02	FAIL ABUN
CS-135	3.862E-01	2.186E-01	1.785E-01	1.115E-01	NOT IDENT.
I-135	-2.956E+19	3.521E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.837E-02	1.491E-01	1.190E-01	7.609E-02	NOT IDENT.
BA-137M	1.196E-01	4.556E-02	4.389E-02	2.324E-02	NOT IDENT.
CS-137	1.263E-01	4.813E-02	4.637E-02	2.456E-02	NOT IDENT.
CE-139	9.968E-03	3.623E-02	3.078E-02	1.848E-02	NOT IDENT.
BA-140	5.443E-02	3.983E-01	3.348E-01	2.032E-01	NOT IDENT.
LA-140	-5.603E-02	1.271E-01	1.007E-01	6.483E-02	FAIL ABUN
CE-141	2.067E-02	8.674E-02	7.396E-02	4.426E-02	NOT IDENT.
CE-143	9.059E+03	2.713E+03	0.000E+00	1.384E+03	SHORT HLIF
CE-144	-1.194E-01	2.756E-01	1.993E-01	1.406E-01	NOT IDENT.
PM-144	2.249E-02	3.812E-02	3.394E-02	1.945E-02	NOT IDENT.
PR-144	1.183E+00	2.890E+00	2.545E+00	1.474E+00	NOT IDENT.
PM-146	4.661E-02	4.790E-02	4.252E-02	2.444E-02	NOT IDENT.
ND-147	6.399E-01	8.201E-01	7.166E-01	4.184E-01	NOT IDENT.
PM-149	2.098E+02	3.935E+02	0.000E+00	2.008E+02	SHORT HLIF
EU-152	1.243E-03	1.306E-01	9.700E-02	6.661E-02	FAIL ABUN
GD-153	1.264E-01	1.150E-01	8.977E-02	5.868E-02	NOT IDENT.
EU-154	-1.385E-01	1.337E-01	1.023E-01	6.822E-02	NOT IDENT.
EU-155	-1.860E-02	1.273E-01	1.086E-01	6.496E-02	FAIL ABUN
TB-160	-1.272E-02	1.641E-01	1.378E-01	8.373E-02	FAIL ABUN
HO-166M	-2.686E-02	7.137E-02	5.576E-02	3.641E-02	FAIL ABUN
TA-182	-2.094E-01	2.540E-01	1.955E-01	1.296E-01	FAIL ABUN
IR-192	2.985E-02	4.011E-02	3.570E-02	2.046E-02	FAIL ABUN
HG-203	2.803E-02	4.830E-02	4.280E-02	2.464E-02	NOT IDENT.
BI-207	1.272E-02	5.612E-02	4.773E-02	2.863E-02	FAIL ABUN
PB-210	7.241E-01	4.218E+00	3.790E+00	2.152E+00	NOT IDENT.
PB-211	-3.471E-01	8.631E-01	7.030E-01	4.404E-01	NOT IDENT.
RN-219	9.623E-02	4.585E-01	3.937E-01	2.339E-01	FAIL ABUN
RA-223	6.526E-02	8.134E-01	6.099E-01	4.150E-01	FAIL ABUN
AC-227	1.762E-03	2.787E-01	2.426E-01	1.422E-01	FAIL ABUN
TH-227	1.762E-03	2.787E-01	2.426E-01	1.422E-01	FAIL ABUN
TH-229	-3.620E-01	6.419E-01	5.222E-01	3.275E-01	FAIL ABUN
PA-231	-1.594E-01	1.661E+00	1.431E+00	8.473E-01	FAIL ABUN
TH-231	6.526E-02	8.134E-01	6.099E-01	4.150E-01	FAIL ABUN
PA-233	1.334E-02	7.235E-02	6.287E-02	3.691E-02	FAIL ABUN
PA-234	4.000E-01	3.626E-01	3.228E-01	1.850E-01	FAIL ABUN
PA-234M	-2.274E+00	5.577E+00	4.553E+00	2.845E+00	NOT IDENT.
TH-234	7.463E-01	1.675E+00	1.464E+00	8.547E-01	FAIL ABUN
U-235	3.406E-01	2.635E-01	2.251E-01	1.344E-01	FAIL ABUN
U-238	7.463E-01	1.675E+00	1.464E+00	8.547E-01	FAIL ABUN
NP-239	-2.888E-01	5.032E-01	4.204E-01	2.568E-01	NOT IDENT.
AM-241	-2.518E-02	1.892E-01	1.652E-01	9.654E-02	NOT IDENT.
CM-247	7.683E-03	4.214E-02	3.614E-02	2.150E-02	NOT IDENT.
CF-249	-1.102E-02	4.599E-02	3.860E-02	2.347E-02	NOT IDENT.

CF-251	1.016E-01	1.550E-01	1.332E-01	7.910E-02	NOT IDENT.
ANH-511	1.200E-01	5.336E-02	5.117E-02	2.722E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	399.1819
49.72	507.5309
57.36	0.0000
59.54	526.4267
63.29	541.2366
63.29	541.2366
64.28	563.7461
67.75	591.3801
69.67	561.9409
70.83	580.3849
72.81	601.1479
72.87	601.1960
72.87	601.1960
74.82	595.1647
74.82	595.1647
74.82	595.1647
74.97	595.2848
77.11	591.7491
77.11	591.7491
77.11	591.7491
79.69	611.4868
79.80	611.5724
80.12	611.8246
80.19	689.3741
80.57	689.7077
81.00	670.6946
81.07	670.7529
81.07	670.7529
83.79	577.3723
83.79	577.3723
85.43	572.0494
86.48	608.5878
86.55	608.6403
86.79	777.3015
86.94	777.4472
87.57	770.7123
88.03	735.2753
88.47	872.6861
89.96	874.2535
91.11	875.4519
92.59	595.5837
92.59	595.5837
93.35	449.5480
94.67	451.8835
94.87	451.9876
94.87	451.9876
95.86	427.8225
97.43	370.8984
98.44	382.3264
99.53	390.3705
100.11	393.7260
103.18	389.8857
103.37	369.2245
105.31	417.8181
106.12	400.5017
109.28	437.3492
111.00	443.3752
111.76	452.1009
116.30	410.0695
117.23	434.6659
121.12	321.2037
121.78	339.3886
122.06	356.4041
123.07	389.5779
131.20	355.0980
133.52	384.9609
136.00	360.1300

136.47	351.7081
140.51	478.9372
140.51	0.0000
143.76	378.8771
144.24	393.0790
144.24	393.0790
145.44	416.2002
152.43	357.8482
153.25	339.5980
154.21	301.7494
154.21	301.7494
156.02	381.8619
158.56	322.5482
159.00	339.0743
162.66	359.8611
163.33	382.0162
165.86	333.3088
176.60	353.9466
177.52	313.1191
181.07	377.6742
184.41	323.2768
185.72	379.0251
193.51	346.1828
197.04	313.7289
205.31	297.7745
210.85	303.4953
215.65	292.3320
222.11	310.1455
227.38	288.2259
228.16	293.9048
228.18	293.9087
235.69	285.4906
235.96	285.5414
235.96	285.5414
238.63	301.4978
238.63	301.4978
240.99	301.9580
242.00	302.1544
244.70	243.6931
252.40	220.8582
252.80	204.9997
256.23	226.0736
256.23	226.0736
260.90	0.0000
264.66	226.2979
268.22	234.6586
269.46	251.5408
269.46	251.5408
271.23	251.8038
273.65	287.5594
276.40	226.3061
277.37	226.6603
277.60	232.1221
278.00	238.7948
279.20	235.8725
279.54	242.5768
280.46	257.9363
283.69	225.0441
284.31	220.3552
285.41	229.0840
285.90	0.0000
287.50	211.3079
293.27	0.0000
295.22	194.8522
295.96	194.9340
298.57	195.2190
299.98	194.0894
299.98	194.0894
300.09	197.3075
300.09	197.3075
300.13	197.3125
301.36	210.2898
302.85	215.2828
304.50	181.7099
304.50	181.7099
304.85	201.0447
308.46	195.3201
311.90	186.0000

316.51	168.0098
319.41	181.8890
320.08	187.7910
323.87	181.9954
323.87	181.9954
328.76	192.2373
333.37	166.5718
334.37	166.6589
334.37	166.6589
338.28	214.4741
338.28	214.4741
338.32	214.4768
338.32	214.4768
338.32	214.4768
340.48	175.3771
340.55	165.5490
344.28	190.4966
351.06	186.2068
351.93	188.9249
356.01	148.6725
364.49	157.2555
366.42	178.3248
383.85	148.6775
388.16	167.0983
388.63	182.2373
391.69	146.2001
400.66	154.9050
401.81	149.9223
402.40	150.9753
404.85	177.5186
410.95	143.4234
414.70	141.6266
423.72	154.4709
427.09	164.9444
427.87	166.0263
433.94	128.4454
453.88	116.0701
463.37	131.0972
468.07	118.1478
473.00	128.4834
476.78	131.8201
477.60	128.7251
487.02	116.6083
492.35	0.0000
497.08	135.0047
511.00	108.1696
514.00	321.6989
527.90	0.0000
529.87	0.0000
531.02	95.1079
537.26	118.8941
546.56	0.0000
563.25	104.8955
569.33	110.5440
569.50	101.8808
569.70	101.8876
583.19	113.2701
600.60	121.6312
602.73	100.2589
604.72	118.8757
609.32	126.3905
609.32	126.3905
609.32	126.3905
610.33	95.2847
614.28	106.9449
618.01	84.1771
621.93	98.4186
621.93	98.4186
633.25	85.8668
635.95	101.6547
636.99	116.4792
645.85	98.2773
657.76	87.7579
661.66	86.6691
661.66	86.6691
664.57	0.0000
666.33	92.7996
666.50	91.2056

677.62	100.2276
685.70	94.8478
695.00	94.1833
696.49	90.4570
696.51	95.1683
697.00	96.1272
702.65	94.4071
706.68	85.0708
711.68	90.8828
720.70	86.2507
721.93	0.0000
722.78	84.6759
722.91	84.6795
723.31	87.9478
724.19	92.8576
727.33	81.8025
733.00	115.9718
735.93	88.6898
739.50	71.6003
747.24	86.1182
752.31	103.4956
753.82	75.7389
756.73	83.4794
763.94	99.0415
765.81	81.7783
766.42	85.6411
777.92	92.6836
778.90	90.7775
783.70	77.3649
785.37	68.3706
795.86	79.5726
801.95	98.3176
810.29	78.9219
810.76	85.7531
815.77	76.1147
818.51	70.3125
832.01	82.3372
834.85	99.0767
836.80	0.0000
846.77	73.8098
856.80	67.6660
860.56	69.1455
871.09	52.4997
873.19	74.3332
875.33	0.0000
879.36	73.4610
880.51	59.5801
883.24	57.6354
884.68	60.6401
889.28	71.6602
898.04	84.7925
911.20	82.3627
911.20	82.3627
911.20	82.3627
926.50	66.3196
937.49	61.4654
944.13	83.7717
946.00	61.5957
949.00	79.8310
962.29	66.0441
964.08	86.9385
966.15	77.1257
968.97	77.1782
968.97	77.1782
968.97	77.1782
983.53	70.3182
996.26	67.4677
1001.03	78.8016
1004.73	86.0422
1037.84	60.9062
1038.76	0.0000
1048.07	68.2935
1050.41	66.2604
1050.41	66.2604
1063.66	56.0764
1085.87	86.6272
1099.45	61.7656
1112.07	61.4136

1115.54	70.2414
1120.29	64.1547
1120.29	64.1547
1120.29	64.1547
1120.55	81.1387
1121.30	77.5446
1131.51	0.0000
1173.23	88.2956
1177.93	84.1239
1189.05	77.9189
1204.77	84.5997
1221.41	106.3839
1231.02	115.2070
1235.36	101.2979
1238.28	75.4801
1260.41	0.0000
1271.85	53.0399
1274.44	66.1019
1274.54	66.1019
1291.59	47.6435
1298.22	0.0000
1312.11	57.2152
1332.49	45.1992
1365.19	35.0592
1368.63	0.0000
1384.29	29.9553
1408.01	28.0824
1457.56	0.0000
1460.82	27.9683
1489.16	37.8030
1505.03	38.8811
1596.21	35.5455
1620.50	19.0842
1678.03	0.0000
1690.97	20.0572
1764.49	11.1604
1764.49	11.1604
1764.49	11.1604
1770.23	8.8855
1771.35	15.9966
1791.20	0.0000
1836.06	17.4382

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248867001

Total Uranium Activity	2.3778E+00	ug/g
Total Uranium Counting Unc.	4.9855E+00	ug/g
Total Uranium Tpu	2.5436E-06	ug/g
Total Uranium Mda	4.3560E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248867001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM29            *
*   SAMPLE DATE   :  5-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 20:33:15.40    SAMPLE ALQT:  122.070 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.033E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.575E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 4.849E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.369E+00
```

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:01:37.14

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 24-MAR-2010 22:59:45
Sample ID         : G1202065188          Sample quantity  : 1.43700E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:01:22.05  0.6%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
No peaks were found
```

VMS Nuclide Identification Report V3.1 Generated 25-MAR-2010 03:01:40

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 9-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 22:59:45
Sample ID : G1202065188 Sample quantity : 143.70 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAM29 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:01:22.05 0.6%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	4.447E-02	1.381E-01	2.297E-01	2.236E-02	0.194
NA-22		1274.54	*	-2.092E-06	1.491E-02	2.494E-02	2.490E-03	0.000
NA-24		1368.63	*	-2.708E-01	1.491E-02	Half-Life too short		
K-40		1460.82	*	-4.044E-02	2.100E-01	3.411E-01	3.710E-02	-0.119
SC-46		889.28	*	-9.628E-03	1.646E-02	2.541E-02	3.318E-03	-0.379
		1120.55		-2.244E-02	2.531E-02	3.084E-02	2.945E-03	-0.728
V-48		944.13		-3.854E-02	3.468E-01	5.617E-01	7.133E-02	-0.069
		983.53	*	-4.179E-03	2.624E-02	4.210E-02	5.107E-03	-0.099
		1312.11		1.339E-02	2.882E-02	5.094E-02	5.408E-03	0.263
CR-51		320.08	*	-6.487E-02	1.533E-01	2.469E-01	2.374E-02	-0.263
MN-54		834.85	*	1.374E-02	1.323E-02	2.392E-02	2.819E-03	0.575
CO-56		846.77	*	-9.102E-03	1.753E-02	2.752E-02	3.318E-03	-0.331
		1037.84		5.229E-02	1.030E-01	1.787E-01	2.067E-02	0.293
		1238.28		-3.877E-02	3.075E-02	3.890E-02	3.733E-03	-0.997
		1771.35		-2.633E-02	1.281E-01	2.036E-01	1.838E-02	-0.129
CO-57		122.06	*	-6.051E-03	1.005E-02	1.576E-02	1.424E-03	-0.384
		136.47		-1.839E-02	8.128E-02	1.297E-01	1.205E-02	-0.142
CO-58		810.76	*	-1.067E-02	1.443E-02	2.188E-02	2.464E-03	-0.487
FE-59		1099.45	*	1.909E-02	3.252E-02	5.651E-02	6.000E-03	0.338
		1291.59		-1.749E-02	4.688E-02	7.482E-02	8.424E-03	-0.234
CO-60		1173.23		-1.427E-04	1.349E-02	2.179E-02	1.812E-03	-0.007
		1332.49	*	1.748E-02	1.523E-02	2.865E-02	3.143E-03	0.610
ZN-65		1115.54	*	-1.286E-03	3.514E-02	5.682E-02	5.495E-03	-0.023
SE-75		121.12		-2.678E-02	5.350E-02	8.443E-02	9.617E-03	-0.317
		136.00		-1.021E-03	1.558E-02	2.509E-02	2.190E-03	-0.041
		264.66	*	1.106E-02	1.802E-02	3.101E-02	2.812E-03	0.357
		279.54		-1.256E-02	4.264E-02	6.974E-02	6.563E-03	-0.180
		400.66		-5.993E-02	1.032E-01	1.618E-01	1.845E-02	-0.370
SR-85		514.00	*	-4.163E-02	2.674E-02	3.976E-02	3.597E-03	-1.047
Y-88		898.04		-7.746E-03	1.593E-02	2.475E-02	3.291E-03	-0.313
		1836.06	*	-1.055E-02	1.601E-02	2.288E-02	1.956E-03	-0.461
Y-91		1204.77	*	-8.383E-01	7.269E+00	1.157E+01	1.020E+00	-0.072
NB-94		702.65	*	4.069E-03	1.379E-02	2.351E-02	2.112E-03	0.173
		871.09		7.689E-03	1.364E-02	2.367E-02	2.988E-03	0.325

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	1.099E-02	1.639E-02	2.868E-02	2.945E-03	0.383
NB-95M		235.69	*	-7.634E-02	5.271E-02	8.150E-02	8.207E-03	-0.937
ZR-95		724.19		1.091E-02	3.168E-02	5.442E-02	5.486E-03	0.200
		756.73	*	-1.520E-03	2.738E-02	4.524E-02	4.914E-03	-0.034
MO-99		140.51		-2.238E+00	1.084E+01	1.729E+01	4.101E+00	-0.130
		181.07		-1.850E+01	1.049E+01	1.437E+01	2.679E+00	-1.287
		366.42		-1.187E+01	5.328E+01	8.642E+01	7.877E+00	-0.137
		739.50	*	2.823E+00	5.625E+00	9.765E+00	1.600E+00	0.289
		777.92		-1.979E+00	1.812E+01	2.976E+01	3.133E+00	-0.067
TC-99M		140.51	*	-3.517E+10	1.812E+01	Half-Life too short		
RU-103		497.08	*	-6.258E-03	1.733E-02	2.728E-02	3.889E-03	-0.229
		610.33		-2.000E-01	3.860E-01	5.527E-01	9.030E-02	-0.362
RH-106		621.93	*	-6.571E-02	1.318E-01	2.122E-01	2.799E-02	-0.310
		1050.41		7.229E-01	9.649E-01	1.699E+00	1.867E-01	0.425
RU-106		621.93	*	-6.571E-02	1.316E-01	2.122E-01	1.809E-02	-0.310
		1050.41		7.229E-01	9.649E-01	1.699E+00	1.867E-01	0.425
AG-108M		433.94	*	2.998E-03	1.134E-02	1.889E-02	1.768E-03	0.159
		614.28		-1.604E-02	1.466E-02	2.248E-02	1.992E-03	-0.713
		722.91		-2.911E-03	1.513E-02	2.196E-02	2.117E-03	-0.133
CD-109		88.03	*	-6.119E-01	3.382E-01	4.429E-01	4.182E-02	-1.382
AG-110M		657.76	*	7.019E-03	1.350E-02	2.353E-02	2.001E-03	0.298
		677.62		2.770E-02	1.198E-01	2.041E-01	1.786E-02	0.136
		706.68		1.980E-02	8.634E-02	1.466E-01	1.363E-02	0.135
		763.94		1.426E-02	6.264E-02	1.060E-01	1.106E-02	0.135
		884.68		-1.074E-03	1.922E-02	3.145E-02	4.130E-03	-0.034
		937.49		2.161E-02	4.072E-02	7.052E-02	9.167E-03	0.306
		1384.29		5.108E-04	5.818E-02	9.697E-02	1.073E-02	0.005
		1505.03		-1.309E-01	1.203E-01	1.653E-01	1.739E-02	-0.792
SN-113		391.69	*	-3.263E-03	1.857E-02	3.010E-02	2.784E-03	-0.108
CD-115		260.90		-6.292E+01	7.404E+01	1.174E+02	1.058E+01	-0.536
		492.35		-3.511E+00	2.582E+01	3.634E+01	3.303E+00	-0.097
		527.90	*	2.372E+00	5.830E+00	9.759E+00	8.791E-01	0.243
SN-117M		156.02		-7.593E-01	8.825E-01	1.346E+00	1.118E-01	-0.564
		158.56	*	5.880E-03	2.178E-02	3.551E-02	2.935E-03	0.166
TE-123M		159.00	*	-1.452E-03	1.121E-02	1.789E-02	1.487E-03	-0.081
SB-124		602.73		7.734E-03	1.828E-02	3.025E-02	2.619E-03	0.256
		645.85		2.878E-02	1.943E-01	3.293E-01	2.914E-02	0.087
		722.78		-5.106E-02	1.549E-01	2.220E-01	2.124E-02	-0.230
		1690.97	*	9.078E-03	3.550E-02	6.077E-02	6.017E-03	0.149
SB-125		427.87	*	-8.882E-03	3.634E-02	5.827E-02	5.382E-03	-0.152
		463.37		-2.803E-02	1.050E-01	1.672E-01	1.626E-02	-0.168
		600.60		-3.584E-03	8.472E-02	1.356E-01	1.262E-02	-0.026
		635.95		-1.340E-01	1.081E-01	1.607E-01	1.467E-02	-0.834
TE-125M		109.28	*	-3.711E+00	3.800E+00	5.844E+00	6.237E-01	-0.635
I-126		388.63		7.257E-03	6.887E-02	1.139E-01	1.026E-02	0.064
		666.33	*	9.224E-03	8.450E-02	1.426E-01	1.182E-02	0.065
		753.82		-5.061E-02	7.403E-01	1.222E+00	1.224E-01	-0.041
SB-126		414.70		7.638E-04	3.172E-02	5.199E-02	4.709E-03	0.015
		666.50		6.982E-03	2.874E-02	4.907E-02	4.066E-03	0.142

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		695.00		-9.048E-03	3.398E-02	5.548E-02	4.901E-03	-0.163
		697.00		1.287E-02	1.170E-01	1.968E-01	1.746E-02	0.065
		720.70	*	-3.690E-02	5.563E-02	8.663E-02	8.092E-03	-0.426
		856.80		-2.855E-01	2.012E-01	2.784E-01	3.422E-02	-1.025
SN-126		64.28		4.436E-02	2.181E-01	3.189E-01	4.730E-02	0.139
		86.94		-3.316E-02	1.340E-01	1.911E-01	7.933E-02	-0.174
		87.57	*	-2.509E-02	3.209E-02	4.471E-02	4.202E-03	-0.561
SB-127		252.40		6.393E-01	2.094E+00	3.526E+00	1.469E+00	0.181
		473.00		-9.163E-02	8.177E-01	1.318E+00	1.757E-01	-0.070
		685.70	*	-7.514E-02	6.235E-01	1.031E+00	1.201E-01	-0.073
		783.70		2.006E-01	1.572E+00	2.636E+00	3.707E-01	0.076
I-131		80.19		-8.559E-01	1.680E+00	2.690E+00	2.367E-01	-0.318
		284.31		4.831E-01	6.454E-01	1.115E+00	1.064E-01	0.433
		364.49	*	-4.238E-03	5.537E-02	9.071E-02	8.679E-03	-0.047
		636.99		-4.711E-01	6.570E-01	1.031E+00	9.196E-02	-0.457
TE-132		49.72		-1.949E+01	1.031E+01	1.260E+01	1.422E+00	-1.546
		111.76		1.849E+01	1.533E+01	2.614E+01	2.991E+00	0.708
		116.30		-1.374E+01	1.381E+01	2.114E+01	2.428E+00	-0.650
		228.16	*	9.357E-02	3.469E-01	5.891E-01	9.471E-02	0.159
BA-133		81.00		-2.372E-02	3.208E-02	5.047E-02	7.884E-03	-0.470
		276.40		5.120E-02	1.368E-01	2.322E-01	3.344E-02	0.220
		302.85		8.849E-03	5.884E-02	9.841E-02	1.322E-02	0.090
		356.01	*	-7.671E-03	1.894E-02	3.041E-02	4.048E-03	-0.252
		383.85		-5.162E-02	1.221E-01	1.945E-01	2.474E-02	-0.265
I-133		529.87	*	-3.748E-03	1.221E-01	Half-Life too short		
		875.33		4.458E-02	1.221E-01	Half-Life too short		
		1298.22		1.730E-01	1.221E-01	Half-Life too short		
CS-134		563.25		5.073E-02	1.616E-01	2.666E-01	2.387E-02	0.190
		569.33		-4.702E-02	8.633E-02	1.327E-01	1.189E-02	-0.354
		604.72		-9.258E-03	1.648E-02	2.535E-02	2.197E-03	-0.365
		795.86	*	-2.862E-03	1.573E-02	2.555E-02	2.802E-03	-0.112
		801.95		-2.592E-02	1.731E-01	2.644E-01	2.931E-02	-0.098
		1365.19		-2.353E-01	4.990E-01	7.770E-01	8.729E-02	-0.303
CS-135		268.22	*	3.162E-03	6.127E-02	1.024E-01	1.059E-02	0.031
I-135		546.56		-3.426E+10	6.127E-02	Half-Life too short		
		836.80		3.256E+10	6.127E-02	Half-Life too short		
		1038.76		2.043E+10	6.127E-02	Half-Life too short		
		1131.51		-4.012E+09	6.127E-02	Half-Life too short		
		1260.41	*	1.180E+09	6.127E-02	Half-Life too short		
		1457.56		3.098E+10	6.127E-02	Half-Life too short		
		1678.03		-3.355E+10	6.127E-02	Half-Life too short		
		1791.20		1.722E+10	6.127E-02	Half-Life too short		
CS-136		153.25		1.398E-01	3.258E-01	5.360E-01	5.383E-02	0.261
		176.60		-1.705E-01	2.144E-01	3.274E-01	3.006E-02	-0.521
		273.65		3.292E-02	2.108E-01	3.540E-01	3.459E-02	0.093
		340.55		-1.313E-02	7.603E-02	9.891E-02	9.386E-03	-0.133
		818.51		-1.633E-03	3.026E-02	4.978E-02	5.687E-03	-0.033
		1048.07	*	3.396E-02	4.212E-02	7.459E-02	8.443E-03	0.455
		1235.36		-5.172E-02	1.832E-01	2.843E-01	3.494E-02	-0.182

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-137M		661.66	*	-5.400E-03	1.360E-02	2.196E-02	1.800E-03	-0.246
CS-137		661.66	*	-5.705E-03	1.436E-02	2.320E-02	1.906E-03	-0.246
CE-139		165.86	*	-1.062E-02	1.281E-02	1.964E-02	1.601E-03	-0.541
BA-140		162.66		1.332E-01	3.854E-01	5.782E-01	5.092E-02	0.230
		304.85		-2.023E-01	6.075E-01	9.841E-01	2.897E-01	-0.206
		423.72		9.198E-01	8.754E-01	1.448E+00	4.781E-01	0.635
		537.26	*	-1.804E-02	1.085E-01	1.724E-01	5.863E-02	-0.105
LA-140		328.76		-3.500E-03	1.249E-01	2.062E-01	1.990E-02	-0.017
		487.02		2.896E-02	5.856E-02	9.872E-02	9.478E-03	0.293
		815.77		-2.301E-02	1.284E-01	2.085E-01	2.531E-02	-0.110
		1596.21	*	2.319E-02	3.615E-02	6.523E-02	6.600E-03	0.356
CE-141		145.44	*	1.356E-02	2.568E-02	4.242E-02	3.667E-03	0.320
CE-143		57.36		1.276E-04	2.568E-02	Half-Life too short		
		293.27	*	9.310E-05	2.568E-02	Half-Life too short		
		664.57		1.965E-04	2.568E-02	Half-Life too short		
		721.93		-4.701E-04	2.568E-02	Half-Life too short		
CE-144		80.12		-1.558E-01	8.297E-01	1.349E+00	1.178E-01	-0.115
		133.52	*	4.401E-03	7.606E-02	1.233E-01	1.892E-02	0.036
PM-144		476.78		-1.947E-02	2.841E-02	4.369E-02	4.287E-03	-0.446
		618.01		-7.797E-03	1.301E-02	2.078E-02	1.828E-03	-0.375
		696.49	*	3.863E-03	1.438E-02	2.448E-02	2.170E-03	0.158
PR-144		696.51	*	4.565E-01	1.064E+00	1.833E+00	1.624E-01	0.249
		1489.16		5.606E+00	5.670E+00	1.056E+01	1.118E+00	0.531
PM-146		453.88	*	-4.587E-03	1.846E-02	2.953E-02	3.246E-03	-0.155
		633.25		-1.391E-01	5.600E-01	9.153E-01	3.492E-01	-0.152
		735.93		-5.098E-02	5.548E-02	8.061E-02	2.286E-02	-0.632
		747.24		9.279E-03	4.014E-02	6.798E-02	1.044E-02	0.136
ND-147		91.11		3.569E-01	1.185E-01	2.059E-01	2.042E-02	1.733
		319.41		2.942E-01	1.429E+00	2.395E+00	2.202E-01	0.123
		531.02	*	-1.707E-01	2.360E-01	3.542E-01	5.373E-02	-0.482
PM-149		285.90	*	3.938E+00	4.987E+01	8.328E+01	1.318E+01	0.047
EU-152		121.78		-9.455E-03	2.857E-02	4.550E-02	4.667E-03	-0.208
		244.70		-8.345E-02	1.300E-01	2.100E-01	1.869E-02	-0.397
		344.28	*	-1.697E-02	4.054E-02	6.511E-02	6.286E-03	-0.261
		778.90		-1.716E-03	1.045E-01	1.730E-01	1.825E-02	-0.010
		964.08		-1.348E-01	1.119E-01	1.566E-01	1.945E-02	-0.860
		1085.87		6.445E-02	1.361E-01	2.341E-01	2.409E-02	0.275
		1112.07		-4.296E-03	1.138E-01	1.841E-01	1.792E-02	-0.023
		1408.01		1.994E-03	9.038E-02	1.133E-01	1.226E-02	0.018
GD-153		69.67		-1.960E-01	5.774E-01	9.352E-01	7.595E-02	-0.210
		97.43	*	-2.554E-02	3.668E-02	5.067E-02	4.551E-03	-0.504
		103.18		1.640E-02	4.095E-02	6.800E-02	6.033E-03	0.241
EU-154		123.07		2.092E-03	2.029E-02	3.305E-02	3.847E-03	0.063
		723.31		2.702E-03	6.807E-02	1.011E-01	1.031E-02	0.027
		873.19		-2.273E-02	1.160E-01	1.873E-01	2.827E-02	-0.121
		996.26		-4.496E-02	1.411E-01	2.221E-01	4.291E-02	-0.202
		1004.73		-5.096E-02	8.704E-02	1.328E-01	1.878E-02	-0.384
		1274.44	*	-1.679E-03	4.200E-02	6.992E-02	8.694E-03	-0.024
EU-155		86.55		3.256E-02	3.855E-02	5.782E-02	5.424E-03	0.563

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		105.31	*	-2.498E-04	3.972E-02	6.465E-02	5.789E-03	-0.004
TB-160		86.79		-1.580E-02	1.046E-01	1.508E-01	1.406E-02	-0.105
		197.04		-6.047E-02	2.654E-01	3.879E-01	3.285E-02	-0.156
		215.65		-1.493E-01	2.913E-01	4.768E-01	4.127E-02	-0.313
		298.57		-8.077E-03	4.617E-02	7.589E-02	6.953E-03	-0.106
		879.36	*	-1.909E-02	5.448E-02	8.629E-02	1.106E-02	-0.221
		962.29		-2.284E-01	2.280E-01	3.063E-01	3.812E-02	-0.746
		966.15		-1.985E-02	7.529E-02	1.186E-01	1.469E-02	-0.167
		1177.93		-3.600E-02	1.086E-01	1.670E-01	1.401E-02	-0.216
		1271.85		2.192E-02	2.439E-01	4.126E-01	4.096E-02	0.053
HO-166M		80.57		-5.438E-02	9.125E-02	1.454E-01	1.275E-02	-0.374
		184.41		-1.579E-02	1.882E-02	2.746E-02	2.289E-03	-0.575
		280.46		-1.431E-02	3.323E-02	5.390E-02	4.906E-03	-0.266
		410.95		-3.081E-02	9.429E-02	1.506E-01	1.363E-02	-0.205
		711.68	*	-5.989E-03	3.500E-02	4.325E-02	3.962E-03	-0.138
		752.31		3.713E-02	1.070E-01	1.832E-01	1.830E-02	0.203
		810.29		-2.291E-02	2.227E-02	3.256E-02	3.658E-03	-0.704
TA-182		67.75		-4.363E-02	3.826E-02	5.940E-02	4.785E-03	-0.734
		100.11		5.399E-03	6.519E-02	1.067E-01	9.518E-03	0.051
		152.43		1.234E-01	1.295E-01	2.184E-01	1.827E-02	0.565
		222.11		-3.527E-02	1.390E-01	2.305E-01	2.009E-02	-0.153
		1121.30		-2.153E-03	5.392E-02	8.714E-02	8.308E-03	-0.025
		1189.05		1.129E-02	9.401E-02	1.546E-01	1.324E-02	0.073
		1221.41	*	-7.653E-03	5.488E-02	8.670E-02	7.881E-03	-0.088
		1231.02		1.167E-01	1.534E-01	2.699E-01	2.496E-02	0.432
IR-192		295.96		-4.517E-02	4.378E-02	6.822E-02	6.286E-03	-0.662
		308.46		-2.052E-03	4.252E-02	7.030E-02	6.483E-03	-0.029
		316.51	*	2.258E-03	1.451E-02	2.424E-02	2.232E-03	0.093
		468.07		1.503E-02	2.778E-02	4.695E-02	4.556E-03	0.320
HG-203		70.83		-1.554E-01	4.750E-01	7.694E-01	1.217E-01	-0.202
		72.87		1.270E-01	2.728E-01	4.562E-01	6.998E-02	0.278
		279.20	*	-7.503E-03	1.523E-02	2.461E-02	2.290E-03	-0.305
BI-207		72.81		2.755E-02	6.212E-02	1.040E-01	8.590E-03	0.265
		74.97		5.036E-02	4.183E-02	6.160E-02	5.162E-03	0.818
		569.70		7.279E-06	1.309E-02	2.108E-02	1.864E-03	0.000
		1063.66	*	1.456E-02	2.060E-02	3.602E-02	3.867E-03	0.404
		1770.23		-2.701E-01	2.656E-01	3.684E-01	3.330E-02	-0.733
TL-208		277.37		4.317E-02	1.476E-01	2.495E-01	3.208E-02	0.173
		583.19	*	9.359E-03	1.873E-02	2.912E-02	2.729E-03	0.321
		860.56		9.249E-02	1.133E-01	1.999E-01	2.564E-02	0.463
PB-210		46.54	*	-2.527E+00	1.589E+00	2.317E+00	2.210E-01	-1.091
BI-211		72.87		5.032E-01	1.079E+00	1.808E+00	1.494E-01	0.278
		351.06	*	2.971E-02	9.187E-02	1.541E-01	1.476E-02	0.193
PB-211		404.85	*	1.858E-01	3.004E-01	4.904E-01	2.377E-01	0.379
		427.09		-2.297E-01	6.240E-01	9.767E-01	4.527E-01	-0.235
		832.01		-1.769E-01	3.777E-01	5.746E-01	3.014E-01	-0.308
BI-212		727.33	*	-4.767E-02	1.847E-01	2.998E-01	3.917E-02	-0.159
		785.37		7.090E-02	1.206E+00	2.010E+00	2.149E-01	0.035
		1620.50		5.468E-01	1.139E+00	1.994E+00	1.992E-01	0.274

---- Non-Identified Nuclides ----

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PB-212		74.82		1.698E-01	1.463E-01	2.137E-01	2.742E-02	0.794
		77.11		-9.961E-02	7.422E-02	1.091E-01	9.290E-03	-0.913
		238.63	*	-1.736E-02	3.442E-02	5.065E-02	5.051E-03	-0.343
		300.09		-1.580E-03	3.275E-01	5.434E-01	5.971E-02	-0.003
BI-214		609.32	*	-1.192E-02	3.661E-02	5.343E-02	5.396E-03	-0.223
		1120.29		-1.340E-01	1.496E-01	1.822E-01	2.127E-02	-0.736
		1764.49		-1.890E-01	1.357E-01	2.067E-01	1.877E-02	-0.915
PB-214		74.82		3.009E-01	2.587E-01	3.787E-01	4.367E-02	0.794
		77.11		-1.756E-01	1.316E-01	1.923E-01	2.280E-02	-0.913
		242.00		-4.019E-01	1.649E-01	2.363E-01	2.505E-02	-1.701
		295.22		8.099E-03	5.735E-02	9.597E-02	1.078E-02	0.084
		351.93	*	1.149E-02	3.324E-02	5.582E-02	6.168E-03	0.206
RN-219		271.23		-8.085E-03	9.223E-02	1.529E-01	1.626E-02	-0.053
		401.81	*	-4.395E-02	1.648E-01	2.648E-01	4.002E-02	-0.166
RA-223		81.07		-5.461E-02	7.227E-02	1.142E-01	1.006E-02	-0.478
		83.79		-4.076E-02	5.086E-02	7.183E-02	6.494E-03	-0.567
		94.87		-2.109E-01	1.910E-01	2.964E-01	2.688E-02	-0.711
		144.24		-5.739E-02	3.107E-01	4.464E-01	4.251E-02	-0.129
		154.21		-5.222E-02	1.438E-01	2.265E-01	2.080E-02	-0.231
		269.46		-1.817E-02	7.276E-02	1.196E-01	1.102E-02	-0.152
		323.87	*	-2.208E-02	2.558E-01	4.209E-01	7.418E-02	-0.052
		338.28		2.843E-01	3.726E-01	6.408E-01	7.997E-02	0.444
RA-224		240.99	*	3.042E-01	2.730E-01	4.766E-01	4.229E-02	0.638
RA-226		609.32	*	-1.192E-02	3.661E-02	5.343E-02	5.396E-03	-0.223
		1120.29		-1.340E-01	1.496E-01	1.822E-01	2.127E-02	-0.736
		1764.49		-1.890E-01	1.357E-01	2.067E-01	1.877E-02	-0.915
AC-227		79.69		-1.814E-01	4.102E-01	6.573E-01	1.135E-01	-0.276
		235.96		-6.537E-02	6.375E-02	1.013E-01	1.066E-02	-0.645
		256.23	*	4.453E-02	1.035E-01	1.764E-01	2.172E-02	0.252
		299.98		-2.497E-02	3.610E-01	5.969E-01	7.808E-02	-0.042
		304.50		-1.665E-01	7.029E-01	1.150E+00	1.934E-01	-0.145
		334.37		3.316E-02	6.961E-01	1.153E+00	1.835E-01	0.029
TH-227		79.80		-2.040E-01	5.424E-01	8.714E-01	1.901E-01	-0.234
		235.96		-6.537E-02	6.371E-02	1.013E-01	1.008E-02	-0.645
		256.23	*	4.453E-02	1.035E-01	1.764E-01	2.441E-02	0.252
		299.98		-2.497E-02	3.610E-01	5.969E-01	7.808E-02	-0.042
		304.50		-1.665E-01	7.029E-01	1.150E+00	1.934E-01	-0.145
		334.37		3.316E-02	6.961E-01	1.153E+00	1.835E-01	0.029
AC-228		338.32		7.048E-02	9.795E-02	1.613E-01	6.747E-02	0.437
		911.20	*	-3.534E-02	6.857E-02	9.124E-02	1.390E-02	-0.387
		968.97		4.036E-03	1.015E-01	1.544E-01	4.001E-02	0.026
RA-228		338.32		7.048E-02	9.795E-02	1.613E-01	6.747E-02	0.437
		911.20	*	-3.534E-02	6.857E-02	9.124E-02	1.390E-02	-0.387
		968.97		4.036E-03	1.015E-01	1.544E-01	4.001E-02	0.026
TH-228		74.82		1.698E-01	1.453E-01	2.137E-01	1.806E-02	0.794
		77.11		-9.961E-02	7.422E-02	1.091E-01	9.290E-03	-0.913
		238.63	*	-1.736E-02	3.442E-02	5.065E-02	5.051E-03	-0.343
		300.09		-1.580E-03	3.275E-01	5.434E-01	3.331E-01	-0.003
TH-229		85.43		1.143E-01	8.210E-02	1.269E-01	1.166E-02	0.901

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		88.47		-1.843E-01	5.553E-02	6.523E-02	6.138E-03	-2.825
		193.51	*	2.037E-01	2.135E-01	3.569E-01	3.010E-02	0.571
		210.85		7.686E-03	3.282E-01	5.527E-01	4.758E-02	0.014
TH-230		609.32	*	-1.192E-02	3.660E-02	5.342E-02	4.601E-03	-0.223
		1120.29		-1.340E-01	1.493E-01	1.822E-01	1.742E-02	-0.736
		1764.49		-1.890E-01	1.357E-01	2.067E-01	1.877E-02	-0.915
PA-231		283.69	*	3.917E-01	5.797E-01	9.958E-01	1.482E-01	0.393
		301.36		1.951E-01	2.299E-01	3.968E-01	4.978E-02	0.492
TH-231		81.07		-5.461E-02	7.227E-02	1.142E-01	1.006E-02	-0.478
		83.79		-4.076E-02	5.086E-02	7.183E-02	6.494E-03	-0.567
		94.87		-2.109E-01	1.910E-01	2.964E-01	2.688E-02	-0.711
		144.24		-5.739E-02	3.107E-01	4.464E-01	4.251E-02	-0.129
		154.21		-5.222E-02	1.438E-01	2.265E-01	2.080E-02	-0.231
		269.46		-1.817E-02	7.276E-02	1.196E-01	1.102E-02	-0.152
		323.87	*	-2.208E-02	2.558E-01	4.209E-01	7.418E-02	-0.052
		338.28		2.843E-01	3.726E-01	6.408E-01	7.997E-02	0.444
TH-232		338.32		7.048E-02	9.363E-02	1.613E-01	1.481E-02	0.437
		911.20	*	-3.534E-02	6.857E-02	9.124E-02	1.390E-02	-0.387
		968.97		4.036E-03	1.015E-01	1.544E-01	4.001E-02	0.026
PA-233		300.13		-4.207E-04	1.631E-01	2.706E-01	4.100E-02	-0.002
		311.90	*	9.803E-03	2.795E-02	4.720E-02	4.444E-03	0.208
		340.48		-6.080E-02	3.103E-01	4.029E-01	9.780E-02	-0.151
PA-234		94.67		9.342E-02	6.669E-02	1.133E-01	1.442E-02	0.824
		98.44		-1.743E-02	4.038E-02	5.477E-02	3.058E-02	-0.318
		111.00		8.053E-02	7.003E-02	1.191E-01	1.460E-02	0.676
		131.20		-4.243E-02	4.097E-02	6.241E-02	5.477E-03	-0.680
		569.50		-1.051E-02	1.154E-01	1.844E-01	1.631E-02	-0.057
		733.00		4.892E-02	1.350E-01	2.315E-01	5.229E-02	0.211
		880.51		-1.023E-01	1.100E-01	1.614E-01	2.073E-02	-0.634
		883.24		-1.051E-02	1.097E-01	1.784E-01	1.211E-01	-0.059
		926.50		3.754E-03	6.229E-02	1.030E-01	2.786E-02	0.036
		946.00	*	5.780E-02	1.150E-01	1.978E-01	4.140E-02	0.292
		949.00		-6.368E-02	1.789E-01	2.819E-01	3.561E-02	-0.226
PA-234M		766.42		-1.278E+00	5.648E+00	7.548E+00	3.853E+00	-0.169
		1001.03	*	-3.860E-01	2.080E+00	3.216E+00	4.137E-01	-0.120
TH-234		63.29	*	1.989E-01	5.925E-01	8.713E-01	1.574E-01	0.228
		92.59		4.009E-01	3.275E-01	5.065E-01	1.130E-01	0.791
U-235		89.96		-1.525E+00	5.056E-01	4.421E-01	1.099E-01	-3.449
		93.35		1.512E-01	2.424E-01	3.777E-01	8.798E-02	0.400
		143.76	*	-1.272E-02	9.163E-02	1.316E-01	2.224E-02	-0.097
		163.33		5.033E-02	1.995E-01	2.980E-01	5.289E-02	0.169
		185.72		-7.239E-03	2.345E-02	3.502E-02	2.924E-03	-0.207
		205.31		8.914E-02	1.918E-01	3.286E-01	5.952E-02	0.271
NP-237		86.48	*	8.849E-02	9.707E-02	1.435E-01	3.291E-02	0.617
		95.86		-1.760E+00	5.872E-01	5.375E-01	1.298E-01	-3.274
U-238		63.29	*	1.989E-01	5.925E-01	8.713E-01	1.574E-01	0.228
		92.59		4.009E-01	3.172E-01	5.065E-01	4.643E-02	0.791
NP-239		99.53		-3.625E-02	7.015E-02	9.719E-02	8.679E-03	-0.373
		103.37		2.007E-02	3.705E-02	6.191E-02	5.491E-03	0.324

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		106.12		-7.113E-03	3.175E-02	5.110E-02	4.523E-03	-0.139
		117.23	*	-3.081E-02	1.565E-01	2.514E-01	2.245E-02	-0.123
		228.18		2.225E-02	8.479E-02	1.440E-01	1.263E-02	0.155
		277.60		2.123E-03	6.727E-02	1.122E-01	1.020E-02	0.019
AM-241		59.54	*	-9.476E-02	5.773E-02	8.730E-02	7.534E-03	-1.085
CM-247		278.00		-1.139E-01	2.873E-01	4.673E-01	4.249E-02	-0.244
		287.50		-1.386E-01	5.099E-01	8.346E-01	7.619E-02	-0.166
		402.40	*	-2.755E-03	1.513E-02	2.448E-02	2.209E-03	-0.113
CF-249		252.80		1.480E-01	3.933E-01	6.695E-01	5.996E-02	0.221
		333.37		1.039E-02	7.234E-02	1.206E-01	1.108E-02	0.086
		388.16	*	-4.165E-03	1.600E-02	2.578E-02	2.324E-03	-0.162
CF-251		177.52	*	-5.726E-02	5.347E-02	8.024E-02	6.631E-03	-0.714
		227.38		9.225E-02	1.396E-01	2.413E-01	2.115E-02	0.382
		285.41		4.945E-01	8.902E-01	1.524E+00	1.390E-01	0.325
ANH-511		511.00	*	-1.433E-02	2.821E-02	4.552E-02	4.121E-03	-0.315

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188      *
* Acquisition date : 24-MAR-2010 22:59:45 Detector SN#    :                 *
* Detector ID      : GAM29                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:01:22.05     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065188          Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.4370E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)	
BE-7	4.447E-02	1.353E-01	2.367E-01	0.000E+00 NOT IDENT.
NA-22	-2.092E-06	1.461E-02	2.514E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	7.762E+05	0.000E+00	0.000E+00 SHORT HLIF
K-40	-4.044E-02	2.058E-01	3.427E-01	0.000E+00 NOT IDENT.
SC-46	-9.628E-03	1.613E-02	2.582E-02	0.000E+00 NOT IDENT.
V-48	-4.179E-03	2.572E-02	4.269E-02	0.000E+00 NOT IDENT.
CR-51	-6.487E-02	1.502E-01	2.567E-01	0.000E+00 NOT IDENT.
MN-54	1.374E-02	1.296E-02	2.435E-02	0.000E+00 NOT IDENT.
CO-56	-9.102E-03	1.717E-02	2.800E-02	0.000E+00 NOT IDENT.
CO-57	-6.051E-03	9.848E-03	1.672E-02	0.000E+00 NOT IDENT.
CO-58	-1.067E-02	1.414E-02	2.228E-02	0.000E+00 NOT IDENT.
FE-59	1.909E-02	3.187E-02	5.715E-02	0.000E+00 NOT IDENT.
CO-60	1.748E-02	1.492E-02	2.885E-02	0.000E+00 NOT IDENT.
ZN-65	-1.286E-03	3.443E-02	5.745E-02	0.000E+00 NOT IDENT.
SE-75	1.106E-02	1.766E-02	3.236E-02	0.000E+00 NOT IDENT.
SR-85	-4.163E-02	2.620E-02	4.090E-02	0.000E+00 NOT IDENT.
Y-88	-1.055E-02	1.569E-02	2.287E-02	0.000E+00 NOT IDENT.
Y-91	-8.383E-01	7.123E+00	1.168E+01	0.000E+00 NOT IDENT.
NB-94	4.069E-03	1.351E-02	2.402E-02	0.000E+00 NOT IDENT.
NB-95	1.099E-02	1.606E-02	2.924E-02	0.000E+00 NOT IDENT.
NB-95M	-7.634E-02	5.165E-02	8.527E-02	0.000E+00 NOT IDENT.
ZR-95	-1.520E-03	2.684E-02	4.615E-02	0.000E+00 NOT IDENT.
MO-99	2.823E+00	5.512E+00	9.966E+00	0.000E+00 NOT IDENT.
TC-99M	0.000E+00	1.670E+17	0.000E+00	0.000E+00 SHORT HLIF
RU-103	-6.258E-03	1.699E-02	2.809E-02	0.000E+00 NOT IDENT.
RH-106	-6.571E-02	1.292E-01	2.174E-01	0.000E+00 NOT IDENT.

RU-106	-6.571E-02	1.290E-01	2.174E-01	0.000E+00	NOT IDENT.
AG-108M	2.998E-03	1.111E-02	1.951E-02	0.000E+00	NOT IDENT.
CD-109	-6.119E-01	3.315E-01	4.730E-01	0.000E+00	NOT IDENT.
AG-110M	7.019E-03	1.323E-02	2.408E-02	0.000E+00	NOT IDENT.
SN-113	-3.263E-03	1.820E-02	3.115E-02	0.000E+00	NOT IDENT.
CD-115	2.372E+00	5.714E+00	1.003E+01	0.000E+00	NOT IDENT.
SN-117M	5.880E-03	2.135E-02	3.746E-02	0.000E+00	NOT IDENT.
TE-123M	-1.452E-03	1.099E-02	1.887E-02	0.000E+00	NOT IDENT.
SB-124	9.078E-03	3.479E-02	6.086E-02	0.000E+00	NOT IDENT.
SB-125	-8.882E-03	3.562E-02	6.019E-02	0.000E+00	NOT IDENT.
TE-125M	-3.711E+00	3.724E+00	6.213E+00	0.000E+00	NOT IDENT.
I-126	9.224E-03	8.281E-02	1.459E-01	0.000E+00	NOT IDENT.
SB-126	-3.690E-02	5.452E-02	8.846E-02	0.000E+00	NOT IDENT.
SN-126	-2.509E-02	3.145E-02	4.774E-02	0.000E+00	NOT IDENT.
SB-127	-7.514E-02	6.111E-01	1.053E+00	0.000E+00	NOT IDENT.
I-131	-4.238E-03	5.426E-02	9.402E-02	0.000E+00	NOT IDENT.
TE-132	9.357E-02	3.400E-01	6.168E-01	0.000E+00	NOT IDENT.
BA-133	-7.671E-03	1.856E-02	3.154E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.796E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-2.862E-03	1.541E-02	2.603E-02	0.000E+00	NOT IDENT.
CS-135	3.162E-03	6.005E-02	1.069E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.027E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.396E-02	4.128E-02	7.553E-02	0.000E+00	NOT IDENT.
BA-137M	-5.400E-03	1.332E-02	2.247E-02	0.000E+00	NOT IDENT.
CS-137	-5.705E-03	1.408E-02	2.374E-02	0.000E+00	NOT IDENT.
CE-139	-1.062E-02	1.256E-02	2.070E-02	0.000E+00	NOT IDENT.
BA-140	-1.804E-02	1.063E-01	1.772E-01	0.000E+00	NOT IDENT.
LA-140	2.319E-02	3.543E-02	6.542E-02	0.000E+00	NOT IDENT.
CE-141	1.356E-02	2.517E-02	4.483E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.823E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	4.401E-03	7.454E-02	1.305E-01	0.000E+00	NOT IDENT.
PM-144	3.863E-03	1.409E-02	2.502E-02	0.000E+00	NOT IDENT.
PR-144	4.565E-01	1.043E+00	1.873E+00	0.000E+00	NOT IDENT.
PM-146	-4.587E-03	1.809E-02	3.046E-02	0.000E+00	NOT IDENT.
ND-147	-1.707E-01	2.313E-01	3.641E-01	0.000E+00	NOT IDENT.
PM-149	3.938E+00	4.887E+01	8.677E+01	0.000E+00	NOT IDENT.
EU-152	-1.697E-02	3.973E-02	6.757E-02	0.000E+00	NOT IDENT.
GD-153	-2.554E-02	3.595E-02	5.400E-02	0.000E+00	NOT IDENT.
EU-154	-1.679E-03	4.116E-02	7.048E-02	0.000E+00	NOT IDENT.
EU-155	-2.498E-04	3.893E-02	6.879E-02	0.000E+00	NOT IDENT.
TB-160	-1.909E-02	5.339E-02	8.772E-02	0.000E+00	NOT IDENT.
HO-166M	-5.989E-03	3.430E-02	4.418E-02	0.000E+00	NOT IDENT.
TA-182	-7.653E-03	5.378E-02	8.749E-02	0.000E+00	NOT IDENT.
IR-192	2.258E-03	1.422E-02	2.520E-02	0.000E+00	NOT IDENT.
HG-203	-7.503E-03	1.492E-02	2.565E-02	0.000E+00	NOT IDENT.
BI-207	1.456E-02	2.019E-02	3.646E-02	0.000E+00	NOT IDENT.
TL-208	9.359E-03	1.835E-02	2.988E-02	0.000E+00	NOT IDENT.
PB-210	-2.527E+00	1.557E+00	2.506E+00	0.000E+00	NOT IDENT.
BI-211	2.971E-02	9.003E-02	1.599E-01	0.000E+00	NOT IDENT.
PB-211	1.858E-01	2.944E-01	5.071E-01	0.000E+00	NOT IDENT.
BI-212	-4.767E-02	1.810E-01	3.061E-01	0.000E+00	NOT IDENT.
PB-212	-1.736E-02	3.374E-02	5.298E-02	0.000E+00	NOT IDENT.
BI-214	-1.192E-02	3.588E-02	5.476E-02	0.000E+00	NOT IDENT.
PB-214	1.149E-02	3.258E-02	5.791E-02	0.000E+00	NOT IDENT.
RN-219	-4.395E-02	1.615E-01	2.739E-01	0.000E+00	NOT IDENT.
RA-223	-2.208E-02	2.507E-01	4.374E-01	0.000E+00	NOT IDENT.
RA-224	3.042E-01	2.675E-01	4.984E-01	0.000E+00	NOT IDENT.
RA-226	-1.192E-02	3.588E-02	5.476E-02	0.000E+00	NOT IDENT.
AC-227	4.453E-02	1.014E-01	1.843E-01	0.000E+00	NOT IDENT.
TH-227	4.453E-02	1.014E-01	1.843E-01	0.000E+00	NOT IDENT.
AC-228	-3.534E-02	6.720E-02	9.268E-02	0.000E+00	NOT IDENT.
RA-228	-3.534E-02	6.720E-02	9.268E-02	0.000E+00	NOT IDENT.
TH-228	-1.736E-02	3.374E-02	5.298E-02	0.000E+00	NOT IDENT.
TH-229	2.037E-01	2.092E-01	3.750E-01	0.000E+00	NOT IDENT.
TH-230	-1.192E-02	3.587E-02	5.476E-02	0.000E+00	NOT IDENT.
PA-231	3.917E-01	5.681E-01	1.038E+00	0.000E+00	NOT IDENT.
TH-231	-2.208E-02	2.507E-01	4.374E-01	0.000E+00	NOT IDENT.
TH-232	-3.534E-02	6.720E-02	9.268E-02	0.000E+00	NOT IDENT.
PA-233	9.803E-03	2.739E-02	4.908E-02	0.000E+00	NOT IDENT.
PA-234	5.780E-02	1.127E-01	2.007E-01	0.000E+00	NOT IDENT.
PA-234M	-3.860E-01	2.038E+00	3.260E+00	0.000E+00	NOT IDENT.
TH-234	1.989E-01	5.806E-01	9.367E-01	0.000E+00	NOT IDENT.
U-235	-1.272E-02	8.979E-02	1.391E-01	0.000E+00	NOT IDENT.
NP-237	8.849E-02	9.512E-02	1.533E-01	0.000E+00	NOT IDENT.
U-238	1.989E-01	5.806E-01	9.367E-01	0.000E+00	NOT IDENT.
NP-239	-3.081E-02	1.534E-01	2.669E-01	0.000E+00	NOT IDENT.
AM-241	-9.476E-02	5.657E-02	9.396E-02	0.000E+00	NOT IDENT.
CM-247	-2.755E-03	1.483E-02	2.531E-02	0.000E+00	NOT IDENT.

CF-249	-4.165E-03	1.568E-02	2.668E-02	0.000E+00 NOT IDENT.
CF-251	-5.726E-02	5.240E-02	8.445E-02	0.000E+00 NOT IDENT.
ANH-511	-1.433E-02	2.764E-02	4.683E-02	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:01:38.10

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 24-MAR-2010 22:59:45
Sample ID         : G1202065188          Sample quantity  : 1.43700E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:01:22.05  0.6%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

None

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:01:42.35

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1 *
* Acquisition date : 24-MAR-2010 22:59:45  Detector SN#    :               *
* Detector ID      : GAM29                 Sensitivity     : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 04:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 04:01:22.05         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 9-MAR-2010 00:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G1202065188           Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.43700E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45.9MS Isotope      :               *
* MSD ID           :                       MSD Isotope     :               *
* LCS ID           : 1032-A                LCS Isotope     :               *
*****************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.447E-02		1.381E-01	2.297E-01	2.236E-02	0.194
NA-22	-2.092E-06		1.491E-02	2.494E-02	2.490E-03	0.000
NA-24	-2.708E-01		3.960E-01	Half-Life too short		
K-40	-4.044E-02		2.100E-01	3.411E-01	3.710E-02	-0.119
SC-46	-9.628E-03		1.646E-02	2.541E-02	3.318E-03	-0.379
V-48	-4.179E-03		2.624E-02	4.210E-02	5.107E-03	-0.099
CR-51	-6.487E-02		1.533E-01	2.469E-01	2.374E-02	-0.263
MN-54	1.374E-02		1.323E-02	2.392E-02	2.819E-03	0.575
CO-56	-9.102E-03		1.753E-02	2.752E-02	3.318E-03	-0.331
CO-57	-6.051E-03		1.005E-02	1.576E-02	1.424E-03	-0.384
CO-58	-1.067E-02		1.443E-02	2.188E-02	2.464E-03	-0.487
FE-59	1.909E-02		3.252E-02	5.651E-02	6.000E-03	0.338
CO-60	1.748E-02		1.523E-02	2.865E-02	3.143E-03	0.610
ZN-65	-1.286E-03		3.514E-02	5.682E-02	5.495E-03	-0.023
SE-75	1.106E-02		1.802E-02	3.101E-02	2.812E-03	0.357
SR-85	-4.163E-02		2.674E-02	3.976E-02	3.597E-03	-1.047
Y-88	-1.055E-02		1.601E-02	2.288E-02	1.956E-03	-0.461

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	-8.383E-01		7.269E+00	1.157E+01	1.020E+00	-0.072
NB-94	4.069E-03		1.379E-02	2.351E-02	2.112E-03	0.173
NB-95	1.099E-02		1.639E-02	2.868E-02	2.945E-03	0.383
NB-95M	-7.634E-02		5.271E-02	8.150E-02	8.207E-03	-0.937
ZR-95	-1.520E-03		2.738E-02	4.524E-02	4.914E-03	-0.034
MO-99	2.823E+00		5.625E+00	9.765E+00	1.600E+00	0.289
TC-99M	-3.517E+10		8.522E+10	Half-Life too short		
RU-103	-6.258E-03		1.733E-02	2.728E-02	3.889E-03	-0.229
RH-106	-6.571E-02		1.318E-01	2.122E-01	2.799E-02	-0.310
RU-106	-6.571E-02		1.316E-01	2.122E-01	1.809E-02	-0.310
AG-108M	2.998E-03		1.134E-02	1.889E-02	1.768E-03	0.159
CD-109	-6.119E-01		3.382E-01	4.429E-01	4.182E-02	-1.382
AG-110M	7.019E-03		1.350E-02	2.353E-02	2.001E-03	0.298
SN-113	-3.263E-03		1.857E-02	3.010E-02	2.784E-03	-0.108
CD-115	2.372E+00		5.830E+00	9.759E+00	8.791E-01	0.243
SN-117M	5.880E-03		2.178E-02	3.551E-02	2.935E-03	0.166
TE-123M	-1.452E-03		1.121E-02	1.789E-02	1.487E-03	-0.081
SB-124	9.078E-03		3.550E-02	6.077E-02	6.017E-03	0.149
SB-125	-8.882E-03		3.634E-02	5.827E-02	5.382E-03	-0.152
TE-125M	-3.711E+00		3.800E+00	5.844E+00	6.237E-01	-0.635
I-126	9.224E-03		8.450E-02	1.426E-01	1.182E-02	0.065
SB-126	-3.690E-02		5.563E-02	8.663E-02	8.092E-03	-0.426
SN-126	-2.509E-02		3.209E-02	4.471E-02	4.202E-03	-0.561
SB-127	-7.514E-02		6.235E-01	1.031E+00	1.201E-01	-0.073
I-131	-4.238E-03		5.537E-02	9.071E-02	8.679E-03	-0.047
TE-132	9.357E-02		3.469E-01	5.891E-01	9.471E-02	0.159
BA-133	-7.671E-03		1.894E-02	3.041E-02	4.048E-03	-0.252
I-133	-3.748E-03		2.447E-03	Half-Life too short		
CS-134	-2.862E-03		1.573E-02	2.555E-02	2.802E-03	-0.112
CS-135	3.162E-03		6.127E-02	1.024E-01	1.059E-02	0.031
I-135	1.180E+09		1.034E+10	Half-Life too short		
CS-136	3.396E-02		4.212E-02	7.459E-02	8.443E-03	0.455
BA-137M	-5.400E-03		1.360E-02	2.196E-02	1.800E-03	-0.246
CS-137	-5.705E-03		1.436E-02	2.320E-02	1.906E-03	-0.246
CE-139	-1.062E-02		1.281E-02	1.964E-02	1.601E-03	-0.541
BA-140	-1.804E-02		1.085E-01	1.724E-01	5.863E-02	-0.105
LA-140	2.319E-02		3.615E-02	6.523E-02	6.600E-03	0.356
CE-141	1.356E-02		2.568E-02	4.242E-02	3.667E-03	0.320
CE-143	9.310E-05		3.991E-05	Half-Life too short		
CE-144	4.401E-03		7.606E-02	1.233E-01	1.892E-02	0.036
PM-144	3.863E-03		1.438E-02	2.448E-02	2.170E-03	0.158
PR-144	4.565E-01		1.064E+00	1.833E+00	1.624E-01	0.249
PM-146	-4.587E-03		1.846E-02	2.953E-02	3.246E-03	-0.155
ND-147	-1.707E-01		2.360E-01	3.542E-01	5.373E-02	-0.482
PM-149	3.938E+00		4.987E+01	8.328E+01	1.318E+01	0.047
EU-152	-1.697E-02		4.054E-02	6.511E-02	6.286E-03	-0.261
GD-153	-2.554E-02		3.668E-02	5.067E-02	4.551E-03	-0.504
EU-154	-1.679E-03		4.200E-02	6.992E-02	8.694E-03	-0.024

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	-2.498E-04		3.972E-02	6.465E-02	5.789E-03	-0.004
TB-160	-1.909E-02		5.448E-02	8.629E-02	1.106E-02	-0.221
HO-166M	-5.989E-03		3.500E-02	4.325E-02	3.962E-03	-0.138
TA-182	-7.653E-03		5.488E-02	8.670E-02	7.881E-03	-0.088
IR-192	2.258E-03		1.451E-02	2.424E-02	2.232E-03	0.093
HG-203	-7.503E-03		1.523E-02	2.461E-02	2.290E-03	-0.305
BI-207	1.456E-02		2.060E-02	3.602E-02	3.867E-03	0.404
TL-208	9.359E-03		1.873E-02	2.912E-02	2.729E-03	0.321
PB-210	-2.527E+00		1.589E+00	2.317E+00	2.210E-01	-1.091
BI-211	2.971E-02		9.187E-02	1.541E-01	1.476E-02	0.193
PB-211	1.858E-01		3.004E-01	4.904E-01	2.377E-01	0.379
BI-212	-4.767E-02		1.847E-01	2.998E-01	3.917E-02	-0.159
PB-212	-1.736E-02		3.442E-02	5.065E-02	5.051E-03	-0.343
BI-214	-1.192E-02		3.661E-02	5.343E-02	5.396E-03	-0.223
PB-214	1.149E-02		3.324E-02	5.582E-02	6.168E-03	0.206
RN-219	-4.395E-02		1.648E-01	2.648E-01	4.002E-02	-0.166
RA-223	-2.208E-02		2.558E-01	4.209E-01	7.418E-02	-0.052
RA-224	3.042E-01		2.730E-01	4.766E-01	4.229E-02	0.638
RA-226	-1.192E-02		3.661E-02	5.343E-02	5.396E-03	-0.223
AC-227	4.453E-02		1.035E-01	1.764E-01	2.172E-02	0.252
TH-227	4.453E-02		1.035E-01	1.764E-01	2.441E-02	0.252
AC-228	-3.534E-02		6.857E-02	9.124E-02	1.390E-02	-0.387
RA-228	-3.534E-02		6.857E-02	9.124E-02	1.390E-02	-0.387
TH-228	-1.736E-02		3.442E-02	5.065E-02	5.051E-03	-0.343
TH-229	2.037E-01		2.135E-01	3.569E-01	3.010E-02	0.571
TH-230	-1.192E-02		3.660E-02	5.342E-02	4.601E-03	-0.223
PA-231	3.917E-01		5.797E-01	9.958E-01	1.482E-01	0.393
TH-231	-2.208E-02		2.558E-01	4.209E-01	7.418E-02	-0.052
TH-232	-3.534E-02		6.857E-02	9.124E-02	1.390E-02	-0.387
PA-233	9.803E-03		2.795E-02	4.720E-02	4.444E-03	0.208
PA-234	5.780E-02		1.150E-01	1.978E-01	4.140E-02	0.292
PA-234M	-3.860E-01		2.080E+00	3.216E+00	4.137E-01	-0.120
TH-234	1.989E-01		5.925E-01	8.713E-01	1.574E-01	0.228
U-235	-1.272E-02		9.163E-02	1.316E-01	2.224E-02	-0.097
NP-237	8.849E-02		9.707E-02	1.435E-01	3.291E-02	0.617
U-238	1.989E-01		5.925E-01	8.713E-01	1.574E-01	0.228
NP-239	-3.081E-02		1.565E-01	2.514E-01	2.245E-02	-0.123
AM-241	-9.476E-02		5.773E-02	8.730E-02	7.534E-03	-1.085
CM-247	-2.755E-03		1.513E-02	2.448E-02	2.209E-03	-0.113
CF-249	-4.165E-03		1.600E-02	2.578E-02	2.324E-03	-0.162
CF-251	-5.726E-02		5.347E-02	8.024E-02	6.631E-03	-0.714
ANH-511	-1.433E-02		2.821E-02	4.552E-02	4.121E-03	-0.315

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065188          *
* Acquisition date : 24-MAR-2010 22:59:45 Detector SN#    :                *
* Detector ID      : GAM29                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 04:01:22.05     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202065188          Analyst initials: MXR1           *
* Batch Number     : 962633               Sample Quantity : 1.4370E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act Error	DLC (pCi/GRAM)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	4.447E-02	1.353E-01	1.184E-01	6.905E-02 NOT IDENT.
NA-22	-2.092E-06	1.461E-02	1.258E-02	7.453E-03 NOT IDENT.
NA-24	-2.708E+05	7.762E+05	0.000E+00	3.960E+05 SHORT HLIF
K-40	-4.044E-02	2.058E-01	1.715E-01	1.050E-01 NOT IDENT.
SC-46	-9.628E-03	1.613E-02	1.292E-02	8.229E-03 NOT IDENT.
V-48	-4.179E-03	2.572E-02	2.136E-02	1.312E-02 NOT IDENT.
CR-51	-6.487E-02	1.502E-01	1.284E-01	7.665E-02 NOT IDENT.
MN-54	1.374E-02	1.296E-02	1.218E-02	6.614E-03 NOT IDENT.
CO-56	-9.102E-03	1.717E-02	1.401E-02	8.763E-03 NOT IDENT.
CO-57	-6.051E-03	9.848E-03	8.366E-03	5.024E-03 NOT IDENT.
CO-58	-1.067E-02	1.414E-02	1.115E-02	7.214E-03 NOT IDENT.
FE-59	1.909E-02	3.187E-02	2.859E-02	1.626E-02 NOT IDENT.
CO-60	1.748E-02	1.492E-02	1.444E-02	7.614E-03 NOT IDENT.
ZN-65	-1.286E-03	3.443E-02	2.874E-02	1.757E-02 NOT IDENT.
SE-75	1.106E-02	1.766E-02	1.619E-02	9.012E-03 NOT IDENT.
SR-85	-4.163E-02	2.620E-02	2.046E-02	1.337E-02 NOT IDENT.
Y-88	-1.055E-02	1.569E-02	1.144E-02	8.007E-03 NOT IDENT.
Y-91	-8.383E-01	7.123E+00	5.842E+00	3.634E+00 NOT IDENT.
NB-94	4.069E-03	1.351E-02	1.202E-02	6.894E-03 NOT IDENT.
NB-95	1.099E-02	1.606E-02	1.463E-02	8.193E-03 NOT IDENT.
NB-95M	-7.634E-02	5.165E-02	4.266E-02	2.635E-02 NOT IDENT.
ZR-95	-1.520E-03	2.684E-02	2.309E-02	1.369E-02 NOT IDENT.
MO-99	2.823E+00	5.512E+00	4.986E+00	2.812E+00 NOT IDENT.
TC-99M	-3.517E+16	1.670E+17	0.000E+00	0.000E+00 SHORT HLIF
RU-103	-6.258E-03	1.699E-02	1.405E-02	8.667E-03 NOT IDENT.
RH-106	-6.571E-02	1.292E-01	1.087E-01	6.589E-02 NOT IDENT.

RU-106	-6.571E-02	1.290E-01	1.087E-01	6.581E-02	NOT IDENT.
AG-108M	2.998E-03	1.111E-02	9.761E-03	5.671E-03	NOT IDENT.
CD-109	-6.119E-01	3.315E-01	2.366E-01	1.691E-01	NOT IDENT.
AG-110M	7.019E-03	1.323E-02	1.205E-02	6.752E-03	NOT IDENT.
SN-113	-3.263E-03	1.820E-02	1.559E-02	9.286E-03	NOT IDENT.
CD-115	2.372E+00	5.714E+00	5.020E+00	2.915E+00	NOT IDENT.
SN-117M	5.880E-03	2.135E-02	1.874E-02	1.089E-02	NOT IDENT.
TE-123M	-1.452E-03	1.099E-02	9.442E-03	5.606E-03	NOT IDENT.
SB-124	9.078E-03	3.479E-02	3.045E-02	1.775E-02	NOT IDENT.
SB-125	-8.882E-03	3.562E-02	3.011E-02	1.817E-02	NOT IDENT.
TE-125M	-3.711E+00	3.724E+00	3.108E+00	1.900E+00	NOT IDENT.
I-126	9.224E-03	8.281E-02	7.299E-02	4.225E-02	NOT IDENT.
SB-126	-3.690E-02	5.452E-02	4.425E-02	2.782E-02	NOT IDENT.
SN-126	-2.509E-02	3.145E-02	2.389E-02	1.605E-02	NOT IDENT.
SB-127	-7.514E-02	6.111E-01	5.270E-01	3.118E-01	NOT IDENT.
I-131	-4.238E-03	5.426E-02	4.704E-02	2.769E-02	NOT IDENT.
TE-132	9.357E-02	3.400E-01	3.086E-01	1.735E-01	NOT IDENT.
BA-133	-7.671E-03	1.856E-02	1.578E-02	9.468E-03	NOT IDENT.
I-133	-3.748E+03	4.796E+03	0.000E+00	2.447E+03	SHORT HLIF
CS-134	-2.862E-03	1.541E-02	1.302E-02	7.864E-03	NOT IDENT.
CS-135	3.162E-03	6.005E-02	5.347E-02	3.064E-02	NOT IDENT.
I-135	1.180E+15	2.027E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.396E-02	4.128E-02	3.779E-02	2.106E-02	NOT IDENT.
BA-137M	-5.400E-03	1.332E-02	1.124E-02	6.798E-03	NOT IDENT.
CS-137	-5.705E-03	1.408E-02	1.188E-02	7.182E-03	NOT IDENT.
CE-139	-1.062E-02	1.256E-02	1.036E-02	6.406E-03	NOT IDENT.
BA-140	-1.804E-02	1.063E-01	8.865E-02	5.426E-02	NOT IDENT.
LA-140	2.319E-02	3.543E-02	3.273E-02	1.808E-02	NOT IDENT.
CE-141	1.356E-02	2.517E-02	2.243E-02	1.284E-02	NOT IDENT.
CE-143	9.310E+01	7.823E+01	0.000E+00	3.991E+01	SHORT HLIF
CE-144	4.401E-03	7.454E-02	6.531E-02	3.803E-02	NOT IDENT.
PM-144	3.863E-03	1.409E-02	1.252E-02	7.191E-03	NOT IDENT.
PR-144	4.565E-01	1.043E+00	9.371E-01	5.321E-01	NOT IDENT.
PM-146	-4.587E-03	1.809E-02	1.524E-02	9.229E-03	NOT IDENT.
ND-147	-1.707E-01	2.313E-01	1.821E-01	1.180E-01	NOT IDENT.
PM-149	3.938E+00	4.887E+01	4.341E+01	2.493E+01	NOT IDENT.
EU-152	-1.697E-02	3.973E-02	3.380E-02	2.027E-02	NOT IDENT.
GD-153	-2.554E-02	3.595E-02	2.701E-02	1.834E-02	NOT IDENT.
EU-154	-1.679E-03	4.116E-02	3.526E-02	2.100E-02	NOT IDENT.
EU-155	-2.498E-04	3.893E-02	3.441E-02	1.986E-02	NOT IDENT.
TB-160	-1.909E-02	5.339E-02	4.389E-02	2.724E-02	NOT IDENT.
HO-166M	-5.989E-03	3.430E-02	2.210E-02	1.750E-02	NOT IDENT.
TA-182	-7.653E-03	5.378E-02	4.377E-02	2.744E-02	NOT IDENT.
IR-192	2.258E-03	1.422E-02	1.261E-02	7.253E-03	NOT IDENT.
HG-203	-7.503E-03	1.492E-02	1.283E-02	7.615E-03	NOT IDENT.
BI-207	1.456E-02	2.019E-02	1.824E-02	1.030E-02	NOT IDENT.
TL-208	9.359E-03	1.835E-02	1.495E-02	9.365E-03	NOT IDENT.
PB-210	-2.527E+00	1.557E+00	1.254E+00	7.943E-01	NOT IDENT.
BI-211	2.971E-02	9.003E-02	7.999E-02	4.593E-02	NOT IDENT.
PB-211	1.858E-01	2.944E-01	2.537E-01	1.502E-01	NOT IDENT.
BI-212	-4.767E-02	1.810E-01	1.531E-01	9.233E-02	NOT IDENT.
PB-212	-1.736E-02	3.374E-02	2.651E-02	1.721E-02	NOT IDENT.
BI-214	-1.192E-02	3.588E-02	2.739E-02	1.830E-02	NOT IDENT.
PB-214	1.149E-02	3.258E-02	2.897E-02	1.662E-02	NOT IDENT.
RN-219	-4.395E-02	1.615E-01	1.370E-01	8.241E-02	NOT IDENT.
RA-223	-2.208E-02	2.507E-01	2.188E-01	1.279E-01	NOT IDENT.
RA-224	3.042E-01	2.675E-01	2.493E-01	1.365E-01	NOT IDENT.
RA-226	-1.192E-02	3.588E-02	2.739E-02	1.830E-02	NOT IDENT.
AC-227	4.453E-02	1.014E-01	9.218E-02	5.174E-02	NOT IDENT.
TH-227	4.453E-02	1.014E-01	9.218E-02	5.176E-02	NOT IDENT.
AC-228	-3.534E-02	6.720E-02	4.637E-02	3.428E-02	NOT IDENT.
RA-228	-3.534E-02	6.720E-02	4.637E-02	3.428E-02	NOT IDENT.
TH-228	-1.736E-02	3.374E-02	2.651E-02	1.721E-02	NOT IDENT.
TH-229	2.037E-01	2.092E-01	1.876E-01	1.067E-01	NOT IDENT.
TH-230	-1.192E-02	3.587E-02	2.739E-02	1.830E-02	NOT IDENT.
PA-231	3.917E-01	5.681E-01	5.192E-01	2.898E-01	NOT IDENT.
TH-231	-2.208E-02	2.507E-01	2.188E-01	1.279E-01	NOT IDENT.
TH-232	-3.534E-02	6.720E-02	4.637E-02	3.428E-02	NOT IDENT.
PA-233	9.803E-03	2.739E-02	2.456E-02	1.398E-02	NOT IDENT.
PA-234	5.780E-02	1.127E-01	1.004E-01	5.751E-02	NOT IDENT.
PA-234M	-3.860E-01	2.038E+00	1.631E+00	1.040E+00	NOT IDENT.
TH-234	1.989E-01	5.806E-01	4.686E-01	2.962E-01	NOT IDENT.
U-235	-1.272E-02	8.979E-02	6.959E-02	4.581E-02	NOT IDENT.
NP-237	8.849E-02	9.512E-02	7.668E-02	4.853E-02	NOT IDENT.
U-238	1.989E-01	5.806E-01	4.686E-01	2.962E-01	NOT IDENT.
NP-239	-3.081E-02	1.534E-01	1.335E-01	7.824E-02	NOT IDENT.
AM-241	-9.476E-02	5.657E-02	4.701E-02	2.886E-02	NOT IDENT.
CM-247	-2.755E-03	1.483E-02	1.266E-02	7.566E-03	NOT IDENT.

CF-249	-4.165E-03	1.568E-02	1.335E-02	8.001E-03	NOT IDENT.
CF-251	-5.726E-02	5.240E-02	4.225E-02	2.674E-02	NOT IDENT.
ANH-511	-1.433E-02	2.764E-02	2.343E-02	1.410E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	202.4697
49.72	267.2739
57.36	0.0000
59.54	291.1522
63.29	220.8324
63.29	220.8324
64.28	221.1543
67.75	264.9304
69.67	243.7598
70.83	277.0381
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72.87	265.8214
72.87	265.8214
74.82	235.4608
74.82	235.4608
74.82	235.4608
74.97	235.5083
77.11	275.3724
77.11	275.3724
77.11	275.3724
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79.80	250.1154
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80.19	265.3767
80.57	265.5052
81.00	268.6819
81.07	268.7052
81.07	268.7052
83.79	279.7661
83.79	279.7661
85.43	203.1425
86.48	214.5923
86.55	214.6108
86.79	254.3526
86.94	254.4003
87.57	271.9083
88.03	315.8749
88.47	408.8167
89.96	476.9584
91.11	269.9992
92.59	183.3879
92.59	183.3879
93.35	216.3655
94.67	265.9951
94.87	360.5628
94.87	360.5628
95.86	451.4762
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98.44	222.7945
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100.11	206.6803
103.18	200.1275
103.37	196.0209
105.31	215.1452
106.12	221.5763
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111.00	188.2253
111.76	187.3288
116.30	241.8359
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136.00	211.1477

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140.51	0.0000
143.76	213.7256
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144.24	221.3769
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153.25	174.1528
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154.21	194.9933
156.02	202.9323
158.56	183.6885
159.00	203.4446
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163.33	206.3766
165.86	250.8066
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177.52	228.7324
181.07	298.3982
184.41	233.3040
185.72	207.8380
193.51	176.4633
197.04	205.5465
205.31	201.3379
210.85	187.5601
215.65	195.4970
222.11	190.8588
227.38	168.5155
228.16	174.1317
228.18	174.1340
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235.96	259.3025
235.96	259.3025
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238.63	179.9710
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252.80	161.9404
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256.23	157.5948
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268.22	154.0242
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269.46	168.3243
271.23	159.0340
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277.60	144.4315
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279.20	154.0780
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280.46	151.3353
283.69	131.5936
284.31	131.6407
285.41	139.3594
285.90	149.9013
287.50	156.7289
293.27	0.0000
295.22	154.5380
295.96	181.4903
298.57	162.5222
299.98	162.6501
299.98	162.6501
300.09	160.7334
300.09	160.7334
300.13	160.7375
301.36	140.6212
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304.50	165.9510
304.50	165.9510
304.85	164.0525
308.46	156.6429
311.90	144.3438

316.51	133.0482
319.41	125.4742
320.08	136.2214
323.87	129.6718
323.87	129.6718
328.76	135.8694
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334.37	134.3075
334.37	134.3075
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338.28	115.9143
338.32	115.9157
338.32	115.9157
338.32	115.9157
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340.55	125.8828
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351.93	146.3921
356.01	153.6282
364.49	133.3686
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388.63	99.6768
391.69	113.9352
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401.81	109.4027
402.40	108.4185
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410.95	100.7016
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433.94	80.1500
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473.00	97.1460
476.78	108.8039
477.60	88.9564
487.02	75.6378
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497.08	94.9252
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531.02	80.1471
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546.56	0.0000
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569.33	94.2875
569.50	83.4555
569.70	83.4612
583.19	64.2590
600.60	104.0988
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609.32	89.0229
609.32	89.0229
609.32	89.0229
610.33	92.3528
614.28	99.0813
618.01	81.7553
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621.93	83.7018
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661.66	68.9625
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666.50	55.0700

677.62	58.0758
685.70	67.6143
695.00	78.1722
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696.51	68.7850
697.00	73.5090
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706.68	67.1114
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721.93	0.0000
722.78	52.2440
722.91	49.3964
723.31	45.6025
724.19	47.5149
727.33	58.0227
733.00	46.6882
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739.50	44.8695
747.24	61.2396
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753.82	58.4819
756.73	53.7339
763.94	58.6557
765.81	54.8395
766.42	49.0753
777.92	59.8582
778.90	58.9088
783.70	54.1554
785.37	55.1480
795.86	45.6087
801.95	50.5474
810.29	57.4863
810.76	51.6467
815.77	47.8157
818.51	49.8047
832.01	51.9508
834.85	35.3145
836.80	0.0000
846.77	68.8892
856.80	69.0757
860.56	44.4507
871.09	42.5941
873.19	53.5199
875.33	0.0000
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889.28	57.7262
898.04	48.8804
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911.20	39.0365
911.20	39.0365
926.50	36.1743
937.49	35.2670
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946.00	37.3613
949.00	50.5259
962.29	55.7609
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968.97	35.5426
968.97	35.5426
968.97	35.5426
983.53	36.6877
996.26	47.0229
1001.03	38.8891
1004.73	53.2642
1037.84	25.8077
1038.76	0.0000
1048.07	31.0425
1050.41	32.0949
1050.41	32.0949
1063.66	35.3074
1085.87	29.2236
1099.45	29.3125
1112.07	39.8926

1115.54	47.2778
1120.29	49.4307
1120.29	49.4307
1120.29	49.4307
1120.55	48.3827
1121.30	47.3383
1131.51	0.0000
1173.23	26.5951
1177.93	28.7512
1189.05	26.6846
1204.77	35.3391
1221.41	25.7900
1231.02	27.9942
1235.36	35.5620
1238.28	34.5052
1260.41	0.0000
1271.85	28.8463
1274.44	29.7924
1274.54	29.7924
1291.59	36.4333
1298.22	0.0000
1312.11	22.5109
1332.49	19.7747
1365.19	30.3214
1368.63	0.0000
1384.29	22.8231
1408.01	15.2829
1457.56	0.0000
1460.82	26.0395
1489.16	17.4475
1505.03	33.0490
1596.21	15.7980
1620.50	22.8019
1678.03	0.0000
1690.97	16.0458
1764.49	17.2478
1764.49	17.2478
1764.49	17.2478
1770.23	35.5420
1771.35	26.4072
1791.20	0.0000
1836.06	20.5155

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065188

Total Uranium Activity	5.8577E-01	ug/g
Total Uranium Counting Unc.	1.7279E+00	ug/g
Total Uranium Tpu	8.8156E-07	ug/g
Total Uranium Mda	1.3945E+00	ug/g

THERE ARE NO PEAKS !

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:02:26.60

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 23:00:25
Sample ID         : G1202065189          Sample quantity  : 1.22070E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:50.22  0.3%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.64*	552	737	0.66	93.27	90	7	3.83E-02	9.3	
2	0	63.32	350	1140	0.80	126.61	123	8	2.43E-02	17.5	
3	3	74.87*	1388	627	0.69	149.69	148	17	9.64E-02	3.7	1.49E+00
4	3	77.13*	2112	560	0.69	154.20	148	17	1.47E-01	2.7	
5	8	84.29	346	922	1.31	168.52	165	27	2.40E-02	15.5	6.37E+00
6	8	87.30*	885	753	1.21	174.54	165	27	6.15E-02	6.1	
7	8	89.90	456	500	0.83	179.74	165	27	3.17E-02	8.9	
8	8	93.09*	857	827	1.54	186.11	165	27	5.95E-02	7.3	
9	0	99.35	86	678	0.85	198.64	195	8	5.99E-03	53.6	
10	0	128.90	140	664	0.94	257.71	255	8	9.71E-03	33.0	
11	0	154.10	121	551	1.09	308.09	305	8	8.43E-03	34.7	
12	0	185.86*	455	654	1.06	371.58	367	10	3.16E-02	11.8	
13	1	209.03	241	275	0.97	417.90	413	14	1.67E-02	12.6	2.59E+00
14	1	211.67	70	286	1.02	423.18	413	14	4.86E-03	39.5	
15	7	238.55*	2375	210	0.89	476.91	474	15	1.65E-01	2.3	3.85E+00
16	7	241.50	535	388	1.73	482.82	474	15	3.72E-02	9.2	
17	0	270.08*	146	277	1.53	539.96	536	8	1.02E-02	21.9	
18	0	277.26	113	266	1.01	554.31	551	8	7.88E-03	26.7	
19	0	295.07*	706	238	0.89	589.92	585	10	4.90E-02	5.7	
20	0	299.88	132	239	0.99	599.55	596	8	9.20E-03	21.9	
21	0	327.96	114	221	0.99	655.68	652	8	7.89E-03	24.6	
22	0	338.11	405	287	1.02	675.98	671	11	2.82E-02	9.5	
23	0	351.87*	991	240	1.13	703.48	699	9	6.89E-02	4.3	
24	0	410.14	71	228	1.66	820.01	815	10	4.93E-03	41.6	
25	0	462.58	119	182	1.17	924.87	920	11	8.23E-03	23.9	
26	0	510.82*	197	248	1.52	1021.35	1014	16	1.37E-02	21.7	
27	0	583.13*	574	131	1.22	1165.96	1159	13	3.98E-02	6.0	
28	0	609.11*	744	153	1.30	1217.92	1211	13	5.17E-02	5.2	
29	0	661.74*	98	159	1.36	1323.18	1317	12	6.77E-03	28.2	
30	0	727.18	145	103	1.39	1454.07	1448	11	1.00E-02	16.0	
31	0	768.11	59	71	1.28	1535.94	1532	8	4.08E-03	28.1	
32	0	795.09	70	70	0.93	1589.90	1585	11	4.86E-03	26.2	
33	0	860.35	60	58	1.81	1720.46	1716	8	4.18E-03	25.4	
34	0	911.10	377	92	1.49	1821.98	1817	13	2.62E-02	7.3	
35	4	964.65	86	50	2.37	1929.11	1924	20	6.00E-03	19.9	1.05E+00
36	4	968.79	214	68	1.90	1937.39	1924	20	1.48E-02	10.0	
37	0	1120.31*	127	103	1.40	2240.56	2235	14	8.79E-03	19.6	
38	0	1460.56*	1652	29	1.97	2921.49	2914	17	1.15E-01	2.6	

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1508.85	27	4	2.21	3018.15	3014	8	1.88E-03	23.1	
40	2	1587.81	37	16	2.40	3176.22	3168	23	2.56E-03	24.9	1.26E+00
41	2	1592.31	40	5	2.40	3185.22	3168	23	2.81E-03	23.1	
42	0	1729.10*	25	14	1.12	3459.06	3452	14	1.72E-03	38.7	
43	0	1764.43*	85	7	1.71	3529.81	3522	16	5.89E-03	14.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 25-MAR-2010 03:02:30

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 23:00:25
Sample ID : G1202065189 Sample quantity : 122.07 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA21 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:00:50.22 0.3%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.308E+01	3.301E+00	4.821E-01	4.116E-02	68.620
CD-109	+	88.03	*	4.658E+00	7.132E-01	5.051E-01	4.753E-02	9.222
SN-126	+	64.28		6.852E-01	2.606E-01	2.152E-01	3.189E-02	3.184
	+	86.94		1.880E+00	8.133E-01	2.031E-01	8.429E-02	9.260
	+	87.57	*	4.523E-01	6.926E-02	4.896E-02	4.590E-03	9.238
BA-137M	+	661.66	*	1.069E-01	6.140E-02	5.681E-02	6.275E-03	1.882
CS-137	+	661.66	*	1.129E-01	6.487E-02	6.002E-02	6.636E-03	1.882
TL-208	+	277.37		6.952E-01	3.811E-01	4.263E-01	5.430E-02	1.631
	+	583.19	*	5.839E-01	9.423E-02	4.576E-02	4.981E-03	12.760
	+	860.56		6.159E-01	3.192E-01	4.200E-01	4.167E-02	1.467
PB-210	+	46.54	*	2.719E+00	5.690E-01	4.482E-01	4.239E-02	6.066
BI-211		72.87		1.059E+00	1.193E+00	1.860E+00	1.557E-01	0.569
	+	351.06	*	3.938E+00	4.930E-01	2.429E-01	2.192E-02	16.215
PB-212	+	74.82		2.509E+00	3.732E-01	2.141E-01	2.764E-02	11.718
	+	77.11		2.298E+00	2.342E-01	1.294E-01	1.116E-02	17.752
	+	238.63	*	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
	+	300.09		1.753E+00	7.914E-01	9.200E-01	9.922E-02	1.905
BI-214	+	609.32	*	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
	+	1120.29		1.404E+00	5.705E-01	4.649E-01	5.015E-02	3.020
	+	1764.49		1.426E+00	4.285E-01	2.975E-01	2.474E-02	4.791
PB-214	+	74.82		4.448E+00	6.122E-01	3.796E-01	4.408E-02	11.718
	+	77.11		4.050E+00	5.311E-01	2.282E-01	2.723E-02	17.752
	+	242.00		2.618E+00	5.558E-01	3.735E-01	3.963E-02	7.011
	+	295.22		1.648E+00	2.605E-01	1.463E-01	1.616E-02	11.266
	+	351.93	*	1.429E+00	1.955E-01	8.840E-02	9.345E-03	16.167
RA-224	+	240.99	*	4.630E+00	9.454E-01	6.574E-01	5.842E-02	7.043
RA-226	+	609.32	*	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
	+	1120.29		1.404E+00	5.705E-01	4.649E-01	5.015E-02	3.020
	+	1764.49		1.426E+00	4.285E-01	2.975E-01	2.474E-02	4.791
AC-228	+	338.32		1.772E+00	8.122E-01	2.552E-01	1.065E-01	6.946
	+	911.20	*	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
	+	968.97		1.944E+00	6.143E-01	3.729E-01	9.102E-02	5.212
RA-228	+	338.32		1.772E+00	8.122E-01	2.552E-01	1.065E-01	6.946
	+	911.20	*	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		1.944E+00	6.143E-01	3.729E-01	9.102E-02	5.212
TH-228	+	74.82		2.509E+00	2.838E-01	2.141E-01	1.834E-02	11.718
	+	77.11		2.298E+00	2.342E-01	1.294E-01	1.116E-02	17.752
	+	238.63	*	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
	+	300.09		1.753E+00	1.320E+00	9.200E-01	5.636E-01	1.905
TH-229	+	85.43		4.425E-01	1.431E-01	1.223E-01	1.126E-02	3.619
	+	88.47		6.973E-01	1.068E-01	7.575E-02	7.142E-03	9.206
		193.51	*	-2.275E-01	3.339E-01	5.488E-01	4.659E-02	-0.415
	+	210.85		7.865E-01	6.258E-01	8.998E-01	7.805E-02	0.874
TH-230	+	609.32	*	1.479E+00	2.193E-01	1.002E-01	1.064E-02	14.766
	+	1120.29		1.404E+00	5.627E-01	4.649E-01	3.929E-02	3.020
	+	1764.49		1.426E+00	4.284E-01	2.975E-01	2.474E-02	4.791
TH-232	+	338.32		1.772E+00	3.693E-01	2.552E-01	2.225E-02	6.946
	+	911.20	*	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
	+	968.97		1.944E+00	6.143E-01	3.729E-01	9.102E-02	5.212
TH-234	+	63.29	*	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
	+	92.59		3.887E+00	1.042E+00	4.371E-01	9.832E-02	8.894
U-235	+	89.96		2.498E+00	7.645E-01	5.270E-01	1.314E-01	4.741
	+	93.35		2.936E+00	8.120E-01	3.312E-01	7.786E-02	8.865
		143.76	*	1.100E-01	1.338E-01	2.091E-01	3.701E-02	0.526
		163.33		1.339E-01	2.588E-01	4.480E-01	7.989E-02	0.299
	+	185.72		2.243E-01	5.607E-02	4.151E-02	3.484E-03	5.402
		205.31		-3.362E-02	3.294E-01	4.946E-01	8.974E-02	-0.068
NP-237	+	86.48	*	1.350E+00	3.504E-01	1.455E-01	3.337E-02	9.276
		95.86		1.856E-01	5.062E-01	6.727E-01	1.644E-01	0.276
U-238	+	63.29	*	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
	+	92.59		3.887E+00	6.795E-01	4.371E-01	4.207E-02	8.894
ANH-511	+	511.00	*	1.489E-01	6.629E-02	3.937E-02	3.775E-03	3.781

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	5.292E-02	2.715E-01	4.604E-01	4.510E-02	0.115
NA-22		1274.54	*	-1.556E-03	4.226E-02	6.780E-02	5.562E-03	-0.023
NA-24		1368.63	*	-8.318E+01	4.226E-02	Half-Life too short		
SC-46		889.28	*	1.971E-02	3.822E-02	6.623E-02	5.889E-03	0.298
	+	1120.55		2.463E-01	9.870E-02	1.302E-01	1.101E-02	1.891
V-48		944.13		-7.994E-01	1.035E+00	1.609E+00	1.410E-01	-0.497
		983.53	*	3.861E-02	8.415E-02	1.440E-01	1.260E-02	0.268
		1312.11		-1.883E-02	1.097E-01	1.732E-01	1.411E-02	-0.109
CR-51		320.08	*	-2.034E-01	3.022E-01	4.699E-01	4.365E-02	-0.433
MN-54		834.85	*	-1.687E-03	3.282E-02	5.493E-02	5.324E-03	-0.031
CO-56		846.77	*	6.398E-03	3.581E-02	6.091E-02	5.806E-03	0.105
		1037.84		-1.535E-01	3.144E-01	4.954E-01	4.519E-02	-0.310
		1238.28		5.210E-02	1.035E-01	1.725E-01	1.464E-02	0.302
		1771.35		4.264E-02	2.568E-01	3.741E-01	3.108E-02	0.114
CO-57		122.06	*	-9.237E-03	1.481E-02	2.271E-02	2.609E-03	-0.407
		136.47		-2.357E-02	1.249E-01	1.938E-01	2.146E-02	-0.122

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-58		810.76	*	-1.424E-02	3.502E-02	5.711E-02	5.715E-03	-0.249
FE-59		1099.45	*	-3.716E-02	9.604E-02	1.518E-01	1.401E-02	-0.245
		1291.59		-6.168E-02	1.388E-01	2.134E-01	2.005E-02	-0.289
CO-60		1173.23		-5.779E-03	4.700E-02	7.560E-02	6.230E-03	-0.076
		1332.49	*	-8.831E-04	3.383E-02	5.659E-02	4.593E-03	-0.016
ZN-65		1115.54	*	-4.955E-04	1.110E-01	1.566E-01	1.328E-02	-0.003
SE-75		121.12		-6.611E-02	7.786E-02	1.178E-01	1.576E-02	-0.561
		136.00		-2.771E-02	2.460E-02	3.632E-02	3.861E-03	-0.763
		264.66	*	-1.302E-02	2.985E-02	4.802E-02	4.312E-03	-0.271
		279.54		4.763E-03	8.577E-02	1.192E-01	1.101E-02	0.040
		400.66		3.553E-02	2.124E-01	3.399E-01	3.630E-02	0.105
SR-85		514.00	*	2.077E-02	3.530E-02	5.415E-02	5.210E-03	0.384
Y-88		898.04		-8.581E-03	4.371E-02	7.008E-02	6.160E-03	-0.122
		1836.06	*	2.893E-02	3.540E-02	6.532E-02	5.393E-03	0.443
Y-91		1204.77	*	-8.734E-02	2.542E+01	4.116E+01	3.391E+00	-0.002
NB-94		702.65	*	-1.641E-02	3.242E-02	5.046E-02	5.496E-03	-0.325
		871.09		2.977E-02	3.136E-02	5.600E-02	5.140E-03	0.532
NB-95		765.81	*	2.001E-02	4.798E-02	6.984E-02	7.299E-03	0.287
NB-95M		235.69	*	4.864E-02	9.064E-02	1.387E-01	1.400E-02	0.351
ZR-95		724.19		5.194E-02	1.045E-01	1.540E-01	1.749E-02	0.337
		756.73	*	-8.187E-03	7.409E-02	1.179E-01	1.329E-02	-0.069
MO-99		140.51		1.460E+01	4.160E+01	6.566E+01	1.601E+01	0.222
		181.07		-1.487E+01	3.522E+01	5.252E+01	9.799E+00	-0.283
		366.42		-5.710E+01	2.199E+02	3.455E+02	2.898E+01	-0.165
		739.50	*	-2.756E+01	3.474E+01	5.171E+01	8.771E+00	-0.533
		777.92		-1.031E+02	1.020E+02	1.480E+02	1.530E+01	-0.697
TC-99M		140.51	*	1.507E+15	1.020E+02	Half-Life too short		
RU-103		497.08	*	-4.041E-03	3.496E-02	5.799E-02	8.392E-03	-0.070
	+	610.33		1.650E+01	3.352E+00	2.922E+00	5.110E-01	5.647
RH-106		621.93	*	2.005E-01	2.717E-01	4.652E-01	6.845E-02	0.431
		1050.41		9.697E-01	2.583E+00	4.368E+00	3.777E-01	0.222
RU-106		621.93	*	2.005E-01	2.709E-01	4.652E-01	4.991E-02	0.431
		1050.41		9.697E-01	2.583E+00	4.368E+00	3.777E-01	0.222
AG-108M		433.94	*	1.199E-02	2.328E-02	4.041E-02	3.578E-03	0.297
		614.28		3.466E-02	3.297E-02	5.179E-02	5.642E-03	0.669
		722.91		-1.148E-02	4.120E-02	5.633E-02	6.196E-03	-0.204
AG-110M		657.76	*	1.921E-03	3.529E-02	5.053E-02	5.668E-03	0.038
		677.62		-2.419E-02	3.023E-01	4.877E-01	5.458E-02	-0.050
		706.68		1.916E-01	2.054E-01	3.514E-01	3.890E-02	0.545
		763.94		7.500E-02	1.725E-01	2.520E-01	2.687E-02	0.298
		884.68		-2.682E-02	4.348E-02	6.875E-02	6.348E-03	-0.390
		937.49		-7.407E-02	1.136E-01	1.793E-01	1.627E-02	-0.413
		1384.29		5.574E-02	1.456E-01	2.533E-01	2.137E-02	0.220
		1505.03		1.609E-01	2.603E-01	4.175E-01	3.474E-02	0.385
SN-113		391.69	*	-2.679E-02	3.762E-02	5.700E-02	4.694E-03	-0.470
CD-115		260.90		-2.042E-04	3.762E-02	Half-Life too short		
		492.35		7.916E-05	3.762E-02	Half-Life too short		
		527.90	*	7.571E-06	3.762E-02	Half-Life too short		
SN-117M		156.02		3.988E-01	1.791E+00	2.799E+00	2.526E-01	0.142

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		158.56	*	-1.996E-02	4.490E-02	6.659E-02	5.862E-03	-0.300
TE-123M		159.00	*	-5.911E-03	1.816E-02	2.867E-02	2.527E-03	-0.206
SB-124		602.73		1.050E-02	3.968E-02	5.846E-02	6.174E-03	0.180
		645.85		-3.995E-02	4.432E-01	7.175E-01	8.122E-02	-0.056
		722.78		-1.278E-01	4.349E-01	5.937E-01	6.492E-02	-0.215
		1690.97	*	1.140E-02	8.283E-02	1.385E-01	1.209E-02	0.082
SB-125		427.87	*	-7.887E-02	7.205E-02	1.142E-01	9.877E-03	-0.691
	+	463.37		7.747E-01	3.771E-01	4.562E-01	4.382E-02	1.698
		600.60		-1.804E-02	1.597E-01	2.603E-01	2.881E-02	-0.069
		635.95		7.166E-02	2.327E-01	3.884E-01	4.432E-02	0.185
TE-125M		109.28	*	5.010E-01	5.511E+00	8.811E+00	1.072E+00	0.057
I-126		388.63		-1.880E-02	1.673E-01	2.639E-01	2.113E-02	-0.071
		666.33	*	3.679E-02	2.976E-01	4.280E-01	4.722E-02	0.086
		753.82		2.858E-01	2.253E+00	3.651E+00	3.852E-01	0.078
SB-126		414.70		4.458E-02	8.027E-02	1.253E-01	1.039E-02	0.356
		666.50		1.673E-02	1.027E-01	1.483E-01	1.636E-02	0.113
		695.00		-5.110E-02	9.027E-02	1.396E-01	1.525E-02	-0.366
		697.00		-1.547E-01	3.125E-01	4.863E-01	5.309E-02	-0.318
		720.70	*	1.016E-01	1.833E-01	2.863E-01	3.089E-02	0.355
		856.80		4.486E-01	5.789E-01	9.149E-01	8.591E-02	0.490
SB-127		252.40		5.598E+00	7.050E+00	1.137E+01	4.776E+00	0.492
		473.00		2.363E+00	2.797E+00	4.893E+00	7.005E-01	0.483
		685.70	*	3.703E+00	2.908E+00	5.031E+00	7.264E-01	0.736
		783.70		9.306E-01	7.185E+00	1.160E+01	1.711E+00	0.080
I-131		80.19		-3.411E+00	2.983E+00	4.283E+00	3.820E-01	-0.796
		284.31		-9.521E-02	1.482E+00	2.415E+00	2.266E-01	-0.039
		364.49	*	2.967E-02	1.261E-01	2.045E-01	1.825E-02	0.145
		636.99		1.427E+00	1.949E+00	3.343E+00	3.771E-01	0.427
TE-132		49.72		1.705E+00	5.475E+00	8.645E+00	1.051E+00	0.197
		111.76		3.685E+01	4.590E+01	7.488E+01	1.041E+01	0.492
		116.30		5.491E+01	4.255E+01	6.974E+01	9.867E+00	0.787
		228.16	*	-9.806E-01	1.239E+00	1.978E+00	3.336E-01	-0.496
BA-133		81.00		-6.013E-02	4.324E-02	6.018E-02	9.427E-03	-0.999
	+	276.40		6.431E-01	3.550E-01	4.738E-01	6.775E-02	1.357
		302.85		4.562E-02	1.091E-01	1.627E-01	2.157E-02	0.280
		356.01	*	2.983E-02	3.349E-02	5.089E-02	6.561E-03	0.586
		383.85		-1.405E-01	2.300E-01	3.508E-01	4.234E-02	-0.400
I-133		529.87	*	-6.207E-02	2.300E-01	Half-Life too short		
		875.33		-1.068E+00	2.300E-01	Half-Life too short		
		1298.22		3.051E-01	2.300E-01	Half-Life too short		
CS-134		563.25		2.169E-01	3.042E-01	5.242E-01	5.369E-02	0.414
		569.33		-1.239E-01	1.635E-01	2.471E-01	2.553E-02	-0.502
		604.72		-8.163E-03	3.263E-02	4.581E-02	4.854E-03	-0.178
	+	795.86	*	1.096E-01	5.859E-02	8.032E-02	8.199E-03	1.364
		801.95		6.988E-03	3.850E-01	6.150E-01	6.231E-02	0.011
		1365.19		8.671E-01	1.162E+00	2.091E+00	1.796E-01	0.415
CS-135		268.22	*	1.258E-01	1.188E-01	1.831E-01	1.875E-02	0.687
I-135		546.56		-4.109E+13	1.188E-01	Half-Life too short		
		836.80		1.763E+14	1.188E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1038.76		-5.573E+14	1.188E-01	Half-Life too short		
		1131.51		2.101E+13	1.188E-01	Half-Life too short		
		1260.41	*	4.587E+14	1.188E-01	Half-Life too short		
		1457.56		5.113E+16	1.188E-01	Half-Life too short		
		1678.03		4.439E+14	1.188E-01	Half-Life too short		
		1791.20		3.148E+14	1.188E-01	Half-Life too short		
CS-136	+	153.25		1.448E+00	1.016E+00	1.157E+00	1.251E-01	1.252
		176.60		1.364E-01	3.725E-01	6.409E-01	5.897E-02	0.213
		273.65		3.875E-01	5.724E-01	7.083E-01	6.829E-02	0.547
		340.55		1.400E-02	1.513E-01	2.183E-01	1.970E-02	0.064
		818.51		-9.439E-03	8.022E-02	1.338E-01	1.326E-02	-0.071
		1048.07	*	-5.081E-02	1.362E-01	2.168E-01	1.956E-02	-0.234
		1235.36		4.398E-01	8.063E-01	1.347E+00	1.547E-01	0.326
CE-139		165.86	*	-1.466E-03	1.825E-02	3.107E-02	2.526E-03	-0.047
BA-140		162.66		4.953E-02	6.027E-01	1.033E+00	9.323E-02	0.048
		304.85		-6.560E-01	1.266E+00	1.875E+00	5.506E-01	-0.350
		423.72		1.917E+00	2.037E+00	3.447E+00	1.132E+00	0.556
		537.26	*	-1.037E-01	2.844E-01	4.569E-01	1.565E-01	-0.227
LA-140	+	328.76		7.738E-01	3.878E-01	5.341E-01	4.955E-02	1.449
		487.02		1.514E-01	1.431E-01	2.529E-01	2.475E-02	0.599
		815.77		2.346E-01	3.536E-01	6.238E-01	6.749E-02	0.376
		1596.21	*	7.334E-02	1.018E-01	1.664E-01	1.392E-02	0.441
CE-141		145.44	*	-1.156E-02	4.375E-02	6.733E-02	6.751E-03	-0.172
CE-143		57.36		2.211E-03	4.375E-02	Half-Life too short		
		293.27	*	1.929E-03	4.375E-02	Half-Life too short		
		664.57		1.012E-02	4.375E-02	Half-Life too short		
		721.93		5.237E-03	4.375E-02	Half-Life too short		
CE-144		80.12		-1.295E+00	1.115E+00	1.599E+00	1.411E-01	-0.810
		133.52	*	6.507E-02	1.204E-01	1.923E-01	3.189E-02	0.338
PM-144		476.78		-3.715E-03	5.202E-02	8.687E-02	8.568E-03	-0.043
		618.01		-2.019E-02	2.861E-02	4.435E-02	4.831E-03	-0.455
		696.49	*	-2.446E-02	3.198E-02	4.863E-02	5.312E-03	-0.503
PR-144		696.51	*	-1.821E+00	2.400E+00	3.651E+00	3.987E-01	-0.499
		1489.16		-3.152E+00	1.121E+01	1.784E+01	1.482E+00	-0.177
PM-146		453.88	*	1.388E-02	3.327E-02	5.728E-02	6.175E-03	0.242
		633.25		-2.766E-01	1.244E+00	1.990E+00	7.713E-01	-0.139
		735.93		1.209E-02	1.323E-01	2.144E-01	6.159E-02	0.056
		747.24		7.701E-02	9.605E-02	1.622E-01	2.569E-02	0.475
ND-147	+	91.11		1.067E+00	2.181E-01	2.829E-01	2.888E-02	3.771
		319.41		-2.975E+00	3.279E+00	5.028E+00	4.452E-01	-0.592
		531.02	*	-1.449E-01	6.120E-01	1.000E+00	1.567E-01	-0.145
PM-149		285.90	*	-1.055E-04	6.120E-01	Half-Life too short		
EU-152		121.78		-3.397E-02	4.240E-02	6.440E-02	8.022E-03	-0.527
		244.70		1.102E-01	2.239E-01	3.418E-01	3.043E-02	0.322
		344.28	*	6.194E-02	7.127E-02	1.199E-01	1.099E-02	0.517
		778.90		-2.147E-01	2.406E-01	3.535E-01	3.651E-02	-0.607
	+	964.08		8.471E-01	3.451E-01	5.494E-01	4.814E-02	1.542
		1085.87		-3.109E-01	3.838E-01	5.828E-01	4.989E-02	-0.534
		1112.07		1.040E-01	3.146E-01	5.269E-01	4.468E-02	0.197

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1408.01		2.461E-01	1.705E-01	3.242E-01	2.667E-02	0.759
GD-153		69.67		-2.143E-01	5.666E-01	9.215E-01	7.555E-02	-0.233
		97.43	*	-2.240E-03	5.054E-02	6.565E-02	6.485E-03	-0.034
		103.18		-8.740E-02	6.599E-02	9.052E-02	9.241E-03	-0.965
EU-154		123.07		3.778E-02	2.962E-02	4.850E-02	6.599E-03	0.779
		723.31		-6.404E-02	1.907E-01	2.592E-01	2.977E-02	-0.247
		873.19		1.408E-01	2.591E-01	4.504E-01	5.532E-02	0.313
		996.26		-2.241E-01	3.399E-01	5.265E-01	9.227E-02	-0.426
		1004.73		-5.835E-02	2.222E-01	3.593E-01	4.209E-02	-0.162
		1274.44	*	-3.064E-02	1.204E-01	1.890E-01	2.090E-02	-0.162
EU-155	+	86.55		5.494E-01	8.440E-02	9.530E-02	8.936E-03	5.765
		105.31	*	1.071E-01	5.775E-02	9.674E-02	1.008E-02	1.107
TB-160	+	86.79		1.518E+00	2.324E-01	2.754E-01	2.565E-02	5.510
		197.04		7.559E-02	3.570E-01	6.063E-01	5.172E-02	0.125
		215.65		-1.525E-01	5.752E-01	8.523E-01	7.430E-02	-0.179
	+	298.57		2.574E-01	1.152E-01	1.452E-01	1.296E-02	1.773
		879.36	*	-5.747E-03	1.194E-01	1.988E-01	1.799E-02	-0.029
		962.29		8.535E-01	5.639E-01	9.297E-01	8.146E-02	0.918
		966.15		9.983E-01	2.596E-01	4.898E-01	4.290E-02	2.038
		1177.93		1.139E-01	4.019E-01	6.663E-01	5.491E-02	0.171
		1271.85		-1.482E-01	7.620E-01	1.205E+00	9.876E-02	-0.123
HO-166M		80.57		-1.497E-01	1.208E-01	1.726E-01	1.529E-02	-0.867
	+	184.41		1.782E-01	4.454E-02	4.307E-02	3.608E-03	4.136
		280.46		1.429E-02	6.615E-02	9.308E-02	8.301E-03	0.154
	+	410.95		3.810E-01	3.188E-01	3.682E-01	3.033E-02	1.035
		711.68	*	-3.356E-02	5.628E-02	8.652E-02	9.381E-03	-0.388
		752.31		-1.090E-01	2.796E-01	4.356E-01	4.602E-02	-0.250
		810.29		-3.490E-02	5.183E-02	8.267E-02	8.262E-03	-0.422
TA-182		67.75		6.395E-03	3.503E-02	5.803E-02	4.703E-03	0.110
	+	100.11		1.345E-01	1.447E-01	1.521E-01	1.526E-02	0.884
		152.43		1.185E-01	2.471E-01	3.605E-01	3.363E-02	0.329
		222.11		8.180E-02	2.370E-01	4.009E-01	3.516E-02	0.204
	+	1121.30		6.756E-01	2.708E-01	3.530E-01	2.982E-02	1.914
		1189.05		-5.085E-02	3.457E-01	5.546E-01	4.570E-02	-0.092
		1221.41	*	-2.550E-01	2.285E-01	3.377E-01	2.780E-02	-0.755
		1231.02		7.543E-04	5.409E-01	8.742E-01	7.192E-02	0.001
IR-192	+	295.96		1.270E+00	1.834E-01	2.385E-01	2.143E-02	5.324
		308.46		-1.074E-02	6.820E-02	1.097E-01	9.814E-03	-0.098
		316.51	*	-4.150E-03	2.693E-02	4.326E-02	3.844E-03	-0.096
		468.07		6.869E-03	5.927E-02	8.864E-02	8.547E-03	0.077
HG-203		70.83		-4.926E-01	4.910E-01	7.737E-01	1.228E-01	-0.637
		72.87		2.814E-01	3.190E-01	4.942E-01	7.610E-02	0.569
		279.20	*	2.902E-03	3.225E-02	4.509E-02	4.117E-03	0.064
BI-207		72.81		5.791E-02	6.852E-02	1.067E-01	8.930E-03	0.543
	+	74.97		7.234E-01	8.138E-02	1.091E-01	9.269E-03	6.628
		569.70		-2.825E-02	2.580E-02	3.788E-02	3.879E-03	-0.746
		1063.66	*	8.562E-03	5.134E-02	8.539E-02	7.359E-03	0.100
		1770.23		-2.096E-02	4.981E-01	6.869E-01	5.707E-02	-0.031
PB-211		404.85	*	-2.759E-01	6.908E-01	9.211E-01	4.450E-01	-0.300

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.09		3.373E-02	1.177E+00	1.995E+00	9.226E-01	0.017
		832.01		2.002E-01	8.751E-01	1.485E+00	7.731E-01	0.135
BI-212	+	727.33	*	2.347E+00	8.201E-01	1.116E+00	1.564E-01	2.102
		785.37		3.314E+00	2.909E+00	5.035E+00	5.168E-01	0.658
		1620.50		1.630E+00	2.279E+00	4.102E+00	3.430E-01	0.397
RN-219	+	271.23		5.336E-01	2.400E-01	3.068E-01	3.228E-02	1.739
		401.81	*	-7.249E-02	3.289E-01	5.134E-01	7.485E-02	-0.141
RA-223		81.07		-1.375E-01	9.636E-02	1.362E-01	1.211E-02	-1.009
	+	83.79		2.633E-01	8.516E-02	9.830E-02	8.931E-03	2.679
		94.87		1.937E-01	2.187E-01	3.365E-01	3.278E-02	0.576
		144.24		4.270E-01	4.466E-01	7.050E-01	7.656E-02	0.606
	+	154.21		5.220E-01	3.655E-01	4.328E-01	4.310E-02	1.206
	+	269.46		4.146E-01	1.852E-01	2.499E-01	2.275E-02	1.659
		323.87	*	7.878E-02	5.194E-01	7.566E-01	1.319E-01	0.104
	+	338.28		7.033E+00	1.581E+00	1.956E+00	2.375E-01	3.595
AC-227		79.69		-6.972E-01	5.554E-01	7.786E-01	1.349E-01	-0.895
		235.96		5.651E-02	1.057E-01	1.617E-01	1.705E-02	0.350
		256.23	*	-1.023E-01	1.810E-01	2.906E-01	3.568E-02	-0.352
	+	299.98		1.928E+00	8.813E-01	1.219E+00	1.574E-01	1.582
		304.50		-6.445E-01	1.211E+00	1.807E+00	3.014E-01	-0.357
		334.37		-9.197E-01	1.351E+00	1.826E+00	2.860E-01	-0.504
TH-227		79.80		-9.010E-01	7.430E-01	1.030E+00	2.251E-01	-0.875
		235.96		5.651E-02	1.057E-01	1.617E-01	1.612E-02	0.350
		256.23	*	-1.023E-01	1.811E-01	2.906E-01	4.012E-02	-0.352
	+	299.98		1.928E+00	8.813E-01	1.219E+00	1.574E-01	1.582
		304.50		-6.445E-01	1.211E+00	1.807E+00	3.014E-01	-0.357
		334.37		-9.197E-01	1.351E+00	1.826E+00	2.860E-01	-0.504
PA-231		283.69	*	-7.276E-01	9.947E-01	1.557E+00	2.299E-01	-0.467
	+	301.36		1.239E+00	5.643E-01	7.559E-01	9.347E-02	1.639
TH-231		81.07		-1.375E-01	9.636E-02	1.362E-01	1.211E-02	-1.009
	+	83.79		2.633E-01	8.516E-02	9.830E-02	8.931E-03	2.679
		94.87		1.937E-01	2.187E-01	3.365E-01	3.278E-02	0.576
		144.24		4.270E-01	4.466E-01	7.050E-01	7.656E-02	0.606
	+	154.21		5.220E-01	3.655E-01	4.328E-01	4.310E-02	1.206
	+	269.46		4.146E-01	1.852E-01	2.499E-01	2.275E-02	1.659
		323.87	*	7.878E-02	5.194E-01	7.566E-01	1.319E-01	0.104
	+	338.28		7.033E+00	1.581E+00	1.956E+00	2.375E-01	3.595
PA-233	+	300.13		8.724E-01	4.043E-01	5.509E-01	8.266E-02	1.584
		311.90	*	-5.600E-03	4.670E-02	7.526E-02	6.870E-03	-0.074
		340.48		1.524E-01	5.183E-01	7.563E-01	1.822E-01	0.202
PA-234		94.67		1.406E-01	8.615E-02	1.336E-01	1.763E-02	1.052
	+	98.44		6.633E-02	8.019E-02	7.511E-02	4.207E-02	0.883
		111.00		-5.948E-02	1.013E-01	1.569E-01	2.143E-02	-0.379
		131.20		3.076E-03	6.880E-02	9.962E-02	1.086E-02	0.031
		569.50		-2.383E-01	2.296E-01	3.392E-01	3.472E-02	-0.703
		733.00		9.710E-02	3.571E-01	5.439E-01	1.256E-01	0.179
		880.51		3.447E-02	2.261E-01	3.830E-01	3.459E-02	0.090
		883.24		-2.550E-02	2.412E-01	3.984E-01	2.680E-01	-0.064
		926.50		1.824E-02	1.637E-01	2.746E-01	6.956E-02	0.066

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	-1.728E-01	2.950E-01	4.641E-01	8.741E-02	-0.372
		949.00		2.064E-01	4.414E-01	7.573E-01	6.638E-02	0.273
PA-234M		766.42		9.208E+00	1.359E+01	1.905E+01	9.731E+00	0.483
		1001.03	*	2.070E+00	4.634E+00	7.895E+00	7.943E-01	0.262
NP-239	+	99.53		1.203E-01	1.295E-01	1.392E-01	1.392E-02	0.864
		103.37		-7.215E-02	5.946E-02	8.216E-02	8.397E-03	-0.878
		106.12		5.567E-02	4.653E-02	7.694E-02	7.993E-03	0.724
		117.23	*	-3.099E-01	2.407E-01	3.582E-01	3.986E-02	-0.865
		228.18		-1.111E-01	1.411E-01	2.269E-01	2.000E-02	-0.490
	+	277.60		3.178E-01	1.718E-01	2.319E-01	2.069E-02	1.370
AM-241		59.54	*	-3.614E-02	3.662E-02	5.412E-02	4.591E-03	-0.668
CM-247	+	278.00		1.350E+00	7.295E-01	9.772E-01	8.716E-02	1.381
		287.50		8.215E-02	8.786E-01	1.442E+00	1.287E-01	0.057
		402.40	*	-1.819E-02	3.102E-02	4.729E-02	3.835E-03	-0.385
CF-249		252.80		4.709E-01	6.685E-01	1.136E+00	1.014E-01	0.415
		333.37		3.215E-02	1.406E-01	2.055E-01	1.800E-02	0.156
		388.16	*	9.434E-03	3.128E-02	5.064E-02	4.060E-03	0.186
CF-251		177.52	*	2.961E-02	7.738E-02	1.332E-01	1.103E-02	0.222
		227.38		-2.032E-01	2.279E-01	3.644E-01	3.210E-02	-0.558
		285.41		-1.928E-01	1.492E+00	2.422E+00	2.162E-01	-0.080

VAX/VMS Nuclide Identification Report Generated

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*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189    *
* Acquisition date : 24-MAR-2010 23:00:25 Detector SN#    :                *
* Detector ID        : GAM21               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 04:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 04:00:50.22      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        :  5-MAR-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202065189         Analyst initials: MXR1          *
* Batch Number       : 962633              Sample Quantity : 1.2207E+02 GRAM *
* Recovery           :    1.00000          Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.308E+01	3.235E+00	4.812E-01	0.000E+00
CD-109	4.658E+00	6.989E-01	5.224E-01	0.000E+00
SN-126	4.523E-01	6.787E-02	5.064E-02	0.000E+00
BA-137M	1.069E-01	6.017E-02	5.730E-02	0.000E+00
CS-137	1.129E-01	6.357E-02	6.053E-02	0.000E+00
TL-208	5.839E-01	9.234E-02	4.622E-02	0.000E+00
PB-210	2.719E+00	5.576E-01	4.671E-01	0.000E+00
BI-211	3.938E+00	4.831E-01	2.469E-01	0.000E+00
PB-212	1.910E+00	2.054E-01	6.247E-02	0.000E+00
BI-214	1.480E+00	2.282E-01	1.012E-01	0.000E+00
PB-214	1.429E+00	1.916E-01	8.987E-02	0.000E+00
RA-224	4.630E+00	9.265E-01	6.714E-01	0.000E+00
RA-226	1.480E+00	2.282E-01	1.012E-01	0.000E+00
AC-228	1.977E+00	3.637E-01	2.107E-01	0.000E+00
RA-228	1.977E+00	3.637E-01	2.107E-01	0.000E+00
TH-228	1.910E+00	2.054E-01	6.247E-02	0.000E+00
TH-229	-2.275E-01	3.272E-01	5.621E-01	0.000E+00
TH-230	1.479E+00	2.150E-01	1.011E-01	0.000E+00
TH-232	1.977E+00	3.637E-01	2.107E-01	0.000E+00
TH-234	1.778E+00	6.867E-01	5.800E-01	0.000E+00
U-235	1.100E-01	1.311E-01	2.149E-01	0.000E+00
NP-237	1.350E+00	3.434E-01	1.505E-01	0.000E+00
U-238	1.778E+00	6.867E-01	5.800E-01	0.000E+00
ANH-511	1.489E-01	6.496E-02	3.984E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	5.292E-02	2.661E-01	4.663E-01	0.000E+00	NOT IDENT.
NA-22	-1.556E-03	4.142E-02	6.780E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.363E+07	0.000E+00	0.000E+00	SHORT HLIF

SC-46	1.971E-02	3.746E-02	6.654E-02	0.000E+00	FAIL ABUN
V-48	3.861E-02	8.247E-02	1.445E-01	0.000E+00	NOT IDENT.
CR-51	-2.034E-01	2.961E-01	4.782E-01	0.000E+00	NOT IDENT.
MN-54	-1.687E-03	3.216E-02	5.523E-02	0.000E+00	NOT IDENT.
CO-56	6.398E-03	3.510E-02	6.123E-02	0.000E+00	NOT IDENT.
CO-57	-9.237E-03	1.451E-02	2.340E-02	0.000E+00	NOT IDENT.
CO-58	-1.424E-02	3.432E-02	5.745E-02	0.000E+00	NOT IDENT.
FE-59	-3.716E-02	9.412E-02	1.521E-01	0.000E+00	NOT IDENT.
CO-60	-8.831E-04	3.316E-02	5.656E-02	0.000E+00	NOT IDENT.
ZN-65	-4.955E-04	1.088E-01	1.569E-01	0.000E+00	NOT IDENT.
SE-75	-1.302E-02	2.925E-02	4.899E-02	0.000E+00	NOT IDENT.
SR-85	2.077E-02	3.460E-02	5.478E-02	0.000E+00	NOT IDENT.
Y-88	2.893E-02	3.469E-02	6.501E-02	0.000E+00	NOT IDENT.
Y-91	-8.734E-02	2.491E+01	4.119E+01	0.000E+00	NOT IDENT.
NB-94	-1.641E-02	3.177E-02	5.085E-02	0.000E+00	NOT IDENT.
NB-95	2.001E-02	4.702E-02	7.030E-02	0.000E+00	NOT IDENT.
NB-95M	4.864E-02	8.883E-02	1.417E-01	0.000E+00	NOT IDENT.
ZR-95	-8.187E-03	7.261E-02	1.187E-01	0.000E+00	NOT IDENT.
MO-99	-2.756E+01	3.404E+01	5.208E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.227E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.041E-03	3.426E-02	5.870E-02	0.000E+00	FAIL ABUN
RH-106	2.005E-01	2.662E-01	4.695E-01	0.000E+00	NOT IDENT.
RU-106	2.005E-01	2.655E-01	4.695E-01	0.000E+00	NOT IDENT.
AG-108M	1.199E-02	2.282E-02	4.097E-02	0.000E+00	NOT IDENT.
AG-110M	1.921E-03	3.458E-02	5.096E-02	0.000E+00	NOT IDENT.
SN-113	-2.679E-02	3.686E-02	5.787E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	3.436E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-1.996E-02	4.400E-02	6.837E-02	0.000E+00	NOT IDENT.
TE-123M	-5.911E-03	1.780E-02	2.943E-02	0.000E+00	NOT IDENT.
SB-124	1.140E-02	8.117E-02	1.380E-01	0.000E+00	NOT IDENT.
SB-125	-7.887E-02	7.061E-02	1.158E-01	0.000E+00	FAIL ABUN
TE-125M	5.010E-01	5.401E+00	9.088E+00	0.000E+00	NOT IDENT.
I-126	3.679E-02	2.916E-01	4.316E-01	0.000E+00	NOT IDENT.
SB-126	1.016E-01	1.796E-01	2.884E-01	0.000E+00	NOT IDENT.
SB-127	3.703E+00	2.850E+00	5.071E+00	0.000E+00	NOT IDENT.
I-131	2.967E-02	1.236E-01	2.078E-01	0.000E+00	NOT IDENT.
TE-132	-9.806E-01	1.214E+00	2.021E+00	0.000E+00	NOT IDENT.
BA-133	2.983E-02	3.282E-02	5.173E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.574E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.742E-02	8.081E-02	0.000E+00	FAIL ABUN
CS-135	1.258E-01	1.164E-01	1.868E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.676E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.081E-02	1.334E-01	2.174E-01	0.000E+00	FAIL ABUN
CE-139	-1.466E-03	1.788E-02	3.188E-02	0.000E+00	NOT IDENT.
BA-140	-1.037E-01	2.787E-01	4.620E-01	0.000E+00	NOT IDENT.
LA-140	7.334E-02	9.976E-02	1.659E-01	0.000E+00	FAIL ABUN
CE-141	-1.156E-02	4.288E-02	6.920E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.037E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	6.507E-02	1.180E-01	1.979E-01	0.000E+00	NOT IDENT.
PM-144	-2.446E-02	3.134E-02	4.901E-02	0.000E+00	NOT IDENT.
PR-144	-1.821E+00	2.352E+00	3.679E+00	0.000E+00	NOT IDENT.
PM-146	1.388E-02	3.260E-02	5.804E-02	0.000E+00	NOT IDENT.
ND-147	-1.449E-01	5.997E-01	1.011E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	2.501E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	6.194E-02	6.985E-02	1.219E-01	0.000E+00	FAIL ABUN
GD-153	-2.240E-03	4.953E-02	6.781E-02	0.000E+00	NOT IDENT.
EU-154	-3.064E-02	1.180E-01	1.890E-01	0.000E+00	NOT IDENT.
EU-155	0.000E+00	5.659E-02	9.983E-02	0.000E+00	FAIL ABUN
TB-160	-5.747E-03	1.170E-01	1.997E-01	0.000E+00	FAIL ABUN
HO-166M	-3.356E-02	5.515E-02	8.717E-02	0.000E+00	FAIL ABUN
TA-182	-2.550E-01	2.239E-01	3.379E-01	0.000E+00	FAIL ABUN
IR-192	-4.150E-03	2.639E-02	4.403E-02	0.000E+00	FAIL ABUN
HG-203	2.902E-03	3.161E-02	4.597E-02	0.000E+00	NOT IDENT.
BI-207	8.562E-03	5.032E-02	8.559E-02	0.000E+00	FAIL ABUN
PB-211	-2.759E-01	6.770E-01	9.347E-01	0.000E+00	NOT IDENT.
BI-212	0.000E+00	8.037E-01	1.124E+00	0.000E+00	FAIL ABUN
RN-219	-7.249E-02	3.223E-01	5.211E-01	0.000E+00	FAIL ABUN
RA-223	7.878E-02	5.091E-01	7.699E-01	0.000E+00	FAIL ABUN
AC-227	-1.023E-01	1.774E-01	2.966E-01	0.000E+00	FAIL ABUN
TH-227	-1.023E-01	1.775E-01	2.966E-01	0.000E+00	FAIL ABUN
PA-231	-7.276E-01	9.748E-01	1.587E+00	0.000E+00	FAIL ABUN
TH-231	7.878E-02	5.091E-01	7.699E-01	0.000E+00	FAIL ABUN
PA-233	-5.600E-03	4.577E-02	7.663E-02	0.000E+00	FAIL ABUN
PA-234	-1.728E-01	2.891E-01	4.659E-01	0.000E+00	FAIL ABUN
PA-234M	2.070E+00	4.541E+00	7.920E+00	0.000E+00	NOT IDENT.
NP-239	-3.099E-01	2.359E-01	3.691E-01	0.000E+00	FAIL ABUN
AM-241	-3.614E-02	3.589E-02	5.623E-02	0.000E+00	NOT IDENT.
CM-247	-1.819E-02	3.040E-02	4.799E-02	0.000E+00	FAIL ABUN

CF-249	9.434E-03	3.066E-02	5.141E-02	0.000E+00 NOT IDENT.
CF-251	2.961E-02	7.583E-02	1.365E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:02:27.68

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 23:00:25
Sample ID         : G1202065189          Sample quantity  : 1.22070E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:50.22  0.3%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1652	10.66*	7.204E-01	3.308E+01	3.308E+01	9.98
CD-109	88.03	885	3.70*	8.135E+00	4.523E+00	4.658E+00	15.31
SN-126	64.28	350	9.60	8.182E+00	6.852E-01	6.852E-01	38.04
	86.94	885	8.90	8.135E+00	1.880E+00	1.880E+00	43.25
	87.57	885	37.00*	8.135E+00	4.523E-01	4.523E-01	15.31
BA-137M	661.66	98	89.90*	1.562E+00	1.068E-01	1.069E-01	57.44
CS-137	661.66	98	85.10*	1.562E+00	1.128E-01	1.129E-01	57.44
TL-208	277.37	113	6.60	3.803E+00	6.952E-01	6.952E-01	54.81
	583.19	574	85.00*	1.777E+00	5.839E-01	5.839E-01	16.14
	860.56	60	12.50	1.201E+00	6.159E-01	6.159E-01	51.82
PB-210	46.54	552	4.25*	7.360E+00	2.714E+00	2.719E+00	20.93
BI-211	72.87	------	1.23	8.278E+00	------	Line Not Found	------
	351.06	991	12.92*	2.996E+00	3.938E+00	3.938E+00	12.52
PB-212	74.82	1388	10.28	8.275E+00	2.509E+00	2.509E+00	14.87
	77.11	2112	17.10	8.264E+00	2.298E+00	2.298E+00	10.19
	238.63	2375	43.60*	4.386E+00	1.910E+00	1.910E+00	10.97
	300.09	132	3.30	3.520E+00	1.753E+00	1.753E+00	45.15
BI-214	609.32	744	45.49*	1.699E+00	1.479E+00	1.480E+00	15.74
	1120.29	127	14.92	9.295E-01	1.404E+00	1.404E+00	40.64
	1764.49	85	15.30	5.982E-01	1.426E+00	1.426E+00	30.05
PB-214	74.82	1388	5.80	8.275E+00	4.448E+00	4.448E+00	13.76
	77.11	2112	9.70	8.264E+00	4.050E+00	4.050E+00	13.11
	242.00	535	7.25	4.337E+00	2.618E+00	2.618E+00	21.23
	295.22	706	18.42	3.577E+00	1.648E+00	1.648E+00	15.81
	351.93	991	35.60*	2.996E+00	1.429E+00	1.429E+00	13.68
RA-224	240.99	535	4.10*	4.337E+00	4.630E+00	4.630E+00	20.42
RA-226	609.32	744	45.49*	1.699E+00	1.479E+00	1.480E+00	15.74
	1120.29	127	14.92	9.295E-01	1.404E+00	1.404E+00	40.64
	1764.49	85	15.30	5.982E-01	1.426E+00	1.426E+00	30.05
AC-228	338.32	405	11.27	3.120E+00	1.772E+00	1.772E+00	45.83
	911.20	377	25.80*	1.135E+00	1.977E+00	1.977E+00	18.77
	968.97	214	15.80	1.070E+00	1.944E+00	1.944E+00	31.61

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	405	11.27	3.120E+00	1.772E+00	1.772E+00	45.83
	911.20	377	25.80*	1.135E+00	1.977E+00	1.977E+00	18.77
	968.97	214	15.80	1.070E+00	1.944E+00	1.944E+00	31.61
TH-228	74.82	1388	10.28	8.275E+00	2.509E+00	2.509E+00	11.31
	77.11	2112	17.10	8.264E+00	2.298E+00	2.298E+00	10.19
	238.63	2375	43.60*	4.386E+00	1.910E+00	1.910E+00	10.97
	300.09	132	3.30	3.520E+00	1.753E+00	1.753E+00	75.33
TH-229	85.43	346	14.70	8.185E+00	4.424E-01	4.425E-01	32.34
	88.47	885	24.00	8.135E+00	6.973E-01	6.973E-01	15.31
	193.51	------	4.41*	5.271E+00	------ Line Not Found		------
	210.85	70	2.80	4.884E+00	7.865E-01	7.865E-01	79.57
TH-230	609.32	744	45.49*	1.699E+00	1.479E+00	1.479E+00	14.83
	1120.29	127	14.92	9.295E-01	1.404E+00	1.404E+00	40.08
	1764.49	85	15.30	5.982E-01	1.426E+00	1.426E+00	30.05
TH-232	338.32	405	11.27	3.120E+00	1.772E+00	1.772E+00	20.83
	911.20	377	25.80*	1.135E+00	1.977E+00	1.977E+00	18.77
	968.97	214	15.80	1.070E+00	1.944E+00	1.944E+00	31.61
TH-234	63.29	350	3.70*	8.182E+00	1.778E+00	1.778E+00	39.42
	92.59	857	4.23	8.017E+00	3.887E+00	3.887E+00	26.81
U-235	89.96	456	3.47	8.085E+00	2.498E+00	2.498E+00	30.60
	93.35	857	5.60	8.017E+00	2.936E+00	2.936E+00	27.65
	143.76	------	10.96*	6.567E+00	------ Line Not Found		------
	163.33	------	5.08	6.017E+00	------ Line Not Found		------
	185.72	455	57.20	5.448E+00	2.243E-01	2.243E-01	25.00
	205.31	------	5.01	5.015E+00	------ Line Not Found		------
NP-237	86.48	885	12.40*	8.135E+00	1.350E+00	1.350E+00	25.96
	95.86	------	2.68	7.953E+00	------ Line Not Found		------
U-238	63.29	350	3.70*	8.182E+00	1.778E+00	1.778E+00	39.42
	92.59	857	4.23	8.017E+00	3.887E+00	3.887E+00	17.48
ANH-511	511.00	197	100.00*	2.037E+00	1.489E-01	1.489E-01	44.52

Flag: "*" = Keyline

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

Total number of lines in spectrum 43
Number of unidentified lines 7
Number of lines tentatively identified by NID 36 83.72%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.308E+01	3.308E+01	0.330E+01	9.98	
CD-109	461.40D	1.03	4.523E+00	4.658E+00	0.713E+00	15.31	
SN-126	2.30E+05Y	1.00	4.523E-01	4.523E-01	0.693E-01	15.31	
BA-137M	30.08Y	1.00	1.068E-01	1.069E-01	0.614E-01	57.44	
CS-137	30.08Y	1.00	1.128E-01	1.129E-01	0.649E-01	57.44	
TL-208	1.41E+10Y	1.00	5.839E-01	5.839E-01	0.942E-01	16.14	
PB-210	22.20Y	1.00	2.714E+00	2.719E+00	0.569E+00	20.93	
BI-211	7.04E+08Y	1.00	3.938E+00	3.938E+00	0.493E+00	12.52	
PB-212	1.41E+10Y	1.00	1.910E+00	1.910E+00	0.210E+00	10.97	
BI-214	1600.00Y	1.00	1.479E+00	1.480E+00	0.233E+00	15.74	
PB-214	1600.00Y	1.00	1.429E+00	1.429E+00	0.196E+00	13.68	
RA-224	1.41E+10Y	1.00	4.630E+00	4.630E+00	0.945E+00	20.42	
RA-226	1600.00Y	1.00	1.479E+00	1.480E+00	0.233E+00	15.74	
AC-228	1.41E+10Y	1.00	1.977E+00	1.977E+00	0.371E+00	18.77	
RA-228	1.41E+10Y	1.00	1.977E+00	1.977E+00	0.371E+00	18.77	
TH-228	1.41E+10Y	1.00	1.910E+00	1.910E+00	0.210E+00	10.97	
TH-229	7340.00Y	1.00	6.973E-01	6.973E-01	1.068E-01	15.31	K
TH-230	7.54E+04Y	1.00	1.479E+00	1.479E+00	0.219E+00	14.83	
TH-232	1.41E+10Y	1.00	1.977E+00	1.977E+00	0.371E+00	18.77	
TH-234	4.47E+09Y	1.00	1.778E+00	1.778E+00	0.701E+00	39.42	
U-235	7.04E+08Y	1.00	2.243E-01	2.243E-01	0.561E-01	25.00	K
NP-237	2.14E+06Y	1.00	1.350E+00	1.350E+00	0.350E+00	25.96	
U-238	4.47E+09Y	1.00	1.778E+00	1.778E+00	0.701E+00	39.42	
ANH-511	1.00E+09Y	1.00	1.489E-01	1.489E-01	0.663E-01	44.52	
	Total Activity :		7.173E+01	7.187E+01			

Grand Total Activity : 7.173E+01 7.187E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	99.35	86	678	0.85	198.64	195	8	5.99E-03	****	7.87E+00	T
0	128.90	140	664	0.94	257.71	255	8	9.71E-03	66.0	7.01E+00	
0	154.10	121	551	1.09	308.09	305	8	8.43E-03	69.3	6.27E+00	T
1	209.03	241	275	0.97	417.90	413	14	1.67E-02	25.3	4.94E+00	
0	270.08	146	277	1.53	539.96	536	8	1.02E-02	43.7	3.90E+00	T
0	327.96	114	221	0.99	655.68	652	8	7.89E-03	49.2	3.22E+00	T
0	410.14	71	228	1.66	820.01	815	10	4.93E-03	83.3	2.56E+00	T
0	462.58	119	182	1.17	924.87	920	11	8.23E-03	47.7	2.26E+00	T
0	727.18	145	103	1.39	1454.07	1448	11	1.00E-02	32.0	1.42E+00	T
0	768.11	59	71	1.28	1535.94	1532	8	4.08E-03	56.3	1.34E+00	
0	795.09	70	70	0.93	1589.90	1585	11	4.86E-03	52.5	1.30E+00	T
4	964.65	86	50	2.37	1929.11	1924	20	6.00E-03	39.8	1.07E+00	T
0	1508.85	27	4	2.21	3018.15	3014	8	1.88E-03	46.1	6.98E-01	
2	1587.81	37	16	2.40	3176.22	3168	23	2.56E-03	49.7	6.64E-01	
2	1592.31	40	5	2.40	3185.22	3168	23	2.81E-03	46.1	6.62E-01	
0	1729.10	25	14	1.12	3459.06	3452	14	1.72E-03	77.3	6.10E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:02:34.27

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1 *
* Acquisition date : 24-MAR-2010 23:00:25  Detector SN#    :                *
* Detector ID      : GAM21                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 04:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 04:00:50.22         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 5-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G1202065189           Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.22070E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.308E+01	3.301E+00	4.821E-01	4.116E-02	68.620
CD-109	4.658E+00	7.132E-01	5.051E-01	4.753E-02	9.222
SN-126	4.523E-01	6.926E-02	4.896E-02	4.590E-03	9.238
BA-137M	1.069E-01	6.140E-02	5.681E-02	6.275E-03	1.882
CS-137	1.129E-01	6.487E-02	6.002E-02	6.636E-03	1.882
TL-208	5.839E-01	9.423E-02	4.576E-02	4.981E-03	12.760
PB-210	2.719E+00	5.690E-01	4.482E-01	4.239E-02	6.066
BI-211	3.938E+00	4.930E-01	2.429E-01	2.192E-02	16.215
PB-212	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
BI-214	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
PB-214	1.429E+00	1.955E-01	8.840E-02	9.345E-03	16.167
RA-224	4.630E+00	9.454E-01	6.574E-01	5.842E-02	7.043
RA-226	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
AC-228	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
RA-228	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
TH-228	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
TH-229	6.973E-01	1.068E-01	5.488E-01	4.659E-02	1.271
TH-230	1.479E+00	2.193E-01	1.002E-01	1.064E-02	14.766

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
TH-234	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
U-235	2.243E-01	5.607E-02	2.091E-01	3.701E-02	1.073
NP-237	1.350E+00	3.504E-01	1.455E-01	3.337E-02	9.276
U-238	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
ANH-511	1.489E-01	6.629E-02	3.937E-02	3.775E-03	3.781

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	5.292E-02		2.715E-01	4.604E-01	4.510E-02	0.115
NA-22	-1.556E-03		4.226E-02	6.780E-02	5.562E-03	-0.023
NA-24	-8.318E+01		4.267E+01	Half-Life too short		
SC-46	1.971E-02		3.822E-02	6.623E-02	5.889E-03	0.298
V-48	3.861E-02		8.415E-02	1.440E-01	1.260E-02	0.268
CR-51	-2.034E-01		3.022E-01	4.699E-01	4.365E-02	-0.433
MN-54	-1.687E-03		3.282E-02	5.493E-02	5.324E-03	-0.031
CO-56	6.398E-03		3.581E-02	6.091E-02	5.806E-03	0.105
CO-57	-9.237E-03		1.481E-02	2.271E-02	2.609E-03	-0.407
CO-58	-1.424E-02		3.502E-02	5.711E-02	5.715E-03	-0.249
FE-59	-3.716E-02		9.604E-02	1.518E-01	1.401E-02	-0.245
CO-60	-8.831E-04		3.383E-02	5.659E-02	4.593E-03	-0.016
ZN-65	-4.955E-04		1.110E-01	1.566E-01	1.328E-02	-0.003
SE-75	-1.302E-02		2.985E-02	4.802E-02	4.312E-03	-0.271
SR-85	2.077E-02		3.530E-02	5.415E-02	5.210E-03	0.384
Y-88	2.893E-02		3.540E-02	6.532E-02	5.393E-03	0.443
Y-91	-8.734E-02		2.542E+01	4.116E+01	3.391E+00	-0.002
NB-94	-1.641E-02		3.242E-02	5.046E-02	5.496E-03	-0.325
NB-95	2.001E-02		4.798E-02	6.984E-02	7.299E-03	0.287
NB-95M	4.864E-02		9.064E-02	1.387E-01	1.400E-02	0.351
ZR-95	-8.187E-03		7.409E-02	1.179E-01	1.329E-02	-0.069
MO-99	-2.756E+01		3.474E+01	5.171E+01	8.771E+00	-0.533
TC-99M	1.507E+15		2.157E+15	Half-Life too short		
RU-103	-4.041E-03		3.496E-02	5.799E-02	8.392E-03	-0.070
RH-106	2.005E-01		2.717E-01	4.652E-01	6.845E-02	0.431
RU-106	2.005E-01		2.709E-01	4.652E-01	4.991E-02	0.431
AG-108M	1.199E-02		2.328E-02	4.041E-02	3.578E-03	0.297
AG-110M	1.921E-03		3.529E-02	5.053E-02	5.668E-03	0.038
SN-113	-2.679E-02		3.762E-02	5.700E-02	4.694E-03	-0.470
CD-115	7.571E-06		1.753E-05	Half-Life too short		
SN-117M	-1.996E-02		4.490E-02	6.659E-02	5.862E-03	-0.300
TE-123M	-5.911E-03		1.816E-02	2.867E-02	2.527E-03	-0.206
SB-124	1.140E-02		8.283E-02	1.385E-01	1.209E-02	0.082
SB-125	-7.887E-02		7.205E-02	1.142E-01	9.877E-03	-0.691
TE-125M	5.010E-01		5.511E+00	8.811E+00	1.072E+00	0.057
I-126	3.679E-02		2.976E-01	4.280E-01	4.722E-02	0.086
SB-126	1.016E-01		1.833E-01	2.863E-01	3.089E-02	0.355

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-127	3.703E+00		2.908E+00	5.031E+00	7.264E-01	0.736
I-131	2.967E-02		1.261E-01	2.045E-01	1.825E-02	0.145
TE-132	-9.806E-01		1.239E+00	1.978E+00	3.336E-01	-0.496
BA-133	2.983E-02		3.349E-02	5.089E-02	6.561E-03	0.586
I-133	-6.207E-02		8.031E-02	Half-Life too short		
CS-134	1.096E-01	+	5.859E-02	8.032E-02	8.199E-03	1.364
CS-135	1.258E-01		1.188E-01	1.831E-01	1.875E-02	0.687
I-135	4.587E+14		2.386E+14	Half-Life too short		
CS-136	-5.081E-02		1.362E-01	2.168E-01	1.956E-02	-0.234
CE-139	-1.466E-03		1.825E-02	3.107E-02	2.526E-03	-0.047
BA-140	-1.037E-01		2.844E-01	4.569E-01	1.565E-01	-0.227
LA-140	7.334E-02		1.018E-01	1.664E-01	1.392E-02	0.441
CE-141	-1.156E-02		4.375E-02	6.733E-02	6.751E-03	-0.172
CE-143	1.929E-03		5.292E-04	Half-Life too short		
CE-144	6.507E-02		1.204E-01	1.923E-01	3.189E-02	0.338
PM-144	-2.446E-02		3.198E-02	4.863E-02	5.312E-03	-0.503
PR-144	-1.821E+00		2.400E+00	3.651E+00	3.987E-01	-0.499
PM-146	1.388E-02		3.327E-02	5.728E-02	6.175E-03	0.242
ND-147	-1.449E-01		6.120E-01	1.000E+00	1.567E-01	-0.145
PM-149	-1.055E-04		1.276E-04	Half-Life too short		
EU-152	6.194E-02		7.127E-02	1.199E-01	1.099E-02	0.517
GD-153	-2.240E-03		5.054E-02	6.565E-02	6.485E-03	-0.034
EU-154	-3.064E-02		1.204E-01	1.890E-01	2.090E-02	-0.162
EU-155	1.071E-01		5.775E-02	9.674E-02	1.008E-02	1.107
TB-160	-5.747E-03		1.194E-01	1.988E-01	1.799E-02	-0.029
HO-166M	-3.356E-02		5.628E-02	8.652E-02	9.381E-03	-0.388
TA-182	-2.550E-01		2.285E-01	3.377E-01	2.780E-02	-0.755
IR-192	-4.150E-03		2.693E-02	4.326E-02	3.844E-03	-0.096
HG-203	2.902E-03		3.225E-02	4.509E-02	4.117E-03	0.064
BI-207	8.562E-03		5.134E-02	8.539E-02	7.359E-03	0.100
PB-211	-2.759E-01		6.908E-01	9.211E-01	4.450E-01	-0.300
BI-212	2.347E+00	+	8.201E-01	1.116E+00	1.564E-01	2.102
RN-219	-7.249E-02		3.289E-01	5.134E-01	7.485E-02	-0.141
RA-223	7.878E-02		5.194E-01	7.566E-01	1.319E-01	0.104
AC-227	-1.023E-01		1.810E-01	2.906E-01	3.568E-02	-0.352
TH-227	-1.023E-01		1.811E-01	2.906E-01	4.012E-02	-0.352
PA-231	-7.276E-01		9.947E-01	1.557E+00	2.299E-01	-0.467
TH-231	7.878E-02		5.194E-01	7.566E-01	1.319E-01	0.104
PA-233	-5.600E-03		4.670E-02	7.526E-02	6.870E-03	-0.074
PA-234	-1.728E-01		2.950E-01	4.641E-01	8.741E-02	-0.372
PA-234M	2.070E+00		4.634E+00	7.895E+00	7.943E-01	0.262
NP-239	-3.099E-01		2.407E-01	3.582E-01	3.986E-02	-0.865
AM-241	-3.614E-02		3.662E-02	5.412E-02	4.591E-03	-0.668
CM-247	-1.819E-02		3.102E-02	4.729E-02	3.835E-03	-0.385
CF-249	9.434E-03		3.128E-02	5.064E-02	4.060E-03	0.186
CF-251	2.961E-02		7.738E-02	1.332E-01	1.103E-02	0.222

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065189           *
* Acquisition date : 24-MAR-2010 23:00:25 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:50.22     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  5-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065189          Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.2207E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.308E+01	3.235E+00	2.407E-01	1.650E+00
CD-109	4.658E+00	6.989E-01	2.613E-01	3.566E-01
SN-126	4.523E-01	6.787E-02	2.533E-02	3.463E-02
BA-137M	1.069E-01	6.017E-02	2.866E-02	3.070E-02
CS-137	1.129E-01	6.357E-02	3.028E-02	3.243E-02
TL-208	5.839E-01	9.234E-02	2.313E-02	4.711E-02
PB-210	2.719E+00	5.576E-01	2.337E-01	2.845E-01
BI-211	3.938E+00	4.831E-01	1.235E-01	2.465E-01
PB-212	1.910E+00	2.054E-01	3.125E-02	1.048E-01
BI-214	1.480E+00	2.282E-01	5.061E-02	1.164E-01
PB-214	1.429E+00	1.916E-01	4.496E-02	9.776E-02
RA-224	4.630E+00	9.265E-01	3.359E-01	4.727E-01
RA-226	1.480E+00	2.282E-01	5.061E-02	1.164E-01
AC-228	1.977E+00	3.637E-01	1.054E-01	1.855E-01
RA-228	1.977E+00	3.637E-01	1.054E-01	1.855E-01
TH-228	1.910E+00	2.054E-01	3.125E-02	1.048E-01
TH-229	-2.275E-01	3.272E-01	2.812E-01	1.670E-01
TH-230	1.479E+00	2.150E-01	5.060E-02	1.097E-01
TH-232	1.977E+00	3.637E-01	1.054E-01	1.855E-01
TH-234	1.778E+00	6.867E-01	2.902E-01	3.504E-01
U-235	1.100E-01	1.311E-01	1.075E-01	6.689E-02
NP-237	1.350E+00	3.434E-01	7.530E-02	1.752E-01
U-238	1.778E+00	6.867E-01	2.902E-01	3.504E-01
ANH-511	1.489E-01	6.496E-02	1.993E-02	3.314E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	5.292E-02	2.661E-01	2.333E-01	1.358E-01	NOT IDENT.
NA-22	-1.556E-03	4.142E-02	3.392E-02	2.113E-02	NOT IDENT.
NA-24	-8.318E+07	8.363E+07	0.000E+00	4.267E+07	SHORT HLIF

SC-46	1.971E-02	3.746E-02	3.329E-02	1.911E-02	FAIL ABUN
V-48	3.861E-02	8.247E-02	7.229E-02	4.208E-02	NOT IDENT.
CR-51	-2.034E-01	2.961E-01	2.393E-01	1.511E-01	NOT IDENT.
MN-54	-1.687E-03	3.216E-02	2.763E-02	1.641E-02	NOT IDENT.
CO-56	6.398E-03	3.510E-02	3.063E-02	1.791E-02	NOT IDENT.
CO-57	-9.237E-03	1.451E-02	1.171E-02	7.403E-03	NOT IDENT.
CO-58	-1.424E-02	3.432E-02	2.874E-02	1.751E-02	NOT IDENT.
FE-59	-3.716E-02	9.412E-02	7.610E-02	4.802E-02	NOT IDENT.
CO-60	-8.831E-04	3.316E-02	2.830E-02	1.692E-02	NOT IDENT.
ZN-65	-4.955E-04	1.088E-01	7.849E-02	5.550E-02	NOT IDENT.
SE-75	-1.302E-02	2.925E-02	2.451E-02	1.493E-02	NOT IDENT.
SR-85	2.077E-02	3.460E-02	2.741E-02	1.765E-02	NOT IDENT.
Y-88	2.893E-02	3.469E-02	3.252E-02	1.770E-02	NOT IDENT.
Y-91	-8.734E-02	2.491E+01	2.061E+01	1.271E+01	NOT IDENT.
NB-94	-1.641E-02	3.177E-02	2.544E-02	1.621E-02	NOT IDENT.
NB-95	2.001E-02	4.702E-02	3.517E-02	2.399E-02	NOT IDENT.
NB-95M	4.864E-02	8.883E-02	7.090E-02	4.532E-02	NOT IDENT.
ZR-95	-8.187E-03	7.261E-02	5.936E-02	3.704E-02	NOT IDENT.
MO-99	-2.756E+01	3.404E+01	2.605E+01	1.737E+01	NOT IDENT.
TC-99M	1.507E+21	4.227E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.041E-03	3.426E-02	2.936E-02	1.748E-02	FAIL ABUN
RH-106	2.005E-01	2.662E-01	2.349E-01	1.358E-01	NOT IDENT.
RU-106	2.005E-01	2.655E-01	2.349E-01	1.355E-01	NOT IDENT.
AG-108M	1.199E-02	2.282E-02	2.050E-02	1.164E-02	NOT IDENT.
AG-110M	1.921E-03	3.458E-02	2.549E-02	1.764E-02	NOT IDENT.
SN-113	-2.679E-02	3.686E-02	2.895E-02	1.881E-02	NOT IDENT.
CD-115	7.571E+00	3.436E+01	0.000E+00	1.753E+01	SHORT HLIF
SN-117M	-1.996E-02	4.400E-02	3.421E-02	2.245E-02	NOT IDENT.
TE-123M	-5.911E-03	1.780E-02	1.472E-02	9.082E-03	NOT IDENT.
SB-124	1.140E-02	8.117E-02	6.904E-02	4.141E-02	NOT IDENT.
SB-125	-7.887E-02	7.061E-02	5.793E-02	3.603E-02	FAIL ABUN
TE-125M	5.010E-01	5.401E+00	4.547E+00	2.756E+00	NOT IDENT.
I-126	3.679E-02	2.916E-01	2.159E-01	1.488E-01	NOT IDENT.
SB-126	1.016E-01	1.796E-01	1.443E-01	9.164E-02	NOT IDENT.
SB-127	3.703E+00	2.850E+00	2.537E+00	1.454E+00	NOT IDENT.
I-131	2.967E-02	1.236E-01	1.040E-01	6.305E-02	NOT IDENT.
TE-132	-9.806E-01	1.214E+00	1.011E+00	6.194E-01	NOT IDENT.
BA-133	2.983E-02	3.282E-02	2.588E-02	1.675E-02	FAIL ABUN
I-133	-6.207E+04	1.574E+05	0.000E+00	8.031E+04	SHORT HLIF
CS-134	1.096E-01	5.742E-02	4.043E-02	2.929E-02	FAIL ABUN
CS-135	1.258E-01	1.164E-01	9.344E-02	5.938E-02	NOT IDENT.
I-135	4.587E+20	4.676E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.081E-02	1.334E-01	1.088E-01	6.808E-02	FAIL ABUN
CE-139	-1.466E-03	1.788E-02	1.595E-02	9.124E-03	NOT IDENT.
BA-140	-1.037E-01	2.787E-01	2.311E-01	1.422E-01	NOT IDENT.
LA-140	7.334E-02	9.976E-02	8.302E-02	5.090E-02	FAIL ABUN
CE-141	-1.156E-02	4.288E-02	3.462E-02	2.188E-02	NOT IDENT.
CE-143	1.929E+03	1.037E+03	0.000E+00	5.292E+02	SHORT HLIF
CE-144	6.507E-02	1.180E-01	9.900E-02	6.021E-02	NOT IDENT.
PM-144	-2.446E-02	3.134E-02	2.452E-02	1.599E-02	NOT IDENT.
PR-144	-1.821E+00	2.352E+00	1.841E+00	1.200E+00	NOT IDENT.
PM-146	1.388E-02	3.260E-02	2.904E-02	1.663E-02	NOT IDENT.
ND-147	-1.449E-01	5.997E-01	5.060E-01	3.060E-01	FAIL ABUN
PM-149	-1.055E+02	2.501E+02	0.000E+00	1.276E+02	SHORT HLIF
EU-152	6.194E-02	6.985E-02	6.097E-02	3.564E-02	FAIL ABUN
GD-153	-2.240E-03	4.953E-02	3.392E-02	2.527E-02	NOT IDENT.
EU-154	-3.064E-02	1.180E-01	9.455E-02	6.022E-02	NOT IDENT.
EU-155	1.071E-01	5.659E-02	4.994E-02	2.887E-02	FAIL ABUN
TB-160	-5.747E-03	1.170E-01	9.991E-02	5.969E-02	FAIL ABUN
HO-166M	-3.356E-02	5.515E-02	4.361E-02	2.814E-02	FAIL ABUN
TA-182	-2.550E-01	2.239E-01	1.691E-01	1.142E-01	FAIL ABUN
IR-192	-4.150E-03	2.639E-02	2.203E-02	1.346E-02	FAIL ABUN
HG-203	2.902E-03	3.161E-02	2.300E-02	1.613E-02	NOT IDENT.
BI-207	8.562E-03	5.032E-02	4.282E-02	2.567E-02	FAIL ABUN
PB-211	-2.759E-01	6.770E-01	4.676E-01	3.454E-01	NOT IDENT.
BI-212	2.347E+00	8.037E-01	5.625E-01	4.101E-01	FAIL ABUN
RN-219	-7.249E-02	3.223E-01	2.607E-01	1.644E-01	FAIL ABUN
RA-223	7.878E-02	5.091E-01	3.852E-01	2.597E-01	FAIL ABUN
AC-227	-1.023E-01	1.774E-01	1.484E-01	9.051E-02	FAIL ABUN
TH-227	-1.023E-01	1.775E-01	1.484E-01	9.057E-02	FAIL ABUN
PA-231	-7.276E-01	9.748E-01	7.939E-01	4.974E-01	FAIL ABUN
TH-231	7.878E-02	5.091E-01	3.852E-01	2.597E-01	FAIL ABUN
PA-233	-5.600E-03	4.577E-02	3.834E-02	2.335E-02	FAIL ABUN
PA-234	-1.728E-01	2.891E-01	2.331E-01	1.475E-01	FAIL ABUN
PA-234M	2.070E+00	4.541E+00	3.962E+00	2.317E+00	NOT IDENT.
NP-239	-3.099E-01	2.359E-01	1.847E-01	1.204E-01	FAIL ABUN
AM-241	-3.614E-02	3.589E-02	2.813E-02	1.831E-02	NOT IDENT.
CM-247	-1.819E-02	3.040E-02	2.401E-02	1.551E-02	FAIL ABUN

CF-249	9.434E-03	3.066E-02	2.572E-02	1.564E-02 NOT IDENT.
CF-251	2.961E-02	7.583E-02	6.831E-02	3.869E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	382.3819
49.72	381.1498
57.36	0.0000
59.54	550.4957
63.29	559.4451
63.29	559.4451
64.28	561.6814
67.75	588.1947
69.67	620.4482
70.83	683.2540
72.81	631.0656
72.87	631.2015
72.87	631.2015
74.82	649.2062
74.82	649.2062
74.82	649.2062
74.97	649.5571
77.11	654.4687
77.11	654.4687
77.11	654.4687
79.69	660.3061
79.80	660.5546
80.12	661.2709
80.19	661.4268
80.57	662.2795
81.00	663.2346
81.07	663.3904
81.07	663.3904
83.79	419.2444
83.79	419.2444
85.43	421.4813
86.48	422.9004
86.55	422.9950
86.79	423.3154
86.94	423.5229
87.57	424.3683
88.03	424.9847
88.47	425.5707
89.96	427.5513
91.11	429.0680
92.59	431.0028
92.59	431.0028
93.35	431.9916
94.67	433.7006
94.87	399.2432
94.87	399.2432
95.86	376.4735
97.43	400.0696
98.44	379.3152
99.53	380.5045
100.11	381.1353
103.18	472.5843
103.37	472.8342
105.31	364.3499
106.12	399.8791
109.28	393.1222
111.00	416.4730
111.76	350.2151
116.30	345.1195
117.23	454.3180
121.12	384.2086
121.78	391.8261
122.06	383.9254
123.07	317.0178
131.20	386.3469
133.52	351.2325
136.00	386.9476

136.47	359.5998
140.51	378.6374
140.51	0.0000
143.76	376.3907
144.24	371.8658
144.24	371.8658
145.44	397.4217
152.43	354.5406
153.25	377.6382
154.21	365.0069
154.21	365.0069
156.02	347.0552
158.56	342.4923
159.00	341.0150
162.66	347.3612
163.33	340.1570
165.86	355.4814
176.60	312.0628
177.52	312.5799
181.07	336.0922
184.41	339.3945
185.72	327.7660
193.51	352.7901
197.04	309.7168
205.31	307.4907
210.85	298.1895
215.65	325.0573
222.11	288.3309
227.38	293.4285
228.16	297.5532
228.18	297.5628
235.69	270.1439
235.96	278.8735
235.96	278.8735
238.63	267.4234
238.63	267.4234
240.99	268.3086
242.00	268.6875
244.70	218.2755
252.40	240.1799
252.80	240.3095
256.23	276.8838
256.23	276.8838
260.90	0.0000
264.66	215.1958
268.22	195.1627
269.46	230.5568
269.46	230.5568
271.23	227.5553
273.65	190.4612
276.40	230.5559
277.37	223.7427
277.60	223.8102
278.00	200.6144
279.20	196.3463
279.54	184.2473
280.46	185.9822
283.69	219.3654
284.31	204.2155
285.41	205.5106
285.90	0.0000
287.50	215.2551
293.27	0.0000
295.22	181.5521
295.96	161.5193
298.57	162.0144
299.98	223.1320
299.98	223.1320
300.09	223.1626
300.09	223.1626
300.13	223.1713
301.36	200.0469
302.85	190.9973
304.50	209.5573
304.50	209.5573
304.85	203.3622
308.46	174.3689
311.90	192.9743

316.51	199.2681
319.41	210.5402
320.08	200.0560
323.87	182.7208
323.87	182.7208
328.76	190.1331
333.37	166.7841
334.37	183.1698
334.37	183.1698
338.28	157.3400
338.28	157.3400
338.32	157.3459
338.32	157.3459
338.32	157.3459
340.48	199.0319
340.55	199.0468
344.28	152.8658
351.06	173.7190
351.93	173.8733
356.01	134.2576
364.49	147.0928
366.42	151.8379
383.85	165.7500
388.16	149.3206
388.63	159.6505
391.69	179.5445
400.66	156.8101
401.81	161.5902
402.40	176.6915
404.85	177.0806
410.95	153.6079
414.70	131.7010
423.72	135.0353
427.09	144.2790
427.87	169.1738
433.94	135.3286
453.88	128.5337
463.37	135.9043
468.07	117.1875
473.00	107.5345
476.78	128.1321
477.60	123.6008
487.02	108.7074
492.35	0.0000
497.08	123.5828
511.00	125.8138
514.00	121.3486
527.90	0.0000
529.87	0.0000
531.02	116.1257
537.26	119.5309
546.56	0.0000
563.25	101.0763
569.33	96.5645
569.50	105.4424
569.70	105.4555
583.19	93.4722
600.60	124.6963
602.73	111.1715
604.72	119.3756
609.32	117.2957
609.32	117.2957
609.32	117.2957
610.33	127.8928
614.28	86.0137
618.01	116.9162
621.93	86.6264
621.93	86.6264
633.25	100.5720
635.95	88.4014
636.99	81.2566
645.85	93.0652
657.76	96.6374
661.66	124.2041
661.66	124.2041
664.57	0.0000
666.33	110.5178
666.50	108.8560

677.62	110.6076
685.70	94.1850
695.00	109.5727
696.49	116.0520
696.51	116.0553
697.00	109.6953
702.65	122.8613
706.68	95.2958
711.68	107.3669
720.70	89.1956
721.93	0.0000
722.78	114.0659
722.91	114.0756
723.31	119.2878
724.19	103.7754
727.33	91.8235
733.00	81.0970
735.93	85.9385
739.50	100.2684
747.24	88.6407
752.31	114.1118
753.82	99.9256
756.73	101.1781
763.94	90.0743
765.81	99.0008
766.42	106.1045
777.92	98.9462
778.90	95.6582
783.70	88.0842
785.37	72.5359
795.86	68.2052
801.95	88.8871
810.29	86.7656
810.76	79.5545
815.77	63.4358
818.51	73.5012
832.01	76.7197
834.85	84.1387
836.80	0.0000
846.77	71.7387
856.80	61.6016
860.56	77.7533
871.09	63.2486
873.19	68.8962
875.33	0.0000
879.36	60.6868
880.51	56.0479
883.24	63.5989
884.68	73.9352
889.28	71.2741
898.04	82.8523
911.20	73.8658
911.20	73.8658
911.20	73.8658
926.50	72.4523
937.49	97.6994
944.13	88.3703
946.00	87.4786
949.00	77.0039
962.29	64.5296
964.08	64.5768
966.15	77.5586
968.97	77.6504
968.97	77.6504
968.97	77.6504
983.53	71.2819
996.26	80.4865
1001.03	80.6427
1004.73	92.5817
1037.84	79.8320
1038.76	0.0000
1048.07	83.1581
1050.41	73.2032
1050.41	73.2032
1063.66	71.5616
1085.87	83.3453
1099.45	79.6796
1112.07	80.0528

1115.54	95.9128
1120.29	81.3222
1120.29	81.3222
1120.29	81.3222
1120.55	81.3299
1121.30	81.3530
1131.51	0.0000
1173.23	90.2160
1177.93	89.3123
1189.05	100.2046
1204.77	106.0498
1221.41	127.9805
1231.02	111.2719
1235.36	112.5059
1238.28	114.7585
1260.41	0.0000
1271.85	69.4031
1274.44	62.9476
1274.54	59.6943
1291.59	69.8438
1298.22	0.0000
1312.11	70.3031
1332.49	38.6931
1365.19	31.6384
1368.63	0.0000
1384.29	33.6943
1408.01	25.4498
1457.56	0.0000
1460.82	26.8003
1489.16	26.0519
1505.03	18.2755
1596.21	15.3262
1620.50	19.9943
1678.03	0.0000
1690.97	19.3386
1764.49	14.5081
1764.49	14.5081
1764.49	14.5081
1770.23	16.0105
1771.35	14.2355
1791.20	0.0000
1836.06	11.5935

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065189

Total Uranium Activity	5.3397E+00	ug/g
Total Uranium Counting Unc.	2.0440E+00	ug/g
Total Uranium Tpu	1.0428E-06	ug/g
Total Uranium Mda	8.6471E-01	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G1202065189      *
*   ANALYST       : MXR1                      DETECTOR   : GAM21            *
*   SAMPLE DATE   :  5-MAR-2010 12:00:00.00   COUNT TIME :    0 04:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 23:00:25.28    SAMPLE ALQT:  122.070 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.099E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.251E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 3.798E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.851E+00
```

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 10:17:29.46

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 25-MAR-2010 09:16:55
Sample ID         : G1202065190          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:02.21  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*******************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.48	3653	1120	1.07	119.22	113	11	1.01E+00	2.4	
2	2	74.80	274	459	1.22	149.83	145	15	7.62E-02	14.2	3.12E+00
3	2	77.10*	407	386	1.08	154.42	145	15	1.13E-01	9.4	
4	0	88.09	1951	721	1.15	176.38	171	12	5.42E-01	3.6	
5	0	92.85*	119	426	1.77	185.90	183	9	3.31E-02	33.6	
6	0	122.01	348	514	1.08	244.16	238	12	9.68E-02	14.1	
7	0	186.19*	142	575	1.24	372.40	365	13	3.94E-02	36.4	
8	0	209.26	60	349	1.10	418.50	415	8	1.67E-02	55.4	
9	3	238.69*	843	316	1.32	477.30	470	20	2.34E-01	5.1	2.05E+00
10	3	241.58	162	435	1.82	483.08	470	20	4.50E-02	28.8	
11	0	270.41	89	437	1.23	540.69	534	14	2.47E-02	51.1	
12	0	295.39*	209	346	1.61	590.59	585	12	5.80E-02	19.2	
13	0	338.36*	158	363	1.27	676.47	669	12	4.40E-02	25.5	
14	0	351.92*	489	321	1.40	703.58	697	13	1.36E-01	8.9	
15	0	583.37*	288	179	1.16	1166.15	1160	13	8.01E-02	11.4	
16	0	609.38*	312	179	1.79	1218.14	1214	13	8.66E-02	10.6	
17	0	661.69	3635	233	1.70	1322.71	1314	18	1.01E+00	1.9	
18	0	911.46*	231	257	2.20	1822.04	1815	18	6.42E-02	17.7	
19	0	969.01*	95	171	1.57	1937.11	1933	10	2.64E-02	28.2	
20	0	1120.06*	81	135	3.88	2239.14	2232	16	2.24E-02	34.5	
21	0	1173.30	2983	187	2.28	2345.61	2334	24	8.29E-01	2.2	
22	0	1238.38*	58	32	3.31	2475.76	2466	16	1.62E-02	25.9	
23	0	1332.59	2827	60	2.48	2664.18	2653	21	7.85E-01	2.0	
24	0	1764.73*	48	21	3.69	3528.67	3519	17	1.33E-02	27.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 25-MAR-2010 10:17:32

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 9-MAR-2010 00:00:00 Acquisition date : 25-MAR-2010 09:16:55
Sample ID : G1202065190 Sample quantity : 151.73 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:02.21 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	+	122.06	*	2.454E-01	7.192E-02	5.698E-02	4.699E-03	4.306
		136.47		2.217E-01	2.863E-01	4.960E-01	4.597E-02	0.447
CO-60	+	1173.23		6.587E+00	6.035E-01	1.006E-01	8.091E-03	65.472
	+	1332.49	*	6.898E+00	6.740E-01	7.319E-02	6.526E-03	94.247
CD-109	+	88.03	*	3.543E+01	4.214E+00	1.843E+00	1.749E-01	19.226
SN-126		64.28		-6.603E-01	6.794E-01	1.045E+00	1.517E-01	-0.632
	+	86.94		1.437E+01	6.058E+00	7.547E-01	3.134E-01	19.038
	+	87.57	*	3.456E+00	4.111E-01	1.805E-01	1.704E-02	19.148
BA-137M	+	661.66	*	5.580E+00	6.266E-01	8.497E-02	8.961E-03	65.662
CS-137	+	661.66	*	5.894E+00	6.626E-01	8.977E-02	9.478E-03	65.662
TL-208		277.37		2.304E-01	6.904E-01	1.035E+00	1.722E-01	0.223
	+	583.19	*	4.272E-01	1.080E-01	9.539E-02	1.034E-02	4.478
		860.56		2.452E-01	5.082E-01	8.648E-01	1.008E-01	0.284
BI-211		72.87		1.759E+00	4.575E+00	6.832E+00	5.468E-01	0.257
	+	351.06	*	3.464E+00	7.343E-01	5.093E-01	5.942E-02	6.803
PB-212	+	74.82		2.143E+00	6.663E-01	7.556E-01	9.596E-02	2.836
	+	77.11		1.821E+00	3.750E-01	4.352E-01	3.639E-02	4.185
	+	238.63	*	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
		300.09		2.117E+00	1.358E+00	2.110E+00	3.094E-01	1.003
BI-214	+	609.32	*	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
	+	1120.29		1.141E+00	7.986E-01	7.309E-01	8.111E-02	1.562
	+	1764.49		9.010E-01	5.089E-01	4.442E-01	3.700E-02	2.029
PB-214	+	74.82		3.798E+00	1.162E+00	1.339E+00	1.524E-01	2.836
	+	77.11		3.211E+00	7.122E-01	7.672E-01	9.011E-02	4.185
	+	242.00		1.657E+00	9.807E-01	8.560E-01	1.184E-01	1.936
	+	295.22		9.401E-01	3.882E-01	3.710E-01	5.566E-02	2.534
	+	351.93	*	1.257E+00	2.754E-01	1.852E-01	2.384E-02	6.790
RA-224	+	240.99	*	2.930E+00	1.726E+00	1.509E+00	1.889E-01	1.941
RA-226	+	609.32	*	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
	+	1120.29		1.141E+00	7.986E-01	7.309E-01	8.111E-02	1.562
	+	1764.49		9.010E-01	5.089E-01	4.442E-01	3.700E-02	2.029
AC-228	+	338.32		1.258E+00	8.356E-01	5.950E-01	2.530E-01	2.114
	+	911.20	*	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
	+	968.97		1.124E+00	6.948E-01	7.823E-01	1.967E-01	1.436

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	+	338.32		1.258E+00	8.356E-01	5.950E-01	2.530E-01	2.114
	+	911.20	*	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
	+	968.97		1.124E+00	6.948E-01	7.823E-01	1.967E-01	1.436
TH-228	+	74.82		2.143E+00	6.334E-01	7.556E-01	6.231E-02	2.836
	+	77.11		1.821E+00	3.750E-01	4.352E-01	3.639E-02	4.185
	+	238.63	*	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
		300.09		2.117E+00	1.864E+00	2.110E+00	1.309E+00	1.003
TH-230	+	609.32	*	8.897E-01	2.101E-01	1.672E-01	1.741E-02	5.320
	+	1120.29		1.141E+00	7.949E-01	7.309E-01	6.464E-02	1.562
	+	1764.49		9.009E-01	5.089E-01	4.441E-01	3.700E-02	2.029
TH-232	+	338.32		1.258E+00	6.593E-01	5.950E-01	7.076E-02	2.114
	+	911.20	*	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
	+	968.97		1.124E+00	6.948E-01	7.823E-01	1.967E-01	1.436
AM-241	+	59.54	*	1.388E+01	1.276E+00.	4.300E-01	3.361E-02	32.276

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-6.283E-01	6.229E-01	9.539E-01	9.954E-02	-0.659
NA-22		1274.54	*	3.530E-02	4.785E-02	8.450E-02	7.283E-03	0.418
NA-24		1368.63	*	-4.793E+00	4.785E-02	Half-Life too short		
K-40		1460.82	*	1.020E+00	5.080E-01	1.009E+00	9.248E-02	1.010
SC-46		889.28	*	1.936E-02	7.345E-02	1.235E-01	1.382E-02	0.157
	+	1120.55		1.951E-01	1.359E-01	1.669E-01	1.476E-02	1.169
V-48		944.13		-1.120E+00	1.997E+00	3.200E+00	3.471E-01	-0.350
		983.53	*	8.991E-02	1.497E-01	2.529E-01	2.652E-02	0.356
		1312.11		-1.098E-01	9.952E-02	1.444E-01	1.272E-02	-0.760
CR-51		320.08	*	2.543E-01	6.268E-01	1.064E+00	1.377E-01	0.239
MN-54		834.85	*	5.691E-03	6.465E-02	1.084E-01	1.204E-02	0.053
CO-56		846.77	*	9.840E-03	7.148E-02	1.199E-01	1.335E-02	0.082
		1037.84		-1.871E-02	5.661E-01	9.231E-01	9.511E-02	-0.020
	+	1238.28		2.310E-01	1.211E-01	1.784E-01	1.546E-02	1.295
		1771.35		1.750E-01	3.558E-01	5.459E-01	4.536E-02	0.320
CO-58		810.76	*	-4.948E-02	6.825E-02	1.094E-01	1.212E-02	-0.452
FE-59		1099.45	*	6.726E-02	1.725E-01	2.863E-01	2.805E-02	0.235
		1291.59		1.053E-03	1.448E-01	2.395E-01	2.361E-02	0.004
ZN-65		1115.54	*	4.760E-02	1.851E-01	2.607E-01	2.326E-02	0.183
SE-75	+	121.12		1.288E+00	3.880E-01	4.214E-01	4.549E-02	3.056
		136.00		4.249E-02	5.623E-02	9.736E-02	8.451E-03	0.436
		264.66	*	-3.781E-02	8.181E-02	1.112E-01	1.496E-02	-0.340
		279.54		-3.865E-02	1.868E-01	2.960E-01	4.203E-02	-0.131
		400.66		-1.363E-01	4.402E-01	7.125E-01	8.320E-02	-0.191
SR-85		514.00	*	-6.774E-02	7.280E-02	1.115E-01	1.119E-02	-0.608
Y-88		898.04		-1.224E-02	7.860E-02	1.292E-01	1.452E-02	-0.095
		1836.06	*	4.593E-02	4.760E-02	8.778E-02	7.097E-03	0.523
Y-91		1204.77	*	-5.302E+00	2.374E+01	3.875E+01	3.186E+00	-0.137
NB-94		702.65	*	-1.147E-02	5.099E-02	8.211E-02	8.799E-03	-0.140
		871.09		-2.237E-02	6.412E-02	1.046E-01	1.168E-02	-0.214

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	1.970E-02	6.972E-02	1.146E-01	1.253E-02	0.172
NB-95M		235.69	*	6.343E-02	2.291E-01	3.296E-01	4.361E-02	0.192
ZR-95		724.19		3.637E-02	1.474E-01	2.431E-01	2.768E-02	0.150
		756.73	*	-6.121E-02	1.216E-01	1.909E-01	2.221E-02	-0.321
MO-99		140.51		1.745E-04	4.089E+01	6.899E+01	1.642E+01	0.000
		181.07		9.353E+00	4.009E+01	5.901E+01	1.158E+01	0.158
		366.42		2.582E+00	2.206E+02	3.652E+02	3.874E+01	0.007
		739.50	*	-5.276E-01	2.630E+01	4.266E+01	7.287E+00	-0.012
		777.92		-1.249E+01	8.222E+01	1.317E+02	1.445E+01	-0.095
TC-99M		140.51	*	6.925E+06	8.222E+01	Half-Life too short		
RU-103		497.08	*	2.732E-02	6.869E-02	1.127E-01	1.670E-02	0.243
	+	610.33		9.387E+00	2.572E+00	3.130E+00	5.433E-01	2.999
RH-106		621.93	*	-1.807E-01	4.959E-01	8.014E-01	1.163E-01	-0.225
		1050.41		-1.497E+00	4.721E+00	7.558E+00	7.378E-01	-0.198
RU-106		621.93	*	-1.807E-01	4.956E-01	8.014E-01	8.371E-02	-0.225
		1050.41		-1.497E+00	4.721E+00	7.558E+00	7.378E-01	-0.198
AG-108M		433.94	*	-5.355E-02	5.411E-02	8.384E-02	8.251E-03	-0.639
		614.28		2.403E-02	6.516E-02	9.506E-02	1.013E-02	0.253
		722.91		-7.880E-02	6.189E-02	9.243E-02	1.018E-02	-0.852
AG-110M		657.76	*	7.130E-01	1.192E-01	1.773E-01	1.905E-02	4.023
		677.62		1.271E-01	4.526E-01	7.539E-01	8.155E-02	0.169
		706.68		-2.418E-01	3.183E-01	4.932E-01	5.392E-02	-0.490
		763.94		-2.733E-01	2.676E-01	4.047E-01	4.499E-02	-0.675
		884.68		-1.028E-03	9.467E-02	1.570E-01	1.791E-02	-0.007
		937.49		-2.892E-02	2.334E-01	3.829E-01	4.270E-02	-0.076
		1384.29		-1.079E-01	1.977E-01	3.046E-01	2.791E-02	-0.354
		1505.03		-1.076E-01	3.587E-01	5.624E-01	5.001E-02	-0.191
SN-113		391.69	*	-2.312E-02	7.727E-02	1.254E-01	1.198E-02	-0.184
CD-115		260.90		1.167E+02	3.285E+02	5.361E+02	7.124E+01	0.218
		492.35		3.925E+01	9.848E+01	1.617E+02	1.605E+01	0.243
		527.90	*	1.856E+00	2.666E+01	4.483E+01	4.527E+00	0.041
SN-117M		156.02		-1.087E+00	3.445E+00	5.702E+00	5.346E-01	-0.191
		158.56	*	-2.678E-02	8.457E-02	1.398E-01	1.326E-02	-0.192
TE-123M		159.00	*	4.039E-03	4.073E-02	6.837E-02	6.530E-03	0.059
SB-124		602.73		1.380E-02	6.525E-02	9.822E-02	1.020E-02	0.140
		645.85		-1.820E-01	7.986E-01	1.297E+00	1.416E-01	-0.140
		722.78		-7.815E-01	6.315E-01	9.460E-01	1.036E-01	-0.826
		1690.97	*	1.561E-02	9.962E-02	1.685E-01	1.503E-02	0.093
SB-125		427.87	*	5.091E-03	1.563E-01	2.555E-01	2.477E-02	0.020
		463.37		3.834E-01	5.168E-01	8.610E-01	8.908E-02	0.445
		600.60		2.445E-02	2.696E-01	4.487E-01	4.898E-02	0.054
		635.95		5.052E-01	4.458E-01	7.722E-01	8.545E-02	0.654
TE-125M		109.28	*	-4.316E+00	1.409E+01	2.212E+01	2.275E+00	-0.195
I-126		388.63		3.775E-02	3.027E-01	5.008E-01	4.742E-02	0.075
		666.33	*	6.479E-01	4.249E-01	6.622E-01	6.997E-02	0.978
		753.82		3.102E+00	3.189E+00	5.430E+00	5.918E-01	0.571
SB-126		414.70		-7.470E-04	1.388E-01	2.271E-01	2.149E-02	-0.003
		666.50		1.642E-01	1.426E-01	2.180E-01	2.304E-02	0.753
		695.00		1.876E-02	1.282E-01	2.113E-01	2.258E-02	0.089

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		697.00		-7.329E-02	4.456E-01	7.210E-01	7.711E-02	-0.102
		720.70	*	-2.106E-02	2.478E-01	4.016E-01	4.331E-02	-0.052
		856.80		-6.932E-03	9.058E-01	1.507E+00	1.680E-01	-0.005
SB-127		252.40		-9.839E-01	8.641E+00	1.386E+01	5.924E+00	-0.071
		473.00		1.102E+00	3.889E+00	6.363E+00	8.859E-01	0.173
		685.70	*	1.226E+00	2.581E+00	4.330E+00	5.761E-01	0.283
		783.70		1.995E+00	7.273E+00	1.193E+01	1.719E+00	0.167
I-131		80.19		-2.751E+00	7.741E+00	1.110E+01	9.673E-01	-0.248
		284.31		-1.483E+00	2.847E+00	4.431E+00	6.264E-01	-0.335
		364.49	*	-1.378E-01	2.102E-01	3.368E-01	3.734E-02	-0.409
		636.99		1.242E-01	2.859E+00	4.721E+00	5.148E-01	0.026
TE-132		49.72		5.517E+00	4.220E+01	7.111E+01	7.756E+00	0.078
		111.76		-2.937E+01	6.331E+01	9.891E+01	1.102E+01	-0.297
		116.30		9.154E+00	6.094E+01	8.690E+01	9.647E+00	0.105
		228.16	*	-6.566E-01	1.545E+00	2.465E+00	4.470E-01	-0.266
BA-133		81.00		-4.321E-02	1.469E-01	2.110E-01	3.287E-02	-0.205
		276.40		8.390E-01	6.628E-01	9.708E-01	1.731E-01	0.864
		302.85		6.460E-02	2.181E-01	3.612E-01	5.960E-02	0.179
		356.01	*	1.313E-02	7.462E-02	1.086E-01	1.599E-02	0.121
		383.85		3.371E-01	4.963E-01	8.383E-01	1.108E-01	0.402
I-133		529.87	*	-2.273E-02	4.963E-01	Half-Life too short		
		875.33		-3.329E-01	4.963E-01	Half-Life too short		
		1298.22		1.715E-01	4.963E-01	Half-Life too short		
CS-134		563.25		2.318E-01	5.912E-01	1.003E+00	1.034E-01	0.231
		569.33		-2.969E-01	3.309E-01	5.240E-01	5.434E-02	-0.567
		604.72		1.602E-02	5.513E-02	8.028E-02	8.358E-03	0.200
		795.86	*	7.098E-02	7.708E-02	1.302E-01	1.442E-02	0.545
		801.95		-3.819E-01	7.103E-01	1.107E+00	1.226E-01	-0.345
		1365.19		1.616E+00	1.488E+00	2.715E+00	2.530E-01	0.595
CS-135		268.22	*	2.535E-01	2.738E-01	4.019E-01	5.813E-02	0.631
I-135		546.56		-2.443E+11	2.738E-01	Half-Life too short		
		836.80		6.952E+11	2.738E-01	Half-Life too short		
		1038.76		1.407E+11	2.738E-01	Half-Life too short		
		1131.51		8.949E+09	2.738E-01	Half-Life too short		
		1260.41	*	1.469E+11	2.738E-01	Half-Life too short		
		1457.56		1.196E+12	2.738E-01	Half-Life too short		
		1678.03		4.265E+09	2.738E-01	Half-Life too short		
		1791.20		-1.507E+11	2.738E-01	Half-Life too short		
CS-136		153.25		7.859E-01	1.296E+00	2.216E+00	2.395E-01	0.355
		176.60		9.649E-02	7.804E-01	1.301E+00	1.422E-01	0.074
		273.65		-6.261E-01	1.046E+00	1.405E+00	2.003E-01	-0.446
		340.55		4.365E-01	2.906E-01	4.473E-01	5.385E-02	0.976
		818.51		4.071E-02	1.422E-01	2.411E-01	2.672E-02	0.169
		1048.07	*	-2.620E-02	2.080E-01	3.369E-01	3.407E-02	-0.078
		1235.36		1.072E+00	7.350E-01	1.202E+00	1.394E-01	0.892
CE-139		165.86	*	1.006E-02	4.292E-02	7.218E-02	7.079E-03	0.139
BA-140		162.66		-7.156E-01	1.282E+00	2.095E+00	2.133E-01	-0.342
		304.85		-4.603E+00	2.633E+00	3.400E+00	1.051E+00	-1.354
		423.72		1.004E+00	3.518E+00	5.797E+00	1.921E+00	0.173

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		537.26	*	2.555E-01	4.698E-01	7.925E-01	2.721E-01	0.322
LA-140		328.76		2.339E-01	5.107E-01	8.663E-01	1.095E-01	0.270
		487.02		5.407E-02	2.615E-01	4.260E-01	4.416E-02	0.127
		815.77		2.431E-01	6.094E-01	1.039E+00	1.233E-01	0.234
		1596.21	*	-7.469E-02	1.255E-01	1.933E-01	1.694E-02	-0.386
CE-141		145.44	*	-9.325E-02	8.903E-02	1.435E-01	1.306E-02	-0.650
CE-143		57.36		1.360E-02	8.903E-02	Half-Life too short		
		293.27	*	6.885E-04	8.903E-02	Half-Life too short		
		664.57		2.009E-01	8.903E-02	Half-Life too short		
		721.93		-3.067E-03	8.903E-02	Half-Life too short		
CE-144		80.12		-1.489E+00	3.765E+00	5.387E+00	4.657E-01	-0.276
		133.52	*	-2.078E-01	2.823E-01	4.627E-01	7.052E-02	-0.449
PM-144		476.78		-8.818E-02	1.223E-01	1.905E-01	2.001E-02	-0.463
		618.01		3.062E-02	5.630E-02	8.899E-02	9.464E-03	0.344
		696.49	*	-2.925E-03	5.313E-02	8.652E-02	9.253E-03	-0.034
PR-144		696.51	*	-1.968E-01	3.980E+00	6.484E+00	6.932E-01	-0.030
		1489.16		-7.258E+00	1.691E+01	2.607E+01	2.322E+00	-0.278
PM-146		453.88	*	-1.790E-02	7.911E-02	1.271E-01	1.461E-02	-0.141
		633.25		1.191E+00	2.386E+00	3.962E+00	1.531E+00	0.301
		735.93		-3.607E-02	2.360E-01	3.797E-01	1.093E-01	-0.095
		747.24		-5.684E-02	1.548E-01	2.450E-01	3.926E-02	-0.232
ND-147		91.11		1.133E+00	4.999E-01	6.529E-01	6.454E-02	1.735
		319.41		6.263E+00	5.893E+00	1.018E+01	1.289E+00	0.615
		531.02	*	-5.022E-01	9.584E-01	1.558E+00	2.470E-01	-0.322
PM-149		285.90	*	-9.432E+01	2.346E+02	3.669E+02	6.943E+01	-0.257
EU-152	+	121.78		7.042E-01	2.092E-01	2.340E-01	2.241E-02	3.009
		244.70		-1.162E-01	5.865E-01	8.195E-01	1.038E-01	-0.142
		344.28	*	1.084E-02	1.766E-01	2.560E-01	3.076E-02	0.042
		778.90		-3.505E-02	4.294E-01	6.905E-01	7.577E-02	-0.051
		964.08		6.815E-01	6.438E-01	9.622E-01	1.027E-01	0.708
		1085.87		5.522E-01	7.090E-01	1.202E+00	1.120E-01	0.459
		1112.07		1.361E-01	6.035E-01	8.493E-01	7.610E-02	0.160
		1408.01		1.995E-01	2.127E-01	3.831E-01	3.425E-02	0.521
GD-153		69.67		1.741E+00	2.575E+00	3.906E+00	3.031E-01	0.446
		97.43	*	1.063E-02	1.262E-01	1.821E-01	1.601E-02	0.058
		103.18		-6.306E-02	1.586E-01	2.501E-01	2.138E-02	-0.252
EU-154	+	123.07		4.979E-01	1.505E-01	1.633E-01	1.810E-02	3.049
		723.31		-3.501E-01	2.795E-01	4.175E-01	4.803E-02	-0.838
		873.19		-1.989E-01	5.418E-01	8.824E-01	1.223E-01	-0.225
		996.26		-2.573E-01	6.599E-01	1.056E+00	1.942E-01	-0.244
		1004.73		6.650E-02	3.860E-01	6.386E-01	8.244E-02	0.104
		1274.44	*	9.591E-02	1.353E-01	2.380E-01	2.707E-02	0.403
EU-155		86.55		2.227E+00	2.999E-01	4.013E-01	3.775E-02	5.550
		105.31	*	1.250E-01	1.480E-01	2.449E-01	2.101E-02	0.511
TB-160	+	86.79		1.125E+01	1.339E+00	1.163E+00	1.087E-01	9.679
		197.04		-3.828E-01	8.637E-01	1.398E+00	1.520E-01	-0.274
		215.65		-7.725E-02	1.238E+00	2.019E+00	2.333E-01	-0.038
		298.57		1.395E-01	1.969E-01	2.985E-01	4.001E-02	0.467
		879.36	*	1.579E-01	2.792E-01	4.721E-01	5.279E-02	0.334

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		962.29		2.237E-01	1.213E+00	1.728E+00	1.846E-01	0.129
		966.15		1.234E+00	5.060E-01	7.894E-01	8.409E-02	1.563
		1177.93		1.119E+01	1.389E+00	2.227E+00	1.797E-01	5.023
		1271.85		-1.349E-01	7.676E-01	1.248E+00	1.073E-01	-0.108
HO-166M		80.57		-9.026E-02	4.105E-01	5.922E-01	5.146E-02	-0.152
		184.41		5.621E-02	5.358E-02	9.226E-02	9.619E-03	0.609
		280.46		-2.474E-02	1.417E-01	2.248E-01	3.140E-02	-0.110
		410.95		1.279E-01	4.175E-01	6.927E-01	6.538E-02	0.185
		711.68	*	-1.588E-02	9.174E-02	1.480E-01	1.591E-02	-0.107
		752.31		5.142E-01	4.519E-01	7.749E-01	8.442E-02	0.664
		810.29		-4.304E-02	1.016E-01	1.660E-01	1.836E-02	-0.259
TA-182		67.75		1.150E-02	1.506E-01	2.497E-01	1.904E-02	0.046
		100.11		-2.538E-03	2.407E-01	3.869E-01	3.353E-02	-0.007
		152.43		1.371E-02	4.968E-01	8.343E-01	7.697E-02	0.016
		222.11		6.560E-03	5.948E-01	9.703E-01	1.145E-01	0.007
	+	1121.30		5.389E-01	3.753E-01	4.468E-01	3.945E-02	1.206
		1189.05		-2.458E-01	3.723E-01	5.872E-01	4.775E-02	-0.419
		1221.41	*	-4.006E-02	2.117E-01	3.461E-01	2.878E-02	-0.116
		1231.02		-1.390E-01	5.403E-01	7.356E-01	6.156E-02	-0.189
IR-192	+	295.96		7.034E-01	2.869E-01	3.395E-01	4.593E-02	2.072
		308.46		9.459E-02	1.498E-01	2.569E-01	3.364E-02	0.368
		316.51	*	-2.151E-02	5.621E-02	9.255E-02	1.183E-02	-0.232
		468.07		-1.002E-01	1.321E-01	2.062E-01	2.134E-02	-0.486
HG-203		70.83		5.832E-01	2.008E+00	2.991E+00	4.683E-01	0.195
		72.87		4.461E-01	1.162E+00	1.733E+00	2.634E-01	0.257
		279.20	*	-1.630E-02	6.628E-02	1.049E-01	1.483E-02	-0.155
BI-207		72.81		9.041E-02	2.632E-01	3.924E-01	3.139E-02	0.230
	+	74.97		6.177E-01	1.824E-01	2.712E-01	2.217E-02	2.278
		569.70		-2.357E-02	5.004E-02	8.121E-02	8.342E-03	-0.290
		1063.66	*	4.345E-02	9.695E-02	1.619E-01	1.554E-02	0.268
		1770.23		7.526E-01	7.657E-01	1.253E+00	1.042E-01	0.601
PB-210		46.54	*	-9.424E-01	5.493E+00	9.202E+00	8.474E-01	-0.102
PB-211		404.85	*	-5.866E-01	1.262E+00	1.975E+00	9.587E-01	-0.297
		427.09		-2.420E+00	2.866E+00	4.120E+00	1.913E+00	-0.587
		832.01		-9.521E-01	1.833E+00	2.864E+00	1.499E+00	-0.332
BI-212		727.33	*	4.134E-03	8.732E-01	1.422E+00	2.000E-01	0.003
		785.37		4.290E+00	5.199E+00	8.762E+00	9.631E-01	0.490
		1620.50		-2.024E+00	2.877E+00	4.334E+00	3.778E-01	-0.467
RN-219	+	271.23		6.485E-01	6.698E-01	6.503E-01	9.607E-02	0.997
		401.81	*	-2.733E-01	7.024E-01	1.131E+00	1.733E-01	-0.242
RA-223		81.07		-8.385E-02	3.328E-01	4.792E-01	4.188E-02	-0.175
		83.79		3.097E-02	2.012E-01	2.943E-01	2.655E-02	0.105
		94.87		6.172E-01	6.478E-01	9.757E-01	8.724E-02	0.633
		144.24		-7.471E-01	9.104E-01	1.476E+00	1.458E-01	-0.506
		154.21		4.311E-01	5.470E-01	9.396E-01	9.461E-02	0.459
	+	269.46		5.039E-01	5.197E-01	4.959E-01	6.809E-02	1.016
		323.87	*	-8.937E-01	1.081E+00	1.725E+00	3.372E-01	-0.518
	+	338.28		4.991E+00	2.650E+00	3.163E+00	4.615E-01	1.578
AC-227		79.69		-1.439E+00	1.876E+00	2.614E+00	4.503E-01	-0.551

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		235.96		4.373E-01	2.840E-01	4.245E-01	5.767E-02	1.030
		256.23	*	-2.257E-02	4.155E-01	6.680E-01	1.041E-01	-0.034
		299.98		1.643E+00	1.520E+00	2.325E+00	3.788E-01	0.707
		304.50		-4.167E+00	2.616E+00	3.892E+00	7.519E-01	-1.071
		334.37		1.731E-01	3.153E+00	4.583E+00	8.122E-01	0.038
TH-227		79.80		-1.688E+00	2.484E+00	3.469E+00	7.554E-01	-0.487
		235.96		4.373E-01	2.836E-01	4.245E-01	5.580E-02	1.030
		256.23	*	-2.257E-02	4.155E-01	6.680E-01	1.123E-01	-0.034
		299.98		1.643E+00	1.520E+00	2.325E+00	3.788E-01	0.707
		304.50		-4.167E+00	2.616E+00	3.892E+00	7.519E-01	-1.071
		334.37		1.731E-01	3.153E+00	4.583E+00	8.122E-01	0.038
TH-229		85.43		3.726E-01	3.410E-01	5.148E-01	4.736E-02	0.724
	+	88.47		5.329E+00	6.338E-01	5.928E-01	5.600E-02	8.988
		193.51	*	-5.836E-01	7.982E-01	1.275E+00	1.371E-01	-0.458
		210.85		7.206E-01	1.624E+00	2.378E+00	2.706E-01	0.303
PA-231		283.69	*	-3.662E-01	2.451E+00	3.888E+00	7.072E-01	-0.094
		301.36		1.757E+00	9.721E-01	1.507E+00	2.386E-01	1.166
TH-231		81.07		-8.385E-02	3.328E-01	4.792E-01	4.188E-02	-0.175
		83.79		3.097E-02	2.012E-01	2.943E-01	2.655E-02	0.105
		94.87		6.172E-01	6.478E-01	9.757E-01	8.724E-02	0.633
		144.24		-7.471E-01	9.104E-01	1.476E+00	1.458E-01	-0.506
		154.21		4.311E-01	5.470E-01	9.396E-01	9.461E-02	0.459
	+	269.46		5.039E-01	5.197E-01	4.959E-01	6.809E-02	1.016
		323.87	*	-8.937E-01	1.081E+00	1.725E+00	3.372E-01	-0.518
	+	338.28		4.991E+00	2.650E+00	3.163E+00	4.615E-01	1.578
PA-233		300.13		1.057E+00	6.852E-01	1.051E+00	1.891E-01	1.006
		311.90	*	6.103E-02	1.006E-01	1.723E-01	2.258E-02	0.354
		340.48		1.757E+00	1.240E+00	1.808E+00	4.589E-01	0.972
PA-234		94.67		2.927E-01	2.393E-01	3.622E-01	4.577E-02	0.808
		98.44		-1.647E-02	1.293E-01	1.964E-01	1.096E-01	-0.084
		111.00		-1.023E-01	2.634E-01	4.113E-01	4.892E-02	-0.249
		131.20		-1.650E-02	1.461E-01	2.466E-01	2.089E-02	-0.067
		569.50		-2.014E-01	4.445E-01	7.222E-01	7.417E-02	-0.279
		733.00		-4.800E-01	6.579E-01	1.011E+00	2.340E-01	-0.475
		880.51		1.041E-01	5.499E-01	9.147E-01	1.023E-01	0.114
		883.24		-5.849E-02	5.542E-01	9.127E-01	6.170E-01	-0.064
		926.50		-5.388E-02	3.599E-01	5.898E-01	1.544E-01	-0.091
		946.00	*	-2.163E-01	6.427E-01	1.040E+00	2.068E-01	-0.208
		949.00		-2.714E-01	9.596E-01	1.560E+00	1.686E-01	-0.174
PA-234M		766.42		5.938E+00	1.873E+01	3.044E+01	1.558E+01	0.195
		1001.03	*	1.848E+00	8.268E+00	1.377E+01	1.578E+00	0.134
TH-234		63.29	*	-8.535E-01	1.934E+00	2.879E+00	5.124E-01	-0.296
	+	92.59		1.770E+00	1.254E+00	1.547E+00	3.445E-01	1.145
U-235		89.96		1.035E+01	3.019E+00	2.526E+00	6.279E-01	4.099
	+	93.35		1.337E+00	9.517E-01	1.174E+00	2.730E-01	1.139
		143.76	*	-1.472E-01	2.700E-01	4.419E-01	7.553E-02	-0.333
		163.33		-5.418E-01	6.497E-01	1.039E+00	1.922E-01	-0.521
	+	185.72		1.613E-01	1.187E-01	1.212E-01	1.269E-02	1.331
		205.31		-2.797E-01	8.060E-01	1.135E+00	2.212E-01	-0.246

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237		86.48	*	4.949E+00	1.248E+00	9.559E-01	2.193E-01	5.177
		95.86		9.849E-02	1.320E+00	1.905E+00	4.589E-01	0.052
U-238		63.29	*	-8.535E-01	1.934E+00	2.879E+00	5.124E-01	-0.296
	+	92.59		1.770E+00	1.201E+00	1.547E+00	1.407E-01	1.145
NP-239		99.53		-1.067E-01	2.240E-01	3.527E-01	3.066E-02	-0.303
		103.37		-2.145E-03	1.417E-01	2.273E-01	1.941E-02	-0.009
		106.12		-8.509E-02	1.193E-01	1.849E-01	1.564E-02	-0.460
		117.23	*	-2.970E-01	6.546E-01	8.999E-01	7.436E-02	-0.330
		228.18		-1.474E-01	3.487E-01	5.574E-01	6.705E-02	-0.264
		277.60		1.086E-02	3.032E-01	4.688E-01	6.535E-02	0.023
CM-247		278.00		-2.292E-02	1.289E+00	1.988E+00	2.774E-01	-0.012
		287.50		1.600E+00	2.096E+00	3.437E+00	4.728E-01	0.466
		402.40	*	3.664E-02	6.265E-02	1.053E-01	9.875E-03	0.348
CF-249		252.80		-1.459E-01	1.514E+00	2.433E+00	3.156E-01	-0.060
		333.37		-2.101E-02	3.286E-01	4.744E-01	5.740E-02	-0.044
		388.16	*	6.796E-03	6.811E-02	1.126E-01	1.069E-02	0.060
CF-251		177.52	*	1.287E-03	1.909E-01	3.169E-01	3.229E-02	0.004
		227.38		-2.177E-01	5.655E-01	9.055E-01	1.087E-01	-0.240
		285.41		-1.641E+00	3.761E+00	5.881E+00	8.127E-01	-0.279
ANH-511		511.00	*	5.184E-02	6.036E-02	1.083E-01	1.085E-02	0.479

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190      *
* Acquisition date : 25-MAR-2010 09:16:55 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:02.21     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065190          Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-57	2.454E-01	7.048E-02	6.108E-02	0.000E+00
CO-60	6.898E+00	6.605E-01	7.391E-02	0.000E+00
CD-109	3.543E+01	4.130E+00	1.990E+00	0.000E+00
SN-126	3.456E+00	4.029E-01	1.950E-01	0.000E+00
BA-137M	5.580E+00	6.140E-01	8.739E-02	0.000E+00
CS-137	5.894E+00	6.494E-01	9.232E-02	0.000E+00
TL-208	4.272E-01	1.058E-01	9.842E-02	0.000E+00
BI-211	3.464E+00	7.196E-01	5.321E-01	0.000E+00
PB-212	1.427E+00	2.333E-01	1.487E-01	0.000E+00
BI-214	8.897E-01	2.110E-01	1.724E-01	0.000E+00
PB-214	1.257E+00	2.699E-01	1.935E-01	0.000E+00
RA-224	2.930E+00	1.691E+00	1.592E+00	0.000E+00
RA-226	8.897E-01	2.110E-01	1.724E-01	0.000E+00
AC-228	1.589E+00	5.890E-01	4.709E-01	0.000E+00
RA-228	1.589E+00	5.890E-01	4.709E-01	0.000E+00
TH-228	1.427E+00	2.333E-01	1.487E-01	0.000E+00
TH-230	8.897E-01	2.059E-01	1.724E-01	0.000E+00
TH-232	1.589E+00	5.890E-01	4.709E-01	0.000E+00
AM-241	1.388E+01	1.250E+00	4.687E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-6.283E-01		6.105E-01	9.892E-01	0.000E+00	NOT IDENT.
NA-22	3.530E-02		4.690E-02	8.544E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		3.888E+06	0.000E+00	0.000E+00	SHORT HLIF
K-40	0.000E+00		4.979E-01	1.017E+00	0.000E+00	NOT IDENT.
SC-46	1.936E-02		7.198E-02	1.260E-01	0.000E+00	FAIL ABUN
V-48	8.991E-02		1.467E-01	2.574E-01	0.000E+00	NOT IDENT.
CR-51	2.543E-01		6.143E-01	1.114E+00	0.000E+00	NOT IDENT.
MN-54	5.691E-03		6.336E-02	1.108E-01	0.000E+00	NOT IDENT.

CO-56	9.840E-03	7.005E-02	1.226E-01	0.000E+00	FAIL ABUN
CO-58	-4.948E-02	6.689E-02	1.120E-01	0.000E+00	NOT IDENT.
FE-59	6.726E-02	1.691E-01	2.906E-01	0.000E+00	NOT IDENT.
ZN-65	4.760E-02	1.814E-01	2.645E-01	0.000E+00	NOT IDENT.
SE-75	-3.781E-02	8.017E-02	1.170E-01	0.000E+00	FAIL ABUN
SR-85	-6.774E-02	7.135E-02	1.154E-01	0.000E+00	NOT IDENT.
Y-88	4.593E-02	4.665E-02	8.788E-02	0.000E+00	NOT IDENT.
Y-91	-5.302E+00	2.326E+01	3.923E+01	0.000E+00	NOT IDENT.
NB-94	-1.147E-02	4.997E-02	8.432E-02	0.000E+00	NOT IDENT.
NB-95	1.970E-02	6.833E-02	1.174E-01	0.000E+00	NOT IDENT.
NB-95M	6.343E-02	2.245E-01	3.477E-01	0.000E+00	NOT IDENT.
ZR-95	-6.121E-02	1.192E-01	1.957E-01	0.000E+00	NOT IDENT.
MO-99	-5.276E-01	2.577E+01	4.375E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.590E+18	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.732E-02	6.732E-02	1.167E-01	0.000E+00	FAIL ABUN
RH-106	-1.807E-01	4.860E-01	8.255E-01	0.000E+00	NOT IDENT.
RU-106	-1.807E-01	4.857E-01	8.255E-01	0.000E+00	NOT IDENT.
AG-108M	-5.355E-02	5.302E-02	8.714E-02	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	1.168E-01	1.823E-01	0.000E+00	NOT IDENT.
SN-113	-2.312E-02	7.572E-02	1.307E-01	0.000E+00	NOT IDENT.
CD-115	1.856E+00	2.613E+01	4.637E+01	0.000E+00	NOT IDENT.
SN-117M	-2.678E-02	8.287E-02	1.489E-01	0.000E+00	NOT IDENT.
TE-123M	4.039E-03	3.991E-02	7.283E-02	0.000E+00	NOT IDENT.
SB-124	1.561E-02	9.763E-02	1.691E-01	0.000E+00	NOT IDENT.
SB-125	5.091E-03	1.532E-01	2.656E-01	0.000E+00	NOT IDENT.
TE-125M	-4.316E+00	1.381E+01	2.378E+01	0.000E+00	NOT IDENT.
I-126	6.479E-01	4.164E-01	6.809E-01	0.000E+00	NOT IDENT.
SB-126	-2.106E-02	2.428E-01	4.121E-01	0.000E+00	NOT IDENT.
SB-127	1.226E+00	2.529E+00	4.449E+00	0.000E+00	NOT IDENT.
I-131	-1.378E-01	2.060E-01	3.516E-01	0.000E+00	NOT IDENT.
TE-132	-6.566E-01	1.514E+00	2.604E+00	0.000E+00	NOT IDENT.
BA-133	1.313E-02	7.313E-02	1.134E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.499E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.098E-02	7.554E-02	1.333E-01	0.000E+00	NOT IDENT.
CS-135	2.535E-01	2.683E-01	4.227E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.638E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.620E-02	2.038E-01	3.424E-01	0.000E+00	NOT IDENT.
CE-139	1.006E-02	4.207E-02	7.681E-02	0.000E+00	NOT IDENT.
BA-140	2.555E-01	4.604E-01	8.193E-01	0.000E+00	NOT IDENT.
LA-140	-7.469E-02	1.230E-01	1.943E-01	0.000E+00	NOT IDENT.
CE-141	-9.325E-02	8.725E-02	1.532E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.676E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.078E-01	2.767E-01	4.950E-01	0.000E+00	NOT IDENT.
PM-144	-2.925E-03	5.206E-02	8.887E-02	0.000E+00	NOT IDENT.
PR-144	-1.968E-01	3.900E+00	6.659E+00	0.000E+00	NOT IDENT.
PM-146	-1.790E-02	7.753E-02	1.320E-01	0.000E+00	NOT IDENT.
ND-147	-5.022E-01	9.393E-01	1.611E+00	0.000E+00	NOT IDENT.
PM-149	-9.432E+01	2.299E+02	3.854E+02	0.000E+00	NOT IDENT.
EU-152	1.084E-02	1.730E-01	2.676E-01	0.000E+00	FAIL ABUN
GD-153	1.063E-02	1.237E-01	1.962E-01	0.000E+00	NOT IDENT.
EU-154	9.591E-02	1.326E-01	2.407E-01	0.000E+00	FAIL ABUN
EU-155	1.250E-01	1.450E-01	2.634E-01	0.000E+00	NOT IDENT.
TB-160	1.579E-01	2.736E-01	4.819E-01	0.000E+00	FAIL ABUN
HO-166M	-1.588E-02	8.991E-02	1.519E-01	0.000E+00	NOT IDENT.
TA-182	-4.006E-02	2.074E-01	3.503E-01	0.000E+00	FAIL ABUN
IR-192	-2.151E-02	5.508E-02	9.696E-02	0.000E+00	FAIL ABUN
HG-203	-1.630E-02	6.496E-02	1.102E-01	0.000E+00	NOT IDENT.
BI-207	4.345E-02	9.501E-02	1.645E-01	0.000E+00	FAIL ABUN
PB-210	-9.424E-01	5.383E+00	1.008E+01	0.000E+00	NOT IDENT.
PB-211	-5.866E-01	1.237E+00	2.057E+00	0.000E+00	NOT IDENT.
BI-212	4.134E-03	8.557E-01	1.459E+00	0.000E+00	NOT IDENT.
RN-219	-2.733E-01	6.883E-01	1.178E+00	0.000E+00	FAIL ABUN
RA-223	-8.937E-01	1.060E+00	1.806E+00	0.000E+00	FAIL ABUN
AC-227	-2.257E-02	4.072E-01	7.035E-01	0.000E+00	NOT IDENT.
TH-227	-2.257E-02	4.072E-01	7.035E-01	0.000E+00	NOT IDENT.
TH-229	-5.836E-01	7.823E-01	1.352E+00	0.000E+00	FAIL ABUN
PA-231	-3.662E-01	2.402E+00	4.084E+00	0.000E+00	NOT IDENT.
TH-231	-8.937E-01	1.060E+00	1.806E+00	0.000E+00	FAIL ABUN
PA-233	6.103E-02	9.862E-02	1.806E-01	0.000E+00	NOT IDENT.
PA-234	-2.163E-01	6.299E-01	1.060E+00	0.000E+00	NOT IDENT.
PA-234M	1.848E+00	8.103E+00	1.401E+01	0.000E+00	NOT IDENT.
TH-234	-8.535E-01	1.895E+00	3.134E+00	0.000E+00	FAIL ABUN
U-235	-1.472E-01	2.646E-01	4.719E-01	0.000E+00	FAIL ABUN
NP-237	0.000E+00	1.223E+00	1.033E+00	0.000E+00	NOT IDENT.
U-238	-8.535E-01	1.895E+00	3.134E+00	0.000E+00	FAIL ABUN
NP-239	-2.970E-01	6.415E-01	9.655E-01	0.000E+00	NOT IDENT.
CM-247	3.664E-02	6.140E-02	1.096E-01	0.000E+00	NOT IDENT.
CF-249	6.796E-03	6.675E-02	1.174E-01	0.000E+00	NOT IDENT.

CF-251	1.287E-03	1.871E-01	3.367E-01	0.000E+00	NOT IDENT.
ANH-511	5.184E-02	5.915E-02	1.121E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 10:17:30.53

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 25-MAR-2010 09:16:55
Sample ID         : G1202065190          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:02.21  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	348	85.60*	8.558E+00	2.353E-01	2.454E-01	29.31
	136.47	------	10.68	8.461E+00	------ Line Not Found		------
CO-60	1173.23	2983	99.85	2.258E+00	6.548E+00	6.587E+00	9.16
	1332.49	2827	99.98*	2.040E+00	6.857E+00	6.898E+00	9.77
CD-109	88.03	1951	3.70*	7.548E+00	3.456E+01	3.543E+01	11.89
SN-126	64.28	------	9.60	4.512E+00	------ Line Not Found		------
	86.94	1951	8.90	7.548E+00	1.437E+01	1.437E+01	42.16
	87.57	1951	37.00*	7.548E+00	3.456E+00	3.456E+00	11.89
BA-137M	661.66	3635	89.90*	3.590E+00	5.574E+00	5.580E+00	11.23
CS-137	661.66	3635	85.10*	3.590E+00	5.888E+00	5.894E+00	11.24
TL-208	277.37	------	6.60	6.182E+00	------ Line Not Found		------
	583.19	288	85.00*	3.930E+00	4.272E-01	4.272E-01	25.28
	860.56	------	12.50	2.923E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	5.897E+00	------ Line Not Found		------
	351.06	489	12.92*	5.401E+00	3.464E+00	3.464E+00	21.20
PB-212	74.82	274	10.28	6.165E+00	2.143E+00	2.143E+00	31.09
	77.11	407	17.10	6.460E+00	1.821E+00	1.821E+00	20.59
	238.63	843	43.60*	6.709E+00	1.427E+00	1.427E+00	16.69
	300.09	------	3.30	5.916E+00	------ Line Not Found		------
BI-214	609.32	312	45.49*	3.811E+00	8.897E-01	8.897E-01	24.20
	1120.29	81	14.92	2.346E+00	1.141E+00	1.141E+00	69.97
	1764.49	48	15.30	1.716E+00	9.009E-01	9.010E-01	56.49
PB-214	74.82	274	5.80	6.165E+00	3.798E+00	3.798E+00	30.58
	77.11	407	9.70	6.460E+00	3.211E+00	3.211E+00	22.18
	242.00	162	7.25	6.666E+00	1.657E+00	1.657E+00	59.19
	295.22	209	18.42	5.968E+00	9.401E-01	9.401E-01	41.29
	351.93	489	35.60*	5.401E+00	1.257E+00	1.257E+00	21.90
RA-224	240.99	162	4.10*	6.666E+00	2.930E+00	2.930E+00	58.90
RA-226	609.32	312	45.49*	3.811E+00	8.897E-01	8.897E-01	24.20
	1120.29	81	14.92	2.346E+00	1.141E+00	1.141E+00	69.97
	1764.49	48	15.30	1.716E+00	9.009E-01	9.010E-01	56.49
AC-228	338.32	158	11.27	5.525E+00	1.258E+00	1.258E+00	66.44

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	231	25.80*	2.788E+00	1.589E+00	1.589E+00	37.81
	968.97	95	15.80	2.649E+00	1.124E+00	1.124E+00	61.84
RA-228	338.32	158	11.27	5.525E+00	1.258E+00	1.258E+00	66.44
	911.20	231	25.80*	2.788E+00	1.589E+00	1.589E+00	37.81
	968.97	95	15.80	2.649E+00	1.124E+00	1.124E+00	61.84
TH-228	74.82	274	10.28	6.165E+00	2.143E+00	2.143E+00	29.56
	77.11	407	17.10	6.460E+00	1.821E+00	1.821E+00	20.59
	238.63	843	43.60*	6.709E+00	1.427E+00	1.427E+00	16.69
	300.09	------	3.30	5.916E+00	------ Line Not Found		------
TH-230	609.32	312	45.49*	3.811E+00	8.897E-01	8.897E-01	23.61
	1120.29	81	14.92	2.346E+00	1.141E+00	1.141E+00	69.65
	1764.49	48	15.30	1.716E+00	9.009E-01	9.009E-01	56.49
TH-232	338.32	158	11.27	5.525E+00	1.258E+00	1.258E+00	52.42
	911.20	231	25.80*	2.788E+00	1.589E+00	1.589E+00	37.81
	968.97	95	15.80	2.649E+00	1.124E+00	1.124E+00	61.84
AM-241	59.54	3653	35.90*	3.628E+00	1.388E+01	1.388E+01	9.19

Flag: "*" = Keyline

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

Total number of lines in spectrum 24
Number of unidentified lines 1
Number of lines tentatively identified by NID 23 95.83%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	271.74D	1.04	2.353E-01	2.454E-01	0.719E-01	29.31	
CO-60	5.27Y	1.01	6.857E+00	6.898E+00	0.674E+00	9.77	
CD-109	461.40D	1.02	3.456E+01	3.543E+01	0.421E+01	11.89	
SN-126	2.30E+05Y	1.00	3.456E+00	3.456E+00	0.411E+00	11.89	
BA-137M	30.08Y	1.00	5.574E+00	5.580E+00	0.627E+00	11.23	
CS-137	30.08Y	1.00	5.888E+00	5.894E+00	0.663E+00	11.24	
TL-208	1.41E+10Y	1.00	4.272E-01	4.272E-01	1.080E-01	25.28	
BI-211	7.04E+08Y	1.00	3.464E+00	3.464E+00	0.734E+00	21.20	
PB-212	1.41E+10Y	1.00	1.427E+00	1.427E+00	0.238E+00	16.69	
BI-214	1600.00Y	1.00	8.897E-01	8.897E-01	2.153E-01	24.20	
PB-214	1600.00Y	1.00	1.257E+00	1.257E+00	0.275E+00	21.90	
RA-224	1.41E+10Y	1.00	2.930E+00	2.930E+00	1.726E+00	58.90	
RA-226	1600.00Y	1.00	8.897E-01	8.897E-01	2.153E-01	24.20	
AC-228	1.41E+10Y	1.00	1.589E+00	1.589E+00	0.601E+00	37.81	
RA-228	1.41E+10Y	1.00	1.589E+00	1.589E+00	0.601E+00	37.81	
TH-228	1.41E+10Y	1.00	1.427E+00	1.427E+00	0.238E+00	16.69	
TH-230	7.54E+04Y	1.00	8.897E-01	8.897E-01	2.101E-01	23.61	
TH-232	1.41E+10Y	1.00	1.589E+00	1.589E+00	0.601E+00	37.81	
AM-241	432.60Y	1.00	1.388E+01	1.388E+01	0.128E+01	9.19	
			---	---			
	Total Activity :		8.882E+01	8.975E+01			

Grand Total Activity : 8.882E+01 8.975E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.85	119	426	1.77	185.90	183	9	3.31E-02	67.3	7.87E+00	T
0	186.19	142	575	1.24	372.40	365	13	3.94E-02	72.8	7.60E+00	T
0	209.26	60	349	1.10	418.50	415	8	1.67E-02	****	7.18E+00	
0	270.41	89	437	1.23	540.69	534	14	2.47E-02	****	6.27E+00	T
0	1238.38	58	32	3.31	2475.76	2466	16	1.62E-02	51.7	2.16E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 10:17:34.80

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1  *
* Acquisition date  : 25-MAR-2010 09:16:55  Detector SN#     :             *
* Detector ID       : GAM22                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 01:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 01:00:02.21          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 9-MAR-2010 00:00:00.  Nuclide Library : SOLID        *
* Sample ID         : G1202065190           Analyst initials: MXR1         *
* Batch Number      : 962633                Sample Quantity : 1.51730E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	2.454E-01	7.192E-02	5.698E-02	4.699E-03	4.306
CO-60	6.898E+00	6.740E-01	7.319E-02	6.526E-03	94.247
CD-109	3.543E+01	4.214E+00	1.843E+00	1.749E-01	19.226
SN-126	3.456E+00	4.111E-01	1.805E-01	1.704E-02	19.148
BA-137M	5.580E+00	6.266E-01	8.497E-02	8.961E-03	65.662
CS-137	5.894E+00	6.626E-01	8.977E-02	9.478E-03	65.662
TL-208	4.272E-01	1.080E-01	9.539E-02	1.034E-02	4.478
BI-211	3.464E+00	7.343E-01	5.093E-01	5.942E-02	6.803
PB-212	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
BI-214	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
PB-214	1.257E+00	2.754E-01	1.852E-01	2.384E-02	6.790
RA-224	2.930E+00	1.726E+00	1.509E+00	1.889E-01	1.941
RA-226	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
AC-228	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
RA-228	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
TH-228	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
TH-230	8.897E-01	2.101E-01	1.672E-01	1.741E-02	5.320
TH-232	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-241	1.388E+01	1.276E+00	4.300E-01	3.361E-02	32.276

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.283E-01		6.229E-01	9.539E-01	9.954E-02	-0.659
NA-22	3.530E-02		4.785E-02	8.450E-02	7.283E-03	0.418
NA-24	-4.793E+00		1.984E+00	Half-Life too short		
K-40	1.020E+00		5.080E-01	1.009E+00	9.248E-02	1.010
SC-46	1.936E-02		7.345E-02	1.235E-01	1.382E-02	0.157
V-48	8.991E-02		1.497E-01	2.529E-01	2.652E-02	0.356
CR-51	2.543E-01		6.268E-01	1.064E+00	1.377E-01	0.239
MN-54	5.691E-03		6.465E-02	1.084E-01	1.204E-02	0.053
CO-56	9.840E-03		7.148E-02	1.199E-01	1.335E-02	0.082
CO-58	-4.948E-02		6.825E-02	1.094E-01	1.212E-02	-0.452
FE-59	6.726E-02		1.725E-01	2.863E-01	2.805E-02	0.235
ZN-65	4.760E-02		1.851E-01	2.607E-01	2.326E-02	0.183
SE-75	-3.781E-02		8.181E-02	1.112E-01	1.496E-02	-0.340
SR-85	-6.774E-02		7.280E-02	1.115E-01	1.119E-02	-0.608
Y-88	4.593E-02		4.760E-02	8.778E-02	7.097E-03	0.523
Y-91	-5.302E+00		2.374E+01	3.875E+01	3.186E+00	-0.137
NB-94	-1.147E-02		5.099E-02	8.211E-02	8.799E-03	-0.140
NB-95	1.970E-02		6.972E-02	1.146E-01	1.253E-02	0.172
NB-95M	6.343E-02		2.291E-01	3.296E-01	4.361E-02	0.192
ZR-95	-6.121E-02		1.216E-01	1.909E-01	2.221E-02	-0.321
MO-99	-5.276E-01		2.630E+01	4.266E+01	7.287E+00	-0.012
TC-99M	6.925E+06		8.112E+11	Half-Life too short		
RU-103	2.732E-02		6.869E-02	1.127E-01	1.670E-02	0.243
RH-106	-1.807E-01		4.959E-01	8.014E-01	1.163E-01	-0.225
RU-106	-1.807E-01		4.956E-01	8.014E-01	8.371E-02	-0.225
AG-108M	-5.355E-02		5.411E-02	8.384E-02	8.251E-03	-0.639
AG-110M	7.130E-01		1.192E-01	1.773E-01	1.905E-02	4.023
SN-113	-2.312E-02		7.727E-02	1.254E-01	1.198E-02	-0.184
CD-115	1.856E+00		2.666E+01	4.483E+01	4.527E+00	0.041
SN-117M	-2.678E-02		8.457E-02	1.398E-01	1.326E-02	-0.192
TE-123M	4.039E-03		4.073E-02	6.837E-02	6.530E-03	0.059
SB-124	1.561E-02		9.962E-02	1.685E-01	1.503E-02	0.093
SB-125	5.091E-03		1.563E-01	2.555E-01	2.477E-02	0.020
TE-125M	-4.316E+00		1.409E+01	2.212E+01	2.275E+00	-0.195
I-126	6.479E-01		4.249E-01	6.622E-01	6.997E-02	0.978
SB-126	-2.106E-02		2.478E-01	4.016E-01	4.331E-02	-0.052
SB-127	1.226E+00		2.581E+00	4.330E+00	5.761E-01	0.283
I-131	-1.378E-01		2.102E-01	3.368E-01	3.734E-02	-0.409
TE-132	-6.566E-01		1.545E+00	2.465E+00	4.470E-01	-0.266
BA-133	1.313E-02		7.462E-02	1.086E-01	1.599E-02	0.121
I-133	-2.273E-02		1.275E-02	Half-Life too short		
CS-134	7.098E-02		7.708E-02	1.302E-01	1.442E-02	0.545

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-135	2.535E-01		2.738E-01	4.019E-01	5.813E-02	0.631
I-135	1.469E+11		8.356E+10	Half-Life too short		
CS-136	-2.620E-02		2.080E-01	3.369E-01	3.407E-02	-0.078
CE-139	1.006E-02		4.292E-02	7.218E-02	7.079E-03	0.139
BA-140	2.555E-01		4.698E-01	7.925E-01	2.721E-01	0.322
LA-140	-7.469E-02		1.255E-01	1.933E-01	1.694E-02	-0.386
CE-141	-9.325E-02		8.903E-02	1.435E-01	1.306E-02	-0.650
CE-143	6.885E-04		2.386E-04	Half-Life too short		
CE-144	-2.078E-01		2.823E-01	4.627E-01	7.052E-02	-0.449
PM-144	-2.925E-03		5.313E-02	8.652E-02	9.253E-03	-0.034
PR-144	-1.968E-01		3.980E+00	6.484E+00	6.932E-01	-0.030
PM-146	-1.790E-02		7.911E-02	1.271E-01	1.461E-02	-0.141
ND-147	-5.022E-01		9.584E-01	1.558E+00	2.470E-01	-0.322
PM-149	-9.432E+01		2.346E+02	3.669E+02	6.943E+01	-0.257
EU-152	1.084E-02		1.766E-01	2.560E-01	3.076E-02	0.042
GD-153	1.063E-02		1.262E-01	1.821E-01	1.601E-02	0.058
EU-154	9.591E-02		1.353E-01	2.380E-01	2.707E-02	0.403
EU-155	1.250E-01		1.480E-01	2.449E-01	2.101E-02	0.511
TB-160	1.579E-01		2.792E-01	4.721E-01	5.279E-02	0.334
HO-166M	-1.588E-02		9.174E-02	1.480E-01	1.591E-02	-0.107
TA-182	-4.006E-02		2.117E-01	3.461E-01	2.878E-02	-0.116
IR-192	-2.151E-02		5.621E-02	9.255E-02	1.183E-02	-0.232
HG-203	-1.630E-02		6.628E-02	1.049E-01	1.483E-02	-0.155
BI-207	4.345E-02		9.695E-02	1.619E-01	1.554E-02	0.268
PB-210	-9.424E-01		5.493E+00	9.202E+00	8.474E-01	-0.102
PB-211	-5.866E-01		1.262E+00	1.975E+00	9.587E-01	-0.297
BI-212	4.134E-03		8.732E-01	1.422E+00	2.000E-01	0.003
RN-219	-2.733E-01		7.024E-01	1.131E+00	1.733E-01	-0.242
RA-223	-8.937E-01		1.081E+00	1.725E+00	3.372E-01	-0.518
AC-227	-2.257E-02		4.155E-01	6.680E-01	1.041E-01	-0.034
TH-227	-2.257E-02		4.155E-01	6.680E-01	1.123E-01	-0.034
TH-229	-5.836E-01		7.982E-01	1.275E+00	1.371E-01	-0.458
PA-231	-3.662E-01		2.451E+00	3.888E+00	7.072E-01	-0.094
TH-231	-8.937E-01		1.081E+00	1.725E+00	3.372E-01	-0.518
PA-233	6.103E-02		1.006E-01	1.723E-01	2.258E-02	0.354
PA-234	-2.163E-01		6.427E-01	1.040E+00	2.068E-01	-0.208
PA-234M	1.848E+00		8.268E+00	1.377E+01	1.578E+00	0.134
TH-234	-8.535E-01		1.934E+00	2.879E+00	5.124E-01	-0.296
U-235	-1.472E-01		2.700E-01	4.419E-01	7.553E-02	-0.333
NP-237	4.949E+00		1.248E+00	9.559E-01	2.193E-01	5.177
U-238	-8.535E-01		1.934E+00	2.879E+00	5.124E-01	-0.296
NP-239	-2.970E-01		6.546E-01	8.999E-01	7.436E-02	-0.330
CM-247	3.664E-02		6.265E-02	1.053E-01	9.875E-03	0.348
CF-249	6.796E-03		6.811E-02	1.126E-01	1.069E-02	0.060
CF-251	1.287E-03		1.909E-01	3.169E-01	3.229E-02	0.004
ANH-511	5.184E-02		6.036E-02	1.083E-01	1.085E-02	0.479

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065190           *
* Acquisition date : 25-MAR-2010 09:16:55 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:02.21     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065190          Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
CO-57	2.454E-01	7.048E-02	3.056E-02	3.596E-02
CO-60	6.898E+00	6.605E-01	3.698E-02	3.370E-01
CD-109	3.543E+01	4.130E+00	9.957E-01	2.107E+00
SN-126	3.456E+00	4.029E-01	9.755E-02	2.056E-01
BA-137M	5.580E+00	6.140E-01	4.372E-02	3.133E-01
CS-137	5.894E+00	6.494E-01	4.619E-02	3.313E-01
TL-208	4.272E-01	1.058E-01	4.924E-02	5.399E-02
BI-211	3.464E+00	7.196E-01	2.662E-01	3.672E-01
PB-212	1.427E+00	2.333E-01	7.438E-02	1.190E-01
BI-214	8.897E-01	2.110E-01	8.623E-02	1.076E-01
PB-214	1.257E+00	2.699E-01	9.680E-02	1.377E-01
RA-224	2.930E+00	1.691E+00	7.963E-01	8.629E-01
RA-226	8.897E-01	2.110E-01	8.623E-02	1.076E-01
AC-228	1.589E+00	5.890E-01	2.356E-01	3.005E-01
RA-228	1.589E+00	5.890E-01	2.356E-01	3.005E-01
TH-228	1.427E+00	2.333E-01	7.438E-02	1.190E-01
TH-230	8.897E-01	2.059E-01	8.623E-02	1.050E-01
TH-232	1.589E+00	5.890E-01	2.356E-01	3.005E-01
AM-241	1.388E+01	1.250E+00	2.345E-01	6.378E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-6.283E-01	6.105E-01	4.949E-01	3.115E-01	NOT IDENT.
NA-22	3.530E-02	4.690E-02	4.274E-02	2.393E-02	NOT IDENT.
NA-24	-4.793E+06	3.888E+06	0.000E+00	1.984E+06	SHORT HLIF
K-40	1.020E+00	4.979E-01	5.088E-01	2.540E-01	NOT IDENT.
SC-46	1.936E-02	7.198E-02	6.304E-02	3.673E-02	FAIL ABUN
V-48	8.991E-02	1.467E-01	1.288E-01	7.483E-02	NOT IDENT.
CR-51	2.543E-01	6.143E-01	5.574E-01	3.134E-01	NOT IDENT.
MN-54	5.691E-03	6.336E-02	5.542E-02	3.233E-02	NOT IDENT.

CO-56	9.840E-03	7.005E-02	6.132E-02	3.574E-02	FAIL ABUN
CO-58	-4.948E-02	6.689E-02	5.601E-02	3.413E-02	NOT IDENT.
FE-59	6.726E-02	1.691E-01	1.454E-01	8.627E-02	NOT IDENT.
ZN-65	4.760E-02	1.814E-01	1.323E-01	9.257E-02	NOT IDENT.
SE-75	-3.781E-02	8.017E-02	5.851E-02	4.090E-02	FAIL ABUN
SR-85	-6.774E-02	7.135E-02	5.773E-02	3.640E-02	NOT IDENT.
Y-88	4.593E-02	4.665E-02	4.397E-02	2.380E-02	NOT IDENT.
Y-91	-5.302E+00	2.326E+01	1.963E+01	1.187E+01	NOT IDENT.
NB-94	-1.147E-02	4.997E-02	4.218E-02	2.549E-02	NOT IDENT.
NB-95	1.970E-02	6.833E-02	5.874E-02	3.486E-02	NOT IDENT.
NB-95M	6.343E-02	2.245E-01	1.740E-01	1.146E-01	NOT IDENT.
ZR-95	-6.121E-02	1.192E-01	9.790E-02	6.082E-02	NOT IDENT.
MO-99	-5.276E-01	2.577E+01	2.189E+01	1.315E+01	NOT IDENT.
TC-99M	6.925E+12	1.590E+18	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.732E-02	6.732E-02	5.839E-02	3.434E-02	FAIL ABUN
RH-106	-1.807E-01	4.860E-01	4.130E-01	2.480E-01	NOT IDENT.
RU-106	-1.807E-01	4.857E-01	4.130E-01	2.478E-01	NOT IDENT.
AG-108M	-5.355E-02	5.302E-02	4.360E-02	2.705E-02	NOT IDENT.
AG-110M	7.130E-01	1.168E-01	9.121E-02	5.960E-02	NOT IDENT.
SN-113	-2.312E-02	7.572E-02	6.538E-02	3.863E-02	NOT IDENT.
CD-115	1.856E+00	2.613E+01	2.320E+01	1.333E+01	NOT IDENT.
SN-117M	-2.678E-02	8.287E-02	7.451E-02	4.228E-02	NOT IDENT.
TE-123M	4.039E-03	3.991E-02	3.644E-02	2.036E-02	NOT IDENT.
SB-124	1.561E-02	9.763E-02	8.461E-02	4.981E-02	NOT IDENT.
SB-125	5.091E-03	1.532E-01	1.329E-01	7.814E-02	NOT IDENT.
TE-125M	-4.316E+00	1.381E+01	1.190E+01	7.044E+00	NOT IDENT.
I-126	6.479E-01	4.164E-01	3.407E-01	2.125E-01	NOT IDENT.
SB-126	-2.106E-02	2.428E-01	2.062E-01	1.239E-01	NOT IDENT.
SB-127	1.226E+00	2.529E+00	2.226E+00	1.290E+00	NOT IDENT.
I-131	-1.378E-01	2.060E-01	1.759E-01	1.051E-01	NOT IDENT.
TE-132	-6.566E-01	1.514E+00	1.303E+00	7.727E-01	NOT IDENT.
BA-133	1.313E-02	7.313E-02	5.674E-02	3.731E-02	NOT IDENT.
I-133	-2.273E+04	2.499E+04	0.000E+00	1.275E+04	SHORT HLIF
CS-134	7.098E-02	7.554E-02	6.670E-02	3.854E-02	NOT IDENT.
CS-135	2.535E-01	2.683E-01	2.115E-01	1.369E-01	NOT IDENT.
I-135	1.469E+17	1.638E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.620E-02	2.038E-01	1.713E-01	1.040E-01	NOT IDENT.
CE-139	1.006E-02	4.207E-02	3.843E-02	2.146E-02	NOT IDENT.
BA-140	2.555E-01	4.604E-01	4.099E-01	2.349E-01	NOT IDENT.
LA-140	-7.469E-02	1.230E-01	9.719E-02	6.277E-02	NOT IDENT.
CE-141	-9.325E-02	8.725E-02	7.662E-02	4.452E-02	NOT IDENT.
CE-143	6.885E+02	4.676E+02	0.000E+00	2.386E+02	SHORT HLIF
CE-144	-2.078E-01	2.767E-01	2.476E-01	1.412E-01	NOT IDENT.
PM-144	-2.925E-03	5.206E-02	4.446E-02	2.656E-02	NOT IDENT.
PR-144	-1.968E-01	3.900E+00	3.332E+00	1.990E+00	NOT IDENT.
PM-146	-1.790E-02	7.753E-02	6.602E-02	3.955E-02	NOT IDENT.
ND-147	-5.022E-01	9.393E-01	8.059E-01	4.792E-01	NOT IDENT.
PM-149	-9.432E+01	2.299E+02	1.928E+02	1.173E+02	NOT IDENT.
EU-152	1.084E-02	1.730E-01	1.339E-01	8.828E-02	FAIL ABUN
GD-153	1.063E-02	1.237E-01	9.816E-02	6.312E-02	NOT IDENT.
EU-154	9.591E-02	1.326E-01	1.204E-01	6.763E-02	FAIL ABUN
EU-155	1.250E-01	1.450E-01	1.318E-01	7.400E-02	NOT IDENT.
TB-160	1.579E-01	2.736E-01	2.411E-01	1.396E-01	FAIL ABUN
HO-166M	-1.588E-02	8.991E-02	7.599E-02	4.587E-02	NOT IDENT.
TA-182	-4.006E-02	2.074E-01	1.753E-01	1.058E-01	FAIL ABUN
IR-192	-2.151E-02	5.508E-02	4.851E-02	2.810E-02	FAIL ABUN
HG-203	-1.630E-02	6.496E-02	5.513E-02	3.314E-02	NOT IDENT.
BI-207	4.345E-02	9.501E-02	8.229E-02	4.847E-02	FAIL ABUN
PB-210	-9.424E-01	5.383E+00	5.045E+00	2.746E+00	NOT IDENT.
PB-211	-5.866E-01	1.237E+00	1.029E+00	6.312E-01	NOT IDENT.
BI-212	4.134E-03	8.557E-01	7.300E-01	4.366E-01	NOT IDENT.
RN-219	-2.733E-01	6.883E-01	5.894E-01	3.512E-01	FAIL ABUN
RA-223	-8.937E-01	1.060E+00	9.037E-01	5.406E-01	FAIL ABUN
AC-227	-2.257E-02	4.072E-01	3.519E-01	2.077E-01	NOT IDENT.
TH-227	-2.257E-02	4.072E-01	3.519E-01	2.077E-01	NOT IDENT.
TH-229	-5.836E-01	7.823E-01	6.765E-01	3.991E-01	FAIL ABUN
PA-231	-3.662E-01	2.402E+00	2.043E+00	1.225E+00	NOT IDENT.
TH-231	-8.937E-01	1.060E+00	9.037E-01	5.406E-01	FAIL ABUN
PA-233	6.103E-02	9.862E-02	9.035E-02	5.032E-02	NOT IDENT.
PA-234	-2.163E-01	6.299E-01	5.304E-01	3.214E-01	NOT IDENT.
PA-234M	1.848E+00	8.103E+00	7.011E+00	4.134E+00	NOT IDENT.
TH-234	-8.535E-01	1.895E+00	1.568E+00	9.669E-01	FAIL ABUN
U-235	-1.472E-01	2.646E-01	2.361E-01	1.350E-01	FAIL ABUN
NP-237	4.949E+00	1.223E+00	5.167E-01	6.238E-01	NOT IDENT.
U-238	-8.535E-01	1.895E+00	1.568E+00	9.669E-01	FAIL ABUN
NP-239	-2.970E-01	6.415E-01	4.831E-01	3.273E-01	NOT IDENT.
CM-247	3.664E-02	6.140E-02	5.486E-02	3.133E-02	NOT IDENT.
CF-249	6.796E-03	6.675E-02	5.872E-02	3.406E-02	NOT IDENT.

CF-251	1.287E-03	1.871E-01	1.685E-01	9.547E-02	NOT IDENT.
ANH-511	5.184E-02	5.915E-02	5.606E-02	3.018E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	486.0000
49.72	573.9034
57.36	0.0000
59.54	596.3845
63.29	384.0284
63.29	384.0284
64.28	398.3148
67.75	403.2376
69.67	406.5132
70.83	423.1225
72.81	438.0719
72.87	438.1629
72.87	438.1629
74.82	433.4862
74.82	433.4862
74.82	433.4862
74.97	433.7044
77.11	436.7876
77.11	436.7876
77.11	436.7876
79.69	463.5518
79.80	463.7148
80.12	461.1036
80.19	461.2062
80.57	461.7628
81.00	484.0429
81.07	484.1504
81.07	484.1504
83.79	497.6319
83.79	497.6319
85.43	493.8602
86.48	541.0378
86.55	541.1507
86.79	473.8467
86.94	474.0626
87.57	474.9536
88.03	475.6035
88.47	476.2236
89.96	298.7451
91.11	299.7440
92.59	301.0192
92.59	301.0192
93.35	325.7398
94.67	314.0706
94.87	314.2462
94.87	314.2462
95.86	313.4991
97.43	309.9918
98.44	318.9860
99.53	334.0761
100.11	311.7099
103.18	352.7199
103.37	334.2070
105.31	304.9606
106.12	353.2092
109.28	337.0803
111.00	337.4094
111.76	356.0139
116.30	318.5172
117.23	336.2942
121.12	302.0538
121.78	302.5153
122.06	302.7106
123.07	297.6459
131.20	352.4384
133.52	369.2654
136.00	322.2599

136.47	310.1048
140.51	329.8050
140.51	0.0000
143.76	329.2890
144.24	340.4746
144.24	340.4746
145.44	366.7168
152.43	348.7921
153.25	335.5181
154.21	323.2090
154.21	323.2090
156.02	358.6140
158.56	357.5449
159.00	333.6093
162.66	378.0984
163.33	384.1989
165.86	328.4059
176.60	337.5703
177.52	341.9562
181.07	341.1155
184.41	372.2629
185.72	373.0731
193.51	371.8864
197.04	357.0663
205.31	341.7180
210.85	399.8431
215.65	390.8191
222.11	396.5508
227.38	359.9802
228.16	366.6228
228.18	366.6335
235.69	385.6017
235.96	370.5840
235.96	370.5840
238.63	321.2072
238.63	321.2072
240.99	322.2253
242.00	322.6591
244.70	332.3379
252.40	307.7132
252.80	300.3350
256.23	320.0340
256.23	320.0340
260.90	289.2977
264.66	295.4612
268.22	258.1257
269.46	314.3530
269.46	314.3530
271.23	315.0294
273.65	353.5107
276.40	273.1018
277.37	318.0995
277.60	328.5421
278.00	329.9693
279.20	334.7302
279.54	334.8634
280.46	319.6343
283.69	315.2577
284.31	331.1482
285.41	331.5728
285.90	329.5208
287.50	288.5838
293.27	0.0000
295.22	314.4730
295.96	314.7356
298.57	278.9686
299.98	262.7029
299.98	262.7029
300.09	236.9199
300.09	236.9199
300.13	236.9294
301.36	228.1281
302.85	271.1574
304.50	316.8274
304.50	316.8274
304.85	327.9423
308.46	245.5507
311.90	251.0820

316.51	285.7196
319.41	255.8957
320.08	281.2154
323.87	328.1498
323.87	328.1498
328.76	287.5362
333.37	284.8084
334.37	288.2458
334.37	288.2458
338.28	259.3430
338.28	259.3430
338.32	259.3564
338.32	259.3564
338.32	259.3564
340.48	283.6898
340.55	275.7867
344.28	257.7228
351.06	239.2704
351.93	239.4740
356.01	236.5602
364.49	263.7917
366.42	251.5972
383.85	246.7598
388.16	266.6227
388.63	262.7528
391.69	278.4414
400.66	275.6222
401.81	280.9345
402.40	243.8020
404.85	282.6865
410.95	261.8454
414.70	257.5924
423.72	234.9291
427.09	271.5958
427.87	246.0340
433.94	293.8180
453.88	284.8775
463.37	282.7521
468.07	316.7232
473.00	268.8390
476.78	283.5164
477.60	294.3964
487.02	225.3179
492.35	209.9685
497.08	196.5746
511.00	221.5836
514.00	326.4843
527.90	184.0726
529.87	0.0000
531.02	193.7392
537.26	183.3929
546.56	0.0000
563.25	192.2743
569.33	219.6596
569.50	201.6139
569.70	201.6398
583.19	191.8742
600.60	170.6934
602.73	167.5165
604.72	153.3472
609.32	158.7917
609.32	158.7917
609.32	158.7917
610.33	167.8113
614.28	181.0672
618.01	169.8985
621.93	171.9345
621.93	171.9345
633.25	167.1571
635.95	149.5930
636.99	171.4901
645.85	168.3914
657.76	158.2245
661.66	141.7717
661.66	141.7717
664.57	0.0000
666.33	133.0715
666.50	133.0850

677.62	126.8133
685.70	142.6632
695.00	153.6316
696.49	158.8819
696.51	158.8851
697.00	162.0021
702.65	157.3548
706.68	156.6634
711.68	145.7132
720.70	157.8324
721.93	0.0000
722.78	198.5464
722.91	198.5581
723.31	196.5212
724.19	163.3213
727.33	179.2191
733.00	193.3331
735.93	154.9014
739.50	140.5075
747.24	151.5908
752.31	135.0964
753.82	139.4229
756.73	168.1902
763.94	187.9077
765.81	167.8943
766.42	172.1942
777.92	157.1415
778.90	154.0107
783.70	155.4431
785.37	143.7681
795.86	144.5015
801.95	173.0436
810.29	174.0440
810.76	178.7377
815.77	158.6309
818.51	169.1130
832.01	193.6854
834.85	181.7015
836.80	0.0000
846.77	172.2849
856.80	181.6305
860.56	170.5064
871.09	185.6674
873.19	195.4194
875.33	0.0000
879.36	180.5841
880.51	184.5201
883.24	189.5520
884.68	183.8955
889.28	167.8646
898.04	183.9995
911.20	208.4171
911.20	208.4171
911.20	208.4171
926.50	208.7953
937.49	224.5290
944.13	235.0242
946.00	229.2772
949.00	234.5078
962.29	224.5965
964.08	210.8195
966.15	217.9718
968.97	202.5079
968.97	202.5079
968.97	202.5079
983.53	175.6012
996.26	169.4297
1001.03	150.5512
1004.73	155.8289
1037.84	151.6855
1038.76	0.0000
1048.07	154.3318
1050.41	162.7061
1050.41	162.7061
1063.66	149.0223
1085.87	137.7271
1099.45	154.1367
1112.07	132.7192

1115.54	155.0288
1120.29	123.5984
1120.29	123.5984
1120.29	123.5984
1120.55	112.7815
1121.30	118.3594
1131.51	0.0000
1173.23	96.0359
1177.93	92.2097
1189.05	86.1401
1204.77	68.5151
1221.41	68.8931
1231.02	58.0169
1235.36	51.2646
1238.28	53.0239
1260.41	0.0000
1271.85	50.5718
1274.44	43.7997
1274.54	43.8011
1291.59	52.8448
1298.22	0.0000
1312.11	61.0596
1332.49	41.6219
1365.19	30.0238
1368.63	0.0000
1384.29	49.3155
1408.01	30.4028
1457.56	0.0000
1460.82	20.5750
1489.16	40.4366
1505.03	40.6127
1596.21	42.6721
1620.50	35.3048
1678.03	0.0000
1690.97	23.3060
1764.49	25.6974
1764.49	25.6974
1764.49	25.6974
1770.23	23.1588
1771.35	21.3832
1791.20	0.0000
1836.06	19.0923

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065190

Total Uranium Activity	-2.6073E+00	ug/g
Total Uranium Counting Unc.	5.6392E+00	ug/g
Total Uranium Tpu	2.8771E-06	ug/g
Total Uranium Mda	4.6652E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G1202065190      *
*   ANALYST       : MXR1                      DETECTOR   : GAM22            *
*   SAMPLE DATE   :  9-MAR-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 25-MAR-2010 09:16:55.57    SAMPLE ALQT:  151.730 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.898E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 2.749E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 3.013E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.466E+00
```

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-DEC-2009 15:29:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.294995 through 0.314995

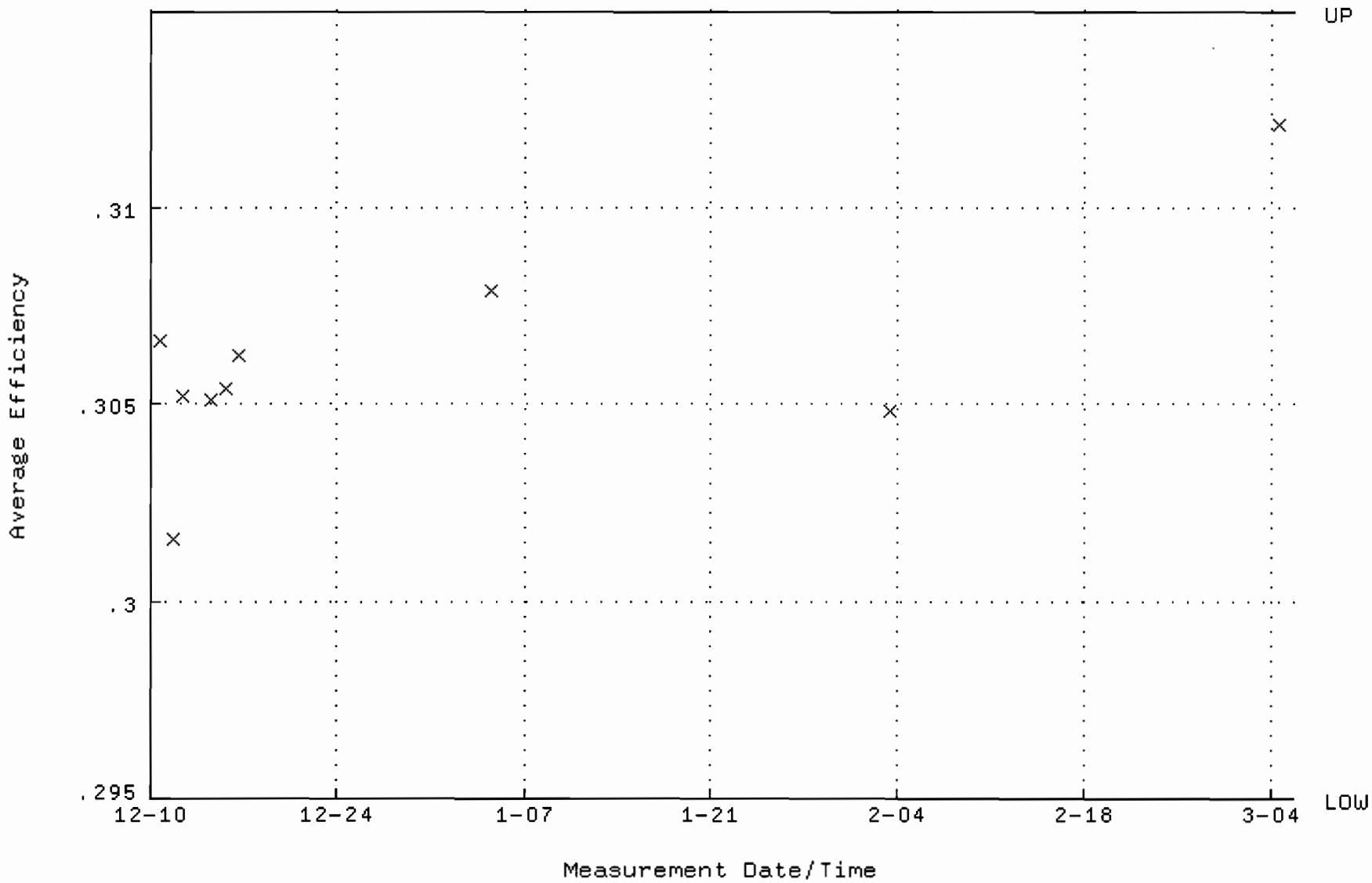

QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-DEC-2009 15:29:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 87.5863 through 96.8059

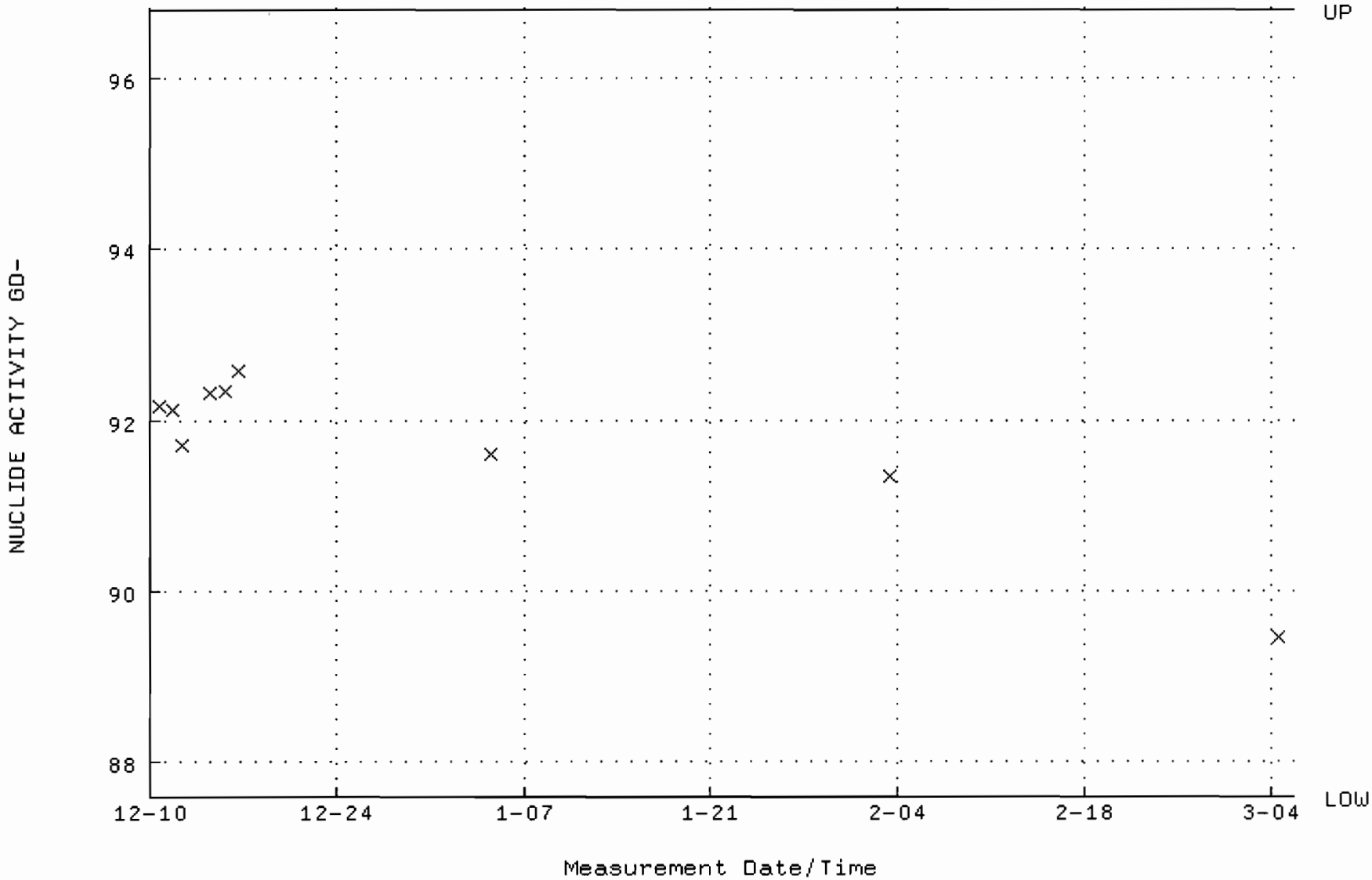

QA filename : DKA100:[ENV_ALPHA.QA.B]B004.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

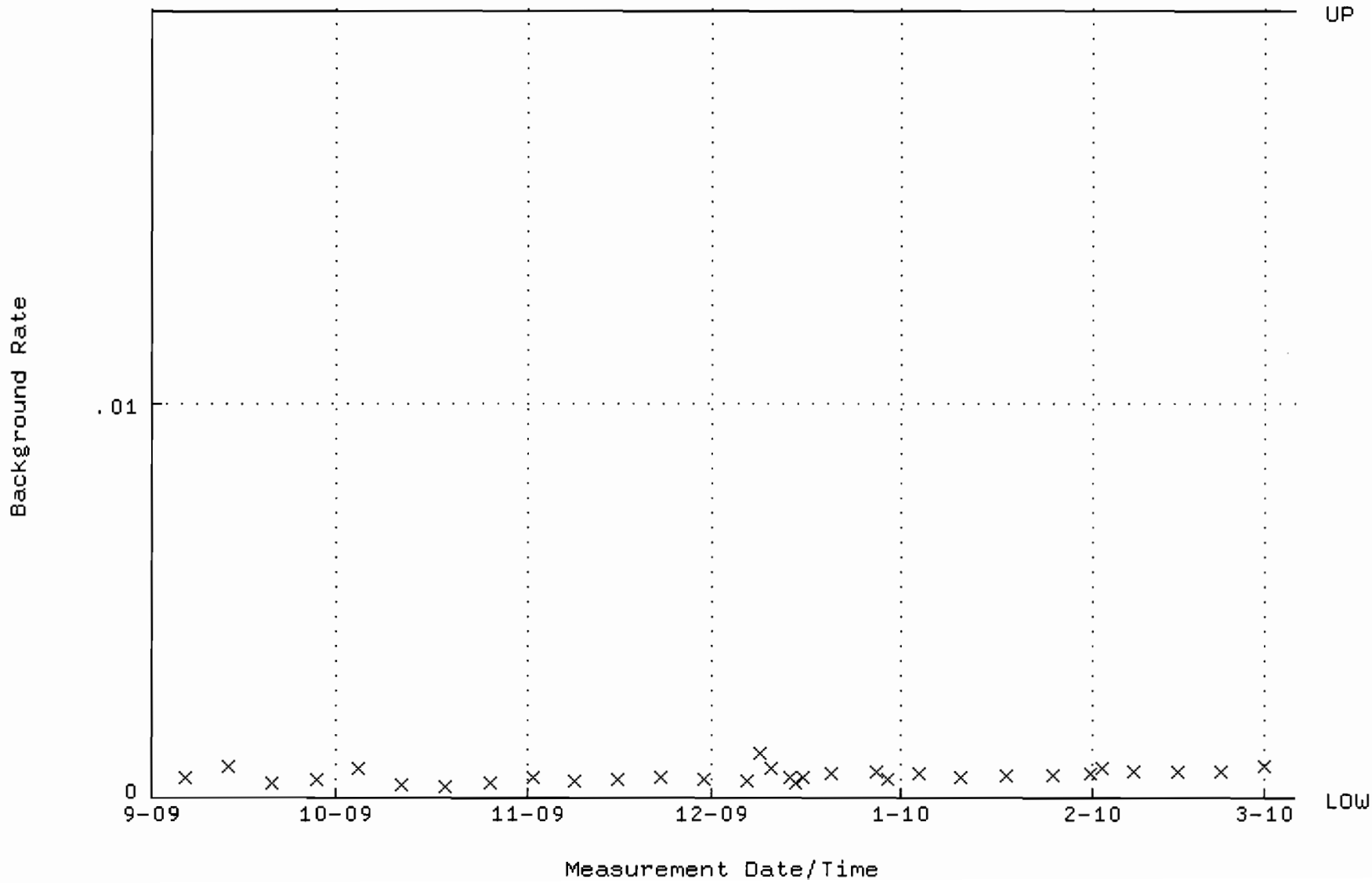

QA filename : DKA100:[ENV_ALPHA.QA.W]W005.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.302314 through 0.344088

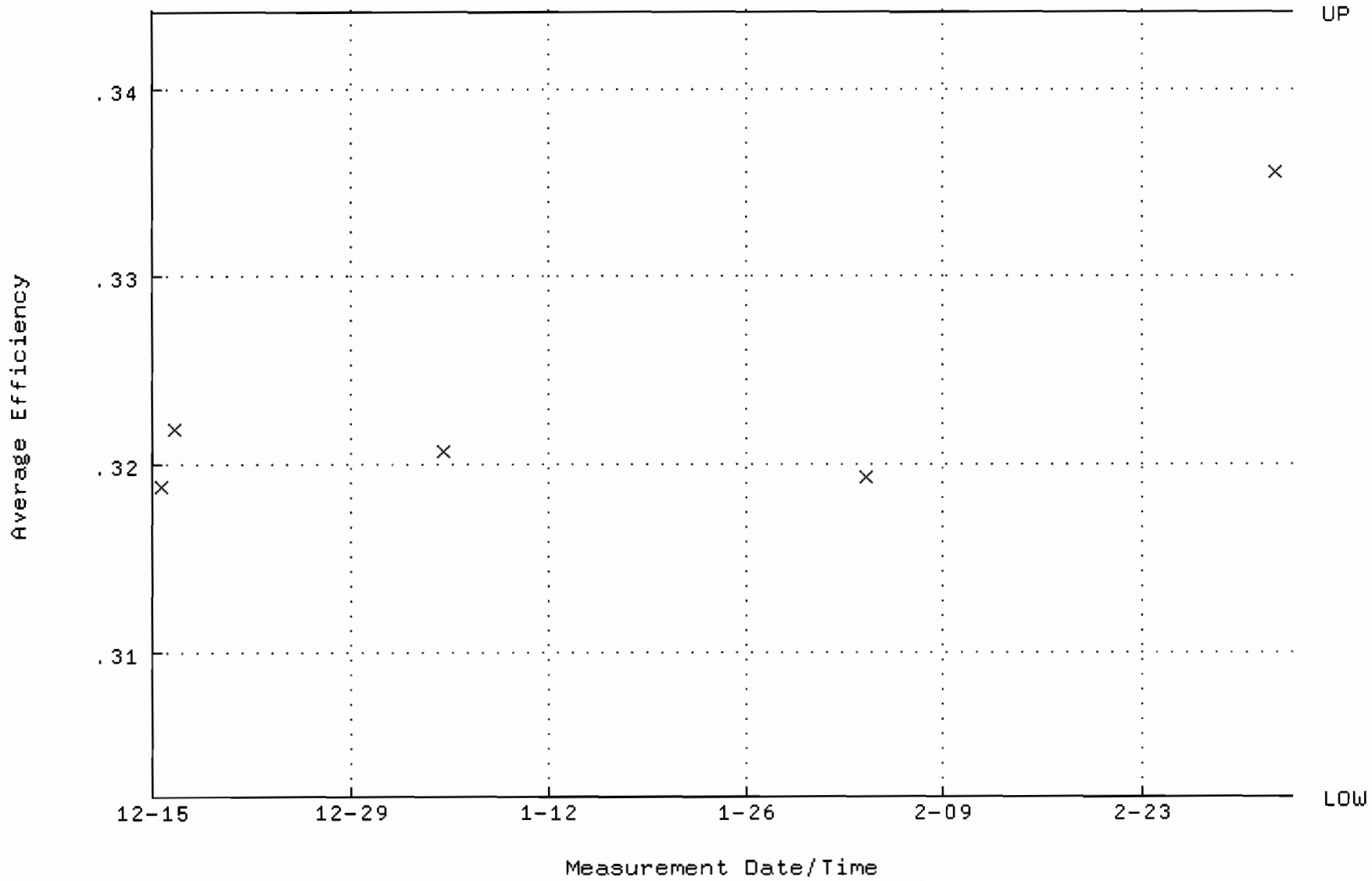

QA filename : DKA100:[ENV_ALPHA.QA.W]W005.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 88.6685 through 97.7693

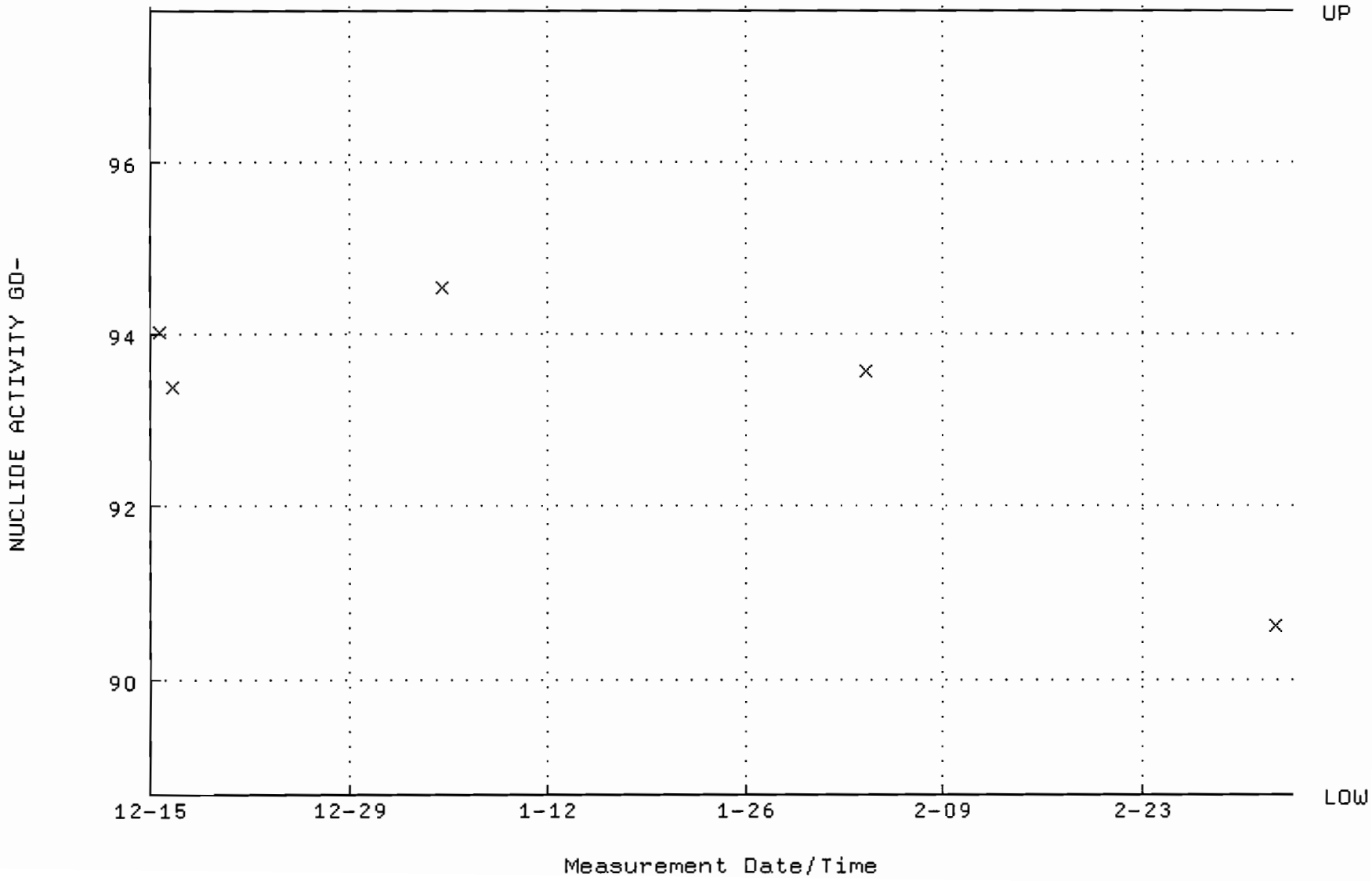

QA filename : DKA100:[ENV_ALPHA.QA.B]B005.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

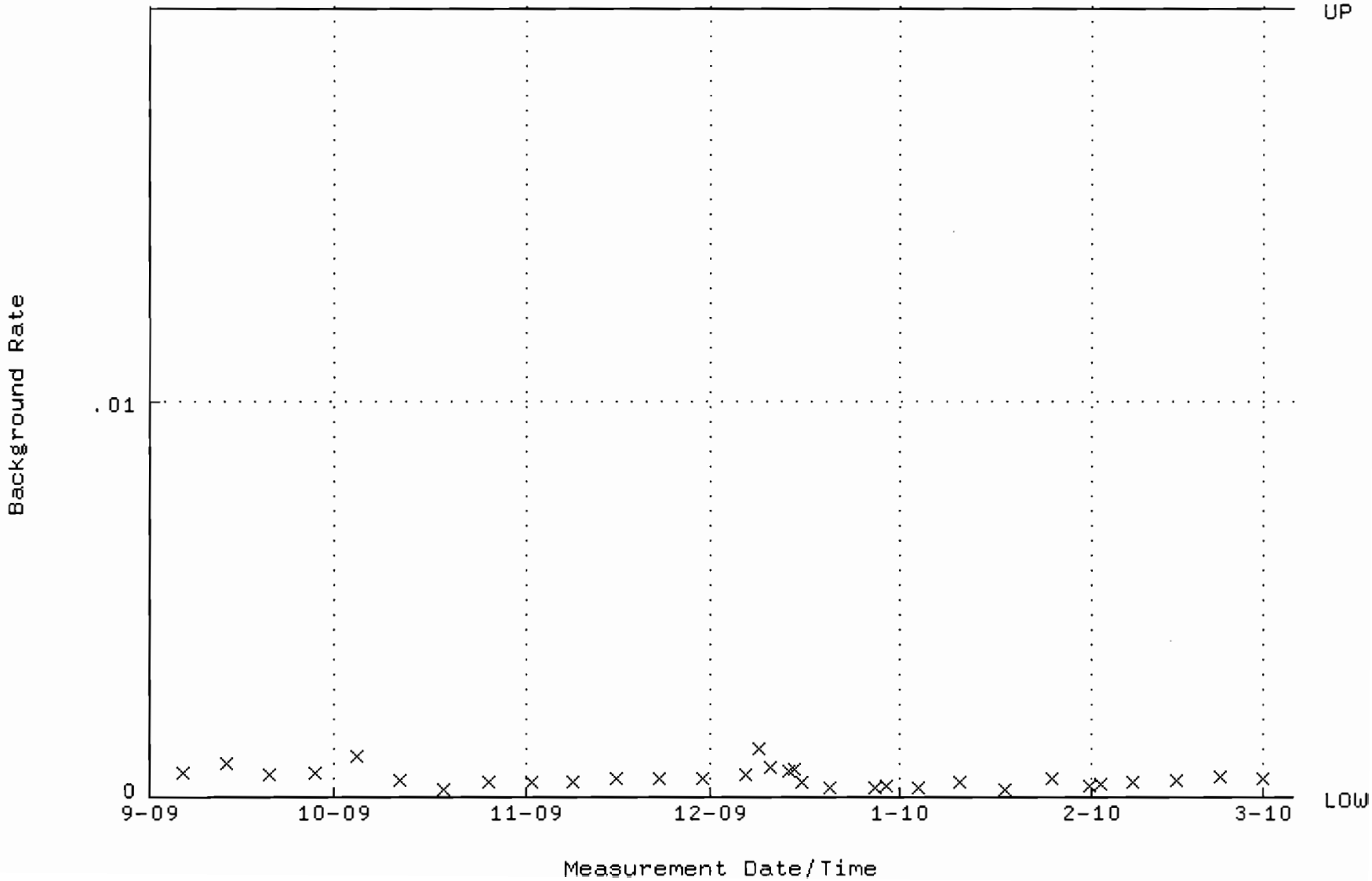

QA filename : DKA100:[ENV_ALPHA.QA.W]W006.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.288996 through 0.330714

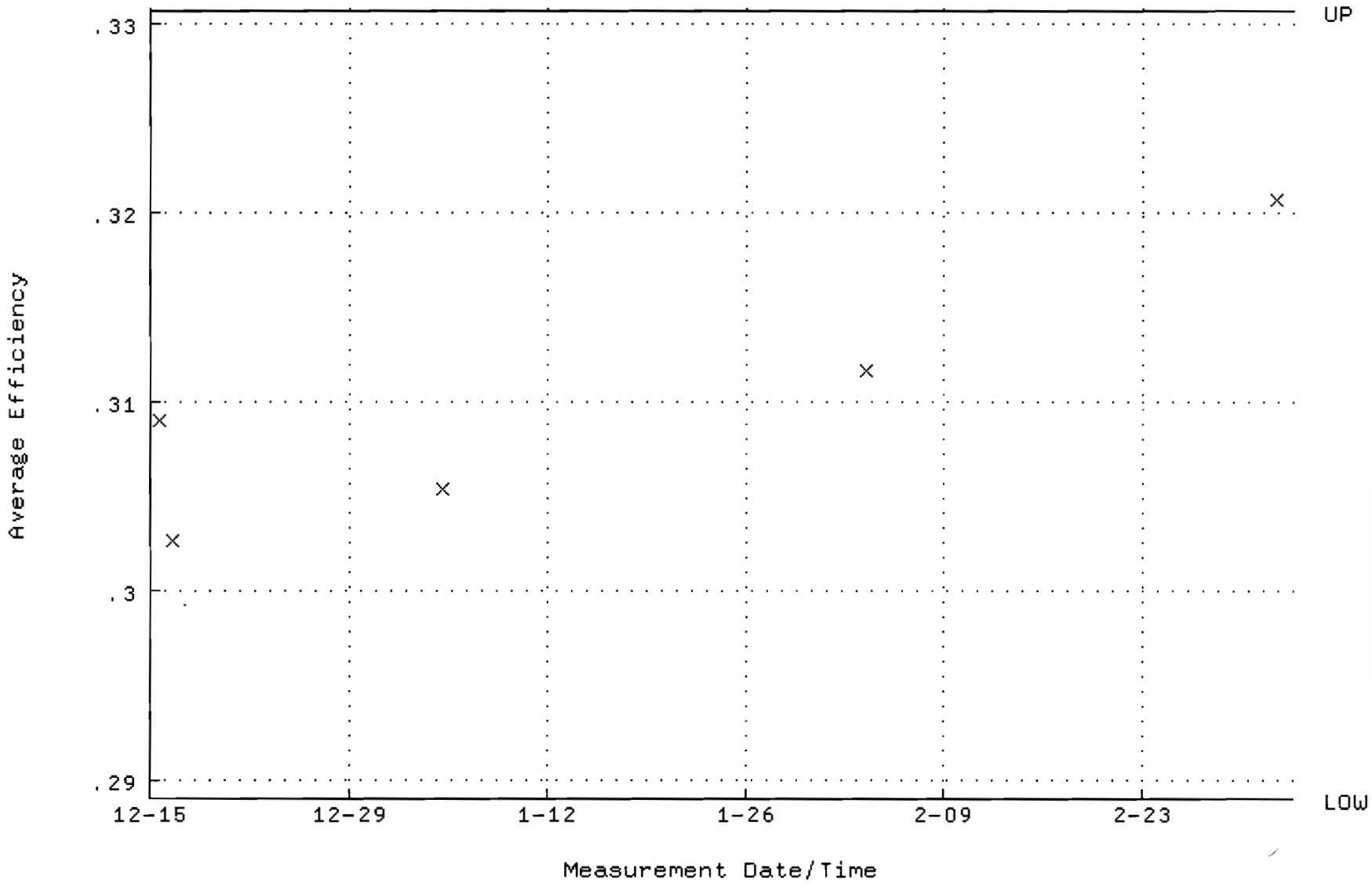

QA filename : DKA100:[ENV_ALPHA.QA.W]W006.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5567 through 97.8515

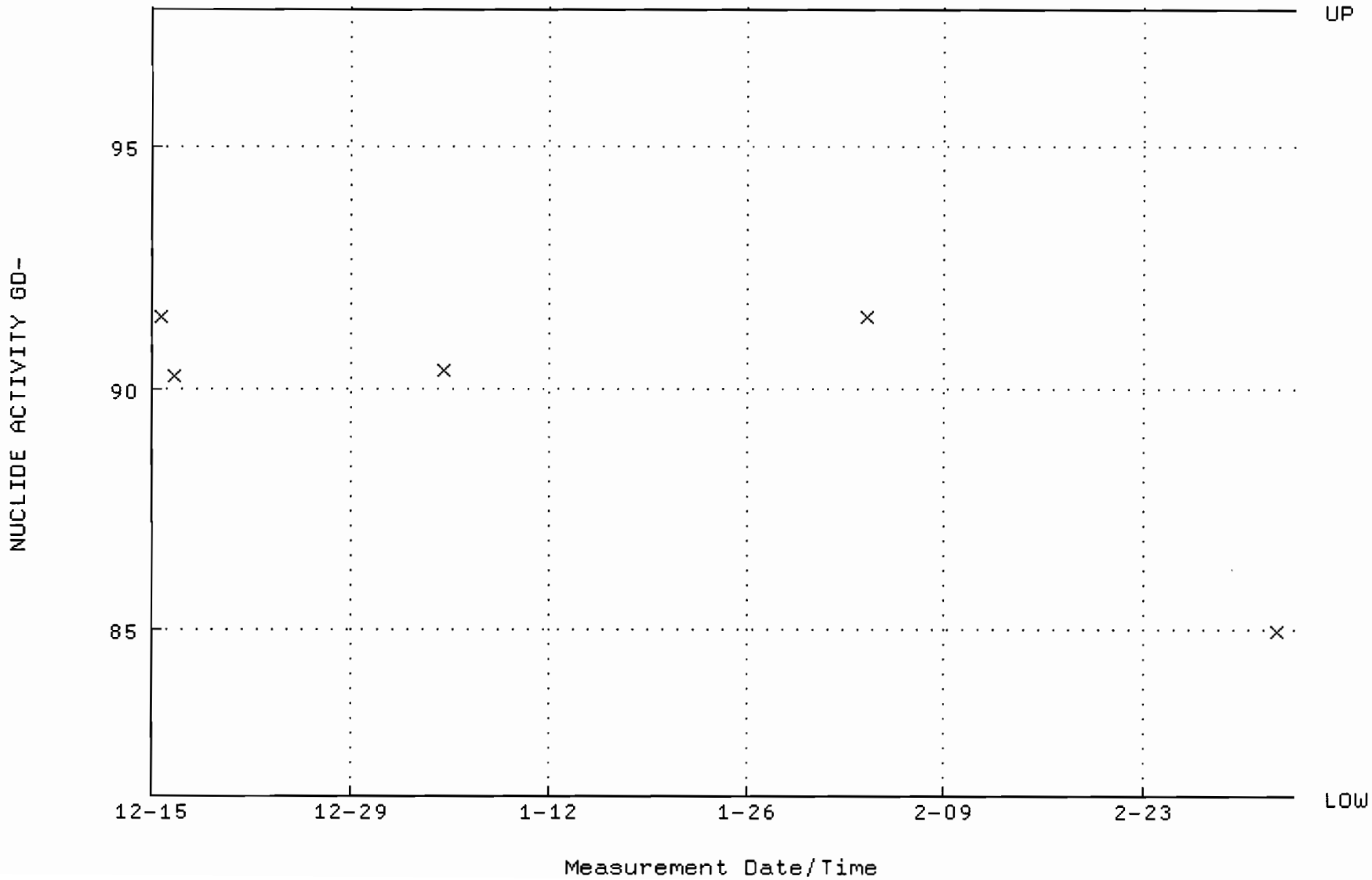

QA filename : DKA100:[ENV_ALPHA.QA.B]B006.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

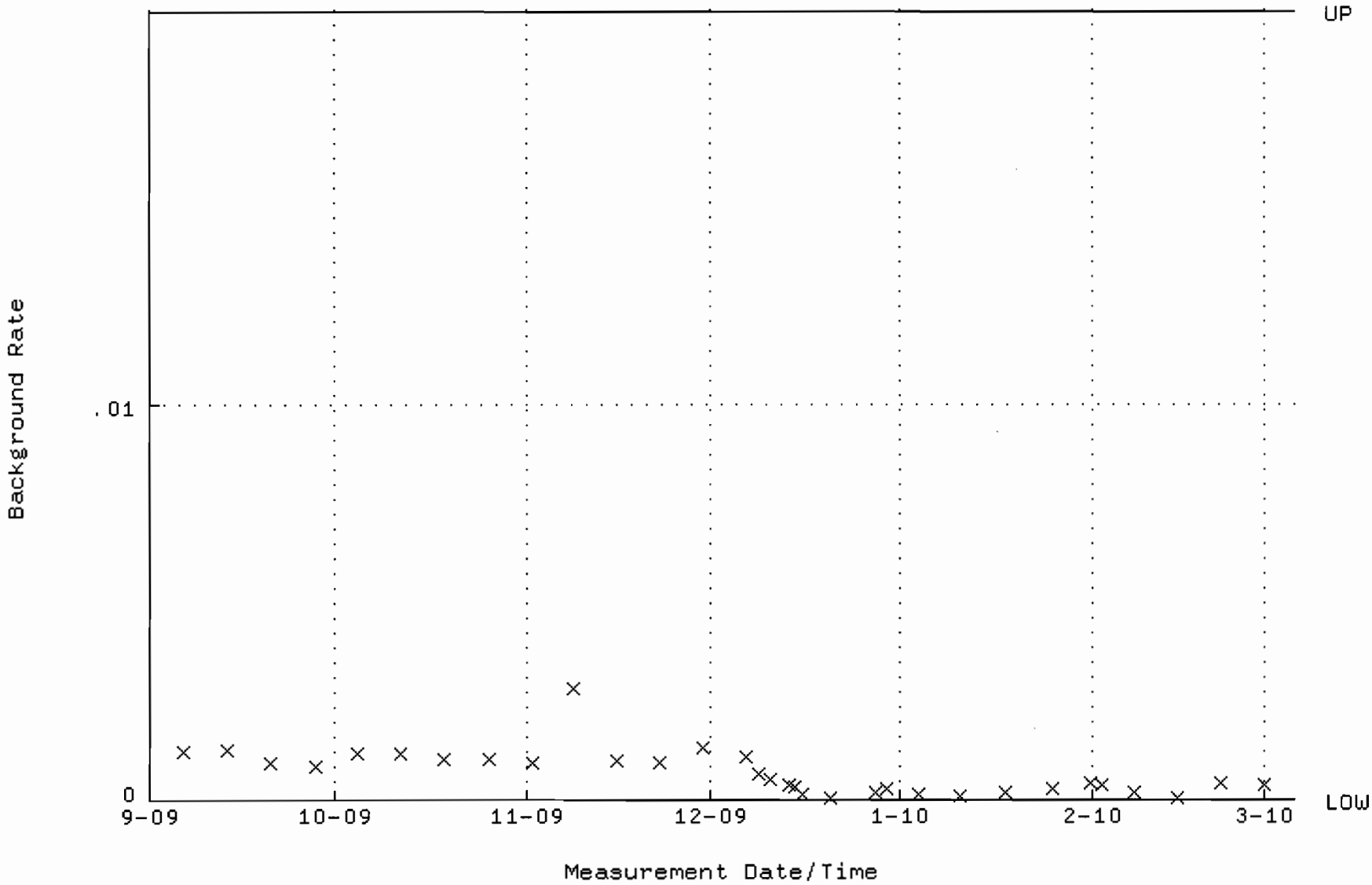

QA filename : DKA100:[ENV_ALPHA.QA.W]W096.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.317970 through 0.337970

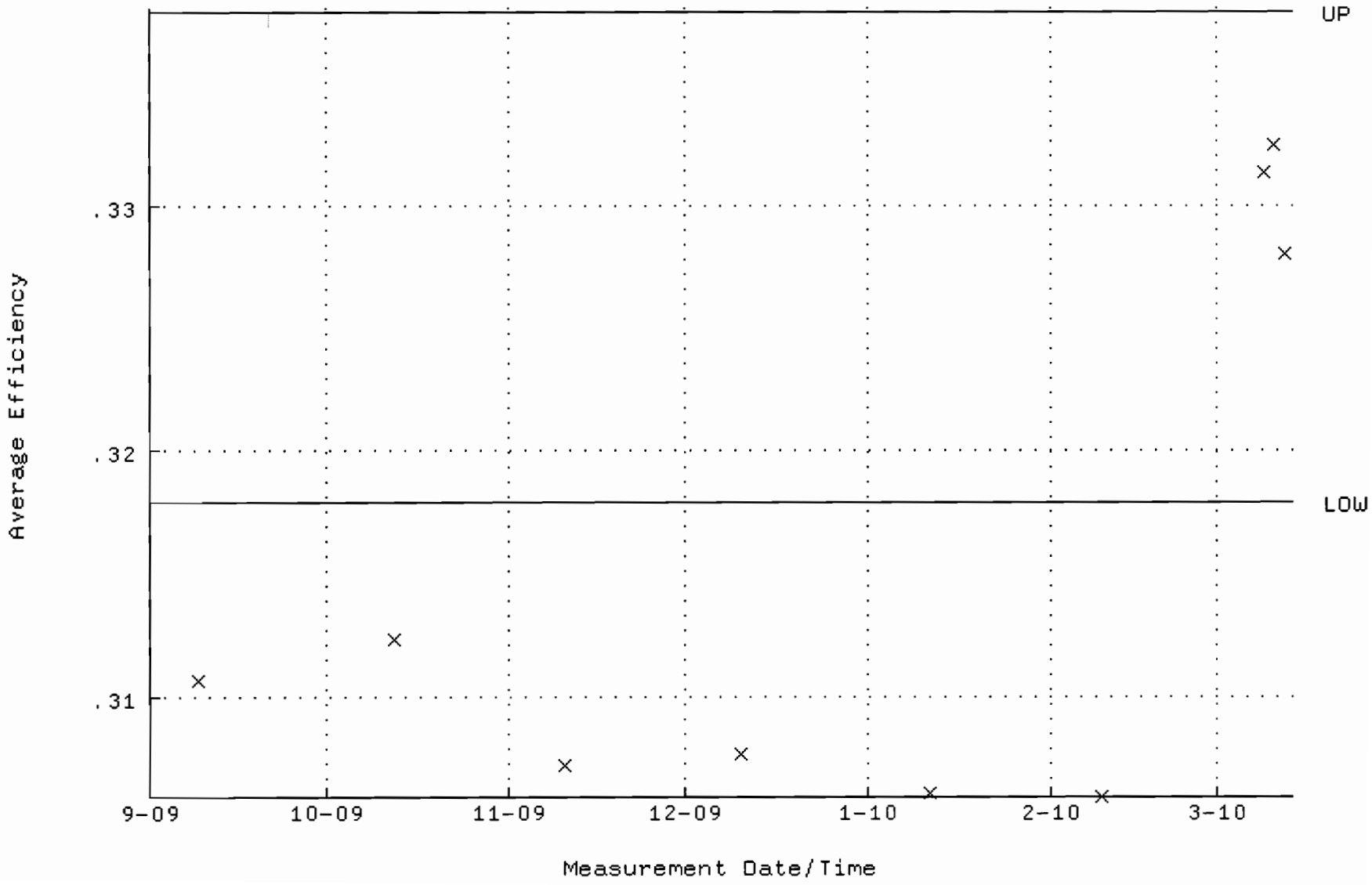

QA filename : DKA100:[ENV_ALPHA.QA.W]W096.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 62.4466 through 69.0200

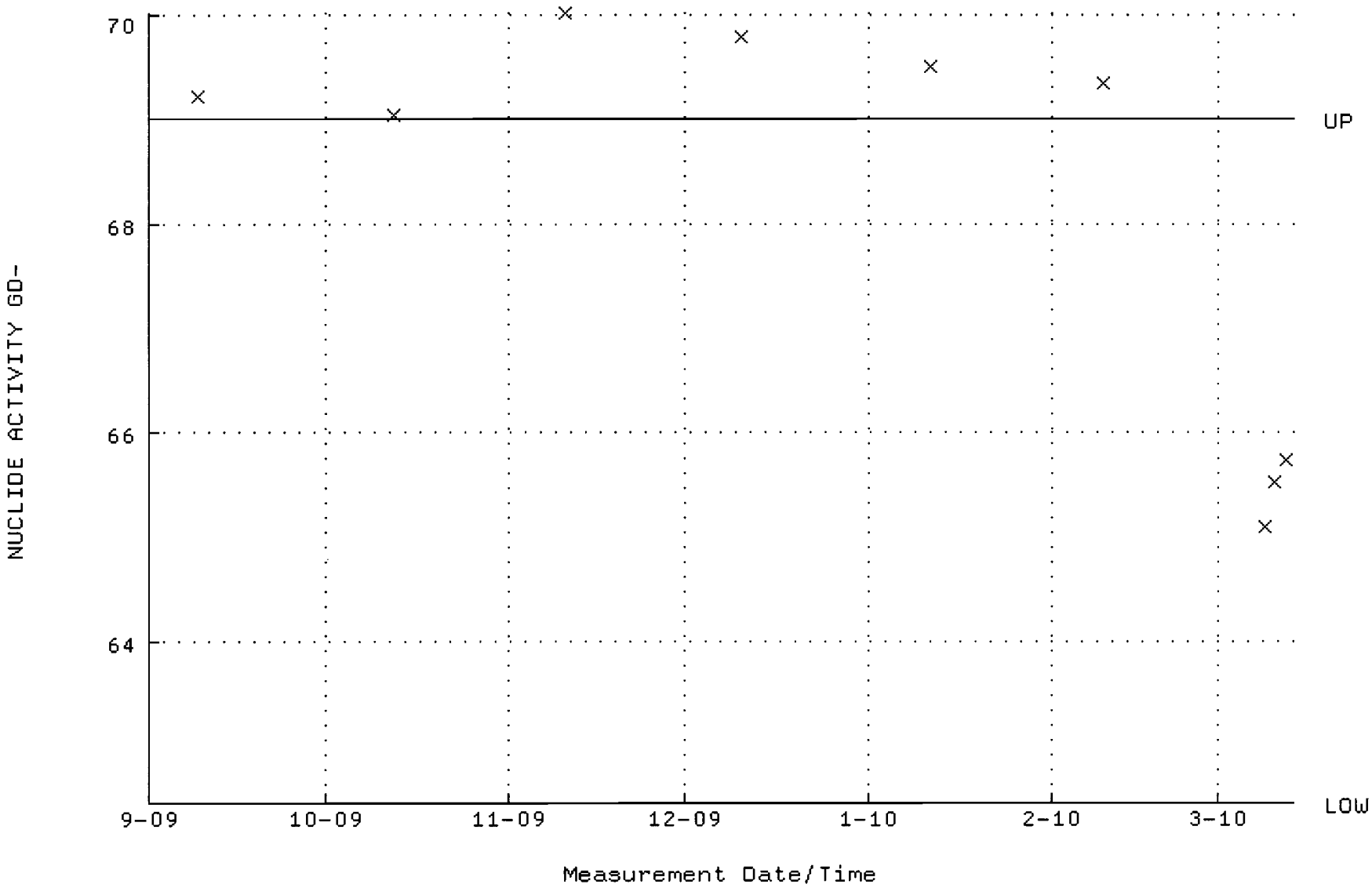

QA filename : DKA100:[ENV_ALPHA.QA.B]B096.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

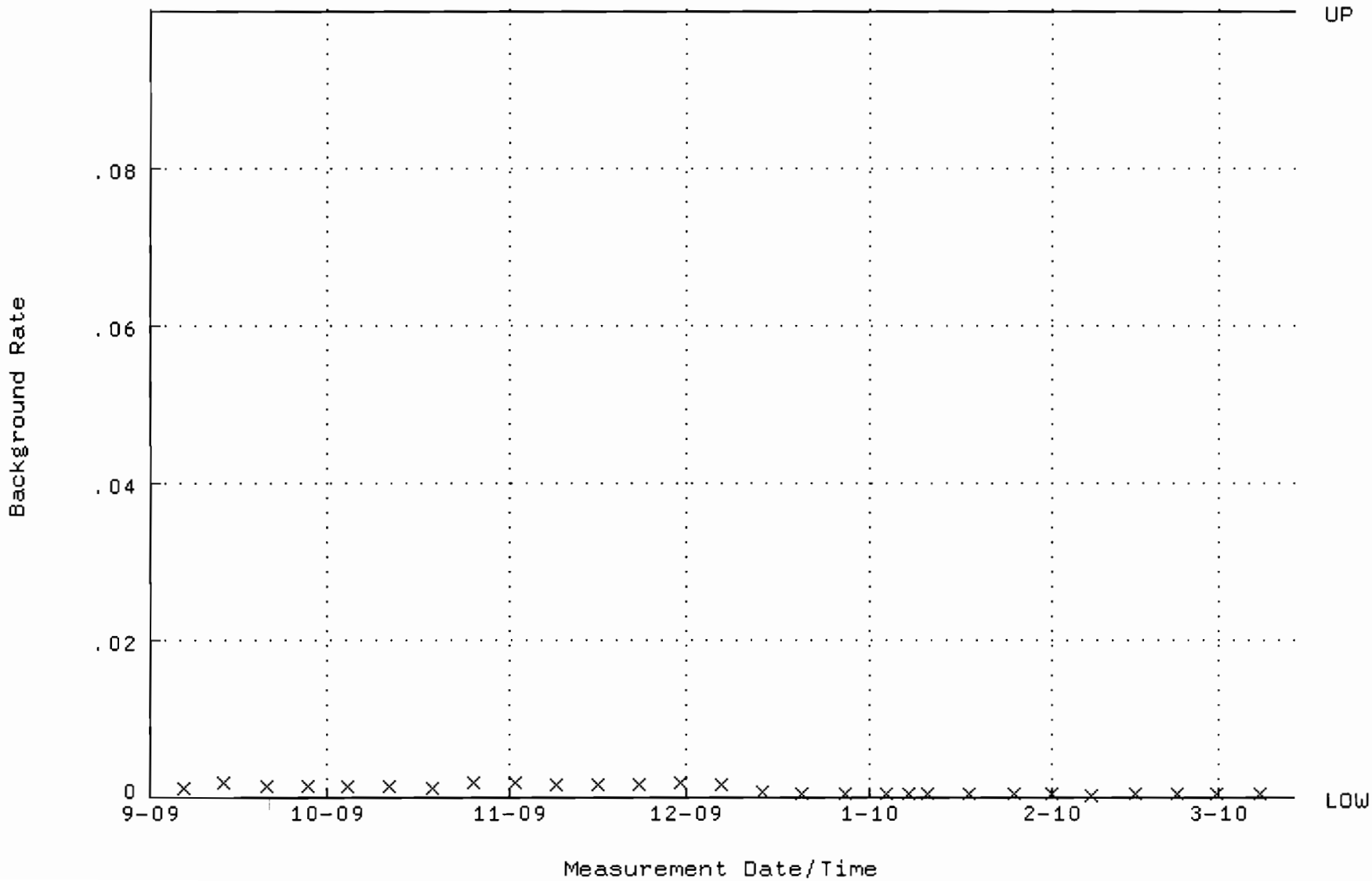

QA filename : DKA100:[ENV_ALPHA.QA.W]W097.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.338442 through 0.349972

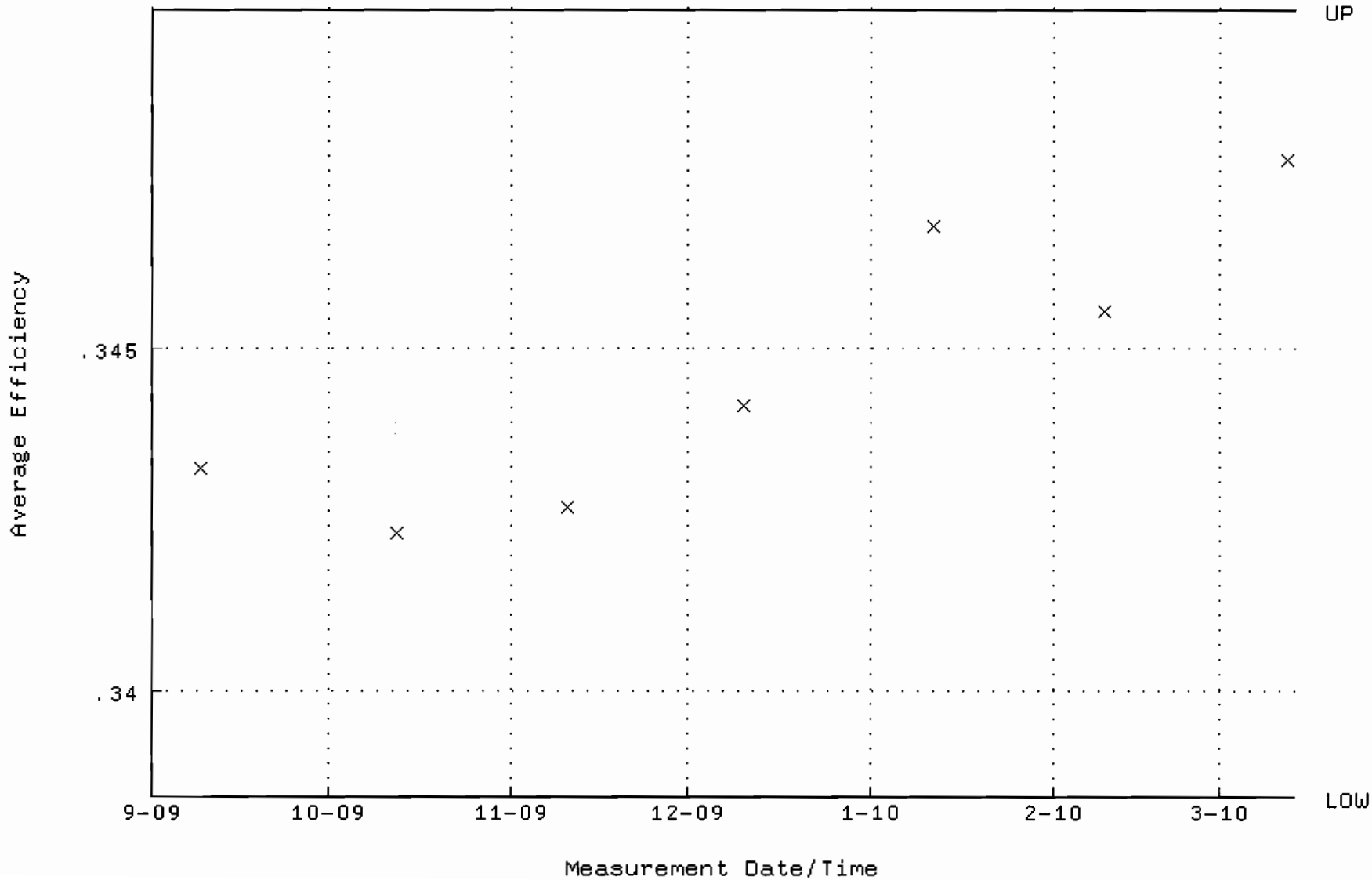

QA filename : DKA100:[ENV_ALPHA.QA.W]W097.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 66.0956 through 69.6464

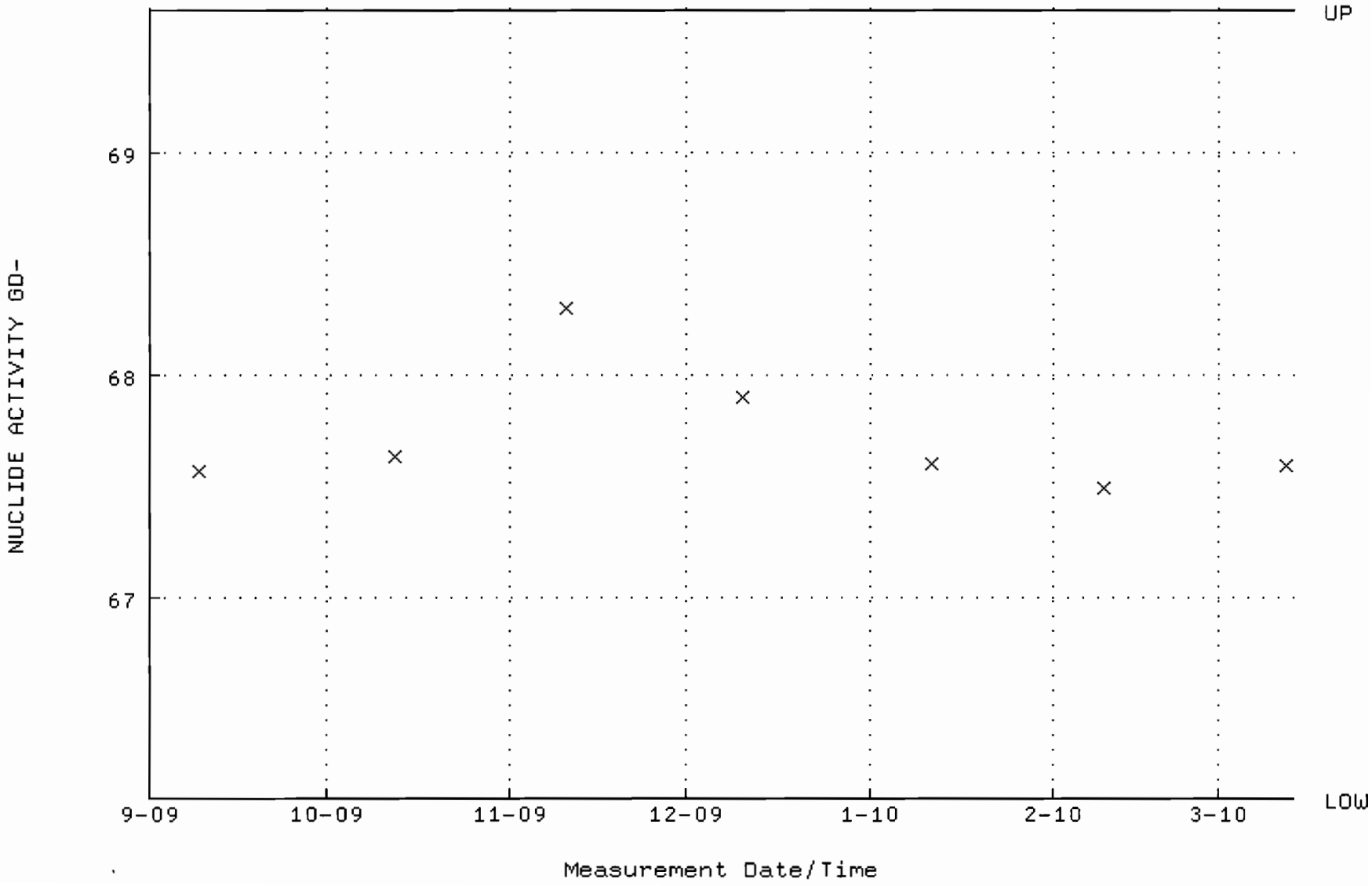

QA filename : DKA100:[ENV_ALPHA.QA.B]B097.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

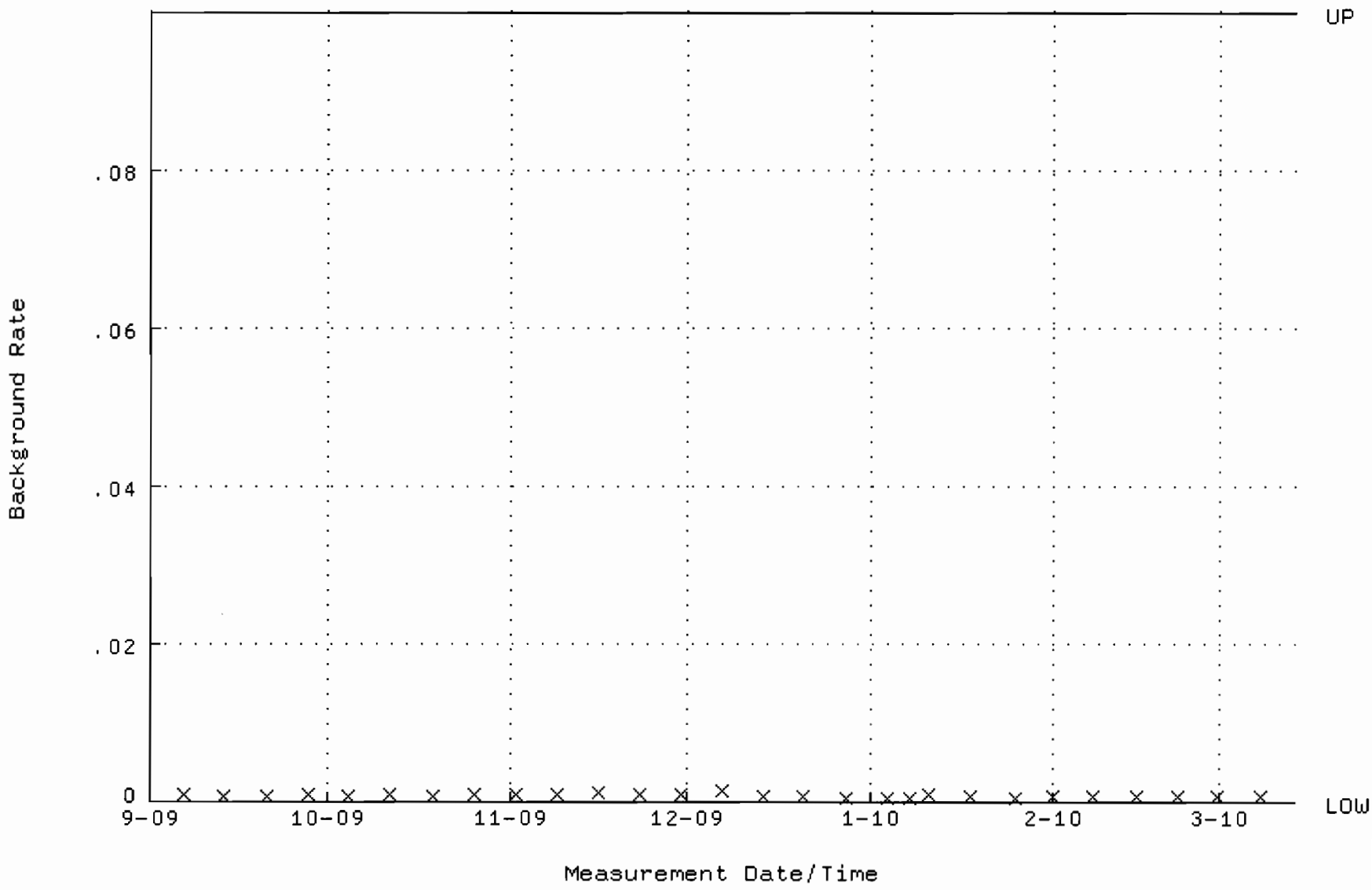

QA filename : DKA100:[ENV_ALPHA.QA.W]W098.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.346488 through 0.366488

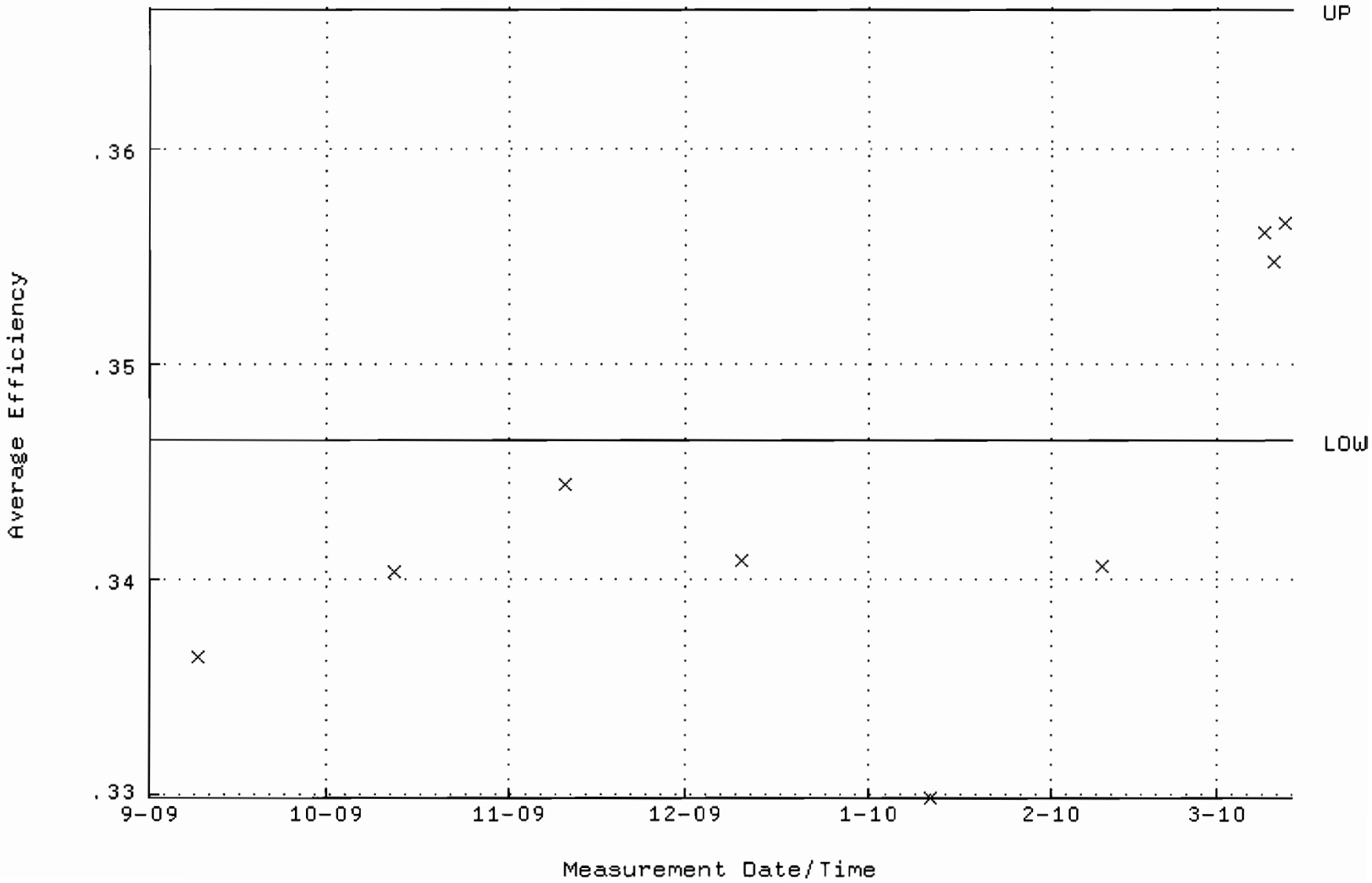

QA filename : DKA100:[ENV_ALPHA.QA.W]W098.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 62.6847 through 69.2831

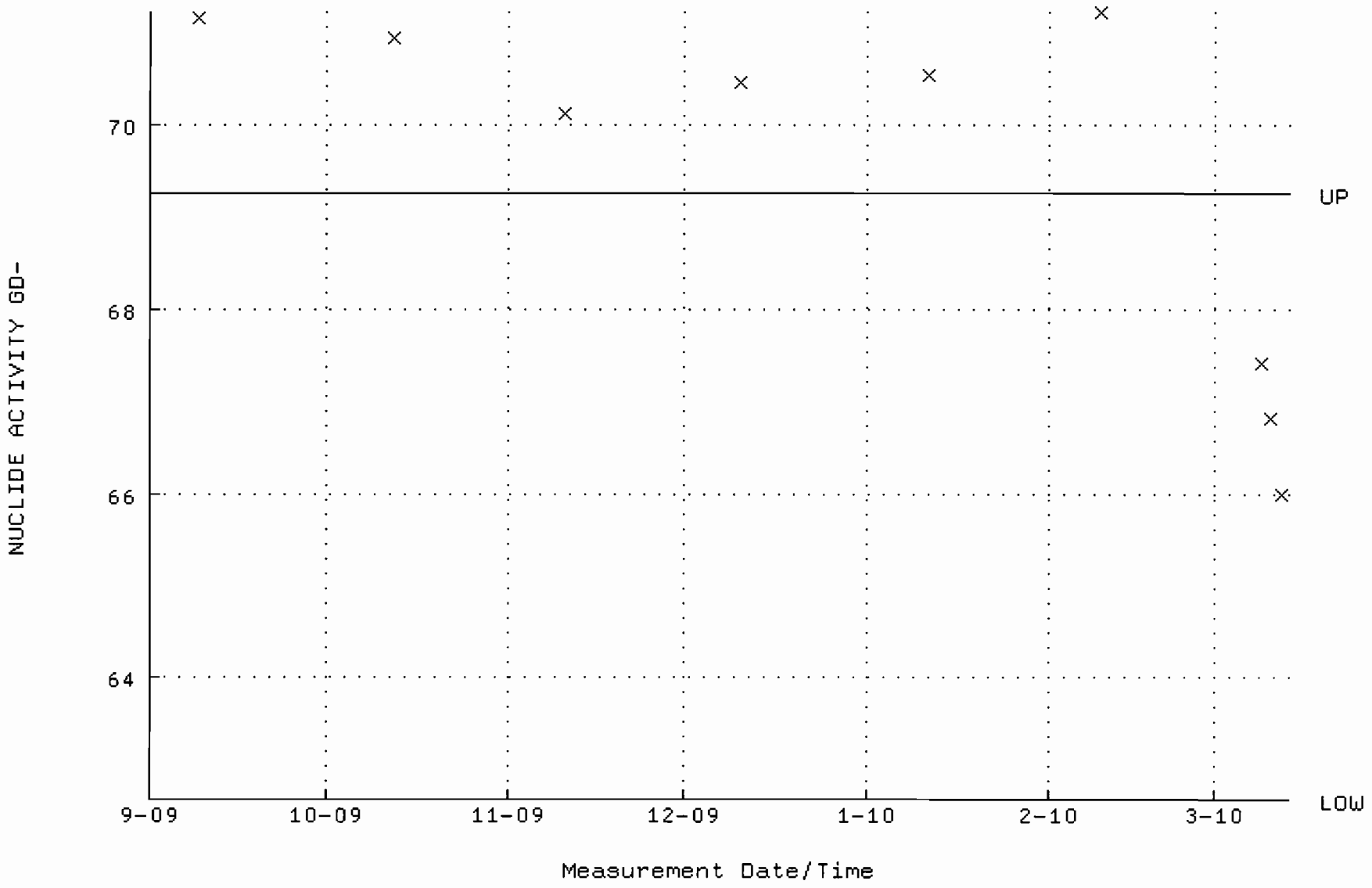

QA filename : DKA100:[ENV_ALPHA.QA.B]B098.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

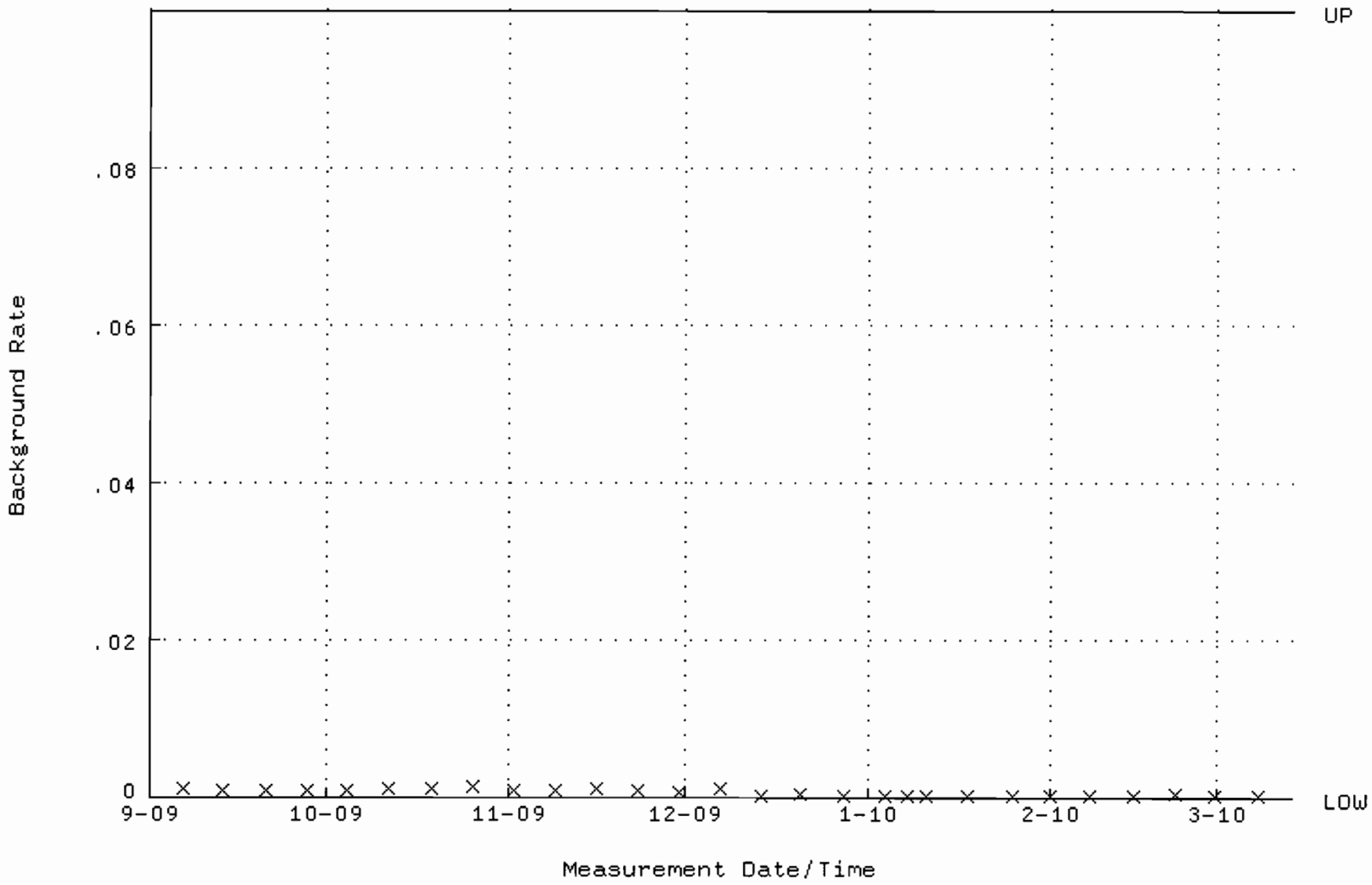

QA filename : DKA100:[ENV_ALPHA.QA.W]W109.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.343718 through 0.368808

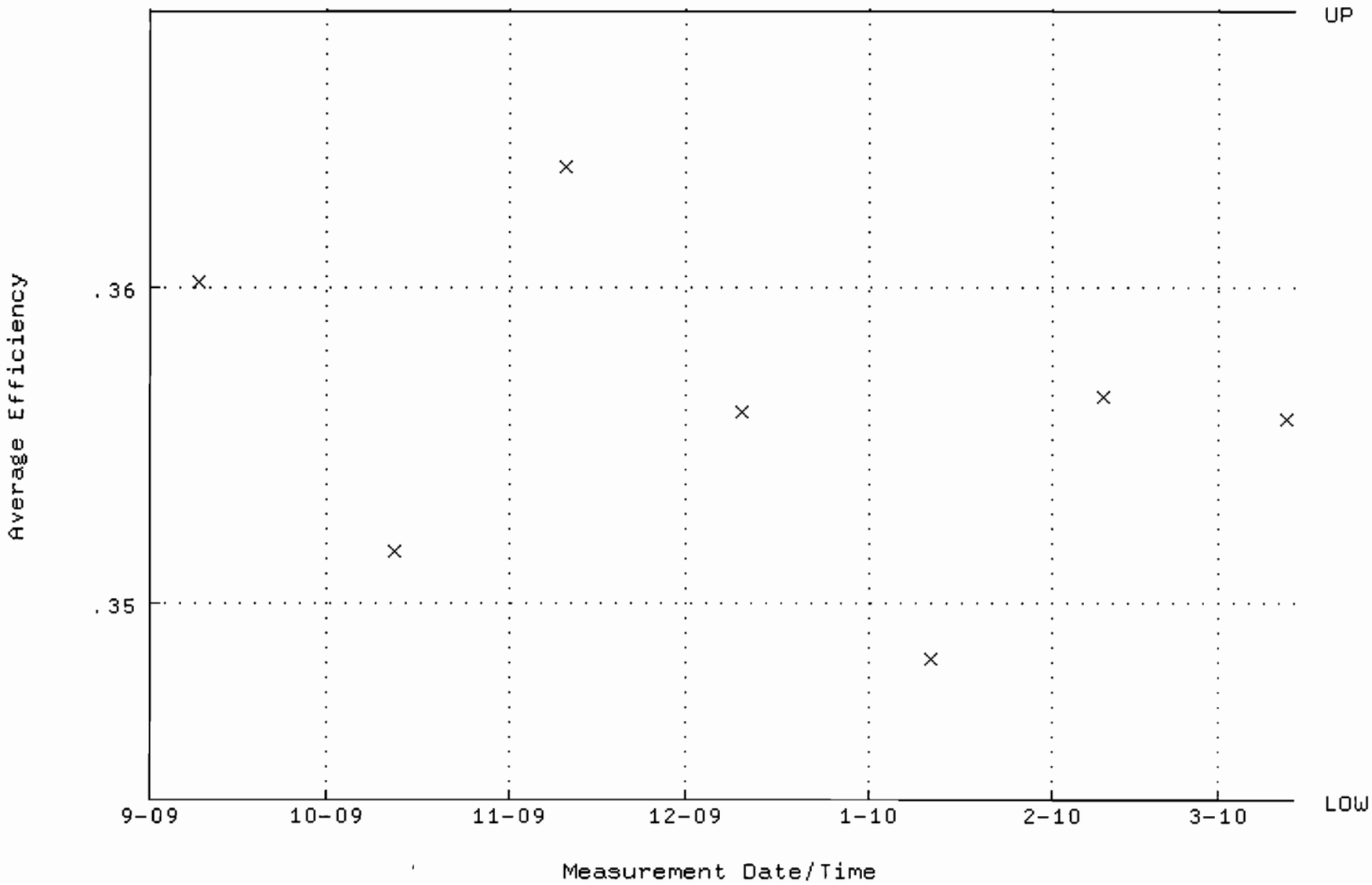

QA filename : DKA100:[ENV_ALPHA.QA.W]W109.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 65.4511 through 67.8527

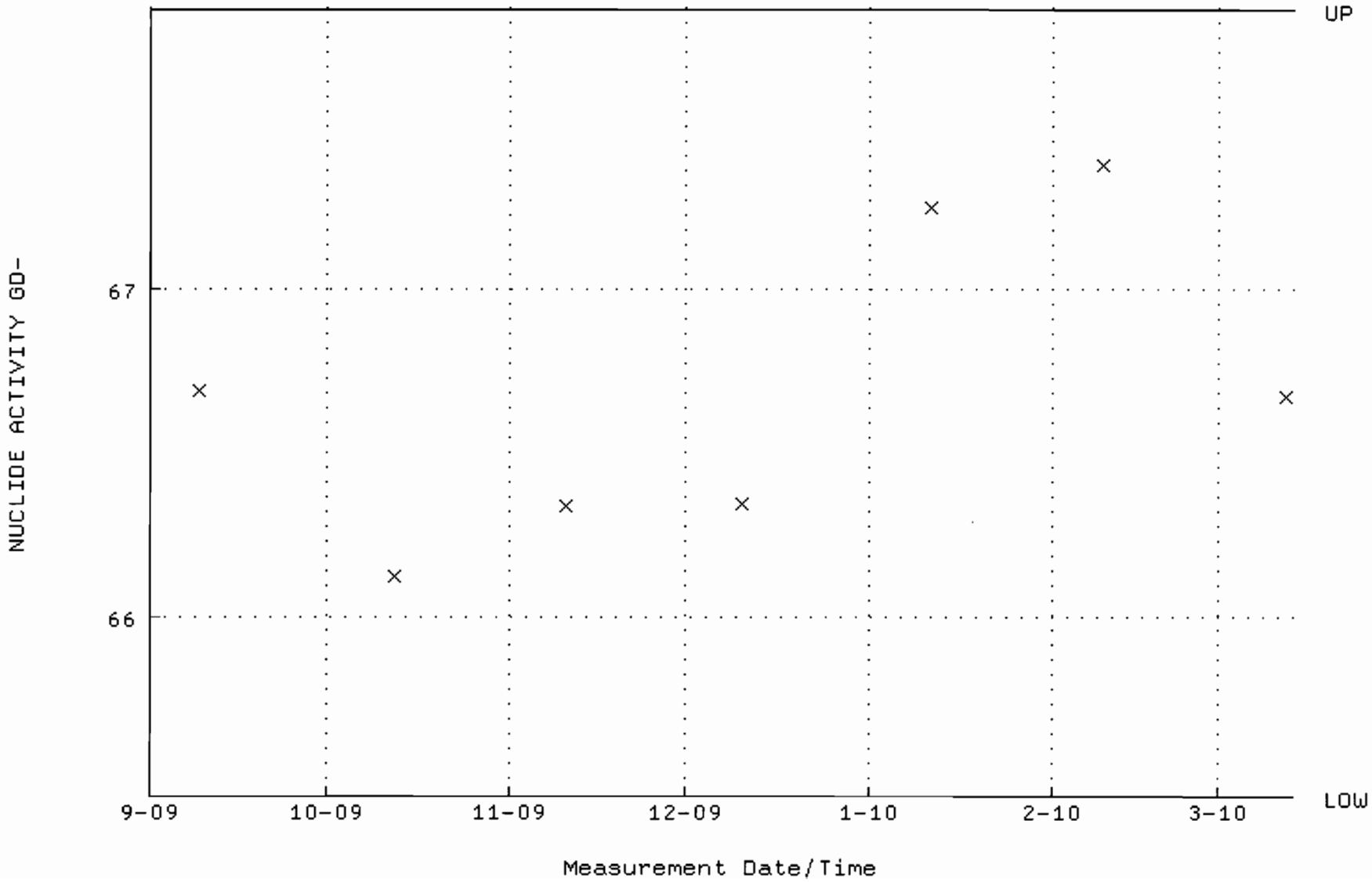

QA filename : DKA100:[ENV_ALPHA.QA.B]B109.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:12 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

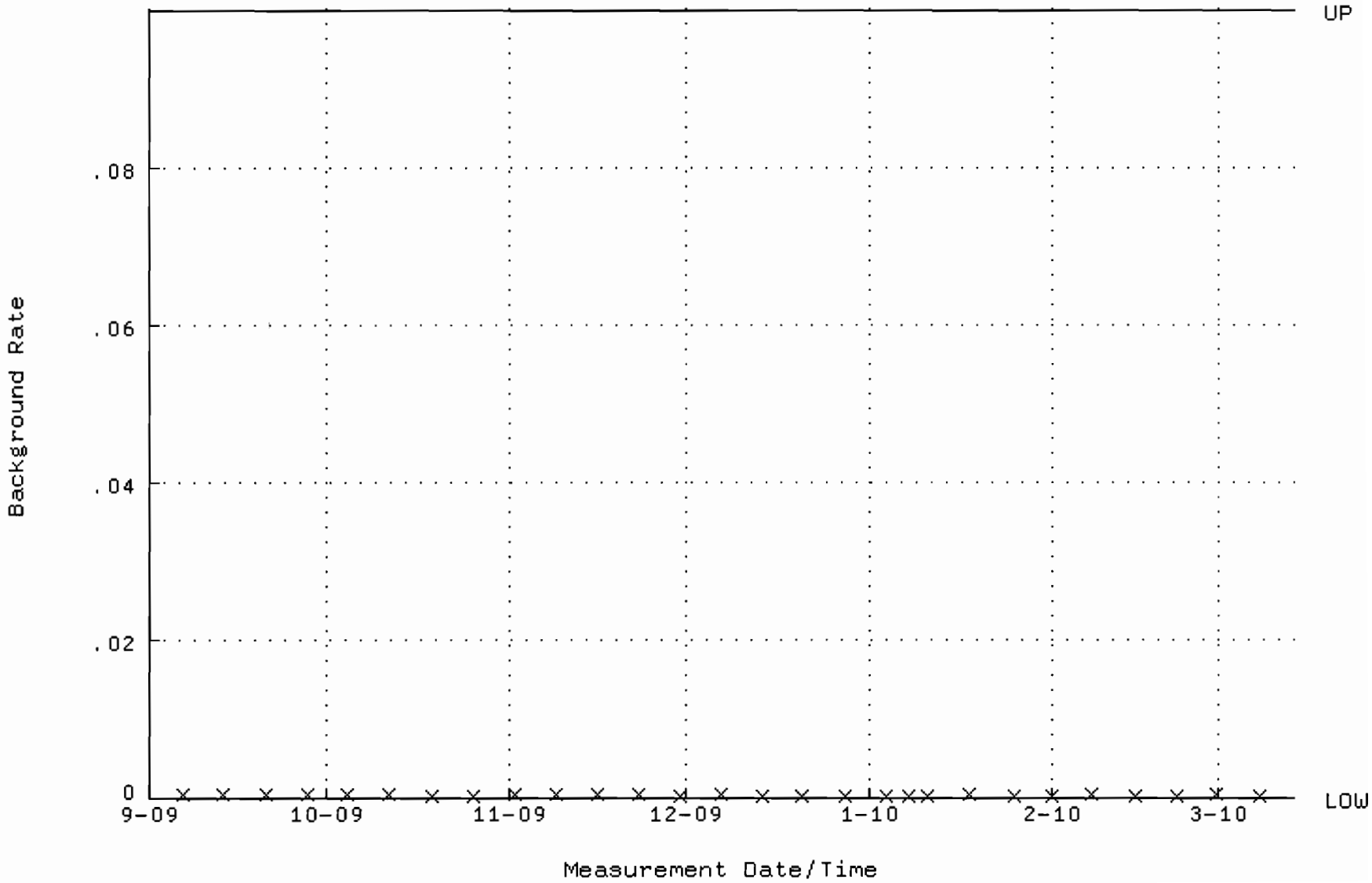

QA filename : DKA100:[ENV_ALPHA.QA.W]W111.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.320109 through 0.359725

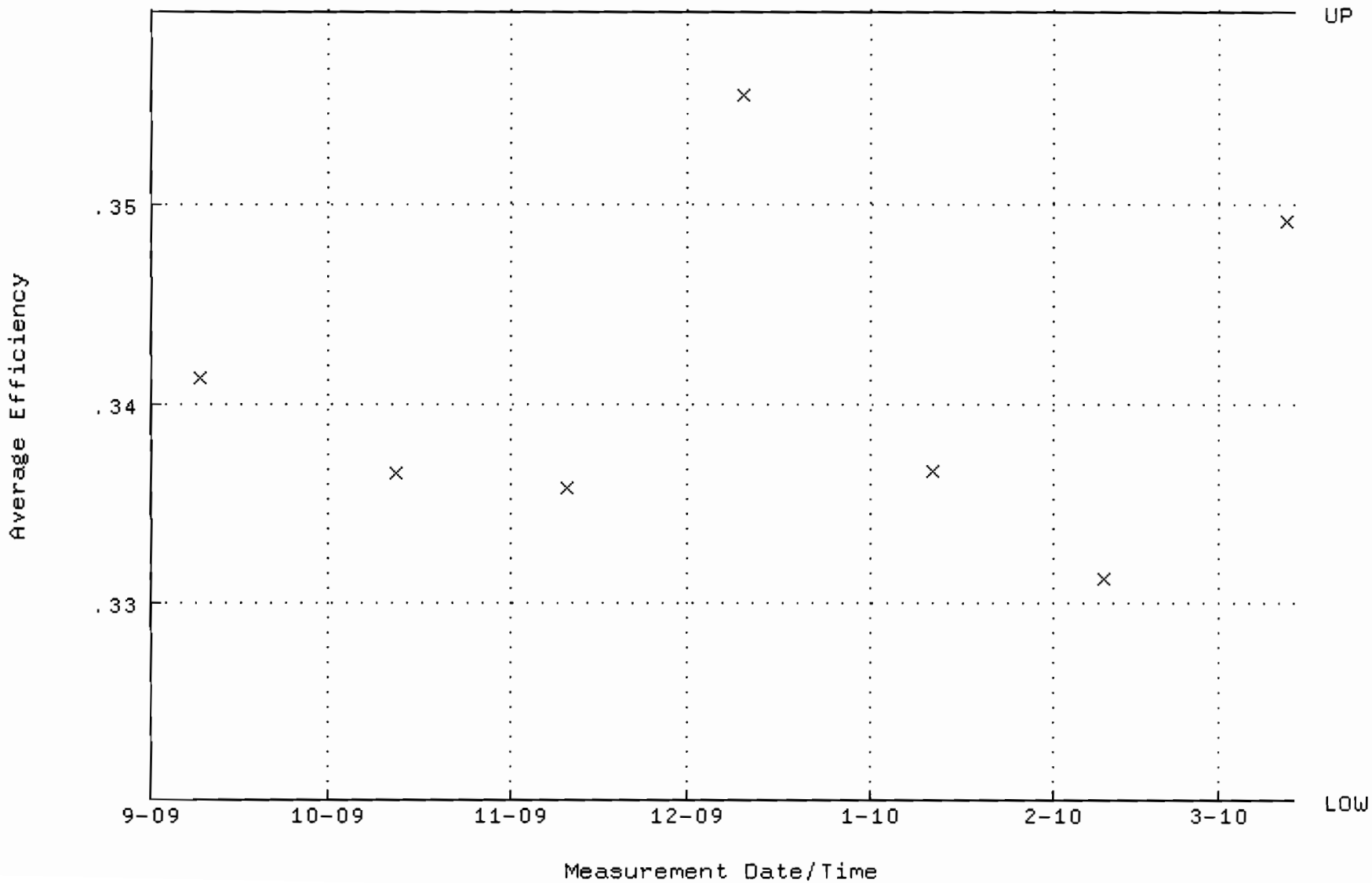

QA filename : DKA100:[ENV_ALPHA.QA.W]W111.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 67.6917 through 72.9869

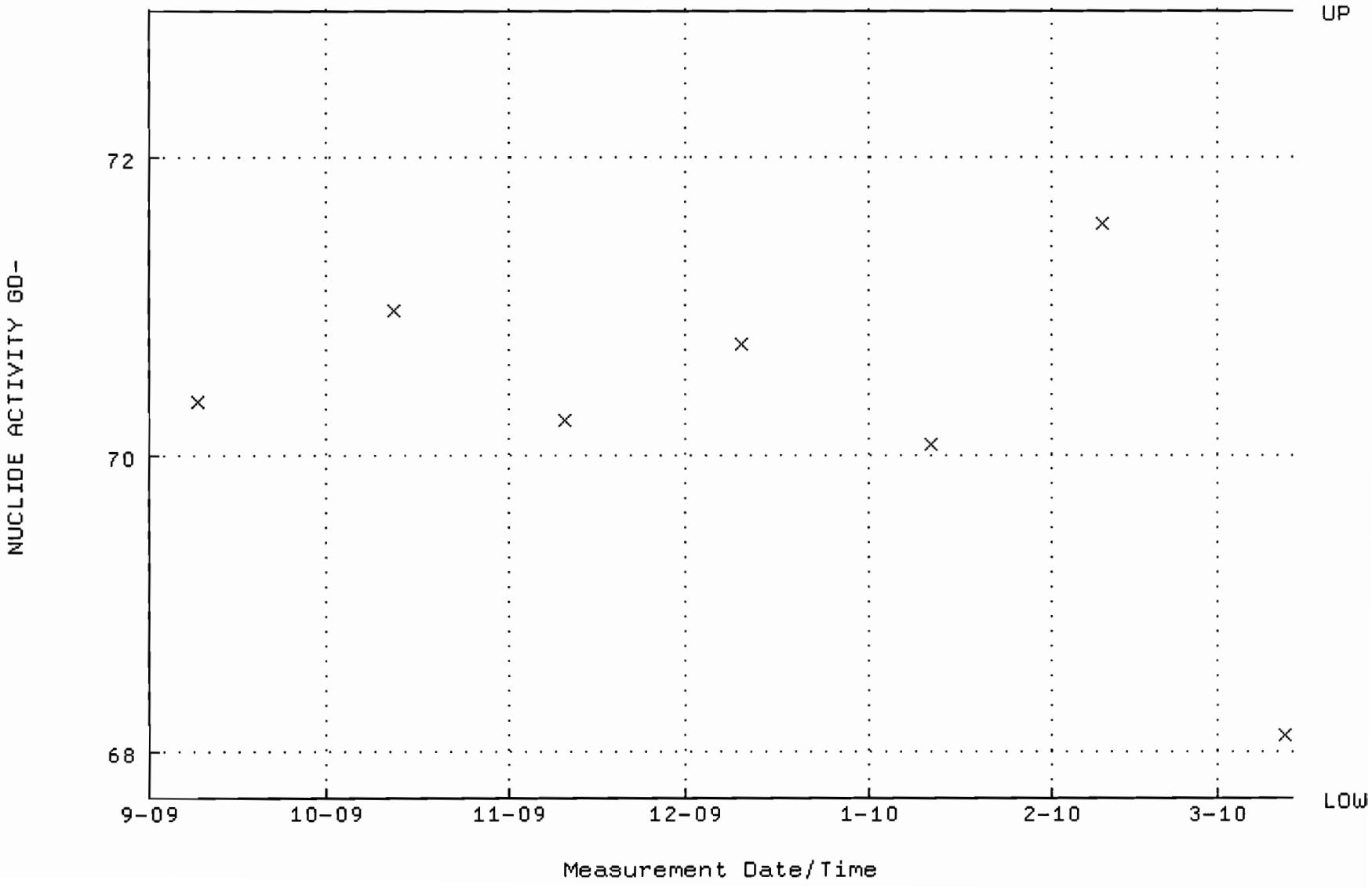

QA filename : DKA100:[ENV_ALPHA.QA.B]B111.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:12 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

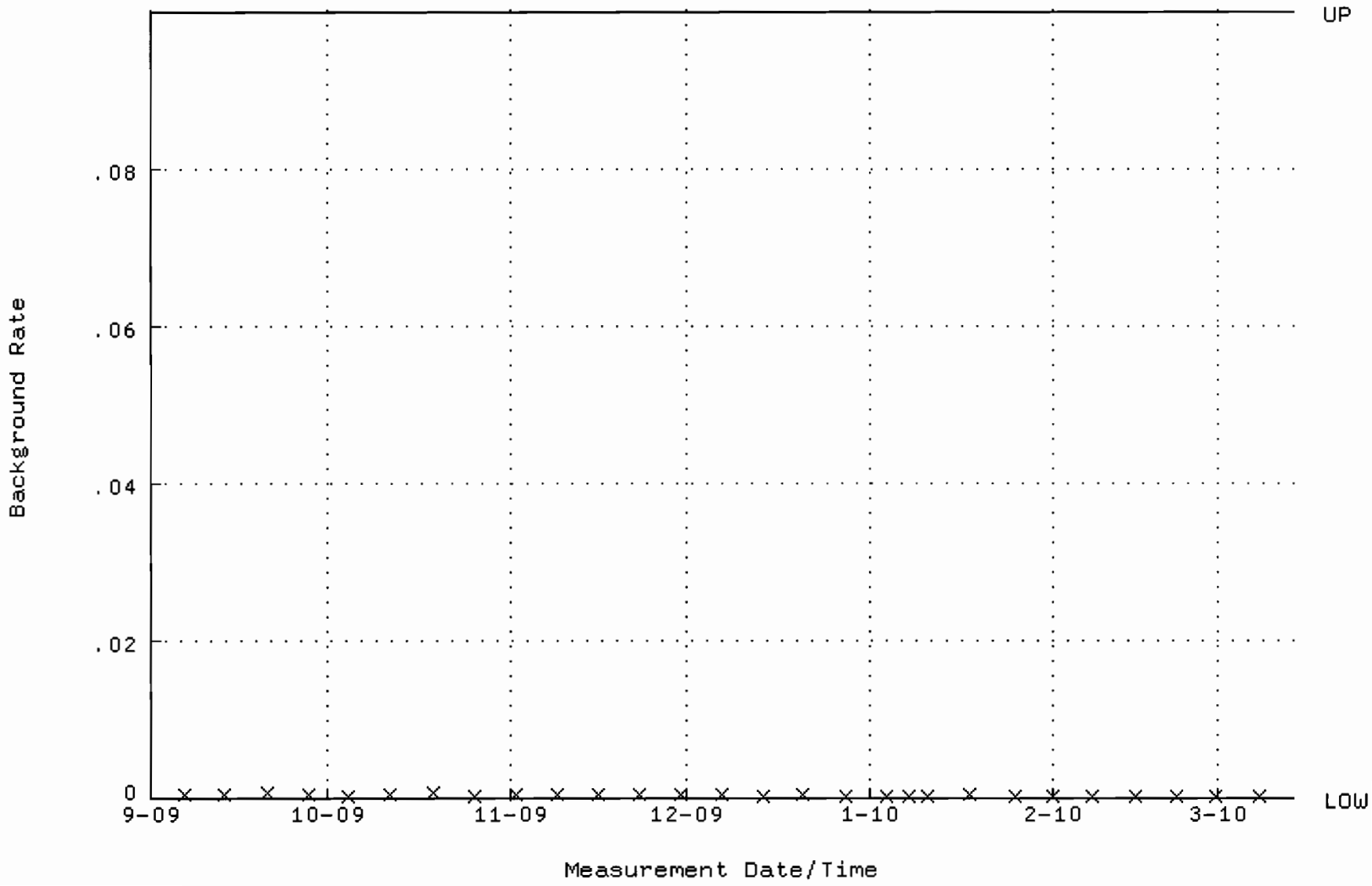

QA filename : DKA100:[ENV_ALPHA.QA.W]W159.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:18:13 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.234117 through 0.275011

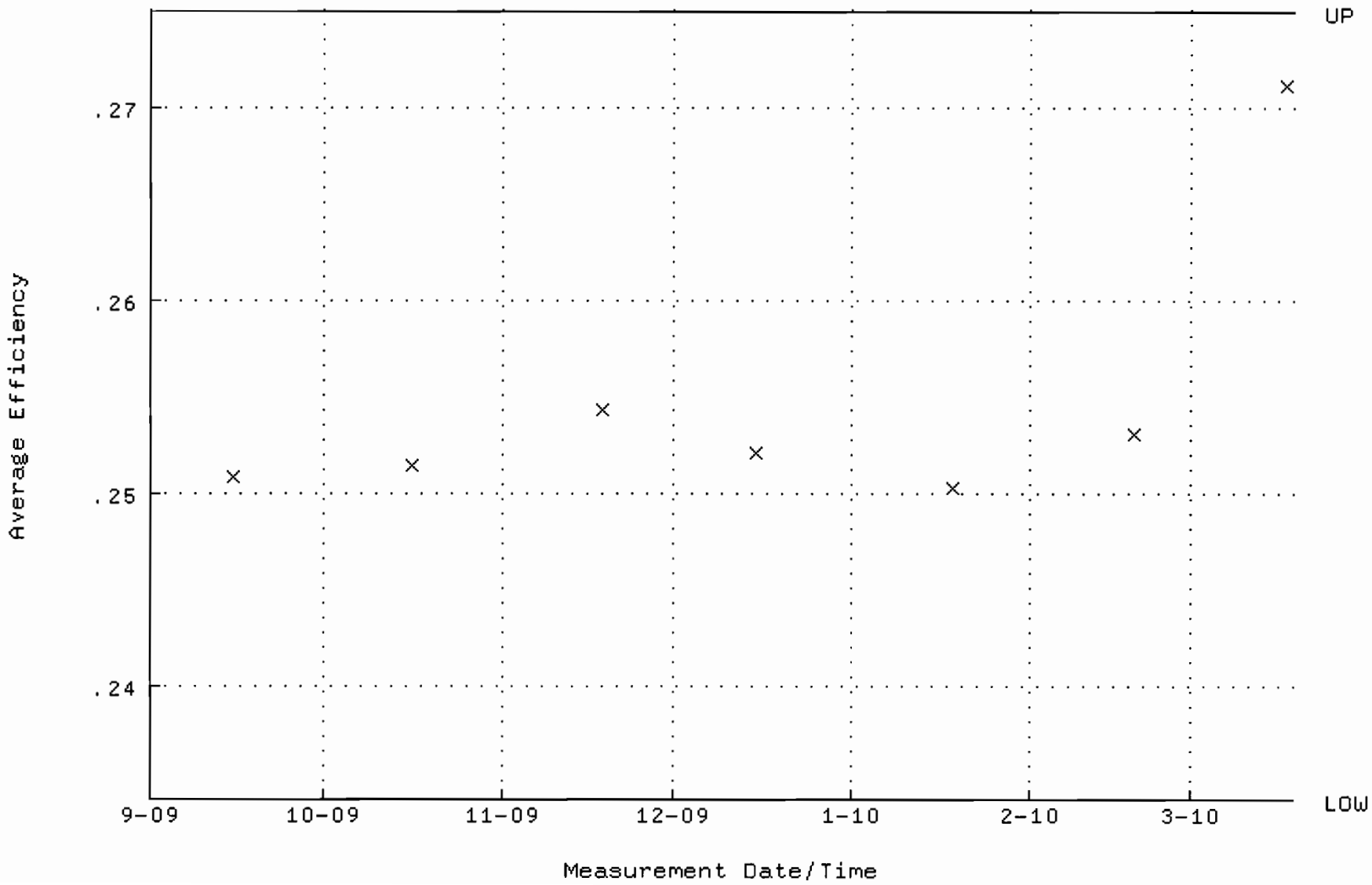

QA filename : DKA100:[ENV_ALPHA.QA.W]W159.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:18:13 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 78.1613 through 90.5589

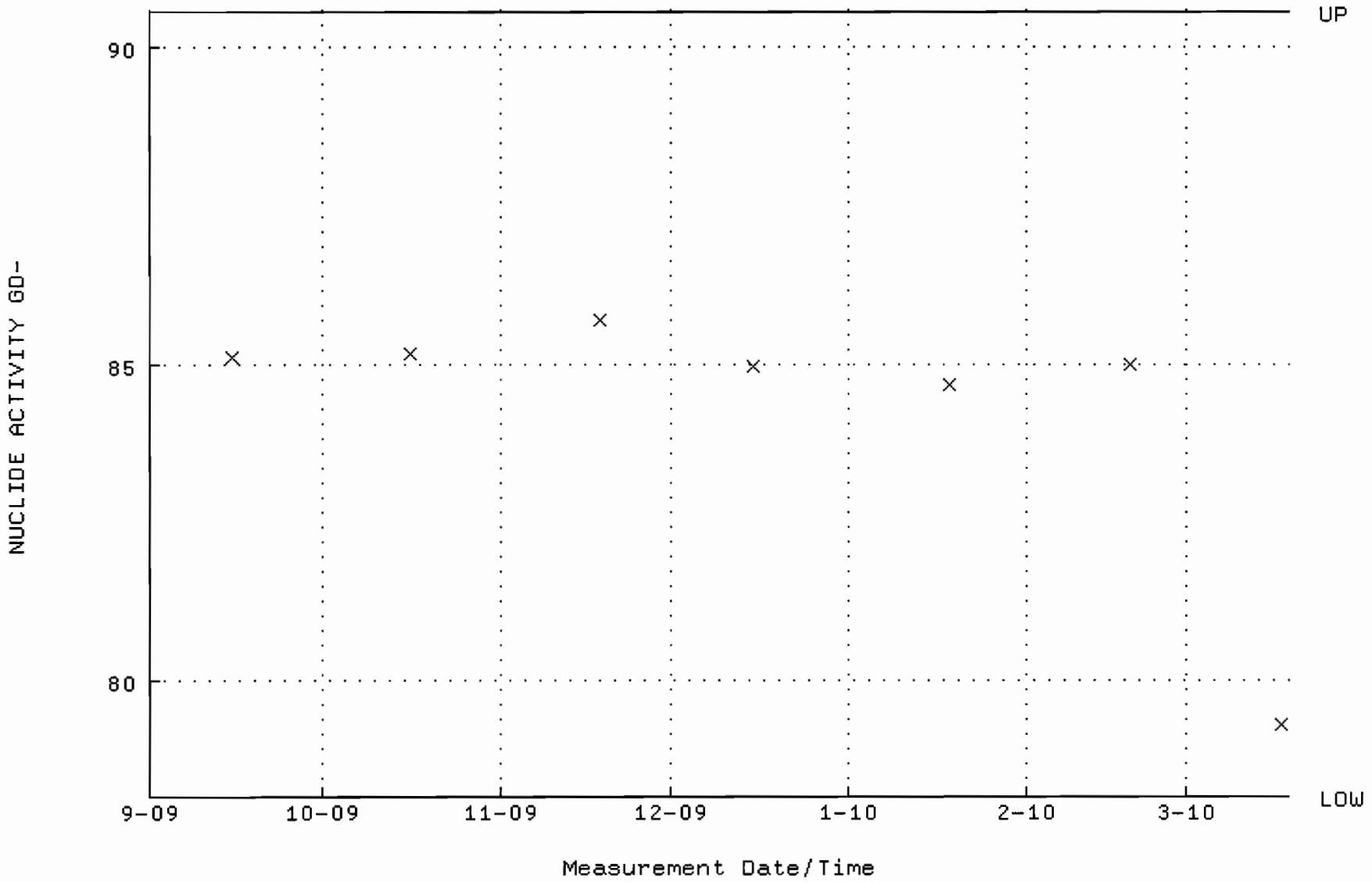

QA filename : DKA100:[ENV_ALPHA.QA.B]B159.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:43:22 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

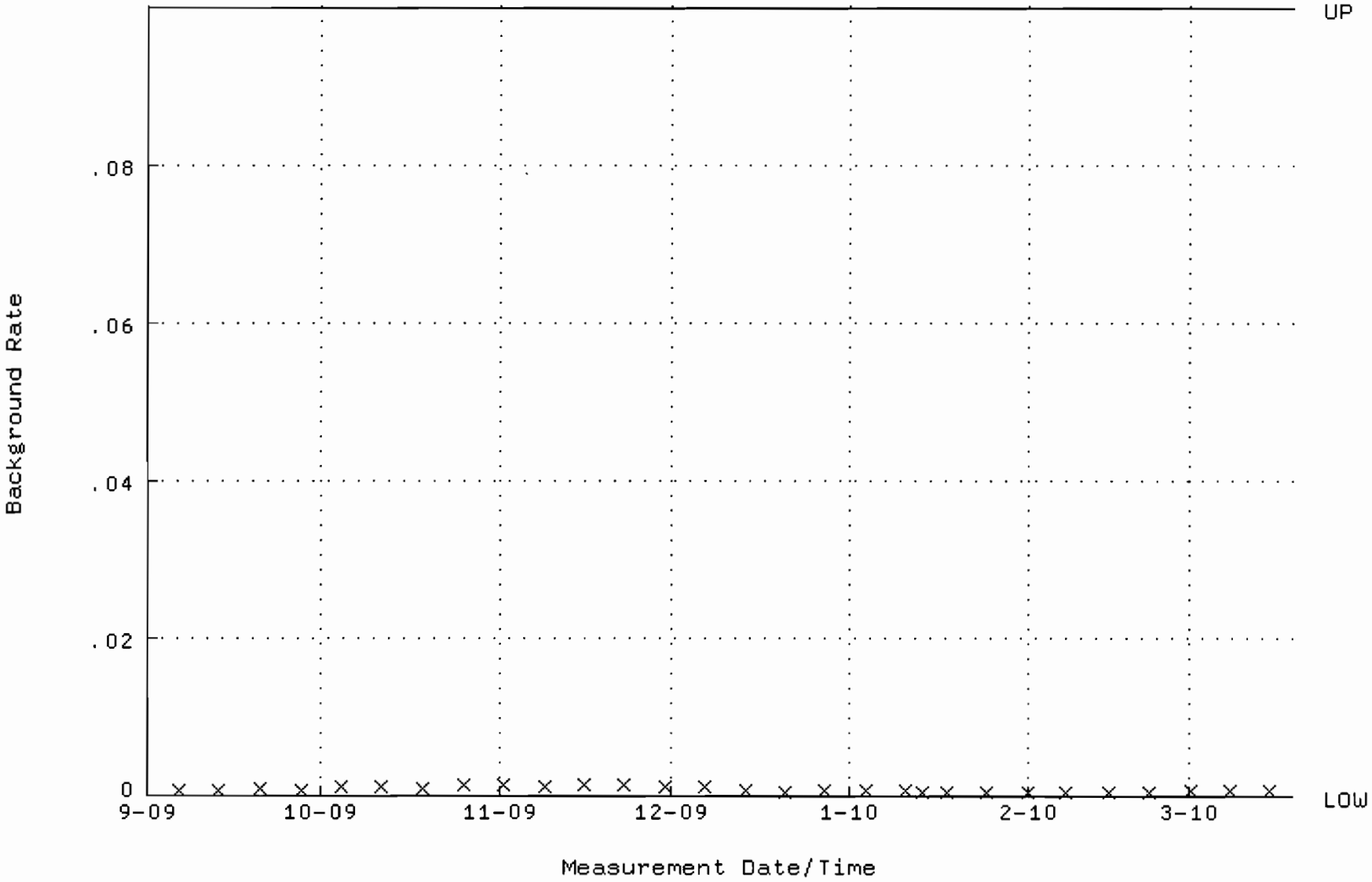

QA filename : DKA100:[ENV_ALPHA.QA.W]W160.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:18:19 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.234333 through 0.259825

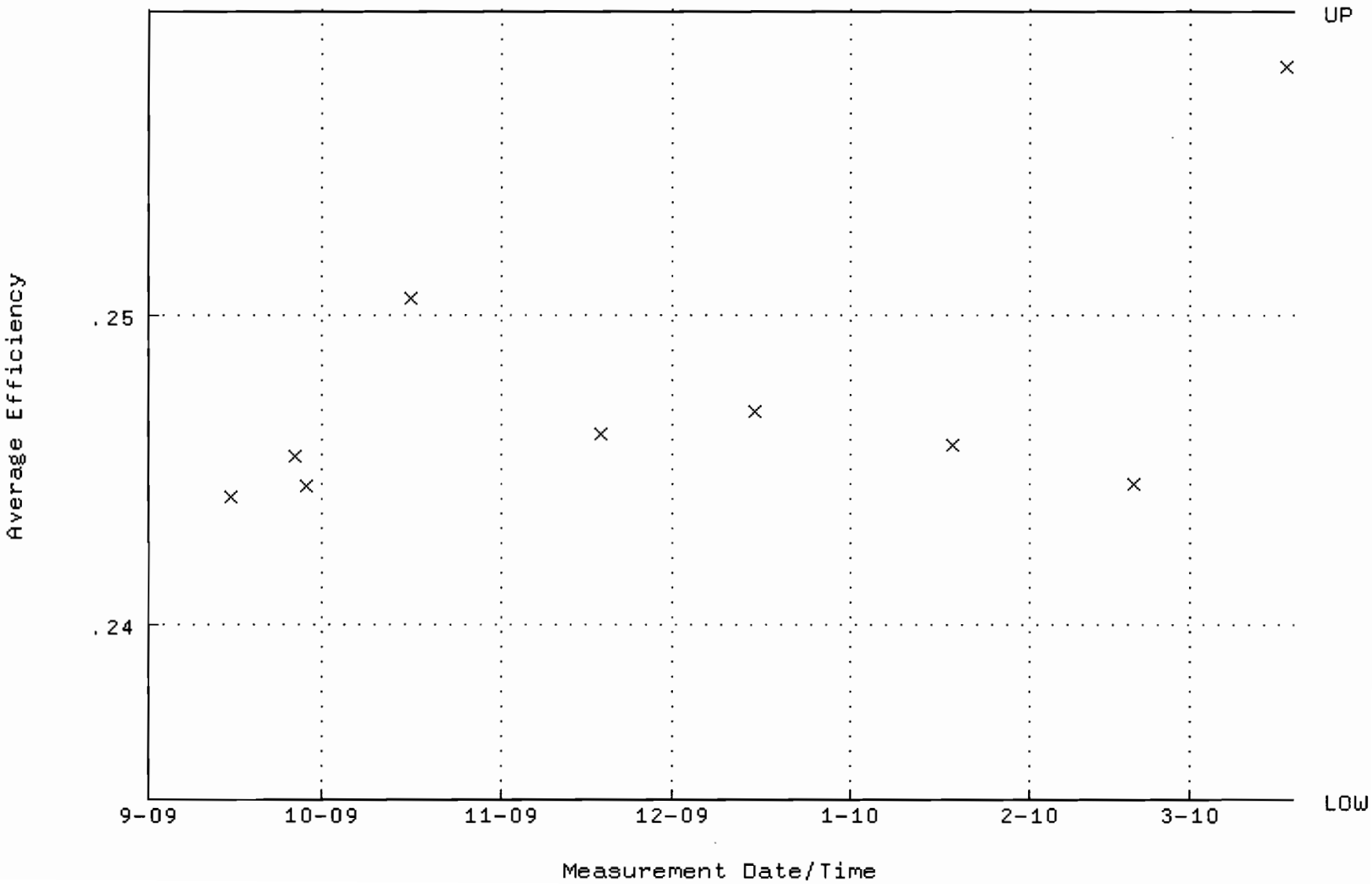

QA filename : DKA100:[ENV_ALPHA.QA.W]W160.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:18:19 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 80.4990 through 91.4457

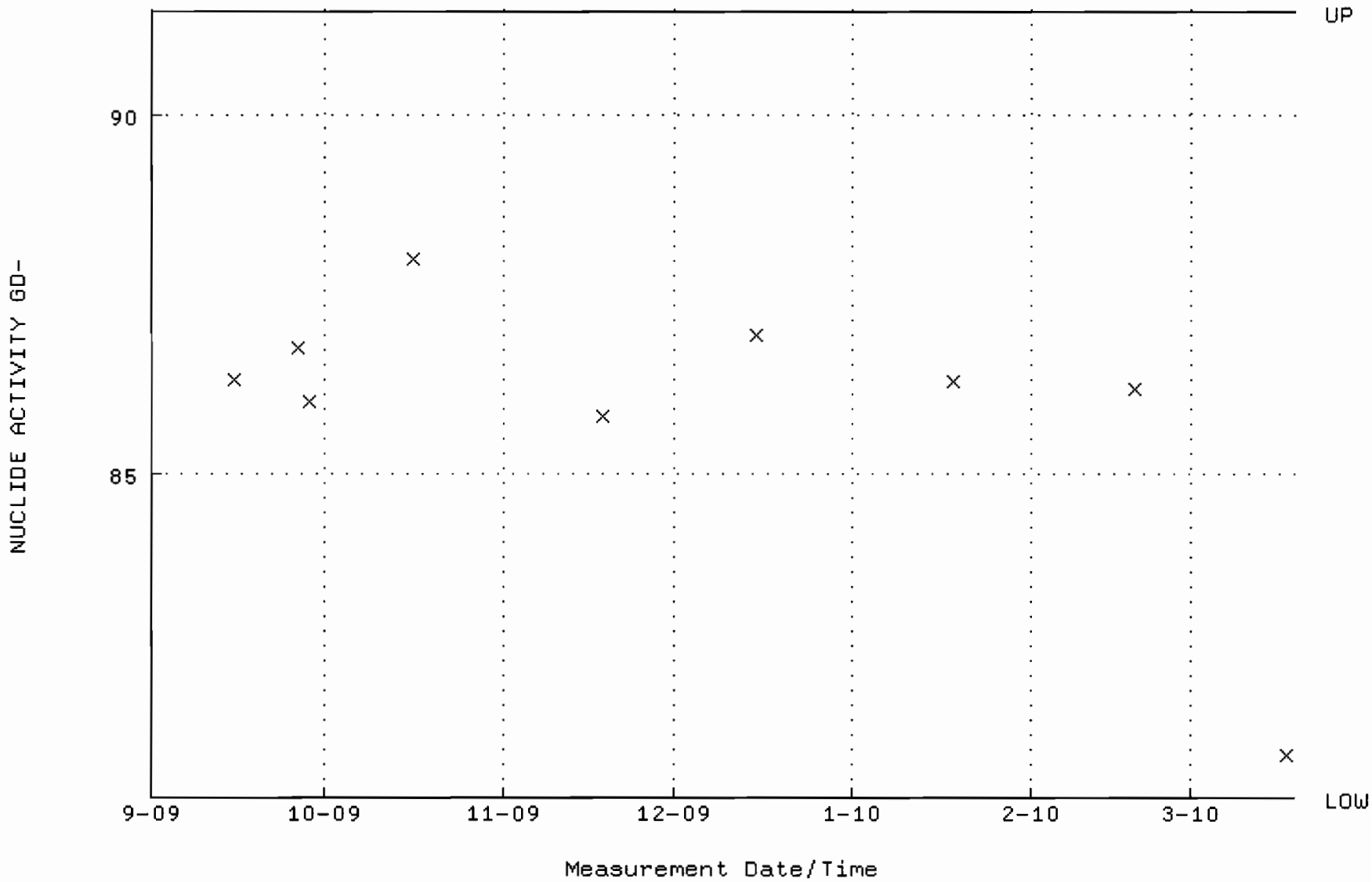

QA filename : DKA100:[ENV_ALPHA.QA.B]B160.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:43:26 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

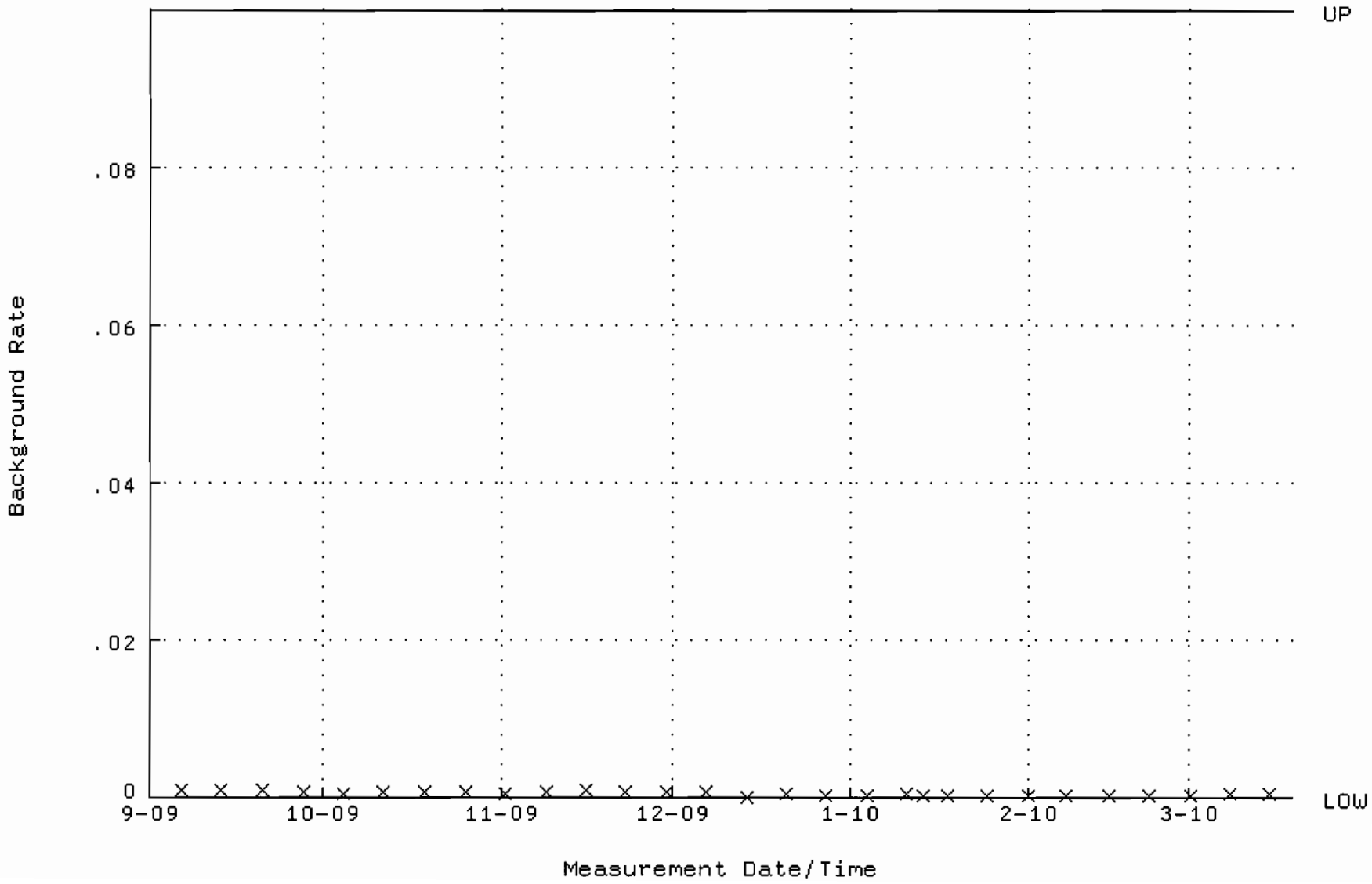

QA filename : DKA100:[ENV_ALPHA.QA.W]W181.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:28 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.247722 through 0.267722

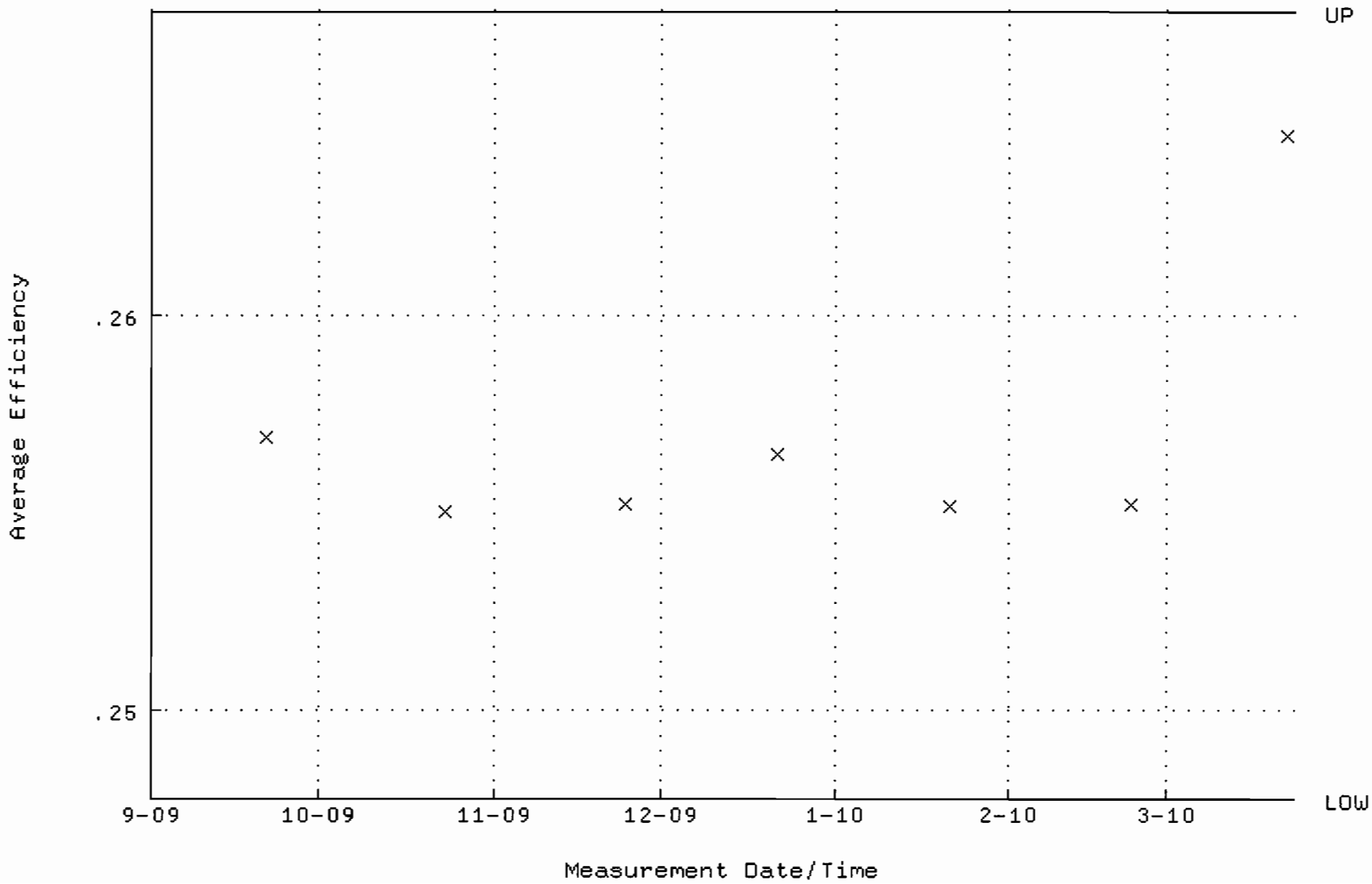

QA filename : DKA100:[ENV_ALPHA.QA.W]W181.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:28 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 89.2737 through 98.6709

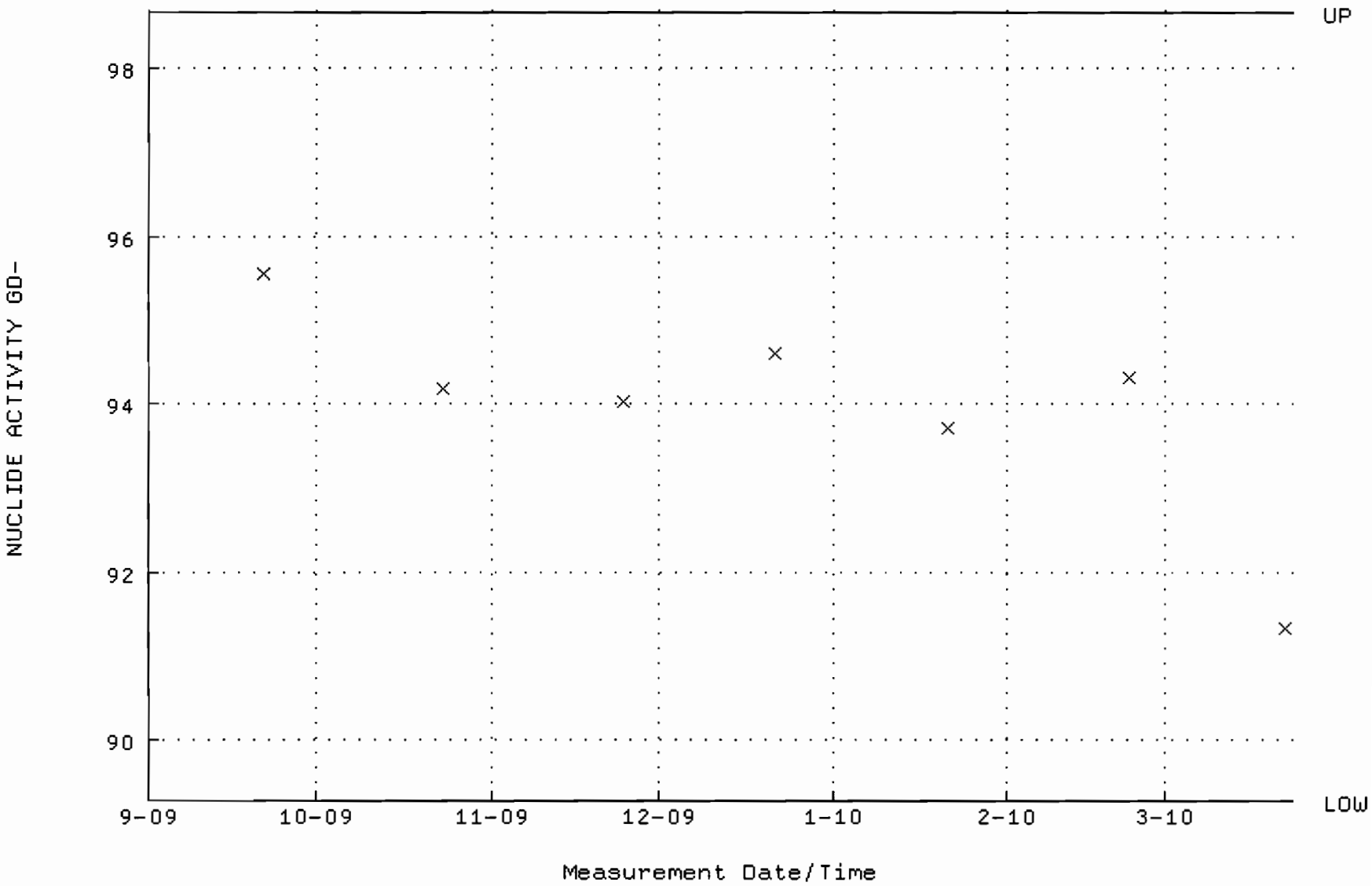

QA filename : DKA100:[ENV_ALPHA.QA.B]B181.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:44 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

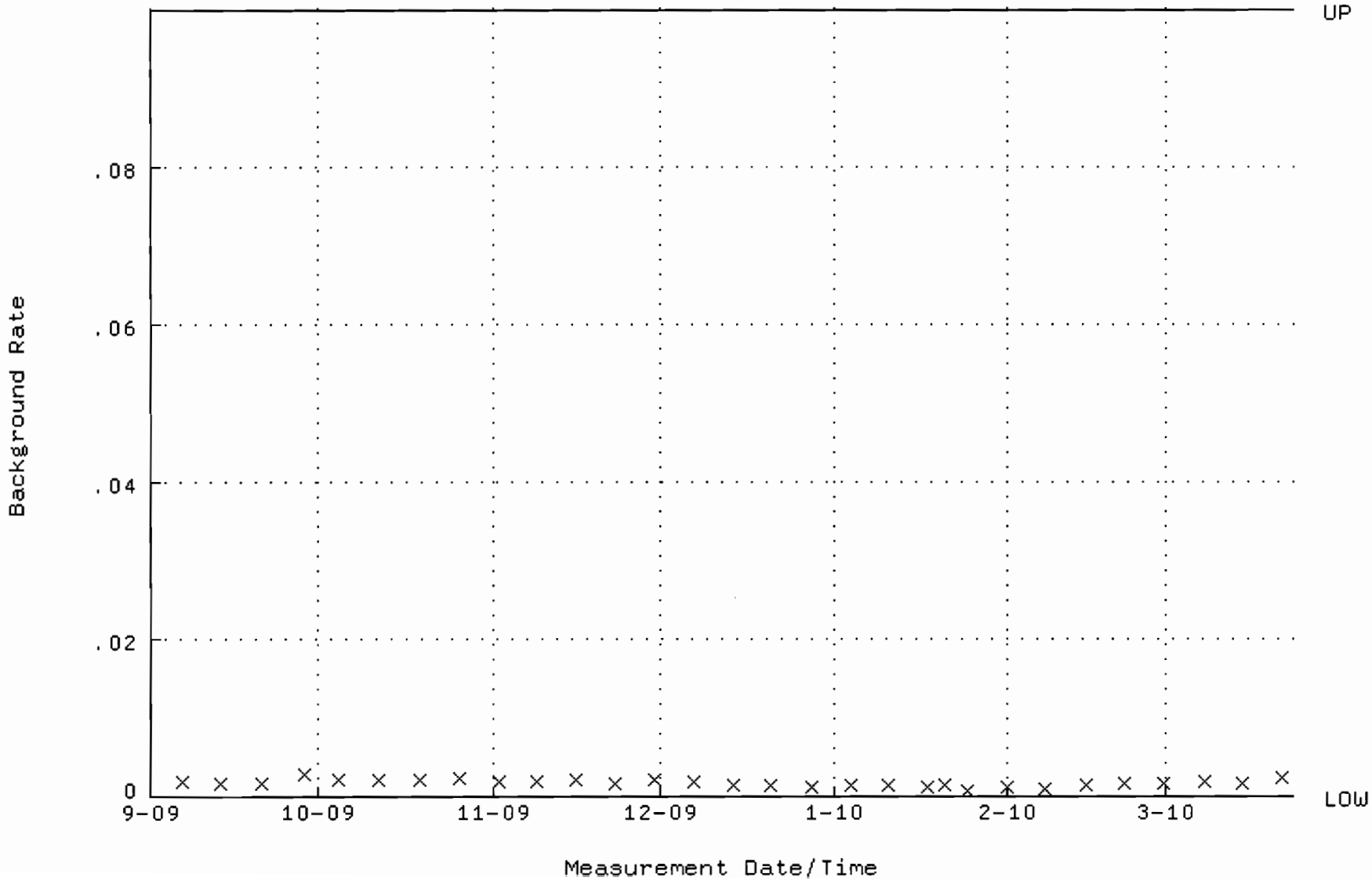

QA filename : DKA100:[ENV_ALPHA.QA.W]W182.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:34 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.245707 through 0.265707

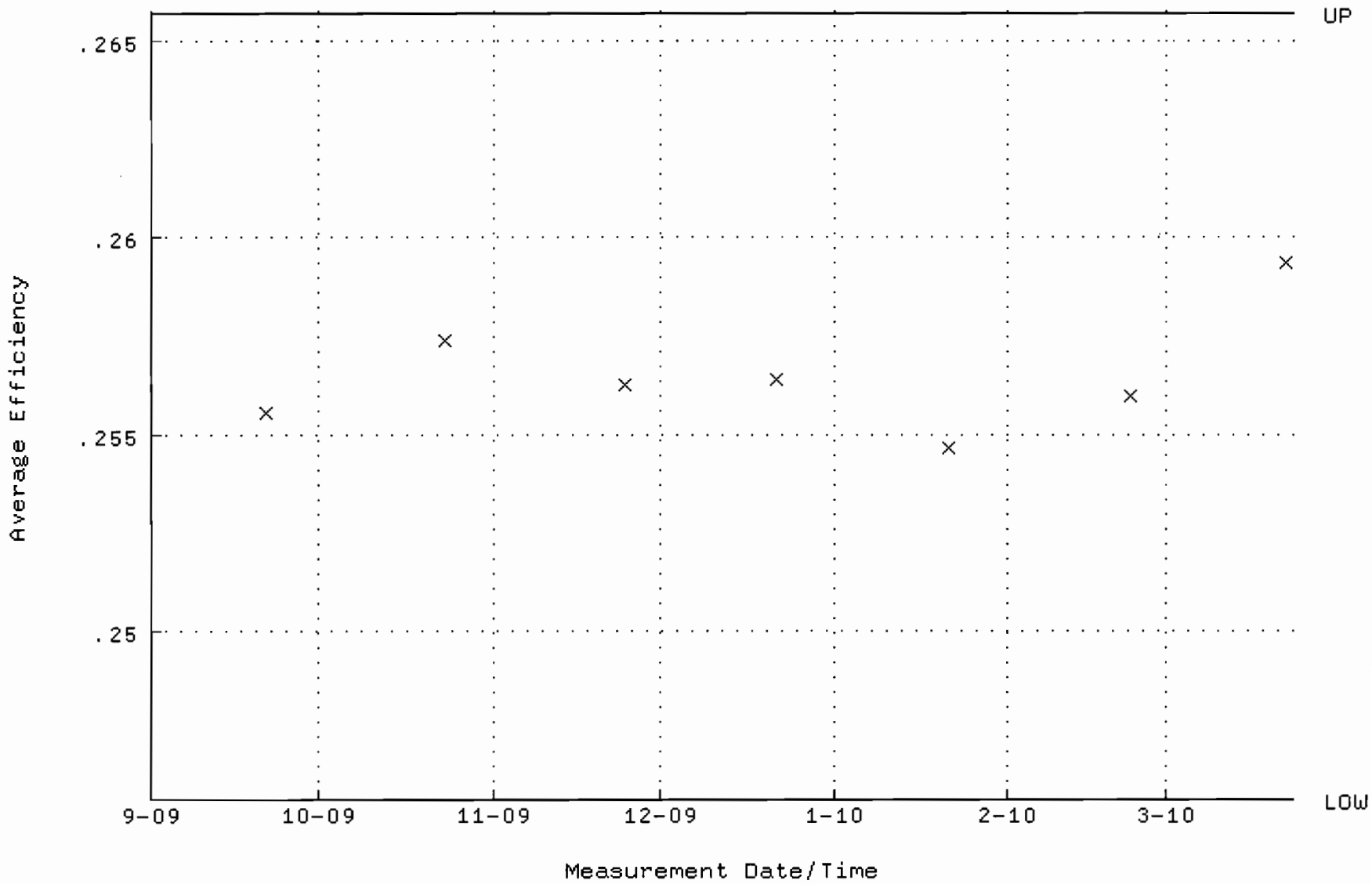

QA filename : DKA100:[ENV_ALPHA.QA.W]W182.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:34 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 87.3454 through 96.5396

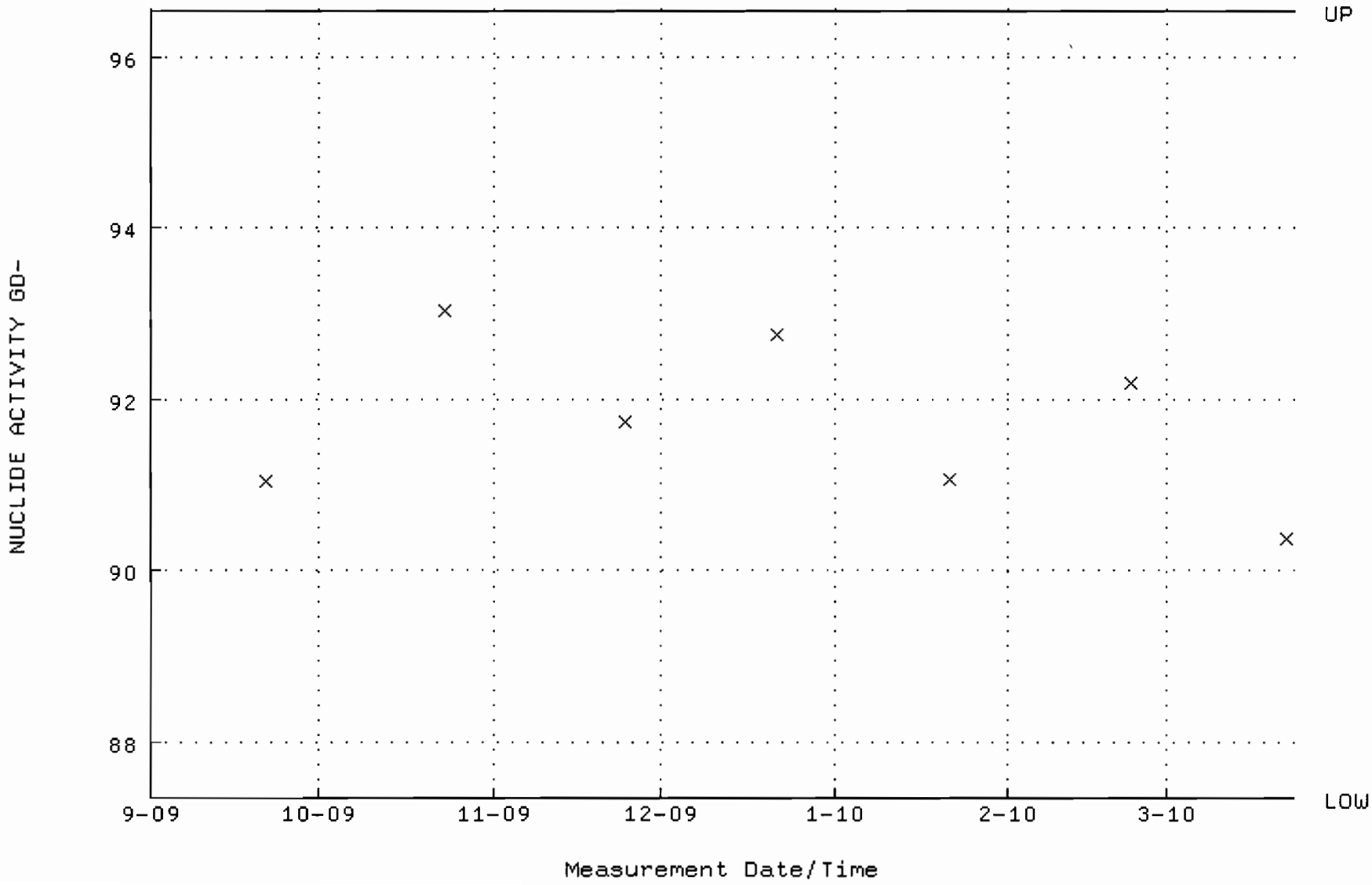

QA filename : DKA100:[ENV_ALPHA.QA.B]B182.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:49 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

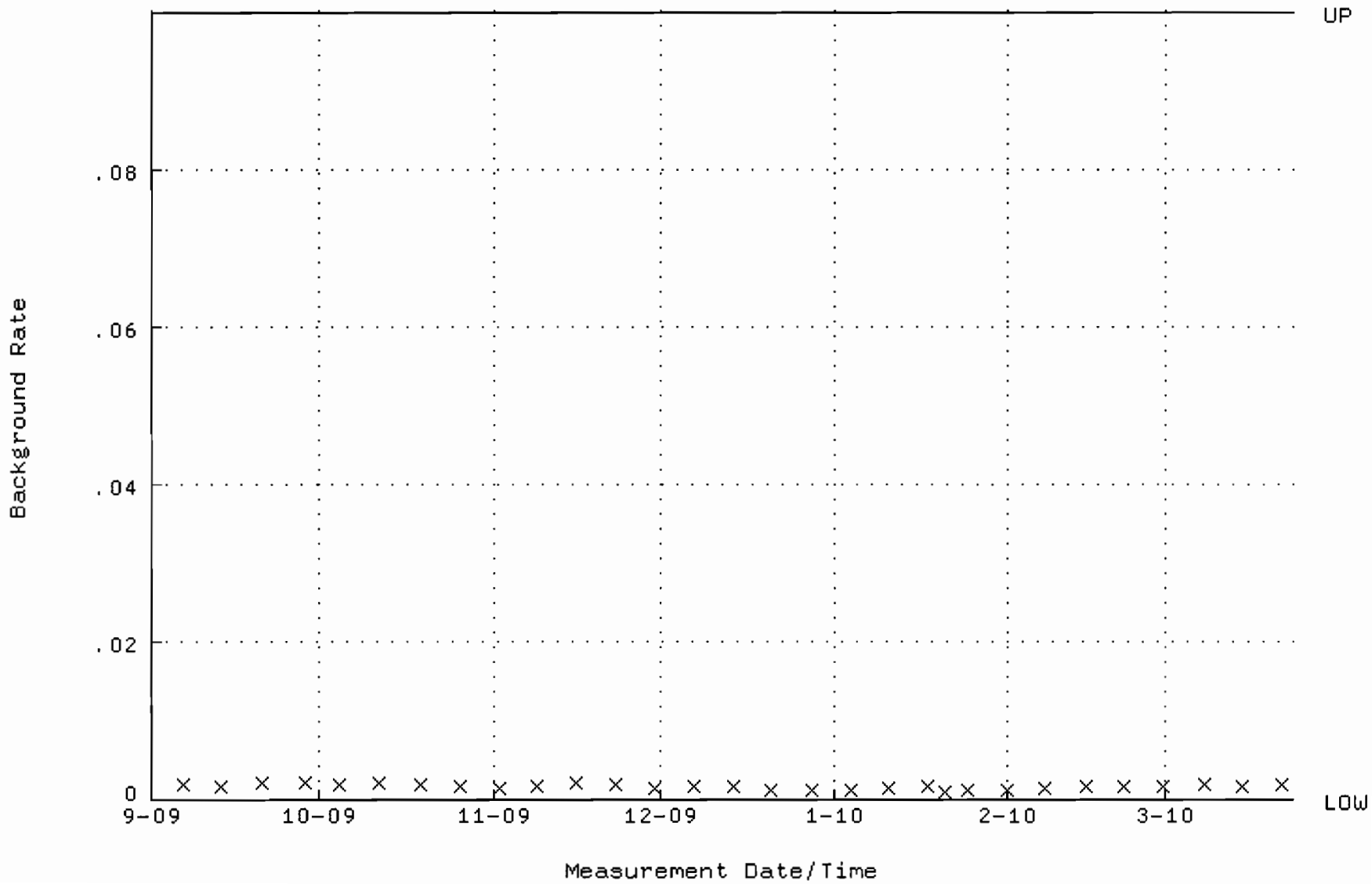

QA filename : DKA100:[ENV_ALPHA.QA.W]W193.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:40 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250400 through 0.272904

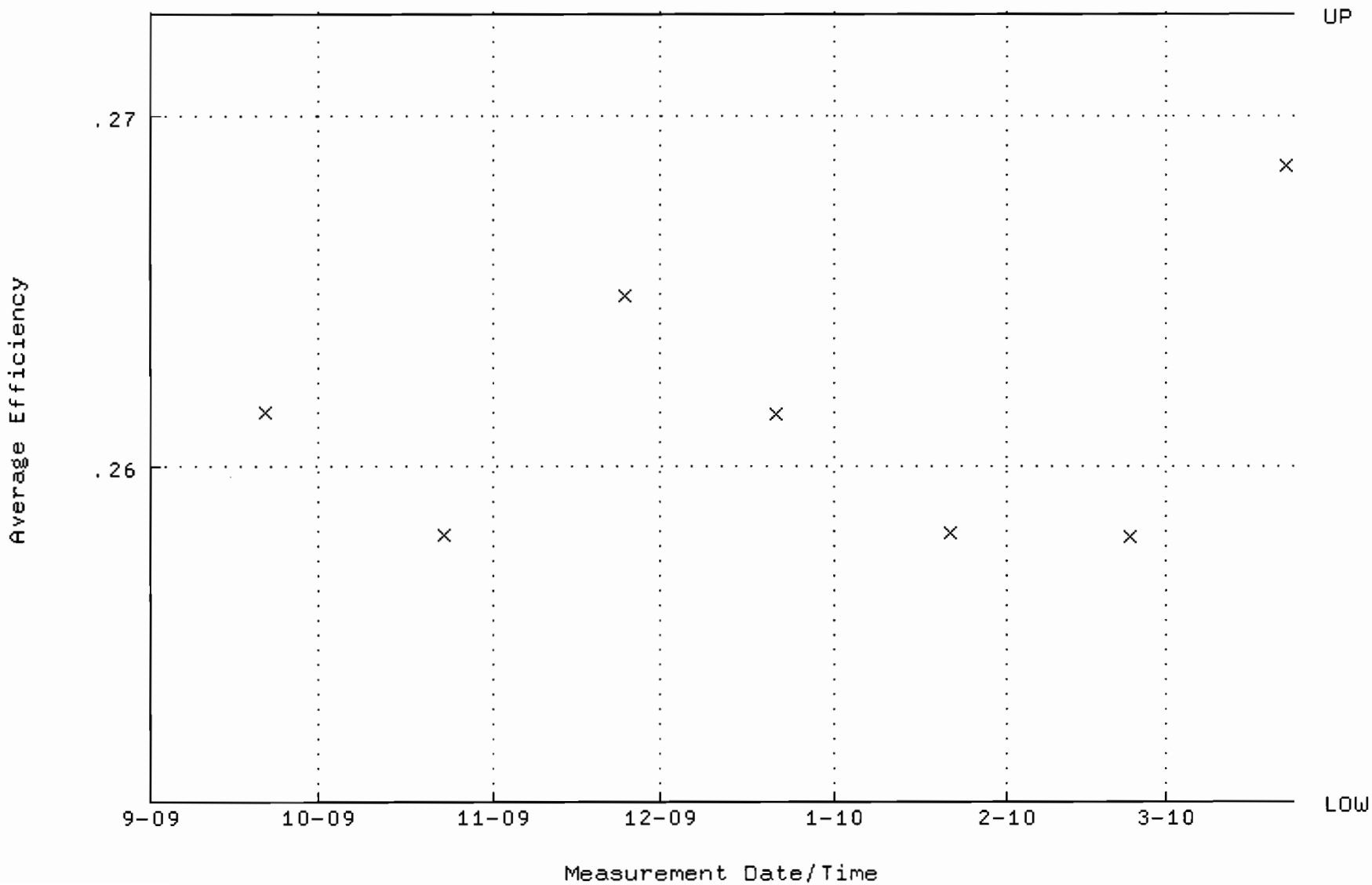

QA filename : DKA100:[ENV_ALPHA.QA.W]W193.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:40 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.1081 through 93.4501

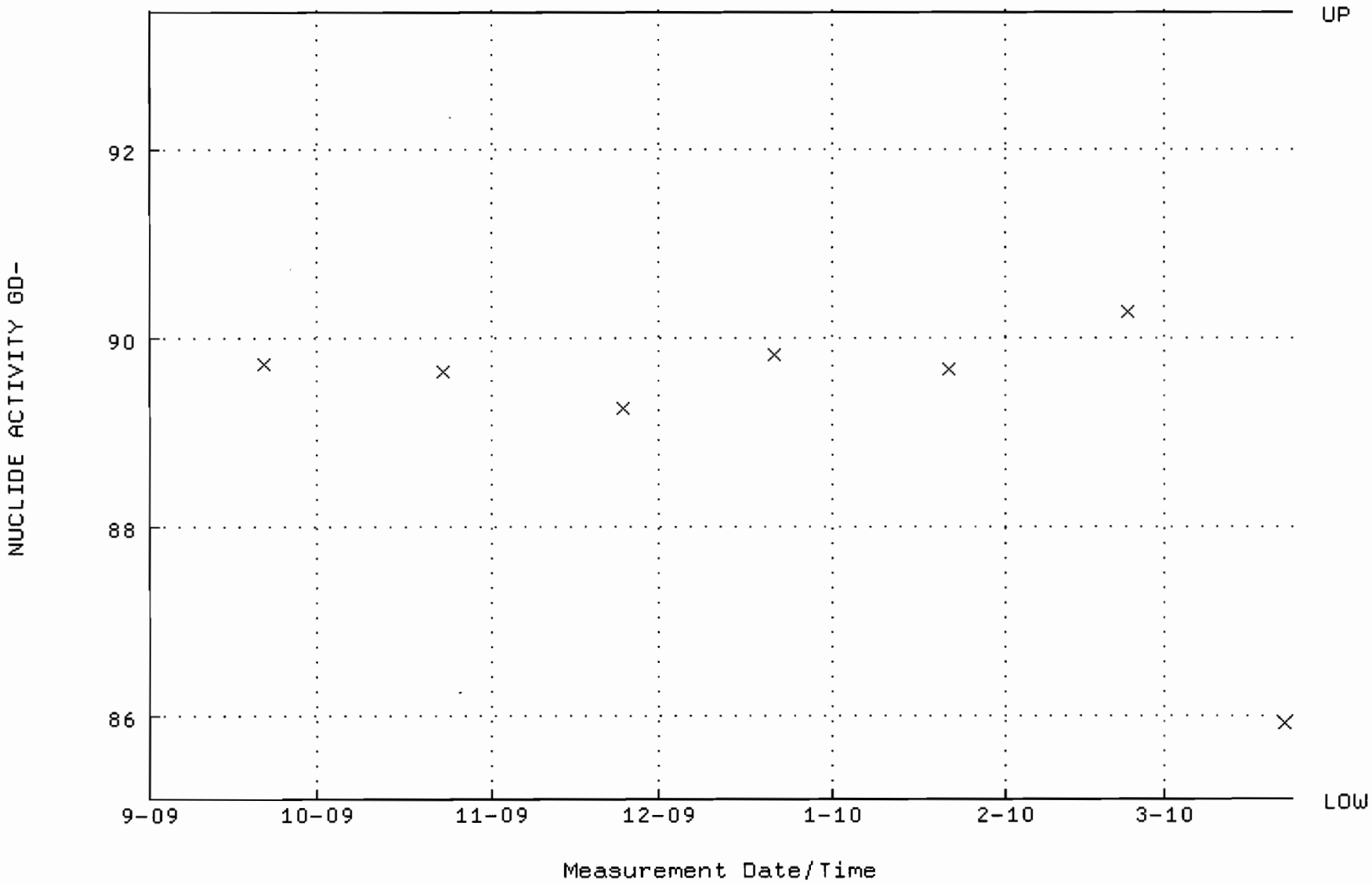

QA filename : DKA100:[ENV_ALPHA.QA.B]B193.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:36 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

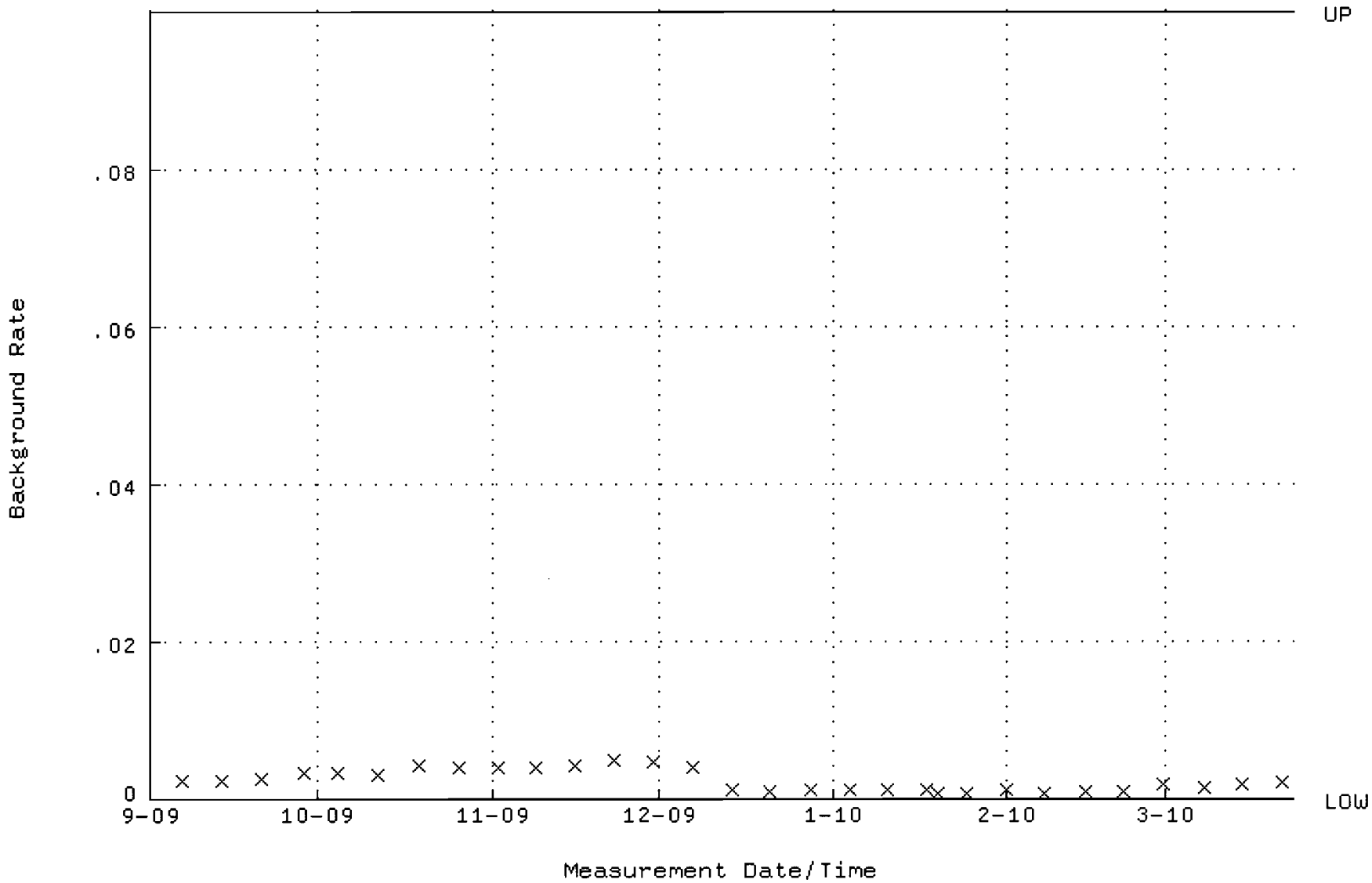

QA filename : DKA100:[ENV_ALPHA.QA.W]W194.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:45 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.246760 through 0.266760

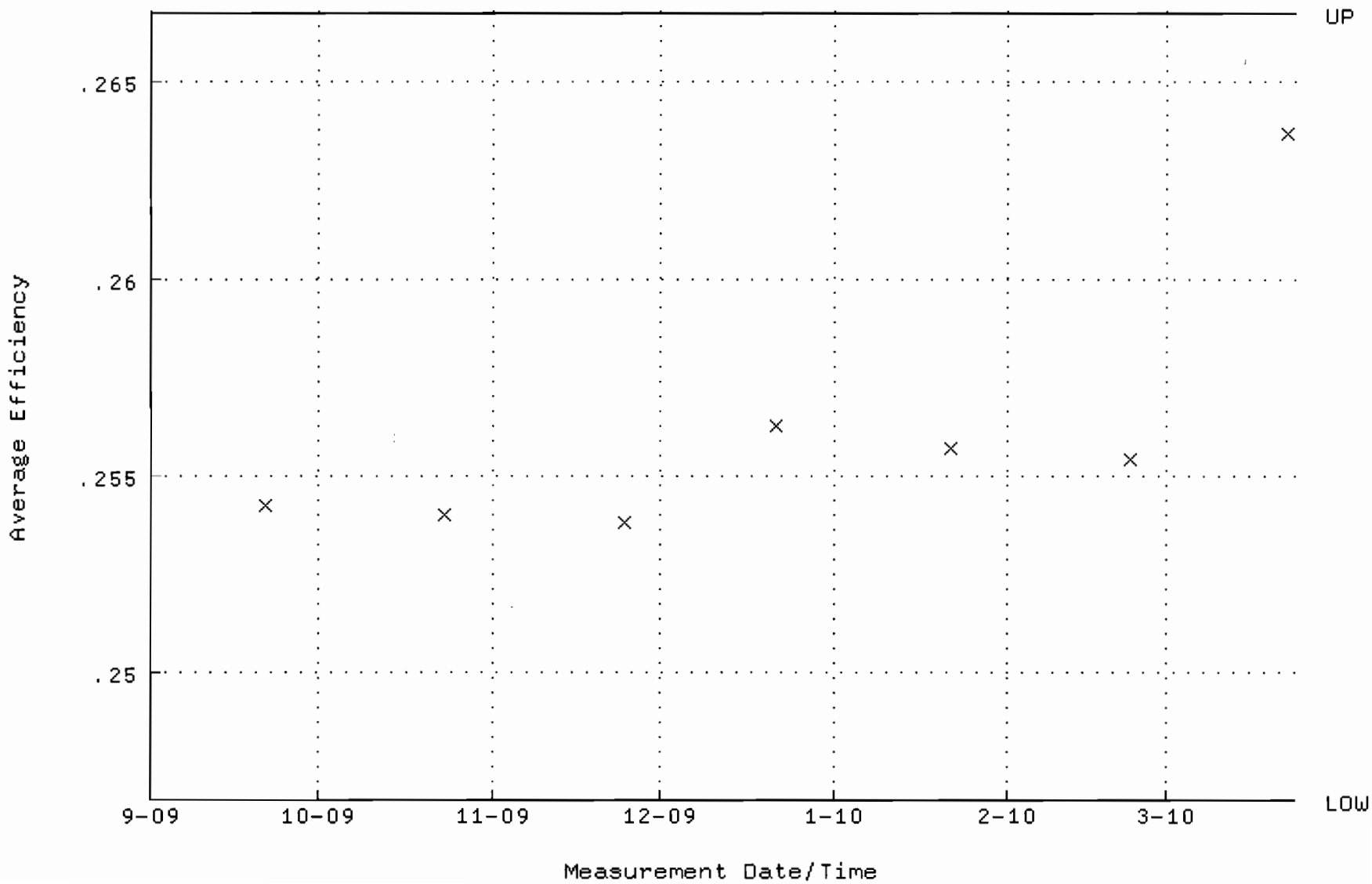

QA filename : DKA100:[ENV_ALPHA.QA.W]W194.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:45 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 86.0376 through 95.0942

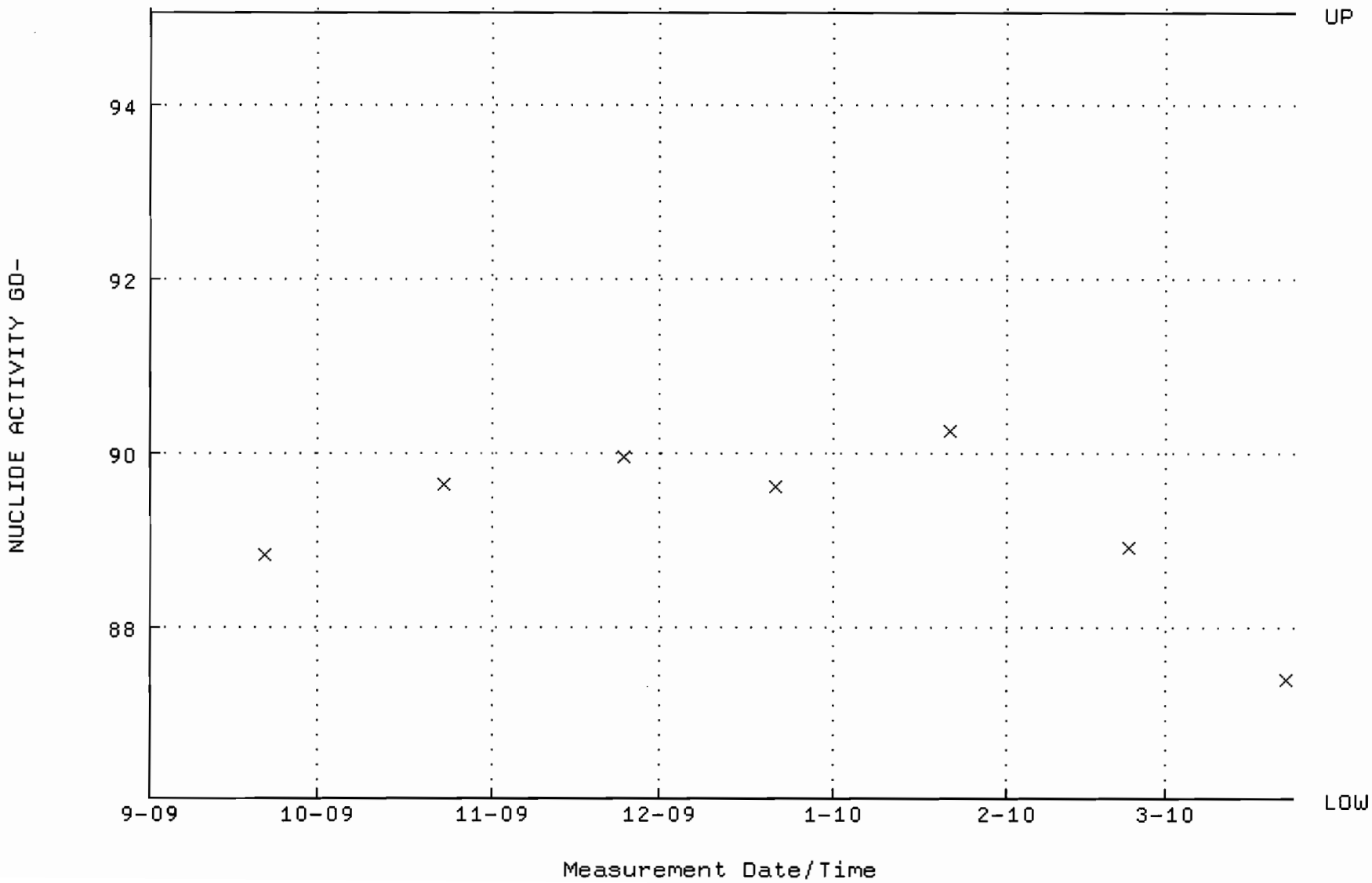

QA filename : DKA100:[ENV_ALPHA.QA.B]B194.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:41 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

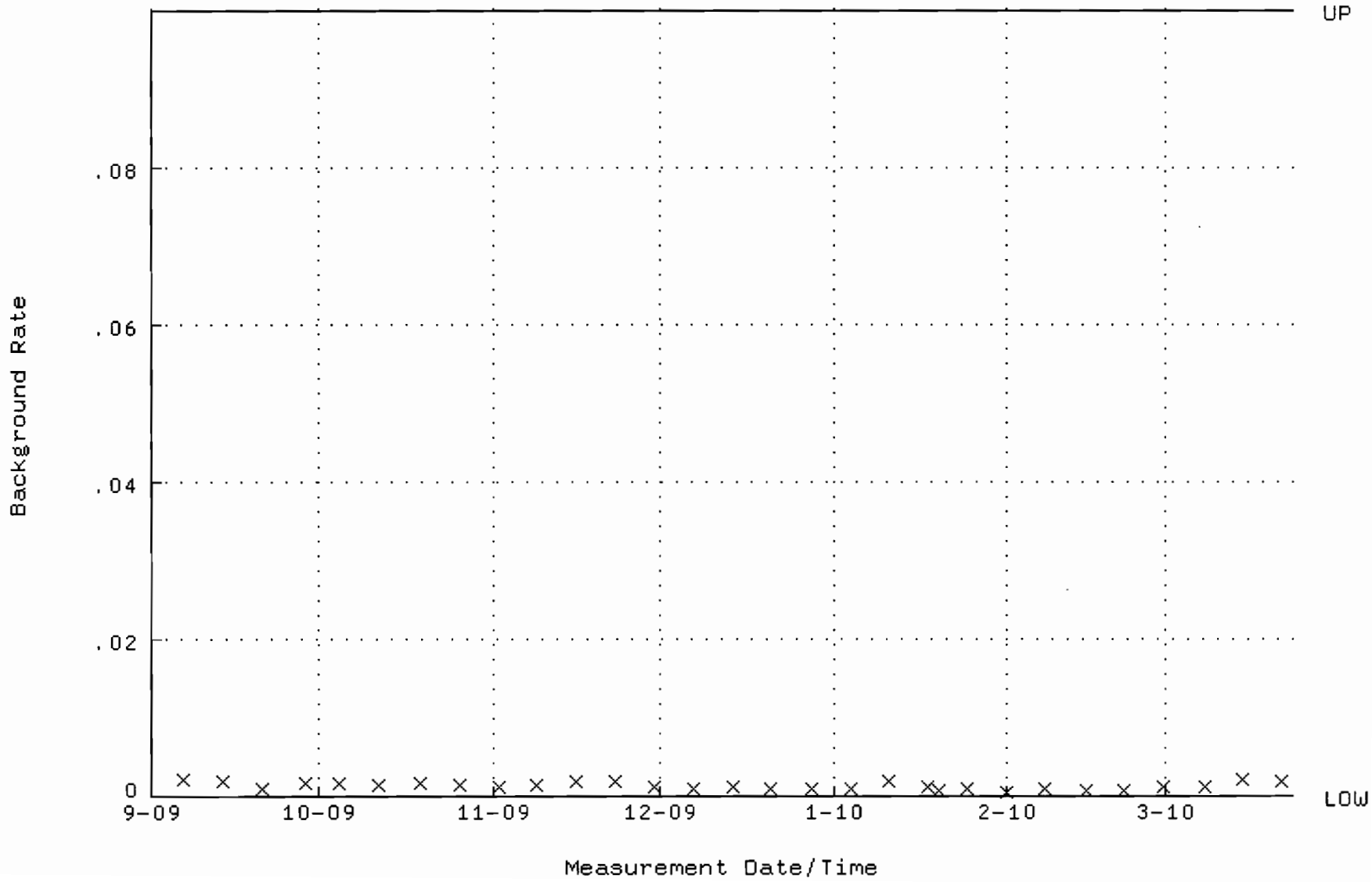

QA filename : DKA100:[ENV_ALPHA.QA.W]W195.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:51 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.237531 through 0.281633

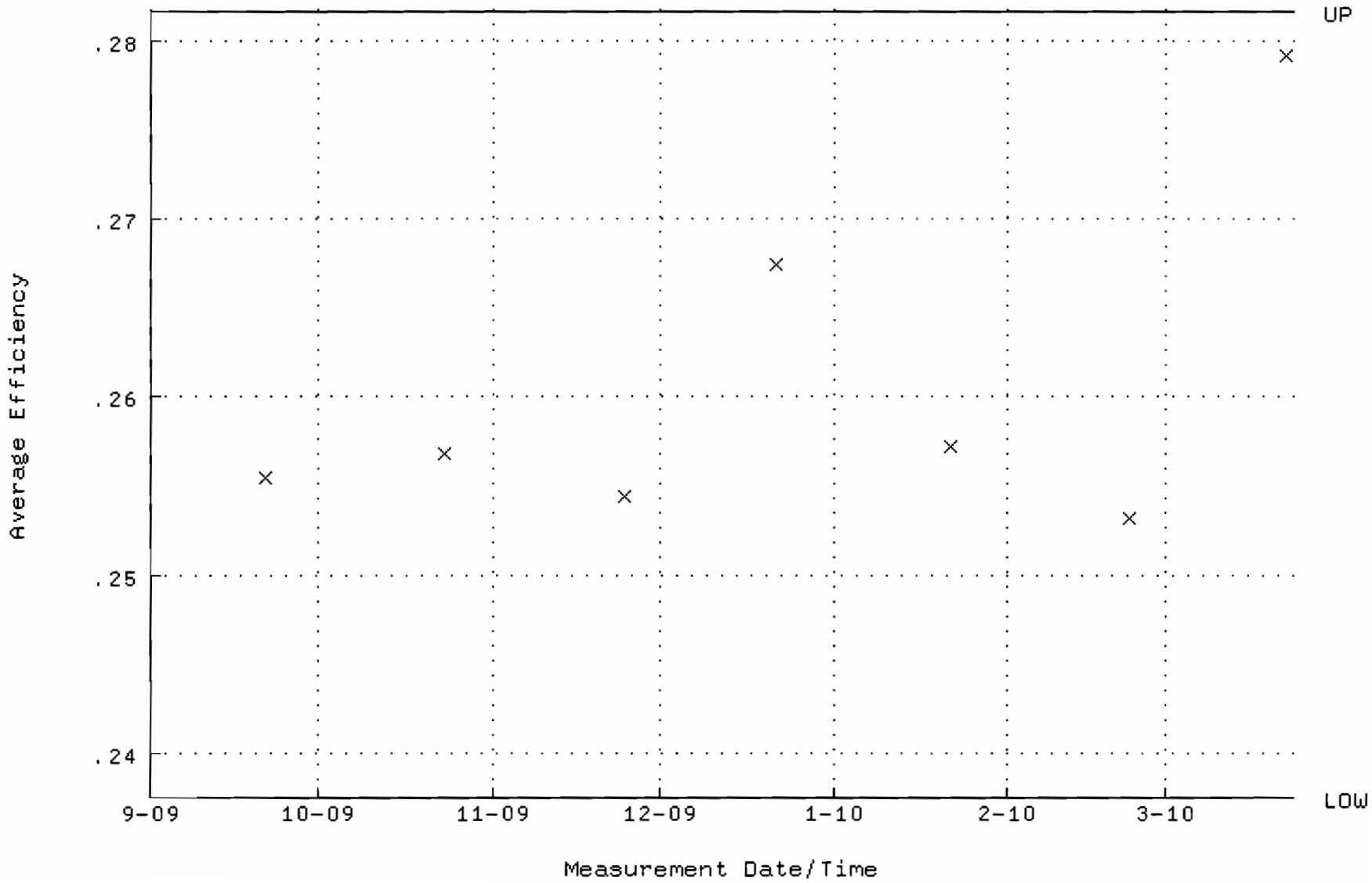

QA filename : DKA100:[ENV_ALPHA.QA.W]W195.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:51 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.6297 through 91.3753

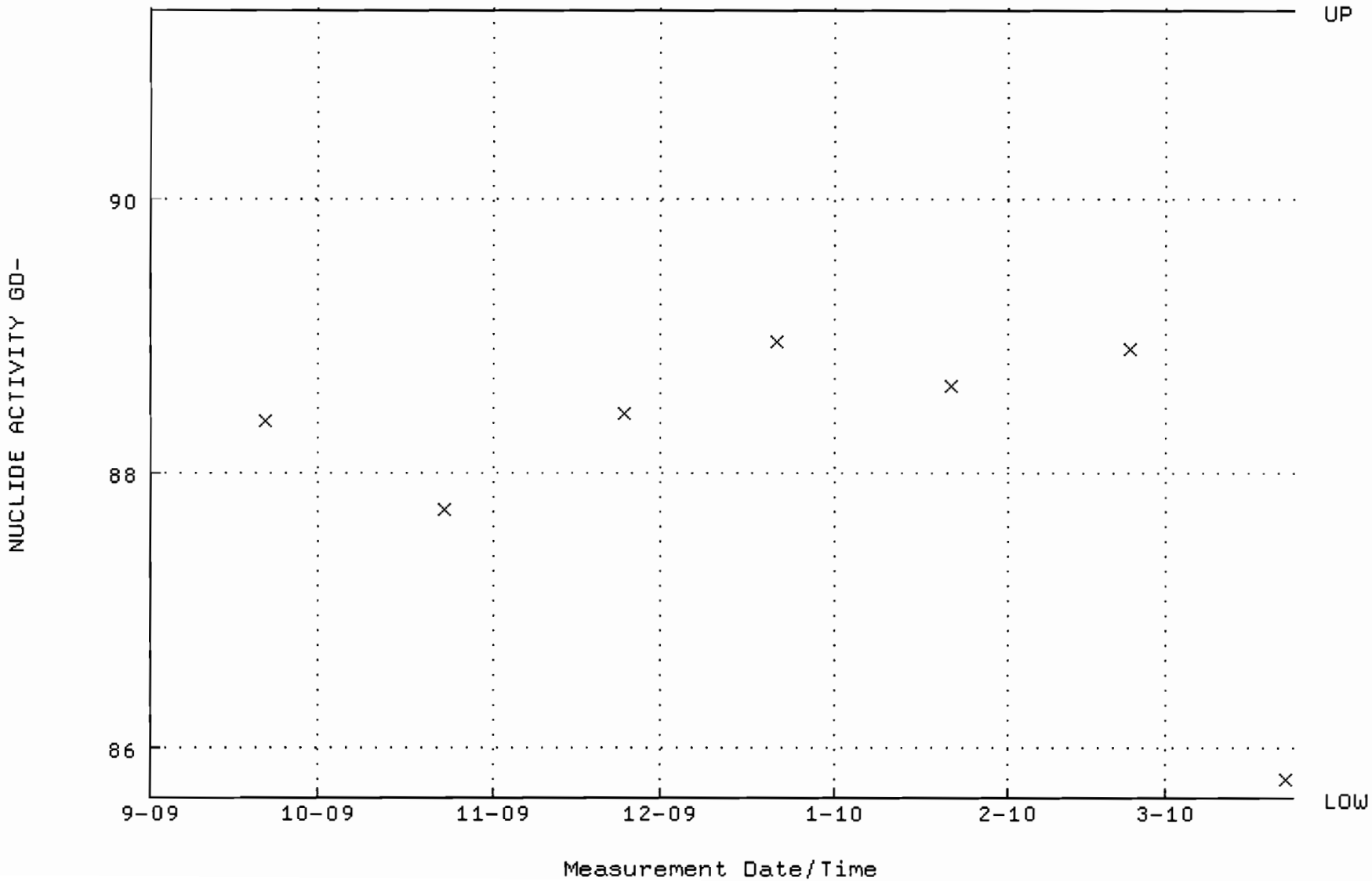

QA filename : DKA100:[ENV_ALPHA.QA.B]B195.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:44 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

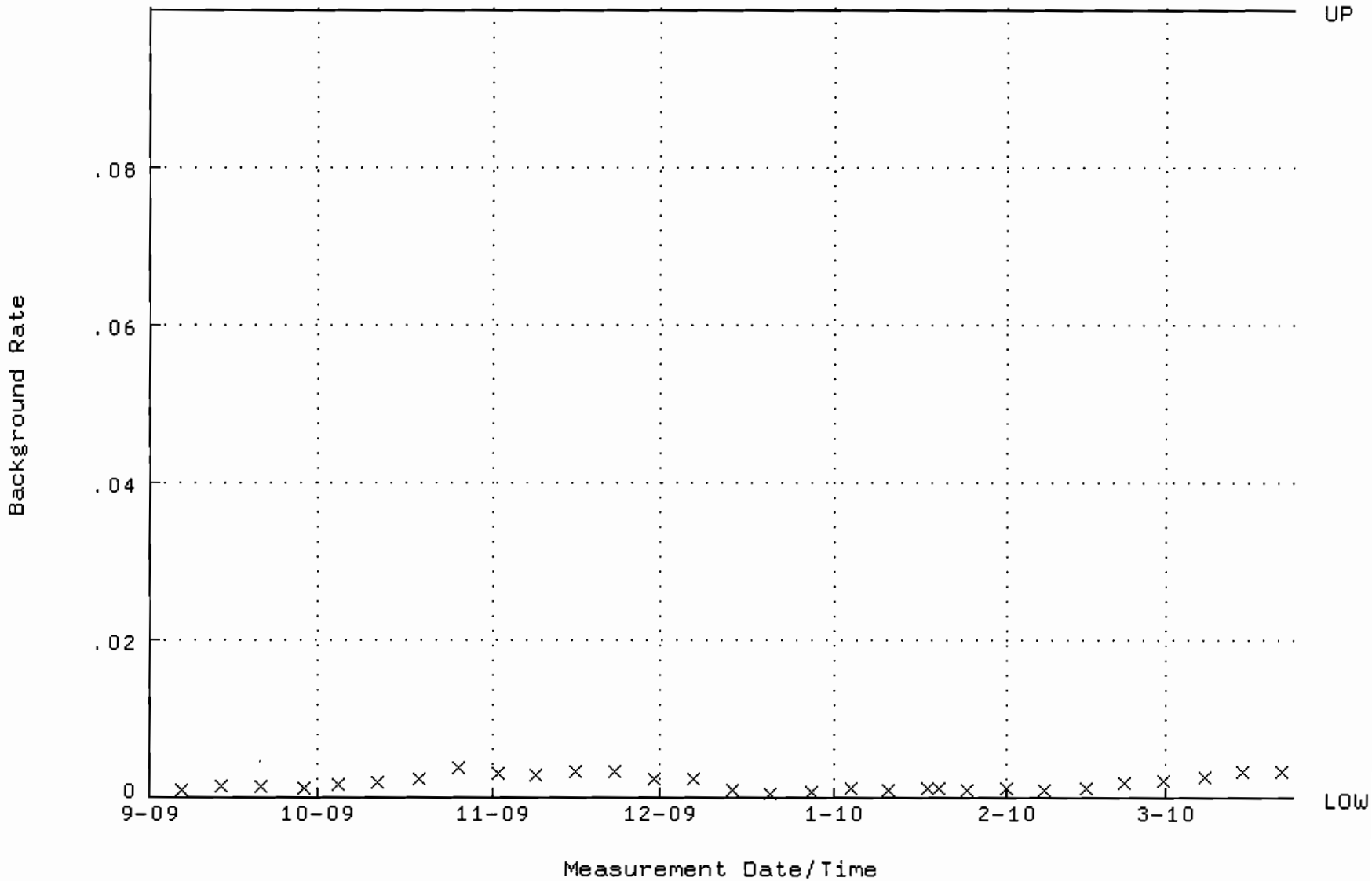

QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:42 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.368938 through 0.401788

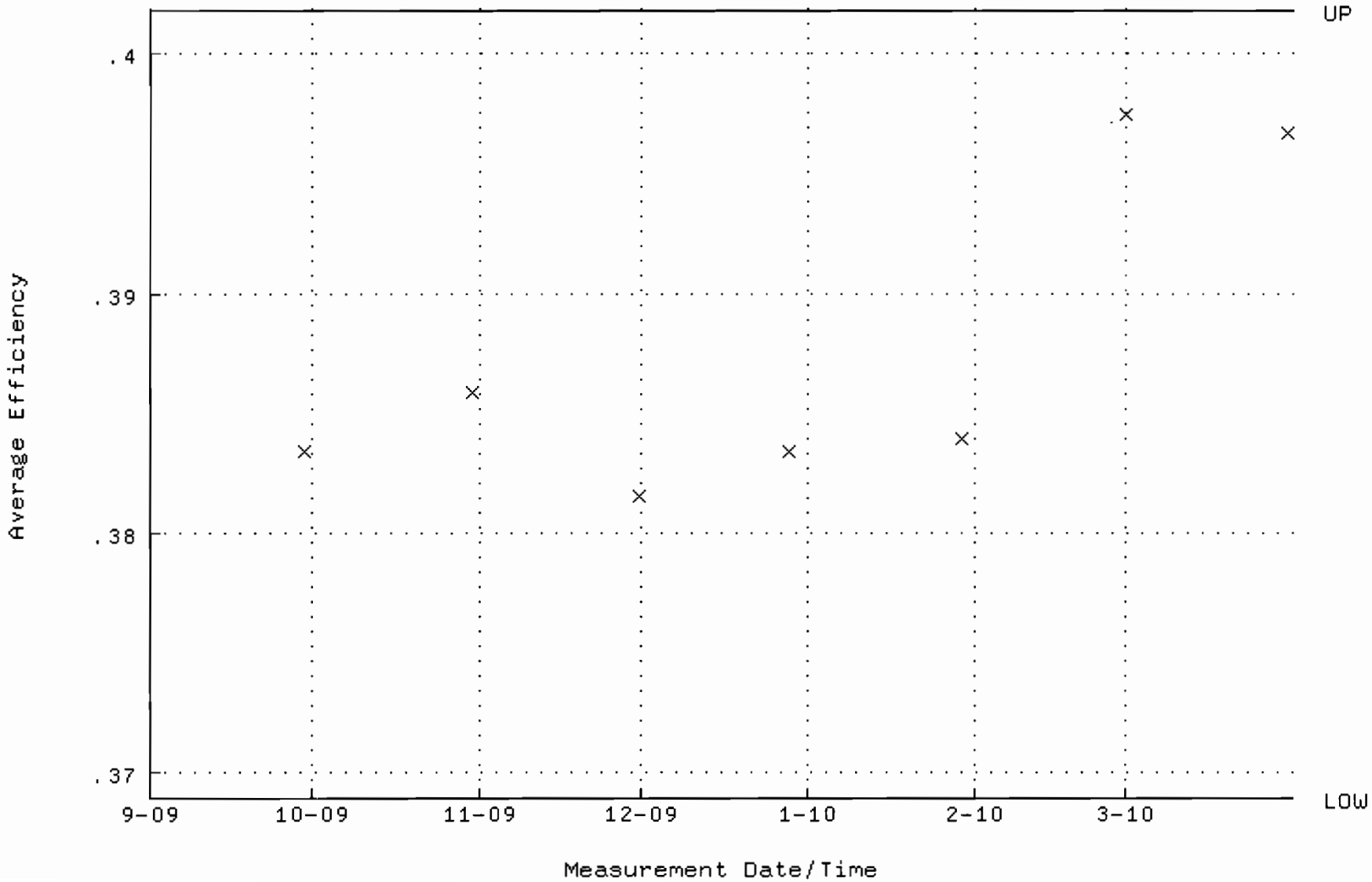

QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:42 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5490 through 88.3592

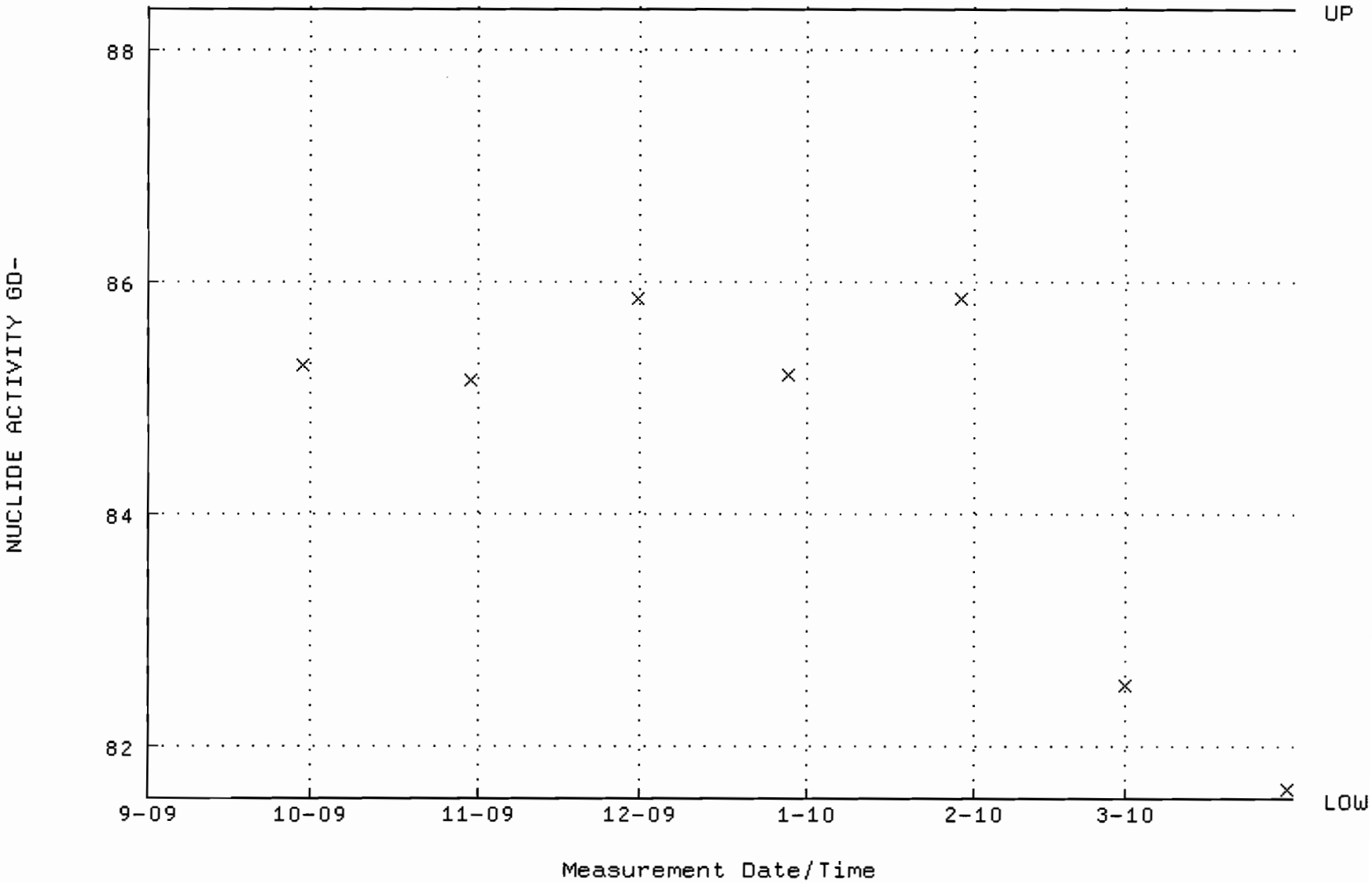

QA filename : DKA100:[ENV_ALPHA.QA.B]B234.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:16 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

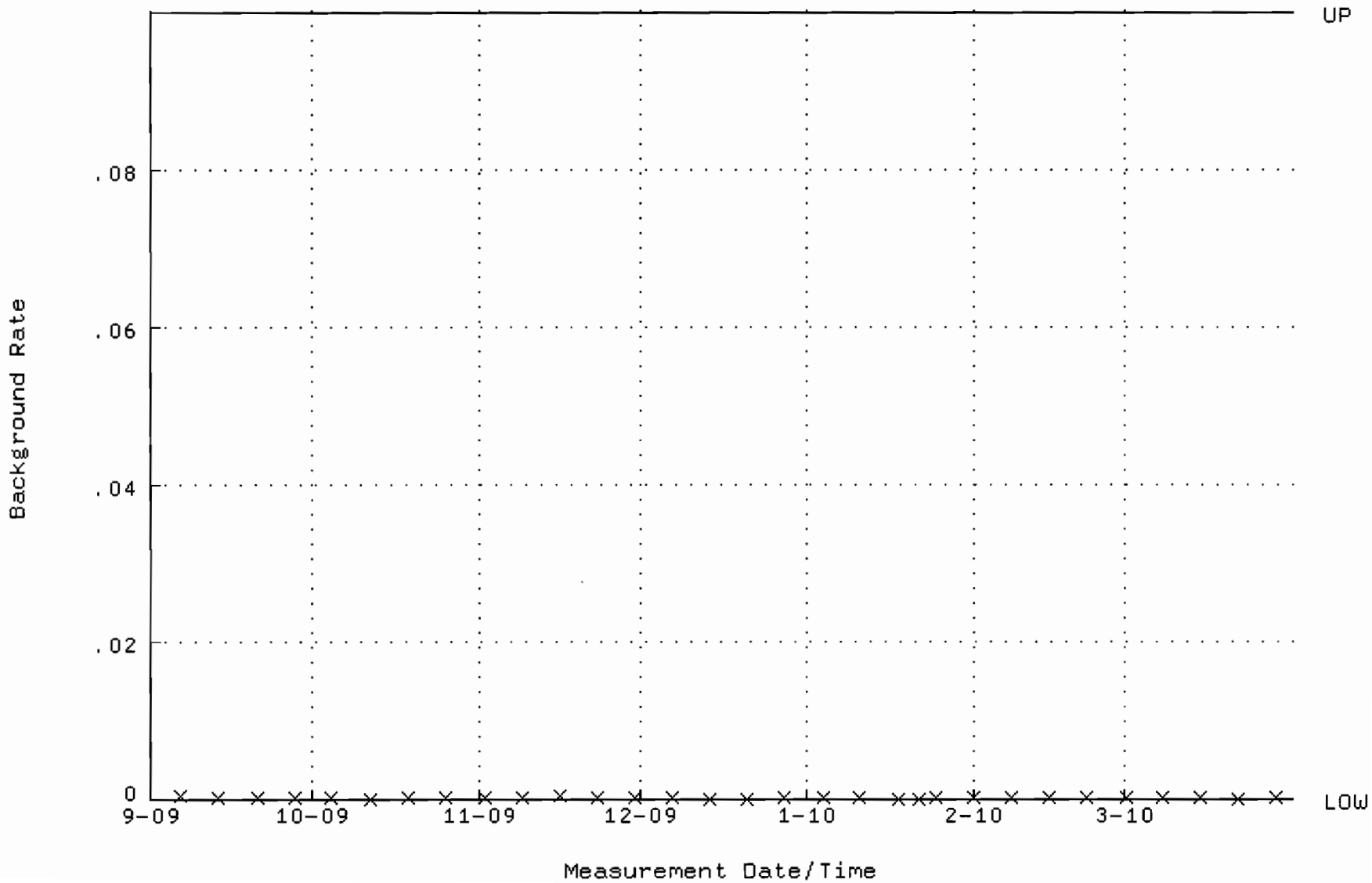

QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:47 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.347554 through 0.411802

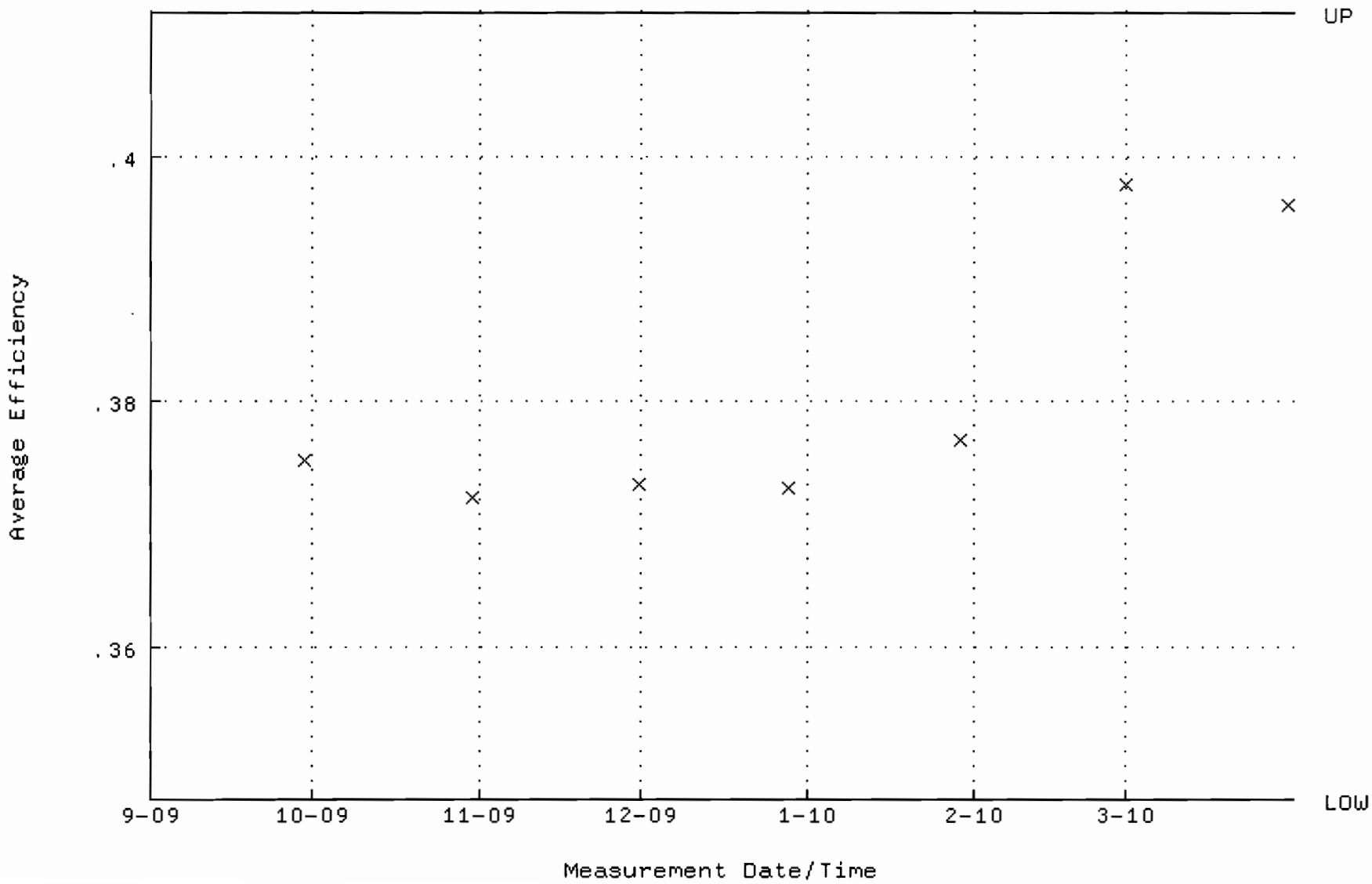

QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:47 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 86.9159 through 90.2825

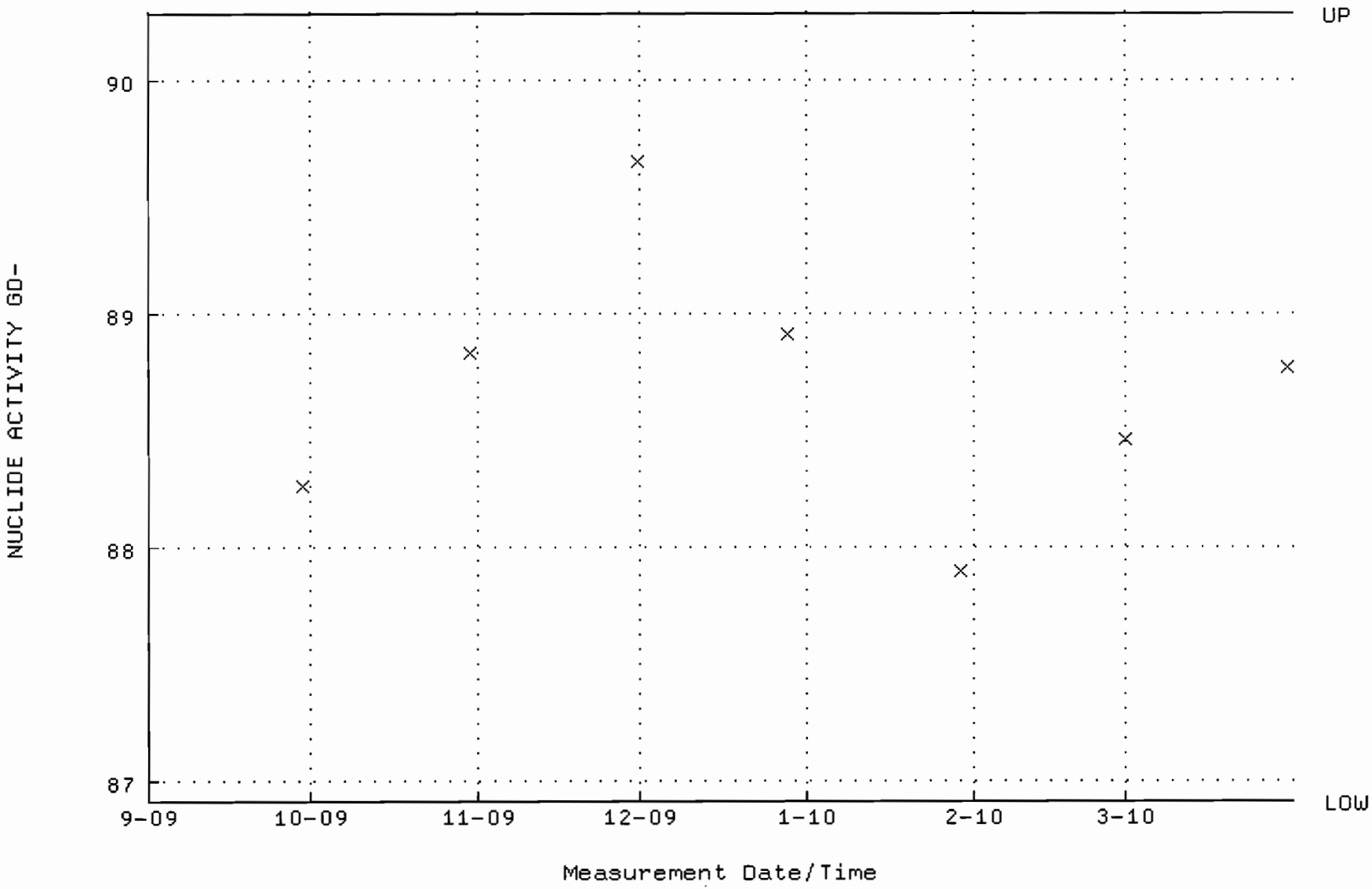

QA filename : DKA100:[ENV_ALPHA.QA.B]B235.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:20 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

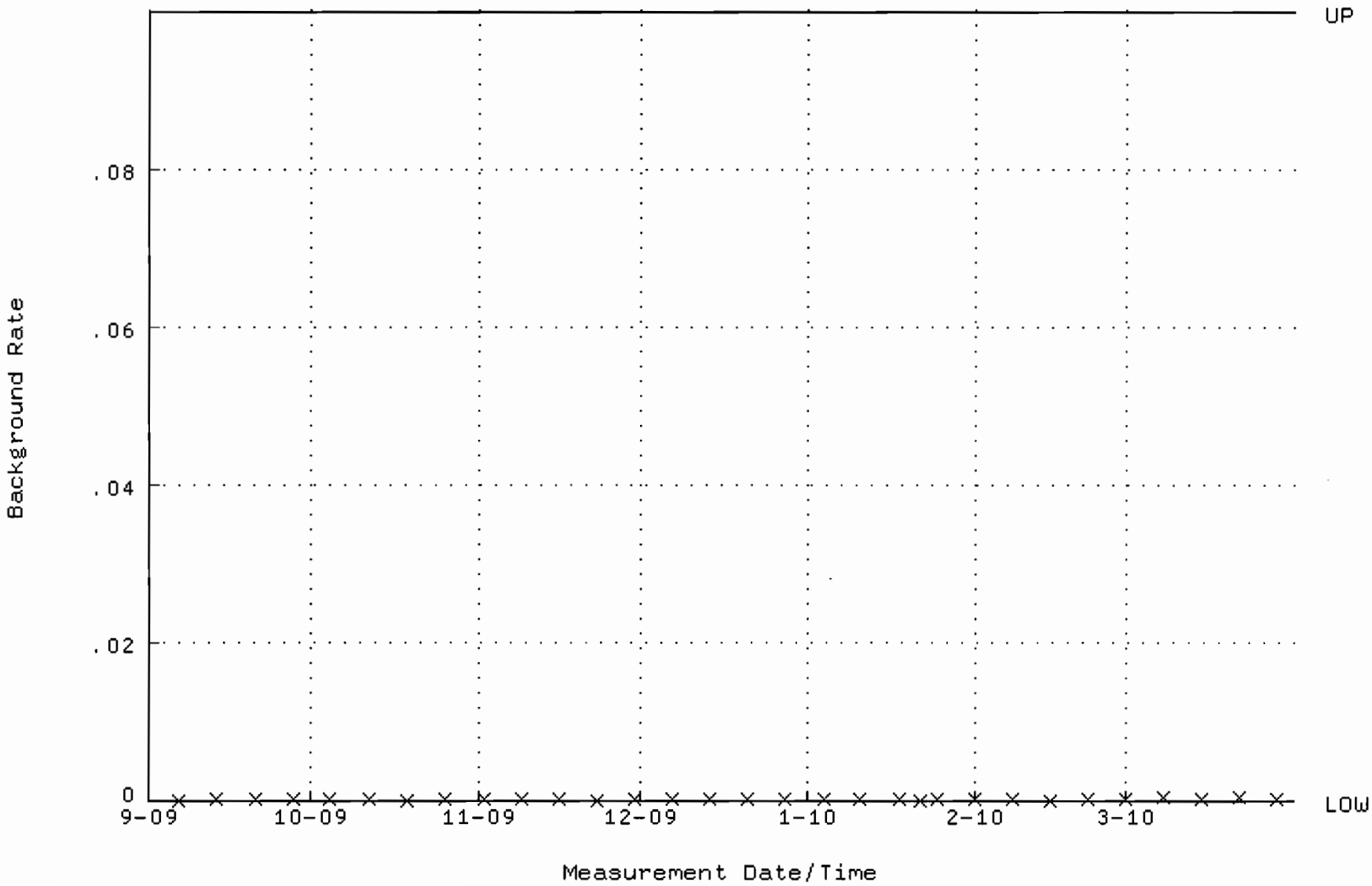

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:58 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.385327 through 0.415351

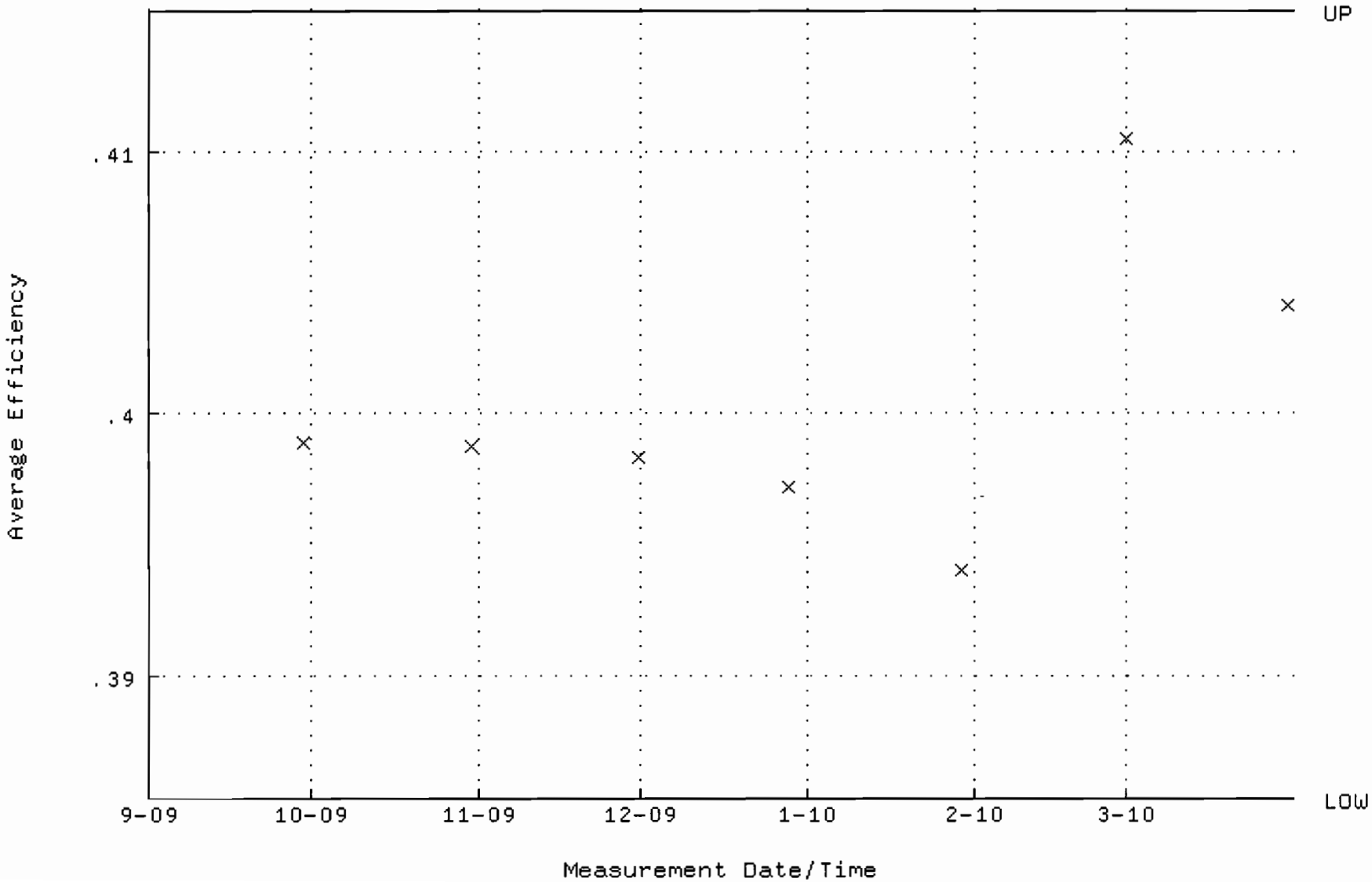

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:58 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5268 through 85.6787

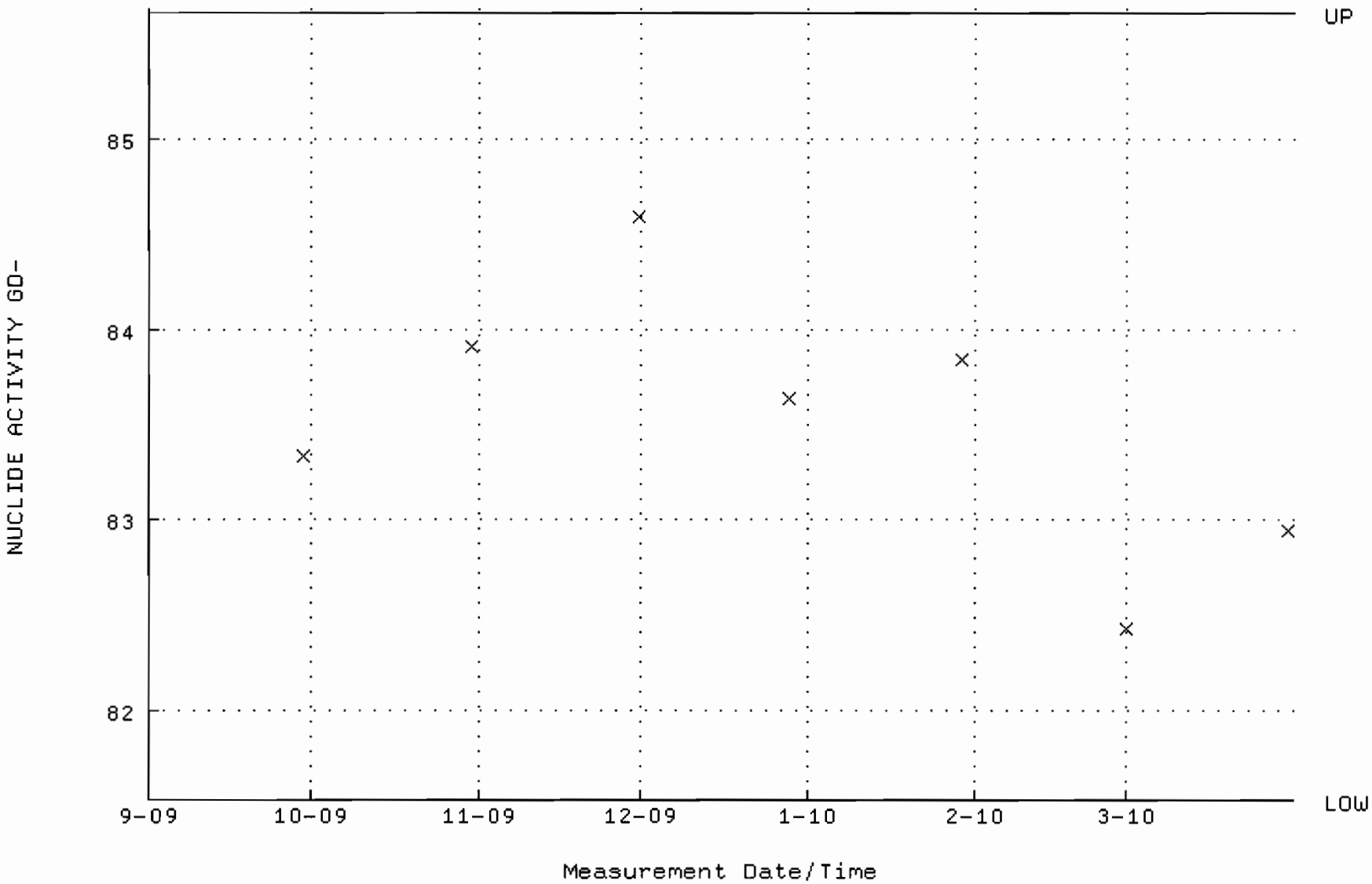

QA filename : DKA100:[ENV_ALPHA.QA.B]B237.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:30 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

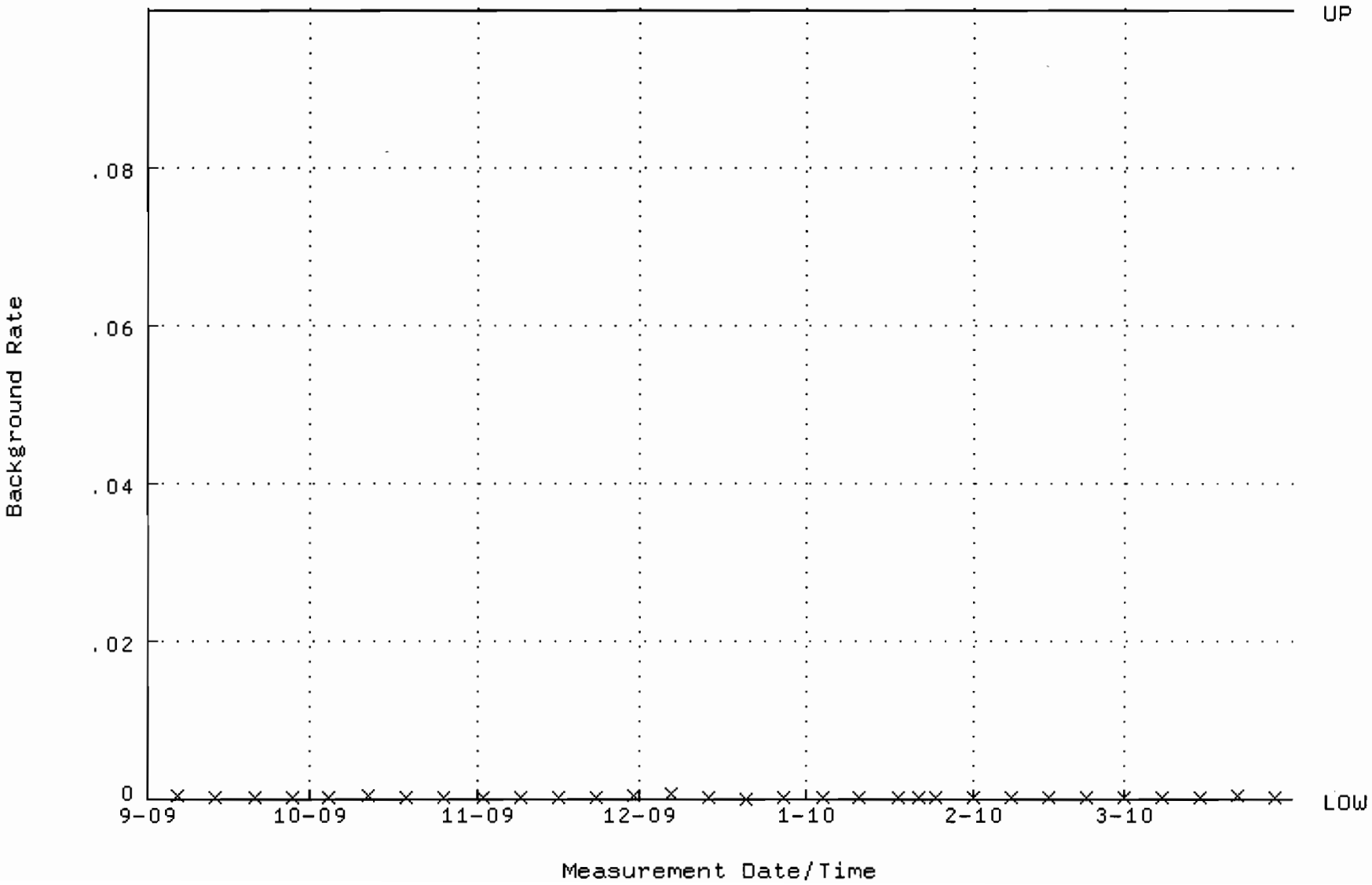

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:04 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.389351 through 0.404525

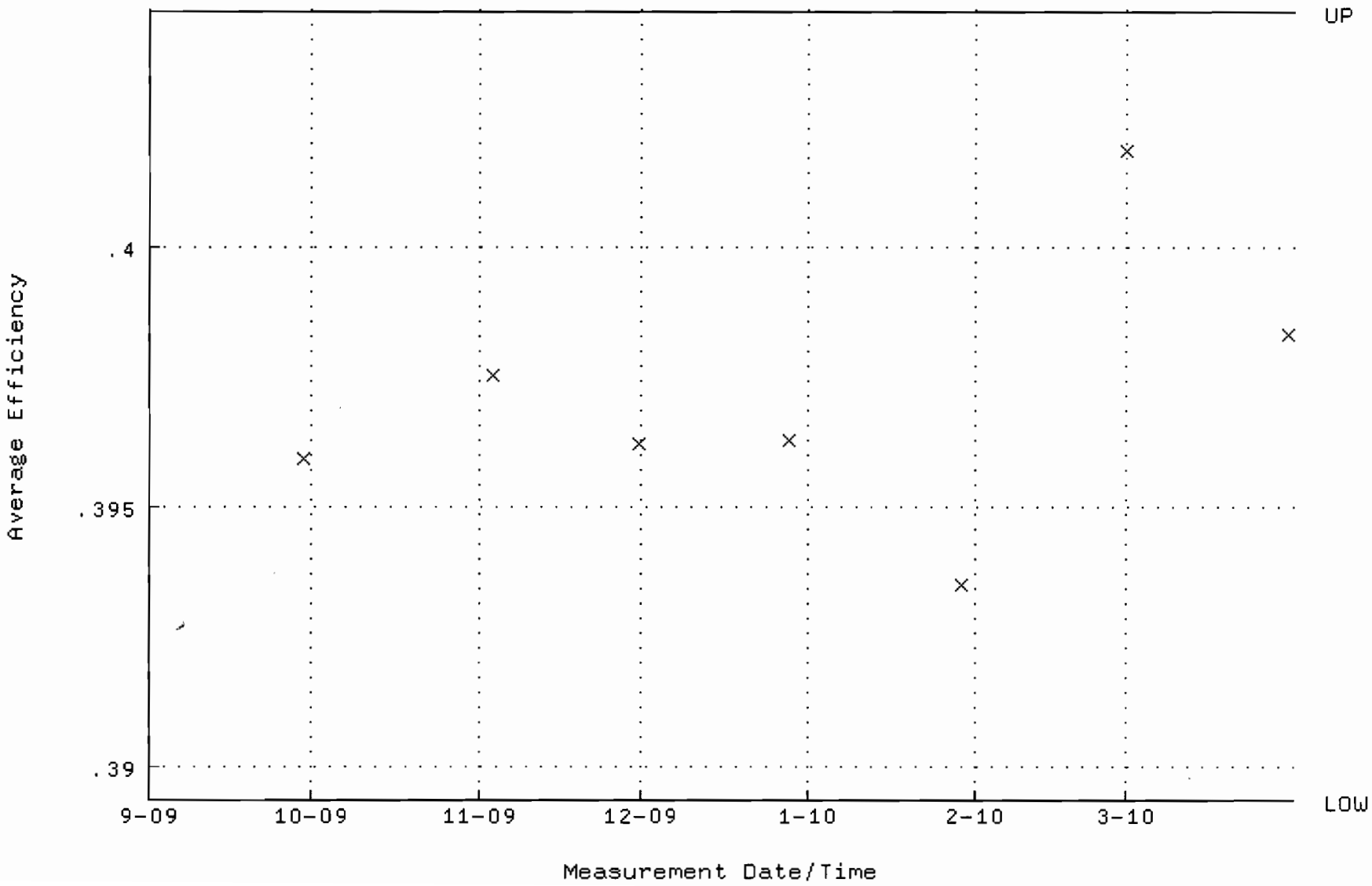

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:04 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 82.7118 through 85.8726

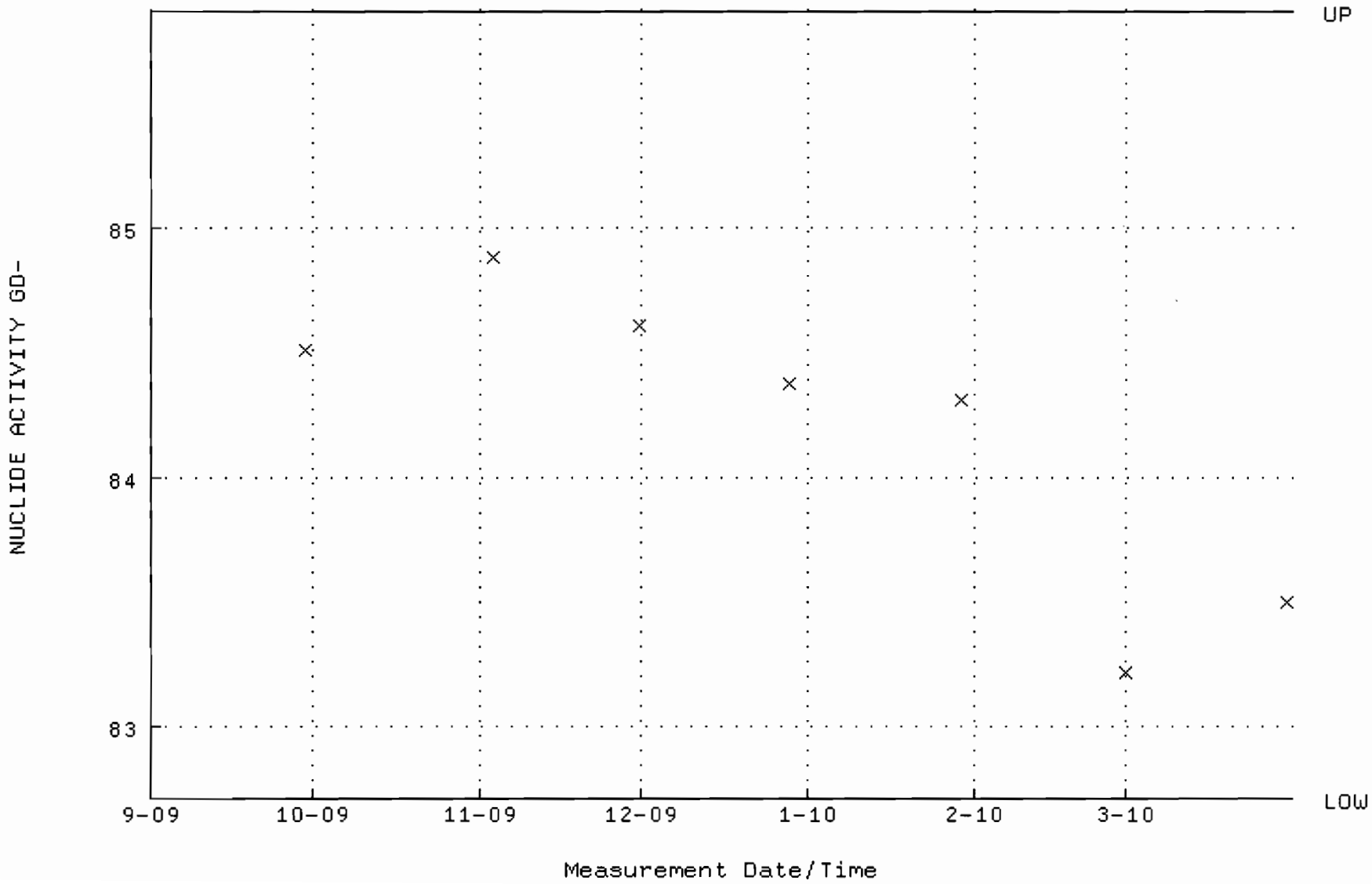

QA filename : DKA100:[ENV_ALPHA.QA.B]B238.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:34 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

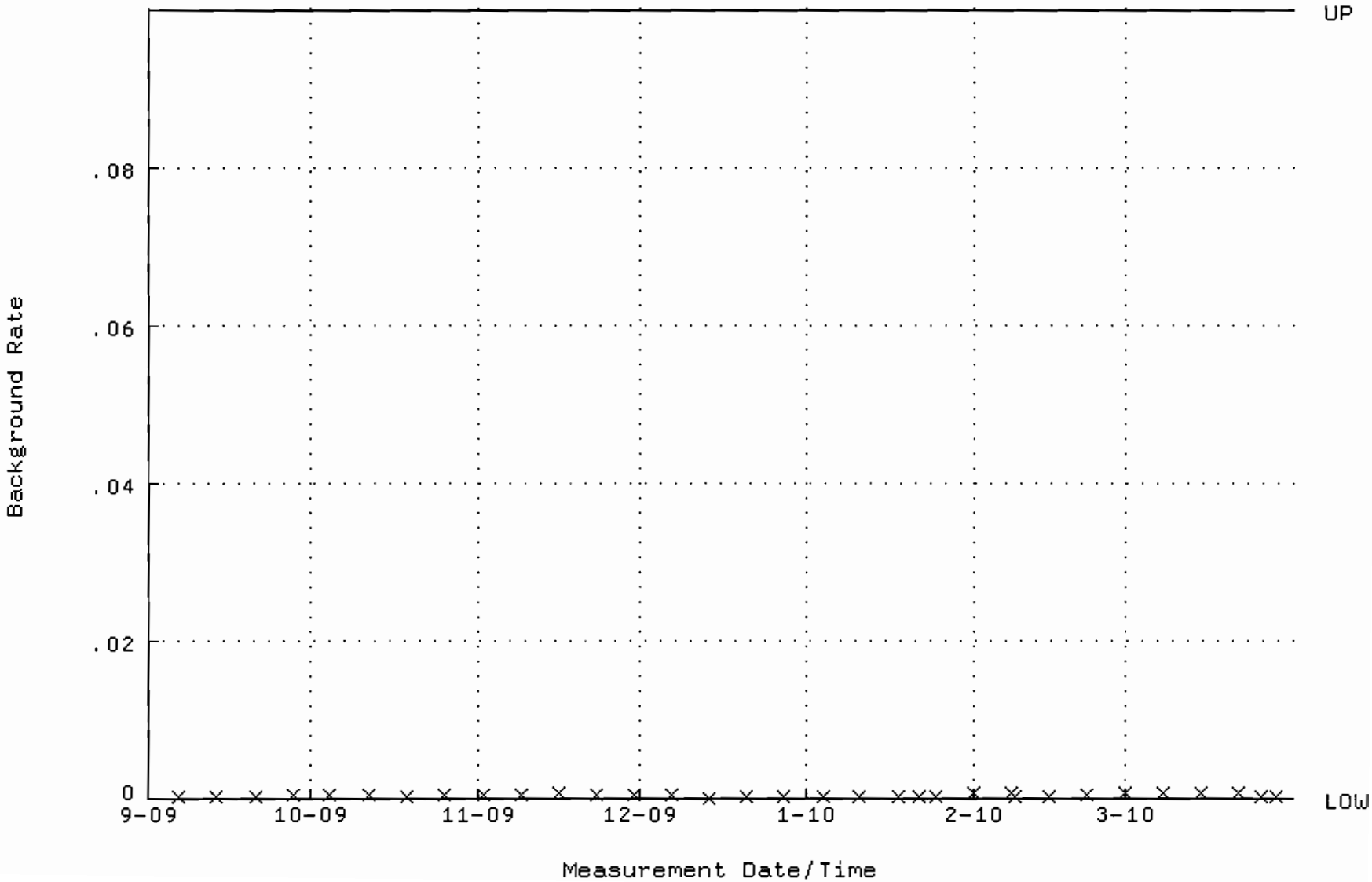

QA filename : DKA100:[ENV_ALPHA.QA.W]W242.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:26 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.370669 through 0.400529

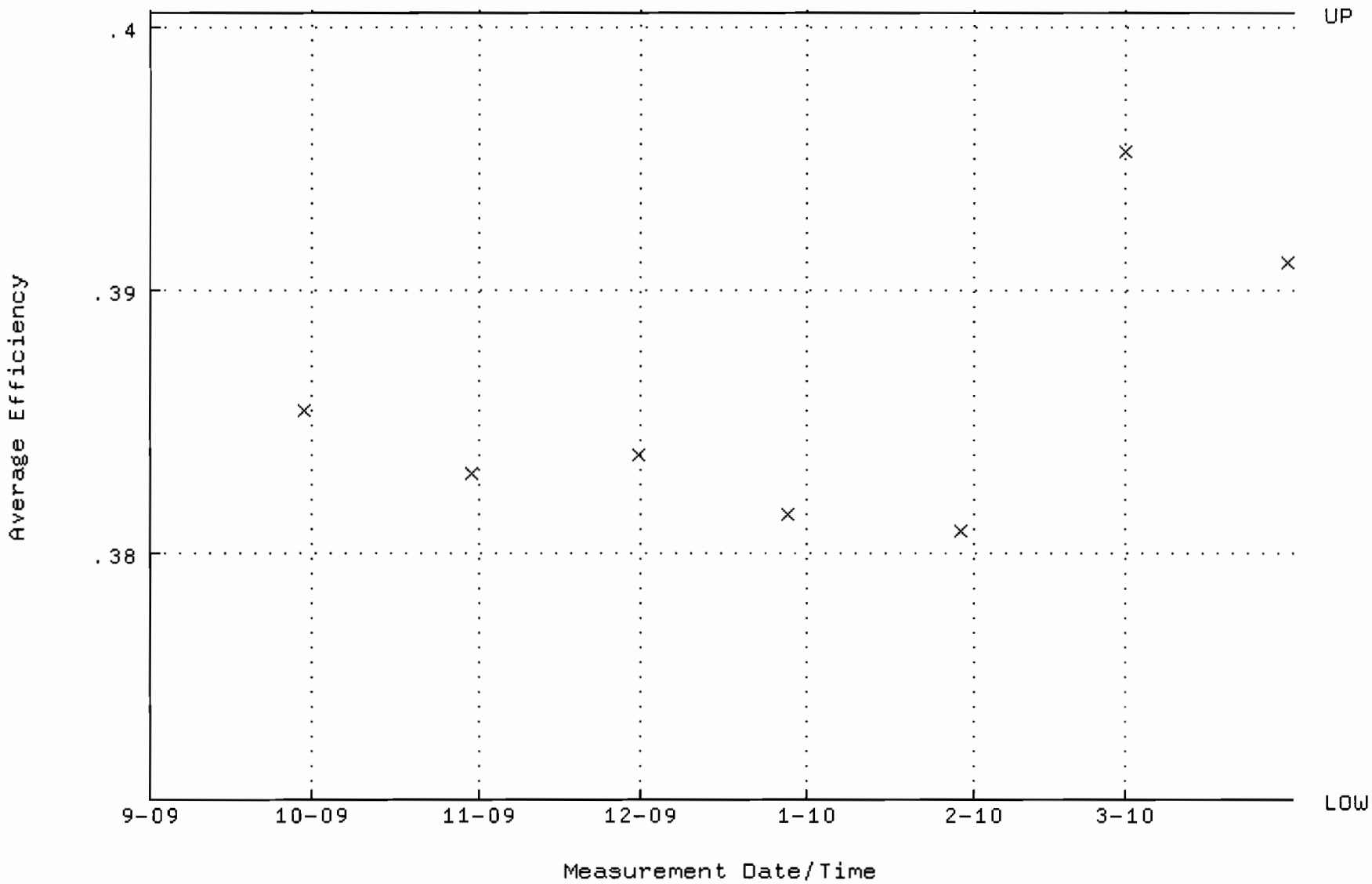

QA filename : DKA100:[ENV_ALPHA.QA.W]W242.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:26 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 82.9250 through 92.3782

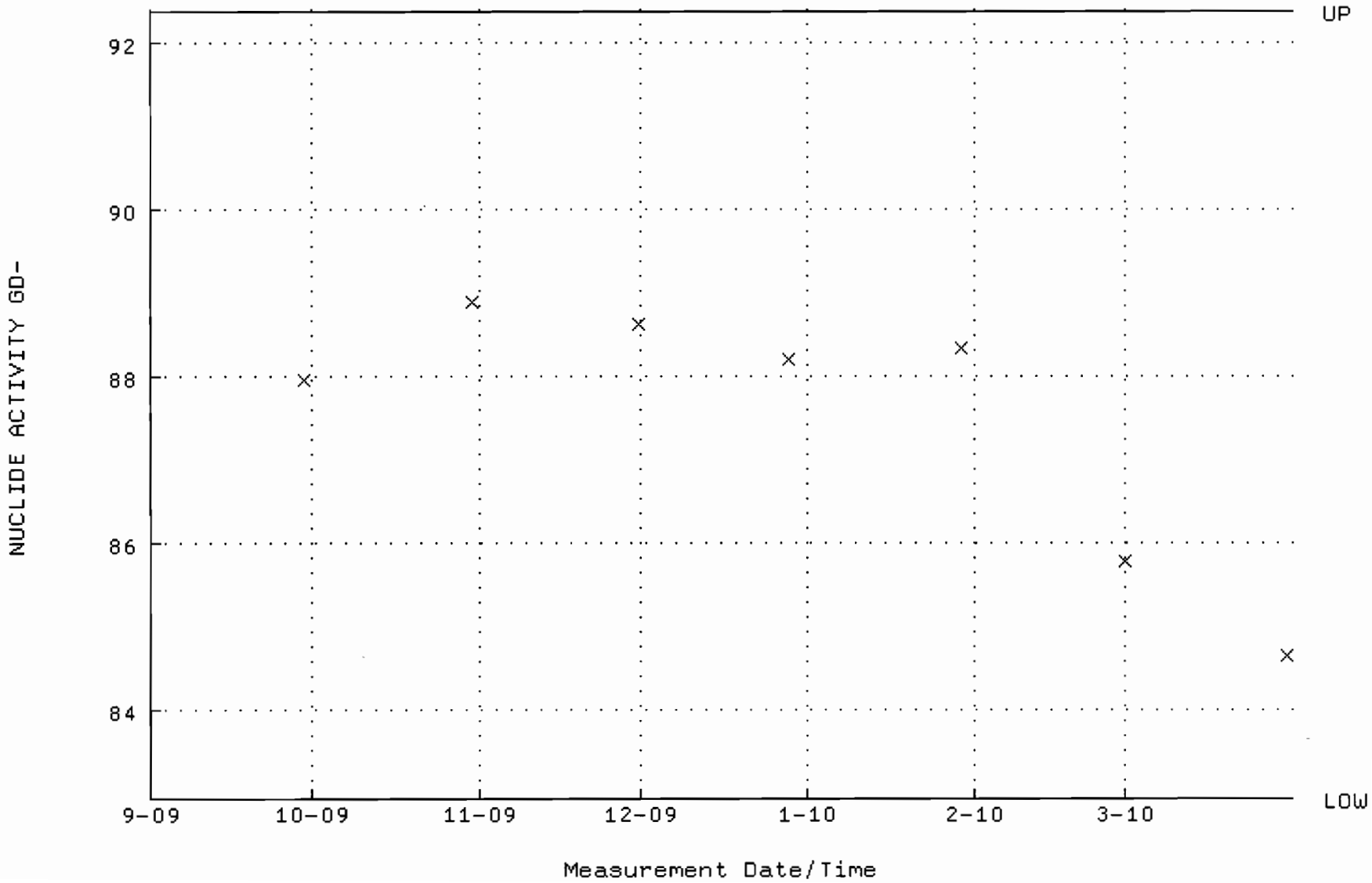

QA filename : DKA100:[ENV_ALPHA.QA.B]B242.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:53 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

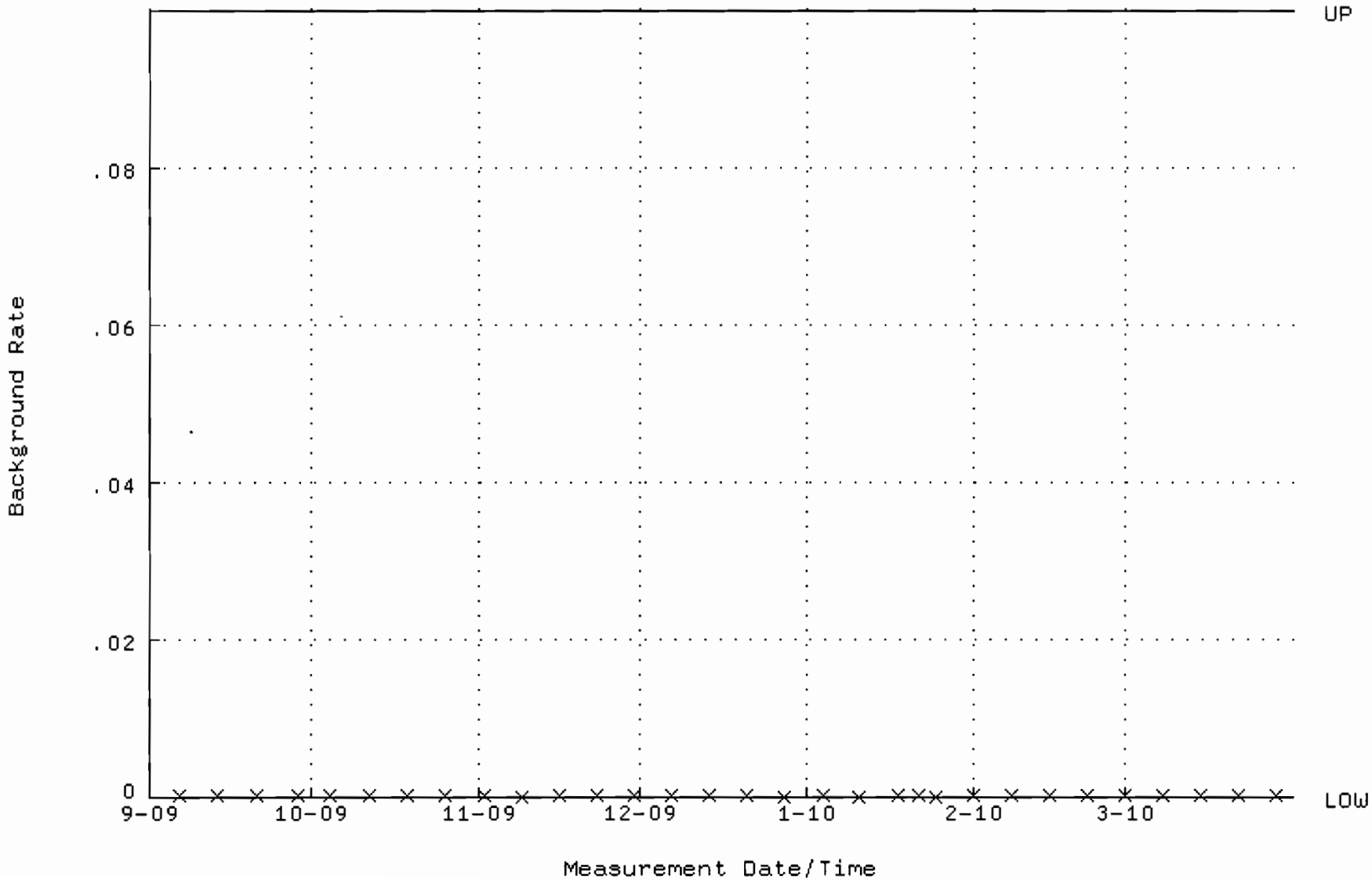

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM07_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:09:02 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

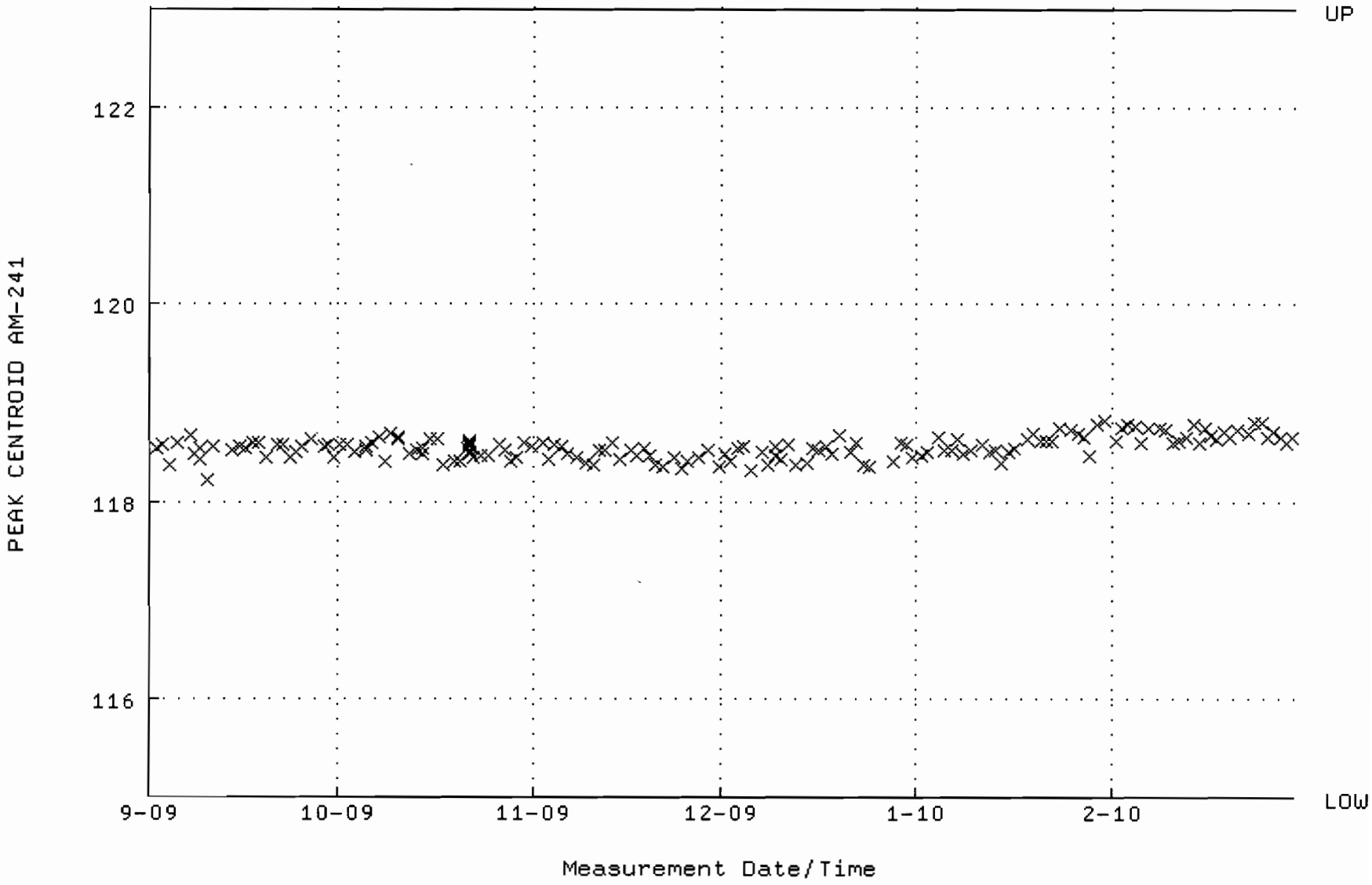

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM07.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:39:54 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.51715 +- 2.726376E-02 (1.80 %)

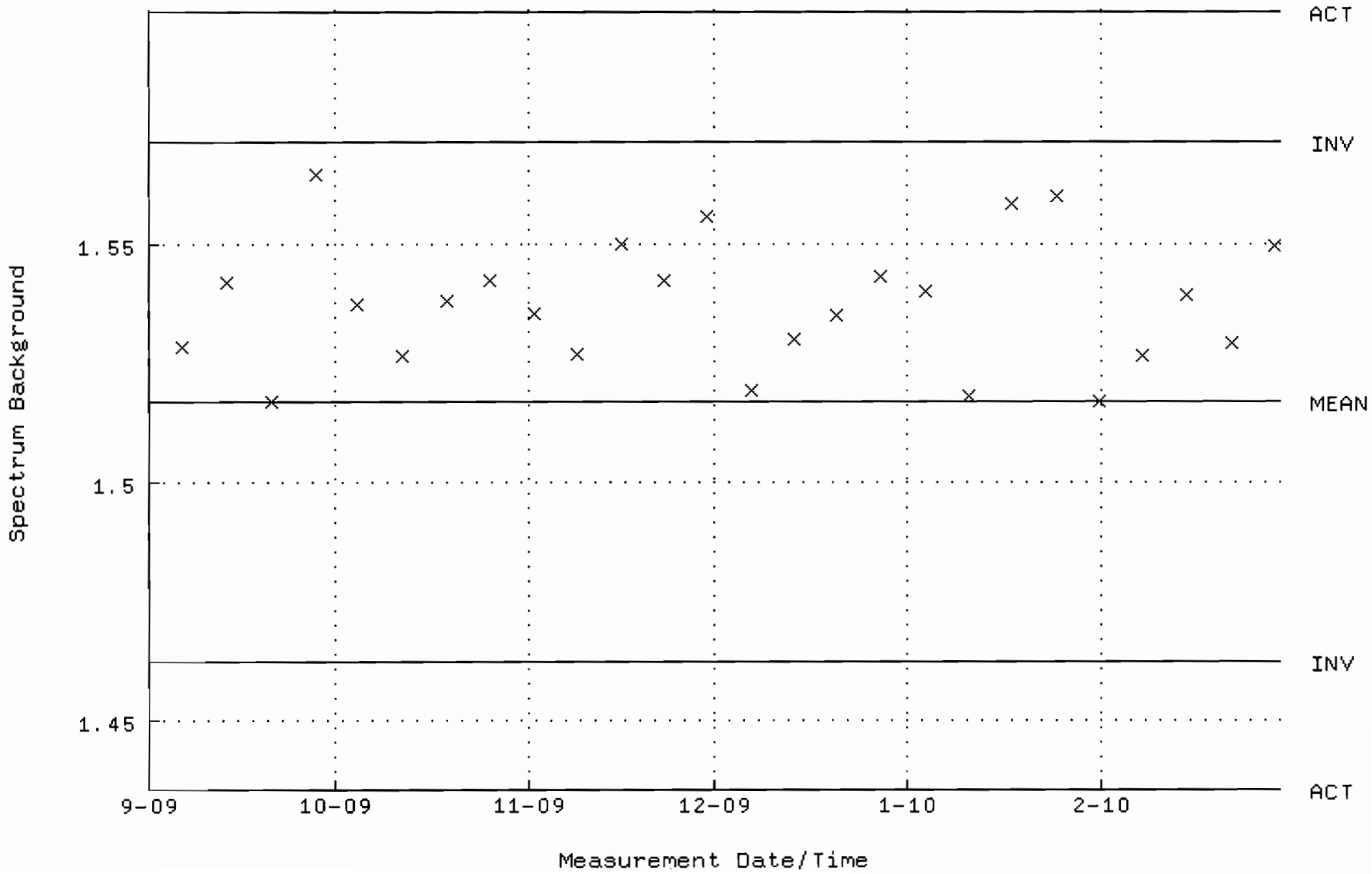

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM21_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-DEC-2009 13:07:42 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

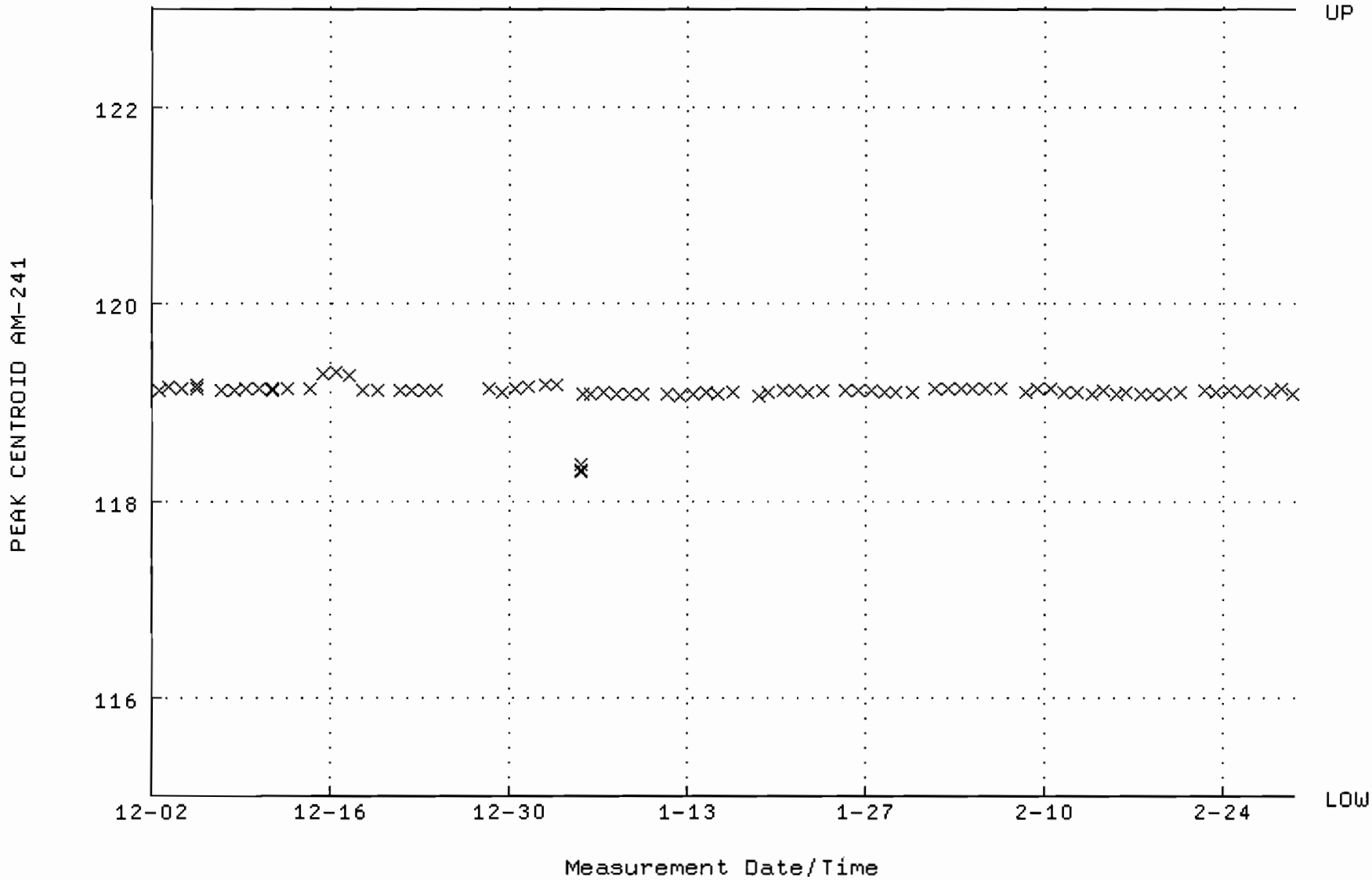

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM21.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-DEC-2009 15:25:38 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.04443 +- 1.452671E-02 (1.39 %)

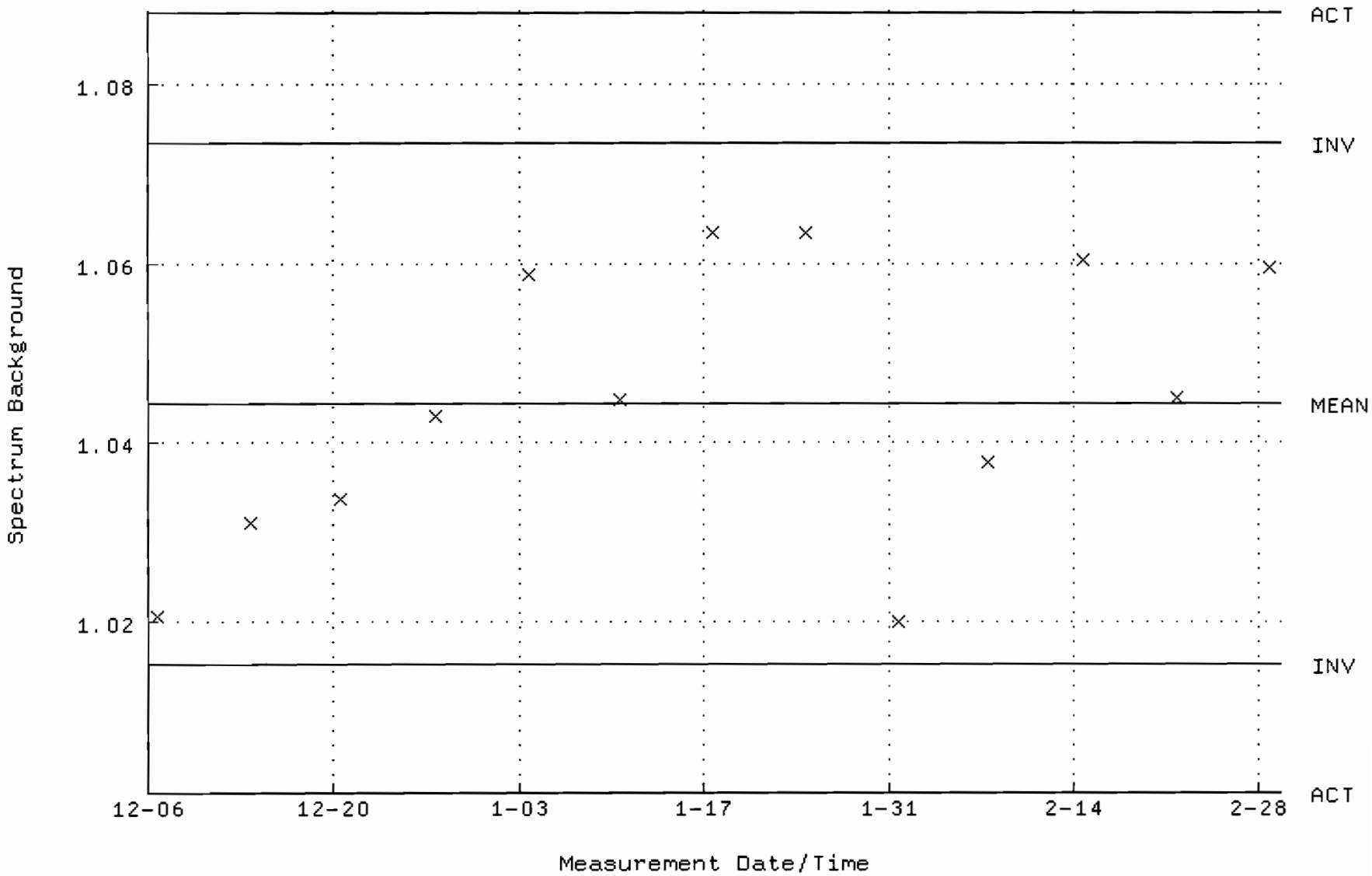

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

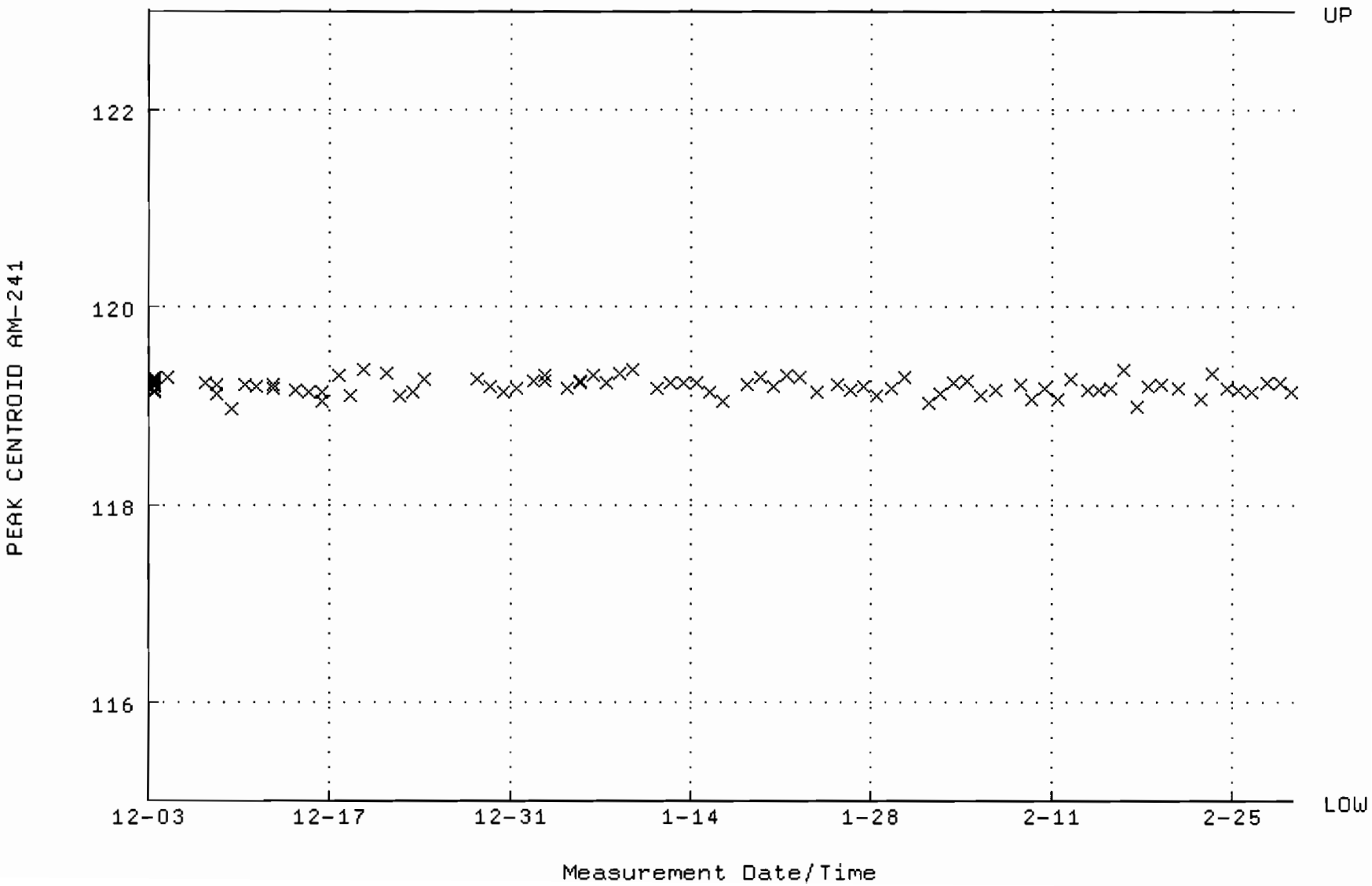

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

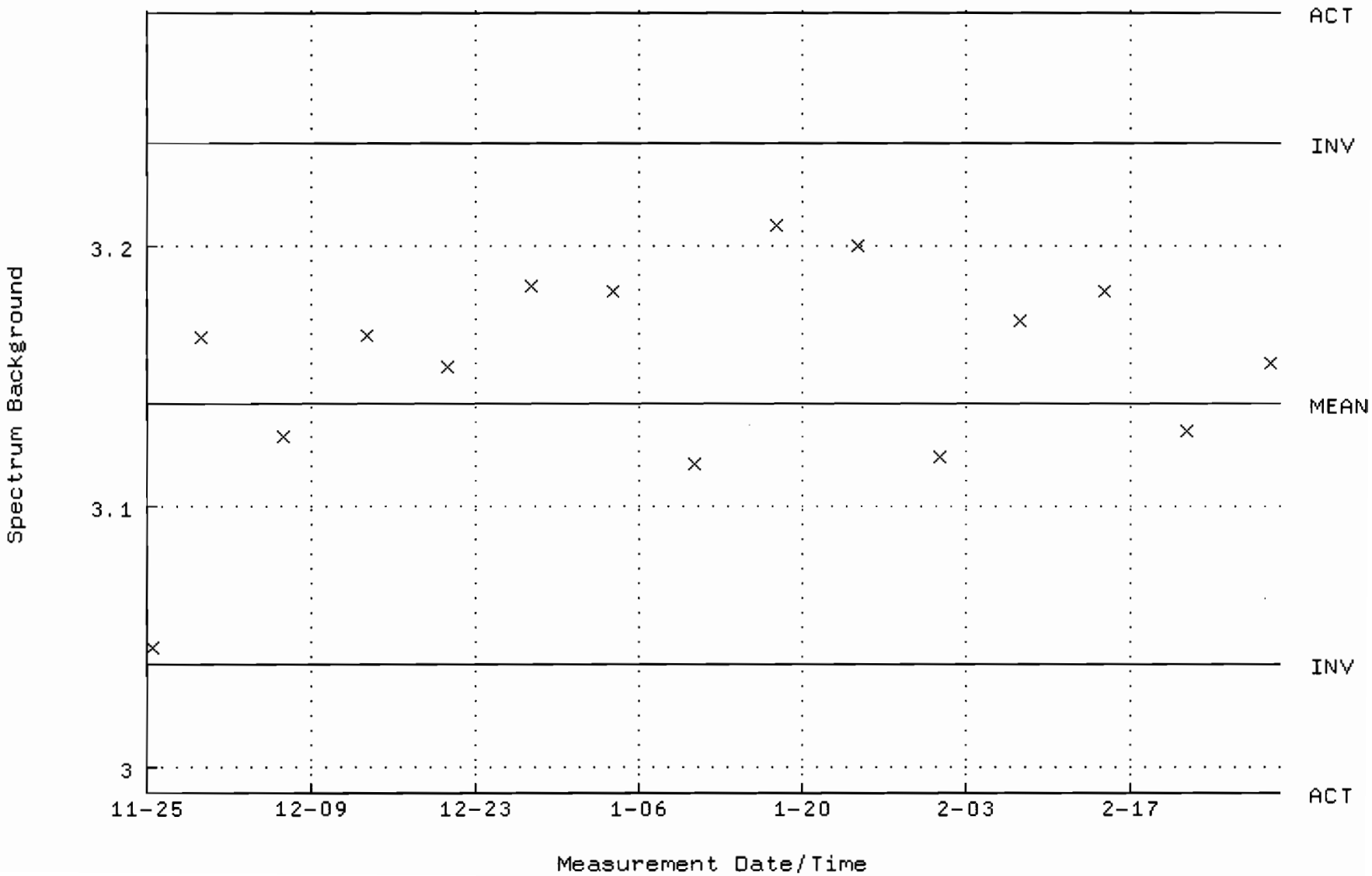

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM29_CAN.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 2-MAR-2010 08:30:43 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

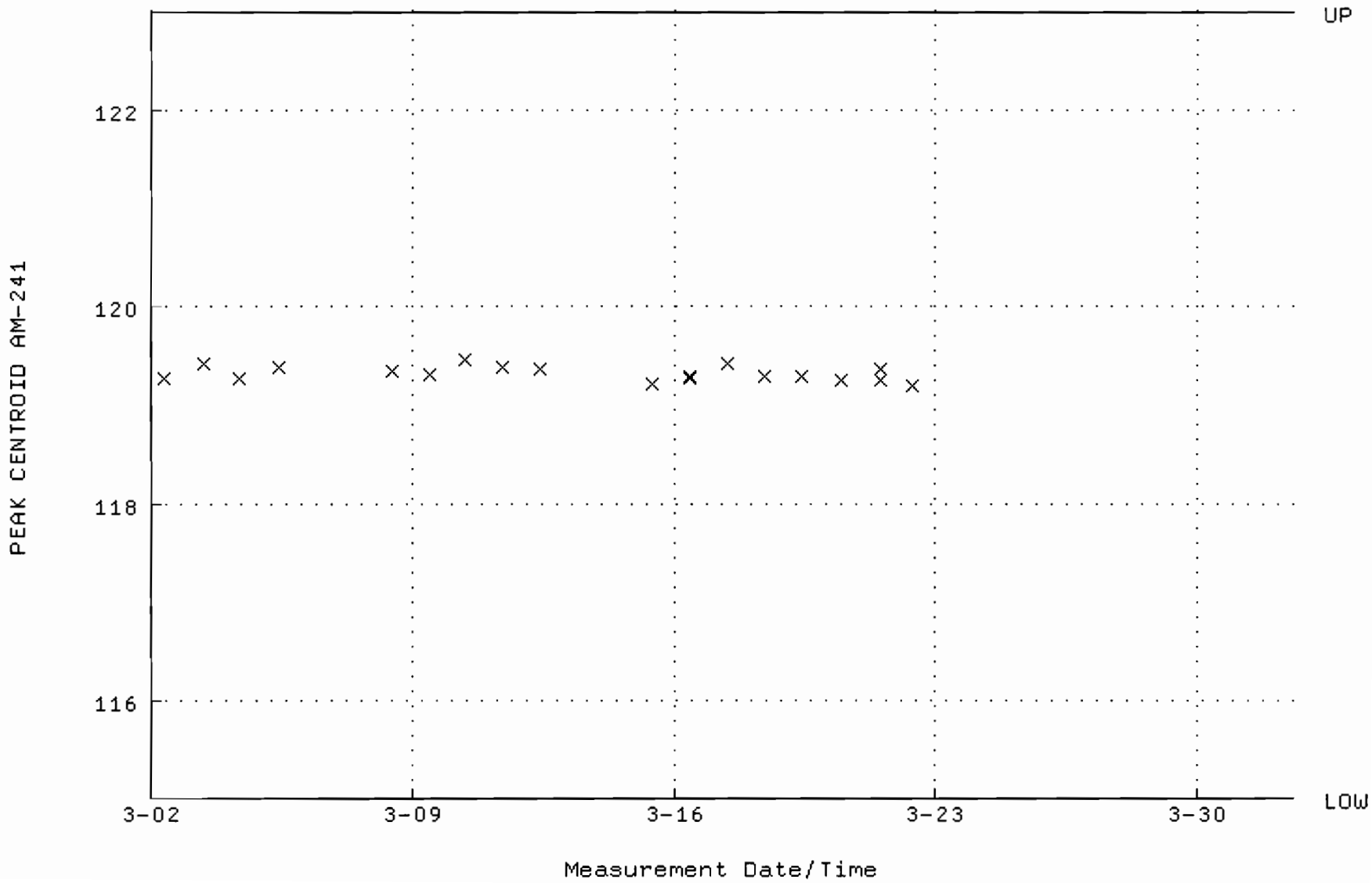

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM29.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 7-MAR-2010 16:47:12 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 1.94193 through 2.37347

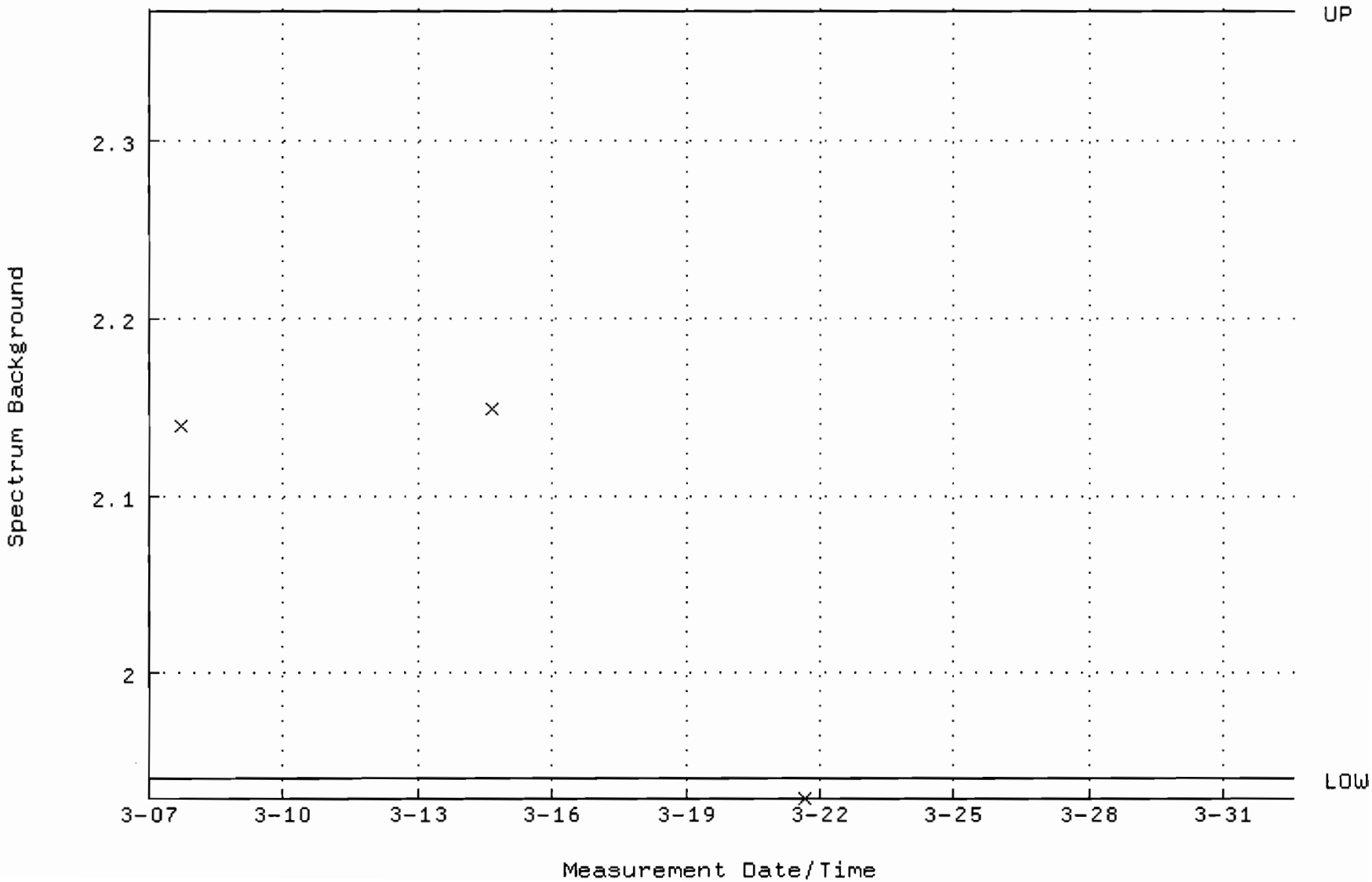

STANDARDS DATA

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATA 4/14/2000 Jeff C Neff 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 boxes of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM-1	TRM-2	TRM-3	TRM-4
U-238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U-234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th-230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra-226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb-210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)

Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped 11-16-99 SMO USE
Carrier/Waybill No. 726744
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL on behalf of Hank Mintzer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date

QC Initials

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry SMO	Org. WT	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by	Org.	Date	Time		4. Received by	Org.	Date
2. Relinquished by	Org.	Date	Time		5. Relinquished by	Org.	Date
2. Received by	Org.	Date	Time		5. Received by	Org.	Date
3. Relinquished by	Org.	Date	Time		6. Relinquished by	Org.	Date
3. Received by	Org.	Date	Time		6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
[illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in FL	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-1~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking SMO USE
Data Entered (mm/dd/yy)
Entered by
QC Limits

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well interceptors and materials being sent to GEL on behalf of Hack Minter.
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry			Weston / 7577 / 845-0867

1. Relinquished by	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date	
1. Received by	Org.	Date	Time	4. Received by	Org.	Date	
2. Relinquished by	Org.	Date	Time	5. Relinquished by	Org.	Date	
2. Received by	Org.	Date	Time	5. Received by	Org.	Date	
3. Relinquished by	Org.	Date	Time	6. Relinquished by	Org.	Date	
3. Received by	Org.	Date	Time	6. Received by	Org.	Date	

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

0934

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 • U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

72858-278

Th-229 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Th-229
ACTIVITY (dps):	3.842 E3
HALF-LIFE:	7340 years
CALIBRATION DATE:	May 2, 2006 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	3.5%

Impurities: Th-228 5.7 dps
Th-230 24 dps
Th-232 1.5 dps

5.05657 grams 0.5M HNO_3 solution.

P O NUMBER 2724RD, Item 1

SOURCE PREPARED BY: M Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 05-02-2006

RECEIVED 5/5/06 MLK

RCS-041-110

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0934
Prepared By:	Daniel Roy
Carrier Conc:	0.05M HNO3
Reference Date:	05/02/2006
Ampoule Mass (g):	5.05657 g
Uncertainty:	+/- 3.5 %
LogBook No:	RC-S-041-110

A Solution Material Info	
Isotope:	Thorium-229
Prepared By:	Daniel Roy
Prep Date:	04/23/2008
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	0934-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8973 g
Density(g/mL):	1.0143
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8973 g) * (3842 dps) * (60 dpm/dps) / (5.05657 g * 100 mL) = 2232.5917 dpm/mL
(4.8973 g) * (3842 dps) * (60 dpm/dps) / (1.0143 g/mL)/ (5.05657 g * 100 mL) = 2201.0332 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
04/23/2008	Daniel Roy	2.5898	250	0934-B	22.8009 dpm/ml	04/23/2008	04/23/2009
09/25/2008	Daniel Roy	2.6237	250	0934-C	23.0994 dpm/ml	09/25/2008	09/25/2009
12/16/2008	Daniel Roy	2.6547	250	0934-D	23.3723 dpm/ml	12/16/2008	12/16/2009
01/09/2009	Daniel Roy	2.5399	250	0934-E	22.3616 dpm/ml	01/09/2009	01/09/2010
04/03/2009	Mary Aders	2.5434	250	0934-F	22.3924 dpm/ml	04/03/2009	04/03/2010
04/22/2009	Mary Aders	2.5138	250	0934-G	22.1318 dpm/ml	04/28/2009	04/28/2010
07/31/2009	Mary Aders	2.579	250	0934-H	22.7059 dpm/mL	07/31/2009	07/31/2010
09/16/2009	Mary Aders	2.5029	250	0934-I	22.0359 dpm/mL	09/16/2009	09/16/2010
10/21/2009	Mary Aders	2.4847	250	0934-J	21.8756 dpm/mL	10/21/2009	10/21/2010
12/02/2009	Ashley Drochter	5.0356	500	0934-K	22.167 dpm/mL	12/02/2009	12/02/2010
03/09/2010	Ashley Drochter	5.0236	500	0934-L	22.1142 dpm/mL	03/09/2010	03/09/2011

Verification for Th-229 Standard 0934-L

ADROCHTER	Isotope	Value	Uncertainty
3/15/2010	0934-L	0.958	0.1630
	0934-L	1.020	0.2040
	0934-L	0.978	0.1550

Mean Value (Counting) =	0.985	98.95	**Pass**
Stdev =	0.031643851		**Rule 3 (Pass/Fail)**

Target =	0.996
Lower Limit =	0.92204563
Upper Limit =	1.048621036
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.063287703
10 % of Mean =	0.098533333
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard 0934-L using 0.1 mL for each source. Each standard was combined with 0.1 mL of Th-230 standard A2796-J and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Two mL of 49% HF was added to precipitate neodymium(and Thorium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Th-229 were calculated by comparison to Th-230 certified values.

3/18/10

3/18/10

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

Laboratory

ANALYTICS
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1380 Seaboard Industrial Blvd.
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ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result	
	Mixed Gamma N1	2534	pCi/L - VER-JAR-1
	Mixed Gamma N2	2510	pCi/L - VER-JAR-3
	Mixed Gamma N3	2413	pCi/L - VER-JAR-5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**
Stdev =	64.065		**Rule 3 (Pass/Fail)**
Certificate Value =	2485.68018	pCi/L	
Lower Limit =	2357.536524	pCi/L	
Upper Limit =	2613.796809	pCi/L	
Rule 1 (Pass/Fail)	**Pass**		
Two sigma =	128.1301422		
10 % of Mean =	248.56666667		
Rule 2 (Pass/Fail)	**Pass**		

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2

Mean Value (Counting) =	886.90	**95.01**	**Pass**
Stdev =	28.651	**Rule 3 (Pass/Fail)**	

Certificate Value =	933.44144	pCi/L
Lower Limit =	829.597644	pCi/L
Upper Limit =	944.202356	pCi/L
Rule 1 (Pass/Fail)	**Pass**	
Two sigma =	57.30235597	
10 % of Mean =	88.69000000	
Rule 2 (Pass/Fail)	**Pass**	

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result	
	Mixed Gamma N1	1572	pCi/L - VER-JAR-5
	Mixed Gamma N2	1495	pCi/L - VER-JAR-2
	Mixed Gamma N3	1501	pCi/L - VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**
Stdev =	42.829	**Rule 3 (Pass/Fail)**	

Certificate Value =	1545.8378	pCi/L
Lower Limit =	1437.008431	pCi/L
Upper Limit =	1608.324902	pCi/L
Rule 1 (Pass/Fail)	**Pass**	
Two sigma =	85.65823564	
10 % of Mean =	152.26666667	
Rule 2 (Pass/Fail)	**Pass**	

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Pen

QUALITY CONTROL

Jan 3, 1994

Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ 1. STANDARD WIPE TEST

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 2. SOAK TEST

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 3. SOAK TEST -- BERYLLIUM WINDOW

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 4. GAS SOURCE TEST (Radioactive Gas)

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ 5. OTHER LEAK TEST

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 6. LEAK TEST NOT APPLICABLE

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	03/09/2010
Expiration Date:	03/09/2011
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Tara Sides	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/14/2009	09/14/2010
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/09/2010	Ashley Drochter	.011	1000	445-96-2-VV	22.7878 dpm/mL	03/09/2010	03/09/2011
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
03/23/2010	Ashley Drochter	.0163	1000	445-96-2-WW	33.7674 dpm/mL	03/23/2010	03/23/2011
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-VV*

A.Drochter	Isotope	Value	Uncertainty
3/15/2010	445-96-2-VV #1	1.040	0.1630
	445-96-2-VV #2	0.964	0.1480
	445-96-2-VV #3	0.970	0.1550

Mean Value (Counting) =	0.991	96.72	**Pass**
Stdev =	0.042253205		**Rule 3 (Pass/Fail)**

Target =	1.025
Lower Limit =	0.906826923
Upper Limit =	1.075839743
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.08450641
10 % of Mean =	0.099133333
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-VV*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

3/15/10

3/16/10

1430

NATIONAL PHYSICAL LABORATORY

Teddington Middlesex UK TW11 0LW Telephone +44 20 8977 3222

Certificate of Calibration

UKAS CALIBRATION 0478

PLUTONIUM-236 SOLUTION
R37-02

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

FOR:	GEL Laboratories LLC 2040 Savage Road Charleston, SC 29407 USA
FOR THE ATTENTION OF:	Mr Tim Winters
NPL PRODUCT CODE:	R37-02
IDENTIFICATION:	A09881
DESCRIPTION:	An aqueous solution of ^{236}Pu also containing 2 mol dm^{-3} of nitric acid. The solution is contained in a flame sealed ampoule of type Q and nominal volume 5 ml (squat) as defined in BS 795:1983.
DATE(S) OF CALIBRATION:	26 June 2009 to 1 July 2009
INTENDED USE:	Calibration of instruments for response to ^{236}Pu
STORAGE:	The material may be stored at room temperature in a suitably sealed container. Flame-sealed glass ampoules are recommended for long-term storage. Regulatory conditions may apply to the manner in which this material is stored.

RECEIVED 11/12/09 AM.

MEASUREMENTS

The samples were prepared by gravimetric dilution of a ^{236}Pu solution, which had been previously standardised using liquid scintillation counting. The accuracy of the dilution factor was checked using liquid scintillation counting.

Reference: 2009100356

Date of Issue: 4 November 2009

Checked by:

Signed:

Name: Dr Arvic Harms

(Authorised Signatory)

for Managing Director

RESULTS

Principal radionuclide:	^{236}Pu
Reference time:	2009-07-01 12:00 UTC
Activity concentration of principal radionuclide:	170.8 Bq g^{-1}
Expanded uncertainty:	±0.6 Bq g^{-1} (±0.36 %)
Contaminants present:	^{226}Ra, ^{232}U, ^{228}Th, ^{237}Np
Activity concentration of ^{226}Ra:	11.0 mBq g^{-1}
Expanded uncertainty:	±4.0 mBq g^{-1} (±36 %)
Activity concentration of ^{232}U:	0.67 Bq g^{-1}
Expanded uncertainty:	±0.12 Bq g^{-1} (±18 %)
Activity concentration of ^{228}Th:	11.38 mBq g^{-1}
Expanded uncertainty:	±0.46 mBq g^{-1} (±4 %)
Activity concentration of ^{237}Np:	5.00 mBq g^{-1}
Expanded uncertainty:	±0.34 mBq g^{-1} (±8 %)
Sample Mass:	4.97 g ± 0.02 g

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

NOTES

[1]. The reported reference time is stated consistent with the format given in ISO 8601:2004. UTC is the abbreviation for Universal Time, Coordinated. The date is stated in the format YYYY-MM-DD such that 2008-09-01 represents 1 September 2008.

[2]. The recommended half life of ^{236}Pu is 1044 (6) days and is taken from the evaluations published in *Nuclear Data Sheets*.

[3]. The recommended half life of ^{226}Ra is 5.844 (50) × 10^5 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[4]. The recommended half life of ^{232}U is 25800 (800) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[5]. The recommended half life of ^{237}Np is 7.83 (6) × 10^8 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[6]. The recommended half life of ^{228}Th is 698.60 (46) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Checked by:

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1430
Prepared By:	Ashley Drochter
Carrier Conc:	2 M HNO3
Reference Date:	07/01/2009
Ampoule Mass (g):	4.97 g
Uncertainty:	+/- .36 %
LogBook No:	RC-S-051-149

A Solution Material Info	
Isotope:	Plutonium-236
Prepared By:	Ashley Drochter
Prep Date:	01/27/2010
Verification Date:	01/27/2010
Expiration Date:	01/27/2011
Primary Code:	1430-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8051 g
Density(g/mL):	1.0610
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (100 mL) = 492.4266 dpm/mL
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (1.0610 g/mL) / (100 mL) = 464.1156 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/27/2010	Bethany Fiem	33.0429	200	1430-B	76.6786262 dpm/mL	01/27/2010	01/27/2011
03/04/2010	Ashley Drochter	15.2331	200	1430-C	35.3496 dpm/mL	03/04/2010	03/04/2011
03/17/2010	Ashley Drochter	15.0683	200	1430-D	34.9672 dpm/mL	03/17/2010	03/17/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-236 Standard 1430-C

	Isotope	Value	Uncertainty
A. Drochter	1430-C	2.760	0.4480
3/4/2010	1430-C	2.770	0.4520
	1430-C	2.950	0.4850
Mean Value (Counting) =	2.827	104.54659	% of Known Value
Stdev =	0.106926766		
Target =	2.70		
Lower Limit =	2.612813134		
Upper Limit =	3.040520199		
Rule 1 Pass/Fail	Pass	Pass	Pass
Two sigma =	0.213853532		
10 % of Mean =	0.282666667		
Rule 2 (Pass/Fail)	Pass		

The analyst prepared three standard verification sources for standard 1430-B using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. After approximately ten minutes, two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-236 were calculated by comparison to Pu-239 certified values.

3/5/10

3/5/10

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: W. Mao, Radiochemist

QA Approved: D. M. Montgomery, QA Manager Date: 12-11-08

RECEIVED 12/15/08
RC-S-OE

End of Certificate

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	Serial #	Value		Uncertainty	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter AD 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 962633**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248860001	SAMPLE	MXR1	GAM15	24-MAR-10 16:15	DONE	CAN	03-FEB-10 00:00
248860002	SAMPLE	MXR1	GAM18	24-MAR-10 16:15	DONE	CAN	23-APR-09 00:00
248860003	SAMPLE	MXR1	GAM22	24-MAR-10 16:15	DONE	CAN	02-DEC-09 00:00
248860004	SAMPLE	MXR1	GAM23	24-MAR-10 16:16	DONE	CAN	02-JUN-09 00:00
248860005	SAMPLE	MXR1	GAM25	24-MAR-10 16:16	DONE	CAN	07-OCT-09 00:00
248860006	SAMPLE	MXR1	GAM02	24-MAR-10 16:27	DONE	CAN	29-OCT-09 00:00
248860007	SAMPLE	MXR1	GAM05	24-MAR-10 16:27	DONE	CAN	11-JUN-09 00:00
248860008	SAMPLE	MXR1	GAM10	24-MAR-10 16:28	DONE	CAN	13-MAR-10 00:00
248860009	SAMPLE	MXR1	GAM12	24-MAR-10 16:28	DONE	CAN	25-FEB-10 00:00
248863001	SAMPLE	MXR1	GAM15	24-MAR-10 18:28	DONE	CAN	03-FEB-10 00:00
248863002	SAMPLE	MXR1	GAM22	24-MAR-10 18:28	DONE	CAN	02-DEC-09 00:00
248863003	SAMPLE	MXR1	GAM23	24-MAR-10 18:29	DONE	CAN	02-JUN-09 00:00
248863004	SAMPLE	MXR1	GAM04	24-MAR-10 20:31	DONE	CAN	05-MAY-09 00:00
248865001	SAMPLE	MXR1	GAM07	24-MAR-10 20:31	DONE	CAN	20-JUL-09 00:00
248866001	SAMPLE	MXR1	GAM15	24-MAR-10 20:32	DONE	CAN	03-FEB-10 00:00
248866002	SAMPLE	MXR1	GAM17	24-MAR-10 20:32	DONE	CAN	06-JAN-10 00:00
248867001	SAMPLE	MXR1	GAM29	24-MAR-10 20:33	DONE	CAN	23-FEB-10 00:00
248867002	SAMPLE	MXR1	GAM22	24-MAR-10 20:37	DONE	CAN	02-DEC-09 00:00
248867003	SAMPLE	MXR1	GAM05	24-MAR-10 20:51	DONE	CAN	11-JUN-09 00:00
248867004	SAMPLE	MXR1	GAM15	24-MAR-10 22:58	DONE	CAN	03-FEB-10 00:00
1202065188	MB	MXR1	GAM29	24-MAR-10 22:59	DONE	CAN	23-FEB-10 00:00
1202065189	DUP	MXR1	GAM21	24-MAR-10 23:00	DONE	CAN	28-JUL-09 00:00
1202065190	LCS	MXR1	GAM22	25-MAR-10 09:16	DONE	CAN	02-DEC-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 962716**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202065373	LCS	MXE1	1234	23-MAR-10 09:05	DONE		
248866001	SAMPLE	MXE1	1235	23-MAR-10 13:34	DONE		
248866002	SAMPLE	MXE1	1236	23-MAR-10 13:34	DONE		
1202065371	MB	MXE1	1237	23-MAR-10 13:34	DONE		
1202065372	DUP	MXE1	1238	23-MAR-10 13:35	DONE		
248863002	SAMPLE	MXE1	1239	23-MAR-10 13:35	DONE		
248863003	SAMPLE	MXE1	1240	23-MAR-10 13:35	DONE		
248863004	SAMPLE	MXE1	1241	23-MAR-10 13:35	DONE		
248865001	SAMPLE	MXE1	1242	23-MAR-10 13:35	DONE		
248800001	SAMPLE	MXE1	1228	23-MAR-10 21:41	DONE		
248800002	SAMPLE	MXE1	1229	23-MAR-10 21:41	DONE		
248800003	SAMPLE	MXE1	1230	23-MAR-10 21:41	DONE		
248800004	SAMPLE	MXE1	1231	23-MAR-10 21:41	DONE		
248800005	SAMPLE	MXE1	1232	23-MAR-10 21:41	DONE		
248800006	SAMPLE	MXE1	1233	23-MAR-10 21:41	DONE		
248800007	SAMPLE	MXE1	1234	23-MAR-10 21:41	DONE		
248800008	SAMPLE	MXE1	1209	24-MAR-10 08:04	DONE		
248800009	SAMPLE	MXE1	1210	24-MAR-10 08:04	DONE		
248800010	SAMPLE	MXE1	1211	24-MAR-10 08:04	DONE		
248800011	SAMPLE	MXE1	1216	24-MAR-10 08:04	DONE		
248800012	SAMPLE	MXE1	1217	24-MAR-10 08:04	DONE		
248863001	SAMPLE	MXE1	1218	24-MAR-10 08:04	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 962718**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202065378	MB	MXE1	1096	24-MAR-10 10:20	DONE		
1202065379	DUP	MXE1	1097	24-MAR-10 10:20	DONE		
1202065380	LCS	MXE1	1098	24-MAR-10 10:20	DONE		
248863003	SAMPLE	MXE1	1107	24-MAR-10 11:26	DONE		
248863004	SAMPLE	MXE1	1108	24-MAR-10 11:26	DONE		
248865001	SAMPLE	MXE1	1109	24-MAR-10 11:26	DONE		
248866001	SAMPLE	MXE1	1111	24-MAR-10 11:26	DONE		
248866002	SAMPLE	MXE1	1112	24-MAR-10 11:26	DONE		
248800001	SAMPLE	MXE1	1013	24-MAR-10 16:31	DONE		
248800002	SAMPLE	MXE1	1014	24-MAR-10 16:31	DONE		
248800003	SAMPLE	MXE1	1016	24-MAR-10 16:31	DONE		
248800004	SAMPLE	MXE1	1017	24-MAR-10 16:31	DONE		
248800005	SAMPLE	MXE1	1018	24-MAR-10 16:31	DONE		
248800006	SAMPLE	MXE1	1019	24-MAR-10 16:31	DONE		
248800007	SAMPLE	MXE1	1020	24-MAR-10 16:31	DONE		
248800008	SAMPLE	MXE1	1022	24-MAR-10 16:31	DONE		
248800009	SAMPLE	MXE1	1023	24-MAR-10 16:31	DONE		
248800010	SAMPLE	MXE1	1024	24-MAR-10 16:31	DONE		
248800011	SAMPLE	MXE1	1101	24-MAR-10 16:31	DONE		
248800012	SAMPLE	MXE1	1102	24-MAR-10 16:31	DONE		
248863001	SAMPLE	MXE1	1103	24-MAR-10 16:31	DONE		
248863002	SAMPLE	MXE1	1105	24-MAR-10 16:31	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 962721**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248800001	SAMPLE	MXE1	1115	24-MAR-10 11:54	DONE		
248800002	SAMPLE	MXE1	1116	24-MAR-10 11:54	DONE		
248800003	SAMPLE	MXE1	1145	24-MAR-10 11:55	DONE		
248800004	SAMPLE	MXE1	1146	24-MAR-10 11:55	DONE		
248800005	SAMPLE	MXE1	1147	24-MAR-10 11:55	DONE		
248800006	SAMPLE	MXE1	1148	24-MAR-10 11:55	DONE		
248800007	SAMPLE	MXE1	1149	24-MAR-10 11:55	DONE		
248800008	SAMPLE	MXE1	1150	24-MAR-10 11:55	DONE		
248866002	SAMPLE	MXE1	1003	24-MAR-10 11:55	DONE		
1202065398	MB	MXE1	1004	24-MAR-10 11:55	DONE		
1202065399	DUP	MXE1	1005	24-MAR-10 11:55	DONE		
1202065400	LCS	MXE1	1006	24-MAR-10 11:55	DONE		
248800009	SAMPLE	MXE1	1151	24-MAR-10 11:55	DONE		
248800010	SAMPLE	MXE1	1152	24-MAR-10 11:55	DONE		
248800011	SAMPLE	MXE1	1153	24-MAR-10 11:55	DONE		
248800012	SAMPLE	MXE1	1154	24-MAR-10 11:55	DONE		
248863001	SAMPLE	MXE1	1155	24-MAR-10 11:55	DONE		
248863002	SAMPLE	MXE1	1156	24-MAR-10 11:55	DONE		
248863003	SAMPLE	MXE1	1157	24-MAR-10 11:55	DONE		
248863004	SAMPLE	MXE1	1158	24-MAR-10 11:55	DONE		
248865001	SAMPLE	MXE1	1159	24-MAR-10 11:55	DONE		
248866001	SAMPLE	MXE1	1160	24-MAR-10 11:55	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965814**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248824001	SAMPLE	AYB1	1173	27-MAR-10 13:52	DUSE		
248824002	SAMPLE	AYB1	1174	27-MAR-10 13:52	DUSE		
248863001	SAMPLE	AYB1	1177	27-MAR-10 13:52	DUSE		
248863002	SAMPLE	AYB1	1178	27-MAR-10 13:52	DUSE		
248863003	SAMPLE	AYB1	1179	27-MAR-10 13:52	DUSE		
248863004	SAMPLE	AYB1	1180	27-MAR-10 13:52	DUSE		
248865001	SAMPLE	AYB1	1181	27-MAR-10 13:52	DUSE		
248867001	SAMPLE	AYB1	1182	27-MAR-10 13:52	DUSE		
248867002	SAMPLE	AYB1	1183	27-MAR-10 13:52	DUSE		
248867003	SAMPLE	AYB1	1184	27-MAR-10 13:52	DUSE		
248867004	SAMPLE	AYB1	1185	27-MAR-10 13:52	DUSE		
249179001	SAMPLE	AYB1	1186	27-MAR-10 13:52	DUSE		
249179002	SAMPLE	AYB1	1187	27-MAR-10 13:53	DUSE		
249179003	SAMPLE	AYB1	1188	27-MAR-10 13:53	DUSE		
249179004	SAMPLE	AYB1	1189	27-MAR-10 13:53	DUSE		
249179005	SAMPLE	AYB1	1190	27-MAR-10 13:53	DUSE		
249179006	SAMPLE	AYB1	1191	27-MAR-10 13:53	DUSE		
249179007	SAMPLE	AYB1	1192	27-MAR-10 13:53	DUSE		
1202072528	MB	AYB1	1193	27-MAR-10 13:53	DUSE		
1202072529	DUP	AYB1	1194	27-MAR-10 13:53	DUSE		
1202072530	LCS	AYB1	1195	27-MAR-10 13:53	DUSE		
248824001	SAMPLE	AYB1	1173	29-MAR-10 17:05	DONE		
248824002	SAMPLE	AYB1	1174	29-MAR-10 17:05	DONE		
248863001	SAMPLE	AYB1	1177	29-MAR-10 17:05	DONE		
248863002	SAMPLE	AYB1	1178	29-MAR-10 17:05	DONE		
248863003	SAMPLE	AYB1	1179	29-MAR-10 17:05	DONE		
248863004	SAMPLE	AYB1	1180	29-MAR-10 17:05	DONE		
248865001	SAMPLE	AYB1	1181	29-MAR-10 17:05	DONE		
248867001	SAMPLE	AYB1	1182	29-MAR-10 17:05	DONE		
248867002	SAMPLE	AYB1	1183	29-MAR-10 17:05	DONE		
248867003	SAMPLE	AYB1	1184	29-MAR-10 17:05	DONE		
248867004	SAMPLE	AYB1	1185	29-MAR-10 17:05	DONE		
249179001	SAMPLE	AYB1	1186	29-MAR-10 17:05	DONE		
249179002	SAMPLE	AYB1	1187	29-MAR-10 17:05	DONE		
249179003	SAMPLE	AYB1	1188	29-MAR-10 17:05	DONE		
249179004	SAMPLE	AYB1	1189	29-MAR-10 17:05	DONE		
249179005	SAMPLE	AYB1	1190	29-MAR-10 17:06	DONE		
249179006	SAMPLE	AYB1	1191	29-MAR-10 17:06	DONE		
249179007	SAMPLE	AYB1	1192	29-MAR-10 17:06	DONE		
1202072528	MB	AYB1	1193	29-MAR-10 17:06	DONE		
1202072529	DUP	AYB1	1194	29-MAR-10 17:06	DONE		
1202072530	LCS	AYB1	1195	29-MAR-10 17:06	DONE		

Friday, March 12, 2010

REQUEST NUMBER: 10-2434

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2434
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-12994	W	3/11/2010	
		1	RE46-10-12997	W	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	SW-846:6020	1	RE46-10-12994	W	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2434

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE46-10-12997	W	3/11/2010	
	SW-846:6850	1	RE46-10-12994	W	3/11/2010	
		1	RE46-10-12997	W	3/11/2010	
	SW-846:9012A	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-12994	W	3/11/2010	
		1	RE46-10-12997	W	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2434

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2434C

REQUEST NUMBER: 10-2434

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-12997	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-12997	1	POLY	SW-846:6850	Ice	W
RE46-10-12997	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-12994	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-12994	1	POLY	SW-846:6850	Ice	W
RE46-10-12994	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-12972	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13003	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12967	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12971	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12968	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12969	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12970	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
	3/12/10	3:00			
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12997 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		0914	SUB-MEDIA:	OTHER	
PRS ID:	46-004(q)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-~~611501~~ 611503 HD 3-11-10	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0	HD 0 1'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	3-11-10 1' 2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH <2
1		SW-846:6850	250 ML POLY	Ice	Y	~~pH~~ 3/11/10
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH >12

SAMPLE DESC: QC Sample of RE46-10-12997 72 HD 3-11-10

SAMPLE COMMENTS: NA

LOCATION DESC: 4q-3

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Sbendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature)	3/11/10 1650	(Printed Name) (Signature)	3/11/10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12994 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1415	SUB-MEDIA:	OTHER	
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46611503	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	~~1'~~ 0' 1'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	~~2'~~ 1' 2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	<2 pH
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	>12 ~~pH~~ pH

SAMPLE DESC: QC Sample of RE 46-10-12972 pH 3/11/10

SAMPLE COMMENTS: NA

LOCATION DESC: 49-3

FIELD SCREENING/MEASUREMENT RESULTS: MR 2/10/10 ~~B~~ NA

COLLECTED BY (PRINT) ~~D. Thomas~~ M. Nauck

REVIEWED BY (PRINT) Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature)	3/11/10 1650	(Printed Name) (Signature)	3/11/10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-13003 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1350	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	46-611503	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-12972

SAMPLE COMMENTS: NA

LOCATION DESC: 49-3

FIELD SCREENING/MEASUREMENT RESULTS: Background Samples < MDA

PID: 1.0ppm α: 7 DPM β: 906

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/11/10 1650	(Printed Name)	3/11/10 1650
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12970 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1100	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	46-611502		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Brown sandy sediment 5YR 5/4

SAMPLE COMMENTS: O.M. present

LOCATION DESC: 4q-2

FIELD SCREENING/MEASUREMENT RESULTS: Background samples < MDA

PID: 0.2ppm α: 7 β: 906 DPM

COLLECTED BY (PRINT) ~~D. Thomas~~ 3-11-10 M. Lovick **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Lovick (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12972 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1350	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	46-611503		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Pinkish gray weathered tuff 5YR 6/2

SAMPLE COMMENTS: Roots present

LOCATION DESC: 4q-3

FIELD SCREENING/MEASUREMENT RESULTS: Background samples < MDA

PID: 0.6 ppm α: 7 β: 906 DPM

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/11/10	(Printed Name)	3/11/10
(Signature)	1650	(Signature)	1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12971 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1342	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	ok	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611503	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO (NA)

BOREHOLE: YES / NO (NA) **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Dark reddish brown sandy sediment. 5YR 3/4

SAMPLE COMMENTS: NA

LOCATION DESC: 4q-3

FIELD SCREENING/MEASUREMENT RESULTS: Background samples < MDA

PID: 1.0 ppm

α: 7 dpm DPM

β: 906

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/10/10 1650	(Printed Name)	3/11/10 1650
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12968 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		0945	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611501	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Pinkish gray weathered tuff + sediment 5YR 8/2

SAMPLE COMMENTS: Plant roots

LOCATION DESC: 4q-1

FIELD SCREENING/MEASUREMENT RESULTS: Background Samples < MDA

PID: 3.9ppm α: 7 β: 906 DPM

COLLECTED BY (PRINT) M. Shendo REVIEWED BY (PRINT) [signature]

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [signature] (Signature)	3-11-10 1650	(Printed Name) (Signature) [signature]	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12969 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1055 3-11-10	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611502	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: ~~Gray~~ Brown sandy sediment 5YR 5/4 3-11-10

SAMPLE COMMENTS: O.M. present

LOCATION DESC: 4q-2

FIELD SCREENING/MEASUREMENT RESULTS: Background samples <MDA

PID: 0.7 ppm α: 7 β: 906 DPM

COLLECTED BY (PRINT) J. Romero REVIEWED BY (PRINT) M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12967 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		0915	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611501	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Silty sediment 7.5 YR 4/3 Dark Brown

SAMPLE COMMENTS: roots + O.M. present

LOCATION DESC: Aq-1

FIELD SCREENING/MEASUREMENT RESULTS: Background samples <MDA

PID: 10.7ppm α: 7 β: 906 DPM

COLLECTED BY (PRINT) ~~D. Thomas~~ M. Vauck REVIEWED BY (PRINT) Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Vauck	3-11-10 1650	(Printed Name)	3/11/10 4:50
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-13000 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		~~1445~~ 1350	SUB-MEDIA:	OTHER	
PRS ID:	46-004(q)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611503	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	mr 2/10/10	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	2/10/10	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	2 mr 2/10/10	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of 46-10-12972

SAMPLE COMMENTS: NA

LOCATION DESC: 49-3

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) ~~M. Rawls~~ H. Lack **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/11/10	(Printed Name)	3/11/10
(Signature)	1650	(Signature)	1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2434 VALIDATION DATE: 06/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD for the water samples was performed on a field QC sample. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 06/09/10

VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 06/09/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☒	☐	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 966565

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE46-10-12997

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333001

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	28-MAR-10 02:36	per0327082a
	Perchlorate Isotope Ratio						1	28-MAR-10 02:36	per0327082a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	28-MAR-10 02:36	per0327082a
	Perchlorate-O(18)			0.463	ug/L		1	28-MAR-10 02:36	per0327082a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 966565

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE46-10-12994

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333002

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	28-MAR-10 03:05	per0327085a
	Perchlorate Isotope Ratio						1	28-MAR-10 03:05	per0327085a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	28-MAR-10 03:05	per0327085a
	Perchlorate-O(18)			0.467	ug/L		1	28-MAR-10 03:05	per0327085a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12972

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333003

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.57	2.28	0.570	ug/kg	U	1	30-MAR-10 22:00	per0330082a
	Perchlorate Isotope Ratio						1	30-MAR-10 22:00	per0330082a
14797-73-0	Perchlorate-101	.57	2.28	0.570	ug/kg	U	1	30-MAR-10 22:00	per0330082a
	Perchlorate-O(18)			5.59	ug/kg		1	30-MAR-10 22:00	per0330082a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13003

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333004

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.565	2.26	0.565	ug/kg	U	1	30-MAR-10 22:25	per0330085a
	Perchlorate Isotope Ratio						1	30-MAR-10 22:25	per0330085a
14797-73-0	Perchlorate-101	.565	2.26	0.565	ug/kg	U	1	30-MAR-10 22:25	per0330085a
	Perchlorate-O(18)			5.54	ug/kg		1	30-MAR-10 22:25	per0330085a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12967

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333005

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.631	2.52	1.66	ug/kg	J	1	30-MAR-10 22:33	per0330086a
	Perchlorate Isotope Ratio			3.2			1	30-MAR-10 22:33	per0330086a
14797-73-0	Perchlorate-101	.631	2.52	1.67	ug/kg	J	1	30-MAR-10 22:33	per0330086a
	Perchlorate-O(18)			6.39	ug/kg		1	30-MAR-10 22:33	per0330086a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46–10–12971

Date Received: 13–MAR–10

GEL Job No (SDG): 10–2434

GEL Sample ID: 249333006

Date Filtered: 22–MAR–10

Injection Volume (uL): 20

%Solids: 78

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.639	2.56	0.639	ug/kg	U	1	30–MAR–10 22:41	per0330087a
	Perchlorate Isotope Ratio						1	30–MAR–10 22:41	per0330087a
14797–73–0	Perchlorate–101	.639	2.56	0.639	ug/kg	U	1	30–MAR–10 22:41	per0330087a
	Perchlorate–O(18)			6.03	ug/kg		1	30–MAR–10 22:41	per0330087a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12968

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333007

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.558	2.23	0.603	ug/kg	J	1	30-MAR-10 22:49	per0330088a
	Perchlorate Isotope Ratio			3.09			1	30-MAR-10 22:49	per0330088a
14797-73-0	Perchlorate-101	.558	2.23	0.628	ug/kg	J	1	30-MAR-10 22:49	per0330088a
	Perchlorate-O(18)			5.32	ug/kg		1	30-MAR-10 22:49	per0330088a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46–10–12969

Date Received: 13–MAR–10

GEL Job No (SDG): 10–2434

GEL Sample ID: 249333008

Date Filtered: 22–MAR–10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.571	2.28	0.571	ug/kg	U	1	30–MAR–10 22:57	per0330089a
	Perchlorate Isotope Ratio						1	30–MAR–10 22:57	per0330089a
14797–73–0	Perchlorate–101	.571	2.28	0.571	ug/kg	U	1	30–MAR–10 22:57	per0330089a
	Perchlorate–O(18)			5.35	ug/kg		1	30–MAR–10 22:57	per0330089a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12970

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333009

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.591	2.36	0.591	ug/kg	U	1	30-MAR-10 23:05	per0330090a
	Perchlorate Isotope Ratio						1	30-MAR-10 23:05	per0330090a
14797-73-0	Perchlorate-101	.591	2.36	0.591	ug/kg	U	1	30-MAR-10 23:05	per0330090a
	Perchlorate-O(18)			5.65	ug/kg		1	30-MAR-10 23:05	per0330090a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2434 VALIDATION DATE: 06/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the MB associated with the water samples, Sb was detected. The associated sample results were NDs and, thus, were not qualified. In the MB associated with the soil samples, K, Tl, and Cr were detected. The associated sample results for Tl were NDs and, thus, were not qualified. The results for Cr in all soil samples and K in samples RE46-10-13003, -12971, -12968, and -12969 were >5X but ≤50X the MB concentrations and, thus, were qualified J,I4a. All other associated sample results were >50X the MB concentrations and, thus, were not qualified based on professional judgment.
2. In the CCB associated with the water samples, K was detected. The associated result for sample -12994 was a detect ≤5X the CCB concentration and, thus, was qualified U,I4b. The associated result for sample -12997 was an ND and, thus, was not qualified. In the ICB and/or CCBs associated with the soil samples, Tl, Be, and K were detected. The associated sample results for Tl were NDs and, thus, were not qualified. The Be result for sample -12969 was a detect ≤5X the blank concentration and, thus, was qualified U,I4b. All other associated sample results were >5X the blank concentrations and, thus, were not qualified.
3. In the FB, sample -12997 associated with samples -12971, -12972, and -13003, Ba was detected. The associated sample results were >5X the FB concentration and, thus, were not qualified. In the FR blank, sample -12994, associated with all soil samples, Al, Ca, Fe, Pb, and Mn were detected. The associated sample results were >5X the FR blank concentrations and, thus, were not qualified.
4. The soil MS %R was < the laboratory LAL but ≥10% for Mn. The associated sample results were detects and, thus, were qualified J-,I6a. The soil MS %Rs were > the laboratory UAL for Mg and K. The associated sample results

were detects and, thus, were qualified J+,I6b. The soil MS %Rs were also > the laboratory UAL for Al, Fe and Hg, however, the sample concentrations were >4X the spike concentrations. Data were not qualified, based on professional judgment.

5. The soil duplicate RPD was >35% for Hg and the parent and duplicate sample results were ≥5X the PQL. The associated sample results were detects and, thus, were qualified J,I10a.
6. It should be noted that the water matrix QC for all analyses and the soil matrix QC for CVAA were performed on LANL samples from other RNs. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 06/09/10

VALIDATOR'S SIGNATURE: [signature] DATE: 06/09/10

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2434 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249333001 **BASIS:** As Received **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-12997 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	04/01/10 15:49	040110-1	965619
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BCD1	04/24/10 21:01	100424-5	965603
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 15:49	040110-1	965619
7440-39-3	Barium	1.05	ug/L	J	1	5	5	1	P	HSC	04/01/10 15:49	040110-1	965619
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BCD1	05/15/10 03:23	100514-6	979730
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BCD1	04/24/10 21:01	100424-5	965603
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	04/01/10 15:49	040110-1	965519
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 15:49	040110-1	965619
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 15:49	040110-1	965619
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	04/01/10 15:49	040110-1	965619
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	04/01/10 15:49	040110-1	965619
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BCD1	04/24/10 21:01	100424-5	965603
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	04/01/10 15:49	040110-1	965619
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BCD1	04/24/10 21:01	100424-5	965603
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/22/10 11:42	032210W1-10	967115
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	04/01/10 15:49	040110-1	965619
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	04/01/10 15:49	040110-1	965619
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 15:49	040110-1	965619
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 15:49	040110-1	965619
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	04/01/10 15:49	040110-1	965619
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BCD1	04/24/10 21:01	100424-5	965603
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 15:49	040110-1	965619
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	04/01/10 15:49	040110-1	965619

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965603	965602	SW846 3005A	50	mL	50	mL	03/26/10	LYH1
965619	965618	SW846 3005A	50	mL	50	mL	03/31/10	LYH1
967115	967111	SW846 7470A Prep	20	mL	20	mL	03/19/10	TXB3
979730	979729	SW846 3005A	50	mL	50	mL	04/30/10	LYH1

EJN
06/09

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2434 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249333002 **BASIS:** As Received **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-12994 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	169	ug/L	J	68	200	200	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BCD1	04/24/10 21:07	100424-5	965603
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BCD1	05/15/10 03:41	100514-6	979730
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BCD1	04/24/10 21:07	100424-5	965603
7440-70-2	Calcium	59.5	ug/L	J	50	200	200	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	04/01/10 16:28	040110-1	965619
7439-89-6	Iron	95.6	ug/L	J	30	100	100	1	P	HSC	04/01/10 16:28	040110-1	965619
7439-92-1	Lead	0.517	ug/L	J	0.5	2	2	1	MS	BCD1	04/24/10 21:07	100424-5	965603
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	04/01/10 16:28	040110-1	965619
7439-96-5	Manganese	2.67	ug/L	J	1	5	5	1	MS	BCD1	04/24/10 21:07	100424-5	965603
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/22/10 11:44	032210W1-10	967115
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-09-7	Potassium U,I4b	98.6	ug/L	J	50	150	150	1	P	HSC	04/01/10 16:28	040110-1	965619
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BCD1	04/24/10 21:07	100424-5	965603
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	04/01/10 16:28	040110-1	965619

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965603	965602	SW846 3005A	50	mL	50	mL	03/26/10	LYH1
965619	965618	SW846 3005A	50	mL	50	mL	03/31/10	LYH1
967115	967111	SW846 7470A Prep	20	mL	20	mL	03/19/10	TXB3
979730	979729	SW846 3005A	50	mL	50	mL	04/30/10	LYH1

EJI
06/09

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2434 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249333003 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-12972 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	3510000	ug/kg		7610	22400	22400	1	P	HSC	04/05/10 19:11	040510-2	965624
7440-36-0	Antimony	1120	ug/kg	U	369	1120	1120	1	P	HSC	04/05/10 19:11	040510-2	965624
7440-38-2	Arsenic	1570	ug/kg		223	1120	1120	2	MS	BCD1	05/16/10 09:09	100515-7	965627
7440-39-3	Barium	25200	ug/kg		112	560	560	1	P	HSC	04/05/10 19:11	040510-2	965624
7440-41-7	Beryllium	585	ug/kg		22.3	112	112	2	MS	PRB	05/18/10 08:52	100517-9	965627
7440-43-9	Cadmium	560	ug/kg	U	112	560	560	1	P	HSC	04/05/10 19:11	040510-2	965624
7440-70-2	Calcium	942000	ug/kg		8960	28000	28000	1	P	HSC	04/05/10 19:11	040510-2	965624
7440-47-3	Chromium J,I4a	11600	ug/kg	*	167	555	555	1	P	HSC	04/15/10 19:35	041510A-4	973755
7440-48-4	Cobalt	1290	ug/kg		168	560	560	1	P	HSC	04/05/10 19:11	040510-2	965624
7440-50-8	Copper	5400	ug/kg	*	333	1110	1110	1	P	HSC	04/15/10 19:35	041510A-4	973755
7439-89-6	Iron	8360000	ug/kg		8960	28000	28000	1	P	HSC	04/05/10 19:11	040510-2	965624
7439-92-1	Lead	12100	ug/kg		280	1120	1120	1	P	HSC	04/05/10 19:11	040510-2	965624
7439-95-4	Magnesium J+,I6b	576000	ug/kg	N	9520	33600	33600	1	P	HSC	04/05/10 19:11	040510-2	965624
7439-96-5	Manganese J-,I6a	213000	ug/kg	N	224	1120	1120	1	P	HSC	04/05/10 19:11	040510-2	965624
7439-97-6	Mercury J,I10a	2040	ug/kg		42.8	126	126	10	AV	JXL1	03/31/10 10:29	033110S1-11	969297
7440-02-0	Nickel	3500	ug/kg		112	446	446	2	MS	BCD1	05/16/10 09:09	100515-7	965627
7440-09-7	Potassium J+,I6b	419000	ug/kg	N	7170	28000	28000	1	P	HSC	04/05/10 19:11	040510-2	965624
7782-49-2	Selenium	1120	ug/kg	U	558	1120	1120	2	MS	BCD1	05/16/10 09:09	100515-7	965627
7440-22-4	Silver	560	ug/kg	U	112	560	560	1	P	HSC	04/05/10 19:11	040510-2	965624
7440-23-5	Sodium	128000	ug/kg		7840	28000	28000	1	P	HSC	04/05/10 19:11	040510-2	965624
7440-28-0	Thallium	223	ug/kg	U	66.9	223	223	2	MS	BCD1	05/16/10 09:09	100515-7	965627
7440-62-2	Vanadium	7110	ug/kg		112	560	560	1	P	HSC	04/05/10 19:11	040510-2	965624
7440-66-6	Zinc	46500	ug/kg		369	1120	1120	1	P	HSC	04/05/10 19:11	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.509	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.511	g	50	mL	03/31/10	LYH1
969297	969295	SW846 7471A Prep	0.543	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.513	g	50	mL	04/12/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2434 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249333004 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13003 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	2380000	ug/kg		6780	19900	19900	1	P	HSC	04/05/10 19:55	040510-2	965624
7440-36-0	Antimony	996	ug/kg	U	329	996	996	1	P	HSC	04/05/10 19:55	040510-2	965624
7440-38-2	Arsenic	1250	ug/kg		223	1120	1120	2	MS	BCD1	05/16/10 09:38	100515-7	965627
7440-39-3	Barium	17100	ug/kg		99.6	498	498	1	P	HSC	04/05/10 19:55	040510-2	965624
7440-41-7	Beryllium	487	ug/kg		22.3	112	112	2	MS	PRB	05/18/10 08:57	100517-9	965627
7440-43-9	Cadmium	498	ug/kg	U	99.6	498	498	1	P	HSC	04/05/10 19:55	040510-2	965624
7440-70-2	Calcium	672000	ug/kg		7970	24900	24900	1	P	HSC	04/05/10 19:55	040510-2	965624
7440-47-3	Chromium J,I4a	8720	ug/kg	*	169	563	563	1	P	HSC	04/15/10 21:59	041510A-4	973755
7440-48-4	Cobalt	884	ug/kg		149	498	498	1	P	HSC	04/05/10 19:55	040510-2	965624
7440-50-8	Copper	4960	ug/kg	*	338	1130	1130	1	P	HSC	04/15/10 21:59	041510A-4	973755
7439-89-6	Iron	6630000	ug/kg		7970	24900	24900	1	P	HSC	04/05/10 19:55	040510-2	965624
7439-92-1	Lead	9590	ug/kg		249	996	996	1	P	HSC	04/05/10 19:55	040510-2	965624
7439-95-4	Magnesium J+,I6b	398000	ug/kg	N	8470	29900	29900	1	P	HSC	04/05/10 19:55	040510-2	965624
7439-96-5	Manganese J-,I6a	168000	ug/kg	N	199	996	996	1	P	HSC	04/05/10 19:55	040510-2	965624
7439-97-6	Mercury J,I10a	1660	ug/kg		38.5	113	113	10	AV	JXL1	03/31/10 10:31	033110S1-11	969297
7440-02-0	Nickel	2870	ug/kg		112	447	447	2	MS	BCD1	05/16/10 09:38	100515-7	965627
7440-09-7	Potassium J,I4a	295000	ug/kg	N	6380	24900	24900	1	P	HSC	04/05/10 19:55	040510-2	965624
7782-49-2	Selenium	1120	ug/kg	U	558	1120	1120	2	MS	BCD1	05/16/10 09:38	100515-7	965627
7440-22-4	Silver	498	ug/kg	U	99.6	498	498	1	P	HSC	04/05/10 19:55	040510-2	965624
7440-23-5	Sodium	104000	ug/kg		6980	24900	24900	1	P	HSC	04/05/10 19:55	040510-2	965624
7440-28-0	Thallium	223	ug/kg	U	67	223	223	2	MS	BCD1	05/16/10 09:38	100515-7	965627
7440-62-2	Vanadium	5540	ug/kg		99.6	498	498	1	P	HSC	04/05/10 19:55	040510-2	965624
7440-66-6	Zinc	37300	ug/kg		329	996	996	1	P	HSC	04/05/10 19:55	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.567	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.506	g	50	mL	03/31/10	LYH1
969297	969295	SW846 7471A Prep	0.598	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.502	g	50	mL	04/12/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2434 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249333005 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-12967 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	2340000	ug/kg		8540	25100	25100	1	P	HSC	04/05/10 19:57	040510-2	965624
7440-36-0	Antimony	1260	ug/kg	U	415	1260	1260	1	P	HSC	04/05/10 19:57	040510-2	965624
7440-38-2	Arsenic	1390	ug/kg		245	1230	1230	2	MS	BCD1	05/16/10 09:42	100515-7	965627
7440-39-3	Barium	47800	ug/kg		126	628	628	1	P	HSC	04/05/10 19:57	040510-2	965624
7440-41-7	Beryllium	290	ug/kg		24.5	123	123	2	MS	PRB	05/18/10 08:58	100517-9	965627
7440-43-9	Cadmium	1060	ug/kg		126	628	628	1	P	HSC	04/05/10 19:57	040510-2	965624
7440-70-2	Calcium	2610000	ug/kg		10100	31400	31400	1	P	HSC	04/05/10 19:57	040510-2	965624
7440-47-3	Chromium J,I4a	5890	ug/kg	*	171	570	570	1	P	HSC	04/15/10 22:05	041510A-4	973755
7440-48-4	Cobalt	1440	ug/kg		188	628	628	1	P	HSC	04/05/10 19:57	040510-2	965624
7440-50-8	Copper	38300	ug/kg	*	342	1140	1140	1	P	HSC	04/15/10 22:05	041510A-4	973755
7439-89-6	Iron	6010000	ug/kg		10100	31400	31400	1	P	HSC	04/05/10 19:57	040510-2	965624
7439-92-1	Lead	32300	ug/kg		314	1260	1260	1	P	HSC	04/05/10 19:57	040510-2	965624
7439-95-4	Magnesium J+,I6b	646000	ug/kg	N	10700	37700	37700	1	P	HSC	04/05/10 19:57	040510-2	965624
7439-96-5	Manganese J-,I6a	241000	ug/kg	N	251	1260	1260	1	P	HSC	04/05/10 19:57	040510-2	965624
7439-97-6	Mercury J,I10a	456000	ug/kg		4770	14000	14000	1000	AV	JXL1	03/31/10 10:45	033110S1-11	969297
7440-02-0	Nickel	7520	ug/kg		123	491	491	2	MS	BCD1	05/16/10 09:42	100515-7	965627
7440-09-7	Potassium J+,I6b	627000	ug/kg	N	8040	31400	31400	1	P	HSC	04/05/10 19:57	040510-2	965624
7782-49-2	Selenium	1230	ug/kg	U	614	1230	1230	2	MS	BCD1	05/16/10 09:42	100515-7	965627
7440-22-4	Silver	244	ug/kg	J	126	628	628	1	P	HSC	04/05/10 19:57	040510-2	965624
7440-23-5	Sodium	63800	ug/kg		8790	31400	31400	1	P	HSC	04/05/10 19:57	040510-2	965624
7440-28-0	Thallium	245	ug/kg	U	73.6	245	245	2	MS	BCD1	05/16/10 09:42	100515-7	965627
7440-62-2	Vanadium	6900	ug/kg		126	628	628	1	P	HSC	04/05/10 19:57	040510-2	965624
7440-66-6	Zinc	126000	ug/kg		415	1260	1260	1	P	HSC	04/05/10 19:57	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.502	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.514	g	50	mL	03/31/10	LYH1
969297	969295	SW846 7471A Prep	0.539	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.553	g	50	mL	04/12/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2434 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249333006 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-12971 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 78

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	2050000	ug/kg		8200	24100	24100	1	P	HSC	04/05/10 19:59	040510-2	965624
7440-36-0	Antimony	1210	ug/kg	U	398	1210	1210	1	P	HSC	04/05/10 19:59	040510-2	965624
7440-38-2	Arsenic	1250	ug/kg	J	252	1260	1260	2	MS	BCD1	05/16/10 09:47	100515-7	965627
7440-39-3	Barium	28400	ug/kg		121	603	603	1	P	HSC	04/05/10 19:59	040510-2	965624
7440-41-7	Beryllium	296	ug/kg		25.2	126	126	2	MS	PRB	05/18/10 08:58	100517-9	965627
7440-43-9	Cadmium	929	ug/kg		121	603	603	1	P	HSC	04/05/10 19:59	040510-2	965624
7440-70-2	Calcium	1190000	ug/kg		9650	30200	30200	1	P	HSC	04/05/10 19:59	040510-2	965624
7440-47-3	Chromium J,I4a	5320	ug/kg	*	192	639	639	1	P	HSC	04/15/10 22:12	041510A-4	973755
7440-48-4	Cobalt	1270	ug/kg		181	603	603	1	P	HSC	04/05/10 19:59	040510-2	965624
7440-50-8	Copper	20200	ug/kg	*	384	1280	1280	1	P	HSC	04/15/10 22:12	041510A-4	973755
7439-89-6	Iron	8920000	ug/kg		9650	30200	30200	1	P	HSC	04/05/10 19:59	040510-2	965624
7439-92-1	Lead	30600	ug/kg		302	1210	1210	1	P	HSC	04/05/10 19:59	040510-2	965624
7439-95-4	Magnesium J+,I6b	417000	ug/kg	N	10300	36200	36200	1	P	HSC	04/05/10 19:59	040510-2	965624
7439-96-5	Manganese J-,I6a	206000	ug/kg	N	241	1210	1210	1	P	HSC	04/05/10 19:59	040510-2	965624
7439-97-6	Mercury J,I10a	13600	ug/kg		986	2900	2900	200	AV	JXL1	03/31/10 10:47	033110S1-11	969297
7440-02-0	Nickel	2700	ug/kg		126	504	504	2	MS	BCD1	05/16/10 09:47	100515-7	965627
7440-09-7	Potassium J,I4a	425000	ug/kg	N	7720	30200	30200	1	P	HSC	04/05/10 19:59	040510-2	965624
7782-49-2	Selenium	1260	ug/kg	U	630	1260	1260	2	MS	BCD1	05/16/10 09:47	100515-7	965627
7440-22-4	Silver	2840	ug/kg		121	603	603	1	P	HSC	04/05/10 19:59	040510-2	965624
7440-23-5	Sodium	89600	ug/kg		8440	30200	30200	1	P	HSC	04/05/10 19:59	040510-2	965624
7440-28-0	Thallium	252	ug/kg	U	75.7	252	252	2	MS	BCD1	05/16/10 09:47	100515-7	965627
7440-62-2	Vanadium	6060	ug/kg		121	603	603	1	P	HSC	04/05/10 19:59	040510-2	965624
7440-66-6	Zinc	143000	ug/kg		398	1210	1210	1	P	HSC	04/05/10 19:59	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.53	g	50	mL	03/31/10	LYHI
965627	965626	SW846 3050B	0.507	g	50	mL	03/31/10	LYHI
969297	969295	SW846 7471A Prep	0.529	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.5	g	50	mL	04/12/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2434 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249333007 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-12968 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Ba
7429-90-5	Aluminum	1810000	ug/kg		7460	21900	21900	1	P	HSC	04/05/10 20:02	040510-2	965624
7440-36-0	Antimony	1100	ug/kg	U	362	1100	1100	1	P	HSC	04/05/10 20:02	040510-2	965624
7440-38-2	Arsenic	1290	ug/kg		223	1110	1110	2	MS	BCD1	05/16/10 09:51	100515-7	965627
7440-39-3	Barium	28400	ug/kg		110	548	548	1	P	HSC	04/05/10 20:02	040510-2	965624
7440-41-7	Beryllium	341	ug/kg		22.3	111	111	2	MS	PRB	05/18/10 08:59	100517-9	965627
7440-43-9	Cadmium	309	ug/kg	J	110	548	548	1	P	HSC	04/05/10 20:02	040510-2	965624
7440-70-2	Calcium	1350000	ug/kg		8770	27400	27400	1	P	HSC	04/05/10 20:02	040510-2	965624
7440-47-3	Chromium J,I4a	5500	ug/kg	*	159	529	529	1	P	HSC	04/15/10 22:19	041510A-4	973755
7440-48-4	Cobalt	1600	ug/kg		165	548	548	1	P	HSC	04/05/10 20:02	040510-2	965624
7440-50-8	Copper	24500	ug/kg	*	317	1060	1060	1	P	HSC	04/15/10 22:19	041510A-4	973755
7439-89-6	Iron	5970000	ug/kg		8770	27400	27400	1	P	HSC	04/05/10 20:02	040510-2	965624
7439-92-1	Lead	49500	ug/kg		274	1100	1100	1	P	HSC	04/05/10 20:02	040510-2	965624
7439-95-4	Magnesium J+,I6b	357000	ug/kg	N	9320	32900	32900	1	P	HSC	04/05/10 20:02	040510-2	965624
7439-96-5	Manganese J-,I6a	254000	ug/kg	N	219	1100	1100	1	P	HSC	04/05/10 20:02	040510-2	965624
7439-97-6	Mercury J,I10a	824000	ug/kg		40200	118000	118000	10000	AV	JXL1	03/31/10 12:26	033110S1-11	969297
7440-02-0	Nickel	4040	ug/kg		111	446	446	2	MS	BCD1	05/16/10 09:51	100515-7	965627
7440-09-7	Potassium J,I4a	388000	ug/kg	N	7020	27400	27400	1	P	HSC	04/05/10 20:02	040510-2	965624
7782-49-2	Selenium	1110	ug/kg	U	557	1110	1110	2	MS	BCD1	05/16/10 09:51	100515-7	965627
7440-22-4	Silver	548	ug/kg	U	110	548	548	1	P	HSC	04/05/10 20:02	040510-2	965624
7440-23-5	Sodium	54500	ug/kg		7680	27400	27400	1	P	HSC	04/05/10 20:02	040510-2	965624
7440-28-0	Thallium	223	ug/kg	U	66.9	223	223	2	MS	BCD1	05/16/10 09:51	100515-7	965627
7440-62-2	Vanadium	5630	ug/kg		110	548	548	1	P	HSC	04/05/10 20:02	040510-2	965624
7440-66-6	Zinc	70500	ug/kg		362	1100	1100	1	P	HSC	04/05/10 20:02	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.509	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.501	g	50	mL	03/31/10	LYH1
969297	969295	SW846 7471A Prep	0.567	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.528	g	50	mL	04/12/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2434 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249333008 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-12969 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	1320000	ug/kg		7730	22700	22700	1	P	HSC	04/05/10 20:04	040510-2	965624
7440-36-0	Antimony	1140	ug/kg	U	375	1140	1140	1	P	HSC	04/05/10 20:04	040510-2	965624
7440-38-2	Arsenic	686	ug/kg	J	200	1000	1000	2	MS	BCD1	05/16/10 09:55	100515-7	965627
7440-39-3	Barium	17700	ug/kg		114	568	568	1	P	HSC	04/05/10 20:04	040510-2	965624
7440-41-7	Beryllium U,I4b	210	ug/kg		20	100	100	2	MS	PRB	05/18/10 09:00	100517-9	965627
7440-43-9	Cadmium	167	ug/kg	J	114	568	568	1	P	HSC	04/05/10 20:04	040510-2	965624
7440-70-2	Calcium	1100000	ug/kg		9090	28400	28400	1	P	HSC	04/05/10 20:04	040510-2	965624
7440-47-3	Chromium J,I4a	4280	ug/kg	*	150	501	501	1	P	HSC	04/15/10 22:26	041510A-4	973755
7440-48-4	Cobalt	862	ug/kg		171	568	568	1	P	HSC	04/05/10 20:04	040510-2	965624
7440-50-8	Copper	18100	ug/kg	*	301	1000	1000	1	P	HSC	04/15/10 22:26	041510A-4	973755
7439-89-6	Iron	6200000	ug/kg		9090	28400	28400	1	P	HSC	04/05/10 20:04	040510-2	965624
7439-92-1	Lead	22400	ug/kg		284	1140	1140	1	P	HSC	04/05/10 20:04	040510-2	965624
7439-95-4	Magnesium J+,I6b	365000	ug/kg	N	9660	34100	34100	1	P	HSC	04/05/10 20:04	040510-2	965624
7439-96-5	Manganese J-,I6a	110000	ug/kg	N	227	1140	1140	1	P	HSC	04/05/10 20:04	040510-2	965624
7439-97-6	Mercury J,I10a	989	ug/kg		43.2	127	127	10	AV	JXL1	03/31/10 12:51	033110S1-11	969297
7440-02-0	Nickel	1900	ug/kg		100	400	400	2	MS	BCD1	05/16/10 09:55	100515-7	965627
7440-09-7	Potassium J,I4a	268000	ug/kg	N	7280	28400	28400	1	P	HSC	04/05/10 20:04	040510-2	965624
7782-49-2	Selenium	1000	ug/kg	U	501	1000	1000	2	MS	BCD1	05/16/10 09:55	100515-7	965627
7440-22-4	Silver	568	ug/kg	U	114	568	568	1	P	HSC	04/05/10 20:04	040510-2	965624
7440-23-5	Sodium	80800	ug/kg		7960	28400	28400	1	P	HSC	04/05/10 20:04	040510-2	965624
7440-28-0	Thallium	200	ug/kg	U	60.1	200	200	2	MS	BCD1	05/16/10 09:55	100515-7	965627
7440-62-2	Vanadium	5410	ug/kg		114	568	568	1	P	HSC	04/05/10 20:04	040510-2	965624
7440-66-6	Zinc	99600	ug/kg		375	1140	1140	1	P	HSC	04/05/10 20:04	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.502	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.57	g	50	mL	03/31/10	LYH1
969297	969295	SW846 7471A Prep	0.539	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.569	g	50	mL	04/12/10	AXG2

EJ
06/09

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2434 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249333009 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-12970 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3990000	ug/kg		8030	23600	23600	1	P	HSC	04/05/10 20:06	040510-2	965624
7440-36-0	Antimony	1180	ug/kg	U	390	1180	1180	1	P	HSC	04/05/10 20:06	040510-2	965624
7440-38-2	Arsenic	1190	ug/kg		227	1140	1140	2	MS	BCD1	05/16/10 09:59	100515-7	965627
7440-39-3	Barium	25800	ug/kg		118	591	591	1	P	HSC	04/05/10 20:06	040510-2	965624
7440-41-7	Beryllium	441	ug/kg		22.7	114	114	2	MS	PRB	05/18/10 09:00	100517-9	965627
7440-43-9	Cadmium	591	ug/kg	U	118	591	591	1	P	HSC	04/05/10 20:06	040510-2	965624
7440-70-2	Calcium	1090000	ug/kg		9450	29500	29500	1	P	HSC	04/05/10 20:06	040510-2	965624
7440-47-3	Chromium J,I4a	7610	ug/kg	*	177	590	590	1	P	HSC	04/15/10 22:33	041510A-4	973755
7440-48-4	Cobalt	1010	ug/kg		177	591	591	1	P	HSC	04/05/10 20:06	040510-2	965624
7440-50-8	Copper	12600	ug/kg	*	354	1180	1180	1	P	HSC	04/15/10 22:33	041510A-4	973755
7439-89-6	Iron	9550000	ug/kg		9450	29500	29500	1	P	HSC	04/05/10 20:06	040510-2	965624
7439-92-1	Lead	12400	ug/kg		295	1180	1180	1	P	HSC	04/05/10 20:06	040510-2	965624
7439-95-4	Magnesium J+,I6b	858000	ug/kg	N	10000	35400	35400	1	P	HSC	04/05/10 20:06	040510-2	965624
7439-96-5	Manganese J-,I6a	148000	ug/kg	N	236	1180	1180	1	P	HSC	04/05/10 20:06	040510-2	965624
7439-97-6	Mercury J,I10a	165	ug/kg		4.02	11.8	11.8	1	AV	JXL1	03/31/10 12:30	033110S1-11	969297
7440-02-0	Nickel	2770	ug/kg		114	454	454	2	MS	BCD1	05/16/10 09:59	100515-7	965627
7440-09-7	Potassium J+,I6b	466000	ug/kg	N	7560	29500	29500	1	P	HSC	04/05/10 20:06	040510-2	965624
7782-49-2	Selenium	1140	ug/kg	U	568	1140	1140	2	MS	BCD1	05/16/10 09:59	100515-7	965627
7440-22-4	Silver	591	ug/kg	U	118	591	591	1	P	HSC	04/05/10 20:06	040510-2	965624
7440-23-5	Sodium	275000	ug/kg		8270	29500	29500	1	P	HSC	04/05/10 20:06	040510-2	965624
7440-28-0	Thallium	227	ug/kg	U	68.2	227	227	2	MS	BCD1	05/16/10 09:59	100515-7	965627
7440-62-2	Vanadium	6740	ug/kg		118	591	591	1	P	HSC	04/05/10 20:06	040510-2	965624
7440-66-6	Zinc	54700	ug/kg		390	1180	1180	1	P	HSC	04/05/10 20:06	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.5	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.52	g	50	mL	03/31/10	LYH1
969297	969295	SW846 7471A Prep	0.6	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.501	g	50	mL	04/12/10	AXG2

EJ
06/09

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2434 VALIDATION DATE: 06/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ **TPH-GRO**
- ☐ **TPH-DRO**
- ☒ **GENERAL CHEMISTRY**
- ☐ **HIGH EXPLOSIVES**
- ☐ **METALS**
- ☐ **RADIOCHEMISTRY**
- ☐ **DIOXIN FURANS**
- ☐ **PCB CONGENERS**
- ☐ **LCMSMS HIGH EXPLOSIVES**
- ☐ **LCMSMS PERCHLORATES**
- ☐ **ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS**
- ☐ **OTHER (DESCRIBE):** total cyanide only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the matrix QC associated with the water and soil samples were performed on LANL samples from other RNs. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 06/09/10

VALIDATOR'S SIGNATURE: Ellen Mebster DATE: 06/09/10

Form 5120-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2434

Client Sample ID: RE46-10-12997
Sample ID: 249333001
Matrix: W
Collect Date: 11-MAR-10 12:00
Receive Date: 13-MAR-10
Collector: Client

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "As Received"										
nide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/22/10	1213	966125	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1528	966123

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2434

Client Sample ID:	RE46-10-12994	Project:	LANL01004
Sample ID:	249333002	Client ID:	LANL010
Matrix:	W		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "As Received"										
nide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/22/10	1214	966125	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1528	966123

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2434

Client Sample ID:	RE46-10-12972	Project:	LANL01004
Sample ID:	249333003	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	12.3%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	74.5	274	ug/kg	1	AXC2 03/17/10	1319	965133	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2434

Client Sample ID:	RE46-10-13003	Project:	LANL01004
Sample ID:	249333004	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	11.5%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	72.5	267	ug/kg	1	AXC2 03/17/10	1320	965133	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2434

Client Sample ID:	RE46-10-12967	Project:	LANL01004
Sample ID:	249333005	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	20.7%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	J	205	82.5	303	ug/kg	1	AXC2 03/17/10	1321	965133	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2434

Client Sample ID:	RE46-10-12971	Project:	LANL01004
Sample ID:	249333006	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	21.8%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	82.0	302	ug/kg	1	AXC2 03/17/10	1322	965133	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2434

Client Sample ID:	RE46-10-12968	Project:	LANL01004
Sample ID:	249333007	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	10.4%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total		292	74.4	274	ug/kg	1	AXC2 03/17/10	1323	965133	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2434

Client Sample ID:	RE46-10-12969	Project:	LANL01004
Sample ID:	249333008	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	12.4%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	69.3	255	ug/kg	1	AXC2 03/17/10	1324	965133	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2434

Client Sample ID:	RE46-10-12970	Project:	LANL01004
Sample ID:	249333009	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	15.4%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	70.5	259	ug/kg	1	AXC2 03/17/10	1324	965133	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2434C

REQUEST NUMBER: 10-2434

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

249333/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-12997	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-12997	1	POLY	SW-846:6850	Ice	W
RE46-10-12997	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-12994	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-12994	1	POLY	SW-846:6850	Ice	W
RE46-10-12994	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-12972	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13003	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12967	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12971	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12968	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12969	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12970	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/12/10	3:00	Greg Tyler		3-13-10	093
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Friday, March 12, 2010

REQUEST NUMBER: 10-2434

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2434
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-12994	W	3/11/2010	
		1	RE46-10-12997	W	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2434

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE46-10-12997	W	3/11/2010	
	SW-846:6850	1	RE46-10-12994	W	3/11/2010	
		1	RE46-10-12997	W	3/11/2010	
	SW-846:9012A	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-12994	W	3/11/2010	
		1	RE46-10-12997	W	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2434

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

March 18, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 249333
SDG: 10-2434

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 13, 2010, and analyzed for General Chemistry, Metals and Perchlorates by LCMSMS. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2434
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 249333
SDG: 10-2434

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- Quality Control Summary.....1232
- Instrument QC Data Summary.....1235
- Cyanide, Total.....1237
- Cyanide, Total.....1249

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 249333
SDG # : 10-2434

March 18, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 13, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
249333001	RE46-10-12997
249333002	RE46-10-12994
249333003	RE46-10-12972
249333004	RE46-10-13003
249333005	RE46-10-12967
249333006	RE46-10-12971
249333007	RE46-10-12968
249333008	RE46-10-12969
249333009	RE46-10-12970

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Perchlorates by LCMSMS.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 18 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2434C

REQUEST NUMBER: 10-2434

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 249333/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-12997	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-12997	1	POLY	SW-846:6850	Ice	W
RE46-10-12997	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-12994	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-12994	1	POLY	SW-846:6850	Ice	W
RE46-10-12994	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-12972	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13003	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12967	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12971	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12968	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12969	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12970	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/12/10	3:00	Greg Tyler		3-13-10	0930
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Friday, March 12, 2010

REQUEST NUMBER: 10-2434

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-2434
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-12994	W	3/11/2010	
		1	RE46-10-12997	W	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	SW-846:6020	1	RE46-10-12994	W	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2434

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE46-10-12997	W	3/11/2010	
	SW-846:6850	1	RE46-10-12994	W	3/11/2010	
		1	RE46-10-12997	W	3/11/2010	
	SW-846:9012A	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-12994	W	3/11/2010	
		1	RE46-10-12997	W	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2434

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2434**
Received By: Greg Tyler	**Date Received: 3/13/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **2,3,6C** **12,13C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:
7209 7850 4789 2C
7209 7850 4756 2C
7209 7850 4804 2C
7209 7850 4790 3C
7209 7850 4767 6C
7209 7850 4815 12C
7209 7850 4778 13C

PM (or PMA) review: Initials MS Date 3/15/10

N ID: SAFA (505) 665-9988
NE VALDEZ
LAMOS NATL LAB
BLDG 1237 DPU 03

LAMOS, NM 87545
ED STATES US

SHIP DATE: 12MAR10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

LERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
) 556-8171
F: MR2A0515BY00

2°

FedEx Express

1 of 3
CH# 7209 7850 4789
MASTER ##

SATURDAY ### A1
PRIORITY OVERNIGHT

2940
SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505) 665-9988
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

2°

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1 of 3
TRK# 0201 7209 7850 4756
MASTER

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 41.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
843) 556-8171
REF: MR2A0515BY00

2°

FedEx Express

3 of 3
MPS# 0263 7209 7850 4804
Mstr# 7209 7850 4789 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

0 CHSA

ORIGIN ID: SAFA (505) 665-9988
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 41.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

3°

FedEx Express

2 of 3
MPS# 0263 7209 7850 4790
Mstr# 7209 7850 4789 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

6°

Fe

2 of 3

SATURDAY
PRIORITY OVERN

MPS# 0263 7209 7850 4767
Mstr# 7209 7850 4756 0201

29

X0 CHSA

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

12°

FedEx Express

1 of 2

SATURDAY ### A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7850 4815
MASTER

X0 CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT:
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

13°

FedEx Express

3 of 3

SATURDAY ### A1
PRIORITY OVERNIGHT

MPS# 0263 7209 7850 4778
Mstr# 7209 7850 4756 0201

29407
SC-US
CHS

X0 CHSA

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2434

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	966566
Prep Batch Number:	966565

Sample Analysis

Sample ID	Client ID
249333001	RE46-10-12997
249333002	RE46-10-12994
1202074288	Interference Check Sample (ICS)
1202074284	Method Blank (MB)
1202074285	Laboratory Control Sample (LCS)
1202074286	249333001(RE46-10-12997) Matrix Spike (MS)
1202074287	249333001(RE46-10-12997) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

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CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 249333001 (RE46-10-12997) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

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Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	966578
Prep Batch Number:	966577

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Sample Analysis

Sample ID	Client ID
249333003	RE46-10-12972
249333004	RE46-10-13003
249333005	RE46-10-12967
249333006	RE46-10-12971
249333007	RE46-10-12968
249333008	RE46-10-12969
249333009	RE46-10-12970
1202074308	Interference Check Sample (ICS)
1202074304	Method Blank (MB)
1202074305	Laboratory Control Sample (LCS)
1202074306	249333003(RE46-10-12972) Matrix Spike (MS)
1202074307	249333003(RE46-10-12972) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

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Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 249333003 (RE46-10-12972) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

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Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather M Maier **Date:** 04/05/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 966565

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE46-10-12997

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333001

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	28-MAR-10 02:36	per0327082a
	Perchlorate Isotope Ratio						1	28-MAR-10 02:36	per0327082a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	28-MAR-10 02:36	per0327082a
	Perchlorate-O(18)			0.463	ug/L		1	28-MAR-10 02:36	per0327082a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 966565

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE46-10-12994

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333002

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	28-MAR-10 03:05	per0327085a
	Perchlorate Isotope Ratio						1	28-MAR-10 03:05	per0327085a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	28-MAR-10 03:05	per0327085a
	Perchlorate-O(18)			0.467	ug/L		1	28-MAR-10 03:05	per0327085a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12972

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333003

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.57	2.28	0.570	ug/kg	U	1	30-MAR-10 22:00	per0330082a
	Perchlorate Isotope Ratio						1	30-MAR-10 22:00	per0330082a
14797-73-0	Perchlorate-101	.57	2.28	0.570	ug/kg	U	1	30-MAR-10 22:00	per0330082a
	Perchlorate-O(18)			5.59	ug/kg		1	30-MAR-10 22:00	per0330082a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13003

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333004

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.565	2.26	0.565	ug/kg	U	1	30-MAR-10 22:25	per0330085a
	Perchlorate Isotope Ratio						1	30-MAR-10 22:25	per0330085a
14797-73-0	Perchlorate-101	.565	2.26	0.565	ug/kg	U	1	30-MAR-10 22:25	per0330085a
	Perchlorate-O(18)			5.54	ug/kg		1	30-MAR-10 22:25	per0330085a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12967

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333005

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.631	2.52	1.66	ug/kg	J	1	30-MAR-10 22:33	per0330086a
	Perchlorate Isotope Ratio			3.2			1	30-MAR-10 22:33	per0330086a
14797-73-0	Perchlorate-101	.631	2.52	1.67	ug/kg	J	1	30-MAR-10 22:33	per0330086a
	Perchlorate-O(18)			6.39	ug/kg		1	30-MAR-10 22:33	per0330086a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12971

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333006

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 78

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.639	2.56	0.639	ug/kg	U	1	30-MAR-10 22:41	per0330087a
	Perchlorate Isotope Ratio						1	30-MAR-10 22:41	per0330087a
14797-73-0	Perchlorate-101	.639	2.56	0.639	ug/kg	U	1	30-MAR-10 22:41	per0330087a
	Perchlorate-O(18)			6.03	ug/kg		1	30-MAR-10 22:41	per0330087a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12968

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333007

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.558	2.23	0.603	ug/kg	J	1	30-MAR-10 22:49	per0330088a
	Perchlorate Isotope Ratio			3.09			1	30-MAR-10 22:49	per0330088a
14797-73-0	Perchlorate-101	.558	2.23	0.628	ug/kg	J	1	30-MAR-10 22:49	per0330088a
	Perchlorate-O(18)			5.32	ug/kg		1	30-MAR-10 22:49	per0330088a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12969

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333008

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.571	2.28	0.571	ug/kg	U	1	30-MAR-10 22:57	per0330089a
	Perchlorate Isotope Ratio						1	30-MAR-10 22:57	per0330089a
14797-73-0	Perchlorate-101	.571	2.28	0.571	ug/kg	U	1	30-MAR-10 22:57	per0330089a
	Perchlorate-O(18)			5.35	ug/kg		1	30-MAR-10 22:57	per0330089a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12970

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333009

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.591	2.36	0.591	ug/kg	U	1	30-MAR-10 23:05	per0330090a
	Perchlorate Isotope Ratio						1	30-MAR-10 23:05	per0330090a
14797-73-0	Perchlorate-101	.591	2.36	0.591	ug/kg	U	1	30-MAR-10 23:05	per0330090a
	Perchlorate-O(18)			5.65	ug/kg		1	30-MAR-10 23:05	per0330090a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2434

Extract Batch Code: 966565

Date Filtered: 18–MAR–10

Matrix: WATER

Sample ID: 1202074285

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.177	ug/L	88.6		85 – 115
Perchlorate Isotope Ratio		3.18				–
Perchlorate–101	0.200	.177	ug/L	88.7		85 – 115
Perchlorate–O(18)		.454	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2434

Extract Batch Code: 966577

Date Filtered: 22–MAR–10

Matrix: SOIL

Sample ID: 1202074305

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.93	ug/kg	96.3		70 – 130
Perchlorate Isotope Ratio		3.1				–
Perchlorate–101	2.00	2	ug/kg	99.9		70 – 130
Perchlorate–O(18)		4.68	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2434

Extract Batch Code: 966565

Date Filtered: 18–MAR–10

Matrix: WATER

Sample ID: 1202074288

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.176	ug/L	88		70 – 130
Perchlorate Isotope Ratio		3.36				
Perchlorate–101	0.200	.167	ug/L	83.4		70 – 130
Perchlorate–O(18)		.5	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327066a
Date: 28-Mar-2010
Time: 00:02:09
ID: 1202074288
Vial: 2:5,F

|LANL|966566|LZQ|IS|1|

WJ 03-29-10

Perchlorate

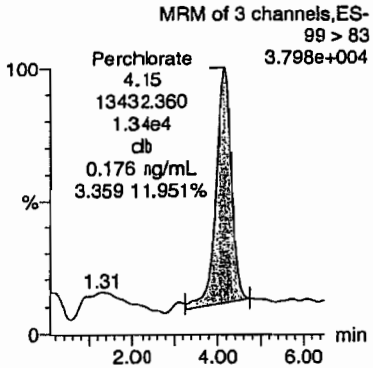

Perchlorate

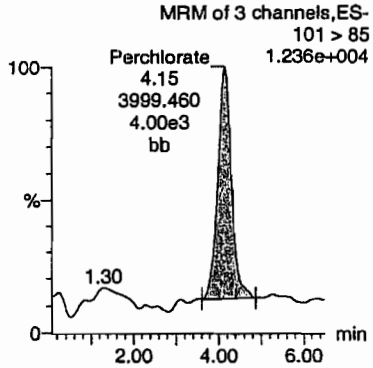

Perchlorate-101

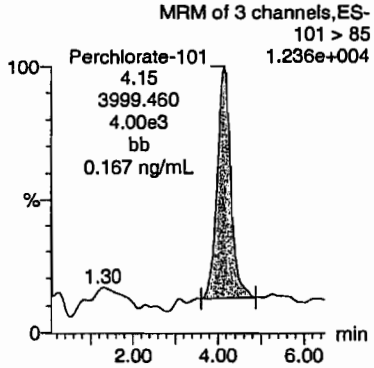

Perchlorate-O(18)

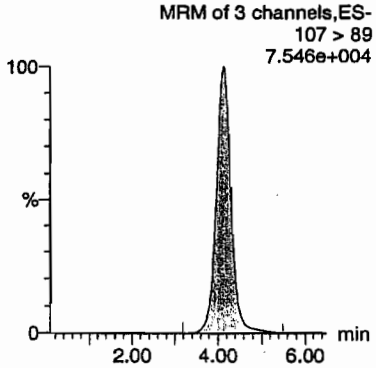

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202074288	Perchlorate	99 > 83	4.15	13432.360	13432.360	db			0.1759	87.97	-12.03	303.628	3.36
1202074288	Perchlorate-101	101 > 85	4.15	3999.460	3999.460	bb			0.1667	83.35	-16.65	132.224	
1202074288	Perchlorate-O(18)	107 > 89	4.13	29041.600	29041.600	bb			0.5003	100.06	0.06	2464.5...	

HAT 3/25/10

$$\frac{13432.360}{3999.460} = 3.3585$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2434

Extract Batch Code: 966577

Date Filtered: 22–MAR–10

Matrix: SOIL

Sample ID: 1202074308

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.99	ug/kg	99.6		70 – 130
Perchlorate Isotope Ratio		3.15				
Perchlorate–101	2.00	2.03	ug/kg	102		70 – 130
Perchlorate–O(18)		5.12	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330072a
Date: 30-Mar-2010
Time: 20:39:31
ID: 1202074308
Vial: 2:6,C

|LANL|966578|5020|ZCS|1|

CWW 04-01-10

Perchlorate

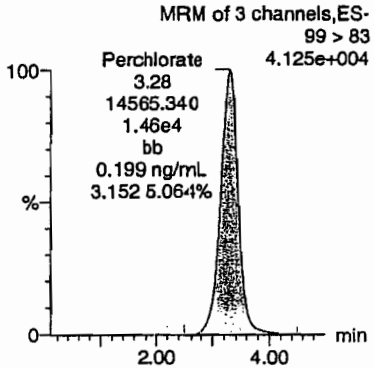

Perchlorate

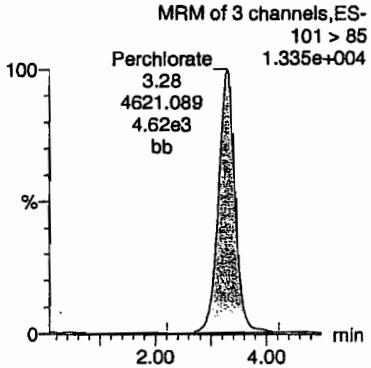

Perchlorate-101

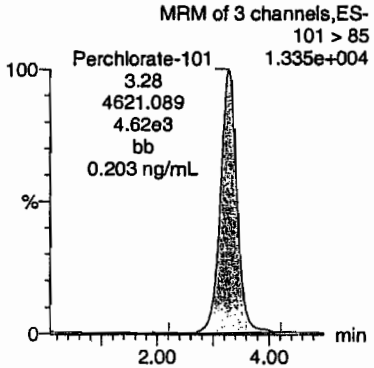

Perchlorate-O(18)

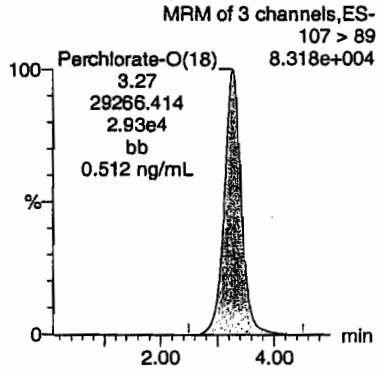

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	% Rec	%Dev	S/N	Ion Ratio
1202074308	Perchlorate	99 > 83	3.28	14565.340	14565.340	bb			0.1992	99.58	-0.42	1354.4...	3.15
1202074308	Perchlorate-101	101 > 85	3.28	4621.089	4621.089	bb			0.2031	101.57	1.57	1877.7...	
1202074308	Perchlorate-O(18)	107 > 89	3.27	29266.414	29266.414	bb			0.5118	102.36	2.36	3030.9...	

4/2/10

$$\frac{14565.340}{4621.089} = 3.1519$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–2434

Extract Batch Code: 966565

Date Extracted: 18–MAR–10

GEL MS/PS ID: 1202074286

Client ID: RE46–10–12997

GEL MSD/PSD ID: 1202074287

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.00	ug/L	0.229	114	.188	93.9	19.6	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.32		3.18		0		–
Perchlorate–101	0.200	0.00	ug/L	0.219	109	.188	94.1	15.1	30	75 – 125
Perchlorate–O(18)	0	0.463	ug/L	0.477		.485		1.66		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–2434

Extract Batch Code: 966577

Date Extracted: 22–MAR–10

GEL MS/PS ID: 1202074306

Client ID: RE46–10–12972

GEL MSD/PSD ID: 1202074307

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.28	0.288	ug/kg	2.54	99	2.36	90.9	7.51	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.28		3.14		0		–
Perchlorate–101	2.28	0.299	ug/kg	2.49	96.3	2.41	92.8	3.28	30	75 – 125
Perchlorate–O(18)	0	5.59	ug/kg	5.71		5.33		6.97		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2434

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	27–MAR–10	per0327001a	IPB001
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327001a	IPB001
Perchlorate	0.00	0	NA	27–MAR–10	per0327002a	IPB001
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327002a	IPB001
Perchlorate	0.00	0	NA	30–MAR–10	per0330001a	IPB001
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330001a	IPB001
Perchlorate	0.00	0	NA	30–MAR–10	per0330002a	IPB001
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330002a	IPB001

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032710a.mdb 28 Mar 2010 10:15:37
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032710a.cdb 28 Mar 2010 10:33:56

Name: per0327001a
Date: 27-Mar-2010
Time: 13:35:19
ID: IPB001
Vial: 1:1,A

03-28-10

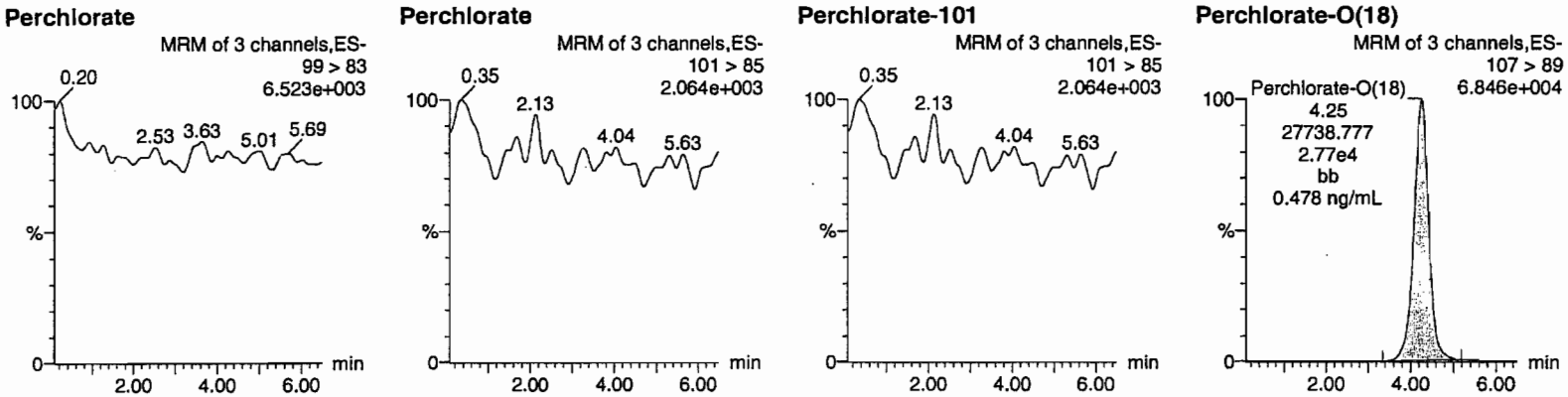

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	4.25	27738.777	27738.777	bb			0.4778	95.57	-4.43	3497.0...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327002a
Date: 27-Mar-2010
Time: 13:44:59
ID: IPB001
Vial: 1:1,A

CWW
03-28-10

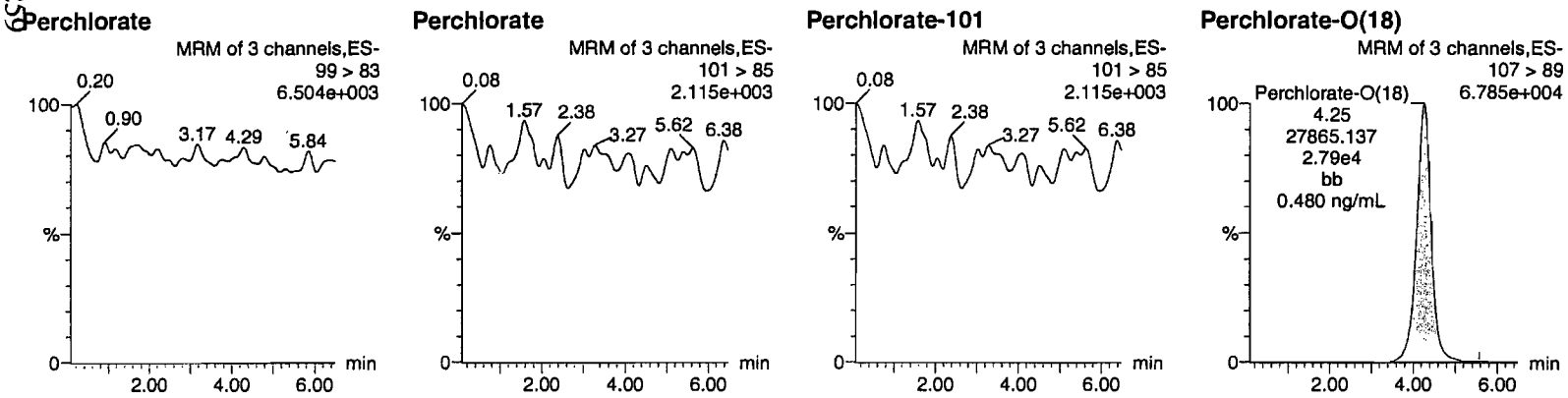

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	4.25	27865.137	27865.137	bb			0.4800	96.00	-4.00	9932.1...	

3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per033010a.mdb 31 Mar 2010 11:16:12
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per033010a.cdb 31 Mar 2010 11:16:25

Name: per0330001a
Date: 30-Mar-2010
Time: 11:06:29
ID: IPB001
Vial: 1:1,A

aw
04.01-10

Perchlorate

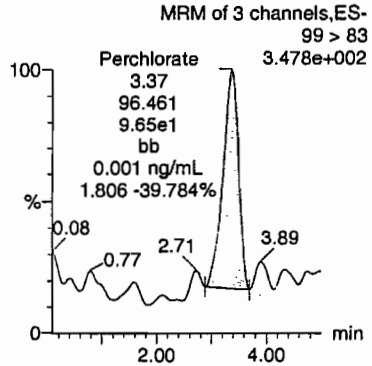

Perchlorate

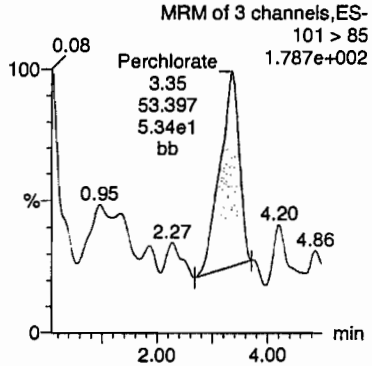

Perchlorate-101

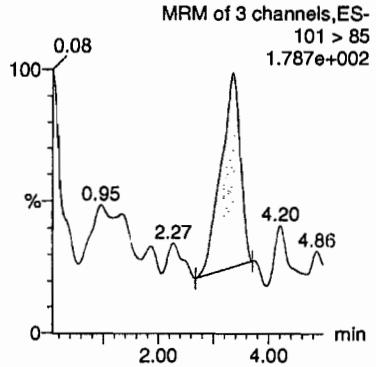

Perchlorate-O(18)

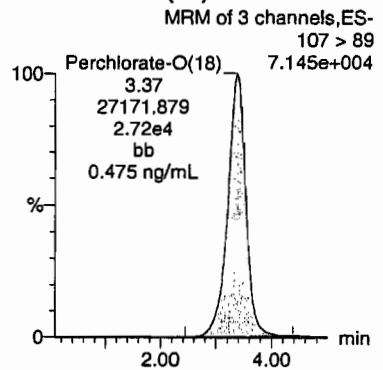

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	3.37	96.461	96.461	bb			0.0013			38.545	1.81
IPB001	Perchlorate-101	101 > 85	3.35	53.397	53.397	bb			0.0023			22.166	
IPB001	Perchlorate-O(18)	107 > 89	3.37	27171.879	27171.879	bb			0.4752	95.03	-4.97	1502.8...	

OKAY
<0.0500
MTT
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330002a
Date: 30-Mar-2010
Time: 11:14:43
ID: IPB001
Vial: 1:1,A

ww 04.01.10

Perchlorate

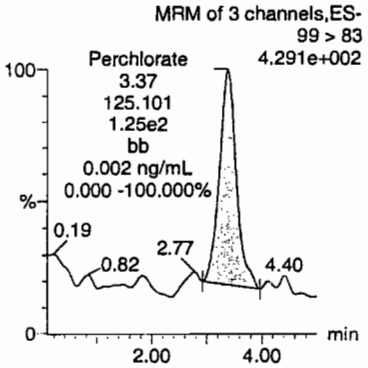

Perchlorate

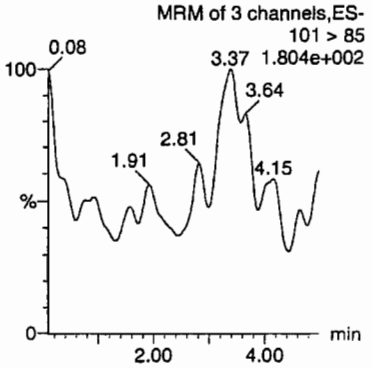

Perchlorate-101

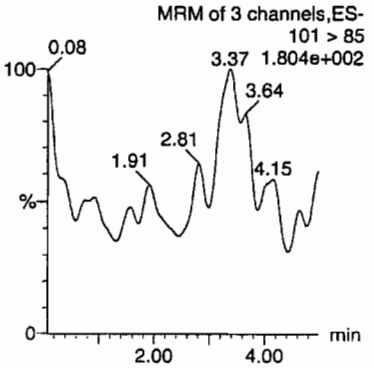

Perchlorate-O(18)

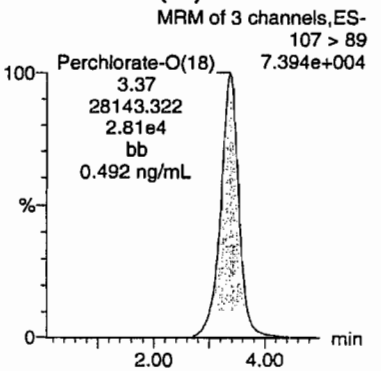

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	3.37	125.101	125.101	bb			0.0017			70.677	0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.37	28143.322	28143.322	bb			0.4922 ✓	98.43	-1.57	3185.4...	

MMP 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2434

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	27–MAR–10	per0327008a	IPB002
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327008a	IPB002
Perchlorate	0.00	0	NA	27–MAR–10	per0327010a	IPB003
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327010a	IPB003
Perchlorate	0.00	0	NA	27–MAR–10	per0327023a	IPB004
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327023a	IPB004
Perchlorate	0.00	0	NA	27–MAR–10	per0327029a	IPB005
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327029a	IPB005
Perchlorate	0.00	0	NA	27–MAR–10	per0327036a	IPB006
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327036a	IPB006
Perchlorate	0.00	0	NA	27–MAR–10	per0327049a	IPB007
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327049a	IPB007
Perchlorate	0.00	0	NA	27–MAR–10	per0327062a	IPB008

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2434

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate–101	0.00	0	NA	27–MAR–10	per0327062a	IPB008
Perchlorate	0.00	0	NA	28–MAR–10	per0327075a	IPB009
Perchlorate–101	0.00	0	NA	28–MAR–10	per0327075a	IPB009
Perchlorate	0.00	0	NA	28–MAR–10	per0327081a	IPB010
Perchlorate–101	0.00	0	NA	28–MAR–10	per0327081a	IPB010
Perchlorate	0.00	0	NA	28–MAR–10	per0327088a	IPB011
Perchlorate–101	0.00	0	NA	28–MAR–10	per0327088a	IPB011
Perchlorate	0.00	0	NA	30–MAR–10	per0330008a	IPB002
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330008a	IPB002
Perchlorate	0.00	0	NA	30–MAR–10	per0330010a	IPB003
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330010a	IPB003
Perchlorate	0.00	0	NA	30–MAR–10	per0330023a	IPB004
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330023a	IPB004

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2434

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	30–MAR–10	per0330034a	IPB005
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330034a	IPB005
Perchlorate	0.00	0	NA	30–MAR–10	per0330046a	IPB006
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330046a	IPB006
Perchlorate	0.00	0	NA	30–MAR–10	per0330057a	IPB007
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330057a	IPB007
Perchlorate	0.00	0	NA	30–MAR–10	per0330068a	IPB008
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330068a	IPB008
Perchlorate	0.00	0	NA	30–MAR–10	per0330080a	IPB009
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330080a	IPB009
Perchlorate	0.00	0	NA	30–MAR–10	per0330092a	IPB010
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330092a	IPB010

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327008a
Date: 27-Mar-2010
Time: 14:42:58
ID: IPB002
Vial: 1:1,A

CWW
03-28-10

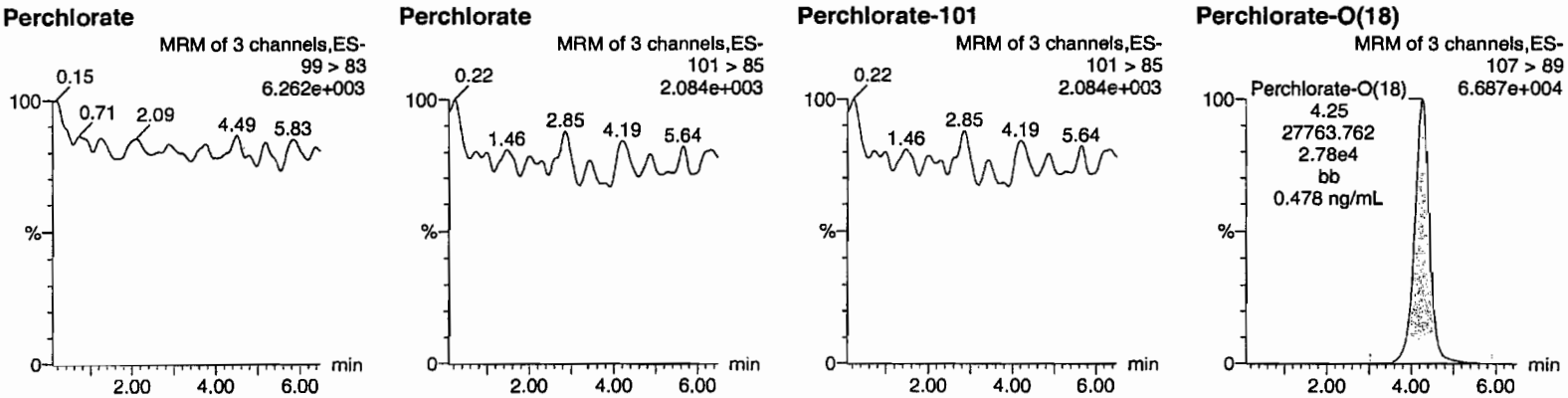

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	4.25	27763.762	27763.762	bb			0.4783	95.66	-4.34	688.538	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327010a
Date: 27-Mar-2010
Time: 15:02:11
ID: IPB003
Vial: 1:1,A

CWW 03-28-10

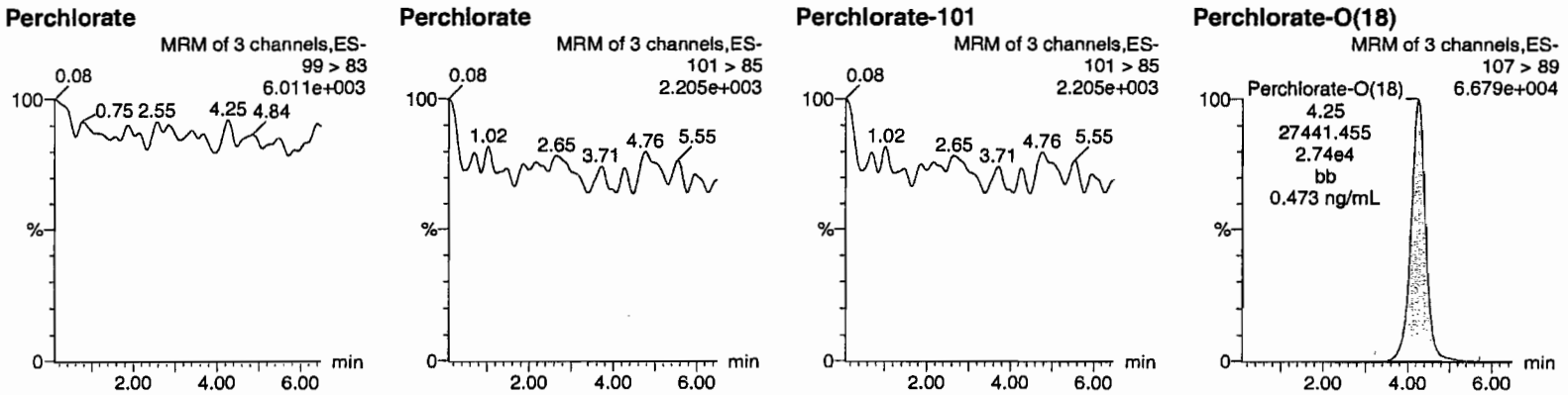

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	4.25	27441.455	27441.455	bb			0.4727	94.54	-5.46	2478.5...	

MWT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327023a
Date: 27-Mar-2010
Time: 17:07:55
ID: IPB004
Vial: 1:1,A

CWW
03-28-10

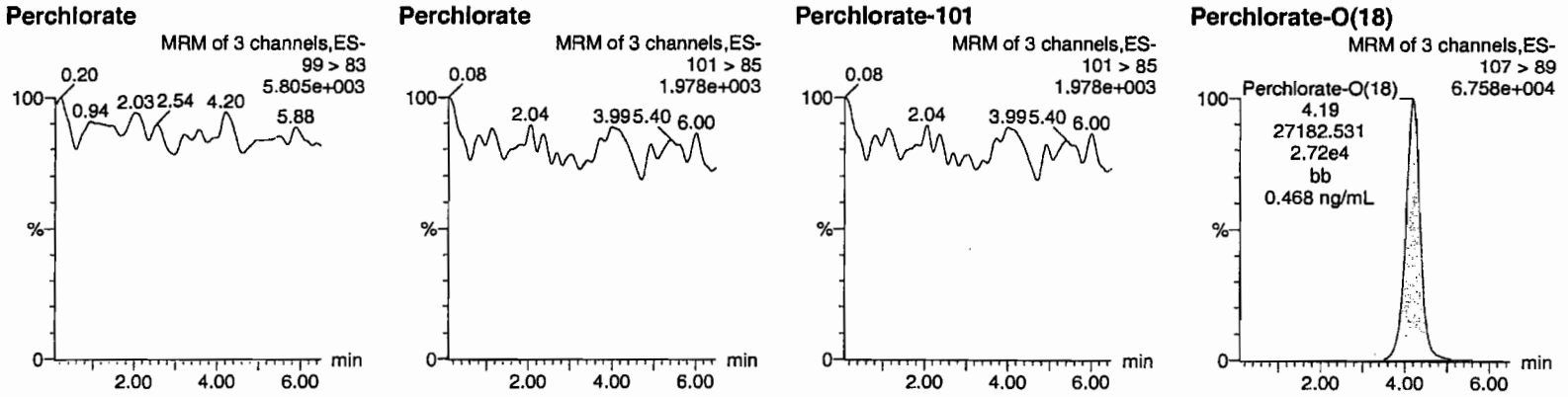

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	4.19	27182.531	27182.531	bb			0.4683	93.65	-6.35	2906.6...	

MHT 3/30/10

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327029a
Date: 27-Mar-2010
Time: 18:05:34
ID: IPB005
Vial: 1:1,A

CWW
03-28-10

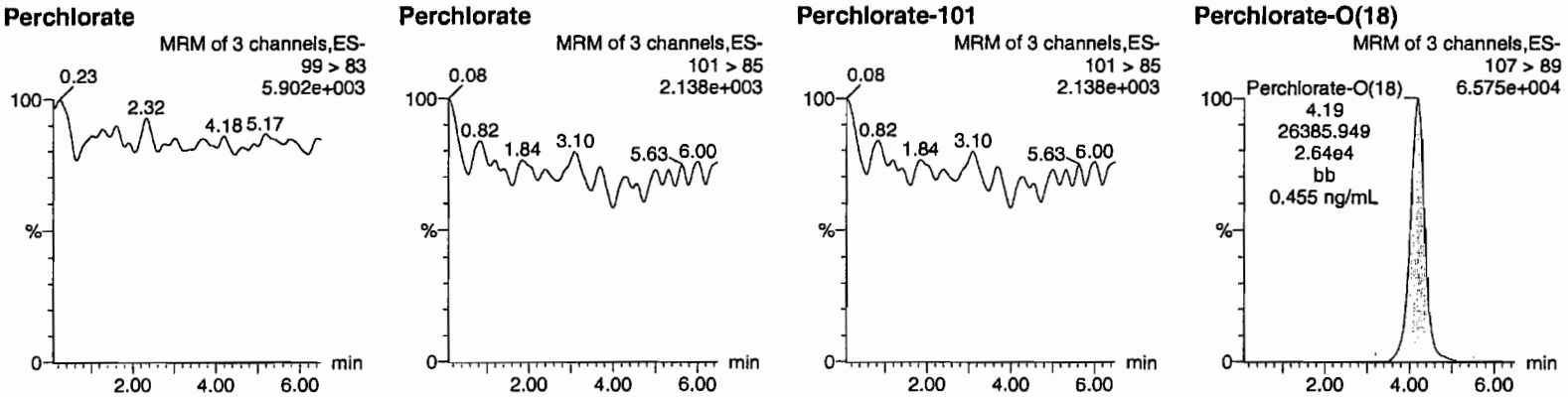

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	4.19	26385.949	26385.949	bb			0.4545	90.91	-9.09	3499.5...	

MM 3/30/10

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327036a
Date: 27-Mar-2010
Time: 19:13:50
ID: IPB006
Vial: 1:1,A

CWW 03-28-10

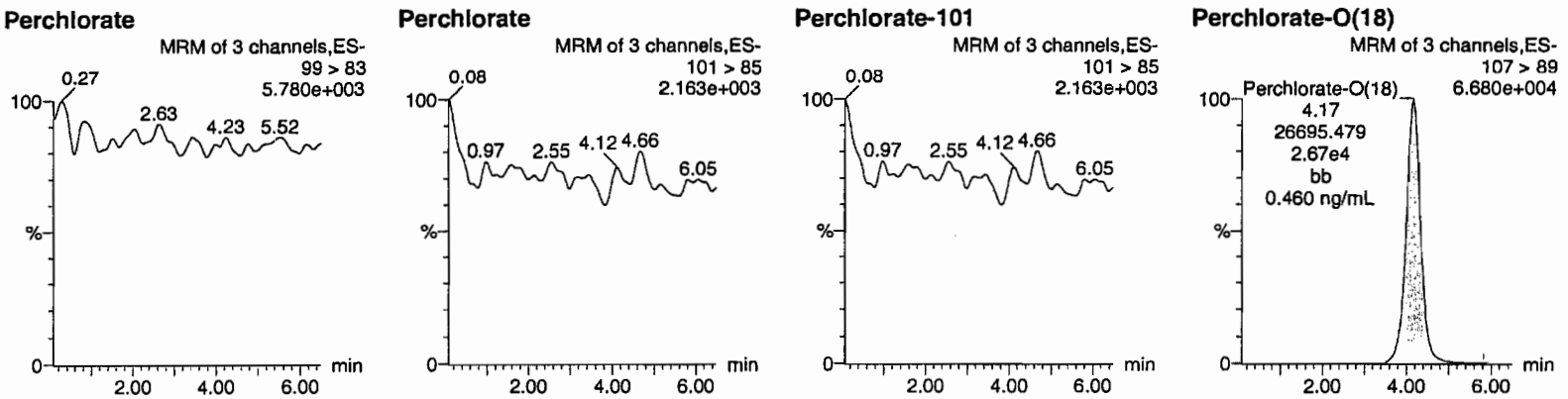

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	4.17	26695.479	26695.479	bb			0.4599	91.97	-8.03	2433.7...	

MHT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327049a
Date: 27-Mar-2010
Time: 21:18:34
ID: IPB007
Vial: 1:1,A

CWW 03-28-10

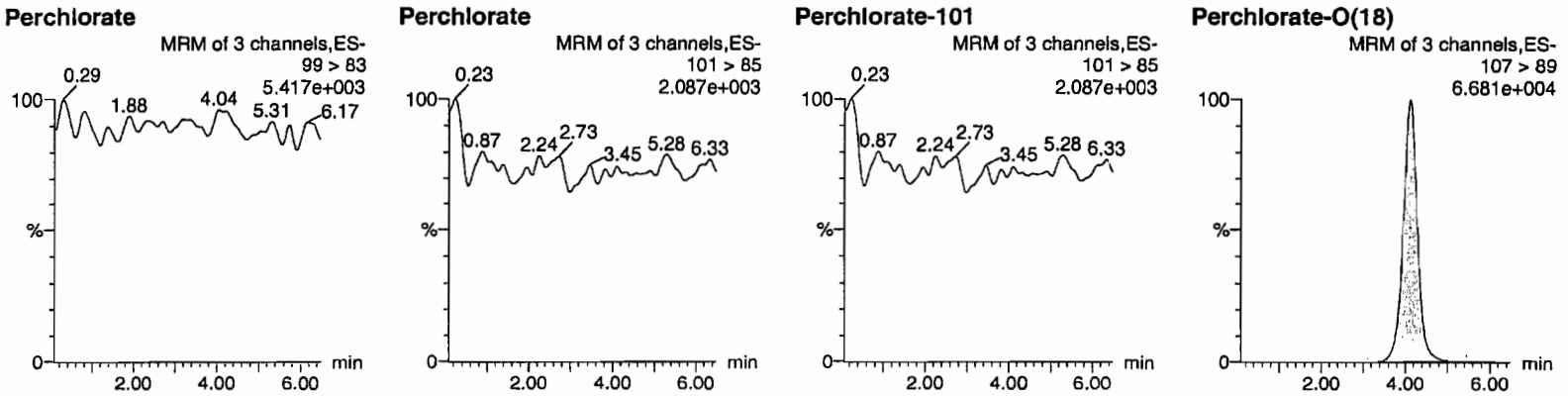

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83											0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	4.12	26676.504	26676.504	bb			0.4595	91.91	-8.09	3074.3...	

MATT 3/29/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327062a
Date: 27-Mar-2010
Time: 23:23:33
ID: IPB008
Vial: 1:1,A

CWJ
03-28-10

Perchlorate

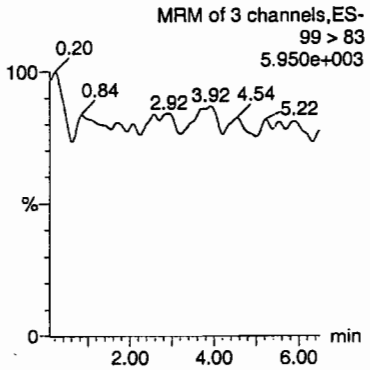

Perchlorate

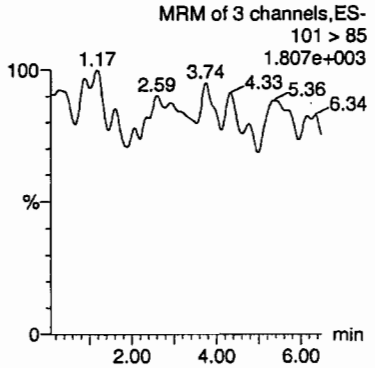

Perchlorate-101

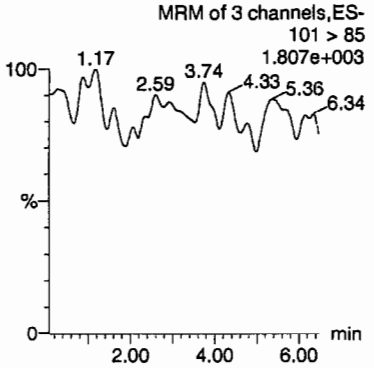

Perchlorate-O(18)

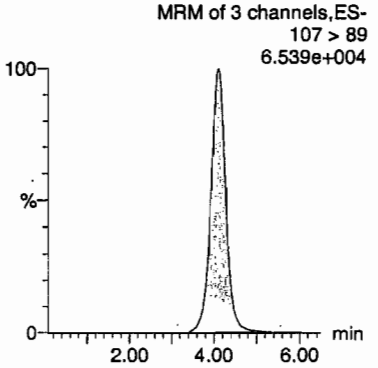

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83											0.00
IPB008	Perchlorate-101	101 > 85											
IPB008	Perchlorate-O(18)	107 > 89	4.10	26484.551	26484.551	bb			0.4562	91.25	-8.75	2307.8...	

MJT
3/29/10

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327075a
Date: 28-Mar-2010
Time: 01:28:59
ID: IPB009
Vial: 1:1,A

CWJ 03-29-10

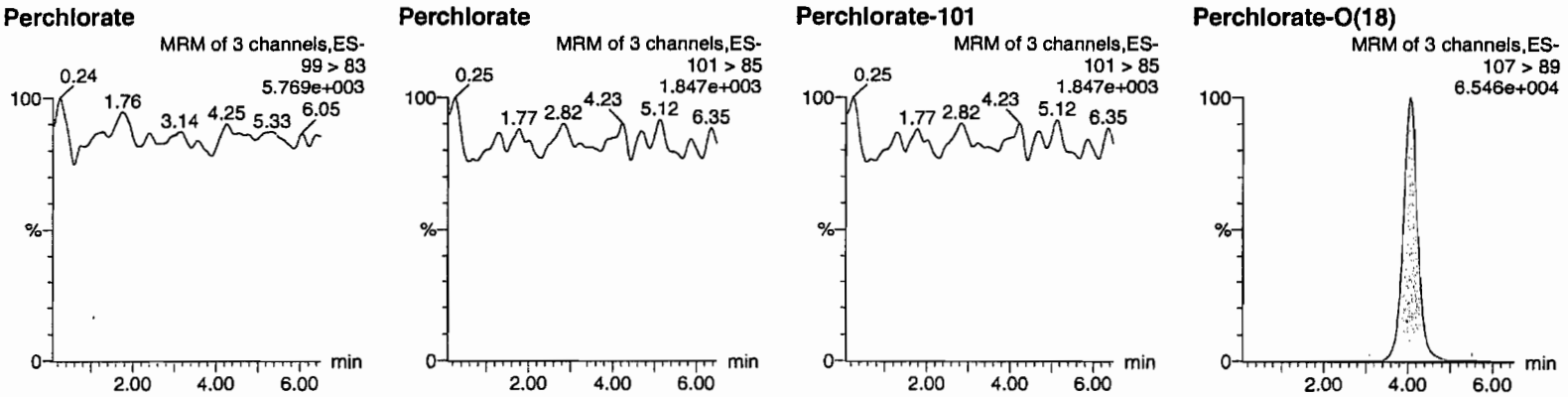

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83											0.00
IPB009	Perchlorate-101	101 > 85											
IPB009	Perchlorate-O(18)	107 > 89	4.07	26243.480	26243.480	bb			0.4521	90.42	-9.58	5543.8...	

MMT 3/30/10

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327081a
Date: 28-Mar-2010
Time: 02:26:45
ID: IPB010
Vial: 1:1,A

CWW 03-29-10

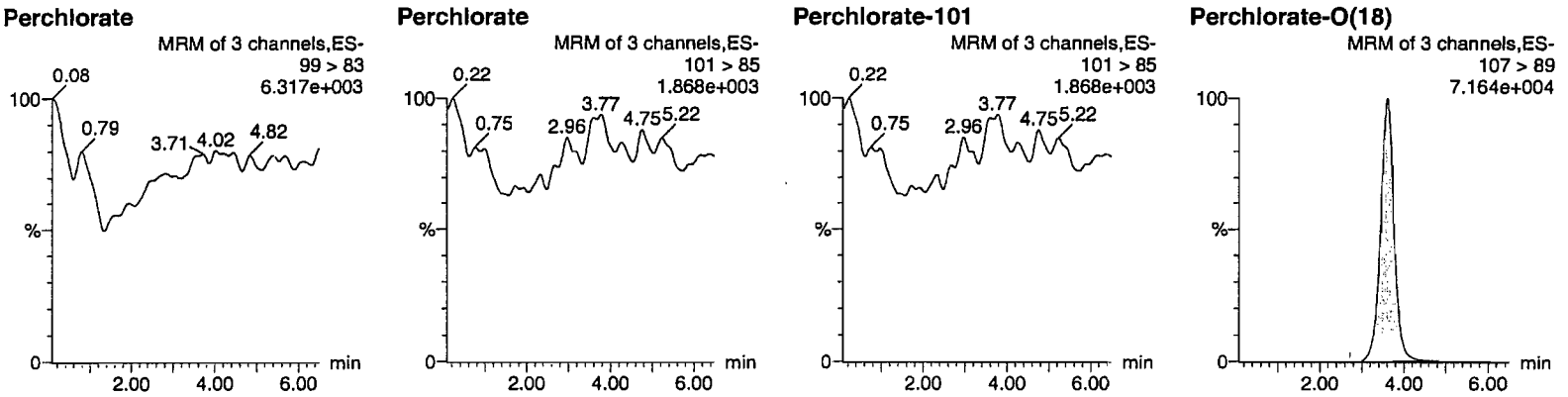

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB010	Perchlorate	99 > 83											0.00
IPB010	Perchlorate-101	101 > 85											
IPB010	Perchlorate-O(18)	107 > 89	3.61	26734.777	26734.777	bb			0.4606	92.11	-7.89	4612.5...	

MHT 3/30/10

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327088a
Date: 28-Mar-2010
Time: 03:35:02
ID: IPB011
Vial: 1:1,A

CWW
03-29-10

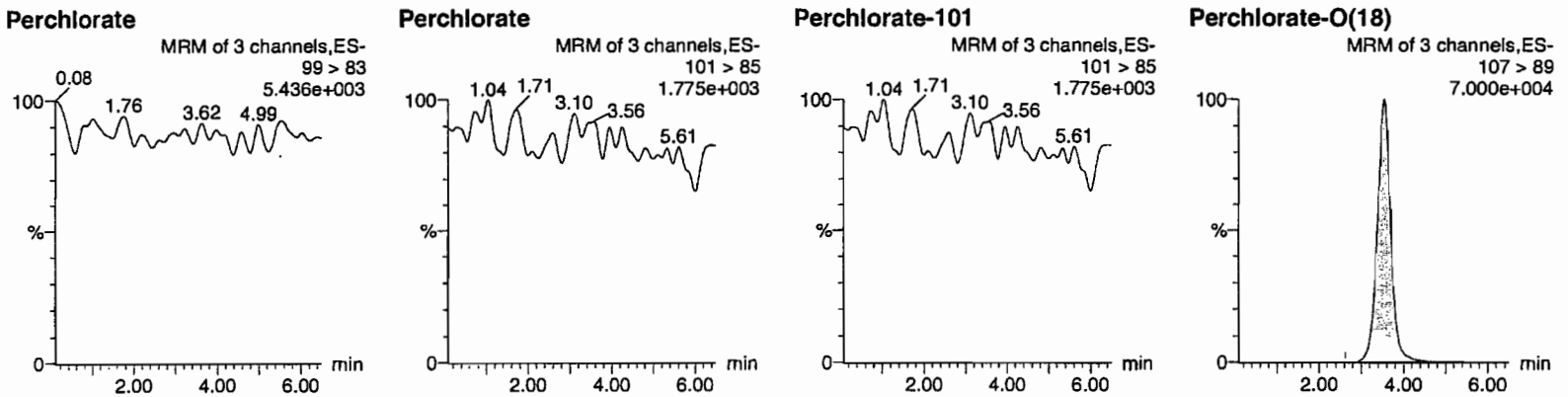

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB011	Perchlorate	99 > 83											0.00
IPB011	Perchlorate-101	101 > 85											
IPB011	Perchlorate-O(18)	107 > 89	3.53	25935.855	25935.855	bb			0.4468	89.36	-10.64	6794.8...	

MATT 3/29/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330008a
Date: 30-Mar-2010
Time: 12:02:52
ID: IPB002
Vial: 1:1,A

GWJ 04-01-10

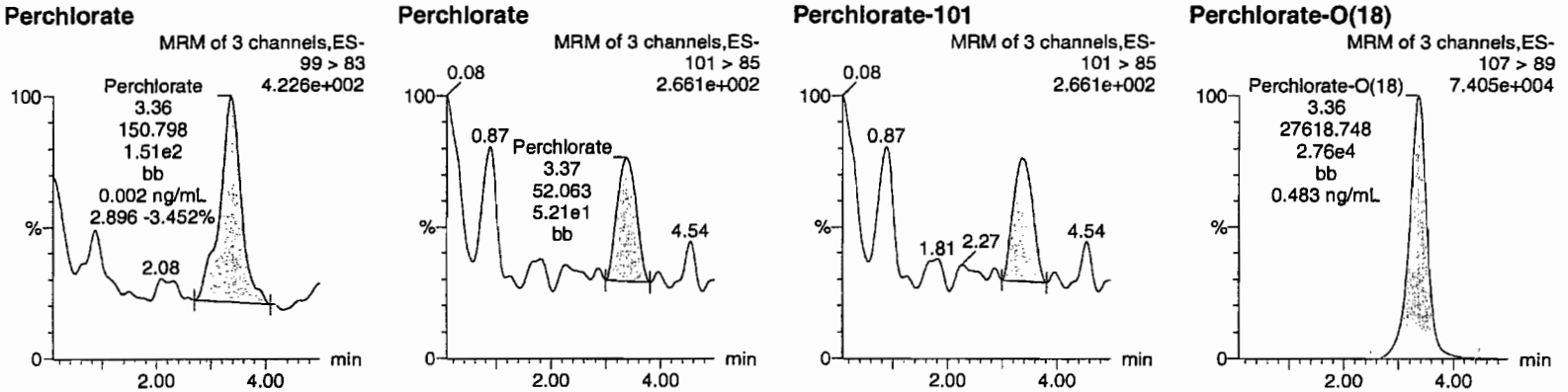

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83	3.36	150.798	150.798	bb			0.0021			39.764	2.90
IPB002	Perchlorate-101	101 > 85	3.37	52.063	52.063	bb			0.0023			10.293	
IPB002	Perchlorate-O(18)	107 > 89	3.36	27618.748	27618.748	bb			0.4830	96.60	-3.40	2123.7...	

MM 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330010a
Date: 30-Mar-2010
Time: 12:18:57
ID: IPB003
Vial: 1:1,A

04-01-10

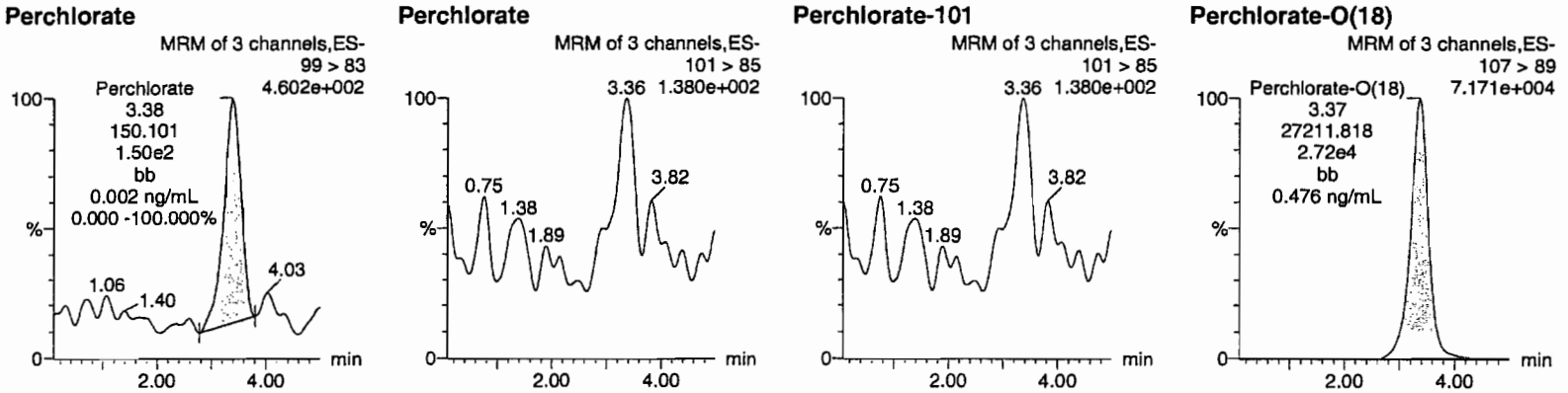

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83	3.38	150.101	150.101	bb			0.0021			59.909	0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	3.37	27211.818	27211.818	bb			0.4759	95.17	-4.83	7432.9...	

MM 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330023a
Date: 30-Mar-2010
Time: 14:03:30
ID: IPB004
Vial: 1:1,A

KWO 04-01-10

Perchlorate

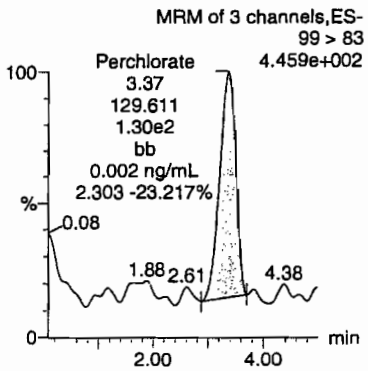

Perchlorate

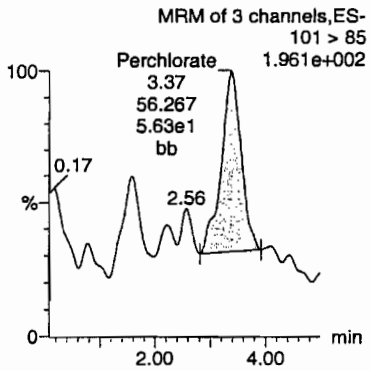

Perchlorate-101

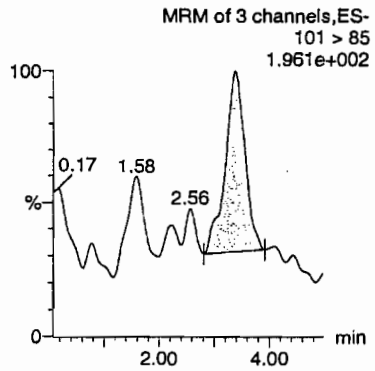

Perchlorate-O(18)

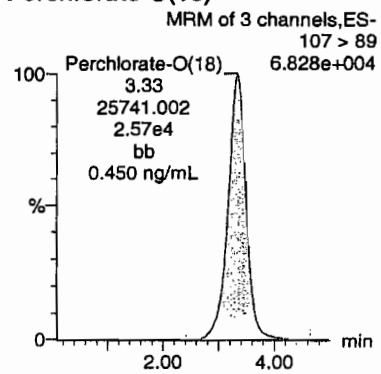

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83	3.37	129.611	129.611	bb			0.0018			20.032	2.30
IPB004	Perchlorate-101	101 > 85	3.37	56.267	56.267	bb			0.0025			3.267	
IPB004	Perchlorate-O(18)	107 > 89	3.33	25741.002	25741.002	bb			0.4501	90.03	-9.97	6511.3...	

0.0074
LOQ 0.0500
MMP
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330034a
Date: 30-Mar-2010
Time: 15:31:58
ID: IPB005
Vial: 1:1,A

CWJ
04-01-10

Perchlorate

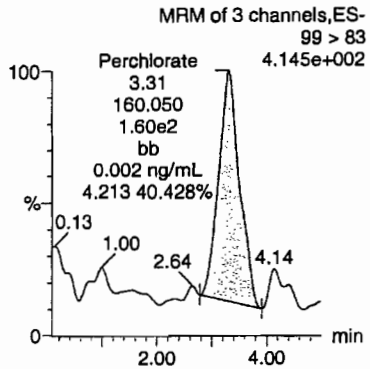

Perchlorate

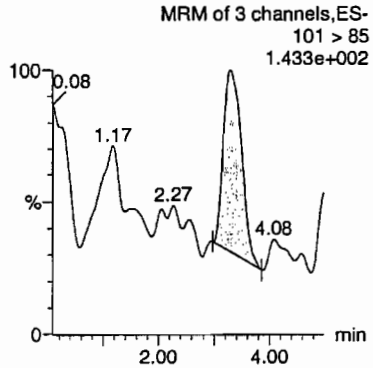

Perchlorate-101

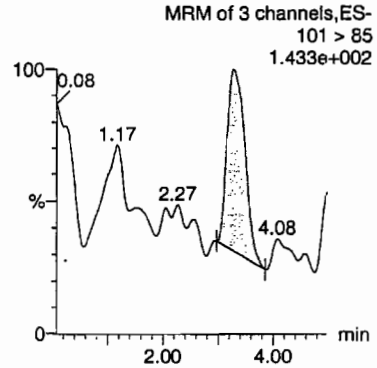

Perchlorate-O(18)

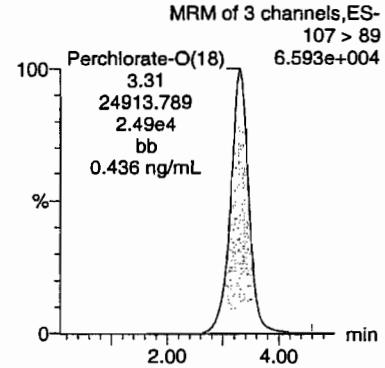

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83	3.31	160.050	160.050	bb			0.0022			18.437	4.21
IPB005	Perchlorate-101	101 > 85	3.28	37.991	37.991	bb			0.0017			22.239	
IPB005	Perchlorate-O(18)	107 > 89	3.31	24913.789	24913.789	bb			0.4357	87.14	-12.86	6308.3...	

CWJ
CQ 0500
MMT
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330046a
Date: 30-Mar-2010
Time: 17:08:48
ID: IPB006
Vial: 1:1,A

33
04-10-10

Perchlorate

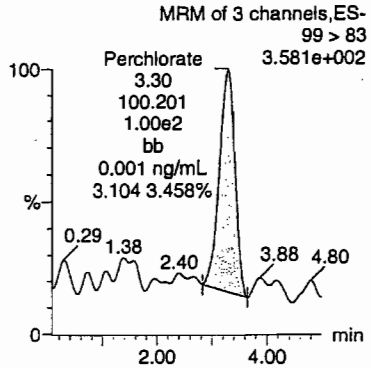

Perchlorate

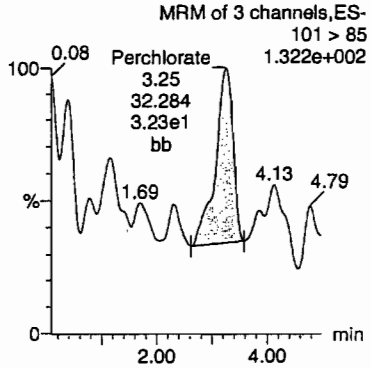

Perchlorate-101

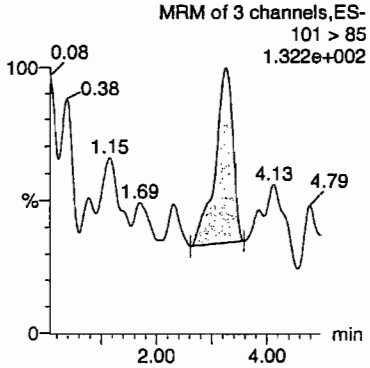

Perchlorate-O(18)

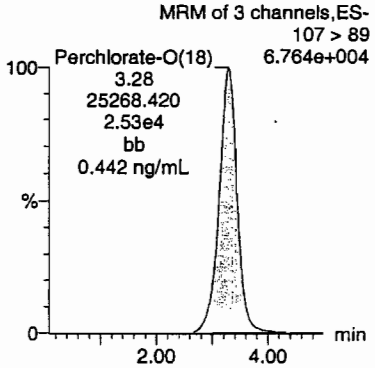

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83	3.30	100.201	100.201	bb			0.0014			17.429	3.10
IPB006	Perchlorate-101	101 > 85	3.25	32.284	32.284	bb			0.0014			9.503	
IPB006	Perchlorate-O(18)	107 > 89	3.28	25268.420	25268.420	bb			0.4419	88.38	-11.62	689.278	

MAP
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330057a
Date: 30-Mar-2010
Time: 18:37:34
ID: IPB007
Vial: 1:1,A

CWJ 04-01-10

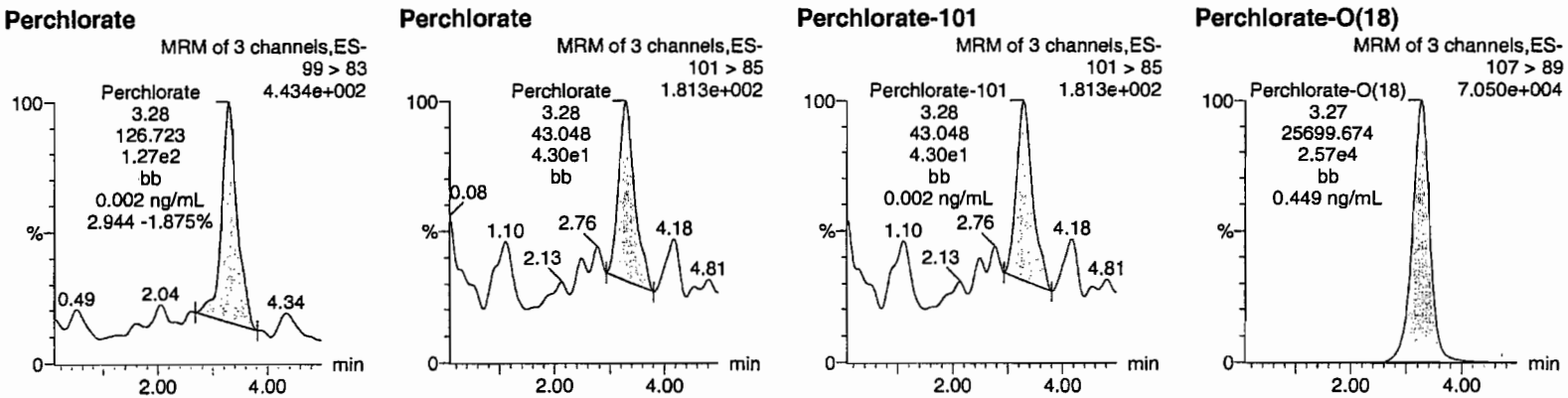

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83	3.28	126.723	126.723	bb			0.0017			43.130	2.94
IPB007	Perchlorate-101	101 > 85	3.28	43.048	43.048	bb			0.0019			14.116	
IPB007	Perchlorate-O(18)	107 > 89	3.27	25699.674	25699.674	bb			0.4494	89.88	-10.12	5871.6...	

MOTT 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330068a
Date: 30-Mar-2010
Time: 20:06:51
ID: IPB008
Vial: 1:1,A

04-01-10

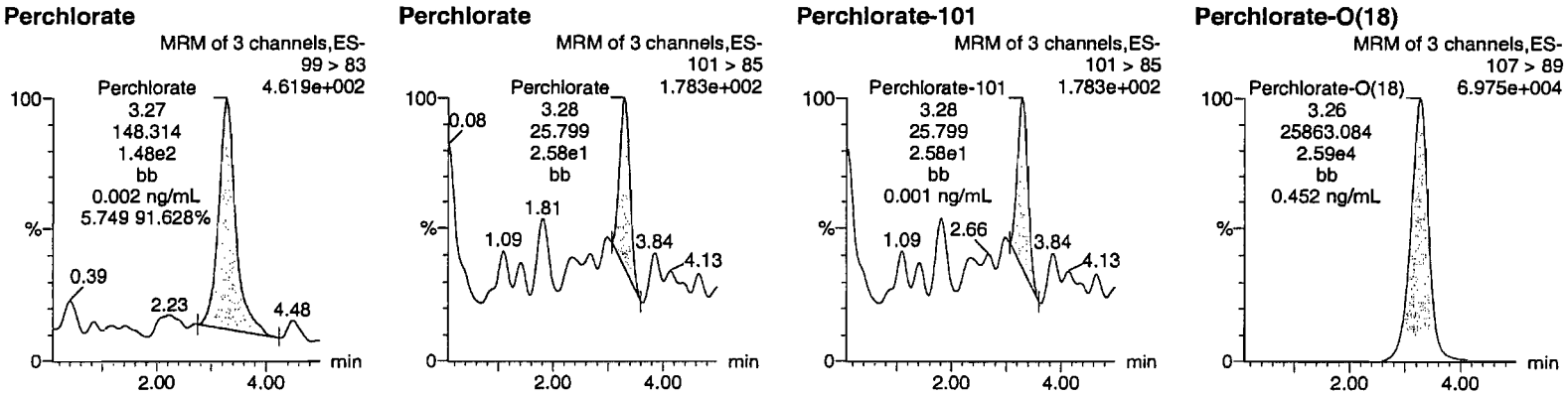

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83	3.27	148.314	148.314	bb			0.0020			6.794	5.75
IPB008	Perchlorate-101	101 > 85	3.28	25.799	25.799	bb			0.0011			2.324	
IPB008	Perchlorate-O(18)	107 > 89	3.26	25863.084	25863.084	bb			0.4523	90.46	-9.54	4379.0...	

OK94
<0.0500
MMT
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330080a
Date: 30-Mar-2010
Time: 21:44:27
ID: IPB009
Vial: 1:1,A

04-01-10

Perchlorate

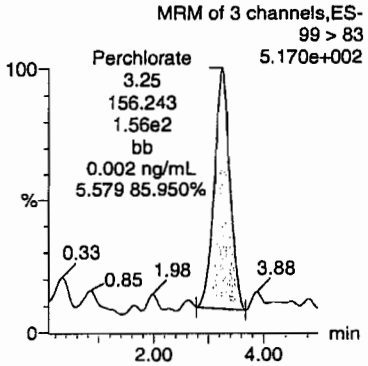

Perchlorate

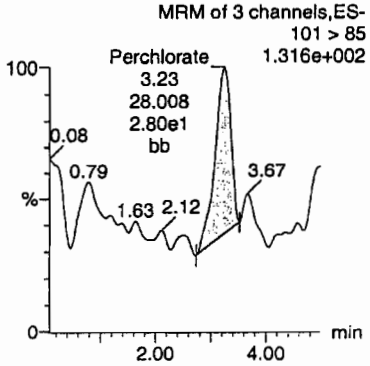

Perchlorate-101

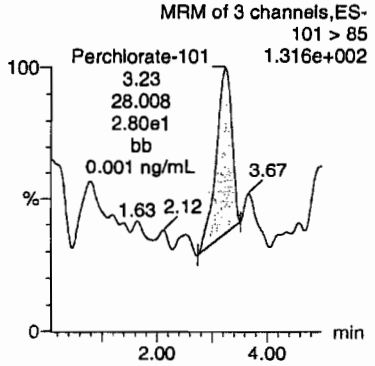

Perchlorate-O(18)

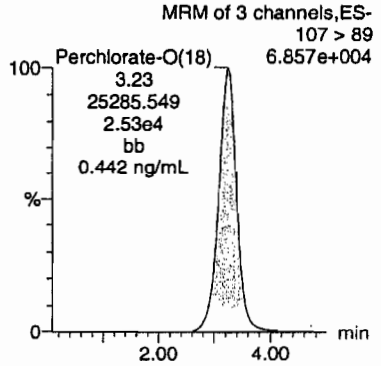

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83	3.25	156.243	156.243	bb			0.0021			43.590	5.58
IPB009	Perchlorate-101	101 > 85	3.23	28.008	28.008	bb			0.0012			27.434	
IPB009	Perchlorate-O(18)	107 > 89	3.23	25285.549	25285.549	bb			0.4422	88.44	-11.56	4055.8...	

04-01-10
<0.0500
MM
4/12/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330092a
Date: 30-Mar-2010
Time: 23:22:38
ID: IPB010
Vial: 1:1,A

CWJ 04-01-10

Perchlorate

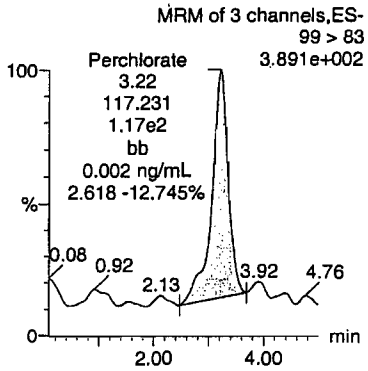

Perchlorate

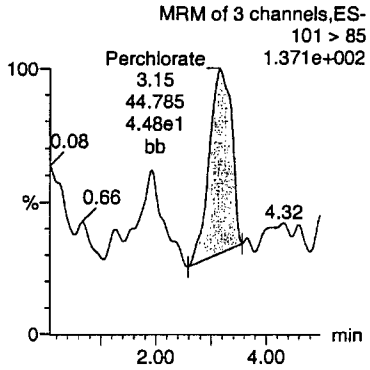

Perchlorate-101

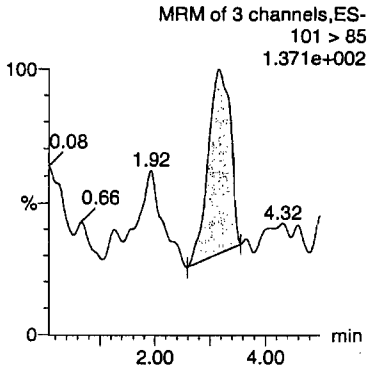

Perchlorate-O(18)

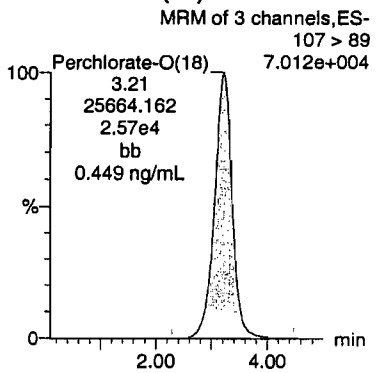

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB010	Perchlorate	99 > 83	3.22	117.231	117.231	bb			0.0016			23.412	2.62
IPB010	Perchlorate-101	101 > 85	3.15	44.785	44.785	bb			0.0020			26.667	
IPB010	Perchlorate-O(18)	107 > 89	3.21	25664.162	25664.162	bb			0.4488	89.76	-10.24	3908.4...	

MAT 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.rcf

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWJ 01-09-08

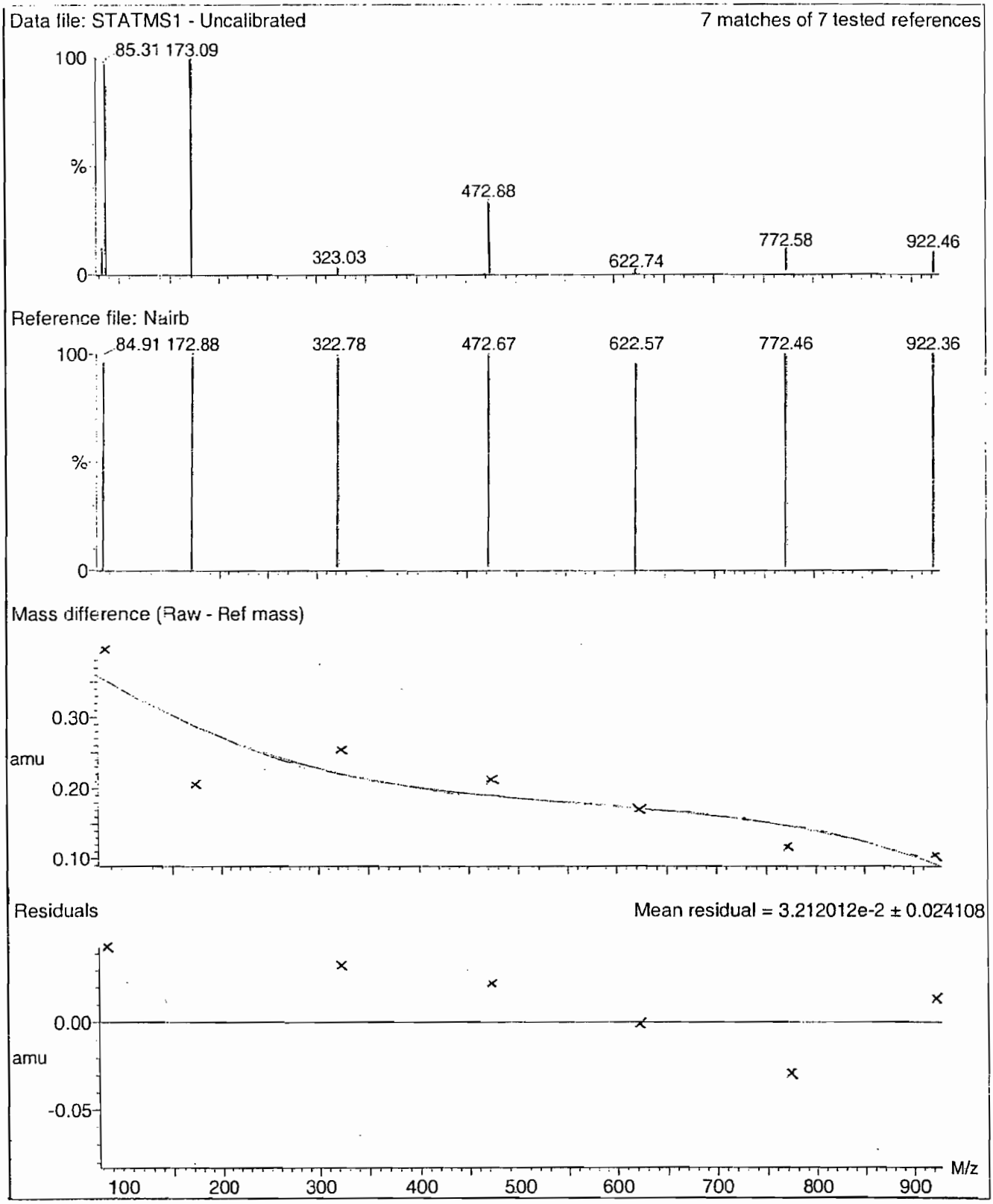

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

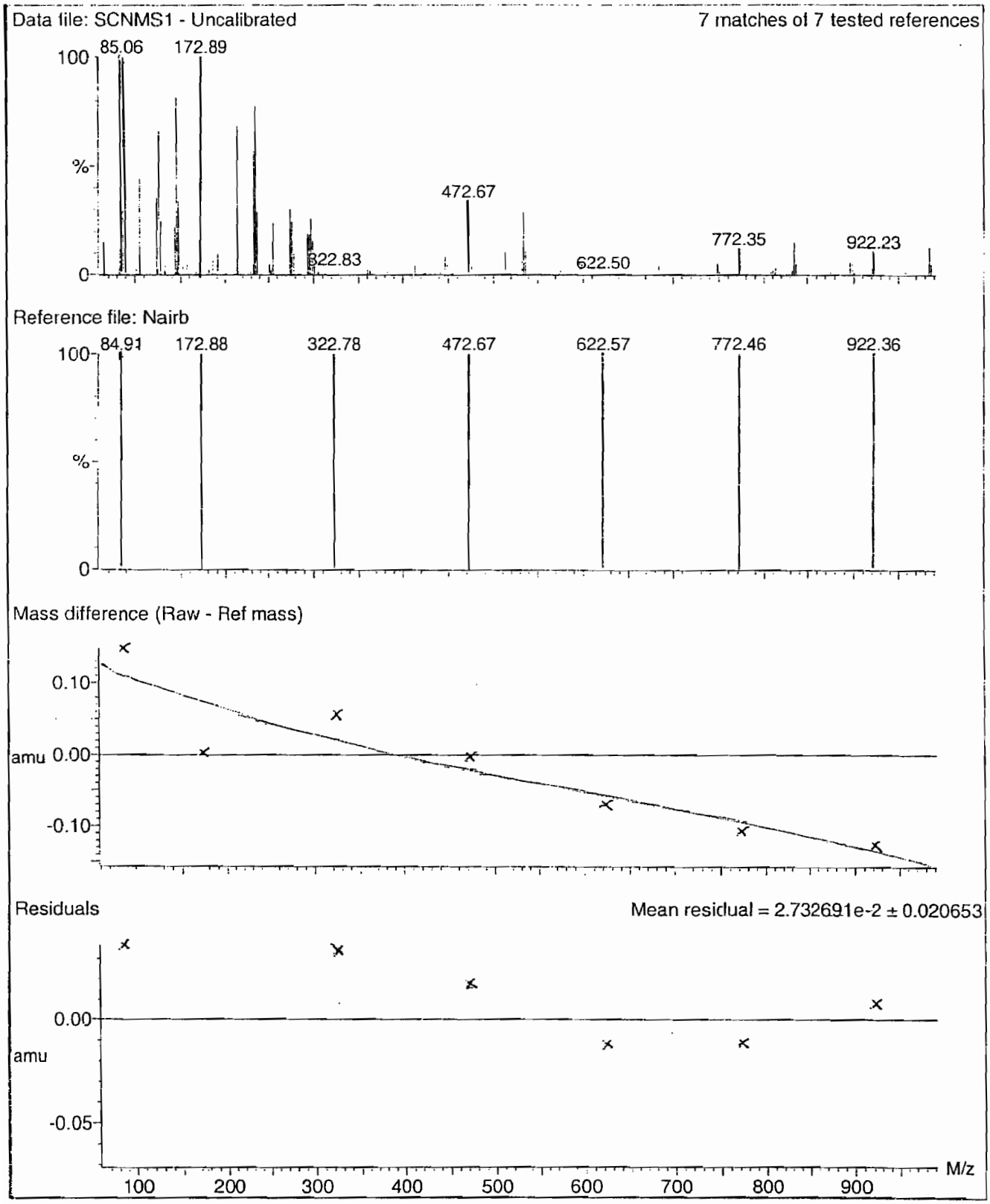

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

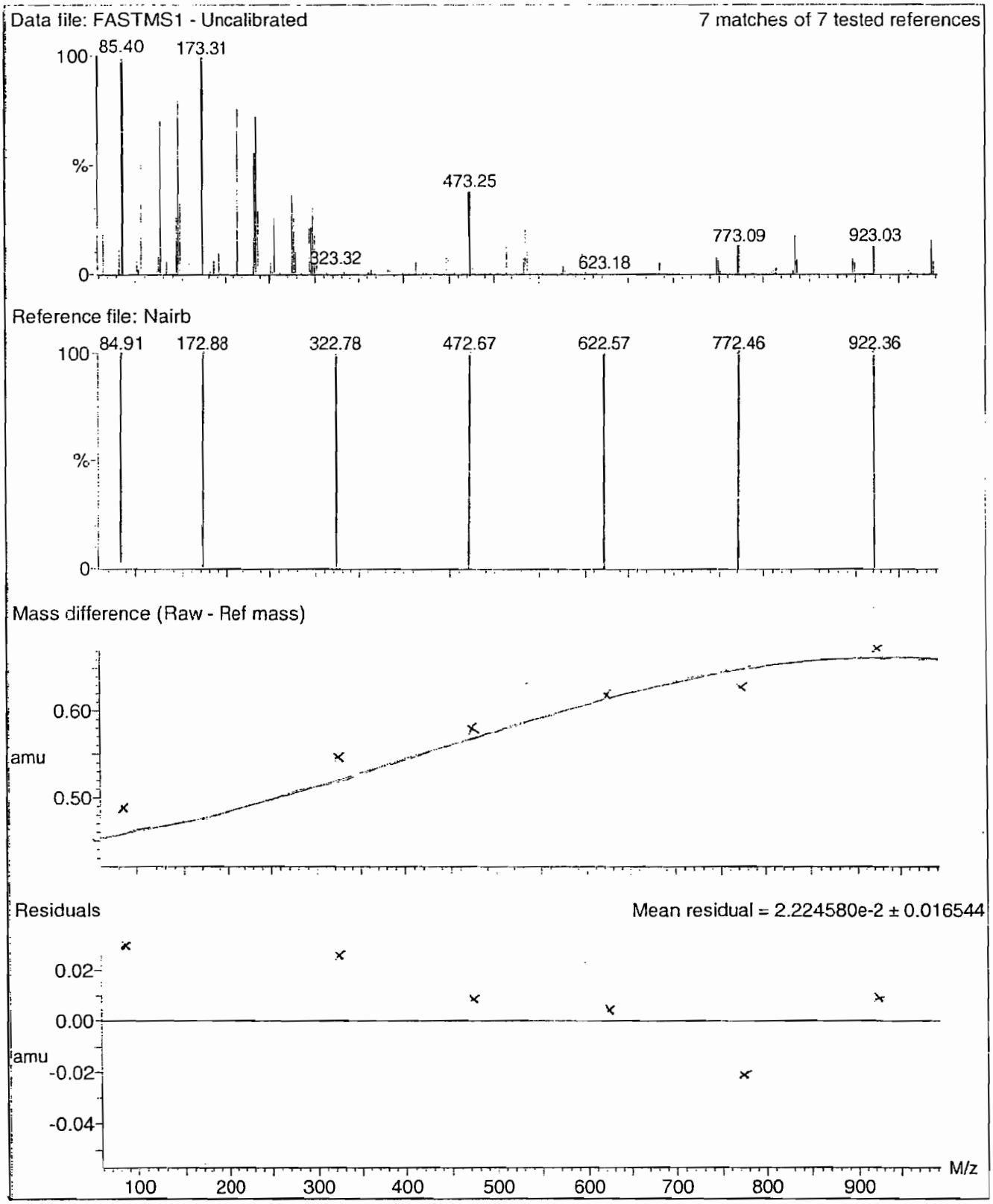

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

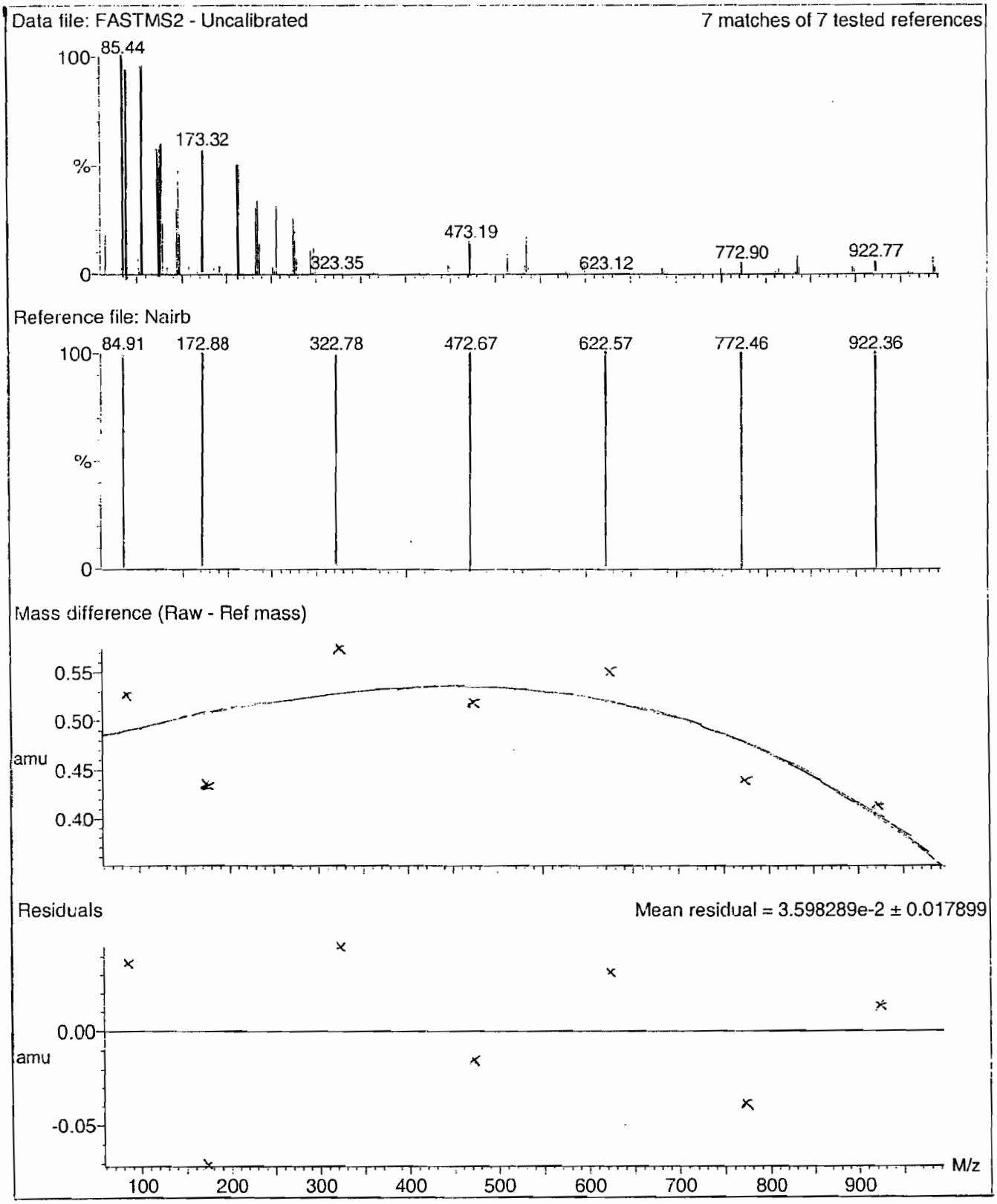

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

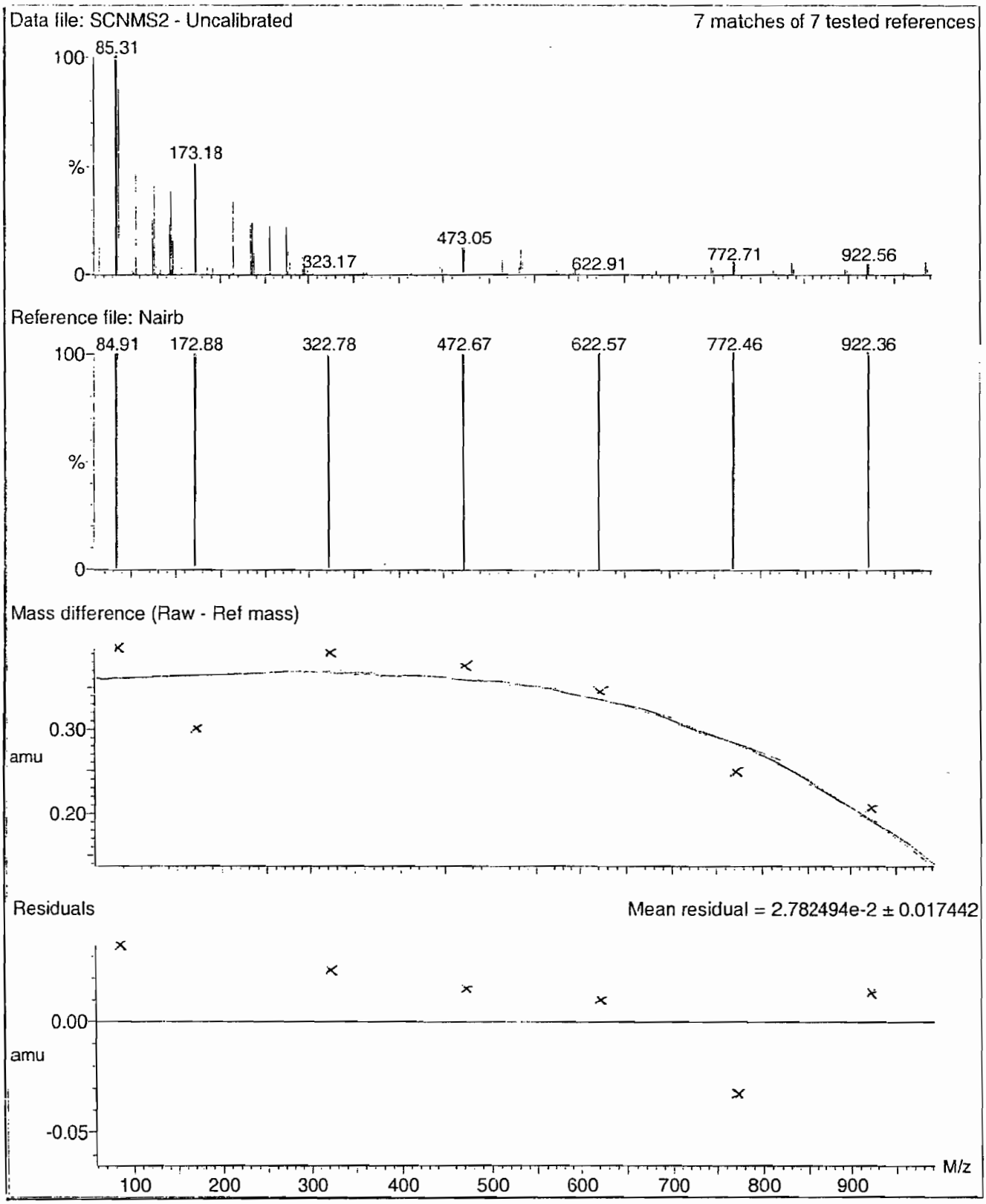

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

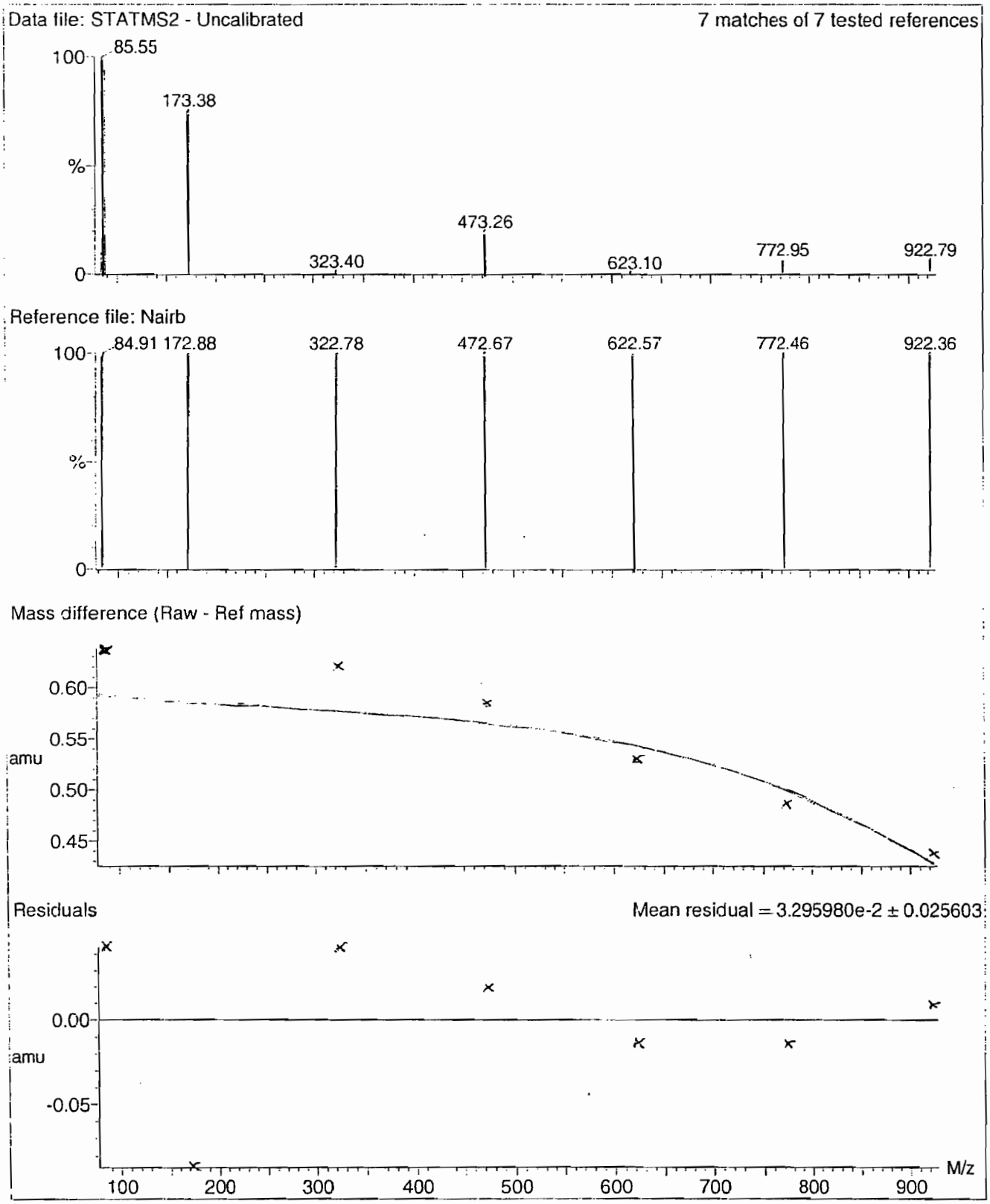

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Saturday, March 27, 2010 08:39:45 Eastern Standard Time

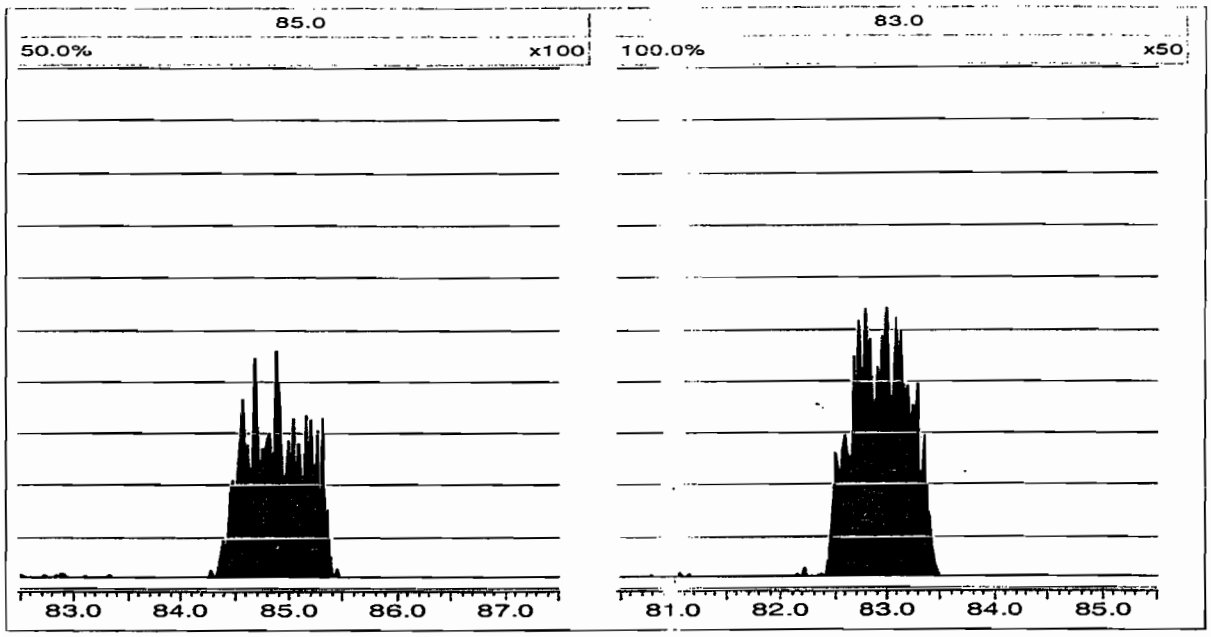

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Tuesday, March 30, 2010 08:55:18 Eastern Standard Time

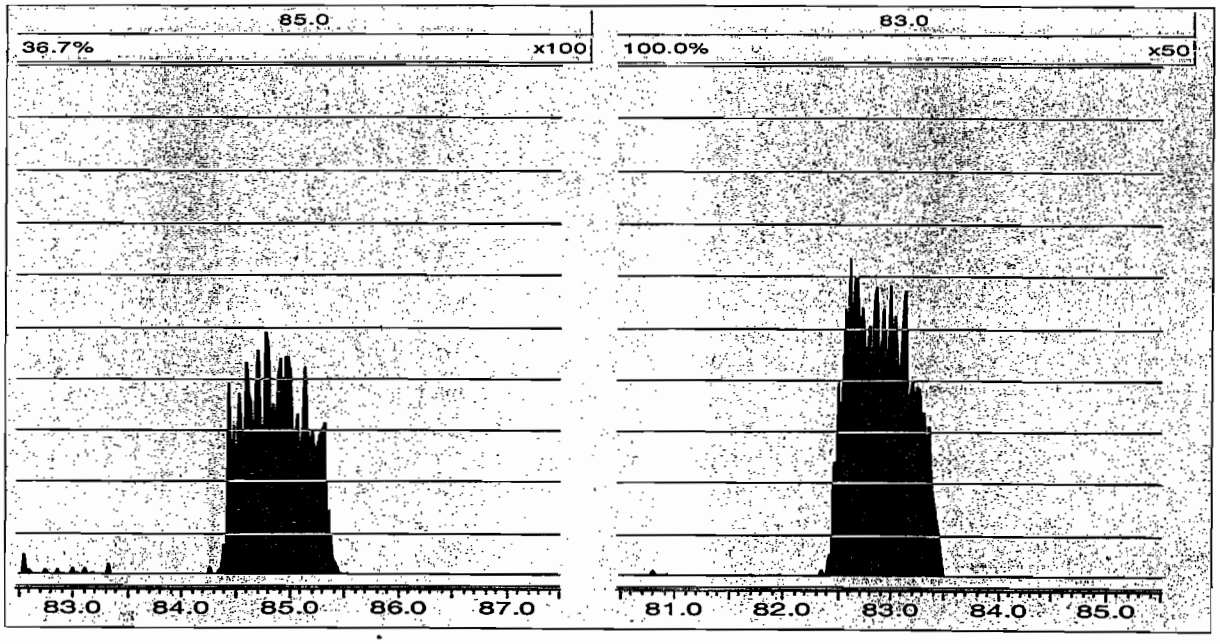

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2434

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0327006a**	**27–MAR–10**	**29367.8**				
Lower Area Limit			**14683.9**				
Upper Area Limit			**58735.6**				
1202074284	per0327064a	27–MAR–10 23:42	25917.4	4.09			
1202074285	per0327065a	27–MAR–10 23:52	26331.6	4.09	4.10405	1.003	
1202074288	per0327066a	28–MAR–10 00:02	29041.6	4.13	4.15363	1.006	
249333001	per0327082a	28–MAR–10 02:36	26848.9	3.58			
1202074286	per0327083a	28–MAR–10 02:46	27703.8	3.56	3.5823	1.006	
1202074287	per0327084a	28–MAR–10 02:56	28167.4	3.56	3.56978	1.003	
249333002	per0327085a	28–MAR–10 03:05	27105.2	3.55			

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Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2434

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0330006a**	**30–MAR–10**	**28137.8**				
Lower Area Limit			**14068.9**				
Upper Area Limit			**56275.6**				
1202074304	per0330070a	30–MAR–10 20:23	23756.8	3.25	3.27163	1.007	
1202074305	per0330071a	30–MAR–10 20:31	26753.7	3.26	3.27163	1.004	
1202074308	per0330072a	30–MAR–10 20:39	29266.4	3.27	3.28408	1.004	
249333003	per0330082a	30–MAR–10 22:00	28027.6	3.23	3.24682	1.005	
1202074306	per0330083a	30–MAR–10 22:09	28663.2	3.23	3.24685	1.005	
1202074307	per0330084a	30–MAR–10 22:17	26732.1	3.23	3.2468	1.005	
249333004	per0330085a	30–MAR–10 22:25	28019.5	3.23	3.24685	1.005	
249333005	per0330086a	30–MAR–10 22:33	28962.4	3.22	3.24683	1.008	

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Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2434

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0330006a**	**30–MAR–10**	**28137.8**				
Lower Area Limit			**14068.9**				
Upper Area Limit			**56275.6**				
249333006	per0330087a	30–MAR–10 22:41	26980	3.22	3.24683	1.008	
249333007	per0330088a	30–MAR–10 22:49	27249.1	3.21	3.2344	1.008	
249333008	per0330089a	30–MAR–10 22:57	26785.9	3.21	3.23437	1.008	
249333009	per0330090a	30–MAR–10 23:05	27366.7	3.21	3.23443	1.008	

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 966565

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE46-10-12997

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333001

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	28-MAR-10 02:36	per0327082a
	Perchlorate Isotope Ratio						1	28-MAR-10 02:36	per0327082a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	28-MAR-10 02:36	per0327082a
	Perchlorate-O(18)			0.463	ug/L		1	28-MAR-10 02:36	per0327082a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327082a
Date: 28-Mar-2010
Time: 02:36:40
ID: 249333001
Vial: 2:7,F

|LANL|9665566|LZQ|1|

aw
03-29-10

Perchlorate

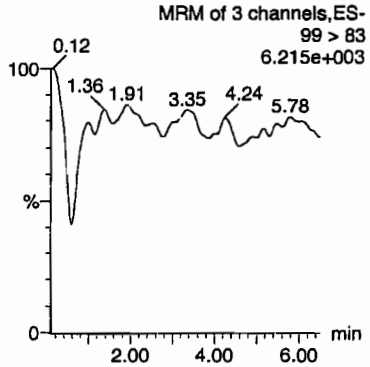

Perchlorate

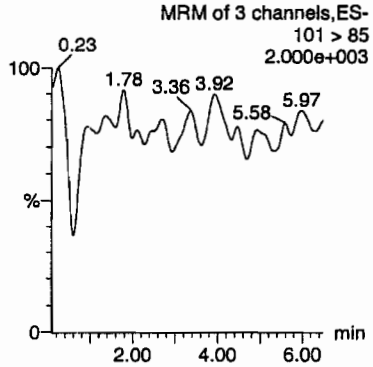

Perchlorate-101

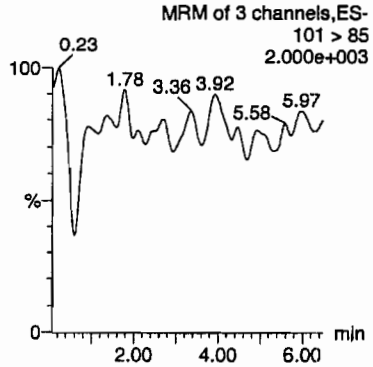

Perchlorate-O(18)

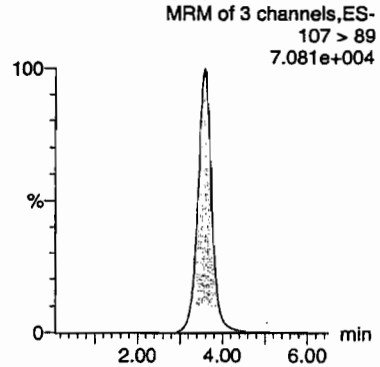

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
249333001	Perchlorate	99 > 83											0.00
249333001	Perchlorate-101	101 > 85											
249333001	Perchlorate-O(18)	107 > 89	3.58	26848.943	26848.943	bb			0.4625	92.50	-7.50	2257.4...	

LMT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 966565

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE46-10-12994

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333002

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	28-MAR-10 03:05	per0327085a
	Perchlorate Isotope Ratio						1	28-MAR-10 03:05	per0327085a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	28-MAR-10 03:05	per0327085a
	Perchlorate-O(18)			0.467	ug/L		1	28-MAR-10 03:05	per0327085a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327085a
Date: 28-Mar-2010
Time: 03:05:51
ID: 249333002
Vial: 2:8,C

|LANL|966566|LTQ|1|

03-29-10

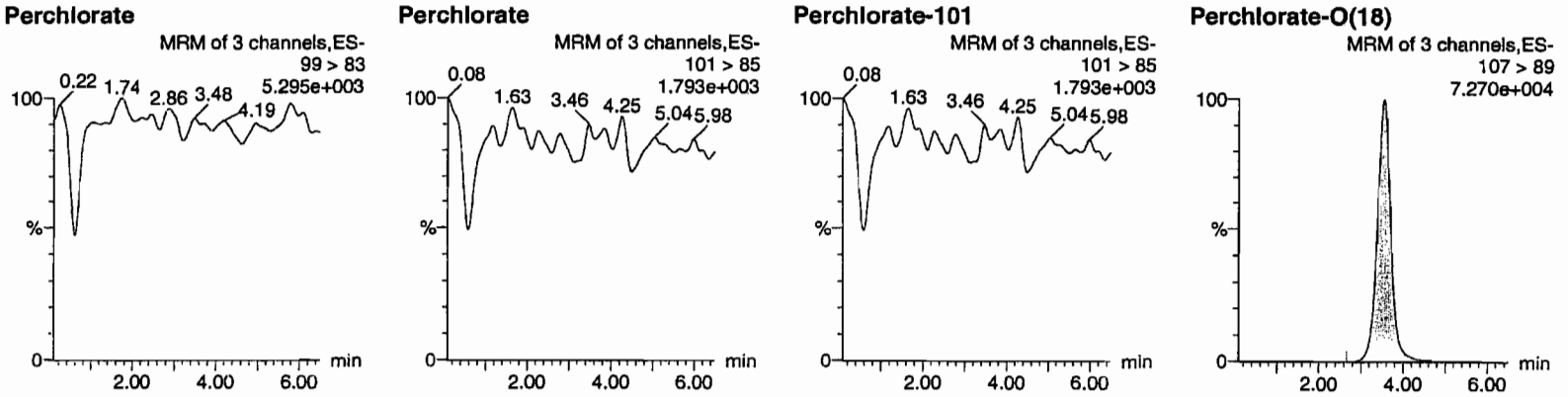

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
249333002	Perchlorate	99 > 83											0.00
249333002	Perchlorate-101	101 > 85											
249333002	Perchlorate-O(18)	107 > 89	3.55	27105.174	27105.174	bb			0.4669	93.39	-6.61	3296.9...	

MAT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12972

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333003

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.57	2.28	0.570	ug/kg	U	1	30-MAR-10 22:00	per0330082a
	Perchlorate Isotope Ratio						1	30-MAR-10 22:00	per0330082a
14797-73-0	Perchlorate-101	.57	2.28	0.570	ug/kg	U	1	30-MAR-10 22:00	per0330082a
	Perchlorate-O(18)			5.59	ug/kg		1	30-MAR-10 22:00	per0330082a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330082a
Date: 30-Mar-2010
Time: 22:00:39
ID: 249333003
Vial: 2:7,D

|LANL|966578|50620|1|

04-01-10

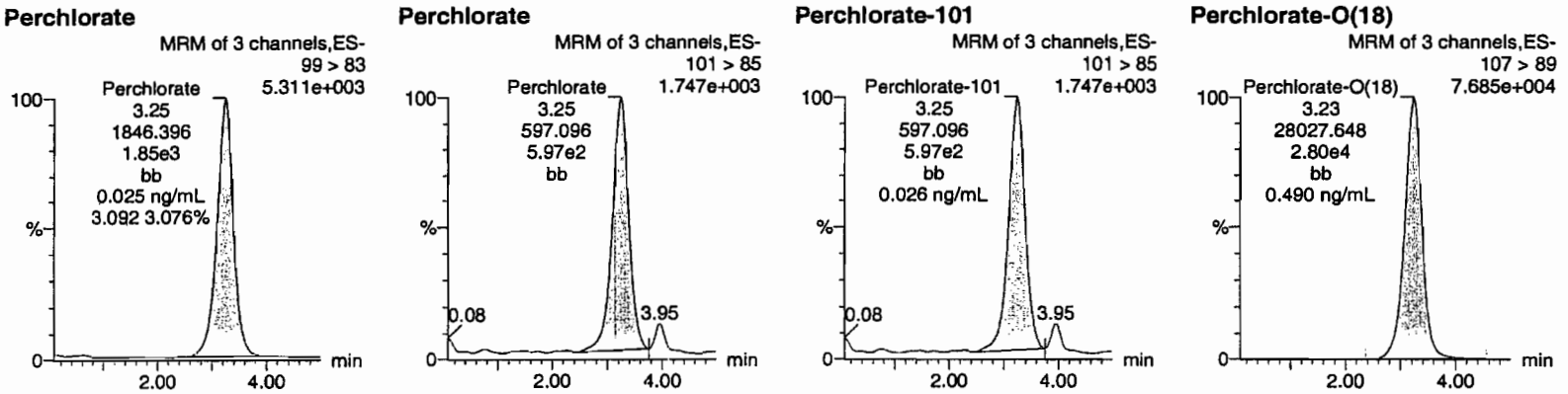

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
249333003	Perchlorate	99 > 83	3.25	1846.396	1846.396	bb			0.0252			482.594	3.09
249333003	Perchlorate-101	101 > 85	3.25	597.096	597.096	bb			0.0262			89.226	
249333003	Perchlorate-O(18)	107 > 89	3.23	28027.648	28027.648	bb			0.4901	98.03	-1.97	4023.1...	

MMT 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13003

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333004

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.565	2.26	0.565	ug/kg	U	1	30-MAR-10 22:25	per0330085a
	Perchlorate Isotope Ratio						1	30-MAR-10 22:25	per0330085a
14797-73-0	Perchlorate-101	.565	2.26	0.565	ug/kg	U	1	30-MAR-10 22:25	per0330085a
	Perchlorate-O(18)			5.54	ug/kg		1	30-MAR-10 22:25	per0330085a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330085a
Date: 30-Mar-2010
Time: 22:25:08
ID: 249333004
Vial: 2:8,A

|LANL|966578|30120|1|

WW
04-01-10

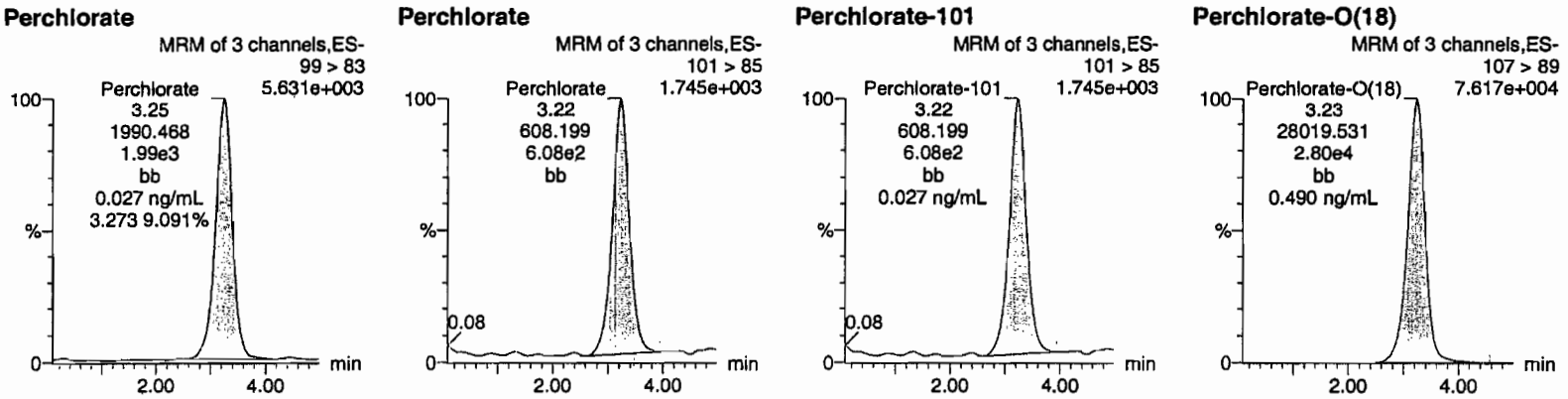

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion	Ratio
249333004	Perchlorate	99 > 83	3.25	1990.468	1990.468	bb			0.0272			336.423		3.27
249333004	Perchlorate-101	101 > 85	3.22	608.199	608.199	bb			0.0267			221.008		
249333004	Perchlorate-O(18)	107 > 89	3.23	28019.531	28019.531	bb			0.4900	98.00	-2.00	19102....		

MM
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12967

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333005

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.631	2.52	1.66	ug/kg	J	1	30-MAR-10 22:33	per0330086a
	Perchlorate Isotope Ratio			3.2			1	30-MAR-10 22:33	per0330086a
14797-73-0	Perchlorate-101	.631	2.52	1.67	ug/kg	J	1	30-MAR-10 22:33	per0330086a
	Perchlorate-O(18)			6.39	ug/kg		1	30-MAR-10 22:33	per0330086a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330086a
Date: 30-Mar-2010
Time: 22:33:13
ID: 249333005
Vial: 2:8,B

| LANL | 966573 | 50120 | 11 |

04-01-10

Perchlorate

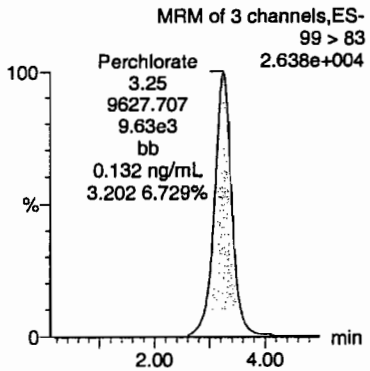

Perchlorate

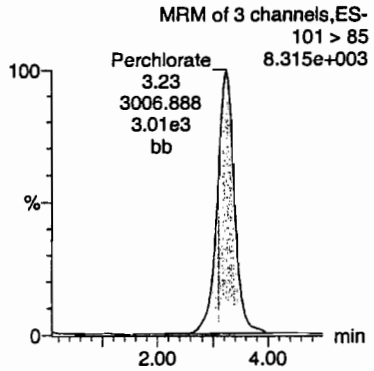

Perchlorate-101

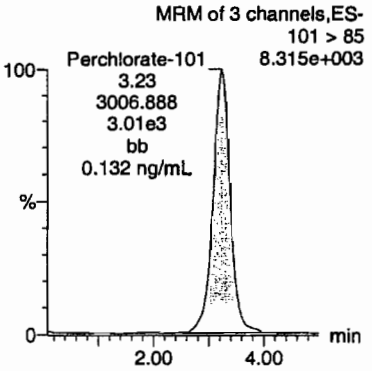

Perchlorate-O(18)

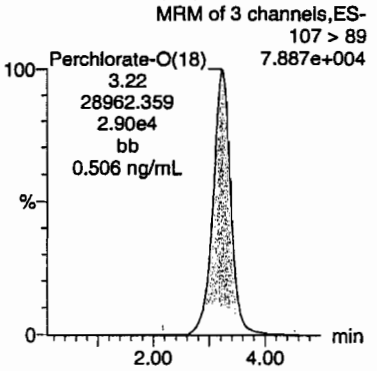

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
249333005	Perchlorate	99 > 83	3.25	9627.707	9627.707	bb			0.1316			4052.5...	3.20
249333005	Perchlorate-101	101 > 85	3.23	3006.888	3006.888	bb			0.1322			833.629	
249333005	Perchlorate-O(18)	107 > 89	3.22	28962.359	28962.359	bb			0.5065	101.29	1.29	4462.1...	

MAT 4/2/10

$$\frac{9627.707}{3006.888} = 3.2019$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12971

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333006

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 78

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.639	2.56	0.639	ug/kg	U	1	30-MAR-10 22:41	per0330087a
	Perchlorate Isotope Ratio						1	30-MAR-10 22:41	per0330087a
14797-73-0	Perchlorate-101	.639	2.56	0.639	ug/kg	U	1	30-MAR-10 22:41	per0330087a
	Perchlorate-O(18)			6.03	ug/kg		1	30-MAR-10 22:41	per0330087a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330087a
Date: 30-Mar-2010
Time: 22:41:18
ID: 249333006
Vial: 2:8,C

|LANL|966578|SDLCS|1|

LWD 04-01-10

Perchlorate

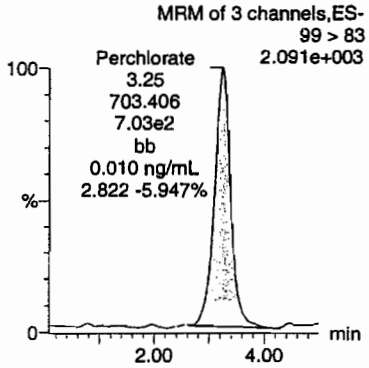

Perchlorate

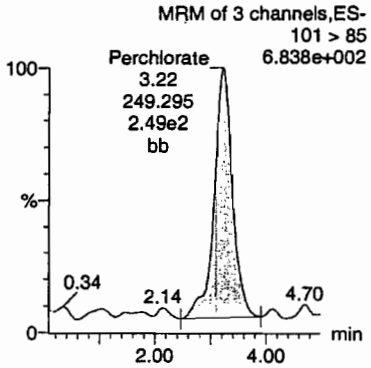

Perchlorate-101

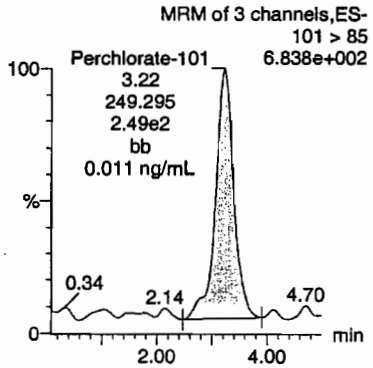

Perchlorate-O(18)

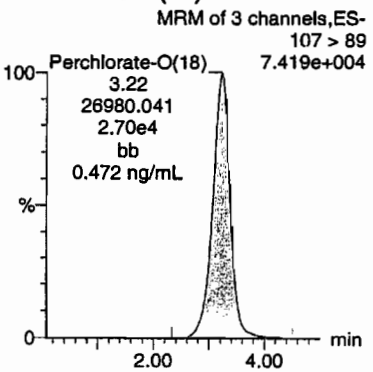

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
249333006	Perchlorate	99 > 83	3.25	703.406	703.406	bb			0.0096			206.210	2.82
249333006	Perchlorate-101	101 > 85	3.22	249.295	249.295	bb			0.0110			18.851	
249333006	Perchlorate-O(18)	107 > 89	3.22	26980.041	26980.041	bb			0.4718	94.36	-5.64	3759.4...	

4/2/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12968

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333007

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.558	2.23	0.603	ug/kg	J	1	30-MAR-10 22:49	per0330088a
	Perchlorate Isotope Ratio			3.09			1	30-MAR-10 22:49	per0330088a
14797-73-0	Perchlorate-101	.558	2.23	0.628	ug/kg	J	1	30-MAR-10 22:49	per0330088a
	Perchlorate-O(18)			5.32	ug/kg		1	30-MAR-10 22:49	per0330088a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330088a
Date: 30-Mar-2010
Time: 22:49:30
ID: 249333007
Vial: 2:8,D

| LANL | 966578 | 50120 | 1 |

WW 04-01-10

Perchlorate

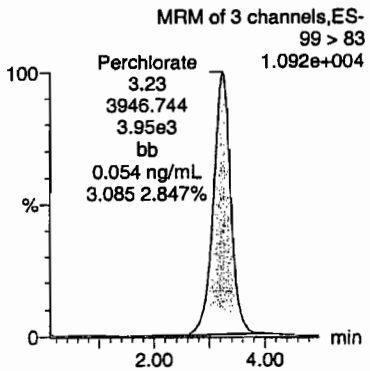

Perchlorate

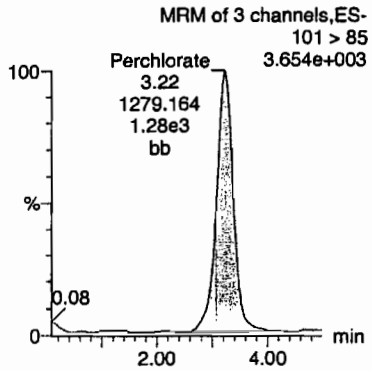

Perchlorate-101

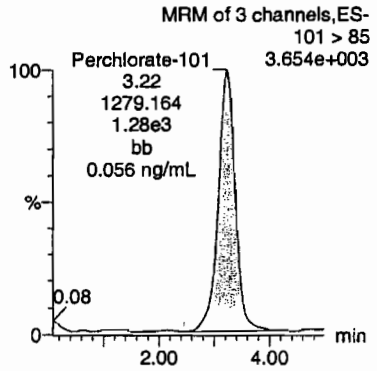

Perchlorate-O(18)

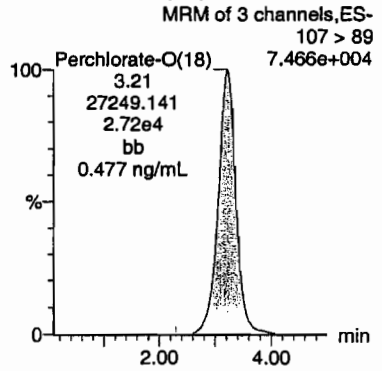

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
249333007	Perchlorate	99 > 83	3.23	3946.744	3946.744	bb			0.0540			311.381	3.09
249333007	Perchlorate-101	101 > 85	3.22	1279.164	1279.164	bb			0.0562			483.643	
249333007	Perchlorate-O(18)	107 > 89	3.21	27249.141	27249.141	bb			0.4765	95.30	-4.70	8902.9...	

MAT 4/2/10

$$\frac{3946.744}{73132.7} = 0.0540$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12969

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333008

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.571	2.28	0.571	ug/kg	U	1	30-MAR-10 22:57	per0330089a
	Perchlorate Isotope Ratio						1	30-MAR-10 22:57	per0330089a
14797-73-0	Perchlorate-101	.571	2.28	0.571	ug/kg	U	1	30-MAR-10 22:57	per0330089a
	Perchlorate-O(18)			5.35	ug/kg		1	30-MAR-10 22:57	per0330089a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330089a
Date: 30-Mar-2010
Time: 22:57:42
ID: 249333008
Vial: 2:8,E

| LANL | 966578 | 50120 | 1 |

WJ 4-01-10

Perchlorate

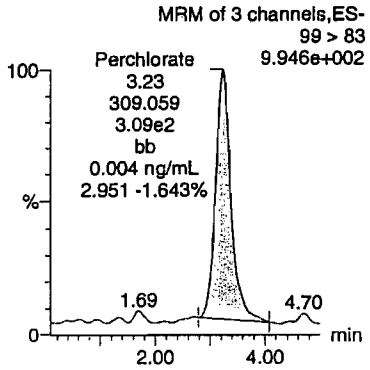

Perchlorate

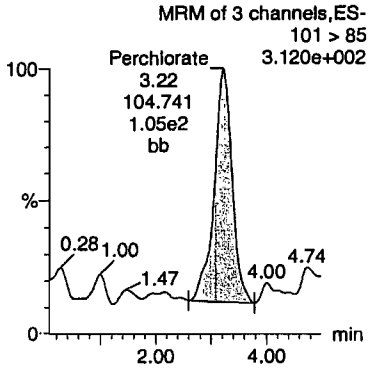

Perchlorate-101

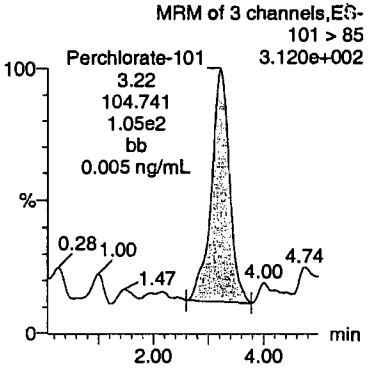

Perchlorate-O(18)

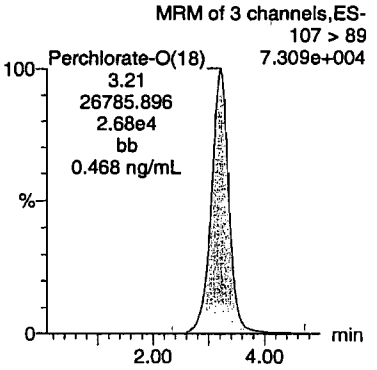

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
249333008	Perchlorate	99 > 83	3.23	309.059	309.059	bb			0.0042			43.591	2.95
249333008	Perchlorate-101	101 > 85	3.22	104.741	104.741	bb			0.0046			32.444	
249333008	Perchlorate-O(18)	107 > 89	3.21	26785.896	26785.896	bb			0.4684	93.68	-6.32	1422.1...	

MM 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12970

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 249333009

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.591	2.36	0.591	ug/kg	U	1	30-MAR-10 23:05	per0330090a
	Perchlorate Isotope Ratio						1	30-MAR-10 23:05	per0330090a
14797-73-0	Perchlorate-101	.591	2.36	0.591	ug/kg	U	1	30-MAR-10 23:05	per0330090a
	Perchlorate-O(18)			5.65	ug/kg		1	30-MAR-10 23:05	per0330090a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330090a
Date: 30-Mar-2010
Time: 23:05:53
ID: 249333009
Vial: 2:8,F

|LANL|9666578|50120|1|

GW 04-01-10

Perchlorate

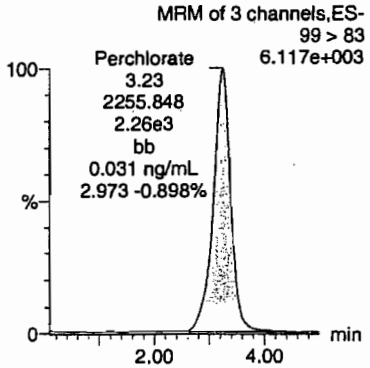

Perchlorate

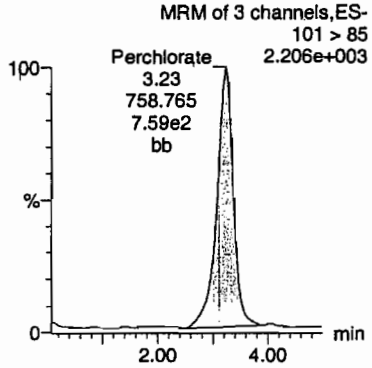

Perchlorate-101

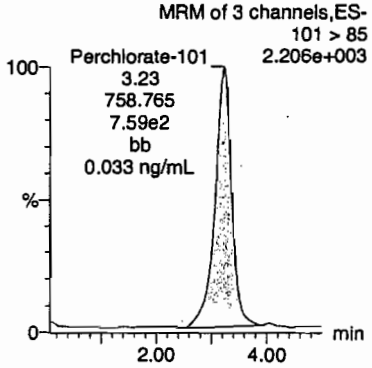

Perchlorate-O(18)

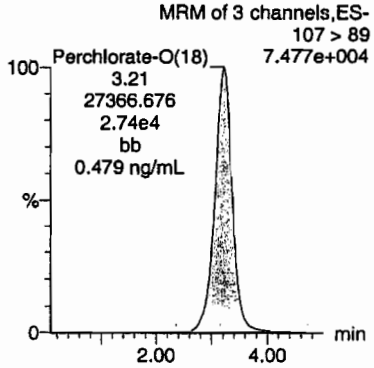

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
249333009	Perchlorate	99 > 83	3.23	2255.848	2255.848	bb			0.0308			985.882	2.97
249333009	Perchlorate-101	101 > 85	3.23	758.765	758.765	bb			0.0334			386.754	
249333009	Perchlorate-O(18)	107 > 89	3.21	27366.676	27366.676	bb			0.4786	95.71	-4.29	1582.4...	

MAT 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-2434

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 27-MAR-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 76347.46

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2434

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 27–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 23991.9

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032710a.mdb 28 Mar 2010 10:15:37
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032710a.cdb 28 Mar 2010 10:33:56

Compound name: Perchlorate
Response Factor: 76347.5
RRF SD: 11462.3, % Relative SD: 15.0133
Response type: External Std, Area
Curve type: RF

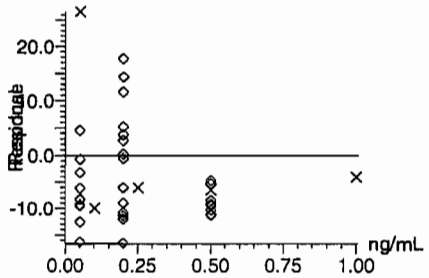

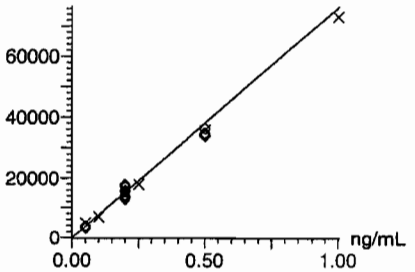

AW
03-28-10

Compound name: Perchlorate-101
Response Factor: 23991.9
RRF SD: 3203.85, % Relative SD: 13.3539
Response type: External Std, Area
Curve type: RF

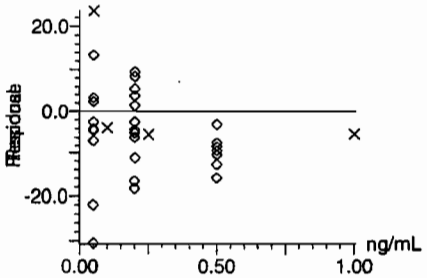

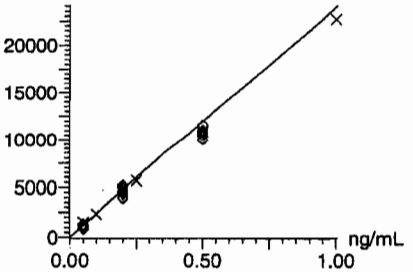

MH
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 58049.6
RRF SD: 736.924, % Relative SD: 1.26947
Response type: External Std, Area
Curve type: RF

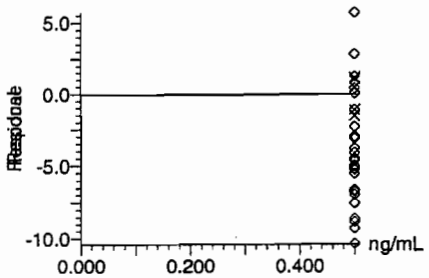

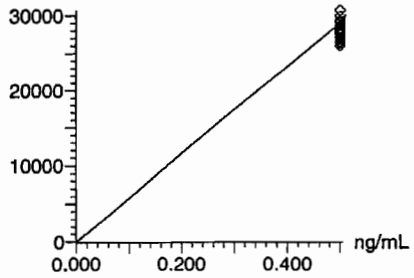

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2434

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 30–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 73132.72

Response Type: External Standard

Curve Type: RF

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2434

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 30–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 22749.34

Response Type: External Standard

Curve Type: RF

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per033010a.mdb 31 Mar 2010 11:16:12
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per033010a.cdb 31 Mar 2010 11:16:25

Compound name: Perchlorate
Response Factor: 73132.7
RRF SD: 1899.06, % Relative SD: 2.59673
Response type: External Std, Area
Curve type: RF

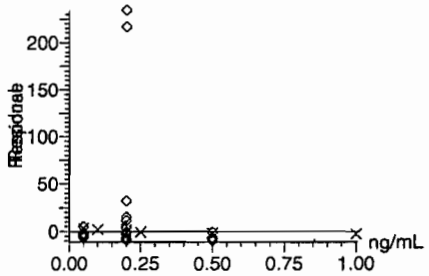

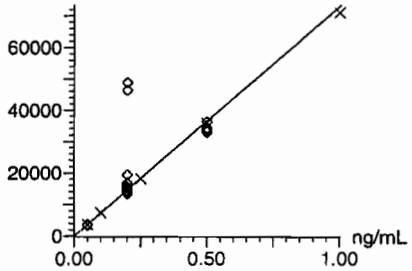

CWW
04-01-10

Compound name: Perchlorate-101
Response Factor: 22749.3
RRF SD: 893.276, % Relative SD: 3.9266
Response type: External Std, Area
Curve type: RF

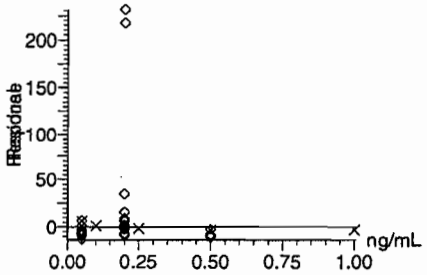

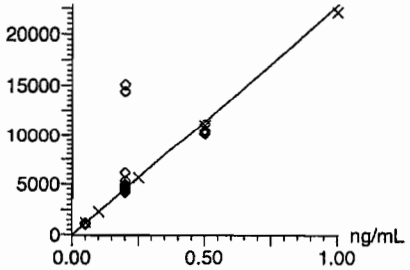

MTT
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 57184.3
RRF SD: 840.879, % Relative SD: 1.47047
Response type: External Std, Area
Curve type: RF

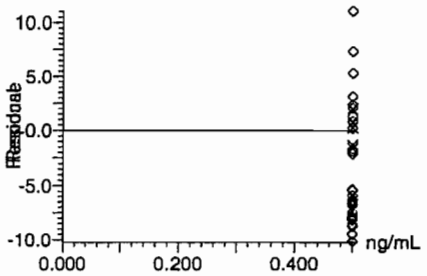

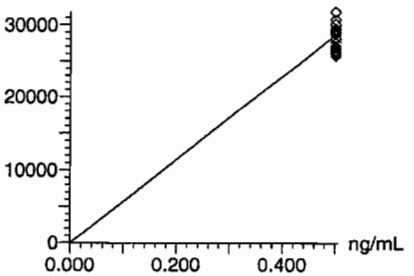

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2434

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.48	95.3	27–MAR–10 14:52	per0327009a
Perchlorate Isotope Ratio		3.13		27–MAR–10 14:52	per0327009a
Perchlorate–101	.5	.48	96.92	27–MAR–10 14:52	per0327009a
Perchlorate	.5	.5	99.03	30–MAR–10 12:10	per0330009a
Perchlorate Isotope Ratio		3.26		30–MAR–10 12:10	per0330009a
Perchlorate–101	.5	.49	97.71	30–MAR–10 12:10	per0330009a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327009a
Date: 27-Mar-2010
Time: 14:52:39
ID: WCL100326-06ICV
Vial: 1:2,A

Pass
aw
03-28-10

Perchlorate

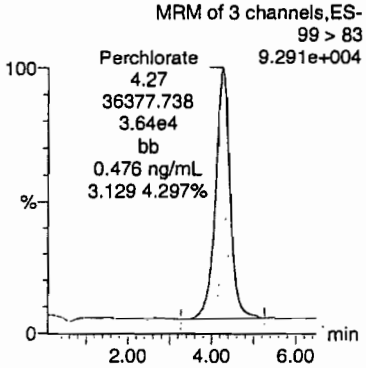

Perchlorate

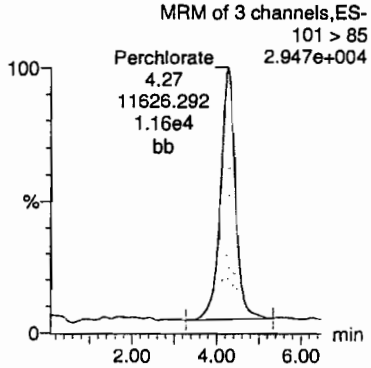

Perchlorate-101

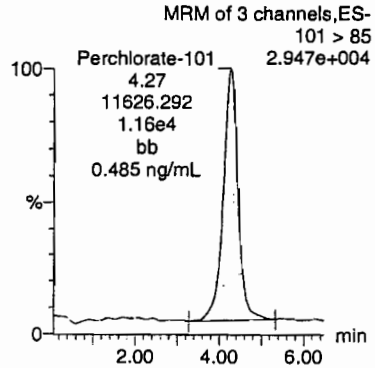

Perchlorate-O(18)

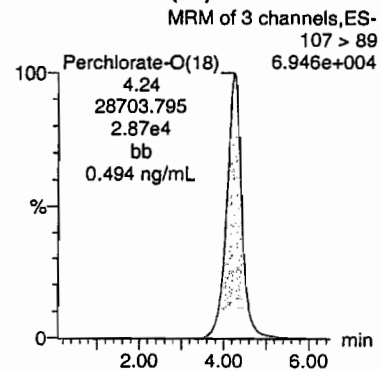

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06ICV	Perchlorate	99 > 83	4.27	36377.738	36377.738	bb			0.4765	95.30	-4.70	650.248	3.13
WCL100326-06ICV	Perchlorate-101	101 > 85	4.27	11626.292	11626.292	bb			0.4846	96.92	-3.08	275.524	
WCL100326-06ICV	Perchlorate-O(18)	107 > 89	4.24	28703.795	28703.795	bb			0.4945	98.89	-1.11	789.224	

MATT 3/30/10

$\frac{36377.738}{76347.5} = 0.4765$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330009a
Date: 30-Mar-2010
Time: 12:10:54
ID: WCL100326-06ICV
Vial: 1:2,A

Pwm
aw
04-01-10

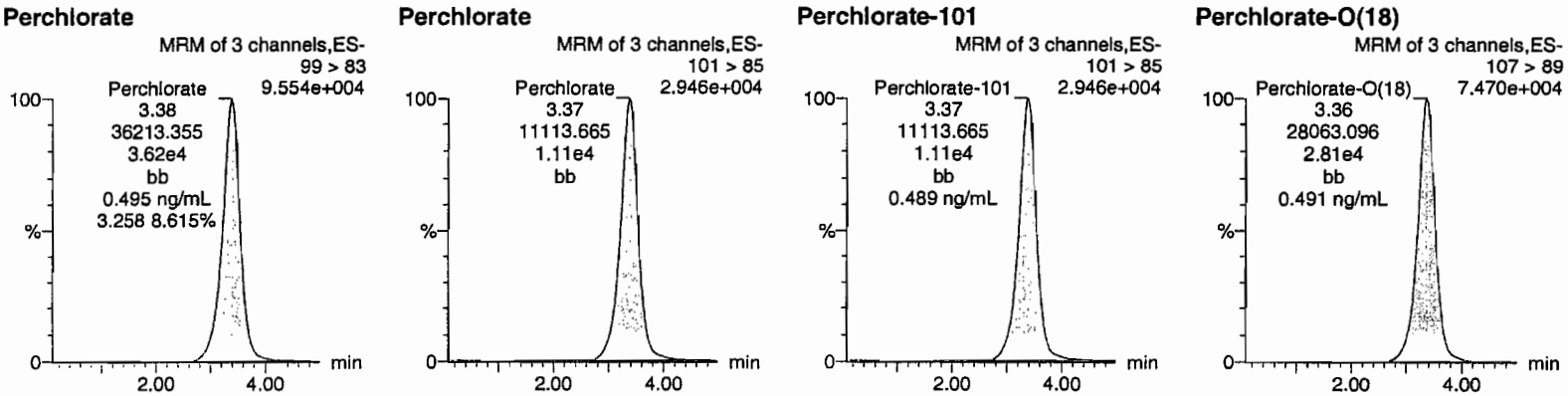

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06ICV	Perchlorate	99 > 83	3.38	36213.355	36213.355	bb			0.4952	99.03	-0.97	1892.9...	3.26
WCL100326-06ICV	Perchlorate-101	101 > 85	3.37	11113.665	11113.665	bb			0.4885	97.71	-2.29	653.159	
WCL100326-06ICV	Perchlorate-O(18)	107 > 89	3.36	28063.096	28063.096	bb			0.4907	98.15	-1.85	2260.4...	

MAT
4/2/10

$\frac{36213.355}{73132.7} = 0.4952$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2434

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.47	94.68	27–MAR–10 16:58	per0327022a
Perchlorate Isotope Ratio		3.33		27–MAR–10 16:58	per0327022a
Perchlorate–101	.5	.45	90.53	27–MAR–10 16:58	per0327022a
Perchlorate	.5	.44	88.7	27–MAR–10 19:04	per0327035a
Perchlorate Isotope Ratio		3.08		27–MAR–10 19:04	per0327035a
Perchlorate–101	.5	.46	91.61	27–MAR–10 19:04	per0327035a
Perchlorate	.5	.45	90.47	27–MAR–10 21:08	per0327048a
Perchlorate Isotope Ratio		3.21		27–MAR–10 21:08	per0327048a
Perchlorate–101	.5	.45	89.58	27–MAR–10 21:08	per0327048a
Perchlorate	.5	.45	90.81	27–MAR–10 23:13	per0327061a
Perchlorate Isotope Ratio		3.12		27–MAR–10 23:13	per0327061a
Perchlorate–101	.5	.46	92.72	27–MAR–10 23:13	per0327061a
Perchlorate	.5	.45	90.91	28–MAR–10 01:18	per0327074a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2434

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.2		28–MAR–10 01:18	per0327074a
Perchlorate–101	.5	.45	90.47	28–MAR–10 01:18	per0327074a
Perchlorate	.5	.44	88.81	28–MAR–10 03:25	per0327087a
Perchlorate Isotope Ratio		3.16		28–MAR–10 03:25	per0327087a
Perchlorate–101	.5	.45	89.44	28–MAR–10 03:25	per0327087a
Perchlorate	.5	.46	91.62	30–MAR–10 13:55	per0330022a
Perchlorate Isotope Ratio		3.22		30–MAR–10 13:55	per0330022a
Perchlorate–101	.5	.46	91.39	30–MAR–10 13:55	per0330022a
Perchlorate	.5	.46	92.43	30–MAR–10 15:23	per0330033a
Perchlorate Isotope Ratio		3.32		30–MAR–10 15:23	per0330033a
Perchlorate–101	.5	.45	89.54	30–MAR–10 15:23	per0330033a
Perchlorate	.5	.46	91.09	30–MAR–10 17:00	per0330045a
Perchlorate Isotope Ratio		3.24		30–MAR–10 17:00	per0330045a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2434

Lab Code: GEL

Reporting Units: ug/L

Perchlorate-101	.5	.45	90.34	30-MAR-10 17:00	per0330045a
Perchlorate	.5	.46	91.6	30-MAR-10 18:29	per0330056a
Perchlorate Isotope Ratio		3.18		30-MAR-10 18:29	per0330056a
Perchlorate-101	.5	.46	92.66	30-MAR-10 18:29	per0330056a
Perchlorate	.5	.47	94.13	30-MAR-10 19:58	per0330067a
Perchlorate Isotope Ratio		3.31		30-MAR-10 19:58	per0330067a
Perchlorate-101	.5	.46	91.39	30-MAR-10 19:58	per0330067a
Perchlorate	.5	.45	89.6	30-MAR-10 21:36	per0330079a
Perchlorate Isotope Ratio		3.25		30-MAR-10 21:36	per0330079a
Perchlorate-101	.5	.44	88.71	30-MAR-10 21:36	per0330079a
Perchlorate	.5	.47	93.19	30-MAR-10 23:14	per0330091a
Perchlorate Isotope Ratio		3.32		30-MAR-10 23:14	per0330091a
Perchlorate-101	.5	.45	90.16	30-MAR-10 23:14	per0330091a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327022a
Date: 27-Mar-2010
Time: 16:58:15
ID: WCL100326-06CCV
Vial: 1:2,A

Pers
aw
03-28-10

Perchlorate

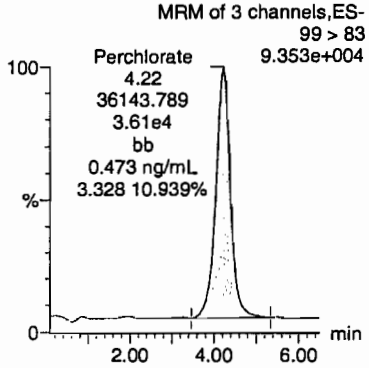

Perchlorate

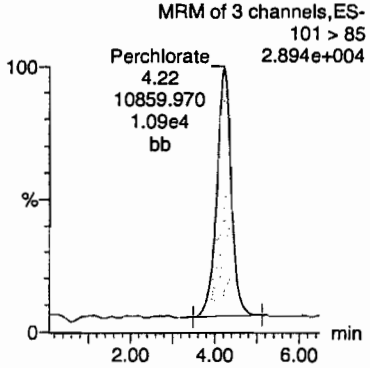

Perchlorate-101

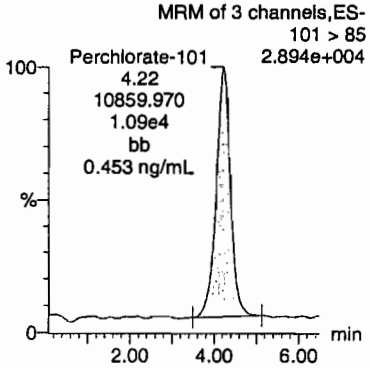

Perchlorate-O(18)

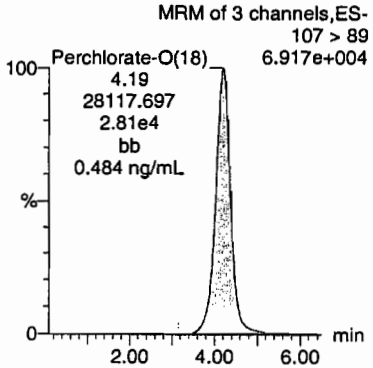

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	4.22	36143.789	36143.789	bb			0.4734	94.68	-5.32	718.874	3.33
WCL100326-06CCV	Perchlorate-101	101 > 85	4.22	10859.970	10859.970	bb			0.4527	90.53	-9.47	307.369	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	4.19	28117.697	28117.697	bb			0.4844	96.87	-3.13	3566.7...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327035a
Date: 27-Mar-2010
Time: 19:04:03
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
03-28-10

Perchlorate

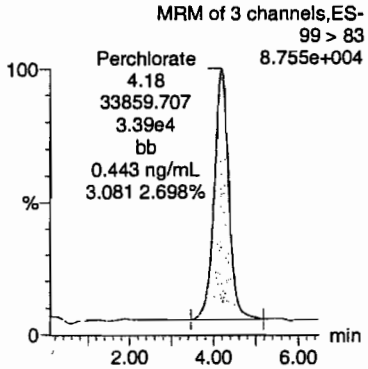

Perchlorate

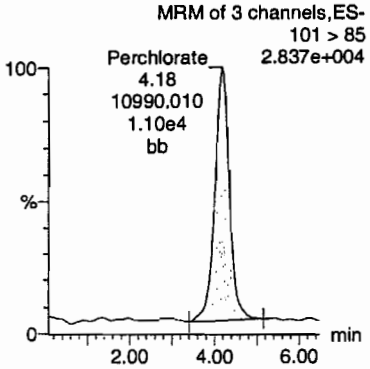

Perchlorate-101

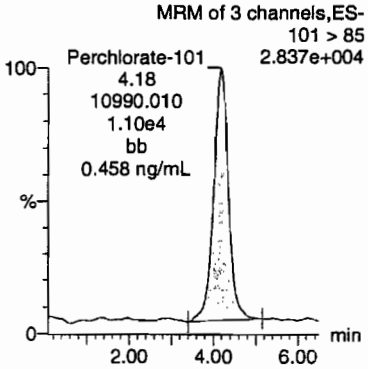

Perchlorate-O(18)

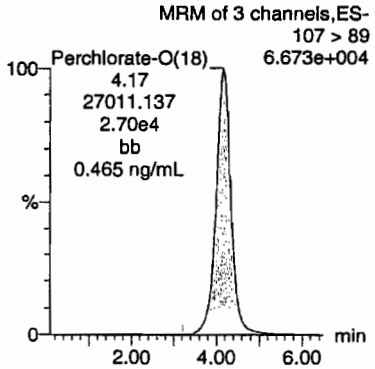

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	4.18	33859.707	33859.707	bb			0.4435	88.70	-11.30	753.004	3.08
WCL100326-06CCV	Perchlorate-101	101 > 85	4.18	10990.010	10990.010	bb			0.4581	91.61	-8.39	388.310	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	4.17	27011.137	27011.137	bb			0.4653	93.06	-6.94	2854.5...	

MM
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327048a
Date: 27-Mar-2010
Time: 21:08:47
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
CW
03-28-10

Perchlorate

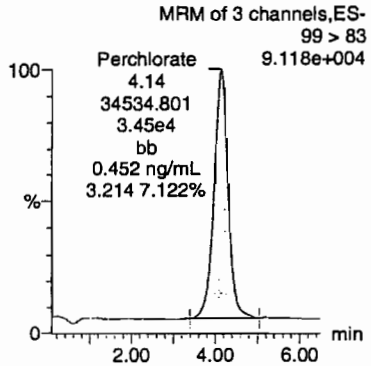

Perchlorate

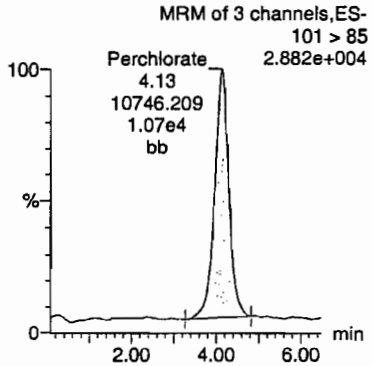

Perchlorate-101

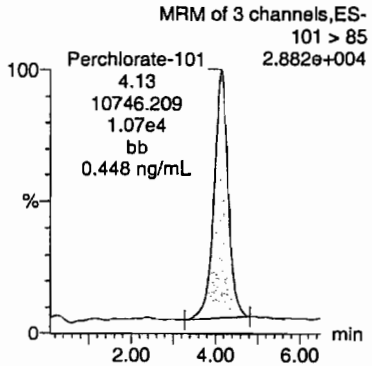

Perchlorate-O(18)

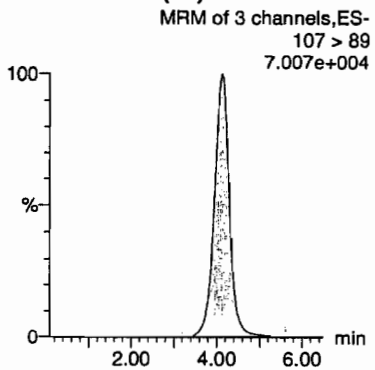

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	4.14	34534.801	34534.801	bb			0.4523	90.47	-9.53	936.510	3.21
WCL100326-06CCV	Perchlorate-101	101 > 85	4.13	10746.209	10746.209	bb			0.4479	89.58	-10.42	580.619	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	4.12	28353.924	28353.924	bb			0.4884	97.69	-2.31	1318.1...	

MHT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327061a
Date: 27-Mar-2010
Time: 23:13:38
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
aw
03-28-10

Perchlorate

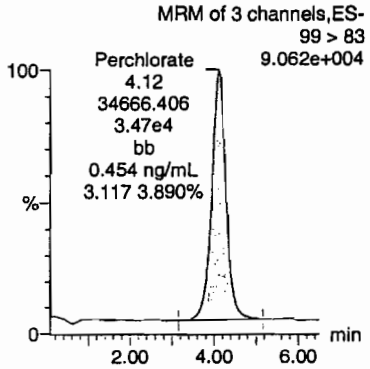

Perchlorate

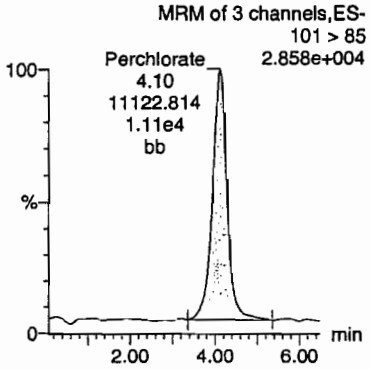

Perchlorate-101

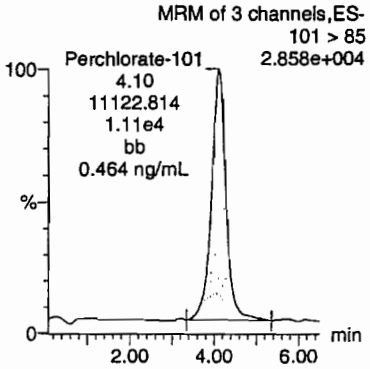

Perchlorate-O(18)

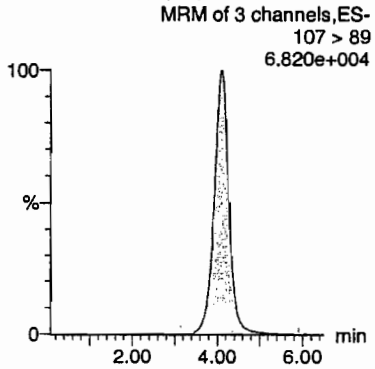

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	4.12	34666.406	34666.406	bb			0.4541	90.81	-9.19	449.085	3.12
WCL100326-06CCV	Perchlorate-101	101 > 85	4.10	11122.814	11122.814	bb			0.4636	92.72	-7.28	297.275	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	4.09	27515.854	27515.854	bb			0.4740	94.80	-5.20	5784.4...	

MHT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327074a
Date: 28-Mar-2010
Time: 01:18:49
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
03-29-10

Perchlorate

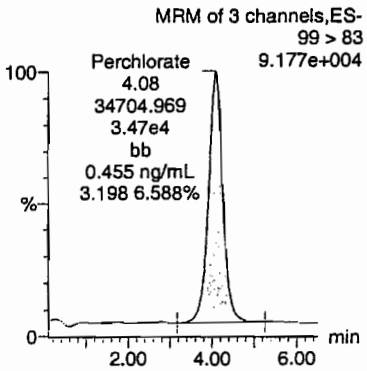

Perchlorate

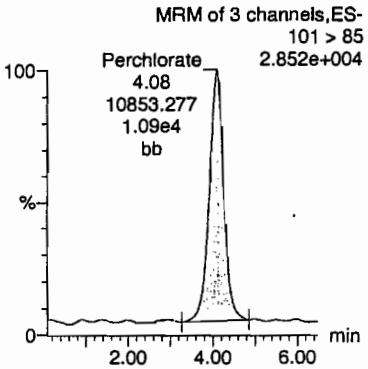

Perchlorate-101

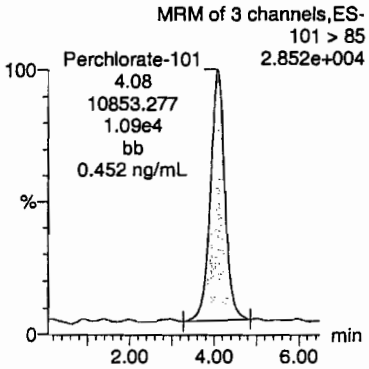

Perchlorate-O(18)

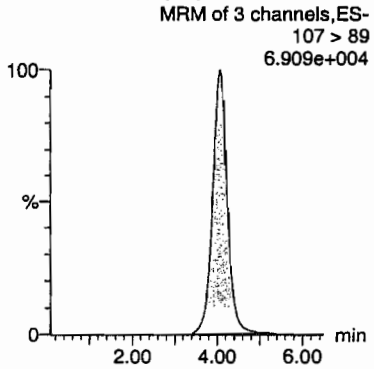

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	4.08	34704.969	34704.969	bb			0.4546	90.91	-9.09	664.635	3.20
WCL100326-06CCV	Perchlorate-101	101 > 85	4.08	10853.277	10853.277	bb			0.4524	90.47	-9.53	216.230	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	4.07	27493.670	27493.670	bb			0.4736	94.72	-5.28	4296.6...	

MMT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327087a
Date: 28-Mar-2010
Time: 03:25:14
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
aw
03-29-10

Perchlorate

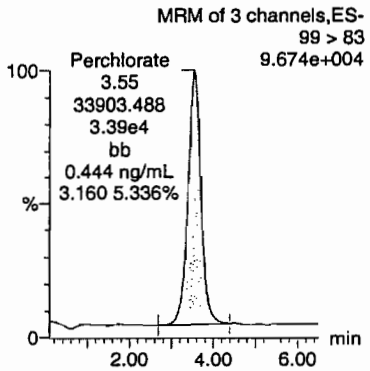

Perchlorate

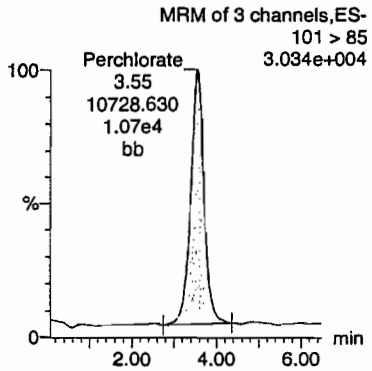

Perchlorate-101

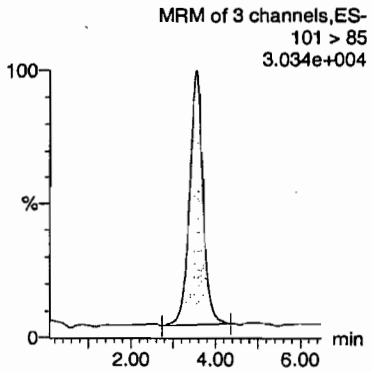

Perchlorate-O(18)

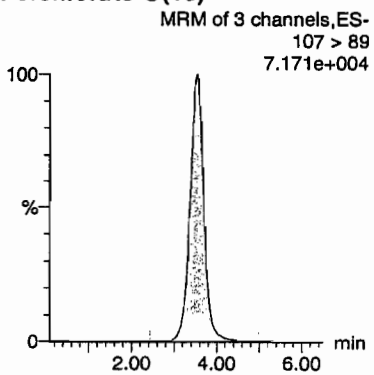

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.55	33903.488	33903.488	bb			0.4441	88.81	-11.19	507.452	3.16
WCL100326-06CCV	Perchlorate-101	101 > 85	3.55	10728.630	10728.630	bb			0.4472	89.44	-10.56	343.287	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.53	27014.824	27014.824	bb			0.4654	93.08	-6.92	1531.8...	

MATT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330022a
Date: 30-Mar-2010
Time: 13:55:27
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
aw
04-01-10

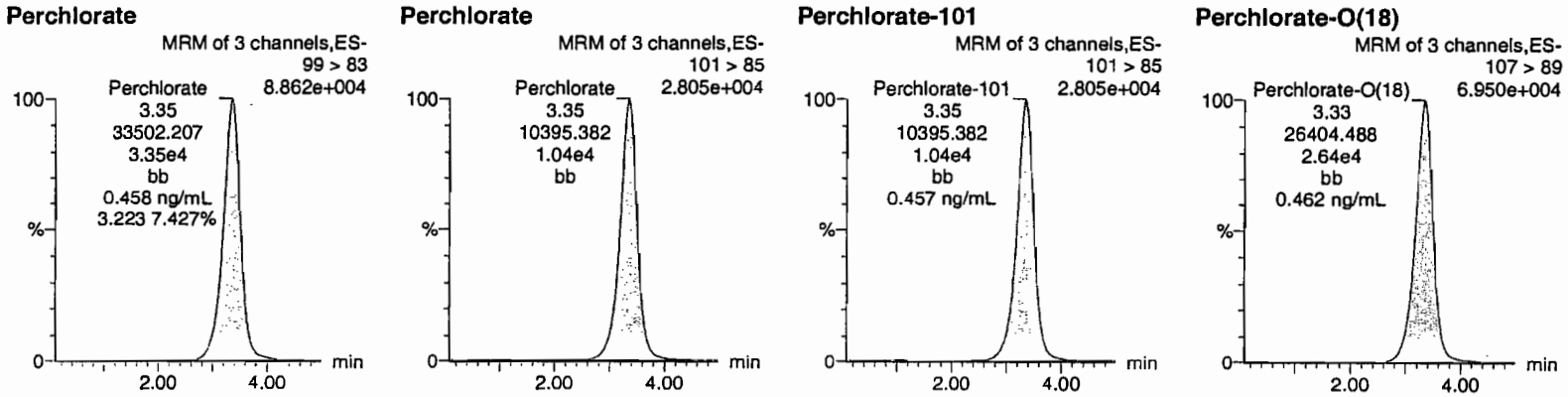

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.35	33502.207	33502.207	bb			0.4581	91.62	-8.38	6220.3...	3.22
WCL100326-06CCV	Perchlorate-101	101 > 85	3.35	10395.382	10395.382	bb			0.4570	91.39	-8.61	1075.9...	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.33	26404.488	26404.488	bb			0.4617	92.35	-7.65	5376.9...	

MM
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330033a
Date: 30-Mar-2010
Time: 15:23:55
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
04-01-10

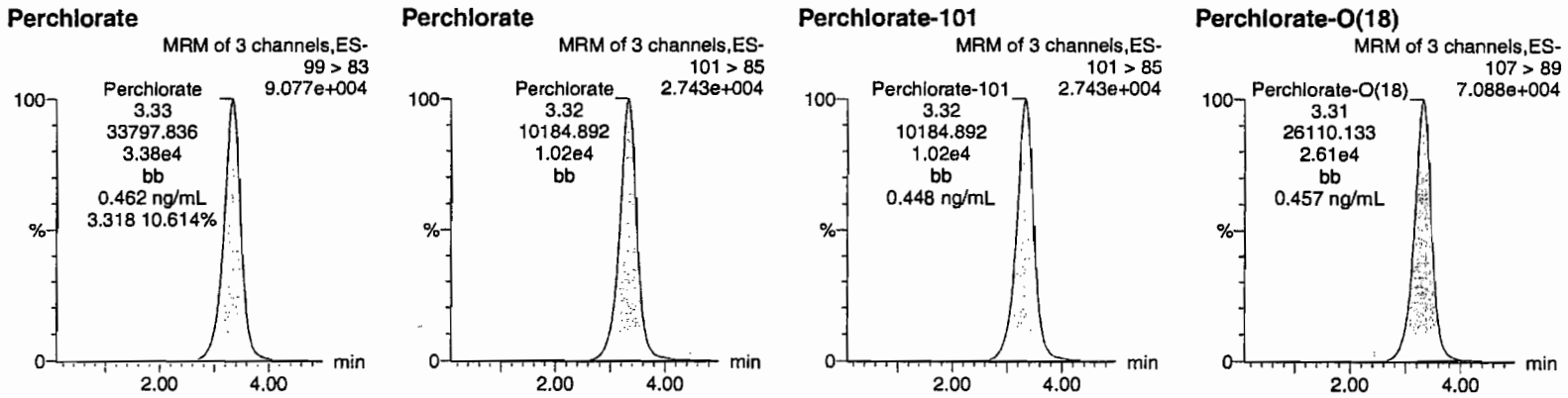

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.33	33797.836	33797.836	bb			0.4621	92.43	-7.57	1903.2...	3.32
WCL100326-06CCV	Perchlorate-101	101 > 85	3.32	10184.892	10184.892	bb			0.4477	89.54	-10.46	742.369	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.31	26110.133	26110.133	bb			0.4566	91.32	-8.68	3135.4...	

MAT 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330045a
Date: 30-Mar-2010
Time: 17:00:31
ID: WCL100326-06CCV
Vial: 1:2,A

3/3 04-01-10

Pw 3/3 04-01-10

Perchlorate

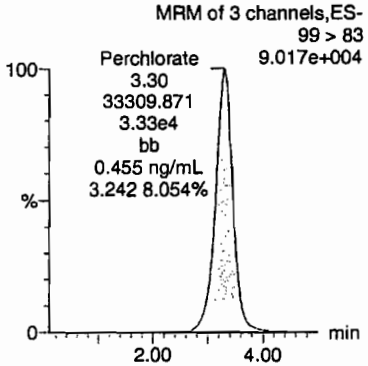

Perchlorate

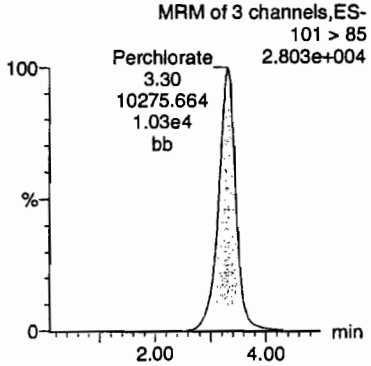

Perchlorate-101

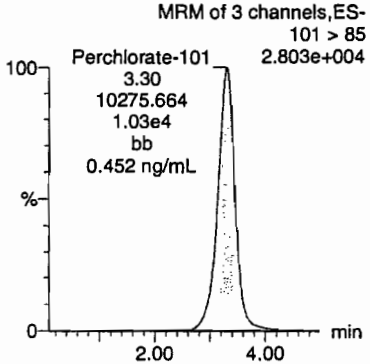

Perchlorate-O(18)

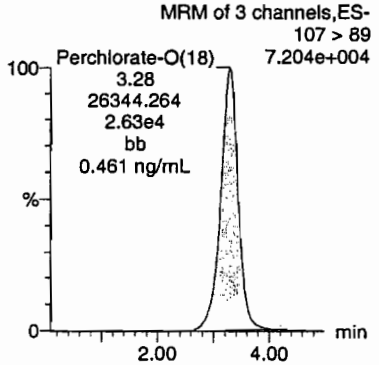

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.30	33309.871	33309.871	bb			0.4555	91.09	-8.91	4995.6...	3.24
WCL100326-06CCV	Perchlorate-101	101 > 85	3.30	10275.664	10275.664	bb			0.4517	90.34	-9.66	627.269	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.28	26344.264	26344.264	bb			0.4607	92.14	-7.86	2288.2...	

4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330056a
Date: 30-Mar-2010
Time: 18:29:17
ID: WCL100326-06CCV
Vial: 1:2,A

Perch
04-01-10

Perchlorate

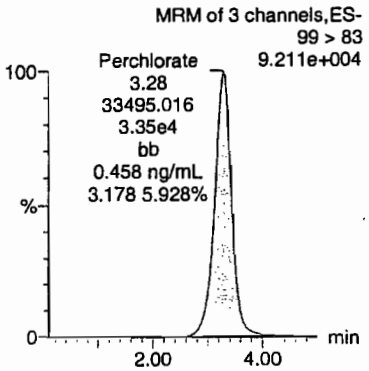

Perchlorate

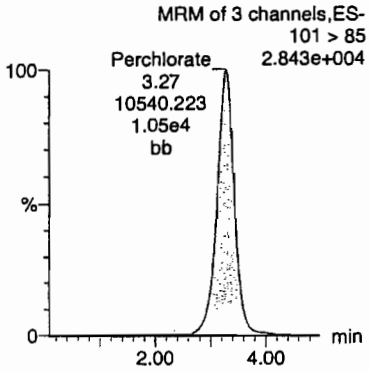

Perchlorate-101

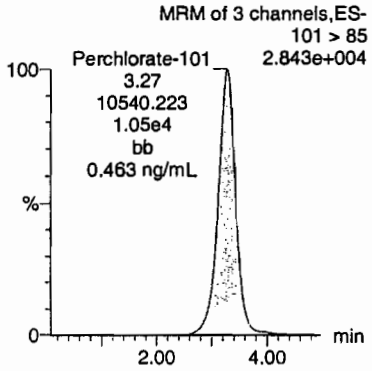

Perchlorate-O(18)

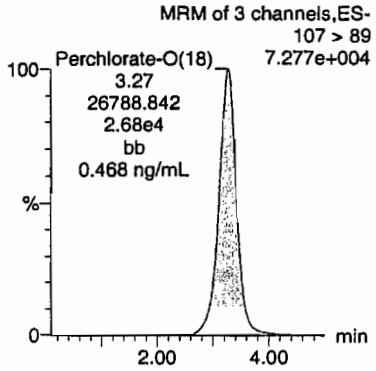

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.28	33495.016	33495.016	bb			0.4580	91.60	-8.40	4549.8...	3.18
WCL100326-06CCV	Perchlorate-101	101 > 85	3.27	10540.223	10540.223	bb			0.4633	92.66	-7.34	1068.2...	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.27	26788.842	26788.842	bb			0.4685	93.69	-6.31	9304.0...	

MMT 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330067a
Date: 30-Mar-2010
Time: 19:58:26
ID: WCL100326-06CCV
Vial: 1:2,A

Pwp
aw
04-01-10

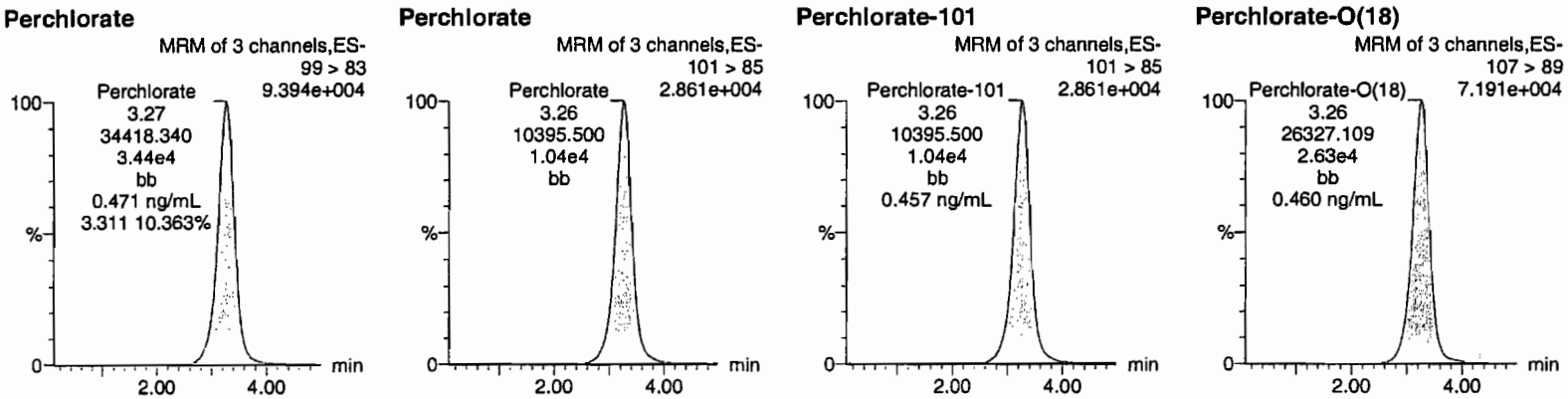

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.27	34418.340	34418.340	bb			0.4706	94.13	-5.87	1586.9...	3.31
WCL100326-06CCV	Perchlorate-101	101 > 85	3.26	10395.500	10395.500	bb			0.4570	91.39	-8.61	159.862	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.26	26327.109	26327.109	bb			0.4604	92.08	-7.92	4701.3...	

MAT
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330079a
Date: 30-Mar-2010
Time: 21:36:10
ID: WCL100326-06CCV
Vial: 1:2,A

Pwo
aw
04-01-10

Perchlorate

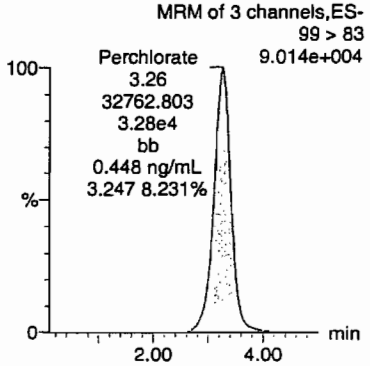

Perchlorate

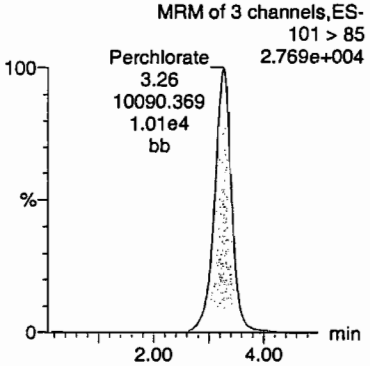

Perchlorate-101

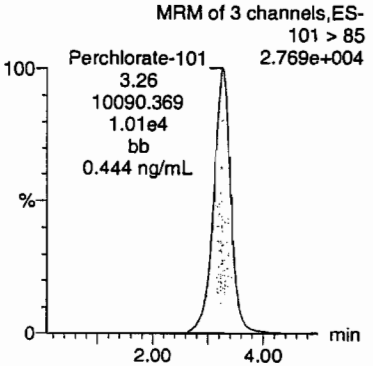

Perchlorate-O(18)

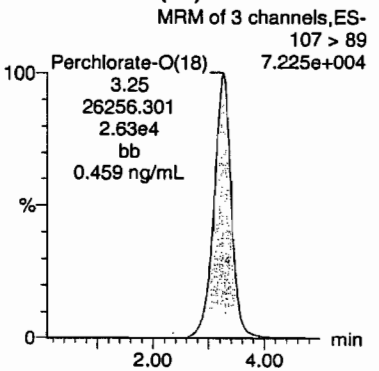

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.26	32762.803	32762.803	bb			0.4480	89.60	-10.40	8986.4...	3.25
WCL100326-06CCV	Perchlorate-101	101 > 85	3.26	10090.369	10090.369	bb			0.4435	88.71	-11.29	261.289	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.25	26256.301	26256.301	bb			0.4592	91.83	-8.17	4512.7...	

MM
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330091a
Date: 30-Mar-2010
Time: 23:14:12
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
aw
04-01-10

Perchlorate

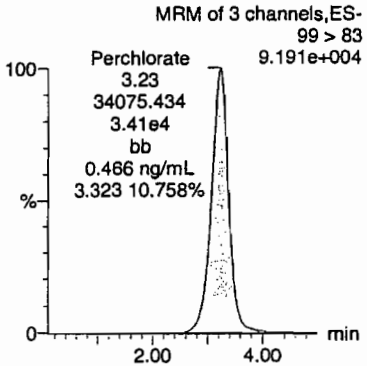

Perchlorate

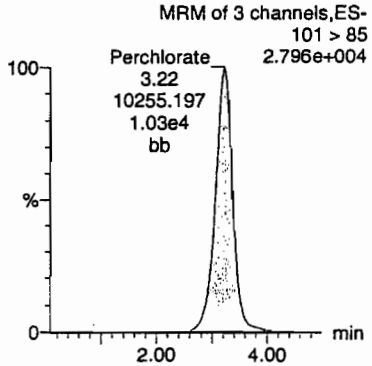

Perchlorate-101

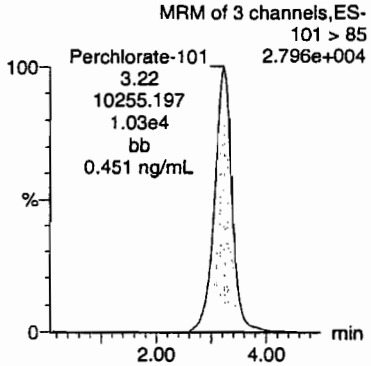

Perchlorate-O(18)

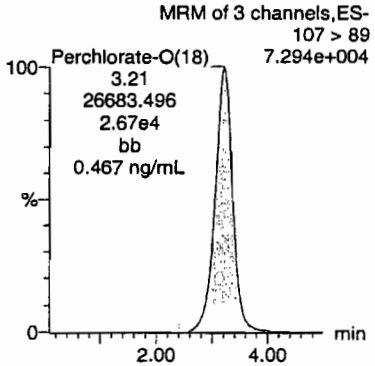

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.23	34075.434	34075.434	bb			0.4659	93.19	-6.81	5885.5...	3.32
WCL100326-06CCV	Perchlorate-101	101 > 85	3.22	10255.197	10255.197	bb			0.4508	90.16	-9.84	1276.3...	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.21	26683.496	26683.496	bb			0.4666	93.32	-6.68	10776....	

MM
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2434

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.04	87.45	27–MAR–10 15:12	per0327011a
Perchlorate Isotope Ratio		2.72		27–MAR–10 15:12	per0327011a
Perchlorate–101	.05	.05	102.42	27–MAR–10 15:12	per0327011a
Perchlorate	.05	.05	104.5	27–MAR–10 17:17	per0327024a
Perchlorate Isotope Ratio		3.46		27–MAR–10 17:17	per0327024a
Perchlorate–101	.05	.05	95.98	27–MAR–10 17:17	per0327024a
Perchlorate	.05	.05	90.39	27–MAR–10 19:23	per0327037a
Perchlorate Isotope Ratio		2.54		27–MAR–10 19:23	per0327037a
Perchlorate–101	.05	.06	113.42	27–MAR–10 19:23	per0327037a
Perchlorate	.05	.05	96.81	27–MAR–10 21:28	per0327050a
Perchlorate Isotope Ratio		2.98		27–MAR–10 21:28	per0327050a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2434

Lab Code: GEL

Reporting Units: ug/L

Perchlorate–101	.05	.05	103.25	27–MAR–10 21:28	per0327050a
Perchlorate	.05	.05	91.79	27–MAR–10 23:33	per0327063a
Perchlorate Isotope Ratio		3.13		27–MAR–10 23:33	per0327063a
Perchlorate–101	.05	.05	93.2	27–MAR–10 23:33	per0327063a
Perchlorate	.05	.05	99.28	28–MAR–10 01:38	per0327076a
Perchlorate Isotope Ratio		3.31		28–MAR–10 01:38	per0327076a
Perchlorate–101	.05	.05	95.5	28–MAR–10 01:38	per0327076a
Perchlorate	.05	.05	93.84	28–MAR–10 03:44	per0327089a
Perchlorate Isotope Ratio		3.06		28–MAR–10 03:44	per0327089a
Perchlorate–101	.05	.05	97.57	28–MAR–10 03:44	per0327089a
Perchlorate	.05	.05	105.07	30–MAR–10 12:26	per0330011a

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2434

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.17		30–MAR–10 12:26	per0330011a
Perchlorate–101	.05	.05	106.69	30–MAR–10 12:26	per0330011a
Perchlorate	.05	.05	97.45	30–MAR–10 14:11	per0330024a
Perchlorate Isotope Ratio		3.6		30–MAR–10 14:11	per0330024a
Perchlorate–101	.05	.04	86.95	30–MAR–10 14:11	per0330024a
Perchlorate	.05	.05	94.96	30–MAR–10 15:40	per0330035a
Perchlorate Isotope Ratio		3.29		30–MAR–10 15:40	per0330035a
Perchlorate–101	.05	.05	92.9	30–MAR–10 15:40	per0330035a
Perchlorate	.05	.05	98.75	30–MAR–10 17:16	per0330047a
Perchlorate Isotope Ratio		3.34		30–MAR–10 17:16	per0330047a
Perchlorate–101	.05	.05	94.97	30–MAR–10 17:16	per0330047a

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2434

Lab Code: GEL

Reporting Units: ug/L

Perchlorate	.05	.05	92.98	30–MAR–10 18:45	per0330058a
Perchlorate Isotope Ratio		3.19		30–MAR–10 18:45	per0330058a
Perchlorate–101	.05	.05	93.62	30–MAR–10 18:45	per0330058a
Perchlorate	.05	.05	95.29	30–MAR–10 20:14	per0330069a
Perchlorate Isotope Ratio		3.15		30–MAR–10 20:14	per0330069a
Perchlorate–101	.05	.05	97.4	30–MAR–10 20:14	per0330069a
Perchlorate	.05	.05	97.82	30–MAR–10 21:52	per0330081a
Perchlorate Isotope Ratio		3.47		30–MAR–10 21:52	per0330081a
Perchlorate–101	.05	.05	90.63	30–MAR–10 21:52	per0330081a
Perchlorate	.05	.05	96.91	30–MAR–10 23:30	per0330093a
Perchlorate Isotope Ratio		3.19		30–MAR–10 23:30	per0330093a

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2434

Lab Code: GEL

Reporting Units: ug/L

Perchlorate–101	.05	.05	97.62	30–MAR–10 23:30	per0330093a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327011a
Date: 27-Mar-2010
Time: 15:12:07
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
CWW
03-28-10

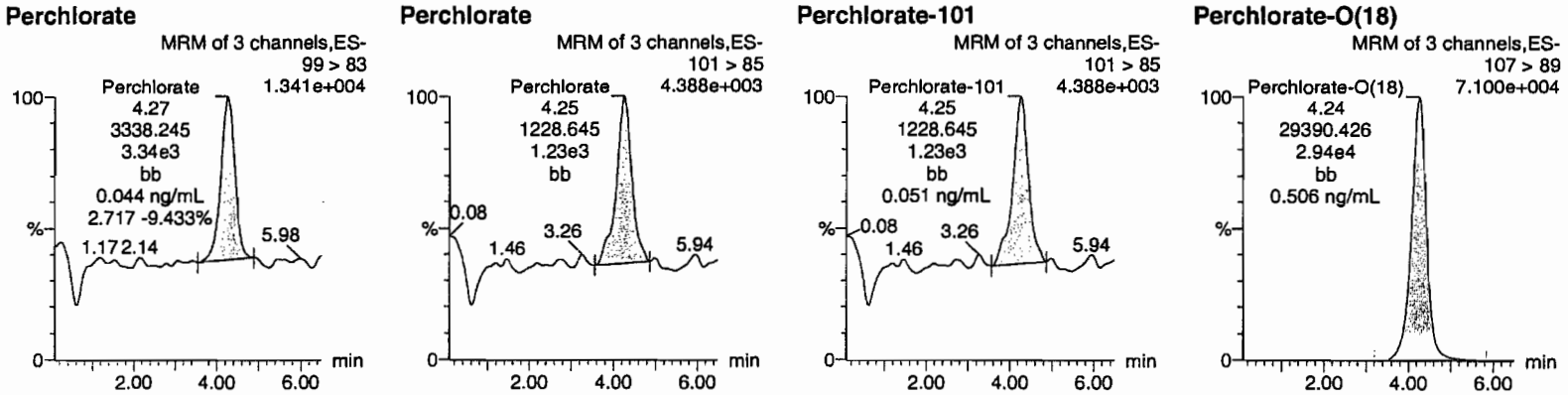

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	4.27	3338.245	3338.245	bb			0.0437	87.45	-12.55	57.023	2.72
WCL100326-07CRI	Perchlorate-101	101 > 85	4.25	1228.645	1228.645	bb			0.0512	102.42	2.42	37.113	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.24	29390.426	29390.426	bb			0.5063	101.26	1.26	1326.3...	

MMT 3/30/10

$$\frac{3338.245}{76347.5} = 0.0437$$

$$\frac{3338.245}{1228.645} = 2.7170$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327024a
Date: 27-Mar-2010
Time: 17:17:35
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
aw
03-28-10

Perchlorate

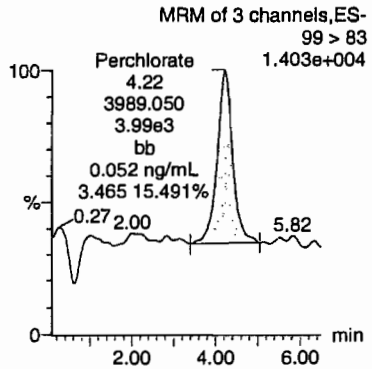

Perchlorate

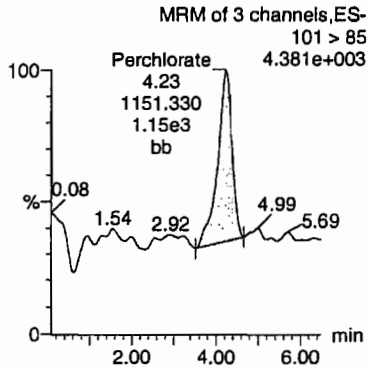

Perchlorate-101

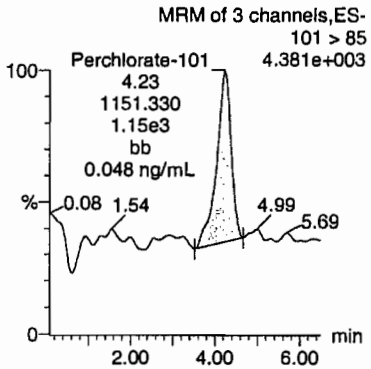

Perchlorate-O(18)

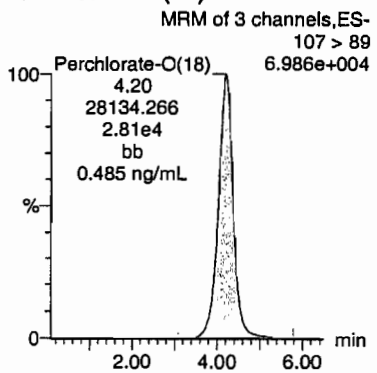

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	4.22	3989.050	3989.050	bb			0.0522	104.50	4.50	91.832	3.46
WCL100326-07CRI	Perchlorate-101	101 > 85	4.23	1151.330	1151.330	bb			0.0480	95.98	-4.02	17.575	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.20	28134.266	28134.266	bb			0.4847	96.93	-3.07	731.209	

MATT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327037a
Date: 27-Mar-2010
Time: 19:23:31
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
ano
03-28-10

Perchlorate

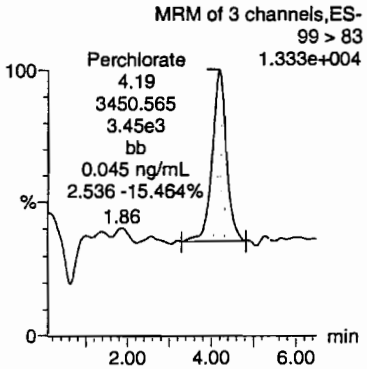

Perchlorate

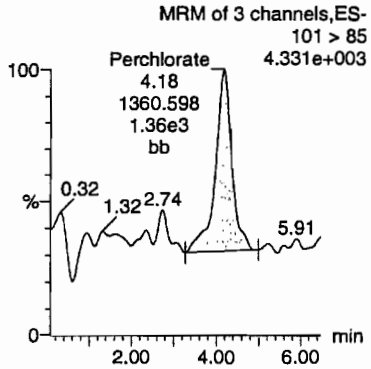

Perchlorate-101

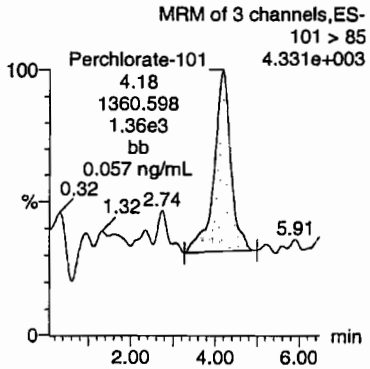

Perchlorate-O(18)

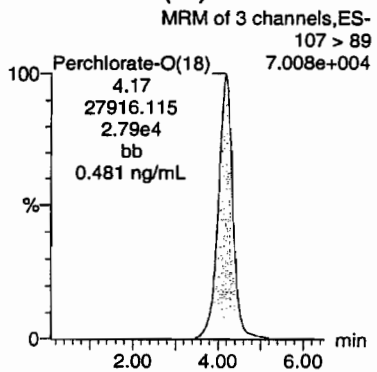

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	4.19	3450.565	3450.565	bb			0.0452	90.39	-9.61	50.782	2.54
WCL100326-07CRI	Perchlorate-101	101 > 85	4.18	1360.598	1360.598	bb			0.0567	113.42	13.42	19.748	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.17	27916.115	27916.115	bb			0.4809	96.18	-3.82	3292.0...	

MMT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327050a
Date: 27-Mar-2010
Time: 21:28:14
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
03-28-10

Perchlorate

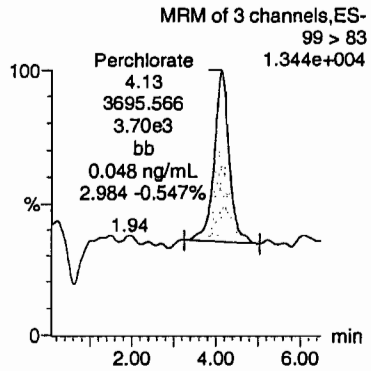

Perchlorate

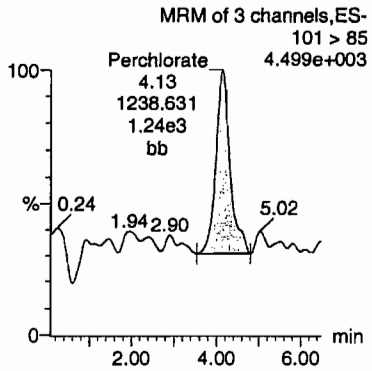

Perchlorate-101

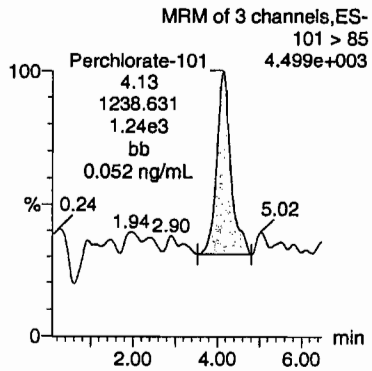

Perchlorate-O(18)

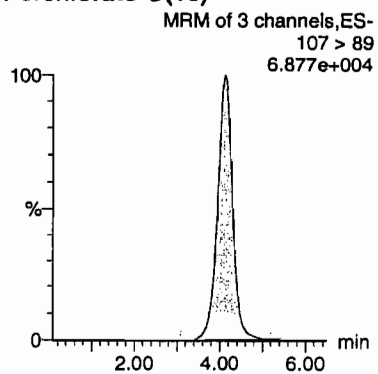

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	4.13	3695.566	3695.566	bb			0.0484	96.81	-3.19	64.327	2.98
WCL100326-07CRI	Perchlorate-101	101 > 85	4.13	1238.631	1238.631	bb			0.0516	103.25	3.25	44.367	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.12	27727.521	27727.521	bb			0.4777	95.53	-4.47	6948.3...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327063a
Date: 27-Mar-2010
Time: 23:33:13
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
03-22-10

Perchlorate

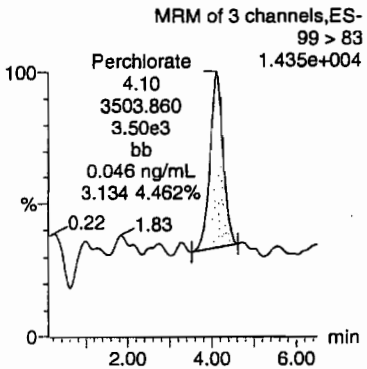

Perchlorate

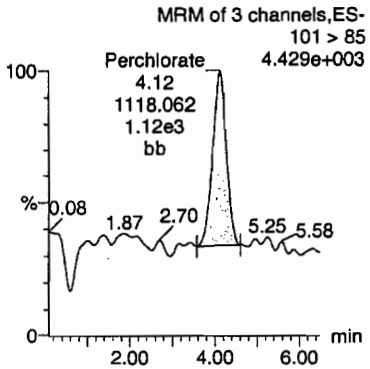

Perchlorate-101

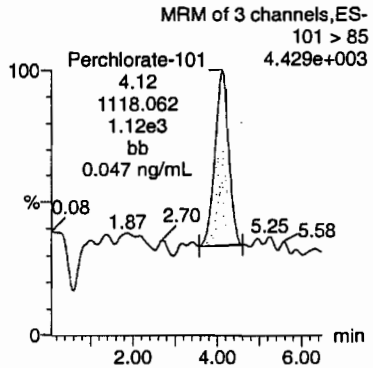

Perchlorate-O(18)

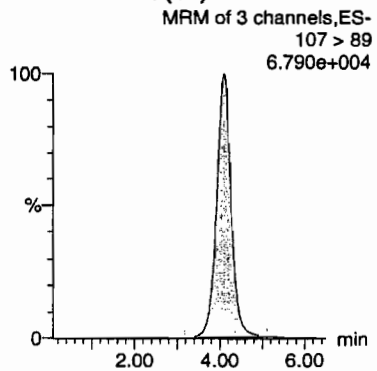

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	4.10	3503.860	3503.860	bb			0.0459	91.79	-8.21	55.201	3.13
WCL100326-07CRI	Perchlorate-101	101 > 85	4.12	1118.062	1118.062	bb			0.0466	93.20	-6.80	39.173	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.09	27090.582	27090.582	bb			0.4667	93.34	-6.66	3252.1...	

MH 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Per
03-29-10

Name: per0327076a
Date: 28-Mar-2010
Time: 01:38:39
ID: WCL100326-07CRI
Vial: 1:2,B

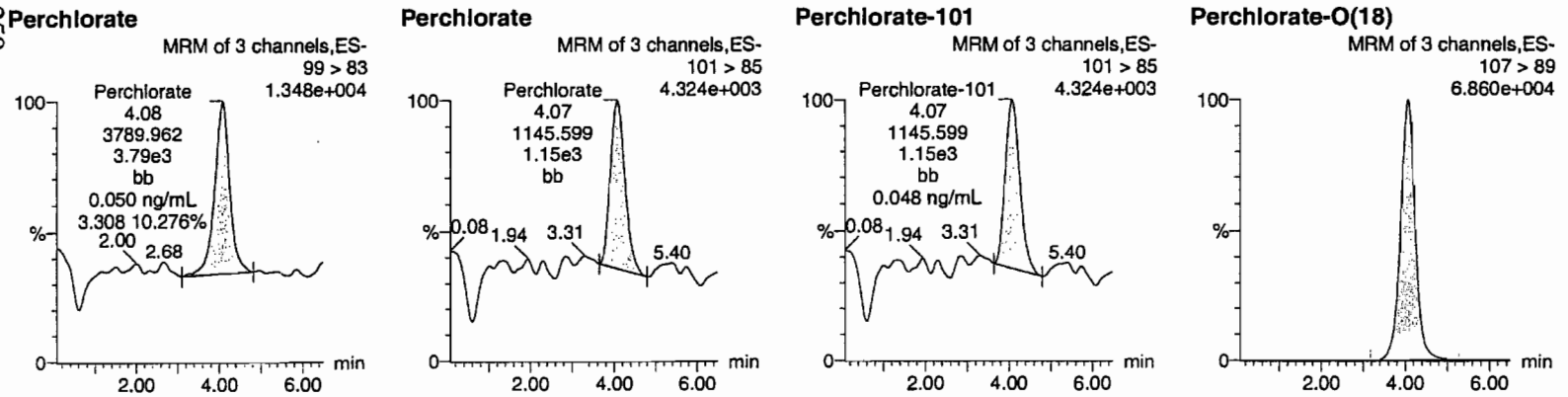

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	4.08	3789.962	3789.962	bb			0.0496	99.28	-0.72	30.712	3.31
WCL100326-07CRI	Perchlorate-101	101 > 85	4.07	1145.599	1145.599	bb			0.0477	95.50	-4.50	47.667	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	4.07	27556.625	27556.625	bb			0.4747	94.94	-5.06	1952.7...	

MMT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327089a
Date: 28-Mar-2010
Time: 03:44:42
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
ad
03-29-10

Perchlorate

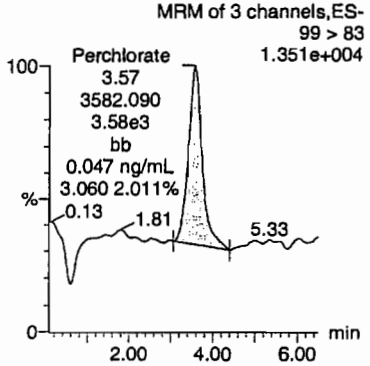

Perchlorate

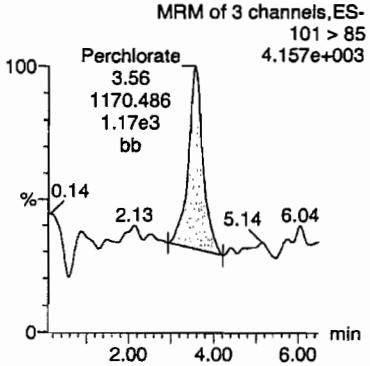

Perchlorate-101

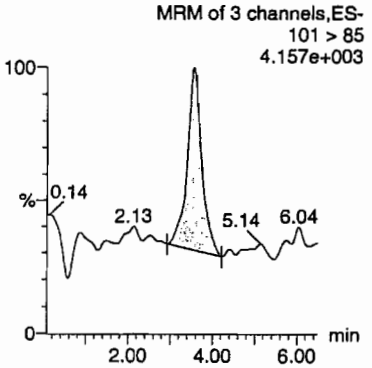

Perchlorate-O(18)

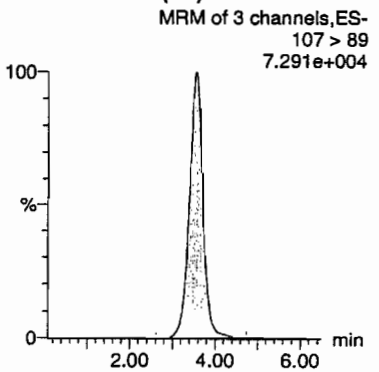

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.57	3582.090	3582.090	bb			0.0469	93.84	-6.16	69.167	3.06
WCL100326-07CRI	Perchlorate-101	101 > 85	3.56	1170.486	1170.486	bb			0.0488	97.57	-2.43	24.022	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.54	27099.584	27099.584	bb			0.4668	93.37	-6.63	835.701	

MAT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330011a
Date: 30-Mar-2010
Time: 12:26:59
ID: WCL100326-07CRI
Vial: 1:2,B

Pwm
04-01-10

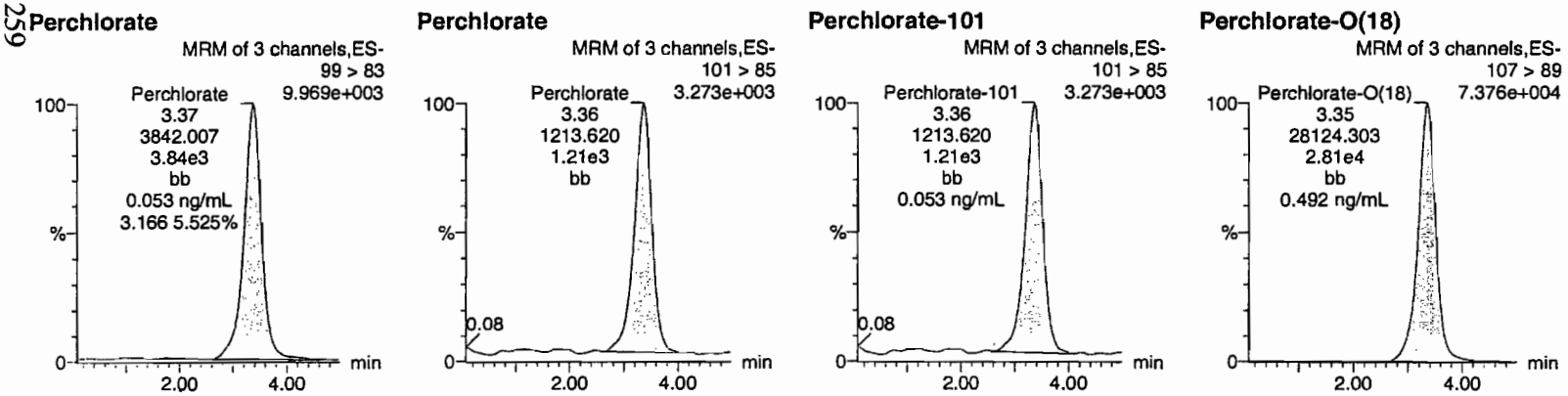

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.37	3842.007	3842.007	bb			0.0525	105.07	5.07	249.490	3.17
WCL100326-07CRI	Perchlorate-101	101 > 85	3.36	1213.620	1213.620	bb			0.0533	106.69	6.69	404.632	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.35	28124.303	28124.303	bb			0.4918	98.36	-1.64	751.713	

MATT 4/2/10

$\frac{3842.007}{1213.620} = 3.1657$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330024a
Date: 30-Mar-2010
Time: 14:11:32
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
aw
04-01-10

Perchlorate

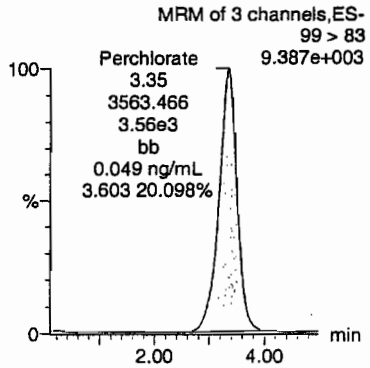

Perchlorate

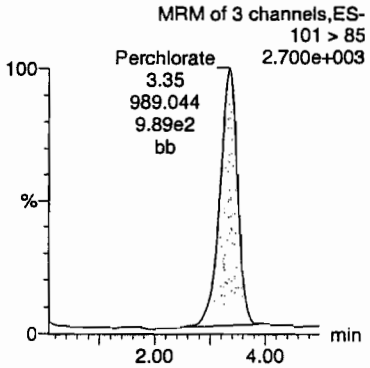

Perchlorate-101

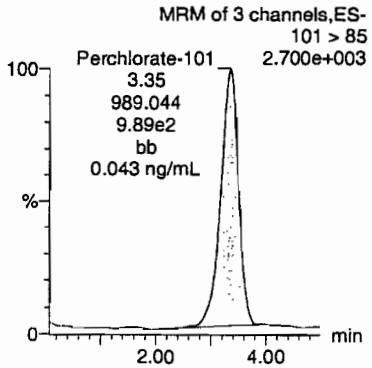

Perchlorate-O(18)

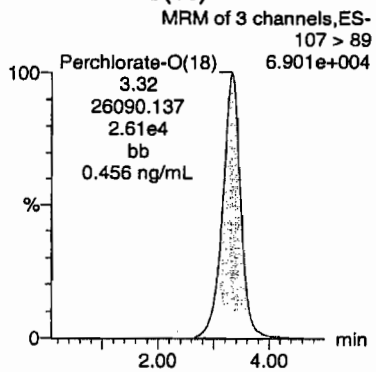

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.35	3563.466	3563.466	bb			0.0487	97.45	-2.55	205.660	3.60
WCL100326-07CRI	Perchlorate-101	101 > 85	3.35	989.044	989.044	bb			0.0435	86.95	-13.05	142.415	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.32	26090.137	26090.137	bb			0.4562	91.25	-8.75	21.093	

MM
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330035a
Date: 30-Mar-2010
Time: 15:40:00
ID: WCL100326-07CRI
Vial: 1:2,B

Per 04-01-10

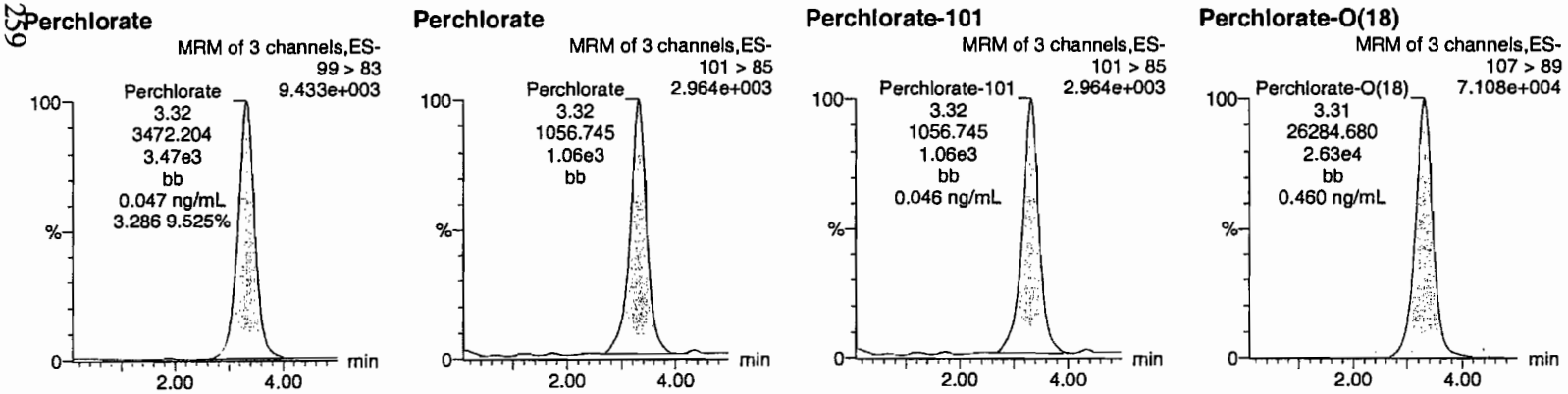

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.32	3472.204	3472.204	bb			0.0475	94.96	-5.04	309.760	3.29
WCL100326-07CRI	Perchlorate-101	101 > 85	3.32	1056.745	1056.745	bb			0.0465	92.90	-7.10	248.026	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.31	26284.680	26284.680	bb			0.4596	91.93	-8.07	3935.3...	

MM 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330047a
Date: 30-Mar-2010
Time: 17:16:50
ID: WCL100326-07CRI
Vial: 1:2,B

PED
04-01-10

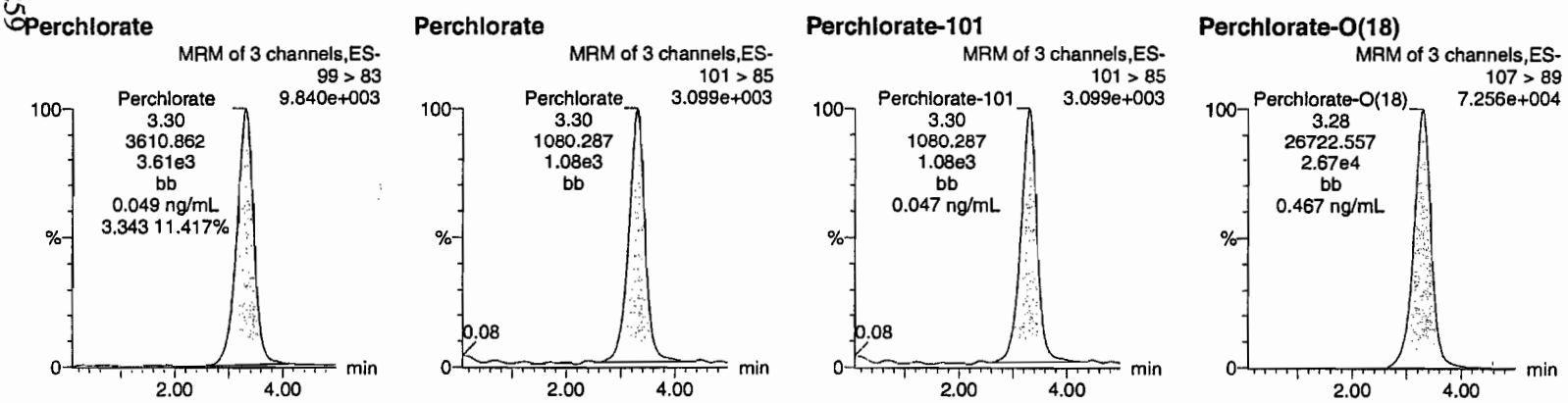

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.30	3610.862	3610.862	bb			0.0494	98.75	-1.25	1204.6...	3.34
WCL100326-07CRI	Perchlorate-101	101 > 85	3.30	1080.287	1080.287	bb			0.0475	94.97	-5.03	187.949	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.28	26722.557	26722.557	bb			0.4673	93.46	-6.54	963.961	

MAT
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330058a
Date: 30-Mar-2010
Time: 18:45:36
ID: WCL100326-07CRI
Vial: 1:2,B

Per
04-01-10

Perchlorate

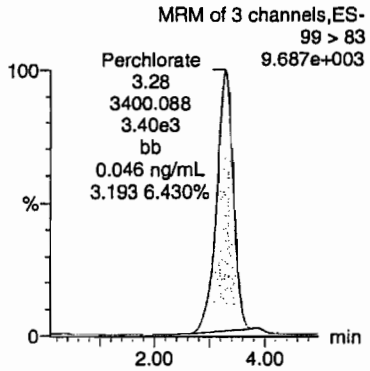

Perchlorate

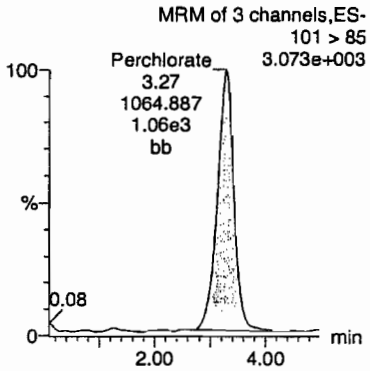

Perchlorate-101

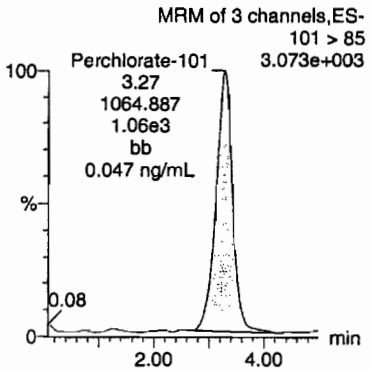

Perchlorate-O(18)

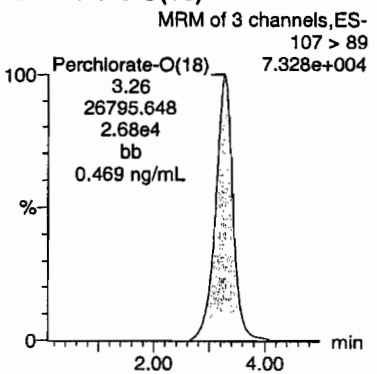

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.28	3400.088	3400.088	bb			0.0465	92.98	-7.02	393.557	3.19
WCL100326-07CRI	Perchlorate-101	101 > 85	3.27	1064.887	1064.887	bb			0.0468	93.62	-6.38	223.001	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.26	26795.648	26795.648	bb			0.4686	93.72	-6.28	3553.8...	

MAT
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Page 142 of 1259

Name: per0330069a
Date: 30-Mar-2010
Time: 20:14:52
ID: WCL100326-07CRI
Vial: 1:2,B

Pwo
ano
04-01-10

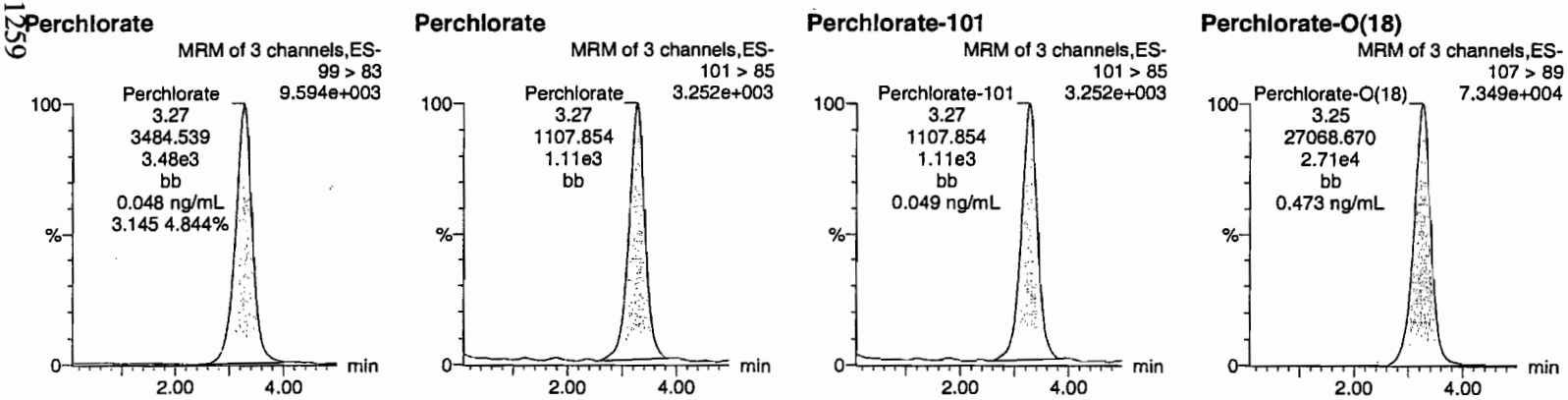

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.27	3484.539	3484.539	bb			0.0476	95.29	-4.71	517.464	3.15
WCL100326-07CRI	Perchlorate-101	101 > 85	3.27	1107.854	1107.854	bb			0.0487	97.40	-2.60	231.805	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.25	27068.670	27068.670	bb			0.4734	94.67	-5.33	2560.6...	

MAP
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330081a
Date: 30-Mar-2010
Time: 21:52:37
ID: WCL100326-07CRI
Vial: 1:2,B

Per 04-01-10

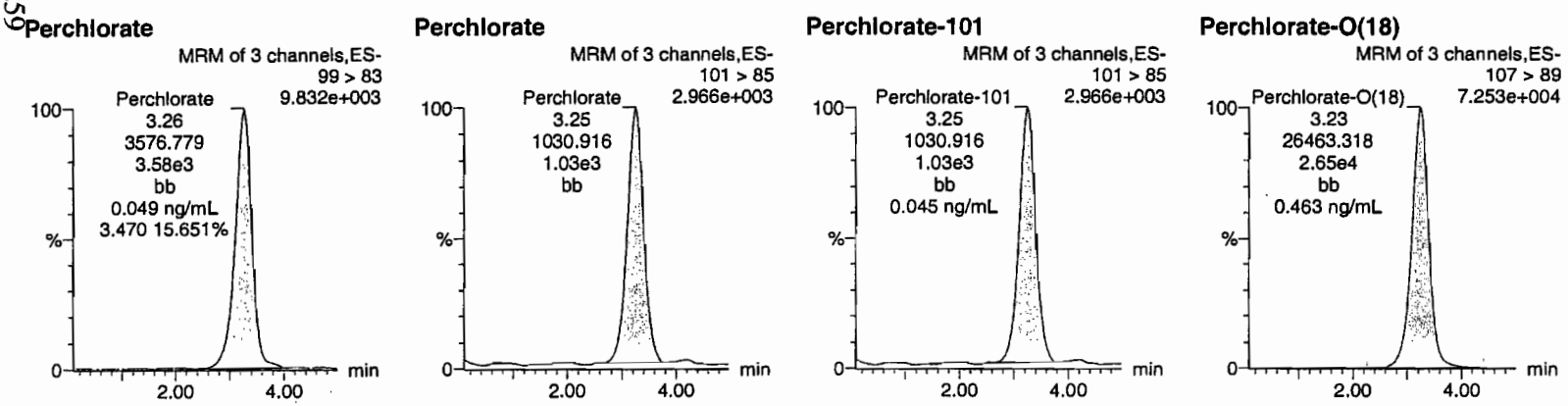

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.26	3576.779	3576.779	bb			0.0489	97.82	-2.18	640.475	3.47
WCL100326-07CRI	Perchlorate-101	101 > 85	3.25	1030.916	1030.916	bb			0.0453	90.63	-9.37	38.968	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.23	26463.318	26463.318	bb			0.4628	92.55	-7.45	2995.7...	

MAP 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330093a
Date: 30-Mar-2010
Time: 23:30:40
ID: WCL100326-07CRI
Vial: 1:2,B

Rev
04-01-10

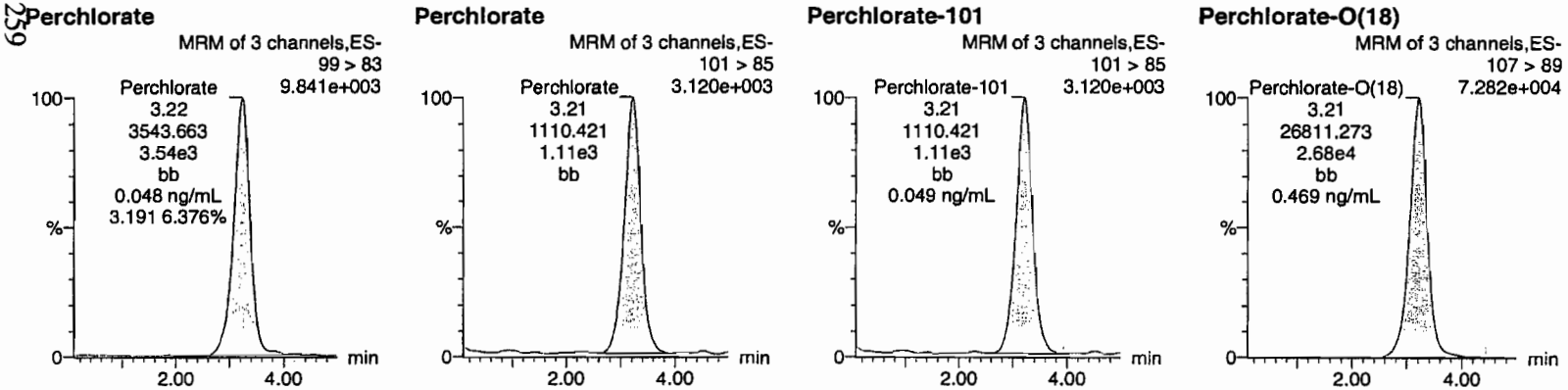

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.22	3543.663	3543.663	bb			0.0485	96.91	-3.09	593.002	3.19
WCL100326-07CRI	Perchlorate-101	101 > 85	3.21	1110.421	1110.421	bb			0.0488	97.62	-2.38	218.124	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.21	26811.273	26811.273	bb			0.4689	93.77	-6.23	6905.7...	

MAT
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 966565

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 18-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 1202074284

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	27-MAR-10 23:42	per0327064a
	Perchlorate Isotope Ratio						1	27-MAR-10 23:42	per0327064a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	27-MAR-10 23:42	per0327064a
	Perchlorate-O(18)			0.446	ug/L		1	27-MAR-10 23:42	per0327064a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327064a
Date: 27-Mar-2010
Time: 23:42:53
ID: 1202074284
Vial: 2:5,D

|LANL|966566|LIQ|MB|1|

WJ 03-29-10

Perchlorate

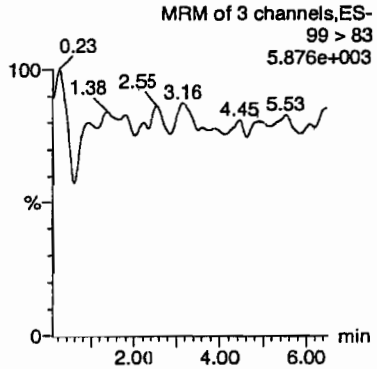

Perchlorate

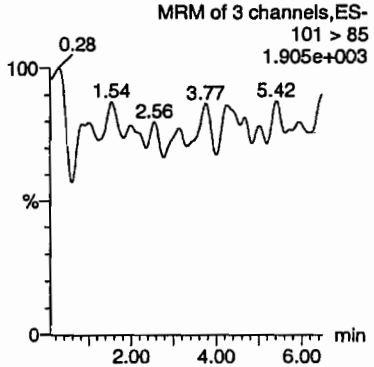

Perchlorate-101

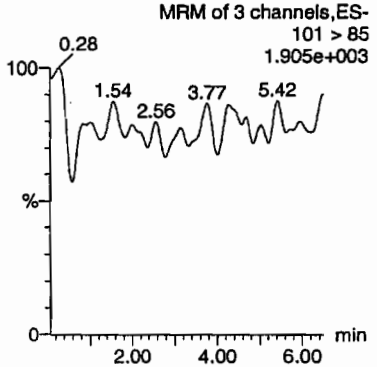

Perchlorate-O(18)

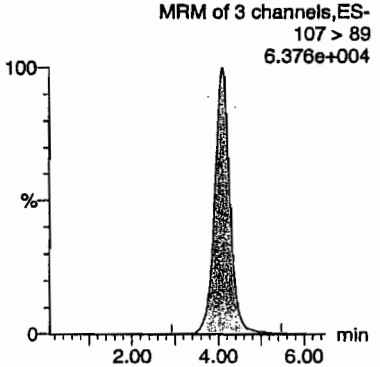

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202074284	Perchlorate	99 > 83											0.00
1202074284	Perchlorate-101	101 > 85											
1202074284	Perchlorate-O(18)	107 > 89	4.09	25917.400	25917.400	bb			0.4465	89.29	-10.71	2646.9...	

MMP 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 22-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 1202074304

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	30-MAR-10 20:23	per0330070a
	Perchlorate Isotope Ratio						1	30-MAR-10 20:23	per0330070a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	30-MAR-10 20:23	per0330070a
	Perchlorate-O(18)			4.15	ug/kg		1	30-MAR-10 20:23	per0330070a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330070a
Date: 30-Mar-2010
Time: 20:23:04
ID: 1202074304
Vial: 2:6,A

|LANL|966578|SOLID|MB|1|

AW 04-01-10

Perchlorate

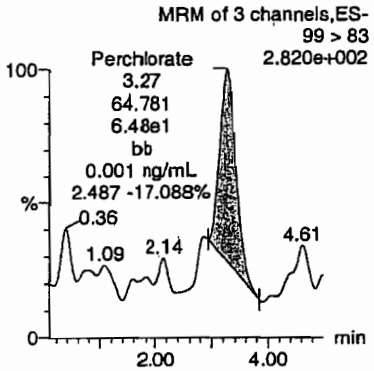

Perchlorate

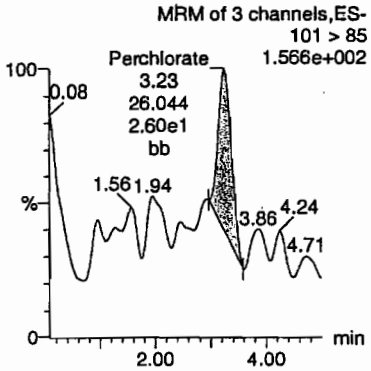

Perchlorate-101

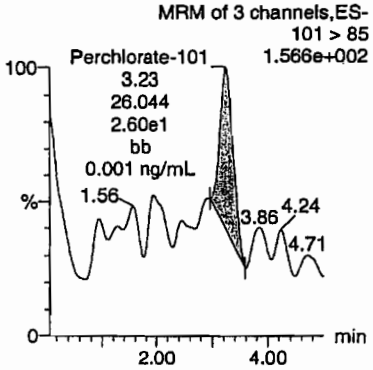

Perchlorate-O(18)

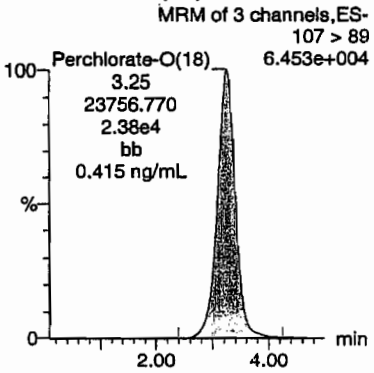

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202074304	Perchlorate	99 > 83	3.27	64.781	64.781	bb			0.0009			15.276	2.49
1202074304	Perchlorate-101	101 > 85	3.23	26.044	26.044	bb			0.0011			15.541	
1202074304	Perchlorate-O(18)	107 > 89	3.25	23756.770	23756.770	bb			0.4154	83.09	-16.91	4248.8...	

MM 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 966565

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 18-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 1202074285

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.177	ug/L	J	1	27-MAR-10 23:52	per0327065a
	Perchlorate Isotope Ratio			3.18			1	27-MAR-10 23:52	per0327065a
14797-73-0	Perchlorate-101	.05	.2	0.177	ug/L	J	1	27-MAR-10 23:52	per0327065a
	Perchlorate-O(18)			0.454	ug/L		1	27-MAR-10 23:52	per0327065a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327065a
Date: 27-Mar-2010
Time: 23:52:37
ID: 1202074285
Vial: 2:5,E

LAW | 960506 | LZQ | LCS | 1 |

CWJ 03-29-10

Perchlorate

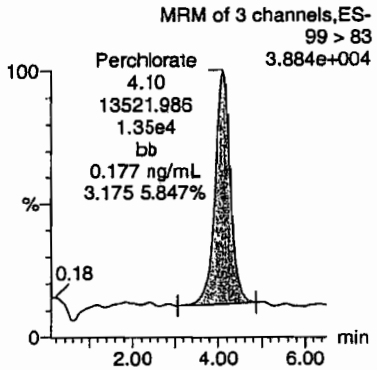

Perchlorate

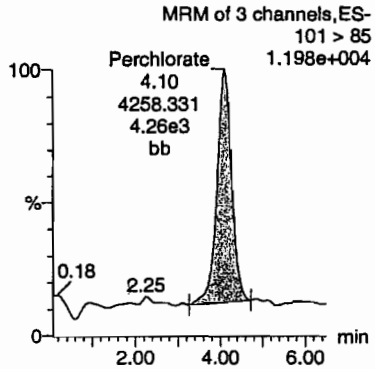

Perchlorate-101

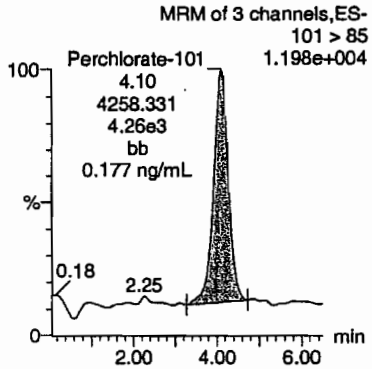

Perchlorate-O(18)

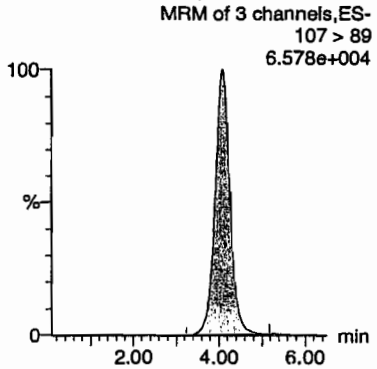

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202074285	Perchlorate	99 > 83	4.10	13521.986	13521.986	bb			0.1771	88.56	-11.44	166.716	3.18
1202074285	Perchlorate-101	101 > 85	4.10	4258.331	4258.331	bb			0.1775	88.75	-11.25	80.463	
1202074285	Perchlorate-O(18)	107 > 89	4.09	26331.609	26331.609	bb			0.4536	90.72	-9.28	851.290	

MAT 3/30/10

$$\frac{13521.986}{76347.5} = 0.1771$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 22-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 1202074305

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	1.93	ug/kg	J	1	30-MAR-10 20:31	per0330071a
	Perchlorate Isotope Ratio			3.1			1	30-MAR-10 20:31	per0330071a
14797-73-0	Perchlorate-101	.5	2	2.00	ug/kg	J	1	30-MAR-10 20:31	per0330071a
	Perchlorate-O(18)			4.68	ug/kg		1	30-MAR-10 20:31	per0330071a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330071a
Date: 30-Mar-2010
Time: 20:31:19
ID: 1202074305
Vial: 2:6,B

|LANL|966578|50120|LCS|1|

04-01-10

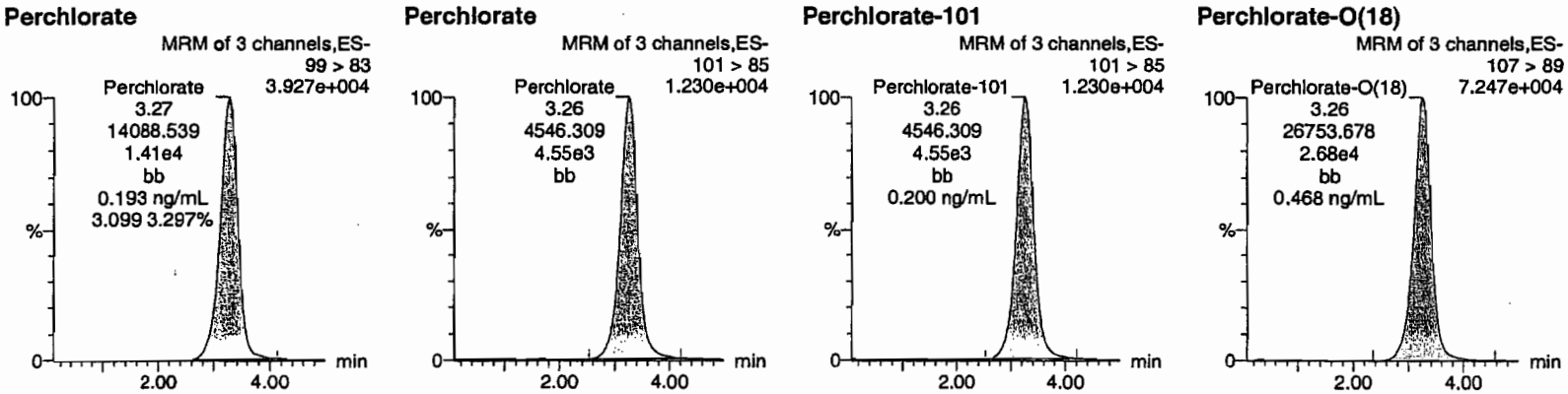

ID	Name	Trace	RT	Area	%Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202074305	Perchlorate	99 > 83	3.27	14088.539	14088.539	bb			0.1926	96.32	-3.68	5429.7...	3.10
1202074305	Perchlorate-101	101 > 85	3.26	4546.309	4546.309	bb			0.1998	99.92	-0.08	1196.6...	
1202074305	Perchlorate-O(18)	107 > 89	3.26	26753.678	26753.678	bb			0.4678	93.57	-6.43	3161.3...	

MAT 4/2/10

$$\frac{14088.539}{73132.7} = 0.1926$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 966565

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE46-10-12997MS

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 1202074286

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.229	ug/L		1	28-MAR-10 02:46	per0327083a
	Perchlorate Isotope Ratio			3.32			1	28-MAR-10 02:46	per0327083a
14797-73-0	Perchlorate-101	.05	.2	0.219	ug/L		1	28-MAR-10 02:46	per0327083a
	Perchlorate-O(18)			0.477	ug/L		1	28-MAR-10 02:46	per0327083a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327083a
Date: 28-Mar-2010
Time: 02:46:33
ID: 1202074286
Vial: 2:8,A

|LANL|966566|LZQ|MS|1|

03-24-10

Perchlorate

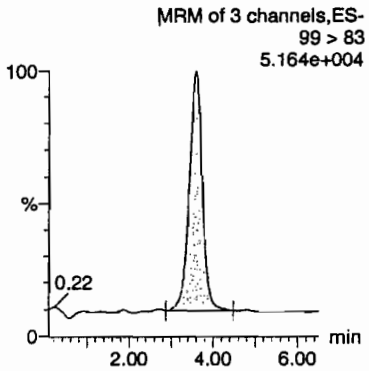

Perchlorate

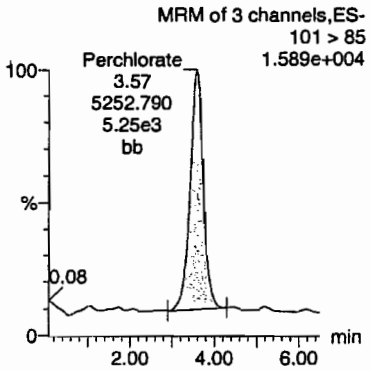

Perchlorate-101

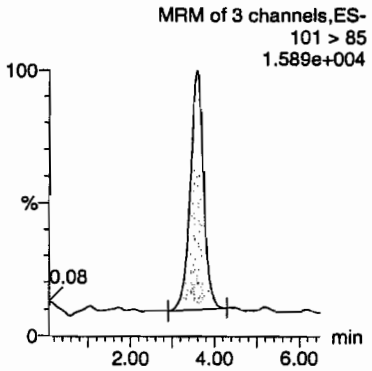

Perchlorate-O(18)

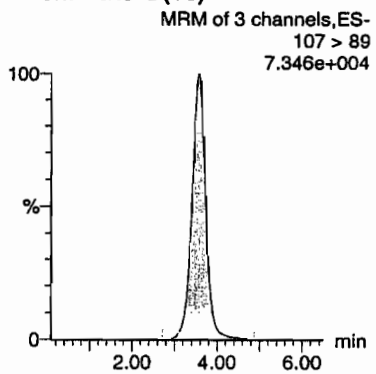

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202074286	Perchlorate	99 > 83	3.58	17453.896	17453.896	bb			0.2286	114.31	14.31	276.381	3.32
1202074286	Perchlorate-101	101 > 85	3.57	5252.790	5252.790	bb			0.2189	109.47	9.47	219.915	
1202074286	Perchlorate-O(18)	107 > 89	3.56	27703.838	27703.838	bb			0.4772	95.45	-4.55	5660.3...	

MJT 3/30/10

$$\frac{17453.896}{76347.5} = 0.2286$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12972MS

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 1202074306

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.57	2.28	2.54	ug/kg		1	30-MAR-10 22:09	per0330083a
	Perchlorate Isotope Ratio			3.28			1	30-MAR-10 22:09	per0330083a
14797-73-0	Perchlorate-101	.57	2.28	2.49	ug/kg		1	30-MAR-10 22:09	per0330083a
	Perchlorate-O(18)			5.71	ug/kg		1	30-MAR-10 22:09	per0330083a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330083a
Date: 30-Mar-2010
Time: 22:09:02
ID: 1202074306
Vial: 2:7,E

|LCMS|966578|50120|MS|1|

04-01-10

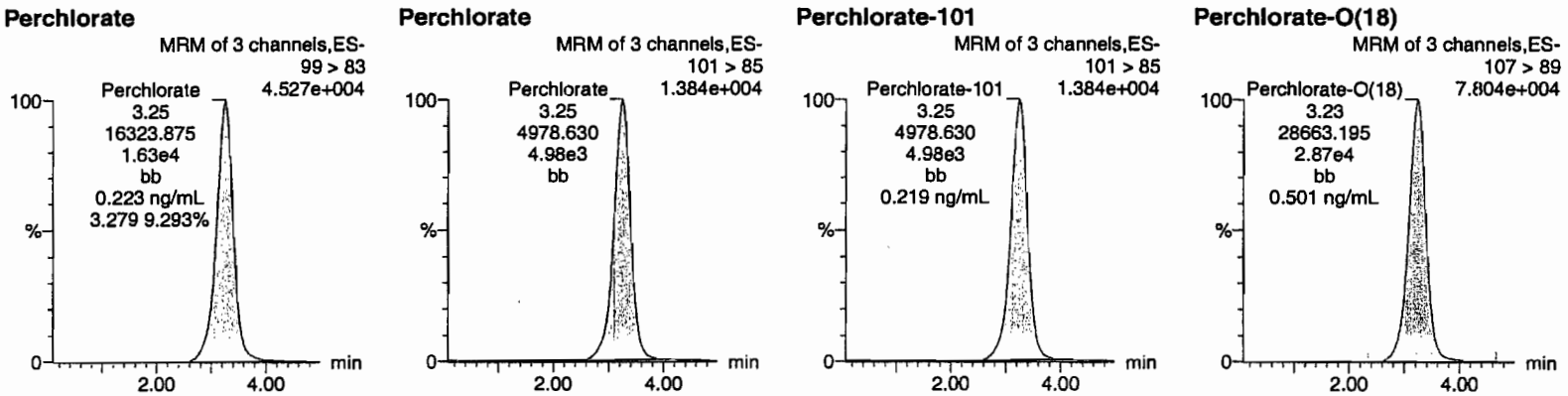

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202074306	Perchlorate	99 > 83	3.25	16323.875	16323.875	bb			0.2232	111.60	11.60	1502.6...	3.28
1202074306	Perchlorate-101	101 > 85	3.25	4978.630	4978.630	bb			0.2188	109.42	9.42	770.860	
1202074306	Perchlorate-O(18)	107 > 89	3.23	28663.195	28663.195	bb			0.5012	100.25	0.25	6835.6...	

MAT 4/2/10

$\frac{16323.875}{73132.7} = 0.2232$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 966565

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE46-10-12997MSD

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 1202074287

Date Filtered: 18-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.188	ug/L	J	1	28-MAR-10 02:56	per0327084a
	Perchlorate Isotope Ratio			3.18			1	28-MAR-10 02:56	per0327084a
14797-73-0	Perchlorate-101	.05	.2	0.188	ug/L	J	1	28-MAR-10 02:56	per0327084a
	Perchlorate-O(18)			0.485	ug/L		1	28-MAR-10 02:56	per0327084a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032710a.qld

Last Altered: Sunday, March 28, 2010 10:33:56 AM Eastern Standard Time
Printed: Sunday, March 28, 2010 10:39:37 AM Eastern Standard Time

Name: per0327084a
Date: 28-Mar-2010
Time: 02:56:09
ID: 1202074287
Vial: 2:8,B

|LANL|966566|LZQ|MSD|1|

CWW 03-29-10

Perchlorate

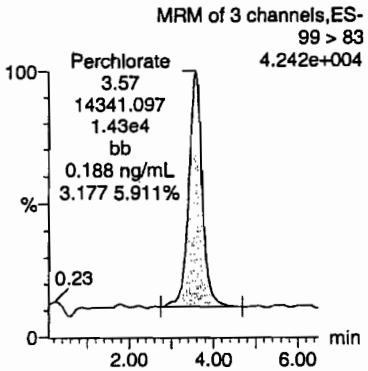

Perchlorate

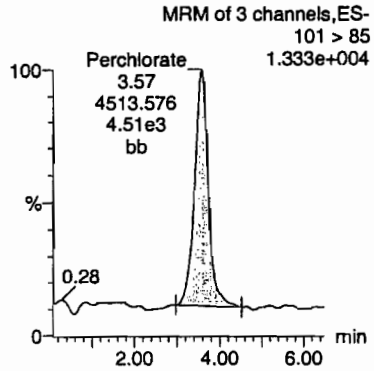

Perchlorate-101

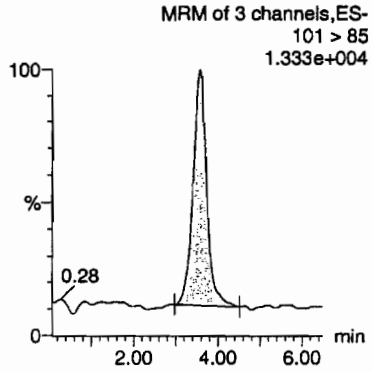

Perchlorate-O(18)

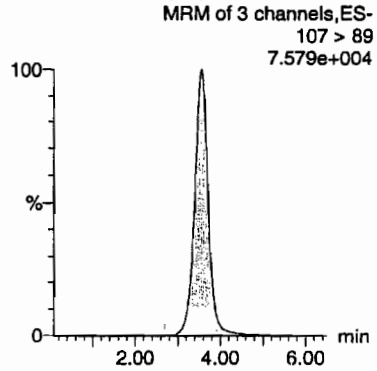

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202074287	Perchlorate	99 > 83	3.57	14341.097	14341.097	bb			0.1878	93.92	-6.08	349.286	3.18
1202074287	Perchlorate-101	101 > 85	3.57	4513.576	4513.576	bb			0.1881	94.06	-5.94	139.887	
1202074287	Perchlorate-O(18)	107 > 89	3.56	28167.393	28167.393	bb			0.4852	97.05	-2.95	2658.4...	

MJT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12972MSD

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2434

GEL Sample ID: 1202074307

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.57	2.28	2.36	ug/kg		1	30-MAR-10 22:17	per0330084a
	Perchlorate Isotope Ratio			3.14			1	30-MAR-10 22:17	per0330084a
14797-73-0	Perchlorate-101	.57	2.28	2.41	ug/kg		1	30-MAR-10 22:17	per0330084a
	Perchlorate-O(18)			5.33	ug/kg		1	30-MAR-10 22:17	per0330084a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330084a
Date: 30-Mar-2010
Time: 22:17:05
ID: 1202074307
Vial: 2:7,F

ILAJL | 966578 | 50625 | MSO | 1 |

04-01-10

Perchlorate

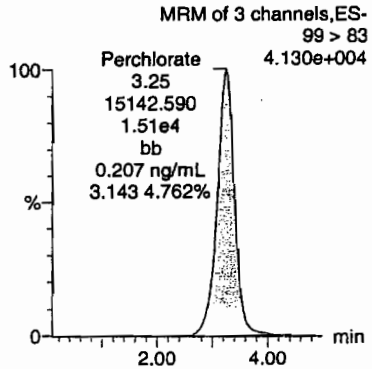

Perchlorate

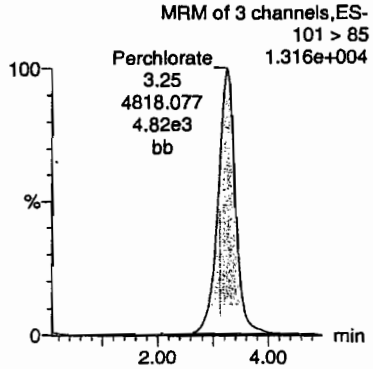

Perchlorate-101

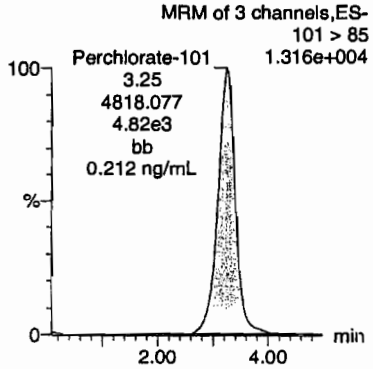

Perchlorate-O(18)

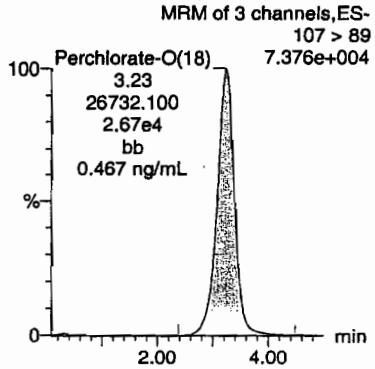

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202074307	Perchlorate	99 > 83	3.25	15142.590	15142.590	bb			0.2071	103.53	3.53	1803.9...	3.14
1202074307	Perchlorate-101	101 > 85	3.25	4818.077	4818.077	bb			0.2118	105.89	5.89	3758.4...	
1202074307	Perchlorate-O(18)	107 > 89	3.23	26732.100	26732.100	bb			0.4675	93.49	-6.51	1592.0...	

MAT 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 966565 **Verified by:** _____

Analyst: Jareth Shirley **Lab SOP:** GL-OA-E-067 REV# 6

Method: SW846 6850 Modified **Instrument:** MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202074284 MB	18-MAR-2010 17:09:00	10	10	1
1202074285 LCS	18-MAR-2010 17:09:00	10	10	1
249057004	18-MAR-2010 17:09:00	10	10	1
249064001	18-MAR-2010 17:09:00	10	10	1
249072001	18-MAR-2010 17:09:00	10	10	1
249076001	18-MAR-2010 17:09:00	10	10	1
249076002	18-MAR-2010 17:09:00	10	10	1
249097001	18-MAR-2010 17:09:00	10	10	1
249102001	18-MAR-2010 17:09:00	10	10	1
249248005	18-MAR-2010 17:09:00	10	10	1
249250002	18-MAR-2010 17:09:00	10	10	1
249328001	18-MAR-2010 17:09:00	10	10	1
249328002	18-MAR-2010 17:09:00	10	10	1
249333001	18-MAR-2010 17:09:00	10	10	1
1202074286 MS (249333001)	18-MAR-2010 17:09:00	10	10	1
1202074287 MSD (249333001)	18-MAR-2010 17:09:00	10	10	1
249333002	18-MAR-2010 17:09:00	10	10	1
249373001	18-MAR-2010 17:09:00	10	10	1
249376001	18-MAR-2010 17:09:00	10	10	1
249376004	18-MAR-2010 17:09:00	10	10	1
1202074288 ICS	18-MAR-2010 17:09:00	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202074288	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.2	mL
LCS	1202074285	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.2	mL
MS	1202074286	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.2	mL
MSD	1202074287	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.2	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1267890	10	mL
RGNT	All	O2SI HPLC Grade Water	1271949	10	mL

Comments:

Desalting Cartridges used: 100224-1-Ba & 100223-1-H

Samples 249328002 & 249328001 had suds in them.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 966577 **Verified by:**
Analyst: Jareth Shirley
Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6
Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202074304 MB	22-MAR-2010 14:54:00	2	20	10
1202074305 LCS	22-MAR-2010 14:54:00	2	20	10
249259001	22-MAR-2010 14:54:00	2	20	10
249259002	22-MAR-2010 14:54:00	2	20	10
249329001	22-MAR-2010 14:54:00	2	20	10
249329002	22-MAR-2010 14:54:00	2	20	10
249329003	22-MAR-2010 14:54:00	2	20	10
249329004	22-MAR-2010 14:54:00	2	20	10
249333003	22-MAR-2010 14:54:00	2	20	10
1202074306 MS (249333003)	22-MAR-2010 14:54:00	2	20	10
1202074307 MSD (249333003)	22-MAR-2010 14:54:00	2	20	10
249333004	22-MAR-2010 14:54:00	2	20	10
249333005	22-MAR-2010 14:54:00	2	20	10
249333006	22-MAR-2010 14:54:00	2	20	10
249333007	22-MAR-2010 14:54:00	2	20	10
249333008	22-MAR-2010 14:54:00	2	20	10
249333009	22-MAR-2010 14:54:00	2	20	10
1202074308 ICS	22-MAR-2010 14:54:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
ICS	1202074308	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL	Desalting Cartridges used: 100224-1-Ba & 100223-1-H
LCS	1202074305	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL	
MS	1202074306	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL	
MSD	1202074307	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/27/10
Extr. Injection Volume: 20uL
Sequence Number: per032710a
Initial Calibration Date: 03/27/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1284736
Standard-Samp Reagent Lot#:: 1284736

Reviewed BY: [illegible]
Date: 3/30/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100326-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0327001a	IPB001	CWW	3/27/2010 13:35			1		USE	B
per0327002a	IPB001	CWW	3/27/2010 13:44			1		USE	B
per0327003a	WCLICAL-01	CWW	3/27/2010 13:54			1		USE	I
per0327004a	WCLICAL-02	CWW	3/27/2010 14:04			1		USE	I
per0327005a	WCLICAL-03	CWW	3/27/2010 14:14			1		USE	I
per0327006a	WCLICAL-04	CWW	3/27/2010 14:23			1		USE	I
per0327007a	WCLICAL-05	CWW	3/27/2010 14:33			1		USE	I
per0327008a	IPB002	CWW	3/27/2010 14:42			1		USE	B
per0327009a	WCLICV	CWW	3/27/2010 14:52			1		USE	C
per0327010a	IPB003	CWW	3/27/2010 15:02			1		USE	B
per0327011a	WCLCRI	CWW	3/27/2010 15:12			1		USE	C
per0327012a	1202068336	CWW	3/27/2010 15:21	964113	VARIOUS	1	LANL	USE	S
per0327013a	1202068346	CWW	3/27/2010 15:31	964119	VARIOUS	1	LANL	USE	S
per0327014a	248824002	CWW	3/27/2010 15:41	964119	10-2305	1	LANL	USE	S
per0327015a	248834001	CWW	3/27/2010 15:51	964119	10-2299	1	LANL	USE	S
per0327016a	248834002	CWW	3/27/2010 16:00	964119	10-2299	1	LANL	USE	S
per0327017a	248834003	CWW	3/27/2010 16:10	964119	10-2299	1	LANL	USE	S
per0327018a	248834004	CWW	3/27/2010 16:20	964119	10-2299	1	LANL	USE	S
per0327019a	248834005	CWW	3/27/2010 16:29	964119	10-2299	1	LANL	USE	S
per0327020a	248834006	CWW	3/27/2010 16:39	964119	10-2299	1	LANL	USE	S
per0327021a	248834007	CWW	3/27/2010 16:48	964119	10-2299	1	LANL	USE	S
per0327022a	WCLCCV	CWW	3/27/2010 16:58			1		USE	C
per0327023a	IPB004	CWW	3/27/2010 17:07			1		USE	B
per0327024a	WCLCRI	CWW	3/27/2010 17:17			1		USE	C
per0327025a	248834008	CWW	3/27/2010 17:27	964119	10-2299	1	LANL	USE	S
per0327026a	248834009	CWW	3/27/2010 17:36	964119	10-2299	1	LANL	USE	S
per0327027a	248834010	CWW	3/27/2010 17:46	964119	10-2299	1	LANL	USE	S
per0327028a	248834011	CWW	3/27/2010 17:55	964119	10-2299	1	LANL	USE	S
per0327029a	IPB005	CWW	3/27/2010 18:05			1		USE	B

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per0327030a	1202068337	CWW	3/27/2010 18:15	964116	VARIOUS	1	LANL	USE	S
per0327031a	1202068338	CWW	3/27/2010 18:25	964116	VARIOUS	1	LANL	USE	S
per0327032a	1202068341	CWW	3/27/2010 18:34	964116	VARIOUS	1	LANL	USE	S
per0327033a	248784001	CWW	3/27/2010 18:44	964116	10-2284-1	1	LANL	USE	S
per0327034a	248784002	CWW	3/27/2010 18:54	964116	10-2284-1	1	LANL	USE	S
per0327035a	WCLCCV	CWW	3/27/2010 19:04			1		USE	C
per0327036a	IPB006	CWW	3/27/2010 19:13			1		USE	B
per0327037a	WCLCRI	CWW	3/27/2010 19:23			1		USE	C
per0327038a	248784003	CWW	3/27/2010 19:33	964116	10-2284-1	1	LANL	USE	S
per0327039a	248784004	CWW	3/27/2010 19:42	964116	10-2284-1	1	LANL	USE	S
per0327040a	248784005	CWW	3/27/2010 19:52	964116	10-2284-1	1	LANL	USE	S
per0327041a	248784006	CWW	3/27/2010 20:02	964116	10-2284-1	1	LANL	USE	S
per0327042a	248784007	CWW	3/27/2010 20:11	964116	10-2284-1	1	LANL	USE	S
per0327043a	248784008	CWW	3/27/2010 20:21	964116	10-2284-1	1	LANL	USE	S
per0327044a	248798001	CWW	3/27/2010 20:30	964116	10-2289	1	LANL	USE	S
per0327045a	1202068339	CWW	3/27/2010 20:40	964116	10-2289	1	LANL	USE	S
per0327046a	1202068340	CWW	3/27/2010 20:49	964116	10-2289	1	LANL	USE	S
per0327047a	248798002	CWW	3/27/2010 20:59	964116	10-2289	1	LANL	USE	S
per0327048a	WCLCCV	CWW	3/27/2010 21:08			1		USE	C
per0327049a	IPB007	CWW	3/27/2010 21:18			1		USE	B
per0327050a	WCLCRI	CWW	3/27/2010 21:28			1		USE	C
per0327051a	248798003	CWW	3/27/2010 21:37	964116	10-2289	1	LANL	USE	S
per0327052a	248798004	CWW	3/27/2010 21:47	964116	10-2289	1	LANL	USE	S
per0327053a	248798005	CWW	3/27/2010 21:57	964116	10-2289	1	LANL	USE	S
per0327054a	248798006	CWW	3/27/2010 22:06	964116	10-2289	1	LANL	USE	S
per0327055a	248798007	CWW	3/27/2010 22:16	964116	10-2289	1	LANL	USE	S
per0327056a	248798008	CWW	3/27/2010 22:25	964116	10-2289	1	LANL	USE	S
per0327057a	248798009	CWW	3/27/2010 22:35	964116	10-2289	1	LANL	USE	S
per0327058a	248798010	CWW	3/27/2010 22:45	964116	10-2289	1	LANL	USE	S
per0327059a	248798011	CWW	3/27/2010 22:54	964116	10-2289	1	LANL	USE	S
per0327060a	248798012	CWW	3/27/2010 23:04	964116	10-2289	1	LANL	USE	S
per0327061a	WCLCCV	CWW	3/27/2010 23:13			1		USE	C
per0327062a	IPB008	CWW	3/27/2010 23:23			1		USE	B
per0327063a	WCLCRI	CWW	3/27/2010 23:33			1		USE	C
per0327064a	1202074284	CWW	3/27/2010 23:42	966566	VARIOUS	1	LANL	USE	S
per0327065a	1202074285	CWW	3/27/2010 23:52	966566	VARIOUS	1	LANL	USE	S
per0327066a	1202074288	CWW	3/28/2010 0:02	966566	VARIOUS	1	LANL	USE	S

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per0327067a	249057004	CWW	3/28/2010 0:11	966566	10-2350	1	LANL	USE	S
per0327068a	249064001	CWW	3/28/2010 0:21	966566	10-2353	1	LANL	USE	S
per0327069a	249072001	CWW	3/28/2010 0:30	966566	10-2355	1	LANL	USE	S
per0327070a	249076001	CWW	3/28/2010 0:40	966566	10-2357	1	LANL	USE	S
per0327071a	249076002	CWW	3/28/2010 0:49	966566	10-2357	1	LANL	USE	S
per0327072a	249097001	CWW	3/28/2010 0:59	966566	10-2360	1	LANL	USE	S
per0327073a	249102001	CWW	3/28/2010 1:09	966566	10-2367	1	LANL	USE	S
per0327074a	WCLCCV	CWW	3/28/2010 1:18			1		USE	C
per0327075a	IPB009	CWW	3/28/2010 1:28			1		USE	B
per0327076a	WCLCRI	CWW	3/28/2010 1:38			1		USE	C
per0327077a	249248005	CWW	3/28/2010 1:48	966566	10-2417	1	LANL	USE	S
per0327078a	249250002	CWW	3/28/2010 1:57	966566	10-2418	1	LANL	USE	S
per0327079a	249328001	CWW	3/28/2010 2:07	966566	10-2429	1	LANL	USE	S
per0327080a	249328002	CWW	3/28/2010 2:17	966566	10-2429	1	LANL	USE	S
per0327081a	IPB010	CWW	3/28/2010 2:26			1		USE	B
per0327082a	249333001	CWW	3/28/2010 2:36	966566	10-2434	1	LANL	USE	S
per0327083a	1202074286	CWW	3/28/2010 2:46	966566	10-2434	1	LANL	USE	S
per0327084a	1202074287	CWW	3/28/2010 2:56	966566	10-2434	1	LANL	USE	S
per0327085a	249333002	CWW	3/28/2010 3:05	966566	10-2434	1	LANL	USE	S
per0327086a	249373001	CWW	3/28/2010 3:15	966566	10-2353	1	LANL	USE	S
per0327087a	WCLCCV	CWW	3/28/2010 3:25			1		USE	C
per0327088a	IPB011	CWW	3/28/2010 3:35			1		USE	B
per0327089a	WCLCRI	CWW	3/28/2010 3:44			1		USE	C
per0327090a	249376001	CWW	3/28/2010 3:54	966566	10-2446	1	LANL	DUSE-RA	S
per0327091a	249376004	CWW	3/28/2010 4:04	966566	10-2446	1	LANL	DUSE-RA	S
per0327092a	IPB012	CWW	3/28/2010 4:13			1		DUSE	B
per0327093a	1202069098	CWW	3/28/2010 4:23	964450	VARIOUS	1	LANL	DUSE-RA	S
per0327094a	1202069099	CWW	3/28/2010 4:33	964450	VARIOUS	1	LANL	DUSE-RA	S
per0327095a	1202069102	CWW	3/28/2010 4:43	964450	VARIOUS	1	LANL	DUSE-RA	S
per0327096a	248863001	CWW	3/28/2010 4:52	964450	10-2315	1	LANL	DUSE-RA	S
per0327097a	248863002	CWW	3/28/2010 5:02	964450	10-2315	1	LANL	DUSE-RA	S
per0327098a	1202069100	CWW	3/28/2010 5:11	964450	10-2315	1	LANL	DUSE-RA	S
per0327099a	1202069101	CWW	3/28/2010 5:21	964450	10-2315	1	LANL	DUSE-RA	S
per0327100a	WCLCCV	CWW	3/28/2010 5:30			1		DUSE	C
per0327101a	IPB013	CWW	3/28/2010 5:40			1		DUSE	B
per0327102a	WCLCRI	CWW	3/28/2010 5:50			1		DUSE	C
per0327103a	248863003	CWW	3/28/2010 5:59	964450	10-2315	1	LANL	DUSE-RA	S

per0327104a	248863004	CWW	3/28/2010 6:09	964450	10-2315	1	LANL	DUSE-RA	S
per0327105a	248865001	CWW	3/28/2010 6:18	964450	10-2318	1	LANL	DUSE-RA	S
per0327106a	248866001	CWW	3/28/2010 6:28	964450	10-2319	1	LANL	DUSE-RA	S
per0327107a	248866002	CWW	3/28/2010 6:37	964450	10-2319	1	LANL	DUSE-RA	S
per0327108a	248867001	CWW	3/28/2010 6:47	964450	10-2320	1	LANL	DUSE-RA	S
per0327109a	248867002	CWW	3/28/2010 6:57	964450	10-2320	1	LANL	DUSE-RA	S
per0327110a	248867003	CWW	3/28/2010 7:06	964450	10-2320	1	LANL	DUSE-RA	S
per0327111a	248867004	CWW	3/28/2010 7:16	964450	10-2320	1	LANL	DUSE-RA	S
per0327112a	249055001	CWW	3/28/2010 7:25	964450	10-2349	1	LANL	DUSE-RA	S
per0327113a	WCLCCV	CWW	3/28/2010 7:35			1		USE	C
per0327114a	IPB014	CWW	3/28/2010 7:44			1		USE	B
per0327115a	WCLCRI	CWW	3/28/2010 7:54			1		USE	C
per0327116a	249055002	CWW	3/28/2010 8:03	964450	10-2349	1	LANL	USE	S
per0327117a	249057002	CWW	3/28/2010 8:13	964450	10-2350	1	LANL	USE	S
per0327118a	249057003	CWW	3/28/2010 8:23	964450	10-2350	1	LANL	USE	S
per0327119a	249064002	CWW	3/28/2010 8:32	964450	10-2353	1	LANL	USE	S
per0327120a	249064003	CWW	3/28/2010 8:42	964450	10-2353	1	LANL	USE	S
per0327121a	249064004	CWW	3/28/2010 8:51	964450	10-2353	1	LANL	USE	S
per0327122a	249064005	CWW	3/28/2010 9:01	964450	10-2353	1	LANL	USE	S
per0327123a	WCLCCV	CWW	3/28/2010 9:10			1		USE	C
per0327124a	IPB015	CWW	3/28/2010 9:20			1		USE	B
per0327125a	WCLCRI	CWW	3/28/2010 9:30			1		USE	C

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/30/10
Extr. Injection Volume: 20uL
Sequence Number: per033010a
Initial Calibration Date: 03/30/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1284736
Standard-Samp Reagent Lot#:: 1284736

Reviewed BY: [illegible]
Date: 4/2/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100326-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0330001a	IPB001	CWW	3/30/2010 11:06			1		USE	B
per0330002a	IPB001	CWW	3/30/2010 11:14			1		USE	B
per0330003a	WCLICAL-01	CWW	3/30/2010 11:22			1		USE	I
per0330004a	WCLICAL-02	CWW	3/30/2010 11:30			1		USE	I
per0330005a	WCLICAL-03	CWW	3/30/2010 11:38			1		USE	I
per0330006a	WCLICAL-04	CWW	3/30/2010 11:46			1		USE	I
per0330007a	WCLICAL-05	CWW	3/30/2010 11:54			1		USE	I
per0330008a	IPB002	CWW	3/30/2010 12:02			1		USE	B
per0330009a	WCLICV	CWW	3/30/2010 12:10			1		USE	C
per0330010a	IPB003	CWW	3/30/2010 12:18			1		USE	B
per0330011a	WCLCRI	CWW	3/30/2010 12:26			1		USE	C
per0330012a	1202074289	CWW	3/30/2010 12:35	966569	VARIOUS	1	LANL	USE	S
per0330013a	1202074290	CWW	3/30/2010 12:43	966569	VARIOUS	1	LANL	USE	S
per0330014a	1202074293	CWW	3/30/2010 12:51	966569	VARIOUS	1	LANL	USE	S
per0330015a	248964001	CWW	3/30/2010 12:59	966569	10-2336	1	LANL	USE	S
per0330016a	248964004	CWW	3/30/2010 13:07	966569	10-2336	1	LANL	USE	S
per0330017a	1202074291	CWW	3/30/2010 13:15	966569	10-2336	1	LANL	USE	S
per0330018a	1202074292	CWW	3/30/2010 13:23	966569	10-2336	1	LANL	USE	S
per0330019a	248964005	CWW	3/30/2010 13:31	966569	10-2336	1	LANL	USE	S
per0330020a	248966005	CWW	3/30/2010 13:39	966569	10-2347	1	LANL	USE	S
per0330021a	249094005	CWW	3/30/2010 13:47	966569	10-2365	1	LANL	USE	S
per0330022a	WCLCCV	CWW	3/30/2010 13:55			1		USE	C
per0330023a	IPB004	CWW	3/30/2010 14:03			1		USE	B
per0330024a	WCLCRI	CWW	3/30/2010 14:11			1		USE	C
per0330025a	249111001	CWW	3/30/2010 14:19	966569	10-2375	1	LANL	USE	S
per0330026a	249111003	CWW	3/30/2010 14:27	966569	10-2375	1	LANL	USE	S
per0330027a	249122001	CWW	3/30/2010 14:35	966569	10-2379	1	LANL	USE	S
per0330028a	249172002	CWW	3/30/2010 14:43	966569	10-2393	1	LANL	USE	S
per0330029a	249172004	CWW	3/30/2010 14:51	966569	10-2393	1	LANL	USE	S

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per0330030a	249178002	CWW	3/30/2010 14:59	966569	10-2402	1	LANL	USE	S
per0330031a	249243002	CWW	3/30/2010 15:07	966569	10-2409	1	LANL	USE	S
per0330032a	249261003	CWW	3/30/2010 15:15	966569	10-2422	1	LANL	USE	S
per0330033a	WCLCCV	CWW	3/30/2010 15:23			1		USE	C
per0330034a	IPB005	CWW	3/30/2010 15:31			1		USE	B
per0330035a	WCLCRI	CWW	3/30/2010 15:40			1		USE	C
per0330036a	1202074299	CWW	3/30/2010 15:48	966575	VARIOUS	1	LANL	USE	S
per0330037a	1202074300	CWW	3/30/2010 15:56	966575	VARIOUS	1	LANL	USE	S
per0330038a	1202074303	CWW	3/30/2010 16:04	966575	VARIOUS	1	LANL	USE	S
per0330039a	249244001	CWW	3/30/2010 16:12	966575	10-2412	1	LANL	USE	S
per0330040a	1202074301	CWW	3/30/2010 16:20	966575	10-2412	1	LANL	USE	S
per0330041a	1202074302	CWW	3/30/2010 16:28	966575	10-2412	1	LANL	USE	S
per0330042a	249244002	CWW	3/30/2010 16:36	966575	10-2412	1	LANL	USE	S
per0330043a	249244003	CWW	3/30/2010 16:44	966575	10-2412	1	LANL	USE	S
per0330044a	249244004	CWW	3/30/2010 16:52	966575	10-2412	1	LANL	USE	S
per0330045a	WCLCCV	CWW	3/30/2010 17:00			1		USE	C
per0330046a	IPB006	CWW	3/30/2010 17:08			1		USE	B
per0330047a	WCLCRI	CWW	3/30/2010 17:16			1		USE	C
per0330048a	249244005	CWW	3/30/2010 17:24	966575	10-2412	1	LANL	USE	S
per0330049a	249244006	CWW	3/30/2010 17:33	966575	10-2412	1	LANL	USE	S
per0330050a	249245001	CWW	3/30/2010 17:41	966575	10-2415	1	LANL	USE	S
per0330051a	249245002	CWW	3/30/2010 17:49	966575	10-2415	1	LANL	USE	S
per0330052a	249247001	CWW	3/30/2010 17:57	966575	10-2416	1	LANL	USE	S
per0330053a	249247002	CWW	3/30/2010 18:05	966575	10-2416	1	LANL	USE	S
per0330054a	249247003	CWW	3/30/2010 18:13	966575	10-2416	1	LANL	USE	S
per0330055a	249248002	CWW	3/30/2010 18:21	966575	10-2417	1	LANL	USE	S
per0330056a	WCLCCV	CWW	3/30/2010 18:29			1		USE	C
per0330057a	IPB007	CWW	3/30/2010 18:37			1		USE	B
per0330058a	WCLCRI	CWW	3/30/2010 18:45			1		USE	C
per0330059a	249248003	CWW	3/30/2010 18:53	966575	10-2417	1	LANL	USE	S
per0330060a	249248004	CWW	3/30/2010 19:01	966575	10-2417	1	LANL	USE	S
per0330061a	249250003	CWW	3/30/2010 19:09	966575	10-2418	1	LANL	USE	S
per0330062a	249250004	CWW	3/30/2010 19:18	966575	10-2418	1	LANL	USE	S
per0330063a	249252001	CWW	3/30/2010 19:26	966575	10-2419	1	LANL	USE	S
per0330064a	249252002	CWW	3/30/2010 19:34	966575	10-2419	1	LANL	USE	S
per0330065a	249252003	CWW	3/30/2010 19:42	966575	10-2419	1	LANL	USE	S
per0330066a	249255001	CWW	3/30/2010 19:50	966575	10-2420	1	LANL	USE	S

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per0330067a	WCLCCV	CWW	3/30/2010 19:58			1		USE	C
per0330068a	IPB008	CWW	3/30/2010 20:06			1		USE	B
per0330069a	WCLCRI	CWW	3/30/2010 20:14			1		USE	C
per0330070a	1202074304	CWW	3/30/2010 20:23	966578	VARIOUS	1	LANL	USE	S
per0330071a	1202074305	CWW	3/30/2010 20:31	966578	VARIOUS	1	LANL	USE	S
per0330072a	1202074308	CWW	3/30/2010 20:39	966578	VARIOUS	1	LANL	USE	S
per0330073a	249259001	CWW	3/30/2010 20:47	966578	10-2421	1	LANL	USE	S
per0330074a	249259002	CWW	3/30/2010 20:55	966578	10-2421	1	LANL	USE	S
per0330075a	249329001	CWW	3/30/2010 21:03	966578	10-2430	1	LANL	USE	S
per0330076a	249329002	CWW	3/30/2010 21:11	966578	10-2430	1	LANL	USE	S
per0330077a	249329003	CWW	3/30/2010 21:19	966578	10-2430	1	LANL	USE	S
per0330078a	249329004	CWW	3/30/2010 21:27	966578	10-2430	1	LANL	USE	S
per0330079a	WCLCCV	CWW	3/30/2010 21:36			1		USE	C
per0330080a	IPB009	CWW	3/30/2010 21:44			1		USE	B
per0330081a	WCLCRI	CWW	3/30/2010 21:52			1		USE	C
per0330082a	249333003	CWW	3/30/2010 22:00	966578	10-2434	1	LANL	USE	S
per0330083a	1202074306	CWW	3/30/2010 22:09	966578	10-2434	1	LANL	USE	S
per0330084a	1202074307	CWW	3/30/2010 22:17	966578	10-2434	1	LANL	USE	S
per0330085a	249333004	CWW	3/30/2010 22:25	966578	10-2434	1	LANL	USE	S
per0330086a	249333005	CWW	3/30/2010 22:33	966578	10-2434	1	LANL	USE	S
per0330087a	249333006	CWW	3/30/2010 22:41	966578	10-2434	1	LANL	USE	S
per0330088a	249333007	CWW	3/30/2010 22:49	966578	10-2434	1	LANL	USE	S
per0330089a	249333008	CWW	3/30/2010 22:57	966578	10-2434	1	LANL	USE	S
per0330090a	249333009	CWW	3/30/2010 23:05	966578	10-2434	1	LANL	USE	S
per0330091a	WCLCCV	CWW	3/30/2010 23:14			1		USE	C
per0330092a	IPB010	CWW	3/30/2010 23:22			1		USE	B
per0330093a	WCLCRI	CWW	3/30/2010 23:30			1		USE	C
per0330094a	1202078316	CWW	3/30/2010 23:38	968117	VARIOUS	1	LANL	DUSE-RE	S
per0330095a	1202078317	CWW	3/30/2010 23:46	968117	VARIOUS	1	LANL	DUSE-RE	S
per0330096a	1202078320	CWW	3/30/2010 23:55	968117	VARIOUS	1	LANL	DUSE-RE	S
per0330097a	249510003	CWW	3/31/2010 0:03	968117	10-2465	1	LANL	DUSE-RE	S
per0330098a	249510005	CWW	3/31/2010 0:11	968117	10-2465	1	LANL	DUSE-RE	S
per0330099a	1202078318	CWW	3/31/2010 0:19	968117	10-2465	1	LANL	DUSE-RE	S
per0330100a	1202078319	CWW	3/31/2010 0:27	968117	10-2465	1	LANL	DUSE-RE	S
per0330101a	249524006	CWW	3/31/2010 0:35	968117	10-2472	1	LANL	DUSE-RE	S
per0330102a	WCLCCV	CWW	3/31/2010 0:43			1		USE	C
per0330103a	IPB011	CWW	3/31/2010 0:51			1		USE	B

per0330104a	WCLCRI	CWW	3/31/2010 0:59			1		USE	C
per0330105a	249524007	CWW	3/31/2010 1:07	968117	10-2472	1	LANL	DUSE-RE	S
per0330106a	249528001	CWW	3/31/2010 1:15	968117	10-2468	1	LANL	DUSE-RE	S
per0330107a	249591001	CWW	3/31/2010 1:23	968117	10-2475	1	LANL	DUSE-RE	S
per0330108a	249591002	CWW	3/31/2010 1:31	968117	10-2475	1	LANL	DUSE-RE	S
per0330109a	249607003	CWW	3/31/2010 1:39	968117	10-2480	1	LANL	DUSE-RE	S
per0330110a	249608006	CWW	3/31/2010 1:47	968117	10-2490	1	LANL	DUSE-RE	S
per0330111a	249608007	CWW	3/31/2010 1:55	968117	10-2490	1	LANL	DUSE-RE	S
per0330112a	249610001	CWW	3/31/2010 2:03	968117	10-2482	1	LANL	DUSE-RE	S
per0330113a	WCLCCV	CWW	3/31/2010 2:11			1		USE	C
per0330114a	IPB012	CWW	3/31/2010 2:20			1		USE	B
per0330115a	WCLCRI	CWW	3/31/2010 2:28			1		USE	C
per0330116a	249610002	CWW	3/31/2010 2:36	968117	10-2482	1	LANL	DUSE-RE	S
per0330117a	249613001	CWW	3/31/2010 2:44	968117	10-2492	1	LANL	DUSE-RE	S
per0330118a	249704001	CWW	3/31/2010 2:52	968117	10-2498	1	LANL	DUSE-RE	S
per0330119a	249707001	CWW	3/31/2010 3:00	968117	10-2501	1	LANL	DUSE-RE	S
per0330120a	249707002	CWW	3/31/2010 3:08	968117	10-2501	1	LANL	DUSE-RE	S
per0330121a	249715008	CWW	3/31/2010 3:17	968117	10-2506	1	LANL	DUSE-RE	S
per0330122a	249715009	CWW	3/31/2010 3:25	968117	10-2506	1	LANL	DUSE-RE	S
per0330123a	WCLCCV	CWW	3/31/2010 3:33			1		USE	C
per0330124a	IPB013	CWW	3/31/2010 3:41			1		USE	B
per0330125a	WCLCRI	CWW	3/31/2010 3:49			1		USE	C

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2434

Sample Analysis

Sample ID	Client ID
249333001	RE46-10-12997
249333002	RE46-10-12994
249333003	RE46-10-12972
249333004	RE46-10-13003
249333005	RE46-10-12967
249333006	RE46-10-12971
249333007	RE46-10-12968
249333008	RE46-10-12969
249333009	RE46-10-12970
1202072038	Method Blank (MB) **ICP**
1202072045	Method Blank (MB) **ICP**
1202091939	Method Blank (MB) **ICP**
1202072039	Laboratory Control Sample (LCS)
1202072046	Laboratory Control Sample (LCS)
1202091940	Laboratory Control Sample (LCS)
1202072042	249333001(RE46-10-12997L) Serial Dilution (SD)
1202072049	249333003(RE46-10-12972L) Serial Dilution (SD)
1202072040	249333001(RE46-10-12997D) Sample Duplicate (DUP)
1202072047	249333003(RE46-10-12972D) Sample Duplicate (DUP)
1202072041	249333001(RE46-10-12997S) Matrix Spike (MS)
1202072048	249333003(RE46-10-12972S) Matrix Spike (MS)
1202072050	249333003(RE46-10-12972SD) Matrix Spike Duplicate (MSD)
1202072001	Method Blank (MB) **ICP-MS**
1202072051	Method Blank (MB) **ICP-MS**
1202072002	Laboratory Control Sample (LCS)
1202072052	Laboratory Control Sample (LCS)
1202072005	249243001(CAMO-10-13924L) Serial Dilution (SD)
1202106367	249333002(RE46-10-12994L) Serial Dilution (SD)
1202072055	249333003(RE46-10-12972L) Serial Dilution (SD)

1202072003	249243001(CAMO-10-13924D) Sample Duplicate (DUP)
1202106366	249333002(RE46-10-12994D) Sample Duplicate (DUP)
1202072053	249333003(RE46-10-12972D) Sample Duplicate (DUP)
1202072004	249243001(CAMO-10-13924S) Matrix Spike (MS)
1202106368	249333002(RE46-10-12994S) Matrix Spike (MS)
1202072054	249333003(RE46-10-12972S) Matrix Spike (MS)
1202072056	249330003(RE46-10-13220SD) Matrix Spike Duplicate (MSD)
1202075645	Method Blank (MB) **CVAA**
1202081106	Method Blank (MB) **CVAA**
1202075646	Laboratory Control Sample (LCS)
1202081107	Laboratory Control Sample (LCS)
1202075655	249528001(RE16-10-14224L) Serial Dilution (SD)
1202081110	249608001(RE46-10-12728L) Serial Dilution (SD)
1202075647	249528001(RE16-10-14224D) Sample Duplicate (DUP)
1202081108	249608001(RE46-10-12728D) Sample Duplicate (DUP)
1202075648	249528001(RE16-10-14224S) Matrix Spike (MS)
1202081109	249608001(RE46-10-12728S) Matrix Spike (MS)
1202081111	249608001(RE46-10-12728SD) Matrix Spike Duplicate (MSD)

Samples 249333 003, 004, 005, 006, 007, 008 and 009 in this SDG were analyzed on an "dry weight" basis. Samples 249333 001 and 002 in this SDG were analyzed on a "as received" basis.

Method/Analysis Information

Analytical Batch:	965619, 965624, 973755, 965603, 965627, 979730, 967115 and 969297
Prep Batch :	965618, 965623, 973754, 965602, 965626, 979729, 967111 and 969295
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-009 REV# 20, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3050B/6010B, SW846 3005/6020, SW846 3050B/6020, SW846 7470A and SW846 7471A
Prep Method :	SW846 3005A, SW846 3050B, SW846 7470A Prep and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis-ICP was performed on a P E 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits, with the exception of beryllium analyzed 18-MAY-10 08:37.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 249333001 (RE46-10-12997)-ICP, 249333003 (RE46-10-12972)-ICP and ICP-MS, 249243001 (CAMO-10-13924), 249333002 (RE46-10-12994), 249330003 (RE46-10-13220)-ICP-MS, 249528001 (RE16-10-14224) and 249608001 (RE46-10-12728)-CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes, with the exception of magnesium, manganese, and potassium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes, with the exception of magnesium and potassium, as indicated by

the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits, with the exception of mercury, as indicated by the "*" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of RL is used to evaluate the DUP results. All applicable analytes met these requirements, with the exception of chromium, mercury, and copper, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D), with the exception of mercury, as indicated by the "E" qualifiers..

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS. Samples 249333003 (RE46-10-12972), 249333004 (RE46-10-13003), 249333005 (RE46-10-12967), 249333006 (RE46-10-12971), 249333007 (RE46-10-12968) and 249333008 (RE46-10-12969) required dilutions in order to bring over range mercury concentrations within the linear calibration range of the instrument.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 812298, 815763, 817948, 823279, 828155, 828156. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer:_____ **Date:** 5/20/10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2434 GEL Work Order: 249333

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

J Value is estimated

N Metals--The Matrix spike sample recovery is not within specified control limits

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____ 5/20/10

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–2434 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249333001 **BASIS:** As Received **DATE COLLECTED** 11–MAR–10

CLIENT ID: RE46–10–12997 **LEVEL:** Low **DATE RECEIVED** 13–MAR–10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429–90–5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	04/01/10 15:49	040110–1	965619
7440–36–0	Antimony	3	ug/L	U	1	3	3	1	MS	BCD1	04/24/10 21:01	100424–5	965603
7440–38–2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 15:49	040110–1	965619
7440–39–3	Barium	1.05	ug/L	J	1	5	5	1	P	HSC	04/01/10 15:49	040110–1	965619
7440–41–7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BCD1	05/15/10 03:23	100514–6	979730
7440–43–9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BCD1	04/24/10 21:01	100424–5	965603
7440–70–2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	04/01/10 15:49	040110–1	965619
7440–47–3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 15:49	040110–1	965619
7440–48–4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 15:49	040110–1	965619
7440–50–8	Copper	10	ug/L	U	3	10	10	1	P	HSC	04/01/10 15:49	040110–1	965619
7439–89–6	Iron	100	ug/L	U	30	100	100	1	P	HSC	04/01/10 15:49	040110–1	965619
7439–92–1	Lead	2	ug/L	U	0.5	2	2	1	MS	BCD1	04/24/10 21:01	100424–5	965603
7439–95–4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	04/01/10 15:49	040110–1	965619
7439–96–5	Manganese	5	ug/L	U	1	5	5	1	MS	BCD1	04/24/10 21:01	100424–5	965603
7439–97–6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/22/10 11:42	032210W1–10	967115
7440–02–0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	04/01/10 15:49	040110–1	965619
7440–09–7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	04/01/10 15:49	040110–1	965619
7782–49–2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 15:49	040110–1	965619
7440–22–4	Silver	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 15:49	040110–1	965619
7440–23–5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	04/01/10 15:49	040110–1	965619
7440–28–0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BCD1	04/24/10 21:01	100424–5	965603
7440–62–2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 15:49	040110–1	965619
7440–66–6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	04/01/10 15:49	040110–1	965619

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965603	965602	SW846 3005A	50	mL	50	mL	03/26/10	LYH1
965619	965618	SW846 3005A	50	mL	50	mL	03/31/10	LYH1
967115	967111	SW846 7470A Prep	20	mL	20	mL	03/19/10	TXB3
979730	979729	SW846 3005A	50	mL	50	mL	04/30/10	LYH1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2434 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249333002 **BASIS:** As Received **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-12994 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	169	ug/L	J	68	200	200	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BCD1	04/24/10 21:07	100424-5	965603
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BCD1	05/15/10 03:41	100514-6	979730
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BCD1	04/24/10 21:07	100424-5	965603
7440-70-2	Calcium	59.5	ug/L	J	50	200	200	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	04/01/10 16:28	040110-1	965619
7439-89-6	Iron	95.6	ug/L	J	30	100	100	1	P	HSC	04/01/10 16:28	040110-1	965619
7439-92-1	Lead	0.517	ug/L	J	0.5	2	2	1	MS	BCD1	04/24/10 21:07	100424-5	965603
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	04/01/10 16:28	040110-1	965619
7439-96-5	Manganese	2.67	ug/L	J	1	5	5	1	MS	BCD1	04/24/10 21:07	100424-5	965603
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/22/10 11:44	032210W1-10	967115
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-09-7	Potassium	98.6	ug/L	J	50	150	150	1	P	HSC	04/01/10 16:28	040110-1	965619
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BCD1	04/24/10 21:07	100424-5	965603
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:28	040110-1	965619
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	04/01/10 16:28	040110-1	965619

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965603	965602	SW846 3005A	50	mL	50	mL	03/26/10	LYH1
965619	965618	SW846 3005A	50	mL	50	mL	03/31/10	LYH1
967115	967111	SW846 7470A Prep	20	mL	20	mL	03/19/10	TXB3
979730	979729	SW846 3005A	50	mL	50	mL	04/30/10	LYH1

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2434 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249333003 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-12972 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3510000	ug/kg		7610	22400	22400	1	P	HSC	04/05/10 19:11	040510-2	965624
7440-36-0	Antimony	1120	ug/kg	U	369	1120	1120	1	P	HSC	04/05/10 19:11	040510-2	965624
7440-38-2	Arsenic	1570	ug/kg		223	1120	1120	2	MS	BCD1	05/16/10 09:09	100515-7	965627
7440-39-3	Barium	25200	ug/kg		112	560	560	1	P	HSC	04/05/10 19:11	040510-2	965624
7440-41-7	Beryllium	585	ug/kg		22.3	112	112	2	MS	PRB	05/18/10 08:52	100517-9	965627
7440-43-9	Cadmium	560	ug/kg	U	112	560	560	1	P	HSC	04/05/10 19:11	040510-2	965624
7440-70-2	Calcium	942000	ug/kg		8960	28000	28000	1	P	HSC	04/05/10 19:11	040510-2	965624
7440-47-3	Chromium	11600	ug/kg	*	167	555	555	1	P	HSC	04/15/10 19:35	041510A-4	973755
7440-48-4	Cobalt	1290	ug/kg		168	560	560	1	P	HSC	04/05/10 19:11	040510-2	965624
7440-50-8	Copper	5400	ug/kg	*	333	1110	1110	1	P	HSC	04/15/10 19:35	041510A-4	973755
7439-89-6	Iron	8360000	ug/kg		8960	28000	28000	1	P	HSC	04/05/10 19:11	040510-2	965624
7439-92-1	Lead	12100	ug/kg		280	1120	1120	1	P	HSC	04/05/10 19:11	040510-2	965624
7439-95-4	Magnesium	576000	ug/kg	N	9520	33600	33600	1	P	HSC	04/05/10 19:11	040510-2	965624
7439-96-5	Manganese	213000	ug/kg	N	224	1120	1120	1	P	HSC	04/05/10 19:11	040510-2	965624
7439-97-6	Mercury	2040	ug/kg		42.8	126	126	10	AV	JXL1	03/31/10 10:29	033110S1-11	969297
7440-02-0	Nickel	3500	ug/kg		112	446	446	2	MS	BCD1	05/16/10 09:09	100515-7	965627
7440-09-7	Potassium	419000	ug/kg	N	7170	28000	28000	1	P	HSC	04/05/10 19:11	040510-2	965624
7782-49-2	Selenium	1120	ug/kg	U	558	1120	1120	2	MS	BCD1	05/16/10 09:09	100515-7	965627
7440-22-4	Silver	560	ug/kg	U	112	560	560	1	P	HSC	04/05/10 19:11	040510-2	965624
7440-23-5	Sodium	128000	ug/kg		7840	28000	28000	1	P	HSC	04/05/10 19:11	040510-2	965624
7440-28-0	Thallium	223	ug/kg	U	66.9	223	223	2	MS	BCD1	05/16/10 09:09	100515-7	965627
7440-62-2	Vanadium	7110	ug/kg		112	560	560	1	P	HSC	04/05/10 19:11	040510-2	965624
7440-66-6	Zinc	46500	ug/kg		369	1120	1120	1	P	HSC	04/05/10 19:11	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.509	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.511	g	50	mL	03/31/10	LYH1
969297	969295	SW846 7471A Prep	0.543	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.513	g	50	mL	04/12/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2434 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249333004 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13003 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2380000	ug/kg		6780	19900	19900	1	P	HSC	04/05/10 19:55	040510-2	965624
7440-36-0	Antimony	996	ug/kg	U	329	996	996	1	P	HSC	04/05/10 19:55	040510-2	965624
7440-38-2	Arsenic	1250	ug/kg		223	1120	1120	2	MS	BCD1	05/16/10 09:38	100515-7	965627
7440-39-3	Barium	17100	ug/kg		99.6	498	498	1	P	HSC	04/05/10 19:55	040510-2	965624
7440-41-7	Beryllium	487	ug/kg		22.3	112	112	2	MS	PRB	05/18/10 08:57	100517-9	965627
7440-43-9	Cadmium	498	ug/kg	U	99.6	498	498	1	P	HSC	04/05/10 19:55	040510-2	965624
7440-70-2	Calcium	672000	ug/kg		7970	24900	24900	1	P	HSC	04/05/10 19:55	040510-2	965624
7440-47-3	Chromium	8720	ug/kg	*	169	563	563	1	P	HSC	04/15/10 21:59	041510A-4	973755
7440-48-4	Cobalt	884	ug/kg		149	498	498	1	P	HSC	04/05/10 19:55	040510-2	965624
7440-50-8	Copper	4960	ug/kg	*	338	1130	1130	1	P	HSC	04/15/10 21:59	041510A-4	973755
7439-89-6	Iron	6630000	ug/kg		7970	24900	24900	1	P	HSC	04/05/10 19:55	040510-2	965624
7439-92-1	Lead	9590	ug/kg		249	996	996	1	P	HSC	04/05/10 19:55	040510-2	965624
7439-95-4	Magnesium	398000	ug/kg	N	8470	29900	29900	1	P	HSC	04/05/10 19:55	040510-2	965624
7439-96-5	Manganese	168000	ug/kg	N	199	996	996	1	P	HSC	04/05/10 19:55	040510-2	965624
7439-97-6	Mercury	1660	ug/kg		38.5	113	113	10	AV	JXL1	03/31/10 10:31	033110S1-11	969297
7440-02-0	Nickel	2870	ug/kg		112	447	447	2	MS	BCD1	05/16/10 09:38	100515-7	965627
7440-09-7	Potassium	295000	ug/kg	N	6380	24900	24900	1	P	HSC	04/05/10 19:55	040510-2	965624
7782-49-2	Selenium	1120	ug/kg	U	558	1120	1120	2	MS	BCD1	05/16/10 09:38	100515-7	965627
7440-22-4	Silver	498	ug/kg	U	99.6	498	498	1	P	HSC	04/05/10 19:55	040510-2	965624
7440-23-5	Sodium	104000	ug/kg		6980	24900	24900	1	P	HSC	04/05/10 19:55	040510-2	965624
7440-28-0	Thallium	223	ug/kg	U	67	223	223	2	MS	BCD1	05/16/10 09:38	100515-7	965627
7440-62-2	Vanadium	5540	ug/kg		99.6	498	498	1	P	HSC	04/05/10 19:55	040510-2	965624
7440-66-6	Zinc	37300	ug/kg		329	996	996	1	P	HSC	04/05/10 19:55	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.567	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.506	g	50	mL	03/31/10	LYH1
969297	969295	SW846 7471A Prep	0.598	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.502	g	50	mL	04/12/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2434 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249333005 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-12967 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2340000	ug/kg		8540	25100	25100	1	P	HSC	04/05/10 19:57	040510-2	965624
7440-36-0	Antimony	1260	ug/kg	U	415	1260	1260	1	P	HSC	04/05/10 19:57	040510-2	965624
7440-38-2	Arsenic	1390	ug/kg		245	1230	1230	2	MS	BCD1	05/16/10 09:42	100515-7	965627
7440-39-3	Barium	47800	ug/kg		126	628	628	1	P	HSC	04/05/10 19:57	040510-2	965624
7440-41-7	Beryllium	290	ug/kg		24.5	123	123	2	MS	PRB	05/18/10 08:58	100517-9	965627
7440-43-9	Cadmium	1060	ug/kg		126	628	628	1	P	HSC	04/05/10 19:57	040510-2	965624
7440-70-2	Calcium	2610000	ug/kg		10100	31400	31400	1	P	HSC	04/05/10 19:57	040510-2	965624
7440-47-3	Chromium	5890	ug/kg	*	171	570	570	1	P	HSC	04/15/10 22:05	041510A-4	973755
7440-48-4	Cobalt	1440	ug/kg		188	628	628	1	P	HSC	04/05/10 19:57	040510-2	965624
7440-50-8	Copper	38300	ug/kg	*	342	1140	1140	1	P	HSC	04/15/10 22:05	041510A-4	973755
7439-89-6	Iron	6010000	ug/kg		10100	31400	31400	1	P	HSC	04/05/10 19:57	040510-2	965624
7439-92-1	Lead	32300	ug/kg		314	1260	1260	1	P	HSC	04/05/10 19:57	040510-2	965624
7439-95-4	Magnesium	646000	ug/kg	N	10700	37700	37700	1	P	HSC	04/05/10 19:57	040510-2	965624
7439-96-5	Manganese	241000	ug/kg	N	251	1260	1260	1	P	HSC	04/05/10 19:57	040510-2	965624
7439-97-6	Mercury	456000	ug/kg		4770	14000	14000	1000	AV	JXL1	03/31/10 10:45	033110S1-11	969297
7440-02-0	Nickel	7520	ug/kg		123	491	491	2	MS	BCD1	05/16/10 09:42	100515-7	965627
7440-09-7	Potassium	627000	ug/kg	N	8040	31400	31400	1	P	HSC	04/05/10 19:57	040510-2	965624
7782-49-2	Selenium	1230	ug/kg	U	614	1230	1230	2	MS	BCD1	05/16/10 09:42	100515-7	965627
7440-22-4	Silver	244	ug/kg	J	126	628	628	1	P	HSC	04/05/10 19:57	040510-2	965624
7440-23-5	Sodium	63800	ug/kg		8790	31400	31400	1	P	HSC	04/05/10 19:57	040510-2	965624
7440-28-0	Thallium	245	ug/kg	U	73.6	245	245	2	MS	BCD1	05/16/10 09:42	100515-7	965627
7440-62-2	Vanadium	6900	ug/kg		126	628	628	1	P	HSC	04/05/10 19:57	040510-2	965624
7440-66-6	Zinc	126000	ug/kg		415	1260	1260	1	P	HSC	04/05/10 19:57	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.502	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.514	g	50	mL	03/31/10	LYH1
969297	969295	SW846 7471A Prep	0.539	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.553	g	50	mL	04/12/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2434 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249333006 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-12971 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 78

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2050000	ug/kg		8200	24100	24100	1	P	HSC	04/05/10 19:59	040510-2	965624
7440-36-0	Antimony	1210	ug/kg	U	398	1210	1210	1	P	HSC	04/05/10 19:59	040510-2	965624
7440-38-2	Arsenic	1250	ug/kg	J	252	1260	1260	2	MS	BCD1	05/16/10 09:47	100515-7	965627
7440-39-3	Barium	28400	ug/kg		121	603	603	1	P	HSC	04/05/10 19:59	040510-2	965624
7440-41-7	Beryllium	296	ug/kg		25.2	126	126	2	MS	PRB	05/18/10 08:58	100517-9	965627
7440-43-9	Cadmium	929	ug/kg		121	603	603	1	P	HSC	04/05/10 19:59	040510-2	965624
7440-70-2	Calcium	1190000	ug/kg		9650	30200	30200	1	P	HSC	04/05/10 19:59	040510-2	965624
7440-47-3	Chromium	5320	ug/kg	*	192	639	639	1	P	HSC	04/15/10 22:12	041510A-4	973755
7440-48-4	Cobalt	1270	ug/kg		181	603	603	1	P	HSC	04/05/10 19:59	040510-2	965624
7440-50-8	Copper	20200	ug/kg	*	384	1280	1280	1	P	HSC	04/15/10 22:12	041510A-4	973755
7439-89-6	Iron	8920000	ug/kg		9650	30200	30200	1	P	HSC	04/05/10 19:59	040510-2	965624
7439-92-1	Lead	30600	ug/kg		302	1210	1210	1	P	HSC	04/05/10 19:59	040510-2	965624
7439-95-4	Magnesium	417000	ug/kg	N	10300	36200	36200	1	P	HSC	04/05/10 19:59	040510-2	965624
7439-96-5	Manganese	206000	ug/kg	N	241	1210	1210	1	P	HSC	04/05/10 19:59	040510-2	965624
7439-97-6	Mercury	13600	ug/kg		986	2900	2900	200	AV	JXL1	03/31/10 10:47	033110S1-11	969297
7440-02-0	Nickel	2700	ug/kg		126	504	504	2	MS	BCD1	05/16/10 09:47	100515-7	965627
7440-09-7	Potassium	425000	ug/kg	N	7720	30200	30200	1	P	HSC	04/05/10 19:59	040510-2	965624
7782-49-2	Selenium	1260	ug/kg	U	630	1260	1260	2	MS	BCD1	05/16/10 09:47	100515-7	965627
7440-22-4	Silver	2840	ug/kg		121	603	603	1	P	HSC	04/05/10 19:59	040510-2	965624
7440-23-5	Sodium	89600	ug/kg		8440	30200	30200	1	P	HSC	04/05/10 19:59	040510-2	965624
7440-28-0	Thallium	252	ug/kg	U	75.7	252	252	2	MS	BCD1	05/16/10 09:47	100515-7	965627
7440-62-2	Vanadium	6060	ug/kg		121	603	603	1	P	HSC	04/05/10 19:59	040510-2	965624
7440-66-6	Zinc	143000	ug/kg		398	1210	1210	1	P	HSC	04/05/10 19:59	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.53	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.507	g	50	mL	03/31/10	LYH1
969297	969295	SW846 7471A Prep	0.529	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.5	g	50	mL	04/12/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2434 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249333007 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-12968 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1810000	ug/kg		7460	21900	21900	1	P	HSC	04/05/10 20:02	040510-2	965624
7440-36-0	Antimony	1100	ug/kg	U	362	1100	1100	1	P	HSC	04/05/10 20:02	040510-2	965624
7440-38-2	Arsenic	1290	ug/kg		223	1110	1110	2	MS	BCD1	05/16/10 09:51	100515-7	965627
7440-39-3	Barium	28400	ug/kg		110	548	548	1	P	HSC	04/05/10 20:02	040510-2	965624
7440-41-7	Beryllium	341	ug/kg		22.3	111	111	2	MS	PRB	05/18/10 08:59	100517-9	965627
7440-43-9	Cadmium	309	ug/kg	J	110	548	548	1	P	HSC	04/05/10 20:02	040510-2	965624
7440-70-2	Calcium	1350000	ug/kg		8770	27400	27400	1	P	HSC	04/05/10 20:02	040510-2	965624
7440-47-3	Chromium	5500	ug/kg	*	159	529	529	1	P	HSC	04/15/10 22:19	041510A-4	973755
7440-48-4	Cobalt	1600	ug/kg		165	548	548	1	P	HSC	04/05/10 20:02	040510-2	965624
7440-50-8	Copper	24500	ug/kg	*	317	1060	1060	1	P	HSC	04/15/10 22:19	041510A-4	973755
7439-89-6	Iron	5970000	ug/kg		8770	27400	27400	1	P	HSC	04/05/10 20:02	040510-2	965624
7439-92-1	Lead	49500	ug/kg		274	1100	1100	1	P	HSC	04/05/10 20:02	040510-2	965624
7439-95-4	Magnesium	357000	ug/kg	N	9320	32900	32900	1	P	HSC	04/05/10 20:02	040510-2	965624
7439-96-5	Manganese	254000	ug/kg	N	219	1100	1100	1	P	HSC	04/05/10 20:02	040510-2	965624
7439-97-6	Mercury	824000	ug/kg		40200	118000	118000	10000	AV	JXL1	03/31/10 12:26	033110S1-11	969297
7440-02-0	Nickel	4040	ug/kg		111	446	446	2	MS	BCD1	05/16/10 09:51	100515-7	965627
7440-09-7	Potassium	388000	ug/kg	N	7020	27400	27400	1	P	HSC	04/05/10 20:02	040510-2	965624
7782-49-2	Selenium	1110	ug/kg	U	557	1110	1110	2	MS	BCD1	05/16/10 09:51	100515-7	965627
7440-22-4	Silver	548	ug/kg	U	110	548	548	1	P	HSC	04/05/10 20:02	040510-2	965624
7440-23-5	Sodium	54500	ug/kg		7680	27400	27400	1	P	HSC	04/05/10 20:02	040510-2	965624
7440-28-0	Thallium	223	ug/kg	U	66.9	223	223	2	MS	BCD1	05/16/10 09:51	100515-7	965627
7440-62-2	Vanadium	5630	ug/kg		110	548	548	1	P	HSC	04/05/10 20:02	040510-2	965624
7440-66-6	Zinc	70500	ug/kg		362	1100	1100	1	P	HSC	04/05/10 20:02	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.509	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.501	g	50	mL	03/31/10	LYH1
969297	969295	SW846 7471A Prep	0.567	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.528	g	50	mL	04/12/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2434 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249333008 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-12969 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1320000	ug/kg		7730	22700	22700	1	P	HSC	04/05/10 20:04	040510-2	965624
7440-36-0	Antimony	1140	ug/kg	U	375	1140	1140	1	P	HSC	04/05/10 20:04	040510-2	965624
7440-38-2	Arsenic	686	ug/kg	J	200	1000	1000	2	MS	BCD1	05/16/10 09:55	100515-7	965627
7440-39-3	Barium	17700	ug/kg		114	568	568	1	P	HSC	04/05/10 20:04	040510-2	965624
7440-41-7	Beryllium	210	ug/kg		20	100	100	2	MS	PRB	05/18/10 09:00	100517-9	965627
7440-43-9	Cadmium	167	ug/kg	J	114	568	568	1	P	HSC	04/05/10 20:04	040510-2	965624
7440-70-2	Calcium	1100000	ug/kg		9090	28400	28400	1	P	HSC	04/05/10 20:04	040510-2	965624
7440-47-3	Chromium	4280	ug/kg	*	150	501	501	1	P	HSC	04/15/10 22:26	041510A-4	973755
7440-48-4	Cobalt	862	ug/kg		171	568	568	1	P	HSC	04/05/10 20:04	040510-2	965624
7440-50-8	Copper	18100	ug/kg	*	301	1000	1000	1	P	HSC	04/15/10 22:26	041510A-4	973755
7439-89-6	Iron	6200000	ug/kg		9090	28400	28400	1	P	HSC	04/05/10 20:04	040510-2	965624
7439-92-1	Lead	22400	ug/kg		284	1140	1140	1	P	HSC	04/05/10 20:04	040510-2	965624
7439-95-4	Magnesium	365000	ug/kg	N	9660	34100	34100	1	P	HSC	04/05/10 20:04	040510-2	965624
7439-96-5	Manganese	110000	ug/kg	N	227	1140	1140	1	P	HSC	04/05/10 20:04	040510-2	965624
7439-97-6	Mercury	989	ug/kg		43.2	127	127	10	AV	JXL1	03/31/10 12:51	033110S1-11	969297
7440-02-0	Nickel	1900	ug/kg		100	400	400	2	MS	BCD1	05/16/10 09:55	100515-7	965627
7440-09-7	Potassium	268000	ug/kg	N	7280	28400	28400	1	P	HSC	04/05/10 20:04	040510-2	965624
7782-49-2	Selenium	1000	ug/kg	U	501	1000	1000	2	MS	BCD1	05/16/10 09:55	100515-7	965627
7440-22-4	Silver	568	ug/kg	U	114	568	568	1	P	HSC	04/05/10 20:04	040510-2	965624
7440-23-5	Sodium	80800	ug/kg		7960	28400	28400	1	P	HSC	04/05/10 20:04	040510-2	965624
7440-28-0	Thallium	200	ug/kg	U	60.1	200	200	2	MS	BCD1	05/16/10 09:55	100515-7	965627
7440-62-2	Vanadium	5410	ug/kg		114	568	568	1	P	HSC	04/05/10 20:04	040510-2	965624
7440-66-6	Zinc	99600	ug/kg		375	1140	1140	1	P	HSC	04/05/10 20:04	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.502	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.57	g	50	mL	03/31/10	LYH1
969297	969295	SW846 7471A Prep	0.539	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.569	g	50	mL	04/12/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2434 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249333009 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-12970 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3990000	ug/kg		8030	23600	23600	1	P	HSC	04/05/10 20:06	040510-2	965624
7440-36-0	Antimony	1180	ug/kg	U	390	1180	1180	1	P	HSC	04/05/10 20:06	040510-2	965624
7440-38-2	Arsenic	1190	ug/kg		227	1140	1140	2	MS	BCD1	05/16/10 09:59	100515-7	965627
7440-39-3	Barium	25800	ug/kg		118	591	591	1	P	HSC	04/05/10 20:06	040510-2	965624
7440-41-7	Beryllium	441	ug/kg		22.7	114	114	2	MS	PRB	05/18/10 09:00	100517-9	965627
7440-43-9	Cadmium	591	ug/kg	U	118	591	591	1	P	HSC	04/05/10 20:06	040510-2	965624
7440-70-2	Calcium	1090000	ug/kg		9450	29500	29500	1	P	HSC	04/05/10 20:06	040510-2	965624
7440-47-3	Chromium	7610	ug/kg	*	177	590	590	1	P	HSC	04/15/10 22:33	041510A-4	973755
7440-48-4	Cobalt	1010	ug/kg		177	591	591	1	P	HSC	04/05/10 20:06	040510-2	965624
7440-50-8	Copper	12600	ug/kg	*	354	1180	1180	1	P	HSC	04/15/10 22:33	041510A-4	973755
7439-89-6	Iron	9550000	ug/kg		9450	29500	29500	1	P	HSC	04/05/10 20:06	040510-2	965624
7439-92-1	Lead	12400	ug/kg		295	1180	1180	1	P	HSC	04/05/10 20:06	040510-2	965624
7439-95-4	Magnesium	858000	ug/kg	N	10000	35400	35400	1	P	HSC	04/05/10 20:06	040510-2	965624
7439-96-5	Manganese	148000	ug/kg	N	236	1180	1180	1	P	HSC	04/05/10 20:06	040510-2	965624
7439-97-6	Mercury	165	ug/kg		4.02	11.8	11.8	1	AV	JXL1	03/31/10 12:30	033110S1-11	969297
7440-02-0	Nickel	2770	ug/kg		114	454	454	2	MS	BCD1	05/16/10 09:59	100515-7	965627
7440-09-7	Potassium	466000	ug/kg	N	7560	29500	29500	1	P	HSC	04/05/10 20:06	040510-2	965624
7782-49-2	Selenium	1140	ug/kg	U	568	1140	1140	2	MS	BCD1	05/16/10 09:59	100515-7	965627
7440-22-4	Silver	591	ug/kg	U	118	591	591	1	P	HSC	04/05/10 20:06	040510-2	965624
7440-23-5	Sodium	275000	ug/kg		8270	29500	29500	1	P	HSC	04/05/10 20:06	040510-2	965624
7440-28-0	Thallium	227	ug/kg	U	68.2	227	227	2	MS	BCD1	05/16/10 09:59	100515-7	965627
7440-62-2	Vanadium	6740	ug/kg		118	591	591	1	P	HSC	04/05/10 20:06	040510-2	965624
7440-66-6	Zinc	54700	ug/kg		390	1180	1180	1	P	HSC	04/05/10 20:06	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.5	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.52	g	50	mL	03/31/10	LYH1
969297	969295	SW846 7471A Prep	0.6	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.501	g	50	mL	04/12/10	AXG2

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.08	ug/L	5	ug/L	101.5	90.0 – 110.0	AV	22–MAR–10 09:25	032210W1–10
	Mercury	5.17	ug/L	5	ug/L	103.5	90.0 – 110.0	AV	31–MAR–10 08:51	033110S1–11
	Aluminum	5280	ug/L	5000	ug/L	105.7	90.0 – 110.0	P	01–APR–10 12:31	040110–1
	Arsenic	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	01–APR–10 12:31	040110–1
	Barium	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	01–APR–10 12:31	040110–1
	Calcium	5200	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	01–APR–10 12:31	040110–1
	Chromium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 12:31	040110–1
	Cobalt	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	01–APR–10 12:31	040110–1
	Copper	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	01–APR–10 12:31	040110–1
	Iron	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	01–APR–10 12:31	040110–1
	Magnesium	5510	ug/L	5000	ug/L	110.2	90.0 – 110.0	P	01–APR–10 12:31	040110–1
	Nickel	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	01–APR–10 12:31	040110–1
	Potassium	2560	ug/L	2500	ug/L	102.2	90.0 – 110.0	P	01–APR–10 12:31	040110–1
	Selenium	2550	ug/L	2500	ug/L	102	90.0 – 110.0	P	01–APR–10 12:31	040110–1
	Silver	267	ug/L	250	ug/L	106.7	90.0 – 110.0	P	01–APR–10 12:31	040110–1
	Sodium	2590	ug/L	2500	ug/L	103.6	90.0 – 110.0	P	01–APR–10 12:31	040110–1
	Vanadium	517	ug/L	500	ug/L	103.3	90.0 – 110.0	P	01–APR–10 12:31	040110–1
	Zinc	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	01–APR–10 12:31	040110–1
	Aluminum	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	05–APR–10 10:23	040510–2
	Antimony	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 10:23	040510–2
	Barium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	05–APR–10 10:23	040510–2
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 10:23	040510–2
	Calcium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05–APR–10 10:23	040510–2
	Cobalt	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	05–APR–10 10:23	040510–2
	Iron	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 10:23	040510–2
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:23	040510–2
	Magnesium	5270	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	05–APR–10 10:23	040510–2
	Manganese	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 10:23	040510–2
	Potassium	2540	ug/L	2500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 10:23	040510–2
	Silver	259	ug/L	250	ug/L	103.6	90.0 – 110.0	P	05–APR–10 10:23	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	2530	ug/L	2500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 10:23	040510–2
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 10:23	040510–2
	Zinc	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 10:23	040510–2
	Chromium	470	ug/L	500	ug/L	94	90.0 – 110.0	P	15–APR–10 16:46	041510A–4
	Copper	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	15–APR–10 16:46	041510A–4
	Antimony	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	24–APR–10 17:57	100424–5
	Cadmium	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	24–APR–10 17:57	100424–5
	Lead	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	24–APR–10 17:57	100424–5
	Manganese	52.9	ug/L	50	ug/L	105.8	90.0 – 110.0	MS	24–APR–10 17:57	100424–5
	Thallium	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	24–APR–10 17:57	100424–5
	Beryllium	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	15–MAY–10 00:12	100514–6
	Arsenic	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	16–MAY–10 07:21	100515–7
	Nickel	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	16–MAY–10 07:21	100515–7
	Selenium	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	16–MAY–10 07:21	100515–7
	Thallium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	16–MAY–10 07:21	100515–7
	Beryllium	50.8	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	18–MAY–10 08:36	100517–9
CCV01										
	Mercury	5.21	ug/L	5	ug/L	104.2	80.0 – 120.0	AV	22–MAR–10 09:31	032210W1–10
	Mercury	5.17	ug/L	5	ug/L	103.5	80.0 – 120.0	AV	31–MAR–10 08:57	033110S1–11
	Aluminum	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Arsenic	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Barium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Calcium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Chromium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Cobalt	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Copper	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Iron	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Magnesium	5230	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Nickel	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Potassium	5700	ug/L	5000	ug/L	113.9	90.0 – 110.0	P	01–APR–10 12:43	040110–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Selenium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	01-APR-10 12:43	040110-1
	Silver	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	01-APR-10 12:43	040110-1
	Sodium	10100	ug/L	10000	ug/L	101.5	90.0 – 110.0	P	01-APR-10 12:43	040110-1
	Vanadium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	01-APR-10 12:43	040110-1
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	01-APR-10 12:43	040110-1
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05-APR-10 10:36	040510-2
	Antimony	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05-APR-10 10:36	040510-2
	Barium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05-APR-10 10:36	040510-2
	Cadmium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05-APR-10 10:36	040510-2
	Calcium	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05-APR-10 10:36	040510-2
	Cobalt	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05-APR-10 10:36	040510-2
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	05-APR-10 10:36	040510-2
	Lead	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05-APR-10 10:36	040510-2
	Magnesium	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	05-APR-10 10:36	040510-2
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05-APR-10 10:36	040510-2
	Potassium	5650	ug/L	5000	ug/L	113	90.0 – 110.0	P	05-APR-10 10:36	040510-2
	Silver	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05-APR-10 10:36	040510-2
	Sodium	10100	ug/L	10000	ug/L	101.4	90.0 – 110.0	P	05-APR-10 10:36	040510-2
	Vanadium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05-APR-10 10:36	040510-2
	Zinc	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05-APR-10 10:36	040510-2
	Chromium	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	15-APR-10 17:33	041510A-4
	Copper	469	ug/L	500	ug/L	93.9	90.0 – 110.0	P	15-APR-10 17:33	041510A-4
	Antimony	49.2	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	24-APR-10 18:27	100424-5
	Cadmium	51	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	24-APR-10 18:27	100424-5
	Lead	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	24-APR-10 18:27	100424-5
	Manganese	53.4	ug/L	50	ug/L	106.9	90.0 – 110.0	MS	24-APR-10 18:27	100424-5
	Thallium	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	24-APR-10 18:27	100424-5
	Beryllium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	15-MAY-10 00:42	100514-6
	Arsenic	50.6	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	16-MAY-10 07:41	100515-7
	Nickel	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	16-MAY-10 07:41	100515-7

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Selenium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	16–MAY–10 07:41	100515–7
	Thallium	49	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	16–MAY–10 07:41	100515–7
	Beryllium	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	18–MAY–10 08:39	100517–9
CCV02										
	Mercury	5.16	ug/L	5	ug/L	103.1	80.0 – 120.0	AV	22–MAR–10 09:54	032210W1–10
	Mercury	5.47	ug/L	5	ug/L	109.4	80.0 – 120.0	AV	31–MAR–10 09:21	033110S1–11
	Aluminum	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Arsenic	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Barium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Calcium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Chromium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Cobalt	500	ug/L	500	ug/L	100	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Copper	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Magnesium	5210	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Nickel	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Selenium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Silver	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Zinc	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Antimony	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Lead	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05–APR–10 10:49	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5180	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Potassium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Silver	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Sodium	9950	ug/L	10000	ug/L	99.5	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Vanadium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Zinc	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Chromium	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	15–APR–10 17:59	041510A–4
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	15–APR–10 17:59	041510A–4
	Antimony	50	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	24–APR–10 18:46	100424–5
	Cadmium	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	24–APR–10 18:46	100424–5
	Lead	51.2	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	24–APR–10 18:46	100424–5
	Manganese	53	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	24–APR–10 18:46	100424–5
	Thallium	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	24–APR–10 18:46	100424–5
	Beryllium	50.6	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	15–MAY–10 01:01	100514–6
	Arsenic	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	16–MAY–10 07:54	100515–7
	Nickel	52.7	ug/L	50	ug/L	105.4	90.0 – 110.0	MS	16–MAY–10 07:54	100515–7
	Selenium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	16–MAY–10 07:54	100515–7
	Thallium	51.2	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	16–MAY–10 07:54	100515–7
	Beryllium	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	18–MAY–10 08:48	100517–9
CCV03										
	Mercury	5.33	ug/L	5	ug/L	106.5	80.0 – 120.0	AV	22–MAR–10 10:17	032210W1–10
	Mercury	5.35	ug/L	5	ug/L	106.9	80.0 – 120.0	AV	31–MAR–10 09:45	033110S1–11
	Aluminum	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Arsenic	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Barium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Calcium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Chromium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Cobalt	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Copper	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	01–APR–10 13:30	040110–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Magnesium	5200	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Nickel	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Potassium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Selenium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Silver	500	ug/L	500	ug/L	100	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Sodium	9930	ug/L	10000	ug/L	99.3	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Vanadium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Zinc	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Antimony	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Cadmium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Calcium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Iron	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Magnesium	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Manganese	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Potassium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Silver	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Sodium	9980	ug/L	10000	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Zinc	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Chromium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	15–APR–10 19:08	041510A–4
	Copper	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	15–APR–10 19:08	041510A–4
	Antimony	49.2	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	24–APR–10 19:59	100424–5
	Cadmium	50.7	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	24–APR–10 19:59	100424–5
	Lead	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	24–APR–10 19:59	100424–5
	Manganese	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	24–APR–10 19:59	100424–5

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Thallium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	24–APR–10 19:59	100424–5
	Beryllium	53.2	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	15–MAY–10 01:50	100514–6
	Arsenic	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	16–MAY–10 08:44	100515–7
	Nickel	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	16–MAY–10 08:44	100515–7
	Selenium	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	16–MAY–10 08:44	100515–7
	Thallium	48	ug/L	50	ug/L	96	90.0 – 110.0	MS	16–MAY–10 08:44	100515–7
	Beryllium	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	18–MAY–10 08:55	100517–9
CCV04										
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 – 120.0	AV	22–MAR–10 10:40	032210W1–10
	Mercury	4.62	ug/L	5	ug/L	92.4	80.0 – 120.0	AV	31–MAR–10 10:17	033110S1–11
	Aluminum	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Arsenic	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Barium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Calcium	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Chromium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Cobalt	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Copper	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Magnesium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Nickel	490	ug/L	500	ug/L	98	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Potassium	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Selenium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Silver	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Sodium	9980	ug/L	10000	ug/L	99.8	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Vanadium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Antimony	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Barium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Cadmium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 11:29	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Lead	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Manganese	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Potassium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Sodium	10000	ug/L	10000	ug/L	100.1	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Zinc	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Chromium	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	15–APR–10 20:23	041510A–4
	Copper	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	15–APR–10 20:23	041510A–4
	Antimony	49	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	24–APR–10 21:13	100424–5
	Cadmium	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	24–APR–10 21:13	100424–5
	Lead	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	24–APR–10 21:13	100424–5
	Manganese	48.4	ug/L	50	ug/L	96.7	90.0 – 110.0	MS	24–APR–10 21:13	100424–5
	Thallium	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	24–APR–10 21:13	100424–5
	Beryllium	49	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	15–MAY–10 02:33	100514–6
	Arsenic	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	16–MAY–10 09:30	100515–7
	Nickel	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	16–MAY–10 09:30	100515–7
	Selenium	49.8	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	16–MAY–10 09:30	100515–7
	Thallium	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	16–MAY–10 09:30	100515–7
	Beryllium	49.7	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	18–MAY–10 09:01	100517–9
CCV05										
	Mercury	5.28	ug/L	5	ug/L	105.6	80.0 – 120.0	AV	22–MAR–10 11:03	032210W1–10
	Mercury	5.08	ug/L	5	ug/L	101.6	80.0 – 120.0	AV	31–MAR–10 10:41	033110S1–11
	Aluminum	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Arsenic	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Barium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	01–APR–10 14:21	040110–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Cobalt	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Copper	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Nickel	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Potassium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Selenium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Silver	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Sodium	10100	ug/L	10000	ug/L	101.2	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Vanadium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Zinc	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Aluminum	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Barium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Cadmium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Calcium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Iron	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Manganese	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Silver	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Zinc	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Chromium	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	15–APR–10 21:31	041510A–4
	Copper	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	15–APR–10 21:31	041510A–4

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Beryllium	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	15–MAY–10 03:29	100514–6
	Arsenic	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	16–MAY–10 10:03	100515–7
	Nickel	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	16–MAY–10 10:03	100515–7
	Selenium	49.4	ug/L	50	ug/L	98.8	90.0 – 110.0	MS	16–MAY–10 10:03	100515–7
	Thallium	49.4	ug/L	50	ug/L	98.8	90.0 – 110.0	MS	16–MAY–10 10:03	100515–7
CCV06										
	Mercury	5.36	ug/L	5	ug/L	107.3	80.0 – 120.0	AV	22–MAR–10 11:26	032210W1–10
	Mercury	5.1	ug/L	5	ug/L	102	80.0 – 120.0	AV	31–MAR–10 11:05	033110S1–11
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Arsenic	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Barium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Calcium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Chromium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Cobalt	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Copper	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Iron	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Magnesium	5150	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Nickel	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Potassium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Selenium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Silver	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Sodium	10000	ug/L	10000	ug/L	100.3	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Vanadium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Zinc	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Antimony	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Barium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Cadmium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 12:16	040510–2

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Lead	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Magnesium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Manganese	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Potassium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Silver	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Zinc	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Chromium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	15–APR–10 22:40	041510A–4
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	15–APR–10 22:40	041510A–4
	Beryllium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	15–MAY–10 04:06	100514–6
CCV07										
	Mercury	5.23	ug/L	5	ug/L	104.6	80.0 – 120.0	AV	22–MAR–10 11:50	032210W1–10
	Mercury	5.11	ug/L	5	ug/L	102.2	80.0 – 120.0	AV	31–MAR–10 11:28	033110S1–11
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Arsenic	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Barium	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Calcium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Chromium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Cobalt	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Copper	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Nickel	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Selenium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Silver	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	01–APR–10 15:08	040110–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Antimony	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Cadmium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Lead	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Magnesium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Potassium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Silver	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Sodium	9960	ug/L	10000	ug/L	99.6	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Vanadium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Zinc	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 12:41	040510–2
CCV08										
	Mercury	5.11	ug/L	5	ug/L	102.2	80.0 – 120.0	AV	22–MAR–10 12:13	032210W1–10
	Mercury	5.08	ug/L	5	ug/L	101.6	80.0 – 120.0	AV	31–MAR–10 11:52	033110S1–11
	Aluminum	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Arsenic	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Barium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Calcium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Chromium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Cobalt	500	ug/L	500	ug/L	100	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Copper	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Magnesium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Nickel	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	01–APR–10 15:39	040110–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10-2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Selenium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	01-APR-10 15:39	040110-1
	Silver	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	01-APR-10 15:39	040110-1
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 – 110.0	P	01-APR-10 15:39	040110-1
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	01-APR-10 15:39	040110-1
	Zinc	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	01-APR-10 15:39	040110-1
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05-APR-10 13:02	040510-2
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05-APR-10 13:02	040510-2
	Barium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05-APR-10 13:02	040510-2
	Cadmium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05-APR-10 13:02	040510-2
	Calcium	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	05-APR-10 13:02	040510-2
	Cobalt	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05-APR-10 13:02	040510-2
	Iron	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05-APR-10 13:02	040510-2
	Lead	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05-APR-10 13:02	040510-2
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05-APR-10 13:02	040510-2
	Manganese	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05-APR-10 13:02	040510-2
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	05-APR-10 13:02	040510-2
	Silver	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05-APR-10 13:02	040510-2
	Sodium	10000	ug/L	10000	ug/L	100.2	90.0 – 110.0	P	05-APR-10 13:02	040510-2
	Vanadium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05-APR-10 13:02	040510-2
	Zinc	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05-APR-10 13:02	040510-2
CCV09										
	Mercury	4.9	ug/L	5	ug/L	98	80.0 – 120.0	AV	31-MAR-10 12:08	033110S1-11
	Aluminum	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	01-APR-10 16:06	040110-1
	Arsenic	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01-APR-10 16:06	040110-1
	Barium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	01-APR-10 16:06	040110-1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	01-APR-10 16:06	040110-1
	Chromium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	01-APR-10 16:06	040110-1
	Cobalt	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	01-APR-10 16:06	040110-1
	Copper	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	01-APR-10 16:06	040110-1
	Iron	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	01-APR-10 16:06	040110-1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Nickel	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Potassium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Selenium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Silver	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Zinc	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Aluminum	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Antimony	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Cadmium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Lead	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Potassium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Silver	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Sodium	10100	ug/L	10000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Vanadium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 13:19	040510–2
CCV10										
	Mercury	5	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	31–MAR–10 12:43	033110S1–11
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Arsenic	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Barium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Chromium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	01–APR–10 16:30	040110–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Copper	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Magnesium	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Nickel	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Potassium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Selenium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Silver	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Zinc	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Aluminum	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	05–APR–10 13:42	040510–2
	Antimony	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 13:42	040510–2
	Barium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 13:42	040510–2
	Cadmium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 13:42	040510–2
	Calcium	5140	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	05–APR–10 13:42	040510–2
	Cobalt	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	05–APR–10 13:42	040510–2
	Iron	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 13:42	040510–2
	Lead	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05–APR–10 13:42	040510–2
	Magnesium	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	05–APR–10 13:42	040510–2
	Manganese	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 13:42	040510–2
	Potassium	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 13:42	040510–2
	Silver	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:42	040510–2
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 13:42	040510–2
	Vanadium	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 13:42	040510–2
	Zinc	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 13:42	040510–2
CCV11										
	Mercury	5.07	ug/L	5	ug/L	101.4	80.0 – 120.0	AV	31–MAR–10 12:53	033110S1–11
	Aluminum	4970	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	05–APR–10 13:57	040510–2
	Antimony	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 13:57	040510–2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Cadmium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Calcium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Iron	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Lead	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Potassium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Silver	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Vanadium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Zinc	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05-APR-10 13:57	040510-2
CCV12										
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	05-APR-10 14:22	040510-2
	Antimony	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05-APR-10 14:22	040510-2
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05-APR-10 14:22	040510-2
	Cadmium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05-APR-10 14:22	040510-2
	Calcium	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	05-APR-10 14:22	040510-2
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05-APR-10 14:22	040510-2
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05-APR-10 14:22	040510-2
	Lead	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	05-APR-10 14:22	040510-2
	Magnesium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	05-APR-10 14:22	040510-2
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05-APR-10 14:22	040510-2
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05-APR-10 14:22	040510-2
	Silver	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05-APR-10 14:22	040510-2
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 – 110.0	P	05-APR-10 14:22	040510-2
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05-APR-10 14:22	040510-2
	Zinc	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05-APR-10 14:22	040510-2

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV13										
	Aluminum	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Antimony	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Barium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Lead	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Magnesium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Manganese	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Potassium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Zinc	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 14:55	040510–2
CCV14										
	Aluminum	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Antimony	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Cadmium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Lead	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Potassium	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Silver	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Sodium	10100	ug/L	10000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 15:16	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 15:16	040510–2
CCV15										
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Antimony	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Cadmium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Calcium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Cobalt	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Iron	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Lead	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Magnesium	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Potassium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Silver	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Sodium	10100	ug/L	10000	ug/L	101	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Vanadium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 15:42	040510–2
CCV16										
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Antimony	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Cadmium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Calcium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Magnesium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Potassium	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Silver	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 16:01	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Zinc	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 16:01	040510–2
CCV17										
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Antimony	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Cadmium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Cobalt	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Iron	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Lead	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Potassium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Silver	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Sodium	10100	ug/L	10000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Zinc	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 16:19	040510–2
CCV18										
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Antimony	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Barium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Cobalt	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Lead	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 16:37	040510–2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05-APR-10 16:37	040510-2
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05-APR-10 16:37	040510-2
	Sodium	10100	ug/L	10000	ug/L	100.6	90.0 – 110.0	P	05-APR-10 16:37	040510-2
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05-APR-10 16:37	040510-2
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05-APR-10 16:37	040510-2
CCV19										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	05-APR-10 16:51	040510-2
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05-APR-10 16:51	040510-2
	Barium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	05-APR-10 16:51	040510-2
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05-APR-10 16:51	040510-2
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05-APR-10 16:51	040510-2
	Cobalt	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05-APR-10 16:51	040510-2
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05-APR-10 16:51	040510-2
	Lead	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05-APR-10 16:51	040510-2
	Magnesium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05-APR-10 16:51	040510-2
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05-APR-10 16:51	040510-2
	Potassium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05-APR-10 16:51	040510-2
	Silver	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05-APR-10 16:51	040510-2
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 – 110.0	P	05-APR-10 16:51	040510-2
	Vanadium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05-APR-10 16:51	040510-2
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05-APR-10 16:51	040510-2
CCV20										
	Aluminum	4890	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	05-APR-10 17:10	040510-2
	Antimony	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05-APR-10 17:10	040510-2
	Barium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	05-APR-10 17:10	040510-2
	Cadmium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05-APR-10 17:10	040510-2
	Calcium	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05-APR-10 17:10	040510-2
	Cobalt	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05-APR-10 17:10	040510-2
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	05-APR-10 17:10	040510-2
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05-APR-10 17:10	040510-2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Manganese	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Silver	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Vanadium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 17:10	040510–2
CCV21										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	05–APR–10 17:26	040510–2
	Antimony	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	05–APR–10 17:26	040510–2
	Barium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	05–APR–10 17:26	040510–2
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 17:26	040510–2
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 17:26	040510–2
	Cobalt	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 17:26	040510–2
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	05–APR–10 17:26	040510–2
	Lead	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 17:26	040510–2
	Magnesium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	05–APR–10 17:26	040510–2
	Manganese	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 17:26	040510–2
	Potassium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 17:26	040510–2
	Silver	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 17:26	040510–2
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	05–APR–10 17:26	040510–2
	Vanadium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 17:26	040510–2
	Zinc	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 17:26	040510–2
CCV22										
	Aluminum	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	05–APR–10 17:45	040510–2
	Antimony	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 17:45	040510–2
	Barium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 17:45	040510–2
	Cadmium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 17:45	040510–2
	Calcium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	05–APR–10 17:45	040510–2
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 17:45	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 17:45	040510–2
	Lead	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	05–APR–10 17:45	040510–2
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 17:45	040510–2
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 17:45	040510–2
	Potassium	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	05–APR–10 17:45	040510–2
	Silver	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 17:45	040510–2
	Sodium	10100	ug/L	10000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 17:45	040510–2
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 17:45	040510–2
	Zinc	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 17:45	040510–2
CCV23										
	Aluminum	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	05–APR–10 18:06	040510–2
	Antimony	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 18:06	040510–2
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 18:06	040510–2
	Cadmium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 18:06	040510–2
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	05–APR–10 18:06	040510–2
	Cobalt	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 18:06	040510–2
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 18:06	040510–2
	Lead	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 18:06	040510–2
	Magnesium	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05–APR–10 18:06	040510–2
	Manganese	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 18:06	040510–2
	Potassium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 18:06	040510–2
	Silver	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 18:06	040510–2
	Sodium	10100	ug/L	10000	ug/L	101.1	90.0 – 110.0	P	05–APR–10 18:06	040510–2
	Vanadium	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 18:06	040510–2
	Zinc	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 18:06	040510–2
CCV24										
	Aluminum	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	05–APR–10 18:27	040510–2
	Antimony	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 18:27	040510–2
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 18:27	040510–2
	Cadmium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 18:27	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 18:27	040510–2
	Cobalt	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05–APR–10 18:27	040510–2
	Iron	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 18:27	040510–2
	Lead	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 18:27	040510–2
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	05–APR–10 18:27	040510–2
	Manganese	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 18:27	040510–2
	Potassium	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	05–APR–10 18:27	040510–2
	Silver	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 18:27	040510–2
	Sodium	10100	ug/L	10000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 18:27	040510–2
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 18:27	040510–2
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 18:27	040510–2
CCV25										
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Antimony	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Cadmium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Calcium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Cobalt	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Iron	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Lead	515	ug/L	500	ug/L	103	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Magnesium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Manganese	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Potassium	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Silver	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Sodium	10100	ug/L	10000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Vanadium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Zinc	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 18:46	040510–2
CCV26										
	Aluminum	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Antimony	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 19:02	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Cadmium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Calcium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Cobalt	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Iron	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Lead	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Magnesium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Manganese	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Potassium	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Silver	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Sodium	10200	ug/L	10000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Vanadium	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 19:02	040510–2
CCV27										
	Aluminum	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Antimony	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Barium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Cadmium	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Calcium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Cobalt	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Iron	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Lead	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Magnesium	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Manganese	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Potassium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Silver	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Sodium	10200	ug/L	10000	ug/L	101.8	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Vanadium	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Zinc	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 19:24	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV28										
	Aluminum	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Antimony	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Cadmium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Cobalt	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Lead	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Magnesium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Manganese	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Potassium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Silver	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Sodium	10200	ug/L	10000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Zinc	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 19:46	040510–2
CCV29										
	Aluminum	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Antimony	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Barium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Cadmium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Calcium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Cobalt	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Lead	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Magnesium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Manganese	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Potassium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Silver	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Sodium	10100	ug/L	10000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 20:08	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 20:08	040510–2

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.159	ug/L	.2	ug/L	79.5	70.0 – 130.0	AV	22–MAR–10 09:29	032210W1–10
	Mercury	.226	ug/L	.2	ug/L	112.9	70.0 – 130.0	AV	31–MAR–10 08:55	033110S1–11
	Lead	2.32	ug/L	2	ug/L	116	70.0 – 130.0	MS	24–APR–10 18:09	100424–5
	Manganese	6.25	ug/L	5	ug/L	124.9	70.0 – 130.0	MS	24–APR–10 18:09	100424–5
	Antimony	2.47	ug/L	3	ug/L	82.5	70.0 – 130.0	MS	24–APR–10 18:09	100424–5
	Cadmium	1.19	ug/L	1	ug/L	119.4	70.0 – 130.0	MS	24–APR–10 18:09	100424–5
	Thallium	1.18	ug/L	1	ug/L	118	70.0 – 130.0	MS	24–APR–10 18:09	100424–5
	Beryllium	.41	ug/L	.5	ug/L	82	70.0 – 130.0	MS	15–MAY–10 00:24	100514–6
	Arsenic	5.87	ug/L	5	ug/L	117.3	70.0 – 130.0	MS	16–MAY–10 07:29	100515–7
	Selenium	6.09	ug/L	5	ug/L	121.7	70.0 – 130.0	MS	16–MAY–10 07:29	100515–7
	Nickel	2.35	ug/L	2	ug/L	117.5	70.0 – 130.0	MS	16–MAY–10 07:29	100515–7
	Thallium	1.24	ug/L	1	ug/L	124.3	70.0 – 130.0	MS	16–MAY–10 07:29	100515–7
	Beryllium	.668	ug/L	.5	ug/L	133.6	70.0 – 130.0	MS	18–MAY–10 08:37	100517–9
PQL01										
	Aluminum	203	ug/L	200	ug/L	101.3	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Iron	104	ug/L	100	ug/L	104	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Magnesium	307	ug/L	300	ug/L	102.4	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Nickel	4.76	ug/L	5	ug/L	95.2	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Silver	5.77	ug/L	5	ug/L	115.4	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Arsenic	34.1	ug/L	30	ug/L	113.6	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Selenium	31.3	ug/L	30	ug/L	104.3	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Calcium	209	ug/L	200	ug/L	104.6	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Zinc	10.3	ug/L	10	ug/L	103.3	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Vanadium	4.78	ug/L	5	ug/L	95.7	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Copper	9.99	ug/L	10	ug/L	99.9	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Cobalt	5.04	ug/L	5	ug/L	100.8	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Chromium	5.05	ug/L	5	ug/L	101	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Barium	5.04	ug/L	5	ug/L	100.8	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Sodium	282	ug/L	300	ug/L	94	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Potassium	190	ug/L	150	ug/L	126.4	70.0 – 130.0	P	01–APR–10 12:35	040110–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Aluminum	206	ug/L	200	ug/L	103	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Iron	104	ug/L	100	ug/L	103.9	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Potassium	150	ug/L	150	ug/L	100.3	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Sodium	277	ug/L	300	ug/L	92.3	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Barium	5.09	ug/L	5	ug/L	101.8	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Cobalt	5.33	ug/L	5	ug/L	106.7	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Manganese	10.5	ug/L	10	ug/L	104.5	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Calcium	206	ug/L	200	ug/L	103.1	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Zinc	10.5	ug/L	10	ug/L	104.5	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Vanadium	5.27	ug/L	5	ug/L	105.5	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Cadmium	5.13	ug/L	5	ug/L	102.6	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Antimony	7.08	ug/L	10	ug/L	70.8	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Silver	4.82	ug/L	5	ug/L	96.4	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Lead	9.5	ug/L	10	ug/L	95	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Magnesium	329	ug/L	300	ug/L	109.5	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Chromium	4.9	ug/L	5	ug/L	98.1	70.0 – 130.0	P	15–APR–10 16:59	041510A–4
	Copper	9.27	ug/L	10	ug/L	92.7	70.0 – 130.0	P	15–APR–10 16:59	041510A–4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–MAR–10 09:27	032210W1–10
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 12:32	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 12:32	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:32	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 12:32	040110–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:32	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:32	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 12:32	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 12:32	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 12:32	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 12:32	040110–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	01–APR–10 12:32	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 12:32	040110–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:32	040110–1
	Sodium	100	+/–300	U	100	300	LIQ	P	01–APR–10 12:32	040110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:32	040110–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	01–APR–10 12:32	040110–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	24–APR–10 18:03	100424–5
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	24–APR–10 18:03	100424–5
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	24–APR–10 18:03	100424–5
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	24–APR–10 18:03	100424–5
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	24–APR–10 18:03	100424–5
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	15–MAY–10 00:18	100514–6
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	31–MAR–10 08:53	033110S1–11
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 10:25	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:25	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:25	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:25	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:25	040510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 10:25	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 10:25	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 10:25	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 10:25	040510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 10:25	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:25	040510–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–APR–10 16:53	041510A–4
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–APR–10 16:53	041510A–4
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 07:25	100515–7
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 07:25	100515–7
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 07:25	100515–7
	Thallium	0.466	+/–1	J	0.3	1.0	SOL	MS	16–MAY–10 07:25	100515–7
	Beryllium	0.187	+/–.5	J	0.1	0.5	SOL	MS	18–MAY–10 08:36	100517–9
CCB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–MAR–10 09:33	032210W1–10
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 12:45	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 12:45	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:45	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 12:45	040110–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:45	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:45	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 12:45	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 12:45	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 12:45	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 12:45	040110–1
	Potassium	285.64	+/–150		50.0	150	LIQ	P	01–APR–10 12:45	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 12:45	040110–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:45	040110–1
	Sodium	132.45	+/–300	J	100	300	LIQ	P	01–APR–10 12:45	040110–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:45	040110–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	01–APR–10 12:45	040110–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	24–APR–10 18:33	100424–5
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	24–APR–10 18:33	100424–5
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	24–APR–10 18:33	100424–5
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	24–APR–10 18:33	100424–5
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	24–APR–10 18:33	100424–5
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	15–MAY–10 00:49	100514–6
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	31–MAR–10 08:59	033110S1–11
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 10:38	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:38	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:38	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:38	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:38	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 10:38	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 10:38	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 10:38	040510–2
	Potassium	236.18	+/–250	J	64.0	250	SOL	P	05–APR–10 10:38	040510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–2
	Sodium	98.65	+/–250	J	70.0	250	SOL	P	05–APR–10 10:38	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:38	040510–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–APR–10 17:40	041510A–4
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–APR–10 17:40	041510A–4
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 07:46	100515–7
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 07:46	100515–7
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 07:46	100515–7
	Thallium	0.374	+/–1	J	0.3	1.0	SOL	MS	16–MAY–10 07:46	100515–7
	Beryllium	0.156	+/–.5	J	0.1	0.5	SOL	MS	18–MAY–10 08:40	100517–9

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB02										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–MAR–10 09:56	032210W1–10
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 12:52	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 12:52	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:52	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 12:52	040110–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:52	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:52	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 12:52	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 12:52	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 12:52	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 12:52	040110–1
	Potassium	92.73	+/–150	J	50.0	150	LIQ	P	01–APR–10 12:52	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 12:52	040110–1
	Silver	1.14	+/–5	J	1.0	5.0	LIQ	P	01–APR–10 12:52	040110–1
	Sodium	100	+/–300	U	100	300	LIQ	P	01–APR–10 12:52	040110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:52	040110–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	01–APR–10 12:52	040110–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	24–APR–10 18:52	100424–5
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	24–APR–10 18:52	100424–5
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	24–APR–10 18:52	100424–5
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	24–APR–10 18:52	100424–5
	Thallium	0.445	+/–1	J	0.3	1.0	LIQ	MS	24–APR–10 18:52	100424–5
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	15–MAY–10 01:07	100514–6
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	31–MAR–10 09:23	033110S1–11
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 10:51	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:51	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:51	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:51	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:51	040510–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 10:51	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 10:51	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 10:51	040510–2
	Potassium	70.41	+/–250	J	64.0	250	SOL	P	05–APR–10 10:51	040510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 10:51	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:51	040510–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–APR–10 18:06	041510A–4
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–APR–10 18:06	041510A–4
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 07:58	100515–7
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 07:58	100515–7
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 07:58	100515–7
	Thallium	0.813	+/–1	J	0.3	1.0	SOL	MS	16–MAY–10 07:58	100515–7
	Beryllium	0.226	+/–.5	J	0.1	0.5	SOL	MS	18–MAY–10 08:48	100517–9
CCB03										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–MAR–10 10:19	032210W1–10
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 13:32	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 13:32	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 13:32	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 13:32	040110–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 13:32	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 13:32	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 13:32	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 13:32	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 13:32	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 13:32	040110–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	01–APR–10 13:32	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 13:32	040110–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 13:32	040110–1
	Sodium	100	+/–300	U	100	300	LIQ	P	01–APR–10 13:32	040110–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	01-APR-10 13:32	040110-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	01-APR-10 13:32	040110-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	24-APR-10 20:05	100424-5
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	24-APR-10 20:05	100424-5
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	24-APR-10 20:05	100424-5
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	24-APR-10 20:05	100424-5
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	24-APR-10 20:05	100424-5
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	15-MAY-10 01:56	100514-6
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	31-MAR-10 09:47	033110S1-11
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	05-APR-10 11:23	040510-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	05-APR-10 11:23	040510-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 11:23	040510-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 11:23	040510-2
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	05-APR-10 11:23	040510-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	05-APR-10 11:23	040510-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	05-APR-10 11:23	040510-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	05-APR-10 11:23	040510-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	05-APR-10 11:23	040510-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	05-APR-10 11:23	040510-2
	Potassium	85.5	+/-250	J	64.0	250	SOL	P	05-APR-10 11:23	040510-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 11:23	040510-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	05-APR-10 11:23	040510-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 11:23	040510-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	05-APR-10 11:23	040510-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	15-APR-10 19:15	041510A-4
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	15-APR-10 19:15	041510A-4
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	16-MAY-10 08:48	100515-7
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	16-MAY-10 08:48	100515-7
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	16-MAY-10 08:48	100515-7
	Thallium	0.309	+/-1	J	0.3	1.0	SOL	MS	16-MAY-10 08:48	100515-7
	Beryllium	0.183	+/-.5	J	0.1	0.5	SOL	MS	18-MAY-10 08:56	100517-9

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB04										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–MAR–10 10:42	032210W1–10
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 14:01	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 14:01	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 14:01	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 14:01	040110–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 14:01	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 14:01	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 14:01	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 14:01	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 14:01	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 14:01	040110–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	01–APR–10 14:01	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 14:01	040110–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 14:01	040110–1
	Sodium	100	+/–300	U	100	300	LIQ	P	01–APR–10 14:01	040110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 14:01	040110–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	01–APR–10 14:01	040110–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	24–APR–10 21:19	100424–5
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	24–APR–10 21:19	100424–5
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	24–APR–10 21:19	100424–5
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	24–APR–10 21:19	100424–5
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	24–APR–10 21:19	100424–5
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	15–MAY–10 02:39	100514–6
	Mercury	–0.087	+/–.2	J	0.068	0.2	SOL	AV	31–MAR–10 10:19	033110S1–11
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 11:31	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:31	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:31	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:31	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:31	040510–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 11:31	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 11:31	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 11:31	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 11:31	040510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 11:31	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:31	040510–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–APR–10 20:30	041510A–4
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–APR–10 20:30	041510A–4
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 09:34	100515–7
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 09:34	100515–7
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 09:34	100515–7
	Thallium	0.32	+/–1	J	0.3	1.0	SOL	MS	16–MAY–10 09:34	100515–7
	Beryllium	0.153	+/–.5	J	0.1	0.5	SOL	MS	18–MAY–10 09:02	100517–9
CCB05										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–MAR–10 11:05	032210W1–10
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 14:23	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 14:23	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 14:23	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 14:23	040110–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 14:23	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 14:23	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 14:23	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 14:23	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 14:23	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 14:23	040110–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	01–APR–10 14:23	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 14:23	040110–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 14:23	040110–1
	Sodium	100.8	+/–300	J	100	300	LIQ	P	01–APR–10 14:23	040110–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 14:23	040110–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	01–APR–10 14:23	040110–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	15–MAY–10 03:35	100514–6
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	31–MAR–10 10:43	033110S1–11
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 11:54	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:54	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:54	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:54	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:54	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:54	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:54	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 11:54	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 11:54	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 11:54	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 11:54	040510–2
	Silver	–1.55	+/–5	J	1.0	5.0	SOL	P	05–APR–10 11:54	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 11:54	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:54	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:54	040510–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–APR–10 21:38	041510A–4
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–APR–10 21:38	041510A–4
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 10:07	100515–7
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 10:07	100515–7
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 10:07	100515–7
	Thallium	0.314	+/–1	J	0.3	1.0	SOL	MS	16–MAY–10 10:07	100515–7
CCB06										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–MAR–10 11:28	032210W1–10
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 14:44	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 14:44	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 14:44	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 14:44	040110–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	01-APR-10 14:44	040110-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	01-APR-10 14:44	040110-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	01-APR-10 14:44	040110-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	01-APR-10 14:44	040110-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	01-APR-10 14:44	040110-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	01-APR-10 14:44	040110-1
	Potassium	69.83	+/-150	J	50.0	150	LIQ	P	01-APR-10 14:44	040110-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	01-APR-10 14:44	040110-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	01-APR-10 14:44	040110-1
	Sodium	100	+/-300	U	100	300	LIQ	P	01-APR-10 14:44	040110-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	01-APR-10 14:44	040110-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	01-APR-10 14:44	040110-1
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	15-MAY-10 04:12	100514-6
	Mercury	-0.069	+/-.2	J	0.068	0.2	SOL	AV	31-MAR-10 11:07	033110S1-11
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	05-APR-10 12:18	040510-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	05-APR-10 12:18	040510-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 12:18	040510-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 12:18	040510-2
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	05-APR-10 12:18	040510-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	05-APR-10 12:18	040510-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	05-APR-10 12:18	040510-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	05-APR-10 12:18	040510-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	05-APR-10 12:18	040510-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	05-APR-10 12:18	040510-2
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	05-APR-10 12:18	040510-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 12:18	040510-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	05-APR-10 12:18	040510-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 12:18	040510-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	05-APR-10 12:18	040510-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	15-APR-10 22:46	041510A-4
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	15-APR-10 22:46	041510A-4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB07										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–MAR–10 11:52	032210W1–10
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 15:10	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 15:10	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:10	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 15:10	040110–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:10	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:10	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 15:10	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 15:10	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 15:10	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 15:10	040110–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	01–APR–10 15:10	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 15:10	040110–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:10	040110–1
	Sodium	100	+/–300	U	100	300	LIQ	P	01–APR–10 15:10	040110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:10	040110–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	01–APR–10 15:10	040110–1
	Mercury	–0.088	+/–.2	J	0.068	0.2	SOL	AV	31–MAR–10 11:30	033110S1–11
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 12:43	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 12:43	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:43	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:43	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:43	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 12:43	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:43	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 12:43	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 12:43	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 12:43	040510–2
	Potassium	84.07	+/–250	J	64.0	250	SOL	P	05–APR–10 12:43	040510–2
	Silver	–1.25	+/–5	J	1.0	5.0	SOL	P	05–APR–10 12:43	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 12:43	040510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:43	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 12:43	040510–2
CCB08										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–MAR–10 12:15	032210W1–10
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 15:41	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 15:41	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:41	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 15:41	040110–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:41	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:41	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 15:41	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 15:41	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 15:41	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 15:41	040110–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	01–APR–10 15:41	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 15:41	040110–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:41	040110–1
	Sodium	100	+/–300	U	100	300	LIQ	P	01–APR–10 15:41	040110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:41	040110–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	01–APR–10 15:41	040110–1
	Mercury	–0.127	+/–.2	J	0.068	0.2	SOL	AV	31–MAR–10 11:54	033110S1–11
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 13:04	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:04	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:04	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:04	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:04	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:04	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:04	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:04	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:04	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:04	040510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	87.68	+/–250	J	64.0	250	SOL	P	05–APR–10 13:04	040510–2
	Silver	–1.14	+/–5	J	1.0	5.0	SOL	P	05–APR–10 13:04	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 13:04	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:04	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:04	040510–2
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 16:08	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 16:08	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:08	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 16:08	040110–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:08	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:08	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 16:08	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 16:08	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 16:08	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 16:08	040110–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	01–APR–10 16:08	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 16:08	040110–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:08	040110–1
	Sodium	100	+/–300	U	100	300	LIQ	P	01–APR–10 16:08	040110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:08	040110–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	01–APR–10 16:08	040110–1
	Mercury	–0.154	+/–.2	J	0.068	0.2	SOL	AV	31–MAR–10 12:10	033110S1–11
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 13:21	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:21	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:21	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:21	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:21	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:21	040510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:21	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:21	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 13:21	040510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 13:21	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:21	040510–2
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 16:32	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 16:32	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:32	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 16:32	040110–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:32	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:32	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 16:32	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 16:32	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 16:32	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 16:32	040110–1
	Potassium	50.47	+/–150	J	50.0	150	LIQ	P	01–APR–10 16:32	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 16:32	040110–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:32	040110–1
	Sodium	100	+/–300	U	100	300	LIQ	P	01–APR–10 16:32	040110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:32	040110–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	01–APR–10 16:32	040110–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	31–MAR–10 12:46	033110S1–11
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 13:44	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:44	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:44	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:44	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:44	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:44	040510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:44	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:44	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:44	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:44	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 13:44	040510–2
	Silver	–1.38	+/–5	J	1.0	5.0	SOL	P	05–APR–10 13:44	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 13:44	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:44	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:44	040510–2
CCB11										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	31–MAR–10 12:55	033110S1–11
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 13:59	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:59	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:59	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:59	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:59	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:59	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:59	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:59	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:59	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:59	040510–2
	Potassium	75.96	+/–250	J	64.0	250	SOL	P	05–APR–10 13:59	040510–2
	Silver	–1.41	+/–5	J	1.0	5.0	SOL	P	05–APR–10 13:59	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 13:59	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:59	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:59	040510–2
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 14:24	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 14:24	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:24	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:24	040510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 14:24	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 14:24	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 14:24	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 14:24	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 14:24	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 14:24	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 14:24	040510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:24	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 14:24	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:24	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 14:24	040510–2
CCB13										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 14:58	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 14:58	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:58	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:58	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 14:58	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 14:58	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 14:58	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 14:58	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 14:58	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 14:58	040510–2
	Potassium	68.95	+/–250	J	64.0	250	SOL	P	05–APR–10 14:58	040510–2
	Silver	–1.26	+/–5	J	1.0	5.0	SOL	P	05–APR–10 14:58	040510–2
	Sodium	85.97	+/–250	J	70.0	250	SOL	P	05–APR–10 14:58	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:58	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 14:58	040510–2
CCB14										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 15:19	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 15:19	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:19	040510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:19	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 15:19	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 15:19	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 15:19	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 15:19	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 15:19	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 15:19	040510–2
	Potassium	85.73	+/–250	J	64.0	250	SOL	P	05–APR–10 15:19	040510–2
	Silver	–1.85	+/–5	J	1.0	5.0	SOL	P	05–APR–10 15:19	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 15:19	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:19	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 15:19	040510–2
CCB15										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 15:45	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 15:45	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:45	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:45	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 15:45	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 15:45	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 15:45	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 15:45	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 15:45	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 15:45	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 15:45	040510–2
	Silver	–1.39	+/–5	J	1.0	5.0	SOL	P	05–APR–10 15:45	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 15:45	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:45	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 15:45	040510–2
CCB16										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 16:03	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:03	040510–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:03	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:03	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:03	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:03	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:03	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 16:03	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 16:03	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 16:03	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 16:03	040510–2
	Silver	–1.77	+/–5	J	1.0	5.0	SOL	P	05–APR–10 16:03	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 16:03	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:03	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:03	040510–2
CCB17										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 16:21	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:21	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:21	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:21	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:21	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:21	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:21	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 16:21	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 16:21	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 16:21	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 16:21	040510–2
	Silver	–2.07	+/–5	J	1.0	5.0	SOL	P	05–APR–10 16:21	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 16:21	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:21	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:21	040510–2
CCB18										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 16:39	040510–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:39	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:39	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:39	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:39	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:39	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:39	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 16:39	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 16:39	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 16:39	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 16:39	040510–2
	Silver	–2.22	+/–5	J	1.0	5.0	SOL	P	05–APR–10 16:39	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 16:39	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:39	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:39	040510–2
CCB19										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 16:53	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:53	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:53	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:53	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:53	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:53	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:53	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 16:53	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 16:53	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 16:53	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 16:53	040510–2
	Silver	–1.09	+/–5	J	1.0	5.0	SOL	P	05–APR–10 16:53	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 16:53	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:53	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:53	040510–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB20										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 17:12	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:12	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:12	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:12	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:12	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 17:12	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:12	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 17:12	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 17:12	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 17:12	040510–2
	Potassium	89.98	+/–250	J	64.0	250	SOL	P	05–APR–10 17:12	040510–2
	Silver	–2.36	+/–5	J	1.0	5.0	SOL	P	05–APR–10 17:12	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 17:12	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:12	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:12	040510–2
CCB21										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 17:28	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:28	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:28	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:28	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:28	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 17:28	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:28	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 17:28	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 17:28	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 17:28	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 17:28	040510–2
	Silver	–1.5	+/–5	J	1.0	5.0	SOL	P	05–APR–10 17:28	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 17:28	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:28	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:28	040510–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB22										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 17:47	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:47	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:47	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:47	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:47	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 17:47	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:47	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 17:47	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 17:47	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 17:47	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 17:47	040510–2
	Silver	–1.92	+/–5	J	1.0	5.0	SOL	P	05–APR–10 17:47	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 17:47	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:47	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:47	040510–2
CCB23										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 18:08	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 18:08	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:08	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:08	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 18:08	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 18:08	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 18:08	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 18:08	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 18:08	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 18:08	040510–2
	Potassium	81.71	+/–250	J	64.0	250	SOL	P	05–APR–10 18:08	040510–2
	Silver	–1.64	+/–5	J	1.0	5.0	SOL	P	05–APR–10 18:08	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 18:08	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:08	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 18:08	040510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB24										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 18:29	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 18:29	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:29	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:29	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 18:29	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 18:29	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 18:29	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 18:29	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 18:29	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 18:29	040510–2
	Potassium	100.92	+/–250	J	64.0	250	SOL	P	05–APR–10 18:29	040510–2
	Silver	–1.56	+/–5	J	1.0	5.0	SOL	P	05–APR–10 18:29	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 18:29	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:29	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 18:29	040510–2
CCB25										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 18:48	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 18:48	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:48	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:48	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 18:48	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 18:48	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 18:48	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 18:48	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 18:48	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 18:48	040510–2
	Potassium	95.03	+/–250	J	64.0	250	SOL	P	05–APR–10 18:48	040510–2
	Silver	–1.65	+/–5	J	1.0	5.0	SOL	P	05–APR–10 18:48	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 18:48	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:48	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 18:48	040510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB26										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 19:04	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 19:04	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:04	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:04	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 19:04	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 19:04	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 19:04	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 19:04	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 19:04	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 19:04	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 19:04	040510–2
	Silver	–1.53	+/–5	J	1.0	5.0	SOL	P	05–APR–10 19:04	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 19:04	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:04	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 19:04	040510–2
CCB27										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 19:27	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 19:27	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:27	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:27	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 19:27	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 19:27	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 19:27	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 19:27	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 19:27	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 19:27	040510–2
	Potassium	64.02	+/–250	J	64.0	250	SOL	P	05–APR–10 19:27	040510–2
	Silver	–1.53	+/–5	J	1.0	5.0	SOL	P	05–APR–10 19:27	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 19:27	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:27	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 19:27	040510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2434

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB28										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 19:48	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 19:48	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:48	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:48	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 19:48	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 19:48	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 19:48	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 19:48	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 19:48	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 19:48	040510–2
	Potassium	73.66	+/–250	J	64.0	250	SOL	P	05–APR–10 19:48	040510–2
	Silver	–1.78	+/–5	J	1.0	5.0	SOL	P	05–APR–10 19:48	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 19:48	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:48	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 19:48	040510–2
CCB29										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 20:10	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 20:10	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 20:10	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 20:10	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 20:10	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 20:10	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 20:10	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 20:10	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 20:10	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 20:10	040510–2
	Potassium	66.39	+/–250	J	64.0	250	SOL	P	05–APR–10 20:10	040510–2
	Silver	–1.46	+/–5	J	1.0	5.0	SOL	P	05–APR–10 20:10	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 20:10	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 20:10	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 20:10	040510–2

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2434
Contract: LANL01004
Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202072001								
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Manganese	1	ug/L	+/–5	U	MS	1	5
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Antimony	0.778	ug/L	+/–3	J	MS	0.5	3
	Beryllium	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
1202072038								
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Arsenic	5	ug/L	+/–30	U	P	5	30
	Barium	1	ug/L	+/–5	U	P	1	5
	Calcium	50	ug/L	+/–200	U	P	50	200
	Chromium	1	ug/L	+/–5	U	P	1	5
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Copper	3	ug/L	+/–10	U	P	3	10
	Iron	30	ug/L	+/–100	U	P	30	100
	Magnesium	85	ug/L	+/–300	U	P	85	300
	Nickel	1.5	ug/L	+/–5	U	P	1.5	5
	Potassium	50	ug/L	+/–150	U	P	50	150
	Selenium	5	ug/L	+/–30	U	P	5	30
	Silver	1	ug/L	+/–5	U	P	1	5
	Sodium	100	ug/L	+/–300	U	P	100	300
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
1202072045								
	Aluminum	6630	ug/kg	+/–19500	U	P	6630	19500
	Cobalt	146	ug/kg	+/–487	U	P	146	487
	Lead	244	ug/kg	+/–975	U	P	244	975
	Manganese	195	ug/kg	+/–975	U	P	195	975
	Silver	97.5	ug/kg	+/–487	U	P	97.5	487
	Vanadium	97.5	ug/kg	+/–487	U	P	97.5	487
	Calcium	7800	ug/kg	+/–24400	U	P	7800	24400
	Zinc	322	ug/kg	+/–975	U	P	322	975
	Sodium	6820	ug/kg	+/–24400	U	P	6820	24400
	Potassium	7280	ug/kg	+/–24400	J	P	6240	24400
	Magnesium	8280	ug/kg	+/–29200	U	P	8280	29200
	Iron	7800	ug/kg	+/–24400	U	P	7800	24400
	Antimony	322	ug/kg	+/–975	U	P	322	975

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2434
Contract: LANL01004
Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
	Barium	97.5	ug/kg	+/–487	U	P	97.5	487
	Cadmium	97.5	ug/kg	+/–487	U	P	97.5	487
1202072051								
	Arsenic	193	ug/kg	+/–965	U	MS	193	965
	Beryllium	19.3	ug/kg	+/–96.5	U	MS	19.3	96.5
	Nickel	96.5	ug/kg	+/–386	U	MS	96.5	386
	Selenium	483	ug/kg	+/–965	U	MS	483	965
	Thallium	80.3	ug/kg	+/–193	J	MS	57.9	193
1202075645								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2
1202081106								
	Mercury	–8.67	ug/kg	+/–12	J	AV	4.06	12
1202091939								
	Chromium	353	ug/kg	+/–482	J	P	145	482
	Copper	289	ug/kg	+/–963	U	P	289	963

METALS
–4–
Interference Check Sample

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	504000	ug/L	500000	ug/L	101	80.0 – 120.0	01–APR–10 12:37	040110–1
	Arsenic	12.2	ug/L					01–APR–10 12:37	040110–1
	Barium	0.177	ug/L					01–APR–10 12:37	040110–1
	Calcium	483000	ug/L	500000	ug/L	96.6	80.0 – 120.0	01–APR–10 12:37	040110–1
	Chromium	1.28	ug/L					01–APR–10 12:37	040110–1
	Cobalt	–6.39	ug/L					01–APR–10 12:37	040110–1
	Copper	3.95	ug/L					01–APR–10 12:37	040110–1
	Iron	191000	ug/L	200000	ug/L	95.5	80.0 – 120.0	01–APR–10 12:37	040110–1
	Magnesium	488000	ug/L	500000	ug/L	97.5	80.0 – 120.0	01–APR–10 12:37	040110–1
	Nickel	3.2	ug/L					01–APR–10 12:37	040110–1
	Potassium	–156.0	ug/L					01–APR–10 12:37	040110–1
	Selenium	–9.42	ug/L					01–APR–10 12:37	040110–1
	Silver	0.141	ug/L					01–APR–10 12:37	040110–1
	Sodium	71.1	ug/L					01–APR–10 12:37	040110–1
	Vanadium	0.579	ug/L					01–APR–10 12:37	040110–1
	Zinc	8.55	ug/L					01–APR–10 12:37	040110–1
ICSAB01									
	Aluminum	510000	ug/L	500000	ug/L	102	80.0 – 120.0	01–APR–10 12:39	040110–1
	Arsenic	537	ug/L	500	ug/L	107	80.0 – 120.0	01–APR–10 12:39	040110–1
	Barium	500	ug/L	500	ug/L	100	80.0 – 120.0	01–APR–10 12:39	040110–1
	Calcium	488000	ug/L	500000	ug/L	97.7	80.0 – 120.0	01–APR–10 12:39	040110–1
	Chromium	491	ug/L	500	ug/L	98.1	80.0 – 120.0	01–APR–10 12:39	040110–1
	Cobalt	449	ug/L	500	ug/L	89.7	80.0 – 120.0	01–APR–10 12:39	040110–1
	Copper	541	ug/L	500	ug/L	108	80.0 – 120.0	01–APR–10 12:39	040110–1
	Iron	193000	ug/L	200000	ug/L	96.6	80.0 – 120.0	01–APR–10 12:39	040110–1
	Magnesium	495000	ug/L	500000	ug/L	99	80.0 – 120.0	01–APR–10 12:39	040110–1
	Nickel	460	ug/L	500	ug/L	91.9	80.0 – 120.0	01–APR–10 12:39	040110–1
	Potassium	5530	ug/L	5000	ug/L	111	80.0 – 120.0	01–APR–10 12:39	040110–1
	Selenium	2470	ug/L	2500	ug/L	98.8	80.0 – 120.0	01–APR–10 12:39	040110–1

METALS
–4–
Interference Check Sample

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silver	270	ug/L	250	ug/L	108	80.0 – 120.0	01–APR–10 12:39	040110–1
	Sodium	5430	ug/L	5000	ug/L	109	80.0 – 120.0	01–APR–10 12:39	040110–1
	Vanadium	515	ug/L	500	ug/L	103	80.0 – 120.0	01–APR–10 12:39	040110–1
	Zinc	497	ug/L	500	ug/L	99.3	80.0 – 120.0	01–APR–10 12:39	040110–1

METALS
–4–
Interference Check Sample

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	507000	ug/L	500000	ug/L	101	80.0 – 120.0	05–APR–10 10:30	040510–2
	Antimony	2.46	ug/L					05–APR–10 10:30	040510–2
	Barium	0.214	ug/L					05–APR–10 10:30	040510–2
	Cadmium	–1.98	ug/L					05–APR–10 10:30	040510–2
	Calcium	489000	ug/L	500000	ug/L	97.8	80.0 – 120.0	05–APR–10 10:30	040510–2
	Cobalt	–6.2	ug/L					05–APR–10 10:30	040510–2
	Iron	192000	ug/L	200000	ug/L	95.9	80.0 – 120.0	05–APR–10 10:30	040510–2
	Lead	–2.28	ug/L					05–APR–10 10:30	040510–2
	Magnesium	488000	ug/L	500000	ug/L	97.6	80.0 – 120.0	05–APR–10 10:30	040510–2
	Manganese	2.95	ug/L					05–APR–10 10:30	040510–2
	Potassium	–150.0	ug/L					05–APR–10 10:30	040510–2
	Silver	–1.56	ug/L					05–APR–10 10:30	040510–2
	Sodium	72.8	ug/L					05–APR–10 10:30	040510–2
	Vanadium	1.44	ug/L					05–APR–10 10:30	040510–2
	Zinc	8.71	ug/L					05–APR–10 10:30	040510–2
ICSAB01									
	Aluminum	510000	ug/L	500000	ug/L	102	80.0 – 120.0	05–APR–10 10:32	040510–2
	Antimony	518	ug/L	500	ug/L	104	80.0 – 120.0	05–APR–10 10:32	040510–2
	Barium	505	ug/L	500	ug/L	101	80.0 – 120.0	05–APR–10 10:32	040510–2
	Cadmium	483	ug/L	500	ug/L	96.6	80.0 – 120.0	05–APR–10 10:32	040510–2
	Calcium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	05–APR–10 10:32	040510–2
	Cobalt	452	ug/L	500	ug/L	90.4	80.0 – 120.0	05–APR–10 10:32	040510–2
	Iron	193000	ug/L	200000	ug/L	96.5	80.0 – 120.0	05–APR–10 10:32	040510–2
	Lead	472	ug/L	500	ug/L	94.4	80.0 – 120.0	05–APR–10 10:32	040510–2
	Magnesium	491000	ug/L	500000	ug/L	98.2	80.0 – 120.0	05–APR–10 10:32	040510–2
	Manganese	486	ug/L	500	ug/L	97.3	80.0 – 120.0	05–APR–10 10:32	040510–2
	Potassium	5510	ug/L	5000	ug/L	110	80.0 – 120.0	05–APR–10 10:32	040510–2
	Silver	271	ug/L	250	ug/L	108	80.0 – 120.0	05–APR–10 10:32	040510–2
	Sodium	5380	ug/L	5000	ug/L	108	80.0 – 120.0	05–APR–10 10:32	040510–2

METALS
–4–
Interference Check Sample

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Vanadium	520	ug/L	500	ug/L	104	80.0 – 120.0	05–APR–10 10:32	040510–2
	Zinc	500	ug/L	500	ug/L	100	80.0 – 120.0	05–APR–10 10:32	040510–2
ICSA02									
	Aluminum	504000	ug/L	500000	ug/L	101	80.0 – 120.0	05–APR–10 11:18	040510–2
	Antimony	–2.58	ug/L					05–APR–10 11:18	040510–2
	Barium	0.414	ug/L					05–APR–10 11:18	040510–2
	Cadmium	–2.15	ug/L					05–APR–10 11:18	040510–2
	Calcium	493000	ug/L	500000	ug/L	98.6	80.0 – 120.0	05–APR–10 11:18	040510–2
	Cobalt	–6.03	ug/L					05–APR–10 11:18	040510–2
	Iron	193000	ug/L	200000	ug/L	96.4	80.0 – 120.0	05–APR–10 11:18	040510–2
	Lead	–1.76	ug/L					05–APR–10 11:18	040510–2
	Magnesium	490000	ug/L	500000	ug/L	98	80.0 – 120.0	05–APR–10 11:18	040510–2
	Manganese	3.12	ug/L					05–APR–10 11:18	040510–2
	Potassium	–131.0	ug/L					05–APR–10 11:18	040510–2
	Silver	–1.68	ug/L					05–APR–10 11:18	040510–2
	Sodium	77.5	ug/L					05–APR–10 11:18	040510–2
	Vanadium	2.54	ug/L					05–APR–10 11:18	040510–2
	Zinc	8.63	ug/L					05–APR–10 11:18	040510–2
ICSAB02									
	Aluminum	508000	ug/L	500000	ug/L	102	80.0 – 120.0	05–APR–10 11:20	040510–2
	Antimony	524	ug/L	500	ug/L	105	80.0 – 120.0	05–APR–10 11:20	040510–2
	Barium	505	ug/L	500	ug/L	101	80.0 – 120.0	05–APR–10 11:20	040510–2
	Cadmium	489	ug/L	500	ug/L	97.9	80.0 – 120.0	05–APR–10 11:20	040510–2
	Calcium	491000	ug/L	500000	ug/L	98.1	80.0 – 120.0	05–APR–10 11:20	040510–2
	Cobalt	457	ug/L	500	ug/L	91.3	80.0 – 120.0	05–APR–10 11:20	040510–2
	Iron	194000	ug/L	200000	ug/L	97.2	80.0 – 120.0	05–APR–10 11:20	040510–2
	Lead	479	ug/L	500	ug/L	95.9	80.0 – 120.0	05–APR–10 11:20	040510–2
	Magnesium	492000	ug/L	500000	ug/L	98.5	80.0 – 120.0	05–APR–10 11:20	040510–2
	Manganese	489	ug/L	500	ug/L	97.8	80.0 – 120.0	05–APR–10 11:20	040510–2

METALS
–4–
Interference Check Sample

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Potassium	5590	ug/L	5000	ug/L	112	80.0 – 120.0	05–APR–10 11:20	040510–2
	Silver	273	ug/L	250	ug/L	109	80.0 – 120.0	05–APR–10 11:20	040510–2
	Sodium	5400	ug/L	5000	ug/L	108	80.0 – 120.0	05–APR–10 11:20	040510–2
	Vanadium	525	ug/L	500	ug/L	105	80.0 – 120.0	05–APR–10 11:20	040510–2
	Zinc	506	ug/L	500	ug/L	101	80.0 – 120.0	05–APR–10 11:20	040510–2

METALS
–4–
Interference Check Sample

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Chromium	2.86	ug/L					15–APR–10 17:06	041510A–4
	Copper	6.71	ug/L					15–APR–10 17:06	041510A–4
ICSAB01									
	Chromium	477	ug/L	500	ug/L	95.5	80.0 – 120.0	15–APR–10 17:13	041510A–4
	Copper	560	ug/L	500	ug/L	112	80.0 – 120.0	15–APR–10 17:13	041510A–4
ICSA02									
	Chromium	2.83	ug/L					15–APR–10 18:55	041510A–4
	Copper	6.55	ug/L					15–APR–10 18:55	041510A–4
ICSAB02									
	Chromium	473	ug/L	500	ug/L	94.7	80.0 – 120.0	15–APR–10 19:02	041510A–4
	Copper	558	ug/L	500	ug/L	112	80.0 – 120.0	15–APR–10 19:02	041510A–4

METALS
–4–
Interference Check Sample

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.252	ug/L					24–APR–10 18:15	100424–5
	Cadmium	0.239	ug/L					24–APR–10 18:15	100424–5
	Lead	0.161	ug/L					24–APR–10 18:15	100424–5
	Manganese	5.82	ug/L					24–APR–10 18:15	100424–5
	Thallium	0.068	ug/L					24–APR–10 18:15	100424–5
ICSAB01									
	Antimony	18.3	ug/L	20	ug/L	91.3	80.0 – 120.0	24–APR–10 18:21	100424–5
	Cadmium	19.7	ug/L	20.44	ug/L	96.4	80.0 – 120.0	24–APR–10 18:21	100424–5
	Lead	19.0	ug/L	20.19	ug/L	94.1	80.0 – 120.0	24–APR–10 18:21	100424–5
	Manganese	26.2	ug/L	25.8	ug/L	102	80.0 – 120.0	24–APR–10 18:21	100424–5
	Thallium	18.3	ug/L	20	ug/L	91.6	80.0 – 120.0	24–APR–10 18:21	100424–5

METALS
–4–
Interference Check Sample

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.046	ug/L					15–MAY–10 00:30	100514–6
ICSAB01									
	Beryllium	17.3	ug/L	20	ug/L	86.4	80.0 – 120.0	15–MAY–10 00:36	100514–6

METALS
–4–
Interference Check Sample

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.49	ug/L					16–MAY–10 07:33	100515–7
	Nickel	2.47	ug/L					16–MAY–10 07:33	100515–7
	Selenium	–0.572	ug/L					16–MAY–10 07:33	100515–7
	Thallium	0.061	ug/L					16–MAY–10 07:33	100515–7
ICSAB01									
	Arsenic	20.0	ug/L	20	ug/L	100	80.0 – 120.0	16–MAY–10 07:37	100515–7
	Nickel	21.5	ug/L	23.31	ug/L	92.3	80.0 – 120.0	16–MAY–10 07:37	100515–7
	Selenium	19.9	ug/L	20	ug/L	99.6	80.0 – 120.0	16–MAY–10 07:37	100515–7
	Thallium	17.9	ug/L	20	ug/L	89.7	80.0 – 120.0	16–MAY–10 07:37	100515–7

METALS
–4–
Interference Check Sample

SDG No: 10–2434

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS7

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.117	ug/L					18–MAY–10 08:38	100517–9
ICSAB01									
	Beryllium	20.9	ug/L	20	ug/L	105	80.0 – 120.0	18–MAY–10 08:38	100517–9

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-2434 **Client ID** CAMO-10-13924S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 249243001 **Spike ID:** 1202072004

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75-125	212		0.5	U	200	106		MS
Cadmium	ug/L	75-125	11.1		0.11	U	10	111		MS
Lead	ug/L	75-125	43.7		0.5	U	40	109		MS
Manganese	ug/L	75-125	51.4		3.24	J	50	96.3		MS
Thallium	ug/L	75-125	106		0.3	U	100	106		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2434 **Client ID** RE46–10–12997S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 249333001 **Spike ID:** 1202072041

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75–125	5030		68	U	5000	100		P
Arsenic	ug/L	75–125	493		5	U	500	98.4		P
Barium	ug/L	75–125	507		1.05	J	500	101		P
Calcium	ug/L	75–125	5170		50	U	5000	103		P
Chromium	ug/L	75–125	495		1	U	500	99		P
Cobalt	ug/L	75–125	496		1	U	500	99.1		P
Copper	ug/L	75–125	499		3	U	500	99.8		P
Iron	ug/L	75–125	5120		30	U	5000	102		P
Magnesium	ug/L	75–125	5240		85	U	5000	105		P
Nickel	ug/L	75–125	498		1.5	U	500	99.6		P
Potassium	ug/L	75–125	5060		50	U	5000	101		P
Selenium	ug/L	75–125	488		5	U	500	97.4		P
Silver	ug/L	75–125	496		1	U	500	99.1		P
Sodium	ug/L	75–125	5100		100	U	5000	101		P
Vanadium	ug/L	75–125	502		1	U	500	100		P
Zinc	ug/L	75–125	489		3.3	U	500	97.5		P

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–2434 **Client ID** RE46–10–12972S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 249333003 **Spike ID:** 1202072048

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		6470000		3510000		568000	520	N/A	P
Antimony	ug/kg	75–125	51800		369	U	56800	91.3		P
Barium	ug/kg	75–125	83700		25200		56800	103		P
Cadmium	ug/kg	75–125	58100		112	U	56800	102		P
Calcium	ug/kg	75–125	1460000		942000		568000	91.2		P
Chromium	ug/kg	75–125	65700		11600		54900	98.5		P
Cobalt	ug/kg	75–125	58000		1290		56800	100		P
Copper	ug/kg	75–125	60700		5400		54900	101		P
Iron	ug/kg		9450000		8360000		568000	192	N/A	P
Lead	ug/kg	75–125	69200		12100		56800	101		P
Magnesium	ug/kg	75–125	1390000		576000		568000	144	N	P
Manganese	ug/kg	75–125	252000		213000		56800	69	N	P
Potassium	ug/kg	75–125	1190000		419000		568000	136	N	P
Silver	ug/kg	75–125	58400		112	U	56800	103		P
Sodium	ug/kg	75–125	683000		128000		568000	97.9		P
Vanadium	ug/kg	75–125	65400		7110		56800	103		P
Zinc	ug/kg	75–125	105000		46500		56800	102		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2434 **Client ID** RE46–10–12972SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 249333003 **Spike ID:** 1202072050

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		7160000		3510000		538000	678	N/A	P
Antimony	ug/kg	75–125	48400		369	U	53800	89.9		P
Barium	ug/kg	75–125	81900		25200		53800	106		P
Cadmium	ug/kg	75–125	54800		112	U	53800	102		P
Calcium	ug/kg	75–125	1550000		942000		538000	114		P
Chromium	ug/kg	75–125	60400		11600		53300	91.7		P
Cobalt	ug/kg	75–125	54700		1290		53800	99.3		P
Copper	ug/kg	75–125	58900		5400		53300	100		P
Iron	ug/kg		10200000		8360000		538000	348	N/A	P
Lead	ug/kg	75–125	65600		12100		53800	99.5		P
Magnesium	ug/kg	75–125	1450000		576000		538000	163	N	P
Manganese	ug/kg	75–125	257000		213000		53800	82.5		P
Potassium	ug/kg	75–125	1230000		419000		538000	150	N	P
Silver	ug/kg	75–125	55300		112	U	53800	103		P
Sodium	ug/kg	75–125	668000		128000		538000	101		P
Vanadium	ug/kg	75–125	63600		7110		53800	105		P
Zinc	ug/kg	75–125	106000		46500		53800	111		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2434 **Client ID** RE46–10–12972S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 249333003 **Spike ID:** 1202072054

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	9260		1570		8960	85.8		MS
Beryllium	ug/kg	75–125	5500		585		5600	87.8		MS
Nickel	ug/kg	75–125	8460		3500		5600	88.7		MS
Selenium	ug/kg	75–125	2110		558	U	2240	79.3		MS
Thallium	ug/kg	75–125	9290		66.9	U	11200	82.6		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2434 **Client ID** RE46–10–13220SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 249330003 **Spike ID:** 1202072056

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	9490		1540		9000	88.3		MS
Beryllium	ug/kg	75–125	5400		401		5630	88.9		MS
Nickel	ug/kg	75–125	8870		2330		5630	116		MS
Selenium	ug/kg	75–125	2200		563	U	2250	92.3		MS
Thallium	ug/kg	75–125	9520		125	J	11300	83.5		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2434 **Client ID** RE16–10–14224S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 249528001 **Spike ID:** 1202075648

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	2.17		0.066	U	2	108		AV

METALS
–5a–

Matrix Spike Summary

SDG NO.	10–2434	**Client ID**	RE46–10–12728S
Contract:	LANL01004	**Level:**	Low
Matrix:	SOIL	**% Solids:**	80
Sample ID:	249608001	**Spike ID:**	1202081109

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg		1960		1410		143	387	N/A	AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO.	10–2434	**Client ID**	RE46–10–12728SD
Contract:	LANL01004	**Level:**	Low
Matrix:	SOIL	**% Solids:**	80
Sample ID:	249608001	**Spike ID:**	1202081111

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg		2560		1410		143	808	N/A	AV

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2434 **Client ID** RE46–10–12994S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 249333002 **Spike ID:** 1202106368

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	ug/L	75–125	49.9		0.1	U	50	99.9		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAMO–10–13924D

Sample ID: 249243001 **Duplicate ID:** 1202072003 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		0.5	U	0.5	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Manganese	ug/L	+/–5	3.24	J	3.37	J	4.02		MS
Thallium	ug/L		0.3	U	0.3	U			MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE46–10–12997D

Sample ID: 249333001 **Duplicate ID:** 1202072040 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Arsenic	ug/L		5	U	5	U			P
Barium	ug/L		1.05	J	1	U	200		P
Calcium	ug/L		50	U	50	U			P
Chromium	ug/L		1	U	1	U			P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L		30	U	30	U			P
Magnesium	ug/L		85	U	85	U			P
Nickel	ug/L		1.5	U	1.5	U			P
Potassium	ug/L		50	U	50	U			P
Selenium	ug/L		5	U	5	U			P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L		100	U	100	U			P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L		3.3	U	3.3	U			P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12972D

Sample ID: 249333003 **Duplicate ID:** 1202072047 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	3510000		3950000		11.7		P
Antimony	ug/kg		369	U	332	U			P
Barium	ug/kg	+/–20%	25200		27700		9.4		P
Cadmium	ug/kg		112	U	101	U			P
Calcium	ug/kg	+/–20%	942000		1020000		8.4		P
Chromium	ug/kg	+/–20%	11600		14600		23.2	*	P
Cobalt	ug/kg	+/–503	1290		1490		14.1		P
Copper	ug/kg	+/–1120	5400		6600		20	*	P
Iron	ug/kg	+/–20%	8360000		9660000		14.4		P
Lead	ug/kg	+/–20%	12100		14200		15.9		P
Magnesium	ug/kg	+/–20%	576000		636000		9.9		P
Manganese	ug/kg	+/–20%	213000		252000		17.1		P
Potassium	ug/kg	+/–20%	419000		458000		8.87		P
Silver	ug/kg		112	U	101	U			P
Sodium	ug/kg	+/–20%	128000		132000		3.16		P
Vanadium	ug/kg	+/–20%	7110		8140		13.5		P
Zinc	ug/kg	+/–20%	46500		53300		13.7		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12972SD

Sample ID: 1202072048 **Duplicate ID:** 1202072050 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	6470000		7160000		10.1		P
Antimony	ug/kg	+/–20	51800		48400		6.91		P
Barium	ug/kg	+/–20	83700		81900		2.14		P
Cadmium	ug/kg	+/–20	58100		54800		5.81		P
Calcium	ug/kg	+/–20	1460000		1550000		6.28		P
Chromium	ug/kg	+/–20	65700		60400		8.36		P
Cobalt	ug/kg	+/–20	58000		54700		5.96		P
Copper	ug/kg	+/–20	60700		58900		3.03		P
Iron	ug/kg	+/–20	9450000		10200000		7.94		P
Lead	ug/kg	+/–20	69200		65600		5.33		P
Magnesium	ug/kg	+/–20	1390000		1450000		4.41		P
Manganese	ug/kg	+/–20	252000		257000		2.04		P
Potassium	ug/kg	+/–20	1190000		1230000		2.81		P
Silver	ug/kg	+/–20	58400		55300		5.34		P
Sodium	ug/kg	+/–20	683000		668000		2.23		P
Vanadium	ug/kg	+/–20	65400		63600		2.87		P
Zinc	ug/kg	+/–20	105000		106000		1.3		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12972D

Sample ID: 249333003 **Duplicate ID:** 1202072053 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–1100	1570		1730		9.78		MS
Beryllium	ug/kg	+/–110	585		511		13.5		MS
Nickel	ug/kg	+/–20%	3500		3510		.452		MS
Selenium	ug/kg		558	U	552	U			MS
Thallium	ug/kg		66.9	U	66.3	U			MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13220SD

Sample ID: 1202072054 **Duplicate ID:** 1202072056 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	9260		9490		2.45		MS
Beryllium	ug/kg	+/–20	5500		5400		1.85		MS
Nickel	ug/kg	+/–20	8460		8870		4.72		MS
Selenium	ug/kg	+/–20	2110		2200		4.04		MS
Thallium	ug/kg	+/–20	9290		9520		2.51		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE16–10–14224D

Sample ID: 249528001 **Duplicate ID:** 1202075647 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12728D

Sample ID: 249608001 **Duplicate ID:** 1202081108 **Percent Solids for Dup:** 80

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20%	1410		2370		51	*	AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12728SD

Sample ID: 1202081109 **Duplicate ID:** 1202081111 **Percent Solids for Dup:** 80

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	1960		2560		26.4	*	AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2434

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE46–10–12994D

Sample ID: 249333002 **Duplicate ID:** 1202106366 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Beryllium	ug/L		0.1	U	0.1	U			MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2434

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

SDG NO. 10–2434

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202072002								
	Antimony	ug/L	50	49.9		99.8	80–120	MS
	Beryllium	ug/L	50	48.3		96.5	80–120	MS
	Cadmium	ug/L	50	52.4		105	80–120	MS
	Lead	ug/L	50	53.3		107	80–120	MS
	Manganese	ug/L	50	54.5		109	80–120	MS
	Thallium	ug/L	50	50.1		100	80–120	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2434

Contract: LANL01004

Aqueous LCS Source:OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202072039								
	Aluminum	ug/L	5000	5200		104	80–120	P
	Arsenic	ug/L	500	512		102	80–120	P
	Barium	ug/L	500	522		104	80–120	P
	Calcium	ug/L	5000	5300		106	80–120	P
	Chromium	ug/L	500	512		102	80–120	P
	Cobalt	ug/L	500	509		102	80–120	P
	Copper	ug/L	500	515		103	80–120	P
	Iron	ug/L	5000	5270		105	80–120	P
	Magnesium	ug/L	5000	5360		107	80–120	P
	Nickel	ug/L	500	513		103	80–120	P
	Potassium	ug/L	5000	5190		104	80–120	P
	Selenium	ug/L	500	507		101	80–120	P
	Silver	ug/L	500	511		102	80–120	P
	Sodium	ug/L	5000	5240		105	80–120	P
	Vanadium	ug/L	500	518		104	80–120	P
	Zinc	ug/L	500	505		101	80–120	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2434

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202072046								
	Aluminum	ug/kg	10500000	9300000		88.6	56–144	P
	Antimony	ug/kg	173000	200000		116	71–130	P
	Barium	ug/kg	198000	188000		95	80–120	P
	Cadmium	ug/kg	60700	70800		117	81–120	P
	Calcium	ug/kg	9870000	10600000		107	83–117	P
	Cobalt	ug/kg	91200	107000		117	81–120	P
	Iron	ug/kg	18000000	18700000		104	51–149	P
	Lead	ug/kg	86000	82800		96.3	79–121	P
	Magnesium	ug/kg	4000000	3880000		97	79–122	P
	Manganese	ug/kg	558000	601000		108	81–119	P
	Potassium	ug/kg	4300000	4250000		98.9	74–127	P
	Silver	ug/kg	30100	32000		106	66–134	P
	Sodium	ug/kg	1020000	1070000		105	74–127	P
	Vanadium	ug/kg	115000	131000		114	79–121	P
	Zinc	ug/kg	594000	657000		111	80–121	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2434

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202072052								
	Arsenic	ug/kg	104000	95400		91.7	78–123	MS
	Beryllium	ug/kg	77600	87000		112	84–116	MS
	Nickel	ug/kg	134000	130000		96.9	78–123	MS
	Selenium	ug/kg	286000	253000		88.6	77–123	MS
	Thallium	ug/kg	121000	102000		83.9	78–122	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2434

Contract: LANL01004

Aqueous LCS Source: GEL

Solid LCS Source:

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202075646								
	Mercury	ug/L	2	2.16		108	80-120	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2434

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202081107								
	Mercury	ug/kg	5150	5990		116	71.6–128.3	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2434

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202091940								
	Chromium	ug/kg	236000	239000		101	80–120	P
	Copper	ug/kg	174000	194000		111	81–118	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2434 **Client ID** CAMO–10–13924L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 249243001 **Serial Dilution ID:** 1202072005

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	.5	U	2.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Manganese	3.24	J	5	U	100			MS
Thallium	.3	U	4.5	J				MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2434 **Client ID** RE46-10-12997L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 249333001 **Serial Dilution ID:** 1202072042

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	5	U	25	U				P
Barium	1.05	J	5	U	100			P
Calcium	50	U	250	U				P
Chromium	1	U	5	U				P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	30	U	150	U				P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	50	U	250	U				P
Selenium	5	U	25	U				P
Silver	1	U	5	U				P
Sodium	100	U	500	U				P
Vanadium	1	U	5	U				P
Zinc	3.3	U	16.5	U				P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2434 **Client ID** RE46–10–12972L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 249333003 **Serial Dilution ID:** 1202072049

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	31400		31700		.796		10	P
Antimony	3.3	U	16.5	U				P
Barium	225		226		.222		10	P
Cadmium	1	U	5	U				P
Calcium	8410		8400		.119		10	P
Chromium	104		110		5.29		10	P
Cobalt	11.5		13	J	12.6			P
Copper	48.6		38.3	J	21.2			P
Iron	74700		75000		.402		10	P
Lead	108		110		1.39			P
Magnesium	5140		5100		.778		10	P
Manganese	1900		1920		1.05		10	P
Potassium	3740		4110		9.89		10	P
Silver	1	U	5	U				P
Sodium	1140		1110	J	3.07			P
Vanadium	63.5		64.5		1.57		10	P
Zinc	415		438		5.54		10	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2434 **Client ID** RE46-10-12972L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 249333003 **Serial Dilution ID:** 1202072055

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	7.03		5	U	100			MS
Beryllium	2.62		3.02		15.1			MS
Nickel	15.7		16.2		2.87			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.3	U	1.5	U				MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2434 **Client ID** RE16–10–14224L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 249528001 **Serial Dilution ID:** 1202075655

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2434 **Client ID** RE46-10-12728L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 249608001 **Serial Dilution ID:** 1202081110

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	2.21		1.65		25.3	E	10	AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2434 **Client ID** RE46–10–12994L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 249333002 **Serial Dilution ID:** 1202106367

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Beryllium	.1	U	.5	U				MS

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2434 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 965618							
1202072038	MB for batch 965618	MB	W	31–MAR–10	50mL	50mL	
1202072039	LCS for batch 965618	LCS	W	31–MAR–10	50mL	50mL	
1202072041	RE46–10–12997S	MS	W	31–MAR–10	50mL	50mL	
1202072040	RE46–10–12997D	DUP	W	31–MAR–10	50mL	50mL	
249333001	RE46–10–12997	SAMPLE	W	31–MAR–10	50mL	50mL	
249333002	RE46–10–12994	SAMPLE	W	31–MAR–10	50mL	50mL	
Batch Number 965623							
1202072045	MB for batch 965623	MB	S	31–MAR–10	.513g	50mL	
1202072046	LCS for batch 965623	LCS	S	31–MAR–10	.524g	50mL	
1202072048	RE46–10–12972S	MS	S	31–MAR–10	.502g	50mL	
1202072050	RE46–10–12972SD	MSD	S	31–MAR–10	.53g	50mL	
1202072047	RE46–10–12972D	DUP	S	31–MAR–10	.567g	50mL	
249333003	RE46–10–12972	SAMPLE	S	31–MAR–10	.509g	50mL	
249333004	RE46–10–13003	SAMPLE	S	31–MAR–10	.567g	50mL	
249333005	RE46–10–12967	SAMPLE	S	31–MAR–10	.502g	50mL	
249333006	RE46–10–12971	SAMPLE	S	31–MAR–10	.53g	50mL	
249333007	RE46–10–12968	SAMPLE	S	31–MAR–10	.509g	50mL	
249333008	RE46–10–12969	SAMPLE	S	31–MAR–10	.502g	50mL	
249333009	RE46–10–12970	SAMPLE	S	31–MAR–10	.5g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2434 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 973754							
1202091939	MB for batch 973754	MB	S	12-APR-10	.519g	50mL	
1202091940	LCS for batch 973754	LCS	S	12-APR-10	.504g	50mL	
1202072048	RE46-10-12972S	MS	S	12-APR-10	.519g	50mL	
1202072050	RE46-10-12972SD	MSD	S	12-APR-10	.535g	50mL	
1202072047	RE46-10-12972D	DUP	S	12-APR-10	.511g	50mL	
249333003	RE46-10-12972	SAMPLE	S	12-APR-10	.513g	50mL	
249333004	RE46-10-13003	SAMPLE	S	12-APR-10	.502g	50mL	
249333005	RE46-10-12967	SAMPLE	S	12-APR-10	.553g	50mL	
249333006	RE46-10-12971	SAMPLE	S	12-APR-10	.5g	50mL	
249333007	RE46-10-12968	SAMPLE	S	12-APR-10	.528g	50mL	
249333008	RE46-10-12969	SAMPLE	S	12-APR-10	.569g	50mL	
249333009	RE46-10-12970	SAMPLE	S	12-APR-10	.501g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2434 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 965602							
1202072001	MB for batch 965602	MB	G	26–MAR–10	50mL	50mL	
1202072002	LCS for batch 965602	LCS	G	26–MAR–10	50mL	50mL	
1202072004	CAMO–10–13924S	MS	G	26–MAR–10	50mL	50mL	
1202072003	CAMO–10–13924D	DUP	G	26–MAR–10	50mL	50mL	
249333001	RE46–10–12997	SAMPLE	W	26–MAR–10	50mL	50mL	
249333002	RE46–10–12994	SAMPLE	W	26–MAR–10	50mL	50mL	
Batch Number 965626							
1202072051	MB for batch 965626	MB	S	31–MAR–10	.518g	50mL	
1202072052	LCS for batch 965626	LCS	S	31–MAR–10	.5g	50mL	
1202072054	RE46–10–12972S	MS	S	31–MAR–10	.509g	50mL	
1202072056	RE46–10–13220SD	MSD	S	31–MAR–10	.502g	50mL	
1202072053	RE46–10–12972D	DUP	S	31–MAR–10	.516g	50mL	
249333003	RE46–10–12972	SAMPLE	S	31–MAR–10	.511g	50mL	
249333004	RE46–10–13003	SAMPLE	S	31–MAR–10	.506g	50mL	
249333005	RE46–10–12967	SAMPLE	S	31–MAR–10	.514g	50mL	
249333006	RE46–10–12971	SAMPLE	S	31–MAR–10	.507g	50mL	
249333007	RE46–10–12968	SAMPLE	S	31–MAR–10	.501g	50mL	
249333008	RE46–10–12969	SAMPLE	S	31–MAR–10	.57g	50mL	
249333009	RE46–10–12970	SAMPLE	S	31–MAR–10	.52g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2434 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 979729							
1202072001	MB for batch 965602	MB	G	30-APR-10	50mL	50mL	
1202072002	LCS for batch 965602	LCS	G	30-APR-10	50mL	50mL	
1202106368	RE46-10-12994S	MS	W	30-APR-10	50mL	50mL	
1202106366	RE46-10-12994D	DUP	W	30-APR-10	50mL	50mL	
249333001	RE46-10-12997	SAMPLE	W	30-APR-10	50mL	50mL	
249333002	RE46-10-12994	SAMPLE	W	30-APR-10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2434 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 967111							
1202075645	MB for batch 967111	MB	W	19-MAR-10	20mL	20mL	
1202075646	LCS for batch 967111	LCS	W	19-MAR-10	20mL	20mL	
1202075648	RE16-10-14224S	MS	W	19-MAR-10	20mL	20mL	
1202075647	RE16-10-14224D	DUP	W	19-MAR-10	20mL	20mL	
249333001	RE46-10-12997	SAMPLE	W	19-MAR-10	20mL	20mL	
249333002	RE46-10-12994	SAMPLE	W	19-MAR-10	20mL	20mL	
Batch Number 969295							
1202081106	MB for batch 969295	MB	S	30-MAR-10	.502g	30mL	
1202081107	LCS for batch 969295	LCS	S	30-MAR-10	.202g	30mL	
1202081109	RE46-10-12728S	MS	S	30-MAR-10	.521g	30mL	
1202081111	RE46-10-12728SD	MSD	S	30-MAR-10	.523g	30mL	
1202081108	RE46-10-12728D	DUP	S	30-MAR-10	.561g	30mL	
249333003	RE46-10-12972	SAMPLE	S	30-MAR-10	.543g	30mL	
249333004	RE46-10-13003	SAMPLE	S	30-MAR-10	.598g	30mL	
249333005	RE46-10-12967	SAMPLE	S	30-MAR-10	.539g	30mL	
249333006	RE46-10-12971	SAMPLE	S	30-MAR-10	.529g	30mL	
249333007	RE46-10-12968	SAMPLE	S	30-MAR-10	.567g	30mL	
249333008	RE46-10-12969	SAMPLE	S	30-MAR-10	.539g	30mL	
249333009	RE46-10-12970	SAMPLE	S	30-MAR-10	.6g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 15–APR–10 **End Date:** 15–APR–10

Client Sdg: 10–2434
Method P
Data File: 041510A–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	16:13:00								X		X													
S0.1	1	16:19:00								X		X													
S0.5	1	16:26:00								X		X													
SCAL	1	16:33:00								X		X													
S10	1	16:40:00																							
ICV01	1	16:46:00								X		X													
ICB01	1	16:53:00								X		X													
PQL01	1	16:59:00								X		X													
ICSA01	1	17:06:00								X		X													
ICSAB01	1	17:13:00								X		X													
LR01	1	17:20:00								X		X													
LR02	1	17:27:00								X		X													
CCV01	1	17:33:00								X		X													
CCB01	1	17:40:00								X		X													
LR03	1	17:53:00								X		X													
CCV02	1	17:59:00								X		X													
CCB02	1	18:06:00								X		X													
ZZZZZZ	1	18:13:00																							
ZZZZZZ	1	18:20:00																							
ZZZZZZ	1	18:27:00																							
ZZZZZZ	1	18:34:00																							
ZZZZZZ	1	18:41:00																							
ZZZZZZ	5	18:48:00																							
ZZZZZZ	1	18:55:00																							
ZZZZZZ	1	19:02:00																							
CCV03	1	19:08:00								X		X													
CCB03	1	19:15:00								X		X													
1202091939	1	19:22:00								X		X													
1202091940	1	19:29:00								X		X													
249333003	1	19:35:00								X		X													
1202072047	1	19:42:00								X		X													
1202072048	1	19:49:00								X		X													
1202072050	1	19:55:00								X		X													
1202072049	5	20:02:00								X		X													
ZZZZZZ	1	20:09:00																							
ZZZZZZ	1	20:16:00																							
CCV04	1	20:23:00								X		X													
CCB04	1	20:30:00								X		X													
ZZZZZZ	1	20:36:00																							
ZZZZZZ	1	20:43:00																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	20:50:00																						
ZZZZZZ	1	20:57:00																						
ZZZZZZ	1	21:04:00																						
ZZZZZZ	1	21:11:00																						
ZZZZZZ	1	21:18:00																						
ZZZZZZ	1	21:25:00																						
CCV05	1	21:31:00							X		X													
CCB05	1	21:38:00							X		X													
ZZZZZZ	1	21:45:00																						
ZZZZZZ	1	21:52:00																						
249333004	1	21:59:00							X		X													
249333005	1	22:05:00							X		X													
249333006	1	22:12:00							X		X													
249333007	1	22:19:00							X		X													
249333008	1	22:26:00							X		X													
249333009	1	22:33:00							X		X													
CCV06	1	22:40:00							X		X													
CCB06	1	22:46:00							X		X													

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 22-MAR-10 **End Date:** 22-MAR-10

Client Sdg: 10-2434
Method AV
Data File: 032210W1-10

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	09:14:00															X								
S0.2	1	09:15:00															X								
S0.5	1	09:17:00															X								
S2.0	1	09:19:00															X								
S5.0	1	09:21:00															X								
S10.0	1	09:23:00															X								
ICV01	1	09:25:00															X								
ICB01	1	09:27:00															X								
CRDL01	1	09:29:00															X								
CCV01	1	09:31:00															X								
CCB01	1	09:33:00															X								
ZZZZZZ	1	09:35:00																							
ZZZZZZ	1	09:37:00																							
ZZZZZZ	1	09:39:00																							
ZZZZZZ	1	09:40:00																							
ZZZZZZ	1	09:42:00																							
ZZZZZZ	1	09:44:00																							
ZZZZZZ	1	09:46:00																							
ZZZZZZ	1	09:48:00																							
ZZZZZZ	1	09:50:00																							
ZZZZZZ	1	09:52:00																							
CCV02	1	09:54:00															X								
CCB02	1	09:56:00															X								
ZZZZZZ	1	09:58:00																							
ZZZZZZ	5	10:00:00																							
ZZZZZZ	1	10:02:00																							
ZZZZZZ	1	10:04:00																							
ZZZZZZ	1	10:06:00																							
ZZZZZZ	1	10:07:00																							
ZZZZZZ	1	10:09:00																							
ZZZZZZ	5	10:11:00																							
ZZZZZZ	1	10:13:00																							
ZZZZZZ	1	10:15:00																							
CCV03	1	10:17:00															X								
CCB03	1	10:19:00															X								
ZZZZZZ	1	10:21:00																							
ZZZZZZ	1	10:23:00																							
ZZZZZZ	1	10:25:00																							
ZZZZZZ	1	10:27:00																							
ZZZZZZ	1	10:29:00																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	10:31:00																							
ZZZZZZ	1	10:32:00																							
ZZZZZZ	1	10:34:00																							
ZZZZZZ	1	10:36:00																							
ZZZZZZ	1	10:38:00																							
CCV04	1	10:40:00														X									
CCB04	1	10:42:00														X									
ZZZZZZ	1	10:44:00																							
ZZZZZZ	5	10:46:00																							
ZZZZZZ	1	10:48:00																							
ZZZZZZ	1	10:50:00																							
ZZZZZZ	1	10:52:00																							
ZZZZZZ	1	10:54:00																							
ZZZZZZ	1	10:56:00																							
ZZZZZZ	1	10:57:00																							
ZZZZZZ	1	10:59:00																							
ZZZZZZ	5	11:01:00																							
CCV05	1	11:03:00														X									
CCB05	1	11:05:00														X									
1202075645	1	11:07:00														X									
1202075646	1	11:09:00														X									
ZZZZZZ	1	11:11:00																							
ZZZZZZ	1	11:13:00																							
ZZZZZZ	1	11:15:00																							
ZZZZZZ	1	11:17:00																							
ZZZZZZ	1	11:19:00																							
ZZZZZZ	1	11:21:00																							
ZZZZZZ	1	11:23:00																							
ZZZZZZ	1	11:25:00																							
CCV06	1	11:26:00														X									
CCB06	1	11:28:00														X									
ZZZZZZ	1	11:30:00																							
ZZZZZZ	1	11:32:00																							
ZZZZZZ	1	11:34:00																							
ZZZZZZ	1	11:36:00																							
ZZZZZZ	1	11:38:00																							
ZZZZZZ	1	11:40:00																							
249333001	1	11:42:00														X									
249333002	1	11:44:00														X									
ZZZZZZ	1	11:46:00																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	11:48:00																							
CCV07	1	11:50:00															X								
CCB07	1	11:52:00															X								
ZZZZZZ	1	11:53:00																							
1202075647	1	11:55:00															X								
1202075648	1	11:57:00															X								
1202075655	5	11:59:00															X								
ZZZZZZ	1	12:01:00																							
ZZZZZZ	1	12:03:00																							
ZZZZZZ	1	12:05:00																							
ZZZZZZ	1	12:07:00																							
ZZZZZZ	5	12:09:00																							
ZZZZZZ	1	12:11:00																							
CCV08	1	12:13:00															X								
CCB08	1	12:15:00															X								

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 01–APR–10 **End Date:** 01–APR–10

Client Sdg: 10–2434
Method P
Data File: 040110–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	12:20:59	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
S0.1	1	12:23:57			X	X				X	X	X						X	X	X	X			X	X
S0.5	1	12:25:55	X		X	X			X	X	X	X			X			X	X	X	X			X	X
SCAL	1	12:27:54	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
S10	1	12:29:58	X						X				X		X							X			
ICV01	1	12:31:02	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ICB01	1	12:32:22	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
PQL01	1	12:35:19	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ICSA01	1	12:37:21	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ICSAB01	1	12:39:20	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
LR01	1	12:40:26	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
LR02	1	12:41:43	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCV01	1	12:43:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB01	1	12:45:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCV02	1	12:50:03	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB02	1	12:52:16	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCV03	1	13:30:04	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB03	1	13:32:04	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	13:35:01																							
ZZZZZZ	1	13:38:00																							
ZZZZZZ	50	13:40:00																							
ZZZZZZ	50	13:43:05																							
ZZZZZZ	50	13:45:56																							
ZZZZZZ	250	13:47:54																							
ZZZZZZ	50	13:50:59																							
ZZZZZZ	50	13:54:05																							
ZZZZZZ	50	13:56:56																							
CCV04	1	13:59:47	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB04	1	14:01:50	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	14:04:47																							
ZZZZZZ	1	14:07:47																							
ZZZZZZ	1	14:09:46																							
ZZZZZZ	1	14:11:58																							
ZZZZZZ	1	14:14:09																							
ZZZZZZ	5	14:16:23																							
ZZZZZZ	1	14:19:29																							
CCV05	1	14:21:40	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB05	1	14:23:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	14:26:39																							
ZZZZZZ	1	14:29:38																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	14:31:38																							
ZZZZZZ	1	14:34:29																							
ZZZZZZ	1	14:37:20																							
ZZZZZZ	5	14:39:33																							
CCV06	1	14:42:39	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB06	1	14:44:55	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	14:47:52																							
ZZZZZZ	1	14:50:47																							
ZZZZZZ	1	14:53:53																							
ZZZZZZ	1	14:56:58																							
ZZZZZZ	1	14:59:50																							
ZZZZZZ	1	15:02:43																							
ZZZZZZ	1	15:05:36																							
CCV07	1	15:08:42	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB07	1	15:10:43	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	15:13:54																							
ZZZZZZ	1	15:17:07																							
ZZZZZZ	1	15:19:20																							
ZZZZZZ	1	15:22:25																							
ZZZZZZ	1	15:25:16																							
ZZZZZZ	5	15:27:30																							
ZZZZZZ	1	15:30:35																							
ZZZZZZ	1	15:33:26																							
ZZZZZZ	1	15:36:18																							
CCV08	1	15:39:10	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB08	1	15:41:11	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202072038	1	15:44:23	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202072039	1	15:47:21	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
249333001	1	15:49:21	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202072040	1	15:52:31	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202072041	1	15:55:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202072042	5	15:57:55	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	16:01:06																							
ZZZZZZ	1	16:03:18																							
CCV09	1	16:06:10	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB09	1	16:08:26	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	16:11:38																							
ZZZZZZ	1	16:13:38																							
ZZZZZZ	1	16:15:49																							
ZZZZZZ	1	16:18:45																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	16:21:41																							
ZZZZZZ	1	16:24:52																							
249333002	1	16:28:05	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCV10	1	16:30:07	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB10	1	16:32:09	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 05–APR–10 **End Date:** 05–APR–10

Client Sdg: 10–2434
Method P
Data File: 040510–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	10:13:47	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
S0.1	1	10:16:46		X		X		X			X			X		X			X		X			X	X
S0.5	1	10:18:43	X	X		X		X	X		X			X	X	X			X		X			X	X
SCAL	1	10:20:41	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
S10	1	10:22:45	X						X				X		X							X			
ICV01	1	10:23:35	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ICB01	1	10:25:34	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
PQL01	1	10:28:44	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ICSA01	1	10:30:46	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ICSAB01	1	10:32:47	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
LR01	1	10:33:52	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
LR02	1	10:34:56	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCV01	1	10:36:23	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB01	1	10:38:38	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCV02	1	10:49:38	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB02	1	10:51:51	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	10:59:53																							
ZZZZZZ	1	11:02:52																							
ZZZZZZ	1	11:04:51																							
ZZZZZZ	1	11:06:48																							
ZZZZZZ	1	11:09:00																							
ZZZZZZ	5	11:11:00																							
ZZZZZZ	1	11:14:06																							
ZZZZZZ	1	11:16:04																							
ZZZZZZ	1	11:18:02																							
ZZZZZZ	1	11:20:17																							
CCV03	1	11:21:36	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB03	1	11:23:37	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	50	11:26:32																							
CCV04	1	11:29:29	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB04	1	11:31:43	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	11:39:33																							
ZZZZZZ	1	11:42:30																							
ZZZZZZ	1	11:43:52																							
ZZZZZZ	1	11:45:56																							
ZZZZZZ	1	11:48:00																							
ZZZZZZ	1	11:49:08																							
ZZZZZZ	5	11:50:20																							
CCV05	1	11:52:23	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB05	1	11:54:25	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	11:57:21																							
ZZZZZZ	1	11:59:22																							
ZZZZZZ	1	12:01:21																							
ZZZZZZ	1	12:03:34																							
ZZZZZZ	1	12:05:52																							
ZZZZZZ	1	12:08:09																							
ZZZZZZ	1	12:10:08																							
ZZZZZZ	1	12:12:12																							
ZZZZZZ	1	12:14:30																							
CCV06	1	12:16:34	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB06	1	12:18:49	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	12:21:45																							
ZZZZZZ	1	12:23:45																							
ZZZZZZ	1	12:26:05																							
ZZZZZZ	1	12:28:05																							
ZZZZZZ	1	12:30:03																							
ZZZZZZ	1	12:32:23																							
ZZZZZZ	1	12:34:21																							
ZZZZZZ	1	12:36:40																							
ZZZZZZ	1	12:38:52																							
CCV07	1	12:41:04	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB07	1	12:43:18	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	12:47:04																							
ZZZZZZ	1	12:50:02																							
ZZZZZZ	1	12:52:06																							
ZZZZZZ	1	12:54:12																							
ZZZZZZ	1	12:56:30																							
ZZZZZZ	1	12:58:28																							
ZZZZZZ	5	13:00:34																							
CCV08	1	13:02:50	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB08	1	13:04:51	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	13:08:02																							
ZZZZZZ	1	13:10:18																							
ZZZZZZ	1	13:12:31																							
ZZZZZZ	1	13:14:44																							
ZZZZZZ	1	13:16:57																							
CCV09	1	13:19:15	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB09	1	13:21:29	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	13:29:13																							
ZZZZZZ	1	13:32:11																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	13:33:39																							
ZZZZZZ	1	13:35:42																							
ZZZZZZ	1	13:37:41																							
ZZZZZZ	1	13:38:45																							
ZZZZZZ	5	13:39:49																							
CCV10	1	13:42:06	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB10	1	13:44:07	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	13:47:03																							
ZZZZZZ	1	13:49:23																							
ZZZZZZ	1	13:51:22																							
ZZZZZZ	1	13:53:20																							
ZZZZZZ	1	13:55:19																							
CCV11	1	13:57:17	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB11	1	13:59:32	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCV12	1	14:22:36	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB12	1	14:24:50	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	14:28:01																							
ZZZZZZ	1	14:31:00																							
ZZZZZZ	1	14:33:13																							
ZZZZZZ	1	14:36:20																							
ZZZZZZ	1	14:39:27																							
ZZZZZZ	5	14:41:41																							
ZZZZZZ	1	14:44:33																							
ZZZZZZ	1	14:47:40																							
ZZZZZZ	1	14:49:53																							
ZZZZZZ	1	14:52:46																							
CCV13	1	14:55:52	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB13	1	14:58:07	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	15:01:18																							
ZZZZZZ	1	15:04:31																							
ZZZZZZ	1	15:05:54																							
ZZZZZZ	1	15:08:07																							
ZZZZZZ	1	15:10:20																							
ZZZZZZ	1	15:11:26																							
ZZZZZZ	5	15:12:34																							
ZZZZZZ	1	15:14:38																							
CCV14	1	15:16:50	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB14	1	15:19:06	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCV15	1	15:42:57	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB15	1	15:45:12	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	15:48:24																							
ZZZZZZ	1	15:51:37																							
ZZZZZZ	1	15:53:00																							
ZZZZZZ	1	15:54:59																							
ZZZZZZ	1	15:57:11																							
ZZZZZZ	1	15:58:16																							
ZZZZZZ	5	15:59:35																							
CCV16	1	16:01:51	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB16	1	16:03:52	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	16:06:49																							
ZZZZZZ	1	16:08:49																							
ZZZZZZ	1	16:10:53																							
ZZZZZZ	1	16:12:51																							
ZZZZZZ	1	16:15:04																							
ZZZZZZ	1	16:17:02																							
CCV17	1	16:19:00	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB17	1	16:21:14	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	16:24:26																							
ZZZZZZ	1	16:27:25																							
ZZZZZZ	1	16:28:35																							
ZZZZZZ	1	16:30:48																							
ZZZZZZ	1	16:32:47																							
ZZZZZZ	1	16:33:52																							
ZZZZZZ	5	16:34:58																							
CCV18	1	16:37:14	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB18	1	16:39:29	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	16:42:40																							
ZZZZZZ	1	16:44:54																							
ZZZZZZ	1	16:47:06																							
ZZZZZZ	1	16:49:05																							
CCV19	1	16:51:03	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB19	1	16:53:18	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	16:56:30																							
ZZZZZZ	1	16:59:42																							
ZZZZZZ	1	17:00:51																							
ZZZZZZ	1	17:03:04																							
ZZZZZZ	1	17:05:25																							
ZZZZZZ	1	17:06:45																							
ZZZZZZ	5	17:08:06																							
CCV20	1	17:10:09	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
CCB20	1	17:12:25	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	17:15:37																							
ZZZZZZ	1	17:17:53																							
ZZZZZZ	1	17:20:07																							
ZZZZZZ	1	17:22:06																							
ZZZZZZ	1	17:24:24																							
CCV21	1	17:26:37	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB21	1	17:28:38	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	17:31:51																							
ZZZZZZ	1	17:34:49																							
ZZZZZZ	1	17:36:11																							
ZZZZZZ	1	17:38:24																							
ZZZZZZ	1	17:40:38																							
ZZZZZZ	1	17:42:01																							
ZZZZZZ	5	17:43:23																							
CCV22	1	17:45:41	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB22	1	17:47:57	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	17:50:55																							
ZZZZZZ	1	17:53:15																							
ZZZZZZ	1	17:55:36																							
ZZZZZZ	1	17:57:55																							
ZZZZZZ	1	18:00:14																							
ZZZZZZ	1	18:02:32																							
ZZZZZZ	1	18:04:45																							
CCV23	1	18:06:43	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB23	1	18:08:57	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	18:12:07																							
ZZZZZZ	1	18:14:21																							
ZZZZZZ	1	18:16:21																							
ZZZZZZ	1	18:18:13																							
ZZZZZZ	1	18:20:26																							
ZZZZZZ	1	18:22:33																							
ZZZZZZ	1	18:24:53																							
CCV24	1	18:27:07	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB24	1	18:29:22	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	18:32:32																							
ZZZZZZ	1	18:35:46																							
ZZZZZZ	1	18:36:55																							
ZZZZZZ	1	18:39:14																							
ZZZZZZ	1	18:41:27																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	18:42:47																							
ZZZZZZ	5	18:43:54																							
CCV25	1	18:46:10	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB25	1	18:48:12	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	18:51:22																							
ZZZZZZ	1	18:53:43																							
ZZZZZZ	1	18:55:46																							
ZZZZZZ	1	18:58:03																							
ZZZZZZ	1	19:00:22																							
CCV26	1	19:02:25	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB26	1	19:04:40	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
1202072045	1	19:07:36	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
1202072046	1	19:10:50	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
249333003	1	19:11:58	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
1202072047	1	19:14:11	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
1202072048	1	19:16:10	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
1202072050	1	19:17:15	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
1202072049	5	19:18:33	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:20:50																							
ZZZZZZ	1	19:22:49																							
CCV27	1	19:24:47	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB27	1	19:27:02	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:30:12																							
ZZZZZZ	1	19:32:12																							
ZZZZZZ	1	19:34:24																							
ZZZZZZ	1	19:36:23																							
ZZZZZZ	1	19:38:21																							
ZZZZZZ	1	19:40:19																							
ZZZZZZ	1	19:42:22																							
ZZZZZZ	1	19:44:34																							
CCV28	1	19:46:46	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB28	1	19:48:48	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:51:58																							
ZZZZZZ	1	19:53:59																							
249333004	1	19:55:57	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
249333005	1	19:57:59	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
249333006	1	19:59:58	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
249333007	1	20:02:11	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
249333008	1	20:04:09	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
249333009	1	20:06:08	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
CCV29	1	20:08:07	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB29	1	20:10:24	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS7
Start Date: 18–MAY–10 **End Date:** 18–MAY–10

Client Sdg: 10–2434
Method MS
Data File: 100517–9

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	08:34:04					X																		
S10	1	08:34:45					X																		
S100	1	08:35:26					X																		
ICV01	1	08:36:06					X																		
ICB01	1	08:36:49					X																		
CRDL01	1	08:37:30					X																		
ICSA01	1	08:38:12					X																		
ICSAB01	1	08:38:53					X																		
CCV01	1	08:39:35					X																		
CCB01	1	08:40:18					X																		
1202072051	2	08:41:01					X																		
1202072052	40	08:41:43					X																		
ZZZZZZ	2	08:42:26																							
ZZZZZZ	2	08:43:08																							
ZZZZZZ	2	08:43:51																							
ZZZZZZ	2	08:44:34																							
ZZZZZZ	2	08:45:17																							
ZZZZZZ	2	08:45:59																							
ZZZZZZ	2	08:46:42																							
ZZZZZZ	2	08:47:25																							
CCV02	1	08:48:07					X																		
CCB02	1	08:48:50					X																		
ZZZZZZ	2	08:49:32																							
ZZZZZZ	2	08:50:15																							
ZZZZZZ	2	08:50:58																							
ZZZZZZ	2	08:51:41																							
249333003	2	08:52:24					X																		
1202072053	2	08:53:07					X																		
1202072054	2	08:53:50					X																		
1202072056	2	08:54:33					X																		
1202072055	10	08:55:14					X																		
CCV03	1	08:55:56					X																		
CCB03	1	08:56:39					X																		
249333004	2	08:57:20					X																		
249333005	2	08:58:01					X																		
249333006	2	08:58:42					X																		
249333007	2	08:59:23					X																		
249333008	2	09:00:05					X																		
249333009	2	09:00:47					X																		
CCV04	1	09:01:28					X																		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
CCB04	1	09:02:11					X																		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 31–MAR–10 **End Date:** 31–MAR–10

Client Sdg: 10–2434
Method AV
Data File: 033110S1–11

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	08:39:00															X								
S0.2	1	08:41:00															X								
S0.5	1	08:43:00															X								
S2.0	1	08:45:00															X								
S5.0	1	08:47:00															X								
S10	1	08:49:00															X								
ICV01	1	08:51:00															X								
ICB01	1	08:53:00															X								
CRDL01	1	08:55:00															X								
CCV01	1	08:57:00															X								
CCB01	1	08:59:00															X								
ZZZZZZ	1	09:01:00																							
ZZZZZZ	10	09:03:00																							
ZZZZZZ	1	09:05:00																							
ZZZZZZ	1	09:07:00																							
ZZZZZZ	1	09:09:00																							
ZZZZZZ	1	09:11:00																							
ZZZZZZ	1	09:13:00																							
ZZZZZZ	1	09:15:00																							
ZZZZZZ	1	09:17:00																							
ZZZZZZ	1	09:19:00																							
CCV02	1	09:21:00															X								
CCB02	1	09:23:00															X								
ZZZZZZ	1	09:25:00																							
ZZZZZZ	1	09:27:00																							
ZZZZZZ	1	09:29:00																							
ZZZZZZ	1	09:31:00																							
ZZZZZZ	1	09:33:00																							
ZZZZZZ	1	09:35:00																							
ZZZZZZ	5	09:37:00																							
ZZZZZZ	1	09:39:00																							
ZZZZZZ	1	09:41:00																							
ZZZZZZ	1	09:43:00																							
CCV03	1	09:45:00															X								
CCB03	1	09:47:00															X								
ZZZZZZ	1	09:49:00																							
ZZZZZZ	1	09:51:00																							
ZZZZZZ	1	09:53:00																							
ZZZZZZ	1	09:55:00																							
1202081106	1	09:56:00															X								

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																						
1202081107	10	09:58:00														X								
ZZZZZZ	1	10:00:00																						
ZZZZZZ	1	10:02:00																						
ZZZZZZ	1	10:04:00																						
CCV04	1	10:17:00														X								
CCB04	1	10:19:00														X								
ZZZZZZ	10	10:21:00																						
ZZZZZZ	200	10:24:00																						
ZZZZZZ	10	10:26:00																						
ZZZZZZ	10	10:27:00																						
249333003	10	10:29:00														X								
249333004	10	10:31:00														X								
ZZZZZZ	500	10:33:00																						
ZZZZZZ	1	10:35:00																						
CCV05	1	10:41:00														X								
CCB05	1	10:43:00														X								
249333005	1000	10:45:00														X								
249333006	200	10:47:00														X								
ZZZZZZ	100	10:49:00																						
ZZZZZZ	100	10:51:00																						
ZZZZZZ	100	10:53:00																						
ZZZZZZ	1	10:55:00																						
ZZZZZZ	1	10:57:00																						
ZZZZZZ	1	10:59:00																						
ZZZZZZ	1	11:01:00																						
ZZZZZZ	1	11:03:00																						
CCV06	1	11:05:00														X								
CCB06	1	11:07:00														X								
ZZZZZZ	1	11:09:00																						
ZZZZZZ	1	11:11:00																						
ZZZZZZ	1	11:12:00																						
ZZZZZZ	1	11:14:00																						
ZZZZZZ	1	11:16:00																						
ZZZZZZ	5	11:18:00																						
ZZZZZZ	1	11:20:00																						
ZZZZZZ	1	11:22:00																						
ZZZZZZ	1	11:24:00																						
ZZZZZZ	1	11:26:00																						
CCV07	1	11:28:00														X								
CCB07	1	11:30:00														X								

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	11:32:00																							
ZZZZZZ	1	11:34:00																							
ZZZZZZ	1	11:36:00																							
ZZZZZZ	1	11:38:00																							
ZZZZZZ	1	11:40:00																							
ZZZZZZ	5	11:42:00																							
ZZZZZZ	1	11:44:00																							
ZZZZZZ	1	11:46:00																							
ZZZZZZ	1	11:48:00																							
ZZZZZZ	1	11:50:00																							
CCV08	1	11:52:00															X								
CCB08	1	11:54:00															X								
ZZZZZZ	1	11:56:00																							
ZZZZZZ	1	11:58:00																							
ZZZZZZ	1	12:00:00																							
ZZZZZZ	1	12:02:00																							
ZZZZZZ	1	12:04:00																							
ZZZZZZ	1	12:06:00																							
CCV09	1	12:08:00															X								
CCB09	1	12:10:00															X								
249333007	10000	12:26:00															X								
ZZZZZZ	1	12:28:00																							
249333009	1	12:30:00															X								
ZZZZZZ	10	12:32:00																							
1202081108	10	12:34:00															X								
1202081109	10	12:36:00															X								
1202081111	10	12:38:00															X								
1202081110	50	12:39:00															X								
ZZZZZZ	10	12:41:00																							
CCV10	1	12:43:00															X								
CCB10	1	12:46:00															X								
249333008	10	12:51:00															X								
CCV11	1	12:53:00															X								
CCB11	1	12:55:00															X								

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 24–APR–10 **End Date:** 24–APR–10

Client Sdg: 10–2434
Method MS
Data File: 100424–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	17:38:00		X				X						X		X							X		
S10	1	17:44:00		X				X						X		X							X		
S100	1	17:50:00		X				X						X		X							X		
ICV01	1	17:57:00		X				X						X		X							X		
ICB01	1	18:03:00		X				X						X		X							X		
CRDL01	1	18:09:00		X				X						X		X							X		
ICSA01	1	18:15:00		X				X						X		X							X		
ICSAB01	1	18:21:00		X				X						X		X							X		
CCV01	1	18:27:00		X				X						X		X							X		
CCB01	1	18:33:00		X				X						X		X							X		
LR01	1	18:40:00		X				X						X		X							X		
CCV02	1	18:46:00		X				X						X		X							X		
CCB02	1	18:52:00		X				X						X		X							X		
1202072001	1	18:58:00		X				X						X		X							X		
1202072002	1	19:04:00		X				X						X		X							X		
ZZZZZZ	1	19:10:00																							
ZZZZZZ	1	19:16:00																							
ZZZZZZ	1	19:23:00																							
ZZZZZZ	1	19:29:00																							
ZZZZZZ	1	19:35:00																							
ZZZZZZ	1	19:41:00																							
ZZZZZZ	1	19:47:00																							
ZZZZZZ	1	19:53:00																							
CCV03	1	19:59:00		X				X						X		X							X		
CCB03	1	20:05:00		X				X						X		X							X		
1202072003	1	20:12:00		X				X						X		X							X		
1202072004	1	20:18:00		X				X						X		X							X		
1202072005	5	20:24:00		X				X						X		X							X		
ZZZZZZ	1	20:30:00																							
ZZZZZZ	1	20:36:00																							
ZZZZZZ	1	20:42:00																							
ZZZZZZ	1	20:49:00																							
ZZZZZZ	1	20:55:00																							
249333001	1	21:01:00		X				X						X		X							X		
249333002	1	21:07:00		X				X						X		X							X		
CCV04	1	21:13:00		X				X						X		X							X		
CCB04	1	21:19:00		X				X						X		X							X		

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 14–MAY–10 **End Date:** 15–MAY–10

Client Sdg: 10–2434
Method MS
Data File: 100514–6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	23:53:00					X																		
S10	1	00:00:00					X																		
S100	1	00:06:00					X																		
ICV01	1	00:12:00					X																		
ICB01	1	00:18:00					X																		
CRDL01	1	00:24:00					X																		
ICSA01	1	00:30:00					X																		
ICSAB01	1	00:36:00					X																		
CCV01	1	00:42:00					X																		
CCB01	1	00:49:00					X																		
LR01	1	00:55:00					X																		
CCV02	1	01:01:00					X																		
CCB02	1	01:07:00					X																		
ZZZZZZ	1	01:13:00																							
ZZZZZZ	1	01:19:00																							
ZZZZZZ	1	01:25:00																							
ZZZZZZ	1	01:32:00																							
ZZZZZZ	1	01:38:00																							
ZZZZZZ	5	01:44:00																							
CCV03	1	01:50:00					X																		
CCB03	1	01:56:00					X																		
ZZZZZZ	1	02:02:00																							
ZZZZZZ	1	02:09:00																							
ZZZZZZ	1	02:15:00																							
ZZZZZZ	1	02:21:00																							
ZZZZZZ	1	02:27:00																							
CCV04	1	02:33:00					X																		
CCB04	1	02:39:00					X																		
1202072001	1	02:46:00					X																		
1202072002	1	02:52:00					X																		
ZZZZZZ	1	02:58:00																							
ZZZZZZ	1	03:04:00																							
ZZZZZZ	1	03:10:00																							
ZZZZZZ	1	03:16:00																							
249333001	1	03:23:00					X																		
CCV05	1	03:29:00					X																		
CCB05	1	03:35:00					X																		
249333002	1	03:41:00					X																		
1202106366	1	03:47:00					X																		
1202106368	1	03:53:00					X																		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
1202106367	5	04:00:00					X																		
CCV06	1	04:06:00					X																		
CCB06	1	04:12:00					X																		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 16-MAY-10 **End Date:** 16-MAY-10

Client Sdg: 10-2434
Method MS
Data File: 100515-7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	07:09:00			X													X		X			X		
S10	1	07:13:00			X													X		X			X		
S100	1	07:17:00			X													X		X			X		
ICV01	1	07:21:00			X													X		X			X		
ICB01	1	07:25:00			X													X		X			X		
CRDL01	1	07:29:00			X													X		X			X		
ICSA01	1	07:33:00			X													X		X			X		
ICSAB01	1	07:37:00			X													X		X			X		
CCV01	1	07:41:00			X													X		X			X		
CCB01	1	07:46:00			X													X		X			X		
LR01	1	07:50:00			X													X		X			X		
CCV02	1	07:54:00			X													X		X			X		
CCB02	1	07:58:00			X													X		X			X		
1202072051	2	08:02:00			X													X		X			X		
1202072052	240	08:06:00			X													X		X			X		
ZZZZZZ	2	08:10:00																							
ZZZZZZ	2	08:15:00																							
ZZZZZZ	2	08:19:00																							
ZZZZZZ	2	08:23:00																							
ZZZZZZ	2	08:27:00																							
ZZZZZZ	2	08:31:00																							
ZZZZZZ	2	08:36:00																							
ZZZZZZ	2	08:40:00																							
CCV03	1	08:44:00			X													X		X			X		
CCB03	1	08:48:00			X													X		X			X		
ZZZZZZ	2	08:52:00																							
ZZZZZZ	2	08:57:00																							
ZZZZZZ	2	09:01:00																							
ZZZZZZ	2	09:05:00																							
249333003	2	09:09:00			X													X		X			X		
1202072053	2	09:13:00			X													X		X			X		
1202072054	2	09:18:00			X													X		X			X		
1202072056	2	09:22:00			X													X		X			X		
1202072055	10	09:26:00			X													X		X			X		
CCV04	1	09:30:00			X													X		X			X		
CCB04	1	09:34:00			X													X		X			X		
249333004	2	09:38:00			X													X		X			X		
249333005	2	09:42:00			X													X		X			X		
249333006	2	09:47:00			X													X		X			X		
249333007	2	09:51:00			X													X		X			X		

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Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
249333008	2	09:55:00			X													X		X			X		
249333009	2	09:59:00			X													X		X			X		
CCV05	1	10:03:00			X													X		X			X		
CCB05	1	10:07:00			X													X		X			X		

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2434

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		3.0	10
	Zinc		3.0	10
SOLID	Aluminum		15.0	30
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	200
	Chromium		1.0	10
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2434

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2434

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09
Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2
LIQUID	Mercury		0.066	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2434

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	200
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	100
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	150

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2434

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	300
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2434
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00474	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.23816	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.24933	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.22655	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.11304	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	213.857	0.00000	0.00000	0.00000	0.00000	0.00000
	292.402	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-2434
Contract: LANL01004
Instrument: OPTIMA3 **Effective Dates:** 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.95244
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	236.11
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.58971	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	213.857	0.00000	0.00000	0.00000	0.00000	1.39578
	292.402	0.00000	0.00000	0.36818	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2434
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02751	0.00000	0.00000	0.00000	-19.1800
Arsenic	188.979	-0.13126	0.00000	0.00000	0.00000	1.35094
Barium	233.527	-0.05648	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.10489	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.08978	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01565	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.06697	0.00000	0.00000	0.00000	0.52273
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.10233	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	0.59882	0.00000	0.00000	0.00000	-9.53389
Manganese	257.61	-0.10168	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.06900	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.00094	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.42453	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-2.29024	0.00000	0.00000	0.00000	-3.07287
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.30508	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-6.66097	0.00000
Tin	189.927	-0.01649	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07515	0.00000	0.00000
Uranium	409.014	0.26861	0.00000	0.00000	0.00000	0.00000
Vanadium	213.857	0.13501	0.00000	0.00000	0.00000	0.00000
	292.402	0.14665	0.00000	-0.01931	0.00000	-14.4408

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2434
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silica
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	213.857	6.37026	0.00000	0.00000	0.00000	0.00000
	292.402	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2434
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	213.857	0.00000	0.00000	0.00000	0.00000	0.00000
	292.402	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2434
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-16.9980	3.16782	0.00000	-2.17579	0.00000
Arsenic	188.979	0.00000	-7.87903	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.43351	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.06265	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-9.76181	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	213.857	0.00000	0.00000	0.00000	0.00000	0.00000
	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2434
Contract: LANL01004
Instrument: OPTIMA4
Effective Dates: 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2434
Effective Dates: 22-MAR-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
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Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2434
Contract: LANL01004
Instrument: OPTIMA4
Effective Dates: 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-2434
Contract: LANL01004
Instrument: OPTIMA4 **Effective Dates:** 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barinm	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-2434
Contract: LANL01004
Instrument: OPTIMA4 **Effective Dates:** 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2434
Effective Dates: 22-MAR-10

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
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Linear Ranges

SDG NO. 10–2434

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
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Linear Ranges

SDG NO. 10–2434

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

METALS
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Linear Ranges

SDG NO. 10–2434

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

METALS
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Linear Ranges

SDG NO. 10–2434

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS7

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2434

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS4

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 052010

Sample ID: Hg_ReAlign

Hg 253.652 **Rep: 1**

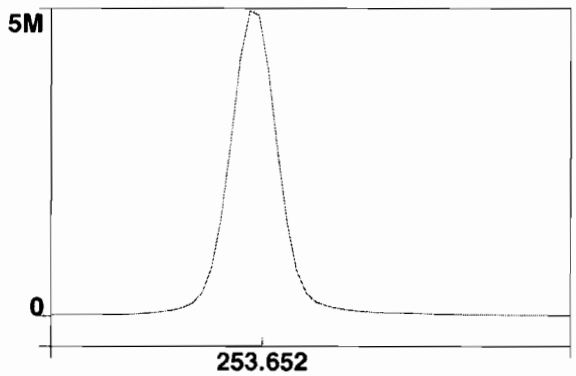

Intensity: 5021818.9 cps
Conc:

1

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Analysis Begun

Start Time: 4/15/2010 16:13:07 **Plasma On Time: 4/15/2010 06:47:48**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\041510.sif
Batch ID:
Results Data Set: 041510A
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 4/15/2010 16:10:37**
IEC File: 040610.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 4/15/2010 16:13:09**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3244.4	3244.4	100	%	16:15:21
1	Y RADIAL	3654.6	3654.6	100.3	%	16:15:01
1	Al 396.153Radial†	-123.4	-123.4	[0.00]	ug/L	16:15:01

1	Ca 317.933Radial†	8.6	8.6	[0.00]	ug/L	16:15:21
1	Fe 238.204 Radial†	3.1	3.1	[0.00]	ug/L	16:15:21
1	K 766.490 Radial†	3204.8	3203.7	[0.00]	ug/L	16:15:01
1	Mg 279.077 IEC†	-0.3	-0.3	[0.00]	ug/L	16:15:21
1	Na 589.592 Radial†	-1207.8	-1207.4	[0.00]	ug/L	16:15:01
1	Sr 421.552†	26.9	26.8	[0.00]	ug/L	16:15:01
1	Sc 361.383	554722.4	554722.4	99.588	%	16:16:18
1	Y 371.029	515295.5	515295.5	99.590	%	16:16:18
1	Ag 328.068†	3.9	3.9	[0.00]	ug/L	16:16:18
1	As 188.979†	-46.7	-46.9	[0.00]	ug/L	16:16:38
1	B 249.677†	-680.7	-683.5	[0.00]	ug/L	16:16:18
1	Ba 233.527†	-7.6	-7.6	[0.00]	ug/L	16:16:38
1	Be 313.107†	-9535.9	-9575.3	[0.00]	ug/L	16:16:18
1	Cd 226.502†	-313.1	-314.4	[0.00]	ug/L	16:16:38
1	Co 228.616†	-98.9	-99.3	[0.00]	ug/L	16:16:38
1	Cr 267.716†	114.3	114.8	[0.00]	ug/L	16:16:18
1	Cu 324.752†	6367.8	6394.1	[0.00]	ug/L	16:16:18
1	Mn 257.610†	616.7	619.3	[0.00]	ug/L	16:16:18
1	Mo 202.031†	21.8	21.9	[0.00]	ug/L	16:16:38
1	Ni 231.604†	111.6	112.1	[0.00]	ug/L	16:16:38
1	P 214.914†	306.8	308.0	[0.00]	ug/L	16:16:38
1	Pb 220.353†	-91.6	-92.0	[0.00]	ug/L	16:16:38
1	S 181.975 Axial†	67.2	67.5	[0.00]	ug/L	16:16:38
1	Sb 206.836†	54.8	55.0	[0.00]	ug/L	16:16:38
1	Se 196.026†	-32.7	-32.9	[0.00]	ug/L	16:16:38
1	Si 251.611†	581.9	584.3	[0.00]	ug/L	16:16:38
1	Sn 189.927†	16.7	16.8	[0.00]	ug/L	16:16:38
1	Ti 334.940†	-1957.0	-1965.1	[0.00]	ug/L	16:16:18
1	Tl 190.801†	-68.4	-68.7	[0.00]	ug/L	16:16:38
1	U 409.014†	-1825.4	-1833.0	[0.00]	ug/L	16:16:18
1	V 292.402†	-1962.7	-1970.8	[0.00]	ug/L	16:16:18
1	Zn 213.857†	934.5	938.3	[0.00]	ug/L	16:16:38
1	SiO2†	590.9	593.4	[0.00]	ug/L	16:17:35
2	Sc Radial	3253.2	3253.2	100	%	16:15:46
2	Y RADIAL	3625.1	3625.1	99.45	%	16:15:26
2	Al 396.153Radial†	-113.5	-113.1	[0.00]	ug/L	16:15:26
2	Ca 317.933Radial†	15.2	15.2	[0.00]	ug/L	16:15:46
2	Fe 238.204 Radial†	5.2	5.2	[0.00]	ug/L	16:15:46
2	K 766.490 Radial†	3183.9	3174.2	[0.00]	ug/L	16:15:26
2	Mg 279.077 IEC†	0.3	0.3	[0.00]	ug/L	16:15:46
2	Na 589.592 Radial†	-1192.4	-1188.8	[0.00]	ug/L	16:15:26
2	Sr 421.552†	34.5	34.3	[0.00]	ug/L	16:15:26
2	Sc 361.383	562141.1	562141.1	100.92	%	16:16:44
2	Y 371.029	521733.6	521733.6	100.83	%	16:16:44
2	Ag 328.068†	43.2	42.8	[0.00]	ug/L	16:16:44
2	As 188.979†	-45.7	-45.3	[0.00]	ug/L	16:17:04
2	B 249.677†	-638.8	-633.0	[0.00]	ug/L	16:16:44
2	Ba 233.527†	-1.0	-1.0	[0.00]	ug/L	16:17:04
2	Be 313.107†	-9563.7	-9476.5	[0.00]	ug/L	16:16:44
2	Cd 226.502†	-297.1	-294.4	[0.00]	ug/L	16:17:04
2	Co 228.616†	-73.7	-73.0	[0.00]	ug/L	16:17:04
2	Cr 267.716†	88.7	87.9	[0.00]	ug/L	16:16:44
2	Cu 324.752†	6471.4	6412.5	[0.00]	ug/L	16:16:44
2	Mn 257.610†	623.8	618.1	[0.00]	ug/L	16:16:44
2	Mo 202.031†	21.9	21.7	[0.00]	ug/L	16:17:04
2	Ni 231.604†	117.6	116.6	[0.00]	ug/L	16:17:04
2	P 214.914†	316.7	313.8	[0.00]	ug/L	16:17:04
2	Pb 220.353†	-98.4	-97.5	[0.00]	ug/L	16:17:04
2	S 181.975 Axial†	67.3	66.7	[0.00]	ug/L	16:17:04
2	Sb 206.836†	54.1	53.6	[0.00]	ug/L	16:17:04
2	Se 196.026†	-31.5	-31.2	[0.00]	ug/L	16:17:04
2	Si 251.611†	557.1	552.0	[0.00]	ug/L	16:17:04
2	Sn 189.927†	9.0	8.9	[0.00]	ug/L	16:17:04
2	Ti 334.940†	-2006.2	-1988.0	[0.00]	ug/L	16:16:44
2	Tl 190.801†	-43.6	-43.2	[0.00]	ug/L	16:17:04
2	U 409.014†	-1866.0	-1849.0	[0.00]	ug/L	16:16:44
2	V 292.402†	-2030.9	-2012.4	[0.00]	ug/L	16:16:44
2	Zn 213.857†	940.1	931.5	[0.00]	ug/L	16:17:04
2	SiO2†	628.6	622.8	[0.00]	ug/L	16:17:40
3	Sc Radial	3232.2	3232.2	99.7	%	16:16:11
3	Y RADIAL	3655.3	3655.3	100.3	%	16:15:51

3	Al 396.153Radial†	-108.8	-109.1	[0.00] ug/L	16:15:51
3	Ca 317.933Radial†	10.3	10.3	[0.00] ug/L	16:16:11
3	Fe 238.204 Radial†	6.4	6.4	[0.00] ug/L	16:16:11
3	K 766.490 Radial†	3140.7	3151.4	[0.00] ug/L	16:15:51
3	Mg 279.077 IEC†	0.5	0.6	[0.00] ug/L	16:16:11
3	Na 589.592 Radial†	-1182.9	-1186.9	[0.00] ug/L	16:15:51
3	Sr 421.552†	34.7	34.8	[0.00] ug/L	16:15:51
3	Sc 361.383	554188.4	554188.4	99.492 %	16:17:09
3	Y 371.029	515217.9	515217.9	99.575 %	16:17:09
3	Ag 328.068†	110.6	111.2	[0.00] ug/L	16:17:09
3	As 188.979†	-41.3	-41.5	[0.00] ug/L	16:17:29
3	B 249.677†	-645.2	-648.5	[0.00] ug/L	16:17:09
3	Ba 233.527†	-0.8	-0.8	[0.00] ug/L	16:17:29
3	Be 313.107†	-9552.7	-9601.5	[0.00] ug/L	16:17:09
3	Cd 226.502†	-312.1	-313.7	[0.00] ug/L	16:17:29
3	Co 228.616†	-99.0	-99.5	[0.00] ug/L	16:17:29
3	Cr 267.716†	117.1	117.7	[0.00] ug/L	16:17:09
3	Cu 324.752†	6306.4	6338.6	[0.00] ug/L	16:17:09
3	Mn 257.610†	632.4	635.7	[0.00] ug/L	16:17:09
3	Mo 202.031†	4.3	4.4	[0.00] ug/L	16:17:29
3	Ni 231.604†	124.0	124.7	[0.00] ug/L	16:17:29
3	P 214.914†	310.5	312.1	[0.00] ug/L	16:17:29
3	Pb 220.353†	-96.7	-97.2	[0.00] ug/L	16:17:29
3	S 181.975 Axial†	72.4	72.8	[0.00] ug/L	16:17:29
3	Sb 206.836†	63.8	64.1	[0.00] ug/L	16:17:29
3	Se 196.026†	-34.7	-34.9	[0.00] ug/L	16:17:29
3	Si 251.611†	563.6	566.5	[0.00] ug/L	16:17:29
3	Sn 189.927†	9.9	9.9	[0.00] ug/L	16:17:29
3	Ti 334.940†	-1972.6	-1982.7	[0.00] ug/L	16:17:09
3	Tl 190.801†	-64.4	-64.7	[0.00] ug/L	16:17:29
3	U 409.014†	-1710.8	-1719.5	[0.00] ug/L	16:17:09
3	V 292.402†	-1922.6	-1932.4	[0.00] ug/L	16:17:09
3	Zn 213.857†	951.6	956.5	[0.00] ug/L	16:17:29
3	SiO2†	593.9	597.0	[0.00] ug/L	16:17:45

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	557017.3	4445.36	0.80%	100.00	%
Sc Radial	3243.3	10.53	0.32%	100	%
Y 371.029	517415.7	3739.64	0.72%	100.00	%
Y RADIAL	3645.0	17.22	0.47%	100.0	%
Ag 328.068†	52.6	54.33	103.22%	[0.00]	ug/L
Al 396.153Radial†	-115.2	7.35	6.38%	[0.00]	ug/L
As 188.979†	-44.6	2.77	6.22%	[0.00]	ug/L
B 249.677†	-655.0	25.92	3.96%	[0.00]	ug/L
Ba 233.527†	-3.1	3.84	122.33%	[0.00]	ug/L
Be 313.107†	-9551.1	65.90	0.69%	[0.00]	ug/L
Ca 317.933Radial†	11.4	3.43	30.18%	[0.00]	ug/L
Cd 226.502†	-307.5	11.33	3.69%	[0.00]	ug/L
Co 228.616†	-90.6	15.24	16.82%	[0.00]	ug/L
Cr 267.716†	106.8	16.42	15.38%	[0.00]	ug/L
Cu 324.752†	6381.7	38.48	0.60%	[0.00]	ug/L
Fe 238.204 Radial†	4.9	1.68	34.38%	[0.00]	ug/L
K 766.490 Radial†	3176.4	26.23	0.83%	[0.00]	ug/L
Mg 279.077 IEC†	0.2	0.44	241.31%	[0.00]	ug/L
Mn 257.610†	624.4	9.82	1.57%	[0.00]	ug/L
Mo 202.031†	16.0	10.08	62.97%	[0.00]	ug/L
Na 589.592 Radial†	-1194.4	11.31	0.95%	[0.00]	ug/L
Ni 231.604†	117.8	6.39	5.43%	[0.00]	ug/L
P 214.914†	311.3	2.98	0.96%	[0.00]	ug/L
Pb 220.353†	-95.6	3.08	3.22%	[0.00]	ug/L
S 181.975 Axial†	69.0	3.28	4.75%	[0.00]	ug/L
Sb 206.836†	57.6	5.66	9.84%	[0.00]	ug/L
Se 196.026†	-33.0	1.83	5.54%	[0.00]	ug/L
Si 251.611†	567.6	16.20	2.85%	[0.00]	ug/L
Sn 189.927†	11.9	4.28	36.05%	[0.00]	ug/L
Sr 421.552†	32.0	4.47	13.96%	[0.00]	ug/L
Ti 334.940†	-1978.6	11.94	0.60%	[0.00]	ug/L
Tl 190.801†	-58.8	13.72	23.32%	[0.00]	ug/L

U 409.014†	-1800.5	70.59	3.92%	[0.00] ug/L
V 292.402†	-1971.9	39.98	2.03%	[0.00] ug/L
Zn 213.857†	942.1	12.92	1.37%	[0.00] ug/L
SiO2†	604.4	16.08	2.66%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 4/15/2010 16:19:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3399.7	3399.7	105	%	16:22:08
1	Y RADIAL	3720.1	3720.1	102.1	%	16:22:08
1	K 766.490 Radial†	7464.7	3944.8	[1000]	ug/L	16:21:48
1	Sr 421.552†	9778.9	9297.0	[100]	ug/L	16:22:08
1	Sc 361.383	595892.9	595892.9	106.98	%	16:23:05
1	Y 371.029	552018.5	552018.5	106.69	%	16:23:05
1	Ag 328.068†	17332.1	16148.7	[100]	ug/L	16:23:05
1	As 188.979†	191.0	223.1	[100]	ug/L	16:23:25
1	B 249.677†	3605.7	4025.4	[100]	ug/L	16:23:05
1	Ba 233.527†	6738.2	6301.7	[100]	ug/L	16:23:25
1	Be 313.107†	228240.3	222901.2	[100]	ug/L	16:23:05
1	Cd 226.502†	7052.5	6899.9	[100]	ug/L	16:23:25
1	Co 228.616†	2739.5	2651.4	[100]	ug/L	16:23:25
1	Cr 267.716†	6788.5	6238.8	[100]	ug/L	16:23:25
1	Cu 324.752†	27829.8	19632.5	[100]	ug/L	16:23:05
1	Mn 257.610†	55184.9	50960.3	[100]	ug/L	16:23:05
1	Mo 202.031†	992.6	911.8	[100]	ug/L	16:23:25
1	Ni 231.604†	3235.4	2906.6	[100]	ug/L	16:23:25
1	P 214.914†	1275.7	881.2	[500]	ug/L	16:23:25
1	Pb 220.353†	466.8	532.0	[100]	ug/L	16:23:25
1	S 181.975 Axial†	229.5	145.5	[200]	ug/L	16:23:25
1	Sb 206.836†	280.0	204.2	[100]	ug/L	16:23:25
1	Se 196.026†	134.1	158.3	[100]	ug/L	16:23:25
1	Si 251.611†	12858.2	11451.8	[500]	ug/L	16:23:05
1	Sn 189.927†	424.9	385.3	[100]	ug/L	16:23:25
1	Ti 334.940†	37251.7	36800.1	[100]	ug/L	16:23:05
1	Tl 190.801†	111.3	162.9	[100]	ug/L	16:23:25
1	U 409.014†	279.3	2061.6	[100]	ug/L	16:23:05
1	V 292.402†	9506.1	10857.8	[100]	ug/L	16:23:05
1	Zn 213.857†	9940.2	8349.6	[100]	ug/L	16:23:25
1	SiO2†	12330.8	10921.9	[1069.5]	ug/L	16:24:21
2	Sc Radial	3394.3	3394.3	105	%	16:22:33
2	Y RADIAL	3719.2	3719.2	102.0	%	16:22:33
2	K 766.490 Radial†	7410.6	3904.5	[1000]	ug/L	16:22:13
2	Sr 421.552†	9723.3	9258.7	[100]	ug/L	16:22:33
2	Sc 361.383	577499.4	577499.4	103.68	%	16:23:30
2	Y 371.029	534935.6	534935.6	103.39	%	16:23:30
2	Ag 328.068†	16772.7	16125.1	[100]	ug/L	16:23:30
2	As 188.979†	194.3	232.0	[100]	ug/L	16:23:50
2	B 249.677†	3468.0	4000.0	[100]	ug/L	16:23:30
2	Ba 233.527†	6606.3	6375.1	[100]	ug/L	16:23:50
2	Be 313.107†	221292.2	222994.7	[100]	ug/L	16:23:30
2	Cd 226.502†	6853.9	6918.3	[100]	ug/L	16:23:50
2	Co 228.616†	2691.8	2687.0	[100]	ug/L	16:23:50
2	Cr 267.716†	6633.7	6291.7	[100]	ug/L	16:23:50
2	Cu 324.752†	27009.5	19669.8	[100]	ug/L	16:23:30
2	Mn 257.610†	53569.9	51045.6	[100]	ug/L	16:23:30
2	Mo 202.031†	978.2	927.5	[100]	ug/L	16:23:50
2	Ni 231.604†	3159.2	2929.4	[100]	ug/L	16:23:50
2	P 214.914†	1251.8	896.1	[500]	ug/L	16:23:50
2	Pb 220.353†	479.6	558.1	[100]	ug/L	16:23:50
2	S 181.975 Axial†	222.5	145.6	[200]	ug/L	16:23:50
2	Sb 206.836†	292.4	224.4	[100]	ug/L	16:23:50
2	Se 196.026†	122.9	151.5	[100]	ug/L	16:23:50
2	Si 251.611†	12501.9	11490.9	[500]	ug/L	16:23:30
2	Sn 189.927†	411.7	385.2	[100]	ug/L	16:23:50
2	Ti 334.940†	36054.3	36754.2	[100]	ug/L	16:23:30
2	Tl 190.801†	116.6	171.3	[100]	ug/L	16:23:50
2	U 409.014†	106.8	1903.5	[100]	ug/L	16:23:30

2	V 292.402†	9173.5	10820.0	[100]	ug/L	16:23:30
2	Zn 213.857†	9762.5	8474.2	[100]	ug/L	16:23:50
2	SiO2†	12183.3	11146.8	[1069.5]	ug/L	16:24:26
3	Sc Radial	3488.3	3488.3	108	%	16:22:58
3	Y RADIAL	3811.4	3811.4	104.6	%	16:22:58
3	K 766.490 Radial†	7592.6	3882.8	[1000]	ug/L	16:22:38
3	Sr 421.552†	10010.7	9275.4	[100]	ug/L	16:22:58
3	Sc 361.383	582506.3	582506.3	104.58	%	16:23:56
3	Y 371.029	539888.4	539888.4	104.34	%	16:23:56
3	Ag 328.068†	16964.8	16169.8	[100]	ug/L	16:23:56
3	As 188.979†	194.9	231.0	[100]	ug/L	16:24:16
3	B 249.677†	3502.3	4004.1	[100]	ug/L	16:23:56
3	Ba 233.527†	6597.1	6311.6	[100]	ug/L	16:24:16
3	Be 313.107†	222369.3	222190.1	[100]	ug/L	16:23:56
3	Cd 226.502†	6862.2	6869.4	[100]	ug/L	16:24:16
3	Co 228.616†	2695.8	2668.5	[100]	ug/L	16:24:16
3	Cr 267.716†	6604.8	6209.0	[100]	ug/L	16:24:16
3	Cu 324.752†	27230.7	19657.4	[100]	ug/L	16:23:56
3	Mn 257.610†	53780.9	50803.2	[100]	ug/L	16:23:56
3	Mo 202.031†	971.0	912.5	[100]	ug/L	16:24:16
3	Ni 231.604†	3123.9	2869.5	[100]	ug/L	16:24:16
3	P 214.914†	1245.4	879.6	[500]	ug/L	16:24:16
3	Pb 220.353†	460.8	536.2	[100]	ug/L	16:24:16
3	S 181.975 Axial†	216.7	138.2	[200]	ug/L	16:24:16
3	Sb 206.836†	270.4	201.0	[100]	ug/L	16:24:16
3	Se 196.026†	120.1	147.8	[100]	ug/L	16:24:16
3	Si 251.611†	12581.6	11463.4	[500]	ug/L	16:23:56
3	Sn 189.927†	413.6	383.6	[100]	ug/L	16:24:16
3	Ti 334.940†	36267.0	36658.6	[100]	ug/L	16:23:56
3	Tl 190.801†	123.5	176.9	[100]	ug/L	16:24:16
3	U 409.014†	120.6	1915.8	[100]	ug/L	16:23:56
3	V 292.402†	9257.9	10824.7	[100]	ug/L	16:23:56
3	Zn 213.857†	9712.1	8345.0	[100]	ug/L	16:24:16
3	SiO2†	12137.0	11001.6	[1069.5]	ug/L	16:24:31

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	585299.5	9509.57	1.62%	105.08	%
Sc Radial	3427.4	52.81	1.54%	106	%
Y 371.029	542280.9	8789.15	1.62%	104.81	%
Y RADIAL	3750.2	52.96	1.41%	102.9	%
Ag 328.068†	16147.9	22.34	0.14%	[100]	ug/L
As 188.979†	228.7	4.84	2.12%	[100]	ug/L
B 249.677†	4009.8	13.64	0.34%	[100]	ug/L
Ba 233.527†	6329.5	39.83	0.63%	[100]	ug/L
Be 313.107†	222695.3	440.04	0.20%	[100]	ug/L
Cd 226.502†	6895.9	24.71	0.36%	[100]	ug/L
Co 228.616†	2669.0	17.78	0.67%	[100]	ug/L
Cr 267.716†	6246.5	41.85	0.67%	[100]	ug/L
Cu 324.752†	19653.3	18.99	0.10%	[100]	ug/L
K 766.490 Radial†	3910.7	31.49	0.81%	[1000]	ug/L
Mn 257.610†	50936.4	122.94	0.24%	[100]	ug/L
Mo 202.031†	917.3	8.86	0.97%	[100]	ug/L
Ni 231.604†	2901.8	30.23	1.04%	[100]	ug/L
P 214.914†	885.6	9.10	1.03%	[500]	ug/L
Pb 220.353†	542.1	14.05	2.59%	[100]	ug/L
S 181.975 Axial†	143.1	4.24	2.96%	[200]	ug/L
Sb 206.836†	209.9	12.70	6.05%	[100]	ug/L
Se 196.026†	152.5	5.35	3.50%	[100]	ug/L
Si 251.611†	11468.7	20.08	0.18%	[500]	ug/L
Sn 189.927†	384.7	0.94	0.24%	[100]	ug/L
Sr 421.552†	9277.0	19.21	0.21%	[100]	ug/L
Ti 334.940†	36737.6	72.17	0.20%	[100]	ug/L
Tl 190.801†	170.4	7.06	4.14%	[100]	ug/L
U 409.014†	1960.3	87.93	4.49%	[100]	ug/L
V 292.402†	10834.2	20.61	0.19%	[100]	ug/L
Zn 213.857†	8389.6	73.29	0.87%	[100]	ug/L
SiO2†	11023.4	114.02	1.03%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 4/15/2010 16:26:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3256.7	3256.7	100	%	16:28:55
1	Y RADIAL	3671.2	3671.2	100.7	%	16:28:34
1	Al 396.153Radial†	4338.6	4435.9	[5000]	ug/L	16:28:34
1	Ca 317.933Radial†	2299.3	2278.4	[5000]	ug/L	16:28:55
1	K 766.490 Radial†	24312.2	21035.3	[5000]	ug/L	16:28:34
1	Mg 279.077 IEC†	115.1	114.4	[5000]	ug/L	16:28:55
1	Sr 421.552†	47076.6	46850.1	[500]	ug/L	16:28:34
1	Sc 361.383	493934.9	493934.9	88.675	%	16:29:57
1	Y 371.029	537503.2	537503.2	103.88	%	16:29:51
1	Ag 328.068†	83963.8	94634.6	[500]	ug/L	16:29:57
1	As 188.979†	1112.7	1299.5	[500]	ug/L	16:30:17
1	B 249.677†	20102.9	23325.3	[500]	ug/L	16:29:57
1	Ba 233.527†	33753.4	38067.3	[500]	ug/L	16:29:57
1	Be 313.107†	1144113.9	1299784.6	[500]	ug/L	16:29:51
1	Cd 226.502†	35960.1	40860.3	[500]	ug/L	16:29:57
1	Co 228.616†	13600.1	15427.6	[500]	ug/L	16:30:17
1	Cr 267.716†	33654.8	37846.3	[500]	ug/L	16:29:57
1	Cu 324.752†	109796.6	117437.5	[500]	ug/L	16:29:57
1	Mn 257.610†	259980.9	292559.8	[500]	ug/L	16:29:57
1	Mo 202.031†	4793.8	5390.0	[500]	ug/L	16:30:17
1	Ni 231.604†	15325.1	17164.6	[500]	ug/L	16:29:57
1	P 214.914†	5030.2	5361.3	[2500]	ug/L	16:30:17
1	Pb 220.353†	2761.8	3210.1	[500]	ug/L	16:30:17
1	S 181.975 Axial†	850.6	890.3	[1000]	ug/L	16:30:17
1	Sb 206.836†	1165.9	1257.2	[500]	ug/L	16:30:17
1	Se 196.026†	769.5	900.8	[500]	ug/L	16:30:17
1	Si 251.611†	60091.6	67198.5	[2500]	ug/L	16:29:57
1	Sn 189.927†	2018.1	2264.0	[500]	ug/L	16:30:17
1	Ti 334.940†	184824.4	210407.6	[500]	ug/L	16:29:57
1	Tl 190.801†	790.6	950.5	[500]	ug/L	16:30:17
1	U 409.014†	8203.5	11051.8	[500]	ug/L	16:29:57
1	V 292.402†	54129.9	63015.0	[500]	ug/L	16:29:57
1	Zn 213.857†	45943.2	50868.7	[500]	ug/L	16:29:57
1	SiO2†	58975.1	65902.6	[5347.5]	ug/L	16:31:24
2	Sc Radial	3287.9	3287.9	101	%	16:29:20
2	Y RADIAL	3696.4	3696.4	101.4	%	16:29:00
2	Al 396.153Radial†	4380.3	4436.1	[5000]	ug/L	16:29:00
2	Ca 317.933Radial†	2321.1	2278.2	[5000]	ug/L	16:29:20
2	K 766.490 Radial†	24657.5	21146.6	[5000]	ug/L	16:29:00
2	Mg 279.077 IEC†	122.1	120.3	[5000]	ug/L	16:29:20
2	Sr 421.552†	47735.1	47055.6	[500]	ug/L	16:29:00
2	Sc 361.383	496023.8	496023.8	89.050	%	16:30:27
2	Y 371.029	546127.6	546127.6	105.55	%	16:30:22
2	Ag 328.068†	84741.6	95109.2	[500]	ug/L	16:30:27
2	As 188.979†	1117.3	1299.3	[500]	ug/L	16:30:47
2	B 249.677†	20317.5	23470.9	[500]	ug/L	16:30:27
2	Ba 233.527†	34152.4	38355.1	[500]	ug/L	16:30:27
2	Be 313.107†	1160469.5	1312717.6	[500]	ug/L	16:30:22
2	Cd 226.502†	36315.5	41088.5	[500]	ug/L	16:30:27
2	Co 228.616†	13687.5	15461.2	[500]	ug/L	16:30:47
2	Cr 267.716†	33800.6	37850.1	[500]	ug/L	16:30:27
2	Cu 324.752†	110774.1	118013.7	[500]	ug/L	16:30:27
2	Mn 257.610†	262433.2	294078.9	[500]	ug/L	16:30:27
2	Mo 202.031†	4801.9	5376.4	[500]	ug/L	16:30:47
2	Ni 231.604†	15429.7	17209.2	[500]	ug/L	16:30:27
2	P 214.914†	5062.0	5373.1	[2500]	ug/L	16:30:47
2	Pb 220.353†	2773.4	3210.0	[500]	ug/L	16:30:47
2	S 181.975 Axial†	858.0	894.5	[1000]	ug/L	16:30:47
2	Sb 206.836†	1191.0	1279.8	[500]	ug/L	16:30:47

2	Se 196.026†	765.8	892.9	[500]	ug/L	16:30:47
2	Si 251.611†	60723.5	67622.8	[2500]	ug/L	16:30:27
2	Sn 189.927†	2028.8	2266.4	[500]	ug/L	16:30:47
2	Ti 334.940†	186706.6	211643.6	[500]	ug/L	16:30:27
2	Tl 190.801†	790.7	946.7	[500]	ug/L	16:30:47
2	U 409.014†	8479.3	11322.5	[500]	ug/L	16:30:27
2	V 292.402†	54420.0	63083.6	[500]	ug/L	16:30:27
2	Zn 213.857†	46196.4	50934.8	[500]	ug/L	16:30:27
2	SiO2†	58545.1	65139.6	[5347.5]	ug/L	16:31:29
3	Sc Radial	3322.4	3322.4	102	%	16:29:45
3	Y RADIAL	3720.7	3720.7	102.1	%	16:29:25
3	Al 396.153Radial†	4410.2	4420.4	[5000]	ug/L	16:29:25
3	Ca 317.933Radial†	2343.9	2276.8	[5000]	ug/L	16:29:45
3	K 766.490 Radial†	24773.2	21007.0	[5000]	ug/L	16:29:25
3	Mg 279.077 IEC†	119.9	116.9	[5000]	ug/L	16:29:45
3	Sr 421.552†	48071.6	46895.2	[500]	ug/L	16:29:25
3	Sc 361.383	492288.9	492288.9	88.379	%	16:30:58
3	Y 371.029	536114.5	536114.5	103.61	%	16:30:53
3	Ag 328.068†	83092.7	93965.5	[500]	ug/L	16:30:58
3	As 188.979†	1079.0	1265.5	[500]	ug/L	16:31:18
3	B 249.677†	19905.6	23177.9	[500]	ug/L	16:30:58
3	Ba 233.527†	33321.7	37706.1	[500]	ug/L	16:30:58
3	Be 313.107†	1138292.1	1297511.1	[500]	ug/L	16:30:53
3	Cd 226.502†	35553.4	40535.6	[500]	ug/L	16:30:58
3	Co 228.616†	13333.3	15177.1	[500]	ug/L	16:31:18
3	Cr 267.716†	33103.8	37349.6	[500]	ug/L	16:30:58
3	Cu 324.752†	108431.1	116306.4	[500]	ug/L	16:30:58
3	Mn 257.610†	256558.1	289667.2	[500]	ug/L	16:30:58
3	Mo 202.031†	4691.4	5292.2	[500]	ug/L	16:31:18
3	Ni 231.604†	15096.5	16963.6	[500]	ug/L	16:30:58
3	P 214.914†	4958.4	5299.0	[2500]	ug/L	16:31:18
3	Pb 220.353†	2728.1	3182.4	[500]	ug/L	16:31:18
3	S 181.975 Axial†	820.4	859.3	[1000]	ug/L	16:31:18
3	Sb 206.836†	1165.3	1260.9	[500]	ug/L	16:31:18
3	Se 196.026†	750.6	882.2	[500]	ug/L	16:31:18
3	Si 251.611†	59352.7	66589.1	[2500]	ug/L	16:30:58
3	Sn 189.927†	1990.7	2240.5	[500]	ug/L	16:31:18
3	Ti 334.940†	182818.6	208835.0	[500]	ug/L	16:30:58
3	Tl 190.801†	790.6	953.4	[500]	ug/L	16:31:18
3	U 409.014†	7924.0	10766.3	[500]	ug/L	16:30:58
3	V 292.402†	53393.0	62385.2	[500]	ug/L	16:30:58
3	Zn 213.857†	45310.6	50326.1	[500]	ug/L	16:30:58
3	SiO2†	58744.8	65864.5	[5347.5]	ug/L	16:31:34

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	494082.5	1871.81	0.38%	88.701	%
Sc Radial	3289.0	32.83	1.00%	101	%
Y 371.029	539915.1	5424.80	1.00%	104.35	%
Y RADIAL	3696.1	24.79	0.67%	101.4	%
Ag 328.068†	94569.7	574.63	0.61%	[500]	ug/L
Al 396.153Radial†	4430.8	8.99	0.20%	[5000]	ug/L
As 188.979†	1288.1	19.56	1.52%	[500]	ug/L
B 249.677†	23324.7	146.50	0.63%	[500]	ug/L
Ba 233.527†	38042.8	325.15	0.85%	[500]	ug/L
Be 313.107†	1303337.7	8202.36	0.63%	[500]	ug/L
Ca 317.933Radial†	2277.8	0.89	0.04%	[5000]	ug/L
Cd 226.502†	40828.1	277.84	0.68%	[500]	ug/L
Co 228.616†	15355.3	155.23	1.01%	[500]	ug/L
Cr 267.716†	37682.0	287.84	0.76%	[500]	ug/L
Cu 324.752†	117252.5	868.54	0.74%	[500]	ug/L
K 766.490 Radial†	21063.0	73.80	0.35%	[5000]	ug/L
Mg 279.077 IEC†	117.2	2.94	2.51%	[5000]	ug/L
Mn 257.610†	292102.0	2241.21	0.77%	[500]	ug/L
Mo 202.031†	5352.8	52.95	0.99%	[500]	ug/L
Ni 231.604†	17112.5	130.82	0.76%	[500]	ug/L
P 214.914†	5344.5	39.81	0.74%	[2500]	ug/L
Pb 220.353†	3200.8	15.97	0.50%	[500]	ug/L
S 181.975 Axial†	881.4	19.24	2.18%	[1000]	ug/L

Sb 206.836†	1266.0	12.12	0.96%	[500]	ug/L
Se 196.026†	892.0	9.30	1.04%	[500]	ug/L
Si 251.611†	67136.8	519.62	0.77%	[2500]	ug/L
Sn 189.927†	2257.0	14.27	0.63%	[500]	ug/L
Sr 421.552†	46933.6	107.99	0.23%	[500]	ug/L
Ti 334.940†	210295.4	1407.62	0.67%	[500]	ug/L
Tl 190.801†	950.2	3.35	0.35%	[500]	ug/L
U 409.014†	11046.9	278.10	2.52%	[500]	ug/L
V 292.402†	62827.9	384.95	0.61%	[500]	ug/L
Zn 213.857†	50709.9	333.97	0.66%	[500]	ug/L
SiO2†	65635.6	429.91	0.65%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 4/15/2010 16:33:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3275.5	3275.5	101	%	16:35:57
1	Y RADIAL	3752.8	3752.8	103.0	%	16:35:37
1	Al 396.153Radial†	9090.0	9115.8	[10000]	ug/L	16:35:37
1	Ca 317.933Radial†	4849.7	4790.6	[10000]	ug/L	16:35:37
1	Fe 238.204 Radial†	772.6	760.1	[10000]	ug/L	16:35:57
1	K 766.490 Radial†	47266.8	43625.1	[10000]	ug/L	16:35:37
1	Mg 279.077 IEC†	232.5	230.0	[10000]	ug/L	16:35:57
1	Na 589.592 Radial†	19901.8	20900.2	[10000]	ug/L	16:35:37
1	Sr 421.552†	98659.9	97656.7	[1000]	ug/L	16:35:37
1	Sc 361.383	563115.3	563115.3	101.09	%	16:36:57
1	Y 371.029	518768.7	518768.7	100.26	%	16:36:57
1	Ag 328.068†	164197.5	162366.8	[1000]	ug/L	16:36:57
1	As 188.979†	2159.8	2181.0	[1000]	ug/L	16:37:17
1	B 249.677†	39630.9	39856.7	[1000]	ug/L	16:36:57
1	Ba 233.527†	65649.7	64941.9	[1000]	ug/L	16:36:57
1	Be 313.107†	2215746.3	2201303.0	[1000]	ug/L	16:36:57
1	Cd 226.502†	69965.5	69515.3	[1000]	ug/L	16:36:57
1	Co 228.616†	26528.2	26331.5	[1000]	ug/L	16:37:17
1	Cr 267.716†	65034.9	64223.8	[1000]	ug/L	16:36:57
1	Cu 324.752†	208088.8	199453.7	[1000]	ug/L	16:36:57
1	Mn 257.610†	510208.8	504059.4	[1000]	ug/L	16:36:57
1	Mo 202.031†	9232.5	9116.5	[1000]	ug/L	16:37:17
1	Ni 231.604†	28935.5	28504.4	[1000]	ug/L	16:37:17
1	P 214.914†	9422.5	9009.1	[5000]	ug/L	16:37:17
1	Pb 220.353†	5431.1	5467.9	[1000]	ug/L	16:37:17
1	S 181.975 Axial†	1571.3	1485.3	[2000]	ug/L	16:37:17
1	Sb 206.836†	2214.9	2133.4	[1000]	ug/L	16:37:17
1	Se 196.026†	1485.6	1502.4	[1000]	ug/L	16:37:17
1	Si 251.611†	116006.7	114182.8	[5000]	ug/L	16:36:57
1	Sn 189.927†	3899.0	3844.9	[1000]	ug/L	16:37:17
1	Ti 334.940†	367723.3	365719.8	[1000]	ug/L	16:36:57
1	Tl 190.801†	1589.2	1630.8	[1000]	ug/L	16:37:17
1	U 409.014†	17477.9	19089.2	[1000]	ug/L	16:36:57
1	V 292.402†	107126.7	107938.5	[1000]	ug/L	16:36:57
1	Zn 213.857†	87793.9	85901.0	[1000]	ug/L	16:36:57
1	SiO2†	116901.0	115030.7	[10695]	ug/L	16:38:17
2	Sc Radial	3262.5	3262.5	101	%	16:36:23
2	Y RADIAL	3623.5	3623.5	99.41	%	16:36:02
2	Al 396.153Radial†	8736.5	8800.1	[10000]	ug/L	16:36:02
2	Ca 317.933Radial†	4653.0	4614.1	[10000]	ug/L	16:36:02
2	Fe 238.204 Radial†	761.7	752.3	[10000]	ug/L	16:36:23
2	K 766.490 Radial†	45561.3	42115.5	[10000]	ug/L	16:36:02
2	Mg 279.077 IEC†	231.5	230.0	[10000]	ug/L	16:36:23
2	Na 589.592 Radial†	18922.5	20005.0	[10000]	ug/L	16:36:02
2	Sr 421.552†	94945.5	94352.4	[1000]	ug/L	16:36:02
2	Sc 361.383	571091.8	571091.8	102.53	%	16:37:24
2	Y 371.029	524879.2	524879.2	101.44	%	16:37:24
2	Ag 328.068†	166575.3	162417.4	[1000]	ug/L	16:37:24
2	As 188.979†	2178.8	2169.7	[1000]	ug/L	16:37:44
2	B 249.677†	40563.0	40218.3	[1000]	ug/L	16:37:24
2	Ba 233.527†	66581.6	64943.8	[1000]	ug/L	16:37:24
2	Be 313.107†	2243516.5	2197776.7	[1000]	ug/L	16:37:24
2	Cd 226.502†	71031.5	69588.4	[1000]	ug/L	16:37:24
2	Co 228.616†	26795.8	26226.0	[1000]	ug/L	16:37:44
2	Cr 267.716†	65908.3	64177.3	[1000]	ug/L	16:37:24
2	Cu 324.752†	211537.1	199942.1	[1000]	ug/L	16:37:24
2	Mn 257.610†	517776.4	504391.5	[1000]	ug/L	16:37:24
2	Mo 202.031†	9310.7	9065.3	[1000]	ug/L	16:37:44
2	Ni 231.604†	29201.0	28363.6	[1000]	ug/L	16:37:44

2	P 214.914†	9505.4	8959.9	[5000]	ug/L	16:37:44
2	Pb 220.353†	5482.3	5442.8	[1000]	ug/L	16:37:44
2	S 181.975 Axial†	1584.8	1476.8	[2000]	ug/L	16:37:44
2	Sb 206.836†	2246.6	2133.7	[1000]	ug/L	16:37:44
2	Se 196.026†	1504.9	1500.8	[1000]	ug/L	16:37:44
2	Si 251.611†	117913.2	114439.6	[5000]	ug/L	16:37:24
2	Sn 189.927†	3930.2	3821.5	[1000]	ug/L	16:37:44
2	Ti 334.940†	373215.0	365995.8	[1000]	ug/L	16:37:24
2	Tl 190.801†	1601.4	1620.8	[1000]	ug/L	16:37:44
2	U 409.014†	17831.6	19192.7	[1000]	ug/L	16:37:24
2	V 292.402†	108519.0	107816.5	[1000]	ug/L	16:37:24
2	Zn 213.857†	89177.4	86037.5	[1000]	ug/L	16:37:24
2	SiO2†	118677.0	115147.8	[10695]	ug/L	16:38:22
3	Sc Radial	3233.1	3233.1	99.7	%	16:36:48
3	Y RADIAL	3686.2	3686.2	101.1	%	16:36:28
3	Al 396.153Radial†	8901.8	9045.1	[10000]	ug/L	16:36:28
3	Ca 317.933Radial†	4754.2	4757.8	[10000]	ug/L	16:36:28
3	Fe 238.204 Radial†	761.2	758.7	[10000]	ug/L	16:36:48
3	K 766.490 Radial†	46429.1	43399.1	[10000]	ug/L	16:36:28
3	Mg 279.077 IEC†	231.7	232.2	[10000]	ug/L	16:36:48
3	Na 589.592 Radial†	19227.7	20482.8	[10000]	ug/L	16:36:28
3	Sr 421.552†	96497.0	96769.5	[1000]	ug/L	16:36:28
3	Sc 361.383	566443.0	566443.0	101.69	%	16:37:52
3	Y 371.029	521556.3	521556.3	100.80	%	16:37:52
3	Ag 328.068†	165117.8	162317.6	[1000]	ug/L	16:37:52
3	As 188.979†	2207.9	2215.7	[1000]	ug/L	16:38:12
3	B 249.677†	40004.5	39993.8	[1000]	ug/L	16:37:52
3	Ba 233.527†	65727.2	64636.6	[1000]	ug/L	16:37:52
3	Be 313.107†	2226177.7	2198684.9	[1000]	ug/L	16:37:52
3	Cd 226.502†	70077.9	69219.3	[1000]	ug/L	16:37:52
3	Co 228.616†	26974.8	26616.6	[1000]	ug/L	16:38:12
3	Cr 267.716†	65282.2	64089.1	[1000]	ug/L	16:37:52
3	Cu 324.752†	209476.5	199609.0	[1000]	ug/L	16:37:52
3	Mn 257.610†	511878.6	502736.5	[1000]	ug/L	16:37:52
3	Mo 202.031†	9366.2	9194.4	[1000]	ug/L	16:38:12
3	Ni 231.604†	29370.8	28764.3	[1000]	ug/L	16:38:12
3	P 214.914†	9600.9	9129.8	[5000]	ug/L	16:38:12
3	Pb 220.353†	5523.7	5527.4	[1000]	ug/L	16:38:12
3	S 181.975 Axial†	1590.1	1494.6	[2000]	ug/L	16:38:12
3	Sb 206.836†	2251.1	2156.1	[1000]	ug/L	16:38:12
3	Se 196.026†	1521.7	1529.4	[1000]	ug/L	16:38:12
3	Si 251.611†	116541.9	114035.0	[5000]	ug/L	16:37:52
3	Sn 189.927†	3981.2	3903.1	[1000]	ug/L	16:38:12
3	Ti 334.940†	369447.0	365278.0	[1000]	ug/L	16:37:52
3	Tl 190.801†	1619.4	1651.3	[1000]	ug/L	16:38:12
3	U 409.014†	17607.2	19114.7	[1000]	ug/L	16:37:52
3	V 292.402†	107536.3	107718.7	[1000]	ug/L	16:37:52
3	Zn 213.857†	88238.3	85827.9	[1000]	ug/L	16:37:52
3	SiO2†	117243.7	114688.3	[10695]	ug/L	16:38:27

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	566883.4	4006.41	0.71%	101.77	%
Sc Radial	3257.0	21.75	0.67%	100	%
Y 371.029	521734.7	3059.14	0.59%	100.83	%
Y RADIAL	3687.5	64.70	1.75%	101.2	%
Ag 328.068†	162367.3	49.91	0.03%	[1000]	ug/L
Al 396.153Radial†	8987.0	165.66	1.84%	[10000]	ug/L
As 188.979†	2188.8	23.98	1.10%	[1000]	ug/L
B 249.677†	40022.9	182.54	0.46%	[1000]	ug/L
Ba 233.527†	64840.8	176.81	0.27%	[1000]	ug/L
Be 313.107†	2199254.9	1830.93	0.08%	[1000]	ug/L
Ca 317.933Radial†	4720.8	93.88	1.99%	[10000]	ug/L
Cd 226.502†	69441.0	195.46	0.28%	[1000]	ug/L
Co 228.616†	26391.4	202.04	0.77%	[1000]	ug/L
Cr 267.716†	64163.4	68.43	0.11%	[1000]	ug/L
Cu 324.752†	199668.3	249.54	0.12%	[1000]	ug/L
Fe 238.204 Radial†	757.0	4.17	0.55%	[10000]	ug/L
K 766.490 Radial†	43046.6	814.18	1.89%	[10000]	ug/L

Mg 279.077 IEC†	230.8	1.29	0.56%	[10000]	ug/L
Mn 257.610†	503729.1	875.55	0.17%	[1000]	ug/L
Mo 202.031†	9125.4	65.02	0.71%	[1000]	ug/L
Na 589.592 Radial†	20462.7	447.95	2.19%	[10000]	ug/L
Ni 231.604†	28544.1	203.29	0.71%	[1000]	ug/L
P 214.914†	9032.9	87.44	0.97%	[5000]	ug/L
Pb 220.353†	5479.3	43.46	0.79%	[1000]	ug/L
S 181.975 Axial†	1485.6	8.94	0.60%	[2000]	ug/L
Sb 206.836†	2141.0	13.03	0.61%	[1000]	ug/L
Se 196.026†	1510.9	16.04	1.06%	[1000]	ug/L
Si 251.611†	114219.1	204.74	0.18%	[5000]	ug/L
Sn 189.927†	3856.5	42.04	1.09%	[1000]	ug/L
Sr 421.552†	96259.5	1710.16	1.78%	[1000]	ug/L
Ti 334.940†	365664.5	362.11	0.10%	[1000]	ug/L
Tl 190.801†	1634.3	15.55	0.95%	[1000]	ug/L
U 409.014†	19132.2	53.91	0.28%	[1000]	ug/L
V 292.402†	107824.5	110.11	0.10%	[1000]	ug/L
Zn 213.857†	85922.1	106.41	0.12%	[1000]	ug/L
SiO2†	114955.6	238.77	0.21%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 4/15/2010 16:40:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3340.3	3340.3	103	%	16:42:52
1	Y RADIAL	3621.6	3621.6	99.36	%	16:42:52
1	Al 396.153Radial†	44718.5	43534.3	[50000]	ug/L	16:42:32
1	Ca 317.933Radial†	23356.6	22666.6	[50000]	ug/L	16:42:32
1	Fe 238.204 Radial†	1532.4	1483.0	[20000]	ug/L	16:42:52
1	Mg 279.077 IEC†	1130.5	1097.5	[50000]	ug/L	16:42:52
1	Na 589.592 Radial†	42282.3	42248.1	[20000]	ug/L	16:42:32
1	Sc 361.383	565011.6	565011.6	101.44	%	16:43:49
1	Y 371.029	518798.4	518798.4	100.27	%	16:43:49
2	Sc Radial	3245.6	3245.6	100	%	16:43:17
2	Y RADIAL	3530.5	3530.5	96.86	%	16:43:17
2	Al 396.153Radial†	42634.2	42718.6	[50000]	ug/L	16:42:57
2	Ca 317.933Radial†	22271.4	22244.0	[50000]	ug/L	16:42:57
2	Fe 238.204 Radial†	1486.5	1480.6	[20000]	ug/L	16:43:17
2	Mg 279.077 IEC†	1092.6	1091.6	[50000]	ug/L	16:43:17
2	Na 589.592 Radial†	39822.9	40988.5	[20000]	ug/L	16:42:57
2	Sc 361.383	567918.5	567918.5	101.96	%	16:43:55
2	Y 371.029	520737.3	520737.3	100.64	%	16:43:55
3	Sc Radial	3356.5	3356.5	103	%	16:43:42
3	Y RADIAL	3654.5	3654.5	100.3	%	16:43:42
3	Al 396.153Radial†	42625.7	41302.8	[50000]	ug/L	16:43:22
3	Ca 317.933Radial†	22264.4	21501.9	[50000]	ug/L	16:43:22
3	Fe 238.204 Radial†	1542.4	1485.5	[20000]	ug/L	16:43:42
3	Mg 279.077 IEC†	1145.9	1107.0	[50000]	ug/L	16:43:42
3	Na 589.592 Radial†	39705.4	39560.2	[20000]	ug/L	16:43:22
3	Sc 361.383	558282.9	558282.9	100.23	%	16:44:00
3	Y 371.029	512131.7	512131.7	98.979	%	16:44:00

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	563737.7	4942.50	0.88%	101.21	%
Sc Radial	3314.1	59.90	1.81%	102	%
Y 371.029	517222.5	4514.08	0.87%	99.963	%
Y RADIAL	3602.2	64.25	1.78%	98.83	%
Al 396.153Radial†	42518.6	1129.15	2.66%	[50000]	ug/L
Ca 317.933Radial†	22137.5	589.58	2.66%	[50000]	ug/L
Fe 238.204 Radial†	1483.0	2.46	0.17%	[20000]	ug/L
Mg 279.077 IEC†	1098.7	7.78	0.71%	[50000]	ug/L
Na 589.592 Radial†	40932.3	1344.82	3.29%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	167.7	0.00000	0.997977	
Al 396.153Radial	3	Lin Thru 0	0.0	0.8526	0.00000	0.999934	
As 188.979	3	Lin Thru 0	0.0	2.266	0.00000	0.997690	
B 249.677	3	Lin Thru 0	0.0	41.34	0.00000	0.997963	
Ba 233.527	3	Lin Thru 0	0.0	67.06	0.00000	0.997763	
Be 313.107	3	Lin Thru 0	0.0	2280	0.00000	0.997474	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.4440	0.00000	0.999917	
Cd 226.502	3	Lin Thru 0	0.0	71.86	0.00000	0.997708	
Co 228.616	3	Lin Thru 0	0.0	27.25	0.00000	0.998010	
Cr 267.716	3	Lin Thru 0	0.0	66.37	0.00000	0.997734	
Cu 324.752	3	Lin Thru 0	0.0	206.6	0.00000	0.997741	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0745	0.00000	0.999965	
K 766.490 Radial	3	Lin Thru 0	0.0	4.283	0.00000	0.999933	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0220	0.00000	0.999935
Mn 257.610	3	Lin Thru 0	0.0	519.7	0.00000	0.998101
Mo 202.031	3	Lin Thru 0	0.0	9.439	0.00000	0.997780
Na 589.592 Radia	2	Lin Thru 0	0.0	2.047	0.00000	1.000000
Ni 231.604	3	Lin Thru 0	0.0	29.68	0.00000	0.997102
P 214.914	3	Lin Thru 0	0.0	1.872	0.00000	0.997513
Pb 220.353	3	Lin Thru 0	0.0	5.662	0.00000	0.997893
S 181.975 Axial	3	Lin Thru 0	0.0	0.7701	0.00000	0.997420
Sb 206.836	3	Lin Thru 0	0.0	2.218	0.00000	0.997532
Se 196.026	3	Lin Thru 0	0.0	1.565	0.00000	0.997590
Si 251.611	3	Lin Thru 0	0.0	23.64	0.00000	0.997720
Sn 189.927	3	Lin Thru 0	0.0	3.987	0.00000	0.997844
Sr 421.552	3	Lin Thru 0	0.0	95.76	0.00000	0.999947
Ti 334.940	3	Lin Thru 0	0.0	376.6	0.00000	0.998313
Tl 190.801	3	Lin Thru 0	0.0	1.688	0.00000	0.998033
U 409.014	3	Lin Thru 0	0.0	19.72	0.00000	0.998215
V 292.402	3	Lin Thru 0	0.0	111.4	0.00000	0.997969
Zn 213.857	3	Lin Thru 0	0.0	88.98	0.00000	0.997588
SiO2	3	Lin Thru 0	0.0	11.05	0.00000	0.998472

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 4/15/2010 16:46:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3387.0	3387.0	104	%			16:48:24
1	Y RADIAL	3772.9	3772.9	103.5	%			16:48:04
1	Al 396.153Radial†	4485.0	4409.8	5147.3	ug/L	5147.3	ppb	16:48:04
1	Ca 317.933Radial†	2388.1	2275.3	5124.7	ug/L	5124.7	ppb	16:48:24
1	Fe 238.204 Radial†	396.9	375.2	5053.5	ug/L	5053.5	ppb	16:48:24
1	K 766.490 Radial†	13993.0	10222.6	2384.3	ug/L	2384.3	ppb	16:48:04
1	Mg 279.077 IEC†	123.8	118.3	5372.5	ug/L	5372.5	ppb	16:48:24
1	Na 589.592 Radial†	4026.1	5049.5	2467.3	ug/L	2467.3	ppb	16:48:04
1	Sr 421.552†	52197.3	49949.6	521.59	ug/L	521.59	ppb	16:48:04
1	Sc 361.383	580606.2	580606.2	104.23	%			16:49:22
1	Y 371.029	536472.1	536472.1	103.68	%			16:49:22
1	Ag 328.068†	42978.6	41179.9	248.56	ug/L	248.56	ppb	16:49:22
1	As 188.979†	1017.2	1020.5	453.96	ug/L	453.96	ppb	16:49:42
1	B 249.677†	21012.2	20813.5	501.54	ug/L	501.54	ppb	16:49:22
1	Ba 233.527†	33773.8	32404.8	484.67	ug/L	484.67	ppb	16:49:22
1	Be 313.107†	578346.6	564400.7	248.59	ug/L	248.59	ppb	16:49:22
1	Cd 226.502†	34895.5	33785.3	470.10	ug/L	470.10	ppb	16:49:42
1	Co 228.616†	14053.7	13573.4	498.26	ug/L	498.26	ppb	16:49:42
1	Cr 267.716†	32644.9	31211.9	470.81	ug/L	470.81	ppb	16:49:22
1	Cu 324.752†	110182.4	99324.2	480.65	ug/L	480.65	ppb	16:49:22
1	Mn 257.610†	262427.2	251141.0	483.53	ug/L	483.53	ppb	16:49:22
1	Mo 202.031†	5126.2	4901.9	519.73	ug/L	519.73	ppb	16:49:42
1	Ni 231.604†	14880.3	14157.9	476.80	ug/L	476.80	ppb	16:49:42
1	P 214.914†	4989.7	4475.7	2281.2	ug/L	2281.2	ppb	16:49:42
1	Pb 220.353†	2732.2	2716.8	481.67	ug/L	481.67	ppb	16:49:42
1	S 181.975 Axial†	1987.7	1837.9	2386.2	ug/L	2386.2	ppb	16:49:42
1	Sb 206.836†	1135.2	1031.5	483.64	ug/L	483.64	ppb	16:49:42
1	Se 196.026†	3908.7	3782.8	2427.7	ug/L	2427.7	ppb	16:49:42
1	Si 251.611†	112206.7	107080.4	4523.2	ug/L	4523.2	ppb	16:49:22
1	Sn 189.927†	2115.1	2017.3	506.99	ug/L	506.99	ppb	16:49:42
1	Ti 334.940†	184076.1	178576.1	473.93	ug/L	473.93	ppb	16:49:22
1	Tl 190.801†	829.9	855.0	509.45	ug/L	509.45	ppb	16:49:42
1	U 409.014†	8382.1	9842.1	496.60	ug/L	496.60	ppb	16:49:22
1	V 292.402†	53625.9	53419.1	486.87	ug/L	486.87	ppb	16:49:22
1	Zn 213.857†	46508.2	43676.6	487.62	ug/L	487.62	ppb	16:49:22
1	SiO2†	111415.2	106284.2	9606.3	ug/L	9606.3	ppb	16:50:39
2	Sc Radial	3382.7	3382.7	104	%			16:48:49
2	Y RADIAL	3753.5	3753.5	103.0	%			16:48:29
2	Al 396.153Radial†	4494.2	4424.1	5164.0	ug/L	5164.0	ppb	16:48:29
2	Ca 317.933Radial†	2397.4	2287.2	5151.6	ug/L	5151.6	ppb	16:48:49
2	Fe 238.204 Radial†	396.2	375.0	5050.4	ug/L	5050.4	ppb	16:48:49
2	K 766.490 Radial†	13995.9	10242.4	2388.9	ug/L	2388.9	ppb	16:48:29
2	Mg 279.077 IEC†	121.6	116.4	5284.4	ug/L	5284.4	ppb	16:48:49
2	Na 589.592 Radial†	4056.2	5083.4	2483.9	ug/L	2483.9	ppb	16:48:29
2	Sr 421.552†	52168.0	49985.3	521.96	ug/L	521.96	ppb	16:48:29
2	Sc 361.383	586589.9	586589.9	105.31	%			16:49:48
2	Y 371.029	540812.7	540812.7	104.52	%			16:49:48
2	Ag 328.068†	43494.3	41248.9	248.98	ug/L	248.98	ppb	16:49:48
2	As 188.979†	1015.4	1008.8	448.81	ug/L	448.81	ppb	16:50:08
2	B 249.677†	21285.5	20867.4	502.85	ug/L	502.85	ppb	16:49:48
2	Ba 233.527†	34132.9	32415.2	484.83	ug/L	484.83	ppb	16:49:48
2	Be 313.107†	583869.1	563984.9	248.41	ug/L	248.41	ppb	16:49:48
2	Cd 226.502†	35226.0	33757.6	469.71	ug/L	469.71	ppb	16:50:08
2	Co 228.616†	14182.6	13558.2	497.71	ug/L	497.71	ppb	16:50:08
2	Cr 267.716†	32919.2	31152.8	469.93	ug/L	469.93	ppb	16:49:48
2	Cu 324.752†	111528.4	99524.0	481.62	ug/L	481.62	ppb	16:49:48
2	Mn 257.610†	265341.8	251340.4	483.91	ug/L	483.91	ppb	16:49:48
2	Mo 202.031†	5190.9	4913.2	520.92	ug/L	520.92	ppb	16:50:08
2	Ni 231.604†	15030.5	14155.0	476.70	ug/L	476.70	ppb	16:50:08

2	P 214.914†	5037.3	4472.0	2279.0 ug/L	2279.0 ppb	16:50:08
2	Pb 220.353†	2733.5	2691.3	477.18 ug/L	477.18 ppb	16:50:08
2	S 181.975 Axial†	2001.8	1831.8	2378.2 ug/L	2378.2 ppb	16:50:08
2	Sb 206.836†	1164.1	1047.8	490.90 ug/L	490.90 ppb	16:50:08
2	Se 196.026†	3968.8	3801.7	2439.7 ug/L	2439.7 ppb	16:50:08
2	Si 251.611†	113725.8	107424.8	4537.7 ug/L	4537.7 ppb	16:49:48
2	Sn 189.927†	2116.1	1997.5	502.03 ug/L	502.03 ppb	16:50:08
2	Ti 334.940†	186413.8	178994.5	475.05 ug/L	475.05 ppb	16:49:48
2	Tl 190.801†	831.7	848.6	505.67 ug/L	505.67 ppb	16:50:08
2	U 409.014†	8339.0	9719.1	490.36 ug/L	490.36 ppb	16:49:48
2	V 292.402†	54220.9	53459.3	487.24 ug/L	487.24 ppb	16:49:48
2	Zn 213.857†	47107.5	43790.5	488.90 ug/L	488.90 ppb	16:49:48
2	SiO2†	108860.3	102767.8	9288.0 ug/L	9288.0 ppb	16:50:44
3	Sc Radial	3331.7	3331.7	103 %		16:49:14
3	Y RADIAL	3849.6	3849.6	105.6 %		16:48:54
3	Al 396.153Radial†	4527.5	4522.6	5279.9 ug/L	5279.9 ppb	16:48:54
3	Ca 317.933Radial†	2365.0	2290.9	5159.8 ug/L	5159.8 ppb	16:49:14
3	Fe 238.204 Radial†	391.8	376.5	5071.1 ug/L	5071.1 ppb	16:49:14
3	K 766.490 Radial†	14171.2	10618.7	2476.7 ug/L	2476.7 ppb	16:48:54
3	Mg 279.077 IEC†	117.9	114.6	5204.9 ug/L	5204.9 ppb	16:49:14
3	Na 589.592 Radial†	4067.7	5154.1	2518.4 ug/L	2518.4 ppb	16:48:54
3	Sr 421.552†	52823.6	51390.0	536.63 ug/L	536.63 ppb	16:48:54
3	Sc 361.383	583940.3	583940.3	104.83 %		16:50:14
3	Y 371.029	540015.8	540015.8	104.37 %		16:50:14
3	Ag 328.068†	43339.4	41288.6	249.22 ug/L	249.22 ppb	16:50:14
3	As 188.979†	1007.2	1005.3	447.28 ug/L	447.28 ppb	16:50:34
3	B 249.677†	21223.5	20900.0	503.65 ug/L	503.65 ppb	16:50:14
3	Ba 233.527†	33924.2	32363.2	484.06 ug/L	484.06 ppb	16:50:14
3	Be 313.107†	582356.6	565057.8	248.88 ug/L	248.88 ppb	16:50:14
3	Cd 226.502†	34522.5	33238.3	462.48 ug/L	462.48 ppb	16:50:34
3	Co 228.616†	13895.1	13345.1	489.87 ug/L	489.87 ppb	16:50:34
3	Cr 267.716†	32749.6	31132.9	469.63 ug/L	469.63 ppb	16:50:14
3	Cu 324.752†	110830.4	99338.8	480.73 ug/L	480.73 ppb	16:50:14
3	Mn 257.610†	263511.1	250737.4	482.76 ug/L	482.76 ppb	16:50:14
3	Mo 202.031†	5092.7	4841.9	513.37 ug/L	513.37 ppb	16:50:34
3	Ni 231.604†	14764.8	13966.3	470.35 ug/L	470.35 ppb	16:50:34
3	P 214.914†	4938.1	4399.1	2240.2 ug/L	2240.2 ppb	16:50:34
3	Pb 220.353†	2692.6	2664.0	472.37 ug/L	472.37 ppb	16:50:34
3	S 181.975 Axial†	1971.9	1812.0	2352.4 ug/L	2352.4 ppb	16:50:34
3	Sb 206.836†	1146.4	1035.9	485.37 ug/L	485.37 ppb	16:50:34
3	Se 196.026†	3868.0	3722.7	2389.2 ug/L	2389.2 ppb	16:50:34
3	Si 251.611†	112791.5	107023.5	4520.8 ug/L	4520.8 ppb	16:50:14
3	Sn 189.927†	2096.7	1988.2	499.69 ug/L	499.69 ppb	16:50:34
3	Ti 334.940†	185261.9	178698.9	474.27 ug/L	474.27 ppb	16:50:14
3	Tl 190.801†	818.6	839.6	500.40 ug/L	500.40 ppb	16:50:34
3	U 409.014†	8363.4	9778.3	493.36 ug/L	493.36 ppb	16:50:14
3	V 292.402†	54041.1	53521.4	487.69 ug/L	487.69 ppb	16:50:14
3	Zn 213.857†	46715.1	43619.1	487.02 ug/L	487.02 ppb	16:50:14
3	SiO2†	111820.3	106060.3	9586.2 ug/L	9586.2 ppb	16:50:49

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	583712.1	104.79	%	0.538				0.51%
Sc Radial	3367.1	104	%	0.9				0.91%
Y 371.029	539100.2	104.19	%	0.447				0.43%
Y RADIAL	3792.0	104.0	%	1.39				1.34%
Ag 328.068†	41239.1	248.92	ug/L	0.334	248.92	ppb	0.334	0.13%
QC value within limits for Ag 328.068 Recovery = 99.57%								
Al 396.153Radial†	4452.2	5197.1	ug/L	72.20	5197.1	ppb	72.20	1.39%
QC value within limits for Al 396.153Radial Recovery = 103.94%								
As 188.979†	1011.6	450.02	ug/L	3.500	450.02	ppb	3.500	0.78%
QC value within limits for As 188.979 Recovery = 90.00%								
B 249.677†	20860.3	502.68	ug/L	1.066	502.68	ppb	1.066	0.21%
QC value within limits for B 249.677 Recovery = 100.54%								
Ba 233.527†	32394.4	484.52	ug/L	0.409	484.52	ppb	0.409	0.08%
QC value within limits for Ba 233.527 Recovery = 96.90%								
Be 313.107†	564481.1	248.62	ug/L	0.236	248.62	ppb	0.236	0.10%
QC value within limits for Be 313.107 Recovery = 99.45%								
Ca 317.933Radial†	2284.5	5145.4	ug/L	18.34	5145.4	ppb	18.34	0.36%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.91%
Cd 226.502†            33593.7      467.43 ug/L         4.291      467.43 ppb          4.291   0.92%
   QC value within limits for Cd 226.502  Recovery = 93.49%
Co 228.616†            13492.2      495.28 ug/L         4.693      495.28 ppb          4.693   0.95%
   QC value within limits for Co 228.616  Recovery = 99.06%
Cr 267.716†            31165.9      470.12 ug/L         0.617      470.12 ppb          0.617   0.13%
   QC value within limits for Cr 267.716  Recovery = 94.02%
Cu 324.752†            99395.6      481.00 ug/L         0.539      481.00 ppb          0.539   0.11%
   QC value within limits for Cu 324.752  Recovery = 96.20%
Fe 238.204 Radial†       375.5      5058.3 ug/L        11.16      5058.3 ppb          11.16   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.17%
K 766.490 Radial†      10361.2      2416.6 ug/L        52.10      2416.6 ppb          52.10   2.16%
   QC value within limits for K 766.490 Radial  Recovery = 96.67%
Mg 279.077 IEC†          116.4      5287.3 ug/L        83.85      5287.3 ppb          83.85   1.59%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.75%
Mn 257.610†           251072.9      483.40 ug/L         0.588      483.40 ppb          0.588   0.12%
   QC value within limits for Mn 257.610  Recovery = 96.68%
Mo 202.031†             4885.6      518.01 ug/L         4.059      518.01 ppb          4.059   0.78%
   QC value within limits for Mo 202.031  Recovery = 103.60%
Na 589.592 Radial†      5095.7      2489.9 ug/L        26.07      2489.9 ppb          26.07   1.05%
   QC value within limits for Na 589.592 Radial  Recovery = 99.60%
Ni 231.604†            14093.1      474.62 ug/L         3.698      474.62 ppb          3.698   0.78%
   QC value within limits for Ni 231.604  Recovery = 94.92%
P 214.914†              4448.9      2266.8 ug/L        23.05      2266.8 ppb          23.05   1.02%
   QC value within limits for P 214.914  Recovery = 90.67%
Pb 220.353†             2690.7      477.07 ug/L         4.652      477.07 ppb          4.652   0.98%
   QC value within limits for Pb 220.353  Recovery = 95.41%
S 181.975 Axial†        1827.3      2372.3 ug/L        17.65      2372.3 ppb          17.65   0.74%
   QC value within limits for S 181.975 Axial  Recovery = 94.89%
Sb 206.836†             1038.4      486.63 ug/L         3.794      486.63 ppb          3.794   0.78%
   QC value within limits for Sb 206.836  Recovery = 97.33%
Se 196.026†             3769.1      2418.9 ug/L        26.35      2418.9 ppb          26.35   1.09%
   QC value within limits for Se 196.026  Recovery = 96.75%
Si 251.611†           107176.2      4527.2 ug/L         9.15      4527.2 ppb           9.15   0.20%
   QC value within limits for Si 251.611  Recovery = 90.54%
Sn 189.927†             2001.0      502.91 ug/L         3.728      502.91 ppb          3.728   0.74%
   QC value within limits for Sn 189.927  Recovery = 100.58%
Sr 421.552†            50441.6      526.73 ug/L         8.579      526.73 ppb          8.579   1.63%
   QC value within limits for Sr 421.552  Recovery = 105.35%
Ti 334.940†           178756.5      474.42 ug/L         0.576      474.42 ppb          0.576   0.12%
   QC value within limits for Ti 334.940  Recovery = 94.88%
Tl 190.801†              847.7      505.17 ug/L         4.547      505.17 ppb          4.547   0.90%
   QC value within limits for Tl 190.801  Recovery = 101.03%
U 409.014†              9779.8      493.44 ug/L         3.117      493.44 ppb          3.117   0.63%
   QC value within limits for U 409.014  Recovery = 98.69%
V 292.402†             53466.6      487.27 ug/L         0.408      487.27 ppb          0.408   0.08%
   QC value within limits for V 292.402  Recovery = 97.45%
Zn 213.857†            43695.4      487.84 ug/L         0.961      487.84 ppb          0.961   0.20%
   QC value within limits for Zn 213.857  Recovery = 97.57%
SiO2†                 105037.4      9493.5 ug/L       178.27      9493.5 ppb        178.27   1.88%
   QC value less than the lower limit for SiO2  Recovery = 88.77%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 4/15/2010 16:53:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3289.4	3289.4	101	%			16:55:13
1	Y RADIAL	3676.4	3676.4	100.9	%			16:54:53
1	Al 396.153Radial†	-117.2	-0.4	-0.4857	ug/L	-0.4857	ppb	16:54:53
1	Ca 317.933Radial†	9.0	-2.5	-5.6228	ug/L	-5.6228	ppb	16:55:13
1	Fe 238.204 Radial†	6.2	1.2	16.418	ug/L	16.418	ppb	16:55:13
1	K 766.490 Radial†	3026.9	-192.0	-44.821	ug/L	-44.821	ppb	16:54:53
1	Mg 279.077 IEC†	3.2	3.0	133.98	ug/L	133.98	ppb	16:55:13
1	Na 589.592 Radial†	-1222.7	-11.1	-5.4442	ug/L	-5.4442	ppb	16:54:53
1	Sr 421.552†	57.8	25.0	0.2611	ug/L	0.2611	ppb	16:54:53
1	Sc 361.383	574195.2	574195.2	103.08	%			16:56:10
1	Y 371.029	533988.6	533988.6	103.20	%			16:56:10
1	Ag 328.068†	105.8	50.0	0.3001	ug/L	0.3001	ppb	16:56:10
1	As 188.979†	-37.1	8.6	3.7863	ug/L	3.7863	ppb	16:56:30
1	B 249.677†	-342.5	322.7	7.8053	ug/L	7.8053	ppb	16:56:10
1	Ba 233.527†	-16.4	-12.7	-0.1900	ug/L	-0.1900	ppb	16:56:30
1	Be 313.107†	-9687.1	153.8	0.0677	ug/L	0.0677	ppb	16:56:10
1	Cd 226.502†	-305.9	10.8	0.1486	ug/L	0.1486	ppb	16:56:30
1	Co 228.616†	-96.1	-2.6	-0.0947	ug/L	-0.0947	ppb	16:56:30
1	Cr 267.716†	145.3	34.1	0.5134	ug/L	0.5134	ppb	16:56:10
1	Cu 324.752†	6641.6	61.1	0.2961	ug/L	0.2961	ppb	16:56:10
1	Mn 257.610†	645.8	2.1	0.0004	ug/L	0.0004	ppb	16:56:10
1	Mo 202.031†	26.1	9.3	0.9832	ug/L	0.9832	ppb	16:56:30
1	Ni 231.604†	135.5	13.7	0.4628	ug/L	0.4628	ppb	16:56:30
1	P 214.914†	319.0	-1.8	-1.0271	ug/L	-1.0271	ppb	16:56:30
1	Pb 220.353†	-100.5	-1.9	-0.3317	ug/L	-0.3317	ppb	16:56:30
1	S 181.975 Axial†	68.3	-2.8	-3.5938	ug/L	-3.5938	ppb	16:56:30
1	Sb 206.836†	50.4	-8.7	-3.8809	ug/L	-3.8809	ppb	16:56:30
1	Se 196.026†	-25.2	8.5	5.4644	ug/L	5.4644	ppb	16:56:30
1	Si 251.611†	582.9	-2.1	-0.1030	ug/L	-0.1030	ppb	16:56:30
1	Sn 189.927†	22.5	10.0	2.5050	ug/L	2.5050	ppb	16:56:30
1	Ti 334.940†	-2005.6	33.0	0.0763	ug/L	0.0763	ppb	16:56:10
1	Tl 190.801†	-52.7	7.7	4.5541	ug/L	4.5541	ppb	16:56:30
1	U 409.014†	-1838.6	17.0	0.8539	ug/L	0.8539	ppb	16:56:10
1	V 292.402†	-2091.6	-57.2	-0.4976	ug/L	-0.4976	ppb	16:56:10
1	Zn 213.857†	942.6	-27.7	-0.3130	ug/L	-0.3130	ppb	16:56:30
1	SiO2†	595.0	-27.2	-2.4878	ug/L	-2.4878	ppb	16:57:26
2	Sc Radial	3277.6	3277.6	101	%			16:55:38
2	Y RADIAL	3692.8	3692.8	101.3	%			16:55:18
2	Al 396.153Radial†	-117.9	-1.5	-1.8393	ug/L	-1.8393	ppb	16:55:18
2	Ca 317.933Radial†	9.3	-2.2	-4.8709	ug/L	-4.8709	ppb	16:55:38
2	Fe 238.204 Radial†	5.2	0.2	3.2532	ug/L	3.2532	ppb	16:55:38
2	K 766.490 Radial†	3172.7	-37.0	-8.6262	ug/L	-8.6262	ppb	16:55:18
2	Mg 279.077 IEC†	3.0	2.8	125.65	ug/L	125.65	ppb	16:55:38
2	Na 589.592 Radial†	-1221.3	-14.1	-6.8970	ug/L	-6.8970	ppb	16:55:18
2	Sr 421.552†	53.1	20.5	0.2146	ug/L	0.2146	ppb	16:55:18
2	Sc 361.383	550149.9	550149.9	98.767	%			16:56:36
2	Y 371.029	510982.5	510982.5	98.757	%			16:56:36
2	Ag 328.068†	-17.3	-70.1	-0.4198	ug/L	-0.4198	ppb	16:56:36
2	As 188.979†	-38.9	5.2	2.2946	ug/L	2.2946	ppb	16:56:56
2	B 249.677†	-340.7	310.1	7.5004	ug/L	7.5004	ppb	16:56:36
2	Ba 233.527†	1.9	5.0	0.0730	ug/L	0.0730	ppb	16:56:56
2	Be 313.107†	-9458.1	-25.1	-0.0111	ug/L	-0.0111	ppb	16:56:36
2	Cd 226.502†	-310.8	-7.2	-0.0998	ug/L	-0.0998	ppb	16:56:56
2	Co 228.616†	-90.8	-1.3	-0.0426	ug/L	-0.0426	ppb	16:56:56
2	Cr 267.716†	121.3	16.0	0.2402	ug/L	0.2402	ppb	16:56:36
2	Cu 324.752†	6336.0	33.4	0.1615	ug/L	0.1615	ppb	16:56:36
2	Mn 257.610†	592.2	-24.7	-0.0524	ug/L	-0.0524	ppb	16:56:36
2	Mo 202.031†	31.3	15.6	1.6577	ug/L	1.6577	ppb	16:56:56
2	Ni 231.604†	148.9	33.0	1.1116	ug/L	1.1116	ppb	16:56:56

2	P 214.914†	315.8	8.5	4.4861	ug/L	4.4861 ppb	16:56:56
2	Pb 220.353†	-93.6	0.8	0.1417	ug/L	0.1417 ppb	16:56:56
2	S 181.975 Axial†	65.9	-2.3	-2.9238	ug/L	-2.9238 ppb	16:56:56
2	Sb 206.836†	57.2	0.3	0.1810	ug/L	0.1810 ppb	16:56:56
2	Se 196.026†	-23.7	8.9	5.7263	ug/L	5.7263 ppb	16:56:56
2	Si 251.611†	590.5	30.2	1.2581	ug/L	1.2581 ppb	16:56:56
2	Sn 189.927†	10.6	-1.2	-0.2976	ug/L	-0.2976 ppb	16:56:56
2	Ti 334.940†	-1973.4	-19.5	-0.0612	ug/L	-0.0612 ppb	16:56:36
2	Tl 190.801†	-50.9	7.3	4.3023	ug/L	4.3023 ppb	16:56:56
2	U 409.014†	-1799.8	-21.7	-1.1041	ug/L	-1.1041 ppb	16:56:36
2	V 292.402†	-2047.2	-100.9	-0.8819	ug/L	-0.8819 ppb	16:56:36
2	Zn 213.857†	949.4	19.1	0.2077	ug/L	0.2077 ppb	16:56:56
2	SiO2†	576.6	-20.6	-1.9074	ug/L	-1.9074 ppb	16:57:31
3	Sc Radial	3251.9	3251.9	100	%		16:56:03
3	Y RADIAL	3614.6	3614.6	99.17	%		16:55:43
3	Al 396.153Radial†	-110.7	4.8	5.6074	ug/L	5.6074 ppb	16:55:43
3	Ca 317.933Radial†	11.8	0.4	0.9324	ug/L	0.9324 ppb	16:56:03
3	Fe 238.204 Radial†	5.0	0.1	1.4672	ug/L	1.4672 ppb	16:56:03
3	K 766.490 Radial†	3147.3	-37.5	-8.7639	ug/L	-8.7639 ppb	16:55:43
3	Mg 279.077 IEC†	4.5	4.3	194.99	ug/L	194.99 ppb	16:56:03
3	Na 589.592 Radial†	-1207.0	-9.5	-4.6201	ug/L	-4.6201 ppb	16:55:43
3	Sr 421.552†	16.7	-15.3	-0.1603	ug/L	-0.1603 ppb	16:55:43
3	Sc 361.383	561863.1	561863.1	100.87	%		16:57:01
3	Y 371.029	521687.5	521687.5	100.83	%		16:57:01
3	Ag 328.068†	217.5	163.0	0.9776	ug/L	0.9776 ppb	16:57:01
3	As 188.979†	-37.0	7.9	3.4795	ug/L	3.4795 ppb	16:57:21
3	B 249.677†	-350.4	307.6	7.4412	ug/L	7.4412 ppb	16:57:01
3	Ba 233.527†	-3.1	0.0	0.0027	ug/L	0.0027 ppb	16:57:21
3	Be 313.107†	-9669.6	-35.1	-0.0148	ug/L	-0.0148 ppb	16:57:01
3	Cd 226.502†	-304.4	5.7	0.0797	ug/L	0.0797 ppb	16:57:21
3	Co 228.616†	-99.8	-8.3	-0.3007	ug/L	-0.3007 ppb	16:57:21
3	Cr 267.716†	140.6	32.6	0.4925	ug/L	0.4925 ppb	16:57:01
3	Cu 324.752†	6389.8	-47.1	-0.2274	ug/L	-0.2274 ppb	16:57:01
3	Mn 257.610†	606.4	-23.2	-0.0525	ug/L	-0.0525 ppb	16:57:01
3	Mo 202.031†	29.9	13.6	1.4440	ug/L	1.4440 ppb	16:57:21
3	Ni 231.604†	136.3	17.4	0.5866	ug/L	0.5866 ppb	16:57:21
3	P 214.914†	325.1	11.0	5.9495	ug/L	5.9495 ppb	16:57:21
3	Pb 220.353†	-106.3	-9.8	-1.7270	ug/L	-1.7270 ppb	16:57:21
3	S 181.975 Axial†	67.7	-1.9	-2.4978	ug/L	-2.4978 ppb	16:57:21
3	Sb 206.836†	57.1	-1.0	-0.3920	ug/L	-0.3920 ppb	16:57:21
3	Se 196.026†	-35.4	-2.1	-1.3636	ug/L	-1.3636 ppb	16:57:21
3	Si 251.611†	563.0	-9.5	-0.4197	ug/L	-0.4197 ppb	16:57:21
3	Sn 189.927†	15.8	3.8	0.9605	ug/L	0.9605 ppb	16:57:21
3	Ti 334.940†	-1901.5	93.5	0.2344	ug/L	0.2344 ppb	16:57:01
3	Tl 190.801†	-60.1	-0.7	-0.4414	ug/L	-0.4414 ppb	16:57:21
3	U 409.014†	-1857.4	-40.9	-2.0761	ug/L	-2.0761 ppb	16:57:01
3	V 292.402†	-1896.0	92.2	0.8483	ug/L	0.8483 ppb	16:57:01
3	Zn 213.857†	949.3	-1.0	-0.0148	ug/L	-0.0148 ppb	16:57:21
3	SiO2†	625.9	16.1	1.4187	ug/L	1.4187 ppb	16:57:36

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	562069.4	100.91	%	2.159				2.14%
Sc Radial	3273.0	101	%	0.6				0.59%
Y 371.029	522219.5	100.93	%	2.225				2.20%
Y RADIAL	3661.3	100.4	%	1.13				1.13%
Ag 328.068†	47.6	0.2860	ug/L	0.69884	0.2860	ppb	0.69884	244.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.0	1.0941	ug/L	3.96679	1.0941	ppb	3.96679	362.55%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.2	3.1868	ug/L	0.78778	3.1868	ppb	0.78778	24.72%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	313.5	7.5823	ug/L	0.19537	7.5823	ppb	0.19537	2.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.5	-0.0381	ug/L	0.13616	-0.0381	ppb	0.13616	357.47%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	31.2	0.0139	ug/L	0.04659	0.0139	ppb	0.04659	335.25%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.4	-3.1871	ug/L	3.58736	-3.1871	ppb	3.58736	112.56%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 3.1      0.0428 ug/L       0.12827      0.0428 ppb        0.12827 299.42%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -4.1     -0.1460 ug/L       0.13646     -0.1460 ppb        0.13646  93.48%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                27.6      0.4154 ug/L       0.15205      0.4154 ppb        0.15205  36.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                15.8      0.0767 ug/L       0.27188      0.0767 ppb        0.27188 354.26%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.5      7.0461 ug/L       8.16523      7.0461 ppb        8.16523 115.88%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -88.8     -20.737 ug/L       20.8577     -20.737 ppb        20.8577 100.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.3      151.54 ug/L        37.858      151.54 ppb         37.858  24.98%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -15.3     -0.0348 ug/L       0.03052     -0.0348 ppb        0.03052  87.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.8      1.3616 ug/L       0.34471      1.3616 ppb        0.34471  25.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -11.6     -5.6538 ug/L       1.15283     -5.6538 ppb        1.15283  20.39%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                21.4      0.7203 ug/L       0.34447      0.7203 ppb        0.34447  47.82%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  5.9      3.1362 ug/L       3.67897      3.1362 ppb        3.67897 117.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -3.6     -0.6390 ug/L       0.97152     -0.6390 ppb        0.97152 152.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.3     -3.0051 ug/L       0.55251     -3.0051 ppb        0.55251  18.39%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.1     -1.3640 ug/L       2.19847     -1.3640 ppb        2.19847 161.18%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.1      3.2757 ug/L       4.01989      3.2757 ppb        4.01989 122.72%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 6.2      0.2451 ug/L       0.89144      0.2451 ppb        0.89144 363.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.2      1.0560 ug/L       1.40373      1.0560 ppb        1.40373 132.93%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                10.1      0.1052 ug/L       0.23105      0.1052 ppb        0.23105 219.72%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                35.7      0.0832 ug/L       0.14792      0.0832 ppb        0.14792 177.84%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 4.7      2.8050 ug/L       2.81428      2.8050 ppb        2.81428 100.33%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -15.2     -0.7755 ug/L       1.49242     -0.7755 ppb        1.49242 192.46%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -21.9     -0.1771 ug/L       0.90854     -0.1771 ppb        0.90854 513.08%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -3.2     -0.0401 ug/L       0.26127     -0.0401 ppb        0.26127 652.28%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -10.6     -0.9922 ug/L       2.10795     -0.9922 ppb        2.10795 212.46%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 4/15/2010 16:59:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3289.4	3289.4	101	%			17:02:01
1	Y RADIAL	3643.2	3643.2	99.95	%			17:01:41
1	Al 396.153Radial†	55.7	170.1	198.99	ug/L	198.99	ppb	17:01:41
1	Ca 317.933Radial†	103.7	90.8	204.60	ug/L	204.60	ppb	17:02:01
1	Fe 238.204 Radial†	12.6	7.6	101.54	ug/L	101.54	ppb	17:02:01
1	K 766.490 Radial†	3849.2	618.7	144.29	ug/L	144.29	ppb	17:01:41
1	Mg 279.077 IEC†	10.7	10.3	469.56	ug/L	469.56	ppb	17:02:01
1	Na 589.592 Radial†	-659.8	543.8	265.73	ug/L	265.73	ppb	17:01:41
1	Sr 421.552†	507.1	468.0	4.8859	ug/L	4.8859	ppb	17:01:41
1	Sc 361.383	563033.4	563033.4	101.08	%			17:02:58
1	Y 371.029	523720.2	523720.2	101.22	%			17:02:58
1	Ag 328.068†	905.0	842.7	5.0225	ug/L	5.0225	ppb	17:02:58
1	As 188.979†	26.7	71.0	31.354	ug/L	31.354	ppb	17:03:18
1	B 249.677†	1429.3	2069.0	50.027	ug/L	50.027	ppb	17:02:58
1	Ba 233.527†	317.8	317.6	4.7517	ug/L	4.7517	ppb	17:03:18
1	Be 313.107†	1423.8	10959.7	4.8178	ug/L	4.8178	ppb	17:02:58
1	Cd 226.502†	29.7	336.9	4.6931	ug/L	4.6931	ppb	17:03:18
1	Co 228.616†	25.5	115.9	4.2641	ug/L	4.2641	ppb	17:03:18
1	Cr 267.716†	424.9	313.6	4.7090	ug/L	4.7090	ppb	17:02:58
1	Cu 324.752†	8401.3	1929.8	9.3117	ug/L	9.3117	ppb	17:02:58
1	Mn 257.610†	5796.1	5109.9	9.8232	ug/L	9.8232	ppb	17:02:58
1	Mo 202.031†	115.7	98.5	10.442	ug/L	10.442	ppb	17:03:18
1	Ni 231.604†	267.7	147.1	4.9534	ug/L	4.9534	ppb	17:03:18
1	P 214.914†	589.9	272.3	143.34	ug/L	143.34	ppb	17:03:18
1	Pb 220.353†	-44.6	51.4	9.1415	ug/L	9.1415	ppb	17:03:18
1	S 181.975 Axial†	139.9	69.4	90.077	ug/L	90.077	ppb	17:03:18
1	Sb 206.836†	80.6	22.2	10.343	ug/L	10.343	ppb	17:03:18
1	Se 196.026†	17.2	50.0	32.139	ug/L	32.139	ppb	17:03:18
1	Si 251.611†	2865.5	2267.3	95.779	ug/L	95.779	ppb	17:02:58
1	Sn 189.927†	47.4	35.0	8.8128	ug/L	8.8128	ppb	17:03:18
1	Ti 334.940†	-48.8	1930.3	5.0837	ug/L	5.0837	ppb	17:02:58
1	Tl 190.801†	-30.0	29.2	17.336	ug/L	17.336	ppb	17:03:18
1	U 409.014†	-651.6	1155.9	58.567	ug/L	58.567	ppb	17:02:58
1	V 292.402†	-1529.3	458.9	4.3717	ug/L	4.3717	ppb	17:02:58
1	Zn 213.857†	1979.9	1016.6	11.390	ug/L	11.390	ppb	17:03:18
1	SiO2†	2893.0	2257.7	204.07	ug/L	204.07	ppb	17:04:14
2	Sc Radial	3237.2	3237.2	99.8	%			17:02:26
2	Y RADIAL	3704.1	3704.1	101.6	%			17:02:06
2	Al 396.153Radial†	50.6	165.9	194.12	ug/L	194.12	ppb	17:02:06
2	Ca 317.933Radial†	114.1	103.0	231.96	ug/L	231.96	ppb	17:02:26
2	Fe 238.204 Radial†	11.2	6.3	85.036	ug/L	85.036	ppb	17:02:26
2	K 766.490 Radial†	3827.3	658.0	153.46	ug/L	153.46	ppb	17:02:06
2	Mg 279.077 IEC†	10.9	10.7	485.72	ug/L	485.72	ppb	17:02:26
2	Na 589.592 Radial†	-582.7	610.6	298.34	ug/L	298.34	ppb	17:02:06
2	Sr 421.552†	492.9	461.9	4.8216	ug/L	4.8216	ppb	17:02:06
2	Sc 361.383	555746.4	555746.4	99.772	%			17:03:23
2	Y 371.029	516419.3	516419.3	99.807	%			17:03:23
2	Ag 328.068†	789.7	738.8	4.4113	ug/L	4.4113	ppb	17:03:23
2	As 188.979†	19.3	63.9	28.246	ug/L	28.246	ppb	17:03:43
2	B 249.677†	1412.1	2070.3	50.062	ug/L	50.062	ppb	17:03:23
2	Ba 233.527†	311.8	315.7	4.7221	ug/L	4.7221	ppb	17:03:43
2	Be 313.107†	1444.7	10999.1	4.8344	ug/L	4.8344	ppb	17:03:23
2	Cd 226.502†	37.5	345.1	4.8058	ug/L	4.8058	ppb	17:03:43
2	Co 228.616†	25.8	116.4	4.2828	ug/L	4.2828	ppb	17:03:43
2	Cr 267.716†	466.6	360.9	5.4276	ug/L	5.4276	ppb	17:03:23
2	Cu 324.752†	8309.2	1946.5	9.4018	ug/L	9.4018	ppb	17:03:23
2	Mn 257.610†	5698.3	5087.0	9.7769	ug/L	9.7769	ppb	17:03:23
2	Mo 202.031†	101.0	85.3	9.0412	ug/L	9.0412	ppb	17:03:43
2	Ni 231.604†	269.4	152.3	5.1287	ug/L	5.1287	ppb	17:03:43

2	P 214.914†	580.8	270.9	142.55 ug/L	142.55 ppb	17:03:43
2	Pb 220.353†	-40.1	55.4	9.8393 ug/L	9.8393 ppb	17:03:43
2	S 181.975 Axial†	140.7	72.0	93.463 ug/L	93.463 ppb	17:03:43
2	Sb 206.836†	61.2	3.7	1.9861 ug/L	1.9861 ppb	17:03:43
2	Se 196.026†	10.3	43.3	27.823 ug/L	27.823 ppb	17:03:43
2	Si 251.611†	2826.4	2265.2	95.709 ug/L	95.709 ppb	17:03:23
2	Sn 189.927†	45.7	33.9	8.5540 ug/L	8.5540 ppb	17:03:43
2	Ti 334.940†	-178.3	1799.9	4.7461 ug/L	4.7461 ppb	17:03:23
2	Tl 190.801†	-21.0	37.7	22.419 ug/L	22.419 ppb	17:03:43
2	U 409.014†	-986.4	811.8	41.124 ug/L	41.124 ppb	17:03:23
2	V 292.402†	-1531.0	437.3	4.1270 ug/L	4.1270 ppb	17:03:23
2	Zn 213.857†	1968.0	1030.3	11.542 ug/L	11.542 ppb	17:03:43
2	SiO2†	2926.0	2328.3	210.50 ug/L	210.50 ppb	17:04:19
3	Sc Radial	3232.6	3232.6	99.7 %		17:02:51
3	Y RADIAL	3618.3	3618.3	99.27 %		17:02:31
3	Al 396.153Radial†	53.2	168.6	197.27 ug/L	197.27 ppb	17:02:31
3	Ca 317.933Radial†	105.2	94.2	212.19 ug/L	212.19 ppb	17:02:51
3	Fe 238.204 Radial†	14.5	9.6	129.62 ug/L	129.62 ppb	17:02:51
3	K 766.490 Radial†	3736.4	572.3	133.46 ug/L	133.46 ppb	17:02:31
3	Mg 279.077 IEC†	6.9	6.7	306.39 ug/L	306.39 ppb	17:02:51
3	Na 589.592 Radial†	-611.8	580.5	283.67 ug/L	283.67 ppb	17:02:31
3	Sr 421.552†	535.3	505.1	5.2731 ug/L	5.2731 ppb	17:02:31
3	Sc 361.383	558387.4	558387.4	100.25 %		17:03:49
3	Y 371.029	518232.4	518232.4	100.16 %		17:03:49
3	Ag 328.068†	900.7	845.9	5.0585 ug/L	5.0585 ppb	17:03:49
3	As 188.979†	20.0	64.5	28.504 ug/L	28.504 ppb	17:04:09
3	B 249.677†	1529.5	2180.8	52.729 ug/L	52.729 ppb	17:03:49
3	Ba 233.527†	300.5	302.9	4.5336 ug/L	4.5336 ppb	17:04:09
3	Be 313.107†	1413.6	10961.2	4.8180 ug/L	4.8180 ppb	17:03:49
3	Cd 226.502†	23.4	330.8	4.6044 ug/L	4.6044 ppb	17:04:09
3	Co 228.616†	17.8	108.4	3.9885 ug/L	3.9885 ppb	17:04:09
3	Cr 267.716†	412.1	304.3	4.5740 ug/L	4.5740 ppb	17:03:49
3	Cu 324.752†	8287.8	1885.7	9.1069 ug/L	9.1069 ppb	17:03:49
3	Mn 257.610†	5733.1	5094.7	9.8038 ug/L	9.8038 ppb	17:03:49
3	Mo 202.031†	114.2	97.9	10.388 ug/L	10.388 ppb	17:04:09
3	Ni 231.604†	275.0	156.5	5.2729 ug/L	5.2729 ppb	17:04:09
3	P 214.914†	563.0	250.4	131.67 ug/L	131.67 ppb	17:04:09
3	Pb 220.353†	-43.3	52.4	9.3103 ug/L	9.3103 ppb	17:04:09
3	S 181.975 Axial†	141.2	71.9	93.309 ug/L	93.309 ppb	17:04:09
3	Sb 206.836†	79.7	21.9	10.266 ug/L	10.266 ppb	17:04:09
3	Se 196.026†	11.8	44.8	28.871 ug/L	28.871 ppb	17:04:09
3	Si 251.611†	2863.2	2288.6	96.680 ug/L	96.680 ppb	17:03:49
3	Sn 189.927†	52.8	40.8	10.265 ug/L	10.265 ppb	17:04:09
3	Ti 334.940†	-140.5	1838.4	4.8581 ug/L	4.8581 ppb	17:03:49
3	Tl 190.801†	-18.1	40.8	24.243 ug/L	24.243 ppb	17:04:09
3	U 409.014†	-888.7	914.0	46.295 ug/L	46.295 ppb	17:03:49
3	V 292.402†	-1540.0	435.7	4.1323 ug/L	4.1323 ppb	17:03:49
3	Zn 213.857†	1976.5	1029.5	11.536 ug/L	11.536 ppb	17:04:09
3	SiO2†	2835.6	2224.2	201.05 ug/L	201.05 ppb	17:04:24

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	559055.7	100.37	%	0.662				0.66%
Sc Radial	3253.1	100	%	1.0				0.97%
Y 371.029	519457.3	100.39	%	0.735				0.73%
Y RADIAL	3655.2	100.3	%	1.21				1.21%
Ag 328.068†	809.1	4.8308	ug/L	0.36371	4.8308	ppb	0.36371	7.53%
QC value within limits for Ag 328.068 Recovery = 96.62%								
Al 396.153Radial†	168.2	196.80	ug/L	2.468	196.80	ppb	2.468	1.25%
QC value within limits for Al 396.153Radial Recovery = 98.40%								
As 188.979†	66.5	29.368	ug/L	1.7247	29.368	ppb	1.7247	5.87%
QC value within limits for As 188.979 Recovery = 97.89%								
B 249.677†	2106.7	50.939	ug/L	1.5503	50.939	ppb	1.5503	3.04%
QC value within limits for B 249.677 Recovery = 101.88%								
Ba 233.527†	312.1	4.6691	ug/L	0.11826	4.6691	ppb	0.11826	2.53%
QC value within limits for Ba 233.527 Recovery = 93.38%								
Be 313.107†	10973.3	4.8234	ug/L	0.00950	4.8234	ppb	0.00950	0.20%
QC value within limits for Be 313.107 Recovery = 96.47%								
Ca 317.933Radial†	96.0	216.25	ug/L	14.122	216.25	ppb	14.122	6.53%

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   QC value within limits for Ca 317.933Radial  Recovery = 108.13%
Cd 226.502†              337.6      4.7011 ug/L       0.10095      4.7011 ppb        0.10095   2.15%
   QC value within limits for Cd 226.502  Recovery = 94.02%
Co 228.616†              113.6      4.1785 ug/L       0.16478      4.1785 ppb        0.16478   3.94%
   QC value within limits for Co 228.616  Recovery = 83.57%
Cr 267.716†              326.3      4.9035 ug/L       0.45883      4.9035 ppb        0.45883   9.36%
   QC value within limits for Cr 267.716  Recovery = 98.07%
Cu 324.752†             1920.7      9.2735 ug/L       0.15112      9.2735 ppb        0.15112   1.63%
   QC value within limits for Cu 324.752  Recovery = 92.73%
Fe 238.204 Radial†         7.8      105.40 ug/L        22.544      105.40 ppb         22.544  21.39%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.40%
K 766.490 Radial†        616.3      143.74 ug/L        10.016      143.74 ppb         10.016   6.97%
   QC value within limits for K 766.490 Radial  Recovery = 95.82%
Mg 279.077 IEC†            9.3      420.56 ug/L        99.198      420.56 ppb         99.198  23.59%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 140.19%
Mn 257.610†             5097.2      9.8013 ug/L       0.02328      9.8013 ppb        0.02328   0.24%
   QC value within limits for Mn 257.610  Recovery = 98.01%
Mo 202.031†               93.9      9.9573 ug/L       0.79378      9.9573 ppb        0.79378   7.97%
   QC value within limits for Mo 202.031  Recovery = 99.57%
Na 589.592 Radial†       578.3      282.58 ug/L        16.331      282.58 ppb         16.331   5.78%
   QC value within limits for Na 589.592 Radial  Recovery = 94.19%
Ni 231.604†              152.0      5.1184 ug/L       0.16000      5.1184 ppb        0.16000   3.13%
   QC value within limits for Ni 231.604  Recovery = 102.37%
P 214.914†               264.5      139.19 ug/L         6.524      139.19 ppb          6.524   4.69%
   QC value within limits for P 214.914  Recovery = 92.79%
Pb 220.353†               53.0      9.4304 ug/L       0.36404      9.4304 ppb        0.36404   3.86%
   QC value within limits for Pb 220.353  Recovery = 94.30%
S 181.975 Axial†          71.1      92.283 ug/L        1.9119      92.283 ppb         1.9119   2.07%
   QC value within limits for S 181.975 Axial  Recovery = 92.28%
Sb 206.836†               15.9      7.5318 ug/L       4.80286      7.5318 ppb        4.80286  63.77%
   QC value within limits for Sb 206.836  Recovery = 75.32%
Se 196.026†               46.0      29.611 ug/L        2.2513      29.611 ppb         2.2513   7.60%
   QC value within limits for Se 196.026  Recovery = 98.70%
Si 251.611†             2273.7      96.056 ug/L        0.5414      96.056 ppb         0.5414   0.56%
   QC value within limits for Si 251.611  Recovery = 96.06%
Sn 189.927†               36.6      9.2107 ug/L       0.92238      9.2107 ppb        0.92238  10.01%
   QC value within limits for Sn 189.927  Recovery = 92.11%
Sr 421.552†              478.3      4.9935 ug/L       0.24424      4.9935 ppb        0.24424   4.89%
   QC value within limits for Sr 421.552  Recovery = 99.87%
Ti 334.940†             1856.2      4.8960 ug/L       0.17192      4.8960 ppb        0.17192   3.51%
   QC value within limits for Ti 334.940  Recovery = 97.92%
Tl 190.801†               35.9      21.333 ug/L        3.5793      21.333 ppb         3.5793  16.78%
   QC value within limits for Tl 190.801  Recovery = 106.66%
U 409.014†               960.6      48.662 ug/L        8.9588      48.662 ppb         8.9588  18.41%
   QC value within limits for U 409.014  Recovery = 97.32%
V 292.402†               444.0      4.2103 ug/L       0.13975      4.2103 ppb        0.13975   3.32%
   QC value within limits for V 292.402  Recovery = 84.21%
Zn 213.857†             1025.5      11.489 ug/L        0.0861      11.489 ppb         0.0861   0.75%
   QC value within limits for Zn 213.857  Recovery = 114.89%
SiO2†                   2270.0      205.21 ug/L         4.828      205.21 ppb          4.828   2.35%
   QC value within limits for SiO2  Recovery = 96.34%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 4/15/2010 17:06:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3076.9	3076.9	94.9	%			17:08:50
1	Y RADIAL	3356.0	3356.0	92.07	%			17:08:50
1	Al 396.153Radial†	423120.2	446104.8	523260	ug/L	523260	ppb	17:08:30
1	Ca 317.933Radial†	206343.8	217485.2	489840	ug/L	489840	ppb	17:08:30
1	Fe 238.204 Radial†	12920.1	13613.6	182830	ug/L	182830	ppb	17:08:50
1	K 766.490 Radial†	2774.0	-252.5	-106.43	ug/L	-106.43	ppb	17:08:30
1	Mg 279.077 IEC†	10167.6	10717.0	486360	ug/L	486360	ppb	17:08:50
1	Na 589.592 Radial†	-982.1	159.2	77.775	ug/L	77.775	ppb	17:08:50
1	Sr 421.552†	1107.5	1135.3	8.1987	ug/L	8.1987	ppb	17:08:50
1	Sc 361.383	441191.3	441191.3	79.206	%			17:09:47
1	Y 371.029	428828.9	428828.9	82.879	%			17:09:47
1	Ag 328.068†	-7396.3	-9390.7	-7.4506	ug/L	-7.4506	ppb	17:09:47
1	As 188.979†	-85.0	-62.7	-3.7548	ug/L	-3.7548	ppb	17:10:07
1	B 249.677†	276.6	1004.2	5.1123	ug/L	5.1123	ppb	17:09:47
1	Ba 233.527†	-561.4	-705.7	-0.1610	ug/L	-0.1610	ppb	17:10:07
1	Be 313.107†	-8875.8	-1654.9	-0.7639	ug/L	-0.7639	ppb	17:09:47
1	Cd 226.502†	832.5	1358.6	2.4987	ug/L	2.4987	ppb	17:10:07
1	Co 228.616†	-52.9	23.8	-1.7950	ug/L	-1.7950	ppb	17:10:07
1	Cr 267.716†	86.5	2.4	2.9110	ug/L	2.9110	ppb	17:10:07
1	Cu 324.752†	4112.6	-1189.4	6.4868	ug/L	6.4868	ppb	17:09:47
1	Mn 257.610†	151.1	-433.6	-1.0986	ug/L	-1.0986	ppb	17:09:47
1	Mo 202.031†	-176.7	-239.2	-5.7497	ug/L	-5.7497	ppb	17:10:07
1	Ni 231.604†	183.4	113.8	4.0066	ug/L	4.0066	ppb	17:10:07
1	P 214.914†	305.6	74.5	93.066	ug/L	93.066	ppb	17:10:07
1	Pb 220.353†	-698.7	-786.6	-11.346	ug/L	-11.346	ppb	17:10:07
1	S 181.975 Axial†	65.6	13.9	-41.153	ug/L	-41.153	ppb	17:10:07
1	Sb 206.836†	68.0	28.3	13.177	ug/L	13.177	ppb	17:10:07
1	Se 196.026†	-544.1	-653.9	-81.155	ug/L	-81.155	ppb	17:10:07
1	Si 251.611†	735.8	361.4	15.599	ug/L	15.599	ppb	17:10:07
1	Sn 189.927†	-313.0	-407.1	-11.126	ug/L	-11.126	ppb	17:10:07
1	Ti 334.940†	-6583.7	-6333.6	-4.6551	ug/L	-4.6551	ppb	17:09:47
1	Tl 190.801†	-94.8	-60.9	-36.234	ug/L	-36.234	ppb	17:10:07
1	U 409.014†	-1093.3	420.2	-27.806	ug/L	-27.806	ppb	17:09:47
1	V 292.402†	-225.4	1687.2	-0.3197	ug/L	-0.3197	ppb	17:10:07
1	Zn 213.857†	2750.3	2530.2	45.698	ug/L	45.698	ppb	17:10:07
1	SiO2†	714.6	297.8	27.647	ug/L	27.647	ppb	17:11:03
2	Sc Radial	3002.7	3002.7	92.6	%			17:09:15
2	Y RADIAL	3310.5	3310.5	90.82	%			17:09:15
2	Al 396.153Radial†	408726.8	441579.5	517950	ug/L	517950	ppb	17:08:55
2	Ca 317.933Radial†	199168.3	215109.6	484490	ug/L	484490	ppb	17:08:55
2	Fe 238.204 Radial†	12665.9	13675.5	183660	ug/L	183660	ppb	17:09:15
2	K 766.490 Radial†	2819.8	-130.7	-77.485	ug/L	-77.485	ppb	17:08:55
2	Mg 279.077 IEC†	9933.5	10728.9	486900	ug/L	486900	ppb	17:09:15
2	Na 589.592 Radial†	-965.8	151.2	73.890	ug/L	73.890	ppb	17:09:15
2	Sr 421.552†	1099.3	1155.3	8.4476	ug/L	8.4476	ppb	17:09:15
2	Sc 361.383	451348.6	451348.6	81.030	%			17:10:12
2	Y 371.029	445830.5	445830.5	86.165	%			17:10:12
2	Ag 328.068†	-7915.4	-9821.2	-9.7225	ug/L	-9.7225	ppb	17:10:12
2	As 188.979†	-90.8	-67.4	-5.7312	ug/L	-5.7312	ppb	17:10:32
2	B 249.677†	270.5	988.8	4.6492	ug/L	4.6492	ppb	17:10:12
2	Ba 233.527†	-592.7	-728.4	-0.4473	ug/L	-0.4473	ppb	17:10:32
2	Be 313.107†	-9250.1	-1864.6	-0.8577	ug/L	-0.8577	ppb	17:10:12
2	Cd 226.502†	871.3	1382.8	2.7623	ug/L	2.7623	ppb	17:10:32
2	Co 228.616†	-35.9	46.3	-0.9860	ug/L	-0.9860	ppb	17:10:32
2	Cr 267.716†	104.1	21.7	3.2122	ug/L	3.2122	ppb	17:10:32
2	Cu 324.752†	4286.8	-1091.4	7.0114	ug/L	7.0114	ppb	17:10:12
2	Mn 257.610†	148.2	-441.4	-1.0465	ug/L	-1.0465	ppb	17:10:12
2	Mo 202.031†	-195.8	-257.6	-7.7247	ug/L	-7.7247	ppb	17:10:32
2	Ni 231.604†	144.8	61.0	2.2258	ug/L	2.2258	ppb	17:10:32

2	P 214.914†	291.3	48.2	77.205	ug/L	77.205	ppb	17:10:32
2	Pb 220.353†	-759.8	-842.1	-22.692	ug/L	-22.692	ppb	17:10:32
2	S 181.975 Axial†	74.5	23.0	-28.713	ug/L	-28.713	ppb	17:10:32
2	Sb 206.836†	75.8	35.9	16.635	ug/L	16.635	ppb	17:10:32
2	Se 196.026†	-571.3	-672.1	-91.319	ug/L	-91.319	ppb	17:10:32
2	Si 251.611†	756.4	365.9	15.812	ug/L	15.812	ppb	17:10:32
2	Sn 189.927†	-317.1	-403.2	-11.087	ug/L	-11.087	ppb	17:10:32
2	Ti 334.940†	-6986.6	-6643.7	-6.0574	ug/L	-6.0574	ppb	17:10:12
2	Tl 190.801†	-80.2	-40.2	-23.983	ug/L	-23.983	ppb	17:10:32
2	U 409.014†	-920.8	664.1	-15.662	ug/L	-15.662	ppb	17:10:12
2	V 292.402†	-60.6	1897.1	1.4599	ug/L	1.4599	ppb	17:10:32
2	Zn 213.857†	2830.5	2551.0	46.021	ug/L	46.021	ppb	17:10:32
2	SiO2†	713.0	275.6	25.688	ug/L	25.688	ppb	17:11:08
3	Sc Radial	2966.3	2966.3	91.5	%			17:09:40
3	Y RADIAL	3258.5	3258.5	89.40	%			17:09:40
3	Al 396.153Radial†	412464.8	451092.5	529110	ug/L	529110	ppb	17:09:20
3	Ca 317.933Radial†	200871.6	219616.0	494640	ug/L	494640	ppb	17:09:20
3	Fe 238.204 Radial†	12461.7	13620.4	182920	ug/L	182920	ppb	17:09:40
3	K 766.490 Radial†	2995.6	98.8	-24.869	ug/L	-24.869	ppb	17:09:20
3	Mg 279.077 IEC†	9772.1	10684.3	484880	ug/L	484880	ppb	17:09:40
3	Na 589.592 Radial†	-954.5	150.8	73.673	ug/L	73.673	ppb	17:09:40
3	Sr 421.552†	1074.0	1142.3	8.2353	ug/L	8.2353	ppb	17:09:40
3	Sc 361.383	451161.1	451161.1	80.996	%			17:10:38
3	Y 371.029	445109.4	445109.4	86.025	%			17:10:38
3	Ag 328.068†	-7960.2	-9880.5	-10.399	ug/L	-10.399	ppb	17:10:38
3	As 188.979†	-79.0	-53.0	0.5274	ug/L	0.5274	ppb	17:10:58
3	B 249.677†	340.6	1075.4	6.8257	ug/L	6.8257	ppb	17:10:38
3	Ba 233.527†	-594.6	-730.9	-0.5288	ug/L	-0.5288	ppb	17:10:58
3	Be 313.107†	-9301.5	-1932.8	-0.8881	ug/L	-0.8881	ppb	17:10:38
3	Cd 226.502†	858.6	1367.5	2.6167	ug/L	2.6167	ppb	17:10:58
3	Co 228.616†	-51.3	27.3	-1.6664	ug/L	-1.6664	ppb	17:10:58
3	Cr 267.716†	64.1	-27.7	2.4555	ug/L	2.4555	ppb	17:10:58
3	Cu 324.752†	4228.3	-1161.3	6.6220	ug/L	6.6220	ppb	17:10:38
3	Mn 257.610†	152.4	-436.1	-1.0330	ug/L	-1.0330	ppb	17:10:38
3	Mo 202.031†	-182.8	-241.7	-5.9426	ug/L	-5.9426	ppb	17:10:58
3	Ni 231.604†	172.1	94.7	3.3640	ug/L	3.3640	ppb	17:10:58
3	P 214.914†	316.6	79.6	97.221	ug/L	97.221	ppb	17:10:58
3	Pb 220.353†	-730.1	-805.8	-13.172	ug/L	-13.172	ppb	17:10:58
3	S 181.975 Axial†	80.8	30.8	-19.860	ug/L	-19.860	ppb	17:10:58
3	Sb 206.836†	48.1	1.8	1.3119	ug/L	1.3119	ppb	17:10:58
3	Se 196.026†	-566.4	-666.4	-88.886	ug/L	-88.886	ppb	17:10:58
3	Si 251.611†	808.7	430.9	18.541	ug/L	18.541	ppb	17:10:58
3	Sn 189.927†	-300.6	-383.1	-4.2349	ug/L	-4.2349	ppb	17:10:58
3	Ti 334.940†	-7048.7	-6723.9	-5.1082	ug/L	-5.1082	ppb	17:10:38
3	Tl 190.801†	-98.0	-62.1	-36.985	ug/L	-36.985	ppb	17:10:58
3	U 409.014†	-916.0	669.6	-15.184	ug/L	-15.184	ppb	17:10:38
3	V 292.402†	-113.7	1831.5	0.9560	ug/L	0.9560	ppb	17:10:58
3	Zn 213.857†	2751.9	2455.5	44.871	ug/L	44.871	ppb	17:10:58
3	SiO2†	760.4	334.5	30.971	ug/L	30.971	ppb	17:11:13

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	447900.4	80.410	%	1.0432				1.30%
Sc Radial	3015.3	93.0	%	1.74				1.87%
Y 371.029	439922.9	85.023	%	1.8582				2.19%
Y RADIAL	3308.3	90.76	%	1.338				1.47%
Ag 328.068†	-9697.5	-9.1908	ug/L	1.54451	-9.1908	ppb	1.54451	16.81%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	446258.9	523440	ug/L	5581.3	523440	ppb	5581.3	1.07%
QC value within limits for Al 396.153Radial Recovery = 104.69%								
As 188.979†	-61.0	-2.9862	ug/L	3.19930	-2.9862	ppb	3.19930	107.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1022.8	5.5291	ug/L	1.14654	5.5291	ppb	1.14654	20.74%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-721.7	-0.3790	ug/L	0.19318	-0.3790	ppb	0.19318	50.97%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1817.4	-0.8366	ug/L	0.06474	-0.8366	ppb	0.06474	7.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	217403.6	489660	ug/L	5077.4	489660	ppb	5077.4	1.04%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.93%
Cd 226.502†            1369.6      2.6259 ug/L       0.13203      2.6259 ppb        0.13203   5.03%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              32.5     -1.4825 ug/L       0.43471     -1.4825 ppb        0.43471  29.32%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -1.2      2.8596 ug/L       0.38095      2.8596 ppb        0.38095  13.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -1147.4      6.7067 ug/L       0.27238      6.7067 ppb        0.27238   4.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    13636.5      183140 ug/L         455.8      183140 ppb          455.8   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 91.57%
K 766.490 Radial†        -94.8     -69.593 ug/L       41.3470     -69.593 ppb        41.3470  59.41%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       10710.1      486050 ug/L        1047.9      486050 ppb         1047.9   0.22%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.21%
Mn 257.610†            -437.1     -1.0594 ug/L       0.03463     -1.0594 ppb        0.03463   3.27%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -246.2     -6.4723 ug/L       1.08886     -6.4723 ppb        1.08886  16.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      153.7      75.113 ug/L        2.3078      75.113 ppb         2.3078   3.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              89.8      3.1988 ug/L       0.90185      3.1988 ppb        0.90185  28.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               67.4      89.164 ug/L       10.5633      89.164 ppb        10.5633  11.85%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -811.5     -15.737 ug/L        6.0925     -15.737 ppb         6.0925  38.72%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         22.5     -29.908 ug/L       10.6968     -29.908 ppb        10.6968  35.77%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              22.0      10.374 ug/L        8.0366      10.374 ppb         8.0366  77.47%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -664.1     -87.120 ug/L        5.3072     -87.120 ppb         5.3072   6.09%
   QC value less than the lower limit for Se 196.026  Recovery = Not calculated
Si 251.611†             386.0      16.650 ug/L        1.6405      16.650 ppb         1.6405   9.85%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -397.8     -8.8158 ug/L       3.96726     -8.8158 ppb        3.96726  45.00%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            1144.3      8.2939 ug/L       0.13442      8.2939 ppb        0.13442   1.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -6567.1     -5.2736 ug/L       0.71562     -5.2736 ppb        0.71562  13.57%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -54.4     -32.401 ug/L        7.2993     -32.401 ppb         7.2993  22.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              584.6     -19.551 ug/L        7.1531     -19.551 ppb         7.1531  36.59%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             1805.3      0.6987 ug/L       0.91728      0.6987 ppb        0.91728 131.28%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2512.2      45.530 ug/L        0.5933      45.530 ppb         0.5933   1.30%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
SiO2†                   302.6      28.102 ug/L        2.6709      28.102 ppb         2.6709   9.50%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 4/15/2010 17:13:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3146.3	3146.3	97.0	%			17:15:38
1	Y RADIAL	3443.5	3443.5	94.47	%			17:15:38
1	Al 396.153Radial†	439212.1	452858.7	531160	ug/L	531160	ppb	17:15:17
1	Ca 317.933Radial†	212822.2	219367.6	494080	ug/L	494080	ppb	17:15:17
1	Fe 238.204 Radial†	13511.2	13922.6	186990	ug/L	186990	ppb	17:15:38
1	K 766.490 Radial†	25349.7	22954.2	5308.1	ug/L	5308.1	ppb	17:15:17
1	Mg 279.077 IEC†	10525.6	10849.7	492390	ug/L	492390	ppb	17:15:38
1	Na 589.592 Radial†	9579.9	11069.4	5408.8	ug/L	5408.8	ppb	17:15:38
1	Sr 421.552†	47750.6	49189.7	510.00	ug/L	510.00	ppb	17:15:17
1	Sc 361.383	528275.9	528275.9	94.840	%			17:16:35
1	Y 371.029	481952.3	481952.3	93.146	%			17:16:35
1	Ag 328.068†	34806.9	36648.0	269.79	ug/L	269.79	ppb	17:16:35
1	As 188.979†	954.9	1051.5	491.67	ug/L	491.67	ppb	17:16:55
1	B 249.677†	19757.9	21487.9	498.82	ug/L	498.82	ppb	17:16:35
1	Ba 233.527†	30650.0	32320.7	493.75	ug/L	493.75	ppb	17:16:35
1	Be 313.107†	502220.2	539095.2	237.52	ug/L	237.52	ppb	17:16:35
1	Cd 226.502†	31768.0	33803.9	454.03	ug/L	454.03	ppb	17:16:55
1	Co 228.616†	12332.1	13093.7	477.88	ug/L	477.88	ppb	17:16:55
1	Cr 267.716†	29914.3	31435.1	477.01	ug/L	477.01	ppb	17:16:35
1	Cu 324.752†	113524.8	113319.6	560.55	ug/L	560.55	ppb	17:16:35
1	Mn 257.610†	241548.4	254065.8	488.77	ug/L	488.77	ppb	17:16:35
1	Mo 202.031†	4199.0	4411.5	487.29	ug/L	487.29	ppb	17:16:55
1	Ni 231.604†	13050.5	13642.8	459.63	ug/L	459.63	ppb	17:16:55
1	P 214.914†	4667.2	4609.8	2389.8	ug/L	2389.8	ppb	17:16:55
1	Pb 220.353†	1857.3	2053.9	492.79	ug/L	492.79	ppb	17:16:55
1	S 181.975 Axial†	1930.0	1966.0	2493.0	ug/L	2493.0	ppb	17:16:55
1	Sb 206.836†	1170.2	1176.3	548.74	ug/L	548.74	ppb	17:16:55
1	Se 196.026†	3180.9	3386.9	2509.7	ug/L	2509.7	ppb	17:16:55
1	Si 251.611†	113642.6	119257.9	5038.9	ug/L	5038.9	ppb	17:16:35
1	Sn 189.927†	1555.7	1628.4	500.26	ug/L	500.26	ppb	17:16:55
1	Ti 334.940†	172071.2	183411.6	498.75	ug/L	498.75	ppb	17:16:35
1	Tl 190.801†	703.9	801.0	477.65	ug/L	477.65	ppb	17:16:55
1	U 409.014†	9729.1	12058.9	560.11	ug/L	560.11	ppb	17:16:35
1	V 292.402†	50980.4	55725.9	492.01	ug/L	492.01	ppb	17:16:35
1	Zn 213.857†	44260.3	45726.2	527.87	ug/L	527.87	ppb	17:16:35
1	SiO2†	110394.0	115795.7	10469	ug/L	10469	ppb	17:17:53
2	Sc Radial	3148.5	3148.5	97.1	%			17:16:03
2	Y RADIAL	3453.7	3453.7	94.75	%			17:16:03
2	Al 396.153Radial†	433625.4	446791.3	524040	ug/L	524040	ppb	17:15:43
2	Ca 317.933Radial†	210149.9	216463.4	487540	ug/L	487540	ppb	17:15:43
2	Fe 238.204 Radial†	13520.9	13922.9	187000	ug/L	187000	ppb	17:16:03
2	K 766.490 Radial†	24899.6	22472.6	5196.3	ug/L	5196.3	ppb	17:15:43
2	Mg 279.077 IEC†	10557.4	10875.0	493540	ug/L	493540	ppb	17:16:03
2	Na 589.592 Radial†	9607.7	11091.2	5419.5	ug/L	5419.5	ppb	17:16:03
2	Sr 421.552†	47011.5	48394.4	501.75	ug/L	501.75	ppb	17:15:43
2	Sc 361.383	528513.1	528513.1	94.883	%			17:17:01
2	Y 371.029	482224.0	482224.0	93.199	%			17:17:01
2	Ag 328.068†	34794.8	36618.8	269.68	ug/L	269.68	ppb	17:17:01
2	As 188.979†	937.0	1032.2	483.16	ug/L	483.16	ppb	17:17:21
2	B 249.677†	19579.7	21290.7	494.06	ug/L	494.06	ppb	17:17:01
2	Ba 233.527†	30670.5	32327.8	493.85	ug/L	493.85	ppb	17:17:01
2	Be 313.107†	503799.6	540522.1	238.14	ug/L	238.14	ppb	17:17:01
2	Cd 226.502†	31627.7	33640.9	451.76	ug/L	451.76	ppb	17:17:21
2	Co 228.616†	12257.6	13009.3	474.78	ug/L	474.78	ppb	17:17:21
2	Cr 267.716†	29919.9	31426.8	476.88	ug/L	476.88	ppb	17:17:01
2	Cu 324.752†	113479.2	113217.7	560.06	ug/L	560.06	ppb	17:17:01
2	Mn 257.610†	240929.1	253298.8	487.24	ug/L	487.24	ppb	17:17:01
2	Mo 202.031†	4168.2	4377.0	483.54	ug/L	483.54	ppb	17:17:21
2	Ni 231.604†	13003.4	13587.0	457.75	ug/L	457.75	ppb	17:17:21

2	P 214.914†	4636.7	4575.5	2369.8	ug/L	2369.8 ppb	17:17:21
2	Pb 220.353†	1843.2	2038.2	488.07	ug/L	488.07 ppb	17:17:21
2	S 181.975 Axial†	1907.7	1941.6	2462.1	ug/L	2462.1 ppb	17:17:21
2	Sb 206.836†	1145.3	1149.5	536.56	ug/L	536.56 ppb	17:17:21
2	Se 196.026†	3162.5	3366.1	2496.3	ug/L	2496.3 ppb	17:17:21
2	Si 251.611†	113373.9	118920.9	5024.7	ug/L	5024.7 ppb	17:17:01
2	Sn 189.927†	1544.2	1615.6	495.87	ug/L	495.87 ppb	17:17:21
2	Ti 334.940†	171730.0	182970.5	496.84	ug/L	496.84 ppb	17:17:01
2	Tl 190.801†	698.7	795.2	474.20	ug/L	474.20 ppb	17:17:21
2	U 409.014†	9738.7	12064.4	560.39	ug/L	560.39 ppb	17:17:01
2	V 292.402†	51020.1	55743.6	492.14	ug/L	492.14 ppb	17:17:01
2	Zn 213.857†	44326.6	45775.1	528.43	ug/L	528.43 ppb	17:17:01
2	SiO2†	112127.0	117570.0	10629	ug/L	10629 ppb	17:17:58
3	Sc Radial	3139.2	3139.2	96.8	%		17:16:28
3	Y RADIAL	3445.3	3445.3	94.52	%		17:16:28
3	Al 396.153Radial†	434935.6	449471.5	527180	ug/L	527180 ppb	17:16:08
3	Ca 317.933Radial†	210569.5	217539.7	489970	ug/L	489970 ppb	17:16:08
3	Fe 238.204 Radial†	13509.6	13952.6	187390	ug/L	187390 ppb	17:16:28
3	K 766.490 Radial†	24961.1	22612.3	5228.7	ug/L	5228.7 ppb	17:16:08
3	Mg 279.077 IEC†	10530.3	10879.2	493730	ug/L	493730 ppb	17:16:28
3	Na 589.592 Radial†	9601.8	11114.5	5430.8	ug/L	5430.8 ppb	17:16:28
3	Sr 421.552†	47188.8	48721.4	505.14	ug/L	505.14 ppb	17:16:08
3	Sc 361.383	524768.0	524768.0	94.210	%		17:17:27
3	Y 371.029	479501.5	479501.5	92.672	%		17:17:27
3	Ag 328.068†	34496.6	36563.9	269.45	ug/L	269.45 ppb	17:17:27
3	As 188.979†	938.5	1040.8	487.01	ug/L	487.01 ppb	17:17:47
3	B 249.677†	19584.3	21442.8	497.70	ug/L	497.70 ppb	17:17:27
3	Ba 233.527†	30580.3	32462.7	495.89	ug/L	495.89 ppb	17:17:27
3	Be 313.107†	500464.6	540771.5	238.25	ug/L	238.25 ppb	17:17:27
3	Cd 226.502†	31202.7	33427.7	448.76	ug/L	448.76 ppb	17:17:47
3	Co 228.616†	12107.6	12942.3	472.31	ug/L	472.31 ppb	17:17:47
3	Cr 267.716†	29781.0	31504.4	478.06	ug/L	478.06 ppb	17:17:27
3	Cu 324.752†	112349.7	112872.4	558.42	ug/L	558.42 ppb	17:17:27
3	Mn 257.610†	239269.3	253349.1	487.38	ug/L	487.38 ppb	17:17:27
3	Mo 202.031†	4119.4	4356.5	481.43	ug/L	481.43 ppb	17:17:47
3	Ni 231.604†	12806.2	13475.4	453.99	ug/L	453.99 ppb	17:17:47
3	P 214.914†	4603.3	4574.9	2370.5	ug/L	2370.5 ppb	17:17:47
3	Pb 220.353†	1781.0	1986.0	479.66	ug/L	479.66 ppb	17:17:47
3	S 181.975 Axial†	1894.2	1941.6	2461.7	ug/L	2461.7 ppb	17:17:47
3	Sb 206.836†	1136.0	1148.2	535.84	ug/L	535.84 ppb	17:17:47
3	Se 196.026†	3105.9	3329.7	2473.8	ug/L	2473.8 ppb	17:17:47
3	Si 251.611†	112502.3	118848.4	5021.7	ug/L	5021.7 ppb	17:17:27
3	Sn 189.927†	1514.0	1595.2	491.19	ug/L	491.19 ppb	17:17:47
3	Ti 334.940†	170757.8	183230.3	497.76	ug/L	497.76 ppb	17:17:27
3	Tl 190.801†	691.0	792.3	472.49	ug/L	472.49 ppb	17:17:47
3	U 409.014†	9648.1	12041.5	559.12	ug/L	559.12 ppb	17:17:27
3	V 292.402†	50663.9	55749.3	492.10	ug/L	492.10 ppb	17:17:27
3	Zn 213.857†	43964.5	45724.2	527.92	ug/L	527.92 ppb	17:17:27
3	SiO2†	114140.4	120550.5	10899	ug/L	10899 ppb	17:18:03

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	527185.6	94.644	%	0.3765				0.40%
Sc Radial	3144.7	97.0	%	0.15				0.16%
Y 371.029	481225.9	93.006	%	0.2898				0.31%
Y RADIAL	3447.5	94.58	%	0.148				0.16%
Ag 328.068†	36610.2	269.64	ug/L	0.174	269.64	ppb	0.174	0.06%
QC value within limits for Ag 328.068 Recovery = 107.85%								
Al 396.153Radial†	449707.2	527460	ug/L	3566.3	527460	ppb	3566.3	0.68%
QC value within limits for Al 396.153Radial Recovery = 105.49%								
As 188.979†	1041.5	487.28	ug/L	4.262	487.28	ppb	4.262	0.87%
QC value within limits for As 188.979 Recovery = 97.46%								
B 249.677†	21407.1	496.86	ug/L	2.491	496.86	ppb	2.491	0.50%
QC value within limits for B 249.677 Recovery = 99.37%								
Ba 233.527†	32370.4	494.50	ug/L	1.206	494.50	ppb	1.206	0.24%
QC value within limits for Ba 233.527 Recovery = 98.90%								
Be 313.107†	540129.6	237.97	ug/L	0.396	237.97	ppb	0.396	0.17%
QC value within limits for Be 313.107 Recovery = 95.19%								
Ca 317.933Radial†	217790.2	490530	ug/L	3306.9	490530	ppb	3306.9	0.67%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.11%
Cd 226.502†            33624.2      451.52 ug/L         2.646      451.52 ppb          2.646   0.59%
   QC value within limits for Cd 226.502  Recovery = 90.30%
Co 228.616†            13015.1      474.99 ug/L         2.793      474.99 ppb          2.793   0.59%
   QC value within limits for Co 228.616  Recovery = 95.00%
Cr 267.716†            31455.4      477.32 ug/L         0.646      477.32 ppb          0.646   0.14%
   QC value within limits for Cr 267.716  Recovery = 95.46%
Cu 324.752†           113136.6      559.68 ug/L         1.118      559.68 ppb          1.118   0.20%
   QC value within limits for Cu 324.752  Recovery = 111.94%
Fe 238.204 Radial†     13932.7      187130 ug/L         231.4      187130 ppb          231.4   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.56%
K 766.490 Radial†      22679.7      5244.3 ug/L         57.53      5244.3 ppb          57.53   1.10%
   QC value within limits for K 766.490 Radial  Recovery = 104.89%
Mg 279.077 IEC†        10868.0      493220 ug/L         726.0      493220 ppb          726.0   0.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.64%
Mn 257.610†           253571.2      487.80 ug/L         0.843      487.80 ppb          0.843   0.17%
   QC value within limits for Mn 257.610  Recovery = 97.56%
Mo 202.031†             4381.7      484.08 ug/L         2.965      484.08 ppb          2.965   0.61%
   QC value within limits for Mo 202.031  Recovery = 96.82%
Na 589.592 Radial†     11091.7      5419.7 ug/L         11.02      5419.7 ppb          11.02   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 108.39%
Ni 231.604†            13568.4      457.12 ug/L         2.870      457.12 ppb          2.870   0.63%
   QC value within limits for Ni 231.604  Recovery = 91.42%
P 214.914†              4586.7      2376.7 ug/L         11.38      2376.7 ppb          11.38   0.48%
   QC value within limits for P 214.914  Recovery = 95.07%
Pb 220.353†             2026.0      486.84 ug/L         6.653      486.84 ppb          6.653   1.37%
   QC value within limits for Pb 220.353  Recovery = 97.37%
S 181.975 Axial†        1949.7      2472.3 ug/L         17.95      2472.3 ppb          17.95   0.73%
   QC value within limits for S 181.975 Axial  Recovery = 98.89%
Sb 206.836†             1158.0      540.38 ug/L         7.251      540.38 ppb          7.251   1.34%
   QC value within limits for Sb 206.836  Recovery = 108.08%
Se 196.026†             3360.9      2493.3 ug/L         18.12      2493.3 ppb          18.12   0.73%
   QC value within limits for Se 196.026  Recovery = 99.73%
Si 251.611†           119009.1      5028.4 ug/L          9.21      5028.4 ppb           9.21   0.18%
   QC value within limits for Si 251.611  Recovery = 100.57%
Sn 189.927†             1613.1      495.78 ug/L         4.539      495.78 ppb          4.539   0.92%
   QC value within limits for Sn 189.927  Recovery = 99.16%
Sr 421.552†            48768.5      505.63 ug/L         4.150      505.63 ppb          4.150   0.82%
   QC value within limits for Sr 421.552  Recovery = 101.13%
Ti 334.940†           183204.1      497.79 ug/L         0.955      497.79 ppb          0.955   0.19%
   QC value within limits for Ti 334.940  Recovery = 99.56%
Tl 190.801†              796.2      474.78 ug/L         2.629      474.78 ppb          2.629   0.55%
   QC value within limits for Tl 190.801  Recovery = 94.96%
U 409.014†             12054.9      559.87 ug/L         0.669      559.87 ppb          0.669   0.12%
   QC value within limits for U 409.014  Recovery = 111.97%
V 292.402†             55739.6      492.08 ug/L         0.067      492.08 ppb          0.067   0.01%
   QC value within limits for V 292.402  Recovery = 98.42%
Zn 213.857†            45741.8      528.07 ug/L         0.310      528.07 ppb          0.310   0.06%
   QC value within limits for Zn 213.857  Recovery = 105.61%
SiO2†                 117972.0       10666 ug/L         217.6       10666 ppb          217.6   2.04%
   QC value within limits for SiO2  Recovery = 99.73%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 4/15/2010 17:20:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3128.0	3128.0	96.4	%			17:22:26
1	Y RADIAL	3429.4	3429.4	94.09	%			17:22:26
1	Al 396.153Radial†	412430.6	427747.3	501730	ug/L	501730	ppb	17:22:06
1	Ca 317.933Radial†	201620.2	209040.3	470820	ug/L	470820	ppb	17:22:06
1	Fe 238.204 Radial†	30538.5	31659.3	425180	ug/L	425180	ppb	17:22:26
1	K 766.490 Radial†	3602.8	559.1	-123.88	ug/L	-123.88	ppb	17:22:06
1	Mg 279.077 IEC†	10077.1	10448.4	474020	ug/L	474020	ppb	17:22:26
1	Na 589.592 Radial†	961295.4	997921.7	487610	ug/L	487610	ppb	17:22:06
1	Sr 421.552†	1132.2	1141.9	8.4091	ug/L	8.4091	ppb	17:22:26
1	Sc 361.383	516164.8	516164.8	92.666	%			17:23:24
1	Y 371.029	471440.1	471440.1	91.114	%			17:23:24
1	Ag 328.068†	-18299.8	-19800.8	-11.621	ug/L	-11.621	ppb	17:23:24
1	As 188.979†	-154.0	-121.6	2.1335	ug/L	2.1335	ppb	17:23:45
1	B 249.677†	1283.3	2039.8	4.7278	ug/L	4.7278	ppb	17:23:24
1	Ba 233.527†	-1405.2	-1513.3	1.5191	ug/L	1.5191	ppb	17:23:45
1	Be 313.107†	-14042.6	-5602.9	-2.4790	ug/L	-2.4790	ppb	17:23:24
1	Cd 226.502†	2529.1	3036.7	7.2623	ug/L	7.2623	ppb	17:23:45
1	Co 228.616†	77.3	174.0	0.1560	ug/L	0.1560	ppb	17:23:45
1	Cr 267.716†	164.8	71.1	1.3096	ug/L	1.3096	ppb	17:23:45
1	Cu 324.752†	2171.9	-4037.9	-0.0717	ug/L	-0.0717	ppb	17:23:24
1	Mn 257.610†	-13672.2	-15378.7	-3.3392	ug/L	-3.3392	ppb	17:23:24
1	Mo 202.031†	-351.7	-395.6	-5.8708	ug/L	-5.8708	ppb	17:23:45
1	Ni 231.604†	236.6	137.6	5.0308	ug/L	5.0308	ppb	17:23:45
1	P 214.914†	540.8	272.3	93.782	ug/L	93.782	ppb	17:23:45
1	Pb 220.353†	-566.7	-516.0	10.496	ug/L	10.496	ppb	17:23:45
1	S 181.975 Axial†	110.3	50.0	8.2729	ug/L	8.2729	ppb	17:23:45
1	Sb 206.836†	67.0	14.7	13.597	ug/L	13.597	ppb	17:23:45
1	Se 196.026†	-1376.1	-1452.0	-151.12	ug/L	-151.12	ppb	17:23:45
1	Si 251.611†	88.1	-472.5	-19.471	ug/L	-19.471	ppb	17:23:45
1	Sn 189.927†	-343.8	-382.9	-4.4794	ug/L	-4.4794	ppb	17:23:45
1	Ti 334.940†	-5200.6	-3633.7	-5.6062	ug/L	-5.6062	ppb	17:23:24
1	Tl 190.801†	-94.1	-42.7	-25.606	ug/L	-25.606	ppb	17:23:45
1	U 409.014†	296069.7	321303.0	16176	ug/L	16176	ppb	17:23:24
1	V 292.402†	1250.3	3321.1	12.451	ug/L	12.451	ppb	17:23:45
1	Zn 213.857†	4626.6	4050.7	85.705	ug/L	85.705	ppb	17:23:45
1	SiO2†	149.7	-442.9	-38.947	ug/L	-38.947	ppb	17:24:41
2	Sc Radial	3137.9	3137.9	96.8	%			17:22:52
2	Y RADIAL	3447.4	3447.4	94.58	%			17:22:52
2	Al 396.153Radial†	414969.1	429012.5	503210	ug/L	503210	ppb	17:22:32
2	Ca 317.933Radial†	202345.9	209126.2	471020	ug/L	471020	ppb	17:22:32
2	Fe 238.204 Radial†	30685.8	31710.9	425870	ug/L	425870	ppb	17:22:52
2	K 766.490 Radial†	3808.2	759.6	-75.815	ug/L	-75.815	ppb	17:22:32
2	Mg 279.077 IEC†	10144.1	10484.4	475660	ug/L	475660	ppb	17:22:52
2	Na 589.592 Radial†	958444.9	991809.1	484630	ug/L	484630	ppb	17:22:32
2	Sr 421.552†	1135.0	1141.1	8.3993	ug/L	8.3993	ppb	17:22:52
2	Sc 361.383	533568.5	533568.5	95.790	%			17:23:50
2	Y 371.029	487327.8	487327.8	94.185	%			17:23:50
2	Ag 328.068†	-18903.2	-19786.6	-11.361	ug/L	-11.361	ppb	17:23:50
2	As 188.979†	-159.0	-121.4	2.3260	ug/L	2.3260	ppb	17:24:10
2	B 249.677†	1181.5	1888.4	0.9904	ug/L	0.9904	ppb	17:23:50
2	Ba 233.527†	-1453.1	-1513.8	1.5482	ug/L	1.5482	ppb	17:24:10
2	Be 313.107†	-14509.2	-5595.8	-2.4757	ug/L	-2.4757	ppb	17:23:50
2	Cd 226.502†	2538.5	2957.6	6.1034	ug/L	6.1034	ppb	17:24:10
2	Co 228.616†	101.7	196.8	0.9741	ug/L	0.9741	ppb	17:24:10
2	Cr 267.716†	221.2	124.1	2.1075	ug/L	2.1075	ppb	17:24:10
2	Cu 324.752†	2098.2	-4191.4	-0.7812	ug/L	-0.7812	ppb	17:23:50
2	Mn 257.610†	-14556.3	-15820.3	-4.1814	ug/L	-4.1814	ppb	17:23:50
2	Mo 202.031†	-393.5	-426.8	-9.1243	ug/L	-9.1243	ppb	17:24:10
2	Ni 231.604†	217.2	109.0	4.0677	ug/L	4.0677	ppb	17:24:10

2	P 214.914†	528.1	240.0	76.821 ug/L	76.821 ppb	17:24:10
2	Pb 220.353†	-575.0	-504.7	12.807 ug/L	12.807 ppb	17:24:10
2	S 181.975 Axial†	90.1	25.1	-24.299 ug/L	-24.299 ppb	17:24:10
2	Sb 206.836†	45.4	-10.2	2.4182 ug/L	2.4182 ppb	17:24:10
2	Se 196.026†	-1407.0	-1435.9	-139.54 ug/L	-139.54 ppb	17:24:10
2	Si 251.611†	120.3	-442.0	-18.142 ug/L	-18.142 ppb	17:24:10
2	Sn 189.927†	-331.0	-357.4	1.9640 ug/L	1.9640 ppb	17:24:10
2	Ti 334.940†	-5356.7	-3613.6	-5.6687 ug/L	-5.6687 ppb	17:23:50
2	Tl 190.801†	-107.4	-53.3	-31.881 ug/L	-31.881 ppb	17:24:10
2	U 409.014†	306558.0	321830.9	16203 ug/L	16203 ppb	17:23:50
2	V 292.402†	1206.2	3231.1	11.584 ug/L	11.584 ppb	17:24:10
2	Zn 213.857†	4682.8	3946.5	84.607 ug/L	84.607 ppb	17:24:10
2	SiO2†	78.3	-522.7	-46.081 ug/L	-46.081 ppb	17:24:46
3	Sc Radial	3100.6	3100.6	95.6 %		17:23:17
3	Y RADIAL	3409.5	3409.5	93.54 %		17:23:17
3	Al 396.153Radial†	412037.5	431103.8	505660 ug/L	505660 ppb	17:22:57
3	Ca 317.933Radial†	200912.6	210141.9	473300 ug/L	473300 ppb	17:22:57
3	Fe 238.204 Radial†	30416.7	31810.8	427210 ug/L	427210 ppb	17:23:17
3	K 766.490 Radial†	3831.2	830.9	-62.215 ug/L	-62.215 ppb	17:22:57
3	Mg 279.077 IEC†	10020.3	10480.9	475500 ug/L	475500 ppb	17:23:17
3	Na 589.592 Radial†	959995.6	1005343.6	491240 ug/L	491240 ppb	17:22:57
3	Sr 421.552†	1124.8	1144.5	8.4181 ug/L	8.4181 ppb	17:23:17
3	Sc 361.383	538133.2	538133.2	96.610 %		17:24:16
3	Y 371.029	491779.6	491779.6	95.045 %		17:24:16
3	Ag 328.068†	-19144.6	-19869.0	-11.475 ug/L	-11.475 ppb	17:24:16
3	As 188.979†	-161.9	-122.9	1.8160 ug/L	1.8160 ppb	17:24:36
3	B 249.677†	1192.9	1889.7	0.8810 ug/L	0.8810 ppb	17:24:16
3	Ba 233.527†	-1429.6	-1476.6	2.1803 ug/L	2.1803 ppb	17:24:36
3	Be 313.107†	-14518.6	-5476.9	-2.4246 ug/L	-2.4246 ppb	17:24:16
3	Cd 226.502†	2528.6	2924.9	5.5260 ug/L	5.5260 ppb	17:24:36
3	Co 228.616†	98.6	192.7	0.8075 ug/L	0.8075 ppb	17:24:36
3	Cr 267.716†	205.1	105.5	1.8518 ug/L	1.8518 ppb	17:24:36
3	Cu 324.752†	2071.5	-4237.6	-0.9111 ug/L	-0.9111 ppb	17:24:16
3	Mn 257.610†	-14549.0	-15683.9	-3.7684 ug/L	-3.7684 ppb	17:24:16
3	Mo 202.031†	-386.5	-416.1	-7.8697 ug/L	-7.8697 ppb	17:24:36
3	Ni 231.604†	231.2	121.5	4.4912 ug/L	4.4912 ppb	17:24:36
3	P 214.914†	529.1	236.4	75.021 ug/L	75.021 ppb	17:24:36
3	Pb 220.353†	-548.4	-472.1	19.130 ug/L	19.130 ppb	17:24:36
3	S 181.975 Axial†	91.9	26.2	-23.183 ug/L	-23.183 ppb	17:24:36
3	Sb 206.836†	64.3	9.0	11.175 ug/L	11.175 ppb	17:24:36
3	Se 196.026†	-1378.5	-1393.9	-110.22 ug/L	-110.22 ppb	17:24:36
3	Si 251.611†	104.8	-459.1	-18.879 ug/L	-18.879 ppb	17:24:36
3	Sn 189.927†	-326.2	-349.6	4.3639 ug/L	4.3639 ppb	17:24:36
3	Ti 334.940†	-5555.7	-3772.1	-5.8465 ug/L	-5.8465 ppb	17:24:16
3	Tl 190.801†	-96.0	-40.5	-24.317 ug/L	-24.317 ppb	17:24:36
3	U 409.014†	309023.9	321668.6	16194 ug/L	16194 ppb	17:24:16
3	V 292.402†	1263.2	3279.4	11.836 ug/L	11.836 ppb	17:24:36
3	Zn 213.857†	4668.6	3890.3	84.100 ug/L	84.100 ppb	17:24:36
3	SiO2†	193.0	-404.6	-35.423 ug/L	-35.423 ppb	17:24:52

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	529288.8	95.022	%	2.0812				2.19%
Sc Radial	3122.2	96.3	%	0.60				0.62%
Y 371.029	483515.8	93.448	%	2.0665				2.21%
Y RADIAL	3428.8	94.07	%	0.521				0.55%
Ag 328.068†	-19818.8	-11.486	ug/L	0.1306	-11.486	ppb	0.1306	1.14%
Al 396.153Radial†	429287.9	503530	ug/L	1988.3	503530	ppb	1988.3	0.39%
QC value within limits for Al 396.153Radial Recovery = 100.71%								
As 188.979†	-122.0	2.0918	ug/L	0.25753	2.0918	ppb	0.25753	12.31%
B 249.677†	1939.3	2.1998	ug/L	2.19005	2.1998	ppb	2.19005	99.56%
Ba 233.527†	-1501.2	1.7492	ug/L	0.37365	1.7492	ppb	0.37365	21.36%
Be 313.107†	-5558.5	-2.4598	ug/L	0.03052	-2.4598	ppb	0.03052	1.24%
Ca 317.933Radial†	209436.1	471710	ug/L	1380.1	471710	ppb	1380.1	0.29%
QC value within limits for Ca 317.933Radial Recovery = 94.34%								
Cd 226.502†	2973.1	6.2972	ug/L	0.88420	6.2972	ppb	0.88420	14.04%
Co 228.616†	187.8	0.6459	ug/L	0.43237	0.6459	ppb	0.43237	66.94%
Cr 267.716†	100.2	1.7563	ug/L	0.40746	1.7563	ppb	0.40746	23.20%
Cu 324.752†	-4155.6	-0.5880	ug/L	0.45179	-0.5880	ppb	0.45179	76.83%

Fe 238.204 Radial†	31727.0	426090	ug/L	1034.6	426090	ppb	1034.6	0.24%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 85.22%								
K 766.490 Radial†	716.5	-87.304	ug/L	32.3990	-87.304	ppb	32.3990	37.11%
Mg 279.077 IEC†	10471.2	475060	ug/L	902.6	475060	ppb	902.6	0.19%
QC value within limits for Mg 279.077 IEC Recovery = 95.01%								
Mn 257.610†	-15627.6	-3.7630	ug/L	0.42117	-3.7630	ppb	0.42117	11.19%
Mo 202.031†	-412.8	-7.6216	ug/L	1.64088	-7.6216	ppb	1.64088	21.53%
Na 589.592 Radial†	998358.1	487830	ug/L	3311.8	487830	ppb	3311.8	0.68%
QC value within limits for Na 589.592 Radial Recovery = 97.57%								
Ni 231.604†	122.7	4.5299	ug/L	0.48274	4.5299	ppb	0.48274	10.66%
P 214.914†	249.6	81.874	ug/L	10.3515	81.874	ppb	10.3515	12.64%
Pb 220.353†	-497.6	14.144	ug/L	4.4696	14.144	ppb	4.4696	31.60%
S 181.975 Axial†	33.8	-13.070	ug/L	18.4917	-13.070	ppb	18.4917	141.48%
Sb 206.836†	4.5	9.0633	ug/L	5.88079	9.0633	ppb	5.88079	64.89%
Se 196.026†	-1427.3	-133.63	ug/L	21.077	-133.63	ppb	21.077	15.77%
Si 251.611†	-457.9	-18.831	ug/L	0.6656	-18.831	ppb	0.6656	3.53%
Sn 189.927†	-363.3	0.6162	ug/L	4.57309	0.6162	ppb	4.57309	742.19%
Sr 421.552†	1142.5	8.4088	ug/L	0.00940	8.4088	ppb	0.00940	0.11%
Ti 334.940†	-3673.1	-5.7071	ug/L	0.12466	-5.7071	ppb	0.12466	2.18%
Tl 190.801†	-45.5	-27.268	ug/L	4.0469	-27.268	ppb	4.0469	14.84%
U 409.014†	321600.8	16191	ug/L	13.6	16191	ppb	13.6	0.08%
QC value within limits for U 409.014 Recovery = 107.94%								
V 292.402†	3277.2	11.957	ug/L	0.4459	11.957	ppb	0.4459	3.73%
Zn 213.857†	3962.5	84.804	ug/L	0.8205	84.804	ppb	0.8205	0.97%
SiO2†	-456.7	-40.151	ug/L	5.4302	-40.151	ppb	5.4302	13.52%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 4/15/2010 17:27:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3185.3	3185.3	98.2	%			17:29:20
1	Y RADIAL	3445.0	3445.0	94.51	%			17:29:20
1	Al 396.153Radial†	301.8	422.5	-44.531	ug/L	-44.531	ppb	17:29:00
1	Ca 317.933Radial†	20.9	9.9	22.396	ug/L	22.396	ppb	17:29:20
1	Fe 238.204 Radial†	-14.2	-19.4	77.052	ug/L	77.052	ppb	17:29:20
1	K 766.490 Radial†	1173604.8	1191764.1	278220	ug/L	278220	ppb	17:28:55
1	Mg 279.077 IEC†	-5.5	-5.8	-157.99	ug/L	-157.99	ppb	17:29:20
1	Na 589.592 Radial†	-824.0	355.4	173.67	ug/L	173.67	ppb	17:29:00
1	Sr 421.552†	866715.9	882440.5	9215.4	ug/L	9215.4	ppb	17:28:55
1	Sc 361.383	489264.1	489264.1	87.836	%			17:30:42
1	Y 371.029	517434.2	517434.2	100.00	%			17:30:37
1	Ag 328.068†	-6020.7	-6907.1	3.6839	ug/L	3.6839	ppb	17:30:42
1	As 188.979†	21739.3	24794.4	11013	ug/L	11013	ppb	17:30:42
1	B 249.677†	198657.0	226821.9	5454.8	ug/L	5454.8	ppb	17:30:37
1	Ba 233.527†	978398.0	1113889.6	16637	ug/L	16637	ppb	17:30:37
1	Be 313.107†	6490990.1	7399412.9	3270.5	ug/L	3270.5	ppb	17:30:31
1	Cd 226.502†	689355.2	785124.5	10933	ug/L	10933	ppb	17:30:37
1	Co 228.616†	269640.4	307070.8	11267	ug/L	11267	ppb	17:30:42
1	Cr 267.716†	1574091.1	1791964.3	27014	ug/L	27014	ppb	17:30:37
1	Cu 324.752†	4294176.0	4882451.4	23632	ug/L	23632	ppb	17:30:31
1	Mn 257.610†	5057536.3	5757279.1	11077	ug/L	11077	ppb	17:30:31
1	Mo 202.031†	92354.2	105127.4	11137	ug/L	11137	ppb	17:30:42
1	Ni 231.604†	288500.9	328334.7	11058	ug/L	11058	ppb	17:30:42
1	P 214.914†	31574.0	35635.1	13563	ug/L	13563	ppb	17:30:42
1	Pb 220.353†	139195.0	158566.3	28011	ug/L	28011	ppb	17:30:42
1	S 181.975 Axial†	38439.8	43693.9	56741	ug/L	56741	ppb	17:30:42
1	Sb 206.836†	23079.3	26217.7	12227	ug/L	12227	ppb	17:30:42
1	Se 196.026†	15397.3	17562.5	11255	ug/L	11255	ppb	17:30:42
1	Si 251.611†	1060601.8	1206906.2	50916	ug/L	50916	ppb	17:30:37
1	Sn 189.927†	40428.2	46014.8	11542	ug/L	11542	ppb	17:30:42
1	Ti 334.940†	3728088.9	4246332.9	11266	ug/L	11266	ppb	17:30:31
1	Tl 190.801†	16982.2	19392.7	11560	ug/L	11560	ppb	17:30:42
1	U 409.014†	-944.7	725.0	-23.591	ug/L	-23.591	ppb	17:30:42
1	V 292.402†	1081401.0	1233125.2	11212	ug/L	11212	ppb	17:30:37
1	Zn 213.857†	1240621.8	1411480.8	15759	ug/L	15759	ppb	17:30:37
1	SiO2†	1079354.0	1228218.5	110870	ug/L	110870	ppb	17:31:28
2	Sc Radial	3191.3	3191.3	98.4	%			17:29:50
2	Y RADIAL	3460.8	3460.8	94.95	%			17:29:50
2	Al 396.153Radial†	292.9	412.9	-58.957	ug/L	-58.957	ppb	17:29:30
2	Ca 317.933Radial†	20.9	9.9	22.262	ug/L	22.262	ppb	17:29:50
2	Fe 238.204 Radial†	-15.4	-20.5	62.842	ug/L	62.842	ppb	17:29:50
2	K 766.490 Radial†	1218714.3	1235376.4	288400	ug/L	288400	ppb	17:29:25
2	Mg 279.077 IEC†	-5.2	-5.5	-142.00	ug/L	-142.00	ppb	17:29:50
2	Na 589.592 Radial†	-882.6	297.4	145.30	ug/L	145.30	ppb	17:29:30
2	Sr 421.552†	897406.0	911982.2	9523.9	ug/L	9523.9	ppb	17:29:25
2	Sc 361.383	490148.4	490148.4	87.995	%			17:31:02
2	Y 371.029	526519.0	526519.0	101.76	%			17:30:56
2	Ag 328.068†	-5986.0	-6855.3	4.6403	ug/L	4.6403	ppb	17:31:02
2	As 188.979†	21918.8	24953.7	11084	ug/L	11084	ppb	17:31:02
2	B 249.677†	202584.6	230877.3	5552.8	ug/L	5552.8	ppb	17:30:56
2	Ba 233.527†	991837.5	1127152.9	16836	ug/L	16836	ppb	17:30:56
2	Be 313.107†	6546647.9	7449330.7	3292.5	ug/L	3292.5	ppb	17:30:50
2	Cd 226.502†	699492.0	795228.3	11073	ug/L	11073	ppb	17:30:56
2	Co 228.616†	271424.0	308543.8	11321	ug/L	11321	ppb	17:31:02
2	Cr 267.716†	1597928.1	1815820.0	27374	ug/L	27374	ppb	17:30:56
2	Cu 324.752†	4334744.8	4919734.1	23812	ug/L	23812	ppb	17:30:50
2	Mn 257.610†	5087620.1	5781078.4	11123	ug/L	11123	ppb	17:30:50
2	Mo 202.031†	93067.9	105748.8	11203	ug/L	11203	ppb	17:31:02
2	Ni 231.604†	290991.2	330572.1	11133	ug/L	11133	ppb	17:31:02

2	P 214.914†	31767.7	35790.3	13604	ug/L	13604 ppb	17:31:02
2	Pb 220.353†	140245.2	159473.8	28172	ug/L	28172 ppb	17:31:02
2	S 181.975 Axial†	38645.7	43849.0	56942	ug/L	56942 ppb	17:31:02
2	Sb 206.836†	23215.7	26325.4	12277	ug/L	12277 ppb	17:31:02
2	Se 196.026†	15526.5	17677.7	11328	ug/L	11328 ppb	17:31:02
2	Si 251.611†	1078702.7	1225297.9	51693	ug/L	51693 ppb	17:30:56
2	Sn 189.927†	40697.8	46238.2	11598	ug/L	11598 ppb	17:31:02
2	Ti 334.940†	3754820.9	4269053.9	11327	ug/L	11327 ppb	17:30:50
2	Tl 190.801†	17100.9	19492.7	11619	ug/L	11619 ppb	17:31:02
2	U 409.014†	-806.8	883.7	-16.346	ug/L	-16.346 ppb	17:31:02
2	V 292.402†	1099245.2	1251182.5	11375	ug/L	11375 ppb	17:30:56
2	Zn 213.857†	1258009.1	1428691.8	15952	ug/L	15952 ppb	17:30:56
2	SiO2†	1080186.5	1226947.4	110750	ug/L	110750 ppb	17:31:34
3	Sc Radial	3231.3	3231.3	99.6	%		17:30:21
3	Y RADIAL	3478.5	3478.5	95.43	%		17:30:21
3	Al 396.153Radial†	316.3	432.7	-40.118	ug/L	-40.118 ppb	17:30:01
3	Ca 317.933Radial†	22.7	11.5	25.830	ug/L	25.830 ppb	17:30:21
3	Fe 238.204 Radial†	-15.0	-19.9	74.271	ug/L	74.271 ppb	17:30:21
3	K 766.490 Radial†	1258250.1	1259714.0	294080	ug/L	294080 ppb	17:29:56
3	Mg 279.077 IEC†	-2.8	-3.0	-29.162	ug/L	-29.162 ppb	17:30:21
3	Na 589.592 Radial†	-852.1	339.1	165.68	ug/L	165.68 ppb	17:30:01
3	Sr 421.552†	927397.7	930785.9	9720.3	ug/L	9720.3 ppb	17:29:56
3	Sc 361.383	492357.1	492357.1	88.392	%		17:31:21
3	Y 371.029	523591.1	523591.1	101.19	%		17:31:16
3	Ag 328.068†	-6050.8	-6898.0	3.8935	ug/L	3.8935 ppb	17:31:21
3	As 188.979†	22228.6	25192.4	11189	ug/L	11189 ppb	17:31:21
3	B 249.677†	201138.2	228208.2	5487.9	ug/L	5487.9 ppb	17:31:16
3	Ba 233.527†	984877.8	1114222.9	16642	ug/L	16642 ppb	17:31:16
3	Be 313.107†	6546147.3	7415390.6	3277.5	ug/L	3277.5 ppb	17:31:10
3	Cd 226.502†	694729.6	786274.5	10949	ug/L	10949 ppb	17:31:16
3	Co 228.616†	274765.3	310940.3	11409	ug/L	11409 ppb	17:31:21
3	Cr 267.716†	1586859.9	1795152.2	27062	ug/L	27062 ppb	17:31:16
3	Cu 324.752†	4317078.2	4877649.6	23608	ug/L	23608 ppb	17:31:10
3	Mn 257.610†	5078358.0	5744664.0	11053	ug/L	11053 ppb	17:31:10
3	Mo 202.031†	94243.3	106604.0	11294	ug/L	11294 ppb	17:31:21
3	Ni 231.604†	294170.5	332685.6	11204	ug/L	11204 ppb	17:31:21
3	P 214.914†	32042.0	35938.7	13732	ug/L	13732 ppb	17:31:21
3	Pb 220.353†	141783.3	160499.0	28353	ug/L	28353 ppb	17:31:21
3	S 181.975 Axial†	39261.8	44349.0	57591	ug/L	57591 ppb	17:31:21
3	Sb 206.836†	23510.1	26540.1	12378	ug/L	12378 ppb	17:31:21
3	Se 196.026†	15739.2	17839.1	11432	ug/L	11432 ppb	17:31:21
3	Si 251.611†	1068004.6	1207695.8	50947	ug/L	50947 ppb	17:31:16
3	Sn 189.927†	41203.2	46602.5	11689	ug/L	11689 ppb	17:31:21
3	Ti 334.940†	3746408.6	4240395.5	11251	ug/L	11251 ppb	17:31:10
3	Tl 190.801†	17328.1	19662.6	11719	ug/L	11719 ppb	17:31:21
3	U 409.014†	-738.3	965.3	-11.515	ug/L	-11.515 ppb	17:31:21
3	V 292.402†	1092295.6	1237716.5	11255	ug/L	11255 ppb	17:31:16
3	Zn 213.857†	1249463.8	1412611.3	15771	ug/L	15771 ppb	17:31:16
3	SiO2†	1071000.5	1211048.4	109310	ug/L	109310 ppb	17:31:39

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	490589.9	88.074	%	0.2860				0.32%
Sc Radial	3202.7	98.7	%	0.77				0.78%
Y 371.029	522514.8	100.99	%	0.896				0.89%
Y RADIAL	3461.4	94.96	%	0.459				0.48%
Ag 328.068†	-6886.8	4.0726	ug/L	0.50268	4.0726	ppb	0.50268	12.34%
Al 396.153Radial†	422.7	-47.869	ug/L	9.8528	-47.869	ppb	9.8528	20.58%
As 188.979†	24980.2	11095	ug/L	88.2	11095	ppb	88.2	0.79%
QC value greater than the upper limit for As 188.979 Recovery = 110.95%								
B 249.677†	228635.8	5498.5	ug/L	49.82	5498.5	ppb	49.82	0.91%
QC value within limits for B 249.677 Recovery = 109.97%								
Ba 233.527†	1118421.8	16705	ug/L	113.0	16705	ppb	113.0	0.68%
QC value greater than the upper limit for Ba 233.527 Recovery = 111.37%								
Be 313.107†	7421378.1	3280.2	ug/L	11.26	3280.2	ppb	11.26	0.34%
QC value within limits for Be 313.107 Recovery = 109.34%								
Ca 317.933Radial†	10.4	23.496	ug/L	2.0227	23.496	ppb	2.0227	8.61%
Cd 226.502†	788875.8	10985	ug/L	77.0	10985	ppb	77.0	0.70%
QC value within limits for Cd 226.502 Recovery = 109.85%								

```
Co 228.616†          308851.6       11332 ug/L          71.9       11332 ppb          71.9   0.63%
   QC value greater than the upper limit for Co 228.616  Recovery = 113.32%
Cr 267.716†         1800978.8       27150 ug/L         195.2       27150 ppb         195.2   0.72%
   QC value within limits for Cr 267.716  Recovery = 108.60%
Cu 324.752†         4893278.4       23684 ug/L         111.5       23684 ppb         111.5   0.47%
   QC value greater than the upper limit for Cu 324.752  Recovery = 118.42%
Fe 238.204 Radial†       -19.9      71.389 ug/L        7.5308      71.389 ppb        7.5308  10.55%
K 766.490 Radial†    1228951.5      286900 ug/L        8037.6      286900 ppb        8037.6   2.80%
   QC value within limits for K 766.490 Radial  Recovery = 95.63%
Mg 279.077 IEC†          -4.8     -109.72 ug/L        70.218     -109.72 ppb        70.218  64.00%
Mn 257.610†         5761007.2       11084 ug/L          35.6       11084 ppb          35.6   0.32%
   QC value greater than the upper limit for Mn 257.610  Recovery = 110.84%
Mo 202.031†          105826.7       11211 ug/L          78.5       11211 ppb          78.5   0.70%
   QC value greater than the upper limit for Mo 202.031  Recovery = 112.11%
Na 589.592 Radial†       330.6      161.55 ug/L        14.628      161.55 ppb        14.628   9.05%
Ni 231.604†          330530.8       11132 ug/L          73.3       11132 ppb          73.3   0.66%
   QC value greater than the upper limit for Ni 231.604  Recovery = 111.32%
P 214.914†            35788.0       13633 ug/L          88.2       13633 ppb          88.2   0.65%
   QC value within limits for P 214.914  Recovery = 90.89%
Pb 220.353†          159513.0       28179 ug/L         171.0       28179 ppb         171.0   0.61%
   QC value greater than the upper limit for Pb 220.353  Recovery = 112.71%
S 181.975 Axial†      43964.0       57091 ug/L         444.5       57091 ppb         444.5   0.78%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = 114.18%
Sb 206.836†           26361.0       12294 ug/L          76.9       12294 ppb          76.9   0.63%
   QC value greater than the upper limit for Sb 206.836  Recovery = 122.94%
Se 196.026†           17693.1       11338 ug/L          89.0       11338 ppb          89.0   0.78%
   QC value greater than the upper limit for Se 196.026  Recovery = 113.38%
Si 251.611†         1213300.0       51185 ug/L         439.9       51185 ppb         439.9   0.86%
   QC value within limits for Si 251.611  Recovery = 102.37%
Sn 189.927†           46285.1       11609 ug/L          74.4       11609 ppb          74.4   0.64%
   QC value greater than the upper limit for Sn 189.927  Recovery = 116.09%
Sr 421.552†          908402.8      9486.5 ug/L        254.50      9486.5 ppb        254.50   2.68%
   QC value within limits for Sr 421.552  Recovery = 94.87%
Ti 334.940†         4251927.4       11281 ug/L          40.1       11281 ppb          40.1   0.36%
   QC value greater than the upper limit for Ti 334.940  Recovery = 112.81%
Tl 190.801†           19516.0       11632 ug/L          80.3       11632 ppb          80.3   0.69%
   QC value greater than the upper limit for Tl 190.801  Recovery = 116.32%
U 409.014†              858.0     -17.151 ug/L        6.0785     -17.151 ppb        6.0785  35.44%
V 292.402†          1240674.7       11281 ug/L          84.4       11281 ppb          84.4   0.75%
   QC value greater than the upper limit for V 292.402  Recovery = 112.81%
Zn 213.857†         1417594.6       15827 ug/L         108.0       15827 ppb         108.0   0.68%
   QC value within limits for Zn 213.857  Recovery = 105.52%
SiO2†               1222071.4      110310 ug/L         868.0      110310 ppb         868.0   0.79%
   QC value within limits for SiO2  Recovery = 103.10%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/15/2010 17:33:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3283.8	3283.8	101	%			17:36:02
1	Y RADIAL	3643.1	3643.1	99.95	%			17:35:42
1	Al 396.153Radial†	4252.7	4315.4	5039.2	ug/L	5039.2	ppb	17:35:42
1	Ca 317.933Radial†	2249.6	2210.5	4978.6	ug/L	4978.6	ppb	17:36:02
1	Fe 238.204 Radial†	375.8	366.3	4932.9	ug/L	4932.9	ppb	17:36:02
1	K 766.490 Radial†	24384.8	20907.6	4875.9	ug/L	4875.9	ppb	17:35:42
1	Mg 279.077 IEC†	115.3	113.7	5161.8	ug/L	5161.8	ppb	17:36:02
1	Na 589.592 Radial†	18891.3	19852.6	9700.6	ug/L	9700.6	ppb	17:35:42
1	Sr 421.552†	47188.7	46574.6	486.35	ug/L	486.35	ppb	17:35:42
1	Sc 361.383	595021.8	595021.8	106.82	%			17:37:00
1	Y 371.029	549124.1	549124.1	106.13	%			17:37:00
1	Ag 328.068†	84180.2	78750.9	472.60	ug/L	472.60	ppb	17:37:00
1	As 188.979†	1080.5	1056.1	469.70	ug/L	469.70	ppb	17:37:20
1	B 249.677†	21982.1	21233.1	511.78	ug/L	511.78	ppb	17:37:00
1	Ba 233.527†	33897.2	31735.3	474.67	ug/L	474.67	ppb	17:37:00
1	Be 313.107†	1147211.9	1083489.7	476.22	ug/L	476.22	ppb	17:37:00
1	Cd 226.502†	34851.3	32932.8	458.23	ug/L	458.23	ppb	17:37:20
1	Co 228.616†	13600.5	12822.5	470.58	ug/L	470.58	ppb	17:37:20
1	Cr 267.716†	33643.4	31387.8	473.47	ug/L	473.47	ppb	17:37:00
1	Cu 324.752†	110440.8	97005.1	469.46	ug/L	469.46	ppb	17:37:00
1	Mn 257.610†	263679.2	246213.5	474.04	ug/L	474.04	ppb	17:37:00
1	Mo 202.031†	4706.6	4390.0	465.49	ug/L	465.49	ppb	17:37:20
1	Ni 231.604†	15018.4	13941.4	469.52	ug/L	469.52	ppb	17:37:20
1	P 214.914†	4946.2	4319.0	2199.8	ug/L	2199.8	ppb	17:37:20
1	Pb 220.353†	2740.4	2660.9	471.66	ug/L	471.66	ppb	17:37:20
1	S 181.975 Axial†	826.5	704.8	914.62	ug/L	914.62	ppb	17:37:20
1	Sb 206.836†	1148.2	1017.3	475.49	ug/L	475.49	ppb	17:37:20
1	Se 196.026†	743.7	729.1	476.25	ug/L	476.25	ppb	17:37:20
1	Si 251.611†	60393.0	55968.0	2361.8	ug/L	2361.8	ppb	17:37:00
1	Sn 189.927†	2001.0	1861.3	467.84	ug/L	467.84	ppb	17:37:20
1	Ti 334.940†	188321.7	178272.0	473.13	ug/L	473.13	ppb	17:37:00
1	Tl 190.801†	782.4	791.2	471.76	ug/L	471.76	ppb	17:37:20
1	U 409.014†	7919.2	9213.9	464.77	ug/L	464.77	ppb	17:37:00
1	V 292.402†	54123.3	52638.3	479.03	ug/L	479.03	ppb	17:37:00
1	Zn 213.857†	45980.8	42101.8	469.97	ug/L	469.97	ppb	17:37:00
1	SiO2†	59050.7	54674.7	4936.3	ug/L	4936.3	ppb	17:38:20
2	Sc Radial	3319.3	3319.3	102	%			17:36:27
2	Y RADIAL	3763.2	3763.2	103.2	%			17:36:07
2	Al 396.153Radial†	4436.4	4449.9	5196.7	ug/L	5196.7	ppb	17:36:07
2	Ca 317.933Radial†	2279.4	2215.8	4990.6	ug/L	4990.6	ppb	17:36:27
2	Fe 238.204 Radial†	380.1	366.5	4936.6	ug/L	4936.6	ppb	17:36:27
2	K 766.490 Radial†	25019.9	21269.9	4960.4	ug/L	4960.4	ppb	17:36:07
2	Mg 279.077 IEC†	116.1	113.2	5141.1	ug/L	5141.1	ppb	17:36:27
2	Na 589.592 Radial†	19334.6	20085.7	9814.5	ug/L	9814.5	ppb	17:36:07
2	Sr 421.552†	48530.8	47386.3	494.82	ug/L	494.82	ppb	17:36:07
2	Sc 361.383	572711.5	572711.5	102.82	%			17:37:28
2	Y 371.029	528498.5	528498.5	102.14	%			17:37:28
2	Ag 328.068†	81289.1	79008.9	474.14	ug/L	474.14	ppb	17:37:28
2	As 188.979†	1055.8	1071.4	476.48	ug/L	476.48	ppb	17:37:48
2	B 249.677†	21038.1	21116.5	508.95	ug/L	508.95	ppb	17:37:28
2	Ba 233.527†	32641.3	31750.0	474.89	ug/L	474.89	ppb	17:37:28
2	Be 313.107†	1102253.0	1081598.7	475.40	ug/L	475.40	ppb	17:37:28
2	Cd 226.502†	33869.9	33249.2	462.64	ug/L	462.64	ppb	17:37:48
2	Co 228.616†	13235.7	12963.7	475.77	ug/L	475.77	ppb	17:37:48
2	Cr 267.716†	32367.5	31373.8	473.25	ug/L	473.25	ppb	17:37:28
2	Cu 324.752†	106315.2	97020.1	469.53	ug/L	469.53	ppb	17:37:28
2	Mn 257.610†	253591.6	246018.0	473.67	ug/L	473.67	ppb	17:37:28
2	Mo 202.031†	4573.0	4431.7	469.91	ug/L	469.91	ppb	17:37:48
2	Ni 231.604†	14640.2	14121.3	475.58	ug/L	475.58	ppb	17:37:48

2	P 214.914†	4794.3	4351.6	2217.3 ug/L	2217.3 ppb	17:37:48
2	Pb 220.353†	2632.8	2656.2	470.88 ug/L	470.88 ppb	17:37:48
2	S 181.975 Axial†	804.2	713.1	925.50 ug/L	925.50 ppb	17:37:48
2	Sb 206.836†	1115.0	1026.8	479.94 ug/L	479.94 ppb	17:37:48
2	Se 196.026†	707.1	720.7	470.88 ug/L	470.88 ppb	17:37:48
2	Si 251.611†	57986.2	55829.6	2355.8 ug/L	2355.8 ppb	17:37:28
2	Sn 189.927†	1938.9	1873.9	470.99 ug/L	470.99 ppb	17:37:48
2	Ti 334.940†	181398.3	178406.0	473.49 ug/L	473.49 ppb	17:37:28
2	Tl 190.801†	768.3	806.1	480.52 ug/L	480.52 ppb	17:37:48
2	U 409.014†	7663.5	9254.0	466.81 ug/L	466.81 ppb	17:37:28
2	V 292.402†	52136.9	52680.1	479.47 ug/L	479.47 ppb	17:37:28
2	Zn 213.857†	44306.6	42150.3	470.48 ug/L	470.48 ppb	17:37:28
2	SiO2†	59683.8	57443.9	5186.8 ug/L	5186.8 ppb	17:38:25
3	Sc Radial	3396.8	3396.8	105 %		17:36:52
3	Y RADIAL	3769.9	3769.9	103.4 %		17:36:32
3	Al 396.153Radial†	4394.7	4311.2	5033.9 ug/L	5033.9 ppb	17:36:32
3	Ca 317.933Radial†	2322.3	2205.9	4968.5 ug/L	4968.5 ppb	17:36:52
3	Fe 238.204 Radial†	387.2	364.8	4913.6 ug/L	4913.6 ppb	17:36:52
3	K 766.490 Radial†	24924.4	20621.0	4809.0 ug/L	4809.0 ppb	17:36:32
3	Mg 279.077 IEC†	116.3	110.8	5033.2 ug/L	5033.2 ppb	17:36:52
3	Na 589.592 Radial†	19149.9	19478.4	9517.7 ug/L	9517.7 ppb	17:36:32
3	Sr 421.552†	48428.6	46206.9	482.51 ug/L	482.51 ppb	17:36:32
3	Sc 361.383	571041.9	571041.9	102.52 %		17:37:55
3	Y 371.029	526732.8	526732.8	101.80 %		17:37:55
3	Ag 328.068†	80865.7	78827.0	473.05 ug/L	473.05 ppb	17:37:55
3	As 188.979†	1059.6	1078.2	479.47 ug/L	479.47 ppb	17:38:15
3	B 249.677†	20843.5	20986.6	505.79 ug/L	505.79 ppb	17:37:55
3	Ba 233.527†	32501.3	31706.2	474.23 ug/L	474.23 ppb	17:37:55
3	Be 313.107†	1099869.4	1082408.1	475.75 ug/L	475.75 ppb	17:37:55
3	Cd 226.502†	34058.7	33529.7	466.55 ug/L	466.55 ppb	17:38:15
3	Co 228.616†	13319.2	13082.8	480.14 ug/L	480.14 ppb	17:38:15
3	Cr 267.716†	32312.1	31411.8	473.83 ug/L	473.83 ppb	17:37:55
3	Cu 324.752†	105857.6	96876.1	468.83 ug/L	468.83 ppb	17:37:55
3	Mn 257.610†	253079.8	246239.9	474.09 ug/L	474.09 ppb	17:37:55
3	Mo 202.031†	4593.6	4464.7	473.40 ug/L	473.40 ppb	17:38:15
3	Ni 231.604†	14686.3	14207.8	478.50 ug/L	478.50 ppb	17:38:15
3	P 214.914†	4833.7	4403.6	2245.2 ug/L	2245.2 ppb	17:38:15
3	Pb 220.353†	2673.5	2703.5	479.19 ug/L	479.19 ppb	17:38:15
3	S 181.975 Axial†	808.4	719.6	933.89 ug/L	933.89 ppb	17:38:15
3	Sb 206.836†	1109.9	1025.0	479.27 ug/L	479.27 ppb	17:38:15
3	Se 196.026†	721.1	736.4	480.88 ug/L	480.88 ppb	17:38:15
3	Si 251.611†	57785.5	55798.7	2354.5 ug/L	2354.5 ppb	17:37:55
3	Sn 189.927†	1954.6	1894.7	476.22 ug/L	476.22 ppb	17:38:15
3	Ti 334.940†	181078.5	178609.8	474.04 ug/L	474.04 ppb	17:37:55
3	Tl 190.801†	768.0	808.0	481.65 ug/L	481.65 ppb	17:38:15
3	U 409.014†	7521.0	9136.7	460.87 ug/L	460.87 ppb	17:37:55
3	V 292.402†	51873.7	52571.5	478.54 ug/L	478.54 ppb	17:37:55
3	Zn 213.857†	44156.0	42129.4	470.22 ug/L	470.22 ppb	17:37:55
3	SiO2†	59695.6	57625.1	5203.1 ug/L	5203.1 ppb	17:38:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	579591.7	104.05	%	2.404				2.31%
Sc Radial	3333.3	103	%	1.8				1.73%
Y 371.029	534785.1	103.36	%	2.406				2.33%
Y RADIAL	3725.4	102.2	%	1.96				1.91%
Ag 328.068†	78862.3	473.26	ug/L	0.792	473.26	ppb	0.792	0.17%
QC value within limits for Ag 328.068 Recovery = 94.65%								
Al 396.153Radial†	4358.8	5089.9	ug/L	92.50	5089.9	ppb	92.50	1.82%
QC value within limits for Al 396.153Radial Recovery = 101.80%								
As 188.979†	1068.6	475.22	ug/L	5.008	475.22	ppb	5.008	1.05%
QC value within limits for As 188.979 Recovery = 95.04%								
B 249.677†	21112.1	508.84	ug/L	2.996	508.84	ppb	2.996	0.59%
QC value within limits for B 249.677 Recovery = 101.77%								
Ba 233.527†	31730.5	474.60	ug/L	0.334	474.60	ppb	0.334	0.07%
QC value within limits for Ba 233.527 Recovery = 94.92%								
Be 313.107†	1082498.9	475.79	ug/L	0.416	475.79	ppb	0.416	0.09%
QC value within limits for Be 313.107 Recovery = 95.16%								
Ca 317.933Radial†	2210.7	4979.2	ug/L	11.10	4979.2	ppb	11.10	0.22%

```
   QC value within limits for Ca 317.933Radial  Recovery = 99.58%
Cd 226.502†            33237.3      462.47 ug/L         4.159      462.47 ppb          4.159   0.90%
   QC value within limits for Cd 226.502  Recovery = 92.49%
Co 228.616†            12956.3      475.50 ug/L         4.789      475.50 ppb          4.789   1.01%
   QC value within limits for Co 228.616  Recovery = 95.10%
Cr 267.716†            31391.1      473.51 ug/L         0.290      473.51 ppb          0.290   0.06%
   QC value within limits for Cr 267.716  Recovery = 94.70%
Cu 324.752†            96967.1      469.27 ug/L         0.384      469.27 ppb          0.384   0.08%
   QC value within limits for Cu 324.752  Recovery = 93.85%
Fe 238.204 Radial†       365.9      4927.7 ug/L         12.37      4927.7 ppb          12.37   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.55%
K 766.490 Radial†      20932.9      4881.8 ug/L         75.86      4881.8 ppb          75.86   1.55%
   QC value within limits for K 766.490 Radial  Recovery = 97.64%
Mg 279.077 IEC†          112.6      5112.0 ug/L         69.05      5112.0 ppb          69.05   1.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.24%
Mn 257.610†           246157.1      473.93 ug/L         0.234      473.93 ppb          0.234   0.05%
   QC value within limits for Mn 257.610  Recovery = 94.79%
Mo 202.031†             4428.8      469.60 ug/L         3.966      469.60 ppb          3.966   0.84%
   QC value within limits for Mo 202.031  Recovery = 93.92%
Na 589.592 Radial†     19805.6      9677.6 ug/L        149.70      9677.6 ppb         149.70   1.55%
   QC value within limits for Na 589.592 Radial  Recovery = 96.78%
Ni 231.604†            14090.2      474.53 ug/L         4.577      474.53 ppb          4.577   0.96%
   QC value within limits for Ni 231.604  Recovery = 94.91%
P 214.914†              4358.1      2220.8 ug/L         22.92      2220.8 ppb          22.92   1.03%
   QC value less than the lower limit for P 214.914  Recovery = 88.83%
Pb 220.353†             2673.5      473.91 ug/L         4.591      473.91 ppb          4.591   0.97%
   QC value within limits for Pb 220.353  Recovery = 94.78%
S 181.975 Axial†         712.5      924.67 ug/L         9.660      924.67 ppb          9.660   1.04%
   QC value within limits for S 181.975 Axial  Recovery = 92.47%
Sb 206.836†             1023.1      478.23 ug/L         2.398      478.23 ppb          2.398   0.50%
   QC value within limits for Sb 206.836  Recovery = 95.65%
Se 196.026†              728.7      476.01 ug/L         5.003      476.01 ppb          5.003   1.05%
   QC value within limits for Se 196.026  Recovery = 95.20%
Si 251.611†            55865.5      2357.4 ug/L          3.86      2357.4 ppb           3.86   0.16%
   QC value within limits for Si 251.611  Recovery = 94.29%
Sn 189.927†             1876.6      471.68 ug/L         4.232      471.68 ppb          4.232   0.90%
   QC value within limits for Sn 189.927  Recovery = 94.34%
Sr 421.552†            46722.6      487.89 ug/L         6.302      487.89 ppb          6.302   1.29%
   QC value within limits for Sr 421.552  Recovery = 97.58%
Ti 334.940†           178429.3      473.56 ug/L         0.457      473.56 ppb          0.457   0.10%
   QC value within limits for Ti 334.940  Recovery = 94.71%
Tl 190.801†              801.8      477.98 ug/L         5.416      477.98 ppb          5.416   1.13%
   QC value within limits for Tl 190.801  Recovery = 95.60%
U 409.014†              9201.6      464.15 ug/L         3.019      464.15 ppb          3.019   0.65%
   QC value within limits for U 409.014  Recovery = 92.83%
V 292.402†             52630.0      479.01 ug/L         0.468      479.01 ppb          0.468   0.10%
   QC value within limits for V 292.402  Recovery = 95.80%
Zn 213.857†            42127.2      470.22 ug/L         0.254      470.22 ppb          0.254   0.05%
   QC value within limits for Zn 213.857  Recovery = 94.04%
SiO2†                  56581.2      5108.7 ug/L        149.58      5108.7 ppb         149.58   2.93%
   QC value within limits for SiO2  Recovery = 95.54%
QC Failed.  Continue with analysis.
```

Sequence No.: 14 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/15/2010 17:40:41**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3368.7	3368.7	104	%			17:42:53
1	Y RADIAL	3757.8	3757.8	103.1	%			17:42:33
1	Al 396.153Radial†	-119.9	-0.2	-0.2393	ug/L	-0.2393	ppb	17:42:33
1	Ca 317.933Radial†	18.4	6.4	14.337	ug/L	14.337	ppb	17:42:53
1	Fe 238.204 Radial†	6.4	1.3	17.066	ug/L	17.066	ppb	17:42:53
1	K 766.490 Radial†	3420.9	117.1	27.318	ug/L	27.318	ppb	17:42:33
1	Mg 279.077 IEC†	3.8	3.5	156.83	ug/L	156.83	ppb	17:42:53
1	Na 589.592 Radial†	-1159.0	78.6	38.383	ug/L	38.383	ppb	17:42:33
1	Sr 421.552†	21.0	-11.8	-0.1235	ug/L	-0.1235	ppb	17:42:33
1	Sc 361.383	561447.6	561447.6	100.80	%			17:43:50
1	Y 371.029	522349.8	522349.8	100.95	%			17:43:50
1	Ag 328.068†	55.8	2.8	0.0163	ug/L	0.0163	ppb	17:43:50
1	As 188.979†	-44.8	0.2	0.0917	ug/L	0.0917	ppb	17:44:10
1	B 249.677†	469.8	1121.1	27.121	ug/L	27.121	ppb	17:43:50
1	Ba 233.527†	-1.9	1.3	0.0190	ug/L	0.0190	ppb	17:44:10
1	Be 313.107†	-9563.5	63.1	0.0280	ug/L	0.0280	ppb	17:43:50
1	Cd 226.502†	-277.0	32.7	0.4546	ug/L	0.4546	ppb	17:44:10
1	Co 228.616†	-108.5	-17.0	-0.6224	ug/L	-0.6224	ppb	17:44:10
1	Cr 267.716†	116.0	8.3	0.1229	ug/L	0.1229	ppb	17:43:50
1	Cu 324.752†	6478.2	45.4	0.2187	ug/L	0.2187	ppb	17:43:50
1	Mn 257.610†	620.0	-9.2	-0.0224	ug/L	-0.0224	ppb	17:43:50
1	Mo 202.031†	22.2	6.0	0.6402	ug/L	0.6402	ppb	17:44:10
1	Ni 231.604†	140.9	22.1	0.7439	ug/L	0.7439	ppb	17:44:10
1	P 214.914†	324.0	10.2	5.3907	ug/L	5.3907	ppb	17:44:10
1	Pb 220.353†	-90.9	5.4	0.9455	ug/L	0.9455	ppb	17:44:10
1	S 181.975 Axial†	67.3	-2.3	-2.9483	ug/L	-2.9483	ppb	17:44:10
1	Sb 206.836†	51.8	-6.2	-2.7462	ug/L	-2.7462	ppb	17:44:10
1	Se 196.026†	-21.2	11.9	7.6552	ug/L	7.6552	ppb	17:44:10
1	Si 251.611†	602.2	29.9	1.2559	ug/L	1.2559	ppb	17:44:10
1	Sn 189.927†	22.9	10.9	2.7262	ug/L	2.7262	ppb	17:44:10
1	Ti 334.940†	-1943.5	50.4	0.1220	ug/L	0.1220	ppb	17:43:50
1	Tl 190.801†	-46.2	13.0	7.7120	ug/L	7.7120	ppb	17:44:10
1	U 409.014†	-1746.7	67.6	3.4209	ug/L	3.4209	ppb	17:43:50
1	V 292.402†	-2048.0	-59.9	-0.5219	ug/L	-0.5219	ppb	17:43:50
1	Zn 213.857†	1044.9	94.5	1.0590	ug/L	1.0590	ppb	17:44:10
1	SiO2†	637.3	27.9	2.5054	ug/L	2.5054	ppb	17:45:06
2	Sc Radial	3353.6	3353.6	103	%			17:43:18
2	Y RADIAL	3671.1	3671.1	100.7	%			17:42:58
2	Al 396.153Radial†	-116.8	2.2	2.5575	ug/L	2.5575	ppb	17:42:58
2	Ca 317.933Radial†	17.2	5.3	11.879	ug/L	11.879	ppb	17:43:18
2	Fe 238.204 Radial†	4.7	-0.3	-4.0496	ug/L	-4.0496	ppb	17:43:18
2	K 766.490 Radial†	3560.6	267.0	62.321	ug/L	62.321	ppb	17:42:58
2	Mg 279.077 IEC†	4.4	4.1	184.50	ug/L	184.50	ppb	17:43:18
2	Na 589.592 Radial†	-1145.9	86.1	42.084	ug/L	42.084	ppb	17:42:58
2	Sr 421.552†	34.6	1.4	0.0147	ug/L	0.0147	ppb	17:42:58
2	Sc 361.383	587316.6	587316.6	105.44	%			17:44:15
2	Y 371.029	545518.3	545518.3	105.43	%			17:44:15
2	Ag 328.068†	115.6	57.0	0.3336	ug/L	0.3336	ppb	17:44:15
2	As 188.979†	-40.0	6.7	2.9598	ug/L	2.9598	ppb	17:44:35
2	B 249.677†	412.5	1046.2	25.310	ug/L	25.310	ppb	17:44:15
2	Ba 233.527†	-8.3	-4.7	-0.0711	ug/L	-0.0711	ppb	17:44:35
2	Be 313.107†	-9844.4	214.5	0.0953	ug/L	0.0953	ppb	17:44:15
2	Cd 226.502†	-278.0	43.8	0.6109	ug/L	0.6109	ppb	17:44:35
2	Co 228.616†	-99.5	-3.7	-0.1331	ug/L	-0.1331	ppb	17:44:35
2	Cr 267.716†	139.2	25.2	0.3776	ug/L	0.3776	ppb	17:44:15
2	Cu 324.752†	6777.2	45.9	0.2186	ug/L	0.2186	ppb	17:44:15
2	Mn 257.610†	547.1	-105.5	-0.2109	ug/L	-0.2109	ppb	17:44:15
2	Mo 202.031†	33.1	15.4	1.6280	ug/L	1.6280	ppb	17:44:35
2	Ni 231.604†	138.0	13.1	0.4421	ug/L	0.4421	ppb	17:44:35

2	P 214.914†	309.5	-17.7	-9.4777 ug/L	-9.4777 ppb		17:44:35
2	Pb 220.353†	-101.3	-0.5	-0.0833 ug/L	-0.0833 ppb		17:44:35
2	S 181.975 Axial†	60.4	-11.7	-15.242 ug/L	-15.242 ppb		17:44:35
2	Sb 206.836†	47.9	-12.1	-5.3416 ug/L	-5.3416 ppb		17:44:35
2	Se 196.026†	-26.6	7.7	4.9262 ug/L	4.9262 ppb		17:44:35
2	Si 251.611†	608.0	9.1	0.3628 ug/L	0.3628 ppb		17:44:35
2	Sn 189.927†	35.1	21.4	5.3808 ug/L	5.3808 ppb		17:44:35
2	Ti 334.940†	-1870.9	204.2	0.5275 ug/L	0.5275 ppb		17:44:15
2	Tl 190.801†	-55.3	6.4	3.7841 ug/L	3.7841 ppb		17:44:35
2	U 409.014†	-1808.5	85.3	4.3252 ug/L	4.3252 ppb		17:44:15
2	V 292.402†	-2126.1	-44.6	-0.3652 ug/L	-0.3652 ppb		17:44:15
2	Zn 213.857†	1046.4	50.3	0.5619 ug/L	0.5619 ppb		17:44:35
2	SiO2†	702.3	61.7	5.5404 ug/L	5.5404 ppb		17:45:11
3	Sc Radial	3358.3	3358.3	104 %			17:43:43
3	Y RADIAL	3754.0	3754.0	103.0 %			17:43:23
3	Al 396.153Radial†	-103.3	15.5	18.052 ug/L	18.052 ppb		17:43:23
3	Ca 317.933Radial†	14.1	2.2	5.0447 ug/L	5.0447 ppb		17:43:43
3	Fe 238.204 Radial†	5.0	-0.0	-0.5489 ug/L	-0.5489 ppb		17:43:43
3	K 766.490 Radial†	3324.7	34.3	8.0003 ug/L	8.0003 ppb		17:43:23
3	Mg 279.077 IEC†	3.4	3.1	139.35 ug/L	139.35 ppb		17:43:43
3	Na 589.592 Radial†	-1187.9	47.1	23.039 ug/L	23.039 ppb		17:43:23
3	Sr 421.552†	47.7	14.1	0.1468 ug/L	0.1468 ppb		17:43:23
3	Sc 361.383	576478.2	576478.2	103.49 %			17:44:41
3	Y 371.029	535291.9	535291.9	103.45 %			17:44:41
3	Ag 328.068†	32.5	-21.3	-0.1220 ug/L	-0.1220 ppb		17:44:41
3	As 188.979†	-25.3	20.2	8.8938 ug/L	8.8938 ppb		17:45:01
3	B 249.677†	409.6	1050.8	25.418 ug/L	25.418 ppb		17:44:41
3	Ba 233.527†	8.6	11.4	0.1717 ug/L	0.1717 ppb		17:45:01
3	Be 313.107†	-9844.9	38.6	0.0179 ug/L	0.0179 ppb		17:44:41
3	Cd 226.502†	-276.8	40.1	0.5571 ug/L	0.5571 ppb		17:45:01
3	Co 228.616†	-80.2	13.2	0.4861 ug/L	0.4861 ppb		17:45:01
3	Cr 267.716†	151.8	39.9	0.6028 ug/L	0.6028 ppb		17:44:41
3	Cu 324.752†	6538.5	-64.0	-0.3088 ug/L	-0.3088 ppb		17:44:41
3	Mn 257.610†	585.3	-58.8	-0.1188 ug/L	-0.1188 ppb		17:44:41
3	Mo 202.031†	33.2	16.0	1.6984 ug/L	1.6984 ppb		17:45:01
3	Ni 231.604†	137.3	14.9	0.5028 ug/L	0.5028 ppb		17:45:01
3	P 214.914†	316.1	-5.9	-3.0348 ug/L	-3.0348 ppb		17:45:01
3	Pb 220.353†	-97.9	1.0	0.1877 ug/L	0.1877 ppb		17:45:01
3	S 181.975 Axial†	71.9	0.4	0.5783 ug/L	0.5783 ppb		17:45:01
3	Sb 206.836†	50.0	-9.3	-4.0869 ug/L	-4.0869 ppb		17:45:01
3	Se 196.026†	-21.6	12.1	7.7430 ug/L	7.7430 ppb		17:45:01
3	Si 251.611†	626.8	38.0	1.5871 ug/L	1.5871 ppb		17:45:01
3	Sn 189.927†	24.7	12.0	3.0152 ug/L	3.0152 ppb		17:45:01
3	Ti 334.940†	-1879.0	163.0	0.4242 ug/L	0.4242 ppb		17:44:41
3	Tl 190.801†	-57.4	3.4	2.0141 ug/L	2.0141 ppb		17:45:01
3	U 409.014†	-1929.9	-64.3	-3.2593 ug/L	-3.2593 ppb		17:44:41
3	V 292.402†	-1974.1	64.4	0.5988 ug/L	0.5988 ppb		17:44:41
3	Zn 213.857†	1044.4	67.0	0.7505 ug/L	0.7505 ppb		17:45:01
3	SiO2†	617.3	-7.9	-0.7614 ug/L	-0.7614 ppb		17:45:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	575080.8	103.24	%	2.332				2.26%
Sc Radial	3360.2	104	%	0.2				0.23%
Y 371.029	534386.7	103.28	%	2.244				2.17%
Y RADIAL	3727.6	102.3	%	1.34				1.32%
Ag 328.068†	12.8	0.0760	ug/L	0.23361	0.0760	ppb	0.23361	307.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.8	6.7901	ug/L	9.85287	6.7901	ppb	9.85287	145.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.0	3.9817	ug/L	4.48916	3.9817	ppb	4.48916	112.74%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1072.7	25.949	ug/L	1.0156	25.949	ppb	1.0156	3.91%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.7	0.0398	ug/L	0.12273	0.0398	ppb	0.12273	308.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	105.4	0.0471	ug/L	0.04209	0.0471	ppb	0.04209	89.45%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.6	10.420	ug/L	4.8151	10.420	ppb	4.8151	46.21%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                38.8      0.5409 ug/L       0.07941      0.5409 ppb        0.07941  14.68%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -2.5     -0.0898 ug/L       0.55548     -0.0898 ppb        0.55548 618.56%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                24.5      0.3678 ug/L       0.24013      0.3678 ppb        0.24013  65.29%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 9.1      0.0428 ug/L       0.30454      0.0428 ppb        0.30454 710.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.3      4.1557 ug/L      11.31648      4.1557 ppb       11.31648 272.31%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         139.5      32.547 ug/L       27.5351      32.547 ppb        27.5351  84.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.5      160.22 ug/L        22.766      160.22 ppb         22.766  14.21%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -57.8     -0.1174 ug/L       0.09429     -0.1174 ppb        0.09429  80.33%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.5      1.3222 ug/L       0.59168      1.3222 ppb        0.59168  44.75%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         70.6      34.502 ug/L       10.0984      34.502 ppb        10.0984  29.27%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                16.7      0.5629 ug/L       0.15965      0.5629 ppb        0.15965  28.36%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.5     -2.3739 ug/L       7.45617     -2.3739 ppb        7.45617 314.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.0      0.3500 ug/L       0.53327      0.3500 ppb        0.53327 152.37%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.5     -5.8707 ug/L       8.30526     -5.8707 ppb        8.30526 141.47%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -9.2     -4.0582 ug/L       1.29796     -4.0582 ppb        1.29796  31.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                10.6      6.7748 ug/L       1.60154      6.7748 ppb        1.60154  23.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                25.6      1.0686 ug/L       0.63328      1.0686 ppb        0.63328  59.26%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                14.8      3.7074 ug/L       1.45641      3.7074 ppb        1.45641  39.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 1.2      0.0127 ug/L       0.13513      0.0127 ppb        0.13513 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               139.2      0.3579 ug/L       0.21077      0.3579 ppb        0.21077  58.89%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 7.6      4.5034 ug/L       2.91622      4.5034 ppb        2.91622  64.76%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 29.5      1.4956 ug/L       4.14260      1.4956 ppb        4.14260 276.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -13.4     -0.0961 ug/L       0.60685     -0.0961 ppb        0.60685 631.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                70.6      0.7904 ug/L       0.25094      0.7904 ppb        0.25094  31.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      27.2      2.4282 ug/L       3.15158      2.4282 ppb        3.15158 129.79%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

==========

Analysis Begun

Start Time: 4/15/2010 17:53:06 **Plasma On Time: 4/15/2010 06:47:48**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\041510.sif
Batch ID:
Results Data Set: 041510A
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 4/15/2010 16:17:46**
IEC File: 040610.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 37**
Sample ID: LR1 **Date Collected: 4/15/2010 17:53:07**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3388.0	3388.0	104	%			17:55:21
1	Y RADIAL	3894.6	3894.6	106.8	%			17:55:01
1	Al 396.153Radial†	-130.8	-10.0	-10.646	ug/L	-10.646	ppb	17:55:01

1	Ca 317.933Radial†	7.3	-4.4	-9.8008 ug/L	-9.8008 ppb	17:55:21
1	Fe 238.204 Radial†	30633.6	29319.6	393760 ug/L	393760 ppb	17:55:01
1	K 766.490 Radial†	3088.2	-220.2	-51.365 ug/L	-51.365 ppb	17:55:01
1	Mg 279.077 IEC†	9.8	9.2	182.94 ug/L	182.94 ppb	17:55:21
1	Na 589.592 Radial†	-1222.0	24.6	12.006 ug/L	12.006 ppb	17:55:01
1	Sr 421.552†	44.1	10.3	0.1072 ug/L	0.1072 ppb	17:55:01
1	Sc 361.383	588599.4	588599.4	105.67 %		17:56:18
1	Y 371.029	545453.9	545453.9	105.42 %		17:56:18
1	Ag 328.068†	-19704.0	-18699.4	3.8694 ug/L	3.8694 ppb	17:56:18
1	As 188.979†	-153.7	-100.8	7.2350 ug/L	7.2350 ppb	17:56:38
1	B 249.677†	1695.3	2259.4	13.336 ug/L	13.336 ppb	17:56:18
1	Ba 233.527†	-1569.7	-1482.3	0.2663 ug/L	0.2663 ppb	17:56:18
1	Be 313.107†	-9599.3	466.8	0.2056 ug/L	0.2056 ppb	17:56:18
1	Cd 226.502†	2216.9	2405.5	-1.8552 ug/L	-1.8552 ppb	17:56:18
1	Co 228.616†	76.0	162.5	0.2136 ug/L	0.2136 ppb	17:56:38
1	Cr 267.716†	-236.7	-330.8	1.2114 ug/L	1.2114 ppb	17:56:18
1	Cu 324.752†	1660.4	-4810.4	3.0308 ug/L	3.0308 ppb	17:56:18
1	Mn 257.610†	-20798.7	-20307.1	3.1802 ug/L	3.1802 ppb	17:56:18
1	Mo 202.031†	-217.0	-221.3	3.7189 ug/L	3.7189 ppb	17:56:18
1	Ni 231.604†	107.2	-16.3	-0.1822 ug/L	-0.1822 ppb	17:56:38
1	P 214.914†	614.7	270.4	-17.254 ug/L	-17.254 ppb	17:56:38
1	Pb 220.353†	78.2	169.5	-2.6974 ug/L	-2.6974 ppb	17:56:38
1	S 181.975 Axial†	80.2	6.9	8.9620 ug/L	8.9620 ppb	17:56:38
1	Sb 206.836†	32.4	-26.9	-1.7180 ug/L	-1.7180 ppb	17:56:38
1	Se 196.026†	-1079.8	-988.9	83.322 ug/L	83.322 ppb	17:56:38
1	Si 251.611†	41.6	-528.3	-22.058 ug/L	-22.058 ppb	17:56:18
1	Sn 189.927†	-12.2	-23.4	0.6232 ug/L	0.6232 ppb	17:56:38
1	Ti 334.940†	-1933.8	148.6	0.3145 ug/L	0.3145 ppb	17:56:18
1	Tl 190.801†	-65.4	-3.1	-2.1234 ug/L	-2.1234 ppb	17:56:38
1	U 409.014†	439.9	2216.8	6.6380 ug/L	6.6380 ppb	17:56:18
1	V 292.402†	4326.6	6066.4	1.4674 ug/L	1.4674 ppb	17:56:18
1	Zn 213.857†	3496.8	2367.0	63.852 ug/L	63.852 ppb	17:56:38
1	SiO2†	-21.5	-624.7	-55.909 ug/L	-55.909 ppb	17:57:36
2	Sc Radial	3419.1	3419.1	105 %		17:55:46
2	Y RADIAL	3852.8	3852.8	105.7 %		17:55:26
2	Al 396.153Radial†	-127.4	-5.7	-5.2001 ug/L	-5.2001 ppb	17:55:26
2	Ca 317.933Radial†	11.2	-0.7	-1.6256 ug/L	-1.6256 ppb	17:55:46
2	Fe 238.204 Radial†	30173.3	28616.6	384310 ug/L	384310 ppb	17:55:26
2	K 766.490 Radial†	3174.0	-165.7	-38.644 ug/L	-38.644 ppb	17:55:26
2	Mg 279.077 IEC†	11.4	10.6	252.39 ug/L	252.39 ppb	17:55:46
2	Na 589.592 Radial†	-1181.4	73.7	36.002 ug/L	36.002 ppb	17:55:26
2	Sr 421.552†	78.3	42.3	0.4417 ug/L	0.4417 ppb	17:55:26
2	Sc 361.383	585608.0	585608.0	105.13 %		17:56:44
2	Y 371.029	542625.8	542625.8	104.87 %		17:56:44
2	Ag 328.068†	-19585.3	-18681.8	1.2105 ug/L	1.2105 ppb	17:56:44
2	As 188.979†	-169.6	-116.7	-1.0005 ug/L	-1.0005 ppb	17:57:04
2	B 249.677†	1638.1	2213.1	13.212 ug/L	13.212 ppb	17:56:44
2	Ba 233.527†	-1423.7	-1351.1	1.6894 ug/L	1.6894 ppb	17:56:44
2	Be 313.107†	-9671.1	352.2	0.1536 ug/L	0.1536 ppb	17:56:44
2	Cd 226.502†	2235.4	2433.8	-0.6128 ug/L	-0.6128 ppb	17:56:44
2	Co 228.616†	34.2	123.1	-1.1086 ug/L	-1.1086 ppb	17:57:04
2	Cr 267.716†	-223.0	-318.9	1.2429 ug/L	1.2429 ppb	17:56:44
2	Cu 324.752†	1668.1	-4795.1	2.4767 ug/L	2.4767 ppb	17:56:44
2	Mn 257.610†	-20626.9	-20244.2	2.2849 ug/L	2.2849 ppb	17:56:44
2	Mo 202.031†	-281.5	-283.8	-3.5498 ug/L	-3.5498 ppb	17:56:44
2	Ni 231.604†	159.1	33.5	1.4884 ug/L	1.4884 ppb	17:57:04
2	P 214.914†	613.0	271.7	-12.585 ug/L	-12.585 ppb	17:57:04
2	Pb 220.353†	82.8	174.3	-1.0899 ug/L	-1.0899 ppb	17:57:04
2	S 181.975 Axial†	83.9	10.8	14.009 ug/L	14.009 ppb	17:57:04
2	Sb 206.836†	38.7	-20.8	0.6127 ug/L	0.6127 ppb	17:57:04
2	Se 196.026†	-1101.3	-1014.5	49.787 ug/L	49.787 ppb	17:57:04
2	Si 251.611†	58.8	-511.7	-21.276 ug/L	-21.276 ppb	17:56:44
2	Sn 189.927†	-19.8	-30.7	-1.3634 ug/L	-1.3634 ppb	17:57:04
2	Ti 334.940†	-2235.8	-148.0	-0.4766 ug/L	-0.4766 ppb	17:56:44
2	Tl 190.801†	-57.6	4.1	2.1058 ug/L	2.1058 ppb	17:57:04
2	U 409.014†	410.6	2191.1	7.8711 ug/L	7.8711 ppb	17:56:44
2	V 292.402†	4272.3	6035.6	2.3635 ug/L	2.3635 ppb	17:56:44
2	Zn 213.857†	3490.6	2378.1	63.073 ug/L	63.073 ppb	17:57:04
2	SiO2†	37.0	-569.2	-50.702 ug/L	-50.702 ppb	17:57:41
3	Sc Radial	3431.0	3431.0	106 %		17:56:11
3	Y RADIAL	3857.9	3857.9	105.8 %		17:55:51

3	Al 396.153Radial†	-125.4	-3.4	-2.5936 ug/L	-2.5936 ppb	17:55:51
3	Ca 317.933Radial†	15.4	3.2	7.2696 ug/L	7.2696 ppb	17:56:11
3	Fe 238.204 Radial†	30232.0	28573.0	383730 ug/L	383730 ppb	17:55:51
3	K 766.490 Radial†	2977.7	-361.7	-84.398 ug/L	-84.398 ppb	17:55:51
3	Mg 279.077 IEC†	10.8	10.1	226.33 ug/L	226.33 ppb	17:56:11
3	Na 589.592 Radial†	-1238.1	24.0	11.706 ug/L	11.706 ppb	17:55:51
3	Sr 421.552†	81.8	45.3	0.4735 ug/L	0.4735 ppb	17:55:51
3	Sc 361.383	598202.6	598202.6	107.39 %		17:57:10
3	Y 371.029	553900.6	553900.6	107.05 %		17:57:10
3	Ag 328.068†	-19958.1	-18636.7	1.3053 ug/L	1.3053 ppb	17:57:10
3	As 188.979†	-167.4	-111.3	1.3147 ug/L	1.3147 ppb	17:57:30
3	B 249.677†	1645.1	2186.8	12.634 ug/L	12.634 ppb	17:57:10
3	Ba 233.527†	-1518.2	-1410.5	0.7693 ug/L	0.7693 ppb	17:57:10
3	Be 313.107†	-9831.3	396.6	0.1748 ug/L	0.1748 ppb	17:57:10
3	Cd 226.502†	2244.9	2397.9	-1.0601 ug/L	-1.0601 ppb	17:57:10
3	Co 228.616†	60.1	146.5	-0.2373 ug/L	-0.2373 ppb	17:57:30
3	Cr 267.716†	-294.6	-381.1	0.2951 ug/L	0.2951 ppb	17:57:10
3	Cu 324.752†	1743.7	-4758.0	2.6149 ug/L	2.6149 ppb	17:57:10
3	Mn 257.610†	-21173.0	-20339.6	2.0395 ug/L	2.0395 ppb	17:57:10
3	Mo 202.031†	-263.0	-260.9	-1.1630 ug/L	-1.1630 ppb	17:57:10
3	Ni 231.604†	135.1	8.0	0.6277 ug/L	0.6277 ppb	17:57:30
3	P 214.914†	631.2	276.5	-9.8460 ug/L	-9.8460 ppb	17:57:30
3	Pb 220.353†	99.3	188.0	1.3865 ug/L	1.3865 ppb	17:57:30
3	S 181.975 Axial†	76.1	1.8	2.3721 ug/L	2.3721 ppb	17:57:30
3	Sb 206.836†	32.0	-27.8	-2.5071 ug/L	-2.5071 ppb	17:57:30
3	Se 196.026†	-1109.8	-1000.5	57.730 ug/L	57.730 ppb	17:57:30
3	Si 251.611†	-117.0	-676.6	-28.280 ug/L	-28.280 ppb	17:57:10
3	Sn 189.927†	-14.0	-24.9	0.0888 ug/L	0.0888 ppb	17:57:30
3	Ti 334.940†	-1965.2	148.7	0.3141 ug/L	0.3141 ppb	17:57:10
3	Tl 190.801†	-68.4	-4.8	-3.1735 ug/L	-3.1735 ppb	17:57:30
3	U 409.014†	449.8	2219.3	9.4619 ug/L	9.4619 ppb	17:57:10
3	V 292.402†	4326.2	6000.2	2.1614 ug/L	2.1614 ppb	17:57:10
3	Zn 213.857†	3504.6	2321.2	62.383 ug/L	62.383 ppb	17:57:30
3	SiO2†	-15.1	-618.5	-55.228 ug/L	-55.228 ppb	17:57:46

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	590803.3	106.07	%	1.181				1.11%
Sc Radial	3412.7	105	%	0.7				0.65%
Y 371.029	547326.8	105.78	%	1.134				1.07%
Y RADIAL	3868.5	106.1	%	0.63				0.59%
Ag 328.068†	-18672.6	2.1284	ug/L	1.50852	2.1284	ppb	1.50852	70.88%
Al 396.153Radial†	-6.4	-6.1465	ug/L	4.10866	-6.1465	ppb	4.10866	66.85%
As 188.979†	-109.6	2.5164	ug/L	4.24722	2.5164	ppb	4.24722	168.78%
B 249.677†	2219.8	13.061	ug/L	0.3743	13.061	ppb	0.3743	2.87%
Ba 233.527†	-1414.6	0.9083	ug/L	0.72167	0.9083	ppb	0.72167	79.45%
Be 313.107†	405.2	0.1780	ug/L	0.02617	0.1780	ppb	0.02617	14.70%
Ca 317.933Radial†	-0.6	-1.3856	ug/L	8.53774	-1.3856	ppb	8.53774	616.19%
Cd 226.502†	2412.4	-1.1760	ug/L	0.62927	-1.1760	ppb	0.62927	53.51%
Co 228.616†	144.1	-0.3774	ug/L	0.67218	-0.3774	ppb	0.67218	178.09%
Cr 267.716†	-343.6	0.9165	ug/L	0.53837	0.9165	ppb	0.53837	58.74%
Cu 324.752†	-4787.8	2.7075	ug/L	0.28842	2.7075	ppb	0.28842	10.65%
Fe 238.204 Radial†	28836.4	387270	ug/L	5628.1	387270	ppb	5628.1	1.45%
K 766.490 Radial†	-249.2	-58.136	ug/L	23.6163	-58.136	ppb	23.6163	40.62%
Mg 279.077 IEC†	10.0	220.56	ug/L	35.083	220.56	ppb	35.083	15.91%
Mn 257.610†	-20297.0	2.5015	ug/L	0.60039	2.5015	ppb	0.60039	24.00%
Mo 202.031†	-255.3	-0.3313	ug/L	3.70503	-0.3313	ppb	3.70503	>999.9%
Na 589.592 Radial†	40.7	19.905	ug/L	13.9416	19.905	ppb	13.9416	70.04%
Ni 231.604†	8.4	0.6446	ug/L	0.83543	0.6446	ppb	0.83543	129.60%
P 214.914†	272.9	-13.228	ug/L	3.7454	-13.228	ppb	3.7454	28.31%
Pb 220.353†	177.3	-0.8002	ug/L	2.05729	-0.8002	ppb	2.05729	257.09%
S 181.975 Axial†	6.5	8.4478	ug/L	5.83563	8.4478	ppb	5.83563	69.08%
Sb 206.836†	-25.2	-1.2041	ug/L	1.62209	-1.2041	ppb	1.62209	134.71%
Se 196.026†	-1001.3	63.613	ug/L	17.5246	63.613	ppb	17.5246	27.55%
Si 251.611†	-572.2	-23.871	ug/L	3.8380	-23.871	ppb	3.8380	16.08%
Sn 189.927†	-26.3	-0.2171	ug/L	1.02803	-0.2171	ppb	1.02803	473.49%
Sr 421.552†	32.6	0.3408	ug/L	0.20293	0.3408	ppb	0.20293	59.54%
Ti 334.940†	49.8	0.0506	ug/L	0.45662	0.0506	ppb	0.45662	901.71%
Tl 190.801†	-1.3	-1.0637	ug/L	2.79465	-1.0637	ppb	2.79465	262.73%

U 409.014†	2209.1	7.9903	ug/L	1.41569	7.9903	ppb	1.41569	17.72%
V 292.402†	6034.1	1.9974	ug/L	0.47004	1.9974	ppb	0.47004	23.53%
Zn 213.857†	2355.4	63.103	ug/L	0.7349	63.103	ppb	0.7349	1.16%
SiO2†	-604.1	-53.946	ug/L	2.8304	-53.946	ppb	2.8304	5.25%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/15/2010 17:59:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3376.8	3376.8	104	%			18:02:10
1	Y RADIAL	3666.6	3666.6	100.6	%			18:01:50
1	Al 396.153Radial†	4380.1	4322.0	5046.0	ug/L	5046.0	ppb	18:01:50
1	Ca 317.933Radial†	2374.3	2269.0	5110.5	ug/L	5110.5	ppb	18:02:10
1	Fe 238.204 Radial†	400.3	379.6	5112.3	ug/L	5112.3	ppb	18:02:10
1	K 766.490 Radial†	24697.5	20544.2	4791.0	ug/L	4791.0	ppb	18:01:50
1	Mg 279.077 IEC†	119.2	114.3	5191.3	ug/L	5191.3	ppb	18:02:10
1	Na 589.592 Radial†	19570.4	19990.7	9768.1	ug/L	9768.1	ppb	18:01:50
1	Sr 421.552†	48596.7	46642.6	487.05	ug/L	487.05	ppb	18:01:50
1	Sc 361.383	571286.5	571286.5	102.56	%			18:03:09
1	Y 371.029	527408.8	527408.8	101.93	%			18:03:09
1	Ag 328.068†	81762.9	79668.1	478.15	ug/L	478.15	ppb	18:03:09
1	As 188.979†	1068.3	1086.2	483.05	ug/L	483.05	ppb	18:03:29
1	B 249.677†	20031.7	20186.4	486.39	ug/L	486.39	ppb	18:03:09
1	Ba 233.527†	33035.9	32213.9	481.83	ug/L	481.83	ppb	18:03:09
1	Be 313.107†	1121067.5	1102617.4	484.63	ug/L	484.63	ppb	18:03:09
1	Cd 226.502†	34834.1	34271.6	476.86	ug/L	476.86	ppb	18:03:29
1	Co 228.616†	13621.4	13371.8	490.76	ug/L	490.76	ppb	18:03:29
1	Cr 267.716†	32853.3	31926.0	481.59	ug/L	481.59	ppb	18:03:09
1	Cu 324.752†	107300.3	98238.5	475.44	ug/L	475.44	ppb	18:03:09
1	Mn 257.610†	257340.3	250288.3	481.90	ug/L	481.90	ppb	18:03:09
1	Mo 202.031†	4709.5	4575.8	485.19	ug/L	485.19	ppb	18:03:29
1	Ni 231.604†	15058.2	14564.3	490.50	ug/L	490.50	ppb	18:03:29
1	P 214.914†	4947.5	4512.6	2301.9	ug/L	2301.9	ppb	18:03:29
1	Pb 220.353†	2714.7	2742.5	486.10	ug/L	486.10	ppb	18:03:29
1	S 181.975 Axial†	830.5	740.7	961.33	ug/L	961.33	ppb	18:03:29
1	Sb 206.836†	1144.4	1058.2	494.60	ug/L	494.60	ppb	18:03:29
1	Se 196.026†	739.2	753.7	492.34	ug/L	492.34	ppb	18:03:29
1	Si 251.611†	58643.3	56610.9	2388.7	ug/L	2388.7	ppb	18:03:09
1	Sn 189.927†	1988.5	1927.0	484.33	ug/L	484.33	ppb	18:03:29
1	Ti 334.940†	183478.0	180873.8	480.05	ug/L	480.05	ppb	18:03:09
1	Tl 190.801†	782.8	822.1	490.02	ug/L	490.02	ppb	18:03:29
1	U 409.014†	7499.1	9112.3	459.56	ug/L	459.56	ppb	18:03:09
1	V 292.402†	52723.8	53378.8	485.92	ug/L	485.92	ppb	18:03:09
1	Zn 213.857†	44786.5	42725.7	476.86	ug/L	476.86	ppb	18:03:09
1	SiO2†	59611.0	57517.7	5193.1	ug/L	5193.1	ppb	18:04:29
2	Sc Radial	3485.0	3485.0	107	%			18:02:35
2	Y RADIAL	3846.9	3846.9	105.5	%			18:02:15
2	Al 396.153Radial†	4559.6	4358.6	5088.8	ug/L	5088.8	ppb	18:02:15
2	Ca 317.933Radial†	2458.0	2276.2	5126.7	ug/L	5126.7	ppb	18:02:35
2	Fe 238.204 Radial†	408.8	375.6	5059.1	ug/L	5059.1	ppb	18:02:35
2	K 766.490 Radial†	25584.9	20634.0	4811.9	ug/L	4811.9	ppb	18:02:15
2	Mg 279.077 IEC†	126.0	117.1	5317.5	ug/L	5317.5	ppb	18:02:35
2	Na 589.592 Radial†	20339.3	20123.0	9832.7	ug/L	9832.7	ppb	18:02:15
2	Sr 421.552†	50755.5	47203.3	492.91	ug/L	492.91	ppb	18:02:15
2	Sc 361.383	572910.7	572910.7	102.85	%			18:03:36
2	Y 371.029	528307.6	528307.6	102.11	%			18:03:36
2	Ag 328.068†	82794.4	80444.9	482.77	ug/L	482.77	ppb	18:03:36
2	As 188.979†	1080.6	1095.2	487.03	ug/L	487.03	ppb	18:03:56
2	B 249.677†	20384.2	20473.7	493.34	ug/L	493.34	ppb	18:03:36
2	Ba 233.527†	33410.2	32486.5	485.90	ug/L	485.90	ppb	18:03:36
2	Be 313.107†	1130507.3	1108696.5	487.30	ug/L	487.30	ppb	18:03:36
2	Cd 226.502†	35017.8	34353.8	478.01	ug/L	478.01	ppb	18:03:56
2	Co 228.616†	13698.0	13408.6	492.11	ug/L	492.11	ppb	18:03:56
2	Cr 267.716†	33106.5	32081.3	483.92	ug/L	483.92	ppb	18:03:36
2	Cu 324.752†	108445.6	99055.5	479.38	ug/L	479.38	ppb	18:03:36
2	Mn 257.610†	260081.2	252241.8	485.65	ug/L	485.65	ppb	18:03:36
2	Mo 202.031†	4749.6	4601.8	487.94	ug/L	487.94	ppb	18:03:56
2	Ni 231.604†	15129.0	14591.6	491.42	ug/L	491.42	ppb	18:03:56

2	P 214.914†	4975.1	4525.8	2308.0 ug/L	2308.0 ppb	18:03:56
2	Pb 220.353†	2740.1	2759.7	489.15 ug/L	489.15 ppb	18:03:56
2	S 181.975 Axial†	829.8	737.8	957.50 ug/L	957.50 ppb	18:03:56
2	Sb 206.836†	1158.1	1068.4	499.26 ug/L	499.26 ppb	18:03:56
2	Se 196.026†	739.8	752.2	491.32 ug/L	491.32 ppb	18:03:56
2	Si 251.611†	59291.8	57079.4	2408.5 ug/L	2408.5 ppb	18:03:36
2	Sn 189.927†	1996.5	1929.2	484.89 ug/L	484.89 ppb	18:03:56
2	Ti 334.940†	185752.5	182578.1	484.56 ug/L	484.56 ppb	18:03:36
2	Tl 190.801†	789.3	826.3	492.54 ug/L	492.54 ppb	18:03:56
2	U 409.014†	7839.9	9422.9	475.31 ug/L	475.31 ppb	18:03:36
2	V 292.402†	53256.7	53751.1	489.34 ug/L	489.34 ppb	18:03:36
2	Zn 213.857†	45341.5	43141.6	481.52 ug/L	481.52 ppb	18:03:36
2	SiO2†	59502.1	57247.1	5168.5 ug/L	5168.5 ppb	18:04:34
3	Sc Radial	3419.0	3419.0	105 %		18:03:00
3	Y RADIAL	3857.0	3857.0	105.8 %		18:02:40
3	Al 396.153Radial†	4526.6	4409.1	5147.9 ug/L	5147.9 ppb	18:02:40
3	Ca 317.933Radial†	2378.0	2244.4	5055.1 ug/L	5055.1 ppb	18:03:00
3	Fe 238.204 Radial†	397.3	372.0	5010.0 ug/L	5010.0 ppb	18:03:00
3	K 766.490 Radial†	25493.2	21006.1	4898.7 ug/L	4898.7 ppb	18:02:40
3	Mg 279.077 IEC†	126.1	119.4	5421.7 ug/L	5421.7 ppb	18:03:00
3	Na 589.592 Radial†	20083.2	20245.0	9892.3 ug/L	9892.3 ppb	18:02:40
3	Sr 421.552†	50494.5	47866.5	499.84 ug/L	499.84 ppb	18:02:40
3	Sc 361.383	573382.0	573382.0	102.94 %		18:04:03
3	Y 371.029	528556.0	528556.0	102.15 %		18:04:03
3	Ag 328.068†	82708.1	80295.0	481.86 ug/L	481.86 ppb	18:04:03
3	As 188.979†	1079.0	1092.8	485.96 ug/L	485.96 ppb	18:04:24
3	B 249.677†	20433.8	20505.6	494.11 ug/L	494.11 ppb	18:04:03
3	Ba 233.527†	33335.6	32387.3	484.42 ug/L	484.42 ppb	18:04:03
3	Be 313.107†	1128542.3	1105884.1	486.07 ug/L	486.07 ppb	18:04:03
3	Cd 226.502†	35033.8	34341.4	477.84 ug/L	477.84 ppb	18:04:24
3	Co 228.616†	13726.0	13424.9	492.71 ug/L	492.71 ppb	18:04:24
3	Cr 267.716†	33166.3	32113.0	484.40 ug/L	484.40 ppb	18:04:03
3	Cu 324.752†	108535.6	99056.2	479.38 ug/L	479.38 ppb	18:04:03
3	Mn 257.610†	259934.9	251891.8	484.96 ug/L	484.96 ppb	18:04:03
3	Mo 202.031†	4757.9	4606.1	488.39 ug/L	488.39 ppb	18:04:24
3	Ni 231.604†	15158.8	14608.4	491.99 ug/L	491.99 ppb	18:04:24
3	P 214.914†	4991.3	4537.6	2314.4 ug/L	2314.4 ppb	18:04:24
3	Pb 220.353†	2715.1	2733.2	484.49 ug/L	484.49 ppb	18:04:24
3	S 181.975 Axial†	838.7	745.8	967.91 ug/L	967.91 ppb	18:04:24
3	Sb 206.836†	1163.7	1072.9	501.27 ug/L	501.27 ppb	18:04:24
3	Se 196.026†	737.1	749.0	489.18 ug/L	489.18 ppb	18:04:24
3	Si 251.611†	59279.8	57020.3	2406.0 ug/L	2406.0 ppb	18:04:03
3	Sn 189.927†	1994.0	1925.2	483.87 ug/L	483.87 ppb	18:04:24
3	Ti 334.940†	185434.6	182120.8	483.33 ug/L	483.33 ppb	18:04:03
3	Tl 190.801†	791.7	828.0	493.54 ug/L	493.54 ppb	18:04:24
3	U 409.014†	7876.0	9451.7	476.78 ug/L	476.78 ppb	18:04:03
3	V 292.402†	53359.0	53807.9	489.87 ug/L	489.87 ppb	18:04:03
3	Zn 213.857†	45237.9	43004.6	479.97 ug/L	479.97 ppb	18:04:03
3	SiO2†	60562.7	58229.8	5257.5 ug/L	5257.5 ppb	18:04:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	572526.4	102.78	%	0.197				0.19%
Sc Radial	3426.9	106	%	1.7				1.59%
Y 371.029	528090.8	102.06	%	0.117				0.11%
Y RADIAL	3790.2	104.0	%	2.94				2.83%
Ag 328.068†	80136.0	480.93	ug/L	2.447	480.93	ppb	2.447	0.51%
QC value within limits for Ag 328.068 Recovery = 96.19%								
Al 396.153Radial†	4363.2	5094.2	ug/L	51.18	5094.2	ppb	51.18	1.00%
QC value within limits for Al 396.153Radial Recovery = 101.88%								
As 188.979†	1091.4	485.35	ug/L	2.065	485.35	ppb	2.065	0.43%
QC value within limits for As 188.979 Recovery = 97.07%								
B 249.677†	20388.6	491.28	ug/L	4.255	491.28	ppb	4.255	0.87%
QC value within limits for B 249.677 Recovery = 98.26%								
Ba 233.527†	32362.5	484.05	ug/L	2.060	484.05	ppb	2.060	0.43%
QC value within limits for Ba 233.527 Recovery = 96.81%								
Be 313.107†	1105732.7	486.00	ug/L	1.339	486.00	ppb	1.339	0.28%
QC value within limits for Be 313.107 Recovery = 97.20%								
Ca 317.933Radial†	2263.2	5097.4	ug/L	37.54	5097.4	ppb	37.54	0.74%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.95%
Cd 226.502†            34322.3      477.57 ug/L         0.623      477.57 ppb          0.623   0.13%
   QC value within limits for Cd 226.502  Recovery = 95.51%
Co 228.616†            13401.8      491.86 ug/L         0.999      491.86 ppb          0.999   0.20%
   QC value within limits for Co 228.616  Recovery = 98.37%
Cr 267.716†            32040.1      483.30 ug/L         1.506      483.30 ppb          1.506   0.31%
   QC value within limits for Cr 267.716  Recovery = 96.66%
Cu 324.752†            98783.4      478.06 ug/L         2.275      478.06 ppb          2.275   0.48%
   QC value within limits for Cu 324.752  Recovery = 95.61%
Fe 238.204 Radial†       375.7      5060.5 ug/L        51.13      5060.5 ppb         51.13   1.01%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.21%
K 766.490 Radial†      20728.1      4833.9 ug/L        57.15      4833.9 ppb         57.15   1.18%
   QC value within limits for K 766.490 Radial  Recovery = 96.68%
Mg 279.077 IEC†          116.9      5310.2 ug/L       115.35      5310.2 ppb        115.35   2.17%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.20%
Mn 257.610†           251474.0      484.17 ug/L         1.996      484.17 ppb          1.996   0.41%
   QC value within limits for Mn 257.610  Recovery = 96.83%
Mo 202.031†             4594.6      487.17 ug/L         1.733      487.17 ppb          1.733   0.36%
   QC value within limits for Mo 202.031  Recovery = 97.43%
Na 589.592 Radial†     20119.6      9831.0 ug/L        62.14      9831.0 ppb         62.14   0.63%
   QC value within limits for Na 589.592 Radial  Recovery = 98.31%
Ni 231.604†            14588.1      491.30 ug/L         0.750      491.30 ppb          0.750   0.15%
   QC value within limits for Ni 231.604  Recovery = 98.26%
P 214.914†              4525.3      2308.1 ug/L         6.23      2308.1 ppb          6.23   0.27%
   QC value within limits for P 214.914  Recovery = 92.32%
Pb 220.353†             2745.1      486.58 ug/L         2.366      486.58 ppb          2.366   0.49%
   QC value within limits for Pb 220.353  Recovery = 97.32%
S 181.975 Axial†         741.4      962.25 ug/L         5.262      962.25 ppb          5.262   0.55%
   QC value within limits for S 181.975 Axial  Recovery = 96.22%
Sb 206.836†             1066.5      498.38 ug/L         3.425      498.38 ppb          3.425   0.69%
   QC value within limits for Sb 206.836  Recovery = 99.68%
Se 196.026†              751.7      490.94 ug/L         1.611      490.94 ppb          1.611   0.33%
   QC value within limits for Se 196.026  Recovery = 98.19%
Si 251.611†            56903.5      2401.1 ug/L        10.77      2401.1 ppb         10.77   0.45%
   QC value within limits for Si 251.611  Recovery = 96.04%
Sn 189.927†             1927.1      484.36 ug/L         0.508      484.36 ppb          0.508   0.10%
   QC value within limits for Sn 189.927  Recovery = 96.87%
Sr 421.552†            47237.5      493.27 ug/L         6.398      493.27 ppb          6.398   1.30%
   QC value within limits for Sr 421.552  Recovery = 98.65%
Ti 334.940†           181857.5      482.65 ug/L         2.331      482.65 ppb          2.331   0.48%
   QC value within limits for Ti 334.940  Recovery = 96.53%
Tl 190.801†              825.4      492.03 ug/L         1.816      492.03 ppb          1.816   0.37%
   QC value within limits for Tl 190.801  Recovery = 98.41%
U 409.014†              9329.0      470.55 ug/L         9.551      470.55 ppb          9.551   2.03%
   QC value within limits for U 409.014  Recovery = 94.11%
V 292.402†             53646.0      488.38 ug/L         2.142      488.38 ppb          2.142   0.44%
   QC value within limits for V 292.402  Recovery = 97.68%
Zn 213.857†            42957.3      479.45 ug/L         2.372      479.45 ppb          2.372   0.49%
   QC value within limits for Zn 213.857  Recovery = 95.89%
SiO2†                  57664.8      5206.4 ug/L        45.93      5206.4 ppb         45.93   0.88%
   QC value within limits for SiO2  Recovery = 97.36%
All analyte(s) passed QC.
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Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/15/2010 18:06:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3342.2	3342.2	103	%			18:09:01
1	Y RADIAL	3793.6	3793.6	104.1	%			18:08:41
1	Al 396.153Radial†	-100.5	17.7	20.664	ug/L	20.664	ppb	18:08:41
1	Ca 317.933Radial†	14.0	2.2	4.9730	ug/L	4.9730	ppb	18:09:01
1	Fe 238.204 Radial†	5.1	0.1	1.6350	ug/L	1.6350	ppb	18:09:01
1	K 766.490 Radial†	3258.8	-14.1	-3.3070	ug/L	-3.3070	ppb	18:08:41
1	Mg 279.077 IEC†	0.7	0.5	22.110	ug/L	22.110	ppb	18:09:01
1	Na 589.592 Radial†	-1190.6	39.0	19.062	ug/L	19.062	ppb	18:08:41
1	Sr 421.552†	22.1	-10.5	-0.1101	ug/L	-0.1101	ppb	18:08:41
1	Sc 361.383	567029.8	567029.8	101.80	%			18:09:58
1	Y 371.029	527463.4	527463.4	101.94	%			18:09:58
1	Ag 328.068†	-3.7	-56.3	-0.3371	ug/L	-0.3371	ppb	18:09:58
1	As 188.979†	-36.3	8.9	3.9405	ug/L	3.9405	ppb	18:10:18
1	B 249.677†	68.1	721.9	17.464	ug/L	17.464	ppb	18:09:58
1	Ba 233.527†	-0.6	2.6	0.0376	ug/L	0.0376	ppb	18:10:18
1	Be 313.107†	-9599.6	121.0	0.0531	ug/L	0.0531	ppb	18:09:58
1	Cd 226.502†	-296.0	16.7	0.2323	ug/L	0.2323	ppb	18:10:18
1	Co 228.616†	-99.5	-7.1	-0.2593	ug/L	-0.2593	ppb	18:10:18
1	Cr 267.716†	162.3	52.7	0.7934	ug/L	0.7934	ppb	18:09:58
1	Cu 324.752†	6480.1	-16.1	-0.0783	ug/L	-0.0783	ppb	18:09:58
1	Mn 257.610†	626.3	-9.2	-0.0183	ug/L	-0.0183	ppb	18:09:58
1	Mo 202.031†	27.2	10.7	1.1333	ug/L	1.1333	ppb	18:10:18
1	Ni 231.604†	140.5	20.3	0.6842	ug/L	0.6842	ppb	18:10:18
1	P 214.914†	314.4	-2.5	-1.2730	ug/L	-1.2730	ppb	18:10:18
1	Pb 220.353†	-72.3	24.5	4.3377	ug/L	4.3377	ppb	18:10:18
1	S 181.975 Axial†	64.3	-5.8	-7.5655	ug/L	-7.5655	ppb	18:10:18
1	Sb 206.836†	61.9	3.2	1.5299	ug/L	1.5299	ppb	18:10:18
1	Se 196.026†	-32.6	1.0	0.6360	ug/L	0.6360	ppb	18:10:18
1	Si 251.611†	583.8	5.9	0.2361	ug/L	0.2361	ppb	18:10:18
1	Sn 189.927†	23.2	10.9	2.7365	ug/L	2.7365	ppb	18:10:18
1	Ti 334.940†	-2002.4	11.6	0.0294	ug/L	0.0294	ppb	18:09:58
1	Tl 190.801†	-57.6	2.3	1.3628	ug/L	1.3628	ppb	18:10:18
1	U 409.014†	-1835.7	-2.7	-0.1413	ug/L	-0.1413	ppb	18:09:58
1	V 292.402†	-2061.8	-53.5	-0.4648	ug/L	-0.4648	ppb	18:09:58
1	Zn 213.857†	1004.8	45.0	0.5012	ug/L	0.5012	ppb	18:10:18
1	SiO2†	631.8	16.3	1.4426	ug/L	1.4426	ppb	18:11:14
2	Sc Radial	3371.2	3371.2	104	%			18:09:26
2	Y RADIAL	3707.6	3707.6	101.7	%			18:09:06
2	Al 396.153Radial†	-109.1	10.2	11.932	ug/L	11.932	ppb	18:09:06
2	Ca 317.933Radial†	13.7	1.8	4.0847	ug/L	4.0847	ppb	18:09:26
2	Fe 238.204 Radial†	5.6	0.5	6.9095	ug/L	6.9095	ppb	18:09:26
2	K 766.490 Radial†	3243.6	-55.9	-13.068	ug/L	-13.068	ppb	18:09:06
2	Mg 279.077 IEC†	2.2	2.0	89.511	ug/L	89.511	ppb	18:09:26
2	Na 589.592 Radial†	-1184.7	54.6	26.657	ug/L	26.657	ppb	18:09:06
2	Sr 421.552†	74.3	39.4	0.4118	ug/L	0.4118	ppb	18:09:06
2	Sc 361.383	578293.1	578293.1	103.82	%			18:10:24
2	Y 371.029	537695.1	537695.1	103.92	%			18:10:24
2	Ag 328.068†	39.2	-14.8	-0.0854	ug/L	-0.0854	ppb	18:10:24
2	As 188.979†	-39.5	6.6	2.9036	ug/L	2.9036	ppb	18:10:44
2	B 249.677†	-2.1	653.0	15.796	ug/L	15.796	ppb	18:10:24
2	Ba 233.527†	-4.9	-1.6	-0.0229	ug/L	-0.0229	ppb	18:10:44
2	Be 313.107†	-9530.9	370.8	0.1631	ug/L	0.1631	ppb	18:10:24
2	Cd 226.502†	-312.1	6.9	0.0955	ug/L	0.0955	ppb	18:10:44
2	Co 228.616†	-98.2	-3.9	-0.1426	ug/L	-0.1426	ppb	18:10:44
2	Cr 267.716†	165.1	52.2	0.7876	ug/L	0.7876	ppb	18:10:24
2	Cu 324.752†	6531.2	-90.8	-0.4393	ug/L	-0.4393	ppb	18:10:24
2	Mn 257.610†	539.7	-104.5	-0.2040	ug/L	-0.2040	ppb	18:10:24
2	Mo 202.031†	26.9	9.9	1.0447	ug/L	1.0447	ppb	18:10:44
2	Ni 231.604†	133.4	10.7	0.3615	ug/L	0.3615	ppb	18:10:44

2	P 214.914†	302.8	-19.6	-10.369 ug/L	-10.369 ppb	18:10:44
2	Pb 220.353†	-96.4	2.7	0.4811 ug/L	0.4811 ppb	18:10:44
2	S 181.975 Axial†	58.8	-12.3	-16.014 ug/L	-16.014 ppb	18:10:44
2	Sb 206.836†	59.6	-0.2	-0.0368 ug/L	-0.0368 ppb	18:10:44
2	Se 196.026†	-27.3	6.7	4.2757 ug/L	4.2757 ppb	18:10:44
2	Si 251.611†	580.2	-8.8	-0.3835 ug/L	-0.3835 ppb	18:10:44
2	Sn 189.927†	19.5	6.9	1.7237 ug/L	1.7237 ppb	18:10:44
2	Ti 334.940†	-1968.0	83.0	0.2140 ug/L	0.2140 ppb	18:10:24
2	Tl 190.801†	-53.5	7.3	4.3097 ug/L	4.3097 ppb	18:10:44
2	U 409.014†	-1884.2	-14.4	-0.7314 ug/L	-0.7314 ppb	18:10:24
2	V 292.402†	-2030.0	16.6	0.1626 ug/L	0.1626 ppb	18:10:24
2	Zn 213.857†	976.8	-1.3	-0.0152 ug/L	-0.0152 ppb	18:10:44
2	SiO2†	625.9	-1.6	-0.1705 ug/L	-0.1705 ppb	18:11:19
3	Sc Radial	3338.8	3338.8	103 %		18:09:51
3	Y RADIAL	3764.7	3764.7	103.3 %		18:09:31
3	Al 396.153Radial†	-118.8	-0.2	-0.3359 ug/L	-0.3359 ppb	18:09:31
3	Ca 317.933Radial†	15.2	3.4	7.5770 ug/L	7.5770 ppb	18:09:51
3	Fe 238.204 Radial†	2.3	-2.6	-35.310 ug/L	-35.310 ppb	18:09:51
3	K 766.490 Radial†	3265.9	-4.0	-0.9483 ug/L	-0.9483 ppb	18:09:31
3	Mg 279.077 IEC†	5.1	4.8	217.45 ug/L	217.45 ppb	18:09:51
3	Na 589.592 Radial†	-1220.4	8.9	4.3351 ug/L	4.3351 ppb	18:09:31
3	Sr 421.552†	4.7	-27.5	-0.2869 ug/L	-0.2869 ppb	18:09:31
3	Sc 361.383	558745.4	558745.4	100.31 %		18:10:49
3	Y 371.029	519331.1	519331.1	100.37 %		18:10:49
3	Ag 328.068†	71.2	18.4	0.0958 ug/L	0.0958 ppb	18:10:49
3	As 188.979†	-43.1	1.6	0.6904 ug/L	0.6904 ppb	18:11:09
3	B 249.677†	77.3	732.1	17.713 ug/L	17.713 ppb	18:10:49
3	Ba 233.527†	-14.9	-11.7	-0.1775 ug/L	-0.1775 ppb	18:11:09
3	Be 313.107†	-9448.3	132.1	0.0573 ug/L	0.0573 ppb	18:10:49
3	Cd 226.502†	-295.4	13.0	0.1850 ug/L	0.1850 ppb	18:11:09
3	Co 228.616†	-90.6	0.3	0.0143 ug/L	0.0143 ppb	18:11:09
3	Cr 267.716†	200.2	92.8	1.3962 ug/L	1.3962 ppb	18:10:49
3	Cu 324.752†	6411.6	10.1	0.0444 ug/L	0.0444 ppb	18:10:49
3	Mn 257.610†	605.2	-21.0	-0.0531 ug/L	-0.0531 ppb	18:10:49
3	Mo 202.031†	32.0	15.9	1.6821 ug/L	1.6821 ppb	18:11:09
3	Ni 231.604†	130.0	11.9	0.4003 ug/L	0.4003 ppb	18:11:09
3	P 214.914†	322.7	10.4	5.5582 ug/L	5.5582 ppb	18:11:09
3	Pb 220.353†	-81.8	14.0	2.4778 ug/L	2.4778 ppb	18:11:09
3	S 181.975 Axial†	65.8	-3.4	-4.4260 ug/L	-4.4260 ppb	18:11:09
3	Sb 206.836†	53.8	-4.0	-1.7486 ug/L	-1.7486 ppb	18:11:09
3	Se 196.026†	-30.0	3.0	1.8726 ug/L	1.8726 ppb	18:11:09
3	Si 251.611†	574.8	5.5	0.2101 ug/L	0.2101 ppb	18:11:09
3	Sn 189.927†	12.9	1.0	0.2540 ug/L	0.2540 ppb	18:11:09
3	Ti 334.940†	-2083.1	-98.1	-0.2774 ug/L	-0.2774 ppb	18:10:49
3	Tl 190.801†	-58.9	0.1	0.0445 ug/L	0.0445 ppb	18:11:09
3	U 409.014†	-1764.6	41.4	2.1046 ug/L	2.1046 ppb	18:10:49
3	V 292.402†	-2024.9	-46.8	-0.3831 ug/L	-0.3831 ppb	18:10:49
3	Zn 213.857†	963.1	18.0	0.1963 ug/L	0.1963 ppb	18:11:09
3	SiO2†	605.1	-1.2	-0.1523 ug/L	-0.1523 ppb	18:11:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	568022.8	101.98	%	1.761				1.73%
Sc Radial	3350.7	103	%	0.5				0.53%
Y 371.029	528163.2	102.08	%	1.778				1.74%
Y RADIAL	3755.3	103.0	%	1.20				1.17%
Ag 328.068†	-17.6	-0.1089	ug/L	0.21737	-0.1089	ppb	0.21737	199.65%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.2	10.753	ug/L	10.5495	10.753	ppb	10.5495	98.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.7	2.5115	ug/L	1.66013	2.5115	ppb	1.66013	66.10%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	702.3	16.991	ug/L	1.0424	16.991	ppb	1.0424	6.13%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.6	-0.0543	ug/L	0.11096	-0.0543	ppb	0.11096	204.40%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	208.0	0.0912	ug/L	0.06233	0.0912	ppb	0.06233	68.35%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.5	5.5449	ug/L	1.81501	5.5449	ppb	1.81501	32.73%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              12.2      0.1710 ug/L       0.06947      0.1710 ppb        0.06947  40.64%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -3.6     -0.1292 ug/L       0.13733     -0.1292 ppb        0.13733 106.28%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              65.9      0.9924 ug/L       0.34974      0.9924 ppb        0.34974  35.24%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -32.3     -0.1577 ug/L       0.25147     -0.1577 ppb        0.25147 159.42%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.7     -8.9218 ug/L      23.00448     -8.9218 ppb       23.00448 257.84%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -24.7     -5.7744 ug/L       6.42565     -5.7744 ppb        6.42565 111.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.4      109.69 ug/L        99.222      109.69 ppb         99.222  90.46%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -44.9     -0.0918 ug/L       0.09873     -0.0918 ppb        0.09873 107.52%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              12.2      1.2867 ug/L       0.34529      1.2867 ppb        0.34529  26.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       34.1      16.685 ug/L       11.3493      16.685 ppb        11.3493  68.02%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              14.3      0.4820 ug/L       0.17617      0.4820 ppb        0.17617  36.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -3.9     -2.0280 ug/L       7.99048     -2.0280 ppb        7.99048 394.01%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              13.7      2.4322 ug/L       1.92874      2.4322 ppb        1.92874  79.30%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -7.2     -9.3350 ug/L       5.99304     -9.3350 ppb        5.99304  64.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.3     -0.0852 ug/L       1.63979     -0.0852 ppb        1.63979 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.6      2.2614 ug/L       1.85072      2.2614 ppb        1.85072  81.84%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               0.9      0.0209 ug/L       0.35049      0.0209 ppb        0.35049 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.3      1.5714 ug/L       1.24824      1.5714 ppb        1.24824  79.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               0.5      0.0049 ug/L       0.36329      0.0049 ppb        0.36329 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -1.2     -0.0113 ug/L       0.24825     -0.0113 ppb        0.24825 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.2      1.9057 ug/L       2.18380      1.9057 ppb        2.18380 114.60%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                8.1      0.4107 ug/L       1.49640      0.4107 ppb        1.49640 364.39%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -27.9     -0.2284 ug/L       0.34111     -0.2284 ppb        0.34111 149.32%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              20.6      0.2274 ug/L       0.25959      0.2274 ppb        0.25959 114.14%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     4.5      0.3733 ug/L       0.92613      0.3733 ppb        0.92613 248.10%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/15/2010 19:08:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3354.0	3354.0	103	%			19:11:04
1	Y RADIAL	3789.0	3789.0	104.0	%			19:10:44
1	Al 396.153Radial†	4434.7	4403.6	5141.7	ug/L	5141.7	ppb	19:10:44
1	Ca 317.933Radial†	2302.3	2214.9	4988.7	ug/L	4988.7	ppb	19:11:04
1	Fe 238.204 Radial†	388.9	371.2	4999.7	ug/L	4999.7	ppb	19:11:04
1	K 766.490 Radial†	25098.7	21093.8	4919.1	ug/L	4919.1	ppb	19:10:44
1	Mg 279.077 IEC†	114.0	110.1	4999.0	ug/L	4999.0	ppb	19:11:04
1	Na 589.592 Radial†	20293.2	20817.7	10172	ug/L	10172	ppb	19:10:44
1	Sr 421.552†	49543.2	47875.9	499.93	ug/L	499.93	ppb	19:10:44
1	Sc 361.383	577117.3	577117.3	103.61	%			19:12:02
1	Y 371.029	532490.0	532490.0	102.91	%			19:12:02
1	Ag 328.068†	82213.9	79297.9	475.90	ug/L	475.90	ppb	19:12:02
1	As 188.979†	1087.0	1093.8	486.35	ug/L	486.35	ppb	19:12:23
1	B 249.677†	19697.0	19666.0	473.81	ug/L	473.81	ppb	19:12:02
1	Ba 233.527†	33197.8	32044.7	479.30	ug/L	479.30	ppb	19:12:02
1	Be 313.107†	1125267.6	1095627.6	481.56	ug/L	481.56	ppb	19:12:02
1	Cd 226.502†	35122.4	34206.6	475.97	ug/L	475.97	ppb	19:12:23
1	Co 228.616†	13706.3	13319.6	488.85	ug/L	488.85	ppb	19:12:23
1	Cr 267.716†	33066.8	31808.3	479.81	ug/L	479.81	ppb	19:12:02
1	Cu 324.752†	107539.3	97412.2	471.42	ug/L	471.42	ppb	19:12:02
1	Mn 257.610†	258206.8	248589.5	478.63	ug/L	478.63	ppb	19:12:02
1	Mo 202.031†	4741.4	4560.3	483.53	ug/L	483.53	ppb	19:12:23
1	Ni 231.604†	15149.6	14504.2	488.48	ug/L	488.48	ppb	19:12:23
1	P 214.914†	4966.9	4482.6	2286.8	ug/L	2286.8	ppb	19:12:23
1	Pb 220.353†	2741.4	2741.5	485.95	ug/L	485.95	ppb	19:12:23
1	S 181.975 Axial†	861.7	762.7	989.90	ug/L	989.90	ppb	19:12:23
1	Sb 206.836†	1147.9	1050.3	490.92	ug/L	490.92	ppb	19:12:23
1	Se 196.026†	756.8	763.4	498.32	ug/L	498.32	ppb	19:12:23
1	Si 251.611†	59131.7	56504.6	2384.2	ug/L	2384.2	ppb	19:12:02
1	Sn 189.927†	1982.6	1901.6	477.95	ug/L	477.95	ppb	19:12:23
1	Ti 334.940†	184129.4	179695.1	476.92	ug/L	476.92	ppb	19:12:02
1	Tl 190.801†	784.8	816.3	486.60	ug/L	486.60	ppb	19:12:23
1	U 409.014†	7761.4	9291.5	468.68	ug/L	468.68	ppb	19:12:02
1	V 292.402†	53150.2	53270.9	484.96	ug/L	484.96	ppb	19:12:02
1	Zn 213.857†	45081.7	42569.4	475.11	ug/L	475.11	ppb	19:12:02
1	SiO2†	63006.0	60207.2	5436.6	ug/L	5436.6	ppb	19:13:23
2	Sc Radial	3342.3	3342.3	103	%			19:11:29
2	Y RADIAL	3778.0	3778.0	103.6	%			19:11:09
2	Al 396.153Radial†	4426.9	4410.9	5150.2	ug/L	5150.2	ppb	19:11:09
2	Ca 317.933Radial†	2304.9	2225.3	5012.0	ug/L	5012.0	ppb	19:11:29
2	Fe 238.204 Radial†	392.7	376.2	5067.2	ug/L	5067.2	ppb	19:11:29
2	K 766.490 Radial†	25127.9	21206.7	4945.4	ug/L	4945.4	ppb	19:11:09
2	Mg 279.077 IEC†	116.7	113.0	5133.1	ug/L	5133.1	ppb	19:11:29
2	Na 589.592 Radial†	20310.6	20903.0	10214	ug/L	10214	ppb	19:11:09
2	Sr 421.552†	49811.7	48303.4	504.40	ug/L	504.40	ppb	19:11:09
2	Sc 361.383	575125.9	575125.9	103.25	%			19:12:30
2	Y 371.029	529876.3	529876.3	102.41	%			19:12:30
2	Ag 328.068†	81901.1	79269.7	475.75	ug/L	475.75	ppb	19:12:30
2	As 188.979†	1075.8	1086.5	483.15	ug/L	483.15	ppb	19:12:50
2	B 249.677†	19557.1	19596.3	472.11	ug/L	472.11	ppb	19:12:30
2	Ba 233.527†	33173.7	32132.3	480.61	ug/L	480.61	ppb	19:12:30
2	Be 313.107†	1120371.8	1094646.6	481.13	ug/L	481.13	ppb	19:12:30
2	Cd 226.502†	35185.2	34384.8	478.44	ug/L	478.44	ppb	19:12:50
2	Co 228.616†	13734.2	13392.4	491.52	ug/L	491.52	ppb	19:12:50
2	Cr 267.716†	33058.3	31910.7	481.35	ug/L	481.35	ppb	19:12:30
2	Cu 324.752†	107221.4	97463.7	471.68	ug/L	471.68	ppb	19:12:30
2	Mn 257.610†	257950.4	249204.1	479.81	ug/L	479.81	ppb	19:12:30
2	Mo 202.031†	4748.3	4582.8	485.92	ug/L	485.92	ppb	19:12:50
2	Ni 231.604†	15165.1	14569.8	490.69	ug/L	490.69	ppb	19:12:50

2	P 214.914†	5007.4	4538.4	2316.6	ug/L	2316.6 ppb	19:12:50
2	Pb 220.353†	2746.6	2755.7	488.47	ug/L	488.47 ppb	19:12:50
2	S 181.975 Axial†	854.9	758.9	984.97	ug/L	984.97 ppb	19:12:50
2	Sb 206.836†	1162.2	1068.1	499.10	ug/L	499.10 ppb	19:12:50
2	Se 196.026†	738.2	747.9	488.56	ug/L	488.56 ppb	19:12:50
2	Si 251.611†	58874.7	56453.3	2382.0	ug/L	2382.0 ppb	19:12:30
2	Sn 189.927†	2009.5	1934.4	486.18	ug/L	486.18 ppb	19:12:50
2	Ti 334.940†	183751.7	179944.6	477.58	ug/L	477.58 ppb	19:12:30
2	Tl 190.801†	791.7	825.7	492.12	ug/L	492.12 ppb	19:12:50
2	U 409.014†	7609.1	9170.1	462.50	ug/L	462.50 ppb	19:12:30
2	V 292.402†	52857.8	53165.4	484.03	ug/L	484.03 ppb	19:12:30
2	Zn 213.857†	45059.8	42698.9	476.56	ug/L	476.56 ppb	19:12:30
2	SiO2†	61481.1	58940.9	5321.9	ug/L	5321.9 ppb	19:13:28
3	Sc Radial	3353.9	3353.9	103	%		19:11:54
3	Y RADIAL	3722.0	3722.0	102.1	%		19:11:34
3	Al 396.153Radial†	4333.3	4305.5	5026.8	ug/L	5026.8 ppb	19:11:34
3	Ca 317.933Radial†	2313.1	2225.5	5012.4	ug/L	5012.4 ppb	19:11:54
3	Fe 238.204 Radial†	391.0	373.3	5027.5	ug/L	5027.5 ppb	19:11:54
3	K 766.490 Radial†	24656.9	20667.1	4819.6	ug/L	4819.6 ppb	19:11:34
3	Mg 279.077 IEC†	115.9	111.9	5082.3	ug/L	5082.3 ppb	19:11:54
3	Na 589.592 Radial†	19643.6	20189.9	9865.4	ug/L	9865.4 ppb	19:11:34
3	Sr 421.552†	48604.9	46969.6	490.47	ug/L	490.47 ppb	19:11:34
3	Sc 361.383	602186.5	602186.5	108.11	%		19:12:57
3	Y 371.029	554661.2	554661.2	107.20	%		19:12:57
3	Ag 328.068†	85861.4	79368.4	476.33	ug/L	476.33 ppb	19:12:57
3	As 188.979†	1127.1	1087.2	483.47	ug/L	483.47 ppb	19:13:17
3	B 249.677†	20744.8	19843.8	478.12	ug/L	478.12 ppb	19:12:57
3	Ba 233.527†	34744.6	32141.6	480.74	ug/L	480.74 ppb	19:12:57
3	Be 313.107†	1172690.4	1094279.6	480.97	ug/L	480.97 ppb	19:12:57
3	Cd 226.502†	36412.4	33988.7	472.93	ug/L	472.93 ppb	19:13:17
3	Co 228.616†	14268.3	13288.7	487.71	ug/L	487.71 ppb	19:13:17
3	Cr 267.716†	34375.2	31690.0	478.02	ug/L	478.02 ppb	19:12:57
3	Cu 324.752†	112888.0	98038.7	474.46	ug/L	474.46 ppb	19:12:57
3	Mn 257.610†	270273.1	249375.9	480.14	ug/L	480.14 ppb	19:12:57
3	Mo 202.031†	4928.7	4543.0	481.70	ug/L	481.70 ppb	19:13:17
3	Ni 231.604†	15754.0	14454.5	486.80	ug/L	486.80 ppb	19:13:17
3	P 214.914†	5174.3	4474.9	2282.0	ug/L	2282.0 ppb	19:13:17
3	Pb 220.353†	2867.9	2748.4	487.13	ug/L	487.13 ppb	19:13:17
3	S 181.975 Axial†	887.5	752.0	975.93	ug/L	975.93 ppb	19:13:17
3	Sb 206.836†	1200.4	1052.7	492.02	ug/L	492.02 ppb	19:13:17
3	Se 196.026†	788.3	762.1	497.54	ug/L	497.54 ppb	19:13:17
3	Si 251.611†	61803.7	56600.3	2388.3	ug/L	2388.3 ppb	19:12:57
3	Sn 189.927†	2083.6	1915.4	481.41	ug/L	481.41 ppb	19:13:17
3	Ti 334.940†	192793.6	180311.0	478.55	ug/L	478.55 ppb	19:12:57
3	Tl 190.801†	828.4	825.1	491.79	ug/L	491.79 ppb	19:13:17
3	U 409.014†	8123.8	9314.9	469.86	ug/L	469.86 ppb	19:12:57
3	V 292.402†	55370.2	53188.8	484.20	ug/L	484.20 ppb	19:12:57
3	Zn 213.857†	47025.5	42556.1	474.97	ug/L	474.97 ppb	19:12:57
3	SiO2†	61271.8	56071.5	5062.3	ug/L	5062.3 ppb	19:13:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	584809.9	104.99	%	2.708				2.58%
Sc Radial	3350.1	103	%	0.2				0.20%
Y 371.029	539009.2	104.17	%	2.632				2.53%
Y RADIAL	3763.0	103.2	%	0.99				0.96%
Ag 328.068†	79312.0	475.99	ug/L	0.297	475.99	ppb	0.297	0.06%
QC value within limits for Ag 328.068 Recovery = 95.20%								
Al 396.153Radial†	4373.3	5106.3	ug/L	68.92	5106.3	ppb	68.92	1.35%
QC value within limits for Al 396.153Radial Recovery = 102.13%								
As 188.979†	1089.1	484.32	ug/L	1.760	484.32	ppb	1.760	0.36%
QC value within limits for As 188.979 Recovery = 96.86%								
B 249.677†	19702.0	474.68	ug/L	3.093	474.68	ppb	3.093	0.65%
QC value within limits for B 249.677 Recovery = 94.94%								
Ba 233.527†	32106.2	480.22	ug/L	0.797	480.22	ppb	0.797	0.17%
QC value within limits for Ba 233.527 Recovery = 96.04%								
Be 313.107†	1094851.2	481.22	ug/L	0.304	481.22	ppb	0.304	0.06%
QC value within limits for Be 313.107 Recovery = 96.24%								
Ca 317.933Radial†	2221.9	5004.4	ug/L	13.53	5004.4	ppb	13.53	0.27%

```
   QC value within limits for Ca 317.933Radial  Recovery = 100.09%
Cd 226.502†            34193.4      475.78 ug/L         2.760      475.78 ppb          2.760   0.58%
   QC value within limits for Cd 226.502  Recovery = 95.16%
Co 228.616†            13333.5      489.36 ug/L         1.958      489.36 ppb          1.958   0.40%
   QC value within limits for Co 228.616  Recovery = 97.87%
Cr 267.716†            31803.0      479.73 ug/L         1.666      479.73 ppb          1.666   0.35%
   QC value within limits for Cr 267.716  Recovery = 95.95%
Cu 324.752†            97638.2      472.52 ug/L         1.683      472.52 ppb          1.683   0.36%
   QC value within limits for Cu 324.752  Recovery = 94.50%
Fe 238.204 Radial†       373.6      5031.5 ug/L         33.92      5031.5 ppb          33.92   0.67%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.63%
K 766.490 Radial†      20989.2      4894.7 ug/L         66.36      4894.7 ppb          66.36   1.36%
   QC value within limits for K 766.490 Radial  Recovery = 97.89%
Mg 279.077 IEC†          111.7      5071.5 ug/L         67.67      5071.5 ppb          67.67   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.43%
Mn 257.610†           249056.5      479.52 ug/L         0.796      479.52 ppb          0.796   0.17%
   QC value within limits for Mn 257.610  Recovery = 95.90%
Mo 202.031†             4562.0      483.72 ug/L         2.116      483.72 ppb          2.116   0.44%
   QC value within limits for Mo 202.031  Recovery = 96.74%
Na 589.592 Radial†     20636.9       10084 ug/L         190.3       10084 ppb          190.3   1.89%
   QC value within limits for Na 589.592 Radial  Recovery = 100.84%
Ni 231.604†            14509.5      488.66 ug/L         1.948      488.66 ppb          1.948   0.40%
   QC value within limits for Ni 231.604  Recovery = 97.73%
P 214.914†              4498.7      2295.2 ug/L         18.76      2295.2 ppb          18.76   0.82%
   QC value within limits for P 214.914  Recovery = 91.81%
Pb 220.353†             2748.5      487.18 ug/L         1.260      487.18 ppb          1.260   0.26%
   QC value within limits for Pb 220.353  Recovery = 97.44%
S 181.975 Axial†         757.9      983.60 ug/L         7.087      983.60 ppb          7.087   0.72%
   QC value within limits for S 181.975 Axial  Recovery = 98.36%
Sb 206.836†             1057.0      494.01 ug/L         4.439      494.01 ppb          4.439   0.90%
   QC value within limits for Sb 206.836  Recovery = 98.80%
Se 196.026†              757.8      494.81 ug/L         5.424      494.81 ppb          5.424   1.10%
   QC value within limits for Se 196.026  Recovery = 98.96%
Si 251.611†            56519.4      2384.9 ug/L          3.18      2384.9 ppb           3.18   0.13%
   QC value within limits for Si 251.611  Recovery = 95.39%
Sn 189.927†             1917.1      481.85 ug/L         4.128      481.85 ppb          4.128   0.86%
   QC value within limits for Sn 189.927  Recovery = 96.37%
Sr 421.552†            47716.3      498.27 ug/L         7.113      498.27 ppb          7.113   1.43%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           179983.6      477.68 ug/L         0.821      477.68 ppb          0.821   0.17%
   QC value within limits for Ti 334.940  Recovery = 95.54%
Tl 190.801†              822.3      490.17 ug/L         3.094      490.17 ppb          3.094   0.63%
   QC value within limits for Tl 190.801  Recovery = 98.03%
U 409.014†              9258.8      467.01 ug/L         3.954      467.01 ppb          3.954   0.85%
   QC value within limits for U 409.014  Recovery = 93.40%
V 292.402†             53208.4      484.40 ug/L         0.497      484.40 ppb          0.497   0.10%
   QC value within limits for V 292.402  Recovery = 96.88%
Zn 213.857†            42608.1      475.55 ug/L         0.879      475.55 ppb          0.879   0.18%
   QC value within limits for Zn 213.857  Recovery = 95.11%
SiO2†                  58406.6      5273.6 ug/L        191.77      5273.6 ppb         191.77   3.64%
   QC value within limits for SiO2  Recovery = 98.62%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/15/2010 19:15:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3619.0	3619.0	112	%			19:17:54
1	Y RADIAL	3669.0	3669.0	100.7	%			19:17:34
1	Al 396.153Radial†	-84.6	39.4	46.137	ug/L	46.137	ppb	19:17:34
1	Ca 317.933Radial†	12.7	0.0	0.1089	ug/L	0.1089	ppb	19:17:54
1	Fe 238.204 Radial†	6.8	1.2	16.460	ug/L	16.460	ppb	19:17:54
1	K 766.490 Radial†	3288.9	-229.0	-53.507	ug/L	-53.507	ppb	19:17:34
1	Mg 279.077 IEC†	2.4	1.9	88.299	ug/L	88.299	ppb	19:17:54
1	Na 589.592 Radial†	-1173.7	142.5	69.619	ug/L	69.619	ppb	19:17:34
1	Sr 421.552†	42.9	6.4	0.0671	ug/L	0.0671	ppb	19:17:34
1	Sc 361.383	572940.5	572940.5	102.86	%			19:18:51
1	Y 371.029	532965.5	532965.5	103.01	%			19:18:51
1	Ag 328.068†	103.8	48.3	0.2957	ug/L	0.2957	ppb	19:18:51
1	As 188.979†	-43.0	2.8	1.2412	ug/L	1.2412	ppb	19:19:11
1	B 249.677†	-393.5	272.5	6.5883	ug/L	6.5883	ppb	19:18:51
1	Ba 233.527†	-6.9	-3.6	-0.0522	ug/L	-0.0522	ppb	19:19:11
1	Be 313.107†	-9574.9	242.3	0.1070	ug/L	0.1070	ppb	19:18:51
1	Cd 226.502†	-288.6	26.9	0.3725	ug/L	0.3725	ppb	19:19:11
1	Co 228.616†	-84.5	8.5	0.3144	ug/L	0.3144	ppb	19:19:11
1	Cr 267.716†	185.8	73.9	1.1150	ug/L	1.1150	ppb	19:18:51
1	Cu 324.752†	6489.3	-72.8	-0.3506	ug/L	-0.3506	ppb	19:18:51
1	Mn 257.610†	614.2	-27.3	-0.0543	ug/L	-0.0543	ppb	19:18:51
1	Mo 202.031†	36.5	19.5	2.0625	ug/L	2.0625	ppb	19:19:11
1	Ni 231.604†	143.1	21.3	0.7186	ug/L	0.7186	ppb	19:19:11
1	P 214.914†	314.7	-5.3	-2.7463	ug/L	-2.7463	ppb	19:19:11
1	Pb 220.353†	-93.4	4.7	0.8523	ug/L	0.8523	ppb	19:19:11
1	S 181.975 Axial†	74.0	3.0	3.8716	ug/L	3.8716	ppb	19:19:11
1	Sb 206.836†	45.2	-13.7	-6.1162	ug/L	-6.1162	ppb	19:19:11
1	Se 196.026†	-20.9	12.6	8.1043	ug/L	8.1043	ppb	19:19:11
1	Si 251.611†	606.7	22.3	0.9161	ug/L	0.9161	ppb	19:19:11
1	Sn 189.927†	14.8	2.5	0.6256	ug/L	0.6256	ppb	19:19:11
1	Ti 334.940†	-1901.8	129.6	0.3385	ug/L	0.3385	ppb	19:18:51
1	Tl 190.801†	-78.8	-17.8	-10.547	ug/L	-10.547	ppb	19:19:11
1	U 409.014†	-1912.8	-59.2	-3.0062	ug/L	-3.0062	ppb	19:18:51
1	V 292.402†	-2011.3	16.5	0.1710	ug/L	0.1710	ppb	19:18:51
1	Zn 213.857†	970.8	1.7	0.0163	ug/L	0.0163	ppb	19:19:11
1	SiO2†	638.6	16.4	1.4321	ug/L	1.4321	ppb	19:20:07
2	Sc Radial	3353.5	3353.5	103	%			19:18:19
2	Y RADIAL	3857.8	3857.8	105.8	%			19:17:59
2	Al 396.153Radial†	-109.2	9.6	11.271	ug/L	11.271	ppb	19:17:59
2	Ca 317.933Radial†	10.7	-1.0	-2.3024	ug/L	-2.3024	ppb	19:18:19
2	Fe 238.204 Radial†	6.7	1.6	21.265	ug/L	21.265	ppb	19:18:19
2	K 766.490 Radial†	3227.1	-55.4	-12.954	ug/L	-12.954	ppb	19:17:59
2	Mg 279.077 IEC†	1.4	1.1	51.068	ug/L	51.068	ppb	19:18:19
2	Na 589.592 Radial†	-1161.6	70.9	34.647	ug/L	34.647	ppb	19:17:59
2	Sr 421.552†	11.1	-21.3	-0.2221	ug/L	-0.2221	ppb	19:17:59
2	Sc 361.383	573341.3	573341.3	102.93	%			19:19:17
2	Y 371.029	532963.8	532963.8	103.00	%			19:19:17
2	Ag 328.068†	139.5	82.9	0.4972	ug/L	0.4972	ppb	19:19:17
2	As 188.979†	-37.6	8.1	3.5766	ug/L	3.5766	ppb	19:19:37
2	B 249.677†	-316.0	348.0	8.4176	ug/L	8.4176	ppb	19:19:17
2	Ba 233.527†	-13.9	-10.4	-0.1553	ug/L	-0.1553	ppb	19:19:37
2	Be 313.107†	-9522.5	299.8	0.1312	ug/L	0.1312	ppb	19:19:17
2	Cd 226.502†	-293.2	22.6	0.3130	ug/L	0.3130	ppb	19:19:37
2	Co 228.616†	-102.9	-9.3	-0.3402	ug/L	-0.3402	ppb	19:19:37
2	Cr 267.716†	162.8	51.4	0.7733	ug/L	0.7733	ppb	19:19:17
2	Cu 324.752†	6460.9	-104.8	-0.5065	ug/L	-0.5065	ppb	19:19:17
2	Mn 257.610†	631.5	-10.8	-0.0207	ug/L	-0.0207	ppb	19:19:17
2	Mo 202.031†	23.8	7.1	0.7503	ug/L	0.7503	ppb	19:19:37
2	Ni 231.604†	142.2	20.4	0.6863	ug/L	0.6863	ppb	19:19:37

2	P 214.914†	332.6	11.8	6.4321 ug/L	6.4321 ppb	19:19:37
2	Pb 220.353†	-107.6	-9.0	-1.5866 ug/L	-1.5866 ppb	19:19:37
2	S 181.975 Axial†	81.9	10.5	13.679 ug/L	13.679 ppb	19:19:37
2	Sb 206.836†	48.3	-10.6	-4.7817 ug/L	-4.7817 ppb	19:19:37
2	Se 196.026†	-25.8	7.9	5.1042 ug/L	5.1042 ppb	19:19:37
2	Si 251.611†	623.4	38.0	1.5982 ug/L	1.5982 ppb	19:19:37
2	Sn 189.927†	12.8	0.6	0.1442 ug/L	0.1442 ppb	19:19:37
2	Ti 334.940†	-2074.8	-37.1	-0.1029 ug/L	-0.1029 ppb	19:19:17
2	Tl 190.801†	-53.1	7.3	4.3144 ug/L	4.3144 ppb	19:19:37
2	U 409.014†	-1851.2	2.0	0.0940 ug/L	0.0940 ppb	19:19:17
2	V 292.402†	-2121.1	-88.8	-0.7887 ug/L	-0.7887 ppb	19:19:17
2	Zn 213.857†	970.6	0.8	0.0073 ug/L	0.0073 ppb	19:19:37
2	SiO2†	675.3	51.7	4.6573 ug/L	4.6573 ppb	19:20:12
3	Sc Radial	3347.3	3347.3	103 %		19:18:44
3	Y RADIAL	3713.3	3713.3	101.9 %		19:18:24
3	Al 396.153Radial†	-97.8	20.4	23.913 ug/L	23.913 ppb	19:18:24
3	Ca 317.933Radial†	12.5	0.7	1.6439 ug/L	1.6439 ppb	19:18:44
3	Fe 238.204 Radial†	5.5	0.4	5.8323 ug/L	5.8323 ppb	19:18:44
3	K 766.490 Radial†	3138.1	-135.9	-31.745 ug/L	-31.745 ppb	19:18:24
3	Mg 279.077 IEC†	2.2	1.9	87.836 ug/L	87.836 ppb	19:18:44
3	Na 589.592 Radial†	-1116.0	113.0	55.237 ug/L	55.237 ppb	19:18:24
3	Sr 421.552†	9.4	-22.9	-0.2391 ug/L	-0.2391 ppb	19:18:24
3	Sc 361.383	572899.4	572899.4	102.85 %		19:19:42
3	Y 371.029	532276.1	532276.1	102.87 %		19:19:42
3	Ag 328.068†	41.6	-12.2	-0.0733 ug/L	-0.0733 ppb	19:19:42
3	As 188.979†	-35.5	10.1	4.4401 ug/L	4.4401 ppb	19:20:02
3	B 249.677†	-378.1	287.4	6.9491 ug/L	6.9491 ppb	19:19:42
3	Ba 233.527†	-0.0	3.1	0.0471 ug/L	0.0471 ppb	19:20:02
3	Be 313.107†	-9649.8	168.8	0.0746 ug/L	0.0746 ppb	19:19:42
3	Cd 226.502†	-310.4	5.7	0.0792 ug/L	0.0792 ppb	19:20:02
3	Co 228.616†	-71.5	21.1	0.7762 ug/L	0.7762 ppb	19:20:02
3	Cr 267.716†	118.7	8.6	0.1290 ug/L	0.1290 ppb	19:19:42
3	Cu 324.752†	6485.9	-75.6	-0.3678 ug/L	-0.3678 ppb	19:19:42
3	Mn 257.610†	646.2	4.0	0.0047 ug/L	0.0047 ppb	19:19:42
3	Mo 202.031†	23.4	6.7	0.7120 ug/L	0.7120 ppb	19:20:02
3	Ni 231.604†	122.1	0.9	0.0302 ug/L	0.0302 ppb	19:20:02
3	P 214.914†	307.1	-12.7	-6.6880 ug/L	-6.6880 ppb	19:20:02
3	Pb 220.353†	-90.4	7.7	1.3656 ug/L	1.3656 ppb	19:20:02
3	S 181.975 Axial†	74.9	3.8	4.9847 ug/L	4.9847 ppb	19:20:02
3	Sb 206.836†	41.8	-17.0	-7.6402 ug/L	-7.6402 ppb	19:20:02
3	Se 196.026†	-17.8	15.6	10.009 ug/L	10.009 ppb	19:20:02
3	Si 251.611†	644.3	58.8	2.4781 ug/L	2.4781 ppb	19:20:02
3	Sn 189.927†	12.9	0.7	0.1751 ug/L	0.1751 ppb	19:20:02
3	Ti 334.940†	-1943.5	89.0	0.2283 ug/L	0.2283 ppb	19:19:42
3	Tl 190.801†	-53.5	6.8	4.0484 ug/L	4.0484 ppb	19:20:02
3	U 409.014†	-1783.0	66.9	3.3924 ug/L	3.3924 ppb	19:19:42
3	V 292.402†	-2015.9	11.9	0.1242 ug/L	0.1242 ppb	19:19:42
3	Zn 213.857†	972.2	3.2	0.0363 ug/L	0.0363 ppb	19:20:02
3	SiO2†	647.3	25.0	2.2405 ug/L	2.2405 ppb	19:20:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	573060.4	102.88	%	0.044				0.04%
Sc Radial	3439.9	106	%	4.8				4.51%
Y 371.029	532735.2	102.96	%	0.077				0.07%
Y RADIAL	3746.7	102.8	%	2.71				2.64%
Ag 328.068†	39.7	0.2399	ug/L	0.28933	0.2399	ppb	0.28933	120.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	23.2	27.107	ug/L	17.6510	27.107	ppb	17.6510	65.12%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	3.0860	ug/L	1.65494	3.0860	ppb	1.65494	53.63%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	302.6	7.3184	ug/L	0.96893	7.3184	ppb	0.96893	13.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.6	-0.0534	ug/L	0.10122	-0.0534	ppb	0.10122	189.39%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	237.0	0.1043	ug/L	0.02844	0.1043	ppb	0.02844	27.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.1	-0.1832	ug/L	1.98930	-0.1832	ppb	1.98930	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              18.4      0.2549 ug/L       0.15507      0.2549 ppb        0.15507  60.84%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               6.8      0.2501 ug/L       0.56095      0.2501 ppb        0.56095 224.29%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              44.6      0.6725 ug/L       0.50071      0.6725 ppb        0.50071  74.46%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -84.4     -0.4083 ug/L       0.08544     -0.4083 ppb        0.08544  20.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.1      14.519 ug/L        7.8975      14.519 ppb         7.8975  54.39%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -140.1     -32.735 ug/L       20.2944     -32.735 ppb        20.2944  62.00%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.7      75.734 ug/L       21.3627      75.734 ppb        21.3627  28.21%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -11.4     -0.0234 ug/L       0.02958     -0.0234 ppb        0.02958 126.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              11.1      1.1750 ug/L       0.76891      1.1750 ppb        0.76891  65.44%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      108.8      53.168 ug/L       17.5777      53.168 ppb        17.5777  33.06%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              14.2      0.4784 ug/L       0.38843      0.4784 ppb        0.38843  81.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.1     -1.0008 ug/L       6.73196     -1.0008 ppb        6.73196 672.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               1.1      0.2104 ug/L       1.57732      0.2104 ppb        1.57732 749.63%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          5.8      7.5118 ug/L       5.36994      7.5118 ppb        5.36994  71.49%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -13.8     -6.1794 ug/L       1.43028     -6.1794 ppb        1.43028  23.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              12.1      7.7392 ug/L       2.47285      7.7392 ppb        2.47285  31.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              39.7      1.6642 ug/L       0.78307      1.6642 ppb        0.78307  47.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.3      0.3150 ug/L       0.26944      0.3150 ppb        0.26944  85.54%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -12.6     -0.1313 ug/L       0.17210     -0.1313 ppb        0.17210 131.02%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              60.5      0.1546 ug/L       0.22976      0.1546 ppb        0.22976 148.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -1.2     -0.7280 ug/L       8.50437     -0.7280 ppb        8.50437 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                3.3      0.1601 ug/L       3.19980      0.1601 ppb        3.19980 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -20.1     -0.1645 ug/L       0.54109     -0.1645 ppb        0.54109 328.91%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               1.9      0.0200 ug/L       0.01485      0.0200 ppb        0.01485  74.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    31.0      2.7766 ug/L       1.67808      2.7766 ppb        1.67808  60.44%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: 1202091939|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 44
Date Collected: 4/15/2010 19:22:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202091939|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3464.9	3464.9	107	%			19:24:40
1	Y RADIAL	3839.8	3839.8	105.3	%			19:24:20
1	Al 396.153Radial†	-84.3	36.3	42.536	ug/L	42.536	ppb	19:24:20
1	Ca 317.933Radial†	22.1	9.3	21.040	ug/L	21.040	ppb	19:24:40
1	Fe 238.204 Radial†	8.1	2.7	36.506	ug/L	36.506	ppb	19:24:40
1	K 766.490 Radial†	3125.7	-250.7	-58.581	ug/L	-58.581	ppb	19:24:20
1	Mg 279.077 IEC†	-0.3	-0.5	-21.886	ug/L	-21.886	ppb	19:24:40
1	Na 589.592 Radial†	-1026.1	233.9	114.29	ug/L	114.29	ppb	19:24:20
1	Sr 421.552†	87.9	50.3	0.5249	ug/L	0.5249	ppb	19:24:20
1	Sc 361.383	571833.0	571833.0	102.66	%			19:25:37
1	Y 371.029	530880.2	530880.2	102.60	%			19:25:37
1	Ag 328.068†	69.5	15.0	0.0945	ug/L	0.0945	ppb	19:25:37
1	As 188.979†	-35.2	10.3	4.5654	ug/L	4.5654	ppb	19:25:57
1	B 249.677†	-408.0	257.5	6.2254	ug/L	6.2254	ppb	19:25:37
1	Ba 233.527†	-1.3	1.8	0.0287	ug/L	0.0287	ppb	19:25:57
1	Be 313.107†	-9321.7	471.0	0.2084	ug/L	0.2084	ppb	19:25:37
1	Cd 226.502†	-308.5	7.0	0.0962	ug/L	0.0962	ppb	19:25:57
1	Co 228.616†	-84.0	8.8	0.3201	ug/L	0.3201	ppb	19:25:57
1	Cr 267.716†	370.1	253.7	3.8206	ug/L	3.8206	ppb	19:25:37
1	Cu 324.752†	6247.7	-295.9	-1.4333	ug/L	-1.4333	ppb	19:25:37
1	Mn 257.610†	911.6	263.7	0.5121	ug/L	0.5121	ppb	19:25:37
1	Mo 202.031†	23.3	6.7	0.7083	ug/L	0.7083	ppb	19:25:57
1	Ni 231.604†	181.8	59.3	1.9993	ug/L	1.9993	ppb	19:25:57
1	P 214.914†	310.0	-9.3	-4.6429	ug/L	-4.6429	ppb	19:25:57
1	Pb 220.353†	-121.2	-22.4	-3.9536	ug/L	-3.9536	ppb	19:25:57
1	S 181.975 Axial†	87.4	16.1	20.902	ug/L	20.902	ppb	19:25:57
1	Sb 206.836†	45.9	-12.9	-5.7551	ug/L	-5.7551	ppb	19:25:57
1	Se 196.026†	-34.3	-0.4	-0.1932	ug/L	-0.1932	ppb	19:25:57
1	Si 251.611†	1191.7	593.2	25.083	ug/L	25.083	ppb	19:25:57
1	Sn 189.927†	18.4	6.1	1.5224	ug/L	1.5224	ppb	19:25:57
1	Ti 334.940†	-1714.7	308.3	0.8187	ug/L	0.8187	ppb	19:25:37
1	Tl 190.801†	-46.5	13.5	8.0269	ug/L	8.0269	ppb	19:25:57
1	U 409.014†	-1744.8	100.9	5.0962	ug/L	5.0962	ppb	19:25:37
1	V 292.402†	-2063.6	-38.3	-0.3316	ug/L	-0.3316	ppb	19:25:37
1	Zn 213.857†	1116.6	145.6	1.6289	ug/L	1.6289	ppb	19:25:57
1	SiO2†	1279.7	642.1	58.101	ug/L	58.101	ppb	19:26:53
2	Sc Radial	3383.6	3383.6	104	%			19:25:05
2	Y RADIAL	3894.0	3894.0	106.8	%			19:24:45
2	Al 396.153Radial†	-88.3	30.6	35.830	ug/L	35.830	ppb	19:24:45
2	Ca 317.933Radial†	24.5	12.2	27.378	ug/L	27.378	ppb	19:25:05
2	Fe 238.204 Radial†	9.6	4.4	58.601	ug/L	58.601	ppb	19:25:05
2	K 766.490 Radial†	3228.3	-82.1	-19.215	ug/L	-19.215	ppb	19:24:45
2	Mg 279.077 IEC†	2.5	2.2	98.435	ug/L	98.435	ppb	19:25:05
2	Na 589.592 Radial†	-1008.7	227.5	111.16	ug/L	111.16	ppb	19:24:45
2	Sr 421.552†	35.0	1.6	0.0161	ug/L	0.0161	ppb	19:24:45
2	Sc 361.383	576774.4	576774.4	103.55	%			19:26:02
2	Y 371.029	535227.2	535227.2	103.44	%			19:26:02
2	Ag 328.068†	33.0	-20.8	-0.1047	ug/L	-0.1047	ppb	19:26:02
2	As 188.979†	-43.1	3.0	1.3389	ug/L	1.3389	ppb	19:26:22
2	B 249.677†	-400.3	268.4	6.4850	ug/L	6.4850	ppb	19:26:02
2	Ba 233.527†	-25.8	-21.7	-0.3191	ug/L	-0.3191	ppb	19:26:22
2	Be 313.107†	-9414.4	459.2	0.2029	ug/L	0.2029	ppb	19:26:02
2	Cd 226.502†	-308.4	9.7	0.1313	ug/L	0.1313	ppb	19:26:22
2	Co 228.616†	-80.8	12.6	0.4582	ug/L	0.4582	ppb	19:26:22
2	Cr 267.716†	365.5	246.2	3.7109	ug/L	3.7109	ppb	19:26:02
2	Cu 324.752†	6452.6	-150.2	-0.7238	ug/L	-0.7238	ppb	19:26:02
2	Mn 257.610†	950.8	293.9	0.5677	ug/L	0.5677	ppb	19:26:02
2	Mo 202.031†	21.2	4.5	0.4797	ug/L	0.4797	ppb	19:26:22
2	Ni 231.604†	189.9	65.6	2.2110	ug/L	2.2110	ppb	19:26:22

2	P 214.914†	336.1	13.3	7.2306 ug/L	7.2306 ppb	19:26:22
2	Pb 220.353†	-93.5	5.2	0.9296 ug/L	0.9296 ppb	19:26:22
2	S 181.975 Axial†	75.5	3.9	5.0856 ug/L	5.0856 ppb	19:26:22
2	Sb 206.836†	55.0	-4.4	-2.0248 ug/L	-2.0248 ppb	19:26:22
2	Se 196.026†	-32.9	1.2	0.8882 ug/L	0.8882 ppb	19:26:22
2	Si 251.611†	1199.1	590.4	24.970 ug/L	24.970 ppb	19:26:22
2	Sn 189.927†	4.6	-7.5	-1.8639 ug/L	-1.8639 ppb	19:26:22
2	Ti 334.940†	-1779.4	260.1	0.6845 ug/L	0.6845 ppb	19:26:02
2	Tl 190.801†	-49.3	11.2	6.6299 ug/L	6.6299 ppb	19:26:22
2	U 409.014†	-1851.1	12.8	0.6254 ug/L	0.6254 ppb	19:26:02
2	V 292.402†	-1956.8	82.1	0.7371 ug/L	0.7371 ppb	19:26:02
2	Zn 213.857†	1140.4	159.2	1.7814 ug/L	1.7814 ppb	19:26:22
2	SiO2†	1287.4	638.9	57.815 ug/L	57.815 ppb	19:26:58
3	Sc Radial	3337.8	3337.8	103 %		19:25:30
3	Y RADIAL	3759.8	3759.8	103.1 %		19:25:10
3	Al 396.153Radial†	-94.7	23.2	27.207 ug/L	27.207 ppb	19:25:10
3	Ca 317.933Radial†	24.9	12.8	28.924 ug/L	28.924 ppb	19:25:30
3	Fe 238.204 Radial†	8.1	3.0	40.217 ug/L	40.217 ppb	19:25:30
3	K 766.490 Radial†	3124.7	-140.3	-32.808 ug/L	-32.808 ppb	19:25:10
3	Mg 279.077 IEC†	0.4	0.2	10.902 ug/L	10.902 ppb	19:25:30
3	Na 589.592 Radial†	-1017.3	205.9	100.61 ug/L	100.61 ppb	19:25:10
3	Sr 421.552†	21.6	-11.0	-0.1148 ug/L	-0.1148 ppb	19:25:10
3	Sc 361.383	584173.6	584173.6	104.88 %		19:26:28
3	Y 371.029	542126.9	542126.9	104.78 %		19:26:28
3	Ag 328.068†	61.7	6.2	0.0476 ug/L	0.0476 ppb	19:26:28
3	As 188.979†	-39.5	7.0	3.0900 ug/L	3.0900 ppb	19:26:48
3	B 249.677†	-528.0	151.5	3.6608 ug/L	3.6608 ppb	19:26:28
3	Ba 233.527†	-5.5	-2.1	-0.0297 ug/L	-0.0297 ppb	19:26:48
3	Be 313.107†	-9658.3	341.8	0.1518 ug/L	0.1518 ppb	19:26:28
3	Cd 226.502†	-298.3	23.0	0.3183 ug/L	0.3183 ppb	19:26:48
3	Co 228.616†	-88.8	5.9	0.2152 ug/L	0.2152 ppb	19:26:48
3	Cr 267.716†	353.5	230.3	3.4697 ug/L	3.4697 ppb	19:26:28
3	Cu 324.752†	6538.3	-147.4	-0.7117 ug/L	-0.7117 ppb	19:26:28
3	Mn 257.610†	880.9	215.6	0.4186 ug/L	0.4186 ppb	19:26:28
3	Mo 202.031†	21.4	4.3	0.4638 ug/L	0.4638 ppb	19:26:48
3	Ni 231.604†	185.4	59.0	1.9895 ug/L	1.9895 ppb	19:26:48
3	P 214.914†	310.9	-14.9	-7.7896 ug/L	-7.7896 ppb	19:26:48
3	Pb 220.353†	-113.9	-13.0	-2.2930 ug/L	-2.2930 ppb	19:26:48
3	S 181.975 Axial†	86.0	13.0	16.934 ug/L	16.934 ppb	19:26:48
3	Sb 206.836†	54.1	-6.0	-2.6883 ug/L	-2.6883 ppb	19:26:48
3	Se 196.026†	-18.9	14.9	9.6010 ug/L	9.6010 ppb	19:26:48
3	Si 251.611†	1227.0	602.3	25.473 ug/L	25.473 ppb	19:26:48
3	Sn 189.927†	18.2	5.5	1.3736 ug/L	1.3736 ppb	19:26:48
3	Ti 334.940†	-1743.8	315.9	0.8392 ug/L	0.8392 ppb	19:26:28
3	Tl 190.801†	-55.4	6.0	3.5818 ug/L	3.5818 ppb	19:26:48
3	U 409.014†	-1865.0	22.2	1.1085 ug/L	1.1085 ppb	19:26:28
3	V 292.402†	-2065.9	2.0	0.0194 ug/L	0.0194 ppb	19:26:28
3	Zn 213.857†	1143.9	148.6	1.6624 ug/L	1.6624 ppb	19:26:48
3	SiO2†	1240.1	578.0	52.307 ug/L	52.307 ppb	19:27:03

Mean Data: 1202091939|973755|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	577593.7	103.69	%	1.115				1.08%
Sc Radial	3395.5	105	%	2.0				1.90%
Y 371.029	536078.1	103.61	%	1.096				1.06%
Y RADIAL	3831.2	105.1	%	1.85				1.76%
Ag 328.068†	0.1	0.0125	ug/L	0.10414	0.0125	ppb	0.10414	834.04%
Al 396.153Radial†	30.0	35.191	ug/L	7.6840	35.191	ppb	7.6840	21.84%
As 188.979†	6.8	2.9981	ug/L	1.61518	2.9981	ppb	1.61518	53.87%
B 249.677†	225.8	5.4571	ug/L	1.56100	5.4571	ppb	1.56100	28.61%
Ba 233.527†	-7.3	-0.1067	ug/L	0.18623	-0.1067	ppb	0.18623	174.54%
Be 313.107†	424.0	0.1877	ug/L	0.03123	0.1877	ppb	0.03123	16.64%
Ca 317.933Radial†	11.4	25.781	ug/L	4.1777	25.781	ppb	4.1777	16.20%
Cd 226.502†	13.2	0.1819	ug/L	0.11939	0.1819	ppb	0.11939	65.63%
Co 228.616†	9.1	0.3312	ug/L	0.12190	0.3312	ppb	0.12190	36.81%
Cr 267.716†	243.4	3.6671	ug/L	0.17954	3.6671	ppb	0.17954	4.90%
Cu 324.752†	-197.8	-0.9563	ug/L	0.41317	-0.9563	ppb	0.41317	43.21%
Fe 238.204 Radial†	3.4	45.108	ug/L	11.8315	45.108	ppb	11.8315	26.23%
K 766.490 Radial†	-157.7	-36.868	ug/L	19.9949	-36.868	ppb	19.9949	54.23%

Mg 279.077 IEC†	0.6	29.150	ug/L	62.2016	29.150	ppb	62.2016 213.38%
Mn 257.610†	257.7	0.4995	ug/L	0.07534	0.4995	ppb	0.07534 15.08%
Mo 202.031†	5.2	0.5506	ug/L	0.13680	0.5506	ppb	0.13680 24.85%
Na 589.592 Radial†	222.4	108.69	ug/L	7.166	108.69	ppb	7.166 6.59%
Ni 231.604†	61.3	2.0666	ug/L	0.12514	2.0666	ppb	0.12514 6.06%
P 214.914†	-3.7	-1.7340	ug/L	7.92135	-1.7340	ppb	7.92135 456.84%
Pb 220.353†	-10.1	-1.7724	ug/L	2.48287	-1.7724	ppb	2.48287 140.09%
S 181.975 Axial†	11.0	14.307	ug/L	8.2291	14.307	ppb	8.2291 57.52%
Sb 206.836†	-7.8	-3.4894	ug/L	1.98997	-3.4894	ppb	1.98997 57.03%
Se 196.026†	5.2	3.4320	ug/L	5.36981	3.4320	ppb	5.36981 156.46%
Si 251.611†	595.3	25.175	ug/L	0.2641	25.175	ppb	0.2641 1.05%
Sn 189.927†	1.4	0.3440	ug/L	1.91356	0.3440	ppb	1.91356 556.19%
Sr 421.552†	13.6	0.1421	ug/L	0.33795	0.1421	ppb	0.33795 237.89%
Ti 334.940†	294.8	0.7808	ug/L	0.08404	0.7808	ppb	0.08404 10.76%
Tl 190.801†	10.2	6.0795	ug/L	2.27306	6.0795	ppb	2.27306 37.39%
U 409.014†	45.3	2.2767	ug/L	2.45366	2.2767	ppb	2.45366 107.77%
V 292.402†	15.3	0.1416	ug/L	0.54472	0.1416	ppb	0.54472 384.59%
Zn 213.857†	151.1	1.6909	ug/L	0.08011	1.6909	ppb	0.08011 4.74%
SiO2†	619.7	56.074	ug/L	3.2661	56.074	ppb	3.2661 5.82%

Sequence No.: 15
Sample ID: 1202091940|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 45
Date Collected: 4/15/2010 19:29:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202091940|973755|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4130.6	4130.6	127	%			19:31:27
1	Y RADIAL	4969.3	4969.3	136.3	%			19:31:27
1	Al 396.153Radial†	95875.2	75394.4	88409	ug/L	88409	ppb	19:31:07
1	Ca 317.933Radial†	56662.3	44478.7	100180	ug/L	100180	ppb	19:31:07
1	Fe 238.204 Radial†	16947.1	13301.6	178670	ug/L	178670	ppb	19:31:07
1	K 766.490 Radial†	224838.3	173361.9	40457	ug/L	40457	ppb	19:31:07
1	Mg 279.077 IEC†	1058.0	830.6	37599	ug/L	37599	ppb	19:31:27
1	Na 589.592 Radial†	25505.0	21220.3	10369	ug/L	10369	ppb	19:31:07
1	Sr 421.552†	286178.9	224669.6	2345.5	ug/L	2345.5	ppb	19:31:07
1	Sc 361.383	661911.4	661911.4	118.83	%			19:32:26
1	Y 371.029	670458.2	670458.2	129.58	%			19:32:26
1	Ag 328.068†	53070.7	44607.9	322.41	ug/L	322.41	ppb	19:32:26
1	As 188.979†	2658.1	2281.5	1072.1	ug/L	1072.1	ppb	19:32:31
1	B 249.677†	72729.0	61858.5	1474.8	ug/L	1474.8	ppb	19:32:26
1	Ba 233.527†	150652.7	126781.7	1903.6	ug/L	1903.6	ppb	19:32:26
1	Be 313.107†	2083277.0	1762688.2	785.30	ug/L	785.30	ppb	19:32:26
1	Cd 226.502†	51956.3	44030.2	597.53	ug/L	597.53	ppb	19:32:31
1	Co 228.616†	32172.1	27164.4	983.91	ug/L	983.91	ppb	19:32:31
1	Cr 267.716†	190112.8	159878.6	2413.4	ug/L	2413.4	ppb	19:32:26
1	Cu 324.752†	484805.0	401595.5	1956.0	ug/L	1956.0	ppb	19:32:26
1	Mn 257.610†	3311916.1	2786447.6	5378.9	ug/L	5378.9	ppb	19:32:26
1	Mo 202.031†	5669.0	4754.6	517.46	ug/L	517.46	ppb	19:32:31
1	Ni 231.604†	48984.8	41104.3	1384.7	ug/L	1384.7	ppb	19:32:31
1	P 214.914†	17051.8	14038.2	6995.8	ug/L	6995.8	ppb	19:32:31
1	Pb 220.353†	6103.3	5231.6	933.10	ug/L	933.10	ppb	19:32:31
1	S 181.975 Axial†	3664.2	3014.5	3904.6	ug/L	3904.6	ppb	19:32:31
1	Sb 206.836†	4038.6	3341.0	1524.4	ug/L	1524.4	ppb	19:32:31
1	Se 196.026†	4951.8	4200.0	3010.2	ug/L	3010.2	ppb	19:32:31
1	Si 251.611†	657441.0	552687.8	23373	ug/L	23373	ppb	19:32:26
1	Sn 189.927†	4890.1	4103.3	1050.1	ug/L	1050.1	ppb	19:32:31
1	Ti 334.940†	2422359.6	2040463.4	5424.8	ug/L	5424.8	ppb	19:32:26
1	Tl 190.801†	2338.0	2026.3	1260.9	ug/L	1260.9	ppb	19:32:31
1	U 409.014†	-5853.4	-3125.3	-211.83	ug/L	-211.83	ppb	19:32:26
1	V 292.402†	159544.7	136233.3	1200.4	ug/L	1200.4	ppb	19:32:26
1	Zn 213.857†	627623.1	527220.6	5930.4	ug/L	5930.4	ppb	19:32:26
1	SiO2†	665308.1	559271.3	50610	ug/L	50610	ppb	19:33:02
2	Sc Radial	4126.7	4126.7	127	%			19:31:52
2	Y RADIAL	4934.2	4934.2	135.4	%			19:31:52
2	Al 396.153Radial†	94095.2	74065.8	86851	ug/L	86851	ppb	19:31:32
2	Ca 317.933Radial†	55730.7	43788.1	98624	ug/L	98624	ppb	19:31:32
2	Fe 238.204 Radial†	16711.1	13128.6	176340	ug/L	176340	ppb	19:31:32
2	K 766.490 Radial†	220913.0	170441.9	39776	ug/L	39776	ppb	19:31:32
2	Mg 279.077 IEC†	1049.5	824.6	37332	ug/L	37332	ppb	19:31:52
2	Na 589.592 Radial†	24990.6	20834.8	10180	ug/L	10180	ppb	19:31:32
2	Sr 421.552†	280359.7	220306.3	2299.9	ug/L	2299.9	ppb	19:31:32
2	Sc 361.383	661988.3	661988.3	118.85	%			19:32:38
2	Y 371.029	670734.3	670734.3	129.63	%			19:32:38
2	Ag 328.068†	53079.5	44610.1	321.75	ug/L	321.75	ppb	19:32:38
2	As 188.979†	2720.5	2333.7	1094.7	ug/L	1094.7	ppb	19:32:44
2	B 249.677†	72634.2	61771.6	1472.9	ug/L	1472.9	ppb	19:32:38
2	Ba 233.527†	150418.7	126570.1	1900.4	ug/L	1900.4	ppb	19:32:38
2	Be 313.107†	2083153.7	1762380.6	785.15	ug/L	785.15	ppb	19:32:38
2	Cd 226.502†	52501.8	44484.1	604.06	ug/L	604.06	ppb	19:32:44
2	Co 228.616†	32550.0	27479.2	995.54	ug/L	995.54	ppb	19:32:44
2	Cr 267.716†	189875.1	159660.0	2410.1	ug/L	2410.1	ppb	19:32:38
2	Cu 324.752†	483447.5	400405.8	1950.1	ug/L	1950.1	ppb	19:32:38
2	Mn 257.610†	3306325.6	2781419.6	5368.9	ug/L	5368.9	ppb	19:32:38
2	Mo 202.031†	5753.1	4824.9	524.72	ug/L	524.72	ppb	19:32:44
2	Ni 231.604†	49527.1	41555.8	1399.9	ug/L	1399.9	ppb	19:32:44

2	P 214.914†	17275.0	14224.4	7097.3	ug/L	7097.3	ppb	19:32:44
2	Pb 220.353†	6183.2	5298.3	944.67	ug/L	944.67	ppb	19:32:44
2	S 181.975 Axial†	3723.8	3064.3	3969.5	ug/L	3969.5	ppb	19:32:44
2	Sb 206.836†	4075.8	3371.9	1538.8	ug/L	1538.8	ppb	19:32:44
2	Se 196.026†	5033.8	4268.6	3049.8	ug/L	3049.8	ppb	19:32:44
2	Si 251.611†	655399.7	550905.9	23297	ug/L	23297	ppb	19:32:38
2	Sn 189.927†	4975.8	4175.0	1067.8	ug/L	1067.8	ppb	19:32:44
2	Ti 334.940†	2417871.8	2036450.2	5414.0	ug/L	5414.0	ppb	19:32:38
2	Tl 190.801†	2343.6	2030.8	1263.5	ug/L	1263.5	ppb	19:32:44
2	U 409.014†	-5844.9	-3117.6	-210.81	ug/L	-210.81	ppb	19:32:38
2	V 292.402†	159320.3	136028.9	1199.0	ug/L	1199.0	ppb	19:32:38
2	Zn 213.857†	626683.2	526368.3	5920.6	ug/L	5920.6	ppb	19:32:38
2	SiO2†	647747.8	544430.5	49266	ug/L	49266	ppb	19:33:07
3	Sc Radial	4040.3	4040.3	125	%			19:32:17
3	Y RADIAL	4853.2	4853.2	133.1	%			19:32:17
3	Al 396.153Radial†	95071.6	76432.2	89626	ug/L	89626	ppb	19:31:57
3	Ca 317.933Radial†	56190.0	45094.1	101570	ug/L	101570	ppb	19:31:57
3	Fe 238.204 Radial†	16773.1	13459.4	180790	ug/L	180790	ppb	19:31:57
3	K 766.490 Radial†	223171.1	175970.0	41066	ug/L	41066	ppb	19:31:57
3	Mg 279.077 IEC†	1033.7	829.6	37554	ug/L	37554	ppb	19:32:17
3	Na 589.592 Radial†	25202.6	21425.3	10469	ug/L	10469	ppb	19:31:57
3	Sr 421.552†	283118.8	227236.3	2372.3	ug/L	2372.3	ppb	19:31:57
3	Sc 361.383	667243.9	667243.9	119.79	%			19:32:51
3	Y 371.029	675928.2	675928.2	130.64	%			19:32:51
3	Ag 328.068†	53326.0	44464.1	322.16	ug/L	322.16	ppb	19:32:51
3	As 188.979†	2709.2	2306.2	1083.2	ug/L	1083.2	ppb	19:32:56
3	B 249.677†	73486.7	62001.9	1478.1	ug/L	1478.1	ppb	19:32:51
3	Ba 233.527†	151814.4	126738.3	1903.1	ug/L	1903.1	ppb	19:32:51
3	Be 313.107†	2101238.6	1763671.7	785.72	ug/L	785.72	ppb	19:32:51
3	Cd 226.502†	52429.3	44075.6	597.97	ug/L	597.97	ppb	19:32:56
3	Co 228.616†	32494.9	27217.4	985.85	ug/L	985.85	ppb	19:32:56
3	Cr 267.716†	191567.7	159814.5	2412.5	ug/L	2412.5	ppb	19:32:51
3	Cu 324.752†	487833.8	400863.5	1952.6	ug/L	1952.6	ppb	19:32:51
3	Mn 257.610†	3336594.9	2784775.5	5375.9	ug/L	5375.9	ppb	19:32:51
3	Mo 202.031†	5741.5	4777.0	520.00	ug/L	520.00	ppb	19:32:56
3	Ni 231.604†	49494.1	41200.1	1387.9	ug/L	1387.9	ppb	19:32:56
3	P 214.914†	17243.3	14083.4	7020.2	ug/L	7020.2	ppb	19:32:56
3	Pb 220.353†	6196.8	5268.7	939.81	ug/L	939.81	ppb	19:32:56
3	S 181.975 Axial†	3743.0	3055.7	3958.0	ug/L	3958.0	ppb	19:32:56
3	Sb 206.836†	4068.2	3338.6	1523.5	ug/L	1523.5	ppb	19:32:56
3	Se 196.026†	5008.7	4214.3	3023.2	ug/L	3023.2	ppb	19:32:56
3	Si 251.611†	662018.9	552087.9	23347	ug/L	23347	ppb	19:32:51
3	Sn 189.927†	4950.9	4121.1	1054.9	ug/L	1054.9	ppb	19:32:56
3	Ti 334.940†	2439246.7	2038269.4	5419.1	ug/L	5419.1	ppb	19:32:51
3	Tl 190.801†	2369.2	2036.7	1267.0	ug/L	1267.0	ppb	19:32:56
3	U 409.014†	-5911.5	-3134.4	-212.86	ug/L	-212.86	ppb	19:32:51
3	V 292.402†	160853.5	136252.9	1200.3	ug/L	1200.3	ppb	19:32:51
3	Zn 213.857†	632351.6	526947.0	5927.5	ug/L	5927.5	ppb	19:32:51
3	SiO2†	649128.5	541290.1	48982	ug/L	48982	ppb	19:33:13

Mean Data: 1202091940|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	663714.6	119.16	%	0.549				0.46%
Sc Radial	4099.2	126	%	1.6				1.25%
Y 371.029	672373.6	129.95	%	0.596				0.46%
Y RADIAL	4918.9	134.9	%	1.63				1.21%
Ag 328.068†	44560.7	322.11	ug/L	0.333	322.11	ppb	0.333	0.10%
Al 396.153Radial†	75297.5	88295	ug/L	1391.4	88295	ppb	1391.4	1.58%
As 188.979†	2307.1	1083.3	ug/L	11.32	1083.3	ppb	11.32	1.05%
B 249.677†	61877.4	1475.3	ug/L	2.60	1475.3	ppb	2.60	0.18%
Ba 233.527†	126696.7	1902.4	ug/L	1.77	1902.4	ppb	1.77	0.09%
Be 313.107†	1762913.5	785.39	ug/L	0.298	785.39	ppb	0.298	0.04%
Ca 317.933Radial†	44453.6	100120	ug/L	1471.5	100120	ppb	1471.5	1.47%
Cd 226.502†	44196.7	599.85	ug/L	3.651	599.85	ppb	3.651	0.61%
Co 228.616†	27287.0	988.43	ug/L	6.229	988.43	ppb	6.229	0.63%
Cr 267.716†	159784.3	2412.0	ug/L	1.72	2412.0	ppb	1.72	0.07%
Cu 324.752†	400954.9	1952.9	ug/L	2.97	1952.9	ppb	2.97	0.15%
Fe 238.204 Radial†	13296.6	178600	ug/L	2222.0	178600	ppb	2222.0	1.24%
K 766.490 Radial†	173257.9	40433	ug/L	645.4	40433	ppb	645.4	1.60%

Mg 279.077 IEC†	828.3	37495	ug/L	143.0	37495	ppb	143.0	0.38%
Mn 257.610†	2784214.2	5374.6	ug/L	5.08	5374.6	ppb	5.08	0.09%
Mo 202.031†	4785.5	520.72	ug/L	3.684	520.72	ppb	3.684	0.71%
Na 589.592 Radial†	21160.1	10339	ug/L	146.5	10339	ppb	146.5	1.42%
Ni 231.604†	41286.7	1390.9	ug/L	8.01	1390.9	ppb	8.01	0.58%
P 214.914†	14115.4	7037.8	ug/L	53.02	7037.8	ppb	53.02	0.75%
Pb 220.353†	5266.2	939.19	ug/L	5.809	939.19	ppb	5.809	0.62%
S 181.975 Axial†	3044.8	3944.0	ug/L	34.60	3944.0	ppb	34.60	0.88%
Sb 206.836†	3350.5	1528.9	ug/L	8.57	1528.9	ppb	8.57	0.56%
Se 196.026†	4227.6	3027.7	ug/L	20.18	3027.7	ppb	20.18	0.67%
Si 251.611†	551893.8	23339	ug/L	38.4	23339	ppb	38.4	0.16%
Sn 189.927†	4133.1	1057.6	ug/L	9.13	1057.6	ppb	9.13	0.86%
Sr 421.552†	224070.8	2339.2	ug/L	36.58	2339.2	ppb	36.58	1.56%
Ti 334.940†	2038394.3	5419.3	ug/L	5.40	5419.3	ppb	5.40	0.10%
Tl 190.801†	2031.3	1263.8	ug/L	3.05	1263.8	ppb	3.05	0.24%
U 409.014†	-3125.8	-211.83	ug/L	1.026	-211.83	ppb	1.026	0.48%
V 292.402†	136171.7	1199.9	ug/L	0.79	1199.9	ppb	0.79	0.07%
Zn 213.857†	526845.3	5926.2	ug/L	5.08	5926.2	ppb	5.08	0.09%
SiO2†	548330.7	49619	ug/L	869.4	49619	ppb	869.4	1.75%

Sequence No.: 16
Sample ID: 249333003|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 46
Date Collected: 4/15/2010 19:35:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249333003|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3805.0	3805.0	117	%			19:37:37
1	Y RADIAL	5147.2	5147.2	141.2	%			19:37:16
1	Al 396.153Radial†	24884.2	21326.0	25014	ug/L	25014	ppb	19:37:16
1	Ca 317.933Radial†	3701.8	3143.9	7081.1	ug/L	7081.1	ppb	19:37:16
1	Fe 238.204 Radial†	5445.7	4637.0	62274	ug/L	62274	ppb	19:37:16
1	K 766.490 Radial†	16859.0	11193.8	2611.7	ug/L	2611.7	ppb	19:37:16
1	Mg 279.077 IEC†	105.1	89.4	4020.2	ug/L	4020.2	ppb	19:37:37
1	Na 589.592 Radial†	1068.4	2105.1	1028.6	ug/L	1028.6	ppb	19:37:16
1	Sr 421.552†	7538.5	6393.7	66.717	ug/L	66.717	ppb	19:37:16
1	Sc 361.383	645597.1	645597.1	115.90	%			19:38:34
1	Y 371.029	743905.2	743905.2	143.77	%			19:38:34
1	Ag 328.068†	-3424.5	-3007.3	0.6234	ug/L	0.6234	ppb	19:38:34
1	As 188.979†	-29.8	18.9	27.782	ug/L	27.782	ppb	19:38:54
1	B 249.677†	735.8	1289.8	24.634	ug/L	24.634	ppb	19:38:34
1	Ba 233.527†	15560.8	13428.9	203.92	ug/L	203.92	ppb	19:38:34
1	Be 313.107†	-9079.0	1717.8	4.0008	ug/L	4.0008	ppb	19:38:34
1	Cd 226.502†	208.7	487.6	1.1933	ug/L	1.1933	ppb	19:38:54
1	Co 228.616†	289.1	340.0	8.6497	ug/L	8.6497	ppb	19:38:54
1	Cr 267.716†	7997.9	6793.7	103.49	ug/L	103.49	ppb	19:38:34
1	Cu 324.752†	18001.7	9150.0	48.570	ug/L	48.570	ppb	19:38:34
1	Mn 257.610†	870074.2	750070.4	1449.7	ug/L	1449.7	ppb	19:38:34
1	Mo 202.031†	99.9	70.2	11.831	ug/L	11.831	ppb	19:38:54
1	Ni 231.604†	2075.1	1672.6	56.414	ug/L	56.414	ppb	19:38:54
1	P 214.914†	1047.2	592.2	285.67	ug/L	285.67	ppb	19:38:54
1	Pb 220.353†	552.3	572.1	102.36	ug/L	102.36	ppb	19:38:54
1	S 181.975 Axial†	210.3	112.4	143.18	ug/L	143.18	ppb	19:38:54
1	Sb 206.836†	69.2	2.1	-1.7208	ug/L	-1.7208	ppb	19:38:54
1	Se 196.026†	-225.5	-161.6	10.124	ug/L	10.124	ppb	19:38:54
1	Si 251.611†	368693.4	317538.8	13432	ug/L	13432	ppb	19:38:34
1	Sn 189.927†	-3.9	-15.2	-1.5174	ug/L	-1.5174	ppb	19:38:54
1	Ti 334.940†	622038.5	538669.7	1430.9	ug/L	1430.9	ppb	19:38:34
1	Tl 190.801†	-121.5	-46.0	-9.6030	ug/L	-9.6030	ppb	19:38:54
1	U 409.014†	-6434.0	-3750.7	-207.12	ug/L	-207.12	ppb	19:38:34
1	V 292.402†	5557.4	6766.8	50.665	ug/L	50.665	ppb	19:38:34
1	Zn 213.857†	37123.7	31088.0	354.84	ug/L	354.84	ppb	19:38:34
1	SiO2†	377155.2	324802.8	29400	ug/L	29400	ppb	19:39:52
2	Sc Radial	3836.4	3836.4	118	%			19:38:02
2	Y RADIAL	5421.1	5421.1	148.7	%			19:37:42
2	Al 396.153Radial†	26321.3	22367.0	26235	ug/L	26235	ppb	19:37:42
2	Ca 317.933Radial†	3905.2	3290.1	7410.2	ug/L	7410.2	ppb	19:37:42
2	Fe 238.204 Radial†	5732.4	4841.2	65017	ug/L	65017	ppb	19:37:42
2	K 766.490 Radial†	17531.7	11644.7	2716.9	ug/L	2716.9	ppb	19:37:42
2	Mg 279.077 IEC†	111.3	93.9	4224.4	ug/L	4224.4	ppb	19:38:02
2	Na 589.592 Radial†	1178.0	2190.2	1070.2	ug/L	1070.2	ppb	19:37:42
2	Sr 421.552†	8003.4	6734.0	70.269	ug/L	70.269	ppb	19:37:42
2	Sc 361.383	645145.7	645145.7	115.82	%			19:39:00
2	Y 371.029	743194.3	743194.3	143.64	%			19:39:00
2	Ag 328.068†	-3262.6	-2869.6	2.2446	ug/L	2.2446	ppb	19:39:00
2	As 188.979†	-25.9	22.2	29.714	ug/L	29.714	ppb	19:39:20
2	B 249.677†	802.5	1347.8	25.749	ug/L	25.749	ppb	19:39:00
2	Ba 233.527†	15651.3	13516.4	205.38	ug/L	205.38	ppb	19:39:00
2	Be 313.107†	-9054.8	1733.2	4.0422	ug/L	4.0422	ppb	19:39:00
2	Cd 226.502†	232.3	508.0	1.2322	ug/L	1.2322	ppb	19:39:20
2	Co 228.616†	290.6	341.5	8.6317	ug/L	8.6317	ppb	19:39:20
2	Cr 267.716†	8079.0	6868.6	104.67	ug/L	104.67	ppb	19:39:00
2	Cu 324.752†	18038.5	9192.7	48.960	ug/L	48.960	ppb	19:39:00
2	Mn 257.610†	878639.3	757990.8	1465.2	ug/L	1465.2	ppb	19:39:00
2	Mo 202.031†	94.3	65.4	11.521	ug/L	11.521	ppb	19:39:20
2	Ni 231.604†	2116.7	1709.8	57.670	ug/L	57.670	ppb	19:39:20

2	P 214.914†	1019.8	569.2	272.46	ug/L	272.46 ppb	19:39:20
2	Pb 220.353†	536.1	558.4	100.04	ug/L	100.04 ppb	19:39:20
2	S 181.975 Axial†	218.0	119.3	151.90	ug/L	151.90 ppb	19:39:20
2	Sb 206.836†	67.0	0.3	-2.5552	ug/L	-2.5552 ppb	19:39:20
2	Se 196.026†	-220.4	-157.4	17.815	ug/L	17.815 ppb	19:39:20
2	Si 251.611†	372505.4	321052.7	13581	ug/L	13581 ppb	19:39:00
2	Sn 189.927†	-5.2	-16.4	-1.7020	ug/L	-1.7020 ppb	19:39:20
2	Ti 334.940†	628259.8	544416.7	1446.2	ug/L	1446.2 ppb	19:39:00
2	Tl 190.801†	-104.7	-31.6	-0.8815	ug/L	-0.8815 ppb	19:39:20
2	U 409.014†	-6411.9	-3735.5	-207.09	ug/L	-207.09 ppb	19:39:00
2	V 292.402†	5583.0	6792.2	50.506	ug/L	50.506 ppb	19:39:00
2	Zn 213.857†	37517.4	31450.3	359.17	ug/L	359.17 ppb	19:39:00
2	SiO2†	378133.9	325875.5	29497	ug/L	29497 ppb	19:39:57
3	Sc Radial	3877.0	3877.0	120	%		19:38:27
3	Y RADIAL	5313.6	5313.6	145.8	%		19:38:07
3	Al 396.153Radial†	25828.5	21721.6	25478	ug/L	25478 ppb	19:38:07
3	Ca 317.933Radial†	3828.8	3191.6	7188.4	ug/L	7188.4 ppb	19:38:07
3	Fe 238.204 Radial†	5604.0	4683.1	62893	ug/L	62893 ppb	19:38:07
3	K 766.490 Radial†	17493.2	11457.2	2673.2	ug/L	2673.2 ppb	19:38:07
3	Mg 279.077 IEC†	109.8	91.7	4123.9	ug/L	4123.9 ppb	19:38:27
3	Na 589.592 Radial†	1039.0	2063.5	1008.3	ug/L	1008.3 ppb	19:38:07
3	Sr 421.552†	7833.1	6520.6	68.042	ug/L	68.042 ppb	19:38:07
3	Sc 361.383	650986.5	650986.5	116.87	%		19:39:26
3	Y 371.029	752517.4	752517.4	145.44	%		19:39:26
3	Ag 328.068†	-3339.3	-2909.9	1.3869	ug/L	1.3869 ppb	19:39:26
3	As 188.979†	-26.9	21.6	29.133	ug/L	29.133 ppb	19:39:46
3	B 249.677†	703.0	1256.5	23.763	ug/L	23.763 ppb	19:39:26
3	Ba 233.527†	15743.4	13474.0	204.63	ug/L	204.63 ppb	19:39:26
3	Be 313.107†	-9152.2	1720.1	4.0306	ug/L	4.0306 ppb	19:39:26
3	Cd 226.502†	230.2	504.5	1.3732	ug/L	1.3732 ppb	19:39:46
3	Co 228.616†	296.2	344.1	8.7627	ug/L	8.7627 ppb	19:39:46
3	Cr 267.716†	8148.2	6865.2	104.58	ug/L	104.58 ppb	19:39:26
3	Cu 324.752†	18076.6	9085.5	48.298	ug/L	48.298 ppb	19:39:26
3	Mn 257.610†	884416.7	756127.7	1461.4	ug/L	1461.4 ppb	19:39:26
3	Mo 202.031†	102.9	72.0	12.075	ug/L	12.075 ppb	19:39:46
3	Ni 231.604†	2102.5	1681.3	56.707	ug/L	56.707 ppb	19:39:46
3	P 214.914†	1024.6	565.4	271.24	ug/L	271.24 ppb	19:39:46
3	Pb 220.353†	557.9	573.0	102.59	ug/L	102.59 ppb	19:39:46
3	S 181.975 Axial†	219.8	119.1	151.73	ug/L	151.73 ppb	19:39:46
3	Sb 206.836†	66.4	-0.8	-3.0578	ug/L	-3.0578 ppb	19:39:46
3	Se 196.026†	-228.2	-162.3	10.822	ug/L	10.822 ppb	19:39:46
3	Si 251.611†	373909.5	319368.5	13509	ug/L	13509 ppb	19:39:26
3	Sn 189.927†	-6.5	-17.4	-2.0364	ug/L	-2.0364 ppb	19:39:46
3	Ti 334.940†	632815.7	543448.0	1443.6	ug/L	1443.6 ppb	19:39:26
3	Tl 190.801†	-105.2	-31.2	-0.6884	ug/L	-0.6884 ppb	19:39:46
3	U 409.014†	-6457.0	-3724.4	-205.96	ug/L	-205.96 ppb	19:39:26
3	V 292.402†	5716.0	6862.7	51.437	ug/L	51.437 ppb	19:39:26
3	Zn 213.857†	37707.3	31322.1	357.53	ug/L	357.53 ppb	19:39:26
3	SiO2†	377161.1	322113.9	29156	ug/L	29156 ppb	19:40:02

Mean Data: 249333003|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	647243.1	116.20	%	0.583				0.50%
Sc Radial	3839.5	118	%	1.1				0.94%
Y 371.029	746539.0	144.28	%	1.003				0.70%
Y RADIAL	5294.0	145.2	%	3.79				2.61%
Ag 328.068†	-2928.9	1.4183	ug/L	0.81106	1.4183	ppb	0.81106	57.19%
Al 396.153Radial†	21804.9	25576	ug/L	616.4	25576	ppb	616.4	2.41%
As 188.979†	20.9	28.876	ug/L	0.9909	28.876	ppb	0.9909	3.43%
B 249.677†	1298.1	24.716	ug/L	0.9955	24.716	ppb	0.9955	4.03%
Ba 233.527†	13473.1	204.64	ug/L	0.730	204.64	ppb	0.730	0.36%
Be 313.107†	1723.7	4.0245	ug/L	0.02135	4.0245	ppb	0.02135	0.53%
Ca 317.933Radial†	3208.5	7226.6	ug/L	167.85	7226.6	ppb	167.85	2.32%
Cd 226.502†	500.0	1.2662	ug/L	0.09462	1.2662	ppb	0.09462	7.47%
Co 228.616†	341.9	8.6814	ug/L	0.07101	8.6814	ppb	0.07101	0.82%
Cr 267.716†	6842.5	104.25	ug/L	0.653	104.25	ppb	0.653	0.63%
Cu 324.752†	9142.7	48.609	ug/L	0.3326	48.609	ppb	0.3326	0.68%
Fe 238.204 Radial†	4720.4	63395	ug/L	1438.8	63395	ppb	1438.8	2.27%
K 766.490 Radial†	11431.9	2667.2	ug/L	52.86	2667.2	ppb	52.86	1.98%

Mg 279.077 IEC†	91.7	4122.8	ug/L	102.11	4122.8	ppb	102.11	2.48%
Mn 257.610†	754729.7	1458.8	ug/L	8.09	1458.8	ppb	8.09	0.55%
Mo 202.031†	69.2	11.809	ug/L	0.2774	11.809	ppb	0.2774	2.35%
Na 589.592 Radial†	2119.6	1035.7	ug/L	31.55	1035.7	ppb	31.55	3.05%
Ni 231.604†	1687.9	56.930	ug/L	0.6568	56.930	ppb	0.6568	1.15%
P 214.914†	575.6	276.45	ug/L	8.000	276.45	ppb	8.000	2.89%
Pb 220.353†	567.8	101.66	ug/L	1.410	101.66	ppb	1.410	1.39%
S 181.975 Axial†	116.9	148.94	ug/L	4.986	148.94	ppb	4.986	3.35%
Sb 206.836†	0.5	-2.4446	ug/L	0.67534	-2.4446	ppb	0.67534	27.63%
Se 196.026†	-160.4	12.921	ug/L	4.2535	12.921	ppb	4.2535	32.92%
Si 251.611†	319320.0	13507	ug/L	74.3	13507	ppb	74.3	0.55%
Sn 189.927†	-16.3	-1.7519	ug/L	0.26307	-1.7519	ppb	0.26307	15.02%
Sr 421.552†	6549.4	68.342	ug/L	1.7949	68.342	ppb	1.7949	2.63%
Ti 334.940†	542178.1	1440.2	ug/L	8.18	1440.2	ppb	8.18	0.57%
Tl 190.801†	-36.2	-3.7243	ug/L	5.09204	-3.7243	ppb	5.09204	136.72%
U 409.014†	-3736.9	-206.72	ug/L	0.664	-206.72	ppb	0.664	0.32%
V 292.402†	6807.2	50.870	ug/L	0.4979	50.870	ppb	0.4979	0.98%
Zn 213.857†	31286.8	357.18	ug/L	2.183	357.18	ppb	2.183	0.61%
SiO2†	324264.1	29351	ug/L	175.4	29351	ppb	175.4	0.60%

Sequence No.: 17
Sample ID: 1202072047|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 47
Date Collected: 4/15/2010 19:42:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072047|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3900.6	3900.6	120	%			19:44:26
1	Y RADIAL	4970.2	4970.2	136.4	%			19:44:06
1	Al 396.153Radial†	32478.8	27120.6	31810	ug/L	31810	ppb	19:44:06
1	Ca 317.933Radial†	5046.4	4184.6	9425.1	ug/L	9425.1	ppb	19:44:06
1	Fe 238.204 Radial†	6440.5	5350.3	71854	ug/L	71854	ppb	19:44:06
1	K 766.490 Radial†	22093.7	15194.0	3545.1	ug/L	3545.1	ppb	19:44:06
1	Mg 279.077 IEC†	138.0	114.6	5157.0	ug/L	5157.0	ppb	19:44:26
1	Na 589.592 Radial†	1438.3	2390.3	1167.9	ug/L	1167.9	ppb	19:44:06
1	Sr 421.552†	9957.1	8247.1	86.055	ug/L	86.055	ppb	19:44:06
1	Sc 361.383	666204.3	666204.3	119.60	%			19:45:24
1	Y 371.029	774774.4	774774.4	149.74	%			19:45:24
1	Ag 328.068†	-4093.6	-3475.3	0.6775	ug/L	0.6775	ppb	19:45:24
1	As 188.979†	-27.9	21.3	31.388	ug/L	31.388	ppb	19:45:44
1	B 249.677†	583.9	1143.2	20.078	ug/L	20.078	ppb	19:45:24
1	Ba 233.527†	18294.3	15299.2	232.38	ug/L	232.38	ppb	19:45:24
1	Be 313.107†	-8089.1	2787.8	4.8474	ug/L	4.8474	ppb	19:45:24
1	Cd 226.502†	301.0	559.1	1.3333	ug/L	1.3333	ppb	19:45:44
1	Co 228.616†	341.7	376.3	9.5033	ug/L	9.5033	ppb	19:45:44
1	Cr 267.716†	10505.0	8676.5	132.03	ug/L	132.03	ppb	19:45:24
1	Cu 324.752†	21114.7	11272.4	59.492	ug/L	59.492	ppb	19:45:24
1	Mn 257.610†	1136921.0	949961.9	1835.3	ug/L	1835.3	ppb	19:45:24
1	Mo 202.031†	144.6	104.9	16.208	ug/L	16.208	ppb	19:45:44
1	Ni 231.604†	2549.5	2013.9	67.923	ug/L	67.923	ppb	19:45:44
1	P 214.914†	1156.8	655.9	314.84	ug/L	314.84	ppb	19:45:44
1	Pb 220.353†	670.0	655.8	118.13	ug/L	118.13	ppb	19:45:44
1	S 181.975 Axial†	275.2	161.1	205.62	ug/L	205.62	ppb	19:45:44
1	Sb 206.836†	63.7	-4.3	-4.8584	ug/L	-4.8584	ppb	19:45:44
1	Se 196.026†	-255.3	-180.5	15.525	ug/L	15.525	ppb	19:45:44
1	Si 251.611†	451052.9	376560.3	15929	ug/L	15929	ppb	19:45:24
1	Sn 189.927†	-13.4	-23.1	-2.9040	ug/L	-2.9040	ppb	19:45:44
1	Ti 334.940†	716768.5	601272.9	1597.3	ug/L	1597.3	ppb	19:45:24
1	Tl 190.801†	-102.2	-26.6	4.9635	ug/L	4.9635	ppb	19:45:44
1	U 409.014†	-6957.8	-4016.9	-223.25	ug/L	-223.25	ppb	19:45:24
1	V 292.402†	7505.8	8247.5	62.537	ug/L	62.537	ppb	19:45:24
1	Zn 213.857†	46082.3	37587.6	428.71	ug/L	428.71	ppb	19:45:24
1	SiO2†	438235.6	365807.0	33111	ug/L	33111	ppb	19:46:42
2	Sc Radial	3726.6	3726.6	115	%			19:44:52
2	Y RADIAL	5413.1	5413.1	148.5	%			19:44:31
2	Al 396.153Radial†	31289.7	27346.5	32075	ug/L	32075	ppb	19:44:31
2	Ca 317.933Radial†	4920.3	4270.7	9619.0	ug/L	9619.0	ppb	19:44:31
2	Fe 238.204 Radial†	6197.3	5388.6	72368	ug/L	72368	ppb	19:44:31
2	K 766.490 Radial†	21731.5	15736.3	3671.7	ug/L	3671.7	ppb	19:44:31
2	Mg 279.077 IEC†	141.9	123.3	5555.3	ug/L	5555.3	ppb	19:44:52
2	Na 589.592 Radial†	1428.4	2437.5	1191.0	ug/L	1191.0	ppb	19:44:31
2	Sr 421.552†	9628.0	8347.2	87.099	ug/L	87.099	ppb	19:44:31
2	Sc 361.383	651543.9	651543.9	116.97	%			19:45:50
2	Y 371.029	756574.4	756574.4	146.22	%			19:45:50
2	Ag 328.068†	-3976.0	-3451.8	0.9653	ug/L	0.9653	ppb	19:45:50
2	As 188.979†	-17.0	30.1	35.258	ug/L	35.258	ppb	19:46:10
2	B 249.677†	625.4	1189.7	21.146	ug/L	21.146	ppb	19:45:50
2	Ba 233.527†	17841.2	15255.9	231.76	ug/L	231.76	ppb	19:45:50
2	Be 313.107†	-7753.6	2922.4	4.8805	ug/L	4.8805	ppb	19:45:50
2	Cd 226.502†	302.1	565.7	1.3797	ug/L	1.3797	ppb	19:46:10
2	Co 228.616†	364.2	402.0	10.463	ug/L	10.463	ppb	19:46:10
2	Cr 267.716†	10195.8	8609.8	131.04	ug/L	131.04	ppb	19:45:50
2	Cu 324.752†	20480.1	11127.1	58.823	ug/L	58.823	ppb	19:45:50
2	Mn 257.610†	1104736.0	943835.5	1823.5	ug/L	1823.5	ppb	19:45:50
2	Mo 202.031†	135.8	100.1	15.731	ug/L	15.731	ppb	19:46:10
2	Ni 231.604†	2519.2	2036.0	68.668	ug/L	68.668	ppb	19:46:10

2	P 214.914†	1136.6	660.4	317.28	ug/L	317.28 ppb	19:46:10
2	Pb 220.353†	664.7	663.8	119.57	ug/L	119.57 ppb	19:46:10
2	S 181.975 Axial†	268.0	160.1	204.34	ug/L	204.34 ppb	19:46:10
2	Sb 206.836†	67.8	0.3	-2.7145	ug/L	-2.7145 ppb	19:46:10
2	Se 196.026†	-259.7	-189.0	10.989	ug/L	10.989 ppb	19:46:10
2	Si 251.611†	437364.4	373343.5	15792	ug/L	15792 ppb	19:45:50
2	Sn 189.927†	-15.3	-25.0	-3.3473	ug/L	-3.3473 ppb	19:46:10
2	Ti 334.940†	695948.7	596958.4	1585.8	ug/L	1585.8 ppb	19:45:50
2	Tl 190.801†	-114.7	-39.2	-2.6627	ug/L	-2.6627 ppb	19:46:10
2	U 409.014†	-6783.3	-3998.7	-222.47	ug/L	-222.47 ppb	19:45:50
2	V 292.402†	7328.2	8236.9	62.387	ug/L	62.387 ppb	19:45:50
2	Zn 213.857†	44895.6	37440.0	427.09	ug/L	427.09 ppb	19:45:50
2	SiO2†	438487.7	374267.1	33877	ug/L	33877 ppb	19:46:47
3	Sc Radial	3680.9	3680.9	113	%		19:45:17
3	Y RADIAL	5111.4	5111.4	140.2	%		19:44:57
3	Al 396.153Radial†	32117.5	28414.1	33328	ug/L	33328 ppb	19:44:57
3	Ca 317.933Radial†	5020.7	4412.4	9938.1	ug/L	9938.1 ppb	19:44:57
3	Fe 238.204 Radial†	6329.7	5572.2	74835	ug/L	74835 ppb	19:44:57
3	K 766.490 Radial†	21910.1	16128.6	3763.3	ug/L	3763.3 ppb	19:44:57
3	Mg 279.077 IEC†	142.4	125.3	5642.7	ug/L	5642.7 ppb	19:45:17
3	Na 589.592 Radial†	1447.1	2469.4	1206.6	ug/L	1206.6 ppb	19:44:57
3	Sr 421.552†	9831.0	8630.2	90.051	ug/L	90.051 ppb	19:44:57
3	Sc 361.383	650968.1	650968.1	116.87	%		19:46:16
3	Y 371.029	756260.6	756260.6	146.16	%		19:46:16
3	Ag 328.068†	-3971.8	-3451.2	1.6841	ug/L	1.6841 ppb	19:46:16
3	As 188.979†	-30.6	18.4	30.392	ug/L	30.392 ppb	19:46:36
3	B 249.677†	557.2	1131.7	19.486	ug/L	19.486 ppb	19:46:16
3	Ba 233.527†	17718.1	15164.1	230.53	ug/L	230.53 ppb	19:46:16
3	Be 313.107†	-7846.6	2837.0	4.8323	ug/L	4.8323 ppb	19:46:16
3	Cd 226.502†	292.2	557.6	1.0437	ug/L	1.0437 ppb	19:46:36
3	Co 228.616†	362.5	400.8	10.397	ug/L	10.397 ppb	19:46:36
3	Cr 267.716†	10110.0	8544.1	130.09	ug/L	130.09 ppb	19:46:16
3	Cu 324.752†	20528.9	11184.4	59.265	ug/L	59.265 ppb	19:46:16
3	Mn 257.610†	1097572.6	938541.4	1813.6	ug/L	1813.6 ppb	19:46:16
3	Mo 202.031†	160.4	121.2	18.150	ug/L	18.150 ppb	19:46:36
3	Ni 231.604†	2482.0	2006.1	67.662	ug/L	67.662 ppb	19:46:36
3	P 214.914†	1133.5	658.6	315.55	ug/L	315.55 ppb	19:46:36
3	Pb 220.353†	663.2	663.1	119.57	ug/L	119.57 ppb	19:46:36
3	S 181.975 Axial†	255.8	149.9	190.89	ug/L	190.89 ppb	19:46:36
3	Sb 206.836†	64.1	-2.7	-3.9410	ug/L	-3.9410 ppb	19:46:36
3	Se 196.026†	-258.0	-187.8	16.294	ug/L	16.294 ppb	19:46:36
3	Si 251.611†	435984.1	372493.2	15756	ug/L	15756 ppb	19:46:16
3	Sn 189.927†	-6.3	-17.2	-1.3030	ug/L	-1.3030 ppb	19:46:36
3	Ti 334.940†	693267.2	595190.2	1581.1	ug/L	1581.1 ppb	19:46:16
3	Tl 190.801†	-118.6	-42.6	-4.7598	ug/L	-4.7598 ppb	19:46:36
3	U 409.014†	-6811.3	-4027.8	-224.60	ug/L	-224.60 ppb	19:46:16
3	V 292.402†	7181.0	8116.5	61.011	ug/L	61.011 ppb	19:46:16
3	Zn 213.857†	44580.5	37204.3	424.68	ug/L	424.68 ppb	19:46:16
3	SiO2†	434521.5	371204.9	33600	ug/L	33600 ppb	19:46:53

Mean Data: 1202072047|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	656238.8	117.81	%	1.550				1.32%
Sc Radial	3769.4	116	%	3.6				3.08%
Y 371.029	762536.5	147.37	%	2.049				1.39%
Y RADIAL	5164.9	141.7	%	6.21				4.38%
Ag 328.068†	-3459.4	1.1090	ug/L	0.51846	1.1090	ppb	0.51846	46.75%
Al 396.153Radial†	27627.0	32405	ug/L	810.3	32405	ppb	810.3	2.50%
As 188.979†	23.3	32.346	ug/L	2.5709	32.346	ppb	2.5709	7.95%
B 249.677†	1154.9	20.236	ug/L	0.8413	20.236	ppb	0.8413	4.16%
Ba 233.527†	15239.7	231.56	ug/L	0.941	231.56	ppb	0.941	0.41%
Be 313.107†	2849.1	4.8534	ug/L	0.02462	4.8534	ppb	0.02462	0.51%
Ca 317.933Radial†	4289.3	9660.7	ug/L	259.02	9660.7	ppb	259.02	2.68%
Cd 226.502†	560.8	1.2522	ug/L	0.18209	1.2522	ppb	0.18209	14.54%
Co 228.616†	393.0	10.121	ug/L	0.5361	10.121	ppb	0.5361	5.30%
Cr 267.716†	8610.1	131.05	ug/L	0.975	131.05	ppb	0.975	0.74%
Cu 324.752†	11194.6	59.193	ug/L	0.3404	59.193	ppb	0.3404	0.58%
Fe 238.204 Radial†	5437.0	73019	ug/L	1593.3	73019	ppb	1593.3	2.18%
K 766.490 Radial†	15686.3	3660.1	ug/L	109.55	3660.1	ppb	109.55	2.99%

Mg 279.077 IEC†	121.1	5451.7	ug/L	258.86	5451.7	ppb	258.86	4.75%
Mn 257.610†	944113.0	1824.1	ug/L	10.85	1824.1	ppb	10.85	0.59%
Mo 202.031†	108.7	16.696	ug/L	1.2811	16.696	ppb	1.2811	7.67%
Na 589.592 Radial†	2432.4	1188.5	ug/L	19.46	1188.5	ppb	19.46	1.64%
Ni 231.604†	2018.6	68.085	ug/L	0.5222	68.085	ppb	0.5222	0.77%
P 214.914†	658.3	315.89	ug/L	1.254	315.89	ppb	1.254	0.40%
Pb 220.353†	660.9	119.09	ug/L	0.833	119.09	ppb	0.833	0.70%
S 181.975 Axial†	157.1	200.28	ug/L	8.160	200.28	ppb	8.160	4.07%
Sb 206.836†	-2.2	-3.8380	ug/L	1.07568	-3.8380	ppb	1.07568	28.03%
Se 196.026†	-185.8	14.270	ug/L	2.8667	14.270	ppb	2.8667	20.09%
Si 251.611†	374132.4	15826	ug/L	90.8	15826	ppb	90.8	0.57%
Sn 189.927†	-21.8	-2.5181	ug/L	1.07540	-2.5181	ppb	1.07540	42.71%
Sr 421.552†	8408.2	87.735	ug/L	2.0728	87.735	ppb	2.0728	2.36%
Ti 334.940†	597807.2	1588.1	ug/L	8.30	1588.1	ppb	8.30	0.52%
Tl 190.801†	-36.1	-0.8197	ug/L	5.11697	-0.8197	ppb	5.11697	624.28%
U 409.014†	-4014.5	-223.44	ug/L	1.080	-223.44	ppb	1.080	0.48%
V 292.402†	8200.3	61.979	ug/L	0.8412	61.979	ppb	0.8412	1.36%
Zn 213.857†	37410.6	426.83	ug/L	2.025	426.83	ppb	2.025	0.47%
SiO2†	370426.3	33529	ug/L	387.7	33529	ppb	387.7	1.16%

Sequence No.: 18
Sample ID: 1202072048|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 48
Date Collected: 4/15/2010 19:49:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072048|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3914.7	3914.7	121	%			19:51:17
1	Y RADIAL	5583.0	5583.0	153.2	%			19:51:17
1	Al 396.153Radial†	55923.3	46446.1	54456	ug/L	54456	ppb	19:50:57
1	Ca 317.933Radial†	6765.3	5593.5	12598	ug/L	12598	ppb	19:51:17
1	Fe 238.204 Radial†	6919.7	5727.9	76939	ug/L	76939	ppb	19:51:17
1	K 766.490 Radial†	49971.9	38223.9	8919.0	ug/L	8919.0	ppb	19:50:57
1	Mg 279.077 IEC†	304.4	252.0	11399	ug/L	11399	ppb	19:51:17
1	Na 589.592 Radial†	12335.9	11414.3	5577.4	ug/L	5577.4	ppb	19:50:57
1	Sr 421.552†	62545.7	51785.5	540.71	ug/L	540.71	ppb	19:50:57
1	Sc 361.383	654638.4	654638.4	117.53	%			19:52:16
1	Y 371.029	796472.3	796472.3	153.93	%			19:52:16
1	Ag 328.068†	87474.0	74377.1	467.96	ug/L	467.96	ppb	19:52:16
1	As 188.979†	1209.1	1073.4	500.91	ug/L	500.91	ppb	19:52:36
1	B 249.677†	22345.6	19668.4	466.33	ug/L	466.33	ppb	19:52:16
1	Ba 233.527†	54783.7	46617.3	700.80	ug/L	700.80	ppb	19:52:16
1	Be 313.107†	1249773.3	1072955.5	475.67	ug/L	475.67	ppb	19:52:16
1	Cd 226.502†	38445.9	33020.3	452.98	ug/L	452.98	ppb	19:52:36
1	Co 228.616†	15455.9	13241.7	481.22	ug/L	481.22	ppb	19:52:36
1	Cr 267.716†	46722.3	39648.2	599.23	ug/L	599.23	ppb	19:52:16
1	Cu 324.752†	140534.2	113195.7	552.80	ug/L	552.80	ppb	19:52:16
1	Mn 257.610†	1390931.1	1182888.1	2283.7	ug/L	2283.7	ppb	19:52:16
1	Mo 202.031†	5199.2	4407.9	472.46	ug/L	472.46	ppb	19:52:36
1	Ni 231.604†	18795.7	15875.1	534.74	ug/L	534.74	ppb	19:52:36
1	P 214.914†	2166.6	1532.2	674.25	ug/L	674.25	ppb	19:52:36
1	Pb 220.353†	3833.7	3357.6	601.38	ug/L	601.38	ppb	19:52:36
1	S 181.975 Axial†	4573.6	3822.6	4957.8	ug/L	4957.8	ppb	19:52:36
1	Sb 206.836†	1231.8	990.5	459.52	ug/L	459.52	ppb	19:52:36
1	Se 196.026†	604.2	547.1	491.19	ug/L	491.19	ppb	19:52:36
1	Si 251.611†	413770.5	351500.6	14863	ug/L	14863	ppb	19:52:16
1	Sn 189.927†	2144.8	1813.1	458.30	ug/L	458.30	ppb	19:52:36
1	Ti 334.940†	1000155.3	852988.7	2265.2	ug/L	2265.2	ppb	19:52:16
1	Tl 190.801†	817.8	754.7	472.21	ug/L	472.21	ppb	19:52:36
1	U 409.014†	2967.3	4325.3	197.30	ug/L	197.30	ppb	19:52:16
1	V 292.402†	67388.0	59310.8	527.00	ug/L	527.00	ppb	19:52:16
1	Zn 213.857†	91982.6	77323.9	872.09	ug/L	872.09	ppb	19:52:16
1	SiO2†	409838.5	348118.1	31498	ug/L	31498	ppb	19:53:36
2	Sc Radial	3881.6	3881.6	120	%			19:51:42
2	Y RADIAL	5564.8	5564.8	152.7	%			19:51:42
2	Al 396.153Radial†	57197.2	47906.4	56170	ug/L	56170	ppb	19:51:22
2	Ca 317.933Radial†	6709.0	5594.4	12600	ug/L	12600	ppb	19:51:42
2	Fe 238.204 Radial†	6849.5	5718.2	76809	ug/L	76809	ppb	19:51:42
2	K 766.490 Radial†	50860.3	39319.9	9174.8	ug/L	9174.8	ppb	19:51:22
2	Mg 279.077 IEC†	308.2	257.4	11640	ug/L	11640	ppb	19:51:42
2	Na 589.592 Radial†	12491.2	11631.4	5683.4	ug/L	5683.4	ppb	19:51:22
2	Sr 421.552†	63691.5	53185.5	555.33	ug/L	555.33	ppb	19:51:22
2	Sc 361.383	647780.8	647780.8	116.29	%			19:52:43
2	Y 371.029	789288.0	789288.0	152.54	%			19:52:43
2	Ag 328.068†	86459.4	74292.5	467.42	ug/L	467.42	ppb	19:52:43
2	As 188.979†	1166.7	1047.8	489.61	ug/L	489.61	ppb	19:53:03
2	B 249.677†	21999.2	19571.8	464.05	ug/L	464.05	ppb	19:52:43
2	Ba 233.527†	54154.2	46569.6	700.08	ug/L	700.08	ppb	19:52:43
2	Be 313.107†	1230195.4	1067378.4	473.22	ug/L	473.22	ppb	19:52:43
2	Cd 226.502†	37005.6	32128.1	440.57	ug/L	440.57	ppb	19:53:03
2	Co 228.616†	14846.0	12856.5	467.06	ug/L	467.06	ppb	19:53:03
2	Cr 267.716†	46124.9	39555.4	597.83	ug/L	597.83	ppb	19:52:43
2	Cu 324.752†	139084.1	113214.7	552.89	ug/L	552.89	ppb	19:52:43
2	Mn 257.610†	1374687.7	1181449.7	2280.9	ug/L	2280.9	ppb	19:52:43
2	Mo 202.031†	5012.0	4293.8	460.36	ug/L	460.36	ppb	19:53:03
2	Ni 231.604†	18138.5	15479.3	521.41	ug/L	521.41	ppb	19:53:03

2	P 214.914†	2082.5	1479.4	646.38	ug/L	646.38 ppb	19:53:03
2	Pb 220.353†	3670.6	3251.8	583.12	ug/L	583.12 ppb	19:53:03
2	S 181.975 Axial†	4371.1	3689.7	4785.1	ug/L	4785.1 ppb	19:53:03
2	Sb 206.836†	1176.9	954.4	442.76	ug/L	442.76 ppb	19:53:03
2	Se 196.026†	564.5	518.4	472.59	ug/L	472.59 ppb	19:53:03
2	Si 251.611†	408822.1	350972.6	14841	ug/L	14841 ppb	19:52:43
2	Sn 189.927†	2057.7	1757.5	444.36	ug/L	444.36 ppb	19:53:03
2	Ti 334.940†	989022.9	852425.1	2263.7	ug/L	2263.7 ppb	19:52:43
2	Tl 190.801†	766.7	718.1	450.56	ug/L	450.56 ppb	19:53:03
2	U 409.014†	2957.8	4343.8	198.27	ug/L	198.27 ppb	19:52:43
2	V 292.402†	66702.8	59328.7	527.02	ug/L	527.02 ppb	19:52:43
2	Zn 213.857†	90697.2	77047.1	869.05	ug/L	869.05 ppb	19:52:43
2	SiO2†	412413.3	354023.8	32033	ug/L	32033 ppb	19:53:42
3	Sc Radial	3912.4	3912.4	121	%		19:52:07
3	Y RADIAL	5612.8	5612.8	154.0	%		19:52:07
3	Al 396.153Radial†	56521.0	46968.7	55069	ug/L	55069 ppb	19:51:47
3	Ca 317.933Radial†	6783.5	5611.9	12640	ug/L	12640 ppb	19:52:07
3	Fe 238.204 Radial†	6903.0	5717.4	76798	ug/L	76798 ppb	19:52:07
3	K 766.490 Radial†	50349.9	38561.5	8997.8	ug/L	8997.8 ppb	19:51:47
3	Mg 279.077 IEC†	306.8	254.1	11495	ug/L	11495 ppb	19:52:07
3	Na 589.592 Radial†	12344.9	11427.7	5583.9	ug/L	5583.9 ppb	19:51:47
3	Sr 421.552†	62940.6	52143.1	544.44	ug/L	544.44 ppb	19:51:47
3	Sc 361.383	632602.4	632602.4	113.57	%		19:53:11
3	Y 371.029	771074.4	771074.4	149.02	%		19:53:11
3	Ag 328.068†	84525.0	74373.1	467.90	ug/L	467.90 ppb	19:53:11
3	As 188.979†	1156.5	1062.9	496.25	ug/L	496.25 ppb	19:53:31
3	B 249.677†	21475.1	19564.2	463.83	ug/L	463.83 ppb	19:53:11
3	Ba 233.527†	52806.5	46500.2	699.05	ug/L	699.05 ppb	19:53:11
3	Be 313.107†	1202451.5	1068330.4	473.64	ug/L	473.64 ppb	19:53:11
3	Cd 226.502†	37038.7	32920.8	451.61	ug/L	451.61 ppb	19:53:31
3	Co 228.616†	14895.5	13206.3	479.93	ug/L	479.93 ppb	19:53:31
3	Cr 267.716†	44996.3	39513.3	597.20	ug/L	597.20 ppb	19:53:11
3	Cu 324.752†	135680.0	113086.9	552.27	ug/L	552.27 ppb	19:53:11
3	Mn 257.610†	1339653.8	1178964.0	2276.1	ug/L	2276.1 ppb	19:53:11
3	Mo 202.031†	5016.7	4401.3	471.75	ug/L	471.75 ppb	19:53:31
3	Ni 231.604†	18127.6	15843.9	533.69	ug/L	533.69 ppb	19:53:31
3	P 214.914†	2095.6	1533.9	675.47	ug/L	675.47 ppb	19:53:31
3	Pb 220.353†	3678.3	3334.4	597.46	ug/L	597.46 ppb	19:53:31
3	S 181.975 Axial†	4393.4	3799.5	4927.7	ug/L	4927.7 ppb	19:53:31
3	Sb 206.836†	1193.2	993.1	460.54	ug/L	460.54 ppb	19:53:31
3	Se 196.026†	580.9	544.5	489.24	ug/L	489.24 ppb	19:53:31
3	Si 251.611†	398462.8	350285.8	14812	ug/L	14812 ppb	19:53:11
3	Sn 189.927†	2044.7	1788.5	452.14	ug/L	452.14 ppb	19:53:31
3	Ti 334.940†	964842.0	851538.6	2261.3	ug/L	2261.3 ppb	19:53:11
3	Tl 190.801†	771.7	738.3	462.44	ug/L	462.44 ppb	19:53:31
3	U 409.014†	2770.4	4239.9	193.01	ug/L	193.01 ppb	19:53:11
3	V 292.402†	65084.2	59279.6	526.73	ug/L	526.73 ppb	19:53:11
3	Zn 213.857†	88501.7	76985.1	868.28	ug/L	868.28 ppb	19:53:11
3	SiO2†	405423.3	356377.8	32245	ug/L	32245 ppb	19:53:47

Mean Data: 1202072048|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	645007.2	115.80	%	2.024				1.75%
Sc Radial	3902.9	120	%	0.6				0.47%
Y 371.029	785611.6	151.83	%	2.530				1.67%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 151.8%								
Y RADIAL	5586.9	153.3	%	0.67				0.43%
Ag 328.068†	74347.6	467.76	ug/L	0.297	467.76	ppb	0.297	0.06%
Al 396.153Radial†	47107.1	55232	ug/L	868.2	55232	ppb	868.2	1.57%
As 188.979†	1061.4	495.59	ug/L	5.675	495.59	ppb	5.675	1.15%
B 249.677†	19601.5	464.74	ug/L	1.386	464.74	ppb	1.386	0.30%
Ba 233.527†	46562.4	699.98	ug/L	0.883	699.98	ppb	0.883	0.13%
Be 313.107†	1069554.8	474.18	ug/L	1.311	474.18	ppb	1.311	0.28%
Ca 317.933Radial†	5599.9	12613	ug/L	23.3	12613	ppb	23.3	0.19%
Cd 226.502†	32689.7	448.38	ug/L	6.805	448.38	ppb	6.805	1.52%
Co 228.616†	13101.5	476.07	ug/L	7.828	476.07	ppb	7.828	1.64%
Cr 267.716†	39572.3	598.09	ug/L	1.041	598.09	ppb	1.041	0.17%
Cu 324.752†	113165.8	552.65	ug/L	0.337	552.65	ppb	0.337	0.06%
Fe 238.204 Radial†	5721.2	76849	ug/L	78.5	76849	ppb	78.5	0.10%

K 766.490 Radial†	38701.8	9030.5	ug/L	131.02	9030.5	ppb	131.02	1.45%
Mg 279.077 IEC†	254.5	11511	ug/L	121.5	11511	ppb	121.5	1.06%
Mn 257.610†	1181100.6	2280.3	ug/L	3.83	2280.3	ppb	3.83	0.17%
Mo 202.031†	4367.7	468.19	ug/L	6.791	468.19	ppb	6.791	1.45%
Na 589.592 Radial†	11491.1	5614.9	ug/L	59.44	5614.9	ppb	59.44	1.06%
Ni 231.604†	15732.7	529.95	ug/L	7.410	529.95	ppb	7.410	1.40%
P 214.914†	1515.2	665.37	ug/L	16.454	665.37	ppb	16.454	2.47%
Pb 220.353†	3314.6	593.99	ug/L	9.612	593.99	ppb	9.612	1.62%
S 181.975 Axial†	3770.6	4890.2	ug/L	92.29	4890.2	ppb	92.29	1.89%
Sb 206.836†	979.3	454.27	ug/L	9.982	454.27	ppb	9.982	2.20%
Se 196.026†	536.6	484.34	ug/L	10.224	484.34	ppb	10.224	2.11%
Si 251.611†	350919.6	14838	ug/L	25.8	14838	ppb	25.8	0.17%
Sn 189.927†	1786.4	451.60	ug/L	6.986	451.60	ppb	6.986	1.55%
Sr 421.552†	52371.3	546.82	ug/L	7.596	546.82	ppb	7.596	1.39%
Ti 334.940†	852317.5	2263.4	ug/L	1.94	2263.4	ppb	1.94	0.09%
Tl 190.801†	737.0	461.74	ug/L	10.842	461.74	ppb	10.842	2.35%
U 409.014†	4303.0	196.19	ug/L	2.802	196.19	ppb	2.802	1.43%
V 292.402†	59306.4	526.92	ug/L	0.161	526.92	ppb	0.161	0.03%
Zn 213.857†	77118.7	869.81	ug/L	2.015	869.81	ppb	2.015	0.23%
SiO2†	352839.9	31925	ug/L	385.2	31925	ppb	385.2	1.21%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 19
Sample ID: 1202072050|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 49
Date Collected: 4/15/2010 19:55:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072050|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3746.1	3746.1	116	%			19:58:13
1	Y RADIAL	5763.3	5763.3	158.1	%			19:57:53
1	Al 396.153Radial†	59957.5	52024.6	60999	ug/L	60999	ppb	19:57:53
1	Ca 317.933Radial†	7213.9	6234.2	14041	ug/L	14041	ppb	19:57:53
1	Fe 238.204 Radial†	7525.8	6510.7	87453	ug/L	87453	ppb	19:57:53
1	K 766.490 Radial†	53248.9	42924.8	10016	ug/L	10016	ppb	19:57:53
1	Mg 279.077 IEC†	325.2	281.3	12723	ug/L	12723	ppb	19:58:13
1	Na 589.592 Radial†	12160.8	11722.8	5728.1	ug/L	5728.1	ppb	19:57:53
1	Sr 421.552†	63137.0	54630.0	570.40	ug/L	570.40	ppb	19:57:53
1	Sc 361.383	641582.0	641582.0	115.18	%			19:59:12
1	Y 371.029	795479.9	795479.9	153.74	%			19:59:12
1	Ag 328.068†	86084.2	74685.1	472.90	ug/L	472.90	ppb	19:59:12
1	As 188.979†	1221.1	1104.7	517.85	ug/L	517.85	ppb	19:59:32
1	B 249.677†	22181.0	19912.4	471.11	ug/L	471.11	ppb	19:59:12
1	Ba 233.527†	53949.8	46842.0	704.76	ug/L	704.76	ppb	19:59:12
1	Be 313.107†	1230774.1	1078101.2	478.43	ug/L	478.43	ppb	19:59:12
1	Cd 226.502†	38318.1	33575.0	459.75	ug/L	459.75	ppb	19:59:32
1	Co 228.616†	15414.3	13473.2	489.13	ug/L	489.13	ppb	19:59:32
1	Cr 267.716†	43387.7	37562.2	567.98	ug/L	567.98	ppb	19:59:12
1	Cu 324.752†	137599.9	113081.7	552.96	ug/L	552.96	ppb	19:59:12
1	Mn 257.610†	1373812.5	1192110.8	2302.5	ug/L	2302.5	ppb	19:59:12
1	Mo 202.031†	5122.7	4431.5	475.71	ug/L	475.71	ppb	19:59:32
1	Ni 231.604†	18208.7	15690.9	528.54	ug/L	528.54	ppb	19:59:32
1	P 214.914†	2408.1	1779.4	803.64	ug/L	803.64	ppb	19:59:32
1	Pb 220.353†	3715.7	3321.5	595.84	ug/L	595.84	ppb	19:59:32
1	S 181.975 Axial†	4553.9	3884.7	5037.8	ug/L	5037.8	ppb	19:59:32
1	Sb 206.836†	1190.9	976.3	452.75	ug/L	452.75	ppb	19:59:32
1	Se 196.026†	558.3	517.7	491.54	ug/L	491.54	ppb	19:59:32
1	Si 251.611†	527572.0	457467.0	19345	ug/L	19345	ppb	19:59:12
1	Sn 189.927†	2110.1	1820.1	460.50	ug/L	460.50	ppb	19:59:32
1	Ti 334.940†	1075646.6	935848.0	2485.3	ug/L	2485.3	ppb	19:59:12
1	Tl 190.801†	800.8	754.1	473.55	ug/L	473.55	ppb	19:59:32
1	U 409.014†	2510.0	3979.7	177.02	ug/L	177.02	ppb	19:59:12
1	V 292.402†	66918.5	60070.1	532.22	ug/L	532.22	ppb	19:59:12
1	Zn 213.857†	93653.2	80367.0	907.32	ug/L	907.32	ppb	19:59:12
1	SiO2†	525483.5	455617.0	41228	ug/L	41228	ppb	20:00:32
2	Sc Radial	3772.8	3772.8	116	%			19:58:38
2	Y RADIAL	5688.2	5688.2	156.1	%			19:58:18
2	Al 396.153Radial†	59291.2	51084.1	59896	ug/L	59896	ppb	19:58:18
2	Ca 317.933Radial†	7095.0	6087.7	13711	ug/L	13711	ppb	19:58:18
2	Fe 238.204 Radial†	7418.6	6372.4	85595	ug/L	85595	ppb	19:58:18
2	K 766.490 Radial†	52645.3	42079.5	9819.0	ug/L	9819.0	ppb	19:58:18
2	Mg 279.077 IEC†	323.9	278.3	12584	ug/L	12584	ppb	19:58:38
2	Na 589.592 Radial†	11995.7	11506.3	5622.3	ug/L	5622.3	ppb	19:58:18
2	Sr 421.552†	62382.5	53594.4	559.59	ug/L	559.59	ppb	19:58:18
2	Sc 361.383	649750.9	649750.9	116.65	%			19:59:39
2	Y 371.029	805133.3	805133.3	155.61	%			19:59:39
2	Ag 328.068†	87391.4	74866.1	473.43	ug/L	473.43	ppb	19:59:39
2	As 188.979†	1220.4	1090.8	511.48	ug/L	511.48	ppb	19:59:59
2	B 249.677†	22609.6	20037.7	474.34	ug/L	474.34	ppb	19:59:39
2	Ba 233.527†	54651.0	46854.3	704.84	ug/L	704.84	ppb	19:59:39
2	Be 313.107†	1248129.9	1079545.7	479.07	ug/L	479.07	ppb	19:59:39
2	Cd 226.502†	38822.0	33588.8	460.11	ug/L	460.11	ppb	19:59:59
2	Co 228.616†	15586.3	13452.4	488.39	ug/L	488.39	ppb	19:59:59
2	Cr 267.716†	43901.5	37529.0	567.45	ug/L	567.45	ppb	19:59:39
2	Cu 324.752†	139415.2	113135.9	553.09	ug/L	553.09	ppb	19:59:39
2	Mn 257.610†	1393410.2	1193915.9	2305.8	ug/L	2305.8	ppb	19:59:39
2	Mo 202.031†	5210.9	4451.2	477.66	ug/L	477.66	ppb	19:59:59
2	Ni 231.604†	18412.8	15667.1	527.74	ug/L	527.74	ppb	19:59:59

2	P 214.914†	2461.7	1799.0	814.57	ug/L	814.57 ppb	19:59:59
2	Pb 220.353†	3775.8	3332.5	597.66	ug/L	597.66 ppb	19:59:59
2	S 181.975 Axial†	4603.6	3877.6	5028.7	ug/L	5028.7 ppb	19:59:59
2	Sb 206.836†	1225.5	993.0	460.25	ug/L	460.25 ppb	19:59:59
2	Se 196.026†	590.7	539.4	502.06	ug/L	502.06 ppb	19:59:59
2	Si 251.611†	535530.3	458530.9	19390	ug/L	19390 ppb	19:59:39
2	Sn 189.927†	2133.3	1816.9	459.60	ug/L	459.60 ppb	19:59:59
2	Ti 334.940†	1090554.8	936887.5	2488.0	ug/L	2488.0 ppb	19:59:39
2	Tl 190.801†	807.3	750.9	471.71	ug/L	471.71 ppb	19:59:59
2	U 409.014†	2756.8	4163.9	186.86	ug/L	186.86 ppb	19:59:39
2	V 292.402†	67796.0	60091.9	532.70	ug/L	532.70 ppb	19:59:39
2	Zn 213.857†	95100.2	80585.2	909.61	ug/L	909.61 ppb	19:59:39
2	SiO2†	524866.4	449352.1	40661	ug/L	40661 ppb	20:00:38
3	Sc Radial	3769.6	3769.6	116	%		19:59:03
3	Y RADIAL	5697.7	5697.7	156.3	%		19:58:43
3	Al 396.153Radial†	58818.6	50721.0	59471	ug/L	59471 ppb	19:58:43
3	Ca 317.933Radial†	7059.1	6062.1	13654	ug/L	13654 ppb	19:58:43
3	Fe 238.204 Radial†	7333.4	6304.6	84684	ug/L	84684 ppb	19:58:43
3	K 766.490 Radial†	52140.0	41683.3	9726.5	ug/L	9726.5 ppb	19:58:43
3	Mg 279.077 IEC†	321.3	276.3	12494	ug/L	12494 ppb	19:59:03
3	Na 589.592 Radial†	11799.1	11345.9	5543.9	ug/L	5543.9 ppb	19:58:43
3	Sr 421.552†	61736.2	53084.0	554.26	ug/L	554.26 ppb	19:58:43
3	Sc 361.383	643800.7	643800.7	115.58	%		20:00:06
3	Y 371.029	799112.0	799112.0	154.44	%		20:00:06
3	Ag 328.068†	86407.9	74707.6	472.22	ug/L	472.22 ppb	20:00:06
3	As 188.979†	1189.2	1073.5	503.68	ug/L	503.68 ppb	20:00:26
3	B 249.677†	22276.5	19928.7	471.82	ug/L	471.82 ppb	20:00:06
3	Ba 233.527†	54129.5	46836.1	704.52	ug/L	704.52 ppb	20:00:06
3	Be 313.107†	1233519.4	1076794.0	477.85	ug/L	477.85 ppb	20:00:06
3	Cd 226.502†	37752.5	32971.1	451.59	ug/L	451.59 ppb	20:00:26
3	Co 228.616†	15147.7	13196.4	479.00	ug/L	479.00 ppb	20:00:26
3	Cr 267.716†	43369.4	37416.5	565.74	ug/L	565.74 ppb	20:00:06
3	Cu 324.752†	137896.3	112926.4	552.03	ug/L	552.03 ppb	20:00:06
3	Mn 257.610†	1375349.8	1189330.4	2296.9	ug/L	2296.9 ppb	20:00:06
3	Mo 202.031†	5039.3	4344.0	466.24	ug/L	466.24 ppb	20:00:26
3	Ni 231.604†	17898.2	15367.8	517.66	ug/L	517.66 ppb	20:00:26
3	P 214.914†	2359.6	1730.2	778.26	ug/L	778.26 ppb	20:00:26
3	Pb 220.353†	3673.3	3273.7	587.20	ug/L	587.20 ppb	20:00:26
3	S 181.975 Axial†	4442.7	3774.9	4895.3	ug/L	4895.3 ppb	20:00:26
3	Sb 206.836†	1188.3	970.5	449.76	ug/L	449.76 ppb	20:00:26
3	Se 196.026†	568.9	525.2	491.28	ug/L	491.28 ppb	20:00:26
3	Si 251.611†	528619.8	456795.1	19317	ug/L	19317 ppb	20:00:06
3	Sn 189.927†	2079.8	1787.5	452.20	ug/L	452.20 ppb	20:00:26
3	Ti 334.940†	1077482.8	934218.4	2480.9	ug/L	2480.9 ppb	20:00:06
3	Tl 190.801†	776.5	730.6	459.66	ug/L	459.66 ppb	20:00:26
3	U 409.014†	2660.9	4102.7	184.01	ug/L	184.01 ppb	20:00:06
3	V 292.402†	67052.3	59985.6	531.71	ug/L	531.71 ppb	20:00:06
3	Zn 213.857†	93857.2	80263.3	905.97	ug/L	905.97 ppb	20:00:06
3	SiO2†	527069.2	455416.7	41210	ug/L	41210 ppb	20:00:43

Mean Data: 1202072050|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	645044.5	115.80	%	0.758				0.65%
Sc Radial	3762.8	116	%	0.4				0.39%
Y 371.029	799908.4	154.60	%	0.942				0.61%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 154.6%								
Y RADIAL	5716.4	156.8	%	1.12				0.71%
Ag 328.068†	74753.0	472.85	ug/L	0.608	472.85	ppb	0.608	0.13%
Al 396.153Radial†	51276.6	60122	ug/L	789.0	60122	ppb	789.0	1.31%
As 188.979†	1089.7	511.00	ug/L	7.096	511.00	ppb	7.096	1.39%
B 249.677†	19959.6	472.42	ug/L	1.696	472.42	ppb	1.696	0.36%
Ba 233.527†	46844.1	704.71	ug/L	0.170	704.71	ppb	0.170	0.02%
Be 313.107†	1078147.0	478.45	ug/L	0.612	478.45	ppb	0.612	0.13%
Ca 317.933Radial†	6128.0	13802	ug/L	209.2	13802	ppb	209.2	1.52%
Cd 226.502†	33378.3	457.15	ug/L	4.819	457.15	ppb	4.819	1.05%
Co 228.616†	13374.0	485.51	ug/L	5.647	485.51	ppb	5.647	1.16%
Cr 267.716†	37502.5	567.06	ug/L	1.171	567.06	ppb	1.171	0.21%
Cu 324.752†	113048.0	552.69	ug/L	0.582	552.69	ppb	0.582	0.11%
Fe 238.204 Radial†	6395.9	85911	ug/L	1411.0	85911	ppb	1411.0	1.64%

K 766.490 Radial†	42229.2	9853.9	ug/L	147.99	9853.9	ppb	147.99	1.50%
Mg 279.077 IEC†	278.6	12600	ug/L	115.3	12600	ppb	115.3	0.92%
Mn 257.610†	1191785.7	2301.7	ug/L	4.51	2301.7	ppb	4.51	0.20%
Mo 202.031†	4408.9	473.20	ug/L	6.108	473.20	ppb	6.108	1.29%
Na 589.592 Radial†	11525.0	5631.5	ug/L	92.42	5631.5	ppb	92.42	1.64%
Ni 231.604†	15575.3	524.65	ug/L	6.067	524.65	ppb	6.067	1.16%
P 214.914†	1769.6	798.83	ug/L	18.629	798.83	ppb	18.629	2.33%
Pb 220.353†	3309.2	593.57	ug/L	5.584	593.57	ppb	5.584	0.94%
S 181.975 Axial†	3845.7	4987.2	ug/L	79.75	4987.2	ppb	79.75	1.60%
Sb 206.836†	979.9	454.25	ug/L	5.407	454.25	ppb	5.407	1.19%
Se 196.026†	527.4	494.96	ug/L	6.148	494.96	ppb	6.148	1.24%
Si 251.611†	457597.7	19351	ug/L	37.0	19351	ppb	37.0	0.19%
Sn 189.927†	1808.2	457.43	ug/L	4.552	457.43	ppb	4.552	1.00%
Sr 421.552†	53769.5	561.42	ug/L	8.225	561.42	ppb	8.225	1.47%
Ti 334.940†	935651.3	2484.8	ug/L	3.57	2484.8	ppb	3.57	0.14%
Tl 190.801†	745.2	468.31	ug/L	7.547	468.31	ppb	7.547	1.61%
U 409.014†	4082.1	182.63	ug/L	5.062	182.63	ppb	5.062	2.77%
V 292.402†	60049.2	532.21	ug/L	0.498	532.21	ppb	0.498	0.09%
Zn 213.857†	80405.2	907.63	ug/L	1.839	907.63	ppb	1.839	0.20%
SiO2†	453461.9	41033	ug/L	322.4	41033	ppb	322.4	0.79%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 20
Sample ID: 1202072049|973755|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 50
Date Collected: 4/15/2010 20:02:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072049|973755|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3657.3	3657.3	113	%			20:05:08
1	Y RADIAL	4320.4	4320.4	118.5	%			20:04:48
1	Al 396.153Radial†	4995.6	4545.3	5331.3	ug/L	5331.3	ppb	20:04:48
1	Ca 317.933Radial†	766.5	668.4	1505.5	ug/L	1505.5	ppb	20:05:08
1	Fe 238.204 Radial†	1105.3	975.3	13098	ug/L	13098	ppb	20:05:08
1	K 766.490 Radial†	5868.8	2028.0	473.09	ug/L	473.09	ppb	20:04:48
1	Mg 279.077 IEC†	22.6	19.8	891.85	ug/L	891.85	ppb	20:05:08
1	Na 589.592 Radial†	-746.0	532.8	260.33	ug/L	260.33	ppb	20:04:48
1	Sr 421.552†	1532.5	1327.0	13.847	ug/L	13.847	ppb	20:04:48
1	Sc 361.383	608079.6	608079.6	109.17	%			20:06:05
1	Y 371.029	591199.2	591199.2	114.26	%			20:06:05
1	Ag 328.068†	-580.3	-584.2	0.4158	ug/L	0.4158	ppb	20:06:05
1	As 188.979†	-29.8	17.3	11.685	ug/L	11.685	ppb	20:06:25
1	B 249.677†	-282.2	396.5	8.2110	ug/L	8.2110	ppb	20:06:05
1	Ba 233.527†	2916.7	2674.9	40.659	ug/L	40.659	ppb	20:06:25
1	Be 313.107†	-9589.9	766.5	1.0058	ug/L	1.0058	ppb	20:06:05
1	Cd 226.502†	-200.5	123.8	0.5474	ug/L	0.5474	ppb	20:06:25
1	Co 228.616†	-27.5	65.4	1.6073	ug/L	1.6073	ppb	20:06:25
1	Cr 267.716†	1730.5	1478.4	22.512	ug/L	22.512	ppb	20:06:05
1	Cu 324.752†	8620.1	1514.5	8.2286	ug/L	8.2286	ppb	20:06:05
1	Mn 257.610†	171037.4	156050.5	301.62	ug/L	301.62	ppb	20:06:05
1	Mo 202.031†	34.8	15.8	2.6019	ug/L	2.6019	ppb	20:06:25
1	Ni 231.604†	489.6	330.7	11.155	ug/L	11.155	ppb	20:06:25
1	P 214.914†	448.4	99.5	47.162	ug/L	47.162	ppb	20:06:25
1	Pb 220.353†	16.4	110.6	19.833	ug/L	19.833	ppb	20:06:25
1	S 181.975 Axial†	101.8	24.2	30.845	ug/L	30.845	ppb	20:06:25
1	Sb 206.836†	61.3	-1.4	-1.1860	ug/L	-1.1860	ppb	20:06:25
1	Se 196.026†	-66.0	-27.5	6.2941	ug/L	6.2941	ppb	20:06:25
1	Si 251.611†	71589.1	65009.9	2749.9	ug/L	2749.9	ppb	20:06:05
1	Sn 189.927†	12.1	-0.8	0.2855	ug/L	0.2855	ppb	20:06:25
1	Ti 334.940†	119099.6	111077.0	295.06	ug/L	295.06	ppb	20:06:05
1	Tl 190.801†	-61.7	2.4	5.0478	ug/L	5.0478	ppb	20:06:25
1	U 409.014†	-2749.5	-718.1	-39.979	ug/L	-39.979	ppb	20:06:05
1	V 292.402†	-607.3	1415.6	10.603	ug/L	10.603	ppb	20:06:05
1	Zn 213.857†	7921.2	6313.9	72.115	ug/L	72.115	ppb	20:06:05
1	SiO2†	73349.1	66585.4	6027.0	ug/L	6027.0	ppb	20:07:22
2	Sc Radial	3572.5	3572.5	110	%			20:05:33
2	Y RADIAL	4275.9	4275.9	117.3	%			20:05:13
2	Al 396.153Radial†	4910.8	4573.4	5364.3	ug/L	5364.3	ppb	20:05:13
2	Ca 317.933Radial†	744.0	664.1	1495.7	ug/L	1495.7	ppb	20:05:33
2	Fe 238.204 Radial†	1066.5	963.4	12938	ug/L	12938	ppb	20:05:33
2	K 766.490 Radial†	5857.4	2141.1	499.51	ug/L	499.51	ppb	20:05:13
2	Mg 279.077 IEC†	23.9	21.5	968.58	ug/L	968.58	ppb	20:05:33
2	Na 589.592 Radial†	-780.8	485.5	237.23	ug/L	237.23	ppb	20:05:13
2	Sr 421.552†	1511.6	1340.3	13.985	ug/L	13.985	ppb	20:05:13
2	Sc 361.383	621319.5	621319.5	111.54	%			20:06:31
2	Y 371.029	603510.6	603510.6	116.64	%			20:06:31
2	Ag 328.068†	-656.1	-640.8	0.0356	ug/L	0.0356	ppb	20:06:31
2	As 188.979†	-48.1	1.5	4.6655	ug/L	4.6655	ppb	20:06:51
2	B 249.677†	-282.7	401.5	8.3512	ug/L	8.3512	ppb	20:06:31
2	Ba 233.527†	2901.0	2603.9	39.594	ug/L	39.594	ppb	20:06:51
2	Be 313.107†	-9750.7	809.5	1.0228	ug/L	1.0228	ppb	20:06:31
2	Cd 226.502†	-194.5	133.1	0.6911	ug/L	0.6911	ppb	20:06:51
2	Co 228.616†	-43.8	51.4	1.0982	ug/L	1.0982	ppb	20:06:51
2	Cr 267.716†	1673.6	1393.6	21.234	ug/L	21.234	ppb	20:06:31
2	Cu 324.752†	8606.7	1334.2	7.3449	ug/L	7.3449	ppb	20:06:31
2	Mn 257.610†	174211.5	155557.5	300.65	ug/L	300.65	ppb	20:06:31
2	Mo 202.031†	45.3	24.6	3.5234	ug/L	3.5234	ppb	20:06:51
2	Ni 231.604†	495.3	326.3	11.007	ug/L	11.007	ppb	20:06:51

2	P 214.914†	465.6	106.1	50.990	ug/L	50.990 ppb	20:06:51
2	Pb 220.353†	25.1	118.1	21.178	ug/L	21.178 ppb	20:06:51
2	S 181.975 Axial†	100.2	20.8	26.443	ug/L	26.443 ppb	20:06:51
2	Sb 206.836†	64.8	0.5	-0.3002	ug/L	-0.3002 ppb	20:06:51
2	Se 196.026†	-54.7	-16.1	13.270	ug/L	13.270 ppb	20:06:51
2	Si 251.611†	72964.0	64845.1	2742.9	ug/L	2742.9 ppb	20:06:31
2	Sn 189.927†	6.4	-6.1	-1.0525	ug/L	-1.0525 ppb	20:06:51
2	Ti 334.940†	121359.6	110778.3	294.26	ug/L	294.26 ppb	20:06:31
2	Tl 190.801†	-70.6	-4.4	1.0117	ug/L	1.0117 ppb	20:06:51
2	U 409.014†	-2818.5	-726.3	-40.344	ug/L	-40.344 ppb	20:06:31
2	V 292.402†	-500.0	1523.6	11.610	ug/L	11.610 ppb	20:06:31
2	Zn 213.857†	8055.2	6279.4	71.714	ug/L	71.714 ppb	20:06:31
2	SiO2†	72431.8	64331.2	5823.0	ug/L	5823.0 ppb	20:07:27
3	Sc Radial	3599.4	3599.4	111	%		20:05:58
3	Y RADIAL	4247.3	4247.3	116.5	%		20:05:38
3	Al 396.153Radial†	4879.4	4511.8	5292.0	ug/L	5292.0 ppb	20:05:38
3	Ca 317.933Radial†	748.2	662.8	1492.8	ug/L	1492.8 ppb	20:05:58
3	Fe 238.204 Radial†	1074.5	963.3	12937	ug/L	12937 ppb	20:05:58
3	K 766.490 Radial†	5719.1	1976.8	461.16	ug/L	461.16 ppb	20:05:38
3	Mg 279.077 IEC†	22.6	20.2	907.31	ug/L	907.31 ppb	20:05:58
3	Na 589.592 Radial†	-825.2	450.8	220.28	ug/L	220.28 ppb	20:05:38
3	Sr 421.552†	1510.6	1329.1	13.869	ug/L	13.869 ppb	20:05:38
3	Sc 361.383	617265.8	617265.8	110.82	%		20:06:56
3	Y 371.029	598730.6	598730.6	115.72	%		20:06:56
3	Ag 328.068†	-592.6	-587.4	0.3472	ug/L	0.3472 ppb	20:06:56
3	As 188.979†	-52.9	-3.1	2.6209	ug/L	2.6209 ppb	20:07:16
3	B 249.677†	-234.8	443.1	9.3553	ug/L	9.3553 ppb	20:06:56
3	Ba 233.527†	2897.1	2617.5	39.795	ug/L	39.795 ppb	20:07:16
3	Be 313.107†	-9826.6	683.7	0.9660	ug/L	0.9660 ppb	20:06:56
3	Cd 226.502†	-217.3	111.4	0.3906	ug/L	0.3906 ppb	20:07:16
3	Co 228.616†	-35.6	58.5	1.3602	ug/L	1.3602 ppb	20:07:16
3	Cr 267.716†	1708.5	1435.0	21.853	ug/L	21.853 ppb	20:06:56
3	Cu 324.752†	8567.0	1349.1	7.4125	ug/L	7.4125 ppb	20:06:56
3	Mn 257.610†	172596.2	155125.5	299.82	ug/L	299.82 ppb	20:06:56
3	Mo 202.031†	46.0	25.5	3.6166	ug/L	3.6166 ppb	20:07:16
3	Ni 231.604†	492.4	326.6	11.016	ug/L	11.016 ppb	20:07:16
3	P 214.914†	445.2	90.5	42.598	ug/L	42.598 ppb	20:07:16
3	Pb 220.353†	7.2	102.1	18.329	ug/L	18.329 ppb	20:07:16
3	S 181.975 Axial†	104.5	25.3	32.251	ug/L	32.251 ppb	20:07:16
3	Sb 206.836†	48.0	-14.3	-6.9727	ug/L	-6.9727 ppb	20:07:16
3	Se 196.026†	-79.2	-38.5	-1.0553	ug/L	-1.0553 ppb	20:07:16
3	Si 251.611†	72501.6	64857.4	2743.5	ug/L	2743.5 ppb	20:06:56
3	Sn 189.927†	6.7	-5.9	-0.9901	ug/L	-0.9901 ppb	20:07:16
3	Ti 334.940†	120256.5	110497.4	293.51	ug/L	293.51 ppb	20:06:56
3	Tl 190.801†	-80.1	-13.4	-4.3107	ug/L	-4.3107 ppb	20:07:16
3	U 409.014†	-2638.2	-580.1	-32.937	ug/L	-32.937 ppb	20:06:56
3	V 292.402†	-529.9	1493.7	11.357	ug/L	11.357 ppb	20:06:56
3	Zn 213.857†	7952.0	6233.7	71.200	ug/L	71.200 ppb	20:06:56
3	SiO2†	73355.2	65591.0	5937.0	ug/L	5937.0 ppb	20:07:32

Mean Data: 1202072049|973755|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	615555.0	110.51	%	1.218				1.10%
Sc Radial	3609.7	111	%	1.3				1.20%
Y 371.029	597813.5	115.54	%	1.200				1.04%
Y RADIAL	4281.2	117.5	%	1.01				0.86%
Ag 328.068†	-604.1	0.2662	ug/L	0.20265	0.2662	ppb	0.20265	76.13%
Al 396.153Radial†	4543.5	5329.2	ug/L	36.20	5329.2	ppb	36.20	0.68%
As 188.979†	5.2	6.3237	ug/L	4.75396	6.3237	ppb	4.75396	75.18%
B 249.677†	413.7	8.6392	ug/L	0.62416	8.6392	ppb	0.62416	7.22%
Ba 233.527†	2632.1	40.016	ug/L	0.5661	40.016	ppb	0.5661	1.41%
Be 313.107†	753.2	0.9982	ug/L	0.02918	0.9982	ppb	0.02918	2.92%
Ca 317.933Radial†	665.1	1498.0	ug/L	6.64	1498.0	ppb	6.64	0.44%
Cd 226.502†	122.8	0.5430	ug/L	0.15032	0.5430	ppb	0.15032	27.68%
Co 228.616†	58.4	1.3552	ug/L	0.25457	1.3552	ppb	0.25457	18.78%
Cr 267.716†	1435.7	21.866	ug/L	0.6393	21.866	ppb	0.6393	2.92%
Cu 324.752†	1399.3	7.6620	ug/L	0.49182	7.6620	ppb	0.49182	6.42%
Fe 238.204 Radial†	967.3	12991	ug/L	93.0	12991	ppb	93.0	0.72%
K 766.490 Radial†	2048.6	477.92	ug/L	19.626	477.92	ppb	19.626	4.11%

Mg 279.077 IEC†	20.5	922.58	ug/L	40.580	922.58	ppb	40.580	4.40%
Mn 257.610†	155577.8	300.69	ug/L	0.900	300.69	ppb	0.900	0.30%
Mo 202.031†	22.0	3.2473	ug/L	0.56086	3.2473	ppb	0.56086	17.27%
Na 589.592 Radial†	489.7	239.28	ug/L	20.106	239.28	ppb	20.106	8.40%
Ni 231.604†	327.9	11.059	ug/L	0.0827	11.059	ppb	0.0827	0.75%
P 214.914†	98.7	46.917	ug/L	4.2011	46.917	ppb	4.2011	8.95%
Pb 220.353†	110.2	19.780	ug/L	1.4252	19.780	ppb	1.4252	7.21%
S 181.975 Axial†	23.4	29.846	ug/L	3.0301	29.846	ppb	3.0301	10.15%
Sb 206.836†	-5.1	-2.8196	ug/L	3.62383	-2.8196	ppb	3.62383	128.52%
Se 196.026†	-27.4	6.1696	ug/L	7.16349	6.1696	ppb	7.16349	116.11%
Si 251.611†	64904.1	2745.4	ug/L	3.89	2745.4	ppb	3.89	0.14%
Sn 189.927†	-4.3	-0.5857	ug/L	0.75512	-0.5857	ppb	0.75512	128.93%
Sr 421.552†	1332.1	13.900	ug/L	0.0744	13.900	ppb	0.0744	0.54%
Ti 334.940†	110784.2	294.27	ug/L	0.772	294.27	ppb	0.772	0.26%
Tl 190.801†	-5.2	0.5829	ug/L	4.69399	0.5829	ppb	4.69399	805.26%
U 409.014†	-674.9	-37.753	ug/L	4.1750	-37.753	ppb	4.1750	11.06%
V 292.402†	1477.7	11.190	ug/L	0.5238	11.190	ppb	0.5238	4.68%
Zn 213.857†	6275.7	71.676	ug/L	0.4584	71.676	ppb	0.4584	0.64%
SiO2†	65502.5	5929.0	ug/L	102.27	5929.0	ppb	102.27	1.72%

Sequence No.: 23
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/15/2010 20:23:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3715.0	3715.0	115	%			20:25:34
1	Y RADIAL	4153.7	4153.7	114.0	%			20:25:14
1	Al 396.153Radial†	4866.0	4363.3	5094.7	ug/L	5094.7	ppb	20:25:14
1	Ca 317.933Radial†	2538.6	2204.9	4966.1	ug/L	4966.1	ppb	20:25:34
1	Fe 238.204 Radial†	428.7	369.4	4975.3	ug/L	4975.3	ppb	20:25:34
1	K 766.490 Radial†	27129.0	20507.6	4782.4	ug/L	4782.4	ppb	20:25:14
1	Mg 279.077 IEC†	128.8	112.2	5096.8	ug/L	5096.8	ppb	20:25:34
1	Na 589.592 Radial†	21895.6	20309.6	9923.8	ug/L	9923.8	ppb	20:25:14
1	Sr 421.552†	54428.1	47484.6	495.85	ug/L	495.85	ppb	20:25:14
1	Sc 361.383	648804.6	648804.6	116.48	%			20:26:33
1	Y 371.029	597518.4	597518.4	115.48	%			20:26:33
1	Ag 328.068†	93094.1	79871.3	479.30	ug/L	479.30	ppb	20:26:33
1	As 188.979†	1218.9	1091.0	485.18	ug/L	485.18	ppb	20:26:53
1	B 249.677†	22001.5	19543.9	470.87	ug/L	470.87	ppb	20:26:33
1	Ba 233.527†	37542.5	32234.4	482.13	ug/L	482.13	ppb	20:26:33
1	Be 313.107†	1260979.4	1092138.1	480.04	ug/L	480.04	ppb	20:26:33
1	Cd 226.502†	39089.6	33867.0	471.24	ug/L	471.24	ppb	20:26:53
1	Co 228.616†	15360.4	13278.0	487.31	ug/L	487.31	ppb	20:26:53
1	Cr 267.716†	36956.9	31621.8	476.99	ug/L	476.99	ppb	20:26:33
1	Cu 324.752†	122827.5	99069.2	479.43	ug/L	479.43	ppb	20:26:33
1	Mn 257.610†	291818.3	249910.0	481.16	ug/L	481.16	ppb	20:26:33
1	Mo 202.031†	5290.1	4525.7	479.86	ug/L	479.86	ppb	20:26:53
1	Ni 231.604†	16866.0	14362.1	483.69	ug/L	483.69	ppb	20:26:53
1	P 214.914†	5597.2	4494.0	2291.0	ug/L	2291.0	ppb	20:26:53
1	Pb 220.353†	3053.5	2717.1	481.61	ug/L	481.61	ppb	20:26:53
1	S 181.975 Axial†	951.0	747.5	970.07	ug/L	970.07	ppb	20:26:53
1	Sb 206.836†	1292.8	1052.3	491.73	ug/L	491.73	ppb	20:26:53
1	Se 196.026†	846.9	760.1	496.13	ug/L	496.13	ppb	20:26:53
1	Si 251.611†	67082.3	57024.4	2406.3	ug/L	2406.3	ppb	20:26:33
1	Sn 189.927†	2229.0	1901.8	477.98	ug/L	477.98	ppb	20:26:53
1	Ti 334.940†	208995.1	181406.9	481.45	ug/L	481.45	ppb	20:26:33
1	Tl 190.801†	901.9	833.1	496.59	ug/L	496.59	ppb	20:26:53
1	U 409.014†	9191.4	9691.6	488.97	ug/L	488.97	ppb	20:26:33
1	V 292.402†	59916.0	53411.5	486.21	ug/L	486.21	ppb	20:26:33
1	Zn 213.857†	50606.6	42505.1	474.40	ug/L	474.40	ppb	20:26:33
1	SiO2†	64694.3	54937.5	4959.7	ug/L	4959.7	ppb	20:27:53
2	Sc Radial	3656.1	3656.1	113	%			20:25:59
2	Y RADIAL	4180.3	4180.3	114.7	%			20:25:39
2	Al 396.153Radial†	4938.0	4495.6	5250.2	ug/L	5250.2	ppb	20:25:39
2	Ca 317.933Radial†	2517.8	2222.2	5005.0	ug/L	5005.0	ppb	20:25:59
2	Fe 238.204 Radial†	426.3	373.3	5028.1	ug/L	5028.1	ppb	20:25:59
2	K 766.490 Radial†	27215.1	20965.3	4889.1	ug/L	4889.1	ppb	20:25:39
2	Mg 279.077 IEC†	128.3	113.7	5160.8	ug/L	5160.8	ppb	20:25:59
2	Na 589.592 Radial†	22021.0	20728.6	10129	ug/L	10129	ppb	20:25:39
2	Sr 421.552†	54922.6	48688.3	508.42	ug/L	508.42	ppb	20:25:39
2	Sc 361.383	633621.4	633621.4	113.75	%			20:27:00
2	Y 371.029	583471.1	583471.1	112.77	%			20:27:00
2	Ag 328.068†	90996.3	79942.3	479.75	ug/L	479.75	ppb	20:27:00
2	As 188.979†	1180.1	1082.0	481.22	ug/L	481.22	ppb	20:27:20
2	B 249.677†	21399.6	19467.4	469.02	ug/L	469.02	ppb	20:27:00
2	Ba 233.527†	36737.6	32299.2	483.10	ug/L	483.10	ppb	20:27:00
2	Be 313.107†	1236536.4	1096591.8	481.99	ug/L	481.99	ppb	20:27:00
2	Cd 226.502†	37800.5	33538.0	466.66	ug/L	466.66	ppb	20:27:20
2	Co 228.616†	14855.7	13150.3	482.61	ug/L	482.61	ppb	20:27:20
2	Cr 267.716†	36346.5	31845.5	480.36	ug/L	480.36	ppb	20:27:00
2	Cu 324.752†	119955.4	99071.2	479.45	ug/L	479.45	ppb	20:27:00
2	Mn 257.610†	286323.2	251082.7	483.42	ug/L	483.42	ppb	20:27:00
2	Mo 202.031†	5100.4	4467.7	473.73	ug/L	473.73	ppb	20:27:20
2	Ni 231.604†	16315.0	14224.8	479.07	ug/L	479.07	ppb	20:27:20

2	P 214.914†	5407.4	4442.4	2263.4 ug/L	2263.4 ppb	20:27:20
2	Pb 220.353†	2949.2	2688.2	476.54 ug/L	476.54 ppb	20:27:20
2	S 181.975 Axial†	929.6	748.2	971.07 ug/L	971.07 ppb	20:27:20
2	Sb 206.836†	1272.5	1061.0	495.46 ug/L	495.46 ppb	20:27:20
2	Se 196.026†	817.5	751.6	490.83 ug/L	490.83 ppb	20:27:20
2	Si 251.611†	65705.7	57194.3	2413.5 ug/L	2413.5 ppb	20:27:00
2	Sn 189.927†	2155.0	1882.6	473.19 ug/L	473.19 ppb	20:27:20
2	Ti 334.940†	204337.2	181611.7	481.99 ug/L	481.99 ppb	20:27:00
2	Tl 190.801†	859.5	814.5	485.57 ug/L	485.57 ppb	20:27:20
2	U 409.014†	8959.9	9677.2	488.22 ug/L	488.22 ppb	20:27:00
2	V 292.402†	58710.8	53584.6	487.67 ug/L	487.67 ppb	20:27:00
2	Zn 213.857†	49634.2	42691.4	476.53 ug/L	476.53 ppb	20:27:00
2	SiO2†	64609.9	56194.2	5073.6 ug/L	5073.6 ppb	20:27:58
3	Sc Radial	3707.4	3707.4	114 %		20:26:24
3	Y RADIAL	4187.2	4187.2	114.9 %		20:26:04
3	Al 396.153Radial†	4912.8	4412.9	5153.0 ug/L	5153.0 ppb	20:26:04
3	Ca 317.933Radial†	2540.2	2210.8	4979.4 ug/L	4979.4 ppb	20:26:24
3	Fe 238.204 Radial†	426.4	368.1	4958.6 ug/L	4958.6 ppb	20:26:24
3	K 766.490 Radial†	27293.6	20700.1	4827.3 ug/L	4827.3 ppb	20:26:04
3	Mg 279.077 IEC†	130.5	114.0	5175.9 ug/L	5175.9 ppb	20:26:24
3	Na 589.592 Radial†	22078.3	20508.5	10021 ug/L	10021 ppb	20:26:04
3	Sr 421.552†	54951.8	48040.1	501.65 ug/L	501.65 ppb	20:26:04
3	Sc 361.383	630411.0	630411.0	113.18 %		20:27:27
3	Y 371.029	580891.2	580891.2	112.27 %		20:27:27
3	Ag 328.068†	90721.3	80106.8	480.71 ug/L	480.71 ppb	20:27:27
3	As 188.979†	1186.4	1092.9	485.99 ug/L	485.99 ppb	20:27:48
3	B 249.677†	21429.9	19590.0	471.99 ug/L	471.99 ppb	20:27:27
3	Ba 233.527†	36548.3	32296.4	483.06 ug/L	483.06 ppb	20:27:27
3	Be 313.107†	1230114.9	1096453.7	481.93 ug/L	481.93 ppb	20:27:27
3	Cd 226.502†	37825.6	33729.4	469.33 ug/L	469.33 ppb	20:27:48
3	Co 228.616†	14839.1	13202.1	484.52 ug/L	484.52 ppb	20:27:48
3	Cr 267.716†	36162.1	31845.2	480.36 ug/L	480.36 ppb	20:27:27
3	Cu 324.752†	119243.8	98979.5	479.00 ug/L	479.00 ppb	20:27:27
3	Mn 257.610†	284399.6	250664.9	482.61 ug/L	482.61 ppb	20:27:27
3	Mo 202.031†	5122.3	4509.9	478.19 ug/L	478.19 ppb	20:27:48
3	Ni 231.604†	16340.9	14320.7	482.30 ug/L	482.30 ppb	20:27:48
3	P 214.914†	5378.6	4441.1	2262.8 ug/L	2262.8 ppb	20:27:48
3	Pb 220.353†	2966.5	2716.7	481.56 ug/L	481.56 ppb	20:27:48
3	S 181.975 Axial†	919.4	743.3	964.71 ug/L	964.71 ppb	20:27:48
3	Sb 206.836†	1250.0	1046.8	489.16 ug/L	489.16 ppb	20:27:48
3	Se 196.026†	821.2	758.5	495.12 ug/L	495.12 ppb	20:27:48
3	Si 251.611†	65212.2	57052.4	2407.5 ug/L	2407.5 ppb	20:27:27
3	Sn 189.927†	2146.5	1884.7	473.70 ug/L	473.70 ppb	20:27:48
3	Ti 334.940†	203408.7	181706.1	482.24 ug/L	482.24 ppb	20:27:27
3	Tl 190.801†	866.3	824.3	491.39 ug/L	491.39 ppb	20:27:48
3	U 409.014†	8870.1	9638.0	486.25 ug/L	486.25 ppb	20:27:27
3	V 292.402†	58407.3	53579.3	487.69 ug/L	487.69 ppb	20:27:27
3	Zn 213.857†	49408.6	42714.2	476.76 ug/L	476.76 ppb	20:27:27
3	SiO2†	65873.7	57600.2	5200.7 ug/L	5200.7 ppb	20:28:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	637612.3	114.47	%	1.764				1.54%
Sc Radial	3692.8	114	%	1.0				0.87%
Y 371.029	587293.6	113.51	%	1.729				1.52%
Y RADIAL	4173.7	114.5	%	0.49				0.42%
Ag 328.068†	79973.5	479.92	ug/L	0.719	479.92	ppb	0.719	0.15%
QC value within limits for Ag 328.068 Recovery = 95.98%								
Al 396.153Radial†	4423.9	5165.9	ug/L	78.54	5165.9	ppb	78.54	1.52%
QC value within limits for Al 396.153Radial Recovery = 103.32%								
As 188.979†	1088.6	484.13	ug/L	2.553	484.13	ppb	2.553	0.53%
QC value within limits for As 188.979 Recovery = 96.83%								
B 249.677†	19533.8	470.63	ug/L	1.499	470.63	ppb	1.499	0.32%
QC value within limits for B 249.677 Recovery = 94.13%								
Ba 233.527†	32276.7	482.76	ug/L	0.549	482.76	ppb	0.549	0.11%
QC value within limits for Ba 233.527 Recovery = 96.55%								
Be 313.107†	1095061.2	481.32	ug/L	1.111	481.32	ppb	1.111	0.23%
QC value within limits for Be 313.107 Recovery = 96.26%								
Ca 317.933Radial†	2212.6	4983.5	ug/L	19.75	4983.5	ppb	19.75	0.40%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.67%
Cd 226.502†            33711.5      469.08 ug/L         2.304      469.08 ppb          2.304   0.49%
   QC value within limits for Cd 226.502  Recovery = 93.82%
Co 228.616†            13210.1      484.81 ug/L         2.365      484.81 ppb          2.365   0.49%
   QC value within limits for Co 228.616  Recovery = 96.96%
Cr 267.716†            31770.8      479.24 ug/L         1.946      479.24 ppb          1.946   0.41%
   QC value within limits for Cr 267.716  Recovery = 95.85%
Cu 324.752†            99040.0      479.30 ug/L         0.255      479.30 ppb          0.255   0.05%
   QC value within limits for Cu 324.752  Recovery = 95.86%
Fe 238.204 Radial†       370.3      4987.3 ug/L         36.30      4987.3 ppb          36.30   0.73%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.75%
K 766.490 Radial†      20724.3      4832.9 ug/L         53.61      4832.9 ppb          53.61   1.11%
   QC value within limits for K 766.490 Radial  Recovery = 96.66%
Mg 279.077 IEC†          113.3      5144.5 ug/L         42.01      5144.5 ppb          42.01   0.82%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.89%
Mn 257.610†           250552.6      482.40 ug/L         1.144      482.40 ppb          1.144   0.24%
   QC value within limits for Mn 257.610  Recovery = 96.48%
Mo 202.031†             4501.1      477.26 ug/L         3.170      477.26 ppb          3.170   0.66%
   QC value within limits for Mo 202.031  Recovery = 95.45%
Na 589.592 Radial†     20515.6       10024 ug/L         102.4       10024 ppb          102.4   1.02%
   QC value within limits for Na 589.592 Radial  Recovery = 100.24%
Ni 231.604†            14302.6      481.69 ug/L         2.372      481.69 ppb          2.372   0.49%
   QC value within limits for Ni 231.604  Recovery = 96.34%
P 214.914†              4459.1      2272.4 ug/L         16.12      2272.4 ppb          16.12   0.71%
   QC value within limits for P 214.914  Recovery = 90.90%
Pb 220.353†             2707.3      479.90 ug/L         2.917      479.90 ppb          2.917   0.61%
   QC value within limits for Pb 220.353  Recovery = 95.98%
S 181.975 Axial†         746.3      968.62 ug/L         3.420      968.62 ppb          3.420   0.35%
   QC value within limits for S 181.975 Axial  Recovery = 96.86%
Sb 206.836†             1053.4      492.12 ug/L         3.169      492.12 ppb          3.169   0.64%
   QC value within limits for Sb 206.836  Recovery = 98.42%
Se 196.026†              756.7      494.03 ug/L         2.816      494.03 ppb          2.816   0.57%
   QC value within limits for Se 196.026  Recovery = 98.81%
Si 251.611†            57090.4      2409.1 ug/L          3.89      2409.1 ppb           3.89   0.16%
   QC value within limits for Si 251.611  Recovery = 96.36%
Sn 189.927†             1889.7      474.96 ug/L         2.634      474.96 ppb          2.634   0.55%
   QC value within limits for Sn 189.927  Recovery = 94.99%
Sr 421.552†            48071.0      501.97 ug/L         6.291      501.97 ppb          6.291   1.25%
   QC value within limits for Sr 421.552  Recovery = 100.39%
Ti 334.940†           181574.9      481.89 ug/L         0.404      481.89 ppb          0.404   0.08%
   QC value within limits for Ti 334.940  Recovery = 96.38%
Tl 190.801†              824.0      491.18 ug/L         5.514      491.18 ppb          5.514   1.12%
   QC value within limits for Tl 190.801  Recovery = 98.24%
U 409.014†              9668.9      487.82 ug/L         1.406      487.82 ppb          1.406   0.29%
   QC value within limits for U 409.014  Recovery = 97.56%
V 292.402†             53525.1      487.19 ug/L         0.848      487.19 ppb          0.848   0.17%
   QC value within limits for V 292.402  Recovery = 97.44%
Zn 213.857†            42636.9      475.90 ug/L         1.300      475.90 ppb          1.300   0.27%
   QC value within limits for Zn 213.857  Recovery = 95.18%
SiO2†                  56244.0      5078.0 ug/L        120.59      5078.0 ppb         120.59   2.37%
   QC value within limits for SiO2  Recovery = 94.96%
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/15/2010 20:30:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3725.6	3725.6	115	%			20:32:25
1	Y RADIAL	4103.1	4103.1	112.6	%			20:32:05
1	Al 396.153Radial†	-108.8	20.5	24.053	ug/L	24.053	ppb	20:32:05
1	Ca 317.933Radial†	16.7	3.2	7.2394	ug/L	7.2394	ppb	20:32:25
1	Fe 238.204 Radial†	4.1	-1.3	-17.218	ug/L	-17.218	ppb	20:32:25
1	K 766.490 Radial†	3018.4	-548.8	-128.15	ug/L	-128.15	ppb	20:32:05
1	Mg 279.077 IEC†	1.3	0.9	42.690	ug/L	42.690	ppb	20:32:25
1	Na 589.592 Radial†	-1227.6	125.7	61.429	ug/L	61.429	ppb	20:32:05
1	Sr 421.552†	64.6	24.3	0.2535	ug/L	0.2535	ppb	20:32:05
1	Sc 361.383	598431.8	598431.8	107.44	%			20:33:22
1	Y 371.029	554818.8	554818.8	107.23	%			20:33:22
1	Ag 328.068†	22.4	-31.8	-0.1962	ug/L	-0.1962	ppb	20:33:22
1	As 188.979†	-41.9	5.6	2.4777	ug/L	2.4777	ppb	20:33:42
1	B 249.677†	-487.1	201.6	4.8789	ug/L	4.8789	ppb	20:33:22
1	Ba 233.527†	13.5	15.7	0.2353	ug/L	0.2353	ppb	20:33:42
1	Be 313.107†	-10066.9	180.9	0.0803	ug/L	0.0803	ppb	20:33:22
1	Cd 226.502†	-299.5	28.7	0.4029	ug/L	0.4029	ppb	20:33:42
1	Co 228.616†	-92.3	4.7	0.1720	ug/L	0.1720	ppb	20:33:42
1	Cr 267.716†	216.9	95.1	1.4310	ug/L	1.4310	ppb	20:33:22
1	Cu 324.752†	6596.8	-241.5	-1.1743	ug/L	-1.1743	ppb	20:33:22
1	Mn 257.610†	576.2	-88.0	-0.1729	ug/L	-0.1729	ppb	20:33:22
1	Mo 202.031†	22.8	5.2	0.5526	ug/L	0.5526	ppb	20:33:42
1	Ni 231.604†	126.5	0.0	0.0003	ug/L	0.0003	ppb	20:33:42
1	P 214.914†	327.2	-6.8	-3.3017	ug/L	-3.3017	ppb	20:33:42
1	Pb 220.353†	-101.8	0.9	0.1620	ug/L	0.1620	ppb	20:33:42
1	S 181.975 Axial†	73.0	-1.1	-1.3948	ug/L	-1.3948	ppb	20:33:42
1	Sb 206.836†	54.9	-6.5	-2.8640	ug/L	-2.8640	ppb	20:33:42
1	Se 196.026†	-34.0	1.4	0.8376	ug/L	0.8376	ppb	20:33:42
1	Si 251.611†	581.6	-26.2	-1.1162	ug/L	-1.1162	ppb	20:33:42
1	Sn 189.927†	22.3	8.8	2.2208	ug/L	2.2208	ppb	20:33:42
1	Ti 334.940†	-1957.0	157.1	0.4111	ug/L	0.4111	ppb	20:33:22
1	Tl 190.801†	-50.0	12.3	7.2678	ug/L	7.2678	ppb	20:33:42
1	U 409.014†	-1792.7	131.8	6.6860	ug/L	6.6860	ppb	20:33:22
1	V 292.402†	-2008.5	102.4	0.9420	ug/L	0.9420	ppb	20:33:22
1	Zn 213.857†	968.6	-40.5	-0.4557	ug/L	-0.4557	ppb	20:33:42
1	SiO2†	654.9	5.2	0.4563	ug/L	0.4563	ppb	20:34:38
2	Sc Radial	3646.9	3646.9	112	%			20:32:50
2	Y RADIAL	4147.2	4147.2	113.8	%			20:32:30
2	Al 396.153Radial†	-111.2	16.3	19.101	ug/L	19.101	ppb	20:32:30
2	Ca 317.933Radial†	11.4	-1.3	-2.8189	ug/L	-2.8189	ppb	20:32:50
2	Fe 238.204 Radial†	4.0	-1.3	-17.069	ug/L	-17.069	ppb	20:32:50
2	K 766.490 Radial†	2969.4	-535.7	-125.08	ug/L	-125.08	ppb	20:32:30
2	Mg 279.077 IEC†	3.5	3.0	134.59	ug/L	134.59	ppb	20:32:50
2	Na 589.592 Radial†	-1256.7	76.7	37.497	ug/L	37.497	ppb	20:32:30
2	Sr 421.552†	35.2	-0.7	-0.0068	ug/L	-0.0068	ppb	20:32:30
2	Sc 361.383	630163.9	630163.9	113.13	%			20:33:48
2	Y 371.029	585388.2	585388.2	113.14	%			20:33:48
2	Ag 328.068†	91.3	28.1	0.1609	ug/L	0.1609	ppb	20:33:48
2	As 188.979†	-36.9	12.0	5.2806	ug/L	5.2806	ppb	20:34:08
2	B 249.677†	-460.1	248.3	6.0101	ug/L	6.0101	ppb	20:33:48
2	Ba 233.527†	-16.9	-11.8	-0.1747	ug/L	-0.1747	ppb	20:34:08
2	Be 313.107†	-10177.5	555.0	0.2448	ug/L	0.2448	ppb	20:33:48
2	Cd 226.502†	-325.8	19.5	0.2742	ug/L	0.2742	ppb	20:34:08
2	Co 228.616†	-112.4	-8.8	-0.3224	ug/L	-0.3224	ppb	20:34:08
2	Cr 267.716†	176.9	49.6	0.7461	ug/L	0.7461	ppb	20:33:48
2	Cu 324.752†	6753.3	-412.3	-2.0013	ug/L	-2.0013	ppb	20:33:48
2	Mn 257.610†	662.0	-39.2	-0.0828	ug/L	-0.0828	ppb	20:33:48
2	Mo 202.031†	21.3	2.8	0.2967	ug/L	0.2967	ppb	20:34:08
2	Ni 231.604†	123.2	-8.9	-0.2983	ug/L	-0.2983	ppb	20:34:08

2	P 214.914†	316.2	-31.8	-16.515 ug/L	-16.515 ppb	20:34:08
2	Pb 220.353†	-121.9	-12.2	-2.1493 ug/L	-2.1493 ppb	20:34:08
2	S 181.975 Axial†	75.9	-1.9	-2.4371 ug/L	-2.4371 ppb	20:34:08
2	Sb 206.836†	44.5	-18.3	-8.2061 ug/L	-8.2061 ppb	20:34:08
2	Se 196.026†	-40.7	-3.0	-1.9332 ug/L	-1.9332 ppb	20:34:08
2	Si 251.611†	602.9	-34.7	-1.4725 ug/L	-1.4725 ppb	20:34:08
2	Sn 189.927†	18.6	4.5	1.1355 ug/L	1.1355 ppb	20:34:08
2	Ti 334.940†	-1962.6	243.8	0.6339 ug/L	0.6339 ppb	20:33:48
2	Tl 190.801†	-63.3	2.9	1.7126 ug/L	1.7126 ppb	20:34:08
2	U 409.014†	-1885.7	133.7	6.7798 ug/L	6.7798 ppb	20:33:48
2	V 292.402†	-2105.0	111.3	1.0202 ug/L	1.0202 ppb	20:33:48
2	Zn 213.857†	963.5	-90.5	-1.0139 ug/L	-1.0139 ppb	20:34:08
2	SiO2†	597.8	-76.0	-6.8888 ug/L	-6.8888 ppb	20:34:43
3	Sc Radial	3581.9	3581.9	110 %		20:33:15
3	Y RADIAL	4015.8	4015.8	110.2 %		20:32:55
3	Al 396.153Radial†	-108.3	17.2	20.047 ug/L	20.047 ppb	20:32:55
3	Ca 317.933Radial†	8.3	-3.8	-8.6334 ug/L	-8.6334 ppb	20:33:15
3	Fe 238.204 Radial†	4.1	-1.2	-15.960 ug/L	-15.960 ppb	20:33:15
3	K 766.490 Radial†	3123.1	-348.7	-81.427 ug/L	-81.427 ppb	20:32:55
3	Mg 279.077 IEC†	4.2	3.6	165.04 ug/L	165.04 ppb	20:33:15
3	Na 589.592 Radial†	-1205.7	102.7	50.173 ug/L	50.173 ppb	20:32:55
3	Sr 421.552†	29.0	-5.8	-0.0600 ug/L	-0.0600 ppb	20:32:55
3	Sc 361.383	612366.7	612366.7	109.94 %		20:34:13
3	Y 371.029	568414.3	568414.3	109.86 %		20:34:13
3	Ag 328.068†	74.7	15.3	0.0912 ug/L	0.0912 ppb	20:34:13
3	As 188.979†	-43.6	4.9	2.1844 ug/L	2.1844 ppb	20:34:33
3	B 249.677†	-515.5	186.0	4.5015 ug/L	4.5015 ppb	20:34:13
3	Ba 233.527†	-30.6	-24.7	-0.3664 ug/L	-0.3664 ppb	20:34:33
3	Be 313.107†	-10090.3	372.9	0.1650 ug/L	0.1650 ppb	20:34:13
3	Cd 226.502†	-313.7	22.2	0.3102 ug/L	0.3102 ppb	20:34:33
3	Co 228.616†	-92.8	6.2	0.2307 ug/L	0.2307 ppb	20:34:33
3	Cr 267.716†	159.0	37.9	0.5718 ug/L	0.5718 ppb	20:34:13
3	Cu 324.752†	6658.1	-325.5	-1.5780 ug/L	-1.5780 ppb	20:34:13
3	Mn 257.610†	674.9	-10.4	-0.0285 ug/L	-0.0285 ppb	20:34:13
3	Mo 202.031†	34.9	15.8	1.6697 ug/L	1.6697 ppb	20:34:33
3	Ni 231.604†	126.0	-3.1	-0.1062 ug/L	-0.1062 ppb	20:34:33
3	P 214.914†	322.3	-18.1	-9.2691 ug/L	-9.2691 ppb	20:34:33
3	Pb 220.353†	-101.7	3.1	0.5602 ug/L	0.5602 ppb	20:34:33
3	S 181.975 Axial†	70.7	-4.7	-6.0743 ug/L	-6.0743 ppb	20:34:33
3	Sb 206.836†	51.7	-10.5	-4.6547 ug/L	-4.6547 ppb	20:34:33
3	Se 196.026†	-23.4	11.7	7.4414 ug/L	7.4414 ppb	20:34:33
3	Si 251.611†	571.7	-47.6	-2.0336 ug/L	-2.0336 ppb	20:34:33
3	Sn 189.927†	27.2	12.9	3.2321 ug/L	3.2321 ppb	20:34:33
3	Ti 334.940†	-1895.3	254.6	0.6624 ug/L	0.6624 ppb	20:34:13
3	Tl 190.801†	-51.4	12.1	7.1796 ug/L	7.1796 ppb	20:34:33
3	U 409.014†	-1965.4	12.8	0.6502 ug/L	0.6502 ppb	20:34:13
3	V 292.402†	-2016.8	137.3	1.2630 ug/L	1.2630 ppb	20:34:13
3	Zn 213.857†	956.8	-71.8	-0.8056 ug/L	-0.8056 ppb	20:34:33
3	SiO2†	621.8	-38.8	-3.5584 ug/L	-3.5584 ppb	20:34:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	613654.1	110.17	%	2.855				2.59%
Sc Radial	3651.5	113	%	2.2				1.97%
Y 371.029	569540.4	110.07	%	2.960				2.69%
Y RADIAL	4088.7	112.2	%	1.83				1.64%
Ag 328.068†	3.9	0.0186	ug/L	0.18932	0.0186	ppb	0.18932	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	18.0	21.067	ug/L	2.6288	21.067	ppb	2.6288	12.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.5	3.3142	ug/L	1.70920	3.3142	ppb	1.70920	51.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	212.0	5.1302	ug/L	0.78509	5.1302	ppb	0.78509	15.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.9	-0.1020	ug/L	0.30736	-0.1020	ppb	0.30736	301.45%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	369.6	0.1634	ug/L	0.08230	0.1634	ppb	0.08230	50.37%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.6	-1.4043	ug/L	8.03037	-1.4043	ppb	8.03037	571.84%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              23.5      0.3291 ug/L       0.06642      0.3291 ppb        0.06642  20.18%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               0.7      0.0268 ug/L       0.30380      0.0268 ppb        0.30380 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              60.9      0.9163 ug/L       0.45416      0.9163 ppb        0.45416  49.57%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -326.4     -1.5845 ug/L       0.41353     -1.5845 ppb        0.41353  26.10%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.2     -16.749 ug/L        0.6876     -16.749 ppb         0.6876   4.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -477.7     -111.55 ug/L        26.134     -111.55 ppb         26.134  23.43%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.5      114.11 ug/L        63.697      114.11 ppb         63.697  55.82%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -45.9     -0.0947 ug/L       0.07294     -0.0947 ppb        0.07294  76.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               7.9      0.8397 ug/L       0.73015      0.8397 ppb        0.73015  86.96%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       101.7      49.700 ug/L       11.9729      49.700 ppb        11.9729  24.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.0     -0.1347 ug/L       0.15137     -0.1347 ppb        0.15137 112.36%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -18.9     -9.6952 ug/L       6.61675     -9.6952 ppb        6.61675  68.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -2.8     -0.4757 ug/L       1.46301     -0.4757 ppb        1.46301 307.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.5     -3.3021 ug/L       2.45674     -3.3021 ppb        2.45674  74.40%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -11.7     -5.2416 ug/L       2.71900     -5.2416 ppb        2.71900  51.87%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.4      2.1153 ug/L       4.81615      2.1153 ppb        4.81615 227.69%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -36.2     -1.5408 ug/L       0.46249     -1.5408 ppb        0.46249  30.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.8      2.1961 ug/L       1.04851      2.1961 ppb        1.04851  47.74%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               6.0      0.0622 ug/L       0.16779      0.0622 ppb        0.16779 269.66%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             218.5      0.5691 ug/L       0.13758      0.5691 ppb        0.13758  24.17%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               9.1      5.3866 ug/L       3.18215      5.3866 ppb        3.18215  59.07%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               92.8      4.7053 ug/L       3.51215      4.7053 ppb        3.51215  74.64%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              117.0      1.0750 ug/L       0.16737      1.0750 ppb        0.16737  15.57%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -67.6     -0.7584 ug/L       0.28208     -0.7584 ppb        0.28208  37.19%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -36.5     -3.3303 ug/L       3.67783     -3.3303 ppb        3.67783 110.44%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 33
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/15/2010 21:31:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3586.6	3586.6	111	%			21:34:02
1	Y RADIAL	4019.0	4019.0	110.3	%			21:33:42
1	Al 396.153Radial†	4803.8	4459.1	5207.1	ug/L	5207.1	ppb	21:33:42
1	Ca 317.933Radial†	2455.6	2209.1	4975.6	ug/L	4975.6	ppb	21:34:02
1	Fe 238.204 Radial†	407.8	363.9	4901.1	ug/L	4901.1	ppb	21:34:02
1	K 766.490 Radial†	26429.9	20723.1	4832.8	ug/L	4832.8	ppb	21:33:42
1	Mg 279.077 IEC†	124.7	112.5	5110.1	ug/L	5110.1	ppb	21:34:02
1	Na 589.592 Radial†	20502.1	19733.6	9642.4	ug/L	9642.4	ppb	21:33:42
1	Sr 421.552†	52399.3	47350.7	494.45	ug/L	494.45	ppb	21:33:42
1	Sc 361.383	625463.3	625463.3	112.29	%			21:35:00
1	Y 371.029	576591.4	576591.4	111.44	%			21:35:00
1	Ag 328.068†	89152.0	79343.2	476.13	ug/L	476.13	ppb	21:35:00
1	As 188.979†	1177.4	1093.2	486.08	ug/L	486.08	ppb	21:35:21
1	B 249.677†	20715.0	19103.1	460.22	ug/L	460.22	ppb	21:35:00
1	Ba 233.527†	35889.2	31964.9	478.10	ug/L	478.10	ppb	21:35:00
1	Be 313.107†	1209239.2	1086460.3	477.54	ug/L	477.54	ppb	21:35:00
1	Cd 226.502†	37473.0	33679.7	468.64	ug/L	468.64	ppb	21:35:21
1	Co 228.616†	14732.4	13210.8	484.85	ug/L	484.85	ppb	21:35:21
1	Cr 267.716†	35434.9	31450.3	474.41	ug/L	474.41	ppb	21:35:00
1	Cu 324.752†	117044.6	97854.4	473.56	ug/L	473.56	ppb	21:35:00
1	Mn 257.610†	278830.1	247692.7	476.89	ug/L	476.89	ppb	21:35:00
1	Mo 202.031†	5087.9	4515.1	478.74	ug/L	478.74	ppb	21:35:21
1	Ni 231.604†	16199.1	14308.7	481.89	ug/L	481.89	ppb	21:35:21
1	P 214.914†	5357.3	4459.7	2274.1	ug/L	2274.1	ppb	21:35:21
1	Pb 220.353†	2936.9	2711.1	480.60	ug/L	480.60	ppb	21:35:21
1	S 181.975 Axial†	893.6	726.8	943.20	ug/L	943.20	ppb	21:35:21
1	Sb 206.836†	1249.0	1054.7	492.73	ug/L	492.73	ppb	21:35:21
1	Se 196.026†	808.3	752.8	491.37	ug/L	491.37	ppb	21:35:21
1	Si 251.611†	63962.1	56395.0	2379.6	ug/L	2379.6	ppb	21:35:00
1	Sn 189.927†	2130.0	1885.1	473.79	ug/L	473.79	ppb	21:35:21
1	Ti 334.940†	199815.4	179927.7	477.53	ug/L	477.53	ppb	21:35:00
1	Tl 190.801†	853.7	819.1	488.27	ug/L	488.27	ppb	21:35:21
1	U 409.014†	8596.8	9456.5	477.08	ug/L	477.08	ppb	21:35:00
1	V 292.402†	57349.2	53045.2	482.90	ug/L	482.90	ppb	21:35:00
1	Zn 213.857†	48502.1	42252.3	471.58	ug/L	471.58	ppb	21:35:00
1	SiO2†	62229.7	54815.3	4948.7	ug/L	4948.7	ppb	21:36:21
2	Sc Radial	3585.6	3585.6	111	%			21:34:27
2	Y RADIAL	4050.8	4050.8	111.1	%			21:34:07
2	Al 396.153Radial†	4825.7	4480.1	5231.7	ug/L	5231.7	ppb	21:34:07
2	Ca 317.933Radial†	2452.0	2206.5	4969.8	ug/L	4969.8	ppb	21:34:27
2	Fe 238.204 Radial†	405.1	361.5	4869.8	ug/L	4869.8	ppb	21:34:27
2	K 766.490 Radial†	26584.6	20869.8	4867.0	ug/L	4867.0	ppb	21:34:07
2	Mg 279.077 IEC†	125.6	113.4	5150.5	ug/L	5150.5	ppb	21:34:27
2	Na 589.592 Radial†	20421.0	19665.5	9609.1	ug/L	9609.1	ppb	21:34:07
2	Sr 421.552†	52494.0	47449.7	495.48	ug/L	495.48	ppb	21:34:07
2	Sc 361.383	620937.1	620937.1	111.48	%			21:35:28
2	Y 371.029	572235.4	572235.4	110.59	%			21:35:28
2	Ag 328.068†	88652.4	79473.8	476.90	ug/L	476.90	ppb	21:35:28
2	As 188.979†	1167.9	1092.3	485.71	ug/L	485.71	ppb	21:35:48
2	B 249.677†	20733.7	19254.4	463.88	ug/L	463.88	ppb	21:35:28
2	Ba 233.527†	35664.4	31996.2	478.57	ug/L	478.57	ppb	21:35:28
2	Be 313.107†	1203335.6	1089014.3	478.66	ug/L	478.66	ppb	21:35:28
2	Cd 226.502†	37216.1	33692.6	468.82	ug/L	468.82	ppb	21:35:48
2	Co 228.616†	14590.9	13179.6	483.70	ug/L	483.70	ppb	21:35:48
2	Cr 267.716†	35355.2	31608.9	476.79	ug/L	476.79	ppb	21:35:28
2	Cu 324.752†	116597.7	98213.3	475.29	ug/L	475.29	ppb	21:35:28
2	Mn 257.610†	277120.1	247968.7	477.41	ug/L	477.41	ppb	21:35:28
2	Mo 202.031†	5049.6	4513.7	478.59	ug/L	478.59	ppb	21:35:48
2	Ni 231.604†	16098.7	14323.7	482.40	ug/L	482.40	ppb	21:35:48

2	P 214.914†	5318.4	4459.6	2273.6	ug/L	2273.6 ppb	21:35:48
2	Pb 220.353†	2936.2	2729.5	483.85	ug/L	483.85 ppb	21:35:48
2	S 181.975 Axial†	900.0	738.4	958.25	ug/L	958.25 ppb	21:35:48
2	Sb 206.836†	1243.7	1058.1	494.17	ug/L	494.17 ppb	21:35:48
2	Se 196.026†	796.6	747.6	487.99	ug/L	487.99 ppb	21:35:48
2	Si 251.611†	63629.6	56511.9	2384.6	ug/L	2384.6 ppb	21:35:28
2	Sn 189.927†	2100.0	1872.0	470.51	ug/L	470.51 ppb	21:35:48
2	Ti 334.940†	198616.9	180149.7	478.11	ug/L	478.11 ppb	21:35:28
2	Tl 190.801†	834.8	807.7	481.50	ug/L	481.50 ppb	21:35:48
2	U 409.014†	8708.4	9612.4	484.99	ug/L	484.99 ppb	21:35:28
2	V 292.402†	57102.2	53195.9	484.27	ug/L	484.27 ppb	21:35:28
2	Zn 213.857†	48281.9	42369.6	472.88	ug/L	472.88 ppb	21:35:28
2	SiO2†	62173.4	55168.8	4980.7	ug/L	4980.7 ppb	21:36:26
3	Sc Radial	3600.5	3600.5	111	%		21:34:52
3	Y RADIAL	4065.3	4065.3	111.5	%		21:34:32
3	Al 396.153Radial†	4785.5	4425.8	5168.2	ug/L	5168.2 ppb	21:34:32
3	Ca 317.933Radial†	2447.2	2193.0	4939.3	ug/L	4939.3 ppb	21:34:52
3	Fe 238.204 Radial†	401.8	357.1	4810.0	ug/L	4810.0 ppb	21:34:52
3	K 766.490 Radial†	26399.6	20603.5	4804.9	ug/L	4804.9 ppb	21:34:32
3	Mg 279.077 IEC†	122.9	110.6	5020.0	ug/L	5020.0 ppb	21:34:52
3	Na 589.592 Radial†	20288.8	19469.9	9513.5	ug/L	9513.5 ppb	21:34:32
3	Sr 421.552†	52100.1	46898.1	489.72	ug/L	489.72 ppb	21:34:32
3	Sc 361.383	615384.8	615384.8	110.48	%		21:35:55
3	Y 371.029	567901.8	567901.8	109.76	%		21:35:55
3	Ag 328.068†	87955.3	79560.4	477.39	ug/L	477.39 ppb	21:35:55
3	As 188.979†	1144.0	1080.1	480.30	ug/L	480.30 ppb	21:36:15
3	B 249.677†	20498.4	19209.1	462.81	ug/L	462.81 ppb	21:35:55
3	Ba 233.527†	35225.8	31887.9	476.94	ug/L	476.94 ppb	21:35:55
3	Be 313.107†	1194509.3	1090764.7	479.43	ug/L	479.43 ppb	21:35:55
3	Cd 226.502†	36571.9	33410.6	464.90	ug/L	464.90 ppb	21:36:15
3	Co 228.616†	14351.1	13080.6	480.06	ug/L	480.06 ppb	21:36:15
3	Cr 267.716†	34928.6	31509.0	475.29	ug/L	475.29 ppb	21:35:55
3	Cu 324.752†	115280.2	97964.5	474.08	ug/L	474.08 ppb	21:35:55
3	Mn 257.610†	274513.0	247851.9	477.19	ug/L	477.19 ppb	21:35:55
3	Mo 202.031†	4973.1	4485.4	475.58	ug/L	475.58 ppb	21:36:15
3	Ni 231.604†	15844.7	14224.2	479.05	ug/L	479.05 ppb	21:36:15
3	P 214.914†	5225.7	4418.7	2252.1	ug/L	2252.1 ppb	21:36:15
3	Pb 220.353†	2847.5	2673.0	473.85	ug/L	473.85 ppb	21:36:15
3	S 181.975 Axial†	886.0	733.0	951.25	ug/L	951.25 ppb	21:36:15
3	Sb 206.836†	1209.1	1036.8	484.50	ug/L	484.50 ppb	21:36:15
3	Se 196.026†	799.2	756.3	493.44	ug/L	493.44 ppb	21:36:15
3	Si 251.611†	62949.5	56411.4	2380.4	ug/L	2380.4 ppb	21:35:55
3	Sn 189.927†	2074.5	1865.9	468.97	ug/L	468.97 ppb	21:36:15
3	Ti 334.940†	196640.1	179968.0	477.64	ug/L	477.64 ppb	21:35:55
3	Tl 190.801†	814.9	796.4	474.85	ug/L	474.85 ppb	21:36:15
3	U 409.014†	8515.0	9507.8	479.71	ug/L	479.71 ppb	21:35:55
3	V 292.402†	56343.5	52971.4	482.21	ug/L	482.21 ppb	21:35:55
3	Zn 213.857†	47885.6	42401.7	473.26	ug/L	473.26 ppb	21:35:55
3	SiO2†	62327.9	55811.9	5038.9	ug/L	5038.9 ppb	21:36:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	620595.1	111.41	%	0.906				0.81%
Sc Radial	3590.9	111	%	0.3				0.23%
Y 371.029	572242.9	110.60	%	0.840				0.76%
Y RADIAL	4045.0	111.0	%	0.65				0.59%
Ag 328.068†	79459.1	476.81	ug/L	0.637	476.81	ppb	0.637	0.13%
QC value within limits for Ag 328.068 Recovery = 95.36%								
Al 396.153Radial†	4455.0	5202.4	ug/L	32.01	5202.4	ppb	32.01	0.62%
QC value within limits for Al 396.153Radial Recovery = 104.05%								
As 188.979†	1088.5	484.03	ug/L	3.233	484.03	ppb	3.233	0.67%
QC value within limits for As 188.979 Recovery = 96.81%								
B 249.677†	19188.9	462.30	ug/L	1.884	462.30	ppb	1.884	0.41%
QC value within limits for B 249.677 Recovery = 92.46%								
Ba 233.527†	31949.7	477.87	ug/L	0.836	477.87	ppb	0.836	0.17%
QC value within limits for Ba 233.527 Recovery = 95.57%								
Be 313.107†	1088746.5	478.54	ug/L	0.949	478.54	ppb	0.949	0.20%
QC value within limits for Be 313.107 Recovery = 95.71%								
Ca 317.933Radial†	2202.9	4961.5	ug/L	19.49	4961.5	ppb	19.49	0.39%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.23%
Cd 226.502†            33594.3      467.46 ug/L         2.213      467.46 ppb          2.213   0.47%
   QC value within limits for Cd 226.502  Recovery = 93.49%
Co 228.616†            13157.0      482.87 ug/L         2.498      482.87 ppb          2.498   0.52%
   QC value within limits for Co 228.616  Recovery = 96.57%
Cr 267.716†            31522.7      475.50 ug/L         1.207      475.50 ppb          1.207   0.25%
   QC value within limits for Cr 267.716  Recovery = 95.10%
Cu 324.752†            98010.7      474.31 ug/L         0.887      474.31 ppb          0.887   0.19%
   QC value within limits for Cu 324.752  Recovery = 94.86%
Fe 238.204 Radial†       360.8      4860.3 ug/L         46.31      4860.3 ppb          46.31   0.95%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.21%
K 766.490 Radial†      20732.1      4834.9 ug/L         31.12      4834.9 ppb          31.12   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 96.70%
Mg 279.077 IEC†          112.2      5093.5 ug/L         66.81      5093.5 ppb          66.81   1.31%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.87%
Mn 257.610†           247837.8      477.16 ug/L         0.264      477.16 ppb          0.264   0.06%
   QC value within limits for Mn 257.610  Recovery = 95.43%
Mo 202.031†             4504.7      477.64 ug/L         1.783      477.64 ppb          1.783   0.37%
   QC value within limits for Mo 202.031  Recovery = 95.53%
Na 589.592 Radial†     19623.0      9588.4 ug/L         66.88      9588.4 ppb          66.88   0.70%
   QC value within limits for Na 589.592 Radial  Recovery = 95.88%
Ni 231.604†            14285.5      481.11 ug/L         1.807      481.11 ppb          1.807   0.38%
   QC value within limits for Ni 231.604  Recovery = 96.22%
P 214.914†              4446.0      2266.6 ug/L         12.59      2266.6 ppb          12.59   0.56%
   QC value within limits for P 214.914  Recovery = 90.66%
Pb 220.353†             2704.5      479.43 ug/L         5.100      479.43 ppb          5.100   1.06%
   QC value within limits for Pb 220.353  Recovery = 95.89%
S 181.975 Axial†         732.7      950.90 ug/L         7.530      950.90 ppb          7.530   0.79%
   QC value within limits for S 181.975 Axial  Recovery = 95.09%
Sb 206.836†             1049.9      490.47 ug/L         5.218      490.47 ppb          5.218   1.06%
   QC value within limits for Sb 206.836  Recovery = 98.09%
Se 196.026†              752.3      490.93 ug/L         2.753      490.93 ppb          2.753   0.56%
   QC value within limits for Se 196.026  Recovery = 98.19%
Si 251.611†            56439.4      2381.5 ug/L          2.67      2381.5 ppb           2.67   0.11%
   QC value within limits for Si 251.611  Recovery = 95.26%
Sn 189.927†             1874.3      471.09 ug/L         2.463      471.09 ppb          2.463   0.52%
   QC value within limits for Sn 189.927  Recovery = 94.22%
Sr 421.552†            47232.8      493.22 ug/L         3.071      493.22 ppb          3.071   0.62%
   QC value within limits for Sr 421.552  Recovery = 98.64%
Ti 334.940†           180015.1      477.76 ug/L         0.309      477.76 ppb          0.309   0.06%
   QC value within limits for Ti 334.940  Recovery = 95.55%
Tl 190.801†              807.8      481.54 ug/L         6.711      481.54 ppb          6.711   1.39%
   QC value within limits for Tl 190.801  Recovery = 96.31%
U 409.014†              9525.6      480.59 ug/L         4.028      480.59 ppb          4.028   0.84%
   QC value within limits for U 409.014  Recovery = 96.12%
V 292.402†             53070.8      483.12 ug/L         1.050      483.12 ppb          1.050   0.22%
   QC value within limits for V 292.402  Recovery = 96.62%
Zn 213.857†            42341.2      472.57 ug/L         0.886      472.57 ppb          0.886   0.19%
   QC value within limits for Zn 213.857  Recovery = 94.51%
SiO2†                  55265.3      4989.4 ug/L         45.78      4989.4 ppb          45.78   0.92%
   QC value within limits for SiO2  Recovery = 93.30%
All analyte(s) passed QC.
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Sequence No.: 34
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/15/2010 21:38:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3713.3	3713.3	114	%			21:40:52
1	Y RADIAL	3985.6	3985.6	109.3	%			21:40:32
1	Al 396.153Radial†	-105.4	23.1	27.068	ug/L	27.068	ppb	21:40:32
1	Ca 317.933Radial†	18.7	5.0	11.300	ug/L	11.300	ppb	21:40:52
1	Fe 238.204 Radial†	4.8	-0.7	-9.5853	ug/L	-9.5853	ppb	21:40:52
1	K 766.490 Radial†	3015.1	-543.0	-126.80	ug/L	-126.80	ppb	21:40:32
1	Mg 279.077 IEC†	-1.3	-1.3	-58.831	ug/L	-58.831	ppb	21:40:52
1	Na 589.592 Radial†	-1240.7	110.7	54.115	ug/L	54.115	ppb	21:40:32
1	Sr 421.552†	46.6	8.7	0.0911	ug/L	0.0911	ppb	21:40:32
1	Sc 361.383	630172.6	630172.6	113.13	%			21:41:49
1	Y 371.029	584409.0	584409.0	112.95	%			21:41:49
1	Ag 328.068†	126.8	59.4	0.3467	ug/L	0.3467	ppb	21:41:49
1	As 188.979†	-49.6	0.8	0.3374	ug/L	0.3374	ppb	21:42:09
1	B 249.677†	-628.7	99.2	2.3998	ug/L	2.3998	ppb	21:41:49
1	Ba 233.527†	-15.1	-10.2	-0.1518	ug/L	-0.1518	ppb	21:42:09
1	Be 313.107†	-10088.4	633.8	0.2794	ug/L	0.2794	ppb	21:41:49
1	Cd 226.502†	-303.0	39.7	0.5545	ug/L	0.5545	ppb	21:42:09
1	Co 228.616†	-83.9	16.5	0.6082	ug/L	0.6082	ppb	21:42:09
1	Cr 267.716†	169.8	43.3	0.6492	ug/L	0.6492	ppb	21:41:49
1	Cu 324.752†	6705.1	-455.0	-2.2093	ug/L	-2.2093	ppb	21:41:49
1	Mn 257.610†	631.0	-66.6	-0.1267	ug/L	-0.1267	ppb	21:41:49
1	Mo 202.031†	36.6	16.3	1.7296	ug/L	1.7296	ppb	21:42:09
1	Ni 231.604†	131.9	-1.1	-0.0387	ug/L	-0.0387	ppb	21:42:09
1	P 214.914†	317.0	-31.1	-16.085	ug/L	-16.085	ppb	21:42:09
1	Pb 220.353†	-106.7	1.3	0.2418	ug/L	0.2418	ppb	21:42:09
1	S 181.975 Axial†	74.4	-3.2	-4.1850	ug/L	-4.1850	ppb	21:42:09
1	Sb 206.836†	40.8	-21.5	-9.6811	ug/L	-9.6811	ppb	21:42:09
1	Se 196.026†	-32.0	4.7	2.9668	ug/L	2.9668	ppb	21:42:09
1	Si 251.611†	561.0	-71.7	-3.0545	ug/L	-3.0545	ppb	21:42:09
1	Sn 189.927†	10.9	-2.2	-0.5597	ug/L	-0.5597	ppb	21:42:09
1	Ti 334.940†	-1965.2	241.5	0.6427	ug/L	0.6427	ppb	21:41:49
1	Tl 190.801†	-46.6	17.6	10.439	ug/L	10.439	ppb	21:42:09
1	U 409.014†	-1839.8	174.3	8.8393	ug/L	8.8393	ppb	21:41:49
1	V 292.402†	-2157.4	64.9	0.6242	ug/L	0.6242	ppb	21:41:49
1	Zn 213.857†	966.3	-88.0	-0.9869	ug/L	-0.9869	ppb	21:42:09
1	SiO2†	585.6	-86.8	-7.9061	ug/L	-7.9061	ppb	21:43:06
2	Sc Radial	3696.6	3696.6	114	%			21:41:17
2	Y RADIAL	4237.3	4237.3	116.2	%			21:40:57
2	Al 396.153Radial†	-129.5	1.6	1.8355	ug/L	1.8355	ppb	21:40:57
2	Ca 317.933Radial†	21.0	7.0	15.864	ug/L	15.864	ppb	21:41:17
2	Fe 238.204 Radial†	3.6	-1.7	-23.327	ug/L	-23.327	ppb	21:41:17
2	K 766.490 Radial†	3215.1	-355.7	-83.069	ug/L	-83.069	ppb	21:40:57
2	Mg 279.077 IEC†	4.0	3.3	149.81	ug/L	149.81	ppb	21:41:17
2	Na 589.592 Radial†	-1198.7	142.7	69.733	ug/L	69.733	ppb	21:40:57
2	Sr 421.552†	-1.9	-33.7	-0.3520	ug/L	-0.3520	ppb	21:40:57
2	Sc 361.383	611688.1	611688.1	109.81	%			21:42:15
2	Y 371.029	568336.4	568336.4	109.84	%			21:42:15
2	Ag 328.068†	116.4	53.3	0.3095	ug/L	0.3095	ppb	21:42:15
2	As 188.979†	-46.5	2.3	1.0122	ug/L	1.0122	ppb	21:42:35
2	B 249.677†	-700.1	17.5	0.4229	ug/L	0.4229	ppb	21:42:15
2	Ba 233.527†	-3.8	-0.3	-0.0034	ug/L	-0.0034	ppb	21:42:35
2	Be 313.107†	-9896.6	539.1	0.2378	ug/L	0.2378	ppb	21:42:15
2	Cd 226.502†	-291.7	41.9	0.5871	ug/L	0.5871	ppb	21:42:35
2	Co 228.616†	-77.8	19.8	0.7282	ug/L	0.7282	ppb	21:42:35
2	Cr 267.716†	118.4	1.0	0.0136	ug/L	0.0136	ppb	21:42:15
2	Cu 324.752†	6603.8	-368.1	-1.7880	ug/L	-1.7880	ppb	21:42:15
2	Mn 257.610†	649.9	-32.6	-0.0713	ug/L	-0.0713	ppb	21:42:15
2	Mo 202.031†	26.9	8.5	0.8968	ug/L	0.8968	ppb	21:42:35
2	Ni 231.604†	160.4	28.3	0.9530	ug/L	0.9530	ppb	21:42:35

2	P 214.914†	334.3	-6.9	-3.2692 ug/L	-3.2692 ppb	21:42:35
2	Pb 220.353†	-131.8	-24.5	-4.3155 ug/L	-4.3155 ppb	21:42:35
2	S 181.975 Axial†	65.3	-9.5	-12.359 ug/L	-12.359 ppb	21:42:35
2	Sb 206.836†	48.8	-13.1	-5.9253 ug/L	-5.9253 ppb	21:42:35
2	Se 196.026†	-37.6	-1.3	-0.8639 ug/L	-0.8639 ppb	21:42:35
2	Si 251.611†	569.9	-48.6	-2.0677 ug/L	-2.0677 ppb	21:42:35
2	Sn 189.927†	7.5	-5.0	-1.2602 ug/L	-1.2602 ppb	21:42:35
2	Ti 334.940†	-1925.7	225.0	0.5848 ug/L	0.5848 ppb	21:42:15
2	Tl 190.801†	-56.0	7.8	4.6266 ug/L	4.6266 ppb	21:42:35
2	U 409.014†	-1829.9	134.1	6.8068 ug/L	6.8068 ppb	21:42:15
2	V 292.402†	-2047.6	107.3	0.9948 ug/L	0.9948 ppb	21:42:15
2	Zn 213.857†	955.1	-72.4	-0.8194 ug/L	-0.8194 ppb	21:42:35
2	SiO2†	596.7	-61.1	-5.5526 ug/L	-5.5526 ppb	21:43:11
3	Sc Radial	3672.7	3672.7	113 %		21:41:43
3	Y RADIAL	4133.3	4133.3	113.4 %		21:41:22
3	Al 396.153Radial†	95.6	199.6	234.03 ug/L	234.03 ppb	21:41:22
3	Ca 317.933Radial†	23.4	9.3	21.022 ug/L	21.022 ppb	21:41:43
3	Fe 238.204 Radial†	6.1	0.5	6.8177 ug/L	6.8177 ppb	21:41:43
3	K 766.490 Radial†	3028.0	-502.5	-117.34 ug/L	-117.34 ppb	21:41:22
3	Mg 279.077 IEC†	2.1	1.7	76.893 ug/L	76.893 ppb	21:41:43
3	Na 589.592 Radial†	-1270.7	72.2	35.288 ug/L	35.288 ppb	21:41:22
3	Sr 421.552†	30.2	-5.4	-0.0563 ug/L	-0.0563 ppb	21:41:22
3	Sc 361.383	609157.3	609157.3	109.36 %		21:42:40
3	Y 371.029	566661.1	566661.1	109.52 %		21:42:40
3	Ag 328.068†	130.1	66.3	0.4033 ug/L	0.4033 ppb	21:42:40
3	As 188.979†	-41.7	6.5	2.8536 ug/L	2.8536 ppb	21:43:00
3	B 249.677†	-683.2	30.3	0.7317 ug/L	0.7317 ppb	21:42:40
3	Ba 233.527†	8.1	10.5	0.1605 ug/L	0.1605 ppb	21:43:00
3	Be 313.107†	-9798.1	591.6	0.2614 ug/L	0.2614 ppb	21:42:40
3	Cd 226.502†	-299.8	33.4	0.4634 ug/L	0.4634 ppb	21:43:00
3	Co 228.616†	-93.4	5.2	0.1931 ug/L	0.1931 ppb	21:43:00
3	Cr 267.716†	147.5	28.1	0.4258 ug/L	0.4258 ppb	21:42:40
3	Cu 324.752†	6560.3	-383.0	-1.8544 ug/L	-1.8544 ppb	21:42:40
3	Mn 257.610†	569.5	-103.6	-0.2018 ug/L	-0.2018 ppb	21:42:40
3	Mo 202.031†	36.1	17.0	1.8060 ug/L	1.8060 ppb	21:43:00
3	Ni 231.604†	123.3	-5.0	-0.1687 ug/L	-0.1687 ppb	21:43:00
3	P 214.914†	326.7	-12.5	-6.1942 ug/L	-6.1942 ppb	21:43:00
3	Pb 220.353†	-90.5	12.8	2.3326 ug/L	2.3326 ppb	21:43:00
3	S 181.975 Axial†	75.2	-0.3	-0.3621 ug/L	-0.3621 ppb	21:43:00
3	Sb 206.836†	59.6	-3.1	-1.3325 ug/L	-1.3325 ppb	21:43:00
3	Se 196.026†	-31.8	3.9	2.5325 ug/L	2.5325 ppb	21:43:00
3	Si 251.611†	563.8	-52.1	-2.2242 ug/L	-2.2242 ppb	21:43:00
3	Sn 189.927†	19.2	5.7	1.4362 ug/L	1.4362 ppb	21:43:00
3	Ti 334.940†	-1819.6	314.8	0.8322 ug/L	0.8322 ppb	21:42:40
3	Tl 190.801†	-70.4	-5.5	-3.2687 ug/L	-3.2687 ppb	21:43:00
3	U 409.014†	-1973.7	-4.3	-0.2184 ug/L	-0.2184 ppb	21:42:40
3	V 292.402†	-1987.0	155.0	1.4166 ug/L	1.4166 ppb	21:42:40
3	Zn 213.857†	979.7	-46.3	-0.5158 ug/L	-0.5158 ppb	21:43:00
3	SiO2†	587.5	-67.2	-6.1328 ug/L	-6.1328 ppb	21:43:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	617006.0	110.77	%	2.060				1.86%
Sc Radial	3694.2	114	%	0.6				0.55%
Y 371.029	573135.5	110.77	%	1.894				1.71%
Y RADIAL	4118.7	113.0	%	3.47				3.07%
Ag 328.068†	59.7	0.3531	ug/L	0.04724	0.3531	ppb	0.04724	13.38%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	74.8	87.645	ug/L	127.4012	87.645	ppb	127.4012	145.36%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.2	1.4011	ug/L	1.30240	1.4011	ppb	1.30240	92.96%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	49.0	1.1848	ug/L	1.06347	1.1848	ppb	1.06347	89.76%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.0	0.0018	ug/L	0.15623	0.0018	ppb	0.15623	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	588.2	0.2595	ug/L	0.02089	0.2595	ppb	0.02089	8.05%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.1	16.062	ug/L	4.8642	16.062	ppb	4.8642	30.28%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              38.3      0.5350 ug/L       0.06412      0.5350 ppb        0.06412  11.98%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              13.8      0.5098 ug/L       0.28078      0.5098 ppb        0.28078  55.07%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              24.1      0.3629 ug/L       0.32245      0.3629 ppb        0.32245  88.86%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -402.0     -1.9506 ug/L       0.22650     -1.9506 ppb        0.22650  11.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.6     -8.6982 ug/L      15.09193     -8.6982 ppb       15.09193 173.51%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -467.1     -109.07 ug/L        23.008     -109.07 ppb         23.008  21.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.2      55.958 ug/L      105.8859      55.958 ppb       105.8859 189.22%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -67.6     -0.1333 ug/L       0.06549     -0.1333 ppb        0.06549  49.14%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              13.9      1.4775 ug/L       0.50431      1.4775 ppb        0.50431  34.13%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      108.6      53.045 ug/L       17.2473      53.045 ppb        17.2473  32.51%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               7.4      0.2485 ug/L       0.61354      0.2485 ppb        0.61354 246.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -16.8     -8.5160 ug/L       6.71588     -8.5160 ppb        6.71588  78.86%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -3.4     -0.5804 ug/L       3.39946     -0.5804 ppb        3.39946 585.74%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -4.3     -5.6353 ug/L       6.12854     -5.6353 ppb        6.12854 108.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -12.6     -5.6463 ug/L       4.18127     -5.6463 ppb        4.18127  74.05%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.4      1.5451 ug/L       2.09752      1.5451 ppb        2.09752 135.75%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -57.5     -2.4488 ug/L       0.53038     -2.4488 ppb        0.53038  21.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.5     -0.1279 ug/L       1.39909     -0.1279 ppb        1.39909 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -10.1     -0.1057 ug/L       0.22567     -0.1057 ppb        0.22567 213.40%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             260.4      0.6866 ug/L       0.12938      0.6866 ppb        0.12938  18.84%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               6.6      3.9323 ug/L       6.88017      3.9323 ppb        6.88017 174.97%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              101.4      5.1426 ug/L       4.75263      5.1426 ppb        4.75263  92.42%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              109.1      1.0119 ug/L       0.39647      1.0119 ppb        0.39647  39.18%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -68.9     -0.7740 ug/L       0.23877     -0.7740 ppb        0.23877  30.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -71.7     -6.5305 ug/L       1.22611     -6.5305 ppb        1.22611  18.78%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 37
Sample ID: 249333004|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 63
Date Collected: 4/15/2010 21:59:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249333004|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3738.9	3738.9	115	%			22:01:20
1	Y RADIAL	5452.4	5452.4	149.6	%			22:01:00
1	Al 396.153Radial†	28828.3	25121.7	29466	ug/L	29466	ppb	22:01:00
1	Ca 317.933Radial†	3927.1	3395.1	7646.8	ug/L	7646.8	ppb	22:01:00
1	Fe 238.204 Radial†	6689.2	5797.6	77861	ug/L	77861	ppb	22:01:00
1	K 766.490 Radial†	18764.4	13100.3	3056.5	ug/L	3056.5	ppb	22:01:00
1	Mg 279.077 IEC†	122.0	105.7	4749.8	ug/L	4749.8	ppb	22:01:20
1	Na 589.592 Radial†	1542.1	2532.0	1237.2	ug/L	1237.2	ppb	22:01:00
1	Sr 421.552†	8184.6	7067.6	73.750	ug/L	73.750	ppb	22:01:00
1	Sc 361.383	636010.4	636010.4	114.18	%			22:02:17
1	Y 371.029	769498.5	769498.5	148.72	%			22:02:17
1	Ag 328.068†	-4138.3	-3676.9	1.2767	ug/L	1.2767	ppb	22:02:17
1	As 188.979†	-16.4	30.2	37.124	ug/L	37.124	ppb	22:02:37
1	B 249.677†	112.9	753.8	10.032	ug/L	10.032	ppb	22:02:17
1	Ba 233.527†	15529.4	13603.8	207.44	ug/L	207.44	ppb	22:02:17
1	Be 313.107†	-8338.0	2248.7	4.8979	ug/L	4.8979	ppb	22:02:17
1	Cd 226.502†	279.4	552.2	0.6767	ug/L	0.6767	ppb	22:02:37
1	Co 228.616†	298.7	352.2	8.2752	ug/L	8.2752	ppb	22:02:37
1	Cr 267.716†	5873.4	5037.2	77.310	ug/L	77.310	ppb	22:02:37
1	Cu 324.752†	16400.3	7981.6	43.983	ug/L	43.983	ppb	22:02:17
1	Mn 257.610†	1037839.5	908314.4	1755.8	ug/L	1755.8	ppb	22:02:17
1	Mo 202.031†	117.9	87.2	14.720	ug/L	14.720	ppb	22:02:37
1	Ni 231.604†	1721.2	1389.7	46.895	ug/L	46.895	ppb	22:02:37
1	P 214.914†	1109.6	660.5	317.93	ug/L	317.93	ppb	22:02:37
1	Pb 220.353†	490.0	524.7	93.854	ug/L	93.854	ppb	22:02:37
1	S 181.975 Axial†	206.8	112.1	142.28	ug/L	142.28	ppb	22:02:37
1	Sb 206.836†	65.1	-0.6	-3.4543	ug/L	-3.4543	ppb	22:02:37
1	Se 196.026†	-264.8	-198.9	14.616	ug/L	14.616	ppb	22:02:37
1	Si 251.611†	386480.1	337911.3	14294	ug/L	14294	ppb	22:02:17
1	Sn 189.927†	-18.9	-28.4	-4.4667	ug/L	-4.4667	ppb	22:02:37
1	Ti 334.940†	738618.4	648859.9	1723.5	ug/L	1723.5	ppb	22:02:17
1	Tl 190.801†	-114.2	-41.2	-3.1201	ug/L	-3.1201	ppb	22:02:37
1	U 409.014†	-7439.7	-4715.2	-260.15	ug/L	-260.15	ppb	22:02:17
1	V 292.402†	7049.6	8145.9	60.602	ug/L	60.602	ppb	22:02:17
1	Zn 213.857†	42909.2	36637.7	418.75	ug/L	418.75	ppb	22:02:17
1	SiO2†	386194.8	337624.6	30560	ug/L	30560	ppb	22:03:35
2	Sc Radial	3737.9	3737.9	115	%			22:01:45
2	Y RADIAL	5498.6	5498.6	150.9	%			22:01:25
2	Al 396.153Radial†	28995.7	25274.0	29645	ug/L	29645	ppb	22:01:25
2	Ca 317.933Radial†	3955.3	3420.6	7704.1	ug/L	7704.1	ppb	22:01:25
2	Fe 238.204 Radial†	6707.4	5814.9	78094	ug/L	78094	ppb	22:01:25
2	K 766.490 Radial†	18770.6	13110.3	3058.8	ug/L	3058.8	ppb	22:01:25
2	Mg 279.077 IEC†	119.0	103.0	4631.0	ug/L	4631.0	ppb	22:01:45
2	Na 589.592 Radial†	1535.4	2526.6	1234.6	ug/L	1234.6	ppb	22:01:25
2	Sr 421.552†	8173.1	7059.6	73.666	ug/L	73.666	ppb	22:01:25
2	Sc 361.383	638297.2	638297.2	114.59	%			22:02:43
2	Y 371.029	773615.4	773615.4	149.52	%			22:02:43
2	Ag 328.068†	-4112.8	-3641.7	1.5546	ug/L	1.5546	ppb	22:02:43
2	As 188.979†	-44.0	6.2	26.504	ug/L	26.504	ppb	22:03:03
2	B 249.677†	-13.2	643.5	7.3387	ug/L	7.3387	ppb	22:02:43
2	Ba 233.527†	15515.6	13543.0	206.54	ug/L	206.54	ppb	22:02:43
2	Be 313.107†	-8369.1	2247.7	4.8871	ug/L	4.8871	ppb	22:02:43
2	Cd 226.502†	297.1	566.7	0.8577	ug/L	0.8577	ppb	22:03:03
2	Co 228.616†	297.4	350.1	8.2071	ug/L	8.2071	ppb	22:03:03
2	Cr 267.716†	5891.0	5034.1	77.268	ug/L	77.268	ppb	22:03:03
2	Cu 324.752†	16476.8	7997.0	44.076	ug/L	44.076	ppb	22:02:43
2	Mn 257.610†	1036818.4	904167.0	1747.8	ug/L	1747.8	ppb	22:02:43
2	Mo 202.031†	123.1	91.4	15.184	ug/L	15.184	ppb	22:03:03
2	Ni 231.604†	1736.6	1397.7	47.167	ug/L	47.167	ppb	22:03:03

2	P 214.914†	1104.9	652.9	313.82	ug/L	313.82 ppb	22:03:03
2	Pb 220.353†	528.1	556.4	99.479	ug/L	99.479 ppb	22:03:03
2	S 181.975 Axial†	209.2	113.6	144.17	ug/L	144.17 ppb	22:03:03
2	Sb 206.836†	64.3	-1.5	-3.8019	ug/L	-3.8019 ppb	22:03:03
2	Se 196.026†	-260.3	-194.2	18.089	ug/L	18.089 ppb	22:03:03
2	Si 251.611†	386625.9	336825.9	14248	ug/L	14248 ppb	22:02:43
2	Sn 189.927†	-6.0	-17.1	-1.6190	ug/L	-1.6190 ppb	22:03:03
2	Ti 334.940†	739309.0	647145.0	1719.0	ug/L	1719.0 ppb	22:02:43
2	Tl 190.801†	-123.2	-48.6	-7.5856	ug/L	-7.5856 ppb	22:03:03
2	U 409.014†	-7610.6	-4840.9	-266.59	ug/L	-266.59 ppb	22:02:43
2	V 292.402†	6922.8	8013.1	59.375	ug/L	59.375 ppb	22:02:43
2	Zn 213.857†	42986.1	36570.2	418.02	ug/L	418.02 ppb	22:02:43
2	SiO2†	386473.1	336655.7	30473	ug/L	30473 ppb	22:03:40
3	Sc Radial	3699.0	3699.0	114	%		22:02:10
3	Y RADIAL	5449.6	5449.6	149.5	%		22:01:50
3	Al 396.153Radial†	28921.3	25473.1	29878	ug/L	29878 ppb	22:01:50
3	Ca 317.933Radial†	3942.7	3445.6	7760.5	ug/L	7760.5 ppb	22:01:50
3	Fe 238.204 Radial†	6728.8	5894.9	79167	ug/L	79167 ppb	22:01:50
3	K 766.490 Radial†	18823.0	13327.3	3109.5	ug/L	3109.5 ppb	22:01:50
3	Mg 279.077 IEC†	123.6	108.2	4863.4	ug/L	4863.4 ppb	22:02:10
3	Na 589.592 Radial†	1549.3	2552.8	1247.4	ug/L	1247.4 ppb	22:01:50
3	Sr 421.552†	8208.6	7165.2	74.769	ug/L	74.769 ppb	22:01:50
3	Sc 361.383	626775.3	626775.3	112.52	%		22:03:09
3	Y 371.029	758779.9	758779.9	146.65	%		22:03:09
3	Ag 328.068†	-4010.3	-3616.6	2.0209	ug/L	2.0209 ppb	22:03:09
3	As 188.979†	-36.3	12.4	29.375	ug/L	29.375 ppb	22:03:29
3	B 249.677†	-49.0	611.5	6.4519	ug/L	6.4519 ppb	22:03:09
3	Ba 233.527†	15169.3	13484.1	205.72	ug/L	205.72 ppb	22:03:09
3	Be 313.107†	-8256.3	2213.8	4.8730	ug/L	4.8730 ppb	22:03:09
3	Cd 226.502†	282.6	558.6	0.6482	ug/L	0.6482 ppb	22:03:29
3	Co 228.616†	278.5	338.1	7.7497	ug/L	7.7497 ppb	22:03:29
3	Cr 267.716†	5835.8	5079.5	77.969	ug/L	77.969 ppb	22:03:29
3	Cu 324.752†	16190.9	8007.2	44.199	ug/L	44.199 ppb	22:03:09
3	Mn 257.610†	1018386.3	904419.0	1748.4	ug/L	1748.4 ppb	22:03:09
3	Mo 202.031†	124.1	94.2	15.557	ug/L	15.557 ppb	22:03:29
3	Ni 231.604†	1725.5	1415.7	47.773	ug/L	47.773 ppb	22:03:29
3	P 214.914†	1107.3	672.7	324.01	ug/L	324.01 ppb	22:03:29
3	Pb 220.353†	530.2	566.8	101.29	ug/L	101.29 ppb	22:03:29
3	S 181.975 Axial†	214.8	121.9	154.94	ug/L	154.94 ppb	22:03:29
3	Sb 206.836†	66.6	1.6	-2.3557	ug/L	-2.3557 ppb	22:03:29
3	Se 196.026†	-253.9	-192.6	21.015	ug/L	21.015 ppb	22:03:29
3	Si 251.611†	380140.0	337264.1	14266	ug/L	14266 ppb	22:03:09
3	Sn 189.927†	-0.1	-11.9	-0.2951	ug/L	-0.2951 ppb	22:03:29
3	Ti 334.940†	726095.4	647262.0	1719.3	ug/L	1719.3 ppb	22:03:09
3	Tl 190.801†	-126.6	-53.7	-10.581	ug/L	-10.581 ppb	22:03:29
3	U 409.014†	-7533.6	-4894.6	-269.60	ug/L	-269.60 ppb	22:03:09
3	V 292.402†	6808.4	8022.5	59.318	ug/L	59.318 ppb	22:03:09
3	Zn 213.857†	42186.3	36549.0	417.87	ug/L	417.87 ppb	22:03:09
3	SiO2†	382773.5	339567.7	30736	ug/L	30736 ppb	22:03:46

Mean Data: 249333004|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	633694.3	113.77	%	1.095				0.96%
Sc Radial	3725.3	115	%	0.7				0.61%
Y 371.029	767297.9	148.29	%	1.480				1.00%
Y RADIAL	5466.9	150.0	%	0.76				0.50%
Ag 328.068†	-3645.1	1.6174	ug/L	0.37604	1.6174	ppb	0.37604	23.25%
Al 396.153Radial†	25289.6	29663	ug/L	206.7	29663	ppb	206.7	0.70%
As 188.979†	16.3	31.001	ug/L	5.4931	31.001	ppb	5.4931	17.72%
B 249.677†	669.6	7.9409	ug/L	1.86447	7.9409	ppb	1.86447	23.48%
Ba 233.527†	13543.6	206.57	ug/L	0.857	206.57	ppb	0.857	0.41%
Be 313.107†	2236.7	4.8860	ug/L	0.01252	4.8860	ppb	0.01252	0.26%
Ca 317.933Radial†	3420.4	7703.8	ug/L	56.86	7703.8	ppb	56.86	0.74%
Cd 226.502†	559.2	0.7275	ug/L	0.11359	0.7275	ppb	0.11359	15.61%
Co 228.616†	346.8	8.0773	ug/L	0.28579	8.0773	ppb	0.28579	3.54%
Cr 267.716†	5050.3	77.516	ug/L	0.3935	77.516	ppb	0.3935	0.51%
Cu 324.752†	7995.3	44.086	ug/L	0.1082	44.086	ppb	0.1082	0.25%
Fe 238.204 Radial†	5835.8	78374	ug/L	696.8	78374	ppb	696.8	0.89%
K 766.490 Radial†	13179.3	3075.0	ug/L	29.94	3075.0	ppb	29.94	0.97%

Mg 279.077 IEC†	105.6	4748.1	ug/L	116.22	4748.1	ppb	116.22	2.45%
Mn 257.610†	905633.5	1750.7	ug/L	4.43	1750.7	ppb	4.43	0.25%
Mo 202.031†	91.0	15.154	ug/L	0.4196	15.154	ppb	0.4196	2.77%
Na 589.592 Radial†	2537.1	1239.7	ug/L	6.75	1239.7	ppb	6.75	0.54%
Ni 231.604†	1401.0	47.278	ug/L	0.4498	47.278	ppb	0.4498	0.95%
P 214.914†	662.0	318.59	ug/L	5.131	318.59	ppb	5.131	1.61%
Pb 220.353†	549.3	98.207	ug/L	3.8765	98.207	ppb	3.8765	3.95%
S 181.975 Axial†	115.9	147.13	ug/L	6.830	147.13	ppb	6.830	4.64%
Sb 206.836†	-0.2	-3.2040	ug/L	0.75488	-3.2040	ppb	0.75488	23.56%
Se 196.026†	-195.2	17.907	ug/L	3.2034	17.907	ppb	3.2034	17.89%
Si 251.611†	337333.8	14269	ug/L	23.1	14269	ppb	23.1	0.16%
Sn 189.927†	-19.1	-2.1269	ug/L	2.13166	-2.1269	ppb	2.13166	100.22%
Sr 421.552†	7097.4	74.062	ug/L	0.6136	74.062	ppb	0.6136	0.83%
Ti 334.940†	647755.6	1720.6	ug/L	2.54	1720.6	ppb	2.54	0.15%
Tl 190.801†	-47.9	-7.0956	ug/L	3.75453	-7.0956	ppb	3.75453	52.91%
U 409.014†	-4816.9	-265.44	ug/L	4.827	-265.44	ppb	4.827	1.82%
V 292.402†	8060.5	59.765	ug/L	0.7253	59.765	ppb	0.7253	1.21%
Zn 213.857†	36585.6	418.21	ug/L	0.472	418.21	ppb	0.472	0.11%
SiO2†	337949.4	30590	ug/L	134.2	30590	ppb	134.2	0.44%

Sequence No.: 38
Sample ID: 249333005|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 64
Date Collected: 4/15/2010 22:05:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249333005|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3678.1	3678.1	113	%			22:08:09
1	Y RADIAL	4600.9	4600.9	126.2	%			22:07:49
1	Al 396.153Radial†	20924.2	18565.5	21776	ug/L	21776	ppb	22:07:49
1	Ca 317.933Radial†	10650.0	9379.5	21125	ug/L	21125	ppb	22:07:49
1	Fe 238.204 Radial†	4370.9	3849.2	51695	ug/L	51695	ppb	22:07:49
1	K 766.490 Radial†	28946.0	22347.1	5214.2	ug/L	5214.2	ppb	22:07:49
1	Mg 279.077 IEC†	147.4	129.8	5862.5	ug/L	5862.5	ppb	22:08:09
1	Na 589.592 Radial†	-30.8	1167.2	570.31	ug/L	570.31	ppb	22:07:49
1	Sr 421.552†	15294.4	13454.0	140.34	ug/L	140.34	ppb	22:07:49
1	Sc 361.383	644014.0	644014.0	115.62	%			22:09:07
1	Y 371.029	652403.1	652403.1	126.09	%			22:09:07
1	Ag 328.068†	-1453.1	-1309.5	7.4653	ug/L	7.4653	ppb	22:09:07
1	As 188.979†	-27.4	20.9	25.315	ug/L	25.315	ppb	22:09:27
1	B 249.677†	1726.9	2148.6	46.511	ug/L	46.511	ppb	22:09:07
1	Ba 233.527†	31609.1	27342.3	410.82	ug/L	410.82	ppb	22:09:07
1	Be 313.107†	-12261.7	-1054.2	2.2181	ug/L	2.2181	ppb	22:09:07
1	Cd 226.502†	1147.4	1299.9	13.464	ug/L	13.464	ppb	22:09:27
1	Co 228.616†	374.3	414.4	12.171	ug/L	12.171	ppb	22:09:27
1	Cr 267.716†	4071.3	3414.6	52.391	ug/L	52.391	ppb	22:09:27
1	Cu 324.752†	86590.1	68511.3	335.20	ug/L	335.20	ppb	22:09:07
1	Mn 257.610†	1180736.3	1020612.1	1969.0	ug/L	1969.0	ppb	22:09:07
1	Mo 202.031†	68.2	43.0	8.4245	ug/L	8.4245	ppb	22:09:27
1	Ni 231.604†	2059.2	1663.3	56.089	ug/L	56.089	ppb	22:09:27
1	P 214.914†	2090.4	1496.7	705.11	ug/L	705.11	ppb	22:09:27
1	Pb 220.353†	1908.5	1746.3	309.80	ug/L	309.80	ppb	22:09:27
1	S 181.975 Axial†	1362.2	1109.2	1437.9	ug/L	1437.9	ppb	22:09:27
1	Sb 206.836†	71.4	4.2	0.5014	ug/L	0.5014	ppb	22:09:27
1	Se 196.026†	-176.5	-119.7	17.641	ug/L	17.641	ppb	22:09:27
1	Si 251.611†	337455.6	291302.8	12322	ug/L	12322	ppb	22:09:07
1	Sn 189.927†	219.6	178.1	49.318	ug/L	49.318	ppb	22:09:27
1	Ti 334.940†	511754.4	444602.7	1182.3	ug/L	1182.3	ppb	22:09:07
1	Tl 190.801†	-110.0	-36.3	-3.2978	ug/L	-3.2978	ppb	22:09:27
1	U 409.014†	-4391.3	-1997.6	-115.28	ug/L	-115.28	ppb	22:09:07
1	V 292.402†	6469.1	7567.1	59.720	ug/L	59.720	ppb	22:09:07
1	Zn 213.857†	112665.0	96503.5	1088.6	ug/L	1088.6	ppb	22:09:07
1	SiO2†	335033.2	289170.8	26175	ug/L	26175	ppb	22:10:24
2	Sc Radial	3715.4	3715.4	115	%			22:08:35
2	Y RADIAL	4580.9	4580.9	125.7	%			22:08:15
2	Al 396.153Radial†	21510.5	18892.0	22159	ug/L	22159	ppb	22:08:15
2	Ca 317.933Radial†	10955.0	9551.4	21513	ug/L	21513	ppb	22:08:15
2	Fe 238.204 Radial†	4527.8	3947.5	53014	ug/L	53014	ppb	22:08:15
2	K 766.490 Radial†	29578.7	22643.2	5283.3	ug/L	5283.3	ppb	22:08:15
2	Mg 279.077 IEC†	144.9	126.3	5701.7	ug/L	5701.7	ppb	22:08:35
2	Na 589.592 Radial†	-6.5	1188.7	580.81	ug/L	580.81	ppb	22:08:15
2	Sr 421.552†	15668.7	13645.4	142.34	ug/L	142.34	ppb	22:08:15
2	Sc 361.383	645125.2	645125.2	115.82	%			22:09:33
2	Y 371.029	653524.9	653524.9	126.31	%			22:09:33
2	Ag 328.068†	-1423.7	-1281.9	8.0182	ug/L	8.0182	ppb	22:09:33
2	As 188.979†	-24.4	23.6	26.663	ug/L	26.663	ppb	22:09:53
2	B 249.677†	1730.6	2149.3	46.388	ug/L	46.388	ppb	22:09:33
2	Ba 233.527†	31627.2	27310.9	410.42	ug/L	410.42	ppb	22:09:33
2	Be 313.107†	-12293.4	-1063.3	2.2186	ug/L	2.2186	ppb	22:09:33
2	Cd 226.502†	1103.3	1260.1	12.789	ug/L	12.789	ppb	22:09:53
2	Co 228.616†	375.1	414.5	12.155	ug/L	12.155	ppb	22:09:53
2	Cr 267.716†	4041.9	3383.1	51.940	ug/L	51.940	ppb	22:09:53
2	Cu 324.752†	86831.8	68591.1	335.68	ug/L	335.68	ppb	22:09:33
2	Mn 257.610†	1183090.1	1020885.4	1969.7	ug/L	1969.7	ppb	22:09:33
2	Mo 202.031†	87.9	59.8	10.304	ug/L	10.304	ppb	22:09:53
2	Ni 231.604†	2005.2	1613.6	54.416	ug/L	54.416	ppb	22:09:53

2	P 214.914†	2062.0	1469.1	689.81 ug/L	689.81 ppb	22:09:53
2	Pb 220.353†	1890.5	1727.9	306.55 ug/L	306.55 ppb	22:09:53
2	S 181.975 Axial†	1336.5	1085.0	1406.4 ug/L	1406.4 ppb	22:09:53
2	Sb 206.836†	61.8	-4.2	-3.2037 ug/L	-3.2037 ppb	22:09:53
2	Se 196.026†	-178.1	-120.8	19.308 ug/L	19.308 ppb	22:09:53
2	Si 251.611†	338677.8	291855.4	12346 ug/L	12346 ppb	22:09:33
2	Sn 189.927†	226.3	183.5	50.762 ug/L	50.762 ppb	22:09:53
2	Ti 334.940†	513497.3	445345.1	1184.4 ug/L	1184.4 ppb	22:09:33
2	Tl 190.801†	-109.7	-35.8	-3.0269 ug/L	-3.0269 ppb	22:09:53
2	U 409.014†	-4571.6	-2146.7	-123.19 ug/L	-123.19 ppb	22:09:33
2	V 292.402†	6476.6	7563.9	59.521 ug/L	59.521 ppb	22:09:33
2	Zn 213.857†	112772.2	96428.2	1087.9 ug/L	1087.9 ppb	22:09:33
2	SiO2†	334969.9	288617.0	26124 ug/L	26124 ppb	22:10:30
3	Sc Radial	3753.2	3753.2	116 %		22:09:00
3	Y RADIAL	4560.7	4560.7	125.1 %		22:08:40
3	Al 396.153Radial†	21288.4	18511.4	21713 ug/L	21713 ppb	22:08:40
3	Ca 317.933Radial†	10895.3	9403.7	21180 ug/L	21180 ppb	22:08:40
3	Fe 238.204 Radial†	4492.2	3877.0	52068 ug/L	52068 ppb	22:08:40
3	K 766.490 Radial†	29426.3	22252.1	5192.0 ug/L	5192.0 ppb	22:08:40
3	Mg 279.077 IEC†	150.8	130.1	5874.5 ug/L	5874.5 ppb	22:09:00
3	Na 589.592 Radial†	-14.1	1182.2	577.65 ug/L	577.65 ppb	22:08:40
3	Sr 421.552†	15516.5	13376.5	139.53 ug/L	139.53 ppb	22:08:40
3	Sc 361.383	658775.9	658775.9	118.27 %		22:09:59
3	Y 371.029	667923.4	667923.4	129.09 %		22:09:59
3	Ag 328.068†	-1542.5	-1356.9	7.2970 ug/L	7.2970 ppb	22:09:59
3	As 188.979†	-25.2	23.3	26.401 ug/L	26.401 ppb	22:10:19
3	B 249.677†	1656.7	2055.8	44.227 ug/L	44.227 ppb	22:09:59
3	Ba 233.527†	32210.9	27238.5	409.29 ug/L	409.29 ppb	22:09:59
3	Be 313.107†	-12445.2	-971.7	2.2531 ug/L	2.2531 ppb	22:09:59
3	Cd 226.502†	1110.9	1246.8	12.690 ug/L	12.690 ppb	22:10:19
3	Co 228.616†	379.0	411.1	12.046 ug/L	12.046 ppb	22:10:19
3	Cr 267.716†	4033.1	3303.3	50.723 ug/L	50.723 ppb	22:10:19
3	Cu 324.752†	88848.6	68742.8	336.35 ug/L	336.35 ppb	22:09:59
3	Mn 257.610†	1204535.9	1017851.5	1963.7 ug/L	1963.7 ppb	22:09:59
3	Mo 202.031†	73.1	45.8	8.7479 ug/L	8.7479 ppb	22:10:19
3	Ni 231.604†	2036.9	1604.5	54.110 ug/L	54.110 ppb	22:10:19
3	P 214.914†	2034.7	1409.1	657.88 ug/L	657.88 ppb	22:10:19
3	Pb 220.353†	1886.8	1690.9	299.97 ug/L	299.97 ppb	22:10:19
3	S 181.975 Axial†	1336.4	1061.0	1375.3 ug/L	1375.3 ppb	22:10:19
3	Sb 206.836†	75.9	6.6	1.6618 ug/L	1.6618 ppb	22:10:19
3	Se 196.026†	-173.9	-114.1	21.894 ug/L	21.894 ppb	22:10:19
3	Si 251.611†	344912.4	291067.5	12312 ug/L	12312 ppb	22:09:59
3	Sn 189.927†	239.2	190.3	52.406 ug/L	52.406 ppb	22:10:19
3	Ti 334.940†	523258.3	444411.2	1181.8 ug/L	1181.8 ppb	22:09:59
3	Tl 190.801†	-113.4	-37.0	-3.7766 ug/L	-3.7766 ppb	22:10:19
3	U 409.014†	-4586.1	-2077.2	-119.41 ug/L	-119.41 ppb	22:09:59
3	V 292.402†	6689.7	7628.2	60.216 ug/L	60.216 ppb	22:09:59
3	Zn 213.857†	114838.1	96157.4	1084.8 ug/L	1084.8 ppb	22:09:59
3	SiO2†	334699.0	282394.9	25561 ug/L	25561 ppb	22:10:35

Mean Data: 249333005|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	649305.0	116.57	%	1.476				1.27%
Sc Radial	3715.6	115	%	1.2				1.01%
Y 371.029	657950.5	127.16	%	1.673				1.32%
Y RADIAL	4580.8	125.7	%	0.55				0.44%
Ag 328.068†	-1316.1	7.5935	ug/L	0.37730	7.5935	ppb	0.37730	4.97%
Al 396.153Radial†	18656.3	21883	ug/L	241.5	21883	ppb	241.5	1.10%
As 188.979†	22.6	26.126	ug/L	0.7151	26.126	ppb	0.7151	2.74%
B 249.677†	2117.9	45.709	ug/L	1.2846	45.709	ppb	1.2846	2.81%
Ba 233.527†	27297.2	410.18	ug/L	0.792	410.18	ppb	0.792	0.19%
Be 313.107†	-1029.7	2.2299	ug/L	0.02009	2.2299	ppb	0.02009	0.90%
Ca 317.933Radial†	9444.9	21273	ug/L	209.6	21273	ppb	209.6	0.99%
Cd 226.502†	1268.9	12.981	ug/L	0.4214	12.981	ppb	0.4214	3.25%
Co 228.616†	413.3	12.124	ug/L	0.0681	12.124	ppb	0.0681	0.56%
Cr 267.716†	3367.0	51.685	ug/L	0.8627	51.685	ppb	0.8627	1.67%
Cu 324.752†	68615.0	335.74	ug/L	0.576	335.74	ppb	0.576	0.17%
Fe 238.204 Radial†	3891.2	52259	ug/L	680.2	52259	ppb	680.2	1.30%
K 766.490 Radial†	22414.1	5229.9	ug/L	47.60	5229.9	ppb	47.60	0.91%

Mg 279.077 IEC†	128.7	5812.9	ug/L	96.47	5812.9	ppb	96.47	1.66%
Mn 257.610†	1019783.0	1967.5	ug/L	3.26	1967.5	ppb	3.26	0.17%
Mo 202.031†	49.6	9.1587	ug/L	1.00476	9.1587	ppb	1.00476	10.97%
Na 589.592 Radial†	1179.3	576.26	ug/L	5.391	576.26	ppb	5.391	0.94%
Ni 231.604†	1627.1	54.872	ug/L	1.0653	54.872	ppb	1.0653	1.94%
P 214.914†	1458.3	684.27	ug/L	24.099	684.27	ppb	24.099	3.52%
Pb 220.353†	1721.7	305.44	ug/L	5.005	305.44	ppb	5.005	1.64%
S 181.975 Axial†	1085.0	1406.6	ug/L	31.31	1406.6	ppb	31.31	2.23%
Sb 206.836†	2.2	-0.3468	ug/L	2.54126	-0.3468	ppb	2.54126	732.72%
Se 196.026†	-118.2	19.614	ug/L	2.1426	19.614	ppb	2.1426	10.92%
Si 251.611†	291408.6	12327	ug/L	17.1	12327	ppb	17.1	0.14%
Sn 189.927†	184.0	50.829	ug/L	1.5451	50.829	ppb	1.5451	3.04%
Sr 421.552†	13492.0	140.74	ug/L	1.444	140.74	ppb	1.444	1.03%
Ti 334.940†	444786.3	1182.8	ug/L	1.34	1182.8	ppb	1.34	0.11%
Tl 190.801†	-36.4	-3.3671	ug/L	0.37961	-3.3671	ppb	0.37961	11.27%
U 409.014†	-2073.8	-119.30	ug/L	3.959	-119.30	ppb	3.959	3.32%
V 292.402†	7586.4	59.819	ug/L	0.3584	59.819	ppb	0.3584	0.60%
Zn 213.857†	96363.0	1087.1	ug/L	2.05	1087.1	ppb	2.05	0.19%
SiO2†	286727.6	25953	ug/L	340.6	25953	ppb	340.6	1.31%

Sequence No.: 39
Sample ID: 249333006|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 65
Date Collected: 4/15/2010 22:12:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249333006|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3603.4	3603.4	111	%			22:14:59
1	Y RADIAL	4601.0	4601.0	126.2	%			22:14:39
1	Al 396.153Radial†	14336.2	13018.8	15270	ug/L	15270	ppb	22:14:39
1	Ca 317.933Radial†	5725.8	5142.2	11582	ug/L	11582	ppb	22:14:39
1	Fe 238.204 Radial†	3703.4	3328.4	44700	ug/L	44700	ppb	22:14:39
1	K 766.490 Radial†	16849.0	11988.7	2796.9	ug/L	2796.9	ppb	22:14:39
1	Mg 279.077 IEC†	71.7	64.4	2894.5	ug/L	2894.5	ppb	22:14:59
1	Na 589.592 Radial†	-323.5	903.2	441.33	ug/L	441.33	ppb	22:14:39
1	Sr 421.552†	8870.6	7952.1	82.958	ug/L	82.958	ppb	22:14:39
1	Sc 361.383	620828.0	620828.0	111.46	%			22:15:56
1	Y 371.029	645691.0	645691.0	124.79	%			22:15:56
1	Ag 328.068†	-1968.6	-1818.9	2.4546	ug/L	2.4546	ppb	22:15:56
1	As 188.979†	-21.8	25.0	24.076	ug/L	24.076	ppb	22:16:16
1	B 249.677†	132.1	773.5	13.977	ug/L	13.977	ppb	22:15:56
1	Ba 233.527†	17425.0	15637.1	235.85	ug/L	235.85	ppb	22:15:56
1	Be 313.107†	-11471.7	-741.5	1.7433	ug/L	1.7433	ppb	22:15:56
1	Cd 226.502†	253.2	534.6	3.4166	ug/L	3.4166	ppb	22:16:16
1	Co 228.616†	392.0	442.3	13.790	ug/L	13.790	ppb	22:16:16
1	Cr 267.716†	3161.5	2729.8	41.959	ug/L	41.959	ppb	22:16:16
1	Cu 324.752†	42988.3	32188.1	158.89	ug/L	158.89	ppb	22:15:56
1	Mn 257.610†	1099825.5	986157.6	1902.1	ug/L	1902.1	ppb	22:15:56
1	Mo 202.031†	100.8	74.4	11.133	ug/L	11.133	ppb	22:16:16
1	Ni 231.604†	883.2	674.6	22.766	ug/L	22.766	ppb	22:16:16
1	P 214.914†	1961.5	1448.5	721.82	ug/L	721.82	ppb	22:16:16
1	Pb 220.353†	2897.5	2695.3	476.32	ug/L	476.32	ppb	22:16:16
1	S 181.975 Axial†	367.0	260.3	336.28	ug/L	336.28	ppb	22:16:16
1	Sb 206.836†	54.1	-9.1	-5.5239	ug/L	-5.5239	ppb	22:16:16
1	Se 196.026†	-148.1	-99.9	17.527	ug/L	17.527	ppb	22:16:16
1	Si 251.611†	249755.8	223517.5	9454.8	ug/L	9454.8	ppb	22:15:56
1	Sn 189.927†	13.3	0.0	2.8256	ug/L	2.8256	ppb	22:16:16
1	Ti 334.940†	380205.7	343105.5	912.09	ug/L	912.09	ppb	22:15:56
1	Tl 190.801†	-114.0	-43.4	-9.8896	ug/L	-9.8896	ppb	22:16:16
1	U 409.014†	-4785.1	-2492.7	-138.48	ug/L	-138.48	ppb	22:15:56
1	V 292.402†	4914.4	6381.2	50.242	ug/L	50.242	ppb	22:15:56
1	Zn 213.857†	57629.0	50763.5	574.36	ug/L	574.36	ppb	22:15:56
1	SiO2†	245892.4	220014.4	19915	ug/L	19915	ppb	22:17:14
2	Sc Radial	3645.7	3645.7	112	%			22:15:24
2	Y RADIAL	4646.1	4646.1	127.5	%			22:15:04
2	Al 396.153Radial†	14377.0	12905.0	15136	ug/L	15136	ppb	22:15:04
2	Ca 317.933Radial†	5785.7	5135.6	11567	ug/L	11567	ppb	22:15:04
2	Fe 238.204 Radial†	3708.6	3294.3	44243	ug/L	44243	ppb	22:15:04
2	K 766.490 Radial†	16870.2	11831.3	2760.1	ug/L	2760.1	ppb	22:15:04
2	Mg 279.077 IEC†	70.5	62.5	2811.9	ug/L	2811.9	ppb	22:15:24
2	Na 589.592 Radial†	-293.9	932.9	455.84	ug/L	455.84	ppb	22:15:04
2	Sr 421.552†	8901.3	7886.6	82.274	ug/L	82.274	ppb	22:15:04
2	Sc 361.383	624017.4	624017.4	112.03	%			22:16:22
2	Y 371.029	649907.3	649907.3	125.61	%			22:16:22
2	Ag 328.068†	-2016.6	-1852.8	2.1146	ug/L	2.1146	ppb	22:16:22
2	As 188.979†	-20.2	26.5	24.669	ug/L	24.669	ppb	22:16:42
2	B 249.677†	169.2	806.0	14.811	ug/L	14.811	ppb	22:16:22
2	Ba 233.527†	17416.1	15549.3	234.51	ug/L	234.51	ppb	22:16:22
2	Be 313.107†	-11336.3	-568.0	1.8157	ug/L	1.8157	ppb	22:16:22
2	Cd 226.502†	251.9	532.3	3.4257	ug/L	3.4257	ppb	22:16:42
2	Co 228.616†	385.9	435.1	13.537	ug/L	13.537	ppb	22:16:42
2	Cr 267.716†	3146.8	2702.1	41.533	ug/L	41.533	ppb	22:16:42
2	Cu 324.752†	43057.6	32052.8	158.20	ug/L	158.20	ppb	22:16:22
2	Mn 257.610†	1101061.6	982217.5	1894.5	ug/L	1894.5	ppb	22:16:22
2	Mo 202.031†	111.0	83.1	12.016	ug/L	12.016	ppb	22:16:42
2	Ni 231.604†	847.3	638.6	21.550	ug/L	21.550	ppb	22:16:42

2	P 214.914†	1933.8	1414.8	704.11	ug/L	704.11 ppb	22:16:42
2	Pb 220.353†	2894.3	2679.2	473.48	ug/L	473.48 ppb	22:16:42
2	S 181.975 Axial†	364.0	255.9	330.59	ug/L	330.59 ppb	22:16:42
2	Sb 206.836†	59.3	-4.7	-3.5596	ug/L	-3.5596 ppb	22:16:42
2	Se 196.026†	-159.7	-109.5	10.538	ug/L	10.538 ppb	22:16:42
2	Si 251.611†	249968.1	222561.7	9414.4	ug/L	9414.4 ppb	22:16:22
2	Sn 189.927†	5.0	-7.4	0.9392	ug/L	0.9392 ppb	22:16:42
2	Ti 334.940†	381467.8	342488.6	910.46	ug/L	910.46 ppb	22:16:22
2	Tl 190.801†	-119.6	-48.0	-12.626	ug/L	-12.626 ppb	22:16:42
2	U 409.014†	-4688.4	-2384.5	-132.87	ug/L	-132.87 ppb	22:16:22
2	V 292.402†	4948.5	6389.0	50.399	ug/L	50.399 ppb	22:16:22
2	Zn 213.857†	57710.7	50572.2	572.18	ug/L	572.18 ppb	22:16:22
2	SiO2†	241957.3	215374.2	19495	ug/L	19495 ppb	22:17:19
3	Sc Radial	3607.9	3607.9	111	%		22:15:49
3	Y RADIAL	4631.8	4631.8	127.1	%		22:15:29
3	Al 396.153Radial†	14200.2	12880.1	15107	ug/L	15107 ppb	22:15:29
3	Ca 317.933Radial†	5672.1	5087.4	11458	ug/L	11458 ppb	22:15:29
3	Fe 238.204 Radial†	3627.0	3255.6	43722	ug/L	43722 ppb	22:15:29
3	K 766.490 Radial†	16584.2	11731.6	2736.9	ug/L	2736.9 ppb	22:15:29
3	Mg 279.077 IEC†	70.8	63.5	2854.4	ug/L	2854.4 ppb	22:15:49
3	Na 589.592 Radial†	-369.8	861.9	421.16	ug/L	421.16 ppb	22:15:29
3	Sr 421.552†	8759.5	7842.2	81.811	ug/L	81.811 ppb	22:15:29
3	Sc 361.383	612235.7	612235.7	109.91	%		22:16:48
3	Y 371.029	637371.9	637371.9	123.18	%		22:16:48
3	Ag 328.068†	-1827.6	-1715.4	2.7809	ug/L	2.7809 ppb	22:16:48
3	As 188.979†	-19.5	26.9	24.742	ug/L	24.742 ppb	22:17:08
3	B 249.677†	66.4	715.4	12.675	ug/L	12.675 ppb	22:16:48
3	Ba 233.527†	17105.3	15565.7	234.72	ug/L	234.72 ppb	22:16:48
3	Be 313.107†	-11263.9	-696.9	1.7566	ug/L	1.7566 ppb	22:16:48
3	Cd 226.502†	240.7	526.5	3.3909	ug/L	3.3909 ppb	22:17:08
3	Co 228.616†	376.9	433.5	13.486	ug/L	13.486 ppb	22:17:08
3	Cr 267.716†	3073.7	2689.7	41.337	ug/L	41.337 ppb	22:17:08
3	Cu 324.752†	42208.3	32019.8	158.01	ug/L	158.01 ppb	22:16:48
3	Mn 257.610†	1078912.4	980979.4	1892.0	ug/L	1892.0 ppb	22:16:48
3	Mo 202.031†	92.8	68.4	10.431	ug/L	10.431 ppb	22:17:08
3	Ni 231.604†	844.7	650.8	21.961	ug/L	21.961 ppb	22:17:08
3	P 214.914†	1903.4	1420.4	707.34	ug/L	707.34 ppb	22:17:08
3	Pb 220.353†	2831.9	2672.1	472.26	ug/L	472.26 ppb	22:17:08
3	S 181.975 Axial†	355.3	254.3	328.49	ug/L	328.49 ppb	22:17:08
3	Sb 206.836†	56.3	-6.3	-4.3561	ug/L	-4.3561 ppb	22:17:08
3	Se 196.026†	-156.4	-109.3	9.7516	ug/L	9.7516 ppb	22:17:08
3	Si 251.611†	244466.2	221849.8	9384.3	ug/L	9384.3 ppb	22:16:48
3	Sn 189.927†	3.5	-8.7	0.6023	ug/L	0.6023 ppb	22:17:08
3	Ti 334.940†	373799.1	342064.3	909.32	ug/L	909.32 ppb	22:16:48
3	Tl 190.801†	-108.6	-40.0	-7.9102	ug/L	-7.9102 ppb	22:17:08
3	U 409.014†	-4647.4	-2427.8	-134.93	ug/L	-134.93 ppb	22:16:48
3	V 292.402†	4746.2	6290.0	49.555	ug/L	49.555 ppb	22:16:48
3	Zn 213.857†	56546.8	50504.6	571.37	ug/L	571.37 ppb	22:16:48
3	SiO2†	245614.9	222858.2	20172	ug/L	20172 ppb	22:17:24

Mean Data: 249333006|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	619027.0	111.13	%	1.094				0.98%
Sc Radial	3619.0	112	%	0.7				0.64%
Y 371.029	644323.4	124.53	%	1.233				0.99%
Y RADIAL	4626.3	126.9	%	0.63				0.50%
Ag 328.068†	-1795.7	2.4500	ug/L	0.33316	2.4500	ppb	0.33316	13.60%
Al 396.153Radial†	12934.6	15171	ug/L	86.7	15171	ppb	86.7	0.57%
As 188.979†	26.1	24.496	ug/L	0.3656	24.496	ppb	0.3656	1.49%
B 249.677†	765.0	13.821	ug/L	1.0764	13.821	ppb	1.0764	7.79%
Ba 233.527†	15584.0	235.03	ug/L	0.718	235.03	ppb	0.718	0.31%
Be 313.107†	-668.8	1.7719	ug/L	0.03851	1.7719	ppb	0.03851	2.17%
Ca 317.933Radial†	5121.8	11536	ug/L	67.4	11536	ppb	67.4	0.58%
Cd 226.502†	531.1	3.4110	ug/L	0.01807	3.4110	ppb	0.01807	0.53%
Co 228.616†	437.0	13.604	ug/L	0.1630	13.604	ppb	0.1630	1.20%
Cr 267.716†	2707.2	41.610	ug/L	0.3179	41.610	ppb	0.3179	0.76%
Cu 324.752†	32086.9	158.37	ug/L	0.464	158.37	ppb	0.464	0.29%
Fe 238.204 Radial†	3292.8	44222	ug/L	489.3	44222	ppb	489.3	1.11%
K 766.490 Radial†	11850.5	2764.6	ug/L	30.26	2764.6	ppb	30.26	1.09%

Mg 279.077 IEC†	63.4	2853.6	ug/L	41.30	2853.6	ppb	41.30	1.45%
Mn 257.610†	983118.2	1896.2	ug/L	5.25	1896.2	ppb	5.25	0.28%
Mo 202.031†	75.3	11.193	ug/L	0.7941	11.193	ppb	0.7941	7.09%
Na 589.592 Radial†	899.3	439.44	ug/L	17.417	439.44	ppb	17.417	3.96%
Ni 231.604†	654.6	22.092	ug/L	0.6182	22.092	ppb	0.6182	2.80%
P 214.914†	1427.9	711.09	ug/L	9.433	711.09	ppb	9.433	1.33%
Pb 220.353†	2682.2	474.02	ug/L	2.083	474.02	ppb	2.083	0.44%
S 181.975 Axial†	256.8	331.79	ug/L	4.029	331.79	ppb	4.029	1.21%
Sb 206.836†	-6.7	-4.4799	ug/L	0.98801	-4.4799	ppb	0.98801	22.05%
Se 196.026†	-106.2	12.605	ug/L	4.2805	12.605	ppb	4.2805	33.96%
Si 251.611†	222643.0	9417.8	ug/L	35.39	9417.8	ppb	35.39	0.38%
Sn 189.927†	-5.4	1.4557	ug/L	1.19826	1.4557	ppb	1.19826	82.31%
Sr 421.552†	7893.6	82.348	ug/L	0.5770	82.348	ppb	0.5770	0.70%
Ti 334.940†	342552.8	910.62	ug/L	1.395	910.62	ppb	1.395	0.15%
Tl 190.801†	-43.8	-10.142	ug/L	2.3680	-10.142	ppb	2.3680	23.35%
U 409.014†	-2435.0	-135.43	ug/L	2.840	-135.43	ppb	2.840	2.10%
V 292.402†	6353.4	50.065	ug/L	0.4490	50.065	ppb	0.4490	0.90%
Zn 213.857†	50613.5	572.63	ug/L	1.550	572.63	ppb	1.550	0.27%
SiO2†	219415.6	19860	ug/L	342.0	19860	ppb	342.0	1.72%

Sequence No.: 40
Sample ID: 249333007|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 66
Date Collected: 4/15/2010 22:19:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249333007|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3683.6	3683.6	114	%			22:21:48
1	Y RADIAL	4658.5	4658.5	127.8	%			22:21:28
1	Al 396.153Radial†	18227.1	16163.5	18959	ug/L	18959	ppb	22:21:28
1	Ca 317.933Radial†	4540.4	3986.3	8978.4	ug/L	8978.4	ppb	22:21:28
1	Fe 238.204 Radial†	5262.0	4628.1	62155	ug/L	62155	ppb	22:21:28
1	K 766.490 Radial†	18581.6	13183.9	3076.2	ug/L	3076.2	ppb	22:21:28
1	Mg 279.077 IEC†	82.5	72.5	3252.1	ug/L	3252.1	ppb	22:21:48
1	Na 589.592 Radial†	328.4	1483.5	724.86	ug/L	724.86	ppb	22:21:28
1	Sr 421.552†	7038.7	6165.4	64.318	ug/L	64.318	ppb	22:21:28
1	Sc 361.383	659402.1	659402.1	118.38	%			22:22:46
1	Y 371.029	681877.3	681877.3	131.79	%			22:22:46
1	Ag 328.068†	-1522.8	-1339.0	10.511	ug/L	10.511	ppb	22:22:46
1	As 188.979†	-22.5	25.6	28.876	ug/L	28.876	ppb	22:23:06
1	B 249.677†	394.9	988.5	17.360	ug/L	17.360	ppb	22:22:46
1	Ba 233.527†	16486.8	13930.0	211.38	ug/L	211.38	ppb	22:22:46
1	Be 313.107†	-14693.7	-2861.1	1.4611	ug/L	1.4611	ppb	22:22:46
1	Cd 226.502†	769.8	957.8	7.7382	ug/L	7.7382	ppb	22:23:06
1	Co 228.616†	274.5	322.5	8.5227	ug/L	8.5227	ppb	22:23:06
1	Cr 267.716†	4090.0	3348.2	51.577	ug/L	51.577	ppb	22:23:06
1	Cu 324.752†	63239.0	47038.2	231.99	ug/L	231.99	ppb	22:22:46
1	Mn 257.610†	1002086.3	845868.9	1634.0	ug/L	1634.0	ppb	22:22:46
1	Mo 202.031†	80.7	52.2	9.9417	ug/L	9.9417	ppb	22:23:06
1	Ni 231.604†	1648.4	1274.7	43.006	ug/L	43.006	ppb	22:23:06
1	P 214.914†	1434.5	900.5	405.74	ug/L	405.74	ppb	22:23:06
1	Pb 220.353†	1364.8	1248.4	220.14	ug/L	220.14	ppb	22:23:06
1	S 181.975 Axial†	711.0	531.6	688.16	ug/L	688.16	ppb	22:23:06
1	Sb 206.836†	43.4	-20.9	-11.041	ug/L	-11.041	ppb	22:23:06
1	Se 196.026†	-224.1	-156.3	13.210	ug/L	13.210	ppb	22:23:06
1	Si 251.611†	288405.1	243057.0	10281	ug/L	10281	ppb	22:22:46
1	Sn 189.927†	90.5	64.6	18.834	ug/L	18.834	ppb	22:23:06
1	Ti 334.940†	530949.3	450487.8	1197.0	ug/L	1197.0	ppb	22:22:46
1	Tl 190.801†	-98.9	-24.7	2.0811	ug/L	2.0811	ppb	22:23:06
1	U 409.014†	-6576.1	-3754.6	-207.17	ug/L	-207.17	ppb	22:22:46
1	V 292.402†	5426.2	6555.6	49.009	ug/L	49.009	ppb	22:22:46
1	Zn 213.857†	120476.1	100827.8	1138.4	ug/L	1138.4	ppb	22:22:46
1	SiO2†	280340.0	236207.5	21381	ug/L	21381	ppb	22:24:03
2	Sc Radial	3690.4	3690.4	114	%			22:22:14
2	Y RADIAL	4692.8	4692.8	128.7	%			22:21:53
2	Al 396.153Radial†	18403.8	16288.9	19106	ug/L	19106	ppb	22:21:53
2	Ca 317.933Radial†	4576.0	4010.1	9032.0	ug/L	9032.0	ppb	22:21:53
2	Fe 238.204 Radial†	5336.9	4685.3	62923	ug/L	62923	ppb	22:21:53
2	K 766.490 Radial†	18848.4	13388.0	3123.8	ug/L	3123.8	ppb	22:21:53
2	Mg 279.077 IEC†	88.0	77.1	3463.1	ug/L	3463.1	ppb	22:22:14
2	Na 589.592 Radial†	404.4	1549.8	757.25	ug/L	757.25	ppb	22:21:53
2	Sr 421.552†	7136.2	6239.4	65.092	ug/L	65.092	ppb	22:21:53
2	Sc 361.383	645982.5	645982.5	115.97	%			22:23:12
2	Y 371.029	667135.3	667135.3	128.94	%			22:23:12
2	Ag 328.068†	-1367.3	-1231.6	11.375	ug/L	11.375	ppb	22:23:12
2	As 188.979†	-24.6	23.4	27.984	ug/L	27.984	ppb	22:23:32
2	B 249.677†	373.2	976.8	16.997	ug/L	16.997	ppb	22:23:12
2	Ba 233.527†	16142.1	13922.2	211.31	ug/L	211.31	ppb	22:23:12
2	Be 313.107†	-14379.9	-2848.4	1.4644	ug/L	1.4644	ppb	22:23:12
2	Cd 226.502†	752.6	956.4	7.6512	ug/L	7.6512	ppb	22:23:32
2	Co 228.616†	254.0	309.6	8.0394	ug/L	8.0394	ppb	22:23:32
2	Cr 267.716†	4090.0	3419.9	52.669	ug/L	52.669	ppb	22:23:32
2	Cu 324.752†	61767.2	46878.9	231.27	ug/L	231.27	ppb	22:23:12
2	Mn 257.610†	981559.4	845753.9	1633.9	ug/L	1633.9	ppb	22:23:12
2	Mo 202.031†	75.6	49.2	9.6795	ug/L	9.6795	ppb	22:23:32
2	Ni 231.604†	1612.1	1272.3	42.927	ug/L	42.927	ppb	22:23:32

2	P 214.914†	1443.4	933.3	423.17	ug/L	423.17 ppb	22:23:32
2	Pb 220.353†	1377.7	1283.5	226.31	ug/L	226.31 ppb	22:23:32
2	S 181.975 Axial†	683.2	520.1	673.28	ug/L	673.28 ppb	22:23:32
2	Sb 206.836†	55.2	-10.0	-6.1027	ug/L	-6.1027 ppb	22:23:32
2	Se 196.026†	-224.4	-160.5	11.924	ug/L	11.924 ppb	22:23:32
2	Si 251.611†	282051.2	242639.3	10264	ug/L	10264 ppb	22:23:12
2	Sn 189.927†	88.3	64.2	18.770	ug/L	18.770 ppb	22:23:32
2	Ti 334.940†	519686.3	450093.3	1195.9	ug/L	1195.9 ppb	22:23:12
2	Tl 190.801†	-104.6	-31.4	-1.8660	ug/L	-1.8660 ppb	22:23:32
2	U 409.014†	-6335.1	-3662.2	-202.69	ug/L	-202.69 ppb	22:23:12
2	V 292.402†	5389.9	6619.5	49.489	ug/L	49.489 ppb	22:23:12
2	Zn 213.857†	117982.4	100791.7	1138.1	ug/L	1138.1 ppb	22:23:12
2	SiO2†	286030.0	246033.3	22270	ug/L	22270 ppb	22:24:09
3	Sc Radial	3701.9	3701.9	114	%		22:22:39
3	Y RADIAL	4622.5	4622.5	126.8	%		22:22:19
3	Al 396.153Radial†	18204.7	16064.4	18842	ug/L	18842 ppb	22:22:19
3	Ca 317.933Radial†	4545.3	3970.8	8943.4	ug/L	8943.4 ppb	22:22:19
3	Fe 238.204 Radial†	5266.8	4609.3	61903	ug/L	61903 ppb	22:22:19
3	K 766.490 Radial†	18647.1	13160.3	3070.7	ug/L	3070.7 ppb	22:22:19
3	Mg 279.077 IEC†	86.8	75.9	3407.9	ug/L	3407.9 ppb	22:22:39
3	Na 589.592 Radial†	432.3	1573.1	768.68	ug/L	768.68 ppb	22:22:19
3	Sr 421.552†	7089.4	6179.1	64.462	ug/L	64.462 ppb	22:22:19
3	Sc 361.383	650434.2	650434.2	116.77	%		22:23:38
3	Y 371.029	671485.8	671485.8	129.78	%		22:23:38
3	Ag 328.068†	-1505.2	-1341.7	10.415	ug/L	10.415 ppb	22:23:38
3	As 188.979†	-28.2	20.5	26.567	ug/L	26.567 ppb	22:23:58
3	B 249.677†	353.7	957.9	16.645	ug/L	16.645 ppb	22:23:38
3	Ba 233.527†	16149.4	13833.1	209.92	ug/L	209.92 ppb	22:23:38
3	Be 313.107†	-14476.6	-2846.3	1.4636	ug/L	1.4636 ppb	22:23:38
3	Cd 226.502†	748.2	948.2	7.6288	ug/L	7.6288 ppb	22:23:58
3	Co 228.616†	260.3	313.5	8.2003	ug/L	8.2003 ppb	22:23:58
3	Cr 267.716†	4048.6	3360.3	51.753	ug/L	51.753 ppb	22:23:58
3	Cu 324.752†	62272.9	46947.4	231.53	ug/L	231.53 ppb	22:23:38
3	Mn 257.610†	986706.1	844368.7	1631.1	ug/L	1631.1 ppb	22:23:38
3	Mo 202.031†	88.4	59.7	10.721	ug/L	10.721 ppb	22:23:58
3	Ni 231.604†	1606.6	1258.1	42.447	ug/L	42.447 ppb	22:23:58
3	P 214.914†	1414.3	899.9	405.61	ug/L	405.61 ppb	22:23:58
3	Pb 220.353†	1362.1	1262.1	222.55	ug/L	222.55 ppb	22:23:58
3	S 181.975 Axial†	695.5	526.6	681.74	ug/L	681.74 ppb	22:23:58
3	Sb 206.836†	56.0	-9.7	-5.9475	ug/L	-5.9475 ppb	22:23:58
3	Se 196.026†	-211.8	-148.4	17.813	ug/L	17.813 ppb	22:23:58
3	Si 251.611†	283426.6	242152.7	10243	ug/L	10243 ppb	22:23:38
3	Sn 189.927†	93.6	68.2	19.744	ug/L	19.744 ppb	22:23:58
3	Ti 334.940†	522950.0	449821.4	1195.2	ug/L	1195.2 ppb	22:23:38
3	Tl 190.801†	-101.8	-28.4	-0.1011	ug/L	-0.1011 ppb	22:23:58
3	U 409.014†	-6323.5	-3614.8	-200.02	ug/L	-200.02 ppb	22:23:38
3	V 292.402†	5308.2	6517.7	48.732	ug/L	48.732 ppb	22:23:38
3	Zn 213.857†	118398.0	100451.3	1134.2	ug/L	1134.2 ppb	22:23:38
3	SiO2†	283779.5	242418.1	21943	ug/L	21943 ppb	22:24:14

Mean Data: 249333007|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	651939.6	117.04	%	1.227				1.05%
Sc Radial	3692.0	114	%	0.3				0.25%
Y 371.029	673499.5	130.17	%	1.464				1.12%
Y RADIAL	4657.9	127.8	%	0.96				0.75%
Ag 328.068†	-1304.1	10.767	ug/L	0.5285	10.767	ppb	0.5285	4.91%
Al 396.153Radial†	16172.3	18969	ug/L	132.0	18969	ppb	132.0	0.70%
As 188.979†	23.2	27.809	ug/L	1.1645	27.809	ppb	1.1645	4.19%
B 249.677†	974.4	17.001	ug/L	0.3573	17.001	ppb	0.3573	2.10%
Ba 233.527†	13895.1	210.87	ug/L	0.823	210.87	ppb	0.823	0.39%
Be 313.107†	-2852.0	1.4630	ug/L	0.00168	1.4630	ppb	0.00168	0.11%
Ca 317.933Radial†	3989.1	8984.6	ug/L	44.64	8984.6	ppb	44.64	0.50%
Cd 226.502†	954.1	7.6727	ug/L	0.05780	7.6727	ppb	0.05780	0.75%
Co 228.616†	315.2	8.2541	ug/L	0.24613	8.2541	ppb	0.24613	2.98%
Cr 267.716†	3376.1	51.999	ug/L	0.5866	51.999	ppb	0.5866	1.13%
Cu 324.752†	46954.8	231.60	ug/L	0.366	231.60	ppb	0.366	0.16%
Fe 238.204 Radial†	4640.9	62327	ug/L	531.5	62327	ppb	531.5	0.85%
K 766.490 Radial†	13244.1	3090.2	ug/L	29.22	3090.2	ppb	29.22	0.95%

Mg 279.077 IEC†	75.2	3374.3	ug/L	109.43	3374.3	ppb	109.43	3.24%
Mn 257.610†	845330.5	1633.0	ug/L	1.64	1633.0	ppb	1.64	0.10%
Mo 202.031†	53.7	10.114	ug/L	0.5415	10.114	ppb	0.5415	5.35%
Na 589.592 Radial†	1535.4	750.26	ug/L	22.729	750.26	ppb	22.729	3.03%
Ni 231.604†	1268.4	42.793	ug/L	0.3024	42.793	ppb	0.3024	0.71%
P 214.914†	911.2	411.50	ug/L	10.100	411.50	ppb	10.100	2.45%
Pb 220.353†	1264.7	223.00	ug/L	3.110	223.00	ppb	3.110	1.39%
S 181.975 Axial†	526.1	681.06	ug/L	7.463	681.06	ppb	7.463	1.10%
Sb 206.836†	-13.5	-7.6972	ug/L	2.89723	-7.6972	ppb	2.89723	37.64%
Se 196.026†	-155.1	14.316	ug/L	3.0960	14.316	ppb	3.0960	21.63%
Si 251.611†	242616.3	10263	ug/L	19.2	10263	ppb	19.2	0.19%
Sn 189.927†	65.7	19.116	ug/L	0.5447	19.116	ppb	0.5447	2.85%
Sr 421.552†	6194.6	64.624	ug/L	0.4114	64.624	ppb	0.4114	0.64%
Ti 334.940†	450134.2	1196.0	ug/L	0.90	1196.0	ppb	0.90	0.08%
Tl 190.801†	-28.2	0.0380	ug/L	1.97724	0.0380	ppb	1.97724	>999.9%
U 409.014†	-3677.2	-203.29	ug/L	3.614	-203.29	ppb	3.614	1.78%
V 292.402†	6564.2	49.077	ug/L	0.3829	49.077	ppb	0.3829	0.78%
Zn 213.857†	100690.3	1136.9	ug/L	2.36	1136.9	ppb	2.36	0.21%
SiO2†	241553.0	21864	ug/L	449.8	21864	ppb	449.8	2.06%

Sequence No.: 41
Sample ID: 249333008|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 67
Date Collected: 4/15/2010 22:26:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249333008|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3635.9	3635.9	112	%			22:28:38
1	Y RADIAL	4193.7	4193.7	115.1	%			22:28:18
1	Al 396.153Radial†	11353.1	10242.2	12013	ug/L	12013	ppb	22:28:18
1	Ca 317.933Radial†	6201.9	5520.8	12435	ug/L	12435	ppb	22:28:18
1	Fe 238.204 Radial†	4009.9	3572.0	47972	ug/L	47972	ppb	22:28:18
1	K 766.490 Radial†	14100.7	9401.4	2192.8	ug/L	2192.8	ppb	22:28:18
1	Mg 279.077 IEC†	102.5	91.2	4112.4	ug/L	4112.4	ppb	22:28:38
1	Na 589.592 Radial†	357.6	1513.4	739.48	ug/L	739.48	ppb	22:28:18
1	Sr 421.552†	5882.3	5215.1	54.369	ug/L	54.369	ppb	22:28:18
1	Sc 361.383	622745.1	622745.1	111.80	%			22:29:36
1	Y 371.029	625357.9	625357.9	120.86	%			22:29:36
1	Ag 328.068†	-1486.5	-1382.2	6.0504	ug/L	6.0504	ppb	22:29:36
1	As 188.979†	-14.8	31.3	27.555	ug/L	27.555	ppb	22:29:56
1	B 249.677†	-451.0	251.6	1.0191	ug/L	1.0191	ppb	22:29:36
1	Ba 233.527†	26208.5	23445.5	352.50	ug/L	352.50	ppb	22:29:36
1	Be 313.107†	-11725.6	-936.9	1.7326	ug/L	1.7326	ppb	22:29:36
1	Cd 226.502†	166.7	456.6	2.0385	ug/L	2.0385	ppb	22:29:56
1	Co 228.616†	274.7	336.3	9.8429	ug/L	9.8429	ppb	22:29:56
1	Cr 267.716†	3207.4	2762.0	42.511	ug/L	42.511	ppb	22:29:56
1	Cu 324.752†	47938.1	36496.8	179.97	ug/L	179.97	ppb	22:29:36
1	Mn 257.610†	842255.7	752735.3	1453.3	ug/L	1453.3	ppb	22:29:36
1	Mo 202.031†	119.1	90.5	13.074	ug/L	13.074	ppb	22:29:56
1	Ni 231.604†	903.4	690.3	23.300	ug/L	23.300	ppb	22:29:56
1	P 214.914†	5259.2	4392.8	2287.3	ug/L	2287.3	ppb	22:29:56
1	Pb 220.353†	794.9	806.6	141.65	ug/L	141.65	ppb	22:29:56
1	S 181.975 Axial†	538.8	413.0	534.93	ug/L	534.93	ppb	22:29:56
1	Sb 206.836†	52.6	-10.5	-6.3294	ug/L	-6.3294	ppb	22:29:56
1	Se 196.026†	-178.8	-127.0	6.1516	ug/L	6.1516	ppb	22:29:56
1	Si 251.611†	229100.4	204352.3	8644.1	ug/L	8644.1	ppb	22:29:36
1	Sn 189.927†	-43.6	-50.9	-9.7357	ug/L	-9.7357	ppb	22:29:56
1	Ti 334.940†	395289.4	355547.1	945.12	ug/L	945.12	ppb	22:29:36
1	Tl 190.801†	-101.0	-31.5	-4.7350	ug/L	-4.7350	ppb	22:29:56
1	U 409.014†	-4702.8	-2406.0	-134.96	ug/L	-134.96	ppb	22:29:36
1	V 292.402†	6345.4	7647.6	61.196	ug/L	61.196	ppb	22:29:36
1	Zn 213.857†	81371.5	71841.0	811.51	ug/L	811.51	ppb	22:29:36
1	SiO2†	238602.3	212814.6	19263	ug/L	19263	ppb	22:30:53
2	Sc Radial	3624.0	3624.0	112	%			22:29:03
2	Y RADIAL	4456.9	4456.9	122.3	%			22:28:43
2	Al 396.153Radial†	11222.5	10158.7	11915	ug/L	11915	ppb	22:28:43
2	Ca 317.933Radial†	6123.6	5468.9	12318	ug/L	12318	ppb	22:28:43
2	Fe 238.204 Radial†	3937.8	3519.2	47263	ug/L	47263	ppb	22:28:43
2	K 766.490 Radial†	13917.2	9278.6	2164.2	ug/L	2164.2	ppb	22:28:43
2	Mg 279.077 IEC†	102.9	91.9	4145.2	ug/L	4145.2	ppb	22:29:03
2	Na 589.592 Radial†	343.7	1501.9	733.88	ug/L	733.88	ppb	22:28:43
2	Sr 421.552†	5771.9	5133.5	53.518	ug/L	53.518	ppb	22:28:43
2	Sc 361.383	628553.4	628553.4	112.84	%			22:30:02
2	Y 371.029	631238.0	631238.0	122.00	%			22:30:02
2	Ag 328.068†	-1559.4	-1434.6	5.5313	ug/L	5.5313	ppb	22:30:02
2	As 188.979†	-10.8	35.0	29.095	ug/L	29.095	ppb	22:30:22
2	B 249.677†	-471.8	236.9	0.7348	ug/L	0.7348	ppb	22:30:02
2	Ba 233.527†	26526.7	23510.9	353.43	ug/L	353.43	ppb	22:30:02
2	Be 313.107†	-11825.3	-928.3	1.7367	ug/L	1.7367	ppb	22:30:02
2	Cd 226.502†	165.2	453.9	2.0657	ug/L	2.0657	ppb	22:30:22
2	Co 228.616†	299.5	356.1	10.575	ug/L	10.575	ppb	22:30:22
2	Cr 267.716†	3245.2	2769.1	42.605	ug/L	42.605	ppb	22:30:22
2	Cu 324.752†	48516.1	36612.8	180.48	ug/L	180.48	ppb	22:30:02
2	Mn 257.610†	850574.7	753145.8	1454.0	ug/L	1454.0	ppb	22:30:02
2	Mo 202.031†	106.6	78.4	11.746	ug/L	11.746	ppb	22:30:22
2	Ni 231.604†	916.8	694.7	23.446	ug/L	23.446	ppb	22:30:22

2	P 214.914†	5272.9	4361.5	2270.8	ug/L	2270.8	ppb	22:30:22
2	Pb 220.353†	813.1	816.2	143.36	ug/L	143.36	ppb	22:30:22
2	S 181.975 Axial†	559.1	426.5	552.45	ug/L	552.45	ppb	22:30:22
2	Sb 206.836†	53.3	-10.3	-6.2702	ug/L	-6.2702	ppb	22:30:22
2	Se 196.026†	-167.3	-115.3	12.298	ug/L	12.298	ppb	22:30:22
2	Si 251.611†	231271.3	204382.6	8645.4	ug/L	8645.4	ppb	22:30:02
2	Sn 189.927†	-39.7	-47.1	-8.8184	ug/L	-8.8184	ppb	22:30:22
2	Ti 334.940†	399027.0	355592.1	945.22	ug/L	945.22	ppb	22:30:02
2	Tl 190.801†	-111.4	-39.9	-9.7181	ug/L	-9.7181	ppb	22:30:22
2	U 409.014†	-4647.1	-2317.7	-130.30	ug/L	-130.30	ppb	22:30:02
2	V 292.402†	6502.8	7734.6	62.063	ug/L	62.063	ppb	22:30:02
2	Zn 213.857†	82258.9	71954.8	812.72	ug/L	812.72	ppb	22:30:02
2	SiO2†	236378.1	208871.4	18906	ug/L	18906	ppb	22:30:58
3	Sc Radial	3654.1	3654.1	113	%			22:29:28
3	Y RADIAL	4472.6	4472.6	122.7	%			22:29:08
3	Al 396.153Radial†	11205.7	10061.0	11801	ug/L	11801	ppb	22:29:08
3	Ca 317.933Radial†	6098.2	5401.2	12165	ug/L	12165	ppb	22:29:08
3	Fe 238.204 Radial†	3903.3	3459.6	46462	ug/L	46462	ppb	22:29:08
3	K 766.490 Radial†	13766.6	9042.3	2109.0	ug/L	2109.0	ppb	22:29:08
3	Mg 279.077 IEC†	107.5	95.3	4296.4	ug/L	4296.4	ppb	22:29:28
3	Na 589.592 Radial†	292.5	1454.0	710.47	ug/L	710.47	ppb	22:29:08
3	Sr 421.552†	5721.3	5046.1	52.606	ug/L	52.606	ppb	22:29:08
3	Sc 361.383	641013.4	641013.4	115.08	%			22:30:27
3	Y 371.029	644050.7	644050.7	124.47	%			22:30:27
3	Ag 328.068†	-1566.0	-1413.5	5.4281	ug/L	5.4281	ppb	22:30:27
3	As 188.979†	-17.0	29.8	26.671	ug/L	26.671	ppb	22:30:47
3	B 249.677†	-414.7	294.6	2.2181	ug/L	2.2181	ppb	22:30:27
3	Ba 233.527†	26967.3	23436.8	352.29	ug/L	352.29	ppb	22:30:27
3	Be 313.107†	-12060.6	-929.1	1.7333	ug/L	1.7333	ppb	22:30:27
3	Cd 226.502†	199.7	481.0	2.5145	ug/L	2.5145	ppb	22:30:47
3	Co 228.616†	279.6	333.6	9.7640	ug/L	9.7640	ppb	22:30:47
3	Cr 267.716†	3323.4	2781.1	42.775	ug/L	42.775	ppb	22:30:47
3	Cu 324.752†	49470.1	36606.0	180.39	ug/L	180.39	ppb	22:30:27
3	Mn 257.610†	865612.6	751561.5	1450.8	ug/L	1450.8	ppb	22:30:27
3	Mo 202.031†	103.0	73.5	11.162	ug/L	11.162	ppb	22:30:47
3	Ni 231.604†	935.5	695.1	23.461	ug/L	23.461	ppb	22:30:47
3	P 214.914†	5319.1	4310.8	2244.0	ug/L	2244.0	ppb	22:30:47
3	Pb 220.353†	842.7	827.9	145.46	ug/L	145.46	ppb	22:30:47
3	S 181.975 Axial†	557.4	415.3	538.02	ug/L	538.02	ppb	22:30:47
3	Sb 206.836†	66.0	-0.3	-1.7450	ug/L	-1.7450	ppb	22:30:47
3	Se 196.026†	-165.6	-110.9	13.648	ug/L	13.648	ppb	22:30:47
3	Si 251.611†	236692.7	205109.7	8676.1	ug/L	8676.1	ppb	22:30:27
3	Sn 189.927†	-34.5	-41.8	-7.5443	ug/L	-7.5443	ppb	22:30:47
3	Ti 334.940†	406357.0	355088.1	943.86	ug/L	943.86	ppb	22:30:27
3	Tl 190.801†	-93.9	-22.7	0.4432	ug/L	0.4432	ppb	22:30:47
3	U 409.014†	-4759.0	-2334.9	-130.95	ug/L	-130.95	ppb	22:30:27
3	V 292.402†	6724.9	7815.6	62.893	ug/L	62.893	ppb	22:30:27
3	Zn 213.857†	83876.1	71943.2	812.52	ug/L	812.52	ppb	22:30:27
3	SiO2†	239131.1	207191.8	18754	ug/L	18754	ppb	22:31:04

Mean Data: 249333008|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	630770.6	113.24	%	1.676				1.48%
Sc Radial	3638.0	112	%	0.5				0.42%
Y 371.029	633548.9	122.44	%	1.847				1.51%
Y RADIAL	4374.4	120.0	%	4.30				3.58%
Ag 328.068†	-1410.1	5.6699	ug/L	0.33349	5.6699	ppb	0.33349	5.88%
Al 396.153Radial†	10154.0	11910	ug/L	106.4	11910	ppb	106.4	0.89%
As 188.979†	32.1	27.774	ug/L	1.2266	27.774	ppb	1.2266	4.42%
B 249.677†	261.0	1.3240	ug/L	0.78729	1.3240	ppb	0.78729	59.46%
Ba 233.527†	23464.4	352.74	ug/L	0.611	352.74	ppb	0.611	0.17%
Be 313.107†	-931.4	1.7342	ug/L	0.00217	1.7342	ppb	0.00217	0.12%
Ca 317.933Radial†	5463.6	12306	ug/L	135.1	12306	ppb	135.1	1.10%
Cd 226.502†	463.9	2.2062	ug/L	0.26732	2.2062	ppb	0.26732	12.12%
Co 228.616†	342.0	10.061	ug/L	0.4472	10.061	ppb	0.4472	4.44%
Cr 267.716†	2770.7	42.630	ug/L	0.1338	42.630	ppb	0.1338	0.31%
Cu 324.752†	36571.8	180.28	ug/L	0.274	180.28	ppb	0.274	0.15%
Fe 238.204 Radial†	3516.9	47232	ug/L	755.3	47232	ppb	755.3	1.60%
K 766.490 Radial†	9240.8	2155.3	ug/L	42.59	2155.3	ppb	42.59	1.98%

Mg 279.077 IEC†	92.8	4184.7	ug/L	98.16	4184.7	ppb	98.16	2.35%
Mn 257.610†	752480.9	1452.7	ug/L	1.65	1452.7	ppb	1.65	0.11%
Mo 202.031†	80.8	11.994	ug/L	0.9796	11.994	ppb	0.9796	8.17%
Na 589.592 Radial†	1489.8	727.94	ug/L	15.390	727.94	ppb	15.390	2.11%
Ni 231.604†	693.4	23.402	ug/L	0.0889	23.402	ppb	0.0889	0.38%
P 214.914†	4355.0	2267.4	ug/L	21.85	2267.4	ppb	21.85	0.96%
Pb 220.353†	816.9	143.49	ug/L	1.911	143.49	ppb	1.911	1.33%
S 181.975 Axial†	418.3	541.80	ug/L	9.350	541.80	ppb	9.350	1.73%
Sb 206.836†	-7.0	-4.7815	ug/L	2.62986	-4.7815	ppb	2.62986	55.00%
Se 196.026†	-117.7	10.699	ug/L	3.9958	10.699	ppb	3.9958	37.35%
Si 251.611†	204614.9	8655.2	ug/L	18.15	8655.2	ppb	18.15	0.21%
Sn 189.927†	-46.6	-8.6995	ug/L	1.10055	-8.6995	ppb	1.10055	12.65%
Sr 421.552†	5131.6	53.497	ug/L	0.8817	53.497	ppb	0.8817	1.65%
Ti 334.940†	355409.1	944.74	ug/L	0.760	944.74	ppb	0.760	0.08%
Tl 190.801†	-31.4	-4.6700	ug/L	5.08095	-4.6700	ppb	5.08095	108.80%
U 409.014†	-2352.8	-132.07	ug/L	2.525	-132.07	ppb	2.525	1.91%
V 292.402†	7732.6	62.051	ug/L	0.8487	62.051	ppb	0.8487	1.37%
Zn 213.857†	71913.0	812.25	ug/L	0.647	812.25	ppb	0.647	0.08%
SiO2†	209625.9	18974	ug/L	261.2	18974	ppb	261.2	1.38%

Sequence No.: 42
Sample ID: 249333009|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 68
Date Collected: 4/15/2010 22:33:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249333009|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3705.3	3705.3	114	%			22:35:28
1	Y RADIAL	4728.7	4728.7	129.7	%			22:35:08
1	Al 396.153Radial†	31460.3	27652.5	32433	ug/L	32433	ppb	22:35:08
1	Ca 317.933Radial†	4903.3	4280.5	9641.0	ug/L	9641.0	ppb	22:35:08
1	Fe 238.204 Radial†	6016.1	5261.0	70655	ug/L	70655	ppb	22:35:08
1	K 766.490 Radial†	18025.6	12601.4	2939.7	ug/L	2939.7	ppb	22:35:08
1	Mg 279.077 IEC†	163.7	143.1	6452.5	ug/L	6452.5	ppb	22:35:28
1	Na 589.592 Radial†	3790.8	4512.4	2204.9	ug/L	2204.9	ppb	22:35:08
1	Sr 421.552†	6970.8	6069.6	63.313	ug/L	63.313	ppb	22:35:08
1	Sc 361.383	642039.4	642039.4	115.26	%			22:36:25
1	Y 371.029	671939.0	671939.0	129.86	%			22:36:25
1	Ag 328.068†	-3758.0	-3313.0	1.2425	ug/L	1.2425	ppb	22:36:25
1	As 188.979†	-26.3	21.8	28.410	ug/L	28.410	ppb	22:36:45
1	B 249.677†	78.4	723.0	10.049	ug/L	10.049	ppb	22:36:25
1	Ba 233.527†	12675.6	11000.2	168.17	ug/L	168.17	ppb	22:36:25
1	Be 313.107†	-7849.7	2740.9	3.9629	ug/L	3.9629	ppb	22:36:25
1	Cd 226.502†	214.8	493.8	0.5121	ug/L	0.5121	ppb	22:36:45
1	Co 228.616†	222.3	283.5	6.9885	ug/L	6.9885	ppb	22:36:45
1	Cr 267.716†	4888.0	4133.9	63.558	ug/L	63.558	ppb	22:36:45
1	Cu 324.752†	31561.4	21000.1	106.49	ug/L	106.49	ppb	22:36:25
1	Mn 257.610†	629480.6	545497.2	1056.9	ug/L	1056.9	ppb	22:36:25
1	Mo 202.031†	491.7	410.6	48.511	ug/L	48.511	ppb	22:36:45
1	Ni 231.604†	1445.5	1136.3	38.351	ug/L	38.351	ppb	22:36:45
1	P 214.914†	1126.4	666.0	309.76	ug/L	309.76	ppb	22:36:45
1	Pb 220.353†	442.6	479.6	87.296	ug/L	87.296	ppb	22:36:45
1	S 181.975 Axial†	265.6	161.4	205.92	ug/L	205.92	ppb	22:36:45
1	Sb 206.836†	66.8	0.3	-1.0498	ug/L	-1.0498	ppb	22:36:45
1	Se 196.026†	-240.5	-175.7	16.524	ug/L	16.524	ppb	22:36:45
1	Si 251.611†	406145.1	351793.7	14881	ug/L	14881	ppb	22:36:25
1	Sn 189.927†	-24.2	-32.9	-5.3440	ug/L	-5.3440	ppb	22:36:45
1	Ti 334.940†	525588.8	457966.3	1216.7	ug/L	1216.7	ppb	22:36:25
1	Tl 190.801†	-111.2	-37.6	-8.1708	ug/L	-8.1708	ppb	22:36:45
1	U 409.014†	-6853.4	-4145.4	-229.29	ug/L	-229.29	ppb	22:36:25
1	V 292.402†	5490.1	6735.0	50.025	ug/L	50.025	ppb	22:36:25
1	Zn 213.857†	42746.1	36143.4	412.48	ug/L	412.48	ppb	22:36:25
1	SiO2†	397482.6	344241.5	31158	ug/L	31158	ppb	22:37:42
2	Sc Radial	3611.3	3611.3	111	%			22:35:53
2	Y RADIAL	4726.9	4726.9	129.7	%			22:35:33
2	Al 396.153Radial†	31689.7	28574.9	33515	ug/L	33515	ppb	22:35:33
2	Ca 317.933Radial†	4957.1	4440.5	10001	ug/L	10001	ppb	22:35:33
2	Fe 238.204 Radial†	6041.5	5420.8	72801	ug/L	72801	ppb	22:35:33
2	K 766.490 Radial†	18056.4	13039.5	3041.9	ug/L	3041.9	ppb	22:35:33
2	Mg 279.077 IEC†	160.7	144.2	6500.6	ug/L	6500.6	ppb	22:35:53
2	Na 589.592 Radial†	3786.3	4594.7	2245.1	ug/L	2245.1	ppb	22:35:33
2	Sr 421.552†	7001.3	6255.7	65.254	ug/L	65.254	ppb	22:35:33
2	Sc 361.383	628596.2	628596.2	112.85	%			22:36:50
2	Y 371.029	658232.4	658232.4	127.22	%			22:36:50
2	Ag 328.068†	-3857.1	-3470.5	0.9345	ug/L	0.9345	ppb	22:36:50
2	As 188.979†	-28.4	19.4	27.655	ug/L	27.655	ppb	22:37:11
2	B 249.677†	30.2	681.7	8.8243	ug/L	8.8243	ppb	22:36:50
2	Ba 233.527†	12448.4	11034.0	168.80	ug/L	168.80	ppb	22:36:50
2	Be 313.107†	-7812.5	2628.2	3.9197	ug/L	3.9197	ppb	22:36:50
2	Cd 226.502†	221.5	503.8	0.4569	ug/L	0.4569	ppb	22:37:11
2	Co 228.616†	234.4	298.3	7.4968	ug/L	7.4968	ppb	22:37:11
2	Cr 267.716†	4826.1	4169.7	64.135	ug/L	64.135	ppb	22:37:11
2	Cu 324.752†	31115.5	21190.7	107.56	ug/L	107.56	ppb	22:36:50
2	Mn 257.610†	617427.5	546496.1	1059.0	ug/L	1059.0	ppb	22:36:50
2	Mo 202.031†	493.2	421.0	49.767	ug/L	49.767	ppb	22:37:11
2	Ni 231.604†	1404.1	1126.4	38.021	ug/L	38.021	ppb	22:37:11

2	P 214.914†	1125.0	685.6	319.39	ug/L	319.39 ppb	22:37:11
2	Pb 220.353†	426.9	473.8	86.392	ug/L	86.392 ppb	22:37:11
2	S 181.975 Axial†	264.1	165.0	210.48	ug/L	210.48 ppb	22:37:11
2	Sb 206.836†	61.1	-3.4	-2.6818	ug/L	-2.6818 ppb	22:37:11
2	Se 196.026†	-236.0	-176.2	20.099	ug/L	20.099 ppb	22:37:11
2	Si 251.611†	398171.6	352263.9	14900	ug/L	14900 ppb	22:36:50
2	Sn 189.927†	-22.5	-31.8	-4.9723	ug/L	-4.9723 ppb	22:37:11
2	Ti 334.940†	515743.1	458993.6	1219.4	ug/L	1219.4 ppb	22:36:50
2	Tl 190.801†	-105.1	-34.3	-6.1776	ug/L	-6.1776 ppb	22:37:11
2	U 409.014†	-6853.1	-4272.2	-236.30	ug/L	-236.30 ppb	22:36:50
2	V 292.402†	5431.5	6784.9	50.187	ug/L	50.187 ppb	22:36:50
2	Zn 213.857†	41912.6	36197.9	413.30	ug/L	413.30 ppb	22:36:50
2	SiO2†	396980.5	351171.6	31786	ug/L	31786 ppb	22:37:47
3	Sc Radial	3653.5	3653.5	113	%		22:36:18
3	Y RADIAL	4703.0	4703.0	129.0	%		22:35:58
3	Al 396.153Radial†	31470.7	28051.8	32901	ug/L	32901 ppb	22:35:58
3	Ca 317.933Radial†	4890.3	4329.8	9751.9	ug/L	9751.9 ppb	22:35:58
3	Fe 238.204 Radial†	5945.2	5272.7	70811	ug/L	70811 ppb	22:35:58
3	K 766.490 Radial†	17812.8	12636.0	2947.7	ug/L	2947.7 ppb	22:35:58
3	Mg 279.077 IEC†	158.4	140.4	6331.0	ug/L	6331.0 ppb	22:36:18
3	Na 589.592 Radial†	3720.1	4496.7	2197.2	ug/L	2197.2 ppb	22:35:58
3	Sr 421.552†	6943.5	6131.7	63.961	ug/L	63.961 ppb	22:35:58
3	Sc 361.383	625412.2	625412.2	112.28	%		22:37:16
3	Y 371.029	654217.7	654217.7	126.44	%		22:37:16
3	Ag 328.068†	-3700.6	-3348.6	1.0849	ug/L	1.0849 ppb	22:37:16
3	As 188.979†	-25.6	21.8	28.433	ug/L	28.433 ppb	22:37:36
3	B 249.677†	19.4	672.3	8.8041	ug/L	8.8041 ppb	22:37:16
3	Ba 233.527†	12358.2	11009.8	168.33	ug/L	168.33 ppb	22:37:16
3	Be 313.107†	-7781.2	2620.9	3.9149	ug/L	3.9149 ppb	22:37:16
3	Cd 226.502†	242.6	523.6	0.9114	ug/L	0.9114 ppb	22:37:36
3	Co 228.616†	232.4	297.6	7.5049	ug/L	7.5049 ppb	22:37:36
3	Cr 267.716†	4927.2	4281.6	65.790	ug/L	65.790 ppb	22:37:36
3	Cu 324.752†	30891.5	21131.5	107.14	ug/L	107.14 ppb	22:37:16
3	Mn 257.610†	613717.3	545977.0	1057.8	ug/L	1057.8 ppb	22:37:16
3	Mo 202.031†	505.7	434.4	51.044	ug/L	51.044 ppb	22:37:36
3	Ni 231.604†	1442.0	1166.6	39.371	ug/L	39.371 ppb	22:37:36
3	P 214.914†	1131.2	696.2	325.80	ug/L	325.80 ppb	22:37:36
3	Pb 220.353†	453.2	499.2	90.886	ug/L	90.886 ppb	22:37:36
3	S 181.975 Axial†	268.2	169.9	216.90	ug/L	216.90 ppb	22:37:36
3	Sb 206.836†	51.9	-11.4	-6.3030	ug/L	-6.3030 ppb	22:37:36
3	Se 196.026†	-246.5	-186.6	9.8621	ug/L	9.8621 ppb	22:37:36
3	Si 251.611†	395721.4	351877.9	14884	ug/L	14884 ppb	22:37:16
3	Sn 189.927†	-28.2	-37.0	-6.3601	ug/L	-6.3601 ppb	22:37:36
3	Ti 334.940†	512829.4	458725.2	1218.7	ug/L	1218.7 ppb	22:37:16
3	Tl 190.801†	-112.6	-41.5	-10.430	ug/L	-10.430 ppb	22:37:36
3	U 409.014†	-6835.4	-4287.4	-236.54	ug/L	-236.54 ppb	22:37:16
3	V 292.402†	5471.1	6844.7	51.007	ug/L	51.007 ppb	22:37:16
3	Zn 213.857†	41717.6	36213.3	413.28	ug/L	413.28 ppb	22:37:16
3	SiO2†	399930.3	355589.7	32185	ug/L	32185 ppb	22:37:53

Mean Data: 249333009|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	632015.9	113.46	%	1.584				1.40%
Sc Radial	3656.7	113	%	1.5				1.29%
Y 371.029	661463.1	127.84	%	1.796				1.40%
Y RADIAL	4719.5	129.5	%	0.39				0.30%
Ag 328.068†	-3377.4	1.0873	ug/L	0.15403	1.0873	ppb	0.15403	14.17%
Al 396.153Radial†	28093.1	32950	ug/L	542.6	32950	ppb	542.6	1.65%
As 188.979†	21.0	28.166	ug/L	0.4424	28.166	ppb	0.4424	1.57%
B 249.677†	692.3	9.2257	ug/L	0.71286	9.2257	ppb	0.71286	7.73%
Ba 233.527†	11014.7	168.43	ug/L	0.326	168.43	ppb	0.326	0.19%
Be 313.107†	2663.3	3.9325	ug/L	0.02646	3.9325	ppb	0.02646	0.67%
Ca 317.933Radial†	4350.3	9798.1	ug/L	184.58	9798.1	ppb	184.58	1.88%
Cd 226.502†	507.1	0.6268	ug/L	0.24804	0.6268	ppb	0.24804	39.57%
Co 228.616†	293.2	7.3301	ug/L	0.29584	7.3301	ppb	0.29584	4.04%
Cr 267.716†	4195.1	64.494	ug/L	1.1584	64.494	ppb	1.1584	1.80%
Cu 324.752†	21107.4	107.07	ug/L	0.539	107.07	ppb	0.539	0.50%
Fe 238.204 Radial†	5318.2	71422	ug/L	1196.5	71422	ppb	1196.5	1.68%
K 766.490 Radial†	12759.0	2976.4	ug/L	56.84	2976.4	ppb	56.84	1.91%

Mg 279.077 IEC†	142.5	6428.0	ug/L	87.45	6428.0	ppb	87.45	1.36%
Mn 257.610†	545990.1	1057.9	ug/L	1.08	1057.9	ppb	1.08	0.10%
Mo 202.031†	422.0	49.774	ug/L	1.2665	49.774	ppb	1.2665	2.54%
Na 589.592 Radial†	4534.6	2215.7	ug/L	25.72	2215.7	ppb	25.72	1.16%
Ni 231.604†	1143.1	38.581	ug/L	0.7037	38.581	ppb	0.7037	1.82%
P 214.914†	682.6	318.32	ug/L	8.076	318.32	ppb	8.076	2.54%
Pb 220.353†	484.2	88.192	ug/L	2.3773	88.192	ppb	2.3773	2.70%
S 181.975 Axial†	165.4	211.10	ug/L	5.516	211.10	ppb	5.516	2.61%
Sb 206.836†	-4.8	-3.3449	ug/L	2.68865	-3.3449	ppb	2.68865	80.38%
Se 196.026†	-179.5	15.495	ug/L	5.1953	15.495	ppb	5.1953	33.53%
Si 251.611†	351978.5	14888	ug/L	10.6	14888	ppb	10.6	0.07%
Sn 189.927†	-33.9	-5.5588	ug/L	0.71837	-5.5588	ppb	0.71837	12.92%
Sr 421.552†	6152.3	64.176	ug/L	0.9880	64.176	ppb	0.9880	1.54%
Ti 334.940†	458561.7	1218.3	ug/L	1.43	1218.3	ppb	1.43	0.12%
Tl 190.801†	-37.8	-8.2595	ug/L	2.12759	-8.2595	ppb	2.12759	25.76%
U 409.014†	-4235.0	-234.04	ug/L	4.117	-234.04	ppb	4.117	1.76%
V 292.402†	6788.2	50.406	ug/L	0.5262	50.406	ppb	0.5262	1.04%
Zn 213.857†	36184.8	413.02	ug/L	0.465	413.02	ppb	0.465	0.11%
SiO2†	350334.3	31710	ug/L	517.7	31710	ppb	517.7	1.63%

Sequence No.: 43
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/15/2010 22:40:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3488.2	3488.2	108	%			22:42:16
1	Y RADIAL	3907.3	3907.3	107.2	%			22:41:56
1	Al 396.153Radial†	4618.3	4409.2	5148.7	ug/L	5148.7	ppb	22:41:56
1	Ca 317.933Radial†	2404.2	2224.0	5009.1	ug/L	5009.1	ppb	22:42:16
1	Fe 238.204 Radial†	406.0	372.6	5018.5	ug/L	5018.5	ppb	22:42:16
1	K 766.490 Radial†	25704.0	20722.6	4832.5	ug/L	4832.5	ppb	22:41:56
1	Mg 279.077 IEC†	122.4	113.7	5161.2	ug/L	5161.2	ppb	22:42:16
1	Na 589.592 Radial†	21052.2	20768.2	10148	ug/L	10148	ppb	22:41:56
1	Sr 421.552†	51925.8	48247.5	503.81	ug/L	503.81	ppb	22:41:56
1	Sc 361.383	619617.5	619617.5	111.24	%			22:43:15
1	Y 371.029	571551.1	571551.1	110.46	%			22:43:15
1	Ag 328.068†	88431.7	79444.8	476.78	ug/L	476.78	ppb	22:43:15
1	As 188.979†	1156.6	1084.4	482.23	ug/L	482.23	ppb	22:43:35
1	B 249.677†	20666.0	19233.1	463.37	ug/L	463.37	ppb	22:43:15
1	Ba 233.527†	35612.5	32017.7	478.90	ug/L	478.90	ppb	22:43:15
1	Be 313.107†	1209080.3	1096477.6	481.93	ug/L	481.93	ppb	22:43:15
1	Cd 226.502†	36876.2	33458.1	465.54	ug/L	465.54	ppb	22:43:35
1	Co 228.616†	14433.1	13065.6	479.50	ug/L	479.50	ppb	22:43:35
1	Cr 267.716†	35407.4	31723.4	478.53	ug/L	478.53	ppb	22:43:15
1	Cu 324.752†	116467.8	98319.3	475.82	ug/L	475.82	ppb	22:43:15
1	Mn 257.610†	277335.0	248691.4	478.82	ug/L	478.82	ppb	22:43:15
1	Mo 202.031†	5004.1	4482.5	475.29	ug/L	475.29	ppb	22:43:35
1	Ni 231.604†	15956.5	14226.6	479.13	ug/L	479.13	ppb	22:43:35
1	P 214.914†	5258.7	4416.1	2250.2	ug/L	2250.2	ppb	22:43:35
1	Pb 220.353†	2893.7	2696.9	478.06	ug/L	478.06	ppb	22:43:35
1	S 181.975 Axial†	880.9	722.9	938.22	ug/L	938.22	ppb	22:43:35
1	Sb 206.836†	1230.4	1048.5	489.74	ug/L	489.74	ppb	22:43:35
1	Se 196.026†	785.2	738.9	482.65	ug/L	482.65	ppb	22:43:35
1	Si 251.611†	63518.9	56534.0	2385.6	ug/L	2385.6	ppb	22:43:15
1	Sn 189.927†	2078.4	1856.5	466.64	ug/L	466.64	ppb	22:43:35
1	Ti 334.940†	198834.5	180724.8	479.64	ug/L	479.64	ppb	22:43:15
1	Tl 190.801†	830.4	805.4	480.16	ug/L	480.16	ppb	22:43:35
1	U 409.014†	8423.2	9372.7	472.79	ug/L	472.79	ppb	22:43:15
1	V 292.402†	57221.8	53412.5	486.12	ug/L	486.12	ppb	22:43:15
1	Zn 213.857†	48337.3	42511.6	474.52	ug/L	474.52	ppb	22:43:15
1	SiO2†	61406.3	54598.0	4929.1	ug/L	4929.1	ppb	22:44:35
2	Sc Radial	3495.5	3495.5	108	%			22:42:41
2	Y RADIAL	3855.5	3855.5	105.8	%			22:42:21
2	Al 396.153Radial†	4525.3	4314.0	5036.6	ug/L	5036.6	ppb	22:42:21
2	Ca 317.933Radial†	2414.7	2229.2	5020.8	ug/L	5020.8	ppb	22:42:41
2	Fe 238.204 Radial†	407.3	373.1	5024.9	ug/L	5024.9	ppb	22:42:41
2	K 766.490 Radial†	25303.6	20301.5	4734.2	ug/L	4734.2	ppb	22:42:21
2	Mg 279.077 IEC†	124.5	115.4	5238.3	ug/L	5238.3	ppb	22:42:41
2	Na 589.592 Radial†	20671.5	20374.4	9955.5	ug/L	9955.5	ppb	22:42:21
2	Sr 421.552†	50817.6	47119.1	492.03	ug/L	492.03	ppb	22:42:21
2	Sc 361.383	611939.6	611939.6	109.86	%			22:43:43
2	Y 371.029	566451.8	566451.8	109.48	%			22:43:43
2	Ag 328.068†	87491.3	79586.2	477.64	ug/L	477.64	ppb	22:43:43
2	As 188.979†	1153.9	1094.9	486.88	ug/L	486.88	ppb	22:44:03
2	B 249.677†	20418.7	19241.1	463.54	ug/L	463.54	ppb	22:43:43
2	Ba 233.527†	35282.3	32118.8	480.41	ug/L	480.41	ppb	22:43:43
2	Be 313.107†	1200814.5	1102591.1	484.62	ug/L	484.62	ppb	22:43:43
2	Cd 226.502†	37039.7	34022.9	473.41	ug/L	473.41	ppb	22:44:03
2	Co 228.616†	14498.9	13288.3	487.70	ug/L	487.70	ppb	22:44:03
2	Cr 267.716†	35149.8	31888.3	481.02	ug/L	481.02	ppb	22:43:43
2	Cu 324.752†	114691.5	98016.1	474.35	ug/L	474.35	ppb	22:43:43
2	Mn 257.610†	273873.0	248668.3	478.77	ug/L	478.77	ppb	22:43:43
2	Mo 202.031†	5043.8	4575.1	485.10	ug/L	485.10	ppb	22:44:03
2	Ni 231.604†	16057.1	14498.2	488.28	ug/L	488.28	ppb	22:44:03

2	P 214.914†	5257.4	4474.2	2281.6	ug/L	2281.6 ppb	22:44:03
2	Pb 220.353†	2907.7	2742.3	486.08	ug/L	486.08 ppb	22:44:03
2	S 181.975 Axial†	892.5	743.4	964.83	ug/L	964.83 ppb	22:44:03
2	Sb 206.836†	1230.6	1062.6	496.48	ug/L	496.48 ppb	22:44:03
2	Se 196.026†	796.9	758.3	495.14	ug/L	495.14 ppb	22:44:03
2	Si 251.611†	62624.7	56436.5	2381.3	ug/L	2381.3 ppb	22:43:43
2	Sn 189.927†	2106.2	1905.3	478.89	ug/L	478.89 ppb	22:44:03
2	Ti 334.940†	196203.0	180572.2	479.23	ug/L	479.23 ppb	22:43:43
2	Tl 190.801†	838.9	822.4	490.23	ug/L	490.23 ppb	22:44:03
2	U 409.014†	8285.1	9342.1	471.23	ug/L	471.23 ppb	22:43:43
2	V 292.402†	56760.6	53638.2	488.29	ug/L	488.29 ppb	22:43:43
2	Zn 213.857†	47811.1	42577.9	475.20	ug/L	475.20 ppb	22:43:43
2	SiO2†	61779.6	55630.4	5022.3	ug/L	5022.3 ppb	22:44:40
3	Sc Radial	3548.9	3548.9	109	%		22:43:07
3	Y RADIAL	3960.5	3960.5	108.7	%		22:42:47
3	Al 396.153Radial†	4650.8	4365.5	5097.2	ug/L	5097.2 ppb	22:42:47
3	Ca 317.933Radial†	2433.0	2212.1	4982.3	ug/L	4982.3 ppb	22:43:07
3	Fe 238.204 Radial†	417.8	377.0	5077.0	ug/L	5077.0 ppb	22:43:07
3	K 766.490 Radial†	25769.2	20373.6	4751.0	ug/L	4751.0 ppb	22:42:47
3	Mg 279.077 IEC†	125.3	114.3	5189.9	ug/L	5189.9 ppb	22:43:07
3	Na 589.592 Radial†	21105.3	20482.2	10008	ug/L	10008 ppb	22:42:47
3	Sr 421.552†	52178.0	47652.7	497.60	ug/L	497.60 ppb	22:42:47
3	Sc 361.383	609473.9	609473.9	109.42	%		22:44:10
3	Y 371.029	563387.1	563387.1	108.88	%		22:44:10
3	Ag 328.068†	87275.2	79710.9	478.39	ug/L	478.39 ppb	22:44:10
3	As 188.979†	1150.3	1095.9	487.31	ug/L	487.31 ppb	22:44:30
3	B 249.677†	20382.7	19283.4	464.56	ug/L	464.56 ppb	22:44:10
3	Ba 233.527†	35010.3	32000.1	478.64	ug/L	478.64 ppb	22:44:10
3	Be 313.107†	1191428.6	1098435.1	482.79	ug/L	482.79 ppb	22:44:10
3	Cd 226.502†	36601.4	33758.6	469.72	ug/L	469.72 ppb	22:44:30
3	Co 228.616†	14348.0	13203.7	484.59	ug/L	484.59 ppb	22:44:30
3	Cr 267.716†	34789.4	31688.3	478.00	ug/L	478.00 ppb	22:44:10
3	Cu 324.752†	114166.3	97958.4	474.07	ug/L	474.07 ppb	22:44:10
3	Mn 257.610†	272372.0	248304.9	478.08	ug/L	478.08 ppb	22:44:10
3	Mo 202.031†	4979.2	4534.7	480.82	ug/L	480.82 ppb	22:44:30
3	Ni 231.604†	15851.5	14369.5	483.94	ug/L	483.94 ppb	22:44:30
3	P 214.914†	5194.9	4436.5	2261.5	ug/L	2261.5 ppb	22:44:30
3	Pb 220.353†	2870.3	2718.8	481.92	ug/L	481.92 ppb	22:44:30
3	S 181.975 Axial†	880.7	735.9	955.07	ug/L	955.07 ppb	22:44:30
3	Sb 206.836†	1213.5	1051.5	491.32	ug/L	491.32 ppb	22:44:30
3	Se 196.026†	787.3	752.6	491.53	ug/L	491.53 ppb	22:44:30
3	Si 251.611†	62374.1	56438.0	2381.4	ug/L	2381.4 ppb	22:44:10
3	Sn 189.927†	2073.8	1883.5	473.39	ug/L	473.39 ppb	22:44:30
3	Ti 334.940†	195125.7	180310.1	478.54	ug/L	478.54 ppb	22:44:10
3	Tl 190.801†	828.4	816.0	486.40	ug/L	486.40 ppb	22:44:30
3	U 409.014†	8380.5	9459.7	477.19	ug/L	477.19 ppb	22:44:10
3	V 292.402†	56334.6	53457.8	486.61	ug/L	486.61 ppb	22:44:10
3	Zn 213.857†	47585.2	42547.5	474.90	ug/L	474.90 ppb	22:44:10
3	SiO2†	61748.9	55829.9	5040.4	ug/L	5040.4 ppb	22:44:45

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	613677.0	110.17	%	0.950				0.86%
Sc Radial	3510.8	108	%	1.0				0.94%
Y 371.029	567130.0	109.61	%	0.797				0.73%
Y RADIAL	3907.8	107.2	%	1.44				1.34%
Ag 328.068†	79580.6	477.60	ug/L	0.802	477.60	ppb	0.802	0.17%
QC value within limits for Ag 328.068 Recovery = 95.52%								
Al 396.153Radial†	4362.9	5094.2	ug/L	56.11	5094.2	ppb	56.11	1.10%
QC value within limits for Al 396.153Radial Recovery = 101.88%								
As 188.979†	1091.7	485.48	ug/L	2.817	485.48	ppb	2.817	0.58%
QC value within limits for As 188.979 Recovery = 97.10%								
B 249.677†	19252.5	463.82	ug/L	0.647	463.82	ppb	0.647	0.14%
QC value within limits for B 249.677 Recovery = 92.76%								
Ba 233.527†	32045.5	479.32	ug/L	0.957	479.32	ppb	0.957	0.20%
QC value within limits for Ba 233.527 Recovery = 95.86%								
Be 313.107†	1099167.9	483.11	ug/L	1.369	483.11	ppb	1.369	0.28%
QC value within limits for Be 313.107 Recovery = 96.62%								
Ca 317.933Radial†	2221.7	5004.1	ug/L	19.71	5004.1	ppb	19.71	0.39%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.08%
Cd 226.502†            33746.5      469.56 ug/L         3.935      469.56 ppb          3.935   0.84%
   QC value within limits for Cd 226.502  Recovery = 93.91%
Co 228.616†            13185.8      483.93 ug/L         4.137      483.93 ppb          4.137   0.85%
   QC value within limits for Co 228.616  Recovery = 96.79%
Cr 267.716†            31766.7      479.18 ug/L         1.611      479.18 ppb          1.611   0.34%
   QC value within limits for Cr 267.716  Recovery = 95.84%
Cu 324.752†            98098.0      474.75 ug/L         0.940      474.75 ppb          0.940   0.20%
   QC value within limits for Cu 324.752  Recovery = 94.95%
Fe 238.204 Radial†       374.2      5040.1 ug/L         32.07      5040.1 ppb          32.07   0.64%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.80%
K 766.490 Radial†      20465.9      4772.6 ug/L         52.54      4772.6 ppb          52.54   1.10%
   QC value within limits for K 766.490 Radial  Recovery = 95.45%
Mg 279.077 IEC†          114.4      5196.5 ug/L         39.00      5196.5 ppb          39.00   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.93%
Mn 257.610†           248554.9      478.56 ug/L         0.413      478.56 ppb          0.413   0.09%
   QC value within limits for Mn 257.610  Recovery = 95.71%
Mo 202.031†             4530.8      480.41 ug/L         4.919      480.41 ppb          4.919   1.02%
   QC value within limits for Mo 202.031  Recovery = 96.08%
Na 589.592 Radial†     20541.6       10037 ug/L          99.4       10037 ppb           99.4   0.99%
   QC value within limits for Na 589.592 Radial  Recovery = 100.37%
Ni 231.604†            14364.8      483.78 ug/L         4.575      483.78 ppb          4.575   0.95%
   QC value within limits for Ni 231.604  Recovery = 96.76%
P 214.914†              4442.3      2264.4 ug/L         15.92      2264.4 ppb          15.92   0.70%
   QC value within limits for P 214.914  Recovery = 90.58%
Pb 220.353†             2719.4      482.02 ug/L         4.011      482.02 ppb          4.011   0.83%
   QC value within limits for Pb 220.353  Recovery = 96.40%
S 181.975 Axial†         734.1      952.71 ug/L        13.460      952.71 ppb         13.460   1.41%
   QC value within limits for S 181.975 Axial  Recovery = 95.27%
Sb 206.836†             1054.2      492.51 ug/L         3.523      492.51 ppb          3.523   0.72%
   QC value within limits for Sb 206.836  Recovery = 98.50%
Se 196.026†              749.9      489.77 ug/L         6.424      489.77 ppb          6.424   1.31%
   QC value within limits for Se 196.026  Recovery = 97.95%
Si 251.611†            56469.5      2382.8 ug/L          2.42      2382.8 ppb           2.42   0.10%
   QC value within limits for Si 251.611  Recovery = 95.31%
Sn 189.927†             1881.8      472.97 ug/L         6.133      472.97 ppb          6.133   1.30%
   QC value within limits for Sn 189.927  Recovery = 94.59%
Sr 421.552†            47673.1      497.82 ug/L         5.895      497.82 ppb          5.895   1.18%
   QC value within limits for Sr 421.552  Recovery = 99.56%
Ti 334.940†           180535.7      479.14 ug/L         0.560      479.14 ppb          0.560   0.12%
   QC value within limits for Ti 334.940  Recovery = 95.83%
Tl 190.801†              814.6      485.59 ug/L         5.082      485.59 ppb          5.082   1.05%
   QC value within limits for Tl 190.801  Recovery = 97.12%
U 409.014†              9391.5      473.74 ug/L         3.090      473.74 ppb          3.090   0.65%
   QC value within limits for U 409.014  Recovery = 94.75%
V 292.402†             53502.8      487.00 ug/L         1.135      487.00 ppb          1.135   0.23%
   QC value within limits for V 292.402  Recovery = 97.40%
Zn 213.857†            42545.7      474.87 ug/L         0.345      474.87 ppb          0.345   0.07%
   QC value within limits for Zn 213.857  Recovery = 94.97%
SiO2†                  55352.8      4997.3 ug/L         59.74      4997.3 ppb          59.74   1.20%
   QC value within limits for SiO2  Recovery = 93.45%
All analyte(s) passed QC.
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Sequence No.: 44 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 4/15/2010 22:46:55**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3560.4	3560.4	110	%			22:49:07
1	Y RADIAL	4070.9	4070.9	111.7	%			22:48:47
1	Al 396.153Radial†	-104.0	20.5	23.947	ug/L	23.947	ppb	22:48:47
1	Ca 317.933Radial†	11.9	-0.5	-1.1311	ug/L	-1.1311	ppb	22:49:07
1	Fe 238.204 Radial†	5.3	-0.0	-0.1345	ug/L	-0.1345	ppb	22:49:07
1	K 766.490 Radial†	2943.8	-494.9	-115.54	ug/L	-115.54	ppb	22:48:47
1	Mg 279.077 IEC†	-1.4	-1.5	-67.757	ug/L	-67.757	ppb	22:49:07
1	Na 589.592 Radial†	-1262.0	44.8	21.879	ug/L	21.879	ppb	22:48:47
1	Sr 421.552†	15.4	-18.0	-0.1878	ug/L	-0.1878	ppb	22:48:47
1	Sc 361.383	613576.2	613576.2	110.15	%			22:50:04
1	Y 371.029	570661.4	570661.4	110.29	%			22:50:04
1	Ag 328.068†	81.0	20.9	0.1115	ug/L	0.1115	ppb	22:50:04
1	As 188.979†	-33.8	13.9	6.1455	ug/L	6.1455	ppb	22:50:24
1	B 249.677†	-644.8	69.6	1.6829	ug/L	1.6829	ppb	22:50:04
1	Ba 233.527†	-10.7	-6.6	-0.0964	ug/L	-0.0964	ppb	22:50:24
1	Be 313.107†	-9788.9	664.6	0.2930	ug/L	0.2930	ppb	22:50:04
1	Cd 226.502†	-298.1	36.9	0.5175	ug/L	0.5175	ppb	22:50:24
1	Co 228.616†	-85.9	12.6	0.4660	ug/L	0.4660	ppb	22:50:24
1	Cr 267.716†	104.4	-12.0	-0.1872	ug/L	-0.1872	ppb	22:50:04
1	Cu 324.752†	6699.0	-300.2	-1.4656	ug/L	-1.4656	ppb	22:50:04
1	Mn 257.610†	536.0	-137.8	-0.2624	ug/L	-0.2624	ppb	22:50:04
1	Mo 202.031†	36.0	16.6	1.7636	ug/L	1.7636	ppb	22:50:24
1	Ni 231.604†	139.5	8.8	0.2979	ug/L	0.2979	ppb	22:50:24
1	P 214.914†	306.5	-33.1	-17.327	ug/L	-17.327	ppb	22:50:24
1	Pb 220.353†	-106.3	-0.9	-0.1536	ug/L	-0.1536	ppb	22:50:24
1	S 181.975 Axial†	75.1	-0.8	-1.0245	ug/L	-1.0245	ppb	22:50:24
1	Sb 206.836†	63.4	-0.0	0.0148	ug/L	0.0148	ppb	22:50:24
1	Se 196.026†	-17.1	17.4	11.147	ug/L	11.147	ppb	22:50:24
1	Si 251.611†	548.3	-69.9	-2.9767	ug/L	-2.9767	ppb	22:50:24
1	Sn 189.927†	12.9	-0.2	-0.0517	ug/L	-0.0517	ppb	22:50:24
1	Ti 334.940†	-1893.1	260.0	0.6867	ug/L	0.6867	ppb	22:50:04
1	Tl 190.801†	-60.2	4.2	2.4831	ug/L	2.4831	ppb	22:50:24
1	U 409.014†	-1545.5	397.5	20.154	ug/L	20.154	ppb	22:50:04
1	V 292.402†	-2073.3	89.7	0.8672	ug/L	0.8672	ppb	22:50:04
1	Zn 213.857†	965.7	-65.4	-0.7353	ug/L	-0.7353	ppb	22:50:24
1	SiO2†	577.3	-80.3	-7.3172	ug/L	-7.3172	ppb	22:51:20
2	Sc Radial	3675.2	3675.2	113	%			22:49:32
2	Y RADIAL	4283.1	4283.1	117.5	%			22:49:12
2	Al 396.153Radial†	-105.8	21.8	25.545	ug/L	25.545	ppb	22:49:12
2	Ca 317.933Radial†	13.7	0.7	1.6153	ug/L	1.6153	ppb	22:49:32
2	Fe 238.204 Radial†	2.9	-2.3	-31.417	ug/L	-31.417	ppb	22:49:32
2	K 766.490 Radial†	3015.3	-515.6	-120.39	ug/L	-120.39	ppb	22:49:12
2	Mg 279.077 IEC†	2.9	2.4	106.72	ug/L	106.72	ppb	22:49:32
2	Na 589.592 Radial†	-1265.4	77.7	37.971	ug/L	37.971	ppb	22:49:12
2	Sr 421.552†	29.4	-6.0	-0.0630	ug/L	-0.0630	ppb	22:49:12
2	Sc 361.383	606338.0	606338.0	108.85	%			22:50:30
2	Y 371.029	564459.1	564459.1	109.09	%			22:50:30
2	Ag 328.068†	47.7	-8.8	-0.0718	ug/L	-0.0718	ppb	22:50:30
2	As 188.979†	-51.8	-2.9	-1.3010	ug/L	-1.3010	ppb	22:50:50
2	B 249.677†	-664.9	44.2	1.0714	ug/L	1.0714	ppb	22:50:30
2	Ba 233.527†	-13.9	-9.7	-0.1448	ug/L	-0.1448	ppb	22:50:50
2	Be 313.107†	-9756.7	588.1	0.2594	ug/L	0.2594	ppb	22:50:30
2	Cd 226.502†	-291.9	39.3	0.5534	ug/L	0.5534	ppb	22:50:50
2	Co 228.616†	-95.9	2.5	0.0952	ug/L	0.0952	ppb	22:50:50
2	Cr 267.716†	105.4	-10.0	-0.1561	ug/L	-0.1561	ppb	22:50:30
2	Cu 324.752†	6604.1	-314.8	-1.5348	ug/L	-1.5348	ppb	22:50:30
2	Mn 257.610†	635.0	-41.0	-0.0866	ug/L	-0.0866	ppb	22:50:30
2	Mo 202.031†	30.0	11.5	1.2194	ug/L	1.2194	ppb	22:50:50
2	Ni 231.604†	136.9	8.0	0.2700	ug/L	0.2700	ppb	22:50:50

2	P 214.914†	321.5	-15.9	-8.1318 ug/L	-8.1318 ppb	22:50:50
2	Pb 220.353†	-103.0	0.9	0.1788 ug/L	0.1788 ppb	22:50:50
2	S 181.975 Axial†	63.0	-11.1	-14.480 ug/L	-14.480 ppb	22:50:50
2	Sb 206.836†	44.3	-16.9	-7.5743 ug/L	-7.5743 ppb	22:50:50
2	Se 196.026†	-23.6	11.3	7.1462 ug/L	7.1462 ppb	22:50:50
2	Si 251.611†	572.2	-41.9	-1.7891 ug/L	-1.7891 ppb	22:50:50
2	Sn 189.927†	13.4	0.4	0.0997 ug/L	0.0997 ppb	22:50:50
2	Ti 334.940†	-1873.8	257.2	0.6688 ug/L	0.6688 ppb	22:50:30
2	Tl 190.801†	-66.3	-2.1	-1.2154 ug/L	-1.2154 ppb	22:50:50
2	U 409.014†	-1647.6	286.9	14.557 ug/L	14.557 ppb	22:50:30
2	V 292.402†	-2087.7	54.0	0.5357 ug/L	0.5357 ppb	22:50:30
2	Zn 213.857†	981.9	-40.1	-0.4529 ug/L	-0.4529 ppb	22:50:50
2	SiO2†	597.0	-55.9	-5.0956 ug/L	-5.0956 ppb	22:51:25
3	Sc Radial	3588.5	3588.5	111 %		22:49:57
3	Y RADIAL	4088.5	4088.5	112.2 %		22:49:37
3	Al 396.153Radial†	-85.7	37.7	44.200 ug/L	44.200 ppb	22:49:37
3	Ca 317.933Radial†	14.3	1.5	3.4595 ug/L	3.4595 ppb	22:49:57
3	Fe 238.204 Radial†	6.3	0.8	10.586 ug/L	10.586 ppb	22:49:57
3	K 766.490 Radial†	3176.3	-305.7	-71.381 ug/L	-71.381 ppb	22:49:37
3	Mg 279.077 IEC†	3.2	2.7	121.16 ug/L	121.16 ppb	22:49:57
3	Na 589.592 Radial†	-1305.3	14.7	7.1664 ug/L	7.1664 ppb	22:49:37
3	Sr 421.552†	41.2	5.3	0.0551 ug/L	0.0551 ppb	22:49:37
3	Sc 361.383	605265.6	605265.6	108.66 %		22:50:55
3	Y 371.029	562742.6	562742.6	108.76 %		22:50:55
3	Ag 328.068†	176.4	109.7	0.6511 ug/L	0.6511 ppb	22:50:55
3	As 188.979†	-42.5	5.5	2.4416 ug/L	2.4416 ppb	22:51:15
3	B 249.677†	-547.8	150.8	3.6470 ug/L	3.6470 ppb	22:50:55
3	Ba 233.527†	-12.7	-8.5	-0.1253 ug/L	-0.1253 ppb	22:51:15
3	Be 313.107†	-9787.1	544.1	0.2402 ug/L	0.2402 ppb	22:50:55
3	Cd 226.502†	-290.4	40.2	0.5606 ug/L	0.5606 ppb	22:51:15
3	Co 228.616†	-91.1	6.8	0.2507 ug/L	0.2507 ppb	22:51:15
3	Cr 267.716†	156.4	37.1	0.5565 ug/L	0.5565 ppb	22:50:55
3	Cu 324.752†	6648.3	-263.4	-1.2804 ug/L	-1.2804 ppb	22:50:55
3	Mn 257.610†	633.1	-41.7	-0.0840 ug/L	-0.0840 ppb	22:50:55
3	Mo 202.031†	29.2	10.8	1.1493 ug/L	1.1493 ppb	22:51:15
3	Ni 231.604†	140.9	11.9	0.4023 ug/L	0.4023 ppb	22:51:15
3	P 214.914†	318.0	-18.7	-9.6683 ug/L	-9.6683 ppb	22:51:15
3	Pb 220.353†	-109.7	-5.4	-0.9418 ug/L	-0.9418 ppb	22:51:15
3	S 181.975 Axial†	67.4	-7.0	-9.0811 ug/L	-9.0811 ppb	22:51:15
3	Sb 206.836†	39.7	-21.1	-9.4740 ug/L	-9.4740 ppb	22:51:15
3	Se 196.026†	-32.8	2.8	1.7802 ug/L	1.7802 ppb	22:51:15
3	Si 251.611†	570.8	-42.3	-1.8045 ug/L	-1.8045 ppb	22:51:15
3	Sn 189.927†	16.9	3.7	0.9244 ug/L	0.9244 ppb	22:51:15
3	Ti 334.940†	-1861.8	265.2	0.6911 ug/L	0.6911 ppb	22:50:55
3	Tl 190.801†	-48.8	13.9	8.2384 ug/L	8.2384 ppb	22:51:15
3	U 409.014†	-1745.3	194.3	9.8490 ug/L	9.8490 ppb	22:50:55
3	V 292.402†	-2082.0	55.8	0.5364 ug/L	0.5364 ppb	22:50:55
3	Zn 213.857†	965.5	-53.5	-0.6016 ug/L	-0.6016 ppb	22:51:15
3	SiO2†	570.3	-79.5	-7.2314 ug/L	-7.2314 ppb	22:51:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	608393.3	109.22	%	0.812				0.74%
Sc Radial	3608.1	111	%	1.8				1.66%
Y 371.029	565954.4	109.38	%	0.805				0.74%
Y RADIAL	4147.5	113.8	%	3.23				2.84%
Ag 328.068†	40.6	0.2303	ug/L	0.37580	0.2303	ppb	0.37580	163.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	26.7	31.231	ug/L	11.2604	31.231	ppb	11.2604	36.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.5	2.4287	ug/L	3.72325	2.4287	ppb	3.72325	153.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	88.2	2.1337	ug/L	1.34567	2.1337	ppb	1.34567	63.07%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.3	-0.1222	ug/L	0.02435	-0.1222	ppb	0.02435	19.93%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	598.9	0.2642	ug/L	0.02671	0.2642	ppb	0.02671	10.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.6	1.3146	ug/L	2.31002	1.3146	ppb	2.31002	175.72%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                38.8      0.5438 ug/L       0.02309      0.5438 ppb        0.02309   4.25%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.3      0.2706 ug/L       0.18623      0.2706 ppb        0.18623  68.82%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 5.1      0.0711 ug/L       0.42065      0.0711 ppb        0.42065 592.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -292.8     -1.4269 ug/L       0.13153     -1.4269 ppb        0.13153   9.22%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.5     -6.9887 ug/L      21.82428     -6.9887 ppb       21.82428 312.28%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -438.7     -102.44 ug/L        27.004     -102.44 ppb         27.004  26.36%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.2      53.374 ug/L      105.1509      53.374 ppb       105.1509 197.01%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -73.5     -0.1443 ug/L       0.10223     -0.1443 ppb        0.10223  70.82%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.0      1.3774 ug/L       0.33625      1.3774 ppb        0.33625  24.41%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         45.7      22.339 ug/L       15.4076      22.339 ppb        15.4076  68.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 9.6      0.3234 ug/L       0.06972      0.3234 ppb        0.06972  21.56%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -22.6     -11.709 ug/L        4.9254     -11.709 ppb         4.9254  42.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -1.8     -0.3055 ug/L       0.57551     -0.3055 ppb        0.57551 188.36%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -6.3     -8.1952 ug/L       6.77136     -8.1952 ppb        6.77136  82.63%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -12.7     -5.6778 ug/L       5.02063     -5.6778 ppb        5.02063  88.42%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                10.5      6.6913 ug/L       4.70012      6.6913 ppb        4.70012  70.24%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -51.4     -2.1901 ug/L       0.68124     -2.1901 ppb        0.68124  31.11%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.3      0.3242 ug/L       0.52532      0.3242 ppb        0.52532 162.06%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -6.2     -0.0652 ug/L       0.12145     -0.0652 ppb        0.12145 186.17%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               260.8      0.6822 ug/L       0.01178      0.6822 ppb        0.01178   1.73%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.3      3.1687 ug/L       4.76404      3.1687 ppb        4.76404 150.35%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                292.9      14.853 ug/L        5.1590      14.853 ppb         5.1590  34.73%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 66.5      0.6464 ug/L       0.19118      0.6464 ppb        0.19118  29.58%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -53.0     -0.5966 ug/L       0.14128     -0.5966 ppb        0.14128  23.68%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -71.9     -6.5481 ug/L       1.25860     -6.5481 ppb        1.25860  19.22%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Method: Hg_ReAlign
Result: 052010

Sample ID: Hg_ReAlign

Hg 253.652 **Rep: 1**

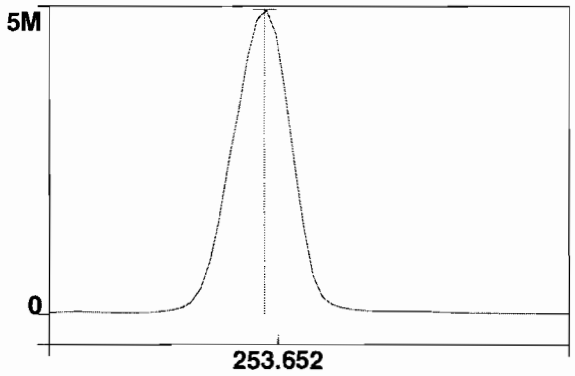

Intensity: 4449065.0 cps
Conc:

1

4/1/2010 12:05:45 Hg ReAlign... Actual peak offset (nm): -0.007
Drift (nm): 0.000 Slit adjustment: 2

Analysis Begun

Start Time: 4/1/2010 12:20:58 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040110.sif
Batch ID:
Results Data Set: 040110
Results Library: C:\pe\optima4\Results\Results.mdb

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 3/31/2010 19:07:57**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 4/1/2010 12:20:59**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time

1	Sc RADIAL	144796.0	144796.0	100	%	12:21:30
1	Al 396.153Radial†	-53.5	-53.3	[0.00]	µg/L	12:21:50
1	Ca 317.933Radial†	544.1	541.7	[0.00]	µg/L	12:21:50
1	Fe 238.204 Radial†	134.5	133.9	[0.00]	µg/L	12:21:50
1	K 766.490 Radial†	1530.3	1523.4	[0.00]	µg/L	12:21:30
1	Mg 279.077 IEC†	161.0	160.3	[0.00]	µg/L	12:21:50
1	Na 589.592 Radial†	1336.7	1330.7	[0.00]	µg/L	12:21:30
1	Sr 421.552†	-202.2	-201.3	[0.00]	µg/L	12:21:30
1	Sc 361.383	1757409.8	1757409.8	100.03	%	12:22:37
1	Y 371.029	1048375.7	1048375.7	100.09	%	12:22:37
1	Ag 328.068†	3576.1	3575.0	[0.00]	µg/L	12:22:40
1	As 188.979†	-22.7	-22.7	[0.00]	µg/L	12:23:00
1	B 249.677†	3326.0	3325.0	[0.00]	µg/L	12:22:40
1	Ba 233.527†	-137.9	-137.8	[0.00]	µg/L	12:23:00
1	Be 313.107†	-929.5	-929.2	[0.00]	µg/L	12:22:40
1	Cd 226.502†	-98.1	-98.0	[0.00]	µg/L	12:23:00
1	Co 228.616†	-195.6	-195.6	[0.00]	µg/L	12:23:00
1	Cr 267.716†	178.6	178.6	[0.00]	µg/L	12:23:00
1	Cu 324.752†	2754.3	2753.4	[0.00]	µg/L	12:22:40
1	Mn 257.610†	213.5	213.5	[0.00]	µg/L	12:23:00
1	Mo 202.031†	-41.7	-41.7	[0.00]	µg/L	12:23:00
1	Ni 231.604†	-88.3	-88.3	[0.00]	µg/L	12:23:00
1	P 214.914†	2.9	2.9	[0.00]	µg/L	12:23:00
1	Pb 220.353†	78.7	78.7	[0.00]	µg/L	12:23:00
1	S 181.975 Axial†	110.5	110.5	[0.00]	µg/L	12:23:00
1	Sb 206.836†	69.5	69.5	[0.00]	µg/L	12:23:00
1	Se 196.026†	10.3	10.2	[0.00]	µg/L	12:23:00
1	SiO2†	1736.0	1735.5	[0.00]	µg/L	12:23:00
1	Si 251.611†	801.9	801.6	[0.00]	µg/L	12:22:40
1	Sn 189.927†	-4.7	-4.7	[0.00]	µg/L	12:23:00
1	Ti 334.940†	970.0	969.7	[0.00]	µg/L	12:22:40
1	Tl 190.801†	-111.7	-111.7	[0.00]	µg/L	12:23:00
1	U 409.014†	-275.3	-275.2	[0.00]	µg/L	12:22:40
1	V 292.402†	436.8	436.6	[0.00]	µg/L	12:22:40
1	Zn 213.857†	509.0	508.8	[0.00]	µg/L	12:23:00
2	Sc RADIAL	143753.4	143753.4	99.7	%	12:21:52
2	Al 396.153Radial†	-76.7	-76.9	[0.00]	µg/L	12:22:12
2	Ca 317.933Radial†	542.0	543.5	[0.00]	µg/L	12:22:12
2	Fe 238.204 Radial†	139.8	140.2	[0.00]	µg/L	12:22:12
2	K 766.490 Radial†	1544.7	1548.9	[0.00]	µg/L	12:21:52
2	Mg 279.077 IEC†	169.6	170.0	[0.00]	µg/L	12:22:12
2	Na 589.592 Radial†	1205.7	1209.1	[0.00]	µg/L	12:21:52
2	Sr 421.552†	-117.6	-117.9	[0.00]	µg/L	12:21:52
2	Sc 361.383	1754588.9	1754588.9	99.871	%	12:23:02
2	Y 371.029	1045608.6	1045608.6	99.831	%	12:23:02
2	Ag 328.068†	4013.5	4018.7	[0.00]	µg/L	12:23:04
2	As 188.979†	-18.7	-18.7	[0.00]	µg/L	12:23:24
2	B 249.677†	3584.7	3589.3	[0.00]	µg/L	12:23:04
2	Ba 233.527†	-138.3	-138.5	[0.00]	µg/L	12:23:24
2	Be 313.107†	-1058.3	-1059.6	[0.00]	µg/L	12:23:04
2	Cd 226.502†	-95.4	-95.6	[0.00]	µg/L	12:23:24
2	Co 228.616†	-182.0	-182.2	[0.00]	µg/L	12:23:24
2	Cr 267.716†	170.9	171.1	[0.00]	µg/L	12:23:24
2	Cu 324.752†	2955.7	2959.6	[0.00]	µg/L	12:23:04
2	Mn 257.610†	202.4	202.6	[0.00]	µg/L	12:23:24
2	Mo 202.031†	-44.8	-44.9	[0.00]	µg/L	12:23:24
2	Ni 231.604†	-79.3	-79.4	[0.00]	µg/L	12:23:24
2	P 214.914†	-2.3	-2.3	[0.00]	µg/L	12:23:24
2	Pb 220.353†	65.3	65.4	[0.00]	µg/L	12:23:24
2	S 181.975 Axial†	102.6	102.8	[0.00]	µg/L	12:23:24
2	Sb 206.836†	93.0	93.1	[0.00]	µg/L	12:23:24
2	Se 196.026†	19.4	19.4	[0.00]	µg/L	12:23:24
2	SiO2†	1745.4	1747.7	[0.00]	µg/L	12:23:24
2	Si 251.611†	852.3	853.4	[0.00]	µg/L	12:23:04
2	Sn 189.927†	-10.8	-10.8	[0.00]	µg/L	12:23:24
2	Ti 334.940†	935.2	936.4	[0.00]	µg/L	12:23:04
2	Tl 190.801†	-115.1	-115.2	[0.00]	µg/L	12:23:24
2	U 409.014†	-463.9	-464.5	[0.00]	µg/L	12:23:04
2	V 292.402†	312.2	312.6	[0.00]	µg/L	12:23:04
2	Zn 213.857†	511.0	511.6	[0.00]	µg/L	12:23:24
3	Sc RADIAL	143894.2	143894.2	99.8	%	12:22:14

3	Al 396.153Radial†	-76.3	-76.5	[0.00]	µg/L	12:22:34
3	Ca 317.933Radial†	564.2	565.1	[0.00]	µg/L	12:22:34
3	Fe 238.204 Radial†	131.6	131.9	[0.00]	µg/L	12:22:34
3	K 766.490 Radial†	1600.1	1602.9	[0.00]	µg/L	12:22:14
3	Mg 279.077 IEC†	165.0	165.3	[0.00]	µg/L	12:22:34
3	Na 589.592 Radial†	1231.0	1233.2	[0.00]	µg/L	12:22:14
3	Sr 421.552†	-309.8	-310.4	[0.00]	µg/L	12:22:14
3	Sc 361.383	1758590.0	1758590.0	100.10	%	12:23:26
3	Y 371.029	1048159.1	1048159.1	100.07	%	12:23:26
3	Ag 328.068†	3854.5	3850.7	[0.00]	µg/L	12:23:28
3	As 188.979†	-23.6	-23.6	[0.00]	µg/L	12:23:48
3	B 249.677†	3467.2	3463.8	[0.00]	µg/L	12:23:28
3	Ba 233.527†	-182.2	-182.0	[0.00]	µg/L	12:23:48
3	Be 313.107†	-942.7	-941.8	[0.00]	µg/L	12:23:28
3	Cd 226.502†	-124.0	-123.9	[0.00]	µg/L	12:23:48
3	Co 228.616†	-190.9	-190.7	[0.00]	µg/L	12:23:48
3	Cr 267.716†	180.2	180.0	[0.00]	µg/L	12:23:48
3	Cu 324.752†	2866.6	2863.8	[0.00]	µg/L	12:23:28
3	Mn 257.610†	215.8	215.6	[0.00]	µg/L	12:23:48
3	Mo 202.031†	-41.7	-41.7	[0.00]	µg/L	12:23:48
3	Ni 231.604†	-73.1	-73.0	[0.00]	µg/L	12:23:48
3	P 214.914†	0.6	0.6	[0.00]	µg/L	12:23:48
3	Pb 220.353†	58.9	58.8	[0.00]	µg/L	12:23:48
3	S 181.975 Axial†	102.4	102.3	[0.00]	µg/L	12:23:48
3	Sb 206.836†	74.5	74.5	[0.00]	µg/L	12:23:48
3	Se 196.026†	14.8	14.8	[0.00]	µg/L	12:23:48
3	SiO2†	1771.0	1769.3	[0.00]	µg/L	12:23:48
3	Si 251.611†	708.2	707.5	[0.00]	µg/L	12:23:28
3	Sn 189.927†	5.8	5.8	[0.00]	µg/L	12:23:48
3	Ti 334.940†	905.1	904.2	[0.00]	µg/L	12:23:28
3	Tl 190.801†	-120.0	-119.9	[0.00]	µg/L	12:23:48
3	U 409.014†	-53.8	-53.7	[0.00]	µg/L	12:23:28
3	V 292.402†	317.3	317.0	[0.00]	µg/L	12:23:28
3	Zn 213.857†	518.1	517.6	[0.00]	µg/L	12:23:48

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1756862.9	2055.84	0.12%	100.00	%
Sc RADIAL	144147.9	565.73	0.39%	100	%
Y 371.029	1047381.1	1538.88	0.15%	100.00	%
Ag 328.068†	3814.8	224.04	5.87%	[0.00]	µg/L
Al 396.153Radial†	-68.9	13.51	19.61%	[0.00]	µg/L
As 188.979†	-21.7	2.59	11.96%	[0.00]	µg/L
B 249.677†	3459.4	132.22	3.82%	[0.00]	µg/L
Ba 233.527†	-152.8	25.33	16.58%	[0.00]	µg/L
Be 313.107†	-976.9	71.96	7.37%	[0.00]	µg/L
Ca 317.933Radial†	550.1	13.06	2.37%	[0.00]	µg/L
Cd 226.502†	-105.8	15.71	14.84%	[0.00]	µg/L
Co 228.616†	-189.5	6.75	3.56%	[0.00]	µg/L
Cr 267.716†	176.6	4.79	2.72%	[0.00]	µg/L
Cu 324.752†	2858.9	103.16	3.61%	[0.00]	µg/L
Fe 238.204 Radial†	135.3	4.33	3.20%	[0.00]	µg/L
K 766.490 Radial†	1558.4	40.57	2.60%	[0.00]	µg/L
Mg 279.077 IEC†	165.2	4.87	2.95%	[0.00]	µg/L
Mn 257.610†	210.6	6.95	3.30%	[0.00]	µg/L
Mo 202.031†	-42.7	1.86	4.36%	[0.00]	µg/L
Na 589.592 Radial†	1257.6	64.40	5.12%	[0.00]	µg/L
Ni 231.604†	-80.3	7.66	9.55%	[0.00]	µg/L
P 214.914†	0.4	2.62	636.39%	[0.00]	µg/L
Pb 220.353†	67.6	10.09	14.92%	[0.00]	µg/L
S 181.975 Axial†	105.2	4.59	4.37%	[0.00]	µg/L
Sb 206.836†	79.0	12.45	15.75%	[0.00]	µg/L
Se 196.026†	14.8	4.56	30.82%	[0.00]	µg/L
SiO2†	1750.8	17.11	0.98%	[0.00]	µg/L
Si 251.611†	787.5	73.93	9.39%	[0.00]	µg/L
Sn 189.927†	-3.2	8.38	259.00%	[0.00]	µg/L
Sr 421.552†	-209.9	96.52	45.99%	[0.00]	µg/L
Ti 334.940†	936.8	32.74	3.50%	[0.00]	µg/L
Tl 190.801†	-115.6	4.12	3.57%	[0.00]	µg/L

U 409.014†	-264.5	205.61	77.74%	[0.00] µg/L
V 292.402†	355.4	70.38	19.80%	[0.00] µg/L
Zn 213.857†	512.7	4.46	0.87%	[0.00] µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 4/1/2010 12:23:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	142814.8	142814.8	99.1	%	12:24:28
1	K 766.490 Radial†	4167.2	2647.7	[1000]	µg/L	12:24:28
1	Sr 421.552†	45568.0	46203.2	[100]	µg/L	12:24:28
1	Sc 361.383	1758429.6	1758429.6	100.09	%	12:24:36
1	Y 371.029	1044254.8	1044254.8	99.702	%	12:24:36
1	Ag 328.068†	29991.7	26150.2	[100]	µg/L	12:24:38
1	As 188.979†	294.2	315.7	[100]	µg/L	12:24:58
1	B 249.677†	9957.6	6489.4	[100]	µg/L	12:24:38
1	Ba 233.527†	23872.0	24003.5	[100]	µg/L	12:24:38
1	Be 313.107†	349346.4	350012.0	[100]	µg/L	12:24:36
1	Cd 226.502†	15390.7	15482.9	[100]	µg/L	12:24:38
1	Co 228.616†	7699.6	7882.2	[100]	µg/L	12:24:58
1	Cr 267.716†	12386.3	12198.7	[100]	µg/L	12:24:38
1	Cu 324.752†	27783.9	24900.3	[100]	µg/L	12:24:38
1	Mn 257.610†	80599.6	80317.2	[100]	µg/L	12:24:38
1	Mo 202.031†	3167.7	3207.6	[100]	µg/L	12:24:58
1	Ni 231.604†	8504.1	8576.8	[100]	µg/L	12:24:38
1	P 214.914†	2186.8	2184.5	[500]	µg/L	12:24:58
1	Pb 220.353†	1831.8	1762.5	[100]	µg/L	12:24:58
1	S 181.975 Axial†	356.3	250.8	[200]	µg/L	12:24:58
1	Sb 206.836†	862.2	782.4	[100]	µg/L	12:24:58
1	Se 196.026†	277.7	262.7	[100]	µg/L	12:24:58
1	SiO2†	11962.3	10200.9	[1069.5]	µg/L	12:24:38
1	Si 251.611†	32525.1	31708.6	[500]	µg/L	12:24:38
1	Sn 189.927†	1528.9	1530.8	[100]	µg/L	12:24:58
1	Ti 334.940†	102332.1	101304.1	[100]	µg/L	12:24:38
1	Tl 190.801†	669.2	784.2	[100]	µg/L	12:24:58
1	U 409.014†	1493.3	1756.5	[100]	µg/L	12:24:38
1	V 292.402†	19879.8	19506.7	[100]	µg/L	12:24:38
1	Zn 213.857†	17842.7	17314.1	[100]	µg/L	12:24:38
2	Sc RADIAL	144351.6	144351.6	100	%	12:24:30
2	K 766.490 Radial†	4221.2	2656.9	[1000]	µg/L	12:24:30
2	Sr 421.552†	46246.6	46391.2	[100]	µg/L	12:24:30
2	Sc 361.383	1741792.4	1741792.4	99.142	%	12:25:00
2	Y 371.029	1037493.2	1037493.2	99.056	%	12:25:00
2	Ag 328.068†	29960.6	26405.1	[100]	µg/L	12:25:02
2	As 188.979†	293.0	317.2	[100]	µg/L	12:25:22
2	B 249.677†	9809.3	6434.8	[100]	µg/L	12:25:02
2	Ba 233.527†	23873.9	24233.2	[100]	µg/L	12:25:02
2	Be 313.107†	343477.0	347425.7	[100]	µg/L	12:25:00
2	Cd 226.502†	15243.3	15481.0	[100]	µg/L	12:25:02
2	Co 228.616†	7688.3	7944.3	[100]	µg/L	12:25:22
2	Cr 267.716†	12507.6	12439.3	[100]	µg/L	12:25:02
2	Cu 324.752†	27790.1	25171.6	[100]	µg/L	12:25:02
2	Mn 257.610†	80314.6	80798.9	[100]	µg/L	12:25:02
2	Mo 202.031†	3172.6	3242.8	[100]	µg/L	12:25:22
2	Ni 231.604†	8493.6	8647.3	[100]	µg/L	12:25:02
2	P 214.914†	2176.6	2195.0	[500]	µg/L	12:25:22
2	Pb 220.353†	1841.7	1790.0	[100]	µg/L	12:25:22
2	S 181.975 Axial†	353.4	251.3	[200]	µg/L	12:25:22
2	Sb 206.836†	853.1	781.4	[100]	µg/L	12:25:22
2	Se 196.026†	277.9	265.5	[100]	µg/L	12:25:22
2	SiO2†	11951.4	10304.0	[1069.5]	µg/L	12:25:02
2	Si 251.611†	32620.0	32114.7	[500]	µg/L	12:25:02
2	Sn 189.927†	1510.9	1527.2	[100]	µg/L	12:25:22
2	Ti 334.940†	101878.2	101822.9	[100]	µg/L	12:25:02
2	Tl 190.801†	676.1	797.5	[100]	µg/L	12:25:22
2	U 409.014†	1667.9	1946.8	[100]	µg/L	12:25:02
2	V 292.402†	19929.4	19746.4	[100]	µg/L	12:25:02

2	Zn 213.857†	17778.0	17419.1	[100]	µg/L	12:25:02
3	Sc RADIAL	143859.8	143859.8	99.8	%	12:24:32
3	K 766.490 Radial†	4231.4	2681.4	[1000]	µg/L	12:24:32
3	Sr 421.552†	46073.8	46375.9	[100]	µg/L	12:24:32
3	Sc 361.383	1748982.5	1748982.5	99.551	%	12:25:24
3	Y 371.029	1039946.2	1039946.2	99.290	%	12:25:24
3	Ag 328.068†	29816.8	26136.3	[100]	µg/L	12:25:26
3	As 188.979†	290.5	313.5	[100]	µg/L	12:25:46
3	B 249.677†	9670.3	6254.5	[100]	µg/L	12:25:26
3	Ba 233.527†	23887.2	24147.6	[100]	µg/L	12:25:26
3	Be 313.107†	345754.1	348288.8	[100]	µg/L	12:25:24
3	Cd 226.502†	15313.4	15488.2	[100]	µg/L	12:25:26
3	Co 228.616†	7731.8	7956.2	[100]	µg/L	12:25:46
3	Cr 267.716†	12404.3	12283.6	[100]	µg/L	12:25:26
3	Cu 324.752†	27534.3	24799.4	[100]	µg/L	12:25:26
3	Mn 257.610†	80423.9	80575.7	[100]	µg/L	12:25:26
3	Mo 202.031†	3188.6	3245.7	[100]	µg/L	12:25:46
3	Ni 231.604†	8398.1	8516.2	[100]	µg/L	12:25:26
3	P 214.914†	2206.4	2215.9	[500]	µg/L	12:25:46
3	Pb 220.353†	1861.6	1802.4	[100]	µg/L	12:25:46
3	S 181.975 Axial†	351.0	247.4	[200]	µg/L	12:25:46
3	Sb 206.836†	879.9	804.8	[100]	µg/L	12:25:46
3	Se 196.026†	281.3	267.7	[100]	µg/L	12:25:46
3	SiO2†	11975.9	10279.1	[1069.5]	µg/L	12:25:26
3	Si 251.611†	32459.8	31818.6	[500]	µg/L	12:25:26
3	Sn 189.927†	1521.1	1531.2	[100]	µg/L	12:25:46
3	Ti 334.940†	102256.6	101780.6	[100]	µg/L	12:25:26
3	Tl 190.801†	682.7	801.4	[100]	µg/L	12:25:46
3	U 409.014†	1547.9	1819.3	[100]	µg/L	12:25:26
3	V 292.402†	19829.6	19563.5	[100]	µg/L	12:25:26
3	Zn 213.857†	17828.0	17395.6	[100]	µg/L	12:25:26

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1749734.9	8344.07	0.48%	99.594	%
Sc RADIAL	143675.4	784.81	0.55%	99.7	%
Y 371.029	1040564.7	3422.97	0.33%	99.349	%
Ag 328.068†	26230.5	151.32	0.58%	[100]	µg/L
As 188.979†	315.5	1.87	0.59%	[100]	µg/L
B 249.677†	6392.9	122.92	1.92%	[100]	µg/L
Ba 233.527†	24128.1	116.10	0.48%	[100]	µg/L
Be 313.107†	348575.5	1316.72	0.38%	[100]	µg/L
Cd 226.502†	15484.0	3.73	0.02%	[100]	µg/L
Co 228.616†	7927.6	39.74	0.50%	[100]	µg/L
Cr 267.716†	12307.2	121.99	0.99%	[100]	µg/L
Cu 324.752†	24957.1	192.51	0.77%	[100]	µg/L
K 766.490 Radial†	2662.0	17.44	0.66%	[1000]	µg/L
Mn 257.610†	80563.9	241.06	0.30%	[100]	µg/L
Mo 202.031†	3232.0	21.20	0.66%	[100]	µg/L
Ni 231.604†	8580.1	65.60	0.76%	[100]	µg/L
P 214.914†	2198.5	16.01	0.73%	[500]	µg/L
Pb 220.353†	1785.0	20.39	1.14%	[100]	µg/L
S 181.975 Axial†	249.8	2.13	0.85%	[200]	µg/L
Sb 206.836†	789.6	13.24	1.68%	[100]	µg/L
Se 196.026†	265.3	2.54	0.96%	[100]	µg/L
SiO2†	10261.3	53.80	0.52%	[1069.5]	µg/L
Si 251.611†	31880.6	210.04	0.66%	[500]	µg/L
Sn 189.927†	1529.7	2.22	0.14%	[100]	µg/L
Sr 421.552†	46323.5	104.38	0.23%	[100]	µg/L
Ti 334.940†	101635.9	288.06	0.28%	[100]	µg/L
Tl 190.801†	794.4	8.99	1.13%	[100]	µg/L
U 409.014†	1840.9	96.99	5.27%	[100]	µg/L
V 292.402†	19605.6	125.26	0.64%	[100]	µg/L
Zn 213.857†	17376.3	55.12	0.32%	[100]	µg/L

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Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 4/1/2010 12:25:55**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	144234.2	144234.2	100	%	12:26:26
1	Al 396.153Radial†	25384.1	25437.7	[5000]	µg/L	12:26:26
1	Ca 317.933Radial†	82894.6	82294.8	[5000]	µg/L	12:26:26
1	K 766.490 Radial†	14254.0	12687.0	[5000]	µg/L	12:26:26
1	Mg 279.077 IEC†	12485.4	12312.7	[5000]	µg/L	12:26:26
1	Sr 421.552†	222196.6	222273.4	[500]	µg/L	12:26:24
1	Sc 361.383	1745425.2	1745425.2	99.349	%	12:26:39
1	Y 371.029	1028991.7	1028991.7	98.244	%	12:26:39
1	Ag 328.068†	128628.6	125656.7	[500]	µg/L	12:26:39
1	As 188.979†	1507.2	1538.8	[500]	µg/L	12:26:59
1	B 249.677†	34776.7	31545.3	[500]	µg/L	12:26:39
1	Ba 233.527†	115029.0	115935.5	[500]	µg/L	12:26:39
1	Be 313.107†	1717563.0	1729795.0	[500]	µg/L	12:26:39
1	Cd 226.502†	74367.8	74960.9	[500]	µg/L	12:26:39
1	Co 228.616†	38008.2	38446.8	[500]	µg/L	12:26:39
1	Cr 267.716†	59460.1	59673.2	[500]	µg/L	12:26:39
1	Cu 324.752†	122922.2	120868.8	[500]	µg/L	12:26:39
1	Mn 257.610†	379988.8	382268.3	[500]	µg/L	12:26:39
1	Mo 202.031†	15893.6	16040.5	[500]	µg/L	12:26:59
1	Ni 231.604†	40368.7	40713.5	[500]	µg/L	12:26:39
1	P 214.914†	10984.8	11056.4	[2500]	µg/L	12:26:59
1	Pb 220.353†	8509.7	8497.9	[500]	µg/L	12:26:59
1	S 181.975 Axial†	1333.1	1236.7	[1000]	µg/L	12:26:59
1	Sb 206.836†	4005.1	3952.3	[500]	µg/L	12:26:59
1	Se 196.026†	1323.6	1317.5	[500]	µg/L	12:26:59
1	SiO2†	52158.8	50749.8	[5347.5]	µg/L	12:26:39
1	Si 251.611†	157632.9	157878.3	[2500]	µg/L	12:26:39
1	Sn 189.927†	7455.1	7507.2	[500]	µg/L	12:26:59
1	Ti 334.940†	500017.3	502357.1	[500]	µg/L	12:26:39
1	Tl 190.801†	3708.0	3847.9	[500]	µg/L	12:26:59
1	U 409.014†	7260.9	7573.0	[500]	µg/L	12:26:39
1	V 292.402†	95587.8	95858.8	[500]	µg/L	12:26:39
1	Zn 213.857†	83540.8	83575.6	[500]	µg/L	12:26:39
2	Sc RADIAL	142585.8	142585.8	98.9	%	12:26:30
2	Al 396.153Radial†	25152.4	25496.9	[5000]	µg/L	12:26:30
2	Ca 317.933Radial†	82091.6	82440.9	[5000]	µg/L	12:26:30
2	K 766.490 Radial†	14188.3	12785.3	[5000]	µg/L	12:26:30
2	Mg 279.077 IEC†	12445.2	12416.3	[5000]	µg/L	12:26:30
2	Sr 421.552†	222401.7	225048.0	[500]	µg/L	12:26:28
2	Sc 361.383	1750151.9	1750151.9	99.618	%	12:27:02
2	Y 371.029	1031779.2	1031779.2	98.510	%	12:27:02
2	Ag 328.068†	128932.4	125612.0	[500]	µg/L	12:27:02
2	As 188.979†	1506.2	1533.7	[500]	µg/L	12:27:22
2	B 249.677†	35135.8	31811.2	[500]	µg/L	12:27:02
2	Ba 233.527†	115643.5	116239.7	[500]	µg/L	12:27:02
2	Be 313.107†	1726163.0	1733758.8	[500]	µg/L	12:27:02
2	Cd 226.502†	74979.7	75373.1	[500]	µg/L	12:27:02
2	Co 228.616†	37938.9	38273.9	[500]	µg/L	12:27:02
2	Cr 267.716†	59623.1	59675.1	[500]	µg/L	12:27:02
2	Cu 324.752†	123506.9	121121.6	[500]	µg/L	12:27:02
2	Mn 257.610†	381487.0	382739.2	[500]	µg/L	12:27:02
2	Mo 202.031†	15866.2	15969.8	[500]	µg/L	12:27:22
2	Ni 231.604†	40788.1	41024.8	[500]	µg/L	12:27:02
2	P 214.914†	10970.6	11012.3	[2500]	µg/L	12:27:22
2	Pb 220.353†	8511.5	8476.5	[500]	µg/L	12:27:22
2	S 181.975 Axial†	1348.6	1248.6	[1000]	µg/L	12:27:22
2	Sb 206.836†	4002.8	3939.1	[500]	µg/L	12:27:22
2	Se 196.026†	1296.7	1286.9	[500]	µg/L	12:27:22
2	SiO2†	52226.2	50675.6	[5347.5]	µg/L	12:27:02

2	Si 251.611†	158500.4	158320.6	[2500]	µg/L	12:27:02
2	Sn 189.927†	7476.4	7508.3	[500]	µg/L	12:27:22
2	Ti 334.940†	501636.5	502623.2	[500]	µg/L	12:27:02
2	Tl 190.801†	3699.5	3829.3	[500]	µg/L	12:27:22
2	U 409.014†	7028.7	7320.1	[500]	µg/L	12:27:02
2	V 292.402†	96196.8	96210.2	[500]	µg/L	12:27:02
2	Zn 213.857†	84106.3	83916.1	[500]	µg/L	12:27:02
3	Sc RADIAL	142900.4	142900.4	99.1	%	12:26:34
3	Al 396.153Radial†	25012.4	25299.6	[5000]	µg/L	12:26:34
3	Ca 317.933Radial†	82231.2	82399.0	[5000]	µg/L	12:26:34
3	K 766.490 Radial†	14063.6	12627.9	[5000]	µg/L	12:26:34
3	Mg 279.077 IEC†	12429.2	12372.5	[5000]	µg/L	12:26:34
3	Sr 421.552†	221436.1	223579.0	[500]	µg/L	12:26:32
3	Sc 361.383	1744176.6	1744176.6	99.278	%	12:27:25
3	Y 371.029	1027878.3	1027878.3	98.138	%	12:27:25
3	Ag 328.068†	129044.5	126168.4	[500]	µg/L	12:27:25
3	As 188.979†	1520.0	1552.7	[500]	µg/L	12:27:45
3	B 249.677†	35108.5	31904.5	[500]	µg/L	12:27:25
3	Ba 233.527†	115710.4	116704.8	[500]	µg/L	12:27:25
3	Be 313.107†	1725867.5	1739397.4	[500]	µg/L	12:27:25
3	Cd 226.502†	75043.8	75695.4	[500]	µg/L	12:27:25
3	Co 228.616†	38121.3	38588.1	[500]	µg/L	12:27:25
3	Cr 267.716†	59696.1	59953.7	[500]	µg/L	12:27:25
3	Cu 324.752†	123430.2	121469.1	[500]	µg/L	12:27:25
3	Mn 257.610†	381615.4	384180.5	[500]	µg/L	12:27:25
3	Mo 202.031†	15924.8	16083.4	[500]	µg/L	12:27:45
3	Ni 231.604†	40783.9	41160.8	[500]	µg/L	12:27:25
3	P 214.914†	11006.3	11086.0	[2500]	µg/L	12:27:45
3	Pb 220.353†	8600.1	8595.0	[500]	µg/L	12:27:45
3	S 181.975 Axial†	1356.0	1260.7	[1000]	µg/L	12:27:45
3	Sb 206.836†	4024.2	3974.5	[500]	µg/L	12:27:45
3	Se 196.026†	1309.6	1304.3	[500]	µg/L	12:27:45
3	SiO2†	52300.1	50929.7	[5347.5]	µg/L	12:27:25
3	Si 251.611†	158429.7	158794.5	[2500]	µg/L	12:27:25
3	Sn 189.927†	7503.9	7561.7	[500]	µg/L	12:27:45
3	Ti 334.940†	501685.9	504398.1	[500]	µg/L	12:27:25
3	Tl 190.801†	3704.5	3847.0	[500]	µg/L	12:27:45
3	U 409.014†	7233.3	7550.3	[500]	µg/L	12:27:25
3	V 292.402†	96163.7	96507.8	[500]	µg/L	12:27:25
3	Zn 213.857†	84119.2	84218.4	[500]	µg/L	12:27:25

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1746584.6	3151.85	0.18%	99.415	%
Sc RADIAL	143240.1	875.18	0.61%	99.4	%
Y 371.029	1029549.8	2009.44	0.20%	98.298	%
Ag 328.068†	125812.4	309.10	0.25%	[500]	µg/L
Al 396.153Radial†	25411.4	101.22	0.40%	[5000]	µg/L
As 188.979†	1541.7	9.87	0.64%	[500]	µg/L
B 249.677†	31753.6	186.41	0.59%	[500]	µg/L
Ba 233.527†	116293.3	387.45	0.33%	[500]	µg/L
Be 313.107†	1734317.1	4825.49	0.28%	[500]	µg/L
Ca 317.933Radial†	82378.2	75.21	0.09%	[5000]	µg/L
Cd 226.502†	75343.1	368.18	0.49%	[500]	µg/L
Co 228.616†	38436.3	157.39	0.41%	[500]	µg/L
Cr 267.716†	59767.4	161.41	0.27%	[500]	µg/L
Cu 324.752†	121153.1	301.39	0.25%	[500]	µg/L
K 766.490 Radial†	12700.1	79.49	0.63%	[5000]	µg/L
Mg 279.077 IEC†	12367.2	51.99	0.42%	[5000]	µg/L
Mn 257.610†	383062.7	996.32	0.26%	[500]	µg/L
Mo 202.031†	16031.2	57.36	0.36%	[500]	µg/L
Ni 231.604†	40966.4	229.27	0.56%	[500]	µg/L
P 214.914†	11051.5	37.09	0.34%	[2500]	µg/L
Pb 220.353†	8523.1	63.17	0.74%	[500]	µg/L
S 181.975 Axial†	1248.7	12.00	0.96%	[1000]	µg/L
Sb 206.836†	3955.3	17.86	0.45%	[500]	µg/L
Se 196.026†	1302.9	15.37	1.18%	[500]	µg/L
SiO2†	50785.0	130.64	0.26%	[5347.5]	µg/L
Si 251.611†	158331.2	458.19	0.29%	[2500]	µg/L

Sn 189.927†	7525.8	31.16	0.41%	[500] µg/L
Sr 421.552†	223633.5	1388.13	0.62%	[500] µg/L
Ti 334.940†	503126.2	1109.55	0.22%	[500] µg/L
Tl 190.801†	3841.4	10.51	0.27%	[500] µg/L
U 409.014†	7481.1	139.90	1.87%	[500] µg/L
V 292.402†	96192.3	324.86	0.34%	[500] µg/L
Zn 213.857†	83903.4	321.60	0.38%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 4/1/2010 12:27:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	142444.3	142444.3	98.8	%	12:28:25
1	Al 396.153Radial†	50703.1	51378.4	[10000]	µg/L	12:28:25
1	Ca 317.933Radial†	165427.3	166855.6	[10000]	µg/L	12:28:25
1	Fe 238.204 Radial†	148206.1	149843.3	[10000]	µg/L	12:28:25
1	K 766.490 Radial†	27179.9	25946.6	[10000]	µg/L	12:28:25
1	Mg 279.077 IEC†	24950.4	25083.6	[10000]	µg/L	12:28:25
1	Na 589.592 Radial†	68866.4	68432.4	[10000]	µg/L	12:28:25
1	Sr 421.552†	449395.5	454980.0	[1000]	µg/L	12:28:23
1	Sc 361.383	1748898.5	1748898.5	99.547	%	12:28:38
1	Y 371.029	1024666.1	1024666.1	97.831	%	12:28:38
1	Ag 328.068†	259756.9	257125.1	[1000]	µg/L	12:28:40
1	As 188.979†	3068.9	3104.5	[1000]	µg/L	12:29:00
1	B 249.677†	68465.9	65318.3	[1000]	µg/L	12:28:40
1	Ba 233.527†	235678.8	236904.8	[1000]	µg/L	12:28:40
1	Be 313.107†	3510118.9	3527080.7	[1000]	µg/L	12:28:38
1	Cd 226.502†	152444.7	153244.8	[1000]	µg/L	12:28:40
1	Co 228.616†	77145.9	77686.7	[1000]	µg/L	12:28:40
1	Cr 267.716†	121452.8	121829.3	[1000]	µg/L	12:28:40
1	Cu 324.752†	249771.5	248050.1	[1000]	µg/L	12:28:40
1	Mn 257.610†	771240.6	774542.2	[1000]	µg/L	12:28:38
1	Mo 202.031†	32076.0	32264.8	[1000]	µg/L	12:28:40
1	Ni 231.604†	82906.4	83364.2	[1000]	µg/L	12:28:40
1	P 214.914†	22064.3	22164.4	[5000]	µg/L	12:29:00
1	Pb 220.353†	16888.4	16897.6	[1000]	µg/L	12:29:00
1	S 181.975 Axial†	2618.1	2524.8	[2000]	µg/L	12:29:00
1	Sb 206.836†	7941.6	7898.7	[1000]	µg/L	12:29:00
1	Se 196.026†	2616.3	2613.4	[1000]	µg/L	12:29:00
1	SiO2†	103902.5	102624.9	[10695]	µg/L	12:28:40
1	Si 251.611†	318748.5	319412.6	[5000]	µg/L	12:28:40
1	Sn 189.927†	14922.2	14993.4	[1000]	µg/L	12:29:00
1	Ti 334.940†	1011499.5	1015169.1	[1000]	µg/L	12:28:38
1	Tl 190.801†	7558.3	7708.3	[1000]	µg/L	12:29:00
1	U 409.014†	16480.6	16820.1	[1000]	µg/L	12:28:40
1	V 292.402†	196774.9	197315.5	[1000]	µg/L	12:28:40
1	Zn 213.857†	170366.0	170629.2	[1000]	µg/L	12:28:40
2	Sc RADIAL	142568.9	142568.9	98.9	%	12:28:29
2	Al 396.153Radial†	50845.1	51477.1	[10000]	µg/L	12:28:29
2	Ca 317.933Radial†	166375.6	167668.0	[10000]	µg/L	12:28:29
2	Fe 238.204 Radial†	149045.6	150561.0	[10000]	µg/L	12:28:29
2	K 766.490 Radial†	27407.7	26152.8	[10000]	µg/L	12:28:29
2	Mg 279.077 IEC†	24973.0	25084.4	[10000]	µg/L	12:28:29
2	Na 589.592 Radial†	68897.0	68402.4	[10000]	µg/L	12:28:29
2	Sr 421.552†	446056.6	451206.5	[1000]	µg/L	12:28:27
2	Sc 361.383	1732344.0	1732344.0	98.604	%	12:29:03
2	Y 371.029	1014632.7	1014632.7	96.873	%	12:29:03
2	Ag 328.068†	255642.8	255446.3	[1000]	µg/L	12:29:05
2	As 188.979†	3056.6	3121.5	[1000]	µg/L	12:29:25
2	B 249.677†	67462.1	64957.5	[1000]	µg/L	12:29:05
2	Ba 233.527†	231987.3	235423.5	[1000]	µg/L	12:29:05
2	Be 313.107†	3472489.4	3522614.4	[1000]	µg/L	12:29:03
2	Cd 226.502†	149629.9	151853.6	[1000]	µg/L	12:29:05
2	Co 228.616†	75875.2	77138.6	[1000]	µg/L	12:29:05
2	Cr 267.716†	119652.8	121169.7	[1000]	µg/L	12:29:05
2	Cu 324.752†	246045.6	246669.1	[1000]	µg/L	12:29:05
2	Mn 257.610†	764203.2	774808.8	[1000]	µg/L	12:29:03
2	Mo 202.031†	31555.8	32045.2	[1000]	µg/L	12:29:05
2	Ni 231.604†	81421.9	82654.6	[1000]	µg/L	12:29:05
2	P 214.914†	22092.7	22404.9	[5000]	µg/L	12:29:25
2	Pb 220.353†	16969.1	17141.6	[1000]	µg/L	12:29:25

2	S 181.975 Axial†	2604.5	2536.2	[2000]	µg/L	12:29:25
2	Sb 206.836†	7995.0	8029.1	[1000]	µg/L	12:29:25
2	Se 196.026†	2611.0	2633.2	[1000]	µg/L	12:29:25
2	SiO2†	102371.3	102069.4	[10695]	µg/L	12:29:05
2	Si 251.611†	314050.2	317707.6	[5000]	µg/L	12:29:05
2	Sn 189.927†	14955.7	15170.6	[1000]	µg/L	12:29:25
2	Ti 334.940†	1003206.5	1016468.7	[1000]	µg/L	12:29:03
2	Tl 190.801†	7529.8	7752.0	[1000]	µg/L	12:29:25
2	U 409.014†	16474.6	16972.3	[1000]	µg/L	12:29:05
2	V 292.402†	193809.7	196197.4	[1000]	µg/L	12:29:05
2	Zn 213.857†	167939.1	169803.4	[1000]	µg/L	12:29:05
3	Sc RADIAL	143600.6	143600.6	99.6	%	12:28:34
3	Al 396.153Radial†	50936.8	51199.8	[10000]	µg/L	12:28:34
3	Ca 317.933Radial†	166789.5	166875.1	[10000]	µg/L	12:28:34
3	Fe 238.204 Radial†	149556.6	149991.3	[10000]	µg/L	12:28:34
3	K 766.490 Radial†	27560.3	26106.9	[10000]	µg/L	12:28:34
3	Mg 279.077 IEC†	25229.0	25160.0	[10000]	µg/L	12:28:34
3	Na 589.592 Radial†	69401.2	68408.1	[10000]	µg/L	12:28:34
3	Sr 421.552†	444390.9	446294.5	[1000]	µg/L	12:28:32
3	Sc 361.383	1727667.9	1727667.9	98.338	%	12:29:28
3	Y 371.029	1012530.8	1012530.8	96.673	%	12:29:28
3	Ag 328.068†	257372.1	257906.5	[1000]	µg/L	12:29:30
3	As 188.979†	3073.6	3147.3	[1000]	µg/L	12:29:50
3	B 249.677†	67807.6	65494.1	[1000]	µg/L	12:29:30
3	Ba 233.527†	232828.6	236915.8	[1000]	µg/L	12:29:30
3	Be 313.107†	3458030.7	3517443.0	[1000]	µg/L	12:29:28
3	Cd 226.502†	150541.8	153191.6	[1000]	µg/L	12:29:30
3	Co 228.616†	76327.1	77806.4	[1000]	µg/L	12:29:30
3	Cr 267.716†	120361.7	122219.0	[1000]	µg/L	12:29:30
3	Cu 324.752†	246929.7	248243.5	[1000]	µg/L	12:29:30
3	Mn 257.610†	761320.6	773975.2	[1000]	µg/L	12:29:28
3	Mo 202.031†	31723.6	32302.4	[1000]	µg/L	12:29:30
3	Ni 231.604†	81683.4	83144.0	[1000]	µg/L	12:29:30
3	P 214.914†	22089.6	22462.5	[5000]	µg/L	12:29:50
3	Pb 220.353†	16966.5	17185.6	[1000]	µg/L	12:29:50
3	S 181.975 Axial†	2607.0	2545.8	[2000]	µg/L	12:29:50
3	Sb 206.836†	7947.3	8002.5	[1000]	µg/L	12:29:50
3	Se 196.026†	2611.5	2640.8	[1000]	µg/L	12:29:50
3	SiO2†	102959.9	102949.0	[10695]	µg/L	12:29:30
3	Si 251.611†	315423.1	319965.7	[5000]	µg/L	12:29:30
3	Sn 189.927†	14926.0	15181.5	[1000]	µg/L	12:29:50
3	Ti 334.940†	999103.7	1015050.2	[1000]	µg/L	12:29:28
3	Tl 190.801†	7510.9	7753.4	[1000]	µg/L	12:29:50
3	U 409.014†	16551.4	17095.6	[1000]	µg/L	12:29:30
3	V 292.402†	195214.1	198157.5	[1000]	µg/L	12:29:30
3	Zn 213.857†	168488.0	170822.5	[1000]	µg/L	12:29:30

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1736303.5	11155.36	0.64%	98.830	%
Sc RADIAL	142871.3	634.67	0.44%	99.1	%
Y 371.029	1017276.6	6485.29	0.64%	97.126	%
Ag 328.068†	256825.9	1257.09	0.49%	[1000]	µg/L
Al 396.153Radial†	51351.8	140.58	0.27%	[10000]	µg/L
As 188.979†	3124.5	21.51	0.69%	[1000]	µg/L
B 249.677†	65256.7	273.56	0.42%	[1000]	µg/L
Ba 233.527†	236414.7	858.43	0.36%	[1000]	µg/L
Be 313.107†	3522379.3	4823.12	0.14%	[1000]	µg/L
Ca 317.933Radial†	167132.9	463.52	0.28%	[10000]	µg/L
Cd 226.502†	152763.3	788.30	0.52%	[1000]	µg/L
Co 228.616†	77543.9	356.08	0.46%	[1000]	µg/L
Cr 267.716†	121739.4	530.41	0.44%	[1000]	µg/L
Cu 324.752†	247654.2	858.58	0.35%	[1000]	µg/L
Fe 238.204 Radial†	150131.9	378.92	0.25%	[10000]	µg/L
K 766.490 Radial†	26068.8	108.29	0.42%	[10000]	µg/L
Mg 279.077 IEC†	25109.3	43.87	0.17%	[10000]	µg/L
Mn 257.610†	774442.0	425.74	0.05%	[1000]	µg/L
Mo 202.031†	32204.1	138.94	0.43%	[1000]	µg/L
Na 589.592 Radial†	68414.3	15.93	0.02%	[10000]	µg/L

Ni 231.604†	83054.3	363.23	0.44%	[1000]	µg/L
P 214.914†	22343.9	158.13	0.71%	[5000]	µg/L
Pb 220.353†	17074.9	155.11	0.91%	[1000]	µg/L
S 181.975 Axial†	2535.6	10.53	0.42%	[2000]	µg/L
Sb 206.836†	7976.8	68.91	0.86%	[1000]	µg/L
Se 196.026†	2629.1	14.17	0.54%	[1000]	µg/L
SiO2†	102547.8	444.81	0.43%	[10695]	µg/L
Si 251.611†	319028.6	1177.01	0.37%	[5000]	µg/L
Sn 189.927†	15115.2	105.57	0.70%	[1000]	µg/L
Sr 421.552†	450827.0	4355.21	0.97%	[1000]	µg/L
Ti 334.940†	1015562.6	786.89	0.08%	[1000]	µg/L
Tl 190.801†	7737.9	25.65	0.33%	[1000]	µg/L
U 409.014†	16962.7	137.99	0.81%	[1000]	µg/L
V 292.402†	197223.5	983.28	0.50%	[1000]	µg/L
Zn 213.857†	170418.4	541.29	0.32%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 4/1/2010 12:29:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	140509.8	140509.8	97.5	%	12:30:27
1	Al 396.153Radial†	243816.4	250198.2	[50000]	µg/L	12:30:27
1	Ca 317.933Radial†	792884.0	812863.2	[50000]	µg/L	12:30:27
1	Fe 238.204 Radial†	287973.4	295294.3	[20000]	µg/L	12:30:27
1	Mg 279.077 IEC†	117433.4	120308.8	[50000]	µg/L	12:30:27
1	Na 589.592 Radial†	133630.1	135832.4	[20000]	µg/L	12:30:27
1	Sc 361.383	1710127.0	1710127.0	97.340	%	12:30:49
1	Y 371.029	1003012.5	1003012.5	95.764	%	12:30:49
2	Sc RADIAL	140400.6	140400.6	97.4	%	12:30:29
2	Al 396.153Radial†	244407.2	250999.3	[50000]	µg/L	12:30:29
2	Ca 317.933Radial†	793572.4	814202.7	[50000]	µg/L	12:30:29
2	Fe 238.204 Radial†	287833.3	295380.3	[20000]	µg/L	12:30:29
2	Mg 279.077 IEC†	117688.8	120664.7	[50000]	µg/L	12:30:29
2	Na 589.592 Radial†	133425.3	135728.8	[20000]	µg/L	12:30:29
2	Sc 361.383	1702308.7	1702308.7	96.895	%	12:30:52
2	Y 371.029	999099.0	999099.0	95.390	%	12:30:52
3	Sc RADIAL	140312.0	140312.0	97.3	%	12:30:31
3	Al 396.153Radial†	244157.0	250900.6	[50000]	µg/L	12:30:31
3	Ca 317.933Radial†	792654.1	813773.5	[50000]	µg/L	12:30:31
3	Fe 238.204 Radial†	287692.2	295421.8	[20000]	µg/L	12:30:31
3	Mg 279.077 IEC†	117598.4	120648.1	[50000]	µg/L	12:30:31
3	Na 589.592 Radial†	133342.1	135729.7	[20000]	µg/L	12:30:31
3	Sc 361.383	1691181.6	1691181.6	96.261	%	12:30:55
3	Y 371.029	991516.6	991516.6	94.666	%	12:30:55

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1701205.8	9520.70	0.56%	96.832	%
Sc RADIAL	140407.5	99.06	0.07%	97.4	%
Y 371.029	997876.0	5844.71	0.59%	95.273	%
Al 396.153Radial†	250699.4	436.86	0.17%	[50000]	µg/L
Ca 317.933Radial†	813613.1	683.98	0.08%	[50000]	µg/L
Fe 238.204 Radial†	295365.5	65.03	0.02%	[20000]	µg/L
Mg 279.077 IEC†	120540.5	200.88	0.17%	[50000]	µg/L
Na 589.592 Radial†	135763.7	59.56	0.04%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	255.8	0.00000	0.999965	
Al 396.153Radial	3	Lin Thru 0	0.0	5.019	0.00000	0.999989	
As 188.979	3	Lin Thru 0	0.0	3.117	0.00000	0.999986	
B 249.677	3	Lin Thru 0	0.0	64.90	0.00000	0.999941	
Ba 233.527	3	Lin Thru 0	0.0	235.7	0.00000	0.999977	
Be 313.107	3	Lin Thru 0	0.0	3511	0.00000	0.999981	
Ca 317.933Radial	3	Lin Thru 0	0.0	16.29	0.00000	0.999986	
Cd 226.502	3	Lin Thru 0	0.0	152.4	0.00000	0.999984	
Co 228.616	3	Lin Thru 0	0.0	77.42	0.00000	0.999992	
Cr 267.716	3	Lin Thru 0	0.0	121.3	0.00000	0.999973	
Cu 324.752	3	Lin Thru 0	0.0	246.6	0.00000	0.999962	
Fe 238.204 Radia	2	Lin Thru 0	0.0	14.82	0.00000	0.999978	
K 766.490 Radial	3	Lin Thru 0	0.0	2.594	0.00000	0.999945	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.415	0.00000	0.999966	
Mn 257.610	3	Lin Thru 0	0.0	773.0	0.00000	0.999984	
Mo 202.031	3	Lin Thru 0	0.0	32.18	0.00000	0.999998	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.799	0.00000	0.999995	

Ni 231.604	3	Lin Thru 0	0.0	82.85	0.00000	0.999980
P 214.914	3	Lin Thru 0	0.0	4.459	0.00000	0.999990
Pb 220.353	3	Lin Thru 0	0.0	17.08	0.00000	0.999992
S 181.975 Axial	3	Lin Thru 0	0.0	1.264	0.00000	0.999981
Sb 206.836	3	Lin Thru 0	0.0	7.963	0.00000	0.999994
Se 196.026	3	Lin Thru 0	0.0	2.625	0.00000	0.999993
SiO2	3	Lin Thru 0	0.0	9.570	0.00000	0.999993
Si 251.611	3	Lin Thru 0	0.0	63.71	0.00000	0.999996
Sn 189.927	3	Lin Thru 0	0.0	15.10	0.00000	0.999998
Sr 421.552	3	Lin Thru 0	0.0	450.2	0.00000	0.999992
Ti 334.940	3	Lin Thru 0	0.0	1014	0.00000	0.999993
Tl 190.801	3	Lin Thru 0	0.0	7.729	0.00000	0.999993
U 409.014	3	Lin Thru 0	0.0	16.58	0.00000	0.998798
V 292.402	3	Lin Thru 0	0.0	196.3	0.00000	0.999952
Zn 213.857	3	Lin Thru 0	0.0	169.9	0.00000	0.999979

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 4/1/2010 12:31:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145353.8	145353.8	101	%			12:31:34
1	Al 396.153Radial†	26761.0	26607.8	5276.1	µg/L	5276.1	ppb	12:31:34
1	Ca 317.933Radial†	85928.6	84665.5	5197.1	µg/L	5197.1	ppb	12:31:34
1	Fe 238.204 Radial†	77754.4	76974.0	5194.9	µg/L	5194.9	ppb	12:31:34
1	K 766.490 Radial†	8314.3	6686.9	2574.8	µg/L	2574.8	ppb	12:31:34
1	Mg 279.077 IEC†	13565.4	13287.7	5510.4	µg/L	5510.4	ppb	12:31:34
1	Na 589.592 Radial†	18944.4	17529.6	2576.0	µg/L	2576.0	ppb	12:31:34
1	Sr 421.552†	241832.6	240036.0	533.11	µg/L	533.11	ppb	12:31:32
1	Sc 361.383	1761331.7	1761331.7	100.25	%			12:32:01
1	Y 371.029	1039757.7	1039757.7	99.272	%			12:32:01
1	Ag 328.068†	70337.8	66344.6	265.74	µg/L	265.74	ppb	12:32:01
1	As 188.979†	1433.3	1451.3	473.04	µg/L	473.04	ppb	12:32:03
1	B 249.677†	37660.0	34105.1	523.73	µg/L	523.73	ppb	12:32:01
1	Ba 233.527†	121612.3	121456.5	515.75	µg/L	515.75	ppb	12:32:01
1	Be 313.107†	926526.6	925152.7	263.61	µg/L	263.61	ppb	12:32:01
1	Cd 226.502†	77507.9	77417.1	507.79	µg/L	507.79	ppb	12:32:01
1	Co 228.616†	39454.4	39543.8	511.07	µg/L	511.07	ppb	12:32:03
1	Cr 267.716†	59826.4	59498.1	490.31	µg/L	490.31	ppb	12:32:03
1	Cu 324.752†	130175.8	126986.6	516.53	µg/L	516.53	ppb	12:32:01
1	Mn 257.610†	404447.1	403210.4	521.36	µg/L	521.36	ppb	12:32:01
1	Mo 202.031†	17367.2	17365.9	540.18	µg/L	540.18	ppb	12:32:03
1	Ni 231.604†	41686.6	41661.1	502.83	µg/L	502.83	ppb	12:32:03
1	P 214.914†	11306.0	11276.9	2520.2	µg/L	2520.2	ppb	12:32:03
1	Pb 220.353†	8768.4	8678.5	510.03	µg/L	510.03	ppb	12:32:03
1	S 181.975 Axial†	3217.8	3104.4	2460.9	µg/L	2460.9	ppb	12:32:03
1	Sb 206.836†	4056.9	3967.6	500.16	µg/L	500.16	ppb	12:32:03
1	Se 196.026†	6606.5	6574.9	2510	µg/L	2510	ppb	12:32:03
1	SiO2†	103445.3	101432.1	10576	µg/L	10576	ppb	12:32:01
1	Si 251.611†	316696.2	315105.2	4935.1	µg/L	4935.1	ppb	12:32:01
1	Sn 189.927†	8031.5	8014.4	532.31	µg/L	532.31	ppb	12:32:03
1	Ti 334.940†	511727.2	509492.1	501.93	µg/L	501.93	ppb	12:32:01
1	Tl 190.801†	4018.8	4124.2	541.23	µg/L	541.23	ppb	12:32:03
1	U 409.014†	7435.8	7681.4	494.65	µg/L	494.65	ppb	12:32:01
1	V 292.402†	100946.7	100335.2	518.24	µg/L	518.24	ppb	12:32:01
1	Zn 213.857†	89325.0	88585.7	517.28	µg/L	517.28	ppb	12:32:01
2	Sc RADIAL	145315.9	145315.9	101	%			12:31:38
2	Al 396.153Radial†	26806.3	26659.7	5286.2	µg/L	5286.2	ppb	12:31:38
2	Ca 317.933Radial†	85997.4	84756.0	5202.6	µg/L	5202.6	ppb	12:31:38
2	Fe 238.204 Radial†	77856.4	77095.3	5203.1	µg/L	5203.1	ppb	12:31:38
2	K 766.490 Radial†	8202.5	6578.1	2532.8	µg/L	2532.8	ppb	12:31:38
2	Mg 279.077 IEC†	13542.2	13268.2	5502.4	µg/L	5502.4	ppb	12:31:38
2	Na 589.592 Radial†	19115.7	17704.4	2601.8	µg/L	2601.8	ppb	12:31:38
2	Sr 421.552†	243068.8	241324.9	535.98	µg/L	535.98	ppb	12:31:36
2	Sc 361.383	1753735.5	1753735.5	99.822	%			12:32:06
2	Y 371.029	1035981.8	1035981.8	98.912	%			12:32:06
2	Ag 328.068†	69999.6	66309.6	265.56	µg/L	265.56	ppb	12:32:06
2	As 188.979†	1494.0	1518.3	494.64	µg/L	494.64	ppb	12:32:08
2	B 249.677†	37586.0	34193.7	525.07	µg/L	525.07	ppb	12:32:06
2	Ba 233.527†	120806.8	121175.0	514.55	µg/L	514.55	ppb	12:32:06
2	Be 313.107†	920568.8	923187.3	263.05	µg/L	263.05	ppb	12:32:06
2	Cd 226.502†	76851.5	77094.4	505.68	µg/L	505.68	ppb	12:32:06
2	Co 228.616†	39940.6	40201.4	519.56	µg/L	519.56	ppb	12:32:08
2	Cr 267.716†	60611.0	60542.6	498.93	µg/L	498.93	ppb	12:32:08
2	Cu 324.752†	129294.5	126666.2	515.22	µg/L	515.22	ppb	12:32:06
2	Mn 257.610†	401828.3	402334.3	520.23	µg/L	520.23	ppb	12:32:06
2	Mo 202.031†	17447.6	17521.5	545.01	µg/L	545.01	ppb	12:32:08
2	Ni 231.604†	42166.4	42321.8	510.80	µg/L	510.80	ppb	12:32:08
2	P 214.914†	11361.0	11380.8	2543.6	µg/L	2543.6	ppb	12:32:08
2	Pb 220.353†	8905.6	8853.9	520.33	µg/L	520.33	ppb	12:32:08

2	S 181.975 Axial†	3259.6	3160.2	2505.0 µg/L	2505.0 ppb	12:32:08
2	Sb 206.836†	4132.7	4061.1	511.86 µg/L	511.86 ppb	12:32:08
2	Se 196.026†	6788.5	6785.8	2590 µg/L	2590 ppb	12:32:08
2	SiO2†	102553.5	100985.6	10529 µg/L	10529 ppb	12:32:06
2	Si 251.611†	314621.2	314394.7	4923.8 µg/L	4923.8 ppb	12:32:06
2	Sn 189.927†	8195.0	8212.8	545.45 µg/L	545.45 ppb	12:32:08
2	Ti 334.940†	509285.7	509257.1	501.70 µg/L	501.70 ppb	12:32:06
2	Tl 190.801†	4055.8	4178.7	548.21 µg/L	548.21 ppb	12:32:08
2	U 409.014†	7202.1	7479.5	482.33 µg/L	482.33 ppb	12:32:06
2	V 292.402†	100099.6	99922.7	516.22 µg/L	516.22 ppb	12:32:06
2	Zn 213.857†	88334.9	87979.8	513.66 µg/L	513.66 ppb	12:32:06
3	Sc RADIAL	144629.8	144629.8	100 %		12:31:42
3	Al 396.153Radial†	26708.1	26688.0	5291.9 µg/L	5291.9 ppb	12:31:42
3	Ca 317.933Radial†	85390.9	84556.2	5190.4 µg/L	5190.4 ppb	12:31:42
3	Fe 238.204 Radial†	77394.1	77000.9	5196.7 µg/L	5196.7 ppb	12:31:42
3	K 766.490 Radial†	8230.1	6644.2	2558.3 µg/L	2558.3 ppb	12:31:42
3	Mg 279.077 IEC†	13512.8	13302.6	5516.6 µg/L	5516.6 ppb	12:31:42
3	Na 589.592 Radial†	18980.0	17659.1	2595.1 µg/L	2595.1 ppb	12:31:42
3	Sr 421.552†	239846.1	239256.7	531.38 µg/L	531.38 ppb	12:31:40
3	Sc 361.383	1761880.9	1761880.9	100.29 %		12:32:11
3	Y 371.029	1040489.8	1040489.8	99.342 %		12:32:11
3	Ag 328.068†	71150.6	67133.2	268.78 µg/L	268.78 ppb	12:32:11
3	As 188.979†	1444.6	1462.2	476.60 µg/L	476.60 ppb	12:32:13
3	B 249.677†	37693.0	34126.3	524.04 µg/L	524.04 ppb	12:32:11
3	Ba 233.527†	121662.8	121469.1	515.80 µg/L	515.80 ppb	12:32:11
3	Be 313.107†	925541.8	923882.6	263.25 µg/L	263.25 ppb	12:32:11
3	Cd 226.502†	77146.8	77032.9	505.27 µg/L	505.27 ppb	12:32:11
3	Co 228.616†	39981.4	40057.0	517.70 µg/L	517.70 ppb	12:32:13
3	Cr 267.716†	60436.9	60088.2	495.18 µg/L	495.18 ppb	12:32:13
3	Cu 324.752†	130250.9	127021.0	516.67 µg/L	516.67 ppb	12:32:11
3	Mn 257.610†	404203.2	402841.4	520.88 µg/L	520.88 ppb	12:32:11
3	Mo 202.031†	17483.5	17476.4	543.61 µg/L	543.61 ppb	12:32:13
3	Ni 231.604†	42173.7	42133.8	508.53 µg/L	508.53 ppb	12:32:13
3	P 214.914†	11400.4	11367.5	2540.6 µg/L	2540.6 ppb	12:32:13
3	Pb 220.353†	8743.8	8651.3	508.45 µg/L	508.45 ppb	12:32:13
3	S 181.975 Axial†	3391.6	3276.7	2597.2 µg/L	2597.2 ppb	12:32:13
3	Sb 206.836†	4112.9	4022.2	507.01 µg/L	507.01 ppb	12:32:13
3	Se 196.026†	6744.6	6710.5	2560 µg/L	2560 ppb	12:32:13
3	SiO2†	103202.7	101158.0	10547 µg/L	10547 ppb	12:32:11
3	Si 251.611†	316421.8	314733.1	4929.2 µg/L	4929.2 ppb	12:32:11
3	Sn 189.927†	8175.0	8155.0	541.62 µg/L	541.62 ppb	12:32:13
3	Ti 334.940†	512788.1	510390.9	502.81 µg/L	502.81 ppb	12:32:11
3	Tl 190.801†	4024.5	4128.6	541.75 µg/L	541.75 ppb	12:32:13
3	U 409.014†	7365.7	7609.2	490.13 µg/L	490.13 ppb	12:32:11
3	V 292.402†	100445.4	99803.9	515.59 µg/L	515.59 ppb	12:32:11
3	Zn 213.857†	88963.6	88197.6	514.96 µg/L	514.96 ppb	12:32:11

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1758982.7	100.12	%	0.259				0.26%
Sc RADIAL	145099.9	101	%	0.3				0.28%
Y 371.029	1038743.1	99.175	%	0.2310				0.23%
Ag 328.068†	66595.8	266.69	µg/L	1.811	266.69	ppb	1.811	0.68%
QC value within limits for Ag 328.068 Recovery = 106.68%								
Al 396.153Radial†	26651.9	5284.7	µg/L	8.01	5284.7	ppb	8.01	0.15%
QC value within limits for Al 396.153Radial Recovery = 105.69%								
As 188.979†	1477.3	481.43	µg/L	11.578	481.43	ppb	11.578	2.40%
QC value within limits for As 188.979 Recovery = 96.29%								
B 249.677†	34141.7	524.28	µg/L	0.700	524.28	ppb	0.700	0.13%
QC value within limits for B 249.677 Recovery = 104.86%								
Ba 233.527†	121366.9	515.37	µg/L	0.705	515.37	ppb	0.705	0.14%
QC value within limits for Ba 233.527 Recovery = 103.07%								
Be 313.107†	924074.2	263.30	µg/L	0.286	263.30	ppb	0.286	0.11%
QC value within limits for Be 313.107 Recovery = 105.32%								
Ca 317.933Radial†	84659.3	5196.7	µg/L	6.14	5196.7	ppb	6.14	0.12%
QC value within limits for Ca 317.933Radial Recovery = 103.93%								
Cd 226.502†	77181.5	506.25	µg/L	1.353	506.25	ppb	1.353	0.27%
QC value within limits for Cd 226.502 Recovery = 101.25%								
Co 228.616†	39934.1	516.11	µg/L	4.463	516.11	ppb	4.463	0.86%

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   QC value within limits for Co 228.616  Recovery = 103.22%
Cr 267.716†            60043.0      494.81 µg/L         4.322      494.81 ppb          4.322   0.87%
   QC value within limits for Cr 267.716  Recovery = 98.96%
Cu 324.752†           126891.3      516.14 µg/L         0.796      516.14 ppb          0.796   0.15%
   QC value within limits for Cu 324.752  Recovery = 103.23%
Fe 238.204 Radial†     77023.4      5198.2 µg/L          4.30      5198.2 ppb           4.30   0.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.96%
K 766.490 Radial†       6636.4      2555.3 µg/L         21.14      2555.3 ppb          21.14   0.83%
   QC value within limits for K 766.490 Radial  Recovery = 102.21%
Mg 279.077 IEC†        13286.1      5509.8 µg/L          7.13      5509.8 ppb           7.13   0.13%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 110.20%
Mn 257.610†           402795.4      520.82 µg/L         0.569      520.82 ppb          0.569   0.11%
   QC value within limits for Mn 257.610  Recovery = 104.16%
Mo 202.031†            17454.6      542.93 µg/L         2.488      542.93 ppb          2.488   0.46%
   QC value within limits for Mo 202.031  Recovery = 108.59%
Na 589.592 Radial†     17631.0      2591.0 µg/L         13.36      2591.0 ppb          13.36   0.52%
   QC value within limits for Na 589.592 Radial  Recovery = 103.64%
Ni 231.604†            42038.9      507.39 µg/L         4.109      507.39 ppb          4.109   0.81%
   QC value within limits for Ni 231.604  Recovery = 101.48%
P 214.914†             11341.8      2534.8 µg/L         12.72      2534.8 ppb          12.72   0.50%
   QC value within limits for P 214.914  Recovery = 101.39%
Pb 220.353†             8727.9      512.94 µg/L         6.446      512.94 ppb          6.446   1.26%
   QC value within limits for Pb 220.353  Recovery = 102.59%
S 181.975 Axial†        3180.4      2521.0 µg/L         69.57      2521.0 ppb          69.57   2.76%
   QC value within limits for S 181.975 Axial  Recovery = 100.84%
Sb 206.836†             4016.9      506.34 µg/L         5.880      506.34 ppb          5.880   1.16%
   QC value within limits for Sb 206.836  Recovery = 101.27%
Se 196.026†             6690.4        2550 µg/L          40.7        2550 ppb           40.7   1.60%
   QC value within limits for Se 196.026  Recovery = 102.05%
SiO2†                 101191.9       10550 µg/L          23.7       10550 ppb           23.7   0.22%
   QC value within limits for SiO2  Recovery = 98.65%
Si 251.611†           314744.3      4929.4 µg/L          5.65      4929.4 ppb           5.65   0.11%
   QC value within limits for Si 251.611  Recovery = 98.59%
Sn 189.927†             8127.4      539.79 µg/L         6.758      539.79 ppb          6.758   1.25%
   QC value within limits for Sn 189.927  Recovery = 107.96%
Sr 421.552†           240205.9      533.49 µg/L         2.320      533.49 ppb          2.320   0.43%
   QC value within limits for Sr 421.552  Recovery = 106.70%
Ti 334.940†           509713.4      502.15 µg/L         0.589      502.15 ppb          0.589   0.12%
   QC value within limits for Ti 334.940  Recovery = 100.43%
Tl 190.801†             4143.8      543.73 µg/L         3.890      543.73 ppb          3.890   0.72%
   QC value within limits for Tl 190.801  Recovery = 108.75%
U 409.014†              7590.1      489.04 µg/L         6.235      489.04 ppb          6.235   1.27%
   QC value within limits for U 409.014  Recovery = 97.81%
V 292.402†            100020.6      516.68 µg/L         1.387      516.68 ppb          1.387   0.27%
   QC value within limits for V 292.402  Recovery = 103.34%
Zn 213.857†            88254.4      515.30 µg/L         1.834      515.30 ppb          1.834   0.36%
   QC value within limits for Zn 213.857  Recovery = 103.06%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 4/1/2010 12:32:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144082.3	144082.3	100.0	%			12:32:51
1	Al 396.153Radial†	-72.0	-3.1	-0.6701	µg/L	-0.6701	ppb	12:33:11
1	Ca 317.933Radial†	643.5	93.7	5.7497	µg/L	5.7497	ppb	12:33:11
1	Fe 238.204 Radial†	183.7	48.5	3.2722	µg/L	3.2722	ppb	12:33:11
1	K 766.490 Radial†	1668.9	111.3	42.890	µg/L	42.890	ppb	12:32:51
1	Mg 279.077 IEC†	200.6	35.5	14.733	µg/L	14.733	ppb	12:33:11
1	Na 589.592 Radial†	1326.9	69.8	10.232	µg/L	10.232	ppb	12:32:51
1	Sr 421.552†	-198.8	10.9	0.0242	µg/L	0.0242	ppb	12:32:51
1	Sc 361.383	1756677.5	1756677.5	99.989	%			12:33:59
1	Y 371.029	1046401.0	1046401.0	99.906	%			12:33:59
1	Ag 328.068†	3687.2	-127.2	-0.4771	µg/L	-0.4771	ppb	12:34:01
1	As 188.979†	-16.1	5.6	1.7904	µg/L	1.7904	ppb	12:34:21
1	B 249.677†	3643.8	184.8	2.8475	µg/L	2.8475	ppb	12:34:01
1	Ba 233.527†	-121.0	31.8	0.1352	µg/L	0.1352	ppb	12:34:21
1	Be 313.107†	-878.9	97.9	0.0318	µg/L	0.0318	ppb	12:34:01
1	Cd 226.502†	-86.1	19.7	0.1292	µg/L	0.1292	ppb	12:34:21
1	Co 228.616†	-187.1	2.4	0.0312	µg/L	0.0312	ppb	12:34:21
1	Cr 267.716†	215.4	38.9	0.3105	µg/L	0.3105	ppb	12:34:21
1	Cu 324.752†	2829.2	-29.5	-0.1079	µg/L	-0.1079	ppb	12:34:01
1	Mn 257.610†	274.2	63.7	0.0818	µg/L	0.0818	ppb	12:34:21
1	Mo 202.031†	-11.4	31.3	0.9731	µg/L	0.9731	ppb	12:34:21
1	Ni 231.604†	-31.9	48.4	0.5838	µg/L	0.5838	ppb	12:34:21
1	P 214.914†	12.6	12.2	2.7326	µg/L	2.7326	ppb	12:34:21
1	Pb 220.353†	111.5	43.9	2.5619	µg/L	2.5619	ppb	12:34:21
1	S 181.975 Axial†	105.9	0.8	0.6104	µg/L	0.6104	ppb	12:34:21
1	Sb 206.836†	89.8	10.8	1.3681	µg/L	1.3681	ppb	12:34:21
1	Se 196.026†	14.2	-0.6	-0.229	µg/L	-0.229	ppb	12:34:21
1	SiO2†	1759.4	8.7	0.8656	µg/L	0.8656	ppb	12:34:21
1	Si 251.611†	944.2	156.8	2.4391	µg/L	2.4391	ppb	12:34:01
1	Sn 189.927†	16.5	19.7	1.3054	µg/L	1.3054	ppb	12:34:21
1	Ti 334.940†	838.1	-98.6	-0.1037	µg/L	-0.1037	ppb	12:34:01
1	Tl 190.801†	-117.9	-2.3	-0.2908	µg/L	-0.2908	ppb	12:34:21
1	U 409.014†	-49.5	214.9	12.986	µg/L	12.986	ppb	12:34:01
1	V 292.402†	423.7	68.4	0.3682	µg/L	0.3682	ppb	12:34:01
1	Zn 213.857†	575.7	63.1	0.3673	µg/L	0.3673	ppb	12:34:21
2	Sc RADIAL	145881.7	145881.7	101	%			12:33:13
2	Al 396.153Radial†	-41.2	28.2	5.5971	µg/L	5.5971	ppb	12:33:33
2	Ca 317.933Radial†	573.0	16.1	0.9891	µg/L	0.9891	ppb	12:33:33
2	Fe 238.204 Radial†	165.9	28.6	1.9307	µg/L	1.9307	ppb	12:33:33
2	K 766.490 Radial†	1828.7	248.5	95.807	µg/L	95.807	ppb	12:33:13
2	Mg 279.077 IEC†	193.7	26.2	10.858	µg/L	10.858	ppb	12:33:33
2	Na 589.592 Radial†	1238.3	-34.0	-5.0876	µg/L	-5.0876	ppb	12:33:13
2	Sr 421.552†	-97.5	113.6	0.2522	µg/L	0.2522	ppb	12:33:13
2	Sc 361.383	1799094.0	1799094.0	102.40	%			12:34:24
2	Y 371.029	1071523.5	1071523.5	102.31	%			12:34:24
2	Ag 328.068†	4168.3	255.7	0.9923	µg/L	0.9923	ppb	12:34:26
2	As 188.979†	-13.4	8.6	2.7734	µg/L	2.7734	ppb	12:34:46
2	B 249.677†	3635.2	90.5	1.3937	µg/L	1.3937	ppb	12:34:26
2	Ba 233.527†	-157.9	-1.4	-0.0059	µg/L	-0.0059	ppb	12:34:46
2	Be 313.107†	-858.3	138.7	0.0378	µg/L	0.0378	ppb	12:34:26
2	Cd 226.502†	-114.4	-5.9	-0.0391	µg/L	-0.0391	ppb	12:34:46
2	Co 228.616†	-178.4	15.4	0.1982	µg/L	0.1982	ppb	12:34:46
2	Cr 267.716†	205.2	23.8	0.2004	µg/L	0.2004	ppb	12:34:46
2	Cu 324.752†	2966.7	38.1	0.1507	µg/L	0.1507	ppb	12:34:26
2	Mn 257.610†	232.2	16.1	0.0204	µg/L	0.0204	ppb	12:34:46
2	Mo 202.031†	-31.6	11.9	0.3686	µg/L	0.3686	ppb	12:34:46
2	Ni 231.604†	-103.0	-20.3	-0.2456	µg/L	-0.2456	ppb	12:34:46
2	P 214.914†	-6.8	-7.0	-1.5808	µg/L	-1.5808	ppb	12:34:46
2	Pb 220.353†	114.2	43.8	2.5727	µg/L	2.5727	ppb	12:34:46

2	S 181.975 Axial†	115.0	7.2	5.6661 µg/L	5.6661 ppb		12:34:46
2	Sb 206.836†	77.5	-3.4	-0.4202 µg/L	-0.4202 ppb		12:34:46
2	Se 196.026†	22.1	6.8	2.59 µg/L	2.59 ppb		12:34:46
2	SiO2†	1771.1	-21.3	-2.2309 µg/L	-2.2309 ppb		12:34:46
2	Si 251.611†	799.8	-6.5	-0.1052 µg/L	-0.1052 ppb		12:34:26
2	Sn 189.927†	-7.1	-3.7	-0.2440 µg/L	-0.2440 ppb		12:34:46
2	Ti 334.940†	971.1	11.5	0.0127 µg/L	0.0127 ppb		12:34:26
2	Tl 190.801†	-111.8	6.4	0.8310 µg/L	0.8310 ppb		12:34:46
2	U 409.014†	-366.4	-93.3	-5.6309 µg/L	-5.6309 ppb		12:34:26
2	V 292.402†	361.6	-2.3	-0.0109 µg/L	-0.0109 ppb		12:34:26
2	Zn 213.857†	553.9	28.3	0.1676 µg/L	0.1676 ppb		12:34:46
3	Sc RADIAL	145933.5	145933.5	101 %			12:33:36
3	Al 396.153Radial†	-58.5	11.1	2.1931 µg/L	2.1931 ppb		12:33:56
3	Ca 317.933Radial†	581.9	24.7	1.5142 µg/L	1.5142 ppb		12:33:56
3	Fe 238.204 Radial†	157.6	20.3	1.3729 µg/L	1.3729 ppb		12:33:56
3	K 766.490 Radial†	1581.8	4.0	1.5323 µg/L	1.5323 ppb		12:33:36
3	Mg 279.077 IEC†	184.4	16.9	7.0205 µg/L	7.0205 ppb		12:33:56
3	Na 589.592 Radial†	1374.3	99.9	14.687 µg/L	14.687 ppb		12:33:36
3	Sr 421.552†	-99.4	111.7	0.2481 µg/L	0.2481 ppb		12:33:36
3	Sc 361.383	1769697.6	1769697.6	100.73 %			12:34:48
3	Y 371.029	1053920.5	1053920.5	100.62 %			12:34:48
3	Ag 328.068†	3981.3	137.7	0.5441 µg/L	0.5441 ppb		12:34:50
3	As 188.979†	-6.3	15.4	4.9399 µg/L	4.9399 ppb		12:35:10
3	B 249.677†	3435.2	-49.1	-0.7566 µg/L	-0.7566 ppb		12:34:50
3	Ba 233.527†	-138.6	15.2	0.0647 µg/L	0.0647 ppb		12:35:10
3	Be 313.107†	-936.6	47.0	0.0142 µg/L	0.0142 ppb		12:34:50
3	Cd 226.502†	-117.4	-10.7	-0.0705 µg/L	-0.0705 ppb		12:35:10
3	Co 228.616†	-195.0	-4.0	-0.0522 µg/L	-0.0522 ppb		12:35:10
3	Cr 267.716†	181.3	3.4	0.0261 µg/L	0.0261 ppb		12:35:10
3	Cu 324.752†	2938.4	58.2	0.2386 µg/L	0.2386 ppb		12:34:50
3	Mn 257.610†	242.5	30.2	0.0388 µg/L	0.0388 ppb		12:35:10
3	Mo 202.031†	-24.7	18.2	0.5654 µg/L	0.5654 ppb		12:35:10
3	Ni 231.604†	-93.3	-12.4	-0.1491 µg/L	-0.1491 ppb		12:35:10
3	P 214.914†	-15.3	-15.6	-3.4895 µg/L	-3.4895 ppb		12:35:10
3	Pb 220.353†	112.1	43.7	2.5588 µg/L	2.5588 ppb		12:35:10
3	S 181.975 Axial†	98.7	-7.2	-5.7097 µg/L	-5.7097 ppb		12:35:10
3	Sb 206.836†	88.6	9.0	1.1400 µg/L	1.1400 ppb		12:35:10
3	Se 196.026†	16.6	1.7	0.633 µg/L	0.633 ppb		12:35:10
3	SiO2†	1745.4	-18.0	-1.9251 µg/L	-1.9251 ppb		12:35:10
3	Si 251.611†	872.1	78.3	1.2103 µg/L	1.2103 ppb		12:34:50
3	Sn 189.927†	21.6	24.7	1.6355 µg/L	1.6355 ppb		12:35:10
3	Ti 334.940†	1002.4	58.3	0.0559 µg/L	0.0559 ppb		12:34:50
3	Tl 190.801†	-121.0	-4.5	-0.5754 µg/L	-0.5754 ppb		12:35:10
3	U 409.014†	-219.7	46.4	2.8101 µg/L	2.8101 ppb		12:34:50
3	V 292.402†	400.8	42.4	0.2239 µg/L	0.2239 ppb		12:34:50
3	Zn 213.857†	558.1	41.4	0.2442 µg/L	0.2442 ppb		12:35:10

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1775156.4	101.04	%	1.237				1.22%
Sc RADIAL	145299.2	101	%	0.7				0.73%
Y 371.029	1057281.7	100.95	%	1.231				1.22%
Ag 328.068†	88.7	0.3531	µg/L	0.75306	0.3531	ppb	0.75306	213.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.1	2.3734	µg/L	3.13750	2.3734	ppb	3.13750	132.20%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.9	3.1679	µg/L	1.61137	3.1679	ppb	1.61137	50.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	75.4	1.1615	µg/L	1.81324	1.1615	ppb	1.81324	156.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.2	0.0647	µg/L	0.07055	0.0647	ppb	0.07055	109.05%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	94.5	0.0279	µg/L	0.01224	0.0279	ppb	0.01224	43.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	44.8	2.7510	µg/L	2.61022	2.7510	ppb	2.61022	94.88%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	1.0	0.0065	µg/L	0.10736	0.0065	ppb	0.10736	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.6	0.0591	µg/L	0.12751	0.0591	ppb	0.12751	215.87%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              22.0      0.1790 µg/L       0.14340      0.1790 ppb        0.14340  80.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              22.3      0.0938 µg/L       0.18014      0.0938 ppb        0.18014 192.01%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       32.5      2.1919 µg/L       0.97621      2.1919 ppb        0.97621  44.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       121.3     46.743 µg/L       47.2555     46.743 ppb       47.2555 101.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          26.2     10.871 µg/L        3.8562     10.871 ppb        3.8562  35.47%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              36.7      0.0470 µg/L       0.03150      0.0470 ppb        0.03150  67.01%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              20.4      0.6357 µg/L       0.30832      0.6357 ppb        0.30832  48.50%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       45.2      6.6106 µg/L      10.37295      6.6106 ppb       10.37295 156.91%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               5.2      0.0631 µg/L       0.45358      0.0631 ppb        0.45358 719.39%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -3.5     -0.7792 µg/L       3.18753     -0.7792 ppb        3.18753 409.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              43.8      2.5645 µg/L       0.00729      2.5645 ppb        0.00729   0.28%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.2      0.1889 µg/L       5.69964      0.1889 ppb        5.69964 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.5      0.6959 µg/L       0.97329      0.6959 ppb        0.97329 139.85%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.6       0.999 µg/L        1.4459       0.999 ppb         1.4459 144.78%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -10.2     -1.0968 µg/L       1.70632     -1.0968 ppb        1.70632 155.57%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              76.2      1.1814 µg/L       1.27240      1.1814 ppb        1.27240 107.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              13.6      0.8990 µg/L       1.00350      0.8990 ppb        1.00350 111.63%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              78.7      0.1748 µg/L       0.13045      0.1748 ppb        0.13045  74.61%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -9.6     -0.0117 µg/L       0.08254     -0.0117 ppb        0.08254 705.06%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.1     -0.0117 µg/L       0.74353     -0.0117 ppb        0.74353 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               56.0      3.3884 µg/L       9.32192      3.3884 ppb        9.32192 275.11%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               36.2      0.1937 µg/L       0.19137      0.1937 ppb        0.19137  98.78%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              44.2      0.2597 µg/L       0.10076      0.2597 ppb        0.10076  38.80%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 4/1/2010 12:35:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142777.8	142777.8	99.0	%			12:35:49
1	Al 396.153Radial†	917.4	995.1	197.79	µg/L	197.79	ppb	12:35:51
1	Ca 317.933Radial†	4022.0	3510.5	215.48	µg/L	215.48	ppb	12:35:51
1	Fe 238.204 Radial†	1657.6	1538.2	103.81	µg/L	103.81	ppb	12:35:51
1	K 766.490 Radial†	2082.8	544.4	209.69	µg/L	209.69	ppb	12:35:49
1	Mg 279.077 IEC†	902.7	746.2	309.11	µg/L	309.11	ppb	12:35:51
1	Na 589.592 Radial†	3202.3	1975.4	290.37	µg/L	290.37	ppb	12:35:51
1	Sr 421.552†	2097.9	2327.9	5.1688	µg/L	5.1688	ppb	12:35:51
1	Sc 361.383	1766554.0	1766554.0	100.55	%			12:36:03
1	Y 371.029	1052740.5	1052740.5	100.51	%			12:36:03
1	Ag 328.068†	5347.2	1503.1	5.9941	µg/L	5.9941	ppb	12:36:05
1	As 188.979†	75.8	97.1	31.255	µg/L	31.255	ppb	12:36:25
1	B 249.677†	6693.3	3197.2	49.248	µg/L	49.248	ppb	12:36:05
1	Ba 233.527†	1022.2	1169.4	4.9661	µg/L	4.9661	ppb	12:36:25
1	Be 313.107†	16494.9	17381.3	4.9681	µg/L	4.9681	ppb	12:36:05
1	Cd 226.502†	663.3	765.5	5.0153	µg/L	5.0153	ppb	12:36:25
1	Co 228.616†	193.4	381.8	4.9320	µg/L	4.9320	ppb	12:36:25
1	Cr 267.716†	794.3	613.4	5.0082	µg/L	5.0082	ppb	12:36:25
1	Cu 324.752†	5399.1	2510.5	10.256	µg/L	10.256	ppb	12:36:05
1	Mn 257.610†	8262.5	8006.6	10.345	µg/L	10.345	ppb	12:36:05
1	Mo 202.031†	281.8	323.0	10.051	µg/L	10.051	ppb	12:36:25
1	Ni 231.604†	339.3	417.7	5.0418	µg/L	5.0418	ppb	12:36:25
1	P 214.914†	645.8	641.8	143.79	µg/L	143.79	ppb	12:36:25
1	Pb 220.353†	248.0	179.0	10.477	µg/L	10.477	ppb	12:36:25
1	S 181.975 Axial†	224.4	118.0	93.414	µg/L	93.414	ppb	12:36:25
1	Sb 206.836†	151.1	71.2	9.0339	µg/L	9.0339	ppb	12:36:25
1	Se 196.026†	103.6	88.2	33.7	µg/L	33.7	ppb	12:36:25
1	SiO2†	3908.8	2136.6	222.81	µg/L	222.81	ppb	12:36:05
1	Si 251.611†	7507.6	6678.9	104.63	µg/L	104.63	ppb	12:36:05
1	Sn 189.927†	158.0	160.4	10.637	µg/L	10.637	ppb	12:36:25
1	Ti 334.940†	6018.8	5049.0	4.9348	µg/L	4.9348	ppb	12:36:05
1	Tl 190.801†	38.6	154.0	20.011	µg/L	20.011	ppb	12:36:25
1	U 409.014†	737.7	998.2	60.517	µg/L	60.517	ppb	12:36:05
1	V 292.402†	1237.7	875.5	4.6115	µg/L	4.6115	ppb	12:36:05
1	Zn 213.857†	2310.7	1785.4	10.458	µg/L	10.458	ppb	12:36:25
2	Sc RADIAL	144869.1	144869.1	101	%			12:35:53
2	Al 396.153Radial†	930.7	995.0	197.76	µg/L	197.76	ppb	12:35:55
2	Ca 317.933Radial†	3970.2	3400.3	208.72	µg/L	208.72	ppb	12:35:55
2	Fe 238.204 Radial†	1694.7	1550.9	104.67	µg/L	104.67	ppb	12:35:55
2	K 766.490 Radial†	2052.9	484.3	186.53	µg/L	186.53	ppb	12:35:53
2	Mg 279.077 IEC†	900.3	730.6	302.65	µg/L	302.65	ppb	12:35:55
2	Na 589.592 Radial†	3199.3	1925.7	283.08	µg/L	283.08	ppb	12:35:55
2	Sr 421.552†	2269.7	2468.2	5.4807	µg/L	5.4807	ppb	12:35:55
2	Sc 361.383	1769409.2	1769409.2	100.71	%			12:36:27
2	Y 371.029	1053694.2	1053694.2	100.60	%			12:36:27
2	Ag 328.068†	5250.2	1398.2	5.5748	µg/L	5.5748	ppb	12:36:29
2	As 188.979†	87.3	108.3	34.863	µg/L	34.863	ppb	12:36:49
2	B 249.677†	6713.1	3206.1	49.384	µg/L	49.384	ppb	12:36:29
2	Ba 233.527†	1055.6	1200.9	5.0999	µg/L	5.0999	ppb	12:36:49
2	Be 313.107†	16094.1	16956.8	4.8445	µg/L	4.8445	ppb	12:36:29
2	Cd 226.502†	654.7	755.9	4.9523	µg/L	4.9523	ppb	12:36:49
2	Co 228.616†	205.3	393.3	5.0807	µg/L	5.0807	ppb	12:36:49
2	Cr 267.716†	817.8	635.4	5.1972	µg/L	5.1972	ppb	12:36:49
2	Cu 324.752†	5319.8	2423.2	9.8945	µg/L	9.8945	ppb	12:36:29
2	Mn 257.610†	8175.9	7907.4	10.217	µg/L	10.217	ppb	12:36:29
2	Mo 202.031†	283.3	324.1	10.083	µg/L	10.083	ppb	12:36:49
2	Ni 231.604†	295.4	373.6	4.5087	µg/L	4.5087	ppb	12:36:49
2	P 214.914†	653.7	648.6	145.33	µg/L	145.33	ppb	12:36:49
2	Pb 220.353†	253.2	183.7	10.762	µg/L	10.762	ppb	12:36:49

2	S 181.975 Axial†	228.8	122.0	96.605 µg/L	96.605 ppb	12:36:49
2	Sb 206.836†	163.5	83.4	10.556 µg/L	10.556 ppb	12:36:49
2	Se 196.026†	98.9	83.4	31.9 µg/L	31.9 ppb	12:36:49
2	SiO2†	4797.2	3012.3	314.32 µg/L	314.32 ppb	12:36:29
2	Si 251.611†	10011.6	9153.1	143.46 µg/L	143.46 ppb	12:36:29
2	Sn 189.927†	153.3	155.5	10.311 µg/L	10.311 ppb	12:36:49
2	Ti 334.940†	5821.1	4843.1	4.7357 µg/L	4.7357 ppb	12:36:29
2	Tl 190.801†	61.2	176.4	22.903 µg/L	22.903 ppb	12:36:49
2	U 409.014†	585.1	845.5	51.313 µg/L	51.313 ppb	12:36:29
2	V 292.402†	1270.2	905.8	4.7610 µg/L	4.7610 ppb	12:36:29
2	Zn 213.857†	2277.4	1748.6	10.245 µg/L	10.245 ppb	12:36:49
3	Sc RADIAL	147334.3	147334.3	102 %		12:35:57
3	Al 396.153Radial†	1021.1	1067.9	212.30 µg/L	212.30 ppb	12:35:59
3	Ca 317.933Radial†	3950.3	3314.8	203.47 µg/L	203.47 ppb	12:35:59
3	Fe 238.204 Radial†	1706.9	1534.7	103.57 µg/L	103.57 ppb	12:35:59
3	K 766.490 Radial†	2051.2	448.4	172.71 µg/L	172.71 ppb	12:35:57
3	Mg 279.077 IEC†	932.4	747.0	309.46 µg/L	309.46 ppb	12:35:59
3	Na 589.592 Radial†	3182.0	1855.6	272.77 µg/L	272.77 ppb	12:35:59
3	Sr 421.552†	2252.4	2413.5	5.3592 µg/L	5.3592 ppb	12:35:59
3	Sc 361.383	1759611.7	1759611.7	100.16 %		12:36:51
3	Y 371.029	1048662.8	1048662.8	100.12 %		12:36:51
3	Ag 328.068†	5257.3	1434.3	5.7372 µg/L	5.7372 ppb	12:36:53
3	As 188.979†	90.6	112.1	36.072 µg/L	36.072 ppb	12:37:13
3	B 249.677†	6667.0	3197.2	49.246 µg/L	49.246 ppb	12:36:53
3	Ba 233.527†	1037.9	1189.1	5.0500 µg/L	5.0500 ppb	12:37:13
3	Be 313.107†	16271.2	17222.7	4.9248 µg/L	4.9248 ppb	12:36:53
3	Cd 226.502†	666.0	770.8	5.0502 µg/L	5.0502 ppb	12:37:13
3	Co 228.616†	206.4	395.6	5.1101 µg/L	5.1101 ppb	12:37:13
3	Cr 267.716†	784.3	606.5	4.9470 µg/L	4.9470 ppb	12:37:13
3	Cu 324.752†	5271.8	2404.6	9.8320 µg/L	9.8320 ppb	12:36:53
3	Mn 257.610†	8067.8	7844.6	10.135 µg/L	10.135 ppb	12:36:53
3	Mo 202.031†	285.6	327.9	10.202 µg/L	10.202 ppb	12:37:13
3	Ni 231.604†	312.3	392.0	4.7316 µg/L	4.7316 ppb	12:37:13
3	P 214.914†	646.4	644.9	144.51 µg/L	144.51 ppb	12:37:13
3	Pb 220.353†	256.8	188.8	11.046 µg/L	11.046 ppb	12:37:13
3	S 181.975 Axial†	233.8	128.2	101.54 µg/L	101.54 ppb	12:37:13
3	Sb 206.836†	147.6	68.3	8.6709 µg/L	8.6709 ppb	12:37:13
3	Se 196.026†	88.7	73.8	28.2 µg/L	28.2 ppb	12:37:13
3	SiO2†	3924.3	2167.4	226.02 µg/L	226.02 ppb	12:36:53
3	Si 251.611†	7322.5	6523.6	102.19 µg/L	102.19 ppb	12:36:53
3	Sn 189.927†	158.3	161.3	10.695 µg/L	10.695 ppb	12:37:13
3	Ti 334.940†	5898.1	4952.1	4.8364 µg/L	4.8364 ppb	12:36:53
3	Tl 190.801†	29.2	144.8	18.822 µg/L	18.822 ppb	12:37:13
3	U 409.014†	833.6	1096.8	66.485 µg/L	66.485 ppb	12:36:53
3	V 292.402†	1304.5	947.1	4.9816 µg/L	4.9816 ppb	12:36:53
3	Zn 213.857†	2270.8	1754.6	10.279 µg/L	10.279 ppb	12:37:13

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1765191.7	100.47	%	0.287				0.29%
Sc RADIAL	144993.7	101	%	1.6				1.57%
Y 371.029	1051699.2	100.41	%	0.255				0.25%
Ag 328.068†	1445.2	5.7687	µg/L	0.21143	5.7687	ppb	0.21143	3.67%
QC value within limits for Ag 328.068 Recovery = 115.37%								
Al 396.153Radial†	1019.3	202.61	µg/L	8.386	202.61	ppb	8.386	4.14%
QC value within limits for Al 396.153Radial Recovery = 101.31%								
As 188.979†	105.8	34.064	µg/L	2.5060	34.064	ppb	2.5060	7.36%
QC value within limits for As 188.979 Recovery = 113.55%								
B 249.677†	3200.2	49.293	µg/L	0.0788	49.293	ppb	0.0788	0.16%
QC value within limits for B 249.677 Recovery = 98.59%								
Ba 233.527†	1186.4	5.0386	µg/L	0.06762	5.0386	ppb	0.06762	1.34%
QC value within limits for Ba 233.527 Recovery = 100.77%								
Be 313.107†	17186.9	4.9124	µg/L	0.06274	4.9124	ppb	0.06274	1.28%
QC value within limits for Be 313.107 Recovery = 98.25%								
Ca 317.933Radial†	3408.5	209.23	µg/L	6.022	209.23	ppb	6.022	2.88%
QC value within limits for Ca 317.933Radial Recovery = 104.61%								
Cd 226.502†	764.1	5.0059	µg/L	0.04960	5.0059	ppb	0.04960	0.99%
QC value within limits for Cd 226.502 Recovery = 100.12%								
Co 228.616†	390.3	5.0410	µg/L	0.09547	5.0410	ppb	0.09547	1.89%

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   QC value within limits for Co 228.616  Recovery = 100.82%
Cr 267.716†              618.4      5.0508 µg/L       0.13046      5.0508 ppb        0.13046   2.58%
   QC value within limits for Cr 267.716  Recovery = 101.02%
Cu 324.752†             2446.1      9.9943 µg/L       0.22913      9.9943 ppb        0.22913   2.29%
   QC value within limits for Cu 324.752  Recovery = 99.94%
Fe 238.204 Radial†      1541.3      104.02 µg/L         0.576      104.02 ppb          0.576   0.55%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.02%
K 766.490 Radial†        492.4      189.65 µg/L        18.686      189.65 ppb         18.686   9.85%
   QC value within limits for K 766.490 Radial  Recovery = 126.43%
Mg 279.077 IEC†          741.3      307.07 µg/L         3.837      307.07 ppb          3.837   1.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.36%
Mn 257.610†             7919.5      10.232 µg/L        0.1057      10.232 ppb         0.1057   1.03%
   QC value within limits for Mn 257.610  Recovery = 102.32%
Mo 202.031†              325.0      10.112 µg/L        0.0794      10.112 ppb         0.0794   0.79%
   QC value within limits for Mo 202.031  Recovery = 101.12%
Na 589.592 Radial†      1918.9      282.07 µg/L         8.842      282.07 ppb          8.842   3.13%
   QC value within limits for Na 589.592 Radial  Recovery = 94.02%
Ni 231.604†              394.4      4.7607 µg/L       0.26778      4.7607 ppb        0.26778   5.62%
   QC value within limits for Ni 231.604  Recovery = 95.21%
P 214.914†               645.1      144.54 µg/L         0.766      144.54 ppb          0.766   0.53%
   QC value within limits for P 214.914  Recovery = 96.36%
Pb 220.353†              183.8      10.762 µg/L        0.2848      10.762 ppb         0.2848   2.65%
   QC value within limits for Pb 220.353  Recovery = 107.62%
S 181.975 Axial†         122.7      97.185 µg/L        4.0914      97.185 ppb         4.0914   4.21%
   QC value within limits for S 181.975 Axial  Recovery = 97.19%
Sb 206.836†               74.3      9.4203 µg/L       1.00018      9.4203 ppb        1.00018  10.62%
   QC value within limits for Sb 206.836  Recovery = 94.20%
Se 196.026†               81.8        31.3 µg/L          2.80        31.3 ppb           2.80   8.95%
   QC value within limits for Se 196.026  Recovery = 104.21%
SiO2†                   2438.8      254.39 µg/L        51.932      254.39 ppb         51.932  20.41%
   QC value within limits for SiO2  Recovery = 119.43%
Si 251.611†             7451.9      116.76 µg/L        23.159      116.76 ppb         23.159  19.83%
   QC value within limits for Si 251.611  Recovery = 116.76%
Sn 189.927†              159.1      10.548 µg/L        0.2072      10.548 ppb         0.2072   1.96%
   QC value within limits for Sn 189.927  Recovery = 105.48%
Sr 421.552†             2403.2      5.3362 µg/L       0.15717      5.3362 ppb        0.15717   2.95%
   QC value within limits for Sr 421.552  Recovery = 106.72%
Ti 334.940†             4948.1      4.8356 µg/L       0.09953      4.8356 ppb        0.09953   2.06%
   QC value within limits for Ti 334.940  Recovery = 96.71%
Tl 190.801†              158.4      20.579 µg/L        2.0987      20.579 ppb         2.0987  10.20%
   QC value within limits for Tl 190.801  Recovery = 102.89%
U 409.014†               980.1      59.438 µg/L        7.6437      59.438 ppb         7.6437  12.86%
   QC value within limits for U 409.014  Recovery = 118.88%
V 292.402†               909.5      4.7847 µg/L       0.18618      4.7847 ppb        0.18618   3.89%
   QC value within limits for V 292.402  Recovery = 95.69%
Zn 213.857†             1762.9      10.327 µg/L        0.1143      10.327 ppb         0.1143   1.11%
   QC value within limits for Zn 213.857  Recovery = 103.27%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 4/1/2010 12:37:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	134082.5	134082.5	93.0	%			12:37:54
1	Al 396.153Radial†	2345791.8	2521956.7	502460	µg/L	502460	ppb	12:37:52
1	Ca 317.933Radial†	7277737.2	7823518.6	480240	µg/L	480240	ppb	12:37:52
1	Fe 238.204 Radial†	2615602.4	2811817.4	189770	µg/L	189770	ppb	12:37:52
1	K 766.490 Radial†	1650.4	215.9	-156.30	µg/L	-156.30	ppb	12:37:54
1	Mg 279.077 IEC†	1088894.4	1170471.3	484460	µg/L	484460	ppb	12:37:52
1	Na 589.592 Radial†	1639.5	505.0	74.201	µg/L	74.201	ppb	12:37:54
1	Sr 421.552†	1343.0	1653.7	-0.0858	µg/L	-0.0858	ppb	12:37:54
1	Sc 361.383	1576153.7	1576153.7	89.714	%			12:38:07
1	Y 371.029	923538.7	923538.7	88.176	%			12:38:07
1	Ag 328.068†	6534.6	3469.1	0.3042	µg/L	0.3042	ppb	12:38:07
1	As 188.979†	-100.7	-90.5	13.495	µg/L	13.495	ppb	12:38:27
1	B 249.677†	3535.6	481.6	7.4069	µg/L	7.4069	ppb	12:38:07
1	Ba 233.527†	434.3	636.9	0.2778	µg/L	0.2778	ppb	12:38:27
1	Be 313.107†	-1223.1	-386.5	-0.1073	µg/L	-0.1073	ppb	12:38:07
1	Cd 226.502†	2335.5	2709.1	-2.1744	µg/L	-2.1744	ppb	12:38:27
1	Co 228.616†	96.2	296.7	-6.0636	µg/L	-6.0636	ppb	12:38:27
1	Cr 267.716†	245.8	97.4	1.4755	µg/L	1.4755	ppb	12:38:27
1	Cu 324.752†	-5603.6	-9105.0	3.8189	µg/L	3.8189	ppb	12:38:07
1	Mn 257.610†	16256.3	17909.6	3.4509	µg/L	3.4509	ppb	12:38:07
1	Mo 202.031†	-536.4	-555.2	-0.8914	µg/L	-0.8914	ppb	12:38:27
1	Ni 231.604†	155.6	253.8	3.0627	µg/L	3.0627	ppb	12:38:27
1	P 214.914†	196.1	218.2	31.734	µg/L	31.734	ppb	12:38:27
1	Pb 220.353†	-321.8	-426.3	0.0617	µg/L	0.0617	ppb	12:38:27
1	S 181.975 Axial†	197.3	114.8	90.677	µg/L	90.677	ppb	12:38:27
1	Sb 206.836†	143.6	81.0	4.1826	µg/L	4.1826	ppb	12:38:27
1	Se 196.026†	-160.3	-193.5	-7.89	µg/L	-7.89	ppb	12:38:27
1	SiO2†	1643.9	81.6	8.9772	µg/L	8.9772	ppb	12:38:27
1	Si 251.611†	556.8	-166.8	-2.4073	µg/L	-2.4073	ppb	12:38:27
1	Sn 189.927†	35.7	43.0	2.9237	µg/L	2.9237	ppb	12:38:27
1	Ti 334.940†	21783.2	23343.9	-3.9265	µg/L	-3.9265	ppb	12:38:07
1	Tl 190.801†	-162.2	-65.2	-8.0053	µg/L	-8.0053	ppb	12:38:27
1	U 409.014†	-102.3	150.5	-12.097	µg/L	-12.097	ppb	12:38:07
1	V 292.402†	4004.4	4108.1	0.7221	µg/L	0.7221	ppb	12:38:07
1	Zn 213.857†	4254.7	4229.9	8.6156	µg/L	8.6156	ppb	12:38:27
2	Sc RADIAL	132936.8	132936.8	92.2	%			12:37:59
2	Al 396.153Radial†	2356533.9	2555338.6	509110	µg/L	509110	ppb	12:37:57
2	Ca 317.933Radial†	7344247.9	7963067.3	488800	µg/L	488800	ppb	12:37:57
2	Fe 238.204 Radial†	2640061.0	2862572.5	193190	µg/L	193190	ppb	12:37:57
2	K 766.490 Radial†	1666.3	248.5	-147.56	µg/L	-147.56	ppb	12:37:59
2	Mg 279.077 IEC†	1100625.8	1193280.7	493900	µg/L	493900	ppb	12:37:57
2	Na 589.592 Radial†	1565.8	440.2	64.659	µg/L	64.659	ppb	12:37:59
2	Sr 421.552†	1400.0	1727.9	0.0120	µg/L	0.0120	ppb	12:37:59
2	Sc 361.383	1572656.8	1572656.8	89.515	%			12:38:30
2	Y 371.029	922563.3	922563.3	88.083	%			12:38:30
2	Ag 328.068†	6273.9	3194.0	-0.9975	µg/L	-0.9975	ppb	12:38:30
2	As 188.979†	-118.1	-110.2	7.9383	µg/L	7.9383	ppb	12:38:50
2	B 249.677†	3410.1	350.2	5.3853	µg/L	5.3853	ppb	12:38:30
2	Ba 233.527†	393.4	592.3	0.0443	µg/L	0.0443	ppb	12:38:50
2	Be 313.107†	-1400.4	-587.6	-0.1601	µg/L	-0.1601	ppb	12:38:30
2	Cd 226.502†	2368.4	2751.7	-2.2551	µg/L	-2.2551	ppb	12:38:50
2	Co 228.616†	45.8	240.6	-6.9672	µg/L	-6.9672	ppb	12:38:50
2	Cr 267.716†	208.0	55.9	1.1250	µg/L	1.1250	ppb	12:38:50
2	Cu 324.752†	-5671.8	-9195.0	4.2199	µg/L	4.2199	ppb	12:38:30
2	Mn 257.610†	16145.5	17826.1	2.9593	µg/L	2.9593	ppb	12:38:30
2	Mo 202.031†	-535.8	-555.8	-0.6033	µg/L	-0.6033	ppb	12:38:50
2	Ni 231.604†	177.7	278.8	3.3653	µg/L	3.3653	ppb	12:38:50
2	P 214.914†	151.0	168.3	19.693	µg/L	19.693	ppb	12:38:50
2	Pb 220.353†	-382.8	-495.3	-3.6881	µg/L	-3.6881	ppb	12:38:50

2	S 181.975 Axial†	192.6	110.0	86.919 µg/L	86.919 ppb	12:38:50
2	Sb 206.836†	159.8	99.5	6.4226 µg/L	6.4226 ppb	12:38:50
2	Se 196.026†	-165.4	-199.6	-8.98 µg/L	-8.98 ppb	12:38:50
2	SiO2†	1657.4	100.8	10.969 µg/L	10.969 ppb	12:38:50
2	Si 251.611†	493.8	-235.8	-3.4933 µg/L	-3.4933 ppb	12:38:50
2	Sn 189.927†	43.3	51.6	3.4944 µg/L	3.4944 ppb	12:38:50
2	Ti 334.940†	21857.3	23480.7	-4.3434 µg/L	-4.3434 ppb	12:38:30
2	Tl 190.801†	-157.5	-60.3	-7.3738 µg/L	-7.3738 ppb	12:38:50
2	U 409.014†	119.3	397.7	2.3864 µg/L	2.3864 ppb	12:38:30
2	V 292.402†	3940.2	4046.3	0.0541 µg/L	0.0541 ppb	12:38:30
2	Zn 213.857†	4277.2	4265.5	8.4903 µg/L	8.4903 ppb	12:38:50
3	Sc RADIAL	133600.6	133600.6	92.7 %		12:38:03
3	Al 396.153Radial†	2326828.2	2510591.9	500190 µg/L	500190 ppb	12:38:01
3	Ca 317.933Radial†	7248501.6	7820194.9	480030 µg/L	480030 ppb	12:38:01
3	Fe 238.204 Radial†	2605468.4	2811025.5	189710 µg/L	189710 ppb	12:38:01
3	K 766.490 Radial†	1626.0	195.9	-163.46 µg/L	-163.46 ppb	12:38:03
3	Mg 279.077 IEC†	1084931.6	1170417.9	484440 µg/L	484440 ppb	12:38:01
3	Na 589.592 Radial†	1634.5	505.9	74.343 µg/L	74.343 ppb	12:38:03
3	Sr 421.552†	1336.6	1652.0	-0.0879 µg/L	-0.0879 ppb	12:38:03
3	Sc 361.383	1578020.8	1578020.8	89.820 %		12:38:53
3	Y 371.029	925678.1	925678.1	88.380 %		12:38:53
3	Ag 328.068†	6726.9	3674.5	1.1154 µg/L	1.1154 ppb	12:38:53
3	As 188.979†	-96.1	-85.3	15.161 µg/L	15.161 ppb	12:39:13
3	B 249.677†	3615.8	566.2	8.7108 µg/L	8.7108 ppb	12:38:53
3	Ba 233.527†	419.9	620.3	0.2077 µg/L	0.2077 ppb	12:39:13
3	Be 313.107†	-1116.9	-266.7	-0.0733 µg/L	-0.0733 ppb	12:38:53
3	Cd 226.502†	2351.1	2723.4	-2.0747 µg/L	-2.0747 ppb	12:39:13
3	Co 228.616†	91.7	291.6	-6.1279 µg/L	-6.1279 ppb	12:39:13
3	Cr 267.716†	220.1	68.5	1.2359 µg/L	1.2359 ppb	12:39:13
3	Cu 324.752†	-5608.7	-9103.3	3.8172 µg/L	3.8172 ppb	12:38:53
3	Mn 257.610†	16305.8	17943.2	3.4954 µg/L	3.4954 ppb	12:38:53
3	Mo 202.031†	-564.7	-586.0	-1.8526 µg/L	-1.8526 ppb	12:39:13
3	Ni 231.604†	164.1	262.9	3.1731 µg/L	3.1731 ppb	12:39:13
3	P 214.914†	157.8	175.3	21.662 µg/L	21.662 ppb	12:39:13
3	Pb 220.353†	-331.6	-436.9	-0.6978 µg/L	-0.6978 ppb	12:39:13
3	S 181.975 Axial†	174.2	88.8	70.099 µg/L	70.099 ppb	12:39:13
3	Sb 206.836†	109.5	42.9	-0.5996 µg/L	-0.5996 ppb	12:39:13
3	Se 196.026†	-168.8	-202.7	-11.4 µg/L	-11.4 ppb	12:39:13
3	SiO2†	1621.9	54.9	6.1909 µg/L	6.1909 ppb	12:39:13
3	Si 251.611†	539.5	-186.8	-2.7187 µg/L	-2.7187 ppb	12:39:13
3	Sn 189.927†	57.7	67.5	4.5458 µg/L	4.5458 ppb	12:39:13
3	Ti 334.940†	21533.9	23037.6	-4.2320 µg/L	-4.2320 ppb	12:38:53
3	Tl 190.801†	-170.3	-74.0	-9.1548 µg/L	-9.1548 ppb	12:39:13
3	U 409.014†	-107.5	144.8	-12.423 µg/L	-12.423 ppb	12:38:53
3	V 292.402†	4052.3	4156.1	0.9616 µg/L	0.9616 ppb	12:38:53
3	Zn 213.857†	4253.6	4223.0	8.5441 µg/L	8.5441 ppb	12:39:13

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1575610.4	89.683	%	0.1550				0.17%
Sc RADIAL	133539.9	92.6	%	0.40				0.43%
Y 371.029	923926.7	88.213	%	0.1521				0.17%
Ag 328.068†	3445.9	0.1407	µg/L	1.06591	0.1407	ppb	1.06591	757.68%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2529295.7	503920	µg/L	4633.9	503920	ppb	4633.9	0.92%
QC value within limits for Al 396.153Radial Recovery = 100.78%								
As 188.979†	-95.3	12.198	µg/L	3.7819	12.198	ppb	3.7819	31.00%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	466.0	7.1677	µg/L	1.67564	7.1677	ppb	1.67564	23.38%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	616.5	0.1766	µg/L	0.11981	0.1766	ppb	0.11981	67.84%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-413.6	-0.1136	µg/L	0.04372	-0.1136	ppb	0.04372	38.50%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7868926.9	483020	µg/L	5005.5	483020	ppb	5005.5	1.04%
QC value within limits for Ca 317.933Radial Recovery = 96.60%								
Cd 226.502†	2728.1	-2.1681	µg/L	0.09041	-2.1681	ppb	0.09041	4.17%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	276.3	-6.3862	µg/L	0.50418	-6.3862	ppb	0.50418	7.89%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              73.9      1.2788 µg/L      0.17913      1.2788 ppb       0.17913  14.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -9134.4      3.9520 µg/L      0.23199      3.9520 ppb       0.23199   5.87%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2828471.8      190890 µg/L       1993.3      190890 ppb        1993.3   1.04%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.45%
K 766.490 Radial†        220.1     -155.77 µg/L        7.963     -155.77 ppb         7.963   5.11%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1178056.6      487600 µg/L       5457.2      487600 ppb        5457.2   1.12%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.52%
Mn 257.610†            17892.9      3.3019 µg/L      0.29747      3.3019 ppb       0.29747   9.01%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -565.6     -1.1158 µg/L      0.65417     -1.1158 ppb       0.65417  58.63%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       483.7      71.068 µg/L       5.5508      71.068 ppb        5.5508   7.81%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              265.2      3.2004 µg/L      0.15315      3.2004 ppb       0.15315   4.79%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               187.3      24.363 µg/L       6.4586      24.363 ppb        6.4586  26.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -452.8     -1.4414 µg/L      1.98245     -1.4414 ppb       1.98245 137.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         104.5      82.565 µg/L      10.9584      82.565 ppb       10.9584  13.27%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               74.5      3.3352 µg/L      3.58696      3.3352 ppb       3.58696 107.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -198.6       -9.42 µg/L        1.798       -9.42 ppb         1.798  19.09%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    79.1      8.7124 µg/L      2.40006      8.7124 ppb       2.40006  27.55%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -196.5     -2.8731 µg/L      0.55923     -2.8731 ppb       0.55923  19.46%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              54.0      3.6546 µg/L      0.82282      3.6546 ppb       0.82282  22.51%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             1677.9     -0.0539 µg/L      0.05709     -0.0539 ppb       0.05709 105.96%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            23287.4     -4.1673 µg/L      0.21586     -4.1673 ppb       0.21586   5.18%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -66.5     -8.1780 µg/L      0.90296     -8.1780 ppb       0.90296  11.04%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               231.0     -7.3781 µg/L      8.45792     -7.3781 ppb       8.45792 114.63%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              4103.5      0.5793 µg/L      0.47031      0.5793 ppb       0.47031  81.19%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             4239.5      8.5500 µg/L      0.06286      8.5500 ppb       0.06286   0.74%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 4/1/2010 12:39:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	132420.3	132420.3	91.9	%			12:39:52
1	Al 396.153Radial†	2328081.5	2534332.9	504900	µg/L	504900	ppb	12:39:50
1	Ca 317.933Radial†	7240853.7	7881577.3	483800	µg/L	483800	ppb	12:39:50
1	Fe 238.204 Radial†	2604482.7	2835008.9	191330	µg/L	191330	ppb	12:39:50
1	K 766.490 Radial†	15202.4	14990.4	5536.3	µg/L	5536.3	ppb	12:39:52
1	Mg 279.077 IEC†	1099043.4	1196213.1	495130	µg/L	495130	ppb	12:39:52
1	Na 589.592 Radial†	35136.1	36990.2	5435.5	µg/L	5435.5	ppb	12:39:52
1	Sr 421.552†	212568.9	231604.6	510.64	µg/L	510.64	ppb	12:39:52
1	Sc 361.383	1570134.7	1570134.7	89.372	%			12:40:06
1	Y 371.029	921178.0	921178.0	87.951	%			12:40:06
1	Ag 328.068†	66920.7	71064.5	270.99	µg/L	270.99	ppb	12:40:06
1	As 188.979†	1331.2	1511.2	533.83	µg/L	533.83	ppb	12:40:08
1	B 249.677†	33516.3	34042.9	522.97	µg/L	522.97	ppb	12:40:06
1	Ba 233.527†	105505.9	118206.0	499.56	µg/L	499.56	ppb	12:40:06
1	Be 313.107†	766440.7	858566.5	244.66	µg/L	244.66	ppb	12:40:06
1	Cd 226.502†	67592.5	75736.8	477.17	µg/L	477.17	ppb	12:40:06
1	Co 228.616†	31321.3	35235.7	445.70	µg/L	445.70	ppb	12:40:08
1	Cr 267.716†	53092.1	59229.5	488.57	µg/L	488.57	ppb	12:40:08
1	Cu 324.752†	112376.9	122882.4	540.22	µg/L	540.22	ppb	12:40:06
1	Mn 257.610†	349038.8	390337.7	484.80	µg/L	484.80	ppb	12:40:06
1	Mo 202.031†	13748.0	15425.8	496.19	µg/L	496.19	ppb	12:40:08
1	Ni 231.604†	33808.6	37909.6	457.55	µg/L	457.55	ppb	12:40:08
1	P 214.914†	10378.6	11612.4	2579.9	µg/L	2579.9	ppb	12:40:08
1	Pb 220.353†	6703.3	7432.8	461.92	µg/L	461.92	ppb	12:40:08
1	S 181.975 Axial†	3216.0	3493.3	2768.0	µg/L	2768.0	ppb	12:40:08
1	Sb 206.836†	3732.0	4096.8	509.82	µg/L	509.82	ppb	12:40:08
1	Se 196.026†	5610.3	6262.7	2450	µg/L	2450	ppb	12:40:08
1	SiO2†	97978.1	107879.3	11252	µg/L	11252	ppb	12:40:06
1	Si 251.611†	301297.9	336342.2	5269.5	µg/L	5269.5	ppb	12:40:06
1	Sn 189.927†	6587.0	7373.6	489.99	µg/L	489.99	ppb	12:40:08
1	Ti 334.940†	484338.8	541001.9	505.59	µg/L	505.59	ppb	12:40:06
1	Tl 190.801†	3060.3	3539.8	466.29	µg/L	466.29	ppb	12:40:08
1	U 409.014†	7093.1	8201.1	505.13	µg/L	505.13	ppb	12:40:06
1	V 292.402†	93059.2	103770.9	515.47	µg/L	515.47	ppb	12:40:06
1	Zn 213.857†	78870.4	87737.4	496.68	µg/L	496.68	ppb	12:40:06
2	Sc RADIAL	132354.3	132354.3	91.8	%			12:39:57
2	Al 396.153Radial†	2353817.9	2563626.3	510740	µg/L	510740	ppb	12:39:55
2	Ca 317.933Radial†	7290482.7	7939559.0	487360	µg/L	487360	ppb	12:39:55
2	Fe 238.204 Radial†	2625172.4	2858955.9	192950	µg/L	192950	ppb	12:39:55
2	K 766.490 Radial†	15199.7	14995.7	5536.5	µg/L	5536.5	ppb	12:39:57
2	Mg 279.077 IEC†	1095879.1	1193363.4	493950	µg/L	493950	ppb	12:39:57
2	Na 589.592 Radial†	35022.1	36885.2	5420.1	µg/L	5420.1	ppb	12:39:57
2	Sr 421.552†	212512.7	231658.8	510.73	µg/L	510.73	ppb	12:39:57
2	Sc 361.383	1560657.0	1560657.0	88.832	%			12:40:11
2	Y 371.029	916190.3	916190.3	87.474	%			12:40:11
2	Ag 328.068†	66423.1	70959.0	270.50	µg/L	270.50	ppb	12:40:11
2	As 188.979†	1344.7	1535.5	542.08	µg/L	542.08	ppb	12:40:13
2	B 249.677†	33233.5	33952.3	521.54	µg/L	521.54	ppb	12:40:11
2	Ba 233.527†	105111.4	118478.8	500.70	µg/L	500.70	ppb	12:40:11
2	Be 313.107†	763058.7	859967.3	245.06	µg/L	245.06	ppb	12:40:11
2	Cd 226.502†	67359.2	75933.4	478.29	µg/L	478.29	ppb	12:40:11
2	Co 228.616†	31782.6	35967.8	455.07	µg/L	455.07	ppb	12:40:13
2	Cr 267.716†	53576.3	60135.3	496.11	µg/L	496.11	ppb	12:40:13
2	Cu 324.752†	111938.8	123152.8	541.53	µg/L	541.53	ppb	12:40:11
2	Mn 257.610†	347448.2	390918.8	485.59	µg/L	485.59	ppb	12:40:11
2	Mo 202.031†	13941.1	15736.5	505.90	µg/L	505.90	ppb	12:40:13
2	Ni 231.604†	34289.6	38680.8	466.86	µg/L	466.86	ppb	12:40:13
2	P 214.914†	10638.1	11975.1	2661.4	µg/L	2661.4	ppb	12:40:13
2	Pb 220.353†	6954.8	7761.6	481.51	µg/L	481.51	ppb	12:40:13

2	S 181.975 Axial†	3227.7	3528.3	2795.8 µg/L	2795.8 ppb	12:40:13
2	Sb 206.836†	3846.1	4250.7	529.12 µg/L	529.12 ppb	12:40:13
2	Se 196.026†	5786.8	6499.5	2540 µg/L	2540 ppb	12:40:13
2	SiO2†	97674.4	108203.3	11285 µg/L	11285 ppb	12:40:11
2	Si 251.611†	299893.6	336808.7	5276.7 µg/L	5276.7 ppb	12:40:11
2	Sn 189.927†	6634.5	7471.8	496.50 µg/L	496.50 ppb	12:40:13
2	Ti 334.940†	482544.9	542273.6	507.02 µg/L	507.02 ppb	12:40:11
2	Tl 190.801†	3107.7	3614.1	475.87 µg/L	475.87 ppb	12:40:13
2	U 409.014†	7152.4	8316.1	511.89 µg/L	511.89 ppb	12:40:11
2	V 292.402†	92623.9	103913.1	516.16 µg/L	516.16 ppb	12:40:11
2	Zn 213.857†	78461.2	87812.6	496.95 µg/L	496.95 ppb	12:40:11
3	Sc RADIAL	133596.0	133596.0	92.7 %		12:40:01
3	Al 396.153Radial†	2398901.5	2588444.7	515680 µg/L	515680 ppb	12:39:59
3	Ca 317.933Radial†	7457302.7	8045758.5	493880 µg/L	493880 ppb	12:39:59
3	Fe 238.204 Radial†	2685602.1	2897585.8	195550 µg/L	195550 ppb	12:39:59
3	K 766.490 Radial†	15304.1	14954.4	5518.1 µg/L	5518.1 ppb	12:40:01
3	Mg 279.077 IEC†	1111056.5	1198646.8	496130 µg/L	496130 ppb	12:40:01
3	Na 589.592 Radial†	35403.0	36941.7	5428.4 µg/L	5428.4 ppb	12:40:01
3	Sr 421.552†	214051.7	231168.1	509.59 µg/L	509.59 ppb	12:40:01
3	Sc 361.383	1573841.9	1573841.9	89.583 %		12:40:16
3	Y 371.029	924501.8	924501.8	88.268 %		12:40:16
3	Ag 328.068†	66885.0	70848.3	269.84 µg/L	269.84 ppb	12:40:16
3	As 188.979†	1335.6	1512.6	535.21 µg/L	535.21 ppb	12:40:18
3	B 249.677†	33433.6	33862.2	520.19 µg/L	520.19 ppb	12:40:16
3	Ba 233.527†	105821.7	118280.4	499.82 µg/L	499.82 ppb	12:40:16
3	Be 313.107†	768782.6	859160.6	244.83 µg/L	244.83 ppb	12:40:16
3	Cd 226.502†	67768.7	75755.3	476.84 µg/L	476.84 ppb	12:40:16
3	Co 228.616†	31343.2	35177.6	444.73 µg/L	444.73 ppb	12:40:18
3	Cr 267.716†	53062.8	59056.9	487.28 µg/L	487.28 ppb	12:40:18
3	Cu 324.752†	112660.0	122902.3	540.95 µg/L	540.95 ppb	12:40:16
3	Mn 257.610†	349642.8	390092.0	484.43 µg/L	484.43 ppb	12:40:16
3	Mo 202.031†	13731.5	15371.0	494.68 µg/L	494.68 ppb	12:40:18
3	Ni 231.604†	33639.6	37631.8	454.20 µg/L	454.20 ppb	12:40:18
3	P 214.914†	10459.9	11675.8	2593.7 µg/L	2593.7 ppb	12:40:18
3	Pb 220.353†	6763.9	7482.8	465.37 µg/L	465.37 ppb	12:40:18
3	S 181.975 Axial†	3170.9	3434.5	2721.5 µg/L	2721.5 ppb	12:40:18
3	Sb 206.836†	3713.7	4066.5	505.88 µg/L	505.88 ppb	12:40:18
3	Se 196.026†	5523.4	6150.9	2410 µg/L	2410 ppb	12:40:18
3	SiO2†	98382.1	108072.0	11272 µg/L	11272 ppb	12:40:16
3	Si 251.611†	301699.8	335996.7	5264.1 µg/L	5264.1 ppb	12:40:16
3	Sn 189.927†	6588.8	7358.2	488.97 µg/L	488.97 ppb	12:40:18
3	Ti 334.940†	486027.6	541610.7	506.36 µg/L	506.36 ppb	12:40:16
3	Tl 190.801†	3084.9	3559.2	468.80 µg/L	468.80 ppb	12:40:18
3	U 409.014†	7242.8	8349.6	513.41 µg/L	513.41 ppb	12:40:16
3	V 292.402†	92830.8	103270.6	512.46 µg/L	512.46 ppb	12:40:16
3	Zn 213.857†	78983.3	87655.5	495.86 µg/L	495.86 ppb	12:40:16

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1568211.2	89.262	%	0.3870				0.43%
Sc RADIAL	132790.2	92.1	%	0.48				0.53%
Y 371.029	920623.4	87.898	%	0.3994				0.45%
Ag 328.068†	70957.3	270.44	µg/L	0.577	270.44	ppb	0.577	0.21%
QC value within limits for Ag 328.068 Recovery = 108.18%								
Al 396.153Radial†	2562134.6	510440	µg/L	5396.6	510440	ppb	5396.6	1.06%
QC value within limits for Al 396.153Radial Recovery = 102.09%								
As 188.979†	1519.8	537.04	µg/L	4.419	537.04	ppb	4.419	0.82%
QC value within limits for As 188.979 Recovery = 107.41%								
B 249.677†	33952.5	521.57	µg/L	1.391	521.57	ppb	1.391	0.27%
QC value within limits for B 249.677 Recovery = 104.31%								
Ba 233.527†	118321.7	500.03	µg/L	0.598	500.03	ppb	0.598	0.12%
QC value within limits for Ba 233.527 Recovery = 100.01%								
Be 313.107†	859231.5	244.85	µg/L	0.201	244.85	ppb	0.201	0.08%
QC value within limits for Be 313.107 Recovery = 97.94%								
Ca 317.933Radial†	7955631.6	488350	µg/L	5110.9	488350	ppb	5110.9	1.05%
QC value within limits for Ca 317.933Radial Recovery = 97.67%								
Cd 226.502†	75808.5	477.43	µg/L	0.760	477.43	ppb	0.760	0.16%
QC value within limits for Cd 226.502 Recovery = 95.49%								
Co 228.616†	35460.4	448.50	µg/L	5.713	448.50	ppb	5.713	1.27%

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   QC value within limits for Co 228.616  Recovery = 89.70%
Cr 267.716†            59473.9      490.65 µg/L         4.767      490.65 ppb          4.767   0.97%
   QC value within limits for Cr 267.716  Recovery = 98.13%
Cu 324.752†           122979.1      540.90 µg/L         0.657      540.90 ppb          0.657   0.12%
   QC value within limits for Cu 324.752  Recovery = 108.18%
Fe 238.204 Radial†   2863850.2      193280 µg/L        2130.9      193280 ppb         2130.9   1.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.64%
K 766.490 Radial†      14980.2      5530.3 µg/L         10.58      5530.3 ppb          10.58   0.19%
   QC value within limits for K 766.490 Radial  Recovery = 110.61%
Mg 279.077 IEC†      1196074.4      495070 µg/L        1093.7      495070 ppb         1093.7   0.22%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.01%
Mn 257.610†           390449.5      484.94 µg/L         0.594      484.94 ppb          0.594   0.12%
   QC value within limits for Mn 257.610  Recovery = 96.99%
Mo 202.031†            15511.1      498.92 µg/L         6.086      498.92 ppb          6.086   1.22%
   QC value within limits for Mo 202.031  Recovery = 99.78%
Na 589.592 Radial†     36939.0      5428.0 µg/L          7.73      5428.0 ppb           7.73   0.14%
   QC value within limits for Na 589.592 Radial  Recovery = 108.56%
Ni 231.604†            38074.1      459.53 µg/L         6.559      459.53 ppb          6.559   1.43%
   QC value within limits for Ni 231.604  Recovery = 91.91%
P 214.914†             11754.5      2611.7 µg/L         43.62      2611.7 ppb          43.62   1.67%
   QC value within limits for P 214.914  Recovery = 104.47%
Pb 220.353†             7559.1      469.60 µg/L        10.455      469.60 ppb         10.455   2.23%
   QC value within limits for Pb 220.353  Recovery = 93.92%
S 181.975 Axial†        3485.4      2761.8 µg/L         37.55      2761.8 ppb          37.55   1.36%
   QC value within limits for S 181.975 Axial  Recovery = 110.47%
Sb 206.836†             4138.0      514.94 µg/L        12.435      514.94 ppb         12.435   2.41%
   QC value within limits for Sb 206.836  Recovery = 102.99%
Se 196.026†             6304.4        2470 µg/L          67.5        2470 ppb           67.5   2.73%
   QC value within limits for Se 196.026  Recovery = 98.78%
SiO2†                 108051.5       11269 µg/L          16.9       11269 ppb           16.9   0.15%
   QC value within limits for SiO2  Recovery = 105.37%
Si 251.611†           336382.5      5270.1 µg/L          6.29      5270.1 ppb           6.29   0.12%
   QC value within limits for Si 251.611  Recovery = 105.40%
Sn 189.927†             7401.2      491.82 µg/L         4.083      491.82 ppb          4.083   0.83%
   QC value within limits for Sn 189.927  Recovery = 98.36%
Sr 421.552†           231477.2      510.32 µg/L         0.634      510.32 ppb          0.634   0.12%
   QC value within limits for Sr 421.552  Recovery = 102.06%
Ti 334.940†           541628.7      506.33 µg/L         0.720      506.33 ppb          0.720   0.14%
   QC value within limits for Ti 334.940  Recovery = 101.27%
Tl 190.801†             3571.0      470.32 µg/L         4.968      470.32 ppb          4.968   1.06%
   QC value within limits for Tl 190.801  Recovery = 94.06%
U 409.014†              8288.9      510.15 µg/L         4.408      510.15 ppb          4.408   0.86%
   QC value within limits for U 409.014  Recovery = 102.03%
V 292.402†            103651.5      514.70 µg/L         1.969      514.70 ppb          1.969   0.38%
   QC value within limits for V 292.402  Recovery = 102.94%
Zn 213.857†            87735.2      496.50 µg/L         0.570      496.50 ppb          0.570   0.11%
   QC value within limits for Zn 213.857  Recovery = 99.30%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 4/1/2010 12:40:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	129700.2	129700.2	90.0	%			12:40:58
1	Al 396.153Radial†	2304882.7	2561699.3	510380	µg/L	510380	ppb	12:40:56
1	Ca 317.933Radial†	7170637.1	7968845.6	489160	µg/L	489160	ppb	12:40:56
1	Fe 238.204 Radial†	6171002.8	6858273.8	462860	µg/L	462860	ppb	12:40:56
1	K 766.490 Radial†	2058.0	728.8	-45.627	µg/L	-45.627	ppb	12:40:58
1	Mg 279.077 IEC†	1062496.2	1180685.6	488450	µg/L	488450	ppb	12:40:56
1	Na 589.592 Radial†	3132771.9	3480483.0	511920	µg/L	511920	ppb	12:40:56
1	Sr 421.552†	4914.8	5672.1	8.7699	µg/L	8.7699	ppb	12:40:58
1	Sc 361.383	1514874.0	1514874.0	86.226	%			12:41:25
1	Y 371.029	885717.4	885717.4	84.565	%			12:41:25
1	Ag 328.068†	2358.5	-1079.5	0.6473	µg/L	0.6473	ppb	12:41:25
1	As 188.979†	-191.6	-200.6	39.434	µg/L	39.434	ppb	12:41:27
1	B 249.677†	4113.9	1311.7	20.168	µg/L	20.168	ppb	12:41:25
1	Ba 233.527†	724.0	992.4	-1.7057	µg/L	-1.7057	ppb	12:41:27
1	Be 313.107†	-15095.8	-16530.4	0.1731	µg/L	0.1731	ppb	12:41:25
1	Cd 226.502†	5824.7	6861.0	-3.6432	µg/L	-3.6432	ppb	12:41:27
1	Co 228.616†	651.3	944.8	-11.937	µg/L	-11.937	ppb	12:41:27
1	Cr 267.716†	520.5	427.1	0.9194	µg/L	0.9194	ppb	12:41:27
1	Cu 324.752†	-15769.6	-21147.5	8.2097	µg/L	8.2097	ppb	12:41:27
1	Mn 257.610†	17923.7	20576.2	6.0196	µg/L	6.0196	ppb	12:41:25
1	Mo 202.031†	-936.8	-1043.7	-5.1909	µg/L	-5.1909	ppb	12:41:27
1	Ni 231.604†	182.9	292.4	3.5286	µg/L	3.5286	ppb	12:41:27
1	P 214.914†	923.8	1071.0	39.758	µg/L	39.758	ppb	12:41:27
1	Pb 220.353†	19.5	-45.0	2.0010	µg/L	2.0010	ppb	12:41:27
1	S 181.975 Axial†	203.0	130.3	102.82	µg/L	102.82	ppb	12:41:27
1	Sb 206.836†	143.7	87.6	1.3162	µg/L	1.3162	ppb	12:41:27
1	Se 196.026†	-402.0	-481.0	-7.10	µg/L	-7.10	ppb	12:41:27
1	SiO2†	1841.5	384.9	41.103	µg/L	41.103	ppb	12:41:27
1	Si 251.611†	-1981.8	-3085.8	-48.017	µg/L	-48.017	ppb	12:41:27
1	Sn 189.927†	26.7	34.2	2.3569	µg/L	2.3569	ppb	12:41:27
1	Ti 334.940†	25636.1	28794.4	-5.2676	µg/L	-5.2676	ppb	12:41:25
1	Tl 190.801†	-204.0	-121.0	-15.062	µg/L	-15.062	ppb	12:41:27
1	U 409.014†	230563.6	267658.7	16064	µg/L	16064	ppb	12:41:25
1	V 292.402†	7304.2	8115.6	3.0290	µg/L	3.0290	ppb	12:41:27
1	Zn 213.857†	8415.7	9247.4	9.3703	µg/L	9.3703	ppb	12:41:27
2	Sc RADIAL	128687.2	128687.2	89.3	%			12:41:03
2	Al 396.153Radial†	2342325.5	2623804.1	522750	µg/L	522750	ppb	12:41:01
2	Ca 317.933Radial†	7292713.3	8168318.2	501400	µg/L	501400	ppb	12:41:01
2	Fe 238.204 Radial†	6286698.2	7041854.1	475250	µg/L	475250	ppb	12:41:01
2	K 766.490 Radial†	2144.8	844.1	-9.4784	µg/L	-9.4784	ppb	12:41:03
2	Mg 279.077 IEC†	1084875.2	1215048.1	502670	µg/L	502670	ppb	12:41:01
2	Na 589.592 Radial†	3187840.5	3569573.7	525030	µg/L	525030	ppb	12:41:01
2	Sr 421.552†	5105.7	5928.9	9.2445	µg/L	9.2445	ppb	12:41:03
2	Sc 361.383	1506608.3	1506608.3	85.756	%			12:41:29
2	Y 371.029	880777.2	880777.2	84.093	%			12:41:29
2	Ag 328.068†	2130.4	-1330.5	-0.6891	µg/L	-0.6891	ppb	12:41:29
2	As 188.979†	-178.3	-186.2	46.823	µg/L	46.823	ppb	12:41:31
2	B 249.677†	4312.4	1569.4	24.133	µg/L	24.133	ppb	12:41:29
2	Ba 233.527†	680.6	946.4	-2.0590	µg/L	-2.0590	ppb	12:41:31
2	Be 313.107†	-15023.9	-16542.6	0.1760	µg/L	0.1760	ppb	12:41:29
2	Cd 226.502†	5957.5	7052.9	-3.6857	µg/L	-3.6857	ppb	12:41:31
2	Co 228.616†	763.8	1080.2	-10.835	µg/L	-10.835	ppb	12:41:31
2	Cr 267.716†	419.2	312.3	0.2121	µg/L	0.2121	ppb	12:41:31
2	Cu 324.752†	-15876.9	-21373.1	9.5022	µg/L	9.5022	ppb	12:41:31
2	Mn 257.610†	18017.9	20800.1	5.7126	µg/L	5.7126	ppb	12:41:29
2	Mo 202.031†	-906.2	-1014.0	-3.5179	µg/L	-3.5179	ppb	12:41:31
2	Ni 231.604†	295.6	425.0	5.1291	µg/L	5.1291	ppb	12:41:31
2	P 214.914†	987.3	1150.8	52.044	µg/L	52.044	ppb	12:41:31
2	Pb 220.353†	-24.0	-95.6	-0.6086	µg/L	-0.6086	ppb	12:41:31

2	S 181.975 Axial†	273.3	213.6	168.70 µg/L	168.70 ppb		12:41:31
2	Sb 206.836†	190.3	142.9	8.0553 µg/L	8.0553 ppb		12:41:31
2	Se 196.026†	-318.0	-385.6	33.6 µg/L	33.6 ppb		12:41:31
2	SiO2†	1832.0	385.5	41.040 µg/L	41.040 ppb		12:41:31
2	Si 251.611†	-2028.7	-3153.2	-49.135 µg/L	-49.135 ppb		12:41:31
2	Sn 189.927†	121.8	145.3	9.7171 µg/L	9.7171 ppb		12:41:31
2	Ti 334.940†	26032.9	29420.3	-5.4980 µg/L	-5.4980 ppb		12:41:29
2	Tl 190.801†	-253.0	-179.4	-22.606 µg/L	-22.606 ppb		12:41:31
2	U 409.014†	229604.5	268007.3	16083 µg/L	16083 ppb		12:41:29
2	V 292.402†	7425.2	8303.2	2.6969 µg/L	2.6969 ppb		12:41:31
2	Zn 213.857†	8447.6	9338.1	8.6742 µg/L	8.6742 ppb		12:41:31
3	Sc RADIAL	129608.8	129608.8	89.9 %			12:41:07
3	Al 396.153Radial†	2289216.1	2546081.2	507260 µg/L	507260 ppb		12:41:05
3	Ca 317.933Radial†	7112435.7	7909733.6	485530 µg/L	485530 ppb		12:41:05
3	Fe 238.204 Radial†	6123730.4	6810533.6	459640 µg/L	459640 ppb		12:41:05
3	K 766.490 Radial†	2056.5	728.8	-43.496 µg/L	-43.496 ppb		12:41:07
3	Mg 279.077 IEC†	1052560.6	1170467.9	484230 µg/L	484230 ppb		12:41:05
3	Na 589.592 Radial†	3113311.8	3461294.6	509100 µg/L	509100 ppb		12:41:05
3	Sr 421.552†	5060.5	5838.0	9.1667 µg/L	9.1667 ppb		12:41:07
3	Sc 361.383	1497470.8	1497470.8	85.235 %			12:41:34
3	Y 371.029	875506.8	875506.8	83.590 %			12:41:34
3	Ag 328.068†	2428.7	-965.4	1.2644 µg/L	1.2644 ppb		12:41:34
3	As 188.979†	-262.7	-286.6	11.094 µg/L	11.094 ppb		12:41:36
3	B 249.677†	4243.6	1519.3	23.366 µg/L	23.366 ppb		12:41:34
3	Ba 233.527†	699.9	973.9	-1.7428 µg/L	-1.7428 ppb		12:41:36
3	Be 313.107†	-14870.9	-16469.9	0.2040 µg/L	0.2040 ppb		12:41:34
3	Cd 226.502†	5911.6	7041.4	-2.1205 µg/L	-2.1205 ppb		12:41:36
3	Co 228.616†	683.2	991.1	-11.172 µg/L	-11.172 ppb		12:41:36
3	Cr 267.716†	260.3	128.8	-1.6349 µg/L	-1.6349 ppb		12:41:36
3	Cu 324.752†	-15804.1	-21400.6	6.6375 µg/L	6.6375 ppb		12:41:36
3	Mn 257.610†	17746.1	20609.5	6.2388 µg/L	6.2388 ppb		12:41:34
3	Mo 202.031†	-927.0	-1044.8	-5.4315 µg/L	-5.4315 ppb		12:41:36
3	Ni 231.604†	162.0	270.3	3.2622 µg/L	3.2622 ppb		12:41:36
3	P 214.914†	1063.3	1247.1	80.782 µg/L	80.782 ppb		12:41:36
3	Pb 220.353†	-131.4	-221.7	-8.4718 µg/L	-8.4718 ppb		12:41:36
3	S 181.975 Axial†	239.3	175.6	138.69 µg/L	138.69 ppb		12:41:36
3	Sb 206.836†	95.3	32.8	-5.4656 µg/L	-5.4656 ppb		12:41:36
3	Se 196.026†	-406.3	-491.4	-12.1 µg/L	-12.1 ppb		12:41:36
3	SiO2†	1947.7	534.3	56.687 µg/L	56.687 ppb		12:41:36
3	Si 251.611†	-1715.8	-2800.5	-43.553 µg/L	-43.553 ppb		12:41:36
3	Sn 189.927†	55.8	68.7	4.6417 µg/L	4.6417 ppb		12:41:36
3	Ti 334.940†	24714.9	28059.3	-5.7604 µg/L	-5.7604 ppb		12:41:34
3	Tl 190.801†	-154.1	-65.2	-7.8481 µg/L	-7.8481 ppb		12:41:36
3	U 409.014†	228549.9	268403.9	16110 µg/L	16110 ppb		12:41:34
3	V 292.402†	7253.9	8155.0	3.5896 µg/L	3.5896 ppb		12:41:36
3	Zn 213.857†	8561.3	9531.6	11.369 µg/L	11.369 ppb		12:41:36

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1506317.7	85.739	%	0.4955				0.58%
Sc RADIAL	129332.1	89.7	%	0.39				0.43%
Y 371.029	880667.1	84.083	%	0.4875				0.58%
Ag 328.068†	-1125.2	0.4075	µg/L	0.99859	0.4075	ppb	0.99859	245.04%
Al 396.153Radial†	2577194.9	513460	µg/L	8191.1	513460	ppb	8191.1	1.60%
QC value within limits for Al 396.153Radial Recovery = 102.69%								
As 188.979†	-224.4	32.450	µg/L	18.8607	32.450	ppb	18.8607	58.12%
B 249.677†	1466.8	22.556	µg/L	2.1028	22.556	ppb	2.1028	9.32%
Ba 233.527†	970.9	-1.8358	µg/L	0.19414	-1.8358	ppb	0.19414	10.57%
Be 313.107†	-16514.3	0.1844	µg/L	0.01702	0.1844	ppb	0.01702	9.23%
Ca 317.933Radial†	8015632.4	492030	µg/L	8317.0	492030	ppb	8317.0	1.69%
QC value within limits for Ca 317.933Radial Recovery = 98.41%								
Cd 226.502†	6985.1	-3.1498	µg/L	0.89162	-3.1498	ppb	0.89162	28.31%
Co 228.616†	1005.4	-11.314	µg/L	0.5649	-11.314	ppb	0.5649	4.99%
Cr 267.716†	289.4	-0.1678	µg/L	1.31883	-0.1678	ppb	1.31883	785.92%
Cu 324.752†	-21307.1	8.1164	µg/L	1.43462	8.1164	ppb	1.43462	17.68%
Fe 238.204 Radial†	6903553.8	465910	µg/L	8242.2	465910	ppb	8242.2	1.77%
QC value within limits for Fe 238.204 Radial Recovery = 93.18%								
K 766.490 Radial†	767.2	-32.867	µg/L	20.2834	-32.867	ppb	20.2834	61.71%
Mg 279.077 IEC†	1188733.9	491780	µg/L	9662.6	491780	ppb	9662.6	1.96%

QC value within limits for Mg 279.077 IEC Recovery = 98.36%

Mn 257.610†	20662.0	5.9903 µg/L	0.26432	5.9903 ppb	0.26432	4.41%
Mo 202.031†	-1034.2	-4.7134 µg/L	1.04231	-4.7134 ppb	1.04231	22.11%
Na 589.592 Radial†	3503783.8	515350 µg/L	8498.2	515350 ppb	8498.2	1.65%

QC value within limits for Na 589.592 Radial Recovery = 103.07%

Ni 231.604†	329.2	3.9733 µg/L	1.00981	3.9733 ppb	1.00981	25.41%
P 214.914†	1156.3	57.528 µg/L	21.0546	57.528 ppb	21.0546	36.60%
Pb 220.353†	-120.8	-2.3598 µg/L	5.45163	-2.3598 ppb	5.45163	231.02%
S 181.975 Axial†	173.2	136.74 µg/L	32.985	136.74 ppb	32.985	24.12%
Sb 206.836†	87.8	1.3020 µg/L	6.76045	1.3020 ppb	6.76045	519.24%
Se 196.026†	-452.7	4.78 µg/L	25.058	4.78 ppb	25.058	524.65%
SiO2†	434.9	46.277 µg/L	9.0157	46.277 ppb	9.0157	19.48%
Si 251.611†	-3013.2	-46.902 µg/L	2.9530	-46.902 ppb	2.9530	6.30%
Sn 189.927†	82.7	5.5719 µg/L	3.76724	5.5719 ppb	3.76724	67.61%
Sr 421.552†	5813.0	9.0604 µg/L	0.25458	9.0604 ppb	0.25458	2.81%
Ti 334.940†	28758.0	-5.5087 µg/L	0.24658	-5.5087 ppb	0.24658	4.48%
Tl 190.801†	-121.9	-15.172 µg/L	7.3798	-15.172 ppb	7.3798	48.64%
U 409.014†	268023.3	16086 µg/L	22.9	16086 ppb	22.9	0.14%

QC value within limits for U 409.014 Recovery = 107.24%

V 292.402†	8191.2	3.1052 µg/L	0.45122	3.1052 ppb	0.45122	14.53%
Zn 213.857†	9372.4	9.8044 µg/L	1.39868	9.8044 ppb	1.39868	14.27%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 4/1/2010 12:41:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141497.7	141497.7	98.2	%			12:42:17
1	Al 396.153Radial†	2876.9	2999.6	138.22	µg/L	138.22	ppb	12:42:19
1	Ca 317.933Radial†	3365.6	2878.6	176.70	µg/L	176.70	ppb	12:42:19
1	Fe 238.204 Radial†	962.4	845.1	57.035	µg/L	57.035	ppb	12:42:19
1	K 766.490 Radial†	759040.4	771698.3	297490	µg/L	297490	ppb	12:42:17
1	Mg 279.077 IEC†	-50.8	-217.0	152.10	µg/L	152.10	ppb	12:42:19
1	Na 589.592 Radial†	4753.9	3585.3	262.77	µg/L	262.77	ppb	12:42:17
1	Sr 421.552†	4339438.7	4420923.4	9819.5	µg/L	9819.5	ppb	12:42:14
1	Sc 361.383	1711618.0	1711618.0	97.425	%			12:42:41
1	Y 371.029	993047.4	993047.4	94.812	%			12:42:41
1	Ag 328.068†	-26497.7	-31013.0	-2.2914	µg/L	-2.2914	ppb	12:42:43
1	As 188.979†	30989.8	31830.7	10470	µg/L	10470	ppb	12:42:43
1	B 249.677†	320906.1	325929.6	4989.2	µg/L	4989.2	ppb	12:42:41
1	Ba 233.527†	3153741.9	3237260.7	13745	µg/L	13745	ppb	12:42:41
1	Be 313.107†	9808468.6	10068722.3	2867.2	µg/L	2867.2	ppb	12:42:37
1	Cd 226.502†	1451236.1	1489703.9	9781.8	µg/L	9781.8	ppb	12:42:41
1	Co 228.616†	714421.8	733496.3	9491.6	µg/L	9491.6	ppb	12:42:41
1	Cr 267.716†	2847570.3	2922666.4	24095	µg/L	24095	ppb	12:42:41
1	Cu 324.752†	4839926.7	4965006.3	20138	µg/L	20138	ppb	12:42:41
1	Mn 257.610†	7105907.3	7293534.1	9434.9	µg/L	9434.9	ppb	12:42:41
1	Mo 202.031†	310039.7	318278.0	9894.9	µg/L	9894.9	ppb	12:42:43
1	Ni 231.604†	791228.5	812224.1	9803.1	µg/L	9803.1	ppb	12:42:41
1	P 214.914†	67592.9	69379.3	15325	µg/L	15325	ppb	12:42:43
1	Pb 220.353†	395842.8	406238.9	23825	µg/L	23825	ppb	12:42:41
1	S 181.975 Axial†	65854.0	67489.6	53483	µg/L	53483	ppb	12:42:43
1	Sb 206.836†	79638.4	81664.6	10068	µg/L	10068	ppb	12:42:43
1	Se 196.026†	25716.6	26381.6	10100	µg/L	10100	ppb	12:42:43
1	SiO2†	964093.4	987827.4	102790	µg/L	102790	ppb	12:42:41
1	Si 251.611†	2986467.6	3064624.3	47903	µg/L	47903	ppb	12:42:41
1	Sn 189.927†	148484.6	152412.9	10125	µg/L	10125	ppb	12:42:43
1	Ti 334.940†	9866497.5	10126371.5	9981.4	µg/L	9981.4	ppb	12:42:37
1	Tl 190.801†	72547.7	74581.0	9801.3	µg/L	9801.3	ppb	12:42:43
1	U 409.014†	-9719.5	-9712.0	26.495	µg/L	26.495	ppb	12:42:43
1	V 292.402†	1925455.6	1975997.6	10265	µg/L	10265	ppb	12:42:41
1	Zn 213.857†	2413261.0	2476540.5	14497	µg/L	14497	ppb	12:42:41
2	Sc RADIAL	141894.5	141894.5	98.4	%			12:42:23
2	Al 396.153Radial†	2910.6	3025.7	154.19	µg/L	154.19	ppb	12:42:25
2	Ca 317.933Radial†	3265.3	2767.1	169.85	µg/L	169.85	ppb	12:42:25
2	Fe 238.204 Radial†	898.3	777.3	52.458	µg/L	52.458	ppb	12:42:25
2	K 766.490 Radial†	764922.2	775511.0	298960	µg/L	298960	ppb	12:42:23
2	Mg 279.077 IEC†	-159.9	-327.7	100.58	µg/L	100.58	ppb	12:42:25
2	Na 589.592 Radial†	4581.1	3396.3	233.65	µg/L	233.65	ppb	12:42:23
2	Sr 421.552†	4302665.9	4371203.4	9709.1	µg/L	9709.1	ppb	12:42:21
2	Sc 361.383	1697672.8	1697672.8	96.631	%			12:42:51
2	Y 371.029	985778.8	985778.8	94.118	%			12:42:51
2	Ag 328.068†	-25458.6	-30161.0	0.9822	µg/L	0.9822	ppb	12:42:53
2	As 188.979†	29703.7	30761.0	10127	µg/L	10127	ppb	12:42:53
2	B 249.677†	318232.4	325868.3	4988.2	µg/L	4988.2	ppb	12:42:51
2	Ba 233.527†	3128172.2	3237390.2	13745	µg/L	13745	ppb	12:42:51
2	Be 313.107†	9862371.8	10207204.7	2906.7	µg/L	2906.7	ppb	12:42:47
2	Cd 226.502†	1438682.0	1488948.1	9776.8	µg/L	9776.8	ppb	12:42:51
2	Co 228.616†	708209.6	733091.1	9486.4	µg/L	9486.4	ppb	12:42:51
2	Cr 267.716†	2824924.3	2923240.0	24100	µg/L	24100	ppb	12:42:51
2	Cu 324.752†	4800385.8	4964894.4	20138	µg/L	20138	ppb	12:42:51
2	Mn 257.610†	7048653.8	7294197.7	9435.7	µg/L	9435.7	ppb	12:42:51
2	Mo 202.031†	300303.0	310815.9	9663.0	µg/L	9663.0	ppb	12:42:53
2	Ni 231.604†	784853.1	812297.6	9804.0	µg/L	9804.0	ppb	12:42:51
2	P 214.914†	64896.4	67158.6	14827	µg/L	14827	ppb	12:42:53
2	Pb 220.353†	392375.2	405987.9	23810	µg/L	23810	ppb	12:42:51

2	S 181.975 Axial†	63107.6	65202.7	51672	µg/L	51672	ppb	12:42:53
2	Sb 206.836†	76736.1	79332.5	9770.9	µg/L	9770.9	ppb	12:42:53
2	Se 196.026†	24666.8	25512.0	9720	µg/L	9720	ppb	12:42:53
2	SiO2†	956744.5	988351.0	102860	µg/L	102860	ppb	12:42:51
2	Si 251.611†	2962594.8	3065099.5	47916	µg/L	47916	ppb	12:42:51
2	Sn 189.927†	143039.7	148030.1	9834.9	µg/L	9834.9	ppb	12:42:53
2	Ti 334.940†	9936637.5	10282146.0	10135	µg/L	10135	ppb	12:42:47
2	Tl 190.801†	70107.2	72667.1	9555.2	µg/L	9555.2	ppb	12:42:53
2	U 409.014†	-9877.8	-9957.7	11.518	µg/L	11.518	ppb	12:42:53
2	V 292.402†	1909267.9	1975479.9	10260	µg/L	10260	ppb	12:42:51
2	Zn 213.857†	2392562.5	2475467.6	14491	µg/L	14491	ppb	12:42:51
3	Sc RADIAL	140557.4	140557.4	97.5	%			12:42:30
3	Al 396.153Radial†	2932.9	3076.7	157.82	µg/L	157.82	ppb	12:42:32
3	Ca 317.933Radial†	3126.6	2656.3	163.06	µg/L	163.06	ppb	12:42:32
3	Fe 238.204 Radial†	821.0	706.6	47.689	µg/L	47.689	ppb	12:42:32
3	K 766.490 Radial†	755104.1	772834.4	297930	µg/L	297930	ppb	12:42:30
3	Mg 279.077 IEC†	-100.6	-268.3	128.61	µg/L	128.61	ppb	12:42:32
3	Na 589.592 Radial†	4234.1	3084.7	188.74	µg/L	188.74	ppb	12:42:30
3	Sr 421.552†	4288547.0	4398305.4	9769.3	µg/L	9769.3	ppb	12:42:28
3	Sc 361.383	1705019.0	1705019.0	97.049	%			12:43:01
3	Y 371.029	989883.7	989883.7	94.510	%			12:43:01
3	Ag 328.068†	-26202.8	-30814.3	-1.5132	µg/L	-1.5132	ppb	12:43:03
3	As 188.979†	30589.0	31540.8	10377	µg/L	10377	ppb	12:43:03
3	B 249.677†	320291.4	326571.1	4999.0	µg/L	4999.0	ppb	12:43:01
3	Ba 233.527†	3143672.7	3239414.0	13754	µg/L	13754	ppb	12:43:01
3	Be 313.107†	9776380.5	10074624.2	2868.9	µg/L	2868.9	ppb	12:42:57
3	Cd 226.502†	1446125.9	1490203.6	9785.1	µg/L	9785.1	ppb	12:43:01
3	Co 228.616†	711921.9	733758.5	9495.0	µg/L	9495.0	ppb	12:43:01
3	Cr 267.716†	2838552.7	2924687.0	24112	µg/L	24112	ppb	12:43:01
3	Cu 324.752†	4824343.0	4968176.1	20151	µg/L	20151	ppb	12:43:01
3	Mn 257.610†	7080341.4	7295420.2	9437.3	µg/L	9437.3	ppb	12:43:01
3	Mo 202.031†	305994.2	315341.2	9803.6	µg/L	9803.6	ppb	12:43:03
3	Ni 231.604†	788433.7	812487.5	9806.3	µg/L	9806.3	ppb	12:43:01
3	P 214.914†	66690.4	68717.8	15177	µg/L	15177	ppb	12:43:03
3	Pb 220.353†	394210.9	406129.9	23818	µg/L	23818	ppb	12:43:01
3	S 181.975 Axial†	64762.5	66626.5	52799	µg/L	52799	ppb	12:43:03
3	Sb 206.836†	78493.3	80801.0	9957.5	µg/L	9957.5	ppb	12:43:03
3	Se 196.026†	25294.9	26049.3	9920	µg/L	9920	ppb	12:43:03
3	SiO2†	962729.4	990251.9	103050	µg/L	103050	ppb	12:43:01
3	Si 251.611†	2981581.6	3071454.0	48012	µg/L	48012	ppb	12:43:01
3	Sn 189.927†	146648.0	151110.3	10038	µg/L	10038	ppb	12:43:03
3	Ti 334.940†	9857170.7	10155957.3	10011	µg/L	10011	ppb	12:42:57
3	Tl 190.801†	71370.1	73655.8	9681.9	µg/L	9681.9	ppb	12:43:03
3	U 409.014†	-9797.8	-9831.2	19.360	µg/L	19.360	ppb	12:43:03
3	V 292.402†	1918228.2	1976199.6	10265	µg/L	10265	ppb	12:43:01
3	Zn 213.857†	2404280.5	2476873.9	14499	µg/L	14499	ppb	12:43:01

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1704769.9	97.035	%	0.3971				0.41%
Sc RADIAL	141316.6	98.0	%	0.48				0.49%
Y 371.029	989570.0	94.480	%	0.3480				0.37%
Ag 328.068†	-30662.7	-0.9408	µg/L	1.71019	-0.9408	ppb	1.71019	181.78%
Al 396.153Radial†	3034.0	150.08	µg/L	10.423	150.08	ppb	10.423	6.95%
As 188.979†	31377.5	10325	µg/L	177.8	10325	ppb	177.8	1.72%
QC value within limits for As 188.979 Recovery = 103.25%								
B 249.677†	326123.0	4992.1	µg/L	5.99	4992.1	ppb	5.99	0.12%
QC value within limits for B 249.677 Recovery = 99.84%								
Ba 233.527†	3238021.6	13748	µg/L	5.1	13748	ppb	5.1	0.04%
QC value within limits for Ba 233.527 Recovery = 91.65%								
Be 313.107†	10116850.4	2880.9	µg/L	22.30	2880.9	ppb	22.30	0.77%
QC value within limits for Be 313.107 Recovery = 96.03%								
Ca 317.933Radial†	2767.3	169.87	µg/L	6.821	169.87	ppb	6.821	4.02%
Cd 226.502†	1489618.5	9781.2	µg/L	4.15	9781.2	ppb	4.15	0.04%
QC value within limits for Cd 226.502 Recovery = 97.81%								
Co 228.616†	733448.7	9491.0	µg/L	4.35	9491.0	ppb	4.35	0.05%
QC value within limits for Co 228.616 Recovery = 94.91%								
Cr 267.716†	2923531.1	24102	µg/L	8.6	24102	ppb	8.6	0.04%
QC value within limits for Cr 267.716 Recovery = 96.41%								

Cu 324.752†	4966025.6	20143 µg/L	7.6	20143 ppb	7.6	0.04%
QC value within limits for Cu 324.752 Recovery = 100.71%						
Fe 238.204 Radial†	776.3	52.394 µg/L	4.6733	52.394 ppb	4.6733	8.92%
K 766.490 Radial†	773347.9	298120 µg/L	754.6	298120 ppb	754.6	0.25%
QC value within limits for K 766.490 Radial Recovery = 99.37%						
Mg 279.077 IEC†	-271.0	127.10 µg/L	25.791	127.10 ppb	25.791	20.29%
Mn 257.610†	7294384.0	9436.0 µg/L	1.24	9436.0 ppb	1.24	0.01%
QC value within limits for Mn 257.610 Recovery = 94.36%						
Mo 202.031†	314811.7	9787.2 µg/L	116.83	9787.2 ppb	116.83	1.19%
QC value within limits for Mo 202.031 Recovery = 97.87%						
Na 589.592 Radial†	3355.4	228.39 µg/L	37.296	228.39 ppb	37.296	16.33%
Ni 231.604†	812336.4	9804.5 µg/L	1.64	9804.5 ppb	1.64	0.02%
QC value within limits for Ni 231.604 Recovery = 98.04%						
P 214.914†	68418.6	15109 µg/L	255.8	15109 ppb	255.8	1.69%
QC value within limits for P 214.914 Recovery = 100.73%						
Pb 220.353†	406118.9	23818 µg/L	7.6	23818 ppb	7.6	0.03%
QC value within limits for Pb 220.353 Recovery = 95.27%						
S 181.975 Axial†	66439.6	52651 µg/L	914.8	52651 ppb	914.8	1.74%
QC value within limits for S 181.975 Axial Recovery = 105.30%						
Sb 206.836†	80599.4	9932.0 µg/L	149.99	9932.0 ppb	149.99	1.51%
QC value within limits for Sb 206.836 Recovery = 99.32%						
Se 196.026†	25980.9	9900 µg/L	167.2	9900 ppb	167.2	1.69%
QC value within limits for Se 196.026 Recovery = 98.98%						
SiO2†	988810.1	102900 µg/L	133.6	102900 ppb	133.6	0.13%
QC value within limits for SiO2 Recovery = 96.17%						
Si 251.611†	3067059.3	47944 µg/L	59.6	47944 ppb	59.6	0.12%
QC value within limits for Si 251.611 Recovery = 95.89%						
Sn 189.927†	150517.7	9999.3 µg/L	148.74	9999.3 ppb	148.74	1.49%
QC value within limits for Sn 189.927 Recovery = 99.99%						
Sr 421.552†	4396810.7	9765.9 µg/L	55.29	9765.9 ppb	55.29	0.57%
QC value within limits for Sr 421.552 Recovery = 97.66%						
Ti 334.940†	10188158.3	10042 µg/L	81.6	10042 ppb	81.6	0.81%
QC value within limits for Ti 334.940 Recovery = 100.42%						
Tl 190.801†	73634.7	9679.5 µg/L	123.06	9679.5 ppb	123.06	1.27%
QC value within limits for Tl 190.801 Recovery = 96.79%						
U 409.014†	-9833.6	19.124 µg/L	7.4915	19.124 ppb	7.4915	39.17%
V 292.402†	1975892.4	10263 µg/L	3.0	10263 ppb	3.0	0.03%
QC value within limits for V 292.402 Recovery = 102.63%						
Zn 213.857†	2476294.0	14496 µg/L	4.3	14496 ppb	4.3	0.03%
QC value within limits for Zn 213.857 Recovery = 96.64%						

All analyte(s) passed QC.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 12:43:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143423.7	143423.7	99.5	%			12:43:45
1	Al 396.153Radial†	25493.7	25691.3	5095.1	µg/L	5095.1	ppb	12:43:45
1	Ca 317.933Radial†	83641.7	83514.0	5126.4	µg/L	5126.4	ppb	12:43:45
1	Fe 238.204 Radial†	74963.1	75206.3	5075.6	µg/L	5075.6	ppb	12:43:45
1	K 766.490 Radial†	16267.3	14791.0	5697.7	µg/L	5697.7	ppb	12:43:45
1	Mg 279.077 IEC†	12774.2	12673.5	5255.3	µg/L	5255.3	ppb	12:43:45
1	Na 589.592 Radial†	69934.6	69030.1	10148	µg/L	10148	ppb	12:43:45
1	Sr 421.552†	222447.7	223780.8	497.01	µg/L	497.01	ppb	12:43:43
1	Sc 361.383	1731889.2	1731889.2	98.579	%			12:43:58
1	Y 371.029	1021315.1	1021315.1	97.511	%			12:43:58
1	Ag 328.068†	128324.7	126360.3	500.09	µg/L	500.09	ppb	12:43:58
1	As 188.979†	1526.6	1570.3	511.18	µg/L	511.18	ppb	12:44:18
1	B 249.677†	35412.0	32463.3	498.47	µg/L	498.47	ppb	12:43:58
1	Ba 233.527†	115670.0	117490.7	498.90	µg/L	498.90	ppb	12:43:58
1	Be 313.107†	1716417.0	1742144.5	496.27	µg/L	496.27	ppb	12:43:58
1	Cd 226.502†	74834.9	76019.8	498.63	µg/L	498.63	ppb	12:43:58
1	Co 228.616†	37992.8	38730.2	500.55	µg/L	500.55	ppb	12:43:58
1	Cr 267.716†	59934.0	60621.7	499.59	µg/L	499.59	ppb	12:43:58
1	Cu 324.752†	124191.1	123123.0	500.81	µg/L	500.81	ppb	12:43:58
1	Mn 257.610†	381185.9	386472.0	499.72	µg/L	499.72	ppb	12:43:58
1	Mo 202.031†	15948.1	16220.8	504.58	µg/L	504.58	ppb	12:44:18
1	Ni 231.604†	40454.3	41117.9	496.27	µg/L	496.27	ppb	12:43:58
1	P 214.914†	10958.5	11116.1	2484.5	µg/L	2484.5	ppb	12:44:18
1	Pb 220.353†	8680.4	8737.9	513.43	µg/L	513.43	ppb	12:44:18
1	S 181.975 Axial†	1406.7	1321.8	1050.1	µg/L	1050.1	ppb	12:44:18
1	Sb 206.836†	4003.0	3981.7	501.23	µg/L	501.23	ppb	12:44:18
1	Se 196.026†	1320.2	1324.5	507	µg/L	507	ppb	12:44:18
1	SiO2†	52437.6	51443.0	5353.6	µg/L	5353.6	ppb	12:43:58
1	Si 251.611†	158926.3	160430.5	2508.0	µg/L	2508.0	ppb	12:43:58
1	Sn 189.927†	7510.1	7621.7	506.30	µg/L	506.30	ppb	12:44:18
1	Ti 334.940†	501757.9	508056.4	500.54	µg/L	500.54	ppb	12:43:58
1	Tl 190.801†	3714.3	3883.5	509.94	µg/L	509.94	ppb	12:44:18
1	U 409.014†	6841.2	7204.3	464.77	µg/L	464.77	ppb	12:43:58
1	V 292.402†	95975.4	97004.0	500.93	µg/L	500.93	ppb	12:43:58
1	Zn 213.857†	84938.9	85651.1	500.08	µg/L	500.08	ppb	12:43:58
2	Sc RADIAL	141258.6	141258.6	98.0	%			12:43:49
2	Al 396.153Radial†	25239.9	25825.0	5121.9	µg/L	5121.9	ppb	12:43:49
2	Ca 317.933Radial†	82411.2	83546.8	5128.4	µg/L	5128.4	ppb	12:43:49
2	Fe 238.204 Radial†	73577.5	74947.1	5058.1	µg/L	5058.1	ppb	12:43:49
2	K 766.490 Radial†	16045.6	14815.4	5707.1	µg/L	5707.1	ppb	12:43:49
2	Mg 279.077 IEC†	12461.8	12551.5	5204.8	µg/L	5204.8	ppb	12:43:49
2	Na 589.592 Radial†	68835.8	68986.2	10142	µg/L	10142	ppb	12:43:49
2	Sr 421.552†	223408.4	228187.9	506.80	µg/L	506.80	ppb	12:43:47
2	Sc 361.383	1743277.5	1743277.5	99.227	%			12:44:21
2	Y 371.029	1027080.9	1027080.9	98.062	%			12:44:21
2	Ag 328.068†	129476.8	126671.0	501.32	µg/L	501.32	ppb	12:44:21
2	As 188.979†	1514.7	1548.2	504.09	µg/L	504.09	ppb	12:44:41
2	B 249.677†	35658.5	32477.0	498.68	µg/L	498.68	ppb	12:44:21
2	Ba 233.527†	116364.5	117424.1	498.62	µg/L	498.62	ppb	12:44:21
2	Be 313.107†	1732855.2	1747336.2	497.75	µg/L	497.75	ppb	12:44:21
2	Cd 226.502†	75400.2	76093.6	499.12	µg/L	499.12	ppb	12:44:21
2	Co 228.616†	38259.3	38747.0	500.77	µg/L	500.77	ppb	12:44:21
2	Cr 267.716†	60319.9	60613.4	499.52	µg/L	499.52	ppb	12:44:21
2	Cu 324.752†	124502.2	122613.5	498.74	µg/L	498.74	ppb	12:44:21
2	Mn 257.610†	383535.8	386314.2	499.51	µg/L	499.51	ppb	12:44:21
2	Mo 202.031†	15975.2	16142.4	502.14	µg/L	502.14	ppb	12:44:41
2	Ni 231.604†	40808.8	41207.1	497.35	µg/L	497.35	ppb	12:44:21
2	P 214.914†	11003.5	11088.9	2478.4	µg/L	2478.4	ppb	12:44:41
2	Pb 220.353†	8678.5	8678.5	509.94	µg/L	509.94	ppb	12:44:41

2	S 181.975 Axial†	1394.4	1300.1	1032.9 µg/L	1032.9 ppb		12:44:41
2	Sb 206.836†	4033.5	3985.9	501.72 µg/L	501.72 ppb		12:44:41
2	Se 196.026†	1306.7	1302.1	498 µg/L	498 ppb		12:44:41
2	SiO2†	52788.8	51449.4	5354.4 µg/L	5354.4 ppb		12:44:21
2	Si 251.611†	159619.0	160075.4	2502.5 µg/L	2502.5 ppb		12:44:21
2	Sn 189.927†	7526.1	7588.0	504.07 µg/L	504.07 ppb		12:44:41
2	Ti 334.940†	504536.0	507531.0	500.02 µg/L	500.02 ppb		12:44:21
2	Tl 190.801†	3714.1	3858.7	506.72 µg/L	506.72 ppb		12:44:41
2	U 409.014†	6998.5	7317.5	471.60 µg/L	471.60 ppb		12:44:21
2	V 292.402†	96607.9	97005.3	500.92 µg/L	500.92 ppb		12:44:21
2	Zn 213.857†	85367.0	85519.6	499.30 µg/L	499.30 ppb		12:44:21
3	Sc RADIAL	142860.9	142860.9	99.1 %			12:43:54
3	Al 396.153Radial†	25234.0	25530.2	5063.0 µg/L	5063.0 ppb		12:43:54
3	Ca 317.933Radial†	83005.3	83203.0	5107.3 µg/L	5107.3 ppb		12:43:54
3	Fe 238.204 Radial†	74372.4	74907.0	5055.4 µg/L	5055.4 ppb		12:43:54
3	K 766.490 Radial†	16163.3	14750.5	5682.1 µg/L	5682.1 ppb		12:43:54
3	Mg 279.077 IEC†	12642.0	12590.7	5221.1 µg/L	5221.1 ppb		12:43:54
3	Na 589.592 Radial†	69704.5	69074.7	10155 µg/L	10155 ppb		12:43:54
3	Sr 421.552†	219628.7	221817.0	492.65 µg/L	492.65 ppb		12:43:51
3	Sc 361.383	1736850.3	1736850.3	98.861 %			12:44:44
3	Y 371.029	1023679.0	1023679.0	97.737 %			12:44:44
3	Ag 328.068†	129269.3	126944.0	502.39 µg/L	502.39 ppb		12:44:44
3	As 188.979†	1509.8	1548.8	504.26 µg/L	504.26 ppb		12:45:05
3	B 249.677†	35404.1	32352.6	496.77 µg/L	496.77 ppb		12:44:44
3	Ba 233.527†	115715.4	117201.5	497.67 µg/L	497.67 ppb		12:44:44
3	Be 313.107†	1724431.4	1745277.8	497.16 µg/L	497.16 ppb		12:44:44
3	Cd 226.502†	75204.3	76176.6	499.66 µg/L	499.66 ppb		12:44:44
3	Co 228.616†	38022.5	38650.1	499.51 µg/L	499.51 ppb		12:44:44
3	Cr 267.716†	59680.0	60191.1	496.03 µg/L	496.03 ppb		12:44:44
3	Cu 324.752†	123665.5	122231.5	497.20 µg/L	497.20 ppb		12:44:44
3	Mn 257.610†	381895.5	386085.3	499.22 µg/L	499.22 ppb		12:44:44
3	Mo 202.031†	16016.5	16243.8	505.29 µg/L	505.29 ppb		12:45:05
3	Ni 231.604†	40765.3	41315.3	498.65 µg/L	498.65 ppb		12:44:44
3	P 214.914†	11020.8	11147.3	2491.5 µg/L	2491.5 ppb		12:45:05
3	Pb 220.353†	8637.2	8669.1	509.39 µg/L	509.39 ppb		12:45:05
3	S 181.975 Axial†	1396.2	1307.1	1038.5 µg/L	1038.5 ppb		12:45:05
3	Sb 206.836†	4012.5	3979.7	501.04 µg/L	501.04 ppb		12:45:05
3	Se 196.026†	1312.3	1312.6	502 µg/L	502 ppb		12:45:05
3	SiO2†	52490.1	51344.1	5343.3 µg/L	5343.3 ppb		12:44:44
3	Si 251.611†	158908.5	159952.0	2500.5 µg/L	2500.5 ppb		12:44:44
3	Sn 189.927†	7522.7	7612.6	505.70 µg/L	505.70 ppb		12:45:05
3	Ti 334.940†	501764.4	506609.1	499.11 µg/L	499.11 ppb		12:44:44
3	Tl 190.801†	3721.9	3880.4	509.52 µg/L	509.52 ppb		12:45:05
3	U 409.014†	7118.1	7464.6	480.43 µg/L	480.43 ppb		12:44:44
3	V 292.402†	96113.7	96865.7	500.24 µg/L	500.24 ppb		12:44:44
3	Zn 213.857†	84710.4	85173.7	497.26 µg/L	497.26 ppb		12:44:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1737339.0	98.889	%	0.3250				0.33%
Sc RADIAL	142514.4	98.9	%	0.78				0.79%
Y 371.029	1024025.0	97.770	%	0.2767				0.28%
Ag 328.068†	126658.4	501.27	µg/L	1.147	501.27	ppb	1.147	0.23%
QC value within limits for Ag 328.068 Recovery = 100.25%								
Al 396.153Radial†	25682.2	5093.3	µg/L	29.48	5093.3	ppb	29.48	0.58%
QC value within limits for Al 396.153Radial Recovery = 101.87%								
As 188.979†	1555.8	506.51	µg/L	4.047	506.51	ppb	4.047	0.80%
QC value within limits for As 188.979 Recovery = 101.30%								
B 249.677†	32431.0	497.98	µg/L	1.048	497.98	ppb	1.048	0.21%
QC value within limits for B 249.677 Recovery = 99.60%								
Ba 233.527†	117372.1	498.40	µg/L	0.643	498.40	ppb	0.643	0.13%
QC value within limits for Ba 233.527 Recovery = 99.68%								
Be 313.107†	1744919.5	497.06	µg/L	0.746	497.06	ppb	0.746	0.15%
QC value within limits for Be 313.107 Recovery = 99.41%								
Ca 317.933Radial†	83421.2	5120.7	µg/L	11.65	5120.7	ppb	11.65	0.23%
QC value within limits for Ca 317.933Radial Recovery = 102.41%								
Cd 226.502†	76096.7	499.14	µg/L	0.516	499.14	ppb	0.516	0.10%
QC value within limits for Cd 226.502 Recovery = 99.83%								
Co 228.616†	38709.1	500.28	µg/L	0.669	500.28	ppb	0.669	0.13%

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   QC value within limits for Co 228.616  Recovery = 100.06%
Cr 267.716†            60475.4      498.38 µg/L         2.036      498.38 ppb          2.036   0.41%
   QC value within limits for Cr 267.716  Recovery = 99.68%
Cu 324.752†           122656.0      498.92 µg/L         1.810      498.92 ppb          1.810   0.36%
   QC value within limits for Cu 324.752  Recovery = 99.78%
Fe 238.204 Radial†     75020.2      5063.0 µg/L         10.96      5063.0 ppb          10.96   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.26%
K 766.490 Radial†      14785.6      5695.7 µg/L         12.63      5695.7 ppb          12.63   0.22%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 113.91%
Mg 279.077 IEC†        12605.2      5227.1 µg/L         25.79      5227.1 ppb          25.79   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.54%
Mn 257.610†           386290.5      499.48 µg/L         0.251      499.48 ppb          0.251   0.05%
   QC value within limits for Mn 257.610  Recovery = 99.90%
Mo 202.031†            16202.3      504.00 µg/L         1.651      504.00 ppb          1.651   0.33%
   QC value within limits for Mo 202.031  Recovery = 100.80%
Na 589.592 Radial†     69030.3       10148 µg/L           6.5       10148 ppb            6.5   0.06%
   QC value within limits for Na 589.592 Radial  Recovery = 101.48%
Ni 231.604†            41213.4      497.42 µg/L         1.193      497.42 ppb          1.193   0.24%
   QC value within limits for Ni 231.604  Recovery = 99.48%
P 214.914†             11117.4      2484.8 µg/L          6.55      2484.8 ppb           6.55   0.26%
   QC value within limits for P 214.914  Recovery = 99.39%
Pb 220.353†             8695.2      510.92 µg/L         2.191      510.92 ppb          2.191   0.43%
   QC value within limits for Pb 220.353  Recovery = 102.18%
S 181.975 Axial†        1309.7      1040.5 µg/L          8.78      1040.5 ppb           8.78   0.84%
   QC value within limits for S 181.975 Axial  Recovery = 104.05%
Sb 206.836†             3982.4      501.33 µg/L         0.350      501.33 ppb          0.350   0.07%
   QC value within limits for Sb 206.836  Recovery = 100.27%
Se 196.026†             1313.1         502 µg/L           4.3         502 ppb            4.3   0.85%
   QC value within limits for Se 196.026  Recovery = 100.49%
SiO2†                  51412.1      5350.4 µg/L          6.21      5350.4 ppb           6.21   0.12%
   QC value within limits for SiO2  Recovery = 100.05%
Si 251.611†           160152.7      2503.7 µg/L          3.89      2503.7 ppb           3.89   0.16%
   QC value within limits for Si 251.611  Recovery = 100.15%
Sn 189.927†             7607.4      505.36 µg/L         1.153      505.36 ppb          1.153   0.23%
   QC value within limits for Sn 189.927  Recovery = 101.07%
Sr 421.552†           224595.2      498.82 µg/L         7.247      498.82 ppb          7.247   1.45%
   QC value within limits for Sr 421.552  Recovery = 99.76%
Ti 334.940†           507398.9      499.89 µg/L         0.724      499.89 ppb          0.724   0.14%
   QC value within limits for Ti 334.940  Recovery = 99.98%
Tl 190.801†             3874.2      508.73 µg/L         1.748      508.73 ppb          1.748   0.34%
   QC value within limits for Tl 190.801  Recovery = 101.75%
U 409.014†              7328.8      472.27 µg/L         7.854      472.27 ppb          7.854   1.66%
   QC value within limits for U 409.014  Recovery = 94.45%
V 292.402†             96958.3      500.70 µg/L         0.400      500.70 ppb          0.400   0.08%
   QC value within limits for V 292.402  Recovery = 100.14%
Zn 213.857†            85448.1      498.88 µg/L         1.457      498.88 ppb          1.457   0.29%
   QC value within limits for Zn 213.857  Recovery = 99.78%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 12:45:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142944.3	142944.3	99.2	%			12:45:41
1	Al 396.153Radial†	-25.0	43.7	8.6429	µg/L	8.6429	ppb	12:46:01
1	Ca 317.933Radial†	730.9	187.0	11.477	µg/L	11.477	ppb	12:46:01
1	Fe 238.204 Radial†	284.5	151.6	10.229	µg/L	10.229	ppb	12:46:01
1	K 766.490 Radial†	2417.8	879.7	339.09	µg/L	339.09	ppb	12:45:41
1	Mg 279.077 IEC†	201.5	38.0	15.748	µg/L	15.748	ppb	12:46:01
1	Na 589.592 Radial†	2273.7	1035.2	151.96	µg/L	151.96	ppb	12:45:41
1	Sr 421.552†	-51.2	158.2	0.3513	µg/L	0.3513	ppb	12:45:41
1	Sc 361.383	1754685.9	1754685.9	99.876	%			12:46:49
1	Y 371.029	1045987.5	1045987.5	99.867	%			12:46:49
1	Ag 328.068†	3627.2	-183.1	-0.7126	µg/L	-0.7126	ppb	12:46:51
1	As 188.979†	-16.3	5.4	1.7332	µg/L	1.7332	ppb	12:47:11
1	B 249.677†	3798.1	343.5	5.2912	µg/L	5.2912	ppb	12:46:51
1	Ba 233.527†	-61.8	90.9	0.3866	µg/L	0.3866	ppb	12:47:11
1	Be 313.107†	-655.9	320.2	0.0900	µg/L	0.0900	ppb	12:46:51
1	Cd 226.502†	-67.1	38.6	0.2523	µg/L	0.2523	ppb	12:47:11
1	Co 228.616†	-165.7	23.6	0.3047	µg/L	0.3047	ppb	12:47:11
1	Cr 267.716†	263.6	87.3	0.7235	µg/L	0.7235	ppb	12:47:11
1	Cu 324.752†	3025.2	170.0	0.6883	µg/L	0.6883	ppb	12:46:51
1	Mn 257.610†	415.6	205.6	0.2653	µg/L	0.2653	ppb	12:47:11
1	Mo 202.031†	0.3	43.0	1.3376	µg/L	1.3376	ppb	12:47:11
1	Ni 231.604†	-71.0	9.1	0.1102	µg/L	0.1102	ppb	12:47:11
1	P 214.914†	-24.1	-24.6	-5.5274	µg/L	-5.5274	ppb	12:47:11
1	Pb 220.353†	112.6	45.1	2.6473	µg/L	2.6473	ppb	12:47:11
1	S 181.975 Axial†	118.5	13.5	10.686	µg/L	10.686	ppb	12:47:11
1	Sb 206.836†	76.9	-2.0	-0.2434	µg/L	-0.2434	ppb	12:47:11
1	Se 196.026†	28.0	13.3	5.05	µg/L	5.05	ppb	12:47:11
1	SiO2†	1824.8	76.2	7.9070	µg/L	7.9070	ppb	12:47:11
1	Si 251.611†	986.2	199.9	3.1100	µg/L	3.1100	ppb	12:46:51
1	Sn 189.927†	18.3	21.5	1.4246	µg/L	1.4246	ppb	12:47:11
1	Ti 334.940†	987.6	52.0	0.0518	µg/L	0.0518	ppb	12:46:51
1	Tl 190.801†	-104.6	10.9	1.4130	µg/L	1.4130	ppb	12:47:11
1	U 409.014†	-330.3	-66.2	-3.9555	µg/L	-3.9555	ppb	12:46:51
1	V 292.402†	493.1	138.3	0.7177	µg/L	0.7177	ppb	12:46:51
1	Zn 213.857†	843.2	331.5	1.9487	µg/L	1.9487	ppb	12:47:11
2	Sc RADIAL	143140.3	143140.3	99.3	%			12:46:03
2	Al 396.153Radial†	-25.0	43.7	8.6547	µg/L	8.6547	ppb	12:46:23
2	Ca 317.933Radial†	661.6	116.1	7.1277	µg/L	7.1277	ppb	12:46:23
2	Fe 238.204 Radial†	246.3	112.7	7.6084	µg/L	7.6084	ppb	12:46:23
2	K 766.490 Radial†	2368.3	826.6	318.61	µg/L	318.61	ppb	12:46:03
2	Mg 279.077 IEC†	237.4	73.9	30.622	µg/L	30.622	ppb	12:46:23
2	Na 589.592 Radial†	2092.3	849.4	124.65	µg/L	124.65	ppb	12:46:03
2	Sr 421.552†	-123.3	85.7	0.1903	µg/L	0.1903	ppb	12:46:03
2	Sc 361.383	1751606.8	1751606.8	99.701	%			12:47:13
2	Y 371.029	1043193.2	1043193.2	99.600	%			12:47:13
2	Ag 328.068†	4044.1	241.5	0.9469	µg/L	0.9469	ppb	12:47:15
2	As 188.979†	-22.4	-0.8	-0.2381	µg/L	-0.2381	ppb	12:47:36
2	B 249.677†	3771.4	323.3	4.9814	µg/L	4.9814	ppb	12:47:15
2	Ba 233.527†	-85.0	67.5	0.2866	µg/L	0.2866	ppb	12:47:36
2	Be 313.107†	-552.0	423.2	0.1216	µg/L	0.1216	ppb	12:47:15
2	Cd 226.502†	-52.4	53.3	0.3489	µg/L	0.3489	ppb	12:47:36
2	Co 228.616†	-182.4	6.6	0.0853	µg/L	0.0853	ppb	12:47:36
2	Cr 267.716†	226.0	50.1	0.4101	µg/L	0.4101	ppb	12:47:36
2	Cu 324.752†	3156.2	306.7	1.2485	µg/L	1.2485	ppb	12:47:15
2	Mn 257.610†	343.5	134.0	0.1721	µg/L	0.1721	ppb	12:47:36
2	Mo 202.031†	-5.4	37.3	1.1613	µg/L	1.1613	ppb	12:47:36
2	Ni 231.604†	-68.5	11.5	0.1391	µg/L	0.1391	ppb	12:47:36
2	P 214.914†	2.0	1.6	0.3465	µg/L	0.3465	ppb	12:47:36
2	Pb 220.353†	122.2	54.9	3.2156	µg/L	3.2156	ppb	12:47:36

2	S 181.975 Axial†	118.9	14.1	11.164 µg/L	11.164 ppb	12:47:36
2	Sb 206.836†	91.7	13.0	1.6439 µg/L	1.6439 ppb	12:47:36
2	Se 196.026†	23.8	9.1	3.46 µg/L	3.46 ppb	12:47:36
2	SiO2†	1790.2	44.8	4.6346 µg/L	4.6346 ppb	12:47:36
2	Si 251.611†	983.5	199.0	3.1010 µg/L	3.1010 ppb	12:47:15
2	Sn 189.927†	12.4	15.7	1.0381 µg/L	1.0381 ppb	12:47:36
2	Ti 334.940†	1171.9	238.6	0.2316 µg/L	0.2316 ppb	12:47:15
2	Tl 190.801†	-112.5	2.8	0.3657 µg/L	0.3657 ppb	12:47:36
2	U 409.014†	-207.3	56.6	3.4074 µg/L	3.4074 ppb	12:47:15
2	V 292.402†	339.4	-15.0	-0.0615 µg/L	-0.0615 ppb	12:47:15
2	Zn 213.857†	802.1	291.8	1.7149 µg/L	1.7149 ppb	12:47:36
3	Sc RADIAL	143441.7	143441.7	99.5 %		12:46:25
3	Al 396.153Radial†	-34.1	34.6	6.8595 µg/L	6.8595 ppb	12:46:45
3	Ca 317.933Radial†	656.4	109.5	6.7234 µg/L	6.7234 ppb	12:46:45
3	Fe 238.204 Radial†	214.0	79.7	5.3816 µg/L	5.3816 ppb	12:46:45
3	K 766.490 Radial†	2065.1	516.8	199.21 µg/L	199.21 ppb	12:46:25
3	Mg 279.077 IEC†	182.6	18.3	7.5819 µg/L	7.5819 ppb	12:46:45
3	Na 589.592 Radial†	2069.6	822.2	120.75 µg/L	120.75 ppb	12:46:25
3	Sr 421.552†	-90.3	119.1	0.2644 µg/L	0.2644 ppb	12:46:25
3	Sc 361.383	1772962.6	1772962.6	100.92 %		12:47:38
3	Y 371.029	1056495.8	1056495.8	100.87 %		12:47:38
3	Ag 328.068†	3751.9	-96.9	-0.3836 µg/L	-0.3836 ppb	12:47:40
3	As 188.979†	-26.9	-4.9	-1.5794 µg/L	-1.5794 ppb	12:48:00
3	B 249.677†	3641.3	148.9	2.2936 µg/L	2.2936 ppb	12:47:40
3	Ba 233.527†	-104.3	49.5	0.2099 µg/L	0.2099 ppb	12:48:00
3	Be 313.107†	-783.6	200.4	0.0567 µg/L	0.0567 ppb	12:47:40
3	Cd 226.502†	-41.2	65.0	0.4261 µg/L	0.4261 ppb	12:48:00
3	Co 228.616†	-173.3	17.8	0.2301 µg/L	0.2301 ppb	12:48:00
3	Cr 267.716†	220.9	42.3	0.3498 µg/L	0.3498 ppb	12:48:00
3	Cu 324.752†	2985.2	99.2	0.4021 µg/L	0.4021 ppb	12:47:40
3	Mn 257.610†	368.8	154.8	0.2000 µg/L	0.2000 ppb	12:48:00
3	Mo 202.031†	-18.3	24.6	0.7661 µg/L	0.7661 ppb	12:48:00
3	Ni 231.604†	-42.4	38.3	0.4622 µg/L	0.4622 ppb	12:48:00
3	P 214.914†	-3.0	-3.4	-0.7745 µg/L	-0.7745 ppb	12:48:00
3	Pb 220.353†	139.5	70.6	4.1397 µg/L	4.1397 ppb	12:48:00
3	S 181.975 Axial†	118.7	12.5	9.8641 µg/L	9.8641 ppb	12:48:00
3	Sb 206.836†	80.4	0.7	0.0940 µg/L	0.0940 ppb	12:48:00
3	Se 196.026†	21.3	6.3	2.41 µg/L	2.41 ppb	12:48:00
3	SiO2†	1770.2	3.3	0.3058 µg/L	0.3058 ppb	12:48:00
3	Si 251.611†	949.4	153.3	2.3882 µg/L	2.3882 ppb	12:47:40
3	Sn 189.927†	13.5	16.6	1.0985 µg/L	1.0985 ppb	12:48:00
3	Ti 334.940†	1125.4	178.4	0.1760 µg/L	0.1760 ppb	12:47:40
3	Tl 190.801†	-107.6	9.0	1.1673 µg/L	1.1673 ppb	12:48:00
3	U 409.014†	-290.1	-23.0	-1.4002 µg/L	-1.4002 ppb	12:47:40
3	V 292.402†	312.8	-45.5	-0.2239 µg/L	-0.2239 ppb	12:47:40
3	Zn 213.857†	760.0	240.5	1.4114 µg/L	1.4114 ppb	12:48:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1759751.8	100.16	%	0.657				0.66%
Sc RADIAL	143175.4	99.3	%	0.17				0.17%
Y 371.029	1048558.8	100.11	%	0.670				0.67%
Ag 328.068†	-12.9	-0.0498	µg/L	0.87866	-0.0498	ppb	0.87866	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	40.7	8.0524	µg/L	1.03305	8.0524	ppb	1.03305	12.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.0281	µg/L	1.66626	-0.0281	ppb	1.66626	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	271.9	4.1887	µg/L	1.64851	4.1887	ppb	1.64851	39.36%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	69.3	0.2943	µg/L	0.08863	0.2943	ppb	0.08863	30.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	314.6	0.0894	µg/L	0.03246	0.0894	ppb	0.03246	36.31%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	137.5	8.4428	µg/L	2.63577	8.4428	ppb	2.63577	31.22%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	52.3	0.3424	µg/L	0.08706	0.3424	ppb	0.08706	25.42%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	16.0	0.2067	µg/L	0.11158	0.2067	ppb	0.11158	53.98%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              59.9      0.4945 µg/L       0.20063      0.4945 ppb        0.20063  40.57%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             192.0      0.7796 µg/L       0.43054      0.7796 ppb        0.43054  55.22%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      114.7      7.7396 µg/L       2.42631      7.7396 ppb        2.42631  31.35%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       741.0      285.64 µg/L        75.549      285.64 ppb         75.549  26.45%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          43.4      17.984 µg/L       11.6814      17.984 ppb        11.6814  64.96%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             164.8      0.2124 µg/L       0.04782      0.2124 ppb        0.04782  22.51%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              35.0      1.0884 µg/L       0.29265      1.0884 ppb        0.29265  26.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      902.3      132.45 µg/L        17.005      132.45 ppb         17.005  12.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              19.6      0.2371 µg/L       0.19543      0.2371 ppb        0.19543  82.41%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.8     -1.9851 µg/L       3.11848     -1.9851 ppb        3.11848 157.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              56.9      3.3342 µg/L       0.75323      3.3342 ppb        0.75323  22.59%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         13.3      10.571 µg/L        0.6572      10.571 ppb         0.6572   6.22%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.9      0.4982 µg/L       1.00647      0.4982 ppb        1.00647 202.04%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               9.5        3.64 µg/L         1.332        3.64 ppb          1.332  36.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    41.4      4.2825 µg/L       3.81282      4.2825 ppb        3.81282  89.03%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             184.0      2.8664 µg/L       0.41418      2.8664 ppb        0.41418  14.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              17.9      1.1871 µg/L       0.20796      1.1871 ppb        0.20796  17.52%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             121.0      0.2687 µg/L       0.08063      0.2687 ppb        0.08063  30.01%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             156.4      0.1531 µg/L       0.09206      0.1531 ppb        0.09206  60.13%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.6      0.9820 µg/L       0.54771      0.9820 ppb        0.54771  55.77%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -10.9     -0.6495 µg/L       3.73839     -0.6495 ppb        3.73839 575.62%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               25.9      0.1441 µg/L       0.50333      0.1441 ppb        0.50333 349.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             287.9      1.6917 µg/L       0.26943      1.6917 ppb        0.26943  15.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

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Analysis Begun

Start Time: 4/1/2010 12:50:00 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040110.sif
Batch ID:
Results Data Set: 040110
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 4/1/2010 12:23:50**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/1/2010 12:50:03**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142821.4	142821.4	99.1	%			12:50:35
1	Al 396.153Radial†	25184.5	25487.3	5054.7	µg/L	5054.7	ppb	12:50:35
1	Ca 317.933Radial†	82995.9	83216.7	5108.1	µg/L	5108.1	ppb	12:50:35
1	Fe 238.204 Radial†	74381.4	74936.9	5057.4	µg/L	5057.4	ppb	12:50:35

1	K 766.490 Radial†	14498.5	13074.8	5036.2 µg/L	5036.2 ppb	12:50:35
1	Mg 279.077 IEC†	12595.9	12547.7	5203.1 µg/L	5203.1 ppb	12:50:35
1	Na 589.592 Radial†	68790.7	68172.0	10023 µg/L	10023 ppb	12:50:35
1	Sr 421.552†	220304.1	222560.0	494.30 µg/L	494.30 ppb	12:50:33
1	Sc 361.383	1744182.4	1744182.4	99.278 %		12:51:01
1	Y 371.029	1028077.5	1028077.5	98.157 %		12:51:01
1	Ag 328.068†	129483.3	126609.8	501.08 µg/L	501.08 ppb	12:51:01
1	As 188.979†	1506.7	1539.3	501.18 µg/L	501.18 ppb	12:51:21
1	B 249.677†	35169.8	31966.2	490.82 µg/L	490.82 ppb	12:51:01
1	Ba 233.527†	115961.2	116957.0	496.63 µg/L	496.63 ppb	12:51:01
1	Be 313.107†	1727458.9	1740994.7	495.95 µg/L	495.95 ppb	12:51:01
1	Cd 226.502†	75162.8	75815.1	497.29 µg/L	497.29 ppb	12:51:01
1	Co 228.616†	38127.1	38593.8	498.79 µg/L	498.79 ppb	12:51:01
1	Cr 267.716†	59788.2	60046.3	494.83 µg/L	494.83 ppb	12:51:01
1	Cu 324.752†	123655.8	121695.8	495.04 µg/L	495.04 ppb	12:51:01
1	Mn 257.610†	382771.5	385343.8	498.26 µg/L	498.26 ppb	12:51:01
1	Mo 202.031†	15911.1	16069.5	499.87 µg/L	499.87 ppb	12:51:21
1	Ni 231.604†	40829.8	41206.9	497.35 µg/L	497.35 ppb	12:51:01
1	P 214.914†	11015.0	11094.7	2479.8 µg/L	2479.8 ppb	12:51:21
1	Pb 220.353†	8602.1	8597.0	505.14 µg/L	505.14 ppb	12:51:21
1	S 181.975 Axial†	1382.3	1287.2	1022.7 µg/L	1022.7 ppb	12:51:21
1	Sb 206.836†	4051.3	4001.7	503.74 µg/L	503.74 ppb	12:51:21
1	Se 196.026†	1320.3	1315.1	503 µg/L	503 ppb	12:51:21
1	SiO2†	52535.4	51166.6	5324.9 µg/L	5324.9 ppb	12:51:01
1	Si 251.611†	159046.9	159415.7	2492.2 µg/L	2492.2 ppb	12:51:01
1	Sn 189.927†	7502.0	7559.8	502.20 µg/L	502.20 ppb	12:51:21
1	Ti 334.940†	502351.6	505067.0	497.58 µg/L	497.58 ppb	12:51:01
1	Tl 190.801†	3729.7	3872.4	508.47 µg/L	508.47 ppb	12:51:21
1	U 409.014†	7328.0	7645.8	491.31 µg/L	491.31 ppb	12:51:01
1	V 292.402†	96351.5	96696.6	499.32 µg/L	499.32 ppb	12:51:01
1	Zn 213.857†	84552.5	84654.5	494.21 µg/L	494.21 ppb	12:51:01
2	Sc RADIAL	145154.5	145154.5	101 %		12:50:39
2	Al 396.153Radial†	25528.3	25420.2	5041.2 µg/L	5041.2 ppb	12:50:39
2	Ca 317.933Radial†	84323.3	83188.4	5106.4 µg/L	5106.4 ppb	12:50:39
2	Fe 238.204 Radial†	75437.1	74778.6	5046.7 µg/L	5046.7 ppb	12:50:39
2	K 766.490 Radial†	14785.4	13124.5	5055.3 µg/L	5055.3 ppb	12:50:39
2	Mg 279.077 IEC†	12840.0	12585.7	5219.0 µg/L	5219.0 ppb	12:50:39
2	Na 589.592 Radial†	69832.5	68090.6	10011 µg/L	10011 ppb	12:50:39
2	Sr 421.552†	222708.8	221374.2	491.66 µg/L	491.66 ppb	12:50:37
2	Sc 361.383	1748472.5	1748472.5	99.522 %		12:51:25
2	Y 371.029	1030710.1	1030710.1	98.408 %		12:51:25
2	Ag 328.068†	130182.7	126992.6	502.57 µg/L	502.57 ppb	12:51:25
2	As 188.979†	1521.9	1550.9	504.90 µg/L	504.90 ppb	12:51:45
2	B 249.677†	35518.4	32229.5	494.87 µg/L	494.87 ppb	12:51:25
2	Ba 233.527†	116432.4	117143.9	497.43 µg/L	497.43 ppb	12:51:25
2	Be 313.107†	1734887.6	1744189.6	496.86 µg/L	496.86 ppb	12:51:25
2	Cd 226.502†	75743.8	76213.1	499.90 µg/L	499.90 ppb	12:51:25
2	Co 228.616†	38353.4	38726.9	500.51 µg/L	500.51 ppb	12:51:25
2	Cr 267.716†	60075.8	60187.5	496.00 µg/L	496.00 ppb	12:51:25
2	Cu 324.752†	123966.5	121702.5	495.06 µg/L	495.06 ppb	12:51:25
2	Mn 257.610†	384036.7	385669.0	498.68 µg/L	498.68 ppb	12:51:25
2	Mo 202.031†	16041.7	16161.4	502.73 µg/L	502.73 ppb	12:51:45
2	Ni 231.604†	40805.9	41082.0	495.84 µg/L	495.84 ppb	12:51:25
2	P 214.914†	11143.6	11196.7	2502.6 µg/L	2502.6 ppb	12:51:45
2	Pb 220.353†	8620.6	8594.4	505.00 µg/L	505.00 ppb	12:51:45
2	S 181.975 Axial†	1388.6	1290.0	1024.9 µg/L	1024.9 ppb	12:51:45
2	Sb 206.836†	4044.4	3984.8	501.64 µg/L	501.64 ppb	12:51:45
2	Se 196.026†	1339.9	1331.6	510 µg/L	510 ppb	12:51:45
2	SiO2†	52611.8	51113.5	5319.3 µg/L	5319.3 ppb	12:51:25
2	Si 251.611†	159613.3	159591.7	2494.9 µg/L	2494.9 ppb	12:51:25
2	Sn 189.927†	7569.8	7609.4	505.48 µg/L	505.48 ppb	12:51:45
2	Ti 334.940†	504112.4	505594.7	498.11 µg/L	498.11 ppb	12:51:25
2	Tl 190.801†	3740.8	3874.4	508.72 µg/L	508.72 ppb	12:51:45
2	U 409.014†	7273.4	7572.7	486.87 µg/L	486.87 ppb	12:51:25
2	V 292.402†	96454.7	96562.1	498.67 µg/L	498.67 ppb	12:51:25
2	Zn 213.857†	84760.7	84654.8	494.22 µg/L	494.22 ppb	12:51:25
3	Sc RADIAL	146581.1	146581.1	102 %		12:50:43
3	Al 396.153Radial†	25598.1	25242.1	5005.8 µg/L	5005.8 ppb	12:50:43
3	Ca 317.933Radial†	85019.0	83057.6	5098.4 µg/L	5098.4 ppb	12:50:43
3	Fe 238.204 Radial†	76165.0	74765.4	5045.8 µg/L	5045.8 ppb	12:50:43
3	K 766.490 Radial†	15024.6	13216.8	5091.0 µg/L	5091.0 ppb	12:50:43

3	Mg 279.077 IEC†	12912.9	12533.4	5197.3 µg/L	5197.3 ppb	12:50:43
3	Na 589.592 Radial†	70211.5	67788.3	9966.1 µg/L	9966.1 ppb	12:50:43
3	Sr 421.552†	223291.4	219794.7	488.15 µg/L	488.15 ppb	12:50:41
3	Sc 361.383	1745656.7	1745656.7	99.362 %		12:51:48
3	Y 371.029	1028700.4	1028700.4	98.216 %		12:51:48
3	Ag 328.068†	129782.0	126800.4	501.82 µg/L	501.82 ppb	12:51:48
3	As 188.979†	1515.8	1547.2	503.71 µg/L	503.71 ppb	12:52:08
3	B 249.677†	35382.9	32150.6	493.65 µg/L	493.65 ppb	12:51:48
3	Ba 233.527†	116305.7	117205.1	497.69 µg/L	497.69 ppb	12:51:48
3	Be 313.107†	1734996.5	1747111.1	497.69 µg/L	497.69 ppb	12:51:48
3	Cd 226.502†	75729.9	76321.9	500.62 µg/L	500.62 ppb	12:51:48
3	Co 228.616†	38327.1	38762.6	500.97 µg/L	500.97 ppb	12:51:48
3	Cr 267.716†	59956.9	60165.2	495.82 µg/L	495.82 ppb	12:51:48
3	Cu 324.752†	123787.4	121723.1	495.14 µg/L	495.14 ppb	12:51:48
3	Mn 257.610†	383884.9	386138.6	499.29 µg/L	499.29 ppb	12:51:48
3	Mo 202.031†	15993.8	16139.2	502.04 µg/L	502.04 ppb	12:52:08
3	Ni 231.604†	40905.2	41248.1	497.84 µg/L	497.84 ppb	12:51:48
3	P 214.914†	11052.2	11122.8	2486.1 µg/L	2486.1 ppb	12:52:08
3	Pb 220.353†	8605.3	8592.9	504.91 µg/L	504.91 ppb	12:52:08
3	S 181.975 Axial†	1369.9	1273.5	1011.9 µg/L	1011.9 ppb	12:52:08
3	Sb 206.836†	4027.8	3974.6	500.35 µg/L	500.35 ppb	12:52:08
3	Se 196.026†	1315.4	1309.0	501 µg/L	501 ppb	12:52:08
3	SiO2†	52607.1	51194.0	5327.7 µg/L	5327.7 ppb	12:51:48
3	Si 251.611†	159569.4	159806.3	2498.3 µg/L	2498.3 ppb	12:51:48
3	Sn 189.927†	7559.7	7611.5	505.62 µg/L	505.62 ppb	12:52:08
3	Ti 334.940†	503546.7	505842.4	498.35 µg/L	498.35 ppb	12:51:48
3	Tl 190.801†	3727.1	3866.7	507.73 µg/L	507.73 ppb	12:52:08
3	U 409.014†	7168.4	7478.9	481.26 µg/L	481.26 ppb	12:51:48
3	V 292.402†	96484.8	96748.8	499.61 µg/L	499.61 ppb	12:51:48
3	Zn 213.857†	84955.8	84988.5	496.17 µg/L	496.17 ppb	12:51:48

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1746103.9	99.388	%	0.1241				0.12%
Sc RADIAL	144852.3	100	%	1.3				1.31%
Y 371.029	1029162.7	98.261	%	0.1314				0.13%
Ag 328.068†	126801.0	501.82	µg/L	0.741	501.82	ppb	0.741	0.15%
QC value within limits for Ag 328.068 Recovery = 100.36%								
Al 396.153Radial†	25383.2	5033.9	µg/L	25.28	5033.9	ppb	25.28	0.50%
QC value within limits for Al 396.153Radial Recovery = 100.68%								
As 188.979†	1545.8	503.26	µg/L	1.902	503.26	ppb	1.902	0.38%
QC value within limits for As 188.979 Recovery = 100.65%								
B 249.677†	32115.4	493.11	µg/L	2.079	493.11	ppb	2.079	0.42%
QC value within limits for B 249.677 Recovery = 98.62%								
Ba 233.527†	117102.0	497.25	µg/L	0.549	497.25	ppb	0.549	0.11%
QC value within limits for Ba 233.527 Recovery = 99.45%								
Be 313.107†	1744098.5	496.83	µg/L	0.870	496.83	ppb	0.870	0.18%
QC value within limits for Be 313.107 Recovery = 99.37%								
Ca 317.933Radial†	83154.2	5104.3	µg/L	5.21	5104.3	ppb	5.21	0.10%
QC value within limits for Ca 317.933Radial Recovery = 102.09%								
Cd 226.502†	76116.7	499.27	µg/L	1.752	499.27	ppb	1.752	0.35%
QC value within limits for Cd 226.502 Recovery = 99.85%								
Co 228.616†	38694.5	500.09	µg/L	1.150	500.09	ppb	1.150	0.23%
QC value within limits for Co 228.616 Recovery = 100.02%								
Cr 267.716†	60133.0	495.55	µg/L	0.628	495.55	ppb	0.628	0.13%
QC value within limits for Cr 267.716 Recovery = 99.11%								
Cu 324.752†	121707.1	495.08	µg/L	0.053	495.08	ppb	0.053	0.01%
QC value within limits for Cu 324.752 Recovery = 99.02%								
Fe 238.204 Radial†	74827.0	5050.0	µg/L	6.44	5050.0	ppb	6.44	0.13%
QC value within limits for Fe 238.204 Radial Recovery = 101.00%								
K 766.490 Radial†	13138.7	5060.8	µg/L	27.80	5060.8	ppb	27.80	0.55%
QC value within limits for K 766.490 Radial Recovery = 101.22%								
Mg 279.077 IEC†	12555.6	5206.5	µg/L	11.22	5206.5	ppb	11.22	0.22%
QC value within limits for Mg 279.077 IEC Recovery = 104.13%								
Mn 257.610†	385717.1	498.74	µg/L	0.517	498.74	ppb	0.517	0.10%
QC value within limits for Mn 257.610 Recovery = 99.75%								
Mo 202.031†	16123.4	501.55	µg/L	1.490	501.55	ppb	1.490	0.30%
QC value within limits for Mo 202.031 Recovery = 100.31%								
Na 589.592 Radial†	68016.9	9999.7	µg/L	29.76	9999.7	ppb	29.76	0.30%

```
   QC value within limits for Na 589.592 Radial  Recovery = 100.00%
Ni 231.604†            41179.0      497.01 µg/L         1.044      497.01 ppb          1.044   0.21%
   QC value within limits for Ni 231.604  Recovery = 99.40%
P 214.914†             11138.0      2489.5 µg/L         11.82      2489.5 ppb          11.82   0.47%
   QC value within limits for P 214.914  Recovery = 99.58%
Pb 220.353†             8594.7      505.02 µg/L         0.116      505.02 ppb          0.116   0.02%
   QC value within limits for Pb 220.353  Recovery = 101.00%
S 181.975 Axial†        1283.6      1019.8 µg/L          6.98      1019.8 ppb           6.98   0.68%
   QC value within limits for S 181.975 Axial  Recovery = 101.98%
Sb 206.836†             3987.1      501.91 µg/L         1.709      501.91 ppb          1.709   0.34%
   QC value within limits for Sb 206.836  Recovery = 100.38%
Se 196.026†             1318.6         505 µg/L           4.4         505 ppb            4.4   0.88%
   QC value within limits for Se 196.026  Recovery = 100.91%
SiO2†                  51158.0      5324.0 µg/L          4.30      5324.0 ppb           4.30   0.08%
   QC value within limits for SiO2  Recovery = 99.56%
Si 251.611†           159604.6      2495.1 µg/L          3.05      2495.1 ppb           3.05   0.12%
   QC value within limits for Si 251.611  Recovery = 99.80%
Sn 189.927†             7593.5      504.43 µg/L         1.938      504.43 ppb          1.938   0.38%
   QC value within limits for Sn 189.927  Recovery = 100.89%
Sr 421.552†           221243.0      491.37 µg/L         3.081      491.37 ppb          3.081   0.63%
   QC value within limits for Sr 421.552  Recovery = 98.27%
Ti 334.940†           505501.4      498.01 µg/L         0.392      498.01 ppb          0.392   0.08%
   QC value within limits for Ti 334.940  Recovery = 99.60%
Tl 190.801†             3871.2      508.30 µg/L         0.513      508.30 ppb          0.513   0.10%
   QC value within limits for Tl 190.801  Recovery = 101.66%
U 409.014†              7565.8      486.48 µg/L         5.033      486.48 ppb          5.033   1.03%
   QC value within limits for U 409.014  Recovery = 97.30%
V 292.402†             96669.1      499.20 µg/L         0.481      499.20 ppb          0.481   0.10%
   QC value within limits for V 292.402  Recovery = 99.84%
Zn 213.857†            84765.9      494.87 µg/L         1.130      494.87 ppb          1.130   0.23%
   QC value within limits for Zn 213.857  Recovery = 98.97%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 12:52:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145994.0	145994.0	101	%			12:52:45
1	Al 396.153Radial†	-60.2	9.4	1.8561	µg/L	1.8561	ppb	12:53:05
1	Ca 317.933Radial†	587.8	30.2	1.8551	µg/L	1.8551	ppb	12:53:05
1	Fe 238.204 Radial†	180.9	43.3	2.9256	µg/L	2.9256	ppb	12:53:05
1	K 766.490 Radial†	1866.7	284.7	109.73	µg/L	109.73	ppb	12:52:45
1	Mg 279.077 IEC†	170.6	3.2	1.3518	µg/L	1.3518	ppb	12:53:05
1	Na 589.592 Radial†	1620.9	342.8	50.323	µg/L	50.323	ppb	12:52:45
1	Sr 421.552†	-91.5	119.5	0.2654	µg/L	0.2654	ppb	12:52:45
1	Sc 361.383	1807425.5	1807425.5	102.88	%			12:54:07
1	Y 371.029	1075489.5	1075489.5	102.68	%			12:54:07
1	Ag 328.068†	4301.0	365.9	1.4358	µg/L	1.4358	ppb	12:54:09
1	As 188.979†	-19.5	2.7	0.8861	µg/L	0.8861	ppb	12:54:29
1	B 249.677†	3694.7	132.0	2.0331	µg/L	2.0331	ppb	12:54:09
1	Ba 233.527†	-135.9	20.7	0.0879	µg/L	0.0879	ppb	12:54:29
1	Be 313.107†	-764.0	234.3	0.0677	µg/L	0.0677	ppb	12:54:09
1	Cd 226.502†	-77.7	30.3	0.1985	µg/L	0.1985	ppb	12:54:29
1	Co 228.616†	-171.0	23.3	0.3010	µg/L	0.3010	ppb	12:54:29
1	Cr 267.716†	219.7	37.0	0.3022	µg/L	0.3022	ppb	12:54:29
1	Cu 324.752†	2844.2	-94.3	-0.3790	µg/L	-0.3790	ppb	12:54:09
1	Mn 257.610†	285.4	66.9	0.0864	µg/L	0.0864	ppb	12:54:29
1	Mo 202.031†	-27.6	15.9	0.4945	µg/L	0.4945	ppb	12:54:29
1	Ni 231.604†	-60.3	21.6	0.2609	µg/L	0.2609	ppb	12:54:29
1	P 214.914†	-4.9	-5.2	-1.1483	µg/L	-1.1483	ppb	12:54:29
1	Pb 220.353†	131.6	60.3	3.5308	µg/L	3.5308	ppb	12:54:29
1	S 181.975 Axial†	95.4	-12.4	-9.8067	µg/L	-9.8067	ppb	12:54:29
1	Sb 206.836†	85.8	4.4	0.5612	µg/L	0.5612	ppb	12:54:29
1	Se 196.026†	12.6	-2.5	-0.957	µg/L	-0.957	ppb	12:54:29
1	SiO2†	1770.3	-30.1	-3.1718	µg/L	-3.1718	ppb	12:54:09
1	Si 251.611†	912.3	99.2	1.5431	µg/L	1.5431	ppb	12:54:09
1	Sn 189.927†	15.1	18.0	1.1882	µg/L	1.1882	ppb	12:54:29
1	Ti 334.940†	874.7	-86.6	-0.0869	µg/L	-0.0869	ppb	12:54:09
1	Tl 190.801†	-116.6	2.2	0.2890	µg/L	0.2890	ppb	12:54:29
1	U 409.014†	-214.0	56.5	3.4144	µg/L	3.4144	ppb	12:54:09
1	V 292.402†	393.2	26.8	0.1451	µg/L	0.1451	ppb	12:54:09
1	Zn 213.857†	645.1	114.4	0.6716	µg/L	0.6716	ppb	12:54:29
2	Sc RADIAL	146319.5	146319.5	102	%			12:53:07
2	Al 396.153Radial†	-53.7	16.0	3.1561	µg/L	3.1561	ppb	12:53:27
2	Ca 317.933Radial†	588.3	29.4	1.8068	µg/L	1.8068	ppb	12:53:27
2	Fe 238.204 Radial†	161.4	23.7	1.5969	µg/L	1.5969	ppb	12:53:27
2	K 766.490 Radial†	1830.9	245.3	94.571	µg/L	94.571	ppb	12:53:07
2	Mg 279.077 IEC†	187.3	19.3	8.0027	µg/L	8.0027	ppb	12:53:27
2	Na 589.592 Radial†	1665.7	383.4	56.306	µg/L	56.306	ppb	12:53:07
2	Sr 421.552†	-126.4	85.3	0.1894	µg/L	0.1894	ppb	12:53:07
2	Sc 361.383	1784630.3	1784630.3	101.58	%			12:54:31
2	Y 371.029	1061902.3	1061902.3	101.39	%			12:54:31
2	Ag 328.068†	4173.0	293.3	1.1431	µg/L	1.1431	ppb	12:54:34
2	As 188.979†	-12.6	9.2	2.9672	µg/L	2.9672	ppb	12:54:54
2	B 249.677†	3631.7	115.9	1.7851	µg/L	1.7851	ppb	12:54:34
2	Ba 233.527†	-142.1	12.9	0.0549	µg/L	0.0549	ppb	12:54:54
2	Be 313.107†	-695.7	292.0	0.0818	µg/L	0.0818	ppb	12:54:34
2	Cd 226.502†	-119.7	-12.0	-0.0791	µg/L	-0.0791	ppb	12:54:54
2	Co 228.616†	-193.1	-0.6	-0.0074	µg/L	-0.0074	ppb	12:54:54
2	Cr 267.716†	188.1	8.6	0.0743	µg/L	0.0743	ppb	12:54:54
2	Cu 324.752†	2922.2	17.8	0.0690	µg/L	0.0690	ppb	12:54:34
2	Mn 257.610†	287.2	72.2	0.0931	µg/L	0.0931	ppb	12:54:54
2	Mo 202.031†	-22.5	20.6	0.6413	µg/L	0.6413	ppb	12:54:54
2	Ni 231.604†	-99.2	-17.4	-0.2097	µg/L	-0.2097	ppb	12:54:54
2	P 214.914†	-14.5	-14.7	-3.2947	µg/L	-3.2947	ppb	12:54:54
2	Pb 220.353†	86.9	17.9	1.0524	µg/L	1.0524	ppb	12:54:54

2	S 181.975 Axial†	117.7	10.7	8.4453 µg/L	8.4453 ppb	12:54:54
2	Sb 206.836†	103.4	22.8	2.8735 µg/L	2.8735 ppb	12:54:54
2	Se 196.026†	12.4	-2.6	-0.986 µg/L	-0.986 ppb	12:54:54
2	SiO2†	1813.5	34.5	3.5714 µg/L	3.5714 ppb	12:54:34
2	Si 251.611†	855.4	54.6	0.8428 µg/L	0.8428 ppb	12:54:34
2	Sn 189.927†	8.5	11.6	0.7648 µg/L	0.7648 ppb	12:54:54
2	Ti 334.940†	824.2	-125.4	-0.1225 µg/L	-0.1225 ppb	12:54:34
2	Tl 190.801†	-133.3	-15.6	-2.0142 µg/L	-2.0142 ppb	12:54:54
2	U 409.014†	-344.2	-74.3	-4.4716 µg/L	-4.4716 ppb	12:54:34
2	V 292.402†	400.4	38.8	0.2014 µg/L	0.2014 ppb	12:54:34
2	Zn 213.857†	615.9	93.6	0.5520 µg/L	0.5520 ppb	12:54:54
3	Sc RADIAL	145417.0	145417.0	101 %		12:53:29
3	Al 396.153Radial†	-64.0	5.5	1.0747 µg/L	1.0747 ppb	12:53:49
3	Ca 317.933Radial†	559.4	4.4	0.2694 µg/L	0.2694 ppb	12:53:49
3	Fe 238.204 Radial†	153.4	16.7	1.1277 µg/L	1.1277 ppb	12:53:49
3	K 766.490 Radial†	1765.6	191.7	73.906 µg/L	73.906 ppb	12:53:29
3	Mg 279.077 IEC†	184.3	17.5	7.2367 µg/L	7.2367 ppb	12:53:49
3	Na 589.592 Radial†	1748.8	475.9	69.931 µg/L	69.931 ppb	12:53:29
3	Sr 421.552†	-264.1	-51.9	-0.1153 µg/L	-0.1153 ppb	12:53:29
3	Sc 361.383	1769829.8	1769829.8	100.74 %		12:54:56
3	Y 371.029	1053691.0	1053691.0	100.60 %		12:54:56
3	Ag 328.068†	4062.3	217.8	0.8301 µg/L	0.8301 ppb	12:54:58
3	As 188.979†	-13.7	8.1	2.6173 µg/L	2.6173 ppb	12:55:18
3	B 249.677†	3559.9	74.5	1.1470 µg/L	1.1470 ppb	12:54:58
3	Ba 233.527†	-151.5	2.4	0.0104 µg/L	0.0104 ppb	12:55:18
3	Be 313.107†	-835.8	147.2	0.0366 µg/L	0.0366 ppb	12:54:58
3	Cd 226.502†	-96.0	10.6	0.0693 µg/L	0.0693 ppb	12:55:18
3	Co 228.616†	-179.3	11.6	0.1494 µg/L	0.1494 ppb	12:55:18
3	Cr 267.716†	238.8	60.5	0.5124 µg/L	0.5124 ppb	12:55:18
3	Cu 324.752†	2972.4	91.7	0.3577 µg/L	0.3577 ppb	12:54:58
3	Mn 257.610†	295.2	82.5	0.1064 µg/L	0.1064 ppb	12:55:18
3	Mo 202.031†	-32.0	10.9	0.3403 µg/L	0.3403 ppb	12:55:18
3	Ni 231.604†	-64.1	16.6	0.2005 µg/L	0.2005 ppb	12:55:18
3	P 214.914†	-15.1	-15.4	-3.4567 µg/L	-3.4567 ppb	12:55:18
3	Pb 220.353†	101.6	33.2	1.9590 µg/L	1.9590 ppb	12:55:18
3	S 181.975 Axial†	120.0	14.0	11.061 µg/L	11.061 ppb	12:55:18
3	Sb 206.836†	85.3	5.7	0.7129 µg/L	0.7129 ppb	12:55:18
3	Se 196.026†	13.0	-1.9	-0.742 µg/L	-0.742 ppb	12:55:18
3	SiO2†	1788.2	24.3	2.5245 µg/L	2.5245 ppb	12:54:58
3	Si 251.611†	849.8	56.1	0.8714 µg/L	0.8714 ppb	12:54:58
3	Sn 189.927†	5.7	8.9	0.5867 µg/L	0.5867 ppb	12:55:18
3	Ti 334.940†	893.0	-50.3	-0.0432 µg/L	-0.0432 ppb	12:54:58
3	Tl 190.801†	-117.4	-0.9	-0.1226 µg/L	-0.1226 ppb	12:55:18
3	U 409.014†	-557.5	-289.0	-17.430 µg/L	-17.430 ppb	12:54:58
3	V 292.402†	361.6	3.5	0.0116 µg/L	0.0116 ppb	12:54:58
3	Zn 213.857†	647.7	130.3	0.7651 µg/L	0.7651 ppb	12:55:18

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787295.2	101.73	%	1.078				1.06%
Sc RADIAL	145910.2	101	%	0.3				0.31%
Y 371.029	1063694.3	101.56	%	1.051				1.03%
Ag 328.068†	292.3	1.1364	µg/L	0.30294	1.1364	ppb	0.30294	26.66%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.3	2.0290	µg/L	1.05140	2.0290	ppb	1.05140	51.82%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.7	2.1569	µg/L	1.11436	2.1569	ppb	1.11436	51.67%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	107.4	1.6551	µg/L	0.45713	1.6551	ppb	0.45713	27.62%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.0	0.0511	µg/L	0.03889	0.0511	ppb	0.03889	76.12%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	224.5	0.0621	µg/L	0.02311	0.0621	ppb	0.02311	37.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	21.3	1.3104	µg/L	0.90187	1.3104	ppb	0.90187	68.82%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	9.6	0.0629	µg/L	0.13893	0.0629	ppb	0.13893	220.87%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.4	0.1477	µg/L	0.15422	0.1477	ppb	0.15422	104.42%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              35.4      0.2963 µg/L       0.21911      0.2963 ppb       0.21911  73.95%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               5.1      0.0159 µg/L       0.37120      0.0159 ppb       0.37120 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       27.9      1.8834 µg/L       0.93258      1.8834 ppb       0.93258  49.52%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       240.6     92.734 µg/L      17.9803     92.734 ppb       17.9803  19.39%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          13.3      5.5304 µg/L       3.63899      5.5304 ppb       3.63899  65.80%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              73.8      0.0953 µg/L       0.01017      0.0953 ppb       0.01017  10.67%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              15.8      0.4920 µg/L       0.15048      0.4920 ppb       0.15048  30.58%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      400.7     58.854 µg/L      10.0492     58.854 ppb       10.0492  17.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               7.0      0.0839 µg/L       0.25607      0.0839 ppb       0.25607 305.23%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -11.7     -2.6332 µg/L       1.28850     -2.6332 ppb       1.28850  48.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              37.1      2.1807 µg/L       1.25397      2.1807 ppb       1.25397  57.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.1      3.2332 µg/L      11.36838      3.2332 ppb      11.36838 351.61%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              11.0      1.3825 µg/L       1.29340      1.3825 ppb       1.29340  93.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.3      -0.895 µg/L        0.1332      -0.895 ppb        0.1332  14.89%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     9.6      0.9747 µg/L       3.62892      0.9747 ppb       3.62892 372.31%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              69.9      1.0857 µg/L       0.39631      1.0857 ppb       0.39631  36.50%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              12.8      0.8466 µg/L       0.30897      0.8466 ppb       0.30897  36.50%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              51.0      0.1132 µg/L       0.20145      0.1132 ppb       0.20145 178.00%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -87.4     -0.0842 µg/L       0.03971     -0.0842 ppb       0.03971  47.14%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -4.8     -0.6159 µg/L       1.22833     -0.6159 ppb       1.22833 199.43%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -102.3     -6.1624 µg/L      10.52448     -6.1624 ppb      10.52448 170.79%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               23.0      0.1194 µg/L       0.09750      0.1194 ppb       0.09750  81.68%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             112.8      0.6629 µg/L       0.10677      0.6629 ppb       0.10677  16.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 4/1/2010 13:30:01 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040110.sif
Batch ID:
Results Data Set: 040110
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 4/1/2010 13:30:04**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143586.0	143586.0	99.6	%			13:30:37
1	Al 396.153Radial†	24975.9	25142.5	4985.9	µg/L	4985.9	ppb	13:30:37
1	Ca 317.933Radial†	83021.9	82796.7	5082.4	µg/L	5082.4	ppb	13:30:37
1	Fe 238.204 Radial†	74364.9	74520.6	5029.3	µg/L	5029.3	ppb	13:30:37
1	K 766.490 Radial†	14323.4	12821.0	4938.4	µg/L	4938.4	ppb	13:30:37
1	Mg 279.077 IEC†	12658.1	12542.5	5201.0	µg/L	5201.0	ppb	13:30:37
1	Na 589.592 Radial†	68442.5	67452.7	9916.8	µg/L	9916.8	ppb	13:30:37
1	Sr 421.552†	222301.9	223381.6	496.12	µg/L	496.12	ppb	13:30:35
1	Sc 361.383	1745163.7	1745163.7	99.334	%			13:30:50
1	Y 371.029	1028678.9	1028678.9	98.214	%			13:30:50
1	Ag 328.068†	129547.7	126601.4	501.03	µg/L	501.03	ppb	13:30:50
1	As 188.979†	1479.5	1511.1	492.11	µg/L	492.11	ppb	13:31:10
1	B 249.677†	35049.1	31824.7	488.64	µg/L	488.64	ppb	13:30:50
1	Ba 233.527†	115371.6	116297.8	493.84	µg/L	493.84	ppb	13:30:50
1	Be 313.107†	1722070.0	1734591.3	494.12	µg/L	494.12	ppb	13:30:50
1	Cd 226.502†	75128.7	75738.1	496.79	µg/L	496.79	ppb	13:30:50
1	Co 228.616†	38100.4	38545.3	498.16	µg/L	498.16	ppb	13:30:50
1	Cr 267.716†	59749.9	59973.9	494.23	µg/L	494.23	ppb	13:30:50
1	Cu 324.752†	123554.0	121523.3	494.33	µg/L	494.33	ppb	13:30:50
1	Mn 257.610†	382090.7	384441.6	497.09	µg/L	497.09	ppb	13:30:50
1	Mo 202.031†	15965.7	16115.5	501.30	µg/L	501.30	ppb	13:31:10
1	Ni 231.604†	40669.6	41022.5	495.12	µg/L	495.12	ppb	13:30:50
1	P 214.914†	10986.1	11059.3	2471.8	µg/L	2471.8	ppb	13:31:10
1	Pb 220.353†	8529.9	8519.5	500.61	µg/L	500.61	ppb	13:31:10
1	S 181.975 Axial†	1349.7	1253.6	996.11	µg/L	996.11	ppb	13:31:10
1	Sb 206.836†	4014.3	3962.2	498.80	µg/L	498.80	ppb	13:31:10
1	Se 196.026†	1305.0	1299.0	497	µg/L	497	ppb	13:31:10
1	SiO2†	52508.3	51109.5	5318.9	µg/L	5318.9	ppb	13:30:50
1	Si 251.611†	158779.0	159055.9	2486.5	µg/L	2486.5	ppb	13:30:50
1	Sn 189.927†	7488.0	7541.4	500.98	µg/L	500.98	ppb	13:31:10
1	Ti 334.940†	502754.1	505187.7	497.71	µg/L	497.71	ppb	13:30:50
1	Tl 190.801†	3717.2	3857.7	506.56	µg/L	506.56	ppb	13:31:10
1	U 409.014†	7275.8	7589.0	487.82	µg/L	487.82	ppb	13:30:50
1	V 292.402†	96191.7	96481.1	498.24	µg/L	498.24	ppb	13:30:50
1	Zn 213.857†	84338.3	84391.0	492.68	µg/L	492.68	ppb	13:30:50
2	Sc RADIAL	144586.8	144586.8	100	%			13:30:41
2	Al 396.153Radial†	25153.6	25146.1	4986.8	µg/L	4986.8	ppb	13:30:41
2	Ca 317.933Radial†	83979.8	83174.7	5105.6	µg/L	5105.6	ppb	13:30:41
2	Fe 238.204 Radial†	75222.7	74859.0	5052.1	µg/L	5052.1	ppb	13:30:41
2	K 766.490 Radial†	14455.9	12853.6	4950.9	µg/L	4950.9	ppb	13:30:41
2	Mg 279.077 IEC†	12754.0	12550.1	5204.1	µg/L	5204.1	ppb	13:30:41
2	Na 589.592 Radial†	69108.1	67640.6	9944.5	µg/L	9944.5	ppb	13:30:41
2	Sr 421.552†	218524.8	218071.2	484.33	µg/L	484.33	ppb	13:30:39
2	Sc 361.383	1751884.4	1751884.4	99.717	%			13:31:13
2	Y 371.029	1032974.2	1032974.2	98.624	%			13:31:13
2	Ag 328.068†	129373.9	125926.8	498.38	µg/L	498.38	ppb	13:31:13
2	As 188.979†	1494.4	1520.3	495.04	µg/L	495.04	ppb	13:31:33

2	B 249.677†	35175.0	31815.6	488.51 µg/L	488.51 ppb	13:31:13
2	Ba 233.527†	115330.7	115811.3	491.77 µg/L	491.77 ppb	13:31:13
2	Be 313.107†	1722844.2	1728717.0	492.45 µg/L	492.45 ppb	13:31:13
2	Cd 226.502†	75129.5	75448.8	494.88 µg/L	494.88 ppb	13:31:13
2	Co 228.616†	38130.5	38428.4	496.64 µg/L	496.64 ppb	13:31:13
2	Cr 267.716†	59729.3	59722.5	492.17 µg/L	492.17 ppb	13:31:13
2	Cu 324.752†	123925.6	121418.8	493.90 µg/L	493.90 ppb	13:31:13
2	Mn 257.610†	382536.2	383412.7	495.76 µg/L	495.76 ppb	13:31:13
2	Mo 202.031†	15946.5	16034.6	498.79 µg/L	498.79 ppb	13:31:33
2	Ni 231.604†	40717.8	40913.8	493.81 µg/L	493.81 ppb	13:31:13
2	P 214.914†	10968.1	10998.9	2458.2 µg/L	2458.2 ppb	13:31:33
2	Pb 220.353†	8515.3	8471.8	497.81 µg/L	497.81 ppb	13:31:33
2	S 181.975 Axial†	1366.4	1265.1	1005.2 µg/L	1005.2 ppb	13:31:33
2	Sb 206.836†	4026.5	3958.9	498.38 µg/L	498.38 ppb	13:31:33
2	Se 196.026†	1300.0	1288.8	493 µg/L	493 ppb	13:31:33
2	SiO2†	52445.1	50843.4	5291.3 µg/L	5291.3 ppb	13:31:13
2	Si 251.611†	158969.7	158633.9	2480.0 µg/L	2480.0 ppb	13:31:13
2	Sn 189.927†	7460.0	7484.4	497.20 µg/L	497.20 ppb	13:31:33
2	Ti 334.940†	503864.4	504359.5	496.89 µg/L	496.89 ppb	13:31:13
2	Tl 190.801†	3694.7	3820.8	501.77 µg/L	501.77 ppb	13:31:33
2	U 409.014†	7122.4	7407.1	476.80 µg/L	476.80 ppb	13:31:13
2	V 292.402†	96456.6	96375.3	497.65 µg/L	497.65 ppb	13:31:13
2	Zn 213.857†	84413.8	84141.0	491.21 µg/L	491.21 ppb	13:31:13
3	Sc RADIAL	145527.3	145527.3	101 %		13:30:45
3	Al 396.153Radial†	25292.8	25122.0	4982.1 µg/L	4982.1 ppb	13:30:45
3	Ca 317.933Radial†	84283.7	82934.7	5090.8 µg/L	5090.8 ppb	13:30:45
3	Fe 238.204 Radial†	75608.4	74756.4	5045.2 µg/L	5045.2 ppb	13:30:45
3	K 766.490 Radial†	14557.0	12860.6	4953.6 µg/L	4953.6 ppb	13:30:45
3	Mg 279.077 IEC†	12834.0	12547.2	5202.8 µg/L	5202.8 ppb	13:30:45
3	Na 589.592 Radial†	69354.1	67439.1	9914.8 µg/L	9914.8 ppb	13:30:45
3	Sr 421.552†	223438.9	221530.8	492.01 µg/L	492.01 ppb	13:30:43
3	Sc 361.383	1761047.7	1761047.7	100.24 %		13:31:36
3	Y 371.029	1038015.0	1038015.0	99.106 %		13:31:36
3	Ag 328.068†	130444.1	126319.4	499.92 µg/L	499.92 ppb	13:31:36
3	As 188.979†	1478.3	1496.4	487.39 µg/L	487.39 ppb	13:31:56
3	B 249.677†	35352.8	31809.5	488.40 µg/L	488.40 ppb	13:31:36
3	Ba 233.527†	116241.4	116117.9	493.07 µg/L	493.07 ppb	13:31:36
3	Be 313.107†	1735328.2	1732181.4	493.43 µg/L	493.43 ppb	13:31:36
3	Cd 226.502†	75810.1	75735.8	496.77 µg/L	496.77 ppb	13:31:36
3	Co 228.616†	38482.0	38580.0	498.61 µg/L	498.61 ppb	13:31:36
3	Cr 267.716†	60262.1	59942.3	493.98 µg/L	493.98 ppb	13:31:36
3	Cu 324.752†	124510.8	121356.0	493.64 µg/L	493.64 ppb	13:31:36
3	Mn 257.610†	385738.7	384611.5	497.31 µg/L	497.31 ppb	13:31:36
3	Mo 202.031†	15936.2	15941.1	495.88 µg/L	495.88 ppb	13:31:56
3	Ni 231.604†	41110.8	41093.4	495.98 µg/L	495.98 ppb	13:31:36
3	P 214.914†	10973.9	10947.4	2446.7 µg/L	2446.7 ppb	13:31:56
3	Pb 220.353†	8553.0	8465.0	497.41 µg/L	497.41 ppb	13:31:56
3	S 181.975 Axial†	1362.4	1254.0	996.37 µg/L	996.37 ppb	13:31:56
3	Sb 206.836†	4021.3	3932.7	495.01 µg/L	495.01 ppb	13:31:56
3	Se 196.026†	1311.0	1293.0	495 µg/L	495 ppb	13:31:56
3	SiO2†	52864.3	50987.8	5306.5 µg/L	5306.5 ppb	13:31:36
3	Si 251.611†	160067.6	158899.7	2484.2 µg/L	2484.2 ppb	13:31:36
3	Sn 189.927†	7465.5	7451.0	494.99 µg/L	494.99 ppb	13:31:56
3	Ti 334.940†	506994.9	504853.3	497.38 µg/L	497.38 ppb	13:31:36
3	Tl 190.801†	3680.4	3787.3	497.45 µg/L	497.45 ppb	13:31:56
3	U 409.014†	7135.6	7383.1	475.41 µg/L	475.41 ppb	13:31:36
3	V 292.402†	97103.0	96516.8	498.35 µg/L	498.35 ppb	13:31:36
3	Zn 213.857†	85031.8	84317.1	492.24 µg/L	492.24 ppb	13:31:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1752698.6	99.763	%	0.4538				0.45%
Sc RADIAL	144566.7	100	%	0.7				0.67%
Y 371.029	1033222.7	98.648	%	0.4462				0.45%
Ag 328.068†	126282.5	499.78	µg/L	1.334	499.78	ppb	1.334	0.27%
QC value within limits for Ag 328.068 Recovery = 99.96%								
Al 396.153Radial†	25136.9	4985.0	µg/L	2.49	4985.0	ppb	2.49	0.05%
QC value within limits for Al 396.153Radial Recovery = 99.70%								
As 188.979†	1509.3	491.51	µg/L	3.858	491.51	ppb	3.858	0.78%

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   QC value within limits for As 188.979  Recovery = 98.30%
B 249.677†            31816.6      488.52 µg/L        0.119      488.52 ppb          0.119   0.02%
   QC value within limits for B 249.677  Recovery = 97.70%
Ba 233.527†          116075.7      492.89 µg/L        1.044      492.89 ppb          1.044   0.21%
   QC value within limits for Ba 233.527  Recovery = 98.58%
Be 313.107†         1731829.9      493.33 µg/L        0.842      493.33 ppb          0.842   0.17%
   QC value within limits for Be 313.107  Recovery = 98.67%
Ca 317.933Radial†     82968.7      5092.9 µg/L        11.74      5092.9 ppb          11.74   0.23%
   QC value within limits for Ca 317.933Radial  Recovery = 101.86%
Cd 226.502†           75640.9      496.15 µg/L        1.093      496.15 ppb          1.093   0.22%
   QC value within limits for Cd 226.502  Recovery = 99.23%
Co 228.616†           38517.9      497.80 µg/L        1.027      497.80 ppb          1.027   0.21%
   QC value within limits for Co 228.616  Recovery = 99.56%
Cr 267.716†           59879.6      493.46 µg/L        1.126      493.46 ppb          1.126   0.23%
   QC value within limits for Cr 267.716  Recovery = 98.69%
Cu 324.752†          121432.7      493.96 µg/L        0.347      493.96 ppb          0.347   0.07%
   QC value within limits for Cu 324.752  Recovery = 98.79%
Fe 238.204 Radial†    74712.0      5042.2 µg/L        11.71      5042.2 ppb          11.71   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.84%
K 766.490 Radial†     12845.1      4947.6 µg/L         8.14      4947.6 ppb           8.14   0.16%
   QC value within limits for K 766.490 Radial  Recovery = 98.95%
Mg 279.077 IEC†       12546.6      5202.7 µg/L         1.55      5202.7 ppb           1.55   0.03%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.05%
Mn 257.610†          384155.3      496.72 µg/L        0.839      496.72 ppb          0.839   0.17%
   QC value within limits for Mn 257.610  Recovery = 99.34%
Mo 202.031†           16030.4      498.66 µg/L        2.712      498.66 ppb          2.712   0.54%
   QC value within limits for Mo 202.031  Recovery = 99.73%
Na 589.592 Radial†    67510.8      9925.4 µg/L        16.57      9925.4 ppb          16.57   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 99.25%
Ni 231.604†           41009.9      494.97 µg/L        1.092      494.97 ppb          1.092   0.22%
   QC value within limits for Ni 231.604  Recovery = 98.99%
P 214.914†            11001.9      2458.9 µg/L        12.56      2458.9 ppb          12.56   0.51%
   QC value within limits for P 214.914  Recovery = 98.36%
Pb 220.353†            8485.5      498.61 µg/L        1.740      498.61 ppb          1.740   0.35%
   QC value within limits for Pb 220.353  Recovery = 99.72%
S 181.975 Axial†       1257.6      999.23 µg/L        5.177      999.23 ppb          5.177   0.52%
   QC value within limits for S 181.975 Axial  Recovery = 99.92%
Sb 206.836†            3951.3      497.40 µg/L        2.076      497.40 ppb          2.076   0.42%
   QC value within limits for Sb 206.836  Recovery = 99.48%
Se 196.026†            1293.6         495 µg/L          1.9         495 ppb            1.9   0.39%
   QC value within limits for Se 196.026  Recovery = 99.01%
SiO2†                 50980.2      5305.6 µg/L        13.86      5305.6 ppb          13.86   0.26%
   QC value within limits for SiO2  Recovery = 99.22%
Si 251.611†          158863.2      2483.6 µg/L         3.33      2483.6 ppb           3.33   0.13%
   QC value within limits for Si 251.611  Recovery = 99.34%
Sn 189.927†            7492.3      497.73 µg/L        3.028      497.73 ppb          3.028   0.61%
   QC value within limits for Sn 189.927  Recovery = 99.55%
Sr 421.552†          220994.6      490.82 µg/L        5.987      490.82 ppb          5.987   1.22%
   QC value within limits for Sr 421.552  Recovery = 98.16%
Ti 334.940†          504800.2      497.33 µg/L        0.408      497.33 ppb          0.408   0.08%
   QC value within limits for Ti 334.940  Recovery = 99.47%
Tl 190.801†            3821.9      501.93 µg/L        4.557      501.93 ppb          4.557   0.91%
   QC value within limits for Tl 190.801  Recovery = 100.39%
U 409.014†             7459.7      480.01 µg/L        6.800      480.01 ppb          6.800   1.42%
   QC value within limits for U 409.014  Recovery = 96.00%
V 292.402†            96457.7      498.08 µg/L        0.374      498.08 ppb          0.374   0.08%
   QC value within limits for V 292.402  Recovery = 99.62%
Zn 213.857†           84283.0      492.04 µg/L        0.752      492.04 ppb          0.752   0.15%
   QC value within limits for Zn 213.857  Recovery = 98.41%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/1/2010 13:32:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	147203.1	147203.1	102	%			13:32:35
1	Al 396.153Radial†	-45.1	24.7	4.9198	µg/L	4.9198	ppb	13:32:55
1	Ca 317.933Radial†	626.1	63.0	3.8662	µg/L	3.8662	ppb	13:32:55
1	Fe 238.204 Radial†	202.8	63.2	4.2682	µg/L	4.2682	ppb	13:32:55
1	K 766.490 Radial†	1714.7	120.7	46.514	µg/L	46.514	ppb	13:32:35
1	Mg 279.077 IEC†	185.2	16.2	6.6994	µg/L	6.6994	ppb	13:32:55
1	Na 589.592 Radial†	1396.7	110.1	16.152	µg/L	16.152	ppb	13:32:35
1	Sr 421.552†	-64.1	147.1	0.3267	µg/L	0.3267	ppb	13:32:35
1	Sc 361.383	1748742.0	1748742.0	99.538	%			13:33:42
1	Y 371.029	1043315.1	1043315.1	99.612	%			13:33:42
1	Ag 328.068†	3704.7	-92.9	-0.3703	µg/L	-0.3703	ppb	13:33:45
1	As 188.979†	-15.9	5.8	1.8497	µg/L	1.8497	ppb	13:34:05
1	B 249.677†	3539.4	96.5	1.4877	µg/L	1.4877	ppb	13:33:45
1	Ba 233.527†	-120.1	32.1	0.1363	µg/L	0.1363	ppb	13:34:05
1	Be 313.107†	-582.7	391.4	0.1088	µg/L	0.1088	ppb	13:33:45
1	Cd 226.502†	-116.9	-11.7	-0.0770	µg/L	-0.0770	ppb	13:34:05
1	Co 228.616†	-199.3	-10.7	-0.1385	µg/L	-0.1385	ppb	13:34:05
1	Cr 267.716†	209.5	33.9	0.2865	µg/L	0.2865	ppb	13:34:05
1	Cu 324.752†	2813.8	-32.0	-0.1367	µg/L	-0.1367	ppb	13:33:45
1	Mn 257.610†	275.7	66.4	0.0856	µg/L	0.0856	ppb	13:34:05
1	Mo 202.031†	-38.4	4.2	0.1303	µg/L	0.1303	ppb	13:34:05
1	Ni 231.604†	-80.5	-0.6	-0.0068	µg/L	-0.0068	ppb	13:34:05
1	P 214.914†	-5.6	-6.0	-1.3430	µg/L	-1.3430	ppb	13:34:05
1	Pb 220.353†	96.8	29.6	1.7419	µg/L	1.7419	ppb	13:34:05
1	S 181.975 Axial†	114.0	9.4	7.4204	µg/L	7.4204	ppb	13:34:05
1	Sb 206.836†	81.3	2.7	0.3329	µg/L	0.3329	ppb	13:34:05
1	Se 196.026†	18.5	3.8	1.43	µg/L	1.43	ppb	13:34:05
1	SiO2†	1728.2	-14.6	-1.5393	µg/L	-1.5393	ppb	13:34:05
1	Si 251.611†	839.8	56.2	0.8756	µg/L	0.8756	ppb	13:33:45
1	Sn 189.927†	7.7	10.9	0.7234	µg/L	0.7234	ppb	13:34:05
1	Ti 334.940†	825.6	-107.4	-0.1028	µg/L	-0.1028	ppb	13:33:45
1	Tl 190.801†	-125.9	-10.9	-1.4096	µg/L	-1.4096	ppb	13:34:05
1	U 409.014†	-411.8	-149.3	-8.9868	µg/L	-8.9868	ppb	13:33:45
1	V 292.402†	418.3	64.8	0.3266	µg/L	0.3266	ppb	13:33:45
1	Zn 213.857†	564.6	54.6	0.3207	µg/L	0.3207	ppb	13:34:05
2	Sc RADIAL	142770.1	142770.1	99.0	%			13:32:57
2	Al 396.153Radial†	-31.6	37.0	7.3352	µg/L	7.3352	ppb	13:33:17
2	Ca 317.933Radial†	603.4	59.1	3.6284	µg/L	3.6284	ppb	13:33:17
2	Fe 238.204 Radial†	165.0	31.3	2.1092	µg/L	2.1092	ppb	13:33:17
2	K 766.490 Radial†	1577.0	33.8	13.009	µg/L	13.009	ppb	13:32:57
2	Mg 279.077 IEC†	175.8	12.3	5.1186	µg/L	5.1186	ppb	13:33:17
2	Na 589.592 Radial†	1396.6	152.4	22.407	µg/L	22.407	ppb	13:32:57
2	Sr 421.552†	-247.6	-40.1	-0.0892	µg/L	-0.0892	ppb	13:32:57
2	Sc 361.383	1745485.5	1745485.5	99.352	%			13:34:07
2	Y 371.029	1040374.9	1040374.9	99.331	%			13:34:07
2	Ag 328.068†	4021.7	233.1	0.9035	µg/L	0.9035	ppb	13:34:09
2	As 188.979†	-15.4	6.2	1.9933	µg/L	1.9933	ppb	13:34:29
2	B 249.677†	3482.4	45.7	0.7045	µg/L	0.7045	ppb	13:34:09
2	Ba 233.527†	-146.5	5.4	0.0230	µg/L	0.0230	ppb	13:34:29
2	Be 313.107†	-685.2	287.2	0.0798	µg/L	0.0798	ppb	13:34:09
2	Cd 226.502†	-79.6	25.7	0.1684	µg/L	0.1684	ppb	13:34:29
2	Co 228.616†	-187.9	0.4	0.0051	µg/L	0.0051	ppb	13:34:29
2	Cr 267.716†	206.2	31.0	0.2609	µg/L	0.2609	ppb	13:34:29
2	Cu 324.752†	2840.7	0.3	-0.0040	µg/L	-0.0040	ppb	13:34:09
2	Mn 257.610†	273.7	64.9	0.0837	µg/L	0.0837	ppb	13:34:29
2	Mo 202.031†	-20.8	21.8	0.6765	µg/L	0.6765	ppb	13:34:29
2	Ni 231.604†	-61.8	18.1	0.2183	µg/L	0.2183	ppb	13:34:29
2	P 214.914†	9.6	9.2	2.0685	µg/L	2.0685	ppb	13:34:29
2	Pb 220.353†	95.7	28.7	1.6896	µg/L	1.6896	ppb	13:34:29

2	S 181.975 Axial†	95.6	-9.0	-7.1075 µg/L	-7.1075 ppb	13:34:29
2	Sb 206.836†	69.6	-9.0	-1.1255 µg/L	-1.1255 ppb	13:34:29
2	Se 196.026†	33.5	18.9	7.19 µg/L	7.19 ppb	13:34:29
2	SiO2†	1691.7	-48.1	-5.0430 µg/L	-5.0430 ppb	13:34:29
2	Si 251.611†	729.9	-52.8	-0.8388 µg/L	-0.8388 ppb	13:34:09
2	Sn 189.927†	-1.3	1.9	0.1255 µg/L	0.1255 ppb	13:34:29
2	Ti 334.940†	872.0	-59.1	-0.0559 µg/L	-0.0559 ppb	13:34:09
2	Tl 190.801†	-122.6	-7.7	-1.0014 µg/L	-1.0014 ppb	13:34:29
2	U 409.014†	-373.8	-111.8	-6.7406 µg/L	-6.7406 ppb	13:34:09
2	V 292.402†	364.6	11.5	0.0622 µg/L	0.0622 ppb	13:34:09
2	Zn 213.857†	552.2	43.1	0.2521 µg/L	0.2521 ppb	13:34:29
3	Sc RADIAL	144255.5	144255.5	100 %		13:33:19
3	Al 396.153Radial†	-40.7	28.3	5.6078 µg/L	5.6078 ppb	13:33:39
3	Ca 317.933Radial†	617.9	67.3	4.1316 µg/L	4.1316 ppb	13:33:39
3	Fe 238.204 Radial†	148.7	13.3	0.8993 µg/L	0.8993 ppb	13:33:39
3	K 766.490 Radial†	1641.7	82.1	31.645 µg/L	31.645 ppb	13:33:19
3	Mg 279.077 IEC†	180.1	14.8	6.1282 µg/L	6.1282 ppb	13:33:39
3	Na 589.592 Radial†	1384.0	125.3	18.405 µg/L	18.405 ppb	13:33:19
3	Sr 421.552†	-171.6	38.4	0.0853 µg/L	0.0853 ppb	13:33:19
3	Sc 361.383	1747531.9	1747531.9	99.469 %		13:34:31
3	Y 371.029	1041966.4	1041966.4	99.483 %		13:34:31
3	Ag 328.068†	3943.1	149.4	0.5907 µg/L	0.5907 ppb	13:34:33
3	As 188.979†	-14.3	7.3	2.3402 µg/L	2.3402 ppb	13:34:53
3	B 249.677†	3467.0	26.1	0.4017 µg/L	0.4017 ppb	13:34:33
3	Ba 233.527†	-127.5	24.6	0.1048 µg/L	0.1048 ppb	13:34:53
3	Be 313.107†	-1089.1	-118.1	-0.0340 µg/L	-0.0340 ppb	13:34:33
3	Cd 226.502†	-93.5	11.8	0.0771 µg/L	0.0771 ppb	13:34:53
3	Co 228.616†	-174.8	13.7	0.1775 µg/L	0.1775 ppb	13:34:53
3	Cr 267.716†	210.1	34.7	0.2869 µg/L	0.2869 ppb	13:34:53
3	Cu 324.752†	2780.9	-63.2	-0.2568 µg/L	-0.2568 ppb	13:34:33
3	Mn 257.610†	288.2	79.2	0.1022 µg/L	0.1022 ppb	13:34:53
3	Mo 202.031†	-27.5	15.1	0.4702 µg/L	0.4702 ppb	13:34:53
3	Ni 231.604†	-107.1	-27.5	-0.3313 µg/L	-0.3313 ppb	13:34:53
3	P 214.914†	-5.7	-6.1	-1.3708 µg/L	-1.3708 ppb	13:34:53
3	Pb 220.353†	82.2	15.0	0.8802 µg/L	0.8802 ppb	13:34:53
3	S 181.975 Axial†	116.9	12.4	9.7833 µg/L	9.7833 ppb	13:34:53
3	Sb 206.836†	78.3	-0.3	-0.0335 µg/L	-0.0335 ppb	13:34:53
3	Se 196.026†	17.7	3.0	1.14 µg/L	1.14 ppb	13:34:53
3	SiO2†	1737.3	-4.2	-0.4636 µg/L	-0.4636 ppb	13:34:53
3	Si 251.611†	796.8	13.5	0.2007 µg/L	0.2007 ppb	13:34:33
3	Sn 189.927†	9.2	12.5	0.8255 µg/L	0.8255 ppb	13:34:53
3	Ti 334.940†	664.6	-268.6	-0.2650 µg/L	-0.2650 ppb	13:34:33
3	Tl 190.801†	-147.9	-33.1	-4.2817 µg/L	-4.2817 ppb	13:34:53
3	U 409.014†	-282.8	-19.8	-1.1548 µg/L	-1.1548 ppb	13:34:33
3	V 292.402†	489.7	136.9	0.7031 µg/L	0.7031 ppb	13:34:33
3	Zn 213.857†	550.8	41.1	0.2441 µg/L	0.2441 ppb	13:34:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1747253.1	99.453	%	0.0937				0.09%
Sc RADIAL	144742.9	100	%	1.6				1.56%
Y 371.029	1041885.5	99.475	%	0.1405				0.14%
Ag 328.068†	96.5	0.3747	µg/L	0.66382	0.3747	ppb	0.66382	177.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	30.0	5.9543	µg/L	1.24441	5.9543	ppb	1.24441	20.90%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.4	2.0611	µg/L	0.25220	2.0611	ppb	0.25220	12.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	56.1	0.8646	µg/L	0.56042	0.8646	ppb	0.56042	64.82%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	20.7	0.0880	µg/L	0.05846	0.0880	ppb	0.05846	66.40%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	186.8	0.0515	µg/L	0.07545	0.0515	ppb	0.07545	146.49%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	63.1	3.8754	µg/L	0.25171	3.8754	ppb	0.25171	6.50%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.6	0.0562	µg/L	0.12400	0.0562	ppb	0.12400	220.77%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.1	0.0147	µg/L	0.15825	0.0147	ppb	0.15825	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              33.2      0.2781 µg/L       0.01491      0.2781 ppb        0.01491   5.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -31.6     -0.1325 µg/L       0.12642     -0.1325 ppb        0.12642  95.43%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       35.9      2.4256 µg/L       1.70657      2.4256 ppb        1.70657  70.36%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        78.8      30.389 µg/L       16.7875      30.389 ppb        16.7875  55.24%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          14.4      5.9821 µg/L       0.80044      5.9821 ppb        0.80044  13.38%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              70.1      0.0905 µg/L       0.01019      0.0905 ppb        0.01019  11.26%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              13.7      0.4257 µg/L       0.27579      0.4257 ppb        0.27579  64.79%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      129.3      18.988 µg/L        3.1682      18.988 ppb         3.1682  16.68%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -3.3     -0.0399 µg/L       0.27632     -0.0399 ppb        0.27632 691.75%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.0     -0.2151 µg/L       1.97769     -0.2151 ppb        1.97769 919.47%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              24.4      1.4372 µg/L       0.48313      1.4372 ppb        0.48313  33.62%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.2      3.3654 µg/L       9.14646      3.3654 ppb        9.14646 271.78%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.2     -0.2753 µg/L       0.75871     -0.2753 ppb        0.75871 275.54%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               8.6        3.26 µg/L         3.412        3.26 ppb          3.412 104.81%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -22.3     -2.3486 µg/L       2.39458     -2.3486 ppb        2.39458 101.96%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               5.6      0.0792 µg/L       0.86361      0.0792 ppb        0.86361 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.4      0.5582 µg/L       0.37812      0.5582 ppb        0.37812  67.74%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              48.5      0.1076 µg/L       0.20886      0.1076 ppb        0.20886 194.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -145.0     -0.1412 µg/L       0.10970     -0.1412 ppb        0.10970  77.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -17.3     -2.2309 µg/L       1.78772     -2.2309 ppb        1.78772  80.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -93.6     -5.6274 µg/L       4.03292     -5.6274 ppb        4.03292  71.67%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               71.1      0.3640 µg/L       0.32209      0.3640 ppb        0.32209  88.50%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              46.3      0.2723 µg/L       0.04211      0.2723 ppb        0.04211  15.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/1/2010 13:59:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142010.8	142010.8	98.5	%			14:00:22
1	Al 396.153Radial†	25032.6	25478.1	5052.9	µg/L	5052.9	ppb	14:00:22
1	Ca 317.933Radial†	81604.3	82282.2	5050.8	µg/L	5050.8	ppb	14:00:22
1	Fe 238.204 Radial†	73026.5	73990.2	4993.5	µg/L	4993.5	ppb	14:00:22
1	K 766.490 Radial†	14322.9	12980.0	4999.7	µg/L	4999.7	ppb	14:00:22
1	Mg 279.077 IEC†	12210.8	12229.4	5071.4	µg/L	5071.4	ppb	14:00:22
1	Na 589.592 Radial†	68018.2	67784.1	9965.5	µg/L	9965.5	ppb	14:00:22
1	Sr 421.552†	219760.9	223277.8	495.89	µg/L	495.89	ppb	14:00:20
1	Sc 361.383	1724462.4	1724462.4	98.156	%			14:00:35
1	Y 371.029	1016986.6	1016986.6	97.098	%			14:00:35
1	Ag 328.068†	127399.6	125978.5	498.58	µg/L	498.58	ppb	14:00:35
1	As 188.979†	1443.0	1491.8	485.87	µg/L	485.87	ppb	14:00:55
1	B 249.677†	34380.2	31566.8	484.68	µg/L	484.68	ppb	14:00:35
1	Ba 233.527†	113255.3	115536.0	490.60	µg/L	490.60	ppb	14:00:35
1	Be 313.107†	1686911.3	1719583.2	489.85	µg/L	489.85	ppb	14:00:35
1	Cd 226.502†	73251.4	74733.5	490.19	µg/L	490.19	ppb	14:00:35
1	Co 228.616†	37343.3	38234.5	494.14	µg/L	494.14	ppb	14:00:35
1	Cr 267.716†	58689.7	59615.8	491.28	µg/L	491.28	ppb	14:00:35
1	Cu 324.752†	121611.3	121037.3	492.35	µg/L	492.35	ppb	14:00:35
1	Mn 257.610†	375432.4	382275.7	494.30	µg/L	494.30	ppb	14:00:35
1	Mo 202.031†	15703.6	16041.4	498.99	µg/L	498.99	ppb	14:00:55
1	Ni 231.604†	39735.1	40562.0	489.56	µg/L	489.56	ppb	14:00:35
1	P 214.914†	10800.3	11002.8	2459.2	µg/L	2459.2	ppb	14:00:55
1	Pb 220.353†	8376.1	8465.9	497.46	µg/L	497.46	ppb	14:00:55
1	S 181.975 Axial†	1342.3	1262.3	1003.0	µg/L	1003.0	ppb	14:00:55
1	Sb 206.836†	3970.9	3966.5	499.33	µg/L	499.33	ppb	14:00:55
1	Se 196.026†	1285.7	1295.1	496	µg/L	496	ppb	14:00:55
1	SiO2†	51430.3	50645.8	5270.6	µg/L	5270.6	ppb	14:00:35
1	Si 251.611†	155486.4	157620.3	2464.0	µg/L	2464.0	ppb	14:00:35
1	Sn 189.927†	7341.9	7483.1	497.11	µg/L	497.11	ppb	14:00:55
1	Ti 334.940†	494384.6	502736.7	495.29	µg/L	495.29	ppb	14:00:35
1	Tl 190.801†	3633.3	3817.2	501.29	µg/L	501.29	ppb	14:00:55
1	U 409.014†	7337.6	7739.9	496.77	µg/L	496.77	ppb	14:00:35
1	V 292.402†	94555.4	95976.6	495.64	µg/L	495.64	ppb	14:00:35
1	Zn 213.857†	82289.2	83322.7	486.43	µg/L	486.43	ppb	14:00:35
2	Sc RADIAL	144502.9	144502.9	100	%			14:00:26
2	Al 396.153Radial†	25230.1	25237.0	5004.9	µg/L	5004.9	ppb	14:00:26
2	Ca 317.933Radial†	83138.3	82384.0	5057.0	µg/L	5057.0	ppb	14:00:26
2	Fe 238.204 Radial†	74394.7	74076.6	4999.3	µg/L	4999.3	ppb	14:00:26
2	K 766.490 Radial†	14398.0	12804.2	4931.9	µg/L	4931.9	ppb	14:00:26
2	Mg 279.077 IEC†	12528.5	12332.6	5114.1	µg/L	5114.1	ppb	14:00:26
2	Na 589.592 Radial†	69287.0	67859.2	9976.6	µg/L	9976.6	ppb	14:00:26
2	Sr 421.552†	221434.4	221100.3	491.06	µg/L	491.06	ppb	14:00:24
2	Sc 361.383	1731432.4	1731432.4	98.553	%			14:00:58
2	Y 371.029	1020936.0	1020936.0	97.475	%			14:00:58
2	Ag 328.068†	127473.0	125530.4	496.81	µg/L	496.81	ppb	14:00:58
2	As 188.979†	1438.8	1481.6	482.60	µg/L	482.60	ppb	14:01:18
2	B 249.677†	34584.2	31632.8	485.71	µg/L	485.71	ppb	14:00:58
2	Ba 233.527†	113284.0	115100.6	488.75	µg/L	488.75	ppb	14:00:58
2	Be 313.107†	1686964.8	1712719.0	487.90	µg/L	487.90	ppb	14:00:58
2	Cd 226.502†	73431.7	74616.1	489.42	µg/L	489.42	ppb	14:00:58
2	Co 228.616†	37321.6	38059.3	491.88	µg/L	491.88	ppb	14:00:58
2	Cr 267.716†	58727.4	59413.4	489.61	µg/L	489.61	ppb	14:00:58
2	Cu 324.752†	121954.8	120887.1	491.74	µg/L	491.74	ppb	14:00:58
2	Mn 257.610†	376269.5	381585.4	493.40	µg/L	493.40	ppb	14:00:58
2	Mo 202.031†	15749.1	16023.1	498.43	µg/L	498.43	ppb	14:01:18
2	Ni 231.604†	39876.7	40542.7	489.33	µg/L	489.33	ppb	14:00:58
2	P 214.914†	10832.0	10990.6	2456.5	µg/L	2456.5	ppb	14:01:18
2	Pb 220.353†	8423.0	8479.1	498.23	µg/L	498.23	ppb	14:01:18

2	S 181.975 Axial†	1356.6	1271.4	1010.2 µg/L	1010.2 ppb	14:01:18
2	Sb 206.836†	3982.5	3961.9	498.78 µg/L	498.78 ppb	14:01:18
2	Se 196.026†	1297.0	1301.2	498 µg/L	498 ppb	14:01:18
2	SiO2†	51554.3	50560.7	5261.8 µg/L	5261.8 ppb	14:00:58
2	Si 251.611†	155566.2	157063.5	2455.3 µg/L	2455.3 ppb	14:00:58
2	Sn 189.927†	7354.8	7466.1	495.98 µg/L	495.98 ppb	14:01:18
2	Ti 334.940†	495977.4	502325.3	494.89 µg/L	494.89 ppb	14:00:58
2	Tl 190.801†	3642.5	3811.6	500.56 µg/L	500.56 ppb	14:01:18
2	U 409.014†	7283.8	7655.2	491.57 µg/L	491.57 ppb	14:00:58
2	V 292.402†	94662.0	95697.0	494.20 µg/L	494.20 ppb	14:00:58
2	Zn 213.857†	82619.8	83320.6	486.42 µg/L	486.42 ppb	14:00:58
3	Sc RADIAL	143931.5	143931.5	99.8 %		14:00:30
3	Al 396.153Radial†	25155.1	25261.8	5009.9 µg/L	5009.9 ppb	14:00:30
3	Ca 317.933Radial†	82812.1	82386.5	5057.2 µg/L	5057.2 ppb	14:00:30
3	Fe 238.204 Radial†	74261.9	74238.3	5010.3 µg/L	5010.3 ppb	14:00:30
3	K 766.490 Radial†	14506.4	12969.8	4995.7 µg/L	4995.7 ppb	14:00:30
3	Mg 279.077 IEC†	12513.2	12366.8	5128.2 µg/L	5128.2 ppb	14:00:30
3	Na 589.592 Radial†	69247.3	68093.7	10011 µg/L	10011 ppb	14:00:30
3	Sr 421.552†	223475.8	224021.6	497.54 µg/L	497.54 ppb	14:00:28
3	Sc 361.383	1738173.8	1738173.8	98.936 %		14:01:21
3	Y 371.029	1025373.4	1025373.4	97.899 %		14:01:21
3	Ag 328.068†	128548.4	126115.8	499.12 µg/L	499.12 ppb	14:01:21
3	As 188.979†	1453.9	1491.2	485.70 µg/L	485.70 ppb	14:01:41
3	B 249.677†	34692.5	31606.1	485.29 µg/L	485.29 ppb	14:01:21
3	Ba 233.527†	114494.7	115878.5	492.05 µg/L	492.05 ppb	14:01:21
3	Be 313.107†	1700150.3	1719407.4	489.80 µg/L	489.80 ppb	14:01:21
3	Cd 226.502†	74042.4	74944.4	491.58 µg/L	491.58 ppb	14:01:21
3	Co 228.616†	37607.4	38201.2	493.71 µg/L	493.71 ppb	14:01:21
3	Cr 267.716†	59306.8	59768.0	492.53 µg/L	492.53 ppb	14:01:21
3	Cu 324.752†	122808.0	121269.5	493.30 µg/L	493.30 ppb	14:01:21
3	Mn 257.610†	378619.4	382479.8	494.56 µg/L	494.56 ppb	14:01:21
3	Mo 202.031†	15739.1	15951.1	496.19 µg/L	496.19 ppb	14:01:41
3	Ni 231.604†	40162.5	40674.6	490.92 µg/L	490.92 ppb	14:01:21
3	P 214.914†	10802.0	10917.7	2440.1 µg/L	2440.1 ppb	14:01:41
3	Pb 220.353†	8400.2	8422.8	494.92 µg/L	494.92 ppb	14:01:41
3	S 181.975 Axial†	1342.2	1251.4	994.33 µg/L	994.33 ppb	14:01:41
3	Sb 206.836†	3996.0	3959.9	498.45 µg/L	498.45 ppb	14:01:41
3	Se 196.026†	1287.8	1286.9	492 µg/L	492 ppb	14:01:41
3	SiO2†	51799.7	50605.9	5266.6 µg/L	5266.6 ppb	14:01:21
3	Si 251.611†	156951.5	157851.5	2467.7 µg/L	2467.7 ppb	14:01:21
3	Sn 189.927†	7360.3	7442.6	494.44 µg/L	494.44 ppb	14:01:41
3	Ti 334.940†	499158.7	503589.0	496.13 µg/L	496.13 ppb	14:01:21
3	Tl 190.801†	3663.6	3818.7	501.49 µg/L	501.49 ppb	14:01:41
3	U 409.014†	7428.3	7772.6	498.74 µg/L	498.74 ppb	14:01:21
3	V 292.402†	95310.5	95979.9	495.63 µg/L	495.63 ppb	14:01:21
3	Zn 213.857†	83296.1	83679.1	488.52 µg/L	488.52 ppb	14:01:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1731356.2	98.548	%	0.3902				0.40%
Sc RADIAL	143481.7	99.5	%	0.91				0.91%
Y 371.029	1021098.7	97.491	%	0.4006				0.41%
Ag 328.068†	125874.9	498.17	µg/L	1.211	498.17	ppb	1.211	0.24%
QC value within limits for Ag 328.068 Recovery = 99.63%								
Al 396.153Radial†	25325.6	5022.6	µg/L	26.39	5022.6	ppb	26.39	0.53%
QC value within limits for Al 396.153Radial Recovery = 100.45%								
As 188.979†	1488.2	484.72	µg/L	1.839	484.72	ppb	1.839	0.38%
QC value within limits for As 188.979 Recovery = 96.94%								
B 249.677†	31601.9	485.23	µg/L	0.516	485.23	ppb	0.516	0.11%
QC value within limits for B 249.677 Recovery = 97.05%								
Ba 233.527†	115505.1	490.47	µg/L	1.654	490.47	ppb	1.654	0.34%
QC value within limits for Ba 233.527 Recovery = 98.09%								
Be 313.107†	1717236.5	489.18	µg/L	1.115	489.18	ppb	1.115	0.23%
QC value within limits for Be 313.107 Recovery = 97.84%								
Ca 317.933Radial†	82350.9	5055.0	µg/L	3.65	5055.0	ppb	3.65	0.07%
QC value within limits for Ca 317.933Radial Recovery = 101.10%								
Cd 226.502†	74764.7	490.40	µg/L	1.091	490.40	ppb	1.091	0.22%
QC value within limits for Cd 226.502 Recovery = 98.08%								
Co 228.616†	38165.0	493.24	µg/L	1.203	493.24	ppb	1.203	0.24%

```
   QC value within limits for Co 228.616  Recovery = 98.65%
Cr 267.716†            59599.1      491.14 µg/L         1.464      491.14 ppb          1.464   0.30%
   QC value within limits for Cr 267.716  Recovery = 98.23%
Cu 324.752†           121064.6      492.47 µg/L         0.786      492.47 ppb          0.786   0.16%
   QC value within limits for Cu 324.752  Recovery = 98.49%
Fe 238.204 Radial†     74101.7      5001.0 µg/L          8.50      5001.0 ppb           8.50   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.02%
K 766.490 Radial†      12918.0      4975.8 µg/L         38.04      4975.8 ppb          38.04   0.76%
   QC value within limits for K 766.490 Radial  Recovery = 99.52%
Mg 279.077 IEC†        12309.6      5104.5 µg/L         29.59      5104.5 ppb          29.59   0.58%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.09%
Mn 257.610†           382113.7      494.09 µg/L         0.606      494.09 ppb          0.606   0.12%
   QC value within limits for Mn 257.610  Recovery = 98.82%
Mo 202.031†            16005.2      497.87 µg/L         1.484      497.87 ppb          1.484   0.30%
   QC value within limits for Mo 202.031  Recovery = 99.57%
Na 589.592 Radial†     67912.3      9984.4 µg/L         23.75      9984.4 ppb          23.75   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 99.84%
Ni 231.604†            40593.1      489.94 µg/L         0.860      489.94 ppb          0.860   0.18%
   QC value within limits for Ni 231.604  Recovery = 97.99%
P 214.914†             10970.4      2451.9 µg/L         10.34      2451.9 ppb          10.34   0.42%
   QC value within limits for P 214.914  Recovery = 98.08%
Pb 220.353†             8455.9      496.87 µg/L         1.728      496.87 ppb          1.728   0.35%
   QC value within limits for Pb 220.353  Recovery = 99.37%
S 181.975 Axial†        1261.7      1002.5 µg/L          7.92      1002.5 ppb           7.92   0.79%
   QC value within limits for S 181.975 Axial  Recovery = 100.25%
Sb 206.836†             3962.8      498.86 µg/L         0.446      498.86 ppb          0.446   0.09%
   QC value within limits for Sb 206.836  Recovery = 99.77%
Se 196.026†             1294.4         495 µg/L           2.7         495 ppb            2.7   0.55%
   QC value within limits for Se 196.026  Recovery = 99.07%
SiO2†                  50604.1      5266.3 µg/L          4.43      5266.3 ppb           4.43   0.08%
   QC value within limits for SiO2  Recovery = 98.48%
Si 251.611†           157511.8      2462.4 µg/L          6.37      2462.4 ppb           6.37   0.26%
   QC value within limits for Si 251.611  Recovery = 98.49%
Sn 189.927†             7463.9      495.84 µg/L         1.343      495.84 ppb          1.343   0.27%
   QC value within limits for Sn 189.927  Recovery = 99.17%
Sr 421.552†           222799.9      494.83 µg/L         3.372      494.83 ppb          3.372   0.68%
   QC value within limits for Sr 421.552  Recovery = 98.97%
Ti 334.940†           502883.7      495.44 µg/L         0.633      495.44 ppb          0.633   0.13%
   QC value within limits for Ti 334.940  Recovery = 99.09%
Tl 190.801†             3815.8      501.11 µg/L         0.490      501.11 ppb          0.490   0.10%
   QC value within limits for Tl 190.801  Recovery = 100.22%
U 409.014†              7722.6      495.69 µg/L         3.703      495.69 ppb          3.703   0.75%
   QC value within limits for U 409.014  Recovery = 99.14%
V 292.402†             95884.5      495.16 µg/L         0.830      495.16 ppb          0.830   0.17%
   QC value within limits for V 292.402  Recovery = 99.03%
Zn 213.857†            83440.8      487.12 µg/L         1.207      487.12 ppb          1.207   0.25%
   QC value within limits for Zn 213.857  Recovery = 97.42%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/1/2010 14:01:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143349.8	143349.8	99.4	%			14:02:21
1	Al 396.153Radial†	-30.6	38.1	7.5841	µg/L	7.5841	ppb	14:02:41
1	Ca 317.933Radial†	657.4	110.9	6.8102	µg/L	6.8102	ppb	14:02:41
1	Fe 238.204 Radial†	177.0	42.7	2.8787	µg/L	2.8787	ppb	14:02:41
1	K 766.490 Radial†	1616.5	67.1	25.838	µg/L	25.838	ppb	14:02:21
1	Mg 279.077 IEC†	190.8	26.7	11.054	µg/L	11.054	ppb	14:02:41
1	Na 589.592 Radial†	1684.6	436.4	64.158	µg/L	64.158	ppb	14:02:21
1	Sr 421.552†	-145.7	63.3	0.1406	µg/L	0.1406	ppb	14:02:21
1	Sc 361.383	1770531.4	1770531.4	100.78	%			14:03:29
1	Y 371.029	1056520.5	1056520.5	100.87	%			14:03:29
1	Ag 328.068†	3740.8	-102.9	-0.3776	µg/L	-0.3776	ppb	14:03:31
1	As 188.979†	-21.9	-0.0	-0.0090	µg/L	-0.0090	ppb	14:03:51
1	B 249.677†	3496.0	9.7	0.1484	µg/L	0.1484	ppb	14:03:31
1	Ba 233.527†	-145.7	8.3	0.0355	µg/L	0.0355	ppb	14:03:51
1	Be 313.107†	-783.6	199.3	0.0606	µg/L	0.0606	ppb	14:03:31
1	Cd 226.502†	-98.8	7.7	0.0506	µg/L	0.0506	ppb	14:03:51
1	Co 228.616†	-182.0	8.9	0.1147	µg/L	0.1147	ppb	14:03:51
1	Cr 267.716†	210.6	32.4	0.2575	µg/L	0.2575	ppb	14:03:51
1	Cu 324.752†	2869.4	-11.7	-0.0361	µg/L	-0.0361	ppb	14:03:31
1	Mn 257.610†	244.5	32.1	0.0410	µg/L	0.0410	ppb	14:03:51
1	Mo 202.031†	-34.4	8.6	0.2676	µg/L	0.2676	ppb	14:03:51
1	Ni 231.604†	-66.4	14.4	0.1738	µg/L	0.1738	ppb	14:03:51
1	P 214.914†	1.9	1.5	0.3325	µg/L	0.3325	ppb	14:03:51
1	Pb 220.353†	118.1	49.5	2.8911	µg/L	2.8911	ppb	14:03:51
1	S 181.975 Axial†	104.4	-1.6	-1.2615	µg/L	-1.2615	ppb	14:03:51
1	Sb 206.836†	67.9	-11.7	-1.4656	µg/L	-1.4656	ppb	14:03:51
1	Se 196.026†	9.6	-5.3	-2.02	µg/L	-2.02	ppb	14:03:51
1	SiO2†	1688.7	-75.2	-7.8666	µg/L	-7.8666	ppb	14:03:51
1	Si 251.611†	864.9	70.7	1.1037	µg/L	1.1037	ppb	14:03:31
1	Sn 189.927†	2.5	5.7	0.3767	µg/L	0.3767	ppb	14:03:51
1	Ti 334.940†	839.3	-103.9	-0.1085	µg/L	-0.1085	ppb	14:03:31
1	Tl 190.801†	-103.5	12.9	1.6791	µg/L	1.6791	ppb	14:03:51
1	U 409.014†	-53.7	211.2	12.783	µg/L	12.783	ppb	14:03:31
1	V 292.402†	507.8	148.4	0.7686	µg/L	0.7686	ppb	14:03:31
1	Zn 213.857†	566.8	49.8	0.2917	µg/L	0.2917	ppb	14:03:51
2	Sc RADIAL	145681.8	145681.8	101	%			14:02:43
2	Al 396.153Radial†	-53.5	15.9	3.1478	µg/L	3.1478	ppb	14:03:03
2	Ca 317.933Radial†	618.5	61.9	3.7969	µg/L	3.7969	ppb	14:03:03
2	Fe 238.204 Radial†	162.5	25.5	1.7182	µg/L	1.7182	ppb	14:03:03
2	K 766.490 Radial†	1504.7	-69.5	-26.808	µg/L	-26.808	ppb	14:02:43
2	Mg 279.077 IEC†	182.9	15.7	6.5318	µg/L	6.5318	ppb	14:03:03
2	Na 589.592 Radial†	1710.1	434.5	63.932	µg/L	63.932	ppb	14:02:43
2	Sr 421.552†	-181.9	29.9	0.0664	µg/L	0.0664	ppb	14:02:43
2	Sc 361.383	1746623.7	1746623.7	99.417	%			14:03:53
2	Y 371.029	1043003.5	1043003.5	99.582	%			14:03:53
2	Ag 328.068†	3761.3	-31.4	-0.1341	µg/L	-0.1341	ppb	14:03:55
2	As 188.979†	-21.1	0.5	0.1571	µg/L	0.1571	ppb	14:04:15
2	B 249.677†	3331.9	-107.9	-1.6633	µg/L	-1.6633	ppb	14:03:55
2	Ba 233.527†	-137.0	14.9	0.0635	µg/L	0.0635	ppb	14:04:15
2	Be 313.107†	-949.6	21.7	0.0037	µg/L	0.0037	ppb	14:03:55
2	Cd 226.502†	-84.9	20.4	0.1340	µg/L	0.1340	ppb	14:04:15
2	Co 228.616†	-177.0	11.4	0.1479	µg/L	0.1479	ppb	14:04:15
2	Cr 267.716†	205.6	30.2	0.2554	µg/L	0.2554	ppb	14:04:15
2	Cu 324.752†	2656.8	-186.5	-0.7626	µg/L	-0.7626	ppb	14:03:55
2	Mn 257.610†	267.9	58.9	0.0760	µg/L	0.0760	ppb	14:04:15
2	Mo 202.031†	-26.1	16.5	0.5135	µg/L	0.5135	ppb	14:04:15
2	Ni 231.604†	-47.2	32.8	0.3962	µg/L	0.3962	ppb	14:04:15
2	P 214.914†	13.2	12.8	2.8878	µg/L	2.8878	ppb	14:04:15
2	Pb 220.353†	83.9	16.7	0.9875	µg/L	0.9875	ppb	14:04:15

2	S 181.975 Axial†	111.3	6.8	5.3519 µg/L	5.3519 ppb	14:04:15
2	Sb 206.836†	77.6	-1.0	-0.1192 µg/L	-0.1192 ppb	14:04:15
2	Se 196.026†	22.5	7.8	2.97 µg/L	2.97 ppb	14:04:15
2	SiO2†	1719.6	-21.2	-2.2377 µg/L	-2.2377 ppb	14:04:15
2	Si 251.611†	932.8	150.7	2.3536 µg/L	2.3536 ppb	14:03:55
2	Sn 189.927†	9.6	12.9	0.8557 µg/L	0.8557 ppb	14:04:15
2	Ti 334.940†	869.1	-62.5	-0.0588 µg/L	-0.0588 ppb	14:03:55
2	Tl 190.801†	-113.9	1.1	0.1369 µg/L	0.1369 ppb	14:04:15
2	U 409.014†	-398.4	-136.3	-8.2266 µg/L	-8.2266 ppb	14:03:55
2	V 292.402†	336.2	-17.3	-0.0873 µg/L	-0.0873 ppb	14:03:55
2	Zn 213.857†	568.1	58.8	0.3437 µg/L	0.3437 ppb	14:04:15
3	Sc RADIAL	144058.2	144058.2	99.9 %		14:03:05
3	Al 396.153Radial†	-43.8	25.0	4.9496 µg/L	4.9496 ppb	14:03:25
3	Ca 317.933Radial†	604.2	54.5	3.3425 µg/L	3.3425 ppb	14:03:25
3	Fe 238.204 Radial†	148.2	13.0	0.8794 µg/L	0.8794 ppb	14:03:25
3	K 766.490 Radial†	1592.2	34.8	13.407 µg/L	13.407 ppb	14:03:05
3	Mg 279.077 IEC†	164.6	-0.5	-0.1774 µg/L	-0.1774 ppb	14:03:25
3	Na 589.592 Radial†	1521.4	264.8	38.930 µg/L	38.930 ppb	14:03:05
3	Sr 421.552†	-187.8	22.0	0.0488 µg/L	0.0488 ppb	14:03:05
3	Sc 361.383	1763046.3	1763046.3	100.35 %		14:04:17
3	Y 371.029	1052318.5	1052318.5	100.47 %		14:04:17
3	Ag 328.068†	4097.1	268.0	1.0552 µg/L	1.0552 ppb	14:04:20
3	As 188.979†	-19.7	2.1	0.6678 µg/L	0.6678 ppb	14:04:40
3	B 249.677†	3356.8	-114.4	-1.7632 µg/L	-1.7632 ppb	14:04:20
3	Ba 233.527†	-158.3	-5.0	-0.0209 µg/L	-0.0209 ppb	14:04:40
3	Be 313.107†	-743.0	236.5	0.0701 µg/L	0.0701 ppb	14:04:20
3	Cd 226.502†	-89.9	16.3	0.1069 µg/L	0.1069 ppb	14:04:40
3	Co 228.616†	-164.2	25.9	0.3339 µg/L	0.3339 ppb	14:04:40
3	Cr 267.716†	221.0	43.6	0.3523 µg/L	0.3523 ppb	14:04:40
3	Cu 324.752†	2739.3	-129.3	-0.5163 µg/L	-0.5163 ppb	14:04:20
3	Mn 257.610†	267.3	55.8	0.0721 µg/L	0.0721 ppb	14:04:40
3	Mo 202.031†	-15.4	27.4	0.8507 µg/L	0.8507 ppb	14:04:40
3	Ni 231.604†	-56.1	24.4	0.2944 µg/L	0.2944 ppb	14:04:40
3	P 214.914†	5.8	5.4	1.2107 µg/L	1.2107 ppb	14:04:40
3	Pb 220.353†	90.9	23.0	1.3404 µg/L	1.3404 ppb	14:04:40
3	S 181.975 Axial†	114.5	8.9	7.0405 µg/L	7.0405 ppb	14:04:40
3	Sb 206.836†	86.0	6.7	0.8455 µg/L	0.8455 ppb	14:04:40
3	Se 196.026†	19.9	5.0	1.91 µg/L	1.91 ppb	14:04:40
3	SiO2†	1744.0	-12.9	-1.3729 µg/L	-1.3729 ppb	14:04:40
3	Si 251.611†	780.2	-10.1	-0.1689 µg/L	-0.1689 ppb	14:04:20
3	Sn 189.927†	-4.0	-0.8	-0.0499 µg/L	-0.0499 ppb	14:04:40
3	Ti 334.940†	967.2	27.0	0.0228 µg/L	0.0228 ppb	14:04:20
3	Tl 190.801†	-93.7	22.2	2.8749 µg/L	2.8749 ppb	14:04:40
3	U 409.014†	-111.9	153.0	9.2120 µg/L	9.2120 ppb	14:04:20
3	V 292.402†	298.4	-58.1	-0.2797 µg/L	-0.2797 ppb	14:04:20
3	Zn 213.857†	541.4	26.8	0.1564 µg/L	0.1564 ppb	14:04:40

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1760067.1	100.18	%	0.696				0.69%
Sc RADIAL	144363.2	100	%	0.8				0.83%
Y 371.029	1050614.2	100.31	%	0.660				0.66%
Ag 328.068†	44.6	0.1812	µg/L	0.76663	0.1812	ppb	0.76663	423.19%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	26.4	5.2272	µg/L	2.23112	5.2272	ppb	2.23112	42.68%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.8	0.2720	µg/L	0.35273	0.2720	ppb	0.35273	129.69%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-70.9	-1.0927	µg/L	1.07598	-1.0927	ppb	1.07598	98.47%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.1	0.0260	µg/L	0.04302	0.0260	ppb	0.04302	165.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	152.5	0.0448	µg/L	0.03593	0.0448	ppb	0.03593	80.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	75.8	4.6499	µg/L	1.88463	4.6499	ppb	1.88463	40.53%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.8	0.0972	µg/L	0.04254	0.0972	ppb	0.04254	43.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	15.4	0.1989	µg/L	0.11816	0.1989	ppb	0.11816	59.42%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                35.4      0.2884 µg/L       0.05531      0.2884 ppb        0.05531  19.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -109.2     -0.4383 µg/L       0.36946     -0.4383 ppb        0.36946  84.29%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         27.0      1.8254 µg/L       1.00395      1.8254 ppb        1.00395  55.00%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          10.8      4.1455 µg/L      27.51763      4.1455 ppb       27.51763 663.79%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            14.0      5.8026 µg/L       5.65087      5.8026 ppb        5.65087  97.38%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                48.9      0.0630 µg/L       0.01916      0.0630 ppb        0.01916  30.40%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                17.5      0.5440 µg/L       0.29274      0.5440 ppb        0.29274  53.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        378.5      55.673 µg/L       14.5004      55.673 ppb        14.5004  26.05%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                23.9      0.2881 µg/L       0.11133      0.2881 ppb        0.11133  38.64%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  6.6      1.4770 µg/L       1.29833      1.4770 ppb        1.29833  87.90%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                29.7      1.7397 µg/L       1.01269      1.7397 ppb        1.01269  58.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            4.7      3.7103 µg/L       4.38768      3.7103 ppb        4.38768 118.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.0     -0.2465 µg/L       1.16077     -0.2465 ppb        1.16077 470.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.5       0.957 µg/L        2.6282       0.957 ppb         2.6282 274.59%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -36.4     -3.8257 µg/L       3.52613     -3.8257 ppb        3.52613  92.17%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                70.5      1.0961 µg/L       1.26128      1.0961 ppb        1.26128 115.07%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.0      0.3942 µg/L       0.45306      0.3942 ppb        0.45306 114.94%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                38.4      0.0852 µg/L       0.04871      0.0852 ppb        0.04871  57.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -46.5     -0.0482 µg/L       0.06632     -0.0482 ppb        0.06632 137.64%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                12.1      1.5637 µg/L       1.37269      1.5637 ppb        1.37269  87.79%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 76.0      4.5893 µg/L      11.24155      4.5893 ppb       11.24155 244.95%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 24.3      0.1339 µg/L       0.55802      0.1339 ppb        0.55802 416.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                45.1      0.2639 µg/L       0.09667      0.2639 ppb        0.09667  36.63%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/1/2010 14:21:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141173.1	141173.1	97.9	%			14:22:14
1	Al 396.153Radial†	24727.2	25317.1	5020.7	µg/L	5020.7	ppb	14:22:14
1	Ca 317.933Radial†	81509.6	82677.0	5075.0	µg/L	5075.0	ppb	14:22:14
1	Fe 238.204 Radial†	72648.4	74043.9	4997.1	µg/L	4997.1	ppb	14:22:14
1	K 766.490 Radial†	14368.2	13112.5	5050.7	µg/L	5050.7	ppb	14:22:14
1	Mg 279.077 IEC†	12239.0	12331.7	5113.8	µg/L	5113.8	ppb	14:22:14
1	Na 589.592 Radial†	68687.6	68877.4	10126	µg/L	10126	ppb	14:22:14
1	Sr 421.552†	219955.1	224799.9	499.27	µg/L	499.27	ppb	14:22:12
1	Sc 361.383	1725050.4	1725050.4	98.189	%			14:22:27
1	Y 371.029	1018226.4	1018226.4	97.216	%			14:22:27
1	Ag 328.068†	127736.6	126277.5	499.76	µg/L	499.76	ppb	14:22:27
1	As 188.979†	1444.1	1492.4	486.09	µg/L	486.09	ppb	14:22:47
1	B 249.677†	34366.3	31540.7	484.28	µg/L	484.28	ppb	14:22:27
1	Ba 233.527†	113539.0	115785.6	491.66	µg/L	491.66	ppb	14:22:27
1	Be 313.107†	1685314.0	1717370.5	489.22	µg/L	489.22	ppb	14:22:27
1	Cd 226.502†	73285.4	74742.8	490.25	µg/L	490.25	ppb	14:22:27
1	Co 228.616†	37378.6	38257.4	494.44	µg/L	494.44	ppb	14:22:27
1	Cr 267.716†	58879.3	59788.6	492.70	µg/L	492.70	ppb	14:22:27
1	Cu 324.752†	122098.0	121490.8	494.19	µg/L	494.19	ppb	14:22:27
1	Mn 257.610†	375605.6	382321.7	494.35	µg/L	494.35	ppb	14:22:27
1	Mo 202.031†	15824.6	16159.1	502.65	µg/L	502.65	ppb	14:22:47
1	Ni 231.604†	39826.8	40641.5	490.52	µg/L	490.52	ppb	14:22:27
1	P 214.914†	10854.1	11053.8	2470.6	µg/L	2470.6	ppb	14:22:47
1	Pb 220.353†	8459.7	8548.1	502.28	µg/L	502.28	ppb	14:22:47
1	S 181.975 Axial†	1352.3	1272.0	1010.7	µg/L	1010.7	ppb	14:22:47
1	Sb 206.836†	3991.9	3986.5	501.89	µg/L	501.89	ppb	14:22:47
1	Se 196.026†	1298.3	1307.5	500	µg/L	500	ppb	14:22:47
1	SiO2†	51484.4	50683.1	5274.3	µg/L	5274.3	ppb	14:22:27
1	Si 251.611†	156085.0	158175.9	2472.7	µg/L	2472.7	ppb	14:22:27
1	Sn 189.927†	7414.1	7554.1	501.81	µg/L	501.81	ppb	14:22:47
1	Ti 334.940†	494982.1	503173.5	495.72	µg/L	495.72	ppb	14:22:27
1	Tl 190.801†	3626.5	3809.0	500.24	µg/L	500.24	ppb	14:22:47
1	U 409.014†	7294.3	7693.3	494.03	µg/L	494.03	ppb	14:22:27
1	V 292.402†	94845.7	96239.4	497.02	µg/L	497.02	ppb	14:22:27
1	Zn 213.857†	82601.9	83612.5	488.13	µg/L	488.13	ppb	14:22:27
2	Sc RADIAL	142640.4	142640.4	99.0	%			14:22:18
2	Al 396.153Radial†	24812.2	25143.3	4986.2	µg/L	4986.2	ppb	14:22:18
2	Ca 317.933Radial†	82339.8	82659.9	5074.0	µg/L	5074.0	ppb	14:22:18
2	Fe 238.204 Radial†	73357.3	73997.2	4994.0	µg/L	4994.0	ppb	14:22:18
2	K 766.490 Radial†	14287.3	12879.9	4961.0	µg/L	4961.0	ppb	14:22:18
2	Mg 279.077 IEC†	12415.3	12381.4	5134.3	µg/L	5134.3	ppb	14:22:18
2	Na 589.592 Radial†	69360.1	68835.4	10120	µg/L	10120	ppb	14:22:18
2	Sr 421.552†	219665.0	222196.3	493.49	µg/L	493.49	ppb	14:22:16
2	Sc 361.383	1732033.1	1732033.1	98.587	%			14:22:50
2	Y 371.029	1022240.4	1022240.4	97.600	%			14:22:50
2	Ag 328.068†	128256.8	126280.7	499.76	µg/L	499.76	ppb	14:22:50
2	As 188.979†	1450.3	1492.8	486.21	µg/L	486.21	ppb	14:23:10
2	B 249.677†	34813.1	31852.8	489.08	µg/L	489.08	ppb	14:22:50
2	Ba 233.527†	114149.6	115938.8	492.31	µg/L	492.31	ppb	14:22:50
2	Be 313.107†	1695246.0	1720525.3	490.11	µg/L	490.11	ppb	14:22:50
2	Cd 226.502†	73694.9	74857.2	491.01	µg/L	491.01	ppb	14:22:50
2	Co 228.616†	37618.0	38346.8	495.59	µg/L	495.59	ppb	14:22:50
2	Cr 267.716†	58982.9	59651.9	491.59	µg/L	491.59	ppb	14:22:50
2	Cu 324.752†	122418.5	121314.5	493.47	µg/L	493.47	ppb	14:22:50
2	Mn 257.610†	377971.5	383179.4	495.46	µg/L	495.46	ppb	14:22:50
2	Mo 202.031†	15773.3	16042.1	499.02	µg/L	499.02	ppb	14:23:10
2	Ni 231.604†	40099.5	40754.6	491.89	µg/L	491.89	ppb	14:22:50
2	P 214.914†	10850.2	11005.3	2459.7	µg/L	2459.7	ppb	14:23:10
2	Pb 220.353†	8446.9	8500.4	499.49	µg/L	499.49	ppb	14:23:10

2	S 181.975 Axial†	1357.8	1272.1	1010.7 µg/L	1010.7 ppb	14:23:10
2	Sb 206.836†	3964.7	3942.5	496.33 µg/L	496.33 ppb	14:23:10
2	Se 196.026†	1296.0	1299.8	497 µg/L	497 ppb	14:23:10
2	SiO2†	51782.6	50774.1	5284.0 µg/L	5284.0 ppb	14:22:50
2	Si 251.611†	156618.5	158076.2	2471.2 µg/L	2471.2 ppb	14:22:50
2	Sn 189.927†	7395.1	7504.4	498.52 µg/L	498.52 ppb	14:23:10
2	Ti 334.940†	497896.2	504097.1	496.64 µg/L	496.64 ppb	14:22:50
2	Tl 190.801†	3668.2	3836.4	503.80 µg/L	503.80 ppb	14:23:10
2	U 409.014†	7062.8	7428.5	478.11 µg/L	478.11 ppb	14:22:50
2	V 292.402†	95370.6	96382.3	497.70 µg/L	497.70 ppb	14:22:50
2	Zn 213.857†	82865.6	83540.9	487.70 µg/L	487.70 ppb	14:22:50
3	Sc RADIAL	141727.2	141727.2	98.3 %		14:22:22
3	Al 396.153Radial†	24869.9	25363.5	5030.1 µg/L	5030.1 ppb	14:22:22
3	Ca 317.933Radial†	81831.3	82678.8	5075.1 µg/L	5075.1 ppb	14:22:22
3	Fe 238.204 Radial†	73105.6	74218.9	5009.0 µg/L	5009.0 ppb	14:22:22
3	K 766.490 Radial†	14353.1	13039.8	5022.7 µg/L	5022.7 ppb	14:22:22
3	Mg 279.077 IEC†	12287.3	12332.0	5113.9 µg/L	5113.9 ppb	14:22:22
3	Na 589.592 Radial†	68789.2	68706.4	10101 µg/L	10101 ppb	14:22:22
3	Sr 421.552†	220979.0	224963.1	499.64 µg/L	499.64 ppb	14:22:20
3	Sc 361.383	1744045.2	1744045.2	99.270 %		14:23:13
3	Y 371.029	1028903.9	1028903.9	98.236 %		14:23:13
3	Ag 328.068†	129085.3	126219.2	499.52 µg/L	499.52 ppb	14:23:13
3	As 188.979†	1464.3	1496.7	487.47 µg/L	487.47 ppb	14:23:33
3	B 249.677†	35041.9	31840.0	488.88 µg/L	488.88 ppb	14:23:13
3	Ba 233.527†	114788.3	115784.7	491.66 µg/L	491.66 ppb	14:23:13
3	Be 313.107†	1710045.7	1723590.3	490.99 µg/L	490.99 ppb	14:23:13
3	Cd 226.502†	74284.9	74936.7	491.53 µg/L	491.53 ppb	14:23:13
3	Co 228.616†	38019.9	38488.9	497.43 µg/L	497.43 ppb	14:23:13
3	Cr 267.716†	59507.3	59768.0	492.55 µg/L	492.55 ppb	14:23:13
3	Cu 324.752†	123175.5	121221.9	493.09 µg/L	493.09 ppb	14:23:13
3	Mn 257.610†	380444.0	383029.4	495.27 µg/L	495.27 ppb	14:23:13
3	Mo 202.031†	15908.5	16068.1	499.83 µg/L	499.83 ppb	14:23:33
3	Ni 231.604†	40286.7	40663.1	490.78 µg/L	490.78 ppb	14:23:13
3	P 214.914†	10896.6	10976.2	2453.2 µg/L	2453.2 ppb	14:23:33
3	Pb 220.353†	8505.1	8500.0	499.47 µg/L	499.47 ppb	14:23:33
3	S 181.975 Axial†	1371.8	1276.7	1014.4 µg/L	1014.4 ppb	14:23:33
3	Sb 206.836†	4004.7	3955.1	497.91 µg/L	497.91 ppb	14:23:33
3	Se 196.026†	1290.4	1285.1	492 µg/L	492 ppb	14:23:33
3	SiO2†	52325.1	50958.9	5303.3 µg/L	5303.3 ppb	14:23:13
3	Si 251.611†	158085.9	158460.2	2477.2 µg/L	2477.2 ppb	14:23:13
3	Sn 189.927†	7428.6	7486.5	497.34 µg/L	497.34 ppb	14:23:33
3	Ti 334.940†	501829.8	504581.2	497.12 µg/L	497.12 ppb	14:23:13
3	Tl 190.801†	3677.7	3820.3	501.71 µg/L	501.71 ppb	14:23:33
3	U 409.014†	7103.1	7419.7	477.55 µg/L	477.55 ppb	14:23:13
3	V 292.402†	95958.3	96308.1	497.33 µg/L	497.33 ppb	14:23:13
3	Zn 213.857†	83842.5	83946.0	490.09 µg/L	490.09 ppb	14:23:13

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733709.6	98.682	%	0.5469				0.55%
Sc RADIAL	141846.9	98.4	%	0.51				0.52%
Y 371.029	1023123.6	97.684	%	0.5149				0.53%
Ag 328.068†	126259.1	499.68	µg/L	0.141	499.68	ppb	0.141	0.03%
QC value within limits for Ag 328.068 Recovery = 99.94%								
Al 396.153Radial†	25274.6	5012.3	µg/L	23.08	5012.3	ppb	23.08	0.46%
QC value within limits for Al 396.153Radial Recovery = 100.25%								
As 188.979†	1494.0	486.59	µg/L	0.766	486.59	ppb	0.766	0.16%
QC value within limits for As 188.979 Recovery = 97.32%								
B 249.677†	31744.5	487.41	µg/L	2.718	487.41	ppb	2.718	0.56%
QC value within limits for B 249.677 Recovery = 97.48%								
Ba 233.527†	115836.4	491.88	µg/L	0.376	491.88	ppb	0.376	0.08%
QC value within limits for Ba 233.527 Recovery = 98.38%								
Be 313.107†	1720495.4	490.11	µg/L	0.883	490.11	ppb	0.883	0.18%
QC value within limits for Be 313.107 Recovery = 98.02%								
Ca 317.933Radial†	82671.9	5074.7	µg/L	0.64	5074.7	ppb	0.64	0.01%
QC value within limits for Ca 317.933Radial Recovery = 101.49%								
Cd 226.502†	74845.5	490.93	µg/L	0.639	490.93	ppb	0.639	0.13%
QC value within limits for Cd 226.502 Recovery = 98.19%								
Co 228.616†	38364.4	495.82	µg/L	1.507	495.82	ppb	1.507	0.30%

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   QC value within limits for Co 228.616  Recovery = 99.16%
Cr 267.716†            59736.2      492.28 µg/L         0.603      492.28 ppb          0.603   0.12%
   QC value within limits for Cr 267.716  Recovery = 98.46%
Cu 324.752†           121342.4      493.58 µg/L         0.560      493.58 ppb          0.560   0.11%
   QC value within limits for Cu 324.752  Recovery = 98.72%
Fe 238.204 Radial†     74086.7      5000.0 µg/L          7.89      5000.0 ppb           7.89   0.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.00%
K 766.490 Radial†      13010.7      5011.5 µg/L         45.88      5011.5 ppb          45.88   0.92%
   QC value within limits for K 766.490 Radial  Recovery = 100.23%
Mg 279.077 IEC†        12348.3      5120.7 µg/L         11.82      5120.7 ppb          11.82   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.41%
Mn 257.610†           382843.5      495.03 µg/L         0.592      495.03 ppb          0.592   0.12%
   QC value within limits for Mn 257.610  Recovery = 99.01%
Mo 202.031†            16089.8      500.50 µg/L         1.909      500.50 ppb          1.909   0.38%
   QC value within limits for Mo 202.031  Recovery = 100.10%
Na 589.592 Radial†     68806.4       10116 µg/L          13.1       10116 ppb           13.1   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 101.16%
Ni 231.604†            40686.4      491.06 µg/L         0.725      491.06 ppb          0.725   0.15%
   QC value within limits for Ni 231.604  Recovery = 98.21%
P 214.914†             11011.8      2461.2 µg/L          8.79      2461.2 ppb           8.79   0.36%
   QC value within limits for P 214.914  Recovery = 98.45%
Pb 220.353†             8516.2      500.41 µg/L         1.617      500.41 ppb          1.617   0.32%
   QC value within limits for Pb 220.353  Recovery = 100.08%
S 181.975 Axial†        1273.6      1011.9 µg/L          2.13      1011.9 ppb           2.13   0.21%
   QC value within limits for S 181.975 Axial  Recovery = 101.19%
Sb 206.836†             3961.4      498.71 µg/L         2.866      498.71 ppb          2.866   0.57%
   QC value within limits for Sb 206.836  Recovery = 99.74%
Se 196.026†             1297.4         496 µg/L          4.3         496 ppb            4.3   0.87%
   QC value within limits for Se 196.026  Recovery = 99.30%
SiO2†                  50805.4      5287.2 µg/L         14.74      5287.2 ppb          14.74   0.28%
   QC value within limits for SiO2  Recovery = 98.87%
Si 251.611†           158237.5      2473.7 µg/L          3.14      2473.7 ppb           3.14   0.13%
   QC value within limits for Si 251.611  Recovery = 98.95%
Sn 189.927†             7515.0      499.23 µg/L         2.317      499.23 ppb          2.317   0.46%
   QC value within limits for Sn 189.927  Recovery = 99.85%
Sr 421.552†           223986.4      497.47 µg/L         3.448      497.47 ppb          3.448   0.69%
   QC value within limits for Sr 421.552  Recovery = 99.49%
Ti 334.940†           503950.6      496.49 µg/L         0.709      496.49 ppb          0.709   0.14%
   QC value within limits for Ti 334.940  Recovery = 99.30%
Tl 190.801†             3821.9      501.92 µg/L         1.790      501.92 ppb          1.790   0.36%
   QC value within limits for Tl 190.801  Recovery = 100.38%
U 409.014†              7513.8      483.23 µg/L         9.357      483.23 ppb          9.357   1.94%
   QC value within limits for U 409.014  Recovery = 96.65%
V 292.402†             96309.9      497.35 µg/L         0.338      497.35 ppb          0.338   0.07%
   QC value within limits for V 292.402  Recovery = 99.47%
Zn 213.857†            83699.8      488.64 µg/L         1.275      488.64 ppb          1.275   0.26%
   QC value within limits for Zn 213.857  Recovery = 97.73%
All analyte(s) passed QC.
```

Sequence No.: 22
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/1/2010 14:23:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146229.0	146229.0	101	%			14:24:12
1	Al 396.153Radial†	-52.1	17.5	3.4789	µg/L	3.4789	ppb	14:24:32
1	Ca 317.933Radial†	636.6	77.4	4.7507	µg/L	4.7507	ppb	14:24:32
1	Fe 238.204 Radial†	152.5	15.0	1.0129	µg/L	1.0129	ppb	14:24:32
1	K 766.490 Radial†	1703.3	120.7	46.506	µg/L	46.506	ppb	14:24:12
1	Mg 279.077 IEC†	185.1	17.3	7.1533	µg/L	7.1533	ppb	14:24:32
1	Na 589.592 Radial†	1955.6	670.1	98.520	µg/L	98.520	ppb	14:24:12
1	Sr 421.552†	-141.9	70.0	0.1555	µg/L	0.1555	ppb	14:24:12
1	Sc 361.383	1771861.7	1771861.7	100.85	%			14:25:19
1	Y 371.029	1056501.6	1056501.6	100.87	%			14:25:19
1	Ag 328.068†	3827.3	-19.9	-0.0728	µg/L	-0.0728	ppb	14:25:22
1	As 188.979†	-23.8	-1.9	-0.6148	µg/L	-0.6148	ppb	14:25:42
1	B 249.677†	3490.4	1.5	0.0226	µg/L	0.0226	ppb	14:25:42
1	Ba 233.527†	-147.0	7.1	0.0303	µg/L	0.0303	ppb	14:25:42
1	Be 313.107†	-624.8	357.3	0.1021	µg/L	0.1021	ppb	14:25:22
1	Cd 226.502†	-89.2	17.4	0.1142	µg/L	0.1142	ppb	14:25:42
1	Co 228.616†	-176.5	14.5	0.1878	µg/L	0.1878	ppb	14:25:42
1	Cr 267.716†	165.1	-12.9	-0.1071	µg/L	-0.1071	ppb	14:25:42
1	Cu 324.752†	2769.4	-113.0	-0.4568	µg/L	-0.4568	ppb	14:25:22
1	Mn 257.610†	289.4	76.4	0.0985	µg/L	0.0985	ppb	14:25:42
1	Mo 202.031†	-34.3	8.7	0.2707	µg/L	0.2707	ppb	14:25:42
1	Ni 231.604†	-82.4	-1.5	-0.0178	µg/L	-0.0178	ppb	14:25:42
1	P 214.914†	-3.9	-4.3	-0.9540	µg/L	-0.9540	ppb	14:25:42
1	Pb 220.353†	126.5	57.8	3.3851	µg/L	3.3851	ppb	14:25:42
1	S 181.975 Axial†	117.8	11.7	9.2232	µg/L	9.2232	ppb	14:25:42
1	Sb 206.836†	77.8	-1.8	-0.2245	µg/L	-0.2245	ppb	14:25:42
1	Se 196.026†	19.2	4.2	1.62	µg/L	1.62	ppb	14:25:42
1	SiO2†	1786.0	20.1	2.0866	µg/L	2.0866	ppb	14:25:42
1	Si 251.611†	844.5	49.8	0.7775	µg/L	0.7775	ppb	14:25:22
1	Sn 189.927†	-1.0	2.2	0.1477	µg/L	0.1477	ppb	14:25:42
1	Ti 334.940†	826.6	-117.2	-0.1165	µg/L	-0.1165	ppb	14:25:22
1	Tl 190.801†	-120.0	-3.3	-0.4319	µg/L	-0.4319	ppb	14:25:42
1	U 409.014†	-247.5	19.1	1.1693	µg/L	1.1693	ppb	14:25:22
1	V 292.402†	419.3	60.3	0.3104	µg/L	0.3104	ppb	14:25:22
1	Zn 213.857†	544.3	27.0	0.1592	µg/L	0.1592	ppb	14:25:42
2	Sc RADIAL	146154.3	146154.3	101	%			14:24:34
2	Al 396.153Radial†	-60.4	9.3	1.8420	µg/L	1.8420	ppb	14:24:54
2	Ca 317.933Radial†	632.6	73.8	4.5317	µg/L	4.5317	ppb	14:24:54
2	Fe 238.204 Radial†	145.7	8.4	0.5656	µg/L	0.5656	ppb	14:24:54
2	K 766.490 Radial†	1715.2	133.3	51.353	µg/L	51.353	ppb	14:24:34
2	Mg 279.077 IEC†	177.9	10.3	4.2600	µg/L	4.2600	ppb	14:24:54
2	Na 589.592 Radial†	2004.5	719.4	105.76	µg/L	105.76	ppb	14:24:34
2	Sr 421.552†	-96.8	114.4	0.2540	µg/L	0.2540	ppb	14:24:34
2	Sc 361.383	1790421.3	1790421.3	101.91	%			14:25:44
2	Y 371.029	1066176.6	1066176.6	101.79	%			14:25:44
2	Ag 328.068†	3741.5	-143.4	-0.5517	µg/L	-0.5517	ppb	14:25:46
2	As 188.979†	-8.6	13.3	4.2584	µg/L	4.2584	ppb	14:26:06
2	B 249.677†	3441.7	-82.2	-1.2677	µg/L	-1.2677	ppb	14:26:06
2	Ba 233.527†	-171.5	-15.5	-0.0654	µg/L	-0.0654	ppb	14:26:06
2	Be 313.107†	-608.6	379.7	0.1093	µg/L	0.1093	ppb	14:25:46
2	Cd 226.502†	-88.2	19.3	0.1268	µg/L	0.1268	ppb	14:26:06
2	Co 228.616†	-173.1	19.7	0.2542	µg/L	0.2542	ppb	14:26:06
2	Cr 267.716†	215.8	35.2	0.2870	µg/L	0.2870	ppb	14:26:06
2	Cu 324.752†	2918.2	4.6	0.0221	µg/L	0.0221	ppb	14:25:46
2	Mn 257.610†	245.4	30.2	0.0390	µg/L	0.0390	ppb	14:26:06
2	Mo 202.031†	-29.9	13.4	0.4168	µg/L	0.4168	ppb	14:26:06
2	Ni 231.604†	-85.2	-3.3	-0.0399	µg/L	-0.0399	ppb	14:26:06
2	P 214.914†	6.4	5.9	1.3263	µg/L	1.3263	ppb	14:26:06
2	Pb 220.353†	102.5	32.9	1.9266	µg/L	1.9266	ppb	14:26:06

2	S 181.975 Axial†	90.6	-16.3	-12.904 µg/L	-12.904 ppb	14:26:06
2	Sb 206.836†	78.4	-2.1	-0.2554 µg/L	-0.2554 ppb	14:26:06
2	Se 196.026†	33.8	18.4	7.01 µg/L	7.01 ppb	14:26:06
2	SiO2†	1734.6	-48.7	-5.1124 µg/L	-5.1124 ppb	14:26:06
2	Si 251.611†	975.1	169.3	2.6490 µg/L	2.6490 ppb	14:25:46
2	Sn 189.927†	5.0	8.1	0.5375 µg/L	0.5375 ppb	14:26:06
2	Ti 334.940†	1040.5	84.2	0.0812 µg/L	0.0812 ppb	14:25:46
2	Tl 190.801†	-112.1	5.6	0.7297 µg/L	0.7297 ppb	14:26:06
2	U 409.014†	-205.8	62.5	3.7924 µg/L	3.7924 ppb	14:25:46
2	V 292.402†	433.5	70.0	0.3646 µg/L	0.3646 ppb	14:25:46
2	Zn 213.857†	552.5	29.5	0.1739 µg/L	0.1739 ppb	14:26:06
3	Sc RADIAL	146776.1	146776.1	102 %		14:24:56
3	Al 396.153Radial†	-57.3	12.6	2.4860 µg/L	2.4860 ppb	14:25:16
3	Ca 317.933Radial†	620.0	58.8	3.6066 µg/L	3.6066 ppb	14:25:16
3	Fe 238.204 Radial†	158.3	20.2	1.3636 µg/L	1.3636 ppb	14:25:16
3	K 766.490 Radial†	1709.1	120.1	46.286 µg/L	46.286 ppb	14:24:56
3	Mg 279.077 IEC†	193.0	24.3	10.087 µg/L	10.087 ppb	14:25:16
3	Na 589.592 Radial†	1960.0	667.3	98.107 µg/L	98.107 ppb	14:24:56
3	Sr 421.552†	-270.5	-55.8	-0.1241 µg/L	-0.1241 ppb	14:24:56
3	Sc 361.383	1774895.9	1774895.9	101.03 %		14:26:08
3	Y 371.029	1058619.7	1058619.7	101.07 %		14:26:08
3	Ag 328.068†	4038.5	182.7	0.7065 µg/L	0.7065 ppb	14:26:10
3	As 188.979†	-26.4	-4.4	-1.4092 µg/L	-1.4092 ppb	14:26:30
3	B 249.677†	3488.4	-6.4	-0.0991 µg/L	-0.0991 ppb	14:26:30
3	Ba 233.527†	-151.2	3.1	0.0131 µg/L	0.0131 ppb	14:26:30
3	Be 313.107†	-605.5	377.5	0.1060 µg/L	0.1060 ppb	14:26:10
3	Cd 226.502†	-100.0	6.9	0.0448 µg/L	0.0448 ppb	14:26:30
3	Co 228.616†	-173.6	17.7	0.2287 µg/L	0.2287 ppb	14:26:30
3	Cr 267.716†	176.2	-2.2	-0.0139 µg/L	-0.0139 ppb	14:26:30
3	Cu 324.752†	2722.5	-164.1	-0.6689 µg/L	-0.6689 ppb	14:26:10
3	Mn 257.610†	254.2	41.0	0.0527 µg/L	0.0527 ppb	14:26:30
3	Mo 202.031†	-26.2	16.9	0.5239 µg/L	0.5239 ppb	14:26:30
3	Ni 231.604†	-86.9	-5.7	-0.0690 µg/L	-0.0690 ppb	14:26:30
3	P 214.914†	10.2	9.7	2.1910 µg/L	2.1910 ppb	14:26:30
3	Pb 220.353†	78.7	10.2	0.6042 µg/L	0.6042 ppb	14:26:30
3	S 181.975 Axial†	100.3	-5.9	-4.6327 µg/L	-4.6327 ppb	14:26:30
3	Sb 206.836†	71.3	-8.4	-1.0484 µg/L	-1.0484 ppb	14:26:30
3	Se 196.026†	18.0	3.0	1.14 µg/L	1.14 ppb	14:26:30
3	SiO2†	1719.9	-48.4	-5.0856 µg/L	-5.0856 ppb	14:26:30
3	Si 251.611†	924.6	127.7	1.9920 µg/L	1.9920 ppb	14:26:10
3	Sn 189.927†	9.9	13.0	0.8612 µg/L	0.8612 ppb	14:26:30
3	Ti 334.940†	674.2	-269.4	-0.2644 µg/L	-0.2644 ppb	14:26:10
3	Tl 190.801†	-122.2	-5.3	-0.6907 µg/L	-0.6907 ppb	14:26:30
3	U 409.014†	-353.1	-85.1	-5.1380 µg/L	-5.1380 ppb	14:26:10
3	V 292.402†	336.9	-21.9	-0.1097 µg/L	-0.1097 ppb	14:26:10
3	Zn 213.857†	561.5	43.2	0.2547 µg/L	0.2547 ppb	14:26:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1779059.7	101.26	%	0.567				0.56%
Sc RADIAL	146386.4	102	%	0.2				0.23%
Y 371.029	1060432.7	101.25	%	0.486				0.48%
Ag 328.068†	6.5	0.0274	µg/L	0.63504	0.0274	ppb	0.63504	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	13.2	2.6023	µg/L	0.82464	2.6023	ppb	0.82464	31.69%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.3	0.7448	µg/L	3.06869	0.7448	ppb	3.06869	412.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-29.0	-0.4481	µg/L	0.71241	-0.4481	ppb	0.71241	159.00%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.8	-0.0073	µg/L	0.05099	-0.0073	ppb	0.05099	696.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	371.5	0.1058	µg/L	0.00359	0.1058	ppb	0.00359	3.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	70.0	4.2964	µg/L	0.60730	4.2964	ppb	0.60730	14.14%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.5	0.0952	µg/L	0.04414	0.0952	ppb	0.04414	46.34%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.3	0.2236	µg/L	0.03351	0.2236	ppb	0.03351	14.99%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 6.7      0.0553 µg/L       0.20599      0.0553 ppb        0.20599 372.24%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -90.8     -0.3678 µg/L       0.35399     -0.3678 ppb        0.35399  96.23%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         14.5      0.9807 µg/L       0.39998      0.9807 ppb        0.39998  40.78%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         124.7      48.048 µg/L        2.8641      48.048 ppb         2.8641   5.96%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            17.3      7.1666 µg/L       2.91327      7.1666 ppb        2.91327  40.65%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                49.2      0.0634 µg/L       0.03117      0.0634 ppb        0.03117  49.18%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.0      0.4038 µg/L       0.12714      0.4038 ppb        0.12714  31.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        685.6      100.80 µg/L         4.306      100.80 ppb          4.306   4.27%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -3.5     -0.0422 µg/L       0.02569     -0.0422 ppb        0.02569  60.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  3.8      0.8544 µg/L       1.62476      0.8544 ppb        1.62476 190.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                33.7      1.9720 µg/L       1.39096      1.9720 ppb        1.39096  70.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.5     -2.7712 µg/L      11.18053     -2.7712 ppb       11.18053 403.45%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.1     -0.5094 µg/L       0.46699     -0.5094 ppb        0.46699  91.67%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 8.5        3.25 µg/L         3.262        3.25 ppb          3.262 100.24%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -25.7     -2.7038 µg/L       4.14861     -2.7038 ppb        4.14861 153.44%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               115.6      1.8061 µg/L       0.94947      1.8061 ppb        0.94947  52.57%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.8      0.5155 µg/L       0.35726      0.5155 ppb        0.35726  69.31%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                42.8      0.0951 µg/L       0.19612      0.0951 ppb        0.19612 206.14%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -100.8     -0.0999 µg/L       0.17342     -0.0999 ppb        0.17342 173.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.0     -0.1310 µg/L       0.75646     -0.1310 ppb        0.75646 577.63%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -1.2     -0.0588 µg/L       4.59009     -0.0588 ppb        4.59009 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 36.1      0.1884 µg/L       0.25963      0.1884 ppb        0.25963 137.77%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                33.2      0.1959 µg/L       0.05139      0.1959 ppb        0.05139  26.23%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/1/2010 14:42:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141018.8	141018.8	97.8	%			14:43:14
1	Al 396.153Radial†	24722.9	25340.4	5025.4	µg/L	5025.4	ppb	14:43:14
1	Ca 317.933Radial†	81713.7	82976.7	5093.4	µg/L	5093.4	ppb	14:43:14
1	Fe 238.204 Radial†	73035.7	74521.0	5029.3	µg/L	5029.3	ppb	14:43:14
1	K 766.490 Radial†	14311.7	13070.8	5034.7	µg/L	5034.7	ppb	14:43:14
1	Mg 279.077 IEC†	12304.6	12412.5	5147.2	µg/L	5147.2	ppb	14:43:14
1	Na 589.592 Radial†	68097.7	68351.0	10049	µg/L	10049	ppb	14:43:14
1	Sr 421.552†	218894.3	223961.2	497.41	µg/L	497.41	ppb	14:43:12
1	Sc 361.383	1728298.9	1728298.9	98.374	%			14:43:40
1	Y 371.029	1019745.4	1019745.4	97.361	%			14:43:40
1	Ag 328.068†	128050.3	126351.8	500.04	µg/L	500.04	ppb	14:43:40
1	As 188.979†	1453.0	1498.7	488.11	µg/L	488.11	ppb	14:44:00
1	B 249.677†	34708.0	31822.3	488.61	µg/L	488.61	ppb	14:43:40
1	Ba 233.527†	114131.7	116170.8	493.30	µg/L	493.30	ppb	14:43:40
1	Be 313.107†	1693945.3	1722918.3	490.80	µg/L	490.80	ppb	14:43:40
1	Cd 226.502†	73920.7	75248.2	493.57	µg/L	493.57	ppb	14:43:40
1	Co 228.616†	37652.9	38464.7	497.12	µg/L	497.12	ppb	14:43:40
1	Cr 267.716†	58948.5	59746.2	492.36	µg/L	492.36	ppb	14:43:40
1	Cu 324.752†	122283.2	121445.2	494.01	µg/L	494.01	ppb	14:43:40
1	Mn 257.610†	378013.2	384050.2	496.59	µg/L	496.59	ppb	14:43:40
1	Mo 202.031†	15786.9	16090.6	500.53	µg/L	500.53	ppb	14:44:00
1	Ni 231.604†	40201.1	40945.8	494.19	µg/L	494.19	ppb	14:43:40
1	P 214.914†	10845.3	11024.1	2463.9	µg/L	2463.9	ppb	14:44:00
1	Pb 220.353†	8426.5	8498.2	499.36	µg/L	499.36	ppb	14:44:00
1	S 181.975 Axial†	1338.3	1255.2	997.40	µg/L	997.40	ppb	14:44:00
1	Sb 206.836†	3998.8	3985.8	501.78	µg/L	501.78	ppb	14:44:00
1	Se 196.026†	1284.1	1290.5	494	µg/L	494	ppb	14:44:00
1	SiO2†	51945.6	51053.3	5313.1	µg/L	5313.1	ppb	14:43:40
1	Si 251.611†	156574.3	158374.5	2475.9	µg/L	2475.9	ppb	14:43:40
1	Sn 189.927†	7388.1	7513.5	499.13	µg/L	499.13	ppb	14:44:00
1	Ti 334.940†	497693.0	504981.7	497.51	µg/L	497.51	ppb	14:43:40
1	Tl 190.801†	3658.0	3834.1	503.49	µg/L	503.49	ppb	14:44:00
1	U 409.014†	7223.7	7607.6	488.83	µg/L	488.83	ppb	14:43:40
1	V 292.402†	94893.9	96106.8	496.31	µg/L	496.31	ppb	14:43:40
1	Zn 213.857†	83204.2	84066.7	490.78	µg/L	490.78	ppb	14:43:40
2	Sc RADIAL	140938.7	140938.7	97.8	%			14:43:18
2	Al 396.153Radial†	24670.0	25300.6	5017.5	µg/L	5017.5	ppb	14:43:18
2	Ca 317.933Radial†	81581.6	82889.1	5088.0	µg/L	5088.0	ppb	14:43:18
2	Fe 238.204 Radial†	72959.0	74484.9	5026.9	µg/L	5026.9	ppb	14:43:18
2	K 766.490 Radial†	14346.6	13114.9	5051.6	µg/L	5051.6	ppb	14:43:18
2	Mg 279.077 IEC†	12318.6	12433.9	5156.1	µg/L	5156.1	ppb	14:43:18
2	Na 589.592 Radial†	68085.8	68378.5	10053	µg/L	10053	ppb	14:43:18
2	Sr 421.552†	219303.2	224506.7	498.62	µg/L	498.62	ppb	14:43:16
2	Sc 361.383	1728029.1	1728029.1	98.359	%			14:44:03
2	Y 371.029	1018784.2	1018784.2	97.270	%			14:44:03
2	Ag 328.068†	128623.6	126955.0	502.45	µg/L	502.45	ppb	14:44:03
2	As 188.979†	1444.0	1489.8	485.28	µg/L	485.28	ppb	14:44:23
2	B 249.677†	34690.1	31809.6	488.41	µg/L	488.41	ppb	14:44:03
2	Ba 233.527†	114134.9	116192.1	493.39	µg/L	493.39	ppb	14:44:03
2	Be 313.107†	1697399.0	1726698.5	491.88	µg/L	491.88	ppb	14:44:03
2	Cd 226.502†	74037.7	75378.9	494.43	µg/L	494.43	ppb	14:44:03
2	Co 228.616†	37712.5	38531.3	497.98	µg/L	497.98	ppb	14:44:03
2	Cr 267.716†	59214.4	60025.9	494.66	µg/L	494.66	ppb	14:44:03
2	Cu 324.752†	122780.0	121969.8	496.15	µg/L	496.15	ppb	14:44:03
2	Mn 257.610†	378989.3	385102.5	497.95	µg/L	497.95	ppb	14:44:03
2	Mo 202.031†	15779.8	16085.9	500.38	µg/L	500.38	ppb	14:44:23
2	Ni 231.604†	40273.7	41026.0	495.16	µg/L	495.16	ppb	14:44:03
2	P 214.914†	10872.6	11053.6	2470.5	µg/L	2470.5	ppb	14:44:23
2	Pb 220.353†	8445.6	8518.9	500.57	µg/L	500.57	ppb	14:44:23

2	S 181.975 Axial†	1339.4	1256.5	998.43 µg/L	998.43 ppb	14:44:23
2	Sb 206.836†	3969.1	3956.3	498.03 µg/L	498.03 ppb	14:44:23
2	Se 196.026†	1289.0	1295.7	496 µg/L	496 ppb	14:44:23
2	SiO2†	51861.4	50975.9	5305.0 µg/L	5305.0 ppb	14:44:03
2	Si 251.611†	157439.0	159278.5	2490.0 µg/L	2490.0 ppb	14:44:03
2	Sn 189.927†	7384.6	7511.1	498.97 µg/L	498.97 ppb	14:44:23
2	Ti 334.940†	498684.5	506068.7	498.57 µg/L	498.57 ppb	14:44:03
2	Tl 190.801†	3650.9	3827.4	502.66 µg/L	502.66 ppb	14:44:23
2	U 409.014†	7359.5	7746.8	497.46 µg/L	497.46 ppb	14:44:03
2	V 292.402†	95623.2	96863.3	500.18 µg/L	500.18 ppb	14:44:03
2	Zn 213.857†	83314.8	84192.4	491.51 µg/L	491.51 ppb	14:44:03
3	Sc RADIAL	140395.8	140395.8	97.4 %		14:43:22
3	Al 396.153Radial†	24550.5	25275.5	5012.4 µg/L	5012.4 ppb	14:43:22
3	Ca 317.933Radial†	81122.0	82739.9	5078.9 µg/L	5078.9 ppb	14:43:22
3	Fe 238.204 Radial†	72385.9	74185.2	5006.7 µg/L	5006.7 ppb	14:43:22
3	K 766.490 Radial†	14325.7	13150.1	5065.2 µg/L	5065.2 ppb	14:43:22
3	Mg 279.077 IEC†	12218.7	12380.1	5133.8 µg/L	5133.8 ppb	14:43:22
3	Na 589.592 Radial†	67424.1	67968.3	9992.6 µg/L	9992.6 ppb	14:43:22
3	Sr 421.552†	218467.8	224516.2	498.64 µg/L	498.64 ppb	14:43:20
3	Sc 361.383	1723556.6	1723556.6	98.104 %		14:44:26
3	Y 371.029	1016740.3	1016740.3	97.075 %		14:44:26
3	Ag 328.068†	128305.1	126969.7	502.50 µg/L	502.50 ppb	14:44:26
3	As 188.979†	1458.8	1508.6	491.32 µg/L	491.32 ppb	14:44:46
3	B 249.677†	34734.5	31946.4	490.52 µg/L	490.52 ppb	14:44:26
3	Ba 233.527†	113908.8	116262.8	493.69 µg/L	493.69 ppb	14:44:26
3	Be 313.107†	1693103.3	1726797.9	491.91 µg/L	491.91 ppb	14:44:26
3	Cd 226.502†	73809.3	75341.4	494.18 µg/L	494.18 ppb	14:44:26
3	Co 228.616†	37610.7	38527.1	497.92 µg/L	497.92 ppb	14:44:26
3	Cr 267.716†	59097.1	60062.6	494.96 µg/L	494.96 ppb	14:44:26
3	Cu 324.752†	122537.6	122046.6	496.46 µg/L	496.46 ppb	14:44:26
3	Mn 257.610†	377976.3	385069.8	497.91 µg/L	497.91 ppb	14:44:26
3	Mo 202.031†	15769.3	16116.8	501.34 µg/L	501.34 ppb	14:44:46
3	Ni 231.604†	40180.8	41037.5	495.30 µg/L	495.30 ppb	14:44:26
3	P 214.914†	10829.3	11038.2	2467.1 µg/L	2467.1 ppb	14:44:46
3	Pb 220.353†	8473.5	8569.6	503.53 µg/L	503.53 ppb	14:44:46
3	S 181.975 Axial†	1349.5	1270.4	1009.4 µg/L	1009.4 ppb	14:44:46
3	Sb 206.836†	3991.6	3989.7	502.25 µg/L	502.25 ppb	14:44:46
3	Se 196.026†	1288.9	1299.0	497 µg/L	497 ppb	14:44:46
3	SiO2†	51768.6	51018.1	5309.4 µg/L	5309.4 ppb	14:44:26
3	Si 251.611†	156728.6	158969.8	2485.2 µg/L	2485.2 ppb	14:44:26
3	Sn 189.927†	7413.9	7560.4	502.24 µg/L	502.24 ppb	14:44:46
3	Ti 334.940†	497313.1	505986.5	498.49 µg/L	498.49 ppb	14:44:26
3	Tl 190.801†	3664.4	3850.8	505.69 µg/L	505.69 ppb	14:44:46
3	U 409.014†	7403.3	7810.9	501.27 µg/L	501.27 ppb	14:44:26
3	V 292.402†	95188.8	96672.8	499.23 µg/L	499.23 ppb	14:44:26
3	Zn 213.857†	83166.3	84260.7	491.91 µg/L	491.91 ppb	14:44:26

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726628.2	98.279	%	0.1516				0.15%
Sc RADIAL	140784.4	97.7	%	0.24				0.24%
Y 371.029	1018423.3	97.235	%	0.1465				0.15%
Ag 328.068†	126758.8	501.66	µg/L	1.409	501.66	ppb	1.409	0.28%
QC value within limits for Ag 328.068 Recovery = 100.33%								
Al 396.153Radial†	25305.5	5018.4	µg/L	6.54	5018.4	ppb	6.54	0.13%
QC value within limits for Al 396.153Radial Recovery = 100.37%								
As 188.979†	1499.0	488.24	µg/L	3.025	488.24	ppb	3.025	0.62%
QC value within limits for As 188.979 Recovery = 97.65%								
B 249.677†	31859.4	489.18	µg/L	1.164	489.18	ppb	1.164	0.24%
QC value within limits for B 249.677 Recovery = 97.84%								
Ba 233.527†	116208.6	493.46	µg/L	0.205	493.46	ppb	0.205	0.04%
QC value within limits for Ba 233.527 Recovery = 98.69%								
Be 313.107†	1725471.6	491.53	µg/L	0.632	491.53	ppb	0.632	0.13%
QC value within limits for Be 313.107 Recovery = 98.31%								
Ca 317.933Radial†	82868.6	5086.8	µg/L	7.35	5086.8	ppb	7.35	0.14%
QC value within limits for Ca 317.933Radial Recovery = 101.74%								
Cd 226.502†	75322.8	494.06	µg/L	0.442	494.06	ppb	0.442	0.09%
QC value within limits for Cd 226.502 Recovery = 98.81%								
Co 228.616†	38507.7	497.67	µg/L	0.482	497.67	ppb	0.482	0.10%

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   QC value within limits for Co 228.616  Recovery = 99.53%
Cr 267.716†            59944.9      493.99 µg/L        1.422      493.99 ppb          1.422   0.29%
   QC value within limits for Cr 267.716  Recovery = 98.80%
Cu 324.752†           121820.5      495.54 µg/L        1.331      495.54 ppb          1.331   0.27%
   QC value within limits for Cu 324.752  Recovery = 99.11%
Fe 238.204 Radial†     74397.0      5021.0 µg/L        12.44      5021.0 ppb          12.44   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.42%
K 766.490 Radial†      13111.9      5050.5 µg/L        15.32      5050.5 ppb          15.32   0.30%
   QC value within limits for K 766.490 Radial  Recovery = 101.01%
Mg 279.077 IEC†        12408.8      5145.7 µg/L        11.20      5145.7 ppb          11.20   0.22%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.91%
Mn 257.610†           384740.8      497.48 µg/L        0.774      497.48 ppb          0.774   0.16%
   QC value within limits for Mn 257.610  Recovery = 99.50%
Mo 202.031†            16097.8      500.75 µg/L        0.517      500.75 ppb          0.517   0.10%
   QC value within limits for Mo 202.031  Recovery = 100.15%
Na 589.592 Radial†     68232.6       10031 µg/L         33.7       10031 ppb           33.7   0.34%
   QC value within limits for Na 589.592 Radial  Recovery = 100.31%
Ni 231.604†            41003.1      494.89 µg/L        0.603      494.89 ppb          0.603   0.12%
   QC value within limits for Ni 231.604  Recovery = 98.98%
P 214.914†             11038.6      2467.2 µg/L         3.29      2467.2 ppb           3.29   0.13%
   QC value within limits for P 214.914  Recovery = 98.69%
Pb 220.353†             8528.9      501.15 µg/L        2.149      501.15 ppb          2.149   0.43%
   QC value within limits for Pb 220.353  Recovery = 100.23%
S 181.975 Axial†        1260.7      1001.7 µg/L         6.67      1001.7 ppb           6.67   0.67%
   QC value within limits for S 181.975 Axial  Recovery = 100.17%
Sb 206.836†             3977.3      500.69 µg/L        2.309      500.69 ppb          2.309   0.46%
   QC value within limits for Sb 206.836  Recovery = 100.14%
Se 196.026†             1295.1         496 µg/L          1.6         496 ppb            1.6   0.33%
   QC value within limits for Se 196.026  Recovery = 99.12%
SiO2†                  51015.8      5309.2 µg/L         4.04      5309.2 ppb           4.04   0.08%
   QC value within limits for SiO2  Recovery = 99.28%
Si 251.611†           158874.3      2483.7 µg/L         7.21      2483.7 ppb           7.21   0.29%
   QC value within limits for Si 251.611  Recovery = 99.35%
Sn 189.927†             7528.3      500.11 µg/L        1.842      500.11 ppb          1.842   0.37%
   QC value within limits for Sn 189.927  Recovery = 100.02%
Sr 421.552†           224328.0      498.22 µg/L        0.706      498.22 ppb          0.706   0.14%
   QC value within limits for Sr 421.552  Recovery = 99.64%
Ti 334.940†           505679.0      498.19 µg/L        0.594      498.19 ppb          0.594   0.12%
   QC value within limits for Ti 334.940  Recovery = 99.64%
Tl 190.801†             3837.4      503.95 µg/L        1.564      503.95 ppb          1.564   0.31%
   QC value within limits for Tl 190.801  Recovery = 100.79%
U 409.014†              7721.8      495.85 µg/L        6.373      495.85 ppb          6.373   1.29%
   QC value within limits for U 409.014  Recovery = 99.17%
V 292.402†             96547.6      498.57 µg/L        2.015      498.57 ppb          2.015   0.40%
   QC value within limits for V 292.402  Recovery = 99.71%
Zn 213.857†            84173.3      491.40 µg/L        0.575      491.40 ppb          0.575   0.12%
   QC value within limits for Zn 213.857  Recovery = 98.28%
All analyte(s) passed QC.
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Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/1/2010 14:44:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143802.7	143802.7	99.8	%			14:45:26
1	Al 396.153Radial†	-48.2	20.6	4.0966	µg/L	4.0966	ppb	14:45:46
1	Ca 317.933Radial†	635.0	86.4	5.3062	µg/L	5.3062	ppb	14:45:46
1	Fe 238.204 Radial†	159.5	24.5	1.6563	µg/L	1.6563	ppb	14:45:46
1	K 766.490 Radial†	1840.2	286.2	110.31	µg/L	110.31	ppb	14:45:26
1	Mg 279.077 IEC†	160.0	-4.8	-1.9826	µg/L	-1.9826	ppb	14:45:46
1	Na 589.592 Radial†	1741.4	488.0	71.672	µg/L	71.672	ppb	14:45:26
1	Sr 421.552†	-98.0	111.6	0.2479	µg/L	0.2479	ppb	14:45:26
1	Sc 361.383	1751172.1	1751172.1	99.676	%			14:46:33
1	Y 371.029	1045772.0	1045772.0	99.846	%			14:46:33
1	Ag 328.068†	4040.4	238.7	0.9370	µg/L	0.9370	ppb	14:46:36
1	As 188.979†	-13.5	8.2	2.6347	µg/L	2.6347	ppb	14:46:56
1	B 249.677†	3496.3	48.3	0.7437	µg/L	0.7437	ppb	14:46:56
1	Ba 233.527†	-147.2	5.1	0.0215	µg/L	0.0215	ppb	14:46:56
1	Be 313.107†	-411.4	564.1	0.1616	µg/L	0.1616	ppb	14:46:36
1	Cd 226.502†	-82.1	23.5	0.1539	µg/L	0.1539	ppb	14:46:56
1	Co 228.616†	-180.2	8.7	0.1126	µg/L	0.1126	ppb	14:46:56
1	Cr 267.716†	227.5	51.7	0.4235	µg/L	0.4235	ppb	14:46:56
1	Cu 324.752†	2817.4	-32.4	-0.1285	µg/L	-0.1285	ppb	14:46:36
1	Mn 257.610†	279.9	70.3	0.0910	µg/L	0.0910	ppb	14:46:56
1	Mo 202.031†	-38.0	4.6	0.1432	µg/L	0.1432	ppb	14:46:56
1	Ni 231.604†	-94.9	-15.0	-0.1809	µg/L	-0.1809	ppb	14:46:56
1	P 214.914†	-12.5	-13.0	-2.9089	µg/L	-2.9089	ppb	14:46:56
1	Pb 220.353†	74.8	7.4	0.4332	µg/L	0.4332	ppb	14:46:56
1	S 181.975 Axial†	92.0	-12.9	-10.202	µg/L	-10.202	ppb	14:46:56
1	Sb 206.836†	81.0	2.3	0.2794	µg/L	0.2794	ppb	14:46:56
1	Se 196.026†	18.3	3.5	1.34	µg/L	1.34	ppb	14:46:56
1	SiO2†	1703.4	-41.9	-4.3903	µg/L	-4.3903	ppb	14:46:56
1	Si 251.611†	753.3	-31.7	-0.5042	µg/L	-0.5042	ppb	14:46:36
1	Sn 189.927†	6.1	9.3	0.6159	µg/L	0.6159	ppb	14:46:56
1	Ti 334.940†	826.1	-108.0	-0.1076	µg/L	-0.1076	ppb	14:46:36
1	Tl 190.801†	-112.8	2.5	0.3193	µg/L	0.3193	ppb	14:46:56
1	U 409.014†	-211.8	52.0	3.1387	µg/L	3.1387	ppb	14:46:36
1	V 292.402†	356.4	2.2	0.0164	µg/L	0.0164	ppb	14:46:36
1	Zn 213.857†	532.1	21.1	0.1253	µg/L	0.1253	ppb	14:46:56
2	Sc RADIAL	145414.1	145414.1	101	%			14:45:48
2	Al 396.153Radial†	-75.5	-5.9	-1.1937	µg/L	-1.1937	ppb	14:46:08
2	Ca 317.933Radial†	603.4	48.1	2.9516	µg/L	2.9516	ppb	14:46:08
2	Fe 238.204 Radial†	158.4	21.7	1.4621	µg/L	1.4621	ppb	14:46:08
2	K 766.490 Radial†	1729.8	156.3	60.250	µg/L	60.250	ppb	14:45:48
2	Mg 279.077 IEC†	212.4	45.4	18.801	µg/L	18.801	ppb	14:46:08
2	Na 589.592 Radial†	1445.4	175.2	25.711	µg/L	25.711	ppb	14:45:48
2	Sr 421.552†	-190.0	21.5	0.0478	µg/L	0.0478	ppb	14:45:48
2	Sc 361.383	1755617.2	1755617.2	99.929	%			14:46:58
2	Y 371.029	1047520.4	1047520.4	100.01	%			14:46:58
2	Ag 328.068†	3766.6	-45.5	-0.1877	µg/L	-0.1877	ppb	14:47:00
2	As 188.979†	-24.6	-3.0	-0.9498	µg/L	-0.9498	ppb	14:47:20
2	B 249.677†	3472.7	15.8	0.2428	µg/L	0.2428	ppb	14:47:20
2	Ba 233.527†	-159.9	-7.2	-0.0305	µg/L	-0.0305	ppb	14:47:20
2	Be 313.107†	-813.4	162.9	0.0432	µg/L	0.0432	ppb	14:47:00
2	Cd 226.502†	-88.5	17.2	0.1129	µg/L	0.1129	ppb	14:47:20
2	Co 228.616†	-170.1	19.3	0.2491	µg/L	0.2491	ppb	14:47:20
2	Cr 267.716†	209.2	32.8	0.2787	µg/L	0.2787	ppb	14:47:20
2	Cu 324.752†	2822.1	-34.9	-0.1493	µg/L	-0.1493	ppb	14:47:00
2	Mn 257.610†	251.3	40.9	0.0522	µg/L	0.0522	ppb	14:47:20
2	Mo 202.031†	-31.6	11.1	0.3468	µg/L	0.3468	ppb	14:47:20
2	Ni 231.604†	-84.4	-4.2	-0.0506	µg/L	-0.0506	ppb	14:47:20
2	P 214.914†	7.8	7.4	1.6595	µg/L	1.6595	ppb	14:47:20
2	Pb 220.353†	104.9	37.4	2.1965	µg/L	2.1965	ppb	14:47:20

2	S 181.975 Axial†	101.9	-3.2	-2.5579 µg/L	-2.5579 ppb		14:47:20
2	Sb 206.836†	80.7	1.7	0.2233 µg/L	0.2233 ppb		14:47:20
2	Se 196.026†	21.0	6.2	2.36 µg/L	2.36 ppb		14:47:20
2	SiO2†	1708.8	-40.8	-4.2951 µg/L	-4.2951 ppb		14:47:20
2	Si 251.611†	809.2	22.2	0.3343 µg/L	0.3343 ppb		14:47:00
2	Sn 189.927†	20.0	23.2	1.5380 µg/L	1.5380 ppb		14:47:20
2	Ti 334.940†	926.8	-9.3	-0.0064 µg/L	-0.0064 ppb		14:47:00
2	Tl 190.801†	-120.4	-4.9	-0.6317 µg/L	-0.6317 ppb		14:47:20
2	U 409.014†	-440.9	-176.7	-10.643 µg/L	-10.643 ppb		14:47:00
2	V 292.402†	407.4	52.3	0.2637 µg/L	0.2637 ppb		14:47:00
2	Zn 213.857†	561.6	49.3	0.2904 µg/L	0.2904 ppb		14:47:20
3	Sc RADIAL	143607.1	143607.1	99.6 %			14:46:10
3	Al 396.153Radial†	-56.2	12.5	2.4520 µg/L	2.4520 ppb		14:46:30
3	Ca 317.933Radial†	605.7	57.9	3.5533 µg/L	3.5533 ppb		14:46:30
3	Fe 238.204 Radial†	159.1	24.4	1.6440 µg/L	1.6440 ppb		14:46:30
3	K 766.490 Radial†	1653.2	101.0	38.938 µg/L	38.938 ppb		14:46:10
3	Mg 279.077 IEC†	155.9	-8.7	-3.5952 µg/L	-3.5952 ppb		14:46:30
3	Na 589.592 Radial†	1631.0	379.5	55.791 µg/L	55.791 ppb		14:46:10
3	Sr 421.552†	-244.0	-35.1	-0.0780 µg/L	-0.0780 ppb		14:46:10
3	Sc 361.383	1754395.8	1754395.8	99.860 %			14:47:22
3	Y 371.029	1046466.2	1046466.2	99.913 %			14:47:22
3	Ag 328.068†	3877.8	68.5	0.2811 µg/L	0.2811 ppb		14:47:24
3	As 188.979†	-12.8	8.8	2.8394 µg/L	2.8394 ppb		14:47:44
3	B 249.677†	3483.0	28.6	0.4401 µg/L	0.4401 ppb		14:47:44
3	Ba 233.527†	-164.1	-11.5	-0.0486 µg/L	-0.0486 ppb		14:47:44
3	Be 313.107†	-696.6	279.3	0.0818 µg/L	0.0818 ppb		14:47:24
3	Cd 226.502†	-97.9	7.8	0.0511 µg/L	0.0511 ppb		14:47:44
3	Co 228.616†	-184.0	5.3	0.0679 µg/L	0.0679 ppb		14:47:44
3	Cr 267.716†	209.4	33.1	0.2671 µg/L	0.2671 ppb		14:47:44
3	Cu 324.752†	2802.0	-53.0	-0.2086 µg/L	-0.2086 ppb		14:47:24
3	Mn 257.610†	259.0	48.8	0.0633 µg/L	0.0633 ppb		14:47:44
3	Mo 202.031†	-21.1	21.6	0.6713 µg/L	0.6713 ppb		14:47:44
3	Ni 231.604†	-60.3	19.9	0.2403 µg/L	0.2403 ppb		14:47:44
3	P 214.914†	1.5	1.1	0.2444 µg/L	0.2444 ppb		14:47:44
3	Pb 220.353†	95.5	28.0	1.6370 µg/L	1.6370 ppb		14:47:44
3	S 181.975 Axial†	99.1	-5.9	-4.6659 µg/L	-4.6659 ppb		14:47:44
3	Sb 206.836†	85.6	6.8	0.8554 µg/L	0.8554 ppb		14:47:44
3	Se 196.026†	10.2	-4.6	-1.74 µg/L	-1.74 ppb		14:47:44
3	SiO2†	1707.2	-41.2	-4.3378 µg/L	-4.3378 ppb		14:47:44
3	Si 251.611†	832.1	45.7	0.7046 µg/L	0.7046 ppb		14:47:24
3	Sn 189.927†	6.0	9.2	0.6099 µg/L	0.6099 ppb		14:47:44
3	Ti 334.940†	811.7	-123.9	-0.1250 µg/L	-0.1250 ppb		14:47:24
3	Tl 190.801†	-113.5	2.0	0.2557 µg/L	0.2557 ppb		14:47:44
3	U 409.014†	-138.8	125.5	7.5881 µg/L	7.5881 ppb		14:47:24
3	V 292.402†	424.9	70.1	0.3704 µg/L	0.3704 ppb		14:47:24
3	Zn 213.857†	519.9	7.9	0.0451 µg/L	0.0451 ppb		14:47:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1753728.4	99.822	%	0.1307				0.13%
Sc RADIAL	144274.6	100	%	0.7				0.69%
Y 371.029	1046586.2	99.924	%	0.0841				0.08%
Ag 328.068†	87.2	0.3435	µg/L	0.56492	0.3435	ppb	0.56492	164.47%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.0	1.7850	µg/L	2.70749	1.7850	ppb	2.70749	151.68%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.7	1.5081	µg/L	2.13102	1.5081	ppb	2.13102	141.31%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	30.9	0.4755	µg/L	0.25232	0.4755	ppb	0.25232	53.06%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.6	-0.0192	µg/L	0.03639	-0.0192	ppb	0.03639	189.80%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	335.4	0.0955	µg/L	0.06040	0.0955	ppb	0.06040	63.22%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	64.1	3.9370	µg/L	1.22334	3.9370	ppb	1.22334	31.07%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.2	0.1060	µg/L	0.05173	0.1060	ppb	0.05173	48.80%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.1	0.1432	µg/L	0.09436	0.1432	ppb	0.09436	65.89%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              39.2      0.3231 µg/L       0.08713      0.3231 ppb        0.08713  26.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -40.1     -0.1621 µg/L       0.04158     -0.1621 ppb        0.04158  25.65%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       23.5      1.5875 µg/L       0.10871      1.5875 ppb        0.10871   6.85%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       181.2      69.832 µg/L       36.6363      69.832 ppb        36.6363  52.46%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          10.6      4.4077 µg/L      12.49101      4.4077 ppb       12.49101 283.39%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              53.3      0.0688 µg/L       0.01998      0.0688 ppb        0.01998  29.03%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              12.4      0.3871 µg/L       0.26632      0.3871 ppb        0.26632  68.80%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      347.6      51.058 µg/L       23.3431      51.058 ppb        23.3431  45.72%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.2      0.0030 µg/L       0.21561      0.0030 ppb        0.21561 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.5     -0.3350 µg/L       2.33866     -0.3350 ppb        2.33866 698.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              24.3      1.4222 µg/L       0.90104      1.4222 ppb        0.90104  63.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -7.3     -5.8084 µg/L       3.94788     -5.8084 ppb        3.94788  67.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.6      0.4527 µg/L       0.34985      0.4527 ppb        0.34985  77.28%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.7       0.654 µg/L        2.1349       0.654 ppb         2.1349 326.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -41.3     -4.3411 µg/L       0.04768     -4.3411 ppb        0.04768   1.10%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              12.1      0.1783 µg/L       0.61935      0.1783 ppb        0.61935 347.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              13.9      0.9213 µg/L       0.53412      0.9213 ppb        0.53412  57.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              32.7      0.0726 µg/L       0.16432      0.0726 ppb        0.16432 226.42%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -80.4     -0.0797 µg/L       0.06407     -0.0797 ppb        0.06407  80.40%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.1     -0.0189 µg/L       0.53164     -0.0189 ppb        0.53164 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                0.3      0.0278 µg/L       9.50556      0.0278 ppb        9.50556 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               41.5      0.2168 µg/L       0.18162      0.2168 ppb        0.18162  83.76%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              26.1      0.1536 µg/L       0.12508      0.1536 ppb        0.12508  81.42%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 38
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/1/2010 15:08:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143483.1	143483.1	99.5	%			15:09:17
1	Al 396.153Radial†	25170.3	25355.8	5028.7	µg/L	5028.7	ppb	15:09:17
1	Ca 317.933Radial†	83277.1	83112.8	5101.8	µg/L	5101.8	ppb	15:09:17
1	Fe 238.204 Radial†	74294.9	74503.8	5028.2	µg/L	5028.2	ppb	15:09:17
1	K 766.490 Radial†	14584.0	13093.2	5043.3	µg/L	5043.3	ppb	15:09:17
1	Mg 279.077 IEC†	12583.3	12476.4	5173.5	µg/L	5173.5	ppb	15:09:17
1	Na 589.592 Radial†	68975.9	68037.9	10003	µg/L	10003	ppb	15:09:17
1	Sr 421.552†	221205.5	222440.2	494.03	µg/L	494.03	ppb	15:09:15
1	Sc 361.383	1747235.4	1747235.4	99.452	%			15:09:30
1	Y 371.029	1030705.2	1030705.2	98.408	%			15:09:30
1	Ag 328.068†	129172.1	126069.1	498.94	µg/L	498.94	ppb	15:09:30
1	As 188.979†	1463.5	1493.3	486.36	µg/L	486.36	ppb	15:09:50
1	B 249.677†	35089.0	31823.0	488.61	µg/L	488.61	ppb	15:09:30
1	Ba 233.527†	115530.0	116319.4	493.93	µg/L	493.93	ppb	15:09:30
1	Be 313.107†	1717250.8	1727689.9	492.16	µg/L	492.16	ppb	15:09:30
1	Cd 226.502†	74884.6	75403.0	494.59	µg/L	494.59	ppb	15:09:30
1	Co 228.616†	38176.3	38576.2	498.56	µg/L	498.56	ppb	15:09:30
1	Cr 267.716†	59675.4	59827.7	493.03	µg/L	493.03	ppb	15:09:30
1	Cu 324.752†	123710.1	121532.9	494.36	µg/L	494.36	ppb	15:09:30
1	Mn 257.610†	382378.6	384275.0	496.88	µg/L	496.88	ppb	15:09:30
1	Mo 202.031†	15810.0	15939.9	495.84	µg/L	495.84	ppb	15:09:50
1	Ni 231.604†	40808.1	41113.3	496.22	µg/L	496.22	ppb	15:09:30
1	P 214.914†	10880.4	10939.9	2445.1	µg/L	2445.1	ppb	15:09:50
1	Pb 220.353†	8483.4	8462.5	497.26	µg/L	497.26	ppb	15:09:50
1	S 181.975 Axial†	1340.7	1242.9	987.58	µg/L	987.58	ppb	15:09:50
1	Sb 206.836†	3985.8	3928.7	494.53	µg/L	494.53	ppb	15:09:50
1	Se 196.026†	1288.2	1280.5	490	µg/L	490	ppb	15:09:50
1	SiO2†	52606.2	51145.2	5322.9	µg/L	5322.9	ppb	15:09:30
1	Si 251.611†	159561.9	159653.6	2496.0	µg/L	2496.0	ppb	15:09:30
1	Sn 189.927†	7439.5	7483.8	497.16	µg/L	497.16	ppb	15:09:50
1	Ti 334.940†	503420.5	505257.7	497.78	µg/L	497.78	ppb	15:09:30
1	Tl 190.801†	3673.6	3809.5	500.31	µg/L	500.31	ppb	15:09:50
1	U 409.014†	7225.6	7529.9	484.23	µg/L	484.23	ppb	15:09:30
1	V 292.402†	96242.2	96417.1	497.85	µg/L	497.85	ppb	15:09:30
1	Zn 213.857†	84009.2	83959.4	490.13	µg/L	490.13	ppb	15:09:30
2	Sc RADIAL	144378.9	144378.9	100	%			15:09:21
2	Al 396.153Radial†	25278.7	25307.1	5018.9	µg/L	5018.9	ppb	15:09:21
2	Ca 317.933Radial†	83843.4	83159.2	5104.6	µg/L	5104.6	ppb	15:09:21
2	Fe 238.204 Radial†	75025.1	74769.7	5046.1	µg/L	5046.1	ppb	15:09:21
2	K 766.490 Radial†	14632.1	13050.3	5026.7	µg/L	5026.7	ppb	15:09:21
2	Mg 279.077 IEC†	12587.4	12402.0	5142.8	µg/L	5142.8	ppb	15:09:21
2	Na 589.592 Radial†	69743.3	68374.1	10052	µg/L	10052	ppb	15:09:21
2	Sr 421.552†	223093.3	222946.2	495.16	µg/L	495.16	ppb	15:09:19
2	Sc 361.383	1743083.5	1743083.5	99.216	%			15:09:53
2	Y 371.029	1027499.6	1027499.6	98.102	%			15:09:53
2	Ag 328.068†	129407.8	126616.0	501.11	µg/L	501.11	ppb	15:09:53
2	As 188.979†	1466.5	1499.8	488.49	µg/L	488.49	ppb	15:10:13
2	B 249.677†	35109.3	31927.4	490.22	µg/L	490.22	ppb	15:09:53
2	Ba 233.527†	115431.8	116497.1	494.68	µg/L	494.68	ppb	15:09:53
2	Be 313.107†	1718739.6	1733303.4	493.76	µg/L	493.76	ppb	15:09:53
2	Cd 226.502†	74925.0	75623.1	496.03	µg/L	496.03	ppb	15:09:53
2	Co 228.616†	38098.4	38589.1	498.72	µg/L	498.72	ppb	15:09:53
2	Cr 267.716†	59839.0	60135.5	495.57	µg/L	495.57	ppb	15:09:53
2	Cu 324.752†	123498.8	121616.1	494.71	µg/L	494.71	ppb	15:09:53
2	Mn 257.610†	381554.1	384359.8	496.99	µg/L	496.99	ppb	15:09:53
2	Mo 202.031†	15830.8	15998.7	497.67	µg/L	497.67	ppb	15:10:13
2	Ni 231.604†	40635.2	41036.7	495.29	µg/L	495.29	ppb	15:09:53
2	P 214.914†	10888.6	10974.2	2452.7	µg/L	2452.7	ppb	15:10:13
2	Pb 220.353†	8490.4	8489.9	498.87	µg/L	498.87	ppb	15:10:13

2	S 181.975 Axial†	1353.6	1259.2	1000.5 µg/L	1000.5 ppb	15:10:13
2	Sb 206.836†	3991.2	3943.7	496.41 µg/L	496.41 ppb	15:10:13
2	Se 196.026†	1296.4	1291.8	494 µg/L	494 ppb	15:10:13
2	SiO2†	52906.1	51573.6	5367.6 µg/L	5367.6 ppb	15:09:53
2	Si 251.611†	160001.9	160479.3	2508.9 µg/L	2508.9 ppb	15:09:53
2	Sn 189.927†	7430.6	7492.6	497.75 µg/L	497.75 ppb	15:10:13
2	Ti 334.940†	502802.4	505840.4	498.35 µg/L	498.35 ppb	15:09:53
2	Tl 190.801†	3672.9	3817.5	501.37 µg/L	501.37 ppb	15:10:13
2	U 409.014†	7308.8	7631.1	490.43 µg/L	490.43 ppb	15:09:53
2	V 292.402†	96330.8	96736.9	499.51 µg/L	499.51 ppb	15:09:53
2	Zn 213.857†	84206.1	84359.1	492.49 µg/L	492.49 ppb	15:09:53
3	Sc RADIAL	144692.7	144692.7	100 %		15:09:25
3	Al 396.153Radial†	25294.3	25268.0	5011.1 µg/L	5011.1 ppb	15:09:25
3	Ca 317.933Radial†	83976.9	83110.6	5101.6 µg/L	5101.6 ppb	15:09:25
3	Fe 238.204 Radial†	75238.3	74819.7	5049.5 µg/L	5049.5 ppb	15:09:25
3	K 766.490 Radial†	14732.9	13119.0	5053.2 µg/L	5053.2 ppb	15:09:25
3	Mg 279.077 IEC†	12802.1	12588.7	5220.0 µg/L	5220.0 ppb	15:09:25
3	Na 589.592 Radial†	69944.5	68423.5	10060 µg/L	10060 ppb	15:09:25
3	Sr 421.552†	220153.0	219533.9	487.58 µg/L	487.58 ppb	15:09:23
3	Sc 361.383	1743554.8	1743554.8	99.243 %		15:10:16
3	Y 371.029	1028218.8	1028218.8	98.170 %		15:10:16
3	Ag 328.068†	129729.7	126905.1	502.24 µg/L	502.24 ppb	15:10:16
3	As 188.979†	1444.6	1477.3	481.29 µg/L	481.29 ppb	15:10:36
3	B 249.677†	35062.1	31870.4	489.34 µg/L	489.34 ppb	15:10:16
3	Ba 233.527†	115577.6	116612.6	495.17 µg/L	495.17 ppb	15:10:16
3	Be 313.107†	1717330.3	1731415.1	493.22 µg/L	493.22 ppb	15:10:16
3	Cd 226.502†	75206.8	75886.6	497.76 µg/L	497.76 ppb	15:10:16
3	Co 228.616†	38106.7	38587.1	498.70 µg/L	498.70 ppb	15:10:16
3	Cr 267.716†	59925.3	60206.1	496.15 µg/L	496.15 ppb	15:10:16
3	Cu 324.752†	123665.6	121750.6	495.25 µg/L	495.25 ppb	15:10:16
3	Mn 257.610†	383017.9	385730.8	498.76 µg/L	498.76 ppb	15:10:16
3	Mo 202.031†	15829.1	15992.7	497.49 µg/L	497.49 ppb	15:10:36
3	Ni 231.604†	40699.9	41090.8	495.94 µg/L	495.94 ppb	15:10:16
3	P 214.914†	10877.9	10960.6	2449.7 µg/L	2449.7 ppb	15:10:36
3	Pb 220.353†	8494.4	8491.5	498.96 µg/L	498.96 ppb	15:10:36
3	S 181.975 Axial†	1347.6	1252.7	995.38 µg/L	995.38 ppb	15:10:36
3	Sb 206.836†	3981.2	3932.6	494.99 µg/L	494.99 ppb	15:10:36
3	Se 196.026†	1287.2	1282.2	491 µg/L	491 ppb	15:10:36
3	SiO2†	53150.0	51804.8	5391.8 µg/L	5391.8 ppb	15:10:16
3	Si 251.611†	160256.0	160691.7	2512.3 µg/L	2512.3 ppb	15:10:16
3	Sn 189.927†	7419.0	7478.9	496.84 µg/L	496.84 ppb	15:10:36
3	Ti 334.940†	503056.3	505959.2	498.47 µg/L	498.47 ppb	15:10:16
3	Tl 190.801†	3671.9	3815.6	501.13 µg/L	501.13 ppb	15:10:36
3	U 409.014†	7225.2	7544.8	485.25 µg/L	485.25 ppb	15:10:16
3	V 292.402†	96405.3	96785.7	499.75 µg/L	499.75 ppb	15:10:16
3	Zn 213.857†	84321.5	84452.5	493.03 µg/L	493.03 ppb	15:10:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1744624.5	99.303	%	0.1294				0.13%
Sc RADIAL	144184.9	100	%	0.4				0.44%
Y 371.029	1028807.9	98.227	%	0.1606				0.16%
Ag 328.068†	126530.1	500.76	µg/L	1.672	500.76	ppb	1.672	0.33%
QC value within limits for Ag 328.068 Recovery = 100.15%								
Al 396.153Radial†	25310.3	5019.6	µg/L	8.81	5019.6	ppb	8.81	0.18%
QC value within limits for Al 396.153Radial Recovery = 100.39%								
As 188.979†	1490.1	485.38	µg/L	3.700	485.38	ppb	3.700	0.76%
QC value within limits for As 188.979 Recovery = 97.08%								
B 249.677†	31873.6	489.39	µg/L	0.806	489.39	ppb	0.806	0.16%
QC value within limits for B 249.677 Recovery = 97.88%								
Ba 233.527†	116476.3	494.59	µg/L	0.627	494.59	ppb	0.627	0.13%
QC value within limits for Ba 233.527 Recovery = 98.92%								
Be 313.107†	1730802.8	493.04	µg/L	0.814	493.04	ppb	0.814	0.17%
QC value within limits for Be 313.107 Recovery = 98.61%								
Ca 317.933Radial†	83127.5	5102.7	µg/L	1.68	5102.7	ppb	1.68	0.03%
QC value within limits for Ca 317.933Radial Recovery = 102.05%								
Cd 226.502†	75637.6	496.12	µg/L	1.588	496.12	ppb	1.588	0.32%
QC value within limits for Cd 226.502 Recovery = 99.22%								
Co 228.616†	38584.1	498.66	µg/L	0.090	498.66	ppb	0.090	0.02%

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   QC value within limits for Co 228.616  Recovery = 99.73%
Cr 267.716†            60056.4      494.92 µg/L        1.658      494.92 ppb          1.658   0.34%
   QC value within limits for Cr 267.716  Recovery = 98.98%
Cu 324.752†           121633.2      494.77 µg/L        0.448      494.77 ppb          0.448   0.09%
   QC value within limits for Cu 324.752  Recovery = 98.95%
Fe 238.204 Radial†     74697.7      5041.3 µg/L       11.46      5041.3 ppb          11.46   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.83%
K 766.490 Radial†      13087.5      5041.1 µg/L       13.38      5041.1 ppb          13.38   0.27%
   QC value within limits for K 766.490 Radial  Recovery = 100.82%
Mg 279.077 IEC†        12489.0      5178.8 µg/L       38.89      5178.8 ppb          38.89   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.58%
Mn 257.610†           384788.5      497.54 µg/L        1.056      497.54 ppb          1.056   0.21%
   QC value within limits for Mn 257.610  Recovery = 99.51%
Mo 202.031†            15977.1      497.00 µg/L        1.007      497.00 ppb          1.007   0.20%
   QC value within limits for Mo 202.031  Recovery = 99.40%
Na 589.592 Radial†     68278.5       10038 µg/L         30.9       10038 ppb           30.9   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 100.38%
Ni 231.604†            41080.3      495.82 µg/L        0.475      495.82 ppb          0.475   0.10%
   QC value within limits for Ni 231.604  Recovery = 99.16%
P 214.914†             10958.3      2449.2 µg/L         3.85      2449.2 ppb           3.85   0.16%
   QC value within limits for P 214.914  Recovery = 97.97%
Pb 220.353†             8481.3      498.36 µg/L        0.956      498.36 ppb          0.956   0.19%
   QC value within limits for Pb 220.353  Recovery = 99.67%
S 181.975 Axial†        1251.6      994.48 µg/L        6.492      994.48 ppb          6.492   0.65%
   QC value within limits for S 181.975 Axial  Recovery = 99.45%
Sb 206.836†             3935.0      495.31 µg/L        0.977      495.31 ppb          0.977   0.20%
   QC value within limits for Sb 206.836  Recovery = 99.06%
Se 196.026†             1284.8         492 µg/L          2.3         492 ppb            2.3   0.48%
   QC value within limits for Se 196.026  Recovery = 98.34%
SiO2†                  51507.9      5360.7 µg/L       34.95      5360.7 ppb          34.95   0.65%
   QC value within limits for SiO2  Recovery = 100.25%
Si 251.611†           160274.8      2505.7 µg/L        8.59      2505.7 ppb           8.59   0.34%
   QC value within limits for Si 251.611  Recovery = 100.23%
Sn 189.927†             7485.1      497.25 µg/L        0.458      497.25 ppb          0.458   0.09%
   QC value within limits for Sn 189.927  Recovery = 99.45%
Sr 421.552†           221640.1      492.25 µg/L        4.090      492.25 ppb          4.090   0.83%
   QC value within limits for Sr 421.552  Recovery = 98.45%
Ti 334.940†           505685.8      498.20 µg/L        0.368      498.20 ppb          0.368   0.07%
   QC value within limits for Ti 334.940  Recovery = 99.64%
Tl 190.801†             3814.2      500.94 µg/L        0.555      500.94 ppb          0.555   0.11%
   QC value within limits for Tl 190.801  Recovery = 100.19%
U 409.014†              7568.6      486.64 µg/L        3.323      486.64 ppb          3.323   0.68%
   QC value within limits for U 409.014  Recovery = 97.33%
V 292.402†             96646.6      499.03 µg/L        1.037      499.03 ppb          1.037   0.21%
   QC value within limits for V 292.402  Recovery = 99.81%
Zn 213.857†            84257.0      491.88 µg/L        1.541      491.88 ppb          1.541   0.31%
   QC value within limits for Zn 213.857  Recovery = 98.38%
All analyte(s) passed QC.
```

Sequence No.: 39
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/1/2010 15:10:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145725.8	145725.8	101	%			15:11:14
1	Al 396.153Radial†	-82.7	-13.0	-2.5960	µg/L	-2.5960	ppb	15:11:34
1	Ca 317.933Radial†	640.9	83.8	5.1468	µg/L	5.1468	ppb	15:11:34
1	Fe 238.204 Radial†	151.9	15.0	1.0092	µg/L	1.0092	ppb	15:11:34
1	K 766.490 Radial†	1604.6	28.8	11.084	µg/L	11.084	ppb	15:11:14
1	Mg 279.077 IEC†	175.3	8.2	3.4169	µg/L	3.4169	ppb	15:11:34
1	Na 589.592 Radial†	1660.6	385.0	56.617	µg/L	56.617	ppb	15:11:14
1	Sr 421.552†	-213.1	-0.9	-0.0020	µg/L	-0.0020	ppb	15:11:14
1	Sc 361.383	1751195.9	1751195.9	99.677	%			15:12:36
1	Y 371.029	1044144.7	1044144.7	99.691	%			15:12:36
1	Ag 328.068†	3820.3	17.9	0.0670	µg/L	0.0670	ppb	15:12:38
1	As 188.979†	-13.5	8.2	2.6194	µg/L	2.6194	ppb	15:12:58
1	B 249.677†	3553.6	105.8	1.6293	µg/L	1.6293	ppb	15:12:38
1	Ba 233.527†	-153.3	-1.0	-0.0038	µg/L	-0.0038	ppb	15:12:58
1	Be 313.107†	-872.9	101.1	0.0271	µg/L	0.0271	ppb	15:12:38
1	Cd 226.502†	-101.2	4.3	0.0282	µg/L	0.0282	ppb	15:12:58
1	Co 228.616†	-176.3	12.6	0.1633	µg/L	0.1633	ppb	15:12:58
1	Cr 267.716†	193.4	17.5	0.1486	µg/L	0.1486	ppb	15:12:58
1	Cu 324.752†	2880.9	31.3	0.1229	µg/L	0.1229	ppb	15:12:38
1	Mn 257.610†	234.8	25.0	0.0322	µg/L	0.0322	ppb	15:12:58
1	Mo 202.031†	-32.2	10.4	0.3236	µg/L	0.3236	ppb	15:12:58
1	Ni 231.604†	-64.8	15.3	0.1845	µg/L	0.1845	ppb	15:12:58
1	P 214.914†	-17.6	-18.0	-4.0435	µg/L	-4.0435	ppb	15:12:58
1	Pb 220.353†	82.0	14.7	0.8632	µg/L	0.8632	ppb	15:12:58
1	S 181.975 Axial†	98.7	-6.1	-4.8503	µg/L	-4.8503	ppb	15:12:58
1	Sb 206.836†	85.2	6.5	0.8163	µg/L	0.8163	ppb	15:12:58
1	Se 196.026†	19.5	4.8	1.80	µg/L	1.80	ppb	15:12:58
1	SiO2†	2053.8	309.7	32.337	µg/L	32.337	ppb	15:12:58
1	Si 251.611†	1880.2	1098.8	17.237	µg/L	17.237	ppb	15:12:38
1	Sn 189.927†	9.3	12.6	0.8339	µg/L	0.8339	ppb	15:12:58
1	Ti 334.940†	971.6	38.0	0.0395	µg/L	0.0395	ppb	15:12:38
1	Tl 190.801†	-122.1	-6.9	-0.8846	µg/L	-0.8846	ppb	15:12:58
1	U 409.014†	-354.2	-90.8	-5.4604	µg/L	-5.4604	ppb	15:12:38
1	V 292.402†	419.0	64.9	0.3308	µg/L	0.3308	ppb	15:12:38
1	Zn 213.857†	553.5	42.6	0.2492	µg/L	0.2492	ppb	15:12:58
2	Sc RADIAL	142035.3	142035.3	98.5	%			15:11:36
2	Al 396.153Radial†	-87.1	-19.5	-3.9118	µg/L	-3.9118	ppb	15:11:56
2	Ca 317.933Radial†	620.3	79.4	4.8728	µg/L	4.8728	ppb	15:11:56
2	Fe 238.204 Radial†	165.4	32.6	2.1989	µg/L	2.1989	ppb	15:11:56
2	K 766.490 Radial†	1726.4	193.7	74.642	µg/L	74.642	ppb	15:11:36
2	Mg 279.077 IEC†	207.5	45.4	18.826	µg/L	18.826	ppb	15:11:56
2	Na 589.592 Radial†	1622.3	388.8	57.121	µg/L	57.121	ppb	15:11:36
2	Sr 421.552†	-139.1	68.7	0.1525	µg/L	0.1525	ppb	15:11:36
2	Sc 361.383	1765713.3	1765713.3	100.50	%			15:13:00
2	Y 371.029	1053210.5	1053210.5	100.56	%			15:13:00
2	Ag 328.068†	3862.7	28.6	0.1204	µg/L	0.1204	ppb	15:13:02
2	As 188.979†	-24.6	-2.8	-0.8823	µg/L	-0.8823	ppb	15:13:22
2	B 249.677†	3390.6	-85.8	-1.3212	µg/L	-1.3212	ppb	15:13:02
2	Ba 233.527†	-183.1	-29.4	-0.1246	µg/L	-0.1246	ppb	15:13:22
2	Be 313.107†	-1000.3	-18.5	-0.0026	µg/L	-0.0026	ppb	15:13:02
2	Cd 226.502†	-108.8	-2.4	-0.0158	µg/L	-0.0158	ppb	15:13:22
2	Co 228.616†	-198.1	-7.6	-0.0982	µg/L	-0.0982	ppb	15:13:22
2	Cr 267.716†	219.6	41.9	0.3382	µg/L	0.3382	ppb	15:13:22
2	Cu 324.752†	2861.7	-11.6	-0.0391	µg/L	-0.0391	ppb	15:13:02
2	Mn 257.610†	264.0	52.1	0.0667	µg/L	0.0667	ppb	15:13:22
2	Mo 202.031†	-19.9	23.0	0.7143	µg/L	0.7143	ppb	15:13:22
2	Ni 231.604†	-63.0	17.6	0.2122	µg/L	0.2122	ppb	15:13:22
2	P 214.914†	8.2	7.8	1.7343	µg/L	1.7343	ppb	15:13:22
2	Pb 220.353†	83.4	15.4	0.8965	µg/L	0.8965	ppb	15:13:22

2	S 181.975 Axial†	107.1	1.3	1.0733 µg/L	1.0733 ppb	15:13:22
2	Sb 206.836†	83.3	3.9	0.4946 µg/L	0.4946 ppb	15:13:22
2	Se 196.026†	12.4	-2.4	-0.914 µg/L	-0.914 ppb	15:13:22
2	SiO2†	2092.6	331.3	34.591 µg/L	34.591 ppb	15:13:22
2	Si 251.611†	1933.9	1136.7	17.831 µg/L	17.831 ppb	15:13:02
2	Sn 189.927†	1.1	4.3	0.2847 µg/L	0.2847 ppb	15:13:22
2	Ti 334.940†	968.5	26.9	0.0214 µg/L	0.0214 ppb	15:13:02
2	Tl 190.801†	-112.3	3.9	0.5015 µg/L	0.5015 ppb	15:13:22
2	U 409.014†	-119.5	145.6	8.7741 µg/L	8.7741 ppb	15:13:02
2	V 292.402†	324.8	-32.3	-0.1498 µg/L	-0.1498 ppb	15:13:02
2	Zn 213.857†	541.1	25.7	0.1496 µg/L	0.1496 ppb	15:13:22
3	Sc RADIAL	143578.7	143578.7	99.6 %		15:11:58
3	Al 396.153Radial†	-89.4	-20.9	-4.1602 µg/L	-4.1602 ppb	15:12:18
3	Ca 317.933Radial†	585.8	38.0	2.3339 µg/L	2.3339 ppb	15:12:18
3	Fe 238.204 Radial†	154.5	19.8	1.3370 µg/L	1.3370 ppb	15:12:18
3	K 766.490 Radial†	1573.3	21.2	8.1552 µg/L	8.1552 ppb	15:11:58
3	Mg 279.077 IEC†	174.4	9.9	4.1129 µg/L	4.1129 ppb	15:12:18
3	Na 589.592 Radial†	1490.8	239.1	35.161 µg/L	35.161 ppb	15:11:58
3	Sr 421.552†	-96.3	113.2	0.2513 µg/L	0.2513 ppb	15:11:58
3	Sc 361.383	1747284.0	1747284.0	99.455 %		15:13:24
3	Y 371.029	1041594.9	1041594.9	99.448 %		15:13:24
3	Ag 328.068†	4040.0	247.4	0.9817 µg/L	0.9817 ppb	15:13:26
3	As 188.979†	-17.4	4.2	1.3479 µg/L	1.3479 ppb	15:13:47
3	B 249.677†	3643.6	204.2	3.1464 µg/L	3.1464 ppb	15:13:26
3	Ba 233.527†	-141.7	10.3	0.0434 µg/L	0.0434 ppb	15:13:47
3	Be 313.107†	-907.1	64.8	0.0228 µg/L	0.0228 ppb	15:13:26
3	Cd 226.502†	-95.8	9.5	0.0618 µg/L	0.0618 ppb	15:13:47
3	Co 228.616†	-193.3	-4.9	-0.0630 µg/L	-0.0630 ppb	15:13:47
3	Cr 267.716†	196.7	21.2	0.1633 µg/L	0.1633 ppb	15:13:47
3	Cu 324.752†	2922.7	79.8	0.3358 µg/L	0.3358 ppb	15:13:26
3	Mn 257.610†	253.9	44.7	0.0577 µg/L	0.0577 ppb	15:13:47
3	Mo 202.031†	-41.4	1.1	0.0339 µg/L	0.0339 ppb	15:13:47
3	Ni 231.604†	-105.1	-25.4	-0.3070 µg/L	-0.3070 ppb	15:13:47
3	P 214.914†	8.3	7.9	1.7691 µg/L	1.7691 ppb	15:13:47
3	Pb 220.353†	88.7	21.6	1.2510 µg/L	1.2510 ppb	15:13:47
3	S 181.975 Axial†	90.0	-14.7	-11.636 µg/L	-11.636 ppb	15:13:47
3	Sb 206.836†	86.8	8.3	1.0361 µg/L	1.0361 ppb	15:13:47
3	Se 196.026†	13.3	-1.4	-0.514 µg/L	-0.514 ppb	15:13:47
3	SiO2†	2109.6	370.3	38.686 µg/L	38.686 ppb	15:13:47
3	Si 251.611†	2067.2	1291.1	20.260 µg/L	20.260 ppb	15:13:26
3	Sn 189.927†	4.5	7.8	0.5146 µg/L	0.5146 ppb	15:13:47
3	Ti 334.940†	690.5	-242.5	-0.2455 µg/L	-0.2455 ppb	15:13:26
3	Tl 190.801†	-121.5	-6.6	-0.8556 µg/L	-0.8556 ppb	15:13:47
3	U 409.014†	-24.7	239.6	14.442 µg/L	14.442 ppb	15:13:26
3	V 292.402†	306.8	-46.9	-0.2282 µg/L	-0.2282 ppb	15:13:26
3	Zn 213.857†	564.1	54.5	0.3224 µg/L	0.3224 ppb	15:13:47

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1754731.1	99.879	%	0.5527				0.55%
Sc RADIAL	143779.9	99.7	%	1.29				1.29%
Y 371.029	1046316.7	99.898	%	0.5829				0.58%
Ag 328.068†	97.9	0.3897	µg/L	0.51339	0.3897	ppb	0.51339	131.72%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-17.8	-3.5560	µg/L	0.84061	-3.5560	ppb	0.84061	23.64%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.2	1.0283	µg/L	1.77258	1.0283	ppb	1.77258	172.37%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	74.7	1.1515	µg/L	2.27180	1.1515	ppb	2.27180	197.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.7	-0.0283	µg/L	0.08663	-0.0283	ppb	0.08663	305.98%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	49.1	0.0158	µg/L	0.01607	0.0158	ppb	0.01607	101.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	67.1	4.1178	µg/L	1.55102	4.1178	ppb	1.55102	37.67%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	3.8	0.0247	µg/L	0.03891	0.0247	ppb	0.03891	157.23%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.1	0.0007	µg/L	0.14192	0.0007	ppb	0.14192	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              26.9      0.2167 µg/L       0.10551      0.2167 ppb        0.10551  48.69%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              33.2      0.1399 µg/L       0.18801      0.1399 ppb        0.18801 134.43%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       22.4      1.5150 µg/L       0.61451      1.5150 ppb        0.61451  40.56%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        81.2      31.294 µg/L       37.5690      31.294 ppb        37.5690 120.05%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          21.2      8.7854 µg/L       8.70269      8.7854 ppb        8.70269  99.06%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              40.6      0.0522 µg/L       0.01787      0.0522 ppb        0.01787  34.24%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              11.5      0.3573 µg/L       0.34149      0.3573 ppb        0.34149  95.58%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      337.6      49.633 µg/L       12.5358      49.633 ppb        12.5358  25.26%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               2.5      0.0299 µg/L       0.29209      0.0299 ppb        0.29209 976.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -0.8     -0.1800 µg/L       3.34589     -0.1800 ppb        3.34589 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              17.2      1.0036 µg/L       0.21493      1.0036 ppb        0.21493  21.42%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -6.5     -5.1375 µg/L       6.35931     -5.1375 ppb        6.35931 123.78%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.2      0.7823 µg/L       0.27236      0.7823 ppb        0.27236  34.81%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.3       0.126 µg/L        1.4680       0.126 ppb         1.4680 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   337.1      35.205 µg/L        3.2191      35.205 ppb         3.2191   9.14%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            1175.5      18.443 µg/L        1.6021      18.443 ppb         1.6021   8.69%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.2      0.5444 µg/L       0.27582      0.5444 ppb        0.27582  50.67%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              60.3      0.1339 µg/L       0.12769      0.1339 ppb        0.12769  95.33%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -59.2     -0.0615 µg/L       0.15957     -0.0615 ppb        0.15957 259.32%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -3.2     -0.4129 µg/L       0.79205     -0.4129 ppb        0.79205 191.83%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               98.1      5.9185 µg/L      10.25377      5.9185 ppb       10.25377 173.25%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -4.8     -0.0157 µg/L       0.30266     -0.0157 ppb        0.30266 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              40.9      0.2404 µg/L       0.08673      0.2404 ppb        0.08673  36.08%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 49
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/1/2010 15:39:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143204.5	143204.5	99.3	%			15:39:44
1	Al 396.153Radial†	24848.0	25080.5	4973.7	µg/L	4973.7	ppb	15:39:44
1	Ca 317.933Radial†	83556.8	83557.2	5129.0	µg/L	5129.0	ppb	15:39:44
1	Fe 238.204 Radial†	74052.1	74404.6	5021.5	µg/L	5021.5	ppb	15:39:44
1	K 766.490 Radial†	14545.2	13082.6	5039.2	µg/L	5039.2	ppb	15:39:44
1	Mg 279.077 IEC†	12621.0	12539.0	5199.6	µg/L	5199.6	ppb	15:39:44
1	Na 589.592 Radial†	69165.7	68363.7	10051	µg/L	10051	ppb	15:39:44
1	Sr 421.552†	223138.8	224818.7	499.31	µg/L	499.31	ppb	15:39:42
1	Sc 361.383	1745928.0	1745928.0	99.378	%			15:39:57
1	Y 371.029	1029035.4	1029035.4	98.248	%			15:39:57
1	Ag 328.068†	129568.7	126565.4	500.91	µg/L	500.91	ppb	15:39:57
1	As 188.979†	1461.5	1492.3	486.10	µg/L	486.10	ppb	15:40:17
1	B 249.677†	35081.3	31841.7	488.90	µg/L	488.90	ppb	15:39:57
1	Ba 233.527†	115597.0	116473.7	494.58	µg/L	494.58	ppb	15:39:57
1	Be 313.107†	1718171.6	1729909.5	492.79	µg/L	492.79	ppb	15:39:57
1	Cd 226.502†	75261.0	75838.2	497.44	µg/L	497.44	ppb	15:39:57
1	Co 228.616†	38276.5	38705.8	500.23	µg/L	500.23	ppb	15:39:57
1	Cr 267.716†	60015.6	60214.9	496.22	µg/L	496.22	ppb	15:39:57
1	Cu 324.752†	123670.8	121586.4	494.59	µg/L	494.59	ppb	15:39:57
1	Mn 257.610†	383021.6	385209.9	498.09	µg/L	498.09	ppb	15:39:57
1	Mo 202.031†	15940.6	16083.2	500.30	µg/L	500.30	ppb	15:40:17
1	Ni 231.604†	40856.2	41192.3	497.17	µg/L	497.17	ppb	15:39:57
1	P 214.914†	11004.5	11073.0	2474.9	µg/L	2474.9	ppb	15:40:17
1	Pb 220.353†	8545.5	8531.4	501.30	µg/L	501.30	ppb	15:40:17
1	S 181.975 Axial†	1363.4	1266.8	1006.5	µg/L	1006.5	ppb	15:40:17
1	Sb 206.836†	4024.7	3970.9	499.84	µg/L	499.84	ppb	15:40:17
1	Se 196.026†	1307.1	1300.5	498	µg/L	498	ppb	15:40:17
1	SiO2†	52710.7	51290.0	5337.8	µg/L	5337.8	ppb	15:39:57
1	Si 251.611†	159698.4	159911.1	2500.0	µg/L	2500.0	ppb	15:39:57
1	Sn 189.927†	7478.7	7528.7	500.14	µg/L	500.14	ppb	15:40:17
1	Ti 334.940†	503704.0	505922.0	498.43	µg/L	498.43	ppb	15:39:57
1	Tl 190.801†	3710.8	3849.7	505.53	µg/L	505.53	ppb	15:40:17
1	U 409.014†	7382.7	7693.4	494.19	µg/L	494.19	ppb	15:39:57
1	V 292.402†	96458.8	96707.5	499.39	µg/L	499.39	ppb	15:39:57
1	Zn 213.857†	84331.1	84346.6	492.40	µg/L	492.40	ppb	15:39:57
2	Sc RADIAL	142736.9	142736.9	99.0	%			15:39:48
2	Al 396.153Radial†	24856.7	25171.3	4991.6	µg/L	4991.6	ppb	15:39:48
2	Ca 317.933Radial†	82856.6	83125.6	5102.5	µg/L	5102.5	ppb	15:39:48
2	Fe 238.204 Radial†	73944.8	74540.5	5030.7	µg/L	5030.7	ppb	15:39:48
2	K 766.490 Radial†	14595.3	13181.2	5077.2	µg/L	5077.2	ppb	15:39:48
2	Mg 279.077 IEC†	12385.7	12343.0	5118.5	µg/L	5118.5	ppb	15:39:48
2	Na 589.592 Radial†	68732.7	68154.5	10020	µg/L	10020	ppb	15:39:48
2	Sr 421.552†	223150.5	225566.2	500.97	µg/L	500.97	ppb	15:39:46
2	Sc 361.383	1739292.4	1739292.4	99.000	%			15:40:20
2	Y 371.029	1026051.8	1026051.8	97.964	%			15:40:20
2	Ag 328.068†	130010.8	127509.4	504.65	µg/L	504.65	ppb	15:40:20
2	As 188.979†	1469.2	1505.7	490.41	µg/L	490.41	ppb	15:40:40
2	B 249.677†	35148.2	32043.9	492.01	µg/L	492.01	ppb	15:40:20
2	Ba 233.527†	115678.2	116999.6	496.82	µg/L	496.82	ppb	15:40:20
2	Be 313.107†	1722414.1	1740790.9	495.89	µg/L	495.89	ppb	15:40:20
2	Cd 226.502†	75261.5	76127.6	499.34	µg/L	499.34	ppb	15:40:20
2	Co 228.616†	38187.3	38762.6	500.97	µg/L	500.97	ppb	15:40:20
2	Cr 267.716†	59943.4	60372.4	497.52	µg/L	497.52	ppb	15:40:20
2	Cu 324.752†	124095.1	122489.8	498.25	µg/L	498.25	ppb	15:40:20
2	Mn 257.610†	383809.9	387476.7	501.02	µg/L	501.02	ppb	15:40:20
2	Mo 202.031†	15983.5	16187.7	503.55	µg/L	503.55	ppb	15:40:40
2	Ni 231.604†	40992.4	41486.8	500.72	µg/L	500.72	ppb	15:40:20
2	P 214.914†	11032.0	11143.0	2490.5	µg/L	2490.5	ppb	15:40:40
2	Pb 220.353†	8588.6	8607.7	505.78	µg/L	505.78	ppb	15:40:40

2	S 181.975 Axial†	1357.1	1265.6	1005.7 µg/L	1005.7 ppb	15:40:40
2	Sb 206.836†	4033.9	3995.6	502.99 µg/L	502.99 ppb	15:40:40
2	Se 196.026†	1311.2	1309.6	501 µg/L	501 ppb	15:40:40
2	SiO2†	52747.1	51529.1	5362.7 µg/L	5362.7 ppb	15:40:20
2	Si 251.611†	159824.3	160651.3	2511.5 µg/L	2511.5 ppb	15:40:20
2	Sn 189.927†	7507.7	7586.7	503.99 µg/L	503.99 ppb	15:40:40
2	Ti 334.940†	505043.2	509208.4	501.68 µg/L	501.68 ppb	15:40:20
2	Tl 190.801†	3685.3	3838.1	504.10 µg/L	504.10 ppb	15:40:40
2	U 409.014†	7355.8	7694.6	494.48 µg/L	494.48 ppb	15:40:20
2	V 292.402†	96779.7	97402.0	502.97 µg/L	502.97 ppb	15:40:20
2	Zn 213.857†	84616.2	84958.3	495.98 µg/L	495.98 ppb	15:40:20
3	Sc RADIAL	142621.9	142621.9	98.9 %		15:39:52
3	Al 396.153Radial†	24925.0	25260.5	5009.3 µg/L	5009.3 ppb	15:39:52
3	Ca 317.933Radial†	82723.7	83058.7	5098.4 µg/L	5098.4 ppb	15:39:52
3	Fe 238.204 Radial†	74019.8	74676.5	5039.8 µg/L	5039.8 ppb	15:39:52
3	K 766.490 Radial†	14435.4	13031.4	5019.5 µg/L	5019.5 ppb	15:39:52
3	Mg 279.077 IEC†	12483.7	12452.1	5163.7 µg/L	5163.7 ppb	15:39:52
3	Na 589.592 Radial†	68930.9	68410.8	10058 µg/L	10058 ppb	15:39:52
3	Sr 421.552†	222374.8	224964.0	499.64 µg/L	499.64 ppb	15:39:50
3	Sc 361.383	1733647.0	1733647.0	98.679 %		15:40:43
3	Y 371.029	1022322.9	1022322.9	97.608 %		15:40:43
3	Ag 328.068†	129308.5	127225.3	503.51 µg/L	503.51 ppb	15:40:43
3	As 188.979†	1461.0	1502.3	489.31 µg/L	489.31 ppb	15:41:03
3	B 249.677†	35102.1	32112.8	493.08 µg/L	493.08 ppb	15:40:43
3	Ba 233.527†	115059.4	116753.0	495.77 µg/L	495.77 ppb	15:40:43
3	Be 313.107†	1709341.3	1733208.6	493.73 µg/L	493.73 ppb	15:40:43
3	Cd 226.502†	75015.2	76125.6	499.33 µg/L	499.33 ppb	15:40:43
3	Co 228.616†	37858.3	38554.7	498.28 µg/L	498.28 ppb	15:40:43
3	Cr 267.716†	59533.4	60154.0	495.71 µg/L	495.71 ppb	15:40:43
3	Cu 324.752†	123262.4	122054.1	496.49 µg/L	496.49 ppb	15:40:43
3	Mn 257.610†	381356.3	386252.6	499.44 µg/L	499.44 ppb	15:40:43
3	Mo 202.031†	15989.2	16246.0	505.36 µg/L	505.36 ppb	15:41:03
3	Ni 231.604†	40498.4	41121.0	496.31 µg/L	496.31 ppb	15:40:43
3	P 214.914†	11074.3	11222.2	2508.4 µg/L	2508.4 ppb	15:41:03
3	Pb 220.353†	8592.3	8639.7	507.65 µg/L	507.65 ppb	15:41:03
3	S 181.975 Axial†	1378.3	1291.6	1026.2 µg/L	1026.2 ppb	15:41:03
3	Sb 206.836†	4047.5	4022.7	506.44 µg/L	506.44 ppb	15:41:03
3	Se 196.026†	1304.4	1307.1	500 µg/L	500 ppb	15:41:03
3	SiO2†	52428.5	51379.8	5347.0 µg/L	5347.0 ppb	15:40:43
3	Si 251.611†	158597.9	159934.3	2500.2 µg/L	2500.2 ppb	15:40:43
3	Sn 189.927†	7543.1	7647.4	508.00 µg/L	508.00 ppb	15:41:03
3	Ti 334.940†	501527.9	507307.3	499.79 µg/L	499.79 ppb	15:40:43
3	Tl 190.801†	3715.0	3880.3	509.53 µg/L	509.53 ppb	15:41:03
3	U 409.014†	7396.3	7759.8	498.27 µg/L	498.27 ppb	15:40:43
3	V 292.402†	96021.6	96952.1	500.69 µg/L	500.69 ppb	15:40:43
3	Zn 213.857†	84100.9	84714.4	494.57 µg/L	494.57 ppb	15:40:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1739622.5	99.019	%	0.3499				0.35%
Sc RADIAL	142854.4	99.1	%	0.21				0.22%
Y 371.029	1025803.4	97.940	%	0.3211				0.33%
Ag 328.068†	127100.1	503.02	µg/L	1.914	503.02	ppb	1.914	0.38%
QC value within limits for Ag 328.068 Recovery = 100.60%								
Al 396.153Radial†	25170.8	4991.5	µg/L	17.81	4991.5	ppb	17.81	0.36%
QC value within limits for Al 396.153Radial Recovery = 99.83%								
As 188.979†	1500.1	488.61	µg/L	2.238	488.61	ppb	2.238	0.46%
QC value within limits for As 188.979 Recovery = 97.72%								
B 249.677†	31999.4	491.33	µg/L	2.174	491.33	ppb	2.174	0.44%
QC value within limits for B 249.677 Recovery = 98.27%								
Ba 233.527†	116742.1	495.72	µg/L	1.118	495.72	ppb	1.118	0.23%
QC value within limits for Ba 233.527 Recovery = 99.14%								
Be 313.107†	1734636.3	494.14	µg/L	1.589	494.14	ppb	1.589	0.32%
QC value within limits for Be 313.107 Recovery = 98.83%								
Ca 317.933Radial†	83247.1	5110.0	µg/L	16.61	5110.0	ppb	16.61	0.33%
QC value within limits for Ca 317.933Radial Recovery = 102.20%								
Cd 226.502†	76030.5	498.71	µg/L	1.092	498.71	ppb	1.092	0.22%
QC value within limits for Cd 226.502 Recovery = 99.74%								
Co 228.616†	38674.4	499.83	µg/L	1.388	499.83	ppb	1.388	0.28%

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   QC value within limits for Co 228.616  Recovery = 99.97%
Cr 267.716†            60247.1      496.48 µg/L        0.931      496.48 ppb          0.931   0.19%
   QC value within limits for Cr 267.716  Recovery = 99.30%
Cu 324.752†           122043.4      496.44 µg/L        1.832      496.44 ppb          1.832   0.37%
   QC value within limits for Cu 324.752  Recovery = 99.29%
Fe 238.204 Radial†     74540.5      5030.7 µg/L         9.17      5030.7 ppb           9.17   0.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.61%
K 766.490 Radial†      13098.4      5045.3 µg/L        29.35      5045.3 ppb          29.35   0.58%
   QC value within limits for K 766.490 Radial  Recovery = 100.91%
Mg 279.077 IEC†        12444.7      5160.6 µg/L        40.63      5160.6 ppb          40.63   0.79%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.21%
Mn 257.610†           386313.0      499.52 µg/L        1.469      499.52 ppb          1.469   0.29%
   QC value within limits for Mn 257.610  Recovery = 99.90%
Mo 202.031†            16172.3      503.07 µg/L        2.564      503.07 ppb          2.564   0.51%
   QC value within limits for Mo 202.031  Recovery = 100.61%
Na 589.592 Radial†     68309.7       10043 µg/L         20.1       10043 ppb           20.1   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 100.43%
Ni 231.604†            41266.7      498.07 µg/L        2.341      498.07 ppb          2.341   0.47%
   QC value within limits for Ni 231.604  Recovery = 99.61%
P 214.914†             11146.1      2491.3 µg/L        16.74      2491.3 ppb          16.74   0.67%
   QC value within limits for P 214.914  Recovery = 99.65%
Pb 220.353†             8592.9      504.91 µg/L        3.267      504.91 ppb          3.267   0.65%
   QC value within limits for Pb 220.353  Recovery = 100.98%
S 181.975 Axial†        1274.7      1012.8 µg/L        11.63      1012.8 ppb          11.63   1.15%
   QC value within limits for S 181.975 Axial  Recovery = 101.28%
Sb 206.836†             3996.4      503.09 µg/L        3.301      503.09 ppb          3.301   0.66%
   QC value within limits for Sb 206.836  Recovery = 100.62%
Se 196.026†             1305.7         500 µg/L          1.8         500 ppb            1.8   0.36%
   QC value within limits for Se 196.026  Recovery = 99.94%
SiO2†                  51399.6      5349.2 µg/L        12.56      5349.2 ppb          12.56   0.23%
   QC value within limits for SiO2  Recovery = 100.03%
Si 251.611†           160165.6      2503.9 µg/L         6.60      2503.9 ppb           6.60   0.26%
   QC value within limits for Si 251.611  Recovery = 100.16%
Sn 189.927†             7587.6      504.05 µg/L        3.930      504.05 ppb          3.930   0.78%
   QC value within limits for Sn 189.927  Recovery = 100.81%
Sr 421.552†           225116.3      499.97 µg/L        0.880      499.97 ppb          0.880   0.18%
   QC value within limits for Sr 421.552  Recovery = 99.99%
Ti 334.940†           507479.2      499.97 µg/L        1.630      499.97 ppb          1.630   0.33%
   QC value within limits for Ti 334.940  Recovery = 99.99%
Tl 190.801†             3856.0      506.38 µg/L        2.816      506.38 ppb          2.816   0.56%
   QC value within limits for Tl 190.801  Recovery = 101.28%
U 409.014†              7716.0      495.65 µg/L        2.277      495.65 ppb          2.277   0.46%
   QC value within limits for U 409.014  Recovery = 99.13%
V 292.402†             97020.5      501.02 µg/L        1.809      501.02 ppb          1.809   0.36%
   QC value within limits for V 292.402  Recovery = 100.20%
Zn 213.857†            84673.1      494.32 µg/L        1.801      494.32 ppb          1.801   0.36%
   QC value within limits for Zn 213.857  Recovery = 98.86%
All analyte(s) passed QC.
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Sequence No.: 50
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/1/2010 15:41:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144032.4	144032.4	99.9	%			15:41:42
1	Al 396.153Radial†	-61.0	7.9	1.5374	µg/L	1.5374	ppb	15:42:02
1	Ca 317.933Radial†	625.8	76.2	4.6800	µg/L	4.6800	ppb	15:42:02
1	Fe 238.204 Radial†	165.2	30.1	2.0291	µg/L	2.0291	ppb	15:42:02
1	K 766.490 Radial†	1642.0	84.9	32.724	µg/L	32.724	ppb	15:41:42
1	Mg 279.077 IEC†	188.1	23.1	9.5762	µg/L	9.5762	ppb	15:42:02
1	Na 589.592 Radial†	1518.6	262.2	38.535	µg/L	38.535	ppb	15:41:42
1	Sr 421.552†	-140.3	69.5	0.1543	µg/L	0.1543	ppb	15:41:42
1	Sc 361.383	1774055.9	1774055.9	100.98	%			15:43:03
1	Y 371.029	1056832.7	1056832.7	100.90	%			15:43:03
1	Ag 328.068†	3817.5	-34.3	-0.1361	µg/L	-0.1361	ppb	15:43:06
1	As 188.979†	-18.4	3.4	1.1085	µg/L	1.1085	ppb	15:43:26
1	B 249.677†	3551.0	57.2	0.8828	µg/L	0.8828	ppb	15:43:26
1	Ba 233.527†	-146.5	7.7	0.0331	µg/L	0.0331	ppb	15:43:26
1	Be 313.107†	-897.5	88.1	0.0242	µg/L	0.0242	ppb	15:43:06
1	Cd 226.502†	-105.0	1.9	0.0122	µg/L	0.0122	ppb	15:43:26
1	Co 228.616†	-209.3	-17.8	-0.2299	µg/L	-0.2299	ppb	15:43:26
1	Cr 267.716†	212.9	34.3	0.2852	µg/L	0.2852	ppb	15:43:26
1	Cu 324.752†	2703.6	-181.5	-0.7381	µg/L	-0.7381	ppb	15:43:06
1	Mn 257.610†	246.8	33.8	0.0434	µg/L	0.0434	ppb	15:43:26
1	Mo 202.031†	-21.6	21.4	0.6648	µg/L	0.6648	ppb	15:43:26
1	Ni 231.604†	-73.5	7.4	0.0897	µg/L	0.0897	ppb	15:43:26
1	P 214.914†	14.1	13.6	3.0575	µg/L	3.0575	ppb	15:43:26
1	Pb 220.353†	100.0	31.4	1.8435	µg/L	1.8435	ppb	15:43:26
1	S 181.975 Axial†	113.9	7.6	6.0388	µg/L	6.0388	ppb	15:43:26
1	Sb 206.836†	72.4	-7.3	-0.9126	µg/L	-0.9126	ppb	15:43:26
1	Se 196.026†	-1.3	-16.1	-6.13	µg/L	-6.13	ppb	15:43:26
1	SiO2†	1783.5	15.4	1.5763	µg/L	1.5763	ppb	15:43:26
1	Si 251.611†	958.3	161.5	2.5202	µg/L	2.5202	ppb	15:43:06
1	Sn 189.927†	11.1	14.2	0.9432	µg/L	0.9432	ppb	15:43:26
1	Ti 334.940†	942.0	-3.9	-0.0035	µg/L	-0.0035	ppb	15:43:06
1	Tl 190.801†	-112.9	3.8	0.4954	µg/L	0.4954	ppb	15:43:26
1	U 409.014†	-315.9	-48.3	-2.9088	µg/L	-2.9088	ppb	15:43:06
1	V 292.402†	386.3	27.1	0.1441	µg/L	0.1441	ppb	15:43:06
1	Zn 213.857†	552.7	34.7	0.2039	µg/L	0.2039	ppb	15:43:26
2	Sc RADIAL	143140.9	143140.9	99.3	%			15:42:04
2	Al 396.153Radial†	-51.6	16.9	3.3379	µg/L	3.3379	ppb	15:42:24
2	Ca 317.933Radial†	645.4	99.8	6.1289	µg/L	6.1289	ppb	15:42:24
2	Fe 238.204 Radial†	160.8	26.6	1.7950	µg/L	1.7950	ppb	15:42:24
2	K 766.490 Radial†	1631.0	84.0	32.382	µg/L	32.382	ppb	15:42:04
2	Mg 279.077 IEC†	170.8	6.8	2.8364	µg/L	2.8364	ppb	15:42:24
2	Na 589.592 Radial†	1614.4	368.1	54.112	µg/L	54.112	ppb	15:42:04
2	Sr 421.552†	-239.6	-31.4	-0.0699	µg/L	-0.0699	ppb	15:42:04
2	Sc 361.383	1760953.9	1760953.9	100.23	%			15:43:28
2	Y 371.029	1049236.5	1049236.5	100.18	%			15:43:28
2	Ag 328.068†	3819.3	-4.4	-0.0203	µg/L	-0.0203	ppb	15:43:30
2	As 188.979†	-7.5	14.2	4.5751	µg/L	4.5751	ppb	15:43:50
2	B 249.677†	3559.1	91.4	1.4094	µg/L	1.4094	ppb	15:43:50
2	Ba 233.527†	-148.8	4.4	0.0186	µg/L	0.0186	ppb	15:43:50
2	Be 313.107†	-866.8	112.0	0.0314	µg/L	0.0314	ppb	15:43:30
2	Cd 226.502†	-108.5	-2.4	-0.0162	µg/L	-0.0162	ppb	15:43:50
2	Co 228.616†	-204.2	-14.2	-0.1836	µg/L	-0.1836	ppb	15:43:50
2	Cr 267.716†	185.7	8.7	0.0731	µg/L	0.0731	ppb	15:43:50
2	Cu 324.752†	2818.3	-47.2	-0.1927	µg/L	-0.1927	ppb	15:43:30
2	Mn 257.610†	229.9	18.7	0.0241	µg/L	0.0241	ppb	15:43:50
2	Mo 202.031†	-23.9	18.9	0.5875	µg/L	0.5875	ppb	15:43:50
2	Ni 231.604†	-72.7	7.8	0.0939	µg/L	0.0939	ppb	15:43:50
2	P 214.914†	-1.2	-1.6	-0.3638	µg/L	-0.3638	ppb	15:43:50
2	Pb 220.353†	63.1	-4.7	-0.2725	µg/L	-0.2725	ppb	15:43:50

2	S 181.975 Axial†	108.3	2.9	2.2716 µg/L	2.2716 ppb	15:43:50
2	Sb 206.836†	87.5	8.3	1.0525 µg/L	1.0525 ppb	15:43:50
2	Se 196.026†	19.5	4.6	1.76 µg/L	1.76 ppb	15:43:50
2	SiO2†	1775.1	20.2	2.0768 µg/L	2.0768 ppb	15:43:50
2	Si 251.611†	887.5	97.9	1.5221 µg/L	1.5221 ppb	15:43:30
2	Sn 189.927†	13.6	16.8	1.1130 µg/L	1.1130 ppb	15:43:50
2	Ti 334.940†	651.1	-287.2	-0.2826 µg/L	-0.2826 ppb	15:43:30
2	Tl 190.801†	-118.6	-2.7	-0.3565 µg/L	-0.3565 ppb	15:43:50
2	U 409.014†	-295.2	-30.1	-1.8185 µg/L	-1.8185 ppb	15:43:30
2	V 292.402†	342.6	-13.7	-0.0644 µg/L	-0.0644 ppb	15:43:30
2	Zn 213.857†	540.0	26.1	0.1527 µg/L	0.1527 ppb	15:43:50
3	Sc RADIAL	143857.8	143857.8	99.8 %		15:42:26
3	Al 396.153Radial†	-61.0	7.7	1.5161 µg/L	1.5161 ppb	15:42:46
3	Ca 317.933Radial†	620.4	71.5	4.3912 µg/L	4.3912 ppb	15:42:46
3	Fe 238.204 Radial†	165.3	30.3	2.0449 µg/L	2.0449 ppb	15:42:46
3	K 766.490 Radial†	1706.5	151.5	58.405 µg/L	58.405 ppb	15:42:26
3	Mg 279.077 IEC†	192.9	28.1	11.631 µg/L	11.631 ppb	15:42:46
3	Na 589.592 Radial†	1572.4	318.0	46.714 µg/L	46.714 ppb	15:42:26
3	Sr 421.552†	-237.2	-27.9	-0.0619 µg/L	-0.0619 ppb	15:42:26
3	Sc 361.383	1772102.5	1772102.5	100.87 %		15:43:52
3	Y 371.029	1055970.8	1055970.8	100.82 %		15:43:52
3	Ag 328.068†	3849.9	2.0	-0.0017 µg/L	-0.0017 ppb	15:43:54
3	As 188.979†	-13.6	8.2	2.6294 µg/L	2.6294 ppb	15:44:14
3	B 249.677†	3565.9	75.8	1.1673 µg/L	1.1673 ppb	15:44:14
3	Ba 233.527†	-155.4	-1.3	-0.0056 µg/L	-0.0056 ppb	15:44:14
3	Be 313.107†	-740.7	242.5	0.0674 µg/L	0.0674 ppb	15:43:54
3	Cd 226.502†	-100.6	6.1	0.0402 µg/L	0.0402 ppb	15:44:14
3	Co 228.616†	-167.5	23.5	0.3032 µg/L	0.3032 ppb	15:44:14
3	Cr 267.716†	218.9	40.5	0.3380 µg/L	0.3380 ppb	15:44:14
3	Cu 324.752†	2749.0	-133.5	-0.5454 µg/L	-0.5454 ppb	15:43:54
3	Mn 257.610†	280.0	67.0	0.0862 µg/L	0.0862 ppb	15:44:14
3	Mo 202.031†	-28.3	14.7	0.4576 µg/L	0.4576 ppb	15:44:14
3	Ni 231.604†	-54.4	26.3	0.3173 µg/L	0.3173 ppb	15:44:14
3	P 214.914†	11.8	11.3	2.5392 µg/L	2.5392 ppb	15:44:14
3	Pb 220.353†	125.2	56.5	3.3162 µg/L	3.3162 ppb	15:44:14
3	S 181.975 Axial†	108.0	1.9	1.5208 µg/L	1.5208 ppb	15:44:14
3	Sb 206.836†	77.4	-2.3	-0.2825 µg/L	-0.2825 ppb	15:44:14
3	Se 196.026†	24.2	9.2	3.49 µg/L	3.49 ppb	15:44:14
3	SiO2†	1753.3	-12.6	-1.3336 µg/L	-1.3336 ppb	15:44:14
3	Si 251.611†	941.6	146.0	2.2827 µg/L	2.2827 ppb	15:43:54
3	Sn 189.927†	2.9	6.1	0.4015 µg/L	0.4015 ppb	15:44:14
3	Ti 334.940†	748.5	-194.7	-0.1907 µg/L	-0.1907 ppb	15:43:54
3	Tl 190.801†	-127.7	-11.0	-1.4315 µg/L	-1.4315 ppb	15:44:14
3	U 409.014†	-361.2	-93.6	-5.6561 µg/L	-5.6561 ppb	15:43:54
3	V 292.402†	318.3	-39.9	-0.2009 µg/L	-0.2009 ppb	15:43:54
3	Zn 213.857†	547.9	30.5	0.1776 µg/L	0.1776 ppb	15:44:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769037.4	100.69	%	0.402				0.40%
Sc RADIAL	143677.1	99.7	%	0.33				0.33%
Y 371.029	1054013.3	100.63	%	0.397				0.39%
Ag 328.068†	-12.2	-0.0527	µg/L	0.07284	-0.0527	ppb	0.07284	138.22%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.8	2.1305	µg/L	1.04575	2.1305	ppb	1.04575	49.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.6	2.7710	µg/L	1.73763	2.7710	ppb	1.73763	62.71%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	74.8	1.1532	µg/L	0.26357	1.1532	ppb	0.26357	22.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.6	0.0154	µg/L	0.01955	0.0154	ppb	0.01955	127.20%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	147.5	0.0410	µg/L	0.02312	0.0410	ppb	0.02312	56.44%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	82.5	5.0667	µg/L	0.93114	5.0667	ppb	0.93114	18.38%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	1.9	0.0121	µg/L	0.02819	0.0121	ppb	0.02819	233.56%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.8	-0.0368	µg/L	0.29531	-0.0368	ppb	0.29531	803.48%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              27.8      0.2321 µg/L       0.14020      0.2321 ppb        0.14020  60.41%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -120.8     -0.4921 µg/L       0.27657     -0.4921 ppb        0.27657  56.21%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       29.0      1.9564 µg/L       0.13994      1.9564 ppb        0.13994   7.15%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       106.8     41.170 µg/L       14.9265     41.170 ppb        14.9265  36.26%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          19.3      8.0144 µg/L       4.60044      8.0144 ppb        4.60044  57.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              39.9      0.0512 µg/L       0.03177      0.0512 ppb        0.03177  62.01%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              18.3      0.5700 µg/L       0.10467      0.5700 ppb        0.10467  18.36%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      316.1     46.454 µg/L        7.7916     46.454 ppb         7.7916  16.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              13.8      0.1670 µg/L       0.13022      0.1670 ppb        0.13022  77.98%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                7.8      1.7443 µg/L       1.84395      1.7443 ppb        1.84395 105.71%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              27.7      1.6291 µg/L       1.80393      1.6291 ppb        1.80393 110.73%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.1      3.2771 µg/L       2.42102      3.2771 ppb        2.42102  73.88%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.4     -0.0475 µg/L       1.00341     -0.0475 ppb        1.00341 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.8     -0.293 µg/L        5.1269      -0.293 ppb         5.1269 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     7.7      0.7732 µg/L       1.84163      0.7732 ppb        1.84163 238.19%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             135.2      2.1083 µg/L       0.52139      2.1083 ppb        0.52139  24.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              12.4      0.8192 µg/L       0.37157      0.8192 ppb        0.37157  45.36%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               3.4      0.0075 µg/L       0.12720      0.0075 ppb        0.12720 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -162.0     -0.1589 µg/L       0.14229     -0.1589 ppb        0.14229  89.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -3.3     -0.4309 µg/L       0.96561     -0.4309 ppb        0.96561 224.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -57.3     -3.4611 µg/L       1.97751     -3.4611 ppb        1.97751  57.13%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -8.8     -0.0404 µg/L       0.17376     -0.0404 ppb        0.17376 430.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              30.4      0.1781 µg/L       0.02559      0.1781 ppb        0.02559  14.37%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 51
Sample ID: 1202072038|965619|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 239
Date Collected: 4/1/2010 15:44:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072038|965619|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144642.8	144642.8	100	%			15:44:55
1	Al 396.153Radial†	-98.2	-28.9	-5.7996	µg/L	-5.7996	ppb	15:45:15
1	Ca 317.933Radial†	756.5	203.8	12.510	µg/L	12.510	ppb	15:45:15
1	Fe 238.204 Radial†	211.7	75.7	5.1075	µg/L	5.1075	ppb	15:45:15
1	K 766.490 Radial†	1576.4	12.6	4.8479	µg/L	4.8479	ppb	15:44:55
1	Mg 279.077 IEC†	196.6	30.7	12.733	µg/L	12.733	ppb	15:45:15
1	Na 589.592 Radial†	1517.1	254.3	37.402	µg/L	37.402	ppb	15:44:55
1	Sr 421.552†	-148.9	61.5	0.1364	µg/L	0.1364	ppb	15:44:55
1	Sc 361.383	1760797.4	1760797.4	100.22	%			15:46:03
1	Y 371.029	1046367.2	1046367.2	99.903	%			15:46:03
1	Ag 328.068†	3793.7	-29.6	-0.1249	µg/L	-0.1249	ppb	15:46:05
1	As 188.979†	-16.5	5.2	1.6800	µg/L	1.6800	ppb	15:46:25
1	B 249.677†	3532.0	64.8	0.9968	µg/L	0.9968	ppb	15:46:25
1	Ba 233.527†	-170.9	-17.7	-0.0753	µg/L	-0.0753	ppb	15:46:25
1	Be 313.107†	-787.7	190.9	0.0531	µg/L	0.0531	ppb	15:46:05
1	Cd 226.502†	-78.8	27.2	0.1779	µg/L	0.1779	ppb	15:46:25
1	Co 228.616†	-168.4	21.5	0.2775	µg/L	0.2775	ppb	15:46:25
1	Cr 267.716†	206.4	29.4	0.2452	µg/L	0.2452	ppb	15:46:25
1	Cu 324.752†	2692.5	-172.4	-0.7014	µg/L	-0.7014	ppb	15:46:05
1	Mn 257.610†	342.5	131.2	0.1692	µg/L	0.1692	ppb	15:46:25
1	Mo 202.031†	-20.1	22.7	0.7058	µg/L	0.7058	ppb	15:46:25
1	Ni 231.604†	-78.1	2.3	0.0278	µg/L	0.0278	ppb	15:46:25
1	P 214.914†	27.0	26.5	5.9416	µg/L	5.9416	ppb	15:46:25
1	Pb 220.353†	118.4	50.5	2.9626	µg/L	2.9626	ppb	15:46:25
1	S 181.975 Axial†	101.9	-3.5	-2.7935	µg/L	-2.7935	ppb	15:46:25
1	Sb 206.836†	92.4	13.2	1.6578	µg/L	1.6578	ppb	15:46:25
1	Se 196.026†	20.2	5.4	2.05	µg/L	2.05	ppb	15:46:25
1	SiO2†	1956.5	201.3	21.008	µg/L	21.008	ppb	15:46:25
1	Si 251.611†	1456.5	665.7	10.437	µg/L	10.437	ppb	15:46:05
1	Sn 189.927†	2.3	5.6	0.3685	µg/L	0.3685	ppb	15:46:25
1	Ti 334.940†	967.4	28.5	0.0291	µg/L	0.0291	ppb	15:46:05
1	Tl 190.801†	-128.3	-12.4	-1.6025	µg/L	-1.6025	ppb	15:46:25
1	U 409.014†	-336.1	-70.8	-4.2910	µg/L	-4.2910	ppb	15:46:05
1	V 292.402†	294.5	-61.6	-0.3089	µg/L	-0.3089	ppb	15:46:05
1	Zn 213.857†	820.8	306.3	1.8023	µg/L	1.8023	ppb	15:46:25
2	Sc RADIAL	142843.7	142843.7	99.1	%			15:45:17
2	Al 396.153Radial†	-60.0	8.3	1.6557	µg/L	1.6557	ppb	15:45:37
2	Ca 317.933Radial†	719.9	176.4	10.825	µg/L	10.825	ppb	15:45:37
2	Fe 238.204 Radial†	201.6	68.2	4.6004	µg/L	4.6004	ppb	15:45:37
2	K 766.490 Radial†	1722.2	179.5	69.193	µg/L	69.193	ppb	15:45:17
2	Mg 279.077 IEC†	191.7	28.3	11.699	µg/L	11.699	ppb	15:45:37
2	Na 589.592 Radial†	1462.0	217.7	31.957	µg/L	31.957	ppb	15:45:17
2	Sr 421.552†	-173.8	34.4	0.0764	µg/L	0.0764	ppb	15:45:17
2	Sc 361.383	1765196.8	1765196.8	100.47	%			15:46:27
2	Y 371.029	1048372.4	1048372.4	100.09	%			15:46:27
2	Ag 328.068†	3785.9	-46.8	-0.1957	µg/L	-0.1957	ppb	15:46:29
2	As 188.979†	-10.5	11.2	3.6088	µg/L	3.6088	ppb	15:46:49
2	B 249.677†	3521.9	45.9	0.7065	µg/L	0.7065	ppb	15:46:49
2	Ba 233.527†	-173.0	-19.4	-0.0827	µg/L	-0.0827	ppb	15:46:49
2	Be 313.107†	-602.2	377.6	0.1054	µg/L	0.1054	ppb	15:46:29
2	Cd 226.502†	-87.2	19.1	0.1247	µg/L	0.1247	ppb	15:46:49
2	Co 228.616†	-170.7	19.7	0.2537	µg/L	0.2537	ppb	15:46:49
2	Cr 267.716†	205.0	27.5	0.2318	µg/L	0.2318	ppb	15:46:49
2	Cu 324.752†	2784.2	-87.8	-0.3608	µg/L	-0.3608	ppb	15:46:29
2	Mn 257.610†	350.3	138.1	0.1781	µg/L	0.1781	ppb	15:46:49
2	Mo 202.031†	-43.0	-0.0	-0.0005	µg/L	-0.0005	ppb	15:46:49
2	Ni 231.604†	-75.9	4.8	0.0574	µg/L	0.0574	ppb	15:46:49
2	P 214.914†	21.8	21.3	4.7851	µg/L	4.7851	ppb	15:46:49
2	Pb 220.353†	122.2	53.9	3.1646	µg/L	3.1646	ppb	15:46:49

2	S 181.975 Axial†	114.6	8.9	7.0194 µg/L	7.0194 ppb	15:46:49
2	Sb 206.836†	92.0	12.6	1.5789 µg/L	1.5789 ppb	15:46:49
2	Se 196.026†	28.0	13.1	4.98 µg/L	4.98 ppb	15:46:49
2	SiO2†	1971.4	211.3	22.059 µg/L	22.059 ppb	15:46:49
2	Si 251.611†	1632.7	837.5	13.137 µg/L	13.137 ppb	15:46:29
2	Sn 189.927†	15.7	18.8	1.2461 µg/L	1.2461 ppb	15:46:49
2	Ti 334.940†	1021.8	80.2	0.0812 µg/L	0.0812 ppb	15:46:29
2	Tl 190.801†	-134.1	-17.8	-2.3098 µg/L	-2.3098 ppb	15:46:49
2	U 409.014†	-381.5	-115.3	-6.9719 µg/L	-6.9719 ppb	15:46:29
2	V 292.402†	291.6	-65.2	-0.3367 µg/L	-0.3367 ppb	15:46:29
2	Zn 213.857†	833.2	316.6	1.8625 µg/L	1.8625 ppb	15:46:49
3	Sc RADIAL	144332.0	144332.0	100 %		15:45:39
3	Al 396.153Radial†	-33.4	35.5	7.0793 µg/L	7.0793 ppb	15:45:59
3	Ca 317.933Radial†	737.9	186.9	11.472 µg/L	11.472 ppb	15:45:59
3	Fe 238.204 Radial†	195.8	60.2	4.0644 µg/L	4.0644 ppb	15:45:59
3	K 766.490 Radial†	1717.1	156.5	60.320 µg/L	60.320 ppb	15:45:39
3	Mg 279.077 IEC†	191.9	26.5	10.951 µg/L	10.951 ppb	15:45:59
3	Na 589.592 Radial†	1474.6	215.1	31.585 µg/L	31.585 ppb	15:45:39
3	Sr 421.552†	-133.0	77.1	0.1711 µg/L	0.1711 ppb	15:45:39
3	Sc 361.383	1752698.1	1752698.1	99.763 %		15:46:51
3	Y 371.029	1041507.1	1041507.1	99.439 %		15:46:51
3	Ag 328.068†	3890.8	85.3	0.3279 µg/L	0.3279 ppb	15:46:54
3	As 188.979†	-12.3	9.4	3.0187 µg/L	3.0187 ppb	15:47:14
3	B 249.677†	3540.9	89.9	1.3860 µg/L	1.3860 ppb	15:47:14
3	Ba 233.527†	-182.9	-30.5	-0.1294 µg/L	-0.1294 ppb	15:47:14
3	Be 313.107†	-900.2	74.5	0.0188 µg/L	0.0188 ppb	15:46:54
3	Cd 226.502†	-103.7	1.9	0.0122 µg/L	0.0122 ppb	15:47:14
3	Co 228.616†	-194.0	-5.0	-0.0646 µg/L	-0.0646 ppb	15:47:14
3	Cr 267.716†	218.4	42.4	0.3558 µg/L	0.3558 ppb	15:47:14
3	Cu 324.752†	2932.5	80.6	0.3210 µg/L	0.3210 ppb	15:46:54
3	Mn 257.610†	366.1	156.4	0.2019 µg/L	0.2019 ppb	15:47:14
3	Mo 202.031†	-46.3	-3.7	-0.1140 µg/L	-0.1140 ppb	15:47:14
3	Ni 231.604†	-64.2	15.9	0.1914 µg/L	0.1914 ppb	15:47:14
3	P 214.914†	7.7	7.3	1.6352 µg/L	1.6352 ppb	15:47:14
3	Pb 220.353†	160.0	92.7	5.4370 µg/L	5.4370 ppb	15:47:14
3	S 181.975 Axial†	101.5	-3.4	-2.7063 µg/L	-2.7063 ppb	15:47:14
3	Sb 206.836†	83.3	4.4	0.5507 µg/L	0.5507 ppb	15:47:14
3	Se 196.026†	10.8	-4.0	-1.51 µg/L	-1.51 ppb	15:47:14
3	SiO2†	1976.5	230.4	24.081 µg/L	24.081 ppb	15:47:14
3	Si 251.611†	1544.5	760.7	11.941 µg/L	11.941 ppb	15:46:54
3	Sn 189.927†	-2.7	0.5	0.0335 µg/L	0.0335 ppb	15:47:14
3	Ti 334.940†	835.6	-99.2	-0.0953 µg/L	-0.0953 ppb	15:46:54
3	Tl 190.801†	-131.7	-16.4	-2.1237 µg/L	-2.1237 ppb	15:47:14
3	U 409.014†	-394.9	-131.4	-7.9037 µg/L	-7.9037 ppb	15:46:54
3	V 292.402†	428.5	74.1	0.3720 µg/L	0.3720 ppb	15:46:54
3	Zn 213.857†	827.3	316.5	1.8608 µg/L	1.8608 ppb	15:47:14

Mean Data: 1202072038|965619|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1759564.1	100.15	%	0.361				0.36%
Sc RADIAL	143939.5	99.9	%	0.67				0.67%
Y 371.029	1045415.6	99.812	%	0.3370				0.34%
Ag 328.068†	3.0	0.0024	µg/L	0.28408	0.0024	ppb	0.28408	>999.9%
Al 396.153Radial†	5.0	0.9785	µg/L	6.46610	0.9785	ppb	6.46610	660.83%
As 188.979†	8.6	2.7691	µg/L	0.98833	2.7691	ppb	0.98833	35.69%
B 249.677†	66.9	1.0298	µg/L	0.34098	1.0298	ppb	0.34098	33.11%
Ba 233.527†	-22.6	-0.0958	µg/L	0.02931	-0.0958	ppb	0.02931	30.59%
Be 313.107†	214.3	0.0591	µg/L	0.04361	0.0591	ppb	0.04361	73.78%
Ca 317.933Radial†	189.0	11.603	µg/L	0.8501	11.603	ppb	0.8501	7.33%
Cd 226.502†	16.1	0.1050	µg/L	0.08457	0.1050	ppb	0.08457	80.58%
Co 228.616†	12.1	0.1555	µg/L	0.19102	0.1555	ppb	0.19102	122.80%
Cr 267.716†	33.1	0.2776	µg/L	0.06806	0.2776	ppb	0.06806	24.52%
Cu 324.752†	-59.9	-0.2471	µg/L	0.52058	-0.2471	ppb	0.52058	210.70%
Fe 238.204 Radial†	68.0	4.5908	µg/L	0.52166	4.5908	ppb	0.52166	11.36%
K 766.490 Radial†	116.2	44.787	µg/L	34.8714	44.787	ppb	34.8714	77.86%
Mg 279.077 IEC†	28.5	11.794	µg/L	0.8947	11.794	ppb	0.8947	7.59%
Mn 257.610†	141.9	0.1831	µg/L	0.01692	0.1831	ppb	0.01692	9.24%
Mo 202.031†	6.3	0.1971	µg/L	0.44421	0.1971	ppb	0.44421	225.37%
Na 589.592 Radial†	229.0	33.648	µg/L	3.2563	33.648	ppb	3.2563	9.68%

Ni 231.604†	7.6	0.0922 µg/L	0.08720	0.0922 ppb	0.08720	94.60%
P 214.914†	18.4	4.1206 µg/L	2.22878	4.1206 ppb	2.22878	54.09%
Pb 220.353†	65.7	3.8547 µg/L	1.37403	3.8547 ppb	1.37403	35.65%
S 181.975 Axial†	0.6	0.5065 µg/L	5.64046	0.5065 ppb	5.64046	>999.9%
Sb 206.836†	10.1	1.2625 µg/L	0.61766	1.2625 ppb	0.61766	48.92%
Se 196.026†	4.8	1.84 µg/L	3.251	1.84 ppb	3.251	176.65%
SiO2†	214.3	22.383 µg/L	1.5621	22.383 ppb	1.5621	6.98%
Si 251.611†	754.6	11.838 µg/L	1.3526	11.838 ppb	1.3526	11.43%
Sn 189.927†	8.3	0.5493 µg/L	0.62619	0.5493 ppb	0.62619	113.99%
Sr 421.552†	57.6	0.1279 µg/L	0.04789	0.1279 ppb	0.04789	37.43%
Ti 334.940†	3.2	0.0050 µg/L	0.09071	0.0050 ppb	0.09071	>999.9%
Tl 190.801†	-15.5	-2.0120 µg/L	0.36665	-2.0120 ppb	0.36665	18.22%
U 409.014†	-105.8	-6.3889 µg/L	1.87561	-6.3889 ppb	1.87561	29.36%
V 292.402†	-17.6	-0.0912 µg/L	0.40140	-0.0912 ppb	0.40140	440.25%
Zn 213.857†	313.2	1.8419 µg/L	0.03428	1.8419 ppb	0.03428	1.86%

Sequence No.: 52
Sample ID: 1202072039|965619|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 240
Date Collected: 4/1/2010 15:47:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072039|965619|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143460.8	143460.8	99.5	%			15:47:53
1	Al 396.153Radial†	26059.2	26252.9	5206.3	µg/L	5206.3	ppb	15:47:53
1	Ca 317.933Radial†	86608.9	86473.6	5308.1	µg/L	5308.1	ppb	15:47:53
1	Fe 238.204 Radial†	77908.2	78146.0	5274.0	µg/L	5274.0	ppb	15:47:53
1	K 766.490 Radial†	14906.3	13419.3	5169.7	µg/L	5169.7	ppb	15:47:53
1	Mg 279.077 IEC†	13042.7	12940.0	5365.9	µg/L	5365.9	ppb	15:47:53
1	Na 589.592 Radial†	36788.8	35707.4	5247.4	µg/L	5247.4	ppb	15:47:53
1	Sr 421.552†	232255.3	233577.6	518.77	µg/L	518.77	ppb	15:47:51
1	Sc 361.383	1723698.3	1723698.3	98.112	%			15:48:06
1	Y 371.029	1016907.3	1016907.3	97.090	%			15:48:06
1	Ag 328.068†	130734.3	129434.9	512.35	µg/L	512.35	ppb	15:48:06
1	As 188.979†	1549.0	1600.5	521.10	µg/L	521.10	ppb	15:48:26
1	B 249.677†	35730.2	32958.3	506.07	µg/L	506.07	ppb	15:48:06
1	Ba 233.527†	120523.5	122995.2	522.27	µg/L	522.27	ppb	15:48:06
1	Be 313.107†	1754426.7	1789159.4	509.67	µg/L	509.67	ppb	15:48:06
1	Cd 226.502†	76532.5	78110.9	512.34	µg/L	512.34	ppb	15:48:06
1	Co 228.616†	38502.9	39433.2	509.64	µg/L	509.64	ppb	15:48:06
1	Cr 267.716†	61343.4	62347.1	513.79	µg/L	513.79	ppb	15:48:06
1	Cu 324.752†	127008.6	126593.4	514.95	µg/L	514.95	ppb	15:48:06
1	Mn 257.610†	393131.2	400484.6	517.84	µg/L	517.84	ppb	15:48:06
1	Mo 202.031†	16340.8	16697.9	519.42	µg/L	519.42	ppb	15:48:26
1	Ni 231.604†	41734.6	42617.8	514.38	µg/L	514.38	ppb	15:48:06
1	P 214.914†	2315.0	2359.1	520.19	µg/L	520.19	ppb	15:48:26
1	Pb 220.353†	8876.8	8979.9	527.63	µg/L	527.63	ppb	15:48:26
1	S 181.975 Axial†	6698.1	6721.8	5322.9	µg/L	5322.9	ppb	15:48:26
1	Sb 206.836†	4155.1	4156.0	523.17	µg/L	523.17	ppb	15:48:26
1	Se 196.026†	1322.7	1333.3	510	µg/L	510	ppb	15:48:26
1	SiO2†	104863.3	105130.1	10963	µg/L	10963	ppb	15:48:06
1	Si 251.611†	321907.5	327313.7	5127.1	µg/L	5127.1	ppb	15:48:06
1	Sn 189.927†	7757.6	7910.1	525.44	µg/L	525.44	ppb	15:48:26
1	Ti 334.940†	511925.7	520838.6	513.12	µg/L	513.12	ppb	15:48:06
1	Tl 190.801†	3838.3	4027.7	528.86	µg/L	528.86	ppb	15:48:26
1	U 409.014†	7489.6	7898.2	507.66	µg/L	507.66	ppb	15:48:06
1	V 292.402†	98761.1	100305.9	517.97	µg/L	517.97	ppb	15:48:06
1	Zn 213.857†	85321.8	86450.7	504.64	µg/L	504.64	ppb	15:48:06
2	Sc RADIAL	144304.0	144304.0	100	%			15:47:57
2	Al 396.153Radial†	25970.7	26011.5	5158.7	µg/L	5158.7	ppb	15:47:57
2	Ca 317.933Radial†	86767.4	86123.4	5286.6	µg/L	5286.6	ppb	15:47:57
2	Fe 238.204 Radial†	78101.5	77881.6	5256.1	µg/L	5256.1	ppb	15:47:57
2	K 766.490 Radial†	14975.7	13401.1	5162.7	µg/L	5162.7	ppb	15:47:57
2	Mg 279.077 IEC†	13146.6	12967.2	5376.9	µg/L	5376.9	ppb	15:47:57
2	Na 589.592 Radial†	36762.8	35465.4	5211.8	µg/L	5211.8	ppb	15:47:57
2	Sr 421.552†	233590.6	233547.7	518.70	µg/L	518.70	ppb	15:47:55
2	Sc 361.383	1750761.1	1750761.1	99.653	%			15:48:29
2	Y 371.029	1032754.5	1032754.5	98.604	%			15:48:29
2	Ag 328.068†	132138.4	128784.1	509.83	µg/L	509.83	ppb	15:48:29
2	As 188.979†	1525.1	1552.1	505.52	µg/L	505.52	ppb	15:48:49
2	B 249.677†	36176.5	32843.2	504.30	µg/L	504.30	ppb	15:48:29
2	Ba 233.527†	122409.4	122988.8	522.24	µg/L	522.24	ppb	15:48:29
2	Be 313.107†	1779204.9	1786382.6	508.88	µg/L	508.88	ppb	15:48:29
2	Cd 226.502†	77738.6	78115.3	512.37	µg/L	512.37	ppb	15:48:29
2	Co 228.616†	39029.3	39354.9	508.63	µg/L	508.63	ppb	15:48:29
2	Cr 267.716†	62091.2	62131.0	512.00	µg/L	512.00	ppb	15:48:29
2	Cu 324.752†	128641.9	126231.3	513.49	µg/L	513.49	ppb	15:48:29
2	Mn 257.610†	398655.4	399834.2	517.00	µg/L	517.00	ppb	15:48:29
2	Mo 202.031†	16292.8	16392.4	509.92	µg/L	509.92	ppb	15:48:49
2	Ni 231.604†	42239.9	42467.4	512.56	µg/L	512.56	ppb	15:48:29
2	P 214.914†	2328.3	2336.0	515.04	µg/L	515.04	ppb	15:48:49
2	Pb 220.353†	8803.5	8766.5	515.09	µg/L	515.09	ppb	15:48:49

2	S 181.975 Axial†	6639.0	6557.0	5192.4 µg/L	5192.4 ppb	15:48:49
2	Sb 206.836†	4144.9	4080.3	513.54 µg/L	513.54 ppb	15:48:49
2	Se 196.026†	1328.6	1318.5	505 µg/L	505 ppb	15:48:49
2	SiO2†	106580.6	105201.2	10971 µg/L	10971 ppb	15:48:29
2	Si 251.611†	326884.2	327235.9	5126.0 µg/L	5126.0 ppb	15:48:29
2	Sn 189.927†	7723.4	7753.5	515.07 µg/L	515.07 ppb	15:48:49
2	Ti 334.940†	519001.2	519873.3	512.17 µg/L	512.17 ppb	15:48:29
2	Tl 190.801†	3803.9	3932.8	516.56 µg/L	516.56 ppb	15:48:49
2	U 409.014†	7759.4	8050.9	516.92 µg/L	516.92 ppb	15:48:29
2	V 292.402†	100474.7	100469.4	518.71 µg/L	518.71 ppb	15:48:29
2	Zn 213.857†	86859.3	86649.4	505.82 µg/L	505.82 ppb	15:48:29
3	Sc RADIAL	141520.8	141520.8	98.2 %		15:48:01
3	Al 396.153Radial†	25790.6	26338.2	5223.6 µg/L	5223.6 ppb	15:48:01
3	Ca 317.933Radial†	85310.1	86343.6	5300.1 µg/L	5300.1 ppb	15:48:01
3	Fe 238.204 Radial†	76935.3	78228.1	5279.5 µg/L	5279.5 ppb	15:48:01
3	K 766.490 Radial†	14855.5	13572.9	5228.9 µg/L	5228.9 ppb	15:48:01
3	Mg 279.077 IEC†	12820.1	12892.9	5346.2 µg/L	5346.2 ppb	15:48:01
3	Na 589.592 Radial†	36380.7	35798.4	5260.7 µg/L	5260.7 ppb	15:48:01
3	Sr 421.552†	231086.9	235586.5	523.23 µg/L	523.23 ppb	15:47:59
3	Sc 361.383	1727486.3	1727486.3	98.328 %		15:48:52
3	Y 371.029	1019319.2	1019319.2	97.321 %		15:48:52
3	Ag 328.068†	130481.2	128885.3	510.22 µg/L	510.22 ppb	15:48:52
3	As 188.979†	1520.3	1567.8	510.56 µg/L	510.56 ppb	15:49:12
3	B 249.677†	35822.0	32971.8	506.28 µg/L	506.28 ppb	15:48:52
3	Ba 233.527†	120708.8	122914.3	521.92 µg/L	521.92 ppb	15:48:52
3	Be 313.107†	1753460.3	1784255.4	508.28 µg/L	508.28 ppb	15:48:52
3	Cd 226.502†	76482.4	77888.9	510.88 µg/L	510.88 ppb	15:48:52
3	Co 228.616†	38416.6	39259.4	507.40 µg/L	507.40 ppb	15:48:52
3	Cr 267.716†	61071.9	61933.9	510.37 µg/L	510.37 ppb	15:48:52
3	Cu 324.752†	127404.5	126712.1	515.44 µg/L	515.44 ppb	15:48:52
3	Mn 257.610†	393613.1	400096.1	517.34 µg/L	517.34 ppb	15:48:52
3	Mo 202.031†	16212.3	16530.8	514.23 µg/L	514.23 ppb	15:49:12
3	Ni 231.604†	41566.4	42353.5	511.18 µg/L	511.18 ppb	15:48:52
3	P 214.914†	2311.0	2349.9	518.13 µg/L	518.13 ppb	15:49:12
3	Pb 220.353†	8777.8	8859.5	520.55 µg/L	520.55 ppb	15:49:12
3	S 181.975 Axial†	6632.5	6640.1	5258.2 µg/L	5258.2 ppb	15:49:12
3	Sb 206.836†	4143.5	4135.0	520.50 µg/L	520.50 ppb	15:49:12
3	Se 196.026†	1314.9	1322.5	506 µg/L	506 ppb	15:49:12
3	SiO2†	105150.0	105187.3	10969 µg/L	10969 ppb	15:48:52
3	Si 251.611†	322064.8	326754.1	5118.4 µg/L	5118.4 ppb	15:48:52
3	Sn 189.927†	7711.5	7845.9	521.19 µg/L	521.19 ppb	15:49:12
3	Ti 334.940†	512498.8	520277.2	512.57 µg/L	512.57 ppb	15:48:52
3	Tl 190.801†	3827.8	4008.5	526.37 µg/L	526.37 ppb	15:49:12
3	U 409.014†	7752.3	8148.6	522.74 µg/L	522.74 ppb	15:48:52
3	V 292.402†	98916.3	100243.0	517.59 µg/L	517.59 ppb	15:48:52
3	Zn 213.857†	85595.5	86538.4	505.17 µg/L	505.17 ppb	15:48:52

Mean Data: 1202072039|965619|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733981.9	98.698	%	0.8341				0.85%
Sc RADIAL	143095.2	99.3	%	0.99				1.00%
Y 371.029	1022993.7	97.672	%	0.8152				0.83%
Ag 328.068†	129034.8	510.80	µg/L	1.358	510.80	ppb	1.358	0.27%
Al 396.153Radial†	26200.9	5196.2	µg/L	33.62	5196.2	ppb	33.62	0.65%
As 188.979†	1573.5	512.39	µg/L	7.946	512.39	ppb	7.946	1.55%
B 249.677†	32924.4	505.55	µg/L	1.090	505.55	ppb	1.090	0.22%
Ba 233.527†	122966.1	522.14	µg/L	0.191	522.14	ppb	0.191	0.04%
Be 313.107†	1786599.1	508.94	µg/L	0.698	508.94	ppb	0.698	0.14%
Ca 317.933Radial†	86313.6	5298.2	µg/L	10.87	5298.2	ppb	10.87	0.21%
Cd 226.502†	78038.3	511.87	µg/L	0.851	511.87	ppb	0.851	0.17%
Co 228.616†	39349.1	508.56	µg/L	1.125	508.56	ppb	1.125	0.22%
Cr 267.716†	62137.3	512.06	µg/L	1.710	512.06	ppb	1.710	0.33%
Cu 324.752†	126512.3	514.63	µg/L	1.018	514.63	ppb	1.018	0.20%
Fe 238.204 Radial†	78085.3	5269.9	µg/L	12.22	5269.9	ppb	12.22	0.23%
K 766.490 Radial†	13464.4	5187.1	µg/L	36.37	5187.1	ppb	36.37	0.70%
Mg 279.077 IEC†	12933.4	5363.0	µg/L	15.54	5363.0	ppb	15.54	0.29%
Mn 257.610†	400138.3	517.39	µg/L	0.423	517.39	ppb	0.423	0.08%
Mo 202.031†	16540.4	514.52	µg/L	4.756	514.52	ppb	4.756	0.92%
Na 589.592 Radial†	35657.0	5240.0	µg/L	25.29	5240.0	ppb	25.29	0.48%

Ni 231.604†	42479.6	512.71 µg/L	1.600	512.71 ppb	1.600	0.31%
P 214.914†	2348.3	517.79 µg/L	2.593	517.79 ppb	2.593	0.50%
Pb 220.353†	8868.7	521.09 µg/L	6.284	521.09 ppb	6.284	1.21%
S 181.975 Axial†	6639.6	5257.8 µg/L	65.25	5257.8 ppb	65.25	1.24%
Sb 206.836†	4123.8	519.07 µg/L	4.969	519.07 ppb	4.969	0.96%
Se 196.026†	1324.8	507 µg/L	2.9	507 ppb	2.9	0.58%
SiO2†	105172.9	10967 µg/L	4.1	10967 ppb	4.1	0.04%
Si 251.611†	327101.2	5123.8 µg/L	4.75	5123.8 ppb	4.75	0.09%
Sn 189.927†	7836.5	520.57 µg/L	5.213	520.57 ppb	5.213	1.00%
Sr 421.552†	234237.2	520.23 µg/L	2.596	520.23 ppb	2.596	0.50%
Ti 334.940†	520329.7	512.62 µg/L	0.481	512.62 ppb	0.481	0.09%
Tl 190.801†	3989.7	523.93 µg/L	6.499	523.93 ppb	6.499	1.24%
U 409.014†	8032.6	515.77 µg/L	7.608	515.77 ppb	7.608	1.48%
V 292.402†	100339.4	518.09 µg/L	0.567	518.09 ppb	0.567	0.11%
Zn 213.857†	86546.2	505.21 µg/L	0.592	505.21 ppb	0.592	0.12%

Sequence No.: 53
Sample ID: 249333001|965619|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 241
Date Collected: 4/1/2010 15:49:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249333001|965619|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142991.2	142991.2	99.2	%			15:49:51
1	Al 396.153Radial†	-16.9	51.9	10.327	µg/L	10.327	ppb	15:50:11
1	Ca 317.933Radial†	866.7	323.6	19.865	µg/L	19.865	ppb	15:50:11
1	Fe 238.204 Radial†	268.6	135.4	9.1407	µg/L	9.1407	ppb	15:50:11
1	K 766.490 Radial†	1668.4	123.5	47.593	µg/L	47.593	ppb	15:49:51
1	Mg 279.077 IEC†	196.0	32.4	13.401	µg/L	13.401	ppb	15:50:11
1	Na 589.592 Radial†	1466.2	220.4	32.375	µg/L	32.375	ppb	15:49:51
1	Sr 421.552†	-171.0	37.5	0.0832	µg/L	0.0832	ppb	15:49:51
1	Sc 361.383	1755893.5	1755893.5	99.945	%			15:51:13
1	Y 371.029	1043092.1	1043092.1	99.591	%			15:51:13
1	Ag 328.068†	3757.8	-54.9	-0.2125	µg/L	-0.2125	ppb	15:51:15
1	As 188.979†	-21.1	0.6	0.2015	µg/L	0.2015	ppb	15:51:35
1	B 249.677†	3504.0	46.6	0.7185	µg/L	0.7185	ppb	15:51:15
1	Ba 233.527†	80.9	233.7	0.9918	µg/L	0.9918	ppb	15:51:35
1	Be 313.107†	-820.4	156.0	0.0444	µg/L	0.0444	ppb	15:51:15
1	Cd 226.502†	-94.1	11.7	0.0759	µg/L	0.0759	ppb	15:51:35
1	Co 228.616†	-200.9	-11.5	-0.1480	µg/L	-0.1480	ppb	15:51:35
1	Cr 267.716†	230.0	53.6	0.4419	µg/L	0.4419	ppb	15:51:35
1	Cu 324.752†	2750.8	-106.6	-0.4307	µg/L	-0.4307	ppb	15:51:15
1	Mn 257.610†	395.9	185.6	0.2395	µg/L	0.2395	ppb	15:51:35
1	Mo 202.031†	-34.8	7.9	0.2467	µg/L	0.2467	ppb	15:51:35
1	Ni 231.604†	-65.9	14.3	0.1728	µg/L	0.1728	ppb	15:51:35
1	P 214.914†	17.4	17.0	3.8107	µg/L	3.8107	ppb	15:51:35
1	Pb 220.353†	115.1	47.6	2.7864	µg/L	2.7864	ppb	15:51:35
1	S 181.975 Axial†	107.4	2.3	1.7859	µg/L	1.7859	ppb	15:51:35
1	Sb 206.836†	74.1	-4.8	-0.6098	µg/L	-0.6098	ppb	15:51:35
1	Se 196.026†	17.8	3.0	1.14	µg/L	1.14	ppb	15:51:35
1	SiO2†	1995.4	245.7	25.651	µg/L	25.651	ppb	15:51:35
1	Si 251.611†	1593.2	806.6	12.652	µg/L	12.652	ppb	15:51:15
1	Sn 189.927†	9.0	12.2	0.8076	µg/L	0.8076	ppb	15:51:35
1	Ti 334.940†	1045.3	109.1	0.1069	µg/L	0.1069	ppb	15:51:15
1	Tl 190.801†	-124.7	-9.1	-1.1789	µg/L	-1.1789	ppb	15:51:35
1	U 409.014†	-267.2	-2.8	-0.1571	µg/L	-0.1571	ppb	15:51:15
1	V 292.402†	400.5	45.3	0.2341	µg/L	0.2341	ppb	15:51:15
1	Zn 213.857†	850.2	338.0	1.9872	µg/L	1.9872	ppb	15:51:35
2	Sc RADIAL	142575.1	142575.1	98.9	%			15:50:13
2	Al 396.153Radial†	-42.7	25.7	5.1247	µg/L	5.1247	ppb	15:50:33
2	Ca 317.933Radial†	874.5	334.0	20.504	µg/L	20.504	ppb	15:50:33
2	Fe 238.204 Radial†	274.8	142.5	9.6170	µg/L	9.6170	ppb	15:50:33
2	K 766.490 Radial†	1599.8	59.1	22.763	µg/L	22.763	ppb	15:50:13
2	Mg 279.077 IEC†	194.3	31.2	12.914	µg/L	12.914	ppb	15:50:33
2	Na 589.592 Radial†	1501.2	260.1	38.243	µg/L	38.243	ppb	15:50:13
2	Sr 421.552†	-98.0	110.8	0.2458	µg/L	0.2458	ppb	15:50:13
2	Sc 361.383	1764171.0	1764171.0	100.42	%			15:51:37
2	Y 371.029	1048463.5	1048463.5	100.10	%			15:51:37
2	Ag 328.068†	3856.1	25.3	0.0937	µg/L	0.0937	ppb	15:51:39
2	As 188.979†	-11.1	10.7	3.4243	µg/L	3.4243	ppb	15:51:59
2	B 249.677†	3475.4	1.7	0.0259	µg/L	0.0259	ppb	15:51:39
2	Ba 233.527†	77.6	230.0	0.9761	µg/L	0.9761	ppb	15:51:59
2	Be 313.107†	-867.0	113.5	0.0302	µg/L	0.0302	ppb	15:51:39
2	Cd 226.502†	-102.5	3.8	0.0239	µg/L	0.0239	ppb	15:51:59
2	Co 228.616†	-193.4	-3.1	-0.0390	µg/L	-0.0390	ppb	15:51:59
2	Cr 267.716†	198.8	21.5	0.1826	µg/L	0.1826	ppb	15:51:59
2	Cu 324.752†	2890.2	19.3	0.0743	µg/L	0.0743	ppb	15:51:39
2	Mn 257.610†	389.4	177.2	0.2287	µg/L	0.2287	ppb	15:51:59
2	Mo 202.031†	-43.1	-0.2	-0.0058	µg/L	-0.0058	ppb	15:51:59
2	Ni 231.604†	-65.5	15.1	0.1820	µg/L	0.1820	ppb	15:51:59
2	P 214.914†	31.2	30.7	6.8727	µg/L	6.8727	ppb	15:51:59
2	Pb 220.353†	95.6	27.5	1.6169	µg/L	1.6169	ppb	15:51:59

2	S 181.975 Axial†	114.3	8.6	6.8343 µg/L	6.8343 ppb	15:51:59
2	Sb 206.836†	83.0	3.7	0.4573 µg/L	0.4573 ppb	15:51:59
2	Se 196.026†	19.5	4.6	1.75 µg/L	1.75 ppb	15:51:59
2	SiO2†	2047.4	288.1	30.096 µg/L	30.096 ppb	15:51:59
2	Si 251.611†	1686.7	892.2	14.002 µg/L	14.002 ppb	15:51:39
2	Sn 189.927†	1.6	4.8	0.3205 µg/L	0.3205 ppb	15:51:59
2	Ti 334.940†	814.1	-126.0	-0.1220 µg/L	-0.1220 ppb	15:51:39
2	Tl 190.801†	-114.6	1.5	0.1897 µg/L	0.1897 ppb	15:51:59
2	U 409.014†	-382.0	-116.0	-6.9776 µg/L	-6.9776 ppb	15:51:39
2	V 292.402†	422.3	65.1	0.3267 µg/L	0.3267 ppb	15:51:39
2	Zn 213.857†	823.8	307.7	1.8084 µg/L	1.8084 ppb	15:51:59
3	Sc RADIAL	143355.5	143355.5	99.5 %		15:50:35
3	Al 396.153Radial†	-60.9	7.7	1.4965 µg/L	1.4965 ppb	15:50:55
3	Ca 317.933Radial†	853.2	307.9	18.897 µg/L	18.897 ppb	15:50:55
3	Fe 238.204 Radial†	251.3	117.4	7.9208 µg/L	7.9208 ppb	15:50:55
3	K 766.490 Radial†	1577.0	27.3	10.534 µg/L	10.534 ppb	15:50:35
3	Mg 279.077 IEC†	197.1	33.0	13.689 µg/L	13.689 ppb	15:50:55
3	Na 589.592 Radial†	1441.2	191.5	28.161 µg/L	28.161 ppb	15:50:35
3	Sr 421.552†	-300.9	-92.7	-0.2060 µg/L	-0.2060 ppb	15:50:35
3	Sc 361.383	1757228.5	1757228.5	100.02 %		15:52:02
3	Y 371.029	1043695.1	1043695.1	99.648 %		15:52:02
3	Ag 328.068†	3859.9	44.3	0.1702 µg/L	0.1702 ppb	15:52:04
3	As 188.979†	-17.5	4.2	1.3403 µg/L	1.3403 ppb	15:52:24
3	B 249.677†	3582.7	122.5	1.8884 µg/L	1.8884 ppb	15:52:04
3	Ba 233.527†	127.4	280.2	1.1889 µg/L	1.1889 ppb	15:52:24
3	Be 313.107†	-616.2	360.8	0.1022 µg/L	0.1022 ppb	15:52:04
3	Cd 226.502†	-89.3	16.5	0.1078 µg/L	0.1078 ppb	15:52:24
3	Co 228.616†	-192.2	-2.6	-0.0329 µg/L	-0.0329 ppb	15:52:24
3	Cr 267.716†	208.1	31.5	0.2609 µg/L	0.2609 ppb	15:52:24
3	Cu 324.752†	2750.4	-109.1	-0.4424 µg/L	-0.4424 ppb	15:52:04
3	Mn 257.610†	433.7	223.0	0.2880 µg/L	0.2880 ppb	15:52:24
3	Mo 202.031†	-19.1	23.6	0.7351 µg/L	0.7351 ppb	15:52:24
3	Ni 231.604†	-73.3	7.0	0.0845 µg/L	0.0845 ppb	15:52:24
3	P 214.914†	2.4	2.0	0.4489 µg/L	0.4489 ppb	15:52:24
3	Pb 220.353†	105.2	37.6	2.2031 µg/L	2.2031 ppb	15:52:24
3	S 181.975 Axial†	109.8	4.6	3.6657 µg/L	3.6657 ppb	15:52:24
3	Sb 206.836†	88.7	9.6	1.2155 µg/L	1.2155 ppb	15:52:24
3	Se 196.026†	16.0	1.2	0.450 µg/L	0.450 ppb	15:52:24
3	SiO2†	2041.5	290.3	30.301 µg/L	30.301 ppb	15:52:24
3	Si 251.611†	1653.5	865.7	13.573 µg/L	13.573 ppb	15:52:04
3	Sn 189.927†	6.5	9.8	0.6471 µg/L	0.6471 ppb	15:52:24
3	Ti 334.940†	807.2	-129.8	-0.1280 µg/L	-0.1280 ppb	15:52:04
3	Tl 190.801†	-145.6	-30.0	-3.8762 µg/L	-3.8762 ppb	15:52:24
3	U 409.014†	-295.3	-30.7	-1.8528 µg/L	-1.8528 ppb	15:52:04
3	V 292.402†	353.7	-1.8	-0.0024 µg/L	-0.0024 ppb	15:52:04
3	Zn 213.857†	847.6	334.7	1.9685 µg/L	1.9685 ppb	15:52:24

Mean Data: 249333001|965619|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1759097.6	100.13	%	0.253				0.25%
Sc RADIAL	142973.9	99.2	%	0.27				0.27%
Y 371.029	1045083.6	99.781	%	0.2809				0.28%
Ag 328.068†	4.9	0.0172	µg/L	0.20250	0.0172	ppb	0.20250	>999.9%
Al 396.153Radial†	28.4	5.6494	µg/L	4.43851	5.6494	ppb	4.43851	78.57%
As 188.979†	5.1	1.6554	µg/L	1.63433	1.6554	ppb	1.63433	98.73%
B 249.677†	56.9	0.8776	µg/L	0.94135	0.8776	ppb	0.94135	107.27%
Ba 233.527†	248.0	1.0523	µg/L	0.11859	1.0523	ppb	0.11859	11.27%
Be 313.107†	210.1	0.0589	µg/L	0.03813	0.0589	ppb	0.03813	64.72%
Ca 317.933Radial†	321.8	19.756	µg/L	0.8090	19.756	ppb	0.8090	4.10%
Cd 226.502†	10.7	0.0692	µg/L	0.04236	0.0692	ppb	0.04236	61.23%
Co 228.616†	-5.7	-0.0733	µg/L	0.06476	-0.0733	ppb	0.06476	88.35%
Cr 267.716†	35.5	0.2951	µg/L	0.13297	0.2951	ppb	0.13297	45.05%
Cu 324.752†	-65.4	-0.2662	µg/L	0.29501	-0.2662	ppb	0.29501	110.81%
Fe 238.204 Radial†	131.8	8.8928	µg/L	0.87483	8.8928	ppb	0.87483	9.84%
K 766.490 Radial†	70.0	26.963	µg/L	18.8832	26.963	ppb	18.8832	70.03%
Mg 279.077 IEC†	32.2	13.335	µg/L	0.3919	13.335	ppb	0.3919	2.94%
Mn 257.610†	195.3	0.2521	µg/L	0.03154	0.2521	ppb	0.03154	12.51%
Mo 202.031†	10.4	0.3253	µg/L	0.37662	0.3253	ppb	0.37662	115.76%
Na 589.592 Radial†	224.0	32.927	µg/L	5.0635	32.927	ppb	5.0635	15.38%

Ni 231.604†	12.1	0.1464	µg/L	0.05386	0.1464	ppb	0.05386 36.78%
P 214.914†	16.5	3.7108	µg/L	3.21307	3.7108	ppb	3.21307 86.59%
Pb 220.353†	37.5	2.2022	µg/L	0.58475	2.2022	ppb	0.58475 26.55%
S 181.975 Axial†	5.2	4.0953	µg/L	2.55147	4.0953	ppb	2.55147 62.30%
Sb 206.836†	2.8	0.3543	µg/L	0.91697	0.3543	ppb	0.91697 258.79%
Se 196.026†	2.9	1.11	µg/L	0.650	1.11	ppb	0.650 58.46%
SiO2†	274.7	28.683	µg/L	2.6278	28.683	ppb	2.6278 9.16%
Si 251.611†	854.8	13.409	µg/L	0.6899	13.409	ppb	0.6899 5.15%
Sn 189.927†	8.9	0.5917	µg/L	0.24823	0.5917	ppb	0.24823 41.95%
Sr 421.552†	18.5	0.0410	µg/L	0.22888	0.0410	ppb	0.22888 558.25%
Ti 334.940†	-48.9	-0.0477	µg/L	0.13393	-0.0477	ppb	0.13393 280.91%
Tl 190.801†	-12.5	-1.6218	µg/L	2.06884	-1.6218	ppb	2.06884 127.57%
U 409.014†	-49.8	-2.9958	µg/L	3.55106	-2.9958	ppb	3.55106 118.53%
V 292.402†	36.2	0.1861	µg/L	0.16974	0.1861	ppb	0.16974 91.20%
Zn 213.857†	326.8	1.9213	µg/L	0.09829	1.9213	ppb	0.09829 5.12%

Sequence No.: 54
Sample ID: 1202072040|965619|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 242
Date Collected: 4/1/2010 15:52:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072040|965619|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141471.0	141471.0	98.1	%			15:53:01
1	Al 396.153Radial†	-44.3	23.8	4.7039	µg/L	4.7039	ppb	15:53:21
1	Ca 317.933Radial†	690.9	153.9	9.4471	µg/L	9.4471	ppb	15:53:21
1	Fe 238.204 Radial†	203.8	72.4	4.8853	µg/L	4.8853	ppb	15:53:21
1	K 766.490 Radial†	1593.3	65.0	25.065	µg/L	25.065	ppb	15:53:01
1	Mg 279.077 IEC†	208.6	47.4	19.634	µg/L	19.634	ppb	15:53:21
1	Na 589.592 Radial†	1521.5	292.7	43.024	µg/L	43.024	ppb	15:53:01
1	Sr 421.552†	-137.2	70.1	0.1555	µg/L	0.1555	ppb	15:53:01
1	Sc 361.383	1789366.5	1789366.5	101.85	%			15:54:23
1	Y 371.029	1062903.8	1062903.8	101.48	%			15:54:23
1	Ag 328.068†	3625.2	-255.4	-0.9899	µg/L	-0.9899	ppb	15:54:25
1	As 188.979†	-16.8	5.2	1.6788	µg/L	1.6788	ppb	15:54:45
1	B 249.677†	3631.7	106.4	1.6398	µg/L	1.6398	ppb	15:54:25
1	Ba 233.527†	-151.4	4.1	0.0175	µg/L	0.0175	ppb	15:54:45
1	Be 313.107†	-992.1	2.8	0.0032	µg/L	0.0032	ppb	15:54:25
1	Cd 226.502†	-102.0	5.7	0.0368	µg/L	0.0368	ppb	15:54:45
1	Co 228.616†	-205.9	-12.6	-0.1631	µg/L	-0.1631	ppb	15:54:45
1	Cr 267.716†	206.8	26.5	0.2123	µg/L	0.2123	ppb	15:54:45
1	Cu 324.752†	2821.0	-89.2	-0.3541	µg/L	-0.3541	ppb	15:54:25
1	Mn 257.610†	358.0	141.0	0.1816	µg/L	0.1816	ppb	15:54:45
1	Mo 202.031†	-21.6	21.5	0.6701	µg/L	0.6701	ppb	15:54:45
1	Ni 231.604†	-59.0	22.3	0.2698	µg/L	0.2698	ppb	15:54:45
1	P 214.914†	12.9	12.3	2.7482	µg/L	2.7482	ppb	15:54:45
1	Pb 220.353†	100.8	31.3	1.8306	µg/L	1.8306	ppb	15:54:45
1	S 181.975 Axial†	103.9	-3.2	-2.5152	µg/L	-2.5152	ppb	15:54:45
1	Sb 206.836†	85.3	4.7	0.5964	µg/L	0.5964	ppb	15:54:45
1	Se 196.026†	10.2	-4.8	-1.83	µg/L	-1.83	ppb	15:54:45
1	SiO2†	2007.0	219.7	22.932	µg/L	22.932	ppb	15:54:45
1	Si 251.611†	1513.5	698.5	10.952	µg/L	10.952	ppb	15:54:25
1	Sn 189.927†	1.6	4.8	0.3172	µg/L	0.3172	ppb	15:54:45
1	Ti 334.940†	972.4	18.0	0.0131	µg/L	0.0131	ppb	15:54:25
1	Tl 190.801†	-125.5	-7.6	-0.9883	µg/L	-0.9883	ppb	15:54:45
1	U 409.014†	-137.2	129.8	7.8237	µg/L	7.8237	ppb	15:54:25
1	V 292.402†	347.5	-14.3	-0.0602	µg/L	-0.0602	ppb	15:54:25
1	Zn 213.857†	684.8	159.7	0.9380	µg/L	0.9380	ppb	15:54:45
2	Sc RADIAL	144197.6	144197.6	100	%			15:53:23
2	Al 396.153Radial†	-54.8	14.1	2.8120	µg/L	2.8120	ppb	15:53:43
2	Ca 317.933Radial†	726.2	175.8	10.792	µg/L	10.792	ppb	15:53:43
2	Fe 238.204 Radial†	206.5	71.1	4.7993	µg/L	4.7993	ppb	15:53:43
2	K 766.490 Radial†	1539.4	-19.6	-7.5569	µg/L	-7.5569	ppb	15:53:23
2	Mg 279.077 IEC†	189.6	24.4	10.085	µg/L	10.085	ppb	15:53:43
2	Na 589.592 Radial†	1427.3	169.2	24.896	µg/L	24.896	ppb	15:53:23
2	Sr 421.552†	-80.1	129.8	0.2883	µg/L	0.2883	ppb	15:53:23
2	Sc 361.383	1774963.3	1774963.3	101.03	%			15:54:47
2	Y 371.029	1055050.3	1055050.3	100.73	%			15:54:47
2	Ag 328.068†	4067.6	211.3	0.8220	µg/L	0.8220	ppb	15:54:49
2	As 188.979†	-17.2	4.7	1.5048	µg/L	1.5048	ppb	15:55:09
2	B 249.677†	3568.0	72.3	1.1138	µg/L	1.1138	ppb	15:54:49
2	Ba 233.527†	-122.9	31.2	0.1321	µg/L	0.1321	ppb	15:55:09
2	Be 313.107†	-947.6	39.0	0.0113	µg/L	0.0113	ppb	15:54:49
2	Cd 226.502†	-115.7	-8.7	-0.0574	µg/L	-0.0574	ppb	15:55:09
2	Co 228.616†	-193.6	-2.1	-0.0275	µg/L	-0.0275	ppb	15:55:09
2	Cr 267.716†	236.4	57.4	0.4726	µg/L	0.4726	ppb	15:55:09
2	Cu 324.752†	2957.4	68.4	0.2788	µg/L	0.2788	ppb	15:54:49
2	Mn 257.610†	364.7	150.4	0.1942	µg/L	0.1942	ppb	15:55:09
2	Mo 202.031†	-39.7	3.5	0.1076	µg/L	0.1076	ppb	15:55:09
2	Ni 231.604†	-91.5	-10.3	-0.1240	µg/L	-0.1240	ppb	15:55:09
2	P 214.914†	19.8	19.1	4.2966	µg/L	4.2966	ppb	15:55:09
2	Pb 220.353†	98.2	29.5	1.7292	µg/L	1.7292	ppb	15:55:09

2	S 181.975 Axial†	112.4	6.1	4.8257 µg/L	4.8257 ppb		15:55:09
2	Sb 206.836†	78.2	-1.6	-0.2095 µg/L	-0.2095 ppb		15:55:09
2	Se 196.026†	8.5	-6.4	-2.42 µg/L	-2.42 ppb		15:55:09
2	SiO2†	1978.8	207.8	21.699 µg/L	21.699 ppb		15:55:09
2	Si 251.611†	1515.2	712.3	11.171 µg/L	11.171 ppb		15:54:49
2	Sn 189.927†	13.6	16.7	1.1082 µg/L	1.1082 ppb		15:55:09
2	Ti 334.940†	922.0	-24.2	-0.0249 µg/L	-0.0249 ppb		15:54:49
2	Tl 190.801†	-132.9	-15.9	-2.0590 µg/L	-2.0590 ppb		15:55:09
2	U 409.014†	-253.6	13.5	0.7922 µg/L	0.7922 ppb		15:54:49
2	V 292.402†	282.7	-75.6	-0.3821 µg/L	-0.3821 ppb		15:54:49
2	Zn 213.857†	679.2	159.6	0.9394 µg/L	0.9394 ppb		15:55:09
3	Sc RADIAL	146178.4	146178.4	101 %			15:53:45
3	Al 396.153Radial†	-38.8	30.6	6.0925 µg/L	6.0925 ppb		15:54:05
3	Ca 317.933Radial†	701.1	141.3	8.6718 µg/L	8.6718 ppb		15:54:05
3	Fe 238.204 Radial†	192.7	54.7	3.6921 µg/L	3.6921 ppb		15:54:05
3	K 766.490 Radial†	1477.8	-101.1	-38.994 µg/L	-38.994 ppb		15:53:45
3	Mg 279.077 IEC†	164.9	-2.6	-1.0771 µg/L	-1.0771 ppb		15:54:05
3	Na 589.592 Radial†	1443.8	166.2	24.473 µg/L	24.473 ppb		15:53:45
3	Sr 421.552†	-192.1	20.4	0.0453 µg/L	0.0453 ppb		15:53:45
3	Sc 361.383	1771514.6	1771514.6	100.83 %			15:55:11
3	Y 371.029	1053452.6	1053452.6	100.58 %			15:55:11
3	Ag 328.068†	3898.1	51.1	0.1943 µg/L	0.1943 ppb		15:55:13
3	As 188.979†	-7.2	14.5	4.6671 µg/L	4.6671 ppb		15:55:34
3	B 249.677†	3557.7	69.0	1.0623 µg/L	1.0623 ppb		15:55:13
3	Ba 233.527†	-124.9	29.0	0.1231 µg/L	0.1231 ppb		15:55:34
3	Be 313.107†	-1070.8	-85.1	-0.0265 µg/L	-0.0265 ppb		15:55:13
3	Cd 226.502†	-90.6	16.0	0.1048 µg/L	0.1048 ppb		15:55:34
3	Co 228.616†	-186.8	4.3	0.0556 µg/L	0.0556 ppb		15:55:34
3	Cr 267.716†	235.8	57.3	0.4783 µg/L	0.4783 ppb		15:55:34
3	Cu 324.752†	2779.8	-102.2	-0.4200 µg/L	-0.4200 ppb		15:55:13
3	Mn 257.610†	343.8	130.4	0.1687 µg/L	0.1687 ppb		15:55:34
3	Mo 202.031†	-33.9	9.1	0.2827 µg/L	0.2827 ppb		15:55:34
3	Ni 231.604†	-73.3	7.6	0.0916 µg/L	0.0916 ppb		15:55:34
3	P 214.914†	40.0	39.3	8.7957 µg/L	8.7957 ppb		15:55:34
3	Pb 220.353†	101.9	33.4	1.9648 µg/L	1.9648 ppb		15:55:34
3	S 181.975 Axial†	105.4	-0.7	-0.5416 µg/L	-0.5416 ppb		15:55:34
3	Sb 206.836†	91.5	11.8	1.4715 µg/L	1.4715 ppb		15:55:34
3	Se 196.026†	9.2	-5.7	-2.18 µg/L	-2.18 ppb		15:55:34
3	SiO2†	1990.6	223.4	23.345 µg/L	23.345 ppb		15:55:34
3	Si 251.611†	1611.7	810.8	12.729 µg/L	12.729 ppb		15:55:13
3	Sn 189.927†	-17.6	-14.3	-0.9441 µg/L	-0.9441 ppb		15:55:34
3	Ti 334.940†	1025.7	80.5	0.0827 µg/L	0.0827 ppb		15:55:13
3	Tl 190.801†	-118.1	-1.5	-0.1911 µg/L	-0.1911 ppb		15:55:34
3	U 409.014†	-394.0	-126.2	-7.5934 µg/L	-7.5934 ppb		15:55:13
3	V 292.402†	430.9	71.9	0.3659 µg/L	0.3659 ppb		15:55:13
3	Zn 213.857†	712.2	193.6	1.1389 µg/L	1.1389 ppb		15:55:34

Mean Data: 1202072040|965619|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1778614.8	101.24	%	0.539				0.53%
Sc RADIAL	143949.0	99.9	%	1.64				1.64%
Y 371.029	1057135.6	100.93	%	0.483				0.48%
Ag 328.068†	2.3	0.0088	µg/L	0.92010	0.0088	ppb	0.92010	>999.9%
Al 396.153Radial†	22.9	4.5362	µg/L	1.64664	4.5362	ppb	1.64664	36.30%
As 188.979†	8.1	2.6169	µg/L	1.77767	2.6169	ppb	1.77767	67.93%
B 249.677†	82.5	1.2720	µg/L	0.31959	1.2720	ppb	0.31959	25.13%
Ba 233.527†	21.4	0.0909	µg/L	0.06372	0.0909	ppb	0.06372	70.11%
Be 313.107†	-14.5	-0.0040	µg/L	0.01993	-0.0040	ppb	0.01993	496.73%
Ca 317.933Radial†	157.0	9.6370	µg/L	1.07292	9.6370	ppb	1.07292	11.13%
Cd 226.502†	4.3	0.0281	µg/L	0.08147	0.0281	ppb	0.08147	290.33%
Co 228.616†	-3.5	-0.0450	µg/L	0.11040	-0.0450	ppb	0.11040	245.18%
Cr 267.716†	47.1	0.3877	µg/L	0.15193	0.3877	ppb	0.15193	39.19%
Cu 324.752†	-41.0	-0.1651	µg/L	0.38584	-0.1651	ppb	0.38584	233.69%
Fe 238.204 Radial†	66.1	4.4589	µg/L	0.66544	4.4589	ppb	0.66544	14.92%
K 766.490 Radial†	-18.6	-7.1619	µg/L	32.03123	-7.1619	ppb	32.03123	447.24%
Mg 279.077 IEC†	23.0	9.5474	µg/L	10.36610	9.5474	ppb	10.36610	108.58%
Mn 257.610†	140.6	0.1815	µg/L	0.01275	0.1815	ppb	0.01275	7.03%
Mo 202.031†	11.4	0.3535	µg/L	0.28787	0.3535	ppb	0.28787	81.44%
Na 589.592 Radial†	209.3	30.798	µg/L	10.5907	30.798	ppb	10.5907	34.39%

Ni 231.604†	6.6	0.0791	µg/L	0.19720	0.0791	ppb	0.19720 249.25%
P 214.914†	23.6	5.2802	µg/L	3.14146	5.2802	ppb	3.14146 59.50%
Pb 220.353†	31.4	1.8415	µg/L	0.11816	1.8415	ppb	0.11816 6.42%
S 181.975 Axial†	0.7	0.5896	µg/L	3.79892	0.5896	ppb	3.79892 644.29%
Sb 206.836†	4.9	0.6195	µg/L	0.84073	0.6195	ppb	0.84073 135.72%
Se 196.026†	-5.6	-2.14	µg/L	0.299	-2.14	ppb	0.299 13.95%
SiO2†	217.0	22.659	µg/L	0.8567	22.659	ppb	0.8567 3.78%
Si 251.611†	740.5	11.617	µg/L	0.9691	11.617	ppb	0.9691 8.34%
Sn 189.927†	2.4	0.1604	µg/L	1.03506	0.1604	ppb	1.03506 645.24%
Sr 421.552†	73.4	0.1630	µg/L	0.12168	0.1630	ppb	0.12168 74.63%
Ti 334.940†	24.8	0.0236	µg/L	0.05453	0.0236	ppb	0.05453 230.72%
Tl 190.801†	-8.3	-1.0795	µg/L	0.93731	-1.0795	ppb	0.93731 86.83%
U 409.014†	5.7	0.3408	µg/L	7.71847	0.3408	ppb	7.71847 >999.9%
V 292.402†	-6.0	-0.0255	µg/L	0.37517	-0.0255	ppb	0.37517 >999.9%
Zn 213.857†	171.0	1.0054	µg/L	0.11557	1.0054	ppb	0.11557 11.50%

Sequence No.: 55
Sample ID: 1202072041|965619|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 243
Date Collected: 4/1/2010 15:55:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072041|965619|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144242.8	144242.8	100	%			15:56:13
1	Al 396.153Radial†	25304.0	25356.2	5028.7	µg/L	5028.7	ppb	15:56:13
1	Ca 317.933Radial†	84988.1	84382.1	5179.7	µg/L	5179.7	ppb	15:56:13
1	Fe 238.204 Radial†	76320.3	76134.7	5138.2	µg/L	5138.2	ppb	15:56:13
1	K 766.490 Radial†	14781.0	13212.8	5090.2	µg/L	5090.2	ppb	15:56:13
1	Mg 279.077 IEC†	12832.7	12659.0	5249.1	µg/L	5249.1	ppb	15:56:13
1	Na 589.592 Radial†	35874.5	34593.3	5083.6	µg/L	5083.6	ppb	15:56:13
1	Sr 421.552†	224585.6	224647.6	498.93	µg/L	498.93	ppb	15:56:11
1	Sc 361.383	1754604.3	1754604.3	99.871	%			15:56:40
1	Y 371.029	1033914.6	1033914.6	98.714	%			15:56:40
1	Ag 328.068†	128301.8	124652.1	493.47	µg/L	493.47	ppb	15:56:40
1	As 188.979†	1504.3	1528.0	497.54	µg/L	497.54	ppb	15:57:00
1	B 249.677†	35388.6	31974.8	490.97	µg/L	490.97	ppb	15:56:40
1	Ba 233.527†	119170.4	119476.6	507.32	µg/L	507.32	ppb	15:56:40
1	Be 313.107†	1726659.7	1729859.1	492.78	µg/L	492.78	ppb	15:56:40
1	Cd 226.502†	75771.7	75975.0	498.33	µg/L	498.33	ppb	15:56:40
1	Co 228.616†	37991.1	38229.5	494.09	µg/L	494.09	ppb	15:56:40
1	Cr 267.716†	60076.9	59977.7	494.25	µg/L	494.25	ppb	15:56:40
1	Cu 324.752†	125137.0	122439.2	498.08	µg/L	498.08	ppb	15:56:40
1	Mn 257.610†	387223.0	387510.9	501.06	µg/L	501.06	ppb	15:56:40
1	Mo 202.031†	15945.3	16008.5	497.98	µg/L	497.98	ppb	15:57:00
1	Ni 231.604†	40995.3	41128.3	496.40	µg/L	496.40	ppb	15:56:40
1	P 214.914†	2264.5	2267.0	499.80	µg/L	499.80	ppb	15:57:00
1	Pb 220.353†	8650.4	8593.9	504.94	µg/L	504.94	ppb	15:57:00
1	S 181.975 Axial†	6538.1	6441.4	5100.8	µg/L	5100.8	ppb	15:57:00
1	Sb 206.836†	4068.1	3994.3	502.79	µg/L	502.79	ppb	15:57:00
1	Se 196.026†	1293.9	1280.8	490	µg/L	490	ppb	15:57:00
1	SiO2†	103433.8	101816.1	10617	µg/L	10617	ppb	15:56:40
1	Si 251.611†	316767.1	316387.4	4956.0	µg/L	4956.0	ppb	15:56:40
1	Sn 189.927†	7568.5	7581.4	503.62	µg/L	503.62	ppb	15:57:00
1	Ti 334.940†	503719.9	503431.5	495.96	µg/L	495.96	ppb	15:56:40
1	Tl 190.801†	3741.3	3861.8	507.12	µg/L	507.12	ppb	15:57:00
1	U 409.014†	7676.7	7951.0	509.83	µg/L	509.83	ppb	15:56:40
1	V 292.402†	97273.3	97043.1	501.07	µg/L	501.07	ppb	15:56:40
1	Zn 213.857†	84174.5	83770.2	489.00	µg/L	489.00	ppb	15:56:40
2	Sc RADIAL	143572.5	143572.5	99.6	%			15:56:17
2	Al 396.153Radial†	25209.2	25379.1	5033.6	µg/L	5033.6	ppb	15:56:17
2	Ca 317.933Radial†	84222.0	84009.5	5156.8	µg/L	5156.8	ppb	15:56:17
2	Fe 238.204 Radial†	75372.9	75539.7	5098.1	µg/L	5098.1	ppb	15:56:17
2	K 766.490 Radial†	14600.1	13100.2	5046.8	µg/L	5046.8	ppb	15:56:17
2	Mg 279.077 IEC†	12685.8	12571.4	5212.7	µg/L	5212.7	ppb	15:56:17
2	Na 589.592 Radial†	35756.8	34642.4	5090.9	µg/L	5090.9	ppb	15:56:17
2	Sr 421.552†	227713.3	228835.7	508.24	µg/L	508.24	ppb	15:56:15
2	Sc 361.383	1769144.7	1769144.7	100.70	%			15:57:03
2	Y 371.029	1042228.8	1042228.8	99.508	%			15:57:03
2	Ag 328.068†	130102.0	125384.0	496.35	µg/L	496.35	ppb	15:57:03
2	As 188.979†	1491.6	1502.9	489.50	µg/L	489.50	ppb	15:57:23
2	B 249.677†	35854.3	32146.0	493.60	µg/L	493.60	ppb	15:57:03
2	Ba 233.527†	120229.5	119547.6	507.62	µg/L	507.62	ppb	15:57:03
2	Be 313.107†	1744499.3	1733365.4	493.78	µg/L	493.78	ppb	15:57:03
2	Cd 226.502†	76712.3	76285.6	500.37	µg/L	500.37	ppb	15:57:03
2	Co 228.616†	38539.4	38461.4	497.08	µg/L	497.08	ppb	15:57:03
2	Cr 267.716†	60798.6	60200.0	496.09	µg/L	496.09	ppb	15:57:03
2	Cu 324.752†	126587.8	122850.0	499.73	µg/L	499.73	ppb	15:57:03
2	Mn 257.610†	391901.8	388970.6	502.95	µg/L	502.95	ppb	15:57:03
2	Mo 202.031†	15844.4	15777.1	490.79	µg/L	490.79	ppb	15:57:23
2	Ni 231.604†	41584.7	41376.3	499.39	µg/L	499.39	ppb	15:57:03
2	P 214.914†	2245.3	2229.3	491.37	µg/L	491.37	ppb	15:57:23
2	Pb 220.353†	8585.2	8458.0	496.97	µg/L	496.97	ppb	15:57:23

2	S 181.975 Axial†	6490.3	6340.0	5020.5 µg/L	5020.5 ppb	15:57:23
2	Sb 206.836†	4039.1	3932.0	494.84 µg/L	494.84 ppb	15:57:23
2	Se 196.026†	1281.6	1257.9	481 µg/L	481 ppb	15:57:23
2	SiO2†	104509.9	102033.6	10640 µg/L	10640 ppb	15:57:03
2	Si 251.611†	320936.2	317920.7	4980.2 µg/L	4980.2 ppb	15:57:03
2	Sn 189.927†	7527.5	7478.5	496.81 µg/L	496.81 ppb	15:57:23
2	Ti 334.940†	509432.6	504959.2	497.48 µg/L	497.48 ppb	15:57:03
2	Tl 190.801†	3691.8	3781.8	496.79 µg/L	496.79 ppb	15:57:23
2	U 409.014†	7546.2	7758.3	498.38 µg/L	498.38 ppb	15:57:03
2	V 292.402†	98624.1	97584.0	503.75 µg/L	503.75 ppb	15:57:03
2	Zn 213.857†	84922.9	83820.7	489.28 µg/L	489.28 ppb	15:57:03
3	Sc RADIAL	145270.9	145270.9	101 %		15:56:21
3	Al 396.153Radial†	25453.2	25325.3	5022.7 µg/L	5022.7 ppb	15:56:21
3	Ca 317.933Radial†	85482.4	84271.5	5172.9 µg/L	5172.9 ppb	15:56:21
3	Fe 238.204 Radial†	76470.0	75743.5	5111.8 µg/L	5111.8 ppb	15:56:21
3	K 766.490 Radial†	14772.8	13100.2	5046.8 µg/L	5046.8 ppb	15:56:21
3	Mg 279.077 IEC†	12964.7	12699.2	5265.7 µg/L	5265.7 ppb	15:56:21
3	Na 589.592 Radial†	36362.5	34823.8	5117.5 µg/L	5117.5 ppb	15:56:21
3	Sr 421.552†	224411.9	222887.0	495.02 µg/L	495.02 ppb	15:56:19
3	Sc 361.383	1762542.2	1762542.2	100.32 %		15:57:27
3	Y 371.029	1038070.0	1038070.0	99.111 %		15:57:27
3	Ag 328.068†	129871.6	125638.3	497.32 µg/L	497.32 ppb	15:57:27
3	As 188.979†	1497.8	1514.7	493.27 µg/L	493.27 ppb	15:57:47
3	B 249.677†	35650.3	32076.1	492.52 µg/L	492.52 ppb	15:57:27
3	Ba 233.527†	119494.3	119262.0	506.41 µg/L	506.41 ppb	15:57:27
3	Be 313.107†	1736775.7	1732156.2	493.43 µg/L	493.43 ppb	15:57:27
3	Cd 226.502†	76122.9	75983.4	498.39 µg/L	498.39 ppb	15:57:27
3	Co 228.616†	38295.6	38361.7	495.80 µg/L	495.80 ppb	15:57:27
3	Cr 267.716†	60540.4	60168.8	495.84 µg/L	495.84 ppb	15:57:27
3	Cu 324.752†	126096.1	122830.8	499.65 µg/L	499.65 ppb	15:57:27
3	Mn 257.610†	389428.6	387963.2	501.65 µg/L	501.65 ppb	15:57:27
3	Mo 202.031†	15925.9	15917.3	495.15 µg/L	495.15 ppb	15:57:47
3	Ni 231.604†	41317.4	41264.5	498.04 µg/L	498.04 ppb	15:57:27
3	P 214.914†	2276.4	2268.7	500.19 µg/L	500.19 ppb	15:57:47
3	Pb 220.353†	8623.7	8528.3	501.10 µg/L	501.10 ppb	15:57:47
3	S 181.975 Axial†	6512.5	6386.4	5057.2 µg/L	5057.2 ppb	15:57:47
3	Sb 206.836†	4060.7	3968.6	499.50 µg/L	499.50 ppb	15:57:47
3	Se 196.026†	1307.7	1288.7	493 µg/L	493 ppb	15:57:47
3	SiO2†	104182.8	102096.3	10647 µg/L	10647 ppb	15:57:27
3	Si 251.611†	319938.0	318119.5	4983.2 µg/L	4983.2 ppb	15:57:27
3	Sn 189.927†	7580.9	7559.7	502.18 µg/L	502.18 ppb	15:57:47
3	Ti 334.940†	506346.3	503777.9	496.31 µg/L	496.31 ppb	15:57:27
3	Tl 190.801†	3736.3	3839.9	504.29 µg/L	504.29 ppb	15:57:47
3	U 409.014†	7529.0	7769.2	498.92 µg/L	498.92 ppb	15:57:27
3	V 292.402†	97888.5	97217.6	501.93 µg/L	501.93 ppb	15:57:27
3	Zn 213.857†	84655.6	83870.2	489.58 µg/L	489.58 ppb	15:57:27

Mean Data: 1202072041|965619|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1762097.1	100.30	%	0.414				0.41%
Sc RADIAL	144362.1	100	%	0.6				0.59%
Y 371.029	1038071.1	99.111	%	0.3969				0.40%
Ag 328.068†	125224.8	495.72	µg/L	2.003	495.72	ppb	2.003	0.40%
Al 396.153Radial†	25353.5	5028.3	µg/L	5.47	5028.3	ppb	5.47	0.11%
As 188.979†	1515.2	493.44	µg/L	4.026	493.44	ppb	4.026	0.82%
B 249.677†	32065.6	492.36	µg/L	1.322	492.36	ppb	1.322	0.27%
Ba 233.527†	119428.7	507.12	µg/L	0.631	507.12	ppb	0.631	0.12%
Be 313.107†	1731793.6	493.33	µg/L	0.505	493.33	ppb	0.505	0.10%
Ca 317.933Radial†	84221.0	5169.8	µg/L	11.75	5169.8	ppb	11.75	0.23%
Cd 226.502†	76081.3	499.03	µg/L	1.163	499.03	ppb	1.163	0.23%
Co 228.616†	38350.9	495.66	µg/L	1.503	495.66	ppb	1.503	0.30%
Cr 267.716†	60115.5	495.39	µg/L	0.997	495.39	ppb	0.997	0.20%
Cu 324.752†	122706.7	499.15	µg/L	0.933	499.15	ppb	0.933	0.19%
Fe 238.204 Radial†	75806.0	5116.1	µg/L	20.41	5116.1	ppb	20.41	0.40%
K 766.490 Radial†	13137.8	5061.2	µg/L	25.06	5061.2	ppb	25.06	0.50%
Mg 279.077 IEC†	12643.2	5242.5	µg/L	27.12	5242.5	ppb	27.12	0.52%
Mn 257.610†	388148.2	501.89	µg/L	0.968	501.89	ppb	0.968	0.19%
Mo 202.031†	15901.0	494.64	µg/L	3.623	494.64	ppb	3.623	0.73%
Na 589.592 Radial†	34686.5	5097.3	µg/L	17.87	5097.3	ppb	17.87	0.35%

Ni 231.604†	41256.4	497.94 µg/L	1.499	497.94 ppb	1.499	0.30%
P 214.914†	2255.0	497.12 µg/L	4.983	497.12 ppb	4.983	1.00%
Pb 220.353†	8526.8	501.00 µg/L	3.985	501.00 ppb	3.985	0.80%
S 181.975 Axial†	6389.3	5059.5 µg/L	40.17	5059.5 ppb	40.17	0.79%
Sb 206.836†	3965.0	499.04 µg/L	3.998	499.04 ppb	3.998	0.80%
Se 196.026†	1275.8	488 µg/L	6.1	488 ppb	6.1	1.25%
SiO2†	101982.0	10635 µg/L	15.5	10635 ppb	15.5	0.15%
Si 251.611†	317475.9	4973.1 µg/L	14.93	4973.1 ppb	14.93	0.30%
Sn 189.927†	7539.9	500.87 µg/L	3.589	500.87 ppb	3.589	0.72%
Sr 421.552†	225456.8	500.73 µg/L	6.787	500.73 ppb	6.787	1.36%
Ti 334.940†	504056.2	496.58 µg/L	0.793	496.58 ppb	0.793	0.16%
Tl 190.801†	3827.8	502.73 µg/L	5.335	502.73 ppb	5.335	1.06%
U 409.014†	7826.2	502.37 µg/L	6.460	502.37 ppb	6.460	1.29%
V 292.402†	97281.6	502.25 µg/L	1.371	502.25 ppb	1.371	0.27%
Zn 213.857†	83820.3	489.29 µg/L	0.290	489.29 ppb	0.290	0.06%

Sequence No.: 56
Sample ID: 1202072042|965619|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 244
Date Collected: 4/1/2010 15:57:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072042|965619|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144008.8	144008.8	99.9	%			15:58:25
1	Al 396.153Radial†	-66.0	2.8	0.5488	µg/L	0.5488	ppb	15:58:45
1	Ca 317.933Radial†	745.4	196.1	12.034	µg/L	12.034	ppb	15:58:45
1	Fe 238.204 Radial†	163.2	28.0	1.8920	µg/L	1.8920	ppb	15:58:45
1	K 766.490 Radial†	1438.8	-118.2	-45.585	µg/L	-45.585	ppb	15:58:25
1	Mg 279.077 IEC†	182.8	17.8	7.3637	µg/L	7.3637	ppb	15:58:45
1	Na 589.592 Radial†	1395.3	139.0	20.482	µg/L	20.482	ppb	15:58:25
1	Sr 421.552†	-216.0	-6.3	-0.0142	µg/L	-0.0142	ppb	15:58:25
1	Sc 361.383	1762434.5	1762434.5	100.32	%			15:59:47
1	Y 371.029	1047937.6	1047937.6	100.05	%			15:59:47
1	Ag 328.068†	3584.6	-241.5	-0.9555	µg/L	-0.9555	ppb	15:59:49
1	As 188.979†	-20.7	1.1	0.3551	µg/L	0.3551	ppb	16:00:09
1	B 249.677†	3549.1	78.5	1.2103	µg/L	1.2103	ppb	15:59:49
1	Ba 233.527†	-107.9	45.2	0.1922	µg/L	0.1922	ppb	16:00:09
1	Be 313.107†	-790.9	188.4	0.0494	µg/L	0.0494	ppb	15:59:49
1	Cd 226.502†	-102.6	3.5	0.0230	µg/L	0.0230	ppb	16:00:09
1	Co 228.616†	-193.0	-2.9	-0.0375	µg/L	-0.0375	ppb	16:00:09
1	Cr 267.716†	219.6	42.4	0.3607	µg/L	0.3607	ppb	16:00:09
1	Cu 324.752†	2608.0	-259.2	-1.0623	µg/L	-1.0623	ppb	15:59:49
1	Mn 257.610†	294.9	83.4	0.1076	µg/L	0.1076	ppb	16:00:09
1	Mo 202.031†	-31.2	11.6	0.3611	µg/L	0.3611	ppb	16:00:09
1	Ni 231.604†	-79.2	1.3	0.0158	µg/L	0.0158	ppb	16:00:09
1	P 214.914†	19.0	18.5	4.1710	µg/L	4.1710	ppb	16:00:09
1	Pb 220.353†	81.6	13.7	0.8153	µg/L	0.8153	ppb	16:00:09
1	S 181.975 Axial†	104.4	-1.1	-0.8451	µg/L	-0.8451	ppb	16:00:09
1	Sb 206.836†	81.5	2.3	0.2848	µg/L	0.2848	ppb	16:00:09
1	Se 196.026†	15.5	0.7	0.245	µg/L	0.245	ppb	16:00:09
1	SiO2†	1775.6	19.2	1.9886	µg/L	1.9886	ppb	16:00:09
1	Si 251.611†	985.4	194.8	3.0491	µg/L	3.0491	ppb	15:59:49
1	Sn 189.927†	4.7	8.0	0.5270	µg/L	0.5270	ppb	16:00:09
1	Ti 334.940†	976.6	36.8	0.0416	µg/L	0.0416	ppb	15:59:49
1	Tl 190.801†	-130.3	-14.2	-1.8367	µg/L	-1.8367	ppb	16:00:09
1	U 409.014†	-499.2	-233.2	-14.037	µg/L	-14.037	ppb	15:59:49
1	V 292.402†	456.5	99.7	0.5034	µg/L	0.5034	ppb	15:59:49
1	Zn 213.857†	649.1	134.4	0.7911	µg/L	0.7911	ppb	16:00:09
2	Sc RADIAL	145547.7	145547.7	101	%			15:58:47
2	Al 396.153Radial†	-83.9	-14.2	-2.8338	µg/L	-2.8338	ppb	15:59:07
2	Ca 317.933Radial†	711.4	154.4	9.4789	µg/L	9.4789	ppb	15:59:07
2	Fe 238.204 Radial†	172.4	35.4	2.3922	µg/L	2.3922	ppb	15:59:07
2	K 766.490 Radial†	1731.5	156.4	60.291	µg/L	60.291	ppb	15:58:47
2	Mg 279.077 IEC†	175.2	8.3	3.4337	µg/L	3.4337	ppb	15:59:07
2	Na 589.592 Radial†	1419.8	148.5	21.785	µg/L	21.785	ppb	15:58:47
2	Sr 421.552†	-146.9	64.3	0.1428	µg/L	0.1428	ppb	15:58:47
2	Sc 361.383	1777156.5	1777156.5	101.16	%			16:00:11
2	Y 371.029	1056987.6	1056987.6	100.92	%			16:00:11
2	Ag 328.068†	3785.0	-73.0	-0.2845	µg/L	-0.2845	ppb	16:00:13
2	As 188.979†	-13.7	8.1	2.6121	µg/L	2.6121	ppb	16:00:33
2	B 249.677†	3482.4	-16.7	-0.2585	µg/L	-0.2585	ppb	16:00:13
2	Ba 233.527†	-82.8	70.9	0.3008	µg/L	0.3008	ppb	16:00:33
2	Be 313.107†	-979.2	8.8	0.0025	µg/L	0.0025	ppb	16:00:13
2	Cd 226.502†	-96.0	10.9	0.0714	µg/L	0.0714	ppb	16:00:33
2	Co 228.616†	-161.6	29.7	0.3843	µg/L	0.3843	ppb	16:00:33
2	Cr 267.716†	223.0	43.9	0.3620	µg/L	0.3620	ppb	16:00:33
2	Cu 324.752†	3010.6	117.3	0.4760	µg/L	0.4760	ppb	16:00:13
2	Mn 257.610†	345.4	130.9	0.1691	µg/L	0.1691	ppb	16:00:33
2	Mo 202.031†	-45.9	-2.7	-0.0830	µg/L	-0.0830	ppb	16:00:33
2	Ni 231.604†	-76.3	4.8	0.0577	µg/L	0.0577	ppb	16:00:33
2	P 214.914†	10.1	9.6	2.1421	µg/L	2.1421	ppb	16:00:33
2	Pb 220.353†	55.6	-12.7	-0.7451	µg/L	-0.7451	ppb	16:00:33

2	S 181.975 Axial†	106.1	-0.3	-0.2577 µg/L	-0.2577 ppb		16:00:33
2	Sb 206.836†	101.9	21.7	2.7163 µg/L	2.7163 ppb		16:00:33
2	Se 196.026†	21.2	6.2	2.35 µg/L	2.35 ppb		16:00:33
2	SiO2†	1800.6	29.2	3.0534 µg/L	3.0534 ppb		16:00:33
2	Si 251.611†	1126.8	326.4	5.1234 µg/L	5.1234 ppb		16:00:13
2	Sn 189.927†	-0.7	2.6	0.1714 µg/L	0.1714 ppb		16:00:33
2	Ti 334.940†	1058.8	109.9	0.1084 µg/L	0.1084 ppb		16:00:13
2	Tl 190.801†	-107.1	9.8	1.2649 µg/L	1.2649 ppb		16:00:33
2	U 409.014†	-270.5	-3.0	-0.1713 µg/L	-0.1713 ppb		16:00:13
2	V 292.402†	382.1	22.3	0.1138 µg/L	0.1138 ppb		16:00:13
2	Zn 213.857†	659.8	139.6	0.8201 µg/L	0.8201 ppb		16:00:33
3	Sc RADIAL	144994.7	144994.7	101 %			15:59:09
3	Al 396.153Radial†	-102.8	-33.3	-6.6434 µg/L	-6.6434 ppb		15:59:29
3	Ca 317.933Radial†	739.7	185.3	11.373 µg/L	11.373 ppb		15:59:29
3	Fe 238.204 Radial†	178.6	42.3	2.8544 µg/L	2.8544 ppb		15:59:29
3	K 766.490 Radial†	1631.5	63.6	24.514 µg/L	24.514 ppb		15:59:09
3	Mg 279.077 IEC†	191.2	24.9	10.306 µg/L	10.306 ppb		15:59:29
3	Na 589.592 Radial†	1448.4	182.3	26.794 µg/L	26.794 ppb		15:59:09
3	Sr 421.552†	-89.8	120.5	0.2676 µg/L	0.2676 ppb		15:59:09
3	Sc 361.383	1785965.1	1785965.1	101.66 %			16:00:36
3	Y 371.029	1062925.2	1062925.2	101.48 %			16:00:36
3	Ag 328.068†	3549.5	-323.2	-1.2759 µg/L	-1.2759 ppb		16:00:38
3	As 188.979†	-16.8	5.2	1.6688 µg/L	1.6688 ppb		16:00:58
3	B 249.677†	3517.4	0.7	0.0107 µg/L	0.0107 ppb		16:00:38
3	Ba 233.527†	-94.1	60.2	0.2553 µg/L	0.2553 ppb		16:00:58
3	Be 313.107†	-578.5	407.8	0.1146 µg/L	0.1146 ppb		16:00:38
3	Cd 226.502†	-113.0	-5.3	-0.0351 µg/L	-0.0351 ppb		16:00:58
3	Co 228.616†	-194.7	-2.0	-0.0253 µg/L	-0.0253 ppb		16:00:58
3	Cr 267.716†	212.0	32.0	0.2675 µg/L	0.2675 ppb		16:00:58
3	Cu 324.752†	2812.4	-92.4	-0.3782 µg/L	-0.3782 ppb		16:00:38
3	Mn 257.610†	304.7	89.1	0.1149 µg/L	0.1149 ppb		16:00:58
3	Mo 202.031†	-37.8	5.5	0.1718 µg/L	0.1718 ppb		16:00:58
3	Ni 231.604†	-58.8	22.4	0.2705 µg/L	0.2705 ppb		16:00:58
3	P 214.914†	7.9	7.3	1.6436 µg/L	1.6436 ppb		16:00:58
3	Pb 220.353†	79.0	10.0	0.5915 µg/L	0.5915 ppb		16:00:58
3	S 181.975 Axial†	107.0	0.1	0.0941 µg/L	0.0941 ppb		16:00:58
3	Sb 206.836†	72.3	-7.9	-0.9903 µg/L	-0.9903 ppb		16:00:58
3	Se 196.026†	14.3	-0.8	-0.290 µg/L	-0.290 ppb		16:00:58
3	SiO2†	1785.3	5.4	0.5528 µg/L	0.5528 ppb		16:00:58
3	Si 251.611†	903.3	101.1	1.5834 µg/L	1.5834 ppb		16:00:38
3	Sn 189.927†	-1.3	1.9	0.1272 µg/L	0.1272 ppb		16:00:58
3	Ti 334.940†	1033.9	80.3	0.0807 µg/L	0.0807 ppb		16:00:38
3	Tl 190.801†	-113.2	4.2	0.5465 µg/L	0.5465 ppb		16:00:58
3	U 409.014†	-355.3	-85.1	-5.1617 µg/L	-5.1617 ppb		16:00:38
3	V 292.402†	258.3	-101.4	-0.5175 µg/L	-0.5175 ppb		16:00:38
3	Zn 213.857†	644.3	121.2	0.7110 µg/L	0.7110 ppb		16:00:58

Mean Data: 1202072042|965619|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1775185.3	101.04	%	0.677				0.67%
Sc RADIAL	144850.4	100	%	0.5				0.54%
Y 371.029	1055950.1	100.82	%	0.721				0.71%
Ag 328.068†	-212.6	-0.8386	µg/L	0.50595	-0.8386	ppb	0.50595	60.33%
Al 396.153Radial†	-14.9	-2.9761	µg/L	3.59824	-2.9761	ppb	3.59824	120.90%
As 188.979†	4.8	1.5453	µg/L	1.13355	1.5453	ppb	1.13355	73.35%
B 249.677†	20.8	0.3208	µg/L	0.78194	0.3208	ppb	0.78194	243.73%
Ba 233.527†	58.8	0.2494	µg/L	0.05453	0.2494	ppb	0.05453	21.86%
Be 313.107†	201.7	0.0555	µg/L	0.05631	0.0555	ppb	0.05631	101.50%
Ca 317.933Radial†	178.6	10.962	µg/L	1.3264	10.962	ppb	1.3264	12.10%
Cd 226.502†	3.0	0.0198	µg/L	0.05333	0.0198	ppb	0.05333	269.29%
Co 228.616†	8.3	0.1071	µg/L	0.24009	0.1071	ppb	0.24009	224.10%
Cr 267.716†	39.4	0.3301	µg/L	0.05420	0.3301	ppb	0.05420	16.42%
Cu 324.752†	-78.1	-0.3215	µg/L	0.77075	-0.3215	ppb	0.77075	239.73%
Fe 238.204 Radial†	35.3	2.3795	µg/L	0.48129	2.3795	ppb	0.48129	20.23%
K 766.490 Radial†	33.9	13.073	µg/L	53.8570	13.073	ppb	53.8570	411.96%
Mg 279.077 IEC†	17.0	7.0343	µg/L	3.44774	7.0343	ppb	3.44774	49.01%
Mn 257.610†	101.1	0.1305	µg/L	0.03364	0.1305	ppb	0.03364	25.78%
Mo 202.031†	4.8	0.1500	µg/L	0.22286	0.1500	ppb	0.22286	148.58%
Na 589.592 Radial†	156.6	23.020	µg/L	3.3321	23.020	ppb	3.3321	14.47%

Ni 231.604†	9.5	0.1147	µg/L	0.13655	0.1147	ppb	0.13655 119.10%
P 214.914†	11.8	2.6522	µg/L	1.33874	2.6522	ppb	1.33874 50.48%
Pb 220.353†	3.7	0.2206	µg/L	0.84371	0.2206	ppb	0.84371 382.53%
S 181.975 Axial†	-0.4	-0.3362	µg/L	0.47445	-0.3362	ppb	0.47445 141.10%
Sb 206.836†	5.4	0.6703	µg/L	1.88316	0.6703	ppb	1.88316 280.95%
Se 196.026†	2.0	0.769	µg/L	1.3972	0.769	ppb	1.3972 181.65%
SiO2†	17.9	1.8649	µg/L	1.25488	1.8649	ppb	1.25488 67.29%
Si 251.611†	207.4	3.2520	µg/L	1.77869	3.2520	ppb	1.77869 54.70%
Sn 189.927†	4.2	0.2752	µg/L	0.21915	0.2752	ppb	0.21915 79.63%
Sr 421.552†	59.5	0.1321	µg/L	0.14121	0.1321	ppb	0.14121 106.89%
Ti 334.940†	75.7	0.0769	µg/L	0.03354	0.0769	ppb	0.03354 43.61%
Tl 190.801†	-0.1	-0.0084	µg/L	1.62354	-0.0084	ppb	1.62354 >999.9%
U 409.014†	-107.1	-6.4567	µg/L	7.02298	-6.4567	ppb	7.02298 108.77%
V 292.402†	6.9	0.0333	µg/L	0.51521	0.0333	ppb	0.51521 >999.9%
Zn 213.857†	131.7	0.7741	µg/L	0.05648	0.7741	ppb	0.05648 7.30%

Sequence No.: 59
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/1/2010 16:06:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143235.3	143235.3	99.4	%			16:06:45
1	Al 396.153Radial†	24944.3	25172.1	4992.4	µg/L	4992.4	ppb	16:06:45
1	Ca 317.933Radial†	82517.2	82492.8	5063.7	µg/L	5063.7	ppb	16:06:45
1	Fe 238.204 Radial†	73562.7	73896.0	4987.2	µg/L	4987.2	ppb	16:06:45
1	K 766.490 Radial†	14336.1	12869.0	4956.9	µg/L	4956.9	ppb	16:06:45
1	Mg 279.077 IEC†	12381.1	12294.8	5098.3	µg/L	5098.3	ppb	16:06:45
1	Na 589.592 Radial†	68371.0	67549.0	9931.0	µg/L	9931.0	ppb	16:06:45
1	Sr 421.552†	219476.7	221084.8	491.02	µg/L	491.02	ppb	16:06:43
1	Sc 361.383	1763189.5	1763189.5	100.36	%			16:07:12
1	Y 371.029	1040780.7	1040780.7	99.370	%			16:07:12
1	Ag 328.068†	130205.5	125923.5	498.36	µg/L	498.36	ppb	16:07:12
1	As 188.979†	1428.3	1444.9	470.79	µg/L	470.79	ppb	16:07:32
1	B 249.677†	35432.3	31845.8	488.97	µg/L	488.97	ppb	16:07:12
1	Ba 233.527†	115916.0	115652.9	491.10	µg/L	491.10	ppb	16:07:12
1	Be 313.107†	1722008.5	1716806.6	489.06	µg/L	489.06	ppb	16:07:12
1	Cd 226.502†	75588.3	75422.9	494.72	µg/L	494.72	ppb	16:07:12
1	Co 228.616†	38326.2	38378.2	496.00	µg/L	496.00	ppb	16:07:12
1	Cr 267.716†	60087.3	59695.2	491.94	µg/L	491.94	ppb	16:07:12
1	Cu 324.752†	124194.2	120889.7	491.75	µg/L	491.75	ppb	16:07:12
1	Mn 257.610†	384458.2	382868.1	495.06	µg/L	495.06	ppb	16:07:12
1	Mo 202.031†	15762.7	15748.9	489.90	µg/L	489.90	ppb	16:07:32
1	Ni 231.604†	41137.2	41069.9	495.69	µg/L	495.69	ppb	16:07:12
1	P 214.914†	10869.0	10829.6	2420.4	µg/L	2420.4	ppb	16:07:32
1	Pb 220.353†	8423.0	8325.1	489.20	µg/L	489.20	ppb	16:07:32
1	S 181.975 Axial†	1347.1	1237.0	982.91	µg/L	982.91	ppb	16:07:32
1	Sb 206.836†	3991.2	3897.9	490.57	µg/L	490.57	ppb	16:07:32
1	Se 196.026†	1294.9	1275.5	488	µg/L	488	ppb	16:07:32
1	SiO2†	53008.0	51066.9	5315.0	µg/L	5315.0	ppb	16:07:12
1	Si 251.611†	160139.4	158777.3	2482.4	µg/L	2482.4	ppb	16:07:12
1	Sn 189.927†	7385.0	7361.7	489.08	µg/L	489.08	ppb	16:07:32
1	Ti 334.940†	505423.3	502673.0	495.23	µg/L	495.23	ppb	16:07:12
1	Tl 190.801†	3649.3	3751.8	492.83	µg/L	492.83	ppb	16:07:32
1	U 409.014†	7275.2	7513.6	483.18	µg/L	483.18	ppb	16:07:12
1	V 292.402†	96891.8	96188.7	496.62	µg/L	496.62	ppb	16:07:12
1	Zn 213.857†	84862.1	84044.9	490.64	µg/L	490.64	ppb	16:07:12
2	Sc RADIAL	144170.2	144170.2	100	%			16:06:49
2	Al 396.153Radial†	25026.0	25091.0	4975.9	µg/L	4975.9	ppb	16:06:49
2	Ca 317.933Radial†	83194.1	82631.1	5072.2	µg/L	5072.2	ppb	16:06:49
2	Fe 238.204 Radial†	74169.6	74022.9	4995.7	µg/L	4995.7	ppb	16:06:49
2	K 766.490 Radial†	14687.1	13126.4	5056.1	µg/L	5056.1	ppb	16:06:49
2	Mg 279.077 IEC†	12498.7	12331.5	5113.6	µg/L	5113.6	ppb	16:06:49
2	Na 589.592 Radial†	69153.9	67885.6	9980.4	µg/L	9980.4	ppb	16:06:49
2	Sr 421.552†	217626.3	217802.5	483.73	µg/L	483.73	ppb	16:06:47
2	Sc 361.383	1742458.0	1742458.0	99.180	%			16:07:35
2	Y 371.029	1028108.1	1028108.1	98.160	%			16:07:35
2	Ag 328.068†	128555.5	125803.5	497.89	µg/L	497.89	ppb	16:07:35
2	As 188.979†	1443.7	1477.4	481.24	µg/L	481.24	ppb	16:07:55
2	B 249.677†	34872.9	31701.8	486.76	µg/L	486.76	ppb	16:07:35
2	Ba 233.527†	114239.6	115336.8	489.76	µg/L	489.76	ppb	16:07:35
2	Be 313.107†	1697816.4	1712829.1	487.92	µg/L	487.92	ppb	16:07:35
2	Cd 226.502†	74283.8	75003.7	491.97	µg/L	491.97	ppb	16:07:35
2	Co 228.616†	37726.9	38228.3	494.06	µg/L	494.06	ppb	16:07:35
2	Cr 267.716†	59288.9	59602.5	491.18	µg/L	491.18	ppb	16:07:35
2	Cu 324.752†	122457.6	120611.0	490.61	µg/L	490.61	ppb	16:07:35
2	Mn 257.610†	379164.0	382087.9	494.05	µg/L	494.05	ppb	16:07:35
2	Mo 202.031†	15783.0	15956.2	496.35	µg/L	496.35	ppb	16:07:55
2	Ni 231.604†	40313.5	40727.1	491.56	µg/L	491.56	ppb	16:07:35
2	P 214.914†	10873.4	10962.9	2450.3	µg/L	2450.3	ppb	16:07:55
2	Pb 220.353†	8449.7	8451.9	496.64	µg/L	496.64	ppb	16:07:55

2	S 181.975 Axial†	1343.9	1249.8	993.08 µg/L	993.08 ppb	16:07:55
2	Sb 206.836†	4003.4	3957.5	498.18 µg/L	498.18 ppb	16:07:55
2	Se 196.026†	1300.5	1296.4	496 µg/L	496 ppb	16:07:55
2	SiO2†	52027.0	50706.3	5277.0 µg/L	5277.0 ppb	16:07:35
2	Si 251.611†	157660.4	158176.3	2472.8 µg/L	2472.8 ppb	16:07:35
2	Sn 189.927†	7394.8	7459.2	495.52 µg/L	495.52 ppb	16:07:55
2	Ti 334.940†	498483.2	501667.4	494.25 µg/L	494.25 ppb	16:07:35
2	Tl 190.801†	3645.2	3791.0	497.89 µg/L	497.89 ppb	16:07:55
2	U 409.014†	7075.4	7398.4	476.23 µg/L	476.23 ppb	16:07:35
2	V 292.402†	95776.0	96212.3	496.80 µg/L	496.80 ppb	16:07:35
2	Zn 213.857†	83523.7	83701.5	488.65 µg/L	488.65 ppb	16:07:35
3	Sc RADIAL	143841.5	143841.5	99.8 %		16:06:53
3	Al 396.153Radial†	24953.0	25075.0	4972.8 µg/L	4972.8 ppb	16:06:53
3	Ca 317.933Radial†	82945.4	82571.9	5068.6 µg/L	5068.6 ppb	16:06:53
3	Fe 238.204 Radial†	74122.2	74144.7	5003.9 µg/L	5003.9 ppb	16:06:53
3	K 766.490 Radial†	14502.3	12974.7	4997.6 µg/L	4997.6 ppb	16:06:53
3	Mg 279.077 IEC†	12559.9	12421.4	5150.8 µg/L	5150.8 ppb	16:06:53
3	Na 589.592 Radial†	69063.4	67952.9	9990.3 µg/L	9990.3 ppb	16:06:53
3	Sr 421.552†	221121.6	221802.4	492.61 µg/L	492.61 ppb	16:06:51
3	Sc 361.383	1749962.1	1749962.1	99.607 %		16:07:58
3	Y 371.029	1032185.0	1032185.0	98.549 %		16:07:58
3	Ag 328.068†	129239.5	125934.4	498.38 µg/L	498.38 ppb	16:07:58
3	As 188.979†	1456.4	1483.9	483.32 µg/L	483.32 ppb	16:08:18
3	B 249.677†	35016.5	31695.3	486.67 µg/L	486.67 ppb	16:07:58
3	Ba 233.527†	114530.3	115134.8	488.90 µg/L	488.90 ppb	16:07:58
3	Be 313.107†	1704951.0	1712651.2	487.87 µg/L	487.87 ppb	16:07:58
3	Cd 226.502†	74694.8	75095.2	492.57 µg/L	492.57 ppb	16:07:58
3	Co 228.616†	37793.6	38132.2	492.82 µg/L	492.82 ppb	16:07:58
3	Cr 267.716†	59477.1	59535.1	490.62 µg/L	490.62 ppb	16:07:58
3	Cu 324.752†	122995.5	120621.6	490.66 µg/L	490.66 ppb	16:07:58
3	Mn 257.610†	380335.2	381624.5	493.45 µg/L	493.45 ppb	16:07:58
3	Mo 202.031†	15790.3	15895.3	494.45 µg/L	494.45 ppb	16:08:18
3	Ni 231.604†	40513.4	40753.4	491.87 µg/L	491.87 ppb	16:07:58
3	P 214.914†	10865.6	10908.0	2438.0 µg/L	2438.0 ppb	16:08:18
3	Pb 220.353†	8453.2	8418.9	494.70 µg/L	494.70 ppb	16:08:18
3	S 181.975 Axial†	1347.9	1248.0	991.64 µg/L	991.64 ppb	16:08:18
3	Sb 206.836†	3968.7	3905.3	491.60 µg/L	491.60 ppb	16:08:18
3	Se 196.026†	1300.6	1291.0	494 µg/L	494 ppb	16:08:18
3	SiO2†	52348.8	50804.4	5287.3 µg/L	5287.3 ppb	16:07:58
3	Si 251.611†	158160.3	157996.5	2470.0 µg/L	2470.0 ppb	16:07:58
3	Sn 189.927†	7414.8	7447.2	494.73 µg/L	494.73 ppb	16:08:18
3	Ti 334.940†	500603.9	501641.2	494.21 µg/L	494.21 ppb	16:07:58
3	Tl 190.801†	3655.5	3785.6	497.18 µg/L	497.18 ppb	16:08:18
3	U 409.014†	7198.3	7491.2	481.70 µg/L	481.70 ppb	16:07:58
3	V 292.402†	95778.0	95800.2	494.68 µg/L	494.68 ppb	16:07:58
3	Zn 213.857†	83815.3	83633.2	488.24 µg/L	488.24 ppb	16:07:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1751869.8	99.716	%	0.5975				0.60%
Sc RADIAL	143749.0	99.7	%	0.33				0.33%
Y 371.029	1033691.3	98.693	%	0.6177				0.63%
Ag 328.068†	125887.1	498.21	µg/L	0.280	498.21	ppb	0.280	0.06%
QC value within limits for Ag 328.068 Recovery = 99.64%								
Al 396.153Radial†	25112.7	4980.4	µg/L	10.52	4980.4	ppb	10.52	0.21%
QC value within limits for Al 396.153Radial Recovery = 99.61%								
As 188.979†	1468.7	478.45	µg/L	6.711	478.45	ppb	6.711	1.40%
QC value within limits for As 188.979 Recovery = 95.69%								
B 249.677†	31747.6	487.47	µg/L	1.306	487.47	ppb	1.306	0.27%
QC value within limits for B 249.677 Recovery = 97.49%								
Ba 233.527†	115374.8	489.92	µg/L	1.108	489.92	ppb	1.108	0.23%
QC value within limits for Ba 233.527 Recovery = 97.98%								
Be 313.107†	1714095.6	488.28	µg/L	0.670	488.28	ppb	0.670	0.14%
QC value within limits for Be 313.107 Recovery = 97.66%								
Ca 317.933Radial†	82565.3	5068.2	µg/L	4.26	5068.2	ppb	4.26	0.08%
QC value within limits for Ca 317.933Radial Recovery = 101.36%								
Cd 226.502†	75173.9	493.09	µg/L	1.448	493.09	ppb	1.448	0.29%
QC value within limits for Cd 226.502 Recovery = 98.62%								
Co 228.616†	38246.2	494.29	µg/L	1.603	494.29	ppb	1.603	0.32%

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   QC value within limits for Co 228.616  Recovery = 98.86%
Cr 267.716†            59610.9      491.25 µg/L         0.662      491.25 ppb          0.662   0.13%
   QC value within limits for Cr 267.716  Recovery = 98.25%
Cu 324.752†           120707.4      491.00 µg/L         0.642      491.00 ppb          0.642   0.13%
   QC value within limits for Cu 324.752  Recovery = 98.20%
Fe 238.204 Radial†     74021.2      4995.6 µg/L          8.39      4995.6 ppb           8.39   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.91%
K 766.490 Radial†      12990.0      5003.5 µg/L         49.88      5003.5 ppb          49.88   1.00%
   QC value within limits for K 766.490 Radial  Recovery = 100.07%
Mg 279.077 IEC†        12349.3      5120.9 µg/L         27.01      5120.9 ppb          27.01   0.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.42%
Mn 257.610†           382193.5      494.19 µg/L         0.814      494.19 ppb          0.814   0.16%
   QC value within limits for Mn 257.610  Recovery = 98.84%
Mo 202.031†            15866.8      493.57 µg/L         3.312      493.57 ppb          3.312   0.67%
   QC value within limits for Mo 202.031  Recovery = 98.71%
Na 589.592 Radial†     67795.8      9967.2 µg/L         31.80      9967.2 ppb          31.80   0.32%
   QC value within limits for Na 589.592 Radial  Recovery = 99.67%
Ni 231.604†            40850.1      493.04 µg/L         2.302      493.04 ppb          2.302   0.47%
   QC value within limits for Ni 231.604  Recovery = 98.61%
P 214.914†             10900.2      2436.2 µg/L         15.02      2436.2 ppb          15.02   0.62%
   QC value within limits for P 214.914  Recovery = 97.45%
Pb 220.353†             8398.7      493.51 µg/L         3.862      493.51 ppb          3.862   0.78%
   QC value within limits for Pb 220.353  Recovery = 98.70%
S 181.975 Axial†        1245.0      989.21 µg/L         5.503      989.21 ppb          5.503   0.56%
   QC value within limits for S 181.975 Axial  Recovery = 98.92%
Sb 206.836†             3920.2      493.45 µg/L         4.126      493.45 ppb          4.126   0.84%
   QC value within limits for Sb 206.836  Recovery = 98.69%
Se 196.026†             1287.6         493 µg/L           4.1         493 ppb            4.1   0.84%
   QC value within limits for Se 196.026  Recovery = 98.55%
SiO2†                  50859.2      5293.1 µg/L         19.63      5293.1 ppb          19.63   0.37%
   QC value within limits for SiO2  Recovery = 98.98%
Si 251.611†           158316.7      2475.1 µg/L          6.48      2475.1 ppb           6.48   0.26%
   QC value within limits for Si 251.611  Recovery = 99.00%
Sn 189.927†             7422.7      493.11 µg/L         3.516      493.11 ppb          3.516   0.71%
   QC value within limits for Sn 189.927  Recovery = 98.62%
Sr 421.552†           220229.9      489.12 µg/L         4.737      489.12 ppb          4.737   0.97%
   QC value within limits for Sr 421.552  Recovery = 97.82%
Ti 334.940†           501993.8      494.56 µg/L         0.581      494.56 ppb          0.581   0.12%
   QC value within limits for Ti 334.940  Recovery = 98.91%
Tl 190.801†             3776.1      495.97 µg/L         2.741      495.97 ppb          2.741   0.55%
   QC value within limits for Tl 190.801  Recovery = 99.19%
U 409.014†              7467.7      480.37 µg/L         3.661      480.37 ppb          3.661   0.76%
   QC value within limits for U 409.014  Recovery = 96.07%
V 292.402†             96067.1      496.04 µg/L         1.175      496.04 ppb          1.175   0.24%
   QC value within limits for V 292.402  Recovery = 99.21%
Zn 213.857†            83793.2      489.18 µg/L         1.284      489.18 ppb          1.284   0.26%
   QC value within limits for Zn 213.857  Recovery = 97.84%
All analyte(s) passed QC.
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Sequence No.: 60
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/1/2010 16:08:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144790.4	144790.4	100	%			16:08:57
1	Al 396.153Radial†	-42.7	26.3	5.2364	µg/L	5.2364	ppb	16:09:17
1	Ca 317.933Radial†	638.0	85.1	5.2237	µg/L	5.2237	ppb	16:09:17
1	Fe 238.204 Radial†	143.9	8.0	0.5390	µg/L	0.5390	ppb	16:09:17
1	K 766.490 Radial†	1446.6	-118.3	-45.594	µg/L	-45.594	ppb	16:08:57
1	Mg 279.077 IEC†	190.2	24.1	9.9906	µg/L	9.9906	ppb	16:09:17
1	Na 589.592 Radial†	1397.8	133.9	19.742	µg/L	19.742	ppb	16:08:57
1	Sr 421.552†	-223.6	-12.8	-0.0284	µg/L	-0.0284	ppb	16:08:57
1	Sc 361.383	1776008.0	1776008.0	101.09	%			16:10:18
1	Y 371.029	1058752.7	1058752.7	101.09	%			16:10:18
1	Ag 328.068†	4040.0	181.7	0.6986	µg/L	0.6986	ppb	16:10:21
1	As 188.979†	-16.2	5.7	1.8347	µg/L	1.8347	ppb	16:10:41
1	B 249.677†	3529.5	32.1	0.4935	µg/L	0.4935	ppb	16:10:41
1	Ba 233.527†	-149.5	4.9	0.0204	µg/L	0.0204	ppb	16:10:41
1	Be 313.107†	-649.1	334.8	0.0937	µg/L	0.0937	ppb	16:10:21
1	Cd 226.502†	-78.5	28.2	0.1850	µg/L	0.1850	ppb	16:10:41
1	Co 228.616†	-166.8	24.5	0.3160	µg/L	0.3160	ppb	16:10:41
1	Cr 267.716†	182.6	4.1	0.0377	µg/L	0.0377	ppb	16:10:41
1	Cu 324.752†	2708.5	-179.6	-0.7323	µg/L	-0.7323	ppb	16:10:21
1	Mn 257.610†	254.5	41.2	0.0528	µg/L	0.0528	ppb	16:10:41
1	Mo 202.031†	-34.4	8.7	0.2708	µg/L	0.2708	ppb	16:10:41
1	Ni 231.604†	-76.5	4.6	0.0556	µg/L	0.0556	ppb	16:10:41
1	P 214.914†	0.5	0.0	0.0252	µg/L	0.0252	ppb	16:10:41
1	Pb 220.353†	100.4	31.6	1.8581	µg/L	1.8581	ppb	16:10:41
1	S 181.975 Axial†	105.8	-0.5	-0.4058	µg/L	-0.4058	ppb	16:10:41
1	Sb 206.836†	85.5	5.6	0.7069	µg/L	0.7069	ppb	16:10:41
1	Se 196.026†	14.6	-0.4	-0.141	µg/L	-0.141	ppb	16:10:41
1	SiO2†	1738.1	-31.5	-3.3113	µg/L	-3.3113	ppb	16:10:41
1	Si 251.611†	846.8	50.2	0.7781	µg/L	0.7781	ppb	16:10:21
1	Sn 189.927†	11.7	14.8	0.9821	µg/L	0.9821	ppb	16:10:41
1	Ti 334.940†	977.3	30.0	0.0311	µg/L	0.0311	ppb	16:10:21
1	Tl 190.801†	-120.0	-3.0	-0.3980	µg/L	-0.3980	ppb	16:10:41
1	U 409.014†	-356.9	-88.6	-5.3690	µg/L	-5.3690	ppb	16:10:21
1	V 292.402†	277.8	-80.6	-0.4115	µg/L	-0.4115	ppb	16:10:21
1	Zn 213.857†	545.5	26.9	0.1587	µg/L	0.1587	ppb	16:10:41
2	Sc RADIAL	146677.9	146677.9	102	%			16:09:19
2	Al 396.153Radial†	-64.5	5.5	1.0301	µg/L	1.0301	ppb	16:09:39
2	Ca 317.933Radial†	624.6	63.7	3.9123	µg/L	3.9123	ppb	16:09:39
2	Fe 238.204 Radial†	122.0	-15.4	-1.0427	µg/L	-1.0427	ppb	16:09:39
2	K 766.490 Radial†	1729.9	141.6	54.595	µg/L	54.595	ppb	16:09:19
2	Mg 279.077 IEC†	181.8	13.4	5.5953	µg/L	5.5953	ppb	16:09:39
2	Na 589.592 Radial†	1466.6	183.7	26.969	µg/L	26.969	ppb	16:09:19
2	Sr 421.552†	-254.8	-40.6	-0.0901	µg/L	-0.0901	ppb	16:09:19
2	Sc 361.383	1793379.7	1793379.7	102.08	%			16:10:43
2	Y 371.029	1068463.3	1068463.3	102.01	%			16:10:43
2	Ag 328.068†	4104.9	206.5	0.8150	µg/L	0.8150	ppb	16:10:45
2	As 188.979†	-16.4	5.6	1.8156	µg/L	1.8156	ppb	16:11:05
2	B 249.677†	3500.9	-29.7	-0.4582	µg/L	-0.4582	ppb	16:11:05
2	Ba 233.527†	-131.0	24.4	0.1043	µg/L	0.1043	ppb	16:11:05
2	Be 313.107†	-859.8	134.6	0.0390	µg/L	0.0390	ppb	16:10:45
2	Cd 226.502†	-90.0	17.7	0.1159	µg/L	0.1159	ppb	16:11:05
2	Co 228.616†	-185.8	7.5	0.0971	µg/L	0.0971	ppb	16:11:05
2	Cr 267.716†	210.6	29.8	0.2440	µg/L	0.2440	ppb	16:11:05
2	Cu 324.752†	2827.5	-89.1	-0.3592	µg/L	-0.3592	ppb	16:10:45
2	Mn 257.610†	252.2	36.5	0.0469	µg/L	0.0469	ppb	16:11:05
2	Mo 202.031†	0.2	42.9	1.3340	µg/L	1.3340	ppb	16:11:05
2	Ni 231.604†	-90.6	-8.5	-0.1027	µg/L	-0.1027	ppb	16:11:05
2	P 214.914†	27.2	26.3	5.8835	µg/L	5.8835	ppb	16:11:05
2	Pb 220.353†	68.8	-0.2	-0.0110	µg/L	-0.0110	ppb	16:11:05

2	S 181.975 Axial†	107.9	0.5	0.4168 µg/L	0.4168 ppb	16:11:05
2	Sb 206.836†	86.8	6.0	0.7668 µg/L	0.7668 ppb	16:11:05
2	Se 196.026†	25.5	10.1	3.86 µg/L	3.86 ppb	16:11:05
2	SiO2†	1771.1	-15.8	-1.6907 µg/L	-1.6907 ppb	16:11:05
2	Si 251.611†	963.5	156.4	2.4348 µg/L	2.4348 ppb	16:10:45
2	Sn 189.927†	2.7	5.8	0.3863 µg/L	0.3863 ppb	16:11:05
2	Ti 334.940†	692.2	-258.7	-0.2566 µg/L	-0.2566 ppb	16:10:45
2	Tl 190.801†	-101.7	15.9	2.0623 µg/L	2.0623 ppb	16:11:05
2	U 409.014†	-232.7	36.6	2.2308 µg/L	2.2308 ppb	16:10:45
2	V 292.402†	450.5	85.9	0.4544 µg/L	0.4544 ppb	16:10:45
2	Zn 213.857†	558.9	34.8	0.2059 µg/L	0.2059 ppb	16:11:05
3	Sc RADIAL	144305.8	144305.8	100 %		16:09:41
3	Al 396.153Radial†	-63.2	5.8	1.1290 µg/L	1.1290 ppb	16:10:01
3	Ca 317.933Radial†	625.6	74.8	4.5914 µg/L	4.5914 ppb	16:10:01
3	Fe 238.204 Radial†	160.4	24.9	1.6824 µg/L	1.6824 ppb	16:10:01
3	K 766.490 Radial†	1622.1	61.9	23.839 µg/L	23.839 ppb	16:09:41
3	Mg 279.077 IEC†	180.8	15.4	6.3798 µg/L	6.3798 ppb	16:10:01
3	Na 589.592 Radial†	1527.7	268.4	39.462 µg/L	39.462 ppb	16:09:41
3	Sr 421.552†	-117.5	92.5	0.2055 µg/L	0.2055 ppb	16:09:41
3	Sc 361.383	1791345.4	1791345.4	101.96 %		16:11:07
3	Y 371.029	1067952.2	1067952.2	101.96 %		16:11:07
3	Ag 328.068†	3799.4	-88.5	-0.3532 µg/L	-0.3532 ppb	16:11:09
3	As 188.979†	-14.5	7.5	2.4063 µg/L	2.4063 ppb	16:11:29
3	B 249.677†	3519.2	-7.9	-0.1216 µg/L	-0.1216 ppb	16:11:29
3	Ba 233.527†	-169.1	-13.1	-0.0556 µg/L	-0.0556 ppb	16:11:29
3	Be 313.107†	-572.0	415.9	0.1172 µg/L	0.1172 ppb	16:11:09
3	Cd 226.502†	-101.7	6.1	0.0401 µg/L	0.0401 ppb	16:11:29
3	Co 228.616†	-201.9	-8.5	-0.1093 µg/L	-0.1093 ppb	16:11:29
3	Cr 267.716†	207.6	27.0	0.2257 µg/L	0.2257 ppb	16:11:29
3	Cu 324.752†	2800.0	-112.9	-0.4607 µg/L	-0.4607 ppb	16:11:09
3	Mn 257.610†	287.4	71.3	0.0920 µg/L	0.0920 ppb	16:11:29
3	Mo 202.031†	-29.2	14.1	0.4398 µg/L	0.4398 ppb	16:11:29
3	Ni 231.604†	-71.8	9.8	0.1183 µg/L	0.1183 ppb	16:11:29
3	P 214.914†	-2.5	-2.8	-0.6365 µg/L	-0.6365 ppb	16:11:29
3	Pb 220.353†	74.2	5.1	0.3028 µg/L	0.3028 ppb	16:11:29
3	S 181.975 Axial†	99.9	-7.2	-5.7206 µg/L	-5.7206 ppb	16:11:29
3	Sb 206.836†	95.2	14.4	1.8072 µg/L	1.8072 ppb	16:11:29
3	Se 196.026†	11.3	-3.8	-1.44 µg/L	-1.44 ppb	16:11:29
3	SiO2†	1789.3	4.0	0.4088 µg/L	0.4088 ppb	16:11:29
3	Si 251.611†	940.5	134.9	2.1115 µg/L	2.1115 ppb	16:11:09
3	Sn 189.927†	-2.8	0.5	0.0313 µg/L	0.0313 ppb	16:11:29
3	Ti 334.940†	844.4	-108.7	-0.1060 µg/L	-0.1060 ppb	16:11:09
3	Tl 190.801†	-119.6	-1.7	-0.2229 µg/L	-0.2229 ppb	16:11:29
3	U 409.014†	-338.1	-67.1	-4.0598 µg/L	-4.0598 ppb	16:11:09
3	V 292.402†	324.6	-37.0	-0.1860 µg/L	-0.1860 ppb	16:11:09
3	Zn 213.857†	553.9	30.6	0.1794 µg/L	0.1794 ppb	16:11:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786911.0	101.71	%	0.541				0.53%
Sc RADIAL	145258.0	101	%	0.9				0.86%
Y 371.029	1065056.1	101.69	%	0.522				0.51%
Ag 328.068†	99.9	0.3868	µg/L	0.64348	0.3868	ppb	0.64348	166.36%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.5	2.4652	µg/L	2.40045	2.4652	ppb	2.40045	97.38%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.3	2.0189	µg/L	0.33565	2.0189	ppb	0.33565	16.63%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-1.8	-0.0288	µg/L	0.48260	-0.0288	ppb	0.48260	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.4	0.0231	µg/L	0.07999	0.0231	ppb	0.07999	346.67%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	295.1	0.0833	µg/L	0.04013	0.0833	ppb	0.04013	48.17%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	74.5	4.5758	µg/L	0.65586	4.5758	ppb	0.65586	14.33%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.3	0.1137	µg/L	0.07246	0.1137	ppb	0.07246	63.75%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.8	0.1013	µg/L	0.21270	0.1013	ppb	0.21270	210.03%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              20.3      0.1691 µg/L       0.11421      0.1691 ppb        0.11421  67.52%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -127.2     -0.5174 µg/L       0.19292     -0.5174 ppb        0.19292  37.28%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        5.8      0.3929 µg/L       1.36838      0.3929 ppb        1.36838 348.28%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        28.4      10.947 µg/L       51.3236      10.947 ppb        51.3236 468.85%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          17.6      7.3219 µg/L       2.34420      7.3219 ppb        2.34420  32.02%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              49.6      0.0639 µg/L       0.02447      0.0639 ppb        0.02447  38.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              21.9      0.6815 µg/L       0.57134      0.6815 ppb        0.57134  83.83%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      195.4      28.724 µg/L        9.9767      28.724 ppb         9.9767  34.73%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               2.0      0.0237 µg/L       0.11392      0.0237 ppb        0.11392 479.99%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                7.8      1.7574 µg/L       3.58859      1.7574 ppb        3.58859 204.20%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              12.2      0.7166 µg/L       1.00089      0.7166 ppb        1.00089 139.67%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.4     -1.9032 µg/L       3.33145     -1.9032 ppb        3.33145 175.04%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               8.6      1.0936 µg/L       0.61866      1.0936 ppb        0.61866  56.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.0       0.759 µg/L        2.7625       0.759 ppb         2.7625 363.79%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -14.4     -1.5311 µg/L       1.86520     -1.5311 ppb        1.86520 121.82%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             113.9      1.7748 µg/L       0.87818      1.7748 ppb        0.87818  49.48%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.1      0.4666 µg/L       0.48049      0.4666 ppb        0.48049 102.99%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              13.1      0.0290 µg/L       0.15593      0.0290 ppb        0.15593 538.09%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -112.5     -0.1105 µg/L       0.14386     -0.1105 ppb        0.14386 130.19%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.7      0.4805 µg/L       1.37273      0.4805 ppb        1.37273 285.71%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -39.7     -2.3994 µg/L       4.06288     -2.3994 ppb        4.06288 169.33%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -10.6     -0.0477 µg/L       0.44924     -0.0477 ppb        0.44924 941.26%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              30.8      0.1813 µg/L       0.02369      0.1813 ppb        0.02369  13.07%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 67
Sample ID: 249333002|965619|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 253
Date Collected: 4/1/2010 16:28:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249333002|965619|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144730.0	144730.0	100	%			16:28:35
1	Al 396.153Radial†	757.3	823.1	164.00	µg/L	164.00	ppb	16:28:37
1	Ca 317.933Radial†	1495.7	939.5	57.672	µg/L	57.672	ppb	16:28:37
1	Fe 238.204 Radial†	1564.1	1422.5	96.001	µg/L	96.001	ppb	16:28:37
1	K 766.490 Radial†	1801.5	235.8	90.853	µg/L	90.853	ppb	16:28:35
1	Mg 279.077 IEC†	221.7	55.6	22.947	µg/L	22.947	ppb	16:28:37
1	Na 589.592 Radial†	1736.2	471.6	69.287	µg/L	69.287	ppb	16:28:37
1	Sr 421.552†	302.6	511.2	1.1351	µg/L	1.1351	ppb	16:28:37
1	Sc 361.383	1761392.1	1761392.1	100.26	%			16:28:49
1	Y 371.029	1047040.6	1047040.6	99.967	%			16:28:49
1	Ag 328.068†	3605.5	-218.6	-0.8304	µg/L	-0.8304	ppb	16:28:51
1	As 188.979†	-13.4	8.3	2.7014	µg/L	2.7014	ppb	16:29:11
1	B 249.677†	3379.0	-89.1	-1.3718	µg/L	-1.3718	ppb	16:28:51
1	Ba 233.527†	79.1	231.7	0.9820	µg/L	0.9820	ppb	16:29:11
1	Be 313.107†	-622.6	355.8	0.1070	µg/L	0.1070	ppb	16:28:51
1	Cd 226.502†	-127.0	-20.8	-0.1464	µg/L	-0.1464	ppb	16:29:11
1	Co 228.616†	-212.3	-22.2	-0.2912	µg/L	-0.2912	ppb	16:29:11
1	Cr 267.716†	294.1	116.8	0.9500	µg/L	0.9500	ppb	16:29:11
1	Cu 324.752†	2927.6	61.1	0.2778	µg/L	0.2778	ppb	16:28:51
1	Mn 257.610†	3092.0	2873.5	3.7159	µg/L	3.7159	ppb	16:29:11
1	Mo 202.031†	-46.1	-3.3	-0.0971	µg/L	-0.0971	ppb	16:29:11
1	Ni 231.604†	-39.4	41.0	0.4943	µg/L	0.4943	ppb	16:29:11
1	P 214.914†	25.3	24.8	5.5344	µg/L	5.5344	ppb	16:29:11
1	Pb 220.353†	101.3	33.4	1.9516	µg/L	1.9516	ppb	16:29:11
1	S 181.975 Axial†	115.7	10.2	8.1013	µg/L	8.1013	ppb	16:29:11
1	Sb 206.836†	58.3	-20.8	-2.6344	µg/L	-2.6344	ppb	16:29:11
1	Se 196.026†	31.2	16.3	6.28	µg/L	6.28	ppb	16:29:11
1	SiO2†	10021.1	8244.5	861.47	µg/L	861.47	ppb	16:28:51
1	Si 251.611†	26506.9	25651.3	402.62	µg/L	402.62	ppb	16:28:51
1	Sn 189.927†	-6.3	-3.0	-0.1899	µg/L	-0.1899	ppb	16:29:11
1	Ti 334.940†	3719.2	2772.9	2.7269	µg/L	2.7269	ppb	16:28:51
1	Tl 190.801†	-120.4	-4.5	-0.5411	µg/L	-0.5411	ppb	16:29:11
1	U 409.014†	48.6	312.9	18.899	µg/L	18.899	ppb	16:28:51
1	V 292.402†	418.1	61.6	0.3168	µg/L	0.3168	ppb	16:28:51
1	Zn 213.857†	839.4	324.6	1.9000	µg/L	1.9000	ppb	16:29:11
2	Sc RADIAL	143331.1	143331.1	99.4	%			16:28:39
2	Al 396.153Radial†	781.7	855.0	170.32	µg/L	170.32	ppb	16:28:41
2	Ca 317.933Radial†	1521.0	979.6	60.130	µg/L	60.130	ppb	16:28:41
2	Fe 238.204 Radial†	1526.1	1399.5	94.448	µg/L	94.448	ppb	16:28:41
2	K 766.490 Radial†	1832.4	284.4	109.59	µg/L	109.59	ppb	16:28:39
2	Mg 279.077 IEC†	207.5	43.5	17.927	µg/L	17.927	ppb	16:28:41
2	Na 589.592 Radial†	1840.8	593.7	87.227	µg/L	87.227	ppb	16:28:41
2	Sr 421.552†	222.4	433.6	0.9625	µg/L	0.9625	ppb	16:28:41
2	Sc 361.383	1781905.4	1781905.4	101.43	%			16:29:13
2	Y 371.029	1057439.1	1057439.1	100.96	%			16:29:13
2	Ag 328.068†	3950.0	79.7	0.3064	µg/L	0.3064	ppb	16:29:15
2	As 188.979†	-8.9	13.0	4.1883	µg/L	4.1883	ppb	16:29:35
2	B 249.677†	3599.8	89.9	1.3840	µg/L	1.3840	ppb	16:29:15
2	Ba 233.527†	78.8	230.4	0.9767	µg/L	0.9767	ppb	16:29:35
2	Be 313.107†	-837.2	151.4	0.0421	µg/L	0.0421	ppb	16:29:15
2	Cd 226.502†	-103.9	3.4	0.0125	µg/L	0.0125	ppb	16:29:35
2	Co 228.616†	-177.4	14.6	0.1846	µg/L	0.1846	ppb	16:29:35
2	Cr 267.716†	292.4	111.7	0.9261	µg/L	0.9261	ppb	16:29:35
2	Cu 324.752†	2863.6	-35.6	-0.1328	µg/L	-0.1328	ppb	16:29:15
2	Mn 257.610†	3066.4	2812.7	3.6376	µg/L	3.6376	ppb	16:29:35
2	Mo 202.031†	-30.1	13.1	0.4105	µg/L	0.4105	ppb	16:29:35
2	Ni 231.604†	-17.5	63.0	0.7607	µg/L	0.7607	ppb	16:29:35
2	P 214.914†	42.8	41.8	9.3328	µg/L	9.3328	ppb	16:29:35
2	Pb 220.353†	98.5	29.5	1.7446	µg/L	1.7446	ppb	16:29:35

2	S 181.975 Axial†	107.3	0.6	0.5007 µg/L	0.5007 ppb	16:29:35
2	Sb 206.836†	80.1	-0.0	-0.0159 µg/L	-0.0159 ppb	16:29:35
2	Se 196.026†	9.3	-5.6	-2.11 µg/L	-2.11 ppb	16:29:35
2	SiO2†	10205.5	8311.3	868.44 µg/L	868.44 ppb	16:29:15
2	Si 251.611†	26934.4	25768.4	404.45 µg/L	404.45 ppb	16:29:15
2	Sn 189.927†	-7.2	-3.9	-0.2480 µg/L	-0.2480 ppb	16:29:35
2	Ti 334.940†	4268.2	3271.4	3.2283 µg/L	3.2283 ppb	16:29:15
2	Tl 190.801†	-116.0	1.2	0.1985 µg/L	0.1985 ppb	16:29:35
2	U 409.014†	-327.1	-58.0	-3.4834 µg/L	-3.4834 ppb	16:29:15
2	V 292.402†	396.6	35.6	0.1741 µg/L	0.1741 ppb	16:29:15
2	Zn 213.857†	842.3	317.8	1.8590 µg/L	1.8590 ppb	16:29:35
3	Sc RADIAL	143092.1	143092.1	99.3 %		16:28:43
3	Al 396.153Radial†	786.2	860.9	171.48 µg/L	171.48 ppb	16:28:45
3	Ca 317.933Radial†	1525.9	987.1	60.590 µg/L	60.590 ppb	16:28:45
3	Fe 238.204 Radial†	1549.3	1425.5	96.203 µg/L	96.203 ppb	16:28:45
3	K 766.490 Radial†	1792.7	247.5	95.356 µg/L	95.356 ppb	16:28:43
3	Mg 279.077 IEC†	197.1	33.3	13.736 µg/L	13.736 ppb	16:28:45
3	Na 589.592 Radial†	1802.4	558.0	81.994 µg/L	81.994 ppb	16:28:45
3	Sr 421.552†	229.5	441.0	0.9791 µg/L	0.9791 ppb	16:28:45
3	Sc 361.383	1757407.8	1757407.8	100.03 %		16:29:37
3	Y 371.029	1043477.5	1043477.5	99.627 %		16:29:37
3	Ag 328.068†	3669.2	-146.7	-0.5686 µg/L	-0.5686 ppb	16:29:39
3	As 188.979†	-21.8	-0.1	-0.0095 µg/L	-0.0095 ppb	16:29:59
3	B 249.677†	3537.3	76.9	1.1844 µg/L	1.1844 ppb	16:29:39
3	Ba 233.527†	86.3	239.1	1.0134 µg/L	1.0134 ppb	16:29:59
3	Be 313.107†	-750.6	226.5	0.0660 µg/L	0.0660 ppb	16:29:39
3	Cd 226.502†	-107.9	-2.0	-0.0233 µg/L	-0.0233 ppb	16:29:59
3	Co 228.616†	-186.8	2.8	0.0321 µg/L	0.0321 ppb	16:29:59
3	Cr 267.716†	300.6	123.9	1.0202 µg/L	1.0202 ppb	16:29:59
3	Cu 324.752†	2900.1	40.3	0.1819 µg/L	0.1819 ppb	16:29:39
3	Mn 257.610†	3052.7	2841.2	3.6746 µg/L	3.6746 ppb	16:29:59
3	Mo 202.031†	-19.6	23.1	0.7227 µg/L	0.7227 ppb	16:29:59
3	Ni 231.604†	-30.2	50.1	0.6046 µg/L	0.6046 ppb	16:29:59
3	P 214.914†	40.0	39.5	8.8412 µg/L	8.8412 ppb	16:29:59
3	Pb 220.353†	116.2	48.5	2.8507 µg/L	2.8507 ppb	16:29:59
3	S 181.975 Axial†	106.1	0.9	0.7211 µg/L	0.7211 ppb	16:29:59
3	Sb 206.836†	89.4	10.3	1.2943 µg/L	1.2943 ppb	16:29:59
3	Se 196.026†	24.1	9.2	3.56 µg/L	3.56 ppb	16:29:59
3	SiO2†	10028.5	8274.6	864.57 µg/L	864.57 ppb	16:29:39
3	Si 251.611†	26476.1	25680.3	403.06 µg/L	403.06 ppb	16:29:39
3	Sn 189.927†	12.9	16.2	1.0777 µg/L	1.0777 ppb	16:29:59
3	Ti 334.940†	3357.1	2419.3	2.3846 µg/L	2.3846 ppb	16:29:39
3	Tl 190.801†	-115.3	0.3	0.0777 µg/L	0.0777 ppb	16:29:59
3	U 409.014†	-184.3	80.3	4.8553 µg/L	4.8553 ppb	16:29:39
3	V 292.402†	391.2	35.7	0.1845 µg/L	0.1845 ppb	16:29:39
3	Zn 213.857†	833.3	320.4	1.8746 µg/L	1.8746 ppb	16:29:59

Mean Data: 249333002|965619|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1766901.8	100.57	%	0.748				0.74%
Sc RADIAL	143717.7	99.7	%	0.61				0.62%
Y 371.029	1049319.1	100.19	%	0.693				0.69%
Ag 328.068†	-95.2	-0.3642	µg/L	0.59534	-0.3642	ppb	0.59534	163.47%
Al 396.153Radial†	846.3	168.60	µg/L	4.025	168.60	ppb	4.025	2.39%
As 188.979†	7.0	2.2934	µg/L	2.12846	2.2934	ppb	2.12846	92.81%
B 249.677†	25.9	0.3988	µg/L	1.53670	0.3988	ppb	1.53670	385.30%
Ba 233.527†	233.7	0.9907	µg/L	0.01981	0.9907	ppb	0.01981	2.00%
Be 313.107†	244.6	0.0717	µg/L	0.03286	0.0717	ppb	0.03286	45.84%
Ca 317.933Radial†	968.7	59.464	µg/L	1.5687	59.464	ppb	1.5687	2.64%
Cd 226.502†	-6.5	-0.0524	µg/L	0.08334	-0.0524	ppb	0.08334	159.10%
Co 228.616†	-1.6	-0.0248	µg/L	0.24292	-0.0248	ppb	0.24292	978.61%
Cr 267.716†	117.5	0.9654	µg/L	0.04889	0.9654	ppb	0.04889	5.06%
Cu 324.752†	21.9	0.1090	µg/L	0.21479	0.1090	ppb	0.21479	197.13%
Fe 238.204 Radial†	1415.8	95.551	µg/L	0.9605	95.551	ppb	0.9605	1.01%
K 766.490 Radial†	255.9	98.599	µg/L	9.7792	98.599	ppb	9.7792	9.92%
Mg 279.077 IEC†	44.1	18.203	µg/L	4.6115	18.203	ppb	4.6115	25.33%
Mn 257.610†	2842.5	3.6760	µg/L	0.03919	3.6760	ppb	0.03919	1.07%
Mo 202.031†	11.0	0.3454	µg/L	0.41377	0.3454	ppb	0.41377	119.80%
Na 589.592 Radial†	541.1	79.503	µg/L	9.2260	79.503	ppb	9.2260	11.60%

Ni 231.604†	51.4	0.6199	µg/L	0.13388	0.6199	ppb	0.13388	21.60%
P 214.914†	35.4	7.9028	µg/L	2.06579	7.9028	ppb	2.06579	26.14%
Pb 220.353†	37.1	2.1823	µg/L	0.58803	2.1823	ppb	0.58803	26.95%
S 181.975 Axial†	3.9	3.1077	µg/L	4.32601	3.1077	ppb	4.32601	139.20%
Sb 206.836†	-3.5	-0.4520	µg/L	2.00033	-0.4520	ppb	2.00033	442.54%
Se 196.026†	6.7	2.57	µg/L	4.282	2.57	ppb	4.282	166.30%
SiO2†	8276.8	864.83	µg/L	3.490	864.83	ppb	3.490	0.40%
Si 251.611†	25700.0	403.38	µg/L	0.957	403.38	ppb	0.957	0.24%
Sn 189.927†	3.1	0.2133	µg/L	0.74919	0.2133	ppb	0.74919	351.30%
Sr 421.552†	461.9	1.0256	µg/L	0.09518	1.0256	ppb	0.09518	9.28%
Ti 334.940†	2821.2	2.7800	µg/L	0.42435	2.7800	ppb	0.42435	15.26%
Tl 190.801†	-1.0	-0.0883	µg/L	0.39674	-0.0883	ppb	0.39674	449.41%
U 409.014†	111.7	6.7571	µg/L	11.31198	6.7571	ppb	11.31198	167.41%
V 292.402†	44.3	0.2251	µg/L	0.07952	0.2251	ppb	0.07952	35.32%
Zn 213.857†	320.9	1.8779	µg/L	0.02070	1.8779	ppb	0.02070	1.10%

Sequence No.: 68
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/1/2010 16:30:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143807.0	143807.0	99.8	%			16:30:41
1	Al 396.153Radial†	24982.7	25110.8	4979.5	µg/L	4979.5	ppb	16:30:41
1	Ca 317.933Radial†	83073.7	82720.5	5077.7	µg/L	5077.7	ppb	16:30:41
1	Fe 238.204 Radial†	74287.1	74327.8	5016.3	µg/L	5016.3	ppb	16:30:41
1	K 766.490 Radial†	14704.0	13180.4	5076.9	µg/L	5076.9	ppb	16:30:41
1	Mg 279.077 IEC†	12571.9	12436.5	5157.3	µg/L	5157.3	ppb	16:30:41
1	Na 589.592 Radial†	68941.2	67846.9	9974.7	µg/L	9974.7	ppb	16:30:41
1	Sr 421.552†	219317.3	220047.0	488.72	µg/L	488.72	ppb	16:30:39
1	Sc 361.383	1722593.0	1722593.0	98.049	%			16:30:54
1	Y 371.029	1016951.9	1016951.9	97.095	%			16:30:54
1	Ag 328.068†	127526.6	126248.9	499.66	µg/L	499.66	ppb	16:30:54
1	As 188.979†	1442.9	1493.3	486.40	µg/L	486.40	ppb	16:31:14
1	B 249.677†	34396.3	31621.2	485.51	µg/L	485.51	ppb	16:30:54
1	Ba 233.527†	113375.4	115783.7	491.65	µg/L	491.65	ppb	16:30:54
1	Be 313.107†	1680680.0	1715092.9	488.58	µg/L	488.58	ppb	16:30:54
1	Cd 226.502†	73529.7	75098.4	492.59	µg/L	492.59	ppb	16:30:54
1	Co 228.616†	37415.7	38349.6	495.63	µg/L	495.63	ppb	16:30:54
1	Cr 267.716†	58709.7	59701.1	491.97	µg/L	491.97	ppb	16:30:54
1	Cu 324.752†	121722.1	121284.7	493.37	µg/L	493.37	ppb	16:30:54
1	Mn 257.610†	375769.1	383034.2	495.27	µg/L	495.27	ppb	16:30:54
1	Mo 202.031†	15863.2	16221.6	504.59	µg/L	504.59	ppb	16:31:14
1	Ni 231.604†	39915.8	40790.2	492.32	µg/L	492.32	ppb	16:30:54
1	P 214.914†	10891.7	11108.0	2482.7	µg/L	2482.7	ppb	16:31:14
1	Pb 220.353†	8475.4	8576.4	503.94	µg/L	503.94	ppb	16:31:14
1	S 181.975 Axial†	1342.4	1263.9	1004.3	µg/L	1004.3	ppb	16:31:14
1	Sb 206.836†	4002.4	4003.0	504.00	µg/L	504.00	ppb	16:31:14
1	Se 196.026†	1280.6	1291.3	494	µg/L	494	ppb	16:31:14
1	SiO2†	51561.3	50836.3	5290.3	µg/L	5290.3	ppb	16:30:54
1	Si 251.611†	155996.4	158312.3	2474.8	µg/L	2474.8	ppb	16:30:54
1	Sn 189.927†	7430.1	7581.1	503.61	µg/L	503.61	ppb	16:31:14
1	Ti 334.940†	495602.0	504524.9	497.05	µg/L	497.05	ppb	16:30:54
1	Tl 190.801†	3675.6	3864.3	507.40	µg/L	507.40	ppb	16:31:14
1	U 409.014†	7449.4	7862.1	504.18	µg/L	504.18	ppb	16:30:54
1	V 292.402†	94604.2	96130.9	496.49	µg/L	496.49	ppb	16:30:54
1	Zn 213.857†	82628.9	83760.1	488.99	µg/L	488.99	ppb	16:30:54
2	Sc RADIAL	142252.5	142252.5	98.7	%			16:30:45
2	Al 396.153Radial†	24936.7	25337.8	5025.1	µg/L	5025.1	ppb	16:30:45
2	Ca 317.933Radial†	82331.6	82878.4	5087.4	µg/L	5087.4	ppb	16:30:45
2	Fe 238.204 Radial†	73564.6	74409.4	5021.8	µg/L	5021.8	ppb	16:30:45
2	K 766.490 Radial†	14341.8	12974.5	4997.5	µg/L	4997.5	ppb	16:30:45
2	Mg 279.077 IEC†	12366.7	12366.3	5128.0	µg/L	5128.0	ppb	16:30:45
2	Na 589.592 Radial†	68267.3	67919.3	9985.4	µg/L	9985.4	ppb	16:30:45
2	Sr 421.552†	219476.6	222610.7	494.41	µg/L	494.41	ppb	16:30:43
2	Sc 361.383	1739103.5	1739103.5	98.989	%			16:31:17
2	Y 371.029	1025202.2	1025202.2	97.882	%			16:31:17
2	Ag 328.068†	129052.8	126555.9	500.86	µg/L	500.86	ppb	16:31:17
2	As 188.979†	1422.8	1459.0	475.40	µg/L	475.40	ppb	16:31:37
2	B 249.677†	34985.0	31882.9	489.54	µg/L	489.54	ppb	16:31:17
2	Ba 233.527†	114878.4	116204.3	493.44	µg/L	493.44	ppb	16:31:17
2	Be 313.107†	1706716.1	1725121.6	491.42	µg/L	491.42	ppb	16:31:17
2	Cd 226.502†	74846.5	75716.7	496.65	µg/L	496.65	ppb	16:31:17
2	Co 228.616†	37998.6	38576.2	498.56	µg/L	498.56	ppb	16:31:17
2	Cr 267.716†	59610.8	60043.0	494.82	µg/L	494.82	ppb	16:31:17
2	Cu 324.752†	123003.8	121401.0	493.82	µg/L	493.82	ppb	16:31:17
2	Mn 257.610†	381336.2	385019.7	497.84	µg/L	497.84	ppb	16:31:17
2	Mo 202.031†	15779.1	15983.0	497.18	µg/L	497.18	ppb	16:31:37
2	Ni 231.604†	40698.4	41194.3	497.19	µg/L	497.19	ppb	16:31:17
2	P 214.914†	10832.0	10942.2	2445.6	µg/L	2445.6	ppb	16:31:37
2	Pb 220.353†	8427.3	8445.7	496.29	µg/L	496.29	ppb	16:31:37

2	S 181.975 Axial†	1341.4	1249.9	993.13 µg/L	993.13 ppb	16:31:37
2	Sb 206.836†	3970.7	3932.3	494.97 µg/L	494.97 ppb	16:31:37
2	Se 196.026†	1279.6	1277.8	489 µg/L	489 ppb	16:31:37
2	SiO2†	52255.8	51038.6	5311.7 µg/L	5311.7 ppb	16:31:17
2	Si 251.611†	158440.3	159270.8	2490.0 µg/L	2490.0 ppb	16:31:17
2	Sn 189.927†	7405.0	7483.8	497.17 µg/L	497.17 ppb	16:31:37
2	Ti 334.940†	501543.2	505728.1	498.25 µg/L	498.25 ppb	16:31:17
2	Tl 190.801†	3667.4	3820.5	501.77 µg/L	501.77 ppb	16:31:37
2	U 409.014†	6974.3	7310.0	471.14 µg/L	471.14 ppb	16:31:17
2	V 292.402†	96334.0	96962.3	500.64 µg/L	500.64 ppb	16:31:17
2	Zn 213.857†	84017.8	84363.1	492.50 µg/L	492.50 ppb	16:31:17
3	Sc RADIAL	142284.8	142284.8	98.7 %		16:30:49
3	Al 396.153Radial†	25111.0	25508.7	5059.0 µg/L	5059.0 ppb	16:30:49
3	Ca 317.933Radial†	82572.5	83103.6	5101.2 µg/L	5101.2 ppb	16:30:49
3	Fe 238.204 Radial†	73739.9	74570.1	5032.7 µg/L	5032.7 ppb	16:30:49
3	K 766.490 Radial†	14237.8	12865.8	4955.6 µg/L	4955.6 ppb	16:30:49
3	Mg 279.077 IEC†	12407.9	12405.1	5144.1 µg/L	5144.1 ppb	16:30:49
3	Na 589.592 Radial†	68501.7	68141.0	10018 µg/L	10018 ppb	16:30:49
3	Sr 421.552†	221674.6	224787.1	499.24 µg/L	499.24 ppb	16:30:47
3	Sc 361.383	1733319.3	1733319.3	98.660 %		16:31:40
3	Y 371.029	1022666.9	1022666.9	97.640 %		16:31:40
3	Ag 328.068†	128857.5	126793.0	501.80 µg/L	501.80 ppb	16:31:40
3	As 188.979†	1429.3	1470.4	479.07 µg/L	479.07 ppb	16:32:00
3	B 249.677†	35030.8	32047.2	492.07 µg/L	492.07 ppb	16:31:40
3	Ba 233.527†	114838.4	116551.0	494.91 µg/L	494.91 ppb	16:31:40
3	Be 313.107†	1705436.0	1729577.7	492.69 µg/L	492.69 ppb	16:31:40
3	Cd 226.502†	74762.7	75884.0	497.74 µg/L	497.74 ppb	16:31:40
3	Co 228.616†	37950.4	38655.4	499.58 µg/L	499.58 ppb	16:31:40
3	Cr 267.716†	59576.9	60209.6	496.18 µg/L	496.18 ppb	16:31:40
3	Cu 324.752†	122996.5	121808.2	495.48 µg/L	495.48 ppb	16:31:40
3	Mn 257.610†	381140.5	386107.0	499.25 µg/L	499.25 ppb	16:31:40
3	Mo 202.031†	15814.6	16072.1	499.95 µg/L	499.95 ppb	16:32:00
3	Ni 231.604†	40719.3	41352.6	499.10 µg/L	499.10 ppb	16:31:40
3	P 214.914†	10878.7	11026.0	2464.4 µg/L	2464.4 ppb	16:32:00
3	Pb 220.353†	8440.7	8487.8	498.75 µg/L	498.75 ppb	16:32:00
3	S 181.975 Axial†	1346.2	1259.3	1000.6 µg/L	1000.6 ppb	16:32:00
3	Sb 206.836†	3982.0	3957.1	498.11 µg/L	498.11 ppb	16:32:00
3	Se 196.026†	1295.0	1297.7	497 µg/L	497 ppb	16:32:00
3	SiO2†	52290.9	51250.4	5333.7 µg/L	5333.7 ppb	16:31:40
3	Si 251.611†	158595.0	159961.7	2500.8 µg/L	2500.8 ppb	16:31:40
3	Sn 189.927†	7415.4	7519.3	499.52 µg/L	499.52 ppb	16:32:00
3	Ti 334.940†	500931.5	506798.8	499.30 µg/L	499.30 ppb	16:31:40
3	Tl 190.801†	3638.4	3803.5	499.57 µg/L	499.57 ppb	16:32:00
3	U 409.014†	7172.3	7534.2	484.62 µg/L	484.62 ppb	16:31:40
3	V 292.402†	95877.8	96824.7	499.98 µg/L	499.98 ppb	16:31:40
3	Zn 213.857†	83940.8	84568.3	493.69 µg/L	493.69 ppb	16:31:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1731672.0	98.566	%	0.4769				0.48%
Sc RADIAL	142781.5	99.1	%	0.62				0.62%
Y 371.029	1021607.0	97.539	%	0.4035				0.41%
Ag 328.068†	126532.6	500.77	µg/L	1.075	500.77	ppb	1.075	0.21%
QC value within limits for Ag 328.068 Recovery = 100.15%								
Al 396.153Radial†	25319.1	5021.2	µg/L	39.89	5021.2	ppb	39.89	0.79%
QC value within limits for Al 396.153Radial Recovery = 100.42%								
As 188.979†	1474.3	480.29	µg/L	5.598	480.29	ppb	5.598	1.17%
QC value within limits for As 188.979 Recovery = 96.06%								
B 249.677†	31850.5	489.04	µg/L	3.303	489.04	ppb	3.303	0.68%
QC value within limits for B 249.677 Recovery = 97.81%								
Ba 233.527†	116179.7	493.34	µg/L	1.631	493.34	ppb	1.631	0.33%
QC value within limits for Ba 233.527 Recovery = 98.67%								
Be 313.107†	1723264.1	490.90	µg/L	2.109	490.90	ppb	2.109	0.43%
QC value within limits for Be 313.107 Recovery = 98.18%								
Ca 317.933Radial†	82900.9	5088.8	µg/L	11.82	5088.8	ppb	11.82	0.23%
QC value within limits for Ca 317.933Radial Recovery = 101.78%								
Cd 226.502†	75566.3	495.66	µg/L	2.717	495.66	ppb	2.717	0.55%
QC value within limits for Cd 226.502 Recovery = 99.13%								
Co 228.616†	38527.1	497.92	µg/L	2.052	497.92	ppb	2.052	0.41%

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   QC value within limits for Co 228.616  Recovery = 99.58%
Cr 267.716†            59984.6      494.32 µg/L         2.147      494.32 ppb          2.147   0.43%
   QC value within limits for Cr 267.716  Recovery = 98.86%
Cu 324.752†           121498.0      494.22 µg/L         1.113      494.22 ppb          1.113   0.23%
   QC value within limits for Cu 324.752  Recovery = 98.84%
Fe 238.204 Radial†     74435.8      5023.6 µg/L          8.32      5023.6 ppb           8.32   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.47%
K 766.490 Radial†      13006.9      5010.0 µg/L         61.61      5010.0 ppb          61.61   1.23%
   QC value within limits for K 766.490 Radial  Recovery = 100.20%
Mg 279.077 IEC†        12402.7      5143.1 µg/L         14.65      5143.1 ppb          14.65   0.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.86%
Mn 257.610†           384720.3      497.46 µg/L         2.016      497.46 ppb          2.016   0.41%
   QC value within limits for Mn 257.610  Recovery = 99.49%
Mo 202.031†            16092.2      500.58 µg/L         3.746      500.58 ppb          3.746   0.75%
   QC value within limits for Mo 202.031  Recovery = 100.12%
Na 589.592 Radial†     67969.1      9992.7 µg/L         22.59      9992.7 ppb          22.59   0.23%
   QC value within limits for Na 589.592 Radial  Recovery = 99.93%
Ni 231.604†            41112.4      496.21 µg/L         3.500      496.21 ppb          3.500   0.71%
   QC value within limits for Ni 231.604  Recovery = 99.24%
P 214.914†             11025.4      2464.2 µg/L         18.58      2464.2 ppb          18.58   0.75%
   QC value within limits for P 214.914  Recovery = 98.57%
Pb 220.353†             8503.3      499.66 µg/L         3.903      499.66 ppb          3.903   0.78%
   QC value within limits for Pb 220.353  Recovery = 99.93%
S 181.975 Axial†        1257.7      999.34 µg/L         5.694      999.34 ppb          5.694   0.57%
   QC value within limits for S 181.975 Axial  Recovery = 99.93%
Sb 206.836†             3964.1      499.03 µg/L         4.585      499.03 ppb          4.585   0.92%
   QC value within limits for Sb 206.836  Recovery = 99.81%
Se 196.026†             1289.0         493 µg/L           3.9         493 ppb            3.9   0.79%
   QC value within limits for Se 196.026  Recovery = 98.66%
SiO2†                  51041.8      5311.9 µg/L         21.73      5311.9 ppb          21.73   0.41%
   QC value within limits for SiO2  Recovery = 99.33%
Si 251.611†           159181.6      2488.5 µg/L         13.05      2488.5 ppb          13.05   0.52%
   QC value within limits for Si 251.611  Recovery = 99.54%
Sn 189.927†             7528.1      500.10 µg/L         3.257      500.10 ppb          3.257   0.65%
   QC value within limits for Sn 189.927  Recovery = 100.02%
Sr 421.552†           222481.6      494.12 µg/L         5.270      494.12 ppb          5.270   1.07%
   QC value within limits for Sr 421.552  Recovery = 98.82%
Ti 334.940†           505683.9      498.20 µg/L         1.127      498.20 ppb          1.127   0.23%
   QC value within limits for Ti 334.940  Recovery = 99.64%
Tl 190.801†             3829.4      502.91 µg/L         4.042      502.91 ppb          4.042   0.80%
   QC value within limits for Tl 190.801  Recovery = 100.58%
U 409.014†              7568.8      486.65 µg/L        16.617      486.65 ppb         16.617   3.41%
   QC value within limits for U 409.014  Recovery = 97.33%
V 292.402†             96639.3      499.03 µg/L         2.229      499.03 ppb          2.229   0.45%
   QC value within limits for V 292.402  Recovery = 99.81%
Zn 213.857†            84230.5      491.73 µg/L         2.448      491.73 ppb          2.448   0.50%
   QC value within limits for Zn 213.857  Recovery = 98.35%
All analyte(s) passed QC.
```

Sequence No.: 69
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/1/2010 16:32:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144345.5	144345.5	100	%			16:32:40
1	Al 396.153Radial†	-68.5	0.5	0.0662	µg/L	0.0662	ppb	16:33:00
1	Ca 317.933Radial†	598.3	47.4	2.9072	µg/L	2.9072	ppb	16:33:00
1	Fe 238.204 Radial†	132.8	-2.7	-0.1804	µg/L	-0.1804	ppb	16:33:00
1	K 766.490 Radial†	1718.1	157.3	60.648	µg/L	60.648	ppb	16:32:40
1	Mg 279.077 IEC†	160.7	-4.7	-1.9375	µg/L	-1.9375	ppb	16:33:00
1	Na 589.592 Radial†	1409.7	150.2	22.034	µg/L	22.034	ppb	16:32:40
1	Sr 421.552†	-234.8	-24.6	-0.0546	µg/L	-0.0546	ppb	16:32:40
1	Sc 361.383	1758517.9	1758517.9	100.09	%			16:33:48
1	Y 371.029	1048527.2	1048527.2	100.11	%			16:33:48
1	Ag 328.068†	3744.3	-74.0	-0.2682	µg/L	-0.2682	ppb	16:33:50
1	As 188.979†	-18.6	3.1	1.0051	µg/L	1.0051	ppb	16:34:10
1	B 249.677†	3456.4	-6.2	-0.0960	µg/L	-0.0960	ppb	16:33:50
1	Ba 233.527†	-122.9	30.0	0.1278	µg/L	0.1278	ppb	16:34:10
1	Be 313.107†	-783.4	194.2	0.0592	µg/L	0.0592	ppb	16:33:50
1	Cd 226.502†	-79.3	26.6	0.1746	µg/L	0.1746	ppb	16:34:10
1	Co 228.616†	-189.3	0.4	0.0056	µg/L	0.0056	ppb	16:34:10
1	Cr 267.716†	187.4	10.6	0.0776	µg/L	0.0776	ppb	16:34:10
1	Cu 324.752†	2737.4	-124.1	-0.4928	µg/L	-0.4928	ppb	16:33:50
1	Mn 257.610†	249.7	38.9	0.0504	µg/L	0.0504	ppb	16:34:10
1	Mo 202.031†	-17.0	25.8	0.8011	µg/L	0.8011	ppb	16:34:10
1	Ni 231.604†	-72.2	8.1	0.0980	µg/L	0.0980	ppb	16:34:10
1	P 214.914†	21.2	20.8	4.6662	µg/L	4.6662	ppb	16:34:10
1	Pb 220.353†	126.7	58.9	3.4446	µg/L	3.4446	ppb	16:34:10
1	S 181.975 Axial†	107.5	2.2	1.7444	µg/L	1.7444	ppb	16:34:10
1	Sb 206.836†	86.1	7.0	0.8878	µg/L	0.8878	ppb	16:34:10
1	Se 196.026†	23.5	8.7	3.33	µg/L	3.33	ppb	16:34:10
1	SiO2†	1739.3	-13.1	-1.3999	µg/L	-1.3999	ppb	16:34:10
1	Si 251.611†	864.7	76.3	1.1839	µg/L	1.1839	ppb	16:33:50
1	Sn 189.927†	5.2	8.4	0.5589	µg/L	0.5589	ppb	16:34:10
1	Ti 334.940†	849.7	-87.8	-0.0917	µg/L	-0.0917	ppb	16:33:50
1	Tl 190.801†	-134.1	-18.4	-2.3750	µg/L	-2.3750	ppb	16:34:10
1	U 409.014†	-50.1	214.4	12.959	µg/L	12.959	ppb	16:33:50
1	V 292.402†	441.3	85.5	0.4529	µg/L	0.4529	ppb	16:33:50
1	Zn 213.857†	533.7	20.5	0.1207	µg/L	0.1207	ppb	16:34:10
2	Sc RADIAL	143611.5	143611.5	99.6	%			16:33:02
2	Al 396.153Radial†	-86.2	-17.6	-3.5472	µg/L	-3.5472	ppb	16:33:22
2	Ca 317.933Radial†	611.2	63.4	3.8887	µg/L	3.8887	ppb	16:33:22
2	Fe 238.204 Radial†	155.4	20.7	1.3945	µg/L	1.3945	ppb	16:33:22
2	K 766.490 Radial†	1698.9	146.8	56.597	µg/L	56.597	ppb	16:33:02
2	Mg 279.077 IEC†	161.1	-3.5	-1.4230	µg/L	-1.4230	ppb	16:33:22
2	Na 589.592 Radial†	1423.5	171.2	25.135	µg/L	25.135	ppb	16:33:02
2	Sr 421.552†	-132.3	77.1	0.1712	µg/L	0.1712	ppb	16:33:02
2	Sc 361.383	1758096.2	1758096.2	100.07	%			16:34:12
2	Y 371.029	1048157.1	1048157.1	100.07	%			16:34:12
2	Ag 328.068†	3805.9	-11.6	-0.0390	µg/L	-0.0390	ppb	16:34:14
2	As 188.979†	-17.6	4.1	1.3151	µg/L	1.3151	ppb	16:34:34
2	B 249.677†	3522.5	60.6	0.9343	µg/L	0.9343	ppb	16:34:14
2	Ba 233.527†	-121.1	31.8	0.1354	µg/L	0.1354	ppb	16:34:34
2	Be 313.107†	-806.9	170.6	0.0481	µg/L	0.0481	ppb	16:34:14
2	Cd 226.502†	-93.7	12.2	0.0803	µg/L	0.0803	ppb	16:34:34
2	Co 228.616†	-194.4	-4.7	-0.0611	µg/L	-0.0611	ppb	16:34:34
2	Cr 267.716†	206.4	29.7	0.2460	µg/L	0.2460	ppb	16:34:34
2	Cu 324.752†	2719.9	-140.9	-0.5725	µg/L	-0.5725	ppb	16:34:14
2	Mn 257.610†	233.7	23.0	0.0297	µg/L	0.0297	ppb	16:34:34
2	Mo 202.031†	-18.1	24.6	0.7663	µg/L	0.7663	ppb	16:34:34
2	Ni 231.604†	-56.1	24.2	0.2916	µg/L	0.2916	ppb	16:34:34
2	P 214.914†	14.6	14.2	3.1838	µg/L	3.1838	ppb	16:34:34
2	Pb 220.353†	87.2	19.5	1.1441	µg/L	1.1441	ppb	16:34:34

2	S 181.975 Axial†	101.6	-3.7	-2.8898 µg/L	-2.8898 ppb		16:34:34
2	Sb 206.836†	83.3	4.3	0.5440 µg/L	0.5440 ppb		16:34:34
2	Se 196.026†	17.4	2.6	0.980 µg/L	0.980 ppb		16:34:34
2	SiO2†	1693.8	-58.2	-6.1144 µg/L	-6.1144 ppb		16:34:34
2	Si 251.611†	780.5	-7.6	-0.1327 µg/L	-0.1327 ppb		16:34:14
2	Sn 189.927†	5.0	8.2	0.5447 µg/L	0.5447 ppb		16:34:34
2	Ti 334.940†	1173.0	235.4	0.2330 µg/L	0.2330 ppb		16:34:14
2	Tl 190.801†	-123.5	-7.8	-1.0048 µg/L	-1.0048 ppb		16:34:34
2	U 409.014†	-290.4	-25.7	-1.5097 µg/L	-1.5097 ppb		16:34:14
2	V 292.402†	492.4	136.6	0.7037 µg/L	0.7037 ppb		16:34:14
2	Zn 213.857†	541.5	28.5	0.1660 µg/L	0.1660 ppb		16:34:34
3	Sc RADIAL	144542.9	144542.9	100 %			16:33:24
3	Al 396.153Radial†	-50.4	18.7	3.7104 µg/L	3.7104 ppb		16:33:44
3	Ca 317.933Radial†	590.2	38.5	2.3619 µg/L	2.3619 ppb		16:33:44
3	Fe 238.204 Radial†	157.1	21.4	1.4410 µg/L	1.4410 ppb		16:33:44
3	K 766.490 Radial†	1651.5	88.6	34.154 µg/L	34.154 ppb		16:33:24
3	Mg 279.077 IEC†	170.1	4.5	1.8507 µg/L	1.8507 ppb		16:33:44
3	Na 589.592 Radial†	1263.8	2.7	0.3728 µg/L	0.3728 ppb		16:33:24
3	Sr 421.552†	-255.6	-45.1	-0.1001 µg/L	-0.1001 ppb		16:33:24
3	Sc 361.383	1750749.6	1750749.6	99.652 %			16:34:36
3	Y 371.029	1043844.1	1043844.1	99.662 %			16:34:36
3	Ag 328.068†	3874.1	72.8	0.2854 µg/L	0.2854 ppb		16:34:38
3	As 188.979†	-28.0	-6.4	-2.0587 µg/L	-2.0587 ppb		16:34:58
3	B 249.677†	3563.2	116.3	1.7907 µg/L	1.7907 ppb		16:34:38
3	Ba 233.527†	-143.4	8.9	0.0377 µg/L	0.0377 ppb		16:34:58
3	Be 313.107†	-1216.7	-244.1	-0.0689 µg/L	-0.0689 ppb		16:34:38
3	Cd 226.502†	-113.0	-7.6	-0.0500 µg/L	-0.0500 ppb		16:34:58
3	Co 228.616†	-172.8	16.1	0.2085 µg/L	0.2085 ppb		16:34:58
3	Cr 267.716†	224.6	48.8	0.4008 µg/L	0.4008 ppb		16:34:58
3	Cu 324.752†	2714.4	-135.1	-0.5457 µg/L	-0.5457 ppb		16:34:38
3	Mn 257.610†	216.9	7.1	0.0091 µg/L	0.0091 ppb		16:34:58
3	Mo 202.031†	-36.1	6.5	0.2016 µg/L	0.2016 ppb		16:34:58
3	Ni 231.604†	-84.0	-4.0	-0.0487 µg/L	-0.0487 ppb		16:34:58
3	P 214.914†	18.3	17.9	4.0269 µg/L	4.0269 ppb		16:34:58
3	Pb 220.353†	91.2	23.9	1.3998 µg/L	1.3998 ppb		16:34:58
3	S 181.975 Axial†	108.4	3.6	2.8309 µg/L	2.8309 ppb		16:34:58
3	Sb 206.836†	77.4	-1.3	-0.1675 µg/L	-0.1675 ppb		16:34:58
3	Se 196.026†	5.9	-8.9	-3.39 µg/L	-3.39 ppb		16:34:58
3	SiO2†	1698.2	-46.6	-4.8877 µg/L	-4.8877 ppb		16:34:58
3	Si 251.611†	879.0	94.5	1.4771 µg/L	1.4771 ppb		16:34:38
3	Sn 189.927†	5.7	9.0	0.5944 µg/L	0.5944 ppb		16:34:58
3	Ti 334.940†	817.2	-116.7	-0.1163 µg/L	-0.1163 ppb		16:34:38
3	Tl 190.801†	-125.3	-10.1	-1.3107 µg/L	-1.3107 ppb		16:34:58
3	U 409.014†	-227.8	35.9	2.1577 µg/L	2.1577 ppb		16:34:38
3	V 292.402†	324.8	-29.5	-0.1450 µg/L	-0.1450 ppb		16:34:38
3	Zn 213.857†	535.0	24.2	0.1432 µg/L	0.1432 ppb		16:34:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1755787.9	99.939	%	0.2486				0.25%
Sc RADIAL	144166.6	100	%	0.3				0.34%
Y 371.029	1046842.8	99.949	%	0.2486				0.25%
Ag 328.068†	-4.3	-0.0073	µg/L	0.27814	-0.0073	ppb	0.27814	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.5	0.0765	µg/L	3.62879	0.0765	ppb	3.62879	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.3	0.0872	µg/L	1.86483	0.0872	ppb	1.86483	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	56.9	0.8763	µg/L	0.94471	0.8763	ppb	0.94471	107.80%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	23.5	0.1003	µg/L	0.05432	0.1003	ppb	0.05432	54.16%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	40.2	0.0128	µg/L	0.07095	0.0128	ppb	0.07095	553.25%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	49.7	3.0526	µg/L	0.77373	3.0526	ppb	0.77373	25.35%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.4	0.0683	µg/L	0.11279	0.0683	ppb	0.11279	165.10%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.9	0.0510	µg/L	0.14038	0.0510	ppb	0.14038	275.27%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              29.7      0.2415 µg/L       0.16165      0.2415 ppb        0.16165  66.94%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -133.4     -0.5370 µg/L       0.04053     -0.5370 ppb        0.04053   7.55%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       13.1      0.8850 µg/L       0.92297      0.8850 ppb        0.92297 104.29%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       130.9     50.466 µg/L       14.2715     50.466 ppb        14.2715  28.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.2     -0.5033 µg/L       2.05479     -0.5033 ppb        2.05479 408.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              23.0      0.0297 µg/L       0.02066      0.0297 ppb        0.02066  69.50%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              19.0      0.5896 µg/L       0.33651      0.5896 ppb        0.33651  57.07%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      108.0     15.847 µg/L       13.4908     15.847 ppb        13.4908  85.13%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               9.4      0.1136 µg/L       0.17070      0.1136 ppb        0.17070 150.23%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               17.6      3.9589 µg/L       0.74354      3.9589 ppb        0.74354  18.78%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              34.1      1.9962 µg/L       1.26090      1.9962 ppb        1.26090  63.17%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.7      0.5619 µg/L       3.03818      0.5619 ppb        3.03818 540.74%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.3      0.4214 µg/L       0.53823      0.4214 ppb        0.53823 127.71%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.8       0.307 µg/L        3.4090       0.307 ppb         3.4090 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -39.3     -4.1340 µg/L       2.44597     -4.1340 ppb        2.44597  59.17%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              54.4      0.8428 µg/L       0.85743      0.8428 ppb        0.85743 101.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.5      0.5660 µg/L       0.02558      0.5660 ppb        0.02558   4.52%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               2.5      0.0055 µg/L       0.14526      0.0055 ppb        0.14526 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              10.3      0.0083 µg/L       0.19494      0.0083 ppb        0.19494 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -12.1     -1.5635 µg/L       0.71922     -1.5635 ppb        0.71922  46.00%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               74.9      4.5356 µg/L       7.52163      4.5356 ppb        7.52163 165.84%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               64.2      0.3372 µg/L       0.43603      0.3372 ppb        0.43603 129.30%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              24.4      0.1433 µg/L       0.02266      0.1433 ppb        0.02266  15.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/5/2010 10:13:47 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 4/5/2010 10:13:47**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	141345.5	141345.5	101	%	10:14:20
1	Al 396.153Radial†	-71.7	-71.1	[0.00]	µg/L	10:14:40
1	Ca 317.933Radial†	562.0	557.0	[0.00]	µg/L	10:14:40
1	Fe 238.204 Radial†	133.2	132.1	[0.00]	µg/L	10:14:40
1	K 766.490 Radial†	1511.3	1497.9	[0.00]	µg/L	10:14:20
1	Mg 279.077 IEC†	180.5	178.9	[0.00]	µg/L	10:14:40
1	Na 589.592 Radial†	981.7	973.0	[0.00]	µg/L	10:14:20
1	Sr 421.552†	-166.0	-164.6	[0.00]	µg/L	10:14:20
1	Sc 361.383	1809917.0	1809917.0	100.32	%	10:15:28
1	Y 371.029	1061056.9	1061056.9	100.36	%	10:15:28
1	Ag 328.068†	4631.5	4616.7	[0.00]	µg/L	10:15:30
1	As 188.979†	-28.2	-28.1	[0.00]	µg/L	10:15:50
1	B 249.677†	4081.8	4068.8	[0.00]	µg/L	10:15:30
1	Ba 233.527†	-140.2	-139.8	[0.00]	µg/L	10:15:50
1	Be 313.107†	-1250.1	-1246.2	[0.00]	µg/L	10:15:30
1	Cd 226.502†	-99.6	-99.3	[0.00]	µg/L	10:15:50
1	Co 228.616†	-189.2	-188.6	[0.00]	µg/L	10:15:50
1	Cr 267.716†	232.1	231.3	[0.00]	µg/L	10:15:50
1	Cu 324.752†	3023.5	3013.9	[0.00]	µg/L	10:15:30
1	Mn 257.610†	175.2	174.7	[0.00]	µg/L	10:15:50
1	Mo 202.031†	-46.7	-46.6	[0.00]	µg/L	10:15:50
1	Ni 231.604†	-85.5	-85.2	[0.00]	µg/L	10:15:50
1	P 214.914†	-41.4	-41.3	[0.00]	µg/L	10:15:50
1	Pb 220.353†	103.1	102.8	[0.00]	µg/L	10:15:50
1	S 181.975 Axial†	82.1	81.8	[0.00]	µg/L	10:15:50
1	Sb 206.836†	104.3	104.0	[0.00]	µg/L	10:15:50
1	Se 196.026†	2.3	2.3	[0.00]	µg/L	10:15:50
1	SiO2†	1729.4	1723.9	[0.00]	µg/L	10:15:50
1	Si 251.611†	902.0	899.1	[0.00]	µg/L	10:15:30
1	Sn 189.927†	-6.6	-6.6	[0.00]	µg/L	10:15:50
1	Ti 334.940†	626.5	624.5	[0.00]	µg/L	10:15:30
1	Tl 190.801†	-120.7	-120.3	[0.00]	µg/L	10:15:50
1	U 409.014†	-208.2	-207.6	[0.00]	µg/L	10:15:30
1	V 292.402†	491.5	490.0	[0.00]	µg/L	10:15:30
1	Zn 213.857†	493.7	492.1	[0.00]	µg/L	10:15:50
2	Sc RADIAL	138787.4	138787.4	99.1	%	10:14:42
2	Al 396.153Radial†	-93.8	-94.7	[0.00]	µg/L	10:15:02
2	Ca 317.933Radial†	579.9	585.4	[0.00]	µg/L	10:15:02
2	Fe 238.204 Radial†	118.7	119.8	[0.00]	µg/L	10:15:02
2	K 766.490 Radial†	1516.0	1530.3	[0.00]	µg/L	10:14:42
2	Mg 279.077 IEC†	160.6	162.1	[0.00]	µg/L	10:15:02
2	Na 589.592 Radial†	883.5	891.9	[0.00]	µg/L	10:14:42
2	Sr 421.552†	-276.7	-279.3	[0.00]	µg/L	10:14:42
2	Sc 361.383	1802726.4	1802726.4	99.921	%	10:15:52
2	Y 371.029	1056514.6	1056514.6	99.926	%	10:15:52
2	Ag 328.068†	4445.4	4448.9	[0.00]	µg/L	10:15:54
2	As 188.979†	-17.6	-17.6	[0.00]	µg/L	10:16:14

2	B 249.677†	4098.2	4101.4	[0.00]	µg/L	10:15:54
2	Ba 233.527†	-137.4	-137.5	[0.00]	µg/L	10:16:14
2	Be 313.107†	-919.9	-920.6	[0.00]	µg/L	10:15:54
2	Cd 226.502†	-97.2	-97.3	[0.00]	µg/L	10:16:14
2	Co 228.616†	-212.6	-212.8	[0.00]	µg/L	10:16:14
2	Cr 267.716†	221.8	222.0	[0.00]	µg/L	10:16:14
2	Cu 324.752†	3087.1	3089.6	[0.00]	µg/L	10:15:54
2	Mn 257.610†	185.6	185.7	[0.00]	µg/L	10:16:14
2	Mo 202.031†	-31.7	-31.7	[0.00]	µg/L	10:16:14
2	Ni 231.604†	-105.8	-105.9	[0.00]	µg/L	10:16:14
2	P 214.914†	-25.3	-25.4	[0.00]	µg/L	10:16:14
2	Pb 220.353†	104.3	104.3	[0.00]	µg/L	10:16:14
2	S 181.975 Axial†	94.0	94.1	[0.00]	µg/L	10:16:14
2	Sb 206.836†	82.5	82.6	[0.00]	µg/L	10:16:14
2	Se 196.026†	-0.8	-0.8	[0.00]	µg/L	10:16:14
2	SiO2†	1742.2	1743.6	[0.00]	µg/L	10:16:14
2	Si 251.611†	730.3	730.9	[0.00]	µg/L	10:15:54
2	Sn 189.927†	-6.8	-6.8	[0.00]	µg/L	10:16:14
2	Ti 334.940†	782.7	783.4	[0.00]	µg/L	10:15:54
2	Tl 190.801†	-114.4	-114.5	[0.00]	µg/L	10:16:14
2	U 409.014†	-209.5	-209.7	[0.00]	µg/L	10:15:54
2	V 292.402†	334.7	335.0	[0.00]	µg/L	10:15:54
2	Zn 213.857†	495.4	495.8	[0.00]	µg/L	10:16:14
3	Sc RADIAL	140146.0	140146.0	100	%	10:15:04
3	Al 396.153Radial†	-69.9	-69.8	[0.00]	µg/L	10:15:24
3	Ca 317.933Radial†	572.2	572.0	[0.00]	µg/L	10:15:24
3	Fe 238.204 Radial†	100.1	100.0	[0.00]	µg/L	10:15:24
3	K 766.490 Radial†	1453.7	1453.2	[0.00]	µg/L	10:15:04
3	Mg 279.077 IEC†	176.4	176.3	[0.00]	µg/L	10:15:24
3	Na 589.592 Radial†	993.1	992.7	[0.00]	µg/L	10:15:04
3	Sr 421.552†	-169.7	-169.6	[0.00]	µg/L	10:15:04
3	Sc 361.383	1799815.0	1799815.0	99.760	%	10:16:16
3	Y 371.029	1054320.2	1054320.2	99.718	%	10:16:16
3	Ag 328.068†	4618.7	4629.8	[0.00]	µg/L	10:16:19
3	As 188.979†	-10.0	-10.0	[0.00]	µg/L	10:16:39
3	B 249.677†	4015.5	4025.2	[0.00]	µg/L	10:16:19
3	Ba 233.527†	-155.9	-156.3	[0.00]	µg/L	10:16:39
3	Be 313.107†	-1105.7	-1108.4	[0.00]	µg/L	10:16:19
3	Cd 226.502†	-113.2	-113.5	[0.00]	µg/L	10:16:39
3	Co 228.616†	-229.0	-229.5	[0.00]	µg/L	10:16:39
3	Cr 267.716†	245.8	246.4	[0.00]	µg/L	10:16:39
3	Cu 324.752†	2997.6	3004.8	[0.00]	µg/L	10:16:19
3	Mn 257.610†	193.3	193.8	[0.00]	µg/L	10:16:39
3	Mo 202.031†	-37.4	-37.5	[0.00]	µg/L	10:16:39
3	Ni 231.604†	-96.4	-96.6	[0.00]	µg/L	10:16:39
3	P 214.914†	-10.4	-10.4	[0.00]	µg/L	10:16:39
3	Pb 220.353†	103.0	103.3	[0.00]	µg/L	10:16:39
3	S 181.975 Axial†	90.6	90.9	[0.00]	µg/L	10:16:39
3	Sb 206.836†	82.4	82.6	[0.00]	µg/L	10:16:39
3	Se 196.026†	16.9	16.9	[0.00]	µg/L	10:16:39
3	SiO2†	1745.6	1749.8	[0.00]	µg/L	10:16:39
3	Si 251.611†	669.5	671.1	[0.00]	µg/L	10:16:19
3	Sn 189.927†	19.0	19.1	[0.00]	µg/L	10:16:39
3	Ti 334.940†	1058.6	1061.1	[0.00]	µg/L	10:16:19
3	Tl 190.801†	-107.8	-108.0	[0.00]	µg/L	10:16:39
3	U 409.014†	-72.6	-72.8	[0.00]	µg/L	10:16:19
3	V 292.402†	443.7	444.7	[0.00]	µg/L	10:16:19
3	Zn 213.857†	519.8	521.1	[0.00]	µg/L	10:16:39

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1804152.8	5199.83	0.29%	100.00	%
Sc RADIAL	140093.0	1279.85	0.91%	100.0	%
Y 371.029	1057297.2	3435.88	0.32%	100.00	%
Ag 328.068†	4565.2	100.87	2.21%	[0.00]	µg/L
Al 396.153Radial†	-78.5	14.00	17.83%	[0.00]	µg/L
As 188.979†	-18.6	9.07	48.89%	[0.00]	µg/L
B 249.677†	4065.1	38.25	0.94%	[0.00]	µg/L
Ba 233.527†	-144.5	10.26	7.10%	[0.00]	µg/L

Be 313.107†	-1091.7	163.40	14.97%	[0.00]	µg/L
Ca 317.933Radial†	571.4	14.18	2.48%	[0.00]	µg/L
Cd 226.502†	-103.4	8.84	8.55%	[0.00]	µg/L
Co 228.616†	-210.3	20.61	9.80%	[0.00]	µg/L
Cr 267.716†	233.2	12.30	5.28%	[0.00]	µg/L
Cu 324.752†	3036.1	46.52	1.53%	[0.00]	µg/L
Fe 238.204 Radial†	117.3	16.16	13.77%	[0.00]	µg/L
K 766.490 Radial†	1493.8	38.73	2.59%	[0.00]	µg/L
Mg 279.077 IEC†	172.5	9.01	5.22%	[0.00]	µg/L
Mn 257.610†	184.7	9.58	5.18%	[0.00]	µg/L
Mo 202.031†	-38.6	7.49	19.42%	[0.00]	µg/L
Na 589.592 Radial†	952.5	53.45	5.61%	[0.00]	µg/L
Ni 231.604†	-95.9	10.38	10.83%	[0.00]	µg/L
P 214.914†	-25.7	15.43	60.06%	[0.00]	µg/L
Pb 220.353†	103.5	0.81	0.78%	[0.00]	µg/L
S 181.975 Axial†	88.9	6.36	7.15%	[0.00]	µg/L
Sb 206.836†	89.7	12.37	13.78%	[0.00]	µg/L
Se 196.026†	6.2	9.46	153.73%	[0.00]	µg/L
SiO2†	1739.1	13.54	0.78%	[0.00]	µg/L
Si 251.611†	767.0	118.25	15.42%	[0.00]	µg/L
Sn 189.927†	1.9	14.90	789.79%	[0.00]	µg/L
Sr 421.552†	-204.5	64.82	31.70%	[0.00]	µg/L
Ti 334.940†	823.0	220.99	26.85%	[0.00]	µg/L
Tl 190.801†	-114.3	6.14	5.38%	[0.00]	µg/L
U 409.014†	-163.4	78.42	48.00%	[0.00]	µg/L
V 292.402†	423.2	79.68	18.83%	[0.00]	µg/L
Zn 213.857†	503.0	15.77	3.14%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 4/5/2010 10:16:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139125.6	139125.6	99.3	%	10:17:17
1	K 766.490 Radial†	4201.0	2736.4	[1000]	µg/L	10:17:17
1	Sr 421.552†	43301.9	43807.5	[100]	µg/L	10:17:17
1	Sc 361.383	1787922.4	1787922.4	99.100	%	10:17:25
1	Y 371.029	1045378.7	1045378.7	98.873	%	10:17:25
1	Ag 328.068†	29278.8	24979.4	[100]	µg/L	10:17:27
1	As 188.979†	269.9	290.9	[100]	µg/L	10:17:47
1	B 249.677†	10470.2	6500.1	[100]	µg/L	10:17:27
1	Ba 233.527†	22677.6	23028.0	[100]	µg/L	10:17:27
1	Be 313.107†	339780.2	343956.4	[100]	µg/L	10:17:25
1	Cd 226.502†	14950.1	15189.2	[100]	µg/L	10:17:27
1	Co 228.616†	7586.0	7865.2	[100]	µg/L	10:17:47
1	Cr 267.716†	11980.0	11855.6	[100]	µg/L	10:17:27
1	Cu 324.752†	27030.3	24239.6	[100]	µg/L	10:17:27
1	Mn 257.610†	77870.5	78392.6	[100]	µg/L	10:17:27
1	Mo 202.031†	3044.8	3111.0	[100]	µg/L	10:17:47
1	Ni 231.604†	8145.6	8315.5	[100]	µg/L	10:17:27
1	P 214.914†	2132.7	2177.8	[500]	µg/L	10:17:47
1	Pb 220.353†	1754.2	1666.6	[100]	µg/L	10:17:47
1	S 181.975 Axial†	320.2	234.2	[200]	µg/L	10:17:47
1	Sb 206.836†	856.2	774.3	[100]	µg/L	10:17:47
1	Se 196.026†	271.1	267.4	[100]	µg/L	10:17:47
1	SiO2†	11802.6	10170.7	[1069.5]	µg/L	10:17:27
1	Si 251.611†	32208.0	31733.4	[500]	µg/L	10:17:27
1	Sn 189.927†	1460.8	1472.2	[100]	µg/L	10:17:47
1	Ti 334.940†	97532.1	97594.5	[100]	µg/L	10:17:27
1	Tl 190.801†	651.1	771.2	[100]	µg/L	10:17:47
1	U 409.014†	1450.2	1626.7	[100]	µg/L	10:17:27
1	V 292.402†	19578.5	19333.0	[100]	µg/L	10:17:27
1	Zn 213.857†	17573.4	17230.0	[100]	µg/L	10:17:27
2	Sc RADIAL	139393.7	139393.7	99.5	%	10:17:19
2	K 766.490 Radial†	4071.1	2597.8	[1000]	µg/L	10:17:19
2	Sr 421.552†	43490.4	43913.0	[100]	µg/L	10:17:19
2	Sc 361.383	1810051.8	1810051.8	100.33	%	10:17:49
2	Y 371.029	1057261.6	1057261.6	99.997	%	10:17:49
2	Ag 328.068†	29153.6	24493.4	[100]	µg/L	10:17:51
2	As 188.979†	282.4	300.0	[100]	µg/L	10:18:11
2	B 249.677†	10334.4	6235.5	[100]	µg/L	10:17:51
2	Ba 233.527†	22670.7	22741.4	[100]	µg/L	10:17:51
2	Be 313.107†	345851.8	345816.4	[100]	µg/L	10:17:49
2	Cd 226.502†	14777.3	14832.5	[100]	µg/L	10:17:51
2	Co 228.616†	7580.5	7766.1	[100]	µg/L	10:18:11
2	Cr 267.716†	11835.9	11564.1	[100]	µg/L	10:17:51
2	Cu 324.752†	26968.9	23844.9	[100]	µg/L	10:17:51
2	Mn 257.610†	77589.5	77151.9	[100]	µg/L	10:17:51
2	Mo 202.031†	3039.5	3068.1	[100]	µg/L	10:18:11
2	Ni 231.604†	8167.1	8236.4	[100]	µg/L	10:17:51
2	P 214.914†	2136.5	2155.2	[500]	µg/L	10:18:11
2	Pb 220.353†	1760.7	1651.5	[100]	µg/L	10:18:11
2	S 181.975 Axial†	328.5	238.5	[200]	µg/L	10:18:11
2	Sb 206.836†	849.0	756.5	[100]	µg/L	10:18:11
2	Se 196.026†	270.8	263.7	[100]	µg/L	10:18:11
2	SiO2†	11845.9	10068.2	[1069.5]	µg/L	10:17:51
2	Si 251.611†	32133.9	31262.1	[500]	µg/L	10:17:51
2	Sn 189.927†	1448.7	1442.0	[100]	µg/L	10:18:11
2	Ti 334.940†	97204.0	96064.2	[100]	µg/L	10:17:51
2	Tl 190.801†	624.5	736.7	[100]	µg/L	10:18:11
2	U 409.014†	1369.3	1528.2	[100]	µg/L	10:17:51
2	V 292.402†	19503.3	19016.5	[100]	µg/L	10:17:51

2	Zn 213.857†	17334.5	16775.0	[100]	µg/L	10:17:51
3	Sc RADIAL	139506.2	139506.2	99.6	%	10:17:21
3	K 766.490 Radial†	4050.2	2573.4	[1000]	µg/L	10:17:21
3	Sr 421.552†	43526.0	43913.6	[100]	µg/L	10:17:21
3	Sc 361.383	1784413.8	1784413.8	98.906	%	10:18:13
3	Y 371.029	1042010.1	1042010.1	98.554	%	10:18:13
3	Ag 328.068†	29725.5	25489.2	[100]	µg/L	10:18:15
3	As 188.979†	279.2	300.8	[100]	µg/L	10:18:35
3	B 249.677†	10468.9	6519.6	[100]	µg/L	10:18:15
3	Ba 233.527†	23077.9	23477.7	[100]	µg/L	10:18:15
3	Be 313.107†	340163.6	345018.2	[100]	µg/L	10:18:13
3	Cd 226.502†	15190.7	15462.1	[100]	µg/L	10:18:15
3	Co 228.616†	7560.7	7854.6	[100]	µg/L	10:18:35
3	Cr 267.716†	12082.6	11983.0	[100]	µg/L	10:18:15
3	Cu 324.752†	27791.7	25063.0	[100]	µg/L	10:18:15
3	Mn 257.610†	79356.0	80049.1	[100]	µg/L	10:18:15
3	Mo 202.031†	3030.9	3103.0	[100]	µg/L	10:18:35
3	Ni 231.604†	8277.7	8465.2	[100]	µg/L	10:18:15
3	P 214.914†	2104.3	2153.2	[500]	µg/L	10:18:35
3	Pb 220.353†	1742.8	1658.6	[100]	µg/L	10:18:35
3	S 181.975 Axial†	334.2	248.9	[200]	µg/L	10:18:35
3	Sb 206.836†	850.6	770.3	[100]	µg/L	10:18:35
3	Se 196.026†	268.2	265.0	[100]	µg/L	10:18:35
3	SiO2†	12111.5	10506.4	[1069.5]	µg/L	10:18:15
3	Si 251.611†	32912.6	32509.7	[500]	µg/L	10:18:15
3	Sn 189.927†	1471.6	1486.0	[100]	µg/L	10:18:35
3	Ti 334.940†	99214.9	99489.4	[100]	µg/L	10:18:15
3	Tl 190.801†	647.7	769.1	[100]	µg/L	10:18:35
3	U 409.014†	1258.3	1435.6	[100]	µg/L	10:18:15
3	V 292.402†	19749.3	19544.6	[100]	µg/L	10:18:15
3	Zn 213.857†	17875.8	17570.6	[100]	µg/L	10:18:15

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1794129.3	13900.45	0.77%	99.444	%
Sc RADIAL	139341.9	195.52	0.14%	99.5	%
Y 371.029	1048216.8	8012.07	0.76%	99.141	%
Ag 328.068†	24987.3	497.93	1.99%	[100]	µg/L
As 188.979†	297.3	5.50	1.85%	[100]	µg/L
B 249.677†	6418.4	158.67	2.47%	[100]	µg/L
Ba 233.527†	23082.4	371.18	1.61%	[100]	µg/L
Be 313.107†	344930.4	933.09	0.27%	[100]	µg/L
Cd 226.502†	15161.2	315.73	2.08%	[100]	µg/L
Co 228.616†	7828.6	54.43	0.70%	[100]	µg/L
Cr 267.716†	11800.9	214.74	1.82%	[100]	µg/L
Cu 324.752†	24382.5	621.49	2.55%	[100]	µg/L
K 766.490 Radial†	2635.9	87.91	3.34%	[1000]	µg/L
Mn 257.610†	78531.2	1453.57	1.85%	[100]	µg/L
Mo 202.031†	3094.1	22.79	0.74%	[100]	µg/L
Ni 231.604†	8339.0	116.20	1.39%	[100]	µg/L
P 214.914†	2162.1	13.62	0.63%	[500]	µg/L
Pb 220.353†	1658.9	7.56	0.46%	[100]	µg/L
S 181.975 Axial†	240.6	7.56	3.14%	[200]	µg/L
Sb 206.836†	767.0	9.36	1.22%	[100]	µg/L
Se 196.026†	265.4	1.87	0.71%	[100]	µg/L
SiO2†	10248.4	229.21	2.24%	[1069.5]	µg/L
Si 251.611†	31835.1	629.94	1.98%	[500]	µg/L
Sn 189.927†	1466.7	22.48	1.53%	[100]	µg/L
Sr 421.552†	43878.0	61.08	0.14%	[100]	µg/L
Ti 334.940†	97716.0	1715.86	1.76%	[100]	µg/L
Tl 190.801†	759.0	19.35	2.55%	[100]	µg/L
U 409.014†	1530.2	95.58	6.25%	[100]	µg/L
V 292.402†	19298.0	265.76	1.38%	[100]	µg/L
Zn 213.857†	17191.8	399.18	2.32%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 4/5/2010 10:18:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	140889.5	140889.5	101	%	10:19:14
1	Al 396.153Radial†	24220.4	24162.1	[5000]	µg/L	10:19:14
1	Ca 317.933Radial†	76005.1	75004.0	[5000]	µg/L	10:19:14
1	K 766.490 Radial†	14239.3	12665.0	[5000]	µg/L	10:19:14
1	Mg 279.077 IEC†	11509.4	11271.9	[5000]	µg/L	10:19:14
1	Sr 421.552†	210637.5	209651.1	[500]	µg/L	10:19:12
1	Sc 361.383	1784374.4	1784374.4	98.904	%	10:19:27
1	Y 371.029	1033889.2	1033889.2	97.786	%	10:19:27
1	Ag 328.068†	125108.2	121929.8	[500]	µg/L	10:19:27
1	As 188.979†	1453.4	1488.1	[500]	µg/L	10:19:47
1	B 249.677†	35710.1	32040.8	[500]	µg/L	10:19:27
1	Ba 233.527†	112243.1	113631.8	[500]	µg/L	10:19:27
1	Be 313.107†	1716024.7	1736137.2	[500]	µg/L	10:19:27
1	Cd 226.502†	74131.2	75056.2	[500]	µg/L	10:19:27
1	Co 228.616†	37990.1	38621.5	[500]	µg/L	10:19:27
1	Cr 267.716†	57961.7	58371.0	[500]	µg/L	10:19:27
1	Cu 324.752†	121855.7	120170.2	[500]	µg/L	10:19:27
1	Mn 257.610†	376432.9	380420.6	[500]	µg/L	10:19:27
1	Mo 202.031†	15177.4	15384.2	[500]	µg/L	10:19:47
1	Ni 231.604†	39962.4	40501.3	[500]	µg/L	10:19:27
1	P 214.914†	10759.6	10904.6	[2500]	µg/L	10:19:47
1	Pb 220.353†	8251.5	8239.5	[500]	µg/L	10:19:47
1	S 181.975 Axial†	1269.7	1194.8	[1000]	µg/L	10:19:47
1	Sb 206.836†	3940.0	3893.9	[500]	µg/L	10:19:47
1	Se 196.026†	1265.4	1273.2	[500]	µg/L	10:19:47
1	SiO2†	51424.7	50255.6	[5347.5]	µg/L	10:19:27
1	Si 251.611†	157621.6	158601.7	[2500]	µg/L	10:19:27
1	Sn 189.927†	7160.0	7237.4	[500]	µg/L	10:19:47
1	Ti 334.940†	483114.1	487646.0	[500]	µg/L	10:19:27
1	Tl 190.801†	3546.4	3700.0	[500]	µg/L	10:19:47
1	U 409.014†	7287.7	7531.8	[500]	µg/L	10:19:27
1	V 292.402†	96138.3	96780.7	[500]	µg/L	10:19:27
1	Zn 213.857†	84347.2	84779.1	[500]	µg/L	10:19:27
2	Sc RADIAL	138468.7	138468.7	98.8	%	10:19:18
2	Al 396.153Radial†	23978.5	24338.3	[5000]	µg/L	10:19:18
2	Ca 317.933Radial†	74778.0	75083.7	[5000]	µg/L	10:19:18
2	K 766.490 Radial†	14166.1	12838.5	[5000]	µg/L	10:19:18
2	Mg 279.077 IEC†	11391.8	11353.0	[5000]	µg/L	10:19:18
2	Sr 421.552†	211261.0	213943.6	[500]	µg/L	10:19:16
2	Sc 361.383	1766889.2	1766889.2	97.935	%	10:19:50
2	Y 371.029	1024585.0	1024585.0	96.906	%	10:19:50
2	Ag 328.068†	123756.3	121801.2	[500]	µg/L	10:19:50
2	As 188.979†	1438.9	1487.8	[500]	µg/L	10:20:10
2	B 249.677†	35488.1	32171.4	[500]	µg/L	10:19:50
2	Ba 233.527†	111071.8	113558.9	[500]	µg/L	10:19:50
2	Be 313.107†	1696070.7	1732932.4	[500]	µg/L	10:19:50
2	Cd 226.502†	73034.6	74678.2	[500]	µg/L	10:19:50
2	Co 228.616†	37302.4	38299.4	[500]	µg/L	10:19:50
2	Cr 267.716†	57219.6	58193.2	[500]	µg/L	10:19:50
2	Cu 324.752†	120326.7	119828.2	[500]	µg/L	10:19:50
2	Mn 257.610†	372256.6	379922.7	[500]	µg/L	10:19:50
2	Mo 202.031†	15119.8	15477.2	[500]	µg/L	10:20:10
2	Ni 231.604†	39549.3	40479.3	[500]	µg/L	10:19:50
2	P 214.914†	10712.4	10964.0	[2500]	µg/L	10:20:10
2	Pb 220.353†	8202.8	8272.3	[500]	µg/L	10:20:10
2	S 181.975 Axial†	1257.6	1195.2	[1000]	µg/L	10:20:10
2	Sb 206.836†	3905.6	3898.3	[500]	µg/L	10:20:10
2	Se 196.026†	1247.8	1267.9	[500]	µg/L	10:20:10
2	SiO2†	50930.2	50265.3	[5347.5]	µg/L	10:19:50

2	Si 251.611†	155571.9	158085.9	[2500]	µg/L	10:19:50
2	Sn 189.927†	7125.7	7274.1	[500]	µg/L	10:20:10
2	Ti 334.940†	478384.9	487651.0	[500]	µg/L	10:19:50
2	Tl 190.801†	3514.3	3702.7	[500]	µg/L	10:20:10
2	U 409.014†	6992.6	7303.4	[500]	µg/L	10:19:50
2	V 292.402†	95133.6	96716.8	[500]	µg/L	10:19:50
2	Zn 213.857†	83229.4	84481.7	[500]	µg/L	10:19:50
3	Sc RADIAL	140766.3	140766.3	100	%	10:19:22
3	Al 396.153Radial†	24151.9	24114.9	[5000]	µg/L	10:19:22
3	Ca 317.933Radial†	75881.7	74947.3	[5000]	µg/L	10:19:22
3	K 766.490 Radial†	14167.2	12605.6	[5000]	µg/L	10:19:22
3	Mg 279.077 IEC†	11441.7	11214.6	[5000]	µg/L	10:19:22
3	Sr 421.552†	210189.9	209388.9	[500]	µg/L	10:19:20
3	Sc 361.383	1763888.5	1763888.5	97.768	%	10:20:13
3	Y 371.029	1022018.7	1022018.7	96.663	%	10:20:13
3	Ag 328.068†	123587.5	121843.4	[500]	µg/L	10:20:13
3	As 188.979†	1445.8	1497.3	[500]	µg/L	10:20:33
3	B 249.677†	35619.8	32367.8	[500]	µg/L	10:20:13
3	Ba 233.527†	110853.9	113528.9	[500]	µg/L	10:20:13
3	Be 313.107†	1698086.3	1737940.2	[500]	µg/L	10:20:13
3	Cd 226.502†	72949.0	74717.6	[500]	µg/L	10:20:13
3	Co 228.616†	37273.2	38334.3	[500]	µg/L	10:20:13
3	Cr 267.716†	57178.4	58250.4	[500]	µg/L	10:20:13
3	Cu 324.752†	120255.8	119964.8	[500]	µg/L	10:20:13
3	Mn 257.610†	371797.5	380099.8	[500]	µg/L	10:20:13
3	Mo 202.031†	15118.6	15502.3	[500]	µg/L	10:20:33
3	Ni 231.604†	39356.5	40350.8	[500]	µg/L	10:20:13
3	P 214.914†	10731.2	11001.8	[2500]	µg/L	10:20:33
3	Pb 220.353†	8211.7	8295.7	[500]	µg/L	10:20:33
3	S 181.975 Axial†	1263.9	1203.8	[1000]	µg/L	10:20:33
3	Sb 206.836†	3912.4	3912.0	[500]	µg/L	10:20:33
3	Se 196.026†	1265.8	1288.6	[500]	µg/L	10:20:33
3	SiO2†	51139.1	50567.4	[5347.5]	µg/L	10:20:13
3	Si 251.611†	155385.6	158165.5	[2500]	µg/L	10:20:13
3	Sn 189.927†	7157.9	7319.4	[500]	µg/L	10:20:33
3	Ti 334.940†	478003.2	488091.5	[500]	µg/L	10:20:13
3	Tl 190.801†	3508.4	3702.8	[500]	µg/L	10:20:33
3	U 409.014†	7057.3	7381.7	[500]	µg/L	10:20:13
3	V 292.402†	94875.9	96618.4	[500]	µg/L	10:20:13
3	Zn 213.857†	83345.0	84744.5	[500]	µg/L	10:20:13

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1771717.4	11063.51	0.62%	98.202	%
Sc RADIAL	140041.5	1363.47	0.97%	100.0	%
Y 371.029	1026831.0	6245.79	0.61%	97.118	%
Ag 328.068†	121858.1	65.55	0.05%	[500]	µg/L
Al 396.153Radial†	24205.1	117.77	0.49%	[5000]	µg/L
As 188.979†	1491.1	5.44	0.36%	[500]	µg/L
B 249.677†	32193.3	164.59	0.51%	[500]	µg/L
Ba 233.527†	113573.2	52.90	0.05%	[500]	µg/L
Be 313.107†	1735670.0	2536.38	0.15%	[500]	µg/L
Ca 317.933Radial†	75011.7	68.50	0.09%	[5000]	µg/L
Cd 226.502†	74817.4	207.79	0.28%	[500]	µg/L
Co 228.616†	38418.4	176.73	0.46%	[500]	µg/L
Cr 267.716†	58271.5	90.76	0.16%	[500]	µg/L
Cu 324.752†	119987.7	172.15	0.14%	[500]	µg/L
K 766.490 Radial†	12703.1	121.01	0.95%	[5000]	µg/L
Mg 279.077 IEC†	11279.8	69.56	0.62%	[5000]	µg/L
Mn 257.610†	380147.7	252.39	0.07%	[500]	µg/L
Mo 202.031†	15454.6	62.19	0.40%	[500]	µg/L
Ni 231.604†	40443.8	81.27	0.20%	[500]	µg/L
P 214.914†	10956.8	49.03	0.45%	[2500]	µg/L
Pb 220.353†	8269.2	28.26	0.34%	[500]	µg/L
S 181.975 Axial†	1198.0	5.06	0.42%	[1000]	µg/L
Sb 206.836†	3901.4	9.46	0.24%	[500]	µg/L
Se 196.026†	1276.6	10.73	0.84%	[500]	µg/L
SiO2†	50362.7	177.29	0.35%	[5347.5]	µg/L
Si 251.611†	158284.4	277.66	0.18%	[2500]	µg/L

Sn 189.927†	7277.0	41.07	0.56%	[500] µg/L
Sr 421.552†	210994.5	2557.30	1.21%	[500] µg/L
Ti 334.940†	487796.2	255.79	0.05%	[500] µg/L
Tl 190.801†	3701.8	1.60	0.04%	[500] µg/L
U 409.014†	7405.7	116.08	1.57%	[500] µg/L
V 292.402†	96705.3	81.74	0.08%	[500] µg/L
Zn 213.857†	84668.5	162.65	0.19%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 4/5/2010 10:20:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	138521.2	138521.2	98.9	%	10:21:12
1	Al 396.153Radial†	47739.4	48359.6	[10000]	µg/L	10:21:12
1	Ca 317.933Radial†	147603.9	148707.2	[10000]	µg/L	10:21:12
1	Fe 238.204 Radial†	132955.6	134346.9	[10000]	µg/L	10:21:12
1	K 766.490 Radial†	26494.7	25301.6	[10000]	µg/L	10:21:12
1	Mg 279.077 IEC†	22115.4	22193.9	[10000]	µg/L	10:21:12
1	Na 589.592 Radial†	64423.3	64201.8	[10000]	µg/L	10:21:12
1	Sr 421.552†	421705.7	426695.0	[1000]	µg/L	10:21:10
1	Sc 361.383	1787517.3	1787517.3	99.078	%	10:21:25
1	Y 371.029	1030588.8	1030588.8	97.474	%	10:21:25
1	Ag 328.068†	247472.6	245210.6	[1000]	µg/L	10:21:27
1	As 188.979†	2895.1	2940.6	[1000]	µg/L	10:21:47
1	B 249.677†	67826.5	64392.6	[1000]	µg/L	10:21:27
1	Ba 233.527†	223075.2	225295.8	[1000]	µg/L	10:21:27
1	Be 313.107†	3410791.6	3443625.8	[1000]	µg/L	10:21:25
1	Cd 226.502†	146771.7	148241.0	[1000]	µg/L	10:21:27
1	Co 228.616†	74870.3	75777.4	[1000]	µg/L	10:21:27
1	Cr 267.716†	114942.2	115778.7	[1000]	µg/L	10:21:27
1	Cu 324.752†	240746.6	239950.9	[1000]	µg/L	10:21:27
1	Mn 257.610†	744414.1	751157.3	[1000]	µg/L	10:21:25
1	Mo 202.031†	30103.8	30422.6	[1000]	µg/L	10:21:47
1	Ni 231.604†	79132.1	79964.5	[1000]	µg/L	10:21:27
1	P 214.914†	21254.4	21477.9	[5000]	µg/L	10:21:47
1	Pb 220.353†	16098.9	16145.3	[1000]	µg/L	10:21:47
1	S 181.975 Axial†	2437.0	2370.8	[2000]	µg/L	10:21:47
1	Sb 206.836†	7748.6	7731.0	[1000]	µg/L	10:21:47
1	Se 196.026†	2500.5	2517.6	[1000]	µg/L	10:21:47
1	SiO2†	102325.7	101538.9	[10695]	µg/L	10:21:27
1	Si 251.611†	316394.8	318572.3	[5000]	µg/L	10:21:27
1	Sn 189.927†	14188.1	14318.3	[1000]	µg/L	10:21:47
1	Ti 334.940†	964390.5	972542.5	[1000]	µg/L	10:21:25
1	Tl 190.801†	7109.4	7289.9	[1000]	µg/L	10:21:47
1	U 409.014†	15951.4	16263.2	[1000]	µg/L	10:21:27
1	V 292.402†	192075.9	193440.2	[1000]	µg/L	10:21:27
1	Zn 213.857†	166493.8	167540.3	[1000]	µg/L	10:21:27
2	Sc RADIAL	137587.7	137587.7	98.2	%	10:21:16
2	Al 396.153Radial†	47286.5	48226.0	[10000]	µg/L	10:21:16
2	Ca 317.933Radial†	146236.4	148327.7	[10000]	µg/L	10:21:16
2	Fe 238.204 Radial†	132132.0	134420.6	[10000]	µg/L	10:21:16
2	K 766.490 Radial†	26206.6	25190.0	[10000]	µg/L	10:21:16
2	Mg 279.077 IEC†	21947.0	22174.2	[10000]	µg/L	10:21:16
2	Na 589.592 Radial†	64079.1	64293.4	[10000]	µg/L	10:21:16
2	Sr 421.552†	418133.3	425951.3	[1000]	µg/L	10:21:14
2	Sc 361.383	1788077.8	1788077.8	99.109	%	10:21:50
2	Y 371.029	1031083.9	1031083.9	97.521	%	10:21:50
2	Ag 328.068†	245852.5	243497.5	[1000]	µg/L	10:21:52
2	As 188.979†	2920.6	2965.4	[1000]	µg/L	10:22:12
2	B 249.677†	67486.4	64027.9	[1000]	µg/L	10:21:52
2	Ba 233.527†	221407.1	223542.1	[1000]	µg/L	10:21:52
2	Be 313.107†	3418889.0	3450717.0	[1000]	µg/L	10:21:50
2	Cd 226.502†	145207.6	146616.4	[1000]	µg/L	10:21:52
2	Co 228.616†	73965.8	74841.1	[1000]	µg/L	10:21:52
2	Cr 267.716†	114087.3	114879.7	[1000]	µg/L	10:21:52
2	Cu 324.752†	238734.9	237845.0	[1000]	µg/L	10:21:52
2	Mn 257.610†	745639.7	752158.3	[1000]	µg/L	10:21:50
2	Mo 202.031†	30297.9	30608.8	[1000]	µg/L	10:22:12
2	Ni 231.604†	78509.5	79311.2	[1000]	µg/L	10:21:52
2	P 214.914†	21418.7	21637.0	[5000]	µg/L	10:22:12
2	Pb 220.353†	16212.2	16254.5	[1000]	µg/L	10:22:12

2	S 181.975 Axial†	2451.4	2384.5	[2000]	µg/L	10:22:12
2	Sb 206.836†	7810.0	7790.5	[1000]	µg/L	10:22:12
2	Se 196.026†	2535.5	2552.1	[1000]	µg/L	10:22:12
2	SiO2†	101458.8	100631.9	[10695]	µg/L	10:21:52
2	Si 251.611†	313775.9	315829.7	[5000]	µg/L	10:21:52
2	Sn 189.927†	14324.6	14451.5	[1000]	µg/L	10:22:12
2	Ti 334.940†	965317.9	973173.2	[1000]	µg/L	10:21:50
2	Tl 190.801†	7148.1	7326.6	[1000]	µg/L	10:22:12
2	U 409.014†	15724.4	16029.1	[1000]	µg/L	10:21:52
2	V 292.402†	190884.5	192177.3	[1000]	µg/L	10:21:52
2	Zn 213.857†	165290.1	166273.1	[1000]	µg/L	10:21:52
3	Sc RADIAL	139275.7	139275.7	99.4	%	10:21:20
3	Al 396.153Radial†	47754.7	48113.5	[10000]	µg/L	10:21:20
3	Ca 317.933Radial†	148116.2	148413.8	[10000]	µg/L	10:21:20
3	Fe 238.204 Radial†	133471.4	134137.3	[10000]	µg/L	10:21:20
3	K 766.490 Radial†	26397.5	25058.6	[10000]	µg/L	10:21:20
3	Mg 279.077 IEC†	22321.0	22279.5	[10000]	µg/L	10:21:20
3	Na 589.592 Radial†	64773.3	64200.9	[10000]	µg/L	10:21:20
3	Sr 421.552†	417779.7	420435.7	[1000]	µg/L	10:21:18
3	Sc 361.383	1807535.5	1807535.5	100.19	%	10:22:15
3	Y 371.029	1042236.8	1042236.8	98.576	%	10:22:15
3	Ag 328.068†	249483.7	244451.6	[1000]	µg/L	10:22:17
3	As 188.979†	2931.8	2944.9	[1000]	µg/L	10:22:37
3	B 249.677†	68615.7	64422.1	[1000]	µg/L	10:22:17
3	Ba 233.527†	224580.6	224304.8	[1000]	µg/L	10:22:17
3	Be 313.107†	3453157.0	3447786.3	[1000]	µg/L	10:22:15
3	Cd 226.502†	147846.5	147673.2	[1000]	µg/L	10:22:17
3	Co 228.616†	75097.4	75167.1	[1000]	µg/L	10:22:17
3	Cr 267.716†	115767.2	115317.3	[1000]	µg/L	10:22:17
3	Cu 324.752†	242135.7	238646.5	[1000]	µg/L	10:22:17
3	Mn 257.610†	754003.5	752407.7	[1000]	µg/L	10:22:15
3	Mo 202.031†	30459.8	30441.4	[1000]	µg/L	10:22:37
3	Ni 231.604†	79738.5	79685.1	[1000]	µg/L	10:22:17
3	P 214.914†	21516.4	21501.8	[5000]	µg/L	10:22:37
3	Pb 220.353†	16270.1	16136.2	[1000]	µg/L	10:22:37
3	S 181.975 Axial†	2455.6	2362.1	[2000]	µg/L	10:22:37
3	Sb 206.836†	7815.0	7710.7	[1000]	µg/L	10:22:37
3	Se 196.026†	2541.3	2530.4	[1000]	µg/L	10:22:37
3	SiO2†	102897.8	100966.2	[10695]	µg/L	10:22:17
3	Si 251.611†	318548.9	317185.7	[5000]	µg/L	10:22:17
3	Sn 189.927†	14399.1	14370.3	[1000]	µg/L	10:22:37
3	Ti 334.940†	976267.5	973617.4	[1000]	µg/L	10:22:15
3	Tl 190.801†	7181.7	7282.5	[1000]	µg/L	10:22:37
3	U 409.014†	15907.0	16040.6	[1000]	µg/L	10:22:17
3	V 292.402†	193637.0	192851.4	[1000]	µg/L	10:22:17
3	Zn 213.857†	167762.6	166945.7	[1000]	µg/L	10:22:17

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1794376.9	11399.19	0.64%	99.458	%
Sc RADIAL	138461.6	845.59	0.61%	98.8	%
Y 371.029	1034636.5	6586.69	0.64%	97.857	%
Ag 328.068†	244386.6	858.36	0.35%	[1000]	µg/L
Al 396.153Radial†	48233.0	123.22	0.26%	[10000]	µg/L
As 188.979†	2950.3	13.27	0.45%	[1000]	µg/L
B 249.677†	64280.9	219.57	0.34%	[1000]	µg/L
Ba 233.527†	224380.9	879.34	0.39%	[1000]	µg/L
Be 313.107†	3447376.3	3563.34	0.10%	[1000]	µg/L
Ca 317.933Radial†	148482.9	198.99	0.13%	[10000]	µg/L
Cd 226.502†	147510.2	824.46	0.56%	[1000]	µg/L
Co 228.616†	75261.9	475.26	0.63%	[1000]	µg/L
Cr 267.716†	115325.3	449.55	0.39%	[1000]	µg/L
Cu 324.752†	238814.2	1062.92	0.45%	[1000]	µg/L
Fe 238.204 Radial†	134301.6	146.99	0.11%	[10000]	µg/L
K 766.490 Radial†	25183.4	121.63	0.48%	[10000]	µg/L
Mg 279.077 IEC†	22215.9	56.02	0.25%	[10000]	µg/L
Mn 257.610†	751907.8	661.81	0.09%	[1000]	µg/L
Mo 202.031†	30490.9	102.54	0.34%	[1000]	µg/L
Na 589.592 Radial†	64232.0	53.14	0.08%	[10000]	µg/L

Ni 231.604†	79653.6	327.78	0.41%	[1000]	µg/L
P 214.914†	21538.9	85.80	0.40%	[5000]	µg/L
Pb 220.353†	16178.7	65.80	0.41%	[1000]	µg/L
S 181.975 Axial†	2372.5	11.31	0.48%	[2000]	µg/L
Sb 206.836†	7744.1	41.45	0.54%	[1000]	µg/L
Se 196.026†	2533.4	17.42	0.69%	[1000]	µg/L
SiO2†	101045.6	458.71	0.45%	[10695]	µg/L
Si 251.611†	317195.9	1371.33	0.43%	[5000]	µg/L
Sn 189.927†	14380.0	67.17	0.47%	[1000]	µg/L
Sr 421.552†	424360.7	3419.43	0.81%	[1000]	µg/L
Ti 334.940†	973111.1	540.12	0.06%	[1000]	µg/L
Tl 190.801†	7299.7	23.64	0.32%	[1000]	µg/L
U 409.014†	16111.0	131.96	0.82%	[1000]	µg/L
V 292.402†	192823.0	631.90	0.33%	[1000]	µg/L
Zn 213.857†	166919.7	633.98	0.38%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 4/5/2010 10:22:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	137102.1	137102.1	97.9	%	10:23:14
1	Al 396.153Radial†	232459.5	237609.2	[50000]	µg/L	10:23:14
1	Ca 317.933Radial†	719831.0	734962.7	[50000]	µg/L	10:23:14
1	Fe 238.204 Radial†	262262.3	267866.3	[20000]	µg/L	10:23:14
1	Mg 279.077 IEC†	106118.0	108260.5	[50000]	µg/L	10:23:14
1	Na 589.592 Radial†	127559.4	129389.6	[20000]	µg/L	10:23:14
1	Sc 361.383	1750599.2	1750599.2	97.032	%	10:23:22
1	Y 371.029	1010808.0	1010808.0	95.603	%	10:23:22
2	Sc RADIAL	136704.4	136704.4	97.6	%	10:23:16
2	Al 396.153Radial†	231023.6	236828.7	[50000]	µg/L	10:23:16
2	Ca 317.933Radial†	713826.0	730948.6	[50000]	µg/L	10:23:16
2	Fe 238.204 Radial†	260455.2	266793.9	[20000]	µg/L	10:23:16
2	Mg 279.077 IEC†	105162.9	107597.2	[50000]	µg/L	10:23:16
2	Na 589.592 Radial†	126553.4	128737.8	[20000]	µg/L	10:23:16
2	Sc 361.383	1767118.9	1767118.9	97.947	%	10:23:25
2	Y 371.029	1019622.9	1019622.9	96.437	%	10:23:25
3	Sc RADIAL	137409.9	137409.9	98.1	%	10:23:18
3	Al 396.153Radial†	232827.3	237451.9	[50000]	µg/L	10:23:18
3	Ca 317.933Radial†	721449.1	734964.4	[50000]	µg/L	10:23:18
3	Fe 238.204 Radial†	263160.9	268182.0	[20000]	µg/L	10:23:18
3	Mg 279.077 IEC†	106621.9	108531.3	[50000]	µg/L	10:23:18
3	Na 589.592 Radial†	127827.4	129370.8	[20000]	µg/L	10:23:18
3	Sc 361.383	1753846.2	1753846.2	97.212	%	10:23:28
3	Y 371.029	1011915.1	1011915.1	95.708	%	10:23:28

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1757188.1	8752.21	0.50%	97.397	%
Sc RADIAL	137072.1	353.73	0.26%	97.8	%
Y 371.029	1014115.3	4801.69	0.47%	95.916	%
Al 396.153Radial†	237296.6	412.77	0.17%	[50000]	µg/L
Ca 317.933Radial†	733625.3	2318.04	0.32%	[50000]	µg/L
Fe 238.204 Radial†	267614.1	727.59	0.27%	[20000]	µg/L
Mg 279.077 IEC†	108129.7	480.63	0.44%	[50000]	µg/L
Na 589.592 Radial†	129166.1	371.00	0.29%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	244.3	0.00000	0.999997	
Al 396.153Radial	3	Lin Thru 0	0.0	4.750	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	2.957	0.00000	0.999991	
B 249.677	3	Lin Thru 0	0.0	64.30	0.00000	1.000000	
Ba 233.527	3	Lin Thru 0	0.0	225.0	0.00000	0.999985	
Be 313.107	3	Lin Thru 0	0.0	3452	0.00000	0.999996	
Ca 317.933Radial	3	Lin Thru 0	0.0	14.68	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	148.0	0.00000	0.999981	
Co 228.616	3	Lin Thru 0	0.0	75.60	0.00000	0.999960	
Cr 267.716	3	Lin Thru 0	0.0	115.6	0.00000	0.999989	
Cu 324.752	3	Lin Thru 0	0.0	239.1	0.00000	0.999997	
Fe 238.204 Radia	2	Lin Thru 0	0.0	13.39	0.00000	0.999999	
K 766.490 Radial	3	Lin Thru 0	0.0	2.524	0.00000	0.999986	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.166	0.00000	0.999978	
Mn 257.610	3	Lin Thru 0	0.0	753.8	0.00000	0.999983	
Mo 202.031	3	Lin Thru 0	0.0	30.58	0.00000	0.999985	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.451	0.00000	0.999998	

Ni 231.604	3	Lin Thru 0	0.0	79.93	0.00000	0.999974
P 214.914	3	Lin Thru 0	0.0	4.323	0.00000	0.999976
Pb 220.353	3	Lin Thru 0	0.0	16.25	0.00000	0.999959
S 181.975 Axial	3	Lin Thru 0	0.0	1.189	0.00000	0.999992
Sb 206.836	3	Lin Thru 0	0.0	7.755	0.00000	0.999995
Se 196.026	3	Lin Thru 0	0.0	2.538	0.00000	0.999987
SiO2	3	Lin Thru 0	0.0	9.443	0.00000	0.999998
Si 251.611	3	Lin Thru 0	0.0	63.42	0.00000	1.000000
Sn 189.927	3	Lin Thru 0	0.0	14.42	0.00000	0.999987
Sr 421.552	3	Lin Thru 0	0.0	424.0	0.00000	0.999993
Ti 334.940	3	Lin Thru 0	0.0	973.6	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	7.323	0.00000	0.999979
U 409.014	3	Lin Thru 0	0.0	15.85	0.00000	0.999462
V 292.402	3	Lin Thru 0	0.0	192.9	0.00000	0.999999
Zn 213.857	3	Lin Thru 0	0.0	167.4	0.00000	0.999981

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 4/5/2010 10:23:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140523.3	140523.3	100	%			10:24:07
1	Al 396.153Radial†	24438.5	24442.2	5121.2	µg/L	5121.2	ppb	10:24:07
1	Ca 317.933Radial†	74783.5	73983.1	5038.9	µg/L	5038.9	ppb	10:24:07
1	Fe 238.204 Radial†	68030.6	67704.9	5056.2	µg/L	5056.2	ppb	10:24:07
1	K 766.490 Radial†	8010.1	6491.7	2569.4	µg/L	2569.4	ppb	10:24:07
1	Mg 279.077 IEC†	11573.0	11365.1	5256.4	µg/L	5256.4	ppb	10:24:07
1	Na 589.592 Radial†	17343.2	16337.6	2530.2	µg/L	2530.2	ppb	10:24:07
1	Sr 421.552†	225106.1	224621.2	529.72	µg/L	529.72	ppb	10:24:05
1	Sc 361.383	1811067.9	1811067.9	100.38	%			10:24:20
1	Y 371.029	1053070.2	1053070.2	99.600	%			10:24:20
1	Ag 328.068†	66564.0	61744.7	259.05	µg/L	259.05	ppb	10:24:20
1	As 188.979†	1394.2	1407.4	483.32	µg/L	483.32	ppb	10:24:40
1	B 249.677†	37900.4	33690.5	522.17	µg/L	522.17	ppb	10:24:20
1	Ba 233.527†	115320.6	115024.8	511.69	µg/L	511.69	ppb	10:24:20
1	Be 313.107†	892073.7	889759.3	257.88	µg/L	257.88	ppb	10:24:20
1	Cd 226.502†	74846.1	74663.7	504.32	µg/L	504.32	ppb	10:24:20
1	Co 228.616†	38714.5	38776.9	513.26	µg/L	513.26	ppb	10:24:20
1	Cr 267.716†	57458.5	57005.9	493.05	µg/L	493.05	ppb	10:24:20
1	Cu 324.752†	125966.4	122449.3	513.72	µg/L	513.72	ppb	10:24:20
1	Mn 257.610†	386772.5	385111.0	510.65	µg/L	510.65	ppb	10:24:20
1	Mo 202.031†	16355.4	16331.5	534.57	µg/L	534.57	ppb	10:24:40
1	Ni 231.604†	39957.0	39900.4	499.20	µg/L	499.20	ppb	10:24:20
1	P 214.914†	10952.7	10936.6	2521.1	µg/L	2521.1	ppb	10:24:40
1	Pb 220.353†	8370.6	8235.2	508.44	µg/L	508.44	ppb	10:24:40
1	S 181.975 Axial†	3038.8	2938.3	2476.4	µg/L	2476.4	ppb	10:24:40
1	Sb 206.836†	3984.8	3879.9	502.09	µg/L	502.09	ppb	10:24:40
1	Se 196.026†	6435.0	6404.3	2530	µg/L	2530	ppb	10:24:40
1	SiO2†	100095.5	97974.2	10352	µg/L	10352	ppb	10:24:20
1	Si 251.611†	309334.8	307386.6	4836.5	µg/L	4836.5	ppb	10:24:20
1	Sn 189.927†	7699.8	7668.5	533.57	µg/L	533.57	ppb	10:24:40
1	Ti 334.940†	481280.6	478620.0	490.93	µg/L	490.93	ppb	10:24:20
1	Tl 190.801†	3769.5	3869.4	535.81	µg/L	535.81	ppb	10:24:40
1	U 409.014†	7018.0	7154.6	482.25	µg/L	482.25	ppb	10:24:20
1	V 292.402†	97850.1	97053.2	509.98	µg/L	509.98	ppb	10:24:20
1	Zn 213.857†	86050.7	85219.1	504.95	µg/L	504.95	ppb	10:24:20
2	Sc RADIAL	141521.6	141521.6	101	%			10:24:11
2	Al 396.153Radial†	24648.2	24477.9	5128.8	µg/L	5128.8	ppb	10:24:11
2	Ca 317.933Radial†	75579.4	74245.0	5056.8	µg/L	5056.8	ppb	10:24:11
2	Fe 238.204 Radial†	68747.0	67935.7	5073.4	µg/L	5073.4	ppb	10:24:11
2	K 766.490 Radial†	8086.3	6510.9	2577.0	µg/L	2577.0	ppb	10:24:11
2	Mg 279.077 IEC†	11660.2	11370.0	5258.6	µg/L	5258.6	ppb	10:24:11
2	Na 589.592 Radial†	17495.8	16366.7	2534.7	µg/L	2534.7	ppb	10:24:11
2	Sr 421.552†	225995.0	223918.1	528.06	µg/L	528.06	ppb	10:24:09
2	Sc 361.383	1803387.2	1803387.2	99.958	%			10:24:43
2	Y 371.029	1048161.1	1048161.1	99.136	%			10:24:43
2	Ag 328.068†	66375.0	61838.0	259.41	µg/L	259.41	ppb	10:24:43
2	As 188.979†	1372.6	1391.8	478.02	µg/L	478.02	ppb	10:25:03
2	B 249.677†	37478.9	33429.7	518.10	µg/L	518.10	ppb	10:24:43
2	Ba 233.527†	114759.5	114952.8	511.37	µg/L	511.37	ppb	10:24:43
2	Be 313.107†	886689.4	888157.6	257.41	µg/L	257.41	ppb	10:24:43
2	Cd 226.502†	74557.3	74692.3	504.51	µg/L	504.51	ppb	10:24:43
2	Co 228.616†	38671.9	38898.6	514.87	µg/L	514.87	ppb	10:24:43
2	Cr 267.716†	57014.3	56805.3	491.33	µg/L	491.33	ppb	10:24:43
2	Cu 324.752†	124971.6	121988.6	511.78	µg/L	511.78	ppb	10:24:43
2	Mn 257.610†	384842.3	384821.0	510.26	µg/L	510.26	ppb	10:24:43
2	Mo 202.031†	16218.2	16263.6	532.35	µg/L	532.35	ppb	10:25:03
2	Ni 231.604†	39961.4	40074.3	501.38	µg/L	501.38	ppb	10:24:43
2	P 214.914†	10845.8	10876.1	2507.2	µg/L	2507.2	ppb	10:25:03
2	Pb 220.353†	8298.4	8198.4	506.19	µg/L	506.19	ppb	10:25:03

2	S 181.975 Axial†	2999.7	2912.0	2454.3 µg/L	2454.3 ppb	10:25:03
2	Sb 206.836†	3927.6	3839.5	496.87 µg/L	496.87 ppb	10:25:03
2	Se 196.026†	6386.0	6382.6	2520 µg/L	2520 ppb	10:25:03
2	SiO2†	99482.5	97785.7	10332 µg/L	10332 ppb	10:24:43
2	Si 251.611†	307517.6	306881.1	4828.6 µg/L	4828.6 ppb	10:24:43
2	Sn 189.927†	7645.8	7647.2	532.09 µg/L	532.09 ppb	10:25:03
2	Ti 334.940†	478739.3	478119.5	490.43 µg/L	490.43 ppb	10:24:43
2	Tl 190.801†	3725.8	3841.6	532.00 µg/L	532.00 ppb	10:25:03
2	U 409.014†	6667.8	6834.0	462.00 µg/L	462.00 ppb	10:24:43
2	V 292.402†	97411.1	97029.3	509.81 µg/L	509.81 ppb	10:24:43
2	Zn 213.857†	85869.6	85403.1	506.04 µg/L	506.04 ppb	10:24:43
3	Sc RADIAL	140619.3	140619.3	100 %		10:24:15
3	Al 396.153Radial†	24689.2	24675.4	5170.3 µg/L	5170.3 ppb	10:24:15
3	Ca 317.933Radial†	75209.3	74356.3	5064.3 µg/L	5064.3 ppb	10:24:15
3	Fe 238.204 Radial†	68498.2	68124.5	5087.5 µg/L	5087.5 ppb	10:24:15
3	K 766.490 Radial†	7806.5	6283.5	2486.9 µg/L	2486.9 ppb	10:24:15
3	Mg 279.077 IEC†	11680.4	11464.3	5302.2 µg/L	5302.2 ppb	10:24:15
3	Na 589.592 Radial†	17364.6	16347.1	2531.7 µg/L	2531.7 ppb	10:24:15
3	Sr 421.552†	224592.5	223956.3	528.15 µg/L	528.15 ppb	10:24:13
3	Sc 361.383	1807264.5	1807264.5	100.17 %		10:25:06
3	Y 371.029	1050693.9	1050693.9	99.375 %		10:25:06
3	Ag 328.068†	66243.0	61563.8	258.30 µg/L	258.30 ppb	10:25:06
3	As 188.979†	1388.9	1405.1	482.54 µg/L	482.54 ppb	10:25:26
3	B 249.677†	37737.0	33606.9	520.86 µg/L	520.86 ppb	10:25:06
3	Ba 233.527†	115014.8	114961.3	511.41 µg/L	511.41 ppb	10:25:06
3	Be 313.107†	890592.0	890150.3	257.99 µg/L	257.99 ppb	10:25:06
3	Cd 226.502†	74469.1	74444.2	502.83 µg/L	502.83 ppb	10:25:06
3	Co 228.616†	38759.6	38903.2	514.93 µg/L	514.93 ppb	10:25:06
3	Cr 267.716†	57275.1	56943.2	492.52 µg/L	492.52 ppb	10:25:06
3	Cu 324.752†	125282.2	122030.3	511.96 µg/L	511.96 ppb	10:25:06
3	Mn 257.610†	385605.2	384756.6	510.17 µg/L	510.17 ppb	10:25:06
3	Mo 202.031†	16300.9	16311.4	533.91 µg/L	533.91 ppb	10:25:26
3	Ni 231.604†	39880.4	39907.6	499.29 µg/L	499.29 ppb	10:25:06
3	P 214.914†	10929.8	10936.7	2521.2 µg/L	2521.2 ppb	10:25:26
3	Pb 220.353†	8313.7	8195.9	506.04 µg/L	506.04 ppb	10:25:26
3	S 181.975 Axial†	3024.1	2930.0	2469.4 µg/L	2469.4 ppb	10:25:26
3	Sb 206.836†	3985.2	3888.6	503.21 µg/L	503.21 ppb	10:25:26
3	Se 196.026†	6418.8	6401.6	2520 µg/L	2520 ppb	10:25:26
3	SiO2†	99707.6	97796.8	10334 µg/L	10334 ppb	10:25:06
3	Si 251.611†	308174.3	306876.6	4828.4 µg/L	4828.4 ppb	10:25:06
3	Sn 189.927†	7722.0	7706.8	536.23 µg/L	536.23 ppb	10:25:26
3	Ti 334.940†	480594.4	478943.9	491.27 µg/L	491.27 ppb	10:25:06
3	Tl 190.801†	3769.9	3877.6	536.93 µg/L	536.93 ppb	10:25:26
3	U 409.014†	6753.8	6905.5	466.53 µg/L	466.53 ppb	10:25:06
3	V 292.402†	97691.0	97099.6	510.20 µg/L	510.20 ppb	10:25:06
3	Zn 213.857†	85980.5	85329.5	505.61 µg/L	505.61 ppb	10:25:06

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807239.8	100.17	%	0.213				0.21%
Sc RADIAL	140888.1	101	%	0.4				0.39%
Y 371.029	1050641.7	99.371	%	0.2322				0.23%
Ag 328.068†	61715.5	258.92	µg/L	0.568	258.92	ppb	0.568	0.22%
QC value within limits for Ag 328.068 Recovery = 103.57%								
Al 396.153Radial†	24531.8	5140.1	µg/L	26.43	5140.1	ppb	26.43	0.51%
QC value within limits for Al 396.153Radial Recovery = 102.80%								
As 188.979†	1401.4	481.30	µg/L	2.864	481.30	ppb	2.864	0.60%
QC value within limits for As 188.979 Recovery = 96.26%								
B 249.677†	33575.7	520.38	µg/L	2.073	520.38	ppb	2.073	0.40%
QC value within limits for B 249.677 Recovery = 104.08%								
Ba 233.527†	114979.6	511.49	µg/L	0.175	511.49	ppb	0.175	0.03%
QC value within limits for Ba 233.527 Recovery = 102.30%								
Be 313.107†	889355.7	257.76	µg/L	0.308	257.76	ppb	0.308	0.12%
QC value within limits for Be 313.107 Recovery = 103.10%								
Ca 317.933Radial†	74194.8	5053.3	µg/L	13.05	5053.3	ppb	13.05	0.26%
QC value within limits for Ca 317.933Radial Recovery = 101.07%								
Cd 226.502†	74600.1	503.88	µg/L	0.919	503.88	ppb	0.919	0.18%
QC value within limits for Cd 226.502 Recovery = 100.78%								
Co 228.616†	38859.6	514.36	µg/L	0.946	514.36	ppb	0.946	0.18%

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   QC value within limits for Co 228.616  Recovery = 102.87%
Cr 267.716†            56918.2      492.30 µg/L         0.880      492.30 ppb          0.880   0.18%
   QC value within limits for Cr 267.716  Recovery = 98.46%
Cu 324.752†           122156.1      512.49 µg/L         1.072      512.49 ppb          1.072   0.21%
   QC value within limits for Cu 324.752  Recovery = 102.50%
Fe 238.204 Radial†     67921.7      5072.3 µg/L         15.69      5072.3 ppb          15.69   0.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.45%
K 766.490 Radial†       6428.7      2544.4 µg/L         49.99      2544.4 ppb          49.99   1.96%
   QC value within limits for K 766.490 Radial  Recovery = 101.78%
Mg 279.077 IEC†        11399.8      5272.4 µg/L         25.80      5272.4 ppb          25.80   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.45%
Mn 257.610†           384896.2      510.36 µg/L         0.251      510.36 ppb          0.251   0.05%
   QC value within limits for Mn 257.610  Recovery = 102.07%
Mo 202.031†            16302.2      533.61 µg/L         1.140      533.61 ppb          1.140   0.21%
   QC value within limits for Mo 202.031  Recovery = 106.72%
Na 589.592 Radial†     16350.4      2532.2 µg/L          2.29      2532.2 ppb           2.29   0.09%
   QC value within limits for Na 589.592 Radial  Recovery = 101.29%
Ni 231.604†            39960.8      499.96 µg/L         1.231      499.96 ppb          1.231   0.25%
   QC value within limits for Ni 231.604  Recovery = 99.99%
P 214.914†             10916.5      2516.5 µg/L          8.09      2516.5 ppb           8.09   0.32%
   QC value within limits for P 214.914  Recovery = 100.66%
Pb 220.353†             8209.8      506.89 µg/L         1.346      506.89 ppb          1.346   0.27%
   QC value within limits for Pb 220.353  Recovery = 101.38%
S 181.975 Axial†        2926.8      2466.7 µg/L         11.31      2466.7 ppb          11.31   0.46%
   QC value within limits for S 181.975 Axial  Recovery = 98.67%
Sb 206.836†             3869.3      500.72 µg/L         3.381      500.72 ppb          3.381   0.68%
   QC value within limits for Sb 206.836  Recovery = 100.14%
Se 196.026†             6396.1        2520 µg/L           4.7        2520 ppb            4.7   0.19%
   QC value within limits for Se 196.026  Recovery = 100.88%
SiO2†                  97852.2       10339 µg/L          11.2       10339 ppb           11.2   0.11%
   QC value within limits for SiO2  Recovery = 96.68%
Si 251.611†           307048.1      4831.2 µg/L          4.61      4831.2 ppb           4.61   0.10%
   QC value within limits for Si 251.611  Recovery = 96.62%
Sn 189.927†             7674.1      533.96 µg/L         2.097      533.96 ppb          2.097   0.39%
   QC value within limits for Sn 189.927  Recovery = 106.79%
Sr 421.552†           224165.2      528.65 µg/L         0.933      528.65 ppb          0.933   0.18%
   QC value within limits for Sr 421.552  Recovery = 105.73%
Ti 334.940†           478561.1      490.88 µg/L         0.423      490.88 ppb          0.423   0.09%
   QC value within limits for Ti 334.940  Recovery = 98.18%
Tl 190.801†             3862.9      534.91 µg/L         2.585      534.91 ppb          2.585   0.48%
   QC value within limits for Tl 190.801  Recovery = 106.98%
U 409.014†              6964.7      470.26 µg/L        10.624      470.26 ppb         10.624   2.26%
   QC value within limits for U 409.014  Recovery = 94.05%
V 292.402†             97060.7      510.00 µg/L         0.194      510.00 ppb          0.194   0.04%
   QC value within limits for V 292.402  Recovery = 102.00%
Zn 213.857†            85317.2      505.54 µg/L         0.546      505.54 ppb          0.546   0.11%
   QC value within limits for Zn 213.857  Recovery = 101.11%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 4/5/2010 10:25:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139162.3	139162.3	99.3	%			10:26:03
1	Al 396.153Radial†	-53.9	24.2	5.0642	µg/L	5.0642	ppb	10:26:23
1	Ca 317.933Radial†	571.7	4.0	0.2745	µg/L	0.2745	ppb	10:26:23
1	Fe 238.204 Radial†	117.8	1.3	0.0992	µg/L	0.0992	ppb	10:26:23
1	K 766.490 Radial†	1466.1	-17.9	-7.0792	µg/L	-7.0792	ppb	10:26:03
1	Mg 279.077 IEC†	183.5	12.3	5.6777	µg/L	5.6777	ppb	10:26:23
1	Na 589.592 Radial†	1119.8	174.8	27.100	µg/L	27.100	ppb	10:26:03
1	Sr 421.552†	-218.0	-14.9	-0.0352	µg/L	-0.0352	ppb	10:26:03
1	Sc 361.383	1806325.2	1806325.2	100.12	%			10:27:25
1	Y 371.029	1059354.7	1059354.7	100.19	%			10:27:25
1	Ag 328.068†	4398.9	-171.5	-0.7202	µg/L	-0.7202	ppb	10:27:27
1	As 188.979†	-12.8	5.7	1.9434	µg/L	1.9434	ppb	10:27:47
1	B 249.677†	4126.0	55.9	0.8673	µg/L	0.8673	ppb	10:27:27
1	Ba 233.527†	-124.3	20.4	0.0910	µg/L	0.0910	ppb	10:27:47
1	Be 313.107†	-698.4	394.1	0.1093	µg/L	0.1093	ppb	10:27:27
1	Cd 226.502†	-64.2	39.2	0.2652	µg/L	0.2652	ppb	10:27:47
1	Co 228.616†	-177.9	32.6	0.4308	µg/L	0.4308	ppb	10:27:47
1	Cr 267.716†	212.7	-20.7	-0.1666	µg/L	-0.1666	ppb	10:27:47
1	Cu 324.752†	2961.2	-78.4	-0.3410	µg/L	-0.3410	ppb	10:27:27
1	Mn 257.610†	244.5	59.5	0.0787	µg/L	0.0787	ppb	10:27:47
1	Mo 202.031†	-12.2	26.4	0.8620	µg/L	0.8620	ppb	10:27:47
1	Ni 231.604†	-79.6	16.4	0.2058	µg/L	0.2058	ppb	10:27:47
1	P 214.914†	-21.4	4.3	0.9939	µg/L	0.9939	ppb	10:27:47
1	Pb 220.353†	93.3	-10.3	-0.6182	µg/L	-0.6182	ppb	10:27:47
1	S 181.975 Axial†	95.5	6.5	5.4827	µg/L	5.4827	ppb	10:27:47
1	Sb 206.836†	70.6	-19.2	-2.4625	µg/L	-2.4625	ppb	10:27:47
1	Se 196.026†	27.2	21.0	8.26	µg/L	8.26	ppb	10:27:47
1	SiO2†	1772.8	31.6	3.3130	µg/L	3.3130	ppb	10:27:47
1	Si 251.611†	695.9	-72.0	-1.1503	µg/L	-1.1503	ppb	10:27:27
1	Sn 189.927†	9.8	7.9	0.5516	µg/L	0.5516	ppb	10:27:47
1	Ti 334.940†	991.0	166.8	0.1776	µg/L	0.1776	ppb	10:27:27
1	Tl 190.801†	-103.3	11.1	1.5149	µg/L	1.5149	ppb	10:27:47
1	U 409.014†	-420.2	-256.4	-16.169	µg/L	-16.169	ppb	10:27:27
1	V 292.402†	453.0	29.2	0.1483	µg/L	0.1483	ppb	10:27:27
1	Zn 213.857†	541.6	38.0	0.2259	µg/L	0.2259	ppb	10:27:47
2	Sc RADIAL	142818.3	142818.3	102	%			10:26:25
2	Al 396.153Radial†	-102.5	-22.0	-4.6648	µg/L	-4.6648	ppb	10:26:45
2	Ca 317.933Radial†	573.3	-9.1	-0.6188	µg/L	-0.6188	ppb	10:26:45
2	Fe 238.204 Radial†	110.9	-8.5	-0.6347	µg/L	-0.6347	ppb	10:26:45
2	K 766.490 Radial†	1687.2	161.2	63.862	µg/L	63.862	ppb	10:26:25
2	Mg 279.077 IEC†	188.6	12.6	5.8246	µg/L	5.8246	ppb	10:26:45
2	Na 589.592 Radial†	1002.2	30.6	4.6847	µg/L	4.6847	ppb	10:26:25
2	Sr 421.552†	-146.6	60.6	0.1430	µg/L	0.1430	ppb	10:26:25
2	Sc 361.383	1814818.2	1814818.2	100.59	%			10:27:49
2	Y 371.029	1063959.1	1063959.1	100.63	%			10:27:49
2	Ag 328.068†	4390.0	-201.0	-0.8229	µg/L	-0.8229	ppb	10:27:52
2	As 188.979†	-4.3	14.3	4.8359	µg/L	4.8359	ppb	10:28:12
2	B 249.677†	4308.2	217.8	3.3850	µg/L	3.3850	ppb	10:27:52
2	Ba 233.527†	-108.5	36.7	0.1631	µg/L	0.1631	ppb	10:28:12
2	Be 313.107†	-1008.5	89.1	0.0263	µg/L	0.0263	ppb	10:27:52
2	Cd 226.502†	-90.1	13.8	0.0933	µg/L	0.0933	ppb	10:28:12
2	Co 228.616†	-172.6	38.7	0.5117	µg/L	0.5117	ppb	10:28:12
2	Cr 267.716†	241.1	6.5	0.0544	µg/L	0.0544	ppb	10:28:12
2	Cu 324.752†	3110.8	56.4	0.2376	µg/L	0.2376	ppb	10:27:52
2	Mn 257.610†	185.1	-0.7	-0.0012	µg/L	-0.0012	ppb	10:28:12
2	Mo 202.031†	-16.1	22.5	0.7373	µg/L	0.7373	ppb	10:28:12
2	Ni 231.604†	-83.2	13.2	0.1649	µg/L	0.1649	ppb	10:28:12
2	P 214.914†	-11.2	14.6	3.3643	µg/L	3.3643	ppb	10:28:12
2	Pb 220.353†	102.7	-1.3	-0.0807	µg/L	-0.0807	ppb	10:28:12

2	S 181.975 Axial†	103.8	14.2	11.975 µg/L	11.975 ppb	10:28:12
2	Sb 206.836†	96.2	5.9	0.7677 µg/L	0.7677 ppb	10:28:12
2	Se 196.026†	20.8	14.5	5.71 µg/L	5.71 ppb	10:28:12
2	SiO2†	1717.4	-31.8	-3.3984 µg/L	-3.3984 ppb	10:28:12
2	Si 251.611†	740.6	-30.8	-0.4998 µg/L	-0.4998 ppb	10:27:52
2	Sn 189.927†	13.1	11.2	0.7737 µg/L	0.7737 ppb	10:28:12
2	Ti 334.940†	875.6	47.5	0.0476 µg/L	0.0476 ppb	10:27:52
2	Tl 190.801†	-113.0	1.9	0.2561 µg/L	0.2561 ppb	10:28:12
2	U 409.014†	-138.0	26.2	1.6406 µg/L	1.6406 ppb	10:27:52
2	V 292.402†	389.3	-36.2	-0.1786 µg/L	-0.1786 ppb	10:27:52
2	Zn 213.857†	534.3	28.2	0.1669 µg/L	0.1669 ppb	10:28:12
3	Sc RADIAL	140073.3	140073.3	100.0 %		10:26:47
3	Al 396.153Radial†	-42.9	35.6	7.4623 µg/L	7.4623 ppb	10:27:07
3	Ca 317.933Radial†	561.5	-9.9	-0.6724 µg/L	-0.6724 ppb	10:27:07
3	Fe 238.204 Radial†	131.4	14.1	1.0507 µg/L	1.0507 ppb	10:27:07
3	K 766.490 Radial†	1577.5	83.9	33.259 µg/L	33.259 ppb	10:26:47
3	Mg 279.077 IEC†	160.6	-11.8	-5.4397 µg/L	-5.4397 ppb	10:27:07
3	Na 589.592 Radial†	1138.5	186.1	28.821 µg/L	28.821 ppb	10:26:47
3	Sr 421.552†	-238.5	-34.1	-0.0803 µg/L	-0.0803 ppb	10:26:47
3	Sc 361.383	1801432.9	1801432.9	99.849 %		10:28:14
3	Y 371.029	1056501.4	1056501.4	99.925 %		10:28:14
3	Ag 328.068†	4278.5	-280.2	-1.1531 µg/L	-1.1531 ppb	10:28:16
3	As 188.979†	-13.5	5.0	1.6981 µg/L	1.6981 ppb	10:28:36
3	B 249.677†	4216.2	157.5	2.4477 µg/L	2.4477 ppb	10:28:16
3	Ba 233.527†	-133.7	10.6	0.0474 µg/L	0.0474 ppb	10:28:36
3	Be 313.107†	-1028.1	62.1	0.0170 µg/L	0.0170 ppb	10:28:16
3	Cd 226.502†	-90.6	12.6	0.0850 µg/L	0.0850 ppb	10:28:36
3	Co 228.616†	-185.7	24.3	0.3210 µg/L	0.3210 ppb	10:28:36
3	Cr 267.716†	246.4	13.6	0.1197 µg/L	0.1197 ppb	10:28:36
3	Cu 324.752†	2983.7	-48.0	-0.2030 µg/L	-0.2030 ppb	10:28:16
3	Mn 257.610†	209.1	24.6	0.0329 µg/L	0.0329 ppb	10:28:36
3	Mo 202.031†	-14.8	23.7	0.7753 µg/L	0.7753 ppb	10:28:36
3	Ni 231.604†	-104.2	-8.4	-0.1054 µg/L	-0.1054 ppb	10:28:36
3	P 214.914†	-1.5	24.2	5.6067 µg/L	5.6067 ppb	10:28:36
3	Pb 220.353†	90.7	-12.6	-0.7708 µg/L	-0.7708 ppb	10:28:36
3	S 181.975 Axial†	101.2	12.4	10.478 µg/L	10.478 ppb	10:28:36
3	Sb 206.836†	86.9	-2.7	-0.3424 µg/L	-0.3424 ppb	10:28:36
3	Se 196.026†	17.0	10.8	4.26 µg/L	4.26 ppb	10:28:36
3	SiO2†	1768.5	32.1	3.3679 µg/L	3.3679 ppb	10:28:36
3	Si 251.611†	1260.7	495.6	7.8002 µg/L	7.8002 ppb	10:28:16
3	Sn 189.927†	11.5	9.6	0.6680 µg/L	0.6680 ppb	10:28:36
3	Ti 334.940†	917.1	95.5	0.0997 µg/L	0.0997 ppb	10:28:16
3	Tl 190.801†	-97.8	16.4	2.2310 µg/L	2.2310 ppb	10:28:36
3	U 409.014†	-212.8	-49.8	-3.1540 µg/L	-3.1540 ppb	10:28:16
3	V 292.402†	387.5	-35.2	-0.1760 µg/L	-0.1760 ppb	10:28:16
3	Zn 213.857†	530.2	28.0	0.1681 µg/L	0.1681 ppb	10:28:36

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807525.4	100.19	%	0.375				0.37%
Sc RADIAL	140684.7	100	%	1.4				1.35%
Y 371.029	1059938.4	100.25	%	0.356				0.36%
Ag 328.068†	-217.6	-0.8988	µg/L	0.22619	-0.8988	ppb	0.22619	25.17%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.6	2.6206	µg/L	6.42222	2.6206	ppb	6.42222	245.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.3	2.8258	µg/L	1.74509	2.8258	ppb	1.74509	61.76%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	143.7	2.2333	µg/L	1.27245	2.2333	ppb	1.27245	56.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	22.6	0.1005	µg/L	0.05843	0.1005	ppb	0.05843	58.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	181.8	0.0509	µg/L	0.05080	0.0509	ppb	0.05080	99.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-5.0	-0.3389	µg/L	0.53188	-0.3389	ppb	0.53188	156.95%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	21.9	0.1479	µg/L	0.10171	0.1479	ppb	0.10171	68.79%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	31.8	0.4212	µg/L	0.09568	0.4212	ppb	0.09568	22.72%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -0.2      0.0025 µg/L       0.15007      0.0025 ppb        0.15007 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -23.3     -0.1021 µg/L       0.30215     -0.1021 ppb        0.30215 295.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.3      0.1717 µg/L       0.84503      0.1717 ppb        0.84503 492.06%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          75.8      30.014 µg/L       35.5819      30.014 ppb        35.5819 118.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             4.3      2.0209 µg/L       6.46146      2.0209 ppb        6.46146 319.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                27.8      0.0368 µg/L       0.04010      0.0368 ppb        0.04010 108.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                24.2      0.7916 µg/L       0.06391      0.7916 ppb        0.06391   8.07%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        130.5      20.202 µg/L       13.4657      20.202 ppb        13.4657  66.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.1      0.0884 µg/L       0.16910      0.0884 ppb        0.16910 191.25%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 14.4      3.3216 µg/L       2.30669      3.3216 ppb        2.30669  69.44%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -8.1     -0.4899 µg/L       0.36249     -0.4899 ppb        0.36249  73.99%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           11.1      9.3117 µg/L       3.39955      9.3117 ppb        3.39955  36.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -5.4     -0.6791 µg/L       1.64121     -0.6791 ppb        1.64121 241.69%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                15.4        6.08 µg/L         2.027        6.08 ppb          2.027  33.35%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      10.6      1.0942 µg/L       3.89080      1.0942 ppb        3.89080 355.59%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               131.0      2.0500 µg/L       4.99041      2.0500 ppb        4.99041 243.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 9.6      0.6644 µg/L       0.11114      0.6644 ppb        0.11114  16.73%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 3.9      0.0092 µg/L       0.11809      0.0092 ppb        0.11809 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               103.3      0.1083 µg/L       0.06541      0.1083 ppb        0.06541  60.41%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 9.8      1.3340 µg/L       0.99980      1.3340 ppb        0.99980  74.95%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -93.3     -5.8942 µg/L       9.21571     -5.8942 ppb        9.21571 156.35%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -14.1     -0.0688 µg/L       0.18804     -0.0688 ppb        0.18804 273.40%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                31.4      0.1870 µg/L       0.03374      0.1870 ppb        0.03374  18.04%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 4/5/2010 10:28:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141650.4	141650.4	101	%			10:29:14
1	Al 396.153Radial†	1036.5	1103.7	231.88	µg/L	231.88	ppb	10:29:16
1	Ca 317.933Radial†	3603.3	2992.2	203.80	µg/L	203.80	ppb	10:29:16
1	Fe 238.204 Radial†	1560.7	1426.2	106.51	µg/L	106.51	ppb	10:29:16
1	K 766.490 Radial†	1826.1	312.3	123.57	µg/L	123.57	ppb	10:29:14
1	Mg 279.077 IEC†	874.5	692.5	319.90	µg/L	319.90	ppb	10:29:16
1	Na 589.592 Radial†	2732.4	1749.8	271.13	µg/L	271.13	ppb	10:29:16
1	Sr 421.552†	2186.1	2366.5	5.5797	µg/L	5.5797	ppb	10:29:16
1	Sc 361.383	1814341.7	1814341.7	100.56	%			10:29:28
1	Y 371.029	1064064.3	1064064.3	100.64	%			10:29:28
1	Ag 328.068†	5622.7	1026.0	4.3223	µg/L	4.3223	ppb	10:29:30
1	As 188.979†	87.6	105.7	35.836	µg/L	35.836	ppb	10:29:50
1	B 249.677†	7343.1	3236.7	50.319	µg/L	50.319	ppb	10:29:30
1	Ba 233.527†	999.3	1138.3	5.0652	µg/L	5.0652	ppb	10:29:50
1	Be 313.107†	16066.6	17068.1	4.9590	µg/L	4.9590	ppb	10:29:30
1	Cd 226.502†	646.2	745.9	5.0326	µg/L	5.0326	ppb	10:29:50
1	Co 228.616†	185.3	394.5	5.2190	µg/L	5.2190	ppb	10:29:50
1	Cr 267.716†	839.1	601.2	5.1628	µg/L	5.1628	ppb	10:29:50
1	Cu 324.752†	5479.5	2412.6	10.159	µg/L	10.159	ppb	10:29:30
1	Mn 257.610†	8022.8	7793.0	10.325	µg/L	10.325	ppb	10:29:30
1	Mo 202.031†	281.7	318.7	10.434	µg/L	10.434	ppb	10:29:50
1	Ni 231.604†	303.7	397.9	4.9784	µg/L	4.9784	ppb	10:29:50
1	P 214.914†	630.3	652.4	150.78	µg/L	150.78	ppb	10:29:50
1	Pb 220.353†	271.2	166.2	10.231	µg/L	10.231	ppb	10:29:50
1	S 181.975 Axial†	205.7	115.7	97.385	µg/L	97.385	ppb	10:29:50
1	Sb 206.836†	154.6	64.1	8.3550	µg/L	8.3550	ppb	10:29:50
1	Se 196.026†	110.2	103.4	40.8	µg/L	40.8	ppb	10:29:50
1	SiO2†	3822.7	2062.2	217.92	µg/L	217.92	ppb	10:29:30
1	Si 251.611†	7510.5	6701.3	105.46	µg/L	105.46	ppb	10:29:30
1	Sn 189.927†	160.1	157.3	10.927	µg/L	10.927	ppb	10:29:50
1	Ti 334.940†	5734.4	4879.2	4.9689	µg/L	4.9689	ppb	10:29:30
1	Tl 190.801†	38.0	152.0	20.859	µg/L	20.859	ppb	10:29:50
1	U 409.014†	615.0	774.9	49.286	µg/L	49.286	ppb	10:29:30
1	V 292.402†	1571.6	1139.6	6.0534	µg/L	6.0534	ppb	10:29:30
1	Zn 213.857†	2274.8	1759.0	10.457	µg/L	10.457	ppb	10:29:50
2	Sc RADIAL	141759.5	141759.5	101	%			10:29:18
2	Al 396.153Radial†	796.2	865.4	181.72	µg/L	181.72	ppb	10:29:20
2	Ca 317.933Radial†	3683.3	3068.5	209.00	µg/L	209.00	ppb	10:29:20
2	Fe 238.204 Radial†	1485.2	1350.5	100.85	µg/L	100.85	ppb	10:29:20
2	K 766.490 Radial†	1933.5	417.0	165.07	µg/L	165.07	ppb	10:29:18
2	Mg 279.077 IEC†	921.2	737.9	340.89	µg/L	340.89	ppb	10:29:20
2	Na 589.592 Radial†	2783.2	1797.9	278.55	µg/L	278.55	ppb	10:29:20
2	Sr 421.552†	2129.2	2308.6	5.4432	µg/L	5.4432	ppb	10:29:20
2	Sc 361.383	1776563.5	1776563.5	98.471	%			10:29:52
2	Y 371.029	1041330.5	1041330.5	98.490	%			10:29:52
2	Ag 328.068†	5648.1	1170.6	4.9166	µg/L	4.9166	ppb	10:29:54
2	As 188.979†	73.8	93.5	31.726	µg/L	31.726	ppb	10:30:14
2	B 249.677†	7226.4	3273.5	50.889	µg/L	50.889	ppb	10:29:54
2	Ba 233.527†	1019.4	1179.8	5.2489	µg/L	5.2489	ppb	10:30:14
2	Be 313.107†	16021.3	17361.8	5.0486	µg/L	5.0486	ppb	10:29:54
2	Cd 226.502†	661.1	774.7	5.2281	µg/L	5.2281	ppb	10:30:14
2	Co 228.616†	198.3	411.7	5.4466	µg/L	5.4466	ppb	10:30:14
2	Cr 267.716†	776.3	555.1	4.7513	µg/L	4.7513	ppb	10:30:14
2	Cu 324.752†	5385.0	2432.5	10.254	µg/L	10.254	ppb	10:29:54
2	Mn 257.610†	8036.2	7976.3	10.567	µg/L	10.567	ppb	10:29:54
2	Mo 202.031†	269.0	311.7	10.207	µg/L	10.207	ppb	10:30:14
2	Ni 231.604†	339.1	440.3	5.5085	µg/L	5.5085	ppb	10:30:14
2	P 214.914†	631.8	667.3	154.21	µg/L	154.21	ppb	10:30:14
2	Pb 220.353†	260.3	160.9	9.8917	µg/L	9.8917	ppb	10:30:14

2	S 181.975 Axial†	213.7	128.1	107.82 µg/L	107.82 ppb	10:30:14
2	Sb 206.836†	134.3	46.7	6.1115 µg/L	6.1115 ppb	10:30:14
2	Se 196.026†	85.8	81.0	32.0 µg/L	32.0 ppb	10:30:14
2	SiO2†	3765.3	2084.6	220.32 µg/L	220.32 ppb	10:29:54
2	Si 251.611†	7495.9	6845.3	107.74 µg/L	107.74 ppb	10:29:54
2	Sn 189.927†	145.1	145.5	10.110 µg/L	10.110 ppb	10:30:14
2	Ti 334.940†	5701.4	4966.9	5.0513 µg/L	5.0513 ppb	10:29:54
2	Tl 190.801†	42.7	157.6	21.607 µg/L	21.607 ppb	10:30:14
2	U 409.014†	837.2	1013.6	64.273 µg/L	64.273 ppb	10:29:54
2	V 292.402†	1281.9	878.6	4.7076 µg/L	4.7076 ppb	10:29:54
2	Zn 213.857†	2244.8	1776.7	10.559 µg/L	10.559 ppb	10:30:14
3	Sc RADIAL	141499.9	141499.9	101 %		10:29:22
3	Al 396.153Radial†	902.8	972.4	204.30 µg/L	204.30 ppb	10:29:24
3	Ca 317.933Radial†	3625.9	3018.4	205.58 µg/L	205.58 ppb	10:29:24
3	Fe 238.204 Radial†	1528.3	1395.8	104.24 µg/L	104.24 ppb	10:29:24
3	K 766.490 Radial†	1924.1	411.1	162.76 µg/L	162.76 ppb	10:29:22
3	Mg 279.077 IEC†	884.8	703.6	325.00 µg/L	325.00 ppb	10:29:24
3	Na 589.592 Radial†	2796.7	1816.3	281.40 µg/L	281.40 ppb	10:29:24
3	Sr 421.552†	2078.5	2262.3	5.3339 µg/L	5.3339 ppb	10:29:24
3	Sc 361.383	1809314.5	1809314.5	100.29 %		10:30:16
3	Y 371.029	1060913.4	1060913.4	100.34 %		10:30:16
3	Ag 328.068†	5830.0	1248.2	5.2210 µg/L	5.2210 ppb	10:30:18
3	As 188.979†	82.3	100.6	34.129 µg/L	34.129 ppb	10:30:38
3	B 249.677†	7300.8	3214.9	49.979 µg/L	49.979 ppb	10:30:18
3	Ba 233.527†	972.1	1113.9	4.9559 µg/L	4.9559 ppb	10:30:38
3	Be 313.107†	16413.7	17458.6	5.0723 µg/L	5.0723 ppb	10:30:18
3	Cd 226.502†	657.5	759.0	5.1213 µg/L	5.1213 ppb	10:30:38
3	Co 228.616†	193.3	403.1	5.3320 µg/L	5.3320 ppb	10:30:38
3	Cr 267.716†	830.2	594.7	5.1050 µg/L	5.1050 ppb	10:30:38
3	Cu 324.752†	5532.4	2480.5	10.443 µg/L	10.443 ppb	10:30:18
3	Mn 257.610†	8096.9	7889.1	10.452 µg/L	10.452 ppb	10:30:18
3	Mo 202.031†	245.6	283.5	9.2820 µg/L	9.2820 ppb	10:30:38
3	Ni 231.604†	321.4	416.4	5.2097 µg/L	5.2097 ppb	10:30:38
3	P 214.914†	632.2	656.1	151.62 µg/L	151.62 ppb	10:30:38
3	Pb 220.353†	240.3	136.1	8.3755 µg/L	8.3755 ppb	10:30:38
3	S 181.975 Axial†	210.4	120.9	101.79 µg/L	101.79 ppb	10:30:38
3	Sb 206.836†	142.1	52.0	6.7786 µg/L	6.7786 ppb	10:30:38
3	Se 196.026†	92.7	86.3	34.1 µg/L	34.1 ppb	10:30:38
3	SiO2†	3995.7	2245.2	237.35 µg/L	237.35 ppb	10:30:18
3	Si 251.611†	7591.6	6803.0	107.09 µg/L	107.09 ppb	10:30:18
3	Sn 189.927†	145.0	142.7	9.9131 µg/L	9.9131 ppb	10:30:38
3	Ti 334.940†	5766.5	4927.0	5.0173 µg/L	5.0173 ppb	10:30:18
3	Tl 190.801†	41.5	155.7	21.346 µg/L	21.346 ppb	10:30:38
3	U 409.014†	624.1	785.7	49.910 µg/L	49.910 ppb	10:30:18
3	V 292.402†	1376.7	949.5	5.0570 µg/L	5.0570 ppb	10:30:18
3	Zn 213.857†	2245.7	1736.3	10.320 µg/L	10.320 ppb	10:30:38

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1800073.2	99.774	%	1.1371				1.14%
Sc RADIAL	141636.6	101	%	0.1				0.09%
Y 371.029	1055436.1	99.824	%	1.1649				1.17%
Ag 328.068†	1148.3	4.8200	µg/L	0.45709	4.8200	ppb	0.45709	9.48%
QC value within limits for Ag 328.068 Recovery = 96.40%								
Al 396.153Radial†	980.5	205.96	µg/L	25.124	205.96	ppb	25.124	12.20%
QC value within limits for Al 396.153Radial Recovery = 102.98%								
As 188.979†	99.9	33.897	µg/L	2.0651	33.897	ppb	2.0651	6.09%
QC value within limits for As 188.979 Recovery = 112.99%								
B 249.677†	3241.7	50.396	µg/L	0.4603	50.396	ppb	0.4603	0.91%
QC value within limits for B 249.677 Recovery = 100.79%								
Ba 233.527†	1144.0	5.0900	µg/L	0.14810	5.0900	ppb	0.14810	2.91%
QC value within limits for Ba 233.527 Recovery = 101.80%								
Be 313.107†	17296.2	5.0266	µg/L	0.05978	5.0266	ppb	0.05978	1.19%
QC value within limits for Be 313.107 Recovery = 100.53%								
Ca 317.933Radial†	3026.4	206.12	µg/L	2.642	206.12	ppb	2.642	1.28%
QC value within limits for Ca 317.933Radial Recovery = 103.06%								
Cd 226.502†	759.9	5.1273	µg/L	0.09792	5.1273	ppb	0.09792	1.91%
QC value within limits for Cd 226.502 Recovery = 102.55%								
Co 228.616†	403.1	5.3325	µg/L	0.11382	5.3325	ppb	0.11382	2.13%

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   QC value within limits for Co 228.616  Recovery = 106.65%
Cr 267.716†              583.7      5.0064 µg/L       0.22276      5.0064 ppb        0.22276   4.45%
   QC value within limits for Cr 267.716  Recovery = 100.13%
Cu 324.752†             2441.9      10.285 µg/L        0.1448      10.285 ppb         0.1448   1.41%
   QC value within limits for Cu 324.752  Recovery = 102.85%
Fe 238.204 Radial†      1390.8      103.87 µg/L         2.845      103.87 ppb          2.845   2.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.87%
K 766.490 Radial†        380.1      150.47 µg/L        23.319      150.47 ppb         23.319  15.50%
   QC value within limits for K 766.490 Radial  Recovery = 100.31%
Mg 279.077 IEC†          711.3      328.59 µg/L        10.947      328.59 ppb         10.947   3.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.53%
Mn 257.610†             7886.1      10.448 µg/L        0.1212      10.448 ppb         0.1212   1.16%
   QC value within limits for Mn 257.610  Recovery = 104.48%
Mo 202.031†              304.6      9.9743 µg/L       0.61026      9.9743 ppb        0.61026   6.12%
   QC value within limits for Mo 202.031  Recovery = 99.74%
Na 589.592 Radial†      1788.0      277.03 µg/L         5.304      277.03 ppb          5.304   1.91%
   QC value within limits for Na 589.592 Radial  Recovery = 92.34%
Ni 231.604†              418.2      5.2322 µg/L       0.26577      5.2322 ppb        0.26577   5.08%
   QC value within limits for Ni 231.604  Recovery = 104.64%
P 214.914†               658.6      152.20 µg/L         1.789      152.20 ppb          1.789   1.18%
   QC value within limits for P 214.914  Recovery = 101.47%
Pb 220.353†              154.4      9.4994 µg/L       0.98805      9.4994 ppb        0.98805  10.40%
   QC value within limits for Pb 220.353  Recovery = 94.99%
S 181.975 Axial†         121.5      102.33 µg/L         5.237      102.33 ppb          5.237   5.12%
   QC value within limits for S 181.975 Axial  Recovery = 102.33%
Sb 206.836†               54.2      7.0817 µg/L       1.15204      7.0817 ppb        1.15204  16.27%
   QC value within limits for Sb 206.836  Recovery = 70.82%
Se 196.026†               90.2        35.6 µg/L          4.62        35.6 ppb           4.62  12.96%
   QC value within limits for Se 196.026  Recovery = 118.81%
SiO2†                   2130.7      225.20 µg/L        10.592      225.20 ppb         10.592   4.70%
   QC value within limits for SiO2  Recovery = 105.73%
Si 251.611†             6783.2      106.76 µg/L         1.174      106.76 ppb          1.174   1.10%
   QC value within limits for Si 251.611  Recovery = 106.76%
Sn 189.927†              148.5      10.317 µg/L        0.5376      10.317 ppb         0.5376   5.21%
   QC value within limits for Sn 189.927  Recovery = 103.17%
Sr 421.552†             2312.5      5.4523 µg/L       0.12318      5.4523 ppb        0.12318   2.26%
   QC value within limits for Sr 421.552  Recovery = 109.05%
Ti 334.940†             4924.4      5.0125 µg/L       0.04145      5.0125 ppb        0.04145   0.83%
   QC value within limits for Ti 334.940  Recovery = 100.25%
Tl 190.801†              155.1      21.271 µg/L        0.3801      21.271 ppb         0.3801   1.79%
   QC value within limits for Tl 190.801  Recovery = 106.35%
U 409.014†               858.1      54.490 µg/L        8.4787      54.490 ppb         8.4787  15.56%
   QC value within limits for U 409.014  Recovery = 108.98%
V 292.402†               989.2      5.2727 µg/L       0.69837      5.2727 ppb        0.69837  13.25%
   QC value within limits for V 292.402  Recovery = 105.45%
Zn 213.857†             1757.4      10.445 µg/L        0.1201      10.445 ppb         0.1201   1.15%
   QC value within limits for Zn 213.857  Recovery = 104.45%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 4/5/2010 10:30:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128118.6	128118.6	91.5	%			10:31:19
1	Al 396.153Radial†	2213795.6	2420782.5	509660	µg/L	509660	ppb	10:31:17
1	Ca 317.933Radial†	6606069.4	7222922.0	491950	µg/L	491950	ppb	10:31:17
1	Fe 238.204 Radial†	2362080.3	2582730.5	192880	µg/L	192880	ppb	10:31:17
1	K 766.490 Radial†	1496.6	142.7	-187.26	µg/L	-187.26	ppb	10:31:19
1	Mg 279.077 IEC†	972171.2	1062860.9	490600	µg/L	490600	ppb	10:31:17
1	Na 589.592 Radial†	1170.1	326.9	50.623	µg/L	50.623	ppb	10:31:19
1	Sr 421.552†	4658.8	5298.7	8.6462	µg/L	8.6462	ppb	10:31:19
1	Sc 361.383	1581772.1	1581772.1	87.674	%			10:31:32
1	Y 371.029	913048.3	913048.3	86.357	%			10:31:32
1	Ag 328.068†	6751.4	3135.4	-0.7645	µg/L	-0.7645	ppb	10:31:32
1	As 188.979†	-94.1	-88.8	13.191	µg/L	13.191	ppb	10:31:52
1	B 249.677†	4066.1	572.6	8.8918	µg/L	8.8918	ppb	10:31:32
1	Ba 233.527†	383.0	581.4	0.1203	µg/L	0.1203	ppb	10:31:52
1	Be 313.107†	-291.7	759.0	0.2135	µg/L	0.2135	ppb	10:31:32
1	Cd 226.502†	2322.1	2751.9	-1.6829	µg/L	-1.6829	ppb	10:31:52
1	Co 228.616†	65.4	284.9	-6.2907	µg/L	-6.2907	ppb	10:31:52
1	Cr 267.716†	227.8	26.6	0.9599	µg/L	0.9599	ppb	10:31:52
1	Cu 324.752†	-5602.2	-9426.0	1.9087	µg/L	1.9087	ppb	10:31:32
1	Mn 257.610†	15226.9	17182.9	2.8255	µg/L	2.8255	ppb	10:31:32
1	Mo 202.031†	-533.4	-569.8	-2.0372	µg/L	-2.0372	ppb	10:31:52
1	Ni 231.604†	109.0	220.2	2.7550	µg/L	2.7550	ppb	10:31:52
1	P 214.914†	152.0	199.0	28.356	µg/L	28.356	ppb	10:31:52
1	Pb 220.353†	-270.6	-412.1	0.0388	µg/L	0.0388	ppb	10:31:52
1	S 181.975 Axial†	175.6	111.3	93.501	µg/L	93.501	ppb	10:31:52
1	Sb 206.836†	130.3	58.9	1.5033	µg/L	1.5033	ppb	10:31:52
1	Se 196.026†	-137.9	-163.4	2.51	µg/L	2.51	ppb	10:31:52
1	SiO2†	1649.9	142.7	15.602	µg/L	15.602	ppb	10:31:52
1	Si 251.611†	499.7	-197.1	-2.8776	µg/L	-2.8776	ppb	10:31:52
1	Sn 189.927†	36.3	39.5	2.8247	µg/L	2.8247	ppb	10:31:52
1	Ti 334.940†	21726.4	23957.9	-2.5303	µg/L	-2.5303	ppb	10:31:32
1	Tl 190.801†	-162.0	-70.5	-9.1790	µg/L	-9.1790	ppb	10:31:52
1	U 409.014†	-433.0	-330.5	-42.174	µg/L	-42.174	ppb	10:31:32
1	V 292.402†	4095.4	4247.9	1.4397	µg/L	1.4397	ppb	10:31:32
1	Zn 213.857†	4191.7	4278.1	8.9566	µg/L	8.9566	ppb	10:31:52
2	Sc RADIAL	127837.7	127837.7	91.3	%			10:31:24
2	Al 396.153Radial†	2210404.0	2422384.5	510000	µg/L	510000	ppb	10:31:22
2	Ca 317.933Radial†	6599761.5	7231881.1	492560	µg/L	492560	ppb	10:31:22
2	Fe 238.204 Radial†	2358861.0	2584877.7	193040	µg/L	193040	ppb	10:31:22
2	K 766.490 Radial†	1627.9	290.2	-129.07	µg/L	-129.07	ppb	10:31:24
2	Mg 279.077 IEC†	971105.4	1064028.7	491140	µg/L	491140	ppb	10:31:22
2	Na 589.592 Radial†	1340.9	516.9	80.019	µg/L	80.019	ppb	10:31:24
2	Sr 421.552†	4691.9	5346.2	8.7534	µg/L	8.7534	ppb	10:31:24
2	Sc 361.383	1601726.0	1601726.0	88.780	%			10:31:55
2	Y 371.029	924331.0	924331.0	87.424	%			10:31:55
2	Ag 328.068†	6732.2	3017.9	-1.2361	µg/L	-1.2361	ppb	10:31:55
2	As 188.979†	-100.4	-94.5	11.292	µg/L	11.292	ppb	10:32:15
2	B 249.677†	4142.1	600.4	9.3234	µg/L	9.3234	ppb	10:31:55
2	Ba 233.527†	415.6	612.7	0.2573	µg/L	0.2573	ppb	10:32:15
2	Be 313.107†	-658.4	350.1	0.1024	µg/L	0.1024	ppb	10:31:55
2	Cd 226.502†	2287.7	2680.2	-2.1849	µg/L	-2.1849	ppb	10:32:15
2	Co 228.616†	80.1	300.6	-6.0911	µg/L	-6.0911	ppb	10:32:15
2	Cr 267.716†	216.7	10.9	0.8039	µg/L	0.8039	ppb	10:32:15
2	Cu 324.752†	-5526.1	-9260.6	2.6582	µg/L	2.6582	ppb	10:31:55
2	Mn 257.610†	15435.0	17201.0	2.8276	µg/L	2.8276	ppb	10:31:55
2	Mo 202.031†	-532.0	-560.7	-1.7223	µg/L	-1.7223	ppb	10:32:15
2	Ni 231.604†	77.9	183.6	2.2975	µg/L	2.2975	ppb	10:32:15
2	P 214.914†	142.5	186.2	25.349	µg/L	25.349	ppb	10:32:15
2	Pb 220.353†	-320.0	-463.9	-3.1465	µg/L	-3.1465	ppb	10:32:15

2	S 181.975 Axial†	177.0	110.4	92.750 µg/L	92.750 ppb	10:32:15
2	Sb 206.836†	126.2	52.5	0.6818 µg/L	0.6818 ppb	10:32:15
2	Se 196.026†	-144.5	-168.9	0.419 µg/L	0.419 ppb	10:32:15
2	SiO2†	1619.4	85.0	9.4740 µg/L	9.4740 ppb	10:32:15
2	Si 251.611†	519.4	-182.0	-2.6482 µg/L	-2.6482 ppb	10:32:15
2	Sn 189.927†	45.3	49.1	3.4897 µg/L	3.4897 ppb	10:32:15
2	Ti 334.940†	22275.7	24268.0	-2.2496 µg/L	-2.2496 ppb	10:31:55
2	Tl 190.801†	-159.0	-64.8	-8.4026 µg/L	-8.4026 ppb	10:32:15
2	U 409.014†	-99.2	51.7	-18.085 µg/L	-18.085 ppb	10:31:55
2	V 292.402†	4098.2	4192.9	1.1561 µg/L	1.1561 ppb	10:31:55
2	Zn 213.857†	4180.5	4205.9	8.5109 µg/L	8.5109 ppb	10:32:15
3	Sc RADIAL	129703.1	129703.1	92.6 %		10:31:28
3	Al 396.153Radial†	2204567.2	2381242.2	501340 µg/L	501340 ppb	10:31:26
3	Ca 317.933Radial†	6568361.1	7093946.8	483160 µg/L	483160 ppb	10:31:26
3	Fe 238.204 Radial†	2348182.8	2536166.2	189400 µg/L	189400 ppb	10:31:26
3	K 766.490 Radial†	1631.7	268.7	-133.18 µg/L	-133.18 ppb	10:31:28
3	Mg 279.077 IEC†	966514.2	1043764.2	481780 µg/L	481780 ppb	10:31:26
3	Na 589.592 Radial†	1406.4	566.5	87.719 µg/L	87.719 ppb	10:31:28
3	Sr 421.552†	4640.9	5217.1	8.5226 µg/L	8.5226 ppb	10:31:28
3	Sc 361.383	1627878.3	1627878.3	90.230 %		10:32:18
3	Y 371.029	938743.5	938743.5	88.787 %		10:32:18
3	Ag 328.068†	6471.5	2607.1	-2.6885 µg/L	-2.6885 ppb	10:32:18
3	As 188.979†	-94.2	-85.8	13.417 µg/L	13.417 ppb	10:32:38
3	B 249.677†	4197.3	586.7	9.1112 µg/L	9.1112 ppb	10:32:18
3	Ba 233.527†	414.2	603.6	0.2637 µg/L	0.2637 ppb	10:32:38
3	Be 313.107†	-313.0	744.8	0.2077 µg/L	0.2077 ppb	10:32:18
3	Cd 226.502†	2287.7	2638.8	-2.0823 µg/L	-2.0823 ppb	10:32:38
3	Co 228.616†	59.7	276.5	-6.2204 µg/L	-6.2204 ppb	10:32:38
3	Cr 267.716†	209.3	-1.3	0.7104 µg/L	0.7104 ppb	10:32:38
3	Cu 324.752†	-5671.6	-9321.9	1.5944 µg/L	1.5944 ppb	10:32:18
3	Mn 257.610†	15670.2	17182.3	3.1834 µg/L	3.1834 ppb	10:32:18
3	Mo 202.031†	-504.6	-520.7	-0.7299 µg/L	-0.7299 ppb	10:32:38
3	Ni 231.604†	88.9	194.5	2.4329 µg/L	2.4329 ppb	10:32:38
3	P 214.914†	123.4	162.4	20.381 µg/L	20.381 ppb	10:32:38
3	Pb 220.353†	-328.2	-467.2	-3.7410 µg/L	-3.7410 ppb	10:32:38
3	S 181.975 Axial†	164.9	93.8	78.776 µg/L	78.776 ppb	10:32:38
3	Sb 206.836†	159.1	86.7	5.2093 µg/L	5.2093 ppb	10:32:38
3	Se 196.026†	-150.6	-173.0	-2.48 µg/L	-2.48 ppb	10:32:38
3	SiO2†	1645.7	84.8	9.4396 µg/L	9.4396 ppb	10:32:38
3	Si 251.611†	506.5	-205.7	-3.0292 µg/L	-3.0292 ppb	10:32:38
3	Sn 189.927†	26.5	27.5	1.9892 µg/L	1.9892 ppb	10:32:38
3	Ti 334.940†	22768.4	24410.9	-1.5733 µg/L	-1.5733 ppb	10:32:18
3	Tl 190.801†	-138.4	-39.1	-4.8829 µg/L	-4.8829 ppb	10:32:38
3	U 409.014†	-530.1	-424.2	-47.679 µg/L	-47.679 ppb	10:32:18
3	V 292.402†	4198.6	4230.0	1.7250 µg/L	1.7250 ppb	10:32:18
3	Zn 213.857†	4221.9	4176.0	8.6627 µg/L	8.6627 ppb	10:32:38

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1603792.1	88.894	%	1.2816				1.44%
Sc RADIAL	128553.1	91.8	%	0.72				0.78%
Y 371.029	925374.3	87.523	%	1.2181				1.39%
Ag 328.068†	2920.1	-1.5630	µg/L	1.00280	-1.5630	ppb	1.00280	64.16%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2408136.4	507000	µg/L	4906.5	507000	ppb	4906.5	0.97%
QC value within limits for Al 396.153Radial Recovery = 101.40%								
As 188.979†	-89.7	12.634	µg/L	1.1672	12.634	ppb	1.1672	9.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	586.6	9.1088	µg/L	0.21580	9.1088	ppb	0.21580	2.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	599.2	0.2138	µg/L	0.08101	0.2138	ppb	0.08101	37.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	618.0	0.1745	µg/L	0.06254	0.1745	ppb	0.06254	35.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7182916.7	489220	µg/L	5256.7	489220	ppb	5256.7	1.07%
QC value within limits for Ca 317.933Radial Recovery = 97.84%								
Cd 226.502†	2690.3	-1.9834	µg/L	0.26521	-1.9834	ppb	0.26521	13.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	287.3	-6.2008	µg/L	0.10120	-6.2008	ppb	0.10120	1.63%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              12.1      0.8247 µg/L      0.12605      0.8247 ppb       0.12605  15.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -9336.2      2.0538 µg/L      0.54654      2.0538 ppb       0.54654  26.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2567924.8      191770 µg/L       2055.5      191770 ppb        2055.5   1.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.89%
K 766.490 Radial†        233.8     -149.84 µg/L       32.478     -149.84 ppb        32.478  21.68%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1056884.6      487840 µg/L       5251.7      487840 ppb        5251.7   1.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.57%
Mn 257.610†           17188.8      2.9455 µg/L      0.20606      2.9455 ppb       0.20606   7.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -550.4     -1.4964 µg/L      0.68228     -1.4964 ppb       0.68228  45.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       470.1      72.787 µg/L      19.5769      72.787 ppb       19.5769  26.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              199.4      2.4952 µg/L      0.23503      2.4952 ppb       0.23503   9.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               182.6      24.695 µg/L       4.0272      24.695 ppb        4.0272  16.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -447.7     -2.2829 µg/L      2.03252     -2.2829 ppb       2.03252  89.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         105.2      88.342 µg/L       8.2929      88.342 ppb        8.2929   9.39%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               66.0      2.4648 µg/L      2.41204      2.4648 ppb       2.41204  97.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -168.5       0.151 µg/L       2.5033       0.151 ppb        2.5033 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    104.2      11.505 µg/L       3.5481      11.505 ppb        3.5481  30.84%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            -195.0     -2.8517 µg/L      0.19180     -2.8517 ppb       0.19180   6.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               38.7      2.7679 µg/L      0.75190      2.7679 ppb       0.75190  27.17%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             5287.3      8.6407 µg/L      0.11552      8.6407 ppb       0.11552   1.34%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            24212.2     -2.1177 µg/L      0.49194     -2.1177 ppb       0.49194  23.23%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -58.1     -7.4882 µg/L      2.28939     -7.4882 ppb       2.28939  30.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -234.3     -35.979 µg/L      15.7394     -35.979 ppb       15.7394  43.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             4223.6      1.4403 µg/L      0.28444      1.4403 ppb       0.28444  19.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            4220.0      8.7101 µg/L      0.22657      8.7101 ppb       0.22657   2.60%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 4/5/2010 10:32:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128019.8	128019.8	91.4	%			10:33:20
1	Al 396.153Radial†	2214899.0	2423858.2	510290	µg/L	510290	ppb	10:33:18
1	Ca 317.933Radial†	6539945.8	7156137.6	487400	µg/L	487400	ppb	10:33:18
1	Fe 238.204 Radial†	2362815.2	2585528.2	193090	µg/L	193090	ppb	10:33:18
1	K 766.490 Radial†	14647.9	14535.5	5515.6	µg/L	5515.6	ppb	10:33:20
1	Mg 279.077 IEC†	974260.6	1065967.9	492040	µg/L	492040	ppb	10:33:20
1	Na 589.592 Radial†	32736.9	34871.7	5400.3	µg/L	5400.3	ppb	10:33:20
1	Sr 421.552†	200734.4	219869.6	514.74	µg/L	514.74	ppb	10:33:20
1	Sc 361.383	1596681.5	1596681.5	88.500	%			10:33:33
1	Y 371.029	922181.2	922181.2	87.221	%			10:33:33
1	Ag 328.068†	64143.4	67913.0	271.20	µg/L	271.20	ppb	10:33:33
1	As 188.979†	1228.9	1407.2	525.28	µg/L	525.28	ppb	10:33:35
1	B 249.677†	33489.8	33776.3	523.69	µg/L	523.69	ppb	10:33:33
1	Ba 233.527†	100868.2	114119.4	505.26	µg/L	505.26	ppb	10:33:33
1	Be 313.107†	749032.7	847453.0	245.64	µg/L	245.64	ppb	10:33:33
1	Cd 226.502†	65812.0	74466.9	483.20	µg/L	483.20	ppb	10:33:33
1	Co 228.616†	30517.4	34693.1	449.43	µg/L	449.43	ppb	10:33:35
1	Cr 267.716†	50564.5	56901.6	492.70	µg/L	492.70	ppb	10:33:35
1	Cu 324.752†	108957.7	120079.4	544.37	µg/L	544.37	ppb	10:33:33
1	Mn 257.610†	338390.3	382175.7	486.95	µg/L	486.95	ppb	10:33:33
1	Mo 202.031†	12995.7	14722.9	498.30	µg/L	498.30	ppb	10:33:35
1	Ni 231.604†	32630.8	36966.7	462.50	µg/L	462.50	ppb	10:33:35
1	P 214.914†	10002.4	11327.8	2595.9	µg/L	2595.9	ppb	10:33:35
1	Pb 220.353†	6487.9	7227.4	471.57	µg/L	471.57	ppb	10:33:35
1	S 181.975 Axial†	2976.8	3274.7	2758.9	µg/L	2758.9	ppb	10:33:35
1	Sb 206.836†	3581.5	3957.2	505.52	µg/L	505.52	ppb	10:33:35
1	Se 196.026†	5381.4	6074.5	2460	µg/L	2460	ppb	10:33:35
1	SiO2†	95028.9	105637.8	11166	µg/L	11166	ppb	10:33:33
1	Si 251.611†	294883.1	332432.9	5232.5	µg/L	5232.5	ppb	10:33:33
1	Sn 189.927†	6210.9	7016.0	488.46	µg/L	488.46	ppb	10:33:35
1	Ti 334.940†	461750.7	520927.2	507.28	µg/L	507.28	ppb	10:33:33
1	Tl 190.801†	2890.5	3380.4	469.95	µg/L	469.95	ppb	10:33:35
1	U 409.014†	7089.3	8173.8	526.30	µg/L	526.30	ppb	10:33:33
1	V 292.402†	91601.8	103081.2	520.84	µg/L	520.84	ppb	10:33:33
1	Zn 213.857†	77574.0	87150.9	500.68	µg/L	500.68	ppb	10:33:33
2	Sc RADIAL	126403.7	126403.7	90.2	%			10:33:24
2	Al 396.153Radial†	2203106.6	2441777.1	514060	µg/L	514060	ppb	10:33:22
2	Ca 317.933Radial†	6488979.1	7191150.9	489780	µg/L	489780	ppb	10:33:22
2	Fe 238.204 Radial†	2345597.7	2599503.8	194130	µg/L	194130	ppb	10:33:22
2	K 766.490 Radial†	14463.1	14535.7	5514.5	µg/L	5514.5	ppb	10:33:24
2	Mg 279.077 IEC†	957123.1	1060605.1	489570	µg/L	489570	ppb	10:33:24
2	Na 589.592 Radial†	32172.3	34703.9	5374.3	µg/L	5374.3	ppb	10:33:24
2	Sr 421.552†	197937.5	219578.3	514.03	µg/L	514.03	ppb	10:33:24
2	Sc 361.383	1581820.4	1581820.4	87.677	%			10:33:38
2	Y 371.029	914057.4	914057.4	86.452	%			10:33:38
2	Ag 328.068†	63616.7	67993.2	271.43	µg/L	271.43	ppb	10:33:38
2	As 188.979†	1284.1	1483.2	551.30	µg/L	551.30	ppb	10:33:40
2	B 249.677†	33289.7	33903.6	525.64	µg/L	525.64	ppb	10:33:38
2	Ba 233.527†	99713.8	113873.6	504.16	µg/L	504.16	ppb	10:33:38
2	Be 313.107†	739555.2	844594.9	244.81	µg/L	244.81	ppb	10:33:38
2	Cd 226.502†	64961.3	74195.3	481.25	µg/L	481.25	ppb	10:33:38
2	Co 228.616†	30729.7	35259.2	456.87	µg/L	456.87	ppb	10:33:40
2	Cr 267.716†	50663.4	57551.2	498.39	µg/L	498.39	ppb	10:33:40
2	Cu 324.752†	107715.1	119818.9	543.36	µg/L	543.36	ppb	10:33:38
2	Mn 257.610†	334418.8	381238.2	485.80	µg/L	485.80	ppb	10:33:38
2	Mo 202.031†	13147.6	15034.1	508.47	µg/L	508.47	ppb	10:33:40
2	Ni 231.604†	32935.7	37660.8	471.18	µg/L	471.18	ppb	10:33:40
2	P 214.914†	10097.2	11542.1	2645.6	µg/L	2645.6	ppb	10:33:40
2	Pb 220.353†	6531.5	7346.1	479.11	µg/L	479.11	ppb	10:33:40

2	S 181.975 Axial†	2995.8	3327.9	2803.8 µg/L	2803.8 ppb	10:33:40
2	Sb 206.836†	3745.1	4181.8	534.53 µg/L	534.53 ppb	10:33:40
2	Se 196.026†	5400.3	6153.2	2490 µg/L	2490 ppb	10:33:40
2	SiO2†	93970.9	105439.9	11145 µg/L	11145 ppb	10:33:38
2	Si 251.611†	291728.5	331965.3	5224.9 µg/L	5224.9 ppb	10:33:38
2	Sn 189.927†	6321.6	7208.2	501.79 µg/L	501.79 ppb	10:33:40
2	Ti 334.940†	457210.2	520650.3	507.26 µg/L	507.26 ppb	10:33:38
2	Tl 190.801†	2885.4	3405.2	473.28 µg/L	473.28 ppb	10:33:40
2	U 409.014†	6901.3	8034.6	517.25 µg/L	517.25 ppb	10:33:38
2	V 292.402†	90427.2	102714.0	518.95 µg/L	518.95 ppb	10:33:38
2	Zn 213.857†	76624.2	86891.1	499.00 µg/L	499.00 ppb	10:33:38
3	Sc RADIAL	128673.7	128673.7	91.8 %		10:33:28
3	Al 396.153Radial†	2211074.6	2407376.9	506820 µg/L	506820 ppb	10:33:26
3	Ca 317.933Radial†	6514056.0	7091580.2	483000 µg/L	483000 ppb	10:33:26
3	Fe 238.204 Radial†	2355764.0	2564711.1	191530 µg/L	191530 ppb	10:33:26
3	K 766.490 Radial†	14678.7	14487.6	5498.2 µg/L	5498.2 ppb	10:33:28
3	Mg 279.077 IEC†	977848.9	1064456.5	491350 µg/L	491350 ppb	10:33:28
3	Na 589.592 Radial†	32762.8	34717.8	5376.4 µg/L	5376.4 ppb	10:33:28
3	Sr 421.552†	201341.9	219414.6	513.70 µg/L	513.70 ppb	10:33:28
3	Sc 361.383	1602537.7	1602537.7	88.825 %		10:33:43
3	Y 371.029	925694.1	925694.1	87.553 %		10:33:43
3	Ag 328.068†	64236.0	67752.3	270.66 µg/L	270.66 ppb	10:33:43
3	As 188.979†	1257.5	1434.3	534.05 µg/L	534.05 ppb	10:33:45
3	B 249.677†	33647.4	33815.4	524.30 µg/L	524.30 ppb	10:33:43
3	Ba 233.527†	101063.2	113922.5	504.40 µg/L	504.40 ppb	10:33:43
3	Be 313.107†	751090.5	846676.9	245.41 µg/L	245.41 ppb	10:33:43
3	Cd 226.502†	66103.1	74522.9	483.74 µg/L	483.74 ppb	10:33:43
3	Co 228.616†	30595.5	34655.1	449.01 µg/L	449.01 ppb	10:33:45
3	Cr 267.716†	50288.4	56382.0	488.16 µg/L	488.16 ppb	10:33:45
3	Cu 324.752†	109381.3	120106.5	544.23 µg/L	544.23 ppb	10:33:43
3	Mn 257.610†	339181.7	381669.4	486.31 µg/L	486.31 ppb	10:33:43
3	Mo 202.031†	13013.7	14689.5	497.13 µg/L	497.13 ppb	10:33:45
3	Ni 231.604†	32496.9	36681.3	458.93 µg/L	458.93 ppb	10:33:45
3	P 214.914†	10072.5	11365.5	2604.9 µg/L	2604.9 ppb	10:33:45
3	Pb 220.353†	6417.3	7121.2	464.87 µg/L	464.87 ppb	10:33:45
3	S 181.975 Axial†	3006.9	3296.3	2777.1 µg/L	2777.1 ppb	10:33:45
3	Sb 206.836†	3648.9	4018.3	513.51 µg/L	513.51 ppb	10:33:45
3	Se 196.026†	5398.0	6071.0	2460 µg/L	2460 ppb	10:33:45
3	SiO2†	95329.6	105583.9	11160 µg/L	11160 ppb	10:33:43
3	Si 251.611†	295739.0	332178.9	5228.4 µg/L	5228.4 ppb	10:33:43
3	Sn 189.927†	6344.0	7140.3	497.08 µg/L	497.08 ppb	10:33:45
3	Ti 334.940†	463293.2	520757.1	507.05 µg/L	507.05 ppb	10:33:43
3	Tl 190.801†	2903.4	3383.0	470.31 µg/L	470.31 ppb	10:33:45
3	U 409.014†	7023.4	8070.4	519.96 µg/L	519.96 ppb	10:33:43
3	V 292.402†	92013.4	103166.3	521.41 µg/L	521.41 ppb	10:33:43
3	Zn 213.857†	77780.4	87063.0	500.33 µg/L	500.33 ppb	10:33:43

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1593679.9	88.334	%	0.5920				0.67%
Sc RADIAL	127699.1	91.2	%	0.83				0.92%
Y 371.029	920644.2	87.075	%	0.5645				0.65%
Ag 328.068†	67886.2	271.10	µg/L	0.393	271.10	ppb	0.393	0.15%
QC value within limits for Ag 328.068 Recovery = 108.44%								
Al 396.153Radial†	2424337.4	510390	µg/L	3622.0	510390	ppb	3622.0	0.71%
QC value within limits for Al 396.153Radial Recovery = 102.08%								
As 188.979†	1441.5	536.88	µg/L	13.237	536.88	ppb	13.237	2.47%
QC value within limits for As 188.979 Recovery = 107.38%								
B 249.677†	33831.8	524.54	µg/L	1.000	524.54	ppb	1.000	0.19%
QC value within limits for B 249.677 Recovery = 104.91%								
Ba 233.527†	113971.8	504.61	µg/L	0.579	504.61	ppb	0.579	0.11%
QC value within limits for Ba 233.527 Recovery = 100.92%								
Be 313.107†	846241.6	245.29	µg/L	0.429	245.29	ppb	0.429	0.18%
QC value within limits for Be 313.107 Recovery = 98.12%								
Ca 317.933Radial†	7146289.6	486730	µg/L	3440.2	486730	ppb	3440.2	0.71%
QC value within limits for Ca 317.933Radial Recovery = 97.35%								
Cd 226.502†	74395.1	482.73	µg/L	1.305	482.73	ppb	1.305	0.27%
QC value within limits for Cd 226.502 Recovery = 96.55%								
Co 228.616†	34869.1	451.77	µg/L	4.420	451.77	ppb	4.420	0.98%

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   QC value within limits for Co 228.616  Recovery = 90.35%
Cr 267.716†            56944.9      493.08 µg/L         5.125      493.08 ppb          5.125   1.04%
   QC value within limits for Cr 267.716  Recovery = 98.62%
Cu 324.752†           120001.6      543.99 µg/L         0.546      543.99 ppb          0.546   0.10%
   QC value within limits for Cu 324.752  Recovery = 108.80%
Fe 238.204 Radial†   2583247.7      192920 µg/L        1307.5      192920 ppb         1307.5   0.68%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.46%
K 766.490 Radial†      14519.6      5509.4 µg/L          9.72      5509.4 ppb           9.72   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 110.19%
Mg 279.077 IEC†      1063676.5      490990 µg/L        1277.3      490990 ppb         1277.3   0.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.20%
Mn 257.610†           381694.4      486.35 µg/L         0.575      486.35 ppb          0.575   0.12%
   QC value within limits for Mn 257.610  Recovery = 97.27%
Mo 202.031†            14815.5      501.30 µg/L         6.238      501.30 ppb          6.238   1.24%
   QC value within limits for Mo 202.031  Recovery = 100.26%
Na 589.592 Radial†     34764.5      5383.7 µg/L         14.43      5383.7 ppb          14.43   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 107.67%
Ni 231.604†            37102.9      464.20 µg/L         6.303      464.20 ppb          6.303   1.36%
   QC value within limits for Ni 231.604  Recovery = 92.84%
P 214.914†             11411.8      2615.5 µg/L         26.48      2615.5 ppb          26.48   1.01%
   QC value within limits for P 214.914  Recovery = 104.62%
Pb 220.353†             7231.6      471.85 µg/L         7.120      471.85 ppb          7.120   1.51%
   QC value within limits for Pb 220.353  Recovery = 94.37%
S 181.975 Axial†        3299.6      2779.9 µg/L         22.57      2779.9 ppb          22.57   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 111.20%
Sb 206.836†             4052.4      517.86 µg/L        14.982      517.86 ppb         14.982   2.89%
   QC value within limits for Sb 206.836  Recovery = 103.57%
Se 196.026†             6099.5        2470 µg/L          18.7        2470 ppb           18.7   0.76%
   QC value within limits for Se 196.026  Recovery = 98.82%
SiO2†                 105553.8       11157 µg/L          11.1       11157 ppb           11.1   0.10%
   QC value within limits for SiO2  Recovery = 104.32%
Si 251.611†           332192.4      5228.6 µg/L         3.80      5228.6 ppb           3.80   0.07%
   QC value within limits for Si 251.611  Recovery = 104.57%
Sn 189.927†             7121.5      495.78 µg/L         6.759      495.78 ppb          6.759   1.36%
   QC value within limits for Sn 189.927  Recovery = 99.16%
Sr 421.552†           219620.8      514.16 µg/L         0.530      514.16 ppb          0.530   0.10%
   QC value within limits for Sr 421.552  Recovery = 102.83%
Ti 334.940†           520778.2      507.19 µg/L         0.127      507.19 ppb          0.127   0.02%
   QC value within limits for Ti 334.940  Recovery = 101.44%
Tl 190.801†             3389.5      471.18 µg/L         1.829      471.18 ppb          1.829   0.39%
   QC value within limits for Tl 190.801  Recovery = 94.24%
U 409.014†              8093.0      521.17 µg/L         4.641      521.17 ppb          4.641   0.89%
   QC value within limits for U 409.014  Recovery = 104.23%
V 292.402†            102987.2      520.40 µg/L         1.288      520.40 ppb          1.288   0.25%
   QC value within limits for V 292.402  Recovery = 104.08%
Zn 213.857†            87035.0      500.01 µg/L         0.885      500.01 ppb          0.885   0.18%
   QC value within limits for Zn 213.857  Recovery = 100.00%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 4/5/2010 10:33:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	126559.3	126559.3	90.3	%			10:34:25
1	Al 396.153Radial†	2128657.4	2356365.3	496100	µg/L	496100	ppb	10:34:22
1	Ca 317.933Radial†	6314300.7	6988953.2	476010	µg/L	476010	ppb	10:34:22
1	Fe 238.204 Radial†	5465694.5	6050054.8	451810	µg/L	451810	ppb	10:34:22
1	K 766.490 Radial†	1793.1	491.1	-123.38	µg/L	-123.38	ppb	10:34:25
1	Mg 279.077 IEC†	925975.9	1024823.3	472810	µg/L	472810	ppb	10:34:22
1	Na 589.592 Radial†	2921252.7	3232686.2	501090	µg/L	501090	ppb	10:34:22
1	Sr 421.552†	4654.3	5356.4	8.9072	µg/L	8.9072	ppb	10:34:25
1	Sc 361.383	1546919.1	1546919.1	85.742	%			10:34:38
1	Y 371.029	889839.0	889839.0	84.162	%			10:34:38
1	Ag 328.068†	3005.5	-1059.9	1.4083	µg/L	1.4083	ppb	10:34:38
1	As 188.979†	-255.7	-279.7	6.6904	µg/L	6.6904	ppb	10:34:40
1	B 249.677†	4737.5	1460.2	22.664	µg/L	22.664	ppb	10:34:38
1	Ba 233.527†	794.9	1071.6	-1.0098	µg/L	-1.0098	ppb	10:34:40
1	Be 313.107†	-14682.0	-16031.7	0.3428	µg/L	0.3428	ppb	10:34:38
1	Cd 226.502†	5844.0	6919.2	-0.7482	µg/L	-0.7482	ppb	10:34:40
1	Co 228.616†	652.2	971.0	-10.720	µg/L	-10.720	ppb	10:34:40
1	Cr 267.716†	351.0	176.1	-1.5441	µg/L	-1.5441	ppb	10:34:40
1	Cu 324.752†	-15692.1	-21337.7	2.9748	µg/L	2.9748	ppb	10:34:40
1	Mn 257.610†	17073.7	19728.1	6.2222	µg/L	6.2222	ppb	10:34:38
1	Mo 202.031†	-894.4	-1004.5	-6.3291	µg/L	-6.3291	ppb	10:34:40
1	Ni 231.604†	193.6	321.7	4.0242	µg/L	4.0242	ppb	10:34:40
1	P 214.914†	900.7	1076.2	52.946	µg/L	52.946	ppb	10:34:40
1	Pb 220.353†	11.4	-90.1	-1.6997	µg/L	-1.6997	ppb	10:34:40
1	S 181.975 Axial†	192.8	136.0	114.13	µg/L	114.13	ppb	10:34:40
1	Sb 206.836†	124.5	55.5	-2.2629	µg/L	-2.2629	ppb	10:34:40
1	Se 196.026†	-394.4	-466.1	-11.0	µg/L	-11.0	ppb	10:34:40
1	SiO2†	1859.0	429.1	46.249	µg/L	46.249	ppb	10:34:40
1	Si 251.611†	-1930.6	-3018.7	-47.219	µg/L	-47.219	ppb	10:34:40
1	Sn 189.927†	106.6	122.4	8.5822	µg/L	8.5822	ppb	10:34:40
1	Ti 334.940†	23243.8	26285.9	-5.8854	µg/L	-5.8854	ppb	10:34:38
1	Tl 190.801†	-201.7	-121.0	-15.915	µg/L	-15.915	ppb	10:34:40
1	U 409.014†	224009.3	261422.7	16417	µg/L	16417	ppb	10:34:38
1	V 292.402†	7774.1	8643.6	7.8652	µg/L	7.8652	ppb	10:34:40
1	Zn 213.857†	8281.3	9155.3	10.683	µg/L	10.683	ppb	10:34:40
2	Sc RADIAL	125637.5	125637.5	89.7	%			10:34:29
2	Al 396.153Radial†	2139692.1	2385957.6	502330	µg/L	502330	ppb	10:34:27
2	Ca 317.933Radial†	6354290.4	7084825.6	482540	µg/L	482540	ppb	10:34:27
2	Fe 238.204 Radial†	5498978.2	6131557.8	457900	µg/L	457900	ppb	10:34:27
2	K 766.490 Radial†	1725.0	429.7	-152.02	µg/L	-152.02	ppb	10:34:29
2	Mg 279.077 IEC†	932671.5	1039809.6	479730	µg/L	479730	ppb	10:34:27
2	Na 589.592 Radial†	2940679.8	3278073.6	508130	µg/L	508130	ppb	10:34:27
2	Sr 421.552†	4574.3	5305.0	8.7348	µg/L	8.7348	ppb	10:34:29
2	Sc 361.383	1550512.3	1550512.3	85.941	%			10:34:42
2	Y 371.029	892357.6	892357.6	84.400	%			10:34:42
2	Ag 328.068†	3032.7	-1036.3	1.2903	µg/L	1.2903	ppb	10:34:42
2	As 188.979†	-211.5	-227.5	25.707	µg/L	25.707	ppb	10:34:44
2	B 249.677†	4893.9	1629.4	25.298	µg/L	25.298	ppb	10:34:42
2	Ba 233.527†	603.9	847.2	-2.0851	µg/L	-2.0851	ppb	10:34:44
2	Be 313.107†	-14522.2	-15806.1	0.4095	µg/L	0.4095	ppb	10:34:42
2	Cd 226.502†	5739.3	6781.5	-2.3191	µg/L	-2.3191	ppb	10:34:44
2	Co 228.616†	595.5	903.2	-11.935	µg/L	-11.935	ppb	10:34:44
2	Cr 267.716†	342.7	165.6	-1.5126	µg/L	-1.5126	ppb	10:34:44
2	Cu 324.752†	-15930.4	-21572.5	3.0692	µg/L	3.0692	ppb	10:34:44
2	Mn 257.610†	17146.9	19767.1	5.9836	µg/L	5.9836	ppb	10:34:42
2	Mo 202.031†	-828.5	-925.5	-3.3760	µg/L	-3.3760	ppb	10:34:44
2	Ni 231.604†	188.2	314.8	3.9390	µg/L	3.9390	ppb	10:34:44
2	P 214.914†	1023.7	1216.9	82.738	µg/L	82.738	ppb	10:34:44
2	Pb 220.353†	73.4	-18.1	2.9268	µg/L	2.9268	ppb	10:34:44

2	S 181.975 Axial†	158.3	95.2	79.867 µg/L	79.867	ppb	10:34:44
2	Sb 206.836†	173.2	111.9	4.9301 µg/L	4.9301	ppb	10:34:44
2	Se 196.026†	-374.2	-441.6	0.817 µg/L	0.817	ppb	10:34:44
2	SiO2†	1834.7	395.7	42.620 µg/L	42.620	ppb	10:34:44
2	Si 251.611†	-1956.2	-3043.3	-47.651 µg/L	-47.651	ppb	10:34:44
2	Sn 189.927†	124.7	143.2	10.027 µg/L	10.027	ppb	10:34:44
2	Ti 334.940†	23738.1	26798.3	-5.7543 µg/L	-5.7543	ppb	10:34:42
2	Tl 190.801†	-179.8	-95.0	-12.363 µg/L	-12.363	ppb	10:34:44
2	U 409.014†	224589.1	261491.9	16421 µg/L	16421	ppb	10:34:42
2	V 292.402†	7601.7	8422.0	6.1036 µg/L	6.1036	ppb	10:34:44
2	Zn 213.857†	8434.0	9310.7	11.011 µg/L	11.011	ppb	10:34:44
3	Sc RADIAL	125009.8	125009.8	89.2 %			10:34:33
3	Al 396.153Radial†	2147785.3	2407007.4	506760 µg/L	506760	ppb	10:34:31
3	Ca 317.933Radial†	6365764.1	7133261.2	485840 µg/L	485840	ppb	10:34:31
3	Fe 238.204 Radial†	5518715.6	6184465.3	461850 µg/L	461850	ppb	10:34:31
3	K 766.490 Radial†	1705.0	416.9	-159.53 µg/L	-159.53	ppb	10:34:33
3	Mg 279.077 IEC†	935614.4	1048329.5	483660 µg/L	483660	ppb	10:34:31
3	Na 589.592 Radial†	2945186.3	3299588.6	511460 µg/L	511460	ppb	10:34:31
3	Sr 421.552†	4533.1	5284.5	8.6605 µg/L	8.6605	ppb	10:34:33
3	Sc 361.383	1555977.3	1555977.3	86.244 %			10:34:47
3	Y 371.029	894540.6	894540.6	84.606 %			10:34:47
3	Ag 328.068†	3170.4	-889.1	1.7502 µg/L	1.7502	ppb	10:34:47
3	As 188.979†	-206.6	-220.9	28.849 µg/L	28.849	ppb	10:34:49
3	B 249.677†	4646.7	1322.7	20.528 µg/L	20.528	ppb	10:34:47
3	Ba 233.527†	637.3	883.5	-1.9741 µg/L	-1.9741	ppb	10:34:49
3	Be 313.107†	-14782.6	-16048.7	0.3304 µg/L	0.3304	ppb	10:34:47
3	Cd 226.502†	5726.3	6743.0	-2.9943 µg/L	-2.9943	ppb	10:34:49
3	Co 228.616†	615.1	923.5	-11.872 µg/L	-11.872	ppb	10:34:49
3	Cr 267.716†	615.1	480.0	1.3198 µg/L	1.3198	ppb	10:34:49
3	Cu 324.752†	-15376.1	-20864.6	6.6877 µg/L	6.6877	ppb	10:34:49
3	Mn 257.610†	17099.2	19641.7	5.6509 µg/L	5.6509	ppb	10:34:47
3	Mo 202.031†	-820.9	-913.3	-2.7493 µg/L	-2.7493	ppb	10:34:49
3	Ni 231.604†	272.9	412.4	5.1591 µg/L	5.1591	ppb	10:34:49
3	P 214.914†	953.1	1130.8	61.063 µg/L	61.063	ppb	10:34:49
3	Pb 220.353†	-35.1	-144.1	-4.6591 µg/L	-4.6591	ppb	10:34:49
3	S 181.975 Axial†	122.3	52.9	44.250 µg/L	44.250	ppb	10:34:49
3	Sb 206.836†	70.4	-8.1	-10.659 µg/L	-10.659	ppb	10:34:49
3	Se 196.026†	-357.0	-420.1	10.6 µg/L	10.6	ppb	10:34:49
3	SiO2†	2030.3	615.0	65.880 µg/L	65.880	ppb	10:34:49
3	Si 251.611†	-2018.3	-3107.2	-48.643 µg/L	-48.643	ppb	10:34:49
3	Sn 189.927†	86.3	98.2	6.9028 µg/L	6.9028	ppb	10:34:49
3	Ti 334.940†	23731.5	26693.7	-6.0852 µg/L	-6.0852	ppb	10:34:47
3	Tl 190.801†	-184.9	-100.1	-13.064 µg/L	-13.064	ppb	10:34:49
3	U 409.014†	224984.1	261032.0	16391 µg/L	16391	ppb	10:34:47
3	V 292.402†	7659.0	8457.3	5.8662 µg/L	5.8662	ppb	10:34:49
3	Zn 213.857†	8212.2	9019.0	8.8832 µg/L	8.8832	ppb	10:34:49

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1551136.2	85.976	%	0.2528				0.29%
Sc RADIAL	125735.5	89.8	%	0.56				0.62%
Y 371.029	892245.7	84.389	%	0.2225				0.26%
Ag 328.068†	-995.1	1.4829	µg/L	0.23886	1.4829	ppb	0.23886	16.11%
Al 396.153Radial†	2383110.1	501730	µg/L	5356.1	501730	ppb	5356.1	1.07%
QC value within limits for Al 396.153Radial Recovery = 100.35%								
As 188.979†	-242.7	20.416	µg/L	11.9898	20.416	ppb	11.9898	58.73%
B 249.677†	1470.8	22.830	µg/L	2.3893	22.830	ppb	2.3893	10.47%
Ba 233.527†	934.1	-1.6897	µg/L	0.59142	-1.6897	ppb	0.59142	35.00%
Be 313.107†	-15962.2	0.3609	µg/L	0.04251	0.3609	ppb	0.04251	11.78%
Ca 317.933Radial†	7069013.4	481460	µg/L	5002.1	481460	ppb	5002.1	1.04%
QC value within limits for Ca 317.933Radial Recovery = 96.29%								
Cd 226.502†	6814.5	-2.0205	µg/L	1.15241	-2.0205	ppb	1.15241	57.03%
Co 228.616†	932.6	-11.509	µg/L	0.6841	-11.509	ppb	0.6841	5.94%
Cr 267.716†	273.9	-0.5790	µg/L	1.64446	-0.5790	ppb	1.64446	284.03%
Cu 324.752†	-21258.2	4.2439	µg/L	2.11693	4.2439	ppb	2.11693	49.88%
Fe 238.204 Radial†	6122026.0	457190	µg/L	5056.6	457190	ppb	5056.6	1.11%
QC value within limits for Fe 238.204 Radial Recovery = 91.44%								
K 766.490 Radial†	445.9	-144.98	µg/L	19.077	-144.98	ppb	19.077	13.16%
Mg 279.077 IEC†	1037654.1	478730	µg/L	5490.6	478730	ppb	5490.6	1.15%

QC value within limits for Mg 279.077 IEC Recovery = 95.75%

Mn 257.610†	19712.3	5.9522 µg/L	0.28693	5.9522 ppb	0.28693	4.82%
Mo 202.031†	-947.8	-4.1515 µg/L	1.91175	-4.1515 ppb	1.91175	46.05%
Na 589.592 Radial†	3270116.1	506890 µg/L	5294.1	506890 ppb	5294.1	1.04%

QC value within limits for Na 589.592 Radial Recovery = 101.38%

Ni 231.604†	349.6	4.3741 µg/L	0.68113	4.3741 ppb	0.68113	15.57%
P 214.914†	1141.3	65.582 µg/L	15.4013	65.582 ppb	15.4013	23.48%
Pb 220.353†	-84.1	-1.1440 µg/L	3.82337	-1.1440 ppb	3.82337	334.21%
S 181.975 Axial†	94.7	79.414 µg/L	34.9395	79.414 ppb	34.9395	44.00%
Sb 206.836†	53.1	-2.6640 µg/L	7.80248	-2.6640 ppb	7.80248	292.88%
Se 196.026†	-442.6	0.161 µg/L	10.8059	0.161 ppb	10.8059	>999.9%
SiO2†	479.9	51.583 µg/L	12.5135	51.583 ppb	12.5135	24.26%
Si 251.611†	-3056.4	-47.838 µg/L	0.7304	-47.838 ppb	0.7304	1.53%
Sn 189.927†	121.3	8.5039 µg/L	1.56348	8.5039 ppb	1.56348	18.39%
Sr 421.552†	5315.3	8.7675 µg/L	0.12654	8.7675 ppb	0.12654	1.44%
Ti 334.940†	26592.6	-5.9083 µg/L	0.16664	-5.9083 ppb	0.16664	2.82%
Tl 190.801†	-105.3	-13.781 µg/L	1.8816	-13.781 ppb	1.8816	13.65%
U 409.014†	261315.5	16410 µg/L	16.3	16410 ppb	16.3	0.10%

QC value within limits for U 409.014 Recovery = 109.40%

V 292.402†	8507.6	6.6117 µg/L	1.09206	6.6117 ppb	1.09206	16.52%
Zn 213.857†	9161.7	10.192 µg/L	1.1457	10.192 ppb	1.1457	11.24%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 4/5/2010 10:34:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137041.1	137041.1	97.8	%			10:35:30
1	Al 396.153Radial†	2091.5	2216.6	10.244	µg/L	10.244	ppb	10:35:32
1	Ca 317.933Radial†	1536.0	998.8	68.025	µg/L	68.025	ppb	10:35:32
1	Fe 238.204 Radial†	-466.5	-594.2	-44.377	µg/L	-44.377	ppb	10:35:32
1	K 766.490 Radial†	729152.1	743896.6	294770	µg/L	294770	ppb	10:35:30
1	Mg 279.077 IEC†	-410.3	-591.9	-32.847	µg/L	-32.847	ppb	10:35:32
1	Na 589.592 Radial†	3206.4	2325.3	98.292	µg/L	98.292	ppb	10:35:32
1	Sr 421.552†	3999711.8	4088990.0	9643.7	µg/L	9643.7	ppb	10:35:28
1	Sc 361.383	1745097.4	1745097.4	96.727	%			10:35:54
1	Y 371.029	997842.0	997842.0	94.377	%			10:35:54
1	Ag 328.068†	-24011.8	-29389.6	-1.6157	µg/L	-1.6157	ppb	10:35:56
1	As 188.979†	28702.2	29692.0	10298	µg/L	10298	ppb	10:35:56
1	B 249.677†	314525.9	321104.5	4960.9	µg/L	4960.9	ppb	10:35:54
1	Ba 233.527†	3126133.6	3232068.9	14376	µg/L	14376	ppb	10:35:54
1	Be 313.107†	9652994.7	9980751.1	2891.0	µg/L	2891.0	ppb	10:35:50
1	Cd 226.502†	1393887.8	1441161.4	9744.7	µg/L	9744.7	ppb	10:35:54
1	Co 228.616†	690506.6	714084.2	9464.3	µg/L	9464.3	ppb	10:35:54
1	Cr 267.716†	2688558.7	2779308.4	24048	µg/L	24048	ppb	10:35:54
1	Cu 324.752†	4655201.0	4809700.5	20122	µg/L	20122	ppb	10:35:54
1	Mn 257.610†	6823928.3	7054670.5	9358.4	µg/L	9358.4	ppb	10:35:54
1	Mo 202.031†	290630.9	300504.6	9831.1	µg/L	9831.1	ppb	10:35:56
1	Ni 231.604†	756062.1	781743.7	9780.6	µg/L	9780.6	ppb	10:35:54
1	P 214.914†	64200.1	66398.4	15124	µg/L	15124	ppb	10:35:56
1	Pb 220.353†	374053.0	386607.7	23821	µg/L	23821	ppb	10:35:54
1	S 181.975 Axial†	60131.3	62077.3	52306	µg/L	52306	ppb	10:35:56
1	Sb 206.836†	76342.9	78836.7	9977.5	µg/L	9977.5	ppb	10:35:56
1	Se 196.026†	24244.9	25059.2	9870	µg/L	9870	ppb	10:35:56
1	SiO2†	922460.8	951938.4	100380	µg/L	100380	ppb	10:35:54
1	Si 251.611†	2889117.4	2986120.3	46891	µg/L	46891	ppb	10:35:54
1	Sn 189.927†	139315.0	144027.6	10024	µg/L	10024	ppb	10:35:56
1	Ti 334.940†	9511207.1	9832250.5	10091	µg/L	10091	ppb	10:35:50
1	Tl 190.801†	67486.0	69884.1	9695.8	µg/L	9695.8	ppb	10:35:56
1	U 409.014†	-9077.0	-9220.8	28.768	µg/L	28.768	ppb	10:35:56
1	V 292.402†	1875279.5	1938317.1	10241	µg/L	10241	ppb	10:35:54
1	Zn 213.857†	2352726.7	2431841.8	14447	µg/L	14447	ppb	10:35:54
2	Sc RADIAL	136238.0	136238.0	97.2	%			10:35:36
2	Al 396.153Radial†	2330.1	2474.6	66.653	µg/L	66.653	ppb	10:35:38
2	Ca 317.933Radial†	1811.3	1291.1	87.936	µg/L	87.936	ppb	10:35:38
2	Fe 238.204 Radial†	-254.9	-379.5	-28.338	µg/L	-28.338	ppb	10:35:38
2	K 766.490 Radial†	723379.4	742354.0	294150	µg/L	294150	ppb	10:35:36
2	Mg 279.077 IEC†	-266.5	-446.5	33.185	µg/L	33.185	ppb	10:35:38
2	Na 589.592 Radial†	3288.8	2429.3	114.95	µg/L	114.95	ppb	10:35:38
2	Sr 421.552†	4058247.0	4173281.4	9842.5	µg/L	9842.5	ppb	10:35:34
2	Sc 361.383	1743215.3	1743215.3	96.622	%			10:36:04
2	Y 371.029	995676.7	995676.7	94.172	%			10:36:04
2	Ag 328.068†	-23853.7	-29252.8	-0.9419	µg/L	-0.9419	ppb	10:36:06
2	As 188.979†	28504.8	29519.8	10240	µg/L	10240	ppb	10:36:06
2	B 249.677†	314697.3	321633.0	4969.1	µg/L	4969.1	ppb	10:36:04
2	Ba 233.527†	3124556.7	3233926.1	14384	µg/L	14384	ppb	10:36:04
2	Be 313.107†	9596946.2	9933517.7	2877.3	µg/L	2877.3	ppb	10:36:00
2	Cd 226.502†	1394309.9	1443154.1	9758.1	µg/L	9758.1	ppb	10:36:04
2	Co 228.616†	690666.8	715020.7	9476.7	µg/L	9476.7	ppb	10:36:04
2	Cr 267.716†	2690044.7	2783847.2	24087	µg/L	24087	ppb	10:36:04
2	Cu 324.752†	4658450.0	4818259.0	20158	µg/L	20158	ppb	10:36:04
2	Mn 257.610†	6824028.9	7062391.3	9368.6	µg/L	9368.6	ppb	10:36:04
2	Mo 202.031†	288983.5	299124.1	9785.9	µg/L	9785.9	ppb	10:36:06
2	Ni 231.604†	755753.2	782267.9	9787.1	µg/L	9787.1	ppb	10:36:04
2	P 214.914†	63999.8	66262.8	15093	µg/L	15093	ppb	10:36:06
2	Pb 220.353†	374105.8	387079.9	23849	µg/L	23849	ppb	10:36:04

2	S 181.975 Axial†	59808.2	61810.0	52081	µg/L	52081	ppb	10:36:06
2	Sb 206.836†	75810.5	78370.9	9916.1	µg/L	9916.1	ppb	10:36:06
2	Se 196.026†	24043.8	24878.2	9800	µg/L	9800	ppb	10:36:06
2	SiO2†	925226.3	955830.3	100800	µg/L	100800	ppb	10:36:04
2	Si 251.611†	2896126.6	2996599.3	47057	µg/L	47057	ppb	10:36:04
2	Sn 189.927†	138237.6	143068.1	9957.6	µg/L	9957.6	ppb	10:36:06
2	Ti 334.940†	9462409.3	9792363.1	10050	µg/L	10050	ppb	10:36:00
2	Tl 190.801†	67159.9	69621.9	9659.6	µg/L	9659.6	ppb	10:36:06
2	U 409.014†	-9085.7	-9240.0	28.141	µg/L	28.141	ppb	10:36:06
2	V 292.402†	1875085.9	1940209.9	10251	µg/L	10251	ppb	10:36:04
2	Zn 213.857†	2353882.7	2435664.2	14470	µg/L	14470	ppb	10:36:04
3	Sc RADIAL	137851.9	137851.9	98.4	%			10:35:43
3	Al 396.153Radial†	2181.4	2295.5	27.169	µg/L	27.169	ppb	10:35:45
3	Ca 317.933Radial†	1189.0	636.9	43.378	µg/L	43.378	ppb	10:35:45
3	Fe 238.204 Radial†	-552.2	-678.5	-50.673	µg/L	-50.673	ppb	10:35:45
3	K 766.490 Radial†	736719.2	747202.5	296080	µg/L	296080	ppb	10:35:43
3	Mg 279.077 IEC†	-281.6	-458.6	28.539	µg/L	28.539	ppb	10:35:45
3	Na 589.592 Radial†	3006.3	2102.7	62.614	µg/L	62.614	ppb	10:35:45
3	Sr 421.552†	4060800.1	4127022.4	9733.4	µg/L	9733.4	ppb	10:35:41
3	Sc 361.383	1752934.8	1752934.8	97.161	%			10:36:13
3	Y 371.029	1001396.2	1001396.2	94.713	%			10:36:13
3	Ag 328.068†	-24151.3	-29422.1	-1.6137	µg/L	-1.6137	ppb	10:36:15
3	As 188.979†	28800.2	29660.2	10288	µg/L	10288	ppb	10:36:15
3	B 249.677†	317129.0	322329.8	4979.9	µg/L	4979.9	ppb	10:36:13
3	Ba 233.527†	3143064.1	3235044.1	14389	µg/L	14389	ppb	10:36:13
3	Be 313.107†	9593258.2	9874649.9	2860.3	µg/L	2860.3	ppb	10:36:10
3	Cd 226.502†	1403189.2	1444291.5	9765.8	µg/L	9765.8	ppb	10:36:13
3	Co 228.616†	695082.1	715601.6	9484.4	µg/L	9484.4	ppb	10:36:13
3	Cr 267.716†	2703738.1	2782503.9	24075	µg/L	24075	ppb	10:36:13
3	Cu 324.752†	4685820.8	4819697.1	20164	µg/L	20164	ppb	10:36:13
3	Mn 257.610†	6866217.2	7066652.6	9374.3	µg/L	9374.3	ppb	10:36:13
3	Mo 202.031†	291726.8	300289.2	9824.0	µg/L	9824.0	ppb	10:36:15
3	Ni 231.604†	761256.4	783595.0	9803.7	µg/L	9803.7	ppb	10:36:13
3	P 214.914†	64499.6	66409.8	15127	µg/L	15127	ppb	10:36:15
3	Pb 220.353†	376414.3	387309.1	23863	µg/L	23863	ppb	10:36:13
3	S 181.975 Axial†	60499.1	62177.8	52391	µg/L	52391	ppb	10:36:15
3	Sb 206.836†	76694.5	78845.7	9978.2	µg/L	9978.2	ppb	10:36:15
3	Se 196.026†	24393.5	25100.1	9890	µg/L	9890	ppb	10:36:15
3	SiO2†	931438.5	956914.6	100910	µg/L	100910	ppb	10:36:13
3	Si 251.611†	2916872.0	3001331.5	47131	µg/L	47131	ppb	10:36:13
3	Sn 189.927†	139983.2	144071.4	10027	µg/L	10027	ppb	10:36:15
3	Ti 334.940†	9456296.8	9731772.1	9987.4	µg/L	9987.4	ppb	10:36:10
3	Tl 190.801†	68171.4	70277.5	9748.5	µg/L	9748.5	ppb	10:36:15
3	U 409.014†	-8744.7	-8836.8	53.587	µg/L	53.587	ppb	10:36:15
3	V 292.402†	1885383.9	1940048.7	10251	µg/L	10251	ppb	10:36:13
3	Zn 213.857†	2368680.6	2437386.7	14480	µg/L	14480	ppb	10:36:13

Mean Data: LR2

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1747082.5	96.837	%	0.2857				0.30%
Sc RADIAL	137043.7	97.8	%	0.58				0.59%
Y 371.029	998304.9	94.420	%	0.2731				0.29%
Ag 328.068†	-29354.8	-1.3904	µg/L	0.38842	-1.3904	ppb	0.38842	27.94%
Al 396.153Radial†	2328.9	34.689	µg/L	28.9466	34.689	ppb	28.9466	83.45%
As 188.979†	29624.0	10276	µg/L	30.9	10276	ppb	30.9	0.30%
QC value within limits for As 188.979 Recovery = 102.76%								
B 249.677†	321689.1	4970.0	µg/L	9.52	4970.0	ppb	9.52	0.19%
QC value within limits for B 249.677 Recovery = 99.40%								
Ba 233.527†	3233679.7	14383	µg/L	6.7	14383	ppb	6.7	0.05%
QC value within limits for Ba 233.527 Recovery = 95.88%								
Be 313.107†	9929639.6	2876.2	µg/L	15.39	2876.2	ppb	15.39	0.54%
QC value within limits for Be 313.107 Recovery = 95.87%								
Ca 317.933Radial†	975.6	66.446	µg/L	22.3211	66.446	ppb	22.3211	33.59%
Cd 226.502†	1442869.0	9756.2	µg/L	10.71	9756.2	ppb	10.71	0.11%
QC value within limits for Cd 226.502 Recovery = 97.56%								
Co 228.616†	714902.2	9475.1	µg/L	10.14	9475.1	ppb	10.14	0.11%
QC value within limits for Co 228.616 Recovery = 94.75%								
Cr 267.716†	2781886.5	24070	µg/L	20.2	24070	ppb	20.2	0.08%
QC value within limits for Cr 267.716 Recovery = 96.28%								

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Cu 324.752†          4815885.5       20148 µg/L          22.6       20148 ppb          22.6   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.74%
Fe 238.204 Radial†      -550.7     -41.129 µg/L       11.5159     -41.129 ppb       11.5159  28.00%
K 766.490 Radial†     744484.4      295000 µg/L         981.6      295000 ppb         981.6   0.33%
   QC value within limits for K 766.490 Radial  Recovery = 98.33%
Mg 279.077 IEC†         -499.0      9.6261 µg/L      36.85576      9.6261 ppb      36.85576 382.87%
Mn 257.610†          7061238.1      9367.1 µg/L          8.06      9367.1 ppb          8.06   0.09%
   QC value within limits for Mn 257.610  Recovery = 93.67%
Mo 202.031†           299972.6      9813.7 µg/L         24.29      9813.7 ppb         24.29   0.25%
   QC value within limits for Mo 202.031  Recovery = 98.14%
Na 589.592 Radial†      2285.8      91.953 µg/L       26.7387      91.953 ppb       26.7387  29.08%
Ni 231.604†           782535.6      9790.5 µg/L         11.94      9790.5 ppb         11.94   0.12%
   QC value within limits for Ni 231.604  Recovery = 97.90%
P 214.914†             66357.0       15115 µg/L          19.1       15115 ppb          19.1   0.13%
   QC value within limits for P 214.914  Recovery = 100.76%
Pb 220.353†           386998.9       23844 µg/L          21.9       23844 ppb          21.9   0.09%
   QC value within limits for Pb 220.353  Recovery = 95.38%
S 181.975 Axial†       62021.7       52259 µg/L         160.1       52259 ppb         160.1   0.31%
   QC value within limits for S 181.975 Axial  Recovery = 104.52%
Sb 206.836†            78684.4      9957.3 µg/L         35.64      9957.3 ppb         35.64   0.36%
   QC value within limits for Sb 206.836  Recovery = 99.57%
Se 196.026†            25012.5        9850 µg/L          46.5        9850 ppb          46.5   0.47%
   QC value within limits for Se 196.026  Recovery = 98.54%
SiO2†                 954894.4      100700 µg/L         277.6      100700 ppb         277.6   0.28%
   QC value within limits for SiO2  Recovery = 94.11%
Si 251.611†          2994683.7       47026 µg/L         122.9       47026 ppb         122.9   0.26%
   QC value within limits for Si 251.611  Recovery = 94.05%
Sn 189.927†           143722.4       10003 µg/L          39.3       10003 ppb          39.3   0.39%
   QC value within limits for Sn 189.927  Recovery = 100.03%
Sr 421.552†          4129764.6      9739.9 µg/L         99.56      9739.9 ppb         99.56   1.02%
   QC value within limits for Sr 421.552  Recovery = 97.40%
Ti 334.940†          9785461.9       10043 µg/L          52.0       10043 ppb          52.0   0.52%
   QC value within limits for Ti 334.940  Recovery = 100.43%
Tl 190.801†            69927.8      9701.3 µg/L         44.70      9701.3 ppb         44.70   0.46%
   QC value within limits for Tl 190.801  Recovery = 97.01%
U 409.014†             -9099.2      36.832 µg/L       14.5139      36.832 ppb       14.5139  39.41%
V 292.402†           1939525.2       10248 µg/L           5.4       10248 ppb           5.4   0.05%
   QC value within limits for V 292.402  Recovery = 102.48%
Zn 213.857†          2434964.2       14466 µg/L          16.8       14466 ppb          16.8   0.12%
   QC value within limits for Zn 213.857  Recovery = 96.44%
All analyte(s) passed QC.
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Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 10:36:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139383.4	139383.4	99.5	%			10:36:57
1	Al 396.153Radial†	23983.0	24183.6	5067.9	µg/L	5067.9	ppb	10:36:57
1	Ca 317.933Radial†	74884.5	74694.3	5087.4	µg/L	5087.4	ppb	10:36:57
1	Fe 238.204 Radial†	67324.3	67549.7	5044.6	µg/L	5044.6	ppb	10:36:57
1	K 766.490 Radial†	15793.3	14379.9	5693.8	µg/L	5693.8	ppb	10:36:57
1	Mg 279.077 IEC†	11375.8	11261.3	5207.8	µg/L	5207.8	ppb	10:36:57
1	Na 589.592 Radial†	66012.0	65395.6	10132	µg/L	10132	ppb	10:36:57
1	Sr 421.552†	209942.4	211215.7	498.11	µg/L	498.11	ppb	10:36:54
1	Sc 361.383	1775532.0	1775532.0	98.414	%			10:37:23
1	Y 371.029	1029238.8	1029238.8	97.346	%			10:37:23
1	Ag 328.068†	123713.3	121142.4	502.16	µg/L	502.16	ppb	10:37:23
1	As 188.979†	1429.2	1470.7	504.76	µg/L	504.76	ppb	10:37:43
1	B 249.677†	36189.7	32707.9	506.91	µg/L	506.91	ppb	10:37:23
1	Ba 233.527†	111189.9	113126.7	503.24	µg/L	503.24	ppb	10:37:23
1	Be 313.107†	1690082.4	1718417.5	497.92	µg/L	497.92	ppb	10:37:23
1	Cd 226.502†	73455.3	74742.7	504.85	µg/L	504.85	ppb	10:37:23
1	Co 228.616†	37411.0	38224.4	505.95	µg/L	505.95	ppb	10:37:23
1	Cr 267.716†	57380.8	58072.6	502.27	µg/L	502.27	ppb	10:37:23
1	Cu 324.752†	120937.5	119850.9	502.85	µg/L	502.85	ppb	10:37:23
1	Mn 257.610†	372256.9	378072.8	501.31	µg/L	501.31	ppb	10:37:23
1	Mo 202.031†	15240.8	15525.1	508.19	µg/L	508.19	ppb	10:37:43
1	Ni 231.604†	39405.2	40136.3	502.16	µg/L	502.16	ppb	10:37:23
1	P 214.914†	10778.6	10978.0	2530.9	µg/L	2530.9	ppb	10:37:43
1	Pb 220.353†	8349.3	8380.4	517.30	µg/L	517.30	ppb	10:37:43
1	S 181.975 Axial†	1311.1	1243.3	1050.2	µg/L	1050.2	ppb	10:37:43
1	Sb 206.836†	3923.4	3896.9	503.72	µg/L	503.72	ppb	10:37:43
1	Se 196.026†	1279.8	1294.3	512	µg/L	512	ppb	10:37:43
1	SiO2†	51119.4	50204.3	5294.7	µg/L	5294.7	ppb	10:37:23
1	Si 251.611†	156377.4	158131.1	2483.4	µg/L	2483.4	ppb	10:37:23
1	Sn 189.927†	7206.6	7320.9	509.48	µg/L	509.48	ppb	10:37:43
1	Ti 334.940†	478294.1	485181.0	497.67	µg/L	497.67	ppb	10:37:23
1	Tl 190.801†	3555.2	3726.8	516.38	µg/L	516.38	ppb	10:37:43
1	U 409.014†	7075.5	7352.9	494.46	µg/L	494.46	ppb	10:37:23
1	V 292.402†	95137.0	96247.3	505.57	µg/L	505.57	ppb	10:37:23
1	Zn 213.857†	83877.0	84726.1	502.00	µg/L	502.00	ppb	10:37:23
2	Sc RADIAL	141237.6	141237.6	101	%			10:37:01
2	Al 396.153Radial†	24351.7	24232.9	5078.4	µg/L	5078.4	ppb	10:37:01
2	Ca 317.933Radial†	76105.1	74916.9	5102.5	µg/L	5102.5	ppb	10:37:01
2	Fe 238.204 Radial†	68422.0	67750.2	5059.5	µg/L	5059.5	ppb	10:37:01
2	K 766.490 Radial†	15816.9	14194.9	5620.5	µg/L	5620.5	ppb	10:37:01
2	Mg 279.077 IEC†	11511.1	11245.3	5200.4	µg/L	5200.4	ppb	10:37:01
2	Na 589.592 Radial†	66852.4	65358.1	10126	µg/L	10126	ppb	10:37:01
2	Sr 421.552†	212339.4	210823.0	497.18	µg/L	497.18	ppb	10:36:59
2	Sc 361.383	1787375.4	1787375.4	99.070	%			10:37:47
2	Y 371.029	1037117.1	1037117.1	98.091	%			10:37:47
2	Ag 328.068†	124828.0	121434.6	503.37	µg/L	503.37	ppb	10:37:47
2	As 188.979†	1441.0	1473.1	505.57	µg/L	505.57	ppb	10:38:07
2	B 249.677†	36397.3	32673.8	506.38	µg/L	506.38	ppb	10:37:47
2	Ba 233.527†	111984.0	113179.7	503.48	µg/L	503.48	ppb	10:37:47
2	Be 313.107†	1706153.7	1723260.5	499.32	µg/L	499.32	ppb	10:37:47
2	Cd 226.502†	74191.2	74991.0	506.53	µg/L	506.53	ppb	10:37:47
2	Co 228.616†	37736.8	38301.3	506.97	µg/L	506.97	ppb	10:37:47
2	Cr 267.716†	57858.9	58168.8	503.11	µg/L	503.11	ppb	10:37:47
2	Cu 324.752†	122047.6	120157.1	504.13	µg/L	504.13	ppb	10:37:47
2	Mn 257.610†	375557.0	378897.5	502.41	µg/L	502.41	ppb	10:37:47
2	Mo 202.031†	15314.4	15496.7	507.27	µg/L	507.27	ppb	10:38:07
2	Ni 231.604†	39844.4	40314.3	504.38	µg/L	504.38	ppb	10:37:47
2	P 214.914†	10818.6	10945.8	2523.4	µg/L	2523.4	ppb	10:38:07
2	Pb 220.353†	8374.4	8349.6	515.41	µg/L	515.41	ppb	10:38:07

2	S 181.975 Axial†	1316.2	1239.6	1047.1 µg/L	1047.1 ppb	10:38:07
2	Sb 206.836†	3951.4	3898.7	503.93 µg/L	503.93 ppb	10:38:07
2	Se 196.026†	1293.2	1299.1	514 µg/L	514 ppb	10:38:07
2	SiO2†	51601.8	50347.1	5309.9 µg/L	5309.9 ppb	10:37:47
2	Si 251.611†	157616.5	158329.0	2486.6 µg/L	2486.6 ppb	10:37:47
2	Sn 189.927†	7228.2	7294.2	507.63 µg/L	507.63 ppb	10:38:07
2	Ti 334.940†	482143.4	485846.0	498.36 µg/L	498.36 ppb	10:37:47
2	Tl 190.801†	3577.4	3725.3	516.20 µg/L	516.20 ppb	10:38:07
2	U 409.014†	6994.8	7223.9	486.47 µg/L	486.47 ppb	10:37:47
2	V 292.402†	96271.3	96751.8	508.18 µg/L	508.18 ppb	10:37:47
2	Zn 213.857†	84512.0	84802.3	502.44 µg/L	502.44 ppb	10:37:47
3	Sc RADIAL	139619.7	139619.7	99.7 %		10:37:05
3	Al 396.153Radial†	23966.5	24126.3	5056.2 µg/L	5056.2 ppb	10:37:05
3	Ca 317.933Radial†	75181.7	74865.1	5099.0 µg/L	5099.0 ppb	10:37:05
3	Fe 238.204 Radial†	67379.8	67490.9	5040.2 µg/L	5040.2 ppb	10:37:05
3	K 766.490 Radial†	15656.1	14215.4	5628.6 µg/L	5628.6 ppb	10:37:05
3	Mg 279.077 IEC†	11320.1	11186.0	5172.9 µg/L	5172.9 ppb	10:37:05
3	Na 589.592 Radial†	66307.8	65580.0	10160 µg/L	10160 ppb	10:37:05
3	Sr 421.552†	212426.4	213350.9	503.14 µg/L	503.14 ppb	10:37:03
3	Sc 361.383	1796359.2	1796359.2	99.568 %		10:38:10
3	Y 371.029	1041972.3	1041972.3	98.551 %		10:38:10
3	Ag 328.068†	125764.0	121744.4	504.65 µg/L	504.65 ppb	10:38:10
3	As 188.979†	1434.8	1459.5	500.98 µg/L	500.98 ppb	10:38:30
3	B 249.677†	36503.8	32597.0	505.17 µg/L	505.17 ppb	10:38:10
3	Ba 233.527†	113116.0	113751.3	506.02 µg/L	506.02 ppb	10:38:10
3	Be 313.107†	1721963.8	1730526.4	501.43 µg/L	501.43 ppb	10:38:10
3	Cd 226.502†	75117.4	75546.7	510.29 µg/L	510.29 ppb	10:38:10
3	Co 228.616†	38112.7	38488.4	509.44 µg/L	509.44 ppb	10:38:10
3	Cr 267.716†	58452.0	58472.4	505.73 µg/L	505.73 ppb	10:38:10
3	Cu 324.752†	122851.6	120348.5	504.93 µg/L	504.93 ppb	10:38:10
3	Mn 257.610†	379092.5	380552.5	504.60 µg/L	504.60 ppb	10:38:10
3	Mo 202.031†	15195.9	15300.4	500.85 µg/L	500.85 ppb	10:38:30
3	Ni 231.604†	40229.0	40499.4	506.70 µg/L	506.70 ppb	10:38:10
3	P 214.914†	10704.5	10776.6	2484.3 µg/L	2484.3 ppb	10:38:30
3	Pb 220.353†	8282.2	8214.7	507.09 µg/L	507.09 ppb	10:38:30
3	S 181.975 Axial†	1291.3	1208.0	1020.5 µg/L	1020.5 ppb	10:38:30
3	Sb 206.836†	3926.1	3853.4	497.95 µg/L	497.95 ppb	10:38:30
3	Se 196.026†	1271.1	1270.5	503 µg/L	503 ppb	10:38:30
3	SiO2†	51964.0	50450.4	5321.1 µg/L	5321.1 ppb	10:38:10
3	Si 251.611†	159117.7	159041.0	2497.9 µg/L	2497.9 ppb	10:38:10
3	Sn 189.927†	7158.9	7188.1	500.28 µg/L	500.28 ppb	10:38:30
3	Ti 334.940†	486018.7	487304.3	499.85 µg/L	499.85 ppb	10:38:10
3	Tl 190.801†	3533.3	3662.9	507.69 µg/L	507.69 ppb	10:38:30
3	U 409.014†	7097.1	7291.2	490.73 µg/L	490.73 ppb	10:38:10
3	V 292.402†	96745.9	96742.4	508.08 µg/L	508.08 ppb	10:38:10
3	Zn 213.857†	85472.9	85340.8	505.64 µg/L	505.64 ppb	10:38:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786422.2	99.017	%	0.5790				0.58%
Sc RADIAL	140080.2	100.0	%	0.72				0.72%
Y 371.029	1036109.4	97.996	%	0.6078				0.62%
Ag 328.068†	121440.5	503.39	µg/L	1.245	503.39	ppb	1.245	0.25%
QC value within limits for Ag 328.068 Recovery = 100.68%								
Al 396.153Radial†	24180.9	5067.5	µg/L	11.08	5067.5	ppb	11.08	0.22%
QC value within limits for Al 396.153Radial Recovery = 101.35%								
As 188.979†	1467.8	503.77	µg/L	2.452	503.77	ppb	2.452	0.49%
QC value within limits for As 188.979 Recovery = 100.75%								
B 249.677†	32659.6	506.15	µg/L	0.889	506.15	ppb	0.889	0.18%
QC value within limits for B 249.677 Recovery = 101.23%								
Ba 233.527†	113352.6	504.25	µg/L	1.539	504.25	ppb	1.539	0.31%
QC value within limits for Ba 233.527 Recovery = 100.85%								
Be 313.107†	1724068.1	499.56	µg/L	1.765	499.56	ppb	1.765	0.35%
QC value within limits for Be 313.107 Recovery = 99.91%								
Ca 317.933Radial†	74825.4	5096.3	µg/L	7.93	5096.3	ppb	7.93	0.16%
QC value within limits for Ca 317.933Radial Recovery = 101.93%								
Cd 226.502†	75093.5	507.22	µg/L	2.784	507.22	ppb	2.784	0.55%
QC value within limits for Cd 226.502 Recovery = 101.44%								
Co 228.616†	38338.0	507.45	µg/L	1.798	507.45	ppb	1.798	0.35%

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   QC value within limits for Co 228.616  Recovery = 101.49%
Cr 267.716†            58237.9      503.70 µg/L        1.806      503.70 ppb         1.806   0.36%
   QC value within limits for Cr 267.716  Recovery = 100.74%
Cu 324.752†           120118.8      503.97 µg/L        1.048      503.97 ppb         1.048   0.21%
   QC value within limits for Cu 324.752  Recovery = 100.79%
Fe 238.204 Radial†     67596.9      5048.1 µg/L        10.15      5048.1 ppb         10.15   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.96%
K 766.490 Radial†      14263.4      5647.7 µg/L        40.19      5647.7 ppb         40.19   0.71%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 112.95%
Mg 279.077 IEC†        11230.9      5193.7 µg/L        18.41      5193.7 ppb         18.41   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.87%
Mn 257.610†           379174.3      502.77 µg/L        1.676      502.77 ppb         1.676   0.33%
   QC value within limits for Mn 257.610  Recovery = 100.55%
Mo 202.031†            15440.7      505.43 µg/L        4.001      505.43 ppb         4.001   0.79%
   QC value within limits for Mo 202.031  Recovery = 101.09%
Na 589.592 Radial†     65444.6       10139 µg/L         18.4       10139 ppb          18.4   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 101.39%
Ni 231.604†            40316.7      504.41 µg/L        2.272      504.41 ppb         2.272   0.45%
   QC value within limits for Ni 231.604  Recovery = 100.88%
P 214.914†             10900.2      2512.9 µg/L        25.04      2512.9 ppb         25.04   1.00%
   QC value within limits for P 214.914  Recovery = 100.51%
Pb 220.353†             8314.9      513.27 µg/L        5.432      513.27 ppb         5.432   1.06%
   QC value within limits for Pb 220.353  Recovery = 102.65%
S 181.975 Axial†        1230.3      1039.3 µg/L        16.35      1039.3 ppb         16.35   1.57%
   QC value within limits for S 181.975 Axial  Recovery = 103.93%
Sb 206.836†             3883.0      501.87 µg/L        3.396      501.87 ppb         3.396   0.68%
   QC value within limits for Sb 206.836  Recovery = 100.37%
Se 196.026†             1288.0         510 µg/L          6.0         510 ppb           6.0   1.19%
   QC value within limits for Se 196.026  Recovery = 101.93%
SiO2†                  50333.9      5308.6 µg/L        13.25      5308.6 ppb         13.25   0.25%
   QC value within limits for SiO2  Recovery = 99.27%
Si 251.611†           158500.4      2489.3 µg/L         7.63      2489.3 ppb          7.63   0.31%
   QC value within limits for Si 251.611  Recovery = 99.57%
Sn 189.927†             7267.7      505.80 µg/L        4.871      505.80 ppb         4.871   0.96%
   QC value within limits for Sn 189.927  Recovery = 101.16%
Sr 421.552†           211796.5      499.47 µg/L        3.208      499.47 ppb         3.208   0.64%
   QC value within limits for Sr 421.552  Recovery = 99.89%
Ti 334.940†           486110.4      498.63 µg/L        1.117      498.63 ppb         1.117   0.22%
   QC value within limits for Ti 334.940  Recovery = 99.73%
Tl 190.801†             3705.0      513.42 µg/L        4.965      513.42 ppb         4.965   0.97%
   QC value within limits for Tl 190.801  Recovery = 102.68%
U 409.014†              7289.3      490.55 µg/L        3.999      490.55 ppb         3.999   0.82%
   QC value within limits for U 409.014  Recovery = 98.11%
V 292.402†             96580.5      507.28 µg/L        1.474      507.28 ppb         1.474   0.29%
   QC value within limits for V 292.402  Recovery = 101.46%
Zn 213.857†            84956.4      503.36 µg/L        1.987      503.36 ppb         1.987   0.39%
   QC value within limits for Zn 213.857  Recovery = 100.67%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 10:38:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139909.9	139909.9	99.9	%			10:39:07
1	Al 396.153Radial†	-55.8	22.7	4.7099	µg/L	4.7099	ppb	10:39:27
1	Ca 317.933Radial†	668.4	97.8	6.6613	µg/L	6.6613	ppb	10:39:27
1	Fe 238.204 Radial†	168.4	51.3	3.8306	µg/L	3.8306	ppb	10:39:27
1	K 766.490 Radial†	2181.0	690.0	273.40	µg/L	273.40	ppb	10:39:07
1	Mg 279.077 IEC†	195.0	22.8	10.561	µg/L	10.561	ppb	10:39:27
1	Na 589.592 Radial†	1624.4	674.0	104.23	µg/L	104.23	ppb	10:39:07
1	Sr 421.552†	-97.8	106.5	0.2512	µg/L	0.2512	ppb	10:39:07
1	Sc 361.383	1822724.3	1822724.3	101.03	%			10:40:15
1	Y 371.029	1067929.9	1067929.9	101.01	%			10:40:15
1	Ag 328.068†	4558.5	-53.1	-0.2451	µg/L	-0.2451	ppb	10:40:17
1	As 188.979†	-17.1	1.6	0.5599	µg/L	0.5599	ppb	10:40:37
1	B 249.677†	4426.7	316.4	4.9210	µg/L	4.9210	ppb	10:40:17
1	Ba 233.527†	-125.1	20.7	0.0922	µg/L	0.0922	ppb	10:40:37
1	Be 313.107†	-581.3	516.4	0.1437	µg/L	0.1437	ppb	10:40:17
1	Cd 226.502†	-17.4	86.1	0.5819	µg/L	0.5819	ppb	10:40:37
1	Co 228.616†	-210.1	2.3	0.0304	µg/L	0.0304	ppb	10:40:37
1	Cr 267.716†	230.3	-5.3	-0.0307	µg/L	-0.0307	ppb	10:40:37
1	Cu 324.752†	3295.4	225.7	0.9289	µg/L	0.9289	ppb	10:40:17
1	Mn 257.610†	310.3	122.4	0.1620	µg/L	0.1620	ppb	10:40:37
1	Mo 202.031†	6.0	44.5	1.4552	µg/L	1.4552	ppb	10:40:37
1	Ni 231.604†	-50.2	46.2	0.5783	µg/L	0.5783	ppb	10:40:37
1	P 214.914†	-9.3	16.5	3.7864	µg/L	3.7864	ppb	10:40:37
1	Pb 220.353†	119.1	14.4	0.9040	µg/L	0.9040	ppb	10:40:37
1	S 181.975 Axial†	105.7	15.7	13.183	µg/L	13.183	ppb	10:40:37
1	Sb 206.836†	87.7	-2.9	-0.3534	µg/L	-0.3534	ppb	10:40:37
1	Se 196.026†	26.3	19.9	7.82	µg/L	7.82	ppb	10:40:37
1	SiO2†	1818.1	60.4	6.3488	µg/L	6.3488	ppb	10:40:37
1	Si 251.611†	861.5	85.7	1.3276	µg/L	1.3276	ppb	10:40:17
1	Sn 189.927†	11.7	9.7	0.6739	µg/L	0.6739	ppb	10:40:37
1	Ti 334.940†	1159.3	324.5	0.3406	µg/L	0.3406	ppb	10:40:17
1	Tl 190.801†	-101.6	13.7	1.8777	µg/L	1.8777	ppb	10:40:37
1	U 409.014†	-475.4	-307.2	-19.402	µg/L	-19.402	ppb	10:40:17
1	V 292.402†	369.8	-57.2	-0.2953	µg/L	-0.2953	ppb	10:40:17
1	Zn 213.857†	703.4	193.2	1.1494	µg/L	1.1494	ppb	10:40:37
2	Sc RADIAL	139104.0	139104.0	99.3	%			10:39:29
2	Al 396.153Radial†	-55.3	22.9	4.7868	µg/L	4.7868	ppb	10:39:49
2	Ca 317.933Radial†	656.3	89.5	6.0970	µg/L	6.0970	ppb	10:39:49
2	Fe 238.204 Radial†	153.3	37.1	2.7712	µg/L	2.7712	ppb	10:39:49
2	K 766.490 Radial†	2053.7	574.5	227.64	µg/L	227.64	ppb	10:39:29
2	Mg 279.077 IEC†	181.1	9.9	4.5998	µg/L	4.5998	ppb	10:39:49
2	Na 589.592 Radial†	1651.7	711.0	110.00	µg/L	110.00	ppb	10:39:29
2	Sr 421.552†	-28.2	176.1	0.4153	µg/L	0.4153	ppb	10:39:29
2	Sc 361.383	1814086.1	1814086.1	100.55	%			10:40:39
2	Y 371.029	1063810.2	1063810.2	100.62	%			10:40:39
2	Ag 328.068†	4519.4	-70.5	-0.3026	µg/L	-0.3026	ppb	10:40:41
2	As 188.979†	-16.7	1.9	0.6543	µg/L	0.6543	ppb	10:41:02
2	B 249.677†	4194.0	105.9	1.6449	µg/L	1.6449	ppb	10:40:41
2	Ba 233.527†	36.7	181.1	0.8048	µg/L	0.8048	ppb	10:41:02
2	Be 313.107†	-830.7	265.6	0.0742	µg/L	0.0742	ppb	10:40:41
2	Cd 226.502†	-39.0	64.5	0.4361	µg/L	0.4361	ppb	10:41:02
2	Co 228.616†	-158.3	52.9	0.7000	µg/L	0.7000	ppb	10:41:02
2	Cr 267.716†	280.5	45.7	0.4025	µg/L	0.4025	ppb	10:41:02
2	Cu 324.752†	3051.0	-1.8	-0.0141	µg/L	-0.0141	ppb	10:40:41
2	Mn 257.610†	250.3	64.2	0.0850	µg/L	0.0850	ppb	10:41:02
2	Mo 202.031†	-19.1	19.6	0.6409	µg/L	0.6409	ppb	10:41:02
2	Ni 231.604†	-77.8	18.5	0.2318	µg/L	0.2318	ppb	10:41:02
2	P 214.914†	-30.8	-4.9	-1.1366	µg/L	-1.1366	ppb	10:41:02
2	Pb 220.353†	140.7	36.5	2.2529	µg/L	2.2529	ppb	10:41:02

2	S 181.975 Axial†	114.2	24.6	20.708 µg/L	20.708 ppb	10:41:02
2	Sb 206.836†	82.1	-8.1	-1.0413 µg/L	-1.0413 ppb	10:41:02
2	Se 196.026†	31.3	24.9	9.81 µg/L	9.81 ppb	10:41:02
2	SiO2†	1765.7	17.0	1.7661 µg/L	1.7661 ppb	10:41:02
2	Si 251.611†	858.7	87.0	1.3574 µg/L	1.3574 ppb	10:40:41
2	Sn 189.927†	15.3	13.3	0.9228 µg/L	0.9228 ppb	10:41:02
2	Ti 334.940†	912.5	84.5	0.0902 µg/L	0.0902 ppb	10:40:41
2	Tl 190.801†	-111.6	3.3	0.4502 µg/L	0.4502 ppb	10:41:02
2	U 409.014†	-310.7	-145.6	-9.2038 µg/L	-9.2038 ppb	10:40:41
2	V 292.402†	384.0	-41.3	-0.2124 µg/L	-0.2124 ppb	10:40:41
2	Zn 213.857†	665.6	159.0	0.9477 µg/L	0.9477 ppb	10:41:02
3	Sc RADIAL	140352.9	140352.9	100 %		10:39:51
3	Al 396.153Radial†	-12.8	65.8	13.824 µg/L	13.824 ppb	10:40:11
3	Ca 317.933Radial†	842.6	269.6	18.359 µg/L	18.359 ppb	10:40:11
3	Fe 238.204 Radial†	290.3	172.4	12.876 µg/L	12.876 ppb	10:40:11
3	K 766.490 Radial†	2021.3	523.7	207.51 µg/L	207.51 ppb	10:39:51
3	Mg 279.077 IEC†	235.2	62.3	28.777 µg/L	28.777 ppb	10:40:11
3	Na 589.592 Radial†	1483.6	528.4	81.714 µg/L	81.714 ppb	10:39:51
3	Sr 421.552†	-224.6	-19.7	-0.0465 µg/L	-0.0465 ppb	10:39:51
3	Sc 361.383	1797177.6	1797177.6	99.613 %		10:41:04
3	Y 371.029	1054450.3	1054450.3	99.731 %		10:41:04
3	Ag 328.068†	4482.2	-65.5	-0.2803 µg/L	-0.2803 ppb	10:41:06
3	As 188.979†	-10.0	8.5	2.8805 µg/L	2.8805 ppb	10:41:26
3	B 249.677†	4185.2	136.3	2.1188 µg/L	2.1188 ppb	10:41:06
3	Ba 233.527†	-139.1	4.9	0.0218 µg/L	0.0218 ppb	10:41:26
3	Be 313.107†	-828.9	259.6	0.0717 µg/L	0.0717 ppb	10:41:06
3	Cd 226.502†	-11.5	91.8	0.6190 µg/L	0.6190 ppb	10:41:26
3	Co 228.616†	-203.6	5.9	0.0772 µg/L	0.0772 ppb	10:41:26
3	Cr 267.716†	250.1	17.9	0.1638 µg/L	0.1638 ppb	10:41:26
3	Cu 324.752†	3091.9	67.8	0.2766 µg/L	0.2766 ppb	10:41:06
3	Mn 257.610†	263.6	79.9	0.1048 µg/L	0.1048 ppb	10:41:26
3	Mo 202.031†	-21.8	16.7	0.5458 µg/L	0.5458 ppb	10:41:26
3	Ni 231.604†	-72.9	22.7	0.2843 µg/L	0.2843 ppb	10:41:26
3	P 214.914†	-18.9	6.8	1.5610 µg/L	1.5610 ppb	10:41:26
3	Pb 220.353†	128.4	25.5	1.5787 µg/L	1.5787 ppb	10:41:26
3	S 181.975 Axial†	101.9	13.4	11.251 µg/L	11.251 ppb	10:41:26
3	Sb 206.836†	70.7	-18.7	-2.4055 µg/L	-2.4055 ppb	10:41:26
3	Se 196.026†	9.9	3.8	1.49 µg/L	1.49 ppb	10:41:26
3	SiO2†	1766.7	34.5	3.6151 µg/L	3.6151 ppb	10:41:26
3	Si 251.611†	977.5	214.2	3.3608 µg/L	3.3608 ppb	10:41:06
3	Sn 189.927†	23.7	21.9	1.5170 µg/L	1.5170 ppb	10:41:26
3	Ti 334.940†	715.0	-105.2	-0.1052 µg/L	-0.1052 ppb	10:41:06
3	Tl 190.801†	-104.0	9.9	1.3480 µg/L	1.3480 ppb	10:41:26
3	U 409.014†	-346.8	-184.8	-11.650 µg/L	-11.650 ppb	10:41:06
3	V 292.402†	466.6	45.2	0.2316 µg/L	0.2316 ppb	10:41:06
3	Zn 213.857†	652.7	152.2	0.9057 µg/L	0.9057 ppb	10:41:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1811329.4	100.40	%	0.720				0.72%
Sc RADIAL	139788.9	99.8	%	0.45				0.45%
Y 371.029	1062063.4	100.45	%	0.653				0.65%
Ag 328.068†	-63.1	-0.2760	µg/L	0.02898	-0.2760	ppb	0.02898	10.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	37.1	7.7736	µg/L	5.23994	7.7736	ppb	5.23994	67.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.0	1.3649	µg/L	1.31341	1.3649	ppb	1.31341	96.23%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	186.2	2.8949	µg/L	1.77056	2.8949	ppb	1.77056	61.16%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	68.9	0.3062	µg/L	0.43321	0.3062	ppb	0.43321	141.46%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	347.2	0.0965	µg/L	0.04090	0.0965	ppb	0.04090	42.38%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	152.3	10.373	µg/L	6.9226	10.373	ppb	6.9226	66.74%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	80.8	0.5457	µg/L	0.09672	0.5457	ppb	0.09672	17.73%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.4	0.2692	µg/L	0.37385	0.2692	ppb	0.37385	138.88%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.4      0.1785 µg/L       0.21700      0.1785 ppb        0.21700 121.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              97.2      0.3971 µg/L       0.48288      0.3971 ppb        0.48288 121.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       86.9      6.4926 µg/L       5.55342      6.4926 ppb        5.55342  85.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       596.1      236.18 µg/L        33.767      236.18 ppb         33.767  14.30%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          31.7      14.646 µg/L       12.5959      14.646 ppb        12.5959  86.00%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              88.9      0.1173 µg/L       0.03997      0.1173 ppb        0.03997  34.08%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              26.9      0.8806 µg/L       0.49988      0.8806 ppb        0.49988  56.76%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      637.8      98.649 µg/L       14.9470      98.649 ppb        14.9470  15.15%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              29.2      0.3648 µg/L       0.18676      0.3648 ppb        0.18676  51.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                6.1      1.4036 µg/L       2.46530      1.4036 ppb        2.46530 175.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              25.4      1.5785 µg/L       0.67449      1.5785 ppb        0.67449  42.73%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         17.9      15.047 µg/L        4.9964      15.047 ppb         4.9964  33.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -9.9     -1.2667 µg/L       1.04446     -1.2667 ppb        1.04446  82.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              16.2        6.37 µg/L         4.348        6.37 ppb          4.348  68.22%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    37.3      3.9100 µg/L       2.30555      3.9100 ppb        2.30555  58.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             129.0      2.0153 µg/L       1.16537      2.0153 ppb        1.16537  57.83%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              15.0      1.0379 µg/L       0.43318      1.0379 ppb        0.43318  41.74%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              87.7      0.2067 µg/L       0.23409      0.2067 ppb        0.23409 113.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             101.2      0.1085 µg/L       0.22346      0.1085 ppb        0.22346 205.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               9.0      1.2253 µg/L       0.72161      1.2253 ppb        0.72161  58.89%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -212.6     -13.419 µg/L        5.3243     -13.419 ppb         5.3243  39.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -17.8     -0.0920 µg/L       0.28332     -0.0920 ppb        0.28332 307.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             168.2      1.0009 µg/L       0.13030      1.0009 ppb        0.13030  13.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

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Analysis Begun

Start Time: 4/5/2010 10:49:36 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 4/5/2010 9:54:36**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/5/2010 10:49:38**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139913.8	139913.8	99.9	%			10:50:08
1	Al 396.153Radial†	24335.8	24445.5	5123.4	µg/L	5123.4	ppb	10:50:10
1	Ca 317.933Radial†	76124.3	75650.4	5152.5	µg/L	5152.5	ppb	10:50:10
1	Fe 238.204 Radial†	68091.5	68061.4	5082.8	µg/L	5082.8	ppb	10:50:10

1	K 766.490 Radial†	14510.4	13035.1	5161.0 µg/L	5161.0 ppb	10:50:10
1	Mg 279.077 IEC†	11429.7	11271.9	5212.6 µg/L	5212.6 ppb	10:50:10
1	Na 589.592 Radial†	64869.2	63999.8	9915.9 µg/L	9915.9 ppb	10:50:08
1	Sr 421.552†	210128.9	210602.6	496.66 µg/L	496.66 ppb	10:50:08
1	Sc 361.383	1793135.3	1793135.3	99.389 %		10:50:37
1	Y 371.029	1039795.9	1039795.9	98.345 %		10:50:37
1	Ag 328.068†	125023.0	121226.0	502.50 µg/L	502.50 ppb	10:50:37
1	As 188.979†	1415.1	1442.4	495.14 µg/L	495.14 ppb	10:50:57
1	B 249.677†	35686.1	31840.2	493.41 µg/L	493.41 ppb	10:50:37
1	Ba 233.527†	111774.5	112605.9	500.92 µg/L	500.92 ppb	10:50:37
1	Be 313.107†	1706398.9	1717975.2	497.80 µg/L	497.80 ppb	10:50:37
1	Cd 226.502†	74086.4	74645.0	504.19 µg/L	504.19 ppb	10:50:37
1	Co 228.616†	37804.3	38246.8	506.24 µg/L	506.24 ppb	10:50:37
1	Cr 267.716†	57747.6	57869.2	500.50 µg/L	500.50 ppb	10:50:37
1	Cu 324.752†	121662.9	119374.4	500.87 µg/L	500.87 ppb	10:50:37
1	Mn 257.610†	376107.2	378233.4	501.52 µg/L	501.52 ppb	10:50:37
1	Mo 202.031†	15189.8	15321.7	501.54 µg/L	501.54 ppb	10:50:57
1	Ni 231.604†	39897.8	40238.8	503.44 µg/L	503.44 ppb	10:50:37
1	P 214.914†	10795.7	10887.8	2510.0 µg/L	2510.0 ppb	10:50:57
1	Pb 220.353†	8262.9	8210.2	506.81 µg/L	506.81 ppb	10:50:57
1	S 181.975 Axial†	1275.8	1194.7	1009.3 µg/L	1009.3 ppb	10:50:57
1	Sb 206.836†	3955.2	3889.8	502.71 µg/L	502.71 ppb	10:50:57
1	Se 196.026†	1278.3	1280.0	507 µg/L	507 ppb	10:50:57
1	SiO2†	51569.1	50146.9	5288.9 µg/L	5288.9 ppb	10:50:37
1	Si 251.611†	157499.0	157699.7	2476.8 µg/L	2476.8 ppb	10:50:37
1	Sn 189.927†	7167.7	7209.8	501.78 µg/L	501.78 ppb	10:50:57
1	Ti 334.940†	482524.4	484666.2	497.14 µg/L	497.14 ppb	10:50:37
1	Tl 190.801†	3542.3	3678.3	509.75 µg/L	509.75 ppb	10:50:57
1	U 409.014†	7309.8	7518.1	504.80 µg/L	504.80 ppb	10:50:37
1	V 292.402†	95824.9	95990.5	504.17 µg/L	504.17 ppb	10:50:37
1	Zn 213.857†	84530.8	84547.2	500.92 µg/L	500.92 ppb	10:50:37
2	Sc RADIAL	140341.7	140341.7	100 %		10:50:12
2	Al 396.153Radial†	23928.8	23965.0	5022.0 µg/L	5022.0 ppb	10:50:14
2	Ca 317.933Radial†	74480.6	73777.1	5024.9 µg/L	5024.9 ppb	10:50:14
2	Fe 238.204 Radial†	66810.1	66574.4	4971.7 µg/L	4971.7 ppb	10:50:14
2	K 766.490 Radial†	14217.3	12698.3	5027.6 µg/L	5027.6 ppb	10:50:14
2	Mg 279.077 IEC†	11311.0	11118.6	5141.9 µg/L	5141.9 ppb	10:50:14
2	Na 589.592 Radial†	65359.5	64291.2	9961.2 µg/L	9961.2 ppb	10:50:12
2	Sr 421.552†	211237.8	211067.9	497.76 µg/L	497.76 ppb	10:50:12
2	Sc 361.383	1774369.1	1774369.1	98.349 %		10:51:01
2	Y 371.029	1029276.4	1029276.4	97.350 %		10:51:01
2	Ag 328.068†	123578.9	121088.1	501.92 µg/L	501.92 ppb	10:51:01
2	As 188.979†	1412.6	1454.9	499.35 µg/L	499.35 ppb	10:51:21
2	B 249.677†	35412.9	31942.2	495.00 µg/L	495.00 ppb	10:51:01
2	Ba 233.527†	110497.4	112496.7	500.44 µg/L	500.44 ppb	10:51:01
2	Be 313.107†	1682989.4	1712331.0	496.16 µg/L	496.16 ppb	10:51:01
2	Cd 226.502†	73151.3	74482.6	503.10 µg/L	503.10 ppb	10:51:01
2	Co 228.616†	37344.3	38181.4	505.38 µg/L	505.38 ppb	10:51:01
2	Cr 267.716†	57138.9	57864.8	500.47 µg/L	500.47 ppb	10:51:01
2	Cu 324.752†	120116.3	119096.4	499.68 µg/L	499.68 ppb	10:51:01
2	Mn 257.610†	370927.0	376968.5	499.85 µg/L	499.85 ppb	10:51:01
2	Mo 202.031†	15145.9	15438.7	505.36 µg/L	505.36 ppb	10:51:21
2	Ni 231.604†	39443.9	40201.8	502.98 µg/L	502.98 ppb	10:51:01
2	P 214.914†	10729.6	10935.4	2521.1 µg/L	2521.1 ppb	10:51:21
2	Pb 220.353†	8260.4	8295.6	512.08 µg/L	512.08 ppb	10:51:21
2	S 181.975 Axial†	1287.9	1220.6	1031.1 µg/L	1031.1 ppb	10:51:21
2	Sb 206.836†	3928.5	3904.8	504.71 µg/L	504.71 ppb	10:51:21
2	Se 196.026†	1280.0	1295.4	512 µg/L	512 ppb	10:51:21
2	SiO2†	50796.5	49910.0	5263.7 µg/L	5263.7 ppb	10:51:01
2	Si 251.611†	155366.4	157207.3	2468.9 µg/L	2468.9 ppb	10:51:01
2	Sn 189.927†	7141.4	7259.3	505.21 µg/L	505.21 ppb	10:51:21
2	Ti 334.940†	476326.0	483498.4	495.95 µg/L	495.95 ppb	10:51:01
2	Tl 190.801†	3543.4	3717.2	515.05 µg/L	515.05 ppb	10:51:21
2	U 409.014†	6925.4	7205.0	485.08 µg/L	485.08 ppb	10:51:01
2	V 292.402†	94927.6	96097.8	504.77 µg/L	504.77 ppb	10:51:01
2	Zn 213.857†	83208.3	84102.0	498.28 µg/L	498.28 ppb	10:51:01
3	Sc RADIAL	137926.0	137926.0	98.5 %		10:50:16
3	Al 396.153Radial†	23743.5	24195.1	5070.7 µg/L	5070.7 ppb	10:50:18
3	Ca 317.933Radial†	74096.5	74689.2	5087.0 µg/L	5087.0 ppb	10:50:18
3	Fe 238.204 Radial†	66279.1	67203.1	5018.7 µg/L	5018.7 ppb	10:50:18
3	K 766.490 Radial†	14171.0	12899.8	5107.4 µg/L	5107.4 ppb	10:50:18

3	Mg 279.077 IEC†	11189.8	11193.2	5176.3 µg/L	5176.3 ppb	10:50:18
3	Na 589.592 Radial†	64370.5	64429.3	9982.5 µg/L	9982.5 ppb	10:50:16
3	Sr 421.552†	208116.7	211590.8	498.99 µg/L	498.99 ppb	10:50:16
3	Sc 361.383	1790832.9	1790832.9	99.262 %		10:51:24
3	Y 371.029	1039510.2	1039510.2	98.318 %		10:51:24
3	Ag 328.068†	124982.2	121346.7	502.99 µg/L	502.99 ppb	10:51:24
3	As 188.979†	1432.6	1461.8	501.68 µg/L	501.68 ppb	10:51:44
3	B 249.677†	35516.0	31715.1	491.47 µg/L	491.47 ppb	10:51:24
3	Ba 233.527†	111713.2	112688.6	501.29 µg/L	501.29 ppb	10:51:24
3	Be 313.107†	1700513.3	1714253.1	496.72 µg/L	496.72 ppb	10:51:24
3	Cd 226.502†	73950.4	74603.7	503.92 µg/L	503.92 ppb	10:51:24
3	Co 228.616†	37761.3	38252.5	506.32 µg/L	506.32 ppb	10:51:24
3	Cr 267.716†	57636.2	57831.7	500.18 µg/L	500.18 ppb	10:51:24
3	Cu 324.752†	121402.4	119269.2	500.42 µg/L	500.42 ppb	10:51:24
3	Mn 257.610†	375337.1	377944.0	501.14 µg/L	501.14 ppb	10:51:24
3	Mo 202.031†	15165.8	15317.2	501.39 µg/L	501.39 ppb	10:51:44
3	Ni 231.604†	39837.7	40229.9	503.33 µg/L	503.33 ppb	10:51:24
3	P 214.914†	10769.4	10875.2	2507.2 µg/L	2507.2 ppb	10:51:44
3	Pb 220.353†	8292.5	8250.7	509.30 µg/L	509.30 ppb	10:51:44
3	S 181.975 Axial†	1280.9	1201.5	1015.0 µg/L	1015.0 ppb	10:51:44
3	Sb 206.836†	3936.5	3876.1	500.96 µg/L	500.96 ppb	10:51:44
3	Se 196.026†	1299.1	1302.6	515 µg/L	515 ppb	10:51:44
3	SiO2†	51317.0	49959.6	5269.1 µg/L	5269.1 ppb	10:51:24
3	Si 251.611†	156975.7	157376.2	2471.7 µg/L	2471.7 ppb	10:51:24
3	Sn 189.927†	7161.2	7212.6	501.97 µg/L	501.97 ppb	10:51:44
3	Ti 334.940†	481658.8	484418.3	496.89 µg/L	496.89 ppb	10:51:24
3	Tl 190.801†	3540.4	3681.0	510.11 µg/L	510.11 ppb	10:51:44
3	U 409.014†	7215.7	7432.8	499.47 µg/L	499.47 ppb	10:51:24
3	V 292.402†	95838.7	96128.3	504.89 µg/L	504.89 ppb	10:51:24
3	Zn 213.857†	84238.2	84361.7	499.82 µg/L	499.82 ppb	10:51:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786112.4	99.000	%	0.5673				0.57%
Sc RADIAL	139393.8	99.5	%	0.92				0.92%
Y 371.029	1036194.2	98.004	%	0.5668				0.58%
Ag 328.068†	121220.3	502.47	µg/L	0.538	502.47	ppb	0.538	0.11%
QC value within limits for Ag 328.068 Recovery = 100.49%								
Al 396.153Radial†	24201.9	5072.0	µg/L	50.69	5072.0	ppb	50.69	1.00%
QC value within limits for Al 396.153Radial Recovery = 101.44%								
As 188.979†	1453.0	498.73	µg/L	3.315	498.73	ppb	3.315	0.66%
QC value within limits for As 188.979 Recovery = 99.75%								
B 249.677†	31832.5	493.29	µg/L	1.771	493.29	ppb	1.771	0.36%
QC value within limits for B 249.677 Recovery = 98.66%								
Ba 233.527†	112597.1	500.89	µg/L	0.427	500.89	ppb	0.427	0.09%
QC value within limits for Ba 233.527 Recovery = 100.18%								
Be 313.107†	1714853.1	496.89	µg/L	0.834	496.89	ppb	0.834	0.17%
QC value within limits for Be 313.107 Recovery = 99.38%								
Ca 317.933Radial†	74705.6	5088.1	µg/L	63.80	5088.1	ppb	63.80	1.25%
QC value within limits for Ca 317.933Radial Recovery = 101.76%								
Cd 226.502†	74577.1	503.74	µg/L	0.565	503.74	ppb	0.565	0.11%
QC value within limits for Cd 226.502 Recovery = 100.75%								
Co 228.616†	38226.9	505.98	µg/L	0.521	505.98	ppb	0.521	0.10%
QC value within limits for Co 228.616 Recovery = 101.20%								
Cr 267.716†	57855.2	500.38	µg/L	0.179	500.38	ppb	0.179	0.04%
QC value within limits for Cr 267.716 Recovery = 100.08%								
Cu 324.752†	119246.7	500.32	µg/L	0.605	500.32	ppb	0.605	0.12%
QC value within limits for Cu 324.752 Recovery = 100.06%								
Fe 238.204 Radial†	67279.6	5024.4	µg/L	55.74	5024.4	ppb	55.74	1.11%
QC value within limits for Fe 238.204 Radial Recovery = 100.49%								
K 766.490 Radial†	12877.8	5098.6	µg/L	67.14	5098.6	ppb	67.14	1.32%
QC value within limits for K 766.490 Radial Recovery = 101.97%								
Mg 279.077 IEC†	11194.5	5176.9	µg/L	35.31	5176.9	ppb	35.31	0.68%
QC value within limits for Mg 279.077 IEC Recovery = 103.54%								
Mn 257.610†	377715.3	500.84	µg/L	0.878	500.84	ppb	0.878	0.18%
QC value within limits for Mn 257.610 Recovery = 100.17%								
Mo 202.031†	15359.2	502.77	µg/L	2.250	502.77	ppb	2.250	0.45%
QC value within limits for Mo 202.031 Recovery = 100.55%								
Na 589.592 Radial†	64240.1	9953.2	µg/L	34.02	9953.2	ppb	34.02	0.34%

```
   QC value within limits for Na 589.592 Radial  Recovery = 99.53%
Ni 231.604†            40223.5      503.25 µg/L         0.242      503.25 ppb          0.242   0.05%
   QC value within limits for Ni 231.604  Recovery = 100.65%
P 214.914†             10899.5      2512.8 µg/L          7.37      2512.8 ppb           7.37   0.29%
   QC value within limits for P 214.914  Recovery = 100.51%
Pb 220.353†             8252.2      509.40 µg/L         2.637      509.40 ppb          2.637   0.52%
   QC value within limits for Pb 220.353  Recovery = 101.88%
S 181.975 Axial†        1205.6      1018.5 µg/L         11.31      1018.5 ppb          11.31   1.11%
   QC value within limits for S 181.975 Axial  Recovery = 101.85%
Sb 206.836†             3890.2      502.79 µg/L         1.880      502.79 ppb          1.880   0.37%
   QC value within limits for Sb 206.836  Recovery = 100.56%
Se 196.026†             1292.7         511 µg/L           4.5         511 ppb            4.5   0.89%
   QC value within limits for Se 196.026  Recovery = 102.29%
SiO2†                  50005.5      5273.9 µg/L         13.29      5273.9 ppb          13.29   0.25%
   QC value within limits for SiO2  Recovery = 98.62%
Si 251.611†           157427.7      2472.4 µg/L          3.98      2472.4 ppb           3.98   0.16%
   QC value within limits for Si 251.611  Recovery = 98.90%
Sn 189.927†             7227.3      502.98 µg/L         1.927      502.98 ppb          1.927   0.38%
   QC value within limits for Sn 189.927  Recovery = 100.60%
Sr 421.552†           211087.1      497.80 µg/L         1.166      497.80 ppb          1.166   0.23%
   QC value within limits for Sr 421.552  Recovery = 99.56%
Ti 334.940†           484194.3      496.66 µg/L         0.627      496.66 ppb          0.627   0.13%
   QC value within limits for Ti 334.940  Recovery = 99.33%
Tl 190.801†             3692.2      511.63 µg/L         2.962      511.63 ppb          2.962   0.58%
   QC value within limits for Tl 190.801  Recovery = 102.33%
U 409.014†              7385.3      496.45 µg/L        10.200      496.45 ppb         10.200   2.05%
   QC value within limits for U 409.014  Recovery = 99.29%
V 292.402†             96072.2      504.61 µg/L         0.383      504.61 ppb          0.383   0.08%
   QC value within limits for V 292.402  Recovery = 100.92%
Zn 213.857†            84337.0      499.68 µg/L         1.328      499.68 ppb          1.328   0.27%
   QC value within limits for Zn 213.857  Recovery = 99.94%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 10:51:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141670.1	141670.1	101	%			10:52:20
1	Al 396.153Radial†	-83.7	-4.2	-0.9279	µg/L	-0.9279	ppb	10:52:40
1	Ca 317.933Radial†	599.3	21.2	1.4420	µg/L	1.4420	ppb	10:52:40
1	Fe 238.204 Radial†	137.4	18.5	1.3846	µg/L	1.3846	ppb	10:52:40
1	K 766.490 Radial†	1758.8	245.4	97.233	µg/L	97.233	ppb	10:52:20
1	Mg 279.077 IEC†	184.3	9.8	4.5283	µg/L	4.5283	ppb	10:52:40
1	Na 589.592 Radial†	1104.6	139.8	21.576	µg/L	21.576	ppb	10:52:20
1	Sr 421.552†	-36.3	168.6	0.3976	µg/L	0.3976	ppb	10:52:20
1	Sc 361.383	1813398.6	1813398.6	100.51	%			10:53:28
1	Y 371.029	1064259.3	1064259.3	100.66	%			10:53:28
1	Ag 328.068†	4348.3	-239.0	-1.0007	µg/L	-1.0007	ppb	10:53:30
1	As 188.979†	-15.0	3.6	1.2220	µg/L	1.2220	ppb	10:53:50
1	B 249.677†	4013.1	-72.5	-1.1296	µg/L	-1.1296	ppb	10:53:30
1	Ba 233.527†	-146.0	-0.7	-0.0036	µg/L	-0.0036	ppb	10:53:50
1	Be 313.107†	-909.5	186.9	0.0514	µg/L	0.0514	ppb	10:53:30
1	Cd 226.502†	-65.4	38.2	0.2586	µg/L	0.2586	ppb	10:53:50
1	Co 228.616†	-181.4	29.8	0.3948	µg/L	0.3948	ppb	10:53:50
1	Cr 267.716†	242.1	7.7	0.0733	µg/L	0.0733	ppb	10:53:50
1	Cu 324.752†	3041.7	-9.9	-0.0485	µg/L	-0.0485	ppb	10:53:30
1	Mn 257.610†	243.5	57.6	0.0762	µg/L	0.0762	ppb	10:53:50
1	Mo 202.031†	-14.2	24.4	0.7983	µg/L	0.7983	ppb	10:53:50
1	Ni 231.604†	-58.3	37.9	0.4745	µg/L	0.4745	ppb	10:53:50
1	P 214.914†	0.8	26.5	6.1321	µg/L	6.1321	ppb	10:53:50
1	Pb 220.353†	99.2	-4.8	-0.2869	µg/L	-0.2869	ppb	10:53:50
1	S 181.975 Axial†	102.5	13.1	10.998	µg/L	10.998	ppb	10:53:50
1	Sb 206.836†	75.3	-14.9	-1.9041	µg/L	-1.9041	ppb	10:53:50
1	Se 196.026†	27.7	21.5	8.44	µg/L	8.44	ppb	10:53:50
1	SiO2†	1765.5	17.4	1.8071	µg/L	1.8071	ppb	10:53:50
1	Si 251.611†	842.0	70.7	1.0963	µg/L	1.0963	ppb	10:53:30
1	Sn 189.927†	18.8	16.8	1.1641	µg/L	1.1641	ppb	10:53:50
1	Ti 334.940†	736.5	-90.2	-0.0892	µg/L	-0.0892	ppb	10:53:30
1	Tl 190.801†	-110.4	4.4	0.5942	µg/L	0.5942	ppb	10:53:50
1	U 409.014†	-310.6	-145.7	-9.2474	µg/L	-9.2474	ppb	10:53:30
1	V 292.402†	247.2	-177.3	-0.9167	µg/L	-0.9167	ppb	10:53:30
1	Zn 213.857†	582.2	76.3	0.4523	µg/L	0.4523	ppb	10:53:50
2	Sc RADIAL	141550.1	141550.1	101	%			10:52:42
2	Al 396.153Radial†	-103.9	-24.3	-5.1425	µg/L	-5.1425	ppb	10:53:02
2	Ca 317.933Radial†	612.8	35.0	2.3868	µg/L	2.3868	ppb	10:53:02
2	Fe 238.204 Radial†	136.7	17.9	1.3400	µg/L	1.3400	ppb	10:53:02
2	K 766.490 Radial†	1645.6	134.9	53.442	µg/L	53.442	ppb	10:52:42
2	Mg 279.077 IEC†	180.9	6.6	3.0454	µg/L	3.0454	ppb	10:53:02
2	Na 589.592 Radial†	1113.1	149.1	23.066	µg/L	23.066	ppb	10:52:42
2	Sr 421.552†	-129.3	76.5	0.1805	µg/L	0.1805	ppb	10:52:42
2	Sc 361.383	1826504.8	1826504.8	101.24	%			10:53:52
2	Y 371.029	1070413.5	1070413.5	101.24	%			10:53:52
2	Ag 328.068†	4552.2	-68.7	-0.3004	µg/L	-0.3004	ppb	10:53:54
2	As 188.979†	-7.7	11.0	3.7209	µg/L	3.7209	ppb	10:54:15
2	B 249.677†	4155.1	39.1	0.6079	µg/L	0.6079	ppb	10:53:54
2	Ba 233.527†	-156.7	-10.3	-0.0451	µg/L	-0.0451	ppb	10:54:15
2	Be 313.107†	-768.8	332.3	0.0902	µg/L	0.0902	ppb	10:53:54
2	Cd 226.502†	-86.9	17.5	0.1182	µg/L	0.1182	ppb	10:54:15
2	Co 228.616†	-197.2	15.5	0.2048	µg/L	0.2048	ppb	10:54:15
2	Cr 267.716†	231.2	-4.9	-0.0259	µg/L	-0.0259	ppb	10:54:15
2	Cu 324.752†	2973.2	-99.3	-0.4315	µg/L	-0.4315	ppb	10:53:54
2	Mn 257.610†	229.2	41.6	0.0551	µg/L	0.0551	ppb	10:54:15
2	Mo 202.031†	-14.9	23.8	0.7802	µg/L	0.7802	ppb	10:54:15
2	Ni 231.604†	-87.6	9.4	0.1172	µg/L	0.1172	ppb	10:54:15
2	P 214.914†	-16.9	9.0	2.0871	µg/L	2.0871	ppb	10:54:15
2	Pb 220.353†	114.8	9.9	0.6284	µg/L	0.6284	ppb	10:54:15

2	S 181.975 Axial†	96.9	6.8	5.6986 µg/L	5.6986 ppb	10:54:15
2	Sb 206.836†	77.0	-13.6	-1.7438 µg/L	-1.7438 ppb	10:54:15
2	Se 196.026†	13.2	6.9	2.71 µg/L	2.71 ppb	10:54:15
2	SiO2†	1765.2	4.6	0.4503 µg/L	0.4503 ppb	10:54:15
2	Si 251.611†	950.8	172.1	2.6998 µg/L	2.6998 ppb	10:53:54
2	Sn 189.927†	11.4	9.3	0.6478 µg/L	0.6478 ppb	10:54:15
2	Ti 334.940†	883.6	49.7	0.0592 µg/L	0.0592 ppb	10:53:54
2	Tl 190.801†	-117.7	-2.0	-0.2677 µg/L	-0.2677 ppb	10:54:15
2	U 409.014†	-489.5	-320.1	-20.174 µg/L	-20.174 ppb	10:53:54
2	V 292.402†	523.4	93.7	0.4799 µg/L	0.4799 ppb	10:53:54
2	Zn 213.857†	565.4	55.5	0.3309 µg/L	0.3309 ppb	10:54:15
3	Sc RADIAL	142279.1	142279.1	102 %		10:53:04
3	Al 396.153Radial†	-36.3	42.8	8.9841 µg/L	8.9841 ppb	10:53:24
3	Ca 317.933Radial†	638.4	57.1	3.8913 µg/L	3.8913 ppb	10:53:24
3	Fe 238.204 Radial†	130.1	10.8	0.8067 µg/L	0.8067 ppb	10:53:24
3	K 766.490 Radial†	1672.4	152.9	60.565 µg/L	60.565 ppb	10:53:04
3	Mg 279.077 IEC†	179.9	4.6	2.1596 µg/L	2.1596 ppb	10:53:24
3	Na 589.592 Radial†	1204.2	233.2	36.090 µg/L	36.090 ppb	10:53:04
3	Sr 421.552†	-216.4	-8.6	-0.0204 µg/L	-0.0204 ppb	10:53:04
3	Sc 361.383	1821134.7	1821134.7	100.94 %		10:54:17
3	Y 371.029	1067416.4	1067416.4	100.96 %		10:54:17
3	Ag 328.068†	4428.0	-178.4	-0.7477 µg/L	-0.7477 ppb	10:54:19
3	As 188.979†	-0.3	18.3	6.1862 µg/L	6.1862 ppb	10:54:39
3	B 249.677†	4120.7	17.2	0.2651 µg/L	0.2651 ppb	10:54:19
3	Ba 233.527†	-140.1	5.7	0.0253 µg/L	0.0253 ppb	10:54:39
3	Be 313.107†	-1101.7	0.3	-0.0027 µg/L	-0.0027 ppb	10:54:19
3	Cd 226.502†	-64.2	39.8	0.2688 µg/L	0.2688 ppb	10:54:39
3	Co 228.616†	-170.5	41.4	0.5478 µg/L	0.5478 ppb	10:54:39
3	Cr 267.716†	246.8	11.3	0.1049 µg/L	0.1049 ppb	10:54:39
3	Cu 324.752†	2931.1	-132.4	-0.5609 µg/L	-0.5609 ppb	10:54:19
3	Mn 257.610†	235.1	48.2	0.0638 µg/L	0.0638 ppb	10:54:39
3	Mo 202.031†	-18.0	20.8	0.6798 µg/L	0.6798 ppb	10:54:39
3	Ni 231.604†	-78.9	17.7	0.2221 µg/L	0.2221 ppb	10:54:39
3	P 214.914†	-27.0	-1.1	-0.2442 µg/L	-0.2442 ppb	10:54:39
3	Pb 220.353†	129.6	25.0	1.5464 µg/L	1.5464 ppb	10:54:39
3	S 181.975 Axial†	87.4	-2.3	-1.9536 µg/L	-1.9536 ppb	10:54:39
3	Sb 206.836†	68.5	-21.9	-2.8119 µg/L	-2.8119 ppb	10:54:39
3	Se 196.026†	13.2	6.9	2.72 µg/L	2.72 ppb	10:54:39
3	SiO2†	1743.9	-11.4	-1.2328 µg/L	-1.2328 ppb	10:54:39
3	Si 251.611†	890.2	114.8	1.8008 µg/L	1.8008 ppb	10:54:19
3	Sn 189.927†	4.0	2.0	0.1418 µg/L	0.1418 ppb	10:54:39
3	Ti 334.940†	863.5	32.4	0.0370 µg/L	0.0370 ppb	10:54:19
3	Tl 190.801†	-91.1	24.0	3.2706 µg/L	3.2706 ppb	10:54:39
3	U 409.014†	-314.6	-148.3	-9.3884 µg/L	-9.3884 ppb	10:54:19
3	V 292.402†	334.9	-91.5	-0.4730 µg/L	-0.4730 ppb	10:54:19
3	Zn 213.857†	586.6	78.2	0.4657 µg/L	0.4657 ppb	10:54:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1820346.0	100.90	%	0.365				0.36%
Sc RADIAL	141833.1	101	%	0.3				0.28%
Y 371.029	1067363.1	100.95	%	0.291				0.29%
Ag 328.068†	-162.1	-0.6829	µg/L	0.35465	-0.6829	ppb	0.35465	51.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.8	0.9712	µg/L	7.25229	0.9712	ppb	7.25229	746.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.0	3.7097	µg/L	2.48209	3.7097	ppb	2.48209	66.91%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-5.4	-0.0855	µg/L	0.92028	-0.0855	ppb	0.92028	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.8	-0.0078	µg/L	0.03539	-0.0078	ppb	0.03539	454.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	173.2	0.0463	µg/L	0.04666	0.0463	ppb	0.04666	100.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	37.8	2.5734	µg/L	1.23526	2.5734	ppb	1.23526	48.00%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	31.8	0.2152	µg/L	0.08414	0.2152	ppb	0.08414	39.10%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	28.9	0.3825	µg/L	0.17184	0.3825	ppb	0.17184	44.93%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.7      0.0508 µg/L       0.06822      0.0508 ppb        0.06822 134.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -80.5     -0.3470 µg/L       0.26645     -0.3470 ppb        0.26645  76.80%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         15.8      1.1771 µg/L       0.32152      1.1771 ppb        0.32152  27.31%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         177.7      70.413 µg/L       23.4978      70.413 ppb        23.4978  33.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             7.0      3.2444 µg/L       1.19683      3.2444 ppb        1.19683  36.89%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                49.1      0.0650 µg/L       0.01060      0.0650 ppb        0.01060  16.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                23.0      0.7528 µg/L       0.06383      0.7528 ppb        0.06383   8.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        174.0      26.911 µg/L        7.9840      26.911 ppb         7.9840  29.67%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                21.7      0.2713 µg/L       0.18366      0.2713 ppb        0.18366  67.70%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 11.5      2.6583 µg/L       3.22633      2.6583 ppb        3.22633 121.37%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                10.0      0.6293 µg/L       0.91663      0.6293 ppb        0.91663 145.66%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.8      4.9143 µg/L       6.51134      4.9143 ppb        6.51134 132.50%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -16.8     -2.1533 µg/L       0.57596     -2.1533 ppb        0.57596  26.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                11.8        4.62 µg/L         3.307        4.62 ppb          3.307  71.52%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       3.5      0.3415 µg/L       1.52287      0.3415 ppb        1.52287 445.90%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               119.2      1.8656 µg/L       0.80375      1.8656 ppb        0.80375  43.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 9.4      0.6512 µg/L       0.51119      0.6512 ppb        0.51119  78.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                78.8      0.1859 µg/L       0.20905      0.1859 ppb        0.20905 112.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -2.7      0.0023 µg/L       0.08007      0.0023 ppb        0.08007 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 8.8      1.1990 µg/L       1.84510      1.1990 ppb        1.84510 153.88%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -204.7     -12.937 µg/L        6.2683     -12.937 ppb         6.2683  48.45%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -58.3     -0.3033 µg/L       0.71357     -0.3033 ppb        0.71357 235.30%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                70.0      0.4163 µg/L       0.07427      0.4163 ppb        0.07427  17.84%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 11:21:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141040.3	141040.3	101	%			11:22:09
1	Al 396.153Radial†	24409.0	24323.6	5097.8	µg/L	5097.8	ppb	11:22:09
1	Ca 317.933Radial†	76494.1	75408.8	5136.0	µg/L	5136.0	ppb	11:22:09
1	Fe 238.204 Radial†	68480.3	67903.0	5070.9	µg/L	5070.9	ppb	11:22:09
1	K 766.490 Radial†	14280.8	12691.1	5024.6	µg/L	5024.6	ppb	11:22:09
1	Mg 279.077 IEC†	11579.1	11328.8	5238.8	µg/L	5238.8	ppb	11:22:09
1	Na 589.592 Radial†	66009.6	64613.7	10011	µg/L	10011	ppb	11:22:09
1	Sr 421.552†	210495.4	209286.0	493.55	µg/L	493.55	ppb	11:22:07
1	Sc 361.383	1816427.9	1816427.9	100.68	%			11:22:22
1	Y 371.029	1053499.6	1053499.6	99.641	%			11:22:22
1	Ag 328.068†	126787.2	121365.2	503.06	µg/L	503.06	ppb	11:22:22
1	As 188.979†	1432.3	1441.2	494.75	µg/L	494.75	ppb	11:22:42
1	B 249.677†	36301.8	31991.4	495.75	µg/L	495.75	ppb	11:22:22
1	Ba 233.527†	113688.4	113064.7	502.97	µg/L	502.97	ppb	11:22:22
1	Be 313.107†	1728485.7	1717896.6	497.77	µg/L	497.77	ppb	11:22:22
1	Cd 226.502†	75741.0	75332.5	508.84	µg/L	508.84	ppb	11:22:22
1	Co 228.616†	38593.7	38543.2	510.16	µg/L	510.16	ppb	11:22:22
1	Cr 267.716†	58850.7	58219.8	503.55	µg/L	503.55	ppb	11:22:22
1	Cu 324.752†	123618.1	119746.6	502.41	µg/L	502.41	ppb	11:22:22
1	Mn 257.610†	382701.1	379930.1	503.77	µg/L	503.77	ppb	11:22:22
1	Mo 202.031†	15349.1	15283.9	500.31	µg/L	500.31	ppb	11:22:42
1	Ni 231.604†	40779.7	40600.1	507.96	µg/L	507.96	ppb	11:22:22
1	P 214.914†	10933.3	10885.1	2509.4	µg/L	2509.4	ppb	11:22:42
1	Pb 220.353†	8382.2	8222.1	507.55	µg/L	507.55	ppb	11:22:42
1	S 181.975 Axial†	1340.9	1242.9	1049.8	µg/L	1049.8	ppb	11:22:42
1	Sb 206.836†	3988.1	3871.5	500.30	µg/L	500.30	ppb	11:22:42
1	Se 196.026†	1298.4	1283.4	508	µg/L	508	ppb	11:22:42
1	SiO2†	52507.6	50413.7	5317.2	µg/L	5317.2	ppb	11:22:22
1	Si 251.611†	160362.8	158512.0	2489.6	µg/L	2489.6	ppb	11:22:22
1	Sn 189.927†	7264.7	7213.7	502.05	µg/L	502.05	ppb	11:22:42
1	Ti 334.940†	489360.0	485230.0	497.72	µg/L	497.72	ppb	11:22:22
1	Tl 190.801†	3577.9	3668.0	508.34	µg/L	508.34	ppb	11:22:42
1	U 409.014†	7028.1	7144.0	481.34	µg/L	481.34	ppb	11:22:22
1	V 292.402†	97527.7	96445.4	506.51	µg/L	506.51	ppb	11:22:22
1	Zn 213.857†	86086.0	85001.3	503.61	µg/L	503.61	ppb	11:22:22
2	Sc RADIAL	140362.8	140362.8	100	%			11:22:13
2	Al 396.153Radial†	23994.0	24026.5	5035.4	µg/L	5035.4	ppb	11:22:13
2	Ca 317.933Radial†	75703.7	74986.7	5107.3	µg/L	5107.3	ppb	11:22:13
2	Fe 238.204 Radial†	67887.7	67639.9	5051.3	µg/L	5051.3	ppb	11:22:13
2	K 766.490 Radial†	14188.6	12667.6	5015.4	µg/L	5015.4	ppb	11:22:13
2	Mg 279.077 IEC†	11412.1	11217.7	5187.4	µg/L	5187.4	ppb	11:22:13
2	Na 589.592 Radial†	65526.4	64447.9	9985.5	µg/L	9985.5	ppb	11:22:13
2	Sr 421.552†	212221.3	212017.8	500.00	µg/L	500.00	ppb	11:22:11
2	Sc 361.383	1822952.6	1822952.6	101.04	%			11:22:45
2	Y 371.029	1056667.8	1056667.8	99.940	%			11:22:45
2	Ag 328.068†	127363.5	121484.9	503.55	µg/L	503.55	ppb	11:22:45
2	As 188.979†	1413.7	1417.7	486.78	µg/L	486.78	ppb	11:23:05
2	B 249.677†	36625.3	32182.4	498.72	µg/L	498.72	ppb	11:22:45
2	Ba 233.527†	113738.1	112709.7	501.39	µg/L	501.39	ppb	11:22:45
2	Be 313.107†	1736282.8	1719468.5	498.22	µg/L	498.22	ppb	11:22:45
2	Cd 226.502†	75997.8	75317.4	508.74	µg/L	508.74	ppb	11:22:45
2	Co 228.616†	38755.6	38566.2	510.47	µg/L	510.47	ppb	11:22:45
2	Cr 267.716†	58889.6	58049.1	502.07	µg/L	502.07	ppb	11:22:45
2	Cu 324.752†	124191.5	119874.7	502.95	µg/L	502.95	ppb	11:22:45
2	Mn 257.610†	383492.8	379353.2	503.01	µg/L	503.01	ppb	11:22:45
2	Mo 202.031†	15289.1	15170.0	496.58	µg/L	496.58	ppb	11:23:05
2	Ni 231.604†	40792.4	40467.6	506.30	µg/L	506.30	ppb	11:22:45
2	P 214.914†	10865.3	10778.9	2484.8	µg/L	2484.8	ppb	11:23:05
2	Pb 220.353†	8356.5	8166.8	504.14	µg/L	504.14	ppb	11:23:05

2	S 181.975 Axial†	1317.5	1215.0	1026.3 µg/L	1026.3 ppb	11:23:05
2	Sb 206.836†	3989.8	3858.9	498.64 µg/L	498.64 ppb	11:23:05
2	Se 196.026†	1292.5	1273.0	504 µg/L	504 ppb	11:23:05
2	SiO2†	52617.3	50335.6	5309.1 µg/L	5309.1 ppb	11:22:45
2	Si 251.611†	161042.3	158614.5	2491.3 µg/L	2491.3 ppb	11:22:45
2	Sn 189.927†	7218.4	7142.0	497.08 µg/L	497.08 ppb	11:23:05
2	Ti 334.940†	491016.9	485130.1	497.62 µg/L	497.62 ppb	11:22:45
2	Tl 190.801†	3563.0	3640.5	504.59 µg/L	504.59 ppb	11:23:05
2	U 409.014†	7078.9	7169.2	482.92 µg/L	482.92 ppb	11:22:45
2	V 292.402†	97821.4	96389.4	506.18 µg/L	506.18 ppb	11:22:45
2	Zn 213.857†	86262.7	84870.1	502.83 µg/L	502.83 ppb	11:22:45
3	Sc RADIAL	143001.6	143001.6	102 %		11:22:17
3	Al 396.153Radial†	24644.0	24221.3	5076.1 µg/L	5076.1 ppb	11:22:17
3	Ca 317.933Radial†	78183.6	76021.9	5177.8 µg/L	5177.8 ppb	11:22:17
3	Fe 238.204 Radial†	69547.5	68015.6	5079.4 µg/L	5079.4 ppb	11:22:17
3	K 766.490 Radial†	14471.6	12683.5	5021.6 µg/L	5021.6 ppb	11:22:17
3	Mg 279.077 IEC†	11800.4	11388.0	5266.2 µg/L	5266.2 ppb	11:22:17
3	Na 589.592 Radial†	66551.9	64245.7	9954.1 µg/L	9954.1 ppb	11:22:17
3	Sr 421.552†	214170.2	210018.5	495.28 µg/L	495.28 ppb	11:22:15
3	Sc 361.383	1819175.6	1819175.6	100.83 %		11:23:08
3	Y 371.029	1054990.0	1054990.0	99.782 %		11:23:08
3	Ag 328.068†	126763.1	121151.2	502.18 µg/L	502.18 ppb	11:23:08
3	As 188.979†	1453.0	1459.5	500.95 µg/L	500.95 ppb	11:23:28
3	B 249.677†	36308.1	31943.1	495.01 µg/L	495.01 ppb	11:23:08
3	Ba 233.527†	113415.6	112623.6	501.00 µg/L	501.00 ppb	11:23:08
3	Be 313.107†	1728129.7	1714950.5	496.92 µg/L	496.92 ppb	11:23:08
3	Cd 226.502†	75536.4	75016.0	506.70 µg/L	506.70 ppb	11:23:08
3	Co 228.616†	38368.3	38261.8	506.44 µg/L	506.44 ppb	11:23:08
3	Cr 267.716†	58689.9	57972.0	501.40 µg/L	501.40 ppb	11:23:08
3	Cu 324.752†	123527.9	119471.7	501.27 µg/L	501.27 ppb	11:23:08
3	Mn 257.610†	381380.1	378046.0	501.27 µg/L	501.27 ppb	11:23:08
3	Mo 202.031†	15453.7	15364.7	502.95 µg/L	502.95 ppb	11:23:28
3	Ni 231.604†	40568.0	40328.9	504.56 µg/L	504.56 ppb	11:23:08
3	P 214.914†	10991.1	10926.0	2518.9 µg/L	2518.9 ppb	11:23:28
3	Pb 220.353†	8421.5	8248.5	509.18 µg/L	509.18 ppb	11:23:28
3	S 181.975 Axial†	1335.2	1235.2	1043.4 µg/L	1043.4 ppb	11:23:28
3	Sb 206.836†	3992.9	3870.3	500.21 µg/L	500.21 ppb	11:23:28
3	Se 196.026†	1303.1	1286.2	509 µg/L	509 ppb	11:23:28
3	SiO2†	52338.0	50166.7	5291.0 µg/L	5291.0 ppb	11:23:08
3	Si 251.611†	160206.1	158116.1	2483.3 µg/L	2483.3 ppb	11:23:08
3	Sn 189.927†	7300.5	7238.3	503.75 µg/L	503.75 ppb	11:23:28
3	Ti 334.940†	489632.7	484766.3	497.24 µg/L	497.24 ppb	11:23:08
3	Tl 190.801†	3611.4	3695.8	512.14 µg/L	512.14 ppb	11:23:28
3	U 409.014†	7124.9	7229.4	486.64 µg/L	486.64 ppb	11:23:08
3	V 292.402†	97408.0	96180.4	505.16 µg/L	505.16 ppb	11:23:08
3	Zn 213.857†	85808.4	84596.9	501.21 µg/L	501.21 ppb	11:23:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1819518.7	100.85	%	0.182				0.18%
Sc RADIAL	141468.2	101	%	1.0				0.97%
Y 371.029	1055052.4	99.788	%	0.1499				0.15%
Ag 328.068†	121333.8	502.93	µg/L	0.697	502.93	ppb	0.697	0.14%
QC value within limits for Ag 328.068 Recovery = 100.59%								
Al 396.153Radial†	24190.4	5069.8	µg/L	31.67	5069.8	ppb	31.67	0.62%
QC value within limits for Al 396.153Radial Recovery = 101.40%								
As 188.979†	1439.4	494.16	µg/L	7.101	494.16	ppb	7.101	1.44%
QC value within limits for As 188.979 Recovery = 98.83%								
B 249.677†	32039.0	496.50	µg/L	1.963	496.50	ppb	1.963	0.40%
QC value within limits for B 249.677 Recovery = 99.30%								
Ba 233.527†	112799.3	501.79	µg/L	1.040	501.79	ppb	1.040	0.21%
QC value within limits for Ba 233.527 Recovery = 100.36%								
Be 313.107†	1717438.5	497.64	µg/L	0.664	497.64	ppb	0.664	0.13%
QC value within limits for Be 313.107 Recovery = 99.53%								
Ca 317.933Radial†	75472.5	5140.4	µg/L	35.45	5140.4	ppb	35.45	0.69%
QC value within limits for Ca 317.933Radial Recovery = 102.81%								
Cd 226.502†	75222.0	508.09	µg/L	1.209	508.09	ppb	1.209	0.24%
QC value within limits for Cd 226.502 Recovery = 101.62%								
Co 228.616†	38457.0	509.02	µg/L	2.244	509.02	ppb	2.244	0.44%

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   QC value within limits for Co 228.616  Recovery = 101.80%
Cr 267.716†            58080.3      502.34 µg/L        1.099      502.34 ppb          1.099   0.22%
   QC value within limits for Cr 267.716  Recovery = 100.47%
Cu 324.752†           119697.7      502.21 µg/L        0.858      502.21 ppb          0.858   0.17%
   QC value within limits for Cu 324.752  Recovery = 100.44%
Fe 238.204 Radial†     67852.9      5067.2 µg/L        14.40      5067.2 ppb          14.40   0.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.34%
K 766.490 Radial†      12680.7      5020.5 µg/L         4.74      5020.5 ppb           4.74   0.09%
   QC value within limits for K 766.490 Radial  Recovery = 100.41%
Mg 279.077 IEC†        11311.5      5230.8 µg/L        39.99      5230.8 ppb          39.99   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.62%
Mn 257.610†           379109.8      502.69 µg/L        1.281      502.69 ppb          1.281   0.25%
   QC value within limits for Mn 257.610  Recovery = 100.54%
Mo 202.031†            15272.9      499.95 µg/L        3.200      499.95 ppb          3.200   0.64%
   QC value within limits for Mo 202.031  Recovery = 99.99%
Na 589.592 Radial†     64435.8      9983.6 µg/L        28.56      9983.6 ppb          28.56   0.29%
   QC value within limits for Na 589.592 Radial  Recovery = 99.84%
Ni 231.604†            40465.5      506.27 µg/L        1.697      506.27 ppb          1.697   0.34%
   QC value within limits for Ni 231.604  Recovery = 101.25%
P 214.914†             10863.3      2504.4 µg/L        17.56      2504.4 ppb          17.56   0.70%
   QC value within limits for P 214.914  Recovery = 100.17%
Pb 220.353†             8212.5      506.96 µg/L        2.574      506.96 ppb          2.574   0.51%
   QC value within limits for Pb 220.353  Recovery = 101.39%
S 181.975 Axial†        1231.0      1039.8 µg/L        12.13      1039.8 ppb          12.13   1.17%
   QC value within limits for S 181.975 Axial  Recovery = 103.98%
Sb 206.836†             3866.9      499.72 µg/L        0.933      499.72 ppb          0.933   0.19%
   QC value within limits for Sb 206.836  Recovery = 99.94%
Se 196.026†             1280.9         507 µg/L          2.7         507 ppb            2.7   0.54%
   QC value within limits for Se 196.026  Recovery = 101.36%
SiO2†                  50305.3      5305.8 µg/L        13.45      5305.8 ppb          13.45   0.25%
   QC value within limits for SiO2  Recovery = 99.22%
Si 251.611†           158414.2      2488.1 µg/L         4.21      2488.1 ppb           4.21   0.17%
   QC value within limits for Si 251.611  Recovery = 99.52%
Sn 189.927†             7198.0      500.96 µg/L        3.467      500.96 ppb          3.467   0.69%
   QC value within limits for Sn 189.927  Recovery = 100.19%
Sr 421.552†           210440.8      496.28 µg/L        3.335      496.28 ppb          3.335   0.67%
   QC value within limits for Sr 421.552  Recovery = 99.26%
Ti 334.940†           485042.1      497.53 µg/L        0.253      497.53 ppb          0.253   0.05%
   QC value within limits for Ti 334.940  Recovery = 99.51%
Tl 190.801†             3668.1      508.36 µg/L        3.777      508.36 ppb          3.777   0.74%
   QC value within limits for Tl 190.801  Recovery = 101.67%
U 409.014†              7180.9      483.63 µg/L        2.721      483.63 ppb          2.721   0.56%
   QC value within limits for U 409.014  Recovery = 96.73%
V 292.402†             96338.4      505.95 µg/L        0.705      505.95 ppb          0.705   0.14%
   QC value within limits for V 292.402  Recovery = 101.19%
Zn 213.857†            84822.7      502.55 µg/L        1.222      502.55 ppb          1.222   0.24%
   QC value within limits for Zn 213.857  Recovery = 100.51%
All analyte(s) passed QC.
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Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 11:23:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141293.1	141293.1	101	%			11:24:06
1	Al 396.153Radial†	-45.2	33.8	7.0875	µg/L	7.0875	ppb	11:24:26
1	Ca 317.933Radial†	756.0	178.1	12.133	µg/L	12.133	ppb	11:24:26
1	Fe 238.204 Radial†	183.7	64.9	4.8434	µg/L	4.8434	ppb	11:24:26
1	K 766.490 Radial†	1708.7	200.4	79.382	µg/L	79.382	ppb	11:24:06
1	Mg 279.077 IEC†	206.5	32.3	14.933	µg/L	14.933	ppb	11:24:26
1	Na 589.592 Radial†	1047.2	85.8	13.224	µg/L	13.224	ppb	11:24:06
1	Sr 421.552†	-265.7	-59.0	-0.1392	µg/L	-0.1392	ppb	11:24:06
1	Sc 361.383	1793973.7	1793973.7	99.436	%			11:25:14
1	Y 371.029	1053310.8	1053310.8	99.623	%			11:25:14
1	Ag 328.068†	4289.1	-251.7	-1.0408	µg/L	-1.0408	ppb	11:25:16
1	As 188.979†	-4.9	13.7	4.6199	µg/L	4.6199	ppb	11:25:36
1	B 249.677†	4002.5	-40.0	-0.6228	µg/L	-0.6228	ppb	11:25:16
1	Ba 233.527†	-152.4	-8.7	-0.0386	µg/L	-0.0386	ppb	11:25:36
1	Be 313.107†	-860.3	226.6	0.0631	µg/L	0.0631	ppb	11:25:16
1	Cd 226.502†	-76.4	26.5	0.1788	µg/L	0.1788	ppb	11:25:36
1	Co 228.616†	-185.8	23.4	0.3095	µg/L	0.3095	ppb	11:25:36
1	Cr 267.716†	224.4	-7.5	-0.0584	µg/L	-0.0584	ppb	11:25:36
1	Cu 324.752†	3049.8	31.0	0.1242	µg/L	0.1242	ppb	11:25:16
1	Mn 257.610†	236.1	52.7	0.0693	µg/L	0.0693	ppb	11:25:36
1	Mo 202.031†	-24.7	13.8	0.4505	µg/L	0.4505	ppb	11:25:36
1	Ni 231.604†	-63.4	32.1	0.4021	µg/L	0.4021	ppb	11:25:36
1	P 214.914†	-13.8	11.8	2.7270	µg/L	2.7270	ppb	11:25:36
1	Pb 220.353†	76.5	-26.5	-1.6236	µg/L	-1.6236	ppb	11:25:36
1	S 181.975 Axial†	113.1	24.8	20.861	µg/L	20.861	ppb	11:25:36
1	Sb 206.836†	73.4	-15.9	-2.0389	µg/L	-2.0389	ppb	11:25:36
1	Se 196.026†	15.5	9.5	3.72	µg/L	3.72	ppb	11:25:36
1	SiO2†	1701.2	-28.2	-3.0134	µg/L	-3.0134	ppb	11:25:36
1	Si 251.611†	724.3	-38.6	-0.6193	µg/L	-0.6193	ppb	11:25:16
1	Sn 189.927†	12.5	10.7	0.7388	µg/L	0.7388	ppb	11:25:36
1	Ti 334.940†	700.7	-118.4	-0.1190	µg/L	-0.1190	ppb	11:25:16
1	Tl 190.801†	-117.6	-4.0	-0.5510	µg/L	-0.5510	ppb	11:25:36
1	U 409.014†	-293.2	-131.5	-8.2980	µg/L	-8.2980	ppb	11:25:16
1	V 292.402†	423.5	2.7	0.0124	µg/L	0.0124	ppb	11:25:16
1	Zn 213.857†	555.4	55.5	0.3283	µg/L	0.3283	ppb	11:25:36
2	Sc RADIAL	141208.0	141208.0	101	%			11:24:28
2	Al 396.153Radial†	-80.1	-1.0	-0.2395	µg/L	-0.2395	ppb	11:24:48
2	Ca 317.933Radial†	668.6	91.8	6.2554	µg/L	6.2554	ppb	11:24:48
2	Fe 238.204 Radial†	151.6	33.1	2.4698	µg/L	2.4698	ppb	11:24:48
2	K 766.490 Radial†	1653.5	146.6	58.099	µg/L	58.099	ppb	11:24:28
2	Mg 279.077 IEC†	171.1	-2.7	-1.2452	µg/L	-1.2452	ppb	11:24:48
2	Na 589.592 Radial†	1120.3	158.9	24.585	µg/L	24.585	ppb	11:24:28
2	Sr 421.552†	-172.5	33.3	0.0785	µg/L	0.0785	ppb	11:24:28
2	Sc 361.383	1798032.0	1798032.0	99.661	%			11:25:38
2	Y 371.029	1055630.4	1055630.4	99.842	%			11:25:38
2	Ag 328.068†	4410.8	-139.4	-0.5643	µg/L	-0.5643	ppb	11:25:40
2	As 188.979†	-0.7	17.8	6.0338	µg/L	6.0338	ppb	11:26:01
2	B 249.677†	4005.6	-45.9	-0.7141	µg/L	-0.7141	ppb	11:25:40
2	Ba 233.527†	-173.9	-30.0	-0.1330	µg/L	-0.1330	ppb	11:26:01
2	Be 313.107†	-589.5	500.2	0.1463	µg/L	0.1463	ppb	11:25:40
2	Cd 226.502†	-58.3	44.8	0.3028	µg/L	0.3028	ppb	11:26:01
2	Co 228.616†	-197.0	12.7	0.1672	µg/L	0.1672	ppb	11:26:01
2	Cr 267.716†	239.6	7.2	0.0584	µg/L	0.0584	ppb	11:26:01
2	Cu 324.752†	2931.5	-94.6	-0.3915	µg/L	-0.3915	ppb	11:25:40
2	Mn 257.610†	251.7	67.8	0.0900	µg/L	0.0900	ppb	11:26:01
2	Mo 202.031†	-15.2	23.3	0.7623	µg/L	0.7623	ppb	11:26:01
2	Ni 231.604†	-59.7	36.0	0.4499	µg/L	0.4499	ppb	11:26:01
2	P 214.914†	-4.0	21.7	5.0142	µg/L	5.0142	ppb	11:26:01
2	Pb 220.353†	87.7	-15.5	-0.9533	µg/L	-0.9533	ppb	11:26:01

2	S 181.975 Axial†	118.5	30.0	25.213 µg/L	25.213 ppb	11:26:01
2	Sb 206.836†	86.0	-3.4	-0.4255 µg/L	-0.4255 ppb	11:26:01
2	Se 196.026†	15.3	9.2	3.64 µg/L	3.64 ppb	11:26:01
2	SiO2†	1751.4	18.3	1.9044 µg/L	1.9044 ppb	11:26:01
2	Si 251.611†	779.4	15.0	0.2236 µg/L	0.2236 ppb	11:25:40
2	Sn 189.927†	9.4	7.6	0.5263 µg/L	0.5263 ppb	11:26:01
2	Ti 334.940†	648.1	-172.7	-0.1791 µg/L	-0.1791 ppb	11:25:40
2	Tl 190.801†	-110.6	3.3	0.4500 µg/L	0.4500 ppb	11:26:01
2	U 409.014†	-87.6	75.5	4.7647 µg/L	4.7647 ppb	11:25:40
2	V 292.402†	430.7	8.9	0.0575 µg/L	0.0575 ppb	11:25:40
2	Zn 213.857†	536.3	35.1	0.2068 µg/L	0.2068 ppb	11:26:01
3	Sc RADIAL	140558.5	140558.5	100 %		11:24:50
3	Al 396.153Radial†	-104.7	-25.8	-5.4846 µg/L	-5.4846 ppb	11:25:10
3	Ca 317.933Radial†	659.5	85.9	5.8477 µg/L	5.8477 ppb	11:25:10
3	Fe 238.204 Radial†	147.7	29.9	2.2317 µg/L	2.2317 ppb	11:25:10
3	K 766.490 Radial†	1800.1	300.4	119.02 µg/L	119.02 ppb	11:24:50
3	Mg 279.077 IEC†	183.8	10.7	4.9742 µg/L	4.9742 ppb	11:25:10
3	Na 589.592 Radial†	1201.3	244.8	37.847 µg/L	37.847 ppb	11:24:50
3	Sr 421.552†	-157.1	47.9	0.1129 µg/L	0.1129 ppb	11:24:50
3	Sc 361.383	1800005.3	1800005.3	99.770 %		11:26:03
3	Y 371.029	1056603.6	1056603.6	99.934 %		11:26:03
3	Ag 328.068†	4398.7	-156.4	-0.6614 µg/L	-0.6614 ppb	11:26:05
3	As 188.979†	-12.9	5.6	1.9114 µg/L	1.9114 ppb	11:26:25
3	B 249.677†	3886.0	-170.2	-2.6470 µg/L	-2.6470 ppb	11:26:05
3	Ba 233.527†	-172.1	-27.9	-0.1240 µg/L	-0.1240 ppb	11:26:25
3	Be 313.107†	-830.7	259.1	0.0711 µg/L	0.0711 ppb	11:26:05
3	Cd 226.502†	-92.8	10.4	0.0702 µg/L	0.0702 ppb	11:26:25
3	Co 228.616†	-192.2	17.7	0.2332 µg/L	0.2332 ppb	11:26:25
3	Cr 267.716†	225.4	-7.3	-0.0532 µg/L	-0.0532 ppb	11:26:25
3	Cu 324.752†	3072.5	43.5	0.1716 µg/L	0.1716 ppb	11:26:05
3	Mn 257.610†	219.6	35.4	0.0468 µg/L	0.0468 ppb	11:26:25
3	Mo 202.031†	-5.8	32.7	1.0701 µg/L	1.0701 ppb	11:26:25
3	Ni 231.604†	-59.0	36.7	0.4594 µg/L	0.4594 ppb	11:26:25
3	P 214.914†	-1.6	24.0	5.5473 µg/L	5.5473 ppb	11:26:25
3	Pb 220.353†	107.7	4.5	0.2875 µg/L	0.2875 ppb	11:26:25
3	S 181.975 Axial†	116.0	27.3	22.974 µg/L	22.974 ppb	11:26:25
3	Sb 206.836†	88.3	-1.2	-0.1451 µg/L	-0.1451 ppb	11:26:25
3	Se 196.026†	28.6	22.5	8.86 µg/L	8.86 ppb	11:26:25
3	SiO2†	1757.4	22.4	2.3373 µg/L	2.3373 ppb	11:26:25
3	Si 251.611†	758.0	-7.3	-0.1291 µg/L	-0.1291 ppb	11:26:05
3	Sn 189.927†	1.3	-0.6	-0.0409 µg/L	-0.0409 ppb	11:26:25
3	Ti 334.940†	605.0	-216.6	-0.2174 µg/L	-0.2174 ppb	11:26:05
3	Tl 190.801†	-112.0	2.0	0.2678 µg/L	0.2678 ppb	11:26:25
3	U 409.014†	-368.7	-206.1	-13.034 µg/L	-13.034 ppb	11:26:05
3	V 292.402†	338.2	-84.2	-0.4346 µg/L	-0.4346 ppb	11:26:05
3	Zn 213.857†	556.0	54.3	0.3205 µg/L	0.3205 ppb	11:26:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1797337.0	99.622	%	0.1705				0.17%
Sc RADIAL	141019.9	101	%	0.3				0.28%
Y 371.029	1055181.6	99.800	%	0.1600				0.16%
Ag 328.068†	-182.5	-0.7555	µg/L	0.25179	-0.7555	ppb	0.25179	33.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.3	0.4545	µg/L	6.31472	0.4545	ppb	6.31472	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	12.4	4.1884	µg/L	2.09482	4.1884	ppb	2.09482	50.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-85.3	-1.3280	µg/L	1.14326	-1.3280	ppb	1.14326	86.09%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-22.2	-0.0985	µg/L	0.05209	-0.0985	ppb	0.05209	52.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	328.6	0.0935	µg/L	0.04591	0.0935	ppb	0.04591	49.09%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	118.6	8.0786	µg/L	3.51690	8.0786	ppb	3.51690	43.53%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.2	0.1839	µg/L	0.11642	0.1839	ppb	0.11642	63.29%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.9	0.2366	µg/L	0.07122	0.2366	ppb	0.07122	30.10%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.5     -0.0177 µg/L       0.06601     -0.0177 ppb        0.06601 372.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -6.7     -0.0319 µg/L       0.31231     -0.0319 ppb        0.31231 979.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         42.6      3.1816 µg/L       1.44406      3.1816 ppb        1.44406  45.39%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         215.8     85.499 µg/L       30.9164     85.499 ppb        30.9164  36.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            13.4      6.2207 µg/L       8.16082      6.2207 ppb        8.16082 131.19%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                52.0      0.0687 µg/L       0.02163      0.0687 ppb        0.02163  31.49%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                23.3      0.7610 µg/L       0.30978      0.7610 ppb        0.30978  40.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        163.2     25.219 µg/L       12.3238     25.219 ppb        12.3238  48.87%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                34.9      0.4371 µg/L       0.03068      0.4371 ppb        0.03068   7.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 19.2      4.4295 µg/L       1.49832      4.4295 ppb        1.49832  33.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -12.5     -0.7631 µg/L       0.96966     -0.7631 ppb        0.96966 127.06%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           27.4     23.016 µg/L        2.1761     23.016 ppb         2.1761   9.45%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -6.8     -0.8698 µg/L       1.02211     -0.8698 ppb        1.02211 117.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                13.7        5.41 µg/L        2.992        5.41 ppb          2.992  55.36%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       4.1      0.4094 µg/L       2.97212      0.4094 ppb        2.97212 725.93%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -10.3     -0.1749 µg/L       0.42334     -0.1749 ppb        0.42334 242.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.9      0.4081 µg/L       0.40308      0.4081 ppb        0.40308  98.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 7.4      0.0174 µg/L       0.13673      0.0174 ppb        0.13673 785.52%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -169.2     -0.1718 µg/L       0.04956     -0.1718 ppb        0.04956  28.85%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.4      0.0556 µg/L       0.53317      0.0556 ppb        0.53317 959.22%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -87.4     -5.5223 µg/L       9.21810     -5.5223 ppb        9.21810 166.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -24.2     -0.1216 µg/L       0.27200     -0.1216 ppb        0.27200 223.77%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                48.3      0.2852 µg/L       0.06801      0.2852 ppb        0.06801  23.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 11:29:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136820.5	136820.5	97.7	%			11:30:02
1	Al 396.153Radial†	23381.9	24019.7	5033.7	µg/L	5033.7	ppb	11:30:02
1	Ca 317.933Radial†	73543.2	74730.7	5089.8	µg/L	5089.8	ppb	11:30:02
1	Fe 238.204 Radial†	65942.1	67402.0	5033.5	µg/L	5033.5	ppb	11:30:02
1	K 766.490 Radial†	13830.9	12667.9	5015.5	µg/L	5015.5	ppb	11:30:02
1	Mg 279.077 IEC†	10996.3	11086.9	5127.2	µg/L	5127.2	ppb	11:30:02
1	Na 589.592 Radial†	63933.4	64510.1	9995.1	µg/L	9995.1	ppb	11:30:02
1	Sr 421.552†	208111.8	213293.9	503.01	µg/L	503.01	ppb	11:30:00
1	Sc 361.383	1761858.7	1761858.7	97.656	%			11:30:29
1	Y 371.029	1023300.8	1023300.8	96.785	%			11:30:29
1	Ag 328.068†	123043.0	121431.6	503.36	µg/L	503.36	ppb	11:30:29
1	As 188.979†	1388.4	1440.3	494.45	µg/L	494.45	ppb	11:30:49
1	B 249.677†	34891.3	31663.7	490.67	µg/L	490.67	ppb	11:30:29
1	Ba 233.527†	109659.6	112436.6	500.17	µg/L	500.17	ppb	11:30:29
1	Be 313.107†	1663606.1	1704633.4	493.93	µg/L	493.93	ppb	11:30:29
1	Cd 226.502†	72443.0	74285.4	501.76	µg/L	501.76	ppb	11:30:29
1	Co 228.616†	37156.2	38258.5	506.40	µg/L	506.40	ppb	11:30:29
1	Cr 267.716†	56866.6	57998.5	501.62	µg/L	501.62	ppb	11:30:29
1	Cu 324.752†	119606.6	119441.7	501.14	µg/L	501.14	ppb	11:30:29
1	Mn 257.610†	369411.0	378094.1	501.34	µg/L	501.34	ppb	11:30:29
1	Mo 202.031†	14945.3	15342.7	502.23	µg/L	502.23	ppb	11:30:49
1	Ni 231.604†	39345.7	40386.1	505.28	µg/L	505.28	ppb	11:30:29
1	P 214.914†	10584.6	10864.3	2504.6	µg/L	2504.6	ppb	11:30:49
1	Pb 220.353†	8129.7	8221.4	507.50	µg/L	507.50	ppb	11:30:49
1	S 181.975 Axial†	1251.2	1192.3	1007.2	µg/L	1007.2	ppb	11:30:49
1	Sb 206.836†	3883.3	3886.8	502.34	µg/L	502.34	ppb	11:30:49
1	Se 196.026†	1258.6	1282.6	508	µg/L	508	ppb	11:30:49
1	SiO2†	50604.3	50080.0	5281.8	µg/L	5281.8	ppb	11:30:29
1	Si 251.611†	154407.4	157347.0	2471.2	µg/L	2471.2	ppb	11:30:29
1	Sn 189.927†	7042.6	7209.8	501.78	µg/L	501.78	ppb	11:30:49
1	Ti 334.940†	474109.2	484667.3	497.15	µg/L	497.15	ppb	11:30:29
1	Tl 190.801†	3462.4	3659.8	507.23	µg/L	507.23	ppb	11:30:49
1	U 409.014†	7134.3	7468.9	501.82	µg/L	501.82	ppb	11:30:29
1	V 292.402†	94537.5	96383.6	506.22	µg/L	506.22	ppb	11:30:29
1	Zn 213.857†	82762.2	84245.9	499.12	µg/L	499.12	ppb	11:30:29
2	Sc RADIAL	135237.7	135237.7	96.5	%			11:30:06
2	Al 396.153Radial†	23012.6	23917.3	5012.0	µg/L	5012.0	ppb	11:30:06
2	Ca 317.933Radial†	72368.9	74395.7	5067.0	µg/L	5067.0	ppb	11:30:06
2	Fe 238.204 Radial†	65011.4	67228.1	5020.5	µg/L	5020.5	ppb	11:30:06
2	K 766.490 Radial†	13826.8	12829.4	5079.5	µg/L	5079.5	ppb	11:30:06
2	Mg 279.077 IEC†	10869.4	11087.2	5127.4	µg/L	5127.4	ppb	11:30:06
2	Na 589.592 Radial†	63379.2	64702.1	10025	µg/L	10025	ppb	11:30:06
2	Sr 421.552†	206760.8	214388.3	505.59	µg/L	505.59	ppb	11:30:04
2	Sc 361.383	1755213.5	1755213.5	97.287	%			11:30:52
2	Y 371.029	1018804.5	1018804.5	96.359	%			11:30:52
2	Ag 328.068†	123276.3	122148.4	506.27	µg/L	506.27	ppb	11:30:52
2	As 188.979†	1380.0	1437.0	493.33	µg/L	493.33	ppb	11:31:12
2	B 249.677†	35110.1	32023.9	496.27	µg/L	496.27	ppb	11:30:52
2	Ba 233.527†	109680.5	112883.2	502.16	µg/L	502.16	ppb	11:30:52
2	Be 313.107†	1662352.6	1709794.5	495.42	µg/L	495.42	ppb	11:30:52
2	Cd 226.502†	72424.8	74547.5	503.54	µg/L	503.54	ppb	11:30:52
2	Co 228.616†	36976.6	38217.9	505.86	µg/L	505.86	ppb	11:30:52
2	Cr 267.716†	56640.8	57986.9	501.53	µg/L	501.53	ppb	11:30:52
2	Cu 324.752†	119400.5	119693.6	502.18	µg/L	502.18	ppb	11:30:52
2	Mn 257.610†	369192.4	379301.6	502.95	µg/L	502.95	ppb	11:30:52
2	Mo 202.031†	14979.7	15435.9	505.27	µg/L	505.27	ppb	11:31:12
2	Ni 231.604†	39164.5	40352.4	504.86	µg/L	504.86	ppb	11:30:52
2	P 214.914†	10589.4	10910.3	2515.2	µg/L	2515.2	ppb	11:31:12
2	Pb 220.353†	8151.8	8275.6	510.85	µg/L	510.85	ppb	11:31:12

2	S 181.975 Axial†	1255.2	1201.3	1014.9 µg/L	1014.9 ppb	11:31:12
2	Sb 206.836†	3899.6	3918.6	506.49 µg/L	506.49 ppb	11:31:12
2	Se 196.026†	1256.7	1285.6	509 µg/L	509 ppb	11:31:12
2	SiO2†	50502.9	50172.0	5291.5 µg/L	5291.5 ppb	11:30:52
2	Si 251.611†	154149.6	157680.6	2476.4 µg/L	2476.4 ppb	11:30:52
2	Sn 189.927†	7052.2	7247.0	504.36 µg/L	504.36 ppb	11:31:12
2	Ti 334.940†	473721.0	486106.4	498.63 µg/L	498.63 ppb	11:30:52
2	Tl 190.801†	3489.8	3701.4	512.92 µg/L	512.92 ppb	11:31:12
2	U 409.014†	6870.2	7225.1	486.41 µg/L	486.41 ppb	11:30:52
2	V 292.402†	94056.9	96256.2	505.58 µg/L	505.58 ppb	11:30:52
2	Zn 213.857†	82670.1	84472.1	500.47 µg/L	500.47 ppb	11:30:52
3	Sc RADIAL	136682.0	136682.0	97.6 %		11:30:10
3	Al 396.153Radial†	23255.0	23913.8	5011.8 µg/L	5011.8 ppb	11:30:10
3	Ca 317.933Radial†	72929.5	74178.0	5052.2 µg/L	5052.2 ppb	11:30:10
3	Fe 238.204 Radial†	65673.7	67195.3	5018.1 µg/L	5018.1 ppb	11:30:10
3	K 766.490 Radial†	13914.0	12767.5	5055.0 µg/L	5055.0 ppb	11:30:10
3	Mg 279.077 IEC†	10922.9	11023.0	5097.5 µg/L	5097.5 ppb	11:30:10
3	Na 589.592 Radial†	63890.3	64532.2	9998.5 µg/L	9998.5 ppb	11:30:10
3	Sr 421.552†	204882.1	210199.5	495.71 µg/L	495.71 ppb	11:30:08
3	Sc 361.383	1786609.6	1786609.6	99.028 %		11:31:15
3	Y 371.029	1036752.1	1036752.1	98.057 %		11:31:15
3	Ag 328.068†	125411.5	122077.8	506.02 µg/L	506.02 ppb	11:31:15
3	As 188.979†	1367.3	1399.2	480.54 µg/L	480.54 ppb	11:31:36
3	B 249.677†	35832.7	32119.5	497.75 µg/L	497.75 ppb	11:31:15
3	Ba 233.527†	111666.9	112908.0	502.27 µg/L	502.27 ppb	11:31:15
3	Be 313.107†	1695198.1	1712935.5	496.34 µg/L	496.34 ppb	11:31:15
3	Cd 226.502†	74018.8	74849.0	505.58 µg/L	505.58 ppb	11:31:15
3	Co 228.616†	37808.9	38390.5	508.15 µg/L	508.15 ppb	11:31:15
3	Cr 267.716†	57773.9	58108.0	502.57 µg/L	502.57 ppb	11:31:15
3	Cu 324.752†	121645.6	119804.0	502.66 µg/L	502.66 ppb	11:31:15
3	Mn 257.610†	375989.4	379496.6	503.20 µg/L	503.20 ppb	11:31:15
3	Mo 202.031†	14922.1	15107.2	494.52 µg/L	494.52 ppb	11:31:36
3	Ni 231.604†	40047.6	40536.7	507.16 µg/L	507.16 ppb	11:31:15
3	P 214.914†	10509.5	10638.3	2452.3 µg/L	2452.3 ppb	11:31:36
3	Pb 220.353†	8093.3	8069.3	498.12 µg/L	498.12 ppb	11:31:36
3	S 181.975 Axial†	1250.7	1174.0	991.82 µg/L	991.82 ppb	11:31:36
3	Sb 206.836†	3860.6	3808.8	492.14 µg/L	492.14 ppb	11:31:36
3	Se 196.026†	1237.7	1243.7	492 µg/L	492 ppb	11:31:36
3	SiO2†	51543.0	50310.1	5306.6 µg/L	5306.6 ppb	11:31:15
3	Si 251.611†	157269.9	158047.2	2482.4 µg/L	2482.4 ppb	11:31:15
3	Sn 189.927†	6987.1	7053.8	490.96 µg/L	490.96 ppb	11:31:36
3	Ti 334.940†	482315.1	486228.0	498.75 µg/L	498.75 ppb	11:31:15
3	Tl 190.801†	3458.2	3606.4	499.96 µg/L	499.96 ppb	11:31:36
3	U 409.014†	7182.1	7416.0	498.57 µg/L	498.57 ppb	11:31:15
3	V 292.402†	96118.6	96639.1	507.47 µg/L	507.47 ppb	11:31:15
3	Zn 213.857†	84371.3	84696.8	501.80 µg/L	501.80 ppb	11:31:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1767893.9	97.990	%	0.9171				0.94%
Sc RADIAL	136246.7	97.3	%	0.63				0.64%
Y 371.029	1026285.8	97.067	%	0.8833				0.91%
Ag 328.068†	121885.9	505.21	µg/L	1.611	505.21	ppb	1.611	0.32%
QC value within limits for Ag 328.068 Recovery = 101.04%								
Al 396.153Radial†	23950.3	5019.2	µg/L	12.60	5019.2	ppb	12.60	0.25%
QC value within limits for Al 396.153Radial Recovery = 100.38%								
As 188.979†	1425.5	489.44	µg/L	7.730	489.44	ppb	7.730	1.58%
QC value within limits for As 188.979 Recovery = 97.89%								
B 249.677†	31935.7	494.90	µg/L	3.736	494.90	ppb	3.736	0.75%
QC value within limits for B 249.677 Recovery = 98.98%								
Ba 233.527†	112742.6	501.53	µg/L	1.179	501.53	ppb	1.179	0.24%
QC value within limits for Ba 233.527 Recovery = 100.31%								
Be 313.107†	1709121.1	495.23	µg/L	1.213	495.23	ppb	1.213	0.25%
QC value within limits for Be 313.107 Recovery = 99.05%								
Ca 317.933Radial†	74434.8	5069.7	µg/L	18.96	5069.7	ppb	18.96	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.39%								
Cd 226.502†	74560.6	503.63	µg/L	1.907	503.63	ppb	1.907	0.38%
QC value within limits for Cd 226.502 Recovery = 100.73%								
Co 228.616†	38288.9	506.80	µg/L	1.195	506.80	ppb	1.195	0.24%

```
   QC value within limits for Co 228.616  Recovery = 101.36%
Cr 267.716†            58031.1      501.91 µg/L         0.576      501.91 ppb          0.576   0.11%
   QC value within limits for Cr 267.716  Recovery = 100.38%
Cu 324.752†           119646.4      501.99 µg/L         0.773      501.99 ppb          0.773   0.15%
   QC value within limits for Cu 324.752  Recovery = 100.40%
Fe 238.204 Radial†     67275.1      5024.1 µg/L          8.30      5024.1 ppb           8.30   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.48%
K 766.490 Radial†      12754.9      5050.0 µg/L         32.29      5050.0 ppb          32.29   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 101.00%
Mg 279.077 IEC†        11065.7      5117.4 µg/L         17.20      5117.4 ppb          17.20   0.34%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.35%
Mn 257.610†           378964.1      502.50 µg/L         1.008      502.50 ppb          1.008   0.20%
   QC value within limits for Mn 257.610  Recovery = 100.50%
Mo 202.031†            15295.3      500.67 µg/L         5.540      500.67 ppb          5.540   1.11%
   QC value within limits for Mo 202.031  Recovery = 100.13%
Na 589.592 Radial†     64581.5       10006 µg/L          16.3       10006 ppb           16.3   0.16%
   QC value within limits for Na 589.592 Radial  Recovery = 100.06%
Ni 231.604†            40425.1      505.77 µg/L         1.228      505.77 ppb          1.228   0.24%
   QC value within limits for Ni 231.604  Recovery = 101.15%
P 214.914†             10804.3      2490.7 µg/L         33.68      2490.7 ppb          33.68   1.35%
   QC value within limits for P 214.914  Recovery = 99.63%
Pb 220.353†             8188.8      505.49 µg/L         6.598      505.49 ppb          6.598   1.31%
   QC value within limits for Pb 220.353  Recovery = 101.10%
S 181.975 Axial†        1189.2      1004.6 µg/L         11.74      1004.6 ppb          11.74   1.17%
   QC value within limits for S 181.975 Axial  Recovery = 100.46%
Sb 206.836†             3871.4      500.32 µg/L         7.384      500.32 ppb          7.384   1.48%
   QC value within limits for Sb 206.836  Recovery = 100.06%
Se 196.026†             1270.6         503 µg/L           9.2         503 ppb            9.2   1.83%
   QC value within limits for Se 196.026  Recovery = 100.56%
SiO2†                  50187.3      5293.3 µg/L         12.47      5293.3 ppb          12.47   0.24%
   QC value within limits for SiO2  Recovery = 98.99%
Si 251.611†           157691.6      2476.7 µg/L          5.61      2476.7 ppb           5.61   0.23%
   QC value within limits for Si 251.611  Recovery = 99.07%
Sn 189.927†             7170.2      499.03 µg/L         7.107      499.03 ppb          7.107   1.42%
   QC value within limits for Sn 189.927  Recovery = 99.81%
Sr 421.552†           212627.3      501.43 µg/L         5.124      501.43 ppb          5.124   1.02%
   QC value within limits for Sr 421.552  Recovery = 100.29%
Ti 334.940†           485667.3      498.17 µg/L         0.894      498.17 ppb          0.894   0.18%
   QC value within limits for Ti 334.940  Recovery = 99.63%
Tl 190.801†             3655.9      506.70 µg/L         6.497      506.70 ppb          6.497   1.28%
   QC value within limits for Tl 190.801  Recovery = 101.34%
U 409.014†              7370.0      495.60 µg/L         8.123      495.60 ppb          8.123   1.64%
   QC value within limits for U 409.014  Recovery = 99.12%
V 292.402†             96426.3      506.43 µg/L         0.959      506.43 ppb          0.959   0.19%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†            84471.6      500.46 µg/L         1.341      500.46 ppb          1.341   0.27%
   QC value within limits for Zn 213.857  Recovery = 100.09%
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 11:31:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138159.9	138159.9	98.6	%			11:32:12
1	Al 396.153Radial†	-61.5	16.2	3.3756	µg/L	3.3756	ppb	11:32:32
1	Ca 317.933Radial†	624.1	61.4	4.1810	µg/L	4.1810	ppb	11:32:32
1	Fe 238.204 Radial†	140.2	24.8	1.8552	µg/L	1.8552	ppb	11:32:32
1	K 766.490 Radial†	1534.9	62.6	24.798	µg/L	24.798	ppb	11:32:12
1	Mg 279.077 IEC†	179.7	9.7	4.5034	µg/L	4.5034	ppb	11:32:32
1	Na 589.592 Radial†	1043.8	105.9	16.389	µg/L	16.389	ppb	11:32:12
1	Sr 421.552†	-179.3	22.7	0.0534	µg/L	0.0534	ppb	11:32:12
1	Sc 361.383	1781153.8	1781153.8	98.725	%			11:33:20
1	Y 371.029	1046438.9	1046438.9	98.973	%			11:33:20
1	Ag 328.068†	4305.8	-203.7	-0.8261	µg/L	-0.8261	ppb	11:33:22
1	As 188.979†	-14.7	3.7	1.2615	µg/L	1.2615	ppb	11:33:42
1	B 249.677†	4014.2	0.9	0.0135	µg/L	0.0135	ppb	11:33:22
1	Ba 233.527†	-154.2	-11.6	-0.0515	µg/L	-0.0515	ppb	11:33:42
1	Be 313.107†	-880.1	200.2	0.0595	µg/L	0.0595	ppb	11:33:22
1	Cd 226.502†	-65.4	37.1	0.2509	µg/L	0.2509	ppb	11:33:42
1	Co 228.616†	-204.8	2.9	0.0380	µg/L	0.0380	ppb	11:33:42
1	Cr 267.716†	266.8	37.0	0.3162	µg/L	0.3162	ppb	11:33:42
1	Cu 324.752†	3004.2	6.9	0.0333	µg/L	0.0333	ppb	11:33:22
1	Mn 257.610†	246.8	65.3	0.0864	µg/L	0.0864	ppb	11:33:42
1	Mo 202.031†	-18.2	20.2	0.6594	µg/L	0.6594	ppb	11:33:42
1	Ni 231.604†	-84.6	10.2	0.1272	µg/L	0.1272	ppb	11:33:42
1	P 214.914†	15.3	41.2	9.5223	µg/L	9.5223	ppb	11:33:42
1	Pb 220.353†	128.5	26.7	1.6394	µg/L	1.6394	ppb	11:33:42
1	S 181.975 Axial†	105.9	18.3	15.402	µg/L	15.402	ppb	11:33:42
1	Sb 206.836†	71.8	-17.0	-2.1882	µg/L	-2.1882	ppb	11:33:42
1	Se 196.026†	18.2	12.3	4.86	µg/L	4.86	ppb	11:33:42
1	SiO2†	1722.8	6.0	0.6150	µg/L	0.6150	ppb	11:33:42
1	Si 251.611†	862.6	106.7	1.6733	µg/L	1.6733	ppb	11:33:22
1	Sn 189.927†	1.7	-0.1	-0.0097	µg/L	-0.0097	ppb	11:33:42
1	Ti 334.940†	863.4	51.5	0.0505	µg/L	0.0505	ppb	11:33:22
1	Tl 190.801†	-111.9	1.0	0.1319	µg/L	0.1319	ppb	11:33:42
1	U 409.014†	-82.1	80.2	5.0710	µg/L	5.0710	ppb	11:33:22
1	V 292.402†	445.9	28.4	0.1587	µg/L	0.1587	ppb	11:33:22
1	Zn 213.857†	555.3	59.4	0.3540	µg/L	0.3540	ppb	11:33:42
2	Sc RADIAL	139520.5	139520.5	99.6	%			11:32:34
2	Al 396.153Radial†	-62.2	16.1	3.3819	µg/L	3.3819	ppb	11:32:54
2	Ca 317.933Radial†	618.3	49.3	3.3610	µg/L	3.3610	ppb	11:32:54
2	Fe 238.204 Radial†	116.3	-0.6	-0.0425	µg/L	-0.0425	ppb	11:32:54
2	K 766.490 Radial†	1507.1	19.4	7.7040	µg/L	7.7040	ppb	11:32:34
2	Mg 279.077 IEC†	162.8	-9.0	-4.1536	µg/L	-4.1536	ppb	11:32:54
2	Na 589.592 Radial†	902.2	-46.6	-7.2284	µg/L	-7.2284	ppb	11:32:34
2	Sr 421.552†	-170.6	33.2	0.0783	µg/L	0.0783	ppb	11:32:34
2	Sc 361.383	1778496.6	1778496.6	98.578	%			11:33:44
2	Y 371.029	1044974.2	1044974.2	98.834	%			11:33:44
2	Ag 328.068†	4406.6	-95.0	-0.3921	µg/L	-0.3921	ppb	11:33:46
2	As 188.979†	-16.8	1.5	0.5201	µg/L	0.5201	ppb	11:34:07
2	B 249.677†	4054.0	47.4	0.7352	µg/L	0.7352	ppb	11:33:46
2	Ba 233.527†	-128.3	14.4	0.0638	µg/L	0.0638	ppb	11:34:07
2	Be 313.107†	-889.2	189.7	0.0561	µg/L	0.0561	ppb	11:33:46
2	Cd 226.502†	-87.2	14.9	0.1006	µg/L	0.1006	ppb	11:34:07
2	Co 228.616†	-169.3	38.5	0.5098	µg/L	0.5098	ppb	11:34:07
2	Cr 267.716†	240.7	10.9	0.0915	µg/L	0.0915	ppb	11:34:07
2	Cu 324.752†	2937.7	-56.0	-0.2311	µg/L	-0.2311	ppb	11:33:46
2	Mn 257.610†	253.5	72.4	0.0962	µg/L	0.0962	ppb	11:34:07
2	Mo 202.031†	-33.8	4.2	0.1384	µg/L	0.1384	ppb	11:34:07
2	Ni 231.604†	-90.7	3.9	0.0487	µg/L	0.0487	ppb	11:34:07
2	P 214.914†	-2.7	23.0	5.3134	µg/L	5.3134	ppb	11:34:07
2	Pb 220.353†	131.4	29.8	1.8340	µg/L	1.8340	ppb	11:34:07

2	S 181.975 Axial†	114.8	27.6	23.201 µg/L	23.201 ppb	11:34:07
2	Sb 206.836†	68.7	-20.1	-2.5886 µg/L	-2.5886 ppb	11:34:07
2	Se 196.026†	18.4	12.5	4.94 µg/L	4.94 ppb	11:34:07
2	SiO2†	1743.1	29.2	3.0894 µg/L	3.0894 ppb	11:34:07
2	Si 251.611†	796.1	40.6	0.6399 µg/L	0.6399 ppb	11:33:46
2	Sn 189.927†	-2.6	-4.5	-0.3128 µg/L	-0.3128 ppb	11:34:07
2	Ti 334.940†	844.0	33.2	0.0330 µg/L	0.0330 ppb	11:33:46
2	Tl 190.801†	-114.1	-1.5	-0.2079 µg/L	-0.2079 ppb	11:34:07
2	U 409.014†	-102.8	59.1	3.6912 µg/L	3.6912 ppb	11:33:46
2	V 292.402†	292.6	-126.4	-0.6508 µg/L	-0.6508 ppb	11:33:46
2	Zn 213.857†	543.9	48.8	0.2911 µg/L	0.2911 ppb	11:34:07
3	Sc RADIAL	137468.8	137468.8	98.1 %		11:32:56
3	Al 396.153Radial†	-87.5	-10.6	-2.2710 µg/L	-2.2710 ppb	11:33:16
3	Ca 317.933Radial†	616.0	56.3	3.8368 µg/L	3.8368 ppb	11:33:16
3	Fe 238.204 Radial†	143.0	28.5	2.1256 µg/L	2.1256 ppb	11:33:16
3	K 766.490 Radial†	1510.4	45.4	17.993 µg/L	17.993 ppb	11:32:56
3	Mg 279.077 IEC†	199.4	30.8	14.227 µg/L	14.227 ppb	11:33:16
3	Na 589.592 Radial†	1098.6	167.1	25.880 µg/L	25.880 ppb	11:32:56
3	Sr 421.552†	-193.6	7.2	0.0170 µg/L	0.0170 ppb	11:32:56
3	Sc 361.383	1779132.2	1779132.2	98.613 %		11:34:09
3	Y 371.029	1044870.8	1044870.8	98.825 %		11:34:09
3	Ag 328.068†	4229.2	-276.5	-1.1269 µg/L	-1.1269 ppb	11:34:11
3	As 188.979†	-17.5	0.8	0.2907 µg/L	0.2907 ppb	11:34:31
3	B 249.677†	3990.5	-18.6	-0.2896 µg/L	-0.2896 ppb	11:34:11
3	Ba 233.527†	-154.2	-11.8	-0.0516 µg/L	-0.0516 ppb	11:34:31
3	Be 313.107†	-593.1	490.3	0.1402 µg/L	0.1402 ppb	11:34:11
3	Cd 226.502†	-73.3	29.1	0.1961 µg/L	0.1961 ppb	11:34:31
3	Co 228.616†	-185.1	22.6	0.2982 µg/L	0.2982 ppb	11:34:31
3	Cr 267.716†	239.5	9.7	0.0891 µg/L	0.0891 ppb	11:34:31
3	Cu 324.752†	2819.0	-177.5	-0.7467 µg/L	-0.7467 ppb	11:34:11
3	Mn 257.610†	209.3	27.5	0.0359 µg/L	0.0359 ppb	11:34:31
3	Mo 202.031†	-14.5	23.9	0.7807 µg/L	0.7807 ppb	11:34:31
3	Ni 231.604†	-105.7	-11.3	-0.1412 µg/L	-0.1412 ppb	11:34:31
3	P 214.914†	-8.3	17.3	3.9969 µg/L	3.9969 ppb	11:34:31
3	Pb 220.353†	108.5	6.6	0.4124 µg/L	0.4124 ppb	11:34:31
3	S 181.975 Axial†	100.0	12.5	10.490 µg/L	10.490 ppb	11:34:31
3	Sb 206.836†	62.3	-26.5	-3.4066 µg/L	-3.4066 ppb	11:34:31
3	Se 196.026†	28.1	22.3	8.80 µg/L	8.80 ppb	11:34:31
3	SiO2†	1743.7	29.1	3.0701 µg/L	3.0701 ppb	11:34:31
3	Si 251.611†	764.4	8.1	0.1206 µg/L	0.1206 ppb	11:34:11
3	Sn 189.927†	-4.6	-6.6	-0.4567 µg/L	-0.4567 ppb	11:34:31
3	Ti 334.940†	707.4	-105.6	-0.1070 µg/L	-0.1070 ppb	11:34:11
3	Tl 190.801†	-118.5	-5.9	-0.8018 µg/L	-0.8018 ppb	11:34:31
3	U 409.014†	-257.2	-97.5	-6.0915 µg/L	-6.0915 ppb	11:34:11
3	V 292.402†	616.0	201.4	1.0480 µg/L	1.0480 ppb	11:34:11
3	Zn 213.857†	551.8	56.6	0.3393 µg/L	0.3393 ppb	11:34:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1779594.2	98.639	%	0.0769				0.08%
Sc RADIAL	138383.1	98.8	%	0.75				0.75%
Y 371.029	1045428.0	98.877	%	0.0829				0.08%
Ag 328.068†	-191.7	-0.7817	µg/L	0.36941	-0.7817	ppb	0.36941	47.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.2	1.4955	µg/L	3.26187	1.4955	ppb	3.26187	218.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.0	0.6908	µg/L	0.50742	0.6908	ppb	0.50742	73.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	9.9	0.1530	µg/L	0.52644	0.1530	ppb	0.52644	343.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.0	-0.0131	µg/L	0.06661	-0.0131	ppb	0.06661	508.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	293.4	0.0853	µg/L	0.04758	0.0853	ppb	0.04758	55.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	55.7	3.7930	µg/L	0.41176	3.7930	ppb	0.41176	10.86%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.0	0.1825	µg/L	0.07603	0.1825	ppb	0.07603	41.65%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	21.3	0.2820	µg/L	0.23633	0.2820	ppb	0.23633	83.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.2      0.1656 µg/L       0.13041      0.1656 ppb        0.13041  78.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -75.6     -0.3148 µg/L       0.39666     -0.3148 ppb        0.39666 125.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       17.6      1.3128 µg/L       1.18141      1.3128 ppb        1.18141  89.99%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        42.5      16.832 µg/L        8.6058      16.832 ppb         8.6058  51.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          10.5      4.8589 µg/L       9.19547      4.8589 ppb        9.19547 189.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              55.1      0.0729 µg/L       0.03238      0.0729 ppb        0.03238  44.45%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              16.1      0.5262 µg/L       0.34124      0.5262 ppb        0.34124  64.85%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       75.4      11.680 µg/L       17.0493      11.680 ppb        17.0493 145.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.9      0.0115 µg/L       0.13797      0.0115 ppb        0.13797 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               27.2      6.2776 µg/L       2.88612      6.2776 ppb        2.88612  45.98%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              21.0      1.2953 µg/L       0.77073      1.2953 ppb        0.77073  59.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         19.4      16.364 µg/L        6.4098      16.364 ppb         6.4098  39.17%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -21.2     -2.7278 µg/L       0.62103     -2.7278 ppb        0.62103  22.77%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              15.7        6.20 µg/L         2.250        6.20 ppb          2.250  36.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    21.4      2.2582 µg/L       1.42305      2.2582 ppb        1.42305  63.02%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              51.8      0.8113 µg/L       0.79039      0.8113 ppb        0.79039  97.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -3.7     -0.2597 µg/L       0.22815     -0.2597 ppb        0.22815  87.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              21.0      0.0496 µg/L       0.03085      0.0496 ppb        0.03085  62.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -7.0     -0.0079 µg/L       0.08634     -0.0079 ppb        0.08634 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.1     -0.2926 µg/L       0.47261     -0.2926 ppb        0.47261 161.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               13.9      0.8902 µg/L       6.08556      0.8902 ppb        6.08556 683.60%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               34.5      0.1853 µg/L       0.84970      0.1853 ppb        0.84970 458.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              54.9      0.3281 µg/L       0.03289      0.3281 ppb        0.03289  10.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 11:52:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136406.2	136406.2	97.4	%			11:52:57
1	Al 396.153Radial†	23313.8	24022.4	5034.4	µg/L	5034.4	ppb	11:52:57
1	Ca 317.933Radial†	72574.7	73964.8	5037.7	µg/L	5037.7	ppb	11:52:57
1	Fe 238.204 Radial†	65230.3	66876.0	4994.3	µg/L	4994.3	ppb	11:52:57
1	K 766.490 Radial†	13928.2	12810.9	5072.2	µg/L	5072.2	ppb	11:52:57
1	Mg 279.077 IEC†	10849.4	10970.1	5073.3	µg/L	5073.3	ppb	11:52:57
1	Na 589.592 Radial†	63560.6	64326.0	9966.5	µg/L	9966.5	ppb	11:52:57
1	Sr 421.552†	209457.2	215322.9	507.79	µg/L	507.79	ppb	11:52:55
1	Sc 361.383	1772450.0	1772450.0	98.243	%			11:53:10
1	Y 371.029	1029159.8	1029159.8	97.339	%			11:53:10
1	Ag 328.068†	123371.7	121013.3	501.63	µg/L	501.63	ppb	11:53:10
1	As 188.979†	1363.6	1406.6	482.99	µg/L	482.99	ppb	11:53:30
1	B 249.677†	35057.5	31619.4	490.00	µg/L	490.00	ppb	11:53:10
1	Ba 233.527†	109674.1	111780.3	497.26	µg/L	497.26	ppb	11:53:10
1	Be 313.107†	1662161.0	1692982.8	490.56	µg/L	490.56	ppb	11:53:10
1	Cd 226.502†	72458.7	73858.1	498.88	µg/L	498.88	ppb	11:53:10
1	Co 228.616†	37051.9	37924.9	501.98	µg/L	501.98	ppb	11:53:10
1	Cr 267.716†	56912.9	57697.7	499.01	µg/L	499.01	ppb	11:53:10
1	Cu 324.752†	119955.7	119065.2	499.57	µg/L	499.57	ppb	11:53:10
1	Mn 257.610†	369739.3	376167.9	498.79	µg/L	498.79	ppb	11:53:10
1	Mo 202.031†	14945.8	15251.7	499.25	µg/L	499.25	ppb	11:53:30
1	Ni 231.604†	39204.9	40002.1	500.48	µg/L	500.48	ppb	11:53:10
1	P 214.914†	10533.6	10747.7	2477.7	µg/L	2477.7	ppb	11:53:30
1	Pb 220.353†	8092.8	8134.1	502.11	µg/L	502.11	ppb	11:53:30
1	S 181.975 Axial†	1246.7	1180.1	996.97	µg/L	996.97	ppb	11:53:30
1	Sb 206.836†	3881.5	3861.2	499.01	µg/L	499.01	ppb	11:53:30
1	Se 196.026†	1261.7	1278.2	506	µg/L	506	ppb	11:53:30
1	SiO2†	50814.8	49984.6	5271.9	µg/L	5271.9	ppb	11:53:10
1	Si 251.611†	154915.3	156919.1	2464.5	µg/L	2464.5	ppb	11:53:10
1	Sn 189.927†	6999.7	7123.1	495.75	µg/L	495.75	ppb	11:53:30
1	Ti 334.940†	474357.0	482018.6	494.42	µg/L	494.42	ppb	11:53:10
1	Tl 190.801†	3467.1	3643.4	504.96	µg/L	504.96	ppb	11:53:30
1	U 409.014†	7358.8	7653.8	513.30	µg/L	513.30	ppb	11:53:10
1	V 292.402†	94510.7	95778.0	503.06	µg/L	503.06	ppb	11:53:10
1	Zn 213.857†	82854.1	83833.1	496.69	µg/L	496.69	ppb	11:53:10
2	Sc RADIAL	137493.5	137493.5	98.1	%			11:53:01
2	Al 396.153Radial†	23368.5	23888.8	5006.2	µg/L	5006.2	ppb	11:53:01
2	Ca 317.933Radial†	73166.7	73978.6	5038.6	µg/L	5038.6	ppb	11:53:01
2	Fe 238.204 Radial†	65779.5	66905.9	4996.5	µg/L	4996.5	ppb	11:53:01
2	K 766.490 Radial†	13916.8	12686.1	5022.7	µg/L	5022.7	ppb	11:53:01
2	Mg 279.077 IEC†	10945.0	10979.5	5077.6	µg/L	5077.6	ppb	11:53:01
2	Na 589.592 Radial†	64104.8	64364.3	9972.5	µg/L	9972.5	ppb	11:53:01
2	Sr 421.552†	208104.5	212243.5	500.53	µg/L	500.53	ppb	11:52:59
2	Sc 361.383	1762317.1	1762317.1	97.681	%			11:53:33
2	Y 371.029	1024172.1	1024172.1	96.867	%			11:53:33
2	Ag 328.068†	122813.7	121164.0	502.22	µg/L	502.22	ppb	11:53:33
2	As 188.979†	1372.1	1423.3	488.62	µg/L	488.62	ppb	11:53:53
2	B 249.677†	34852.8	31615.0	489.94	µg/L	489.94	ppb	11:53:33
2	Ba 233.527†	108849.1	111577.6	496.35	µg/L	496.35	ppb	11:53:33
2	Be 313.107†	1649149.0	1689389.9	489.51	µg/L	489.51	ppb	11:53:33
2	Cd 226.502†	71871.9	73681.4	497.68	µg/L	497.68	ppb	11:53:33
2	Co 228.616†	36650.3	37730.6	499.41	µg/L	499.41	ppb	11:53:33
2	Cr 267.716†	56379.7	57484.9	497.18	µg/L	497.18	ppb	11:53:33
2	Cu 324.752†	118788.7	118572.6	497.49	µg/L	497.49	ppb	11:53:33
2	Mn 257.610†	366667.7	375187.3	497.49	µg/L	497.49	ppb	11:53:33
2	Mo 202.031†	14922.5	15315.3	501.33	µg/L	501.33	ppb	11:53:53
2	Ni 231.604†	38942.5	39962.9	499.99	µg/L	499.99	ppb	11:53:33
2	P 214.914†	10533.2	10809.0	2491.8	µg/L	2491.8	ppb	11:53:53
2	Pb 220.353†	8076.9	8165.1	504.04	µg/L	504.04	ppb	11:53:53

2	S 181.975 Axial†	1255.9	1196.8	1011.1 µg/L	1011.1 ppb	11:53:53
2	Sb 206.836†	3856.9	3858.7	498.76 µg/L	498.76 ppb	11:53:53
2	Se 196.026†	1242.7	1266.0	501 µg/L	501 ppb	11:53:53
2	SiO2†	50210.7	49663.6	5237.8 µg/L	5237.8 ppb	11:53:33
2	Si 251.611†	153979.2	156867.5	2463.7 µg/L	2463.7 ppb	11:53:33
2	Sn 189.927†	6986.3	7150.3	497.63 µg/L	497.63 ppb	11:53:53
2	Ti 334.940†	470900.5	481256.2	493.65 µg/L	493.65 ppb	11:53:33
2	Tl 190.801†	3449.9	3646.1	505.33 µg/L	505.33 ppb	11:53:53
2	U 409.014†	6983.1	7312.3	491.76 µg/L	491.76 ppb	11:53:33
2	V 292.402†	94029.1	95838.0	503.37 µg/L	503.37 ppb	11:53:33
2	Zn 213.857†	82143.5	83590.5	495.24 µg/L	495.24 ppb	11:53:33
3	Sc RADIAL	138379.3	138379.3	98.8 %		11:53:05
3	Al 396.153Radial†	23410.6	23779.0	4983.1 µg/L	4983.1 ppb	11:53:05
3	Ca 317.933Radial†	73615.3	73955.5	5037.0 µg/L	5037.0 ppb	11:53:05
3	Fe 238.204 Radial†	66155.3	66857.2	4992.8 µg/L	4992.8 ppb	11:53:05
3	K 766.490 Radial†	14062.6	12742.9	5045.3 µg/L	5045.3 ppb	11:53:05
3	Mg 279.077 IEC†	10984.3	10947.9	5063.0 µg/L	5063.0 ppb	11:53:05
3	Na 589.592 Radial†	64456.7	64302.4	9962.9 µg/L	9962.9 ppb	11:53:05
3	Sr 421.552†	211075.5	213893.9	504.42 µg/L	504.42 ppb	11:53:03
3	Sc 361.383	1773926.9	1773926.9	98.325 %		11:53:56
3	Y 371.029	1030484.0	1030484.0	97.464 %		11:53:56
3	Ag 328.068†	123843.7	121388.7	503.13 µg/L	503.13 ppb	11:53:56
3	As 188.979†	1369.1	1411.0	484.48 µg/L	484.48 ppb	11:54:16
3	B 249.677†	35237.3	31772.6	492.38 µg/L	492.38 ppb	11:53:56
3	Ba 233.527†	110079.9	112100.1	498.68 µg/L	498.68 ppb	11:53:56
3	Be 313.107†	1667071.7	1696568.6	491.59 µg/L	491.59 ppb	11:53:56
3	Cd 226.502†	72710.6	74052.8	500.20 µg/L	500.20 ppb	11:53:56
3	Co 228.616†	37053.9	37895.5	501.60 µg/L	501.60 ppb	11:53:56
3	Cr 267.716†	56941.0	57678.0	498.86 µg/L	498.86 ppb	11:53:56
3	Cu 324.752†	119958.3	118966.2	499.13 µg/L	499.13 ppb	11:53:56
3	Mn 257.610†	370604.0	376734.0	499.54 µg/L	499.54 ppb	11:53:56
3	Mo 202.031†	15013.3	15307.7	501.08 µg/L	501.08 ppb	11:54:16
3	Ni 231.604†	39324.7	40090.7	501.58 µg/L	501.58 ppb	11:53:56
3	P 214.914†	10576.2	10782.1	2485.6 µg/L	2485.6 ppb	11:54:16
3	Pb 220.353†	8159.7	8195.3	505.90 µg/L	505.90 ppb	11:54:16
3	S 181.975 Axial†	1240.8	1173.0	991.06 µg/L	991.06 ppb	11:54:16
3	Sb 206.836†	3890.0	3866.5	499.73 µg/L	499.73 ppb	11:54:16
3	Se 196.026†	1246.9	1262.0	499 µg/L	499 ppb	11:54:16
3	SiO2†	51031.8	50162.2	5290.6 µg/L	5290.6 ppb	11:53:56
3	Si 251.611†	155506.1	157388.8	2471.9 µg/L	2471.9 ppb	11:53:56
3	Sn 189.927†	7037.4	7155.4	498.00 µg/L	498.00 ppb	11:54:16
3	Ti 334.940†	475812.6	483097.0	495.55 µg/L	495.55 ppb	11:53:56
3	Tl 190.801†	3486.4	3660.1	507.26 µg/L	507.26 ppb	11:54:16
3	U 409.014†	6861.5	7141.7	481.01 µg/L	481.01 ppb	11:53:56
3	V 292.402†	94660.9	95850.6	503.43 µg/L	503.43 ppb	11:53:56
3	Zn 213.857†	83073.1	83985.6	497.59 µg/L	497.59 ppb	11:53:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769564.7	98.083	%	0.3503				0.36%
Sc RADIAL	137426.3	98.1	%	0.71				0.72%
Y 371.029	1027938.6	97.223	%	0.3148				0.32%
Ag 328.068†	121188.7	502.32	µg/L	0.756	502.32	ppb	0.756	0.15%
QC value within limits for Ag 328.068 Recovery = 100.46%								
Al 396.153Radial†	23896.8	5007.9	µg/L	25.71	5007.9	ppb	25.71	0.51%
QC value within limits for Al 396.153Radial Recovery = 100.16%								
As 188.979†	1413.6	485.36	µg/L	2.918	485.36	ppb	2.918	0.60%
QC value within limits for As 188.979 Recovery = 97.07%								
B 249.677†	31669.0	490.77	µg/L	1.393	490.77	ppb	1.393	0.28%
QC value within limits for B 249.677 Recovery = 98.15%								
Ba 233.527†	111819.3	497.43	µg/L	1.171	497.43	ppb	1.171	0.24%
QC value within limits for Ba 233.527 Recovery = 99.49%								
Be 313.107†	1692980.5	490.55	µg/L	1.038	490.55	ppb	1.038	0.21%
QC value within limits for Be 313.107 Recovery = 98.11%								
Ca 317.933Radial†	73966.3	5037.8	µg/L	0.79	5037.8	ppb	0.79	0.02%
QC value within limits for Ca 317.933Radial Recovery = 100.76%								
Cd 226.502†	73864.1	498.92	µg/L	1.256	498.92	ppb	1.256	0.25%
QC value within limits for Cd 226.502 Recovery = 99.78%								
Co 228.616†	37850.3	501.00	µg/L	1.386	501.00	ppb	1.386	0.28%

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   QC value within limits for Co 228.616  Recovery = 100.20%
Cr 267.716†            57620.2      498.35 µg/L         1.014      498.35 ppb          1.014   0.20%
   QC value within limits for Cr 267.716  Recovery = 99.67%
Cu 324.752†           118868.0      498.73 µg/L         1.096      498.73 ppb          1.096   0.22%
   QC value within limits for Cu 324.752  Recovery = 99.75%
Fe 238.204 Radial†     66879.7      4994.5 µg/L          1.83      4994.5 ppb           1.83   0.04%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.89%
K 766.490 Radial†      12746.7      5046.7 µg/L         24.75      5046.7 ppb          24.75   0.49%
   QC value within limits for K 766.490 Radial  Recovery = 100.93%
Mg 279.077 IEC†        10965.8      5071.3 µg/L          7.49      5071.3 ppb           7.49   0.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.43%
Mn 257.610†           376029.8      498.61 µg/L         1.038      498.61 ppb          1.038   0.21%
   QC value within limits for Mn 257.610  Recovery = 99.72%
Mo 202.031†            15291.6      500.55 µg/L         1.135      500.55 ppb          1.135   0.23%
   QC value within limits for Mo 202.031  Recovery = 100.11%
Na 589.592 Radial†     64330.9      9967.3 µg/L          4.85      9967.3 ppb           4.85   0.05%
   QC value within limits for Na 589.592 Radial  Recovery = 99.67%
Ni 231.604†            40018.5      500.68 µg/L         0.819      500.68 ppb          0.819   0.16%
   QC value within limits for Ni 231.604  Recovery = 100.14%
P 214.914†             10779.6      2485.0 µg/L          7.11      2485.0 ppb           7.11   0.29%
   QC value within limits for P 214.914  Recovery = 99.40%
Pb 220.353†             8164.8      504.01 µg/L         1.894      504.01 ppb          1.894   0.38%
   QC value within limits for Pb 220.353  Recovery = 100.80%
S 181.975 Axial†        1183.3      999.69 µg/L        10.271      999.69 ppb         10.271   1.03%
   QC value within limits for S 181.975 Axial  Recovery = 99.97%
Sb 206.836†             3862.2      499.17 µg/L         0.507      499.17 ppb          0.507   0.10%
   QC value within limits for Sb 206.836  Recovery = 99.83%
Se 196.026†             1268.7         502 µg/L           3.3         502 ppb            3.3   0.66%
   QC value within limits for Se 196.026  Recovery = 100.40%
SiO2†                  49936.8      5266.8 µg/L         26.77      5266.8 ppb          26.77   0.51%
   QC value within limits for SiO2  Recovery = 98.49%
Si 251.611†           157058.5      2466.7 µg/L          4.52      2466.7 ppb           4.52   0.18%
   QC value within limits for Si 251.611  Recovery = 98.67%
Sn 189.927†             7142.9      497.13 µg/L         1.207      497.13 ppb          1.207   0.24%
   QC value within limits for Sn 189.927  Recovery = 99.43%
Sr 421.552†           213820.1      504.25 µg/L         3.634      504.25 ppb          3.634   0.72%
   QC value within limits for Sr 421.552  Recovery = 100.85%
Ti 334.940†           482123.9      494.54 µg/L         0.953      494.54 ppb          0.953   0.19%
   QC value within limits for Ti 334.940  Recovery = 98.91%
Tl 190.801†             3649.9      505.85 µg/L         1.234      505.85 ppb          1.234   0.24%
   QC value within limits for Tl 190.801  Recovery = 101.17%
U 409.014†              7369.3      495.36 µg/L        16.441      495.36 ppb         16.441   3.32%
   QC value within limits for U 409.014  Recovery = 99.07%
V 292.402†             95822.2      503.28 µg/L         0.199      503.28 ppb          0.199   0.04%
   QC value within limits for V 292.402  Recovery = 100.66%
Zn 213.857†            83803.0      496.51 µg/L         1.184      496.51 ppb          1.184   0.24%
   QC value within limits for Zn 213.857  Recovery = 99.30%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 11:54:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139389.9	139389.9	99.5	%			11:54:54
1	Al 396.153Radial†	-84.0	-5.9	-1.2593	µg/L	-1.2593	ppb	11:55:14
1	Ca 317.933Radial†	644.5	76.3	5.1950	µg/L	5.1950	ppb	11:55:14
1	Fe 238.204 Radial†	160.6	44.1	3.2902	µg/L	3.2902	ppb	11:55:14
1	K 766.490 Radial†	1607.6	121.9	48.305	µg/L	48.305	ppb	11:54:54
1	Mg 279.077 IEC†	175.1	3.6	1.6593	µg/L	1.6593	ppb	11:55:14
1	Na 589.592 Radial†	1147.4	200.7	31.068	µg/L	31.068	ppb	11:54:54
1	Sr 421.552†	-289.7	-86.7	-0.2046	µg/L	-0.2046	ppb	11:54:54
1	Sc 361.383	1803679.3	1803679.3	99.974	%			11:56:02
1	Y 371.029	1059662.4	1059662.4	100.22	%			11:56:02
1	Ag 328.068†	4030.2	-533.9	-2.1911	µg/L	-2.1911	ppb	11:56:04
1	As 188.979†	-11.4	7.1	2.4097	µg/L	2.4097	ppb	11:56:24
1	B 249.677†	4005.8	-58.3	-0.9066	µg/L	-0.9066	ppb	11:56:04
1	Ba 233.527†	-141.6	2.9	0.0132	µg/L	0.0132	ppb	11:56:24
1	Be 313.107†	-854.4	237.1	0.0672	µg/L	0.0672	ppb	11:56:04
1	Cd 226.502†	-87.6	15.7	0.1061	µg/L	0.1061	ppb	11:56:24
1	Co 228.616†	-200.7	9.6	0.1266	µg/L	0.1266	ppb	11:56:24
1	Cr 267.716†	259.2	26.0	0.2290	µg/L	0.2290	ppb	11:56:24
1	Cu 324.752†	2917.7	-117.6	-0.4953	µg/L	-0.4953	ppb	11:56:04
1	Mn 257.610†	254.2	69.5	0.0921	µg/L	0.0921	ppb	11:56:24
1	Mo 202.031†	-24.6	14.0	0.4572	µg/L	0.4572	ppb	11:56:24
1	Ni 231.604†	-52.1	43.7	0.5473	µg/L	0.5473	ppb	11:56:24
1	P 214.914†	3.0	28.7	6.6281	µg/L	6.6281	ppb	11:56:24
1	Pb 220.353†	103.6	0.2	0.0141	µg/L	0.0141	ppb	11:56:24
1	S 181.975 Axial†	87.0	-1.9	-1.6322	µg/L	-1.6322	ppb	11:56:24
1	Sb 206.836†	75.3	-14.4	-1.8542	µg/L	-1.8542	ppb	11:56:24
1	Se 196.026†	25.6	19.4	7.65	µg/L	7.65	ppb	11:56:24
1	SiO2†	1766.5	27.9	2.9396	µg/L	2.9396	ppb	11:56:24
1	Si 251.611†	936.0	169.2	2.6606	µg/L	2.6606	ppb	11:56:04
1	Sn 189.927†	4.7	2.8	0.1940	µg/L	0.1940	ppb	11:56:24
1	Ti 334.940†	790.9	-31.9	-0.0308	µg/L	-0.0308	ppb	11:56:04
1	Tl 190.801†	-109.3	4.9	0.6728	µg/L	0.6728	ppb	11:56:24
1	U 409.014†	-240.1	-76.8	-4.8425	µg/L	-4.8425	ppb	11:56:04
1	V 292.402†	433.4	10.3	0.0553	µg/L	0.0553	ppb	11:56:04
1	Zn 213.857†	610.2	107.4	0.6379	µg/L	0.6379	ppb	11:56:24
2	Sc RADIAL	139282.4	139282.4	99.4	%			11:55:16
2	Al 396.153Radial†	-42.2	36.1	7.5894	µg/L	7.5894	ppb	11:55:36
2	Ca 317.933Radial†	638.7	70.9	4.8316	µg/L	4.8316	ppb	11:55:36
2	Fe 238.204 Radial†	158.2	41.9	3.1259	µg/L	3.1259	ppb	11:55:36
2	K 766.490 Radial†	1707.0	223.2	88.420	µg/L	88.420	ppb	11:55:16
2	Mg 279.077 IEC†	177.7	6.3	2.9217	µg/L	2.9217	ppb	11:55:36
2	Na 589.592 Radial†	1039.6	93.2	14.364	µg/L	14.364	ppb	11:55:16
2	Sr 421.552†	-106.1	97.7	0.2305	µg/L	0.2305	ppb	11:55:16
2	Sc 361.383	1821566.7	1821566.7	100.97	%			11:56:26
2	Y 371.029	1068824.4	1068824.4	101.09	%			11:56:26
2	Ag 328.068†	4339.7	-267.0	-1.1089	µg/L	-1.1089	ppb	11:56:28
2	As 188.979†	-18.8	-0.1	-0.0164	µg/L	-0.0164	ppb	11:56:49
2	B 249.677†	4055.1	-48.8	-0.7607	µg/L	-0.7607	ppb	11:56:28
2	Ba 233.527†	-123.2	22.5	0.0996	µg/L	0.0996	ppb	11:56:49
2	Be 313.107†	-844.8	255.0	0.0729	µg/L	0.0729	ppb	11:56:28
2	Cd 226.502†	-65.9	38.1	0.2575	µg/L	0.2575	ppb	11:56:49
2	Co 228.616†	-177.6	34.4	0.4555	µg/L	0.4555	ppb	11:56:49
2	Cr 267.716†	273.2	37.4	0.3256	µg/L	0.3256	ppb	11:56:49
2	Cu 324.752†	3023.7	-41.3	-0.1746	µg/L	-0.1746	ppb	11:56:28
2	Mn 257.610†	559.5	369.5	0.4900	µg/L	0.4900	ppb	11:56:49
2	Mo 202.031†	-27.6	11.2	0.3677	µg/L	0.3677	ppb	11:56:49
2	Ni 231.604†	-57.5	39.0	0.4875	µg/L	0.4875	ppb	11:56:49
2	P 214.914†	21.5	47.0	10.874	µg/L	10.874	ppb	11:56:49
2	Pb 220.353†	83.8	-20.4	-1.2522	µg/L	-1.2522	ppb	11:56:49

2	S 181.975 Axial†	95.6	5.8	4.8821 µg/L	4.8821 ppb	11:56:49
2	Sb 206.836†	69.7	-20.7	-2.6649 µg/L	-2.6649 ppb	11:56:49
2	Se 196.026†	22.8	16.4	6.45 µg/L	6.45 ppb	11:56:49
2	SiO2†	1841.3	84.6	8.9537 µg/L	8.9537 ppb	11:56:49
2	Si 251.611†	927.3	151.4	2.3842 µg/L	2.3842 ppb	11:56:28
2	Sn 189.927†	-2.1	-4.0	-0.2757 µg/L	-0.2757 ppb	11:56:49
2	Ti 334.940†	628.9	-200.1	-0.2043 µg/L	-0.2043 ppb	11:56:28
2	Tl 190.801†	-115.8	-0.5	-0.0731 µg/L	-0.0731 ppb	11:56:49
2	U 409.014†	-218.4	-53.0	-3.3981 µg/L	-3.3981 ppb	11:56:28
2	V 292.402†	237.2	-188.3	-0.9729 µg/L	-0.9729 ppb	11:56:28
2	Zn 213.857†	635.0	125.9	0.7484 µg/L	0.7484 ppb	11:56:49
3	Sc RADIAL	139340.4	139340.4	99.5 %		11:55:38
3	Al 396.153Radial†	-77.3	0.8	0.1277 µg/L	0.1277 ppb	11:55:58
3	Ca 317.933Radial†	597.0	28.7	1.9576 µg/L	1.9576 ppb	11:55:58
3	Fe 238.204 Radial†	155.3	38.9	2.9027 µg/L	2.9027 ppb	11:55:58
3	K 766.490 Radial†	1502.8	17.1	6.7800 µg/L	6.7800 ppb	11:55:38
3	Mg 279.077 IEC†	194.6	23.2	10.746 µg/L	10.746 ppb	11:55:58
3	Na 589.592 Radial†	1106.6	160.1	24.810 µg/L	24.810 ppb	11:55:38
3	Sr 421.552†	-124.6	79.2	0.1869 µg/L	0.1869 ppb	11:55:38
3	Sc 361.383	1797247.0	1797247.0	99.617 %		11:56:51
3	Y 371.029	1055174.4	1055174.4	99.799 %		11:56:51
3	Ag 328.068†	4221.6	-327.3	-1.3518 µg/L	-1.3518 ppb	11:56:53
3	As 188.979†	-9.7	8.8	2.9796 µg/L	2.9796 ppb	11:57:13
3	B 249.677†	3829.7	-220.7	-3.4338 µg/L	-3.4338 ppb	11:56:53
3	Ba 233.527†	-151.6	-7.6	-0.0339 µg/L	-0.0339 ppb	11:57:13
3	Be 313.107†	-753.4	335.5	0.0958 µg/L	0.0958 ppb	11:56:53
3	Cd 226.502†	-87.6	15.5	0.1044 µg/L	0.1044 ppb	11:57:13
3	Co 228.616†	-191.7	17.9	0.2362 µg/L	0.2362 ppb	11:57:13
3	Cr 267.716†	227.7	-4.6	-0.0368 µg/L	-0.0368 ppb	11:57:13
3	Cu 324.752†	2886.9	-138.1	-0.5806 µg/L	-0.5806 ppb	11:56:53
3	Mn 257.610†	271.2	87.5	0.1156 µg/L	0.1156 ppb	11:57:13
3	Mo 202.031†	-6.1	32.4	1.0600 µg/L	1.0600 ppb	11:57:13
3	Ni 231.604†	-73.4	22.2	0.2780 µg/L	0.2780 ppb	11:57:13
3	P 214.914†	3.6	29.3	6.7857 µg/L	6.7857 ppb	11:57:13
3	Pb 220.353†	60.8	-42.4	-2.6054 µg/L	-2.6054 ppb	11:57:13
3	S 181.975 Axial†	106.0	17.5	14.706 µg/L	14.706 ppb	11:57:13
3	Sb 206.836†	79.7	-9.8	-1.2426 µg/L	-1.2426 ppb	11:57:13
3	Se 196.026†	15.7	9.6	3.78 µg/L	3.78 ppb	11:57:13
3	SiO2†	1829.5	97.4	10.277 µg/L	10.277 ppb	11:57:13
3	Si 251.611†	1111.0	348.3	5.4721 µg/L	5.4721 ppb	11:56:53
3	Sn 189.927†	13.7	11.9	0.8234 µg/L	0.8234 ppb	11:57:13
3	Ti 334.940†	717.7	-102.5	-0.1043 µg/L	-0.1043 ppb	11:56:53
3	Tl 190.801†	-119.4	-5.6	-0.7640 µg/L	-0.7640 ppb	11:57:13
3	U 409.014†	-232.3	-69.9	-4.4392 µg/L	-4.4392 ppb	11:56:53
3	V 292.402†	319.0	-103.0	-0.5260 µg/L	-0.5260 ppb	11:56:53
3	Zn 213.857†	589.3	88.6	0.5275 µg/L	0.5275 ppb	11:57:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807497.7	100.19	%	0.698				0.70%
Sc RADIAL	139337.6	99.5	%	0.04				0.04%
Y 371.029	1061220.4	100.37	%	0.658				0.66%
Ag 328.068†	-376.1	-1.5506	µg/L	0.56784	-1.5506	ppb	0.56784	36.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.4	2.1526	µg/L	4.75922	2.1526	ppb	4.75922	221.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.3	1.7910	µg/L	1.59094	1.7910	ppb	1.59094	88.83%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-109.3	-1.7004	µg/L	1.50298	-1.7004	ppb	1.50298	88.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.0	0.0263	µg/L	0.06770	0.0263	ppb	0.06770	257.26%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	275.9	0.0786	µg/L	0.01517	0.0786	ppb	0.01517	19.29%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	58.7	3.9947	µg/L	1.77355	3.9947	ppb	1.77355	44.40%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.1	0.1560	µg/L	0.08793	0.1560	ppb	0.08793	56.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.6	0.2728	µg/L	0.16746	0.2728	ppb	0.16746	61.39%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.6      0.1726 µg/L       0.18768      0.1726 ppb        0.18768 108.74%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -99.0     -0.4168 µg/L       0.21408     -0.4168 ppb        0.21408  51.36%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       41.6      3.1063 µg/L       0.19449      3.1063 ppb        0.19449   6.26%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       120.7     47.835 µg/L       40.8218     47.835 ppb        40.8218  85.34%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          11.0      5.1091 µg/L       4.92266      5.1091 ppb        4.92266  96.35%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             175.5      0.2326 µg/L       0.22323      0.2326 ppb        0.22323  95.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              19.2      0.6283 µg/L       0.37654      0.6283 ppb        0.37654  59.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      151.3     23.414 µg/L        8.4391     23.414 ppb         8.4391  36.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              35.0      0.4376 µg/L       0.14140      0.4376 ppb        0.14140  32.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               35.0      8.0960 µg/L       2.40728      8.0960 ppb        2.40728  29.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -20.9     -1.2812 µg/L       1.30999     -1.2812 ppb        1.30999 102.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          7.1      5.9853 µg/L       8.22482      5.9853 ppb        8.22482 137.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -14.9     -1.9206 µg/L       0.71350     -1.9206 ppb        0.71350  37.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              15.1       5.96 µg/L         1.979        5.96 ppb          1.979  33.19%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    70.0      7.3902 µg/L       3.91074      7.3902 ppb        3.91074  52.92%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             222.9      3.5056 µg/L       1.70860      3.5056 ppb        1.70860  48.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.6      0.2472 µg/L       0.55145      0.2472 ppb        0.55145 223.04%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              30.1      0.0709 µg/L       0.23957      0.0709 ppb        0.23957 337.83%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -111.5     -0.1132 µg/L       0.08709     -0.1132 ppb        0.08709  76.96%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.4     -0.0548 µg/L       0.71858     -0.0548 ppb        0.71858 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -66.5     -4.2266 µg/L       0.74532     -4.2266 ppb        0.74532  17.63%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -93.6     -0.4812 µg/L       0.51557     -0.4812 ppb        0.51557 107.15%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             107.3      0.6379 µg/L       0.11045      0.6379 ppb        0.11045  17.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 12:16:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138173.1	138173.1	98.6	%			12:17:08
1	Al 396.153Radial†	23436.3	23840.5	4995.9	µg/L	4995.9	ppb	12:17:08
1	Ca 317.933Radial†	73829.7	74284.1	5059.4	µg/L	5059.4	ppb	12:17:08
1	Fe 238.204 Radial†	66677.7	67486.8	5039.9	µg/L	5039.9	ppb	12:17:08
1	K 766.490 Radial†	14215.5	12919.2	5115.1	µg/L	5115.1	ppb	12:17:08
1	Mg 279.077 IEC†	11111.0	11092.9	5130.0	µg/L	5130.0	ppb	12:17:08
1	Na 589.592 Radial†	64510.7	64454.5	9986.4	µg/L	9986.4	ppb	12:17:08
1	Sr 421.552†	208276.3	211374.6	498.48	µg/L	498.48	ppb	12:17:05
1	Sc 361.383	1771153.0	1771153.0	98.171	%			12:17:34
1	Y 371.029	1029832.2	1029832.2	97.402	%			12:17:34
1	Ag 328.068†	123736.1	121476.4	503.55	µg/L	503.55	ppb	12:17:34
1	As 188.979†	1382.2	1426.5	489.79	µg/L	489.79	ppb	12:17:54
1	B 249.677†	35147.2	31736.9	491.81	µg/L	491.81	ppb	12:17:34
1	Ba 233.527†	110394.8	112596.2	500.88	µg/L	500.88	ppb	12:17:34
1	Be 313.107†	1668216.9	1700390.5	492.70	µg/L	492.70	ppb	12:17:34
1	Cd 226.502†	72697.5	74155.4	500.88	µg/L	500.88	ppb	12:17:34
1	Co 228.616†	37260.4	38164.9	505.16	µg/L	505.16	ppb	12:17:34
1	Cr 267.716†	57133.8	57965.1	501.33	µg/L	501.33	ppb	12:17:34
1	Cu 324.752†	120539.2	119749.0	502.44	µg/L	502.44	ppb	12:17:34
1	Mn 257.610†	371828.3	378571.5	501.98	µg/L	501.98	ppb	12:17:34
1	Mo 202.031†	15099.0	15418.9	504.72	µg/L	504.72	ppb	12:17:54
1	Ni 231.604†	39340.9	40169.8	502.57	µg/L	502.57	ppb	12:17:34
1	P 214.914†	10642.4	10866.4	2505.0	µg/L	2505.0	ppb	12:17:54
1	Pb 220.353†	8192.1	8241.3	508.72	µg/L	508.72	ppb	12:17:54
1	S 181.975 Axial†	1246.0	1180.3	997.22	µg/L	997.22	ppb	12:17:54
1	Sb 206.836†	3907.2	3890.3	502.82	µg/L	502.82	ppb	12:17:54
1	Se 196.026†	1267.0	1284.5	508	µg/L	508	ppb	12:17:54
1	SiO2†	51163.3	50377.5	5313.3	µg/L	5313.3	ppb	12:17:34
1	Si 251.611†	156323.1	158468.6	2488.8	µg/L	2488.8	ppb	12:17:34
1	Sn 189.927†	7092.0	7222.2	502.64	µg/L	502.64	ppb	12:17:54
1	Ti 334.940†	477558.9	485633.6	498.13	µg/L	498.13	ppb	12:17:34
1	Tl 190.801†	3523.3	3703.2	513.18	µg/L	513.18	ppb	12:17:54
1	U 409.014†	7278.5	7577.4	508.67	µg/L	508.67	ppb	12:17:34
1	V 292.402†	95032.0	96379.4	506.23	µg/L	506.23	ppb	12:17:34
1	Zn 213.857†	83125.8	84171.6	498.69	µg/L	498.69	ppb	12:17:34
2	Sc RADIAL	136709.1	136709.1	97.6	%			12:17:12
2	Al 396.153Radial†	23297.2	23952.4	5019.6	µg/L	5019.6	ppb	12:17:12
2	Ca 317.933Radial†	72959.0	74193.5	5053.2	µg/L	5053.2	ppb	12:17:12
2	Fe 238.204 Radial†	65851.7	67364.3	5030.7	µg/L	5030.7	ppb	12:17:12
2	K 766.490 Radial†	13849.6	12698.6	5027.7	µg/L	5027.7	ppb	12:17:12
2	Mg 279.077 IEC†	10906.9	11004.4	5089.1	µg/L	5089.1	ppb	12:17:12
2	Na 589.592 Radial†	64040.2	64672.9	10020	µg/L	10020	ppb	12:17:12
2	Sr 421.552†	208577.2	213944.5	504.54	µg/L	504.54	ppb	12:17:10
2	Sc 361.383	1790471.7	1790471.7	99.242	%			12:17:58
2	Y 371.029	1040499.0	1040499.0	98.411	%			12:17:58
2	Ag 328.068†	125354.8	121747.5	504.66	µg/L	504.66	ppb	12:17:58
2	As 188.979†	1362.5	1391.5	477.93	µg/L	477.93	ppb	12:18:18
2	B 249.677†	35724.9	31932.7	494.85	µg/L	494.85	ppb	12:17:58
2	Ba 233.527†	111665.0	112662.7	501.18	µg/L	501.18	ppb	12:17:58
2	Be 313.107†	1689440.1	1703440.9	493.59	µg/L	493.59	ppb	12:17:58
2	Cd 226.502†	73727.4	74394.1	502.50	µg/L	502.50	ppb	12:17:58
2	Co 228.616†	37877.1	38376.8	507.96	µg/L	507.96	ppb	12:17:58
2	Cr 267.716†	57789.1	57997.4	501.61	µg/L	501.61	ppb	12:17:58
2	Cu 324.752†	121820.0	119714.7	502.29	µg/L	502.29	ppb	12:17:58
2	Mn 257.610†	376181.4	378871.2	502.38	µg/L	502.38	ppb	12:17:58
2	Mo 202.031†	15140.8	15295.0	500.67	µg/L	500.67	ppb	12:18:18
2	Ni 231.604†	39919.1	40320.1	504.45	µg/L	504.45	ppb	12:17:58
2	P 214.914†	10675.0	10782.2	2485.6	µg/L	2485.6	ppb	12:18:18
2	Pb 220.353†	8199.1	8158.3	503.61	µg/L	503.61	ppb	12:18:18

2	S 181.975 Axial†	1250.2	1170.9	989.23 µg/L	989.23 ppb	12:18:18
2	Sb 206.836†	3900.5	3840.6	496.34 µg/L	496.34 ppb	12:18:18
2	Se 196.026†	1261.8	1265.3	501 µg/L	501 ppb	12:18:18
2	SiO2†	51903.6	50561.1	5332.9 µg/L	5332.9 ppb	12:17:58
2	Si 251.611†	158711.3	159157.0	2499.8 µg/L	2499.8 ppb	12:17:58
2	Sn 189.927†	7069.7	7121.8	495.68 µg/L	495.68 ppb	12:18:18
2	Ti 334.940†	483377.5	486248.0	498.77 µg/L	498.77 ppb	12:17:58
2	Tl 190.801†	3525.8	3667.0	508.23 µg/L	508.23 ppb	12:18:18
2	U 409.014†	7276.7	7495.6	503.52 µg/L	503.52 ppb	12:17:58
2	V 292.402†	96108.6	96419.7	506.39 µg/L	506.39 ppb	12:17:58
2	Zn 213.857†	84041.9	84181.0	498.73 µg/L	498.73 ppb	12:17:58
3	Sc RADIAL	137430.0	137430.0	98.1 %		12:17:16
3	Al 396.153Radial†	23488.3	24022.0	5034.0 µg/L	5034.0 ppb	12:17:16
3	Ca 317.933Radial†	73707.4	74564.2	5078.5 µg/L	5078.5 ppb	12:17:16
3	Fe 238.204 Radial†	66294.6	67461.9	5038.0 µg/L	5038.0 ppb	12:17:16
3	K 766.490 Radial†	13997.9	12775.3	5058.1 µg/L	5058.1 ppb	12:17:16
3	Mg 279.077 IEC†	10912.3	10951.3	5064.7 µg/L	5064.7 ppb	12:17:16
3	Na 589.592 Radial†	64249.5	64542.0	10000 µg/L	10000 ppb	12:17:16
3	Sr 421.552†	206570.3	210777.5	497.07 µg/L	497.07 ppb	12:17:14
3	Sc 361.383	1791956.4	1791956.4	99.324 %		12:18:21
3	Y 371.029	1040969.8	1040969.8	98.456 %		12:18:21
3	Ag 328.068†	125471.1	121760.0	504.71 µg/L	504.71 ppb	12:18:21
3	As 188.979†	1389.7	1417.7	486.83 µg/L	486.83 ppb	12:18:41
3	B 249.677†	35714.4	31892.3	494.22 µg/L	494.22 ppb	12:18:21
3	Ba 233.527†	112011.5	112918.4	502.32 µg/L	502.32 ppb	12:18:21
3	Be 313.107†	1691084.9	1703686.5	493.66 µg/L	493.66 ppb	12:18:21
3	Cd 226.502†	73961.0	74567.8	503.67 µg/L	503.67 ppb	12:18:21
3	Co 228.616†	37900.0	38368.2	507.85 µg/L	507.85 ppb	12:18:21
3	Cr 267.716†	57873.2	58033.9	501.93 µg/L	501.93 ppb	12:18:21
3	Cu 324.752†	121881.7	119675.2	502.12 µg/L	502.12 ppb	12:18:21
3	Mn 257.610†	376942.5	379323.3	502.98 µg/L	502.98 ppb	12:18:21
3	Mo 202.031†	15340.9	15483.8	506.84 µg/L	506.84 ppb	12:18:41
3	Ni 231.604†	40041.2	40409.6	505.57 µg/L	505.57 ppb	12:18:21
3	P 214.914†	10860.3	10960.0	2526.7 µg/L	2526.7 ppb	12:18:41
3	Pb 220.353†	8326.6	8279.8	511.10 µg/L	511.10 ppb	12:18:41
3	S 181.975 Axial†	1272.4	1192.1	1007.2 µg/L	1007.2 ppb	12:18:41
3	Sb 206.836†	3964.4	3901.7	504.31 µg/L	504.31 ppb	12:18:41
3	Se 196.026†	1279.4	1281.9	507 µg/L	507 ppb	12:18:41
3	SiO2†	52183.1	50799.2	5357.8 µg/L	5357.8 ppb	12:18:21
3	Si 251.611†	159232.7	159549.5	2505.8 µg/L	2505.8 ppb	12:18:21
3	Sn 189.927†	7190.1	7237.1	503.67 µg/L	503.67 ppb	12:18:41
3	Ti 334.940†	483431.3	485898.6	498.41 µg/L	498.41 ppb	12:18:21
3	Tl 190.801†	3579.1	3717.8	515.16 µg/L	515.16 ppb	12:18:41
3	U 409.014†	7290.1	7503.1	504.01 µg/L	504.01 ppb	12:18:21
3	V 292.402†	96227.3	96459.0	506.66 µg/L	506.66 ppb	12:18:21
3	Zn 213.857†	84398.4	84469.8	500.45 µg/L	500.45 ppb	12:18:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1784527.0	98.912	%	0.6433				0.65%
Sc RADIAL	137437.4	98.1	%	0.52				0.53%
Y 371.029	1037100.3	98.090	%	0.5957				0.61%
Ag 328.068†	121661.3	504.31	µg/L	0.654	504.31	ppb	0.654	0.13%
QC value within limits for Ag 328.068 Recovery = 100.86%								
Al 396.153Radial†	23938.3	5016.5	µg/L	19.24	5016.5	ppb	19.24	0.38%
QC value within limits for Al 396.153Radial Recovery = 100.33%								
As 188.979†	1411.9	484.85	µg/L	6.176	484.85	ppb	6.176	1.27%
QC value within limits for As 188.979 Recovery = 96.97%								
B 249.677†	31854.0	493.63	µg/L	1.602	493.63	ppb	1.602	0.32%
QC value within limits for B 249.677 Recovery = 98.73%								
Ba 233.527†	112725.8	501.46	µg/L	0.757	501.46	ppb	0.757	0.15%
QC value within limits for Ba 233.527 Recovery = 100.29%								
Be 313.107†	1702506.0	493.32	µg/L	0.531	493.32	ppb	0.531	0.11%
QC value within limits for Be 313.107 Recovery = 98.66%								
Ca 317.933Radial†	74347.3	5063.7	µg/L	13.16	5063.7	ppb	13.16	0.26%
QC value within limits for Ca 317.933Radial Recovery = 101.27%								
Cd 226.502†	74372.4	502.35	µg/L	1.400	502.35	ppb	1.400	0.28%
QC value within limits for Cd 226.502 Recovery = 100.47%								
Co 228.616†	38303.3	506.99	µg/L	1.587	506.99	ppb	1.587	0.31%

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   QC value within limits for Co 228.616  Recovery = 101.40%
Cr 267.716†            57998.8      501.62 µg/L        0.300      501.62 ppb          0.300   0.06%
   QC value within limits for Cr 267.716  Recovery = 100.32%
Cu 324.752†           119713.0      502.28 µg/L        0.157      502.28 ppb          0.157   0.03%
   QC value within limits for Cu 324.752  Recovery = 100.46%
Fe 238.204 Radial†     67437.7      5036.2 µg/L         4.83      5036.2 ppb           4.83   0.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.72%
K 766.490 Radial†      12797.7      5066.9 µg/L        44.38      5066.9 ppb          44.38   0.88%
   QC value within limits for K 766.490 Radial  Recovery = 101.34%
Mg 279.077 IEC†        11016.2      5094.6 µg/L        33.02      5094.6 ppb          33.02   0.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.89%
Mn 257.610†           378922.0      502.44 µg/L        0.503      502.44 ppb          0.503   0.10%
   QC value within limits for Mn 257.610  Recovery = 100.49%
Mo 202.031†            15399.3      504.08 µg/L        3.137      504.08 ppb          3.137   0.62%
   QC value within limits for Mo 202.031  Recovery = 100.82%
Na 589.592 Radial†     64556.5       10002 µg/L         17.1       10002 ppb           17.1   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 100.02%
Ni 231.604†            40299.8      504.20 µg/L        1.516      504.20 ppb          1.516   0.30%
   QC value within limits for Ni 231.604  Recovery = 100.84%
P 214.914†             10869.5      2505.8 µg/L        20.57      2505.8 ppb          20.57   0.82%
   QC value within limits for P 214.914  Recovery = 100.23%
Pb 220.353†             8226.4      507.81 µg/L        3.830      507.81 ppb          3.830   0.75%
   QC value within limits for Pb 220.353  Recovery = 101.56%
S 181.975 Axial†        1181.1      997.87 µg/L        8.980      997.87 ppb          8.980   0.90%
   QC value within limits for S 181.975 Axial  Recovery = 99.79%
Sb 206.836†             3877.5      501.16 µg/L        4.237      501.16 ppb          4.237   0.85%
   QC value within limits for Sb 206.836  Recovery = 100.23%
Se 196.026†             1277.2         505 µg/L          4.1         505 ppb            4.1   0.81%
   QC value within limits for Se 196.026  Recovery = 101.08%
SiO2†                  50579.3      5334.7 µg/L        22.34      5334.7 ppb          22.34   0.42%
   QC value within limits for SiO2  Recovery = 99.76%
Si 251.611†           159058.4      2498.2 µg/L         8.62      2498.2 ppb           8.62   0.35%
   QC value within limits for Si 251.611  Recovery = 99.93%
Sn 189.927†             7193.7      500.66 µg/L        4.348      500.66 ppb          4.348   0.87%
   QC value within limits for Sn 189.927  Recovery = 100.13%
Sr 421.552†           212032.2      500.03 µg/L        3.969      500.03 ppb          3.969   0.79%
   QC value within limits for Sr 421.552  Recovery = 100.01%
Ti 334.940†           485926.7      498.44 µg/L        0.319      498.44 ppb          0.319   0.06%
   QC value within limits for Ti 334.940  Recovery = 99.69%
Tl 190.801†             3696.0      512.19 µg/L        3.570      512.19 ppb          3.570   0.70%
   QC value within limits for Tl 190.801  Recovery = 102.44%
U 409.014†              7525.4      505.40 µg/L        2.841      505.40 ppb          2.841   0.56%
   QC value within limits for U 409.014  Recovery = 101.08%
V 292.402†             96419.4      506.43 µg/L        0.219      506.43 ppb          0.219   0.04%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†            84274.1      499.29 µg/L        1.005      499.29 ppb          1.005   0.20%
   QC value within limits for Zn 213.857  Recovery = 99.86%
All analyte(s) passed QC.
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Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 12:18:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140761.4	140761.4	100	%			12:19:18
1	Al 396.153Radial†	-73.7	5.2	1.0818	µg/L	1.0818	ppb	12:19:38
1	Ca 317.933Radial†	682.8	108.1	7.3604	µg/L	7.3604	ppb	12:19:38
1	Fe 238.204 Radial†	164.0	45.9	3.4255	µg/L	3.4255	ppb	12:19:38
1	K 766.490 Radial†	1670.2	168.5	66.774	µg/L	66.774	ppb	12:19:18
1	Mg 279.077 IEC†	159.2	-14.0	-6.4612	µg/L	-6.4612	ppb	12:19:38
1	Na 589.592 Radial†	1062.0	104.4	16.125	µg/L	16.125	ppb	12:19:18
1	Sr 421.552†	-212.6	-7.1	-0.0169	µg/L	-0.0169	ppb	12:19:18
1	Sc 361.383	1793257.1	1793257.1	99.396	%			12:20:26
1	Y 371.029	1054149.0	1054149.0	99.702	%			12:20:26
1	Ag 328.068†	4339.0	-199.8	-0.8254	µg/L	-0.8254	ppb	12:20:28
1	As 188.979†	-4.3	14.2	4.8058	µg/L	4.8058	ppb	12:20:48
1	B 249.677†	3947.0	-94.2	-1.4648	µg/L	-1.4648	ppb	12:20:28
1	Ba 233.527†	-155.4	-11.8	-0.0523	µg/L	-0.0523	ppb	12:20:48
1	Be 313.107†	-700.9	386.5	0.1098	µg/L	0.1098	ppb	12:20:28
1	Cd 226.502†	-69.6	33.4	0.2252	µg/L	0.2252	ppb	12:20:48
1	Co 228.616†	-201.5	7.5	0.0994	µg/L	0.0994	ppb	12:20:48
1	Cr 267.716†	296.8	65.3	0.5712	µg/L	0.5712	ppb	12:20:48
1	Cu 324.752†	2928.5	-89.9	-0.3813	µg/L	-0.3813	ppb	12:20:28
1	Mn 257.610†	255.1	71.9	0.0956	µg/L	0.0956	ppb	12:20:48
1	Mo 202.031†	-35.2	3.1	0.1021	µg/L	0.1021	ppb	12:20:48
1	Ni 231.604†	-76.5	18.9	0.2366	µg/L	0.2366	ppb	12:20:48
1	P 214.914†	10.1	35.8	8.2902	µg/L	8.2902	ppb	12:20:48
1	Pb 220.353†	120.7	17.9	1.1096	µg/L	1.1096	ppb	12:20:48
1	S 181.975 Axial†	96.2	7.8	6.6016	µg/L	6.6016	ppb	12:20:48
1	Sb 206.836†	100.6	11.5	1.4806	µg/L	1.4806	ppb	12:20:48
1	Se 196.026†	21.5	15.5	6.09	µg/L	6.09	ppb	12:20:48
1	SiO2†	1959.7	232.5	24.621	µg/L	24.621	ppb	12:20:48
1	Si 251.611†	1212.9	453.2	7.1445	µg/L	7.1445	ppb	12:20:28
1	Sn 189.927†	3.8	2.0	0.1355	µg/L	0.1355	ppb	12:20:48
1	Ti 334.940†	610.5	-208.8	-0.2110	µg/L	-0.2110	ppb	12:20:28
1	Tl 190.801†	-105.3	8.3	1.1328	µg/L	1.1328	ppb	12:20:48
1	U 409.014†	-274.2	-112.5	-7.0945	µg/L	-7.0945	ppb	12:20:28
1	V 292.402†	440.1	19.6	0.1000	µg/L	0.1000	ppb	12:20:28
1	Zn 213.857†	567.3	67.7	0.4026	µg/L	0.4026	ppb	12:20:48
2	Sc RADIAL	140927.4	140927.4	101	%			12:19:40
2	Al 396.153Radial†	-17.8	60.9	12.799	µg/L	12.799	ppb	12:20:00
2	Ca 317.933Radial†	745.5	169.6	11.554	µg/L	11.554	ppb	12:20:00
2	Fe 238.204 Radial†	572.5	451.8	33.741	µg/L	33.741	ppb	12:20:00
2	K 766.490 Radial†	1510.5	7.7	3.0501	µg/L	3.0501	ppb	12:19:40
2	Mg 279.077 IEC†	179.6	6.1	2.8107	µg/L	2.8107	ppb	12:20:00
2	Na 589.592 Radial†	1290.2	330.1	51.159	µg/L	51.159	ppb	12:19:40
2	Sr 421.552†	-200.2	5.5	0.0129	µg/L	0.0129	ppb	12:19:40
2	Sc 361.383	1797905.6	1797905.6	99.654	%			12:20:50
2	Y 371.029	1055651.2	1055651.2	99.844	%			12:20:50
2	Ag 328.068†	4546.9	-2.4	-0.0256	µg/L	-0.0256	ppb	12:20:52
2	As 188.979†	-15.2	3.3	1.1095	µg/L	1.1095	ppb	12:21:13
2	B 249.677†	3898.7	-152.9	-2.3781	µg/L	-2.3781	ppb	12:20:52
2	Ba 233.527†	-169.3	-25.4	-0.1128	µg/L	-0.1128	ppb	12:21:13
2	Be 313.107†	-804.8	284.1	0.0779	µg/L	0.0779	ppb	12:20:52
2	Cd 226.502†	-97.2	5.8	0.0361	µg/L	0.0361	ppb	12:21:13
2	Co 228.616†	-205.9	3.6	0.0462	µg/L	0.0462	ppb	12:21:13
2	Cr 267.716†	221.4	-11.0	-0.0830	µg/L	-0.0830	ppb	12:21:13
2	Cu 324.752†	2993.4	-32.3	-0.1422	µg/L	-0.1422	ppb	12:20:52
2	Mn 257.610†	242.6	58.7	0.0777	µg/L	0.0777	ppb	12:21:13
2	Mo 202.031†	-24.5	14.0	0.4601	µg/L	0.4601	ppb	12:21:13
2	Ni 231.604†	-62.9	32.8	0.4103	µg/L	0.4103	ppb	12:21:13
2	P 214.914†	4.7	30.4	7.0168	µg/L	7.0168	ppb	12:21:13
2	Pb 220.353†	100.3	-2.8	-0.1609	µg/L	-0.1609	ppb	12:21:13

2	S 181.975 Axial†	95.9	7.3	6.1755 µg/L	6.1755 ppb	12:21:13
2	Sb 206.836†	81.0	-8.4	-1.0806 µg/L	-1.0806 ppb	12:21:13
2	Se 196.026†	18.0	11.9	4.69 µg/L	4.69 ppb	12:21:13
2	SiO2†	1920.7	188.3	19.928 µg/L	19.928 ppb	12:21:13
2	Si 251.611†	1349.5	587.2	9.2535 µg/L	9.2535 ppb	12:20:52
2	Sn 189.927†	0.7	-1.2	-0.0837 µg/L	-0.0837 ppb	12:21:13
2	Ti 334.940†	868.6	48.7	0.0560 µg/L	0.0560 ppb	12:20:52
2	Tl 190.801†	-93.1	20.9	2.8555 µg/L	2.8555 ppb	12:21:13
2	U 409.014†	-392.1	-230.1	-14.511 µg/L	-14.511 ppb	12:20:52
2	V 292.402†	466.3	44.7	0.2229 µg/L	0.2229 ppb	12:20:52
2	Zn 213.857†	578.9	77.9	0.4592 µg/L	0.4592 ppb	12:21:13
3	Sc RADIAL	137308.2	137308.2	98.0 %		12:20:02
3	Al 396.153Radial†	-65.9	11.3	2.3545 µg/L	2.3545 ppb	12:20:22
3	Ca 317.933Radial†	664.5	106.5	7.2566 µg/L	7.2566 ppb	12:20:22
3	Fe 238.204 Radial†	190.2	76.7	5.7301 µg/L	5.7301 ppb	12:20:22
3	K 766.490 Radial†	1567.9	105.9	41.946 µg/L	41.946 ppb	12:20:02
3	Mg 279.077 IEC†	188.8	20.2	9.3189 µg/L	9.3189 ppb	12:20:22
3	Na 589.592 Radial†	1125.3	195.6	30.288 µg/L	30.288 ppb	12:20:02
3	Sr 421.552†	68.6	274.5	0.6472 µg/L	0.6472 ppb	12:20:02
3	Sc 361.383	1810912.5	1810912.5	100.37 %		12:21:15
3	Y 371.029	1062136.4	1062136.4	100.46 %		12:21:15
3	Ag 328.068†	4349.1	-232.3	-0.9622 µg/L	-0.9622 ppb	12:21:17
3	As 188.979†	-10.5	8.1	2.7398 µg/L	2.7398 ppb	12:21:37
3	B 249.677†	4079.2	-1.2	-0.0184 µg/L	-0.0184 ppb	12:21:17
3	Ba 233.527†	-145.3	-0.2	-0.0009 µg/L	-0.0009 ppb	12:21:37
3	Be 313.107†	-583.7	510.2	0.1456 µg/L	0.1456 ppb	12:21:17
3	Cd 226.502†	-84.1	19.5	0.1318 µg/L	0.1318 ppb	12:21:37
3	Co 228.616†	-201.2	9.8	0.1294 µg/L	0.1294 ppb	12:21:37
3	Cr 267.716†	247.4	13.3	0.1205 µg/L	0.1205 ppb	12:21:37
3	Cu 324.752†	2887.9	-159.0	-0.6698 µg/L	-0.6698 ppb	12:21:17
3	Mn 257.610†	215.0	29.5	0.0387 µg/L	0.0387 ppb	12:21:37
3	Mo 202.031†	-24.6	14.1	0.4603 µg/L	0.4603 ppb	12:21:37
3	Ni 231.604†	-37.9	58.2	0.7276 µg/L	0.7276 ppb	12:21:37
3	P 214.914†	4.2	29.9	6.9204 µg/L	6.9204 ppb	12:21:37
3	Pb 220.353†	90.3	-13.5	-0.8254 µg/L	-0.8254 ppb	12:21:37
3	S 181.975 Axial†	92.5	3.2	2.7332 µg/L	2.7332 ppb	12:21:37
3	Sb 206.836†	86.8	-3.3	-0.4176 µg/L	-0.4176 ppb	12:21:37
3	Se 196.026†	17.2	11.0	4.34 µg/L	4.34 ppb	12:21:37
3	SiO2†	1924.5	178.2	18.853 µg/L	18.853 ppb	12:21:37
3	Si 251.611†	1376.2	604.0	9.5169 µg/L	9.5169 ppb	12:21:17
3	Sn 189.927†	4.7	2.8	0.1960 µg/L	0.1960 ppb	12:21:37
3	Ti 334.940†	625.3	-200.0	-0.2031 µg/L	-0.2031 ppb	12:21:17
3	Tl 190.801†	-137.8	-23.0	-3.1476 µg/L	-3.1476 ppb	12:21:37
3	U 409.014†	-276.3	-111.9	-7.0712 µg/L	-7.0712 ppb	12:21:17
3	V 292.402†	387.3	-37.4	-0.1938 µg/L	-0.1938 ppb	12:21:17
3	Zn 213.857†	557.3	52.2	0.3067 µg/L	0.3067 ppb	12:21:37

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1800691.8	99.808	%	0.5072				0.51%
Sc RADIAL	139665.7	99.7	%	1.46				1.46%
Y 371.029	1057312.2	100.00	%	0.401				0.40%
Ag 328.068†	-144.8	-0.6044	µg/L	0.50591	-0.6044	ppb	0.50591	83.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	25.8	5.4118	µg/L	6.42909	5.4118	ppb	6.42909	118.80%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.5	2.8851	µg/L	1.85242	2.8851	ppb	1.85242	64.21%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-82.7	-1.2871	µg/L	1.18982	-1.2871	ppb	1.18982	92.44%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-12.4	-0.0553	µg/L	0.05604	-0.0553	ppb	0.05604	101.26%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	393.6	0.1111	µg/L	0.03389	0.1111	ppb	0.03389	30.50%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	128.1	8.7237	µg/L	2.45179	8.7237	ppb	2.45179	28.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.6	0.1310	µg/L	0.09458	0.1310	ppb	0.09458	72.20%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.0	0.0917	µg/L	0.04215	0.0917	ppb	0.04215	45.98%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                22.5      0.2029 µg/L       0.33475      0.2029 ppb        0.33475 164.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -93.7     -0.3978 µg/L       0.26421     -0.3978 ppb        0.26421  66.42%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        191.5      14.299 µg/L       16.8767      14.299 ppb        16.8767 118.03%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          94.0      37.256 µg/L       32.1195      37.256 ppb        32.1195  86.21%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             4.1      1.8895 µg/L       7.93033      1.8895 ppb        7.93033 419.71%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                53.4      0.0707 µg/L       0.02908      0.0707 ppb        0.02908  41.15%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.4      0.3408 µg/L       0.20677      0.3408 ppb        0.20677  60.67%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        210.0      32.524 µg/L       17.6236      32.524 ppb        17.6236  54.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                36.6      0.4582 µg/L       0.24899      0.4582 ppb        0.24899  54.34%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 32.1      7.4091 µg/L       0.76452      7.4091 ppb        0.76452  10.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.5      0.0411 µg/L       0.98319      0.0411 ppb        0.98319 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            6.1      5.1701 µg/L       2.12113      5.1701 ppb        2.12113  41.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.1     -0.0059 µg/L       1.32934     -0.0059 ppb        1.32934 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                12.8       5.04 µg/L         0.925        5.04 ppb          0.925  18.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     199.7      21.134 µg/L        3.0669      21.134 ppb         3.0669  14.51%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               548.1      8.6383 µg/L       1.30031      8.6383 ppb        1.30031  15.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.2      0.0826 µg/L       0.14718      0.0826 ppb        0.14718 178.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                90.9      0.2144 µg/L       0.37513      0.2144 ppb        0.37513 174.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -120.0     -0.1194 µg/L       0.15194     -0.1194 ppb        0.15194 127.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.1      0.2803 µg/L       3.09104      0.2803 ppb        3.09104 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -151.5     -9.5590 µg/L       4.28885     -9.5590 ppb        4.28885  44.87%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  9.0      0.0430 µg/L       0.21409      0.0430 ppb        0.21409 497.46%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                65.9      0.3895 µg/L       0.07706      0.3895 ppb        0.07706  19.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 12:41:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138943.7	138943.7	99.2	%			12:41:37
1	Al 396.153Radial†	23385.0	23657.0	4957.1	µg/L	4957.1	ppb	12:41:37
1	Ca 317.933Radial†	74173.8	74215.8	5054.8	µg/L	5054.8	ppb	12:41:37
1	Fe 238.204 Radial†	66887.9	67323.8	5027.7	µg/L	5027.7	ppb	12:41:37
1	K 766.490 Radial†	14097.2	12720.0	5036.2	µg/L	5036.2	ppb	12:41:37
1	Mg 279.077 IEC†	11043.2	10962.1	5069.7	µg/L	5069.7	ppb	12:41:37
1	Na 589.592 Radial†	64657.0	64239.3	9953.1	µg/L	9953.1	ppb	12:41:37
1	Sr 421.552†	211693.9	213649.4	503.85	µg/L	503.85	ppb	12:41:35
1	Sc 361.383	1787262.5	1787262.5	99.064	%			12:42:04
1	Y 371.029	1038840.9	1038840.9	98.254	%			12:42:04
1	Ag 328.068†	124468.7	121079.8	501.88	µg/L	501.88	ppb	12:42:04
1	As 188.979†	1396.1	1427.8	490.22	µg/L	490.22	ppb	12:42:24
1	B 249.677†	35476.1	31746.2	491.96	µg/L	491.96	ppb	12:42:04
1	Ba 233.527†	110950.2	112143.2	498.87	µg/L	498.87	ppb	12:42:04
1	Be 313.107†	1677200.9	1694142.7	490.89	µg/L	490.89	ppb	12:42:04
1	Cd 226.502†	73260.7	74056.4	500.22	µg/L	500.22	ppb	12:42:04
1	Co 228.616†	37543.3	38108.4	504.41	µg/L	504.41	ppb	12:42:04
1	Cr 267.716†	57568.9	57879.7	500.60	µg/L	500.60	ppb	12:42:04
1	Cu 324.752†	121037.2	119144.9	499.89	µg/L	499.89	ppb	12:42:04
1	Mn 257.610†	373450.2	376794.7	499.62	µg/L	499.62	ppb	12:42:04
1	Mo 202.031†	15337.0	15520.5	508.04	µg/L	508.04	ppb	12:42:24
1	Ni 231.604†	39650.9	40121.5	501.97	µg/L	501.97	ppb	12:42:04
1	P 214.914†	10862.9	10991.3	2534.0	µg/L	2534.0	ppb	12:42:24
1	Pb 220.353†	8349.5	8324.9	513.88	µg/L	513.88	ppb	12:42:24
1	S 181.975 Axial†	1278.6	1201.7	1015.3	µg/L	1015.3	ppb	12:42:24
1	Sb 206.836†	3947.3	3894.9	503.47	µg/L	503.47	ppb	12:42:24
1	Se 196.026†	1287.7	1293.7	512	µg/L	512	ppb	12:42:24
1	SiO2†	51490.8	50238.3	5298.4	µg/L	5298.4	ppb	12:42:04
1	Si 251.611†	157278.3	157997.6	2481.3	µg/L	2481.3	ppb	12:42:04
1	Sn 189.927†	7193.9	7260.0	505.25	µg/L	505.25	ppb	12:42:24
1	Ti 334.940†	480256.1	483971.6	496.44	µg/L	496.44	ppb	12:42:04
1	Tl 190.801†	3552.9	3700.7	512.80	µg/L	512.80	ppb	12:42:24
1	U 409.014†	7139.5	7370.3	495.42	µg/L	495.42	ppb	12:42:04
1	V 292.402†	95339.2	95817.0	503.34	µg/L	503.34	ppb	12:42:04
1	Zn 213.857†	83855.8	84145.3	498.54	µg/L	498.54	ppb	12:42:04
2	Sc RADIAL	141291.3	141291.3	101	%			12:41:41
2	Al 396.153Radial†	23752.9	23630.0	4951.4	µg/L	4951.4	ppb	12:41:41
2	Ca 317.933Radial†	75646.8	74433.7	5069.6	µg/L	5069.6	ppb	12:41:41
2	Fe 238.204 Radial†	68330.6	67633.8	5050.8	µg/L	5050.8	ppb	12:41:41
2	K 766.490 Radial†	14268.2	12653.4	5009.8	µg/L	5009.8	ppb	12:41:41
2	Mg 279.077 IEC†	11450.1	11180.6	5170.6	µg/L	5170.6	ppb	12:41:41
2	Na 589.592 Radial†	65910.3	64398.8	9977.9	µg/L	9977.9	ppb	12:41:41
2	Sr 421.552†	211423.7	209835.0	494.85	µg/L	494.85	ppb	12:41:39
2	Sc 361.383	1793839.4	1793839.4	99.428	%			12:42:27
2	Y 371.029	1042511.0	1042511.0	98.602	%			12:42:27
2	Ag 328.068†	125087.0	121241.0	502.53	µg/L	502.53	ppb	12:42:27
2	As 188.979†	1395.9	1422.5	488.43	µg/L	488.43	ppb	12:42:47
2	B 249.677†	35898.2	32039.5	496.51	µg/L	496.51	ppb	12:42:27
2	Ba 233.527†	111421.2	112206.3	499.15	µg/L	499.15	ppb	12:42:27
2	Be 313.107†	1687036.9	1697828.0	491.95	µg/L	491.95	ppb	12:42:27
2	Cd 226.502†	74020.0	74548.9	503.54	µg/L	503.54	ppb	12:42:27
2	Co 228.616†	37859.8	38287.8	506.78	µg/L	506.78	ppb	12:42:27
2	Cr 267.716†	57911.5	58011.3	501.75	µg/L	501.75	ppb	12:42:27
2	Cu 324.752†	121562.8	119225.6	500.23	µg/L	500.23	ppb	12:42:27
2	Mn 257.610†	375840.4	377816.5	500.97	µg/L	500.97	ppb	12:42:27
2	Mo 202.031†	15373.5	15500.4	507.39	µg/L	507.39	ppb	12:42:47
2	Ni 231.604†	40030.6	40356.6	504.91	µg/L	504.91	ppb	12:42:27
2	P 214.914†	10881.6	10969.9	2529.0	µg/L	2529.0	ppb	12:42:47
2	Pb 220.353†	8348.9	8293.4	511.95	µg/L	511.95	ppb	12:42:47

2	S 181.975 Axial†	1279.7	1198.2	1012.3 µg/L	1012.3 ppb	12:42:47
2	Sb 206.836†	3977.5	3910.6	505.48 µg/L	505.48 ppb	12:42:47
2	Se 196.026†	1301.1	1302.4	515 µg/L	515 ppb	12:42:47
2	SiO2†	51742.6	50301.0	5305.0 µg/L	5305.0 ppb	12:42:27
2	Si 251.611†	158432.1	158575.9	2490.5 µg/L	2490.5 ppb	12:42:27
2	Sn 189.927†	7228.0	7267.6	505.78 µg/L	505.78 ppb	12:42:47
2	Ti 334.940†	481660.7	483606.9	496.06 µg/L	496.06 ppb	12:42:27
2	Tl 190.801†	3584.9	3719.8	515.40 µg/L	515.40 ppb	12:42:47
2	U 409.014†	6924.3	7127.5	480.13 µg/L	480.13 ppb	12:42:27
2	V 292.402†	95806.2	95933.8	503.93 µg/L	503.93 ppb	12:42:27
2	Zn 213.857†	84371.3	84353.4	499.76 µg/L	499.76 ppb	12:42:27
3	Sc RADIAL	140960.0	140960.0	101 %		12:41:45
3	Al 396.153Radial†	23658.9	23591.9	4943.6 µg/L	4943.6 ppb	12:41:45
3	Ca 317.933Radial†	75426.6	74391.2	5066.7 µg/L	5066.7 ppb	12:41:45
3	Fe 238.204 Radial†	67958.0	67422.7	5035.1 µg/L	5035.1 ppb	12:41:45
3	K 766.490 Radial†	14351.0	12768.9	5055.5 µg/L	5055.5 ppb	12:41:45
3	Mg 279.077 IEC†	11270.8	11029.0	5100.5 µg/L	5100.5 ppb	12:41:45
3	Na 589.592 Radial†	65596.5	64240.5	9953.3 µg/L	9953.3 ppb	12:41:45
3	Sr 421.552†	211471.7	210375.5	496.12 µg/L	496.12 ppb	12:41:43
3	Sc 361.383	1802636.7	1802636.7	99.916 %		12:42:50
3	Y 371.029	1046785.0	1046785.0	99.006 %		12:42:50
3	Ag 328.068†	125848.1	121388.8	503.18 µg/L	503.18 ppb	12:42:50
3	As 188.979†	1381.4	1401.1	481.20 µg/L	481.20 ppb	12:43:10
3	B 249.677†	36130.3	32095.6	497.38 µg/L	497.38 ppb	12:42:50
3	Ba 233.527†	112457.4	112696.5	501.33 µg/L	501.33 ppb	12:42:50
3	Be 313.107†	1700233.2	1702754.8	493.39 µg/L	493.39 ppb	12:42:50
3	Cd 226.502†	74872.6	75038.9	506.86 µg/L	506.86 ppb	12:42:50
3	Co 228.616†	38226.2	38468.7	509.18 µg/L	509.18 ppb	12:42:50
3	Cr 267.716†	58249.2	58065.0	502.20 µg/L	502.20 ppb	12:42:50
3	Cu 324.752†	122344.5	119411.3	501.02 µg/L	501.02 ppb	12:42:50
3	Mn 257.610†	378788.4	378922.2	502.44 µg/L	502.44 ppb	12:42:50
3	Mo 202.031†	15294.8	15346.2	502.34 µg/L	502.34 ppb	12:43:10
3	Ni 231.604†	40405.7	40535.6	507.15 µg/L	507.15 ppb	12:42:50
3	P 214.914†	10816.0	10850.7	2501.4 µg/L	2501.4 ppb	12:43:10
3	Pb 220.353†	8301.3	8204.9	506.47 µg/L	506.47 ppb	12:43:10
3	S 181.975 Axial†	1290.2	1202.4	1015.8 µg/L	1015.8 ppb	12:43:10
3	Sb 206.836†	3940.4	3854.0	498.09 µg/L	498.09 ppb	12:43:10
3	Se 196.026†	1295.0	1289.9	510 µg/L	510 ppb	12:43:10
3	SiO2†	52249.6	50554.4	5332.1 µg/L	5332.1 ppb	12:42:50
3	Si 251.611†	159808.9	159176.3	2500.1 µg/L	2500.1 ppb	12:42:50
3	Sn 189.927†	7164.9	7169.1	498.95 µg/L	498.95 ppb	12:43:10
3	Ti 334.940†	485644.3	485229.7	497.72 µg/L	497.72 ppb	12:42:50
3	Tl 190.801†	3544.7	3662.0	507.52 µg/L	507.52 ppb	12:43:10
3	U 409.014†	7287.7	7457.2	501.07 µg/L	501.07 ppb	12:42:50
3	V 292.402†	96696.3	96354.4	506.07 µg/L	506.07 ppb	12:42:50
3	Zn 213.857†	84912.9	84481.4	500.51 µg/L	500.51 ppb	12:42:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1794579.6	99.469	%	0.4276				0.43%
Sc RADIAL	140398.3	100	%	0.9				0.90%
Y 371.029	1042712.3	98.621	%	0.3760				0.38%
Ag 328.068†	121236.5	502.53	µg/L	0.652	502.53	ppb	0.652	0.13%
QC value within limits for Ag 328.068 Recovery = 100.51%								
Al 396.153Radial†	23626.3	4950.7	µg/L	6.75	4950.7	ppb	6.75	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.01%								
As 188.979†	1417.1	486.61	µg/L	4.777	486.61	ppb	4.777	0.98%
QC value within limits for As 188.979 Recovery = 97.32%								
B 249.677†	31960.4	495.28	µg/L	2.910	495.28	ppb	2.910	0.59%
QC value within limits for B 249.677 Recovery = 99.06%								
Ba 233.527†	112348.7	499.78	µg/L	1.346	499.78	ppb	1.346	0.27%
QC value within limits for Ba 233.527 Recovery = 99.96%								
Be 313.107†	1698241.9	492.08	µg/L	1.253	492.08	ppb	1.253	0.25%
QC value within limits for Be 313.107 Recovery = 98.42%								
Ca 317.933Radial†	74346.9	5063.7	µg/L	7.87	5063.7	ppb	7.87	0.16%
QC value within limits for Ca 317.933Radial Recovery = 101.27%								
Cd 226.502†	74548.0	503.54	µg/L	3.321	503.54	ppb	3.321	0.66%
QC value within limits for Cd 226.502 Recovery = 100.71%								
Co 228.616†	38288.3	506.79	µg/L	2.384	506.79	ppb	2.384	0.47%

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   QC value within limits for Co 228.616  Recovery = 101.36%
Cr 267.716†            57985.3      501.51 µg/L        0.825      501.51 ppb          0.825   0.16%
   QC value within limits for Cr 267.716  Recovery = 100.30%
Cu 324.752†           119260.6      500.38 µg/L        0.577      500.38 ppb          0.577   0.12%
   QC value within limits for Cu 324.752  Recovery = 100.08%
Fe 238.204 Radial†     67460.1      5037.9 µg/L       11.82      5037.9 ppb         11.82   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.76%
K 766.490 Radial†      12714.1      5033.8 µg/L       22.98      5033.8 ppb         22.98   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 100.68%
Mg 279.077 IEC†        11057.2      5113.6 µg/L       51.68      5113.6 ppb         51.68   1.01%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.27%
Mn 257.610†           377844.5      501.01 µg/L        1.411      501.01 ppb          1.411   0.28%
   QC value within limits for Mn 257.610  Recovery = 100.20%
Mo 202.031†            15455.7      505.92 µg/L        3.118      505.92 ppb          3.118   0.62%
   QC value within limits for Mo 202.031  Recovery = 101.18%
Na 589.592 Radial†     64292.9      9961.4 µg/L       14.24      9961.4 ppb         14.24   0.14%
   QC value within limits for Na 589.592 Radial  Recovery = 99.61%
Ni 231.604†            40337.9      504.68 µg/L        2.598      504.68 ppb          2.598   0.51%
   QC value within limits for Ni 231.604  Recovery = 100.94%
P 214.914†             10937.3      2521.5 µg/L       17.53      2521.5 ppb         17.53   0.70%
   QC value within limits for P 214.914  Recovery = 100.86%
Pb 220.353†             8274.4      510.77 µg/L        3.842      510.77 ppb          3.842   0.75%
   QC value within limits for Pb 220.353  Recovery = 102.15%
S 181.975 Axial†        1200.8      1014.4 µg/L        1.89      1014.4 ppb          1.89   0.19%
   QC value within limits for S 181.975 Axial  Recovery = 101.44%
Sb 206.836†             3886.5      502.35 µg/L        3.823      502.35 ppb          3.823   0.76%
   QC value within limits for Sb 206.836  Recovery = 100.47%
Se 196.026†             1295.4         513 µg/L         2.5         513 ppb            2.5   0.49%
   QC value within limits for Se 196.026  Recovery = 102.51%
SiO2†                  50364.6      5311.8 µg/L       17.87      5311.8 ppb         17.87   0.34%
   QC value within limits for SiO2  Recovery = 99.33%
Si 251.611†           158583.3      2490.6 µg/L        9.35      2490.6 ppb          9.35   0.38%
   QC value within limits for Si 251.611  Recovery = 99.62%
Sn 189.927†             7232.2      503.33 µg/L        3.801      503.33 ppb          3.801   0.76%
   QC value within limits for Sn 189.927  Recovery = 100.67%
Sr 421.552†           211286.6      498.27 µg/L        4.868      498.27 ppb          4.868   0.98%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           484269.4      496.74 µg/L        0.872      496.74 ppb          0.872   0.18%
   QC value within limits for Ti 334.940  Recovery = 99.35%
Tl 190.801†             3694.2      511.90 µg/L        4.014      511.90 ppb          4.014   0.78%
   QC value within limits for Tl 190.801  Recovery = 102.38%
U 409.014†              7318.3      492.21 µg/L       10.834      492.21 ppb         10.834   2.20%
   QC value within limits for U 409.014  Recovery = 98.44%
V 292.402†             96035.1      504.45 µg/L        1.439      504.45 ppb          1.439   0.29%
   QC value within limits for V 292.402  Recovery = 100.89%
Zn 213.857†            84326.7      499.60 µg/L        0.995      499.60 ppb          0.995   0.20%
   QC value within limits for Zn 213.857  Recovery = 99.92%
All analyte(s) passed QC.
```

Sequence No.: 31
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 12:43:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139295.5	139295.5	99.4	%			12:43:47
1	Al 396.153Radial†	-24.0	54.4	11.413	µg/L	11.413	ppb	12:44:07
1	Ca 317.933Radial†	708.0	140.6	9.5778	µg/L	9.5778	ppb	12:44:07
1	Fe 238.204 Radial†	178.6	62.3	4.6540	µg/L	4.6540	ppb	12:44:07
1	K 766.490 Radial†	1724.7	240.8	95.403	µg/L	95.403	ppb	12:43:47
1	Mg 279.077 IEC†	154.2	-17.4	-8.0256	µg/L	-8.0256	ppb	12:44:07
1	Na 589.592 Radial†	1146.9	201.0	31.071	µg/L	31.071	ppb	12:43:47
1	Sr 421.552†	-159.3	44.3	0.1044	µg/L	0.1044	ppb	12:43:47
1	Sc 361.383	1814807.9	1814807.9	100.59	%			12:45:09
1	Y 371.029	1064526.0	1064526.0	100.68	%			12:45:09
1	Ag 328.068†	4340.5	-250.2	-1.0252	µg/L	-1.0252	ppb	12:45:11
1	As 188.979†	-4.6	14.0	4.7451	µg/L	4.7451	ppb	12:45:31
1	B 249.677†	3969.3	-119.1	-1.8538	µg/L	-1.8538	ppb	12:45:11
1	Ba 233.527†	-20.5	124.2	0.5521	µg/L	0.5521	ppb	12:45:31
1	Be 313.107†	-903.9	193.2	0.0555	µg/L	0.0555	ppb	12:45:11
1	Cd 226.502†	-45.4	58.2	0.3932	µg/L	0.3932	ppb	12:45:31
1	Co 228.616†	-189.8	21.6	0.2862	µg/L	0.2862	ppb	12:45:31
1	Cr 267.716†	288.0	53.1	0.4609	µg/L	0.4609	ppb	12:45:31
1	Cu 324.752†	2935.8	-117.5	-0.4923	µg/L	-0.4923	ppb	12:45:11
1	Mn 257.610†	640.2	451.7	0.5996	µg/L	0.5996	ppb	12:45:31
1	Mo 202.031†	-13.9	24.8	0.8103	µg/L	0.8103	ppb	12:45:31
1	Ni 231.604†	-64.1	32.2	0.4024	µg/L	0.4024	ppb	12:45:31
1	P 214.914†	7.0	32.7	7.5584	µg/L	7.5584	ppb	12:45:31
1	Pb 220.353†	106.9	2.9	0.1807	µg/L	0.1807	ppb	12:45:31
1	S 181.975 Axial†	96.9	7.4	6.2672	µg/L	6.2672	ppb	12:45:31
1	Sb 206.836†	87.7	-2.6	-0.3244	µg/L	-0.3244	ppb	12:45:31
1	Se 196.026†	26.1	19.8	7.80	µg/L	7.80	ppb	12:45:31
1	SiO2†	1980.3	229.6	24.283	µg/L	24.283	ppb	12:45:31
1	Si 251.611†	2172.1	1392.3	21.940	µg/L	21.940	ppb	12:45:11
1	Sn 189.927†	10.1	8.1	0.5652	µg/L	0.5652	ppb	12:45:31
1	Ti 334.940†	1494.6	662.8	0.6822	µg/L	0.6822	ppb	12:45:11
1	Tl 190.801†	-118.2	-3.2	-0.4323	µg/L	-0.4323	ppb	12:45:31
1	U 409.014†	-188.8	-24.3	-1.5258	µg/L	-1.5258	ppb	12:45:11
1	V 292.402†	442.4	16.6	0.0943	µg/L	0.0943	ppb	12:45:11
1	Zn 213.857†	614.8	108.2	0.6437	µg/L	0.6437	ppb	12:45:31
2	Sc RADIAL	138151.7	138151.7	98.6	%			12:44:09
2	Al 396.153Radial†	-28.6	49.5	10.400	µg/L	10.400	ppb	12:44:29
2	Ca 317.933Radial†	742.9	181.9	12.386	µg/L	12.386	ppb	12:44:29
2	Fe 238.204 Radial†	502.8	392.6	29.316	µg/L	29.316	ppb	12:44:29
2	K 766.490 Radial†	1718.3	248.6	98.510	µg/L	98.510	ppb	12:44:09
2	Mg 279.077 IEC†	166.2	-4.0	-1.8376	µg/L	-1.8376	ppb	12:44:29
2	Na 589.592 Radial†	1104.7	167.7	25.905	µg/L	25.905	ppb	12:44:09
2	Sr 421.552†	-237.6	-36.5	-0.0861	µg/L	-0.0861	ppb	12:44:09
2	Sc 361.383	1813927.3	1813927.3	100.54	%			12:45:33
2	Y 371.029	1065006.3	1065006.3	100.73	%			12:45:33
2	Ag 328.068†	4086.9	-500.2	-2.0568	µg/L	-2.0568	ppb	12:45:35
2	As 188.979†	-20.8	-2.2	-0.7245	µg/L	-0.7245	ppb	12:45:56
2	B 249.677†	4066.5	-20.5	-0.3191	µg/L	-0.3191	ppb	12:45:35
2	Ba 233.527†	-100.7	44.4	0.1967	µg/L	0.1967	ppb	12:45:56
2	Be 313.107†	-633.5	461.7	0.1333	µg/L	0.1333	ppb	12:45:35
2	Cd 226.502†	-83.8	20.0	0.1325	µg/L	0.1325	ppb	12:45:56
2	Co 228.616†	-218.2	-6.7	-0.0897	µg/L	-0.0897	ppb	12:45:56
2	Cr 267.716†	249.0	14.5	0.1273	µg/L	0.1273	ppb	12:45:56
2	Cu 324.752†	2868.6	-183.0	-0.7626	µg/L	-0.7626	ppb	12:45:35
2	Mn 257.610†	225.9	40.0	0.0530	µg/L	0.0530	ppb	12:45:56
2	Mo 202.031†	-20.8	17.9	0.5857	µg/L	0.5857	ppb	12:45:56
2	Ni 231.604†	-73.9	22.4	0.2807	µg/L	0.2807	ppb	12:45:56
2	P 214.914†	7.4	33.1	7.6380	µg/L	7.6380	ppb	12:45:56
2	Pb 220.353†	90.2	-13.8	-0.8438	µg/L	-0.8438	ppb	12:45:56

2	S 181.975 Axial†	103.9	14.4	12.116 µg/L	12.116 ppb	12:45:56
2	Sb 206.836†	79.0	-11.2	-1.4372 µg/L	-1.4372 ppb	12:45:56
2	Se 196.026†	14.3	8.1	3.20 µg/L	3.20 ppb	12:45:56
2	SiO2†	1902.6	153.3	16.209 µg/L	16.209 ppb	12:45:56
2	Si 251.611†	1085.1	312.2	4.9121 µg/L	4.9121 ppb	12:45:35
2	Sn 189.927†	8.1	6.2	0.4318 µg/L	0.4318 ppb	12:45:56
2	Ti 334.940†	966.6	138.4	0.1433 µg/L	0.1433 ppb	12:45:35
2	Tl 190.801†	-96.1	18.7	2.5507 µg/L	2.5507 ppb	12:45:56
2	U 409.014†	-189.8	-25.4	-1.6406 µg/L	-1.6406 ppb	12:45:35
2	V 292.402†	317.1	-107.8	-0.5566 µg/L	-0.5566 ppb	12:45:35
2	Zn 213.857†	578.6	72.5	0.4285 µg/L	0.4285 ppb	12:45:56
3	Sc RADIAL	141342.2	141342.2	101 %		12:44:31
3	Al 396.153Radial†	-59.8	19.3	4.0212 µg/L	4.0212 ppb	12:44:51
3	Ca 317.933Radial†	684.0	106.5	7.2532 µg/L	7.2532 ppb	12:44:51
3	Fe 238.204 Radial†	177.9	59.0	4.4051 µg/L	4.4051 ppb	12:44:51
3	K 766.490 Radial†	1655.6	147.2	58.309 µg/L	58.309 ppb	12:44:31
3	Mg 279.077 IEC†	175.6	1.6	0.7607 µg/L	0.7607 ppb	12:44:51
3	Na 589.592 Radial†	1005.0	43.6	6.7004 µg/L	6.7004 ppb	12:44:31
3	Sr 421.552†	-148.4	57.4	0.1354 µg/L	0.1354 ppb	12:44:31
3	Sc 361.383	1826132.7	1826132.7	101.22 %		12:45:58
3	Y 371.029	1071945.3	1071945.3	101.39 %		12:45:58
3	Ag 328.068†	4453.8	-164.9	-0.6788 µg/L	-0.6788 ppb	12:46:00
3	As 188.979†	-27.7	-8.8	-2.9706 µg/L	-2.9706 ppb	12:46:20
3	B 249.677†	4032.4	-81.3	-1.2660 µg/L	-1.2660 ppb	12:46:00
3	Ba 233.527†	-117.7	28.3	0.1260 µg/L	0.1260 ppb	12:46:20
3	Be 313.107†	-753.2	347.6	0.0996 µg/L	0.0996 ppb	12:46:00
3	Cd 226.502†	-68.5	35.7	0.2410 µg/L	0.2410 ppb	12:46:20
3	Co 228.616†	-184.1	28.5	0.3763 µg/L	0.3763 ppb	12:46:20
3	Cr 267.716†	261.7	25.3	0.2219 µg/L	0.2219 ppb	12:46:20
3	Cu 324.752†	2902.4	-168.6	-0.7073 µg/L	-0.7073 ppb	12:46:00
3	Mn 257.610†	415.2	225.4	0.2990 µg/L	0.2990 ppb	12:46:20
3	Mo 202.031†	-17.0	21.8	0.7128 µg/L	0.7128 ppb	12:46:20
3	Ni 231.604†	-77.7	19.2	0.2398 µg/L	0.2398 ppb	12:46:20
3	P 214.914†	9.4	34.9	8.0864 µg/L	8.0864 ppb	12:46:20
3	Pb 220.353†	110.2	5.4	0.3368 µg/L	0.3368 ppb	12:46:20
3	S 181.975 Axial†	89.8	-0.2	-0.1722 µg/L	-0.1722 ppb	12:46:20
3	Sb 206.836†	88.9	-1.9	-0.2318 µg/L	-0.2318 ppb	12:46:20
3	Se 196.026†	27.2	20.7	8.15 µg/L	8.15 ppb	12:46:20
3	SiO2†	1966.3	203.5	21.525 µg/L	21.525 ppb	12:46:20
3	Si 251.611†	1407.5	623.6	9.8201 µg/L	9.8201 ppb	12:46:00
3	Sn 189.927†	9.5	7.5	0.5164 µg/L	0.5164 ppb	12:46:20
3	Ti 334.940†	647.9	-182.9	-0.1863 µg/L	-0.1863 ppb	12:46:00
3	Tl 190.801†	-112.6	3.0	0.4095 µg/L	0.4095 ppb	12:46:20
3	U 409.014†	-222.9	-56.9	-3.5823 µg/L	-3.5823 ppb	12:46:00
3	V 292.402†	444.1	15.5	0.0861 µg/L	0.0861 ppb	12:46:00
3	Zn 213.857†	601.9	91.7	0.5458 µg/L	0.5458 ppb	12:46:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1818289.3	100.78	%	0.377				0.37%
Sc RADIAL	139596.5	99.6	%	1.15				1.16%
Y 371.029	1067159.2	100.93	%	0.393				0.39%
Ag 328.068†	-305.1	-1.2536	µg/L	0.71682	-1.2536	ppb	0.71682	57.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	41.1	8.6113	µg/L	4.00722	8.6113	ppb	4.00722	46.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.0	0.3500	µg/L	3.96848	0.3500	ppb	3.96848	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-73.7	-1.1463	µg/L	0.77432	-1.1463	ppb	0.77432	67.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	65.6	0.2916	µg/L	0.22839	0.2916	ppb	0.22839	78.32%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	334.1	0.0961	µg/L	0.03900	0.0961	ppb	0.03900	40.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	143.0	9.7391	µg/L	2.57028	9.7391	ppb	2.57028	26.39%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	38.0	0.2556	µg/L	0.13096	0.2556	ppb	0.13096	51.24%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	14.5	0.1909	µg/L	0.24721	0.1909	ppb	0.24721	129.48%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              31.0      0.2701 µg/L       0.17191      0.2701 ppb        0.17191  63.66%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -156.4     -0.6540 µg/L       0.14282     -0.6540 ppb        0.14282  21.84%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      171.3      12.792 µg/L       14.3110      12.792 ppb        14.3110 111.88%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       212.2      84.074 µg/L       22.3671      84.074 ppb        22.3671  26.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -6.6     -3.0342 µg/L       4.51367     -3.0342 ppb        4.51367 148.76%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             239.1      0.3172 µg/L       0.27371      0.3172 ppb        0.27371  86.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              21.5      0.7029 µg/L       0.11261      0.7029 ppb        0.11261  16.02%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      137.4      21.225 µg/L       12.8415      21.225 ppb        12.8415  60.50%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              24.6      0.3076 µg/L       0.08459      0.3076 ppb        0.08459  27.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               33.6      7.7609 µg/L       0.28464      7.7609 ppb        0.28464   3.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -1.8     -0.1088 µg/L       0.64132     -0.1088 ppb        0.64132 589.57%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          7.2      6.0705 µg/L       6.14666      6.0705 ppb        6.14666 101.25%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -5.2     -0.6645 µg/L       0.67080     -0.6645 ppb        0.67080 100.95%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              16.2        6.38 µg/L         2.765        6.38 ppb          2.765  43.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   195.5      20.672 µg/L        4.1037      20.672 ppb         4.1037  19.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             776.0      12.224 µg/L        8.7650      12.224 ppb         8.7650  71.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.3      0.5044 µg/L       0.06747      0.5044 ppb        0.06747  13.37%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              21.7      0.0512 µg/L       0.11992      0.0512 ppb        0.11992 234.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             206.1      0.2130 µg/L       0.43842      0.2130 ppb        0.43842 205.79%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               6.2      0.8426 µg/L       1.53797      0.8426 ppb        1.53797 182.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -35.5     -2.2496 µg/L       1.15564     -2.2496 ppb        1.15564  51.37%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -25.2     -0.1254 µg/L       0.37347     -0.1254 ppb        0.37347 297.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              90.8      0.5394 µg/L       0.10772      0.5394 ppb        0.10772  19.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 13:02:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	134951.4	134951.4	96.3	%			13:03:24
1	Al 396.153Radial†	23289.9	24255.8	5083.2	µg/L	5083.2	ppb	13:03:24
1	Ca 317.933Radial†	72439.3	74627.7	5082.8	µg/L	5082.8	ppb	13:03:24
1	Fe 238.204 Radial†	67478.3	69931.9	5222.5	µg/L	5222.5	ppb	13:03:24
1	K 766.490 Radial†	13543.3	12565.5	4974.9	µg/L	4974.9	ppb	13:03:24
1	Mg 279.077 IEC†	10775.3	11013.4	5093.2	µg/L	5093.2	ppb	13:03:24
1	Na 589.592 Radial†	62921.0	64365.7	9972.8	µg/L	9972.8	ppb	13:03:24
1	Sr 421.552†	205304.6	213331.0	503.09	µg/L	503.09	ppb	13:03:22
1	Sc 361.383	1747605.0	1747605.0	96.866	%			13:03:37
1	Y 371.029	1016171.2	1016171.2	96.110	%			13:03:37
1	Ag 328.068†	122620.9	122023.4	505.79	µg/L	505.79	ppb	13:03:37
1	As 188.979†	1327.3	1388.8	477.11	µg/L	477.11	ppb	13:03:57
1	B 249.677†	34851.3	31913.8	494.56	µg/L	494.56	ppb	13:03:37
1	Ba 233.527†	109210.3	112888.6	502.18	µg/L	502.18	ppb	13:03:37
1	Be 313.107†	1644176.8	1698469.7	492.15	µg/L	492.15	ppb	13:03:37
1	Cd 226.502†	72177.9	74616.7	503.98	µg/L	503.98	ppb	13:03:37
1	Co 228.616†	36906.9	38311.4	507.09	µg/L	507.09	ppb	13:03:37
1	Cr 267.716†	56644.2	58243.8	503.75	µg/L	503.75	ppb	13:03:37
1	Cu 324.752†	119066.1	119882.6	503.02	µg/L	503.02	ppb	13:03:37
1	Mn 257.610†	367985.1	379707.4	503.48	µg/L	503.48	ppb	13:03:37
1	Mo 202.031†	14958.8	15481.4	506.77	µg/L	506.77	ppb	13:03:57
1	Ni 231.604†	38996.7	40354.4	504.88	µg/L	504.88	ppb	13:03:37
1	P 214.914†	10523.6	10889.8	2510.3	µg/L	2510.3	ppb	13:03:57
1	Pb 220.353†	8084.3	8242.5	508.80	µg/L	508.80	ppb	13:03:57
1	S 181.975 Axial†	1239.5	1190.7	1005.9	µg/L	1005.9	ppb	13:03:57
1	Sb 206.836†	3857.3	3892.4	503.08	µg/L	503.08	ppb	13:03:57
1	Se 196.026†	1236.0	1269.9	503	µg/L	503	ppb	13:03:57
1	SiO2†	50367.9	50258.6	5300.7	µg/L	5300.7	ppb	13:03:37
1	Si 251.611†	154270.2	158495.0	2489.2	µg/L	2489.2	ppb	13:03:37
1	Sn 189.927†	6951.6	7174.6	499.34	µg/L	499.34	ppb	13:03:57
1	Ti 334.940†	472854.0	487331.3	499.88	µg/L	499.88	ppb	13:03:37
1	Tl 190.801†	3479.8	3706.7	513.66	µg/L	513.66	ppb	13:03:57
1	U 409.014†	7164.5	7559.7	507.55	µg/L	507.55	ppb	13:03:37
1	V 292.402†	93886.7	96501.4	506.87	µg/L	506.87	ppb	13:03:37
1	Zn 213.857†	82263.2	84422.0	500.15	µg/L	500.15	ppb	13:03:37
2	Sc RADIAL	136378.3	136378.3	97.3	%			13:03:28
2	Al 396.153Radial†	23164.1	23873.6	5003.0	µg/L	5003.0	ppb	13:03:28
2	Ca 317.933Radial†	73120.8	74541.0	5076.9	µg/L	5076.9	ppb	13:03:28
2	Fe 238.204 Radial†	66011.8	67692.5	5055.2	µg/L	5055.2	ppb	13:03:28
2	K 766.490 Radial†	13942.8	12828.8	5079.2	µg/L	5079.2	ppb	13:03:28
2	Mg 279.077 IEC†	10946.2	11071.9	5120.2	µg/L	5120.2	ppb	13:03:28
2	Na 589.592 Radial†	63956.9	64746.4	10032	µg/L	10032	ppb	13:03:28
2	Sr 421.552†	206101.6	211919.9	499.77	µg/L	499.77	ppb	13:03:26
2	Sc 361.383	1771467.8	1771467.8	98.188	%			13:04:00
2	Y 371.029	1029278.3	1029278.3	97.350	%			13:04:00
2	Ag 328.068†	124739.5	122475.9	507.68	µg/L	507.68	ppb	13:04:00
2	As 188.979†	1335.0	1378.2	473.48	µg/L	473.48	ppb	13:04:20
2	B 249.677†	35593.5	32185.1	498.77	µg/L	498.77	ppb	13:04:00
2	Ba 233.527†	110782.0	112970.6	502.55	µg/L	502.55	ppb	13:04:00
2	Be 313.107†	1676433.8	1708457.1	495.04	µg/L	495.04	ppb	13:04:00
2	Cd 226.502†	73710.5	75173.8	507.77	µg/L	507.77	ppb	13:04:00
2	Co 228.616†	37538.3	38441.2	508.82	µg/L	508.82	ppb	13:04:00
2	Cr 267.716†	57589.1	58418.4	505.25	µg/L	505.25	ppb	13:04:00
2	Cu 324.752†	121161.9	120361.3	505.01	µg/L	505.01	ppb	13:04:00
2	Mn 257.610†	374378.3	381101.1	505.33	µg/L	505.33	ppb	13:04:00
2	Mo 202.031†	14962.8	15277.5	500.10	µg/L	500.10	ppb	13:04:20
2	Ni 231.604†	39677.3	40505.3	506.77	µg/L	506.77	ppb	13:04:00
2	P 214.914†	10538.1	10758.2	2480.0	µg/L	2480.0	ppb	13:04:20
2	Pb 220.353†	8094.8	8140.7	502.52	µg/L	502.52	ppb	13:04:20

2	S 181.975 Axial†	1234.8	1168.6	987.34 µg/L	987.34 ppb	13:04:20
2	Sb 206.836†	3877.6	3859.4	498.71 µg/L	498.71 ppb	13:04:20
2	Se 196.026†	1247.8	1264.7	500 µg/L	500 ppb	13:04:20
2	SiO2†	51515.2	50726.6	5350.5 µg/L	5350.5 ppb	13:04:00
2	Si 251.611†	157474.7	159613.2	2507.0 µg/L	2507.0 ppb	13:04:00
2	Sn 189.927†	6980.0	7106.9	494.65 µg/L	494.65 ppb	13:04:20
2	Ti 334.940†	480399.5	488440.2	501.01 µg/L	501.01 ppb	13:04:00
2	Tl 190.801†	3461.6	3639.8	504.55 µg/L	504.55 ppb	13:04:20
2	U 409.014†	7360.0	7659.1	514.00 µg/L	514.00 ppb	13:04:00
2	V 292.402†	95569.5	96909.6	508.95 µg/L	508.95 ppb	13:04:00
2	Zn 213.857†	83892.2	84937.1	503.23 µg/L	503.23 ppb	13:04:00
3	Sc RADIAL	136580.0	136580.0	97.5 %		13:03:32
3	Al 396.153Radial†	23330.5	24009.1	5031.4 µg/L	5031.4 ppb	13:03:32
3	Ca 317.933Radial†	73424.8	74741.9	5090.6 µg/L	5090.6 ppb	13:03:32
3	Fe 238.204 Radial†	66275.6	67863.0	5068.0 µg/L	5068.0 ppb	13:03:32
3	K 766.490 Radial†	13976.3	12842.0	5084.5 µg/L	5084.5 ppb	13:03:32
3	Mg 279.077 IEC†	10895.7	11003.5	5088.7 µg/L	5088.7 ppb	13:03:32
3	Na 589.592 Radial†	64278.6	64979.3	10068 µg/L	10068 ppb	13:03:32
3	Sr 421.552†	204269.4	209727.8	494.60 µg/L	494.60 ppb	13:03:30
3	Sc 361.383	1762008.4	1762008.4	97.664 %		13:04:23
3	Y 371.029	1024064.8	1024064.8	96.857 %		13:04:23
3	Ag 328.068†	124016.1	122417.3	507.42 µg/L	507.42 ppb	13:04:23
3	As 188.979†	1344.0	1394.7	479.06 µg/L	479.06 ppb	13:04:43
3	B 249.677†	35445.3	32228.0	499.43 µg/L	499.43 ppb	13:04:23
3	Ba 233.527†	110194.8	112975.1	502.57 µg/L	502.57 ppb	13:04:23
3	Be 313.107†	1665423.2	1706349.1	494.43 µg/L	494.43 ppb	13:04:23
3	Cd 226.502†	73240.4	75095.6	507.24 µg/L	507.24 ppb	13:04:23
3	Co 228.616†	37379.4	38483.8	509.38 µg/L	509.38 ppb	13:04:23
3	Cr 267.716†	57383.5	58522.8	506.16 µg/L	506.16 ppb	13:04:23
3	Cu 324.752†	120292.6	120133.7	504.04 µg/L	504.04 ppb	13:04:23
3	Mn 257.610†	372242.5	380961.2	505.15 µg/L	505.15 ppb	13:04:23
3	Mo 202.031†	14975.1	15371.8	503.18 µg/L	503.18 ppb	13:04:43
3	Ni 231.604†	39454.9	40494.5	506.64 µg/L	506.64 ppb	13:04:23
3	P 214.914†	10535.7	10813.4	2492.7 µg/L	2492.7 ppb	13:04:43
3	Pb 220.353†	8095.0	8185.1	505.27 µg/L	505.27 ppb	13:04:43
3	S 181.975 Axial†	1246.4	1187.3	1003.0 µg/L	1003.0 ppb	13:04:43
3	Sb 206.836†	3832.0	3833.9	495.46 µg/L	495.46 ppb	13:04:43
3	Se 196.026†	1246.8	1270.5	503 µg/L	503 ppb	13:04:43
3	SiO2†	51309.1	50797.2	5357.8 µg/L	5357.8 ppb	13:04:23
3	Si 251.611†	156783.5	159766.5	2509.4 µg/L	2509.4 ppb	13:04:23
3	Sn 189.927†	6968.1	7132.9	496.45 µg/L	496.45 ppb	13:04:43
3	Ti 334.940†	477556.5	488155.9	500.73 µg/L	500.73 ppb	13:04:23
3	Tl 190.801†	3456.2	3653.1	506.37 µg/L	506.37 ppb	13:04:43
3	U 409.014†	7095.8	7428.9	499.46 µg/L	499.46 ppb	13:04:23
3	V 292.402†	95062.9	96913.4	508.99 µg/L	508.99 ppb	13:04:23
3	Zn 213.857†	83296.3	84785.6	502.33 µg/L	502.33 ppb	13:04:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1760360.4	97.573	%	0.6660				0.68%
Sc RADIAL	135969.9	97.1	%	0.63				0.65%
Y 371.029	1023171.4	96.772	%	0.6241				0.64%
Ag 328.068†	122305.5	506.97	µg/L	1.022	506.97	ppb	1.022	0.20%
QC value within limits for Ag 328.068 Recovery = 101.39%								
Al 396.153Radial†	24046.2	5039.2	µg/L	40.64	5039.2	ppb	40.64	0.81%
QC value within limits for Al 396.153Radial Recovery = 100.78%								
As 188.979†	1387.2	476.55	µg/L	2.835	476.55	ppb	2.835	0.59%
QC value within limits for As 188.979 Recovery = 95.31%								
B 249.677†	32109.0	497.59	µg/L	2.645	497.59	ppb	2.645	0.53%
QC value within limits for B 249.677 Recovery = 99.52%								
Ba 233.527†	112944.8	502.43	µg/L	0.217	502.43	ppb	0.217	0.04%
QC value within limits for Ba 233.527 Recovery = 100.49%								
Be 313.107†	1704425.3	493.87	µg/L	1.525	493.87	ppb	1.525	0.31%
QC value within limits for Be 313.107 Recovery = 98.77%								
Ca 317.933Radial†	74636.9	5083.4	µg/L	6.86	5083.4	ppb	6.86	0.14%
QC value within limits for Ca 317.933Radial Recovery = 101.67%								
Cd 226.502†	74962.0	506.33	µg/L	2.049	506.33	ppb	2.049	0.40%
QC value within limits for Cd 226.502 Recovery = 101.27%								
Co 228.616†	38412.1	508.43	µg/L	1.193	508.43	ppb	1.193	0.23%

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   QC value within limits for Co 228.616  Recovery = 101.69%
Cr 267.716†            58395.0      505.05 µg/L         1.219      505.05 ppb          1.219   0.24%
   QC value within limits for Cr 267.716  Recovery = 101.01%
Cu 324.752†           120125.9      504.02 µg/L         0.993      504.02 ppb          0.993   0.20%
   QC value within limits for Cu 324.752  Recovery = 100.80%
Fe 238.204 Radial†     68495.8      5115.2 µg/L         93.09      5115.2 ppb          93.09   1.82%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.30%
K 766.490 Radial†      12745.4      5046.2 µg/L         61.80      5046.2 ppb          61.80   1.22%
   QC value within limits for K 766.490 Radial  Recovery = 100.92%
Mg 279.077 IEC†        11029.6      5100.7 µg/L         17.03      5100.7 ppb          17.03   0.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.01%
Mn 257.610†           380589.9      504.65 µg/L         1.018      504.65 ppb          1.018   0.20%
   QC value within limits for Mn 257.610  Recovery = 100.93%
Mo 202.031†            15376.9      503.35 µg/L         3.340      503.35 ppb          3.340   0.66%
   QC value within limits for Mo 202.031  Recovery = 100.67%
Na 589.592 Radial†     64697.1       10024 µg/L          48.0       10024 ppb           48.0   0.48%
   QC value within limits for Na 589.592 Radial  Recovery = 100.24%
Ni 231.604†            40451.4      506.10 µg/L         1.053      506.10 ppb          1.053   0.21%
   QC value within limits for Ni 231.604  Recovery = 101.22%
P 214.914†             10820.5      2494.3 µg/L         15.23      2494.3 ppb          15.23   0.61%
   QC value within limits for P 214.914  Recovery = 99.77%
Pb 220.353†             8189.4      505.53 µg/L         3.148      505.53 ppb          3.148   0.62%
   QC value within limits for Pb 220.353  Recovery = 101.11%
S 181.975 Axial†        1182.2      998.77 µg/L        10.007      998.77 ppb         10.007   1.00%
   QC value within limits for S 181.975 Axial  Recovery = 99.88%
Sb 206.836†             3861.9      499.08 µg/L         3.825      499.08 ppb          3.825   0.77%
   QC value within limits for Sb 206.836  Recovery = 99.82%
Se 196.026†             1268.4         502 µg/L           1.3         502 ppb            1.3   0.25%
   QC value within limits for Se 196.026  Recovery = 100.39%
SiO2†                  50594.1      5336.3 µg/L         31.11      5336.3 ppb          31.11   0.58%
   QC value within limits for SiO2  Recovery = 99.79%
Si 251.611†           159291.6      2501.9 µg/L         11.00      2501.9 ppb          11.00   0.44%
   QC value within limits for Si 251.611  Recovery = 100.07%
Sn 189.927†             7138.1      496.81 µg/L         2.368      496.81 ppb          2.368   0.48%
   QC value within limits for Sn 189.927  Recovery = 99.36%
Sr 421.552†           211659.6      499.15 µg/L         4.282      499.15 ppb          4.282   0.86%
   QC value within limits for Sr 421.552  Recovery = 99.83%
Ti 334.940†           487975.8      500.54 µg/L         0.590      500.54 ppb          0.590   0.12%
   QC value within limits for Ti 334.940  Recovery = 100.11%
Tl 190.801†             3666.5      508.19 µg/L         4.821      508.19 ppb          4.821   0.95%
   QC value within limits for Tl 190.801  Recovery = 101.64%
U 409.014†              7549.2      507.00 µg/L         7.282      507.00 ppb          7.282   1.44%
   QC value within limits for U 409.014  Recovery = 101.40%
V 292.402†             96774.8      508.27 µg/L         1.211      508.27 ppb          1.211   0.24%
   QC value within limits for V 292.402  Recovery = 101.65%
Zn 213.857†            84714.9      501.90 µg/L         1.582      501.90 ppb          1.582   0.32%
   QC value within limits for Zn 213.857  Recovery = 100.38%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 13:04:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136290.1	136290.1	97.3	%			13:05:20
1	Al 396.153Radial†	-69.6	7.0	1.4282	µg/L	1.4282	ppb	13:05:40
1	Ca 317.933Radial†	692.3	140.1	9.5452	µg/L	9.5452	ppb	13:05:40
1	Fe 238.204 Radial†	192.6	80.7	6.0268	µg/L	6.0268	ppb	13:05:40
1	K 766.490 Radial†	1641.5	193.5	76.683	µg/L	76.683	ppb	13:05:20
1	Mg 279.077 IEC†	175.0	7.4	3.4314	µg/L	3.4314	ppb	13:05:40
1	Na 589.592 Radial†	1048.0	124.7	19.264	µg/L	19.264	ppb	13:05:20
1	Sr 421.552†	-137.5	63.2	0.1489	µg/L	0.1489	ppb	13:05:20
1	Sc 361.383	1782656.2	1782656.2	98.808	%			13:06:42
1	Y 371.029	1047247.8	1047247.8	99.050	%			13:06:42
1	Ag 328.068†	4249.4	-264.5	-1.0842	µg/L	-1.0842	ppb	13:06:44
1	As 188.979†	-22.1	-3.8	-1.2845	µg/L	-1.2845	ppb	13:07:04
1	B 249.677†	4129.8	114.4	1.7792	µg/L	1.7792	ppb	13:06:44
1	Ba 233.527†	-153.9	-11.2	-0.0495	µg/L	-0.0495	ppb	13:07:04
1	Be 313.107†	-783.7	298.6	0.0863	µg/L	0.0863	ppb	13:06:44
1	Cd 226.502†	-60.9	41.7	0.2814	µg/L	0.2814	ppb	13:07:04
1	Co 228.616†	-197.9	10.1	0.1327	µg/L	0.1327	ppb	13:07:04
1	Cr 267.716†	268.3	38.3	0.3322	µg/L	0.3322	ppb	13:07:04
1	Cu 324.752†	2855.2	-146.5	-0.6124	µg/L	-0.6124	ppb	13:06:44
1	Mn 257.610†	251.5	69.8	0.0924	µg/L	0.0924	ppb	13:07:04
1	Mo 202.031†	-10.5	27.9	0.9129	µg/L	0.9129	ppb	13:07:04
1	Ni 231.604†	-80.3	14.7	0.1834	µg/L	0.1834	ppb	13:07:04
1	P 214.914†	8.1	33.9	7.8275	µg/L	7.8275	ppb	13:07:04
1	Pb 220.353†	78.1	-24.4	-1.4965	µg/L	-1.4965	ppb	13:07:04
1	S 181.975 Axial†	97.0	9.3	7.8229	µg/L	7.8229	ppb	13:07:04
1	Sb 206.836†	91.7	3.1	0.4072	µg/L	0.4072	ppb	13:07:04
1	Se 196.026†	28.3	22.5	8.88	µg/L	8.88	ppb	13:07:04
1	SiO2†	1885.5	169.1	17.875	µg/L	17.875	ppb	13:07:04
1	Si 251.611†	1309.0	557.8	8.7808	µg/L	8.7808	ppb	13:06:44
1	Sn 189.927†	7.5	5.7	0.3950	µg/L	0.3950	ppb	13:07:04
1	Ti 334.940†	1019.9	209.2	0.2150	µg/L	0.2150	ppb	13:06:44
1	Tl 190.801†	-114.7	-1.8	-0.2448	µg/L	-0.2448	ppb	13:07:04
1	U 409.014†	-171.8	-10.6	-0.6689	µg/L	-0.6689	ppb	13:06:44
1	V 292.402†	411.2	-7.0	-0.0268	µg/L	-0.0268	ppb	13:06:44
1	Zn 213.857†	594.7	98.9	0.5892	µg/L	0.5892	ppb	13:07:04
2	Sc RADIAL	136851.1	136851.1	97.7	%			13:05:42
2	Al 396.153Radial†	-103.9	-27.8	-5.8900	µg/L	-5.8900	ppb	13:06:02
2	Ca 317.933Radial†	675.5	120.0	8.1746	µg/L	8.1746	ppb	13:06:02
2	Fe 238.204 Radial†	167.9	54.5	4.0720	µg/L	4.0720	ppb	13:06:02
2	K 766.490 Radial†	1638.3	183.3	72.608	µg/L	72.608	ppb	13:05:42
2	Mg 279.077 IEC†	187.9	19.9	9.2236	µg/L	9.2236	ppb	13:06:02
2	Na 589.592 Radial†	1294.8	372.9	57.744	µg/L	57.744	ppb	13:05:42
2	Sr 421.552†	-154.5	46.3	0.1092	µg/L	0.1092	ppb	13:05:42
2	Sc 361.383	1800370.9	1800370.9	99.790	%			13:07:07
2	Y 371.029	1056939.0	1056939.0	99.966	%			13:07:07
2	Ag 328.068†	4328.8	-227.3	-0.9428	µg/L	-0.9428	ppb	13:07:09
2	As 188.979†	-8.8	9.7	3.2929	µg/L	3.2929	ppb	13:07:29
2	B 249.677†	4165.2	108.8	1.6915	µg/L	1.6915	ppb	13:07:09
2	Ba 233.527†	-134.5	9.7	0.0431	µg/L	0.0431	ppb	13:07:29
2	Be 313.107†	-900.8	189.1	0.0532	µg/L	0.0532	ppb	13:07:09
2	Cd 226.502†	-87.7	15.4	0.1042	µg/L	0.1042	ppb	13:07:29
2	Co 228.616†	-202.1	7.8	0.1025	µg/L	0.1025	ppb	13:07:29
2	Cr 267.716†	263.2	30.5	0.2678	µg/L	0.2678	ppb	13:07:29
2	Cu 324.752†	2938.4	-91.6	-0.3863	µg/L	-0.3863	ppb	13:07:09
2	Mn 257.610†	356.5	172.5	0.2285	µg/L	0.2285	ppb	13:07:29
2	Mo 202.031†	-17.0	21.6	0.7059	µg/L	0.7059	ppb	13:07:29
2	Ni 231.604†	-43.4	52.4	0.6558	µg/L	0.6558	ppb	13:07:29
2	P 214.914†	3.0	28.7	6.6395	µg/L	6.6395	ppb	13:07:29
2	Pb 220.353†	108.5	5.3	0.3325	µg/L	0.3325	ppb	13:07:29

2	S 181.975 Axial†	90.0	1.3	1.0862 µg/L	1.0862 ppb		13:07:29
2	Sb 206.836†	98.1	8.6	1.1191 µg/L	1.1191 ppb		13:07:29
2	Se 196.026†	25.4	19.3	7.59 µg/L	7.59 ppb		13:07:29
2	SiO2†	1870.0	134.8	14.250 µg/L	14.250 ppb		13:07:29
2	Si 251.611†	1273.5	509.1	8.0160 µg/L	8.0160 ppb		13:07:09
2	Sn 189.927†	8.7	6.8	0.4730 µg/L	0.4730 ppb		13:07:29
2	Ti 334.940†	814.0	-7.3	-0.0060 µg/L	-0.0060 ppb		13:07:09
2	Tl 190.801†	-113.8	0.2	0.0291 µg/L	0.0291 ppb		13:07:29
2	U 409.014†	-242.9	-80.0	-5.0782 µg/L	-5.0782 ppb		13:07:09
2	V 292.402†	326.1	-96.5	-0.4955 µg/L	-0.4955 ppb		13:07:09
2	Zn 213.857†	622.6	120.9	0.7175 µg/L	0.7175 ppb		13:07:29
3	Sc RADIAL	134763.0	134763.0	96.2 %			13:06:04
3	Al 396.153Radial†	-98.1	-23.5	-4.9608 µg/L	-4.9608 ppb		13:06:24
3	Ca 317.933Radial†	689.2	145.0	9.8746 µg/L	9.8746 ppb		13:06:24
3	Fe 238.204 Radial†	163.4	52.6	3.9274 µg/L	3.9274 ppb		13:06:24
3	K 766.490 Radial†	1713.1	287.0	113.73 µg/L	113.73 ppb		13:06:04
3	Mg 279.077 IEC†	185.0	19.8	9.1679 µg/L	9.1679 ppb		13:06:24
3	Na 589.592 Radial†	1061.3	150.7	23.261 µg/L	23.261 ppb		13:06:04
3	Sr 421.552†	-202.2	-5.7	-0.0136 µg/L	-0.0136 ppb		13:06:04
3	Sc 361.383	1779169.5	1779169.5	98.615 %			13:07:31
3	Y 371.029	1045675.5	1045675.5	98.901 %			13:07:31
3	Ag 328.068†	4167.3	-339.4	-1.3915 µg/L	-1.3915 ppb		13:07:33
3	As 188.979†	-16.5	1.8	0.6281 µg/L	0.6281 ppb		13:07:53
3	B 249.677†	4105.7	98.2	1.5263 µg/L	1.5263 ppb		13:07:33
3	Ba 233.527†	-156.0	-13.7	-0.0604 µg/L	-0.0604 ppb		13:07:53
3	Be 313.107†	-846.5	233.3	0.0659 µg/L	0.0659 ppb		13:07:33
3	Cd 226.502†	-55.4	47.2	0.3186 µg/L	0.3186 ppb		13:07:53
3	Co 228.616†	-190.5	17.1	0.2261 µg/L	0.2261 ppb		13:07:53
3	Cr 267.716†	277.0	47.7	0.4170 µg/L	0.4170 ppb		13:07:53
3	Cu 324.752†	2979.0	-15.3	-0.0678 µg/L	-0.0678 ppb		13:07:33
3	Mn 257.610†	253.7	72.5	0.0958 µg/L	0.0958 ppb		13:07:53
3	Mo 202.031†	-27.2	10.9	0.3585 µg/L	0.3585 ppb		13:07:53
3	Ni 231.604†	-64.3	30.7	0.3841 µg/L	0.3841 ppb		13:07:53
3	P 214.914†	-3.9	21.8	5.0264 µg/L	5.0264 ppb		13:07:53
3	Pb 220.353†	85.7	-16.5	-1.0125 µg/L	-1.0125 ppb		13:07:53
3	S 181.975 Axial†	96.0	8.5	7.1344 µg/L	7.1344 ppb		13:07:53
3	Sb 206.836†	89.9	1.4	0.1833 µg/L	0.1833 ppb		13:07:53
3	Se 196.026†	24.3	18.4	7.26 µg/L	7.26 ppb		13:07:53
3	SiO2†	1922.0	209.9	22.217 µg/L	22.217 ppb		13:07:53
3	Si 251.611†	1301.3	552.6	8.7095 µg/L	8.7095 ppb		13:07:33
3	Sn 189.927†	0.2	-1.7	-0.1193 µg/L	-0.1193 ppb		13:07:53
3	Ti 334.940†	753.7	-58.7	-0.0586 µg/L	-0.0586 ppb		13:07:33
3	Tl 190.801†	-106.1	6.7	0.9126 µg/L	0.9126 ppb		13:07:53
3	U 409.014†	-250.6	-90.7	-5.7025 µg/L	-5.7025 ppb		13:07:33
3	V 292.402†	497.3	81.0	0.4213 µg/L	0.4213 ppb		13:07:33
3	Zn 213.857†	570.3	75.3	0.4464 µg/L	0.4464 ppb		13:07:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787398.9	99.071	%	0.6301				0.64%
Sc RADIAL	135968.1	97.1	%	0.77				0.79%
Y 371.029	1049954.1	99.305	%	0.5769				0.58%
Ag 328.068†	-277.1	-1.1395	µg/L	0.22941	-1.1395	ppb	0.22941	20.13%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.8	-3.1409	µg/L	3.98409	-3.1409	ppb	3.98409	126.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.6	0.8788	µg/L	2.29896	0.8788	ppb	2.29896	261.60%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	107.1	1.6657	µg/L	0.12840	1.6657	ppb	0.12840	7.71%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.0	-0.0222	µg/L	0.05687	-0.0222	ppb	0.05687	255.61%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	240.3	0.0685	µg/L	0.01668	0.0685	ppb	0.01668	24.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	135.0	9.1981	µg/L	0.90158	9.1981	ppb	0.90158	9.80%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	34.8	0.2347	µg/L	0.11455	0.2347	ppb	0.11455	48.80%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.6	0.1538	µg/L	0.06444	0.1538	ppb	0.06444	41.91%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              38.8      0.3390 µg/L       0.07485      0.3390 ppb        0.07485  22.08%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -84.5     -0.3555 µg/L       0.27361     -0.3555 ppb        0.27361  76.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       62.6      4.6754 µg/L       1.17256      4.6754 ppb        1.17256  25.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       221.3      87.675 µg/L       22.6597      87.675 ppb        22.6597  25.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          15.7      7.2743 µg/L       3.32818      7.2743 ppb        3.32818  45.75%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             104.9      0.1389 µg/L       0.07760      0.1389 ppb        0.07760  55.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              20.1      0.6591 µg/L       0.28014      0.6591 ppb        0.28014  42.50%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      216.1      33.423 µg/L       21.1576      33.423 ppb        21.1576  63.30%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              32.6      0.4078 µg/L       0.23709      0.4078 ppb        0.23709  58.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               28.1      6.4978 µg/L       1.40594      6.4978 ppb        1.40594  21.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -11.9     -0.7255 µg/L       0.94768     -0.7255 ppb        0.94768 130.63%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.4      5.3479 µg/L       3.70673      5.3479 ppb        3.70673  69.31%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.4      0.5698 µg/L       0.48864      0.5698 ppb        0.48864  85.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              20.1        7.91 µg/L         0.855        7.91 ppb          0.855  10.80%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   171.3      18.114 µg/L        3.9889      18.114 ppb         3.9889  22.02%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             539.8      8.5021 µg/L       0.42246      8.5021 ppb        0.42246   4.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.6      0.2496 µg/L       0.32182      0.2496 ppb        0.32182 128.96%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              34.6      0.0815 µg/L       0.08471      0.0815 ppb        0.08471 103.94%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              47.7      0.0501 µg/L       0.14519      0.0501 ppb        0.14519 289.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.7      0.2323 µg/L       0.60486      0.2323 ppb        0.60486 260.40%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -60.4     -3.8165 µg/L       2.74372     -3.8165 ppb        2.74372  71.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -7.5     -0.0337 µg/L       0.45841     -0.0337 ppb        0.45841 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              98.4      0.5844 µg/L       0.13562      0.5844 ppb        0.13562  23.21%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 13:19:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137686.1	137686.1	98.3	%			13:19:48
1	Al 396.153Radial†	23316.9	23803.1	4987.8	µg/L	4987.8	ppb	13:19:48
1	Ca 317.933Radial†	74157.5	74882.4	5100.2	µg/L	5100.2	ppb	13:19:48
1	Fe 238.204 Radial†	66808.5	67859.0	5067.7	µg/L	5067.7	ppb	13:19:48
1	K 766.490 Radial†	14132.5	12885.8	5101.8	µg/L	5101.8	ppb	13:19:48
1	Mg 279.077 IEC†	11014.2	11034.3	5103.1	µg/L	5103.1	ppb	13:19:48
1	Na 589.592 Radial†	64546.9	64722.7	10028	µg/L	10028	ppb	13:19:48
1	Sr 421.552†	206906.3	210727.7	496.95	µg/L	496.95	ppb	13:19:46
1	Sc 361.383	1764151.9	1764151.9	97.783	%			13:20:15
1	Y 371.029	1025388.3	1025388.3	96.982	%			13:20:15
1	Ag 328.068†	124481.4	122738.8	508.77	µg/L	508.77	ppb	13:20:15
1	As 188.979†	1356.8	1406.2	482.95	µg/L	482.95	ppb	13:20:35
1	B 249.677†	35498.9	32238.7	499.59	µg/L	499.59	ppb	13:20:15
1	Ba 233.527†	110006.0	112644.9	501.10	µg/L	501.10	ppb	13:20:15
1	Be 313.107†	1665582.9	1704440.6	493.88	µg/L	493.88	ppb	13:20:15
1	Cd 226.502†	73149.4	74911.4	505.99	µg/L	505.99	ppb	13:20:15
1	Co 228.616†	37552.7	38614.5	511.11	µg/L	511.11	ppb	13:20:15
1	Cr 267.716†	57324.6	58391.2	505.01	µg/L	505.01	ppb	13:20:15
1	Cu 324.752†	120503.1	120199.3	504.34	µg/L	504.34	ppb	13:20:15
1	Mn 257.610†	372460.1	380720.6	504.83	µg/L	504.83	ppb	13:20:15
1	Mo 202.031†	15163.3	15545.7	508.87	µg/L	508.87	ppb	13:20:35
1	Ni 231.604†	39504.5	40496.1	506.66	µg/L	506.66	ppb	13:20:15
1	P 214.914†	10657.2	10924.5	2518.4	µg/L	2518.4	ppb	13:20:35
1	Pb 220.353†	8249.2	8332.7	514.35	µg/L	514.35	ppb	13:20:35
1	S 181.975 Axial†	1263.9	1203.6	1016.9	µg/L	1016.9	ppb	13:20:35
1	Sb 206.836†	3896.7	3895.3	503.47	µg/L	503.47	ppb	13:20:35
1	Se 196.026†	1255.4	1277.8	506	µg/L	506	ppb	13:20:35
1	SiO2†	51270.6	50694.0	5346.7	µg/L	5346.7	ppb	13:20:15
1	Si 251.611†	156815.2	159603.8	2506.7	µg/L	2506.7	ppb	13:20:15
1	Sn 189.927†	7047.2	7205.1	501.46	µg/L	501.46	ppb	13:20:35
1	Ti 334.940†	478947.9	488984.7	501.57	µg/L	501.57	ppb	13:20:15
1	Tl 190.801†	3509.9	3703.8	513.29	µg/L	513.29	ppb	13:20:35
1	U 409.014†	7443.5	7775.6	521.38	µg/L	521.38	ppb	13:20:15
1	V 292.402†	95292.2	97029.7	509.66	µg/L	509.66	ppb	13:20:15
1	Zn 213.857†	83586.8	84979.1	503.48	µg/L	503.48	ppb	13:20:15
2	Sc RADIAL	135969.5	135969.5	97.1	%			13:19:52
2	Al 396.153Radial†	23142.4	23922.8	5013.1	µg/L	5013.1	ppb	13:19:52
2	Ca 317.933Radial†	73314.9	74966.9	5105.9	µg/L	5105.9	ppb	13:19:52
2	Fe 238.204 Radial†	66100.3	67987.6	5077.3	µg/L	5077.3	ppb	13:19:52
2	K 766.490 Radial†	13867.7	12794.5	5065.6	µg/L	5065.6	ppb	13:19:52
2	Mg 279.077 IEC†	10929.6	11088.6	5128.1	µg/L	5128.1	ppb	13:19:52
2	Na 589.592 Radial†	63867.1	64851.5	10048	µg/L	10048	ppb	13:19:52
2	Sr 421.552†	206242.2	212701.3	501.61	µg/L	501.61	ppb	13:19:50
2	Sc 361.383	1752479.1	1752479.1	97.136	%			13:20:38
2	Y 371.029	1020334.9	1020334.9	96.504	%			13:20:38
2	Ag 328.068†	123684.4	122766.2	508.86	µg/L	508.86	ppb	13:20:38
2	As 188.979†	1330.5	1388.3	476.91	µg/L	476.91	ppb	13:20:58
2	B 249.677†	35109.4	32079.5	497.12	µg/L	497.12	ppb	13:20:38
2	Ba 233.527†	109687.7	113066.5	502.98	µg/L	502.98	ppb	13:20:38
2	Be 313.107†	1653797.6	1703653.3	493.65	µg/L	493.65	ppb	13:20:38
2	Cd 226.502†	72583.7	74827.3	505.42	µg/L	505.42	ppb	13:20:38
2	Co 228.616†	37169.0	38475.2	509.27	µg/L	509.27	ppb	13:20:38
2	Cr 267.716†	56900.5	58345.1	504.61	µg/L	504.61	ppb	13:20:38
2	Cu 324.752†	119629.2	120120.5	504.01	µg/L	504.01	ppb	13:20:38
2	Mn 257.610†	370314.3	381048.7	505.26	µg/L	505.26	ppb	13:20:38
2	Mo 202.031†	15009.0	15490.1	507.05	µg/L	507.05	ppb	13:20:58
2	Ni 231.604†	39199.8	40451.5	506.10	µg/L	506.10	ppb	13:20:38
2	P 214.914†	10555.4	10892.3	2511.0	µg/L	2511.0	ppb	13:20:58
2	Pb 220.353†	8124.2	8260.3	509.89	µg/L	509.89	ppb	13:20:58

2	S 181.975 Axial†	1239.3	1187.0	1002.8 µg/L	1002.8 ppb	13:20:58
2	Sb 206.836†	3878.5	3903.1	504.46 µg/L	504.46 ppb	13:20:58
2	Se 196.026†	1243.7	1274.2	504 µg/L	504 ppb	13:20:58
2	SiO2†	50994.2	50758.8	5353.6 µg/L	5353.6 ppb	13:20:38
2	Si 251.611†	156234.2	160073.9	2514.1 µg/L	2514.1 ppb	13:20:38
2	Sn 189.927†	6997.5	7202.0	501.25 µg/L	501.25 ppb	13:20:58
2	Ti 334.940†	475750.2	488955.2	501.54 µg/L	501.54 ppb	13:20:38
2	Tl 190.801†	3489.7	3706.8	513.71 µg/L	513.71 ppb	13:20:58
2	U 409.014†	7342.0	7721.8	517.90 µg/L	517.90 ppb	13:20:38
2	V 292.402†	94395.8	96755.9	508.22 µg/L	508.22 ppb	13:20:38
2	Zn 213.857†	82925.5	84867.6	502.82 µg/L	502.82 ppb	13:20:38
3	Sc RADIAL	135910.8	135910.8	97.0 %		13:19:56
3	Al 396.153Radial†	23011.1	23797.7	4986.6 µg/L	4986.6 ppb	13:19:56
3	Ca 317.933Radial†	73016.0	74691.3	5087.2 µg/L	5087.2 ppb	13:19:56
3	Fe 238.204 Radial†	65816.6	67724.5	5057.6 µg/L	5057.6 ppb	13:19:56
3	K 766.490 Radial†	14014.9	12952.4	5128.2 µg/L	5128.2 ppb	13:19:56
3	Mg 279.077 IEC†	10852.5	11014.0	5093.7 µg/L	5093.7 ppb	13:19:56
3	Na 589.592 Radial†	64017.8	65035.2	10076 µg/L	10076 ppb	13:19:56
3	Sr 421.552†	207445.1	214032.9	504.75 µg/L	504.75 ppb	13:19:54
3	Sc 361.383	1757185.4	1757185.4	97.397 %		13:21:01
3	Y 371.029	1021114.7	1021114.7	96.578 %		13:21:01
3	Ag 328.068†	123757.2	122499.9	507.77 µg/L	507.77 ppb	13:21:01
3	As 188.979†	1359.9	1414.8	485.88 µg/L	485.88 ppb	13:21:21
3	B 249.677†	35071.9	31944.2	495.02 µg/L	495.02 ppb	13:21:01
3	Ba 233.527†	109828.9	112909.1	502.28 µg/L	502.28 ppb	13:21:01
3	Be 313.107†	1657683.2	1703082.7	493.48 µg/L	493.48 ppb	13:21:01
3	Cd 226.502†	72559.6	74602.4	503.91 µg/L	503.91 ppb	13:21:01
3	Co 228.616†	37343.2	38551.6	510.28 µg/L	510.28 ppb	13:21:01
3	Cr 267.716†	57083.6	58376.2	504.88 µg/L	504.88 ppb	13:21:01
3	Cu 324.752†	120203.7	120380.4	505.08 µg/L	505.08 ppb	13:21:01
3	Mn 257.610†	371130.2	380865.4	505.02 µg/L	505.02 ppb	13:21:01
3	Mo 202.031†	15160.4	15604.2	510.78 µg/L	510.78 ppb	13:21:21
3	Ni 231.604†	39383.3	40531.9	507.10 µg/L	507.10 ppb	13:21:01
3	P 214.914†	10656.5	10967.1	2528.2 µg/L	2528.2 ppb	13:21:21
3	Pb 220.353†	8194.0	8309.5	512.94 µg/L	512.94 ppb	13:21:21
3	S 181.975 Axial†	1261.5	1206.3	1019.2 µg/L	1019.2 ppb	13:21:21
3	Sb 206.836†	3887.7	3901.9	504.35 µg/L	504.35 ppb	13:21:21
3	Se 196.026†	1265.5	1293.2	512 µg/L	512 ppb	13:21:21
3	SiO2†	51195.4	50824.7	5360.4 µg/L	5360.4 ppb	13:21:01
3	Si 251.611†	156725.4	160147.5	2515.2 µg/L	2515.2 ppb	13:21:01
3	Sn 189.927†	7043.2	7229.6	503.16 µg/L	503.16 ppb	13:21:21
3	Ti 334.940†	476862.5	488785.4	501.37 µg/L	501.37 ppb	13:21:01
3	Tl 190.801†	3501.8	3709.6	514.09 µg/L	514.09 ppb	13:21:21
3	U 409.014†	7209.4	7565.4	508.05 µg/L	508.05 ppb	13:21:01
3	V 292.402†	94694.8	96802.7	508.50 µg/L	508.50 ppb	13:21:01
3	Zn 213.857†	83190.2	84910.8	503.07 µg/L	503.07 ppb	13:21:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1757938.8	97.438	%	0.3255				0.33%
Sc RADIAL	136522.1	97.5	%	0.72				0.74%
Y 371.029	1022279.3	96.688	%	0.2573				0.27%
Ag 328.068†	122668.3	508.47	µg/L	0.610	508.47	ppb	0.610	0.12%
QC value within limits for Ag 328.068 Recovery = 101.69%								
Al 396.153Radial†	23841.2	4995.8	µg/L	14.96	4995.8	ppb	14.96	0.30%
QC value within limits for Al 396.153Radial Recovery = 99.92%								
As 188.979†	1403.1	481.91	µg/L	4.574	481.91	ppb	4.574	0.95%
QC value within limits for As 188.979 Recovery = 96.38%								
B 249.677†	32087.5	497.25	µg/L	2.291	497.25	ppb	2.291	0.46%
QC value within limits for B 249.677 Recovery = 99.45%								
Ba 233.527†	112873.5	502.12	µg/L	0.946	502.12	ppb	0.946	0.19%
QC value within limits for Ba 233.527 Recovery = 100.42%								
Be 313.107†	1703725.5	493.67	µg/L	0.199	493.67	ppb	0.199	0.04%
QC value within limits for Be 313.107 Recovery = 98.73%								
Ca 317.933Radial†	74846.9	5097.7	µg/L	9.62	5097.7	ppb	9.62	0.19%
QC value within limits for Ca 317.933Radial Recovery = 101.95%								
Cd 226.502†	74780.4	505.11	µg/L	1.079	505.11	ppb	1.079	0.21%
QC value within limits for Cd 226.502 Recovery = 101.02%								
Co 228.616†	38547.1	510.22	µg/L	0.922	510.22	ppb	0.922	0.18%

```
   QC value within limits for Co 228.616  Recovery = 102.04%
Cr 267.716†            58370.8      504.83 µg/L         0.204      504.83 ppb          0.204   0.04%
   QC value within limits for Cr 267.716  Recovery = 100.97%
Cu 324.752†           120233.4      504.47 µg/L         0.551      504.47 ppb          0.551   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.89%
Fe 238.204 Radial†     67857.1      5067.5 µg/L          9.82      5067.5 ppb           9.82   0.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.35%
K 766.490 Radial†      12877.5      5098.6 µg/L         31.42      5098.6 ppb          31.42   0.62%
   QC value within limits for K 766.490 Radial  Recovery = 101.97%
Mg 279.077 IEC†        11045.6      5108.3 µg/L         17.77      5108.3 ppb          17.77   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.17%
Mn 257.610†           380878.2      505.04 µg/L         0.218      505.04 ppb          0.218   0.04%
   QC value within limits for Mn 257.610  Recovery = 101.01%
Mo 202.031†            15546.7      508.90 µg/L         1.865      508.90 ppb          1.865   0.37%
   QC value within limits for Mo 202.031  Recovery = 101.78%
Na 589.592 Radial†     64869.8       10051 µg/L          24.3       10051 ppb           24.3   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 100.51%
Ni 231.604†            40493.2      506.62 µg/L         0.504      506.62 ppb          0.504   0.10%
   QC value within limits for Ni 231.604  Recovery = 101.32%
P 214.914†             10928.0      2519.2 µg/L          8.66      2519.2 ppb           8.66   0.34%
   QC value within limits for P 214.914  Recovery = 100.77%
Pb 220.353†             8300.9      512.39 µg/L         2.280      512.39 ppb          2.280   0.44%
   QC value within limits for Pb 220.353  Recovery = 102.48%
S 181.975 Axial†        1199.0      1012.9 µg/L          8.84      1012.9 ppb           8.84   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 101.29%
Sb 206.836†             3900.1      504.09 µg/L         0.541      504.09 ppb          0.541   0.11%
   QC value within limits for Sb 206.836  Recovery = 100.82%
Se 196.026†             1281.7         507 µg/L           4.0         507 ppb            4.0   0.78%
   QC value within limits for Se 196.026  Recovery = 101.44%
SiO2†                  50759.2      5353.6 µg/L          6.88      5353.6 ppb           6.88   0.13%
   QC value within limits for SiO2  Recovery = 100.11%
Si 251.611†           159941.7      2512.0 µg/L          4.64      2512.0 ppb           4.64   0.18%
   QC value within limits for Si 251.611  Recovery = 100.48%
Sn 189.927†             7212.2      501.96 µg/L         1.049      501.96 ppb          1.049   0.21%
   QC value within limits for Sn 189.927  Recovery = 100.39%
Sr 421.552†           212487.3      501.10 µg/L         3.922      501.10 ppb          3.922   0.78%
   QC value within limits for Sr 421.552  Recovery = 100.22%
Ti 334.940†           488908.4      501.50 µg/L         0.107      501.50 ppb          0.107   0.02%
   QC value within limits for Ti 334.940  Recovery = 100.30%
Tl 190.801†             3706.8      513.69 µg/L         0.398      513.69 ppb          0.398   0.08%
   QC value within limits for Tl 190.801  Recovery = 102.74%
U 409.014†              7687.6      515.78 µg/L         6.915      515.78 ppb          6.915   1.34%
   QC value within limits for U 409.014  Recovery = 103.16%
V 292.402†             96862.8      508.79 µg/L         0.765      508.79 ppb          0.765   0.15%
   QC value within limits for V 292.402  Recovery = 101.76%
Zn 213.857†            84919.2      503.12 µg/L         0.334      503.12 ppb          0.334   0.07%
   QC value within limits for Zn 213.857  Recovery = 100.62%
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 13:21:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136365.9	136365.9	97.3	%			13:21:58
1	Al 396.153Radial†	-72.1	4.4	0.9330	µg/L	0.9330	ppb	13:22:18
1	Ca 317.933Radial†	710.4	158.4	10.786	µg/L	10.786	ppb	13:22:18
1	Fe 238.204 Radial†	185.7	73.4	5.4841	µg/L	5.4841	ppb	13:22:18
1	K 766.490 Radial†	1496.4	43.5	17.215	µg/L	17.215	ppb	13:21:58
1	Mg 279.077 IEC†	179.8	12.2	5.6498	µg/L	5.6498	ppb	13:22:18
1	Na 589.592 Radial†	1238.6	319.9	49.578	µg/L	49.578	ppb	13:21:58
1	Sr 421.552†	-142.4	58.2	0.1373	µg/L	0.1373	ppb	13:21:58
1	Sc 361.383	1782820.6	1782820.6	98.818	%			13:23:20
1	Y 371.029	1046910.4	1046910.4	99.018	%			13:23:20
1	Ag 328.068†	4406.6	-105.9	-0.4491	µg/L	-0.4491	ppb	13:23:22
1	As 188.979†	-21.0	-2.7	-0.9151	µg/L	-0.9151	ppb	13:23:42
1	B 249.677†	4073.3	56.8	0.8834	µg/L	0.8834	ppb	13:23:22
1	Ba 233.527†	-120.0	23.1	0.1023	µg/L	0.1023	ppb	13:23:42
1	Be 313.107†	-879.3	201.9	0.0560	µg/L	0.0560	ppb	13:23:22
1	Cd 226.502†	-86.3	16.0	0.1078	µg/L	0.1078	ppb	13:23:42
1	Co 228.616†	-193.5	14.5	0.1920	µg/L	0.1920	ppb	13:23:42
1	Cr 267.716†	232.1	1.6	0.0206	µg/L	0.0206	ppb	13:23:42
1	Cu 324.752†	2948.4	-52.4	-0.2248	µg/L	-0.2248	ppb	13:23:22
1	Mn 257.610†	249.3	67.6	0.0894	µg/L	0.0894	ppb	13:23:42
1	Mo 202.031†	-36.3	1.9	0.0612	µg/L	0.0612	ppb	13:23:42
1	Ni 231.604†	-71.5	23.5	0.2943	µg/L	0.2943	ppb	13:23:42
1	P 214.914†	2.4	28.1	6.5138	µg/L	6.5138	ppb	13:23:42
1	Pb 220.353†	104.5	2.3	0.1466	µg/L	0.1466	ppb	13:23:42
1	S 181.975 Axial†	101.8	14.1	11.895	µg/L	11.895	ppb	13:23:42
1	Sb 206.836†	82.9	-5.8	-0.7459	µg/L	-0.7459	ppb	13:23:42
1	Se 196.026†	22.2	16.4	6.44	µg/L	6.44	ppb	13:23:42
1	SiO2†	1856.7	139.8	14.797	µg/L	14.797	ppb	13:23:42
1	Si 251.611†	1252.8	500.7	7.8907	µg/L	7.8907	ppb	13:23:22
1	Sn 189.927†	11.8	10.1	0.6995	µg/L	0.6995	ppb	13:23:42
1	Ti 334.940†	676.1	-138.8	-0.1394	µg/L	-0.1394	ppb	13:23:22
1	Tl 190.801†	-128.9	-16.2	-2.2162	µg/L	-2.2162	ppb	13:23:42
1	U 409.014†	-290.7	-130.8	-8.2823	µg/L	-8.2823	ppb	13:23:22
1	V 292.402†	334.4	-84.8	-0.4449	µg/L	-0.4449	ppb	13:23:22
1	Zn 213.857†	588.1	92.2	0.5479	µg/L	0.5479	ppb	13:23:42
2	Sc RADIAL	136466.1	136466.1	97.4	%			13:22:20
2	Al 396.153Radial†	-51.5	25.6	5.3864	µg/L	5.3864	ppb	13:22:40
2	Ca 317.933Radial†	690.1	137.0	9.3304	µg/L	9.3304	ppb	13:22:40
2	Fe 238.204 Radial†	194.0	81.9	6.1145	µg/L	6.1145	ppb	13:22:40
2	K 766.490 Radial†	1714.5	266.3	105.52	µg/L	105.52	ppb	13:22:20
2	Mg 279.077 IEC†	156.6	-11.7	-5.4114	µg/L	-5.4114	ppb	13:22:40
2	Na 589.592 Radial†	1009.5	83.8	12.901	µg/L	12.901	ppb	13:22:20
2	Sr 421.552†	-151.7	48.8	0.1149	µg/L	0.1149	ppb	13:22:20
2	Sc 361.383	1782019.7	1782019.7	98.773	%			13:23:44
2	Y 371.029	1046998.5	1046998.5	99.026	%			13:23:44
2	Ag 328.068†	4298.3	-213.5	-0.8812	µg/L	-0.8812	ppb	13:23:47
2	As 188.979†	-7.3	11.2	3.7928	µg/L	3.7928	ppb	13:24:07
2	B 249.677†	4202.2	189.2	2.9424	µg/L	2.9424	ppb	13:23:47
2	Ba 233.527†	-153.9	-11.3	-0.0501	µg/L	-0.0501	ppb	13:24:07
2	Be 313.107†	-724.1	358.6	0.1019	µg/L	0.1019	ppb	13:23:47
2	Cd 226.502†	-57.2	45.5	0.3068	µg/L	0.3068	ppb	13:24:07
2	Co 228.616†	-193.9	14.0	0.1851	µg/L	0.1851	ppb	13:24:07
2	Cr 267.716†	283.6	53.9	0.4715	µg/L	0.4715	ppb	13:24:07
2	Cu 324.752†	2861.1	-139.5	-0.5881	µg/L	-0.5881	ppb	13:23:47
2	Mn 257.610†	304.8	123.9	0.1645	µg/L	0.1645	ppb	13:24:07
2	Mo 202.031†	-31.6	6.5	0.2141	µg/L	0.2141	ppb	13:24:07
2	Ni 231.604†	-54.3	41.0	0.5126	µg/L	0.5126	ppb	13:24:07
2	P 214.914†	3.2	28.9	6.6884	µg/L	6.6884	ppb	13:24:07
2	Pb 220.353†	117.1	15.1	0.9372	µg/L	0.9372	ppb	13:24:07

2	S 181.975 Axial†	101.7	14.1	11.829 µg/L	11.829 ppb	13:24:07
2	Sb 206.836†	78.2	-10.5	-1.3618 µg/L	-1.3618 ppb	13:24:07
2	Se 196.026†	18.6	12.6	4.97 µg/L	4.97 ppb	13:24:07
2	SiO2†	1894.3	178.7	18.911 µg/L	18.911 ppb	13:24:07
2	Si 251.611†	1331.3	580.8	9.1530 µg/L	9.1530 ppb	13:23:47
2	Sn 189.927†	8.7	6.9	0.4812 µg/L	0.4812 ppb	13:24:07
2	Ti 334.940†	731.4	-82.6	-0.0816 µg/L	-0.0816 ppb	13:23:47
2	Tl 190.801†	-109.0	4.0	0.5399 µg/L	0.5399 ppb	13:24:07
2	U 409.014†	-264.9	-104.9	-6.6122 µg/L	-6.6122 ppb	13:23:47
2	V 292.402†	436.0	18.2	0.0935 µg/L	0.0935 ppb	13:23:47
2	Zn 213.857†	590.3	94.6	0.5614 µg/L	0.5614 ppb	13:24:07
3	Sc RADIAL	137955.3	137955.3	98.5 %		13:22:42
3	Al 396.153Radial†	-70.3	7.2	1.4865 µg/L	1.4865 ppb	13:23:02
3	Ca 317.933Radial†	685.5	124.6	8.4893 µg/L	8.4893 ppb	13:23:02
3	Fe 238.204 Radial†	230.4	116.7	8.7157 µg/L	8.7157 ppb	13:23:02
3	K 766.490 Radial†	1451.8	-19.5	-7.7271 µg/L	-7.7271 ppb	13:22:42
3	Mg 279.077 IEC†	174.1	4.3	2.0013 µg/L	2.0013 ppb	13:23:02
3	Na 589.592 Radial†	1037.1	100.7	15.611 µg/L	15.611 ppb	13:22:42
3	Sr 421.552†	-254.5	-54.0	-0.1273 µg/L	-0.1273 ppb	13:22:42
3	Sc 361.383	1782300.1	1782300.1	98.789 %		13:24:09
3	Y 371.029	1047376.2	1047376.2	99.062 %		13:24:09
3	Ag 328.068†	4223.0	-290.4	-1.2135 µg/L	-1.2135 ppb	13:24:11
3	As 188.979†	-17.7	0.6	0.2088 µg/L	0.2088 ppb	13:24:31
3	B 249.677†	4033.8	18.1	0.2811 µg/L	0.2811 ppb	13:24:11
3	Ba 233.527†	-156.8	-14.2	-0.0638 µg/L	-0.0638 ppb	13:24:31
3	Be 313.107†	-613.6	470.6	0.1332 µg/L	0.1332 ppb	13:24:11
3	Cd 226.502†	-76.8	25.6	0.1726 µg/L	0.1726 ppb	13:24:31
3	Co 228.616†	-205.6	2.2	0.0282 µg/L	0.0282 ppb	13:24:31
3	Cr 267.716†	280.8	51.0	0.4490 µg/L	0.4490 ppb	13:24:31
3	Cu 324.752†	2839.1	-162.2	-0.6856 µg/L	-0.6856 ppb	13:24:11
3	Mn 257.610†	230.8	49.0	0.0648 µg/L	0.0648 ppb	13:24:31
3	Mo 202.031†	-22.6	15.7	0.5131 µg/L	0.5131 ppb	13:24:31
3	Ni 231.604†	-61.1	34.0	0.4255 µg/L	0.4255 ppb	13:24:31
3	P 214.914†	10.7	36.5	8.4493 µg/L	8.4493 ppb	13:24:31
3	Pb 220.353†	119.2	17.2	1.0651 µg/L	1.0651 ppb	13:24:31
3	S 181.975 Axial†	88.3	0.5	0.4233 µg/L	0.4233 ppb	13:24:31
3	Sb 206.836†	75.7	-13.1	-1.6875 µg/L	-1.6875 ppb	13:24:31
3	Se 196.026†	28.9	23.1	9.09 µg/L	9.09 ppb	13:24:31
3	SiO2†	1947.0	231.8	24.527 µg/L	24.527 ppb	13:24:31
3	Si 251.611†	1312.9	562.0	8.8525 µg/L	8.8525 ppb	13:24:11
3	Sn 189.927†	6.2	4.4	0.3051 µg/L	0.3051 ppb	13:24:31
3	Ti 334.940†	636.8	-178.4	-0.1791 µg/L	-0.1791 ppb	13:24:11
3	Tl 190.801†	-114.6	-1.7	-0.2417 µg/L	-0.2417 ppb	13:24:31
3	U 409.014†	-323.8	-164.4	-10.433 µg/L	-10.433 ppb	13:24:11
3	V 292.402†	230.1	-190.3	-0.9870 µg/L	-0.9870 ppb	13:24:11
3	Zn 213.857†	593.7	98.0	0.5817 µg/L	0.5817 ppb	13:24:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1782380.1	98.793	%	0.0225				0.02%
Sc RADIAL	136929.1	97.7	%	0.64				0.65%
Y 371.029	1047095.0	99.035	%	0.0234				0.02%
Ag 328.068†	-203.3	-0.8480	µg/L	0.38329	-0.8480	ppb	0.38329	45.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.4	2.6020	µg/L	2.42724	2.6020	ppb	2.42724	93.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.0288	µg/L	2.45877	1.0288	ppb	2.45877	238.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	88.1	1.3690	µg/L	1.39550	1.3690	ppb	1.39550	101.94%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.8	-0.0039	µg/L	0.09218	-0.0039	ppb	0.09218	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	343.7	0.0970	µg/L	0.03883	0.0970	ppb	0.03883	40.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	140.0	9.5354	µg/L	1.16212	9.5354	ppb	1.16212	12.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	29.0	0.1957	µg/L	0.10147	0.1957	ppb	0.10147	51.84%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.2	0.1351	µg/L	0.09266	0.1351	ppb	0.09266	68.56%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              35.5      0.3137 µg/L       0.25407      0.3137 ppb        0.25407  80.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -118.0     -0.4995 µg/L       0.24283     -0.4995 ppb        0.24283  48.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       90.7      6.7714 µg/L       1.71300      6.7714 ppb        1.71300  25.30%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        96.8     38.335 µg/L       59.5038     38.335 ppb        59.5038 155.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.6      0.7465 µg/L       5.63634      0.7465 ppb        5.63634 755.00%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              80.1      0.1062 µg/L       0.05193      0.1062 ppb        0.05193  48.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               8.0      0.2628 µg/L       0.22982      0.2628 ppb        0.22982  87.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      168.1     26.030 µg/L       20.4379     26.030 ppb        20.4379  78.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              32.8      0.4108 µg/L       0.10989      0.4108 ppb        0.10989  26.75%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               31.2      7.2172 µg/L       1.07061      7.2172 ppb        1.07061  14.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              11.5      0.7163 µg/L       0.49748      0.7163 ppb        0.49748  69.45%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          9.6      8.0489 µg/L       6.60400      8.0489 ppb        6.60400  82.05%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -9.8     -1.2650 µg/L       0.47821     -1.2650 ppb        0.47821  37.80%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              17.4        6.83 µg/L         2.087        6.83 ppb          2.087  30.55%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   183.4     19.412 µg/L        4.8846     19.412 ppb         4.8846  25.16%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             547.8      8.6321 µg/L       0.65940      8.6321 ppb        0.65940   7.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.1      0.4953 µg/L       0.19755      0.4953 ppb        0.19755  39.89%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              17.7      0.0416 µg/L       0.14674      0.0416 ppb        0.14674 352.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -133.3     -0.1333 µg/L       0.04905     -0.1333 ppb        0.04905  36.79%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -4.6     -0.6393 µg/L       1.42042     -0.6393 ppb        1.42042 222.17%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -133.4     -8.4424 µg/L       1.91529     -8.4424 ppb        1.91529  22.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -85.7     -0.4461 µg/L       0.54029     -0.4461 ppb        0.54029 121.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              94.9      0.5636 µg/L       0.01701      0.5636 ppb        0.01701   3.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 13:42:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138868.1	138868.1	99.1	%			13:42:40
1	Al 396.153Radial†	23487.6	23773.3	4981.5	µg/L	4981.5	ppb	13:42:40
1	Ca 317.933Radial†	75424.0	75517.8	5143.4	µg/L	5143.4	ppb	13:42:40
1	Fe 238.204 Radial†	67898.0	68379.6	5106.5	µg/L	5106.5	ppb	13:42:40
1	K 766.490 Radial†	14175.3	12806.5	5070.4	µg/L	5070.4	ppb	13:42:40
1	Mg 279.077 IEC†	11283.4	11210.5	5184.4	µg/L	5184.4	ppb	13:42:40
1	Na 589.592 Radial†	65456.3	65081.1	10084	µg/L	10084	ppb	13:42:40
1	Sr 421.552†	210429.2	212489.7	501.11	µg/L	501.11	ppb	13:42:38
1	Sc 361.383	1775893.4	1775893.4	98.434	%			13:42:53
1	Y 371.029	1031368.5	1031368.5	97.548	%			13:42:53
1	Ag 328.068†	125135.3	122561.4	508.05	µg/L	508.05	ppb	13:42:53
1	As 188.979†	1378.8	1419.3	487.41	µg/L	487.41	ppb	13:43:13
1	B 249.677†	35663.8	32166.2	498.47	µg/L	498.47	ppb	13:42:53
1	Ba 233.527†	111225.1	113139.5	503.30	µg/L	503.30	ppb	13:42:53
1	Be 313.107†	1681396.6	1709244.1	495.27	µg/L	495.27	ppb	13:42:53
1	Cd 226.502†	74013.1	75294.2	508.58	µg/L	508.58	ppb	13:42:53
1	Co 228.616†	37812.5	38624.5	511.24	µg/L	511.24	ppb	13:42:53
1	Cr 267.716†	57862.3	58549.8	506.38	µg/L	506.38	ppb	13:42:53
1	Cu 324.752†	121487.7	120384.8	505.12	µg/L	505.12	ppb	13:42:53
1	Mn 257.610†	375718.7	381512.7	505.88	µg/L	505.88	ppb	13:42:53
1	Mo 202.031†	15276.5	15558.2	509.28	µg/L	509.28	ppb	13:43:13
1	Ni 231.604†	40071.0	40804.5	510.52	µg/L	510.52	ppb	13:42:53
1	P 214.914†	10828.2	11026.2	2541.9	µg/L	2541.9	ppb	13:43:13
1	Pb 220.353†	8330.9	8360.0	516.03	µg/L	516.03	ppb	13:43:13
1	S 181.975 Axial†	1291.9	1223.5	1033.6	µg/L	1033.6	ppb	13:43:13
1	Sb 206.836†	3958.8	3932.1	508.21	µg/L	508.21	ppb	13:43:13
1	Se 196.026†	1291.6	1306.0	517	µg/L	517	ppb	13:43:13
1	SiO2†	51494.3	50574.7	5334.0	µg/L	5334.0	ppb	13:42:53
1	Si 251.611†	157845.4	159590.1	2506.4	µg/L	2506.4	ppb	13:42:53
1	Sn 189.927†	7135.5	7247.2	504.38	µg/L	504.38	ppb	13:43:13
1	Ti 334.940†	481989.7	488836.5	501.42	µg/L	501.42	ppb	13:42:53
1	Tl 190.801†	3553.5	3724.4	516.11	µg/L	516.11	ppb	13:43:13
1	U 409.014†	7425.5	7707.1	517.12	µg/L	517.12	ppb	13:42:53
1	V 292.402†	96145.0	97251.7	510.81	µg/L	510.81	ppb	13:42:53
1	Zn 213.857†	84509.4	85351.2	505.67	µg/L	505.67	ppb	13:42:53
2	Sc RADIAL	139612.3	139612.3	99.7	%			13:42:44
2	Al 396.153Radial†	23648.5	23808.4	4989.0	µg/L	4989.0	ppb	13:42:44
2	Ca 317.933Radial†	75832.6	75522.2	5143.7	µg/L	5143.7	ppb	13:42:44
2	Fe 238.204 Radial†	68267.1	68384.9	5106.9	µg/L	5106.9	ppb	13:42:44
2	K 766.490 Radial†	14437.4	12993.3	5144.4	µg/L	5144.4	ppb	13:42:44
2	Mg 279.077 IEC†	11292.1	11158.5	5160.3	µg/L	5160.3	ppb	13:42:44
2	Na 589.592 Radial†	66006.1	65280.9	10114	µg/L	10114	ppb	13:42:44
2	Sr 421.552†	211606.2	212539.3	501.23	µg/L	501.23	ppb	13:42:42
2	Sc 361.383	1781666.4	1781666.4	98.754	%			13:43:16
2	Y 371.029	1034665.0	1034665.0	97.859	%			13:43:16
2	Ag 328.068†	125593.0	122613.0	508.25	µg/L	508.25	ppb	13:43:16
2	As 188.979†	1355.4	1391.1	477.86	µg/L	477.86	ppb	13:43:36
2	B 249.677†	35931.1	32319.5	500.85	µg/L	500.85	ppb	13:43:16
2	Ba 233.527†	111616.5	113169.7	503.44	µg/L	503.44	ppb	13:43:16
2	Be 313.107†	1689593.4	1712009.4	496.07	µg/L	496.07	ppb	13:43:16
2	Cd 226.502†	74469.7	75512.9	510.06	µg/L	510.06	ppb	13:43:16
2	Co 228.616†	37976.5	38666.1	511.79	µg/L	511.79	ppb	13:43:16
2	Cr 267.716†	57992.2	58490.9	505.88	µg/L	505.88	ppb	13:43:16
2	Cu 324.752†	121899.7	120402.1	505.18	µg/L	505.18	ppb	13:43:16
2	Mn 257.610†	377710.0	382292.4	506.91	µg/L	506.91	ppb	13:43:16
2	Mo 202.031†	15274.2	15505.5	507.56	µg/L	507.56	ppb	13:43:36
2	Ni 231.604†	40181.7	40784.8	510.27	µg/L	510.27	ppb	13:43:16
2	P 214.914†	10770.6	10932.3	2520.2	µg/L	2520.2	ppb	13:43:36
2	Pb 220.353†	8298.0	8299.3	512.30	µg/L	512.30	ppb	13:43:36

2	S 181.975 Axial†	1286.7	1214.1	1025.6 µg/L	1025.6 ppb	13:43:36
2	Sb 206.836†	3944.3	3904.4	504.62 µg/L	504.62 ppb	13:43:36
2	Se 196.026†	1273.9	1283.8	508 µg/L	508 ppb	13:43:36
2	SiO2†	51901.4	50817.4	5359.8 µg/L	5359.8 ppb	13:43:16
2	Si 251.611†	158596.2	159830.8	2510.3 µg/L	2510.3 ppb	13:43:16
2	Sn 189.927†	7127.6	7215.7	502.20 µg/L	502.20 ppb	13:43:36
2	Ti 334.940†	484094.0	489380.7	501.98 µg/L	501.98 ppb	13:43:16
2	Tl 190.801†	3543.0	3702.0	513.05 µg/L	513.05 ppb	13:43:36
2	U 409.014†	7333.4	7589.3	509.66 µg/L	509.66 ppb	13:43:16
2	V 292.402†	96333.2	97125.7	510.14 µg/L	510.14 ppb	13:43:16
2	Zn 213.857†	85170.2	85742.2	508.01 µg/L	508.01 ppb	13:43:16
3	Sc RADIAL	136976.7	136976.7	97.8 %		13:42:48
3	Al 396.153Radial†	23312.1	23921.0	5012.7 µg/L	5012.7 ppb	13:42:48
3	Ca 317.933Radial†	74113.5	75228.2	5123.7 µg/L	5123.7 ppb	13:42:48
3	Fe 238.204 Radial†	66715.2	68115.7	5086.8 µg/L	5086.8 ppb	13:42:48
3	K 766.490 Radial†	13997.4	12822.0	5076.5 µg/L	5076.5 ppb	13:42:48
3	Mg 279.077 IEC†	11063.2	11142.5	5152.9 µg/L	5152.9 ppb	13:42:48
3	Na 589.592 Radial†	64548.4	65064.4	10081 µg/L	10081 ppb	13:42:48
3	Sr 421.552†	209597.9	214570.8	506.02 µg/L	506.02 ppb	13:42:46
3	Sc 361.383	1785664.6	1785664.6	98.975 %		13:43:39
3	Y 371.029	1036641.5	1036641.5	98.046 %		13:43:39
3	Ag 328.068†	125968.4	122707.5	508.62 µg/L	508.62 ppb	13:43:39
3	As 188.979†	1360.8	1393.5	478.69 µg/L	478.69 ppb	13:43:59
3	B 249.677†	36252.1	32562.3	504.62 µg/L	504.62 ppb	13:43:39
3	Ba 233.527†	111992.7	113296.8	504.00 µg/L	504.00 ppb	13:43:39
3	Be 313.107†	1692953.9	1711573.9	495.94 µg/L	495.94 ppb	13:43:39
3	Cd 226.502†	74912.6	75791.6	511.94 µg/L	511.94 ppb	13:43:39
3	Co 228.616†	38083.8	38688.4	512.09 µg/L	512.09 ppb	13:43:39
3	Cr 267.716†	58350.7	58721.7	507.89 µg/L	507.89 ppb	13:43:39
3	Cu 324.752†	122386.3	120617.3	506.06 µg/L	506.06 ppb	13:43:39
3	Mn 257.610†	378964.0	382703.0	507.46 µg/L	507.46 ppb	13:43:39
3	Mo 202.031†	15289.5	15486.4	506.93 µg/L	506.93 ppb	13:43:59
3	Ni 231.604†	40287.6	40800.6	510.47 µg/L	510.47 ppb	13:43:39
3	P 214.914†	10789.0	10926.4	2518.8 µg/L	2518.8 ppb	13:43:59
3	Pb 220.353†	8306.9	8289.4	511.70 µg/L	511.70 ppb	13:43:59
3	S 181.975 Axial†	1274.4	1198.7	1012.7 µg/L	1012.7 ppb	13:43:59
3	Sb 206.836†	3942.3	3893.4	503.16 µg/L	503.16 ppb	13:43:59
3	Se 196.026†	1281.3	1288.4	510 µg/L	510 ppb	13:43:59
3	SiO2†	52125.0	50925.6	5371.2 µg/L	5371.2 ppb	13:43:39
3	Si 251.611†	159485.5	160369.7	2518.8 µg/L	2518.8 ppb	13:43:39
3	Sn 189.927†	7145.8	7217.9	502.35 µg/L	502.35 ppb	13:43:59
3	Ti 334.940†	484735.9	488931.6	501.53 µg/L	501.53 ppb	13:43:39
3	Tl 190.801†	3526.0	3676.8	509.62 µg/L	509.62 ppb	13:43:59
3	U 409.014†	7048.5	7284.9	490.50 µg/L	490.50 ppb	13:43:39
3	V 292.402†	96713.4	97291.5	510.99 µg/L	510.99 ppb	13:43:39
3	Zn 213.857†	85201.1	85580.3	507.04 µg/L	507.04 ppb	13:43:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1781074.8	98.721	%	0.2723				0.28%
Sc RADIAL	138485.7	98.9	%	0.97				0.98%
Y 371.029	1034225.0	97.818	%	0.2520				0.26%
Ag 328.068†	122627.3	508.31	µg/L	0.289	508.31	ppb	0.289	0.06%
QC value within limits for Ag 328.068 Recovery = 101.66%								
Al 396.153Radial†	23834.3	4994.4	µg/L	16.29	4994.4	ppb	16.29	0.33%
QC value within limits for Al 396.153Radial Recovery = 99.89%								
As 188.979†	1401.3	481.32	µg/L	5.288	481.32	ppb	5.288	1.10%
QC value within limits for As 188.979 Recovery = 96.26%								
B 249.677†	32349.3	501.31	µg/L	3.105	501.31	ppb	3.105	0.62%
QC value within limits for B 249.677 Recovery = 100.26%								
Ba 233.527†	113202.0	503.58	µg/L	0.371	503.58	ppb	0.371	0.07%
QC value within limits for Ba 233.527 Recovery = 100.72%								
Be 313.107†	1710942.5	495.76	µg/L	0.428	495.76	ppb	0.428	0.09%
QC value within limits for Be 313.107 Recovery = 99.15%								
Ca 317.933Radial†	75422.7	5137.0	µg/L	11.48	5137.0	ppb	11.48	0.22%
QC value within limits for Ca 317.933Radial Recovery = 102.74%								
Cd 226.502†	75532.9	510.19	µg/L	1.686	510.19	ppb	1.686	0.33%
QC value within limits for Cd 226.502 Recovery = 102.04%								
Co 228.616†	38659.7	511.70	µg/L	0.430	511.70	ppb	0.430	0.08%

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   QC value within limits for Co 228.616  Recovery = 102.34%
Cr 267.716†            58587.5      506.72 µg/L         1.047      506.72 ppb          1.047   0.21%
   QC value within limits for Cr 267.716  Recovery = 101.34%
Cu 324.752†           120468.1      505.45 µg/L         0.529      505.45 ppb          0.529   0.10%
   QC value within limits for Cu 324.752  Recovery = 101.09%
Fe 238.204 Radial†     68293.4      5100.1 µg/L         11.50      5100.1 ppb          11.50   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.00%
K 766.490 Radial†      12874.0      5097.1 µg/L         41.07      5097.1 ppb          41.07   0.81%
   QC value within limits for K 766.490 Radial  Recovery = 101.94%
Mg 279.077 IEC†        11170.5      5165.9 µg/L         16.44      5165.9 ppb          16.44   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.32%
Mn 257.610†           382169.4      506.75 µg/L         0.803      506.75 ppb          0.803   0.16%
   QC value within limits for Mn 257.610  Recovery = 101.35%
Mo 202.031†            15516.7      507.92 µg/L         1.216      507.92 ppb          1.216   0.24%
   QC value within limits for Mo 202.031  Recovery = 101.58%
Na 589.592 Radial†     65142.1       10093 µg/L          18.6       10093 ppb           18.6   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 100.93%
Ni 231.604†            40796.6      510.42 µg/L         0.131      510.42 ppb          0.131   0.03%
   QC value within limits for Ni 231.604  Recovery = 102.08%
P 214.914†             10961.6      2527.0 µg/L         12.95      2527.0 ppb          12.95   0.51%
   QC value within limits for P 214.914  Recovery = 101.08%
Pb 220.353†             8316.2      513.34 µg/L         2.346      513.34 ppb          2.346   0.46%
   QC value within limits for Pb 220.353  Recovery = 102.67%
S 181.975 Axial†        1212.1      1024.0 µg/L         10.53      1024.0 ppb          10.53   1.03%
   QC value within limits for S 181.975 Axial  Recovery = 102.40%
Sb 206.836†             3910.0      505.33 µg/L         2.599      505.33 ppb          2.599   0.51%
   QC value within limits for Sb 206.836  Recovery = 101.07%
Se 196.026†             1292.7         512 µg/L           4.6         512 ppb            4.6   0.91%
   QC value within limits for Se 196.026  Recovery = 102.31%
SiO2†                  50772.5      5355.0 µg/L         19.08      5355.0 ppb          19.08   0.36%
   QC value within limits for SiO2  Recovery = 100.14%
Si 251.611†           159930.2      2511.8 µg/L          6.31      2511.8 ppb           6.31   0.25%
   QC value within limits for Si 251.611  Recovery = 100.47%
Sn 189.927†             7226.9      502.98 µg/L         1.219      502.98 ppb          1.219   0.24%
   QC value within limits for Sn 189.927  Recovery = 100.60%
Sr 421.552†           213199.9      502.78 µg/L         2.801      502.78 ppb          2.801   0.56%
   QC value within limits for Sr 421.552  Recovery = 100.56%
Ti 334.940†           489049.6      501.64 µg/L         0.299      501.64 ppb          0.299   0.06%
   QC value within limits for Ti 334.940  Recovery = 100.33%
Tl 190.801†             3701.1      512.93 µg/L         3.248      512.93 ppb          3.248   0.63%
   QC value within limits for Tl 190.801  Recovery = 102.59%
U 409.014†              7527.1      505.76 µg/L        13.731      505.76 ppb         13.731   2.71%
   QC value within limits for U 409.014  Recovery = 101.15%
V 292.402†             97223.0      510.65 µg/L         0.450      510.65 ppb          0.450   0.09%
   QC value within limits for V 292.402  Recovery = 102.13%
Zn 213.857†            85557.9      506.91 µg/L         1.174      506.91 ppb          1.174   0.23%
   QC value within limits for Zn 213.857  Recovery = 101.38%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 13:44:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139226.4	139226.4	99.4	%			13:44:36
1	Al 396.153Radial†	-51.0	27.3	5.7217	µg/L	5.7217	ppb	13:44:56
1	Ca 317.933Radial†	696.1	129.0	8.7832	µg/L	8.7832	ppb	13:44:56
1	Fe 238.204 Radial†	190.7	74.6	5.5725	µg/L	5.5725	ppb	13:44:56
1	K 766.490 Radial†	1559.2	75.1	29.754	µg/L	29.754	ppb	13:44:36
1	Mg 279.077 IEC†	174.5	3.2	1.4746	µg/L	1.4746	ppb	13:44:56
1	Na 589.592 Radial†	1053.6	107.6	16.657	µg/L	16.657	ppb	13:44:36
1	Sr 421.552†	-234.3	-31.3	-0.0738	µg/L	-0.0738	ppb	13:44:36
1	Sc 361.383	1819640.9	1819640.9	100.86	%			13:45:44
1	Y 371.029	1068349.2	1068349.2	101.05	%			13:45:44
1	Ag 328.068†	4263.6	-337.9	-1.3898	µg/L	-1.3898	ppb	13:45:46
1	As 188.979†	-12.2	6.4	2.1762	µg/L	2.1762	ppb	13:46:06
1	B 249.677†	4095.1	-4.9	-0.0766	µg/L	-0.0766	ppb	13:45:46
1	Ba 233.527†	-142.3	3.4	0.0151	µg/L	0.0151	ppb	13:46:06
1	Be 313.107†	-394.6	700.5	0.2020	µg/L	0.2020	ppb	13:45:46
1	Cd 226.502†	-62.4	41.5	0.2802	µg/L	0.2802	ppb	13:46:06
1	Co 228.616†	-196.0	15.9	0.2104	µg/L	0.2104	ppb	13:46:06
1	Cr 267.716†	280.0	44.4	0.3870	µg/L	0.3870	ppb	13:46:06
1	Cu 324.752†	2971.8	-89.6	-0.3764	µg/L	-0.3764	ppb	13:45:46
1	Mn 257.610†	366.6	178.8	0.2371	µg/L	0.2371	ppb	13:46:06
1	Mo 202.031†	-27.1	11.7	0.3815	µg/L	0.3815	ppb	13:46:06
1	Ni 231.604†	-82.9	13.7	0.1718	µg/L	0.1718	ppb	13:46:06
1	P 214.914†	3.4	29.1	6.7214	µg/L	6.7214	ppb	13:46:06
1	Pb 220.353†	138.4	33.8	2.0844	µg/L	2.0844	ppb	13:46:06
1	S 181.975 Axial†	94.0	4.3	3.5941	µg/L	3.5941	ppb	13:46:06
1	Sb 206.836†	85.1	-5.3	-0.6907	µg/L	-0.6907	ppb	13:46:06
1	Se 196.026†	32.1	25.7	10.1	µg/L	10.1	ppb	13:46:06
1	SiO2†	1842.8	88.0	9.3085	µg/L	9.3085	ppb	13:46:06
1	Si 251.611†	996.9	221.4	3.4871	µg/L	3.4871	ppb	13:45:46
1	Sn 189.927†	-1.5	-3.4	-0.2330	µg/L	-0.2330	ppb	13:46:06
1	Ti 334.940†	1034.4	202.6	0.2093	µg/L	0.2093	ppb	13:45:46
1	Tl 190.801†	-117.8	-2.5	-0.3444	µg/L	-0.3444	ppb	13:46:06
1	U 409.014†	-215.4	-50.2	-3.1830	µg/L	-3.1830	ppb	13:45:46
1	V 292.402†	385.2	-41.3	-0.2113	µg/L	-0.2113	ppb	13:45:46
1	Zn 213.857†	650.8	142.2	0.8481	µg/L	0.8481	ppb	13:46:06
2	Sc RADIAL	138385.9	138385.9	98.8	%			13:44:58
2	Al 396.153Radial†	-38.8	39.3	8.2507	µg/L	8.2507	ppb	13:45:18
2	Ca 317.933Radial†	696.7	133.8	9.1147	µg/L	9.1147	ppb	13:45:18
2	Fe 238.204 Radial†	164.2	49.0	3.6558	µg/L	3.6558	ppb	13:45:18
2	K 766.490 Radial†	1544.7	70.0	27.726	µg/L	27.726	ppb	13:44:58
2	Mg 279.077 IEC†	172.3	2.0	0.9360	µg/L	0.9360	ppb	13:45:18
2	Na 589.592 Radial†	1096.0	157.0	24.315	µg/L	24.315	ppb	13:44:58
2	Sr 421.552†	-154.1	48.4	0.1142	µg/L	0.1142	ppb	13:44:58
2	Sc 361.383	1771732.9	1771732.9	98.203	%			13:46:08
2	Y 371.029	1041172.2	1041172.2	98.475	%			13:46:08
2	Ag 328.068†	4132.7	-356.8	-1.4850	µg/L	-1.4850	ppb	13:46:11
2	As 188.979†	-12.4	5.9	1.9960	µg/L	1.9960	ppb	13:46:31
2	B 249.677†	4083.0	92.6	1.4401	µg/L	1.4401	ppb	13:46:11
2	Ba 233.527†	-132.8	9.3	0.0414	µg/L	0.0414	ppb	13:46:31
2	Be 313.107†	-720.5	358.1	0.0973	µg/L	0.0973	ppb	13:46:11
2	Cd 226.502†	-73.4	28.6	0.1936	µg/L	0.1936	ppb	13:46:31
2	Co 228.616†	-203.4	3.2	0.0419	µg/L	0.0419	ppb	13:46:31
2	Cr 267.716†	255.0	26.5	0.2460	µg/L	0.2460	ppb	13:46:31
2	Cu 324.752†	2857.4	-126.5	-0.5460	µg/L	-0.5460	ppb	13:46:11
2	Mn 257.610†	231.1	50.7	0.0671	µg/L	0.0671	ppb	13:46:31
2	Mo 202.031†	-27.9	10.2	0.3337	µg/L	0.3337	ppb	13:46:31
2	Ni 231.604†	-29.5	65.9	0.8242	µg/L	0.8242	ppb	13:46:31
2	P 214.914†	24.4	50.5	11.690	µg/L	11.690	ppb	13:46:31
2	Pb 220.353†	105.7	4.2	0.2732	µg/L	0.2732	ppb	13:46:31

2	S 181.975 Axial†	88.8	1.5	1.2436 µg/L	1.2436 ppb		13:46:31
2	Sb 206.836†	75.0	-13.3	-1.7160 µg/L	-1.7160 ppb		13:46:31
2	Se 196.026†	19.1	13.2	5.20 µg/L	5.20 ppb		13:46:31
2	SiO2†	1753.8	46.8	4.9409 µg/L	4.9409 ppb		13:46:31
2	Si 251.611†	1093.8	346.8	5.4607 µg/L	5.4607 ppb		13:46:11
2	Sn 189.927†	8.4	6.7	0.4611 µg/L	0.4611 ppb		13:46:31
2	Ti 334.940†	753.6	-55.6	-0.0483 µg/L	-0.0483 ppb		13:46:11
2	Tl 190.801†	-105.7	6.7	0.9108 µg/L	0.9108 ppb		13:46:31
2	U 409.014†	-492.0	-337.7	-21.300 µg/L	-21.300 ppb		13:46:11
2	V 292.402†	446.9	31.9	0.1551 µg/L	0.1551 ppb		13:46:11
2	Zn 213.857†	623.7	132.1	0.7836 µg/L	0.7836 ppb		13:46:31
3	Sc RADIAL	139322.9	139322.9	99.5 %			13:45:20
3	Al 396.153Radial†	-83.3	-5.2	-1.1167 µg/L	-1.1167 ppb		13:45:40
3	Ca 317.933Radial†	719.2	151.7	10.332 µg/L	10.332 ppb		13:45:40
3	Fe 238.204 Radial†	177.6	61.3	4.5744 µg/L	4.5744 ppb		13:45:40
3	K 766.490 Radial†	1647.6	162.9	64.558 µg/L	64.558 ppb		13:45:20
3	Mg 279.077 IEC†	171.1	-0.4	-0.1669 µg/L	-0.1669 ppb		13:45:40
3	Na 589.592 Radial†	1163.3	217.2	33.612 µg/L	33.612 ppb		13:45:20
3	Sr 421.552†	-240.9	-37.7	-0.0890 µg/L	-0.0890 ppb		13:45:20
3	Sc 361.383	1757944.0	1757944.0	97.439 %			13:46:33
3	Y 371.029	1032464.3	1032464.3	97.651 %			13:46:33
3	Ag 328.068†	4147.0	-309.1	-1.2649 µg/L	-1.2649 ppb		13:46:35
3	As 188.979†	-16.2	2.0	0.6713 µg/L	0.6713 ppb		13:46:55
3	B 249.677†	4056.4	97.9	1.5216 µg/L	1.5216 ppb		13:46:35
3	Ba 233.527†	-147.1	-6.4	-0.0283 µg/L	-0.0283 ppb		13:46:55
3	Be 313.107†	-852.9	216.4	0.0628 µg/L	0.0628 ppb		13:46:35
3	Cd 226.502†	-99.0	1.8	0.0118 µg/L	0.0118 ppb		13:46:55
3	Co 228.616†	-185.8	19.6	0.2591 µg/L	0.2591 ppb		13:46:55
3	Cr 267.716†	282.6	56.8	0.4914 µg/L	0.4914 ppb		13:46:55
3	Cu 324.752†	2854.6	-106.5	-0.4443 µg/L	-0.4443 ppb		13:46:35
3	Mn 257.610†	372.3	197.4	0.2618 µg/L	0.2618 ppb		13:46:55
3	Mo 202.031†	-26.7	11.1	0.3643 µg/L	0.3643 ppb		13:46:55
3	Ni 231.604†	-49.6	45.0	0.5632 µg/L	0.5632 ppb		13:46:55
3	P 214.914†	-3.8	21.8	5.0402 µg/L	5.0402 ppb		13:46:55
3	Pb 220.353†	94.5	-6.5	-0.3967 µg/L	-0.3967 ppb		13:46:55
3	S 181.975 Axial†	97.8	11.5	9.6540 µg/L	9.6540 ppb		13:46:55
3	Sb 206.836†	68.1	-19.8	-2.5588 µg/L	-2.5588 ppb		13:46:55
3	Se 196.026†	11.5	5.6	2.23 µg/L	2.23 ppb		13:46:55
3	SiO2†	1811.7	120.2	12.718 µg/L	12.718 ppb		13:46:55
3	Si 251.611†	1099.6	361.4	5.6949 µg/L	5.6949 ppb		13:46:35
3	Sn 189.927†	1.3	-0.5	-0.0360 µg/L	-0.0360 ppb		13:46:55
3	Ti 334.940†	685.2	-119.8	-0.1230 µg/L	-0.1230 ppb		13:46:35
3	Tl 190.801†	-115.2	-4.0	-0.5460 µg/L	-0.5460 ppb		13:46:55
3	U 409.014†	-153.1	6.3	0.3983 µg/L	0.3983 ppb		13:46:35
3	V 292.402†	417.2	5.0	0.0315 µg/L	0.0315 ppb		13:46:35
3	Zn 213.857†	604.9	117.8	0.6996 µg/L	0.6996 ppb		13:46:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783105.9	98.833	%	1.7949				1.82%
Sc RADIAL	138978.4	99.2	%	0.37				0.37%
Y 371.029	1047328.6	99.057	%	1.7703				1.79%
Ag 328.068†	-334.6	-1.3799	µg/L	0.11039	-1.3799	ppb	0.11039	8.00%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	20.4	4.2852	µg/L	4.84606	4.2852	ppb	4.84606	113.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.8	1.6145	µg/L	0.82177	1.6145	ppb	0.82177	50.90%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	61.9	0.9617	µg/L	0.90009	0.9617	ppb	0.90009	93.59%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0094	µg/L	0.03520	0.0094	ppb	0.03520	373.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	425.0	0.1207	µg/L	0.07247	0.1207	ppb	0.07247	60.05%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	138.2	9.4101	µg/L	0.81571	9.4101	ppb	0.81571	8.67%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	24.0	0.1619	µg/L	0.13702	0.1619	ppb	0.13702	84.65%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.9	0.1705	µg/L	0.11396	0.1705	ppb	0.11396	66.85%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                42.6      0.3748 µg/L       0.12315      0.3748 ppb        0.12315  32.85%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -107.5     -0.4556 µg/L       0.08535     -0.4556 ppb        0.08535  18.73%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         61.6      4.6009 µg/L       0.95865      4.6009 ppb        0.95865  20.84%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         102.7     40.679 µg/L       20.7044     40.679 ppb        20.7044  50.90%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.6      0.7479 µg/L       0.83677      0.7479 ppb        0.83677 111.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               142.3      0.1887 µg/L       0.10597      0.1887 ppb        0.10597  56.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                11.0      0.3598 µg/L       0.02420      0.3598 ppb        0.02420   6.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        160.6     24.861 µg/L        8.4908     24.861 ppb         8.4908  34.15%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                41.5      0.5197 µg/L       0.32839      0.5197 ppb        0.32839  63.18%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 33.8      7.8172 µg/L       3.45772      7.8172 ppb        3.45772  44.23%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                10.5      0.6536 µg/L       1.28355      0.6536 ppb        1.28355 196.38%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.7      4.8306 µg/L       4.33939      4.8306 ppb        4.33939  89.83%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -12.8     -1.6552 µg/L       0.93557     -1.6552 ppb        0.93557  56.52%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                14.9       5.85 µg/L         3.985        5.85 ppb          3.985  68.14%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      85.0      8.9890 µg/L       3.89816      8.9890 ppb        3.89816  43.37%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               309.9      4.8809 µg/L       1.21272      4.8809 ppb        1.21272  24.85%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.9      0.0640 µg/L       0.35771      0.0640 ppb        0.35771 558.65%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -6.8     -0.0162 µg/L       0.11318     -0.0162 ppb        0.11318 697.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 9.1      0.0127 µg/L       0.17437      0.0127 ppb        0.17437 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.1      0.0068 µg/L       0.78935      0.0068 ppb        0.78935 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -127.2     -8.0284 µg/L      11.63259     -8.0284 ppb       11.63259 144.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -1.5     -0.0082 µg/L       0.18638     -0.0082 ppb        0.18638 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               130.7      0.7771 µg/L       0.07446      0.7771 ppb        0.07446   9.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 13:57:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	133703.0	133703.0	95.4	%			13:57:50
1	Al 396.153Radial†	22554.6	23711.1	4968.7	µg/L	4968.7	ppb	13:57:50
1	Ca 317.933Radial†	71572.3	74421.4	5068.8	µg/L	5068.8	ppb	13:57:50
1	Fe 238.204 Radial†	64614.0	67584.7	5047.2	µg/L	5047.2	ppb	13:57:50
1	K 766.490 Radial†	13703.0	12864.1	5093.2	µg/L	5093.2	ppb	13:57:50
1	Mg 279.077 IEC†	10634.0	10969.7	5073.1	µg/L	5073.1	ppb	13:57:50
1	Na 589.592 Radial†	62647.9	64689.5	10023	µg/L	10023	ppb	13:57:50
1	Sr 421.552†	204020.9	213976.0	504.62	µg/L	504.62	ppb	13:57:48
1	Sc 361.383	1743773.2	1743773.2	96.653	%			13:58:17
1	Y 371.029	1014215.8	1014215.8	95.925	%			13:58:17
1	Ag 328.068†	122275.7	121944.4	505.47	µg/L	505.47	ppb	13:58:17
1	As 188.979†	1308.4	1372.3	471.47	µg/L	471.47	ppb	13:58:37
1	B 249.677†	34648.9	31783.5	492.54	µg/L	492.54	ppb	13:58:17
1	Ba 233.527†	108512.8	112414.7	500.08	µg/L	500.08	ppb	13:58:17
1	Be 313.107†	1636416.4	1694170.4	490.90	µg/L	490.90	ppb	13:58:17
1	Cd 226.502†	71960.3	74555.4	503.59	µg/L	503.59	ppb	13:58:17
1	Co 228.616†	36701.4	38182.5	505.39	µg/L	505.39	ppb	13:58:17
1	Cr 267.716†	56620.4	58347.8	504.64	µg/L	504.64	ppb	13:58:17
1	Cu 324.752†	118678.8	119752.1	502.44	µg/L	502.44	ppb	13:58:17
1	Mn 257.610†	367167.6	379696.4	503.47	µg/L	503.47	ppb	13:58:17
1	Mo 202.031†	14791.7	15342.4	502.22	µg/L	502.22	ppb	13:58:37
1	Ni 231.604†	38977.5	40423.0	505.74	µg/L	505.74	ppb	13:58:17
1	P 214.914†	10359.5	10743.9	2476.6	µg/L	2476.6	ppb	13:58:37
1	Pb 220.353†	8017.2	8191.4	505.65	µg/L	505.65	ppb	13:58:37
1	S 181.975 Axial†	1223.5	1176.9	994.31	µg/L	994.31	ppb	13:58:37
1	Sb 206.836†	3797.9	3839.7	496.20	µg/L	496.20	ppb	13:58:37
1	Se 196.026†	1214.1	1250.0	495	µg/L	495	ppb	13:58:37
1	SiO2†	50299.0	50301.5	5305.4	µg/L	5305.4	ppb	13:58:17
1	Si 251.611†	153908.1	158470.3	2489.0	µg/L	2489.0	ppb	13:58:17
1	Sn 189.927†	6857.6	7093.2	493.69	µg/L	493.69	ppb	13:58:37
1	Ti 334.940†	471073.5	486561.9	499.09	µg/L	499.09	ppb	13:58:17
1	Tl 190.801†	3403.7	3635.8	503.99	µg/L	503.99	ppb	13:58:37
1	U 409.014†	7073.3	7481.6	502.67	µg/L	502.67	ppb	13:58:17
1	V 292.402†	93723.2	96545.2	507.07	µg/L	507.07	ppb	13:58:17
1	Zn 213.857†	82234.4	84578.9	501.10	µg/L	501.10	ppb	13:58:17
2	Sc RADIAL	134691.7	134691.7	96.1	%			13:57:54
2	Al 396.153Radial†	22697.4	23686.1	4963.4	µg/L	4963.4	ppb	13:57:54
2	Ca 317.933Radial†	72303.2	74631.1	5083.1	µg/L	5083.1	ppb	13:57:54
2	Fe 238.204 Radial†	64992.9	67481.9	5039.5	µg/L	5039.5	ppb	13:57:54
2	K 766.490 Radial†	13716.0	12772.2	5056.8	µg/L	5056.8	ppb	13:57:54
2	Mg 279.077 IEC†	10804.5	11065.3	5117.3	µg/L	5117.3	ppb	13:57:54
2	Na 589.592 Radial†	63263.3	64847.7	10047	µg/L	10047	ppb	13:57:54
2	Sr 421.552†	205498.8	213944.0	504.54	µg/L	504.54	ppb	13:57:52
2	Sc 361.383	1742582.1	1742582.1	96.587	%			13:58:40
2	Y 371.029	1013221.8	1013221.8	95.831	%			13:58:40
2	Ag 328.068†	122181.0	121932.9	505.40	µg/L	505.40	ppb	13:58:40
2	As 188.979†	1304.8	1369.5	470.51	µg/L	470.51	ppb	13:59:00
2	B 249.677†	34677.7	31837.8	493.37	µg/L	493.37	ppb	13:58:40
2	Ba 233.527†	108297.8	112268.9	499.43	µg/L	499.43	ppb	13:58:40
2	Be 313.107†	1631868.9	1690619.5	489.87	µg/L	489.87	ppb	13:58:40
2	Cd 226.502†	71599.4	74232.6	501.41	µg/L	501.41	ppb	13:58:40
2	Co 228.616†	36792.9	38303.2	506.99	µg/L	506.99	ppb	13:58:40
2	Cr 267.716†	56370.9	58129.4	502.76	µg/L	502.76	ppb	13:58:40
2	Cu 324.752†	118433.6	119582.1	501.73	µg/L	501.73	ppb	13:58:40
2	Mn 257.610†	366224.2	378979.3	502.52	µg/L	502.52	ppb	13:58:40
2	Mo 202.031†	14820.1	15382.3	503.52	µg/L	503.52	ppb	13:59:00
2	Ni 231.604†	38620.7	40081.2	501.47	µg/L	501.47	ppb	13:58:40
2	P 214.914†	10398.5	10791.6	2487.7	µg/L	2487.7	ppb	13:59:00
2	Pb 220.353†	8036.1	8216.6	507.21	µg/L	507.21	ppb	13:59:00

2	S 181.975 Axial†	1226.7	1181.2	997.92 µg/L	997.92 ppb	13:59:00
2	Sb 206.836†	3831.6	3877.3	501.10 µg/L	501.10 ppb	13:59:00
2	Se 196.026†	1231.1	1268.4	502 µg/L	502 ppb	13:59:00
2	SiO2†	50287.5	50325.2	5307.9 µg/L	5307.9 ppb	13:58:40
2	Si 251.611†	153946.6	158619.0	2491.3 µg/L	2491.3 ppb	13:58:40
2	Sn 189.927†	6883.9	7125.2	495.91 µg/L	495.91 ppb	13:59:00
2	Ti 334.940†	470431.4	486230.2	498.75 µg/L	498.75 ppb	13:58:40
2	Tl 190.801†	3432.7	3668.3	508.41 µg/L	508.41 ppb	13:59:00
2	U 409.014†	6980.0	7390.0	496.82 µg/L	496.82 ppb	13:58:40
2	V 292.402†	93426.2	96304.0	505.82 µg/L	505.82 ppb	13:58:40
2	Zn 213.857†	82093.8	84491.5	500.61 µg/L	500.61 ppb	13:58:40
3	Sc RADIAL	134130.1	134130.1	95.7 %		13:57:58
3	Al 396.153Radial†	22622.6	23706.8	4967.6 µg/L	4967.6 ppb	13:57:58
3	Ca 317.933Radial†	71792.8	74412.9	5068.2 µg/L	5068.2 ppb	13:57:58
3	Fe 238.204 Radial†	64808.3	67572.1	5046.2 µg/L	5046.2 ppb	13:57:58
3	K 766.490 Radial†	13921.3	13046.4	5165.5 µg/L	5165.5 ppb	13:57:58
3	Mg 279.077 IEC†	10554.7	10851.5	5018.6 µg/L	5018.6 ppb	13:57:58
3	Na 589.592 Radial†	63075.6	64927.2	10060 µg/L	10060 ppb	13:57:58
3	Sr 421.552†	203189.3	212426.8	500.96 µg/L	500.96 ppb	13:57:56
3	Sc 361.383	1726061.4	1726061.4	95.672 %		13:59:03
3	Y 371.029	1004355.7	1004355.7	94.993 %		13:59:03
3	Ag 328.068†	121072.6	121985.1	505.65 µg/L	505.65 ppb	13:59:03
3	As 188.979†	1299.5	1376.9	473.03 µg/L	473.03 ppb	13:59:23
3	B 249.677†	34411.0	31902.7	494.39 µg/L	494.39 ppb	13:59:03
3	Ba 233.527†	107291.4	112290.1	499.53 µg/L	499.53 ppb	13:59:03
3	Be 313.107†	1615885.3	1690083.8	489.72 µg/L	489.72 ppb	13:59:03
3	Cd 226.502†	70983.9	74298.8	501.85 µg/L	501.85 ppb	13:59:03
3	Co 228.616†	36389.1	38245.7	506.23 µg/L	506.23 ppb	13:59:03
3	Cr 267.716†	55852.9	58146.6	502.90 µg/L	502.90 ppb	13:59:03
3	Cu 324.752†	117224.5	119492.0	501.36 µg/L	501.36 ppb	13:59:03
3	Mn 257.610†	363073.5	379315.1	502.97 µg/L	502.97 ppb	13:59:03
3	Mo 202.031†	14813.3	15522.1	508.09 µg/L	508.09 ppb	13:59:23
3	Ni 231.604†	38500.5	40338.3	504.68 µg/L	504.68 ppb	13:59:03
3	P 214.914†	10383.8	10879.3	2508.0 µg/L	2508.0 ppb	13:59:23
3	Pb 220.353†	8017.5	8276.8	510.91 µg/L	510.91 ppb	13:59:23
3	S 181.975 Axial†	1232.7	1199.5	1013.4 µg/L	1013.4 ppb	13:59:23
3	Sb 206.836†	3802.7	3885.1	502.17 µg/L	502.17 ppb	13:59:23
3	Se 196.026†	1246.7	1296.9	513 µg/L	513 ppb	13:59:23
3	SiO2†	49983.7	50506.0	5326.8 µg/L	5326.8 ppb	13:59:03
3	Si 251.611†	152449.4	158579.6	2490.6 µg/L	2490.6 ppb	13:59:03
3	Sn 189.927†	6882.3	7191.8	500.54 µg/L	500.54 ppb	13:59:23
3	Ti 334.940†	466767.2	487061.9	499.61 µg/L	499.61 ppb	13:59:03
3	Tl 190.801†	3420.4	3689.5	511.32 µg/L	511.32 ppb	13:59:23
3	U 409.014†	7122.8	7608.4	510.68 µg/L	510.68 ppb	13:59:03
3	V 292.402†	92778.6	96552.9	507.17 µg/L	507.17 ppb	13:59:03
3	Zn 213.857†	81238.2	84410.7	500.10 µg/L	500.10 ppb	13:59:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1737472.2	96.304	%	0.5487				0.57%
Sc RADIAL	134174.9	95.8	%	0.35				0.37%
Y 371.029	1010597.8	95.583	%	0.5134				0.54%
Ag 328.068†	121954.1	505.51	µg/L	0.127	505.51	ppb	0.127	0.03%
QC value within limits for Ag 328.068 Recovery = 101.10%								
Al 396.153Radial†	23701.3	4966.6	µg/L	2.80	4966.6	ppb	2.80	0.06%
QC value within limits for Al 396.153Radial Recovery = 99.33%								
As 188.979†	1372.9	471.67	µg/L	1.272	471.67	ppb	1.272	0.27%
QC value within limits for As 188.979 Recovery = 94.33%								
B 249.677†	31841.3	493.43	µg/L	0.927	493.43	ppb	0.927	0.19%
QC value within limits for B 249.677 Recovery = 98.69%								
Ba 233.527†	112324.5	499.68	µg/L	0.350	499.68	ppb	0.350	0.07%
QC value within limits for Ba 233.527 Recovery = 99.94%								
Be 313.107†	1691624.6	490.16	µg/L	0.643	490.16	ppb	0.643	0.13%
QC value within limits for Be 313.107 Recovery = 98.03%								
Ca 317.933Radial†	74488.5	5073.3	µg/L	8.42	5073.3	ppb	8.42	0.17%
QC value within limits for Ca 317.933Radial Recovery = 101.47%								
Cd 226.502†	74362.2	502.28	µg/L	1.153	502.28	ppb	1.153	0.23%
QC value within limits for Cd 226.502 Recovery = 100.46%								
Co 228.616†	38243.8	506.20	µg/L	0.798	506.20	ppb	0.798	0.16%

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   QC value within limits for Co 228.616  Recovery = 101.24%
Cr 267.716†            58207.9      503.43 µg/L        1.051      503.43 ppb        1.051   0.21%
   QC value within limits for Cr 267.716  Recovery = 100.69%
Cu 324.752†           119608.7      501.84 µg/L        0.550      501.84 ppb        0.550   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.37%
Fe 238.204 Radial†     67546.2      5044.3 µg/L         4.19      5044.3 ppb         4.19   0.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.89%
K 766.490 Radial†      12894.2      5105.2 µg/L        55.31      5105.2 ppb        55.31   1.08%
   QC value within limits for K 766.490 Radial  Recovery = 102.10%
Mg 279.077 IEC†        10962.2      5069.7 µg/L        49.41      5069.7 ppb        49.41   0.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.39%
Mn 257.610†           379330.3      502.99 µg/L        0.477      502.99 ppb        0.477   0.09%
   QC value within limits for Mn 257.610  Recovery = 100.60%
Mo 202.031†            15415.6      504.61 µg/L        3.085      504.61 ppb        3.085   0.61%
   QC value within limits for Mo 202.031  Recovery = 100.92%
Na 589.592 Radial†     64821.5       10043 µg/L         18.7       10043 ppb         18.7   0.19%
   QC value within limits for Na 589.592 Radial  Recovery = 100.43%
Ni 231.604†            40280.8      503.96 µg/L        2.227      503.96 ppb        2.227   0.44%
   QC value within limits for Ni 231.604  Recovery = 100.79%
P 214.914†             10804.9      2490.8 µg/L        15.89      2490.8 ppb        15.89   0.64%
   QC value within limits for P 214.914  Recovery = 99.63%
Pb 220.353†             8228.3      507.92 µg/L        2.705      507.92 ppb        2.705   0.53%
   QC value within limits for Pb 220.353  Recovery = 101.58%
S 181.975 Axial†        1185.9      1001.9 µg/L        10.13      1001.9 ppb        10.13   1.01%
   QC value within limits for S 181.975 Axial  Recovery = 100.19%
Sb 206.836†             3867.4      499.82 µg/L        3.181      499.82 ppb        3.181   0.64%
   QC value within limits for Sb 206.836  Recovery = 99.96%
Se 196.026†             1271.8         503 µg/L          9.3         503 ppb          9.3   1.85%
   QC value within limits for Se 196.026  Recovery = 100.65%
SiO2†                  50377.6      5313.4 µg/L        11.71      5313.4 ppb        11.71   0.22%
   QC value within limits for SiO2  Recovery = 99.36%
Si 251.611†           158556.3      2490.3 µg/L         1.18      2490.3 ppb         1.18   0.05%
   QC value within limits for Si 251.611  Recovery = 99.61%
Sn 189.927†             7136.7      496.71 µg/L        3.492      496.71 ppb        3.492   0.70%
   QC value within limits for Sn 189.927  Recovery = 99.34%
Sr 421.552†           213448.9      503.37 µg/L        2.088      503.37 ppb        2.088   0.41%
   QC value within limits for Sr 421.552  Recovery = 100.67%
Ti 334.940†           486618.0      499.15 µg/L        0.431      499.15 ppb        0.431   0.09%
   QC value within limits for Ti 334.940  Recovery = 99.83%
Tl 190.801†             3664.5      507.91 µg/L        3.689      507.91 ppb        3.689   0.73%
   QC value within limits for Tl 190.801  Recovery = 101.58%
U 409.014†              7493.3      503.39 µg/L        6.957      503.39 ppb        6.957   1.38%
   QC value within limits for U 409.014  Recovery = 100.68%
V 292.402†             96467.4      506.69 µg/L        0.750      506.69 ppb        0.750   0.15%
   QC value within limits for V 292.402  Recovery = 101.34%
Zn 213.857†            84493.7      500.60 µg/L        0.498      500.60 ppb        0.498   0.10%
   QC value within limits for Zn 213.857  Recovery = 100.12%
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 13:59:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135574.4	135574.4	96.8	%			14:00:01
1	Al 396.153Radial†	-83.0	-7.2	-1.5401	µg/L	-1.5401	ppb	14:00:21
1	Ca 317.933Radial†	693.2	144.8	9.8636	µg/L	9.8636	ppb	14:00:21
1	Fe 238.204 Radial†	191.5	80.5	6.0144	µg/L	6.0144	ppb	14:00:21
1	K 766.490 Radial†	1712.5	275.8	109.29	µg/L	109.29	ppb	14:00:01
1	Mg 279.077 IEC†	176.7	10.1	4.6838	µg/L	4.6838	ppb	14:00:21
1	Na 589.592 Radial†	1100.1	184.3	28.465	µg/L	28.465	ppb	14:00:01
1	Sr 421.552†	-293.1	-98.3	-0.2320	µg/L	-0.2320	ppb	14:00:01
1	Sc 361.383	1778855.6	1778855.6	98.598	%			14:01:23
1	Y 371.029	1046359.8	1046359.8	98.966	%			14:01:23
1	Ag 328.068†	4331.1	-172.4	-0.7139	µg/L	-0.7139	ppb	14:01:25
1	As 188.979†	-19.9	-1.6	-0.5291	µg/L	-0.5291	ppb	14:01:45
1	B 249.677†	3922.3	-87.0	-1.3536	µg/L	-1.3536	ppb	14:01:25
1	Ba 233.527†	-134.6	8.1	0.0356	µg/L	0.0356	ppb	14:01:45
1	Be 313.107†	-633.3	449.4	0.1295	µg/L	0.1295	ppb	14:01:25
1	Cd 226.502†	-59.4	43.1	0.2906	µg/L	0.2906	ppb	14:01:45
1	Co 228.616†	-203.4	4.0	0.0526	µg/L	0.0526	ppb	14:01:45
1	Cr 267.716†	258.7	29.1	0.2538	µg/L	0.2538	ppb	14:01:45
1	Cu 324.752†	2699.6	-298.1	-1.2476	µg/L	-1.2476	ppb	14:01:25
1	Mn 257.610†	271.8	91.0	0.1205	µg/L	0.1205	ppb	14:01:45
1	Mo 202.031†	-25.3	12.9	0.4230	µg/L	0.4230	ppb	14:01:45
1	Ni 231.604†	-93.9	0.7	0.0087	µg/L	0.0087	ppb	14:01:45
1	P 214.914†	7.0	32.7	7.5828	µg/L	7.5828	ppb	14:01:45
1	Pb 220.353†	99.2	-2.8	-0.1693	µg/L	-0.1693	ppb	14:01:45
1	S 181.975 Axial†	98.0	10.5	8.8174	µg/L	8.8174	ppb	14:01:45
1	Sb 206.836†	83.8	-4.8	-0.6110	µg/L	-0.6110	ppb	14:01:45
1	Se 196.026†	22.7	16.9	6.66	µg/L	6.66	ppb	14:01:45
1	SiO2†	1775.8	61.9	6.5413	µg/L	6.5413	ppb	14:01:45
1	Si 251.611†	1040.8	288.6	4.5426	µg/L	4.5426	ppb	14:01:25
1	Sn 189.927†	6.4	4.6	0.3199	µg/L	0.3199	ppb	14:01:45
1	Ti 334.940†	847.7	36.7	0.0384	µg/L	0.0384	ppb	14:01:25
1	Tl 190.801†	-125.5	-13.0	-1.7798	µg/L	-1.7798	ppb	14:01:45
1	U 409.014†	-196.5	-35.9	-2.2928	µg/L	-2.2928	ppb	14:01:25
1	V 292.402†	338.4	-80.0	-0.4112	µg/L	-0.4112	ppb	14:01:25
1	Zn 213.857†	625.1	131.0	0.7824	µg/L	0.7824	ppb	14:01:45
2	Sc RADIAL	134733.3	134733.3	96.2	%			14:00:23
2	Al 396.153Radial†	-39.5	37.5	7.8516	µg/L	7.8516	ppb	14:00:43
2	Ca 317.933Radial†	699.8	156.2	10.641	µg/L	10.641	ppb	14:00:43
2	Fe 238.204 Radial†	178.2	67.9	5.0736	µg/L	5.0736	ppb	14:00:43
2	K 766.490 Radial†	1635.0	206.3	81.721	µg/L	81.721	ppb	14:00:23
2	Mg 279.077 IEC†	158.8	-7.4	-3.3889	µg/L	-3.3889	ppb	14:00:43
2	Na 589.592 Radial†	1064.6	154.4	23.863	µg/L	23.863	ppb	14:00:23
2	Sr 421.552†	-61.3	140.7	0.3318	µg/L	0.3318	ppb	14:00:23
2	Sc 361.383	1765177.1	1765177.1	97.840	%			14:01:47
2	Y 371.029	1038019.8	1038019.8	98.177	%			14:01:47
2	Ag 328.068†	4020.3	-456.1	-1.8816	µg/L	-1.8816	ppb	14:01:50
2	As 188.979†	-9.6	8.7	2.9530	µg/L	2.9530	ppb	14:02:10
2	B 249.677†	3934.2	-44.0	-0.6867	µg/L	-0.6867	ppb	14:01:50
2	Ba 233.527†	-146.2	-4.9	-0.0216	µg/L	-0.0216	ppb	14:02:10
2	Be 313.107†	-594.6	484.0	0.1374	µg/L	0.1374	ppb	14:01:50
2	Cd 226.502†	-68.1	33.8	0.2280	µg/L	0.2280	ppb	14:02:10
2	Co 228.616†	-168.4	38.2	0.5051	µg/L	0.5051	ppb	14:02:10
2	Cr 267.716†	284.7	57.8	0.5076	µg/L	0.5076	ppb	14:02:10
2	Cu 324.752†	2657.2	-320.2	-1.3463	µg/L	-1.3463	ppb	14:01:50
2	Mn 257.610†	270.9	92.1	0.1223	µg/L	0.1223	ppb	14:02:10
2	Mo 202.031†	-8.2	30.2	0.9892	µg/L	0.9892	ppb	14:02:10
2	Ni 231.604†	-73.9	20.4	0.2550	µg/L	0.2550	ppb	14:02:10
2	P 214.914†	15.6	41.6	9.6345	µg/L	9.6345	ppb	14:02:10
2	Pb 220.353†	120.8	20.0	1.2428	µg/L	1.2428	ppb	14:02:10

2	S 181.975 Axial†	81.8	-5.3	-4.4667 µg/L	-4.4667 ppb	14:02:10
2	Sb 206.836†	75.8	-12.3	-1.5777 µg/L	-1.5777 ppb	14:02:10
2	Se 196.026†	23.0	17.3	6.81 µg/L	6.81 ppb	14:02:10
2	SiO2†	1765.5	65.4	6.8983 µg/L	6.8983 ppb	14:02:10
2	Si 251.611†	1101.1	358.4	5.6378 µg/L	5.6378 ppb	14:01:50
2	Sn 189.927†	3.8	2.0	0.1412 µg/L	0.1412 ppb	14:02:10
2	Ti 334.940†	600.5	-209.2	-0.2106 µg/L	-0.2106 ppb	14:01:50
2	Tl 190.801†	-126.0	-14.5	-1.9884 µg/L	-1.9884 ppb	14:02:10
2	U 409.014†	-306.0	-149.4	-9.4405 µg/L	-9.4405 ppb	14:01:50
2	V 292.402†	368.5	-46.5	-0.2355 µg/L	-0.2355 ppb	14:01:50
2	Zn 213.857†	600.0	110.3	0.6574 µg/L	0.6574 ppb	14:02:10
3	Sc RADIAL	135503.7	135503.7	96.7 %		14:00:45
3	Al 396.153Radial†	-71.1	5.1	1.0435 µg/L	1.0435 ppb	14:01:05
3	Ca 317.933Radial†	695.1	147.2	10.028 µg/L	10.028 ppb	14:01:05
3	Fe 238.204 Radial†	184.9	73.8	5.5125 µg/L	5.5125 ppb	14:01:05
3	K 766.490 Radial†	1534.8	93.0	36.858 µg/L	36.858 ppb	14:00:45
3	Mg 279.077 IEC†	167.5	0.7	0.3304 µg/L	0.3304 ppb	14:01:05
3	Na 589.592 Radial†	1026.3	108.5	16.792 µg/L	16.792 ppb	14:00:45
3	Sr 421.552†	-99.8	101.3	0.2388 µg/L	0.2388 ppb	14:00:45
3	Sc 361.383	1748350.3	1748350.3	96.907 %		14:02:12
3	Y 371.029	1028758.9	1028758.9	97.301 %		14:02:12
3	Ag 328.068†	4039.9	-396.3	-1.6452 µg/L	-1.6452 ppb	14:02:14
3	As 188.979†	-6.8	11.6	3.9115 µg/L	3.9115 ppb	14:02:34
3	B 249.677†	3953.8	14.9	0.2309 µg/L	0.2309 ppb	14:02:14
3	Ba 233.527†	-150.2	-10.4	-0.0464 µg/L	-0.0464 ppb	14:02:34
3	Be 313.107†	-784.6	282.0	0.0766 µg/L	0.0766 ppb	14:02:14
3	Cd 226.502†	-83.8	16.9	0.1139 µg/L	0.1139 ppb	14:02:34
3	Co 228.616†	-201.8	2.0	0.0264 µg/L	0.0264 ppb	14:02:34
3	Cr 267.716†	250.7	25.5	0.2339 µg/L	0.2339 ppb	14:02:34
3	Cu 324.752†	2785.9	-161.3	-0.6875 µg/L	-0.6875 ppb	14:02:14
3	Mn 257.610†	262.9	86.6	0.1148 µg/L	0.1148 ppb	14:02:34
3	Mo 202.031†	-19.7	18.2	0.5964 µg/L	0.5964 ppb	14:02:34
3	Ni 231.604†	-68.5	25.2	0.3159 µg/L	0.3159 ppb	14:02:34
3	P 214.914†	12.0	38.1	8.8026 µg/L	8.8026 ppb	14:02:34
3	Pb 220.353†	83.1	-17.7	-1.0777 µg/L	-1.0777 ppb	14:02:34
3	S 181.975 Axial†	85.6	-0.6	-0.5013 µg/L	-0.5013 ppb	14:02:34
3	Sb 206.836†	86.8	-0.1	-0.0101 µg/L	-0.0101 ppb	14:02:34
3	Se 196.026†	18.1	12.6	4.93 µg/L	4.93 ppb	14:02:34
3	SiO2†	1796.2	114.5	12.114 µg/L	12.114 ppb	14:02:34
3	Si 251.611†	1204.1	475.5	7.4943 µg/L	7.4943 ppb	14:02:14
3	Sn 189.927†	-6.4	-8.5	-0.5904 µg/L	-0.5904 ppb	14:02:34
3	Ti 334.940†	589.4	-214.8	-0.2136 µg/L	-0.2136 ppb	14:02:14
3	Tl 190.801†	-113.1	-2.4	-0.3297 µg/L	-0.3297 ppb	14:02:34
3	U 409.014†	-414.8	-264.7	-16.715 µg/L	-16.715 ppb	14:02:14
3	V 292.402†	375.0	-36.3	-0.1924 µg/L	-0.1924 ppb	14:02:14
3	Zn 213.857†	607.1	123.5	0.7350 µg/L	0.7350 ppb	14:02:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1764127.6	97.781	%	0.8469				0.87%
Sc RADIAL	135270.5	96.6	%	0.33				0.34%
Y 371.029	1037712.8	98.148	%	0.8327				0.85%
Ag 328.068†	-341.6	-1.4136	µg/L	0.61735	-1.4136	ppb	0.61735	43.67%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.8	2.4517	µg/L	4.85162	2.4517	ppb	4.85162	197.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	2.1118	µg/L	2.33677	2.1118	ppb	2.33677	110.65%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-38.7	-0.6031	µg/L	0.79553	-0.6031	ppb	0.79553	131.90%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.4	-0.0108	µg/L	0.04202	-0.0108	ppb	0.04202	389.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	405.2	0.1145	µg/L	0.03302	0.1145	ppb	0.03302	28.84%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	149.4	10.177	µg/L	0.4097	10.177	ppb	0.4097	4.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	31.3	0.2108	µg/L	0.08956	0.2108	ppb	0.08956	42.48%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	14.7	0.1947	µg/L	0.26912	0.1947	ppb	0.26912	138.22%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              37.5      0.3318 µg/L       0.15263      0.3318 ppb        0.15263  46.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -259.9     -1.0938 µg/L       0.35532     -1.0938 ppb        0.35532  32.48%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       74.1      5.5335 µg/L       0.47078      5.5335 ppb        0.47078   8.51%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       191.7      75.956 µg/L       36.5584      75.956 ppb        36.5584  48.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          1.1      0.5418 µg/L       4.04048      0.5418 ppb        4.04048 745.79%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              89.9      0.1192 µg/L       0.00391      0.1192 ppb        0.00391   3.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              20.5      0.6695 µg/L       0.29007      0.6695 ppb        0.29007  43.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      149.1      23.040 µg/L        5.8796      23.040 ppb         5.8796  25.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              15.4      0.1932 µg/L       0.16265      0.1932 ppb        0.16265  84.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               37.5      8.6733 µg/L       1.03191      8.6733 ppb        1.03191  11.90%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -0.2     -0.0014 µg/L       1.16932     -0.0014 ppb        1.16932 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.5      1.2831 µg/L       6.81944      1.2831 ppb        6.81944 531.47%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -5.7     -0.7329 µg/L       0.79089     -0.7329 ppb        0.79089 107.91%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              15.6        6.14 µg/L         1.045        6.14 ppb          1.045  17.02%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    80.6      8.5179 µg/L       3.11940      8.5179 ppb        3.11940  36.62%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             374.2      5.8915 µg/L       1.49212      5.8915 ppb        1.49212  25.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.6     -0.0431 µg/L       0.48231     -0.0431 ppb        0.48231 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              47.9      0.1129 µg/L       0.30228      0.1129 ppb        0.30228 267.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -129.1     -0.1286 µg/L       0.14465     -0.1286 ppb        0.14465 112.49%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -10.0     -1.3660 µg/L       0.90351     -1.3660 ppb        0.90351  66.14%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -150.0     -9.4826 µg/L       7.21097     -9.4826 ppb        7.21097  76.04%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -54.3     -0.2797 µg/L       0.11589     -0.2797 ppb        0.11589  41.43%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             121.6      0.7249 µg/L       0.06310      0.7249 ppb        0.06310   8.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/5/2010 14:22:34 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/5/2010 14:22:36**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	132885.5	132885.5	94.9	%			14:23:09
1	Al 396.153Radial†	22345.1	23635.6	4952.5	µg/L	4952.5	ppb	14:23:09
1	Ca 317.933Radial†	71734.4	75053.7	5111.8	µg/L	5111.8	ppb	14:23:09
1	Fe 238.204 Radial†	64315.0	67686.0	5054.7	µg/L	5054.7	ppb	14:23:09
1	K 766.490 Radial†	13587.6	12830.8	5080.0	µg/L	5080.0	ppb	14:23:09
1	Mg 279.077 IEC†	10677.1	11083.8	5125.9	µg/L	5125.9	ppb	14:23:09
1	Na 589.592 Radial†	62424.8	64858.1	10049	µg/L	10049	ppb	14:23:07
1	Sr 421.552†	200382.6	211455.5	498.67	µg/L	498.67	ppb	14:23:07
1	Sc 361.383	1732899.2	1732899.2	96.051	%			14:23:36
1	Y 371.029	1007757.7	1007757.7	95.315	%			14:23:36
1	Ag 328.068†	122317.7	122782.0	508.93	µg/L	508.93	ppb	14:23:36
1	As 188.979†	1306.2	1378.4	473.58	µg/L	473.58	ppb	14:23:56
1	B 249.677†	35029.8	32405.0	502.18	µg/L	502.18	ppb	14:23:36
1	Ba 233.527†	108164.4	112756.4	501.60	µg/L	501.60	ppb	14:23:36
1	Be 313.107†	1634035.3	1702315.5	493.26	µg/L	493.26	ppb	14:23:36
1	Cd 226.502†	72105.4	75173.6	507.77	µg/L	507.77	ppb	14:23:36
1	Co 228.616†	36829.0	38553.7	510.30	µg/L	510.30	ppb	14:23:36
1	Cr 267.716†	56320.8	58403.4	505.12	µg/L	505.12	ppb	14:23:36
1	Cu 324.752†	118186.3	120009.8	503.53	µg/L	503.53	ppb	14:23:36
1	Mn 257.610†	366868.1	381768.3	506.22	µg/L	506.22	ppb	14:23:36
1	Mo 202.031†	14911.6	15563.3	509.44	µg/L	509.44	ppb	14:23:56
1	Ni 231.604†	39011.3	40711.3	509.35	µg/L	509.35	ppb	14:23:36
1	P 214.914†	10569.3	11029.6	2542.7	µg/L	2542.7	ppb	14:23:56
1	Pb 220.353†	8158.2	8390.2	517.89	µg/L	517.89	ppb	14:23:56
1	S 181.975 Axial†	1253.8	1216.4	1027.6	µg/L	1027.6	ppb	14:23:56
1	Sb 206.836†	3842.2	3910.5	505.44	µg/L	505.44	ppb	14:23:56
1	Se 196.026†	1245.9	1290.9	511	µg/L	511	ppb	14:23:56
1	SiO2†	50314.2	50643.9	5341.3	µg/L	5341.3	ppb	14:23:36
1	Si 251.611†	153524.0	159069.6	2498.2	µg/L	2498.2	ppb	14:23:36
1	Sn 189.927†	6969.7	7254.4	504.88	µg/L	504.88	ppb	14:23:56
1	Ti 334.940†	469489.4	487971.0	500.54	µg/L	500.54	ppb	14:23:36
1	Tl 190.801†	3468.9	3725.9	516.30	µg/L	516.30	ppb	14:23:56
1	U 409.014†	7108.4	7564.0	508.04	µg/L	508.04	ppb	14:23:36
1	V 292.402†	93611.4	97037.3	509.70	µg/L	509.70	ppb	14:23:36
1	Zn 213.857†	82380.6	85264.9	505.17	µg/L	505.17	ppb	14:23:36
2	Sc RADIAL	132723.7	132723.7	94.7	%			14:23:13
2	Al 396.153Radial†	22193.8	23504.7	4925.0	µg/L	4925.0	ppb	14:23:13
2	Ca 317.933Radial†	71807.3	75222.9	5123.4	µg/L	5123.4	ppb	14:23:13
2	Fe 238.204 Radial†	64276.1	67727.6	5057.9	µg/L	5057.9	ppb	14:23:13
2	K 766.490 Radial†	13580.5	12840.7	5083.9	µg/L	5083.9	ppb	14:23:13
2	Mg 279.077 IEC†	10679.9	11100.5	5133.6	µg/L	5133.6	ppb	14:23:13
2	Na 589.592 Radial†	63559.4	66135.9	10247	µg/L	10247	ppb	14:23:11
2	Sr 421.552†	204236.7	215781.2	508.87	µg/L	508.87	ppb	14:23:11
2	Sc 361.383	1743351.0	1743351.0	96.630	%			14:23:59
2	Y 371.029	1013100.9	1013100.9	95.820	%			14:23:59
2	Ag 328.068†	122408.3	122112.3	506.18	µg/L	506.18	ppb	14:23:59
2	As 188.979†	1324.5	1389.2	477.20	µg/L	477.20	ppb	14:24:19

2	B 249.677†	34925.8	32078.7	497.12 µg/L	497.12 ppb	14:23:59
2	Ba 233.527†	108263.9	112184.3	499.06 µg/L	499.06 ppb	14:23:59
2	Be 313.107†	1636644.6	1694816.6	491.09 µg/L	491.09 ppb	14:23:59
2	Cd 226.502†	72358.7	74985.7	506.50 µg/L	506.50 ppb	14:23:59
2	Co 228.616†	36909.0	38406.6	508.35 µg/L	508.35 ppb	14:23:59
2	Cr 267.716†	56448.5	58184.0	503.22 µg/L	503.22 ppb	14:23:59
2	Cu 324.752†	118571.9	119671.1	502.12 µg/L	502.12 ppb	14:23:59
2	Mn 257.610†	367015.5	379630.9	503.38 µg/L	503.38 ppb	14:23:59
2	Mo 202.031†	14934.2	15493.6	507.16 µg/L	507.16 ppb	14:24:19
2	Ni 231.604†	39044.9	40502.5	506.74 µg/L	506.74 ppb	14:23:59
2	P 214.914†	10550.7	10944.3	2523.0 µg/L	2523.0 ppb	14:24:19
2	Pb 220.353†	8108.5	8287.8	511.58 µg/L	511.58 ppb	14:24:19
2	S 181.975 Axial†	1247.4	1202.0	1015.4 µg/L	1015.4 ppb	14:24:19
2	Sb 206.836†	3852.0	3896.6	503.65 µg/L	503.65 ppb	14:24:19
2	Se 196.026†	1254.8	1292.4	511 µg/L	511 ppb	14:24:19
2	SiO2†	50377.4	50395.3	5315.1 µg/L	5315.1 ppb	14:23:59
2	Si 251.611†	154329.9	158945.4	2496.3 µg/L	2496.3 ppb	14:23:59
2	Sn 189.927†	6977.3	7218.7	502.40 µg/L	502.40 ppb	14:24:19
2	Ti 334.940†	470782.7	486378.9	498.90 µg/L	498.90 ppb	14:23:59
2	Tl 190.801†	3454.7	3689.5	511.32 µg/L	511.32 ppb	14:24:19
2	U 409.014†	7170.7	7584.1	509.22 µg/L	509.22 ppb	14:23:59
2	V 292.402†	93945.7	96799.0	508.44 µg/L	508.44 ppb	14:23:59
2	Zn 213.857†	82685.3	85066.1	504.00 µg/L	504.00 ppb	14:23:59
3	Sc RADIAL	133874.8	133874.8	95.6 %		14:23:17
3	Al 396.153Radial†	22497.2	23620.7	4949.4 µg/L	4949.4 ppb	14:23:17
3	Ca 317.933Radial†	72573.3	75372.7	5133.6 µg/L	5133.6 ppb	14:23:17
3	Fe 238.204 Radial†	64987.0	67888.1	5069.8 µg/L	5069.8 ppb	14:23:17
3	K 766.490 Radial†	13538.8	12673.9	5017.9 µg/L	5017.9 ppb	14:23:17
3	Mg 279.077 IEC†	10834.9	11165.7	5163.7 µg/L	5163.7 ppb	14:23:17
3	Na 589.592 Radial†	62004.9	63932.4	9905.6 µg/L	9905.6 ppb	14:23:15
3	Sr 421.552†	199556.0	209029.3	492.95 µg/L	492.95 ppb	14:23:15
3	Sc 361.383	1743392.2	1743392.2	96.632 %		14:24:22
3	Y 371.029	1012903.8	1012903.8	95.801 %		14:24:22
3	Ag 328.068†	122593.1	122300.6	506.97 µg/L	506.97 ppb	14:24:22
3	As 188.979†	1318.0	1382.5	474.96 µg/L	474.96 ppb	14:24:42
3	B 249.677†	35176.1	32336.9	501.12 µg/L	501.12 ppb	14:24:22
3	Ba 233.527†	108700.3	112633.3	501.05 µg/L	501.05 ppb	14:24:22
3	Be 313.107†	1639906.3	1698152.0	492.06 µg/L	492.06 ppb	14:24:22
3	Cd 226.502†	72606.8	75240.7	508.22 µg/L	508.22 ppb	14:24:22
3	Co 228.616†	37099.9	38603.2	510.96 µg/L	510.96 ppb	14:24:22
3	Cr 267.716†	56650.1	58391.3	505.01 µg/L	505.01 ppb	14:24:22
3	Cu 324.752†	118799.2	119903.5	503.09 µg/L	503.09 ppb	14:24:22
3	Mn 257.610†	368215.6	380864.0	505.02 µg/L	505.02 ppb	14:24:22
3	Mo 202.031†	14981.9	15542.6	508.77 µg/L	508.77 ppb	14:24:42
3	Ni 231.604†	39132.6	40592.3	507.86 µg/L	507.86 ppb	14:24:22
3	P 214.914†	10579.0	10973.3	2529.7 µg/L	2529.7 ppb	14:24:42
3	Pb 220.353†	8134.6	8314.7	513.24 µg/L	513.24 ppb	14:24:42
3	S 181.975 Axial†	1248.5	1203.1	1016.4 µg/L	1016.4 ppb	14:24:42
3	Sb 206.836†	3867.5	3912.6	505.71 µg/L	505.71 ppb	14:24:42
3	Se 196.026†	1250.4	1287.8	510 µg/L	510 ppb	14:24:42
3	SiO2†	50529.4	50551.4	5331.5 µg/L	5331.5 ppb	14:24:22
3	Si 251.611†	154955.1	159588.5	2506.4 µg/L	2506.4 ppb	14:24:22
3	Sn 189.927†	6999.8	7241.9	504.01 µg/L	504.01 ppb	14:24:42
3	Ti 334.940†	472323.8	487962.2	500.52 µg/L	500.52 ppb	14:24:22
3	Tl 190.801†	3481.4	3717.0	515.09 µg/L	515.09 ppb	14:24:42
3	U 409.014†	7189.9	7603.8	510.58 µg/L	510.58 ppb	14:24:22
3	V 292.402†	94312.2	97175.9	510.41 µg/L	510.41 ppb	14:24:22
3	Zn 213.857†	82968.9	85357.6	505.73 µg/L	505.73 ppb	14:24:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1739880.8	96.438	%	0.3351				0.35%
Sc RADIAL	133161.3	95.1	%	0.44				0.47%
Y 371.029	1011254.1	95.645	%	0.2865				0.30%
Ag 328.068†	122398.3	507.36	µg/L	1.418	507.36	ppb	1.418	0.28%
QC value within limits for Ag 328.068 Recovery = 101.47%								
Al 396.153Radial†	23587.0	4942.3	µg/L	15.04	4942.3	ppb	15.04	0.30%
QC value within limits for Al 396.153Radial Recovery = 98.85%								
As 188.979†	1383.4	475.25	µg/L	1.831	475.25	ppb	1.831	0.39%

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   QC value within limits for As 188.979  Recovery = 95.05%
B 249.677†            32273.5      500.14 µg/L        2.673      500.14 ppb         2.673   0.53%
   QC value within limits for B 249.677  Recovery = 100.03%
Ba 233.527†          112524.7      500.57 µg/L        1.339      500.57 ppb         1.339   0.27%
   QC value within limits for Ba 233.527  Recovery = 100.11%
Be 313.107†         1698428.0      492.14 µg/L        1.088      492.14 ppb         1.088   0.22%
   QC value within limits for Be 313.107  Recovery = 98.43%
Ca 317.933Radial†     75216.4      5122.9 µg/L        10.87      5122.9 ppb         10.87   0.21%
   QC value within limits for Ca 317.933Radial  Recovery = 102.46%
Cd 226.502†           75133.3      507.49 µg/L        0.893      507.49 ppb         0.893   0.18%
   QC value within limits for Cd 226.502  Recovery = 101.50%
Co 228.616†           38521.1      509.87 µg/L        1.354      509.87 ppb         1.354   0.27%
   QC value within limits for Co 228.616  Recovery = 101.97%
Cr 267.716†           58326.2      504.45 µg/L        1.067      504.45 ppb         1.067   0.21%
   QC value within limits for Cr 267.716  Recovery = 100.89%
Cu 324.752†          119861.5      502.91 µg/L        0.725      502.91 ppb         0.725   0.14%
   QC value within limits for Cu 324.752  Recovery = 100.58%
Fe 238.204 Radial†    67767.3      5060.8 µg/L         7.97      5060.8 ppb          7.97   0.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.22%
K 766.490 Radial†     12781.8      5060.6 µg/L        37.06      5060.6 ppb         37.06   0.73%
   QC value within limits for K 766.490 Radial  Recovery = 101.21%
Mg 279.077 IEC†       11116.6      5141.1 µg/L        19.99      5141.1 ppb         19.99   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.82%
Mn 257.610†          380754.4      504.87 µg/L        1.423      504.87 ppb         1.423   0.28%
   QC value within limits for Mn 257.610  Recovery = 100.97%
Mo 202.031†           15533.2      508.46 µg/L        1.172      508.46 ppb         1.172   0.23%
   QC value within limits for Mo 202.031  Recovery = 101.69%
Na 589.592 Radial†    64975.5       10067 µg/L        171.5       10067 ppb         171.5   1.70%
   QC value within limits for Na 589.592 Radial  Recovery = 100.67%
Ni 231.604†           40602.0      507.98 µg/L        1.310      507.98 ppb         1.310   0.26%
   QC value within limits for Ni 231.604  Recovery = 101.60%
P 214.914†            10982.4      2531.8 µg/L        10.03      2531.8 ppb         10.03   0.40%
   QC value within limits for P 214.914  Recovery = 101.27%
Pb 220.353†            8330.9      514.24 µg/L        3.272      514.24 ppb         3.272   0.64%
   QC value within limits for Pb 220.353  Recovery = 102.85%
S 181.975 Axial†       1207.2      1019.8 µg/L         6.75      1019.8 ppb          6.75   0.66%
   QC value within limits for S 181.975 Axial  Recovery = 101.98%
Sb 206.836†            3906.6      504.93 µg/L        1.119      504.93 ppb         1.119   0.22%
   QC value within limits for Sb 206.836  Recovery = 100.99%
Se 196.026†            1290.4         511 µg/L          0.9         511 ppb           0.9   0.18%
   QC value within limits for Se 196.026  Recovery = 102.12%
SiO2†                 50530.2      5329.3 µg/L        13.26      5329.3 ppb         13.26   0.25%
   QC value within limits for SiO2  Recovery = 99.66%
Si 251.611†          159201.2      2500.3 µg/L         5.37      2500.3 ppb          5.37   0.21%
   QC value within limits for Si 251.611  Recovery = 100.01%
Sn 189.927†            7238.3      503.76 µg/L        1.258      503.76 ppb         1.258   0.25%
   QC value within limits for Sn 189.927  Recovery = 100.75%
Sr 421.552†          212088.7      500.16 µg/L        8.066      500.16 ppb         8.066   1.61%
   QC value within limits for Sr 421.552  Recovery = 100.03%
Ti 334.940†          487437.4      499.99 µg/L        0.941      499.99 ppb         0.941   0.19%
   QC value within limits for Ti 334.940  Recovery = 100.00%
Tl 190.801†            3710.8      514.24 µg/L        2.600      514.24 ppb         2.600   0.51%
   QC value within limits for Tl 190.801  Recovery = 102.85%
U 409.014†             7584.0      509.28 µg/L        1.272      509.28 ppb         1.272   0.25%
   QC value within limits for U 409.014  Recovery = 101.86%
V 292.402†            97004.1      509.52 µg/L        1.001      509.52 ppb         1.001   0.20%
   QC value within limits for V 292.402  Recovery = 101.90%
Zn 213.857†           85229.5      504.97 µg/L        0.884      504.97 ppb         0.884   0.17%
   QC value within limits for Zn 213.857  Recovery = 100.99%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 14:24:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135447.7	135447.7	96.7	%			14:25:19
1	Al 396.153Radial†	-86.0	-10.4	-2.2186	µg/L	-2.2186	ppb	14:25:39
1	Ca 317.933Radial†	697.8	150.3	10.238	µg/L	10.238	ppb	14:25:39
1	Fe 238.204 Radial†	150.9	38.8	2.8969	µg/L	2.8969	ppb	14:25:39
1	K 766.490 Radial†	1666.4	229.8	91.043	µg/L	91.043	ppb	14:25:19
1	Mg 279.077 IEC†	178.6	12.3	5.6989	µg/L	5.6989	ppb	14:25:39
1	Na 589.592 Radial†	1111.1	196.7	30.416	µg/L	30.416	ppb	14:25:19
1	Sr 421.552†	-133.5	66.4	0.1564	µg/L	0.1564	ppb	14:25:19
1	Sc 361.383	1746370.5	1746370.5	96.797	%			14:26:41
1	Y 371.029	1025464.1	1025464.1	96.989	%			14:26:41
1	Ag 328.068†	4108.8	-320.4	-1.3071	µg/L	-1.3071	ppb	14:26:43
1	As 188.979†	-11.0	7.2	2.4383	µg/L	2.4383	ppb	14:27:03
1	B 249.677†	4122.1	193.3	3.0053	µg/L	3.0053	ppb	14:26:43
1	Ba 233.527†	-136.3	3.7	0.0171	µg/L	0.0171	ppb	14:27:03
1	Be 313.107†	-700.1	368.5	0.1064	µg/L	0.1064	ppb	14:26:43
1	Cd 226.502†	-98.5	1.6	0.0105	µg/L	0.0105	ppb	14:27:03
1	Co 228.616†	-178.9	25.5	0.3373	µg/L	0.3373	ppb	14:27:03
1	Cr 267.716†	260.2	35.6	0.3095	µg/L	0.3095	ppb	14:27:03
1	Cu 324.752†	2891.1	-49.3	-0.2065	µg/L	-0.2065	ppb	14:26:43
1	Mn 257.610†	232.7	55.7	0.0737	µg/L	0.0737	ppb	14:27:03
1	Mo 202.031†	-23.8	14.0	0.4585	µg/L	0.4585	ppb	14:27:03
1	Ni 231.604†	-84.2	9.0	0.1121	µg/L	0.1121	ppb	14:27:03
1	P 214.914†	12.4	38.5	8.9081	µg/L	8.9081	ppb	14:27:03
1	Pb 220.353†	111.4	11.6	0.7176	µg/L	0.7176	ppb	14:27:03
1	S 181.975 Axial†	91.7	5.8	4.8840	µg/L	4.8840	ppb	14:27:03
1	Sb 206.836†	91.1	4.4	0.5760	µg/L	0.5760	ppb	14:27:03
1	Se 196.026†	6.3	0.3	0.135	µg/L	0.135	ppb	14:27:03
1	SiO2†	1745.3	64.0	6.7572	µg/L	6.7572	ppb	14:27:03
1	Si 251.611†	870.2	132.0	2.0741	µg/L	2.0741	ppb	14:26:43
1	Sn 189.927†	4.4	2.6	0.1830	µg/L	0.1830	ppb	14:27:03
1	Ti 334.940†	598.9	-204.3	-0.2097	µg/L	-0.2097	ppb	14:26:43
1	Tl 190.801†	-119.5	-9.2	-1.2529	µg/L	-1.2529	ppb	14:27:03
1	U 409.014†	-175.8	-18.2	-1.1220	µg/L	-1.1220	ppb	14:26:43
1	V 292.402†	505.0	98.5	0.5155	µg/L	0.5155	ppb	14:26:43
1	Zn 213.857†	566.2	82.0	0.4885	µg/L	0.4885	ppb	14:27:03
2	Sc RADIAL	135362.8	135362.8	96.6	%			14:25:41
2	Al 396.153Radial†	-79.6	-3.8	-0.8200	µg/L	-0.8200	ppb	14:26:01
2	Ca 317.933Radial†	682.5	134.9	9.1897	µg/L	9.1897	ppb	14:26:01
2	Fe 238.204 Radial†	140.7	28.3	2.1142	µg/L	2.1142	ppb	14:26:01
2	K 766.490 Radial†	1467.3	24.8	9.8302	µg/L	9.8302	ppb	14:25:41
2	Mg 279.077 IEC†	172.6	6.1	2.8455	µg/L	2.8455	ppb	14:26:01
2	Na 589.592 Radial†	1058.4	142.9	22.146	µg/L	22.146	ppb	14:25:41
2	Sr 421.552†	-110.7	89.9	0.2121	µg/L	0.2121	ppb	14:25:41
2	Sc 361.383	1750118.2	1750118.2	97.005	%			14:27:06
2	Y 371.029	1029214.6	1029214.6	97.344	%			14:27:06
2	Ag 328.068†	4286.1	-146.7	-0.5984	µg/L	-0.5984	ppb	14:27:08
2	As 188.979†	-22.6	-4.7	-1.5853	µg/L	-1.5853	ppb	14:27:28
2	B 249.677†	4094.3	155.6	2.4193	µg/L	2.4193	ppb	14:27:08
2	Ba 233.527†	-168.4	-29.0	-0.1289	µg/L	-0.1289	ppb	14:27:28
2	Be 313.107†	-818.0	248.5	0.0727	µg/L	0.0727	ppb	14:27:08
2	Cd 226.502†	-95.7	4.7	0.0316	µg/L	0.0316	ppb	14:27:28
2	Co 228.616†	-196.5	7.7	0.1020	µg/L	0.1020	ppb	14:27:28
2	Cr 267.716†	273.7	48.9	0.4212	µg/L	0.4212	ppb	14:27:28
2	Cu 324.752†	2717.0	-235.2	-0.9816	µg/L	-0.9816	ppb	14:27:08
2	Mn 257.610†	235.1	57.7	0.0764	µg/L	0.0764	ppb	14:27:28
2	Mo 202.031†	-24.3	13.5	0.4412	µg/L	0.4412	ppb	14:27:28
2	Ni 231.604†	-80.6	12.8	0.1604	µg/L	0.1604	ppb	14:27:28
2	P 214.914†	12.2	38.2	8.8553	µg/L	8.8553	ppb	14:27:28
2	Pb 220.353†	120.1	20.3	1.2507	µg/L	1.2507	ppb	14:27:28

2	S 181.975 Axial†	84.5	-1.8	-1.5350 µg/L	-1.5350 ppb	14:27:28
2	Sb 206.836†	83.0	-4.2	-0.5406 µg/L	-0.5406 ppb	14:27:28
2	Se 196.026†	18.6	13.0	5.14 µg/L	5.14 ppb	14:27:28
2	SiO2†	1753.8	68.9	7.2716 µg/L	7.2716 ppb	14:27:28
2	Si 251.611†	881.5	141.6	2.2224 µg/L	2.2224 ppb	14:27:08
2	Sn 189.927†	12.9	11.5	0.7951 µg/L	0.7951 ppb	14:27:28
2	Ti 334.940†	781.5	-17.3	-0.0189 µg/L	-0.0189 ppb	14:27:08
2	Tl 190.801†	-108.7	2.3	0.3096 µg/L	0.3096 ppb	14:27:28
2	U 409.014†	-122.8	36.8	2.3187 µg/L	2.3187 ppb	14:27:08
2	V 292.402†	402.5	-8.3	-0.0354 µg/L	-0.0354 ppb	14:27:08
2	Zn 213.857†	560.6	74.9	0.4470 µg/L	0.4470 ppb	14:27:28
3	Sc RADIAL	133768.8	133768.8	95.5 %		14:26:03
3	Al 396.153Radial†	-64.1	11.4	2.3747 µg/L	2.3747 ppb	14:26:23
3	Ca 317.933Radial†	697.6	159.1	10.838 µg/L	10.838 ppb	14:26:23
3	Fe 238.204 Radial†	145.6	35.2	2.6306 µg/L	2.6306 ppb	14:26:23
3	K 766.490 Radial†	1455.8	30.8	12.207 µg/L	12.207 ppb	14:26:03
3	Mg 279.077 IEC†	166.8	2.2	1.0226 µg/L	1.0226 ppb	14:26:23
3	Na 589.592 Radial†	973.9	67.5	10.449 µg/L	10.449 ppb	14:26:03
3	Sr 421.552†	-191.0	4.5	0.0105 µg/L	0.0105 ppb	14:26:03
3	Sc 361.383	1764370.3	1764370.3	97.795 %		14:27:30
3	Y 371.029	1036609.8	1036609.8	98.043 %		14:27:30
3	Ag 328.068†	4248.4	-220.9	-0.8990 µg/L	-0.8990 ppb	14:27:32
3	As 188.979†	-8.0	10.4	3.5165 µg/L	3.5165 ppb	14:27:52
3	B 249.677†	4008.5	33.8	0.5262 µg/L	0.5262 ppb	14:27:32
3	Ba 233.527†	-168.9	-28.1	-0.1244 µg/L	-0.1244 ppb	14:27:52
3	Be 313.107†	-576.0	502.7	0.1446 µg/L	0.1446 ppb	14:27:32
3	Cd 226.502†	-75.3	26.4	0.1782 µg/L	0.1782 ppb	14:27:52
3	Co 228.616†	-225.0	-19.7	-0.2613 µg/L	-0.2613 ppb	14:27:52
3	Cr 267.716†	253.5	26.0	0.2283 µg/L	0.2283 ppb	14:27:52
3	Cu 324.752†	2805.8	-167.0	-0.7011 µg/L	-0.7011 ppb	14:27:32
3	Mn 257.610†	227.4	47.8	0.0634 µg/L	0.0634 ppb	14:27:52
3	Mo 202.031†	-20.3	17.9	0.5842 µg/L	0.5842 ppb	14:27:52
3	Ni 231.604†	-74.8	19.4	0.2426 µg/L	0.2426 ppb	14:27:52
3	P 214.914†	4.8	30.6	7.0853 µg/L	7.0853 ppb	14:27:52
3	Pb 220.353†	93.9	-7.4	-0.4525 µg/L	-0.4525 ppb	14:27:52
3	S 181.975 Axial†	94.3	7.5	6.2792 µg/L	6.2792 ppb	14:27:52
3	Sb 206.836†	92.1	4.5	0.5874 µg/L	0.5874 ppb	14:27:52
3	Se 196.026†	21.9	16.2	6.39 µg/L	6.39 ppb	14:27:52
3	SiO2†	1713.4	13.0	1.3488 µg/L	1.3488 ppb	14:27:52
3	Si 251.611†	899.6	152.8	2.3986 µg/L	2.3986 ppb	14:27:32
3	Sn 189.927†	9.5	7.8	0.5426 µg/L	0.5426 ppb	14:27:52
3	Ti 334.940†	987.2	186.5	0.1930 µg/L	0.1930 ppb	14:27:32
3	Tl 190.801†	-107.4	4.5	0.6235 µg/L	0.6235 ppb	14:27:52
3	U 409.014†	-212.1	-53.6	-3.3326 µg/L	-3.3326 ppb	14:27:32
3	V 292.402†	569.1	158.7	0.8269 µg/L	0.8269 ppb	14:27:32
3	Zn 213.857†	576.3	86.3	0.5140 µg/L	0.5140 ppb	14:27:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1753619.7	97.199	%	0.5264				0.54%
Sc RADIAL	134859.7	96.3	%	0.68				0.70%
Y 371.029	1030429.5	97.459	%	0.5364				0.55%
Ag 328.068†	-229.3	-0.9348	µg/L	0.35573	-0.9348	ppb	0.35573	38.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.9	-0.2213	µg/L	2.35444	-0.2213	ppb	2.35444	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.3	1.4565	µg/L	2.68891	1.4565	ppb	2.68891	184.62%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	127.6	1.9836	µg/L	1.29571	1.9836	ppb	1.29571	65.32%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-17.8	-0.0787	µg/L	0.08302	-0.0787	ppb	0.08302	105.44%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	373.2	0.1079	µg/L	0.03599	0.1079	ppb	0.03599	33.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	148.1	10.088	µg/L	0.8340	10.088	ppb	0.8340	8.27%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.9	0.0734	µg/L	0.09136	0.0734	ppb	0.09136	124.41%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.5	0.0593	µg/L	0.30156	0.0593	ppb	0.30156	508.21%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                36.9      0.3197 µg/L       0.09683      0.3197 ppb        0.09683  30.29%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -150.5     -0.6297 µg/L       0.39241     -0.6297 ppb        0.39241  62.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         34.1      2.5473 µg/L       0.39795      2.5473 ppb        0.39795  15.62%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          95.1     37.693 µg/L       46.2173     37.693 ppb        46.2173 122.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             6.9      3.1890 µg/L       2.35700      3.1890 ppb        2.35700  73.91%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                53.7      0.0712 µg/L       0.00685      0.0712 ppb        0.00685   9.63%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                15.1      0.4947 µg/L       0.07807      0.4947 ppb        0.07807  15.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        135.7     21.004 µg/L       10.0325     21.004 ppb        10.0325  47.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                13.7      0.1717 µg/L       0.06598      0.1717 ppb        0.06598  38.43%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 35.8      8.2829 µg/L       1.03751      8.2829 ppb        1.03751  12.53%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 8.2      0.5053 µg/L       0.87123      0.5053 ppb        0.87123 172.42%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.8      3.2094 µg/L       4.16755      3.2094 ppb        4.16755 129.85%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.6      0.2076 µg/L       0.64799      0.2076 ppb        0.64799 312.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 9.9        3.89 µg/L         3.309        3.89 ppb          3.309  85.13%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      48.6      5.1259 µg/L       3.28116      5.1259 ppb        3.28116  64.01%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               142.2      2.2317 µg/L       0.16244      2.2317 ppb        0.16244   7.28%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.3      0.5069 µg/L       0.30758      0.5069 ppb        0.30758  60.68%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                53.6      0.1263 µg/L       0.10411      0.1263 ppb        0.10411  82.42%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -11.7     -0.0119 µg/L       0.20144     -0.0119 ppb        0.20144 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.8     -0.1066 µg/L       1.00508     -0.1066 ppb        1.00508 942.93%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -11.7     -0.7119 µg/L       2.84786     -0.7119 ppb        2.84786 400.01%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 83.0      0.4357 µg/L       0.43668      0.4357 ppb        0.43668 100.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                81.1      0.4832 µg/L       0.03385      0.4832 ppb        0.03385   7.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 14:55:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	133793.1	133793.1	95.5	%			14:56:26
1	Al 396.153Radial†	22430.5	23565.3	4938.2	µg/L	4938.2	ppb	14:56:26
1	Ca 317.933Radial†	71723.2	74529.0	5076.1	µg/L	5076.1	ppb	14:56:26
1	Fe 238.204 Radial†	64182.6	67087.5	5010.0	µg/L	5010.0	ppb	14:56:26
1	K 766.490 Radial†	13696.8	12847.9	5086.8	µg/L	5086.8	ppb	14:56:26
1	Mg 279.077 IEC†	10745.8	11079.3	5123.7	µg/L	5123.7	ppb	14:56:26
1	Na 589.592 Radial†	63173.0	65195.1	10101	µg/L	10101	ppb	14:56:26
1	Sr 421.552†	204308.8	214133.5	504.99	µg/L	504.99	ppb	14:56:24
1	Sc 361.383	1765298.2	1765298.2	97.846	%			14:56:53
1	Y 371.029	1026485.4	1026485.4	97.086	%			14:56:53
1	Ag 328.068†	123719.2	121877.1	505.18	µg/L	505.18	ppb	14:56:53
1	As 188.979†	1297.6	1344.7	462.11	µg/L	462.11	ppb	14:57:13
1	B 249.677†	35380.8	32094.4	497.36	µg/L	497.36	ppb	14:56:53
1	Ba 233.527†	109483.7	112038.0	498.40	µg/L	498.40	ppb	14:56:53
1	Be 313.107†	1649103.9	1686492.8	488.67	µg/L	488.67	ppb	14:56:53
1	Cd 226.502†	73021.2	74731.8	504.78	µg/L	504.78	ppb	14:56:53
1	Co 228.616†	37388.6	38421.9	508.56	µg/L	508.56	ppb	14:56:53
1	Cr 267.716†	57069.9	58092.8	502.44	µg/L	502.44	ppb	14:56:53
1	Cu 324.752†	119466.9	119060.3	499.54	µg/L	499.54	ppb	14:56:53
1	Mn 257.610†	370659.1	378632.7	502.06	µg/L	502.06	ppb	14:56:53
1	Mo 202.031†	14894.8	15261.2	499.56	µg/L	499.56	ppb	14:57:13
1	Ni 231.604†	39408.6	40371.9	505.10	µg/L	505.10	ppb	14:56:53
1	P 214.914†	10459.1	10715.0	2470.0	µg/L	2470.0	ppb	14:57:13
1	Pb 220.353†	8079.2	8153.6	503.32	µg/L	503.32	ppb	14:57:13
1	S 181.975 Axial†	1247.4	1185.9	1001.9	µg/L	1001.9	ppb	14:57:13
1	Sb 206.836†	3840.0	3834.8	495.57	µg/L	495.57	ppb	14:57:13
1	Se 196.026†	1235.1	1256.1	497	µg/L	497	ppb	14:57:13
1	SiO2†	50957.4	50339.9	5309.6	µg/L	5309.6	ppb	14:56:53
1	Si 251.611†	155746.2	158407.2	2488.0	µg/L	2488.0	ppb	14:56:53
1	Sn 189.927†	6926.8	7077.4	492.59	µg/L	492.59	ppb	14:57:13
1	Ti 334.940†	474909.6	484539.5	497.02	µg/L	497.02	ppb	14:56:53
1	Tl 190.801†	3448.7	3638.9	504.37	µg/L	504.37	ppb	14:57:13
1	U 409.014†	7035.9	7354.2	494.60	µg/L	494.60	ppb	14:56:53
1	V 292.402†	94772.7	96435.5	506.47	µg/L	506.47	ppb	14:56:53
1	Zn 213.857†	83357.2	84689.0	501.77	µg/L	501.77	ppb	14:56:53
2	Sc RADIAL	134689.6	134689.6	96.1	%			14:56:30
2	Al 396.153Radial†	22494.5	23475.5	4918.8	µg/L	4918.8	ppb	14:56:30
2	Ca 317.933Radial†	72003.2	74320.3	5061.9	µg/L	5061.9	ppb	14:56:30
2	Fe 238.204 Radial†	64454.1	66922.5	4997.7	µg/L	4997.7	ppb	14:56:30
2	K 766.490 Radial†	13841.1	12902.6	5108.5	µg/L	5108.5	ppb	14:56:30
2	Mg 279.077 IEC†	10637.6	10891.9	5037.4	µg/L	5037.4	ppb	14:56:30
2	Na 589.592 Radial†	63583.5	65181.8	10099	µg/L	10099	ppb	14:56:30
2	Sr 421.552†	201922.7	210227.8	495.78	µg/L	495.78	ppb	14:56:28
2	Sc 361.383	1742212.2	1742212.2	96.567	%			14:57:16
2	Y 371.029	1013451.2	1013451.2	95.853	%			14:57:16
2	Ag 328.068†	122012.2	121785.0	504.79	µg/L	504.79	ppb	14:57:16
2	As 188.979†	1301.9	1366.7	469.56	µg/L	469.56	ppb	14:57:36
2	B 249.677†	34882.6	32057.6	496.80	µg/L	496.80	ppb	14:57:16
2	Ba 233.527†	107987.6	111971.4	498.11	µg/L	498.11	ppb	14:57:16
2	Be 313.107†	1623811.8	1682634.6	487.56	µg/L	487.56	ppb	14:57:16
2	Cd 226.502†	71816.9	74473.5	503.04	µg/L	503.04	ppb	14:57:16
2	Co 228.616†	36674.6	38188.8	505.47	µg/L	505.47	ppb	14:57:16
2	Cr 267.716†	56259.4	58026.4	501.87	µg/L	501.87	ppb	14:57:16
2	Cu 324.752†	118255.4	119423.6	501.06	µg/L	501.06	ppb	14:57:16
2	Mn 257.610†	365228.0	378028.2	501.26	µg/L	501.26	ppb	14:57:16
2	Mo 202.031†	14968.1	15538.8	508.64	µg/L	508.64	ppb	14:57:36
2	Ni 231.604†	38749.7	40223.3	503.24	µg/L	503.24	ppb	14:57:16
2	P 214.914†	10553.1	10954.0	2525.3	µg/L	2525.3	ppb	14:57:36
2	Pb 220.353†	8113.4	8298.4	512.25	µg/L	512.25	ppb	14:57:36

2	S 181.975 Axial†	1253.0	1208.6	1021.1 µg/L	1021.1 ppb	14:57:36
2	Sb 206.836†	3873.5	3921.5	506.89 µg/L	506.89 ppb	14:57:36
2	Se 196.026†	1261.0	1299.7	514 µg/L	514 ppb	14:57:36
2	SiO2†	50246.3	50293.6	5304.3 µg/L	5304.3 ppb	14:57:16
2	Si 251.611†	153726.7	158425.0	2488.1 µg/L	2488.1 ppb	14:57:16
2	Sn 189.927†	6981.9	7228.2	503.06 µg/L	503.06 ppb	14:57:36
2	Ti 334.940†	469138.7	484995.0	497.49 µg/L	497.49 ppb	14:57:16
2	Tl 190.801†	3459.3	3696.6	512.26 µg/L	512.26 ppb	14:57:36
2	U 409.014†	6968.6	7379.7	496.17 µg/L	496.17 ppb	14:57:16
2	V 292.402†	93382.2	96278.9	505.75 µg/L	505.75 ppb	14:57:16
2	Zn 213.857†	82058.5	84472.9	500.49 µg/L	500.49 ppb	14:57:16
3	Sc RADIAL	134604.9	134604.9	96.1 %		14:56:34
3	Al 396.153Radial†	22526.5	23523.5	4929.2 µg/L	4929.2 ppb	14:56:34
3	Ca 317.933Radial†	71773.5	74128.4	5048.8 µg/L	5048.8 ppb	14:56:34
3	Fe 238.204 Radial†	64420.6	66929.9	4998.3 µg/L	4998.3 ppb	14:56:34
3	K 766.490 Radial†	13879.0	12951.1	5127.7 µg/L	5127.7 ppb	14:56:34
3	Mg 279.077 IEC†	10624.6	10885.3	5034.2 µg/L	5034.2 ppb	14:56:34
3	Na 589.592 Radial†	63279.0	64906.5	10056 µg/L	10056 ppb	14:56:34
3	Sr 421.552†	202743.9	211214.6	498.10 µg/L	498.10 ppb	14:56:32
3	Sc 361.383	1754637.8	1754637.8	97.255 %		14:57:39
3	Y 371.029	1020489.9	1020489.9	96.519 %		14:57:39
3	Ag 328.068†	122946.0	121850.3	505.07 µg/L	505.07 ppb	14:57:39
3	As 188.979†	1311.4	1367.0	469.65 µg/L	469.65 ppb	14:57:59
3	B 249.677†	35123.6	32049.6	496.67 µg/L	496.67 ppb	14:57:39
3	Ba 233.527†	108888.2	112105.5	498.70 µg/L	498.70 ppb	14:57:39
3	Be 313.107†	1634927.6	1682156.2	487.42 µg/L	487.42 ppb	14:57:39
3	Cd 226.502†	72497.9	74647.1	504.21 µg/L	504.21 ppb	14:57:39
3	Co 228.616†	37076.9	38333.5	507.39 µg/L	507.39 ppb	14:57:39
3	Cr 267.716†	56675.3	58041.5	501.99 µg/L	501.99 ppb	14:57:39
3	Cu 324.752†	118752.1	119067.1	499.57 µg/L	499.57 ppb	14:57:39
3	Mn 257.610†	368200.0	378405.7	501.76 µg/L	501.76 ppb	14:57:39
3	Mo 202.031†	14911.8	15371.1	503.15 µg/L	503.15 ppb	14:57:59
3	Ni 231.604†	39141.9	40342.3	504.73 µg/L	504.73 ppb	14:57:39
3	P 214.914†	10489.0	10810.7	2492.2 µg/L	2492.2 ppb	14:57:59
3	Pb 220.353†	8083.4	8208.0	506.67 µg/L	506.67 ppb	14:57:59
3	S 181.975 Axial†	1248.1	1194.4	1009.0 µg/L	1009.0 ppb	14:57:59
3	Sb 206.836†	3847.1	3866.0	499.64 µg/L	499.64 ppb	14:57:59
3	Se 196.026†	1224.2	1252.6	496 µg/L	496 ppb	14:57:59
3	SiO2†	50393.8	50076.8	5281.6 µg/L	5281.6 ppb	14:57:39
3	Si 251.611†	154946.9	158552.4	2490.2 µg/L	2490.2 ppb	14:57:39
3	Sn 189.927†	6921.6	7115.1	495.21 µg/L	495.21 ppb	14:57:59
3	Ti 334.940†	472850.0	485370.6	497.87 µg/L	497.87 ppb	14:57:39
3	Tl 190.801†	3453.2	3664.9	507.93 µg/L	507.93 ppb	14:57:59
3	U 409.014†	7151.4	7516.6	504.80 µg/L	504.80 ppb	14:57:39
3	V 292.402†	94044.3	96275.0	505.68 µg/L	505.68 ppb	14:57:39
3	Zn 213.857†	82782.7	84615.8	501.33 µg/L	501.33 ppb	14:57:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1754049.4	97.223	%	0.6404				0.66%
Sc RADIAL	134362.5	95.9	%	0.35				0.37%
Y 371.029	1020142.1	96.486	%	0.6170				0.64%
Ag 328.068†	121837.5	505.01	µg/L	0.198	505.01	ppb	0.198	0.04%
QC value within limits for Ag 328.068 Recovery = 101.00%								
Al 396.153Radial†	23521.4	4928.7	µg/L	9.67	4928.7	ppb	9.67	0.20%
QC value within limits for Al 396.153Radial Recovery = 98.57%								
As 188.979†	1359.5	467.11	µg/L	4.325	467.11	ppb	4.325	0.93%
QC value within limits for As 188.979 Recovery = 93.42%								
B 249.677†	32067.2	496.94	µg/L	0.368	496.94	ppb	0.368	0.07%
QC value within limits for B 249.677 Recovery = 99.39%								
Ba 233.527†	112038.3	498.41	µg/L	0.297	498.41	ppb	0.297	0.06%
QC value within limits for Ba 233.527 Recovery = 99.68%								
Be 313.107†	1683761.2	487.88	µg/L	0.688	487.88	ppb	0.688	0.14%
QC value within limits for Be 313.107 Recovery = 97.58%								
Ca 317.933Radial†	74325.9	5062.3	µg/L	13.65	5062.3	ppb	13.65	0.27%
QC value within limits for Ca 317.933Radial Recovery = 101.25%								
Cd 226.502†	74617.5	504.01	µg/L	0.890	504.01	ppb	0.890	0.18%
QC value within limits for Cd 226.502 Recovery = 100.80%								
Co 228.616†	38314.7	507.14	µg/L	1.556	507.14	ppb	1.556	0.31%

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   QC value within limits for Co 228.616  Recovery = 101.43%
Cr 267.716†            58053.6      502.10 µg/L         0.303      502.10 ppb          0.303   0.06%
   QC value within limits for Cr 267.716  Recovery = 100.42%
Cu 324.752†           119183.7      500.06 µg/L         0.865      500.06 ppb          0.865   0.17%
   QC value within limits for Cu 324.752  Recovery = 100.01%
Fe 238.204 Radial†     66980.0      5002.0 µg/L          6.96      5002.0 ppb           6.96   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.04%
K 766.490 Radial†      12900.5      5107.7 µg/L         20.47      5107.7 ppb          20.47   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 102.15%
Mg 279.077 IEC†        10952.2      5065.1 µg/L         50.76      5065.1 ppb          50.76   1.00%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.30%
Mn 257.610†           378355.5      501.69 µg/L         0.404      501.69 ppb          0.404   0.08%
   QC value within limits for Mn 257.610  Recovery = 100.34%
Mo 202.031†            15390.4      503.78 µg/L         4.570      503.78 ppb          4.570   0.91%
   QC value within limits for Mo 202.031  Recovery = 100.76%
Na 589.592 Radial†     65094.5       10086 µg/L          25.3       10086 ppb           25.3   0.25%
   QC value within limits for Na 589.592 Radial  Recovery = 100.86%
Ni 231.604†            40312.5      504.36 µg/L         0.984      504.36 ppb          0.984   0.20%
   QC value within limits for Ni 231.604  Recovery = 100.87%
P 214.914†             10826.6      2495.8 µg/L         27.82      2495.8 ppb          27.82   1.11%
   QC value within limits for P 214.914  Recovery = 99.83%
Pb 220.353†             8220.0      507.41 µg/L         4.513      507.41 ppb          4.513   0.89%
   QC value within limits for Pb 220.353  Recovery = 101.48%
S 181.975 Axial†        1196.3      1010.7 µg/L          9.69      1010.7 ppb           9.69   0.96%
   QC value within limits for S 181.975 Axial  Recovery = 101.07%
Sb 206.836†             3874.1      500.70 µg/L         5.735      500.70 ppb          5.735   1.15%
   QC value within limits for Sb 206.836  Recovery = 100.14%
Se 196.026†             1269.5         502 µg/L          10.3         502 ppb           10.3   2.06%
   QC value within limits for Se 196.026  Recovery = 100.46%
SiO2†                  50236.8      5298.5 µg/L         14.88      5298.5 ppb          14.88   0.28%
   QC value within limits for SiO2  Recovery = 99.08%
Si 251.611†           158461.6      2488.8 µg/L         1.26      2488.8 ppb           1.26   0.05%
   QC value within limits for Si 251.611  Recovery = 99.55%
Sn 189.927†             7140.2      496.95 µg/L         5.446      496.95 ppb          5.446   1.10%
   QC value within limits for Sn 189.927  Recovery = 99.39%
Sr 421.552†           211858.6      499.62 µg/L         4.790      499.62 ppb          4.790   0.96%
   QC value within limits for Sr 421.552  Recovery = 99.92%
Ti 334.940†           484968.3      497.46 µg/L         0.429      497.46 ppb          0.429   0.09%
   QC value within limits for Ti 334.940  Recovery = 99.49%
Tl 190.801†             3666.8      508.19 µg/L         3.950      508.19 ppb          3.950   0.78%
   QC value within limits for Tl 190.801  Recovery = 101.64%
U 409.014†              7416.8      498.52 µg/L         5.494      498.52 ppb          5.494   1.10%
   QC value within limits for U 409.014  Recovery = 99.70%
V 292.402†             96329.8      505.96 µg/L         0.437      505.96 ppb          0.437   0.09%
   QC value within limits for V 292.402  Recovery = 101.19%
Zn 213.857†            84592.5      501.20 µg/L         0.650      501.20 ppb          0.650   0.13%
   QC value within limits for Zn 213.857  Recovery = 100.24%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 14:58:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138044.4	138044.4	98.5	%			14:58:36
1	Al 396.153Radial†	-84.8	-7.5	-1.6153	µg/L	-1.6153	ppb	14:58:56
1	Ca 317.933Radial†	705.7	144.7	9.8564	µg/L	9.8564	ppb	14:58:56
1	Fe 238.204 Radial†	143.9	28.7	2.1458	µg/L	2.1458	ppb	14:58:56
1	K 766.490 Radial†	1582.5	112.1	44.418	µg/L	44.418	ppb	14:58:36
1	Mg 279.077 IEC†	198.0	28.5	13.174	µg/L	13.174	ppb	14:58:56
1	Na 589.592 Radial†	1559.9	630.6	97.707	µg/L	97.707	ppb	14:58:36
1	Sr 421.552†	-218.7	-17.4	-0.0412	µg/L	-0.0412	ppb	14:58:36
1	Sc 361.383	1793195.2	1793195.2	99.393	%			14:59:58
1	Y 371.029	1053635.4	1053635.4	99.654	%			14:59:58
1	Ag 328.068†	4087.3	-452.9	-1.8646	µg/L	-1.8646	ppb	15:00:00
1	As 188.979†	-19.6	-1.1	-0.3729	µg/L	-0.3729	ppb	15:00:20
1	B 249.677†	4109.6	69.6	1.0828	µg/L	1.0828	ppb	15:00:00
1	Ba 233.527†	-142.8	0.9	0.0039	µg/L	0.0039	ppb	15:00:20
1	Be 313.107†	-872.0	214.4	0.0606	µg/L	0.0606	ppb	15:00:00
1	Cd 226.502†	-107.9	-5.2	-0.0353	µg/L	-0.0353	ppb	15:00:20
1	Co 228.616†	-211.6	-2.6	-0.0342	µg/L	-0.0342	ppb	15:00:20
1	Cr 267.716†	281.2	49.7	0.4336	µg/L	0.4336	ppb	15:00:20
1	Cu 324.752†	2771.3	-247.9	-1.0403	µg/L	-1.0403	ppb	15:00:00
1	Mn 257.610†	228.2	44.9	0.0591	µg/L	0.0591	ppb	15:00:20
1	Mo 202.031†	-17.8	20.6	0.6752	µg/L	0.6752	ppb	15:00:20
1	Ni 231.604†	-82.3	13.1	0.1639	µg/L	0.1639	ppb	15:00:20
1	P 214.914†	23.7	49.5	11.467	µg/L	11.467	ppb	15:00:20
1	Pb 220.353†	104.1	1.2	0.0815	µg/L	0.0815	ppb	15:00:20
1	S 181.975 Axial†	98.7	10.4	8.7743	µg/L	8.7743	ppb	15:00:20
1	Sb 206.836†	81.2	-8.0	-1.0248	µg/L	-1.0248	ppb	15:00:20
1	Se 196.026†	14.5	8.4	3.32	µg/L	3.32	ppb	15:00:20
1	SiO2†	1760.2	31.9	3.3405	µg/L	3.3405	ppb	15:00:20
1	Si 251.611†	867.4	105.7	1.6508	µg/L	1.6508	ppb	15:00:00
1	Sn 189.927†	15.5	13.7	0.9464	µg/L	0.9464	ppb	15:00:20
1	Ti 334.940†	430.4	-390.0	-0.3995	µg/L	-0.3995	ppb	15:00:00
1	Tl 190.801†	-112.9	0.6	0.0819	µg/L	0.0819	ppb	15:00:20
1	U 409.014†	-242.6	-80.8	-5.1166	µg/L	-5.1166	ppb	15:00:00
1	V 292.402†	351.7	-69.4	-0.3542	µg/L	-0.3542	ppb	15:00:00
1	Zn 213.857†	586.1	86.7	0.5172	µg/L	0.5172	ppb	15:00:20
2	Sc RADIAL	137381.4	137381.4	98.1	%			14:58:58
2	Al 396.153Radial†	-89.4	-12.6	-2.6886	µg/L	-2.6886	ppb	14:59:18
2	Ca 317.933Radial†	702.2	144.6	9.8473	µg/L	9.8473	ppb	14:59:18
2	Fe 238.204 Radial†	160.7	46.5	3.4759	µg/L	3.4759	ppb	14:59:18
2	K 766.490 Radial†	1753.9	294.7	116.77	µg/L	116.77	ppb	14:58:58
2	Mg 279.077 IEC†	160.0	-9.3	-4.2864	µg/L	-4.2864	ppb	14:59:18
2	Na 589.592 Radial†	1439.6	515.5	79.810	µg/L	79.810	ppb	14:58:58
2	Sr 421.552†	-276.7	-77.7	-0.1834	µg/L	-0.1834	ppb	14:58:58
2	Sc 361.383	1785321.1	1785321.1	98.956	%			15:00:22
2	Y 371.029	1049355.3	1049355.3	99.249	%			15:00:22
2	Ag 328.068†	4310.0	-209.7	-0.8687	µg/L	-0.8687	ppb	15:00:25
2	As 188.979†	-18.2	0.2	0.0627	µg/L	0.0627	ppb	15:00:45
2	B 249.677†	4111.2	89.4	1.3899	µg/L	1.3899	ppb	15:00:25
2	Ba 233.527†	-132.8	10.3	0.0462	µg/L	0.0462	ppb	15:00:45
2	Be 313.107†	-503.9	582.5	0.1658	µg/L	0.1658	ppb	15:00:25
2	Cd 226.502†	-82.6	19.9	0.1341	µg/L	0.1341	ppb	15:00:45
2	Co 228.616†	-204.4	3.7	0.0489	µg/L	0.0489	ppb	15:00:45
2	Cr 267.716†	276.4	46.1	0.4066	µg/L	0.4066	ppb	15:00:45
2	Cu 324.752†	2998.7	-5.8	-0.0318	µg/L	-0.0318	ppb	15:00:25
2	Mn 257.610†	273.1	91.3	0.1213	µg/L	0.1213	ppb	15:00:45
2	Mo 202.031†	-14.2	24.2	0.7908	µg/L	0.7908	ppb	15:00:45
2	Ni 231.604†	-72.5	22.6	0.2827	µg/L	0.2827	ppb	15:00:45
2	P 214.914†	21.9	47.8	11.054	µg/L	11.054	ppb	15:00:45
2	Pb 220.353†	100.4	-1.9	-0.1109	µg/L	-0.1109	ppb	15:00:45

2	S 181.975 Axial†	111.6	23.8	20.067 µg/L	20.067 ppb	15:00:45
2	Sb 206.836†	73.8	-15.1	-1.9429 µg/L	-1.9429 ppb	15:00:45
2	Se 196.026†	10.5	4.5	1.76 µg/L	1.76 ppb	15:00:45
2	SiO2†	1741.5	20.8	2.1669 µg/L	2.1669 ppb	15:00:45
2	Si 251.611†	859.0	101.0	1.5766 µg/L	1.5766 ppb	15:00:25
2	Sn 189.927†	14.7	13.0	0.8983 µg/L	0.8983 ppb	15:00:45
2	Ti 334.940†	757.5	-57.6	-0.0547 µg/L	-0.0547 ppb	15:00:25
2	Tl 190.801†	-123.5	-10.5	-1.4322 µg/L	-1.4322 ppb	15:00:45
2	U 409.014†	-313.5	-153.4	-9.6734 µg/L	-9.6734 ppb	15:00:25
2	V 292.402†	449.5	31.0	0.1636 µg/L	0.1636 ppb	15:00:25
2	Zn 213.857†	555.8	58.6	0.3478 µg/L	0.3478 ppb	15:00:45
3	Sc RADIAL	138455.0	138455.0	98.8 %		14:59:20
3	Al 396.153Radial†	-78.6	-1.0	-0.2452 µg/L	-0.2452 ppb	14:59:40
3	Ca 317.933Radial†	693.8	130.5	8.8893 µg/L	8.8893 ppb	14:59:40
3	Fe 238.204 Radial†	133.6	17.9	1.3380 µg/L	1.3380 ppb	14:59:40
3	K 766.490 Radial†	1590.3	115.3	45.676 µg/L	45.676 ppb	14:59:20
3	Mg 279.077 IEC†	171.8	1.4	0.6697 µg/L	0.6697 ppb	14:59:40
3	Na 589.592 Radial†	1454.2	518.9	80.388 µg/L	80.388 ppb	14:59:20
3	Sr 421.552†	-186.5	15.8	0.0372 µg/L	0.0372 ppb	14:59:20
3	Sc 361.383	1770801.1	1770801.1	98.151 %		15:00:47
3	Y 371.029	1040334.6	1040334.6	98.396 %		15:00:47
3	Ag 328.068†	4238.3	-247.0	-1.0326 µg/L	-1.0326 ppb	15:00:49
3	As 188.979†	-20.0	-1.8	-0.6162 µg/L	-0.6162 ppb	15:01:09
3	B 249.677†	4030.2	41.0	0.6367 µg/L	0.6367 ppb	15:00:49
3	Ba 233.527†	-163.4	-21.9	-0.0974 µg/L	-0.0974 ppb	15:01:09
3	Be 313.107†	-721.7	356.5	0.0990 µg/L	0.0990 ppb	15:00:49
3	Cd 226.502†	-80.1	21.8	0.1474 µg/L	0.1474 ppb	15:01:09
3	Co 228.616†	-191.4	15.3	0.2019 µg/L	0.2019 ppb	15:01:09
3	Cr 267.716†	256.4	28.0	0.2531 µg/L	0.2531 ppb	15:01:09
3	Cu 324.752†	2743.9	-240.5	-1.0173 µg/L	-1.0173 ppb	15:00:49
3	Mn 257.610†	241.2	61.0	0.0809 µg/L	0.0809 ppb	15:01:09
3	Mo 202.031†	-17.0	21.2	0.6937 µg/L	0.6937 ppb	15:01:09
3	Ni 231.604†	-55.4	39.4	0.4935 µg/L	0.4935 ppb	15:01:09
3	P 214.914†	15.1	41.0	9.5028 µg/L	9.5028 ppb	15:01:09
3	Pb 220.353†	103.8	2.3	0.1543 µg/L	0.1543 ppb	15:01:09
3	S 181.975 Axial†	106.9	20.0	16.821 µg/L	16.821 ppb	15:01:09
3	Sb 206.836†	86.5	-1.6	-0.2020 µg/L	-0.2020 ppb	15:01:09
3	Se 196.026†	31.1	25.6	10.1 µg/L	10.1 ppb	15:01:09
3	SiO2†	1757.4	51.4	5.4209 µg/L	5.4209 ppb	15:01:09
3	Si 251.611†	971.0	222.3	3.4932 µg/L	3.4932 ppb	15:00:49
3	Sn 189.927†	8.1	6.4	0.4416 µg/L	0.4416 ppb	15:01:09
3	Ti 334.940†	788.6	-19.5	-0.0142 µg/L	-0.0142 ppb	15:00:49
3	Tl 190.801†	-110.6	1.6	0.2188 µg/L	0.2188 ppb	15:01:09
3	U 409.014†	-381.1	-224.9	-14.214 µg/L	-14.214 ppb	15:00:49
3	V 292.402†	353.3	-63.3	-0.3296 µg/L	-0.3296 ppb	15:00:49
3	Zn 213.857†	578.7	86.6	0.5146 µg/L	0.5146 ppb	15:01:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783105.8	98.833	%	0.6297				0.64%
Sc RADIAL	137960.3	98.5	%	0.39				0.39%
Y 371.029	1047775.1	99.099	%	0.6422				0.65%
Ag 328.068†	-303.2	-1.2553	µg/L	0.53400	-1.2553	ppb	0.53400	42.54%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.0	-1.5163	µg/L	1.22467	-1.5163	ppb	1.22467	80.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.9	-0.3088	µg/L	0.34395	-0.3088	ppb	0.34395	111.38%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	66.7	1.0365	µg/L	0.37874	1.0365	ppb	0.37874	36.54%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.6	-0.0158	µg/L	0.07377	-0.0158	ppb	0.07377	467.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	384.5	0.1085	µg/L	0.05326	0.1085	ppb	0.05326	49.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	139.9	9.5310	µg/L	0.55577	9.5310	ppb	0.55577	5.83%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	12.2	0.0821	µg/L	0.10186	0.0821	ppb	0.10186	124.08%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.5	0.0722	µg/L	0.11975	0.0722	ppb	0.11975	165.92%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              41.3      0.3644 µg/L       0.09736      0.3644 ppb        0.09736  26.72%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -164.7     -0.6965 µg/L       0.57577     -0.6965 ppb        0.57577  82.67%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       31.1      2.3199 µg/L       1.07956      2.3199 ppb        1.07956  46.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       174.1      68.954 µg/L       41.4138      68.954 ppb        41.4138  60.06%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           6.9      3.1857 µg/L       8.99780      3.1857 ppb        8.99780 282.45%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              65.7      0.0871 µg/L       0.03156      0.0871 ppb        0.03156  36.25%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              22.0      0.7199 µg/L       0.06207      0.7199 ppb        0.06207   8.62%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      555.0      85.968 µg/L       10.1699      85.968 ppb        10.1699  11.83%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              25.0      0.3134 µg/L       0.16695      0.3134 ppb        0.16695  53.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               46.1      10.675 µg/L        1.0358      10.675 ppb         1.0358   9.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.5      0.0416 µg/L       0.13704      0.0416 ppb        0.13704 329.04%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         18.1      15.221 µg/L        5.8140      15.221 ppb         5.8140  38.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -8.2     -1.0566 µg/L       0.87088     -1.0566 ppb        0.87088  82.42%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              12.8        5.05 µg/L         4.410        5.05 ppb          4.410  87.41%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    34.7      3.6428 µg/L       1.64796      3.6428 ppb        1.64796  45.24%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             143.0      2.2402 µg/L       1.08575      2.2402 ppb        1.08575  48.47%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              11.0      0.7621 µg/L       0.27860      0.7621 ppb        0.27860  36.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -26.4     -0.0624 µg/L       0.11181     -0.0624 ppb        0.11181 179.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -155.7     -0.1561 µg/L       0.21173     -0.1561 ppb        0.21173 135.64%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.7     -0.3772 µg/L       0.91625     -0.3772 ppb        0.91625 242.92%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -153.0     -9.6679 µg/L       4.54859     -9.6679 ppb        4.54859  47.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -33.9     -0.1734 µg/L       0.29211     -0.1734 ppb        0.29211 168.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              77.3      0.4599 µg/L       0.09708      0.4599 ppb        0.09708  21.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 23
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 15:16:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135738.0	135738.0	96.9	%			15:17:24
1	Al 396.153Radial†	22857.7	23669.6	4959.7	µg/L	4959.7	ppb	15:17:24
1	Ca 317.933Radial†	73024.7	74796.2	5094.3	µg/L	5094.3	ppb	15:17:24
1	Fe 238.204 Radial†	65755.8	67748.2	5059.4	µg/L	5059.4	ppb	15:17:24
1	K 766.490 Radial†	13910.2	12862.7	5092.7	µg/L	5092.7	ppb	15:17:24
1	Mg 279.077 IEC†	10881.8	11058.4	5114.2	µg/L	5114.2	ppb	15:17:24
1	Na 589.592 Radial†	64038.5	65140.6	10093	µg/L	10093	ppb	15:17:24
1	Sr 421.552†	204354.1	211115.0	497.87	µg/L	497.87	ppb	15:17:22
1	Sc 361.383	1764164.6	1764164.6	97.784	%			15:17:51
1	Y 371.029	1024554.1	1024554.1	96.903	%			15:17:51
1	Ag 328.068†	124127.5	122375.9	507.24	µg/L	507.24	ppb	15:17:51
1	As 188.979†	1328.6	1377.3	473.19	µg/L	473.19	ppb	15:18:11
1	B 249.677†	35379.1	32115.9	497.68	µg/L	497.68	ppb	15:17:51
1	Ba 233.527†	109997.1	112635.0	501.06	µg/L	501.06	ppb	15:17:51
1	Be 313.107†	1659256.4	1697958.5	491.99	µg/L	491.99	ppb	15:17:51
1	Cd 226.502†	73538.6	75308.9	508.68	µg/L	508.68	ppb	15:17:51
1	Co 228.616†	37673.5	38737.7	512.74	µg/L	512.74	ppb	15:17:51
1	Cr 267.716†	57414.4	58482.6	505.82	µg/L	505.82	ppb	15:17:51
1	Cu 324.752†	120081.7	119767.5	502.50	µg/L	502.50	ppb	15:17:51
1	Mn 257.610†	372787.6	381052.9	505.27	µg/L	505.27	ppb	15:17:51
1	Mo 202.031†	15151.5	15533.5	508.47	µg/L	508.47	ppb	15:18:11
1	Ni 231.604†	39621.1	40615.1	508.15	µg/L	508.15	ppb	15:17:51
1	P 214.914†	10707.2	10975.6	2530.3	µg/L	2530.3	ppb	15:18:11
1	Pb 220.353†	8241.7	8325.1	513.90	µg/L	513.90	ppb	15:18:11
1	S 181.975 Axial†	1276.8	1216.9	1028.0	µg/L	1028.0	ppb	15:18:11
1	Sb 206.836†	3922.3	3921.5	506.84	µg/L	506.84	ppb	15:18:11
1	Se 196.026†	1272.0	1294.7	512	µg/L	512	ppb	15:18:11
1	SiO2†	51556.6	50986.1	5377.6	µg/L	5377.6	ppb	15:17:51
1	Si 251.611†	157393.6	160194.2	2516.0	µg/L	2516.0	ppb	15:17:51
1	Sn 189.927†	7104.1	7263.2	505.49	µg/L	505.49	ppb	15:18:11
1	Ti 334.940†	477258.2	487253.2	499.81	µg/L	499.81	ppb	15:17:51
1	Tl 190.801†	3518.1	3712.1	514.40	µg/L	514.40	ppb	15:18:11
1	U 409.014†	6935.8	7256.4	488.58	µg/L	488.58	ppb	15:17:51
1	V 292.402†	95164.5	96898.4	508.96	µg/L	508.96	ppb	15:17:51
1	Zn 213.857†	83929.3	85328.7	505.56	µg/L	505.56	ppb	15:17:51
2	Sc RADIAL	136755.4	136755.4	97.6	%			15:17:28
2	Al 396.153Radial†	22930.5	23568.7	4938.5	µg/L	4938.5	ppb	15:17:28
2	Ca 317.933Radial†	73393.2	74613.0	5081.8	µg/L	5081.8	ppb	15:17:28
2	Fe 238.204 Radial†	65970.8	67463.6	5038.1	µg/L	5038.1	ppb	15:17:28
2	K 766.490 Radial†	14093.0	12943.2	5124.6	µg/L	5124.6	ppb	15:17:28
2	Mg 279.077 IEC†	10944.3	11038.9	5105.2	µg/L	5105.2	ppb	15:17:28
2	Na 589.592 Radial†	64185.6	64799.6	10040	µg/L	10040	ppb	15:17:28
2	Sr 421.552†	206740.5	211990.6	499.93	µg/L	499.93	ppb	15:17:26
2	Sc 361.383	1774867.6	1774867.6	98.377	%			15:18:14
2	Y 371.029	1031433.6	1031433.6	97.554	%			15:18:14
2	Ag 328.068†	124636.9	122128.2	506.22	µg/L	506.22	ppb	15:18:14
2	As 188.979†	1336.2	1376.8	473.00	µg/L	473.00	ppb	15:18:34
2	B 249.677†	35558.4	32080.0	497.13	µg/L	497.13	ppb	15:18:14
2	Ba 233.527†	110530.9	112499.2	500.46	µg/L	500.46	ppb	15:18:14
2	Be 313.107†	1664802.3	1693363.2	490.67	µg/L	490.67	ppb	15:18:14
2	Cd 226.502†	73953.2	75276.8	508.46	µg/L	508.46	ppb	15:18:14
2	Co 228.616†	37610.7	38441.5	508.82	µg/L	508.82	ppb	15:18:14
2	Cr 267.716†	57561.2	58277.7	504.04	µg/L	504.04	ppb	15:18:14
2	Cu 324.752†	120902.2	119861.0	502.90	µg/L	502.90	ppb	15:18:14
2	Mn 257.610†	374196.7	380186.2	504.12	µg/L	504.12	ppb	15:18:14
2	Mo 202.031†	15216.3	15506.0	507.57	µg/L	507.57	ppb	15:18:34
2	Ni 231.604†	39686.6	40437.3	505.92	µg/L	505.92	ppb	15:18:14
2	P 214.914†	10736.2	10939.1	2521.8	µg/L	2521.8	ppb	15:18:34
2	Pb 220.353†	8296.7	8330.2	514.20	µg/L	514.20	ppb	15:18:34

2	S 181.975 Axial†	1278.8	1211.0	1023.0 µg/L	1023.0 ppb	15:18:34
2	Sb 206.836†	3909.8	3884.6	502.09 µg/L	502.09 ppb	15:18:34
2	Se 196.026†	1253.0	1267.6	502 µg/L	502 ppb	15:18:34
2	SiO2†	51693.6	50807.4	5358.7 µg/L	5358.7 ppb	15:18:14
2	Si 251.611†	158586.7	160436.4	2519.8 µg/L	2519.8 ppb	15:18:14
2	Sn 189.927†	7100.7	7216.0	502.21 µg/L	502.21 ppb	15:18:34
2	Ti 334.940†	479020.6	486101.4	498.62 µg/L	498.62 ppb	15:18:14
2	Tl 190.801†	3527.6	3700.1	512.76 µg/L	512.76 ppb	15:18:34
2	U 409.014†	7098.9	7379.4	496.29 µg/L	496.29 ppb	15:18:14
2	V 292.402†	95557.7	96711.2	507.98 µg/L	507.98 ppb	15:18:14
2	Zn 213.857†	84077.4	84961.6	503.38 µg/L	503.38 ppb	15:18:14
3	Sc RADIAL	136723.7	136723.7	97.6 %		15:17:32
3	Al 396.153Radial†	22938.4	23582.2	4941.3 µg/L	4941.3 ppb	15:17:32
3	Ca 317.933Radial†	73950.6	75201.5	5121.9 µg/L	5121.9 ppb	15:17:32
3	Fe 238.204 Radial†	66451.5	67971.7	5076.1 µg/L	5076.1 ppb	15:17:32
3	K 766.490 Radial†	14098.3	12951.9	5128.0 µg/L	5128.0 ppb	15:17:32
3	Mg 279.077 IEC†	11022.8	11122.0	5143.5 µg/L	5143.5 ppb	15:17:32
3	Na 589.592 Radial†	64677.6	65318.9	10120 µg/L	10120 ppb	15:17:32
3	Sr 421.552†	206850.5	212152.3	500.31 µg/L	500.31 ppb	15:17:30
3	Sc 361.383	1765397.6	1765397.6	97.852 %		15:18:37
3	Y 371.029	1025865.3	1025865.3	97.027 %		15:18:37
3	Ag 328.068†	124053.7	122211.8	506.60 µg/L	506.60 ppb	15:18:37
3	As 188.979†	1331.9	1379.7	473.98 µg/L	473.98 ppb	15:18:57
3	B 249.677†	35495.2	32209.3	499.13 µg/L	499.13 ppb	15:18:37
3	Ba 233.527†	109878.0	112434.6	500.17 µg/L	500.17 ppb	15:18:37
3	Be 313.107†	1658745.9	1696251.6	491.51 µg/L	491.51 ppb	15:18:37
3	Cd 226.502†	73397.9	75112.6	507.35 µg/L	507.35 ppb	15:18:37
3	Co 228.616†	37638.2	38674.7	511.90 µg/L	511.90 ppb	15:18:37
3	Cr 267.716†	57256.1	58279.9	504.05 µg/L	504.05 ppb	15:18:37
3	Cu 324.752†	120344.3	119950.0	503.29 µg/L	503.29 ppb	15:18:37
3	Mn 257.610†	372836.8	380836.8	504.98 µg/L	504.98 ppb	15:18:37
3	Mo 202.031†	15173.4	15545.1	508.85 µg/L	508.85 ppb	15:18:57
3	Ni 231.604†	39743.3	40711.6	509.35 µg/L	509.35 ppb	15:18:37
3	P 214.914†	10695.7	10956.2	2525.7 µg/L	2525.7 ppb	15:18:57
3	Pb 220.353†	8232.5	8309.8	512.94 µg/L	512.94 ppb	15:18:57
3	S 181.975 Axial†	1266.8	1205.7	1018.6 µg/L	1018.6 ppb	15:18:57
3	Sb 206.836†	3901.0	3896.9	503.70 µg/L	503.70 ppb	15:18:57
3	Se 196.026†	1273.5	1295.3	513 µg/L	513 ppb	15:18:57
3	SiO2†	51559.7	50952.5	5374.0 µg/L	5374.0 ppb	15:18:37
3	Si 251.611†	158048.5	160751.1	2524.8 µg/L	2524.8 ppb	15:18:37
3	Sn 189.927†	7093.6	7247.5	504.40 µg/L	504.40 ppb	15:18:57
3	Ti 334.940†	477721.3	487385.6	499.93 µg/L	499.93 ppb	15:18:37
3	Tl 190.801†	3505.9	3697.2	512.36 µg/L	512.36 ppb	15:18:57
3	U 409.014†	7303.2	7626.9	511.96 µg/L	511.96 ppb	15:18:37
3	V 292.402†	95235.5	96903.0	508.99 µg/L	508.99 ppb	15:18:37
3	Zn 213.857†	83904.9	85243.8	505.04 µg/L	505.04 ppb	15:18:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1768143.2	98.004	%	0.3246				0.33%
Sc RADIAL	136405.7	97.4	%	0.41				0.42%
Y 371.029	1027284.3	97.161	%	0.3455				0.36%
Ag 328.068†	122238.7	506.69	µg/L	0.514	506.69	ppb	0.514	0.10%
QC value within limits for Ag 328.068 Recovery = 101.34%								
Al 396.153Radial†	23606.8	4946.5	µg/L	11.52	4946.5	ppb	11.52	0.23%
QC value within limits for Al 396.153Radial Recovery = 98.93%								
As 188.979†	1377.9	473.39	µg/L	0.523	473.39	ppb	0.523	0.11%
QC value within limits for As 188.979 Recovery = 94.68%								
B 249.677†	32135.0	497.98	µg/L	1.034	497.98	ppb	1.034	0.21%
QC value within limits for B 249.677 Recovery = 99.60%								
Ba 233.527†	112522.9	500.56	µg/L	0.455	500.56	ppb	0.455	0.09%
QC value within limits for Ba 233.527 Recovery = 100.11%								
Be 313.107†	1695857.7	491.39	µg/L	0.672	491.39	ppb	0.672	0.14%
QC value within limits for Be 313.107 Recovery = 98.28%								
Ca 317.933Radial†	74870.2	5099.3	µg/L	20.51	5099.3	ppb	20.51	0.40%
QC value within limits for Ca 317.933Radial Recovery = 101.99%								
Cd 226.502†	75232.8	508.17	µg/L	0.713	508.17	ppb	0.713	0.14%
QC value within limits for Cd 226.502 Recovery = 101.63%								
Co 228.616†	38618.0	511.15	µg/L	2.063	511.15	ppb	2.063	0.40%

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   QC value within limits for Co 228.616  Recovery = 102.23%
Cr 267.716†            58346.7      504.64 µg/L        1.025      504.64 ppb          1.025   0.20%
   QC value within limits for Cr 267.716  Recovery = 100.93%
Cu 324.752†           119859.5      502.90 µg/L        0.393      502.90 ppb          0.393   0.08%
   QC value within limits for Cu 324.752  Recovery = 100.58%
Fe 238.204 Radial†     67727.8      5057.9 µg/L        19.02      5057.9 ppb          19.02   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.16%
K 766.490 Radial†      12919.2      5115.1 µg/L        19.49      5115.1 ppb          19.49   0.38%
   QC value within limits for K 766.490 Radial  Recovery = 102.30%
Mg 279.077 IEC†        11073.1      5121.0 µg/L        20.05      5121.0 ppb          20.05   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.42%
Mn 257.610†           380692.0      504.79 µg/L        0.598      504.79 ppb          0.598   0.12%
   QC value within limits for Mn 257.610  Recovery = 100.96%
Mo 202.031†            15528.2      508.29 µg/L        0.658      508.29 ppb          0.658   0.13%
   QC value within limits for Mo 202.031  Recovery = 101.66%
Na 589.592 Radial†     65086.4       10084 µg/L         40.9       10084 ppb           40.9   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 100.84%
Ni 231.604†            40588.0      507.81 µg/L        1.741      507.81 ppb          1.741   0.34%
   QC value within limits for Ni 231.604  Recovery = 101.56%
P 214.914†             10957.0      2525.9 µg/L        4.24       2525.9 ppb          4.24    0.17%
   QC value within limits for P 214.914  Recovery = 101.04%
Pb 220.353†             8321.7      513.68 µg/L        0.658      513.68 ppb          0.658   0.13%
   QC value within limits for Pb 220.353  Recovery = 102.74%
S 181.975 Axial†        1211.2      1023.2 µg/L        4.70       1023.2 ppb          4.70    0.46%
   QC value within limits for S 181.975 Axial  Recovery = 102.32%
Sb 206.836†             3901.0      504.21 µg/L        2.415      504.21 ppb          2.415   0.48%
   QC value within limits for Sb 206.836  Recovery = 100.84%
Se 196.026†             1285.9         509 µg/L         6.3          509 ppb            6.3   1.23%
   QC value within limits for Se 196.026  Recovery = 101.76%
SiO2†                  50915.3      5370.1 µg/L        10.01      5370.1 ppb          10.01   0.19%
   QC value within limits for SiO2  Recovery = 100.42%
Si 251.611†           160460.6      2520.2 µg/L        4.40       2520.2 ppb          4.40    0.17%
   QC value within limits for Si 251.611  Recovery = 100.81%
Sn 189.927†             7242.2      504.03 µg/L        1.671      504.03 ppb          1.671   0.33%
   QC value within limits for Sn 189.927  Recovery = 100.81%
Sr 421.552†           211752.6      499.37 µg/L        1.316      499.37 ppb          1.316   0.26%
   QC value within limits for Sr 421.552  Recovery = 99.87%
Ti 334.940†           486913.4      499.45 µg/L        0.723      499.45 ppb          0.723   0.14%
   QC value within limits for Ti 334.940  Recovery = 99.89%
Tl 190.801†             3703.1      513.17 µg/L        1.080      513.17 ppb          1.080   0.21%
   QC value within limits for Tl 190.801  Recovery = 102.63%
U 409.014†              7420.9      498.94 µg/L       11.913      498.94 ppb         11.913   2.39%
   QC value within limits for U 409.014  Recovery = 99.79%
V 292.402†             96837.5      508.64 µg/L        0.575      508.64 ppb          0.575   0.11%
   QC value within limits for V 292.402  Recovery = 101.73%
Zn 213.857†            85178.1      504.66 µg/L        1.137      504.66 ppb          1.137   0.23%
   QC value within limits for Zn 213.857  Recovery = 100.93%
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 15:19:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135119.4	135119.4	96.4	%			15:19:35
1	Al 396.153Radial†	-39.9	37.2	7.8015	µg/L	7.8015	ppb	15:19:55
1	Ca 317.933Radial†	710.5	165.2	11.249	µg/L	11.249	ppb	15:19:55
1	Fe 238.204 Radial†	246.5	138.2	10.324	µg/L	10.324	ppb	15:19:55
1	K 766.490 Radial†	1659.9	227.2	90.021	µg/L	90.021	ppb	15:19:35
1	Mg 279.077 IEC†	172.3	6.2	2.8460	µg/L	2.8460	ppb	15:19:55
1	Na 589.592 Radial†	1152.5	242.4	37.496	µg/L	37.496	ppb	15:19:35
1	Sr 421.552†	-253.5	-58.4	-0.1378	µg/L	-0.1378	ppb	15:19:35
1	Sc 361.383	1794052.2	1794052.2	99.440	%			15:20:57
1	Y 371.029	1054102.8	1054102.8	99.698	%			15:20:57
1	Ag 328.068†	4163.6	-378.1	-1.5752	µg/L	-1.5752	ppb	15:20:59
1	As 188.979†	-10.7	7.8	2.6457	µg/L	2.6457	ppb	15:21:19
1	B 249.677†	3919.6	-123.5	-1.9206	µg/L	-1.9206	ppb	15:20:59
1	Ba 233.527†	-182.6	-39.1	-0.1741	µg/L	-0.1741	ppb	15:21:19
1	Be 313.107†	-511.9	576.9	0.1619	µg/L	0.1619	ppb	15:20:59
1	Cd 226.502†	-61.9	41.1	0.2767	µg/L	0.2767	ppb	15:21:19
1	Co 228.616†	-193.6	15.6	0.2054	µg/L	0.2054	ppb	15:21:19
1	Cr 267.716†	254.1	22.3	0.2065	µg/L	0.2065	ppb	15:21:19
1	Cu 324.752†	2907.9	-111.8	-0.4804	µg/L	-0.4804	ppb	15:20:59
1	Mn 257.610†	293.9	110.8	0.1469	µg/L	0.1469	ppb	15:21:19
1	Mo 202.031†	-23.4	15.1	0.4926	µg/L	0.4926	ppb	15:21:19
1	Ni 231.604†	-64.9	30.6	0.3833	µg/L	0.3833	ppb	15:21:19
1	P 214.914†	12.3	38.1	8.8112	µg/L	8.8112	ppb	15:21:19
1	Pb 220.353†	108.6	5.7	0.3659	µg/L	0.3659	ppb	15:21:19
1	S 181.975 Axial†	93.4	5.0	4.1776	µg/L	4.1776	ppb	15:21:19
1	Sb 206.836†	96.3	7.1	0.9249	µg/L	0.9249	ppb	15:21:19
1	Se 196.026†	21.3	15.2	5.99	µg/L	5.99	ppb	15:21:19
1	SiO2†	1898.8	170.4	18.018	µg/L	18.018	ppb	15:21:19
1	Si 251.611†	1381.8	622.6	9.8044	µg/L	9.8044	ppb	15:20:59
1	Sn 189.927†	15.2	13.4	0.9327	µg/L	0.9327	ppb	15:21:19
1	Ti 334.940†	915.7	97.9	0.1077	µg/L	0.1077	ppb	15:20:59
1	Tl 190.801†	-120.9	-7.3	-0.9998	µg/L	-0.9998	ppb	15:21:19
1	U 409.014†	-437.0	-276.1	-17.451	µg/L	-17.451	ppb	15:20:59
1	V 292.402†	331.2	-90.2	-0.4743	µg/L	-0.4743	ppb	15:20:59
1	Zn 213.857†	592.6	93.0	0.5520	µg/L	0.5520	ppb	15:21:19
2	Sc RADIAL	136298.4	136298.4	97.3	%			15:19:57
2	Al 396.153Radial†	-106.9	-31.4	-6.6496	µg/L	-6.6496	ppb	15:20:17
2	Ca 317.933Radial†	687.7	135.4	9.2247	µg/L	9.2247	ppb	15:20:17
2	Fe 238.204 Radial†	157.7	44.8	3.3427	µg/L	3.3427	ppb	15:20:17
2	K 766.490 Radial†	1659.5	211.9	83.944	µg/L	83.944	ppb	15:19:57
2	Mg 279.077 IEC†	160.6	-7.3	-3.3644	µg/L	-3.3644	ppb	15:20:17
2	Na 589.592 Radial†	1195.7	276.4	42.774	µg/L	42.774	ppb	15:19:57
2	Sr 421.552†	-260.7	-63.5	-0.1499	µg/L	-0.1499	ppb	15:19:57
2	Sc 361.383	1785056.6	1785056.6	98.942	%			15:21:21
2	Y 371.029	1047607.7	1047607.7	99.084	%			15:21:21
2	Ag 328.068†	3952.2	-570.7	-2.3566	µg/L	-2.3566	ppb	15:21:24
2	As 188.979†	-10.3	8.2	2.7758	µg/L	2.7758	ppb	15:21:44
2	B 249.677†	4199.2	178.9	2.7816	µg/L	2.7816	ppb	15:21:24
2	Ba 233.527†	-158.6	-15.7	-0.0699	µg/L	-0.0699	ppb	15:21:44
2	Be 313.107†	-584.0	501.5	0.1413	µg/L	0.1413	ppb	15:21:24
2	Cd 226.502†	-107.7	-5.4	-0.0370	µg/L	-0.0370	ppb	15:21:44
2	Co 228.616†	-184.0	24.3	0.3214	µg/L	0.3214	ppb	15:21:44
2	Cr 267.716†	264.9	34.5	0.3087	µg/L	0.3087	ppb	15:21:44
2	Cu 324.752†	2729.2	-277.7	-1.1720	µg/L	-1.1720	ppb	15:21:24
2	Mn 257.610†	261.9	80.0	0.1062	µg/L	0.1062	ppb	15:21:44
2	Mo 202.031†	-8.4	30.1	0.9852	µg/L	0.9852	ppb	15:21:44
2	Ni 231.604†	-65.2	30.0	0.3752	µg/L	0.3752	ppb	15:21:44
2	P 214.914†	30.4	56.4	13.039	µg/L	13.039	ppb	15:21:44
2	Pb 220.353†	108.4	6.1	0.3854	µg/L	0.3854	ppb	15:21:44

2	S 181.975 Axial†	97.8	10.0	8.3828 µg/L	8.3828 ppb	15:21:44
2	Sb 206.836†	89.2	0.5	0.0710 µg/L	0.0710 ppb	15:21:44
2	Se 196.026†	24.3	18.4	7.22 µg/L	7.22 ppb	15:21:44
2	SiO2†	1931.2	212.8	22.501 µg/L	22.501 ppb	15:21:44
2	Si 251.611†	1430.8	679.1	10.694 µg/L	10.694 ppb	15:21:24
2	Sn 189.927†	3.7	1.8	0.1285 µg/L	0.1285 ppb	15:21:44
2	Ti 334.940†	863.8	50.0	0.0572 µg/L	0.0572 ppb	15:21:24
2	Tl 190.801†	-116.8	-3.8	-0.5237 µg/L	-0.5237 ppb	15:21:44
2	U 409.014†	-368.5	-209.1	-13.214 µg/L	-13.214 ppb	15:21:24
2	V 292.402†	355.1	-64.3	-0.3312 µg/L	-0.3312 ppb	15:21:24
2	Zn 213.857†	579.9	83.2	0.4946 µg/L	0.4946 ppb	15:21:44
3	Sc RADIAL	137345.7	137345.7	98.0 %		15:20:19
3	Al 396.153Radial†	-66.9	10.3	2.1413 µg/L	2.1413 ppb	15:20:39
3	Ca 317.933Radial†	721.0	164.0	11.171 µg/L	11.171 ppb	15:20:39
3	Fe 238.204 Radial†	215.7	102.7	7.6670 µg/L	7.6670 ppb	15:20:39
3	K 766.490 Radial†	1670.5	210.1	83.228 µg/L	83.228 ppb	15:20:19
3	Mg 279.077 IEC†	160.4	-8.8	-4.0827 µg/L	-4.0827 ppb	15:20:39
3	Na 589.592 Radial†	1300.4	373.9	57.888 µg/L	57.888 ppb	15:20:19
3	Sr 421.552†	-278.7	-79.8	-0.1883 µg/L	-0.1883 ppb	15:20:19
3	Sc 361.383	1761364.4	1761364.4	97.628 %		15:21:46
3	Y 371.029	1034927.3	1034927.3	97.884 %		15:21:46
3	Ag 328.068†	4077.7	-388.4	-1.6055 µg/L	-1.6055 ppb	15:21:48
3	As 188.979†	-16.6	1.6	0.5344 µg/L	0.5344 ppb	15:22:08
3	B 249.677†	3885.5	-85.3	-1.3272 µg/L	-1.3272 ppb	15:21:48
3	Ba 233.527†	-157.0	-16.3	-0.0727 µg/L	-0.0727 ppb	15:22:08
3	Be 313.107†	-835.4	236.0	0.0659 µg/L	0.0659 ppb	15:21:48
3	Cd 226.502†	-87.4	13.8	0.0927 µg/L	0.0927 ppb	15:22:08
3	Co 228.616†	-189.1	16.6	0.2194 µg/L	0.2194 ppb	15:22:08
3	Cr 267.716†	236.1	8.6	0.0811 µg/L	0.0811 ppb	15:22:08
3	Cu 324.752†	2885.9	-80.1	-0.3407 µg/L	-0.3407 ppb	15:21:48
3	Mn 257.610†	248.1	69.4	0.0922 µg/L	0.0922 ppb	15:22:08
3	Mo 202.031†	-25.6	12.3	0.4036 µg/L	0.4036 ppb	15:22:08
3	Ni 231.604†	-76.0	18.1	0.2263 µg/L	0.2263 ppb	15:22:08
3	P 214.914†	18.0	44.2	10.223 µg/L	10.223 ppb	15:22:08
3	Pb 220.353†	114.5	13.8	0.8550 µg/L	0.8550 ppb	15:22:08
3	S 181.975 Axial†	89.8	3.1	2.5869 µg/L	2.5869 ppb	15:22:08
3	Sb 206.836†	52.6	-35.9	-4.6212 µg/L	-4.6212 ppb	15:22:08
3	Se 196.026†	10.6	4.7	1.84 µg/L	1.84 ppb	15:22:08
3	SiO2†	1960.1	268.6	28.419 µg/L	28.419 ppb	15:22:08
3	Si 251.611†	1543.3	813.7	12.819 µg/L	12.819 ppb	15:21:48
3	Sn 189.927†	17.6	16.1	1.1189 µg/L	1.1189 ppb	15:22:08
3	Ti 334.940†	775.0	-29.1	-0.0260 µg/L	-0.0260 ppb	15:21:48
3	Tl 190.801†	-118.8	-7.4	-1.0096 µg/L	-1.0096 ppb	15:22:08
3	U 409.014†	-284.9	-128.5	-8.1345 µg/L	-8.1345 ppb	15:21:48
3	V 292.402†	330.4	-84.8	-0.4413 µg/L	-0.4413 ppb	15:21:48
3	Zn 213.857†	563.4	74.1	0.4403 µg/L	0.4403 ppb	15:22:08

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1780157.7	98.670	%	0.9359				0.95%
Sc RADIAL	136254.5	97.3	%	0.80				0.82%
Y 371.029	1045546.0	98.889	%	0.9224				0.93%
Ag 328.068†	-445.8	-1.8458	µg/L	0.44262	-1.8458	ppb	0.44262	23.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.4	1.0978	µg/L	7.28185	1.0978	ppb	7.28185	663.34%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.9	1.9853	µg/L	1.25818	1.9853	ppb	1.25818	63.37%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-9.9	-0.1554	µg/L	2.56077	-0.1554	ppb	2.56077	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-23.7	-0.1056	µg/L	0.05933	-0.1056	ppb	0.05933	56.20%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	438.2	0.1230	µg/L	0.05051	0.1230	ppb	0.05051	41.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	154.9	10.548	µg/L	1.1467	10.548	ppb	1.1467	10.87%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.5	0.1108	µg/L	0.15765	0.1108	ppb	0.15765	142.28%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.8	0.2487	µg/L	0.06332	0.2487	ppb	0.06332	25.45%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              21.8      0.1988 µg/L      0.11401      0.1988 ppb        0.11401  57.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -156.6     -0.6644 µg/L      0.44514     -0.6644 ppb        0.44514  67.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       95.2      7.1113 µg/L      3.52365      7.1113 ppb        3.52365  49.55%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       216.4      85.731 µg/L       3.7322      85.731 ppb         3.7322   4.35%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -3.3     -1.5337 µg/L      3.80990     -1.5337 ppb        3.80990 248.41%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              86.7      0.1151 µg/L      0.02841      0.1151 ppb        0.02841  24.68%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              19.2      0.6271 µg/L      0.31330      0.6271 ppb        0.31330  49.96%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      297.6      46.053 µg/L      10.5836      46.053 ppb        10.5836  22.98%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              26.2      0.3283 µg/L      0.08842      0.3283 ppb        0.08842  26.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               46.2      10.691 µg/L       2.1524      10.691 ppb         2.1524  20.13%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               8.5      0.5355 µg/L      0.27689      0.5355 ppb        0.27689  51.71%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.0      5.0491 µg/L      2.99464      5.0491 ppb        2.99464  59.31%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -9.4     -1.2084 µg/L      2.98620     -1.2084 ppb        2.98620 247.11%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              12.8        5.02 µg/L        2.819        5.02 ppb          2.819  56.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   217.3      22.979 µg/L       5.2170      22.979 ppb         5.2170  22.70%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             705.1      11.106 µg/L       1.5488      11.106 ppb         1.5488  13.95%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              10.5      0.7267 µg/L      0.52636      0.7267 ppb        0.52636  72.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -67.2     -0.1586 µg/L      0.02639     -0.1586 ppb        0.02639  16.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              39.6      0.0463 µg/L      0.06750      0.0463 ppb        0.06750 145.85%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -6.2     -0.8444 µg/L      0.27775     -0.8444 ppb        0.27775  32.89%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -204.6     -12.933 µg/L       4.6646     -12.933 ppb         4.6646  36.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -79.8     -0.4156 µg/L      0.07494     -0.4156 ppb        0.07494  18.03%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              83.4      0.4956 µg/L      0.05584      0.4956 ppb        0.05584  11.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 4/5/2010 15:42:54 **Plasma On Time:** 3/29/2010 18:07:58
Logged In Analyst: optima4 **Technique:** ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 077C0022701 **Autosampler Model:** AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location:** 1
Sample ID: CCV **Date Collected:** 4/5/2010 15:42:57
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	133098.2	133098.2	95.0	%			15:43:30
1	Al 396.153Radial†	22310.8	23561.9	4937.2	µg/L	4937.2	ppb	15:43:30
1	Ca 317.933Radial†	71359.4	74538.2	5076.7	µg/L	5076.7	ppb	15:43:30
1	Fe 238.204 Radial†	64321.7	67584.7	5047.2	µg/L	5047.2	ppb	15:43:30
1	K 766.490 Radial†	13802.7	13034.3	5160.7	µg/L	5160.7	ppb	15:43:30
1	Mg 279.077 IEC†	10584.3	10968.1	5072.4	µg/L	5072.4	ppb	15:43:30
1	Na 589.592 Radial†	62503.8	64836.0	10046	µg/L	10046	ppb	15:43:30
1	Sr 421.552†	203729.3	214640.5	506.18	µg/L	506.18	ppb	15:43:28
1	Sc 361.383	1759748.6	1759748.6	97.539	%			15:43:57
1	Y 371.029	1022541.1	1022541.1	96.713	%			15:43:57
1	Ag 328.068†	123986.7	122550.1	507.93	µg/L	507.93	ppb	15:43:57
1	As 188.979†	1302.6	1354.0	465.30	µg/L	465.30	ppb	15:44:17
1	B 249.677†	35597.8	32430.9	502.58	µg/L	502.58	ppb	15:43:57
1	Ba 233.527†	109603.2	112513.4	500.52	µg/L	500.52	ppb	15:43:57
1	Be 313.107†	1653891.1	1696715.9	491.63	µg/L	491.63	ppb	15:43:57
1	Cd 226.502†	73821.0	75787.1	511.92	µg/L	511.92	ppb	15:43:57
1	Co 228.616†	37551.5	38709.3	512.36	µg/L	512.36	ppb	15:43:57
1	Cr 267.716†	57002.2	58207.4	503.45	µg/L	503.45	ppb	15:43:57
1	Cu 324.752†	119682.7	119666.6	502.07	µg/L	502.07	ppb	15:43:57
1	Mn 257.610†	371928.9	381129.1	505.37	µg/L	505.37	ppb	15:43:57
1	Mo 202.031†	15009.1	15426.4	504.96	µg/L	504.96	ppb	15:44:17
1	Ni 231.604†	39713.1	40811.1	510.60	µg/L	510.60	ppb	15:43:57
1	P 214.914†	10634.3	10928.3	2519.3	µg/L	2519.3	ppb	15:44:17
1	Pb 220.353†	8173.8	8276.6	510.91	µg/L	510.91	ppb	15:44:17
1	S 181.975 Axial†	1265.3	1208.3	1020.7	µg/L	1020.7	ppb	15:44:17
1	Sb 206.836†	3875.9	3883.9	501.98	µg/L	501.98	ppb	15:44:17
1	Se 196.026†	1254.0	1279.5	506	µg/L	506	ppb	15:44:17
1	SiO2†	51108.8	50659.4	5343.1	µg/L	5343.1	ppb	15:43:57
1	Si 251.611†	156396.8	159576.1	2506.3	µg/L	2506.3	ppb	15:43:57
1	Sn 189.927†	7025.5	7200.9	501.17	µg/L	501.17	ppb	15:44:17
1	Ti 334.940†	475896.4	487081.8	499.64	µg/L	499.64	ppb	15:43:57
1	Tl 190.801†	3474.4	3676.3	509.51	µg/L	509.51	ppb	15:44:17
1	U 409.014†	6737.3	7070.7	476.83	µg/L	476.83	ppb	15:43:57
1	V 292.402†	94824.6	96794.1	508.37	µg/L	508.37	ppb	15:43:57
1	Zn 213.857†	83913.0	85527.5	506.73	µg/L	506.73	ppb	15:43:57
2	Sc RADIAL	135909.6	135909.6	97.0	%			15:43:34
2	Al 396.153Radial†	22841.9	23623.5	4950.0	µg/L	4950.0	ppb	15:43:34
2	Ca 317.933Radial†	73611.7	75306.1	5129.0	µg/L	5129.0	ppb	15:43:34
2	Fe 238.204 Radial†	65897.2	67808.2	5063.9	µg/L	5063.9	ppb	15:43:34
2	K 766.490 Radial†	13984.3	12920.9	5115.7	µg/L	5115.7	ppb	15:43:34
2	Mg 279.077 IEC†	10995.0	11161.0	5161.6	µg/L	5161.6	ppb	15:43:34
2	Na 589.592 Radial†	64364.3	65393.0	10132	µg/L	10132	ppb	15:43:34
2	Sr 421.552†	203456.2	209923.1	495.06	µg/L	495.06	ppb	15:43:32
2	Sc 361.383	1751043.9	1751043.9	97.056	%			15:44:20
2	Y 371.029	1017854.7	1017854.7	96.269	%			15:44:20
2	Ag 328.068†	123125.9	122295.1	506.88	µg/L	506.88	ppb	15:44:20
2	As 188.979†	1326.5	1385.3	475.88	µg/L	475.88	ppb	15:44:40

2	B 249.677†	35241.1	32244.9	499.69 µg/L	499.69 ppb	15:44:20
2	Ba 233.527†	108697.6	112139.0	498.86 µg/L	498.86 ppb	15:44:20
2	Be 313.107†	1640185.8	1691024.1	489.98 µg/L	489.98 ppb	15:44:20
2	Cd 226.502†	72978.6	75295.4	508.59 µg/L	508.59 ppb	15:44:20
2	Co 228.616†	37280.3	38621.3	511.19 µg/L	511.19 ppb	15:44:20
2	Cr 267.716†	56788.5	58277.7	504.06 µg/L	504.06 ppb	15:44:20
2	Cu 324.752†	118955.9	119527.7	501.49 µg/L	501.49 ppb	15:44:20
2	Mn 257.610†	368785.8	379786.3	503.59 µg/L	503.59 ppb	15:44:20
2	Mo 202.031†	15070.2	15565.9	509.53 µg/L	509.53 ppb	15:44:40
2	Ni 231.604†	39249.9	40536.2	507.16 µg/L	507.16 ppb	15:44:20
2	P 214.914†	10673.2	11022.6	2541.1 µg/L	2541.1 ppb	15:44:40
2	Pb 220.353†	8193.4	8338.4	514.73 µg/L	514.73 ppb	15:44:40
2	S 181.975 Axial†	1261.3	1210.7	1022.8 µg/L	1022.8 ppb	15:44:40
2	Sb 206.836†	3892.0	3920.3	506.72 µg/L	506.72 ppb	15:44:40
2	Se 196.026†	1271.0	1303.4	516 µg/L	516 ppb	15:44:40
2	SiO2†	50633.7	50430.4	5318.7 µg/L	5318.7 ppb	15:44:20
2	Si 251.611†	155056.1	158991.9	2497.0 µg/L	2497.0 ppb	15:44:20
2	Sn 189.927†	7035.5	7246.9	504.36 µg/L	504.36 ppb	15:44:40
2	Ti 334.940†	472243.0	485743.1	498.26 µg/L	498.26 ppb	15:44:20
2	Tl 190.801†	3505.4	3726.0	516.27 µg/L	516.27 ppb	15:44:40
2	U 409.014†	6674.5	7040.3	474.90 µg/L	474.90 ppb	15:44:20
2	V 292.402†	94349.4	96787.8	508.38 µg/L	508.38 ppb	15:44:20
2	Zn 213.857†	83090.8	85108.0	504.25 µg/L	504.25 ppb	15:44:20
3	Sc RADIAL	133727.0	133727.0	95.5 %		15:43:38
3	Al 396.153Radial†	22511.9	23662.1	4958.0 µg/L	4958.0 ppb	15:43:38
3	Ca 317.933Radial†	72508.3	75388.6	5134.6 µg/L	5134.6 ppb	15:43:38
3	Fe 238.204 Radial†	65003.6	67980.7	5076.8 µg/L	5076.8 ppb	15:43:38
3	K 766.490 Radial†	13744.7	12905.2	5109.5 µg/L	5109.5 ppb	15:43:38
3	Mg 279.077 IEC†	10782.2	11123.1	5144.1 µg/L	5144.1 ppb	15:43:38
3	Na 589.592 Radial†	63336.6	65399.2	10133 µg/L	10133 ppb	15:43:38
3	Sr 421.552†	204462.4	214400.2	505.62 µg/L	505.62 ppb	15:43:36
3	Sc 361.383	1741792.1	1741792.1	96.543 %		15:44:43
3	Y 371.029	1012334.8	1012334.8	95.747 %		15:44:43
3	Ag 328.068†	122718.9	122547.4	507.96 µg/L	507.96 ppb	15:44:43
3	As 188.979†	1317.8	1383.5	475.30 µg/L	475.30 ppb	15:45:03
3	B 249.677†	35269.9	32467.5	503.15 µg/L	503.15 ppb	15:44:43
3	Ba 233.527†	108564.9	112596.4	500.89 µg/L	500.89 ppb	15:44:43
3	Be 313.107†	1636785.0	1696477.9	491.57 µg/L	491.57 ppb	15:44:43
3	Cd 226.502†	72741.5	75449.2	509.63 µg/L	509.63 ppb	15:44:43
3	Co 228.616†	37186.3	38728.0	512.61 µg/L	512.61 ppb	15:44:43
3	Cr 267.716†	56645.7	58440.5	505.45 µg/L	505.45 ppb	15:44:43
3	Cu 324.752†	118602.9	119813.1	502.70 µg/L	502.70 ppb	15:44:43
3	Mn 257.610†	368717.3	381733.6	506.17 µg/L	506.17 ppb	15:44:43
3	Mo 202.031†	15029.6	15606.3	510.85 µg/L	510.85 ppb	15:45:03
3	Ni 231.604†	39158.4	40656.3	508.66 µg/L	508.66 ppb	15:44:43
3	P 214.914†	10634.2	11040.6	2545.3 µg/L	2545.3 ppb	15:45:03
3	Pb 220.353†	8195.6	8385.5	517.62 µg/L	517.62 ppb	15:45:03
3	S 181.975 Axial†	1270.0	1226.5	1036.1 µg/L	1036.1 ppb	15:45:03
3	Sb 206.836†	3894.0	3943.7	509.75 µg/L	509.75 ppb	15:45:03
3	Se 196.026†	1257.1	1295.9	513 µg/L	513 ppb	15:45:03
3	SiO2†	50604.8	50677.5	5344.8 µg/L	5344.8 ppb	15:44:43
3	Si 251.611†	154855.5	159632.7	2507.1 µg/L	2507.1 ppb	15:44:43
3	Sn 189.927†	7013.8	7263.0	505.48 µg/L	505.48 ppb	15:45:03
3	Ti 334.940†	471508.6	487566.9	500.12 µg/L	500.12 ppb	15:44:43
3	Tl 190.801†	3476.1	3714.8	514.78 µg/L	514.78 ppb	15:45:03
3	U 409.014†	6981.4	7394.7	497.38 µg/L	497.38 ppb	15:44:43
3	V 292.402†	94174.0	97122.5	510.15 µg/L	510.15 ppb	15:44:43
3	Zn 213.857†	83052.8	85523.3	506.72 µg/L	506.72 ppb	15:44:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1750861.5	97.046	%	0.4977				0.51%
Sc RADIAL	134244.9	95.8	%	1.05				1.10%
Y 371.029	1017576.8	96.243	%	0.4832				0.50%
Ag 328.068†	122464.2	507.59	µg/L	0.614	507.59	ppb	0.614	0.12%
QC value within limits for Ag 328.068 Recovery = 101.52%								
Al 396.153Radial†	23615.8	4948.4	µg/L	10.51	4948.4	ppb	10.51	0.21%
QC value within limits for Al 396.153Radial Recovery = 98.97%								
As 188.979†	1374.3	472.16	µg/L	5.950	472.16	ppb	5.950	1.26%

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   QC value within limits for As 188.979  Recovery = 94.43%
B 249.677†            32381.1      501.81 µg/L        1.854      501.81 ppb          1.854   0.37%
   QC value within limits for B 249.677  Recovery = 100.36%
Ba 233.527†          112416.3      500.09 µg/L        1.083      500.09 ppb          1.083   0.22%
   QC value within limits for Ba 233.527  Recovery = 100.02%
Be 313.107†         1694739.3      491.06 µg/L        0.935      491.06 ppb          0.935   0.19%
   QC value within limits for Be 313.107  Recovery = 98.21%
Ca 317.933Radial†     75077.6      5113.5 µg/L       31.94      5113.5 ppb          31.94   0.62%
   QC value within limits for Ca 317.933Radial  Recovery = 102.27%
Cd 226.502†           75510.6      510.04 µg/L        1.702      510.04 ppb          1.702   0.33%
   QC value within limits for Cd 226.502  Recovery = 102.01%
Co 228.616†           38686.2      512.05 µg/L        0.755      512.05 ppb          0.755   0.15%
   QC value within limits for Co 228.616  Recovery = 102.41%
Cr 267.716†           58308.5      504.32 µg/L        1.026      504.32 ppb          1.026   0.20%
   QC value within limits for Cr 267.716  Recovery = 100.86%
Cu 324.752†          119669.1      502.09 µg/L        0.607      502.09 ppb          0.607   0.12%
   QC value within limits for Cu 324.752  Recovery = 100.42%
Fe 238.204 Radial†    67791.2      5062.6 µg/L       14.83      5062.6 ppb          14.83   0.29%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.25%
K 766.490 Radial†     12953.5      5128.6 µg/L       27.93      5128.6 ppb          27.93   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 102.57%
Mg 279.077 IEC†       11084.1      5126.0 µg/L       47.25      5126.0 ppb          47.25   0.92%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.52%
Mn 257.610†          380883.0      505.04 µg/L        1.323      505.04 ppb          1.323   0.26%
   QC value within limits for Mn 257.610  Recovery = 101.01%
Mo 202.031†           15532.8      508.45 µg/L        3.089      508.45 ppb          3.089   0.61%
   QC value within limits for Mo 202.031  Recovery = 101.69%
Na 589.592 Radial†    65209.4       10103 µg/L         50.1       10103 ppb           50.1   0.50%
   QC value within limits for Na 589.592 Radial  Recovery = 101.03%
Ni 231.604†           40667.9      508.81 µg/L        1.724      508.81 ppb          1.724   0.34%
   QC value within limits for Ni 231.604  Recovery = 101.76%
P 214.914†            10997.2      2535.2 µg/L       13.93      2535.2 ppb          13.93   0.55%
   QC value within limits for P 214.914  Recovery = 101.41%
Pb 220.353†            8333.5      514.42 µg/L        3.363      514.42 ppb          3.363   0.65%
   QC value within limits for Pb 220.353  Recovery = 102.88%
S 181.975 Axial†       1215.1      1026.5 µg/L        8.36      1026.5 ppb           8.36   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 102.65%
Sb 206.836†            3916.0      506.15 µg/L        3.917      506.15 ppb          3.917   0.77%
   QC value within limits for Sb 206.836  Recovery = 101.23%
Se 196.026†            1292.9         512 µg/L         4.8         512 ppb            4.8   0.94%
   QC value within limits for Se 196.026  Recovery = 102.31%
SiO2†                 50589.1      5335.5 µg/L       14.62      5335.5 ppb          14.62   0.27%
   QC value within limits for SiO2  Recovery = 99.78%
Si 251.611†          159400.2      2503.5 µg/L        5.61      2503.5 ppb           5.61   0.22%
   QC value within limits for Si 251.611  Recovery = 100.14%
Sn 189.927†            7237.0      503.67 µg/L        2.236      503.67 ppb          2.236   0.44%
   QC value within limits for Sn 189.927  Recovery = 100.73%
Sr 421.552†          212987.9      502.28 µg/L        6.266      502.28 ppb          6.266   1.25%
   QC value within limits for Sr 421.552  Recovery = 100.46%
Ti 334.940†          486797.3      499.34 µg/L        0.968      499.34 ppb          0.968   0.19%
   QC value within limits for Ti 334.940  Recovery = 99.87%
Tl 190.801†            3705.7      513.52 µg/L        3.555      513.52 ppb          3.555   0.69%
   QC value within limits for Tl 190.801  Recovery = 102.70%
U 409.014†             7168.6      483.04 µg/L       12.456      483.04 ppb         12.456   2.58%
   QC value within limits for U 409.014  Recovery = 96.61%
V 292.402†            96901.4      508.97 µg/L        1.024      508.97 ppb          1.024   0.20%
   QC value within limits for V 292.402  Recovery = 101.79%
Zn 213.857†           85386.2      505.90 µg/L        1.430      505.90 ppb          1.430   0.28%
   QC value within limits for Zn 213.857  Recovery = 101.18%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 15:45:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137482.7	137482.7	98.1	%			15:45:43
1	Al 396.153Radial†	-100.7	-24.1	-5.0958	µg/L	-5.0958	ppb	15:46:03
1	Ca 317.933Radial†	635.3	76.0	5.1731	µg/L	5.1731	ppb	15:46:03
1	Fe 238.204 Radial†	150.4	35.9	2.6831	µg/L	2.6831	ppb	15:46:03
1	K 766.490 Radial†	1592.5	129.0	51.094	µg/L	51.094	ppb	15:45:43
1	Mg 279.077 IEC†	152.3	-17.3	-7.9711	µg/L	-7.9711	ppb	15:46:03
1	Na 589.592 Radial†	1222.2	292.9	45.353	µg/L	45.353	ppb	15:45:43
1	Sr 421.552†	-150.5	51.1	0.1206	µg/L	0.1206	ppb	15:45:43
1	Sc 361.383	1772363.7	1772363.7	98.238	%			15:47:04
1	Y 371.029	1040302.4	1040302.4	98.393	%			15:47:04
1	Ag 328.068†	4076.6	-415.4	-1.7134	µg/L	-1.7134	ppb	15:47:07
1	As 188.979†	-19.8	-1.6	-0.5389	µg/L	-0.5389	ppb	15:47:27
1	B 249.677†	4006.5	13.2	0.2039	µg/L	0.2039	ppb	15:47:07
1	Ba 233.527†	-164.3	-22.7	-0.1008	µg/L	-0.1008	ppb	15:47:27
1	Be 313.107†	-716.7	362.2	0.1019	µg/L	0.1019	ppb	15:47:07
1	Cd 226.502†	-72.7	29.4	0.1984	µg/L	0.1984	ppb	15:47:27
1	Co 228.616†	-175.8	31.4	0.4147	µg/L	0.4147	ppb	15:47:27
1	Cr 267.716†	244.5	15.7	0.1438	µg/L	0.1438	ppb	15:47:27
1	Cu 324.752†	2811.8	-173.9	-0.7351	µg/L	-0.7351	ppb	15:47:07
1	Mn 257.610†	192.2	10.9	0.0148	µg/L	0.0148	ppb	15:47:27
1	Mo 202.031†	-24.6	13.5	0.4431	µg/L	0.4431	ppb	15:47:27
1	Ni 231.604†	-67.5	27.2	0.3401	µg/L	0.3401	ppb	15:47:27
1	P 214.914†	19.9	46.0	10.633	µg/L	10.633	ppb	15:47:27
1	Pb 220.353†	123.7	22.4	1.3877	µg/L	1.3877	ppb	15:47:27
1	S 181.975 Axial†	96.1	8.9	7.5101	µg/L	7.5101	ppb	15:47:27
1	Sb 206.836†	79.4	-8.8	-1.1363	µg/L	-1.1363	ppb	15:47:27
1	Se 196.026†	16.4	10.6	4.16	µg/L	4.16	ppb	15:47:27
1	SiO2†	1750.1	42.4	4.4782	µg/L	4.4782	ppb	15:47:27
1	Si 251.611†	784.8	31.9	0.4952	µg/L	0.4952	ppb	15:47:07
1	Sn 189.927†	4.6	2.8	0.1907	µg/L	0.1907	ppb	15:47:27
1	Ti 334.940†	774.1	-35.0	-0.0311	µg/L	-0.0311	ppb	15:47:07
1	Tl 190.801†	-119.8	-7.7	-1.0533	µg/L	-1.0533	ppb	15:47:27
1	U 409.014†	-316.6	-159.0	-10.034	µg/L	-10.034	ppb	15:47:07
1	V 292.402†	408.8	-7.1	-0.0385	µg/L	-0.0385	ppb	15:47:07
1	Zn 213.857†	552.3	59.2	0.3517	µg/L	0.3517	ppb	15:47:27
2	Sc RADIAL	137847.2	137847.2	98.4	%			15:46:05
2	Al 396.153Radial†	-81.9	-4.7	-1.0206	µg/L	-1.0206	ppb	15:46:25
2	Ca 317.933Radial†	627.0	65.8	4.4790	µg/L	4.4790	ppb	15:46:25
2	Fe 238.204 Radial†	143.1	28.1	2.1004	µg/L	2.1004	ppb	15:46:25
2	K 766.490 Radial†	1465.2	-4.7	-1.8903	µg/L	-1.8903	ppb	15:46:05
2	Mg 279.077 IEC†	173.0	3.3	1.5568	µg/L	1.5568	ppb	15:46:25
2	Na 589.592 Radial†	1236.5	304.1	47.146	µg/L	47.146	ppb	15:46:05
2	Sr 421.552†	-206.9	-5.8	-0.0136	µg/L	-0.0136	ppb	15:46:05
2	Sc 361.383	1766618.9	1766618.9	97.920	%			15:47:29
2	Y 371.029	1037725.2	1037725.2	98.149	%			15:47:29
2	Ag 328.068†	4183.1	-293.2	-1.2037	µg/L	-1.2037	ppb	15:47:31
2	As 188.979†	-21.3	-3.2	-1.0848	µg/L	-1.0848	ppb	15:47:51
2	B 249.677†	4133.4	156.0	2.4266	µg/L	2.4266	ppb	15:47:31
2	Ba 233.527†	-164.4	-23.3	-0.1038	µg/L	-0.1038	ppb	15:47:51
2	Be 313.107†	-575.1	504.4	0.1459	µg/L	0.1459	ppb	15:47:31
2	Cd 226.502†	-74.0	27.8	0.1880	µg/L	0.1880	ppb	15:47:51
2	Co 228.616†	-203.7	2.3	0.0303	µg/L	0.0303	ppb	15:47:51
2	Cr 267.716†	242.2	14.2	0.1230	µg/L	0.1230	ppb	15:47:51
2	Cu 324.752†	2826.5	-149.5	-0.6256	µg/L	-0.6256	ppb	15:47:31
2	Mn 257.610†	206.7	26.4	0.0349	µg/L	0.0349	ppb	15:47:51
2	Mo 202.031†	-22.5	15.6	0.5106	µg/L	0.5106	ppb	15:47:51
2	Ni 231.604†	-59.9	34.8	0.4349	µg/L	0.4349	ppb	15:47:51
2	P 214.914†	16.0	42.0	9.7148	µg/L	9.7148	ppb	15:47:51
2	Pb 220.353†	107.5	6.4	0.3937	µg/L	0.3937	ppb	15:47:51

2	S 181.975 Axial†	92.7	5.7	4.8364 µg/L	4.8364 ppb	15:47:51
2	Sb 206.836†	75.9	-12.2	-1.5651 µg/L	-1.5651 ppb	15:47:51
2	Se 196.026†	9.4	3.4	1.34 µg/L	1.34 ppb	15:47:51
2	SiO2†	1717.3	14.7	1.5425 µg/L	1.5425 ppb	15:47:51
2	Si 251.611†	958.9	212.2	3.3386 µg/L	3.3386 ppb	15:47:31
2	Sn 189.927†	3.7	1.9	0.1343 µg/L	0.1343 ppb	15:47:51
2	Ti 334.940†	689.3	-119.1	-0.1221 µg/L	-0.1221 ppb	15:47:31
2	Tl 190.801†	-113.8	-2.0	-0.2726 µg/L	-0.2726 ppb	15:47:51
2	U 409.014†	-170.0	-10.2	-0.6568 µg/L	-0.6568 ppb	15:47:31
2	V 292.402†	372.6	-42.7	-0.2160 µg/L	-0.2160 ppb	15:47:31
2	Zn 213.857†	529.8	38.1	0.2249 µg/L	0.2249 ppb	15:47:51
3	Sc RADIAL	135226.3	135226.3	96.5 %		15:46:27
3	Al 396.153Radial†	-80.7	-5.0	-1.0788 µg/L	-1.0788 ppb	15:46:47
3	Ca 317.933Radial†	635.8	87.3	5.9451 µg/L	5.9451 ppb	15:46:47
3	Fe 238.204 Radial†	138.2	25.9	1.9354 µg/L	1.9354 ppb	15:46:47
3	K 766.490 Radial†	1553.6	115.7	45.838 µg/L	45.838 ppb	15:46:27
3	Mg 279.077 IEC†	156.0	-10.8	-4.9889 µg/L	-4.9889 ppb	15:46:47
3	Na 589.592 Radial†	1091.9	178.7	27.664 µg/L	27.664 ppb	15:46:27
3	Sr 421.552†	-209.8	-12.8	-0.0303 µg/L	-0.0303 ppb	15:46:27
3	Sc 361.383	1780363.2	1780363.2	98.681 %		15:47:53
3	Y 371.029	1045882.5	1045882.5	98.920 %		15:47:53
3	Ag 328.068†	4206.0	-302.9	-1.2654 µg/L	-1.2654 ppb	15:47:55
3	As 188.979†	-13.8	4.6	1.5490 µg/L	1.5490 ppb	15:48:15
3	B 249.677†	4177.4	168.1	2.6137 µg/L	2.6137 ppb	15:47:55
3	Ba 233.527†	-192.0	-50.0	-0.2218 µg/L	-0.2218 ppb	15:48:15
3	Be 313.107†	-542.2	542.3	0.1495 µg/L	0.1495 ppb	15:47:55
3	Cd 226.502†	-89.5	12.7	0.0856 µg/L	0.0856 ppb	15:48:15
3	Co 228.616†	-188.0	19.8	0.2618 µg/L	0.2618 ppb	15:48:15
3	Cr 267.716†	266.3	36.7	0.3374 µg/L	0.3374 ppb	15:48:15
3	Cu 324.752†	2890.1	-107.4	-0.4697 µg/L	-0.4697 ppb	15:47:55
3	Mn 257.610†	241.7	60.2	0.0800 µg/L	0.0800 ppb	15:48:15
3	Mo 202.031†	-27.6	10.6	0.3472 µg/L	0.3472 ppb	15:48:15
3	Ni 231.604†	-75.2	19.7	0.2470 µg/L	0.2470 ppb	15:48:15
3	P 214.914†	24.9	50.9	11.780 µg/L	11.780 ppb	15:48:15
3	Pb 220.353†	118.9	17.1	1.0706 µg/L	1.0706 ppb	15:48:15
3	S 181.975 Axial†	93.7	6.0	5.0404 µg/L	5.0404 ppb	15:48:15
3	Sb 206.836†	72.2	-16.5	-2.1256 µg/L	-2.1256 ppb	15:48:15
3	Se 196.026†	0.8	-5.3	-2.13 µg/L	-2.13 ppb	15:48:15
3	SiO2†	1726.6	10.6	1.0944 µg/L	1.0944 ppb	15:48:15
3	Si 251.611†	890.9	135.8	2.1284 µg/L	2.1284 ppb	15:47:55
3	Sn 189.927†	18.8	17.2	1.1898 µg/L	1.1898 ppb	15:48:15
3	Ti 334.940†	831.1	19.2	0.0305 µg/L	0.0305 ppb	15:47:55
3	Tl 190.801†	-129.7	-17.2	-2.3405 µg/L	-2.3405 ppb	15:48:15
3	U 409.014†	-555.3	-399.3	-25.171 µg/L	-25.171 ppb	15:47:55
3	V 292.402†	510.9	94.5	0.4775 µg/L	0.4775 ppb	15:47:55
3	Zn 213.857†	554.3	58.7	0.3489 µg/L	0.3489 ppb	15:48:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1773115.3	98.280	%	0.3826				0.39%
Sc RADIAL	136852.1	97.7	%	1.01				1.04%
Y 371.029	1041303.4	98.487	%	0.3944				0.40%
Ag 328.068†	-337.2	-1.3942	µg/L	0.27817	-1.3942	ppb	0.27817	19.95%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-11.3	-2.3984	µg/L	2.33618	-2.3984	ppb	2.33618	97.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.0249	µg/L	1.39008	-0.0249	ppb	1.39008	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	112.5	1.7481	µg/L	1.34056	1.7481	ppb	1.34056	76.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-32.0	-0.1421	µg/L	0.06904	-0.1421	ppb	0.06904	48.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	469.6	0.1324	µg/L	0.02651	0.1324	ppb	0.02651	20.01%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	76.3	5.1991	µg/L	0.73339	5.1991	ppb	0.73339	14.11%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.3	0.1573	µg/L	0.06232	0.1573	ppb	0.06232	39.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.8	0.2356	µg/L	0.19354	0.2356	ppb	0.19354	82.13%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              22.2      0.2014 µg/L       0.11822      0.2014 ppb        0.11822  58.70%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -143.6     -0.6101 µg/L       0.13336     -0.6101 ppb        0.13336  21.86%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       30.0      2.2396 µg/L       0.39285      2.2396 ppb        0.39285  17.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        80.0      31.681 µg/L       29.1919      31.681 ppb        29.1919  92.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -8.3     -3.8011 µg/L       4.87373     -3.8011 ppb        4.87373 128.22%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              32.5      0.0433 µg/L       0.03339      0.0433 ppb        0.03339  77.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              13.3      0.4336 µg/L       0.08210      0.4336 ppb        0.08210  18.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      258.6      40.055 µg/L       10.7676      40.055 ppb        10.7676  26.88%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              27.2      0.3406 µg/L       0.09394      0.3406 ppb        0.09394  27.58%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               46.3      10.709 µg/L        1.0350      10.709 ppb         1.0350   9.66%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              15.3      0.9507 µg/L       0.50776      0.9507 ppb        0.50776  53.41%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.9      5.7956 µg/L       1.48827      5.7956 ppb        1.48827  25.68%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -12.5     -1.6090 µg/L       0.49608     -1.6090 ppb        0.49608  30.83%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.9        1.12 µg/L         3.148        1.12 ppb          3.148 280.27%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    22.6      2.3717 µg/L       1.83795      2.3717 ppb        1.83795  77.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             126.6      1.9874 µg/L       1.42694      1.9874 ppb        1.42694  71.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.3      0.5050 µg/L       0.59378      0.5050 ppb        0.59378 117.59%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              10.8      0.0255 µg/L       0.08273      0.0255 ppb        0.08273 323.94%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -45.0     -0.0409 µg/L       0.07673     -0.0409 ppb        0.07673 187.58%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -8.9     -1.2221 µg/L       1.04426     -1.2221 ppb        1.04426  85.44%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -189.5     -11.954 µg/L       12.3693     -11.954 ppb        12.3693 103.48%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               14.9      0.0743 µg/L       0.36030      0.0743 ppb        0.36030 484.73%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              52.0      0.3085 µg/L       0.07240      0.3085 ppb        0.07240  23.47%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 16:01:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137441.1	137441.1	98.1	%			16:02:25
1	Al 396.153Radial†	23126.1	23650.9	4956.1	µg/L	4956.1	ppb	16:02:25
1	Ca 317.933Radial†	74181.8	75041.7	5111.0	µg/L	5111.0	ppb	16:02:25
1	Fe 238.204 Radial†	66736.2	67906.6	5071.2	µg/L	5071.2	ppb	16:02:25
1	K 766.490 Radial†	14052.6	12829.9	5079.7	µg/L	5079.7	ppb	16:02:25
1	Mg 279.077 IEC†	11050.2	11091.0	5129.0	µg/L	5129.0	ppb	16:02:25
1	Na 589.592 Radial†	64869.6	65168.8	10097	µg/L	10097	ppb	16:02:25
1	Sr 421.552†	206264.5	210448.8	496.30	µg/L	496.30	ppb	16:02:23
1	Sc 361.383	1780080.9	1780080.9	98.666	%			16:02:38
1	Y 371.029	1034406.0	1034406.0	97.835	%			16:02:38
1	Ag 328.068†	125469.6	122601.1	508.16	µg/L	508.16	ppb	16:02:38
1	As 188.979†	1329.9	1366.4	469.48	µg/L	469.48	ppb	16:02:58
1	B 249.677†	35597.1	32013.3	496.09	µg/L	496.09	ppb	16:02:38
1	Ba 233.527†	110724.9	112366.8	499.87	µg/L	499.87	ppb	16:02:38
1	Be 313.107†	1670454.9	1694136.1	490.89	µg/L	490.89	ppb	16:02:38
1	Cd 226.502†	74260.9	75368.4	509.08	µg/L	509.08	ppb	16:02:38
1	Co 228.616†	37941.6	38664.9	511.77	µg/L	511.77	ppb	16:02:38
1	Cr 267.716†	57712.7	58259.9	503.89	µg/L	503.89	ppb	16:02:38
1	Cu 324.752†	120967.7	119567.4	501.67	µg/L	501.67	ppb	16:02:38
1	Mn 257.610†	375204.5	380093.6	504.00	µg/L	504.00	ppb	16:02:38
1	Mo 202.031†	15082.1	15324.6	501.64	µg/L	501.64	ppb	16:02:58
1	Ni 231.604†	39829.9	40464.4	506.26	µg/L	506.26	ppb	16:02:38
1	P 214.914†	10597.0	10766.0	2481.8	µg/L	2481.8	ppb	16:02:58
1	Pb 220.353†	8148.5	8155.2	503.42	µg/L	503.42	ppb	16:02:58
1	S 181.975 Axial†	1264.3	1192.4	1007.4	µg/L	1007.4	ppb	16:02:58
1	Sb 206.836†	3883.0	3845.8	497.00	µg/L	497.00	ppb	16:02:58
1	Se 196.026†	1257.4	1268.2	502	µg/L	502	ppb	16:02:58
1	SiO2†	51490.2	50447.4	5320.9	µg/L	5320.9	ppb	16:02:38
1	Si 251.611†	158107.4	159478.4	2504.8	µg/L	2504.8	ppb	16:02:38
1	Sn 189.927†	7030.7	7123.9	495.82	µg/L	495.82	ppb	16:02:58
1	Ti 334.940†	480453.7	486127.8	498.65	µg/L	498.65	ppb	16:02:38
1	Tl 190.801†	3466.3	3627.5	502.83	µg/L	502.83	ppb	16:02:58
1	U 409.014†	7072.1	7331.1	493.26	µg/L	493.26	ppb	16:02:38
1	V 292.402†	95963.2	96837.7	508.57	µg/L	508.57	ppb	16:02:38
1	Zn 213.857†	84574.9	85215.6	504.90	µg/L	504.90	ppb	16:02:38
2	Sc RADIAL	134965.6	134965.6	96.3	%			16:02:29
2	Al 396.153Radial†	22754.5	23697.5	4965.7	µg/L	4965.7	ppb	16:02:29
2	Ca 317.933Radial†	72687.3	74877.3	5099.8	µg/L	5099.8	ppb	16:02:29
2	Fe 238.204 Radial†	65298.6	67662.0	5052.9	µg/L	5052.9	ppb	16:02:29
2	K 766.490 Radial†	13754.4	12783.1	5061.1	µg/L	5061.1	ppb	16:02:29
2	Mg 279.077 IEC†	10815.0	11053.4	5111.8	µg/L	5111.8	ppb	16:02:29
2	Na 589.592 Radial†	63625.2	65089.8	10085	µg/L	10085	ppb	16:02:29
2	Sr 421.552†	206639.7	214694.4	506.31	µg/L	506.31	ppb	16:02:27
2	Sc 361.383	1758945.5	1758945.5	97.494	%			16:03:01
2	Y 371.029	1022598.2	1022598.2	96.718	%			16:03:01
2	Ag 328.068†	123736.9	122351.9	507.17	µg/L	507.17	ppb	16:03:01
2	As 188.979†	1321.2	1373.7	471.97	µg/L	471.97	ppb	16:03:21
2	B 249.677†	35279.4	32121.0	497.77	µg/L	497.77	ppb	16:03:01
2	Ba 233.527†	109636.5	112598.8	500.90	µg/L	500.90	ppb	16:03:01
2	Be 313.107†	1651699.1	1695241.7	491.21	µg/L	491.21	ppb	16:03:01
2	Cd 226.502†	73145.5	75128.8	507.46	µg/L	507.46	ppb	16:03:01
2	Co 228.616†	37353.2	38523.6	509.90	µg/L	509.90	ppb	16:03:01
2	Cr 267.716†	57231.1	58468.8	505.68	µg/L	505.68	ppb	16:03:01
2	Cu 324.752†	119889.7	119934.9	503.22	µg/L	503.22	ppb	16:03:01
2	Mn 257.610†	371557.8	380922.6	505.10	µg/L	505.10	ppb	16:03:01
2	Mo 202.031†	15021.1	15445.7	505.60	µg/L	505.60	ppb	16:03:21
2	Ni 231.604†	39481.4	40592.1	507.86	µg/L	507.86	ppb	16:03:01
2	P 214.914†	10590.2	10888.0	2510.0	µg/L	2510.0	ppb	16:03:21
2	Pb 220.353†	8140.1	8245.9	509.00	µg/L	509.00	ppb	16:03:21

2	S 181.975 Axial†	1241.5	1184.5	1000.7 µg/L	1000.7 ppb	16:03:21
2	Sb 206.836†	3875.1	3884.9	502.08 µg/L	502.08 ppb	16:03:21
2	Se 196.026†	1260.1	1286.3	509 µg/L	509 ppb	16:03:21
2	SiO2†	51107.0	50681.4	5345.4 µg/L	5345.4 ppb	16:03:01
2	Si 251.611†	156416.6	159669.7	2507.8 µg/L	2507.8 ppb	16:03:01
2	Sn 189.927†	7021.7	7200.3	501.13 µg/L	501.13 ppb	16:03:21
2	Ti 334.940†	475720.5	487124.2	499.66 µg/L	499.66 ppb	16:03:01
2	Tl 190.801†	3486.4	3690.3	511.43 µg/L	511.43 ppb	16:03:21
2	U 409.014†	7302.4	7653.4	513.61 µg/L	513.61 ppb	16:03:01
2	V 292.402†	94816.8	96830.5	508.60 µg/L	508.60 ppb	16:03:01
2	Zn 213.857†	83551.7	85196.1	504.77 µg/L	504.77 ppb	16:03:01
3	Sc RADIAL	135464.0	135464.0	96.7 %		16:02:33
3	Al 396.153Radial†	22756.1	23612.2	4947.9 µg/L	4947.9 ppb	16:02:33
3	Ca 317.933Radial†	73079.3	75005.1	5108.5 µg/L	5108.5 ppb	16:02:33
3	Fe 238.204 Radial†	65659.6	67786.0	5062.2 µg/L	5062.2 ppb	16:02:33
3	K 766.490 Radial†	13865.1	12845.1	5085.7 µg/L	5085.7 ppb	16:02:33
3	Mg 279.077 IEC†	10781.0	10977.0	5076.5 µg/L	5076.5 ppb	16:02:33
3	Na 589.592 Radial†	63870.7	65100.7	10087 µg/L	10087 ppb	16:02:33
3	Sr 421.552†	206746.3	214015.5	504.71 µg/L	504.71 ppb	16:02:31
3	Sc 361.383	1771677.5	1771677.5	98.200 %		16:03:24
3	Y 371.029	1029288.7	1029288.7	97.351 %		16:03:24
3	Ag 328.068†	124628.6	122347.9	507.15 µg/L	507.15 ppb	16:03:24
3	As 188.979†	1307.3	1349.9	463.90 µg/L	463.90 ppb	16:03:44
3	B 249.677†	35691.9	32281.0	500.25 µg/L	500.25 ppb	16:03:24
3	Ba 233.527†	110324.8	112491.6	500.42 µg/L	500.42 ppb	16:03:24
3	Be 313.107†	1664896.5	1696506.2	491.58 µg/L	491.58 ppb	16:03:24
3	Cd 226.502†	73762.1	75217.5	508.06 µg/L	508.06 ppb	16:03:24
3	Co 228.616†	37707.2	38608.7	511.03 µg/L	511.03 ppb	16:03:24
3	Cr 267.716†	57702.0	58526.5	506.18 µg/L	506.18 ppb	16:03:24
3	Cu 324.752†	120899.8	120079.8	503.82 µg/L	503.82 ppb	16:03:24
3	Mn 257.610†	374321.1	380997.8	505.20 µg/L	505.20 ppb	16:03:24
3	Mo 202.031†	15058.0	15372.6	503.21 µg/L	503.21 ppb	16:03:44
3	Ni 231.604†	39761.7	40586.5	507.79 µg/L	507.79 ppb	16:03:24
3	P 214.914†	10605.6	10825.7	2495.6 µg/L	2495.6 ppb	16:03:44
3	Pb 220.353†	8186.0	8232.6	508.18 µg/L	508.18 ppb	16:03:44
3	S 181.975 Axial†	1260.5	1194.7	1009.3 µg/L	1009.3 ppb	16:03:44
3	Sb 206.836†	3888.7	3870.2	500.14 µg/L	500.14 ppb	16:03:44
3	Se 196.026†	1265.5	1282.5	507 µg/L	507 ppb	16:03:44
3	SiO2†	51600.1	50806.9	5358.8 µg/L	5358.8 ppb	16:03:24
3	Si 251.611†	157675.1	159798.3	2509.9 µg/L	2509.9 ppb	16:03:24
3	Sn 189.927†	7027.2	7154.1	497.92 µg/L	497.92 ppb	16:03:44
3	Ti 334.940†	478799.9	486753.5	499.29 µg/L	499.29 ppb	16:03:24
3	Tl 190.801†	3497.8	3676.2	509.50 µg/L	509.50 ppb	16:03:44
3	U 409.014†	7275.0	7571.7	508.47 µg/L	508.47 ppb	16:03:24
3	V 292.402†	95572.1	96900.8	508.93 µg/L	508.93 ppb	16:03:24
3	Zn 213.857†	84120.5	85159.4	504.55 µg/L	504.55 ppb	16:03:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1770234.6	98.120	%	0.5898				0.60%
Sc RADIAL	135956.9	97.0	%	0.93				0.96%
Y 371.029	1028764.3	97.301	%	0.5600				0.58%
Ag 328.068†	122433.6	507.49	µg/L	0.580	507.49	ppb	0.580	0.11%
QC value within limits for Ag 328.068 Recovery = 101.50%								
Al 396.153Radial†	23653.5	4956.6	µg/L	8.93	4956.6	ppb	8.93	0.18%
QC value within limits for Al 396.153Radial Recovery = 99.13%								
As 188.979†	1363.3	468.45	µg/L	4.132	468.45	ppb	4.132	0.88%
QC value within limits for As 188.979 Recovery = 93.69%								
B 249.677†	32138.5	498.04	µg/L	2.095	498.04	ppb	2.095	0.42%
QC value within limits for B 249.677 Recovery = 99.61%								
Ba 233.527†	112485.7	500.39	µg/L	0.517	500.39	ppb	0.517	0.10%
QC value within limits for Ba 233.527 Recovery = 100.08%								
Be 313.107†	1695294.7	491.23	µg/L	0.346	491.23	ppb	0.346	0.07%
QC value within limits for Be 313.107 Recovery = 98.25%								
Ca 317.933Radial†	74974.7	5106.5	µg/L	5.88	5106.5	ppb	5.88	0.12%
QC value within limits for Ca 317.933Radial Recovery = 102.13%								
Cd 226.502†	75238.2	508.20	µg/L	0.818	508.20	ppb	0.818	0.16%
QC value within limits for Cd 226.502 Recovery = 101.64%								
Co 228.616†	38599.1	510.90	µg/L	0.940	510.90	ppb	0.940	0.18%

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   QC value within limits for Co 228.616  Recovery = 102.18%
Cr 267.716†            58418.4      505.25 µg/L         1.206      505.25 ppb          1.206   0.24%
   QC value within limits for Cr 267.716  Recovery = 101.05%
Cu 324.752†           119860.7      502.91 µg/L         1.110      502.91 ppb          1.110   0.22%
   QC value within limits for Cu 324.752  Recovery = 100.58%
Fe 238.204 Radial†     67784.8      5062.1 µg/L          9.13      5062.1 ppb           9.13   0.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.24%
K 766.490 Radial†      12819.4      5075.5 µg/L         12.81      5075.5 ppb          12.81   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 101.51%
Mg 279.077 IEC†        11040.4      5105.8 µg/L         26.80      5105.8 ppb          26.80   0.52%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.12%
Mn 257.610†           380671.3      504.76 µg/L         0.666      504.76 ppb          0.666   0.13%
   QC value within limits for Mn 257.610  Recovery = 100.95%
Mo 202.031†            15381.0      503.48 µg/L         1.994      503.48 ppb          1.994   0.40%
   QC value within limits for Mo 202.031  Recovery = 100.70%
Na 589.592 Radial†     65119.8       10090 µg/L           6.6       10090 ppb            6.6   0.07%
   QC value within limits for Na 589.592 Radial  Recovery = 100.90%
Ni 231.604†            40547.7      507.30 µg/L         0.902      507.30 ppb          0.902   0.18%
   QC value within limits for Ni 231.604  Recovery = 101.46%
P 214.914†             10826.6      2495.8 µg/L         14.12      2495.8 ppb          14.12   0.57%
   QC value within limits for P 214.914  Recovery = 99.83%
Pb 220.353†             8211.2      506.87 µg/L         3.010      506.87 ppb          3.010   0.59%
   QC value within limits for Pb 220.353  Recovery = 101.37%
S 181.975 Axial†        1190.5      1005.8 µg/L          4.51      1005.8 ppb           4.51   0.45%
   QC value within limits for S 181.975 Axial  Recovery = 100.58%
Sb 206.836†             3867.0      499.74 µg/L         2.565      499.74 ppb          2.565   0.51%
   QC value within limits for Sb 206.836  Recovery = 99.95%
Se 196.026†             1279.0         506 µg/L           3.8         506 ppb            3.8   0.75%
   QC value within limits for Se 196.026  Recovery = 101.22%
SiO2†                  50645.2      5341.7 µg/L         19.27      5341.7 ppb          19.27   0.36%
   QC value within limits for SiO2  Recovery = 99.89%
Si 251.611†           159648.8      2507.5 µg/L          2.52      2507.5 ppb           2.52   0.10%
   QC value within limits for Si 251.611  Recovery = 100.30%
Sn 189.927†             7159.5      498.29 µg/L         2.670      498.29 ppb          2.670   0.54%
   QC value within limits for Sn 189.927  Recovery = 99.66%
Sr 421.552†           213052.9      502.44 µg/L         5.379      502.44 ppb          5.379   1.07%
   QC value within limits for Sr 421.552  Recovery = 100.49%
Ti 334.940†           486668.5      499.20 µg/L         0.513      499.20 ppb          0.513   0.10%
   QC value within limits for Ti 334.940  Recovery = 99.84%
Tl 190.801†             3664.7      507.92 µg/L         4.515      507.92 ppb          4.515   0.89%
   QC value within limits for Tl 190.801  Recovery = 101.58%
U 409.014†              7518.7      505.12 µg/L        10.582      505.12 ppb         10.582   2.09%
   QC value within limits for U 409.014  Recovery = 101.02%
V 292.402†             96856.3      508.70 µg/L         0.203      508.70 ppb          0.203   0.04%
   QC value within limits for V 292.402  Recovery = 101.74%
Zn 213.857†            85190.4      504.74 µg/L         0.175      504.74 ppb          0.175   0.03%
   QC value within limits for Zn 213.857  Recovery = 100.95%
All analyte(s) passed QC.
```

Sequence No.: 11 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 4/5/2010 16:03:52**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138669.5	138669.5	99.0	%			16:04:23
1	Al 396.153Radial†	-103.5	-26.0	-5.5000	µg/L	-5.5000	ppb	16:04:43
1	Ca 317.933Radial†	645.5	80.7	5.4983	µg/L	5.4983	ppb	16:04:43
1	Fe 238.204 Radial†	168.8	53.2	3.9737	µg/L	3.9737	ppb	16:04:43
1	K 766.490 Radial†	1571.9	94.2	37.333	µg/L	37.333	ppb	16:04:23
1	Mg 279.077 IEC†	184.4	13.9	6.4106	µg/L	6.4106	ppb	16:04:43
1	Na 589.592 Radial†	1228.0	288.1	44.623	µg/L	44.623	ppb	16:04:23
1	Sr 421.552†	-170.7	32.1	0.0756	µg/L	0.0756	ppb	16:04:23
1	Sc 361.383	1766148.8	1766148.8	97.894	%			16:05:30
1	Y 371.029	1037911.6	1037911.6	98.166	%			16:05:30
1	Ag 328.068†	4027.7	-450.8	-1.8544	µg/L	-1.8544	ppb	16:05:33
1	As 188.979†	-10.5	7.8	2.6473	µg/L	2.6473	ppb	16:05:53
1	B 249.677†	4122.5	146.0	2.2711	µg/L	2.2711	ppb	16:05:33
1	Ba 233.527†	-147.3	-6.0	-0.0264	µg/L	-0.0264	ppb	16:05:53
1	Be 313.107†	-668.8	408.6	0.1159	µg/L	0.1159	ppb	16:05:33
1	Cd 226.502†	-82.1	19.5	0.1319	µg/L	0.1319	ppb	16:05:53
1	Co 228.616†	-209.5	-3.7	-0.0494	µg/L	-0.0494	ppb	16:05:53
1	Cr 267.716†	267.6	40.2	0.3540	µg/L	0.3540	ppb	16:05:53
1	Cu 324.752†	2875.8	-98.5	-0.4178	µg/L	-0.4178	ppb	16:05:33
1	Mn 257.610†	251.2	71.9	0.0951	µg/L	0.0951	ppb	16:05:53
1	Mo 202.031†	-27.1	10.8	0.3551	µg/L	0.3551	ppb	16:05:53
1	Ni 231.604†	-36.0	59.1	0.7398	µg/L	0.7398	ppb	16:05:53
1	P 214.914†	4.1	29.9	6.9087	µg/L	6.9087	ppb	16:05:53
1	Pb 220.353†	110.7	9.6	0.5957	µg/L	0.5957	ppb	16:05:53
1	S 181.975 Axial†	92.6	5.7	4.7961	µg/L	4.7961	ppb	16:05:53
1	Sb 206.836†	79.3	-8.7	-1.1206	µg/L	-1.1206	ppb	16:05:53
1	Se 196.026†	7.7	1.8	0.688	µg/L	0.688	ppb	16:05:53
1	SiO2†	1754.6	53.2	5.6207	µg/L	5.6207	ppb	16:05:33
1	Si 251.611†	1245.9	505.6	7.9656	µg/L	7.9656	ppb	16:05:33
1	Sn 189.927†	8.5	6.8	0.4689	µg/L	0.4689	ppb	16:05:53
1	Ti 334.940†	599.9	-210.2	-0.2130	µg/L	-0.2130	ppb	16:05:33
1	Tl 190.801†	-115.4	-3.6	-0.4909	µg/L	-0.4909	ppb	16:05:53
1	U 409.014†	-286.7	-129.5	-8.1679	µg/L	-8.1679	ppb	16:05:33
1	V 292.402†	433.4	19.5	0.1005	µg/L	0.1005	ppb	16:05:33
1	Zn 213.857†	594.2	104.0	0.6157	µg/L	0.6157	ppb	16:05:53
2	Sc RADIAL	136792.5	136792.5	97.6	%			16:04:45
2	Al 396.153Radial†	-63.2	13.8	2.8629	µg/L	2.8629	ppb	16:05:05
2	Ca 317.933Radial†	639.2	83.2	5.6649	µg/L	5.6649	ppb	16:05:05
2	Fe 238.204 Radial†	130.1	15.9	1.1904	µg/L	1.1904	ppb	16:05:05
2	K 766.490 Radial†	1722.6	270.4	107.12	µg/L	107.12	ppb	16:04:45
2	Mg 279.077 IEC†	186.7	18.8	8.6918	µg/L	8.6918	ppb	16:05:05
2	Na 589.592 Radial†	1264.2	342.1	52.940	µg/L	52.940	ppb	16:04:45
2	Sr 421.552†	-266.4	-68.4	-0.1613	µg/L	-0.1613	ppb	16:04:45
2	Sc 361.383	1766912.1	1766912.1	97.936	%			16:05:55
2	Y 371.029	1038566.5	1038566.5	98.228	%			16:05:55
2	Ag 328.068†	4110.0	-368.6	-1.5328	µg/L	-1.5328	ppb	16:05:57
2	As 188.979†	-19.5	-1.4	-0.4633	µg/L	-0.4633	ppb	16:06:17
2	B 249.677†	4053.3	73.6	1.1446	µg/L	1.1446	ppb	16:05:57
2	Ba 233.527†	-168.8	-27.8	-0.1235	µg/L	-0.1235	ppb	16:06:17
2	Be 313.107†	-892.7	180.2	0.0470	µg/L	0.0470	ppb	16:05:57
2	Cd 226.502†	-84.5	17.1	0.1157	µg/L	0.1157	ppb	16:06:17
2	Co 228.616†	-194.7	11.5	0.1523	µg/L	0.1523	ppb	16:06:17
2	Cr 267.716†	276.5	49.2	0.4386	µg/L	0.4386	ppb	16:06:17
2	Cu 324.752†	2811.8	-165.0	-0.7040	µg/L	-0.7040	ppb	16:05:57
2	Mn 257.610†	223.0	42.9	0.0566	µg/L	0.0566	ppb	16:06:17
2	Mo 202.031†	-14.2	24.1	0.7879	µg/L	0.7879	ppb	16:06:17
2	Ni 231.604†	-50.9	43.9	0.5491	µg/L	0.5491	ppb	16:06:17
2	P 214.914†	31.6	57.9	13.409	µg/L	13.409	ppb	16:06:17
2	Pb 220.353†	118.9	17.9	1.1176	µg/L	1.1176	ppb	16:06:17

2	S 181.975 Axial†	97.0	10.2	8.5620	µg/L	8.5620 ppb	16:06:17
2	Sb 206.836†	76.1	-12.0	-1.5474	µg/L	-1.5474 ppb	16:06:17
2	Se 196.026†	17.1	11.3	4.43	µg/L	4.43 ppb	16:06:17
2	SiO2†	1896.7	197.6	20.894	µg/L	20.894 ppb	16:05:57
2	Si 251.611†	1284.2	544.3	8.5685	µg/L	8.5685 ppb	16:05:57
2	Sn 189.927†	8.9	7.2	0.4974	µg/L	0.4974 ppb	16:06:17
2	Ti 334.940†	629.3	-180.5	-0.1790	µg/L	-0.1790 ppb	16:05:57
2	Tl 190.801†	-109.6	2.4	0.3201	µg/L	0.3201 ppb	16:06:17
2	U 409.014†	-426.5	-272.2	-17.190	µg/L	-17.190 ppb	16:05:57
2	V 292.402†	368.9	-46.5	-0.2428	µg/L	-0.2428 ppb	16:05:57
2	Zn 213.857†	594.0	103.5	0.6150	µg/L	0.6150 ppb	16:06:17
3	Sc RADIAL	137687.6	137687.6	98.3	%		16:05:07
3	Al 396.153Radial†	-68.7	8.6	1.8049	µg/L	1.8049 ppb	16:05:27
3	Ca 317.933Radial†	610.6	49.8	3.3934	µg/L	3.3934 ppb	16:05:27
3	Fe 238.204 Radial†	138.9	24.1	1.7962	µg/L	1.7962 ppb	16:05:27
3	K 766.490 Radial†	1566.4	99.9	39.592	µg/L	39.592 ppb	16:05:07
3	Mg 279.077 IEC†	182.4	13.1	6.0767	µg/L	6.0767 ppb	16:05:27
3	Na 589.592 Radial†	1089.0	155.5	24.066	µg/L	24.066 ppb	16:05:07
3	Sr 421.552†	-228.5	-28.0	-0.0660	µg/L	-0.0660 ppb	16:05:07
3	Sc 361.383	1777266.9	1777266.9	98.510	%		16:06:19
3	Y 371.029	1044113.1	1044113.1	98.753	%		16:06:19
3	Ag 328.068†	4032.1	-472.1	-1.9340	µg/L	-1.9340 ppb	16:06:21
3	As 188.979†	-13.7	4.6	1.5704	µg/L	1.5704 ppb	16:06:41
3	B 249.677†	4267.3	266.7	4.1474	µg/L	4.1474 ppb	16:06:21
3	Ba 233.527†	-114.9	27.9	0.1244	µg/L	0.1244 ppb	16:06:41
3	Be 313.107†	-652.6	429.2	0.1231	µg/L	0.1231 ppb	16:06:21
3	Cd 226.502†	-64.0	38.4	0.2594	µg/L	0.2594 ppb	16:06:41
3	Co 228.616†	-202.7	4.5	0.0597	µg/L	0.0597 ppb	16:06:41
3	Cr 267.716†	247.2	17.7	0.1567	µg/L	0.1567 ppb	16:06:41
3	Cu 324.752†	2636.6	-359.6	-1.5068	µg/L	-1.5068 ppb	16:06:21
3	Mn 257.610†	219.2	37.8	0.0499	µg/L	0.0499 ppb	16:06:41
3	Mo 202.031†	-28.4	9.7	0.3182	µg/L	0.3182 ppb	16:06:41
3	Ni 231.604†	-62.6	32.4	0.4048	µg/L	0.4048 ppb	16:06:41
3	P 214.914†	1.4	27.1	6.2915	µg/L	6.2915 ppb	16:06:41
3	Pb 220.353†	123.5	21.9	1.3506	µg/L	1.3506 ppb	16:06:41
3	S 181.975 Axial†	89.9	2.3	1.9427	µg/L	1.9427 ppb	16:06:41
3	Sb 206.836†	84.9	-3.5	-0.4445	µg/L	-0.4445 ppb	16:06:41
3	Se 196.026†	21.6	15.7	6.20	µg/L	6.20 ppb	16:06:41
3	SiO2†	1839.5	128.3	13.559	µg/L	13.559 ppb	16:06:21
3	Si 251.611†	1443.3	698.1	10.997	µg/L	10.997 ppb	16:06:21
3	Sn 189.927†	17.1	15.5	1.0724	µg/L	1.0724 ppb	16:06:41
3	Ti 334.940†	832.9	22.5	0.0243	µg/L	0.0243 ppb	16:06:21
3	Tl 190.801†	-111.5	1.1	0.1536	µg/L	0.1536 ppb	16:06:41
3	U 409.014†	-224.1	-64.2	-4.0316	µg/L	-4.0316 ppb	16:06:21
3	V 292.402†	474.2	58.1	0.3023	µg/L	0.3023 ppb	16:06:21
3	Zn 213.857†	578.0	83.7	0.4985	µg/L	0.4985 ppb	16:06:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1770109.3	98.113	%	0.3442				0.35%
Sc RADIAL	137716.5	98.3	%	0.67				0.68%
Y 371.029	1040197.1	98.383	%	0.3223				0.33%
Ag 328.068†	-430.5	-1.7737	µg/L	0.21243	-1.7737	ppb	0.21243	11.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.2	-0.2774	µg/L	4.55371	-0.2774	ppb	4.55371	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.7	1.2515	µg/L	1.57964	1.2515	ppb	1.57964	126.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	162.1	2.5210	µg/L	1.51690	2.5210	ppb	1.51690	60.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.0	-0.0085	µg/L	0.12492	-0.0085	ppb	0.12492	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	339.3	0.0953	µg/L	0.04200	0.0953	ppb	0.04200	44.05%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	71.2	4.8522	µg/L	1.26614	4.8522	ppb	1.26614	26.09%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	25.0	0.1690	µg/L	0.07871	0.1690	ppb	0.07871	46.58%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.1	0.0542	µg/L	0.10096	0.0542	ppb	0.10096	186.36%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              35.7      0.3164 µg/L      0.14464      0.3164 ppb       0.14464  45.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -207.7     -0.8762 µg/L      0.56457     -0.8762 ppb       0.56457  64.43%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       31.1      2.3201 µg/L      1.46372      2.3201 ppb       1.46372  63.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       154.8     61.350 µg/L      39.6584     61.350 ppb       39.6584  64.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          15.3      7.0597 µg/L      1.42327      7.0597 ppb       1.42327  20.16%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              50.9      0.0672 µg/L      0.02437      0.0672 ppb       0.02437  36.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              14.9      0.4871 µg/L      0.26115      0.4871 ppb       0.26115  53.62%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      261.9     40.543 µg/L      14.8631     40.543 ppb       14.8631  36.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              45.1      0.5646 µg/L      0.16805      0.5646 ppb       0.16805  29.77%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               38.3      8.8697 µg/L      3.94313      8.8697 ppb       3.94313  44.46%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              16.5      1.0213 µg/L      0.38655      1.0213 ppb       0.38655  37.85%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.1      5.1003 µg/L      3.32013      5.1003 ppb       3.32013  65.10%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -8.1     -1.0375 µg/L      0.55609     -1.0375 ppb       0.55609  53.60%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               9.6        3.77 µg/L        2.814        3.77 ppb         2.814  74.60%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   126.4     13.358 µg/L       7.6387     13.358 ppb        7.6387  57.19%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             582.7      9.1772 µg/L      1.60491      9.1772 ppb       1.60491  17.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.8      0.6796 µg/L      0.34053      0.6796 ppb       0.34053  50.11%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -21.4     -0.0506 µg/L      0.11919     -0.0506 ppb       0.11919 235.59%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -122.7     -0.1226 µg/L      0.12835     -0.1226 ppb       0.12835 104.73%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.0     -0.0057 µg/L      0.42837     -0.0057 ppb       0.42837 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -155.3     -9.7965 µg/L      6.72862     -9.7965 ppb       6.72862  68.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               10.4      0.0533 µg/L      0.27557      0.0533 ppb       0.27557 516.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              97.1      0.5764 µg/L      0.06747      0.5764 ppb       0.06747  11.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 16:19:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137604.4	137604.4	98.2	%			16:19:33
1	Al 396.153Radial†	23265.4	23764.7	4979.8	µg/L	4979.8	ppb	16:19:33
1	Ca 317.933Radial†	73511.3	74269.3	5058.4	µg/L	5058.4	ppb	16:19:33
1	Fe 238.204 Radial†	66069.9	67147.4	5014.5	µg/L	5014.5	ppb	16:19:33
1	K 766.490 Radial†	14036.0	12796.0	5066.3	µg/L	5066.3	ppb	16:19:33
1	Mg 279.077 IEC†	10906.4	10931.2	5055.4	µg/L	5055.4	ppb	16:19:33
1	Na 589.592 Radial†	64505.4	64719.4	10028	µg/L	10028	ppb	16:19:33
1	Sr 421.552†	207110.0	211060.1	497.74	µg/L	497.74	ppb	16:19:31
1	Sc 361.383	1768540.2	1768540.2	98.026	%			16:20:00
1	Y 371.029	1028377.0	1028377.0	97.265	%			16:20:00
1	Ag 328.068†	123829.4	121757.8	504.71	µg/L	504.71	ppb	16:20:00
1	As 188.979†	1317.7	1362.8	468.24	µg/L	468.24	ppb	16:20:20
1	B 249.677†	35264.2	31909.1	494.48	µg/L	494.48	ppb	16:20:00
1	Ba 233.527†	109485.3	111834.5	497.50	µg/L	497.50	ppb	16:20:00
1	Be 313.107†	1653200.5	1687582.2	488.99	µg/L	488.99	ppb	16:20:00
1	Cd 226.502†	72662.3	74228.9	501.38	µg/L	501.38	ppb	16:20:00
1	Co 228.616†	37380.2	38343.2	507.52	µg/L	507.52	ppb	16:20:00
1	Cr 267.716†	57129.9	58047.1	502.04	µg/L	502.04	ppb	16:20:00
1	Cu 324.752†	120316.1	119702.8	502.24	µg/L	502.24	ppb	16:20:00
1	Mn 257.610†	371454.5	378749.6	502.22	µg/L	502.22	ppb	16:20:00
1	Mo 202.031†	15119.8	15462.8	506.15	µg/L	506.15	ppb	16:20:20
1	Ni 231.604†	39263.8	40150.3	502.33	µg/L	502.33	ppb	16:20:00
1	P 214.914†	10620.5	10860.0	2503.5	µg/L	2503.5	ppb	16:20:20
1	Pb 220.353†	8173.6	8234.7	508.32	µg/L	508.32	ppb	16:20:20
1	S 181.975 Axial†	1250.0	1186.2	1002.2	µg/L	1002.2	ppb	16:20:20
1	Sb 206.836†	3898.3	3887.0	502.40	µg/L	502.40	ppb	16:20:20
1	Se 196.026†	1268.6	1288.0	510	µg/L	510	ppb	16:20:20
1	SiO2†	50966.8	50254.0	5300.2	µg/L	5300.2	ppb	16:20:00
1	Si 251.611†	156067.0	158442.7	2488.4	µg/L	2488.4	ppb	16:20:00
1	Sn 189.927†	7007.5	7146.7	497.40	µg/L	497.40	ppb	16:20:20
1	Ti 334.940†	477326.7	486115.5	498.64	µg/L	498.64	ppb	16:20:00
1	Tl 190.801†	3498.3	3683.0	510.42	µg/L	510.42	ppb	16:20:20
1	U 409.014†	7242.2	7551.4	507.08	µg/L	507.08	ppb	16:20:00
1	V 292.402†	95032.7	96523.1	506.99	µg/L	506.99	ppb	16:20:00
1	Zn 213.857†	83237.5	84410.6	500.12	µg/L	500.12	ppb	16:20:00
2	Sc RADIAL	136557.4	136557.4	97.5	%			16:19:38
2	Al 396.153Radial†	23142.2	23820.0	4991.5	µg/L	4991.5	ppb	16:19:38
2	Ca 317.933Radial†	73311.9	74638.6	5083.6	µg/L	5083.6	ppb	16:19:38
2	Fe 238.204 Radial†	65802.5	67388.9	5032.6	µg/L	5032.6	ppb	16:19:38
2	K 766.490 Radial†	13986.7	12855.1	5089.7	µg/L	5089.7	ppb	16:19:38
2	Mg 279.077 IEC†	10870.2	10979.2	5077.5	µg/L	5077.5	ppb	16:19:38
2	Na 589.592 Radial†	64471.7	65188.4	10100	µg/L	10100	ppb	16:19:38
2	Sr 421.552†	207824.9	213410.1	503.28	µg/L	503.28	ppb	16:19:35
2	Sc 361.383	1770312.3	1770312.3	98.124	%			16:20:23
2	Y 371.029	1028774.0	1028774.0	97.302	%			16:20:23
2	Ag 328.068†	124018.0	121823.5	504.97	µg/L	504.97	ppb	16:20:23
2	As 188.979†	1309.7	1353.3	465.05	µg/L	465.05	ppb	16:20:44
2	B 249.677†	35386.0	31997.2	495.85	µg/L	495.85	ppb	16:20:23
2	Ba 233.527†	109903.8	112149.3	498.90	µg/L	498.90	ppb	16:20:23
2	Be 313.107†	1660911.2	1693752.2	490.78	µg/L	490.78	ppb	16:20:23
2	Cd 226.502†	73058.4	74558.3	503.61	µg/L	503.61	ppb	16:20:23
2	Co 228.616†	37412.7	38338.2	507.45	µg/L	507.45	ppb	16:20:23
2	Cr 267.716†	57285.7	58147.6	502.91	µg/L	502.91	ppb	16:20:23
2	Cu 324.752†	120681.1	119951.9	503.28	µg/L	503.28	ppb	16:20:23
2	Mn 257.610†	372727.2	379667.4	503.43	µg/L	503.43	ppb	16:20:23
2	Mo 202.031†	15100.6	15427.8	505.01	µg/L	505.01	ppb	16:20:44
2	Ni 231.604†	39607.6	40460.6	506.21	µg/L	506.21	ppb	16:20:23
2	P 214.914†	10592.3	10820.5	2494.4	µg/L	2494.4	ppb	16:20:44
2	Pb 220.353†	8161.3	8213.9	507.04	µg/L	507.04	ppb	16:20:44

2	S 181.975 Axial†	1250.6	1185.6	1001.6 µg/L	1001.6 ppb	16:20:44
2	Sb 206.836†	3870.4	3854.7	498.20 µg/L	498.20 ppb	16:20:44
2	Se 196.026†	1242.7	1260.3	499 µg/L	499 ppb	16:20:44
2	SiO2†	51359.5	50602.2	5337.1 µg/L	5337.1 ppb	16:20:23
2	Si 251.611†	157263.7	159502.8	2505.2 µg/L	2505.2 ppb	16:20:23
2	Sn 189.927†	7016.5	7148.7	497.55 µg/L	497.55 ppb	16:20:44
2	Ti 334.940†	478880.2	487211.3	499.76 µg/L	499.76 ppb	16:20:23
2	Tl 190.801†	3493.9	3675.0	509.33 µg/L	509.33 ppb	16:20:44
2	U 409.014†	7209.0	7510.2	504.45 µg/L	504.45 ppb	16:20:23
2	V 292.402†	95025.1	96418.4	506.44 µg/L	506.44 ppb	16:20:23
2	Zn 213.857†	83526.0	84619.7	501.34 µg/L	501.34 ppb	16:20:23
3	Sc RADIAL	137144.5	137144.5	97.9 %		16:19:42
3	Al 396.153Radial†	22973.1	23545.5	4933.7 µg/L	4933.7 ppb	16:19:42
3	Ca 317.933Radial†	73480.1	74488.4	5073.3 µg/L	5073.3 ppb	16:19:42
3	Fe 238.204 Radial†	65879.2	67178.2	5016.8 µg/L	5016.8 ppb	16:19:42
3	K 766.490 Radial†	14084.7	12893.7	5105.0 µg/L	5105.0 ppb	16:19:42
3	Mg 279.077 IEC†	10857.1	10918.0	5049.3 µg/L	5049.3 ppb	16:19:42
3	Na 589.592 Radial†	64306.1	64736.1	10030 µg/L	10030 ppb	16:19:42
3	Sr 421.552†	208207.9	212888.7	502.05 µg/L	502.05 ppb	16:19:40
3	Sc 361.383	1779849.1	1779849.1	98.653 %		16:20:47
3	Y 371.029	1034591.8	1034591.8	97.852 %		16:20:47
3	Ag 328.068†	124313.4	121445.7	503.44 µg/L	503.44 ppb	16:20:47
3	As 188.979†	1327.4	1364.1	468.69 µg/L	468.69 ppb	16:21:07
3	B 249.677†	35673.8	32095.8	497.38 µg/L	497.38 ppb	16:20:47
3	Ba 233.527†	110329.9	111980.9	498.15 µg/L	498.15 ppb	16:20:47
3	Be 313.107†	1665698.9	1689535.6	489.57 µg/L	489.57 ppb	16:20:47
3	Cd 226.502†	73406.5	74512.2	503.30 µg/L	503.30 ppb	16:20:47
3	Co 228.616†	37615.4	38339.3	507.46 µg/L	507.46 ppb	16:20:47
3	Cr 267.716†	57467.8	58019.3	501.78 µg/L	501.78 ppb	16:20:47
3	Cu 324.752†	121249.5	119869.1	502.95 µg/L	502.95 ppb	16:20:47
3	Mn 257.610†	374459.6	379388.1	503.06 µg/L	503.06 ppb	16:20:47
3	Mo 202.031†	15236.9	15483.5	506.83 µg/L	506.83 ppb	16:21:07
3	Ni 231.604†	39675.6	40313.2	504.37 µg/L	504.37 ppb	16:20:47
3	P 214.914†	10728.5	10900.7	2512.9 µg/L	2512.9 ppb	16:21:07
3	Pb 220.353†	8277.2	8286.8	511.51 µg/L	511.51 ppb	16:21:07
3	S 181.975 Axial†	1258.9	1187.2	1003.0 µg/L	1003.0 ppb	16:21:07
3	Sb 206.836†	3914.5	3878.2	501.28 µg/L	501.28 ppb	16:21:07
3	Se 196.026†	1277.8	1289.1	510 µg/L	510 ppb	16:21:07
3	SiO2†	51475.0	50438.7	5319.7 µg/L	5319.7 ppb	16:20:47
3	Si 251.611†	157709.2	159095.7	2498.7 µg/L	2498.7 ppb	16:20:47
3	Sn 189.927†	7070.0	7164.7	498.65 µg/L	498.65 ppb	16:21:07
3	Ti 334.940†	480948.0	486692.3	499.22 µg/L	499.22 ppb	16:20:47
3	Tl 190.801†	3530.2	3692.6	511.73 µg/L	511.73 ppb	16:21:07
3	U 409.014†	7575.9	7842.7	525.40 µg/L	525.40 ppb	16:20:47
3	V 292.402†	95409.2	96288.8	505.80 µg/L	505.80 ppb	16:20:47
3	Zn 213.857†	83974.9	84618.5	501.35 µg/L	501.35 ppb	16:20:47

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1772900.5	98.268	%	0.3371				0.34%
Sc RADIAL	137102.1	97.9	%	0.37				0.38%
Y 371.029	1030580.9	97.473	%	0.3291				0.34%
Ag 328.068†	121675.7	504.37	µg/L	0.818	504.37	ppb	0.818	0.16%
QC value within limits for Ag 328.068 Recovery = 100.87%								
Al 396.153Radial†	23710.1	4968.3	µg/L	30.60	4968.3	ppb	30.60	0.62%
QC value within limits for Al 396.153Radial Recovery = 99.37%								
As 188.979†	1360.1	467.33	µg/L	1.986	467.33	ppb	1.986	0.42%
QC value within limits for As 188.979 Recovery = 93.47%								
B 249.677†	32000.7	495.91	µg/L	1.452	495.91	ppb	1.452	0.29%
QC value within limits for B 249.677 Recovery = 99.18%								
Ba 233.527†	111988.3	498.18	µg/L	0.700	498.18	ppb	0.700	0.14%
QC value within limits for Ba 233.527 Recovery = 99.64%								
Be 313.107†	1690290.0	489.78	µg/L	0.912	489.78	ppb	0.912	0.19%
QC value within limits for Be 313.107 Recovery = 97.96%								
Ca 317.933Radial†	74465.4	5071.8	µg/L	12.65	5071.8	ppb	12.65	0.25%
QC value within limits for Ca 317.933Radial Recovery = 101.44%								
Cd 226.502†	74433.1	502.76	µg/L	1.206	502.76	ppb	1.206	0.24%
QC value within limits for Cd 226.502 Recovery = 100.55%								
Co 228.616†	38340.2	507.48	µg/L	0.035	507.48	ppb	0.035	0.01%

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   QC value within limits for Co 228.616  Recovery = 101.50%
Cr 267.716†            58071.4      502.24 µg/L        0.591      502.24 ppb          0.591   0.12%
   QC value within limits for Cr 267.716  Recovery = 100.45%
Cu 324.752†           119841.2      502.82 µg/L        0.533      502.82 ppb          0.533   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.56%
Fe 238.204 Radial†     67238.2      5021.3 µg/L         9.81      5021.3 ppb           9.81   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.43%
K 766.490 Radial†      12848.3      5087.0 µg/L        19.50      5087.0 ppb          19.50   0.38%
   QC value within limits for K 766.490 Radial  Recovery = 101.74%
Mg 279.077 IEC†        10942.8      5060.8 µg/L        14.84      5060.8 ppb          14.84   0.29%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.22%
Mn 257.610†           379268.4      502.90 µg/L        0.624      502.90 ppb          0.624   0.12%
   QC value within limits for Mn 257.610  Recovery = 100.58%
Mo 202.031†            15458.0      506.00 µg/L        0.921      506.00 ppb          0.921   0.18%
   QC value within limits for Mo 202.031  Recovery = 101.20%
Na 589.592 Radial†     64881.3       10053 µg/L         41.2       10053 ppb           41.2   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 100.53%
Ni 231.604†            40308.1      504.30 µg/L        1.942      504.30 ppb          1.942   0.39%
   QC value within limits for Ni 231.604  Recovery = 100.86%
P 214.914†             10860.4      2503.6 µg/L         9.27      2503.6 ppb           9.27   0.37%
   QC value within limits for P 214.914  Recovery = 100.14%
Pb 220.353†             8245.1      508.96 µg/L        2.303      508.96 ppb          2.303   0.45%
   QC value within limits for Pb 220.353  Recovery = 101.79%
S 181.975 Axial†        1186.3      1002.3 µg/L         0.67      1002.3 ppb           0.67   0.07%
   QC value within limits for S 181.975 Axial  Recovery = 100.23%
Sb 206.836†             3873.3      500.63 µg/L        2.176      500.63 ppb          2.176   0.43%
   QC value within limits for Sb 206.836  Recovery = 100.13%
Se 196.026†             1279.1         506 µg/L          6.4         506 ppb            6.4   1.27%
   QC value within limits for Se 196.026  Recovery = 101.23%
SiO2†                  50431.6      5319.0 µg/L        18.46      5319.0 ppb          18.46   0.35%
   QC value within limits for SiO2  Recovery = 99.47%
Si 251.611†           159013.7      2497.4 µg/L         8.44      2497.4 ppb           8.44   0.34%
   QC value within limits for Si 251.611  Recovery = 99.90%
Sn 189.927†             7153.4      497.87 µg/L        0.684      497.87 ppb          0.684   0.14%
   QC value within limits for Sn 189.927  Recovery = 99.57%
Sr 421.552†           212453.0      501.02 µg/L        2.911      501.02 ppb          2.911   0.58%
   QC value within limits for Sr 421.552  Recovery = 100.20%
Ti 334.940†           486673.0      499.21 µg/L        0.563      499.21 ppb          0.563   0.11%
   QC value within limits for Ti 334.940  Recovery = 99.84%
Tl 190.801†             3683.5      510.49 µg/L        1.204      510.49 ppb          1.204   0.24%
   QC value within limits for Tl 190.801  Recovery = 102.10%
U 409.014†              7634.8      512.31 µg/L       11.413      512.31 ppb         11.413   2.23%
   QC value within limits for U 409.014  Recovery = 102.46%
V 292.402†             96410.1      506.41 µg/L        0.599      506.41 ppb          0.599   0.12%
   QC value within limits for V 292.402  Recovery = 101.28%
Zn 213.857†            84549.6      500.94 µg/L        0.707      500.94 ppb          0.707   0.14%
   QC value within limits for Zn 213.857  Recovery = 100.19%
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 16:21:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138251.6	138251.6	98.7	%			16:21:45
1	Al 396.153Radial†	-76.1	1.4	0.2603	µg/L	0.2603	ppb	16:22:05
1	Ca 317.933Radial†	638.8	75.9	5.1685	µg/L	5.1685	ppb	16:22:05
1	Fe 238.204 Radial†	164.2	49.1	3.6651	µg/L	3.6651	ppb	16:22:05
1	K 766.490 Radial†	1623.8	151.6	60.082	µg/L	60.082	ppb	16:21:45
1	Mg 279.077 IEC†	151.8	-18.6	-8.5672	µg/L	-8.5672	ppb	16:22:05
1	Na 589.592 Radial†	1054.6	116.2	17.951	µg/L	17.951	ppb	16:21:45
1	Sr 421.552†	-259.4	-58.3	-0.1377	µg/L	-0.1377	ppb	16:21:45
1	Sc 361.383	1797116.6	1797116.6	99.610	%			16:23:07
1	Y 371.029	1055412.4	1055412.4	99.822	%			16:23:07
1	Ag 328.068†	4139.7	-409.3	-1.6708	µg/L	-1.6708	ppb	16:23:09
1	As 188.979†	-9.2	9.3	3.1606	µg/L	3.1606	ppb	16:23:29
1	B 249.677†	4020.4	-29.0	-0.4523	µg/L	-0.4523	ppb	16:23:09
1	Ba 233.527†	-161.3	-17.4	-0.0773	µg/L	-0.0773	ppb	16:23:29
1	Be 313.107†	-690.7	398.4	0.1178	µg/L	0.1178	ppb	16:23:09
1	Cd 226.502†	-75.1	27.9	0.1884	µg/L	0.1884	ppb	16:23:29
1	Co 228.616†	-196.0	13.5	0.1781	µg/L	0.1781	ppb	16:23:29
1	Cr 267.716†	221.7	-10.6	-0.0981	µg/L	-0.0981	ppb	16:23:29
1	Cu 324.752†	2959.3	-65.2	-0.2658	µg/L	-0.2658	ppb	16:23:09
1	Mn 257.610†	237.6	53.8	0.0717	µg/L	0.0717	ppb	16:23:29
1	Mo 202.031†	-13.6	24.9	0.8136	µg/L	0.8136	ppb	16:23:29
1	Ni 231.604†	-78.1	17.5	0.2187	µg/L	0.2187	ppb	16:23:29
1	P 214.914†	17.3	43.1	9.9565	µg/L	9.9565	ppb	16:23:29
1	Pb 220.353†	117.8	14.8	0.9054	µg/L	0.9054	ppb	16:23:29
1	S 181.975 Axial†	94.6	6.1	5.1324	µg/L	5.1324	ppb	16:23:29
1	Sb 206.836†	85.2	-4.2	-0.5338	µg/L	-0.5338	ppb	16:23:29
1	Se 196.026†	22.6	16.5	6.52	µg/L	6.52	ppb	16:23:29
1	SiO2†	1804.9	72.9	7.7028	µg/L	7.7028	ppb	16:23:29
1	Si 251.611†	1009.1	246.0	3.8706	µg/L	3.8706	ppb	16:23:09
1	Sn 189.927†	-3.7	-5.6	-0.3917	µg/L	-0.3917	ppb	16:23:29
1	Ti 334.940†	743.3	-76.8	-0.0813	µg/L	-0.0813	ppb	16:23:09
1	Tl 190.801†	-121.1	-7.3	-1.0070	µg/L	-1.0070	ppb	16:23:29
1	U 409.014†	-35.9	127.3	8.0078	µg/L	8.0078	ppb	16:23:09
1	V 292.402†	337.4	-84.5	-0.4247	µg/L	-0.4247	ppb	16:23:09
1	Zn 213.857†	592.1	91.4	0.5444	µg/L	0.5444	ppb	16:23:29
2	Sc RADIAL	136698.2	136698.2	97.6	%			16:22:07
2	Al 396.153Radial†	-58.6	18.5	3.8730	µg/L	3.8730	ppb	16:22:27
2	Ca 317.933Radial†	620.0	64.0	4.3571	µg/L	4.3571	ppb	16:22:27
2	Fe 238.204 Radial†	156.5	43.0	3.2137	µg/L	3.2137	ppb	16:22:27
2	K 766.490 Radial†	1517.1	61.0	24.162	µg/L	24.162	ppb	16:22:07
2	Mg 279.077 IEC†	168.9	0.6	0.2978	µg/L	0.2978	ppb	16:22:27
2	Na 589.592 Radial†	1201.3	278.6	43.163	µg/L	43.163	ppb	16:22:07
2	Sr 421.552†	-253.5	-55.3	-0.1306	µg/L	-0.1306	ppb	16:22:07
2	Sc 361.383	1792956.6	1792956.6	99.379	%			16:23:31
2	Y 371.029	1053819.1	1053819.1	99.671	%			16:23:31
2	Ag 328.068†	4119.4	-420.0	-1.7364	µg/L	-1.7364	ppb	16:23:33
2	As 188.979†	-5.8	12.7	4.2949	µg/L	4.2949	ppb	16:23:53
2	B 249.677†	4053.9	14.1	0.2183	µg/L	0.2183	ppb	16:23:33
2	Ba 233.527†	-173.8	-30.3	-0.1350	µg/L	-0.1350	ppb	16:23:53
2	Be 313.107†	-742.6	344.5	0.0976	µg/L	0.0976	ppb	16:23:33
2	Cd 226.502†	-68.1	34.9	0.2354	µg/L	0.2354	ppb	16:23:53
2	Co 228.616†	-201.0	8.0	0.1059	µg/L	0.1059	ppb	16:23:53
2	Cr 267.716†	253.1	21.5	0.1914	µg/L	0.1914	ppb	16:23:53
2	Cu 324.752†	2852.8	-165.5	-0.6976	µg/L	-0.6976	ppb	16:23:33
2	Mn 257.610†	232.7	49.4	0.0656	µg/L	0.0656	ppb	16:23:53
2	Mo 202.031†	-20.5	18.0	0.5873	µg/L	0.5873	ppb	16:23:53
2	Ni 231.604†	-69.7	25.8	0.3229	µg/L	0.3229	ppb	16:23:53
2	P 214.914†	26.1	52.0	12.017	µg/L	12.017	ppb	16:23:53
2	Pb 220.353†	115.7	12.9	0.8021	µg/L	0.8021	ppb	16:23:53

2	S 181.975 Axial†	87.6	-0.8	-0.6478	µg/L	-0.6478	ppb	16:23:53
2	Sb 206.836†	69.5	-19.8	-2.5479	µg/L	-2.5479	ppb	16:23:53
2	Se 196.026†	-0.7	-6.8	-2.70	µg/L	-2.70	ppb	16:23:53
2	SiO2†	1804.8	76.9	8.1330	µg/L	8.1330	ppb	16:23:53
2	Si 251.611†	1168.7	409.0	6.4425	µg/L	6.4425	ppb	16:23:33
2	Sn 189.927†	-0.4	-2.3	-0.1607	µg/L	-0.1607	ppb	16:23:53
2	Ti 334.940†	836.8	19.1	0.0225	µg/L	0.0225	ppb	16:23:33
2	Tl 190.801†	-123.7	-10.2	-1.3995	µg/L	-1.3995	ppb	16:23:53
2	U 409.014†	-275.2	-113.6	-7.2088	µg/L	-7.2088	ppb	16:23:33
2	V 292.402†	289.4	-132.0	-0.6823	µg/L	-0.6823	ppb	16:23:33
2	Zn 213.857†	580.1	80.7	0.4801	µg/L	0.4801	ppb	16:23:53
3	Sc RADIAL	135260.2	135260.2	96.6	%			16:22:29
3	Al 396.153Radial†	-92.4	-17.1	-3.6383	µg/L	-3.6383	ppb	16:22:49
3	Ca 317.933Radial†	627.0	78.0	5.3124	µg/L	5.3124	ppb	16:22:49
3	Fe 238.204 Radial†	161.8	50.3	3.7569	µg/L	3.7569	ppb	16:22:49
3	K 766.490 Radial†	1680.5	246.8	97.770	µg/L	97.770	ppb	16:22:29
3	Mg 279.077 IEC†	155.1	-11.9	-5.4573	µg/L	-5.4573	ppb	16:22:49
3	Na 589.592 Radial†	1122.8	210.4	32.526	µg/L	32.526	ppb	16:22:29
3	Sr 421.552†	-208.3	-11.2	-0.0265	µg/L	-0.0265	ppb	16:22:29
3	Sc 361.383	1800732.3	1800732.3	99.810	%			16:23:56
3	Y 371.029	1058680.1	1058680.1	100.13	%			16:23:56
3	Ag 328.068†	3878.2	-679.6	-2.7909	µg/L	-2.7909	ppb	16:23:58
3	As 188.979†	-18.1	0.4	0.1428	µg/L	0.1428	ppb	16:24:18
3	B 249.677†	3937.5	-120.2	-1.8691	µg/L	-1.8691	ppb	16:23:58
3	Ba 233.527†	-143.7	0.6	0.0026	µg/L	0.0026	ppb	16:24:18
3	Be 313.107†	-678.8	411.6	0.1182	µg/L	0.1182	ppb	16:23:58
3	Cd 226.502†	-84.4	18.8	0.1271	µg/L	0.1271	ppb	16:24:18
3	Co 228.616†	-207.7	2.2	0.0288	µg/L	0.0288	ppb	16:24:18
3	Cr 267.716†	248.8	16.0	0.1416	µg/L	0.1416	ppb	16:24:18
3	Cu 324.752†	2976.5	-54.0	-0.2282	µg/L	-0.2282	ppb	16:23:58
3	Mn 257.610†	227.4	43.1	0.0573	µg/L	0.0573	ppb	16:24:18
3	Mo 202.031†	-16.0	22.5	0.7372	µg/L	0.7372	ppb	16:24:18
3	Ni 231.604†	-61.6	34.2	0.4276	µg/L	0.4276	ppb	16:24:18
3	P 214.914†	15.7	41.5	9.5806	µg/L	9.5806	ppb	16:24:18
3	Pb 220.353†	92.3	-10.9	-0.6685	µg/L	-0.6685	ppb	16:24:18
3	S 181.975 Axial†	91.2	2.4	2.0512	µg/L	2.0512	ppb	16:24:18
3	Sb 206.836†	68.4	-21.2	-2.7306	µg/L	-2.7306	ppb	16:24:18
3	Se 196.026†	21.6	15.5	6.09	µg/L	6.09	ppb	16:24:18
3	SiO2†	1782.5	46.8	4.9392	µg/L	4.9392	ppb	16:24:18
3	Si 251.611†	1143.9	379.1	5.9689	µg/L	5.9689	ppb	16:23:58
3	Sn 189.927†	-0.8	-2.7	-0.1901	µg/L	-0.1901	ppb	16:24:18
3	Ti 334.940†	511.3	-310.7	-0.3171	µg/L	-0.3171	ppb	16:23:58
3	Tl 190.801†	-97.7	16.4	2.2354	µg/L	2.2354	ppb	16:24:18
3	U 409.014†	-218.9	-56.0	-3.5542	µg/L	-3.5542	ppb	16:23:58
3	V 292.402†	346.2	-76.4	-0.3900	µg/L	-0.3900	ppb	16:23:58
3	Zn 213.857†	583.5	81.6	0.4842	µg/L	0.4842	ppb	16:24:18

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1796935.2	99.600	%	0.2157				0.22%
Sc RADIAL	136736.7	97.6	%	1.07				1.09%
Y 371.029	1055970.5	99.875	%	0.2344				0.23%
Ag 328.068†	-502.9	-2.0660	µg/L	0.62861	-2.0660	ppb	0.62861	30.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.9	0.1650	µg/L	3.75658	0.1650	ppb	3.75658	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.5	2.5328	µg/L	2.14605	2.5328	ppb	2.14605	84.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-45.1	-0.7010	µg/L	1.06567	-0.7010	ppb	1.06567	152.02%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-15.7	-0.0699	µg/L	0.06910	-0.0699	ppb	0.06910	98.89%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	384.8	0.1112	µg/L	0.01176	0.1112	ppb	0.01176	10.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	72.6	4.9460	µg/L	0.51510	4.9460	ppb	0.51510	10.41%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.2	0.1837	µg/L	0.05431	0.1837	ppb	0.05431	29.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.9	0.1043	µg/L	0.07467	0.1043	ppb	0.07467	71.61%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.0      0.0783 µg/L       0.15482      0.0783 ppb        0.15482 197.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -94.9     -0.3972 µg/L       0.26085     -0.3972 ppb        0.26085  65.67%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         47.5      3.5452 µg/L       0.29075      3.5452 ppb        0.29075   8.20%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         153.1      60.671 µg/L       36.8077      60.671 ppb        36.8077  60.67%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -9.9     -4.5756 µg/L       4.49782     -4.5756 ppb        4.49782  98.30%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                48.8      0.0649 µg/L       0.00718      0.0649 ppb        0.00718  11.07%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                21.8      0.7127 µg/L       0.11510      0.7127 ppb        0.11510  16.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        201.7      31.213 µg/L       12.6571      31.213 ppb        12.6571  40.55%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                25.8      0.3231 µg/L       0.10444      0.3231 ppb        0.10444  32.33%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 45.5      10.518 µg/L        1.3118      10.518 ppb         1.3118  12.47%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 5.6      0.3463 µg/L       0.88039      0.3463 ppb        0.88039 254.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.6      2.1786 µg/L       2.89220      2.1786 ppb        2.89220 132.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -15.1     -1.9374 µg/L       1.21904     -1.9374 ppb        1.21904  62.92%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 8.4        3.30 µg/L         5.201        3.30 ppb          5.201 157.38%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      65.6      6.9250 µg/L       1.73317      6.9250 ppb        1.73317  25.03%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               344.7      5.4273 µg/L       1.36882      5.4273 ppb        1.36882  25.22%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.6     -0.2475 µg/L       0.12574     -0.2475 ppb        0.12574  50.80%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -41.6     -0.0982 µg/L       0.06221     -0.0982 ppb        0.06221  63.33%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -122.8     -0.1253 µg/L       0.17407     -0.1253 ppb        0.17407 138.93%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.4     -0.0570 µg/L       1.99496     -0.0570 ppb        1.99496 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -14.1     -0.9184 µg/L       7.94337     -0.9184 ppb        7.94337 864.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -97.6     -0.4990 µg/L       0.15971     -0.4990 ppb        0.15971  32.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                84.6      0.5029 µg/L       0.03599      0.5029 ppb        0.03599   7.16%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 16:37:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	134299.0	134299.0	95.9	%			16:37:48
1	Al 396.153Radial†	22539.9	23590.8	4943.4	µg/L	4943.4	ppb	16:37:48
1	Ca 317.933Radial†	71903.5	74434.2	5069.6	µg/L	5069.6	ppb	16:37:48
1	Fe 238.204 Radial†	64644.2	67315.8	5027.1	µg/L	5027.1	ppb	16:37:48
1	K 766.490 Radial†	13671.0	12767.0	5054.8	µg/L	5054.8	ppb	16:37:48
1	Mg 279.077 IEC†	10660.9	10948.4	5063.3	µg/L	5063.3	ppb	16:37:48
1	Na 589.592 Radial†	63306.0	65084.6	10084	µg/L	10084	ppb	16:37:48
1	Sr 421.552†	205476.3	214545.6	505.96	µg/L	505.96	ppb	16:37:46
1	Sc 361.383	1762859.8	1762859.8	97.711	%			16:38:15
1	Y 371.029	1025616.3	1025616.3	97.004	%			16:38:15
1	Ag 328.068†	123395.7	121721.0	504.56	µg/L	504.56	ppb	16:38:15
1	As 188.979†	1305.4	1354.6	465.43	µg/L	465.43	ppb	16:38:35
1	B 249.677†	35143.6	31901.6	494.37	µg/L	494.37	ppb	16:38:15
1	Ba 233.527†	109199.1	111901.6	497.80	µg/L	497.80	ppb	16:38:15
1	Be 313.107†	1647067.4	1686739.8	488.75	µg/L	488.75	ppb	16:38:15
1	Cd 226.502†	72599.6	74403.6	502.56	µg/L	502.56	ppb	16:38:15
1	Co 228.616†	37212.9	38294.9	506.88	µg/L	506.88	ppb	16:38:15
1	Cr 267.716†	56830.0	57927.9	501.01	µg/L	501.01	ppb	16:38:15
1	Cu 324.752†	119567.1	119331.7	500.69	µg/L	500.69	ppb	16:38:15
1	Mn 257.610†	369741.1	378217.2	501.51	µg/L	501.51	ppb	16:38:15
1	Mo 202.031†	14940.7	15329.3	501.79	µg/L	501.79	ppb	16:38:35
1	Ni 231.604†	39200.3	40214.4	503.13	µg/L	503.13	ppb	16:38:15
1	P 214.914†	10483.0	10754.2	2479.1	µg/L	2479.1	ppb	16:38:35
1	Pb 220.353†	8090.1	8176.1	504.70	µg/L	504.70	ppb	16:38:35
1	S 181.975 Axial†	1238.0	1178.1	995.28	µg/L	995.28	ppb	16:38:35
1	Sb 206.836†	3846.1	3846.5	497.12	µg/L	497.12	ppb	16:38:35
1	Se 196.026†	1250.7	1273.8	504	µg/L	504	ppb	16:38:35
1	SiO2†	50750.9	50200.6	5294.7	µg/L	5294.7	ppb	16:38:15
1	Si 251.611†	155479.4	158354.3	2487.1	µg/L	2487.1	ppb	16:38:15
1	Sn 189.927†	6943.7	7104.4	494.47	µg/L	494.47	ppb	16:38:35
1	Ti 334.940†	475046.0	485350.4	497.85	µg/L	497.85	ppb	16:38:15
1	Tl 190.801†	3445.5	3640.5	504.61	µg/L	504.61	ppb	16:38:35
1	U 409.014†	7234.1	7567.0	508.07	µg/L	508.07	ppb	16:38:15
1	V 292.402†	94774.3	96571.1	507.19	µg/L	507.19	ppb	16:38:15
1	Zn 213.857†	82846.3	84283.9	499.36	µg/L	499.36	ppb	16:38:15
2	Sc RADIAL	137458.8	137458.8	98.1	%			16:37:52
2	Al 396.153Radial†	23161.9	23684.3	4962.7	µg/L	4962.7	ppb	16:37:52
2	Ca 317.933Radial†	73735.6	74577.2	5079.4	µg/L	5079.4	ppb	16:37:52
2	Fe 238.204 Radial†	66292.7	67445.8	5036.8	µg/L	5036.8	ppb	16:37:52
2	K 766.490 Radial†	14026.1	12801.1	5068.3	µg/L	5068.3	ppb	16:37:52
2	Mg 279.077 IEC†	10894.8	10931.2	5055.5	µg/L	5055.5	ppb	16:37:52
2	Na 589.592 Radial†	64445.4	64727.8	10029	µg/L	10029	ppb	16:37:52
2	Sr 421.552†	205998.1	210150.1	495.59	µg/L	495.59	ppb	16:37:50
2	Sc 361.383	1741816.6	1741816.6	96.545	%			16:38:38
2	Y 371.029	1012847.4	1012847.4	95.796	%			16:38:38
2	Ag 328.068†	122256.6	122066.8	505.97	µg/L	505.97	ppb	16:38:38
2	As 188.979†	1323.8	1389.8	477.35	µg/L	477.35	ppb	16:38:58
2	B 249.677†	34721.3	31898.8	494.33	µg/L	494.33	ppb	16:38:38
2	Ba 233.527†	107587.0	111581.9	496.38	µg/L	496.38	ppb	16:38:38
2	Be 313.107†	1623113.4	1682293.1	487.47	µg/L	487.47	ppb	16:38:38
2	Cd 226.502†	71393.6	74052.0	500.18	µg/L	500.18	ppb	16:38:38
2	Co 228.616†	36629.0	38150.2	504.96	µg/L	504.96	ppb	16:38:38
2	Cr 267.716†	56033.9	57806.0	499.94	µg/L	499.94	ppb	16:38:38
2	Cu 324.752†	118002.7	119189.7	500.10	µg/L	500.10	ppb	16:38:38
2	Mn 257.610†	364470.7	377329.6	500.33	µg/L	500.33	ppb	16:38:38
2	Mo 202.031†	15046.1	15623.1	511.40	µg/L	511.40	ppb	16:38:58
2	Ni 231.604†	38541.8	40017.1	500.66	µg/L	500.66	ppb	16:38:38
2	P 214.914†	10569.3	10973.3	2529.7	µg/L	2529.7	ppb	16:38:58
2	Pb 220.353†	8110.9	8297.7	512.20	µg/L	512.20	ppb	16:38:58

2	S 181.975 Axial†	1245.8	1201.4	1015.0 µg/L	1015.0 ppb	16:38:58
2	Sb 206.836†	3885.7	3935.1	508.71 µg/L	508.71 ppb	16:38:58
2	Se 196.026†	1263.4	1302.5	515 µg/L	515 ppb	16:38:58
2	SiO2†	50053.9	50106.2	5284.3 µg/L	5284.3 ppb	16:38:38
2	Si 251.611†	153293.7	158012.8	2481.6 µg/L	2481.6 ppb	16:38:38
2	Sn 189.927†	6969.6	7217.2	502.29 µg/L	502.29 ppb	16:38:58
2	Ti 334.940†	468356.6	484295.1	496.76 µg/L	496.76 ppb	16:38:38
2	Tl 190.801†	3456.6	3694.6	511.97 µg/L	511.97 ppb	16:38:58
2	U 409.014†	7320.9	7746.2	519.25 µg/L	519.25 ppb	16:38:38
2	V 292.402†	93250.7	96164.7	505.19 µg/L	505.19 ppb	16:38:38
2	Zn 213.857†	81796.4	84220.7	499.00 µg/L	499.00 ppb	16:38:38
3	Sc RADIAL	135624.5	135624.5	96.8 %		16:37:56
3	Al 396.153Radial†	22686.3	23512.3	4926.9 µg/L	4926.9 ppb	16:37:56
3	Ca 317.933Radial†	72585.3	74405.4	5067.7 µg/L	5067.7 ppb	16:37:56
3	Fe 238.204 Radial†	65270.2	67303.3	5026.2 µg/L	5026.2 ppb	16:37:56
3	K 766.490 Radial†	13820.3	12781.9	5060.7 µg/L	5060.7 ppb	16:37:56
3	Mg 279.077 IEC†	10771.3	10953.7	5065.7 µg/L	5065.7 ppb	16:37:56
3	Na 589.592 Radial†	63778.2	64926.9	10060 µg/L	10060 ppb	16:37:56
3	Sr 421.552†	209035.9	216127.5	509.69 µg/L	509.69 ppb	16:37:54
3	Sc 361.383	1770882.7	1770882.7	98.156 %		16:39:01
3	Y 371.029	1029563.5	1029563.5	97.377 %		16:39:01
3	Ag 328.068†	124006.5	121771.1	504.76 µg/L	504.76 ppb	16:39:01
3	As 188.979†	1312.9	1356.2	465.98 µg/L	465.98 ppb	16:39:21
3	B 249.677†	35356.6	31955.7	495.21 µg/L	495.21 ppb	16:39:01
3	Ba 233.527†	109653.1	111857.8	497.60 µg/L	497.60 ppb	16:39:01
3	Be 313.107†	1656578.1	1688792.4	489.35 µg/L	489.35 ppb	16:39:01
3	Cd 226.502†	72927.7	74401.2	502.55 µg/L	502.55 ppb	16:39:01
3	Co 228.616†	37266.9	38177.3	505.32 µg/L	505.32 ppb	16:39:01
3	Cr 267.716†	57201.0	58042.4	501.99 µg/L	501.99 ppb	16:39:01
3	Cu 324.752†	119956.8	119174.4	500.03 µg/L	500.03 ppb	16:39:01
3	Mn 257.610†	371246.4	378036.4	501.27 µg/L	501.27 ppb	16:39:01
3	Mo 202.031†	15011.7	15332.3	501.88 µg/L	501.88 ppb	16:39:21
3	Ni 231.604†	39375.4	40211.0	503.09 µg/L	503.09 ppb	16:39:01
3	P 214.914†	10528.5	10751.9	2478.5 µg/L	2478.5 ppb	16:39:21
3	Pb 220.353†	8147.0	8196.6	505.96 µg/L	505.96 ppb	16:39:21
3	S 181.975 Axial†	1255.3	1190.0	1005.3 µg/L	1005.3 ppb	16:39:21
3	Sb 206.836†	3876.4	3859.5	498.78 µg/L	498.78 ppb	16:39:21
3	Se 196.026†	1249.1	1266.4	501 µg/L	501 ppb	16:39:21
3	SiO2†	51030.4	50250.0	5300.0 µg/L	5300.0 ppb	16:39:01
3	Si 251.611†	156527.4	158701.1	2492.6 µg/L	2492.6 ppb	16:39:01
3	Sn 189.927†	6968.3	7097.4	493.98 µg/L	493.98 ppb	16:39:21
3	Ti 334.940†	477306.2	485450.5	497.95 µg/L	497.95 ppb	16:39:01
3	Tl 190.801†	3451.0	3630.1	503.19 µg/L	503.19 ppb	16:39:21
3	U 409.014†	7309.5	7610.1	510.71 µg/L	510.71 ppb	16:39:01
3	V 292.402†	94957.8	96318.6	505.89 µg/L	505.89 ppb	16:39:01
3	Zn 213.857†	83187.1	84247.0	499.14 µg/L	499.14 ppb	16:39:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1758519.7	97.471	%	0.8320				0.85%
Sc RADIAL	135794.1	96.9	%	1.13				1.17%
Y 371.029	1022675.7	96.725	%	0.8264				0.85%
Ag 328.068†	121853.0	505.10	µg/L	0.761	505.10	ppb	0.761	0.15%
QC value within limits for Ag 328.068 Recovery = 101.02%								
Al 396.153Radial†	23595.8	4944.3	µg/L	17.91	4944.3	ppb	17.91	0.36%
QC value within limits for Al 396.153Radial Recovery = 98.89%								
As 188.979†	1366.8	469.59	µg/L	6.729	469.59	ppb	6.729	1.43%
QC value within limits for As 188.979 Recovery = 93.92%								
B 249.677†	31918.7	494.64	µg/L	0.500	494.64	ppb	0.500	0.10%
QC value within limits for B 249.677 Recovery = 98.93%								
Ba 233.527†	111780.4	497.26	µg/L	0.769	497.26	ppb	0.769	0.15%
QC value within limits for Ba 233.527 Recovery = 99.45%								
Be 313.107†	1685941.8	488.52	µg/L	0.961	488.52	ppb	0.961	0.20%
QC value within limits for Be 313.107 Recovery = 97.70%								
Ca 317.933Radial†	74472.2	5072.2	µg/L	6.27	5072.2	ppb	6.27	0.12%
QC value within limits for Ca 317.933Radial Recovery = 101.44%								
Cd 226.502†	74285.6	501.76	µg/L	1.369	501.76	ppb	1.369	0.27%
QC value within limits for Cd 226.502 Recovery = 100.35%								
Co 228.616†	38207.5	505.72	µg/L	1.018	505.72	ppb	1.018	0.20%

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   QC value within limits for Co 228.616  Recovery = 101.14%
Cr 267.716†            57925.4      500.98 µg/L         1.026      500.98 ppb          1.026   0.20%
   QC value within limits for Cr 267.716  Recovery = 100.20%
Cu 324.752†           119231.9      500.27 µg/L         0.360      500.27 ppb          0.360   0.07%
   QC value within limits for Cu 324.752  Recovery = 100.05%
Fe 238.204 Radial†     67355.0      5030.0 µg/L          5.89      5030.0 ppb           5.89   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.60%
K 766.490 Radial†      12783.3      5061.2 µg/L          6.79      5061.2 ppb           6.79   0.13%
   QC value within limits for K 766.490 Radial  Recovery = 101.22%
Mg 279.077 IEC†        10944.4      5061.5 µg/L          5.32      5061.5 ppb           5.32   0.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.23%
Mn 257.610†           377861.1      501.04 µg/L         0.622      501.04 ppb          0.622   0.12%
   QC value within limits for Mn 257.610  Recovery = 100.21%
Mo 202.031†            15428.2      505.02 µg/L         5.520      505.02 ppb          5.520   1.09%
   QC value within limits for Mo 202.031  Recovery = 101.00%
Na 589.592 Radial†     64913.1       10058 µg/L          27.7       10058 ppb           27.7   0.28%
   QC value within limits for Na 589.592 Radial  Recovery = 100.58%
Ni 231.604†            40147.5      502.30 µg/L         1.413      502.30 ppb          1.413   0.28%
   QC value within limits for Ni 231.604  Recovery = 100.46%
P 214.914†             10826.5      2495.8 µg/L         29.39      2495.8 ppb          29.39   1.18%
   QC value within limits for P 214.914  Recovery = 99.83%
Pb 220.353†             8223.5      507.62 µg/L         4.015      507.62 ppb          4.015   0.79%
   QC value within limits for Pb 220.353  Recovery = 101.52%
S 181.975 Axial†        1189.8      1005.2 µg/L          9.87      1005.2 ppb           9.87   0.98%
   QC value within limits for S 181.975 Axial  Recovery = 100.52%
Sb 206.836†             3880.3      501.54 µg/L         6.264      501.54 ppb          6.264   1.25%
   QC value within limits for Sb 206.836  Recovery = 100.31%
Se 196.026†             1280.9         507 µg/L           7.5         507 ppb            7.5   1.48%
   QC value within limits for Se 196.026  Recovery = 101.37%
SiO2†                  50185.6      5293.0 µg/L         7.95      5293.0 ppb          7.95   0.15%
   QC value within limits for SiO2  Recovery = 98.98%
Si 251.611†           158356.0      2487.1 µg/L         5.52      2487.1 ppb          5.52   0.22%
   QC value within limits for Si 251.611  Recovery = 99.48%
Sn 189.927†             7139.7      496.91 µg/L         4.661      496.91 ppb          4.661   0.94%
   QC value within limits for Sn 189.927  Recovery = 99.38%
Sr 421.552†           213607.7      503.75 µg/L         7.304      503.75 ppb          7.304   1.45%
   QC value within limits for Sr 421.552  Recovery = 100.75%
Ti 334.940†           485032.0      497.52 µg/L         0.659      497.52 ppb          0.659   0.13%
   QC value within limits for Ti 334.940  Recovery = 99.50%
Tl 190.801†             3655.1      506.59 µg/L         4.717      506.59 ppb          4.717   0.93%
   QC value within limits for Tl 190.801  Recovery = 101.32%
U 409.014†              7641.1      512.68 µg/L         5.844      512.68 ppb          5.844   1.14%
   QC value within limits for U 409.014  Recovery = 102.54%
V 292.402†             96351.5      506.09 µg/L         1.017      506.09 ppb          1.017   0.20%
   QC value within limits for V 292.402  Recovery = 101.22%
Zn 213.857†            84250.5      499.16 µg/L         0.182      499.16 ppb          0.182   0.04%
   QC value within limits for Zn 213.857  Recovery = 99.83%
All analyte(s) passed QC.
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Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 16:39:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137942.2	137942.2	98.5	%			16:40:00
1	Al 396.153Radial†	-70.1	7.3	1.5274	µg/L	1.5274	ppb	16:40:20
1	Ca 317.933Radial†	599.6	37.5	2.5564	µg/L	2.5564	ppb	16:40:20
1	Fe 238.204 Radial†	134.7	19.5	1.4526	µg/L	1.4526	ppb	16:40:20
1	K 766.490 Radial†	1647.4	179.3	71.054	µg/L	71.054	ppb	16:40:00
1	Mg 279.077 IEC†	195.5	26.1	12.041	µg/L	12.041	ppb	16:40:20
1	Na 589.592 Radial†	1040.9	104.6	16.153	µg/L	16.153	ppb	16:40:00
1	Sr 421.552†	-212.6	-11.4	-0.0269	µg/L	-0.0269	ppb	16:40:00
1	Sc 361.383	1798118.0	1798118.0	99.666	%			16:41:21
1	Y 371.029	1057321.3	1057321.3	100.00	%			16:41:21
1	Ag 328.068†	3964.1	-587.8	-2.4126	µg/L	-2.4126	ppb	16:41:24
1	As 188.979†	-15.3	3.2	1.0699	µg/L	1.0699	ppb	16:41:44
1	B 249.677†	4000.1	-51.6	-0.8028	µg/L	-0.8028	ppb	16:41:24
1	Ba 233.527†	-134.6	9.4	0.0423	µg/L	0.0423	ppb	16:41:44
1	Be 313.107†	-535.2	554.7	0.1582	µg/L	0.1582	ppb	16:41:24
1	Cd 226.502†	-57.4	45.7	0.3090	µg/L	0.3090	ppb	16:41:44
1	Co 228.616†	-195.4	14.3	0.1890	µg/L	0.1890	ppb	16:41:44
1	Cr 267.716†	264.8	32.5	0.2878	µg/L	0.2878	ppb	16:41:44
1	Cu 324.752†	2812.6	-214.1	-0.9016	µg/L	-0.9016	ppb	16:41:24
1	Mn 257.610†	219.9	35.9	0.0471	µg/L	0.0471	ppb	16:41:44
1	Mo 202.031†	-29.7	8.8	0.2887	µg/L	0.2887	ppb	16:41:44
1	Ni 231.604†	-75.4	20.3	0.2539	µg/L	0.2539	ppb	16:41:44
1	P 214.914†	17.6	43.3	10.032	µg/L	10.032	ppb	16:41:44
1	Pb 220.353†	114.7	11.6	0.7236	µg/L	0.7236	ppb	16:41:44
1	S 181.975 Axial†	94.7	6.1	5.1206	µg/L	5.1206	ppb	16:41:44
1	Sb 206.836†	86.7	-2.7	-0.3466	µg/L	-0.3466	ppb	16:41:44
1	Se 196.026†	13.2	7.1	2.80	µg/L	2.80	ppb	16:41:44
1	SiO2†	1753.4	20.2	2.1268	µg/L	2.1268	ppb	16:41:44
1	Si 251.611†	1068.6	305.2	4.8084	µg/L	4.8084	ppb	16:41:24
1	Sn 189.927†	2.4	0.6	0.0398	µg/L	0.0398	ppb	16:41:44
1	Ti 334.940†	913.0	93.0	0.0979	µg/L	0.0979	ppb	16:41:24
1	Tl 190.801†	-106.5	7.5	1.0204	µg/L	1.0204	ppb	16:41:44
1	U 409.014†	-291.9	-129.5	-8.1577	µg/L	-8.1577	ppb	16:41:24
1	V 292.402†	480.1	58.4	0.3014	µg/L	0.3014	ppb	16:41:24
1	Zn 213.857†	595.7	94.7	0.5647	µg/L	0.5647	ppb	16:41:44
2	Sc RADIAL	135829.4	135829.4	97.0	%			16:40:22
2	Al 396.153Radial†	-81.3	-5.3	-1.1368	µg/L	-1.1368	ppb	16:40:42
2	Ca 317.933Radial†	621.2	69.3	4.7175	µg/L	4.7175	ppb	16:40:42
2	Fe 238.204 Radial†	157.1	44.8	3.3436	µg/L	3.3436	ppb	16:40:42
2	K 766.490 Radial†	1505.9	59.4	23.526	µg/L	23.526	ppb	16:40:22
2	Mg 279.077 IEC†	162.7	-4.6	-2.1319	µg/L	-2.1319	ppb	16:40:42
2	Na 589.592 Radial†	1108.8	191.1	29.596	µg/L	29.596	ppb	16:40:22
2	Sr 421.552†	-212.6	-14.8	-0.0349	µg/L	-0.0349	ppb	16:40:22
2	Sc 361.383	1790048.2	1790048.2	99.218	%			16:41:46
2	Y 371.029	1053046.8	1053046.8	99.598	%			16:41:46
2	Ag 328.068†	3895.9	-638.6	-2.6305	µg/L	-2.6305	ppb	16:41:48
2	As 188.979†	-15.3	3.1	1.0582	µg/L	1.0582	ppb	16:42:08
2	B 249.677†	3908.1	-126.3	-1.9638	µg/L	-1.9638	ppb	16:41:48
2	Ba 233.527†	-167.8	-24.6	-0.1094	µg/L	-0.1094	ppb	16:42:08
2	Be 313.107†	-639.8	446.9	0.1266	µg/L	0.1266	ppb	16:41:48
2	Cd 226.502†	-87.9	14.8	0.0997	µg/L	0.0997	ppb	16:42:08
2	Co 228.616†	-216.5	-7.9	-0.1050	µg/L	-0.1050	ppb	16:42:08
2	Cr 267.716†	233.6	2.2	0.0264	µg/L	0.0264	ppb	16:42:08
2	Cu 324.752†	2737.5	-277.1	-1.1663	µg/L	-1.1663	ppb	16:41:48
2	Mn 257.610†	246.1	63.3	0.0841	µg/L	0.0841	ppb	16:42:08
2	Mo 202.031†	-30.1	8.2	0.2692	µg/L	0.2692	ppb	16:42:08
2	Ni 231.604†	-68.8	26.6	0.3323	µg/L	0.3323	ppb	16:42:08
2	P 214.914†	23.9	49.8	11.533	µg/L	11.533	ppb	16:42:08
2	Pb 220.353†	118.7	16.2	1.0043	µg/L	1.0043	ppb	16:42:08

2	S 181.975 Axial†	93.8	5.6	4.7433 µg/L	4.7433 ppb	16:42:08
2	Sb 206.836†	85.9	-3.1	-0.3997 µg/L	-0.3997 ppb	16:42:08
2	Se 196.026†	14.2	8.1	3.20 µg/L	3.20 ppb	16:42:08
2	SiO2†	1805.8	81.0	8.5639 µg/L	8.5639 ppb	16:42:08
2	Si 251.611†	1082.0	323.5	5.0963 µg/L	5.0963 ppb	16:41:48
2	Sn 189.927†	4.0	2.1	0.1457 µg/L	0.1457 ppb	16:42:08
2	Ti 334.940†	649.2	-168.7	-0.1691 µg/L	-0.1691 ppb	16:41:48
2	Tl 190.801†	-112.0	1.4	0.1895 µg/L	0.1895 ppb	16:42:08
2	U 409.014†	-309.6	-148.7	-9.4054 µg/L	-9.4054 ppb	16:41:48
2	V 292.402†	339.9	-80.7	-0.4219 µg/L	-0.4219 ppb	16:41:48
2	Zn 213.857†	584.0	85.6	0.5096 µg/L	0.5096 ppb	16:42:08
3	Sc RADIAL	136159.2	136159.2	97.2 %		16:40:44
3	Al 396.153Radial†	-49.1	28.0	5.8522 µg/L	5.8522 ppb	16:41:04
3	Ca 317.933Radial†	630.3	77.1	5.2493 µg/L	5.2493 ppb	16:41:04
3	Fe 238.204 Radial†	158.5	45.8	3.4169 µg/L	3.4169 ppb	16:41:04
3	K 766.490 Radial†	1618.7	171.6	68.010 µg/L	68.010 ppb	16:40:44
3	Mg 279.077 IEC†	183.9	16.8	7.7589 µg/L	7.7589 ppb	16:41:04
3	Na 589.592 Radial†	982.5	58.3	8.9837 µg/L	8.9837 ppb	16:40:44
3	Sr 421.552†	-155.2	44.8	0.1056 µg/L	0.1056 ppb	16:40:44
3	Sc 361.383	1784965.0	1784965.0	98.936 %		16:42:10
3	Y 371.029	1049565.0	1049565.0	99.269 %		16:42:10
3	Ag 328.068†	4128.3	-392.5	-1.6080 µg/L	-1.6080 ppb	16:42:12
3	As 188.979†	-19.2	-0.9	-0.2935 µg/L	-0.2935 ppb	16:42:32
3	B 249.677†	4037.5	15.8	0.2442 µg/L	0.2442 ppb	16:42:12
3	Ba 233.527†	-169.4	-26.6	-0.1183 µg/L	-0.1183 ppb	16:42:32
3	Be 313.107†	-650.5	434.2	0.1261 µg/L	0.1261 ppb	16:42:12
3	Cd 226.502†	-44.5	58.4	0.3944 µg/L	0.3944 ppb	16:42:32
3	Co 228.616†	-180.7	27.7	0.3658 µg/L	0.3658 ppb	16:42:32
3	Cr 267.716†	228.4	-2.3	-0.0211 µg/L	-0.0211 ppb	16:42:32
3	Cu 324.752†	2905.1	-99.8	-0.4156 µg/L	-0.4156 ppb	16:42:12
3	Mn 257.610†	227.5	45.3	0.0597 µg/L	0.0597 ppb	16:42:32
3	Mo 202.031†	-9.6	28.8	0.9435 µg/L	0.9435 ppb	16:42:32
3	Ni 231.604†	-57.6	37.7	0.4718 µg/L	0.4718 ppb	16:42:32
3	P 214.914†	22.8	48.7	11.259 µg/L	11.259 ppb	16:42:32
3	Pb 220.353†	119.8	17.6	1.0864 µg/L	1.0864 ppb	16:42:32
3	S 181.975 Axial†	84.0	-4.0	-3.3925 µg/L	-3.3925 ppb	16:42:32
3	Sb 206.836†	89.3	0.6	0.0839 µg/L	0.0839 ppb	16:42:32
3	Se 196.026†	23.1	17.2	6.78 µg/L	6.78 ppb	16:42:32
3	SiO2†	1790.2	70.4	7.4259 µg/L	7.4259 ppb	16:42:32
3	Si 251.611†	1153.3	398.6	6.2742 µg/L	6.2742 ppb	16:42:12
3	Sn 189.927†	0.5	-1.4	-0.0955 µg/L	-0.0955 ppb	16:42:32
3	Ti 334.940†	676.4	-139.4	-0.1441 µg/L	-0.1441 ppb	16:42:12
3	Tl 190.801†	-115.1	-2.0	-0.2824 µg/L	-0.2824 ppb	16:42:32
3	U 409.014†	-143.9	18.0	1.1202 µg/L	1.1202 ppb	16:42:12
3	V 292.402†	377.5	-41.7	-0.2057 µg/L	-0.2057 ppb	16:42:12
3	Zn 213.857†	584.5	87.8	0.5213 µg/L	0.5213 ppb	16:42:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1791043.7	99.273	%	0.3676				0.37%
Sc RADIAL	136643.6	97.5	%	0.81				0.83%
Y 371.029	1053311.0	99.623	%	0.3674				0.37%
Ag 328.068†	-539.6	-2.2171	µg/L	0.53857	-2.2171	ppb	0.53857	24.29%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.0	2.0809	µg/L	3.52725	2.0809	ppb	3.52725	169.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.8	0.6116	µg/L	0.78382	0.6116	ppb	0.78382	128.17%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-54.0	-0.8408	µg/L	1.10448	-0.8408	ppb	1.10448	131.36%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-13.9	-0.0618	µg/L	0.09022	-0.0618	ppb	0.09022	146.01%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	478.6	0.1370	µg/L	0.01839	0.1370	ppb	0.01839	13.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	61.3	4.1744	µg/L	1.42623	4.1744	ppb	1.42623	34.17%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	39.6	0.2677	µg/L	0.15164	0.2677	ppb	0.15164	56.65%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.3	0.1499	µg/L	0.23781	0.1499	ppb	0.23781	158.65%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                10.8      0.0977 µg/L       0.16635      0.0977 ppb        0.16635 170.29%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -197.0     -0.8278 µg/L       0.38076     -0.8278 ppb        0.38076  46.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         36.7      2.7377 µg/L       1.11353      2.7377 ppb        1.11353  40.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         136.8      54.197 µg/L       26.6054      54.197 ppb        26.6054  49.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            12.7      5.8892 µg/L       7.26896      5.8892 ppb        7.26896 123.43%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                48.2      0.0637 µg/L       0.01878      0.0637 ppb        0.01878  29.51%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                15.3      0.5005 µg/L       0.38378      0.5005 ppb        0.38378  76.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        118.0      18.244 µg/L       10.4639      18.244 ppb        10.4639  57.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                28.2      0.3527 µg/L       0.11039      0.3527 ppb        0.11039  31.30%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 47.3      10.941 µg/L        0.7992      10.941 ppb         0.7992   7.30%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.2      0.9381 µg/L       0.19024      0.9381 ppb        0.19024  20.28%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.6      2.1571 µg/L       4.80982      2.1571 ppb        4.80982 222.98%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.8     -0.2208 µg/L       0.26524     -0.2208 ppb        0.26524 120.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                10.8        4.26 µg/L         2.187        4.26 ppb          2.187  51.32%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      57.2      6.0389 µg/L       3.43538      6.0389 ppb        3.43538  56.89%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               342.4      5.3930 µg/L       0.77662      5.3930 ppb        0.77662  14.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.4      0.0300 µg/L       0.12089      0.0300 ppb        0.12089 403.31%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 6.2      0.0146 µg/L       0.07893      0.0146 ppb        0.07893 539.76%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -71.7     -0.0718 µg/L       0.14746     -0.0718 ppb        0.14746 205.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.3      0.3091 µg/L       0.65961      0.3091 ppb        0.65961 213.37%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -86.8     -5.4810 µg/L       5.75076     -5.4810 ppb        5.75076 104.92%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -21.3     -0.1088 µg/L       0.37124     -0.1088 ppb        0.37124 341.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                89.4      0.5319 µg/L       0.02905      0.5319 ppb        0.02905   5.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 33
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 16:51:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137355.8	137355.8	98.0	%			16:51:36
1	Al 396.153Radial†	22880.1	23414.6	4906.0	µg/L	4906.0	ppb	16:51:36
1	Ca 317.933Radial†	73465.8	74358.3	5064.5	µg/L	5064.5	ppb	16:51:36
1	Fe 238.204 Radial†	66113.6	67313.8	5026.9	µg/L	5026.9	ppb	16:51:36
1	K 766.490 Radial†	13798.9	12580.1	4980.7	µg/L	4980.7	ppb	16:51:36
1	Mg 279.077 IEC†	10888.3	10932.8	5056.2	µg/L	5056.2	ppb	16:51:36
1	Na 589.592 Radial†	64470.3	64802.5	10040	µg/L	10040	ppb	16:51:36
1	Sr 421.552†	206244.2	210558.6	496.56	µg/L	496.56	ppb	16:51:34
1	Sc 361.383	1752111.7	1752111.7	97.115	%			16:52:03
1	Y 371.029	1019584.4	1019584.4	96.433	%			16:52:03
1	Ag 328.068†	122797.2	121879.4	505.19	µg/L	505.19	ppb	16:52:03
1	As 188.979†	1318.6	1376.3	472.82	µg/L	472.82	ppb	16:52:23
1	B 249.677†	34713.1	31679.0	490.91	µg/L	490.91	ppb	16:52:03
1	Ba 233.527†	108160.2	111517.3	496.09	µg/L	496.09	ppb	16:52:03
1	Be 313.107†	1631065.2	1680602.7	486.97	µg/L	486.97	ppb	16:52:03
1	Cd 226.502†	71875.3	74113.5	500.60	µg/L	500.60	ppb	16:52:03
1	Co 228.616†	36789.0	38092.0	504.19	µg/L	504.19	ppb	16:52:03
1	Cr 267.716†	56587.7	58035.2	501.93	µg/L	501.93	ppb	16:52:03
1	Cu 324.752†	118690.0	119179.2	500.05	µg/L	500.05	ppb	16:52:03
1	Mn 257.610†	367234.6	377957.5	501.16	µg/L	501.16	ppb	16:52:03
1	Mo 202.031†	15075.9	15562.2	509.40	µg/L	509.40	ppb	16:52:23
1	Ni 231.604†	38933.2	40185.5	502.77	µg/L	502.77	ppb	16:52:03
1	P 214.914†	10611.3	10952.1	2524.8	µg/L	2524.8	ppb	16:52:23
1	Pb 220.353†	8167.7	8306.9	512.76	µg/L	512.76	ppb	16:52:23
1	S 181.975 Axial†	1254.0	1202.4	1015.8	µg/L	1015.8	ppb	16:52:23
1	Sb 206.836†	3885.0	3910.7	505.50	µg/L	505.50	ppb	16:52:23
1	Se 196.026†	1249.6	1280.6	507	µg/L	507	ppb	16:52:23
1	SiO2†	50526.9	50288.5	5303.7	µg/L	5303.7	ppb	16:52:03
1	Si 251.611†	154417.4	158236.9	2485.1	µg/L	2485.1	ppb	16:52:03
1	Sn 189.927†	7000.5	7206.5	501.55	µg/L	501.55	ppb	16:52:23
1	Ti 334.940†	471932.7	485127.0	497.62	µg/L	497.62	ppb	16:52:03
1	Tl 190.801†	3478.0	3695.6	512.13	µg/L	512.13	ppb	16:52:23
1	U 409.014†	7202.5	7579.8	508.77	µg/L	508.77	ppb	16:52:03
1	V 292.402†	93876.8	96241.9	505.57	µg/L	505.57	ppb	16:52:03
1	Zn 213.857†	82228.6	84167.9	498.67	µg/L	498.67	ppb	16:52:03
2	Sc RADIAL	137852.9	137852.9	98.4	%			16:51:40
2	Al 396.153Radial†	23111.3	23565.4	4938.1	µg/L	4938.1	ppb	16:51:40
2	Ca 317.933Radial†	73767.6	74394.9	5067.0	µg/L	5067.0	ppb	16:51:40
2	Fe 238.204 Radial†	66317.2	67277.5	5024.2	µg/L	5024.2	ppb	16:51:40
2	K 766.490 Radial†	14151.3	12887.5	5102.5	µg/L	5102.5	ppb	16:51:40
2	Mg 279.077 IEC†	10935.5	10940.7	5059.7	µg/L	5059.7	ppb	16:51:40
2	Na 589.592 Radial†	64562.9	64659.5	10018	µg/L	10018	ppb	16:51:40
2	Sr 421.552†	206421.6	209980.3	495.19	µg/L	495.19	ppb	16:51:38
2	Sc 361.383	1776733.8	1776733.8	98.480	%			16:52:26
2	Y 371.029	1032902.3	1032902.3	97.693	%			16:52:26
2	Ag 328.068†	124434.0	121789.1	504.80	µg/L	504.80	ppb	16:52:26
2	As 188.979†	1315.4	1354.2	465.34	µg/L	465.34	ppb	16:52:46
2	B 249.677†	35510.4	31993.2	495.79	µg/L	495.79	ppb	16:52:26
2	Ba 233.527†	109739.6	111577.7	496.36	µg/L	496.36	ppb	16:52:26
2	Be 313.107†	1659332.8	1686031.8	488.54	µg/L	488.54	ppb	16:52:26
2	Cd 226.502†	73406.4	74642.6	504.18	µg/L	504.18	ppb	16:52:26
2	Co 228.616†	37458.3	38246.7	506.24	µg/L	506.24	ppb	16:52:26
2	Cr 267.716†	57445.4	58098.7	502.50	µg/L	502.50	ppb	16:52:26
2	Cu 324.752†	120511.7	119335.4	500.68	µg/L	500.68	ppb	16:52:26
2	Mn 257.610†	372819.3	378388.0	501.74	µg/L	501.74	ppb	16:52:26
2	Mo 202.031†	15067.4	15338.5	502.09	µg/L	502.09	ppb	16:52:46
2	Ni 231.604†	39645.5	40353.2	504.87	µg/L	504.87	ppb	16:52:26
2	P 214.914†	10601.0	10790.3	2487.4	µg/L	2487.4	ppb	16:52:46
2	Pb 220.353†	8159.4	8181.9	505.07	µg/L	505.07	ppb	16:52:46

2	S 181.975 Axial†	1265.7	1196.3	1010.7 µg/L	1010.7 ppb	16:52:46
2	Sb 206.836†	3871.1	3841.2	496.41 µg/L	496.41 ppb	16:52:46
2	Se 196.026†	1244.2	1257.3	498 µg/L	498 ppb	16:52:46
2	SiO2†	51226.3	50277.8	5302.9 µg/L	5302.9 ppb	16:52:26
2	Si 251.611†	157027.6	158683.8	2492.3 µg/L	2492.3 ppb	16:52:26
2	Sn 189.927†	6964.6	7070.2	492.10 µg/L	492.10 ppb	16:52:46
2	Ti 334.940†	478755.5	485320.8	497.83 µg/L	497.83 ppb	16:52:26
2	Tl 190.801†	3477.5	3645.5	505.28 µg/L	505.28 ppb	16:52:46
2	U 409.014†	6916.8	7186.9	484.01 µg/L	484.01 ppb	16:52:26
2	V 292.402†	95292.6	96340.0	505.99 µg/L	505.99 ppb	16:52:26
2	Zn 213.857†	83762.7	84552.4	500.95 µg/L	500.95 ppb	16:52:26
3	Sc RADIAL	137437.1	137437.1	98.1 %		16:51:44
3	Al 396.153Radial†	22956.7	23478.9	4920.1 µg/L	4920.1 ppb	16:51:44
3	Ca 317.933Radial†	73406.7	74253.8	5057.4 µg/L	5057.4 ppb	16:51:44
3	Fe 238.204 Radial†	66060.4	67219.7	5019.9 µg/L	5019.9 ppb	16:51:44
3	K 766.490 Radial†	13890.5	12665.1	5014.4 µg/L	5014.4 ppb	16:51:44
3	Mg 279.077 IEC†	10871.5	10909.1	5045.0 µg/L	5045.0 ppb	16:51:44
3	Na 589.592 Radial†	64580.1	64875.6	10052 µg/L	10052 ppb	16:51:44
3	Sr 421.552†	209193.1	213440.2	503.35 µg/L	503.35 ppb	16:51:42
3	Sc 361.383	1788229.0	1788229.0	99.117 %		16:52:50
3	Y 371.029	1039209.1	1039209.1	98.289 %		16:52:50
3	Ag 328.068†	124379.2	120921.6	501.23 µg/L	501.23 ppb	16:52:50
3	As 188.979†	1310.9	1341.1	460.85 µg/L	460.85 ppb	16:53:10
3	B 249.677†	35624.4	31876.5	493.99 µg/L	493.99 ppb	16:52:50
3	Ba 233.527†	110273.6	111400.1	495.56 µg/L	495.56 ppb	16:52:50
3	Be 313.107†	1658855.5	1674719.0	485.26 µg/L	485.26 ppb	16:52:50
3	Cd 226.502†	73433.7	74190.9	501.13 µg/L	501.13 ppb	16:52:50
3	Co 228.616†	37523.8	38068.2	503.88 µg/L	503.88 ppb	16:52:50
3	Cr 267.716†	57525.0	57804.0	499.95 µg/L	499.95 ppb	16:52:50
3	Cu 324.752†	120901.5	118942.0	499.04 µg/L	499.04 ppb	16:52:50
3	Mn 257.610†	373498.7	376639.9	499.42 µg/L	499.42 ppb	16:52:50
3	Mo 202.031†	15019.9	15192.2	497.30 µg/L	497.30 ppb	16:53:10
3	Ni 231.604†	39570.8	40019.1	500.69 µg/L	500.69 ppb	16:52:50
3	P 214.914†	10580.5	10700.4	2466.7 µg/L	2466.7 ppb	16:53:10
3	Pb 220.353†	8141.0	8110.0	500.63 µg/L	500.63 ppb	16:53:10
3	S 181.975 Axial†	1242.0	1164.1	983.54 µg/L	983.54 ppb	16:53:10
3	Sb 206.836†	3881.2	3826.0	494.43 µg/L	494.43 ppb	16:53:10
3	Se 196.026†	1251.9	1256.9	497 µg/L	497 ppb	16:53:10
3	SiO2†	51622.9	50343.5	5310.0 µg/L	5310.0 ppb	16:52:50
3	Si 251.611†	157506.8	158142.3	2483.9 µg/L	2483.9 ppb	16:52:50
3	Sn 189.927†	6998.1	7058.5	491.27 µg/L	491.27 ppb	16:53:10
3	Ti 334.940†	479185.6	482629.6	495.06 µg/L	495.06 ppb	16:52:50
3	Tl 190.801†	3467.5	3612.7	500.76 µg/L	500.76 ppb	16:53:10
3	U 409.014†	7087.9	7314.4	491.93 µg/L	491.93 ppb	16:52:50
3	V 292.402†	95535.1	95962.6	503.98 µg/L	503.98 ppb	16:52:50
3	Zn 213.857†	83766.7	84009.7	497.74 µg/L	497.74 ppb	16:52:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1772358.1	98.238	%	1.0227				1.04%
Sc RADIAL	137548.6	98.2	%	0.19				0.19%
Y 371.029	1030565.3	97.472	%	0.9476				0.97%
Ag 328.068†	121530.0	503.74	µg/L	2.180	503.74	ppb	2.180	0.43%
QC value within limits for Ag 328.068 Recovery = 100.75%								
Al 396.153Radial†	23486.3	4921.4	µg/L	16.09	4921.4	ppb	16.09	0.33%
QC value within limits for Al 396.153Radial Recovery = 98.43%								
As 188.979†	1357.2	466.34	µg/L	6.044	466.34	ppb	6.044	1.30%
QC value within limits for As 188.979 Recovery = 93.27%								
B 249.677†	31849.6	493.56	µg/L	2.467	493.56	ppb	2.467	0.50%
QC value within limits for B 249.677 Recovery = 98.71%								
Ba 233.527†	111498.4	496.00	µg/L	0.403	496.00	ppb	0.403	0.08%
QC value within limits for Ba 233.527 Recovery = 99.20%								
Be 313.107†	1680451.2	486.92	µg/L	1.638	486.92	ppb	1.638	0.34%
QC value within limits for Be 313.107 Recovery = 97.38%								
Ca 317.933Radial†	74335.7	5062.9	µg/L	4.99	5062.9	ppb	4.99	0.10%
QC value within limits for Ca 317.933Radial Recovery = 101.26%								
Cd 226.502†	74315.7	501.97	µg/L	1.932	501.97	ppb	1.932	0.38%
QC value within limits for Cd 226.502 Recovery = 100.39%								
Co 228.616†	38135.6	504.77	µg/L	1.282	504.77	ppb	1.282	0.25%

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   QC value within limits for Co 228.616  Recovery = 100.95%
Cr 267.716†            57979.3      501.46 µg/L        1.342      501.46 ppb          1.342   0.27%
   QC value within limits for Cr 267.716  Recovery = 100.29%
Cu 324.752†           119152.2      499.92 µg/L        0.828      499.92 ppb          0.828   0.17%
   QC value within limits for Cu 324.752  Recovery = 99.98%
Fe 238.204 Radial†     67270.3      5023.7 µg/L         3.54      5023.7 ppb           3.54   0.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.47%
K 766.490 Radial†      12710.9      5032.6 µg/L        62.89      5032.6 ppb          62.89   1.25%
   QC value within limits for K 766.490 Radial  Recovery = 100.65%
Mg 279.077 IEC†        10927.5      5053.6 µg/L         7.69      5053.6 ppb           7.69   0.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.07%
Mn 257.610†           377661.8      500.77 µg/L        1.208      500.77 ppb          1.208   0.24%
   QC value within limits for Mn 257.610  Recovery = 100.15%
Mo 202.031†            15364.3      502.93 µg/L        6.095      502.93 ppb          6.095   1.21%
   QC value within limits for Mo 202.031  Recovery = 100.59%
Na 589.592 Radial†     64779.2       10037 µg/L         17.1       10037 ppb           17.1   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 100.37%
Ni 231.604†            40185.9      502.78 µg/L        2.091      502.78 ppb          2.091   0.42%
   QC value within limits for Ni 231.604  Recovery = 100.56%
P 214.914†             10814.3      2493.0 µg/L        29.49      2493.0 ppb          29.49   1.18%
   QC value within limits for P 214.914  Recovery = 99.72%
Pb 220.353†             8199.6      506.16 µg/L        6.139      506.16 ppb          6.139   1.21%
   QC value within limits for Pb 220.353  Recovery = 101.23%
S 181.975 Axial†        1187.6      1003.3 µg/L        17.33      1003.3 ppb          17.33   1.73%
   QC value within limits for S 181.975 Axial  Recovery = 100.33%
Sb 206.836†             3859.3      498.78 µg/L        5.907      498.78 ppb          5.907   1.18%
   QC value within limits for Sb 206.836  Recovery = 99.76%
Se 196.026†             1264.9         501 µg/L          5.4         501 ppb            5.4   1.07%
   QC value within limits for Se 196.026  Recovery = 100.11%
SiO2†                  50303.3      5305.6 µg/L        3.89      5305.6 ppb          3.89   0.07%
   QC value within limits for SiO2  Recovery = 99.22%
Si 251.611†           158354.3      2487.1 µg/L        4.57      2487.1 ppb          4.57   0.18%
   QC value within limits for Si 251.611  Recovery = 99.48%
Sn 189.927†             7111.8      494.97 µg/L        5.710      494.97 ppb          5.710   1.15%
   QC value within limits for Sn 189.927  Recovery = 98.99%
Sr 421.552†           211326.4      498.37 µg/L        4.371      498.37 ppb          4.371   0.88%
   QC value within limits for Sr 421.552  Recovery = 99.67%
Ti 334.940†           484359.1      496.84 µg/L        1.540      496.84 ppb          1.540   0.31%
   QC value within limits for Ti 334.940  Recovery = 99.37%
Tl 190.801†             3651.2      506.06 µg/L        5.722      506.06 ppb          5.722   1.13%
   QC value within limits for Tl 190.801  Recovery = 101.21%
U 409.014†              7360.4      494.91 µg/L       12.645      494.91 ppb         12.645   2.55%
   QC value within limits for U 409.014  Recovery = 98.98%
V 292.402†             96181.5      505.18 µg/L        1.059      505.18 ppb          1.059   0.21%
   QC value within limits for V 292.402  Recovery = 101.04%
Zn 213.857†            84243.3      499.12 µg/L        1.653      499.12 ppb          1.653   0.33%
   QC value within limits for Zn 213.857  Recovery = 99.82%
All analyte(s) passed QC.
```

Sequence No.: 34
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 16:53:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138223.2	138223.2	98.7	%			16:53:49
1	Al 396.153Radial†	-56.4	21.4	4.4752	µg/L	4.4752	ppb	16:54:09
1	Ca 317.933Radial†	654.1	91.5	6.2324	µg/L	6.2324	ppb	16:54:09
1	Fe 238.204 Radial†	167.3	52.3	3.9024	µg/L	3.9024	ppb	16:54:09
1	K 766.490 Radial†	1634.3	162.6	64.439	µg/L	64.439	ppb	16:53:49
1	Mg 279.077 IEC†	168.5	-1.7	-0.7631	µg/L	-0.7631	ppb	16:54:09
1	Na 589.592 Radial†	1154.6	217.7	33.695	µg/L	33.695	ppb	16:53:49
1	Sr 421.552†	-280.4	-79.7	-0.1881	µg/L	-0.1881	ppb	16:53:49
1	Sc 361.383	1785502.9	1785502.9	98.966	%			16:55:11
1	Y 371.029	1050032.6	1050032.6	99.313	%			16:55:11
1	Ag 328.068†	3973.5	-550.1	-2.2464	µg/L	-2.2464	ppb	16:55:13
1	As 188.979†	-12.8	5.7	1.9179	µg/L	1.9179	ppb	16:55:33
1	B 249.677†	4095.0	72.6	1.1281	µg/L	1.1281	ppb	16:55:13
1	Ba 233.527†	-162.8	-20.0	-0.0885	µg/L	-0.0885	ppb	16:55:33
1	Be 313.107†	-582.9	502.8	0.1461	µg/L	0.1461	ppb	16:55:13
1	Cd 226.502†	-68.9	33.7	0.2277	µg/L	0.2277	ppb	16:55:33
1	Co 228.616†	-186.1	22.3	0.2943	µg/L	0.2943	ppb	16:55:33
1	Cr 267.716†	247.7	17.1	0.1468	µg/L	0.1468	ppb	16:55:33
1	Cu 324.752†	2720.8	-286.8	-1.1978	µg/L	-1.1978	ppb	16:55:13
1	Mn 257.610†	260.5	78.5	0.1041	µg/L	0.1041	ppb	16:55:33
1	Mo 202.031†	-17.5	20.9	0.6845	µg/L	0.6845	ppb	16:55:33
1	Ni 231.604†	-74.1	21.1	0.2636	µg/L	0.2636	ppb	16:55:33
1	P 214.914†	20.4	46.3	10.715	µg/L	10.715	ppb	16:55:33
1	Pb 220.353†	85.2	-17.3	-1.0646	µg/L	-1.0646	ppb	16:55:33
1	S 181.975 Axial†	93.1	5.2	4.3508	µg/L	4.3508	ppb	16:55:33
1	Sb 206.836†	88.2	-0.6	-0.0640	µg/L	-0.0640	ppb	16:55:33
1	Se 196.026†	21.9	16.0	6.32	µg/L	6.32	ppb	16:55:33
1	SiO2†	1721.7	0.6	0.0275	µg/L	0.0275	ppb	16:55:33
1	Si 251.611†	967.3	210.4	3.3013	µg/L	3.3013	ppb	16:55:13
1	Sn 189.927†	18.2	16.5	1.1446	µg/L	1.1446	ppb	16:55:33
1	Ti 334.940†	610.2	-206.4	-0.2125	µg/L	-0.2125	ppb	16:55:13
1	Tl 190.801†	-118.9	-5.9	-0.8070	µg/L	-0.8070	ppb	16:55:33
1	U 409.014†	-138.9	23.1	1.4741	µg/L	1.4741	ppb	16:55:13
1	V 292.402†	482.6	64.4	0.3423	µg/L	0.3423	ppb	16:55:13
1	Zn 213.857†	570.4	73.4	0.4369	µg/L	0.4369	ppb	16:55:33
2	Sc RADIAL	136695.8	136695.8	97.6	%			16:54:11
2	Al 396.153Radial†	-86.0	-9.6	-2.0285	µg/L	-2.0285	ppb	16:54:31
2	Ca 317.933Radial†	634.0	78.3	5.3338	µg/L	5.3338	ppb	16:54:31
2	Fe 238.204 Radial†	156.7	43.2	3.2290	µg/L	3.2290	ppb	16:54:31
2	K 766.490 Radial†	1547.2	91.9	36.407	µg/L	36.407	ppb	16:54:11
2	Mg 279.077 IEC†	154.9	-13.7	-6.3271	µg/L	-6.3271	ppb	16:54:31
2	Na 589.592 Radial†	1159.9	236.2	36.576	µg/L	36.576	ppb	16:54:11
2	Sr 421.552†	-103.4	98.6	0.2324	µg/L	0.2324	ppb	16:54:11
2	Sc 361.383	1779341.5	1779341.5	98.625	%			16:55:35
2	Y 371.029	1046540.2	1046540.2	98.983	%			16:55:35
2	Ag 328.068†	4365.1	-139.2	-0.5853	µg/L	-0.5853	ppb	16:55:37
2	As 188.979†	-10.4	8.0	2.7126	µg/L	2.7126	ppb	16:55:57
2	B 249.677†	4120.1	112.4	1.7472	µg/L	1.7472	ppb	16:55:37
2	Ba 233.527†	-167.6	-25.3	-0.1130	µg/L	-0.1130	ppb	16:55:57
2	Be 313.107†	-454.4	631.0	0.1807	µg/L	0.1807	ppb	16:55:37
2	Cd 226.502†	-91.1	11.0	0.0739	µg/L	0.0739	ppb	16:55:57
2	Co 228.616†	-202.6	4.9	0.0642	µg/L	0.0642	ppb	16:55:57
2	Cr 267.716†	251.4	21.7	0.1928	µg/L	0.1928	ppb	16:55:57
2	Cu 324.752†	2876.7	-119.3	-0.5041	µg/L	-0.5041	ppb	16:55:37
2	Mn 257.610†	262.5	81.4	0.1083	µg/L	0.1083	ppb	16:55:57
2	Mo 202.031†	-28.1	10.1	0.3305	µg/L	0.3305	ppb	16:55:57
2	Ni 231.604†	-99.9	-5.4	-0.0674	µg/L	-0.0674	ppb	16:55:57
2	P 214.914†	13.5	39.4	9.1117	µg/L	9.1117	ppb	16:55:57
2	Pb 220.353†	127.1	25.4	1.5689	µg/L	1.5689	ppb	16:55:57

2	S 181.975 Axial†	86.2	-1.5	-1.2596 µg/L	-1.2596 ppb	16:55:57
2	Sb 206.836†	73.6	-15.1	-1.9428 µg/L	-1.9428 ppb	16:55:57
2	Se 196.026†	10.3	4.3	1.68 µg/L	1.68 ppb	16:55:57
2	SiO2†	1760.5	46.0	4.8496 µg/L	4.8496 ppb	16:55:57
2	Si 251.611†	887.6	132.9	2.0864 µg/L	2.0864 ppb	16:55:37
2	Sn 189.927†	12.7	11.0	0.7645 µg/L	0.7645 ppb	16:55:57
2	Ti 334.940†	611.7	-202.7	-0.2048 µg/L	-0.2048 ppb	16:55:37
2	Tl 190.801†	-111.8	0.9	0.1144 µg/L	0.1144 ppb	16:55:57
2	U 409.014†	-268.6	-108.9	-6.9078 µg/L	-6.9078 ppb	16:55:37
2	V 292.402†	309.4	-109.5	-0.5680 µg/L	-0.5680 ppb	16:55:37
2	Zn 213.857†	561.5	66.3	0.3964 µg/L	0.3964 ppb	16:55:57
3	Sc RADIAL	137343.0	137343.0	98.0 %		16:54:33
3	Al 396.153Radial†	-97.0	-20.4	-4.3347 µg/L	-4.3347 ppb	16:54:53
3	Ca 317.933Radial†	647.9	89.4	6.0917 µg/L	6.0917 ppb	16:54:53
3	Fe 238.204 Radial†	153.5	39.3	2.9351 µg/L	2.9351 ppb	16:54:53
3	K 766.490 Radial†	1513.7	50.2	19.876 µg/L	19.876 ppb	16:54:33
3	Mg 279.077 IEC†	171.0	2.0	0.9310 µg/L	0.9310 ppb	16:54:53
3	Na 589.592 Radial†	1203.0	274.6	42.545 µg/L	42.545 ppb	16:54:33
3	Sr 421.552†	-134.5	67.3	0.1587 µg/L	0.1587 ppb	16:54:33
3	Sc 361.383	1772750.2	1772750.2	98.259 %		16:55:59
3	Y 371.029	1041540.1	1041540.1	98.510 %		16:55:59
3	Ag 328.068†	4382.0	-105.5	-0.4464 µg/L	-0.4464 ppb	16:56:01
3	As 188.979†	-23.1	-5.0	-1.6861 µg/L	-1.6861 ppb	16:56:21
3	B 249.677†	4089.6	96.9	1.5067 µg/L	1.5067 ppb	16:56:01
3	Ba 233.527†	-194.8	-53.7	-0.2385 µg/L	-0.2385 ppb	16:56:21
3	Be 313.107†	-864.9	211.6	0.0588 µg/L	0.0588 ppb	16:56:01
3	Cd 226.502†	-63.6	38.6	0.2610 µg/L	0.2610 ppb	16:56:21
3	Co 228.616†	-193.9	13.0	0.1715 µg/L	0.1715 ppb	16:56:21
3	Cr 267.716†	253.2	24.5	0.2185 µg/L	0.2185 ppb	16:56:21
3	Cu 324.752†	2646.2	-343.0	-1.4411 µg/L	-1.4411 ppb	16:56:01
3	Mn 257.610†	261.4	81.3	0.1078 µg/L	0.1078 ppb	16:56:21
3	Mo 202.031†	-9.7	28.7	0.9397 µg/L	0.9397 ppb	16:56:21
3	Ni 231.604†	-77.8	16.7	0.2090 µg/L	0.2090 ppb	16:56:21
3	P 214.914†	17.1	43.1	9.9718 µg/L	9.9718 ppb	16:56:21
3	Pb 220.353†	116.7	15.3	0.9501 µg/L	0.9501 ppb	16:56:21
3	S 181.975 Axial†	75.2	-12.3	-10.379 µg/L	-10.379 ppb	16:56:21
3	Sb 206.836†	78.1	-10.2	-1.3088 µg/L	-1.3088 ppb	16:56:21
3	Se 196.026†	24.0	18.3	7.21 µg/L	7.21 ppb	16:56:21
3	SiO2†	1767.3	59.5	6.2698 µg/L	6.2698 ppb	16:56:21
3	Si 251.611†	971.0	221.2	3.4732 µg/L	3.4732 ppb	16:56:01
3	Sn 189.927†	6.5	4.8	0.3314 µg/L	0.3314 ppb	16:56:21
3	Ti 334.940†	907.8	100.9	0.1070 µg/L	0.1070 ppb	16:56:01
3	Tl 190.801†	-119.8	-7.7	-1.0512 µg/L	-1.0512 ppb	16:56:21
3	U 409.014†	-288.9	-130.6	-8.2628 µg/L	-8.2628 ppb	16:56:01
3	V 292.402†	348.5	-68.6	-0.3507 µg/L	-0.3507 ppb	16:56:01
3	Zn 213.857†	555.5	62.3	0.3716 µg/L	0.3716 ppb	16:56:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1779198.2	98.617	%	0.3535				0.36%
Sc RADIAL	137420.7	98.1	%	0.55				0.56%
Y 371.029	1046037.6	98.935	%	0.4037				0.41%
Ag 328.068†	-265.0	-1.0927	µg/L	1.00151	-1.0927	ppb	1.00151	91.65%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.8	-0.6293	µg/L	4.56854	-0.6293	ppb	4.56854	725.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.9	0.9814	µg/L	2.34409	0.9814	ppb	2.34409	238.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	94.0	1.4607	µg/L	0.31210	1.4607	ppb	0.31210	21.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-33.0	-0.1467	µg/L	0.08050	-0.1467	ppb	0.08050	54.89%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	448.4	0.1285	µg/L	0.06283	0.1285	ppb	0.06283	48.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	86.4	5.8860	µg/L	0.48335	5.8860	ppb	0.48335	8.21%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.8	0.1875	µg/L	0.09979	0.1875	ppb	0.09979	53.22%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	13.4	0.1767	µg/L	0.11514	0.1767	ppb	0.11514	65.18%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              21.1      0.1860 µg/L       0.03631      0.1860 ppb        0.03631  19.52%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -249.7     -1.0477 µg/L       0.48617     -1.0477 ppb        0.48617  46.40%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       44.9      3.3555 µg/L       0.49591      3.3555 ppb        0.49591  14.78%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       101.6      40.241 µg/L       22.5277      40.241 ppb        22.5277  55.98%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -4.5     -2.0531 µg/L       3.79712     -2.0531 ppb        3.79712 184.95%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              80.4      0.1068 µg/L       0.00227      0.1068 ppb        0.00227   2.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              19.9      0.6516 µg/L       0.30593      0.6516 ppb        0.30593  46.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      242.8      37.605 µg/L        4.5141      37.605 ppb         4.5141  12.00%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              10.8      0.1351 µg/L       0.17747      0.1351 ppb        0.17747 131.37%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               42.9      9.9327 µg/L       0.80224      9.9327 ppb        0.80224   8.08%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               7.8      0.4848 µg/L       1.37700      0.4848 ppb        1.37700 284.04%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.9     -2.4294 µg/L       7.43446     -2.4294 ppb        7.43446 306.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -8.6     -1.1052 µg/L       0.95582     -1.1052 ppb        0.95582  86.49%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              12.9        5.07 µg/L         2.971        5.07 ppb          2.971  58.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    35.4      3.7156 µg/L       3.27204      3.7156 ppb        3.27204  88.06%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             188.2      2.9536 µg/L       0.75596      2.9536 ppb        0.75596  25.59%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              10.8      0.7468 µg/L       0.40688      0.7468 ppb        0.40688  54.48%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              28.7      0.0676 µg/L       0.22453      0.0676 ppb        0.22453 331.91%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -102.8     -0.1034 µg/L       0.18229     -0.1034 ppb        0.18229 176.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -4.2     -0.5813 µg/L       0.61473     -0.5813 ppb        0.61473 105.75%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -72.2     -4.5655 µg/L       5.27416     -4.5655 ppb        5.27416 115.52%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -37.9     -0.1921 µg/L       0.47542     -0.1921 ppb        0.47542 247.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              67.3      0.4017 µg/L       0.03300      0.4017 ppb        0.03300   8.22%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 42
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 17:10:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137055.7	137055.7	97.8	%			17:10:43
1	Al 396.153Radial†	22620.0	23199.8	4861.3	µg/L	4861.3	ppb	17:10:43
1	Ca 317.933Radial†	73231.8	74283.3	5059.4	µg/L	5059.4	ppb	17:10:43
1	Fe 238.204 Radial†	65715.4	67054.4	5007.6	µg/L	5007.6	ppb	17:10:43
1	K 766.490 Radial†	13911.8	12726.3	5038.7	µg/L	5038.7	ppb	17:10:43
1	Mg 279.077 IEC†	10914.8	10984.2	5079.7	µg/L	5079.7	ppb	17:10:43
1	Na 589.592 Radial†	64048.5	64515.4	9995.9	µg/L	9995.9	ppb	17:10:43
1	Sr 421.552†	206888.5	211677.9	499.20	µg/L	499.20	ppb	17:10:41
1	Sc 361.383	1780631.5	1780631.5	98.696	%			17:11:10
1	Y 371.029	1034955.9	1034955.9	97.887	%			17:11:10
1	Ag 328.068†	124044.4	121117.8	502.05	µg/L	502.05	ppb	17:11:10
1	As 188.979†	1275.2	1310.6	450.55	µg/L	450.55	ppb	17:11:30
1	B 249.677†	35291.1	31692.2	491.12	µg/L	491.12	ppb	17:11:10
1	Ba 233.527†	109275.6	110863.6	493.18	µg/L	493.18	ppb	17:11:10
1	Be 313.107†	1648732.5	1671603.2	484.37	µg/L	484.37	ppb	17:11:10
1	Cd 226.502†	73212.0	74282.5	501.75	µg/L	501.75	ppb	17:11:10
1	Co 228.616†	37312.8	38016.0	503.18	µg/L	503.18	ppb	17:11:10
1	Cr 267.716†	57368.8	57893.4	500.71	µg/L	500.71	ppb	17:11:10
1	Cu 324.752†	120151.9	118702.9	498.05	µg/L	498.05	ppb	17:11:10
1	Mn 257.610†	371743.2	376469.0	499.19	µg/L	499.19	ppb	17:11:10
1	Mo 202.031†	14969.7	15206.0	497.75	µg/L	497.75	ppb	17:11:30
1	Ni 231.604†	39431.1	40047.9	501.05	µg/L	501.05	ppb	17:11:10
1	P 214.914†	10531.7	10696.5	2465.7	µg/L	2465.7	ppb	17:11:30
1	Pb 220.353†	8083.6	8086.9	499.19	µg/L	499.19	ppb	17:11:30
1	S 181.975 Axial†	1261.8	1189.6	1004.9	µg/L	1004.9	ppb	17:11:30
1	Sb 206.836†	3859.2	3820.5	493.71	µg/L	493.71	ppb	17:11:30
1	Se 196.026†	1267.3	1277.9	506	µg/L	506	ppb	17:11:30
1	SiO2†	51149.4	50086.0	5282.8	µg/L	5282.8	ppb	17:11:10
1	Si 251.611†	156453.9	157753.6	2477.7	µg/L	2477.7	ppb	17:11:10
1	Sn 189.927†	6948.7	7038.6	489.89	µg/L	489.89	ppb	17:11:30
1	Ti 334.940†	476133.7	481600.2	494.00	µg/L	494.00	ppb	17:11:10
1	Tl 190.801†	3446.6	3606.4	499.90	µg/L	499.90	ppb	17:11:30
1	U 409.014†	7294.1	7553.8	507.01	µg/L	507.01	ppb	17:11:10
1	V 292.402†	95018.5	95850.4	503.42	µg/L	503.42	ppb	17:11:10
1	Zn 213.857†	83456.0	84055.5	498.01	µg/L	498.01	ppb	17:11:10
2	Sc RADIAL	135408.6	135408.6	96.7	%			17:10:47
2	Al 396.153Radial†	22517.3	23374.9	4898.1	µg/L	4898.1	ppb	17:10:47
2	Ca 317.933Radial†	72313.8	74244.0	5056.7	µg/L	5056.7	ppb	17:10:47
2	Fe 238.204 Radial†	64838.0	66963.7	5000.8	µg/L	5000.8	ppb	17:10:47
2	K 766.490 Radial†	13819.4	12803.7	5069.3	µg/L	5069.3	ppb	17:10:47
2	Mg 279.077 IEC†	10682.9	10880.0	5031.6	µg/L	5031.6	ppb	17:10:47
2	Na 589.592 Radial†	63233.4	64468.4	9988.6	µg/L	9988.6	ppb	17:10:47
2	Sr 421.552†	205022.8	212320.0	500.71	µg/L	500.71	ppb	17:10:45
2	Sc 361.383	1773415.5	1773415.5	98.296	%			17:11:33
2	Y 371.029	1031141.7	1031141.7	97.526	%			17:11:33
2	Ag 328.068†	123480.7	121055.8	501.78	µg/L	501.78	ppb	17:11:33
2	As 188.979†	1277.7	1318.4	453.19	µg/L	453.19	ppb	17:11:53
2	B 249.677†	35100.4	31643.6	490.37	µg/L	490.37	ppb	17:11:33
2	Ba 233.527†	108533.0	110558.7	491.82	µg/L	491.82	ppb	17:11:33
2	Be 313.107†	1637326.4	1666796.7	482.97	µg/L	482.97	ppb	17:11:33
2	Cd 226.502†	72551.1	73911.9	499.24	µg/L	499.24	ppb	17:11:33
2	Co 228.616†	37155.6	38009.9	503.10	µg/L	503.10	ppb	17:11:33
2	Cr 267.716†	56945.8	57699.6	499.03	µg/L	499.03	ppb	17:11:33
2	Cu 324.752†	119557.0	118593.0	497.59	µg/L	497.59	ppb	17:11:33
2	Mn 257.610†	369699.1	375922.1	498.47	µg/L	498.47	ppb	17:11:33
2	Mo 202.031†	14961.3	15259.2	499.49	µg/L	499.49	ppb	17:11:53
2	Ni 231.604†	39207.3	39982.7	500.23	µg/L	500.23	ppb	17:11:33
2	P 214.914†	10496.3	10703.9	2467.5	µg/L	2467.5	ppb	17:11:53
2	Pb 220.353†	8111.8	8149.0	503.01	µg/L	503.01	ppb	17:11:53

2	S 181.975 Axial†	1254.9	1187.7	1003.4 µg/L	1003.4 ppb	17:11:53
2	Sb 206.836†	3864.5	3841.8	496.50 µg/L	496.50 ppb	17:11:53
2	Se 196.026†	1250.8	1266.3	501 µg/L	501 ppb	17:11:53
2	SiO2†	50934.6	50078.3	5281.9 µg/L	5281.9 ppb	17:11:33
2	Si 251.611†	156181.0	158120.9	2483.5 µg/L	2483.5 ppb	17:11:33
2	Sn 189.927†	6932.1	7050.4	490.71 µg/L	490.71 ppb	17:11:53
2	Ti 334.940†	473748.0	481136.1	493.52 µg/L	493.52 ppb	17:11:33
2	Tl 190.801†	3451.9	3626.0	502.55 µg/L	502.55 ppb	17:11:53
2	U 409.014†	7314.8	7604.9	510.15 µg/L	510.15 ppb	17:11:33
2	V 292.402†	94350.7	95562.7	501.94 µg/L	501.94 ppb	17:11:33
2	Zn 213.857†	83141.9	84080.0	498.16 µg/L	498.16 ppb	17:11:33
3	Sc RADIAL	136034.8	136034.8	97.1 %		17:10:51
3	Al 396.153Radial†	22623.7	23377.2	4898.3 µg/L	4898.3 ppb	17:10:51
3	Ca 317.933Radial†	72562.4	74155.6	5050.7 µg/L	5050.7 ppb	17:10:51
3	Fe 238.204 Radial†	65104.3	66929.1	4998.2 µg/L	4998.2 ppb	17:10:51
3	K 766.490 Radial†	13892.9	12813.5	5073.2 µg/L	5073.2 ppb	17:10:51
3	Mg 279.077 IEC†	10800.7	10950.5	5064.3 µg/L	5064.3 ppb	17:10:51
3	Na 589.592 Radial†	63633.4	64579.1	10006 µg/L	10006 ppb	17:10:51
3	Sr 421.552†	202879.3	209135.9	493.20 µg/L	493.20 ppb	17:10:49
3	Sc 361.383	1767543.4	1767543.4	97.971 %		17:11:56
3	Y 371.029	1027715.0	1027715.0	97.202 %		17:11:56
3	Ag 328.068†	123605.9	121600.9	504.02 µg/L	504.02 ppb	17:11:56
3	As 188.979†	1298.3	1343.8	461.78 µg/L	461.78 ppb	17:12:16
3	B 249.677†	35304.7	31970.8	495.45 µg/L	495.45 ppb	17:11:56
3	Ba 233.527†	108988.9	111390.8	495.53 µg/L	495.53 ppb	17:11:56
3	Be 313.107†	1634588.3	1669535.7	483.77 µg/L	483.77 ppb	17:11:56
3	Cd 226.502†	72862.0	74474.5	503.05 µg/L	503.05 ppb	17:11:56
3	Co 228.616†	37221.5	38202.8	505.66 µg/L	505.66 ppb	17:11:56
3	Cr 267.716†	56873.2	57818.0	500.05 µg/L	500.05 ppb	17:11:56
3	Cu 324.752†	119352.8	118788.8	498.41 µg/L	498.41 ppb	17:11:56
3	Mn 257.610†	370060.0	377540.0	500.61 µg/L	500.61 ppb	17:11:56
3	Mo 202.031†	15077.9	15428.7	505.04 µg/L	505.04 ppb	17:12:16
3	Ni 231.604†	39389.7	40301.4	504.22 µg/L	504.22 ppb	17:11:56
3	P 214.914†	10642.6	10888.8	2510.2 µg/L	2510.2 ppb	17:12:16
3	Pb 220.353†	8197.6	8264.0	510.11 µg/L	510.11 ppb	17:12:16
3	S 181.975 Axial†	1254.0	1191.1	1006.3 µg/L	1006.3 ppb	17:12:16
3	Sb 206.836†	3915.3	3906.7	504.95 µg/L	504.95 ppb	17:12:16
3	Se 196.026†	1258.0	1277.9	506 µg/L	506 ppb	17:12:16
3	SiO2†	51109.0	50428.5	5318.7 µg/L	5318.7 ppb	17:11:56
3	Si 251.611†	156522.7	158997.6	2497.2 µg/L	2497.2 ppb	17:11:56
3	Sn 189.927†	7013.8	7157.1	498.12 µg/L	498.12 ppb	17:12:16
3	Ti 334.940†	473724.5	482713.3	495.14 µg/L	495.14 ppb	17:11:56
3	Tl 190.801†	3493.7	3680.3	510.00 µg/L	510.00 ppb	17:12:16
3	U 409.014†	7206.6	7519.2	504.83 µg/L	504.83 ppb	17:11:56
3	V 292.402†	94298.6	95828.4	503.38 µg/L	503.38 ppb	17:11:56
3	Zn 213.857†	83272.4	84494.2	500.61 µg/L	500.61 ppb	17:11:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1773863.5	98.321	%	0.3634				0.37%
Sc RADIAL	136166.4	97.2	%	0.59				0.61%
Y 371.029	1031270.8	97.538	%	0.3426				0.35%
Ag 328.068†	121258.2	502.62	µg/L	1.224	502.62	ppb	1.224	0.24%
QC value within limits for Ag 328.068 Recovery = 100.52%								
Al 396.153Radial†	23317.3	4885.9	µg/L	21.30	4885.9	ppb	21.30	0.44%
QC value within limits for Al 396.153Radial Recovery = 97.72%								
As 188.979†	1324.3	455.17	µg/L	5.872	455.17	ppb	5.872	1.29%
QC value within limits for As 188.979 Recovery = 91.03%								
B 249.677†	31768.8	492.31	µg/L	2.741	492.31	ppb	2.741	0.56%
QC value within limits for B 249.677 Recovery = 98.46%								
Ba 233.527†	110937.7	493.51	µg/L	1.873	493.51	ppb	1.873	0.38%
QC value within limits for Ba 233.527 Recovery = 98.70%								
Be 313.107†	1669311.9	483.70	µg/L	0.698	483.70	ppb	0.698	0.14%
QC value within limits for Be 313.107 Recovery = 96.74%								
Ca 317.933Radial†	74227.6	5055.6	µg/L	4.46	5055.6	ppb	4.46	0.09%
QC value within limits for Ca 317.933Radial Recovery = 101.11%								
Cd 226.502†	74223.0	501.34	µg/L	1.934	501.34	ppb	1.934	0.39%
QC value within limits for Cd 226.502 Recovery = 100.27%								
Co 228.616†	38076.2	503.98	µg/L	1.452	503.98	ppb	1.452	0.29%

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   QC value within limits for Co 228.616  Recovery = 100.80%
Cr 267.716†            57803.7      499.93 µg/L         0.847      499.93 ppb          0.847   0.17%
   QC value within limits for Cr 267.716  Recovery = 99.99%
Cu 324.752†           118694.9      498.02 µg/L         0.409      498.02 ppb          0.409   0.08%
   QC value within limits for Cu 324.752  Recovery = 99.60%
Fe 238.204 Radial†     66982.4      5002.2 µg/L          4.83      5002.2 ppb           4.83   0.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.04%
K 766.490 Radial†      12781.2      5060.4 µg/L         18.93      5060.4 ppb          18.93   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 101.21%
Mg 279.077 IEC†        10938.3      5058.6 µg/L         24.54      5058.6 ppb          24.54   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.17%
Mn 257.610†           376643.7      499.42 µg/L         1.091      499.42 ppb          1.091   0.22%
   QC value within limits for Mn 257.610  Recovery = 99.88%
Mo 202.031†            15298.0      500.76 µg/L         3.804      500.76 ppb          3.804   0.76%
   QC value within limits for Mo 202.031  Recovery = 100.15%
Na 589.592 Radial†     64521.0      9996.8 µg/L          8.61      9996.8 ppb           8.61   0.09%
   QC value within limits for Na 589.592 Radial  Recovery = 99.97%
Ni 231.604†            40110.7      501.83 µg/L         2.107      501.83 ppb          2.107   0.42%
   QC value within limits for Ni 231.604  Recovery = 100.37%
P 214.914†             10763.1      2481.1 µg/L         25.20      2481.1 ppb          25.20   1.02%
   QC value within limits for P 214.914  Recovery = 99.25%
Pb 220.353†             8166.6      504.10 µg/L         5.542      504.10 ppb          5.542   1.10%
   QC value within limits for Pb 220.353  Recovery = 100.82%
S 181.975 Axial†        1189.5      1004.9 µg/L          1.46      1004.9 ppb           1.46   0.15%
   QC value within limits for S 181.975 Axial  Recovery = 100.49%
Sb 206.836†             3856.3      498.39 µg/L         5.853      498.39 ppb          5.853   1.17%
   QC value within limits for Sb 206.836  Recovery = 99.68%
Se 196.026†             1274.0         504 µg/L           2.6         504 ppb            2.6   0.52%
   QC value within limits for Se 196.026  Recovery = 100.83%
SiO2†                  50197.6      5294.5 µg/L         21.01      5294.5 ppb          21.01   0.40%
   QC value within limits for SiO2  Recovery = 99.01%
Si 251.611†           158290.7      2486.1 µg/L         10.00      2486.1 ppb          10.00   0.40%
   QC value within limits for Si 251.611  Recovery = 99.45%
Sn 189.927†             7082.1      492.90 µg/L         4.531      492.90 ppb          4.531   0.92%
   QC value within limits for Sn 189.927  Recovery = 98.58%
Sr 421.552†           211044.6      497.70 µg/L         3.971      497.70 ppb          3.971   0.80%
   QC value within limits for Sr 421.552  Recovery = 99.54%
Ti 334.940†           481816.5      494.22 µg/L         0.832      494.22 ppb          0.832   0.17%
   QC value within limits for Ti 334.940  Recovery = 98.84%
Tl 190.801†             3637.6      504.15 µg/L         5.234      504.15 ppb          5.234   1.04%
   QC value within limits for Tl 190.801  Recovery = 100.83%
U 409.014†              7559.3      507.33 µg/L         2.674      507.33 ppb          2.674   0.53%
   QC value within limits for U 409.014  Recovery = 101.47%
V 292.402†             95747.2      502.91 µg/L         0.841      502.91 ppb          0.841   0.17%
   QC value within limits for V 292.402  Recovery = 100.58%
Zn 213.857†            84209.9      498.93 µg/L         1.460      498.93 ppb          1.460   0.29%
   QC value within limits for Zn 213.857  Recovery = 99.79%
All analyte(s) passed QC.
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Sequence No.: 43
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 17:12:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135450.1	135450.1	96.7	%			17:12:56
1	Al 396.153Radial†	-81.3	-5.6	-1.1704	µg/L	-1.1704	ppb	17:13:16
1	Ca 317.933Radial†	651.0	101.9	6.9409	µg/L	6.9409	ppb	17:13:16
1	Fe 238.204 Radial†	154.7	42.7	3.1915	µg/L	3.1915	ppb	17:13:16
1	K 766.490 Radial†	1676.0	239.7	94.966	µg/L	94.966	ppb	17:12:56
1	Mg 279.077 IEC†	178.2	11.9	5.4792	µg/L	5.4792	ppb	17:13:16
1	Na 589.592 Radial†	1291.3	383.1	59.295	µg/L	59.295	ppb	17:12:56
1	Sr 421.552†	-290.3	-95.8	-0.2260	µg/L	-0.2260	ppb	17:12:56
1	Sc 361.383	1794956.0	1794956.0	99.490	%			17:14:17
1	Y 371.029	1055741.9	1055741.9	99.853	%			17:14:17
1	Ag 328.068†	4009.1	-535.5	-2.2145	µg/L	-2.2145	ppb	17:14:20
1	As 188.979†	-8.5	10.0	3.3980	µg/L	3.3980	ppb	17:14:40
1	B 249.677†	4081.5	37.3	0.5797	µg/L	0.5797	ppb	17:14:20
1	Ba 233.527†	-146.2	-2.4	-0.0105	µg/L	-0.0105	ppb	17:14:40
1	Be 313.107†	-734.1	353.9	0.0970	µg/L	0.0970	ppb	17:14:20
1	Cd 226.502†	-62.2	40.8	0.2757	µg/L	0.2757	ppb	17:14:40
1	Co 228.616†	-195.2	14.1	0.1868	µg/L	0.1868	ppb	17:14:40
1	Cr 267.716†	241.0	9.0	0.0924	µg/L	0.0924	ppb	17:14:40
1	Cu 324.752†	2546.0	-477.0	-2.0094	µg/L	-2.0094	ppb	17:14:20
1	Mn 257.610†	264.1	80.8	0.1069	µg/L	0.1069	ppb	17:14:40
1	Mo 202.031†	-41.4	-3.0	-0.0975	µg/L	-0.0975	ppb	17:14:40
1	Ni 231.604†	-56.6	39.0	0.4885	µg/L	0.4885	ppb	17:14:40
1	P 214.914†	32.5	58.4	13.522	µg/L	13.522	ppb	17:14:40
1	Pb 220.353†	113.5	10.6	0.6652	µg/L	0.6652	ppb	17:14:40
1	S 181.975 Axial†	101.3	12.9	10.885	µg/L	10.885	ppb	17:14:40
1	Sb 206.836†	84.4	-4.9	-0.6354	µg/L	-0.6354	ppb	17:14:40
1	Se 196.026†	24.6	18.5	7.29	µg/L	7.29	ppb	17:14:40
1	SiO2†	1814.0	84.2	8.9180	µg/L	8.9180	ppb	17:14:40
1	Si 251.611†	1086.7	325.3	5.1291	µg/L	5.1291	ppb	17:14:20
1	Sn 189.927†	5.2	3.4	0.2336	µg/L	0.2336	ppb	17:14:40
1	Ti 334.940†	616.5	-203.3	-0.2017	µg/L	-0.2017	ppb	17:14:20
1	Tl 190.801†	-115.3	-1.7	-0.2289	µg/L	-0.2289	ppb	17:14:40
1	U 409.014†	-447.5	-286.4	-18.072	µg/L	-18.072	ppb	17:14:20
1	V 292.402†	423.9	2.8	0.0017	µg/L	0.0017	ppb	17:14:20
1	Zn 213.857†	574.2	74.2	0.4407	µg/L	0.4407	ppb	17:14:40
2	Sc RADIAL	135362.7	135362.7	96.6	%			17:13:18
2	Al 396.153Radial†	-46.9	30.0	6.3205	µg/L	6.3205	ppb	17:13:38
2	Ca 317.933Radial†	654.8	106.2	7.2354	µg/L	7.2354	ppb	17:13:38
2	Fe 238.204 Radial†	151.1	39.1	2.9172	µg/L	2.9172	ppb	17:13:38
2	K 766.490 Radial†	1651.4	215.3	85.296	µg/L	85.296	ppb	17:13:18
2	Mg 279.077 IEC†	170.5	4.0	1.8339	µg/L	1.8339	ppb	17:13:38
2	Na 589.592 Radial†	1255.5	346.8	53.686	µg/L	53.686	ppb	17:13:18
2	Sr 421.552†	-150.8	48.4	0.1141	µg/L	0.1141	ppb	17:13:18
2	Sc 361.383	1774661.2	1774661.2	98.365	%			17:14:42
2	Y 371.029	1043754.1	1043754.1	98.719	%			17:14:42
2	Ag 328.068†	3896.3	-604.2	-2.4602	µg/L	-2.4602	ppb	17:14:44
2	As 188.979†	-4.0	14.4	4.8871	µg/L	4.8871	ppb	17:15:04
2	B 249.677†	4029.4	31.2	0.4860	µg/L	0.4860	ppb	17:14:44
2	Ba 233.527†	-177.5	-35.9	-0.1598	µg/L	-0.1598	ppb	17:15:04
2	Be 313.107†	-792.2	286.3	0.0869	µg/L	0.0869	ppb	17:14:44
2	Cd 226.502†	-77.2	24.9	0.1682	µg/L	0.1682	ppb	17:15:04
2	Co 228.616†	-211.6	-4.8	-0.0637	µg/L	-0.0637	ppb	17:15:04
2	Cr 267.716†	248.2	19.1	0.1546	µg/L	0.1546	ppb	17:15:04
2	Cu 324.752†	2897.7	-90.3	-0.3665	µg/L	-0.3665	ppb	17:14:44
2	Mn 257.610†	262.2	81.9	0.1085	µg/L	0.1085	ppb	17:15:04
2	Mo 202.031†	-39.9	-2.0	-0.0657	µg/L	-0.0657	ppb	17:15:04
2	Ni 231.604†	-57.8	37.2	0.4651	µg/L	0.4651	ppb	17:15:04
2	P 214.914†	59.1	85.8	19.849	µg/L	19.849	ppb	17:15:04
2	Pb 220.353†	102.6	0.9	0.0457	µg/L	0.0457	ppb	17:15:04

2	S 181.975 Axial†	96.4	9.1	7.6787 µg/L	7.6787 ppb		17:15:04
2	Sb 206.836†	91.0	2.8	0.3568 µg/L	0.3568 ppb		17:15:04
2	Se 196.026†	17.8	11.9	4.71 µg/L	4.71 ppb		17:15:04
2	SiO2†	1849.9	141.5	14.983 µg/L	14.983 ppb		17:15:04
2	Si 251.611†	1481.3	738.9	11.650 µg/L	11.650 ppb		17:14:44
2	Sn 189.927†	8.2	6.5	0.4504 µg/L	0.4504 ppb		17:15:04
2	Ti 334.940†	738.0	-72.7	-0.0800 µg/L	-0.0800 ppb		17:14:44
2	Tl 190.801†	-119.7	-7.4	-1.0189 µg/L	-1.0189 ppb		17:15:04
2	U 409.014†	41.9	206.0	12.984 µg/L	12.984 ppb		17:14:44
2	V 292.402†	369.3	-47.7	-0.2389 µg/L	-0.2389 ppb		17:14:44
2	Zn 213.857†	596.7	103.6	0.6157 µg/L	0.6157 ppb		17:15:04
3	Sc RADIAL	135515.0	135515.0	96.7 %			17:13:40
3	Al 396.153Radial†	-57.3	19.3	4.0176 µg/L	4.0176 ppb		17:14:00
3	Ca 317.933Radial†	669.5	120.6	8.2159 µg/L	8.2159 ppb		17:14:00
3	Fe 238.204 Radial†	201.1	90.6	6.7657 µg/L	6.7657 ppb		17:14:00
3	K 766.490 Radial†	1663.9	226.3	89.668 µg/L	89.668 ppb		17:13:40
3	Mg 279.077 IEC†	173.9	7.3	3.3985 µg/L	3.3985 ppb		17:14:00
3	Na 589.592 Radial†	1133.8	219.6	33.959 µg/L	33.959 ppb		17:13:40
3	Sr 421.552†	-187.3	10.8	0.0255 µg/L	0.0255 ppb		17:13:40
3	Sc 361.383	1777960.9	1777960.9	98.548 %			17:15:06
3	Y 371.029	1045750.5	1045750.5	98.908 %			17:15:06
3	Ag 328.068†	3929.1	-578.2	-2.3935 µg/L	-2.3935 ppb		17:15:08
3	As 188.979†	-0.9	17.6	5.9683 µg/L	5.9683 ppb		17:15:28
3	B 249.677†	3990.0	-16.4	-0.2556 µg/L	-0.2556 ppb		17:15:08
3	Ba 233.527†	-160.6	-18.4	-0.0818 µg/L	-0.0818 ppb		17:15:28
3	Be 313.107†	-481.6	603.1	0.1695 µg/L	0.1695 ppb		17:15:08
3	Cd 226.502†	-105.6	-3.8	-0.0264 µg/L	-0.0264 ppb		17:15:28
3	Co 228.616†	-199.0	8.3	0.1096 µg/L	0.1096 ppb		17:15:28
3	Cr 267.716†	245.7	16.1	0.1528 µg/L	0.1528 ppb		17:15:28
3	Cu 324.752†	2883.7	-109.9	-0.4727 µg/L	-0.4727 ppb		17:15:08
3	Mn 257.610†	296.9	116.6	0.1545 µg/L	0.1545 ppb		17:15:28
3	Mo 202.031†	-13.2	25.2	0.8237 µg/L	0.8237 ppb		17:15:28
3	Ni 231.604†	-69.5	25.4	0.3178 µg/L	0.3178 ppb		17:15:28
3	P 214.914†	25.3	51.4	11.884 µg/L	11.884 ppb		17:15:28
3	Pb 220.353†	98.0	-4.0	-0.2302 µg/L	-0.2302 ppb		17:15:28
3	S 181.975 Axial†	85.9	-1.7	-1.4411 µg/L	-1.4411 ppb		17:15:28
3	Sb 206.836†	109.7	21.6	2.7982 µg/L	2.7982 ppb		17:15:28
3	Se 196.026†	15.6	9.7	3.80 µg/L	3.80 ppb		17:15:28
3	SiO2†	1857.8	146.1	15.448 µg/L	15.448 ppb		17:15:28
3	Si 251.611†	1351.3	604.2	9.5170 µg/L	9.5170 ppb		17:15:08
3	Sn 189.927†	1.2	-0.7	-0.0491 µg/L	-0.0491 ppb		17:15:28
3	Ti 334.940†	765.8	-46.0	-0.0402 µg/L	-0.0402 ppb		17:15:08
3	Tl 190.801†	-118.5	-5.9	-0.8121 µg/L	-0.8121 ppb		17:15:28
3	U 409.014†	-430.2	-273.1	-17.262 µg/L	-17.262 ppb		17:15:08
3	V 292.402†	333.8	-84.5	-0.4409 µg/L	-0.4409 ppb		17:15:08
3	Zn 213.857†	555.7	60.9	0.3611 µg/L	0.3611 ppb		17:15:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1782526.0	98.801	%	0.6036				0.61%
Sc RADIAL	135442.6	96.7	%	0.05				0.06%
Y 371.029	1048415.5	99.160	%	0.6075				0.61%
Ag 328.068†	-572.6	-2.3561	µg/L	0.12707	-2.3561	ppb	0.12707	5.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.6	3.0559	µg/L	3.83691	3.0559	ppb	3.83691	125.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	14.0	4.7512	µg/L	1.29055	4.7512	ppb	1.29055	27.16%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	17.4	0.2700	µg/L	0.45762	0.2700	ppb	0.45762	169.48%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-18.9	-0.0841	µg/L	0.07468	-0.0841	ppb	0.07468	88.84%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	414.4	0.1178	µg/L	0.04505	0.1178	ppb	0.04505	38.24%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	109.6	7.4641	µg/L	0.66752	7.4641	ppb	0.66752	8.94%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	20.6	0.1392	µg/L	0.15308	0.1392	ppb	0.15308	110.00%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.9	0.0776	µg/L	0.12830	0.0776	ppb	0.12830	165.43%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.7      0.1333 µg/L       0.03539      0.1333 ppb        0.03539  26.55%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -225.7     -0.9496 µg/L       0.91940     -0.9496 ppb        0.91940  96.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       57.5      4.2915 µg/L       2.14715      4.2915 ppb        2.14715  50.03%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       227.1      89.976 µg/L        4.8423      89.976 ppb         4.8423   5.38%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           7.7      3.5705 µg/L       1.82871      3.5705 ppb        1.82871  51.22%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              93.1      0.1233 µg/L       0.02699      0.1233 ppb        0.02699  21.89%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.7      0.2201 µg/L       0.52291      0.2201 ppb        0.52291 237.53%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      316.5      48.980 µg/L       13.3077      48.980 ppb        13.3077  27.17%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              33.9      0.4238 µg/L       0.09251      0.4238 ppb        0.09251  21.83%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               65.2      15.085 µg/L        4.2062      15.085 ppb         4.2062  27.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               2.5      0.1602 µg/L       0.45859      0.1602 ppb        0.45859 286.20%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.8      5.7076 µg/L       6.39517      5.7076 ppb        6.39517 112.05%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.5      0.8399 µg/L       1.76706      0.8399 ppb        1.76706 210.40%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              13.4        5.27 µg/L         1.807        5.27 ppb          1.807  34.31%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   123.9      13.116 µg/L        3.6433      13.116 ppb         3.6433  27.78%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             556.1      8.7652 µg/L       3.32463      8.7652 ppb        3.32463  37.93%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.1      0.2116 µg/L       0.25047      0.2116 ppb        0.25047 118.34%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -12.2     -0.0288 µg/L       0.17643     -0.0288 ppb        0.17643 612.43%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -107.3     -0.1073 µg/L       0.08414     -0.1073 ppb        0.08414  78.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -5.0     -0.6867 µg/L       0.40968     -0.6867 ppb        0.40968  59.66%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -117.9     -7.4502 µg/L      17.70079     -7.4502 ppb       17.70079 237.59%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -43.1     -0.2260 µg/L       0.22162     -0.2260 ppb        0.22162  98.05%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              79.5      0.4725 µg/L       0.13026      0.4725 ppb        0.13026  27.57%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 49
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 17:26:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137434.3	137434.3	98.1	%			17:27:10
1	Al 396.153Radial†	22772.8	23291.9	4880.6	µg/L	4880.6	ppb	17:27:10
1	Ca 317.933Radial†	73231.0	74076.2	5045.3	µg/L	5045.3	ppb	17:27:10
1	Fe 238.204 Radial†	65904.4	67062.0	5008.1	µg/L	5008.1	ppb	17:27:10
1	K 766.490 Radial†	13974.2	12750.7	5048.4	µg/L	5048.4	ppb	17:27:10
1	Mg 279.077 IEC†	10781.8	10817.9	5003.0	µg/L	5003.0	ppb	17:27:10
1	Na 589.592 Radial†	64015.4	64301.3	9962.7	µg/L	9962.7	ppb	17:27:10
1	Sr 421.552†	207090.5	211301.2	498.31	µg/L	498.31	ppb	17:27:08
1	Sc 361.383	1777803.3	1777803.3	98.540	%			17:27:23
1	Y 371.029	1034308.9	1034308.9	97.826	%			17:27:23
1	Ag 328.068†	123670.6	120938.4	501.30	µg/L	501.30	ppb	17:27:23
1	As 188.979†	1291.6	1329.3	456.87	µg/L	456.87	ppb	17:27:43
1	B 249.677†	35035.7	31489.8	487.98	µg/L	487.98	ppb	17:27:23
1	Ba 233.527†	109181.4	110944.2	493.54	µg/L	493.54	ppb	17:27:23
1	Be 313.107†	1641903.4	1667330.5	483.13	µg/L	483.13	ppb	17:27:23
1	Cd 226.502†	73069.7	74256.1	501.57	µg/L	501.57	ppb	17:27:23
1	Co 228.616†	37211.2	37973.0	502.61	µg/L	502.61	ppb	17:27:23
1	Cr 267.716†	57003.3	57614.9	498.30	µg/L	498.30	ppb	17:27:23
1	Cu 324.752†	119862.9	118603.3	497.63	µg/L	497.63	ppb	17:27:23
1	Mn 257.610†	370970.9	376284.5	498.95	µg/L	498.95	ppb	17:27:23
1	Mo 202.031†	15014.2	15275.3	500.02	µg/L	500.02	ppb	17:27:43
1	Ni 231.604†	39450.5	40131.1	502.09	µg/L	502.09	ppb	17:27:23
1	P 214.914†	10581.6	10764.1	2481.4	µg/L	2481.4	ppb	17:27:43
1	Pb 220.353†	8139.9	8157.1	503.52	µg/L	503.52	ppb	17:27:43
1	S 181.975 Axial†	1253.0	1182.6	999.10	µg/L	999.10	ppb	17:27:43
1	Sb 206.836†	3864.9	3832.4	495.32	µg/L	495.32	ppb	17:27:43
1	Se 196.026†	1239.8	1252.0	495	µg/L	495	ppb	17:27:43
1	SiO2†	50899.7	49915.0	5264.6	µg/L	5264.6	ppb	17:27:23
1	Si 251.611†	155782.0	157323.9	2470.9	µg/L	2470.9	ppb	17:27:23
1	Sn 189.927†	6968.1	7069.5	492.03	µg/L	492.03	ppb	17:27:43
1	Ti 334.940†	475655.5	481882.4	494.29	µg/L	494.29	ppb	17:27:23
1	Tl 190.801†	3477.9	3643.7	504.99	µg/L	504.99	ppb	17:27:43
1	U 409.014†	7267.7	7538.7	506.00	µg/L	506.00	ppb	17:27:23
1	V 292.402†	94668.3	95648.2	502.38	µg/L	502.38	ppb	17:27:23
1	Zn 213.857†	83290.6	84022.1	497.80	µg/L	497.80	ppb	17:27:23
2	Sc RADIAL	135899.1	135899.1	97.0	%			17:27:14
2	Al 396.153Radial†	22671.5	23449.7	4913.8	µg/L	4913.8	ppb	17:27:14
2	Ca 317.933Radial†	72365.0	74026.8	5041.9	µg/L	5041.9	ppb	17:27:14
2	Fe 238.204 Radial†	64973.2	66861.0	4993.1	µg/L	4993.1	ppb	17:27:14
2	K 766.490 Radial†	13791.6	12723.4	5037.5	µg/L	5037.5	ppb	17:27:14
2	Mg 279.077 IEC†	10644.0	10800.0	4994.7	µg/L	4994.7	ppb	17:27:14
2	Na 589.592 Radial†	63599.7	64609.9	10011	µg/L	10011	ppb	17:27:14
2	Sr 421.552†	206365.8	212938.8	502.17	µg/L	502.17	ppb	17:27:12
2	Sc 361.383	1769945.6	1769945.6	98.104	%			17:27:46
2	Y 371.029	1028630.4	1028630.4	97.289	%			17:27:46
2	Ag 328.068†	123368.7	121187.8	502.34	µg/L	502.34	ppb	17:27:46
2	As 188.979†	1276.0	1319.3	453.44	µg/L	453.44	ppb	17:28:06
2	B 249.677†	35110.0	31723.4	491.61	µg/L	491.61	ppb	17:27:46
2	Ba 233.527†	108539.0	110781.2	492.81	µg/L	492.81	ppb	17:27:46
2	Be 313.107†	1634007.9	1666679.6	482.94	µg/L	482.94	ppb	17:27:46
2	Cd 226.502†	72771.3	74281.1	501.74	µg/L	501.74	ppb	17:27:46
2	Co 228.616†	37005.3	37930.8	502.06	µg/L	502.06	ppb	17:27:46
2	Cr 267.716†	56615.2	57476.1	497.09	µg/L	497.09	ppb	17:27:46
2	Cu 324.752†	119311.6	118581.4	497.54	µg/L	497.54	ppb	17:27:46
2	Mn 257.610†	369325.0	376278.1	498.94	µg/L	498.94	ppb	17:27:46
2	Mo 202.031†	14943.0	15270.4	499.86	µg/L	499.86	ppb	17:28:06
2	Ni 231.604†	39125.9	39978.0	500.17	µg/L	500.17	ppb	17:27:46
2	P 214.914†	10473.4	10701.5	2466.9	µg/L	2466.9	ppb	17:28:06
2	Pb 220.353†	8085.2	8138.0	502.34	µg/L	502.34	ppb	17:28:06

2	S 181.975 Axial†	1238.2	1173.2	991.18 µg/L	991.18 ppb	17:28:06
2	Sb 206.836†	3863.8	3848.8	497.44 µg/L	497.44 ppb	17:28:06
2	Se 196.026†	1248.9	1266.9	501 µg/L	501 ppb	17:28:06
2	SiO2†	50662.2	49902.2	5263.2 µg/L	5263.2 ppb	17:27:46
2	Si 251.611†	155351.7	157587.1	2475.1 µg/L	2475.1 ppb	17:27:46
2	Sn 189.927†	6938.2	7070.4	492.10 µg/L	492.10 ppb	17:28:06
2	Ti 334.940†	473081.6	481401.7	493.80 µg/L	493.80 ppb	17:27:46
2	Tl 190.801†	3441.2	3622.0	502.03 µg/L	502.03 ppb	17:28:06
2	U 409.014†	7297.5	7601.9	510.02 µg/L	510.02 ppb	17:27:46
2	V 292.402†	94364.8	95765.3	502.99 µg/L	502.99 ppb	17:27:46
2	Zn 213.857†	82843.8	83941.9	497.34 µg/L	497.34 ppb	17:27:46
3	Sc RADIAL	135069.6	135069.6	96.4 %		17:27:18
3	Al 396.153Radial†	22481.3	23396.0	4902.7 µg/L	4902.7 ppb	17:27:18
3	Ca 317.933Radial†	71663.4	73757.2	5023.5 µg/L	5023.5 ppb	17:27:18
3	Fe 238.204 Radial†	64687.6	66976.1	5001.7 µg/L	5001.7 ppb	17:27:18
3	K 766.490 Radial†	13719.9	12736.3	5042.6 µg/L	5042.6 ppb	17:27:18
3	Mg 279.077 IEC†	10677.4	10902.1	5041.7 µg/L	5041.7 ppb	17:27:18
3	Na 589.592 Radial†	63244.1	64643.7	10016 µg/L	10016 ppb	17:27:18
3	Sr 421.552†	206489.1	214373.2	505.55 µg/L	505.55 ppb	17:27:16
3	Sc 361.383	1783229.0	1783229.0	98.840 %		17:28:09
3	Y 371.029	1037035.2	1037035.2	98.084 %		17:28:09
3	Ag 328.068†	124208.4	121100.6	501.97 µg/L	501.97 ppb	17:28:09
3	As 188.979†	1280.9	1314.5	451.83 µg/L	451.83 ppb	17:28:29
3	B 249.677†	35431.2	31781.8	492.51 µg/L	492.51 ppb	17:28:09
3	Ba 233.527†	109270.0	110696.7	492.44 µg/L	492.44 ppb	17:28:09
3	Be 313.107†	1645065.2	1665459.6	482.59 µg/L	482.59 ppb	17:28:09
3	Cd 226.502†	73506.8	74472.6	503.03 µg/L	503.03 ppb	17:28:09
3	Co 228.616†	37551.2	38202.1	505.64 µg/L	505.64 ppb	17:28:09
3	Cr 267.716†	57216.9	57655.0	498.65 µg/L	498.65 ppb	17:28:09
3	Cu 324.752†	119984.9	118356.7	496.60 µg/L	496.60 ppb	17:28:09
3	Mn 257.610†	372270.3	376453.7	499.17 µg/L	499.17 ppb	17:28:09
3	Mo 202.031†	14891.8	15105.2	494.45 µg/L	494.45 ppb	17:28:29
3	Ni 231.604†	39512.2	40071.7	501.35 µg/L	501.35 ppb	17:28:09
3	P 214.914†	10467.4	10615.9	2447.1 µg/L	2447.1 ppb	17:28:29
3	Pb 220.353†	8066.7	8057.9	497.40 µg/L	497.40 ppb	17:28:29
3	S 181.975 Axial†	1232.7	1158.3	978.57 µg/L	978.57 ppb	17:28:29
3	Sb 206.836†	3820.2	3775.3	487.85 µg/L	487.85 ppb	17:28:29
3	Se 196.026†	1250.9	1259.4	498 µg/L	498 ppb	17:28:29
3	SiO2†	51152.6	50013.7	5275.3 µg/L	5275.3 ppb	17:28:09
3	Si 251.611†	156853.9	157927.3	2480.5 µg/L	2480.5 ppb	17:28:09
3	Sn 189.927†	6902.2	6981.3	485.92 µg/L	485.92 ppb	17:28:29
3	Ti 334.940†	477150.2	481926.0	494.33 µg/L	494.33 ppb	17:28:09
3	Tl 190.801†	3421.7	3576.1	495.75 µg/L	495.75 ppb	17:28:29
3	U 409.014†	7259.4	7507.9	504.07 µg/L	504.07 ppb	17:28:09
3	V 292.402†	95004.8	95696.4	502.58 µg/L	502.58 ppb	17:28:09
3	Zn 213.857†	83971.1	84453.4	500.39 µg/L	500.39 ppb	17:28:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1776992.6	98.495	%	0.3702				0.38%
Sc RADIAL	136134.3	97.2	%	0.86				0.88%
Y 371.029	1033324.8	97.733	%	0.4056				0.41%
Ag 328.068†	121075.6	501.87	µg/L	0.524	501.87	ppb	0.524	0.10%
QC value within limits for Ag 328.068 Recovery = 100.37%								
Al 396.153Radial†	23379.2	4899.0	µg/L	16.93	4899.0	ppb	16.93	0.35%
QC value within limits for Al 396.153Radial Recovery = 97.98%								
As 188.979†	1321.0	454.05	µg/L	2.573	454.05	ppb	2.573	0.57%
QC value within limits for As 188.979 Recovery = 90.81%								
B 249.677†	31665.0	490.70	µg/L	2.400	490.70	ppb	2.400	0.49%
QC value within limits for B 249.677 Recovery = 98.14%								
Ba 233.527†	110807.4	492.93	µg/L	0.560	492.93	ppb	0.560	0.11%
QC value within limits for Ba 233.527 Recovery = 98.59%								
Be 313.107†	1666489.9	482.88	µg/L	0.276	482.88	ppb	0.276	0.06%
QC value within limits for Be 313.107 Recovery = 96.58%								
Ca 317.933Radial†	73953.4	5036.9	µg/L	11.70	5036.9	ppb	11.70	0.23%
QC value within limits for Ca 317.933Radial Recovery = 100.74%								
Cd 226.502†	74336.6	502.11	µg/L	0.801	502.11	ppb	0.801	0.16%
QC value within limits for Cd 226.502 Recovery = 100.42%								
Co 228.616†	38035.3	503.44	µg/L	1.930	503.44	ppb	1.930	0.38%

```
   QC value within limits for Co 228.616  Recovery = 100.69%
Cr 267.716†            57582.0      498.01 µg/L         0.814      498.01 ppb          0.814   0.16%
   QC value within limits for Cr 267.716  Recovery = 99.60%
Cu 324.752†           118513.8      497.26 µg/L         0.571      497.26 ppb          0.571   0.11%
   QC value within limits for Cu 324.752  Recovery = 99.45%
Fe 238.204 Radial†     66966.4      5001.0 µg/L          7.53      5001.0 ppb           7.53   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.02%
K 766.490 Radial†      12736.8      5042.8 µg/L          5.42      5042.8 ppb           5.42   0.11%
   QC value within limits for K 766.490 Radial  Recovery = 100.86%
Mg 279.077 IEC†        10840.0      5013.1 µg/L         25.08      5013.1 ppb          25.08   0.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.26%
Mn 257.610†           376338.8      499.02 µg/L         0.131      499.02 ppb          0.131   0.03%
   QC value within limits for Mn 257.610  Recovery = 99.80%
Mo 202.031†            15216.9      498.11 µg/L         3.167      498.11 ppb          3.167   0.64%
   QC value within limits for Mo 202.031  Recovery = 99.62%
Na 589.592 Radial†     64518.3      9996.4 µg/L         29.25      9996.4 ppb          29.25   0.29%
   QC value within limits for Na 589.592 Radial  Recovery = 99.96%
Ni 231.604†            40060.3      501.20 µg/L         0.966      501.20 ppb          0.966   0.19%
   QC value within limits for Ni 231.604  Recovery = 100.24%
P 214.914†             10693.9      2465.2 µg/L         17.20      2465.2 ppb          17.20   0.70%
   QC value within limits for P 214.914  Recovery = 98.61%
Pb 220.353†             8117.7      501.09 µg/L         3.244      501.09 ppb          3.244   0.65%
   QC value within limits for Pb 220.353  Recovery = 100.22%
S 181.975 Axial†        1171.4      989.62 µg/L        10.354      989.62 ppb         10.354   1.05%
   QC value within limits for S 181.975 Axial  Recovery = 98.96%
Sb 206.836†             3818.8      493.54 µg/L         5.034      493.54 ppb          5.034   1.02%
   QC value within limits for Sb 206.836  Recovery = 98.71%
Se 196.026†             1259.4         498 µg/L           2.9         498 ppb            2.9   0.59%
   QC value within limits for Se 196.026  Recovery = 99.68%
SiO2†                  49943.6      5267.7 µg/L         6.60      5267.7 ppb          6.60   0.13%
   QC value within limits for SiO2  Recovery = 98.51%
Si 251.611†           157612.8      2475.5 µg/L         4.83      2475.5 ppb          4.83   0.20%
   QC value within limits for Si 251.611  Recovery = 99.02%
Sn 189.927†             7040.4      490.02 µg/L         3.549      490.02 ppb          3.549   0.72%
   QC value within limits for Sn 189.927  Recovery = 98.00%
Sr 421.552†           212871.1      502.01 µg/L         3.625      502.01 ppb          3.625   0.72%
   QC value within limits for Sr 421.552  Recovery = 100.40%
Ti 334.940†           481736.7      494.14 µg/L         0.298      494.14 ppb          0.298   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.83%
Tl 190.801†             3614.0      500.92 µg/L         4.721      500.92 ppb          4.721   0.94%
   QC value within limits for Tl 190.801  Recovery = 100.18%
U 409.014†              7549.5      506.70 µg/L         3.037      506.70 ppb          3.037   0.60%
   QC value within limits for U 409.014  Recovery = 101.34%
V 292.402†             95703.3      502.65 µg/L         0.309      502.65 ppb          0.309   0.06%
   QC value within limits for V 292.402  Recovery = 100.53%
Zn 213.857†            84139.1      498.51 µg/L         1.641      498.51 ppb          1.641   0.33%
   QC value within limits for Zn 213.857  Recovery = 99.70%
All analyte(s) passed QC.
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Sequence No.: 50
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 17:28:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136904.7	136904.7	97.7	%			17:29:09
1	Al 396.153Radial†	-106.0	-29.9	-6.3055	µg/L	-6.3055	ppb	17:29:29
1	Ca 317.933Radial†	640.7	84.1	5.7301	µg/L	5.7301	ppb	17:29:29
1	Fe 238.204 Radial†	166.6	53.2	3.9696	µg/L	3.9696	ppb	17:29:29
1	K 766.490 Radial†	1592.6	135.9	53.852	µg/L	53.852	ppb	17:29:09
1	Mg 279.077 IEC†	172.7	4.3	1.9741	µg/L	1.9741	ppb	17:29:29
1	Na 589.592 Radial†	1164.0	238.6	36.933	µg/L	36.933	ppb	17:29:09
1	Sr 421.552†	-155.5	45.3	0.1069	µg/L	0.1069	ppb	17:29:09
1	Sc 361.383	1790505.4	1790505.4	99.244	%			17:30:31
1	Y 371.029	1053608.0	1053608.0	99.651	%			17:30:31
1	Ag 328.068†	4173.1	-360.2	-1.4814	µg/L	-1.4814	ppb	17:30:33
1	As 188.979†	-12.0	6.5	2.2030	µg/L	2.2030	ppb	17:30:54
1	B 249.677†	3984.8	-49.9	-0.7780	µg/L	-0.7780	ppb	17:30:33
1	Ba 233.527†	-162.7	-19.4	-0.0861	µg/L	-0.0861	ppb	17:30:54
1	Be 313.107†	-601.3	485.9	0.1396	µg/L	0.1396	ppb	17:30:33
1	Cd 226.502†	-85.8	16.9	0.1143	µg/L	0.1143	ppb	17:30:54
1	Co 228.616†	-178.6	30.3	0.4007	µg/L	0.4007	ppb	17:30:54
1	Cr 267.716†	226.2	-5.3	-0.0424	µg/L	-0.0424	ppb	17:30:54
1	Cu 324.752†	2823.7	-190.9	-0.8008	µg/L	-0.8008	ppb	17:30:33
1	Mn 257.610†	288.4	105.9	0.1404	µg/L	0.1404	ppb	17:30:54
1	Mo 202.031†	-27.7	10.7	0.3505	µg/L	0.3505	ppb	17:30:54
1	Ni 231.604†	-63.4	32.0	0.4000	µg/L	0.4000	ppb	17:30:54
1	P 214.914†	43.4	69.4	16.046	µg/L	16.046	ppb	17:30:54
1	Pb 220.353†	89.8	-13.0	-0.7938	µg/L	-0.7938	ppb	17:30:54
1	S 181.975 Axial†	85.3	-3.0	-2.5004	µg/L	-2.5004	ppb	17:30:54
1	Sb 206.836†	64.3	-25.0	-3.2138	µg/L	-3.2138	ppb	17:30:54
1	Se 196.026†	20.4	14.4	5.66	µg/L	5.66	ppb	17:30:54
1	SiO2†	1717.6	-8.4	-0.8980	µg/L	-0.8980	ppb	17:30:54
1	Si 251.611†	1112.0	353.4	5.5708	µg/L	5.5708	ppb	17:30:33
1	Sn 189.927†	-2.6	-4.5	-0.3134	µg/L	-0.3134	ppb	17:30:54
1	Ti 334.940†	598.4	-220.0	-0.2244	µg/L	-0.2244	ppb	17:30:33
1	Tl 190.801†	-114.9	-1.5	-0.2054	µg/L	-0.2054	ppb	17:30:54
1	U 409.014†	-223.3	-61.7	-3.9000	µg/L	-3.9000	ppb	17:30:33
1	V 292.402†	392.0	-28.2	-0.1456	µg/L	-0.1456	ppb	17:30:33
1	Zn 213.857†	564.6	65.9	0.3909	µg/L	0.3909	ppb	17:30:54
2	Sc RADIAL	137422.4	137422.4	98.1	%			17:29:31
2	Al 396.153Radial†	-79.4	-2.4	-0.5235	µg/L	-0.5235	ppb	17:29:51
2	Ca 317.933Radial†	651.7	92.9	6.3264	µg/L	6.3264	ppb	17:29:51
2	Fe 238.204 Radial†	165.1	51.0	3.8070	µg/L	3.8070	ppb	17:29:51
2	K 766.490 Radial†	1641.3	179.4	71.092	µg/L	71.092	ppb	17:29:31
2	Mg 279.077 IEC†	174.3	5.2	2.4027	µg/L	2.4027	ppb	17:29:51
2	Na 589.592 Radial†	1206.1	277.1	42.885	µg/L	42.885	ppb	17:29:31
2	Sr 421.552†	-208.9	-8.5	-0.0200	µg/L	-0.0200	ppb	17:29:31
2	Sc 361.383	1783725.3	1783725.3	98.868	%			17:30:56
2	Y 371.029	1049520.1	1049520.1	99.264	%			17:30:56
2	Ag 328.068†	4139.0	-378.7	-1.5381	µg/L	-1.5381	ppb	17:30:58
2	As 188.979†	-8.4	10.0	3.3930	µg/L	3.3930	ppb	17:31:18
2	B 249.677†	3936.5	-83.6	-1.3008	µg/L	-1.3008	ppb	17:30:58
2	Ba 233.527†	-132.7	10.3	0.0460	µg/L	0.0460	ppb	17:31:18
2	Be 313.107†	-732.9	350.4	0.1040	µg/L	0.1040	ppb	17:30:58
2	Cd 226.502†	-64.2	38.4	0.2596	µg/L	0.2596	ppb	17:31:18
2	Co 228.616†	-188.2	19.9	0.2636	µg/L	0.2636	ppb	17:31:18
2	Cr 267.716†	215.9	-14.9	-0.1351	µg/L	-0.1351	ppb	17:31:18
2	Cu 324.752†	2700.5	-304.7	-1.2669	µg/L	-1.2669	ppb	17:30:58
2	Mn 257.610†	275.9	94.3	0.1250	µg/L	0.1250	ppb	17:31:18
2	Mo 202.031†	-23.5	14.8	0.4848	µg/L	0.4848	ppb	17:31:18
2	Ni 231.604†	-48.5	46.9	0.5865	µg/L	0.5865	ppb	17:31:18
2	P 214.914†	18.7	44.6	10.317	µg/L	10.317	ppb	17:31:18
2	Pb 220.353†	109.5	7.3	0.4435	µg/L	0.4435	ppb	17:31:18

2	S 181.975 Axial†	84.9	-3.0	-2.5608 µg/L	-2.5608 ppb	17:31:18
2	Sb 206.836†	75.0	-13.8	-1.7722 µg/L	-1.7722 ppb	17:31:18
2	Se 196.026†	28.7	22.9	9.04 µg/L	9.04 ppb	17:31:18
2	SiO2†	1786.0	67.4	7.1221 µg/L	7.1221 ppb	17:31:18
2	Si 251.611†	932.9	176.5	2.7782 µg/L	2.7782 ppb	17:30:58
2	Sn 189.927†	-0.3	-2.2	-0.1545 µg/L	-0.1545 ppb	17:31:18
2	Ti 334.940†	723.1	-91.6	-0.0974 µg/L	-0.0974 ppb	17:30:58
2	Tl 190.801†	-128.3	-15.5	-2.1132 µg/L	-2.1132 ppb	17:31:18
2	U 409.014†	-32.6	130.4	8.2400 µg/L	8.2400 ppb	17:30:58
2	V 292.402†	456.3	38.3	0.2080 µg/L	0.2080 ppb	17:30:58
2	Zn 213.857†	549.7	53.0	0.3132 µg/L	0.3132 ppb	17:31:18
3	Sc RADIAL	135539.0	135539.0	96.7 %		17:29:53
3	Al 396.153Radial†	-81.5	-5.7	-1.2163 µg/L	-1.2163 ppb	17:30:13
3	Ca 317.933Radial†	639.9	90.0	6.1294 µg/L	6.1294 ppb	17:30:13
3	Fe 238.204 Radial†	159.6	47.6	3.5551 µg/L	3.5551 ppb	17:30:13
3	K 766.490 Radial†	1483.7	39.8	15.747 µg/L	15.747 ppb	17:29:53
3	Mg 279.077 IEC†	178.1	11.6	5.3731 µg/L	5.3731 ppb	17:30:13
3	Na 589.592 Radial†	1194.0	281.6	43.643 µg/L	43.643 ppb	17:29:53
3	Sr 421.552†	-273.9	-78.6	-0.1854 µg/L	-0.1854 ppb	17:29:53
3	Sc 361.383	1786924.6	1786924.6	99.045 %		17:31:20
3	Y 371.029	1051272.3	1051272.3	99.430 %		17:31:20
3	Ag 328.068†	4162.9	-362.1	-1.4924 µg/L	-1.4924 ppb	17:31:22
3	As 188.979†	-14.1	4.3	1.4647 µg/L	1.4647 ppb	17:31:42
3	B 249.677†	4015.8	-10.6	-0.1649 µg/L	-0.1649 ppb	17:31:22
3	Ba 233.527†	-169.4	-26.5	-0.1179 µg/L	-0.1179 ppb	17:31:42
3	Be 313.107†	-502.7	584.1	0.1674 µg/L	0.1674 ppb	17:31:22
3	Cd 226.502†	-95.0	7.4	0.0501 µg/L	0.0501 ppb	17:31:42
3	Co 228.616†	-207.0	1.3	0.0164 µg/L	0.0164 ppb	17:31:42
3	Cr 267.716†	263.7	33.0	0.2898 µg/L	0.2898 ppb	17:31:42
3	Cu 324.752†	2641.2	-369.5	-1.5495 µg/L	-1.5495 ppb	17:31:22
3	Mn 257.610†	244.0	61.6	0.0816 µg/L	0.0816 ppb	17:31:42
3	Mo 202.031†	-30.3	8.0	0.2624 µg/L	0.2624 ppb	17:31:42
3	Ni 231.604†	-49.8	45.6	0.5709 µg/L	0.5709 ppb	17:31:42
3	P 214.914†	19.8	45.7	10.588 µg/L	10.588 ppb	17:31:42
3	Pb 220.353†	117.8	15.5	0.9562 µg/L	0.9562 ppb	17:31:42
3	S 181.975 Axial†	86.8	-1.3	-1.0977 µg/L	-1.0977 ppb	17:31:42
3	Sb 206.836†	93.4	4.6	0.5927 µg/L	0.5927 ppb	17:31:42
3	Se 196.026†	8.8	2.7	1.06 µg/L	1.06 ppb	17:31:42
3	SiO2†	1807.0	85.4	9.0215 µg/L	9.0215 ppb	17:31:42
3	Si 251.611†	1037.1	280.1	4.4084 µg/L	4.4084 ppb	17:31:22
3	Sn 189.927†	11.4	9.6	0.6633 µg/L	0.6633 ppb	17:31:42
3	Ti 334.940†	504.2	-314.0	-0.3205 µg/L	-0.3205 ppb	17:31:22
3	Tl 190.801†	-131.7	-18.7	-2.5537 µg/L	-2.5537 ppb	17:31:42
3	U 409.014†	-253.4	-92.5	-5.8483 µg/L	-5.8483 ppb	17:31:22
3	V 292.402†	376.5	-43.1	-0.2237 µg/L	-0.2237 ppb	17:31:22
3	Zn 213.857†	565.0	67.4	0.3996 µg/L	0.3996 ppb	17:31:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787051.8	99.052	%	0.1880				0.19%
Sc RADIAL	136622.0	97.5	%	0.69				0.71%
Y 371.029	1051466.8	99.449	%	0.1940				0.20%
Ag 328.068†	-367.0	-1.5039	µg/L	0.03006	-1.5039	ppb	0.03006	2.00%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-12.7	-2.6818	µg/L	3.15730	-2.6818	ppb	3.15730	117.73%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	2.3535	µg/L	0.97291	2.3535	ppb	0.97291	41.34%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-48.0	-0.7479	µg/L	0.56851	-0.7479	ppb	0.56851	76.02%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-11.9	-0.0527	µg/L	0.08692	-0.0527	ppb	0.08692	165.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	473.5	0.1370	µg/L	0.03181	0.1370	ppb	0.03181	23.22%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	89.0	6.0620	µg/L	0.30381	6.0620	ppb	0.30381	5.01%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	20.9	0.1413	µg/L	0.10736	0.1413	ppb	0.10736	75.97%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.2	0.2269	µg/L	0.19473	0.2269	ppb	0.19473	85.82%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                4.3      0.0374 µg/L       0.22343      0.0374 ppb        0.22343 596.95%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -288.4     -1.2057 µg/L       0.37809     -1.2057 ppb        0.37809  31.36%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        50.6      3.7772 µg/L       0.20888      3.7772 ppb        0.20888   5.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        118.4      46.897 µg/L       28.3205      46.897 ppb        28.3205  60.39%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            7.0      3.2500 µg/L       1.85113      3.2500 ppb        1.85113  56.96%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               87.3      0.1156 µg/L       0.03050      0.1156 ppb        0.03050  26.37%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               11.2      0.3659 µg/L       0.11200      0.3659 ppb        0.11200  30.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       265.8      41.154 µg/L        3.6745      41.154 ppb         3.6745   8.93%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               41.5      0.5191 µg/L       0.10346      0.5191 ppb        0.10346  19.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                53.2      12.317 µg/L        3.2325      12.317 ppb         3.2325  26.24%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                3.3      0.2019 µg/L       0.89967      0.2019 ppb        0.89967 445.49%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.4     -2.0530 µg/L       0.82787     -2.0530 ppb        0.82787  40.33%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -11.4     -1.4644 µg/L       1.92181     -1.4644 ppb        1.92181 131.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               13.3       5.25 µg/L         4.003        5.25 ppb          4.003  76.23%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     48.1      5.0819 µg/L       5.26504      5.0819 ppb        5.26504 103.60%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              270.0      4.2525 µg/L       1.40278      4.2525 ppb        1.40278  32.99%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                0.9      0.0651 µg/L       0.52410      0.0651 ppb        0.52410 804.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -13.9     -0.0328 µg/L       0.14659     -0.0328 ppb        0.14659 446.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -208.5     -0.2141 µg/L       0.11187     -0.2141 ppb        0.11187  52.26%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -11.9     -1.6241 µg/L       1.24822     -1.6241 ppb        1.24822  76.86%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -7.9     -0.5027 µg/L       7.63388     -0.5027 ppb        7.63388 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -11.0     -0.0538 µg/L       0.22999     -0.0538 ppb        0.22999 427.88%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               62.1      0.3679 µg/L       0.04758      0.3679 ppb        0.04758  12.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 58
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 17:45:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135394.1	135394.1	96.6	%			17:46:15
1	Al 396.153Radial†	22754.7	23622.9	4949.8	µg/L	4949.8	ppb	17:46:15
1	Ca 317.933Radial†	73027.1	74990.0	5107.5	µg/L	5107.5	ppb	17:46:15
1	Fe 238.204 Radial†	65777.0	67942.5	5073.9	µg/L	5073.9	ppb	17:46:15
1	K 766.490 Radial†	14016.3	13008.9	5150.6	µg/L	5150.6	ppb	17:46:15
1	Mg 279.077 IEC†	10886.1	11091.5	5129.5	µg/L	5129.5	ppb	17:46:15
1	Na 589.592 Radial†	64190.9	65466.2	10143	µg/L	10143	ppb	17:46:15
1	Sr 421.552†	207620.2	215030.2	507.10	µg/L	507.10	ppb	17:46:13
1	Sc 361.383	1746065.5	1746065.5	96.780	%			17:46:42
1	Y 371.029	1015185.6	1015185.6	96.017	%			17:46:42
1	Ag 328.068†	123023.5	122551.1	507.96	µg/L	507.96	ppb	17:46:42
1	As 188.979†	1292.6	1354.2	465.37	µg/L	465.37	ppb	17:47:02
1	B 249.677†	35003.4	32102.8	497.49	µg/L	497.49	ppb	17:46:42
1	Ba 233.527†	108384.9	112135.1	498.84	µg/L	498.84	ppb	17:46:42
1	Be 313.107†	1627800.6	1683045.3	487.68	µg/L	487.68	ppb	17:46:42
1	Cd 226.502†	72501.4	75016.7	506.70	µg/L	506.70	ppb	17:46:42
1	Co 228.616†	37013.1	38454.8	508.99	µg/L	508.99	ppb	17:46:42
1	Cr 267.716†	56686.3	58338.9	504.57	µg/L	504.57	ppb	17:46:42
1	Cu 324.752†	118955.4	119876.7	502.97	µg/L	502.97	ppb	17:46:42
1	Mn 257.610†	368714.7	380796.2	504.93	µg/L	504.93	ppb	17:46:42
1	Mo 202.031†	15048.9	15588.1	510.25	µg/L	510.25	ppb	17:47:02
1	Ni 231.604†	39006.5	40400.0	505.45	µg/L	505.45	ppb	17:46:42
1	P 214.914†	10571.0	10948.4	2523.9	µg/L	2523.9	ppb	17:47:02
1	Pb 220.353†	8134.0	8301.2	512.43	µg/L	512.43	ppb	17:47:02
1	S 181.975 Axial†	1260.9	1213.9	1025.5	µg/L	1025.5	ppb	17:47:02
1	Sb 206.836†	3891.8	3931.6	508.18	µg/L	508.18	ppb	17:47:02
1	Se 196.026†	1247.8	1283.2	508	µg/L	508	ppb	17:47:02
1	SiO2†	50498.0	50438.8	5319.6	µg/L	5319.6	ppb	17:46:42
1	Si 251.611†	154674.9	159053.6	2498.0	µg/L	2498.0	ppb	17:46:42
1	Sn 189.927†	6973.9	7204.0	501.38	µg/L	501.38	ppb	17:47:02
1	Ti 334.940†	472550.2	487447.8	500.00	µg/L	500.00	ppb	17:46:42
1	Tl 190.801†	3456.1	3685.3	510.76	µg/L	510.76	ppb	17:47:02
1	U 409.014†	6994.9	7391.0	497.02	µg/L	497.02	ppb	17:46:42
1	V 292.402†	94018.5	96723.1	508.07	µg/L	508.07	ppb	17:46:42
1	Zn 213.857†	82648.3	84894.9	502.98	µg/L	502.98	ppb	17:46:42
2	Sc RADIAL	133381.5	133381.5	95.2	%			17:46:19
2	Al 396.153Radial†	22428.5	23635.6	4952.6	µg/L	4952.6	ppb	17:46:19
2	Ca 317.933Radial†	71876.6	74921.9	5102.9	µg/L	5102.9	ppb	17:46:19
2	Fe 238.204 Radial†	64375.3	67497.2	5040.6	µg/L	5040.6	ppb	17:46:19
2	K 766.490 Radial†	13782.6	12982.3	5140.1	µg/L	5140.1	ppb	17:46:19
2	Mg 279.077 IEC†	10536.8	10894.5	5038.5	µg/L	5038.5	ppb	17:46:19
2	Na 589.592 Radial†	63032.4	65251.5	10110	µg/L	10110	ppb	17:46:19
2	Sr 421.552†	206647.5	217250.1	512.34	µg/L	512.34	ppb	17:46:17
2	Sc 361.383	1758704.9	1758704.9	97.481	%			17:47:05
2	Y 371.029	1022847.7	1022847.7	96.742	%			17:47:05
2	Ag 328.068†	123872.6	122508.5	507.81	µg/L	507.81	ppb	17:47:05
2	As 188.979†	1286.1	1337.9	459.86	µg/L	459.86	ppb	17:47:25
2	B 249.677†	35329.4	32177.3	498.65	µg/L	498.65	ppb	17:47:05
2	Ba 233.527†	109072.1	112035.3	498.39	µg/L	498.39	ppb	17:47:05
2	Be 313.107†	1642289.4	1685820.6	488.49	µg/L	488.49	ppb	17:47:05
2	Cd 226.502†	72981.1	74970.4	506.40	µg/L	506.40	ppb	17:47:05
2	Co 228.616†	37232.8	38405.2	508.34	µg/L	508.34	ppb	17:47:05
2	Cr 267.716†	57060.4	58301.7	504.23	µg/L	504.23	ppb	17:47:05
2	Cu 324.752†	119880.1	119941.8	503.25	µg/L	503.25	ppb	17:47:05
2	Mn 257.610†	371349.4	380761.0	504.88	µg/L	504.88	ppb	17:47:05
2	Mo 202.031†	15096.6	15525.3	508.20	µg/L	508.20	ppb	17:47:25
2	Ni 231.604†	39470.8	40586.7	507.79	µg/L	507.79	ppb	17:47:05
2	P 214.914†	10623.9	10924.1	2518.3	µg/L	2518.3	ppb	17:47:25
2	Pb 220.353†	8174.9	8282.7	511.27	µg/L	511.27	ppb	17:47:25

2	S 181.975 Axial†	1258.8	1202.4	1015.8 µg/L	1015.8 ppb	17:47:25
2	Sb 206.836†	3885.3	3895.9	503.56 µg/L	503.56 ppb	17:47:25
2	Se 196.026†	1267.2	1293.8	512 µg/L	512 ppb	17:47:25
2	SiO2†	50832.8	50407.3	5316.3 µg/L	5316.3 ppb	17:47:05
2	Si 251.611†	156255.4	159526.3	2505.5 µg/L	2505.5 ppb	17:47:05
2	Sn 189.927†	7014.2	7193.5	500.66 µg/L	500.66 ppb	17:47:25
2	Ti 334.940†	476984.1	488487.1	501.07 µg/L	501.07 ppb	17:47:05
2	Tl 190.801†	3469.3	3673.2	509.11 µg/L	509.11 ppb	17:47:25
2	U 409.014†	7384.5	7738.7	518.97 µg/L	518.97 ppb	17:47:05
2	V 292.402†	94703.9	96728.0	508.09 µg/L	508.09 ppb	17:47:05
2	Zn 213.857†	83417.8	85070.4	504.02 µg/L	504.02 ppb	17:47:05
3	Sc RADIAL	134858.9	134858.9	96.3 %		17:46:23
3	Al 396.153Radial†	22702.7	23662.3	4958.3 µg/L	4958.3 ppb	17:46:23
3	Ca 317.933Radial†	72635.6	74883.2	5100.2 µg/L	5100.2 ppb	17:46:23
3	Fe 238.204 Radial†	65418.0	67839.7	5066.2 µg/L	5066.2 ppb	17:46:23
3	K 766.490 Radial†	14001.9	13051.5	5167.5 µg/L	5167.5 ppb	17:46:23
3	Mg 279.077 IEC†	10836.2	11084.3	5126.1 µg/L	5126.1 ppb	17:46:23
3	Na 589.592 Radial†	63883.7	65410.6	10135 µg/L	10135 ppb	17:46:23
3	Sr 421.552†	205770.0	213960.7	504.58 µg/L	504.58 ppb	17:46:21
3	Sc 361.383	1741611.9	1741611.9	96.534 %		17:47:28
3	Y 371.029	1012899.9	1012899.9	95.801 %		17:47:28
3	Ag 328.068†	123309.2	123172.0	510.54 µg/L	510.54 ppb	17:47:28
3	As 188.979†	1265.3	1329.3	456.95 µg/L	456.95 ppb	17:47:48
3	B 249.677†	34978.6	32169.6	498.52 µg/L	498.52 ppb	17:47:28
3	Ba 233.527†	108349.9	112385.2	499.95 µg/L	499.95 ppb	17:47:28
3	Be 313.107†	1630394.3	1690033.1	489.71 µg/L	489.71 ppb	17:47:28
3	Cd 226.502†	72587.0	75297.0	508.60 µg/L	508.60 ppb	17:47:28
3	Co 228.616†	37152.9	38697.3	512.20 µg/L	512.20 ppb	17:47:28
3	Cr 267.716†	56616.8	58416.7	505.23 µg/L	505.23 ppb	17:47:28
3	Cu 324.752†	119079.5	120319.5	504.84 µg/L	504.84 ppb	17:47:28
3	Mn 257.610†	368402.6	381447.1	505.79 µg/L	505.79 ppb	17:47:28
3	Mo 202.031†	14874.4	15447.1	505.64 µg/L	505.64 ppb	17:47:48
3	Ni 231.604†	39207.3	40711.1	509.35 µg/L	509.35 ppb	17:47:28
3	P 214.914†	10411.4	10811.0	2492.1 µg/L	2492.1 ppb	17:47:48
3	Pb 220.353†	8070.7	8257.1	509.69 µg/L	509.69 ppb	17:47:48
3	S 181.975 Axial†	1238.5	1194.0	1008.8 µg/L	1008.8 ppb	17:47:48
3	Sb 206.836†	3838.9	3887.1	502.36 µg/L	502.36 ppb	17:47:48
3	Se 196.026†	1241.5	1279.9	506 µg/L	506 ppb	17:47:48
3	SiO2†	50575.2	50652.2	5342.4 µg/L	5342.4 ppb	17:47:28
3	Si 251.611†	155493.2	160309.9	2517.9 µg/L	2517.9 ppb	17:47:28
3	Sn 189.927†	6886.9	7132.3	496.42 µg/L	496.42 ppb	17:47:48
3	Ti 334.940†	473285.6	489458.2	502.06 µg/L	502.06 ppb	17:47:28
3	Tl 190.801†	3440.4	3678.3	509.81 µg/L	509.81 ppb	17:47:48
3	U 409.014†	7269.6	7694.0	516.24 µg/L	516.24 ppb	17:47:28
3	V 292.402†	94100.4	97056.3	509.76 µg/L	509.76 ppb	17:47:28
3	Zn 213.857†	82709.9	85177.0	504.64 µg/L	504.64 ppb	17:47:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1748794.1	96.932	%	0.4915				0.51%
Sc RADIAL	134544.8	96.0	%	0.74				0.77%
Y 371.029	1016977.7	96.187	%	0.4928				0.51%
Ag 328.068†	122743.9	508.77	µg/L	1.537	508.77	ppb	1.537	0.30%
QC value within limits for Ag 328.068 Recovery = 101.75%								
Al 396.153Radial†	23640.3	4953.6	µg/L	4.34	4953.6	ppb	4.34	0.09%
QC value within limits for Al 396.153Radial Recovery = 99.07%								
As 188.979†	1340.5	460.73	µg/L	4.277	460.73	ppb	4.277	0.93%
QC value within limits for As 188.979 Recovery = 92.15%								
B 249.677†	32149.9	498.22	µg/L	0.635	498.22	ppb	0.635	0.13%
QC value within limits for B 249.677 Recovery = 99.64%								
Ba 233.527†	112185.2	499.06	µg/L	0.801	499.06	ppb	0.801	0.16%
QC value within limits for Ba 233.527 Recovery = 99.81%								
Be 313.107†	1686299.6	488.62	µg/L	1.022	488.62	ppb	1.022	0.21%
QC value within limits for Be 313.107 Recovery = 97.72%								
Ca 317.933Radial†	74931.7	5103.5	µg/L	3.68	5103.5	ppb	3.68	0.07%
QC value within limits for Ca 317.933Radial Recovery = 102.07%								
Cd 226.502†	75094.7	507.23	µg/L	1.194	507.23	ppb	1.194	0.24%
QC value within limits for Cd 226.502 Recovery = 101.45%								
Co 228.616†	38519.1	509.84	µg/L	2.068	509.84	ppb	2.068	0.41%

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   QC value within limits for Co 228.616  Recovery = 101.97%
Cr 267.716†            58352.4      504.68 µg/L        0.507      504.68 ppb          0.507   0.10%
   QC value within limits for Cr 267.716  Recovery = 100.94%
Cu 324.752†           120046.0      503.68 µg/L        1.007      503.68 ppb          1.007   0.20%
   QC value within limits for Cu 324.752  Recovery = 100.74%
Fe 238.204 Radial†     67759.8      5060.3 µg/L        17.41      5060.3 ppb          17.41   0.34%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.21%
K 766.490 Radial†      13014.3      5152.7 µg/L        13.82      5152.7 ppb          13.82   0.27%
   QC value within limits for K 766.490 Radial  Recovery = 103.05%
Mg 279.077 IEC†        11023.4      5098.0 µg/L        51.56      5098.0 ppb          51.56   1.01%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.96%
Mn 257.610†           381001.4      505.20 µg/L        0.511      505.20 ppb          0.511   0.10%
   QC value within limits for Mn 257.610  Recovery = 101.04%
Mo 202.031†            15520.2      508.03 µg/L        2.310      508.03 ppb          2.310   0.45%
   QC value within limits for Mo 202.031  Recovery = 101.61%
Na 589.592 Radial†     65376.1       10129 µg/L         17.3       10129 ppb           17.3   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 101.29%
Ni 231.604†            40566.0      507.53 µg/L        1.959      507.53 ppb          1.959   0.39%
   QC value within limits for Ni 231.604  Recovery = 101.51%
P 214.914†             10894.5      2511.5 µg/L        16.98      2511.5 ppb          16.98   0.68%
   QC value within limits for P 214.914  Recovery = 100.46%
Pb 220.353†             8280.3      511.13 µg/L        1.374      511.13 ppb          1.374   0.27%
   QC value within limits for Pb 220.353  Recovery = 102.23%
S 181.975 Axial†        1203.5      1016.7 µg/L         8.40      1016.7 ppb           8.40   0.83%
   QC value within limits for S 181.975 Axial  Recovery = 101.67%
Sb 206.836†             3904.9      504.70 µg/L        3.073      504.70 ppb          3.073   0.61%
   QC value within limits for Sb 206.836  Recovery = 100.94%
Se 196.026†             1285.6         509 µg/L          2.9         509 ppb            2.9   0.56%
   QC value within limits for Se 196.026  Recovery = 101.75%
SiO2†                  50499.5      5326.1 µg/L        14.20      5326.1 ppb          14.20   0.27%
   QC value within limits for SiO2  Recovery = 99.60%
Si 251.611†           159629.9      2507.1 µg/L        10.05      2507.1 ppb          10.05   0.40%
   QC value within limits for Si 251.611  Recovery = 100.28%
Sn 189.927†             7176.6      499.49 µg/L        2.683      499.49 ppb          2.683   0.54%
   QC value within limits for Sn 189.927  Recovery = 99.90%
Sr 421.552†           215413.7      508.01 µg/L        3.957      508.01 ppb          3.957   0.78%
   QC value within limits for Sr 421.552  Recovery = 101.60%
Ti 334.940†           488464.4      501.04 µg/L        1.029      501.04 ppb          1.029   0.21%
   QC value within limits for Ti 334.940  Recovery = 100.21%
Tl 190.801†             3678.9      509.89 µg/L        0.825      509.89 ppb          0.825   0.16%
   QC value within limits for Tl 190.801  Recovery = 101.98%
U 409.014†              7607.9      510.74 µg/L       11.965      510.74 ppb         11.965   2.34%
   QC value within limits for U 409.014  Recovery = 102.15%
V 292.402†             96835.8      508.64 µg/L        0.972      508.64 ppb          0.972   0.19%
   QC value within limits for V 292.402  Recovery = 101.73%
Zn 213.857†            85047.4      503.88 µg/L        0.838      503.88 ppb          0.838   0.17%
   QC value within limits for Zn 213.857  Recovery = 100.78%
All analyte(s) passed QC.
```

Sequence No.: 59
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 17:47:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	134914.4	134914.4	96.3	%			17:48:28
1	Al 396.153Radial†	-93.1	-18.2	-3.8506	µg/L	-3.8506	ppb	17:48:48
1	Ca 317.933Radial†	638.7	91.8	6.2535	µg/L	6.2535	ppb	17:48:48
1	Fe 238.204 Radial†	172.2	61.5	4.5892	µg/L	4.5892	ppb	17:48:48
1	K 766.490 Radial†	1678.7	249.3	98.777	µg/L	98.777	ppb	17:48:28
1	Mg 279.077 IEC†	168.3	2.3	1.0702	µg/L	1.0702	ppb	17:48:48
1	Na 589.592 Radial†	1169.4	261.8	40.493	µg/L	40.493	ppb	17:48:28
1	Sr 421.552†	-205.3	-8.7	-0.0206	µg/L	-0.0206	ppb	17:48:28
1	Sc 361.383	1765267.3	1765267.3	97.845	%			17:49:35
1	Y 371.029	1038191.9	1038191.9	98.193	%			17:49:35
1	Ag 328.068†	4150.1	-323.6	-1.3180	µg/L	-1.3180	ppb	17:49:38
1	As 188.979†	-23.4	-5.3	-1.7900	µg/L	-1.7900	ppb	17:49:58
1	B 249.677†	4009.4	32.6	0.5050	µg/L	0.5050	ppb	17:49:38
1	Ba 233.527†	-150.0	-8.8	-0.0391	µg/L	-0.0391	ppb	17:49:58
1	Be 313.107†	-594.3	484.4	0.1426	µg/L	0.1426	ppb	17:49:38
1	Cd 226.502†	-63.1	38.9	0.2624	µg/L	0.2624	ppb	17:49:58
1	Co 228.616†	-177.5	28.9	0.3824	µg/L	0.3824	ppb	17:49:58
1	Cr 267.716†	282.6	55.6	0.4754	µg/L	0.4754	ppb	17:49:58
1	Cu 324.752†	2892.9	-79.5	-0.3255	µg/L	-0.3255	ppb	17:49:38
1	Mn 257.610†	287.7	109.3	0.1449	µg/L	0.1449	ppb	17:49:58
1	Mo 202.031†	-21.9	16.2	0.5289	µg/L	0.5289	ppb	17:49:58
1	Ni 231.604†	-65.2	29.2	0.3660	µg/L	0.3660	ppb	17:49:58
1	P 214.914†	30.1	56.4	13.049	µg/L	13.049	ppb	17:49:58
1	Pb 220.353†	99.5	-1.7	-0.1123	µg/L	-0.1123	ppb	17:49:58
1	S 181.975 Axial†	95.6	8.8	7.3838	µg/L	7.3838	ppb	17:49:58
1	Sb 206.836†	77.3	-10.7	-1.3849	µg/L	-1.3849	ppb	17:49:58
1	Se 196.026†	12.7	6.8	2.69	µg/L	2.69	ppb	17:49:58
1	SiO2†	1804.9	105.6	11.160	µg/L	11.160	ppb	17:49:58
1	Si 251.611†	930.5	184.0	2.8917	µg/L	2.8917	ppb	17:49:38
1	Sn 189.927†	6.3	4.5	0.3139	µg/L	0.3139	ppb	17:49:58
1	Ti 334.940†	612.2	-197.3	-0.2059	µg/L	-0.2059	ppb	17:49:38
1	Tl 190.801†	-119.5	-7.8	-1.0767	µg/L	-1.0767	ppb	17:49:58
1	U 409.014†	-42.8	119.6	7.5366	µg/L	7.5366	ppb	17:49:38
1	V 292.402†	377.5	-37.5	-0.1818	µg/L	-0.1818	ppb	17:49:38
1	Zn 213.857†	602.8	113.1	0.6728	µg/L	0.6728	ppb	17:49:58
2	Sc RADIAL	134277.4	134277.4	95.8	%			17:48:50
2	Al 396.153Radial†	-60.6	15.4	3.1949	µg/L	3.1949	ppb	17:49:10
2	Ca 317.933Radial†	631.6	87.5	5.9623	µg/L	5.9623	ppb	17:49:10
2	Fe 238.204 Radial†	161.0	50.7	3.7832	µg/L	3.7832	ppb	17:49:10
2	K 766.490 Radial†	1516.2	88.1	34.893	µg/L	34.893	ppb	17:48:50
2	Mg 279.077 IEC†	161.0	-4.5	-2.0397	µg/L	-2.0397	ppb	17:49:10
2	Na 589.592 Radial†	1155.1	252.6	39.129	µg/L	39.129	ppb	17:48:50
2	Sr 421.552†	-89.5	111.1	0.2619	µg/L	0.2619	ppb	17:48:50
2	Sc 361.383	1768478.6	1768478.6	98.023	%			17:50:00
2	Y 371.029	1040097.2	1040097.2	98.373	%			17:50:00
2	Ag 328.068†	4131.2	-350.6	-1.4248	µg/L	-1.4248	ppb	17:50:02
2	As 188.979†	-11.2	7.1	2.4058	µg/L	2.4058	ppb	17:50:22
2	B 249.677†	4094.4	111.8	1.7379	µg/L	1.7379	ppb	17:50:02
2	Ba 233.527†	-168.3	-27.2	-0.1204	µg/L	-0.1204	ppb	17:50:22
2	Be 313.107†	-500.8	580.8	0.1702	µg/L	0.1702	ppb	17:50:02
2	Cd 226.502†	-96.2	5.2	0.0350	µg/L	0.0350	ppb	17:50:22
2	Co 228.616†	-180.7	25.9	0.3426	µg/L	0.3426	ppb	17:50:22
2	Cr 267.716†	285.0	57.5	0.4925	µg/L	0.4925	ppb	17:50:22
2	Cu 324.752†	2816.1	-163.2	-0.6765	µg/L	-0.6765	ppb	17:50:02
2	Mn 257.610†	275.7	96.6	0.1282	µg/L	0.1282	ppb	17:50:22
2	Mo 202.031†	-13.5	24.8	0.8123	µg/L	0.8123	ppb	17:50:22
2	Ni 231.604†	-78.3	16.0	0.2002	µg/L	0.2002	ppb	17:50:22
2	P 214.914†	39.5	66.0	15.270	µg/L	15.270	ppb	17:50:22
2	Pb 220.353†	116.5	15.4	0.9465	µg/L	0.9465	ppb	17:50:22

2	S 181.975 Axial†	86.4	-0.7	-0.6062 µg/L	-0.6062 ppb	17:50:22
2	Sb 206.836†	87.4	-0.6	-0.0687 µg/L	-0.0687 ppb	17:50:22
2	Se 196.026†	16.6	10.8	4.26 µg/L	4.26 ppb	17:50:22
2	SiO2†	1814.9	112.4	11.873 µg/L	11.873 ppb	17:50:22
2	Si 251.611†	1032.3	286.1	4.4980 µg/L	4.4980 ppb	17:50:02
2	Sn 189.927†	6.2	4.4	0.3062 µg/L	0.3062 ppb	17:50:22
2	Ti 334.940†	804.1	-2.7	-0.0052 µg/L	-0.0052 ppb	17:50:02
2	Tl 190.801†	-115.1	-3.1	-0.4225 µg/L	-0.4225 ppb	17:50:22
2	U 409.014†	-59.3	102.9	6.5032 µg/L	6.5032 ppb	17:50:02
2	V 292.402†	456.5	42.5	0.2346 µg/L	0.2346 ppb	17:50:02
2	Zn 213.857†	583.1	91.9	0.5476 µg/L	0.5476 ppb	17:50:22
3	Sc RADIAL	134475.2	134475.2	96.0 %		17:49:12
3	Al 396.153Radial†	-68.3	7.3	1.5270 µg/L	1.5270 ppb	17:49:32
3	Ca 317.933Radial†	642.5	97.9	6.6673 µg/L	6.6673 ppb	17:49:32
3	Fe 238.204 Radial†	175.2	65.3	4.8735 µg/L	4.8735 ppb	17:49:32
3	K 766.490 Radial†	1551.6	122.6	48.587 µg/L	48.587 ppb	17:49:12
3	Mg 279.077 IEC†	158.7	-7.1	-3.2881 µg/L	-3.2881 ppb	17:49:32
3	Na 589.592 Radial†	1014.0	103.8	16.051 µg/L	16.051 ppb	17:49:12
3	Sr 421.552†	-294.5	-102.3	-0.2413 µg/L	-0.2413 ppb	17:49:12
3	Sc 361.383	1774563.2	1774563.2	98.360 %		17:50:24
3	Y 371.029	1042992.5	1042992.5	98.647 %		17:50:24
3	Ag 328.068†	3769.0	-733.3	-3.0060 µg/L	-3.0060 ppb	17:50:26
3	As 188.979†	-11.8	6.6	2.2249 µg/L	2.2249 ppb	17:50:46
3	B 249.677†	4115.4	118.9	1.8488 µg/L	1.8488 ppb	17:50:26
3	Ba 233.527†	-134.5	7.8	0.0347 µg/L	0.0347 ppb	17:50:46
3	Be 313.107†	-675.6	404.9	0.1157 µg/L	0.1157 ppb	17:50:26
3	Cd 226.502†	-86.6	15.3	0.1034 µg/L	0.1034 ppb	17:50:46
3	Co 228.616†	-202.5	4.4	0.0579 µg/L	0.0579 ppb	17:50:46
3	Cr 267.716†	259.1	30.2	0.2662 µg/L	0.2662 ppb	17:50:46
3	Cu 324.752†	2853.0	-135.5	-0.5705 µg/L	-0.5705 ppb	17:50:26
3	Mn 257.610†	256.1	75.7	0.1005 µg/L	0.1005 ppb	17:50:46
3	Mo 202.031†	-24.9	13.2	0.4334 µg/L	0.4334 ppb	17:50:46
3	Ni 231.604†	-46.6	48.5	0.6071 µg/L	0.6071 ppb	17:50:46
3	P 214.914†	16.2	42.1	9.7366 µg/L	9.7366 ppb	17:50:46
3	Pb 220.353†	117.8	16.3	1.0096 µg/L	1.0096 ppb	17:50:46
3	S 181.975 Axial†	84.0	-3.5	-2.9423 µg/L	-2.9423 ppb	17:50:46
3	Sb 206.836†	100.7	12.7	1.6366 µg/L	1.6366 ppb	17:50:46
3	Se 196.026†	11.8	5.9	2.32 µg/L	2.32 ppb	17:50:46
3	SiO2†	1850.0	141.8	15.005 µg/L	15.005 ppb	17:50:46
3	Si 251.611†	1180.4	433.1	6.8256 µg/L	6.8256 ppb	17:50:26
3	Sn 189.927†	-2.9	-4.8	-0.3325 µg/L	-0.3325 ppb	17:50:46
3	Ti 334.940†	701.5	-109.8	-0.1102 µg/L	-0.1102 ppb	17:50:26
3	Tl 190.801†	-115.2	-2.8	-0.3840 µg/L	-0.3840 ppb	17:50:46
3	U 409.014†	-244.8	-85.5	-5.3851 µg/L	-5.3851 ppb	17:50:26
3	V 292.402†	456.9	41.3	0.2158 µg/L	0.2158 ppb	17:50:26
3	Zn 213.857†	571.6	78.1	0.4623 µg/L	0.4623 ppb	17:50:46

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769436.4	98.076	%	0.2617				0.27%
Sc RADIAL	134555.7	96.0	%	0.23				0.24%
Y 371.029	1040427.2	98.404	%	0.2286				0.23%
Ag 328.068†	-469.2	-1.9163	µg/L	0.94527	-1.9163	ppb	0.94527	49.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.5	0.2904	µg/L	3.68191	0.2904	ppb	3.68191	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.8	0.9469	µg/L	2.37194	0.9469	ppb	2.37194	250.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	87.8	1.3639	µg/L	0.74593	1.3639	ppb	0.74593	54.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-9.4	-0.0416	µg/L	0.07758	-0.0416	ppb	0.07758	186.50%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	490.0	0.1428	µg/L	0.02728	0.1428	ppb	0.02728	19.10%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	92.4	6.2944	µg/L	0.35430	6.2944	ppb	0.35430	5.63%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.8	0.1336	µg/L	0.11666	0.1336	ppb	0.11666	87.31%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	19.7	0.2610	µg/L	0.17696	0.2610	ppb	0.17696	67.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              47.8      0.4114 µg/L       0.12600      0.4114 ppb        0.12600  30.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -126.1     -0.5242 µg/L       0.18007     -0.5242 ppb        0.18007  34.35%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       59.1      4.4153 µg/L       0.56560      4.4153 ppb        0.56560  12.81%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       153.3      60.752 µg/L       33.6347      60.752 ppb        33.6347  55.36%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -3.1     -1.4192 µg/L       2.24445     -1.4192 ppb        2.24445 158.15%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              93.8      0.1245 µg/L       0.02244      0.1245 ppb        0.02244  18.02%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              18.1      0.5915 µg/L       0.19708      0.5915 ppb        0.19708  33.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      206.1      31.891 µg/L       13.7347      31.891 ppb        13.7347  43.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              31.3      0.3911 µg/L       0.20463      0.3911 ppb        0.20463  52.33%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               54.8      12.685 µg/L        2.7847      12.685 ppb         2.7847  21.95%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              10.0      0.6146 µg/L       0.63031      0.6146 ppb        0.63031 102.56%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.5      1.2784 µg/L       5.41492      1.2784 ppb        5.41492 423.57%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.5      0.0610 µg/L       1.51489      0.0610 ppb        1.51489 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               7.8        3.09 µg/L         1.032        3.09 ppb          1.032  33.41%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    119.9      12.679 µg/L        2.0450      12.679 ppb         2.0450  16.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              301.0      4.7384 µg/L       1.97797      4.7384 ppb        1.97797  41.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.4      0.0959 µg/L       0.37096      0.0959 ppb        0.37096 386.92%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               0.0      0.0000 µg/L       0.25223      0.0000 ppb        0.25223 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -103.3     -0.1071 µg/L       0.10034     -0.1071 ppb        0.10034  93.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -4.6     -0.6277 µg/L       0.38926     -0.6277 ppb        0.38926  62.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               45.6      2.8849 µg/L       7.18065      2.8849 ppb        7.18065 248.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               15.4      0.0895 µg/L       0.23518      0.0895 ppb        0.23518 262.66%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              94.4      0.5609 µg/L       0.10584      0.5609 ppb        0.10584  18.87%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 67
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 18:06:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136394.1	136394.1	97.4	%			18:07:15
1	Al 396.153Radial†	22987.8	23689.8	4964.0	µg/L	4964.0	ppb	18:07:15
1	Ca 317.933Radial†	73268.5	74684.0	5086.7	µg/L	5086.7	ppb	18:07:15
1	Fe 238.204 Radial†	66125.0	67801.0	5063.3	µg/L	5063.3	ppb	18:07:15
1	K 766.490 Radial†	14054.6	12942.0	5124.1	µg/L	5124.1	ppb	18:07:15
1	Mg 279.077 IEC†	10793.9	10914.2	5047.6	µg/L	5047.6	ppb	18:07:15
1	Na 589.592 Radial†	64495.2	65291.7	10116	µg/L	10116	ppb	18:07:15
1	Sr 421.552†	206872.2	212686.8	501.57	µg/L	501.57	ppb	18:07:13
1	Sc 361.383	1766323.1	1766323.1	97.903	%			18:07:42
1	Y 371.029	1026973.5	1026973.5	97.132	%			18:07:42
1	Ag 328.068†	124270.6	122366.9	507.21	µg/L	507.21	ppb	18:07:42
1	As 188.979†	1316.8	1363.5	468.52	µg/L	468.52	ppb	18:08:02
1	B 249.677†	35468.3	32162.8	498.42	µg/L	498.42	ppb	18:07:42
1	Ba 233.527†	109987.7	112487.9	500.41	µg/L	500.41	ppb	18:07:42
1	Be 313.107†	1655374.0	1691919.3	490.25	µg/L	490.25	ppb	18:07:42
1	Cd 226.502†	72949.9	74615.7	503.99	µg/L	503.99	ppb	18:07:42
1	Co 228.616†	37482.4	38495.5	509.53	µg/L	509.53	ppb	18:07:42
1	Cr 267.716†	57279.8	58273.3	504.00	µg/L	504.00	ppb	18:07:42
1	Cu 324.752†	120286.3	119826.4	502.75	µg/L	502.75	ppb	18:07:42
1	Mn 257.610†	372603.3	380398.8	504.40	µg/L	504.40	ppb	18:07:42
1	Mo 202.031†	15143.9	15506.8	507.59	µg/L	507.59	ppb	18:08:02
1	Ni 231.604†	39556.1	40499.1	506.69	µg/L	506.69	ppb	18:07:42
1	P 214.914†	10644.4	10898.0	2512.3	µg/L	2512.3	ppb	18:08:02
1	Pb 220.353†	8182.2	8253.9	509.51	µg/L	509.51	ppb	18:08:02
1	S 181.975 Axial†	1266.8	1205.0	1018.0	µg/L	1018.0	ppb	18:08:02
1	Sb 206.836†	3900.1	3893.9	503.29	µg/L	503.29	ppb	18:08:02
1	Se 196.026†	1252.3	1273.0	504	µg/L	504	ppb	18:08:02
1	SiO2†	51188.8	50546.0	5331.0	µg/L	5331.0	ppb	18:07:42
1	Si 251.611†	156782.1	159372.9	2503.1	µg/L	2503.1	ppb	18:07:42
1	Sn 189.927†	7056.3	7205.6	501.49	µg/L	501.49	ppb	18:08:02
1	Ti 334.940†	478085.6	487501.9	500.06	µg/L	500.06	ppb	18:07:42
1	Tl 190.801†	3512.0	3701.5	512.96	µg/L	512.96	ppb	18:08:02
1	U 409.014†	7091.3	7406.5	498.04	µg/L	498.04	ppb	18:07:42
1	V 292.402†	95269.6	96886.8	508.89	µg/L	508.89	ppb	18:07:42
1	Zn 213.857†	83615.2	84903.0	503.03	µg/L	503.03	ppb	18:07:42
2	Sc RADIAL	135310.2	135310.2	96.6	%			18:07:19
2	Al 396.153Radial†	22795.2	23679.5	4962.0	µg/L	4962.0	ppb	18:07:19
2	Ca 317.933Radial†	72531.5	74523.8	5075.7	µg/L	5075.7	ppb	18:07:19
2	Fe 238.204 Radial†	65507.1	67705.2	5056.2	µg/L	5056.2	ppb	18:07:19
2	K 766.490 Radial†	13898.7	12896.2	5106.0	µg/L	5106.0	ppb	18:07:19
2	Mg 279.077 IEC†	10779.2	10987.8	5081.5	µg/L	5081.5	ppb	18:07:19
2	Na 589.592 Radial†	63981.6	65290.6	10116	µg/L	10116	ppb	18:07:19
2	Sr 421.552†	206018.3	213504.9	503.50	µg/L	503.50	ppb	18:07:17
2	Sc 361.383	1765801.1	1765801.1	97.874	%			18:08:05
2	Y 371.029	1026767.3	1026767.3	97.112	%			18:08:05
2	Ag 328.068†	124519.8	122659.1	508.43	µg/L	508.43	ppb	18:08:05
2	As 188.979†	1298.5	1345.2	462.34	µg/L	462.34	ppb	18:08:25
2	B 249.677†	35512.3	32218.5	499.28	µg/L	499.28	ppb	18:08:05
2	Ba 233.527†	110155.8	112692.8	501.32	µg/L	501.32	ppb	18:08:05
2	Be 313.107†	1658146.0	1695251.3	491.21	µg/L	491.21	ppb	18:08:05
2	Cd 226.502†	73670.7	75374.1	509.12	µg/L	509.12	ppb	18:08:05
2	Co 228.616†	37539.8	38565.4	510.46	µg/L	510.46	ppb	18:08:05
2	Cr 267.716†	57466.4	58481.3	505.81	µg/L	505.81	ppb	18:08:05
2	Cu 324.752†	120521.2	120102.8	503.91	µg/L	503.91	ppb	18:08:05
2	Mn 257.610†	373384.7	381309.6	505.61	µg/L	505.61	ppb	18:08:05
2	Mo 202.031†	15054.8	15420.4	504.77	µg/L	504.77	ppb	18:08:25
2	Ni 231.604†	39851.8	40813.2	510.62	µg/L	510.62	ppb	18:08:05
2	P 214.914†	10608.3	10864.4	2504.5	µg/L	2504.5	ppb	18:08:25
2	Pb 220.353†	8182.3	8256.5	509.67	µg/L	509.67	ppb	18:08:25

2	S 181.975 Axial†	1256.5	1194.9	1009.5 µg/L	1009.5 ppb	18:08:25
2	Sb 206.836†	3885.0	3879.6	501.38 µg/L	501.38 ppb	18:08:25
2	Se 196.026†	1259.6	1280.8	507 µg/L	507 ppb	18:08:25
2	SiO2†	51337.7	50713.6	5348.9 µg/L	5348.9 ppb	18:08:05
2	Si 251.611†	157322.7	159972.6	2512.6 µg/L	2512.6 ppb	18:08:05
2	Sn 189.927†	7018.8	7169.4	498.98 µg/L	498.98 ppb	18:08:25
2	Ti 334.940†	478419.7	487987.5	500.56 µg/L	500.56 ppb	18:08:05
2	Tl 190.801†	3492.0	3682.1	510.34 µg/L	510.34 ppb	18:08:25
2	U 409.014†	7000.1	7315.5	492.42 µg/L	492.42 ppb	18:08:05
2	V 292.402†	95613.8	97267.2	510.84 µg/L	510.84 ppb	18:08:05
2	Zn 213.857†	84056.6	85379.2	505.85 µg/L	505.85 ppb	18:08:05
3	Sc RADIAL	137160.1	137160.1	97.9 %		18:07:23
3	Al 396.153Radial†	23074.7	23646.6	4955.1 µg/L	4955.1 ppb	18:07:23
3	Ca 317.933Radial†	73931.0	74940.4	5104.1 µg/L	5104.1 ppb	18:07:23
3	Fe 238.204 Radial†	66368.9	67670.8	5053.6 µg/L	5053.6 ppb	18:07:23
3	K 766.490 Radial†	14090.7	12898.2	5106.8 µg/L	5106.8 ppb	18:07:23
3	Mg 279.077 IEC†	10843.7	10903.1	5042.3 µg/L	5042.3 ppb	18:07:23
3	Na 589.592 Radial†	64747.0	65179.0	10099 µg/L	10099 ppb	18:07:23
3	Sr 421.552†	205933.6	210541.5	496.51 µg/L	496.51 ppb	18:07:21
3	Sc 361.383	1778994.9	1778994.9	98.606 %		18:08:28
3	Y 371.029	1032929.3	1032929.3	97.695 %		18:08:28
3	Ag 328.068†	125382.7	122590.7	508.17 µg/L	508.17 ppb	18:08:28
3	As 188.979†	1309.2	1346.2	462.68 µg/L	462.68 ppb	18:08:48
3	B 249.677†	35810.2	32251.5	499.79 µg/L	499.79 ppb	18:08:28
3	Ba 233.527†	110717.4	112427.7	500.14 µg/L	500.14 ppb	18:08:28
3	Be 313.107†	1674694.5	1699469.2	492.44 µg/L	492.44 ppb	18:08:28
3	Cd 226.502†	74328.2	75482.7	509.86 µg/L	509.86 ppb	18:08:28
3	Co 228.616†	37914.5	38661.0	511.72 µg/L	511.72 ppb	18:08:28
3	Cr 267.716†	57971.4	58558.0	506.46 µg/L	506.46 ppb	18:08:28
3	Cu 324.752†	121682.2	120366.8	505.02 µg/L	505.02 ppb	18:08:28
3	Mn 257.610†	376442.8	381581.6	505.97 µg/L	505.97 ppb	18:08:28
3	Mo 202.031†	15114.3	15366.6	503.01 µg/L	503.01 ppb	18:08:48
3	Ni 231.604†	40077.7	40740.4	509.71 µg/L	509.71 ppb	18:08:28
3	P 214.914†	10666.8	10843.3	2499.6 µg/L	2499.6 ppb	18:08:48
3	Pb 220.353†	8212.7	8225.4	507.74 µg/L	507.74 ppb	18:08:48
3	S 181.975 Axial†	1271.4	1200.4	1014.1 µg/L	1014.1 ppb	18:08:48
3	Sb 206.836†	3893.9	3859.3	498.73 µg/L	498.73 ppb	18:08:48
3	Se 196.026†	1259.5	1271.2	503 µg/L	503 ppb	18:08:48
3	SiO2†	51917.2	50912.3	5370.0 µg/L	5370.0 ppb	18:08:28
3	Si 251.611†	158906.8	160387.0	2519.1 µg/L	2519.1 ppb	18:08:28
3	Sn 189.927†	7059.4	7157.3	498.15 µg/L	498.15 ppb	18:08:48
3	Ti 334.940†	482379.9	488378.5	500.96 µg/L	500.96 ppb	18:08:28
3	Tl 190.801†	3488.1	3651.7	506.19 µg/L	506.19 ppb	18:08:48
3	U 409.014†	7316.3	7583.2	509.35 µg/L	509.35 ppb	18:08:28
3	V 292.402†	96456.1	97396.9	511.50 µg/L	511.50 ppb	18:08:28
3	Zn 213.857†	84721.6	85416.7	506.07 µg/L	506.07 ppb	18:08:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1770373.0	98.128	%	0.4141				0.42%
Sc RADIAL	136288.1	97.3	%	0.66				0.68%
Y 371.029	1028890.0	97.313	%	0.3310				0.34%
Ag 328.068†	122538.9	507.94	µg/L	0.640	507.94	ppb	0.640	0.13%
QC value within limits for Ag 328.068 Recovery = 101.59%								
Al 396.153Radial†	23672.0	4960.4	µg/L	4.65	4960.4	ppb	4.65	0.09%
QC value within limits for Al 396.153Radial Recovery = 99.21%								
As 188.979†	1351.7	464.51	µg/L	3.477	464.51	ppb	3.477	0.75%
QC value within limits for As 188.979 Recovery = 92.90%								
B 249.677†	32210.9	499.16	µg/L	0.694	499.16	ppb	0.694	0.14%
QC value within limits for B 249.677 Recovery = 99.83%								
Ba 233.527†	112536.1	500.62	µg/L	0.618	500.62	ppb	0.618	0.12%
QC value within limits for Ba 233.527 Recovery = 100.12%								
Be 313.107†	1695546.6	491.30	µg/L	1.098	491.30	ppb	1.098	0.22%
QC value within limits for Be 313.107 Recovery = 98.26%								
Ca 317.933Radial†	74716.1	5088.8	µg/L	14.31	5088.8	ppb	14.31	0.28%
QC value within limits for Ca 317.933Radial Recovery = 101.78%								
Cd 226.502†	75157.5	507.66	µg/L	3.194	507.66	ppb	3.194	0.63%
QC value within limits for Cd 226.502 Recovery = 101.53%								
Co 228.616†	38573.9	510.57	µg/L	1.099	510.57	ppb	1.099	0.22%

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   QC value within limits for Co 228.616  Recovery = 102.11%
Cr 267.716†            58437.5      505.42 µg/L         1.272      505.42 ppb          1.272   0.25%
   QC value within limits for Cr 267.716  Recovery = 101.08%
Cu 324.752†           120098.7      503.89 µg/L         1.135      503.89 ppb          1.135   0.23%
   QC value within limits for Cu 324.752  Recovery = 100.78%
Fe 238.204 Radial†     67725.7      5057.7 µg/L          5.04      5057.7 ppb           5.04   0.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.15%
K 766.490 Radial†      12912.1      5112.3 µg/L         10.24      5112.3 ppb          10.24   0.20%
   QC value within limits for K 766.490 Radial  Recovery = 102.25%
Mg 279.077 IEC†        10935.0      5057.1 µg/L         21.25      5057.1 ppb          21.25   0.42%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.14%
Mn 257.610†           381096.7      505.33 µg/L         0.822      505.33 ppb          0.822   0.16%
   QC value within limits for Mn 257.610  Recovery = 101.07%
Mo 202.031†            15431.3      505.12 µg/L         2.313      505.12 ppb          2.313   0.46%
   QC value within limits for Mo 202.031  Recovery = 101.02%
Na 589.592 Radial†     65253.8       10110 µg/L          10.0       10110 ppb           10.0   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 101.10%
Ni 231.604†            40684.2      509.01 µg/L         2.057      509.01 ppb          2.057   0.40%
   QC value within limits for Ni 231.604  Recovery = 101.80%
P 214.914†             10868.6      2505.5 µg/L          6.38      2505.5 ppb           6.38   0.25%
   QC value within limits for P 214.914  Recovery = 100.22%
Pb 220.353†             8245.3      508.97 µg/L         1.074      508.97 ppb          1.074   0.21%
   QC value within limits for Pb 220.353  Recovery = 101.79%
S 181.975 Axial†        1200.1      1013.9 µg/L          4.26      1013.9 ppb           4.26   0.42%
   QC value within limits for S 181.975 Axial  Recovery = 101.39%
Sb 206.836†             3877.6      501.13 µg/L         2.293      501.13 ppb          2.293   0.46%
   QC value within limits for Sb 206.836  Recovery = 100.23%
Se 196.026†             1275.0         505 µg/L           2.0         505 ppb            2.0   0.40%
   QC value within limits for Se 196.026  Recovery = 100.90%
SiO2†                  50724.0      5350.0 µg/L         19.50      5350.0 ppb          19.50   0.36%
   QC value within limits for SiO2  Recovery = 100.05%
Si 251.611†           159910.8      2511.6 µg/L          8.08      2511.6 ppb           8.08   0.32%
   QC value within limits for Si 251.611  Recovery = 100.46%
Sn 189.927†             7177.4      499.54 µg/L         1.739      499.54 ppb          1.739   0.35%
   QC value within limits for Sn 189.927  Recovery = 99.91%
Sr 421.552†           212244.4      500.53 µg/L         3.610      500.53 ppb          3.610   0.72%
   QC value within limits for Sr 421.552  Recovery = 100.11%
Ti 334.940†           487956.0      500.53 µg/L         0.449      500.53 ppb          0.449   0.09%
   QC value within limits for Ti 334.940  Recovery = 100.11%
Tl 190.801†             3678.4      509.83 µg/L         3.415      509.83 ppb          3.415   0.67%
   QC value within limits for Tl 190.801  Recovery = 101.97%
U 409.014†              7435.1      499.94 µg/L         8.623      499.94 ppb          8.623   1.72%
   QC value within limits for U 409.014  Recovery = 99.99%
V 292.402†             97183.6      510.41 µg/L         1.359      510.41 ppb          1.359   0.27%
   QC value within limits for V 292.402  Recovery = 102.08%
Zn 213.857†            85233.0      504.98 µg/L         1.697      504.98 ppb          1.697   0.34%
   QC value within limits for Zn 213.857  Recovery = 101.00%
All analyte(s) passed QC.
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Sequence No.: 68
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 18:08:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	133722.8	133722.8	95.5	%			18:09:26
1	Al 396.153Radial†	-52.2	23.8	4.9924	µg/L	4.9924	ppb	18:09:46
1	Ca 317.933Radial†	744.0	208.0	14.169	µg/L	14.169	ppb	18:09:46
1	Fe 238.204 Radial†	288.3	184.7	13.793	µg/L	13.793	ppb	18:09:46
1	K 766.490 Radial†	1625.4	209.0	82.821	µg/L	82.821	ppb	18:09:26
1	Mg 279.077 IEC†	186.3	22.8	10.509	µg/L	10.509	ppb	18:09:46
1	Na 589.592 Radial†	1152.2	254.6	39.393	µg/L	39.393	ppb	18:09:26
1	Sr 421.552†	-128.5	69.8	0.1646	µg/L	0.1646	ppb	18:09:26
1	Sc 361.383	1778030.7	1778030.7	98.552	%			18:10:48
1	Y 371.029	1044738.8	1044738.8	98.812	%			18:10:48
1	Ag 328.068†	4052.1	-453.5	-1.8528	µg/L	-1.8528	ppb	18:10:50
1	As 188.979†	-12.0	6.4	2.1804	µg/L	2.1804	ppb	18:11:10
1	B 249.677†	4012.4	6.2	0.0966	µg/L	0.0966	ppb	18:10:50
1	Ba 233.527†	-152.7	-10.4	-0.0461	µg/L	-0.0461	ppb	18:11:10
1	Be 313.107†	-890.1	188.5	0.0560	µg/L	0.0560	ppb	18:10:50
1	Cd 226.502†	-58.3	44.2	0.2977	µg/L	0.2977	ppb	18:11:10
1	Co 228.616†	-205.4	1.8	0.0237	µg/L	0.0237	ppb	18:11:10
1	Cr 267.716†	279.9	50.8	0.4364	µg/L	0.4364	ppb	18:11:10
1	Cu 324.752†	2817.2	-177.5	-0.7364	µg/L	-0.7364	ppb	18:10:50
1	Mn 257.610†	377.9	198.7	0.2632	µg/L	0.2632	ppb	18:11:10
1	Mo 202.031†	-19.5	18.8	0.6151	µg/L	0.6151	ppb	18:11:10
1	Ni 231.604†	-44.8	50.4	0.6310	µg/L	0.6310	ppb	18:11:10
1	P 214.914†	32.9	59.1	13.675	µg/L	13.675	ppb	18:11:10
1	Pb 220.353†	83.1	-19.2	-1.1810	µg/L	-1.1810	ppb	18:11:10
1	S 181.975 Axial†	96.1	8.6	7.2279	µg/L	7.2279	ppb	18:11:10
1	Sb 206.836†	87.4	-1.1	-0.1363	µg/L	-0.1363	ppb	18:11:10
1	Se 196.026†	15.8	9.9	3.92	µg/L	3.92	ppb	18:11:10
1	SiO2†	1758.6	45.3	4.7759	µg/L	4.7759	ppb	18:11:10
1	Si 251.611†	1033.3	281.5	4.4266	µg/L	4.4266	ppb	18:10:50
1	Sn 189.927†	10.7	9.0	0.6207	µg/L	0.6207	ppb	18:11:10
1	Ti 334.940†	741.0	-71.1	-0.0755	µg/L	-0.0755	ppb	18:10:50
1	Tl 190.801†	-115.3	-2.7	-0.3740	µg/L	-0.3740	ppb	18:11:10
1	U 409.014†	-89.2	72.9	4.5906	µg/L	4.5906	ppb	18:10:50
1	V 292.402†	390.7	-26.8	-0.1288	µg/L	-0.1288	ppb	18:10:50
1	Zn 213.857†	601.3	107.1	0.6347	µg/L	0.6347	ppb	18:11:10
2	Sc RADIAL	136069.9	136069.9	97.1	%			18:09:48
2	Al 396.153Radial†	-56.4	20.4	4.2585	µg/L	4.2585	ppb	18:10:08
2	Ca 317.933Radial†	705.4	154.9	10.547	µg/L	10.547	ppb	18:10:08
2	Fe 238.204 Radial†	184.1	72.3	5.3957	µg/L	5.3957	ppb	18:10:08
2	K 766.490 Radial†	1642.3	197.0	78.060	µg/L	78.060	ppb	18:09:48
2	Mg 279.077 IEC†	182.4	15.4	7.1148	µg/L	7.1148	ppb	18:10:08
2	Na 589.592 Radial†	1092.5	172.3	26.644	µg/L	26.644	ppb	18:09:48
2	Sr 421.552†	-196.9	1.8	0.0041	µg/L	0.0041	ppb	18:09:48
2	Sc 361.383	1779206.7	1779206.7	98.617	%			18:11:12
2	Y 371.029	1045410.7	1045410.7	98.876	%			18:11:12
2	Ag 328.068†	4031.3	-477.3	-1.9627	µg/L	-1.9627	ppb	18:11:14
2	As 188.979†	-7.8	10.6	3.5919	µg/L	3.5919	ppb	18:11:35
2	B 249.677†	4069.5	61.4	0.9539	µg/L	0.9539	ppb	18:11:14
2	Ba 233.527†	-163.1	-20.8	-0.0922	µg/L	-0.0922	ppb	18:11:35
2	Be 313.107†	-743.1	338.2	0.0955	µg/L	0.0955	ppb	18:11:14
2	Cd 226.502†	-86.3	15.9	0.1072	µg/L	0.1072	ppb	18:11:35
2	Co 228.616†	-184.7	23.0	0.3037	µg/L	0.3037	ppb	18:11:35
2	Cr 267.716†	233.3	3.3	0.0353	µg/L	0.0353	ppb	18:11:35
2	Cu 324.752†	2907.8	-87.6	-0.3718	µg/L	-0.3718	ppb	18:11:14
2	Mn 257.610†	302.0	121.5	0.1609	µg/L	0.1609	ppb	18:11:35
2	Mo 202.031†	-9.7	28.8	0.9415	µg/L	0.9415	ppb	18:11:35
2	Ni 231.604†	-31.2	64.3	0.8043	µg/L	0.8043	ppb	18:11:35
2	P 214.914†	11.2	37.0	8.5575	µg/L	8.5575	ppb	18:11:35
2	Pb 220.353†	106.9	4.9	0.3127	µg/L	0.3127	ppb	18:11:35

2	S 181.975 Axial†	92.3	4.6	3.8973 µg/L	3.8973 ppb	18:11:35
2	Sb 206.836†	98.2	9.8	1.2831 µg/L	1.2831 ppb	18:11:35
2	Se 196.026†	21.2	15.4	6.04 µg/L	6.04 ppb	18:11:35
2	SiO2†	1751.2	36.6	3.8434 µg/L	3.8434 ppb	18:11:35
2	Si 251.611†	1032.8	280.3	4.4022 µg/L	4.4022 ppb	18:11:14
2	Sn 189.927†	11.5	9.8	0.6801 µg/L	0.6801 ppb	18:11:35
2	Ti 334.940†	612.8	-201.6	-0.2041 µg/L	-0.2041 ppb	18:11:14
2	Tl 190.801†	-106.9	5.9	0.8054 µg/L	0.8054 ppb	18:11:35
2	U 409.014†	-287.8	-128.5	-8.0994 µg/L	-8.0994 ppb	18:11:14
2	V 292.402†	439.1	22.0	0.1180 µg/L	0.1180 ppb	18:11:14
2	Zn 213.857†	569.4	74.4	0.4383 µg/L	0.4383 ppb	18:11:35
3	Sc RADIAL	134675.6	134675.6	96.1 %		18:10:10
3	Al 396.153Radial†	-89.5	-14.6	-3.1218 µg/L	-3.1218 ppb	18:10:30
3	Ca 317.933Radial†	696.8	153.4	10.450 µg/L	10.450 ppb	18:10:30
3	Fe 238.204 Radial†	169.0	58.5	4.3659 µg/L	4.3659 ppb	18:10:30
3	K 766.490 Radial†	1640.4	212.6	84.240 µg/L	84.240 ppb	18:10:10
3	Mg 279.077 IEC†	154.5	-11.8	-5.4065 µg/L	-5.4065 ppb	18:10:30
3	Na 589.592 Radial†	1155.2	249.2	38.546 µg/L	38.546 ppb	18:10:10
3	Sr 421.552†	-187.9	9.0	0.0211 µg/L	0.0211 ppb	18:10:10
3	Sc 361.383	1758106.9	1758106.9	97.448 %		18:11:37
3	Y 371.029	1032777.2	1032777.2	97.681 %		18:11:37
3	Ag 328.068†	4186.1	-269.4	-1.1172 µg/L	-1.1172 ppb	18:11:39
3	As 188.979†	-15.6	2.5	0.8706 µg/L	0.8706 ppb	18:11:59
3	B 249.677†	4047.9	88.8	1.3799 µg/L	1.3799 ppb	18:11:39
3	Ba 233.527†	-151.3	-10.7	-0.0481 µg/L	-0.0481 ppb	18:11:59
3	Be 313.107†	-672.1	402.1	0.1162 µg/L	0.1162 ppb	18:11:39
3	Cd 226.502†	-76.6	24.8	0.1670 µg/L	0.1670 ppb	18:11:59
3	Co 228.616†	-189.4	16.0	0.2112 µg/L	0.2112 ppb	18:11:59
3	Cr 267.716†	288.5	62.8	0.5439 µg/L	0.5439 ppb	18:11:59
3	Cu 324.752†	2906.5	-53.5	-0.2240 µg/L	-0.2240 ppb	18:11:39
3	Mn 257.610†	344.7	169.0	0.2244 µg/L	0.2244 ppb	18:11:59
3	Mo 202.031†	-4.7	33.7	1.1020 µg/L	1.1020 ppb	18:11:59
3	Ni 231.604†	-62.0	32.3	0.4038 µg/L	0.4038 ppb	18:11:59
3	P 214.914†	13.2	39.2	9.0657 µg/L	9.0657 ppb	18:11:59
3	Pb 220.353†	112.4	11.9	0.7373 µg/L	0.7373 ppb	18:11:59
3	S 181.975 Axial†	91.0	4.4	3.7425 µg/L	3.7425 ppb	18:11:59
3	Sb 206.836†	87.9	0.4	0.0630 µg/L	0.0630 ppb	18:11:59
3	Se 196.026†	3.5	-2.6	-1.02 µg/L	-1.02 ppb	18:11:59
3	SiO2†	1799.1	107.1	11.312 µg/L	11.312 ppb	18:11:59
3	Si 251.611†	1031.5	291.5	4.5807 µg/L	4.5807 ppb	18:11:39
3	Sn 189.927†	4.5	2.7	0.1895 µg/L	0.1895 ppb	18:11:59
3	Ti 334.940†	696.5	-108.3	-0.1103 µg/L	-0.1103 ppb	18:11:39
3	Tl 190.801†	-129.5	-18.6	-2.5506 µg/L	-2.5506 ppb	18:11:59
3	U 409.014†	-174.9	-16.2	-1.0824 µg/L	-1.0824 ppb	18:11:39
3	V 292.402†	207.6	-210.1	-1.0764 µg/L	-1.0764 ppb	18:11:39
3	Zn 213.857†	573.7	85.8	0.5090 µg/L	0.5090 ppb	18:11:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1771781.5	98.206	%	0.6572				0.67%
Sc RADIAL	134822.7	96.2	%	0.84				0.88%
Y 371.029	1040975.5	98.456	%	0.6723				0.68%
Ag 328.068†	-400.1	-1.6442	µg/L	0.45972	-1.6442	ppb	0.45972	27.96%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.9	2.0430	µg/L	4.48787	2.0430	ppb	4.48787	219.67%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.5	2.2143	µg/L	1.36095	2.2143	ppb	1.36095	61.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	52.1	0.8101	µg/L	0.65360	0.8101	ppb	0.65360	80.68%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-14.0	-0.0622	µg/L	0.02607	-0.0622	ppb	0.02607	41.94%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	309.6	0.0892	µg/L	0.03057	0.0892	ppb	0.03057	34.26%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	172.1	11.722	µg/L	2.1195	11.722	ppb	2.1195	18.08%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	28.3	0.1906	µg/L	0.09742	0.1906	ppb	0.09742	51.10%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	13.6	0.1795	µg/L	0.14266	0.1795	ppb	0.14266	79.46%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              39.0      0.3385 µg/L       0.26802      0.3385 ppb        0.26802  79.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -106.2     -0.4440 µg/L       0.26375     -0.4440 ppb        0.26375  59.40%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      105.1      7.8515 µg/L       5.17108      7.8515 ppb        5.17108  65.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       206.2      81.707 µg/L        3.2371      81.707 ppb         3.2371   3.96%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           8.8      4.0725 µg/L       8.38269      4.0725 ppb        8.38269 205.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             163.1      0.2162 µg/L       0.05162      0.2162 ppb        0.05162  23.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              27.1      0.8862 µg/L       0.24812      0.8862 ppb        0.24812  28.00%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      225.4      34.861 µg/L        7.1288      34.861 ppb         7.1288  20.45%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              49.0      0.6130 µg/L       0.20083      0.6130 ppb        0.20083  32.76%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               45.1      10.433 µg/L        2.8191      10.433 ppb         2.8191  27.02%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -0.8     -0.0436 µg/L       1.00762     -0.0436 ppb        1.00762 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          5.9      4.9559 µg/L       1.96912      4.9559 ppb        1.96912  39.73%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.1      0.4033 µg/L       0.76844      0.4033 ppb        0.76844 190.53%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               7.6        2.98 µg/L         3.624        2.98 ppb          3.624 121.57%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    63.0      6.6438 µg/L       4.06962      6.6438 ppb        4.06962  61.25%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             284.4      4.4699 µg/L       0.09678      4.4699 ppb        0.09678   2.17%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.2      0.4968 µg/L       0.26777      0.4968 ppb        0.26777  53.90%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              26.9      0.0633 µg/L       0.08813      0.0633 ppb        0.08813 139.29%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -127.0     -0.1300 µg/L       0.06648     -0.1300 ppb        0.06648  51.15%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -5.1     -0.7064 µg/L       1.70252     -0.7064 ppb        1.70252 241.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -23.9     -1.5304 µg/L       6.35683     -1.5304 ppb        6.35683 415.37%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -71.6     -0.3624 µg/L       0.63058     -0.3624 ppb        0.63058 174.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              89.1      0.5274 µg/L       0.09946      0.5274 ppb        0.09946  18.86%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 76
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 18:27:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136282.7	136282.7	97.3	%			18:27:41
1	Al 396.153Radial†	23227.3	23955.3	5019.7	µg/L	5019.7	ppb	18:27:41
1	Ca 317.933Radial†	73360.9	74840.5	5097.3	µg/L	5097.3	ppb	18:27:41
1	Fe 238.204 Radial†	66185.3	67918.5	5072.1	µg/L	5072.1	ppb	18:27:41
1	K 766.490 Radial†	14066.8	12966.3	5133.7	µg/L	5133.7	ppb	18:27:41
1	Mg 279.077 IEC†	10872.5	11004.0	5089.1	µg/L	5089.1	ppb	18:27:41
1	Na 589.592 Radial†	64606.2	65460.0	10142	µg/L	10142	ppb	18:27:41
1	Sr 421.552†	209191.2	215244.4	507.61	µg/L	507.61	ppb	18:27:39
1	Sc 361.383	1764512.2	1764512.2	97.803	%			18:28:08
1	Y 371.029	1025160.9	1025160.9	96.961	%			18:28:08
1	Ag 328.068†	124339.7	122567.9	508.06	µg/L	508.06	ppb	18:28:08
1	As 188.979†	1321.2	1369.4	470.52	µg/L	470.52	ppb	18:28:28
1	B 249.677†	35174.1	31899.2	494.32	µg/L	494.32	ppb	18:28:08
1	Ba 233.527†	109584.9	112191.3	499.09	µg/L	499.09	ppb	18:28:08
1	Be 313.107†	1656005.2	1694299.8	490.94	µg/L	490.94	ppb	18:28:08
1	Cd 226.502†	72678.3	74414.4	502.63	µg/L	502.63	ppb	18:28:08
1	Co 228.616†	37344.5	38393.8	508.18	µg/L	508.18	ppb	18:28:08
1	Cr 267.716†	57209.2	58261.2	503.88	µg/L	503.88	ppb	18:28:08
1	Cu 324.752†	120525.0	120196.5	504.32	µg/L	504.32	ppb	18:28:08
1	Mn 257.610†	372156.2	380332.2	504.31	µg/L	504.31	ppb	18:28:08
1	Mo 202.031†	15228.1	15608.8	510.93	µg/L	510.93	ppb	18:28:28
1	Ni 231.604†	39343.1	40322.8	504.49	µg/L	504.49	ppb	18:28:08
1	P 214.914†	10694.4	10960.4	2526.7	µg/L	2526.7	ppb	18:28:28
1	Pb 220.353†	8225.2	8306.5	512.75	µg/L	512.75	ppb	18:28:28
1	S 181.975 Axial†	1273.4	1213.1	1024.8	µg/L	1024.8	ppb	18:28:28
1	Sb 206.836†	3935.5	3934.2	508.53	µg/L	508.53	ppb	18:28:28
1	Se 196.026†	1276.7	1299.2	514	µg/L	514	ppb	18:28:28
1	SiO2†	50826.2	50228.9	5297.3	µg/L	5297.3	ppb	18:28:08
1	Si 251.611†	156645.3	159397.3	2503.4	µg/L	2503.4	ppb	18:28:08
1	Sn 189.927†	7066.2	7223.0	502.71	µg/L	502.71	ppb	18:28:28
1	Ti 334.940†	479114.5	489055.0	501.65	µg/L	501.65	ppb	18:28:08
1	Tl 190.801†	3526.7	3720.2	515.54	µg/L	515.54	ppb	18:28:28
1	U 409.014†	7387.8	7717.2	517.62	µg/L	517.62	ppb	18:28:08
1	V 292.402†	95105.7	96819.1	508.58	µg/L	508.58	ppb	18:28:08
1	Zn 213.857†	83166.1	84531.4	500.82	µg/L	500.82	ppb	18:28:08
2	Sc RADIAL	136082.5	136082.5	97.1	%			18:27:45
2	Al 396.153Radial†	23114.4	23874.2	5003.1	µg/L	5003.1	ppb	18:27:45
2	Ca 317.933Radial†	73168.7	74753.6	5091.4	µg/L	5091.4	ppb	18:27:45
2	Fe 238.204 Radial†	66111.5	67942.6	5073.9	µg/L	5073.9	ppb	18:27:45
2	K 766.490 Radial†	14174.6	13098.5	5186.1	µg/L	5186.1	ppb	18:27:45
2	Mg 279.077 IEC†	10888.1	11036.5	5103.9	µg/L	5103.9	ppb	18:27:45
2	Na 589.592 Radial†	64608.1	65559.6	10158	µg/L	10158	ppb	18:27:45
2	Sr 421.552†	209582.5	215963.5	509.30	µg/L	509.30	ppb	18:27:43
2	Sc 361.383	1776828.5	1776828.5	98.485	%			18:28:31
2	Y 371.029	1031941.7	1031941.7	97.602	%			18:28:31
2	Ag 328.068†	125135.1	122494.3	507.75	µg/L	507.75	ppb	18:28:31
2	As 188.979†	1294.9	1333.4	458.33	µg/L	458.33	ppb	18:28:51
2	B 249.677†	35720.5	32204.7	499.07	µg/L	499.07	ppb	18:28:31
2	Ba 233.527†	110544.6	112389.1	499.97	µg/L	499.97	ppb	18:28:31
2	Be 313.107†	1674070.9	1700906.7	492.85	µg/L	492.85	ppb	18:28:31
2	Cd 226.502†	73715.0	74952.0	506.27	µg/L	506.27	ppb	18:28:31
2	Co 228.616†	37739.7	38530.3	509.99	µg/L	509.99	ppb	18:28:31
2	Cr 267.716†	57791.4	58446.9	505.50	µg/L	505.50	ppb	18:28:31
2	Cu 324.752†	121475.8	120307.7	504.77	µg/L	504.77	ppb	18:28:31
2	Mn 257.610†	375998.4	381595.8	505.99	µg/L	505.99	ppb	18:28:31
2	Mo 202.031†	15048.4	15318.4	501.43	µg/L	501.43	ppb	18:28:51
2	Ni 231.604†	39907.1	40616.7	508.17	µg/L	508.17	ppb	18:28:31
2	P 214.914†	10582.5	10771.0	2482.9	µg/L	2482.9	ppb	18:28:51
2	Pb 220.353†	8157.9	8179.9	504.94	µg/L	504.94	ppb	18:28:51

2	S 181.975 Axial†	1263.7	1194.2	1008.8 µg/L	1008.8 ppb	18:28:51
2	Sb 206.836†	3876.3	3846.2	497.02 µg/L	497.02 ppb	18:28:51
2	Se 196.026†	1259.5	1272.7	504 µg/L	504 ppb	18:28:51
2	SiO2†	51777.5	50834.6	5361.9 µg/L	5361.9 ppb	18:28:31
2	Si 251.611†	158334.4	160002.2	2513.1 µg/L	2513.1 ppb	18:28:31
2	Sn 189.927†	6989.8	7095.4	493.86 µg/L	493.86 ppb	18:28:51
2	Ti 334.940†	482647.5	489246.7	501.85 µg/L	501.85 ppb	18:28:31
2	Tl 190.801†	3471.3	3639.0	504.46 µg/L	504.46 ppb	18:28:51
2	U 409.014†	7142.9	7416.1	498.74 µg/L	498.74 ppb	18:28:31
2	V 292.402†	96116.1	97171.0	510.30 µg/L	510.30 ppb	18:28:31
2	Zn 213.857†	84305.2	85098.7	504.18 µg/L	504.18 ppb	18:28:31
3	Sc RADIAL	137251.0	137251.0	98.0 %		18:27:49
3	Al 396.153Radial†	23296.1	23857.1	4999.2 µg/L	4999.2 ppb	18:27:49
3	Ca 317.933Radial†	74063.7	75025.9	5109.9 µg/L	5109.9 ppb	18:27:49
3	Fe 238.204 Radial†	66829.7	68096.2	5085.4 µg/L	5085.4 ppb	18:27:49
3	K 766.490 Radial†	14304.3	13106.7	5189.4 µg/L	5189.4 ppb	18:27:49
3	Mg 279.077 IEC†	11062.8	11119.4	5142.3 µg/L	5142.3 ppb	18:27:49
3	Na 589.592 Radial†	64928.0	65319.9	10120 µg/L	10120 ppb	18:27:49
3	Sr 421.552†	209203.9	213740.2	504.06 µg/L	504.06 ppb	18:27:47
3	Sc 361.383	1766461.2	1766461.2	97.911 %		18:28:54
3	Y 371.029	1025573.5	1025573.5	97.000 %		18:28:54
3	Ag 328.068†	124452.0	122542.3	507.96 µg/L	507.96 ppb	18:28:54
3	As 188.979†	1331.5	1378.5	473.61 µg/L	473.61 ppb	18:29:14
3	B 249.677†	35563.8	32257.5	499.89 µg/L	499.89 ppb	18:28:54
3	Ba 233.527†	110311.0	112809.3	501.83 µg/L	501.83 ppb	18:28:54
3	Be 313.107†	1665426.0	1702053.5	493.19 µg/L	493.19 ppb	18:28:54
3	Cd 226.502†	73402.2	75071.7	507.08 µg/L	507.08 ppb	18:28:54
3	Co 228.616†	37490.9	38501.2	509.61 µg/L	509.61 ppb	18:28:54
3	Cr 267.716†	57579.2	58574.6	506.60 µg/L	506.60 ppb	18:28:54
3	Cu 324.752†	120905.9	120449.6	505.38 µg/L	505.38 ppb	18:28:54
3	Mn 257.610†	374289.7	382091.3	506.65 µg/L	506.65 ppb	18:28:54
3	Mo 202.031†	15138.6	15500.2	507.38 µg/L	507.38 ppb	18:29:14
3	Ni 231.604†	39813.6	40759.0	509.95 µg/L	509.95 ppb	18:28:54
3	P 214.914†	10616.8	10869.0	2505.5 µg/L	2505.5 ppb	18:29:14
3	Pb 220.353†	8189.1	8260.4	509.90 µg/L	509.90 ppb	18:29:14
3	S 181.975 Axial†	1269.4	1207.5	1020.1 µg/L	1020.1 ppb	18:29:14
3	Sb 206.836†	3907.9	3901.6	504.24 µg/L	504.24 ppb	18:29:14
3	Se 196.026†	1266.0	1286.8	509 µg/L	509 ppb	18:29:14
3	SiO2†	51592.2	50954.0	5374.3 µg/L	5374.3 ppb	18:28:54
3	Si 251.611†	157787.9	160387.7	2519.1 µg/L	2519.1 ppb	18:28:54
3	Sn 189.927†	7019.5	7167.4	498.85 µg/L	498.85 ppb	18:29:14
3	Ti 334.940†	480250.0	489674.3	502.28 µg/L	502.28 ppb	18:28:54
3	Tl 190.801†	3511.3	3700.5	512.87 µg/L	512.87 ppb	18:29:14
3	U 409.014†	7289.0	7607.9	510.85 µg/L	510.85 ppb	18:28:54
3	V 292.402†	95573.1	97189.2	510.47 µg/L	510.47 ppb	18:28:54
3	Zn 213.857†	83890.0	85177.0	504.64 µg/L	504.64 ppb	18:28:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769267.3	98.066	%	0.3669				0.37%
Sc RADIAL	136538.7	97.5	%	0.45				0.46%
Y 371.029	1027558.7	97.187	%	0.3595				0.37%
Ag 328.068†	122534.8	507.92	µg/L	0.156	507.92	ppb	0.156	0.03%
QC value within limits for Ag 328.068 Recovery = 101.58%								
Al 396.153Radial†	23895.5	5007.4	µg/L	10.90	5007.4	ppb	10.90	0.22%
QC value within limits for Al 396.153Radial Recovery = 100.15%								
As 188.979†	1360.4	467.48	µg/L	8.081	467.48	ppb	8.081	1.73%
QC value within limits for As 188.979 Recovery = 93.50%								
B 249.677†	32120.4	497.76	µg/L	3.005	497.76	ppb	3.005	0.60%
QC value within limits for B 249.677 Recovery = 99.55%								
Ba 233.527†	112463.2	500.30	µg/L	1.403	500.30	ppb	1.403	0.28%
QC value within limits for Ba 233.527 Recovery = 100.06%								
Be 313.107†	1699086.7	492.33	µg/L	1.210	492.33	ppb	1.210	0.25%
QC value within limits for Be 313.107 Recovery = 98.47%								
Ca 317.933Radial†	74873.3	5099.5	µg/L	9.47	5099.5	ppb	9.47	0.19%
QC value within limits for Ca 317.933Radial Recovery = 101.99%								
Cd 226.502†	74812.7	505.32	µg/L	2.367	505.32	ppb	2.367	0.47%
QC value within limits for Cd 226.502 Recovery = 101.06%								
Co 228.616†	38475.1	509.26	µg/L	0.952	509.26	ppb	0.952	0.19%

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   QC value within limits for Co 228.616  Recovery = 101.85%
Cr 267.716†            58427.6      505.33 µg/L         1.367      505.33 ppb          1.367   0.27%
   QC value within limits for Cr 267.716  Recovery = 101.07%
Cu 324.752†           120317.9      504.82 µg/L         0.530      504.82 ppb          0.530   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.96%
Fe 238.204 Radial†     67985.7      5077.1 µg/L          7.20      5077.1 ppb           7.20   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.54%
K 766.490 Radial†      13057.2      5169.7 µg/L         31.23      5169.7 ppb          31.23   0.60%
   QC value within limits for K 766.490 Radial  Recovery = 103.39%
Mg 279.077 IEC†        11053.3      5111.8 µg/L         27.44      5111.8 ppb          27.44   0.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.24%
Mn 257.610†           381339.8      505.65 µg/L         1.202      505.65 ppb          1.202   0.24%
   QC value within limits for Mn 257.610  Recovery = 101.13%
Mo 202.031†            15475.8      506.58 µg/L         4.799      506.58 ppb          4.799   0.95%
   QC value within limits for Mo 202.031  Recovery = 101.32%
Na 589.592 Radial†     65446.5       10140 µg/L          18.7       10140 ppb           18.7   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 101.40%
Ni 231.604†            40566.2      507.53 µg/L         2.783      507.53 ppb          2.783   0.55%
   QC value within limits for Ni 231.604  Recovery = 101.51%
P 214.914†             10866.8      2505.0 µg/L         21.91      2505.0 ppb          21.91   0.87%
   QC value within limits for P 214.914  Recovery = 100.20%
Pb 220.353†             8248.9      509.20 µg/L         3.949      509.20 ppb          3.949   0.78%
   QC value within limits for Pb 220.353  Recovery = 101.84%
S 181.975 Axial†        1204.9      1017.9 µg/L          8.22      1017.9 ppb           8.22   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 101.79%
Sb 206.836†             3894.0      503.26 µg/L         5.816      503.26 ppb          5.816   1.16%
   QC value within limits for Sb 206.836  Recovery = 100.65%
Se 196.026†             1286.3         509 µg/L           5.2         509 ppb            5.2   1.03%
   QC value within limits for Se 196.026  Recovery = 101.79%
SiO2†                  50672.5      5344.5 µg/L         41.31      5344.5 ppb          41.31   0.77%
   QC value within limits for SiO2  Recovery = 99.94%
Si 251.611†           159929.1      2511.9 µg/L          7.92      2511.9 ppb           7.92   0.32%
   QC value within limits for Si 251.611  Recovery = 100.47%
Sn 189.927†             7162.0      498.47 µg/L         4.438      498.47 ppb          4.438   0.89%
   QC value within limits for Sn 189.927  Recovery = 99.69%
Sr 421.552†           214982.7      506.99 µg/L         2.676      506.99 ppb          2.676   0.53%
   QC value within limits for Sr 421.552  Recovery = 101.40%
Ti 334.940†           489325.3      501.93 µg/L         0.324      501.93 ppb          0.324   0.06%
   QC value within limits for Ti 334.940  Recovery = 100.39%
Tl 190.801†             3686.6      510.95 µg/L         5.783      510.95 ppb          5.783   1.13%
   QC value within limits for Tl 190.801  Recovery = 102.19%
U 409.014†              7580.4      509.07 µg/L         9.566      509.07 ppb          9.566   1.88%
   QC value within limits for U 409.014  Recovery = 101.81%
V 292.402†             97059.7      509.78 µg/L         1.044      509.78 ppb          1.044   0.20%
   QC value within limits for V 292.402  Recovery = 101.96%
Zn 213.857†            84935.7      503.22 µg/L         2.085      503.22 ppb          2.085   0.41%
   QC value within limits for Zn 213.857  Recovery = 100.64%
All analyte(s) passed QC.
```

Sequence No.: 77
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 18:29:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135092.3	135092.3	96.4	%			18:29:51
1	Al 396.153Radial†	-44.9	32.0	6.6899	µg/L	6.6899	ppb	18:30:11
1	Ca 317.933Radial†	732.5	188.2	12.815	µg/L	12.815	ppb	18:30:11
1	Fe 238.204 Radial†	190.2	79.9	5.9667	µg/L	5.9667	ppb	18:30:11
1	K 766.490 Radial†	1696.7	265.8	105.30	µg/L	105.30	ppb	18:29:51
1	Mg 279.077 IEC†	168.6	2.4	1.1026	µg/L	1.1026	ppb	18:30:11
1	Na 589.592 Radial†	1046.6	132.9	20.499	µg/L	20.499	ppb	18:29:51
1	Sr 421.552†	-151.7	47.2	0.1112	µg/L	0.1112	ppb	18:29:51
1	Sc 361.383	1787344.8	1787344.8	99.068	%			18:31:13
1	Y 371.029	1048797.5	1048797.5	99.196	%			18:31:13
1	Ag 328.068†	4061.6	-465.3	-1.9365	µg/L	-1.9365	ppb	18:31:15
1	As 188.979†	-16.7	1.7	0.5855	µg/L	0.5855	ppb	18:31:35
1	B 249.677†	3961.9	-66.0	-1.0258	µg/L	-1.0258	ppb	18:31:15
1	Ba 233.527†	-151.7	-8.6	-0.0380	µg/L	-0.0380	ppb	18:31:35
1	Be 313.107†	-352.2	736.3	0.2063	µg/L	0.2063	ppb	18:31:15
1	Cd 226.502†	-66.6	36.1	0.2435	µg/L	0.2435	ppb	18:31:35
1	Co 228.616†	-205.9	2.5	0.0324	µg/L	0.0324	ppb	18:31:35
1	Cr 267.716†	271.5	40.8	0.3714	µg/L	0.3714	ppb	18:31:35
1	Cu 324.752†	2844.7	-164.7	-0.7069	µg/L	-0.7069	ppb	18:31:15
1	Mn 257.610†	314.7	133.0	0.1764	µg/L	0.1764	ppb	18:31:35
1	Mo 202.031†	-14.0	24.4	0.7996	µg/L	0.7996	ppb	18:31:35
1	Ni 231.604†	-71.4	23.9	0.2987	µg/L	0.2987	ppb	18:31:35
1	P 214.914†	31.0	57.0	13.189	µg/L	13.189	ppb	18:31:35
1	Pb 220.353†	103.9	1.4	0.1074	µg/L	0.1074	ppb	18:31:35
1	S 181.975 Axial†	100.4	12.5	10.494	µg/L	10.494	ppb	18:31:35
1	Sb 206.836†	78.6	-10.4	-1.3332	µg/L	-1.3332	ppb	18:31:35
1	Se 196.026†	11.3	5.3	2.06	µg/L	2.06	ppb	18:31:35
1	SiO2†	1737.9	15.1	1.5770	µg/L	1.5770	ppb	18:31:35
1	Si 251.611†	898.6	140.0	2.1951	µg/L	2.1951	ppb	18:31:15
1	Sn 189.927†	5.7	3.9	0.2711	µg/L	0.2711	ppb	18:31:35
1	Ti 334.940†	1050.4	237.2	0.2532	µg/L	0.2532	ppb	18:31:15
1	Tl 190.801†	-118.1	-4.9	-0.6742	µg/L	-0.6742	ppb	18:31:35
1	U 409.014†	-521.8	-363.3	-22.944	µg/L	-22.944	ppb	18:31:15
1	V 292.402†	369.0	-50.7	-0.2693	µg/L	-0.2693	ppb	18:31:15
1	Zn 213.857†	555.2	57.4	0.3408	µg/L	0.3408	ppb	18:31:35
2	Sc RADIAL	136375.6	136375.6	97.3	%			18:30:13
2	Al 396.153Radial†	-51.4	25.7	5.3917	µg/L	5.3917	ppb	18:30:33
2	Ca 317.933Radial†	713.9	161.9	11.027	µg/L	11.027	ppb	18:30:33
2	Fe 238.204 Radial†	180.1	67.7	5.0561	µg/L	5.0561	ppb	18:30:33
2	K 766.490 Radial†	1698.5	251.0	99.446	µg/L	99.446	ppb	18:30:13
2	Mg 279.077 IEC†	161.4	-6.6	-3.0474	µg/L	-3.0474	ppb	18:30:33
2	Na 589.592 Radial†	1146.3	225.0	34.791	µg/L	34.791	ppb	18:30:13
2	Sr 421.552†	-56.9	146.0	0.3442	µg/L	0.3442	ppb	18:30:13
2	Sc 361.383	1776624.3	1776624.3	98.474	%			18:31:37
2	Y 371.029	1043156.8	1043156.8	98.663	%			18:31:37
2	Ag 328.068†	4138.6	-362.4	-1.4823	µg/L	-1.4823	ppb	18:31:39
2	As 188.979†	-12.1	6.3	2.1274	µg/L	2.1274	ppb	18:32:00
2	B 249.677†	4198.4	198.3	3.0839	µg/L	3.0839	ppb	18:31:39
2	Ba 233.527†	-138.5	3.9	0.0173	µg/L	0.0173	ppb	18:32:00
2	Be 313.107†	-702.4	378.5	0.1101	µg/L	0.1101	ppb	18:31:39
2	Cd 226.502†	-94.1	7.8	0.0524	µg/L	0.0524	ppb	18:32:00
2	Co 228.616†	-206.8	0.3	0.0037	µg/L	0.0037	ppb	18:32:00
2	Cr 267.716†	260.8	31.6	0.2728	µg/L	0.2728	ppb	18:32:00
2	Cu 324.752†	2953.1	-37.2	-0.1539	µg/L	-0.1539	ppb	18:31:39
2	Mn 257.610†	307.1	127.1	0.1687	µg/L	0.1687	ppb	18:32:00
2	Mo 202.031†	-19.0	19.3	0.6318	µg/L	0.6318	ppb	18:32:00
2	Ni 231.604†	-40.1	55.1	0.6900	µg/L	0.6900	ppb	18:32:00
2	P 214.914†	20.7	46.7	10.807	µg/L	10.807	ppb	18:32:00
2	Pb 220.353†	131.6	30.2	1.8563	µg/L	1.8563	ppb	18:32:00

2	S 181.975 Axial†	79.5	-8.2	-6.8975	µg/L	-6.8975 ppb	18:32:00
2	Sb 206.836†	81.6	-6.8	-0.8762	µg/L	-0.8762 ppb	18:32:00
2	Se 196.026†	8.6	2.6	1.04	µg/L	1.04 ppb	18:32:00
2	SiO2†	1746.0	33.9	3.5646	µg/L	3.5646 ppb	18:32:00
2	Si 251.611†	1038.0	287.0	4.5138	µg/L	4.5138 ppb	18:31:39
2	Sn 189.927†	10.5	8.7	0.6068	µg/L	0.6068 ppb	18:32:00
2	Ti 334.940†	874.5	65.0	0.0666	µg/L	0.0666 ppb	18:31:39
2	Tl 190.801†	-111.9	0.6	0.0856	µg/L	0.0856 ppb	18:32:00
2	U 409.014†	-137.8	23.4	1.4747	µg/L	1.4747 ppb	18:31:39
2	V 292.402†	412.4	-4.4	-0.0147	µg/L	-0.0147 ppb	18:31:39
2	Zn 213.857†	538.5	43.9	0.2570	µg/L	0.2570 ppb	18:32:00
3	Sc RADIAL	137159.4	137159.4	97.9	%		18:30:35
3	Al 396.153Radial†	-60.8	16.4	3.4349	µg/L	3.4349 ppb	18:30:55
3	Ca 317.933Radial†	732.6	176.8	12.043	µg/L	12.043 ppb	18:30:55
3	Fe 238.204 Radial†	179.0	65.5	4.8905	µg/L	4.8905 ppb	18:30:55
3	K 766.490 Radial†	1704.7	247.4	98.011	µg/L	98.011 ppb	18:30:35
3	Mg 279.077 IEC†	171.8	3.0	1.4151	µg/L	1.4151 ppb	18:30:55
3	Na 589.592 Radial†	1050.3	120.2	18.552	µg/L	18.552 ppb	18:30:35
3	Sr 421.552†	-146.0	55.4	0.1305	µg/L	0.1305 ppb	18:30:35
3	Sc 361.383	1780995.5	1780995.5	98.716	%		18:32:02
3	Y 371.029	1045438.8	1045438.8	98.878	%		18:32:02
3	Ag 328.068†	4197.3	-313.3	-1.2626	µg/L	-1.2626 ppb	18:32:04
3	As 188.979†	-14.6	3.8	1.2814	µg/L	1.2814 ppb	18:32:24
3	B 249.677†	4079.3	67.2	1.0449	µg/L	1.0449 ppb	18:32:04
3	Ba 233.527†	-157.0	-14.4	-0.0640	µg/L	-0.0640 ppb	18:32:24
3	Be 313.107†	-798.0	283.4	0.0864	µg/L	0.0864 ppb	18:32:04
3	Cd 226.502†	-67.1	35.4	0.2387	µg/L	0.2387 ppb	18:32:24
3	Co 228.616†	-190.7	17.2	0.2267	µg/L	0.2267 ppb	18:32:24
3	Cr 267.716†	283.9	54.3	0.4591	µg/L	0.4591 ppb	18:32:24
3	Cu 324.752†	2913.1	-85.2	-0.3436	µg/L	-0.3436 ppb	18:32:04
3	Mn 257.610†	314.9	134.3	0.1781	µg/L	0.1781 ppb	18:32:24
3	Mo 202.031†	-24.2	14.1	0.4610	µg/L	0.4610 ppb	18:32:24
3	Ni 231.604†	-68.4	26.6	0.3331	µg/L	0.3331 ppb	18:32:24
3	P 214.914†	15.7	41.6	9.6155	µg/L	9.6155 ppb	18:32:24
3	Pb 220.353†	121.4	19.5	1.1913	µg/L	1.1913 ppb	18:32:24
3	S 181.975 Axial†	97.1	9.5	7.9692	µg/L	7.9692 ppb	18:32:24
3	Sb 206.836†	94.9	6.4	0.8247	µg/L	0.8247 ppb	18:32:24
3	Se 196.026†	5.1	-1.0	-0.383	µg/L	-0.383 ppb	18:32:24
3	SiO2†	1784.6	68.7	7.2727	µg/L	7.2727 ppb	18:32:24
3	Si 251.611†	1060.0	306.7	4.8343	µg/L	4.8343 ppb	18:32:04
3	Sn 189.927†	-6.6	-8.6	-0.5975	µg/L	-0.5975 ppb	18:32:24
3	Ti 334.940†	631.1	-183.7	-0.1944	µg/L	-0.1944 ppb	18:32:04
3	Tl 190.801†	-114.4	-1.6	-0.2234	µg/L	-0.2234 ppb	18:32:24
3	U 409.014†	60.6	224.7	14.196	µg/L	14.196 ppb	18:32:04
3	V 292.402†	461.4	44.2	0.2450	µg/L	0.2450 ppb	18:32:04
3	Zn 213.857†	571.3	75.8	0.4500	µg/L	0.4500 ppb	18:32:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1781654.9	98.753	%	0.2988				0.30%
Sc RADIAL	136209.1	97.2	%	0.74				0.77%
Y 371.029	1045797.7	98.912	%	0.2684				0.27%
Ag 328.068†	-380.4	-1.5605	µg/L	0.34367	-1.5605	ppb	0.34367	22.02%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	24.7	5.1722	µg/L	1.63858	5.1722	ppb	1.63858	31.68%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.9	1.3314	µg/L	0.77213	1.3314	ppb	0.77213	57.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	66.5	1.0344	µg/L	2.05485	1.0344	ppb	2.05485	198.66%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.4	-0.0282	µg/L	0.04153	-0.0282	ppb	0.04153	147.17%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	466.0	0.1343	µg/L	0.06354	0.1343	ppb	0.06354	47.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	175.6	11.962	µg/L	0.8969	11.962	ppb	0.8969	7.50%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	26.4	0.1782	µg/L	0.10901	0.1782	ppb	0.10901	61.16%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.6	0.0876	µg/L	0.12135	0.0876	ppb	0.12135	138.52%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                42.3      0.3678 µg/L       0.09322      0.3678 ppb        0.09322  25.35%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -95.7     -0.4015 µg/L       0.28101     -0.4015 ppb        0.28101  69.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         71.0      5.3044 µg/L       0.57945      5.3044 ppb        0.57945  10.92%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         254.7      100.92 µg/L         3.861      100.92 ppb          3.861   3.83%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.4     -0.1766 µg/L       2.49109     -0.1766 ppb        2.49109 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               131.5      0.1744 µg/L       0.00496      0.1744 ppb        0.00496   2.85%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                19.3      0.6308 µg/L       0.16927      0.6308 ppb        0.16927  26.83%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        159.4      24.614 µg/L        8.8668      24.614 ppb         8.8668  36.02%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                35.2      0.4406 µg/L       0.21664      0.4406 ppb        0.21664  49.17%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 48.4      11.204 µg/L        1.8192      11.204 ppb         1.8192  16.24%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                17.0      1.0517 µg/L       0.88278      1.0517 ppb        0.88278  83.94%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            4.6      3.8553 µg/L       9.39746      3.8553 ppb        9.39746 243.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.6     -0.4616 µg/L       1.13712     -0.4616 ppb        1.13712 246.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.3       0.906 µg/L        1.2290       0.906 ppb         1.2290 135.69%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      39.3      4.1381 µg/L       2.89080      4.1381 ppb        2.89080  69.86%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               244.6      3.8477 µg/L       1.44014      3.8477 ppb        1.44014  37.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.3      0.0934 µg/L       0.62148      0.0934 ppb        0.62148 665.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                82.8      0.1953 µg/L       0.12932      0.1953 ppb        0.12932  66.22%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                39.5      0.0418 µg/L       0.22484      0.0418 ppb        0.22484 538.04%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.0     -0.2706 µg/L       0.38207     -0.2706 ppb        0.38207 141.17%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -38.4     -2.4245 µg/L      18.87457     -2.4245 ppb       18.87457 778.48%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -3.6     -0.0130 µg/L       0.25716     -0.0130 ppb        0.25716 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                59.0      0.3493 µg/L       0.09680      0.3493 ppb        0.09680  27.71%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 85
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 18:46:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135848.7	135848.7	97.0	%			18:46:44
1	Al 396.153Radial†	23039.3	23837.7	4995.1	µg/L	4995.1	ppb	18:46:44
1	Ca 317.933Radial†	73202.6	74918.2	5102.6	µg/L	5102.6	ppb	18:46:44
1	Fe 238.204 Radial†	66062.6	68009.3	5078.9	µg/L	5078.9	ppb	18:46:44
1	K 766.490 Radial†	13978.1	12921.0	5115.8	µg/L	5115.8	ppb	18:46:44
1	Mg 279.077 IEC†	10772.3	10936.4	5057.8	µg/L	5057.8	ppb	18:46:44
1	Na 589.592 Radial†	64342.8	65400.5	10133	µg/L	10133	ppb	18:46:44
1	Sr 421.552†	211512.2	218324.9	514.87	µg/L	514.87	ppb	18:46:42
1	Sc 361.383	1768466.2	1768466.2	98.022	%			18:46:57
1	Y 371.029	1027264.6	1027264.6	97.159	%			18:46:57
1	Ag 328.068†	124610.6	122560.0	508.05	µg/L	508.05	ppb	18:46:57
1	As 188.979†	1334.8	1380.3	474.22	µg/L	474.22	ppb	18:47:17
1	B 249.677†	35415.4	32064.9	496.89	µg/L	496.89	ppb	18:46:57
1	Ba 233.527†	110137.8	112504.9	500.48	µg/L	500.48	ppb	18:46:57
1	Be 313.107†	1669411.8	1704191.3	493.81	µg/L	493.81	ppb	18:46:57
1	Cd 226.502†	73524.1	75111.1	507.34	µg/L	507.34	ppb	18:46:57
1	Co 228.616†	37759.3	38731.5	512.65	µg/L	512.65	ppb	18:46:57
1	Cr 267.716†	57672.3	58602.9	506.84	µg/L	506.84	ppb	18:46:57
1	Cu 324.752†	121047.9	120454.5	505.40	µg/L	505.40	ppb	18:46:57
1	Mn 257.610†	374840.9	382220.2	506.82	µg/L	506.82	ppb	18:46:57
1	Mo 202.031†	15217.5	15563.1	509.44	µg/L	509.44	ppb	18:47:17
1	Ni 231.604†	39600.4	40495.4	506.65	µg/L	506.65	ppb	18:46:57
1	P 214.914†	10699.9	10941.5	2522.3	µg/L	2522.3	ppb	18:47:17
1	Pb 220.353†	8239.2	8302.0	512.46	µg/L	512.46	ppb	18:47:17
1	S 181.975 Axial†	1269.2	1205.8	1018.7	µg/L	1018.7	ppb	18:47:17
1	Sb 206.836†	3915.5	3904.8	504.69	µg/L	504.69	ppb	18:47:17
1	Se 196.026†	1273.1	1292.6	511	µg/L	511	ppb	18:47:17
1	SiO2†	51287.8	50583.6	5334.9	µg/L	5334.9	ppb	18:46:57
1	Si 251.611†	157374.7	159783.4	2509.5	µg/L	2509.5	ppb	18:46:57
1	Sn 189.927†	7087.6	7228.8	503.11	µg/L	503.11	ppb	18:47:17
1	Ti 334.940†	481235.3	490123.4	502.75	µg/L	502.75	ppb	18:46:57
1	Tl 190.801†	3542.3	3728.1	516.62	µg/L	516.62	ppb	18:47:17
1	U 409.014†	7420.7	7733.8	518.79	µg/L	518.79	ppb	18:46:57
1	V 292.402†	95680.1	97187.6	510.49	µg/L	510.49	ppb	18:46:57
1	Zn 213.857†	83833.3	85022.0	503.74	µg/L	503.74	ppb	18:46:57
2	Sc RADIAL	136213.8	136213.8	97.2	%			18:46:48
2	Al 396.153Radial†	23258.8	23999.7	5029.2	µg/L	5029.2	ppb	18:46:48
2	Ca 317.933Radial†	73388.0	74906.5	5101.8	µg/L	5101.8	ppb	18:46:48
2	Fe 238.204 Radial†	66522.5	68299.7	5100.6	µg/L	5100.6	ppb	18:46:48
2	K 766.490 Radial†	14083.3	12990.6	5143.3	µg/L	5143.3	ppb	18:46:48
2	Mg 279.077 IEC†	10814.0	10949.5	5063.9	µg/L	5063.9	ppb	18:46:48
2	Na 589.592 Radial†	64586.2	65473.0	10144	µg/L	10144	ppb	18:46:48
2	Sr 421.552†	204142.5	210160.7	495.62	µg/L	495.62	ppb	18:46:46
2	Sc 361.383	1763162.4	1763162.4	97.728	%			18:47:20
2	Y 371.029	1024495.4	1024495.4	96.898	%			18:47:20
2	Ag 328.068†	124497.5	122826.7	509.15	µg/L	509.15	ppb	18:47:20
2	As 188.979†	1331.4	1380.9	474.44	µg/L	474.44	ppb	18:47:40
2	B 249.677†	35461.7	32221.0	499.32	µg/L	499.32	ppb	18:47:20
2	Ba 233.527†	110367.1	113077.5	503.03	µg/L	503.03	ppb	18:47:20
2	Be 313.107†	1667282.4	1707135.4	494.66	µg/L	494.66	ppb	18:47:20
2	Cd 226.502†	73322.7	75130.7	507.47	µg/L	507.47	ppb	18:47:20
2	Co 228.616†	37607.0	38691.6	512.13	µg/L	512.13	ppb	18:47:20
2	Cr 267.716†	57426.8	58528.7	506.20	µg/L	506.20	ppb	18:47:20
2	Cu 324.752†	120992.6	120769.4	506.72	µg/L	506.72	ppb	18:47:20
2	Mn 257.610†	373948.7	382457.6	507.13	µg/L	507.13	ppb	18:47:20
2	Mo 202.031†	15173.7	15565.0	509.50	µg/L	509.50	ppb	18:47:40
2	Ni 231.604†	39712.3	40731.5	509.60	µg/L	509.60	ppb	18:47:20
2	P 214.914†	10659.1	10932.6	2520.2	µg/L	2520.2	ppb	18:47:40
2	Pb 220.353†	8235.9	8323.9	513.82	µg/L	513.82	ppb	18:47:40

2	S 181.975 Axial†	1256.9	1197.2	1011.5 µg/L	1011.5 ppb	18:47:40
2	Sb 206.836†	3926.2	3927.7	507.65 µg/L	507.65 ppb	18:47:40
2	Se 196.026†	1261.7	1284.9	508 µg/L	508 ppb	18:47:40
2	SiO2†	51326.9	50781.1	5355.9 µg/L	5355.9 ppb	18:47:20
2	Si 251.611†	157424.5	160317.3	2517.9 µg/L	2517.9 ppb	18:47:20
2	Sn 189.927†	7062.3	7224.6	502.83 µg/L	502.83 ppb	18:47:40
2	Ti 334.940†	480438.8	490785.2	503.43 µg/L	503.43 ppb	18:47:20
2	Tl 190.801†	3523.4	3719.6	515.49 µg/L	515.49 ppb	18:47:40
2	U 409.014†	7330.3	7664.1	514.47 µg/L	514.47 ppb	18:47:20
2	V 292.402†	95646.3	97446.7	511.82 µg/L	511.82 ppb	18:47:20
2	Zn 213.857†	83872.4	85319.3	505.49 µg/L	505.49 ppb	18:47:20
3	Sc RADIAL	136274.4	136274.4	97.3 %		18:46:52
3	Al 396.153Radial†	23243.4	23973.2	5023.4 µg/L	5023.4 ppb	18:46:52
3	Ca 317.933Radial†	73653.1	75145.5	5118.1 µg/L	5118.1 ppb	18:46:52
3	Fe 238.204 Radial†	66230.4	67969.0	5075.9 µg/L	5075.9 ppb	18:46:52
3	K 766.490 Radial†	14011.7	12910.5	5111.6 µg/L	5111.6 ppb	18:46:52
3	Mg 279.077 IEC†	10884.8	11017.3	5095.3 µg/L	5095.3 ppb	18:46:52
3	Na 589.592 Radial†	64699.0	65559.5	10158 µg/L	10158 ppb	18:46:52
3	Sr 421.552†	206413.2	212401.7	500.90 µg/L	500.90 ppb	18:46:50
3	Sc 361.383	1756112.8	1756112.8	97.337 %		18:47:43
3	Y 371.029	1020814.2	1020814.2	96.549 %		18:47:43
3	Ag 328.068†	124208.5	123041.1	510.00 µg/L	510.00 ppb	18:47:43
3	As 188.979†	1333.2	1388.3	476.93 µg/L	476.93 ppb	18:48:03
3	B 249.677†	35395.9	32299.0	500.54 µg/L	500.54 ppb	18:47:43
3	Ba 233.527†	109680.9	112825.9	501.91 µg/L	501.91 ppb	18:47:43
3	Be 313.107†	1655330.0	1701704.7	493.08 µg/L	493.08 ppb	18:47:43
3	Cd 226.502†	73111.6	75215.0	508.04 µg/L	508.04 ppb	18:47:43
3	Co 228.616†	37325.4	38556.8	510.34 µg/L	510.34 ppb	18:47:43
3	Cr 267.716†	57252.3	58585.3	506.71 µg/L	506.71 ppb	18:47:43
3	Cu 324.752†	120315.4	120570.6	505.87 µg/L	505.87 ppb	18:47:43
3	Mn 257.610†	372118.3	382113.2	506.68 µg/L	506.68 ppb	18:47:43
3	Mo 202.031†	15250.9	15706.7	514.13 µg/L	514.13 ppb	18:48:03
3	Ni 231.604†	39498.8	40675.3	508.90 µg/L	508.90 ppb	18:47:43
3	P 214.914†	10779.1	11099.6	2558.9 µg/L	2558.9 ppb	18:48:03
3	Pb 220.353†	8283.1	8406.2	518.91 µg/L	518.91 ppb	18:48:03
3	S 181.975 Axial†	1274.5	1220.5	1031.1 µg/L	1031.1 ppb	18:48:03
3	Sb 206.836†	3959.8	3978.4	514.25 µg/L	514.25 ppb	18:48:03
3	Se 196.026†	1280.5	1309.3	518 µg/L	518 ppb	18:48:03
3	SiO2†	51167.7	50828.3	5360.7 µg/L	5360.7 ppb	18:47:43
3	Si 251.611†	156869.7	160394.0	2519.0 µg/L	2519.0 ppb	18:47:43
3	Sn 189.927†	7109.8	7302.4	508.22 µg/L	508.22 ppb	18:48:03
3	Ti 334.940†	478243.0	490502.7	503.14 µg/L	503.14 ppb	18:47:43
3	Tl 190.801†	3555.1	3766.7	521.92 µg/L	521.92 ppb	18:48:03
3	U 409.014†	6988.0	7342.5	494.16 µg/L	494.16 ppb	18:47:43
3	V 292.402†	95207.3	97388.5	511.56 µg/L	511.56 ppb	18:47:43
3	Zn 213.857†	83270.4	85045.3	503.86 µg/L	503.86 ppb	18:47:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1762580.5	97.696	%	0.3435				0.35%
Sc RADIAL	136112.3	97.2	%	0.16				0.17%
Y 371.029	1024191.4	96.869	%	0.3061				0.32%
Ag 328.068†	122809.3	509.06	µg/L	0.978	509.06	ppb	0.978	0.19%
QC value within limits for Ag 328.068 Recovery = 101.81%								
Al 396.153Radial†	23936.9	5015.9	µg/L	18.25	5015.9	ppb	18.25	0.36%
QC value within limits for Al 396.153Radial Recovery = 100.32%								
As 188.979†	1383.2	475.20	µg/L	1.508	475.20	ppb	1.508	0.32%
QC value within limits for As 188.979 Recovery = 95.04%								
B 249.677†	32195.0	498.91	µg/L	1.858	498.91	ppb	1.858	0.37%
QC value within limits for B 249.677 Recovery = 99.78%								
Ba 233.527†	112802.7	501.81	µg/L	1.276	501.81	ppb	1.276	0.25%
QC value within limits for Ba 233.527 Recovery = 100.36%								
Be 313.107†	1704343.8	493.85	µg/L	0.790	493.85	ppb	0.790	0.16%
QC value within limits for Be 313.107 Recovery = 98.77%								
Ca 317.933Radial†	74990.1	5107.5	µg/L	9.18	5107.5	ppb	9.18	0.18%
QC value within limits for Ca 317.933Radial Recovery = 102.15%								
Cd 226.502†	75152.2	507.62	µg/L	0.374	507.62	ppb	0.374	0.07%
QC value within limits for Cd 226.502 Recovery = 101.52%								
Co 228.616†	38660.0	511.71	µg/L	1.210	511.71	ppb	1.210	0.24%

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   QC value within limits for Co 228.616  Recovery = 102.34%
Cr 267.716†            58572.3      506.58 µg/L         0.336      506.58 ppb          0.336   0.07%
   QC value within limits for Cr 267.716  Recovery = 101.32%
Cu 324.752†           120598.2      506.00 µg/L         0.668      506.00 ppb          0.668   0.13%
   QC value within limits for Cu 324.752  Recovery = 101.20%
Fe 238.204 Radial†     68092.6      5085.1 µg/L         13.48      5085.1 ppb          13.48   0.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.70%
K 766.490 Radial†      12940.7      5123.6 µg/L         17.24      5123.6 ppb          17.24   0.34%
   QC value within limits for K 766.490 Radial  Recovery = 102.47%
Mg 279.077 IEC†        10967.8      5072.4 µg/L         20.13      5072.4 ppb          20.13   0.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.45%
Mn 257.610†           382263.7      506.88 µg/L         0.234      506.88 ppb          0.234   0.05%
   QC value within limits for Mn 257.610  Recovery = 101.38%
Mo 202.031†            15611.6      511.02 µg/L         2.694      511.02 ppb          2.694   0.53%
   QC value within limits for Mo 202.031  Recovery = 102.20%
Na 589.592 Radial†     65477.7       10145 µg/L          12.3       10145 ppb           12.3   0.12%
   QC value within limits for Na 589.592 Radial  Recovery = 101.45%
Ni 231.604†            40634.1      508.38 µg/L         1.543      508.38 ppb          1.543   0.30%
   QC value within limits for Ni 231.604  Recovery = 101.68%
P 214.914†             10991.3      2533.8 µg/L         21.74      2533.8 ppb          21.74   0.86%
   QC value within limits for P 214.914  Recovery = 101.35%
Pb 220.353†             8344.0      515.06 µg/L         3.398      515.06 ppb          3.398   0.66%
   QC value within limits for Pb 220.353  Recovery = 103.01%
S 181.975 Axial†        1207.9      1020.4 µg/L          9.91      1020.4 ppb           9.91   0.97%
   QC value within limits for S 181.975 Axial  Recovery = 102.04%
Sb 206.836†             3937.0      508.86 µg/L         4.894      508.86 ppb          4.894   0.96%
   QC value within limits for Sb 206.836  Recovery = 101.77%
Se 196.026†             1295.6         513 µg/L           4.9         513 ppb            4.9   0.96%
   QC value within limits for Se 196.026  Recovery = 102.53%
SiO2†                  50731.0      5350.5 µg/L         13.67      5350.5 ppb          13.67   0.26%
   QC value within limits for SiO2  Recovery = 100.06%
Si 251.611†           160164.9      2515.5 µg/L          5.21      2515.5 ppb           5.21   0.21%
   QC value within limits for Si 251.611  Recovery = 100.62%
Sn 189.927†             7251.9      504.72 µg/L         3.035      504.72 ppb          3.035   0.60%
   QC value within limits for Sn 189.927  Recovery = 100.94%
Sr 421.552†           213629.1      503.80 µg/L         9.949      503.80 ppb          9.949   1.97%
   QC value within limits for Sr 421.552  Recovery = 100.76%
Ti 334.940†           490470.4      503.11 µg/L         0.342      503.11 ppb          0.342   0.07%
   QC value within limits for Ti 334.940  Recovery = 100.62%
Tl 190.801†             3738.1      518.01 µg/L         3.432      518.01 ppb          3.432   0.66%
   QC value within limits for Tl 190.801  Recovery = 103.60%
U 409.014†              7580.1      509.14 µg/L        13.152      509.14 ppb         13.152   2.58%
   QC value within limits for U 409.014  Recovery = 101.83%
V 292.402†             97340.9      511.29 µg/L         0.707      511.29 ppb          0.707   0.14%
   QC value within limits for V 292.402  Recovery = 102.26%
Zn 213.857†            85128.9      504.36 µg/L         0.978      504.36 ppb          0.978   0.19%
   QC value within limits for Zn 213.857  Recovery = 100.87%
All analyte(s) passed QC.
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Sequence No.: 86
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 18:48:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137189.7	137189.7	97.9	%			18:48:41
1	Al 396.153Radial†	-58.5	18.8	3.9395	µg/L	3.9395	ppb	18:49:01
1	Ca 317.933Radial†	723.7	167.5	11.411	µg/L	11.411	ppb	18:49:01
1	Fe 238.204 Radial†	175.9	62.3	4.6541	µg/L	4.6541	ppb	18:49:01
1	K 766.490 Radial†	1750.9	294.1	116.53	µg/L	116.53	ppb	18:48:41
1	Mg 279.077 IEC†	158.4	-10.7	-4.9237	µg/L	-4.9237	ppb	18:49:01
1	Na 589.592 Radial†	1155.1	227.0	35.082	µg/L	35.082	ppb	18:48:41
1	Sr 421.552†	-77.4	125.4	0.2957	µg/L	0.2957	ppb	18:48:41
1	Sc 361.383	1797340.4	1797340.4	99.622	%			18:50:03
1	Y 371.029	1055087.8	1055087.8	99.791	%			18:50:03
1	Ag 328.068†	4039.3	-510.6	-2.0795	µg/L	-2.0795	ppb	18:50:05
1	As 188.979†	-13.7	4.8	1.6385	µg/L	1.6385	ppb	18:50:25
1	B 249.677†	4112.5	62.9	0.9779	µg/L	0.9779	ppb	18:50:05
1	Ba 233.527†	-136.1	8.0	0.0355	µg/L	0.0355	ppb	18:50:25
1	Be 313.107†	-528.4	561.4	0.1657	µg/L	0.1657	ppb	18:50:05
1	Cd 226.502†	-71.0	32.1	0.2167	µg/L	0.2167	ppb	18:50:25
1	Co 228.616†	-202.0	7.6	0.0999	µg/L	0.0999	ppb	18:50:25
1	Cr 267.716†	290.9	58.8	0.5004	µg/L	0.5004	ppb	18:50:25
1	Cu 324.752†	2772.2	-253.4	-1.0506	µg/L	-1.0506	ppb	18:50:05
1	Mn 257.610†	302.8	119.3	0.1584	µg/L	0.1584	ppb	18:50:25
1	Mo 202.031†	-20.3	18.2	0.5945	µg/L	0.5945	ppb	18:50:25
1	Ni 231.604†	-69.0	26.7	0.3338	µg/L	0.3338	ppb	18:50:25
1	P 214.914†	16.7	42.5	9.8287	µg/L	9.8287	ppb	18:50:25
1	Pb 220.353†	124.0	21.0	1.2857	µg/L	1.2857	ppb	18:50:25
1	S 181.975 Axial†	89.2	0.6	0.5332	µg/L	0.5332	ppb	18:50:25
1	Sb 206.836†	86.5	-2.9	-0.3713	µg/L	-0.3713	ppb	18:50:25
1	Se 196.026†	21.2	15.1	5.95	µg/L	5.95	ppb	18:50:25
1	SiO2†	1824.1	91.9	9.7145	µg/L	9.7145	ppb	18:50:25
1	Si 251.611†	1018.3	255.1	4.0124	µg/L	4.0124	ppb	18:50:05
1	Sn 189.927†	7.1	5.3	0.3657	µg/L	0.3657	ppb	18:50:25
1	Ti 334.940†	851.0	31.2	0.0283	µg/L	0.0283	ppb	18:50:05
1	Tl 190.801†	-123.3	-9.5	-1.2931	µg/L	-1.2931	ppb	18:50:25
1	U 409.014†	0.3	163.6	10.315	µg/L	10.315	ppb	18:50:05
1	V 292.402†	389.0	-32.7	-0.1549	µg/L	-0.1549	ppb	18:50:05
1	Zn 213.857†	595.8	95.1	0.5658	µg/L	0.5658	ppb	18:50:25
2	Sc RADIAL	136417.2	136417.2	97.4	%			18:49:03
2	Al 396.153Radial†	-74.8	1.8	0.3478	µg/L	0.3478	ppb	18:49:23
2	Ca 317.933Radial†	717.3	165.1	11.247	µg/L	11.247	ppb	18:49:23
2	Fe 238.204 Radial†	159.1	46.1	3.4409	µg/L	3.4409	ppb	18:49:23
2	K 766.490 Radial†	1643.3	193.8	76.762	µg/L	76.762	ppb	18:49:03
2	Mg 279.077 IEC†	168.9	1.0	0.4590	µg/L	0.4590	ppb	18:49:23
2	Na 589.592 Radial†	1235.6	316.4	48.976	µg/L	48.976	ppb	18:49:03
2	Sr 421.552†	-274.1	-77.0	-0.1817	µg/L	-0.1817	ppb	18:49:03
2	Sc 361.383	1780086.9	1780086.9	98.666	%			18:50:27
2	Y 371.029	1045705.9	1045705.9	98.904	%			18:50:27
2	Ag 328.068†	4162.3	-346.6	-1.4285	µg/L	-1.4285	ppb	18:50:29
2	As 188.979†	-15.5	2.9	0.9768	µg/L	0.9768	ppb	18:50:50
2	B 249.677†	4023.3	12.6	0.1960	µg/L	0.1960	ppb	18:50:29
2	Ba 233.527†	-162.9	-20.5	-0.0909	µg/L	-0.0909	ppb	18:50:50
2	Be 313.107†	-639.0	444.1	0.1252	µg/L	0.1252	ppb	18:50:29
2	Cd 226.502†	-48.4	54.3	0.3672	µg/L	0.3672	ppb	18:50:50
2	Co 228.616†	-217.9	-10.6	-0.1403	µg/L	-0.1403	ppb	18:50:50
2	Cr 267.716†	295.2	66.0	0.5801	µg/L	0.5801	ppb	18:50:50
2	Cu 324.752†	2954.5	-41.6	-0.1830	µg/L	-0.1830	ppb	18:50:29
2	Mn 257.610†	281.5	100.6	0.1334	µg/L	0.1334	ppb	18:50:50
2	Mo 202.031†	-22.4	15.9	0.5188	µg/L	0.5188	ppb	18:50:50
2	Ni 231.604†	-38.6	56.7	0.7099	µg/L	0.7099	ppb	18:50:50
2	P 214.914†	12.0	37.8	8.7509	µg/L	8.7509	ppb	18:50:50
2	Pb 220.353†	132.5	30.8	1.9064	µg/L	1.9064	ppb	18:50:50

2	S 181.975 Axial†	95.1	7.5	6.2758 µg/L	6.2758 ppb	18:50:50
2	Sb 206.836†	75.4	-13.3	-1.7114 µg/L	-1.7114 ppb	18:50:50
2	Se 196.026†	31.1	25.3	9.97 µg/L	9.97 ppb	18:50:50
2	SiO2†	1872.0	158.2	16.734 µg/L	16.734 ppb	18:50:50
2	Si 251.611†	994.5	240.9	3.7881 µg/L	3.7881 ppb	18:50:29
2	Sn 189.927†	9.6	7.8	0.5420 µg/L	0.5420 ppb	18:50:50
2	Ti 334.940†	651.2	-163.0	-0.1627 µg/L	-0.1627 ppb	18:50:29
2	Tl 190.801†	-121.6	-9.0	-1.2278 µg/L	-1.2278 ppb	18:50:50
2	U 409.014†	-338.0	-179.2	-11.285 µg/L	-11.285 ppb	18:50:29
2	V 292.402†	487.8	71.2	0.3691 µg/L	0.3691 ppb	18:50:29
2	Zn 213.857†	599.0	104.1	0.6166 µg/L	0.6166 ppb	18:50:50
3	Sc RADIAL	136070.5	136070.5	97.1 %		18:49:25
3	Al 396.153Radial†	-68.1	8.4	1.7567 µg/L	1.7567 ppb	18:49:45
3	Ca 317.933Radial†	708.7	158.2	10.776 µg/L	10.776 ppb	18:49:45
3	Fe 238.204 Radial†	160.3	47.7	3.5606 µg/L	3.5606 ppb	18:49:45
3	K 766.490 Radial†	1676.0	231.7	91.807 µg/L	91.807 ppb	18:49:25
3	Mg 279.077 IEC†	181.2	14.1	6.5031 µg/L	6.5031 ppb	18:49:45
3	Na 589.592 Radial†	1171.0	253.1	39.151 µg/L	39.151 ppb	18:49:25
3	Sr 421.552†	-216.8	-18.7	-0.0442 µg/L	-0.0442 ppb	18:49:25
3	Sc 361.383	1802317.2	1802317.2	99.898 %		18:50:52
3	Y 371.029	1057897.9	1057897.9	100.06 %		18:50:52
3	Ag 328.068†	4220.3	-340.5	-1.4317 µg/L	-1.4317 ppb	18:50:54
3	As 188.979†	-15.2	3.4	1.1469 µg/L	1.1469 ppb	18:51:14
3	B 249.677†	4147.1	86.2	1.3394 µg/L	1.3394 ppb	18:50:54
3	Ba 233.527†	-148.3	-3.9	-0.0177 µg/L	-0.0177 ppb	18:51:14
3	Be 313.107†	-694.5	396.5	0.1078 µg/L	0.1078 ppb	18:50:54
3	Cd 226.502†	-73.0	30.3	0.2046 µg/L	0.2046 ppb	18:51:14
3	Co 228.616†	-181.7	28.4	0.3754 µg/L	0.3754 ppb	18:51:14
3	Cr 267.716†	250.8	17.9	0.1728 µg/L	0.1728 ppb	18:51:14
3	Cu 324.752†	2858.4	-174.8	-0.7496 µg/L	-0.7496 ppb	18:50:54
3	Mn 257.610†	265.2	80.7	0.1068 µg/L	0.1068 ppb	18:51:14
3	Mo 202.031†	-30.5	8.1	0.2644 µg/L	0.2644 ppb	18:51:14
3	Ni 231.604†	-44.5	51.4	0.6428 µg/L	0.6428 ppb	18:51:14
3	P 214.914†	22.1	47.8	11.075 µg/L	11.075 ppb	18:51:14
3	Pb 220.353†	117.2	13.8	0.8696 µg/L	0.8696 ppb	18:51:14
3	S 181.975 Axial†	93.9	5.1	4.3139 µg/L	4.3139 ppb	18:51:14
3	Sb 206.836†	73.9	-15.7	-2.0300 µg/L	-2.0300 ppb	18:51:14
3	Se 196.026†	15.0	8.9	3.48 µg/L	3.48 ppb	18:51:14
3	SiO2†	1870.2	133.0	14.074 µg/L	14.074 ppb	18:51:14
3	Si 251.611†	1269.3	503.5	7.9341 µg/L	7.9341 ppb	18:50:54
3	Sn 189.927†	7.1	5.2	0.3633 µg/L	0.3633 ppb	18:51:14
3	Ti 334.940†	827.9	5.8	0.0152 µg/L	0.0152 ppb	18:50:54
3	Tl 190.801†	-119.8	-5.7	-0.7791 µg/L	-0.7791 ppb	18:51:14
3	U 409.014†	-533.4	-370.6	-23.429 µg/L	-23.429 ppb	18:50:54
3	V 292.402†	280.6	-142.3	-0.7504 µg/L	-0.7504 ppb	18:50:54
3	Zn 213.857†	582.5	80.1	0.4745 µg/L	0.4745 ppb	18:51:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1793248.1	99.396	%	0.6466				0.65%
Sc RADIAL	136559.1	97.5	%	0.41				0.42%
Y 371.029	1052897.2	99.584	%	0.6038				0.61%
Ag 328.068†	-399.2	-1.6466	µg/L	0.37495	-1.6466	ppb	0.37495	22.77%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.7	2.0146	µg/L	1.80972	2.0146	ppb	1.80972	89.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.7	1.2541	µg/L	0.34364	1.2541	ppb	0.34364	27.40%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	53.9	0.8378	µg/L	0.58446	0.8378	ppb	0.58446	69.76%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.5	-0.0244	µg/L	0.06345	-0.0244	ppb	0.06345	260.29%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	467.3	0.1329	µg/L	0.02973	0.1329	ppb	0.02973	22.37%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	163.6	11.145	µg/L	0.3295	11.145	ppb	0.3295	2.96%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	38.9	0.2628	µg/L	0.09058	0.2628	ppb	0.09058	34.46%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.5	0.1117	µg/L	0.25805	0.1117	ppb	0.25805	231.07%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              47.5      0.4177 µg/L       0.21587      0.4177 ppb        0.21587  51.67%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -156.6     -0.6611 µg/L       0.44052     -0.6611 ppb        0.44052  66.64%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       52.0      3.8852 µg/L       0.66858      3.8852 ppb        0.66858  17.21%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       239.9     95.034 µg/L       20.0804     95.034 ppb        20.0804  21.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.5      0.6794 µg/L       5.71658      0.6794 ppb        5.71658 841.36%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             100.2      0.1329 µg/L       0.02581      0.1329 ppb        0.02581  19.42%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              14.0      0.4592 µg/L       0.17291      0.4592 ppb        0.17291  37.65%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       265.5     41.069 µg/L        7.1429     41.069 ppb         7.1429  17.39%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              44.9      0.5622 µg/L       0.20061      0.5622 ppb        0.20061  35.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               42.7      9.8849 µg/L       1.16318      9.8849 ppb        1.16318  11.77%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              21.9      1.3539 µg/L       0.52177      1.3539 ppb        0.52177  38.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.4      3.7076 µg/L       2.91890      3.7076 ppb        2.91890  78.73%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -10.6     -1.3709 µg/L       0.88022     -1.3709 ppb        0.88022  64.21%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              16.4        6.46 µg/L         3.276        6.46 ppb          3.276  50.67%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   127.7     13.508 µg/L        3.5439     13.508 ppb         3.5439  26.24%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             333.2      5.2448 µg/L       2.33165      5.2448 ppb        2.33165  44.46%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.1      0.4237 µg/L       0.10252      0.4237 ppb        0.10252  24.20%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               9.9      0.0232 µg/L       0.24573      0.0232 ppb        0.24573 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -42.0     -0.0397 µg/L       0.10668     -0.0397 ppb        0.10668 268.57%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -8.0     -1.1000 µg/L       0.27983     -1.1000 ppb        0.27983  25.44%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -128.7     -8.1333 µg/L      17.09155     -8.1333 ppb       17.09155 210.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -34.6     -0.1787 µg/L       0.56012     -0.1787 ppb        0.56012 313.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              93.1      0.5523 µg/L       0.07204      0.5523 ppb        0.07204  13.04%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 92
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 19:02:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135345.8	135345.8	96.6	%			19:02:59
1	Al 396.153Radial†	23089.9	23978.3	5024.6	µg/L	5024.6	ppb	19:02:59
1	Ca 317.933Radial†	72828.8	74811.8	5095.4	µg/L	5095.4	ppb	19:02:59
1	Fe 238.204 Radial†	65814.3	68005.4	5078.6	µg/L	5078.6	ppb	19:02:59
1	K 766.490 Radial†	13964.3	12960.3	5131.3	µg/L	5131.3	ppb	19:02:59
1	Mg 279.077 IEC†	10773.2	10978.6	5077.4	µg/L	5077.4	ppb	19:02:59
1	Na 589.592 Radial†	64263.8	65565.3	10159	µg/L	10159	ppb	19:02:59
1	Sr 421.552†	210059.6	217631.8	513.24	µg/L	513.24	ppb	19:02:57
1	Sc 361.383	1771235.4	1771235.4	98.175	%			19:03:26
1	Y 371.029	1028869.9	1028869.9	97.311	%			19:03:26
1	Ag 328.068†	124756.2	122509.6	507.83	µg/L	507.83	ppb	19:03:26
1	As 188.979†	1332.7	1376.0	472.77	µg/L	472.77	ppb	19:03:46
1	B 249.677†	35469.5	32063.5	496.87	µg/L	496.87	ppb	19:03:26
1	Ba 233.527†	110565.8	112765.1	501.64	µg/L	501.64	ppb	19:03:26
1	Be 313.107†	1670083.7	1702213.0	493.23	µg/L	493.23	ppb	19:03:26
1	Cd 226.502†	73580.7	75051.5	506.94	µg/L	506.94	ppb	19:03:26
1	Co 228.616†	37652.0	38562.0	510.41	µg/L	510.41	ppb	19:03:26
1	Cr 267.716†	57722.5	58562.0	506.49	µg/L	506.49	ppb	19:03:26
1	Cu 324.752†	121142.7	120358.0	504.99	µg/L	504.99	ppb	19:03:26
1	Mn 257.610†	374994.6	381778.9	506.23	µg/L	506.23	ppb	19:03:26
1	Mo 202.031†	15249.3	15571.3	509.71	µg/L	509.71	ppb	19:03:46
1	Ni 231.604†	39658.1	40491.0	506.59	µg/L	506.59	ppb	19:03:26
1	P 214.914†	10707.4	10932.1	2520.1	µg/L	2520.1	ppb	19:03:46
1	Pb 220.353†	8274.0	8324.3	513.85	µg/L	513.85	ppb	19:03:46
1	S 181.975 Axial†	1280.1	1215.0	1026.4	µg/L	1026.4	ppb	19:03:46
1	Sb 206.836†	3940.3	3923.8	507.15	µg/L	507.15	ppb	19:03:46
1	Se 196.026†	1259.0	1276.2	505	µg/L	505	ppb	19:03:46
1	SiO2†	51503.4	50721.4	5349.5	µg/L	5349.5	ppb	19:03:26
1	Si 251.611†	157527.4	159687.9	2508.0	µg/L	2508.0	ppb	19:03:26
1	Sn 189.927†	7083.4	7213.2	502.03	µg/L	502.03	ppb	19:03:46
1	Ti 334.940†	481705.4	489834.6	502.45	µg/L	502.45	ppb	19:03:26
1	Tl 190.801†	3511.4	3691.0	511.57	µg/L	511.57	ppb	19:03:46
1	U 409.014†	7325.5	7625.0	511.93	µg/L	511.93	ppb	19:03:26
1	V 292.402†	95840.7	97198.7	510.54	µg/L	510.54	ppb	19:03:26
1	Zn 213.857†	84119.9	85180.3	504.68	µg/L	504.68	ppb	19:03:26
2	Sc RADIAL	137692.9	137692.9	98.3	%			19:03:03
2	Al 396.153Radial†	23514.1	24002.5	5029.8	µg/L	5029.8	ppb	19:03:03
2	Ca 317.933Radial†	74394.8	75120.1	5116.4	µg/L	5116.4	ppb	19:03:03
2	Fe 238.204 Radial†	66990.4	68040.8	5081.2	µg/L	5081.2	ppb	19:03:03
2	K 766.490 Radial†	14343.0	13099.2	5186.3	µg/L	5186.3	ppb	19:03:03
2	Mg 279.077 IEC†	11040.0	11060.0	5114.9	µg/L	5114.9	ppb	19:03:03
2	Na 589.592 Radial†	65689.4	65882.0	10208	µg/L	10208	ppb	19:03:03
2	Sr 421.552†	209519.7	213376.3	503.20	µg/L	503.20	ppb	19:03:01
2	Sc 361.383	1762967.5	1762967.5	97.717	%			19:03:49
2	Y 371.029	1023549.1	1023549.1	96.808	%			19:03:49
2	Ag 328.068†	125126.3	123484.3	511.84	µg/L	511.84	ppb	19:03:49
2	As 188.979†	1321.5	1370.9	471.07	µg/L	471.07	ppb	19:04:09
2	B 249.677†	35656.7	32424.5	502.48	µg/L	502.48	ppb	19:03:49
2	Ba 233.527†	110226.7	112946.3	502.45	µg/L	502.45	ppb	19:03:49
2	Be 313.107†	1670140.6	1710249.1	495.56	µg/L	495.56	ppb	19:03:49
2	Cd 226.502†	73471.2	75290.9	508.56	µg/L	508.56	ppb	19:03:49
2	Co 228.616†	37658.9	38749.0	512.89	µg/L	512.89	ppb	19:03:49
2	Cr 267.716†	57719.6	58834.8	508.86	µg/L	508.86	ppb	19:03:49
2	Cu 324.752†	121061.1	120853.1	507.06	µg/L	507.06	ppb	19:03:49
2	Mn 257.610†	374442.4	383005.2	507.86	µg/L	507.86	ppb	19:03:49
2	Mo 202.031†	15162.1	15554.9	509.17	µg/L	509.17	ppb	19:04:09
2	Ni 231.604†	39720.1	40744.0	509.76	µg/L	509.76	ppb	19:03:49
2	P 214.914†	10662.2	10937.0	2521.3	µg/L	2521.3	ppb	19:04:09
2	Pb 220.353†	8201.2	8289.4	511.71	µg/L	511.71	ppb	19:04:09

2	S 181.975 Axial†	1268.2	1208.9	1021.3 µg/L	1021.3 ppb	19:04:09
2	Sb 206.836†	3920.5	3922.4	506.92 µg/L	506.92 ppb	19:04:09
2	Se 196.026†	1262.5	1285.9	509 µg/L	509 ppb	19:04:09
2	SiO2†	51396.1	50857.7	5364.0 µg/L	5364.0 ppb	19:03:49
2	Si 251.611†	157570.1	160484.1	2520.6 µg/L	2520.6 ppb	19:03:49
2	Sn 189.927†	7043.5	7206.2	501.55 µg/L	501.55 ppb	19:04:09
2	Ti 334.940†	480702.6	491109.4	503.76 µg/L	503.76 ppb	19:03:49
2	Tl 190.801†	3495.8	3691.7	511.69 µg/L	511.69 ppb	19:04:09
2	U 409.014†	7074.0	7402.7	498.06 µg/L	498.06 ppb	19:03:49
2	V 292.402†	95880.1	97696.8	513.12 µg/L	513.12 ppb	19:03:49
2	Zn 213.857†	83969.9	85428.6	506.14 µg/L	506.14 ppb	19:03:49
3	Sc RADIAL	135773.5	135773.5	96.9 %		19:03:08
3	Al 396.153Radial†	23143.1	23957.9	5020.3 µg/L	5020.3 ppb	19:03:08
3	Ca 317.933Radial†	73300.6	75061.1	5112.3 µg/L	5112.3 ppb	19:03:08
3	Fe 238.204 Radial†	65974.6	67956.2	5074.9 µg/L	5074.9 ppb	19:03:08
3	K 766.490 Radial†	14024.3	12976.7	5137.8 µg/L	5137.8 ppb	19:03:08
3	Mg 279.077 IEC†	10810.3	10981.8	5078.8 µg/L	5078.8 ppb	19:03:08
3	Na 589.592 Radial†	64777.7	65885.9	10208 µg/L	10208 ppb	19:03:08
3	Sr 421.552†	214060.8	221075.3	521.36 µg/L	521.36 ppb	19:03:06
3	Sc 361.383	1755029.9	1755029.9	97.277 %		19:04:13
3	Y 371.029	1019203.8	1019203.8	96.397 %		19:04:13
3	Ag 328.068†	124449.8	123367.9	511.37 µg/L	511.37 ppb	19:04:13
3	As 188.979†	1332.2	1388.0	476.85 µg/L	476.85 ppb	19:04:33
3	B 249.677†	35486.4	32414.6	502.32 µg/L	502.32 ppb	19:04:13
3	Ba 233.527†	109908.6	113129.5	503.26 µg/L	503.26 ppb	19:04:13
3	Be 313.107†	1662735.4	1710366.8	495.59 µg/L	495.59 ppb	19:04:13
3	Cd 226.502†	73335.6	75491.6	509.92 µg/L	509.92 ppb	19:04:13
3	Co 228.616†	37659.2	38923.5	515.20 µg/L	515.20 ppb	19:04:13
3	Cr 267.716†	57372.2	58744.8	508.08 µg/L	508.08 ppb	19:04:13
3	Cu 324.752†	120846.8	121193.2	508.48 µg/L	508.48 ppb	19:04:13
3	Mn 257.610†	373612.3	383884.9	509.03 µg/L	509.03 ppb	19:04:13
3	Mo 202.031†	15166.0	15629.0	511.59 µg/L	511.59 ppb	19:04:33
3	Ni 231.604†	39679.7	40886.2	511.54 µg/L	511.54 ppb	19:04:13
3	P 214.914†	10656.9	10980.8	2531.4 µg/L	2531.4 ppb	19:04:33
3	Pb 220.353†	8224.0	8350.8	515.48 µg/L	515.48 ppb	19:04:33
3	S 181.975 Axial†	1262.5	1209.0	1021.4 µg/L	1021.4 ppb	19:04:33
3	Sb 206.836†	3897.8	3917.2	506.29 µg/L	506.29 ppb	19:04:33
3	Se 196.026†	1275.7	1305.2	516 µg/L	516 ppb	19:04:33
3	SiO2†	51287.4	50983.8	5377.2 µg/L	5377.2 ppb	19:04:13
3	Si 251.611†	157039.6	160668.1	2523.4 µg/L	2523.4 ppb	19:04:13
3	Sn 189.927†	7047.3	7242.7	504.08 µg/L	504.08 ppb	19:04:33
3	Ti 334.940†	479203.0	491792.8	504.46 µg/L	504.46 ppb	19:04:13
3	Tl 190.801†	3488.8	3700.8	512.92 µg/L	512.92 ppb	19:04:33
3	U 409.014†	7177.5	7541.7	506.84 µg/L	506.84 ppb	19:04:13
3	V 292.402†	95445.9	97694.2	513.13 µg/L	513.13 ppb	19:04:13
3	Zn 213.857†	83688.7	85528.2	506.73 µg/L	506.73 ppb	19:04:13

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1763077.6	97.723	%	0.4491				0.46%
Sc RADIAL	136270.7	97.3	%	0.89				0.92%
Y 371.029	1023874.3	96.839	%	0.4579				0.47%
Ag 328.068†	123120.6	510.35	µg/L	2.189	510.35	ppb	2.189	0.43%
QC value within limits for Ag 328.068 Recovery = 102.07%								
Al 396.153Radial†	23979.6	5024.9	µg/L	4.75	5024.9	ppb	4.75	0.09%
QC value within limits for Al 396.153Radial Recovery = 100.50%								
As 188.979†	1378.3	473.56	µg/L	2.968	473.56	ppb	2.968	0.63%
QC value within limits for As 188.979 Recovery = 94.71%								
B 249.677†	32300.9	500.56	µg/L	3.190	500.56	ppb	3.190	0.64%
QC value within limits for B 249.677 Recovery = 100.11%								
Ba 233.527†	112947.0	502.45	µg/L	0.811	502.45	ppb	0.811	0.16%
QC value within limits for Ba 233.527 Recovery = 100.49%								
Be 313.107†	1707609.6	494.80	µg/L	1.352	494.80	ppb	1.352	0.27%
QC value within limits for Be 313.107 Recovery = 98.96%								
Ca 317.933Radial†	74997.7	5108.0	µg/L	11.15	5108.0	ppb	11.15	0.22%
QC value within limits for Ca 317.933Radial Recovery = 102.16%								
Cd 226.502†	75278.0	508.47	µg/L	1.491	508.47	ppb	1.491	0.29%
QC value within limits for Cd 226.502 Recovery = 101.69%								
Co 228.616†	38744.8	512.83	µg/L	2.393	512.83	ppb	2.393	0.47%

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   QC value within limits for Co 228.616  Recovery = 102.57%
Cr 267.716†            58713.9      507.81 µg/L         1.208      507.81 ppb          1.208   0.24%
   QC value within limits for Cr 267.716  Recovery = 101.56%
Cu 324.752†           120801.4      506.84 µg/L         1.755      506.84 ppb          1.755   0.35%
   QC value within limits for Cu 324.752  Recovery = 101.37%
Fe 238.204 Radial†     68000.8      5078.3 µg/L          3.17      5078.3 ppb           3.17   0.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.57%
K 766.490 Radial†      13012.1      5151.8 µg/L         30.06      5151.8 ppb          30.06   0.58%
   QC value within limits for K 766.490 Radial  Recovery = 103.04%
Mg 279.077 IEC†        11006.8      5090.4 µg/L         21.26      5090.4 ppb          21.26   0.42%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.81%
Mn 257.610†           382889.7      507.71 µg/L         1.403      507.71 ppb          1.403   0.28%
   QC value within limits for Mn 257.610  Recovery = 101.54%
Mo 202.031†            15585.1      510.16 µg/L         1.273      510.16 ppb          1.273   0.25%
   QC value within limits for Mo 202.031  Recovery = 102.03%
Na 589.592 Radial†     65777.7       10191 µg/L          28.5       10191 ppb           28.5   0.28%
   QC value within limits for Na 589.592 Radial  Recovery = 101.91%
Ni 231.604†            40707.1      509.30 µg/L         2.504      509.30 ppb          2.504   0.49%
   QC value within limits for Ni 231.604  Recovery = 101.86%
P 214.914†             10950.0      2524.3 µg/L          6.19      2524.3 ppb           6.19   0.25%
   QC value within limits for P 214.914  Recovery = 100.97%
Pb 220.353†             8321.5      513.68 µg/L         1.894      513.68 ppb          1.894   0.37%
   QC value within limits for Pb 220.353  Recovery = 102.74%
S 181.975 Axial†        1210.9      1023.0 µg/L          2.92      1023.0 ppb           2.92   0.29%
   QC value within limits for S 181.975 Axial  Recovery = 102.30%
Sb 206.836†             3921.1      506.79 µg/L         0.440      506.79 ppb          0.440   0.09%
   QC value within limits for Sb 206.836  Recovery = 101.36%
Se 196.026†             1289.1         510 µg/L           5.8         510 ppb            5.8   1.14%
   QC value within limits for Se 196.026  Recovery = 102.02%
SiO2†                  50854.3      5363.6 µg/L         13.86      5363.6 ppb          13.86   0.26%
   QC value within limits for SiO2  Recovery = 100.30%
Si 251.611†           160280.0      2517.3 µg/L          8.20      2517.3 ppb           8.20   0.33%
   QC value within limits for Si 251.611  Recovery = 100.69%
Sn 189.927†             7220.7      502.55 µg/L         1.347      502.55 ppb          1.347   0.27%
   QC value within limits for Sn 189.927  Recovery = 100.51%
Sr 421.552†           217361.1      512.60 µg/L         9.096      512.60 ppb          9.096   1.77%
   QC value within limits for Sr 421.552  Recovery = 102.52%
Ti 334.940†           490912.3      503.56 µg/L         1.022      503.56 ppb          1.022   0.20%
   QC value within limits for Ti 334.940  Recovery = 100.71%
Tl 190.801†             3694.5      512.06 µg/L         0.749      512.06 ppb          0.749   0.15%
   QC value within limits for Tl 190.801  Recovery = 102.41%
U 409.014†              7523.1      505.61 µg/L         7.019      505.61 ppb          7.019   1.39%
   QC value within limits for U 409.014  Recovery = 101.12%
V 292.402†             97529.9      512.26 µg/L         1.491      512.26 ppb          1.491   0.29%
   QC value within limits for V 292.402  Recovery = 102.45%
Zn 213.857†            85379.0      505.85 µg/L         1.052      505.85 ppb          1.052   0.21%
   QC value within limits for Zn 213.857  Recovery = 101.17%
All analyte(s) passed QC.
```

Sequence No.: 93
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 19:04:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135410.3	135410.3	96.7	%			19:05:09
1	Al 396.153Radial†	-78.8	-3.0	-0.6555	µg/L	-0.6555	ppb	19:05:29
1	Ca 317.933Radial†	712.3	165.5	11.271	µg/L	11.271	ppb	19:05:29
1	Fe 238.204 Radial†	182.6	71.6	5.3438	µg/L	5.3438	ppb	19:05:29
1	K 766.490 Radial†	1595.1	156.4	61.981	µg/L	61.981	ppb	19:05:09
1	Mg 279.077 IEC†	151.9	-15.3	-7.0536	µg/L	-7.0536	ppb	19:05:29
1	Na 589.592 Radial†	1194.5	283.3	43.865	µg/L	43.865	ppb	19:05:09
1	Sr 421.552†	-197.2	0.4	0.0009	µg/L	0.0009	ppb	19:05:09
1	Sc 361.383	1774981.9	1774981.9	98.383	%			19:06:17
1	Y 371.029	1042222.9	1042222.9	98.574	%			19:06:17
1	Ag 328.068†	4006.0	-493.3	-2.0325	µg/L	-2.0325	ppb	19:06:19
1	As 188.979†	-12.9	5.5	1.8626	µg/L	1.8626	ppb	19:06:39
1	B 249.677†	3961.2	-38.9	-0.6056	µg/L	-0.6056	ppb	19:06:19
1	Ba 233.527†	-151.9	-9.9	-0.0438	µg/L	-0.0438	ppb	19:06:39
1	Be 313.107†	-606.2	475.5	0.1346	µg/L	0.1346	ppb	19:06:19
1	Cd 226.502†	-50.8	51.7	0.3490	µg/L	0.3490	ppb	19:06:39
1	Co 228.616†	-184.9	22.3	0.2951	µg/L	0.2951	ppb	19:06:39
1	Cr 267.716†	271.2	42.5	0.3758	µg/L	0.3758	ppb	19:06:39
1	Cu 324.752†	2885.6	-103.1	-0.4392	µg/L	-0.4392	ppb	19:06:19
1	Mn 257.610†	284.9	104.8	0.1393	µg/L	0.1393	ppb	19:06:39
1	Mo 202.031†	-17.9	20.4	0.6682	µg/L	0.6682	ppb	19:06:39
1	Ni 231.604†	-84.1	10.4	0.1307	µg/L	0.1307	ppb	19:06:39
1	P 214.914†	25.0	51.1	11.811	µg/L	11.811	ppb	19:06:39
1	Pb 220.353†	145.1	44.0	2.7188	µg/L	2.7188	ppb	19:06:39
1	S 181.975 Axial†	87.7	0.3	0.2297	µg/L	0.2297	ppb	19:06:39
1	Sb 206.836†	82.2	-6.2	-0.7954	µg/L	-0.7954	ppb	19:06:39
1	Se 196.026†	22.7	17.0	6.67	µg/L	6.67	ppb	19:06:39
1	SiO2†	1753.5	43.2	4.5587	µg/L	4.5587	ppb	19:06:39
1	Si 251.611†	967.3	216.2	3.4013	µg/L	3.4013	ppb	19:06:19
1	Sn 189.927†	-0.8	-2.7	-0.1877	µg/L	-0.1877	ppb	19:06:39
1	Ti 334.940†	576.8	-236.7	-0.2381	µg/L	-0.2381	ppb	19:06:19
1	Tl 190.801†	-113.0	-0.5	-0.0763	µg/L	-0.0763	ppb	19:06:39
1	U 409.014†	-324.2	-166.2	-10.487	µg/L	-10.487	ppb	19:06:19
1	V 292.402†	415.8	-0.6	-0.0022	µg/L	-0.0022	ppb	19:06:19
1	Zn 213.857†	601.6	108.5	0.6465	µg/L	0.6465	ppb	19:06:39
2	Sc RADIAL	135996.6	135996.6	97.1	%			19:05:31
2	Al 396.153Radial†	-43.9	33.4	6.9736	µg/L	6.9736	ppb	19:05:51
2	Ca 317.933Radial†	729.9	180.4	12.289	µg/L	12.289	ppb	19:05:51
2	Fe 238.204 Radial†	169.8	57.6	4.3046	µg/L	4.3046	ppb	19:05:51
2	K 766.490 Radial†	1640.3	195.9	77.627	µg/L	77.627	ppb	19:05:31
2	Mg 279.077 IEC†	170.3	3.0	1.4191	µg/L	1.4191	ppb	19:05:51
2	Na 589.592 Radial†	1209.6	293.5	45.428	µg/L	45.428	ppb	19:05:31
2	Sr 421.552†	-150.1	49.9	0.1175	µg/L	0.1175	ppb	19:05:31
2	Sc 361.383	1783227.1	1783227.1	98.840	%			19:06:41
2	Y 371.029	1046615.8	1046615.8	98.990	%			19:06:41
2	Ag 328.068†	4365.9	-148.0	-0.6118	µg/L	-0.6118	ppb	19:06:43
2	As 188.979†	-10.1	8.3	2.8239	µg/L	2.8239	ppb	19:07:04
2	B 249.677†	4137.3	120.8	1.8777	µg/L	1.8777	ppb	19:06:43
2	Ba 233.527†	-170.0	-27.5	-0.1215	µg/L	-0.1215	ppb	19:07:04
2	Be 313.107†	-748.3	334.6	0.0943	µg/L	0.0943	ppb	19:06:43
2	Cd 226.502†	-72.3	30.2	0.2036	µg/L	0.2036	ppb	19:07:04
2	Co 228.616†	-202.6	5.3	0.0699	µg/L	0.0699	ppb	19:07:04
2	Cr 267.716†	277.5	47.5	0.4184	µg/L	0.4184	ppb	19:07:04
2	Cu 324.752†	2774.9	-228.7	-0.9631	µg/L	-0.9631	ppb	19:06:43
2	Mn 257.610†	285.5	104.1	0.1380	µg/L	0.1380	ppb	19:07:04
2	Mo 202.031†	-3.7	34.8	1.1400	µg/L	1.1400	ppb	19:07:04
2	Ni 231.604†	-81.5	13.4	0.1682	µg/L	0.1682	ppb	19:07:04
2	P 214.914†	26.1	52.1	12.057	µg/L	12.057	ppb	19:07:04
2	Pb 220.353†	96.6	-5.7	-0.3418	µg/L	-0.3418	ppb	19:07:04

2	S 181.975 Axial†	87.9	-0.0	-0.0075 µg/L	-0.0075 ppb	19:07:04
2	Sb 206.836†	84.1	-4.6	-0.5852 µg/L	-0.5852 ppb	19:07:04
2	Se 196.026†	26.5	20.6	8.12 µg/L	8.12 ppb	19:07:04
2	SiO2†	1760.4	42.0	4.4127 µg/L	4.4127 ppb	19:07:04
2	Si 251.611†	951.0	195.1	3.0617 µg/L	3.0617 ppb	19:06:43
2	Sn 189.927†	1.7	-0.2	-0.0150 µg/L	-0.0150 ppb	19:07:04
2	Ti 334.940†	688.0	-126.9	-0.1267 µg/L	-0.1267 ppb	19:06:43
2	Tl 190.801†	-120.6	-7.7	-1.0540 µg/L	-1.0540 ppb	19:07:04
2	U 409.014†	-298.6	-138.7	-8.7276 µg/L	-8.7276 ppb	19:06:43
2	V 292.402†	502.0	84.6	0.4459 µg/L	0.4459 ppb	19:06:43
2	Zn 213.857†	587.1	91.0	0.5424 µg/L	0.5424 ppb	19:07:04
3	Sc RADIAL	137628.9	137628.9	98.2 %		19:05:53
3	Al 396.153Radial†	-36.9	41.0	8.6030 µg/L	8.6030 ppb	19:06:13
3	Ca 317.933Radial†	721.8	163.3	11.120 µg/L	11.120 ppb	19:06:13
3	Fe 238.204 Radial†	179.5	65.4	4.8824 µg/L	4.8824 ppb	19:06:13
3	K 766.490 Radial†	1571.8	106.2	42.063 µg/L	42.063 ppb	19:05:53
3	Mg 279.077 IEC†	165.7	-3.8	-1.7374 µg/L	-1.7374 ppb	19:06:13
3	Na 589.592 Radial†	1024.3	90.1	13.930 µg/L	13.930 ppb	19:05:53
3	Sr 421.552†	-192.2	8.8	0.0207 µg/L	0.0207 ppb	19:05:53
3	Sc 361.383	1805488.2	1805488.2	100.07 %		19:07:06
3	Y 371.029	1059716.1	1059716.1	100.23 %		19:07:06
3	Ag 328.068†	4097.2	-471.0	-1.9433 µg/L	-1.9433 ppb	19:07:08
3	As 188.979†	-25.6	-7.1	-2.3863 µg/L	-2.3863 ppb	19:07:28
3	B 249.677†	3932.8	-135.2	-2.1040 µg/L	-2.1040 ppb	19:07:08
3	Ba 233.527†	-145.1	-0.5	-0.0025 µg/L	-0.0025 ppb	19:07:28
3	Be 313.107†	-666.7	425.5	0.1219 µg/L	0.1219 ppb	19:07:08
3	Cd 226.502†	-47.1	56.3	0.3802 µg/L	0.3802 ppb	19:07:28
3	Co 228.616†	-185.0	25.5	0.3367 µg/L	0.3367 ppb	19:07:28
3	Cr 267.716†	263.5	30.1	0.2634 µg/L	0.2634 ppb	19:07:28
3	Cu 324.752†	2844.7	-193.6	-0.8123 µg/L	-0.8123 ppb	19:07:08
3	Mn 257.610†	305.2	120.2	0.1596 µg/L	0.1596 ppb	19:07:28
3	Mo 202.031†	-15.6	23.0	0.7506 µg/L	0.7506 ppb	19:07:28
3	Ni 231.604†	-66.7	29.3	0.3664 µg/L	0.3664 ppb	19:07:28
3	P 214.914†	38.2	63.8	14.766 µg/L	14.766 ppb	19:07:28
3	Pb 220.353†	104.0	0.5	0.0365 µg/L	0.0365 ppb	19:07:28
3	S 181.975 Axial†	81.9	-7.0	-5.9085 µg/L	-5.9085 ppb	19:07:28
3	Sb 206.836†	69.9	-19.9	-2.5547 µg/L	-2.5547 ppb	19:07:28
3	Se 196.026†	9.2	3.0	1.18 µg/L	1.18 ppb	19:07:28
3	SiO2†	1784.3	43.9	4.6193 µg/L	4.6193 ppb	19:07:28
3	Si 251.611†	1005.7	237.9	3.7396 µg/L	3.7396 ppb	19:07:08
3	Sn 189.927†	6.9	5.1	0.3502 µg/L	0.3502 ppb	19:07:28
3	Ti 334.940†	719.5	-104.0	-0.1047 µg/L	-0.1047 ppb	19:07:08
3	Tl 190.801†	-118.1	-3.8	-0.5234 µg/L	-0.5234 ppb	19:07:28
3	U 409.014†	-232.6	-69.1	-4.4077 µg/L	-4.4077 ppb	19:07:08
3	V 292.402†	267.0	-156.4	-0.8053 µg/L	-0.8053 ppb	19:07:08
3	Zn 213.857†	576.2	72.8	0.4323 µg/L	0.4323 ppb	19:07:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787899.1	99.099	%	0.8747				0.88%
Sc RADIAL	136345.3	97.3	%	0.82				0.84%
Y 371.029	1049518.2	99.264	%	0.8607				0.87%
Ag 328.068†	-370.8	-1.5292	µg/L	0.79573	-1.5292	ppb	0.79573	52.04%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	23.8	4.9737	µg/L	4.94264	4.9737	ppb	4.94264	99.38%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.2	0.7668	µg/L	2.77258	0.7668	ppb	2.77258	361.60%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-17.8	-0.2773	µg/L	2.01105	-0.2773	ppb	2.01105	725.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-12.6	-0.0559	µg/L	0.06042	-0.0559	ppb	0.06042	108.03%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	411.9	0.1169	µg/L	0.02061	0.1169	ppb	0.02061	17.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	169.7	11.560	µg/L	0.6358	11.560	ppb	0.6358	5.50%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	46.1	0.3109	µg/L	0.09427	0.3109	ppb	0.09427	30.32%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.7	0.2339	µg/L	0.14357	0.2339	ppb	0.14357	61.38%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              40.0      0.3525 µg/L      0.08006      0.3525 ppb       0.08006  22.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -175.1     -0.7382 µg/L      0.26969     -0.7382 ppb       0.26969  36.54%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       64.9      4.8436 µg/L      0.52071      4.8436 ppb       0.52071  10.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       152.8      60.557 µg/L      17.8246      60.557 ppb       17.8246  29.43%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -5.4     -2.4573 µg/L      4.28198     -2.4573 ppb       4.28198 174.26%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             109.7      0.1456 µg/L      0.01208      0.1456 ppb       0.01208   8.30%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              26.1      0.8529 µg/L      0.25199      0.8529 ppb       0.25199  29.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      222.3      34.408 µg/L      17.7512      34.408 ppb       17.7512  51.59%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              17.7      0.2217 µg/L      0.12663      0.2217 ppb       0.12663  57.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               55.7      12.878 µg/L       1.6394      12.878 ppb        1.6394  12.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              12.9      0.8045 µg/L      1.66856      0.8045 ppb       1.66856 207.41%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.3     -1.8954 µg/L      3.47746     -1.8954 ppb       3.47746 183.47%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -10.2     -1.3118 µg/L      1.08153     -1.3118 ppb       1.08153  82.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              13.5       5.32 µg/L        3.658        5.32 ppb         3.658  68.69%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    43.0      4.5303 µg/L      0.10619      4.5303 ppb       0.10619   2.34%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             216.4      3.4008 µg/L      0.33894      3.4008 ppb       0.33894   9.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.7      0.0492 µg/L      0.27462      0.0492 ppb       0.27462 558.36%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              19.7      0.0464 µg/L      0.06237      0.0464 ppb       0.06237 134.51%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -155.9     -0.1565 µg/L      0.07153     -0.1565 ppb       0.07153  45.71%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -4.0     -0.5512 µg/L      0.48944     -0.5512 ppb       0.48944  88.79%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -124.7     -7.8739 µg/L      3.12805     -7.8739 ppb       3.12805  39.73%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -24.2     -0.1205 µg/L      0.63394     -0.1205 ppb       0.63394 526.05%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              90.7      0.5404 µg/L      0.10714      0.5404 ppb       0.10714  19.83%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 94
Sample ID: 1202072045|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 410
Date Collected: 4/5/2010 19:07:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072045|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136492.2	136492.2	97.4	%			19:08:09
1	Al 396.153Radial†	-65.4	11.5	2.4018	µg/L	2.4018	ppb	19:08:29
1	Ca 317.933Radial†	739.0	187.1	12.741	µg/L	12.741	ppb	19:08:29
1	Fe 238.204 Radial†	546.9	444.0	33.156	µg/L	33.156	ppb	19:08:29
1	K 766.490 Radial†	1499.3	45.0	17.826	µg/L	17.826	ppb	19:08:09
1	Mg 279.077 IEC†	153.5	-14.9	-6.9225	µg/L	-6.9225	ppb	19:08:29
1	Na 589.592 Radial†	1161.4	239.5	37.105	µg/L	37.105	ppb	19:08:09
1	Sr 421.552†	-178.3	21.4	0.0505	µg/L	0.0505	ppb	19:08:09
1	Sc 361.383	1769566.8	1769566.8	98.083	%			19:09:31
1	Y 371.029	1035721.4	1035721.4	97.959	%			19:09:31
1	Ag 328.068†	4368.9	-110.8	-0.4544	µg/L	-0.4544	ppb	19:09:33
1	As 188.979†	-10.8	7.5	2.5463	µg/L	2.5463	ppb	19:09:53
1	B 249.677†	4342.6	362.3	5.6357	µg/L	5.6357	ppb	19:09:33
1	Ba 233.527†	-146.2	-4.6	-0.0205	µg/L	-0.0205	ppb	19:09:53
1	Be 313.107†	-503.2	578.7	0.1672	µg/L	0.1672	ppb	19:09:33
1	Cd 226.502†	-66.1	36.0	0.2400	µg/L	0.2400	ppb	19:09:53
1	Co 228.616†	-227.6	-21.7	-0.2893	µg/L	-0.2893	ppb	19:09:53
1	Cr 267.716†	276.5	48.7	0.4234	µg/L	0.4234	ppb	19:09:53
1	Cu 324.752†	2765.2	-216.9	-0.9039	µg/L	-0.9039	ppb	19:09:33
1	Mn 257.610†	665.0	493.3	0.6545	µg/L	0.6545	ppb	19:09:53
1	Mo 202.031†	-29.4	8.6	0.2816	µg/L	0.2816	ppb	19:09:53
1	Ni 231.604†	-64.3	30.4	0.3799	µg/L	0.3799	ppb	19:09:53
1	P 214.914†	21.7	47.8	11.055	µg/L	11.055	ppb	19:09:53
1	Pb 220.353†	115.1	13.9	0.8552	µg/L	0.8552	ppb	19:09:53
1	S 181.975 Axial†	103.5	16.6	14.009	µg/L	14.009	ppb	19:09:53
1	Sb 206.836†	82.1	-6.0	-0.7781	µg/L	-0.7781	ppb	19:09:53
1	Se 196.026†	13.8	7.9	3.13	µg/L	3.13	ppb	19:09:53
1	SiO2†	2248.6	553.5	58.597	µg/L	58.597	ppb	19:09:33
1	Si 251.611†	2333.4	1612.0	25.413	µg/L	25.413	ppb	19:09:33
1	Sn 189.927†	7.7	6.0	0.4155	µg/L	0.4155	ppb	19:09:53
1	Ti 334.940†	949.2	144.7	0.1501	µg/L	0.1501	ppb	19:09:33
1	Tl 190.801†	-120.2	-8.3	-1.1283	µg/L	-1.1283	ppb	19:09:53
1	U 409.014†	-185.1	-25.4	-1.5958	µg/L	-1.5958	ppb	19:09:33
1	V 292.402†	444.8	30.3	0.1569	µg/L	0.1569	ppb	19:09:33
1	Zn 213.857†	749.5	261.2	1.5546	µg/L	1.5546	ppb	19:09:53
2	Sc RADIAL	135377.1	135377.1	96.6	%			19:08:31
2	Al 396.153Radial†	-79.6	-3.9	-0.7960	µg/L	-0.7960	ppb	19:08:51
2	Ca 317.933Radial†	740.5	194.8	13.270	µg/L	13.270	ppb	19:08:51
2	Fe 238.204 Radial†	522.2	423.1	31.598	µg/L	31.598	ppb	19:08:51
2	K 766.490 Radial†	1645.2	208.8	82.713	µg/L	82.713	ppb	19:08:31
2	Mg 279.077 IEC†	180.4	14.2	6.5237	µg/L	6.5237	ppb	19:08:51
2	Na 589.592 Radial†	1137.6	224.7	34.762	µg/L	34.762	ppb	19:08:31
2	Sr 421.552†	-75.8	126.0	0.2971	µg/L	0.2971	ppb	19:08:31
2	Sc 361.383	1780793.8	1780793.8	98.705	%			19:09:55
2	Y 371.029	1042757.6	1042757.6	98.625	%			19:09:55
2	Ag 328.068†	4508.4	2.4	0.0043	µg/L	0.0043	ppb	19:09:57
2	As 188.979†	-19.1	-0.8	-0.2743	µg/L	-0.2743	ppb	19:10:17
2	B 249.677†	4167.5	157.1	2.4412	µg/L	2.4412	ppb	19:09:57
2	Ba 233.527†	-139.9	2.8	0.0115	µg/L	0.0115	ppb	19:10:17
2	Be 313.107†	-789.6	291.7	0.0844	µg/L	0.0844	ppb	19:09:57
2	Cd 226.502†	-85.6	16.6	0.1095	µg/L	0.1095	ppb	19:10:17
2	Co 228.616†	-182.2	25.7	0.3379	µg/L	0.3379	ppb	19:10:17
2	Cr 267.716†	277.8	48.2	0.4180	µg/L	0.4180	ppb	19:10:17
2	Cu 324.752†	2845.6	-153.2	-0.6359	µg/L	-0.6359	ppb	19:09:57
2	Mn 257.610†	659.2	483.1	0.6406	µg/L	0.6406	ppb	19:10:17
2	Mo 202.031†	-50.9	-13.0	-0.4243	µg/L	-0.4243	ppb	19:10:17
2	Ni 231.604†	-43.8	51.6	0.6452	µg/L	0.6452	ppb	19:10:17
2	P 214.914†	21.9	47.9	11.082	µg/L	11.082	ppb	19:10:17
2	Pb 220.353†	156.0	54.5	3.3545	µg/L	3.3545	ppb	19:10:17

2	S 181.975 Axial†	95.8	8.2	6.8658 µg/L	6.8658 ppb	19:10:17
2	Sb 206.836†	94.8	6.3	0.7986 µg/L	0.7986 ppb	19:10:17
2	Se 196.026†	26.2	20.4	8.03 µg/L	8.03 ppb	19:10:17
2	SiO2†	2128.4	417.2	44.177 µg/L	44.177 ppb	19:09:57
2	Si 251.611†	2230.6	1492.8	23.539 µg/L	23.539 ppb	19:09:57
2	Sn 189.927†	15.7	14.0	0.9745 µg/L	0.9745 ppb	19:10:17
2	Ti 334.940†	913.5	102.5	0.1051 µg/L	0.1051 ppb	19:09:57
2	Tl 190.801†	-131.9	-19.4	-2.6445 µg/L	-2.6445 ppb	19:10:17
2	U 409.014†	-165.4	-4.2	-0.2873 µg/L	-0.2873 ppb	19:09:57
2	V 292.402†	346.6	-72.1	-0.3799 µg/L	-0.3799 ppb	19:09:57
2	Zn 213.857†	751.8	258.7	1.5378 µg/L	1.5378 ppb	19:10:17
3	Sc RADIAL	135286.0	135286.0	96.6 %		19:08:53
3	Al 396.153Radial†	-63.8	12.5	2.6169 µg/L	2.6169 ppb	19:09:13
3	Ca 317.933Radial†	723.1	177.3	12.077 µg/L	12.077 ppb	19:09:13
3	Fe 238.204 Radial†	550.0	452.2	33.771 µg/L	33.771 ppb	19:09:13
3	K 766.490 Radial†	1744.0	312.2	123.69 µg/L	123.69 ppb	19:08:53
3	Mg 279.077 IEC†	159.2	-7.6	-3.5117 µg/L	-3.5117 ppb	19:09:13
3	Na 589.592 Radial†	1179.0	268.3	41.485 µg/L	41.485 ppb	19:08:53
3	Sr 421.552†	-71.4	130.5	0.3077 µg/L	0.3077 ppb	19:08:53
3	Sc 361.383	1776832.8	1776832.8	98.486 %		19:10:20
3	Y 371.029	1040822.6	1040822.6	98.442 %		19:10:20
3	Ag 328.068†	3938.5	-566.1	-2.3158 µg/L	-2.3158 ppb	19:10:22
3	As 188.979†	-11.6	6.8	2.2945 µg/L	2.2945 ppb	19:10:42
3	B 249.677†	4269.6	270.1	4.1997 µg/L	4.1997 ppb	19:10:22
3	Ba 233.527†	-149.9	-7.7	-0.0350 µg/L	-0.0350 ppb	19:10:42
3	Be 313.107†	-832.1	246.9	0.0745 µg/L	0.0745 ppb	19:10:22
3	Cd 226.502†	-69.8	32.5	0.2162 µg/L	0.2162 ppb	19:10:42
3	Co 228.616†	-198.4	8.8	0.1152 µg/L	0.1152 ppb	19:10:42
3	Cr 267.716†	258.1	28.9	0.2427 µg/L	0.2427 ppb	19:10:42
3	Cu 324.752†	2929.4	-61.7	-0.2450 µg/L	-0.2450 ppb	19:10:22
3	Mn 257.610†	674.4	500.1	0.6634 µg/L	0.6634 ppb	19:10:42
3	Mo 202.031†	-31.0	7.1	0.2329 µg/L	0.2329 ppb	19:10:42
3	Ni 231.604†	-87.3	7.2	0.0907 µg/L	0.0907 ppb	19:10:42
3	P 214.914†	39.8	66.1	15.272 µg/L	15.272 ppb	19:10:42
3	Pb 220.353†	136.9	35.5	2.1778 µg/L	2.1778 ppb	19:10:42
3	S 181.975 Axial†	90.2	2.7	2.2620 µg/L	2.2620 ppb	19:10:42
3	Sb 206.836†	99.0	10.8	1.3963 µg/L	1.3963 ppb	19:10:42
3	Se 196.026†	9.9	3.9	1.57 µg/L	1.57 ppb	19:10:42
3	SiO2†	2282.7	578.7	61.268 µg/L	61.268 ppb	19:10:22
3	Si 251.611†	2400.4	1670.3	26.332 µg/L	26.332 ppb	19:10:22
3	Sn 189.927†	10.0	8.3	0.5760 µg/L	0.5760 ppb	19:10:42
3	Ti 334.940†	766.8	-44.4	-0.0491 µg/L	-0.0491 ppb	19:10:22
3	Tl 190.801†	-116.6	-4.1	-0.5688 µg/L	-0.5688 ppb	19:10:42
3	U 409.014†	-7.7	155.5	9.7620 µg/L	9.7620 ppb	19:10:22
3	V 292.402†	261.7	-157.5	-0.8098 µg/L	-0.8098 ppb	19:10:22
3	Zn 213.857†	760.8	269.5	1.6055 µg/L	1.6055 ppb	19:10:42

Mean Data: 1202072045|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1775731.1	98.425	%	0.3156				0.32%
Sc RADIAL	135718.5	96.9	%	0.48				0.49%
Y 371.029	1039767.2	98.342	%	0.3438				0.35%
Ag 328.068†	-224.9	-0.9220	µg/L	1.22867	-0.9220	ppb	1.22867	133.26%
Al 396.153Radial†	6.7	1.4076	µg/L	1.91137	1.4076	ppb	1.91137	135.79%
As 188.979†	4.5	1.5222	µg/L	1.56088	1.5222	ppb	1.56088	102.54%
B 249.677†	263.1	4.0922	µg/L	1.59995	4.0922	ppb	1.59995	39.10%
Ba 233.527†	-3.2	-0.0147	µg/L	0.02382	-0.0147	ppb	0.02382	162.54%
Be 313.107†	372.4	0.1087	µg/L	0.05088	0.1087	ppb	0.05088	46.81%
Ca 317.933Radial†	186.4	12.696	µg/L	0.5976	12.696	ppb	0.5976	4.71%
Cd 226.502†	28.4	0.1886	µg/L	0.06951	0.1886	ppb	0.06951	36.86%
Co 228.616†	4.3	0.0546	µg/L	0.31797	0.0546	ppb	0.31797	582.38%
Cr 267.716†	41.9	0.3613	µg/L	0.10282	0.3613	ppb	0.10282	28.46%
Cu 324.752†	-143.9	-0.5949	µg/L	0.33135	-0.5949	ppb	0.33135	55.70%
Fe 238.204 Radial†	439.8	32.842	µg/L	1.1201	32.842	ppb	1.1201	3.41%
K 766.490 Radial†	188.6	74.742	µg/L	53.3787	74.742	ppb	53.3787	71.42%
Mg 279.077 IEC†	-2.8	-1.3035	µg/L	6.98975	-1.3035	ppb	6.98975	536.24%
Mn 257.610†	492.2	0.6528	µg/L	0.01150	0.6528	ppb	0.01150	1.76%
Mo 202.031†	0.9	0.0301	µg/L	0.39423	0.0301	ppb	0.39423	>999.9%
Na 589.592 Radial†	244.2	37.784	µg/L	3.4126	37.784	ppb	3.4126	9.03%

Ni 231.604†	29.7	0.3719	µg/L	0.27735	0.3719	ppb	0.27735 74.57%
P 214.914†	53.9	12.470	µg/L	2.4273	12.470	ppb	2.4273 19.47%
Pb 220.353†	34.6	2.1292	µg/L	1.25034	2.1292	ppb	1.25034 58.72%
S 181.975 Axial†	9.2	7.7122	µg/L	5.91903	7.7122	ppb	5.91903 76.75%
Sb 206.836†	3.7	0.4723	µg/L	1.12336	0.4723	ppb	1.12336 237.86%
Se 196.026†	10.7	4.24	µg/L	3.371	4.24	ppb	3.371 79.44%
SiO2†	516.5	54.681	µg/L	9.1942	54.681	ppb	9.1942 16.81%
Si 251.611†	1591.7	25.094	µg/L	1.4234	25.094	ppb	1.4234 5.67%
Sn 189.927†	9.4	0.6553	µg/L	0.28778	0.6553	ppb	0.28778 43.91%
Sr 421.552†	92.7	0.2184	µg/L	0.14555	0.2184	ppb	0.14555 66.64%
Ti 334.940†	67.6	0.0687	µg/L	0.10444	0.0687	ppb	0.10444 152.09%
Tl 190.801†	-10.6	-1.4472	µg/L	1.07394	-1.4472	ppb	1.07394 74.21%
U 409.014†	42.0	2.6263	µg/L	6.21422	2.6263	ppb	6.21422 236.61%
V 292.402†	-66.4	-0.3443	µg/L	0.48433	-0.3443	ppb	0.48433 140.69%
Zn 213.857†	263.1	1.5660	µg/L	0.03525	1.5660	ppb	0.03525 2.25%

Sequence No.: 95
Sample ID: 1202072046|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 411
Date Collected: 4/5/2010 19:10:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072046|965624|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138530.0	138530.0	98.9	%			19:11:22
1	Al 396.153Radial†	458590.2	463842.7	97626	µg/L	97626	ppb	19:11:22
1	Ca 317.933Radial†	1619014.1	1636709.0	111470	µg/L	111470	ppb	19:11:20
1	Fe 238.204 Radial†	2611261.7	2640605.6	197200	µg/L	197200	ppb	19:11:20
1	K 766.490 Radial†	112745.1	112523.4	44539	µg/L	44539	ppb	19:11:22
1	Mg 279.077 IEC†	87623.4	88439.5	40682	µg/L	40682	ppb	19:11:22
1	Na 589.592 Radial†	73029.1	72900.6	11261	µg/L	11261	ppb	19:11:22
1	Sr 421.552†	1099584.6	1112195.0	2622.2	µg/L	2622.2	ppb	19:11:20
1	Sc 361.383	1790613.2	1790613.2	99.250	%			19:11:36
1	Y 371.029	1119606.5	1119606.5	105.89	%			19:11:36
1	Ag 328.068†	83279.0	79343.5	335.27	µg/L	335.27	ppb	19:11:38
1	As 188.979†	3042.5	3084.1	1117.8	µg/L	1117.8	ppb	19:11:38
1	B 249.677†	117188.6	114009.6	1769.1	µg/L	1769.1	ppb	19:11:36
1	Ba 233.527†	439998.1	443469.7	1969.7	µg/L	1969.7	ppb	19:11:36
1	Be 313.107†	3059500.7	3083726.7	893.20	µg/L	893.20	ppb	19:11:36
1	Cd 226.502†	112079.5	113030.4	744.00	µg/L	744.00	ppb	19:11:38
1	Co 228.616†	84506.5	85355.8	1121.3	µg/L	1121.3	ppb	19:11:38
1	Cr 267.716†	346615.4	349003.1	3025.0	µg/L	3025.0	ppb	19:11:36
1	Cu 324.752†	511153.6	511982.5	2171.7	µg/L	2171.7	ppb	19:11:36
1	Mn 257.610†	4708442.9	4743860.9	6290.8	µg/L	6290.8	ppb	19:11:36
1	Mo 202.031†	19339.9	19524.7	647.54	µg/L	647.54	ppb	19:11:38
1	Ni 231.604†	137189.9	138323.1	1730.6	µg/L	1730.6	ppb	19:11:36
1	P 214.914†	39618.4	39943.6	9107.0	µg/L	9107.0	ppb	19:11:38
1	Pb 220.353†	13981.3	13983.6	869.53	µg/L	869.53	ppb	19:11:38
1	S 181.975 Axial†	5799.6	5754.6	4846.5	µg/L	4846.5	ppb	19:11:38
1	Sb 206.836†	16548.2	16583.6	2103.1	µg/L	2103.1	ppb	19:11:38
1	Se 196.026†	8281.5	8337.9	3350	µg/L	3350	ppb	19:11:38
1	SiO2†	247265.9	247396.5	26165	µg/L	26165	ppb	19:11:36
1	Si 251.611†	772693.9	777769.6	12249	µg/L	12249	ppb	19:11:36
1	Sn 189.927†	15292.4	15406.1	1089.6	µg/L	1089.6	ppb	19:11:38
1	Ti 334.940†	6018084.0	6062766.5	6225.6	µg/L	6225.6	ppb	19:11:36
1	Tl 190.801†	9081.5	9264.4	1348.4	µg/L	1348.4	ppb	19:11:38
1	U 409.014†	-4428.3	-4298.4	-194.73	µg/L	-194.73	ppb	19:11:36
1	V 292.402†	264349.8	265925.4	1371.1	µg/L	1371.1	ppb	19:11:36
1	Zn 213.857†	1150713.0	1158911.1	6890.9	µg/L	6890.9	ppb	19:11:36
2	Sc RADIAL	143458.6	143458.6	102	%			19:11:26
2	Al 396.153Radial†	474231.0	463183.8	97487	µg/L	97487	ppb	19:11:26
2	Ca 317.933Radial†	1629518.5	1590717.7	108340	µg/L	108340	ppb	19:11:24
2	Fe 238.204 Radial†	2629267.8	2567466.5	191740	µg/L	191740	ppb	19:11:24
2	K 766.490 Radial†	116920.3	112683.5	44603	µg/L	44603	ppb	19:11:26
2	Mg 279.077 IEC†	91311.2	88996.6	40944	µg/L	40944	ppb	19:11:26
2	Na 589.592 Radial†	75625.7	72899.0	11260	µg/L	11260	ppb	19:11:26
2	Sr 421.552†	1108878.4	1083068.0	2553.5	µg/L	2553.5	ppb	19:11:24
2	Sc 361.383	1774125.6	1774125.6	98.336	%			19:11:42
2	Y 371.029	1109438.5	1109438.5	104.93	%			19:11:42
2	Ag 328.068†	83585.4	80434.9	339.85	µg/L	339.85	ppb	19:11:44
2	As 188.979†	2976.9	3045.8	1103.6	µg/L	1103.6	ppb	19:11:44
2	B 249.677†	115856.1	113751.9	1765.1	µg/L	1765.1	ppb	19:11:42
2	Ba 233.527†	436233.2	443761.0	1971.1	µg/L	1971.1	ppb	19:11:42
2	Be 313.107†	3031355.6	3083753.3	893.20	µg/L	893.20	ppb	19:11:42
2	Cd 226.502†	112068.0	114068.2	751.59	µg/L	751.59	ppb	19:11:44
2	Co 228.616†	84583.9	86225.8	1133.1	µg/L	1133.1	ppb	19:11:44
2	Cr 267.716†	343498.6	349079.1	3025.5	µg/L	3025.5	ppb	19:11:42
2	Cu 324.752†	506681.5	512221.1	2171.9	µg/L	2171.9	ppb	19:11:42
2	Mn 257.610†	4667587.1	4746401.7	6294.2	µg/L	6294.2	ppb	19:11:42
2	Mo 202.031†	19392.6	19759.4	655.01	µg/L	655.01	ppb	19:11:44
2	Ni 231.604†	135738.2	138131.5	1728.2	µg/L	1728.2	ppb	19:11:42
2	P 214.914†	39709.2	40407.0	9217.9	µg/L	9217.9	ppb	19:11:44
2	Pb 220.353†	13935.4	14067.8	874.91	µg/L	874.91	ppb	19:11:44

2	S 181.975 Axial†	5856.5	5866.7	4940.9 µg/L	4940.9 ppb		19:11:44
2	Sb 206.836†	16589.9	16780.9	2128.8 µg/L	2128.8 ppb		19:11:44
2	Se 196.026†	8262.3	8396.0	3370 µg/L	3370 ppb		19:11:44
2	SiO2†	244652.6	247054.3	26128 µg/L	26128 ppb		19:11:42
2	Si 251.611†	764574.5	776748.0	12233 µg/L	12233 ppb		19:11:42
2	Sn 189.927†	15378.7	15637.1	1105.7 µg/L	1105.7 ppb		19:11:44
2	Ti 334.940†	5968148.7	6068337.1	6231.2 µg/L	6231.2 ppb		19:11:42
2	Tl 190.801†	9086.3	9354.4	1360.7 µg/L	1360.7 ppb		19:11:44
2	U 409.014†	-4348.9	-4259.1	-191.18 µg/L	-191.18 ppb		19:11:42
2	V 292.402†	261714.5	265720.9	1370.7 µg/L	1370.7 ppb		19:11:42
2	Zn 213.857†	1138992.7	1157767.2	6884.7 µg/L	6884.7 ppb		19:11:42
3	Sc RADIAL	137963.9	137963.9	98.5 %			19:11:31
3	Al 396.153Radial†	455025.2	462125.8	97265 µg/L	97265 ppb		19:11:31
3	Ca 317.933Radial†	1628691.5	1653254.6	112600 µg/L	112600 ppb		19:11:28
3	Fe 238.204 Radial†	2626743.9	2667163.4	199180 µg/L	199180 ppb		19:11:28
3	K 766.490 Radial†	112216.1	112454.1	44511 µg/L	44511 ppb		19:11:31
3	Mg 279.077 IEC†	86624.4	87788.8	40380 µg/L	40380 ppb		19:11:31
3	Na 589.592 Radial†	72662.7	72831.5	11250 µg/L	11250 ppb		19:11:31
3	Sr 421.552†	1107215.6	1124507.1	2651.2 µg/L	2651.2 ppb		19:11:28
3	Sc 361.383	1779403.8	1779403.8	98.628 %			19:11:48
3	Y 371.029	1111834.7	1111834.7	105.16 %			19:11:48
3	Ag 328.068†	81989.3	78564.5	332.05 µg/L	332.05 ppb		19:11:50
3	As 188.979†	2954.6	3014.3	1094.6 µg/L	1094.6 ppb		19:11:50
3	B 249.677†	116248.9	113800.6	1765.9 µg/L	1765.9 ppb		19:11:48
3	Ba 233.527†	437744.4	443977.4	1971.9 µg/L	1971.9 ppb		19:11:48
3	Be 313.107†	3041684.1	3085081.4	893.59 µg/L	893.59 ppb		19:11:48
3	Cd 226.502†	109511.7	111138.2	731.01 µg/L	731.01 ppb		19:11:50
3	Co 228.616†	82824.8	84187.1	1105.7 µg/L	1105.7 ppb		19:11:50
3	Cr 267.716†	344932.0	349496.3	3029.3 µg/L	3029.3 ppb		19:11:48
3	Cu 324.752†	508150.2	512181.8	2172.8 µg/L	2172.8 ppb		19:11:48
3	Mn 257.610†	4683012.5	4747962.0	6296.3 µg/L	6296.3 ppb		19:11:48
3	Mo 202.031†	18950.4	19252.5	638.72 µg/L	638.72 ppb		19:11:50
3	Ni 231.604†	136607.9	138603.9	1734.1 µg/L	1734.1 ppb		19:11:48
3	P 214.914†	38661.7	39225.1	8939.3 µg/L	8939.3 ppb		19:11:50
3	Pb 220.353†	13724.5	13812.0	858.86 µg/L	858.86 ppb		19:11:50
3	S 181.975 Axial†	5723.8	5714.5	4812.7 µg/L	4812.7 ppb		19:11:50
3	Sb 206.836†	16136.4	16271.1	2062.6 µg/L	2062.6 ppb		19:11:50
3	Se 196.026†	8065.4	8171.4	3290 µg/L	3290 ppb		19:11:50
3	SiO2†	245649.2	247326.7	26158 µg/L	26158 ppb		19:11:48
3	Si 251.611†	768084.1	778000.0	12253 µg/L	12253 ppb		19:11:48
3	Sn 189.927†	15043.7	15251.1	1078.9 µg/L	1078.9 ppb		19:11:50
3	Ti 334.940†	5979824.0	6062172.1	6225.1 µg/L	6225.1 ppb		19:11:48
3	Tl 190.801†	8890.8	9128.7	1330.0 µg/L	1330.0 ppb		19:11:50
3	U 409.014†	-4425.1	-4323.3	-196.63 µg/L	-196.63 ppb		19:11:48
3	V 292.402†	262812.2	266044.4	1371.4 µg/L	1371.4 ppb		19:11:48
3	Zn 213.857†	1143834.8	1159241.0	6892.6 µg/L	6892.6 ppb		19:11:48

Mean Data: 1202072046|965624|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1781380.8	98.738	%	0.4667				0.47%
Sc RADIAL	139984.2	99.9	%	2.16				2.16%
Y 371.029	1113626.6	105.33	%	0.503				0.48%
Ag 328.068†	79447.6	335.72	µg/L	3.919	335.72	ppb	3.919	1.17%
Al 396.153Radial†	463050.8	97459	µg/L	182.1	97459	ppb	182.1	0.19%
As 188.979†	3048.1	1105.4	µg/L	11.67	1105.4	ppb	11.67	1.06%
B 249.677†	113854.0	1766.7	µg/L	2.13	1766.7	ppb	2.13	0.12%
Ba 233.527†	443736.0	1970.9	µg/L	1.12	1970.9	ppb	1.12	0.06%
Be 313.107†	3084187.1	893.33	µg/L	0.224	893.33	ppb	0.224	0.03%
Ca 317.933Radial†	1626893.8	110810	µg/L	2207.0	110810	ppb	2207.0	1.99%
Cd 226.502†	112745.6	742.20	µg/L	10.409	742.20	ppb	10.409	1.40%
Co 228.616†	85256.2	1120.0	µg/L	13.72	1120.0	ppb	13.72	1.22%
Cr 267.716†	349192.8	3026.6	µg/L	2.38	3026.6	ppb	2.38	0.08%
Cu 324.752†	512128.4	2172.1	µg/L	0.58	2172.1	ppb	0.58	0.03%
Fe 238.204 Radial†	2625078.5	196040	µg/L	3855.7	196040	ppb	3855.7	1.97%
K 766.490 Radial†	112553.7	44551	µg/L	47.0	44551	ppb	47.0	0.11%
Mg 279.077 IEC†	88408.3	40669	µg/L	282.5	40669	ppb	282.5	0.69%
Mn 257.610†	4746074.9	6293.8	µg/L	2.75	6293.8	ppb	2.75	0.04%
Mo 202.031†	19512.2	647.09	µg/L	8.155	647.09	ppb	8.155	1.26%
Na 589.592 Radial†	72877.0	11257	µg/L	6.1	11257	ppb	6.1	0.05%

Ni 231.604†	138352.8	1731.0	µg/L	2.97	1731.0	ppb	2.97	0.17%
P 214.914†	39858.6	9088.1	µg/L	140.25	9088.1	ppb	140.25	1.54%
Pb 220.353†	13954.4	867.77	µg/L	8.167	867.77	ppb	8.167	0.94%
S 181.975 Axial†	5778.6	4866.7	µg/L	66.44	4866.7	ppb	66.44	1.37%
Sb 206.836†	16545.2	2098.2	µg/L	33.36	2098.2	ppb	33.36	1.59%
Se 196.026†	8301.8	3340	µg/L	44.8	3340	ppb	44.8	1.34%
SiO2†	247259.2	26151	µg/L	19.5	26151	ppb	19.5	0.07%
Si 251.611†	777505.9	12245	µg/L	10.7	12245	ppb	10.7	0.09%
Sn 189.927†	15431.4	1091.4	µg/L	13.49	1091.4	ppb	13.49	1.24%
Sr 421.552†	1106590.0	2609.0	µg/L	50.17	2609.0	ppb	50.17	1.92%
Ti 334.940†	6064425.2	6227.3	µg/L	3.42	6227.3	ppb	3.42	0.05%
Tl 190.801†	9249.2	1346.4	µg/L	15.47	1346.4	ppb	15.47	1.15%
U 409.014†	-4293.6	-194.18	µg/L	2.766	-194.18	ppb	2.766	1.42%
Concentration less than lower limit for U 409.014.								
V 292.402†	265896.9	1371.1	µg/L	0.37	1371.1	ppb	0.37	0.03%
Zn 213.857†	1158639.8	6889.4	µg/L	4.17	6889.4	ppb	4.17	0.06%

Sequence No.: 96
Sample ID: 249333003|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 412
Date Collected: 4/5/2010 19:11:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249333003|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140206.2	140206.2	100	%			19:12:30
1	Al 396.153Radial†	149027.7	148985.9	31366	µg/L	31366	ppb	19:12:30
1	Ca 317.933Radial†	124191.5	123519.8	8412.8	µg/L	8412.8	ppb	19:12:30
1	Fe 238.204 Radial†	988934.8	988018.5	73785	µg/L	73785	ppb	19:12:28
1	K 766.490 Radial†	10924.8	9422.2	3724.4	µg/L	3724.4	ppb	19:12:30
1	Mg 279.077 IEC†	11458.0	11276.3	5143.7	µg/L	5143.7	ppb	19:12:30
1	Na 589.592 Radial†	8296.6	7337.4	1134.0	µg/L	1134.0	ppb	19:12:30
1	Sr 421.552†	33299.0	33476.6	78.888	µg/L	78.888	ppb	19:12:30
1	Sc 361.383	1788418.9	1788418.9	99.128	%			19:12:56
1	Y 371.029	1298472.6	1298472.6	122.81	%			19:12:56
1	Ag 328.068†	4044.6	-485.0	-2.7985	µg/L	-2.7985	ppb	19:12:56
1	As 188.979†	29.3	48.1	33.738	µg/L	33.738	ppb	19:13:16
1	B 249.677†	5369.0	1351.1	20.958	µg/L	20.958	ppb	19:12:56
1	Ba 233.527†	50258.8	50845.5	225.10	µg/L	225.10	ppb	19:12:56
1	Be 313.107†	24182.2	25486.7	7.2672	µg/L	7.2672	ppb	19:12:56
1	Cd 226.502†	1141.7	1255.1	0.7520	µg/L	0.7520	ppb	19:13:16
1	Co 228.616†	959.3	1178.1	11.974	µg/L	11.974	ppb	19:13:16
1	Cr 267.716†	11056.6	10920.7	96.832	µg/L	96.832	ppb	19:13:16
1	Cu 324.752†	13387.0	10468.7	54.366	µg/L	54.366	ppb	19:12:56
1	Mn 257.610†	1418929.6	1431228.2	1898.2	µg/L	1898.2	ppb	19:12:56
1	Mo 202.031†	301.6	342.8	14.248	µg/L	14.248	ppb	19:13:16
1	Ni 231.604†	4628.3	4764.9	59.615	µg/L	59.615	ppb	19:13:16
1	P 214.914†	1801.1	1842.6	382.47	µg/L	382.47	ppb	19:13:16
1	Pb 220.353†	1792.8	1705.1	106.92	µg/L	106.92	ppb	19:13:16
1	S 181.975 Axial†	292.5	206.2	173.55	µg/L	173.55	ppb	19:13:16
1	Sb 206.836†	85.5	-3.5	-2.7182	µg/L	-2.7182	ppb	19:13:16
1	Se 196.026†	-43.5	-50.0	5.52	µg/L	5.52	ppb	19:13:16
1	SiO2†	249662.5	250119.9	26487	µg/L	26487	ppb	19:12:56
1	Si 251.611†	779877.7	785971.8	12394	µg/L	12394	ppb	19:12:56
1	Sn 189.927†	66.3	65.0	9.9597	µg/L	9.9597	ppb	19:13:16
1	Ti 334.940†	1561510.7	1574425.3	1617.0	µg/L	1617.0	ppb	19:12:56
1	Tl 190.801†	-294.5	-182.8	-3.3709	µg/L	-3.3709	ppb	19:13:16
1	U 409.014†	-6171.6	-6062.6	-382.62	µg/L	-382.62	ppb	19:12:56
1	V 292.402†	14314.4	14017.2	63.631	µg/L	63.631	ppb	19:13:16
1	Zn 213.857†	70590.5	70708.6	415.30	µg/L	415.30	ppb	19:12:56
2	Sc RADIAL	140936.8	140936.8	101	%			19:12:34
2	Al 396.153Radial†	150047.2	149227.3	31417	µg/L	31417	ppb	19:12:34
2	Ca 317.933Radial†	125167.4	123846.5	8435.1	µg/L	8435.1	ppb	19:12:34
2	Fe 238.204 Radial†	1012075.8	1005898.6	75120	µg/L	75120	ppb	19:12:32
2	K 766.490 Radial†	11125.7	9565.3	3781.0	µg/L	3781.0	ppb	19:12:34
2	Mg 279.077 IEC†	11552.5	11310.9	5158.5	µg/L	5158.5	ppb	19:12:34
2	Na 589.592 Radial†	8434.9	7431.9	1148.6	µg/L	1148.6	ppb	19:12:34
2	Sr 421.552†	33443.2	33447.4	78.818	µg/L	78.818	ppb	19:12:34
2	Sc 361.383	1792157.3	1792157.3	99.335	%			19:13:19
2	Y 371.029	1301440.4	1301440.4	123.09	%			19:13:19
2	Ag 328.068†	4026.9	-511.3	-2.9170	µg/L	-2.9170	ppb	19:13:19
2	As 188.979†	37.7	56.5	36.878	µg/L	36.878	ppb	19:13:39
2	B 249.677†	5060.4	1029.1	15.953	µg/L	15.953	ppb	19:13:19
2	Ba 233.527†	50300.1	50781.4	224.80	µg/L	224.80	ppb	19:13:19
2	Be 313.107†	24074.2	25327.0	7.2210	µg/L	7.2210	ppb	19:13:19
2	Cd 226.502†	1106.1	1216.8	0.3527	µg/L	0.3527	ppb	19:13:39
2	Co 228.616†	914.4	1130.8	11.279	µg/L	11.279	ppb	19:13:39
2	Cr 267.716†	11051.0	10891.8	96.627	µg/L	96.627	ppb	19:13:39
2	Cu 324.752†	13367.4	10420.8	54.361	µg/L	54.361	ppb	19:13:19
2	Mn 257.610†	1422559.0	1431895.9	1899.1	µg/L	1899.1	ppb	19:13:19
2	Mo 202.031†	316.2	356.9	14.763	µg/L	14.763	ppb	19:13:39
2	Ni 231.604†	4591.4	4718.1	59.029	µg/L	59.029	ppb	19:13:39
2	P 214.914†	1800.3	1838.0	380.49	µg/L	380.49	ppb	19:13:39
2	Pb 220.353†	1818.2	1726.9	108.23	µg/L	108.23	ppb	19:13:39

2	S 181.975 Axial†	287.6	200.7	168.90 µg/L	168.90 ppb	19:13:39
2	Sb 206.836†	102.5	13.4	-0.5495 µg/L	-0.5495 ppb	19:13:39
2	Se 196.026†	-57.8	-64.4	0.336 µg/L	0.336 ppb	19:13:39
2	SiO2†	250535.1	250472.9	26524 µg/L	26524 ppb	19:13:19
2	Si 251.611†	781775.4	786241.0	12398 µg/L	12398 ppb	19:13:19
2	Sn 189.927†	42.2	40.6	8.2788 µg/L	8.2788 ppb	19:13:39
2	Ti 334.940†	1567213.5	1576880.3	1619.5 µg/L	1619.5 ppb	19:13:19
2	Tl 190.801†	-309.7	-197.5	-5.3468 µg/L	-5.3468 ppb	19:13:39
2	U 409.014†	-6180.0	-6058.0	-382.63 µg/L	-382.63 ppb	19:13:19
2	V 292.402†	14316.6	13989.2	63.347 µg/L	63.347 ppb	19:13:39
2	Zn 213.857†	70714.6	70685.0	415.02 µg/L	415.02 ppb	19:13:19
3	Sc RADIAL	139068.3	139068.3	99.3 %		19:12:38
3	Al 396.153Radial†	147873.1	149041.2	31378 µg/L	31378 ppb	19:12:38
3	Ca 317.933Radial†	122903.0	123237.0	8393.6 µg/L	8393.6 ppb	19:12:38
3	Fe 238.204 Radial†	998447.5	1005686.7	75104 µg/L	75104 ppb	19:12:36
3	K 766.490 Radial†	10845.6	9431.8	3728.1 µg/L	3728.1 ppb	19:12:38
3	Mg 279.077 IEC†	11326.2	11237.2	5124.5 µg/L	5124.5 ppb	19:12:38
3	Na 589.592 Radial†	8300.9	7409.5	1145.2 µg/L	1145.2 ppb	19:12:38
3	Sr 421.552†	33076.8	33525.0	79.002 µg/L	79.002 ppb	19:12:38
3	Sc 361.383	1788401.7	1788401.7	99.127 %		19:13:42
3	Y 371.029	1299340.8	1299340.8	122.89 %		19:13:42
3	Ag 328.068†	3856.8	-674.3	-3.5729 µg/L	-3.5729 ppb	19:13:42
3	As 188.979†	37.4	56.3	36.833 µg/L	36.833 ppb	19:14:02
3	B 249.677†	5169.5	1149.9	17.830 µg/L	17.830 ppb	19:13:42
3	Ba 233.527†	50138.0	50724.1	224.55 µg/L	224.55 ppb	19:13:42
3	Be 313.107†	23880.9	25182.9	7.1816 µg/L	7.1816 ppb	19:13:42
3	Cd 226.502†	1133.1	1246.4	0.5550 µg/L	0.5550 ppb	19:14:02
3	Co 228.616†	918.0	1136.4	11.354 µg/L	11.354 ppb	19:14:02
3	Cr 267.716†	11075.2	10939.5	97.034 µg/L	97.034 ppb	19:14:02
3	Cu 324.752†	13310.6	10391.8	54.242 µg/L	54.242 ppb	19:13:42
3	Mn 257.610†	1420656.2	1432983.8	1900.5 µg/L	1900.5 ppb	19:13:42
3	Mo 202.031†	306.8	348.1	14.472 µg/L	14.472 ppb	19:14:02
3	Ni 231.604†	4657.7	4794.6	59.987 µg/L	59.987 ppb	19:14:02
3	P 214.914†	1811.7	1853.3	384.05 µg/L	384.05 ppb	19:14:02
3	Pb 220.353†	1834.8	1747.6	109.49 µg/L	109.49 ppb	19:14:02
3	S 181.975 Axial†	293.6	207.3	174.48 µg/L	174.48 ppb	19:14:02
3	Sb 206.836†	78.7	-10.3	-3.6232 µg/L	-3.6232 ppb	19:14:02
3	Se 196.026†	-32.9	-39.4	10.2 µg/L	10.2 ppb	19:14:02
3	SiO2†	249696.0	250156.1	26491 µg/L	26491 ppb	19:13:42
3	Si 251.611†	780475.6	786582.5	12403 µg/L	12403 ppb	19:13:42
3	Sn 189.927†	49.9	48.5	8.8330 µg/L	8.8330 ppb	19:14:02
3	Ti 334.940†	1566087.5	1579057.7	1621.7 µg/L	1621.7 ppb	19:13:42
3	Tl 190.801†	-291.5	-179.8	-2.8955 µg/L	-2.8955 ppb	19:14:02
3	U 409.014†	-6045.7	-5935.6	-374.89 µg/L	-374.89 ppb	19:13:42
3	V 292.402†	14305.3	14008.1	63.448 µg/L	63.448 ppb	19:14:02
3	Zn 213.857†	70458.8	70576.4	414.37 µg/L	414.37 ppb	19:13:42

Mean Data: 249333003|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1789659.3	99.197	%	0.1199				0.12%
Sc RADIAL	140070.5	100.0	%	0.67				0.67%
Y 371.029	1299751.3	122.93	%	0.144				0.12%
Ag 328.068†	-556.9	-3.0961	µg/L	0.41710	-3.0961	ppb	0.41710	13.47%
Al 396.153Radial†	149084.8	31387	µg/L	26.6	31387	ppb	26.6	0.08%
As 188.979†	53.6	35.817	µg/L	1.8001	35.817	ppb	1.8001	5.03%
B 249.677†	1176.7	18.247	µg/L	2.5285	18.247	ppb	2.5285	13.86%
Ba 233.527†	50783.7	224.82	µg/L	0.279	224.82	ppb	0.279	0.12%
Be 313.107†	25332.2	7.2233	µg/L	0.04282	7.2233	ppb	0.04282	0.59%
Ca 317.933Radial†	123534.4	8413.8	µg/L	20.77	8413.8	ppb	20.77	0.25%
Cd 226.502†	1239.4	0.5532	µg/L	0.19963	0.5532	ppb	0.19963	36.08%
Co 228.616†	1148.4	11.536	µg/L	0.3815	11.536	ppb	0.3815	3.31%
Cr 267.716†	10917.3	96.831	µg/L	0.2033	96.831	ppb	0.2033	0.21%
Cu 324.752†	10427.1	54.323	µg/L	0.0699	54.323	ppb	0.0699	0.13%
Fe 238.204 Radial†	999867.9	74669	µg/L	766.4	74669	ppb	766.4	1.03%
K 766.490 Radial†	9473.1	3744.5	µg/L	31.69	3744.5	ppb	31.69	0.85%
Mg 279.077 IEC†	11274.8	5142.3	µg/L	17.05	5142.3	ppb	17.05	0.33%
Mn 257.610†	1432035.9	1899.3	µg/L	1.17	1899.3	ppb	1.17	0.06%
Mo 202.031†	349.3	14.494	µg/L	0.2582	14.494	ppb	0.2582	1.78%
Na 589.592 Radial†	7392.9	1142.6	µg/L	7.63	1142.6	ppb	7.63	0.67%

Ni 231.604†	4759.2	59.544	µg/L	0.4828	59.544	ppb	0.4828	0.81%
P 214.914†	1844.6	382.34	µg/L	1.782	382.34	ppb	1.782	0.47%
Pb 220.353†	1726.5	108.21	µg/L	1.286	108.21	ppb	1.286	1.19%
S 181.975 Axial†	204.7	172.31	µg/L	2.988	172.31	ppb	2.988	1.73%
Sb 206.836†	-0.1	-2.2970	µg/L	1.57955	-2.2970	ppb	1.57955	68.77%
Se 196.026†	-51.3	5.35	µg/L	4.926	5.35	ppb	4.926	92.12%
SiO2†	250249.6	26501	µg/L	20.6	26501	ppb	20.6	0.08%
Si 251.611†	786265.1	12398	µg/L	4.8	12398	ppb	4.8	0.04%
Sn 189.927†	51.4	9.0238	µg/L	0.85655	9.0238	ppb	0.85655	9.49%
Sr 421.552†	33483.0	78.903	µg/L	0.0926	78.903	ppb	0.0926	0.12%
Ti 334.940†	1576787.8	1619.4	µg/L	2.38	1619.4	ppb	2.38	0.15%
Tl 190.801†	-186.7	-3.8711	µg/L	1.29993	-3.8711	ppb	1.29993	33.58%
U 409.014†	-6018.7	-380.05	µg/L	4.465	-380.05	ppb	4.465	1.17%
Concentration less than lower limit for U 409.014.								
V 292.402†	14004.8	63.475	µg/L	0.1441	63.475	ppb	0.1441	0.23%
Zn 213.857†	70656.7	414.90	µg/L	0.476	414.90	ppb	0.476	0.11%

Sequence No.: 97
Sample ID: 1202072047|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 413
Date Collected: 4/5/2010 19:14:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072047|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138683.1	138683.1	99.0	%			19:14:43
1	Al 396.153Radial†	183565.1	185509.7	39056	µg/L	39056	ppb	19:14:41
1	Ca 317.933Radial†	148731.4	149671.9	10194	µg/L	10194	ppb	19:14:43
1	Fe 238.204 Radial†	1268031.7	1280805.1	95650	µg/L	95650	ppb	19:14:41
1	K 766.490 Radial†	12818.0	11454.5	4527.5	µg/L	4527.5	ppb	19:14:43
1	Mg 279.077 IEC†	13941.8	13911.1	6341.6	µg/L	6341.6	ppb	19:14:43
1	Na 589.592 Radial†	9355.1	8497.7	1313.2	µg/L	1313.2	ppb	19:14:43
1	Sr 421.552†	40065.1	40676.8	95.855	µg/L	95.855	ppb	19:14:43
1	Sc 361.383	1799117.5	1799117.5	99.721	%			19:14:55
1	Y 371.029	1359626.5	1359626.5	128.59	%			19:14:55
1	Ag 328.068†	4060.2	-493.6	-3.0328	µg/L	-3.0328	ppb	19:14:55
1	As 188.979†	47.4	66.0	45.086	µg/L	45.086	ppb	19:15:15
1	B 249.677†	5190.8	1140.2	17.665	µg/L	17.665	ppb	19:14:55
1	Ba 233.527†	61877.5	62195.2	275.28	µg/L	275.28	ppb	19:14:55
1	Be 313.107†	29630.5	30805.2	8.7873	µg/L	8.7873	ppb	19:14:55
1	Cd 226.502†	1424.7	1532.0	0.3348	µg/L	0.3348	ppb	19:15:15
1	Co 228.616†	1260.8	1474.7	14.813	µg/L	14.813	ppb	19:15:15
1	Cr 267.716†	15393.3	15203.2	134.53	µg/L	134.53	ppb	19:15:15
1	Cu 324.752†	16020.2	13028.9	68.238	µg/L	68.238	ppb	19:14:55
1	Mn 257.610†	1886790.9	1891886.8	2509.2	µg/L	2509.2	ppb	19:14:55
1	Mo 202.031†	399.9	439.6	18.306	µg/L	18.306	ppb	19:15:15
1	Ni 231.604†	6357.0	6470.7	80.957	µg/L	80.957	ppb	19:15:15
1	P 214.914†	2372.0	2404.4	499.10	µg/L	499.10	ppb	19:15:15
1	Pb 220.353†	2336.6	2239.7	140.30	µg/L	140.30	ppb	19:15:15
1	S 181.975 Axial†	326.6	238.6	200.86	µg/L	200.86	ppb	19:15:15
1	Sb 206.836†	80.2	-9.3	-4.2784	µg/L	-4.2784	ppb	19:15:15
1	Se 196.026†	-53.2	-59.5	9.31	µg/L	9.31	ppb	19:15:15
1	SiO2†	352775.3	352023.5	37278	µg/L	37278	ppb	19:14:55
1	Si 251.611†	1104055.9	1106378.8	17446	µg/L	17446	ppb	19:14:55
1	Sn 189.927†	49.1	47.4	10.417	µg/L	10.417	ppb	19:15:15
1	Ti 334.940†	2053987.3	2058912.9	2114.5	µg/L	2114.5	ppb	19:14:55
1	Tl 190.801†	-372.7	-259.4	-7.1266	µg/L	-7.1266	ppb	19:15:15
1	U 409.014†	-7284.6	-7141.6	-450.54	µg/L	-450.54	ppb	19:14:55
1	V 292.402†	18237.2	17865.0	80.952	µg/L	80.952	ppb	19:14:55
1	Zn 213.857†	90553.1	90303.5	530.22	µg/L	530.22	ppb	19:14:55
2	Sc RADIAL	137739.7	137739.7	98.3	%			19:14:47
2	Al 396.153Radial†	184294.0	187521.2	39479	µg/L	39479	ppb	19:14:45
2	Ca 317.933Radial†	147886.3	149841.4	10206	µg/L	10206	ppb	19:14:47
2	Fe 238.204 Radial†	1267728.8	1289270.2	96282	µg/L	96282	ppb	19:14:45
2	K 766.490 Radial†	12921.8	11648.8	4604.4	µg/L	4604.4	ppb	19:14:47
2	Mg 279.077 IEC†	13768.8	13831.6	6304.3	µg/L	6304.3	ppb	19:14:47
2	Na 589.592 Radial†	9340.3	8547.3	1320.8	µg/L	1320.8	ppb	19:14:47
2	Sr 421.552†	39966.4	40853.7	96.272	µg/L	96.272	ppb	19:14:47
2	Sc 361.383	1793533.4	1793533.4	99.411	%			19:15:18
2	Y 371.029	1355359.4	1355359.4	128.19	%			19:15:18
2	Ag 328.068†	4244.7	-295.3	-2.2172	µg/L	-2.2172	ppb	19:15:18
2	As 188.979†	49.4	68.2	45.959	µg/L	45.959	ppb	19:15:38
2	B 249.677†	5057.8	1022.6	15.835	µg/L	15.835	ppb	19:15:18
2	Ba 233.527†	61597.0	62106.2	274.88	µg/L	274.88	ppb	19:15:18
2	Be 313.107†	29598.4	30865.4	8.8064	µg/L	8.8064	ppb	19:15:18
2	Cd 226.502†	1434.7	1546.6	0.3667	µg/L	0.3667	ppb	19:15:38
2	Co 228.616†	1265.6	1483.4	14.896	µg/L	14.896	ppb	19:15:38
2	Cr 267.716†	15410.3	15268.3	135.11	µg/L	135.11	ppb	19:15:38
2	Cu 324.752†	16173.4	13233.1	69.188	µg/L	69.188	ppb	19:15:18
2	Mn 257.610†	1884635.5	1895609.6	2514.1	µg/L	2514.1	ppb	19:15:18
2	Mo 202.031†	380.4	421.2	17.731	µg/L	17.731	ppb	19:15:38
2	Ni 231.604†	6363.2	6496.7	81.282	µg/L	81.282	ppb	19:15:38
2	P 214.914†	2375.6	2415.3	501.30	µg/L	501.30	ppb	19:15:38
2	Pb 220.353†	2341.0	2251.4	141.02	µg/L	141.02	ppb	19:15:38

2	S 181.975 Axial†	325.5	238.5	200.76 µg/L	200.76 ppb	19:15:38
2	Sb 206.836†	84.5	-4.7	-3.7102 µg/L	-3.7102 ppb	19:15:38
2	Se 196.026†	-54.5	-61.0	8.95 µg/L	8.95 ppb	19:15:38
2	SiO2†	352452.0	352799.8	37360 µg/L	37360 ppb	19:15:18
2	Si 251.611†	1102310.2	1108069.9	17473 µg/L	17473 ppb	19:15:18
2	Sn 189.927†	55.9	54.4	10.913 µg/L	10.913 ppb	19:15:38
2	Ti 334.940†	2050161.1	2061477.0	2117.2 µg/L	2117.2 ppb	19:15:18
2	Tl 190.801†	-368.8	-256.7	-6.7115 µg/L	-6.7115 ppb	19:15:38
2	U 409.014†	-7170.9	-7050.0	-444.86 µg/L	-444.86 ppb	19:15:18
2	V 292.402†	18220.9	17905.6	81.094 µg/L	81.094 ppb	19:15:18
2	Zn 213.857†	90270.0	90301.5	530.14 µg/L	530.14 ppb	19:15:18
3	Sc RADIAL	138871.5	138871.5	99.1 %		19:14:51
3	Al 396.153Radial†	185320.3	187028.9	39376 µg/L	39376 ppb	19:14:49
3	Ca 317.933Radial†	148765.7	149502.7	10182 µg/L	10182 ppb	19:14:51
3	Fe 238.204 Radial†	1278229.0	1289354.6	96288 µg/L	96288 ppb	19:14:49
3	K 766.490 Radial†	12876.3	11495.7	4543.7 µg/L	4543.7 ppb	19:14:51
3	Mg 279.077 IEC†	13934.4	13884.5	6328.8 µg/L	6328.8 ppb	19:14:51
3	Na 589.592 Radial†	9329.1	8458.6	1307.1 µg/L	1307.1 ppb	19:14:51
3	Sr 421.552†	40003.3	40559.6	95.579 µg/L	95.579 ppb	19:14:51
3	Sc 361.383	1797236.8	1797236.8	99.617 %		19:15:41
3	Y 371.029	1359206.5	1359206.5	128.55 %		19:15:41
3	Ag 328.068†	4208.4	-340.6	-2.4137 µg/L	-2.4137 ppb	19:15:41
3	As 188.979†	39.7	58.4	42.659 µg/L	42.659 ppb	19:16:01
3	B 249.677†	5170.6	1125.4	17.434 µg/L	17.434 ppb	19:15:41
3	Ba 233.527†	61812.0	62194.4	275.27 µg/L	275.27 ppb	19:15:41
3	Be 313.107†	29307.7	30512.2	8.7018 µg/L	8.7018 ppb	19:15:41
3	Cd 226.502†	1448.7	1557.7	0.4410 µg/L	0.4410 ppb	19:16:01
3	Co 228.616†	1254.0	1469.1	14.707 µg/L	14.707 ppb	19:16:01
3	Cr 267.716†	15461.9	15288.2	135.29 µg/L	135.29 ppb	19:16:01
3	Cu 324.752†	15925.7	12950.9	68.003 µg/L	68.003 ppb	19:15:41
3	Mn 257.610†	1887436.3	1894514.7	2512.7 µg/L	2512.7 ppb	19:15:41
3	Mo 202.031†	385.6	425.6	17.875 µg/L	17.875 ppb	19:16:01
3	Ni 231.604†	6368.4	6488.8	81.183 µg/L	81.183 ppb	19:16:01
3	P 214.914†	2377.0	2411.8	500.47 µg/L	500.47 ppb	19:16:01
3	Pb 220.353†	2376.9	2282.6	142.94 µg/L	142.94 ppb	19:16:01
3	S 181.975 Axial†	321.7	234.0	197.01 µg/L	197.01 ppb	19:16:01
3	Sb 206.836†	82.2	-7.2	-4.0275 µg/L	-4.0275 ppb	19:16:01
3	Se 196.026†	-62.1	-68.5	5.99 µg/L	5.99 ppb	19:16:01
3	SiO2†	353235.0	352855.2	37366 µg/L	37366 ppb	19:15:41
3	Si 251.611†	1103369.2	1106848.1	17454 µg/L	17454 ppb	19:15:41
3	Sn 189.927†	57.4	55.8	11.006 µg/L	11.006 ppb	19:16:01
3	Ti 334.940†	2053749.6	2060829.7	2116.5 µg/L	2116.5 ppb	19:15:41
3	Tl 190.801†	-362.8	-249.9	-5.8023 µg/L	-5.8023 ppb	19:16:01
3	U 409.014†	-7306.0	-7170.8	-452.51 µg/L	-452.51 ppb	19:15:41
3	V 292.402†	18212.8	17859.7	80.853 µg/L	80.853 ppb	19:15:41
3	Zn 213.857†	90578.3	90423.8	530.87 µg/L	530.87 ppb	19:15:41

Mean Data: 1202072047|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1796629.2	99.583	%	0.1575				0.16%
Sc RADIAL	138431.5	98.8	%	0.43				0.44%
Y 371.029	1358064.2	128.45	%	0.222				0.17%
Ag 328.068†	-376.5	-2.5546	µg/L	0.42565	-2.5546	ppb	0.42565	16.66%
Al 396.153Radial†	186686.6	39304	µg/L	220.8	39304	ppb	220.8	0.56%
As 188.979†	64.2	44.568	µg/L	1.7101	44.568	ppb	1.7101	3.84%
B 249.677†	1096.1	16.978	µg/L	0.9966	16.978	ppb	0.9966	5.87%
Ba 233.527†	62165.3	275.15	µg/L	0.230	275.15	ppb	0.230	0.08%
Be 313.107†	30727.6	8.7652	µg/L	0.05569	8.7652	ppb	0.05569	0.64%
Ca 317.933Radial†	149672.0	10194	µg/L	11.5	10194	ppb	11.5	0.11%
Cd 226.502†	1545.4	0.3808	µg/L	0.05447	0.3808	ppb	0.05447	14.30%
Co 228.616†	1475.7	14.805	µg/L	0.0946	14.805	ppb	0.0946	0.64%
Cr 267.716†	15253.2	134.98	µg/L	0.397	134.98	ppb	0.397	0.29%
Cu 324.752†	13071.0	68.476	µg/L	0.6274	68.476	ppb	0.6274	0.92%
Fe 238.204 Radial†	1286476.6	96073	µg/L	366.8	96073	ppb	366.8	0.38%
K 766.490 Radial†	11533.0	4558.5	µg/L	40.52	4558.5	ppb	40.52	0.89%
Mg 279.077 IEC†	13875.8	6324.9	µg/L	18.93	6324.9	ppb	18.93	0.30%
Mn 257.610†	1894003.7	2512.0	µg/L	2.54	2512.0	ppb	2.54	0.10%
Mo 202.031†	428.8	17.971	µg/L	0.2991	17.971	ppb	0.2991	1.66%
Na 589.592 Radial†	8501.2	1313.7	µg/L	6.86	1313.7	ppb	6.86	0.52%

Ni 231.604†	6485.4	81.141	µg/L	0.1667	81.141	ppb	0.1667	0.21%
P 214.914†	2410.5	500.29	µg/L	1.111	500.29	ppb	1.111	0.22%
Pb 220.353†	2257.9	141.42	µg/L	1.366	141.42	ppb	1.366	0.97%
S 181.975 Axial†	237.1	199.54	µg/L	2.199	199.54	ppb	2.199	1.10%
Sb 206.836†	-7.1	-4.0054	µg/L	0.28474	-4.0054	ppb	0.28474	7.11%
Se 196.026†	-63.0	8.08	µg/L	1.823	8.08	ppb	1.823	22.55%
SiO2†	352559.5	37335	µg/L	49.2	37335	ppb	49.2	0.13%
Si 251.611†	1107099.0	17457	µg/L	13.8	17457	ppb	13.8	0.08%
Sn 189.927†	52.5	10.779	µg/L	0.3165	10.779	ppb	0.3165	2.94%
Sr 421.552†	40696.7	95.902	µg/L	0.3491	95.902	ppb	0.3491	0.36%
Ti 334.940†	2060406.5	2116.1	µg/L	1.37	2116.1	ppb	1.37	0.06%
Tl 190.801†	-255.3	-6.5468	µg/L	0.67736	-6.5468	ppb	0.67736	10.35%
U 409.014†	-7120.8	-449.30	µg/L	3.971	-449.30	ppb	3.971	0.88%
Concentration less than lower limit for U 409.014.								
V 292.402†	17876.8	80.966	µg/L	0.1210	80.966	ppb	0.1210	0.15%
Zn 213.857†	90342.9	530.41	µg/L	0.402	530.41	ppb	0.402	0.08%

Sequence No.: 98
Sample ID: 1202072048|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 414
Date Collected: 4/5/2010 19:16:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072048|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139403.3	139403.3	99.5	%			19:16:42
1	Al 396.153Radial†	268887.2	270296.0	56884	µg/L	56884	ppb	19:16:40
1	Ca 317.933Radial†	188784.5	189147.0	12883	µg/L	12883	ppb	19:16:42
1	Fe 238.204 Radial†	1109916.0	1115289.7	83289	µg/L	83289	ppb	19:16:40
1	K 766.490 Radial†	28023.5	26668.4	10550	µg/L	10550	ppb	19:16:42
1	Mg 279.077 IEC†	26716.0	26675.7	12258	µg/L	12258	ppb	19:16:42
1	Na 589.592 Radial†	39660.0	38903.7	6021.0	µg/L	6021.0	ppb	19:16:42
1	Sr 421.552†	241351.1	242749.6	572.42	µg/L	572.42	ppb	19:16:40
1	Sc 361.383	1779391.2	1779391.2	98.628	%			19:16:55
1	Y 371.029	1309382.3	1309382.3	123.84	%			19:16:55
1	Ag 328.068†	126906.1	124106.9	513.69	µg/L	513.69	ppb	19:16:55
1	As 188.979†	1418.2	1456.5	518.50	µg/L	518.50	ppb	19:16:57
1	B 249.677†	37345.8	33800.3	523.86	µg/L	523.86	ppb	19:16:55
1	Ba 233.527†	163652.8	166074.7	737.64	µg/L	737.64	ppb	19:16:55
1	Be 313.107†	1732143.9	1757339.7	509.10	µg/L	509.10	ppb	19:16:55
1	Cd 226.502†	75824.1	76982.6	511.79	µg/L	511.79	ppb	19:16:55
1	Co 228.616†	38317.5	39061.1	513.19	µg/L	513.19	ppb	19:16:57
1	Cr 267.716†	69739.4	70476.7	612.06	µg/L	612.06	ppb	19:16:57
1	Cu 324.752†	137782.6	136663.9	584.51	µg/L	584.51	ppb	19:16:55
1	Mn 257.610†	1651250.2	1674043.9	2220.0	µg/L	2220.0	ppb	19:16:55
1	Mo 202.031†	15202.3	15452.4	509.07	µg/L	509.07	ppb	19:16:57
1	Ni 231.604†	44461.8	45176.5	565.21	µg/L	565.21	ppb	19:16:57
1	P 214.914†	3600.2	3676.0	799.07	µg/L	799.07	ppb	19:16:57
1	Pb 220.353†	9798.5	9831.4	610.11	µg/L	610.11	ppb	19:16:57
1	S 181.975 Axial†	6355.3	6354.8	5350.3	µg/L	5350.3	ppb	19:16:57
1	Sb 206.836†	3585.3	3545.5	455.53	µg/L	455.53	ppb	19:16:57
1	Se 196.026†	1231.5	1242.4	519	µg/L	519	ppb	19:16:57
1	SiO2†	411048.6	415029.5	43929	µg/L	43929	ppb	19:16:55
1	Si 251.611†	1286405.8	1303540.1	20545	µg/L	20545	ppb	19:16:55
1	Sn 189.927†	6960.6	7055.5	497.78	µg/L	497.78	ppb	19:16:57
1	Ti 334.940†	2388374.8	2420787.8	2485.4	µg/L	2485.4	ppb	19:16:55
1	Tl 190.801†	3250.8	3410.3	498.10	µg/L	498.10	ppb	19:16:57
1	U 409.014†	2158.6	2352.0	177.05	µg/L	177.05	ppb	19:16:55
1	V 292.402†	110600.5	111716.4	575.88	µg/L	575.88	ppb	19:16:55
1	Zn 213.857†	154818.6	156470.0	923.54	µg/L	923.54	ppb	19:16:55
2	Sc RADIAL	136830.7	136830.7	97.7	%			19:16:46
2	Al 396.153Radial†	267532.7	273989.7	57661	µg/L	57661	ppb	19:16:44
2	Ca 317.933Radial†	184796.7	188631.1	12847	µg/L	12847	ppb	19:16:46
2	Fe 238.204 Radial†	1104345.9	1130558.0	84429	µg/L	84429	ppb	19:16:44
2	K 766.490 Radial†	27388.0	26547.2	10502	µg/L	10502	ppb	19:16:46
2	Mg 279.077 IEC†	26244.7	26698.0	12267	µg/L	12267	ppb	19:16:46
2	Na 589.592 Radial†	38866.2	38840.4	6011.2	µg/L	6011.2	ppb	19:16:46
2	Sr 421.552†	240325.8	246260.0	580.70	µg/L	580.70	ppb	19:16:44
2	Sc 361.383	1768684.8	1768684.8	98.034	%			19:16:59
2	Y 371.029	1302333.2	1302333.2	123.18	%			19:16:59
2	Ag 328.068†	126329.4	124297.5	514.48	µg/L	514.48	ppb	19:16:59
2	As 188.979†	1380.6	1426.9	508.69	µg/L	508.69	ppb	19:17:01
2	B 249.677†	37055.3	33733.2	522.83	µg/L	522.83	ppb	19:16:59
2	Ba 233.527†	162391.5	165792.5	736.37	µg/L	736.37	ppb	19:16:59
2	Be 313.107†	1718479.1	1754031.9	508.15	µg/L	508.15	ppb	19:16:59
2	Cd 226.502†	75213.0	76824.6	510.60	µg/L	510.60	ppb	19:16:59
2	Co 228.616†	37791.5	38759.6	509.14	µg/L	509.14	ppb	19:17:01
2	Cr 267.716†	68788.0	69934.2	607.40	µg/L	607.40	ppb	19:17:01
2	Cu 324.752†	136946.8	136656.9	584.65	µg/L	584.65	ppb	19:16:59
2	Mn 257.610†	1638280.8	1670949.0	2215.9	µg/L	2215.9	ppb	19:16:59
2	Mo 202.031†	14988.7	15327.8	505.04	µg/L	505.04	ppb	19:17:01
2	Ni 231.604†	43930.3	44907.2	561.84	µg/L	561.84	ppb	19:17:01
2	P 214.914†	3772.4	3873.8	844.27	µg/L	844.27	ppb	19:17:01
2	Pb 220.353†	9741.4	9833.3	610.22	µg/L	610.22	ppb	19:17:01

2	S 181.975 Axial†	6242.2	6278.4	5286.0	µg/L	5286.0 ppb	19:17:01
2	Sb 206.836†	3557.8	3539.4	454.75	µg/L	454.75 ppb	19:17:01
2	Se 196.026†	1188.5	1206.1	505	µg/L	505 ppb	19:17:01
2	SiO2†	407971.8	414413.9	43864	µg/L	43864 ppb	19:16:59
2	Si 251.611†	1275255.5	1300061.5	20491	µg/L	20491 ppb	19:16:59
2	Sn 189.927†	6933.5	7070.7	498.82	µg/L	498.82 ppb	19:17:01
2	Ti 334.940†	2372009.8	2418753.4	2483.3	µg/L	2483.3 ppb	19:16:59
2	Tl 190.801†	3180.6	3358.7	491.04	µg/L	491.04 ppb	19:17:01
2	U 409.014†	2249.5	2457.9	183.50	µg/L	183.50 ppb	19:16:59
2	V 292.402†	110103.8	111888.5	576.59	µg/L	576.59 ppb	19:16:59
2	Zn 213.857†	153046.5	155612.6	918.33	µg/L	918.33 ppb	19:16:59
3	Sc RADIAL	138711.4	138711.4	99.0	%		19:16:50
3	Al 396.153Radial†	265074.6	267793.3	56357	µg/L	56357 ppb	19:16:48
3	Ca 317.933Radial†	187352.2	188646.8	12849	µg/L	12849 ppb	19:16:50
3	Fe 238.204 Radial†	1087288.1	1098000.0	81998	µg/L	81998 ppb	19:16:48
3	K 766.490 Radial†	27613.3	26394.5	10442	µg/L	10442 ppb	19:16:50
3	Mg 279.077 IEC†	26525.5	26617.2	12232	µg/L	12232 ppb	19:16:50
3	Na 589.592 Radial†	39511.3	38952.3	6028.6	µg/L	6028.6 ppb	19:16:50
3	Sr 421.552†	237919.9	240494.0	567.10	µg/L	567.10 ppb	19:16:48
3	Sc 361.383	1780015.4	1780015.4	98.662	%		19:17:04
3	Y 371.029	1310600.3	1310600.3	123.96	%		19:17:04
3	Ag 328.068†	127104.8	124263.2	514.35	µg/L	514.35 ppb	19:17:04
3	As 188.979†	1400.0	1437.6	511.81	µg/L	511.81 ppb	19:17:06
3	B 249.677†	37380.4	33822.2	524.21	µg/L	524.21 ppb	19:17:04
3	Ba 233.527†	163559.2	165921.6	736.97	µg/L	736.97 ppb	19:17:04
3	Be 313.107†	1732217.8	1756798.7	508.95	µg/L	508.95 ppb	19:17:04
3	Cd 226.502†	75971.5	77105.1	512.76	µg/L	512.76 ppb	19:17:04
3	Co 228.616†	38205.5	38933.9	511.57	µg/L	511.57 ppb	19:17:06
3	Cr 267.716†	69784.7	70497.8	612.20	µg/L	612.20 ppb	19:17:06
3	Cu 324.752†	137766.7	136598.7	584.05	µg/L	584.05 ppb	19:17:04
3	Mn 257.610†	1650744.0	1672943.7	2218.5	µg/L	2218.5 ppb	19:17:04
3	Mo 202.031†	15179.7	15424.1	508.09	µg/L	508.09 ppb	19:17:06
3	Ni 231.604†	44394.1	45092.0	564.16	µg/L	564.16 ppb	19:17:06
3	P 214.914†	3795.5	3872.6	845.32	µg/L	845.32 ppb	19:17:06
3	Pb 220.353†	9786.8	9816.1	609.17	µg/L	609.17 ppb	19:17:06
3	S 181.975 Axial†	6336.0	6333.0	5331.9	µg/L	5331.9 ppb	19:17:06
3	Sb 206.836†	3613.6	3572.8	459.06	µg/L	459.06 ppb	19:17:06
3	Se 196.026†	1169.2	1178.9	493	µg/L	493 ppb	19:17:06
3	SiO2†	410551.9	414380.0	43861	µg/L	43861 ppb	19:17:04
3	Si 251.611†	1284512.3	1301163.5	20508	µg/L	20508 ppb	19:17:04
3	Sn 189.927†	6963.1	7055.6	497.78	µg/L	497.78 ppb	19:17:06
3	Ti 334.940†	2387763.0	2419318.5	2483.9	µg/L	2483.9 ppb	19:17:04
3	Tl 190.801†	3229.8	3387.9	495.03	µg/L	495.03 ppb	19:17:06
3	U 409.014†	2151.8	2344.3	176.88	µg/L	176.88 ppb	19:17:04
3	V 292.402†	110747.2	111825.7	576.57	µg/L	576.57 ppb	19:17:04
3	Zn 213.857†	154728.7	156323.9	922.80	µg/L	922.80 ppb	19:17:04

Mean Data: 1202072048|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1776030.5	98.441	%	0.3530				0.36%
Sc RADIAL	138315.1	98.7	%	0.95				0.96%
Y 371.029	1307438.6	123.66	%	0.422				0.34%
Ag 328.068†	124222.5	514.17	µg/L	0.424	514.17	ppb	0.424	0.08%
Al 396.153Radial†	270693.0	56967	µg/L	656.4	56967	ppb	656.4	1.15%
As 188.979†	1440.3	513.00	µg/L	5.009	513.00	ppb	5.009	0.98%
B 249.677†	33785.2	523.63	µg/L	0.716	523.63	ppb	0.716	0.14%
Ba 233.527†	165929.6	736.99	µg/L	0.635	736.99	ppb	0.635	0.09%
Be 313.107†	1756056.8	508.73	µg/L	0.513	508.73	ppb	0.513	0.10%
Ca 317.933Radial†	188808.3	12860	µg/L	20.0	12860	ppb	20.0	0.16%
Cd 226.502†	76970.8	511.72	µg/L	1.078	511.72	ppb	1.078	0.21%
Co 228.616†	38918.2	511.30	µg/L	2.038	511.30	ppb	2.038	0.40%
Cr 267.716†	70302.9	610.55	µg/L	2.730	610.55	ppb	2.730	0.45%
Cu 324.752†	136639.8	584.40	µg/L	0.316	584.40	ppb	0.316	0.05%
Fe 238.204 Radial†	1114615.9	83239	µg/L	1216.5	83239	ppb	1216.5	1.46%
K 766.490 Radial†	26536.7	10498	µg/L	54.3	10498	ppb	54.3	0.52%
Mg 279.077 IEC†	26663.7	12253	µg/L	18.2	12253	ppb	18.2	0.15%
Mn 257.610†	1672645.5	2218.1	µg/L	2.08	2218.1	ppb	2.08	0.09%
Mo 202.031†	15401.5	507.40	µg/L	2.102	507.40	ppb	2.102	0.41%
Na 589.592 Radial†	38898.8	6020.3	µg/L	8.73	6020.3	ppb	8.73	0.14%

Ni 231.604†	45058.5	563.74	µg/L	1.723	563.74	ppb	1.723	0.31%
P 214.914†	3807.5	829.56	µg/L	26.402	829.56	ppb	26.402	3.18%
Pb 220.353†	9826.9	609.83	µg/L	0.576	609.83	ppb	0.576	0.09%
S 181.975 Axial†	6322.1	5322.8	µg/L	33.13	5322.8	ppb	33.13	0.62%
Sb 206.836†	3552.6	456.45	µg/L	2.299	456.45	ppb	2.299	0.50%
Se 196.026†	1209.1	505	µg/L	12.8	505	ppb	12.8	2.53%
SiO2†	414607.8	43885	µg/L	38.7	43885	ppb	38.7	0.09%
Si 251.611†	1301588.4	20515	µg/L	28.0	20515	ppb	28.0	0.14%
Sn 189.927†	7060.6	498.13	µg/L	0.602	498.13	ppb	0.602	0.12%
Sr 421.552†	243167.9	573.40	µg/L	6.853	573.40	ppb	6.853	1.20%
Ti 334.940†	2419619.9	2484.2	µg/L	1.08	2484.2	ppb	1.08	0.04%
Tl 190.801†	3385.6	494.72	µg/L	3.537	494.72	ppb	3.537	0.72%
U 409.014†	2384.8	179.14	µg/L	3.775	179.14	ppb	3.775	2.11%
V 292.402†	111810.2	576.35	µg/L	0.408	576.35	ppb	0.408	0.07%
Zn 213.857†	156135.5	921.56	µg/L	2.817	921.56	ppb	2.817	0.31%

Sequence No.: 99
Sample ID: 1202072050|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 415
Date Collected: 4/5/2010 19:17:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072050|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140025.0	140025.0	100.0	%			19:17:47
1	Al 396.153Radial†	312893.5	313123.9	65901	µg/L	65901	ppb	19:17:45
1	Ca 317.933Radial†	213191.8	212723.7	14488	µg/L	14488	ppb	19:17:47
1	Fe 238.204 Radial†	1264774.5	1265270.8	94490	µg/L	94490	ppb	19:17:45
1	K 766.490 Radial†	30445.6	28966.6	11458	µg/L	11458	ppb	19:17:47
1	Mg 279.077 IEC†	29793.2	29635.2	13615	µg/L	13615	ppb	19:17:47
1	Na 589.592 Radial†	41044.2	40111.6	6207.4	µg/L	6207.4	ppb	19:17:47
1	Sr 421.552†	247266.6	247591.1	583.82	µg/L	583.82	ppb	19:17:45
1	Sc 361.383	1797379.8	1797379.8	99.625	%			19:18:14
1	Y 371.029	1376383.8	1376383.8	130.18	%			19:18:14
1	Ag 328.068†	128093.0	124010.5	513.27	µg/L	513.27	ppb	19:18:14
1	As 188.979†	1404.1	1427.9	511.17	µg/L	511.17	ppb	19:18:16
1	B 249.677†	37745.2	33822.3	524.24	µg/L	524.24	ppb	19:18:14
1	Ba 233.527†	170647.8	171435.4	761.33	µg/L	761.33	ppb	19:18:14
1	Be 313.107†	1750687.9	1758376.7	509.38	µg/L	509.38	ppb	19:18:14
1	Cd 226.502†	76419.4	76810.8	509.45	µg/L	509.45	ppb	19:18:14
1	Co 228.616†	37964.4	38317.8	502.79	µg/L	502.79	ppb	19:18:16
1	Cr 267.716†	68440.8	68465.5	595.04	µg/L	595.04	ppb	19:18:16
1	Cu 324.752†	141018.3	138513.6	593.86	µg/L	593.86	ppb	19:18:14
1	Mn 257.610†	1793382.2	1799955.5	2386.9	µg/L	2386.9	ppb	19:18:14
1	Mo 202.031†	15165.2	15260.9	503.28	µg/L	503.28	ppb	19:18:16
1	Ni 231.604†	44021.5	44283.3	554.04	µg/L	554.04	ppb	19:18:16
1	P 214.914†	3991.0	4031.7	875.66	µg/L	875.66	ppb	19:18:16
1	Pb 220.353†	9782.1	9715.5	603.53	µg/L	603.53	ppb	19:18:16
1	S 181.975 Axial†	6366.3	6301.4	5305.3	µg/L	5305.3	ppb	19:18:16
1	Sb 206.836†	3540.6	3464.2	445.03	µg/L	445.03	ppb	19:18:16
1	Se 196.026†	1215.2	1213.6	511	µg/L	511	ppb	19:18:16
1	SiO2†	460063.7	460058.3	48698	µg/L	48698	ppb	19:18:14
1	Si 251.611†	1438494.7	1443148.3	22747	µg/L	22747	ppb	19:18:14
1	Sn 189.927†	6921.4	6945.6	491.00	µg/L	491.00	ppb	19:18:16
1	Ti 334.940†	2653483.5	2662659.6	2733.8	µg/L	2733.8	ppb	19:18:14
1	Tl 190.801†	3261.4	3387.9	498.15	µg/L	498.15	ppb	19:18:16
1	U 409.014†	1238.8	1406.8	117.02	µg/L	117.02	ppb	19:18:14
1	V 292.402†	115023.9	115034.1	591.48	µg/L	591.48	ppb	19:18:14
1	Zn 213.857†	166717.8	166843.0	984.64	µg/L	984.64	ppb	19:18:14
2	Sc RADIAL	137852.2	137852.2	98.4	%			19:17:51
2	Al 396.153Radial†	314714.5	319908.6	67329	µg/L	67329	ppb	19:17:49
2	Ca 317.933Radial†	209635.7	212471.8	14471	µg/L	14471	ppb	19:17:51
2	Fe 238.204 Radial†	1268126.2	1288622.0	96233	µg/L	96233	ppb	19:17:49
2	K 766.490 Radial†	29767.8	28757.9	11375	µg/L	11375	ppb	19:17:51
2	Mg 279.077 IEC†	29070.9	29370.9	13492	µg/L	13492	ppb	19:17:51
2	Na 589.592 Radial†	40588.5	40295.7	6236.0	µg/L	6236.0	ppb	19:17:51
2	Sr 421.552†	248195.6	252434.5	595.24	µg/L	595.24	ppb	19:17:49
2	Sc 361.383	1772329.1	1772329.1	98.236	%			19:18:18
2	Y 371.029	1359201.3	1359201.3	128.55	%			19:18:18
2	Ag 328.068†	126682.6	124392.1	514.79	µg/L	514.79	ppb	19:18:18
2	As 188.979†	1386.4	1429.9	512.38	µg/L	512.38	ppb	19:18:21
2	B 249.677†	37319.2	33924.2	525.78	µg/L	525.78	ppb	19:18:18
2	Ba 233.527†	168075.7	171238.2	760.43	µg/L	760.43	ppb	19:18:18
2	Be 313.107†	1722268.4	1754284.9	508.19	µg/L	508.19	ppb	19:18:18
2	Cd 226.502†	75131.6	76584.0	507.74	µg/L	507.74	ppb	19:18:18
2	Co 228.616†	38287.0	39184.7	514.17	µg/L	514.17	ppb	19:18:21
2	Cr 267.716†	69041.6	70048.1	608.81	µg/L	608.81	ppb	19:18:21
2	Cu 324.752†	139046.3	138506.9	594.07	µg/L	594.07	ppb	19:18:18
2	Mn 257.610†	1769184.1	1800766.5	2388.0	µg/L	2388.0	ppb	19:18:18
2	Mo 202.031†	15272.6	15585.4	513.96	µg/L	513.96	ppb	19:18:21
2	Ni 231.604†	44516.4	45411.7	568.16	µg/L	568.16	ppb	19:18:21
2	P 214.914†	4098.0	4197.3	913.08	µg/L	913.08	ppb	19:18:21
2	Pb 220.353†	9807.9	9880.5	613.76	µg/L	613.76	ppb	19:18:21

2	S 181.975 Axial†	6381.8	6407.5	5394.7 µg/L	5394.7 ppb	19:18:21
2	Sb 206.836†	3625.4	3600.8	462.58 µg/L	462.58 ppb	19:18:21
2	Se 196.026†	1234.4	1250.4	526 µg/L	526 ppb	19:18:21
2	SiO2†	453328.4	459729.2	48663 µg/L	48663 ppb	19:18:18
2	Si 251.611†	1417909.5	1442602.2	22738 µg/L	22738 ppb	19:18:18
2	Sn 189.927†	7005.5	7129.4	503.75 µg/L	503.75 ppb	19:18:21
2	Ti 334.940†	2618727.9	2664926.3	2736.1 µg/L	2736.1 ppb	19:18:18
2	Tl 190.801†	3268.8	3441.8	505.46 µg/L	505.46 ppb	19:18:21
2	U 409.014†	921.9	1101.8	97.330 µg/L	97.330 ppb	19:18:18
2	V 292.402†	113301.0	114912.2	590.82 µg/L	590.82 ppb	19:18:18
2	Zn 213.857†	164583.2	167035.5	985.54 µg/L	985.54 ppb	19:18:18
3	Sc RADIAL	140727.4	140727.4	100 %		19:17:55
3	Al 396.153Radial†	317241.6	315889.9	66483 µg/L	66483 ppb	19:17:53
3	Ca 317.933Radial†	213153.4	211621.0	14413 µg/L	14413 ppb	19:17:55
3	Fe 238.204 Radial†	1274411.4	1268548.5	94734 µg/L	94734 ppb	19:17:53
3	K 766.490 Radial†	30361.6	28730.9	11365 µg/L	11365 ppb	19:17:55
3	Mg 279.077 IEC†	29592.6	29286.7	13454 µg/L	13454 ppb	19:17:55
3	Na 589.592 Radial†	41233.1	40094.7	6204.9 µg/L	6204.9 ppb	19:17:55
3	Sr 421.552†	249602.7	248681.9	586.39 µg/L	586.39 ppb	19:17:53
3	Sc 361.383	1795629.0	1795629.0	99.528 %		19:18:23
3	Y 371.029	1375316.2	1375316.2	130.08 %		19:18:23
3	Ag 328.068†	128609.0	124654.3	515.87 µg/L	515.87 ppb	19:18:23
3	As 188.979†	1390.2	1415.3	507.01 µg/L	507.01 ppb	19:18:25
3	B 249.677†	37904.1	34018.9	527.27 µg/L	527.27 ppb	19:18:23
3	Ba 233.527†	170890.8	171846.5	763.15 µg/L	763.15 ppb	19:18:23
3	Be 313.107†	1751959.9	1761368.2	510.24 µg/L	510.24 ppb	19:18:23
3	Cd 226.502†	76738.1	77205.7	512.09 µg/L	512.09 ppb	19:18:23
3	Co 228.616†	38383.5	38776.0	508.84 µg/L	508.84 ppb	19:18:25
3	Cr 267.716†	68724.0	68817.0	598.11 µg/L	598.11 ppb	19:18:25
3	Cu 324.752†	141179.7	138813.8	595.13 µg/L	595.13 ppb	19:18:23
3	Mn 257.610†	1797813.9	1806163.4	2395.2 µg/L	2395.2 ppb	19:18:23
3	Mo 202.031†	15299.0	15410.2	508.17 µg/L	508.17 ppb	19:18:25
3	Ni 231.604†	44404.3	44711.0	559.39 µg/L	559.39 ppb	19:18:25
3	P 214.914†	4068.9	4113.9	894.63 µg/L	894.63 ppb	19:18:25
3	Pb 220.353†	9940.5	9884.2	613.98 µg/L	613.98 ppb	19:18:25
3	S 181.975 Axial†	6329.0	6270.1	5279.1 µg/L	5279.1 ppb	19:18:25
3	Sb 206.836†	3509.7	3436.7	441.51 µg/L	441.51 ppb	19:18:25
3	Se 196.026†	1174.8	1174.2	496 µg/L	496 ppb	19:18:25
3	SiO2†	460740.7	461188.7	48817 µg/L	48817 ppb	19:18:23
3	Si 251.611†	1440842.0	1446914.6	22806 µg/L	22806 ppb	19:18:23
3	Sn 189.927†	7025.2	7056.7	498.72 µg/L	498.72 ppb	19:18:25
3	Ti 334.940†	2656393.4	2668180.3	2739.5 µg/L	2739.5 ppb	19:18:23
3	Tl 190.801†	3222.5	3352.1	493.30 µg/L	493.30 ppb	19:18:25
3	U 409.014†	830.4	997.7	91.192 µg/L	91.192 ppb	19:18:23
3	V 292.402†	114912.7	115035.0	591.50 µg/L	591.50 ppb	19:18:23
3	Zn 213.857†	166954.2	167243.8	986.99 µg/L	986.99 ppb	19:18:23

Mean Data: 1202072050|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1788446.0	99.129	%	0.7752				0.78%
Sc RADIAL	139534.9	99.6	%	1.07				1.07%
Y 371.029	1370300.4	129.60	%	0.911				0.70%
Ag 328.068†	124352.3	514.64	µg/L	1.307	514.64	ppb	1.307	0.25%
Al 396.153Radial†	316307.5	66571	µg/L	718.0	66571	ppb	718.0	1.08%
As 188.979†	1424.4	510.19	µg/L	2.819	510.19	ppb	2.819	0.55%
B 249.677†	33921.8	525.76	µg/L	1.518	525.76	ppb	1.518	0.29%
Ba 233.527†	171506.7	761.64	µg/L	1.387	761.64	ppb	1.387	0.18%
Be 313.107†	1758009.9	509.27	µg/L	1.029	509.27	ppb	1.029	0.20%
Ca 317.933Radial†	212272.2	14458	µg/L	39.4	14458	ppb	39.4	0.27%
Cd 226.502†	76866.8	509.76	µg/L	2.194	509.76	ppb	2.194	0.43%
Co 228.616†	38759.5	508.60	µg/L	5.693	508.60	ppb	5.693	1.12%
Cr 267.716†	69110.2	600.66	µg/L	7.228	600.66	ppb	7.228	1.20%
Cu 324.752†	138611.4	594.35	µg/L	0.680	594.35	ppb	0.680	0.11%
Fe 238.204 Radial†	1274147.1	95152	µg/L	944.1	95152	ppb	944.1	0.99%
K 766.490 Radial†	28818.5	11400	µg/L	51.2	11400	ppb	51.2	0.45%
Mg 279.077 IEC†	29431.0	13520	µg/L	84.2	13520	ppb	84.2	0.62%
Mn 257.610†	1802295.1	2390.0	µg/L	4.48	2390.0	ppb	4.48	0.19%
Mo 202.031†	15418.9	508.47	µg/L	5.345	508.47	ppb	5.345	1.05%
Na 589.592 Radial†	40167.3	6216.1	µg/L	17.30	6216.1	ppb	17.30	0.28%

Ni 231.604†	44802.0	560.53	µg/L	7.127	560.53	ppb	7.127	1.27%
P 214.914†	4114.3	894.46	µg/L	18.712	894.46	ppb	18.712	2.09%
Pb 220.353†	9826.8	610.42	µg/L	5.970	610.42	ppb	5.970	0.98%
S 181.975 Axial†	6326.3	5326.4	µg/L	60.61	5326.4	ppb	60.61	1.14%
Sb 206.836†	3500.6	449.71	µg/L	11.287	449.71	ppb	11.287	2.51%
Se 196.026†	1212.7	511	µg/L	15.3	511	ppb	15.3	2.99%
SiO2†	460325.4	48726	µg/L	81.1	48726	ppb	81.1	0.17%
Si 251.611†	1444221.7	22764	µg/L	37.0	22764	ppb	37.0	0.16%
Sn 189.927†	7043.9	497.82	µg/L	6.423	497.82	ppb	6.423	1.29%
Sr 421.552†	249569.2	588.49	µg/L	5.992	588.49	ppb	5.992	1.02%
Ti 334.940†	2665255.4	2736.5	µg/L	2.86	2736.5	ppb	2.86	0.10%
Tl 190.801†	3393.9	498.97	µg/L	6.120	498.97	ppb	6.120	1.23%
U 409.014†	1168.8	101.85	µg/L	13.492	101.85	ppb	13.492	13.25%
V 292.402†	114993.8	591.27	µg/L	0.388	591.27	ppb	0.388	0.07%
Zn 213.857†	167040.8	985.72	µg/L	1.183	985.72	ppb	1.183	0.12%

Sequence No.: 100
Sample ID: 1202072049|965624|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 416
Date Collected: 4/5/2010 19:18:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072049|965624|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138680.9	138680.9	99.0	%			19:19:02
1	Al 396.153Radial†	29596.8	29976.7	6311.1	µg/L	6311.1	ppb	19:19:02
1	Ca 317.933Radial†	24963.8	24646.6	1678.7	µg/L	1678.7	ppb	19:19:04
1	Fe 238.204 Radial†	198706.5	200612.5	14982	µg/L	14982	ppb	19:19:02
1	K 766.490 Radial†	3571.6	2114.2	835.90	µg/L	835.90	ppb	19:19:02
1	Mg 279.077 IEC†	2396.5	2248.4	1025.4	µg/L	1025.4	ppb	19:19:04
1	Na 589.592 Radial†	2284.9	1355.7	209.39	µg/L	209.39	ppb	19:19:04
1	Sr 421.552†	6660.4	6932.7	16.338	µg/L	16.338	ppb	19:19:04
1	Sc 361.383	1791457.3	1791457.3	99.296	%			19:19:31
1	Y 371.029	1098555.6	1098555.6	103.90	%			19:19:31
1	Ag 328.068†	3942.8	-594.4	-2.5884	µg/L	-2.5884	ppb	19:19:33
1	As 188.979†	-1.6	16.9	9.2703	µg/L	9.2703	ppb	19:19:53
1	B 249.677†	4369.0	334.8	5.1967	µg/L	5.1967	ppb	19:19:33
1	Ba 233.527†	9947.1	10162.1	44.987	µg/L	44.987	ppb	19:19:33
1	Be 313.107†	4332.7	5455.2	1.5589	µg/L	1.5589	ppb	19:19:33
1	Cd 226.502†	188.4	293.1	0.4111	µg/L	0.4111	ppb	19:19:53
1	Co 228.616†	24.5	235.0	2.3744	µg/L	2.3744	ppb	19:19:53
1	Cr 267.716†	2373.5	2157.1	19.135	µg/L	19.135	ppb	19:19:53
1	Cu 324.752†	4810.0	1808.0	9.7156	µg/L	9.7156	ppb	19:19:33
1	Mn 257.610†	287142.9	288993.1	383.28	µg/L	383.28	ppb	19:19:33
1	Mo 202.031†	39.2	78.1	3.1706	µg/L	3.1706	ppb	19:19:53
1	Ni 231.604†	847.2	949.1	11.874	µg/L	11.874	ppb	19:19:53
1	P 214.914†	353.2	381.4	79.344	µg/L	79.344	ppb	19:19:53
1	Pb 220.353†	454.3	354.1	22.171	µg/L	22.171	ppb	19:19:53
1	S 181.975 Axial†	130.4	42.4	35.679	µg/L	35.679	ppb	19:19:53
1	Sb 206.836†	92.0	3.0	-0.0652	µg/L	-0.0652	ppb	19:19:53
1	Se 196.026†	12.5	6.4	7.65	µg/L	7.65	ppb	19:19:53
1	SiO2†	50918.6	49540.3	5246.1	µg/L	5246.1	ppb	19:19:33
1	Si 251.611†	155054.9	155386.7	2450.2	µg/L	2450.2	ppb	19:19:33
1	Sn 189.927†	23.7	22.0	2.5940	µg/L	2.5940	ppb	19:19:53
1	Ti 334.940†	307967.1	309326.6	317.68	µg/L	317.68	ppb	19:19:33
1	Tl 190.801†	-151.9	-38.7	-1.0096	µg/L	-1.0096	ppb	19:19:53
1	U 409.014†	-1274.5	-1120.2	-70.711	µg/L	-70.711	ppb	19:19:33
1	V 292.402†	3243.9	2843.7	12.922	µg/L	12.922	ppb	19:19:33
1	Zn 213.857†	15297.7	14903.1	87.581	µg/L	87.581	ppb	19:19:33
2	Sc RADIAL	138063.9	138063.9	98.6	%			19:19:07
2	Al 396.153Radial†	29621.6	30135.5	6344.5	µg/L	6344.5	ppb	19:19:07
2	Ca 317.933Radial†	24919.9	24714.7	1683.3	µg/L	1683.3	ppb	19:19:09
2	Fe 238.204 Radial†	197644.8	200432.1	14968	µg/L	14968	ppb	19:19:07
2	K 766.490 Radial†	3542.9	2101.2	830.74	µg/L	830.74	ppb	19:19:07
2	Mg 279.077 IEC†	2379.0	2241.5	1022.2	µg/L	1022.2	ppb	19:19:09
2	Na 589.592 Radial†	2352.3	1434.3	221.59	µg/L	221.59	ppb	19:19:09
2	Sr 421.552†	6594.6	6896.0	16.251	µg/L	16.251	ppb	19:19:09
2	Sc 361.383	1762064.7	1762064.7	97.667	%			19:19:55
2	Y 371.029	1080785.7	1080785.7	102.22	%			19:19:55
2	Ag 328.068†	4243.4	-220.4	-1.0665	µg/L	-1.0665	ppb	19:19:57
2	As 188.979†	3.4	22.0	10.992	µg/L	10.992	ppb	19:20:17
2	B 249.677†	4350.2	389.0	6.0372	µg/L	6.0372	ppb	19:19:57
2	Ba 233.527†	9992.2	10375.5	45.935	µg/L	45.935	ppb	19:19:57
2	Be 313.107†	4460.9	5659.2	1.6168	µg/L	1.6168	ppb	19:19:57
2	Cd 226.502†	223.1	331.8	0.6744	µg/L	0.6744	ppb	19:20:17
2	Co 228.616†	59.2	270.9	2.8521	µg/L	2.8521	ppb	19:20:17
2	Cr 267.716†	2428.9	2253.7	19.971	µg/L	19.971	ppb	19:20:17
2	Cu 324.752†	4878.9	1959.3	10.343	µg/L	10.343	ppb	19:19:57
2	Mn 257.610†	287681.1	294367.8	390.41	µg/L	390.41	ppb	19:19:57
2	Mo 202.031†	43.0	82.6	3.3159	µg/L	3.3159	ppb	19:20:17
2	Ni 231.604†	880.1	997.0	12.474	µg/L	12.474	ppb	19:20:17
2	P 214.914†	364.8	399.2	83.458	µg/L	83.458	ppb	19:20:17
2	Pb 220.353†	426.9	333.6	20.926	µg/L	20.926	ppb	19:20:17

2	S 181.975 Axial†	135.7	50.0	42.103 µg/L	42.103 ppb		19:20:17
2	Sb 206.836†	77.6	-10.3	-1.7870 µg/L	-1.7870 ppb		19:20:17
2	Se 196.026†	-0.1	-6.3	2.65 µg/L	2.65 ppb		19:20:17
2	SiO2†	51052.4	50532.7	5351.2 µg/L	5351.2 ppb		19:19:57
2	Si 251.611†	155689.9	158641.7	2501.6 µg/L	2501.6 ppb		19:19:57
2	Sn 189.927†	12.0	10.4	1.8104 µg/L	1.8104 ppb		19:20:17
2	Ti 334.940†	308140.1	314677.3	323.18 µg/L	323.18 ppb		19:19:57
2	Tl 190.801†	-156.6	-46.1	-1.9528 µg/L	-1.9528 ppb		19:20:17
2	U 409.014†	-1314.8	-1182.8	-74.625 µg/L	-74.625 ppb		19:19:57
2	V 292.402†	3157.6	2809.8	12.746 µg/L	12.746 ppb		19:19:57
2	Zn 213.857†	15271.8	15133.6	88.958 µg/L	88.958 ppb		19:19:57
3	Sc RADIAL	139346.4	139346.4	99.5 %			19:19:11
3	Al 396.153Radial†	29836.4	30074.8	6331.7 µg/L	6331.7 ppb		19:19:11
3	Ca 317.933Radial†	24917.6	24479.7	1667.3 µg/L	1667.3 ppb		19:19:13
3	Fe 238.204 Radial†	199286.8	200237.3	14954 µg/L	14954 ppb		19:19:11
3	K 766.490 Radial†	3493.3	2018.3	797.88 µg/L	797.88 ppb		19:19:11
3	Mg 279.077 IEC†	2395.2	2235.6	1019.5 µg/L	1019.5 ppb		19:19:13
3	Na 589.592 Radial†	2438.1	1498.7	231.60 µg/L	231.60 ppb		19:19:13
3	Sr 421.552†	6465.8	6704.9	15.800 µg/L	15.800 ppb		19:19:13
3	Sc 361.383	1808346.0	1808346.0	100.23 %			19:20:19
3	Y 371.029	1107789.2	1107789.2	104.78 %			19:20:19
3	Ag 328.068†	4154.3	-420.5	-1.8847 µg/L	-1.8847 ppb		19:20:21
3	As 188.979†	-15.5	3.1	4.6003 µg/L	4.6003 ppb		19:20:41
3	B 249.677†	4405.8	330.4	5.1273 µg/L	5.1273 ppb		19:20:21
3	Ba 233.527†	9898.0	10019.6	44.354 µg/L	44.354 ppb		19:20:21
3	Be 313.107†	4376.5	5458.0	1.5571 µg/L	1.5571 ppb		19:20:21
3	Cd 226.502†	189.2	292.1	0.4075 µg/L	0.4075 ppb		19:20:41
3	Co 228.616†	38.4	248.6	2.5557 µg/L	2.5557 ppb		19:20:41
3	Cr 267.716†	2428.4	2189.5	19.422 µg/L	19.422 ppb		19:20:41
3	Cu 324.752†	4786.2	1739.0	9.4157 µg/L	9.4157 ppb		19:20:21
3	Mn 257.610†	286201.1	285352.7	378.45 µg/L	378.45 ppb		19:20:21
3	Mo 202.031†	36.5	75.0	3.0666 µg/L	3.0666 ppb		19:20:41
3	Ni 231.604†	858.8	952.7	11.919 µg/L	11.919 ppb		19:20:41
3	P 214.914†	347.9	372.8	77.373 µg/L	77.373 ppb		19:20:41
3	Pb 220.353†	468.0	363.4	22.749 µg/L	22.749 ppb		19:20:41
3	S 181.975 Axial†	135.3	46.1	38.804 µg/L	38.804 ppb		19:20:41
3	Sb 206.836†	91.7	1.7	-0.2328 µg/L	-0.2328 ppb		19:20:41
3	Se 196.026†	9.4	3.2	6.37 µg/L	6.37 ppb		19:20:41
3	SiO2†	50800.7	48943.9	5183.0 µg/L	5183.0 ppb		19:20:21
3	Si 251.611†	155187.3	154060.5	2429.3 µg/L	2429.3 ppb		19:20:21
3	Sn 189.927†	10.3	8.4	1.6390 µg/L	1.6390 ppb		19:20:41
3	Ti 334.940†	306806.3	305271.9	313.52 µg/L	313.52 ppb		19:20:21
3	Tl 190.801†	-159.0	-44.4	-1.8397 µg/L	-1.8397 ppb		19:20:41
3	U 409.014†	-1420.6	-1253.9	-79.174 µg/L	-79.174 ppb		19:20:21
3	V 292.402†	3282.9	2852.1	12.967 µg/L	12.967 ppb		19:20:21
3	Zn 213.857†	15202.7	14664.5	86.158 µg/L	86.158 ppb		19:20:21

Mean Data: 1202072049|965624|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787289.3	99.065	%	1.2981				1.31%
Sc RADIAL	138697.1	99.0	%	0.46				0.46%
Y 371.029	1095710.2	103.63	%	1.298				1.25%
Ag 328.068†	-411.8	-1.8465	µg/L	0.76167	-1.8465	ppb	0.76167	41.25%
Al 396.153Radial†	30062.3	6329.1	µg/L	16.87	6329.1	ppb	16.87	0.27%
As 188.979†	14.0	8.2877	µg/L	3.30739	8.2877	ppb	3.30739	39.91%
B 249.677†	351.4	5.4537	µg/L	0.50648	5.4537	ppb	0.50648	9.29%
Ba 233.527†	10185.7	45.092	µg/L	0.7959	45.092	ppb	0.7959	1.76%
Be 313.107†	5524.1	1.5776	µg/L	0.03394	1.5776	ppb	0.03394	2.15%
Ca 317.933Radial†	24613.6	1676.4	µg/L	8.24	1676.4	ppb	8.24	0.49%
Cd 226.502†	305.7	0.4977	µg/L	0.15306	0.4977	ppb	0.15306	30.76%
Co 228.616†	251.5	2.5941	µg/L	0.24116	2.5941	ppb	0.24116	9.30%
Cr 267.716†	2200.1	19.509	µg/L	0.4249	19.509	ppb	0.4249	2.18%
Cu 324.752†	1835.4	9.8249	µg/L	0.47340	9.8249	ppb	0.47340	4.82%
Fe 238.204 Radial†	200427.3	14968	µg/L	14.0	14968	ppb	14.0	0.09%
K 766.490 Radial†	2077.9	821.51	µg/L	20.623	821.51	ppb	20.623	2.51%
Mg 279.077 IEC†	2241.8	1022.4	µg/L	2.95	1022.4	ppb	2.95	0.29%
Mn 257.610†	289571.2	384.05	µg/L	6.016	384.05	ppb	6.016	1.57%
Mo 202.031†	78.5	3.1844	µg/L	0.12523	3.1844	ppb	0.12523	3.93%
Na 589.592 Radial†	1429.6	220.86	µg/L	11.120	220.86	ppb	11.120	5.03%

Ni 231.604†	966.2	12.089	µg/L	0.3340	12.089	ppb	0.3340	2.76%
P 214.914†	384.5	80.058	µg/L	3.1051	80.058	ppb	3.1051	3.88%
Pb 220.353†	350.4	21.949	µg/L	0.9318	21.949	ppb	0.9318	4.25%
S 181.975 Axial†	46.2	38.862	µg/L	3.2124	38.862	ppb	3.2124	8.27%
Sb 206.836†	-1.9	-0.6950	µg/L	0.94940	-0.6950	ppb	0.94940	136.61%
Se 196.026†	1.1	5.55	µg/L	2.599	5.55	ppb	2.599	46.79%
SiO2†	49672.3	5260.1	µg/L	84.99	5260.1	ppb	84.99	1.62%
Si 251.611†	156029.6	2460.4	µg/L	37.17	2460.4	ppb	37.17	1.51%
Sn 189.927†	13.6	2.0145	µg/L	0.50917	2.0145	ppb	0.50917	25.28%
Sr 421.552†	6844.5	16.129	µg/L	0.2884	16.129	ppb	0.2884	1.79%
Ti 334.940†	309758.6	318.13	µg/L	4.845	318.13	ppb	4.845	1.52%
Tl 190.801†	-43.0	-1.6007	µg/L	0.51504	-1.6007	ppb	0.51504	32.18%
U 409.014†	-1185.6	-74.837	µg/L	4.2354	-74.837	ppb	4.2354	5.66%
Concentration less than lower limit for U 409.014.								
V 292.402†	2835.2	12.879	µg/L	0.1172	12.879	ppb	0.1172	0.91%
Zn 213.857†	14900.4	87.566	µg/L	1.4002	87.566	ppb	1.4002	1.60%

Sequence No.: 103
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 19:24:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136521.1	136521.1	97.5	%			19:25:21
1	Al 396.153Radial†	23587.9	24283.6	5089.1	µg/L	5089.1	ppb	19:25:21
1	Ca 317.933Radial†	73815.2	75175.0	5120.1	µg/L	5120.1	ppb	19:25:21
1	Fe 238.204 Radial†	68552.7	70229.0	5244.7	µg/L	5244.7	ppb	19:25:21
1	K 766.490 Radial†	14027.7	12900.9	5107.8	µg/L	5107.8	ppb	19:25:21
1	Mg 279.077 IEC†	10897.0	11009.7	5091.4	µg/L	5091.4	ppb	19:25:21
1	Na 589.592 Radial†	64927.6	65673.9	10175	µg/L	10175	ppb	19:25:21
1	Sr 421.552†	213246.9	219030.7	516.54	µg/L	516.54	ppb	19:25:19
1	Sc 361.383	1785028.6	1785028.6	98.940	%			19:25:48
1	Y 371.029	1036837.5	1036837.5	98.065	%			19:25:48
1	Ag 328.068†	126278.3	123066.0	510.14	µg/L	510.14	ppb	19:25:48
1	As 188.979†	1348.4	1381.4	474.62	µg/L	474.62	ppb	19:26:08
1	B 249.677†	36066.4	32387.7	501.90	µg/L	501.90	ppb	19:25:48
1	Ba 233.527†	112036.2	113381.1	504.38	µg/L	504.38	ppb	19:25:48
1	Be 313.107†	1696395.5	1715661.9	497.13	µg/L	497.13	ppb	19:25:48
1	Cd 226.502†	74724.8	75628.7	510.82	µg/L	510.82	ppb	19:25:48
1	Co 228.616†	38208.2	38827.8	513.92	µg/L	513.92	ppb	19:25:48
1	Cr 267.716†	58401.2	58793.6	508.51	µg/L	508.51	ppb	19:25:48
1	Cu 324.752†	122726.4	121005.2	507.72	µg/L	507.72	ppb	19:25:48
1	Mn 257.610†	380187.9	384076.4	509.28	µg/L	509.28	ppb	19:25:48
1	Mo 202.031†	15218.7	15420.3	504.78	µg/L	504.78	ppb	19:26:08
1	Ni 231.604†	40317.6	40845.5	511.03	µg/L	511.03	ppb	19:25:48
1	P 214.914†	10718.0	10858.6	2503.0	µg/L	2503.0	ppb	19:26:08
1	Pb 220.353†	8208.8	8193.3	505.78	µg/L	505.78	ppb	19:26:08
1	S 181.975 Axial†	1267.6	1192.3	1007.3	µg/L	1007.3	ppb	19:26:08
1	Sb 206.836†	3931.0	3883.4	501.83	µg/L	501.83	ppb	19:26:08
1	Se 196.026†	1259.7	1267.1	501	µg/L	501	ppb	19:26:08
1	SiO2†	52219.3	51039.7	5383.5	µg/L	5383.5	ppb	19:25:48
1	Si 251.611†	159931.4	160877.9	2526.9	µg/L	2526.9	ppb	19:25:48
1	Sn 189.927†	7076.1	7150.0	497.65	µg/L	497.65	ppb	19:26:08
1	Ti 334.940†	487366.6	491765.1	504.44	µg/L	504.44	ppb	19:25:48
1	Tl 190.801†	3527.8	3679.9	510.08	µg/L	510.08	ppb	19:26:08
1	U 409.014†	7214.7	7455.3	501.41	µg/L	501.41	ppb	19:25:48
1	V 292.402†	97263.0	97881.8	514.01	µg/L	514.01	ppb	19:25:48
1	Zn 213.857†	85435.3	85847.6	508.62	µg/L	508.62	ppb	19:25:48
2	Sc RADIAL	137094.4	137094.4	97.9	%			19:25:25
2	Al 396.153Radial†	23424.0	24014.9	5032.5	µg/L	5032.5	ppb	19:25:25
2	Ca 317.933Radial†	74322.8	75376.9	5133.8	µg/L	5133.8	ppb	19:25:25
2	Fe 238.204 Radial†	67171.8	68523.6	5117.3	µg/L	5117.3	ppb	19:25:25
2	K 766.490 Radial†	14279.2	13097.8	5185.8	µg/L	5185.8	ppb	19:25:25
2	Mg 279.077 IEC†	11076.8	11146.7	5154.8	µg/L	5154.8	ppb	19:25:25
2	Na 589.592 Radial†	65167.5	65640.4	10170	µg/L	10170	ppb	19:25:25
2	Sr 421.552†	209465.0	214250.9	505.26	µg/L	505.26	ppb	19:25:23
2	Sc 361.383	1786971.9	1786971.9	99.048	%			19:26:11
2	Y 371.029	1036999.3	1036999.3	98.080	%			19:26:11
2	Ag 328.068†	126068.6	122715.5	508.71	µg/L	508.71	ppb	19:26:11
2	As 188.979†	1350.8	1382.3	474.93	µg/L	474.93	ppb	19:26:31
2	B 249.677†	35905.2	32185.3	498.76	µg/L	498.76	ppb	19:26:11
2	Ba 233.527†	111728.7	112947.4	502.45	µg/L	502.45	ppb	19:26:11
2	Be 313.107†	1693634.9	1711010.1	495.78	µg/L	495.78	ppb	19:26:11
2	Cd 226.502†	74712.9	75534.6	510.20	µg/L	510.20	ppb	19:26:11
2	Co 228.616†	38177.4	38754.8	512.96	µg/L	512.96	ppb	19:26:11
2	Cr 267.716†	58491.0	58820.1	508.72	µg/L	508.72	ppb	19:26:11
2	Cu 324.752†	122491.0	120632.6	506.16	µg/L	506.16	ppb	19:26:11
2	Mn 257.610†	379292.2	382754.2	507.52	µg/L	507.52	ppb	19:26:11
2	Mo 202.031†	15313.0	15498.8	507.34	µg/L	507.34	ppb	19:26:31
2	Ni 231.604†	40397.4	40881.7	511.48	µg/L	511.48	ppb	19:26:11
2	P 214.914†	10815.0	10944.7	2523.0	µg/L	2523.0	ppb	19:26:31
2	Pb 220.353†	8283.3	8259.5	509.84	µg/L	509.84	ppb	19:26:31

2	S 181.975 Axial†	1285.7	1209.2	1021.5 µg/L	1021.5 ppb	19:26:31
2	Sb 206.836†	3943.4	3891.6	502.93 µg/L	502.93 ppb	19:26:31
2	Se 196.026†	1283.8	1290.0	510 µg/L	510 ppb	19:26:31
2	SiO2†	52171.8	50934.3	5372.2 µg/L	5372.2 ppb	19:26:11
2	Si 251.611†	159707.8	160476.3	2520.5 µg/L	2520.5 ppb	19:26:11
2	Sn 189.927†	7124.0	7190.6	500.46 µg/L	500.46 ppb	19:26:31
2	Ti 334.940†	486042.2	489892.3	502.50 µg/L	502.50 ppb	19:26:11
2	Tl 190.801†	3535.1	3683.3	510.53 µg/L	510.53 ppb	19:26:31
2	U 409.014†	7502.0	7737.5	519.15 µg/L	519.15 ppb	19:26:11
2	V 292.402†	97106.3	97616.7	512.70 µg/L	512.70 ppb	19:26:11
2	Zn 213.857†	85218.7	85535.1	506.76 µg/L	506.76 ppb	19:26:11
3	Sc RADIAL	137874.2	137874.2	98.4 %		19:25:29
3	Al 396.153Radial†	23589.1	24047.3	5039.1 µg/L	5039.1 ppb	19:25:29
3	Ca 317.933Radial†	74961.1	75596.0	5148.8 µg/L	5148.8 ppb	19:25:29
3	Fe 238.204 Radial†	67823.4	68797.6	5137.8 µg/L	5137.8 ppb	19:25:29
3	K 766.490 Radial†	14366.5	13103.9	5188.2 µg/L	5188.2 ppb	19:25:29
3	Mg 279.077 IEC†	11197.0	11204.7	5181.7 µg/L	5181.7 ppb	19:25:29
3	Na 589.592 Radial†	65776.7	65882.7	10208 µg/L	10208 ppb	19:25:29
3	Sr 421.552†	212161.4	215780.1	508.87 µg/L	508.87 ppb	19:25:27
3	Sc 361.383	1778122.5	1778122.5	98.557 %		19:26:34
3	Y 371.029	1032990.8	1032990.8	97.701 %		19:26:34
3	Ag 328.068†	125744.9	123020.6	509.94 µg/L	509.94 ppb	19:26:34
3	As 188.979†	1344.1	1382.3	474.94 µg/L	474.94 ppb	19:26:55
3	B 249.677†	36086.7	32549.9	504.42 µg/L	504.42 ppb	19:26:34
3	Ba 233.527†	111477.2	113253.7	503.81 µg/L	503.81 ppb	19:26:34
3	Be 313.107†	1688919.0	1714735.2	496.86 µg/L	496.86 ppb	19:26:34
3	Cd 226.502†	74366.0	75558.0	510.36 µg/L	510.36 ppb	19:26:34
3	Co 228.616†	38121.1	38889.5	514.74 µg/L	514.74 ppb	19:26:34
3	Cr 267.716†	58136.3	58754.2	508.16 µg/L	508.16 ppb	19:26:34
3	Cu 324.752†	122208.1	120961.0	507.52 µg/L	507.52 ppb	19:26:34
3	Mn 257.610†	378251.3	383603.9	508.65 µg/L	508.65 ppb	19:26:34
3	Mo 202.031†	15335.2	15598.3	510.59 µg/L	510.59 ppb	19:26:55
3	Ni 231.604†	40219.7	40904.4	511.76 µg/L	511.76 ppb	19:26:34
3	P 214.914†	10818.9	11002.9	2536.5 µg/L	2536.5 ppb	19:26:55
3	Pb 220.353†	8297.7	8315.7	513.33 µg/L	513.33 ppb	19:26:55
3	S 181.975 Axial†	1279.7	1209.5	1021.8 µg/L	1021.8 ppb	19:26:55
3	Sb 206.836†	3968.3	3936.7	508.80 µg/L	508.80 ppb	19:26:55
3	Se 196.026†	1290.2	1303.0	516 µg/L	516 ppb	19:26:55
3	SiO2†	52053.3	51076.2	5387.1 µg/L	5387.1 ppb	19:26:34
3	Si 251.611†	159258.8	160823.2	2525.9 µg/L	2525.9 ppb	19:26:34
3	Sn 189.927†	7150.7	7253.5	504.83 µg/L	504.83 ppb	19:26:55
3	Ti 334.940†	484620.6	490892.1	503.53 µg/L	503.53 ppb	19:26:34
3	Tl 190.801†	3557.8	3724.1	516.11 µg/L	516.11 ppb	19:26:55
3	U 409.014†	7173.8	7442.2	500.55 µg/L	500.55 ppb	19:26:34
3	V 292.402†	96720.9	97713.6	513.21 µg/L	513.21 ppb	19:26:34
3	Zn 213.857†	84972.8	85713.8	507.83 µg/L	507.83 ppb	19:26:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783374.3	98.848	%	0.2578				0.26%
Sc RADIAL	137163.2	97.9	%	0.48				0.50%
Y 371.029	1035609.2	97.949	%	0.2146				0.22%
Ag 328.068†	122934.0	509.60	µg/L	0.774	509.60	ppb	0.774	0.15%
QC value within limits for Ag 328.068 Recovery = 101.92%								
Al 396.153Radial†	24115.3	5053.6	µg/L	30.98	5053.6	ppb	30.98	0.61%
QC value within limits for Al 396.153Radial Recovery = 101.07%								
As 188.979†	1382.0	474.83	µg/L	0.182	474.83	ppb	0.182	0.04%
QC value within limits for As 188.979 Recovery = 94.97%								
B 249.677†	32374.3	501.69	µg/L	2.838	501.69	ppb	2.838	0.57%
QC value within limits for B 249.677 Recovery = 100.34%								
Ba 233.527†	113194.1	503.55	µg/L	0.990	503.55	ppb	0.990	0.20%
QC value within limits for Ba 233.527 Recovery = 100.71%								
Be 313.107†	1713802.4	496.59	µg/L	0.710	496.59	ppb	0.710	0.14%
QC value within limits for Be 313.107 Recovery = 99.32%								
Ca 317.933Radial†	75382.6	5134.2	µg/L	14.34	5134.2	ppb	14.34	0.28%
QC value within limits for Ca 317.933Radial Recovery = 102.68%								
Cd 226.502†	75573.8	510.46	µg/L	0.324	510.46	ppb	0.324	0.06%
QC value within limits for Cd 226.502 Recovery = 102.09%								
Co 228.616†	38824.0	513.88	µg/L	0.892	513.88	ppb	0.892	0.17%

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   QC value within limits for Co 228.616  Recovery = 102.78%
Cr 267.716†            58789.3      508.46 µg/L         0.281      508.46 ppb          0.281   0.06%
   QC value within limits for Cr 267.716  Recovery = 101.69%
Cu 324.752†           120866.3      507.13 µg/L         0.850      507.13 ppb          0.850   0.17%
   QC value within limits for Cu 324.752  Recovery = 101.43%
Fe 238.204 Radial†     69183.4      5166.6 µg/L         68.39      5166.6 ppb          68.39   1.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.33%
K 766.490 Radial†      13034.2      5160.6 µg/L         45.75      5160.6 ppb          45.75   0.89%
   QC value within limits for K 766.490 Radial  Recovery = 103.21%
Mg 279.077 IEC†        11120.4      5142.7 µg/L         46.37      5142.7 ppb          46.37   0.90%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.85%
Mn 257.610†           383478.2      508.48 µg/L         0.890      508.48 ppb          0.890   0.17%
   QC value within limits for Mn 257.610  Recovery = 101.70%
Mo 202.031†            15505.8      507.57 µg/L         2.916      507.57 ppb          2.916   0.57%
   QC value within limits for Mo 202.031  Recovery = 101.51%
Na 589.592 Radial†     65732.3       10184 µg/L          20.3       10184 ppb           20.3   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 101.84%
Ni 231.604†            40877.2      511.42 µg/L         0.372      511.42 ppb          0.372   0.07%
   QC value within limits for Ni 231.604  Recovery = 102.28%
P 214.914†             10935.4      2520.8 µg/L         16.84      2520.8 ppb          16.84   0.67%
   QC value within limits for P 214.914  Recovery = 100.83%
Pb 220.353†             8256.2      509.65 µg/L         3.780      509.65 ppb          3.780   0.74%
   QC value within limits for Pb 220.353  Recovery = 101.93%
S 181.975 Axial†        1203.7      1016.9 µg/L          8.31      1016.9 ppb           8.31   0.82%
   QC value within limits for S 181.975 Axial  Recovery = 101.69%
Sb 206.836†             3903.9      504.52 µg/L         3.748      504.52 ppb          3.748   0.74%
   QC value within limits for Sb 206.836  Recovery = 100.90%
Se 196.026†             1286.7         509 µg/L           7.1         509 ppb            7.1   1.40%
   QC value within limits for Se 196.026  Recovery = 101.83%
SiO2†                  51016.7      5380.9 µg/L          7.76      5380.9 ppb           7.76   0.14%
   QC value within limits for SiO2  Recovery = 100.62%
Si 251.611†           160725.8      2524.4 µg/L          3.44      2524.4 ppb           3.44   0.14%
   QC value within limits for Si 251.611  Recovery = 100.98%
Sn 189.927†             7198.0      500.98 µg/L         3.616      500.98 ppb          3.616   0.72%
   QC value within limits for Sn 189.927  Recovery = 100.20%
Sr 421.552†           216353.9      510.22 µg/L         5.757      510.22 ppb          5.757   1.13%
   QC value within limits for Sr 421.552  Recovery = 102.04%
Ti 334.940†           490849.8      503.49 µg/L         0.969      503.49 ppb          0.969   0.19%
   QC value within limits for Ti 334.940  Recovery = 100.70%
Tl 190.801†             3695.8      512.24 µg/L         3.356      512.24 ppb          3.356   0.66%
   QC value within limits for Tl 190.801  Recovery = 102.45%
U 409.014†              7545.0      507.04 µg/L        10.500      507.04 ppb         10.500   2.07%
   QC value within limits for U 409.014  Recovery = 101.41%
V 292.402†             97737.4      513.31 µg/L         0.665      513.31 ppb          0.665   0.13%
   QC value within limits for V 292.402  Recovery = 102.66%
Zn 213.857†            85698.8      507.74 µg/L         0.932      507.74 ppb          0.932   0.18%
   QC value within limits for Zn 213.857  Recovery = 101.55%
All analyte(s) passed QC.
```

Sequence No.: 104 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/5/2010 19:27:02**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137538.0	137538.0	98.2	%			19:27:31
1	Al 396.153Radial†	-56.6	20.9	4.3459	µg/L	4.3459	ppb	19:27:51
1	Ca 317.933Radial†	719.8	161.7	11.016	µg/L	11.016	ppb	19:27:51
1	Fe 238.204 Radial†	177.9	63.9	4.7709	µg/L	4.7709	ppb	19:27:51
1	K 766.490 Radial†	1588.5	124.3	49.227	µg/L	49.227	ppb	19:27:31
1	Mg 279.077 IEC†	167.8	-1.6	-0.7105	µg/L	-0.7105	ppb	19:27:51
1	Na 589.592 Radial†	1161.9	231.0	35.761	µg/L	35.761	ppb	19:27:31
1	Sr 421.552†	-147.7	54.1	0.1274	µg/L	0.1274	ppb	19:27:31
1	Sc 361.383	1781074.8	1781074.8	98.721	%			19:28:53
1	Y 371.029	1046057.8	1046057.8	98.937	%			19:28:53
1	Ag 328.068†	3965.4	-548.4	-2.2712	µg/L	-2.2712	ppb	19:28:55
1	As 188.979†	-20.1	-1.8	-0.5998	µg/L	-0.5998	ppb	19:29:15
1	B 249.677†	4012.7	-0.4	-0.0070	µg/L	-0.0070	ppb	19:28:55
1	Ba 233.527†	-152.0	-9.4	-0.0422	µg/L	-0.0422	ppb	19:29:15
1	Be 313.107†	-581.3	502.8	0.1412	µg/L	0.1412	ppb	19:28:55
1	Cd 226.502†	-67.6	34.9	0.2354	µg/L	0.2354	ppb	19:29:15
1	Co 228.616†	-198.6	9.1	0.1201	µg/L	0.1201	ppb	19:29:15
1	Cr 267.716†	265.6	35.8	0.3213	µg/L	0.3213	ppb	19:29:15
1	Cu 324.752†	2803.6	-196.2	-0.8320	µg/L	-0.8320	ppb	19:28:55
1	Mn 257.610†	320.1	139.5	0.1851	µg/L	0.1851	ppb	19:29:15
1	Mo 202.031†	-8.7	29.7	0.9727	µg/L	0.9727	ppb	19:29:15
1	Ni 231.604†	-73.8	21.1	0.2640	µg/L	0.2640	ppb	19:29:15
1	P 214.914†	30.2	56.3	13.013	µg/L	13.013	ppb	19:29:15
1	Pb 220.353†	114.1	12.2	0.7624	µg/L	0.7624	ppb	19:29:15
1	S 181.975 Axial†	90.0	2.2	1.8805	µg/L	1.8805	ppb	19:29:15
1	Sb 206.836†	71.0	-17.8	-2.2895	µg/L	-2.2895	ppb	19:29:15
1	Se 196.026†	17.7	11.8	4.62	µg/L	4.62	ppb	19:29:15
1	SiO2†	1773.9	57.8	6.0928	µg/L	6.0928	ppb	19:29:15
1	Si 251.611†	831.2	74.9	1.1680	µg/L	1.1680	ppb	19:28:55
1	Sn 189.927†	3.0	1.1	0.0785	µg/L	0.0785	ppb	19:29:15
1	Ti 334.940†	691.3	-122.8	-0.1197	µg/L	-0.1197	ppb	19:28:55
1	Tl 190.801†	-123.7	-11.0	-1.5123	µg/L	-1.5123	ppb	19:29:15
1	U 409.014†	-394.1	-235.9	-14.923	µg/L	-14.923	ppb	19:28:55
1	V 292.402†	294.6	-124.8	-0.6461	µg/L	-0.6461	ppb	19:28:55
1	Zn 213.857†	611.5	116.4	0.6935	µg/L	0.6935	ppb	19:29:15
2	Sc RADIAL	135509.1	135509.1	96.7	%			19:27:53
2	Al 396.153Radial†	-68.0	8.3	1.6960	µg/L	1.6960	ppb	19:28:13
2	Ca 317.933Radial†	717.1	169.9	11.572	µg/L	11.572	ppb	19:28:13
2	Fe 238.204 Radial†	180.2	69.0	5.1534	µg/L	5.1534	ppb	19:28:13
2	K 766.490 Radial†	1647.3	209.3	82.916	µg/L	82.916	ppb	19:27:53
2	Mg 279.077 IEC†	162.7	-4.2	-1.9297	µg/L	-1.9297	ppb	19:28:13
2	Na 589.592 Radial†	1160.5	247.2	38.246	µg/L	38.246	ppb	19:27:53
2	Sr 421.552†	-205.6	-8.1	-0.0191	µg/L	-0.0191	ppb	19:27:53
2	Sc 361.383	1794413.8	1794413.8	99.460	%			19:29:17
2	Y 371.029	1053276.9	1053276.9	99.620	%			19:29:17
2	Ag 328.068†	4284.5	-257.5	-1.0692	µg/L	-1.0692	ppb	19:29:20
2	As 188.979†	-19.9	-1.5	-0.4985	µg/L	-0.4985	ppb	19:29:40
2	B 249.677†	4024.5	-18.8	-0.2925	µg/L	-0.2925	ppb	19:29:20
2	Ba 233.527†	-152.0	-8.3	-0.0360	µg/L	-0.0360	ppb	19:29:40
2	Be 313.107†	-579.1	509.5	0.1417	µg/L	0.1417	ppb	19:29:20
2	Cd 226.502†	-69.7	33.3	0.2247	µg/L	0.2247	ppb	19:29:40
2	Co 228.616†	-207.4	1.8	0.0232	µg/L	0.0232	ppb	19:29:40
2	Cr 267.716†	286.1	54.4	0.4865	µg/L	0.4865	ppb	19:29:40
2	Cu 324.752†	2856.4	-164.2	-0.7020	µg/L	-0.7020	ppb	19:29:20
2	Mn 257.610†	305.0	122.0	0.1619	µg/L	0.1619	ppb	19:29:40
2	Mo 202.031†	-9.8	28.7	0.9382	µg/L	0.9382	ppb	19:29:40
2	Ni 231.604†	-50.1	45.5	0.5696	µg/L	0.5696	ppb	19:29:40
2	P 214.914†	0.2	25.9	6.0006	µg/L	6.0006	ppb	19:29:40
2	Pb 220.353†	121.0	18.2	1.1351	µg/L	1.1351	ppb	19:29:40

2	S 181.975 Axial†	91.4	3.0	2.5491	µg/L	2.5491 ppb	19:29:40
2	Sb 206.836†	100.0	10.9	1.4088	µg/L	1.4088 ppb	19:29:40
2	Se 196.026†	9.5	3.4	1.32	µg/L	1.32 ppb	19:29:40
2	SiO2†	1806.8	77.5	8.1672	µg/L	8.1672 ppb	19:29:40
2	Si 251.611†	1044.1	282.8	4.4411	µg/L	4.4411 ppb	19:29:20
2	Sn 189.927†	12.8	11.0	0.7645	µg/L	0.7645 ppb	19:29:40
2	Ti 334.940†	830.7	12.2	0.0208	µg/L	0.0208 ppb	19:29:20
2	Tl 190.801†	-110.5	3.2	0.4432	µg/L	0.4432 ppb	19:29:40
2	U 409.014†	-467.8	-307.0	-19.331	µg/L	-19.331 ppb	19:29:20
2	V 292.402†	562.1	141.9	0.7336	µg/L	0.7336 ppb	19:29:20
2	Zn 213.857†	611.2	111.6	0.6626	µg/L	0.6626 ppb	19:29:40
3	Sc RADIAL	139524.3	139524.3	99.6	%		19:28:15
3	Al 396.153Radial†	-95.3	-17.1	-3.6292	µg/L	-3.6292 ppb	19:28:35
3	Ca 317.933Radial†	721.3	152.8	10.407	µg/L	10.407 ppb	19:28:35
3	Fe 238.204 Radial†	194.5	78.0	5.8243	µg/L	5.8243 ppb	19:28:35
3	K 766.490 Radial†	1638.3	151.2	59.920	µg/L	59.920 ppb	19:28:15
3	Mg 279.077 IEC†	175.9	4.2	1.9469	µg/L	1.9469 ppb	19:28:35
3	Na 589.592 Radial†	1097.1	149.0	23.048	µg/L	23.048 ppb	19:28:15
3	Sr 421.552†	-94.0	110.1	0.2596	µg/L	0.2596 ppb	19:28:15
3	Sc 361.383	1784487.6	1784487.6	98.910	%		19:29:42
3	Y 371.029	1047390.4	1047390.4	99.063	%		19:29:42
3	Ag 328.068†	4222.1	-296.5	-1.2368	µg/L	-1.2368 ppb	19:29:44
3	As 188.979†	-22.7	-4.4	-1.4829	µg/L	-1.4829 ppb	19:30:04
3	B 249.677†	3991.5	-29.7	-0.4618	µg/L	-0.4618 ppb	19:29:44
3	Ba 233.527†	-175.1	-32.5	-0.1446	µg/L	-0.1446 ppb	19:30:04
3	Be 313.107†	-417.2	670.0	0.1895	µg/L	0.1895 ppb	19:29:44
3	Cd 226.502†	-71.3	31.2	0.2107	µg/L	0.2107 ppb	19:30:04
3	Co 228.616†	-197.7	10.4	0.1375	µg/L	0.1375 ppb	19:30:04
3	Cr 267.716†	288.1	58.1	0.5143	µg/L	0.5143 ppb	19:30:04
3	Cu 324.752†	2903.2	-100.9	-0.4334	µg/L	-0.4334 ppb	19:29:44
3	Mn 257.610†	293.3	111.8	0.1483	µg/L	0.1483 ppb	19:30:04
3	Mo 202.031†	-19.1	19.2	0.6286	µg/L	0.6286 ppb	19:30:04
3	Ni 231.604†	-73.1	22.0	0.2750	µg/L	0.2750 ppb	19:30:04
3	P 214.914†	21.5	47.4	10.964	µg/L	10.964 ppb	19:30:04
3	Pb 220.353†	111.7	9.4	0.5932	µg/L	0.5932 ppb	19:30:04
3	S 181.975 Axial†	99.1	11.2	9.4517	µg/L	9.4517 ppb	19:30:04
3	Sb 206.836†	79.6	-9.2	-1.1853	µg/L	-1.1853 ppb	19:30:04
3	Se 196.026†	21.6	15.6	6.15	µg/L	6.15 ppb	19:30:04
3	SiO2†	1832.7	113.8	12.025	µg/L	12.025 ppb	19:30:04
3	Si 251.611†	1221.7	468.2	7.3685	µg/L	7.3685 ppb	19:29:44
3	Sn 189.927†	14.3	12.6	0.8713	µg/L	0.8713 ppb	19:30:04
3	Ti 334.940†	811.1	-2.9	0.0031	µg/L	0.0031 ppb	19:29:44
3	Tl 190.801†	-125.4	-12.5	-1.7091	µg/L	-1.7091 ppb	19:30:04
3	U 409.014†	-397.3	-238.4	-15.063	µg/L	-15.063 ppb	19:29:44
3	V 292.402†	350.0	-69.4	-0.3618	µg/L	-0.3618 ppb	19:29:44
3	Zn 213.857†	601.3	105.0	0.6246	µg/L	0.6246 ppb	19:30:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786658.7	99.030	%	0.3841				0.39%
Sc RADIAL	137523.8	98.2	%	1.43				1.46%
Y 371.029	1048908.4	99.207	%	0.3633				0.37%
Ag 328.068†	-367.5	-1.5258	µg/L	0.65103	-1.5258	ppb	0.65103	42.67%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.0	0.8042	µg/L	4.06162	0.8042	ppb	4.06162	505.04%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.6	-0.8604	µg/L	0.54146	-0.8604	ppb	0.54146	62.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-16.3	-0.2538	µg/L	0.22988	-0.2538	ppb	0.22988	90.59%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-16.7	-0.0742	µg/L	0.06099	-0.0742	ppb	0.06099	82.16%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	560.8	0.1575	µg/L	0.02776	0.1575	ppb	0.02776	17.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	161.5	10.998	µg/L	0.5828	10.998	ppb	0.5828	5.30%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	33.1	0.2236	µg/L	0.01242	0.2236	ppb	0.01242	5.55%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.1	0.0936	µg/L	0.06162	0.0936	ppb	0.06162	65.84%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              49.4      0.4407 µg/L       0.10432      0.4407 ppb        0.10432  23.67%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -153.7     -0.6558 µg/L       0.20328     -0.6558 ppb        0.20328  31.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       70.3      5.2495 µg/L       0.53322      5.2495 ppb        0.53322  10.16%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       161.6      64.021 µg/L       17.2148      64.021 ppb        17.2148  26.89%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.5     -0.2311 µg/L       1.98227     -0.2311 ppb        1.98227 857.66%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             124.4      0.1651 µg/L       0.01865      0.1651 ppb        0.01865  11.30%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              25.9      0.8465 µg/L       0.18948      0.8465 ppb        0.18948  22.38%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      209.1      32.352 µg/L        8.1524      32.352 ppb         8.1524  25.20%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              29.5      0.3696 µg/L       0.17333      0.3696 ppb        0.17333  46.90%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               43.2      9.9925 µg/L       3.60579      9.9925 ppb        3.60579  36.08%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              13.3      0.8302 µg/L       0.27727      0.8302 ppb        0.27727  33.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          5.5      4.6271 µg/L       4.19158      4.6271 ppb        4.19158  90.59%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -5.4     -0.6886 µg/L       1.89852     -0.6886 ppb        1.89852 275.69%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              10.3        4.03 µg/L         2.470        4.03 ppb          2.470  61.27%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    83.0      8.7615 µg/L       3.01019      8.7615 ppb        3.01019  34.36%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             275.3      4.3259 µg/L       3.10185      4.3259 ppb        3.10185  71.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.2      0.5714 µg/L       0.43023      0.5714 ppb        0.43023  75.29%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              52.0      0.1226 µg/L       0.13942      0.1226 ppb        0.13942 113.71%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -37.8     -0.0320 µg/L       0.07652     -0.0320 ppb        0.07652 239.36%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -6.8     -0.9261 µg/L       1.18991     -0.9261 ppb        1.18991 128.49%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -260.4     -16.439 µg/L        2.5059     -16.439 ppb         2.5059  15.24%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -17.5     -0.0914 µg/L       0.72848     -0.0914 ppb        0.72848 796.79%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             111.0      0.6602 µg/L       0.03449      0.6602 ppb        0.03449   5.22%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 113
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 19:46:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136033.3	136033.3	97.1	%			19:47:20
1	Al 396.153Radial†	23157.2	23926.9	5014.1	µg/L	5014.1	ppb	19:47:20
1	Ca 317.933Radial†	73468.0	75089.1	5114.2	µg/L	5114.2	ppb	19:47:20
1	Fe 238.204 Radial†	66165.6	68022.9	5079.9	µg/L	5079.9	ppb	19:47:20
1	K 766.490 Radial†	13938.6	12860.8	5091.9	µg/L	5091.9	ppb	19:47:20
1	Mg 279.077 IEC†	10950.4	11104.8	5135.5	µg/L	5135.5	ppb	19:47:20
1	Na 589.592 Radial†	64739.6	65719.2	10182	µg/L	10182	ppb	19:47:20
1	Sr 421.552†	208355.2	214777.6	506.51	µg/L	506.51	ppb	19:47:18
1	Sc 361.383	1783518.2	1783518.2	98.856	%			19:47:33
1	Y 371.029	1035854.5	1035854.5	97.972	%			19:47:33
1	Ag 328.068†	124709.6	121587.3	504.02	µg/L	504.02	ppb	19:47:33
1	As 188.979†	1319.6	1353.4	465.09	µg/L	465.09	ppb	19:47:53
1	B 249.677†	35576.7	31923.2	494.69	µg/L	494.69	ppb	19:47:33
1	Ba 233.527†	110702.6	112127.9	498.80	µg/L	498.80	ppb	19:47:33
1	Be 313.107†	1679740.8	1700266.4	492.66	µg/L	492.66	ppb	19:47:33
1	Cd 226.502†	73945.9	74904.8	505.95	µg/L	505.95	ppb	19:47:33
1	Co 228.616†	37811.3	38459.0	509.05	µg/L	509.05	ppb	19:47:33
1	Cr 267.716†	57870.9	58307.2	504.30	µg/L	504.30	ppb	19:47:33
1	Cu 324.752†	121446.5	119815.4	502.71	µg/L	502.71	ppb	19:47:33
1	Mn 257.610†	376862.6	381038.0	505.25	µg/L	505.25	ppb	19:47:33
1	Mo 202.031†	15182.6	15396.9	504.00	µg/L	504.00	ppb	19:47:53
1	Ni 231.604†	39872.9	40430.1	505.83	µg/L	505.83	ppb	19:47:33
1	P 214.914†	10667.7	10816.8	2493.5	µg/L	2493.5	ppb	19:47:53
1	Pb 220.353†	8235.6	8227.4	507.88	µg/L	507.88	ppb	19:47:53
1	S 181.975 Axial†	1258.9	1184.5	1000.8	µg/L	1000.8	ppb	19:47:53
1	Sb 206.836†	3908.6	3864.2	499.39	µg/L	499.39	ppb	19:47:53
1	Se 196.026†	1254.9	1263.3	500	µg/L	500	ppb	19:47:53
1	SiO2†	51759.4	50619.2	5339.0	µg/L	5339.0	ppb	19:47:33
1	Si 251.611†	158435.6	159501.6	2505.2	µg/L	2505.2	ppb	19:47:33
1	Sn 189.927†	7047.6	7127.3	496.06	µg/L	496.06	ppb	19:47:53
1	Ti 334.940†	483168.1	487935.1	500.50	µg/L	500.50	ppb	19:47:33
1	Tl 190.801†	3484.2	3638.8	504.42	µg/L	504.42	ppb	19:47:53
1	U 409.014†	7070.2	7315.4	492.32	µg/L	492.32	ppb	19:47:33
1	V 292.402†	96278.2	96968.9	509.27	µg/L	509.27	ppb	19:47:33
1	Zn 213.857†	84398.4	84871.9	502.85	µg/L	502.85	ppb	19:47:33
2	Sc RADIAL	138128.1	138128.1	98.6	%			19:47:24
2	Al 396.153Radial†	23418.6	23830.3	4993.6	µg/L	4993.6	ppb	19:47:24
2	Ca 317.933Radial†	74175.9	74659.6	5085.0	µg/L	5085.0	ppb	19:47:24
2	Fe 238.204 Radial†	67065.4	67902.1	5070.9	µg/L	5070.9	ppb	19:47:24
2	K 766.490 Radial†	14159.2	12866.8	5094.3	µg/L	5094.3	ppb	19:47:24
2	Mg 279.077 IEC†	11057.0	11041.8	5106.5	µg/L	5106.5	ppb	19:47:24
2	Na 589.592 Radial†	65417.6	65395.7	10132	µg/L	10132	ppb	19:47:24
2	Sr 421.552†	209457.4	212641.4	501.47	µg/L	501.47	ppb	19:47:22
2	Sc 361.383	1774259.1	1774259.1	98.343	%			19:47:56
2	Y 371.029	1030676.7	1030676.7	97.482	%			19:47:56
2	Ag 328.068†	124953.3	122493.4	507.75	µg/L	507.75	ppb	19:47:56
2	As 188.979†	1338.6	1379.7	474.01	µg/L	474.01	ppb	19:48:16
2	B 249.677†	35635.7	32171.0	498.54	µg/L	498.54	ppb	19:47:56
2	Ba 233.527†	110480.8	112486.8	500.40	µg/L	500.40	ppb	19:47:56
2	Be 313.107†	1671827.6	1701087.2	492.91	µg/L	492.91	ppb	19:47:56
2	Cd 226.502†	73565.9	74908.7	505.97	µg/L	505.97	ppb	19:47:56
2	Co 228.616†	37747.3	38593.6	510.83	µg/L	510.83	ppb	19:47:56
2	Cr 267.716†	57841.1	58582.4	506.67	µg/L	506.67	ppb	19:47:56
2	Cu 324.752†	121022.4	120025.3	503.60	µg/L	503.60	ppb	19:47:56
2	Mn 257.610†	374844.5	380975.3	505.17	µg/L	505.17	ppb	19:47:56
2	Mo 202.031†	15195.5	15490.1	507.05	µg/L	507.05	ppb	19:48:16
2	Ni 231.604†	39781.2	40547.4	507.30	µg/L	507.30	ppb	19:47:56
2	P 214.914†	10677.9	10883.5	2508.9	µg/L	2508.9	ppb	19:48:16
2	Pb 220.353†	8234.4	8269.7	510.47	µg/L	510.47	ppb	19:48:16

2	S 181.975 Axial†	1260.7	1193.0	1007.9 µg/L	1007.9 ppb	19:48:16
2	Sb 206.836†	3925.4	3901.9	504.26 µg/L	504.26 ppb	19:48:16
2	Se 196.026†	1256.0	1271.0	503 µg/L	503 ppb	19:48:16
2	SiO2†	51436.9	50564.4	5333.0 µg/L	5333.0 ppb	19:47:56
2	Si 251.611†	157806.2	159698.0	2508.2 µg/L	2508.2 ppb	19:47:56
2	Sn 189.927†	7059.1	7176.1	499.45 µg/L	499.45 ppb	19:48:16
2	Ti 334.940†	481129.0	488412.3	500.99 µg/L	500.99 ppb	19:47:56
2	Tl 190.801†	3534.3	3708.1	513.88 µg/L	513.88 ppb	19:48:16
2	U 409.014†	7314.1	7600.7	510.33 µg/L	510.33 ppb	19:47:56
2	V 292.402†	95824.1	97015.4	509.57 µg/L	509.57 ppb	19:47:56
2	Zn 213.857†	84121.7	85036.1	503.82 µg/L	503.82 ppb	19:47:56
3	Sc RADIAL	135902.0	135902.0	97.0 %		19:47:28
3	Al 396.153Radial†	23202.6	23996.7	5028.7 µg/L	5028.7 ppb	19:47:28
3	Ca 317.933Radial†	73095.5	74778.2	5093.1 µg/L	5093.1 ppb	19:47:28
3	Fe 238.204 Radial†	65894.1	67808.8	5063.9 µg/L	5063.9 ppb	19:47:28
3	K 766.490 Radial†	14081.9	13022.4	5155.9 µg/L	5155.9 ppb	19:47:28
3	Mg 279.077 IEC†	10738.2	10896.9	5039.6 µg/L	5039.6 ppb	19:47:28
3	Na 589.592 Radial†	64417.4	65451.4	10141 µg/L	10141 ppb	19:47:28
3	Sr 421.552†	211070.6	217784.1	513.60 µg/L	513.60 ppb	19:47:26
3	Sc 361.383	1773098.7	1773098.7	98.279 %		19:48:19
3	Y 371.029	1029704.6	1029704.6	97.390 %		19:48:19
3	Ag 328.068†	125246.3	122874.7	509.32 µg/L	509.32 ppb	19:48:19
3	As 188.979†	1344.1	1386.2	476.22 µg/L	476.22 ppb	19:48:39
3	B 249.677†	35775.7	32337.1	501.13 µg/L	501.13 ppb	19:48:19
3	Ba 233.527†	110829.4	112915.0	502.30 µg/L	502.30 ppb	19:48:19
3	Be 313.107†	1679033.4	1709531.7	495.35 µg/L	495.35 ppb	19:48:19
3	Cd 226.502†	73677.5	75071.3	507.07 µg/L	507.07 ppb	19:48:19
3	Co 228.616†	37744.6	38616.0	511.13 µg/L	511.13 ppb	19:48:19
3	Cr 267.716†	57800.6	58579.7	506.65 µg/L	506.65 ppb	19:48:19
3	Cu 324.752†	121568.3	120661.3	506.25 µg/L	506.25 ppb	19:48:19
3	Mn 257.610†	375808.4	382205.6	506.80 µg/L	506.80 ppb	19:48:19
3	Mo 202.031†	15170.5	15474.8	506.55 µg/L	506.55 ppb	19:48:39
3	Ni 231.604†	39871.6	40665.8	508.78 µg/L	508.78 ppb	19:48:19
3	P 214.914†	10698.7	10911.7	2515.4 µg/L	2515.4 ppb	19:48:39
3	Pb 220.353†	8193.1	8233.1	508.23 µg/L	508.23 ppb	19:48:39
3	S 181.975 Axial†	1269.1	1202.4	1015.8 µg/L	1015.8 ppb	19:48:39
3	Sb 206.836†	3923.7	3902.7	504.37 µg/L	504.37 ppb	19:48:39
3	Se 196.026†	1261.3	1277.3	505 µg/L	505 ppb	19:48:39
3	SiO2†	51453.1	50615.2	5338.4 µg/L	5338.4 ppb	19:48:19
3	Si 251.611†	158030.5	160031.2	2513.5 µg/L	2513.5 ppb	19:48:19
3	Sn 189.927†	7068.0	7189.9	500.41 µg/L	500.41 ppb	19:48:39
3	Ti 334.940†	482061.5	489681.3	502.30 µg/L	502.30 ppb	19:48:19
3	Tl 190.801†	3505.8	3681.5	510.27 µg/L	510.27 ppb	19:48:39
3	U 409.014†	7230.0	7520.0	505.32 µg/L	505.32 ppb	19:48:19
3	V 292.402†	95980.3	97238.1	510.71 µg/L	510.71 ppb	19:48:19
3	Zn 213.857†	84311.9	85285.6	505.30 µg/L	505.30 ppb	19:48:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1776958.7	98.493	%	0.3165				0.32%
Sc RADIAL	136687.8	97.6	%	0.89				0.91%
Y 371.029	1032078.6	97.615	%	0.3127				0.32%
Ag 328.068†	122318.5	507.03	µg/L	2.724	507.03	ppb	2.724	0.54%
QC value within limits for Ag 328.068 Recovery = 101.41%								
Al 396.153Radial†	23918.0	5012.1	µg/L	17.60	5012.1	ppb	17.60	0.35%
QC value within limits for Al 396.153Radial Recovery = 100.24%								
As 188.979†	1373.1	471.78	µg/L	5.893	471.78	ppb	5.893	1.25%
QC value within limits for As 188.979 Recovery = 94.36%								
B 249.677†	32143.8	498.12	µg/L	3.236	498.12	ppb	3.236	0.65%
QC value within limits for B 249.677 Recovery = 99.62%								
Ba 233.527†	112509.9	500.50	µg/L	1.752	500.50	ppb	1.752	0.35%
QC value within limits for Ba 233.527 Recovery = 100.10%								
Be 313.107†	1703628.4	493.64	µg/L	1.487	493.64	ppb	1.487	0.30%
QC value within limits for Be 313.107 Recovery = 98.73%								
Ca 317.933Radial†	74842.3	5097.4	µg/L	15.11	5097.4	ppb	15.11	0.30%
QC value within limits for Ca 317.933Radial Recovery = 101.95%								
Cd 226.502†	74961.6	506.33	µg/L	0.643	506.33	ppb	0.643	0.13%
QC value within limits for Cd 226.502 Recovery = 101.27%								
Co 228.616†	38556.2	510.33	µg/L	1.125	510.33	ppb	1.125	0.22%

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   QC value within limits for Co 228.616  Recovery = 102.07%
Cr 267.716†            58489.8      505.87 µg/L         1.361      505.87 ppb          1.361   0.27%
   QC value within limits for Cr 267.716  Recovery = 101.17%
Cu 324.752†           120167.4      504.19 µg/L         1.844      504.19 ppb          1.844   0.37%
   QC value within limits for Cu 324.752  Recovery = 100.84%
Fe 238.204 Radial†     67911.3      5071.6 µg/L          8.02      5071.6 ppb           8.02   0.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.43%
K 766.490 Radial†      12916.7      5114.0 µg/L         36.29      5114.0 ppb          36.29   0.71%
   QC value within limits for K 766.490 Radial  Recovery = 102.28%
Mg 279.077 IEC†        11014.5      5093.8 µg/L         49.18      5093.8 ppb          49.18   0.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.88%
Mn 257.610†           381406.3      505.74 µg/L         0.921      505.74 ppb          0.921   0.18%
   QC value within limits for Mn 257.610  Recovery = 101.15%
Mo 202.031†            15453.9      505.87 µg/L         1.634      505.87 ppb          1.634   0.32%
   QC value within limits for Mo 202.031  Recovery = 101.17%
Na 589.592 Radial†     65522.1       10152 µg/L          26.8       10152 ppb           26.8   0.26%
   QC value within limits for Na 589.592 Radial  Recovery = 101.52%
Ni 231.604†            40547.8      507.30 µg/L         1.474      507.30 ppb          1.474   0.29%
   QC value within limits for Ni 231.604  Recovery = 101.46%
P 214.914†             10870.7      2505.9 µg/L         11.27      2505.9 ppb          11.27   0.45%
   QC value within limits for P 214.914  Recovery = 100.24%
Pb 220.353†             8243.4      508.86 µg/L         1.407      508.86 ppb          1.407   0.28%
   QC value within limits for Pb 220.353  Recovery = 101.77%
S 181.975 Axial†        1193.3      1008.1 µg/L          7.53      1008.1 ppb           7.53   0.75%
   QC value within limits for S 181.975 Axial  Recovery = 100.81%
Sb 206.836†             3889.6      502.67 µg/L         2.846      502.67 ppb          2.846   0.57%
   QC value within limits for Sb 206.836  Recovery = 100.53%
Se 196.026†             1270.5         503 µg/L           2.8         503 ppb            2.8   0.55%
   QC value within limits for Se 196.026  Recovery = 100.55%
SiO2†                  50599.6      5336.8 µg/L         3.28      5336.8 ppb           3.28   0.06%
   QC value within limits for SiO2  Recovery = 99.80%
Si 251.611†           159743.6      2509.0 µg/L         4.19      2509.0 ppb           4.19   0.17%
   QC value within limits for Si 251.611  Recovery = 100.36%
Sn 189.927†             7164.4      498.64 µg/L         2.286      498.64 ppb          2.286   0.46%
   QC value within limits for Sn 189.927  Recovery = 99.73%
Sr 421.552†           215067.7      507.19 µg/L         6.093      507.19 ppb          6.093   1.20%
   QC value within limits for Sr 421.552  Recovery = 101.44%
Ti 334.940†           488676.3      501.26 µg/L         0.929      501.26 ppb          0.929   0.19%
   QC value within limits for Ti 334.940  Recovery = 100.25%
Tl 190.801†             3676.2      509.52 µg/L         4.776      509.52 ppb          4.776   0.94%
   QC value within limits for Tl 190.801  Recovery = 101.90%
U 409.014†              7478.7      502.66 µg/L         9.299      502.66 ppb          9.299   1.85%
   QC value within limits for U 409.014  Recovery = 100.53%
V 292.402†             97074.1      509.85 µg/L         0.761      509.85 ppb          0.761   0.15%
   QC value within limits for V 292.402  Recovery = 101.97%
Zn 213.857†            85064.5      503.99 µg/L         1.234      503.99 ppb          1.234   0.24%
   QC value within limits for Zn 213.857  Recovery = 100.80%
All analyte(s) passed QC.
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Sequence No.: 114
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 19:48:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136771.0	136771.0	97.6	%			19:49:18
1	Al 396.153Radial†	-90.4	-14.1	-2.9750	µg/L	-2.9750	ppb	19:49:38
1	Ca 317.933Radial†	717.1	163.1	11.106	µg/L	11.106	ppb	19:49:38
1	Fe 238.204 Radial†	194.4	81.9	6.1133	µg/L	6.1133	ppb	19:49:38
1	K 766.490 Radial†	1798.1	348.0	137.87	µg/L	137.87	ppb	19:49:18
1	Mg 279.077 IEC†	165.1	-3.4	-1.5608	µg/L	-1.5608	ppb	19:49:38
1	Na 589.592 Radial†	1209.5	286.4	44.272	µg/L	44.272	ppb	19:49:18
1	Sr 421.552†	-197.8	1.9	0.0044	µg/L	0.0044	ppb	19:49:18
1	Sc 361.383	1778603.7	1778603.7	98.584	%			19:50:40
1	Y 371.029	1044272.6	1044272.6	98.768	%			19:50:40
1	Ag 328.068†	3775.6	-735.3	-2.9968	µg/L	-2.9968	ppb	19:50:42
1	As 188.979†	-9.6	8.8	2.9988	µg/L	2.9988	ppb	19:51:02
1	B 249.677†	3987.1	-20.8	-0.3244	µg/L	-0.3244	ppb	19:50:42
1	Ba 233.527†	-163.0	-20.8	-0.0924	µg/L	-0.0924	ppb	19:51:02
1	Be 313.107†	-519.8	564.5	0.1661	µg/L	0.1661	ppb	19:50:42
1	Cd 226.502†	-86.3	15.9	0.1067	µg/L	0.1067	ppb	19:51:02
1	Co 228.616†	-181.9	25.8	0.3413	µg/L	0.3413	ppb	19:51:02
1	Cr 267.716†	289.4	60.3	0.5151	µg/L	0.5151	ppb	19:51:02
1	Cu 324.752†	2593.2	-405.7	-1.6886	µg/L	-1.6886	ppb	19:50:42
1	Mn 257.610†	290.9	110.3	0.1464	µg/L	0.1464	ppb	19:51:02
1	Mo 202.031†	-28.2	10.0	0.3258	µg/L	0.3258	ppb	19:51:02
1	Ni 231.604†	-61.4	33.7	0.4210	µg/L	0.4210	ppb	19:51:02
1	P 214.914†	12.1	38.0	8.8034	µg/L	8.8034	ppb	19:51:02
1	Pb 220.353†	122.1	20.4	1.2526	µg/L	1.2526	ppb	19:51:02
1	S 181.975 Axial†	96.8	9.3	7.8104	µg/L	7.8104	ppb	19:51:02
1	Sb 206.836†	67.3	-21.4	-2.7655	µg/L	-2.7655	ppb	19:51:02
1	Se 196.026†	28.4	22.7	8.94	µg/L	8.94	ppb	19:51:02
1	SiO2†	1741.9	27.8	2.9309	µg/L	2.9309	ppb	19:51:02
1	Si 251.611†	941.0	187.5	2.9491	µg/L	2.9491	ppb	19:50:42
1	Sn 189.927†	10.0	8.3	0.5726	µg/L	0.5726	ppb	19:51:02
1	Ti 334.940†	894.0	83.9	0.0828	µg/L	0.0828	ppb	19:50:42
1	Tl 190.801†	-100.0	12.9	1.7577	µg/L	1.7577	ppb	19:51:02
1	U 409.014†	-25.6	137.4	8.6834	µg/L	8.6834	ppb	19:50:42
1	V 292.402†	458.6	42.0	0.2284	µg/L	0.2284	ppb	19:50:42
1	Zn 213.857†	590.3	95.8	0.5696	µg/L	0.5696	ppb	19:51:02
2	Sc RADIAL	135601.5	135601.5	96.8	%			19:49:40
2	Al 396.153Radial†	-94.0	-18.6	-3.9570	µg/L	-3.9570	ppb	19:50:00
2	Ca 317.933Radial†	732.7	185.6	12.639	µg/L	12.639	ppb	19:50:00
2	Fe 238.204 Radial†	180.5	69.2	5.1646	µg/L	5.1646	ppb	19:50:00
2	K 766.490 Radial†	1480.7	36.0	14.245	µg/L	14.245	ppb	19:49:40
2	Mg 279.077 IEC†	160.8	-6.3	-2.8777	µg/L	-2.8777	ppb	19:50:00
2	Na 589.592 Radial†	1003.6	84.3	13.060	µg/L	13.060	ppb	19:49:40
2	Sr 421.552†	-290.4	-95.6	-0.2255	µg/L	-0.2255	ppb	19:49:40
2	Sc 361.383	1765884.9	1765884.9	97.879	%			19:51:04
2	Y 371.029	1037088.9	1037088.9	98.089	%			19:51:04
2	Ag 328.068†	4190.5	-283.8	-1.2081	µg/L	-1.2081	ppb	19:51:06
2	As 188.979†	-8.1	10.3	3.4926	µg/L	3.4926	ppb	19:51:26
2	B 249.677†	4017.2	39.1	0.6071	µg/L	0.6071	ppb	19:51:06
2	Ba 233.527†	-176.2	-35.5	-0.1577	µg/L	-0.1577	ppb	19:51:26
2	Be 313.107†	-684.5	392.4	0.1041	µg/L	0.1041	ppb	19:51:06
2	Cd 226.502†	-77.4	24.3	0.1638	µg/L	0.1638	ppb	19:51:26
2	Co 228.616†	-179.0	27.4	0.3625	µg/L	0.3625	ppb	19:51:26
2	Cr 267.716†	264.0	36.5	0.3402	µg/L	0.3402	ppb	19:51:26
2	Cu 324.752†	2830.7	-144.1	-0.6278	µg/L	-0.6278	ppb	19:51:06
2	Mn 257.610†	254.6	75.4	0.1002	µg/L	0.1002	ppb	19:51:26
2	Mo 202.031†	-5.4	33.1	1.0813	µg/L	1.0813	ppb	19:51:26
2	Ni 231.604†	-67.3	27.1	0.3395	µg/L	0.3395	ppb	19:51:26
2	P 214.914†	22.3	48.4	11.190	µg/L	11.190	ppb	19:51:26
2	Pb 220.353†	120.5	19.6	1.2345	µg/L	1.2345	ppb	19:51:26

2	S 181.975 Axial†	87.8	0.8	0.6824 µg/L	0.6824 ppb		19:51:26
2	Sb 206.836†	88.4	0.6	0.0840 µg/L	0.0840 ppb		19:51:26
2	Se 196.026†	16.8	11.0	4.30 µg/L	4.30 ppb		19:51:26
2	SiO2†	1720.3	18.5	1.9319 µg/L	1.9319 ppb		19:51:26
2	Si 251.611†	891.7	143.9	2.2578 µg/L	2.2578 ppb		19:51:06
2	Sn 189.927†	-3.1	-5.1	-0.3527 µg/L	-0.3527 ppb		19:51:26
2	Ti 334.940†	743.3	-63.6	-0.0519 µg/L	-0.0519 ppb		19:51:06
2	Tl 190.801†	-116.8	-5.1	-0.6981 µg/L	-0.6981 ppb		19:51:26
2	U 409.014†	-649.6	-500.3	-31.606 µg/L	-31.606 ppb		19:51:06
2	V 292.402†	302.6	-114.1	-0.6005 µg/L	-0.6005 ppb		19:51:06
2	Zn 213.857†	618.3	128.7	0.7659 µg/L	0.7659 ppb		19:51:26
3	Sc RADIAL	136819.8	136819.8	97.7 %			19:50:02
3	Al 396.153Radial†	-62.6	14.4	3.0017 µg/L	3.0017 ppb		19:50:22
3	Ca 317.933Radial†	702.5	147.9	10.074 µg/L	10.074 ppb		19:50:22
3	Fe 238.204 Radial†	171.3	58.1	4.3410 µg/L	4.3410 ppb		19:50:22
3	K 766.490 Radial†	1628.7	173.8	68.870 µg/L	68.870 ppb		19:50:02
3	Mg 279.077 IEC†	168.0	-0.5	-0.2064 µg/L	-0.2064 ppb		19:50:22
3	Na 589.592 Radial†	1102.6	176.5	27.290 µg/L	27.290 ppb		19:50:02
3	Sr 421.552†	-53.3	149.9	0.3534 µg/L	0.3534 ppb		19:50:02
3	Sc 361.383	1772854.3	1772854.3	98.265 %			19:51:28
3	Y 371.029	1041187.5	1041187.5	98.476 %			19:51:28
3	Ag 328.068†	4220.6	-270.0	-1.1233 µg/L	-1.1233 ppb		19:51:30
3	As 188.979†	-9.5	8.8	2.9983 µg/L	2.9983 ppb		19:51:50
3	B 249.677†	3915.3	-80.8	-1.2569 µg/L	-1.2569 ppb		19:51:30
3	Ba 233.527†	-155.6	-13.8	-0.0614 µg/L	-0.0614 ppb		19:51:50
3	Be 313.107†	-85.0	1005.2	0.2881 µg/L	0.2881 ppb		19:51:30
3	Cd 226.502†	-43.9	58.7	0.3967 µg/L	0.3967 ppb		19:51:50
3	Co 228.616†	-184.0	23.1	0.3047 µg/L	0.3047 ppb		19:51:50
3	Cr 267.716†	294.5	66.5	0.5832 µg/L	0.5832 ppb		19:51:50
3	Cu 324.752†	2951.1	-33.0	-0.1456 µg/L	-0.1456 ppb		19:51:30
3	Mn 257.610†	365.9	187.7	0.2489 µg/L	0.2489 ppb		19:51:50
3	Mo 202.031†	-17.4	20.9	0.6830 µg/L	0.6830 ppb		19:51:50
3	Ni 231.604†	-57.2	37.7	0.4722 µg/L	0.4722 ppb		19:51:50
3	P 214.914†	7.3	33.1	7.6514 µg/L	7.6514 ppb		19:51:50
3	Pb 220.353†	118.0	16.6	1.0342 µg/L	1.0342 ppb		19:51:50
3	S 181.975 Axial†	90.0	2.7	2.2447 µg/L	2.2447 ppb		19:51:50
3	Sb 206.836†	88.5	0.3	0.0401 µg/L	0.0401 ppb		19:51:50
3	Se 196.026†	14.8	9.0	3.52 µg/L	3.52 ppb		19:51:50
3	SiO2†	1757.6	49.5	5.2117 µg/L	5.2117 ppb		19:51:50
3	Si 251.611†	968.7	218.7	3.4357 µg/L	3.4357 ppb		19:51:30
3	Sn 189.927†	11.5	9.9	0.6842 µg/L	0.6842 ppb		19:51:50
3	Ti 334.940†	905.2	98.1	0.1051 µg/L	0.1051 ppb		19:51:30
3	Tl 190.801†	-117.4	-5.2	-0.7127 µg/L	-0.7127 ppb		19:51:50
3	U 409.014†	-321.3	-163.7	-10.351 µg/L	-10.351 ppb		19:51:30
3	V 292.402†	337.8	-79.5	-0.4100 µg/L	-0.4100 ppb		19:51:30
3	Zn 213.857†	603.3	111.0	0.6593 µg/L	0.6593 ppb		19:51:50

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1772447.6	98.243	%	0.3530				0.36%
Sc RADIAL	136397.4	97.4	%	0.49				0.51%
Y 371.029	1040849.7	98.444	%	0.3408				0.35%
Ag 328.068†	-429.7	-1.7761	µg/L	1.05805	-1.7761	ppb	1.05805	59.57%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.1	-1.3101	µg/L	3.76627	-1.3101	ppb	3.76627	287.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.3	3.1633	µg/L	0.28526	3.1633	ppb	0.28526	9.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-20.8	-0.3247	µg/L	0.93203	-0.3247	ppb	0.93203	287.01%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-23.4	-0.1038	µg/L	0.04916	-0.1038	ppb	0.04916	47.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	654.0	0.1861	µg/L	0.09358	0.1861	ppb	0.09358	50.28%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	165.5	11.273	µg/L	1.2906	11.273	ppb	1.2906	11.45%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	33.0	0.2224	µg/L	0.15363	0.2224	ppb	0.15363	69.07%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	25.4	0.3362	µg/L	0.02925	0.3362	ppb	0.02925	8.70%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              54.4      0.4795 µg/L       0.12533      0.4795 ppb        0.12533  26.14%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -194.2     -0.8207 µg/L       0.78938     -0.8207 ppb        0.78938  96.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       69.7      5.2063 µg/L       0.88690      5.2063 ppb        0.88690  17.04%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       185.9      73.661 µg/L       61.9508      73.661 ppb        61.9508  84.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -3.4     -1.5483 µg/L       1.33570     -1.5483 ppb        1.33570  86.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             124.5      0.1652 µg/L       0.07613      0.1652 ppb        0.07613  46.10%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              21.3      0.6967 µg/L       0.37790      0.6967 ppb        0.37790  54.24%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      182.4      28.208 µg/L       15.6262      28.208 ppb        15.6262  55.40%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              32.8      0.4109 µg/L       0.06692      0.4109 ppb        0.06692  16.29%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               39.8      9.2151 µg/L       1.80508      9.2151 ppb        1.80508  19.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              18.9      1.1737 µg/L       0.12120      1.1737 ppb        0.12120  10.33%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.2      3.5791 µg/L       3.74670      3.5791 ppb        3.74670 104.68%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -6.8     -0.8805 µg/L       1.63263     -0.8805 ppb        1.63263 185.43%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              14.2        5.59 µg/L         2.929        5.59 ppb          2.929  52.44%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    31.9      3.3581 µg/L       1.68112      3.3581 ppb        1.68112  50.06%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             183.4      2.8808 µg/L       0.59191      2.8808 ppb        0.59191  20.55%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.3      0.3013 µg/L       0.56919      0.3013 ppb        0.56919 188.88%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              18.7      0.0441 µg/L       0.29149      0.0441 ppb        0.29149 660.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              39.5      0.0453 µg/L       0.08497      0.0453 ppb        0.08497 187.42%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.9      0.1156 µg/L       1.42209      0.1156 ppb        1.42209 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -175.5     -11.091 µg/L       20.1548     -11.091 ppb        20.1548 181.72%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -50.5     -0.2607 µg/L       0.43417     -0.2607 ppb        0.43417 166.54%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             111.8      0.6650 µg/L       0.09828      0.6650 ppb        0.09828  14.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 117
Sample ID: 249333004|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 429
Date Collected: 4/5/2010 19:55:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249333004|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137108.6	137108.6	97.9	%			19:56:27
1	Al 396.153Radial†	110890.7	113383.0	23871	µg/L	23871	ppb	19:56:27
1	Ca 317.933Radial†	97905.1	99464.7	6774.4	µg/L	6774.4	ppb	19:56:29
1	Fe 238.204 Radial†	871261.8	890108.7	66473	µg/L	66473	ppb	19:56:27
1	K 766.490 Radial†	8843.4	7542.1	2981.4	µg/L	2981.4	ppb	19:56:29
1	Mg 279.077 IEC†	8821.6	8841.2	4025.6	µg/L	4025.6	ppb	19:56:29
1	Na 589.592 Radial†	7490.3	6700.8	1036.0	µg/L	1036.0	ppb	19:56:29
1	Sr 421.552†	26417.6	27197.1	64.090	µg/L	64.090	ppb	19:56:29
1	Sc 361.383	1772024.7	1772024.7	98.219	%			19:56:41
1	Y 371.029	1278601.1	1278601.1	120.93	%			19:56:41
1	Ag 328.068†	4178.2	-311.2	-2.0002	µg/L	-2.0002	ppb	19:56:43
1	As 188.979†	27.9	47.0	31.599	µg/L	31.599	ppb	19:57:03
1	B 249.677†	4756.4	777.5	12.049	µg/L	12.049	ppb	19:56:43
1	Ba 233.527†	38269.5	39107.9	173.02	µg/L	173.02	ppb	19:56:43
1	Be 313.107†	20950.8	22422.3	6.3879	µg/L	6.3879	ppb	19:56:43
1	Cd 226.502†	948.3	1068.9	0.2588	µg/L	0.2588	ppb	19:57:03
1	Co 228.616†	714.6	937.8	9.1236	µg/L	9.1236	ppb	19:57:03
1	Cr 267.716†	9300.7	9236.1	82.047	µg/L	82.047	ppb	19:56:43
1	Cu 324.752†	11699.6	8875.6	46.629	µg/L	46.629	ppb	19:56:43
1	Mn 257.610†	1244631.4	1267012.8	1680.4	µg/L	1680.4	ppb	19:56:41
1	Mo 202.031†	287.9	331.7	13.573	µg/L	13.573	ppb	19:57:03
1	Ni 231.604†	3981.6	4149.7	51.917	µg/L	51.917	ppb	19:56:43
1	P 214.914†	1441.4	1493.2	305.02	µg/L	305.02	ppb	19:57:03
1	Pb 220.353†	1606.0	1531.7	95.885	µg/L	95.885	ppb	19:57:03
1	S 181.975 Axial†	260.0	175.8	147.98	µg/L	147.98	ppb	19:57:03
1	Sb 206.836†	74.3	-14.1	-3.7444	µg/L	-3.7444	ppb	19:57:03
1	Se 196.026†	-32.1	-38.8	7.42	µg/L	7.42	ppb	19:57:03
1	SiO2†	310313.0	314200.1	33273	µg/L	33273	ppb	19:56:43
1	Si 251.611†	962744.8	979433.1	15444	µg/L	15444	ppb	19:56:41
1	Sn 189.927†	39.4	38.2	7.8077	µg/L	7.8077	ppb	19:57:03
1	Ti 334.940†	1462882.3	1488582.4	1528.9	µg/L	1528.9	ppb	19:56:41
1	Tl 190.801†	-284.5	-175.4	-3.8433	µg/L	-3.8433	ppb	19:57:03
1	U 409.014†	-5684.5	-5624.2	-355.21	µg/L	-355.21	ppb	19:56:41
1	V 292.402†	12668.9	12475.4	56.445	µg/L	56.445	ppb	19:56:43
1	Zn 213.857†	63944.3	64600.6	379.50	µg/L	379.50	ppb	19:56:43
2	Sc RADIAL	138684.5	138684.5	99.0	%			19:56:31
2	Al 396.153Radial†	112642.2	113864.7	23972	µg/L	23972	ppb	19:56:31
2	Ca 317.933Radial†	97793.9	98215.7	6689.4	µg/L	6689.4	ppb	19:56:33
2	Fe 238.204 Radial†	885480.8	894356.2	66790	µg/L	66790	ppb	19:56:31
2	K 766.490 Radial†	8793.8	7389.3	2920.9	µg/L	2920.9	ppb	19:56:33
2	Mg 279.077 IEC†	8796.4	8713.2	3966.2	µg/L	3966.2	ppb	19:56:33
2	Na 589.592 Radial†	7564.5	6688.9	1034.2	µg/L	1034.2	ppb	19:56:33
2	Sr 421.552†	26297.1	26768.7	63.081	µg/L	63.081	ppb	19:56:33
2	Sc 361.383	1804488.8	1804488.8	100.02	%			19:57:05
2	Y 371.029	1300373.5	1300373.5	122.99	%			19:57:05
2	Ag 328.068†	4098.3	-467.6	-2.6433	µg/L	-2.6433	ppb	19:57:07
2	As 188.979†	36.9	55.4	34.498	µg/L	34.498	ppb	19:57:27
2	B 249.677†	4820.8	754.8	11.697	µg/L	11.697	ppb	19:57:07
2	Ba 233.527†	38784.0	38921.3	172.19	µg/L	172.19	ppb	19:57:07
2	Be 313.107†	20769.8	21857.7	6.2271	µg/L	6.2271	ppb	19:57:07
2	Cd 226.502†	955.7	1058.9	0.1579	µg/L	0.1579	ppb	19:57:27
2	Co 228.616†	689.7	899.8	8.6034	µg/L	8.6034	ppb	19:57:27
2	Cr 267.716†	9315.8	9080.9	80.707	µg/L	80.707	ppb	19:57:07
2	Cu 324.752†	11834.5	8796.2	46.348	µg/L	46.348	ppb	19:57:07
2	Mn 257.610†	1271393.1	1270971.6	1685.7	µg/L	1685.7	ppb	19:57:05
2	Mo 202.031†	286.2	324.7	13.356	µg/L	13.356	ppb	19:57:27
2	Ni 231.604†	4048.5	4143.7	51.843	µg/L	51.843	ppb	19:57:07
2	P 214.914†	1445.4	1470.8	299.65	µg/L	299.65	ppb	19:57:27
2	Pb 220.353†	1646.8	1543.0	96.575	µg/L	96.575	ppb	19:57:27

2	S 181.975 Axial†	249.0	160.0	134.69	µg/L	134.69	ppb	19:57:27
2	Sb 206.836†	81.6	-8.2	-2.9716	µg/L	-2.9716	ppb	19:57:27
2	Se 196.026†	-42.0	-48.1	3.88	µg/L	3.88	ppb	19:57:27
2	SiO2†	313092.8	311295.4	32965	µg/L	32965	ppb	19:57:07
2	Si 251.611†	983586.2	982636.0	15495	µg/L	15495	ppb	19:57:05
2	Sn 189.927†	51.6	49.7	8.6092	µg/L	8.6092	ppb	19:57:27
2	Ti 334.940†	1492012.2	1490911.4	1531.2	µg/L	1531.2	ppb	19:57:05
2	Tl 190.801†	-299.5	-185.2	-5.1462	µg/L	-5.1462	ppb	19:57:27
2	U 409.014†	-5644.8	-5480.4	-346.25	µg/L	-346.25	ppb	19:57:05
2	V 292.402†	12692.4	12266.8	55.327	µg/L	55.327	ppb	19:57:07
2	Zn 213.857†	64182.9	63668.0	373.90	µg/L	373.90	ppb	19:57:07
3	Sc RADIAL	137389.6	137389.6	98.1	%			19:56:35
3	Al 396.153Radial†	111441.6	113713.0	23940	µg/L	23940	ppb	19:56:35
3	Ca 317.933Radial†	97811.8	99165.0	6754.0	µg/L	6754.0	ppb	19:56:37
3	Fe 238.204 Radial†	872307.8	889354.5	66416	µg/L	66416	ppb	19:56:35
3	K 766.490 Radial†	8854.8	7535.3	2978.7	µg/L	2978.7	ppb	19:56:37
3	Mg 279.077 IEC†	8734.7	8734.2	3976.2	µg/L	3976.2	ppb	19:56:37
3	Na 589.592 Radial†	7661.5	6859.8	1060.7	µg/L	1060.7	ppb	19:56:37
3	Sr 421.552†	26527.1	27253.5	64.224	µg/L	64.224	ppb	19:56:37
3	Sc 361.383	1793473.3	1793473.3	99.408	%			19:57:30
3	Y 371.029	1292769.7	1292769.7	122.27	%			19:57:30
3	Ag 328.068†	3939.1	-602.6	-3.2084	µg/L	-3.2084	ppb	19:57:32
3	As 188.979†	38.6	57.4	35.089	µg/L	35.089	ppb	19:57:52
3	B 249.677†	4549.7	511.7	7.9149	µg/L	7.9149	ppb	19:57:32
3	Ba 233.527†	38020.0	38390.9	169.83	µg/L	169.83	ppb	19:57:32
3	Be 313.107†	20492.0	21705.8	6.1803	µg/L	6.1803	ppb	19:57:32
3	Cd 226.502†	970.1	1079.3	0.3339	µg/L	0.3339	ppb	19:57:52
3	Co 228.616†	705.2	919.7	8.8827	µg/L	8.8827	ppb	19:57:52
3	Cr 267.716†	9246.1	9067.9	80.590	µg/L	80.590	ppb	19:57:32
3	Cu 324.752†	11723.7	8757.4	46.125	µg/L	46.125	ppb	19:57:32
3	Mn 257.610†	1261731.3	1269059.7	1683.1	µg/L	1683.1	ppb	19:57:30
3	Mo 202.031†	274.2	314.4	13.003	µg/L	13.003	ppb	19:57:52
3	Ni 231.604†	3843.5	3962.3	49.573	µg/L	49.573	ppb	19:57:32
3	P 214.914†	1424.4	1458.5	297.06	µg/L	297.06	ppb	19:57:52
3	Pb 220.353†	1633.8	1540.1	96.408	µg/L	96.408	ppb	19:57:52
3	S 181.975 Axial†	265.2	177.9	149.71	µg/L	149.71	ppb	19:57:52
3	Sb 206.836†	66.2	-23.1	-4.8971	µg/L	-4.8971	ppb	19:57:52
3	Se 196.026†	-40.1	-46.5	4.38	µg/L	4.38	ppb	19:57:52
3	SiO2†	308258.0	308354.5	32654	µg/L	32654	ppb	19:57:32
3	Si 251.611†	976239.5	981285.6	15474	µg/L	15474	ppb	19:57:30
3	Sn 189.927†	34.8	33.1	7.4563	µg/L	7.4563	ppb	19:57:52
3	Ti 334.940†	1481661.6	1489661.4	1530.0	µg/L	1530.0	ppb	19:57:30
3	Tl 190.801†	-296.5	-183.9	-5.0022	µg/L	-5.0022	ppb	19:57:52
3	U 409.014†	-5756.4	-5627.3	-355.45	µg/L	-355.45	ppb	19:57:30
3	V 292.402†	12576.5	12228.2	55.157	µg/L	55.157	ppb	19:57:32
3	Zn 213.857†	63215.6	63089.0	370.50	µg/L	370.50	ppb	19:57:32

Mean Data: 249333004|965624|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1789995.6	99.215	%	0.9151				0.92%
Sc RADIAL	137727.6	98.3	%	0.60				0.61%
Y 371.029	1290581.4	122.06	%	1.045				0.86%
Ag 328.068†	-460.5	-2.6173	µg/L	0.60455	-2.6173	ppb	0.60455	23.10%
Al 396.153Radial†	113653.6	23928	µg/L	51.9	23928	ppb	51.9	0.22%
As 188.979†	53.3	33.729	µg/L	1.8679	33.729	ppb	1.8679	5.54%
B 249.677†	681.3	10.553	µg/L	2.2918	10.553	ppb	2.2918	21.72%
Ba 233.527†	38806.7	171.68	µg/L	1.653	171.68	ppb	1.653	0.96%
Be 313.107†	21995.3	6.2651	µg/L	0.10891	6.2651	ppb	0.10891	1.74%
Ca 317.933Radial†	98948.4	6739.3	µg/L	44.41	6739.3	ppb	44.41	0.66%
Cd 226.502†	1069.0	0.2502	µg/L	0.08828	0.2502	ppb	0.08828	35.28%
Co 228.616†	919.1	8.8699	µg/L	0.26038	8.8699	ppb	0.26038	2.94%
Cr 267.716†	9128.3	81.115	µg/L	0.8096	81.115	ppb	0.8096	1.00%
Cu 324.752†	8809.7	46.367	µg/L	0.2526	46.367	ppb	0.2526	0.54%
Fe 238.204 Radial†	891273.2	66560	µg/L	201.4	66560	ppb	201.4	0.30%
K 766.490 Radial†	7488.9	2960.4	µg/L	34.19	2960.4	ppb	34.19	1.15%
Mg 279.077 IEC†	8762.9	3989.3	µg/L	31.78	3989.3	ppb	31.78	0.80%
Mn 257.610†	1269014.7	1683.1	µg/L	2.63	1683.1	ppb	2.63	0.16%
Mo 202.031†	323.6	13.311	µg/L	0.2875	13.311	ppb	0.2875	2.16%
Na 589.592 Radial†	6749.8	1043.6	µg/L	14.78	1043.6	ppb	14.78	1.42%

Ni 231.604†	4085.2	51.111	µg/L	1.3324	51.111	ppb	1.3324	2.61%
P 214.914†	1474.2	300.58	µg/L	4.056	300.58	ppb	4.056	1.35%
Pb 220.353†	1538.3	96.289	µg/L	0.3598	96.289	ppb	0.3598	0.37%
S 181.975 Axial†	171.2	144.13	µg/L	8.215	144.13	ppb	8.215	5.70%
Sb 206.836†	-15.1	-3.8710	µg/L	0.96896	-3.8710	ppb	0.96896	25.03%
Se 196.026†	-44.5	5.23	µg/L	1.913	5.23	ppb	1.913	36.61%
SiO2†	311283.3	32964	µg/L	309.5	32964	ppb	309.5	0.94%
Si 251.611†	981118.2	15471	µg/L	25.4	15471	ppb	25.4	0.16%
Sn 189.927†	40.3	7.9577	µg/L	0.59089	7.9577	ppb	0.59089	7.43%
Sr 421.552†	27073.1	63.798	µg/L	0.6250	63.798	ppb	0.6250	0.98%
Ti 334.940†	1489718.4	1530.0	µg/L	1.20	1530.0	ppb	1.20	0.08%
Tl 190.801†	-181.5	-4.6639	µg/L	0.71430	-4.6639	ppb	0.71430	15.32%
U 409.014†	-5577.3	-352.30	µg/L	5.248	-352.30	ppb	5.248	1.49%
Concentration less than lower limit for U 409.014.								
V 292.402†	12323.5	55.643	µg/L	0.7000	55.643	ppb	0.7000	1.26%
Zn 213.857†	63785.9	374.64	µg/L	4.546	374.64	ppb	4.546	1.21%

Sequence No.: 118
Sample ID: 249333005|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 430
Date Collected: 4/5/2010 19:57:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249333005|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138794.3	138794.3	99.1	%			19:58:31
1	Al 396.153Radial†	87732.9	88632.4	18660	µg/L	18660	ppb	19:58:31
1	Ca 317.933Radial†	302133.9	304389.5	20732	µg/L	20732	ppb	19:58:31
1	Fe 238.204 Radial†	634384.4	640203.0	47810	µg/L	47810	ppb	19:58:28
1	K 766.490 Radial†	14014.7	12652.0	5004.7	µg/L	5004.7	ppb	19:58:31
1	Mg 279.077 IEC†	11280.2	11213.3	5136.8	µg/L	5136.8	ppb	19:58:31
1	Na 589.592 Radial†	4183.8	3270.4	502.49	µg/L	502.49	ppb	19:58:31
1	Sr 421.552†	56118.9	56848.4	133.91	µg/L	133.91	ppb	19:58:31
1	Sc 361.383	1789315.3	1789315.3	99.178	%			19:58:43
1	Y 371.029	1117720.2	1117720.2	105.71	%			19:58:43
1	Ag 328.068†	5460.5	940.6	2.9043	µg/L	2.9043	ppb	19:58:43
1	As 188.979†	1.4	19.9	17.948	µg/L	17.948	ppb	19:59:03
1	B 249.677†	7265.6	3260.7	50.662	µg/L	50.662	ppb	19:58:43
1	Ba 233.527†	84716.5	85563.5	379.74	µg/L	379.74	ppb	19:58:43
1	Be 313.107†	12402.9	13597.5	3.8645	µg/L	3.8645	ppb	19:58:43
1	Cd 226.502†	1892.1	2011.1	8.5891	µg/L	8.5891	ppb	19:59:03
1	Co 228.616†	814.9	1032.0	11.540	µg/L	11.540	ppb	19:59:03
1	Cr 267.716†	5798.2	5613.1	49.897	µg/L	49.897	ppb	19:59:03
1	Cu 324.752†	74385.7	71966.4	307.92	µg/L	307.92	ppb	19:58:43
1	Mn 257.610†	1435523.4	1447242.5	1919.5	µg/L	1919.5	ppb	19:58:43
1	Mo 202.031†	145.7	185.5	8.0728	µg/L	8.0728	ppb	19:59:03
1	Ni 231.604†	3967.6	4096.4	51.251	µg/L	51.251	ppb	19:59:03
1	P 214.914†	3102.9	3154.3	698.20	µg/L	698.20	ppb	19:59:03
1	Pb 220.353†	4241.3	4173.0	257.92	µg/L	257.92	ppb	19:59:03
1	S 181.975 Axial†	1778.8	1704.7	1434.1	µg/L	1434.1	ppb	19:59:03
1	Sb 206.836†	92.2	3.2	-0.8026	µg/L	-0.8026	ppb	19:59:03
1	Se 196.026†	-8.9	-15.2	10.4	µg/L	10.4	ppb	19:59:03
1	SiO2†	203153.0	203098.5	21507	µg/L	21507	ppb	19:58:43
1	Si 251.611†	632886.3	637367.4	10050	µg/L	10050	ppb	19:58:43
1	Sn 189.927†	382.9	384.2	30.347	µg/L	30.347	ppb	19:59:03
1	Ti 334.940†	1059693.3	1067657.6	1096.8	µg/L	1096.8	ppb	19:58:43
1	Tl 190.801†	-261.8	-149.6	-4.0882	µg/L	-4.0882	ppb	19:59:03
1	U 409.014†	-4028.4	-3898.4	-240.10	µg/L	-240.10	ppb	19:58:43
1	V 292.402†	12060.8	11737.6	54.880	µg/L	54.880	ppb	19:59:03
1	Zn 213.857†	167096.2	167978.9	998.20	µg/L	998.20	ppb	19:58:43
2	Sc RADIAL	139018.2	139018.2	99.2	%			19:58:35
2	Al 396.153Radial†	87950.8	88709.3	18676	µg/L	18676	ppb	19:58:35
2	Ca 317.933Radial†	302967.1	304738.0	20755	µg/L	20755	ppb	19:58:35
2	Fe 238.204 Radial†	641245.7	646086.1	48249	µg/L	48249	ppb	19:58:33
2	K 766.490 Radial†	14005.0	12619.5	4991.9	µg/L	4991.9	ppb	19:58:35
2	Mg 279.077 IEC†	11324.2	11239.3	5148.4	µg/L	5148.4	ppb	19:58:35
2	Na 589.592 Radial†	4204.8	3284.8	504.73	µg/L	504.73	ppb	19:58:35
2	Sr 421.552†	56249.9	56889.2	134.01	µg/L	134.01	ppb	19:58:35
2	Sc 361.383	1781454.2	1781454.2	98.742	%			19:59:06
2	Y 371.029	1113455.5	1113455.5	105.31	%			19:59:06
2	Ag 328.068†	5075.2	574.7	1.4235	µg/L	1.4235	ppb	19:59:06
2	As 188.979†	7.5	26.1	20.137	µg/L	20.137	ppb	19:59:26
2	B 249.677†	7148.1	3174.0	49.315	µg/L	49.315	ppb	19:59:06
2	Ba 233.527†	84432.6	85653.0	380.13	µg/L	380.13	ppb	19:59:06
2	Be 313.107†	12453.9	13704.3	3.8998	µg/L	3.8998	ppb	19:59:06
2	Cd 226.502†	1863.6	1990.7	8.4053	µg/L	8.4053	ppb	19:59:26
2	Co 228.616†	794.4	1014.8	11.290	µg/L	11.290	ppb	19:59:26
2	Cr 267.716†	5770.3	5610.6	49.880	µg/L	49.880	ppb	19:59:26
2	Cu 324.752†	74335.6	72246.7	309.16	µg/L	309.16	ppb	19:59:06
2	Mn 257.610†	1427039.6	1445037.7	1916.6	µg/L	1916.6	ppb	19:59:06
2	Mo 202.031†	136.9	177.2	7.8194	µg/L	7.8194	ppb	19:59:26
2	Ni 231.604†	3980.6	4127.3	51.637	µg/L	51.637	ppb	19:59:26
2	P 214.914†	3092.0	3157.1	698.53	µg/L	698.53	ppb	19:59:26
2	Pb 220.353†	4215.2	4165.5	257.43	µg/L	257.43	ppb	19:59:26

2	S 181.975 Axial†	1780.5	1714.3	1442.2	µg/L	1442.2	ppb	19:59:26
2	Sb 206.836†	82.6	-6.1	-2.0204	µg/L	-2.0204	ppb	19:59:26
2	Se 196.026†	-21.9	-28.3	5.36	µg/L	5.36	ppb	19:59:26
2	SiO2†	202039.1	202874.3	21483	µg/L	21483	ppb	19:59:06
2	Si 251.611†	628752.8	635997.1	10029	µg/L	10029	ppb	19:59:06
2	Sn 189.927†	365.6	368.4	29.247	µg/L	29.247	ppb	19:59:26
2	Ti 334.940†	1054287.0	1066897.3	1096.0	µg/L	1096.0	ppb	19:59:06
2	Tl 190.801†	-262.4	-151.4	-4.3429	µg/L	-4.3429	ppb	19:59:26
2	U 409.014†	-3787.1	-3672.0	-225.92	µg/L	-225.92	ppb	19:59:06
2	V 292.402†	12037.0	11767.2	54.995	µg/L	54.995	ppb	19:59:26
2	Zn 213.857†	166251.1	167866.5	997.47	µg/L	997.47	ppb	19:59:06
3	Sc RADIAL	139933.2	139933.2	99.9	%			19:58:39
3	Al 396.153Radial†	88425.2	88604.7	18654	µg/L	18654	ppb	19:58:39
3	Ca 317.933Radial†	305028.9	304805.6	20760	µg/L	20760	ppb	19:58:39
3	Fe 238.204 Radial†	633799.9	634406.1	47377	µg/L	47377	ppb	19:58:37
3	K 766.490 Radial†	14039.9	12562.1	4969.1	µg/L	4969.1	ppb	19:58:39
3	Mg 279.077 IEC†	11371.6	11212.2	5136.6	µg/L	5136.6	ppb	19:58:39
3	Na 589.592 Radial†	4301.3	3353.7	515.42	µg/L	515.42	ppb	19:58:39
3	Sr 421.552†	56358.9	56627.7	133.39	µg/L	133.39	ppb	19:58:39
3	Sc 361.383	1783910.0	1783910.0	98.878	%			19:59:29
3	Y 371.029	1114755.8	1114755.8	105.43	%			19:59:29
3	Ag 328.068†	5106.9	599.7	1.5023	µg/L	1.5023	ppb	19:59:29
3	As 188.979†	8.3	26.9	20.208	µg/L	20.208	ppb	19:59:49
3	B 249.677†	7184.9	3201.3	49.739	µg/L	49.739	ppb	19:59:29
3	Ba 233.527†	84939.5	86047.9	381.90	µg/L	381.90	ppb	19:59:29
3	Be 313.107†	12530.2	13764.1	3.9108	µg/L	3.9108	ppb	19:59:29
3	Cd 226.502†	1846.0	1970.3	8.3588	µg/L	8.3588	ppb	19:59:49
3	Co 228.616†	810.9	1030.4	11.544	µg/L	11.544	ppb	19:59:49
3	Cr 267.716†	5768.5	5600.8	49.779	µg/L	49.779	ppb	19:59:49
3	Cu 324.752†	74355.2	72162.8	308.67	µg/L	308.67	ppb	19:59:29
3	Mn 257.610†	1434267.6	1450358.1	1923.6	µg/L	1923.6	ppb	19:59:29
3	Mo 202.031†	172.5	213.0	8.9557	µg/L	8.9557	ppb	19:59:49
3	Ni 231.604†	3989.4	4130.6	51.679	µg/L	51.679	ppb	19:59:49
3	P 214.914†	3085.0	3145.7	696.48	µg/L	696.48	ppb	19:59:49
3	Pb 220.353†	4187.2	4131.3	255.37	µg/L	255.37	ppb	19:59:49
3	S 181.975 Axial†	1792.2	1723.6	1450.1	µg/L	1450.1	ppb	19:59:49
3	Sb 206.836†	84.6	-4.1	-1.7335	µg/L	-1.7335	ppb	19:59:49
3	Se 196.026†	-8.9	-15.2	10.2	µg/L	10.2	ppb	19:59:49
3	SiO2†	203018.1	203582.7	21558	µg/L	21558	ppb	19:59:29
3	Si 251.611†	633057.5	639474.0	10084	µg/L	10084	ppb	19:59:29
3	Sn 189.927†	377.8	380.2	30.078	µg/L	30.078	ppb	19:59:49
3	Ti 334.940†	1058742.7	1069933.7	1099.1	µg/L	1099.1	ppb	19:59:29
3	Tl 190.801†	-250.5	-139.1	-2.6130	µg/L	-2.6130	ppb	19:59:49
3	U 409.014†	-4118.0	-4001.3	-246.46	µg/L	-246.46	ppb	19:59:29
3	V 292.402†	12033.0	11746.3	54.973	µg/L	54.973	ppb	19:59:49
3	Zn 213.857†	167311.6	168707.2	1002.6	µg/L	1002.6	ppb	19:59:29

Mean Data: 249333005|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1784893.1	98.932	%	0.2229				0.23%
Sc RADIAL	139248.6	99.4	%	0.43				0.43%
Y 371.029	1115310.5	105.49	%	0.207				0.20%
Ag 328.068†	705.0	1.9434	µg/L	0.83314	1.9434	ppb	0.83314	42.87%
Al 396.153Radial†	88648.8	18663	µg/L	11.4	18663	ppb	11.4	0.06%
As 188.979†	24.3	19.431	µg/L	1.2852	19.431	ppb	1.2852	6.61%
B 249.677†	3212.0	49.905	µg/L	0.6884	49.905	ppb	0.6884	1.38%
Ba 233.527†	85754.8	380.59	µg/L	1.150	380.59	ppb	1.150	0.30%
Be 313.107†	13688.6	3.8917	µg/L	0.02419	3.8917	ppb	0.02419	0.62%
Ca 317.933Radial†	304644.4	20749	µg/L	15.2	20749	ppb	15.2	0.07%
Cd 226.502†	1990.7	8.4511	µg/L	0.12179	8.4511	ppb	0.12179	1.44%
Co 228.616†	1025.7	11.458	µg/L	0.1455	11.458	ppb	0.1455	1.27%
Cr 267.716†	5608.1	49.852	µg/L	0.0634	49.852	ppb	0.0634	0.13%
Cu 324.752†	72125.3	308.58	µg/L	0.628	308.58	ppb	0.628	0.20%
Fe 238.204 Radial†	640231.7	47812	µg/L	436.1	47812	ppb	436.1	0.91%
K 766.490 Radial†	12611.2	4988.6	µg/L	18.04	4988.6	ppb	18.04	0.36%
Mg 279.077 IEC†	11221.6	5140.6	µg/L	6.76	5140.6	ppb	6.76	0.13%
Mn 257.610†	1447546.1	1919.9	µg/L	3.55	1919.9	ppb	3.55	0.18%
Mo 202.031†	191.9	8.2826	µg/L	0.59653	8.2826	ppb	0.59653	7.20%
Na 589.592 Radial†	3303.0	507.54	µg/L	6.914	507.54	ppb	6.914	1.36%

Ni 231.604†	4118.1	51.523 µg/L	0.2358	51.523 ppb	0.2358	0.46%
P 214.914†	3152.4	697.74 µg/L	1.098	697.74 ppb	1.098	0.16%
Pb 220.353†	4156.6	256.91 µg/L	1.350	256.91 ppb	1.350	0.53%
S 181.975 Axial†	1714.2	1442.1 µg/L	7.98	1442.1 ppb	7.98	0.55%
Sb 206.836†	-2.3	-1.5188 µg/L	0.63664	-1.5188 ppb	0.63664	41.92%
Se 196.026†	-19.6	8.65 µg/L	2.853	8.65 ppb	2.853	32.99%
SiO2†	203185.2	21516 µg/L	38.3	21516 ppb	38.3	0.18%
Si 251.611†	637612.8	10054 µg/L	27.6	10054 ppb	27.6	0.27%
Sn 189.927†	377.6	29.891 µg/L	0.5734	29.891 ppb	0.5734	1.92%
Sr 421.552†	56788.4	133.77 µg/L	0.332	133.77 ppb	0.332	0.25%
Ti 334.940†	1068162.9	1097.3 µg/L	1.63	1097.3 ppb	1.63	0.15%
Tl 190.801†	-146.7	-3.6814 µg/L	0.93398	-3.6814 ppb	0.93398	25.37%
U 409.014†	-3857.3	-237.49 µg/L	10.518	-237.49 ppb	10.518	4.43%
Concentration less than lower limit for U 409.014.						
V 292.402†	11750.3	54.950 µg/L	0.0609	54.950 ppb	0.0609	0.11%
Zn 213.857†	168184.2	999.42 µg/L	2.768	999.42 ppb	2.768	0.28%

Sequence No.: 119
Sample ID: 249333006|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 431
Date Collected: 4/5/2010 19:59:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249333006|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137815.8	137815.8	98.4	%			20:00:28
1	Al 396.153Radial†	79208.9	80596.2	16968	µg/L	16968	ppb	20:00:28
1	Ca 317.933Radial†	142508.1	144291.3	9827.5	µg/L	9827.5	ppb	20:00:30
1	Fe 238.204 Radial†	973948.6	989924.0	73927	µg/L	73927	ppb	20:00:28
1	K 766.490 Radial†	10259.7	8935.5	3534.6	µg/L	3534.6	ppb	20:00:30
1	Mg 279.077 IEC†	7692.6	7647.2	3467.8	µg/L	3467.8	ppb	20:00:30
1	Na 589.592 Radial†	5613.0	4753.3	733.65	µg/L	733.65	ppb	20:00:30
1	Sr 421.552†	29695.3	30390.4	71.598	µg/L	71.598	ppb	20:00:30
1	Sc 361.383	1775957.1	1775957.1	98.437	%			20:00:56
1	Y 371.029	1136245.7	1136245.7	107.47	%			20:00:56
1	Ag 328.068†	10515.2	6117.0	24.072	µg/L	24.072	ppb	20:00:56
1	As 188.979†	2.2	20.8	24.323	µg/L	24.323	ppb	20:01:16
1	B 249.677†	5670.5	1695.4	26.317	µg/L	26.317	ppb	20:00:56
1	Ba 233.527†	52250.0	53224.1	235.66	µg/L	235.66	ppb	20:00:56
1	Be 313.107†	13729.1	15038.8	4.2404	µg/L	4.2404	ppb	20:00:56
1	Cd 226.502†	2137.1	2274.4	7.6227	µg/L	7.6227	ppb	20:01:16
1	Co 228.616†	845.8	1069.5	10.536	µg/L	10.536	ppb	20:01:16
1	Cr 267.716†	8266.2	8164.2	73.051	µg/L	73.051	ppb	20:01:16
1	Cu 324.752†	83922.8	82219.0	354.44	µg/L	354.44	ppb	20:00:56
1	Mn 257.610†	1268808.6	1288767.9	1709.3	µg/L	1709.3	ppb	20:00:56
1	Mo 202.031†	164.1	205.3	9.7202	µg/L	9.7202	ppb	20:01:16
1	Ni 231.604†	4104.5	4265.6	53.368	µg/L	53.368	ppb	20:01:16
1	P 214.914†	2645.4	2713.1	577.56	µg/L	577.56	ppb	20:01:16
1	Pb 220.353†	4131.5	4093.7	252.22	µg/L	252.22	ppb	20:01:16
1	S 181.975 Axial†	1022.6	949.9	799.16	µg/L	799.16	ppb	20:01:16
1	Sb 206.836†	78.1	-10.4	-3.1914	µg/L	-3.1914	ppb	20:01:16
1	Se 196.026†	-44.4	-51.2	5.10	µg/L	5.10	ppb	20:01:16
1	SiO2†	239353.0	241414.0	25565	µg/L	25565	ppb	20:00:56
1	Si 251.611†	747438.8	758538.4	11961	µg/L	11961	ppb	20:00:56
1	Sn 189.927†	459.0	464.4	36.021	µg/L	36.021	ppb	20:01:16
1	Ti 334.940†	1083769.6	1100152.9	1130.0	µg/L	1130.0	ppb	20:00:56
1	Tl 190.801†	-263.0	-152.9	-4.7547	µg/L	-4.7547	ppb	20:01:16
1	U 409.014†	-6143.7	-6077.9	-385.56	µg/L	-385.56	ppb	20:00:56
1	V 292.402†	11565.8	11326.2	49.971	µg/L	49.971	ppb	20:01:16
1	Zn 213.857†	196548.3	199165.8	1181.8	µg/L	1181.8	ppb	20:00:56
2	Sc RADIAL	137561.2	137561.2	98.2	%			20:00:32
2	Al 396.153Radial†	79195.6	80731.7	16997	µg/L	16997	ppb	20:00:32
2	Ca 317.933Radial†	142482.5	144533.4	9844.0	µg/L	9844.0	ppb	20:00:34
2	Fe 238.204 Radial†	974223.7	992036.9	74085	µg/L	74085	ppb	20:00:32
2	K 766.490 Radial†	10214.6	8908.8	3524.0	µg/L	3524.0	ppb	20:00:34
2	Mg 279.077 IEC†	7683.1	7652.0	3469.9	µg/L	3469.9	ppb	20:00:34
2	Na 589.592 Radial†	5676.4	4828.4	745.30	µg/L	745.30	ppb	20:00:34
2	Sr 421.552†	29949.6	30705.3	72.340	µg/L	72.340	ppb	20:00:34
2	Sc 361.383	1766506.2	1766506.2	97.913	%			20:01:19
2	Y 371.029	1129649.0	1129649.0	106.84	%			20:01:19
2	Ag 328.068†	10474.2	6132.3	24.148	µg/L	24.148	ppb	20:01:19
2	As 188.979†	14.1	32.9	28.457	µg/L	28.457	ppb	20:01:39
2	B 249.677†	5679.6	1735.5	26.941	µg/L	26.941	ppb	20:01:19
2	Ba 233.527†	52020.3	53273.4	235.88	µg/L	235.88	ppb	20:01:19
2	Be 313.107†	13550.1	14930.6	4.2109	µg/L	4.2109	ppb	20:01:19
2	Cd 226.502†	2160.7	2310.1	7.8484	µg/L	7.8484	ppb	20:01:39
2	Co 228.616†	845.2	1073.5	10.582	µg/L	10.582	ppb	20:01:39
2	Cr 267.716†	8342.6	8287.2	74.116	µg/L	74.116	ppb	20:01:39
2	Cu 324.752†	83608.3	82354.0	355.04	µg/L	355.04	ppb	20:01:19
2	Mn 257.610†	1263633.4	1290378.4	1711.4	µg/L	1711.4	ppb	20:01:19
2	Mo 202.031†	176.5	218.8	10.170	µg/L	10.170	ppb	20:01:39
2	Ni 231.604†	4153.7	4338.1	54.275	µg/L	54.275	ppb	20:01:39
2	P 214.914†	2669.7	2752.3	586.53	µg/L	586.53	ppb	20:01:39
2	Pb 220.353†	4167.0	4152.3	255.83	µg/L	255.83	ppb	20:01:39

2	S 181.975 Axial†	1034.7	967.9	814.28	µg/L	814.28	ppb	20:01:39
2	Sb 206.836†	117.8	30.6	2.0840	µg/L	2.0840	ppb	20:01:39
2	Se 196.026†	-39.0	-46.0	7.21	µg/L	7.21	ppb	20:01:39
2	SiO2†	238304.1	241643.6	25589	µg/L	25589	ppb	20:01:19
2	Si 251.611†	743885.5	758971.7	11968	µg/L	11968	ppb	20:01:19
2	Sn 189.927†	467.4	475.4	36.796	µg/L	36.796	ppb	20:01:39
2	Ti 334.940†	1079881.7	1102072.5	1132.0	µg/L	1132.0	ppb	20:01:19
2	Tl 190.801†	-256.5	-147.7	-4.0132	µg/L	-4.0132	ppb	20:01:39
2	U 409.014†	-6019.5	-5984.4	-379.64	µg/L	-379.64	ppb	20:01:19
2	V 292.402†	11637.1	11461.8	50.669	µg/L	50.669	ppb	20:01:39
2	Zn 213.857†	195649.7	199316.3	1182.6	µg/L	1182.6	ppb	20:01:19
3	Sc RADIAL	136940.4	136940.4	97.7	%			20:00:36
3	Al 396.153Radial†	78810.6	80703.5	16991	µg/L	16991	ppb	20:00:36
3	Ca 317.933Radial†	141671.6	144361.7	9832.3	µg/L	9832.3	ppb	20:00:38
3	Fe 238.204 Radial†	967926.7	990092.8	73939	µg/L	73939	ppb	20:00:36
3	K 766.490 Radial†	10165.6	8905.9	3522.9	µg/L	3522.9	ppb	20:00:38
3	Mg 279.077 IEC†	7563.9	7565.6	3430.1	µg/L	3430.1	ppb	20:00:38
3	Na 589.592 Radial†	5671.5	4849.5	748.58	µg/L	748.58	ppb	20:00:38
3	Sr 421.552†	29738.5	30627.6	72.157	µg/L	72.157	ppb	20:00:38
3	Sc 361.383	1789721.4	1789721.4	99.200	%			20:01:42
3	Y 371.029	1145155.7	1145155.7	108.31	%			20:01:42
3	Ag 328.068†	10215.6	5732.8	22.520	µg/L	22.520	ppb	20:01:42
3	As 188.979†	13.5	32.2	28.167	µg/L	28.167	ppb	20:02:02
3	B 249.677†	5531.8	1511.3	23.455	µg/L	23.455	ppb	20:01:42
3	Ba 233.527†	52632.9	53201.8	235.56	µg/L	235.56	ppb	20:01:42
3	Be 313.107†	13476.0	14676.4	4.1405	µg/L	4.1405	ppb	20:01:42
3	Cd 226.502†	2154.8	2275.5	7.6292	µg/L	7.6292	ppb	20:02:02
3	Co 228.616†	840.7	1057.7	10.380	µg/L	10.380	ppb	20:02:02
3	Cr 267.716†	8336.2	8170.2	73.090	µg/L	73.090	ppb	20:02:02
3	Cu 324.752†	84728.2	82375.3	355.11	µg/L	355.11	ppb	20:01:42
3	Mn 257.610†	1278835.8	1288963.0	1709.5	µg/L	1709.5	ppb	20:01:42
3	Mo 202.031†	187.4	227.5	10.447	µg/L	10.447	ppb	20:02:02
3	Ni 231.604†	4119.2	4248.3	53.151	µg/L	53.151	ppb	20:02:02
3	P 214.914†	2691.9	2739.3	583.62	µg/L	583.62	ppb	20:02:02
3	Pb 220.353†	4161.0	4091.1	252.06	µg/L	252.06	ppb	20:02:02
3	S 181.975 Axial†	1034.2	953.6	802.32	µg/L	802.32	ppb	20:02:02
3	Sb 206.836†	87.6	-1.4	-2.0219	µg/L	-2.0219	ppb	20:02:02
3	Se 196.026†	-49.1	-55.6	3.39	µg/L	3.39	ppb	20:02:02
3	SiO2†	241519.2	241727.6	25598	µg/L	25598	ppb	20:01:42
3	Si 251.611†	754150.9	759465.0	11976	µg/L	11976	ppb	20:01:42
3	Sn 189.927†	464.4	466.2	36.154	µg/L	36.154	ppb	20:02:02
3	Ti 334.940†	1093575.4	1101570.5	1131.5	µg/L	1131.5	ppb	20:01:42
3	Tl 190.801†	-261.2	-149.1	-4.2188	µg/L	-4.2188	ppb	20:02:02
3	U 409.014†	-5927.9	-5812.3	-368.80	µg/L	-368.80	ppb	20:01:42
3	V 292.402†	11661.4	11332.3	50.019	µg/L	50.019	ppb	20:02:02
3	Zn 213.857†	198260.4	199356.1	1182.9	µg/L	1182.9	ppb	20:01:42

Mean Data: 249333006|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1777394.9	98.517	%	0.6471				0.66%
Sc RADIAL	137439.1	98.1	%	0.32				0.33%
Y 371.029	1137016.8	107.54	%	0.736				0.68%
Ag 328.068†	5994.0	23.580	µg/L	0.9188	23.580	ppb	0.9188	3.90%
Al 396.153Radial†	80677.1	16985	µg/L	15.0	16985	ppb	15.0	0.09%
As 188.979†	28.6	26.982	µg/L	2.3074	26.982	ppb	2.3074	8.55%
B 249.677†	1647.4	25.571	µg/L	1.8591	25.571	ppb	1.8591	7.27%
Ba 233.527†	53233.1	235.70	µg/L	0.162	235.70	ppb	0.162	0.07%
Be 313.107†	14881.9	4.1973	µg/L	0.05132	4.1973	ppb	0.05132	1.22%
Ca 317.933Radial†	144395.5	9834.6	µg/L	8.48	9834.6	ppb	8.48	0.09%
Cd 226.502†	2286.7	7.7001	µg/L	0.12844	7.7001	ppb	0.12844	1.67%
Co 228.616†	1066.9	10.499	µg/L	0.1060	10.499	ppb	0.1060	1.01%
Cr 267.716†	8207.2	73.419	µg/L	0.6036	73.419	ppb	0.6036	0.82%
Cu 324.752†	82316.1	354.86	µg/L	0.366	354.86	ppb	0.366	0.10%
Fe 238.204 Radial†	990684.6	73984	µg/L	87.7	73984	ppb	87.7	0.12%
K 766.490 Radial†	8916.7	3527.2	µg/L	6.46	3527.2	ppb	6.46	0.18%
Mg 279.077 IEC†	7621.6	3455.9	µg/L	22.38	3455.9	ppb	22.38	0.65%
Mn 257.610†	1289369.8	1710.1	µg/L	1.17	1710.1	ppb	1.17	0.07%
Mo 202.031†	217.2	10.112	µg/L	0.3667	10.112	ppb	0.3667	3.63%
Na 589.592 Radial†	4810.4	742.51	µg/L	7.847	742.51	ppb	7.847	1.06%

Ni 231.604†	4284.0	53.598	µg/L	0.5961	53.598	ppb	0.5961	1.11%
P 214.914†	2734.9	582.57	µg/L	4.576	582.57	ppb	4.576	0.79%
Pb 220.353†	4112.4	253.37	µg/L	2.130	253.37	ppb	2.130	0.84%
S 181.975 Axial†	957.1	805.25	µg/L	7.973	805.25	ppb	7.973	0.99%
Sb 206.836†	6.3	-1.0431	µg/L	2.77056	-1.0431	ppb	2.77056	265.61%
Se 196.026†	-51.0	5.23	µg/L	1.915	5.23	ppb	1.915	36.59%
SiO2†	241595.0	25584	µg/L	17.2	25584	ppb	17.2	0.07%
Si 251.611†	758991.7	11968	µg/L	7.3	11968	ppb	7.3	0.06%
Sn 189.927†	468.7	36.323	µg/L	0.4146	36.323	ppb	0.4146	1.14%
Sr 421.552†	30574.4	72.032	µg/L	0.3868	72.032	ppb	0.3868	0.54%
Ti 334.940†	1101265.3	1131.2	µg/L	1.02	1131.2	ppb	1.02	0.09%
Tl 190.801†	-149.9	-4.3289	µg/L	0.38283	-4.3289	ppb	0.38283	8.84%
U 409.014†	-5958.2	-378.00	µg/L	8.500	-378.00	ppb	8.500	2.25%
Concentration less than lower limit for U 409.014.								
V 292.402†	11373.4	50.220	µg/L	0.3897	50.220	ppb	0.3897	0.78%
Zn 213.857†	199279.4	1182.4	µg/L	0.60	1182.4	ppb	0.60	0.05%

Sequence No.: 120
Sample ID: 249333007|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 432
Date Collected: 4/5/2010 20:02:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249333007|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137638.0	137638.0	98.2	%			20:02:41
1	Al 396.153Radial†	76966.6	78418.0	16509	µg/L	16509	ppb	20:02:41
1	Ca 317.933Radial†	177944.9	180547.5	12297	µg/L	12297	ppb	20:02:41
1	Fe 238.204 Radial†	716589.1	729253.5	54460	µg/L	54460	ppb	20:02:41
1	K 766.490 Radial†	10099.0	8785.3	3474.8	µg/L	3474.8	ppb	20:02:43
1	Mg 279.077 IEC†	7095.1	7049.2	3208.4	µg/L	3208.4	ppb	20:02:43
1	Na 589.592 Radial†	4129.8	3251.0	500.83	µg/L	500.83	ppb	20:02:43
1	Sr 421.552†	36619.5	37477.2	88.292	µg/L	88.292	ppb	20:02:43
1	Sc 361.383	1781611.0	1781611.0	98.751	%			20:02:55
1	Y 371.029	1141932.9	1141932.9	108.00	%			20:02:55
1	Ag 328.068†	4615.4	108.6	-0.5090	µg/L	-0.5090	ppb	20:02:55
1	As 188.979†	5.2	23.8	20.794	µg/L	20.794	ppb	20:03:15
1	B 249.677†	5221.8	1222.7	18.956	µg/L	18.956	ppb	20:02:55
1	Ba 233.527†	57628.6	58502.3	259.37	µg/L	259.37	ppb	20:02:55
1	Be 313.107†	12722.4	13975.1	3.9650	µg/L	3.9650	ppb	20:02:55
1	Cd 226.502†	1123.3	1240.9	2.6732	µg/L	2.6732	ppb	20:03:15
1	Co 228.616†	1082.9	1306.9	14.712	µg/L	14.712	ppb	20:03:15
1	Cr 267.716†	6201.8	6047.0	53.827	µg/L	53.827	ppb	20:03:15
1	Cu 324.752†	42855.2	40361.3	176.62	µg/L	176.62	ppb	20:02:55
1	Mn 257.610†	1725313.6	1746958.4	2317.2	µg/L	2317.2	ppb	20:02:55
1	Mo 202.031†	229.0	270.4	11.076	µg/L	11.076	ppb	20:03:15
1	Ni 231.604†	2196.4	2320.1	29.028	µg/L	29.028	ppb	20:03:15
1	P 214.914†	3986.0	4062.2	904.51	µg/L	904.51	ppb	20:03:15
1	Pb 220.353†	7276.0	7264.6	447.87	µg/L	447.87	ppb	20:03:15
1	S 181.975 Axial†	555.0	473.1	398.07	µg/L	398.07	ppb	20:03:15
1	Sb 206.836†	87.0	-1.6	-1.5442	µg/L	-1.5442	ppb	20:03:15
1	Se 196.026†	-11.9	-18.2	11.5	µg/L	11.5	ppb	20:03:15
1	SiO2†	269800.3	271474.9	28748	µg/L	28748	ppb	20:02:55
1	Si 251.611†	843721.4	853629.6	13461	µg/L	13461	ppb	20:02:55
1	Sn 189.927†	181.7	182.1	16.345	µg/L	16.345	ppb	20:03:15
1	Ti 334.940†	1060341.4	1072934.3	1102.1	µg/L	1102.1	ppb	20:02:55
1	Tl 190.801†	-259.5	-148.5	-2.8949	µg/L	-2.8949	ppb	20:03:15
1	U 409.014†	-4471.3	-4364.5	-268.98	µg/L	-268.98	ppb	20:02:55
1	V 292.402†	11465.2	11187.1	51.346	µg/L	51.346	ppb	20:03:15
1	Zn 213.857†	108052.3	108916.5	645.03	µg/L	645.03	ppb	20:02:55
2	Sc RADIAL	137044.2	137044.2	97.8	%			20:02:45
2	Al 396.153Radial†	76633.2	78416.6	16509	µg/L	16509	ppb	20:02:45
2	Ca 317.933Radial†	177262.0	180634.1	12303	µg/L	12303	ppb	20:02:45
2	Fe 238.204 Radial†	713826.4	729589.4	54485	µg/L	54485	ppb	20:02:45
2	K 766.490 Radial†	10258.0	8992.4	3556.8	µg/L	3556.8	ppb	20:02:47
2	Mg 279.077 IEC†	7204.5	7192.3	3274.4	µg/L	3274.4	ppb	20:02:47
2	Na 589.592 Radial†	4016.3	3153.1	485.59	µg/L	485.59	ppb	20:02:47
2	Sr 421.552†	36733.5	37755.2	88.948	µg/L	88.948	ppb	20:02:47
2	Sc 361.383	1777287.5	1777287.5	98.511	%			20:03:18
2	Y 371.029	1140294.9	1140294.9	107.85	%			20:03:18
2	Ag 328.068†	4219.0	-282.4	-2.0777	µg/L	-2.0777	ppb	20:03:18
2	As 188.979†	14.7	33.5	24.067	µg/L	24.067	ppb	20:03:38
2	B 249.677†	5120.7	1133.0	17.561	µg/L	17.561	ppb	20:03:18
2	Ba 233.527†	57170.5	58179.2	257.94	µg/L	257.94	ppb	20:03:18
2	Be 313.107†	12407.5	13686.8	3.8882	µg/L	3.8882	ppb	20:03:18
2	Cd 226.502†	1134.8	1255.3	2.7683	µg/L	2.7683	ppb	20:03:38
2	Co 228.616†	1065.9	1292.3	14.516	µg/L	14.516	ppb	20:03:38
2	Cr 267.716†	6225.9	6086.8	54.157	µg/L	54.157	ppb	20:03:38
2	Cu 324.752†	42744.5	40354.5	176.61	µg/L	176.61	ppb	20:03:18
2	Mn 257.610†	1711455.9	1737141.3	2304.1	µg/L	2304.1	ppb	20:03:18
2	Mo 202.031†	212.6	254.4	10.556	µg/L	10.556	ppb	20:03:38
2	Ni 231.604†	2199.2	2328.4	29.131	µg/L	29.131	ppb	20:03:38
2	P 214.914†	4012.8	4099.1	913.05	µg/L	913.05	ppb	20:03:38
2	Pb 220.353†	7337.5	7344.9	452.78	µg/L	452.78	ppb	20:03:38

2	S 181.975 Axial†	555.9	475.4	399.98	µg/L	399.98	ppb	20:03:38
2	Sb 206.836†	74.7	-13.9	-3.1474	µg/L	-3.1474	ppb	20:03:38
2	Se 196.026†	-19.8	-26.2	8.32	µg/L	8.32	ppb	20:03:38
2	SiO2†	268014.0	270326.2	28627	µg/L	28627	ppb	20:03:18
2	Si 251.611†	836506.4	848383.9	13378	µg/L	13378	ppb	20:03:18
2	Sn 189.927†	182.5	183.4	16.425	µg/L	16.425	ppb	20:03:38
2	Ti 334.940†	1055009.1	1070133.5	1099.2	µg/L	1099.2	ppb	20:03:18
2	Tl 190.801†	-260.6	-150.2	-3.1905	µg/L	-3.1905	ppb	20:03:38
2	U 409.014†	-4110.1	-4008.9	-246.62	µg/L	-246.62	ppb	20:03:18
2	V 292.402†	11449.4	11199.3	51.420	µg/L	51.420	ppb	20:03:38
2	Zn 213.857†	106855.2	107967.4	639.35	µg/L	639.35	ppb	20:03:18
3	Sc RADIAL	137428.8	137428.8	98.1	%			20:02:49
3	Al 396.153Radial†	76786.2	78353.3	16496	µg/L	16496	ppb	20:02:49
3	Ca 317.933Radial†	177385.8	180253.1	12277	µg/L	12277	ppb	20:02:49
3	Fe 238.204 Radial†	713957.2	727680.5	54343	µg/L	54343	ppb	20:02:49
3	K 766.490 Radial†	10357.3	9064.3	3585.3	µg/L	3585.3	ppb	20:02:51
3	Mg 279.077 IEC†	7252.4	7220.5	3287.6	µg/L	3287.6	ppb	20:02:51
3	Na 589.592 Radial†	4150.9	3278.8	505.05	µg/L	505.05	ppb	20:02:51
3	Sr 421.552†	36843.0	37761.8	88.964	µg/L	88.964	ppb	20:02:51
3	Sc 361.383	1780606.3	1780606.3	98.695	%			20:03:41
3	Y 371.029	1141924.5	1141924.5	108.00	%			20:03:41
3	Ag 328.068†	4514.4	8.9	-0.9064	µg/L	-0.9064	ppb	20:03:41
3	As 188.979†	6.0	24.6	21.051	µg/L	21.051	ppb	20:04:01
3	B 249.677†	5244.7	1248.9	19.363	µg/L	19.363	ppb	20:03:41
3	Ba 233.527†	57809.3	58718.3	260.34	µg/L	260.34	ppb	20:03:41
3	Be 313.107†	12467.8	13724.4	3.8946	µg/L	3.8946	ppb	20:03:41
3	Cd 226.502†	1171.0	1289.8	3.0166	µg/L	3.0166	ppb	20:04:01
3	Co 228.616†	1078.7	1303.3	14.671	µg/L	14.671	ppb	20:04:01
3	Cr 267.716†	6229.5	6078.7	54.091	µg/L	54.091	ppb	20:04:01
3	Cu 324.752†	42757.6	40286.9	176.30	µg/L	176.30	ppb	20:03:41
3	Mn 257.610†	1724097.5	1746712.0	2316.8	µg/L	2316.8	ppb	20:03:41
3	Mo 202.031†	224.8	266.3	10.939	µg/L	10.939	ppb	20:04:01
3	Ni 231.604†	2221.8	2347.1	29.365	µg/L	29.365	ppb	20:04:01
3	P 214.914†	3996.5	4075.0	907.57	µg/L	907.57	ppb	20:04:01
3	Pb 220.353†	7379.7	7373.8	454.58	µg/L	454.58	ppb	20:04:01
3	S 181.975 Axial†	560.3	478.8	402.89	µg/L	402.89	ppb	20:04:01
3	Sb 206.836†	116.4	28.3	2.3033	µg/L	2.3033	ppb	20:04:01
3	Se 196.026†	-28.8	-35.4	4.66	µg/L	4.66	ppb	20:04:01
3	SiO2†	270293.8	272129.0	28817	µg/L	28817	ppb	20:03:41
3	Si 251.611†	844272.2	854669.7	13477	µg/L	13477	ppb	20:03:41
3	Sn 189.927†	190.1	190.7	16.948	µg/L	16.948	ppb	20:04:01
3	Ti 334.940†	1060402.6	1073602.2	1102.8	µg/L	1102.8	ppb	20:03:41
3	Tl 190.801†	-277.1	-166.5	-5.3437	µg/L	-5.3437	ppb	20:04:01
3	U 409.014†	-4353.1	-4247.3	-261.55	µg/L	-261.55	ppb	20:03:41
3	V 292.402†	11460.2	11188.5	51.369	µg/L	51.369	ppb	20:04:01
3	Zn 213.857†	107632.5	108552.9	642.86	µg/L	642.86	ppb	20:03:41

Mean Data: 249333007|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1779834.9	98.652	%	0.1254				0.13%
Sc RADIAL	137370.3	98.1	%	0.21				0.22%
Y 371.029	1141384.1	107.95	%	0.089				0.08%
Ag 328.068†	-54.9	-1.1644	µg/L	0.81556	-1.1644	ppb	0.81556	70.04%
Al 396.153Radial†	78396.0	16505	µg/L	7.8	16505	ppb	7.8	0.05%
As 188.979†	27.3	21.970	µg/L	1.8198	21.970	ppb	1.8198	8.28%
B 249.677†	1201.6	18.626	µg/L	0.9451	18.626	ppb	0.9451	5.07%
Ba 233.527†	58466.6	259.22	µg/L	1.207	259.22	ppb	1.207	0.47%
Be 313.107†	13795.4	3.9159	µg/L	0.04259	3.9159	ppb	0.04259	1.09%
Ca 317.933Radial†	180478.2	12292	µg/L	13.6	12292	ppb	13.6	0.11%
Cd 226.502†	1262.0	2.8193	µg/L	0.17731	2.8193	ppb	0.17731	6.29%
Co 228.616†	1300.8	14.633	µg/L	0.1035	14.633	ppb	0.1035	0.71%
Cr 267.716†	6070.8	54.025	µg/L	0.1744	54.025	ppb	0.1744	0.32%
Cu 324.752†	40334.2	176.51	µg/L	0.183	176.51	ppb	0.183	0.10%
Fe 238.204 Radial†	728841.1	54429	µg/L	76.1	54429	ppb	76.1	0.14%
K 766.490 Radial†	8947.3	3539.0	µg/L	57.39	3539.0	ppb	57.39	1.62%
Mg 279.077 IEC†	7154.0	3256.8	µg/L	42.44	3256.8	ppb	42.44	1.30%
Mn 257.610†	1743603.9	2312.7	µg/L	7.43	2312.7	ppb	7.43	0.32%
Mo 202.031†	263.7	10.857	µg/L	0.2700	10.857	ppb	0.2700	2.49%
Na 589.592 Radial†	3227.6	497.16	µg/L	10.241	497.16	ppb	10.241	2.06%

Ni 231.604†	2331.9	29.174	µg/L	0.1727	29.174	ppb	0.1727	0.59%
P 214.914†	4078.8	908.37	µg/L	4.329	908.37	ppb	4.329	0.48%
Pb 220.353†	7327.8	451.74	µg/L	3.476	451.74	ppb	3.476	0.77%
S 181.975 Axial†	475.8	400.32	µg/L	2.427	400.32	ppb	2.427	0.61%
Sb 206.836†	4.2	-0.7961	µg/L	2.80130	-0.7961	ppb	2.80130	351.87%
Se 196.026†	-26.6	8.15	µg/L	3.406	8.15	ppb	3.406	41.79%
SiO2†	271310.0	28731	µg/L	96.6	28731	ppb	96.6	0.34%
Si 251.611†	852227.7	13438	µg/L	53.1	13438	ppb	53.1	0.40%
Sn 189.927†	185.4	16.573	µg/L	0.3275	16.573	ppb	0.3275	1.98%
Sr 421.552†	37664.7	88.735	µg/L	0.3832	88.735	ppb	0.3832	0.43%
Ti 334.940†	1072223.3	1101.4	µg/L	1.89	1101.4	ppb	1.89	0.17%
Tl 190.801†	-155.1	-3.8097	µg/L	1.33669	-3.8097	ppb	1.33669	35.09%
U 409.014†	-4206.9	-259.05	µg/L	11.386	-259.05	ppb	11.386	4.40%
Concentration less than lower limit for U 409.014.								
V 292.402†	11191.6	51.378	µg/L	0.0381	51.378	ppb	0.0381	0.07%
Zn 213.857†	108478.9	642.41	µg/L	2.863	642.41	ppb	2.863	0.45%

Sequence No.: 121
Sample ID: 249333008|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 433
Date Collected: 4/5/2010 20:04:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249333008|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135438.6	135438.6	96.7	%			20:04:39
1	Al 396.153Radial†	53869.2	55798.9	11747	µg/L	11747	ppb	20:04:41
1	Ca 317.933Radial†	139050.3	143257.4	9757.1	µg/L	9757.1	ppb	20:04:41
1	Fe 238.204 Radial†	706425.6	730585.0	54560	µg/L	54560	ppb	20:04:39
1	K 766.490 Radial†	7375.0	6134.6	2426.0	µg/L	2426.0	ppb	20:04:41
1	Mg 279.077 IEC†	7135.6	7208.3	3281.8	µg/L	3281.8	ppb	20:04:41
1	Na 589.592 Radial†	5377.3	4609.6	712.36	µg/L	712.36	ppb	20:04:41
1	Sr 421.552†	14518.3	15221.7	35.823	µg/L	35.823	ppb	20:04:41
1	Sc 361.383	1789281.5	1789281.5	99.176	%			20:04:53
1	Y 371.029	1117055.3	1117055.3	105.65	%			20:04:53
1	Ag 328.068†	4202.7	-327.5	-1.8860	µg/L	-1.8860	ppb	20:04:53
1	As 188.979†	11.0	29.7	22.656	µg/L	22.656	ppb	20:05:13
1	B 249.677†	4454.3	426.2	6.5911	µg/L	6.5911	ppb	20:04:53
1	Ba 233.527†	34612.5	35044.7	155.11	µg/L	155.11	ppb	20:04:53
1	Be 313.107†	10286.1	11463.3	3.2404	µg/L	3.2404	ppb	20:04:53
1	Cd 226.502†	965.6	1077.0	1.5534	µg/L	1.5534	ppb	20:05:13
1	Co 228.616†	588.0	803.2	7.9383	µg/L	7.9383	ppb	20:05:13
1	Cr 267.716†	4389.0	4192.2	38.111	µg/L	38.111	ppb	20:05:13
1	Cu 324.752†	53337.7	50744.9	220.07	µg/L	220.07	ppb	20:04:53
1	Mn 257.610†	718968.2	724759.1	961.15	µg/L	961.15	ppb	20:04:53
1	Mo 202.031†	301.0	342.1	13.425	µg/L	13.425	ppb	20:05:13
1	Ni 231.604†	1878.1	1989.7	24.893	µg/L	24.893	ppb	20:05:13
1	P 214.914†	2812.4	2861.5	625.05	µg/L	625.05	ppb	20:05:13
1	Pb 220.353†	3233.5	3156.9	194.61	µg/L	194.61	ppb	20:05:13
1	S 181.975 Axial†	631.5	547.9	460.99	µg/L	460.99	ppb	20:05:13
1	Sb 206.836†	79.3	-9.8	-2.3198	µg/L	-2.3198	ppb	20:05:13
1	Se 196.026†	-23.8	-30.2	6.78	µg/L	6.78	ppb	20:05:13
1	SiO2†	199327.8	199245.4	21099	µg/L	21099	ppb	20:04:53
1	Si 251.611†	621292.2	625688.9	9866.2	µg/L	9866.2	ppb	20:04:53
1	Sn 189.927†	60.1	58.7	7.2511	µg/L	7.2511	ppb	20:05:13
1	Ti 334.940†	910974.8	917723.2	942.65	µg/L	942.65	ppb	20:04:53
1	Tl 190.801†	-230.5	-118.2	-3.8446	µg/L	-3.8446	ppb	20:05:13
1	U 409.014†	-4331.6	-4204.3	-268.00	µg/L	-268.00	ppb	20:04:53
1	V 292.402†	10752.4	10418.5	47.462	µg/L	47.462	ppb	20:05:13
1	Zn 213.857†	146414.1	147128.1	873.17	µg/L	873.17	ppb	20:04:53
2	Sc RADIAL	138821.4	138821.4	99.1	%			20:04:43
2	Al 396.153Radial†	53407.3	53975.1	11363	µg/L	11363	ppb	20:04:45
2	Ca 317.933Radial†	137632.8	138322.0	9421.0	µg/L	9421.0	ppb	20:04:45
2	Fe 238.204 Radial†	724747.5	731268.7	54611	µg/L	54611	ppb	20:04:43
2	K 766.490 Radial†	7236.9	5809.4	2297.3	µg/L	2297.3	ppb	20:04:45
2	Mg 279.077 IEC†	6925.5	6816.5	3100.8	µg/L	3100.8	ppb	20:04:45
2	Na 589.592 Radial†	5398.1	4495.1	694.72	µg/L	694.72	ppb	20:04:45
2	Sr 421.552†	14260.2	14595.3	34.349	µg/L	34.349	ppb	20:04:45
2	Sc 361.383	1802274.1	1802274.1	99.896	%			20:05:16
2	Y 371.029	1123605.8	1123605.8	106.27	%			20:05:16
2	Ag 328.068†	3969.3	-591.8	-2.9538	µg/L	-2.9538	ppb	20:05:16
2	As 188.979†	1.9	20.5	19.561	µg/L	19.561	ppb	20:05:36
2	B 249.677†	4519.4	458.9	7.1028	µg/L	7.1028	ppb	20:05:16
2	Ba 233.527†	35010.1	35191.1	155.76	µg/L	155.76	ppb	20:05:16
2	Be 313.107†	10607.7	11710.5	3.3135	µg/L	3.3135	ppb	20:05:16
2	Cd 226.502†	948.1	1052.4	1.3819	µg/L	1.3819	ppb	20:05:36
2	Co 228.616†	542.3	753.2	7.2744	µg/L	7.2744	ppb	20:05:36
2	Cr 267.716†	4447.0	4218.4	38.337	µg/L	38.337	ppb	20:05:36
2	Cu 324.752†	53827.9	50847.9	220.51	µg/L	220.51	ppb	20:05:16
2	Mn 257.610†	727859.3	728433.3	966.03	µg/L	966.03	ppb	20:05:16
2	Mo 202.031†	279.4	318.2	12.643	µg/L	12.643	ppb	20:05:36
2	Ni 231.604†	1897.5	1995.4	24.964	µg/L	24.964	ppb	20:05:36
2	P 214.914†	2820.6	2849.3	622.11	µg/L	622.11	ppb	20:05:36
2	Pb 220.353†	3313.8	3213.8	198.08	µg/L	198.08	ppb	20:05:36

2	S 181.975 Axial†	636.5	548.3	461.31	µg/L	461.31 ppb	20:05:36
2	Sb 206.836†	92.6	2.9	-0.6885	µg/L	-0.6885 ppb	20:05:36
2	Se 196.026†	-3.4	-9.5	14.9	µg/L	14.9 ppb	20:05:36
2	SiO2†	201506.7	199977.6	21177	µg/L	21177 ppb	20:05:16
2	Si 251.611†	627878.7	627766.1	9899.0	µg/L	9899.0 ppb	20:05:16
2	Sn 189.927†	50.5	48.7	6.5614	µg/L	6.5614 ppb	20:05:36
2	Ti 334.940†	919802.6	919938.4	944.93	µg/L	944.93 ppb	20:05:16
2	Tl 190.801†	-231.8	-117.7	-3.7430	µg/L	-3.7430 ppb	20:05:36
2	U 409.014†	-4285.0	-4126.1	-263.06	µg/L	-263.06 ppb	20:05:16
2	V 292.402†	10846.7	10434.8	47.535	µg/L	47.535 ppb	20:05:36
2	Zn 213.857†	148340.0	147991.6	878.32	µg/L	878.32 ppb	20:05:16
3	Sc RADIAL	136817.7	136817.7	97.7	%		20:04:47
3	Al 396.153Radial†	54526.9	55910.8	11771	µg/L	11771 ppb	20:04:49
3	Ca 317.933Radial†	141618.0	144436.7	9837.4	µg/L	9837.4 ppb	20:04:49
3	Fe 238.204 Radial†	712612.1	729554.0	54483	µg/L	54483 ppb	20:04:47
3	K 766.490 Radial†	7292.6	5973.4	2362.1	µg/L	2362.1 ppb	20:04:49
3	Mg 279.077 IEC†	7169.0	7168.2	3263.4	µg/L	3263.4 ppb	20:04:49
3	Na 589.592 Radial†	5513.0	4692.5	725.27	µg/L	725.27 ppb	20:04:49
3	Sr 421.552†	14749.6	15307.2	36.024	µg/L	36.024 ppb	20:04:49
3	Sc 361.383	1791561.7	1791561.7	99.302	%		20:05:39
3	Y 371.029	1117976.5	1117976.5	105.74	%		20:05:39
3	Ag 328.068†	4023.0	-513.9	-2.6198	µg/L	-2.6198 ppb	20:05:39
3	As 188.979†	1.7	20.3	19.465	µg/L	19.465 ppb	20:05:59
3	B 249.677†	4557.9	524.8	8.1265	µg/L	8.1265 ppb	20:05:39
3	Ba 233.527†	34778.4	35167.4	155.65	µg/L	155.65 ppb	20:05:39
3	Be 313.107†	10552.7	11718.5	3.3214	µg/L	3.3214 ppb	20:05:39
3	Cd 226.502†	952.6	1062.6	1.4645	µg/L	1.4645 ppb	20:05:59
3	Co 228.616†	558.2	772.4	7.5358	µg/L	7.5358 ppb	20:05:59
3	Cr 267.716†	4429.7	4227.6	38.396	µg/L	38.396 ppb	20:05:59
3	Cu 324.752†	53294.5	50633.0	219.61	µg/L	219.61 ppb	20:05:39
3	Mn 257.610†	721840.5	726728.8	963.77	µg/L	963.77 ppb	20:05:39
3	Mo 202.031†	290.1	330.7	13.050	µg/L	13.050 ppb	20:05:59
3	Ni 231.604†	1916.9	2026.3	25.351	µg/L	25.351 ppb	20:05:59
3	P 214.914†	2847.3	2893.0	632.41	µg/L	632.41 ppb	20:05:59
3	Pb 220.353†	3309.4	3229.2	199.04	µg/L	199.04 ppb	20:05:59
3	S 181.975 Axial†	639.7	555.3	467.23	µg/L	467.23 ppb	20:05:59
3	Sb 206.836†	72.3	-16.9	-3.2445	µg/L	-3.2445 ppb	20:05:59
3	Se 196.026†	-18.1	-24.4	9.07	µg/L	9.07 ppb	20:05:59
3	SiO2†	200117.0	199784.3	21156	µg/L	21156 ppb	20:05:39
3	Si 251.611†	623647.2	627263.2	9891.0	µg/L	9891.0 ppb	20:05:39
3	Sn 189.927†	68.1	66.7	7.8091	µg/L	7.8091 ppb	20:05:59
3	Ti 334.940†	913507.3	919104.4	944.07	µg/L	944.07 ppb	20:05:39
3	Tl 190.801†	-233.2	-120.6	-4.1525	µg/L	-4.1525 ppb	20:05:59
3	U 409.014†	-3969.0	-3833.5	-244.55	µg/L	-244.55 ppb	20:05:39
3	V 292.402†	10810.9	10463.7	47.716	µg/L	47.716 ppb	20:05:59
3	Zn 213.857†	147224.7	147756.4	876.93	µg/L	876.93 ppb	20:05:39

Mean Data: 249333008|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1794372.4	99.458	%	0.3845				0.39%
Sc RADIAL	137025.9	97.8	%	1.21				1.24%
Y 371.029	1119545.9	105.89	%	0.335				0.32%
Ag 328.068†	-477.7	-2.4865	µg/L	0.54624	-2.4865	ppb	0.54624	21.97%
Al 396.153Radial†	55228.3	11627	µg/L	228.8	11627	ppb	228.8	1.97%
As 188.979†	23.5	20.561	µg/L	1.8151	20.561	ppb	1.8151	8.83%
B 249.677†	470.0	7.2735	µg/L	0.78184	7.2735	ppb	0.78184	10.75%
Ba 233.527†	35134.4	155.50	µg/L	0.349	155.50	ppb	0.349	0.22%
Be 313.107†	11630.8	3.2918	µg/L	0.04465	3.2918	ppb	0.04465	1.36%
Ca 317.933Radial†	142005.4	9671.8	µg/L	220.94	9671.8	ppb	220.94	2.28%
Cd 226.502†	1064.0	1.4666	µg/L	0.08575	1.4666	ppb	0.08575	5.85%
Co 228.616†	776.3	7.5828	µg/L	0.33444	7.5828	ppb	0.33444	4.41%
Cr 267.716†	4212.8	38.281	µg/L	0.1503	38.281	ppb	0.1503	0.39%
Cu 324.752†	50741.9	220.06	µg/L	0.449	220.06	ppb	0.449	0.20%
Fe 238.204 Radial†	730469.2	54551	µg/L	64.5	54551	ppb	64.5	0.12%
K 766.490 Radial†	5972.5	2361.8	µg/L	64.35	2361.8	ppb	64.35	2.72%
Mg 279.077 IEC†	7064.3	3215.3	µg/L	99.59	3215.3	ppb	99.59	3.10%
Mn 257.610†	726640.4	963.65	µg/L	2.443	963.65	ppb	2.443	0.25%
Mo 202.031†	330.4	13.039	µg/L	0.3909	13.039	ppb	0.3909	3.00%
Na 589.592 Radial†	4599.0	710.78	µg/L	15.334	710.78	ppb	15.334	2.16%

Ni 231.604†	2003.8	25.070	µg/L	0.2465	25.070	ppb	0.2465	0.98%
P 214.914†	2867.9	626.52	µg/L	5.306	626.52	ppb	5.306	0.85%
Pb 220.353†	3200.0	197.24	µg/L	2.332	197.24	ppb	2.332	1.18%
S 181.975 Axial†	550.5	463.18	µg/L	3.513	463.18	ppb	3.513	0.76%
Sb 206.836†	-7.9	-2.0843	µg/L	1.29416	-2.0843	ppb	1.29416	62.09%
Se 196.026†	-21.4	10.3	µg/L	4.21	10.3	ppb	4.21	41.04%
SiO2†	199669.1	21144	µg/L	40.2	21144	ppb	40.2	0.19%
Si 251.611†	626906.1	9885.4	µg/L	17.09	9885.4	ppb	17.09	0.17%
Sn 189.927†	58.0	7.2072	µg/L	0.62503	7.2072	ppb	0.62503	8.67%
Sr 421.552†	15041.4	35.399	µg/L	0.9149	35.399	ppb	0.9149	2.58%
Ti 334.940†	918922.0	943.88	µg/L	1.150	943.88	ppb	1.150	0.12%
Tl 190.801†	-118.8	-3.9134	µg/L	0.21327	-3.9134	ppb	0.21327	5.45%
U 409.014†	-4054.6	-258.54	µg/L	12.360	-258.54	ppb	12.360	4.78%
Concentration less than lower limit for U 409.014.								
V 292.402†	10439.0	47.571	µg/L	0.1309	47.571	ppb	0.1309	0.28%
Zn 213.857†	147625.3	876.14	µg/L	2.664	876.14	ppb	2.664	0.30%

Sequence No.: 122
Sample ID: 249333009|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 434
Date Collected: 4/5/2010 20:06:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249333009|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138134.4	138134.4	98.6	%			20:06:40
1	Al 396.153Radial†	158362.3	160686.3	33828	µg/L	33828	ppb	20:06:40
1	Ca 317.933Radial†	133674.6	134998.5	9194.6	µg/L	9194.6	ppb	20:06:40
1	Fe 238.204 Radial†	1069734.8	1084785.2	81011	µg/L	81011	ppb	20:06:38
1	K 766.490 Radial†	11279.1	9945.2	3930.5	µg/L	3930.5	ppb	20:06:40
1	Mg 279.077 IEC†	15832.2	15884.3	7265.9	µg/L	7265.9	ppb	20:06:40
1	Na 589.592 Radial†	15844.6	15116.8	2339.7	µg/L	2339.7	ppb	20:06:40
1	Sr 421.552†	27550.2	28145.3	66.308	µg/L	66.308	ppb	20:06:40
1	Sc 361.383	1797526.5	1797526.5	99.633	%			20:06:52
1	Y 371.029	1161940.4	1161940.4	109.90	%			20:06:52
1	Ag 328.068†	4112.9	-437.1	-2.5692	µg/L	-2.5692	ppb	20:06:52
1	As 188.979†	19.3	37.9	32.090	µg/L	32.090	ppb	20:07:12
1	B 249.677†	4979.2	932.4	14.458	µg/L	14.458	ppb	20:06:52
1	Ba 233.527†	49000.9	49326.0	218.26	µg/L	218.26	ppb	20:06:52
1	Be 313.107†	20567.6	21735.1	6.1779	µg/L	6.1779	ppb	20:06:52
1	Cd 226.502†	1174.3	1282.0	0.1737	µg/L	0.1737	ppb	20:07:12
1	Co 228.616†	727.9	940.9	8.4541	µg/L	8.4541	ppb	20:07:12
1	Cr 267.716†	12015.8	11826.8	105.06	µg/L	105.06	ppb	20:07:12
1	Cu 324.752†	26894.7	23957.7	111.89	µg/L	111.89	ppb	20:06:52
1	Mn 257.610†	943493.9	946787.2	1255.5	µg/L	1255.5	ppb	20:06:52
1	Mo 202.031†	1184.9	1227.9	43.516	µg/L	43.516	ppb	20:07:12
1	Ni 231.604†	4614.3	4727.2	59.143	µg/L	59.143	ppb	20:07:12
1	P 214.914†	2082.8	2116.2	440.48	µg/L	440.48	ppb	20:07:12
1	Pb 220.353†	1795.9	1699.1	106.01	µg/L	106.01	ppb	20:07:12
1	S 181.975 Axial†	380.0	292.5	246.39	µg/L	246.39	ppb	20:07:12
1	Sb 206.836†	92.7	3.4	-1.6636	µg/L	-1.6636	ppb	20:07:12
1	Se 196.026†	-43.5	-49.8	8.10	µg/L	8.10	ppb	20:07:12
1	SiO2†	402062.0	401805.0	42549	µg/L	42549	ppb	20:06:52
1	Si 251.611†	1255630.9	1259492.6	19860	µg/L	19860	ppb	20:06:52
1	Sn 189.927†	75.1	73.5	9.2250	µg/L	9.2250	ppb	20:07:12
1	Ti 334.940†	1187317.5	1190871.4	1222.9	µg/L	1222.9	ppb	20:06:52
1	Tl 190.801†	-274.2	-161.0	-6.0281	µg/L	-6.0281	ppb	20:07:12
1	U 409.014†	-6335.2	-6195.2	-397.12	µg/L	-397.12	ppb	20:06:52
1	V 292.402†	13226.9	12852.4	57.525	µg/L	57.525	ppb	20:07:12
1	Zn 213.857†	78953.9	78741.9	462.33	µg/L	462.33	ppb	20:06:52
2	Sc RADIAL	140268.4	140268.4	100	%			20:06:44
2	Al 396.153Radial†	160763.5	160641.0	33819	µg/L	33819	ppb	20:06:44
2	Ca 317.933Radial†	135727.8	134986.6	9193.8	µg/L	9193.8	ppb	20:06:44
2	Fe 238.204 Radial†	1073968.7	1072508.5	80094	µg/L	80094	ppb	20:06:42
2	K 766.490 Radial†	11503.2	9995.1	3950.3	µg/L	3950.3	ppb	20:06:44
2	Mg 279.077 IEC†	16082.9	15890.4	7269.5	µg/L	7269.5	ppb	20:06:44
2	Na 589.592 Radial†	15956.0	14983.5	2319.0	µg/L	2319.0	ppb	20:06:44
2	Sr 421.552†	27931.1	28100.6	66.202	µg/L	66.202	ppb	20:06:44
2	Sc 361.383	1799127.5	1799127.5	99.721	%			20:07:15
2	Y 371.029	1163478.9	1163478.9	110.04	%			20:07:15
2	Ag 328.068†	3872.7	-681.7	-3.6052	µg/L	-3.6052	ppb	20:07:15
2	As 188.979†	16.9	35.5	31.041	µg/L	31.041	ppb	20:07:35
2	B 249.677†	4909.4	858.0	13.299	µg/L	13.299	ppb	20:07:15
2	Ba 233.527†	49133.3	49415.1	218.67	µg/L	218.67	ppb	20:07:15
2	Be 313.107†	20787.3	21937.0	6.2287	µg/L	6.2287	ppb	20:07:15
2	Cd 226.502†	1159.2	1265.8	0.1600	µg/L	0.1600	ppb	20:07:35
2	Co 228.616†	729.6	941.9	8.5164	µg/L	8.5164	ppb	20:07:35
2	Cr 267.716†	11899.0	11699.0	103.94	µg/L	103.94	ppb	20:07:35
2	Cu 324.752†	26859.1	23898.0	111.48	µg/L	111.48	ppb	20:07:15
2	Mn 257.610†	943560.3	946011.1	1254.4	µg/L	1254.4	ppb	20:07:15
2	Mo 202.031†	1168.3	1210.1	42.899	µg/L	42.899	ppb	20:07:35
2	Ni 231.604†	4539.1	4647.7	58.148	µg/L	58.148	ppb	20:07:35
2	P 214.914†	2083.0	2114.5	440.72	µg/L	440.72	ppb	20:07:35
2	Pb 220.353†	1785.0	1686.6	105.29	µg/L	105.29	ppb	20:07:35

2	S 181.975 Axial†	365.0	277.1	233.44	µg/L	233.44	ppb	20:07:35
2	Sb 206.836†	89.1	-0.4	-2.1306	µg/L	-2.1306	ppb	20:07:35
2	Se 196.026†	-46.3	-52.6	6.66	µg/L	6.66	ppb	20:07:35
2	SiO2†	402012.6	401396.4	42506	µg/L	42506	ppb	20:07:15
2	Si 251.611†	1256911.9	1259655.7	19863	µg/L	19863	ppb	20:07:15
2	Sn 189.927†	70.7	69.0	8.9184	µg/L	8.9184	ppb	20:07:35
2	Ti 334.940†	1189866.3	1192366.8	1224.4	µg/L	1224.4	ppb	20:07:15
2	Tl 190.801†	-250.3	-136.8	-2.7160	µg/L	-2.7160	ppb	20:07:35
2	U 409.014†	-6745.8	-6601.3	-422.59	µg/L	-422.59	ppb	20:07:15
2	V 292.402†	13089.5	12702.9	56.817	µg/L	56.817	ppb	20:07:35
2	Zn 213.857†	79145.3	78863.4	463.16	µg/L	463.16	ppb	20:07:15
3	Sc RADIAL	139978.2	139978.2	99.9	%			20:06:48
3	Al 396.153Radial†	159851.3	160060.9	33697	µg/L	33697	ppb	20:06:48
3	Ca 317.933Radial†	135066.6	134605.9	9167.9	µg/L	9167.9	ppb	20:06:48
3	Fe 238.204 Radial†	1089793.2	1090569.6	81443	µg/L	81443	ppb	20:06:46
3	K 766.490 Radial†	11469.6	9985.2	3946.4	µg/L	3946.4	ppb	20:06:48
3	Mg 279.077 IEC†	15985.5	15826.2	7238.7	µg/L	7238.7	ppb	20:06:48
3	Na 589.592 Radial†	15877.5	14938.0	2312.0	µg/L	2312.0	ppb	20:06:48
3	Sr 421.552†	27671.5	27898.7	65.726	µg/L	65.726	ppb	20:06:48
3	Sc 361.383	1804298.2	1804298.2	100.01	%			20:07:38
3	Y 371.029	1166748.2	1166748.2	110.35	%			20:07:38
3	Ag 328.068†	4042.3	-523.2	-2.9337	µg/L	-2.9337	ppb	20:07:38
3	As 188.979†	20.2	38.8	32.454	µg/L	32.454	ppb	20:07:58
3	B 249.677†	4925.6	860.0	13.331	µg/L	13.331	ppb	20:07:38
3	Ba 233.527†	49238.0	49378.6	218.49	µg/L	218.49	ppb	20:07:38
3	Be 313.107†	20729.4	21819.5	6.2019	µg/L	6.2019	ppb	20:07:38
3	Cd 226.502†	1163.0	1266.2	0.0215	µg/L	0.0215	ppb	20:07:58
3	Co 228.616†	742.6	952.8	8.5899	µg/L	8.5899	ppb	20:07:58
3	Cr 267.716†	11933.8	11699.6	103.98	µg/L	103.98	ppb	20:07:58
3	Cu 324.752†	27261.1	24222.8	113.06	µg/L	113.06	ppb	20:07:38
3	Mn 257.610†	947083.6	946822.5	1255.5	µg/L	1255.5	ppb	20:07:38
3	Mo 202.031†	1155.3	1193.8	42.417	µg/L	42.417	ppb	20:07:58
3	Ni 231.604†	4567.8	4663.3	58.344	µg/L	58.344	ppb	20:07:58
3	P 214.914†	2072.0	2097.5	435.83	µg/L	435.83	ppb	20:07:58
3	Pb 220.353†	1759.3	1655.7	103.32	µg/L	103.32	ppb	20:07:58
3	S 181.975 Axial†	373.7	284.7	239.86	µg/L	239.86	ppb	20:07:58
3	Sb 206.836†	90.3	0.6	-2.0318	µg/L	-2.0318	ppb	20:07:58
3	Se 196.026†	-48.7	-54.9	6.27	µg/L	6.27	ppb	20:07:58
3	SiO2†	403529.3	401757.7	42544	µg/L	42544	ppb	20:07:38
3	Si 251.611†	1260714.5	1259845.8	19866	µg/L	19866	ppb	20:07:38
3	Sn 189.927†	66.4	64.5	8.6009	µg/L	8.6009	ppb	20:07:58
3	Ti 334.940†	1193077.6	1192158.4	1224.2	µg/L	1224.2	ppb	20:07:38
3	Tl 190.801†	-273.6	-159.3	-5.7965	µg/L	-5.7965	ppb	20:07:58
3	U 409.014†	-6383.0	-6219.2	-398.77	µg/L	-398.77	ppb	20:07:38
3	V 292.402†	13149.1	12724.8	56.799	µg/L	56.799	ppb	20:07:58
3	Zn 213.857†	79372.5	78863.1	463.01	µg/L	463.01	ppb	20:07:38

Mean Data: 249333009|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1800317.4	99.787	%	0.1962				0.20%
Sc RADIAL	139460.3	99.5	%	0.83				0.83%
Y 371.029	1164055.8	110.10	%	0.232				0.21%
Ag 328.068†	-547.3	-3.0360	µg/L	0.52552	-3.0360	ppb	0.52552	17.31%
Al 396.153Radial†	160462.7	33781	µg/L	73.4	33781	ppb	73.4	0.22%
As 188.979†	37.4	31.862	µg/L	0.7337	31.862	ppb	0.7337	2.30%
B 249.677†	883.5	13.696	µg/L	0.6599	13.696	ppb	0.6599	4.82%
Ba 233.527†	49373.2	218.47	µg/L	0.204	218.47	ppb	0.204	0.09%
Be 313.107†	21830.6	6.2028	µg/L	0.02539	6.2028	ppb	0.02539	0.41%
Ca 317.933Radial†	134863.7	9185.4	µg/L	15.21	9185.4	ppb	15.21	0.17%
Cd 226.502†	1271.3	0.1184	µg/L	0.08423	0.1184	ppb	0.08423	71.14%
Co 228.616†	945.2	8.5201	µg/L	0.06797	8.5201	ppb	0.06797	0.80%
Cr 267.716†	11741.8	104.33	µg/L	0.636	104.33	ppb	0.636	0.61%
Cu 324.752†	24026.2	112.14	µg/L	0.817	112.14	ppb	0.817	0.73%
Fe 238.204 Radial†	1082621.1	80849	µg/L	688.8	80849	ppb	688.8	0.85%
K 766.490 Radial†	9975.2	3942.4	µg/L	10.47	3942.4	ppb	10.47	0.27%
Mg 279.077 IEC†	15866.9	7258.0	µg/L	16.84	7258.0	ppb	16.84	0.23%
Mn 257.610†	946540.3	1255.1	µg/L	0.61	1255.1	ppb	0.61	0.05%
Mo 202.031†	1210.6	42.944	µg/L	0.5506	42.944	ppb	0.5506	1.28%
Na 589.592 Radial†	15012.8	2323.6	µg/L	14.41	2323.6	ppb	14.41	0.62%

Ni 231.604†	4679.4	58.545	µg/L	0.5269	58.545	ppb	0.5269	0.90%
P 214.914†	2109.4	439.01	µg/L	2.755	439.01	ppb	2.755	0.63%
Pb 220.353†	1680.5	104.87	µg/L	1.394	104.87	ppb	1.394	1.33%
S 181.975 Axial†	284.8	239.90	µg/L	6.476	239.90	ppb	6.476	2.70%
Sb 206.836†	1.2	-1.9420	µg/L	0.24612	-1.9420	ppb	0.24612	12.67%
Se 196.026†	-52.4	7.01	µg/L	0.967	7.01	ppb	0.967	13.79%
SiO2†	401653.0	42533	µg/L	23.7	42533	ppb	23.7	0.06%
Si 251.611†	1259664.7	19863	µg/L	2.8	19863	ppb	2.8	0.01%
Sn 189.927†	69.0	8.9148	µg/L	0.31209	8.9148	ppb	0.31209	3.50%
Sr 421.552†	28048.2	66.079	µg/L	0.3098	66.079	ppb	0.3098	0.47%
Ti 334.940†	1191798.9	1223.8	µg/L	0.84	1223.8	ppb	0.84	0.07%
Tl 190.801†	-152.4	-4.8469	µg/L	1.84903	-4.8469	ppb	1.84903	38.15%
U 409.014†	-6338.6	-406.16	µg/L	14.252	-406.16	ppb	14.252	3.51%
Concentration less than lower limit for U 409.014.								
V 292.402†	12760.0	57.047	µg/L	0.4138	57.047	ppb	0.4138	0.73%
Zn 213.857†	78822.8	462.83	µg/L	0.442	462.83	ppb	0.442	0.10%

Sequence No.: 123
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 20:08:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137080.3	137080.3	97.8	%			20:08:42
1	Al 396.153Radial†	23262.8	23852.7	4998.3	µg/L	4998.3	ppb	20:08:42
1	Ca 317.933Radial†	73645.0	74692.1	5087.2	µg/L	5087.2	ppb	20:08:42
1	Fe 238.204 Radial†	66492.7	67836.7	5066.0	µg/L	5066.0	ppb	20:08:42
1	K 766.490 Radial†	14013.5	12827.7	5078.8	µg/L	5078.8	ppb	20:08:42
1	Mg 279.077 IEC†	10957.4	11025.7	5099.0	µg/L	5099.0	ppb	20:08:42
1	Na 589.592 Radial†	64798.7	65270.3	10113	µg/L	10113	ppb	20:08:42
1	Sr 421.552†	213193.8	218083.8	514.30	µg/L	514.30	ppb	20:08:40
1	Sc 361.383	1762777.5	1762777.5	97.707	%			20:09:09
1	Y 371.029	1024107.7	1024107.7	96.861	%			20:09:09
1	Ag 328.068†	123768.6	122108.5	506.16	µg/L	506.16	ppb	20:09:09
1	As 188.979†	1319.4	1368.9	470.34	µg/L	470.34	ppb	20:09:29
1	B 249.677†	35156.3	31916.3	494.60	µg/L	494.60	ppb	20:09:09
1	Ba 233.527†	109398.3	112110.6	498.73	µg/L	498.73	ppb	20:09:09
1	Be 313.107†	1651980.0	1691846.3	490.23	µg/L	490.23	ppb	20:09:09
1	Cd 226.502†	72551.6	74357.9	502.25	µg/L	502.25	ppb	20:09:09
1	Co 228.616†	37206.1	38289.7	506.81	µg/L	506.81	ppb	20:09:09
1	Cr 267.716†	57161.4	58269.9	503.97	µg/L	503.97	ppb	20:09:09
1	Cu 324.752†	120015.3	119796.2	502.63	µg/L	502.63	ppb	20:09:09
1	Mn 257.610†	370897.4	379418.2	503.10	µg/L	503.10	ppb	20:09:09
1	Mo 202.031†	15104.1	15497.2	507.28	µg/L	507.28	ppb	20:09:29
1	Ni 231.604†	39276.4	40294.2	504.13	µg/L	504.13	ppb	20:09:09
1	P 214.914†	10582.0	10856.1	2502.6	µg/L	2502.6	ppb	20:09:29
1	Pb 220.353†	8162.1	8250.2	509.28	µg/L	509.28	ppb	20:09:29
1	S 181.975 Axial†	1259.8	1200.5	1014.2	µg/L	1014.2	ppb	20:09:29
1	Sb 206.836†	3895.9	3897.7	503.76	µg/L	503.76	ppb	20:09:29
1	Se 196.026†	1238.5	1261.4	499	µg/L	499	ppb	20:09:29
1	SiO2†	50956.6	50413.5	5317.1	µg/L	5317.1	ppb	20:09:09
1	Si 251.611†	155802.6	158692.5	2492.4	µg/L	2492.4	ppb	20:09:09
1	Sn 189.927†	6981.6	7143.5	497.19	µg/L	497.19	ppb	20:09:29
1	Ti 334.940†	477621.4	488008.9	500.58	µg/L	500.58	ppb	20:09:09
1	Tl 190.801†	3478.1	3674.0	509.23	µg/L	509.23	ppb	20:09:29
1	U 409.014†	7186.6	7518.6	505.08	µg/L	505.08	ppb	20:09:09
1	V 292.402†	94998.9	96805.4	508.47	µg/L	508.47	ppb	20:09:09
1	Zn 213.857†	83062.2	84508.8	500.69	µg/L	500.69	ppb	20:09:09
2	Sc RADIAL	135844.1	135844.1	97.0	%			20:08:46
2	Al 396.153Radial†	22967.5	23764.4	4979.9	µg/L	4979.9	ppb	20:08:46
2	Ca 317.933Radial†	72638.9	74339.3	5063.2	µg/L	5063.2	ppb	20:08:46
2	Fe 238.204 Radial†	65763.1	67702.6	5056.0	µg/L	5056.0	ppb	20:08:46
2	K 766.490 Radial†	13863.3	12803.1	5069.1	µg/L	5069.1	ppb	20:08:46
2	Mg 279.077 IEC†	10689.9	10851.8	5018.6	µg/L	5018.6	ppb	20:08:46
2	Na 589.592 Radial†	64218.1	65274.1	10113	µg/L	10113	ppb	20:08:46
2	Sr 421.552†	210134.3	216911.2	511.54	µg/L	511.54	ppb	20:08:44
2	Sc 361.383	1779954.1	1779954.1	98.659	%			20:09:32
2	Y 371.029	1034108.1	1034108.1	97.807	%			20:09:32
2	Ag 328.068†	125021.6	122156.2	506.37	µg/L	506.37	ppb	20:09:32
2	As 188.979†	1310.6	1347.0	462.92	µg/L	462.92	ppb	20:09:52
2	B 249.677†	35516.6	31934.4	494.87	µg/L	494.87	ppb	20:09:32
2	Ba 233.527†	110527.6	112174.8	499.01	µg/L	499.01	ppb	20:09:32
2	Be 313.107†	1668740.6	1692519.0	490.43	µg/L	490.43	ppb	20:09:32
2	Cd 226.502†	73554.1	74657.4	504.28	µg/L	504.28	ppb	20:09:32
2	Co 228.616†	37640.9	38362.9	507.78	µg/L	507.78	ppb	20:09:32
2	Cr 267.716†	57753.7	58305.6	504.27	µg/L	504.27	ppb	20:09:32
2	Cu 324.752†	121218.3	119830.2	502.78	µg/L	502.78	ppb	20:09:32
2	Mn 257.610†	375062.3	379976.6	503.84	µg/L	503.84	ppb	20:09:32
2	Mo 202.031†	15122.2	15366.4	503.00	µg/L	503.00	ppb	20:09:52
2	Ni 231.604†	39776.6	40413.3	505.62	µg/L	505.62	ppb	20:09:32
2	P 214.914†	10609.2	10779.1	2484.8	µg/L	2484.8	ppb	20:09:52
2	Pb 220.353†	8164.2	8171.8	504.44	µg/L	504.44	ppb	20:09:52

2	S 181.975 Axial†	1254.1	1182.2	998.77 µg/L	998.77 ppb	20:09:52
2	Sb 206.836†	3906.2	3869.6	500.07 µg/L	500.07 ppb	20:09:52
2	Se 196.026†	1246.2	1257.0	497 µg/L	497 ppb	20:09:52
2	SiO2†	51422.3	50382.2	5313.9 µg/L	5313.9 ppb	20:09:32
2	Si 251.611†	157752.6	159130.3	2499.3 µg/L	2499.3 ppb	20:09:32
2	Sn 189.927†	7009.2	7102.6	494.35 µg/L	494.35 ppb	20:09:52
2	Ti 334.940†	482087.9	487818.9	500.39 µg/L	500.39 ppb	20:09:32
2	Tl 190.801†	3492.2	3653.9	506.48 µg/L	506.48 ppb	20:09:52
2	U 409.014†	7349.1	7612.4	511.05 µg/L	511.05 ppb	20:09:32
2	V 292.402†	96088.3	96971.4	509.29 µg/L	509.29 ppb	20:09:32
2	Zn 213.857†	83968.1	84606.7	501.27 µg/L	501.27 ppb	20:09:32
3	Sc RADIAL	135657.2	135657.2	96.8 %		20:08:50
3	Al 396.153Radial†	23124.1	23958.8	5020.9 µg/L	5020.9 ppb	20:08:50
3	Ca 317.933Radial†	72697.2	74502.9	5074.3 µg/L	5074.3 ppb	20:08:50
3	Fe 238.204 Radial†	65607.7	67635.6	5051.0 µg/L	5051.0 ppb	20:08:50
3	K 766.490 Radial†	13834.3	12792.9	5065.0 µg/L	5065.0 ppb	20:08:50
3	Mg 279.077 IEC†	10629.1	10804.2	4996.7 µg/L	4996.7 ppb	20:08:50
3	Na 589.592 Radial†	64347.9	65499.5	10148 µg/L	10148 ppb	20:08:50
3	Sr 421.552†	208104.3	215113.5	507.30 µg/L	507.30 ppb	20:08:48
3	Sc 361.383	1775142.9	1775142.9	98.392 %		20:09:55
3	Y 371.029	1031583.7	1031583.7	97.568 %		20:09:55
3	Ag 328.068†	124514.6	121984.3	505.65 µg/L	505.65 ppb	20:09:55
3	As 188.979†	1309.5	1349.5	463.73 µg/L	463.73 ppb	20:10:15
3	B 249.677†	35315.6	31827.6	493.21 µg/L	493.21 ppb	20:09:55
3	Ba 233.527†	109914.7	111855.5	497.59 µg/L	497.59 ppb	20:09:55
3	Be 313.107†	1661539.3	1689784.5	489.63 µg/L	489.63 ppb	20:09:55
3	Cd 226.502†	73195.8	74495.4	503.18 µg/L	503.18 ppb	20:09:55
3	Co 228.616†	37492.3	38315.3	507.15 µg/L	507.15 ppb	20:09:55
3	Cr 267.716†	57418.2	58123.3	502.70 µg/L	502.70 ppb	20:09:55
3	Cu 324.752†	120969.9	119910.7	503.11 µg/L	503.11 ppb	20:09:55
3	Mn 257.610†	373849.0	379773.8	503.58 µg/L	503.58 ppb	20:09:55
3	Mo 202.031†	15053.4	15338.0	502.07 µg/L	502.07 ppb	20:10:15
3	Ni 231.604†	39619.4	40362.8	504.99 µg/L	504.99 ppb	20:09:55
3	P 214.914†	10574.4	10772.9	2483.3 µg/L	2483.3 ppb	20:10:15
3	Pb 220.353†	8145.9	8175.6	504.67 µg/L	504.67 ppb	20:10:15
3	S 181.975 Axial†	1260.5	1192.2	1007.2 µg/L	1007.2 ppb	20:10:15
3	Sb 206.836†	3869.9	3843.4	496.71 µg/L	496.71 ppb	20:10:15
3	Se 196.026†	1247.1	1261.4	499 µg/L	499 ppb	20:10:15
3	SiO2†	51416.3	50517.4	5328.3 µg/L	5328.3 ppb	20:09:55
3	Si 251.611†	157102.1	158902.4	2495.8 µg/L	2495.8 ppb	20:09:55
3	Sn 189.927†	6969.0	7081.0	492.85 µg/L	492.85 ppb	20:10:15
3	Ti 334.940†	480034.9	487056.8	499.61 µg/L	499.61 ppb	20:09:55
3	Tl 190.801†	3475.8	3646.9	505.50 µg/L	505.50 ppb	20:10:15
3	U 409.014†	7250.9	7532.7	505.97 µg/L	505.97 ppb	20:09:55
3	V 292.402†	95613.5	96752.9	508.14 µg/L	508.14 ppb	20:09:55
3	Zn 213.857†	83602.6	84465.9	500.43 µg/L	500.43 ppb	20:09:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1772624.8	98.252	%	0.4911				0.50%
Sc RADIAL	136193.9	97.2	%	0.55				0.57%
Y 371.029	1029933.2	97.412	%	0.4919				0.50%
Ag 328.068†	122083.0	506.06	µg/L	0.372	506.06	ppb	0.372	0.07%
QC value within limits for Ag 328.068 Recovery = 101.21%								
Al 396.153Radial†	23858.6	4999.7	µg/L	20.52	4999.7	ppb	20.52	0.41%
QC value within limits for Al 396.153Radial Recovery = 99.99%								
As 188.979†	1355.1	465.66	µg/L	4.073	465.66	ppb	4.073	0.87%
QC value within limits for As 188.979 Recovery = 93.13%								
B 249.677†	31892.8	494.23	µg/L	0.888	494.23	ppb	0.888	0.18%
QC value within limits for B 249.677 Recovery = 98.85%								
Ba 233.527†	112047.0	498.44	µg/L	0.751	498.44	ppb	0.751	0.15%
QC value within limits for Ba 233.527 Recovery = 99.69%								
Be 313.107†	1691383.3	490.10	µg/L	0.413	490.10	ppb	0.413	0.08%
QC value within limits for Be 313.107 Recovery = 98.02%								
Ca 317.933Radial†	74511.5	5074.9	µg/L	12.03	5074.9	ppb	12.03	0.24%
QC value within limits for Ca 317.933Radial Recovery = 101.50%								
Cd 226.502†	74503.5	503.24	µg/L	1.014	503.24	ppb	1.014	0.20%
QC value within limits for Cd 226.502 Recovery = 100.65%								
Co 228.616†	38322.6	507.24	µg/L	0.492	507.24	ppb	0.492	0.10%

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   QC value within limits for Co 228.616  Recovery = 101.45%
Cr 267.716†            58232.9      503.65 µg/L        0.834      503.65 ppb          0.834   0.17%
   QC value within limits for Cr 267.716  Recovery = 100.73%
Cu 324.752†           119845.7      502.84 µg/L        0.244      502.84 ppb          0.244   0.05%
   QC value within limits for Cu 324.752  Recovery = 100.57%
Fe 238.204 Radial†     67725.0      5057.7 µg/L         7.65      5057.7 ppb           7.65   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.15%
K 766.490 Radial†      12807.9      5071.0 µg/L         7.08      5071.0 ppb           7.08   0.14%
   QC value within limits for K 766.490 Radial  Recovery = 101.42%
Mg 279.077 IEC†        10893.9      5038.1 µg/L        53.90      5038.1 ppb          53.90   1.07%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.76%
Mn 257.610†           379722.9      503.51 µg/L        0.377      503.51 ppb          0.377   0.07%
   QC value within limits for Mn 257.610  Recovery = 100.70%
Mo 202.031†            15400.5      504.12 µg/L        2.778      504.12 ppb          2.778   0.55%
   QC value within limits for Mo 202.031  Recovery = 100.82%
Na 589.592 Radial†     65348.0       10125 µg/L         20.3       10125 ppb           20.3   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 101.25%
Ni 231.604†            40356.8      504.91 µg/L        0.748      504.91 ppb          0.748   0.15%
   QC value within limits for Ni 231.604  Recovery = 100.98%
P 214.914†             10802.7      2490.2 µg/L        10.71      2490.2 ppb          10.71   0.43%
   QC value within limits for P 214.914  Recovery = 99.61%
Pb 220.353†             8199.2      506.13 µg/L        2.730      506.13 ppb          2.730   0.54%
   QC value within limits for Pb 220.353  Recovery = 101.23%
S 181.975 Axial†        1191.6      1006.7 µg/L         7.71      1006.7 ppb           7.71   0.77%
   QC value within limits for S 181.975 Axial  Recovery = 100.67%
Sb 206.836†             3870.2      500.18 µg/L        3.528      500.18 ppb          3.528   0.71%
   QC value within limits for Sb 206.836  Recovery = 100.04%
Se 196.026†             1259.9         499 µg/L          1.0         499 ppb            1.0   0.20%
   QC value within limits for Se 196.026  Recovery = 99.72%
SiO2†                  50437.7      5319.8 µg/L         7.55      5319.8 ppb           7.55   0.14%
   QC value within limits for SiO2  Recovery = 99.48%
Si 251.611†           158908.4      2495.8 µg/L         3.49      2495.8 ppb           3.49   0.14%
   QC value within limits for Si 251.611  Recovery = 99.83%
Sn 189.927†             7109.1      494.80 µg/L        2.205      494.80 ppb          2.205   0.45%
   QC value within limits for Sn 189.927  Recovery = 98.96%
Sr 421.552†           216702.8      511.05 µg/L        3.528      511.05 ppb          3.528   0.69%
   QC value within limits for Sr 421.552  Recovery = 102.21%
Ti 334.940†           487628.2      500.19 µg/L        0.514      500.19 ppb          0.514   0.10%
   QC value within limits for Ti 334.940  Recovery = 100.04%
Tl 190.801†             3658.3      507.07 µg/L        1.930      507.07 ppb          1.930   0.38%
   QC value within limits for Tl 190.801  Recovery = 101.41%
U 409.014†              7554.6      507.37 µg/L        3.223      507.37 ppb          3.223   0.64%
   QC value within limits for U 409.014  Recovery = 101.47%
V 292.402†             96843.2      508.63 µg/L        0.593      508.63 ppb          0.593   0.12%
   QC value within limits for V 292.402  Recovery = 101.73%
Zn 213.857†            84527.2      500.80 µg/L        0.428      500.80 ppb          0.428   0.09%
   QC value within limits for Zn 213.857  Recovery = 100.16%
All analyte(s) passed QC.
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Sequence No.: 124
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 20:10:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138002.1	138002.1	98.5	%			20:10:53
1	Al 396.153Radial†	-51.9	25.9	5.4403	µg/L	5.4403	ppb	20:11:13
1	Ca 317.933Radial†	711.2	150.6	10.256	µg/L	10.256	ppb	20:11:13
1	Fe 238.204 Radial†	186.6	72.1	5.3838	µg/L	5.3838	ppb	20:11:13
1	K 766.490 Radial†	1608.5	139.1	55.099	µg/L	55.099	ppb	20:10:53
1	Mg 279.077 IEC†	169.1	-0.8	-0.3594	µg/L	-0.3594	ppb	20:11:13
1	Na 589.592 Radial†	1242.7	309.0	47.854	µg/L	47.854	ppb	20:10:53
1	Sr 421.552†	10.9	215.5	0.5082	µg/L	0.5082	ppb	20:10:53
1	Sc 361.383	1799445.9	1799445.9	99.739	%			20:12:15
1	Y 371.029	1057626.1	1057626.1	100.03	%			20:12:15
1	Ag 328.068†	3917.4	-637.5	-2.6138	µg/L	-2.6138	ppb	20:12:17
1	As 188.979†	-9.8	8.7	2.9555	µg/L	2.9555	ppb	20:12:37
1	B 249.677†	4134.8	80.5	1.2509	µg/L	1.2509	ppb	20:12:17
1	Ba 233.527†	-164.0	-19.9	-0.0887	µg/L	-0.0887	ppb	20:12:37
1	Be 313.107†	-376.1	714.6	0.2069	µg/L	0.2069	ppb	20:12:17
1	Cd 226.502†	-50.9	52.3	0.3527	µg/L	0.3527	ppb	20:12:37
1	Co 228.616†	-190.2	19.6	0.2587	µg/L	0.2587	ppb	20:12:37
1	Cr 267.716†	281.8	49.3	0.4272	µg/L	0.4272	ppb	20:12:37
1	Cu 324.752†	2811.9	-216.9	-0.9066	µg/L	-0.9066	ppb	20:12:17
1	Mn 257.610†	281.1	97.1	0.1288	µg/L	0.1288	ppb	20:12:37
1	Mo 202.031†	-31.5	7.0	0.2278	µg/L	0.2278	ppb	20:12:37
1	Ni 231.604†	-101.9	-6.2	-0.0782	µg/L	-0.0782	ppb	20:12:37
1	P 214.914†	24.6	50.4	11.665	µg/L	11.665	ppb	20:12:37
1	Pb 220.353†	111.5	8.3	0.5124	µg/L	0.5124	ppb	20:12:37
1	S 181.975 Axial†	99.4	10.8	9.0726	µg/L	9.0726	ppb	20:12:37
1	Sb 206.836†	75.2	-14.3	-1.8425	µg/L	-1.8425	ppb	20:12:37
1	Se 196.026†	16.5	10.4	4.09	µg/L	4.09	ppb	20:12:37
1	SiO2†	1787.2	52.8	5.5673	µg/L	5.5673	ppb	20:12:37
1	Si 251.611†	1109.6	345.5	5.4393	µg/L	5.4393	ppb	20:12:17
1	Sn 189.927†	15.3	13.5	0.9344	µg/L	0.9344	ppb	20:12:37
1	Ti 334.940†	601.5	-219.9	-0.2255	µg/L	-0.2255	ppb	20:12:17
1	Tl 190.801†	-125.9	-11.9	-1.6348	µg/L	-1.6348	ppb	20:12:37
1	U 409.014†	-171.3	-8.4	-0.5470	µg/L	-0.5470	ppb	20:12:17
1	V 292.402†	367.0	-55.3	-0.2830	µg/L	-0.2830	ppb	20:12:17
1	Zn 213.857†	619.9	118.5	0.7083	µg/L	0.7083	ppb	20:12:37
2	Sc RADIAL	136892.1	136892.1	97.7	%			20:11:15
2	Al 396.153Radial†	-67.4	9.6	1.9938	µg/L	1.9938	ppb	20:11:35
2	Ca 317.933Radial†	730.4	176.0	11.987	µg/L	11.987	ppb	20:11:35
2	Fe 238.204 Radial†	171.6	58.3	4.3552	µg/L	4.3552	ppb	20:11:35
2	K 766.490 Radial†	1733.3	280.0	110.94	µg/L	110.94	ppb	20:11:15
2	Mg 279.077 IEC†	166.6	-1.9	-0.8808	µg/L	-0.8808	ppb	20:11:35
2	Na 589.592 Radial†	1125.7	199.5	30.826	µg/L	30.826	ppb	20:11:15
2	Sr 421.552†	-208.8	-9.2	-0.0217	µg/L	-0.0217	ppb	20:11:15
2	Sc 361.383	1818124.6	1818124.6	100.77	%			20:12:39
2	Y 371.029	1066410.7	1066410.7	100.86	%			20:12:39
2	Ag 328.068†	4525.6	-74.3	-0.3294	µg/L	-0.3294	ppb	20:12:42
2	As 188.979†	-20.8	-2.1	-0.6934	µg/L	-0.6934	ppb	20:13:02
2	B 249.677†	3899.2	-195.9	-3.0492	µg/L	-3.0492	ppb	20:12:42
2	Ba 233.527†	-158.2	-12.5	-0.0550	µg/L	-0.0550	ppb	20:13:02
2	Be 313.107†	-524.0	571.8	0.1582	µg/L	0.1582	ppb	20:12:42
2	Cd 226.502†	-86.0	18.0	0.1212	µg/L	0.1212	ppb	20:13:02
2	Co 228.616†	-166.3	45.3	0.5991	µg/L	0.5991	ppb	20:13:02
2	Cr 267.716†	304.3	68.7	0.6142	µg/L	0.6142	ppb	20:13:02
2	Cu 324.752†	2933.9	-124.7	-0.5409	µg/L	-0.5409	ppb	20:12:42
2	Mn 257.610†	262.0	75.2	0.0998	µg/L	0.0998	ppb	20:13:02
2	Mo 202.031†	-18.7	20.0	0.6549	µg/L	0.6549	ppb	20:13:02
2	Ni 231.604†	-56.0	40.4	0.5052	µg/L	0.5052	ppb	20:13:02
2	P 214.914†	15.0	40.6	9.3888	µg/L	9.3888	ppb	20:13:02
2	Pb 220.353†	132.3	27.8	1.7338	µg/L	1.7338	ppb	20:13:02

2	S 181.975 Axial†	94.1	4.4	3.7263 µg/L	3.7263 ppb		20:13:02
2	Sb 206.836†	93.6	3.1	0.4065 µg/L	0.4065 ppb		20:13:02
2	Se 196.026†	9.2	3.0	1.17 µg/L	1.17 ppb		20:13:02
2	SiO2†	1750.0	-2.5	-0.2890 µg/L	-0.2890 ppb		20:13:02
2	Si 251.611†	976.4	201.9	3.1734 µg/L	3.1734 ppb		20:12:42
2	Sn 189.927†	3.9	2.0	0.1368 µg/L	0.1368 ppb		20:13:02
2	Ti 334.940†	982.4	151.9	0.1662 µg/L	0.1662 ppb		20:12:42
2	Tl 190.801†	-121.6	-6.4	-0.8709 µg/L	-0.8709 ppb		20:13:02
2	U 409.014†	-556.7	-389.1	-24.528 µg/L	-24.528 ppb		20:12:42
2	V 292.402†	512.8	85.6	0.4358 µg/L	0.4358 ppb		20:12:42
2	Zn 213.857†	631.4	123.5	0.7343 µg/L	0.7343 ppb		20:13:02
3	Sc RADIAL	136116.9	136116.9	97.2 %			20:11:37
3	Al 396.153Radial†	-93.2	-17.4	-3.6814 µg/L	-3.6814 ppb		20:11:57
3	Ca 317.933Radial†	699.4	148.3	10.103 µg/L	10.103 ppb		20:11:57
3	Fe 238.204 Radial†	183.1	71.1	5.3101 µg/L	5.3101 ppb		20:11:57
3	K 766.490 Radial†	1532.6	83.6	33.132 µg/L	33.132 ppb		20:11:37
3	Mg 279.077 IEC†	174.9	7.6	3.5129 µg/L	3.5129 ppb		20:11:57
3	Na 589.592 Radial†	946.0	21.2	3.2520 µg/L	3.2520 ppb		20:11:37
3	Sr 421.552†	-185.6	13.5	0.0317 µg/L	0.0317 ppb		20:11:37
3	Sc 361.383	1788059.6	1788059.6	99.108 %			20:13:04
3	Y 371.029	1050278.0	1050278.0	99.336 %			20:13:04
3	Ag 328.068†	4180.0	-347.6	-1.4411 µg/L	-1.4411 ppb		20:13:06
3	As 188.979†	-11.4	7.0	2.3844 µg/L	2.3844 ppb		20:13:26
3	B 249.677†	3902.3	-127.7	-1.9864 µg/L	-1.9864 ppb		20:13:06
3	Ba 233.527†	-134.0	9.4	0.0420 µg/L	0.0420 ppb		20:13:26
3	Be 313.107†	-749.6	335.4	0.0922 µg/L	0.0922 ppb		20:13:06
3	Cd 226.502†	-86.7	15.9	0.1071 µg/L	0.1071 ppb		20:13:26
3	Co 228.616†	-199.1	9.4	0.1238 µg/L	0.1238 ppb		20:13:26
3	Cr 267.716†	260.0	29.2	0.2652 µg/L	0.2652 ppb		20:13:26
3	Cu 324.752†	2833.5	-177.2	-0.7535 µg/L	-0.7535 ppb		20:13:06
3	Mn 257.610†	277.4	95.2	0.1261 µg/L	0.1261 ppb		20:13:26
3	Mo 202.031†	-21.6	16.7	0.5480 µg/L	0.5480 ppb		20:13:26
3	Ni 231.604†	-52.6	42.8	0.5358 µg/L	0.5358 ppb		20:13:26
3	P 214.914†	36.9	62.9	14.546 µg/L	14.546 ppb		20:13:26
3	Pb 220.353†	125.9	23.6	1.4660 µg/L	1.4660 ppb		20:13:26
3	S 181.975 Axial†	98.2	10.2	8.5611 µg/L	8.5611 ppb		20:13:26
3	Sb 206.836†	85.4	-3.6	-0.4591 µg/L	-0.4591 ppb		20:13:26
3	Se 196.026†	24.8	18.9	7.42 µg/L	7.42 ppb		20:13:26
3	SiO2†	1727.3	3.8	0.3814 µg/L	0.3814 ppb		20:13:26
3	Si 251.611†	1134.0	377.2	5.9378 µg/L	5.9378 ppb		20:13:06
3	Sn 189.927†	7.3	5.4	0.3762 µg/L	0.3762 ppb		20:13:26
3	Ti 334.940†	576.2	-241.7	-0.2416 µg/L	-0.2416 ppb		20:13:06
3	Tl 190.801†	-112.9	0.4	0.0509 µg/L	0.0509 ppb		20:13:26
3	U 409.014†	-418.1	-258.5	-16.306 µg/L	-16.306 ppb		20:13:06
3	V 292.402†	450.9	31.8	0.1601 µg/L	0.1601 ppb		20:13:06
3	Zn 213.857†	610.4	112.9	0.6706 µg/L	0.6706 ppb		20:13:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1801876.7	99.874	%	0.8413				0.84%
Sc RADIAL	137003.7	97.8	%	0.68				0.69%
Y 371.029	1058104.9	100.08	%	0.764				0.76%
Ag 328.068†	-353.1	-1.4615	µg/L	1.14234	-1.4615	ppb	1.14234	78.16%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.0	1.2509	µg/L	4.60601	1.2509	ppb	4.60601	368.22%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.6	1.5489	µg/L	1.96271	1.5489	ppb	1.96271	126.72%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-81.0	-1.2616	µg/L	2.23978	-1.2616	ppb	2.23978	177.54%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.7	-0.0339	µg/L	0.06783	-0.0339	ppb	0.06783	200.03%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	540.6	0.1524	µg/L	0.05753	0.1524	ppb	0.05753	37.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	158.3	10.782	µg/L	1.0465	10.782	ppb	1.0465	9.71%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	28.7	0.1937	µg/L	0.13792	0.1937	ppb	0.13792	71.21%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	24.8	0.3272	µg/L	0.24497	0.3272	ppb	0.24497	74.87%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              49.1      0.4355 µg/L       0.17465      0.4355 ppb        0.17465  40.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -172.9     -0.7337 µg/L       0.18366     -0.7337 ppb        0.18366  25.03%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       67.2      5.0164 µg/L       0.57374      5.0164 ppb        0.57374  11.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       167.6     66.389 µg/L       40.1130     66.389 ppb        40.1130  60.42%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.6      0.7576 µg/L       2.40042      0.7576 ppb        2.40042 316.86%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              89.2      0.1182 µg/L       0.01601      0.1182 ppb        0.01601  13.54%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              14.6      0.4769 µg/L       0.22227      0.4769 ppb        0.22227  46.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      176.6     27.311 µg/L       22.5081     27.311 ppb        22.5081  82.41%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              25.7      0.3209 µg/L       0.34598      0.3209 ppb        0.34598 107.81%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               51.3     11.867 µg/L        2.5846     11.867 ppb         2.5846  21.78%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              19.9      1.2374 µg/L       0.64196      1.2374 ppb        0.64196  51.88%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          8.5      7.1200 µg/L       2.95015      7.1200 ppb        2.95015  41.43%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.9     -0.6317 µg/L       1.13439     -0.6317 ppb        1.13439 179.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              10.8       4.23 µg/L         3.130        4.23 ppb          3.130  74.05%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    18.0      1.8866 µg/L       3.20520      1.8866 ppb        3.20520 169.89%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             308.2      4.8502 µg/L       1.47335      4.8502 ppb        1.47335  30.38%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.0      0.4825 µg/L       0.40930      0.4825 ppb        0.40930  84.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              73.3      0.1727 µg/L       0.29175      0.1727 ppb        0.29175 168.90%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -103.2     -0.1003 µg/L       0.23097     -0.1003 ppb        0.23097 230.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -6.0     -0.8183 µg/L       0.84410     -0.8183 ppb        0.84410 103.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -218.7    -13.794 µg/L       12.1863    -13.794 ppb        12.1863  88.35%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               20.7      0.1043 µg/L       0.36262      0.1043 ppb        0.36262 347.57%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             118.3      0.7044 µg/L       0.03202      0.7044 ppb        0.03202   4.55%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, April 24, 2010 13:45:26
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.733
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	946.0	946.031	11.684	1.2
	Mg	24.0	13551.4	13551.425	181.554	1.3
	Co	58.9	38148.5	38148.472	390.651	1.0
	Rh	102.9	72454.9	72454.893	797.005	1.1
	In	114.9	82227.8	82227.781	615.884	0.7
	Pb	208.0	31442.8	31442.771	491.146	1.6
⌈>	Ba	137.9	78637.3	78637.261	712.095	0.9
⌊	Ba++	69.0	1375.0	0.017	0.000	2.7
⌈>	Ce	139.9	93529.4	93529.381	576.203	0.6
⌊	CeO	155.9	1372.0	0.015	0.000	2.7
	Bkgd	220.0	9.7	9.700	1.151	11.9

Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
4.25	Lens Voltage
1000.00	ICP RF Power
-1750.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	5.5	929.7
Co	59	13	6.3	33699.0
In	115	13	7.0	78017.8

ICPMS #4 TUNING REPORT

File Name: 100424.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	606	2080	0.617
Be	9.0	9.0	2047	2080	0.599
Mg	24.0	24.0	5693	2100	0.586
Mg	25.0	25.0	5945	2100	0.560
Mg	26.0	25.9	6161	2120	0.579
Co	58.9	58.9	14185	2150	0.611
Rh	102.9	102.9	24868	2240	0.640
In	114.9	114.9	27781	2275	0.652
Ce	139.9	139.9	33854	2310	0.697
Pb	206.0	205.9	49920	2485	0.740
Pb	207.0	207.0	50113	2400	0.644
Pb	208.0	208.0	50472	2510	0.769
U	238.1	238.1	57706	2520	0.695

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, April 24, 2010 17:38:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\Blank.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		23	
	Be	9		ug/L		8	
	B	11		ug/L		113	
	Na	23		ug/L		113113	
	Mg	24		ug/L		333	
	Al	27		ug/L		2334	
	P	31		ug/L		2375	
	K	39		ug/L		433535	
	Ca	43		ug/L		347	
>	Sc	45		ug/L		500226	
	Ti	47		ug/L		205	
	V	51		ug/L		11109	
	Cr	52		ug/L		-13340	
	Cr	53		ug/L		133359	
	Mn	55		ug/L		719	
	Fe	57		ug/L		3835	
	Co	59		ug/L		117	
	Ni	60		ug/L		48	
	Cu	63		ug/L		507	
	Cu	65		ug/L		238	
	Zn	66		ug/L		163	
	Zn	67		ug/L		6884	
	Zn	68		ug/L		817	
>	Ge	74		ug/L		204314	
	As	75		ug/L		178	
	Se	77		ug/L		5325	
	Se	82		ug/L		-32	
	Kr	83		ug/L		83	
	Sr	88		ug/L		189	
	Y	89		ug/L		27	
	Zr	90		ug/L		215	
	Mo	98		ug/L		55	
	Ag	107		ug/L		79	
	Cd	111		ug/L		17	
	Cd	114		ug/L		44	
>	In	115		ug/L		110479	
	Sn	120		ug/L		296	
	Sb	121		ug/L		127	
	Sb	123		ug/L		117	
	Ba	135		ug/L		25	
	Ba	137		ug/L		35	
	Ho	165		ug/L		26	
>	Lu	175		ug/L		107605	
	Tl	205		ug/L		129	
	Pb	208		ug/L		1017	
	Th	232		ug/L		301	
	U	238		ug/L		146	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Simple Linear	
Ti	47	Simple Linear	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Simple Linear	
Cu	63	Simple Linear	
Cu	65	Simple Linear	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Linear Thru Zero	
As	75	Simple Linear	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Zr	90	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
Th	232	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, April 24, 2010 17:44:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\Standard 1.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	2.424	4203	0.008
	Be	9	10.000	ug/L	5.057	1023	0.002
	B	11	20.000	ug/L	2.223	2090	0.004
	Na	23	1000.000	ug/L	2.445	1723775	3.116
	Mg	24	1000.000	ug/L	10.379	1154824	2.238
	Al	27	1000.000	ug/L	16.949	1569677	3.041
	P	31	1000.000	ug/L	2.260	89782	0.169
	K	39	1000.000	ug/L	2.255	3146798	5.234
	Ca	43	1000.000	ug/L	3.622	6134	0.011
>	Sc	45		ug/L		515794	515793.737
	Ti	47	10.000	ug/L	4.201	3056	0.006
	V	51	10.000	ug/L	6.390	47672	0.070
	Cr	52	10.000	ug/L	4.447	16614	0.059
	Cr	53		ug/L		113071	-0.047
	Mn	55	10.000	ug/L	0.993	48156	0.092
	Fe	57	1000.000	ug/L	2.439	97022	0.180
	Co	59	10.000	ug/L	1.655	35195	0.068
	Ni	60	10.000	ug/L	1.323	7405	0.014
	Cu	63		ug/L		17624	0.033
	Cu	65	10.000	ug/L	1.072	8507	0.016
	Zn	66	10.000	ug/L	3.985	5076	0.024
	Zn	67		ug/L		6597	-0.002
	Zn	68		ug/L		4282	0.017
>	Ge	74		ug/L		205972	205971.661
	As	75	10.000	ug/L	1.816	5630	0.026
	Se	77		ug/L		4318	-0.005
	Se	82	10.000	ug/L	4.278	470	0.002
	Kr	83		ug/L		67	-0.000
	Sr	88	10.000	ug/L	2.024	73354	0.638
	Y	89		ug/L		30	0.000
	Zr	90	10.000	ug/L	5.780	39146	0.339
	Mo	98	10.000	ug/L	5.388	17218	0.150
	Ag	107	10.000	ug/L	2.265	28083	0.244
	Cd	111	10.000	ug/L	1.865	6295	0.055
	Cd	114		ug/L		14103	0.123
>	In	115		ug/L		114794	114794.169
	Sn	120	10.000	ug/L	3.785	27633	0.238
	Sb	121	10.000	ug/L	3.759	23607	0.205
	Sb	123		ug/L		18354	0.159
	Ba	135		ug/L		6799	0.062
	Ba	137	10.000	ug/L	0.945	11713	0.107
	Ho	165		ug/L		23	-0.000
>	Lu	175		ug/L		108654	108654.404
	Tl	205	10.000	ug/L	2.331	20583	0.188
	Pb	208	10.000	ug/L	0.405	60835	0.550
	Th	232	10.000	ug/L	4.723	62633	0.574
	U	238	10.000	ug/L	2.031	68651	0.631

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, April 24, 2010 17:50:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\Standard 2.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	99.968	ug/L	1.307	40798	0.079
	Be	9	99.975	ug/L	1.117	9985	0.019
	B	11	200.064	ug/L	3.914	20647	0.040
	Na	23	9997.050	ug/L	3.108	15833117	30.259
	Mg	24	9997.750	ug/L	4.908	11367947	21.887
	Al	27	9995.252	ug/L	3.623	15077256	29.020
	P	31	9999.859	ug/L	0.120	880735	1.691
	K	39	10000.250	ug/L	5.192	27700059	52.475
	Ca	43	9999.454	ug/L	1.421	58214	0.111
>	Sc	45		ug/L		519376	519375.624
	Ti	47	100.007	ug/L	2.104	29066	0.056
	V	51	100.012	ug/L	1.739	381026	0.711
	Cr	52	99.880	ug/L	0.418	258970	0.525
	Cr	53		ug/L		137090	-0.003
	Mn	55	99.966	ug/L	1.946	462452	0.889
	Fe	57	9997.114	ug/L	1.905	914646	1.753
	Co	59	99.961	ug/L	1.239	340091	0.655
	Ni	60	99.973	ug/L	0.510	72155	0.139
	Cu	63		ug/L		164536	0.316
	Cu	65	99.960	ug/L	0.881	80176	0.154
	Zn	66	99.952	ug/L	1.945	47235	0.228
	Zn	67		ug/L		13408	0.031
	Zn	68		ug/L		34792	0.164
>	Ge	74		ug/L		206871	206870.841
	As	75	100.000	ug/L	0.584	54948	0.265
	Se	77		ug/L		7222	0.009
	Se	82	100.006	ug/L	2.146	5040	0.025
	Kr	83		ug/L		69	-0.000
	Sr	88	100.031	ug/L	0.814	738873	6.579
	Y	89		ug/L		85	0.001
	Zr	90	100.042	ug/L	0.425	398079	3.544
	Mo	98	100.042	ug/L	2.574	175557	1.563
	Ag	107	99.990	ug/L	0.719	271265	2.415
	Cd	111	100.006	ug/L	3.234	61805	0.550
	Cd	114		ug/L		138243	1.231
>	In	115		ug/L		112271	112270.677
	Sn	120	100.011	ug/L	2.302	270786	2.409
	Sb	121	100.018	ug/L	0.485	234109	2.084
	Sb	123		ug/L		180822	1.609
	Ba	135		ug/L		67023	0.622
	Ba	137	100.005	ug/L	2.768	116426	1.080
	Ho	165		ug/L		31	0.000
>	Lu	175		ug/L		107764	107764.063
	Tl	205	100.001	ug/L	3.154	203196	1.885
	Pb	208	99.989	ug/L	1.926	587436	5.443
	Th	232	100.084	ug/L	1.414	675583	6.267
	U	238	100.017	ug/L	2.402	691039	6.412

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, April 24, 2010 17:57:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 1.054

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.943**	ug/L	2.176	21024	0.040
	Be	9	**51.200**	ug/L	5.647	5171	0.010
	B	11	**98.472**	ug/L	2.167	10333	0.019
	Na	23	**5161.521**	ug/L	8.370	8316707	15.623
	Mg	24	**5038.420**	ug/L	5.688	5793451	11.030
	Al	27	**5274.984**	ug/L	6.334	8039314	15.315
	P	31	**5063.766**	ug/L	1.744	452002	0.856
	K	39	**5388.782**	ug/L	5.668	15294743	28.277
	Ca	43	**5070.585**	ug/L	1.765	30014	0.056
>	Sc	45		ug/L		524979	524978.728
	Ti	47	**50.631**	ug/L	3.051	14978	0.028
	V	51	**51.351**	ug/L	2.963	203378	0.365
	Cr	52	**53.383**	ug/L	1.906	133377	0.281
	Cr	53		ug/L		116892	-0.044
	Mn	55	**52.880**	ug/L	3.473	247589	0.470
	Fe	57	**5200.379**	ug/L	3.429	482755	0.912
	Co	59	**51.406**	ug/L	1.722	176827	0.337
	Ni	60	**53.182**	ug/L	1.661	38816	0.074
	Cu	63		ug/L		88741	0.168
	Cu	65	**52.706**	ug/L	2.883	42841	0.081
	Zn	66	**51.207**	ug/L	2.694	24929	0.117
	Zn	67		ug/L		9569	0.011
	Zn	68		ug/L		18361	0.082
>	Ge	74		ug/L		212466	212465.768
	As	75	**51.155**	ug/L	1.852	28956	0.135
	Se	77		ug/L		5291	-0.001
	Se	82	**52.846**	ug/L	5.994	2718	0.013
	Kr	83		ug/L		60	-0.000
	Sr	88	**50.887**	ug/L	1.865	383875	3.347
	Y	89		ug/L		40	0.000
	Zr	90	**49.549**	ug/L	0.736	201408	1.755
	Mo	98	**50.224**	ug/L	1.605	90013	0.785
	Ag	107	**51.779**	ug/L	2.118	143435	1.251
	Cd	111	**50.441**	ug/L	1.991	31832	0.278
	Cd	114		ug/L		71388	0.622
>	In	115		ug/L		114630	114629.915
	Sn	120	**50.573**	ug/L	1.384	139955	1.218
	Sb	121	**49.762**	ug/L	1.787	118977	1.037
	Sb	123		ug/L		91569	0.798
	Ba	135		ug/L		34410	0.314
	Ba	137	**50.803**	ug/L	1.364	60049	0.549
	Ho	165		ug/L		30	0.000
>	Lu	175		ug/L		109345	109345.310
	Tl	205	**49.446**	ug/L	1.409	102035	0.932
	Pb	208	**50.717**	ug/L	0.506	302896	2.761
	Th	232	**49.193**	ug/L	3.834	337145	3.080
	U	238	**51.054**	ug/L	2.017	358039	3.273

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.886				
	Be	9	102.400				
	B	11	98.472				
	Na	23	103.230				
	Mg	24	100.768				
	Al	27	104.455				
	P	31	101.275				
	K	39	107.776				
	Ca	43	101.412				
>	Sc	45		104.9			
	Ti	47	101.261				
	V	51	102.702				
	Cr	52	106.765				
	Cr	53					
	Mn	55	105.760				
	Fe	57	104.008				
	Co	59	102.812				
	Ni	60	106.364				
	Cu	63					
	Cu	65	105.413				
	Zn	66	102.413				
	Zn	67					
	Zn	68					
>	Ge	74		104.0			
	As	75	102.311				
	Se	77					
	Se	82	105.692				
	Kr	83					
	Sr	88	101.774				
	Y	89					
	Zr	90	99.098				
	Mo	98	100.448				
	Ag	107	103.557				
	Cd	111	100.882				
	Cd	114					
>	In	115		103.8			
	Sn	120	101.145				
	Sb	121	99.523				
	Sb	123					
	Ba	135					
	Ba	137	101.606				
	Ho	165					
>	Lu	175		101.6			
	Tl	205	98.892				
	Pb	208	101.434				
	Th	232	98.386				
	U	238	102.108				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, April 24, 2010 18:03:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 2.055

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.002**	ug/L	614.672	24	0.000
	Be	9	**-0.003**	ug/L	1112.078	8	-0.000
	B	11	**1.688**	ug/L	18.811	288	0.000
	Na	23	**-17.759**	ug/L	16.356	88607	-0.054
	Mg	24	**0.594**	ug/L	151.491	1000	0.001
	Al	27	**1.300**	ug/L	80.823	4334	0.004
	P	31	**-1.490**	ug/L	119.219	2311	-0.000
	K	39	**-6.461**	ug/L	231.157	428012	-0.034
	Ca	43	**5.315**	ug/L	117.221	387	0.000
>	Sc	45		ug/L		514346	514346.206
	Ti	47	**-0.022**	ug/L	228.654	204	-0.000
	V	51	**0.207**	ug/L	684.072	12195	0.001
	Cr	52	**0.825**	ug/L	50.000	-11475	0.004
	Cr	53		ug/L		113934	-0.045
	Mn	55	**-0.012**	ug/L	72.013	685	-0.000
	Fe	57	**-1.471**	ug/L	57.498	3811	-0.000
	Co	59	**0.013**	ug/L	37.211	164	0.000
	Ni	60	**0.019**	ug/L	55.433	63	0.000
	Cu	63		ug/L		487	-0.000
	Cu	65	**0.014**	ug/L	219.950	255	0.000
	Zn	66	**0.003**	ug/L	599.869	169	0.000
	Zn	67		ug/L		6178	-0.004
	Zn	68		ug/L		749	-0.000
>	Ge	74		ug/L		209950	209949.661
	As	75	**-0.163**	ug/L	235.023	94	-0.000
	Se	77		ug/L		3852	-0.008
	Se	82	**0.835**	ug/L	35.722	10	0.000
	Kr	83		ug/L		68	-0.000
	Sr	88	**0.004**	ug/L	52.337	230	0.000
	Y	89		ug/L		22	-0.000
	Zr	90	**0.279**	ug/L	18.257	1362	0.010
	Mo	98	**0.231**	ug/L	23.146	472	0.004
	Ag	107	**0.038**	ug/L	24.207	188	0.001
	Cd	111	**0.012**	ug/L	58.872	26	0.000
	Cd	114		ug/L		50	0.000
>	In	115		ug/L		115195	115195.199
	Sn	120	**0.167**	ug/L	14.346	772	0.004
	Sb	121	**0.253**	ug/L	13.785	740	0.005
	Sb	123		ug/L		554	0.004
	Ba	135		ug/L		27	0.000
	Ba	137	**0.003**	ug/L	73.005	38	0.000
	Ho	165		ug/L		26	0.000
>	Lu	175		ug/L		106993	106993.348
	Tl	205	**0.248**	ug/L	15.070	630	0.005
	Pb	208	**-0.003**	ug/L	42.649	992	-0.000
	Th	232	**0.483**	ug/L	14.029	3540	0.030
	U	238	**0.023**	ug/L	22.829	302	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.4			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, April 24, 2010 18:09:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 3.056

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**12.378**	ug/L	3.684	5039	0.010
	Be	9	**0.643**	ug/L	6.821	72	0.000
	B	11	**17.876**	ug/L	2.051	1940	0.004
	Na	23	**267.451**	ug/L	3.189	534486	0.810
	Mg	24	**17.440**	ug/L	42.539	20016	0.038
	Al	27	**38.710**	ug/L	8.537	60462	0.112
	P	31	**56.483**	ug/L	4.944	7377	0.010
	K	39	**358.496**	ug/L	6.054	1418133	1.881
	Ca	43	**254.732**	ug/L	3.775	1822	0.003
>	Sc	45		ug/L		516112	516111.948
	Ti	47	**9.931**	ug/L	2.330	3058	0.006
	V	51	**11.529**	ug/L	9.125	53749	0.082
	Cr	52	**13.369**	ug/L	2.798	22515	0.070
	Cr	53		ug/L		108132	-0.057
	Mn	55	**6.247**	ug/L	3.224	29406	0.056
	Fe	57	**121.668**	ug/L	1.140	14970	0.021
	Co	59	**1.211**	ug/L	2.176	4211	0.008
	Ni	60	**2.481**	ug/L	3.292	1827	0.003
	Cu	63		ug/L		2557	0.004
	Cu	65	**1.235**	ug/L	1.625	1227	0.002
	Zn	66	**12.347**	ug/L	2.197	6088	0.028
	Zn	67		ug/L		6598	-0.002
	Zn	68		ug/L		4885	0.019
>	Ge	74		ug/L		210619	210618.826
	As	75	**5.714**	ug/L	1.534	3370	0.015
	Se	77		ug/L		3488	-0.009
	Se	82	**6.307**	ug/L	4.569	293	0.002
	Kr	83		ug/L		71	-0.000
	Sr	88	**11.817**	ug/L	0.911	89588	0.777
	Y	89		ug/L		15	-0.000
	Zr	90	**2.037**	ug/L	5.207	8522	0.072
	Mo	98	**0.632**	ug/L	3.124	1194	0.010
	Ag	107	**1.056**	ug/L	0.967	3016	0.026
	Cd	111	**1.194**	ug/L	3.872	773	0.007
	Cd	114		ug/L		1720	0.015
>	In	115		ug/L		115016	115015.683
	Sn	120	**5.705**	ug/L	3.387	16114	0.137
	Sb	121	**2.474**	ug/L	7.898	6060	0.052
	Sb	123		ug/L		4726	0.040
	Ba	135		ug/L		1562	0.014
	Ba	137	**2.351**	ug/L	4.620	2791	0.025
	Ho	165		ug/L		26	-0.000
>	Lu	175		ug/L		108499	108498.880
	Tl	205	**1.180**	ug/L	4.400	2544	0.022
	Pb	208	**2.320**	ug/L	1.016	14726	0.126
	Th	232	**1.171**	ug/L	4.561	8259	0.073
	U	238	**0.279**	ug/L	2.606	2088	0.018

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	123.784				
	Be	9	128.592				
	B	11	119.170				
	Na	23	106.981				
	Mg	24	116.267				
	Al	27	129.034				
	P	31	112.966				
	K	39	119.499				
	Ca	43	127.366				
>	Sc	45		103.2			
	Ti	47	99.309				
	V	51	115.287				
	Cr	52	133.694				
	Cr	53					
	Mn	55	124.932				
	Fe	57	121.668				
	Co	59	121.059				
	Ni	60	124.042				
	Cu	63					
	Cu	65	123.538				
	Zn	66	123.472				
	Zn	67					
	Zn	68					
>	Ge	74		103.1			
	As	75	114.280				
	Se	77					
	Se	82	126.142				
	Kr	83					
	Sr	88	118.169				
	Y	89					
	Zr	90	101.851				
	Mo	98	126.471				
	Ag	107	105.580				
	Cd	111	119.353				
	Cd	114					
>	In	115		104.1			
	Sn	120	114.106				
	Sb	121	82.462				
	Sb	123					
	Ba	135					
	Ba	137	117.557				
	Ho	165					
>	Lu	175		100.8			
	Tl	205	118.016				
	Pb	208	115.995				
	Th	232	117.082				
	U	238	139.454				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Cr	52	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, April 24, 2010 18:15:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 4.057

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.093**	ug/L	7.927	61	0.000
	Be	9	**0.108**	ug/L	74.523	19	0.000
	B	11	**1.452**	ug/L	8.348	262	0.000
	Na	23	**99891.538**	ug/L	1.884	154337666	302.347
	Mg	24	**93963.004**	ug/L	2.635	104909399	205.706
	Al	27	**95269.541**	ug/L	4.366	141073737	276.600
	P	31	**101201.909**	ug/L	1.343	8731377	17.114
	K	39	**101760.218**	ug/L	2.241	272772833	533.970
	Ca	43	**95739.141**	ug/L	2.009	544272	1.066
>	Sc	45		ug/L		510090	510090.480
	Ti	47	**1570.108**	ug/L	1.359	445126	0.872
	V	51	**0.742**	ug/L	94.755	14023	0.005
	Cr	52	**5.374**	ug/L	3.715	817	0.028
	Cr	53		ug/L		86430	-0.097
	Mn	55	**5.824**	ug/L	0.241	27153	0.052
	Fe	57	**102783.902**	ug/L	1.581	9200968	18.028
	Co	59	**0.188**	ug/L	7.932	746	0.001
	Ni	60	**2.937**	ug/L	4.505	2129	0.004
	Cu	63		ug/L		4447	0.008
	Cu	65	**2.897**	ug/L	1.907	2517	0.004
	Zn	66	**3.668**	ug/L	1.766	1864	0.008
	Zn	67		ug/L		5413	-0.007
	Zn	68		ug/L		932	0.001
>	Ge	74		ug/L		203771	203771.088
	As	75	**-0.109**	ug/L	138.401	118	-0.000
	Se	77		ug/L		3743	-0.008
	Se	82	**-0.423**	ug/L	58.835	-53	-0.000
	Kr	83		ug/L		118	0.000
	Sr	88	**2.857**	ug/L	1.265	20693	0.188
	Y	89		ug/L		210	0.002
	Zr	90	**0.861**	ug/L	44.718	3522	0.030
	Mo	98	**2103.543**	ug/L	2.469	3586862	32.870
	Ag	107	**0.089**	ug/L	12.848	312	0.002
	Cd	111	**0.239**	ug/L	42.990	161	0.001
	Cd	114		ug/L		3487	0.032
>	In	115		ug/L		109126	109125.580
	Sn	120	**0.460**	ug/L	11.268	1500	0.011
	Sb	121	**0.252**	ug/L	26.609	697	0.005
	Sb	123		ug/L		582	0.004
	Ba	135		ug/L		505	0.005
	Ba	137	**0.735**	ug/L	1.168	871	0.008
	Ho	165		ug/L		2526	0.024
>	Lu	175		ug/L		105537	105537.191
	Tl	205	**0.068**	ug/L	13.727	263	0.001
	Pb	208	**0.161**	ug/L	6.176	1922	0.009
	Th	232	**0.511**	ug/L	31.324	3682	0.032
	U	238	**-0.013**	ug/L	9.457	58	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23	99.892				
	Mg	24	93.963				
	Al	27	95.270				
	P	31	101.202				
	K	39	101.760				
	Ca	43	95.739				
>	Sc	45		102.0			
	Ti	47	78.505				
	V	51					
	Cr	52	162.838				
	Cr	53					
	Mn	55	100.410				
	Fe	57	102.784				
	Co	59	79.958				
	Ni	60	88.726				
	Cu	63					
	Cu	65	86.730				
	Zn	66	97.549				
	Zn	67					
	Zn	68					
>	Ge	74		99.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	96.534				
	Y	89					
	Zr	90					
	Mo	98	105.177				
	Ag	107					
	Cd	111	53.819				
	Cd	114					
>	In	115		98.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	92.047				
	Ho	165					
>	Lu	175		98.1			
	Tl	205					
	Pb	208	85.240				
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 4	Ti	47ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, April 24, 2010 18:21:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 5.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**19.257**	ug/L	1.587	7694	0.015
	Be	9	**19.125**	ug/L	1.044	1872	0.004
	B	11	**19.293**	ug/L	3.101	2048	0.004
	Na	23	**103806.811**	ug/L	4.122	159442550	314.197
	Mg	24	**97890.518**	ug/L	3.978	108696742	214.304
	Al	27	**104115.470**	ug/L	1.896	153367305	302.283
	P	31	**104253.974**	ug/L	2.329	8943684	17.630
	K	39	**101087.552**	ug/L	1.968	269478475	530.440
	Ca	43	**98208.753**	ug/L	0.938	555250	1.094
>	Sc	45		ug/L		507272	507271.869
	Ti	47	**1585.759**	ug/L	1.556	447027	0.881
	V	51	**21.316**	ug/L	1.776	88184	0.152
	Cr	52	**25.696**	ug/L	2.008	55023	0.135
	Cr	53		ug/L		98806	-0.072
	Mn	55	**26.193**	ug/L	0.705	118892	0.233
	Fe	57	**106135.148**	ug/L	0.216	9447127	18.616
	Co	59	**20.157**	ug/L	0.946	67071	0.132
	Ni	60	**22.813**	ug/L	1.939	16116	0.032
	Cu	63		ug/L		36950	0.072
	Cu	65	**22.532**	ug/L	1.082	17840	0.035
	Zn	66	**22.660**	ug/L	2.610	10809	0.052
	Zn	67		ug/L		6937	-0.000
	Zn	68		ug/L		7344	0.032
>	Ge	74		ug/L		206370	206370.496
	As	75	**21.084**	ug/L	2.950	11701	0.056
	Se	77		ug/L		5060	-0.002
	Se	82	**21.025**	ug/L	1.729	1031	0.005
	Kr	83		ug/L		116	0.000
	Sr	88	**23.635**	ug/L	1.385	171276	1.555
	Y	89		ug/L		195	0.002
	Zr	90	**20.970**	ug/L	1.370	81958	0.743
	Mo	98	**2148.182**	ug/L	2.836	3693451	33.567
	Ag	107	**19.581**	ug/L	2.097	52136	0.473
	Cd	111	**19.697**	ug/L	1.242	11945	0.108
	Cd	114		ug/L		29453	0.267
>	In	115		ug/L		110049	110048.818
	Sn	120	**20.195**	ug/L	0.595	53835	0.487
	Sb	121	**18.263**	ug/L	1.897	42011	0.381
	Sb	123		ug/L		32334	0.293
	Ba	135		ug/L		13537	0.130
	Ba	137	**20.870**	ug/L	0.655	23402	0.225
	Ho	165		ug/L		2487	0.024
>	Lu	175		ug/L		103656	103656.097
	Tl	205	**18.322**	ug/L	2.383	35917	0.345
	Pb	208	**19.001**	ug/L	1.045	108179	1.034
	Th	232	**19.289**	ug/L	1.611	125482	1.208
	U	238	**19.674**	ug/L	3.634	130854	1.261

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	96.286				
	Be	9	95.624				
	B	11	96.467				
	Na	23	103.807				
	Mg	24	97.891				
	Al	27	104.115				
	P	31	104.254				
	K	39	101.088				
	Ca	43	98.209				
>	Sc	45		101.4			
	Ti	47	79.288				
	V	51	106.581				
	Cr	52	110.282				
	Cr	53					
	Mn	55	101.522				
	Fe	57	106.135				
	Co	59	99.612				
	Ni	60	97.866				
	Cu	63					
	Cu	65	96.536				
	Zn	66	95.372				
	Zn	67					
	Zn	68					
>	Ge	74		101.0			
	As	75	105.420				
	Se	77					
	Se	82	105.123				
	Kr	83					
	Sr	88	102.939				
	Y	89					
	Zr	90	104.852				
	Mo	98	107.409				
	Ag	107	97.904				
	Cd	111	96.344				
	Cd	114					
>	In	115		99.6			
	Sn	120	100.974				
	Sb	121	91.315				
	Sb	123					
	Ba	135					
	Ba	137	100.345				
	Ho	165					
>	Lu	175		96.3			
	Tl	205	91.612				
	Pb	208	94.114				
	Th	232	96.446				
	U	238	98.368				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 5	Ti	47ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, April 24, 2010 18:27:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 6.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.246**	ug/L	2.260	20164	0.039
	Be	9	**51.816**	ug/L	2.737	5090	0.010
	B	11	**95.393**	ug/L	1.739	9736	0.019
	Na	23	**5286.822**	ug/L	3.371	8282143	16.002
	Mg	24	**5152.515**	ug/L	2.971	5757945	11.280
	Al	27	**5179.773**	ug/L	4.915	7677182	15.039
	P	31	**5128.377**	ug/L	2.154	445099	0.867
	K	39	**5141.016**	ug/L	1.937	14217213	26.977
	Ca	43	**5031.528**	ug/L	0.952	28966	0.056
>	Sc	45		ug/L		510521	510521.368
	Ti	47	**52.295**	ug/L	0.859	15039	0.029
	V	51	**52.535**	ug/L	2.027	202088	0.374
	Cr	52	**53.833**	ug/L	2.478	130894	0.283
	Cr	53		ug/L		107974	-0.055
	Mn	55	**53.444**	ug/L	2.247	243339	0.475
	Fe	57	**5334.574**	ug/L	0.805	481561	0.936
	Co	59	**52.539**	ug/L	1.971	175729	0.344
	Ni	60	**54.394**	ug/L	1.355	38606	0.076
	Cu	63		ug/L		89010	0.173
	Cu	65	**54.451**	ug/L	2.045	43036	0.084
	Zn	66	**51.664**	ug/L	0.924	25328	0.118
	Zn	67		ug/L		8790	0.007
	Zn	68		ug/L		18386	0.082
>	Ge	74		ug/L		213883	213882.884
	As	75	**51.841**	ug/L	2.928	29533	0.137
	Se	77		ug/L		5105	-0.002
	Se	82	**52.066**	ug/L	1.281	2697	0.013
	Kr	83		ug/L		54	-0.000
	Sr	88	**50.840**	ug/L	0.554	381238	3.344
	Y	89		ug/L		40	0.000
	Zr	90	**49.381**	ug/L	2.475	199511	1.749
	Mo	98	**51.788**	ug/L	2.419	92252	0.809
	Ag	107	**52.515**	ug/L	1.608	144621	1.269
	Cd	111	**51.027**	ug/L	1.274	32015	0.281
	Cd	114		ug/L		70502	0.618
>	In	115		ug/L		113954	113954.353
	Sn	120	**50.454**	ug/L	3.363	138772	1.216
	Sb	121	**49.153**	ug/L	2.153	116820	1.024
	Sb	123		ug/L		91445	0.802
	Ba	135		ug/L		33415	0.312
	Ba	137	**49.727**	ug/L	1.266	57581	0.537
	Ho	165		ug/L		26	0.000
>	Lu	175		ug/L		107133	107132.985
	Tl	205	**48.805**	ug/L	1.371	98669	0.920
	Pb	208	**48.716**	ug/L	1.802	285099	2.652
	Th	232	**47.735**	ug/L	2.010	320483	2.989
	U	238	**49.419**	ug/L	2.510	339530	3.168

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	100.492				
	Be	9	103.632				
	B	11	95.393				
	Na	23	105.736				
	Mg	24	103.050				
	Al	27	102.570				
	P	31	102.568				
	K	39	102.820				
	Ca	43	100.631				
>	Sc	45		102.1			
	Ti	47	104.590				
	V	51	105.069				
	Cr	52	107.667				
	Cr	53					
	Mn	55	106.887				
	Fe	57	106.691				
	Co	59	105.078				
	Ni	60	108.788				
	Cu	63					
	Cu	65	108.903				
	Zn	66	103.327				
	Zn	67					
	Zn	68					
>	Ge	74		104.7			
	As	75	103.682				
	Se	77					
	Se	82	104.132				
	Kr	83					
	Sr	88	101.681				
	Y	89					
	Zr	90	98.762				
	Mo	98	103.577				
	Ag	107	105.030				
	Cd	111	102.053				
	Cd	114					
>	In	115		103.1			
	Sn	120	100.908				
	Sb	121	98.306				
	Sb	123					
	Ba	135					
	Ba	137	99.455				
	Ho	165					
>	Lu	175		99.6			
	Tl	205	97.610				
	Pb	208	97.433				
	Th	232	95.470				
	U	238	98.838				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, April 24, 2010 18:33:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 7.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.031	ug/L	78.779	35	0.000
	Be	9	0.005	ug/L	751.084	8	0.000
	B	11	1.216	ug/L	3.697	230	0.000
	Na	23	-53.872	ug/L	3.502	31034	-0.163
	Mg	24	4.020	ug/L	70.074	4668	0.009
	Al	27	1.188	ug/L	116.404	4001	0.003
	P	31	-1.403	ug/L	62.199	2219	-0.000
	K	39	-15.160	ug/L	3.876	387177	-0.080
	Ca	43	19.024	ug/L	69.803	445	0.000
>	Sc	45		ug/L		491876	491875.506
	Ti	47	0.724	ug/L	14.863	399	0.000
	V	51	-0.459	ug/L	290.191	9324	-0.003
	Cr	52	0.987	ug/L	11.695	-10565	0.005
	Cr	53		ug/L		101848	-0.060
	Mn	55	-0.023	ug/L	22.696	607	-0.000
	Fe	57	3.109	ug/L	37.885	4040	0.001
	Co	59	0.012	ug/L	44.076	152	0.000
	Ni	60	0.021	ug/L	60.700	62	0.000
	Cu	63		ug/L		482	-0.000
	Cu	65	0.028	ug/L	24.575	255	0.000
	Zn	66	-0.012	ug/L	289.102	159	-0.000
	Zn	67		ug/L		5389	-0.008
	Zn	68		ug/L		565	-0.001
>	Ge	74		ug/L		205893	205892.536
	As	75	0.119	ug/L	314.268	245	0.000
	Se	77		ug/L		3597	-0.009
	Se	82	0.767	ug/L	17.935	6	0.000
	Kr	83		ug/L		67	-0.000
	Sr	88	0.003	ug/L	114.577	206	0.000
	Y	89		ug/L		20	-0.000
	Zr	90	0.200	ug/L	23.253	985	0.007
	Mo	98	0.354	ug/L	17.249	657	0.006
	Ag	107	0.028	ug/L	13.575	153	0.001
	Cd	111	-0.004	ug/L	204.259	14	-0.000
	Cd	114		ug/L		57	0.000
>	In	115		ug/L		109067	109066.977
	Sn	120	0.122	ug/L	14.153	613	0.003
	Sb	121	0.294	ug/L	17.118	794	0.006
	Sb	123		ug/L		651	0.005
	Ba	135		ug/L		30	0.000
	Ba	137	0.006	ug/L	81.460	40	0.000
	Ho	165		ug/L		21	-0.000
>	Lu	175		ug/L		102891	102891.238
	Tl	205	0.206	ug/L	17.806	524	0.004
	Pb	208	-0.016	ug/L	20.895	883	-0.001
	Th	232	0.299	ug/L	15.580	2217	0.019
	U	238	0.017	ug/L	11.895	250	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.6			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Saturday, April 24, 2010 18:40:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 10.061

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**975.371**	ug/L	0.299	382668	0.766
	Be	9	**971.985**	ug/L	2.736	93275	0.187
	B	11	**0.441**	ug/L	49.777	157	0.000
	Na	23	**50330.500**	ug/L	4.367	76232938	152.338
	Mg	24	**48467.001**	ug/L	6.605	53022801	106.105
	Al	27	**49585.637**	ug/L	3.237	71947606	143.964
	P	31	**24362.961**	ug/L	5.683	2061370	4.120
	K	39	**49841.779**	ug/L	2.600	131115444	261.536
	Ca	43	**49403.454**	ug/L	1.080	275219	0.550
>	Sc	45		ug/L		499541	499540.519
	Ti	47	**31.735**	ug/L	3.069	9008	0.018
	V	51	**1048.436**	ug/L	0.338	3736705	7.458
	Cr	52	**1020.727**	ug/L	1.315	2668540	5.368
	Cr	53		ug/L		392259	0.519
	Mn	55	**1013.267**	ug/L	1.257	4502741	9.012
	Fe	57	**52774.658**	ug/L	1.198	4627434	9.257
	Co	59	**994.075**	ug/L	0.800	3251912	6.510
	Ni	60	**962.559**	ug/L	1.023	667744	1.337
	Cu	63		ug/L		1511365	3.024
	Cu	65	**960.440**	ug/L	0.899	738985	1.479
	Zn	66	**2342.117**	ug/L	0.769	1075814	5.332
	Zn	67		ug/L		171828	0.818
	Zn	68		ug/L		765643	3.791
>	Ge	74		ug/L		201766	201765.771
	As	75	**957.725**	ug/L	1.276	511646	2.535
	Se	77		ug/L		21367	0.080
	Se	82	**498.211**	ug/L	0.852	24616	0.122
	Kr	83		ug/L		75	-0.000
	Sr	88	**1023.657**	ug/L	1.101	7230766	67.329
	Y	89		ug/L		200	0.002
	Zr	90	**474.653**	ug/L	2.393	1805729	16.814
	Mo	98	**971.954**	ug/L	2.122	1630989	15.188
	Ag	107	**235.467**	ug/L	2.447	610892	5.688
	Cd	111	**972.598**	ug/L	2.646	574758	5.352
	Cd	114		ug/L		1278606	11.906
>	In	115		ug/L		107391	107390.918
	Sn	120	**1027.195**	ug/L	2.789	2657554	24.746
	Sb	121	**253.414**	ug/L	1.953	567154	5.280
	Sb	123		ug/L		437837	4.076
	Ba	135		ug/L		630548	5.985
	Ba	137	**959.501**	ug/L	2.006	1091966	10.365
	Ho	165		ug/L		67	0.000
>	Lu	175		ug/L		105349	105349.408
	Tl	205	**459.188**	ug/L	0.471	911925	8.655
	Pb	208	**4763.529**	ug/L	0.994	27316622	259.293
	Th	232	**2341.953**	ug/L	1.511	15450321	146.651
	U	238	**4993.178**	ug/L	1.666	33727142	320.131

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	97.537				
	Be	9	97.198				
	B	11					
	Na	23	100.661				
	Mg	24	96.934				
	Al	27	99.171				
	P	31	97.452				
	K	39	99.684				
	Ca	43	98.807				
>	Sc	45			99.9		
	Ti	47					
	V	51	104.844				
	Cr	52	102.073				
	Cr	53					
	Mn	55	101.327				
	Fe	57	105.549				
	Co	59	99.408				
	Ni	60	96.256				
	Cu	63					
	Cu	65	96.044				
	Zn	66	93.685				
	Zn	67					
	Zn	68					
>	Ge	74			98.8		
	As	75	95.773				
	Se	77					
	Se	82	99.642				
	Kr	83					
	Sr	88	102.366				
	Y	89					
	Zr	90	94.931				
	Mo	98	97.195				
	Ag	107	94.187				
	Cd	111	97.260				
	Cd	114					
>	In	115			97.2		
	Sn	120	102.719				
	Sb	121	101.366				
	Sb	123					
	Ba	135					
	Ba	137	95.950				
	Ho	165					
>	Lu	175			97.9		
	Tl	205	91.838				
	Pb	208	95.271				
	Th	232	93.678				
	U	238	99.864				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Saturday, April 24, 2010 18:46:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 11.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.619**	ug/L	0.316	19992	0.040
	Be	9	**52.167**	ug/L	0.909	5043	0.010
	B	11	**94.653**	ug/L	2.365	9506	0.019
	Na	23	**5393.679**	ug/L	4.173	8316707	16.325
	Mg	24	**5045.738**	ug/L	3.517	5547866	11.046
	Al	27	**5248.187**	ug/L	3.401	7658289	15.237
	P	31	**5038.173**	ug/L	1.250	430321	0.852
	K	39	**5257.329**	ug/L	5.232	14285846	27.587
	Ca	43	**4994.455**	ug/L	2.758	28290	0.056
>	Sc	45		ug/L		502315	502315.430
	Ti	47	**49.949**	ug/L	1.505	14142	0.028
	V	51	**52.977**	ug/L	4.185	200376	0.377
	Cr	52	**53.689**	ug/L	1.817	128417	0.282
	Cr	53		ug/L		102525	-0.062
	Mn	55	**52.956**	ug/L	2.647	237238	0.471
	Fe	57	**5242.794**	ug/L	3.762	465604	0.920
	Co	59	**51.492**	ug/L	1.552	169468	0.337
	Ni	60	**53.965**	ug/L	0.326	37690	0.075
	Cu	63		ug/L		87662	0.174
	Cu	65	**54.220**	ug/L	1.198	42168	0.083
	Zn	66	**52.210**	ug/L	0.613	24998	0.119
	Zn	67		ug/L		8557	0.007
	Zn	68		ug/L		18372	0.084
>	Ge	74		ug/L		208924	208924.394
	As	75	**51.850**	ug/L	2.014	28861	0.137
	Se	77		ug/L		4911	-0.003
	Se	82	**53.331**	ug/L	1.153	2699	0.013
	Kr	83		ug/L		62	-0.000
	Sr	88	**50.873**	ug/L	1.981	374406	3.346
	Y	89		ug/L		40	0.000
	Zr	90	**53.699**	ug/L	3.815	212972	1.902
	Mo	98	**51.910**	ug/L	2.158	90771	0.811
	Ag	107	**52.741**	ug/L	0.834	142596	1.274
	Cd	111	**51.314**	ug/L	1.088	31603	0.282
	Cd	114		ug/L		69705	0.623
>	In	115		ug/L		111860	111859.514
	Sn	120	**53.324**	ug/L	2.753	143984	1.285
	Sb	121	**50.042**	ug/L	2.279	116745	1.043
	Sb	123		ug/L		89706	0.801
	Ba	135		ug/L		32774	0.312
	Ba	137	**50.906**	ug/L	2.131	57670	0.550
	Ho	165		ug/L		24	-0.000
>	Lu	175		ug/L		104834	104833.723
	Tl	205	**50.761**	ug/L	2.161	100406	0.957
	Pb	208	**51.164**	ug/L	0.226	292952	2.785
	Th	232	**53.612**	ug/L	2.966	352132	3.357
	U	238	**51.341**	ug/L	0.991	345189	3.292

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.238				
	Be	9	104.335				
	B	11	94.653				
	Na	23	107.874				
	Mg	24	100.915				
	Al	27	103.925				
	P	31	100.763				
	K	39	105.147				
	Ca	43	99.889				
>	Sc	45		100.4			
	Ti	47	99.898				
	V	51	105.955				
	Cr	52	107.379				
	Cr	53					
	Mn	55	105.912				
	Fe	57	104.856				
	Co	59	102.983				
	Ni	60	107.930				
	Cu	63					
	Cu	65	108.439				
	Zn	66	104.419				
	Zn	67					
	Zn	68					
>	Ge	74		102.3			
	As	75	103.700				
	Se	77					
	Se	82	106.663				
	Kr	83					
	Sr	88	101.745				
	Y	89					
	Zr	90	107.397				
	Mo	98	103.821				
	Ag	107	105.483				
	Cd	111	102.628				
	Cd	114					
>	In	115		101.2			
	Sn	120	106.649				
	Sb	121	100.084				
	Sb	123					
	Ba	135					
	Ba	137	101.812				
	Ho	165					
>	Lu	175		97.4			
	Tl	205	101.523				
	Pb	208	102.329				
	Th	232	107.224				
	U	238	102.682				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Saturday, April 24, 2010 18:52:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 12.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.126**	ug/L	2.963	70	0.000
	Be	9	**0.003**	ug/L	687.529	8	0.000
	B	11	**1.271**	ug/L	21.981	230	0.000
	Na	23	**-44.507**	ug/L	2.482	44068	-0.135
	Mg	24	**3.484**	ug/L	26.760	4001	0.008
	Al	27	**0.295**	ug/L	501.297	2667	0.001
	P	31	**-3.070**	ug/L	50.103	2038	-0.001
	K	39	**-20.070**	ug/L	16.771	366988	-0.105
	Ca	43	**14.748**	ug/L	37.532	413	0.000
>	Sc	45		ug/L		482049	482048.900
	Ti	47	**0.192**	ug/L	20.915	249	0.000
	V	51	**1.588**	ug/L	124.265	16130	0.011
	Cr	52	**1.141**	ug/L	13.796	-9963	0.006
	Cr	53		ug/L		98707	-0.062
	Mn	55	**-0.012**	ug/L	17.524	643	-0.000
	Fe	57	**2.430**	ug/L	86.702	3902	0.000
	Co	59	**0.021**	ug/L	39.292	178	0.000
	Ni	60	**0.029**	ug/L	43.291	65	0.000
	Cu	63		ug/L		503	0.000
	Cu	65	**0.033**	ug/L	98.744	253	0.000
	Zn	66	**0.090**	ug/L	47.617	203	0.000
	Zn	67		ug/L		5253	-0.008
	Zn	68		ug/L		570	-0.001
>	Ge	74		ug/L		202251	202250.733
	As	75	**0.085**	ug/L	854.132	224	0.000
	Se	77		ug/L		3432	-0.009
	Se	82	**0.896**	ug/L	19.931	13	0.000
	Kr	83		ug/L		63	-0.000
	Sr	88	**0.016**	ug/L	30.615	303	0.001
	Y	89		ug/L		22	-0.000
	Zr	90	**0.862**	ug/L	1.992	3548	0.031
	Mo	98	**0.520**	ug/L	3.901	941	0.008
	Ag	107	**0.065**	ug/L	10.789	249	0.002
	Cd	111	**0.015**	ug/L	21.612	26	0.000
	Cd	114		ug/L		90	0.000
>	In	115		ug/L		109179	109178.773
	Sn	120	**1.095**	ug/L	8.283	3172	0.026
	Sb	121	**0.322**	ug/L	9.062	858	0.007
	Sb	123		ug/L		681	0.005
	Ba	135		ug/L		34	0.000
	Ba	137	**0.020**	ug/L	50.925	55	0.000
	Ho	165		ug/L		24	-0.000
>	Lu	175		ug/L		102365	102364.685
	Tl	205	**0.445**	ug/L	21.104	980	0.008
	Pb	208	**0.162**	ug/L	19.726	1869	0.009
	Th	232	**1.153**	ug/L	9.900	7668	0.072
	U	238	**0.174**	ug/L	21.106	1279	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			96.4		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			99.0		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			98.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			95.1		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 12	Mo	98	CCB is out of limits (+/- PQL)
QC Std 12	Th	232	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1202072001
Sample Date/Time: Saturday, April 24, 2010 18:58:28
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 965603|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\1202072001.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.286**	**ug/L**	15.824	118	0.000
	Be	9	**0.012**	**ug/L**	347.487	8	0.000
	B	11	**0.766**	**ug/L**	32.302	165	0.000
	Na	23	**-57.771**	**ug/L**	10.479	22352	-0.175
	Mg	24	**1.099**	**ug/L**	110.605	1333	0.002
	Al	27	**1.562**	**ug/L**	53.119	4001	0.005
	P	31	**-1.569**	**ug/L**	51.905	1953	-0.000
	K	39	**-18.982**	**ug/L**	62.802	334213	-0.100
	Ca	43	**64.668**	**ug/L**	23.586	615	0.001
>	Sc	45		**ug/L**		435782	435782.496
	Ti	47	**0.718**	**ug/L**	3.138	352	0.000
	V	51	**3.462**	**ug/L**	72.345	20438	0.025
	Cr	52	**-8.052**	**ug/L**	4.512	-30082	-0.042
	Cr	53		**ug/L**		266367	0.345
	Mn	55	**0.231**	**ug/L**	2.397	1523	0.002
	Fe	57	**16.789**	**ug/L**	15.452	4623	0.003
	Co	59	**0.005**	**ug/L**	84.298	115	0.000
	Ni	60	**0.068**	**ug/L**	22.449	83	0.000
	Cu	63		**ug/L**		1700	0.003
	Cu	65	**0.968**	**ug/L**	1.937	856	0.001
	Zn	66	**0.999**	**ug/L**	4.764	579	0.002
	Zn	67		**ug/L**		18004	0.062
	Zn	68		**ug/L**		1547	0.004
>	Ge	74		**ug/L**		188643	188643.101
	As	75	**0.106**	**ug/L**	686.837	217	0.000
	Se	77		**ug/L**		11227	0.033
	Se	82	**0.752**	**ug/L**	22.458	5	0.000
	Kr	83		**ug/L**		67	-0.000
	Sr	88	**0.010**	**ug/L**	8.620	242	0.001
	Y	89		**ug/L**		29	0.000
	Zr	90	**1.496**	**ug/L**	6.540	5540	0.053
	Mo	98	**0.304**	**ug/L**	7.160	529	0.005
	Ag	107	**0.053**	**ug/L**	8.868	202	0.001
	Cd	111	**0.025**	**ug/L**	20.755	30	0.000
	Cd	114		**ug/L**		40	-0.000
>	In	115		**ug/L**		100830	100829.782
	Sn	120	**1.937**	**ug/L**	6.857	4979	0.047
	Sb	121	**0.778**	**ug/L**	4.019	1750	0.016
	Sb	123		**ug/L**		1347	0.012
	Ba	135		**ug/L**		37	0.000
	Ba	137	**0.018**	**ug/L**	10.593	49	0.000
	Ho	165		**ug/L**		17	-0.000
>	Lu	175		**ug/L**		96030	96029.656
	Tl	205	**0.206**	**ug/L**	5.135	488	0.004
	Pb	208	**0.134**	**ug/L**	9.495	1606	0.007
	Th	232	**1.071**	**ug/L**	10.746	6712	0.067
	U	238	**0.061**	**ug/L**	12.895	509	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			87.1		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			92.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			91.3		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			89.2		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072002
Sample Date/Time: Saturday, April 24, 2010 19:04:35
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 965603|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\1202072002.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**57.745**	**ug/L**	2.426	19908	0.045
	Be	9	**62.308**	**ug/L**	3.735	5257	0.012
	B	11	**115.508**	**ug/L**	4.326	10106	0.023
	Na	23	**1875.094**	**ug/L**	5.761	2589665	5.675
	Mg	24	**1870.980**	**ug/L**	3.649	1796289	4.096
	Al	27	**2110.040**	**ug/L**	6.359	2689218	6.126
	P	31	**2086.418**	**ug/L**	2.345	156837	0.353
	K	39	**2115.397**	**ug/L**	5.142	5246951	11.100
	Ca	43	**2069.417**	**ug/L**	1.749	10414	0.023
>	Sc	45		**ug/L**		438611	438610.808
	Ti	47	**46.655**	**ug/L**	2.384	11545	0.026
	V	51	**53.656**	**ug/L**	2.700	177125	0.382
	Cr	52	**45.639**	**ug/L**	0.719	93579	0.240
	Cr	53		**ug/L**		287690	0.389
	Mn	55	**54.452**	**ug/L**	2.313	213000	0.484
	Fe	57	**2184.719**	**ug/L**	1.741	171414	0.383
	Co	59	**54.577**	**ug/L**	1.243	156844	0.357
	Ni	60	**56.522**	**ug/L**	1.923	34468	0.078
	Cu	63		**ug/L**		82310	0.187
	Cu	65	**58.584**	**ug/L**	1.979	39764	0.090
	Zn	66	**52.615**	**ug/L**	2.500	22919	0.120
	Zn	67		**ug/L**		22270	0.083
	Zn	68		**ug/L**		17811	0.090
>	Ge	74		**ug/L**		190105	190104.831
	As	75	**52.629**	**ug/L**	3.815	26651	0.139
	Se	77		**ug/L**		12638	0.040
	Se	82	**54.604**	**ug/L**	3.819	2515	0.013
	Kr	83		**ug/L**		67	-0.000
	Sr	88	**51.389**	**ug/L**	1.163	347331	3.380
	Y	89		**ug/L**		36	0.000
	Zr	90	**49.063**	**ug/L**	1.523	178695	1.738
	Mo	98	**48.936**	**ug/L**	2.224	78582	0.765
	Ag	107	**51.445**	**ug/L**	2.246	127700	1.243
	Cd	111	**52.399**	**ug/L**	2.406	29632	0.288
	Cd	114		**ug/L**		66162	0.644
>	In	115		**ug/L**		102716	102715.693
	Sn	120	**51.095**	**ug/L**	2.611	126688	1.231
	Sb	121	**49.896**	**ug/L**	1.362	106901	1.040
	Sb	123		**ug/L**		82182	0.799
	Ba	135		**ug/L**		30810	0.315
	Ba	137	**50.872**	**ug/L**	0.844	53733	0.550
	Ho	165		**ug/L**		23	-0.000
>	Lu	175		**ug/L**		97714	97714.412
	Tl	205	**50.095**	**ug/L**	4.117	92338	0.944
	Pb	208	**53.340**	**ug/L**	0.839	284608	2.903
	Th	232	**52.496**	**ug/L**	3.143	321377	3.287
	U	238	**55.166**	**ug/L**	3.383	345616	3.537

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			87.7		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			93.0		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			93.0		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			90.8		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, April 24, 2010 19:59:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 6.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**48.751**	ug/L	1.359	19157	0.038
	Be	9	**48.333**	ug/L	1.481	4649	0.009
	B	11	**95.438**	ug/L	0.326	9537	0.019
	Na	23	**5200.486**	ug/L	4.146	7979040	15.741
	Mg	24	**5005.856**	ug/L	1.118	5476853	10.959
	Al	27	**5151.146**	ug/L	5.629	7475648	14.956
	P	31	**4975.402**	ug/L	0.160	422834	0.841
	K	39	**5033.981**	ug/L	10.786	13633837	26.415
	Ca	43	**4893.849**	ug/L	1.489	27589	0.055
>	Sc	45		ug/L		499742	499741.650
	Ti	47	**48.096**	ug/L	2.138	13557	0.027
	V	51	**47.551**	ug/L	1.576	180134	0.338
	Cr	52	**50.305**	ug/L	1.029	118882	0.265
	Cr	53		ug/L		126568	-0.013
	Mn	55	**50.664**	ug/L	1.390	225890	0.451
	Fe	57	**4928.924**	ug/L	0.939	435867	0.865
	Co	59	**48.493**	ug/L	1.048	158810	0.318
	Ni	60	**50.549**	ug/L	1.447	35129	0.070
	Cu	63		ug/L		80598	0.160
	Cu	65	**49.911**	ug/L	1.657	38639	0.077
	Zn	66	**51.609**	ug/L	1.017	22812	0.117
	Zn	67		ug/L		8939	0.013
	Zn	68		ug/L		16819	0.083
>	Ge	74		ug/L		192860	192859.729
	As	75	**51.160**	ug/L	2.962	26287	0.135
	Se	77		ug/L		7304	0.012
	Se	82	**53.302**	ug/L	0.974	2490	0.013
	Kr	83		ug/L		52	-0.000
	Sr	88	**50.408**	ug/L	1.695	355822	3.315
	Y	89		ug/L		36	0.000
	Zr	90	**47.798**	ug/L	0.234	181859	1.693
	Mo	98	**49.402**	ug/L	2.865	82843	0.772
	Ag	107	**51.086**	ug/L	3.005	132417	1.234
	Cd	111	**50.730**	ug/L	2.559	29959	0.279
	Cd	114		ug/L		65955	0.614
>	In	115		ug/L		107283	107283.456
	Sn	120	**50.616**	ug/L	2.888	131059	1.219
	Sb	121	**49.156**	ug/L	3.642	109975	1.024
	Sb	123		ug/L		85031	0.792
	Ba	135		ug/L		32096	0.303
	Ba	137	**48.353**	ug/L	2.684	55241	0.522
	Ho	165		ug/L		28	0.000
>	Lu	175		ug/L		105714	105714.135
	Tl	205	**51.692**	ug/L	0.906	103119	0.974
	Pb	208	**50.471**	ug/L	1.756	291380	2.747
	Th	232	**49.204**	ug/L	1.935	326032	3.081
	U	238	**52.022**	ug/L	2.528	352655	3.335

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	97.503				
	Be	9	96.665				
	B	11	95.438				
	Na	23	104.010				
	Mg	24	100.117				
	Al	27	102.003				
	P	31	99.508				
	K	39	100.680				
	Ca	43	97.877				
>	Sc	45		99.9			
	Ti	47	96.192				
	V	51	95.102				
	Cr	52	100.609				
	Cr	53					
	Mn	55	101.328				
	Fe	57	98.578				
	Co	59	96.986				
	Ni	60	101.099				
	Cu	63					
	Cu	65	99.823				
	Zn	66	103.218				
	Zn	67					
	Zn	68					
>	Ge	74		94.4			
	As	75	102.319				
	Se	77					
	Se	82	106.604				
	Kr	83					
	Sr	88	100.815				
	Y	89					
	Zr	90	95.595				
	Mo	98	98.805				
	Ag	107	102.172				
	Cd	111	101.460				
	Cd	114					
>	In	115		97.1			
	Sn	120	101.232				
	Sb	121	98.311				
	Sb	123					
	Ba	135					
	Ba	137	96.706				
	Ho	165					
>	Lu	175		98.2			
	Tl	205	103.384				
	Pb	208	100.942				
	Th	232	98.407				
	U	238	104.044				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, April 24, 2010 20:05:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 7.075

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.046**	**ug/L**	47.541	40	0.000
	Be	9	**0.037**	**ug/L**	10.624	11	0.000
	B	11	**0.991**	**ug/L**	19.941	207	0.000
	Na	23	**-52.433**	**ug/L**	6.286	33039	-0.159
	Mg	24	**2.490**	**ug/L**	37.180	3000	0.005
	Al	27	**1.675**	**ug/L**	87.868	4668	0.005
	P	31	**-2.772**	**ug/L**	56.023	2097	-0.000
	K	39	**-21.211**	**ug/L**	13.485	370069	-0.111
	Ca	43	**15.663**	**ug/L**	22.350	425	0.000
>	Sc	45		**ug/L**		489821	489820.651
	Ti	47	**0.066**	**ug/L**	120.000	218	0.000
	V	51	**-0.884**	**ug/L**	295.365	7864	-0.006
	Cr	52	**0.756**	**ug/L**	27.517	-11108	0.004
	Cr	53		**ug/L**		119972	-0.022
	Mn	55	**0.020**	**ug/L**	64.137	790	0.000
	Fe	57	**-4.953**	**ug/L**	63.712	3326	-0.001
	Co	59	**0.016**	**ug/L**	36.556	165	0.000
	Ni	60	**0.014**	**ug/L**	54.398	57	0.000
	Cu	63		**ug/L**		377	-0.000
	Cu	65	**-0.029**	**ug/L**	22.484	211	-0.000
	Zn	66	**0.150**	**ug/L**	45.464	220	0.000
	Zn	67		**ug/L**		5705	-0.004
	Zn	68		**ug/L**		647	-0.001
>	Ge	74		**ug/L**		193404	193404.312
	As	75	**-0.309**	**ug/L**	158.539	10	-0.001
	Se	77		**ug/L**		5843	0.004
	Se	82	**0.693**	**ug/L**	13.396	3	0.000
	Kr	83		**ug/L**		57	-0.000
	Sr	88	**0.028**	**ug/L**	44.749	372	0.002
	Y	89		**ug/L**		23	-0.000
	Zr	90	**0.310**	**ug/L**	18.412	1354	0.011
	Mo	98	**0.191**	**ug/L**	23.202	365	0.003
	Ag	107	**0.032**	**ug/L**	29.997	157	0.001
	Cd	111	**0.011**	**ug/L**	62.314	23	0.000
	Cd	114		**ug/L**		67	0.000
>	In	115		**ug/L**		104839	104839.136
	Sn	120	**0.139**	**ug/L**	13.370	632	0.003
	Sb	121	**0.207**	**ug/L**	11.381	573	0.004
	Sb	123		**ug/L**		480	0.004
	Ba	135		**ug/L**		34	0.000
	Ba	137	**0.015**	**ug/L**	83.267	49	0.000
	Ho	165		**ug/L**		20	-0.000
>	Lu	175		**ug/L**		100864	100864.188
	Tl	205	**0.189**	**ug/L**	22.161	480	0.004
	Pb	208	**0.023**	**ug/L**	55.014	1078	0.001
	Th	232	**0.483**	**ug/L**	15.858	3330	0.030
	U	238	**0.047**	**ug/L**	10.268	443	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		93.7			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072003
Sample Date/Time: Saturday, April 24, 2010 20:12:09
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 965603|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\1202072003.076

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.815**	ug/L	0.823	8872	0.017
	Be	9	**-0.013**	ug/L	232.350	7	-0.000
	B	11	**17.069**	ug/L	4.061	1858	0.003
	Na	23	**12315.012**	ug/L	7.702	19358678	37.274
	Mg	24	**3663.466**	ug/L	5.385	4142406	8.020
	Al	27	**22.232**	ug/L	10.292	35711	0.065
	P	31	**19.493**	ug/L	2.852	4154	0.003
	K	39	**1468.741**	ug/L	7.413	4430225	7.707
	Ca	43	**10864.456**	ug/L	0.718	62857	0.121
>	Sc	45		ug/L		516448	516447.781
	Ti	47	**4.648**	ug/L	1.951	1545	0.003
	V	51	**2.365**	ug/L	140.505	20034	0.017
	Cr	52	**-3.280**	ug/L	14.905	-22669	-0.017
	Cr	53		ug/L		332533	0.377
	Mn	55	**3.371**	ug/L	0.603	16226	0.030
	Fe	57	**140.774**	ug/L	3.311	16709	0.025
	Co	59	**0.039**	ug/L	22.594	251	0.000
	Ni	60	**0.385**	ug/L	3.693	325	0.001
	Cu	63		ug/L		2286	0.003
	Cu	65	**0.861**	ug/L	6.913	930	0.001
	Zn	66	**3.978**	ug/L	5.061	1890	0.009
	Zn	67		ug/L		19901	0.070
	Zn	68		ug/L		3010	0.012
>	Ge	74		ug/L		191804	191803.608
	As	75	**1.290**	ug/L	81.667	821	0.003
	Se	77		ug/L		20397	0.080
	Se	82	**1.286**	ug/L	20.764	30	0.000
	Kr	83		ug/L		66	-0.000
	Sr	88	**58.196**	ug/L	1.187	391300	3.828
	Y	89		ug/L		1034	0.010
	Zr	90	**0.682**	ug/L	22.071	2670	0.024
	Mo	98	**1.689**	ug/L	4.027	2747	0.026
	Ag	107	**0.012**	ug/L	34.920	103	0.000
	Cd	111	**-0.000**	ug/L	3008.528	16	-0.000
	Cd	114		ug/L		31	-0.000
>	In	115		ug/L		102180	102180.218
	Sn	120	**0.443**	ug/L	1.012	1364	0.011
	Sb	121	**0.380**	ug/L	10.044	927	0.008
	Sb	123		ug/L		751	0.006
	Ba	135		ug/L		18806	0.191
	Ba	137	**30.921**	ug/L	3.009	32926	0.334
	Ho	165		ug/L		55	0.000
>	Lu	175		ug/L		98479	98478.587
	Tl	205	**0.068**	ug/L	8.745	244	0.001
	Pb	208	**0.191**	ug/L	8.348	1957	0.010
	Th	232	**0.605**	ug/L	16.660	4006	0.038
	U	238	**0.794**	ug/L	1.601	5145	0.051

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		93.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		91.5			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072004
Sample Date/Time: Saturday, April 24, 2010 20:18:19
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 965603|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\1202072004.077

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**65.000**	ug/L	2.487	27708	0.051
	Be	9	**48.970**	ug/L	0.581	5112	0.009
	B	11	**120.789**	ug/L	0.651	13065	0.024
	Na	23	**14854.253**	ug/L	5.638	24503444	44.960
	Mg	24	**5744.300**	ug/L	4.855	6820176	12.576
	Al	27	**1942.416**	ug/L	3.114	3060796	5.640
	P	31	**1956.731**	ug/L	1.027	182015	0.331
	K	39	**3294.970**	ug/L	9.311	9845326	17.290
	Ca	43	**12390.028**	ug/L	1.475	75222	0.138
>	Sc	45		ug/L		542297	542297.305
	Ti	47	**48.560**	ug/L	0.877	14852	0.027
	V	51	**50.207**	ug/L	7.432	205712	0.357
	Cr	52	**45.018**	ug/L	0.664	113930	0.237
	Cr	53		ug/L		359943	0.397
	Mn	55	**51.402**	ug/L	1.357	248696	0.457
	Fe	57	**2075.184**	ug/L	0.198	201547	0.364
	Co	59	**47.632**	ug/L	0.893	169278	0.312
	Ni	60	**48.697**	ug/L	1.001	36725	0.068
	Cu	63		ug/L		86675	0.159
	Cu	65	**48.976**	ug/L	2.057	41151	0.075
	Zn	66	**56.484**	ug/L	2.091	25205	0.129
	Zn	67		ug/L		24172	0.090
	Zn	68		ug/L		19912	0.098
>	Ge	74		ug/L		194812	194811.583
	As	75	**81.974**	ug/L	5.175	42451	0.217
	Se	77		ug/L		20794	0.081
	Se	82	**23.334**	ug/L	1.141	1084	0.006
	Kr	83		ug/L		76	-0.000
	Sr	88	**110.850**	ug/L	2.117	762892	7.291
	Y	89		ug/L		1116	0.010
	Zr	90	**54.195**	ug/L	0.445	201021	1.920
	Mo	98	**54.738**	ug/L	0.582	89521	0.855
	Ag	107	**54.554**	ug/L	2.458	137902	1.318
	Cd	111	**11.084**	ug/L	1.841	6397	0.061
	Cd	114		ug/L		13807	0.132
>	In	115		ug/L		104605	104605.314
	Sn	120	**54.168**	ug/L	1.188	136798	1.305
	Sb	121	**212.422**	ug/L	1.918	463086	4.426
	Sb	123		ug/L		357578	3.418
	Ba	135		ug/L		51859	0.519
	Ba	137	**83.973**	ug/L	1.350	90598	0.907
	Ho	165		ug/L		130	0.001
>	Lu	175		ug/L		99832	99831.940
	Tl	205	**105.661**	ug/L	0.601	198936	1.992
	Pb	208	**43.703**	ug/L	1.191	238430	2.379
	Th	232	**55.117**	ug/L	2.417	344853	3.451
	U	238	**58.234**	ug/L	2.270	372862	3.734

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
|>	Sc	45		108.4			
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
|>	Ge	74		95.3			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Zr	90					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
|>	In	115		94.7			
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
|>	Lu	175		92.8			
|	Tl	205					
|	Pb	208					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072005
Sample Date/Time: Saturday, April 24, 2010 20:24:29
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 965603|5|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\1202072005.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**4.069**	ug/L	2.333	1636	0.003
	Be	9	**0.027**	ug/L	162.225	11	0.000
	B	11	**4.502**	ug/L	4.491	563	0.001
	Na	23	**2753.146**	ug/L	1.221	4320540	8.333
	Mg	24	**830.667**	ug/L	15.851	917628	1.819
	Al	27	**12.495**	ug/L	27.719	20682	0.036
	P	31	**1.347**	ug/L	92.104	2511	0.000
	K	39	**229.136**	ug/L	16.130	1043977	1.202
	Ca	43	**2172.529**	ug/L	3.558	12563	0.024
>	Sc	45		ug/L		504784	504784.332
	Ti	47	**1.002**	ug/L	6.448	487	0.001
	V	51	**-4.817**	ug/L	90.158	-6143	-0.034
	Cr	52	**-0.842**	ug/L	28.715	-15700	-0.004
	Cr	53		ug/L		179054	0.088
	Mn	55	**0.758**	ug/L	2.930	4127	0.007
	Fe	57	**22.200**	ug/L	5.349	5835	0.004
	Co	59	**0.039**	ug/L	35.507	247	0.000
	Ni	60	**0.119**	ug/L	27.369	132	0.000
	Cu	63		ug/L		609	0.000
	Cu	65	**0.064**	ug/L	47.424	289	0.000
	Zn	66	**1.250**	ug/L	3.160	704	0.003
	Zn	67		ug/L		8112	0.008
	Zn	68		ug/L		1230	0.002
>	Ge	74		ug/L		193105	193104.714
	As	75	**0.449**	ug/L	79.175	397	0.001
	Se	77		ug/L		10152	0.027
	Se	82	**0.793**	ug/L	4.247	7	0.000
	Kr	83		ug/L		51	-0.000
	Sr	88	**11.183**	ug/L	0.691	79585	0.736
	Y	89		ug/L		230	0.002
	Zr	90	**0.144**	ug/L	9.794	762	0.005
	Mo	98	**0.422**	ug/L	5.749	765	0.007
	Ag	107	**0.062**	ug/L	26.916	238	0.001
	Cd	111	**-0.004**	ug/L	468.077	15	-0.000
	Cd	114		ug/L		44	0.000
>	In	115		ug/L		107947	107947.324
	Sn	120	**0.142**	ug/L	13.879	658	0.003
	Sb	121	**0.275**	ug/L	17.732	742	0.006
	Sb	123		ug/L		590	0.004
	Ba	135		ug/L		3855	0.037
	Ba	137	**6.199**	ug/L	1.989	6950	0.067
	Ho	165		ug/L		39	0.000
>	Lu	175		ug/L		103282	103282.037
	Tl	205	**0.900**	ug/L	15.831	1877	0.017
	Pb	208	**0.041**	ug/L	24.038	1208	0.002
	Th	232	**0.442**	ug/L	12.006	3145	0.028
	U	238	**0.181**	ug/L	5.452	1339	0.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.0			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249333001
Sample Date/Time: Saturday, April 24, 2010 21:01:23
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965603|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\249333001.084

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.073**	ug/L	35.797	49	0.000
	Be	9	**-0.000**	ug/L	100042.783	8	-0.000
	B	11	**0.180**	ug/L	8.460	125	0.000
	Na	23	**243.362**	ug/L	25.695	458035	0.737
	Mg	24	**0.633**	ug/L	256.444	1000	0.001
	Al	27	**3.445**	ug/L	35.410	7002	0.010
	P	31	**-0.338**	ug/L	151.238	2238	-0.000
	K	39	**3.933**	ug/L	491.482	422522	0.021
	Ca	43	**87.734**	ug/L	12.993	797	0.001
>	Sc	45		ug/L		477084	477084.066
	Ti	47	**0.714**	ug/L	8.331	385	0.000
	V	51	**3.981**	ug/L	193.421	23711	0.028
	Cr	52	**-8.265**	ug/L	8.605	-33478	-0.043
	Cr	53		ug/L		344788	0.456
	Mn	55	**0.264**	ug/L	6.796	1804	0.002
	Fe	57	**-0.363**	ug/L	447.870	3625	-0.000
	Co	59	**-0.006**	ug/L	81.182	93	-0.000
	Ni	60	**0.083**	ug/L	11.614	101	0.000
	Cu	63		ug/L		524	0.000
	Cu	65	**0.064**	ug/L	33.095	273	0.000
	Zn	66	**0.944**	ug/L	2.679	545	0.002
	Zn	67		ug/L		21401	0.082
	Zn	68		ug/L		1851	0.006
>	Ge	74		ug/L		184942	184942.008
	As	75	**0.668**	ug/L	27.947	489	0.002
	Se	77		ug/L		20710	0.086
	Se	82	**0.513**	ug/L	95.064	-6	0.000
	Kr	83		ug/L		74	-0.000
	Sr	88	**0.013**	ug/L	24.129	267	0.001
	Y	89		ug/L		24	-0.000
	Zr	90	**0.039**	ug/L	14.914	341	0.001
	Mo	98	**0.008**	ug/L	52.141	65	0.000
	Ag	107	**-0.003**	ug/L	12.368	66	-0.000
	Cd	111	**0.001**	ug/L	784.107	17	0.000
	Cd	114		ug/L		24	-0.000
>	In	115		ug/L		102790	102789.637
	Sn	120	**0.371**	ug/L	1.791	1195	0.009
	Sb	121	**0.169**	ug/L	4.820	481	0.004
	Sb	123		ug/L		402	0.003
	Ba	135		ug/L		49	0.000
	Ba	137	**0.048**	ug/L	21.799	81	0.001
	Ho	165		ug/L		25	0.000
>	Lu	175		ug/L		96025	96024.648
	Tl	205	**0.032**	ug/L	13.813	174	0.001
	Pb	208	**-0.027**	ug/L	11.695	767	-0.001
	Th	232	**0.047**	ug/L	3.776	552	0.003
	U	238	**-0.014**	ug/L	11.761	44	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		89.2			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249333002
Sample Date/Time: Saturday, April 24, 2010 21:07:34
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965603|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\249333002.085

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.130**	ug/L	18.583	74	0.000
	Be	9	**0.018**	ug/L	318.467	10	0.000
	B	11	**0.179**	ug/L	40.408	130	0.000
	Na	23	**136.940**	ug/L	31.799	317225	0.414
	Mg	24	**11.958**	ug/L	11.308	13340	0.026
	Al	27	**82.487**	ug/L	24.138	120858	0.239
	P	31	**-0.348**	ug/L	598.745	2327	-0.000
	K	39	**28.678**	ug/L	20.761	505109	0.150
	Ca	43	**124.834**	ug/L	5.818	1035	0.001
>	Sc	45		ug/L		496796	496796.244
	Ti	47	**1.752**	ug/L	4.917	687	0.001
	V	51	**8.881**	ug/L	74.214	42047	0.063
	Cr	52	**-7.734**	ug/L	2.332	-33451	-0.041
	Cr	53		ug/L		355583	0.449
	Mn	55	**2.674**	ug/L	2.633	12523	0.024
	Fe	57	**40.203**	ug/L	5.247	7309	0.007
	Co	59	**0.024**	ug/L	24.201	192	0.000
	Ni	60	**0.446**	ug/L	8.459	355	0.001
	Cu	63		ug/L		974	0.001
	Cu	65	**0.341**	ug/L	9.724	497	0.001
	Zn	66	**1.587**	ug/L	8.147	826	0.004
	Zn	67		ug/L		21282	0.080
	Zn	68		ug/L		2063	0.007
>	Ge	74		ug/L		187460	187459.620
	As	75	**-0.919**	ug/L	33.441	-292	-0.002
	Se	77		ug/L		21134	0.087
	Se	82	**1.019**	ug/L	15.853	18	0.000
	Kr	83		ug/L		56	-0.000
	Sr	88	**0.361**	ug/L	1.216	2634	0.024
	Y	89		ug/L		714	0.007
	Zr	90	**0.147**	ug/L	11.336	738	0.005
	Mo	98	**0.057**	ug/L	21.902	144	0.001
	Ag	107	**-0.003**	ug/L	82.311	67	-0.000
	Cd	111	**0.011**	ug/L	190.443	22	0.000
	Cd	114		ug/L		38	-0.000
>	In	115		ug/L		103405	103405.253
	Sn	120	**0.318**	ug/L	6.457	1070	0.008
	Sb	121	**0.180**	ug/L	9.477	508	0.004
	Sb	123		ug/L		411	0.003
	Ba	135		ug/L		532	0.005
	Ba	137	**0.845**	ug/L	2.615	920	0.009
	Ho	165		ug/L		47	0.000
>	Lu	175		ug/L		97363	97362.630
	Tl	205	**0.026**	ug/L	12.932	165	0.000
	Pb	208	**0.517**	ug/L	5.425	3658	0.028
	Th	232	**0.036**	ug/L	0.356	490	0.002
	U	238	**-0.005**	ug/L	55.712	98	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		90.5			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, April 24, 2010 21:13:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 6.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**37.036**	**ug/L**	2.542	13498	0.029
	Be	9	**40.072**	**ug/L**	3.251	3575	0.008
	B	11	**84.449**	**ug/L**	1.255	7832	0.017
	Na	23	**5805.008**	**ug/L**	4.937	8247579	17.570
	Mg	24	**5307.931**	**ug/L**	7.383	5385128	11.620
	Al	27	**5671.676**	**ug/L**	7.710	7636246	16.467
	P	31	**5095.603**	**ug/L**	2.206	401232	0.862
	K	39	**5051.073**	**ug/L**	2.109	12676415	26.505
	Ca	43	**4757.986**	**ug/L**	3.348	24869	0.053
>	Sc	45		**ug/L**		463169	463169.063
	Ti	47	**47.460**	**ug/L**	1.160	12403	0.026
	V	51	**49.417**	**ug/L**	7.772	172971	0.352
	Cr	52	**48.294**	**ug/L**	2.337	105246	0.254
	Cr	53		**ug/L**		135159	0.025
	Mn	55	**48.355**	**ug/L**	0.901	199828	0.430
	Fe	57	**4806.646**	**ug/L**	2.432	393924	0.843
	Co	59	**47.222**	**ug/L**	3.078	143274	0.309
	Ni	60	**49.431**	**ug/L**	1.165	31832	0.069
	Cu	63		**ug/L**		74535	0.160
	Cu	65	**49.822**	**ug/L**	0.279	35747	0.077
	Zn	66	**50.852**	**ug/L**	2.358	20484	0.116
	Zn	67		**ug/L**		9658	0.021
	Zn	68		**ug/L**		15294	0.083
>	Ge	74		**ug/L**		175732	175732.074
	As	75	**51.167**	**ug/L**	1.106	23957	0.135
	Se	77		**ug/L**		6400	0.010
	Se	82	**51.849**	**ug/L**	2.666	2207	0.013
	Kr	83		**ug/L**		60	-0.000
	Sr	88	**46.643**	**ug/L**	1.196	318449	3.068
	Y	89		**ug/L**		42	0.000
	Zr	90	**44.495**	**ug/L**	2.320	163703	1.576
	Mo	98	**47.899**	**ug/L**	1.112	77704	0.748
	Ag	107	**50.434**	**ug/L**	2.357	126464	1.218
	Cd	111	**49.220**	**ug/L**	0.963	28119	0.271
	Cd	114		**ug/L**		63967	0.616
>	In	115		**ug/L**		103755	103755.122
	Sn	120	**49.651**	**ug/L**	1.395	124372	1.196
	Sb	121	**49.023**	**ug/L**	0.427	106100	1.021
	Sb	123		**ug/L**		81407	0.784
	Ba	135		**ug/L**		31812	0.314
	Ba	137	**51.145**	**ug/L**	2.395	55939	0.553
	Ho	165		**ug/L**		29	0.000
>	Lu	175		**ug/L**		101200	101200.217
	Tl	205	**51.266**	**ug/L**	2.053	97919	0.966
	Pb	208	**49.872**	**ug/L**	0.175	275680	2.715
	Th	232	**46.922**	**ug/L**	3.638	297700	2.938
	U	238	**50.170**	**ug/L**	1.160	325663	3.217

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	74.072				
	Be	9	80.144				
	B	11	84.449				
	Na	23	116.100				
	Mg	24	106.159				
	Al	27	112.310				
	P	31	101.912				
	K	39	101.021				
	Ca	43	95.160				
>	Sc	45		92.6			
	Ti	47	94.919				
	V	51	98.834				
	Cr	52	96.588				
	Cr	53					
	Mn	55	96.711				
	Fe	57	96.133				
	Co	59	94.445				
	Ni	60	98.861				
	Cu	63					
	Cu	65	99.644				
	Zn	66	101.704				
	Zn	67					
	Zn	68					
>	Ge	74		86.0			
	As	75	102.333				
	Se	77					
	Se	82	103.698				
	Kr	83					
	Sr	88	93.286				
	Y	89					
	Zr	90	88.989				
	Mo	98	95.798				
	Ag	107	100.869				
	Cd	111	98.441				
	Cd	114					
>	In	115		93.9			
	Sn	120	99.303				
	Sb	121	98.045				
	Sb	123					
	Ba	135					
	Ba	137	102.289				
	Ho	165					
>	Lu	175		94.0			
	Tl	205	102.531				
	Pb	208	99.743				
	Th	232	93.844				
	U	238	100.340				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Be	9	CCV is out of limits (+/- 10%)
QC Std 6	B	11	CCV is out of limits (+/- 10%)
QC Std 6	Na	23	CCV is out of limits (+/- 10%)
QC Std 6	Al	27	CCV is out of limits (+/- 10%)
QC Std 6	Zr	90	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, April 24, 2010 21:19:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 7.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.010**	ug/L	226.177	24	0.000
	Be	9	**0.054**	ug/L	43.958	12	0.000
	B	11	**0.774**	ug/L	32.584	169	0.000
	Na	23	**131.726**	ug/L	18.512	278016	0.399
	Mg	24	**1.046**	ug/L	50.396	1333	0.002
	Al	27	**0.714**	ug/L	108.009	3000	0.002
	P	31	**-0.201**	ug/L	1759.305	2100	-0.000
	K	39	**3.154**	ug/L	181.720	394723	0.017
	Ca	43	**27.717**	ug/L	13.051	447	0.000
>	Sc	45		ug/L		447312	447312.152
	Ti	47	**0.354**	ug/L	34.452	270	0.000
	V	51	**2.526**	ug/L	82.648	18047	0.018
	Cr	52	**-0.159**	ug/L	244.164	-12264	-0.001
	Cr	53		ug/L		120915	0.005
	Mn	55	**0.028**	ug/L	39.527	754	0.000
	Fe	57	**-7.320**	ug/L	37.164	2846	-0.001
	Co	59	**0.009**	ug/L	60.821	131	0.000
	Ni	60	**0.023**	ug/L	64.854	57	0.000
	Cu	63		ug/L		270	-0.000
	Cu	65	**-0.120**	ug/L	10.002	129	-0.000
	Zn	66	**0.039**	ug/L	187.674	151	0.000
	Zn	67		ug/L		6212	0.003
	Zn	68		ug/L		696	0.000
>	Ge	74		ug/L		170161	170161.056
	As	75	**0.592**	ug/L	162.275	420	0.002
	Se	77		ug/L		4944	0.003
	Se	82	**0.864**	ug/L	41.855	10	0.000
	Kr	83		ug/L		49	-0.000
	Sr	88	**0.007**	ug/L	77.541	216	0.000
	Y	89		ug/L		26	0.000
	Zr	90	**0.331**	ug/L	15.586	1362	0.012
	Mo	98	**0.170**	ug/L	25.617	314	0.003
	Ag	107	**0.023**	ug/L	44.388	127	0.001
	Cd	111	**0.015**	ug/L	22.083	24	0.000
	Cd	114		ug/L		51	0.000
>	In	115		ug/L		99815	99814.656
	Sn	120	**0.111**	ug/L	26.473	535	0.003
	Sb	121	**0.201**	ug/L	16.396	532	0.004
	Sb	123		ug/L		427	0.003
	Ba	135		ug/L		33	0.000
	Ba	137	**0.007**	ug/L	57.161	38	0.000
	Ho	165		ug/L		28	0.000
>	Lu	175		ug/L		96290	96289.957
	Tl	205	**0.291**	ug/L	18.059	642	0.005
	Pb	208	**-0.012**	ug/L	101.480	844	-0.001
	Th	232	**0.482**	ug/L	19.127	3165	0.030
	U	238	**0.036**	ug/L	27.566	349	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		89.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		83.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		89.5			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, May 14, 2010 18:26:14
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.1007
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	899.8	899.828	38.378	4.3
	Mg	24.0	14455.1	14455.110	120.610	0.8
	Co	58.9	37450.2	37450.227	337.752	0.9
	Rh	102.9	66927.0	66927.028	870.702	1.3
	In	114.9	74446.1	74446.083	596.702	0.8
	Pb	208.0	26145.3	26145.308	396.036	1.5
⌈>	Ba	137.9	70318.9	70318.875	599.394	0.9
⌊	Ba++	69.0	1430.2	0.020	0.000	1.5
⌈>	Ce	139.9	82936.5	82936.487	1163.938	1.4
⌊	CeO	155.9	1161.0	0.014	0.001	3.7
	Bkgd	220.0	12.8	12.800	2.019	15.8

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
6.30	Lens Voltage
1000.00	ICP RF Power
-1800.00	Analog Stage Voltage
1200.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	5.5	832.7
Co	59	17	6.5	34373.6
In	115	17	7.5	72387.9

ICPMS #4 TUNING REPORT

File Name: 100514.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	601	2080	0.633
Be	9.0	9.0	2053	2080	0.638
Mg	24.0	24.0	5685	2100	0.637
Mg	25.0	25.0	5947	2100	0.675
Mg	26.0	26.0	6158	2120	0.704
Co	58.9	58.9	14166	2150	0.678
Rh	102.9	102.9	24864	2240	0.691
In	114.9	114.9	27767	2275	0.673
Ce	139.9	139.9	33850	2310	0.707
Pb	206.0	206.0	49914	2485	0.634
Pb	207.0	207.0	50125	2400	0.687
Pb	208.0	208.0	50400	2510	0.700
U	238.1	238.0	57686	2520	0.662

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, May 14, 2010 23:53:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\Blank.313

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		45	
	Be	9		ug/L		16	
	B	11		ug/L		96	
	Na	23		ug/L		15008	
	Mg	24		ug/L		9003	
	Al	27		ug/L		9337	
	P	31		ug/L		2205	
	K	39		ug/L		468562	
	Ca	43		ug/L		587	
>	Sc	45		ug/L		439768	
	Ti	47		ug/L		377	
	V	51		ug/L		25103	
	Cr	52		ug/L		-2114	
	Cr	53		ug/L		156025	
	Mn	55		ug/L		941	
	Fe	57		ug/L		5938	
	Co	59		ug/L		492	
	Ni	60		ug/L		94	
	Cu	63		ug/L		244	
	Cu	65		ug/L		146	
	Zn	66		ug/L		201	
	Zn	67		ug/L		5784	
	Zn	68		ug/L		498	
>	Ge	74		ug/L		197007	
	As	75		ug/L		622	
	Se	77		ug/L		7583	
	Se	82		ug/L		24	
	Kr	83		ug/L		74	
	Sr	88		ug/L		405	
	Y	89		ug/L		25	
	Zr	90		ug/L		336	
	Mo	98		ug/L		212	
	Ag	107		ug/L		153	
	Cd	111		ug/L		34	
	Cd	114		ug/L		71	
>	In	115		ug/L		95779	
	Sn	120		ug/L		305	
	Sb	121		ug/L		150	
	Sb	123		ug/L		158	
	Ba	135		ug/L		53	
	Ba	137		ug/L		79	
	Ho	165		ug/L		32	
>	Lu	175		ug/L		83889	
	Tl	205		ug/L		246	
	Pb	208		ug/L		1344	
	Th	232		ug/L		480	
	U	238		ug/L		636	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Linear Thru Zero	
Ti	47	Simple Linear	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Simple Linear	
Cu	65	Simple Linear	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Zr	90	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
Th	232	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, May 15, 2010 00:00:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\Standard 1.314

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	2.184	3662	0.008
	Be	9	10.000	ug/L	5.037	1008	0.002
	B	11	20.000	ug/L	6.202	1604	0.003
	Na	23	1000.000	ug/L	6.445	1410544	3.213
	Mg	24	1000.000	ug/L	4.165	979508	2.235
	Al	27	1000.000	ug/L	2.908	1380667	3.158
	P	31	1000.000	ug/L	1.108	85173	0.191
	K	39	1000.000	ug/L	12.710	3022201	5.895
	Ca	43	1000.000	ug/L	3.460	5851	0.012
>	Sc	45		ug/L		434327	434326.897
	Ti	47	10.000	ug/L	3.747	2838	0.006
	V	51	10.000	ug/L	9.624	50598	0.059
	Cr	52	10.000	ug/L	1.733	24794	0.062
	Cr	53		ug/L		157185	0.007
	Mn	55	10.000	ug/L	3.012	44696	0.101
	Fe	57	1000.000	ug/L	1.624	94685	0.205
	Co	59	10.000	ug/L	1.068	34733	0.079
	Ni	60	10.000	ug/L	1.217	7387	0.017
	Cu	63		ug/L		17676	0.040
	Cu	65	10.000	ug/L	1.314	8400	0.019
	Zn	66	10.000	ug/L	2.733	4830	0.023
	Zn	67		ug/L		6400	0.003
	Zn	68		ug/L		3822	0.017
>	Ge	74		ug/L		197434	197434.282
	As	75	10.000	ug/L	1.611	6100	0.028
	Se	77		ug/L		7688	0.000
	Se	82	10.000	ug/L	4.984	467	0.002
	Kr	83		ug/L		83	0.000
	Sr	88	10.000	ug/L	1.917	66819	0.684
	Y	89		ug/L		38	0.000
	Zr	90	10.000	ug/L	1.199	37182	0.379
	Mo	98	10.000	ug/L	2.484	16022	0.163
	Ag	107	10.000	ug/L	0.954	25025	0.256
	Cd	111	10.000	ug/L	3.247	5281	0.054
	Cd	114		ug/L		11688	0.120
>	In	115		ug/L		97144	97144.037
	Sn	120	10.000	ug/L	2.234	23902	0.243
	Sb	121	10.000	ug/L	4.018	21645	0.221
	Sb	123		ug/L		16583	0.169
	Ba	135		ug/L		5868	0.069
	Ba	137	10.000	ug/L	1.811	10308	0.122
	Ho	165		ug/L		32	0.000
>	Lu	175		ug/L		83916	83915.604
	Tl	205	10.000	ug/L	2.242	14252	0.167
	Pb	208	10.000	ug/L	1.359	49559	0.575
	Th	232	10.000	ug/L	1.754	54620	0.645
	U	238	10.000	ug/L	1.711	55814	0.658

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
Sc	45					
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
In	115					
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
Lu	175					
Tl	205					
Pb	208					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, May 15, 2010 00:06:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\Standard 2.315

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.971**	**ug/L**	3.600	36389	0.081
	Be	9	**99.972**	**ug/L**	1.813	9988	0.022
	B	11	**200.025**	**ug/L**	1.300	15905	0.035
	Na	23	**10001.703**	**ug/L**	2.604	14689706	32.692
	Mg	24	**10007.218**	**ug/L**	3.107	10825168	24.101
	Al	27	**10000.502**	**ug/L**	2.308	14261581	31.740
	P	31	**9997.257**	**ug/L**	2.350	837173	1.859
	K	39	**9995.200**	**ug/L**	7.072	25696360	56.224
	Ca	43	**9998.141**	**ug/L**	1.714	54084	0.119
>	Sc	45		**ug/L**		448948	448948.169
	Ti	47	**100.014**	**ug/L**	2.085	26226	0.058
	V	51	**100.067**	**ug/L**	3.481	311767	0.638
	Cr	52	**99.966**	**ug/L**	1.433	266466	0.598
	Cr	53		**ug/L**		175882	0.037
	Mn	55	**99.960**	**ug/L**	1.517	435598	0.968
	Fe	57	**9995.197**	**ug/L**	2.467	881406	1.950
	Co	59	**99.946**	**ug/L**	1.246	336203	0.748
	Ni	60	**99.949**	**ug/L**	0.977	71831	0.160
	Cu	63		**ug/L**		170008	0.378
	Cu	65	**99.934**	**ug/L**	0.059	80165	0.178
	Zn	66	**99.962**	**ug/L**	2.288	45328	0.226
	Zn	67		**ug/L**		12916	0.035
	Zn	68		**ug/L**		33241	0.164
>	Ge	74		**ug/L**		199853	199852.983
	As	75	**99.963**	**ug/L**	1.355	54079	0.267
	Se	77		**ug/L**		9150	0.007
	Se	82	**99.945**	**ug/L**	0.342	4277	0.021
	Kr	83		**ug/L**		81	0.000
	Sr	88	**99.996**	**ug/L**	0.308	655641	6.813
	Y	89		**ug/L**		97	0.001
	Zr	90	**100.020**	**ug/L**	2.027	372674	3.871
	Mo	98	**100.024**	**ug/L**	1.741	160626	1.668
	Ag	107	**100.007**	**ug/L**	1.502	248102	2.578
	Cd	111	**100.016**	**ug/L**	0.929	52836	0.549
	Cd	114		**ug/L**		117347	1.219
>	In	115		**ug/L**		96183	96183.203
	Sn	120	**100.007**	**ug/L**	2.287	235490	2.445
	Sb	121	**100.008**	**ug/L**	0.507	214774	2.231
	Sb	123		**ug/L**		165751	1.722
	Ba	135		**ug/L**		59471	0.693
	Ba	137	**99.996**	**ug/L**	3.228	104086	1.214
	Ho	165		**ug/L**		26	-0.000
>	Lu	175		**ug/L**		85711	85711.257
	Tl	205	**99.986**	**ug/L**	1.742	141333	1.646
	Pb	208	**99.989**	**ug/L**	1.595	488446	5.683
	Th	232	**99.993**	**ug/L**	0.644	549485	6.406
	U	238	**99.974**	**ug/L**	1.294	549930	6.409

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, May 15, 2010 00:12:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 1.316

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.346**	ug/L	0.666	18840	0.042
	Be	9	**51.738**	ug/L	1.770	5215	0.011
	B	11	**104.467**	ug/L	5.033	8408	0.018
	Na	23	**5388.247**	ug/L	9.889	7970296	17.612
	Mg	24	**5230.904**	ug/L	15.615	5714894	12.598
	Al	27	**5230.907**	ug/L	1.084	7514230	16.602
	P	31	**5191.463**	ug/L	2.350	438649	0.966
	K	39	**5028.378**	ug/L	3.238	13273799	28.285
	Ca	43	**5175.717**	ug/L	0.771	28477	0.062
>	Sc	45		ug/L		452087	452086.901
	Ti	47	**51.702**	ug/L	2.753	13843	0.030
	V	51	**51.407**	ug/L	1.889	173860	0.328
	Cr	52	**52.156**	ug/L	1.964	138930	0.312
	Cr	53		ug/L		156358	-0.009
	Mn	55	**53.607**	ug/L	2.741	235656	0.519
	Fe	57	**5326.344**	ug/L	3.273	475800	1.039
	Co	59	**51.480**	ug/L	3.098	174590	0.385
	Ni	60	**53.225**	ug/L	1.510	38562	0.085
	Cu	63		ug/L		91256	0.201
	Cu	65	**54.268**	ug/L	2.703	43891	0.097
	Zn	66	**53.708**	ug/L	2.359	24583	0.121
	Zn	67		ug/L		9317	0.017
	Zn	68		ug/L		17743	0.086
>	Ge	74		ug/L		200932	200932.430
	As	75	**53.171**	ug/L	2.791	29229	0.142
	Se	77		ug/L		7054	-0.003
	Se	82	**55.753**	ug/L	2.516	2410	0.012
	Kr	83		ug/L		73	-0.000
	Sr	88	**52.297**	ug/L	1.629	348285	3.563
	Y	89		ug/L		53	0.000
	Zr	90	**49.585**	ug/L	1.609	187708	1.919
	Mo	98	**51.126**	ug/L	2.353	83444	0.853
	Ag	107	**50.001**	ug/L	1.737	126013	1.289
	Cd	111	**52.806**	ug/L	3.618	28332	0.290
	Cd	114		ug/L		62509	0.639
>	In	115		ug/L		97661	97660.712
	Sn	120	**51.849**	ug/L	2.455	124076	1.268
	Sb	121	**52.295**	ug/L	3.409	114047	1.167
	Sb	123		ug/L		87114	0.891
	Ba	135		ug/L		30252	0.350
	Ba	137	**50.528**	ug/L	1.403	53046	0.613
	Ho	165		ug/L		29	-0.000
>	Lu	175		ug/L		86372	86372.271
	Tl	205	**49.872**	ug/L	2.478	71181	0.821
	Pb	208	**53.588**	ug/L	2.202	264385	3.046
	Th	232	**52.254**	ug/L	0.914	289587	3.347
	U	238	**54.808**	ug/L	2.980	304053	3.514

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	102.691				
	Be	9	103.476				
	B	11	104.467				
	Na	23	107.765				
	Mg	24	104.618				
	Al	27	103.582				
	P	31	103.829				
	K	39	100.568				
	Ca	43	103.514				
>	Sc	45		102.8			
	Ti	47	103.404				
	V	51	102.815				
	Cr	52	104.312				
	Cr	53					
	Mn	55	107.214				
	Fe	57	106.527				
	Co	59	102.960				
	Ni	60	106.450				
	Cu	63					
	Cu	65	108.536				
	Zn	66	107.416				
	Zn	67					
	Zn	68					
>	Ge	74		102.0			
	As	75	106.343				
	Se	77					
	Se	82	111.505				
	Kr	83					
	Sr	88	104.594				
	Y	89					
	Zr	90	99.171				
	Mo	98	102.252				
	Ag	107	100.002				
	Cd	111	105.613				
	Cd	114					
>	In	115		102.0			
	Sn	120	103.699				
	Sb	121	104.589				
	Sb	123					
	Ba	135					
	Ba	137	101.057				
	Ho	165					
>	Lu	175		103.0			
	Tl	205	99.745				
	Pb	208	107.176				
	Th	232	104.508				
	U	238	109.617				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 1	Se	82ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, May 15, 2010 00:18:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 2.317

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.019**	**ug/L**	86.413	51	0.000
	Be	9	**0.022**	**ug/L**	79.206	18	0.000
	B	11	**2.157**	**ug/L**	8.247	260	0.000
	Na	23	**7.354**	**ug/L**	12.555	25356	0.024
	Mg	24	**-3.088**	**ug/L**	66.029	5668	-0.007
	Al	27	**-1.387**	**ug/L**	59.568	7335	-0.004
	P	31	**0.286**	**ug/L**	312.718	2209	0.000
	K	39	**-4.931**	**ug/L**	327.105	452071	-0.028
	Ca	43	**-7.948**	**ug/L**	68.385	541	-0.000
>	Sc	45		**ug/L**		435821	435820.785
	Ti	47	**-0.058**	**ug/L**	184.006	359	-0.000
	V	51	**-0.794**	**ug/L**	47.672	22670	-0.005
	Cr	52	**0.016**	**ug/L**	229.796	-2055	0.000
	Cr	53		**ug/L**		141099	-0.031
	Mn	55	**0.001**	**ug/L**	426.916	936	0.000
	Fe	57	**-1.173**	**ug/L**	165.158	5784	-0.000
	Co	59	**-0.000**	**ug/L**	5385.935	487	-0.000
	Ni	60	**0.001**	**ug/L**	197.547	94	0.000
	Cu	63		**ug/L**		248	0.000
	Cu	65	**0.002**	**ug/L**	899.904	146	0.000
	Zn	66	**-0.014**	**ug/L**	89.847	194	-0.000
	Zn	67		**ug/L**		5457	-0.002
	Zn	68		**ug/L**		475	-0.000
>	Ge	74		**ug/L**		196321	196321.228
	As	75	**-0.034**	**ug/L**	958.426	601	-0.000
	Se	77		**ug/L**		5619	-0.010
	Se	82	**-0.110**	**ug/L**	218.056	19	-0.000
	Kr	83		**ug/L**		86	0.000
	Sr	88	**0.000**	**ug/L**	485.147	405	0.000
	Y	89		**ug/L**		37	0.000
	Zr	90	**0.139**	**ug/L**	19.961	844	0.005
	Mo	98	**0.090**	**ug/L**	18.195	354	0.002
	Ag	107	**0.027**	**ug/L**	5.484	219	0.001
	Cd	111	**0.001**	**ug/L**	1769.190	35	0.000
	Cd	114		**ug/L**		92	0.000
>	In	115		**ug/L**		95037	95036.932
	Sn	120	**0.044**	**ug/L**	34.203	404	0.001
	Sb	121	**0.031**	**ug/L**	28.570	214	0.001
	Sb	123		**ug/L**		203	0.000
	Ba	135		**ug/L**		55	0.000
	Ba	137	**-0.001**	**ug/L**	1883.520	77	-0.000
	Ho	165		**ug/L**		30	-0.000
>	Lu	175		**ug/L**		82820	82819.578
	Tl	205	**0.442**	**ug/L**	26.987	845	0.007
	Pb	208	**0.006**	**ug/L**	82.300	1354	0.000
	Th	232	**0.111**	**ug/L**	17.728	1062	0.007
	U	238	**0.008**	**ug/L**	80.359	673	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			99.1		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			99.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			99.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			98.7		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, May 15, 2010 00:24:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 3.318

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.176**	**ug/L**	1.747	3644	0.008
	Be	9	**0.410**	**ug/L**	25.292	56	0.000
	B	11	**15.117**	**ug/L**	4.426	1257	0.003
	Na	23	**246.138**	**ug/L**	7.551	366319	0.805
	Mg	24	**8.306**	**ug/L**	40.442	17678	0.020
	Al	27	**12.565**	**ug/L**	6.880	26692	0.040
	P	31	**44.720**	**ug/L**	0.617	5823	0.008
	K	39	**300.023**	**ug/L**	4.596	1202601	1.688
	Ca	43	**95.198**	**ug/L**	7.565	1079	0.001
>	Sc	45		**ug/L**		436798	436798.172
	Ti	47	**9.119**	**ug/L**	2.441	2667	0.005
	V	51	**10.273**	**ug/L**	11.931	53525	0.065
	Cr	52	**2.952**	**ug/L**	2.421	5619	0.018
	Cr	53		**ug/L**		133041	-0.050
	Mn	55	**5.053**	**ug/L**	0.814	22314	0.049
	Fe	57	**16.121**	**ug/L**	4.934	7272	0.003
	Co	59	**0.947**	**ug/L**	2.506	3583	0.007
	Ni	60	**2.225**	**ug/L**	0.490	1647	0.004
	Cu	63		**ug/L**		2100	0.004
	Cu	65	**1.115**	**ug/L**	3.498	1013	0.002
	Zn	66	**10.732**	**ug/L**	3.374	4836	0.024
	Zn	67		**ug/L**		5732	0.001
	Zn	68		**ug/L**		3753	0.017
>	Ge	74		**ug/L**		191455	191455.114
	As	75	**5.882**	**ug/L**	6.443	3620	0.016
	Se	77		**ug/L**		5365	-0.010
	Se	82	**5.492**	**ug/L**	8.113	247	0.001
	Kr	83		**ug/L**		68	-0.000
	Sr	88	**9.764**	**ug/L**	1.849	64094	0.665
	Y	89		**ug/L**		27	0.000
	Zr	90	**1.761**	**ug/L**	3.294	6861	0.068
	Mo	98	**0.431**	**ug/L**	2.004	901	0.007
	Ag	107	**0.996**	**ug/L**	2.831	2611	0.026
	Cd	111	**0.952**	**ug/L**	6.375	535	0.005
	Cd	114		**ug/L**		1204	0.012
>	In	115		**ug/L**		95761	95760.560
	Sn	120	**4.899**	**ug/L**	2.371	11773	0.120
	Sb	121	**2.649**	**ug/L**	11.434	5809	0.059
	Sb	123		**ug/L**		4528	0.046
	Ba	135		**ug/L**		1229	0.014
	Ba	137	**1.906**	**ug/L**	4.568	2006	0.023
	Ho	165		**ug/L**		30	-0.000
>	Lu	175		**ug/L**		83352	83352.352
	Tl	205	**1.089**	**ug/L**	2.333	1738	0.018
	Pb	208	**1.948**	**ug/L**	3.157	10561	0.111
	Th	232	**0.946**	**ug/L**	6.203	5531	0.061
	U	238	**0.135**	**ug/L**	4.317	1353	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.759				
	Be	9	81.977				
	B	11	100.778				
	Na	23	98.455				
	Mg	24	55.374				
	Al	27	41.884				
	P	31	89.440				
	K	39	100.008				
	Ca	43	47.599				
>	Sc	45		99.3			
	Ti	47	91.195				
	V	51	102.725				
	Cr	52	29.524				
	Cr	53					
	Mn	55	101.057				
	Fe	57	16.121				
	Co	59	94.667				
	Ni	60	111.252				
	Cu	63					
	Cu	65	111.464				
	Zn	66	107.320				
	Zn	67					
	Zn	68					
>	Ge	74		97.2			
	As	75	117.632				
	Se	77					
	Se	82	109.830				
	Kr	83					
	Sr	88	97.639				
	Y	89					
	Zr	90	88.050				
	Mo	98	86.258				
	Ag	107	99.584				
	Cd	111	95.172				
	Cd	114					
>	In	115		100.0			
	Sn	120	97.981				
	Sb	121	88.316				
	Sb	123					
	Ba	135					
	Ba	137	95.294				
	Ho	165					
>	Lu	175		99.4			
	Tl	205	108.869				
	Pb	208	97.400				
	Th	232	94.640				
	U	238	67.466				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Mg	24	CRDL is out of limits
QC Std 3	Al	27	CRDL is out of limits
QC Std 3	Ca	43	CRDL is out of limits
QC Std 3	Cr	52	CRDL is out of limits
QC Std 3	Fe	57	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, May 15, 2010 00:30:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 4.319

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.000**	**ug/L**	26875.069	46	-0.000
	Be	9	**0.046**	**ug/L**	106.319	21	0.000
	B	11	**1.297**	**ug/L**	11.706	201	0.000
	Na	23	**87239.325**	**ug/L**	1.495	128414257	285.156
	Mg	24	**84040.189**	**ug/L**	4.464	91173262	202.401
	Al	27	**91044.240**	**ug/L**	3.854	130119839	288.957
	P	31	**88134.428**	**ug/L**	0.685	7383248	16.392
	K	39	**88490.152**	**ug/L**	1.824	224579817	497.765
	Ca	43	**88042.675**	**ug/L**	1.013	472857	1.049
>	Sc	45		**ug/L**		450273	450272.684
	Ti	47	**1426.188**	**ug/L**	2.774	370114	0.821
	V	51	**-1.093**	**ug/L**	65.964	22560	-0.007
	Cr	52	**2.632**	**ug/L**	3.180	4927	0.016
	Cr	53		**ug/L**		129808	-0.066
	Mn	55	**5.390**	**ug/L**	1.929	24470	0.052
	Fe	57	**87627.030**	**ug/L**	0.896	7704822	17.099
	Co	59	**0.098**	**ug/L**	5.158	834	0.001
	Ni	60	**2.248**	**ug/L**	1.412	1714	0.004
	Cu	63		**ug/L**		4056	0.008
	Cu	65	**2.021**	**ug/L**	3.066	1772	0.004
	Zn	66	**3.452**	**ug/L**	1.653	1728	0.008
	Zn	67		**ug/L**		5951	0.001
	Zn	68		**ug/L**		1027	0.003
>	Ge	74		**ug/L**		195957	195957.301
	As	75	**-0.114**	**ug/L**	931.266	564	-0.000
	Se	77		**ug/L**		4560	-0.015
	Se	82	**0.001**	**ug/L**	27032.419	24	0.000
	Kr	83		**ug/L**		88	0.000
	Sr	88	**2.615**	**ug/L**	1.965	17232	0.178
	Y	89		**ug/L**		149	0.001
	Zr	90	**0.662**	**ug/L**	50.159	2732	0.026
	Mo	98	**1824.546**	**ug/L**	2.081	2874306	30.423
	Ag	107	**0.063**	**ug/L**	6.062	305	0.002
	Cd	111	**0.327**	**ug/L**	38.054	205	0.002
	Cd	114		**ug/L**		2136	0.022
>	In	115		**ug/L**		94505	94504.945
	Sn	120	**0.242**	**ug/L**	9.774	859	0.006
	Sb	121	**0.215**	**ug/L**	28.508	598	0.005
	Sb	123		**ug/L**		508	0.004
	Ba	135		**ug/L**		419	0.004
	Ba	137	**0.605**	**ug/L**	3.424	717	0.007
	Ho	165		**ug/L**		1921	0.022
>	Lu	175		**ug/L**		86589	86588.512
	Tl	205	**0.034**	**ug/L**	33.608	303	0.001
	Pb	208	**0.092**	**ug/L**	6.911	1840	0.005
	Th	232	**0.082**	**ug/L**	45.863	946	0.005
	U	238	**-0.097**	**ug/L**	2.202	116	-0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23	87.239				
	Mg	24	84.040				
	Al	27	91.044				
	P	31	88.134				
	K	39	88.490				
	Ca	43	88.043				
>	Sc	45			102.4		
	Ti	47	71.309				
	V	51					
	Cr	52	79.757				
	Cr	53					
	Mn	55	92.925				
	Fe	57	87.627				
	Co	59	41.716				
	Ni	60	67.920				
	Cu	63					
	Cu	65	60.498				
	Zn	66	91.821				
	Zn	67					
	Zn	68					
>	Ge	74			99.5		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	88.351				
	Y	89					
	Zr	90					
	Mo	98	91.227				
	Ag	107					
	Cd	111	73.747				
	Cd	114					
>	In	115			98.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	75.823				
	Ho	165					
>	Lu	175			103.2		
	Tl	205					
	Pb	208	48.662				
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 4	Ti	47ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, May 15, 2010 00:36:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 5.320

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**16.350**	ug/L	3.333	6046	0.013
	Be	9	**17.278**	ug/L	2.790	1757	0.004
	B	11	**17.304**	ug/L	3.165	1479	0.003
	Na	23	**94962.257**	ug/L	4.877	140705798	310.399
	Mg	24	**86620.889**	ug/L	7.242	94530417	208.616
	Al	27	**94286.257**	ug/L	1.578	135636616	299.246
	P	31	**90678.132**	ug/L	2.008	7645977	16.865
	K	39	**94451.604**	ug/L	5.095	241237134	531.299
	Ca	43	**90441.087**	ug/L	0.882	488917	1.077
>	Sc	45		ug/L		453235	453235.180
	Ti	47	**1472.854**	ug/L	2.165	384646	0.848
	V	51	**14.827**	ug/L	6.240	68686	0.094
	Cr	52	**19.923**	ug/L	2.077	51868	0.119
	Cr	53		ug/L		136594	-0.053
	Mn	55	**22.642**	ug/L	2.669	100366	0.219
	Fe	57	**90801.935**	ug/L	3.080	8035979	17.718
	Co	59	**16.509**	ug/L	2.301	56495	0.124
	Ni	60	**18.693**	ug/L	1.351	13642	0.030
	Cu	63		ug/L		31855	0.070
	Cu	65	**18.276**	ug/L	2.550	14921	0.033
	Zn	66	**19.859**	ug/L	2.926	9089	0.045
	Zn	67		ug/L		7155	0.007
	Zn	68		ug/L		6401	0.030
>	Ge	74		ug/L		198134	198133.503
	As	75	**18.233**	ug/L	5.399	10289	0.049
	Se	77		ug/L		5011	-0.013
	Se	82	**18.517**	ug/L	3.424	805	0.004
	Kr	83		ug/L		107	0.000
	Sr	88	**20.568**	ug/L	1.259	134395	1.401
	Y	89		ug/L		179	0.002
	Zr	90	**17.261**	ug/L	0.901	64217	0.668
	Mo	98	**1862.868**	ug/L	0.345	2970464	31.062
	Ag	107	**16.501**	ug/L	0.865	40828	0.425
	Cd	111	**17.332**	ug/L	2.223	9131	0.095
	Cd	114		ug/L		22099	0.230
>	In	115		ug/L		95624	95624.149
	Sn	120	**17.138**	ug/L	0.218	40375	0.419
	Sb	121	**16.277**	ug/L	0.904	34875	0.363
	Sb	123		ug/L		26676	0.277
	Ba	135		ug/L		10519	0.120
	Ba	137	**17.282**	ug/L	2.785	18322	0.210
	Ho	165		ug/L		2000	0.023
>	Lu	175		ug/L		86959	86958.774
	Tl	205	**15.460**	ug/L	3.145	22384	0.255
	Pb	208	**16.562**	ug/L	2.322	83238	0.941
	Th	232	**17.055**	ug/L	2.903	95476	1.093
	U	238	**17.303**	ug/L	3.527	97087	1.109

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	81.751				
	Be	9	86.392				
	B	11	86.519				
	Na	23	94.962				
	Mg	24	86.621				
	Al	27	94.286				
	P	31	90.678				
	K	39	94.452				
	Ca	43	90.441				
>	Sc	45		103.1			
	Ti	47	73.643				
	V	51	74.136				
	Cr	52	85.506				
	Cr	53					
	Mn	55	87.759				
	Fe	57	90.802				
	Co	59	81.585				
	Ni	60	80.193				
	Cu	63					
	Cu	65	78.302				
	Zn	66	83.582				
	Zn	67					
	Zn	68					
>	Ge	74		100.6			
	As	75	91.167				
	Se	77					
	Se	82	92.585				
	Kr	83					
	Sr	88	89.584				
	Y	89					
	Zr	90	86.306				
	Mo	98	93.143				
	Ag	107	82.504				
	Cd	111	84.778				
	Cd	114					
>	In	115		99.8			
	Sn	120	85.691				
	Sb	121	81.384				
	Sb	123					
	Ba	135					
	Ba	137	83.094				
	Ho	165					
>	Lu	175		103.7			
	Tl	205	77.301				
	Pb	208	82.035				
	Th	232	85.276				
	U	238	86.515				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 5	Ti	47ICSAB is out of limits
QC Std 5	V	51ICSAB is out of limits
QC Std 5	Cu	65ICSAB is out of limits
QC Std 5	Tl	205ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 15, 2010 00:42:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 6.321

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.566**	ug/L	2.860	18140	0.040
	Be	9	**50.184**	ug/L	1.282	5045	0.011
	B	11	**101.350**	ug/L	2.634	8140	0.018
	Na	23	**5528.967**	ug/L	4.662	8162351	18.072
	Mg	24	**5077.795**	ug/L	7.537	5521637	12.229
	Al	27	**5296.576**	ug/L	2.733	7588541	16.810
	P	31	**5241.084**	ug/L	2.802	441728	0.975
	K	39	**5529.902**	ug/L	5.505	14504726	31.106
	Ca	43	**5329.124**	ug/L	0.836	29228	0.063
>	Sc	45		ug/L		450913	450912.807
	Ti	47	**53.000**	ug/L	1.330	14143	0.031
	V	51	**48.959**	ug/L	1.675	166392	0.312
	Cr	52	**51.011**	ug/L	3.267	135484	0.305
	Cr	53		ug/L		148105	-0.026
	Mn	55	**53.066**	ug/L	0.323	232751	0.514
	Fe	57	**5406.480**	ug/L	0.567	481785	1.055
	Co	59	**50.645**	ug/L	1.177	171375	0.379
	Ni	60	**52.519**	ug/L	3.632	37948	0.084
	Cu	63		ug/L		89887	0.199
	Cu	65	**52.814**	ug/L	1.222	42622	0.094
	Zn	66	**52.572**	ug/L	2.985	24158	0.119
	Zn	67		ug/L		9094	0.016
	Zn	68		ug/L		17592	0.085
>	Ge	74		ug/L		201701	201701.477
	As	75	**52.641**	ug/L	2.441	29044	0.141
	Se	77		ug/L		5993	-0.009
	Se	82	**52.853**	ug/L	4.148	2293	0.011
	Kr	83		ug/L		84	0.000
	Sr	88	**52.074**	ug/L	2.325	347108	3.548
	Y	89		ug/L		84	0.001
	Zr	90	**49.523**	ug/L	1.969	187641	1.917
	Mo	98	**51.674**	ug/L	2.065	84420	0.862
	Ag	107	**49.810**	ug/L	1.166	125668	1.284
	Cd	111	**51.512**	ug/L	2.053	27667	0.283
	Cd	114		ug/L		62182	0.636
>	In	115		ug/L		97738	97738.488
	Sn	120	**51.885**	ug/L	1.767	124299	1.269
	Sb	121	**50.969**	ug/L	2.581	111276	1.137
	Sb	123		ug/L		86118	0.880
	Ba	135		ug/L		30276	0.349
	Ba	137	**49.744**	ug/L	0.685	52308	0.604
	Ho	165		ug/L		38	0.000
>	Lu	175		ug/L		86491	86491.257
	Tl	205	**50.176**	ug/L	0.392	71709	0.826
	Pb	208	**51.482**	ug/L	0.523	254470	2.926
	Th	232	**51.637**	ug/L	1.033	286610	3.308
	U	238	**53.742**	ug/L	1.759	298615	3.445

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	99.131				
	Be	9	100.368				
	B	11	101.350				
	Na	23	110.579				
	Mg	24	101.556				
	Al	27	104.883				
	P	31	104.822				
	K	39	110.598				
	Ca	43	106.582				
>	Sc	45		102.5			
	Ti	47	106.001				
	V	51	97.918				
	Cr	52	102.021				
	Cr	53					
	Mn	55	106.131				
	Fe	57	108.130				
	Co	59	101.290				
	Ni	60	105.039				
	Cu	63					
	Cu	65	105.628				
	Zn	66	105.144				
	Zn	67					
	Zn	68					
>	Ge	74		102.4			
	As	75	105.281				
	Se	77					
	Se	82	105.707				
	Kr	83					
	Sr	88	104.148				
	Y	89					
	Zr	90	99.046				
	Mo	98	103.349				
	Ag	107	99.620				
	Cd	111	103.024				
	Cd	114					
>	In	115		102.0			
	Sn	120	103.770				
	Sb	121	101.939				
	Sb	123					
	Ba	135					
	Ba	137	99.487				
	Ho	165					
>	Lu	175		103.1			
	Tl	205	100.353				
	Pb	208	102.964				
	Th	232	103.273				
	U	238	107.484				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Na	23CCV is out of limits (+/- 10%)
QC Std 6	K	39CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 15, 2010 00:49:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 7.322

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.032	ug/L	16.652	56	0.000
	Be	9	-0.020	ug/L	133.723	14	-0.000
	B	11	1.630	ug/L	16.555	222	0.000
	Na	23	8.640	ug/L	8.716	27360	0.028
	Mg	24	1.927	ug/L	91.925	11004	0.005
	Al	27	2.907	ug/L	67.653	13340	0.009
	P	31	-0.632	ug/L	223.340	2150	-0.000
	K	39	-7.641	ug/L	78.754	448603	-0.043
	Ca	43	6.283	ug/L	180.312	619	0.000
>	Sc	45		ug/L		438888	438887.900
	Ti	47	0.171	ug/L	18.533	419	0.000
	V	51	-1.291	ug/L	87.990	21414	-0.008
	Cr	52	-0.361	ug/L	33.792	-3061	-0.002
	Cr	53		ug/L		138123	-0.040
	Mn	55	0.001	ug/L	632.951	944	0.000
	Fe	57	-1.026	ug/L	152.141	5837	-0.000
	Co	59	-0.011	ug/L	56.743	455	-0.000
	Ni	60	0.001	ug/L	1181.021	95	0.000
	Cu	63		ug/L		276	0.000
	Cu	65	0.004	ug/L	465.530	148	0.000
	Zn	66	-0.005	ug/L	617.718	197	-0.000
	Zn	67		ug/L		5440	-0.001
	Zn	68		ug/L		503	0.000
>	Ge	74		ug/L		195174	195174.252
	As	75	0.450	ug/L	97.887	852	0.001
	Se	77		ug/L		4779	-0.014
	Se	82	-0.011	ug/L	2708.768	23	-0.000
	Kr	83		ug/L		80	0.000
	Sr	88	-0.001	ug/L	630.903	402	-0.000
	Y	89		ug/L		28	0.000
	Zr	90	0.119	ug/L	14.849	778	0.005
	Mo	98	0.180	ug/L	5.302	502	0.003
	Ag	107	0.023	ug/L	27.642	210	0.001
	Cd	111	-0.014	ug/L	51.448	27	-0.000
	Cd	114		ug/L		79	0.000
>	In	115		ug/L		96103	96103.248
	Sn	120	0.038	ug/L	15.586	395	0.001
	Sb	121	0.116	ug/L	12.637	399	0.003
	Sb	123		ug/L		351	0.002
	Ba	135		ug/L		53	0.000
	Ba	137	-0.002	ug/L	367.565	76	-0.000
	Ho	165		ug/L		29	-0.000
>	Lu	175		ug/L		83444	83444.200
	Tl	205	0.405	ug/L	24.247	803	0.007
	Pb	208	-0.029	ug/L	14.306	1200	-0.002
	Th	232	0.088	ug/L	25.261	950	0.006
	U	238	0.004	ug/L	68.238	652	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			99.8		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			99.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			100.3		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			99.5		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Saturday, May 15, 2010 00:55:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 10.323

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**937.408**	ug/L	0.352	334351	0.759
	Be	9	**947.296**	ug/L	0.602	92738	0.210
	B	11	**0.769**	ug/L	19.677	155	0.000
	Na	23	**49757.660**	ug/L	3.199	71646746	162.641
	Mg	24	**44306.775**	ug/L	7.607	47000170	106.708
	Al	27	**51696.609**	ug/L	1.912	72288800	164.075
	P	31	**23116.180**	ug/L	3.012	1895592	4.299
	K	39	**56513.025**	ug/L	1.519	140509362	317.891
	Ca	43	**48253.542**	ug/L	2.412	253754	0.575
>	Sc	45		ug/L		440483	440482.904
	Ti	47	**24.494**	ug/L	2.112	6588	0.014
	V	51	**928.906**	ug/L	3.447	2631811	5.919
	Cr	52	**956.938**	ug/L	1.311	2520719	5.728
	Cr	53		ug/L		420899	0.601
	Mn	55	**954.323**	ug/L	1.286	4072703	9.245
	Fe	57	**48100.847**	ug/L	3.179	4139758	9.386
	Co	59	**898.571**	ug/L	1.763	2961854	6.724
	Ni	60	**896.869**	ug/L	1.905	631581	1.434
	Cu	63		ug/L		1472373	3.342
	Cu	65	**903.340**	ug/L	1.361	709852	1.611
	Zn	66	**2320.140**	ug/L	2.733	1009123	5.242
	Zn	67		ug/L		164399	0.825
	Zn	68		ug/L		719687	3.737
>	Ge	74		ug/L		192485	192485.400
	As	75	**947.645**	ug/L	0.597	488690	2.536
	Se	77		ug/L		18880	0.060
	Se	82	**491.324**	ug/L	1.503	20157	0.105
	Kr	83		ug/L		93	0.000
	Sr	88	**986.479**	ug/L	0.318	6155834	67.207
	Y	89		ug/L		226	0.002
	Zr	90	**497.154**	ug/L	2.411	1762360	19.240
	Mo	98	**970.467**	ug/L	1.308	1482223	16.182
	Ag	107	**246.967**	ug/L	0.542	583261	6.367
	Cd	111	**966.801**	ug/L	1.545	486064	5.307
	Cd	114		ug/L		1072357	11.708
>	In	115		ug/L		91589	91589.009
	Sn	120	**1021.457**	ug/L	2.438	2287563	24.975
	Sb	121	**255.844**	ug/L	1.503	522932	5.708
	Sb	123		ug/L		403137	4.400
	Ba	135		ug/L		539615	6.323
	Ba	137	**901.391**	ug/L	2.273	933660	10.942
	Ho	165		ug/L		67	0.000
>	Lu	175		ug/L		85332	85331.954
	Tl	205	**467.946**	ug/L	1.741	657671	7.705
	Pb	208	**4701.236**	ug/L	1.722	22801796	267.218
	Th	232	**2351.680**	ug/L	2.170	12855192	150.651
	U	238	**5055.055**	ug/L	2.990	27652518	324.082

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	93.741				
	Be	9	94.730				
	B	11					
	Na	23	99.515				
	Mg	24	88.614				
	Al	27	103.393				
	P	31	92.465				
	K	39	113.026				
	Ca	43	96.507				
>	Sc	45		100.2			
	Ti	47					
	V	51	92.891				
	Cr	52	95.694				
	Cr	53					
	Mn	55	95.432				
	Fe	57	96.202				
	Co	59	89.857				
	Ni	60	89.687				
	Cu	63					
	Cu	65	90.334				
	Zn	66	92.806				
	Zn	67					
	Zn	68					
>	Ge	74		97.7			
	As	75	94.764				
	Se	77					
	Se	82	98.265				
	Kr	83					
	Sr	88	98.648				
	Y	89					
	Zr	90	99.431				
	Mo	98	97.047				
	Ag	107	98.787				
	Cd	111	96.680				
	Cd	114					
>	In	115		95.6			
	Sn	120	102.146				
	Sb	121	102.338				
	Sb	123					
	Ba	135					
	Ba	137	90.139				
	Ho	165					
>	Lu	175		101.7			
	Tl	205	93.589				
	Pb	208	94.025				
	Th	232	94.067				
	U	238	101.101				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Mg	24	LRS is out of limits (+/- 10%)
QC Std 10	K	39	LRS is out of limits (+/- 10%)
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Saturday, May 15, 2010 01:01:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 11.324

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.785**	**ug/L**	0.466	18516	0.041
	Be	9	**50.551**	**ug/L**	4.805	5062	0.011
	B	11	**101.391**	**ug/L**	0.781	8113	0.018
	Na	23	**5541.119**	**ug/L**	4.108	8154770	18.112
	Mg	24	**5071.447**	**ug/L**	5.388	5494028	12.214
	Al	27	**5371.514**	**ug/L**	2.336	7665823	17.048
	P	31	**5103.916**	**ug/L**	1.438	428627	0.949
	K	39	**5126.844**	**ug/L**	4.523	13439147	28.839
	Ca	43	**5207.179**	**ug/L**	0.583	28467	0.062
>	Sc	45		**ug/L**		449208	449208.483
	Ti	47	**50.431**	**ug/L**	2.829	13423	0.029
	V	51	**50.400**	**ug/L**	1.757	169880	0.321
	Cr	52	**52.146**	**ug/L**	1.399	138028	0.312
	Cr	53		**ug/L**		146920	-0.028
	Mn	55	**53.605**	**ug/L**	2.161	234172	0.519
	Fe	57	**5277.368**	**ug/L**	2.891	468555	1.030
	Co	59	**50.230**	**ug/L**	1.446	169322	0.376
	Ni	60	**51.832**	**ug/L**	1.352	37316	0.083
	Cu	63		**ug/L**		88504	0.196
	Cu	65	**52.669**	**ug/L**	3.104	42332	0.094
	Zn	66	**53.919**	**ug/L**	1.560	24416	0.122
	Zn	67		**ug/L**		9266	0.017
	Zn	68		**ug/L**		17689	0.086
>	Ge	74		**ug/L**		198769	198769.388
	As	75	**53.329**	**ug/L**	3.359	28992	0.143
	Se	77		**ug/L**		5674	-0.010
	Se	82	**53.201**	**ug/L**	2.128	2276	0.011
	Kr	83		**ug/L**		76	0.000
	Sr	88	**52.798**	**ug/L**	1.103	350173	3.597
	Y	89		**ug/L**		50	0.000
	Zr	90	**51.427**	**ug/L**	3.456	193815	1.990
	Mo	98	**51.149**	**ug/L**	1.912	83138	0.853
	Ag	107	**49.192**	**ug/L**	0.975	123471	1.268
	Cd	111	**52.228**	**ug/L**	2.907	27912	0.287
	Cd	114		**ug/L**		61562	0.632
>	In	115		**ug/L**		97250	97249.643
	Sn	120	**52.504**	**ug/L**	1.201	125137	1.284
	Sb	121	**51.260**	**ug/L**	0.685	111373	1.144
	Sb	123		**ug/L**		85413	0.877
	Ba	135		**ug/L**		30594	0.359
	Ba	137	**51.401**	**ug/L**	1.541	53093	0.624
	Ho	165		**ug/L**		36	0.000
>	Lu	175		**ug/L**		84979	84979.239
	Tl	205	**52.977**	**ug/L**	3.073	74351	0.872
	Pb	208	**54.414**	**ug/L**	0.638	264201	3.093
	Th	232	**53.514**	**ug/L**	2.896	291722	3.428
	U	238	**55.934**	**ug/L**	4.060	305234	3.586

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.570				
	Be	9	101.101				
	B	11	101.391				
	Na	23	110.822				
	Mg	24	101.429				
	Al	27	106.367				
	P	31	102.078				
	K	39	102.537				
	Ca	43	104.144				
>	Sc	45		102.1			
	Ti	47	100.863				
	V	51	100.800				
	Cr	52	104.291				
	Cr	53					
	Mn	55	107.210				
	Fe	57	105.547				
	Co	59	100.460				
	Ni	60	103.665				
	Cu	63					
	Cu	65	105.338				
	Zn	66	107.839				
	Zn	67					
	Zn	68					
>	Ge	74		100.9			
	As	75	106.659				
	Se	77					
	Se	82	106.402				
	Kr	83					
	Sr	88	105.596				
	Y	89					
	Zr	90	102.855				
	Mo	98	102.298				
	Ag	107	98.385				
	Cd	111	104.455				
	Cd	114					
>	In	115		101.5			
	Sn	120	105.009				
	Sb	121	102.521				
	Sb	123					
	Ba	135					
	Ba	137	102.801				
	Ho	165					
>	Lu	175		101.3			
	Tl	205	105.954				
	Pb	208	108.829				
	Th	232	107.028				
	U	238	111.868				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Na	23	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Saturday, May 15, 2010 01:07:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 12.325

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.158**	**ug/L**	15.330	102	0.000
	Be	9	**0.000**	**ug/L**	19717.620	16	0.000
	B	11	**1.396**	**ug/L**	21.441	204	0.000
	Na	23	**12.875**	**ug/L**	6.685	33706	0.042
	Mg	24	**4.066**	**ug/L**	190.922	13341	0.010
	Al	27	**1.385**	**ug/L**	69.238	11338	0.004
	P	31	**-0.588**	**ug/L**	301.230	2165	-0.000
	K	39	**24.190**	**ug/L**	199.329	532454	0.136
	Ca	43	**-4.389**	**ug/L**	303.350	566	-0.000
>	Sc	45		**ug/L**		442026	442025.957
	Ti	47	**-0.152**	**ug/L**	37.608	340	-0.000
	V	51	**-1.135**	**ug/L**	127.044	21961	-0.007
	Cr	52	**-0.276**	**ug/L**	40.980	-2851	-0.002
	Cr	53		**ug/L**		138067	-0.042
	Mn	55	**0.009**	**ug/L**	196.329	985	0.000
	Fe	57	**-6.081**	**ug/L**	27.113	5442	-0.001
	Co	59	**0.002**	**ug/L**	923.925	500	0.000
	Ni	60	**0.003**	**ug/L**	267.727	97	0.000
	Cu	63		**ug/L**		347	0.000
	Cu	65	**0.057**	**ug/L**	41.756	191	0.000
	Zn	66	**0.252**	**ug/L**	27.504	305	0.001
	Zn	67		**ug/L**		5471	-0.001
	Zn	68		**ug/L**		581	0.000
>	Ge	74		**ug/L**		192890	192890.027
	As	75	**0.029**	**ug/L**	2131.690	620	0.000
	Se	77		**ug/L**		4597	-0.015
	Se	82	**-0.000**	**ug/L**	165836.795	23	-0.000
	Kr	83		**ug/L**		84	0.000
	Sr	88	**0.012**	**ug/L**	65.940	473	0.001
	Y	89		**ug/L**		30	0.000
	Zr	90	**0.236**	**ug/L**	15.824	1190	0.009
	Mo	98	**0.306**	**ug/L**	19.610	687	0.005
	Ag	107	**0.041**	**ug/L**	14.799	250	0.001
	Cd	111	**0.041**	**ug/L**	8.621	55	0.000
	Cd	114		**ug/L**		129	0.001
>	In	115		**ug/L**		94468	94468.386
	Sn	120	**0.264**	**ug/L**	11.960	908	0.006
	Sb	121	**0.074**	**ug/L**	24.808	303	0.002
	Sb	123		**ug/L**		287	0.001
	Ba	135		**ug/L**		62	0.000
	Ba	137	**0.010**	**ug/L**	188.749	89	0.000
	Ho	165		**ug/L**		22	-0.000
>	Lu	175		**ug/L**		83968	83967.800
	Tl	205	**0.831**	**ug/L**	19.437	1390	0.014
	Pb	208	**0.444**	**ug/L**	11.574	3457	0.025
	Th	232	**0.277**	**ug/L**	12.719	1968	0.018
	U	238	**0.081**	**ug/L**	34.385	1067	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.1			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 15, 2010 01:50:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 6.332

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.310**	ug/L	3.195	18013	0.042
	Be	9	**53.158**	ug/L	3.289	5027	0.012
	B	11	**105.326**	ug/L	4.579	7956	0.019
	Na	23	**5695.148**	ug/L	7.331	7909647	18.616
	Mg	24	**5060.600**	ug/L	4.848	5179295	12.188
	Al	27	**5184.590**	ug/L	5.055	6991088	16.455
	P	31	**5144.867**	ug/L	1.565	408099	0.957
	K	39	**5180.868**	ug/L	4.712	12814498	29.143
	Ca	43	**5270.562**	ug/L	1.589	27206	0.063
>	Sc	45		ug/L		424310	424310.359
	Ti	47	**50.929**	ug/L	0.705	12803	0.029
	V	51	**49.690**	ug/L	0.363	158554	0.317
	Cr	52	**50.817**	ug/L	1.542	127017	0.304
	Cr	53		ug/L		163324	0.030
	Mn	55	**52.143**	ug/L	1.980	215209	0.505
	Fe	57	**5227.854**	ug/L	2.994	438501	1.020
	Co	59	**48.877**	ug/L	2.622	155637	0.366
	Ni	60	**51.468**	ug/L	2.317	34999	0.082
	Cu	63		ug/L		82880	0.195
	Cu	65	**51.412**	ug/L	2.676	39040	0.092
	Zn	66	**52.482**	ug/L	3.232	22294	0.119
	Zn	67		ug/L		9115	0.020
	Zn	68		ug/L		16167	0.084
>	Ge	74		ug/L		186445	186445.051
	As	75	**51.769**	ug/L	1.858	26413	0.139
	Se	77		ug/L		7734	0.003
	Se	82	**53.188**	ug/L	3.377	2133	0.011
	Kr	83		ug/L		67	-0.000
	Sr	88	**51.612**	ug/L	1.039	325132	3.516
	Y	89		ug/L		81	0.001
	Zr	90	**48.675**	ug/L	1.421	174289	1.884
	Mo	98	**50.376**	ug/L	2.377	77772	0.840
	Ag	107	**49.178**	ug/L	0.777	117238	1.268
	Cd	111	**51.447**	ug/L	2.827	26111	0.282
	Cd	114		ug/L		58137	0.629
>	In	115		ug/L		92359	92359.488
	Sn	120	**51.820**	ug/L	3.085	117294	1.267
	Sb	121	**51.080**	ug/L	2.020	105390	1.140
	Sb	123		ug/L		81203	0.878
	Ba	135		ug/L		28346	0.342
	Ba	137	**49.659**	ug/L	1.789	49945	0.603
	Ho	165		ug/L		37	0.000
>	Lu	175		ug/L		82738	82737.756
	Tl	205	**51.300**	ug/L	0.492	70129	0.845
	Pb	208	**52.153**	ug/L	1.522	246557	2.964
	Th	232	**52.154**	ug/L	0.868	276884	3.341
	U	238	**54.326**	ug/L	1.073	288774	3.483

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	104.620				
	Be	9	106.317				
	B	11	105.326				
	Na	23	113.903				
	Mg	24	101.212				
	Al	27	102.665				
	P	31	102.897				
	K	39	103.617				
	Ca	43	105.411				
>	Sc	45			96.5		
	Ti	47	101.858				
	V	51	99.380				
	Cr	52	101.634				
	Cr	53					
	Mn	55	104.287				
	Fe	57	104.557				
	Co	59	97.754				
	Ni	60	102.937				
	Cu	63					
	Cu	65	102.824				
	Zn	66	104.964				
	Zn	67					
	Zn	68					
>	Ge	74			94.6		
	As	75	103.539				
	Se	77					
	Se	82	106.376				
	Kr	83					
	Sr	88	103.224				
	Y	89					
	Zr	90	97.350				
	Mo	98	100.752				
	Ag	107	98.357				
	Cd	111	102.894				
	Cd	114					
>	In	115			96.4		
	Sn	120	103.641				
	Sb	121	102.161				
	Sb	123					
	Ba	135					
	Ba	137	99.318				
	Ho	165					
>	Lu	175			98.6		
	Tl	205	102.599				
	Pb	208	104.305				
	Th	232	104.309				
	U	238	108.652				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Na	23CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 15, 2010 01:56:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 7.333

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.093**	**ug/L**	10.238	72	0.000
	Be	9	**0.018**	**ug/L**	152.659	17	0.000
	B	11	**1.482**	**ug/L**	28.034	194	0.000
	Na	23	**5.713**	**ug/L**	101.203	21350	0.019
	Mg	24	**-1.021**	**ug/L**	287.096	7335	-0.002
	Al	27	**2.360**	**ug/L**	97.377	11672	0.007
	P	31	**-0.126**	**ug/L**	953.622	2030	-0.000
	K	39	**-15.457**	**ug/L**	27.055	398142	-0.087
	Ca	43	**-4.868**	**ug/L**	29.285	520	-0.000
>	Sc	45		**ug/L**		406934	406933.718
	Ti	47	**0.059**	**ug/L**	85.862	363	0.000
	V	51	**-0.518**	**ug/L**	251.397	21898	-0.003
	Cr	52	**-0.069**	**ug/L**	196.585	-2118	-0.000
	Cr	53		**ug/L**		143615	-0.002
	Mn	55	**0.016**	**ug/L**	10.264	934	0.000
	Fe	57	**2.859**	**ug/L**	78.478	5718	0.001
	Co	59	**-0.015**	**ug/L**	26.412	410	-0.000
	Ni	60	**0.016**	**ug/L**	50.085	98	0.000
	Cu	63		**ug/L**		253	0.000
	Cu	65	**0.008**	**ug/L**	73.632	140	0.000
	Zn	66	**0.014**	**ug/L**	291.974	193	0.000
	Zn	67		**ug/L**		5250	-0.001
	Zn	68		**ug/L**		417	-0.000
>	Ge	74		**ug/L**		183836	183835.638
	As	75	**-0.022**	**ug/L**	5978.777	574	-0.000
	Se	77		**ug/L**		6362	-0.004
	Se	82	**0.028**	**ug/L**	2705.708	23	0.000
	Kr	83		**ug/L**		69	-0.000
	Sr	88	**0.009**	**ug/L**	25.277	434	0.001
	Y	89		**ug/L**		31	0.000
	Zr	90	**0.139**	**ug/L**	16.771	800	0.005
	Mo	98	**0.105**	**ug/L**	15.717	357	0.002
	Ag	107	**0.020**	**ug/L**	44.688	190	0.001
	Cd	111	**0.011**	**ug/L**	118.460	38	0.000
	Cd	114		**ug/L**		84	0.000
>	In	115		**ug/L**		90126	90125.619
	Sn	120	**0.045**	**ug/L**	21.358	386	0.001
	Sb	121	**0.097**	**ug/L**	3.579	336	0.002
	Sb	123		**ug/L**		306	0.002
	Ba	135		**ug/L**		49	-0.000
	Ba	137	**0.009**	**ug/L**	88.629	85	0.000
	Ho	165		**ug/L**		26	-0.000
>	Lu	175		**ug/L**		81005	81004.555
	Tl	205	**0.646**	**ug/L**	18.959	1098	0.011
	Pb	208	**0.053**	**ug/L**	25.530	1543	0.003
	Th	232	**0.142**	**ug/L**	12.510	1202	0.009
	U	238	**0.034**	**ug/L**	10.189	789	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			92.5		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			93.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			94.1		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			96.6		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 15, 2010 02:33:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 6.339

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.394**	ug/L	1.877	17803	0.038
	Be	9	**48.964**	ug/L	4.844	5157	0.011
	B	11	**103.099**	ug/L	4.496	8675	0.018
	Na	23	**5472.183**	ug/L	11.972	8455489	17.887
	Mg	24	**5298.104**	ug/L	6.824	6035149	12.760
	Al	27	**5387.992**	ug/L	2.867	8093849	17.100
	P	31	**5121.088**	ug/L	4.416	452296	0.952
	K	39	**5138.794**	ug/L	6.070	14158719	28.906
	Ca	43	**5292.035**	ug/L	3.774	30416	0.063
>	Sc	45		ug/L		472728	472728.122
	Ti	47	**50.231**	ug/L	2.908	14069	0.029
	V	51	**46.742**	ug/L	3.723	167693	0.298
	Cr	52	**48.530**	ug/L	3.123	134977	0.290
	Cr	53		ug/L		202563	0.074
	Mn	55	**52.057**	ug/L	2.862	239294	0.504
	Fe	57	**5082.286**	ug/L	3.127	474965	0.992
	Co	59	**47.185**	ug/L	2.649	167364	0.353
	Ni	60	**48.984**	ug/L	3.038	37102	0.078
	Cu	63		ug/L		87861	0.185
	Cu	65	**49.901**	ug/L	2.044	42217	0.089
	Zn	66	**53.403**	ug/L	2.697	24332	0.121
	Zn	67		ug/L		10934	0.025
	Zn	68		ug/L		17558	0.085
>	Ge	74		ug/L		200022	200021.789
	As	75	**53.120**	ug/L	4.538	29052	0.142
	Se	77		ug/L		9318	0.008
	Se	82	**54.183**	ug/L	2.882	2331	0.012
	Kr	83		ug/L		83	0.000
	Sr	88	**52.373**	ug/L	2.298	353669	3.568
	Y	89		ug/L		89	0.001
	Zr	90	**49.499**	ug/L	2.946	190025	1.916
	Mo	98	**50.013**	ug/L	2.598	82786	0.834
	Ag	107	**49.113**	ug/L	0.542	125530	1.266
	Cd	111	**51.237**	ug/L	2.061	27880	0.281
	Cd	114		ug/L		63160	0.637
>	In	115		ug/L		99024	99024.339
	Sn	120	**51.178**	ug/L	1.111	124212	1.251
	Sb	121	**50.448**	ug/L	1.383	111603	1.126
	Sb	123		ug/L		86624	0.873
	Ba	135		ug/L		30194	0.343
	Ba	137	**50.032**	ug/L	2.798	53384	0.607
	Ho	165		ug/L		34	0.000
>	Lu	175		ug/L		87765	87764.986
	Tl	205	**50.548**	ug/L	2.403	73312	0.832
	Pb	208	**50.904**	ug/L	0.959	255334	2.893
	Th	232	**51.296**	ug/L	0.552	288895	3.286
	U	238	**53.043**	ug/L	0.467	299123	3.401

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	92.788				
	Be	9	97.928				
	B	11	103.099				
	Na	23	109.444				
	Mg	24	105.962				
	Al	27	106.693				
	P	31	102.422				
	K	39	102.776				
	Ca	43	105.841				
>	Sc	45		107.5			
	Ti	47	100.462				
	V	51	93.485				
	Cr	52	97.061				
	Cr	53					
	Mn	55	104.113				
	Fe	57	101.646				
	Co	59	94.369				
	Ni	60	97.968				
	Cu	63					
	Cu	65	99.801				
	Zn	66	106.807				
	Zn	67					
	Zn	68					
>	Ge	74		101.5			
	As	75	106.241				
	Se	77					
	Se	82	108.366				
	Kr	83					
	Sr	88	104.746				
	Y	89					
	Zr	90	98.998				
	Mo	98	100.027				
	Ag	107	98.226				
	Cd	111	102.474				
	Cd	114					
>	In	115		103.4			
	Sn	120	102.355				
	Sb	121	100.897				
	Sb	123					
	Ba	135					
	Ba	137	100.063				
	Ho	165					
>	Lu	175		104.6			
	Tl	205	101.096				
	Pb	208	101.809				
	Th	232	102.591				
	U	238	106.086				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 15, 2010 02:39:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 7.340

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.044**	ug/L	65.305	62	0.000
	Be	9	**-0.031**	ug/L	24.179	14	-0.000
	B	11	**1.485**	ug/L	10.955	216	0.000
	Na	23	**3.157**	ug/L	61.703	20014	0.010
	Mg	24	**-4.505**	ug/L	12.685	4334	-0.011
	Al	27	**4.036**	ug/L	72.686	15342	0.013
	P	31	**-0.985**	ug/L	187.952	2177	-0.000
	K	39	**-30.024**	ug/L	65.442	404372	-0.169
	Ca	43	**4.177**	ug/L	263.132	624	0.000
>	Sc	45		ug/L		450777	450776.694
	Ti	47	**0.168**	ug/L	11.590	430	0.000
	V	51	**-1.773**	ug/L	98.743	20652	-0.011
	Cr	52	**-0.442**	ug/L	23.454	-3361	-0.003
	Cr	53		ug/L		172546	0.028
	Mn	55	**0.024**	ug/L	21.231	1068	0.000
	Fe	57	**-6.559**	ug/L	30.250	5509	-0.001
	Co	59	**-0.022**	ug/L	34.061	430	-0.000
	Ni	60	**-0.007**	ug/L	207.208	91	-0.000
	Cu	63		ug/L		247	-0.000
	Cu	65	**-0.007**	ug/L	204.126	143	-0.000
	Zn	66	**-0.044**	ug/L	48.045	179	-0.000
	Zn	67		ug/L		6349	0.003
	Zn	68		ug/L		478	-0.000
>	Ge	74		ug/L		195215	195215.087
	As	75	**-0.191**	ug/L	412.756	516	-0.001
	Se	77		ug/L		7454	-0.000
	Se	82	**-0.254**	ug/L	85.368	13	-0.000
	Kr	83		ug/L		81	0.000
	Sr	88	**0.005**	ug/L	20.253	446	0.000
	Y	89		ug/L		25	-0.000
	Zr	90	**0.133**	ug/L	22.862	838	0.005
	Mo	98	**0.085**	ug/L	22.419	353	0.001
	Ag	107	**0.013**	ug/L	22.794	187	0.000
	Cd	111	**0.005**	ug/L	426.881	37	0.000
	Cd	114		ug/L		93	0.000
>	In	115		ug/L		96970	96969.566
	Sn	120	**0.037**	ug/L	30.231	396	0.001
	Sb	121	**0.076**	ug/L	6.397	316	0.002
	Sb	123		ug/L		303	0.001
	Ba	135		ug/L		54	0.000
	Ba	137	**0.003**	ug/L	567.440	83	0.000
	Ho	165		ug/L		31	-0.000
>	Lu	175		ug/L		84084	84083.926
	Tl	205	**0.430**	ug/L	25.790	841	0.007
	Pb	208	**0.018**	ug/L	72.119	1430	0.001
	Th	232	**0.133**	ug/L	20.131	1196	0.009
	U	238	**0.019**	ug/L	28.510	743	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.2			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072001
Sample Date/Time: Saturday, May 15, 2010 02:46:01
Sample Type:
Sample Description: QC A 6020 MB
Number of Replicates: 3
Batch ID: 979730|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\1202072001.341

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.047	ug/L	108.667	65	0.000
	Be	9	-0.079	ug/L	26.902	9	-0.000
	B	11	0.581	ug/L	41.539	147	0.000
	Na	23	0.808	ug/L	420.846	17011	0.003
	Mg	24	-8.196	ug/L	6.422	333	-0.020
	Al	27	-3.942	ug/L	18.665	4001	-0.013
	P	31	-6.408	ug/L	14.436	1759	-0.001
	K	39	-19.453	ug/L	102.994	439357	-0.109
	Ca	43	66.027	ug/L	4.722	977	0.001
>	Sc	45		ug/L		460551	460551.091
	Ti	47	0.908	ug/L	11.048	636	0.001
	V	51	-0.714	ug/L	232.441	24279	-0.005
	Cr	52	-2.615	ug/L	16.374	-9436	-0.016
	Cr	53		ug/L		520419	0.775
	Mn	55	0.304	ug/L	5.642	2344	0.003
	Fe	57	0.711	ug/L	317.037	6279	0.000
	Co	59	-0.067	ug/L	10.058	285	-0.000
	Ni	60	0.008	ug/L	154.593	104	0.000
	Cu	63		ug/L		329	0.000
	Cu	65	0.049	ug/L	25.746	193	0.000
	Zn	66	0.779	ug/L	5.557	570	0.002
	Zn	67		ug/L		20142	0.069
	Zn	68		ug/L		1430	0.004
>	Ge	74		ug/L		205141	205140.522
	As	75	2.965	ug/L	89.171	2263	0.008
	Se	77		ug/L		29761	0.107
	Se	82	-0.789	ug/L	39.910	-10	-0.000
	Kr	83		ug/L		87	0.000
	Sr	88	-0.017	ug/L	55.807	311	-0.001
	Y	89		ug/L		28	0.000
	Zr	90	0.127	ug/L	28.811	851	0.005
	Mo	98	-0.059	ug/L	1.087	125	-0.001
	Ag	107	-0.018	ug/L	11.820	116	-0.000
	Cd	111	-0.029	ug/L	47.433	20	-0.000
	Cd	114		ug/L		27	-0.000
>	In	115		ug/L		101292	101292.116
	Sn	120	0.156	ug/L	3.325	708	0.004
	Sb	121	0.073	ug/L	30.800	324	0.002
	Sb	123		ug/L		321	0.002
	Ba	135		ug/L		37	-0.000
	Ba	137	-0.022	ug/L	25.455	56	-0.000
	Ho	165		ug/L		25	-0.000
>	Lu	175		ug/L		84127	84127.489
	Tl	205	0.098	ug/L	12.250	383	0.002
	Pb	208	-0.097	ug/L	8.779	884	-0.006
	Th	232	0.034	ug/L	73.864	666	0.002
	U	238	-0.106	ug/L	1.908	66	-0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		105.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.3			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072002
Sample Date/Time: Saturday, May 15, 2010 02:52:10
Sample Type:
Sample Description: QC A 6020 LCS
Number of Replicates: 3
Batch ID: 979730|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\1202072002.342

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.120**	ug/L	1.282	17666	0.037
	Be	9	**48.257**	ug/L	1.396	5077	0.011
	B	11	**98.954**	ug/L	1.307	8319	0.017
	Na	23	**1976.661**	ug/L	7.399	3065304	6.461
	Mg	24	**1612.417**	ug/L	4.074	1841612	3.883
	Al	27	**1845.837**	ug/L	5.078	2773250	5.858
	P	31	**1873.349**	ug/L	1.549	166734	0.348
	K	39	**1952.955**	ug/L	2.574	5686146	10.986
	Ca	43	**2008.864**	ug/L	1.854	11920	0.024
>	Sc	45		ug/L		471790	471789.878
	Ti	47	**46.156**	ug/L	2.200	12941	0.027
	V	51	**47.631**	ug/L	6.525	170150	0.303
	Cr	52	**45.790**	ug/L	2.698	127021	0.274
	Cr	53		ug/L		542649	0.795
	Mn	55	**49.580**	ug/L	0.998	227607	0.480
	Fe	57	**1934.667**	ug/L	0.397	184475	0.378
	Co	59	**47.288**	ug/L	1.874	167456	0.354
	Ni	60	**48.234**	ug/L	3.208	36480	0.077
	Cu	63		ug/L		87618	0.185
	Cu	65	**49.379**	ug/L	1.509	41708	0.088
	Zn	66	**49.350**	ug/L	1.312	23775	0.112
	Zn	67		ug/L		25285	0.090
	Zn	68		ug/L		18190	0.084
>	Ge	74		ug/L		211282	211282.467
	As	75	**51.838**	ug/L	4.333	29971	0.139
	Se	77		ug/L		30567	0.106
	Se	82	**51.616**	ug/L	1.890	2348	0.011
	Kr	83		ug/L		83	0.000
	Sr	88	**50.326**	ug/L	0.881	353638	3.429
	Y	89		ug/L		45	0.000
	Zr	90	**47.719**	ug/L	2.795	190557	1.847
	Mo	98	**47.907**	ug/L	4.693	82480	0.799
	Ag	107	**49.249**	ug/L	0.231	130954	1.270
	Cd	111	**50.132**	ug/L	1.822	28380	0.275
	Cd	114		ug/L		62488	0.606
>	In	115		ug/L		103018	103017.721
	Sn	120	**49.048**	ug/L	2.334	123839	1.199
	Sb	121	**48.905**	ug/L	2.423	112541	1.091
	Sb	123		ug/L		87035	0.843
	Ba	135		ug/L		30039	0.355
	Ba	137	**50.368**	ug/L	1.086	51781	0.611
	Ho	165		ug/L		29	-0.000
>	Lu	175		ug/L		84568	84567.758
	Tl	205	**45.608**	ug/L	1.464	63758	0.751
	Pb	208	**49.500**	ug/L	0.215	239288	2.814
	Th	232	**49.458**	ug/L	2.815	268435	3.168
	U	238	**51.604**	ug/L	1.628	280410	3.308

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			107.3		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			107.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			107.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			100.8		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249333001
Sample Date/Time: Saturday, May 15, 2010 03:23:02
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 979730|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\249333001.347

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.022**	ug/L	75.965	54	0.000
	Be	9	**-0.043**	ug/L	74.794	12	-0.000
	B	11	**0.004**	ug/L	3324.527	97	0.000
	Na	23	**-4.490**	ug/L	32.386	8669	-0.015
	Mg	24	**-8.189**	ug/L	6.596	333	-0.020
	Al	27	**-3.623**	ug/L	45.503	4334	-0.011
	P	31	**-5.531**	ug/L	17.923	1777	-0.001
	K	39	**-34.085**	ug/L	18.099	389577	-0.192
	Ca	43	**76.233**	ug/L	2.479	1001	0.001
>	Sc	45		ug/L		445977	445976.765
	Ti	47	**0.981**	ug/L	11.439	634	0.001
	V	51	**2.788**	ug/L	85.995	33387	0.018
	Cr	52	**-2.666**	ug/L	10.815	-9257	-0.016
	Cr	53		ug/L		522528	0.817
	Mn	55	**0.314**	ug/L	11.337	2311	0.003
	Fe	57	**2.694**	ug/L	48.548	6256	0.001
	Co	59	**-0.061**	ug/L	2.595	296	-0.000
	Ni	60	**0.078**	ug/L	25.141	151	0.000
	Cu	63		ug/L		321	0.000
	Cu	65	**0.064**	ug/L	16.974	198	0.000
	Zn	66	**0.892**	ug/L	3.127	613	0.002
	Zn	67		ug/L		20639	0.073
	Zn	68		ug/L		1454	0.005
>	Ge	74		ug/L		202162	202162.087
	As	75	**4.337**	ug/L	74.992	2978	0.012
	Se	77		ug/L		30382	0.112
	Se	82	**-0.520**	ug/L	56.814	2	-0.000
	Kr	83		ug/L		83	0.000
	Sr	88	**-0.013**	ug/L	60.835	331	-0.001
	Y	89		ug/L		33	0.000
	Zr	90	**-0.011**	ug/L	44.905	305	-0.000
	Mo	98	**-0.091**	ug/L	5.752	69	-0.002
	Ag	107	**-0.029**	ug/L	9.092	86	-0.001
	Cd	111	**-0.044**	ug/L	12.325	12	-0.000
	Cd	114		ug/L		27	-0.000
>	In	115		ug/L		99021	99020.534
	Sn	120	**0.107**	ug/L	11.526	574	0.003
	Sb	121	**0.009**	ug/L	17.360	176	0.000
	Sb	123		ug/L		211	0.000
	Ba	135		ug/L		60	0.000
	Ba	137	**0.003**	ug/L	808.366	79	0.000
	Ho	165		ug/L		30	-0.000
>	Lu	175		ug/L		81524	81523.859
	Tl	205	**-0.001**	ug/L	705.216	238	-0.000
	Pb	208	**-0.101**	ug/L	10.507	840	-0.006
	Th	232	**-0.059**	ug/L	2.588	160	-0.004
	U	238	**-0.108**	ug/L	2.888	56	-0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.2			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 15, 2010 03:29:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 6.348

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.105**	ug/L	1.084	18357	0.040
	Be	9	**48.798**	ug/L	2.164	5010	0.011
	B	11	**100.580**	ug/L	3.296	8251	0.018
	Na	23	**5314.492**	ug/L	1.230	8015783	17.371
	Mg	24	**5140.979**	ug/L	6.079	5709372	12.381
	Al	27	**5336.211**	ug/L	7.357	7805526	16.936
	P	31	**5034.243**	ug/L	2.418	433403	0.936
	K	39	**5113.980**	ug/L	1.329	13736162	28.767
	Ca	43	**5127.701**	ug/L	1.057	28742	0.061
>	Sc	45		ug/L		460496	460495.701
	Ti	47	**48.904**	ug/L	1.592	13357	0.028
	V	51	**48.094**	ug/L	5.088	167333	0.306
	Cr	52	**49.123**	ug/L	3.551	133162	0.294
	Cr	53		ug/L		201678	0.083
	Mn	55	**50.876**	ug/L	1.402	227904	0.493
	Fe	57	**5103.845**	ug/L	3.429	464694	0.996
	Co	59	**48.050**	ug/L	2.069	166056	0.360
	Ni	60	**49.550**	ug/L	1.249	36574	0.079
	Cu	63		ug/L		85294	0.185
	Cu	65	**49.147**	ug/L	1.879	40511	0.088
	Zn	66	**52.494**	ug/L	2.223	23582	0.119
	Zn	67		ug/L		10613	0.024
	Zn	68		ug/L		17368	0.086
>	Ge	74		ug/L		197174	197174.213
	As	75	**52.648**	ug/L	1.817	28394	0.141
	Se	77		ug/L		9642	0.010
	Se	82	**53.659**	ug/L	3.145	2276	0.011
	Kr	83		ug/L		85	0.000
	Sr	88	**52.927**	ug/L	1.808	345711	3.606
	Y	89		ug/L		93	0.001
	Zr	90	**49.916**	ug/L	4.392	185272	1.932
	Mo	98	**51.267**	ug/L	2.984	82065	0.855
	Ag	107	**49.985**	ug/L	1.271	123557	1.289
	Cd	111	**52.024**	ug/L	1.060	27384	0.286
	Cd	114		ug/L		60080	0.627
>	In	115		ug/L		95781	95781.168
	Sn	120	**51.608**	ug/L	2.932	121127	1.262
	Sb	121	**50.916**	ug/L	3.861	108915	1.136
	Sb	123		ug/L		83386	0.869
	Ba	135		ug/L		29860	0.359
	Ba	137	**50.990**	ug/L	2.781	51484	0.619
	Ho	165		ug/L		30	-0.000
>	Lu	175		ug/L		83076	83076.050
	Tl	205	**49.865**	ug/L	1.585	68446	0.821
	Pb	208	**51.500**	ug/L	0.530	244504	2.927
	Th	232	**51.676**	ug/L	1.367	275461	3.310
	U	238	**53.538**	ug/L	1.783	285731	3.432

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	98.211				
	Be	9	97.596				
	B	11	100.580				
	Na	23	106.290				
	Mg	24	102.820				
	Al	27	105.668				
	P	31	100.685				
	K	39	102.280				
	Ca	43	102.554				
>	Sc	45		104.7			
	Ti	47	97.807				
	V	51	96.188				
	Cr	52	98.246				
	Cr	53					
	Mn	55	101.752				
	Fe	57	102.077				
	Co	59	96.100				
	Ni	60	99.099				
	Cu	63					
	Cu	65	98.294				
	Zn	66	104.988				
	Zn	67					
	Zn	68					
>	Ge	74		100.1			
	As	75	105.296				
	Se	77					
	Se	82	107.319				
	Kr	83					
	Sr	88	105.853				
	Y	89					
	Zr	90	99.832				
	Mo	98	102.534				
	Ag	107	99.970				
	Cd	111	104.047				
	Cd	114					
>	In	115		100.0			
	Sn	120	103.215				
	Sb	121	101.831				
	Sb	123					
	Ba	135					
	Ba	137	101.980				
	Ho	165					
>	Lu	175		99.0			
	Tl	205	99.731				
	Pb	208	103.000				
	Th	232	103.352				
	U	238	107.077				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 15, 2010 03:35:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 7.349

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.047**	ug/L	18.752	61	0.000
	Be	9	**0.012**	ug/L	289.066	17	0.000
	B	11	**1.419**	ug/L	25.800	204	0.000
	Na	23	**1.770**	ug/L	157.433	17344	0.006
	Mg	24	**-2.190**	ug/L	242.575	6669	-0.005
	Al	27	**1.486**	ug/L	211.465	11338	0.005
	P	31	**-1.215**	ug/L	78.909	2085	-0.000
	K	39	**-23.342**	ug/L	15.001	406711	-0.131
	Ca	43	**-1.062**	ug/L	797.289	576	-0.000
>	Sc	45		ug/L		435342	435342.291
	Ti	47	**0.168**	ug/L	59.564	415	0.000
	V	51	**-1.484**	ug/L	84.498	20706	-0.009
	Cr	52	**-0.325**	ug/L	1.836	-2941	-0.002
	Cr	53		ug/L		163901	0.022
	Mn	55	**0.024**	ug/L	17.343	1031	0.000
	Fe	57	**-3.634**	ug/L	34.344	5570	-0.001
	Co	59	**-0.017**	ug/L	26.249	432	-0.000
	Ni	60	**-0.001**	ug/L	1224.982	92	-0.000
	Cu	63		ug/L		237	-0.000
	Cu	65	**-0.033**	ug/L	21.455	119	-0.000
	Zn	66	**-0.003**	ug/L	2266.078	192	-0.000
	Zn	67		ug/L		5957	0.002
	Zn	68		ug/L		525	0.000
>	Ge	74		ug/L		189365	189365.438
	As	75	**0.042**	ug/L	3206.541	629	0.000
	Se	77		ug/L		7032	-0.001
	Se	82	**-0.330**	ug/L	66.984	9	-0.000
	Kr	83		ug/L		69	-0.000
	Sr	88	**0.007**	ug/L	42.189	439	0.000
	Y	89		ug/L		30	0.000
	Zr	90	**0.140**	ug/L	22.170	838	0.005
	Mo	98	**0.081**	ug/L	15.377	334	0.001
	Ag	107	**0.018**	ug/L	11.058	193	0.000
	Cd	111	**0.012**	ug/L	41.195	40	0.000
	Cd	114		ug/L		100	0.000
>	In	115		ug/L		93802	93802.349
	Sn	120	**0.030**	ug/L	13.953	367	0.001
	Sb	121	**0.073**	ug/L	24.712	300	0.002
	Sb	123		ug/L		296	0.001
	Ba	135		ug/L		56	0.000
	Ba	137	**0.008**	ug/L	45.632	85	0.000
	Ho	165		ug/L		25	-0.000
>	Lu	175		ug/L		81310	81309.938
	Tl	205	**0.553**	ug/L	23.617	978	0.009
	Pb	208	**-0.012**	ug/L	112.788	1246	-0.001
	Th	232	**0.138**	ug/L	21.588	1182	0.009
	U	238	**0.018**	ug/L	34.277	708	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			99.0		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			96.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			97.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			96.9		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249333002
Sample Date/Time: Saturday, May 15, 2010 03:41:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 979730|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\249333002.350

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.083**	ug/L	9.323	71	0.000
	Be	9	**-0.046**	ug/L	43.573	11	-0.000
	B	11	**0.656**	ug/L	13.159	140	0.000
	Na	23	**61.441**	ug/L	21.662	98678	0.201
	Mg	24	**2.672**	ug/L	46.235	11338	0.006
	Al	27	**94.373**	ug/L	11.701	134971	0.300
	P	31	**-3.758**	ug/L	59.973	1818	-0.001
	K	39	**20.944**	ug/L	48.190	498552	0.118
	Ca	43	**114.856**	ug/L	9.014	1139	0.001
>	Sc	45		ug/L		421795	421795.412
	Ti	47	**2.633**	ug/L	15.563	999	0.002
	V	51	**4.534**	ug/L	49.895	36277	0.029
	Cr	52	**-1.712**	ug/L	35.257	-6362	-0.010
	Cr	53		ug/L		449927	0.712
	Mn	55	**3.091**	ug/L	4.036	13522	0.030
	Fe	57	**65.483**	ug/L	7.594	11075	0.013
	Co	59	**-0.020**	ug/L	38.866	408	-0.000
	Ni	60	**0.500**	ug/L	2.013	427	0.001
	Cu	63		ug/L		849	0.001
	Cu	65	**0.399**	ug/L	5.182	439	0.001
	Zn	66	**1.782**	ug/L	6.956	959	0.004
	Zn	67		ug/L		18021	0.065
	Zn	68		ug/L		1648	0.006
>	Ge	74		ug/L		190288	190287.973
	As	75	**3.091**	ug/L	74.872	2170	0.008
	Se	77		ug/L		24843	0.092
	Se	82	**-0.553**	ug/L	55.603	1	-0.000
	Kr	83		ug/L		82	0.000
	Sr	88	**0.365**	ug/L	3.936	2711	0.025
	Y	89		ug/L		878	0.009
	Zr	90	**0.318**	ug/L	8.284	1472	0.012
	Mo	98	**-0.026**	ug/L	26.494	165	-0.000
	Ag	107	**-0.019**	ug/L	32.927	104	-0.000
	Cd	111	**-0.045**	ug/L	9.772	10	-0.000
	Cd	114		ug/L		34	-0.000
>	In	115		ug/L		93192	93191.518
	Sn	120	**0.165**	ug/L	4.614	673	0.004
	Sb	121	**0.088**	ug/L	20.589	328	0.002
	Sb	123		ug/L		317	0.002
	Ba	135		ug/L		517	0.006
	Ba	137	**0.918**	ug/L	5.435	944	0.011
	Ho	165		ug/L		53	0.000
>	Lu	175		ug/L		78246	78246.296
	Tl	205	**0.132**	ug/L	29.786	398	0.002
	Pb	208	**0.511**	ug/L	3.377	3526	0.029
	Th	232	**0.072**	ug/L	35.183	806	0.005
	U	238	**-0.091**	ug/L	0.900	137	-0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			95.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			96.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			97.3		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			93.3		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202106366
Sample Date/Time: Saturday, May 15, 2010 03:47:40
Sample Type:
Sample Description: QC A 6020 DUP
Number of Replicates: 3
Batch ID: 979730|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\1202106366.351

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.100**	**ug/L**	10.882	79	0.000
	Be	9	**-0.055**	**ug/L**	39.502	11	-0.000
	B	11	**0.255**	**ug/L**	48.545	113	0.000
	Na	23	**47.927**	**ug/L**	14.715	81903	0.157
	Mg	24	**5.670**	**ug/L**	50.333	14674	0.014
	Al	27	**87.839**	**ug/L**	3.739	128913	0.279
	P	31	**-2.514**	**ug/L**	62.877	1953	-0.000
	K	39	**13.483**	**ug/L**	65.896	490279	0.076
	Ca	43	**105.680**	**ug/L**	2.689	1115	0.001
>	Sc	45		**ug/L**		429650	429649.647
	Ti	47	**2.334**	**ug/L**	3.058	945	0.001
	V	51	**4.454**	**ug/L**	76.820	36654	0.028
	Cr	52	**-2.115**	**ug/L**	3.346	-7506	-0.013
	Cr	53		**ug/L**		471995	0.744
	Mn	55	**2.981**	**ug/L**	2.143	13323	0.029
	Fe	57	**57.393**	**ug/L**	4.163	10612	0.011
	Co	59	**-0.027**	**ug/L**	19.360	395	-0.000
	Ni	60	**0.396**	**ug/L**	5.888	364	0.001
	Cu	63		**ug/L**		802	0.001
	Cu	65	**0.360**	**ug/L**	11.280	419	0.001
	Zn	66	**1.732**	**ug/L**	6.081	955	0.004
	Zn	67		**ug/L**		19110	0.069
	Zn	68		**ug/L**		1623	0.006
>	Ge	74		**ug/L**		193678	193677.778
	As	75	**1.956**	**ug/L**	88.024	1633	0.005
	Se	77		**ug/L**		26026	0.096
	Se	82	**-0.485**	**ug/L**	42.481	3	-0.000
	Kr	83		**ug/L**		76	0.000
	Sr	88	**0.329**	**ug/L**	1.298	2540	0.022
	Y	89		**ug/L**		836	0.008
	Zr	90	**0.197**	**ug/L**	7.963	1061	0.008
	Mo	98	**-0.035**	**ug/L**	28.132	156	-0.001
	Ag	107	**-0.026**	**ug/L**	21.388	89	-0.001
	Cd	111	**-0.048**	**ug/L**	43.266	9	-0.000
	Cd	114		**ug/L**		29	-0.000
>	In	115		**ug/L**		95437	95437.132
	Sn	120	**0.102**	**ug/L**	4.708	542	0.002
	Sb	121	**0.022**	**ug/L**	31.565	197	0.000
	Sb	123		**ug/L**		210	0.001
	Ba	135		**ug/L**		490	0.005
	Ba	137	**0.821**	**ug/L**	8.323	878	0.010
	Ho	165		**ug/L**		56	0.000
>	Lu	175		**ug/L**		80542	80541.596
	Tl	205	**0.039**	**ug/L**	65.925	288	0.001
	Pb	208	**0.442**	**ug/L**	3.070	3313	0.025
	Th	232	**0.004**	**ug/L**	132.598	480	0.000
	U	238	**-0.092**	**ug/L**	5.657	134	-0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.0			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202106368
Sample Date/Time: Saturday, May 15, 2010 03:53:50
Sample Type:
Sample Description: QC A 6020 MS
Number of Replicates: 3
Batch ID: 979730|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\1202106368.352

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.664**	**ug/L**	2.645	17555	0.040
	Be	9	**49.940**	**ug/L**	0.506	4849	0.011
	B	11	**98.938**	**ug/L**	3.146	7676	0.017
	Na	23	**2082.746**	**ug/L**	3.592	2979385	6.808
	Mg	24	**1798.734**	**ug/L**	2.917	1895299	4.332
	Al	27	**1896.886**	**ug/L**	2.325	2630575	6.020
	P	31	**1825.985**	**ug/L**	0.404	150061	0.340
	K	39	**1957.483**	**ug/L**	10.217	5257465	11.011
	Ca	43	**2079.191**	**ug/L**	1.460	11368	0.025
>	Sc	45		**ug/L**		435448	435448.368
	Ti	47	**46.977**	**ug/L**	1.773	12149	0.027
	V	51	**52.634**	**ug/L**	1.642	170885	0.335
	Cr	52	**46.782**	**ug/L**	2.850	119826	0.280
	Cr	53		**ug/L**		479240	0.746
	Mn	55	**52.518**	**ug/L**	1.572	222457	0.509
	Fe	57	**2052.800**	**ug/L**	2.556	180287	0.401
	Co	59	**48.215**	**ug/L**	1.990	157574	0.361
	Ni	60	**49.112**	**ug/L**	0.749	34283	0.079
	Cu	63		**ug/L**		82692	0.189
	Cu	65	**50.645**	**ug/L**	1.325	39477	0.090
	Zn	66	**51.024**	**ug/L**	0.832	22461	0.115
	Zn	67		**ug/L**		22627	0.088
	Zn	68		**ug/L**		17080	0.086
>	Ge	74		**ug/L**		193125	193125.312
	As	75	**79.917**	**ug/L**	2.826	41900	0.214
	Se	77		**ug/L**		25025	0.091
	Se	82	**20.591**	**ug/L**	4.486	870	0.004
	Kr	83		**ug/L**		78	0.000
	Sr	88	**50.802**	**ug/L**	2.157	331634	3.461
	Y	89		**ug/L**		935	0.010
	Zr	90	**48.805**	**ug/L**	0.926	181122	1.889
	Mo	98	**47.820**	**ug/L**	2.260	76525	0.797
	Ag	107	**50.209**	**ug/L**	0.617	124054	1.294
	Cd	111	**10.186**	**ug/L**	4.344	5385	0.056
	Cd	114		**ug/L**		11653	0.121
>	In	115		**ug/L**		95720	95720.374
	Sn	120	**50.033**	**ug/L**	0.716	117396	1.223
	Sb	121	**196.240**	**ug/L**	1.525	419214	4.378
	Sb	123		**ug/L**		323254	3.376
	Ba	135		**ug/L**		28751	0.350
	Ba	137	**50.069**	**ug/L**	2.653	49895	0.608
	Ho	165		**ug/L**		91	0.001
>	Lu	175		**ug/L**		81973	81973.333
	Tl	205	**91.773**	**ug/L**	2.247	124104	1.511
	Pb	208	**40.436**	**ug/L**	2.220	189708	2.298
	Th	232	**49.893**	**ug/L**	1.199	262466	3.196
	U	238	**52.722**	**ug/L**	1.301	277692	3.380

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			99.0		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			98.0		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			99.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			97.7		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202106367
Sample Date/Time: Saturday, May 15, 2010 04:00:01
Sample Type:
Sample Description: QC A 6020 SDILT
Number of Replicates: 3
Batch ID: 979730|5|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\1202106367.353

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.004**	ug/L	335.501	45	0.000
	Be	9	**-0.057**	ug/L	16.353	10	-0.000
	B	11	**1.138**	ug/L	31.133	177	0.000
	Na	23	**7.237**	ug/L	30.321	24354	0.024
	Mg	24	**-5.549**	ug/L	17.088	3000	-0.013
	Al	27	**18.240**	ug/L	15.829	33373	0.058
	P	31	**-5.003**	ug/L	22.993	1720	-0.001
	K	39	**-1.832**	ug/L	1141.629	445591	-0.010
	Ca	43	**20.819**	ug/L	23.563	667	0.000
>	Sc	45		ug/L		421588	421587.901
	Ti	47	**0.634**	ug/L	11.960	515	0.000
	V	51	**1.146**	ug/L	199.950	27201	0.007
	Cr	52	**-0.889**	ug/L	11.967	-4273	-0.005
	Cr	53		ug/L		231486	0.194
	Mn	55	**0.607**	ug/L	7.056	3376	0.006
	Fe	57	**5.772**	ug/L	26.746	6165	0.001
	Co	59	**-0.056**	ug/L	25.423	294	-0.000
	Ni	60	**0.072**	ug/L	23.379	138	0.000
	Cu	63		ug/L		299	0.000
	Cu	65	**0.026**	ug/L	36.544	160	0.000
	Zn	66	**0.234**	ug/L	16.781	285	0.001
	Zn	67		ug/L		8484	0.017
	Zn	68		ug/L		720	0.001
>	Ge	74		ug/L		183909	183909.438
	As	75	**0.435**	ug/L	417.711	782	0.001
	Se	77		ug/L		10904	0.021
	Se	82	**-0.587**	ug/L	20.382	-1	-0.000
	Kr	83		ug/L		71	0.000
	Sr	88	**0.045**	ug/L	8.869	661	0.003
	Y	89		ug/L		194	0.002
	Zr	90	**0.011**	ug/L	93.012	359	0.000
	Mo	98	**-0.046**	ug/L	34.696	132	-0.001
	Ag	107	**-0.011**	ug/L	84.919	120	-0.000
	Cd	111	**-0.042**	ug/L	19.643	12	-0.000
	Cd	114		ug/L		27	-0.000
>	In	115		ug/L		90706	90706.393
	Sn	120	**0.002**	ug/L	305.038	292	0.000
	Sb	121	**0.021**	ug/L	84.684	185	0.000
	Sb	123		ug/L		217	0.001
	Ba	135		ug/L		130	0.001
	Ba	137	**0.164**	ug/L	12.861	233	0.002
	Ho	165		ug/L		27	-0.000
>	Lu	175		ug/L		79605	79604.638
	Tl	205	**1.050**	ug/L	19.427	1609	0.017
	Pb	208	**-0.006**	ug/L	217.016	1249	-0.000
	Th	232	**0.026**	ug/L	64.367	590	0.002
	U	238	**-0.092**	ug/L	7.958	133	-0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			95.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			93.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			94.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			94.9		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 15, 2010 04:06:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 6.354

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.231**	ug/L	1.640	18137	0.041
	Be	9	**50.895**	ug/L	2.575	4948	0.011
	B	11	**100.230**	ug/L	2.262	7789	0.018
	Na	23	**5081.586**	ug/L	6.328	7265251	16.610
	Mg	24	**4765.675**	ug/L	2.539	5016407	11.478
	Al	27	**5406.917**	ug/L	8.053	7499368	17.161
	P	31	**5123.452**	ug/L	2.857	417741	0.953
	K	39	**5084.824**	ug/L	5.710	12933916	28.603
	Ca	43	**5078.009**	ug/L	0.810	26969	0.060
>	Sc	45		ug/L		436219	436219.020
	Ti	47	**49.836**	ug/L	1.059	12887	0.029
	V	51	**46.746**	ug/L	5.748	154741	0.298
	Cr	52	**49.751**	ug/L	1.871	127781	0.298
	Cr	53		ug/L		172240	0.040
	Mn	55	**51.102**	ug/L	3.144	216806	0.495
	Fe	57	**5014.078**	ug/L	2.658	432566	0.978
	Co	59	**47.510**	ug/L	1.550	155542	0.356
	Ni	60	**50.208**	ug/L	2.115	35099	0.080
	Cu	63		ug/L		82004	0.187
	Cu	65	**49.892**	ug/L	2.757	38951	0.089
	Zn	66	**52.100**	ug/L	1.202	22236	0.118
	Zn	67		ug/L		9338	0.021
	Zn	68		ug/L		16435	0.085
>	Ge	74		ug/L		187279	187278.827
	As	75	**51.059**	ug/L	4.932	26173	0.137
	Se	77		ug/L		8346	0.006
	Se	82	**52.948**	ug/L	2.838	2134	0.011
	Kr	83		ug/L		72	0.000
	Sr	88	**52.216**	ug/L	1.120	330471	3.557
	Y	89		ug/L		72	0.001
	Zr	90	**48.915**	ug/L	1.375	175966	1.893
	Mo	98	**51.001**	ug/L	1.747	79110	0.850
	Ag	107	**48.841**	ug/L	1.853	116959	1.259
	Cd	111	**51.633**	ug/L	2.173	26334	0.283
	Cd	114		ug/L		57805	0.622
>	In	115		ug/L		92793	92792.816
	Sn	120	**51.149**	ug/L	3.479	116302	1.251
	Sb	121	**51.020**	ug/L	2.427	105753	1.138
	Sb	123		ug/L		81711	0.879
	Ba	135		ug/L		28396	0.348
	Ba	137	**50.346**	ug/L	1.656	49891	0.611
	Ho	165		ug/L		33	0.000
>	Lu	175		ug/L		81521	81521.097
	Tl	205	**50.211**	ug/L	1.382	67640	0.827
	Pb	208	**51.360**	ug/L	1.152	239272	2.919
	Th	232	**51.976**	ug/L	1.297	271920	3.330
	U	238	**54.087**	ug/L	0.707	283306	3.468

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	102.462				
	Be	9	101.790				
	B	11	100.230				
	Na	23	101.632				
	Mg	24	95.313				
	Al	27	107.068				
	P	31	102.469				
	K	39	101.696				
	Ca	43	101.560				
>	Sc	45			99.2		
	Ti	47	99.671				
	V	51	93.491				
	Cr	52	99.502				
	Cr	53					
	Mn	55	102.204				
	Fe	57	100.282				
	Co	59	95.021				
	Ni	60	100.417				
	Cu	63					
	Cu	65	99.784				
	Zn	66	104.199				
	Zn	67					
	Zn	68					
>	Ge	74			95.1		
	As	75	102.118				
	Se	77					
	Se	82	105.896				
	Kr	83					
	Sr	88	104.432				
	Y	89					
	Zr	90	97.831				
	Mo	98	102.003				
	Ag	107	97.681				
	Cd	111	103.265				
	Cd	114					
>	In	115			96.9		
	Sn	120	102.297				
	Sb	121	102.039				
	Sb	123					
	Ba	135					
	Ba	137	100.692				
	Ho	165					
>	Lu	175			97.2		
	Tl	205	100.422				
	Pb	208	102.719				
	Th	232	103.952				
	U	238	108.173				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 15, 2010 04:12:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 7.355

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.046**	ug/L	32.464	59	0.000
	Be	9	**0.018**	ug/L	307.623	17	0.000
	B	11	**1.479**	ug/L	17.993	202	0.000
	Na	23	**3.081**	ug/L	40.349	18679	0.010
	Mg	24	**-1.607**	ug/L	215.924	7002	-0.004
	Al	27	**6.480**	ug/L	46.481	17678	0.021
	P	31	**-0.447**	ug/L	79.860	2085	-0.000
	K	39	**-19.070**	ug/L	66.155	405362	-0.107
	Ca	43	**-6.644**	ug/L	130.834	531	-0.000
>	Sc	45		ug/L		422882	422881.659
	Ti	47	**0.105**	ug/L	26.411	388	0.000
	V	51	**-2.039**	ug/L	51.698	18662	-0.013
	Cr	52	**-0.119**	ug/L	69.666	-2333	-0.001
	Cr	53		ug/L		149688	-0.001
	Mn	55	**0.012**	ug/L	140.626	954	0.000
	Fe	57	**-4.813**	ug/L	13.698	5312	-0.001
	Co	59	**-0.021**	ug/L	16.472	407	-0.000
	Ni	60	**-0.005**	ug/L	353.063	87	-0.000
	Cu	63		ug/L		226	-0.000
	Cu	65	**-0.014**	ug/L	40.510	130	-0.000
	Zn	66	**-0.007**	ug/L	662.654	185	-0.000
	Zn	67		ug/L		5466	0.000
	Zn	68		ug/L		499	0.000
>	Ge	74		ug/L		184318	184317.967
	As	75	**-0.571**	ug/L	212.843	303	-0.002
	Se	77		ug/L		6374	-0.004
	Se	82	**-0.325**	ug/L	31.675	9	-0.000
	Kr	83		ug/L		69	0.000
	Sr	88	**0.009**	ug/L	73.291	438	0.001
	Y	89		ug/L		26	0.000
	Zr	90	**0.155**	ug/L	21.266	853	0.006
	Mo	98	**0.090**	ug/L	26.191	334	0.001
	Ag	107	**0.022**	ug/L	59.483	195	0.001
	Cd	111	**0.003**	ug/L	1348.136	34	0.000
	Cd	114		ug/L		85	0.000
>	In	115		ug/L		89965	89964.833
	Sn	120	**0.045**	ug/L	26.822	386	0.001
	Sb	121	**0.082**	ug/L	13.909	306	0.002
	Sb	123		ug/L		304	0.002
	Ba	135		ug/L		48	-0.000
	Ba	137	**-0.002**	ug/L	826.313	73	-0.000
	Ho	165		ug/L		27	-0.000
>	Lu	175		ug/L		79073	79073.138
	Tl	205	**0.787**	ug/L	19.678	1255	0.013
	Pb	208	**-0.017**	ug/L	39.169	1191	-0.001
	Th	232	**0.142**	ug/L	17.007	1168	0.009
	U	238	**0.028**	ug/L	20.427	741	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		93.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		94.3			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, May 15, 2010 19:25:27
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.1010
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	814.8	814.823	27.835	3.4
	Mg	24.0	13559.0	13559.040	557.699	4.1
	Co	58.9	35275.9	35275.900	91.490	0.3
	Rh	102.9	61879.5	61879.538	584.941	0.9
	In	114.9	68551.3	68551.291	602.423	0.9
	Pb	208.0	24345.1	24345.128	218.056	0.9
⌈>	Ba	137.9	64553.8	64553.796	396.893	0.6
⌊	Ba++	69.0	1220.4	0.019	0.000	1.6
⌈>	Ce	139.9	77055.3	77055.277	899.859	1.2
⌊	CeO	155.9	1037.3	0.013	0.000	3.1
	Bkgd	220.0	13.3	13.300	2.414	18.1

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
6.30	Lens Voltage
1000.00	ICP RF Power
-1800.00	Analog Stage Voltage
1200.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	5.8	1625.8
Co	59	17	6.8	62894.5
In	115	17	7.8	131884.3

ICPMS #4 TUNING REPORT

File Name: 100515.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	600	2080	0.663
Be	9.0	9.1	2068	2080	0.681
Mg	24.0	24.0	5663	2100	0.600
Mg	25.0	24.9	5948	2100	0.708
Mg	26.0	26.0	6126	2120	0.681
Co	58.9	58.9	14168	2150	0.687
Rh	102.9	102.9	24853	2240	0.695
In	114.9	114.9	27769	2275	0.682
Ce	139.9	139.9	33851	2310	0.718
Pb	206.0	205.9	49916	2485	0.739
Pb	207.0	207.0	50089	2400	0.701
Pb	208.0	208.0	50436	2510	0.706
U	238.1	238.1	57690	2520	0.683

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, May 16, 2010 07:09:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\Blank.181

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		10	
>	Sc	45		ug/L		345991	
	Ni	60		ug/L		72	
>	Ge	74		ug/L		151543	
	As	75		ug/L		549	
	Se	77		ug/L		3053	
	Se	82		ug/L		6	
	Kr	83		ug/L		55	
>	Lu	175		ug/L		73902	
	Tl	205		ug/L		210	
	U	238		ug/L		510	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, May 16, 2010 07:13:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\Standard 1.182

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	6.129	977	0.003
>	Sc	45		ug/L		351503	351503.371
	Ni	60	10.000	ug/L	1.291	5515	0.015
>	Ge	74		ug/L		152645	152645.399
	As	75	10.000	ug/L	8.009	4579	0.026
	Se	77		ug/L		3018	-0.000
	Se	82	10.000	ug/L	8.633	330	0.002
	Kr	83		ug/L		54	-0.000
>	Lu	175		ug/L		74594	74594.327
	Tl	205	10.000	ug/L	2.705	12259	0.161
	U	238	10.000	ug/L	1.732	51913	0.689

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, May 16, 2010 07:17:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\Standard 2.183

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.930**	**ug/L**	1.212	9498	0.026
>	Sc	45		**ug/L**		369180	369180.418
	Ni	60	**99.976**	**ug/L**	1.246	55863	0.151
>	Ge	74		**ug/L**		160055	160054.972
	As	75	**100.012**	**ug/L**	2.842	43295	0.267
	Se	77		**ug/L**		6597	0.021
	Se	82	**100.042**	**ug/L**	2.807	3553	0.022
	Kr	83		**ug/L**		60	0.000
>	Lu	175		**ug/L**		75953	75953.493
	Tl	205	**100.018**	**ug/L**	2.171	125158	1.645
	U	238	**99.965**	**ug/L**	1.071	505926	6.655

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, May 16, 2010 07:21:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 1.184

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.655**	**ug/L**	2.546	4953	0.013
>	Sc	45		**ug/L**		372166	372166.417
	Ni	60	**52.401**	**ug/L**	0.096	29555	0.079
>	Ge	74		**ug/L**		163956	163955.534
	As	75	**51.580**	**ug/L**	1.683	23163	0.138
	Se	77		**ug/L**		6280	0.018
	Se	82	**51.777**	**ug/L**	2.676	1887	0.011
	Kr	83		**ug/L**		62	0.000
>	Lu	175		**ug/L**		74956	74955.542
	Tl	205	**50.802**	**ug/L**	0.672	62852	0.836
	U	238	**54.519**	**ug/L**	0.268	272556	3.629

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	103.309				
>	Sc	45		107.6			
	Ni	60	104.801				
>	Ge	74		108.2			
	As	75	103.159				
	Se	77					
	Se	82	103.555				
	Kr	83					
>	Lu	175		101.4			
	Tl	205	101.604				
	U	238	109.039				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, May 16, 2010 07:25:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 2.185

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.051**	**ug/L**	102.502	15	0.000
>	Sc	45		**ug/L**		365888	365888.150
	Ni	60	**0.009**	**ug/L**	445.019	81	0.000
>	Ge	74		**ug/L**		162471	162470.956
	As	75	**-0.712**	**ug/L**	104.110	281	-0.002
	Se	77		**ug/L**		3950	0.004
	Se	82	**-0.338**	**ug/L**	106.677	-6	-0.000
	Kr	83		**ug/L**		68	0.000
>	Lu	175		**ug/L**		74505	74504.538
	Tl	205	**0.466**	**ug/L**	2.703	782	0.008
	U	238	**0.007**	**ug/L**	107.926	550	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		105.8			
	Ni	60					
>	Ge	74		107.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, May 16, 2010 07:29:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 3.186

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.546**	ug/L	9.626	63	0.000
>	Sc	45		ug/L		372100	372100.174
	Ni	60	**2.350**	ug/L	1.394	1399	0.004
>	Ge	74		ug/L		162845	162845.185
	As	75	**5.867**	ug/L	10.094	3140	0.016
	Se	77		ug/L		3679	0.002
	Se	82	**6.087**	ug/L	3.273	226	0.001
	Kr	83		ug/L		56	-0.000
>	Lu	175		ug/L		75472	75471.601
	Tl	205	**1.243**	ug/L	2.281	1758	0.020
	U	238	**0.199**	ug/L	4.720	1522	0.013

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	109.203				
>	Sc	45		107.5			
	Ni	60	117.493				
>	Ge	74		107.5			
	As	75	117.342				
	Se	77					
	Se	82	121.738				
	Kr	83					
>	Lu	175		102.1			
	Tl	205	124.349				
	U	238	99.643				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, May 16, 2010 07:33:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 4.187

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.109**	**ug/L**	44.197	22	0.000
>	Sc	45		**ug/L**		391727	391727.408
	Ni	60	**2.473**	**ug/L**	1.637	1546	0.004
>	Ge	74		**ug/L**		168085	168084.748
	As	75	**-0.490**	**ug/L**	58.517	389	-0.001
	Se	77		**ug/L**		4559	0.007
	Se	82	**-0.572**	**ug/L**	24.742	-15	-0.000
	Kr	83		**ug/L**		96	0.000
>	Lu	175		**ug/L**		77420	77420.327
	Tl	205	**0.061**	**ug/L**	9.832	297	0.001
	U	238	**-0.088**	**ug/L**	2.178	80	-0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		113.2			
	Ni	60	74.716				
>	Ge	74		110.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, May 16, 2010 07:37:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 5.188

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**18.922**	**ug/L**	6.279	1890	0.005
>	Sc	45		**ug/L**		386058	386058.172
	Ni	60	**21.508**	**ug/L**	1.786	12630	0.033
>	Ge	74		**ug/L**		167185	167184.966
	As	75	**19.990**	**ug/L**	1.468	9526	0.053
	Se	77		**ug/L**		5230	0.011
	Se	82	**19.914**	**ug/L**	5.766	744	0.004
	Kr	83		**ug/L**		88	0.000
>	Lu	175		**ug/L**		75992	75992.368
	Tl	205	**17.936**	**ug/L**	0.779	22636	0.295
	U	238	**19.237**	**ug/L**	2.554	97816	1.281

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	94.612				
>	Sc	45		111.6			
	Ni	60	92.268				
>	Ge	74		110.3			
	As	75	99.949				
	Se	77					
	Se	82	99.572				
	Kr	83					
>	Lu	175		102.8			
	Tl	205	89.680				
	U	238	96.184				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, May 16, 2010 07:41:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 6.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**46.747**	**ug/L**	1.905	4855	0.012
>	Sc	45		**ug/L**		402866	402865.547
	Ni	60	**51.089**	**ug/L**	0.429	31194	0.077
>	Ge	74		**ug/L**		174895	174894.854
	As	75	**50.636**	**ug/L**	1.864	24273	0.135
	Se	77		**ug/L**		7407	0.022
	Se	82	**50.289**	**ug/L**	3.259	1955	0.011
	Kr	83		**ug/L**		69	0.000
>	Lu	175		**ug/L**		76963	76963.219
	Tl	205	**49.041**	**ug/L**	0.644	62305	0.807
	U	238	**51.094**	**ug/L**	1.068	262305	3.401

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	93.493				
>	Sc	45		116.4			
	Ni	60	102.178				
>	Ge	74		115.4			
	As	75	101.271				
	Se	77					
	Se	82	100.577				
	Kr	83					
>	Lu	175		104.1			
	Tl	205	98.083				
	U	238	102.189				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, May 16, 2010 07:46:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 7.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.038**	**ug/L**	80.951	15	0.000
>	Sc	45		**ug/L**		396213	396213.283
	Ni	60	**0.034**	**ug/L**	92.843	103	0.000
>	Ge	74		**ug/L**		173493	173492.965
	As	75	**-0.053**	**ug/L**	1017.630	606	-0.000
	Se	77		**ug/L**		5001	0.009
	Se	82	**0.105**	**ug/L**	197.546	10	0.000
	Kr	83		**ug/L**		69	0.000
>	Lu	175		**ug/L**		76927	76926.679
	Tl	205	**0.374**	**ug/L**	6.393	692	0.006
	U	238	**0.004**	**ug/L**	44.115	553	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		114.5			
	Ni	60					
>	Ge	74		114.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Sunday, May 16, 2010 07:50:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 10.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**918.871**	ug/L	0.842	91637	0.236
>	Sc	45		ug/L		387784	387784.090
	Ni	60	**914.483**	ug/L	0.584	536067	1.382
>	Ge	74		ug/L		167063	167062.922
	As	75	**957.753**	ug/L	1.531	427624	2.556
	Se	77		ug/L		17551	0.085
	Se	82	**486.774**	ug/L	0.823	18022	0.108
	Kr	83		ug/L		78	0.000
>	Lu	175		ug/L		76315	76314.725
	Tl	205	**455.677**	ug/L	1.397	572232	7.496
	U	238	**4623.616**	ug/L	0.841	23489190	307.794

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	91.887				
>	Sc	45		112.1			
	Ni	60	91.448				
>	Ge	74		110.2			
	As	75	95.775				
	Se	77					
	Se	82	97.355				
	Kr	83					
>	Lu	175		103.3			
	Tl	205	91.135				
	U	238	92.472				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Sunday, May 16, 2010 07:54:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 11.192

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.564**	**ug/L**	2.522	4776	0.012
>	Sc	45		**ug/L**		389636	389636.218
	Ni	60	**52.695**	**ug/L**	1.907	31110	0.080
>	Ge	74		**ug/L**		171787	171786.801
	As	75	**51.360**	**ug/L**	3.746	24167	0.137
	Se	77		**ug/L**		6840	0.020
	Se	82	**50.351**	**ug/L**	0.585	1923	0.011
	Kr	83		**ug/L**		68	0.000
>	Lu	175		**ug/L**		75810	75809.749
	Tl	205	**51.170**	**ug/L**	0.832	64027	0.842
	U	238	**53.010**	**ug/L**	0.679	268028	3.529

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	95.127				
>	Sc	45		112.6			
	Ni	60	105.389				
>	Ge	74		113.4			
	As	75	102.721				
	Se	77					
	Se	82	100.703				
	Kr	83					
>	Lu	175		102.6			
	Tl	205	102.339				
	U	238	106.021				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Sunday, May 16, 2010 07:58:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 12.193

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.043**	**ug/L**	16.798	16	0.000
>	Sc	45		**ug/L**		392980	392980.395
	Ni	60	**0.012**	**ug/L**	55.007	89	0.000
>	Ge	74		**ug/L**		173424	173424.422
	As	75	**-0.586**	**ug/L**	180.284	360	-0.002
	Se	77		**ug/L**		4787	0.007
	Se	82	**0.202**	**ug/L**	127.704	14	0.000
	Kr	83		**ug/L**		63	0.000
>	Lu	175		**ug/L**		75966	75966.229
	Tl	205	**0.813**	**ug/L**	1.931	1231	0.013
	U	238	**0.066**	**ug/L**	14.781	858	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		113.6			
	Ni	60					
>	Ge	74		114.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072051
Sample Date/Time: Sunday, May 16, 2010 08:02:34
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\1202072051.194

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.030	ug/L	133.058	8	-0.000
>	Sc	45		ug/L		393122	393121.609
	Ni	60	0.011	ug/L	168.320	89	0.000
>	Ge	74		ug/L		167895	167894.507
	As	75	-0.003	ug/L	22539.295	608	-0.000
	Se	77		ug/L		3595	0.001
	Se	82	0.053	ug/L	412.315	8	0.000
	Kr	83		ug/L		67	0.000
>	Lu	175		ug/L		74672	74671.729
	Tl	205	0.416	ug/L	2.656	723	0.007
	U	238	-0.062	ug/L	5.447	205	-0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		113.6			
	Ni	60					
>	Ge	74		110.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072052
Sample Date/Time: Sunday, May 16, 2010 08:06:47
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3 40x Typo BCD 5-16-10
Batch ID: 965627\|2\|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\1202072052.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**16.180**	ug/L	0.538	1656	0.004
|>	Sc	45		ug/L		395351	395350.805
⌊	Ni	60	**32.452**	ug/L	1.773	19473	0.049
⌈>	Ge	74		ug/L		171884	171883.667
|	As	75	**23.838**	ug/L	3.842	11561	0.064
|	Se	77		ug/L		6488	0.018
|	Se	82	**63.372**	ug/L	0.832	2420	0.014
⌊	Kr	83		ug/L		75	0.000
⌈>	Lu	175		ug/L		76274	76273.541
|	Tl	205	**25.385**	ug/L	1.239	32063	0.418
⌊	U	238	**0.316**	ug/L	2.277	2131	0.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45			114.3		
⌊	Ni	60					
⌈>	Ge	74			113.4		
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175			103.2		
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, May 16, 2010 08:44:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 6.204

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**50.788**	**ug/L**	1.794	4510	0.013
|>	Sc	45		**ug/L**		344598	344598.324
⌊	Ni	60	**50.450**	**ug/L**	1.687	26347	0.076
⌈>	Ge	74		**ug/L**		148482	148482.002
|	As	75	**50.190**	**ug/L**	1.601	20426	0.134
|	Se	77		**ug/L**		4967	0.013
|	Se	82	**49.360**	**ug/L**	1.799	1629	0.011
⌊	Kr	83		**ug/L**		56	0.000
⌈>	Lu	175		**ug/L**		72343	72342.809
|	Tl	205	**48.014**	**ug/L**	3.604	57318	0.790
⌊	U	238	**52.960**	**ug/L**	1.734	255492	3.526

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	101.575				
|>	Sc	45		99.6			
⌊	Ni	60	100.901				
⌈>	Ge	74		98.0			
|	As	75	100.381				
|	Se	77					
|	Se	82	98.720				
⌊	Kr	83					
⌈>	Lu	175		97.9			
|	Tl	205	96.028				
⌊	U	238	105.920				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, May 16, 2010 08:48:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 7.205

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.035**	**ug/L**	143.891	13	0.000
>	Sc	45		**ug/L**		343224	343224.346
	Ni	60	**0.006**	**ug/L**	202.112	75	0.000
>	Ge	74		**ug/L**		150691	150691.497
	As	75	**0.149**	**ug/L**	267.250	605	0.000
	Se	77		**ug/L**		3298	0.002
	Se	82	**-0.147**	**ug/L**	236.479	1	-0.000
	Kr	83		**ug/L**		56	0.000
>	Lu	175		**ug/L**		71369	71368.879
	Tl	205	**0.309**	**ug/L**	5.401	565	0.005
	U	238	**0.035**	**ug/L**	7.295	659	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		99.2			
	Ni	60					
>	Ge	74		99.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249333003
Sample Date/Time: Sunday, May 16, 2010 09:09:45
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249333003.210

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.546**	**ug/L**	5.564	242	0.001
>	Sc	45		**ug/L**		353969	353969.148
	Ni	60	**15.674**	**ug/L**	1.567	8460	0.024
>	Ge	74		**ug/L**		138728	138727.948
	As	75	**7.033**	**ug/L**	5.222	3108	0.019
	Se	77		**ug/L**		2108	-0.005
	Se	82	**1.513**	**ug/L**	17.259	51	0.000
	Kr	83		**ug/L**		103	0.000
>	Lu	175		**ug/L**		76036	76036.090
	Tl	205	**0.149**	**ug/L**	12.325	402	0.002
	U	238	**4.180**	**ug/L**	2.053	21670	0.278

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		102.3			
	Ni	60					
>	Ge	74		91.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072053
Sample Date/Time: Sunday, May 16, 2010 09:13:59
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\1202072053.211

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.310**	**ug/L**	6.785	222	0.001
>	Sc	45		**ug/L**		355864	355864.403
	Ni	60	**15.899**	**ug/L**	2.536	8625	0.024
>	Ge	74		**ug/L**		142539	142538.839
	As	75	**7.832**	**ug/L**	3.654	3497	0.021
	Se	77		**ug/L**		2119	-0.005
	Se	82	**1.578**	**ug/L**	14.483	55	0.000
	Kr	83		**ug/L**		86	0.000
>	Lu	175		**ug/L**		77477	77477.311
	Tl	205	**0.130**	**ug/L**	18.291	385	0.002
	U	238	**3.761**	**ug/L**	1.728	19932	0.250

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		102.9			
	Ni	60					
>	Ge	74		94.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072054
Sample Date/Time: Sunday, May 16, 2010 09:18:09
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\1202072054.212

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**24.926**	**ug/L**	3.323	2279	0.006
>	Sc	45		**ug/L**		354027	354026.653
	Ni	60	**37.788**	**ug/L**	1.528	20295	0.057
>	Ge	74		**ug/L**		143225	143224.838
	As	75	**41.338**	**ug/L**	1.272	16321	0.110
	Se	77		**ug/L**		2295	-0.004
	Se	82	**9.439**	**ug/L**	8.622	305	0.002
	Kr	83		**ug/L**		100	0.000
>	Lu	175		**ug/L**		77155	77155.234
	Tl	205	**41.473**	**ug/L**	2.340	52850	0.682
	U	238	**26.223**	**ug/L**	2.560	135204	1.746

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		102.3			
	Ni	60					
>	Ge	74		94.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.4			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072056
Sample Date/Time: Sunday, May 16, 2010 09:22:15
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\1202072056.213

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**25.039**	**ug/L**	1.930	2309	0.006
>	Sc	45		**ug/L**		356987	356987.268
	Ni	60	**39.410**	**ug/L**	1.391	21340	0.060
>	Ge	74		**ug/L**		143410	143410.036
	As	75	**42.142**	**ug/L**	1.883	16649	0.112
	Se	77		**ug/L**		2250	-0.004
	Se	82	**9.777**	**ug/L**	4.544	316	0.002
	Kr	83		**ug/L**		93	0.000
>	Lu	175		**ug/L**		76226	76226.289
	Tl	205	**42.304**	**ug/L**	1.609	53253	0.696
	U	238	**26.978**	**ug/L**	1.377	137407	1.796

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		103.2			
	Ni	60					
>	Ge	74		94.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072055
Sample Date/Time: Sunday, May 16, 2010 09:26:21
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 965627|10|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\1202072055.214

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.653**	**ug/L**	12.234	67	0.000
>	Sc	45		**ug/L**		338967	338966.515
	Ni	60	**3.232**	**ug/L**	2.844	1727	0.005
>	Ge	74		**ug/L**		144833	144832.652
	As	75	**0.869**	**ug/L**	44.934	862	0.002
	Se	77		**ug/L**		2450	-0.003
	Se	82	**0.005**	**ug/L**	677.209	5	0.000
	Kr	83		**ug/L**		66	0.000
>	Lu	175		**ug/L**		72044	72044.300
	Tl	205	**0.099**	**ug/L**	10.131	322	0.002
	U	238	**0.761**	**ug/L**	1.598	4145	0.051

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		98.0			
	Ni	60					
>	Ge	74		95.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, May 16, 2010 09:30:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 6.215

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.203**	**ug/L**	1.689	4533	0.013
>	Sc	45		**ug/L**		343605	343604.551
	Ni	60	**51.004**	**ug/L**	0.516	26560	0.077
>	Ge	74		**ug/L**		149915	149915.449
	As	75	**50.181**	**ug/L**	2.312	20620	0.134
	Se	77		**ug/L**		4914	0.013
	Se	82	**49.826**	**ug/L**	1.534	1661	0.011
	Kr	83		**ug/L**		56	0.000
>	Lu	175		**ug/L**		72335	72334.739
	Tl	205	**48.699**	**ug/L**	1.225	58158	0.801
	U	238	**52.851**	**ug/L**	1.529	254966	3.518

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	102.406				
>	Sc	45		99.3			
	Ni	60	102.009				
>	Ge	74		98.9			
	As	75	100.362				
	Se	77					
	Se	82	99.652				
	Kr	83					
>	Lu	175		97.9			
	Tl	205	97.399				
	U	238	105.702				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, May 16, 2010 09:34:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 7.216

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.027**	**ug/L**	89.061	12	0.000
>	Sc	45		**ug/L**		344960	344959.626
	Ni	60	**-0.003**	**ug/L**	136.262	71	-0.000
>	Ge	74		**ug/L**		152722	152721.540
	As	75	**-0.296**	**ug/L**	186.358	432	-0.001
	Se	77		**ug/L**		3349	0.002
	Se	82	**0.564**	**ug/L**	103.597	25	0.000
	Kr	83		**ug/L**		49	-0.000
>	Lu	175		**ug/L**		70742	70742.435
	Tl	205	**0.320**	**ug/L**	3.817	573	0.005
	U	238	**0.033**	**ug/L**	9.338	644	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		99.7			
	Ni	60					
>	Ge	74		100.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249333004
Sample Date/Time: Sunday, May 16, 2010 09:38:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249333004.217

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.969**	**ug/L**	8.304	190	0.001
>	Sc	45		**ug/L**		355808	355807.638
	Ni	60	**12.866**	**ug/L**	1.714	6993	0.019
>	Ge	74		**ug/L**		143480	143479.737
	As	75	**5.592**	**ug/L**	2.078	2662	0.015
	Se	77		**ug/L**		2133	-0.005
	Se	82	**1.362**	**ug/L**	14.366	49	0.000
	Kr	83		**ug/L**		91	0.000
>	Lu	175		**ug/L**		76397	76397.188
	Tl	205	**0.209**	**ug/L**	3.771	480	0.003
	U	238	**3.472**	**ug/L**	0.670	18182	0.231

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		102.8			
	Ni	60					
>	Ge	74		94.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.4			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249333005
Sample Date/Time: Sunday, May 16, 2010 09:42:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249333005.218

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.291**	ug/L	16.422	123	0.000
>	Sc	45		ug/L		340250	340250.077
	Ni	60	**30.637**	ug/L	2.639	15825	0.046
>	Ge	74		ug/L		140482	140482.183
	As	75	**5.677**	ug/L	3.906	2637	0.015
	Se	77		ug/L		2050	-0.006
	Se	82	**1.143**	ug/L	30.292	41	0.000
	Kr	83		ug/L		64	0.000
>	Lu	175		ug/L		72012	72012.123
	Tl	205	**0.235**	ug/L	12.312	483	0.004
	U	238	**6.462**	ug/L	2.037	31469	0.430

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		98.3			
	Ni	60					
>	Ge	74		92.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.4			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249333006
Sample Date/Time: Sunday, May 16, 2010 09:47:01
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249333006.219

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.133**	**ug/L**	7.664	110	0.000
>	Sc	45		**ug/L**		344771	344771.165
	Ni	60	**10.695**	**ug/L**	0.829	5645	0.016
>	Ge	74		**ug/L**		140753	140752.765
	As	75	**4.944**	**ug/L**	15.121	2366	0.013
	Se	77		**ug/L**		2054	-0.006
	Se	82	**0.379**	**ug/L**	97.576	17	0.000
	Kr	83		**ug/L**		78	0.000
>	Lu	175		**ug/L**		74126	74126.240
	Tl	205	**0.148**	**ug/L**	12.354	391	0.002
	U	238	**8.473**	**ug/L**	3.239	42315	0.564

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		99.6			
	Ni	60					
>	Ge	74		92.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249333007
Sample Date/Time: Sunday, May 16, 2010 09:51:08
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249333007.220

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.691**	**ug/L**	9.436	162	0.000
>	Sc	45		**ug/L**		349273	349273.228
	Ni	60	**18.116**	**ug/L**	1.526	9636	0.027
>	Ge	74		**ug/L**		138259	138258.867
	As	75	**5.805**	**ug/L**	3.487	2644	0.015
	Se	77		**ug/L**		1929	-0.006
	Se	82	**0.842**	**ug/L**	92.256	31	0.000
	Kr	83		**ug/L**		65	0.000
>	Lu	175		**ug/L**		75496	75495.742
	Tl	205	**0.238**	**ug/L**	9.835	510	0.004
	U	238	**3.630**	**ug/L**	1.622	18761	0.242

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		100.9			
	Ni	60					
>	Ge	74		91.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249333008
Sample Date/Time: Sunday, May 16, 2010 09:55:14
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249333008.221

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.018**	**ug/L**	10.355	99	0.000
>	Sc	45		**ug/L**		340219	340219.386
	Ni	60	**9.478**	**ug/L**	2.891	4944	0.014
>	Ge	74		**ug/L**		139893	139892.717
	As	75	**3.425**	**ug/L**	10.375	1786	0.009
	Se	77		**ug/L**		1971	-0.006
	Se	82	**0.747**	**ug/L**	98.983	28	0.000
	Kr	83		**ug/L**		65	0.000
>	Lu	175		**ug/L**		74178	74177.521
	Tl	205	**0.071**	**ug/L**	6.770	298	0.001
	U	238	**1.817**	**ug/L**	1.156	9482	0.121

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		98.3			
	Ni	60					
>	Ge	74		92.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.4			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249333009
Sample Date/Time: Sunday, May 16, 2010 09:59:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249333009.222

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.193**	**ug/L**	14.294	206	0.001
>	Sc	45		**ug/L**		348511	348510.861
	Ni	60	**12.203**	**ug/L**	1.535	6501	0.018
>	Ge	74		**ug/L**		138836	138835.816
	As	75	**5.249**	**ug/L**	11.087	2449	0.014
	Se	77		**ug/L**		1949	-0.006
	Se	82	**0.518**	**ug/L**	6.217	21	0.000
	Kr	83		**ug/L**		77	0.000
>	Lu	175		**ug/L**		74119	74118.865
	Tl	205	**0.164**	**ug/L**	15.457	411	0.003
	U	238	**2.581**	**ug/L**	1.152	13247	0.172

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		100.7			
	Ni	60					
>	Ge	74		91.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, May 16, 2010 10:03:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 6.223

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.845**	**ug/L**	1.903	4411	0.013
>	Sc	45		**ug/L**		330240	330239.613
	Ni	60	**50.092**	**ug/L**	1.169	25071	0.076
>	Ge	74		**ug/L**		141298	141298.486
	As	75	**50.265**	**ug/L**	2.189	19465	0.134
	Se	77		**ug/L**		4500	0.012
	Se	82	**49.403**	**ug/L**	3.482	1551	0.011
	Kr	83		**ug/L**		54	0.000
>	Lu	175		**ug/L**		69676	69675.900
	Tl	205	**49.377**	**ug/L**	1.581	56783	0.812
	U	238	**54.151**	**ug/L**	0.991	251632	3.605

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	103.691				
>	Sc	45		95.4			
	Ni	60	100.184				
>	Ge	74		93.2			
	As	75	100.529				
	Se	77					
	Se	82	98.805				
	Kr	83					
>	Lu	175		94.3			
	Tl	205	98.754				
	U	238	108.302				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, May 16, 2010 10:07:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 7.224

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.044**	**ug/L**	46.149	12	0.000
>	Sc	45		**ug/L**		305162	305161.925
	Ni	60	**0.034**	**ug/L**	49.986	79	0.000
>	Ge	74		**ug/L**		132438	132438.354
	As	75	**-0.060**	**ug/L**	377.528	462	-0.000
	Se	77		**ug/L**		2974	0.002
	Se	82	**0.448**	**ug/L**	21.632	18	0.000
	Kr	83		**ug/L**		58	0.000
>	Lu	175		**ug/L**		64774	64773.623
	Tl	205	**0.314**	**ug/L**	29.282	513	0.005
	U	238	**0.044**	**ug/L**	38.480	632	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		88.2			
	Ni	60					
>	Ge	74		87.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		87.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #7 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, May 17, 2010 11:11:51
Sample Description:
Method File: C:\elandata\Method\daily2.mth
Dataset File: C:\elandata\Dataset\default\Sample.549
Tuning File: C:\elandata\Tuning\Default.tun
Optimization File: C:\elandata\Optimize\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 80
Current Dead Time (ns): 80

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1543.6	1543.591	19.519	1.3
	Mg	24.0	21761.4	21761.438	545.643	2.5
	Co	58.9	65762.6	65762.589	597.892	0.9
	Rh	102.9	104925.5	104925.512	1227.139	1.2
	In	114.9	122602.1	122602.055	730.862	0.6
	Pb	208.0	75108.0	75108.025	602.402	0.8
⌈>	Ba	137.9	111138.0	111138.003	804.294	0.7
⌊	Ba++	69.0	1939.1	0.017	0.000	1.6
⌈>	Ce	139.9	139600.9	139600.892	795.223	0.6
⌊	CeO	155.9	2565.3	0.018	0.001	3.2
	Bkgd	220.0	11.5	11.500	1.696	14.7

Current Optimization File Data

Current Value	Description
0.95	Nebulizer Gas Flow
5.75	Lens Voltage
1000.00	ICP RF Power
-1525.00	Analog Stage Voltage
750.00	Pulse Stage Voltage
14.00	Discriminator Threshold
-3.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	33	5.0	3910.2
Co	59	33	6.0	92923.7
In	115	33	7.0	151737.9

Instrument #7 Tuning Report

File Name: 100517.tun
File Path: C:\Elandata\Tuning\100517.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	566	2064	0.691
Be	9.0	9.0	2009	2060	0.660
Mg	24.0	24.0	5687	2080	0.640
Mg	25.0	25.0	5880	2070	0.560
Mg	26.0	26.0	6184	2070	0.601
Co	58.9	58.9	14157	2040	0.680
Rh	102.9	102.9	24855	2030	0.669
In	114.9	114.9	27787	2033	0.651
Ce	139.9	140.0	33870	2020	0.666
Pb	206.0	205.9	49930	1980	0.720
Pb	207.0	207.0	50179	2000	0.690
Pb	208.0	208.1	50458	1990	0.670
U	238.1	238.1	57747	1980	0.709

ICPMS#7 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, May 18, 2010 08:34:04
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\Blank.540

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9		ug/L		9	
Sc	45		ug/L		806595	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, May 18, 2010 08:34:45
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\Standard 1.541

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**10.000**	**ug/L**	4.239	1277	0.002
⌊>	Sc	45		**ug/L**		781754	781754.297

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, May 18, 2010 08:35:26
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\Standard 2.542

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	99.992	ug/L	5.099	12155	0.016
⌊>	Sc	45		ug/L		755088	755088.406

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, May 18, 2010 08:36:06
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 1.543

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	50.828	ug/L	1.776	6149	0.008
⌊>	Sc	45		ug/L		750102	750101.612

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	101.655				
⌊>	Sc	45		93.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, May 18, 2010 08:36:49
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 2.544

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.187	ug/L	48.564	30	0.000
Sc	45		ug/L		747157	747157.479

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		92.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, May 18, 2010 08:37:30
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 3.545

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.668**	**ug/L**	5.930	87	0.000
⌊>	Sc	45		**ug/L**		737907	737907.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	133.650				
⌊>	Sc	45		91.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Be	9	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, May 18, 2010 08:38:12
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 4.546

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.117	ug/L	18.902	22	0.000
⌊>	Sc	45		ug/L		755678	755677.566

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		93.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, May 18, 2010 08:38:53
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 5.547

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**20.941**	**ug/L**	1.846	2581	0.003
⌊>	Sc	45		**ug/L**		762812	762812.127

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	104.704				
⌊>	Sc	45		94.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 18, 2010 08:39:35
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.548

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	51.508	ug/L	3.104	6246	0.008
⌊>	Sc	45		ug/L		752120	752120.357

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	103.015				
⌊>	Sc	45		93.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 18, 2010 08:40:18
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.549

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.156	ug/L	19.744	26	0.000
⌊>	Sc	45		ug/L		734735	734735.303

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		91.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202072051
Sample Date/Time: Tuesday, May 18, 2010 08:41:01
Sample Type: Sample
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\1202072051.550

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.051	ug/L	71.125	14	0.000
⌊>	Sc	45		ug/L		720894	720894.229

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		89.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202072052
Sample Date/Time: Tuesday, May 18, 2010 08:41:43
Sample Type: Sample
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 965627|40|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\1202072052.551

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	21.761	ug/L	3.338	2609	0.004
⌊>	Sc	45		ug/L		742356	742356.195

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		92.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 18, 2010 08:48:07
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.560

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**52.219**	**ug/L**	0.962	6108	0.008
⌊>	Sc	45		**ug/L**		725143	725142.818

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	104.439				
⌊>	Sc	45		89.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 18, 2010 08:48:50
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.561

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.226	ug/L	26.439	33	0.000
Sc	45		ug/L		705195	705195.141

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		87.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249333003
Sample Date/Time: Tuesday, May 18, 2010 08:52:24
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249333003.566

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**2.622**	**ug/L**	0.742	352	0.000
⌊>	Sc	45		**ug/L**		812102	812101.985

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		100.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202072053
Sample Date/Time: Tuesday, May 18, 2010 08:53:07
Sample Type: Sample
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\1202072053.567

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	2.312	ug/L	8.375	306	0.000
⌊>	Sc	45		ug/L		798334	798334.104

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		99.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202072054
Sample Date/Time: Tuesday, May 18, 2010 08:53:50
Sample Type: Sample
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\1202072054.568

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	24.574	ug/L	0.470	3155	0.004
Sc	45		ug/L		794912	794912.138

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		98.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202072056
Sample Date/Time: Tuesday, May 18, 2010 08:54:33
Sample Type: Sample
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\1202072056.569

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	23.998	ug/L	0.959	3148	0.004
⌊>	Sc	45		ug/L		812151	812151.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		100.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202072055
Sample Date/Time: Tuesday, May 18, 2010 08:55:14
Sample Type: Sample
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 965627|10|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\1202072055.570

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.603	ug/L	10.711	82	0.000
⌊>	Sc	45		ug/L		763778	763778.214

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		94.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 18, 2010 08:55:56
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.571

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	49.093	ug/L	3.344	6105	0.008
Sc	45		ug/L		771299	771299.351

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	98.187				
Sc	45		95.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 18, 2010 08:56:39
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.572

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.183**	**ug/L**	33.549	29	0.000
⌊>	Sc	45		**ug/L**		731167	731167.300

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		90.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249333004
Sample Date/Time: Tuesday, May 18, 2010 08:57:20
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249333004.573

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**2.179**	**ug/L**	2.877	287	0.000
⌊>	Sc	45		**ug/L**		793209	793208.527

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		98.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249333005
Sample Date/Time: Tuesday, May 18, 2010 08:58:01
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249333005.574

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	1.181	ug/L	2.890	155	0.000
⌊>	Sc	45		ug/L		771251	771251.133

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		95.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249333006
Sample Date/Time: Tuesday, May 18, 2010 08:58:42
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249333006.575

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	1.173	ug/L	5.885	154	0.000
⌊>	Sc	45		ug/L		771331	771331.107

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		95.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249333007
Sample Date/Time: Tuesday, May 18, 2010 08:59:23
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249333007.576

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	1.530	ug/L	7.407	208	0.000
⌊>	Sc	45		ug/L		808466	808465.657

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		100.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249333008
Sample Date/Time: Tuesday, May 18, 2010 09:00:05
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249333008.577

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	1.049	ug/L	5.727	148	0.000
⌊>	Sc	45	·	ug/L		821524	821524.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		101.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249333009
Sample Date/Time: Tuesday, May 18, 2010 09:00:47
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249333009.578

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	1.943	ug/L	7.781	266	0.000
⌊>	Sc	45		ug/L		821718	821718.162

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		101.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 18, 2010 09:01:28
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.579

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	49.659	ug/L	2.718	6243	0.008
Sc	45		ug/L		779494	779494.413

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	99.317				
Sc	45		96.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 18, 2010 09:02:11
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.580

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.153	ug/L	27.243	26	0.000
Sc	45		ug/L		735136	735136.441

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		91.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\032210W1.SIF
Batch ID:
Results Data Set: 032210W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 2/8/2010 13:04:57**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/22/2010 09:12:25**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0004	0.0022	0.0004	09:13:27	Yes
2		[0.00]	0.0004	0.0031	0.0004	09:14:02	Yes
Mean:		[0.00]	0.0004				
SD:		0.00	0.0000				
%RSD:		0.00	5.42				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/22/2010 09:14:20**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0023	0.0139	0.0027	09:15:21	Yes
2		[0.2]	0.0021	0.0132	0.0026	09:15:56	Yes
Mean:		[0.2]	0.0022				
SD:		0.0	0.0001				
%RSD:		0.0	3.83				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01102 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/22/2010 09:16:15**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0055	0.0305	0.0059	09:17:16	Yes
2		[0.5]	0.0056	0.0316	0.0060	09:17:51	Yes
Mean:		[0.5]	0.0055				
SD:		0.0	0.0000				
%RSD:		0.0	0.81				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999997 Slope: 0.01109 Intercept: -0.00000

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/22/2010 09:18:11**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0235	0.1256	0.0239	09:19:12	Yes
2		[2.0]	0.0234	0.1254	0.0238	09:19:47	Yes
Mean:		[2.0]	0.0234				
SD:		0.0	0.0000				
%RSD:		0.0	0.11				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999909 Slope: 0.01177 Intercept: -0.00015

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/22/2010 09:20:07**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0589	0.3151	0.0593	09:21:09	Yes
2		[5.0]	0.0584	0.3122	0.0589	09:21:43	Yes
Mean:		[5.0]	0.0587				
SD:		0.0	0.0003				
%RSD:		0.0	0.53				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999987 Slope: 0.01176 Intercept: -0.00014

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/22/2010 09:22:04**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1157	0.6242	0.1161	09:23:04	Yes
2		[10.0]	0.1150	0.6182	0.1154	09:23:39	Yes
Mean:		[10.0]	0.1153				
SD:		0.0	0.0005				
%RSD:		0.0	0.45				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999955 Slope: 0.01157 Intercept: 0.00008

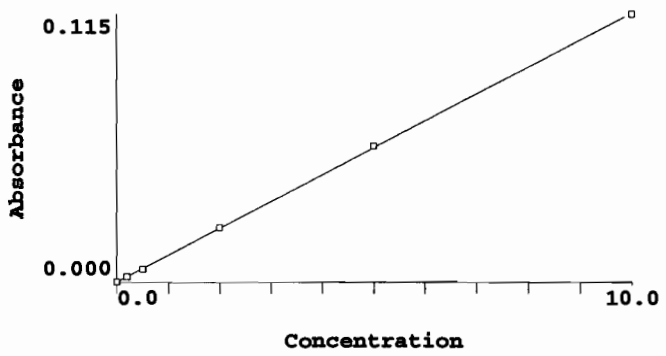

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.007	0.00	5.4
S0.2	0.0022	0.2	0.184	0.00	3.8
S0.5	0.0055	0.5	0.472	0.00	0.8
S2.0	0.0234	2.0	2.020	0.00	0.1

S5.0	0.0587	5.0	5.065	0.00	0.5
S10.0	0.1153	10.0	9.965	0.00	0.4

Correlation Coef.: 0.999955 Slope: 0.01157 Intercept: 0.00008

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/22/2010 09:23:58**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.100	5.100	0.0591	0.3168	0.0595	09:24:59	Yes
2	5.051	5.051	0.0585	0.3127	0.0589	09:25:34	Yes
Mean:	5.075	5.075	0.0588				
SD:	0.035	0.035	0.0004				
%RSD:	0.681	0.681	0.68				

QC value within limits for Hg 253.7 Recovery = 101.51%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/22/2010 09:25:54**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.031	-0.031	-0.0003	-0.0007	0.0002	09:26:55	Yes
2	-0.027	-0.027	-0.0002	-0.0005	0.0002	09:27:30	Yes
Mean:	-0.029	-0.029	-0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	8.712	8.712	11.31				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/22/2010 09:27:50**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.160	0.160	0.0019	0.0114	0.0024	09:28:51	Yes
2	0.159	0.159	0.0019	0.0110	0.0023	09:29:26	Yes
Mean:	0.159	0.159	0.0019				
SD:	0.001	0.001	0.0000				
%RSD:	0.629	0.629	0.60				

QC value within limits for Hg 253.7 Recovery = 79.70%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/22/2010 09:29:46**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.220	5.220	0.0604	0.3240	0.0609	09:30:46	Yes
2	5.196	5.196	0.0602	0.3213	0.0606	09:31:22	Yes
Mean:	5.208	5.208	0.0603				
SD:	0.017	0.017	0.0002				
%RSD:	0.318	0.318	0.32				

QC value within limits for Hg 253.7 Recovery = 104.16%
All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/22/2010 09:31:41**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.029	-0.029	-0.0003	-0.0004	0.0002	09:32:42	Yes
2	-0.025	-0.025	-0.0002	0.0002	0.0002	09:33:17	Yes
Mean:	-0.027	-0.027	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	9.169	9.169	12.11				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202073693|966291|1 **Date Collected: 3/22/2010 09:33:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202073693|966291|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	-0.0001	0.0004	0.0003	09:34:38	Yes
2	-0.015	-0.015	-0.0001	0.0013	0.0003	09:35:13	Yes
Mean:	-0.016	-0.016	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	14.61	14.61	24.47				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202073694|966291|1 **Date Collected: 3/22/2010 09:35:33**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202073694|966291|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.014	2.014	0.0234	0.1267	0.0238	09:36:35	Yes
2	2.009	2.009	0.0233	0.1262	0.0237	09:37:09	Yes
Mean:	2.011	2.011	0.0233				
SD:	0.004	0.004	0.0000				
%RSD:	0.179	0.179	0.18				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 248548001|966291|1 **Date Collected: 3/22/2010 09:37:30**
Analyst: JXL **Data Type: Original**

Replicate Data: 248548001|966291|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	-0.0001	0.0013	0.0003	09:38:30	Yes
2	-0.010	-0.010	-0.0000	0.0016	0.0004	09:39:05	Yes
Mean:	-0.012	-0.012	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	23.10	23.10	52.47				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 248548002|966291|1 **Date Collected: 3/22/2010 09:39:24**
Analyst: JXL **Data Type: Original**

Replicate Data: 248548002|966291|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 248668001|966291|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.020	-0.020	-0.0002	0.0010	0.0003	09:49:58	Yes
2	-0.019	-0.019	-0.0001	0.0011	0.0003	09:50:33	Yes
Mean:	-0.019	-0.019	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	2.110	2.110	3.20				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 1202073695|966291|1 **Date Collected: 3/22/2010 09:50:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202073695|966291|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.015	-0.015	-0.0001	0.0014	0.0003	09:51:53	Yes
2	-0.018	-0.018	-0.0001	0.0012	0.0003	09:52:28	Yes
Mean:	-0.016	-0.016	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	12.08	12.08	20.35				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/22/2010 09:52:48**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.180	5.180	0.0600	0.3207	0.0604	09:53:48	Yes
2	5.134	5.134	0.0595	0.3169	0.0599	09:54:23	Yes
Mean:	5.157	5.157	0.0597				
SD:	0.033	0.033	0.0004				
%RSD:	0.638	0.638	0.64				

QC value within limits for Hg 253.7 Recovery = 103.14%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/22/2010 09:54:42**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.019	-0.019	-0.0001	0.0012	0.0003	09:55:43	Yes
2	-0.022	-0.022	-0.0002	0.0010	0.0003	09:56:18	Yes
Mean:	-0.020	-0.020	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	10.17	10.17	15.07				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 1202073696|966291|1 **Date Collected: 3/22/2010 09:56:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202073696|966291|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.052	2.052	0.0238	0.1293	0.0242	09:57:39	Yes
2	2.038	2.038	0.0236	0.1278	0.0241	09:58:14	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.583	0.583	0.0068	0.0377	0.0072	10:07:20	Yes
2	0.569	0.569	0.0067	0.0377	0.0071	10:07:55	Yes
Mean:	0.576	0.576	0.0067				
SD:	0.010	0.010	0.0001				
%RSD:	1.740	1.740	1.72				

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 1202073598|966259|1 **Date Collected: 3/22/2010 10:08:14**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202073598|966259|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.532	2.532	0.0294	0.1604	0.0298	10:09:15	Yes
2	2.503	2.503	0.0290	0.1581	0.0295	10:09:50	Yes
Mean:	2.518	2.518	0.0292				
SD:	0.021	0.021	0.0002				
%RSD:	0.814	0.814	0.81				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 1202073599|966259|5 **Date Collected: 3/22/2010 10:10:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202073599|966259|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.118	0.118	0.0014	0.0089	0.0019	10:11:09	Yes
2	0.118	0.118	0.0014	0.0094	0.0019	10:11:44	Yes
Mean:	0.118	0.118	0.0014				
SD:	0.000	0.000	0.0000				
%RSD:	0.344	0.344	0.33				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 249453002|966259|1 **Date Collected: 3/22/2010 10:12:03**
Analyst: JXL **Data Type: Original**

Replicate Data: 249453002|966259|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.351	1.351	0.0157	0.0856	0.0161	10:13:04	Yes
2	1.348	1.348	0.0157	0.0859	0.0161	10:13:39	Yes
Mean:	1.349	1.349	0.0157				
SD:	0.002	0.002	0.0000				
%RSD:	0.154	0.154	0.15				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 249453004|966259|1 **Date Collected: 3/22/2010 10:13:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 249453004|966259|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.027	1.027	0.0120	0.0662	0.0124	10:14:59	Yes
2	1.029	1.029	0.0120	0.0659	0.0124	10:15:34	Yes
Mean:	1.028	1.028	0.0120				
SD:	0.002	0.002	0.0000				
%RSD:	0.176	0.176	0.17				

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/22/2010 10:15:53**

Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.340	5.340	0.0618	0.3292	0.0623	10:16:54	Yes
2	5.312	5.312	0.0615	0.3269	0.0619	10:17:28	Yes
Mean:	5.326	5.326	0.0617				
SD:	0.019	0.019	0.0002				
%RSD:	0.366	0.366	0.37				

QC value within limits for Hg 253.7 Recovery = 106.52%
All analyte(s) passed QC.

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/22/2010 10:17:47**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0000	0.0019	0.0004	10:18:48	Yes
2	-0.012	-0.012	-0.0001	0.0017	0.0004	10:19:24	Yes
Mean:	-0.010	-0.010	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	34.03	34.03	102.11				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 1202075717|967148|1 **Date Collected: 3/22/2010 10:19:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075717|967148|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	-0.0001	0.0011	0.0003	10:20:44	Yes
2	-0.009	-0.009	-0.0000	0.0015	0.0004	10:21:19	Yes
Mean:	-0.012	-0.012	-0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	31.36	31.36	71.56				

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 1202075718|967148|1 **Date Collected: 3/22/2010 10:21:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075718|967148|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.059	2.059	0.0239	0.1288	0.0243	10:22:39	Yes
2	2.044	2.044	0.0237	0.1270	0.0241	10:23:14	Yes
Mean:	2.052	2.052	0.0238				
SD:	0.011	0.011	0.0001				
%RSD:	0.518	0.518	0.52				

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 249459001|967148|1 **Date Collected: 3/22/2010 10:23:34**
Analyst: JXL **Data Type: Original**

Replicate Data: 249459001|967148|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.143	0.143	0.0017	0.0113	0.0022	10:24:35	Yes

Replicate Data: 249556006|967148|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0002	0.0033	0.0006	10:34:16	Yes
2	0.013	0.013	0.0002	0.0035	0.0007	10:34:51	Yes
Mean:	0.011	0.011	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	17.87	17.87	11.25				

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 249564001|967148|1 **Date Collected: 3/22/2010 10:35:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 249564001|967148|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	0.0000	0.0019	0.0004	10:36:12	Yes
2	-0.004	-0.004	0.0000	0.0024	0.0005	10:36:46	Yes
Mean:	-0.004	-0.004	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	30.50	30.50	64.22				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 1202075719|967148|1 **Date Collected: 3/22/2010 10:37:06**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075719|967148|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	-0.0001	0.0020	0.0004	10:38:07	Yes
2	-0.013	-0.013	-0.0001	0.0019	0.0004	10:38:42	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.283	0.283	0.59				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/22/2010 10:39:01**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.155	5.155	0.0597	0.3162	0.0601	10:40:02	Yes
2	5.120	5.120	0.0593	0.3140	0.0597	10:40:36	Yes
Mean:	5.138	5.138	0.0595				
SD:	0.024	0.024	0.0003				
%RSD:	0.473	0.473	0.47				

QC value within limits for Hg 253.7 Recovery = 102.75%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/22/2010 10:40:55**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	-0.0000	0.0022	0.0004	10:41:56	Yes
2	-0.013	-0.013	-0.0001	0.0021	0.0004	10:42:31	Yes
Mean:	-0.011	-0.011	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	14.37	14.37	34.23				

QC value within limits for Hg 253.7 Recovery = Not calculated

---

Replicate Data: 1202075476|967042|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.021	-0.021	-0.0002	0.0014	0.0003	11:01:16	Yes
2	-0.017	-0.017	-0.0001	0.0015	0.0003	11:01:51	Yes
Mean:	-0.019	-0.019	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	11.97	11.97	18.39				

==========

Sequence No.: 58 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/22/2010 11:02:11**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.288	5.288	0.0612	0.3207	0.0617	11:03:11	Yes
2	5.270	5.270	0.0610	0.3183	0.0615	11:03:47	Yes
Mean:	5.279	5.279	0.0611				
SD:	0.013	0.013	0.0001				
%RSD:	0.246	0.246	0.25				

QC value within limits for Hg 253.7 Recovery = 105.58%
All analyte(s) passed QC.

==========

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/22/2010 11:04:06**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	-0.0001	0.0012	0.0003	11:05:07	Yes
2	-0.018	-0.018	-0.0001	0.0014	0.0003	11:05:41	Yes
Mean:	-0.018	-0.018	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.542	0.542	0.85				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 60 **Autosampler Location: 52**
Sample ID: 1202075645|967115|1 **Date Collected: 3/22/2010 11:06:01**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075645|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.017	-0.017	-0.0001	0.0016	0.0003	11:07:02	Yes
2	-0.015	-0.015	-0.0001	0.0018	0.0003	11:07:37	Yes
Mean:	-0.016	-0.016	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	9.984	9.984	16.85				

==========

Sequence No.: 61 **Autosampler Location: 53**
Sample ID: 1202075646|967115|1 **Date Collected: 3/22/2010 11:07:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075646|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.172	2.172	0.0252	0.1337	0.0256	11:08:57	Yes
2	2.152	2.152	0.0250	0.1320	0.0254	11:09:32	Yes
Mean:	2.162	2.162	0.0251				

SD:	0.014	0.014	0.0002
%RSD:	0.668	0.668	0.67

==========

Sequence No.: 62 **Autosampler Location: 54**
Sample ID: 248672001|967115|1 **Date Collected: 3/22/2010 11:09:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 248672001|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	-0.0001	0.0015	0.0003	11:10:53	Yes
2	-0.014	-0.014	-0.0001	0.0017	0.0003	11:11:28	Yes
Mean:	-0.015	-0.015	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	12.52	12.52	22.46				

==========

Sequence No.: 63 **Autosampler Location: 55**
Sample ID: 249057004|967115|1 **Date Collected: 3/22/2010 11:11:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 249057004|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	-0.0001	0.0018	0.0004	11:12:49	Yes
2	-0.012	-0.012	-0.0001	0.0021	0.0004	11:13:23	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	3.820	3.820	7.97				

==========

Sequence No.: 64 **Autosampler Location: 56**
Sample ID: 249064001|967115|1 **Date Collected: 3/22/2010 11:13:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 249064001|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.011	-0.011	-0.0001	0.0016	0.0004	11:14:44	Yes
2	-0.011	-0.011	-0.0000	0.0018	0.0004	11:15:19	Yes
Mean:	-0.011	-0.011	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.793	4.793	11.89				

==========

Sequence No.: 65 **Autosampler Location: 57**
Sample ID: 249072001|967115|1 **Date Collected: 3/22/2010 11:15:39**
Analyst: JXL **Data Type: Original**

Replicate Data: 249072001|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	-0.0001	0.0017	0.0003	11:16:40	Yes
2	-0.012	-0.012	-0.0001	0.0020	0.0004	11:17:16	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	9.844	9.844	19.70				

==========

Sequence No.: 66 **Autosampler Location: 58**
Sample ID: 249076001|967115|1 **Date Collected: 3/22/2010 11:17:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 249076001|967115|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.014	-0.014	-0.0001	0.0016	0.0003	11:18:37	Yes
2	-0.015	-0.015	-0.0001	0.0015	0.0003	11:19:12	Yes
Mean:	-0.014	-0.014	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.780	3.780	7.06				

==========

Sequence No.: 67 **Autosampler Location: 59**
Sample ID: 249076002|967115|1 **Date Collected: 3/22/2010 11:19:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 249076002|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	-0.0001	0.0017	0.0004	11:20:34	Yes
2	-0.013	-0.013	-0.0001	0.0016	0.0004	11:21:08	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.381	0.381	0.79				

==========

Sequence No.: 68 **Autosampler Location: 60**
Sample ID: 249097001|967115|1 **Date Collected: 3/22/2010 11:21:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 249097001|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.017	-0.017	-0.0001	0.0014	0.0003	11:22:30	Yes
2	-0.013	-0.013	-0.0001	0.0015	0.0003	11:23:05	Yes
Mean:	-0.015	-0.015	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	15.67	15.67	27.89				

==========

Sequence No.: 69 **Autosampler Location: 61**
Sample ID: 249102001|967115|1 **Date Collected: 3/22/2010 11:23:25**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102001|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.012	-0.012	-0.0001	0.0021	0.0004	11:24:27	Yes
2	-0.016	-0.016	-0.0001	0.0015	0.0003	11:25:02	Yes
Mean:	-0.014	-0.014	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	18.61	18.61	34.46				

==========

Sequence No.: 70 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/22/2010 11:25:22**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.377	5.377	0.0623	0.3263	0.0627	11:26:23	Yes
2	5.349	5.349	0.0619	0.3243	0.0624	11:26:57	Yes
Mean:	5.363	5.363	0.0621				
SD:	0.020	0.020	0.0002				
%RSD:	0.373	0.373	0.37				

QC value within limits for Hg 253.7 Recovery = 107.26%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**

Sample ID: CCB **Date Collected: 3/22/2010 11:27:16**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.017	-0.017	-0.0001	0.0014	0.0003	11:28:17	Yes
2	-0.017	-0.017	-0.0001	0.0015	0.0003	11:28:52	Yes
Mean:	-0.017	-0.017	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	1.806	1.806	2.95				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 72 **Autosampler Location: 62**
Sample ID: 249248005|967115|1 **Date Collected: 3/22/2010 11:29:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 249248005|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.019	-0.019	-0.0001	0.0011	0.0003	11:30:13	Yes
2	-0.014	-0.014	-0.0001	0.0016	0.0003	11:30:47	Yes
Mean:	-0.017	-0.017	-0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	24.11	24.11	40.12				

Sequence No.: 73 **Autosampler Location: 63**
Sample ID: 249250002|967115|1 **Date Collected: 3/22/2010 11:31:07**
Analyst: JXL **Data Type: Original**

Replicate Data: 249250002|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	-0.0001	0.0019	0.0003	11:32:09	Yes
2	-0.017	-0.017	-0.0001	0.0011	0.0003	11:32:43	Yes
Mean:	-0.015	-0.015	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	15.06	15.06	26.89				

Sequence No.: 74 **Autosampler Location: 64**
Sample ID: 249330009|967115|1 **Date Collected: 3/22/2010 11:33:03**
Analyst: JXL **Data Type: Original**

Replicate Data: 249330009|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.015	-0.015	-0.0001	0.0017	0.0003	11:34:05	Yes
2	-0.012	-0.012	-0.0001	0.0016	0.0004	11:34:39	Yes
Mean:	-0.014	-0.014	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	13.87	13.87	27.18				

Sequence No.: 75 **Autosampler Location: 65**
Sample ID: 249330010|967115|1 **Date Collected: 3/22/2010 11:34:59**
Analyst: JXL **Data Type: Original**

Replicate Data: 249330010|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	-0.0001	0.0017	0.0003	11:36:01	Yes
2	-0.019	-0.019	-0.0001	0.0012	0.0003	11:36:36	Yes

Mean:	-0.017	-0.017	-0.0001
SD:	0.002	0.002	0.0000
%RSD:	13.30	13.30	21.58

==========

Sequence No.: 76 **Autosampler Location: 66**
Sample ID: 249330011|967115|1 **Date Collected: 3/22/2010 11:36:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 249330011|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0002	0.0031	0.0006	11:37:57	Yes
2	0.009	0.009	0.0002	0.0030	0.0006	11:38:32	Yes
Mean:	0.009	0.009	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.770	0.770	0.44				

==========

Sequence No.: 77 **Autosampler Location: 67**
Sample ID: 249330012|967115|1 **Date Collected: 3/22/2010 11:38:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 249330012|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.017	-0.017	-0.0001	0.0015	0.0003	11:39:53	Yes
2	-0.018	-0.018	-0.0001	0.0015	0.0003	11:40:28	Yes
Mean:	-0.017	-0.017	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	5.108	5.108	8.23				

==========

Sequence No.: 78 **Autosampler Location: 68**
Sample ID: 249333001|967115|1 **Date Collected: 3/22/2010 11:40:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 249333001|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.019	-0.019	-0.0001	0.0013	0.0003	11:41:49	Yes
2	-0.016	-0.016	-0.0001	0.0018	0.0003	11:42:24	Yes
Mean:	-0.017	-0.017	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	13.18	13.18	21.36				

==========

Sequence No.: 79 **Autosampler Location: 69**
Sample ID: 249333002|967115|1 **Date Collected: 3/22/2010 11:42:44**
Analyst: JXL **Data Type: Original**

Replicate Data: 249333002|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0004	0.0048	0.0008	11:43:45	Yes
2	0.026	0.026	0.0004	0.0044	0.0008	11:44:20	Yes
Mean:	0.028	0.028	0.0004				
SD:	0.002	0.002	0.0000				
%RSD:	8.600	8.600	6.94				

==========

Sequence No.: 80 **Autosampler Location: 70**
Sample ID: 249510003|967115|1 **Date Collected: 3/22/2010 11:44:40**
Analyst: JXL **Data Type: Original**

Replicate Data: 249510003|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.012	-0.012	-0.0001	0.0019	0.0004	11:45:42	Yes
2	-0.016	-0.016	-0.0001	0.0019	0.0003	11:46:17	Yes
Mean:	-0.014	-0.014	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	19.15	19.15	36.21				

==========

Sequence No.: 81 **Autosampler Location: 71**
Sample ID: 249510005|967115|1 **Date Collected: 3/22/2010 11:46:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 249510005|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	-0.0001	0.0020	0.0004	11:47:38	Yes
2	-0.016	-0.016	-0.0001	0.0018	0.0003	11:48:13	Yes
Mean:	-0.015	-0.015	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	12.95	12.95	23.76				

==========

Sequence No.: 82 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/22/2010 11:48:33**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.225	5.225	0.0605	0.3231	0.0609	11:49:33	Yes
2	5.240	5.240	0.0607	0.3218	0.0611	11:50:08	Yes
Mean:	5.232	5.232	0.0606				
SD:	0.011	0.011	0.0001				
%RSD:	0.201	0.201	0.20				

QC value within limits for Hg 253.7 Recovery = 104.64%
All analyte(s) passed QC.

==========

Sequence No.: 83 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/22/2010 11:50:27**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	-0.0001	0.0018	0.0004	11:51:28	Yes
2	-0.013	-0.013	-0.0001	0.0021	0.0003	11:52:02	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.226	4.226	8.61				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 84 **Autosampler Location: 72**
Sample ID: 249528001|967115|1 **Date Collected: 3/22/2010 11:52:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 249528001|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	-0.0001	0.0019	0.0003	11:53:23	Yes
2	-0.013	-0.013	-0.0001	0.0022	0.0003	11:53:58	Yes
Mean:	-0.015	-0.015	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	13.62	13.62	24.57				

Sequence No.: 85
Sample ID: 1202075647|967115|1
Analyst: JXL
Autosampler Location: 73
Date Collected: 3/22/2010 11:54:18
Data Type: Original

Replicate Data: 1202075647|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.020	-0.020	-0.0002	0.0007	0.0003	11:55:20	Yes
2	-0.019	-0.019	-0.0001	0.0011	0.0003	11:55:55	Yes
Mean:	-0.020	-0.020	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	4.381	4.381	6.57				

Sequence No.: 86
Sample ID: 1202075648|967115|1
Analyst: JXL
Autosampler Location: 74
Date Collected: 3/22/2010 11:56:16
Data Type: Original

Replicate Data: 1202075648|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.177	2.177	0.0253	0.1374	0.0257	11:57:17	Yes
2	2.159	2.159	0.0250	0.1357	0.0255	11:57:52	Yes
Mean:	2.168	2.168	0.0251				
SD:	0.013	0.013	0.0001				
%RSD:	0.597	0.597	0.59				

Sequence No.: 87
Sample ID: 1202075655|967115|5
Analyst: JXL
Autosampler Location: 75
Date Collected: 3/22/2010 11:58:12
Data Type: Original

Replicate Data: 1202075655|967115|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.012	-0.012	-0.0001	0.0017	0.0004	11:59:13	Yes
2	-0.013	-0.013	-0.0001	0.0017	0.0004	11:59:48	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	2.398	2.398	5.09				

Sequence No.: 88
Sample ID: 1202075629|967105|1
Analyst: JXL
Autosampler Location: 76
Date Collected: 3/22/2010 12:00:08
Data Type: Original

Replicate Data: 1202075629|967105|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.017	-0.017	-0.0001	0.0015	0.0003	12:01:09	Yes
2	-0.015	-0.015	-0.0001	0.0016	0.0003	12:01:44	Yes
Mean:	-0.016	-0.016	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	7.909	7.909	13.68				

Sequence No.: 89
Sample ID: 1202075631|967105|1
Analyst: JXL
Autosampler Location: 77
Date Collected: 3/22/2010 12:02:04
Data Type: Original

Replicate Data: 1202075631|967105|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.169	2.169	0.0252	0.1383	0.0256	12:03:06	Yes

2	2.158	2.158	0.0250	0.1365	0.0255	12:03:41	Yes
Mean:	2.164	2.164	0.0251				
SD:	0.008	0.008	0.0001				
%RSD:	0.378	0.378	0.38				

==========

Sequence No.: 90 **Autosampler Location: 78**
Sample ID: 1202075632|967105|1 **Date Collected: 3/22/2010 12:04:01**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075632|967105|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.271	2.271	0.0263	0.1387	0.0268	12:05:02	Yes
2	2.239	2.239	0.0260	0.1358	0.0264	12:05:37	Yes
Mean:	2.255	2.255	0.0262				
SD:	0.022	0.022	0.0003				
%RSD:	0.985	0.985	0.98				

==========

Sequence No.: 91 **Autosampler Location: 79**
Sample ID: 249559001|967105|1 **Date Collected: 3/22/2010 12:05:57**
Analyst: JXL **Data Type: Original**

Replicate Data: 249559001|967105|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.061	0.061	0.0008	0.0061	0.0012	12:06:59	Yes
2	0.063	0.063	0.0008	0.0062	0.0012	12:07:33	Yes
Mean:	0.062	0.062	0.0008				
SD:	0.002	0.002	0.0000				
%RSD:	2.616	2.616	2.36				

==========

Sequence No.: 92 **Autosampler Location: 80**
Sample ID: 1202075630|967105|5 **Date Collected: 3/22/2010 12:07:53**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075630|967105|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0001	0.0023	0.0005	12:08:55	Yes
2	-0.001	-0.001	0.0001	0.0026	0.0005	12:09:30	Yes
Mean:	-0.001	-0.001	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	81.13	81.13	18.12				

==========

Sequence No.: 93 **Autosampler Location: 81**
Sample ID: 249559002|967105|1 **Date Collected: 3/22/2010 12:09:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 249559002|967105|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0001	0.0026	0.0005	12:10:51	Yes
2	0.002	0.002	0.0001	0.0026	0.0005	12:11:26	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	10.11	10.11	2.27				

==========

Sequence No.: 94 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/22/2010 12:11:46**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.131	5.131	0.0594	0.3083	0.0598	12:12:46	Yes
2	5.089	5.089	0.0589	0.3053	0.0594	12:13:22	Yes
Mean:	5.110	5.110	0.0592				
SD:	0.029	0.029	0.0003				
%RSD:	0.570	0.570	0.57				

QC value within limits for Hg 253.7 Recovery = 102.20%
All analyte(s) passed QC.

==========

Sequence No.: 95 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/22/2010 12:13:41**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.015	-0.015	-0.0001	0.0015	0.0003	12:14:41	Yes
2	-0.013	-0.013	-0.0001	0.0019	0.0004	12:15:16	Yes
Mean:	-0.014	-0.014	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	10.77	10.77	20.41				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 96 **Autosampler Location: 82**
Sample ID: 1202073925|967015|1 **Date Collected: 3/22/2010 12:15:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202073925|967015|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.019	-0.019	-0.0001	0.0012	0.0003	12:16:37	Yes
2	-0.018	-0.018	-0.0001	0.0013	0.0003	12:17:12	Yes
Mean:	-0.019	-0.019	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.529	4.529	6.98				

==========

Sequence No.: 97 **Autosampler Location: 83**
Sample ID: 1202075395|967015|1 **Date Collected: 3/22/2010 12:17:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075395|967015|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	-0.0001	0.0016	0.0003	12:18:33	Yes
2	-0.016	-0.016	-0.0001	0.0013	0.0003	12:19:08	Yes
Mean:	-0.016	-0.016	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	2.166	2.166	3.70				

==========

Sequence No.: 98 **Autosampler Location: 84**
Sample ID: 1202075396|967015|1 **Date Collected: 3/22/2010 12:19:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075396|967015|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.151	2.151	0.0249	0.1318	0.0254	12:20:30	Yes
2	2.133	2.133	0.0247	0.1297	0.0252	12:21:05	Yes
Mean:	2.142	2.142	0.0248				
SD:	0.013	0.013	0.0001				

==========
Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 03/31/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 033110S1.SIF Results Data Set Name: 033110S1

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 03/31/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0038	0.0038	08:38:47	No
2			0.0037	0.0037	08:39:22	No
Mean:			0.0037			
SD :			0.0000			
%RSD:			1.2670			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 03/31/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0015	0.0052	08:40:44	No
2			0.0015	0.0052	08:41:18	No
Mean:			0.0015			
SD :			0.0000			
%RSD:			0.2319			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.00753
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 03/31/2010
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0042	0.0079	08:42:42	No
2			0.0041	0.0078	08:43:16	No
Mean:			0.0041			
SD :			0.0001			
%RSD:			1.6231			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99912 Slope: 0.00834
Intercept : -0.00006

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 03/31/2010
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0170	0.0207	08:44:41	No
2			0.0169	0.0206	08:45:16	No
Mean:			0.0169			
SD :			0.0000			
%RSD:			0.2231			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99994 Slope: 0.00852
Intercept : -0.00010

==========
Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 03/31/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0421	0.0459	08:46:41	No
2			0.0421	0.0459	08:47:16	No
Mean:			0.0421			
SD :			0.0000			
%RSD:						

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99999 Slope: 0.00845
Intercept : -0.00006

==========
Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 03/31/2010
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0829	0.0866	08:48:43	No
2			0.0826	0.0864	08:49:18	No
Mean:			0.0828			
SD :			0.0002			
%RSD:			0.2412			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99995 Slope: 0.00830
Intercept : 0.00011

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0037	---	----	----	----
S0.2	0.0015	0.200	0.169	0.0000	0.2
S0.5	0.0041	0.500	0.487	0.0001	1.6
S2.0	0.0169	2.000	2.030	0.0000	0.2
S5.0	0.0421	5.000	5.065	0.0000	----
S10	0.0828	10.000	9.963	0.0002	0.2

Correlation Coefficient: 0.99995 Slope: 0.00830 Intercept: 0.0001

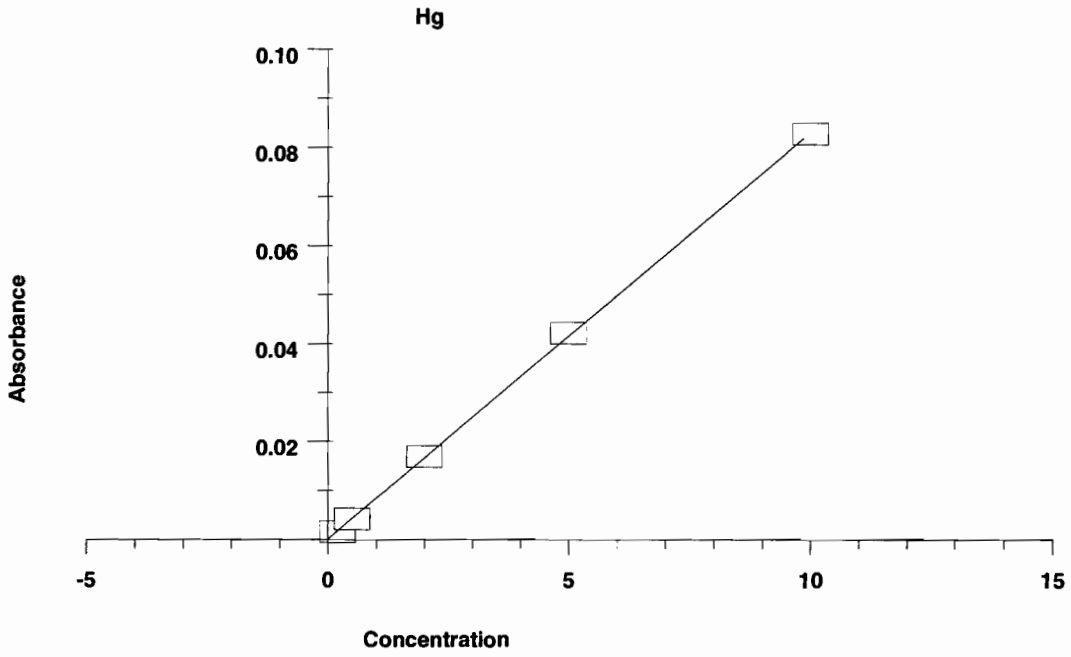

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 03/31/2010
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.187	5.187	0.0431	0.0469	08:50:47	No
2	5.163	5.163	0.0429	0.0467	08:51:23	No
Mean:	5.175	5.175	0.0430			
SD :	0.0170	0.0170	0.0001			
%RSD:	0.3	0.3	0.3275			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 03/31/2010
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.028	-0.028	-0.0001	0.0036	08:52:45	No
2	-0.046	-0.046	-0.0003	0.0035	08:53:20	No
Mean:	-0.037	-0.037	-0.0002			
SD :	0.0127	0.0127	0.0001			
%RSD:	34.4	34.4	53.2063			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 03/31/2010
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.235	0.235	0.0021	0.0058	08:54:43	No
2	0.216	0.216	0.0019	0.0056	08:55:17	No
Mean:	0.226	0.226	0.0020			
SD :	0.0132	0.0132	0.0001			
%RSD:	5.9	5.9	5.5497			

QC value within specified limits.

==========
Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 03/31/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.169	5.169	0.0430	0.0467	08:56:41	No
2	5.177	5.177	0.0431	0.0468	08:57:16	No
Mean:	5.173	5.173	0.0430			
SD :	0.0058	0.0058	0.0000			
%RSD:	0.1	0.1	0.1122			

QC value within specified limits.

==========
Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 03/31/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.024	-0.024	-0.0001	0.0036	08:58:44	No
2	-0.029	-0.029	-0.0001	0.0036	08:59:18	No
Mean:	-0.027	-0.027	-0.0001			
SD :	0.0034	0.0034	0.0000			
%RSD:	12.7	12.7	24.7998			

QC value within specified limits.

==========
Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 03/31/2010
Sample ID: 1202081090|i||969290|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.022	-0.022	-0.0001	0.0037	09:00:44	No
2	-0.035	-0.035	-0.0002	0.0035	09:01:19	No
Mean:	-0.029	-0.029	-0.0001			
SD :	0.0091	0.0091	0.0001			
%RSD:	31.8	31.8	58.2431			

==========
Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 03/31/2010
Sample ID: 1202081091|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.697	3.697	0.0308	0.0345	09:02:43	No
2	3.713	3.713	0.0309	0.0346	09:03:18	No
Mean:	3.705	3.705	0.0308			
SD :	0.0115	0.0115	0.0001			
%RSD:	0.3	0.3	0.3105			

==========
Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 03/31/2010
Sample ID: 249244001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.323	0.323	0.0028	0.0065	09:04:45	No
2	0.310	0.310	0.0027	0.0064	09:05:20	No
Mean:	0.316	0.316	0.0027			
SD :	0.0090	0.0090	0.0001			
%RSD:	2.8	2.8	2.7306			

==========
Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 03/31/2010
Sample ID: 249244002|i|||

```
%RSD:        0.1        0.1    0.1252

==========================================================================================
Element: Hg    Seq. No.: 21       AS Loc.: 21   Date: 03/31/2010
Sample ID: 249329002|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        4.051     4.051    0.0337     0.0374   09:18:32  No
 2        4.060     4.060    0.0338     0.0375   09:19:07  No
Mean:     4.056     4.056    0.0338
SD  :    0.0068    0.0068    0.0001
%RSD:       0.2        0.2    0.1665

==========================================================================================
Element: Hg    Seq. No.: 22       AS Loc.: 7   Date: 03/31/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        5.472     5.472    0.0455     0.0492   09:20:32  No
 2        5.464     5.464    0.0454     0.0492   09:21:07  No
Mean:     5.468     5.468    0.0455
SD  :    0.0061    0.0061    0.0001
%RSD:       0.1        0.1    0.1114
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 23       AS Loc.: 8   Date: 03/31/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.020    -0.020   -0.0001     0.0037   09:22:35  No
 2       -0.022    -0.022   -0.0001     0.0036   09:23:10  No
Mean:    -0.021    -0.021   -0.0001
SD  :    0.0015    0.0015    0.0000
%RSD:       6.8        6.8   17.3510
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 24       AS Loc.: 22   Date: 03/31/2010
Sample ID: 249329003|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        7.730     7.730    0.0643     0.0680   09:24:35  No
 2        7.757     7.757    0.0645     0.0682   09:25:10  No
Mean:     7.744     7.744    0.0644
SD  :    0.0190    0.0190    0.0002
%RSD:       0.2        0.2    0.2450

==========================================================================================
Element: Hg    Seq. No.: 25       AS Loc.: 23   Date: 03/31/2010
Sample ID: 249329004|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        8.932     8.932    0.0742     0.0780   09:26:34  No
 2        8.932     8.932    0.0742     0.0780   09:27:09  No
Mean:     8.932     8.932    0.0742
SD  :    0.0000    0.0000    0.0000
%RSD:

==========================================================================================
Element: Hg    Seq. No.: 26       AS Loc.: 24   Date: 03/31/2010
Sample ID: 249330001|i|||
```

```
%RSD:       1.2        1.2    1.1418

==========================================================================================
Element: Hg    Seq. No.: 32       AS Loc.: 30   Date: 03/31/2010
Sample ID: 249330003|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        30.55     30.55    0.2536     0.2573   09:40:35  No
Sample absorbance is greater than that of the highest standard.
 2        30.46     30.46    0.2528     0.2566   09:41:09  No
Sample absorbance is greater than that of the highest standard.
Mean:     30.50     30.50    0.2532
SD  :    0.0631    0.0631    0.0005
%RSD:       0.2        0.2    0.2067
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 33       AS Loc.: 31   Date: 03/31/2010
Sample ID: 249330004|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       111.6     111.6    0.9260     0.9298   09:42:37  No
Sample absorbance is greater than that of the highest standard.
 2       110.6     110.6    0.9182     0.9219   09:43:12  No
Sample absorbance is greater than that of the highest standard.
Mean:    111.1     111.1    0.9221
SD  :   0.6703    0.6703    0.0056
%RSD:       0.6        0.6    0.6032
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 34       AS Loc.: 7    Date: 03/31/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        5.348     5.348    0.0445     0.0482   09:44:39  No
 2        5.346     5.346    0.0445     0.0482   09:45:14  No
Mean:     5.347     5.347    0.0445
SD  :    0.0016    0.0016    0.0000
%RSD:
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 35       AS Loc.: 8    Date: 03/31/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1      -0.050    -0.050   -0.0003     0.0034   09:46:42  No
 2      -0.051    -0.051   -0.0003     0.0034   09:47:17  No
Mean:   -0.051    -0.051   -0.0003
SD  :   0.0007    0.0007    0.0000
%RSD:       1.4        1.4    1.8244
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 36       AS Loc.: 32   Date: 03/31/2010
Sample ID: 249330005|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        20.49     20.49    0.1702     0.1739   09:48:41  No
Sample absorbance is greater than that of the highest standard.
 2        20.50     20.50    0.1702     0.1739   09:49:17  No
```

```
Sample absorbance is greater than that of the highest standard.
Mean:     20.50     20.50    0.1702
SD  :    0.0009    0.0009    0.0000
%RSD:
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 37       AS Loc.: 33   Date: 03/31/2010
Sample ID: 249330006|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        1.889     1.889    0.0158     0.0195   09:50:36  No
 2        1.880     1.880    0.0157     0.0194   09:51:11  No
Mean:     1.885     1.885    0.0157
SD  :    0.0061    0.0061    0.0001
%RSD:       0.3       0.3    0.3216

==========================================================================================
Element: Hg    Seq. No.: 38       AS Loc.: 34   Date: 03/31/2010
Sample ID: 249330007|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1       32.61     32.61    0.2707     0.2744   09:52:31  No
Sample absorbance is greater than that of the highest standard.
 2       32.17     32.17    0.2670     0.2708   09:53:05  No
Sample absorbance is greater than that of the highest standard.
Mean:    32.39     32.39    0.2689
SD  :   0.3134    0.3134    0.0026
%RSD:      1.0       1.0    0.9673
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 39       AS Loc.: 35   Date: 03/31/2010
Sample ID: 249330008|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        1.749     1.749    0.0146     0.0183   09:54:26  No
 2        1.758     1.758    0.0147     0.0184   09:55:01  No
Mean:     1.754     1.754    0.0147
SD  :    0.0064    0.0064    0.0001
%RSD:       0.4       0.4    0.3619

==========================================================================================
Element: Hg    Seq. No.: 40       AS Loc.: 36   Date: 03/31/2010
Sample ID: 1202081106|i||969297|MB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1      -0.146    -0.146   -0.0011     0.0026   09:56:22  No
 2      -0.145    -0.145   -0.0011     0.0026   09:56:57  No
Mean:   -0.145    -0.145   -0.0011
SD  :    0.0006    0.0006    0.0000
%RSD:       0.4       0.4    0.4683

==========================================================================================
Element: Hg    Seq. No.: 41       AS Loc.: 37   Date: 03/31/2010
Sample ID: 1202081107|i|10||LCS
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        4.042     4.042    0.0336     0.0374   09:58:19  No
 2        4.029     4.029    0.0335     0.0373   09:58:54  No
Mean:     4.035     4.035    0.0336
SD  :    0.0095    0.0095    0.0001
```

```
%RSD:       0.2        0.2    0.2354

==========================================================================================
Element: Hg    Seq. No.: 42       AS Loc.: 38   Date: 03/31/2010
Sample ID: 249333003|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        34.63     34.63    0.2875     0.2912   10:00:16  No
Sample absorbance is greater than that of the highest standard.
 2        34.12     34.12    0.2832     0.2870   10:00:51  No
Sample absorbance is greater than that of the highest standard.
Mean:     34.38     34.38    0.2854
SD  :    0.3625    0.3625    0.0030
%RSD:       1.1        1.1    1.0540
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 43       AS Loc.: 39   Date: 03/31/2010
Sample ID: 249333004|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        29.43     29.43    0.2443     0.2480   10:02:14  No
Sample absorbance is greater than that of the highest standard.
 2        29.26     29.26    0.2429     0.2466   10:02:49  No
Sample absorbance is greater than that of the highest standard.
Mean:     29.34     29.34    0.2436
SD  :    0.1228    0.1228    0.0010
%RSD:       0.4        0.4    0.4183
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 44       AS Loc.: 40   Date: 03/31/2010
Sample ID: 249333005|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        203.6     203.6    1.6897  2  1.6934   10:04:12  No
Sample absorbance is greater than that of the highest standard.
 2        84.99     84.99    0.7053     0.7090   10:04:47  No
Sample absorbance is greater than that of the highest standard.
Mean:     144.3     144.3    1.1975
SD  :     83.89     83.89    0.6961
%RSD:      58.1      58.1   58.1272
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 45       AS Loc.: 7    Date: 03/31/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        4.603     4.603    0.0383     0.0420   10:17:20  No
 2        4.641     4.641    0.0386     0.0423   10:17:54  No
Mean:     4.622     4.622    0.0385
SD  :    0.0265    0.0265    0.0002
%RSD:       0.6        0.6    0.5725
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 46       AS Loc.: 8    Date: 03/31/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1      -0.086    -0.086   -0.0006     0.0031   10:19:22  No
```

2	-0.087	-0.087	-0.0006	0.0031	10:19:57	No
Mean:	-0.087	-0.087	-0.0006			
SD :	0.0002	0.0002	0.0000			
%RSD:	0.2	0.2	0.2764			

QC value within specified limits.

==========

Element: Hg Seq. No.: 47 AS Loc.: 30 Date: 03/31/2010
Sample ID: 249330003|i|10|969290|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.600	2.600	0.0217	0.0254	10:21:24	No
2	2.548	2.548	0.0212	0.0250	10:21:59	No
Mean:	2.574	2.574	0.0215			
SD :	0.0366	0.0366	0.0003			
%RSD:	1.4	1.4	1.4150			

==========

Element: Hg Seq. No.: 48 AS Loc.: 31 Date: 03/31/2010
Sample ID: 249330004|i|200||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.621	0.621	0.0053	0.0090	10:23:27	No
2	0.599	0.599	0.0051	0.0088	10:24:02	No
Mean:	0.610	0.610	0.0052			
SD :	0.0155	0.0155	0.0001			
%RSD:	2.5	2.5	2.4892			

==========

Element: Hg Seq. No.: 49 AS Loc.: 32 Date: 03/31/2010
Sample ID: 249330005|i|10||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.980	1.980	0.0165	0.0203	10:25:27	No
2	1.978	1.978	0.0165	0.0202	10:26:02	No
Mean:	1.979	1.979	0.0165			
SD :	0.0016	0.0016	0.0000			
%RSD:						

==========

Element: Hg Seq. No.: 50 AS Loc.: 34 Date: 03/31/2010
Sample ID: 249330007|i|10||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.310	3.310	0.0276	0.0313	10:27:22	No
2	3.355	3.355	0.0279	0.0317	10:27:57	No
Mean:	3.333	3.333	0.0278			
SD :	0.0318	0.0318	0.0003			
%RSD:	1.0	1.0	0.9519			

==========

Element: Hg Seq. No.: 51 AS Loc.: 38 Date: 03/31/2010
Sample ID: 249333003|i|10|969297|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.244	3.244	0.0270	0.0308	10:29:19	No
2	3.238	3.238	0.0270	0.0307	10:29:54	No
Mean:	3.241	3.241	0.0270			
SD :	0.0043	0.0043	0.0000			
%RSD:	0.1	0.1	0.1328			

==========

Element: Hg Seq. No.: 52 AS Loc.: 39 Date: 03/31/2010
Sample ID: 249333004|i|10||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.931	2.931	0.0244	0.0282	10:31:17	No
2	2.922	2.922	0.0244	0.0281	10:31:51	No
Mean:	2.926	2.926	0.0244			
SD :	0.0064	0.0064	0.0001			
%RSD:	0.2	0.2	0.2172			

Element: Hg Seq. No.: 53 AS Loc.: 40 Date: 03/31/2010
Sample ID: 249333005|i|200||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	12.17	12.17	0.1011	0.1049	10:33:15	No
Sample absorbance is greater than that of the highest standard.						
2	12.21	12.21	0.1014	0.1051	10:33:50	No
Sample absorbance is greater than that of the highest standard.						
Mean:	12.19	12.19	0.1013			
SD :	0.0225	0.0225	0.0002			
%RSD:	0.2	0.2	0.1843			
Sample absorbance is greater than that of the highest standard.						

Element: Hg Seq. No.: 54 AS Loc.: 41 Date: 03/31/2010
Sample ID: 249333006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	124.4	124.4	1.0325	1.0362	10:35:14	No
Sample absorbance is greater than that of the highest standard.						
2	124.3	124.3	1.0314	1.0351	10:35:49	No
Sample absorbance is greater than that of the highest standard.						
Mean:	124.4	124.4	1.0320			
SD :	0.0946	0.0946	0.0008			
%RSD:						
Sample absorbance is greater than that of the highest standard.						

Element: Hg Seq. No.: 55 AS Loc.: 7 Date: 03/31/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.126	5.126	0.0426	0.0464	10:40:31	No
2	5.035	5.035	0.0419	0.0456	10:41:06	No
Mean:	5.080	5.080	0.0423			
SD :	0.0644	0.0644	0.0005			
%RSD:	1.3	1.3	1.2637			
QC value within specified limits.						

Element: Hg Seq. No.: 56 AS Loc.: 8 Date: 03/31/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.066	-0.066	-0.0004	0.0033	10:42:33	No
2	-0.057	-0.057	-0.0004	0.0034	10:43:08	No
Mean:	-0.061	-0.061	-0.0004			
SD :	0.0066	0.0066	0.0001			
%RSD:	10.8	10.8	13.6861			
QC value within specified limits.						

```
==========================================================================================
Element: Hg    Seq. No.: 57       AS Loc.: 40   Date: 03/31/2010
Sample ID: 249333005|i|1000||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        6.384     6.384    0.0531     0.0568   10:44:34  No
 2        6.608     6.608    0.0549     0.0587   10:45:08  No
Mean:     6.496     6.496    0.0540
SD  :    0.1579    0.1579    0.0013
%RSD:       2.4       2.4    2.4254

==========================================================================================
Element: Hg    Seq. No.: 58       AS Loc.: 41   Date: 03/31/2010
Sample ID: 249333006|i|200||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.952     0.952    0.0080     0.0117   10:46:32  No
 2        0.924     0.924    0.0078     0.0115   10:47:06  No
Mean:     0.938     0.938    0.0079
SD  :    0.0200    0.0200    0.0002
%RSD:       2.1       2.1    2.1011

==========================================================================================
Element: Hg    Seq. No.: 59       AS Loc.: 42   Date: 03/31/2010
Sample ID: 249333007|i|100||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1      107.1     107.1    0.8891     0.8928   10:48:30  No
Sample absorbance is greater than that of the highest standard.
 2      107.9     107.9    0.8958     0.8995   10:49:06  No
Sample absorbance is greater than that of the highest standard.
Mean:   107.5     107.5    0.8924
SD  :  0.5712    0.5712    0.0047
%RSD:     0.5       0.5    0.5311
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 60       AS Loc.: 43   Date: 03/31/2010
Sample ID: 249333008|i|100||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.006     0.006    0.0002     0.0039   10:50:31  No
 2        0.009     0.009    0.0002     0.0039   10:51:08  No
Mean:     0.007     0.007    0.0002
SD  :    0.0021    0.0021    0.0000
%RSD:      28.1      28.1   10.2692

==========================================================================================
Element: Hg    Seq. No.: 61       AS Loc.: 44   Date: 03/31/2010
Sample ID: 249333009|i|100||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1      -0.105    -0.105   -0.0008     0.0030   10:52:34  No
 2      -0.111    -0.111   -0.0008     0.0029   10:53:09  No
Mean:   -0.108    -0.108   -0.0008
SD  :   0.0043    0.0043    0.0000
%RSD:      3.9       3.9    4.4574

==========================================================================================
Element: Hg    Seq. No.: 62       AS Loc.: 45   Date: 03/31/2010
Sample ID: 249601001|i|||
------------------------------------------------------------------------------------------
```

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.158	0.158	0.0014	0.0051	10:54:35	No
2	0.152	0.152	0.0014	0.0051	10:55:10	No
Mean:	0.155	0.155	0.0014			
SD :	0.0042	0.0042	0.0000			
%RSD:	2.7	2.7	2.5238			

==========

Element: Hg Seq. No.: 63 AS Loc.: 46 Date: 03/31/2010
Sample ID: 249601002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.253	0.253	0.0022	0.0059	10:56:36	No
2	0.241	0.241	0.0021	0.0058	10:57:10	No
Mean:	0.247	0.247	0.0022			
SD :	0.0083	0.0083	0.0001			
%RSD:	3.4	3.4	3.2071			

==========

Element: Hg Seq. No.: 64 AS Loc.: 47 Date: 03/31/2010
Sample ID: 249601003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.345	0.345	0.0030	0.0067	10:58:37	No
2	0.333	0.333	0.0029	0.0066	10:59:12	No
Mean:	0.339	0.339	0.0029			
SD :	0.0090	0.0090	0.0001			
%RSD:	2.7	2.7	2.5559			

==========

Element: Hg Seq. No.: 65 AS Loc.: 48 Date: 03/31/2010
Sample ID: 249601004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.289	0.289	0.0025	0.0062	11:00:37	No
2	0.280	0.280	0.0024	0.0062	11:01:11	No
Mean:	0.284	0.284	0.0025			
SD :	0.0059	0.0059	0.0000			
%RSD:	2.1	2.1	1.9956			

==========

Element: Hg Seq. No.: 66 AS Loc.: 49 Date: 03/31/2010
Sample ID: 249601005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.235	0.235	0.0021	0.0058	11:02:31	No
2	0.241	0.241	0.0021	0.0058	11:03:06	No
Mean:	0.238	0.238	0.0021			
SD :	0.0046	0.0046	0.0000			
%RSD:	2.0	2.0	1.8525			

==========

Element: Hg Seq. No.: 67 AS Loc.: 7 Date: 03/31/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.097	5.097	0.0424	0.0461	11:04:29	No
2	5.099	5.099	0.0424	0.0461	11:05:04	No
Mean:	5.098	5.098	0.0424			
SD :	0.0011	0.0011	0.0000			
%RSD:						

QC value within specified limits.

==========

Element: Hg Seq. No.: 68 AS Loc.: 8 Date: 03/31/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.060	-0.060	-0.0004	0.0033	11:06:32	No
2	-0.077	-0.077	-0.0005	0.0032	11:07:07	No
Mean:	-0.069	-0.069	-0.0005			
SD :	0.0123	0.0123	0.0001			
%RSD:	17.9	17.9	22.0707			

QC value within specified limits.

==========

Element: Hg Seq. No.: 69 AS Loc.: 50 Date: 03/31/2010
Sample ID: 249601006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.197	0.197	0.0017	0.0055	11:08:31	No
2	0.196	0.196	0.0017	0.0055	11:09:06	No
Mean:	0.196	0.196	0.0017			
SD :	0.0007	0.0007	0.0000			
%RSD:	0.4	0.4	0.3311			

==========

Element: Hg Seq. No.: 70 AS Loc.: 51 Date: 03/31/2010
Sample ID: 249608001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	20.01	20.01	0.1661	0.1699	11:10:28	No
Sample absorbance is greater than that of the highest standard.						
2	20.18	20.18	0.1676	0.1713	11:11:03	No
Sample absorbance is greater than that of the highest standard.						
Mean:	20.10	20.10	0.1669			
SD :	0.1236	0.1236	0.0010			
%RSD:	0.6	0.6	0.6146			
Sample absorbance is greater than that of the highest standard.						

==========

Element: Hg Seq. No.: 71 AS Loc.: 52 Date: 03/31/2010
Sample ID: 1202081108|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	30.14	30.14	0.2502	0.2539	11:12:23	No
Sample absorbance is greater than that of the highest standard.						
2	30.17	30.17	0.2504	0.2542	11:12:58	No
Sample absorbance is greater than that of the highest standard.						
Mean:	30.15	30.15	0.2503			
SD :	0.0199	0.0199	0.0002			
%RSD:						
Sample absorbance is greater than that of the highest standard.						

==========

Element: Hg Seq. No.: 72 AS Loc.: 53 Date: 03/31/2010
Sample ID: 1202081109|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	25.03	25.03	0.2078	0.2115	11:14:20	No
Sample absorbance is greater than that of the highest standard.						
2	25.05	25.05	0.2080	0.2117	11:14:55	No
Sample absorbance is greater than that of the highest standard.						

```
==========================================================================================
Element: Hg    Seq. No.: 78       AS Loc.: 59   Date: 03/31/2010
Sample ID: 249608005|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        18.46     18.46    0.1532     0.1570   11:26:12  No
Sample absorbance is greater than that of the highest standard.
 2        18.41     18.41    0.1529     0.1566   11:26:47  No
Sample absorbance is greater than that of the highest standard.
Mean:     18.43     18.43    0.1531
SD  :    0.0296    0.0296    0.0002
%RSD:       0.2       0.2    0.1607
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 79       AS Loc.: 7   Date: 03/31/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        5.119     5.119    0.0426     0.0463   11:28:13  No
 2        5.096     5.096    0.0424     0.0461   11:28:48  No
Mean:     5.107     5.107    0.0425
SD  :    0.0159    0.0159    0.0001
%RSD:       0.3       0.3    0.3101
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 80       AS Loc.: 8   Date: 03/31/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1       -0.091    -0.091   -0.0006     0.0031   11:30:16  No
 2       -0.085    -0.085   -0.0006     0.0031   11:30:51  No
Mean:    -0.088    -0.088   -0.0006
SD  :    0.0044    0.0044    0.0000
%RSD:       5.0       5.0    5.8864
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 81       AS Loc.: 60   Date: 03/31/2010
Sample ID: 1202081152|i||969323|MB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1       -0.068    -0.068   -0.0005     0.0033   11:32:18  No
 2       -0.073    -0.073   -0.0005     0.0032   11:32:53  No
Mean:    -0.070    -0.070   -0.0005
SD  :    0.0036    0.0036    0.0000
%RSD:       5.2       5.2    6.3390

==========================================================================================
Element: Hg    Seq. No.: 82       AS Loc.: 61   Date: 03/31/2010
Sample ID: 1202081153|i|||LCS
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        2.122     2.122    0.0177     0.0214   11:34:19  No
 2        2.098     2.098    0.0175     0.0212   11:34:53  No
Mean:     2.110     2.110    0.0176
SD  :    0.0164    0.0164    0.0001
%RSD:       0.8       0.8    0.7746

==========================================================================================
Element: Hg    Seq. No.: 83       AS Loc.: 62   Date: 03/31/2010
Sample ID: 249637001|i|||
------------------------------------------------------------------------------------------
```

```
==========================================================================================
Element: Hg    Seq. No.: 89       AS Loc.: 68   Date: 03/31/2010
Sample ID: 249637004|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.072    -0.072   -0.0005     0.0032   11:47:55  No
 2       -0.068    -0.068   -0.0005     0.0033   11:48:29  No
Mean:    -0.070    -0.070   -0.0005
SD  :    0.0032    0.0032    0.0000
%RSD:       4.5       4.5    5.5180

==========================================================================================
Element: Hg    Seq. No.: 90       AS Loc.: 69   Date: 03/31/2010
Sample ID: 249782001|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.077     0.077    0.0007     0.0045   11:49:51  No
 2        0.071     0.071    0.0007     0.0044   11:50:25  No
Mean:     0.074     0.074    0.0007
SD  :    0.0043    0.0043    0.0000
%RSD:       5.8       5.8    4.9120

==========================================================================================
Element: Hg    Seq. No.: 91       AS Loc.: 7   Date: 03/31/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        5.065     5.065    0.0421     0.0459   11:51:49  No
 2        5.090     5.090    0.0423     0.0461   11:52:24  No
Mean:     5.077     5.077    0.0422
SD  :    0.0181    0.0181    0.0002
%RSD:       0.4       0.4    0.3557
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 92       AS Loc.: 8   Date: 03/31/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.127    -0.127   -0.0009     0.0028   11:53:52  No
 2       -0.127    -0.127   -0.0009     0.0028   11:54:27  No
Mean:    -0.127    -0.127   -0.0009
SD  :    0.0001    0.0001    0.0000
%RSD:
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 93       AS Loc.: 70   Date: 03/31/2010
Sample ID: 249782002|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.027     0.027    0.0003     0.0041   11:55:52  No
 2        0.021     0.021    0.0003     0.0040   11:56:28  No
Mean:     0.024     0.024    0.0003
SD  :    0.0041    0.0041    0.0000
%RSD:      17.1      17.1   11.1149

==========================================================================================
Element: Hg    Seq. No.: 94       AS Loc.: 71   Date: 03/31/2010
Sample ID: 249782003|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.084     0.084    0.0008     0.0045   11:57:51  No
```

2	0.075	0.075	0.0007	0.0045	11:58:26	No
Mean:	0.080	0.080	0.0008			
SD :	0.0062	0.0062	0.0001			
%RSD:	7.8	7.8	6.7055			

==========

Element: Hg Seq. No.: 95 AS Loc.: 72 Date: 03/31/2010
Sample ID: 249782004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.013	0.013	0.0002	0.0039	11:59:50	No
2	-0.001	-0.001	0.0001	0.0038	12:00:25	No
Mean:	0.006	0.006	0.0002			
SD :	0.0101	0.0101	0.0001			
%RSD:	165.7	165.7	53.0758			

==========

Element: Hg Seq. No.: 96 AS Loc.: 73 Date: 03/31/2010
Sample ID: 249782005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.120	0.120	0.0011	0.0048	12:01:49	No
2	0.111	0.111	0.0010	0.0048	12:02:24	No
Mean:	0.116	0.116	0.0011			
SD :	0.0066	0.0066	0.0001			
%RSD:	5.7	5.7	5.1486			

==========

Element: Hg Seq. No.: 97 AS Loc.: 74 Date: 03/31/2010
Sample ID: 249782006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.107	0.107	0.0010	0.0047	12:03:48	No
2	0.113	0.113	0.0010	0.0048	12:04:23	No
Mean:	0.110	0.110	0.0010			
SD :	0.0037	0.0037	0.0000			
%RSD:	3.4	3.4	3.0109			

==========

Element: Hg Seq. No.: 98 AS Loc.: 75 Date: 03/31/2010
Sample ID: 249782007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.085	-0.085	-0.0006	0.0031	12:05:48	No
2	-0.086	-0.086	-0.0006	0.0031	12:06:23	No
Mean:	-0.085	-0.085	-0.0006			
SD :	0.0006	0.0006	0.0000			
%RSD:	0.7	0.7	0.8243			

==========

Element: Hg Seq. No.: 99 AS Loc.: 7 Date: 03/31/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.926	4.926	0.0410	0.0447	12:07:49	No
2	4.876	4.876	0.0406	0.0443	12:08:25	No
Mean:	4.901	4.901	0.0408			
SD :	0.0357	0.0357	0.0003			
%RSD:	0.7	0.7	0.7270			

QC value within specified limits.

==========

Element: Hg Seq. No.: 100 AS Loc.: 8 Date: 03/31/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.154	-0.154	-0.0012	0.0026	12:09:53	No
2	-0.154	-0.154	-0.0012	0.0026	12:10:28	No
Mean:	-0.154	-0.154	-0.0012			
SD :	0.0000	0.0000	0.0000			
%RSD:						

QC value within specified limits.

```
==========================================================================================
Element: Hg    Seq. No.: 101      AS Loc.: 42   Date: 03/31/2010
Sample ID: 249333007|i|10000|969297|
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        1.397     1.397    0.0117     0.0154   12:25:40  No
 2        1.394     1.394    0.0117     0.0154   12:26:14  No
Mean:     1.395     1.395    0.0117
SD  :    0.0024    0.0024    0.0000
%RSD:       0.2       0.2    0.1680

==========================================================================================
Element: Hg    Seq. No.: 102      AS Loc.: 43   Date: 03/31/2010
Sample ID: 249333008|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       14.43    14.43     0.1198     0.1235   12:27:38  No
Sample absorbance is greater than that of the highest standard.
 2       14.50    14.50     0.1204     0.1241   12:28:13  No
Sample absorbance is greater than that of the highest standard.
Mean:    14.46    14.46     0.1201
SD  :   0.0500   0.0500     0.0004
%RSD:      0.3      0.3     0.3457
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 103      AS Loc.: 44   Date: 03/31/2010
Sample ID: 249333009|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        2.795     2.795    0.0233     0.0270   12:29:38  No
 2        2.782     2.782    0.0232     0.0269   12:30:14  No
Mean:     2.788     2.788    0.0232
SD  :    0.0086    0.0086    0.0001
%RSD:       0.3       0.3    0.3068

==========================================================================================
Element: Hg    Seq. No.: 104      AS Loc.: 51   Date: 03/31/2010
Sample ID: 249608001|i|10||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        2.203     2.203    0.0184     0.0221   12:31:36  No
 2        2.216     2.216    0.0185     0.0222   12:32:10  No
Mean:     2.209     2.209    0.0184
SD  :    0.0094    0.0094    0.0001
%RSD:       0.4       0.4    0.4228

==========================================================================================
Element: Hg    Seq. No.: 105      AS Loc.: 52   Date: 03/31/2010
Sample ID: 1202081108|i|10||DUP
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        3.550     3.550    0.0296     0.0333   12:33:33  No
 2        3.597     3.597    0.0300     0.0337   12:34:08  No
Mean:     3.574     3.574    0.0298
SD  :    0.0333    0.0333    0.0003
%RSD:       0.9       0.9    0.9275

==========================================================================================
Element: Hg    Seq. No.: 106      AS Loc.: 53   Date: 03/31/2010
Sample ID: 1202081109|i|10||MS
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
```

1	2.715	2.715	0.0226	0.0264	12:35:29	No
2	2.775	2.775	0.0231	0.0269	12:36:04	No
Mean:	2.745	2.745	0.0229			
SD :	0.0425	0.0425	0.0004			
%RSD:	1.5	1.5	1.5417			

==========

Element: Hg Seq. No.: 107 AS Loc.: 54 Date: 03/31/2010
Sample ID: 1202081111|i|10||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.575	3.575	0.0298	0.0335	12:37:26	No
2	3.613	3.613	0.0301	0.0338	12:38:00	No
Mean:	3.594	3.594	0.0299			
SD :	0.0267	0.0267	0.0002			
%RSD:	0.7	0.7	0.7396			

==========

Element: Hg Seq. No.: 108 AS Loc.: 55 Date: 03/31/2010
Sample ID: 1202081110|i|50||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.335	0.335	0.0029	0.0066	12:39:23	No
2	0.326	0.326	0.0028	0.0065	12:39:58	No
Mean:	0.330	0.330	0.0028			
SD :	0.0064	0.0064	0.0001			
%RSD:	2.0	2.0	1.8774			

==========

Element: Hg Seq. No.: 109 AS Loc.: 59 Date: 03/31/2010
Sample ID: 249608005|i|10||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.031	2.031	0.0170	0.0207	12:41:22	No
2	2.025	2.025	0.0169	0.0206	12:41:58	No
Mean:	2.028	2.028	0.0169			
SD :	0.0042	0.0042	0.0000			
%RSD:	0.2	0.2	0.2072			

==========

Element: Hg Seq. No.: 110 AS Loc.: 7 Date: 03/31/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.992	4.992	0.0415	0.0453	12:43:24	No
2	4.998	4.998	0.0416	0.0453	12:43:58	No
Mean:	4.995	4.995	0.0416			
SD :	0.0039	0.0039	0.0000			
%RSD:						

QC value within specified limits.

==========

Element: Hg Seq. No.: 111 AS Loc.: 8 Date: 03/31/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.061	-0.061	-0.0004	0.0033	12:45:26	No
2	-0.061	-0.061	-0.0004	0.0033	12:46:01	No
Mean:	-0.061	-0.061	-0.0004			
SD :	0.0004	0.0004	0.0000			
%RSD:	0.6	0.6	0.7743			

QC value within specified limits.

Element: Hg Seq. No.: 112 AS Loc.: 43 Date: 03/31/2010
Sample ID: 249333008|i|10|969297|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.580	1.580	0.0132	0.0169	12:51:15	No
2	1.533	1.533	0.0128	0.0166	12:51:50	No
Mean:	1.556	1.556	0.0130			
SD :	0.0331	0.0331	0.0003			
%RSD:	2.1	2.1	2.1066			

Element: Hg Seq. No.: 113 AS Loc.: 7 Date: 03/31/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.051	5.051	0.0420	0.0457	12:53:16	No
2	5.093	5.093	0.0424	0.0461	12:53:50	No
Mean:	5.072	5.072	0.0422			
SD :	0.0297	0.0297	0.0002			
%RSD:	0.6	0.6	0.5846			

QC value within specified limits.

Element: Hg Seq. No.: 114 AS Loc.: 8 Date: 03/31/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.054	-0.054	-0.0003	0.0034	12:55:19	No
2	-0.064	-0.064	-0.0004	0.0033	12:55:54	No
Mean:	-0.059	-0.059	-0.0004			
SD :	0.0070	0.0070	0.0001			
%RSD:	11.9	11.9	15.2591			

QC value within specified limits.

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **965623.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202072046	Metals Soil LCS SRM ICP/Hg	UI062540-I	.524	g
MS	1202072048	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202072048	Metals Spike Mix II	UI1286774-06	.25	mL
MSD	1202072050	Metals Spike Mix I	UI1286772-01	.25	mL
MSD	1202072050	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202072045 MB	31-MAR-2010 09:30:00	Soil	0.513	50	97.46589	<2
1202072046 LCS	31-MAR-2010 09:30:00	Soil	0.524	50	95.41985	<2
249329001	31-MAR-2010 09:30:00	Soil	0.532	50	93.98496	<2
249329002	31-MAR-2010 09:30:00	Soil	0.5	50	100	<2
249329003	31-MAR-2010 09:30:00	Soil	0.529	50	94.51796	<2
249329004	31-MAR-2010 09:30:00	Soil	0.514	50	97.27626	<2
249330001	31-MAR-2010 09:30:00	Soil	0.501	50	99.8004	<2
249330002	31-MAR-2010 09:30:00	Soil	0.518	50	96.5251	<2
249330003	31-MAR-2010 09:30:00	Soil	0.536	50	93.28358	<2
249330004	31-MAR-2010 09:30:00	Soil	0.503	50	99.40358	<2
249330005	31-MAR-2010 09:30:00	Soil	0.523	50	95.60229	<2
249330006	31-MAR-2010 09:30:00	Soil	0.52	50	96.15385	<2
249330007	31-MAR-2010 09:30:00	Soil	0.502	50	99.60159	<2
249330008	31-MAR-2010 09:30:00	Soil	0.549	50	91.07468	<2
249333003	31-MAR-2010 09:30:00	Soil	0.509	50	98.23183	<2
1202072047 DUP (249333003)	31-MAR-2010 09:30:00	Soil	0.567	50	88.18342	<2
1202072048 MS (249333003)	31-MAR-2010 09:30:00	Soil	0.502	50	99.60159	<2
1202072050 MSD (249333003)	31-MAR-2010 09:30:00	Soil	0.53	50	94.33962	<2
1202072049 SDILT (249333003)	31-MAR-2010 09:30:00	Soil	0.509	50	98.23183	<2
249333004	31-MAR-2010 09:30:00	Soil	0.567	50	88.18342	<2
249333005	31-MAR-2010 09:30:00	Soil	0.502	50	99.60159	<2
249333006	31-MAR-2010 09:30:00	Soil	0.53	50	94.33962	<2
249333007	31-MAR-2010 09:30:00	Soil	0.509	50	98.23183	<2

Prep Logbook

Batch ID: **965623.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202072046	Metals Soil LCS SRM ICP/Hg	UI062540-I	.524	g
MS	1202072048	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202072048	Metals Spike Mix II	UI1286774-06	.25	mL
MSD	1202072050	Metals Spike Mix I	UI1286772-01	.25	mL
MSD	1202072050	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
249333008	31-MAR-2010 09:30:00	Soil	0.502	50	99.60159	<2
249333009	31-MAR-2010 09:30:00	Soil	0.5	50	100	<2

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL
1291278	Nitric Acid CONC.	1.25 mL

Comments:

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 965626.0 **Verified by:** _____

Analyst: Louis Hall

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: Sartorius Balance B-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202072051 MB	31-MAR-2010 09:30:00	0.518	50	96.5251	<2
1202072052 LCS	31-MAR-2010 09:30:00	0.5	50	100	<2
249329001	31-MAR-2010 09:30:00	0.532	50	93.98496	<2
249329002	31-MAR-2010 09:30:00	0.538	50	92.9368	<2
249329003	31-MAR-2010 09:30:00	0.505	50	99.0099	<2
249329004	31-MAR-2010 09:30:00	0.528	50	94.69697	<2
249330001	31-MAR-2010 09:30:00	0.522	50	95.78544	<2
249330002	31-MAR-2010 09:30:00	0.517	50	96.7118	<2
249330003	31-MAR-2010 09:30:00	0.502	50	99.60159	<2
249330004	31-MAR-2010 09:30:00	0.507	50	98.61933	<2
249330005	31-MAR-2010 09:30:00	0.551	50	90.7441	<2
249330006	31-MAR-2010 09:30:00	0.526	50	95.05703	<2
249330007	31-MAR-2010 09:30:00	0.505	50	99.0099	<2
249330008	31-MAR-2010 09:30:00	0.502	50	99.60159	<2
249333003	31-MAR-2010 09:30:00	0.511	50	97.84736	<2
1202072053 DUP (249333003)	31-MAR-2010 09:30:00	0.516	50	96.89922	<2
1202072054 MS (249333003)	31-MAR-2010 09:30:00	0.509	50	98.23183	<2
1202072056 MSD (249330003)	31-MAR-2010 09:30:00	0.502	50	99.60159	<2
1202072055 SDILT (249333003)	31-MAR-2010 09:30:00	0.511	50	97.84736	<2
249333004	31-MAR-2010 09:30:00	0.506	50	98.81423	<2
249333005	31-MAR-2010 09:30:00	0.514	50	97.27626	<2
249333006	31-MAR-2010 09:30:00	0.507	50	98.61933	<2
249333007	31-MAR-2010 09:30:00	0.501	50	99.8004	<2
249333008	31-MAR-2010 09:30:00	0.57	50	87.7193	<2
249333009	31-MAR-2010 09:30:00	0.52	50	96.15385	<2

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202072052	Metals Soil LCS SRM ICPMS	UI062540-MS	.5	g
MS	1202072054	ICP-MS Spike for soil products.	UI1286780-A	.5	mL
MS	1202072054	ICP-MS Spike for Soil Products	UI1286784-B	.5	mL
MSD	1202072056	ICP-MS Spike for soil products.	UI1286780-A	.5	mL
MSD	1202072056	ICP-MS Spike for Soil Products	UI1286784-B	.5	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1291278	5	mL

Comments:

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **973754.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202091940	Metals Soil LCS SRM ICP/Hg	UI062540-I	.504	g
MS	1202072048	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202072048	Metals Spike Mix II	UI1286774-06	.25	mL
MSD	1202072050	Metals Spike Mix I	UI1286772-01	.25	mL
MSD	1202072050	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202091939 MB	12-APR-2010 11:30:00	Soil	0.519	50	96.33911	
1202091940 LCS	12-APR-2010 11:30:00	Soil	0.504	50	99.20635	
249329001 - 2	12-APR-2010 11:30:00	Soil	0.501	50	99.8004	
249329002 - 2	12-APR-2010 11:30:00	Soil	0.502	50	99.60159	
249329003 - 2	12-APR-2010 11:30:00	Soil	0.516	50	96.89922	
249329004 - 2	12-APR-2010 11:30:00	Soil	0.507	50	98.61933	
249330001 - 2	12-APR-2010 11:30:00	Soil	0.541	50	92.42144	
249330002 - 2	12-APR-2010 11:30:00	Soil	0.535	50	93.45794	
249330003 - 2	12-APR-2010 11:30:00	Soil	0.502	50	99.60159	
249330004 - 2	12-APR-2010 11:30:00	Soil	0.523	50	95.60229	
249330005 - 2	12-APR-2010 11:30:00	Soil	0.528	50	94.69697	
249330006 - 2	12-APR-2010 11:30:00	Soil	0.559	50	89.44544	
249330007 - 2	12-APR-2010 11:30:00	Soil	0.564	50	88.65248	
249330008 - 2	12-APR-2010 11:30:00	Soil	0.553	50	90.41591	
249333003 - 2	12-APR-2010 11:30:00	Soil	0.513	50	97.46589	
1202072047 - 2 DUP (249333003)	12-APR-2010 11:30:00	Soil	0.511	50	97.84736	
1202072048 - 2 MS (249333003)	12-APR-2010 11:30:00	Soil	0.519	50	96.33911	
1202072050 - 2 MSD (249333003)	12-APR-2010 11:30:00	Soil	0.535	50	93.45794	
1202072049 - 2 SDILT (249333003)	12-APR-2010 11:30:00	Soil	0.513	50	97.46589	
249333004 - 2	12-APR-2010 11:30:00	Soil	0.502	50	99.60159	
249333005 - 2	12-APR-2010 11:30:00	Soil	0.553	50	90.41591	
249333006 - 2	12-APR-2010 11:30:00	Soil	0.5	50	100	
249333007 - 2	12-APR-2010 11:30:00	Soil	0.528	50	94.69697	

Prep Logbook

Batch ID: **973754.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202091940	Metals Soil LCS SRM ICP/Hg	UI062540-I	.504	g
MS	1202072048	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202072048	Metals Spike Mix II	UI1286774-06	.25	mL
MSD	1202072050	Metals Spike Mix I	UI1286772-01	.25	mL
MSD	1202072050	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
249333008 - 2	12-APR-2010 11:30:00	Soil	0.569	50	87.87346	
249333009 - 2	12-APR-2010 11:30:00	Soil	0.501	50	99.8004	

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL
1291278	Nitric Acid CONC.	1.25 mL

Comments:

Sample 249333003 consist of brown, medium soil.

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **969295.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202081107	Metals LCS Soil SRM	UI031809A	.202	g
MS	1202081109	Mercury soil working intermediate standard for MS	WHG100330-14	.3	mL
MSD	1202081111	Mercury soil working intermediate standard for MS	WHG100330-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202081106 MB	30-MAR-2010 13:15:00	Soil	0.502	30	59.76096	
1202081107 LCS	30-MAR-2010 13:15:00	Soil	0.202	30	148.51485	
249333003	30-MAR-2010 13:15:00	Soil	0.543	30	55.24862	
249333004	30-MAR-2010 13:15:00	Soil	0.598	30	50.16722	
249333005	30-MAR-2010 13:15:00	Soil	0.539	30	55.65863	
249333006	30-MAR-2010 13:15:00	Soil	0.529	30	56.71078	
249333007	30-MAR-2010 13:15:00	Soil	0.567	30	52.91005	
249333008	30-MAR-2010 13:15:00	Soil	0.539	30	55.65863	
249333009	30-MAR-2010 13:15:00	Soil	0.6	30	50	
249601001	30-MAR-2010 13:15:00	Soil	0.563	30	53.28597	
249601002	30-MAR-2010 13:15:00	Soil	0.545	30	55.04587	
249601003	30-MAR-2010 13:15:00	Soil	0.504	30	59.52381	
249601004	30-MAR-2010 13:15:00	Soil	0.577	30	51.99307	
249601005	30-MAR-2010 13:15:00	Soil	0.52	30	57.69231	
249601006	30-MAR-2010 13:15:00	Soil	0.567	30	52.91005	
249608001	30-MAR-2010 13:15:00	Soil	0.584	30	51.36986	
1202081108 DUP (249608001)	30-MAR-2010 13:15:00	Soil	0.561	30	53.47594	
1202081109 MS (249608001)	30-MAR-2010 13:15:00	Soil	0.521	30	57.58157	
1202081111 MSD (249608001)	30-MAR-2010 13:15:00	Soil	0.523	30	57.36138	
1202081110 SDILT (249608001)	30-MAR-2010 13:15:00	Soil	0.584	30	51.36986	
249608002	30-MAR-2010 13:15:00	Soil	0.501	30	59.88024	
249608003	30-MAR-2010 13:15:00	Soil	0.584	30	51.36986	
249608004	30-MAR-2010 13:15:00	Soil	0.555	30	54.05405	
249608005	30-MAR-2010 13:15:00	Soil	0.594	30	50.50505	

Reagent/Solvent Lot ID	Description	Amount

Comments:

Prep Logbook

Batch ID: **969295.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202081107	Metals LCS Soil SRM	UI031809A	.202	g
MS	1202081109	Mercury soil working intermediate standard for MS	WHG100330-14	.3	mL
MSD	1202081111	Mercury soil working intermediate standard for MS	WHG100330-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1

Reagent/Solvent Lot ID	Description	Amount
1255532-C	Hg reducing agent	2 mL
1274391-1	NITRIC ACID	.375 mL
1277235-A	Hydrochloric Acid Conc.	1.125 mL
1277238-C	5% KMnO4 solution	7.5 mL
WHG100330-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL
WHG100330-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL
WHG100330-09	Mercury Working 1st Source CAL S 2.0	300 uL
WHG100330-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL
WHG100330-11	Mercury Working 1st Source CAL S 10.0	1.5 mL
WHG100330-12	Mercury Working 2nd Source S 5.0/ICV	750 uL

Comments:

Sample 249608001 is a clumpy moist rocky soil.

Digestion Start Date: 30-MAR-10 13:15

Digestion End Date: 30-MAR-10 13:45

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **967111.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7470A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: No analytical instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202075646	Mercury working intermediate standard for LCS/MS	WHG100319-13	.2	mL
MS	1202075648	Mercury working intermediate standard for LCS/MS	WHG100319-13	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202075645 MB	19-MAR-2010 12:30:00	Water	20	20	1	<2
1202075646 LCS	19-MAR-2010 12:30:00	Water	20	20	1	<2
248672001	19-MAR-2010 12:30:00	Water	20	20	1	<2
249057004	19-MAR-2010 12:30:00	Water	20	20	1	<2
249064001	19-MAR-2010 12:30:00	Water	20	20	1	<2
249072001	19-MAR-2010 12:30:00	Water	20	20	1	<2
249076001	19-MAR-2010 12:30:00	Water	20	20	1	<2
249076002	19-MAR-2010 12:30:00	Water	20	20	1	<2
249097001	19-MAR-2010 12:30:00	Water	20	20	1	<2
249102001	19-MAR-2010 12:30:00	Water	20	20	1	<2
249248005	19-MAR-2010 12:30:00	Water	20	20	1	<2
249250002	19-MAR-2010 12:30:00	Water	20	20	1	<2
249330009	19-MAR-2010 12:30:00	Water	20	20	1	<2
249330010	19-MAR-2010 12:30:00	Water	20	20	1	<2
249330011	19-MAR-2010 12:30:00	Water	20	20	1	<2
249330012	19-MAR-2010 12:30:00	Water	20	20	1	<2
249333001	19-MAR-2010 12:30:00	Water	20	20	1	<2
249333002	19-MAR-2010 12:30:00	Water	20	20	1	<2
249510003	19-MAR-2010 12:30:00	Water	20	20	1	<2
249510005	19-MAR-2010 12:30:00	Water	20	20	1	<2
249528001	19-MAR-2010 12:30:00	Water	20	20	1	<2
1202075647 DUP (249528001)	19-MAR-2010 12:30:00	Water	20	20	1	<2
1202075648 MS (249528001)	19-MAR-2010 12:30:00	Water	20	20	1	<2
1202075655 SDILT (249528001)	19-MAR-2010 12:30:00	Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1176183	Sulfuric Acid, Concentrated	1 mL

Comments:

Digestion Start Date: 19-MAR-10 12:30

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **965602.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Metals Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202072002	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	U11286776-A	.5	mL
LCS	1202072002	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).	U11286778-B	.5	mL
MS	1202072004	ICP-MS DOE liquid Spike Solution A	U1090930-A	.5	mL
MS	1202072004	ICP-MS DOE Liquid Spike Solution B	U1090930-B	.5	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202072001 MB	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
1202072002 LCS	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
249124001	26-MAR-2010 10:00:00	Surface Water	50	50	1	<2
249172001	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
249172002	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
249172003	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
249172004	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
249178001	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
249178002	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
249243001	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
1202072003 DUP (249243001)	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
1202072004 MS (249243001)	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
1202072005 SDILT (249243001)	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
249243002	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
249330009	26-MAR-2010 10:00:00	Water	50	50	1	<2
249330010	26-MAR-2010 10:00:00	Water	50	50	1	<2
249330011	26-MAR-2010 10:00:00	Water	50	50	1	<2
249330012	26-MAR-2010 10:00:00	Water	50	50	1	<2
249333001	26-MAR-2010 10:00:00	Water	50	50	1	<2
249333002	26-MAR-2010 10:00:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	2.5 mL

Comments:

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **965618.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Metals Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202072039	Metals Spike Mix I	UI1286772-01	.25	mL
LCS	1202072039	Metals Spike Mix II	UI1286774-06	.25	mL
MS	1202072041	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202072041	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202072038 MB	31-MAR-2010 09:30:00	Water	50	50	1	<2
1202072039 LCS	31-MAR-2010 09:30:00	Water	50	50	1	<2
249178001	31-MAR-2010 09:30:00	Ground Water	50	50	1	<2
249178002	31-MAR-2010 09:30:00	Ground Water	50	50	1	<2
249243001	31-MAR-2010 09:30:00	Ground Water	50	50	1	<2
249243002	31-MAR-2010 09:30:00	Ground Water	50	50	1	<2
249330009	31-MAR-2010 09:30:00	Water	50	50	1	<2
249330010	31-MAR-2010 09:30:00	Water	50	50	1	<2
249330011	31-MAR-2010 09:30:00	Water	50	50	1	<2
249330012	31-MAR-2010 09:30:00	Water	50	50	1	<2
249333001	31-MAR-2010 09:30:00	Water	50	50	1	<2
1202072040 DUP (249333001)	31-MAR-2010 09:30:00	Water	50	50	1	<2
1202072041 MS (249333001)	31-MAR-2010 09:30:00	Water	50	50	1	<2
1202072042 SDILT (249333001)	31-MAR-2010 09:30:00	Water	50	50	1	<2
249333002	31-MAR-2010 09:30:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	2.5 mL
1291278	Nitric Acid CONC.	1 mL

Comments:

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **979729.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Metals Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202072002	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).	UI1303462-B	.5	mL
LCS	1202072002	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	UI1303464-A	.5	mL
MS	1202106368	ICP-MS DOE liquid Spike Solution A	UI1268752-A	.5	mL
MS	1202106368	ICP-MS DOE Liquid Spike Solution B	UI1268755-B	.5	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202072001 - 2 MB	30-APR-2010 08:45:00	Ground Water	50	50	1	<2
1202072002 - 2 LCS	30-APR-2010 08:45:00	Ground Water	50	50	1	<2
249330009 - 2	30-APR-2010 08:45:00	Water	50	50	1	<2
249330010 - 2	30-APR-2010 08:45:00	Water	50	50	1	<2
249330011 - 2	30-APR-2010 08:45:00	Water	50	50	1	<2
249330012 - 2	30-APR-2010 08:45:00	Water	50	50	1	<2
249333001 - 2	30-APR-2010 08:45:00	Water	50	50	1	<2
249333002 - 2	30-APR-2010 08:45:00	Water	50	50	1	<2
1202106366 - 2 DUP (249333002)	30-APR-2010 08:45:00	Water	50	50	1	<2
1202106367 - 2 SDILT (249333002)	30-APR-2010 08:45:00	Water	50	50	1	<2
1202106368 - 2 MS (249333002)	30-APR-2010 08:45:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1298333	HYDROCHLORIC ACID	2.5 mL
1302252	Nitric Acid CONC.	1 mL

Comments:

GEL Laboratories LLC
Form GEL-DER

DER Report No.: 812298
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
31-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
MERCURY	SW846 7471A	Solid	LANL
Batch ID:	**Sample Numbers:**		
969297	See Below		

Potentially affected work order(s)(SDG): 249333(10-2434),249601(10-2487),249608(10-2490)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202081108DUP 2. Failed RPD for MS/MSD, or PS/PSD: QC 1202081111MSD	1. The sample and sample duplicate % RPD failed outside the control limits for Hg due to possible sample non-homogeneity and/or matrix interference. Sample is a moist, clumpy and rocky soil. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for Hg due to possible matrix interferences and/or sample non-homogeneity. Sample is a moist, clumpy and rocky soil. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Jason Loy 31-MAR-10

Data Validator/Group Leader:

Eric Lawson 01-APR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
09-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
965624	See Below		

Potentially affected work order(s)(SDG): 249329(10-2430),249330(10-2431),249333(10-2434)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202072048MS 2. Failed Recovery for MSD/PSD: QC 1202072050MSD	1. The matrix spike recovery failed outside of the control limits for magnesium,manganese and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The matrix spike duplicate recovery failed outside of the control limits for magnesium,manganese and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 09-APR-10

Data Validator/Group Leader:

Christopher Louviere 12-APR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
973755	See Below		

Potentially affected work order(s)(SDG): 249329(10-2430),249330(10-2431),249333(10-2434)

Application Issues:

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202072047DUP	1. The sample and sample duplicate % RPD failed outside the control limits for chromium and copper due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 16-APR-10

Data Validator/Group Leader:

Christopher Louviere 16-APR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
30-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3005/6020	Liquid	ESHL, LANL
Batch ID:	**Sample Numbers:**		
965603	See Below		

Potentially affected work order(s)(SDG): 249124(10-2380),249172(10-2393),249178(10-2402),249243(10-2409),249330(10-2431),249333(10-2434)

Application Issues:

Container scanning event for custody missed

Specification and Requirements Exception Description:	DER Disposition:
1. Container scanning event for custody missed: 249124 001 249172 001,002,003,004 249178 001,002 249243 001,002 249330 009,010,011,012 249333 001,002	The samples were in the custody of the analyst at the time of analysis. However, they were inadvertently not scanned in the Alpha LIMS system.

Originator's Name:

Bryan Davis 30-APR-10

Data Validator/Group Leader:

Kristen Parson 04-MAY-10

GEL Laboratories LLC
Form GEL-DER

DER Report No.: 828155
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-MAY-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3005/6020	Liquid	LANL
Batch ID:	**Sample Numbers:**		
979730	See Below		

Potentially affected work order(s)(SDG): 249330(10-2431),249333(10-2434)

Application Issues:

Container scanning event for custody missed

Specification and Requirements Exception Description:	DER Disposition:
1. Container scanning event for custody missed: 249330 009,010,011,012 249333 001,002	1. The samples were in the custody of the ICPMS analyst at the time of analysis. However, the samples were inadvertently not scanned using the LIMS system.

Originator's Name:

Bryan Davis 17-MAY-10

Data Validator/Group Leader:

Jamie Johnson 17-MAY-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-MAY-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
965627	See Below		

Potentially affected work order(s)(SDG): 249329(10-2430),249330(10-2431),249333(10-2434)

Application Issues:

Container scanning event for custody missed

Failed Recovery for LCS/LCSD

Specification and Requirements Exception Description:	DER Disposition:
1. Container scanning event for custody missed: 249329 001,002,003,004 249330 001,002,003,004,005,006,007,008 249333 003,004,005,006,007,008,009	1. The samples were in the custody of the ICPMS analyst at the time of analysis. However, the samples were inadvertently not scanned using the LIMS system.

Originator's Name:

Bryan Davis 17-MAY-10

Data Validator/Group Leader:

Jamie Johnson 19-MAY-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Cesium	1.68 mg/kg	Chromium	236 mg/kg
Cobalt	91.2 mg/kg	Copper	174 mg/kg
Iron	18000 mg/kg	Lead	86 mg/kg
Lithium	10.6 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	755 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silver	30.1 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	1020 mg/kg	Strontium	227 mg/kg
Thallium	121 mg/kg	Thorium	9.84 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Uranium	2.13 mg/kg	Uranium-235	.0153 mg/kg
Uranium-238	2.11 mg/kg	Vanadium	92.4 mg/kg
Zinc	594 mg/kg	Zirconium	10.6 mg/kg

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 22-APR-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	30 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	30 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	100 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	3 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	5 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI090930-A **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Standard Logbook

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Standard Logbook

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100310-49.14 **Opened:** 01-APR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 02-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100310-49.16 **Opened:** 05-APR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 06-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100317-06 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-MAR-10 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019161
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Standard Logbook

Serial ID: UI100317-07 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-MAR-10 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019162
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI100317-08 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-MAR-10 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019163
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI100325-40 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100325-41 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100329-40 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008325
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI100329-41 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008323
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI100329-42 **Opened:** 01-APR-10 **Amount :** 200 mL
Name: SILICON **Received:** 29-MAR-10 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 01-APR-11 **Lot Number :** 1004838
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100331-42 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 31-MAR-10 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 08-APR-11 **Lot Number :** 1019414
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100401-48 **Opened:** 02-APR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-APR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 16-APR-10 **Lot Number :** 1019463
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100405-40 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100405-41 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: O2SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100405-60 **Opened:** 05-APR-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 05-APR-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019464
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI100405-61 **Opened:** 05-APR-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 05-APR-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019464
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI100415-11 **Opened:** 15-APR-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 15-APR-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 15-APR-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100509-11 **Opened:** 09-MAY-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 09-MAY-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 09-MAY-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI1268752-A **Opened:** 11-FEB-10 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 11-FEB-10 **Lot Number :** 1017434
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI1268755-B **Opened:** 11-FEB-10 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 11-FEB-10 **Lot Number :** 1017434
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Standard Logbook

Serial ID: UI1286772-01 **Opened:** 16-MAR-10 **Lot Number :** 1019097
Name: METALSPIKE-1 **Received:** 16-MAR-10
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1286774-06 **Opened:** 16-MAR-10 **Lot Number :** 1018913
Name: METALSPIKE-2 **Received:** 16-MAR-10
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI1286776-A **Opened:** 16-MAR-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 16-MAR-10 **Lot Number :** 1018914
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI1286778-B **Opened:** 16-MAR-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 16-MAR-10 **Lot Number :** 1018914
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI1286780-A **Opened:** 16-MAR-10 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 16-MAR-10 **Lot Number :** 1017435
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L

Analyte	Concentration	Analyte	Concentration
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI1286784-B **Opened:** 16-MAR-10 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 16-MAR-10 **Lot Number :** 1017435
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI1303462-B **Opened:** 19-APR-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 19-APR-10 **Lot Number :** 1018914
Type: Source Material **Expires:** 19-APR-11
Employee: Bryan Davis
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI1303464-A **Opened:** 19-APR-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 19-APR-10 **Lot Number :** 1018914
Type: Source Material **Expires:** 19-APR-11
Employee: Bryan Davis
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100415-03 **Opened:** 15-APR-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100319-01 **Opened:** 19-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 19-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 20-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100319-02 **Opened:** 19-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 19-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 20-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100330-01 **Opened:** 30-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 30-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 31-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL

Standard Logbook

Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100330-02 **Opened:** 30-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 31-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100319-01a **Opened:** 19-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 19-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 26-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100319-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100319-02 **Opened:** 19-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 19-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 26-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100319-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100319-03 **Opened:** 19-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 19-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 26-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0

Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100319-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100319-04 **Opened:** 19-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 19-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 26-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100319-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100319-05 **Opened:** 19-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 19-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 26-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100319-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100319-06 **Opened:** 19-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 19-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 26-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100319-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100319-13 **Opened:** 19-MAR-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 19-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 26-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100330-07 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100330-08 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100330-09 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100330-10 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100330-11 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100330-12 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100330-14 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100401-42 **Opened:** 01-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100401-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100401-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100401-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100401-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100401-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100401-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100401-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100401-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100401-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100401-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100401-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100401-43 **Opened:** 01-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100401-44 **Opened:** 01-APR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1293083
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100401-45 **Opened:** 01-APR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Standard Logbook

Serial ID: WI100401-46 **Opened:** 01-APR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1293083
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Standard Logbook

Serial ID: WI100401-47 **Opened:** 01-APR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-APR-10 **Solvent :** 3%HCL &1%HNO3-1293083
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100405-42 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Helen Camello
Supplier: GEL

Standard Logbook

Description: TRACE ICP 0.1 PPM CALIBRATION STD.

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100405-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100405-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100405-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100405-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100405-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100405-43 **Opened:** 05-APR-10 **Balance Id :** 216

Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809

Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961

Employee: Helen Camello

Supplier: GEL

Description: TRACE ICP O.5/CCV CALIBRATION STD.

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100405-44 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1296961
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100405-45 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Standard Logbook

Serial ID: WI100405-46 **Opened:** 05-APR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1296961
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Standard Logbook

Serial ID: WI100405-47 **Opened:** 05-APR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL &1%HNO3-1296961
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100415-42 **Opened:** 15-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 16-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1300128
Employee: Helen Camello
Supplier: GEL

Standard Logbook

Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100415-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100415-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100415-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100415-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100415-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100415-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100415-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100415-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100415-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100415-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100415-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100415-43 **Opened:** 15-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 16-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1300128
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI100329-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100331-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L

Serial ID: WI100415-44 **Opened:** 15-APR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 16-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1300128
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI100329-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100331-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100415-45 **Opened:** 15-APR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 16-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1300128
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Standard Logbook

Serial ID: WI100415-46 **Opened:** 15-APR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 16-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1300128
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100329-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI100329-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Standard Logbook

Serial ID: WI100415-47 **Opened:** 15-APR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 16-APR-10 **Solvent :** 3%HCL &1%HNO3-1300128
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100424-04 **Opened:** 24-APR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 24-APR-10 **Balance Id :** 4025216
Type: Working **Expires:** 25-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1303289
Supplier: GEL

Standard Logbook

Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100424-04A **Opened:** 24-APR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 24-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 25-APR-10 **Solvent :** 2%HNO3/1%HCl - 1303289
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100424-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100424-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100424-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100424-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100424-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100424-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100424-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100424-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100424-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100424-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100424-05 **Opened:** 24-APR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 24-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 25-APR-10 **Solvent :** 2%HNO3/1%HCl - 1303289
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100424-06 **Opened:** 24-APR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 24-APR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 25-APR-10 **Solvent :** 2%HNO3/1%HCl - 1303289
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100424-07 **Opened:** 24-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 24-APR-10 **Lot Number :** 1010773
Type: Working **Expires:** 25-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1303289
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100424-08 **Opened:** 24-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 24-APR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 25-APR-10 **Solvent :** 2%HNO3/1%HCl - 1303289
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100424-70 **Opened:** 24-APR-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 24-APR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 25-APR-10 **Solvent :** 2%HNO3/1%HCl - 1303289
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100405-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100514-04 **Opened:** 14-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 14-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 15-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1336568
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100514-04A **Opened:** 14-MAY-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 14-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 15-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100514-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100514-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100514-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100514-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100514-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100514-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100514-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100514-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100514-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100514-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Serial ID: WMS100514-05 **Opened:** 14-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 14-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 15-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100514-06 **Opened:** 14-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 14-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 15-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100514-07 **Opened:** 14-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 14-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 15-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1336568
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100514-08 **Opened:** 14-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 14-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 15-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100514-70 **Opened:** 14-MAY-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 14-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 15-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100405-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100515-04 **Opened:** 15-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 15-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 16-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1336568
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100515-04A **Opened:** 15-MAY-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 15-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 16-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100515-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100515-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100515-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100515-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100515-05 **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 15-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 16-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100515-06 **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 15-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 16-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100515-07 **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 15-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 16-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1336568
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100515-08 **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 15-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 16-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100515-70 **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 15-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 16-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100405-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100517-04 **Opened:** 17-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 17-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 18-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1339608
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100517-04A **Opened:** 17-MAY-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 17-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100517-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100517-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100517-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100517-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100517-05 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 17-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100517-06 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 17-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	30 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	200 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100517-07 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 17-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 18-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1339608
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100517-08 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 17-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-08
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Standard Logbook

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1276435-C **Opened:** 28-FEB-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-FEB-10
Type: Reagent/Solvent **Expires:** 28-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1277235-A **Opened:** 01-MAR-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 01-MAR-11
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution

Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1282564 **Opened:** 09-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 09-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1282566 **Opened:** 09-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 09-MAR-10
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1291278 **Opened:** 25-MAR-10 **Lot Number :** J 08035 L
Name: I-HNO3 **Received:** 25-MAR-10
Type: Reagent/Solvent **Expires:** 25-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1293083 **Opened:** 29-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 29-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 04-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1296961 **Opened:** 05-APR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-APR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 11-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL

Standard Logbook

Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1298333 **Opened:** 07-APR-10 **Lot Number :** J07033
Name: I-HCL **Received:** 07-APR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 07-APR-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1300128 **Opened:** 12-APR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 02-APR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 18-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1302252 **Opened:** 15-APR-10 **Lot Number :** J 10027 L
Name: I-HNO3 **Received:** 15-APR-10
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1302255 **Opened:** 15-APR-10 **Lot Number :** J07033
Name: I-HCL **Received:** 15-APR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1303289 **Opened:** 19-APR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 19-APR-10
Type: Reagent/Solvent **Expires:** 26-APR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	9 l	N/A
1302255	I-HCL	36.5-38.0	80 mL	9 l	N/A

Serial ID: 1336568 **Opened:** 10-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 10-MAY-10
Type: Reagent/Solvent **Expires:** 17-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1302255	I-HCL	36.5-38.0	80 mL	8 l	N/A

Serial ID: 1338237 **Opened:** 13-MAY-10 **Lot Number :** J11034
Name: I-HCL **Received:** 13-MAY-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 13-MAY-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1339608 **Opened:** 17-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 17-MAY-10
Type: Reagent/Solvent **Expires:** 24-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1338237	I-HCL	36.5-38.0	80 mL	8 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2434

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	966125	**Method:**	SW9012A Cyanide and Total
Prep Batch :	966123	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
249333001	RE46-10-12997
249333002	RE46-10-12994
1202073353	Method Blank (MB)
1202073354	249122003(CAPA-10-12853) Sample Duplicate (DUP)
1202073355	249248005(RE16-10-14125) Sample Duplicate (DUP)
1202073358	249122003(CAPA-10-12853) Matrix Spike (MS)
1202073359	249248005(RE16-10-14125) Matrix Spike (MS)
1202073362	249122003(CAPA-10-12853) Matrix Spike Duplicate (MSD)
1202073363	249248005(RE16-10-14125) Matrix Spike Duplicate (MSD)
1202073366	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 249122003 (CAPA-10-12853) and 249248005 (RE16-10-14125).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202073355 (RE16-10-14125).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were re-analyzed due to LCS failure: 1202073353 (MB) and 1202073366 (LCS).

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	965133	**Method:**	SW9012A Cyanide and Total
Prep Batch :	965131	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
249333003	RE46-10-12972
249333004	RE46-10-13003
249333005	RE46-10-12967
249333006	RE46-10-12971
249333007	RE46-10-12968
249333008	RE46-10-12969
249333009	RE46-10-12970
1202070671	Method Blank (MB)
1202070672	249250003(RE16-10-2917) Sample Duplicate (DUP)
1202070673	249060003(RE16-10-2826) Sample Duplicate (DUP)
1202070674	249250003(RE16-10-2917) Matrix Spike (MS)
1202070675	249060003(RE16-10-2826) Matrix Spike (MS)
1202070676	249250003(RE16-10-2917) Matrix Spike Duplicate (MSD)
1202070677	249060003(RE16-10-2826) Matrix Spike Duplicate (MSD)
1202070678	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 249060003 (RE16-10-2826) and 249250003 (RE16-10-2917).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202070672 (RE16-10-2917) and 1202070673 (RE16-10-2826).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202070678 (LCS).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nick Cole A. Elmore **Date:** 3.30.10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2434 GEL Work Order: 249333

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____ 3-30-10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2434

Client Sample ID: RE46-10-12997
Sample ID: 249333001
Matrix: W
Collect Date: 11-MAR-10 12:00
Receive Date: 13-MAR-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/22/10	1213	966125	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1528	966123

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2434

Client Sample ID:	RE46-10-12994	Project:	LANL01004
Sample ID:	249333002	Client ID:	LANL010
Matrix:	W		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/22/10	1214	966125	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1528	966123

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2434

Client Sample ID:	RE46-10-12972	Project:	LANL01004
Sample ID:	249333003	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	12.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.5	274	ug/kg	1	AXC2 03/17/10	1319	965133	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2434

Client Sample ID:	RE46-10-13003	Project:	LANL01004
Sample ID:	249333004	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	11.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.5	267	ug/kg	1	AXC2 03/17/10	1320	965133	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2434

Client Sample ID:	RE46-10-12967	Project:	LANL01004
Sample ID:	249333005	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	20.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	205	82.5	303	ug/kg	1	AXC2 03/17/10	1321	965133	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2434

Client Sample ID:	RE46-10-12971	Project:	LANL01004
Sample ID:	249333006	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	21.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	82.0	302	ug/kg	1	AXC2 03/17/10	1322	965133	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2434

Client Sample ID:	RE46-10-12968	Project:	LANL01004
Sample ID:	249333007	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	10.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total		292	74.4	274	ug/kg	1	AXC2 03/17/10	1323	965133	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2434

Client Sample ID:	RE46-10-12969	Project:	LANL01004
Sample ID:	249333008	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	12.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.3	255	ug/kg	1	AXC2 03/17/10	1324	965133	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2434

Client Sample ID:	RE46-10-12970	Project:	LANL01004
Sample ID:	249333009	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	15.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.5	259	ug/kg	1	AXC2 03/17/10	1324	965133	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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QC Summary

Report Date: March 30, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 249333

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 965133										
QC1202070672 249250003 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	03/17/10 13:01
QC1202070673 249060003 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A				03/17/10 12:56
QC1202070678 LCS										
Cyanide, Total	67900			71300	ug/kg		105	(32%-157%)		03/17/10 12:54
QC1202070671 MB										
Cyanide, Total			U	250	ug/kg					03/17/10 12:53
QC1202070674 249250003 MS										
Cyanide, Total	5610	U	ND	5720	ug/kg		102	(26%-158%)		03/17/10 13:06
QC1202070675 249060003 MS										
Cyanide, Total	5710	U	ND	5270	ug/kg		92.3	(26%-158%)		03/17/10 12:57
QC1202070676 249250003 MSD										
Cyanide, Total	5720	U	ND	5780	ug/kg	0.995	101	(0%-30%)		03/17/10 13:07
QC1202070677 249060003 MSD										
Cyanide, Total	6060	U	ND	6000	ug/kg	12.8	99	(0%-30%)		03/17/10 12:58
Batch 966125										
QC1202073354 249122003 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A			AXC2	03/22/10 11:56
QC1202073355 249248005 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A				03/22/10 12:01
QC1202073366 LCS										
Cyanide, Total	50.0			47.7	ug/L		95.4	(90%-110%)		03/22/10 11:54
QC1202073353 MB										
Cyanide, Total			U	5.00	ug/L					03/22/10 11:53
QC1202073358 249122003 MS										
Cyanide, Total	100	U	ND	107	ug/L		107	(60%-144%)		03/22/10 11:57
QC1202073359 249248005 MS										
Cyanide, Total	100	U	ND	104	ug/L		104	(60%-144%)		03/22/10 12:06
QC1202073362 249122003 MSD										
Cyanide, Total	100	U	ND	120	ug/L	11.5	120	(0%-20%)		03/22/10 11:58
QC1202073363 249248005 MSD										
Cyanide, Total	100	U	ND	107	ug/L	2.84	107	(0%-20%)		03/22/10 12:07

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

QC Summary

Workorder: 249333

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 30-MAR-2010 14:18

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2434

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**17-MAR-2010 12:48:22**	**OM_3-17-2010_12-39-43**	**152**	**150**	**101**	**(90%-110%)**	**Yes**
CCV	17-MAR-2010 13:02:40	OM_3-17-2010_12-39-43	102	100	102	(90%-110%)	Yes
CCV	17-MAR-2010 13:15:05	OM_3-17-2010_12-39-43	102	100	102	(90%-110%)	Yes
CCV	17-MAR-2010 13:27:29	OM_3-17-2010_12-39-43	103	100	103	(90%-110%)	Yes
ICV	**22-MAR-2010 11:11:14**	**OM_3-22-2010_11-02-34**	**163**	**150**	**109**	**(90%-110%)**	**Yes**
CCV	22-MAR-2010 11:50:20	OM_3-22-2010_11-02-34	106	100	106	(90%-110%)	Yes
CCV	22-MAR-2010 12:02:49	OM_3-22-2010_11-02-34	103	100	103	(90%-110%)	Yes
CCV	22-MAR-2010 12:15:15	OM_3-22-2010_11-02-34	103	100	103	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**17-MAR-2010 12:50:13**	**OM_3-17-2010_12-39-43**	**-1.21**	**10**	**Yes**
CCB	17-MAR-2010 13:04:31	OM_3-17-2010_12-39-43	-1.31	10	Yes
CCB	17-MAR-2010 13:16:57	OM_3-17-2010_12-39-43	-1.28	10	Yes
CCB	17-MAR-2010 13:29:19	OM_3-17-2010_12-39-43	-1.14	10	Yes
ICB	**22-MAR-2010 11:13:04**	**OM_3-22-2010_11-02-34**	**-1.91**	**10**	**Yes**
CCB	22-MAR-2010 11:52:11	OM_3-22-2010_11-02-34	-1.82	10	Yes
CCB	22-MAR-2010 12:04:39	OM_3-22-2010_11-02-34	-1.75	10	Yes
CCB	22-MAR-2010 12:17:06	OM_3-22-2010_11-02-34	-2.03	10	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **966123.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202073366	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202073358	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202073359	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202073360	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202073361	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073362	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073363	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073364	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073365	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202073353 MB	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
1202073366 LCS	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
249122003	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
1202073354 DUP (249122003)	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
1202073358 MS (249122003)	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
1202073362 MSD (249122003)	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
249172001	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
249172003	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
249248005	18-MAR-2010 15:28:00	Water	25	25	1	>12
1202073355 DUP (249248005)	18-MAR-2010 15:28:00	Water	25	25	1	>12
1202073359 MS (249248005)	18-MAR-2010 15:28:00	Water	25	25	1	>12
1202073363 MSD (249248005)	18-MAR-2010 15:28:00	Water	25	25	1	>12

Prep Logbook

Batch ID: **966123.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202073366	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202073358	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202073359	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202073360	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202073361	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073362	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073363	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073364	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073365	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
249328001	18-MAR-2010 15:28:00	Water	25	25	1	>12
249328002	18-MAR-2010 15:28:00	Water	25	25	1	>12
249330009	18-MAR-2010 15:28:00	Water	25	25	1	>12
249330010	18-MAR-2010 15:28:00	Water	25	25	1	>12
249330011	18-MAR-2010 15:28:00	Water	25	25	1	>12
249330012	18-MAR-2010 15:28:00	Water	25	25	1	>12
249333001	18-MAR-2010 15:28:00	Water	25	25	1	>12
249333002	18-MAR-2010 15:28:00	Water	25	25	1	>12
249378032	18-MAR-2010 15:28:00	Water	25	25	1	>12
1202073356 DUP (249378032)	18-MAR-2010 15:28:00	Water	25	25	1	>12
1202073360 MS (249378032)	18-MAR-2010 15:28:00	Water	25	25	1	>12
1202073364 MSD (249378032)	18-MAR-2010 15:28:00	Water	25	25	1	>12
249378037	18-MAR-2010 15:28:00	Water	25	25	1	>12
249378042	18-MAR-2010 15:28:00	Water	25	25	1	>12

Prep Logbook

Batch ID: **966123.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202073366	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202073358	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202073359	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202073360	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202073361	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073362	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073363	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073364	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073365	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
249422001	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
1202073357 DUP (249422001)	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
1202073361 MS (249422001)	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
1202073365 MSD (249422001)	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
249422002	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
249422003	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
249436001	18-MAR-2010 15:28:00	Waste Water	25	25	1	>12
249436002	18-MAR-2010 15:28:00	Waste Water	25	25	1	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/22/2010 11:04:04	OM_3-22-2010_11-02-34
150 ppb		1	axc2	3/22/2010 11:04:56	OM_3-22-2010_11-02-34
100 ppb		1	axc2	3/22/2010 11:05:49	OM_3-22-2010_11-02-34
50 ppb		1	axc2	3/22/2010 11:06:42	OM_3-22-2010_11-02-34
10 ppb		1	axc2	3/22/2010 11:07:35	OM_3-22-2010_11-02-34
CRDL 5.0 ppb		1	axc2	3/22/2010 11:08:29	OM_3-22-2010_11-02-34
ICAL-00		1	axc2	3/22/2010 11:09:23	OM_3-22-2010_11-02-34
ICV		1	axc2	3/22/2010 11:11:14	OM_3-22-2010_11-02-34
ICB		1	axc2	3/22/2010 11:13:04	OM_3-22-2010_11-02-34
CRDL		1	axc2	3/22/2010 11:14:54	OM_3-22-2010_11-02-34
1202070679	965135	1	axc2	3/22/2010 11:16:44	OM_3-22-2010_11-02-34
1202070686	965135	25	axc2	3/22/2010 11:17:37	OM_3-22-2010_11-02-34
249011001	965135	1	axc2	3/22/2010 11:18:30	OM_3-22-2010_11-02-34
249011002	965135	1	axc2	3/22/2010 11:19:23	OM_3-22-2010_11-02-34
249011003	965135	1	axc2	3/22/2010 11:20:16	OM_3-22-2010_11-02-34
249011004	965135	1	axc2	3/22/2010 11:21:09	OM_3-22-2010_11-02-34
249011005	965135	1	axc2	3/22/2010 11:22:01	OM_3-22-2010_11-02-34
249011006	965135	1	axc2	3/22/2010 11:22:54	OM_3-22-2010_11-02-34
249255001	965135	1	axc2	3/22/2010 11:23:46	OM_3-22-2010_11-02-34
1202070680	965135	1	axc2	3/22/2010 11:24:39	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010 11:25:31	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010 11:27:22	OM_3-22-2010_11-02-34
1202070682	965135	1	axc2	3/22/2010 11:29:09	OM_3-22-2010_11-02-34
1202070684	965135	1	axc2	3/22/2010 11:30:01	OM_3-22-2010_11-02-34
249259001	965135	1	axc2	3/22/2010 11:30:53	OM_3-22-2010_11-02-34
1202070681	965135	1	axc2	3/22/2010 11:31:45	OM_3-22-2010_11-02-34
1202070683	965135	1	axc2	3/22/2010 11:32:37	OM_3-22-2010_11-02-34
1202070685	965135	1	axc2	3/22/2010 11:33:31	OM_3-22-2010_11-02-34
249259002	965135	1	axc2	3/22/2010 11:34:24	OM_3-22-2010_11-02-34
249320001	965135	1	axc2	3/22/2010 11:35:18	OM_3-22-2010_11-02-34
249320005	965135	1	axc2	3/22/2010 11:36:11	OM_3-22-2010_11-02-34
249330001	965135	1	axc2	3/22/2010 11:37:04	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010 11:37:57	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010 11:39:47	OM_3-22-2010_11-02-34
249330002	965135	1	axc2	3/22/2010 11:41:36	OM_3-22-2010_11-02-34
249330003	965135	1	axc2	3/22/2010 11:42:29	OM_3-22-2010_11-02-34
249330004	965135	1	axc2	3/22/2010 11:43:21	OM_3-22-2010_11-02-34
249330005	965135	1	axc2	3/22/2010 11:44:14	OM_3-22-2010_11-02-34
249330006	965135	1	axc2	3/22/2010 11:45:07	OM_3-22-2010_11-02-34
249330007	965135	1	axc2	3/22/2010 11:46:00	OM_3-22-2010_11-02-34
249330008	965135	1	axc2	3/22/2010 11:46:52	OM_3-22-2010_11-02-34
1202073353*	966125	1	axc2	3/22/2010 11:47:43	OM_3-22-2010_11-02-34
1202073366*	966125	1	axc2	3/22/2010 11:48:35	OM_3-22-2010_11-02-34
249122003*	966125	1	axc2	3/22/2010 11:49:27	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010 11:50:20	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010 11:52:11	OM_3-22-2010_11-02-34
1202073353	966125	1	axc2	3/22/2010 11:53:59	OM_3-22-2010_11-02-34
1202073366	966125	1	axc2	3/22/2010 11:54:50	OM_3-22-2010_11-02-34
249122003	966125	1	axc2	3/22/2010 11:55:43	OM_3-22-2010_11-02-34
1202073354	966125	1	axc2	3/22/2010 11:56:36	OM_3-22-2010_11-02-34
1202073358	966125	1	axc2	3/22/2010 11:57:30	OM_3-22-2010_11-02-34
1202073362	966125	1	axc2	3/22/2010 11:58:24	OM_3-22-2010_11-02-34
249172001	966125	1	axc2	3/22/2010 11:59:17	OM_3-22-2010_11-02-34
249172003	966125	1	axc2	3/22/2010 12:00:10	OM_3-22-2010_11-02-34
249248005	966125	1	axc2	3/22/2010 12:01:03	OM_3-22-2010_11-02-34
1202073355	966125	1	axc2	3/22/2010 12:01:56	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010 12:02:49	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010 12:04:39	OM_3-22-2010_11-02-34

1202073359	966125	1	axc2	3/22/2010	12:06:28	OM_3-22-2010_11-02-34
1202073363	966125	1	axc2	3/22/2010	12:07:21	OM_3-22-2010_11-02-34
249328001	966125	1	axc2	3/22/2010	12:08:13	OM_3-22-2010_11-02-34
249328002	966125	1	axc2	3/22/2010	12:09:06	OM_3-22-2010_11-02-34
249330009*	966125	1	axc2	3/22/2010	12:09:58	OM_3-22-2010_11-02-34
249330010	966125	1	axc2	3/22/2010	12:10:51	OM_3-22-2010_11-02-34
249330011	966125	1	axc2	3/22/2010	12:11:43	OM_3-22-2010_11-02-34
249330012	966125	1	axc2	3/22/2010	12:12:34	OM_3-22-2010_11-02-34
249333001	966125	1	axc2	3/22/2010	12:13:29	OM_3-22-2010_11-02-34
249333002	966125	1	axc2	3/22/2010	12:14:23	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010	12:15:15	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010	12:17:06	OM_3-22-2010_11-02-34
249378032	966125	1	axc2	3/22/2010	12:18:57	OM_3-22-2010_11-02-34
1202073356	966125	1	axc2	3/22/2010	12:19:50	OM_3-22-2010_11-02-34
1202073360	966125	1	axc2	3/22/2010	12:20:43	OM_3-22-2010_11-02-34
1202073364	966125	1	axc2	3/22/2010	12:21:37	OM_3-22-2010_11-02-34
249378037	966125	1	axc2	3/22/2010	12:22:30	OM_3-22-2010_11-02-34
249378042	966125	1	axc2	3/22/2010	12:23:23	OM_3-22-2010_11-02-34
249422001	966125	1	axc2	3/22/2010	12:24:16	OM_3-22-2010_11-02-34
1202073357	966125	1	axc2	3/22/2010	12:25:09	OM_3-22-2010_11-02-34
1202073361	966125	1	axc2	3/22/2010	12:26:01	OM_3-22-2010_11-02-34
1202073365	966125	1	axc2	3/22/2010	12:26:54	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010	12:27:46	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010	12:29:36	OM_3-22-2010_11-02-34
249422002	966125	1	axc2	3/22/2010	12:31:25	OM_3-22-2010_11-02-34
249422003	966125	1	axc2	3/22/2010	12:32:18	OM_3-22-2010_11-02-34
249436001	966125	1	axc2	3/22/2010	12:33:09	OM_3-22-2010_11-02-34
249436002	966125	1	axc2	3/22/2010	12:34:03	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010	12:34:56	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010	12:36:45	OM_3-22-2010_11-02-34

Author: axc2 Date : 3/22/2010

Original Run Filename: OM_3-22-2010_11-02-34.OMN created 3/22/2010 11:02:34
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-22-2010_11-02-34.OMN last modified 3/22/2010 12:37:51
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100322-01	1	S1	200	10.3	3/22/2010@11:04:04			200 ppb
WCN100322-02	1	S2	150	7.83	3/22/2010@11:04:56			150 ppb
WCN100322-03	1	S3	100	5.25	3/22/2010@11:05:49			100 ppb
WCN100322-04	1	S4	50.0	2.79	3/22/2010@11:06:42			50 ppb
WCN100322-05	1	S5	10.0	0.642	3/22/2010@11:07:35			10 ppb
WCN100322-06	1	S6	5.00	0.357	3/22/2010@11:08:29			CRDL 5.0 ppb
WCN100322-08	1	S7	0.00	0.0178	3/22/2010@11:09:23			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99982 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100322-07	1	S8	163	8.44	3/22/2010@11:11:14			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	8.5 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	8.5 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100322-08	1	S7	-1.91	0.0222	3/22/2010@11:13:04			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.91 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.91 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100322-06	1	S6	4.83	0.366	3/22/2010@11:14:54			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	4.83 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	4.83 > 2.50					
		Message	Pass					
		Action	None					
1202070679|965135|MB	1	1	-1.71	0.0323	3/22/2010@11:16:44			
1202070686||LCS	1	2	26.2	1.46	3/22/2010@11:17:37		25.00	
249011001	1	3	8.46	0.552	3/22/2010@11:18:30			
249011002	1	4	7.72	0.514	3/22/2010@11:19:23			
249011003	1	5	5.96	0.424	3/22/2010@11:20:16			
249011004	1	6	6.29	0.441	3/22/2010@11:21:09			
249011005	1	7	4.19	0.334	3/22/2010@11:22:01			
249011006	1	8	3.21	0.284	3/22/2010@11:22:54			
249255001	1	9	-1.48	0.0441	3/22/2010@11:23:46			
1202070680||DUP	1	10	-1.67	0.0344	3/22/2010@11:24:39			
WCN100322-03	1	S3	105	5.48	3/22/2010@11:25:31			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					

		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100322-08	1	S7	-1.81	0.0272	3/22/2010@11:27:22			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.81 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.81 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202070682||MS	1	11	105	5.48	3/22/2010@11:29:09			
1202070684||MSD	1	12	99.3	5.19	3/22/2010@11:30:01			
249259001	1	13	-1.78	0.0290	3/22/2010@11:30:53			
1202070681||DUP	1	14	-1.52	0.0422	3/22/2010@11:31:45			
1202070683||MS	1	15	104	5.44	3/22/2010@11:32:37			
1202070685||MSD	1	16	103	5.40	3/22/2010@11:33:31			
249259002	1	17	-1.01	0.0682	3/22/2010@11:34:24			
249320001	1	18	3.92	0.320	3/22/2010@11:35:18			
249320005	1	19	16.1	0.944	3/22/2010@11:36:11			
249330001	1	20	-0.331	0.103	3/22/2010@11:37:04			
WCN100322-03	1	S3	106	5.53	3/22/2010@11:37:57			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	6.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	6.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100322-08	1	S7	-1.91	0.0221	3/22/2010@11:39:47			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.91 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.91 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249330002	1	21	-1.25	0.0561	3/22/2010@11:41:36			
249330003	1	22	0.553	0.148	3/22/2010@11:42:29			
249330004	1	23	-1.62	0.0372	3/22/2010@11:43:21			
249330005	1	24	-1.44	0.0463	3/22/2010@11:44:14			
249330006	1	25	0.448	0.143	3/22/2010@11:45:07			
249330007	1	26	0.565	0.149	3/22/2010@11:46:00			
249330008	1	27	4.02	0.325	3/22/2010@11:46:52			
1202073353|966125|MB	1	28	-1.78	0.0288	3/22/2010@11:47:43			
1202073366||LCS	1	29	55.5	2.96	3/22/2010@11:48:35			
249122003	1	30	-1.41	0.0476	3/22/2010@11:49:27			
WCN100322-03	1	S3	106	5.55	3/22/2010@11:50:20			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100322-08	1	S7	-1.82	0.0268	3/22/2010@11:52:11			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit							
Result:	-1.82 < 5.00						
Message	CCB Passed						
Action	Continue						
DQM Test: < - Concentration Limit							
Result:	-1.82 > -5.00						
Message	CCB Passed						
Action	Continue						
1202073353|966125|MB	1	28	-1.77	0.0295	3/22/2010@11:53:59		
1202073366||LCS	1	29	47.7	2.56	3/22/2010@11:54:50		
249122003	1	30	-1.40	0.0484	3/22/2010@11:55:43		
1202073354||DUP	1	31	-1.68	0.0339	3/22/2010@11:56:36		
1202073358||MS	1	32	107	5.61	3/22/2010@11:57:30		
1202073362||MSD	1	33	120	6.26	3/22/2010@11:58:24		
249172001	1	34	-2.08	0.0134	3/22/2010@11:59:17		
249172003	1	35	-1.57	0.0395	3/22/2010@12:00:10		
249248005	1	36	-1.99	0.0182	3/22/2010@12:01:03		
1202073355||DUP	1	37	-1.37	0.0498	3/22/2010@12:01:56		
WCN100322-03	1	S3	103	5.41	3/22/2010@12:02:49		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:	3.5 < 10.0						
Message	CCV Passed						
Action	Continue						
DQM Test: < - Percent Relative Difference							
Result:	3.5 < 10.0						
Message	CCV Passed						
Action	Continue						
WCN100322-08	1	S7	-1.75	0.0304	3/22/2010@12:04:39		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:	-1.75 < 5.00						
Message	CCB Passed						
Action	Continue						
DQM Test: < - Concentration Limit							
Result:	-1.75 > -5.00						
Message	CCB Passed						
Action	Continue						
1202073359||MS	1	38	104	5.45	3/22/2010@12:06:28		
1202073363||MSD	1	39	107	5.56	3/22/2010@12:07:21		
249328001	1	40	0.375	0.139	3/22/2010@12:08:13		
249328002	1	41	0.530	0.147	3/22/2010@12:09:06		
249330009	1	42	-7.09	-0.242	3/22/2010@12:09:58		
249330010	1	43	-1.68	0.0341	3/22/2010@12:10:51		
249330011	1	44	-1.73	0.0313	3/22/2010@12:11:43		
249330012	1	45	-1.79	0.0281	3/22/2010@12:12:34		
249333001	1	46	-2.55	-0.0105	3/22/2010@12:13:29		
249333002	1	47	-1.63	0.0362	3/22/2010@12:14:23		
WCN100322-03	1	S3	103	5.39	3/22/2010@12:15:15		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:	3.2 < 10.0						
Message	CCV Passed						
Action	Continue						
DQM Test: < - Percent Relative Difference							
Result:	3.2 < 10.0						
Message	CCV Passed						
Action	Continue						
WCN100322-08	1	S7	-2.03	0.0158	3/22/2010@12:17:06		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:	-2.03 < 5.00						
Message	CCB Passed						
Action	Continue						
DQM Test: < - Concentration Limit							
Result:	-2.03 > -5.00						
Message	CCB Passed						
Action	Continue						

249378032	1	48	-1.51	0.0428	3/22/2010@12:18:57			
1202073356||DUP	1	49	-2.16	0.00953	3/22/2010@12:19:50			
1202073360||MS	1	50	89.3	4.68	3/22/2010@12:20:43			
1202073364||MSD	1	51	101	5.26	3/22/2010@12:21:37			
249378037	1	52	-0.00507	0.119	3/22/2010@12:22:30			
249378042	1	53	-1.84	0.0256	3/22/2010@12:23:23			
249422001	1	54	-1.84	0.0257	3/22/2010@12:24:16			
1202073357||DUP	1	55	-2.14	0.0106	3/22/2010@12:25:09			
1202073361||MS	1	56	102	5.32	3/22/2010@12:26:01			
1202073365||MSD	1	57	99.3	5.19	3/22/2010@12:26:54			
WCN100322-03	1	S3	104	5.41	3/22/2010@12:27:46			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		3.6 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		3.6 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100322-08	1	S7	-1.77	0.0291	3/22/2010@12:29:36			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.77 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.77 > -5.00					
	Message		CCB Passed					
	Action		Continue					
249422002	1	58	-2.34	1.67e-4	3/22/2010@12:31:25			
249422003	1	59	-1.80	0.0279	3/22/2010@12:32:18			
249436001	1	60	-0.434	0.0976	3/22/2010@12:33:09			
249436002	1	61	1.09	0.175	3/22/2010@12:34:03			
WCN100322-03	1	S3	104	5.41	3/22/2010@12:34:56			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		3.5 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		3.5 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100322-08	1	S7	-1.89	0.0234	3/22/2010@12:36:45			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.89 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.89 > -5.00					
	Message		CCB Passed					
	Action		Continue					

Analyte Properties Table for OM_3-22-2010_11-02-34.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar

Author: axc2

Date : 3/22/2010

Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

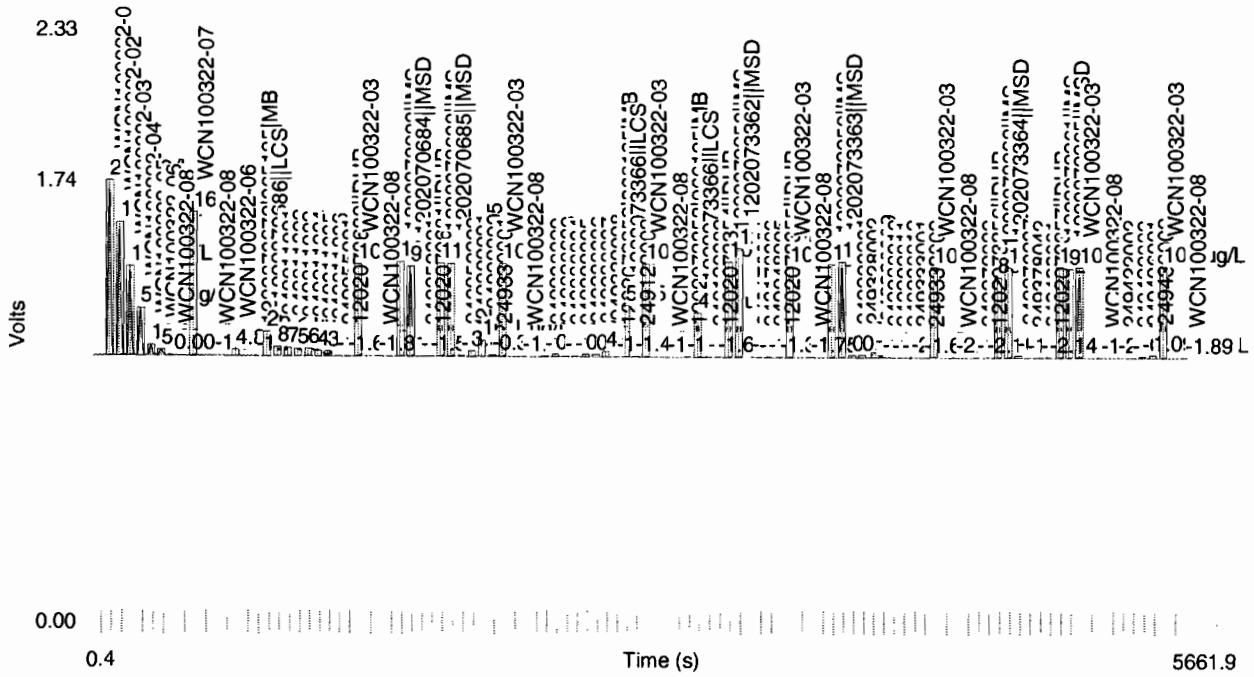

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.3	0.685	0.8	3/22/2010	11:05:07
2	150	1	7.83	0.521	-0.7	3/22/2010	11:05:59
3	100	1	5.25	0.350	-0.5	3/22/2010	11:06:52
4	50.0	1	2.79	0.187	-4.4	3/22/2010	11:07:45
5	10.0	1	0.642	0.0421	-1.7	3/22/2010	11:08:38
6	5.00	1	0.357	0.0235	5.3	3/22/2010	11:09:32
7	0.00	1	0.0178	0.00278		3/22/2010	11:10:26

Author: axc2

Date : 3/22/2010

Figure 1: TCYANIDE

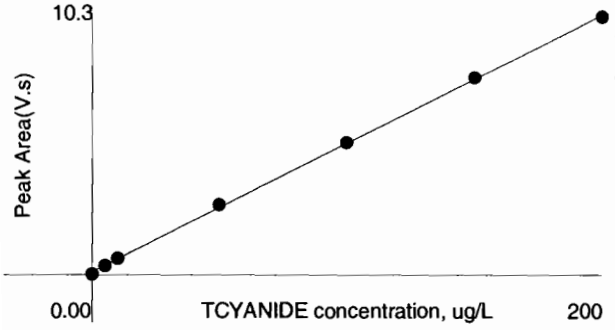

Area = 0.0511 * Conc + 0.121
Conc = 19.6 * Area - 2.34
Correlation Coefficient (r) = 0.99982

No Weighting

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **965131.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202070678	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202070674	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202070675	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202070676	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202070677	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202070671 MB	16-MAR-2010 16:45:00	Soil	0.5	25	50	>12
1202070678 LCS	16-MAR-2010 16:45:00	Soil	0.25	25	100	>12
249060003	16-MAR-2010 16:45:00	Soil	0.5	25	50	>12
1202070673 DUP (249060003)	16-MAR-2010 16:45:00	Soil	0.52	25	48.07692	>12
1202070675 MS (249060003)	16-MAR-2010 16:45:00	Soil	0.53	25	47.16981	>12
1202070677 MSD (249060003)	16-MAR-2010 16:45:00	Soil	0.5	25	50	>12
249245001	16-MAR-2010 16:45:00	Soil	0.5	25	50	>12
249245002	16-MAR-2010 16:45:00	Soil	0.51	25	49.01961	>12
249250003	16-MAR-2010 16:45:00	Soil	0.5	25	50	>12
1202070672 DUP (249250003)	16-MAR-2010 16:45:00	Soil	0.52	25	48.07692	>12
1202070674 MS (249250003)	16-MAR-2010 16:45:00	Soil	0.51	25	49.01961	>12
1202070676 MSD (249250003)	16-MAR-2010 16:45:00	Soil	0.5	25	50	>12
249250004	16-MAR-2010 16:45:00	Soil	0.58	25	43.10345	>12
249252001	16-MAR-2010 16:45:00	Soil	0.52	25	48.07692	>12
249252002	16-MAR-2010 16:45:00	Soil	0.52	25	48.07692	>12
249252003	16-MAR-2010 16:45:00	Soil	0.54	25	46.2963	>12
249262001	16-MAR-2010 16:45:00	Misc Solid	0.504	25	49.60317	>12
249329001	16-MAR-2010 16:45:00	Soil	0.51	25	49.01961	>12
249329002	16-MAR-2010 16:45:00	Soil	0.58	25	43.10345	>12
249329003	16-MAR-2010 16:45:00	Soil	0.5	25	50	>12
249329004	16-MAR-2010 16:45:00	Soil	0.53	25	47.16981	>12

Prep Logbook

Batch ID: **965131.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202070678	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202070674	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202070675	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202070676	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202070677	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
249333003	16-MAR-2010 16:45:00	Soil	0.52	25	48.07692	>12
249333004	16-MAR-2010 16:45:00	Soil	0.53	25	47.16981	>12
249333005	16-MAR-2010 16:45:00	Soil	0.52	25	48.07692	>12
249333006	16-MAR-2010 16:45:00	Soil	0.53	25	47.16981	>12
249333007	16-MAR-2010 16:45:00	Soil	0.51	25	49.01961	>12
249333008	16-MAR-2010 16:45:00	Soil	0.56	25	44.64286	>12
249333009	16-MAR-2010 16:45:00	Soil	0.57	25	43.85965	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100316-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/17/2010 12:41:14	OM_3-17-2010_12-39-43
150 ppb		1	axc2	3/17/2010 12:42:06	OM_3-17-2010_12-39-43
100 ppb		1	axc2	3/17/2010 12:42:58	OM_3-17-2010_12-39-43
50 ppb		1	axc2	3/17/2010 12:43:51	OM_3-17-2010_12-39-43
10 ppb		1	axc2	3/17/2010 12:44:44	OM_3-17-2010_12-39-43
CRDL 5.0 ppb		1	axc2	3/17/2010 12:45:38	OM_3-17-2010_12-39-43
ICAL-00		1	axc2	3/17/2010 12:46:32	OM_3-17-2010_12-39-43
ICV		1	axc2	3/17/2010 12:48:22	OM_3-17-2010_12-39-43
ICB		1	axc2	3/17/2010 12:50:13	OM_3-17-2010_12-39-43
CRDL		1	axc2	3/17/2010 12:52:03	OM_3-17-2010_12-39-43
1202070671	965133	1	axc2	3/17/2010 12:53:52	OM_3-17-2010_12-39-43
1202070678	965133	25	axc2	3/17/2010 12:54:46	OM_3-17-2010_12-39-43
249060003	965133	1	axc2	3/17/2010 12:55:39	OM_3-17-2010_12-39-43
1202070673	965133	1	axc2	3/17/2010 12:56:32	OM_3-17-2010_12-39-43
1202070675	965133	1	axc2	3/17/2010 12:57:25	OM_3-17-2010_12-39-43
1202070677	965133	1	axc2	3/17/2010 12:58:18	OM_3-17-2010_12-39-43
249245001	965133	1	axc2	3/17/2010 12:59:11	OM_3-17-2010_12-39-43
249245002	965133	1	axc2	3/17/2010 13:00:03	OM_3-17-2010_12-39-43
249250003	965133	1	axc2	3/17/2010 13:00:55	OM_3-17-2010_12-39-43
1202070672	965133	1	axc2	3/17/2010 13:01:48	OM_3-17-2010_12-39-43
CCV		1	axc2	3/17/2010 13:02:40	OM_3-17-2010_12-39-43
CCB		1	axc2	3/17/2010 13:04:31	OM_3-17-2010_12-39-43
1202070674	965133	1	axc2	3/17/2010 13:06:19	OM_3-17-2010_12-39-43
1202070676	965133	1	axc2	3/17/2010 13:07:10	OM_3-17-2010_12-39-43
249250004	965133	1	axc2	3/17/2010 13:08:02	OM_3-17-2010_12-39-43
249252001	965133	1	axc2	3/17/2010 13:08:54	OM_3-17-2010_12-39-43
249252002	965133	1	axc2	3/17/2010 13:09:46	OM_3-17-2010_12-39-43
249252003	965133	1	axc2	3/17/2010 13:10:40	OM_3-17-2010_12-39-43
249262001	965133	1	axc2	3/17/2010 13:11:33	OM_3-17-2010_12-39-43
249329001	965133	1	axc2	3/17/2010 13:12:27	OM_3-17-2010_12-39-43
249329002	965133	1	axc2	3/17/2010 13:13:19	OM_3-17-2010_12-39-43
249329003	965133	1	axc2	3/17/2010 13:14:13	OM_3-17-2010_12-39-43
CCV		1	axc2	3/17/2010 13:15:05	OM_3-17-2010_12-39-43
CCB		1	axc2	3/17/2010 13:16:57	OM_3-17-2010_12-39-43
249329004	965133	1	axc2	3/17/2010 13:18:46	OM_3-17-2010_12-39-43
249333003	965133	1	axc2	3/17/2010 13:19:39	OM_3-17-2010_12-39-43
249333004	965133	1	axc2	3/17/2010 13:20:31	OM_3-17-2010_12-39-43
249333005	965133	1	axc2	3/17/2010 13:21:24	OM_3-17-2010_12-39-43
249333006	965133	1	axc2	3/17/2010 13:22:16	OM_3-17-2010_12-39-43
249333007	965133	1	axc2	3/17/2010 13:23:09	OM_3-17-2010_12-39-43
249333008	965133	1	axc2	3/17/2010 13:24:01	OM_3-17-2010_12-39-43
249333009	965133	1	axc2	3/17/2010 13:24:53	OM_3-17-2010_12-39-43
1202070695	965142	1	axc2	3/17/2010 13:25:44	OM_3-17-2010_12-39-43
1202070697	965142	1	axc2	3/17/2010 13:26:36	OM_3-17-2010_12-39-43
CCV		1	axc2	3/17/2010 13:27:29	OM_3-17-2010_12-39-43
CCB		1	axc2	3/17/2010 13:29:19	OM_3-17-2010_12-39-43
249011001	965142	1	axc2	3/17/2010 13:31:08	OM_3-17-2010_12-39-43
1202070696	965142	1	axc2	3/17/2010 13:32:03	OM_3-17-2010_12-39-43
249011002	965142	1	axc2	3/17/2010 13:32:56	OM_3-17-2010_12-39-43
249011003	965142	1	axc2	3/17/2010 13:33:49	OM_3-17-2010_12-39-43
249011004	965142	1	axc2	3/17/2010 13:34:43	OM_3-17-2010_12-39-43
249011005	965142	1	axc2	3/17/2010 13:35:36	OM_3-17-2010_12-39-43
249011006	965142	1	axc2	3/17/2010 13:36:29	OM_3-17-2010_12-39-43
249262001	965142	1	axc2	3/17/2010 13:37:22	OM_3-17-2010_12-39-43
248634002	964231	1	axc2	3/17/2010 13:38:15	OM_3-17-2010_12-39-43
248885002	964231	1	axc2	3/17/2010 13:39:08	OM_3-17-2010_12-39-43
CCV		1	axc2	3/17/2010 13:40:00	OM_3-17-2010_12-39-43
CCB		1	axc2	3/17/2010 13:41:51	OM_3-17-2010_12-39-43

248952011	964231	1	axc2	3/17/2010	13:43:40	OM_3-17-2010_12-39-43
1202068610	964231	1	axc2	3/17/2010	13:44:32	OM_3-17-2010_12-39-43
1202068613	964231	1	axc2	3/17/2010	13:45:26	OM_3-17-2010_12-39-43
1202068616	964231	1	axc2	3/17/2010	13:46:18	OM_3-17-2010_12-39-43
248952012	964231	1	axc2	3/17/2010	13:47:10	OM_3-17-2010_12-39-43
248952018	964231	1	axc2	3/17/2010	13:48:03	OM_3-17-2010_12-39-43
248964002	964231	1	axc2	3/17/2010	13:48:57	OM_3-17-2010_12-39-43
1202068611	964231	1	axc2	3/17/2010	13:49:52	OM_3-17-2010_12-39-43
1202068614	964231	1	axc2	3/17/2010	13:50:47	OM_3-17-2010_12-39-43
1202068617	964231	1	axc2	3/17/2010	13:51:40	OM_3-17-2010_12-39-43
CCV		1	axc2	3/17/2010	13:52:32	OM_3-17-2010_12-39-43
CCB		1	axc2	3/17/2010	13:54:23	OM_3-17-2010_12-39-43
248964003	964231	1	axc2	3/17/2010	13:56:14	OM_3-17-2010_12-39-43
248964006	964231	1	axc2	3/17/2010	13:57:07	OM_3-17-2010_12-39-43
248966004	964231	1	axc2	3/17/2010	13:58:02	OM_3-17-2010_12-39-43
248993001	964231	1	axc2	3/17/2010	13:58:55	OM_3-17-2010_12-39-43
249057004	964231	1	axc2	3/17/2010	13:59:48	OM_3-17-2010_12-39-43
249059002	964231	1	axc2	3/17/2010	14:00:42	OM_3-17-2010_12-39-43
249064001	964231	1	axc2	3/17/2010	14:01:35	OM_3-17-2010_12-39-43
249076002	964231	1	axc2	3/17/2010	14:02:28	OM_3-17-2010_12-39-43
1202068609	964231	1	axc2	3/17/2010	14:03:21	OM_3-17-2010_12-39-43
1202068612	964231	1	axc2	3/17/2010	14:04:14	OM_3-17-2010_12-39-43
CCV		1	axc2	3/17/2010	14:05:06	OM_3-17-2010_12-39-43
CCB		1	axc2	3/17/2010	14:06:56	OM_3-17-2010_12-39-43
1202068615	964231	1	axc2	3/17/2010	14:08:48	OM_3-17-2010_12-39-43
249094003	964231	1	axc2	3/17/2010	14:09:42	OM_3-17-2010_12-39-43
249097001	964231	1	axc2	3/17/2010	14:10:36	OM_3-17-2010_12-39-43
249102001	964231	1	axc2	3/17/2010	14:11:31	OM_3-17-2010_12-39-43
249111002	964231	1	axc2	3/17/2010	14:12:25	OM_3-17-2010_12-39-43
249111004	964231	1	axc2	3/17/2010	14:13:19	OM_3-17-2010_12-39-43
249011006	965142	2	axc2	3/17/2010	14:14:12	OM_3-17-2010_12-39-43
CCV		1	axc2	3/17/2010	14:15:05	OM_3-17-2010_12-39-43
CCB		1	axc2	3/17/2010	14:16:55	OM_3-17-2010_12-39-43

Author: axc2 Date : 3/17/2010

Original Run Filename: OM_3-17-2010_12-39-43.OMN created 3/17/2010 12:39:43
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-17-2010_12-39-43.OMN last modified 3/17/2010 14:18:01
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100317-01	1	S1	200	10.7	3/17/2010@12:41:14			200 ppb
WCN100317-02	1	S2	150	8.04	3/17/2010@12:42:06			150 ppb
WCN100317-03	1	S3	100	5.23	3/17/2010@12:42:58			100 ppb
WCN100317-04	1	S4	50.0	2.90	3/17/2010@12:43:51			50 ppb
WCN100317-05	1	S5	10.0	0.655	3/17/2010@12:44:44			10 ppb
WCN100317-06	1	S6	5.00	0.378	3/17/2010@12:45:38			CRDL 5.0 ppb
WCN100317-08	1	S7	0.00	0.0182	3/17/2010@12:46:32			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99971 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100317-07	1	S8	152	8.17	3/17/2010@12:48:22			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	1.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100317-08	1	S7	-1.21	0.0286	3/17/2010@12:50:13			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.21 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.21 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100317-06	1	S6	5.69	0.395	3/17/2010@12:52:03			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.69 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.69 > 2.50					
		Message	Pass					
		Action	None					
1202070671|965133|MB	1	1	-1.32	0.0230	3/17/2010@12:53:52			
1202070678||LCS	1	2	28.5	1.60	3/17/2010@12:54:46		25.00	
249060003	1	3	-0.846	0.0482	3/17/2010@12:55:39			
1202070673||DUP	1	4	-0.597	0.0614	3/17/2010@12:56:32			
1202070675||MS	1	5	92.3	4.99	3/17/2010@12:57:25			
1202070677||MSD	1	6	99.0	5.34	3/17/2010@12:58:18			
249245001	1	7	-1.29	0.0244	3/17/2010@12:59:11			
249245002	1	8	-1.32	0.0229	3/17/2010@13:00:03			
249250003	1	9	-1.14	0.0324	3/17/2010@13:00:55			
1202070672||DUP	1	10	-1.75	1.93e-4	3/17/2010@13:01:48			
WCN100317-03	1	S3	102	5.49	3/17/2010@13:02:40			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.8 < 10.0					

		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	1.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100317-08	1	S7	-1.31	0.0237	3/17/2010@13:04:31			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.31 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.31 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202070674||MS	1	11	102	5.49	3/17/2010@13:06:19			
1202070676||MSD	1	12	101	5.47	3/17/2010@13:07:10			
249250004	1	13	-1.00	0.0400	3/17/2010@13:08:02			
249252001	1	14	-1.75	1.62e-4	3/17/2010@13:08:54			
249252002	1	15	-1.32	0.0230	3/17/2010@13:09:46			
249252003	1	16	-0.839	0.0485	3/17/2010@13:10:40			
249262001	1	17	3.55	0.281	3/17/2010@13:11:33			
249329001	1	18	-0.619	0.0602	3/17/2010@13:12:27			
249329002	1	19	-0.710	0.0554	3/17/2010@13:13:19			
249329003	1	20	-0.397	0.0720	3/17/2010@13:14:13			
WCN100317-03	1	S3	102	5.52	3/17/2010@13:15:05			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	2.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	2.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100317-08	1	S7	-1.28	0.0253	3/17/2010@13:16:57			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.28 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.28 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249329004	1	21	-0.531	0.0649	3/17/2010@13:18:46			
249333003	1	22	-0.996	0.0402	3/17/2010@13:19:39			
249333004	1	23	-1.20	0.0293	3/17/2010@13:20:31			
249333005	1	24	3.38	0.272	3/17/2010@13:21:24			
249333006	1	25	1.21	0.157	3/17/2010@13:22:16			
249333007	1	26	5.34	0.376	3/17/2010@13:23:09			
249333008	1	27	0.382	0.113	3/17/2010@13:24:01			
249333009	1	28	-0.993	0.0404	3/17/2010@13:24:53			
1202070695|965142|MB	1	29	-1.72	0.00180	3/17/2010@13:25:44			
1202070697||LCS	1	30	-1.31	0.0236	3/17/2010@13:26:36			
WCN100317-03	1	S3	103	5.57	3/17/2010@13:27:29			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100317-08	1	S7	-1.14	0.0326	3/17/2010@13:29:19			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.14 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.14 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249011001	1	31	112	6.04	3/17/2010@13:31:08			
1202070696||DUP	1	32	109	5.87	3/17/2010@13:32:03			
249011002	1	33	117	6.29	3/17/2010@13:32:56			
249011003	1	34	192	10.3	3/17/2010@13:33:49			
249011004	1	35	123	6.59	3/17/2010@13:34:43			
249011005	1	36	184	9.86	3/17/2010@13:35:36			
249011006	1	37	201	10.8	3/17/2010@13:36:29			
249262001	1	38	20.7	1.19	3/17/2010@13:37:22			
248634002|964231|	1	83	-0.504	0.0663	3/17/2010@13:38:15			
248885002	1	84	-0.201	0.0823	3/17/2010@13:39:08			
WCN100317-03	1	S3	103	5.56	3/17/2010@13:40:00			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100317-08	1	S7	-1.15	0.0319	3/17/2010@13:41:51			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.15 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.15 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248952011	1	85	-0.943	0.0430	3/17/2010@13:43:40			
1202068610||DUP	1	86	-0.657	0.0582	3/17/2010@13:44:32			
1202068613||MS	1	87	99.9	5.39	3/17/2010@13:45:26			
1202068616||MSD	1	88	106	5.73	3/17/2010@13:46:18			
248952012	1	89	-0.841	0.0484	3/17/2010@13:47:10			
248952018	1	90	-1.29	0.0244	3/17/2010@13:48:03			
248964002	1	91	-0.938	0.0433	3/17/2010@13:48:57			
1202068611||DUP	1	92	-1.31	0.0235	3/17/2010@13:49:52			
1202068614||MS	1	93	106	5.73	3/17/2010@13:50:47			
1202068617||MSD	1	94	106	5.73	3/17/2010@13:51:40			
WCN100317-03	1	S3	103	5.55	3/17/2010@13:52:32			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-1.75	0.00	3/17/2010@13:54:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.75 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.75 > -5.00					
		Message	CCB Passed					
		Action	Continue					

248964003	1	95	-1.13	0.0333	3/17/2010@13:56:14			
248964006	1	96	-1.18	0.0303	3/17/2010@13:57:07			
248966004	1	97	-0.499	0.0666	3/17/2010@13:58:02			
248993001	1	98	1.22	0.158	3/17/2010@13:58:55			
249057004	1	99	-1.19	0.0301	3/17/2010@13:59:48			
249059002	1	100	-1.27	0.0258	3/17/2010@14:00:42			
249064001	1	101	-0.996	0.0402	3/17/2010@14:01:35			
249076002	1	103	-0.849	0.0480	3/17/2010@14:02:28			
1202068609||DUP	1	104	-1.44	0.0167	3/17/2010@14:03:21			
1202068612||MS	1	105	110	5.90	3/17/2010@14:04:14			
WCN100317-03	1	S3	103	5.54	3/17/2010@14:05:06			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		2.7 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		2.7 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100317-08	1	S7	-1.22	0.0284	3/17/2010@14:06:56			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.22 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.22 > -5.00					
	Message		CCB Passed					
	Action		Continue					
1202068615||MSD	1	106	106	5.74	3/17/2010@14:08:48			
249094003	1	107	-1.08	0.0356	3/17/2010@14:09:42			
249097001	1	108	-1.16	0.0315	3/17/2010@14:10:36			
249102001	1	109	-1.00	0.0399	3/17/2010@14:11:31			
249111002	1	110	-1.22	0.0281	3/17/2010@14:12:25			
249111004	1	111	-0.897	0.0455	3/17/2010@14:13:19			
249011006|965142|	1	37	108	5.84	3/17/2010@14:14:12		2.00	
WCN100317-03	1	S3	103	5.57	3/17/2010@14:15:05			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		3.3 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		3.3 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100317-08	1	S7	-1.18	0.0305	3/17/2010@14:16:55			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.18 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.18 > -5.00					
	Message		CCB Passed					
	Action		Continue					

Analyte Properties Table for OM_3-17-2010_12-39-43.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True

Author: axc2

Date : 3/17/2010

% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

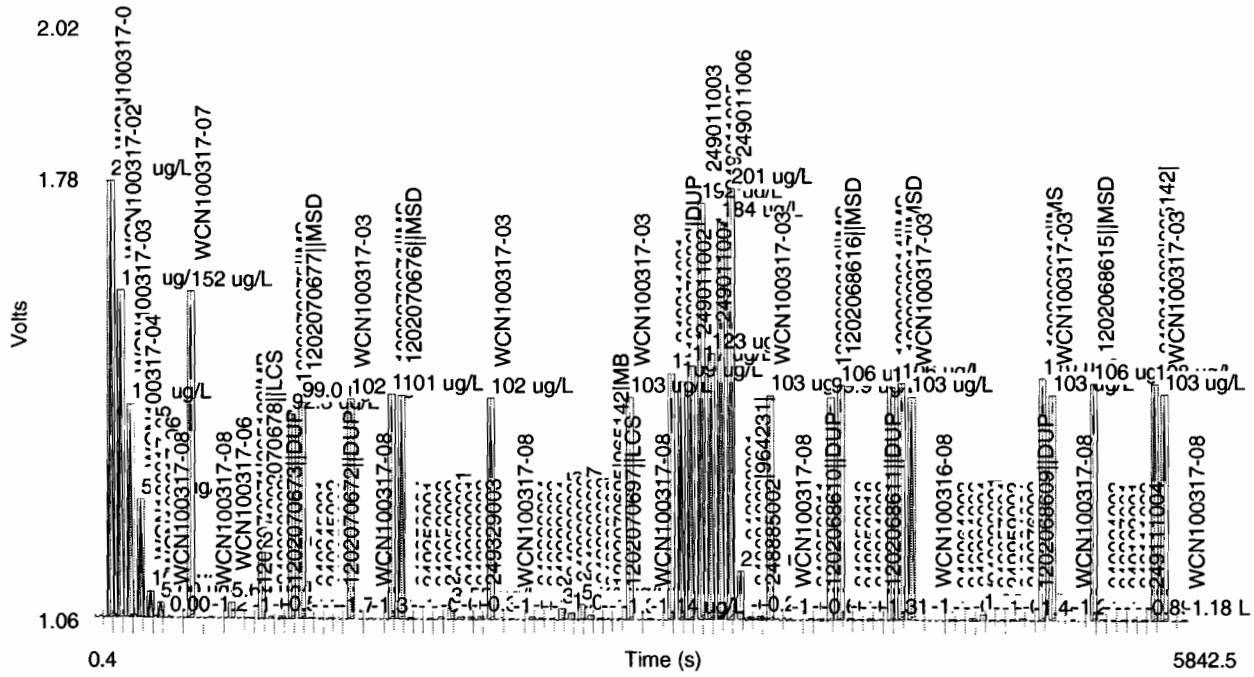

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.7	0.706	-0.4	3/17/2010	12:42:17
2	150	1	8.04	0.528	0.0	3/17/2010	12:43:09
3	100	1	5.23	0.343	3.1	3/17/2010	12:44:01
4	50.0	1	2.90	0.190	-5.6	3/17/2010	12:44:54
5	10.0	1	0.655	0.0420	-4.7	3/17/2010	12:45:47
6	5.00	1	0.378	0.0238	-4.9	3/17/2010	12:46:41
7	0.00	1	0.0182	9.70e-4		3/17/2010	12:47:35

Author: axc2 Date : 3/17/2010

Figure 1: TCYANIDE

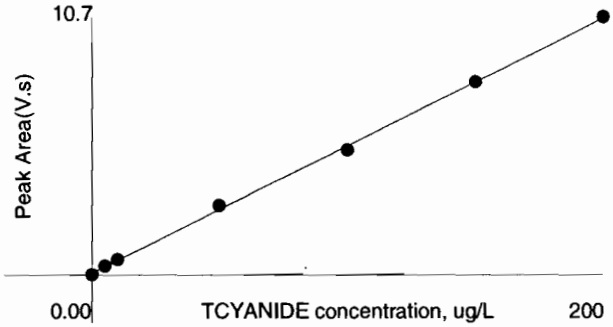

Area = 0.0530 * Conc + 0.0953
Conc = 18.9 * Area - 1.75
Correlation Coefficient (r) = 0.99971

No Weighting

Friday, March 12, 2010

REQUEST NUMBER: 10-2433

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-2433
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	SW-846:8260B	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2433

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-13237	S	3/11/2010	
		2	RE46-10-13237	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
		1	RE46-10-14200	S	3/11/2010	
		2	RE46-10-14200	S	3/11/2010	
	SW-846:8270C	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2433

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2433C

REQUEST NUMBER: 10-2433

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13219	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13219	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13221	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13221	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13220	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13220	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13216	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13216	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13217	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13217	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13218	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13218	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13234	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13234	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13237	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13237	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-14199	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-14199	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-14200	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-14200	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:	**Date**	**Time**	**Received By:**	**Date**	**Time**
	3/12/10	3:00			
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13239 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1510	SUB-MEDIA:	OTHER	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611560	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH

SAMPLE DESC: QC Sample of RE46-10-13226

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shenk **REVIEWED BY (PRINT)** M. Marck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Marck (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13238 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1500	SUB-MEDIA:	OTHER	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611560	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH

SAMPLE DESC: QC Sample of RE46-10-13220

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shenko **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	3-11-10 1550	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13217 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1030	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	~~46-611558~~ mp 2/17/10	46-611558	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: Gray weathered tuff 5YR 5/2

SAMPLE COMMENTS: ~~15' below base of well~~ mp 2/17/10

LOCATION DESC: ~~4d-1~~ mp 2/17/10 4d-2

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.4 ppm Background: K: 7 β: 906 dpm Samples < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. [illegible]

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. [illegible] (Signature) [illegible]	3-11-10 1650	(Printed Name) (Signature) [illegible]	3-11-10 1658
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-14198 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1515 ~~1430-1510~~	SUB-MEDIA:	OTHER	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611559	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH<2
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH<12

SAMPLE DESC: QC Sample of RE 46-10-13218

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) C. Andress **REVIEWED BY (PRINT)** M. Lovato

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/11/10 1650	(Printed Name)	3/11/10 1650
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-14201 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		~~1500~~ 1520	SUB-MEDIA:	OTHER	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611559	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH <2
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH ~~<12~~ >12 3/11/10

SAMPLE DESC: QC Sample of RE46-10-13218

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo REVIEWED BY (PRINT) Lane Anderss

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature)	3/11/10 1650	(Printed Name) (Signature)	3/11/10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13216 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	~~ALLH~~ MW 3-11-10	OK OK
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	~~46-611558~~ mr 2/17/10	46-611558	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: Gray weathered tuff 5YR 5/2

SAMPLE COMMENTS: ~~10' below base of well~~ mr 2/17/10

LOCATION DESC: ~~4d-1~~ mr 2/17/10 4d-2

FIELD SCREENING/MEASUREMENT RESULTS: PID: 4.0 ppm Background: α: 7 β: 906 dpm Samples < MDA

COLLECTED BY (PRINT) M. Marsh REVIEWED BY (PRINT) Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Marsh (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-14199 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		1436	SUB-MEDIA:	SOIL	
PRS ID:	46-004(d)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	46-611559	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ____ COMPOSITE TIME INTERVAL: ____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ____ BOREHOLE DIRECTION: ____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13218

SAMPLE COMMENTS: NA

LOCATION DESC: 46-3

FIELD SCREENING/MEASUREMENT RESULTS: Background Samples < MDA

PID: 0.5 ppm α: 7 β: 906 dpm

COLLECTED BY (PRINT) H. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/11/10	(Printed Name)	3/11/10
(Signature) [signature]	1650	(Signature) [signature]	1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-14200 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1436	SUB-MEDIA:	OTHER	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611559	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1-2	NA	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13218

SAMPLE COMMENTS: NA

LOCATION DESC: 46-3

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Andress **REVIEWED BY (PRINT)** M. Nasdi

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nasdi (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13218 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1430	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611559	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA	NA	

COMPOSITE TYPE: _____ **COMPOSITE TIME INTERVAL:** _____ **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** _____ **BOREHOLE DIRECTION:** _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: Moist dark reddish brown silty sediment 5YR 4/3

SAMPLE COMMENTS: Organic matter present

LOCATION DESC: 9d-3

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples <MDA

PID: 0.5

α: 7 dpm

β: 906

COLLECTED BY (PRINT) M. Sherdo **REVIEWED BY (PRINT)** M. Marek

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Marek (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13219 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1446	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611559	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: Light reddish brown weathered tuff 5YR 6/3

SAMPLE COMMENTS: ~~[illegible]~~ HW 3-11-10 Organic matter present

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS: PID: 2.5 ppm Background: α: 7 dpm β: 906 Samples < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. [illegible]

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. [illegible] (Signature) [illegible]	3-11-10 1650	(Printed Name) (Signature) [illegible]	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13221 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):	~~3/10/10~~ 3-11-10		MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)	~~1511~~ 1412		SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611560	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: Pinkish gray weathered tuff 5YR 6/2

SAMPLE COMMENTS: NA

LOCATION DESC: 4d - 4

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.4 ppm Background: α: 7 β: 906 Samples <MDA

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** M Mack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Mack (Signature)	3-11-10 1610	(Printed Name) (Signature)	3-11-10 1610
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13234 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		15	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	46-611560	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13220

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. Nard

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nard (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13220 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		~~1630~~ 1402	SUB-MEDIA:	SOIL	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611560		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: Gray weathered tuff 5YR 5/2

SAMPLE COMMENTS: NA

LOCATION DESC: 46-24 MW 3-11-10

FIELD SCREENING/MEASUREMENT RESULTS: PID: 2.0 ppm Sample SMA
Background
α 7 dpm β: 906 dpm

COLLECTED BY (PRINT) M. Vaick REVIEWED BY (PRINT) Lane Anderson

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Vaick (Signature)	3/11/10 1650	(Printed Name) (Signature)	3/11/10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13237 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1436	SUB-MEDIA:	OTHER	
PRS ID:	46-004(d)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46 - 611559	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2/1	MR 2/21/10	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13218

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Andress **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2433 VALIDATION DATE: 04/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Joanne Compton ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the FTBs, RE46-10-13237 and -14200, associated with samples -13218, -13219, and -14199, toluene was detected. The associated sample results were NDs and, thus, were not qualified.
2. In the CCV associated with all samples except sample -13221, the %Ds were >20% for acetone and 2-hexanone. In the CCV associated with sample -13221, the %Ds were >20% for 2,2-dichloropropane, carbon tetrachloride, and bromoform. The associated sample results were NDs and, thus, were qualified UJ,V7c.
3. The MS/MSD associated with this RN were not spiked with trichlorotrifluoroethane. Since the analysis of an MS or an MSD was not a client requirement, no sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 4/23/10

VALIDATOR'S SIGNATURE: Joanne Compton DATE: 04/22/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☒	☐	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332001	**Date Received:**	03/13/2010 09:30	**%Moisture:**	7.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13219	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	968355	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	03/23/2010 23:40	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	03/23/2010 16:04	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032310V6\6D231.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.369	1.09	
74-87-3	Chloromethane	U	1.09	ug/kg	0.326	1.09	
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.326	1.09	
74-83-9	Bromomethane	U	1.09	ug/kg	0.326	1.09	
75-00-3	Chloroethane	U	1.09	ug/kg	0.326	1.09	
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.326	1.09	
67-64-1	Acetone	U	5.43	ug/kg	1.80	5.43	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.326	1.09	
74-88-4	Iodomethane	U	5.43	ug/kg	1.74	5.43	
75-09-2	Methylene chloride	U	5.43	ug/kg	2.17	5.43	
75-15-0	Carbon disulfide	U	5.43	ug/kg	1.36	5.43	
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09	
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.326	1.09	
78-93-3	2-Butanone	U	5.43	ug/kg	1.63	5.43	
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09	
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09	
67-66-3	Chloroform	U	1.09	ug/kg	0.326	1.09	
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.358	1.09	
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.326	1.09	
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.326	1.09	
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.326	1.09	
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.326	1.09	
71-43-2	Benzene	U	1.09	ug/kg	0.326	1.09	
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.358	1.09	
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09	
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.326	1.09	
74-95-3	Dibromomethane	U	1.09	ug/kg	0.326	1.09	
108-10-1	4-Methyl-2-pentanone	U	5.43	ug/kg	1.36	5.43	
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09	
108-88-3	Toluene	U	1.09	ug/kg	0.326	1.09	
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09	
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.326	1.09	
591-78-6	2-Hexanone	U	5.43	ug/kg	1.63	5.43	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.326	1.09	
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.326	1.09	
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.326	1.09	
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.326	1.09	
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.326	1.09	

JCC
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332001	**Date Received:**	03/13/2010 09:30	**%Moisture:**	7.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13219	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	968355	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	03/23/2010 23:40	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	03/23/2010 16:04	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032310V6\6D231.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.326	1.09
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.326	2.17
95-47-6	o-Xylene	U	1.09	ug/kg	0.326	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.326	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.326	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.326	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.326	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.326	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.326	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.326	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.326	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.326	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.326	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.326	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.43	ug/kg	1.74	5.43
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

JCC
04/22/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332002	**Date Received:**	03/13/2010 09:30	**%Moisture:**	4.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13221	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	968355	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	03/24/2010 12:47	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	03/24/2010 11:04	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032410V6\6D308.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.356	1.05	
74-87-3	Chloromethane	U	1.05	ug/kg	0.314	1.05	
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.314	1.05	
74-83-9	Bromomethane	U	1.05	ug/kg	0.314	1.05	
75-00-3	Chloroethane	U	1.05	ug/kg	0.314	1.05	
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.314	1.05	
67-64-1	Acetone	U	5.23	ug/kg	1.74	5.23	
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.314	1.05	
74-88-4	Iodomethane	U	5.23	ug/kg	1.68	5.23	
75-09-2	Methylene chloride	J	2.26	ug/kg	2.09	5.23	
75-15-0	Carbon disulfide	U	5.23	ug/kg	1.31	5.23	
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.314	1.05	
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.314	1.05	
78-93-3	2-Butanone	U	5.23	ug/kg	1.57	5.23	
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.314	1.05	
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.314	1.05	UJ,V7c
67-66-3	Chloroform	U	1.05	ug/kg	0.314	1.05	
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.345	1.05	
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.314	1.05	
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.314	1.05	
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.314	1.05	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.314	1.05	
71-43-2	Benzene	U	1.05	ug/kg	0.314	1.05	
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.345	1.05	
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.314	1.05	
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.314	1.05	
74-95-3	Dibromomethane	U	1.05	ug/kg	0.314	1.05	
108-10-1	4-Methyl-2-pentanone	U	5.23	ug/kg	1.31	5.23	
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.314	1.05	
108-88-3	Toluene	U	1.05	ug/kg	0.314	1.05	
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.314	1.05	
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.314	1.05	
591-78-6	2-Hexanone	U	5.23	ug/kg	1.57	5.23	
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.314	1.05	
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.314	1.05	
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.314	1.05	
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.314	1.05	
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.314	1.05	

JCC
04/22/1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332002	**Date Received:**	03/13/2010 09:30	**%Moisture:**	4.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13221	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	968355	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	03/24/2010 12:47	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	03/24/2010 11:04	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032410V6\6D308.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.314	1.05	
179601-23-1	m,p-Xylenes	U	2.09	ug/kg	0.314	2.09	
95-47-6	o-Xylene	U	1.05	ug/kg	0.314	1.05	
100-42-5	Styrene	U	1.05	ug/kg	0.314	1.05	
75-25-2	Bromoform	U	1.05	ug/kg	0.314	1.05	UJ,V7c
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.314	1.05	
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.314	1.05	
108-86-1	Bromobenzene	U	1.05	ug/kg	0.314	1.05	
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.314	1.05	
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.314	1.05	
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.314	1.05	
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.314	1.05	
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.314	1.05	
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.314	1.05	
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.314	1.05	
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.314	1.05	
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.314	1.05	
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.314	1.05	
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.314	1.05	
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.314	1.05	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.314	1.05	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.23	ug/kg	1.68	5.23	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.314	1.05	
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.314	1.05	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

JCC
04/22/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	Date Collected:	03/11/2010 12:00	Matrix:	S
Lab Sample ID:	249332003	Date Received:	03/13/2010 09:30	%Moisture:	11.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13220	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	968355	Inst:	VOA6.I	Dilution:	1
Run Date:	03/24/2010 00:36	Analyst:	RXD1	Purge Vol:	5 mL
Prep Date:	03/23/2010 16:12	Aliquot:	5 g	Final Volume:	5 mL
Data File:	032310V6\6D233.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.384	1.13	
74-87-3	Chloromethane	U	1.13	ug/kg	0.339	1.13	
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.339	1.13	
74-83-9	Bromomethane	U	1.13	ug/kg	0.339	1.13	
75-00-3	Chloroethane	U	1.13	ug/kg	0.339	1.13	
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.339	1.13	
67-64-1	Acetone	U	5.65	ug/kg	1.88	5.65	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.339	1.13	
74-88-4	Iodomethane	U	5.65	ug/kg	1.81	5.65	
75-09-2	Methylene chloride	J	2.97	ug/kg	2.26	5.65	
75-15-0	Carbon disulfide	U	5.65	ug/kg	1.41	5.65	
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13	
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.339	1.13	
78-93-3	2-Butanone	U	5.65	ug/kg	1.70	5.65	
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13	
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13	
67-66-3	Chloroform	U	1.13	ug/kg	0.339	1.13	
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.373	1.13	
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.339	1.13	
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.339	1.13	
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.339	1.13	
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.339	1.13	
71-43-2	Benzene	U	1.13	ug/kg	0.339	1.13	
79-01-6	Trichloroethylene	J	0.396	ug/kg	0.373	1.13	
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13	
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.339	1.13	
74-95-3	Dibromomethane	U	1.13	ug/kg	0.339	1.13	
108-10-1	4-Methyl-2-pentanone	U	5.65	ug/kg	1.41	5.65	
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13	
108-88-3	Toluene	U	1.13	ug/kg	0.339	1.13	
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13	
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.339	1.13	
591-78-6	2-Hexanone	U	5.65	ug/kg	1.70	5.65	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.339	1.13	
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.339	1.13	
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.339	1.13	
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.339	1.13	
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.339	1.13	

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Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332003	**Date Received:**	03/13/2010 09:30	**%Moisture:**	11.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13220	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	968355	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	03/24/2010 00:36	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	03/23/2010 16:12	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032310V6\6D233.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.339	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.339	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.339	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.339	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.339	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.339	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.339	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.339	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.339	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.339	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.339	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.339	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.339	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.339	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.65	ug/kg	1.81	5.65
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332004	**Date Received:**	03/13/2010 09:30	**%Moisture:**	19
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13216	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	968355	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	03/24/2010 01:03	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	03/23/2010 16:14	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032310V6\6D234.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.23	ug/kg	0.420	1.23	
74-87-3	Chloromethane	U	1.23	ug/kg	0.370	1.23	
75-01-4	Vinyl chloride	U	1.23	ug/kg	0.370	1.23	
74-83-9	Bromomethane	U	1.23	ug/kg	0.370	1.23	
75-00-3	Chloroethane	U	1.23	ug/kg	0.370	1.23	
75-69-4	Trichlorofluoromethane	U	1.23	ug/kg	0.370	1.23	
67-64-1	Acetone	U	6.17	ug/kg	2.05	6.17	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.23	ug/kg	0.370	1.23	
74-88-4	Iodomethane	U	6.17	ug/kg	1.98	6.17	
75-09-2	Methylene chloride	J	2.91	ug/kg	2.47	6.17	
75-15-0	Carbon disulfide	U	6.17	ug/kg	1.54	6.17	
156-60-5	trans-1,2-Dichloroethylene	U	1.23	ug/kg	0.370	1.23	
75-34-3	1,1-Dichloroethane	U	1.23	ug/kg	0.370	1.23	
78-93-3	2-Butanone	U	6.17	ug/kg	1.85	6.17	
156-59-2	cis-1,2-Dichloroethylene	U	1.23	ug/kg	0.370	1.23	
594-20-7	2,2-Dichloropropane	U	1.23	ug/kg	0.370	1.23	
67-66-3	Chloroform	U	1.23	ug/kg	0.370	1.23	
74-97-5	Bromochloromethane	U	1.23	ug/kg	0.407	1.23	
71-55-6	1,1,1-Trichloroethane	U	1.23	ug/kg	0.370	1.23	
563-58-6	1,1-Dichloropropene	U	1.23	ug/kg	0.370	1.23	
56-23-5	Carbon tetrachloride	U	1.23	ug/kg	0.370	1.23	
107-06-2	1,2-Dichloroethane	U	1.23	ug/kg	0.370	1.23	
71-43-2	Benzene	U	1.23	ug/kg	0.370	1.23	
79-01-6	Trichloroethylene	U	1.23	ug/kg	0.407	1.23	
78-87-5	1,2-Dichloropropane	U	1.23	ug/kg	0.370	1.23	
75-27-4	Bromodichloromethane	U	1.23	ug/kg	0.370	1.23	
74-95-3	Dibromomethane	U	1.23	ug/kg	0.370	1.23	
108-10-1	4-Methyl-2-pentanone	U	6.17	ug/kg	1.54	6.17	
10061-01-5	cis-1,3-Dichloropropylene	U	1.23	ug/kg	0.370	1.23	
108-88-3	Toluene	U	1.23	ug/kg	0.370	1.23	
10061-02-6	trans-1,3-Dichloropropylene	U	1.23	ug/kg	0.370	1.23	
79-00-5	1,1,2-Trichloroethane	U	1.23	ug/kg	0.370	1.23	
591-78-6	2-Hexanone	U	6.17	ug/kg	1.85	6.17	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.23	ug/kg	0.370	1.23	
127-18-4	Tetrachloroethylene	U	1.23	ug/kg	0.370	1.23	
124-48-1	Dibromochloromethane	U	1.23	ug/kg	0.370	1.23	
106-93-4	1,2-Dibromoethane	U	1.23	ug/kg	0.370	1.23	
108-90-7	Chlorobenzene	U	1.23	ug/kg	0.370	1.23	

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Volatile
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Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332004	**Date Received:**	03/13/2010 09:30	**%Moisture:**	19
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13216	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	968355	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	03/24/2010 01:03	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	03/23/2010 16:14	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032310V6\6D234.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.23	ug/kg	0.370	1.23
179601-23-1	m,p-Xylenes	U	2.47	ug/kg	0.370	2.47
95-47-6	o-Xylene	U	1.23	ug/kg	0.370	1.23
100-42-5	Styrene	U	1.23	ug/kg	0.370	1.23
75-25-2	Bromoform	U	1.23	ug/kg	0.370	1.23
79-34-5	1,1,2,2-Tetrachloroethane	U	1.23	ug/kg	0.370	1.23
96-18-4	1,2,3-Trichloropropane	U	1.23	ug/kg	0.370	1.23
108-86-1	Bromobenzene	U	1.23	ug/kg	0.370	1.23
103-65-1	n-Propylbenzene	U	1.23	ug/kg	0.370	1.23
95-49-8	2-Chlorotoluene	U	1.23	ug/kg	0.370	1.23
98-82-8	Isopropylbenzene	U	1.23	ug/kg	0.370	1.23
108-67-8	1,3,5-Trimethylbenzene	U	1.23	ug/kg	0.370	1.23
106-43-4	4-Chlorotoluene	U	1.23	ug/kg	0.370	1.23
98-06-6	tert-Butylbenzene	U	1.23	ug/kg	0.370	1.23
95-63-6	1,2,4-Trimethylbenzene	U	1.23	ug/kg	0.370	1.23
135-98-8	sec-Butylbenzene	U	1.23	ug/kg	0.370	1.23
99-87-6	4-Isopropyltoluene	U	1.23	ug/kg	0.370	1.23
541-73-1	1,3-Dichlorobenzene	U	1.23	ug/kg	0.370	1.23
106-46-7	1,4-Dichlorobenzene	U	1.23	ug/kg	0.370	1.23
104-51-8	n-Butylbenzene	U	1.23	ug/kg	0.370	1.23
96-12-8	1,2-Dibromo-3-chloropropane	U	1.23	ug/kg	0.370	1.23
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.17	ug/kg	1.98	6.17
630-20-6	1,1,1,2-Tetrachloroethane	U	1.23	ug/kg	0.370	1.23
95-50-1	1,2-Dichlorobenzene	U	1.23	ug/kg	0.370	1.23

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	Date Collected:	03/11/2010 12:00	Matrix:	S
Lab Sample ID:	249332005	Date Received:	03/13/2010 09:30	%Moisture:	13.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13217	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	968355	Inst:	VOA6.I	Dilution:	1
Run Date:	03/24/2010 01:31	Analyst:	RXD1	Purge Vol:	5 mL
Prep Date:	03/23/2010 16:16	Aliquot:	5 g	Final Volume:	5 mL
Data File:	032310V6\6D235.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.394	1.16	
74-87-3	Chloromethane	U	1.16	ug/kg	0.348	1.16	
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.348	1.16	
74-83-9	Bromomethane	U	1.16	ug/kg	0.348	1.16	
75-00-3	Chloroethane	U	1.16	ug/kg	0.348	1.16	
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.348	1.16	
67-64-1	Acetone	U	5.79	ug/kg	1.92	5.79	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.348	1.16	
74-88-4	Iodomethane	U	5.79	ug/kg	1.85	5.79	
75-09-2	Methylene chloride	U	5.79	ug/kg	2.32	5.79	
75-15-0	Carbon disulfide	U	5.79	ug/kg	1.45	5.79	
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.348	1.16	
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.348	1.16	
78-93-3	2-Butanone	U	5.79	ug/kg	1.74	5.79	
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.348	1.16	
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.348	1.16	
67-66-3	Chloroform	U	1.16	ug/kg	0.348	1.16	
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.382	1.16	
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.348	1.16	
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.348	1.16	
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.348	1.16	
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.348	1.16	
71-43-2	Benzene	U	1.16	ug/kg	0.348	1.16	
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.382	1.16	
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.348	1.16	
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.348	1.16	
74-95-3	Dibromomethane	U	1.16	ug/kg	0.348	1.16	
108-10-1	4-Methyl-2-pentanone	U	5.79	ug/kg	1.45	5.79	
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.348	1.16	
108-88-3	Toluene	U	1.16	ug/kg	0.348	1.16	
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.348	1.16	
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.348	1.16	
591-78-6	2-Hexanone	U	5.79	ug/kg	1.74	5.79	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.348	1.16	
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.348	1.16	
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.348	1.16	
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.348	1.16	
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.348	1.16	

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Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332005	**Date Received:**	03/13/2010 09:30	**%Moisture:**	13.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13217	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	968355	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	03/24/2010 01:31	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	03/23/2010 16:16	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032310V6\6D235.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.348	1.16
179601-23-1	m,p-Xylenes	U	2.32	ug/kg	0.348	2.32
95-47-6	o-Xylene	U	1.16	ug/kg	0.348	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.348	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.348	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.348	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.348	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.348	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.348	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.348	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.348	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.348	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.348	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.348	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.348	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.348	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.348	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.348	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.348	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.348	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.348	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.79	ug/kg	1.85	5.79
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.348	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.348	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332006	**Date Received:**	03/13/2010 09:30	**%Moisture:**	28.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13218	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	968355	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	03/24/2010 01:59	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	03/23/2010 16:18	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032310V6\6D236.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.39	ug/kg	0.474	1.39	
74-87-3	Chloromethane	U	1.39	ug/kg	0.418	1.39	
75-01-4	Vinyl chloride	U	1.39	ug/kg	0.418	1.39	
74-83-9	Bromomethane	U	1.39	ug/kg	0.418	1.39	
75-00-3	Chloroethane	U	1.39	ug/kg	0.418	1.39	
75-69-4	Trichlorofluoromethane	U	1.39	ug/kg	0.418	1.39	
67-64-1	Acetone	U	6.96	ug/kg	2.31	6.96	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.39	ug/kg	0.418	1.39	
74-88-4	Iodomethane	U	6.96	ug/kg	2.23	6.96	
75-09-2	Methylene chloride	U	6.96	ug/kg	2.79	6.96	
75-15-0	Carbon disulfide	U	6.96	ug/kg	1.74	6.96	
156-60-5	trans-1,2-Dichloroethylene	U	1.39	ug/kg	0.418	1.39	
75-34-3	1,1-Dichloroethane	U	1.39	ug/kg	0.418	1.39	
78-93-3	2-Butanone	U	6.96	ug/kg	2.09	6.96	
156-59-2	cis-1,2-Dichloroethylene	U	1.39	ug/kg	0.418	1.39	
594-20-7	2,2-Dichloropropane	U	1.39	ug/kg	0.418	1.39	
67-66-3	Chloroform	U	1.39	ug/kg	0.418	1.39	
74-97-5	Bromochloromethane	U	1.39	ug/kg	0.460	1.39	
71-55-6	1,1,1-Trichloroethane	U	1.39	ug/kg	0.418	1.39	
563-58-6	1,1-Dichloropropene	U	1.39	ug/kg	0.418	1.39	
56-23-5	Carbon tetrachloride	U	1.39	ug/kg	0.418	1.39	
107-06-2	1,2-Dichloroethane	U	1.39	ug/kg	0.418	1.39	
71-43-2	Benzene	U	1.39	ug/kg	0.418	1.39	
79-01-6	Trichloroethylene	U	1.39	ug/kg	0.460	1.39	
78-87-5	1,2-Dichloropropane	U	1.39	ug/kg	0.418	1.39	
75-27-4	Bromodichloromethane	U	1.39	ug/kg	0.418	1.39	
74-95-3	Dibromomethane	U	1.39	ug/kg	0.418	1.39	
108-10-1	4-Methyl-2-pentanone	U	6.96	ug/kg	1.74	6.96	
10061-01-5	cis-1,3-Dichloropropylene	U	1.39	ug/kg	0.418	1.39	
108-88-3	Toluene	U	1.39	ug/kg	0.418	1.39	
10061-02-6	trans-1,3-Dichloropropylene	U	1.39	ug/kg	0.418	1.39	
79-00-5	1,1,2-Trichloroethane	U	1.39	ug/kg	0.418	1.39	
591-78-6	2-Hexanone	U	6.96	ug/kg	2.09	6.96	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.39	ug/kg	0.418	1.39	
127-18-4	Tetrachloroethylene	U	1.39	ug/kg	0.418	1.39	
124-48-1	Dibromochloromethane	U	1.39	ug/kg	0.418	1.39	
106-93-4	1,2-Dibromoethane	U	1.39	ug/kg	0.418	1.39	
108-90-7	Chlorobenzene	U	1.39	ug/kg	0.418	1.39	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332006	**Date Received:**	03/13/2010 09:30	**%Moisture:**	28.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13218	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	968355	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	03/24/2010 01:59	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	03/23/2010 16:18	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032310V6\6D236.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.39	ug/kg	0.418	1.39
179601-23-1	m,p-Xylenes	U	2.79	ug/kg	0.418	2.79
95-47-6	o-Xylene	U	1.39	ug/kg	0.418	1.39
100-42-5	Styrene	U	1.39	ug/kg	0.418	1.39
75-25-2	Bromoform	U	1.39	ug/kg	0.418	1.39
79-34-5	1,1,2,2-Tetrachloroethane	U	1.39	ug/kg	0.418	1.39
96-18-4	1,2,3-Trichloropropane	U	1.39	ug/kg	0.418	1.39
108-86-1	Bromobenzene	U	1.39	ug/kg	0.418	1.39
103-65-1	n-Propylbenzene	U	1.39	ug/kg	0.418	1.39
95-49-8	2-Chlorotoluene	U	1.39	ug/kg	0.418	1.39
98-82-8	Isopropylbenzene	U	1.39	ug/kg	0.418	1.39
108-67-8	1,3,5-Trimethylbenzene	U	1.39	ug/kg	0.418	1.39
106-43-4	4-Chlorotoluene	U	1.39	ug/kg	0.418	1.39
98-06-6	tert-Butylbenzene	U	1.39	ug/kg	0.418	1.39
95-63-6	1,2,4-Trimethylbenzene	U	1.39	ug/kg	0.418	1.39
135-98-8	sec-Butylbenzene	U	1.39	ug/kg	0.418	1.39
99-87-6	4-Isopropyltoluene	U	1.39	ug/kg	0.418	1.39
541-73-1	1,3-Dichlorobenzene	U	1.39	ug/kg	0.418	1.39
106-46-7	1,4-Dichlorobenzene	U	1.39	ug/kg	0.418	1.39
104-51-8	n-Butylbenzene	U	1.39	ug/kg	0.418	1.39
96-12-8	1,2-Dibromo-3-chloropropane	U	1.39	ug/kg	0.418	1.39
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.96	ug/kg	2.23	6.96
630-20-6	1,1,1,2-Tetrachloroethane	U	1.39	ug/kg	0.418	1.39
95-50-1	1,2-Dichlorobenzene	U	1.39	ug/kg	0.418	1.39

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332007	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13234	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	968355	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	03/24/2010 02:27	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	03/23/2010 16:20	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032310V6\6D237.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.387	1.14	
74-87-3	Chloromethane	U	1.14	ug/kg	0.342	1.14	
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.342	1.14	
74-83-9	Bromomethane	U	1.14	ug/kg	0.342	1.14	
75-00-3	Chloroethane	U	1.14	ug/kg	0.342	1.14	
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.342	1.14	
67-64-1	Acetone	U	5.70	ug/kg	1.89	5.70	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.342	1.14	
74-88-4	Iodomethane	U	5.70	ug/kg	1.82	5.70	
75-09-2	Methylene chloride	J	4.11	ug/kg	2.28	5.70	
75-15-0	Carbon disulfide	U	5.70	ug/kg	1.42	5.70	
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14	
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.342	1.14	
78-93-3	2-Butanone	U	5.70	ug/kg	1.71	5.70	
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14	
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14	
67-66-3	Chloroform	U	1.14	ug/kg	0.342	1.14	
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.376	1.14	
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.342	1.14	
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.342	1.14	
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.342	1.14	
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.342	1.14	
71-43-2	Benzene	U	1.14	ug/kg	0.342	1.14	
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.376	1.14	
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14	
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.342	1.14	
74-95-3	Dibromomethane	U	1.14	ug/kg	0.342	1.14	
108-10-1	4-Methyl-2-pentanone	U	5.70	ug/kg	1.42	5.70	
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14	
108-88-3	Toluene	U	1.14	ug/kg	0.342	1.14	
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14	
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.342	1.14	
591-78-6	2-Hexanone	U	5.70	ug/kg	1.71	5.70	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.342	1.14	
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.342	1.14	
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.342	1.14	
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.342	1.14	
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.342	1.14	

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Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332007	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13234	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	968355	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	03/24/2010 02:27	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	03/23/2010 16:20	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032310V6\6D237.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.342	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.342	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.342	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.342	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.70	ug/kg	1.82	5.70
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332008	**Date Received:**	03/13/2010 09:30		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13237	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	968355	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	03/24/2010 02:55	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	03/23/2010 16:22	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032310V6\6D238.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00	
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00	
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00	
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00	
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00	
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
108-88-3	Toluene	J	0.320	ug/kg	0.300	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332008**	**Date Received:**	**03/13/2010 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13237**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 02:55**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:22**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D238.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	Date Collected:	03/11/2010 12:00	Matrix:	S
Lab Sample ID:	249332009	Date Received:	03/13/2010 09:30	%Moisture:	30
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-14199	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	968355	Inst:	VOA6.I	Dilution:	1
Run Date:	03/24/2010 03:22	Analyst:	RXD1	Purge Vol:	5 mL
Prep Date:	03/23/2010 16:24	Aliquot:	5 g	Final Volume:	5 mL
Data File:	032310V6\6D239.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.43	ug/kg	0.486	1.43	
74-87-3	Chloromethane	U	1.43	ug/kg	0.429	1.43	
75-01-4	Vinyl chloride	U	1.43	ug/kg	0.429	1.43	
74-83-9	Bromomethane	U	1.43	ug/kg	0.429	1.43	
75-00-3	Chloroethane	U	1.43	ug/kg	0.429	1.43	
75-69-4	Trichlorofluoromethane	U	1.43	ug/kg	0.429	1.43	
67-64-1	Acetone	U	7.14	ug/kg	2.37	7.14	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.43	ug/kg	0.429	1.43	
74-88-4	Iodomethane	U	7.14	ug/kg	2.29	7.14	
75-09-2	Methylene chloride	J	5.74	ug/kg	2.86	7.14	
75-15-0	Carbon disulfide	U	7.14	ug/kg	1.79	7.14	
156-60-5	trans-1,2-Dichloroethylene	U	1.43	ug/kg	0.429	1.43	
75-34-3	1,1-Dichloroethane	U	1.43	ug/kg	0.429	1.43	
78-93-3	2-Butanone	U	7.14	ug/kg	2.14	7.14	
156-59-2	cis-1,2-Dichloroethylene	U	1.43	ug/kg	0.429	1.43	
594-20-7	2,2-Dichloropropane	U	1.43	ug/kg	0.429	1.43	
67-66-3	Chloroform	U	1.43	ug/kg	0.429	1.43	
74-97-5	Bromochloromethane	U	1.43	ug/kg	0.471	1.43	
71-55-6	1,1,1-Trichloroethane	U	1.43	ug/kg	0.429	1.43	
563-58-6	1,1-Dichloropropene	U	1.43	ug/kg	0.429	1.43	
56-23-5	Carbon tetrachloride	U	1.43	ug/kg	0.429	1.43	
107-06-2	1,2-Dichloroethane	U	1.43	ug/kg	0.429	1.43	
71-43-2	Benzene	U	1.43	ug/kg	0.429	1.43	
79-01-6	Trichloroethylene	U	1.43	ug/kg	0.471	1.43	
78-87-5	1,2-Dichloropropane	U	1.43	ug/kg	0.429	1.43	
75-27-4	Bromodichloromethane	U	1.43	ug/kg	0.429	1.43	
74-95-3	Dibromomethane	U	1.43	ug/kg	0.429	1.43	
108-10-1	4-Methyl-2-pentanone	U	7.14	ug/kg	1.79	7.14	
10061-01-5	cis-1,3-Dichloropropylene	U	1.43	ug/kg	0.429	1.43	
108-88-3	Toluene	U	1.43	ug/kg	0.429	1.43	
10061-02-6	trans-1,3-Dichloropropylene	U	1.43	ug/kg	0.429	1.43	
79-00-5	1,1,2-Trichloroethane	U	1.43	ug/kg	0.429	1.43	
591-78-6	2-Hexanone	U	7.14	ug/kg	2.14	7.14	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.43	ug/kg	0.429	1.43	
127-18-4	Tetrachloroethylene	U	1.43	ug/kg	0.429	1.43	
124-48-1	Dibromochloromethane	U	1.43	ug/kg	0.429	1.43	
106-93-4	1,2-Dibromoethane	U	1.43	ug/kg	0.429	1.43	
108-90-7	Chlorobenzene	U	1.43	ug/kg	0.429	1.43	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332009	**Date Received:**	03/13/2010 09:30	**%Moisture:**	30
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-14199	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	968355	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	03/24/2010 03:22	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	03/23/2010 16:24	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032310V6\6D239.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.43	ug/kg	0.429	1.43
179601-23-1	m,p-Xylenes	U	2.86	ug/kg	0.429	2.86
95-47-6	o-Xylene	U	1.43	ug/kg	0.429	1.43
100-42-5	Styrene	U	1.43	ug/kg	0.429	1.43
75-25-2	Bromoform	U	1.43	ug/kg	0.429	1.43
79-34-5	1,1,2,2-Tetrachloroethane	U	1.43	ug/kg	0.429	1.43
96-18-4	1,2,3-Trichloropropane	U	1.43	ug/kg	0.429	1.43
108-86-1	Bromobenzene	U	1.43	ug/kg	0.429	1.43
103-65-1	n-Propylbenzene	U	1.43	ug/kg	0.429	1.43
95-49-8	2-Chlorotoluene	U	1.43	ug/kg	0.429	1.43
98-82-8	Isopropylbenzene	U	1.43	ug/kg	0.429	1.43
108-67-8	1,3,5-Trimethylbenzene	U	1.43	ug/kg	0.429	1.43
106-43-4	4-Chlorotoluene	U	1.43	ug/kg	0.429	1.43
98-06-6	tert-Butylbenzene	U	1.43	ug/kg	0.429	1.43
95-63-6	1,2,4-Trimethylbenzene	U	1.43	ug/kg	0.429	1.43
135-98-8	sec-Butylbenzene	U	1.43	ug/kg	0.429	1.43
99-87-6	4-Isopropyltoluene	U	1.43	ug/kg	0.429	1.43
541-73-1	1,3-Dichlorobenzene	U	1.43	ug/kg	0.429	1.43
106-46-7	1,4-Dichlorobenzene	U	1.43	ug/kg	0.429	1.43
104-51-8	n-Butylbenzene	U	1.43	ug/kg	0.429	1.43
96-12-8	1,2-Dibromo-3-chloropropane	U	1.43	ug/kg	0.429	1.43
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	7.14	ug/kg	2.29	7.14
630-20-6	1,1,1,2-Tetrachloroethane	U	1.43	ug/kg	0.429	1.43
95-50-1	1,2-Dichlorobenzene	U	1.43	ug/kg	0.429	1.43

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

JCC
04/22/1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332010	**Date Received:**	03/13/2010 09:30		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-14200	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	968355	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	03/24/2010 03:50	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	03/23/2010 16:26	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032310V6\6D240.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00	
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00	
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00	
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00	
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00	
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
108-88-3	Toluene	J	0.480	ug/kg	0.300	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332010	**Date Received:**	03/13/2010 09:30		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-14200	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	968355	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	03/24/2010 03:50	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	03/23/2010 16:26	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032310V6\6D240.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

JCC

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2433 VALIDATION DATE: 04/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Joanne Compton ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV %Ds for 2-methyl-4,6-dintirophenol and ICV/CCV %Ds for hexachlorocyclopentadiene were >20%. In the CCV associated with all samples, the %Ds were >20% for benzoic acid. In the CCV associated with samples RE46-10-13216 through -13218, -13220, -13234, and -14199, the %Ds were >20% for pyridine and p-nitroaniline. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The CCV associated with samples -13216 through -13218, -13220, -13234, and -14199 was not analyzed at the appropriate method frequency. The sample results that were detects were qualified J,SV7d. The sample results that were NDs were qualified UJ,SV7d.
3. The MS/MSD RPDs were outside the acceptance limits for several analytes. The MS/MSD was performed on samples from another LANL RN and that the raw data were not included in the data package. Since the analysis of an MS or an MSD was not a client requirement, no sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 4/23/10

VALIDATOR'S SIGNATURE: Joanne Compton DATE: 04/22/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☒	☐	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2 Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

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Sample Summary

SDG Number:	10-2433	Date Collected:	03/11/2010 12:00	Matrix:	S
Lab Sample ID:	249332004	Date Received:	03/13/2010 09:30	%Moisture:	19
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13216	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966766	Inst:	MSD1.I	Dilution:	1
Run Date:	03/30/2010 13:04	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	03/19/2010 11:31	Allquot:	30.02 g	Final Volume:	1 mL
Data File:	s1c3009.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	411	ug/kg	82.3	411	UJ,SV7d
108-95-2	Phenol	U	411	ug/kg	82.3	411	
95-57-8	2-Chlorophenol	U	411	ug/kg	82.3	411	
106-46-7	1,4-Dichlorobenzene	U	411	ug/kg	82.3	411	
621-64-7	N-Nitrosodipropylamine	U	411	ug/kg	82.3	411	
59-50-7	4-Chloro-3-methylphenol	U	411	ug/kg	82.3	411	
83-32-9	Acenaphthene	U	41.1	ug/kg	13.6	41.1	
121-14-2	2,4-Dinitrotoluene	U	411	ug/kg	41.1	411	
100-02-7	4-Nitrophenol	U	411	ug/kg	136	411	
87-86-5	Pentachlorophenol	U	411	ug/kg	103	411	
129-00-0	Pyrene	J	25.8	ug/kg	12.3	41.1	J,SV7d
110-86-1	Pyridine	U	411	ug/kg	82.3	411	UJ,SV7c
62-53-3	Aniline	U	411	ug/kg	123	411	UJ,SV7d
111-44-4	bis(2-Chloroethyl) ether	U	411	ug/kg	82.3	411	
541-73-1	1,3-Dichlorobenzene	U	411	ug/kg	82.3	411	
100-51-6	Benzyl alcohol	U	411	ug/kg	123	411	
95-50-1	1,2-Dichlorobenzene	U	411	ug/kg	82.3	411	
108-60-1	bis(2-Chloroisopropyl)ether	U	411	ug/kg	82.3	411	
95-48-7	o-Cresol	U	411	ug/kg	82.3	411	
65794-96-9	m,p-Cresols	U	411	ug/kg	123	411	
67-72-1	Hexachloroethane	U	411	ug/kg	82.3	411	
98-95-3	Nitrobenzene	U	411	ug/kg	82.3	411	
78-59-1	Isophorone	U	411	ug/kg	82.3	411	
88-75-5	2-Nitrophenol	U	411	ug/kg	82.3	411	
105-67-9	2,4-Dimethylphenol	U	411	ug/kg	144	411	
111-91-1	bis(2-Chloroethoxy)methane	U	411	ug/kg	82.3	411	
120-83-2	2,4-Dichlorophenol	U	411	ug/kg	82.3	411	
65-85-0	Benzoic acid	U	823	ug/kg	206	823	UJ,SV7c
91-20-3	Naphthalene	U	41.1	ug/kg	12.3	41.1	UJ,SV7d
106-47-8	4-Chloroaniline	U	411	ug/kg	82.3	411	
87-68-3	Hexachlorobutadiene	U	411	ug/kg	82.3	411	
91-57-6	2-Methylnaphthalene	U	41.1	ug/kg	8.23	41.1	
77-47-4	Hexachlorocyclopentadiene	U	411	ug/kg	82.3	411	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	411	ug/kg	82.3	411	UJ,SV7d
95-95-4	2,4,5-Trichlorophenol	U	411	ug/kg	82.3	411	
91-58-7	2-Chloronaphthalene	U	41.1	ug/kg	13.6	41.1	
88-74-4	2-Nitroaniline	U	411	ug/kg	82.3	411	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	411	ug/kg	82.3	411	

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Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332004	**Date Received:**	03/13/2010 09:30	**%Moisture:**	19
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13216	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 13:04	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s1c3009.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	411	ug/kg	82.3	411	UJ,SV7d
606-20-2	2,6-Dinitrotoluene	U	411	ug/kg	41.1	411	
208-96-8	Acenaphthylene	U	41.1	ug/kg	12.3	41.1	
51-28-5	2,4-Dinitrophenol	U	823	ug/kg	156	823	
132-64-9	Dibenzofuran	U	411	ug/kg	82.3	411	
84-66-2	Diethylphthalate	U	411	ug/kg	82.3	411	
86-73-7	Fluorene	U	41.1	ug/kg	12.3	41.1	
7005-72-3	4-Chlorophenylphenylether	U	411	ug/kg	82.3	411	
534-52-1	2-Methyl-4,6-dinitrophenol	U	411	ug/kg	82.3	411	UJ,SV7c
100-01-6	4-Nitroaniline	U	411	ug/kg	123	411	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	411	ug/kg	82.3	411	UJ,SV7d
122-66-7	Azobenzene	U	411	ug/kg	82.3	411	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	411	ug/kg	82.3	411	
118-74-1	Hexachlorobenzene	U	411	ug/kg	82.3	411	
85-01-8	Phenanthrene	U	41.1	ug/kg	12.3	41.1	
120-12-7	Anthracene	J	11.7	ug/kg	8.23	41.1	J,SV7d
84-74-2	Di-n-butylphthalate	U	411	ug/kg	82.3	411	UJ,SV7d
206-44-0	Fluoranthene	J	29.0	ug/kg	12.3	41.1	J,SV7d
85-68-7	Butylbenzylphthalate	U	411	ug/kg	82.3	411	UJ,SV7d
56-55-3	Benzo(a)anthracene	J	26.2	ug/kg	12.3	41.1	J,SV7d
91-94-1	3,3'-Dichlorobenzidine	U	411	ug/kg	123	411	UJ,SV7d
218-01-9	Chrysene	J	20.1	ug/kg	12.3	41.1	J,SV7d
117-81-7	bis(2-Ethylhexyl)phthalate	U	411	ug/kg	82.3	411	UJ,SV7d
117-84-0	Di-n-octylphthalate	U	411	ug/kg	82.3	411	UJ,SV7d
205-99-2	Benzo(b)fluoranthene	J	30.2	ug/kg	12.3	41.1	J,SV7d
207-08-9	Benzo(k)fluoranthene	U	41.1	ug/kg	12.3	41.1	UJ,SV7d
50-32-8	Benzo(a)pyrene	J	15.6	ug/kg	12.3	41.1	J,SV7d
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.1	ug/kg	12.3	41.1	UJ,SV7d
53-70-3	Dibenzo(a,h)anthracene	U	41.1	ug/kg	12.3	41.1	
191-24-2	Benzo(ghi)perylene	U	41.1	ug/kg	12.3	41.1	
120-82-1	1,2,4-Trichlorobenzene	U	411	ug/kg	82.3	411	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	420	ug/kg		JA
	Unknown	8.49	171	ug/kg		J

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Semi-Volatile
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Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332005	**Date Received:**	03/13/2010 09:30	**%Moisture:**	13.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13217	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 13:27	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	s1c3010.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	385	ug/kg	77.1	385	UJ,SV7d
108-95-2	Phenol	U	385	ug/kg	77.1	385	
95-57-8	2-Chlorophenol	U	385	ug/kg	77.1	385	
106-46-7	1,4-Dichlorobenzene	U	385	ug/kg	77.1	385	
621-64-7	N-Nitrosodipropylamine	U	385	ug/kg	77.1	385	
59-50-7	4-Chloro-3-methylphenol	U	385	ug/kg	77.1	385	
83-32-9	Acenaphthene	U	38.5	ug/kg	12.7	38.5	
121-14-2	2,4-Dinitrotoluene	U	385	ug/kg	38.5	385	
100-02-7	4-Nitrophenol	U	385	ug/kg	127	385	
87-86-5	Pentachlorophenol	U	385	ug/kg	96.3	385	
129-00-0	Pyrene	U	38.5	ug/kg	11.6	38.5	
110-86-1	Pyridine	U	385	ug/kg	77.1	385	UJ,SV7c
62-53-3	Aniline	U	385	ug/kg	116	385	UJ,SV7d
111-44-4	bis(2-Chloroethyl) ether	U	385	ug/kg	77.1	385	
541-73-1	1,3-Dichlorobenzene	U	385	ug/kg	77.1	385	
100-51-6	Benzyl alcohol	U	385	ug/kg	116	385	
95-50-1	1,2-Dichlorobenzene	U	385	ug/kg	77.1	385	
108-60-1	bis(2-Chloroisopropyl)ether	U	385	ug/kg	77.1	385	
95-48-7	o-Cresol	U	385	ug/kg	77.1	385	
65794-96-9	m,p-Cresols	U	385	ug/kg	116	385	
67-72-1	Hexachloroethane	U	385	ug/kg	77.1	385	
98-95-3	Nitrobenzene	U	385	ug/kg	77.1	385	
78-59-1	Isophorone	U	385	ug/kg	77.1	385	
88-75-5	2-Nitrophenol	U	385	ug/kg	77.1	385	
105-67-9	2,4-Dimethylphenol	U	385	ug/kg	135	385	
111-91-1	bis(2-Chloroethoxy)methane	U	385	ug/kg	77.1	385	
120-83-2	2,4-Dichlorophenol	U	385	ug/kg	77.1	385	
65-85-0	Benzoic acid	U	771	ug/kg	193	771	UJ,SV7c
91-20-3	Naphthalene	U	38.5	ug/kg	11.6	38.5	UJ,SV7d
106-47-8	4-Chloroaniline	U	385	ug/kg	77.1	385	
87-68-3	Hexachlorobutadiene	U	385	ug/kg	77.1	385	
91-57-6	2-Methylnaphthalene	U	38.5	ug/kg	7.71	38.5	
77-47-4	Hexachlorocyclopentadiene	U	385	ug/kg	77.1	385	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	385	ug/kg	77.1	385	UJ,SV7d
95-95-4	2,4,5-Trichlorophenol	U	385	ug/kg	77.1	385	
91-58-7	2-Chloronaphthalene	U	38.5	ug/kg	12.7	38.5	
88-74-4	2-Nitroaniline	U	385	ug/kg	77.1	385	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	385	ug/kg	77.1	385	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332005	**Date Received:**	03/13/2010 09:30	**%Moisture:**	13.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13217	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 13:27	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	s1c3010.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	385	ug/kg	77.1	385	UJ,SV7d
606-20-2	2,6-Dinitrotoluene	U	385	ug/kg	38.5	385	
208-96-8	Acenaphthylene	U	38.5	ug/kg	11.6	38.5	
51-28-5	2,4-Dinitrophenol	U	771	ug/kg	146	771	
132-64-9	Dibenzofuran	U	385	ug/kg	77.1	385	
84-66-2	Diethylphthalate	U	385	ug/kg	77.1	385	
86-73-7	Fluorene	U	38.5	ug/kg	11.6	38.5	
7005-72-3	4-Chlorophenylphenylether	U	385	ug/kg	77.1	385	
534-52-1	2-Methyl-4,6-dinitrophenol	U	385	ug/kg	77.1	38:	UJ,SV7c
100-01-6	4-Nitroaniline	U	385	ug/kg	116	385	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	385	ug/kg	77.1	385	UJ,SV7d
122-66-7	Azobenzene	U	385	ug/kg	77.1	385	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	385	ug/kg	77.1	385	
118-74-1	Hexachlorobenzene	U	385	ug/kg	77.1	385	
85-01-8	Phenanthrene	U	38.5	ug/kg	11.6	38.5	
120-12-7	Anthracene	U	38.5	ug/kg	7.71	38.5	
84-74-2	Di-n-butylphthalate	U	385	ug/kg	77.1	385	
206-44-0	Fluoranthene	U	38.5	ug/kg	11.6	38.5	
85-68-7	Butylbenzylphthalate	U	385	ug/kg	77.1	385	
56-55-3	Benzo(a)anthracene	U	38.5	ug/kg	11.6	38.5	
91-94-1	3,3'-Dichlorobenzidine	U	385	ug/kg	116	385	
218-01-9	Chrysene	U	38.5	ug/kg	11.6	38.5	
117-81-7	bis(2-Ethylhexyl)phthalate	U	385	ug/kg	77.1	385	
117-84-0	Di-n-octylphthalate	U	385	ug/kg	77.1	385	
205-99-2	Benzo(b)fluoranthene	U	38.5	ug/kg	11.6	38.5	
207-08-9	Benzo(k)fluoranthene	U	38.5	ug/kg	11.6	38.5	
50-32-8	Benzo(a)pyrene	U	38.5	ug/kg	11.6	38.5	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.5	ug/kg	11.6	38.5	
53-70-3	Dibenzo(a,h)anthracene	U	38.5	ug/kg	11.6	38.5	
191-24-2	Benzo(ghi)perylene	U	38.5	ug/kg	11.6	38.5	
120-82-1	1,2,4-Trichlorobenzene	U	385	ug/kg	77.1	385	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	386	ug/kg		JA
	Unknown	12.8	376	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332006	**Date Received:**	03/13/2010 09:30	**%Moisture:**	28.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13218	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 13:51	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s1c3011.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	464	ug/kg	92.8	464	UJ,SV7d
108-95-2	Phenol	U	464	ug/kg	92.8	464	
95-57-8	2-Chlorophenol	U	464	ug/kg	92.8	464	
106-46-7	1,4-Dichlorobenzene	U	464	ug/kg	92.8	464	
621-64-7	N-Nitrosodipropylamine	U	464	ug/kg	92.8	464	
59-50-7	4-Chloro-3-methylphenol	U	464	ug/kg	92.8	464	
83-32-9	Acenaphthene	U	46.4	ug/kg	15.3	46.4	
121-14-2	2,4-Dinitrotoluene	U	464	ug/kg	46.4	464	
100-02-7	4-Nitrophenol	U	464	ug/kg	153	464	
87-86-5	Pentachlorophenol	U	464	ug/kg	116	464	
129-00-0	Pyrene	U	46.4	ug/kg	13.9	46.4	
110-86-1	Pyridine	U	464	ug/kg	92.8	464	UJ,SV7c
62-53-3	Aniline	U	464	ug/kg	139	464	UJ,SV7d
111-44-4	bis(2-Chloroethyl) ether	U	464	ug/kg	92.8	464	
541-73-1	1,3-Dichlorobenzene	U	464	ug/kg	92.8	464	
100-51-6	Benzyl alcohol	U	464	ug/kg	139	464	
95-50-1	1,2-Dichlorobenzene	U	464	ug/kg	92.8	464	
108-60-1	bis(2-Chloroisopropyl)ether	U	464	ug/kg	92.8	464	
95-48-7	o-Cresol	U	464	ug/kg	92.8	464	
65794-96-9	m,p-Cresols	U	464	ug/kg	139	464	
67-72-1	Hexachloroethane	U	464	ug/kg	92.8	464	
98-95-3	Nitrobenzene	U	464	ug/kg	92.8	464	
78-59-1	Isophorone	U	464	ug/kg	92.8	464	
88-75-5	2-Nitrophenol	U	464	ug/kg	92.8	464	
105-67-9	2,4-Dimethylphenol	U	464	ug/kg	162	464	
111-91-1	bis(2-Chloroethoxy)methane	U	464	ug/kg	92.8	464	
120-83-2	2,4-Dichlorophenol	U	464	ug/kg	92.8	464	
65-85-0	Benzoic acid	U	928	ug/kg	232	928	UJ,SV7c
91-20-3	Naphthalene	U	46.4	ug/kg	13.9	46.4	UJ,SV7d
106-47-8	4-Chloroaniline	U	464	ug/kg	92.8	464	
87-68-3	Hexachlorobutadiene	U	464	ug/kg	92.8	464	
91-57-6	2-Methylnaphthalene	U	46.4	ug/kg	9.28	46.4	
77-47-4	Hexachlorocyclopentadiene	U	464	ug/kg	92.8	464	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	464	ug/kg	92.8	464	UJ,SV7d
95-95-4	2,4,5-Trichlorophenol	U	464	ug/kg	92.8	464	
91-58-7	2-Chloronaphthalene	U	46.4	ug/kg	15.3	46.4	
88-74-4	2-Nitroaniline	U	464	ug/kg	92.8	464	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	464	ug/kg	92.8	464	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332006	**Date Received:**	03/13/2010 09:30	**%Moisture:**	28.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13218	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 13:51	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s1c3011.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	464	ug/kg	92.8	464	UJ,SV7d
606-20-2	2,6-Dinitrotoluene	U	464	ug/kg	46.4	464	
208-96-8	Acenaphthylene	U	46.4	ug/kg	13.9	46.4	
51-28-5	2,4-Dinitrophenol	U	928	ug/kg	176	928	
132-64-9	Dibenzofuran	U	464	ug/kg	92.8	464	
84-66-2	Diethylphthalate	U	464	ug/kg	92.8	464	
86-73-7	Fluorene	U	46.4	ug/kg	13.9	46.4	
7005-72-3	4-Chlorophenylphenylether	U	464	ug/kg	92.8	464	
534-52-1	2-Methyl-4,6-dinitrophenol	U	464	ug/kg	92.8	464	UJ,SV7c
100-01-6	4-Nitroaniline	U	464	ug/kg	139	464	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	464	ug/kg	92.8	464	UJ,SV7d
122-66-7	Azobenzene	U	464	ug/kg	92.8	464	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	464	ug/kg	92.8	464	
118-74-1	Hexachlorobenzene	U	464	ug/kg	92.8	464	
85-01-8	Phenanthrene	U	46.4	ug/kg	13.9	46.4	
120-12-7	Anthracene	U	46.4	ug/kg	9.28	46.4	
84-74-2	Di-n-butylphthalate	U	464	ug/kg	92.8	464	
206-44-0	Fluoranthene	U	46.4	ug/kg	13.9	46.4	
85-68-7	Butylbenzylphthalate	U	464	ug/kg	92.8	464	
56-55-3	Benzo(a)anthracene	U	46.4	ug/kg	13.9	46.4	
91-94-1	3,3'-Dichlorobenzidine	U	464	ug/kg	139	464	
218-01-9	Chrysene	U	46.4	ug/kg	13.9	46.4	
117-81-7	bis(2-Ethylhexyl)phthalate	U	464	ug/kg	92.8	464	
117-84-0	Di-n-octylphthalate	U	464	ug/kg	92.8	464	
205-99-2	Benzo(b)fluoranthene	U	46.4	ug/kg	13.9	46.4	
207-08-9	Benzo(k)fluoranthene	U	46.4	ug/kg	13.9	46.4	
50-32-8	Benzo(a)pyrene	U	46.4	ug/kg	13.9	46.4	
193-39-5	Indeno(1,2,3-cd)pyrene	U	46.4	ug/kg	13.9	46.4	
53-70-3	Dibenzo(a,h)anthracene	U	46.4	ug/kg	13.9	46.4	
191-24-2	Benzo(ghi)perylene	U	46.4	ug/kg	13.9	46.4	
120-82-1	1,2,4-Trichlorobenzene	U	464	ug/kg	92.8	464	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	541	ug/kg		JA
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.3	299	ug/kg	99	NJ

JCC
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332006	**Date Received:**	03/13/2010 09:30	**%Moisture:**	28.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13218	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 13:51	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s1c3011.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.5	318	ug/kg		J
	Unknown	11.19	197	ug/kg		J
559-74-0	Friedelan-3-one	12.8	1390	ug/kg	98	NJ

JCC
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332001	**Date Received:**	03/13/2010 09:30	**%Moisture:**	7.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13219	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/29/2010 17:33	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s1c2914.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	361	ug/kg	72.1	361	
108-95-2	Phenol	U	361	ug/kg	72.1	361	
95-57-8	2-Chlorophenol	U	361	ug/kg	72.1	361	
106-46-7	1,4-Dichlorobenzene	U	361	ug/kg	72.1	361	
621-64-7	N-Nitrosodipropylamine	U	361	ug/kg	72.1	361	
59-50-7	4-Chloro-3-methylphenol	U	361	ug/kg	72.1	361	
83-32-9	Acenaphthene		1350	ug/kg	11.9	36.1	
121-14-2	2,4-Dinitrotoluene	U	361	ug/kg	36.1	361	
100-02-7	4-Nitrophenol	U	361	ug/kg	119	361	
87-86-5	Pentachlorophenol	U	361	ug/kg	90.2	361	
129-00-0	Pyrene	U	36.1	ug/kg	10.8	36.1	
110-86-1	Pyridine	U	361	ug/kg	72.1	361	
62-53-3	Aniline	U	361	ug/kg	108	361	
111-44-4	bis(2-Chloroethyl) ether	U	361	ug/kg	72.1	361	
541-73-1	1,3-Dichlorobenzene	U	361	ug/kg	72.1	361	
100-51-6	Benzyl alcohol	U	361	ug/kg	108	361	
95-50-1	1,2-Dichlorobenzene	U	361	ug/kg	72.1	361	
108-60-1	bis(2-Chloroisopropyl)ether	U	361	ug/kg	72.1	361	
95-48-7	o-Cresol	U	361	ug/kg	72.1	361	
65794-96-9	m,p-Cresols	U	361	ug/kg	108	361	
67-72-1	Hexachloroethane	U	361	ug/kg	72.1	361	
98-95-3	Nitrobenzene	U	361	ug/kg	72.1	361	
78-59-1	Isophorone	U	361	ug/kg	72.1	361	
88-75-5	2-Nitrophenol	U	361	ug/kg	72.1	361	
105-67-9	2,4-Dimethylphenol	U	361	ug/kg	126	361	
111-91-1	bis(2-Chloroethoxy)methane	U	361	ug/kg	72.1	361	
120-83-2	2,4-Dichlorophenol	U	361	ug/kg	72.1	361	
65-85-0	Benzoic acid	U	721	ug/kg	180	721	UJ,SV7c
91-20-3	Naphthalene	U	36.1	ug/kg	10.8	36.1	
106-47-8	4-Chloroaniline	U	361	ug/kg	72.1	361	
87-68-3	Hexachlorobutadiene	U	361	ug/kg	72.1	361	
91-57-6	2-Methylnaphthalene	U	36.1	ug/kg	7.21	36.1	
77-47-4	Hexachlorocyclopentadiene	U	361	ug/kg	72.1	361	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	361	ug/kg	72.1	361	
95-95-4	2,4,5-Trichlorophenol	U	361	ug/kg	72.1	361	
91-58-7	2-Chloronaphthalene	U	36.1	ug/kg	11.9	36.1	
88-74-4	2-Nitroaniline	U	361	ug/kg	72.1	361	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	361	ug/kg	72.1	361	

JCC
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332001	**Date Received:**	03/13/2010 09:30	**%Moisture:**	7.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13219	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/29/2010 17:33	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s1c2914.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	361	ug/kg	72.1	361	
606-20-2	2,6-Dinitrotoluene	U	361	ug/kg	36.1	361	
208-96-8	Acenaphthylene	U	36.1	ug/kg	10.8	36.1	
51-28-5	2,4-Dinitrophenol	U	721	ug/kg	137	721	
132-64-9	Dibenzofuran	U	361	ug/kg	72.1	361	
84-66-2	Diethylphthalate	U	361	ug/kg	72.1	361	
86-73-7	Fluorene	U	36.1	ug/kg	10.8	36.1	
7005-72-3	4-Chlorophenylphenylether	U	361	ug/kg	72.1	361	
534-52-1	2-Methyl-4,6-dinitrophenol	U	361	ug/kg	72.1	361	UJ,SV7c
100-01-6	4-Nitroaniline	U	361	ug/kg	108	361	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	361	ug/kg	72.1	361	
122-66-7	Azobenzene	U	361	ug/kg	72.1	361	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	361	ug/kg	72.1	361	
118-74-1	Hexachlorobenzene	U	361	ug/kg	72.1	361	
85-01-8	Phenanthrene	U	36.1	ug/kg	10.8	36.1	
120-12-7	Anthracene	U	36.1	ug/kg	7.21	36.1	
84-74-2	Di-n-butylphthalate	U	361	ug/kg	72.1	361	
206-44-0	Fluoranthene	U	36.1	ug/kg	10.8	36.1	
85-68-7	Butylbenzylphthalate	U	361	ug/kg	72.1	361	
56-55-3	Benzo(a)anthracene	U	36.1	ug/kg	10.8	36.1	
91-94-1	3,3'-Dichlorobenzidine	U	361	ug/kg	108	361	
218-01-9	Chrysene	U	36.1	ug/kg	10.8	36.1	
117-81-7	bis(2-Ethylhexyl)phthalate	U	361	ug/kg	72.1	361	
117-84-0	Di-n-octylphthalate	U	361	ug/kg	72.1	361	
205-99-2	Benzo(b)fluoranthene	U	36.1	ug/kg	10.8	36.1	
207-08-9	Benzo(k)fluoranthene	U	36.1	ug/kg	10.8	36.1	
50-32-8	Benzo(a)pyrene	U	36.1	ug/kg	10.8	36.1	
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.1	ug/kg	10.8	36.1	
53-70-3	Dibenzo(a,h)anthracene	U	36.1	ug/kg	10.8	36.1	
191-24-2	Benzo(ghi)perylene	U	36.1	ug/kg	10.8	36.1	
120-82-1	1,2,4-Trichlorobenzene	U	361	ug/kg	72.1	361	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.71	675	ug/kg		J
	Unknown Aldol Condensate	2.56	414	ug/kg		JA

JCC
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332001	**Date Received:**	03/13/2010 09:30	**%Moisture:**	7.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13219	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/29/2010 17:33	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data Flle:	s1c2914.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
56196-06-6	Cyclopropaneoctanal, 2-octyl-	7.3	193	ug/kg	90	NJ
57-11-4	Octadecanoic acid	7.35	457	ug/kg	98	NJ
506-30-9	Eicosanoic acid	7.75	186	ug/kg	99	NJ
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	8.02	257	ug/kg	99	NJ
112-85-6	Docosanoic acid	8.15	371	ug/kg	97	NJ
557-59-5	Tetracosanoic acid	8.6	179	ug/kg	97	NJ
1599-67-3	1-Docosene	8.67	245	ug/kg	99	NJ
	Unknown	8.79	165	ug/kg		J
	Unknown	11.71	174	ug/kg		J
58-22-0	Androst-4-en-3-one, 17-hydroxy-, (17.bet	11.92	200	ug/kg	83	NJ
559-74-0	Friedelan-3-one	12.87	839	ug/kg	96	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332003	**Date Received:**	03/13/2010 09:30	**%Moisture:**	11.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13220	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 12:40	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s1c3008.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	377	ug/kg	75.3	377	UJ,SV7d
108-95-2	Phenol	U	377	ug/kg	75.3	377	
95-57-8	2-Chlorophenol	U	377	ug/kg	75.3	377	
106-46-7	1,4-Dichlorobenzene	U	377	ug/kg	75.3	377	
621-64-7	N-Nitrosodipropylamine	U	377	ug/kg	75.3	377	
59-50-7	4-Chloro-3-methylphenol	U	377	ug/kg	75.3	377	
83-32-9	Acenaphthene	U	37.7	ug/kg	12.4	37.7	
121-14-2	2,4-Dinitrotoluene	U	377	ug/kg	37.7	377	
100-02-7	4-Nitrophenol	U	377	ug/kg	124	377	
87-86-5	Pentachlorophenol	U	377	ug/kg	94.1	377	
129-00-0	Pyrene	U	37.7	ug/kg	11.3	37.7	
110-86-1	Pyridine	U	377	ug/kg	75.3	377	UJ,SV7c
62-53-3	Aniline	U	377	ug/kg	113	377	UJ,SV7d
111-44-4	bis(2-Chloroethyl) ether	U	377	ug/kg	75.3	377	
541-73-1	1,3-Dichlorobenzene	U	377	ug/kg	75.3	377	
100-51-6	Benzyl alcohol	U	377	ug/kg	113	377	
95-50-1	1,2-Dichlorobenzene	U	377	ug/kg	75.3	377	
108-60-1	bis(2-Chloroisopropyl)ether	U	377	ug/kg	75.3	377	
95-48-7	o-Cresol	U	377	ug/kg	75.3	377	
65794-96-9	m,p-Cresols	U	377	ug/kg	113	377	
67-72-1	Hexachloroethane	U	377	ug/kg	75.3	377	
98-95-3	Nitrobenzene	U	377	ug/kg	75.3	377	
78-59-1	Isophorone	U	377	ug/kg	75.3	377	
88-75-5	2-Nitrophenol	U	377	ug/kg	75.3	377	
105-67-9	2,4-Dimethylphenol	U	377	ug/kg	132	377	
111-91-1	bis(2-Chloroethoxy)methane	U	377	ug/kg	75.3	377	
120-83-2	2,4-Dichlorophenol	U	377	ug/kg	75.3	377	
65-85-0	Benzoic acid	U	753	ug/kg	188	753	UJ,SV7c
91-20-3	Naphthalene	U	37.7	ug/kg	11.3	37.7	UJ,SV7d
106-47-8	4-Chloroaniline	U	377	ug/kg	75.3	377	
87-68-3	Hexachlorobutadiene	U	377	ug/kg	75.3	377	
91-57-6	2-Methylnaphthalene	U	37.7	ug/kg	7.53	37.7	
77-47-4	Hexachlorocyclopentadiene	U	377	ug/kg	75.3	377	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	377	ug/kg	75.3	377	UJ,SV7d
95-95-4	2,4,5-Trichlorophenol	U	377	ug/kg	75.3	377	
91-58-7	2-Chloronaphthalene	U	37.7	ug/kg	12.4	37.7	
88-74-4	2-Nitroaniline	U	377	ug/kg	75.3	377	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	377	ug/kg	75.3	377	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	Date Collected:	03/11/2010 12:00	Matrix:	S
Lab Sample ID:	249332003	Date Received:	03/13/2010 09:30	%Moisture:	11.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13220	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966766	Inst:	MSD1.I	Dilution:	1
Run Date:	03/30/2010 12:40	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	03/19/2010 11:31	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s1c3008.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	377	ug/kg	75.3	377	UJ,SV7d
606-20-2	2,6-Dinitrotoluene	U	377	ug/kg	37.7	377	
208-96-8	Acenaphthylene	U	37.7	ug/kg	11.3	37.7	
51-28-5	2,4-Dinitrophenol	U	753	ug/kg	143	753	
132-64-9	Dibenzofuran	U	377	ug/kg	75.3	377	
84-66-2	Diethylphthalate	U	377	ug/kg	75.3	377	
86-73-7	Fluorene	U	37.7	ug/kg	11.3	37.7	
7005-72-3	4-Chlorophenylphenylether	U	377	ug/kg	75.3	377	
534-52-1	2-Methyl-4,6-dinitrophenol	U	377	ug/kg	75.3	377	UJ,SV7c
100-01-6	4-Nitroaniline	U	377	ug/kg	113	377	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	377	ug/kg	75.3	377	UJ,SV7d
122-66-7	Azobenzene	U	377	ug/kg	75.3	377	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	377	ug/kg	75.3	377	
118-74-1	Hexachlorobenzene	U	377	ug/kg	75.3	377	
85-01-8	Phenanthrene	U	37.7	ug/kg	11.3	37.7	
120-12-7	Anthracene	U	37.7	ug/kg	7.53	37.7	
84-74-2	Di-n-butylphthalate	U	377	ug/kg	75.3	377	
206-44-0	Fluoranthene	U	37.7	ug/kg	11.3	37.7	
85-68-7	Butylbenzylphthalate	U	377	ug/kg	75.3	377	
56-55-3	Benzo(a)anthracene	U	37.7	ug/kg	11.3	37.7	
91-94-1	3,3'-Dichlorobenzidine	U	377	ug/kg	113	377	
218-01-9	Chrysene	U	37.7	ug/kg	11.3	37.7	
117-81-7	bis(2-Ethylhexyl)phthalate	U	377	ug/kg	75.3	377	
117-84-0	Di-n-octylphthalate	U	377	ug/kg	75.3	377	
205-99-2	Benzo(b)fluoranthene	U	37.7	ug/kg	11.3	37.7	
207-08-9	Benzo(k)fluoranthene	U	37.7	ug/kg	11.3	37.7	
50-32-8	Benzo(a)pyrene	U	37.7	ug/kg	11.3	37.7	
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.7	ug/kg	11.3	37.7	
53-70-3	Dibenzo(a,h)anthracene	U	37.7	ug/kg	11.3	37.7	
191-24-2	Benzo(ghi)perylene	U	37.7	ug/kg	11.3	37.7	
120-82-1	1,2,4-Trichlorobenzene	U	377	ug/kg	75.3	377	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	587	ug/kg		JA
57-10-3	n-Hexadecanoic acid	6.87	166	ug/kg	96	NJ

JCC
04/22/

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332003	**Date Received:**	03/13/2010 09:30	**%Moisture:**	11.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13220	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 12:40	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s1c3008.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	10.62	176	ug/kg		J
	Unknown	11.16	183	ug/kg		J
1058-61-3	Stigmast-4-en-3-one	11.86	159	ug/kg	97	NJ
559-74-0	Friedelan-3-one	12.8	801	ug/kg	99	NJ
	Unknown	12.94	172	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332002	**Date Received:**	03/13/2010 09:30	**%Moisture:**	4.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13221	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/29/2010 17:56	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s1c2915.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	349	ug/kg	69.8	349	
108-95-2	Phenol	U	349	ug/kg	69.8	349	
95-57-8	2-Chlorophenol	U	349	ug/kg	69.8	349	
106-46-7	1,4-Dichlorobenzene	U	349	ug/kg	69.8	349	
621-64-7	N-Nitrosodipropylamine	U	349	ug/kg	69.8	349	
59-50-7	4-Chloro-3-methylphenol	U	349	ug/kg	69.8	349	
83-32-9	Acenaphthene	U	34.9	ug/kg	11.5	34.9	
121-14-2	2,4-Dinitrotoluene	U	349	ug/kg	34.9	349	
100-02-7	4-Nitrophenol	U	349	ug/kg	115	349	
87-86-5	Pentachlorophenol	U	349	ug/kg	87.2	349	
129-00-0	Pyrene	U	34.9	ug/kg	10.5	34.9	
110-86-1	Pyridine	U	349	ug/kg	69.8	349	
62-53-3	Aniline	U	349	ug/kg	105	349	
111-44-4	bis(2-Chloroethyl) ether	U	349	ug/kg	69.8	349	
541-73-1	1,3-Dichlorobenzene	U	349	ug/kg	69.8	349	
100-51-6	Benzyl alcohol	U	349	ug/kg	105	349	
95-50-1	1,2-Dichlorobenzene	U	349	ug/kg	69.8	349	
108-60-1	bis(2-Chloroisopropyl)ether	U	349	ug/kg	69.8	349	
95-48-7	o-Cresol	U	349	ug/kg	69.8	349	
65794-96-9	m,p-Cresols	U	349	ug/kg	105	349	
67-72-1	Hexachloroethane	U	349	ug/kg	69.8	349	
98-95-3	Nitrobenzene	U	349	ug/kg	69.8	349	
78-59-1	Isophorone	U	349	ug/kg	69.8	349	
88-75-5	2-Nitrophenol	U	349	ug/kg	69.8	349	
105-67-9	2,4-Dimethylphenol	U	349	ug/kg	122	349	
111-91-1	bis(2-Chloroethoxy)methane	U	349	ug/kg	69.8	349	
120-83-2	2,4-Dichlorophenol	U	349	ug/kg	69.8	349	
65-85-0	Benzoic acid	U	698	ug/kg	174	698	UJ,SV7c
91-20-3	Naphthalene	U	34.9	ug/kg	10.5	34.9	
106-47-8	4-Chloroaniline	U	349	ug/kg	69.8	349	
87-68-3	Hexachlorobutadiene	U	349	ug/kg	69.8	349	
91-57-6	2-Methylnaphthalene	U	34.9	ug/kg	6.98	34.9	
77-47-4	Hexachlorocyclopentadiene	U	349	ug/kg	69.8	349	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	349	ug/kg	69.8	349	
95-95-4	2,4,5-Trichlorophenol	U	349	ug/kg	69.8	349	
91-58-7	2-Chloronaphthalene	U	34.9	ug/kg	11.5	34.9	
88-74-4	2-Nitroaniline	U	349	ug/kg	69.8	349	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	349	ug/kg	69.8	349	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332002	**Date Received:**	03/13/2010 09:30	**%Moisture:**	4.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13221	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/29/2010 17:56	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s1c2915.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	349	ug/kg	69.8	349	
606-20-2	2,6-Dinitrotoluene	U	349	ug/kg	34.9	349	
208-96-8	Acenaphthylene	U	34.9	ug/kg	10.5	34.9	
51-28-5	2,4-Dinitrophenol	U	698	ug/kg	133	698	
132-64-9	Dibenzofuran	U	349	ug/kg	69.8	349	
84-66-2	Diethylphthalate	U	349	ug/kg	69.8	349	
86-73-7	Fluorene	U	34.9	ug/kg	10.5	34.9	
7005-72-3	4-Chlorophenylphenylether	U	349	ug/kg	69.8	349	
534-52-1	2-Methyl-4,6-dinitrophenol	U	349	ug/kg	69.8	349	UJ,SV7c
100-01-6	4-Nitroaniline	U	349	ug/kg	105	349	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	349	ug/kg	69.8	349	
122-66-7	Azobenzene	U	349	ug/kg	69.8	349	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	349	ug/kg	69.8	349	
118-74-1	Hexachlorobenzene	U	349	ug/kg	69.8	349	
85-01-8	Phenanthrene	U	34.9	ug/kg	10.5	34.9	
120-12-7	Anthracene	U	34.9	ug/kg	6.98	34.9	
84-74-2	Di-n-butylphthalate	U	349	ug/kg	69.8	349	
206-44-0	Fluoranthene	U	34.9	ug/kg	10.5	34.9	
85-68-7	Butylbenzylphthalate	U	349	ug/kg	69.8	349	
56-55-3	Benzo(a)anthracene	U	34.9	ug/kg	10.5	34.9	
91-94-1	3,3'-Dichlorobenzidine	U	349	ug/kg	105	349	
218-01-9	Chrysene	U	34.9	ug/kg	10.5	34.9	
117-81-7	bis(2-Ethylhexyl)phthalate	U	349	ug/kg	69.8	349	
117-84-0	Di-n-octylphthalate	U	349	ug/kg	69.8	349	
205-99-2	Benzo(b)fluoranthene	U	34.9	ug/kg	10.5	34.9	
207-08-9	Benzo(k)fluoranthene	U	34.9	ug/kg	10.5	34.9	
50-32-8	Benzo(a)pyrene	U	34.9	ug/kg	10.5	34.9	
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.9	ug/kg	10.5	34.9	
53-70-3	Dibenzo(a,h)anthracene	U	34.9	ug/kg	10.5	34.9	
191-24-2	Benzo(ghi)perylene	U	34.9	ug/kg	10.5	34.9	
120-82-1	1,2,4-Trichlorobenzene	U	349	ug/kg	69.8	349	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	513	ug/kg		JA
	Unknown	8.04	284	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332002	**Date Received:**	03/13/2010 09:30	**%Moisture:**	4.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13221	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/29/2010 17:56	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s1c2915.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.57	470	ug/kg		J
	Unknown	11.09	211	ug/kg		J
	Unknown	11.36	227	ug/kg		J
	Unknown	11.91	146	ug/kg		J
559-74-0	Friedelan-3-one	12.87	1290	ug/kg	83	NJ
	Unknown	13	151	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332007	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13234	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 14:13	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s1c3012.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	379	ug/kg	75.9	379	UJ,SV7d
108-95-2	Phenol	U	379	ug/kg	75.9	379	
95-57-8	2-Chlorophenol	U	379	ug/kg	75.9	379	
106-46-7	1,4-Dichlorobenzene	U	379	ug/kg	75.9	379	
621-64-7	N-Nitrosodipropylamine	U	379	ug/kg	75.9	379	
59-50-7	4-Chloro-3-methylphenol	U	379	ug/kg	75.9	379	
83-32-9	Acenaphthene	U	37.9	ug/kg	12.5	37.9	
121-14-2	2,4-Dinitrotoluene	U	379	ug/kg	37.9	379	
100-02-7	4-Nitrophenol	U	379	ug/kg	125	379	
87-86-5	Pentachlorophenol	U	379	ug/kg	94.8	379	
129-00-0	Pyrene	U	37.9	ug/kg	11.4	37.9	
110-86-1	Pyridine	U	379	ug/kg	75.9	379	UJ,SV7c
62-53-3	Aniline	U	379	ug/kg	114	379	UJ,SV7d
111-44-4	bis(2-Chloroethyl) ether	U	379	ug/kg	75.9	379	
541-73-1	1,3-Dichlorobenzene	U	379	ug/kg	75.9	379	
100-51-6	Benzyl alcohol	U	379	ug/kg	114	379	
95-50-1	1,2-Dichlorobenzene	U	379	ug/kg	75.9	379	
108-60-1	bis(2-Chloroisopropyl)ether	U	379	ug/kg	75.9	379	
95-48-7	o-Cresol	U	379	ug/kg	75.9	379	
65794-96-9	m,p-Cresols	U	379	ug/kg	114	379	
67-72-1	Hexachloroethane	U	379	ug/kg	75.9	379	
98-95-3	Nitrobenzene	U	379	ug/kg	75.9	379	
78-59-1	Isophorone	U	379	ug/kg	75.9	379	
88-75-5	2-Nitrophenol	U	379	ug/kg	75.9	379	
105-67-9	2,4-Dimethylphenol	U	379	ug/kg	133	379	
111-91-1	bis(2-Chloroethoxy)methane	U	379	ug/kg	75.9	379	
120-83-2	2,4-Dichlorophenol	U	379	ug/kg	75.9	379	
65-85-0	Benzoic acid	U	759	ug/kg	190	759	UJ,SV7c
91-20-3	Naphthalene	U	37.9	ug/kg	11.4	37.9	UJ,SV7d
106-47-8	4-Chloroaniline	U	379	ug/kg	75.9	379	
87-68-3	Hexachlorobutadiene	U	379	ug/kg	75.9	379	
91-57-6	2-Methylnaphthalene	U	37.9	ug/kg	7.59	37.9	
77-47-4	Hexachlorocyclopentadiene	U	379	ug/kg	75.9	379	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	379	ug/kg	75.9	379	UJ,SV7d
95-95-4	2,4,5-Trichlorophenol	U	379	ug/kg	75.9	379	
91-58-7	2-Chloronaphthalene	U	37.9	ug/kg	12.5	37.9	
88-74-4	2-Nitroaniline	U	379	ug/kg	75.9	379	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	379	ug/kg	75.9	379	

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Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332007	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13234	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 14:13	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s1c3012.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	379	ug/kg	75.9	379	UJ,SV7d
606-20-2	2,6-Dinitrotoluene	U	379	ug/kg	37.9	379	
208-96-8	Acenaphthylene	U	37.9	ug/kg	11.4	37.9	
51-28-5	2,4-Dinitrophenol	U	759	ug/kg	144	759	
132-64-9	Dibenzofuran	U	379	ug/kg	75.9	379	
84-66-2	Diethylphthalate	U	379	ug/kg	75.9	379	
86-73-7	Fluorene	U	37.9	ug/kg	11.4	37.9	
7005-72-3	4-Chlorophenylphenylether	U	379	ug/kg	75.9	379	
534-52-1	2-Methyl-4,6-dinitrophenol	U	379	ug/kg	75.9	379	UJ,SV7c
100-01-6	4-Nitroaniline	U	379	ug/kg	114	379	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	379	ug/kg	75.9	379	UJ,SV7d
122-66-7	Azobenzene	U	379	ug/kg	75.9	379	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	379	ug/kg	75.9	379	
118-74-1	Hexachlorobenzene	U	379	ug/kg	75.9	379	
85-01-8	Phenanthrene	U	37.9	ug/kg	11.4	37.9	
120-12-7	Anthracene	U	37.9	ug/kg	7.59	37.9	
84-74-2	Di-n-butylphthalate	U	379	ug/kg	75.9	379	
206-44-0	Fluoranthene	U	37.9	ug/kg	11.4	37.9	
85-68-7	Butylbenzylphthalate	U	379	ug/kg	75.9	379	
56-55-3	Benzo(a)anthracene	U	37.9	ug/kg	11.4	37.9	
91-94-1	3,3'-Dichlorobenzidine	U	379	ug/kg	114	379	
218-01-9	Chrysene	U	37.9	ug/kg	11.4	37.9	
117-81-7	bis(2-Ethylhexyl)phthalate	U	379	ug/kg	75.9	379	
117-84-0	Di-n-octylphthalate	U	379	ug/kg	75.9	379	
205-99-2	Benzo(b)fluoranthene	U	37.9	ug/kg	11.4	37.9	
207-08-9	Benzo(k)fluoranthene	U	37.9	ug/kg	11.4	37.9	
50-32-8	Benzo(a)pyrene	U	37.9	ug/kg	11.4	37.9	
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.9	ug/kg	11.4	37.9	
53-70-3	Dibenzo(a,h)anthracene	U	37.9	ug/kg	11.4	37.9	
191-24-2	Benzo(ghi)perylene	U	37.9	ug/kg	11.4	37.9	
120-82-1	1,2,4-Trichlorobenzene	U	379	ug/kg	75.9	379	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	2.56	516	ug/kg		JA
	Unknown	8.49	331	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332007	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13234	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 14:13	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s1c3012.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	10.61	249	ug/kg		J
	Unknown	11.05	566	ug/kg		J
83-46-5	.beta.-Sitosterol	11.15	183	ug/kg	96	NJ
	Unknown	11.31	153	ug/kg		J
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	11.48	174	ug/kg	90	NJ
1058-61-3	Stigmast-4-en-3-one	11.86	248	ug/kg	95	NJ
300574-36-1	5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	12.8	758	ug/kg	90	NJ
	Unknown	12.94	681	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332009	**Date Received:**	03/13/2010 09:30	**%Moisture:**	30
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-14199	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 14:36	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s1c3013.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	475	ug/kg	95.0	475	UJ,SV7d
108-95-2	Phenol	U	475	ug/kg	95.0	475	
95-57-8	2-Chlorophenol	U	475	ug/kg	95.0	475	
106-46-7	1,4-Dichlorobenzene	U	475	ug/kg	95.0	475	
621-64-7	N-Nitrosodipropylamine	U	475	ug/kg	95.0	475	
59-50-7	4-Chloro-3-methylphenol	U	475	ug/kg	95.0	475	
83-32-9	Acenaphthene	U	47.5	ug/kg	15.7	47.5	
121-14-2	2,4-Dinitrotoluene	U	475	ug/kg	47.5	475	
100-02-7	4-Nitrophenol	U	475	ug/kg	157	475	
87-86-5	Pentachlorophenol	U	475	ug/kg	119	475	
129-00-0	Pyrene	U	47.5	ug/kg	14.2	47.5	
110-86-1	Pyridine	U	475	ug/kg	95.0	47:	UJ,SV7c
62-53-3	Aniline	U	475	ug/kg	142	47:	UJ,SV7d
111-44-4	bis(2-Chloroethyl) ether	U	475	ug/kg	95.0	475	
541-73-1	1,3-Dichlorobenzene	U	475	ug/kg	95.0	475	
100-51-6	Benzyl alcohol	U	475	ug/kg	142	475	
95-50-1	1,2-Dichlorobenzene	U	475	ug/kg	95.0	475	
108-60-1	bis(2-Chloroisopropyl)ether	U	475	ug/kg	95.0	475	
95-48-7	o-Cresol	U	475	ug/kg	95.0	475	
65794-96-9	m,p-Cresols	U	475	ug/kg	142	475	
67-72-1	Hexachloroethane	U	475	ug/kg	95.0	475	
98-95-3	Nitrobenzene	U	475	ug/kg	95.0	475	
78-59-1	Isophorone	U	475	ug/kg	95.0	475	
88-75-5	2-Nitrophenol	U	475	ug/kg	95.0	475	
105-67-9	2,4-Dimethylphenol	U	475	ug/kg	166	475	
111-91-1	bis(2-Chloroethoxy)methane	U	475	ug/kg	95.0	475	
120-83-2	2,4-Dichlorophenol	U	475	ug/kg	95.0	475	
65-85-0	Benzoic acid	U	950	ug/kg	237	95(	UJ,SV7c
91-20-3	Naphthalene	U	47.5	ug/kg	14.2	47.5	UJ,SV7d
106-47-8	4-Chloroaniline	U	475	ug/kg	95.0	475	
87-68-3	Hexachlorobutadiene	U	475	ug/kg	95.0	475	
91-57-6	2-Methylnaphthalene	U	47.5	ug/kg	9.50	47.5	
77-47-4	Hexachlorocyclopentadiene	U	475	ug/kg	95.0	475	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	475	ug/kg	95.0	475	UJ,SV7d
95-95-4	2,4,5-Trichlorophenol	U	475	ug/kg	95.0	475	
91-58-7	2-Chloronaphthalene	U	47.5	ug/kg	15.7	47.5	
88-74-4	2-Nitroaniline	U	475	ug/kg	95.0	475	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	475	ug/kg	95.0	475	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332009	**Date Received:**	03/13/2010 09:30	**%Moisture:**	30
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-14199	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 14:36	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s1c3013.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	475	ug/kg	95.0	475	UJ,SV7d
606-20-2	2,6-Dinitrotoluene	U	475	ug/kg	47.5	475	
208-96-8	Acenaphthylene	U	47.5	ug/kg	14.2	47.5	
51-28-5	2,4-Dinitrophenol	U	950	ug/kg	180	950	
132-64-9	Dibenzofuran	U	475	ug/kg	95.0	475	
84-66-2	Diethylphthalate	U	475	ug/kg	95.0	475	
86-73-7	Fluorene	U	47.5	ug/kg	14.2	47.5	
7005-72-3	4-Chlorophenylphenylether	U	475	ug/kg	95.0	475	
534-52-1	2-Methyl-4,6-dinitrophenol	U	475	ug/kg	95.0	475	UJ,SV7c
100-01-6	4-Nitroaniline	U	475	ug/kg	142	475	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	475	ug/kg	95.0	475	UJ,SV7d
122-66-7	Azobenzene	U	475	ug/kg	95.0	475	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	475	ug/kg	95.0	475	
118-74-1	Hexachlorobenzene	U	475	ug/kg	95.0	475	
85-01-8	Phenanthrene	U	47.5	ug/kg	14.2	47.5	
120-12-7	Anthracene	U	47.5	ug/kg	9.50	47.5	
84-74-2	Di-n-butylphthalate	U	475	ug/kg	95.0	475	
206-44-0	Fluoranthene	U	47.5	ug/kg	14.2	47.5	
85-68-7	Butylbenzylphthalate	U	475	ug/kg	95.0	475	
56-55-3	Benzo(a)anthracene	U	47.5	ug/kg	14.2	47.5	
91-94-1	3,3'-Dichlorobenzidine	U	475	ug/kg	142	475	
218-01-9	Chrysene	U	47.5	ug/kg	14.2	47.5	
117-81-7	bis(2-Ethylhexyl)phthalate	U	475	ug/kg	95.0	475	
117-84-0	Di-n-octylphthalate	U	475	ug/kg	95.0	475	
205-99-2	Benzo(b)fluoranthene	U	47.5	ug/kg	14.2	47.5	
207-08-9	Benzo(k)fluoranthene	U	47.5	ug/kg	14.2	47.5	
50-32-8	Benzo(a)pyrene	U	47.5	ug/kg	14.2	47.5	
193-39-5	Indeno(1,2,3-cd)pyrene	U	47.5	ug/kg	14.2	47.5	
53-70-3	Dibenzo(a,h)anthracene	U	47.5	ug/kg	14.2	47.5	
191-24-2	Benzo(ghi)perylene	U	47.5	ug/kg	14.2	47.5	
120-82-1	1,2,4-Trichlorobenzene	U	475	ug/kg	95.0	475	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	504	ug/kg		JA
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.3	214	ug/kg	99	NJ

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04/22/

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332009	**Date Received:**	03/13/2010 09:30	**%Moisture:**	30
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-14199	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 14:36	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s1c3013.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.48	318	ug/kg		J
559-74-0	Friedelan-3-one	12.79	882	ug/kg	95	NJ

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DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2433 VALIDATION DATE: 04/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Joanne Compton ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the matrix QC were performed on samples from another LANL RN and the parent sample raw data were not included in the data package. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 4/23/10

VALIDATOR'S SIGNATURE: Joanne Compton DATE: 04/22/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

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Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**19**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13216**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**968275**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 12:22**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 19:55**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**037f3701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	037b3701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.10	ug/kg	1.37	4.10	1
11104-28-2	Aroclor-1221	U	4.10	ug/kg	1.37	4.10	1
11141-16-5	Aroclor-1232	U	4.10	ug/kg	1.37	4.10	1
53469-21-9	Aroclor-1242	U	4.10	ug/kg	1.37	4.10	1
12672-29-6	Aroclor-1248	U	4.10	ug/kg	1.37	4.10	1
11097-69-1	Aroclor-1254		29.1	ug/kg	1.37	4.10	1
11096-82-5	Aroclor-1260		17.7	ug/kg	1.37	4.10	1

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PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**13.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13217**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968275**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 12:34**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 19:55**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**038f3801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	038b3801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.85	ug/kg	1.28	3.85	1
11104–28–2	Aroclor–1221	U	3.85	ug/kg	1.28	3.85	1
11141–16–5	Aroclor–1232	U	3.85	ug/kg	1.28	3.85	1
53469–21–9	Aroclor–1242	U	3.85	ug/kg	1.28	3.85	1
12672–29–6	Aroclor–1248	U	3.85	ug/kg	1.28	3.85	1
11097–69–1	Aroclor–1254	U	3.85	ug/kg	1.28	3.85	1
11096–82–5	Aroclor–1260	U	3.85	ug/kg	1.28	3.85	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332006	**Date Received:**	03/13/2010 09:30	**%Moisture:**	28.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13218	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	968275	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/24/2010 12:47	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/23/2010 19:55	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	039f3901.d	**Column:**	1 CLP1	**Level:**	LOW
	039b3901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.64	ug/kg	1.55	4.64	1
11104–28–2	Aroclor–1221	U	4.64	ug/kg	1.55	4.64	1
11141–16–5	Aroclor–1232	U	4.64	ug/kg	1.55	4.64	1
53469–21–9	Aroclor–1242		54.2	ug/kg	1.55	4.64	2
12672–29–6	Aroclor–1248	U	4.64	ug/kg	1.55	4.64	1
11097–69–1	Aroclor–1254		55.9	ug/kg	1.55	4.64	1
11096–82–5	Aroclor–1260		21.6	ug/kg	1.55	4.64	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332001	**Date Received:**	03/13/2010 09:30	**%Moisture:**	7.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13219	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	968275	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/24/2010 11:44	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/23/2010 19:55	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	034f3401.d	**Column:**	1 CLP1	**Level:**	LOW
	034b3401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.61	ug/kg	1.20	3.61	1
11104-28-2	Aroclor-1221	U	3.61	ug/kg	1.20	3.61	1
11141-16-5	Aroclor-1232	U	3.61	ug/kg	1.20	3.61	1
53469-21-9	Aroclor-1242	U	3.61	ug/kg	1.20	3.61	1
12672-29-6	Aroclor-1248	U	3.61	ug/kg	1.20	3.61	1
11097-69-1	Aroclor-1254	U	3.61	ug/kg	1.20	3.61	1
11096-82-5	Aroclor-1260	U	3.61	ug/kg	1.20	3.61	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332003	**Date Received:**	03/13/2010 09:30	**%Moisture:**	11.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13220	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	968275	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/24/2010 12:09	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/23/2010 19:55	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	036f3601.d	**Column:**	1 CLP1	**Level:**	LOW
	036b3601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.76	ug/kg	1.25	3.76	1
11104–28–2	Aroclor–1221	U	3.76	ug/kg	1.25	3.76	1
11141–16–5	Aroclor–1232	U	3.76	ug/kg	1.25	3.76	1
53469–21–9	Aroclor–1242	U	3.76	ug/kg	1.25	3.76	1
12672–29–6	Aroclor–1248	U	3.76	ug/kg	1.25	3.76	1
11097–69–1	Aroclor–1254		13.7	ug/kg	1.25	3.76	1
11096–82–5	Aroclor–1260	P	7.00	ug/kg	1.25	3.76	1

JCC
04/22/1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**4.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13221**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**968275**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 11:56**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 19:55**	**Aliquot:**	**30.16 g**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	035b3501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.47	ug/kg	1.16	3.47	1
11104-28-2	Aroclor-1221	U	3.47	ug/kg	1.16	3.47	1
11141-16-5	Aroclor-1232	U	3.47	ug/kg	1.16	3.47	1
53469-21-9	Aroclor-1242	U	3.47	ug/kg	1.16	3.47	1
12672-29-6	Aroclor-1248	U	3.47	ug/kg	1.16	3.47	1
11097-69-1	Aroclor-1254	U	3.47	ug/kg	1.16	3.47	1
11096-82-5	Aroclor-1260	U	3.47	ug/kg	1.16	3.47	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13234**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968275**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 12:59**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 19:55**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**040f4001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	040b4001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.80	ug/kg	1.26	3.80	1
11104–28–2	Aroclor–1221	U	3.80	ug/kg	1.26	3.80	1
11141–16–5	Aroclor–1232	U	3.80	ug/kg	1.26	3.80	1
53469–21–9	Aroclor–1242	U	3.80	ug/kg	1.26	3.80	1
12672–29–6	Aroclor–1248	U	3.80	ug/kg	1.26	3.80	1
11097–69–1	Aroclor–1254		13.9	ug/kg	1.26	3.80	1
11096–82–5	Aroclor–1260	P	7.50	ug/kg	1.26	3.80	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332009	**Date Received:**	03/13/2010 09:30	**%Moisture:**	30
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–14199	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	968275	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/24/2010 13:12	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/23/2010 19:55	**Aliquot:**	30.15 g	**Final Volume:**	1 mL
Data File:	041f4101.d	**Column:**	1 CLP1	**Level:**	LOW
	041b4101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.74	ug/kg	1.58	4.74	1
11104–28–2	Aroclor–1221	U	4.74	ug/kg	1.58	4.74	1
11141–16–5	Aroclor–1232	U	4.74	ug/kg	1.58	4.74	1
53469–21–9	Aroclor–1242	U	4.74	ug/kg	1.58	4.74	1
12672–29–6	Aroclor–1248	U	4.74	ug/kg	1.58	4.74	1
11097–69–1	Aroclor–1254	J	4.50	ug/kg	1.58	4.74	1
11096–82–5	Aroclor–1260	J	2.90	ug/kg	1.58	4.74	1

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2433C

REQUEST NUMBER: 10-2433

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

249332 °/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13219	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13219	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13221	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13221	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13220	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13220	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13216	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13216	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13217	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13217	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13218	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13218	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13234	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13234	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13237	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13237	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-14199	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-14199	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-14200	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-14200	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	3/12/10	3:00	Patricia Dover-Dent / P. N. Dent	3/13/10	09:30
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: Date Time **Remarks:**

Printed Name Signature

Hard Copy Required

Friday, March 12, 2010

REQUEST NUMBER: 10-2433

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-2433
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	SW-846:8260B	1	RE46-10-13216	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2433

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-13237	S	3/11/2010	
		2	RE46-10-13237	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
		1	RE46-10-14200	S	3/11/2010	
		2	RE46-10-14200	S	3/11/2010	
	SW-846:8270C	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2433

GEL Laboratories

a member of The GEL Group

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

March 18, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 249332
SDG: 10-2433

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 13, 2010, and analyzed for GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2433
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 249332
SDG: 10-2433

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 249332
SDG # : 10-2433

March 18, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 13, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. Please see attached e-mail for discrepancies. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
249332001	RE46-10-13219
249332002	RE46-10-13221
249332003	RE46-10-13220
249332004	RE46-10-13216
249332005	RE46-10-13217
249332006	RE46-10-13218
249332007	RE46-10-13234
249332008	RE46-10-13237
249332009	RE46-10-14199
249332010	RE46-10-14200

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 18 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2433C

REQUEST NUMBER: 10-2433

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

249332°/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13219	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13219	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13221	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13221	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13220	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13220	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13216	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13216	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13217	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13217	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13218	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13218	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13234	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13234	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13237	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13237	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-14199	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-14199	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-14200	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-14200	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	3/12/10	3:00	Patricia Dover-Dent / P. Dover-Dent	3/13/10	09:30
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Friday, March 12, 2010

REQUEST NUMBER: 10-2433

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-2433
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	SW-846:8260B	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	

Hard Copy Required

Friday, March 12, 2010

REQUEST NUMBER: 10-2433

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-13237	S	3/11/2010	
		2	RE46-10-13237	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
		1	RE46-10-14200	S	3/11/2010	
		2	RE46-10-14200	S	3/11/2010	
	SW-846:8270C	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2433

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2433**
Received By: Patricia Dover-Dent	**Date Received: March 13, 2010**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe **2,3,6** **12,13**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?			X	Sample ID's affected:**RE46-10-14200,13237 for 8260B the chain of custody states (2)-40ml vial, the lab only rec'd (1) each.**
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S
7209 7850 4789 2C
7209 7850 4756 2C
7209 7850 4804 2C
7209 7850 4790 3C
7209 7850 4767 6C
7209 7850 4815 12C
7209 7850 4778 13C

PM (or PMA) review: Initials [illegible] Date 3/16/10

Subject: Sample Receipt for 3/13/10
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Tue, 16 Mar 2010 09:14:44 -0400
To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Keith,

RN 10-2428: the lab rec'd (1) 40ml vial 8260B container for sample WST50-10-13851 instead of (2) as indicated on the COC. Also, all the organic containers and Gross A/B for samples WST50-10-13849 and 13850 were rec'd at a pH of 10. I'm assuming it's the matrix, would you like us to proceed with the analysis?

RN 10-2429: the CN and GENINORG for sample WST50-10-13848 and the TSS, CN and CLO4 for sample WST50-10-13849 were rec'd at a pH of 10. Would you us to proceed with the analysis.?

RN 10-2436: the lab rec'd (1) 40ml vial 8260B container for sample RE46-10-13000 instead of (2) as indicated on the COC.

RN 10-2433: the lab rec'd (1) 40ml vial 8260B container for sample RE46-10-14200 and 13237 instead of (2) as indicated on the COC.

Thanks,
Dionne

--
Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

N ID: SAFA (505) 665-9068
NE VALDEZ
LAMOS NATL LAB.
BLDG 1237 DPU 03

LAMOS, NM 87545
D STATES US

SHIP DATE: 12MAR10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
) 556-0171
F: MR2A0515BY00

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FedEx Express

1 of 3

SATURDAY ### A1
PRIORITY OVERNIGHT

C# 7209 7850 4789
MASTER ###

X0 CHSA

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SC-US
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ORIGIN ID: SAFA (505) 665-9068
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-0171
REF: MR2A0515BY00

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1 of 3

SATURDAY ### A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7850 4756
MASTER

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156148-434 NRT V3 04-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 51.0 LB MAN
CAD: 00141767/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-0171
REF: MR2A0515BY00

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SATURDAY ### A1
PRIORITY OVERNIGHT

S# 03 7209 7850 4804
Trk# 7209 7850 4789 0201

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29407
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ORIGIN ID: SAFA (505) 665-9068
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-0171
REF: MR2A0515BY00

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SATURDAY ### A1
PRIORITY OVERNIGHT

MPS# 0263 7209 7850 4790
Mstr# 7209 7850 4789 0201

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ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

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MPS# 0263 7209 7850 4767
MstrN 7209 7850 4756 0201

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Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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REF: MR2A0515BY00

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TRK# 0201 7209 7850 4815
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SATURDAY ### A1
PRIORITY OVERNIGHT

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Part # 156148-434 NRIT V3 04-09

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT:
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

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3 of 3
MPS# 0263 7209 7850 4778
MstrN 7209 7850 4756 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

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CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2433

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	968355
Prep Batch Number:	968354

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
249332001	RE46-10-13219
249332002	RE46-10-13221
249332003	RE46-10-13220
249332004	RE46-10-13216
249332005	RE46-10-13217
249332006	RE46-10-13218
249332007	RE46-10-13234
249332008	RE46-10-13237
249332009	RE46-10-14199
249332010	RE46-10-14200
1202078840	Method Blank (MB)
1202078843	Laboratory Control Sample (LCS)
1202078844	Laboratory Control Sample (LCS)
1202088227	Method Blank (MB)
1202088228	Laboratory Control Sample (LCS)
1202088229	Laboratory Control Sample (LCS)
1202078841	249332001(RE46-10-13219) Post Spike (PS)
1202078842	249332001(RE46-10-13219) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
Samples 249332 001, 002, 003, 004, 005, 006, 007 and 009 in this SDG were analyzed on an "dry weight" basis. Samples 249332 008 and 010 in this SDG were analyzed on a "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories

LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration

All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

QC Sample Designation

Sample 249332001 (RE46-10-13219) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement

The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement

The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement

The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance

The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
The samples in this SDG were re-analyzed due to unacceptable recoveries in the initial analysis: 1202078841 (RE46-10-13219), 1202078842 (RE46-10-13219) and 249332002 (RE46-10-13221).

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
A Data Exception Document was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this sample delivery group/work order. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration

The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA6.I	Gas Chromatograph/Mass Spectrometer	HP6890N/HP5975	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2433 GEL Work Order: 249332

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

DL Indicates that sample is diluted.
RA Indicates that sample is re-analyzed without re-extraction.
RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 08 APR 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332001**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13219**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 23:40**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D231.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.369	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.326	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.326	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.326	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.326	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.326	1.09
67-64-1	Acetone	U	5.43	ug/kg	1.80	5.43
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
74-88-4	Iodomethane	U	5.43	ug/kg	1.74	5.43
75-09-2	Methylene chloride	U	5.43	ug/kg	2.17	5.43
75-15-0	Carbon disulfide	U	5.43	ug/kg	1.36	5.43
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.326	1.09
78-93-3	2-Butanone	U	5.43	ug/kg	1.63	5.43
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.326	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.358	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.326	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.326	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.326	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.326	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.326	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.358	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.326	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.326	1.09
108-10-1	4-Methyl-2-pentanone	U	5.43	ug/kg	1.36	5.43
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.326	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.326	1.09
591-78-6	2-Hexanone	U	5.43	ug/kg	1.63	5.43
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.326	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.326	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.326	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.326	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.326	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332001**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13219**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 23:40**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D231.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.326	1.09
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.326	2.17
95-47-6	o-Xylene	U	1.09	ug/kg	0.326	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.326	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.326	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.326	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.326	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.326	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.326	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.326	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.326	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.326	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.326	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.326	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.43	ug/kg	1.74	5.43
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**4.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13221**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 12:47**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 11:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032410V6\6D308.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.356	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.314	1.05
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.314	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.314	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.314	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.314	1.05
67-64-1	Acetone	U	5.23	ug/kg	1.74	5.23
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.314	1.05
74-88-4	Iodomethane	U	5.23	ug/kg	1.68	5.23
75-09-2	Methylene chloride	J	2.26	ug/kg	2.09	5.23
75-15-0	Carbon disulfide	U	5.23	ug/kg	1.31	5.23
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.314	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.314	1.05
78-93-3	2-Butanone	U	5.23	ug/kg	1.57	5.23
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.314	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.314	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.314	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.345	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.314	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.314	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.314	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.314	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.314	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.345	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.314	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.314	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.314	1.05
108-10-1	4-Methyl-2-pentanone	U	5.23	ug/kg	1.31	5.23
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.314	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.314	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.314	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.314	1.05
591-78-6	2-Hexanone	U	5.23	ug/kg	1.57	5.23
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.314	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.314	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.314	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.314	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.314	1.05

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**4.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13221**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 12:47**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 11:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032410V6\6D308.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.314	1.05
179601-23-1	m,p-Xylenes	U	2.09	ug/kg	0.314	2.09
95-47-6	o-Xylene	U	1.05	ug/kg	0.314	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.314	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.314	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.314	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.314	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.314	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.314	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.314	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.314	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.314	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.314	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.314	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.314	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.314	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.314	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.314	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.314	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.314	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.314	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.23	ug/kg	1.68	5.23
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.314	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.314	1.05

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13220**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 00:36**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D233.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.384	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.339	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.339	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.339	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.339	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.339	1.13
67-64-1	Acetone	U	5.65	ug/kg	1.88	5.65
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
74-88-4	Iodomethane	U	5.65	ug/kg	1.81	5.65
75-09-2	Methylene chloride	J	2.97	ug/kg	2.26	5.65
75-15-0	Carbon disulfide	U	5.65	ug/kg	1.41	5.65
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.339	1.13
78-93-3	2-Butanone	U	5.65	ug/kg	1.70	5.65
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.339	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.373	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.339	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.339	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.339	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.339	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.339	1.13
79-01-6	Trichloroethylene	J	0.396	ug/kg	0.373	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.339	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.339	1.13
108-10-1	4-Methyl-2-pentanone	U	5.65	ug/kg	1.41	5.65
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.339	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.339	1.13
591-78-6	2-Hexanone	U	5.65	ug/kg	1.70	5.65
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.339	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.339	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.339	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.339	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.339	1.13

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13220**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 00:36**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D233.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.339	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.339	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.339	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.339	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.339	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.339	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.339	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.339	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.339	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.339	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.339	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.339	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.339	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.339	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.65	ug/kg	1.81	5.65
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**19**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13216**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 01:03**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:14**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D234.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.23	ug/kg	0.420	1.23
74-87-3	Chloromethane	U	1.23	ug/kg	0.370	1.23
75-01-4	Vinyl chloride	U	1.23	ug/kg	0.370	1.23
74-83-9	Bromomethane	U	1.23	ug/kg	0.370	1.23
75-00-3	Chloroethane	U	1.23	ug/kg	0.370	1.23
75-69-4	Trichlorofluoromethane	U	1.23	ug/kg	0.370	1.23
67-64-1	Acetone	U	6.17	ug/kg	2.05	6.17
75-35-4	1,1-Dichloroethylene	U	1.23	ug/kg	0.370	1.23
74-88-4	Iodomethane	U	6.17	ug/kg	1.98	6.17
75-09-2	Methylene chloride	J	2.91	ug/kg	2.47	6.17
75-15-0	Carbon disulfide	U	6.17	ug/kg	1.54	6.17
156-60-5	trans-1,2-Dichloroethylene	U	1.23	ug/kg	0.370	1.23
75-34-3	1,1-Dichloroethane	U	1.23	ug/kg	0.370	1.23
78-93-3	2-Butanone	U	6.17	ug/kg	1.85	6.17
156-59-2	cis-1,2-Dichloroethylene	U	1.23	ug/kg	0.370	1.23
594-20-7	2,2-Dichloropropane	U	1.23	ug/kg	0.370	1.23
67-66-3	Chloroform	U	1.23	ug/kg	0.370	1.23
74-97-5	Bromochloromethane	U	1.23	ug/kg	0.407	1.23
71-55-6	1,1,1-Trichloroethane	U	1.23	ug/kg	0.370	1.23
563-58-6	1,1-Dichloropropene	U	1.23	ug/kg	0.370	1.23
56-23-5	Carbon tetrachloride	U	1.23	ug/kg	0.370	1.23
107-06-2	1,2-Dichloroethane	U	1.23	ug/kg	0.370	1.23
71-43-2	Benzene	U	1.23	ug/kg	0.370	1.23
79-01-6	Trichloroethylene	U	1.23	ug/kg	0.407	1.23
78-87-5	1,2-Dichloropropane	U	1.23	ug/kg	0.370	1.23
75-27-4	Bromodichloromethane	U	1.23	ug/kg	0.370	1.23
74-95-3	Dibromomethane	U	1.23	ug/kg	0.370	1.23
108-10-1	4-Methyl-2-pentanone	U	6.17	ug/kg	1.54	6.17
10061-01-5	cis-1,3-Dichloropropylene	U	1.23	ug/kg	0.370	1.23
108-88-3	Toluene	U	1.23	ug/kg	0.370	1.23
10061-02-6	trans-1,3-Dichloropropylene	U	1.23	ug/kg	0.370	1.23
79-00-5	1,1,2-Trichloroethane	U	1.23	ug/kg	0.370	1.23
591-78-6	2-Hexanone	U	6.17	ug/kg	1.85	6.17
142-28-9	1,3-Dichloropropane	U	1.23	ug/kg	0.370	1.23
127-18-4	Tetrachloroethylene	U	1.23	ug/kg	0.370	1.23
124-48-1	Dibromochloromethane	U	1.23	ug/kg	0.370	1.23
106-93-4	1,2-Dibromoethane	U	1.23	ug/kg	0.370	1.23
108-90-7	Chlorobenzene	U	1.23	ug/kg	0.370	1.23

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**19**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13216**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 01:03**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:14**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D234.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.23	ug/kg	0.370	1.23
179601-23-1	m,p-Xylenes	U	2.47	ug/kg	0.370	2.47
95-47-6	o-Xylene	U	1.23	ug/kg	0.370	1.23
100-42-5	Styrene	U	1.23	ug/kg	0.370	1.23
75-25-2	Bromoform	U	1.23	ug/kg	0.370	1.23
79-34-5	1,1,2,2-Tetrachloroethane	U	1.23	ug/kg	0.370	1.23
96-18-4	1,2,3-Trichloropropane	U	1.23	ug/kg	0.370	1.23
108-86-1	Bromobenzene	U	1.23	ug/kg	0.370	1.23
103-65-1	n-Propylbenzene	U	1.23	ug/kg	0.370	1.23
95-49-8	2-Chlorotoluene	U	1.23	ug/kg	0.370	1.23
98-82-8	Isopropylbenzene	U	1.23	ug/kg	0.370	1.23
108-67-8	1,3,5-Trimethylbenzene	U	1.23	ug/kg	0.370	1.23
106-43-4	4-Chlorotoluene	U	1.23	ug/kg	0.370	1.23
98-06-6	tert-Butylbenzene	U	1.23	ug/kg	0.370	1.23
95-63-6	1,2,4-Trimethylbenzene	U	1.23	ug/kg	0.370	1.23
135-98-8	sec-Butylbenzene	U	1.23	ug/kg	0.370	1.23
99-87-6	4-Isopropyltoluene	U	1.23	ug/kg	0.370	1.23
541-73-1	1,3-Dichlorobenzene	U	1.23	ug/kg	0.370	1.23
106-46-7	1,4-Dichlorobenzene	U	1.23	ug/kg	0.370	1.23
104-51-8	n-Butylbenzene	U	1.23	ug/kg	0.370	1.23
96-12-8	1,2-Dibromo-3-chloropropane	U	1.23	ug/kg	0.370	1.23
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.17	ug/kg	1.98	6.17
630-20-6	1,1,1,2-Tetrachloroethane	U	1.23	ug/kg	0.370	1.23
95-50-1	1,2-Dichlorobenzene	U	1.23	ug/kg	0.370	1.23

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**13.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13217**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 01:31**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D235.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.394	1.16
74-87-3	Chloromethane	U	1.16	ug/kg	0.348	1.16
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.348	1.16
74-83-9	Bromomethane	U	1.16	ug/kg	0.348	1.16
75-00-3	Chloroethane	U	1.16	ug/kg	0.348	1.16
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.348	1.16
67-64-1	Acetone	U	5.79	ug/kg	1.92	5.79
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.348	1.16
74-88-4	Iodomethane	U	5.79	ug/kg	1.85	5.79
75-09-2	Methylene chloride	U	5.79	ug/kg	2.32	5.79
75-15-0	Carbon disulfide	U	5.79	ug/kg	1.45	5.79
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.348	1.16
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.348	1.16
78-93-3	2-Butanone	U	5.79	ug/kg	1.74	5.79
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.348	1.16
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.348	1.16
67-66-3	Chloroform	U	1.16	ug/kg	0.348	1.16
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.382	1.16
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.348	1.16
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.348	1.16
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.348	1.16
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.348	1.16
71-43-2	Benzene	U	1.16	ug/kg	0.348	1.16
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.382	1.16
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.348	1.16
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.348	1.16
74-95-3	Dibromomethane	U	1.16	ug/kg	0.348	1.16
108-10-1	4-Methyl-2-pentanone	U	5.79	ug/kg	1.45	5.79
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.348	1.16
108-88-3	Toluene	U	1.16	ug/kg	0.348	1.16
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.348	1.16
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.348	1.16
591-78-6	2-Hexanone	U	5.79	ug/kg	1.74	5.79
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.348	1.16
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.348	1.16
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.348	1.16
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.348	1.16
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.348	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**13.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13217**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 01:31**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D235.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.348	1.16
179601-23-1	m,p-Xylenes	U	2.32	ug/kg	0.348	2.32
95-47-6	o-Xylene	U	1.16	ug/kg	0.348	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.348	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.348	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.348	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.348	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.348	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.348	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.348	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.348	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.348	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.348	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.348	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.348	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.348	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.348	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.348	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.348	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.348	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.348	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.79	ug/kg	1.85	5.79
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.348	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.348	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**28.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13218**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 01:59**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:18**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D236.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.39	ug/kg	0.474	1.39
74-87-3	Chloromethane	U	1.39	ug/kg	0.418	1.39
75-01-4	Vinyl chloride	U	1.39	ug/kg	0.418	1.39
74-83-9	Bromomethane	U	1.39	ug/kg	0.418	1.39
75-00-3	Chloroethane	U	1.39	ug/kg	0.418	1.39
75-69-4	Trichlorofluoromethane	U	1.39	ug/kg	0.418	1.39
67-64-1	Acetone	U	6.96	ug/kg	2.31	6.96
75-35-4	1,1-Dichloroethylene	U	1.39	ug/kg	0.418	1.39
74-88-4	Iodomethane	U	6.96	ug/kg	2.23	6.96
75-09-2	Methylene chloride	U	6.96	ug/kg	2.79	6.96
75-15-0	Carbon disulfide	U	6.96	ug/kg	1.74	6.96
156-60-5	trans-1,2-Dichloroethylene	U	1.39	ug/kg	0.418	1.39
75-34-3	1,1-Dichloroethane	U	1.39	ug/kg	0.418	1.39
78-93-3	2-Butanone	U	6.96	ug/kg	2.09	6.96
156-59-2	cis-1,2-Dichloroethylene	U	1.39	ug/kg	0.418	1.39
594-20-7	2,2-Dichloropropane	U	1.39	ug/kg	0.418	1.39
67-66-3	Chloroform	U	1.39	ug/kg	0.418	1.39
74-97-5	Bromochloromethane	U	1.39	ug/kg	0.460	1.39
71-55-6	1,1,1-Trichloroethane	U	1.39	ug/kg	0.418	1.39
563-58-6	1,1-Dichloropropene	U	1.39	ug/kg	0.418	1.39
56-23-5	Carbon tetrachloride	U	1.39	ug/kg	0.418	1.39
107-06-2	1,2-Dichloroethane	U	1.39	ug/kg	0.418	1.39
71-43-2	Benzene	U	1.39	ug/kg	0.418	1.39
79-01-6	Trichloroethylene	U	1.39	ug/kg	0.460	1.39
78-87-5	1,2-Dichloropropane	U	1.39	ug/kg	0.418	1.39
75-27-4	Bromodichloromethane	U	1.39	ug/kg	0.418	1.39
74-95-3	Dibromomethane	U	1.39	ug/kg	0.418	1.39
108-10-1	4-Methyl-2-pentanone	U	6.96	ug/kg	1.74	6.96
10061-01-5	cis-1,3-Dichloropropylene	U	1.39	ug/kg	0.418	1.39
108-88-3	Toluene	U	1.39	ug/kg	0.418	1.39
10061-02-6	trans-1,3-Dichloropropylene	U	1.39	ug/kg	0.418	1.39
79-00-5	1,1,2-Trichloroethane	U	1.39	ug/kg	0.418	1.39
591-78-6	2-Hexanone	U	6.96	ug/kg	2.09	6.96
142-28-9	1,3-Dichloropropane	U	1.39	ug/kg	0.418	1.39
127-18-4	Tetrachloroethylene	U	1.39	ug/kg	0.418	1.39
124-48-1	Dibromochloromethane	U	1.39	ug/kg	0.418	1.39
106-93-4	1,2-Dibromoethane	U	1.39	ug/kg	0.418	1.39
108-90-7	Chlorobenzene	U	1.39	ug/kg	0.418	1.39

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**28.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13218**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 01:59**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:18**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D236.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.39	ug/kg	0.418	1.39
179601-23-1	m,p-Xylenes	U	2.79	ug/kg	0.418	2.79
95-47-6	o-Xylene	U	1.39	ug/kg	0.418	1.39
100-42-5	Styrene	U	1.39	ug/kg	0.418	1.39
75-25-2	Bromoform	U	1.39	ug/kg	0.418	1.39
79-34-5	1,1,2,2-Tetrachloroethane	U	1.39	ug/kg	0.418	1.39
96-18-4	1,2,3-Trichloropropane	U	1.39	ug/kg	0.418	1.39
108-86-1	Bromobenzene	U	1.39	ug/kg	0.418	1.39
103-65-1	n-Propylbenzene	U	1.39	ug/kg	0.418	1.39
95-49-8	2-Chlorotoluene	U	1.39	ug/kg	0.418	1.39
98-82-8	Isopropylbenzene	U	1.39	ug/kg	0.418	1.39
108-67-8	1,3,5-Trimethylbenzene	U	1.39	ug/kg	0.418	1.39
106-43-4	4-Chlorotoluene	U	1.39	ug/kg	0.418	1.39
98-06-6	tert-Butylbenzene	U	1.39	ug/kg	0.418	1.39
95-63-6	1,2,4-Trimethylbenzene	U	1.39	ug/kg	0.418	1.39
135-98-8	sec-Butylbenzene	U	1.39	ug/kg	0.418	1.39
99-87-6	4-Isopropyltoluene	U	1.39	ug/kg	0.418	1.39
541-73-1	1,3-Dichlorobenzene	U	1.39	ug/kg	0.418	1.39
106-46-7	1,4-Dichlorobenzene	U	1.39	ug/kg	0.418	1.39
104-51-8	n-Butylbenzene	U	1.39	ug/kg	0.418	1.39
96-12-8	1,2-Dibromo-3-chloropropane	U	1.39	ug/kg	0.418	1.39
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.96	ug/kg	2.23	6.96
630-20-6	1,1,1,2-Tetrachloroethane	U	1.39	ug/kg	0.418	1.39
95-50-1	1,2-Dichlorobenzene	U	1.39	ug/kg	0.418	1.39

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13234**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 02:27**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:20**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D237.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.387	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.342	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.342	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.342	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.342	1.14
67-64-1	Acetone	U	5.70	ug/kg	1.89	5.70
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
74-88-4	Iodomethane	U	5.70	ug/kg	1.82	5.70
75-09-2	Methylene chloride	J	4.11	ug/kg	2.28	5.70
75-15-0	Carbon disulfide	U	5.70	ug/kg	1.42	5.70
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.342	1.14
78-93-3	2-Butanone	U	5.70	ug/kg	1.71	5.70
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.342	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.376	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.342	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.342	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.376	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.342	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone	U	5.70	ug/kg	1.42	5.70
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.342	1.14
591-78-6	2-Hexanone	U	5.70	ug/kg	1.71	5.70
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.342	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.342	1.14

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13234**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 02:27**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:20**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D237.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.342	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.342	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.342	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.342	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.70	ug/kg	1.82	5.70
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332008**	**Date Received:**	**03/13/2010 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13237**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 02:55**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:22**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D238.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	J	0.320	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332008**	**Date Received:**	**03/13/2010 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13237**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 02:55**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:22**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D238.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332009**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**30**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-14199**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 03:22**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:24**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D239.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.43	ug/kg	0.486	1.43
74-87-3	Chloromethane	U	1.43	ug/kg	0.429	1.43
75-01-4	Vinyl chloride	U	1.43	ug/kg	0.429	1.43
74-83-9	Bromomethane	U	1.43	ug/kg	0.429	1.43
75-00-3	Chloroethane	U	1.43	ug/kg	0.429	1.43
75-69-4	Trichlorofluoromethane	U	1.43	ug/kg	0.429	1.43
67-64-1	Acetone	U	7.14	ug/kg	2.37	7.14
75-35-4	1,1-Dichloroethylene	U	1.43	ug/kg	0.429	1.43
74-88-4	Iodomethane	U	7.14	ug/kg	2.29	7.14
75-09-2	Methylene chloride	J	5.74	ug/kg	2.86	7.14
75-15-0	Carbon disulfide	U	7.14	ug/kg	1.79	7.14
156-60-5	trans-1,2-Dichloroethylene	U	1.43	ug/kg	0.429	1.43
75-34-3	1,1-Dichloroethane	U	1.43	ug/kg	0.429	1.43
78-93-3	2-Butanone	U	7.14	ug/kg	2.14	7.14
156-59-2	cis-1,2-Dichloroethylene	U	1.43	ug/kg	0.429	1.43
594-20-7	2,2-Dichloropropane	U	1.43	ug/kg	0.429	1.43
67-66-3	Chloroform	U	1.43	ug/kg	0.429	1.43
74-97-5	Bromochloromethane	U	1.43	ug/kg	0.471	1.43
71-55-6	1,1,1-Trichloroethane	U	1.43	ug/kg	0.429	1.43
563-58-6	1,1-Dichloropropene	U	1.43	ug/kg	0.429	1.43
56-23-5	Carbon tetrachloride	U	1.43	ug/kg	0.429	1.43
107-06-2	1,2-Dichloroethane	U	1.43	ug/kg	0.429	1.43
71-43-2	Benzene	U	1.43	ug/kg	0.429	1.43
79-01-6	Trichloroethylene	U	1.43	ug/kg	0.471	1.43
78-87-5	1,2-Dichloropropane	U	1.43	ug/kg	0.429	1.43
75-27-4	Bromodichloromethane	U	1.43	ug/kg	0.429	1.43
74-95-3	Dibromomethane	U	1.43	ug/kg	0.429	1.43
108-10-1	4-Methyl-2-pentanone	U	7.14	ug/kg	1.79	7.14
10061-01-5	cis-1,3-Dichloropropylene	U	1.43	ug/kg	0.429	1.43
108-88-3	Toluene	U	1.43	ug/kg	0.429	1.43
10061-02-6	trans-1,3-Dichloropropylene	U	1.43	ug/kg	0.429	1.43
79-00-5	1,1,2-Trichloroethane	U	1.43	ug/kg	0.429	1.43
591-78-6	2-Hexanone	U	7.14	ug/kg	2.14	7.14
142-28-9	1,3-Dichloropropane	U	1.43	ug/kg	0.429	1.43
127-18-4	Tetrachloroethylene	U	1.43	ug/kg	0.429	1.43
124-48-1	Dibromochloromethane	U	1.43	ug/kg	0.429	1.43
106-93-4	1,2-Dibromoethane	U	1.43	ug/kg	0.429	1.43
108-90-7	Chlorobenzene	U	1.43	ug/kg	0.429	1.43

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332009**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**30**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-14199**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 03:22**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:24**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D239.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.43	ug/kg	0.429	1.43
179601-23-1	m,p-Xylenes	U	2.86	ug/kg	0.429	2.86
95-47-6	o-Xylene	U	1.43	ug/kg	0.429	1.43
100-42-5	Styrene	U	1.43	ug/kg	0.429	1.43
75-25-2	Bromoform	U	1.43	ug/kg	0.429	1.43
79-34-5	1,1,2,2-Tetrachloroethane	U	1.43	ug/kg	0.429	1.43
96-18-4	1,2,3-Trichloropropane	U	1.43	ug/kg	0.429	1.43
108-86-1	Bromobenzene	U	1.43	ug/kg	0.429	1.43
103-65-1	n-Propylbenzene	U	1.43	ug/kg	0.429	1.43
95-49-8	2-Chlorotoluene	U	1.43	ug/kg	0.429	1.43
98-82-8	Isopropylbenzene	U	1.43	ug/kg	0.429	1.43
108-67-8	1,3,5-Trimethylbenzene	U	1.43	ug/kg	0.429	1.43
106-43-4	4-Chlorotoluene	U	1.43	ug/kg	0.429	1.43
98-06-6	tert-Butylbenzene	U	1.43	ug/kg	0.429	1.43
95-63-6	1,2,4-Trimethylbenzene	U	1.43	ug/kg	0.429	1.43
135-98-8	sec-Butylbenzene	U	1.43	ug/kg	0.429	1.43
99-87-6	4-Isopropyltoluene	U	1.43	ug/kg	0.429	1.43
541-73-1	1,3-Dichlorobenzene	U	1.43	ug/kg	0.429	1.43
106-46-7	1,4-Dichlorobenzene	U	1.43	ug/kg	0.429	1.43
104-51-8	n-Butylbenzene	U	1.43	ug/kg	0.429	1.43
96-12-8	1,2-Dibromo-3-chloropropane	U	1.43	ug/kg	0.429	1.43
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	7.14	ug/kg	2.29	7.14
630-20-6	1,1,1,2-Tetrachloroethane	U	1.43	ug/kg	0.429	1.43
95-50-1	1,2-Dichlorobenzene	U	1.43	ug/kg	0.429	1.43

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332010**	**Date Received:**	**03/13/2010 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-14200**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 03:50**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:26**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D240.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	J	0.480	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332010**	**Date Received:**	**03/13/2010 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-14200**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 03:50**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:26**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D240.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-2433

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202078843	LCS for batch 968354	108	101	97
1202078844	LCS for batch 968354	108	100	99
1202078840	MB for batch 968354	107	100	99
249332001	RE46-10-13219	113	100	102
249332003	RE46-10-13220	106	106	117
249332004	RE46-10-13216	106	103	105
249332005	RE46-10-13217	106	102	106
249332006	RE46-10-13218	109	102	100
249332007	RE46-10-13234	108	106	116
249332008	RE46-10-13237	113	101	99
249332009	RE46-10-14199	106	109	117
249332010	RE46-10-14200	114	100	99
1202088228	LCS for batch 968354	101	98	91
1202088229	LCS for batch 968354	102	98	97
1202088227	MB for batch 968354	103	99	94
249332002	RE46-10-13221	105	100	102
1202078841	RE46-10-13219PS	102	100	98
1202078842	RE46-10-13219PSD	100	101	98

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(66%-134%)
TOL	= Toluene-d8	(71%-128%)
BFB	= Bromofluorobenzene	(65%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: RE46-10-13219PS
Lab Sample ID: 1202078841
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 7.9
Analysis Date: 03/24/2010 13:14
Prep Batch ID: 968354
Batch ID: 968355

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	44.8	90	39-148
74-87-3	PS	Chloromethane	50.0	0.00	U	47.4	95	42-131
75-01-4	PS	Vinyl chloride	50.0	0.00	U	45.6	91	50-127
74-83-9	PS	Bromomethane	50.0	0.00	U	49.0	98	26-135
75-00-3	PS	Chloroethane	50.0	0.00	U	46.5	93	54-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	48.8	98	55-138
67-64-1	PS	Acetone	250	0.00	U	155	62	20-144
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	46.9	94	55-128
74-88-4	PS	Iodomethane	250	0.00	U	242	97	47-132
75-09-2	PS	Methylene chloride	50.0	0.00	U	52.4	105	56-123
75-15-0	PS	Carbon disulfide	250	0.00	U	264	106	53-133
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	47.9	96	57-119
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	48.0	96	62-125
78-93-3	PS	2-Butanone	250	0.00	U	192	77	30-150
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	48.5	97	60-124
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	51.8	104	56-129
67-66-3	PS	Chloroform	50.0	0.00	U	48.6	97	62-120
74-97-5	PS	Bromochloromethane	50.0	0.00	U	49.9	100	51-135
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	49.3	99	58-129
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	49.5	99	59-126
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	51.9	104	55-132
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	49.1	98	54-121

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: RE46-10-13219PS
Lab Sample ID: 1202078841
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 7.9
Analysis Date: 03/24/2010 13:14
Prep Batch ID 968354
Batch ID: 968355

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	48.0	96	58-120
79-01-6	PS	Trichloroethylene	50.0	0.00	U	48.4	97	54-130
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	49.9	100	59-121
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	51.0	102	57-130
74-95-3	PS	Dibromomethane	50.0	0.00	U	50.4	101	57-124
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	252	101	40-137
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	48.8	98	50-131
108-88-3	PS	Toluene	50.0	0.00	U	44.1	88	54-119
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	49.5	99	47-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	49.2	98	60-130
591-78-6	PS	2-Hexanone	250	0.00	U	168	67	30-139
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	50.2	100	59-125
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	49.0	98	50-126
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	53.3	107	54-131
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	49.2	98	55-127
108-90-7	PS	Chlorobenzene	50.0	0.00	U	47.3	95	50-130
100-41-4	PS	Ethylbenzene	50.0	0.00	U	46.5	93	50-121
179601-23-1	PS	m,p-Xylenes	100	0.00	U	94.0	94	47-125
95-47-6	PS	o-Xylene	50.0	0.00	U	46.8	94	51-127
100-42-5	PS	Styrene	50.0	0.00	U	45.9	92	41-136
75-25-2	PS	Bromoform	50.0	0.00	U	57.3	115	48-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	49.9	100	52-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: RE46-10-13219PS
Lab Sample ID: 1202078841
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 7.9
Analysis Date: 03/24/2010 13:14
Prep Batch ID 968354
Batch ID: 968355
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	51.6	103	56-139
108-86-1	PS	Bromobenzene	50.0	0.00	U	48.0	96	54-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	46.0	92	46-127
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	47.7	95	47-130
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	46.8	94	42-126
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	46.3	93	44-132
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	43.8	88	46-127
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	46.2	92	48-136
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	44.1	88	42-132
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	44.3	89	47-130
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	40.8	82	36-142
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	42.6	85	41-130
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	42.5	85	41-126
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	41.3	83	37-136
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	53.7	107	42-143
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	51.1	102	58-127
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	41.2	82	42-128

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: RE46-10-13219PSD
Lab Sample ID: 1202078842
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 7.9
Analysis Date: 03/24/2010 13:42
Prep Batch ID: 968354
Batch ID: 968355
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	44.2	88	39-148	1	0-19
74-87-3	PSD	Chloromethane	50.0	0.00	U	46.9	94	42-131	1	0-23
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	44.9	90	50-127	2	0-23
74-83-9	PSD	Bromomethane	50.0	0.00	U	48.6	97	26-135	1	0-22
75-00-3	PSD	Chloroethane	50.0	0.00	U	46.1	92	54-128	1	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	48.2	96	55-138	1	0-21
67-64-1	PSD	Acetone	250	0.00	U	142	57	20-144	9	0-22
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	46.5	93	55-128	1	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	240	96	47-132	1	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	53.7	107	56-123	3	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	259	104	53-133	2	0-22
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	47.8	96	57-119	0	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	48.1	96	62-125	0	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	178	71	30-150	8	0-21
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	48.7	97	60-124	0	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	52.2	104	56-129	1	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	48.9	98	62-120	1	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	51.0	102	51-135	2	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	49.1	98	58-129	0	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	48.7	97	59-126	2	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	51.5	103	55-132	1	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	49.2	98	54-121	0	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: RE46-10-13219PSD
Lab Sample ID: 1202078842
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 7.9
Analysis Date: 03/24/2010 13:42
Prep Batch ID: 968354
Batch ID: 968355
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	47.9	96	58-120	0	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	47.5	95	54-130	2	0-23
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	49.6	99	59-121	0	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	50.8	102	57-130	0	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	50.6	101	57-124	0	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	247	99	40-137	2	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	47.8	96	50-131	2	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	44.1	88	54-119	0	0-23
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	49.2	98	47-133	1	0-24
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	49.1	98	60-130	0	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	154	62	30-139	9	0-21
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	50.0	100	59-125	0	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	47.9	96	50-126	2	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	52.9	106	54-131	1	0-23
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	48.4	97	55-127	2	0-23
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	47.0	94	50-130	1	0-24
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	45.8	92	50-121	2	0-24
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	92.1	92	47-125	2	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	46.4	93	51-127	1	0-24
100-42-5	PSD	Styrene	50.0	0.00	U	44.8	90	41-136	2	0-24
75-25-2	PSD	Bromoform	50.0	0.00	U	55.0	110	48-143	4	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	48.7	97	52-129	2	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: RE46-10-13219PSD
Lab Sample ID: 1202078842
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 7.9
Analysis Date: 03/24/2010 13:42
Prep Batch ID: 968354
Batch ID: 968355
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	50.5	101	56-139	2	0-34
108-86-1	PSD	Bromobenzene	50.0	0.00	U	47.0	94	54-125	2	0-22
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	45.2	90	46-127	2	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	47.1	94	47-130	1	0-24
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	46.4	93	42-126	1	0-22
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	45.9	92	44-132	1	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	42.9	86	46-127	2	0-26
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	46.6	93	48-136	1	0-24
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	43.6	87	42-132	1	0-26
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	44.0	88	47-130	1	0-27
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	37.6	75	36-142	8	0-27
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	42.1	84	41-130	1	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	41.7	83	41-126	2	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	40.5	81	37-136	2	0-29
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	52.0	104	42-143	3	0-21
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	50.6	101	58-127	1	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	40.4	81	42-128	2	0-24

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: LCS for batch 968354
Lab Sample ID: 1202078843
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 22:17
Dilution: 1
Prep Batch ID: 968354
Batch ID: 968355

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	47.5	95	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	50.4	101	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	47.1	94	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	48.3	97	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	47.6	95	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	47.9	96	73-143
67-64-1	LCS	Acetone	250	0.0	166	66	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	48.3	97	71-129
74-88-4	LCS	Iodomethane	250	0.0	240	96	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	51.5	103	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	263	105	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	49.7	99	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	50.4	101	73-120
78-93-3	LCS	2-Butanone	250	0.0	207	83	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	50.5	101	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	52.4	105	73-134
67-66-3	LCS	Chloroform	50.0	0.0	49.5	99	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	49.2	98	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	50.2	100	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	50.5	101	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	51.6	103	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	51.1	102	65-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: LCS for batch 968354
Lab Sample ID: 1202078843
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 22:17
Dilution: 1
Prep Batch ID: 968354
Batch ID: 968355

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	48.7	97	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	48.0	96	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	51.3	103	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	51.0	102	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	49.6	99	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	267	107	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	52.1	104	78-127
108-88-3	LCS	Toluene	50.0	0.0	44.5	89	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	53.1	106	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	49.3	99	75-120
591-78-6	LCS	2-Hexanone	250	0.0	190	76	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	50.7	101	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	46.8	94	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	51.4	103	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	49.3	99	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	47.5	95	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	47.5	95	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	95.5	96	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	47.9	96	76-122
100-42-5	LCS	Styrene	50.0	0.0	48.2	96	75-125
75-25-2	LCS	Bromoform	50.0	0.0	50.0	100	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	48.6	97	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: LCS for batch 968354
Lab Sample ID: 1202078843
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 22:17
Dilution: 1
Prep Batch ID: 968354
Batch ID: 968355

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	48.2	96	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	45.6	91	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	45.4	91	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	46.5	93	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	45.3	91	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	46.3	93	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	44.9	90	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	45.7	91	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	45.4	91	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	45.7	91	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	45.5	91	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	45.5	91	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	45.3	91	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	45.4	91	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	51.2	102	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	51.0	102	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	46.1	92	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2433**
Client ID: **LCS for batch 968354**
Lab Sample ID: **1202078844**
Instrument: **VOA6.I**
Analyst: **RXD1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **03/23/2010 22:45**
Dilution: **1**
Prep Batch ID: **968354**
Batch ID: **968355**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	267	107	67-140

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: LCS for batch 968354
Lab Sample ID: 1202088228
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/24/2010 10:28
Dilution: 1
Prep Batch ID: 968354
Batch ID: 968355

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	50.6	101	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	49.7	99	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	48.4	97	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	53.6	107	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	49.9	100	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	54.4	109	73-143
67-64-1	LCS	Acetone	250	0.0	215	86	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	51.4	103	71-129
74-88-4	LCS	Iodomethane	250	0.0	272	109	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	53.8	108	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	288	115	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	52.3	105	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	52.6	105	73-120
78-93-3	LCS	2-Butanone	250	0.0	212	85	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	52.5	105	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	58.9	118	73-134
67-66-3	LCS	Chloroform	50.0	0.0	52.4	105	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	54.7	109	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	55.1	110	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	54.4	109	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	58.4	117	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	51.4	103	65-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: LCS for batch 968354
Lab Sample ID: 1202088228
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/24/2010 10:28
Dilution: 1
Prep Batch ID: 968354
Batch ID: 968355

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	51.5	103	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	52.6	105	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	52.8	106	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	54.9	110	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	53.9	108	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	268	107	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	55.1	110	78-127
108-88-3	LCS	Toluene	50.0	0.0	46.8	94	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	55.3	111	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	51.3	103	75-120
591-78-6	LCS	2-Hexanone	250	0.0	201	80	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	51.8	104	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	53.6	107	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	58.5	117	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	52.2	104	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	51.1	102	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	50.2	100	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	103	103	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	51.3	103	76-122
100-42-5	LCS	Styrene	50.0	0.0	51.7	103	75-125
75-25-2	LCS	Bromoform	50.0	0.0	59.9	120	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	49.6	99	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: LCS for batch 968354
Lab Sample ID: 1202088228
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/24/2010 10:28
Dilution: 1
Prep Batch ID: 968354
Batch ID: 968355

CAS No	Parmname		Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	50.1	100	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	49.0	98	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	47.8	96	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	50.4	101	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	47.8	96	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	48.9	98	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	46.4	93	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	49.0	98	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	47.9	96	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	48.4	97	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	48.9	98	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	49.3	99	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	49.6	99	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	48.3	97	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	62.4	125	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	55.6	111	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	49.6	99	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: LCS for batch 968354
Lab Sample ID: 1202088229
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/24/2010 11:23
Dilution: 1
Prep Batch ID: 968354
Batch ID: 968355

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	281	112	67-140

Method Blank Summary

SDG Number:	10-2433	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 968354	Instrument ID:	VOA6.I	Data File:	032310V6\6D230BL.D
Lab Sample ID:	1202078840	Prep Date:	03/23/2010 09:26	Analyzed:	03/23/10 23:12
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 968354	1202078843	032310V6\6D228LL.D	03/23/10	2217
02	LCS for batch 968354	1202078844	032310V6\6D229SL.D	03/23/10	2245
03	RE46-10-13219	249332001	032310V6\6D231.D	03/23/10	2340
04	RE46-10-13220	249332003	032310V6\6D233.D	03/24/10	0036
05	RE46-10-13216	249332004	032310V6\6D234.D	03/24/10	0103
06	RE46-10-13217	249332005	032310V6\6D235.D	03/24/10	0131
07	RE46-10-13218	249332006	032310V6\6D236.D	03/24/10	0159
08	RE46-10-13234	249332007	032310V6\6D237.D	03/24/10	0227
09	RE46-10-13237	249332008	032310V6\6D238.D	03/24/10	0255
10	RE46-10-14199	249332009	032310V6\6D239.D	03/24/10	0322
11	RE46-10-14200	249332010	032310V6\6D240.D	03/24/10	0350

Method Blank Summary

SDG Number:	10-2433	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 968354	Instrument ID:	VOA6.I	Data File:	032410V6\6D306BL.D
Lab Sample ID:	1202088227	Prep Date:	03/24/2010 09:16	Analyzed:	03/24/10 11:51
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 968354	1202088228	032410V6\6D303LL.D	03/24/10	1028
02	LCS for batch 968354	1202088229	032410V6\6D305SL.D	03/24/10	1123
03	RE46-10-13221	249332002	032410V6\6D308.D	03/24/10	1247
04	RE46-10-13219PS	1202078841	032410V6\6D309.D	03/24/10	1314
05	RE46-10-13219PSD	1202078842	032410V6\6D310.D	03/24/10	1342

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2433

Instrument ID: VOA6.I **Injection Date/Time:** 12-MAR-10 10:14

Column Description: DB-624 **Lab File ID** 031210V6\6B503.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	18.5
75	30.0 - 60.0% of mass 95	50.5
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	77.7
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	97
177	5.0 - 9.0% of mass 176	6.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W6VM100312-02	031210V6\6B504.D	12-MAR-10 10:46
ICALMIX[A]	W6VM100312-03	031210V6\6B505.D	12-MAR-10 11:14
ICALMIX[A]	W6VM100312-04	031210V6\6B506.D	12-MAR-10 11:42
ICALMIX[A]	W6VM100312-05	031210V6\6B507.D	12-MAR-10 12:09
ICALMIX[A]	W6VM100312-06	031210V6\6B508.D	12-MAR-10 12:37
ICALMIX[A]	W6VM100312-07	031210V6\6B509.D	12-MAR-10 13:05
ICALMIX[A]	W6VM100312-08	031210V6\6B510.D	12-MAR-10 13:33
ICALMIX[A]	W6VM100312-09	031210V6\6B512.D	12-MAR-10 14:28
ICVMIX[A]01	W6VM100312-10	031210V6\6B513.D	12-MAR-10 14:56
ICALMIX[B]	W6VM100312-12	031210V6\6B515.D	12-MAR-10 15:52
ICALMIX[B]	W6VM100312-13	031210V6\6B516.D	12-MAR-10 16:19
ICALMIX[B]	W6VM100312-14	031210V6\6B517.D	12-MAR-10 16:48
ICALMIX[B]	W6VM100312-15	031210V6\6B518.D	12-MAR-10 17:15
ICALMIX[B]	W6VM100312-16	031210V6\6B519.D	12-MAR-10 17:43
ICALMIX[B]	W6VM100312-17	031210V6\6B520.D	12-MAR-10 18:11
ICALMIX[B]	W6VM100312-18	031210V6\6B521.D	12-MAR-10 18:39
ICVMIX[B]03	W6VM100312-19	031210V6\6B523.D	12-MAR-10 19:34

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2433

Instrument ID: VOA6.I **Injection Date/Time:** 23-MAR-10 21:49

Column Description: DB-624 **Lab File ID** 032310V6\6D227BFB.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	19.4
75	30.0 - 60.0% of mass 95	52.9
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.7
174	50.0 - 100.0% of mass 95	78.3
175	5.0 -9.0% of mass 174	7.3
176	95.0 - 101.0% of mass 174	98.1
177	5.0 - 9.0% of mass 176	6.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]04	W6VM100323-04	032310V6\6D227.D	23-MAR-10 21:49
BLK01LCS	1202078843	032310V6\6D228LL.D	23-MAR-10 22:17
CCVMIX[B]05	W6VM100323-06	032310V6\6D229.D	23-MAR-10 22:45
BLK01SLCS	1202078844	032310V6\6D229SL.D	23-MAR-10 22:45
BLK01	1202078840	032310V6\6D230BL.D	23-MAR-10 23:12
RE46-10-13219	249332001	032310V6\6D231.D	23-MAR-10 23:40
RE46-10-13220	249332003	032310V6\6D233.D	24-MAR-10 00:36
RE46-10-13216	249332004	032310V6\6D234.D	24-MAR-10 01:03
RE46-10-13217	249332005	032310V6\6D235.D	24-MAR-10 01:31
RE46-10-13218	249332006	032310V6\6D236.D	24-MAR-10 01:59
RE46-10-13234	249332007	032310V6\6D237.D	24-MAR-10 02:27
RE46-10-13237	249332008	032310V6\6D238.D	24-MAR-10 02:55
RE46-10-14199	249332009	032310V6\6D239.D	24-MAR-10 03:22
RE46-10-14200	249332010	032310V6\6D240.D	24-MAR-10 03:50

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2433

Instrument ID: VOA6.I **Injection Date/Time:** 24-MAR-10 09:33

Column Description: DB-624 **Lab File ID** 032410V6\6D301.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	18
75	30.0 - 60.0% of mass 95	50.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.7
174	50.0 - 100.0% of mass 95	82.3
175	5.0 -9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	98.4
177	5.0 - 9.0% of mass 176	6.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]06	W6VM100324-01	032410V6\6D302.D	24-MAR-10 10:01
BLK02LCS	1202088228	032410V6\6D303LL.D	24-MAR-10 10:28
CCVMIX[B]07	W6VM100324-03	032410V6\6D304.D	24-MAR-10 10:56
BLK02SLCS	1202088229	032410V6\6D305SL.D	24-MAR-10 11:23
BLK02	1202088227	032410V6\6D306BL.D	24-MAR-10 11:51
RE46-10-13221	249332002	032410V6\6D308.D	24-MAR-10 12:47
RE46-10-13219MS	1202078841	032410V6\6D309.D	24-MAR-10 13:14
RE46-10-13219MSD	1202078842	032410V6\6D310.D	24-MAR-10 13:42

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA6.I

GC Column: DB-624

Client SDG: 10-2433

STD Analysis Time: 23-MAR-10 21:49

Data File: C:\msdchem\1\DATA\032310V6\6D227.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1258185		9.97	952686		13.2	528273		15.6
Upper Limit	2516370		10.5	1905372		13.7	1056546		16.1
Lower Limit	629093		9.47	476343		12.7	264137		15.1
Sample ID									
BLK01LCS	1253940		9.97	943009		13.2	533086		15.6
BLK01SLCS	1245400		9.97	951376		13.2	526479		15.6
BLK01	1221253		9.97	907833		13.2	485044		15.6
RE46-10-13219	792311		9.97	589033		13.2	300097		15.6
RE46-10-13220	1167522		9.97	808955		13.2	320239		15.6
RE46-10-13216	1160590		9.97	839016		13.2	403423		15.6
RE46-10-13217	1150641		9.97	845137		13.2	402773		15.6
RE46-10-13218	1141645		9.97	837269		13.2	434062		15.6
RE46-10-13234	1125750		9.97	787704		13.2	318648		15.6
RE46-10-13237	1118020		9.97	840339		13.2	448798		15.6
RE46-10-14199	1090661		9.97	728964		13.2	282200		15.6
RE46-10-14200	1079708		9.97	823345		13.2	439242		15.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA6.I

GC Column: DB-624

Client SDG: 10-2433

STD Analysis Time: 24-MAR-10 10:01

Data File: C:\msdchem\1\DATA\032410V6\6D302.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1189776		9.97	926524		13.2	521532		15.6
Upper Limit	2379552		10.5	1853048		13.7	1043064		16 1
Lower Limit	594888		9.47	463262		12.7	260766		15.1
Sample ID									
BLK02LCS	1188434		9.97	914537		13.2	524432		15.6
BLK02SLCS	1178296		9.97	911041		13.2	496297		15.6
BLK02	1143138		9.97	867772		13.2	470890		15.6
RE46-10-13221	1073136		9.97	798920		13.2	378964		15.6
RE46-10-13219MS	1098807		9.97	836106		13.2	432835		15.6
RE46-10-13219MSD	1162006		9.97	869102		13.2	447468		15.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332001**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13219**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 23:40**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D231.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.369	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.326	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.326	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.326	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.326	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.326	1.09
67-64-1	Acetone	U	5.43	ug/kg	1.80	5.43
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
74-88-4	Iodomethane	U	5.43	ug/kg	1.74	5.43
75-09-2	Methylene chloride	U	5.43	ug/kg	2.17	5.43
75-15-0	Carbon disulfide	U	5.43	ug/kg	1.36	5.43
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.326	1.09
78-93-3	2-Butanone	U	5.43	ug/kg	1.63	5.43
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.326	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.358	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.326	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.326	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.326	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.326	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.326	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.358	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.326	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.326	1.09
108-10-1	4-Methyl-2-pentanone	U	5.43	ug/kg	1.36	5.43
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.326	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.326	1.09
591-78-6	2-Hexanone	U	5.43	ug/kg	1.63	5.43
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.326	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.326	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.326	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.326	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.326	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332001**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13219**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 23:40**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D231.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.326	1.09
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.326	2.17
95-47-6	o-Xylene	U	1.09	ug/kg	0.326	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.326	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.326	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.326	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.326	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.326	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.326	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.326	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.326	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.326	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.326	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.326	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.43	ug/kg	1.74	5.43
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D231.D
Acq On : 23 Mar 2010 11:40 pm
Operator : RXD1
InstName : VOA6
Sample : |249332001|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 24 09:00:04 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	792311	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	589033	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	300097	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	792311	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	589033	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	300097	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	238823	56.44	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 112.88%					
43) Toluene-d8	11.620	11.626	0.883	98	770316	49.99	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 99.98%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	286685	50.99	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 101.98%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	0.000	4.682	0.000		0	N.D.		
4) Vinyl chloride	0.000	4.924	0.000		0	N.D.		
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.712	6.706	0.673	43	2632	Below Cal	#	44
10) 1,1-Dichloroethylene	0.000	6.712	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.084	0.000		0	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	9112	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.712	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D231.D
Acq On : 23 Mar 2010 11:40 pm
Operator : RXD1
InstName : VOA6
Sample : |249332001|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 24 09:00:04 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	11.413	0.000		0	N.D.	
44)	Toluene	11.693	11.699	0.889	91	2695	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47)	2-Hexanone	0.000	12.260	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	12.540	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52)	Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54)	Ethylbenzene	13.254	13.248	1.007	91	207	N.D.	
55)	m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56)	o-Xylene	0.000	13.796	0.000		0	N.D.	
57)	Styrene	0.000	13.796	0.000		0	N.D.	
59)	Bromoform	0.000	14.058	0.000		0	N.D.	
60)	Isopropylbenzene	14.168	14.156	0.910	105	5183	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64)	Bromobenzene	0.000	14.564	0.000		0	N.D.	
65)	n-Propylbenzene	14.583	14.583	0.937	91	1430	N.D.	
66)	1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	429	N.D.	
67)	2-Chlorotoluene	0.000	14.729	0.000		0	N.D.	
68)	4-Chlorotoluene	14.826	14.833	0.952	91	444	N.D.	
69)	tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.144	15.150	0.973	105	1271	N.D.	
71)	sec-Butylbenzene	15.326	15.333	0.984	105	1163	N.D.	
72)	4-Isopropyltoluene	15.448	15.454	0.992	119	1506	N.D.	
73)	1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	15.607	15.601	1.002	146	395	N.D.	
75)	n-Butylbenzene	15.893	15.887	1.021	91	1338	N.D.	
76)	1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80)	Naphthalene	18.289	18.283	1.175	128	1922	N.D.	
81)	1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85)	Acrolein	0.000	6.536	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	6.792	0.000		0	N.D.	
88)	Allyl chloride	0.000	7.139	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90)	Acrylonitrile	0.000	7.542	0.000		0	N.D.	
91)	Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94)	Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D231.D
Acq On : 23 Mar 2010 11:40 pm
Operator : RXD1
InstName : VOA6
Sample : |249332001|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 24 09:00:04 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	0.000	8.773	0.000		0	N.D.		
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.		
97)	Tetrahydrofuran	0.000	9.059	0.000		0	N.D.		
98)	Isobutyl alcohol	0.000	9.389	0.000		0	N.D.		
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.		
100)	Methyl methacrylate	0.000	10.590	0.000		0	N.D.		
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.		
102)	2-Nitropropane	0.000	11.071	0.000		0	N.D.		
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.		
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0m	N.D.	d	
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.		
110)	Pentachloroethane	0.000	15.180	0.000		0	N.D.		
111)	Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d	
112)	bis(2-Chloroisopropyl)...	16.162	16.113	1.038	45	782	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D231.D
Acq On : 23 Mar 2010 11:40 pm
Operator : RXD1
InstName : VOA6
Sample : |249332001|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 24 09:00:04 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

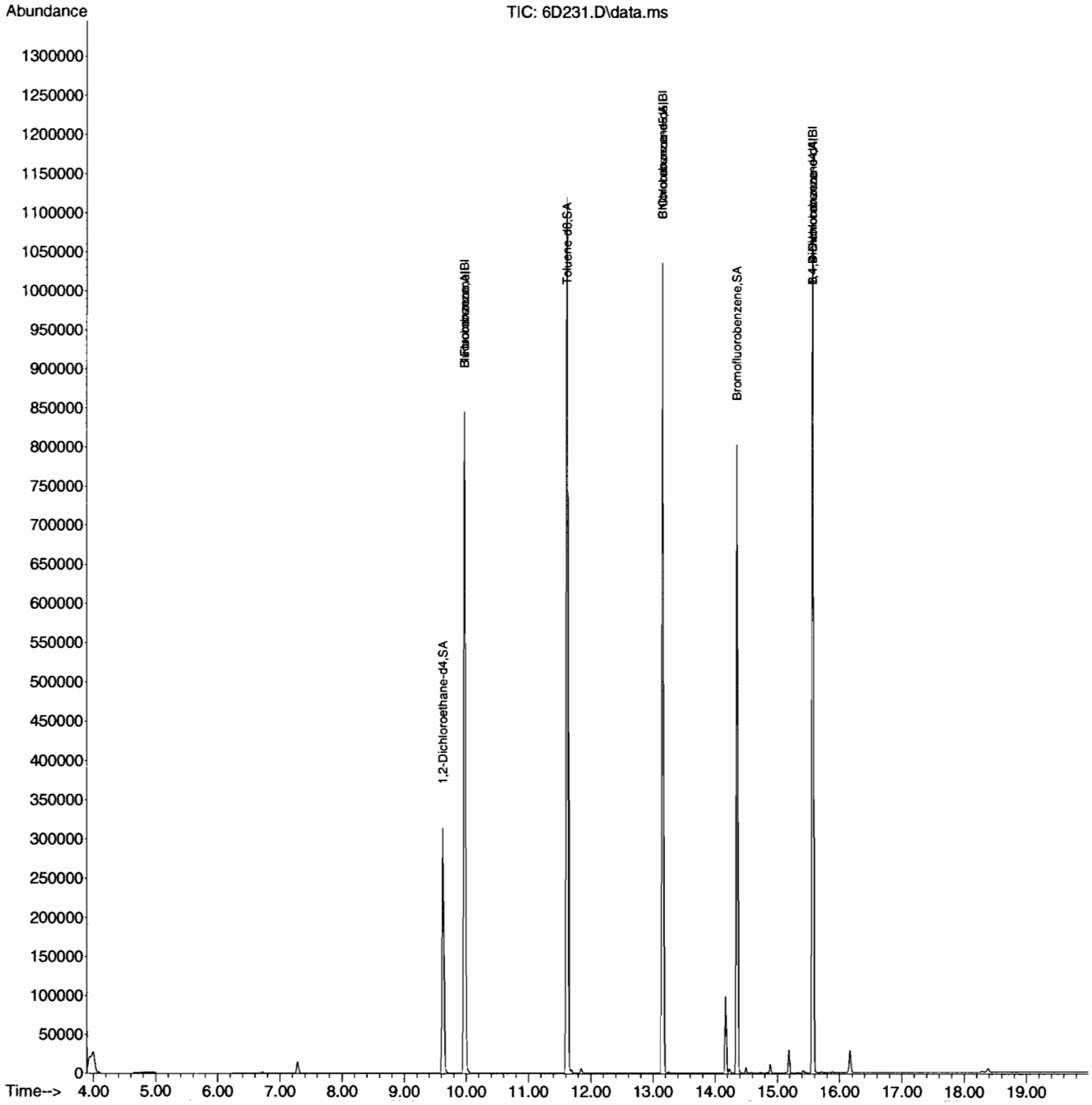

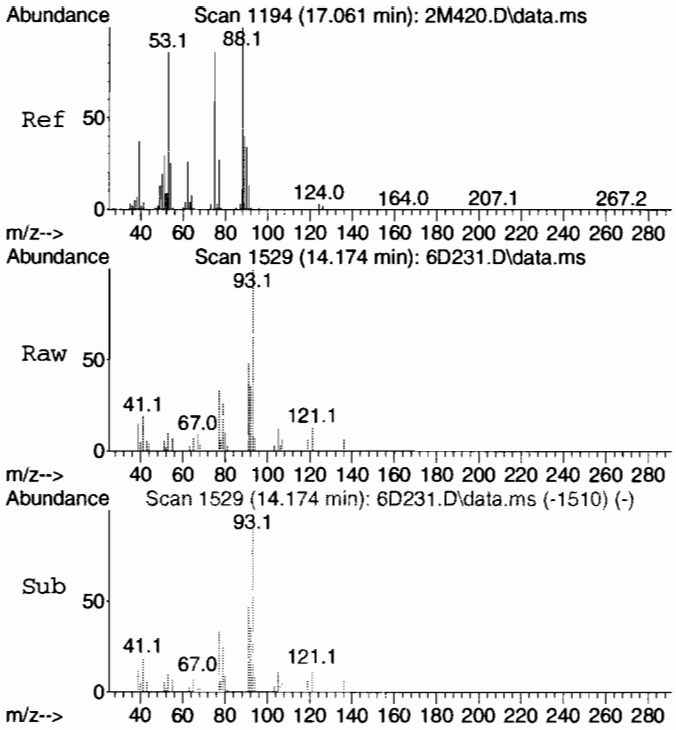

#107 BEFORE analyst DELETION
cis-1,4-Dichloro-2-butene
Concen: 3.36 ug/L
RT: 14.174 min Scan# 1529
Delta R.T. -0.025 min
Lab File: 6D231.D
Acq: 23 Mar 2010 11:40 pm

Tgt Ion: 53 Resp: 3742

Ion	Ratio	Lower	Upper
53	100		
88	0.0	84.5	144.5#
77	352.3	5.5	65.5#

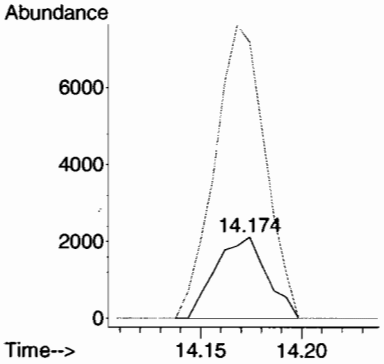

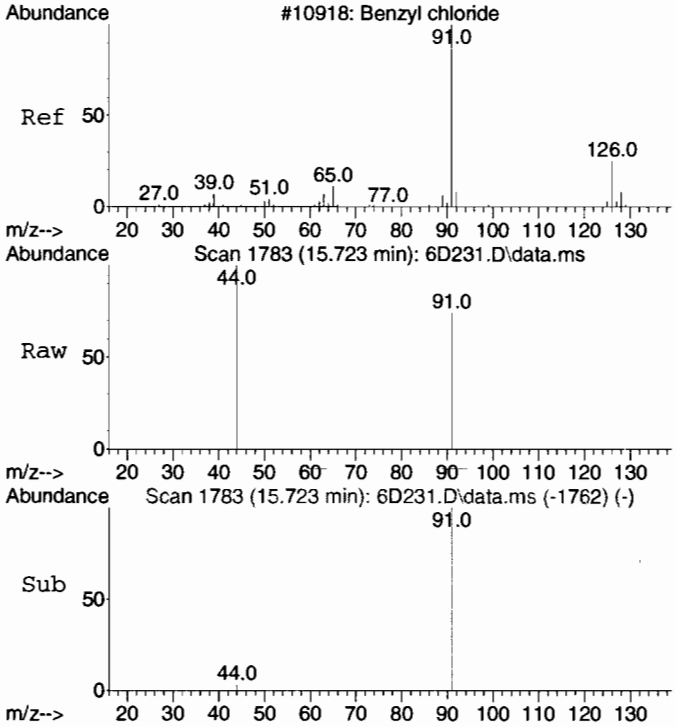

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 0.23 ug/L
RT: 15.723 min Scan# 1783
Delta R.T. 0.006 min
Lab File: 6D231.D
Acq: 23 Mar 2010 11:40 pm

Tgt Ion: 91 Resp: 1456

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	53.0
65	0.0	0.0	42.7

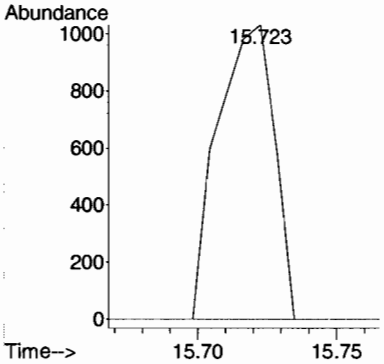

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D231.D
Acq On : 23 Mar 2010 11:40 pm
Operator : RXD1
Sample : |249332001|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D231.D
Acq On    : 23 Mar 2010  11:40 pm
Operator  : RXD1
Sample    : |249332001|968355|1|VOAF|1|VOA8260BS|
Misc      : LANL 5g N/A SOIL
ALS Vial  : 31   Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P

                                                  |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-----------------------------------------------------------------------------
```

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13220**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 00:36**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D233.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.384	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.339	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.339	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.339	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.339	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.339	1.13
67-64-1	Acetone	U	5.65	ug/kg	1.88	5.65
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
74-88-4	Iodomethane	U	5.65	ug/kg	1.81	5.65
75-09-2	Methylene chloride	J	2.97	ug/kg	2.26	5.65
75-15-0	Carbon disulfide	U	5.65	ug/kg	1.41	5.65
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.339	1.13
78-93-3	2-Butanone	U	5.65	ug/kg	1.70	5.65
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.339	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.373	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.339	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.339	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.339	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.339	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.339	1.13
79-01-6	Trichloroethylene	J	0.396	ug/kg	0.373	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.339	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.339	1.13
108-10-1	4-Methyl-2-pentanone	U	5.65	ug/kg	1.41	5.65
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.339	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.339	1.13
591-78-6	2-Hexanone	U	5.65	ug/kg	1.70	5.65
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.339	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.339	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.339	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.339	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.339	1.13

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13220**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilutiou:**	**1**
Run Date:	**03/24/2010 00:36**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D233.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.339	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.339	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.339	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.339	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.339	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.339	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.339	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.339	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.339	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.339	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.339	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.339	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.339	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.339	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.65	ug/kg	1.81	5.65
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D233.D
Acq On : 24 Mar 2010 12:36 am
Operator : RXD1
InstName : VOA6
Sample : |249332003|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 24 08:04:23 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1167779	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	808955	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	320239	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1167522	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	808955	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	320239	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	330038	52.92	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 105.84%					
43) Toluene-d8	11.620	11.626	0.883	98	1122212	53.03	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 106.06%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	350873	58.48	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 116.96%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	0.000	4.682	0.000		0	N.D.		
4) Vinyl chloride	0.000	4.924	0.000		0	N.D.		
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	0.000	6.706	0.000		0	N.D.		
10) 1,1-Dichloroethylene	0.000	6.712	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.084	0.000		0	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	17592	2.63	ug/L	96
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.712	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	10.358	10.364	1.039	95	1998	0.35	ug/L	82
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D233.D
Acq On : 24 Mar 2010 12:36 am
Operator : RXD1
InstName : VOA6
Sample : |249332003|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 24 08:04:23 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	11.413	0.000		0	N.D.	
44)	Toluene	11.693	11.699	0.889	91	2623	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47)	2-Hexanone	0.000	12.260	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	12.540	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52)	Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54)	Ethylbenzene	13.248	13.248	1.007	91	219	N.D.	
55)	m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56)	o-Xylene	0.000	13.796	0.000		0	N.D.	
57)	Styrene	0.000	13.796	0.000		0	N.D.	
59)	Bromoform	0.000	14.058	0.000		0	N.D.	
60)	Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64)	Bromobenzene	0.000	14.564	0.000		0	N.D.	
65)	n-Propylbenzene	14.583	14.583	0.937	91	446	N.D.	
66)	1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000	14.729	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.144	15.150	0.973	105	530	N.D.	
71)	sec-Butylbenzene	15.339	15.333	0.985	105	867	N.D.	
72)	4-Isopropyltoluene	15.454	15.454	0.993	119	661	N.D.	
73)	1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	15.601	15.601	1.002	146	255	N.D.	
75)	n-Butylbenzene	15.881	15.887	1.020	91	1001	N.D.	
76)	1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80)	Naphthalene	18.283	18.283	1.174	128	912	N.D.	
81)	1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85)	Acrolein	0.000	6.536	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	6.792	0.000		0	N.D.	
88)	Allyl chloride	0.000	7.139	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90)	Acrylonitrile	0.000	7.542	0.000		0	N.D.	
91)	Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94)	Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D233.D
Acq On : 24 Mar 2010 12:36 am
Operator : RXD1
InstName : VOA6
Sample : |249332003|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 24 08:04:23 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	8.773	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	9.059	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	9.389	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	10.590	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.	
110)	Pentachloroethane	0.000	15.180	0.000		0	N.D.	
111)	Benzyl chloride	0.000	15.717	0.000		0	N.D.	
112)	bis(2-Chloroisopropyl)...	16.168	16.113	1.038	45	198	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D233.D
Acq On : 24 Mar 2010 12:36 am
Operator : RXD1
InstName : VOA6
Sample : |249332003|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 24 08:04:23 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

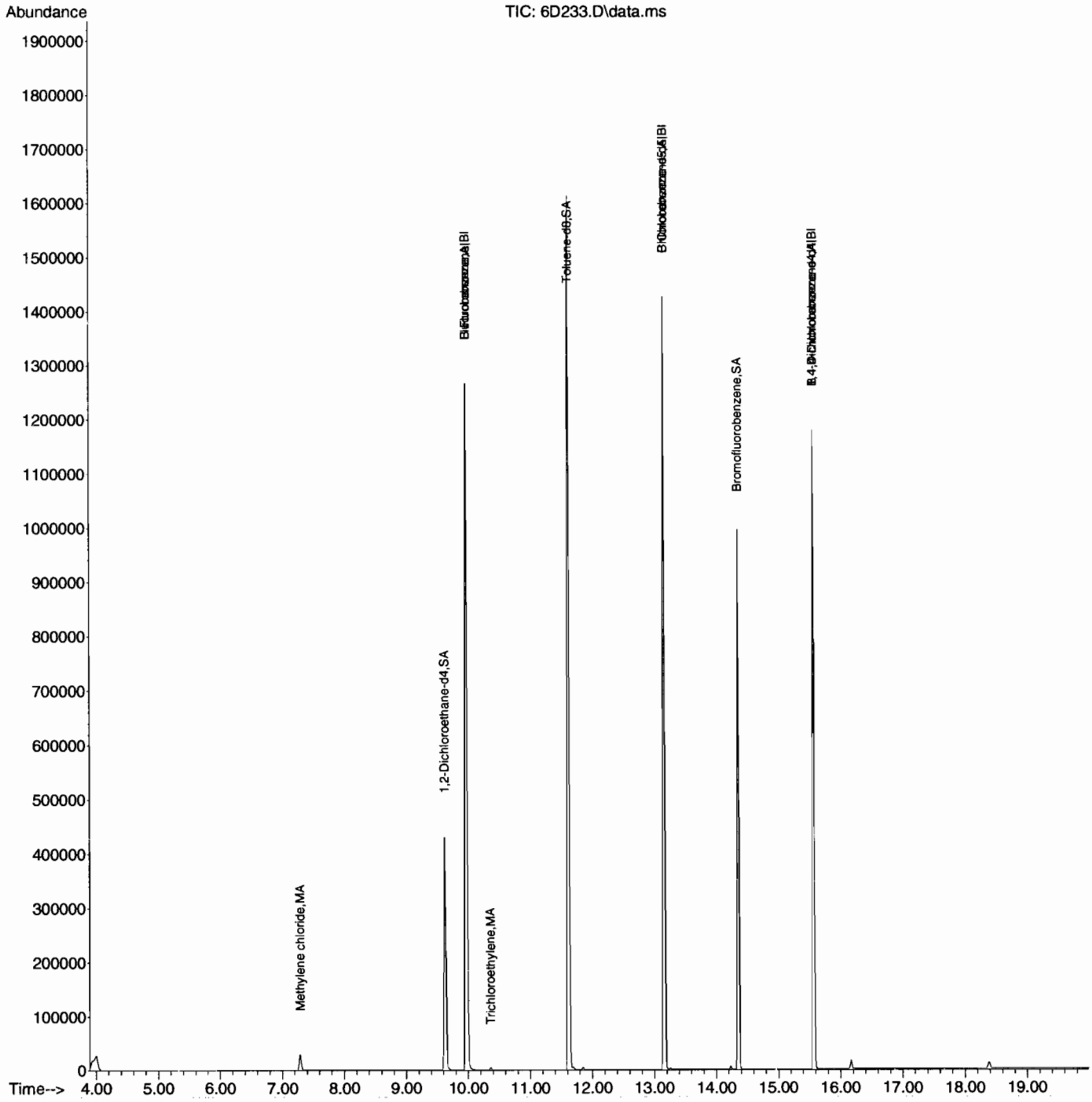

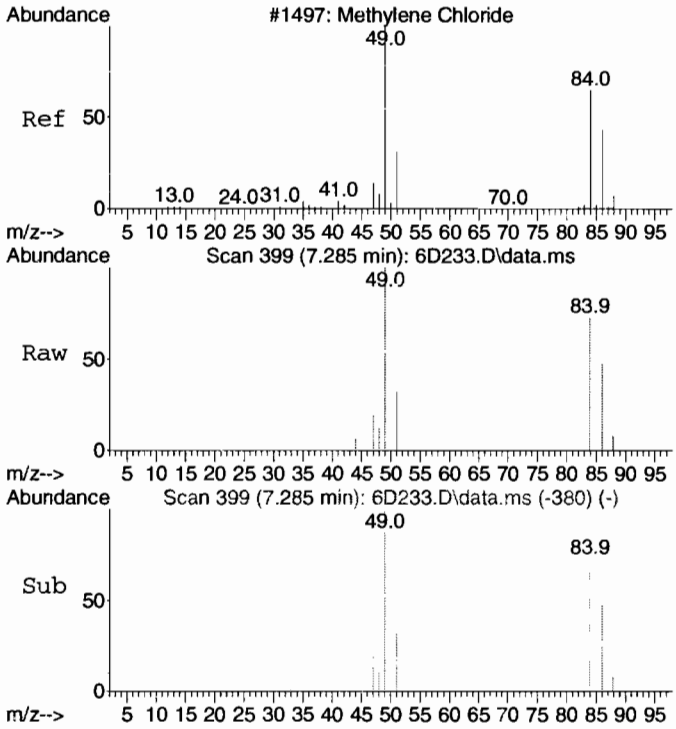

#15
Methylene chloride
Concen: 2.63 ug/L
RT: 7.285 min Scan# 399
Delta R.T. 0.000 min
Lab File: 6D233.D
Acq: 24 Mar 2010 12:36 am

Tgt Ion: 84 Resp: 17592

Ion	Ratio	Lower	Upper
84	100		
86	63.0	34.7	94.7
49	132.9	96.5	156.5

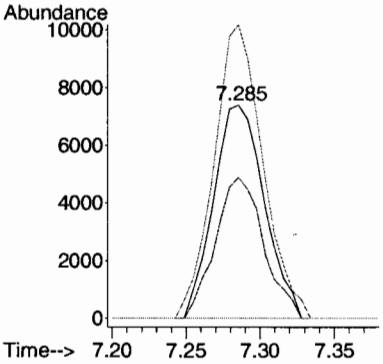

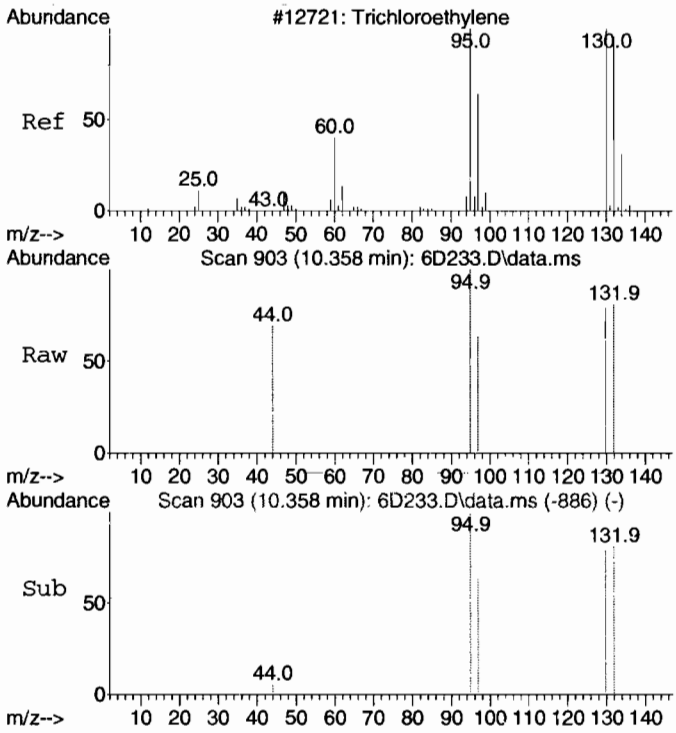

#34
Trichloroethylene
Concen: 0.35 ug/L
RT: 10.358 min Scan# 903
Delta R.T. -0.006 min
Lab File: 6D233.D
Acq: 24 Mar 2010 12:36 am

Tgt Ion: 95 Resp: 1998

Ion	Ratio	Lower	Upper
95	100		
130	88.1	74.3	134.3
97	47.3	34.4	94.4

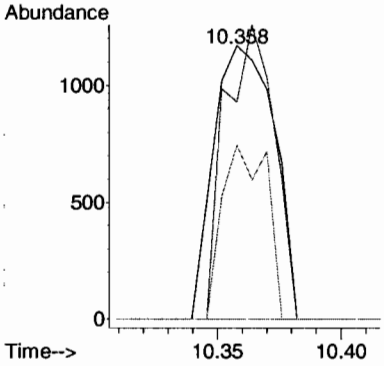

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D233.D
Acq On : 24 Mar 2010 12:36 am
Operator : RXD1
Sample : |249332003|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D233.D
Acq On    : 24 Mar 2010  12:36 am
Operator  : RXD1
Sample    : |249332003|968355|1|VOAF|1|VOA8260BS|
Misc      : LANL 5g N/A SOIL
ALS Vial  : 33   Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P

                                                  |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-----------------------------------------------------------------------------
```

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**19**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13216**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 01:03**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:14**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D234.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.23	ug/kg	0.420	1.23
74-87-3	Chloromethane	U	1.23	ug/kg	0.370	1.23
75-01-4	Vinyl chloride	U	1.23	ug/kg	0.370	1.23
74-83-9	Bromomethane	U	1.23	ug/kg	0.370	1.23
75-00-3	Chloroethane	U	1.23	ug/kg	0.370	1.23
75-69-4	Trichlorofluoromethane	U	1.23	ug/kg	0.370	1.23
67-64-1	Acetone	U	6.17	ug/kg	2.05	6.17
75-35-4	1,1-Dichloroethylene	U	1.23	ug/kg	0.370	1.23
74-88-4	Iodomethane	U	6.17	ug/kg	1.98	6.17
75-09-2	Methylene chloride	J	2.91	ug/kg	2.47	6.17
75-15-0	Carbon disulfide	U	6.17	ug/kg	1.54	6.17
156-60-5	trans-1,2-Dichloroethylene	U	1.23	ug/kg	0.370	1.23
75-34-3	1,1-Dichloroethane	U	1.23	ug/kg	0.370	1.23
78-93-3	2-Butanone	U	6.17	ug/kg	1.85	6.17
156-59-2	cis-1,2-Dichloroethylene	U	1.23	ug/kg	0.370	1.23
594-20-7	2,2-Dichloropropane	U	1.23	ug/kg	0.370	1.23
67-66-3	Chloroform	U	1.23	ug/kg	0.370	1.23
74-97-5	Bromochloromethane	U	1.23	ug/kg	0.407	1.23
71-55-6	1,1,1-Trichloroethane	U	1.23	ug/kg	0.370	1.23
563-58-6	1,1-Dichloropropene	U	1.23	ug/kg	0.370	1.23
56-23-5	Carbon tetrachloride	U	1.23	ug/kg	0.370	1.23
107-06-2	1,2-Dichloroethane	U	1.23	ug/kg	0.370	1.23
71-43-2	Benzene	U	1.23	ug/kg	0.370	1.23
79-01-6	Trichloroethylene	U	1.23	ug/kg	0.407	1.23
78-87-5	1,2-Dichloropropane	U	1.23	ug/kg	0.370	1.23
75-27-4	Bromodichloromethane	U	1.23	ug/kg	0.370	1.23
74-95-3	Dibromomethane	U	1.23	ug/kg	0.370	1.23
108-10-1	4-Methyl-2-pentanone	U	6.17	ug/kg	1.54	6.17
10061-01-5	cis-1,3-Dichloropropylene	U	1.23	ug/kg	0.370	1.23
108-88-3	Toluene	U	1.23	ug/kg	0.370	1.23
10061-02-6	trans-1,3-Dichloropropylene	U	1.23	ug/kg	0.370	1.23
79-00-5	1,1,2-Trichloroethane	U	1.23	ug/kg	0.370	1.23
591-78-6	2-Hexanone	U	6.17	ug/kg	1.85	6.17
142-28-9	1,3-Dichloropropane	U	1.23	ug/kg	0.370	1.23
127-18-4	Tetrachloroethylene	U	1.23	ug/kg	0.370	1.23
124-48-1	Dibromochloromethane	U	1.23	ug/kg	0.370	1.23
106-93-4	1,2-Dibromoethane	U	1.23	ug/kg	0.370	1.23
108-90-7	Chlorobenzene	U	1.23	ug/kg	0.370	1.23

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**19**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13216**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 01:03**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:14**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D234.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.23	ug/kg	0.370	1.23
179601-23-1	m,p-Xylenes	U	2.47	ug/kg	0.370	2.47
95-47-6	o-Xylene	U	1.23	ug/kg	0.370	1.23
100-42-5	Styrene	U	1.23	ug/kg	0.370	1.23
75-25-2	Bromoform	U	1.23	ug/kg	0.370	1.23
79-34-5	1,1,2,2-Tetrachloroethane	U	1.23	ug/kg	0.370	1.23
96-18-4	1,2,3-Trichloropropane	U	1.23	ug/kg	0.370	1.23
108-86-1	Bromobenzene	U	1.23	ug/kg	0.370	1.23
103-65-1	n-Propylbenzene	U	1.23	ug/kg	0.370	1.23
95-49-8	2-Chlorotoluene	U	1.23	ug/kg	0.370	1.23
98-82-8	Isopropylbenzene	U	1.23	ug/kg	0.370	1.23
108-67-8	1,3,5-Trimethylbenzene	U	1.23	ug/kg	0.370	1.23
106-43-4	4-Chlorotoluene	U	1.23	ug/kg	0.370	1.23
98-06-6	tert-Butylbenzene	U	1.23	ug/kg	0.370	1.23
95-63-6	1,2,4-Trimethylbenzene	U	1.23	ug/kg	0.370	1.23
135-98-8	sec-Butylbenzene	U	1.23	ug/kg	0.370	1.23
99-87-6	4-Isopropyltoluene	U	1.23	ug/kg	0.370	1.23
541-73-1	1,3-Dichlorobenzene	U	1.23	ug/kg	0.370	1.23
106-46-7	1,4-Dichlorobenzene	U	1.23	ug/kg	0.370	1.23
104-51-8	n-Butylbenzene	U	1.23	ug/kg	0.370	1.23
96-12-8	1,2-Dibromo-3-chloropropane	U	1.23	ug/kg	0.370	1.23
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.17	ug/kg	1.98	6.17
630-20-6	1,1,1,2-Tetrachloroethane	U	1.23	ug/kg	0.370	1.23
95-50-1	1,2-Dichlorobenzene	U	1.23	ug/kg	0.370	1.23

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D234.D
Acq On : 24 Mar 2010 1:03 am
Operator : RXD1
InstName : VOA6
Sample : |249332004|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 24 09:01:01 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1160925	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	839016	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	403423	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1160590	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	839016	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	403423	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	329657	53.17	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 106.34%					
43) Toluene-d8	11.620	11.626	0.883	98	1126688	51.34	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 102.68%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	398621	52.74	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 105.48%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	0.000	4.682	0.000		0	N.D.		
4) Vinyl chloride	0.000	4.924	0.000		0	N.D.		
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.718	6.706	0.674	43	227	Below Cal	#	44
10) 1,1-Dichloroethylene	0.000	6.712	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.084	0.000		0	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	15976	2.36	ug/L	97
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.712	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D234.D
Acq On : 24 Mar 2010 1:03 am
Operator : RXD1
InstName : VOA6
Sample : |249332004|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 24 09:01:01 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	11.413	0.000		0	N.D.	
44)	Toluene	11.699	11.699	0.889	91	681	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47)	2-Hexanone	0.000	12.260	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	12.540	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52)	Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54)	Ethylbenzene	0.000	13.248	0.000		0	N.D.	
55)	m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56)	o-Xylene	0.000	13.796	0.000		0	N.D.	
57)	Styrene	0.000	13.796	0.000		0	N.D.	
59)	Bromoform	0.000	14.058	0.000		0	N.D.	
60)	Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64)	Bromobenzene	0.000	14.564	0.000		0	N.D.	
65)	n-Propylbenzene	14.583	14.583	0.937	91	436	N.D.	
66)	1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000	14.729	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	0.000	15.150	0.000		0	N.D.	
71)	sec-Butylbenzene	15.326	15.333	0.984	105	375	N.D.	
72)	4-Isopropyltoluene	15.454	15.454	0.993	119	610	N.D.	
73)	1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	15.595	15.601	1.002	146	209	N.D.	
75)	n-Butylbenzene	15.887	15.887	1.020	91	401	N.D.	
76)	1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80)	Naphthalene	18.289	18.283	1.175	128	885	N.D.	
81)	1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85)	Acrolein	0.000	6.536	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	6.792	0.000		0	N.D.	
88)	Allyl chloride	0.000	7.139	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90)	Acrylonitrile	0.000	7.542	0.000		0	N.D.	
91)	Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94)	Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D234.D
Acq On : 24 Mar 2010 1:03 am
Operator : RXD1
InstName : VOA6
Sample : |249332004|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 24 09:01:01 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	8.773	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	9.059	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	9.389	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	10.590	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.	
110)	Pentachloroethane	0.000	15.180	0.000		0	N.D.	
111)	Benzyl chloride	0.000	15.717	0.000		0	N.D.	
112)	bis(2-Chloroisopropyl)...	0.000	16.113	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D234.D
Acq On : 24 Mar 2010 1:03 am
Operator : RXD1
InstName : VOA6
Sample : |249332004|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 24 09:01:01 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

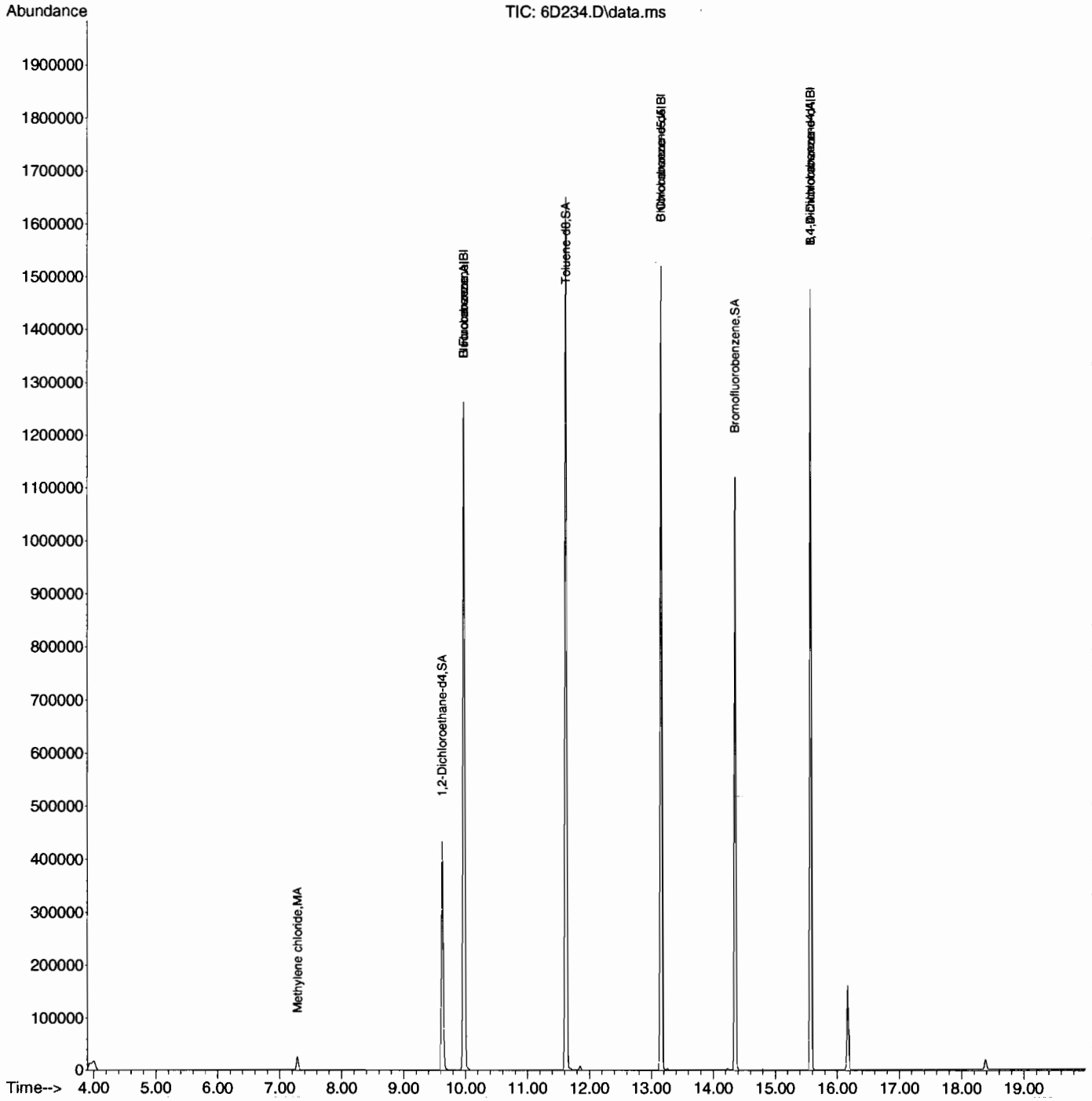

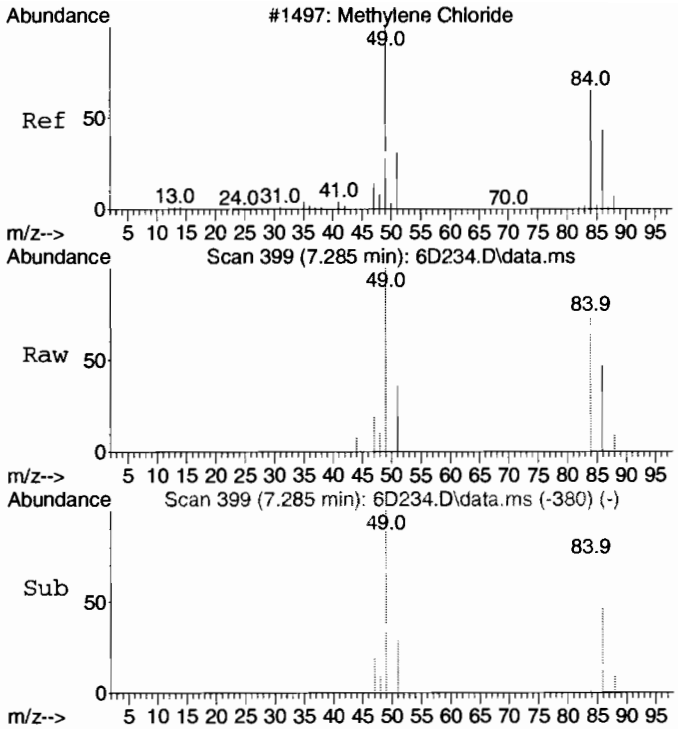

#15
Methylene chloride
Concen: 2.36 ug/L
RT: 7.285 min Scan# 399
Delta R.T. 0.000 min
Lab File: 6D234.D
Acq: 24 Mar 2010 1:03 am

Tgt Ion: 84 Resp: 15976

Ion	Ratio	Lower	Upper
84	100		
86	62.0	34.7	94.7
49	129.0	96.5	156.5

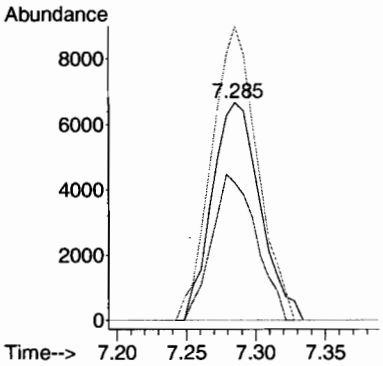

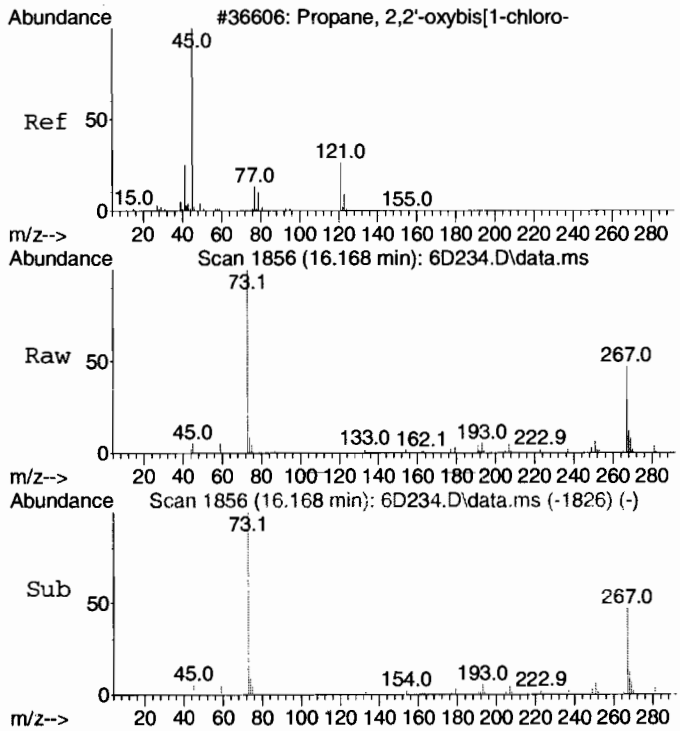

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 3.24 ug/L
RT: 16.168 min Scan# 1856
Delta R.T. 0.055 min
Lab File: 6D234.D
Acq: 24 Mar 2010 1:03 am

Tgt Ion: 45 Resp: 6192

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	58.3

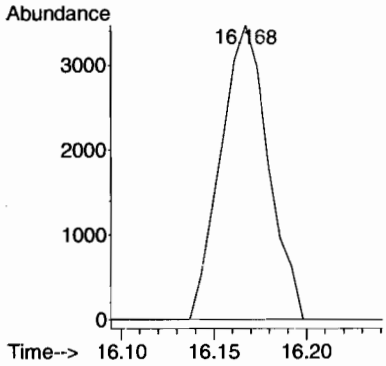

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D234.D
Acq On : 24 Mar 2010 1:03 am
Operator : RXD1
Sample : |249332004|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D234.D
Acq On : 24 Mar 2010 1:03 am
Operator : RXD1
Sample : |249332004|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**13.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13217**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 01:31**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D235.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.16	ug/kg	0.394	1.16
74-87-3	Chloromethane	U	1.16	ug/kg	0.348	1.16
75-01-4	Vinyl chloride	U	1.16	ug/kg	0.348	1.16
74-83-9	Bromomethane	U	1.16	ug/kg	0.348	1.16
75-00-3	Chloroethane	U	1.16	ug/kg	0.348	1.16
75-69-4	Trichlorofluoromethane	U	1.16	ug/kg	0.348	1.16
67-64-1	Acetone	U	5.79	ug/kg	1.92	5.79
75-35-4	1,1-Dichloroethylene	U	1.16	ug/kg	0.348	1.16
74-88-4	Iodomethane	U	5.79	ug/kg	1.85	5.79
75-09-2	Methylene chloride	U	5.79	ug/kg	2.32	5.79
75-15-0	Carbon disulfide	U	5.79	ug/kg	1.45	5.79
156-60-5	trans-1,2-Dichloroethylene	U	1.16	ug/kg	0.348	1.16
75-34-3	1,1-Dichloroethane	U	1.16	ug/kg	0.348	1.16
78-93-3	2-Butanone	U	5.79	ug/kg	1.74	5.79
156-59-2	cis-1,2-Dichloroethylene	U	1.16	ug/kg	0.348	1.16
594-20-7	2,2-Dichloropropane	U	1.16	ug/kg	0.348	1.16
67-66-3	Chloroform	U	1.16	ug/kg	0.348	1.16
74-97-5	Bromochloromethane	U	1.16	ug/kg	0.382	1.16
71-55-6	1,1,1-Trichloroethane	U	1.16	ug/kg	0.348	1.16
563-58-6	1,1-Dichloropropene	U	1.16	ug/kg	0.348	1.16
56-23-5	Carbon tetrachloride	U	1.16	ug/kg	0.348	1.16
107-06-2	1,2-Dichloroethane	U	1.16	ug/kg	0.348	1.16
71-43-2	Benzene	U	1.16	ug/kg	0.348	1.16
79-01-6	Trichloroethylene	U	1.16	ug/kg	0.382	1.16
78-87-5	1,2-Dichloropropane	U	1.16	ug/kg	0.348	1.16
75-27-4	Bromodichloromethane	U	1.16	ug/kg	0.348	1.16
74-95-3	Dibromomethane	U	1.16	ug/kg	0.348	1.16
108-10-1	4-Methyl-2-pentanone	U	5.79	ug/kg	1.45	5.79
10061-01-5	cis-1,3-Dichloropropylene	U	1.16	ug/kg	0.348	1.16
108-88-3	Toluene	U	1.16	ug/kg	0.348	1.16
10061-02-6	trans-1,3-Dichloropropylene	U	1.16	ug/kg	0.348	1.16
79-00-5	1,1,2-Trichloroethane	U	1.16	ug/kg	0.348	1.16
591-78-6	2-Hexanone	U	5.79	ug/kg	1.74	5.79
142-28-9	1,3-Dichloropropane	U	1.16	ug/kg	0.348	1.16
127-18-4	Tetrachloroethylene	U	1.16	ug/kg	0.348	1.16
124-48-1	Dibromochloromethane	U	1.16	ug/kg	0.348	1.16
106-93-4	1,2-Dibromoethane	U	1.16	ug/kg	0.348	1.16
108-90-7	Chlorobenzene	U	1.16	ug/kg	0.348	1.16

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**13.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13217**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 01:31**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D235.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.16	ug/kg	0.348	1.16
179601-23-1	m,p-Xylenes	U	2.32	ug/kg	0.348	2.32
95-47-6	o-Xylene	U	1.16	ug/kg	0.348	1.16
100-42-5	Styrene	U	1.16	ug/kg	0.348	1.16
75-25-2	Bromoform	U	1.16	ug/kg	0.348	1.16
79-34-5	1,1,2,2-Tetrachloroethane	U	1.16	ug/kg	0.348	1.16
96-18-4	1,2,3-Trichloropropane	U	1.16	ug/kg	0.348	1.16
108-86-1	Bromobenzene	U	1.16	ug/kg	0.348	1.16
103-65-1	n-Propylbenzene	U	1.16	ug/kg	0.348	1.16
95-49-8	2-Chlorotoluene	U	1.16	ug/kg	0.348	1.16
98-82-8	Isopropylbenzene	U	1.16	ug/kg	0.348	1.16
108-67-8	1,3,5-Trimethylbenzene	U	1.16	ug/kg	0.348	1.16
106-43-4	4-Chlorotoluene	U	1.16	ug/kg	0.348	1.16
98-06-6	tert-Butylbenzene	U	1.16	ug/kg	0.348	1.16
95-63-6	1,2,4-Trimethylbenzene	U	1.16	ug/kg	0.348	1.16
135-98-8	sec-Butylbenzene	U	1.16	ug/kg	0.348	1.16
99-87-6	4-Isopropyltoluene	U	1.16	ug/kg	0.348	1.16
541-73-1	1,3-Dichlorobenzene	U	1.16	ug/kg	0.348	1.16
106-46-7	1,4-Dichlorobenzene	U	1.16	ug/kg	0.348	1.16
104-51-8	n-Butylbenzene	U	1.16	ug/kg	0.348	1.16
96-12-8	1,2-Dibromo-3-chloropropane	U	1.16	ug/kg	0.348	1.16
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.79	ug/kg	1.85	5.79
630-20-6	1,1,1,2-Tetrachloroethane	U	1.16	ug/kg	0.348	1.16
95-50-1	1,2-Dichlorobenzene	U	1.16	ug/kg	0.348	1.16

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D235.D
Acq On : 24 Mar 2010 1:31 am
Operator : RXD1
InstName : VOA6
Sample : |249332005|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Mar 24 08:04:29 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1151121	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	845137	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	402773	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1150641	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	845137	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	402773	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	326473	53.10	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 106.20%					
43) Toluene-d8	11.626	11.626	0.884	98	1130339	51.13	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 102.26%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	401146	53.16	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 106.32%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	0.000	4.682	0.000		0	N.D.		
4) Vinyl chloride	0.000	4.924	0.000		0	N.D.		
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	0.000	6.706	0.000		0	N.D.		
10) 1,1-Dichloroethylene	0.000	6.712	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.084	0.000		0	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	13831	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.712	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D235.D
Acq On : 24 Mar 2010 1:31 am
Operator : RXD1
InstName : VOA6
Sample : |249332005|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Mar 24 08:04:29 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	11.413	0.000		0	N.D.	
44)	Toluene	11.699	11.699	0.889	91	3774	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47)	2-Hexanone	0.000	12.260	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	12.540	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52)	Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54)	Ethylbenzene	13.254	13.248	1.007	91	207	N.D.	
55)	m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56)	o-Xylene	0.000	13.796	0.000		0	N.D.	
57)	Styrene	0.000	13.796	0.000		0	N.D.	
59)	Bromoform	0.000	14.058	0.000		0	N.D.	
60)	Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64)	Bromobenzene	0.000	14.564	0.000		0	N.D.	
65)	n-Propylbenzene	0.000	14.583	0.000		0	N.D.	
66)	1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000	14.729	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.143	15.150	0.973	105	193	N.D.	
71)	sec-Butylbenzene	0.000	15.333	0.000		0	N.D.	
72)	4-Isopropyltoluene	15.454	15.454	0.993	119	189	N.D.	
73)	1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	15.601	15.601	1.002	146	188	N.D.	
75)	n-Butylbenzene	0.000	15.887	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80)	Naphthalene	18.289	18.283	1.175	128	475	N.D.	
81)	1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85)	Acrolein	0.000	6.536	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	6.792	0.000		0	N.D.	
88)	Allyl chloride	0.000	7.139	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90)	Acrylonitrile	0.000	7.542	0.000		0	N.D.	
91)	Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94)	Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D235.D
Acq On : 24 Mar 2010 1:31 am
Operator : RXD1
InstName : VOA6
Sample : |249332005|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Mar 24 08:04:29 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	8.773	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	9.059	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	9.389	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	10.590	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.	
110)	Pentachloroethane	0.000	15.180	0.000		0	N.D.	
111)	Benzyl chloride	0.000	15.717	0.000		0	N.D.	
112)	bis(2-Chloroisopropyl)...	16.168	16.113	1.038	45	1931	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D235.D
Acq On : 24 Mar 2010 1:31 am
Operator : RXD1
InstName : VOA6
Sample : |249332005|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Mar 24 08:04:29 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

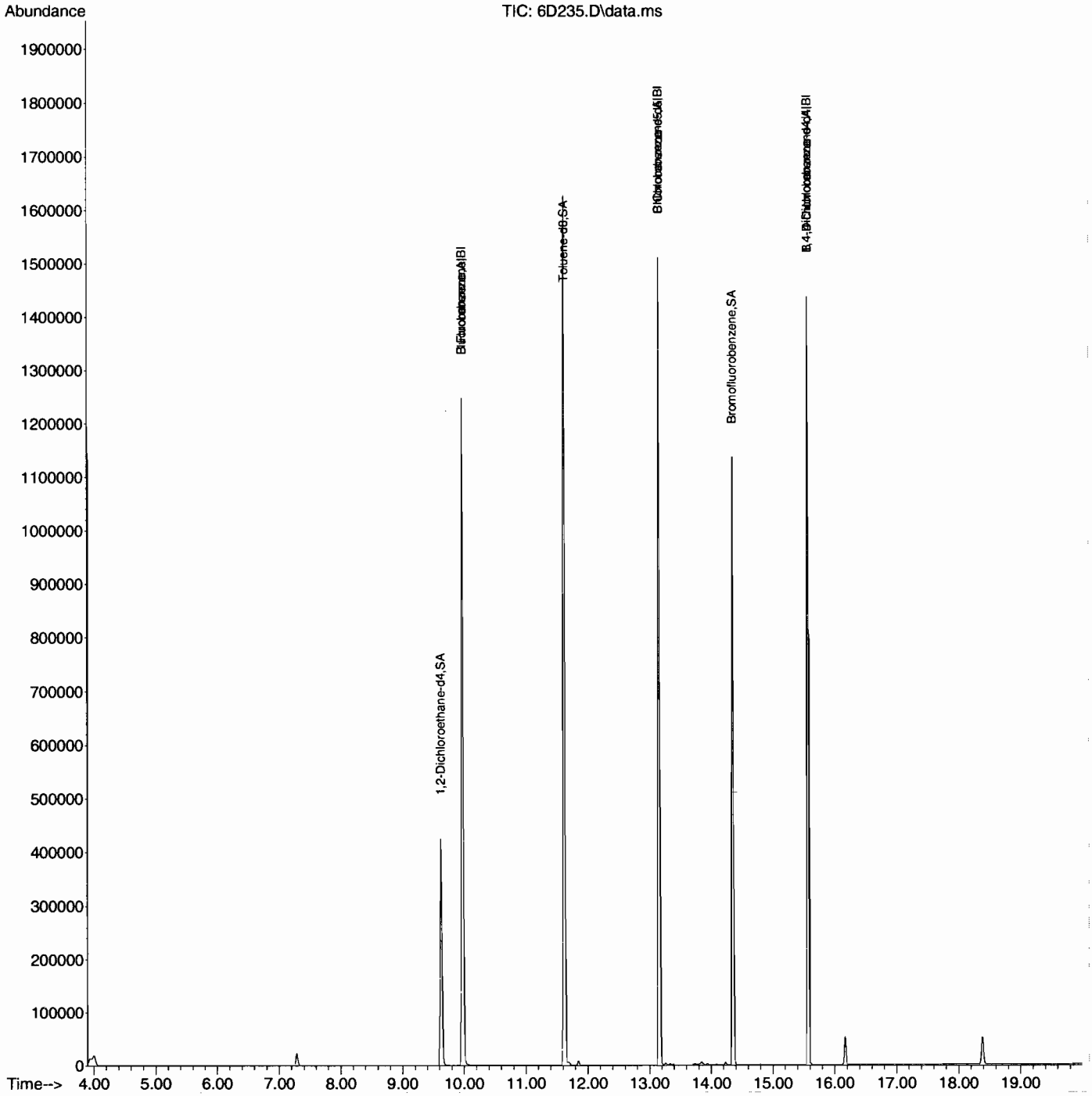

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D235.D
Acq On : 24 Mar 2010 1:31 am
Operator : RXD1
Sample : |249332005|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D235.D
Acq On : 24 Mar 2010 1:31 am
Operator : RXD1
Sample : |249332005|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**28.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13218**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 01:59**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:18**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D236.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.39	ug/kg	0.474	1.39
74-87-3	Chloromethane	U	1.39	ug/kg	0.418	1.39
75-01-4	Vinyl chloride	U	1.39	ug/kg	0.418	1.39
74-83-9	Bromomethane	U	1.39	ug/kg	0.418	1.39
75-00-3	Chloroethane	U	1.39	ug/kg	0.418	1.39
75-69-4	Trichlorofluoromethane	U	1.39	ug/kg	0.418	1.39
67-64-1	Acetone	U	6.96	ug/kg	2.31	6.96
75-35-4	1,1-Dichloroethylene	U	1.39	ug/kg	0.418	1.39
74-88-4	Iodomethane	U	6.96	ug/kg	2.23	6.96
75-09-2	Methylene chloride	U	6.96	ug/kg	2.79	6.96
75-15-0	Carbon disulfide	U	6.96	ug/kg	1.74	6.96
156-60-5	trans-1,2-Dichloroethylene	U	1.39	ug/kg	0.418	1.39
75-34-3	1,1-Dichloroethane	U	1.39	ug/kg	0.418	1.39
78-93-3	2-Butanone	U	6.96	ug/kg	2.09	6.96
156-59-2	cis-1,2-Dichloroethylene	U	1.39	ug/kg	0.418	1.39
594-20-7	2,2-Dichloropropane	U	1.39	ug/kg	0.418	1.39
67-66-3	Chloroform	U	1.39	ug/kg	0.418	1.39
74-97-5	Bromochloromethane	U	1.39	ug/kg	0.460	1.39
71-55-6	1,1,1-Trichloroethane	U	1.39	ug/kg	0.418	1.39
563-58-6	1,1-Dichloropropene	U	1.39	ug/kg	0.418	1.39
56-23-5	Carbon tetrachloride	U	1.39	ug/kg	0.418	1.39
107-06-2	1,2-Dichloroethane	U	1.39	ug/kg	0.418	1.39
71-43-2	Benzene	U	1.39	ug/kg	0.418	1.39
79-01-6	Trichloroethylene	U	1.39	ug/kg	0.460	1.39
78-87-5	1,2-Dichloropropane	U	1.39	ug/kg	0.418	1.39
75-27-4	Bromodichloromethane	U	1.39	ug/kg	0.418	1.39
74-95-3	Dibromomethane	U	1.39	ug/kg	0.418	1.39
108-10-1	4-Methyl-2-pentanone	U	6.96	ug/kg	1.74	6.96
10061-01-5	cis-1,3-Dichloropropylene	U	1.39	ug/kg	0.418	1.39
108-88-3	Toluene	U	1.39	ug/kg	0.418	1.39
10061-02-6	trans-1,3-Dichloropropylene	U	1.39	ug/kg	0.418	1.39
79-00-5	1,1,2-Trichloroethane	U	1.39	ug/kg	0.418	1.39
591-78-6	2-Hexanone	U	6.96	ug/kg	2.09	6.96
142-28-9	1,3-Dichloropropane	U	1.39	ug/kg	0.418	1.39
127-18-4	Tetrachloroethylene	U	1.39	ug/kg	0.418	1.39
124-48-1	Dibromochloromethane	U	1.39	ug/kg	0.418	1.39
106-93-4	1,2-Dibromoethane	U	1.39	ug/kg	0.418	1.39
108-90-7	Chlorobenzene	U	1.39	ug/kg	0.418	1.39

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**28.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13218**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 01:59**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:18**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D236.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.39	ug/kg	0.418	1.39
179601-23-1	m,p-Xylenes	U	2.79	ug/kg	0.418	2.79
95-47-6	o-Xylene	U	1.39	ug/kg	0.418	1.39
100-42-5	Styrene	U	1.39	ug/kg	0.418	1.39
75-25-2	Bromoform	U	1.39	ug/kg	0.418	1.39
79-34-5	1,1,2,2-Tetrachloroethane	U	1.39	ug/kg	0.418	1.39
96-18-4	1,2,3-Trichloropropane	U	1.39	ug/kg	0.418	1.39
108-86-1	Bromobenzene	U	1.39	ug/kg	0.418	1.39
103-65-1	n-Propylbenzene	U	1.39	ug/kg	0.418	1.39
95-49-8	2-Chlorotoluene	U	1.39	ug/kg	0.418	1.39
98-82-8	Isopropylbenzene	U	1.39	ug/kg	0.418	1.39
108-67-8	1,3,5-Trimethylbenzene	U	1.39	ug/kg	0.418	1.39
106-43-4	4-Chlorotoluene	U	1.39	ug/kg	0.418	1.39
98-06-6	tert-Butylbenzene	U	1.39	ug/kg	0.418	1.39
95-63-6	1,2,4-Trimethylbenzene	U	1.39	ug/kg	0.418	1.39
135-98-8	sec-Butylbenzene	U	1.39	ug/kg	0.418	1.39
99-87-6	4-Isopropyltoluene	U	1.39	ug/kg	0.418	1.39
541-73-1	1,3-Dichlorobenzene	U	1.39	ug/kg	0.418	1.39
106-46-7	1,4-Dichlorobenzene	U	1.39	ug/kg	0.418	1.39
104-51-8	n-Butylbenzene	U	1.39	ug/kg	0.418	1.39
96-12-8	1,2-Dibromo-3-chloropropane	U	1.39	ug/kg	0.418	1.39
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.96	ug/kg	2.23	6.96
630-20-6	1,1,1,2-Tetrachloroethane	U	1.39	ug/kg	0.418	1.39
95-50-1	1,2-Dichlorobenzene	U	1.39	ug/kg	0.418	1.39

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D236.D
Acq On : 24 Mar 2010 1:59 am
Operator : RXD1
InstName : VOA6
Sample : |249332006|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 24 09:01:33 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1142616	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	837269	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	434062	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1141645	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	837269	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	434062	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	333754	54.69	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 109.38%					
43) Toluene-d8	11.620	11.626	0.883	98	1114937	50.91	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 101.82%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	408610	50.24	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 100.48%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	0.000	4.682	0.000		0	N.D.		
4) Vinyl chloride	0.000	4.924	0.000		0	N.D.		
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.718	6.706	0.674	43	1553	Below Cal	#	44
10) 1,1-Dichloroethylene	6.858	6.712	0.688	61	217	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.084	0.000		0	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	12195	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	9.419	9.413	0.944	56	619	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.712	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	10.364	10.364	1.039	95	697	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D236.D
Acq On : 24 Mar 2010 1:59 am
Operator : RXD1
InstName : VOA6
Sample : |249332006|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 24 09:01:33 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	11.413	0.000		0	N.D.	
44)	Toluene	11.699	11.699	0.889	91	2652	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47)	2-Hexanone	0.000	12.260	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	12.540	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52)	Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54)	Ethylbenzene	0.000	13.248	0.000		0	N.D.	
55)	m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56)	o-Xylene	0.000	13.796	0.000		0	N.D.	
57)	Styrene	0.000	13.796	0.000		0	N.D.	
59)	Bromoform	0.000	14.058	0.000		0	N.D.	
60)	Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64)	Bromobenzene	0.000	14.564	0.000		0	N.D.	
65)	n-Propylbenzene	14.583	14.583	0.937	91	205	N.D.	
66)	1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000	14.729	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	0.000	15.150	0.000		0	N.D.	
71)	sec-Butylbenzene	15.332	15.333	0.985	105	391	N.D.	
72)	4-Isopropyltoluene	15.454	15.454	0.993	119	404	N.D.	
73)	1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75)	n-Butylbenzene	0.000	15.887	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80)	Naphthalene	18.283	18.283	1.174	128	192	N.D.	
81)	1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85)	Acrolein	0.000	6.536	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	6.792	0.000		0m	N.D.	d
88)	Allyl chloride	0.000	7.139	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90)	Acrylonitrile	0.000	7.542	0.000		0	N.D.	
91)	Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94)	Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D236.D
Acq On : 24 Mar 2010 1:59 am
Operator : RXD1
InstName : VOA6
Sample : |249332006|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 24 09:01:33 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	8.773	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	9.059	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	9.389	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	10.590	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.	
110)	Pentachloroethane	0.000	15.180	0.000		0	N.D.	
111)	Benzyl chloride	0.000	15.717	0.000		0	N.D.	
112)	bis(2-Chloroisopropyl)...	16.168	16.113	1.038	45	728	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D236.D
Acq On : 24 Mar 2010 1:59 am
Operator : RXD1
InstName : VOA6
Sample : |249332006|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 24 09:01:33 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

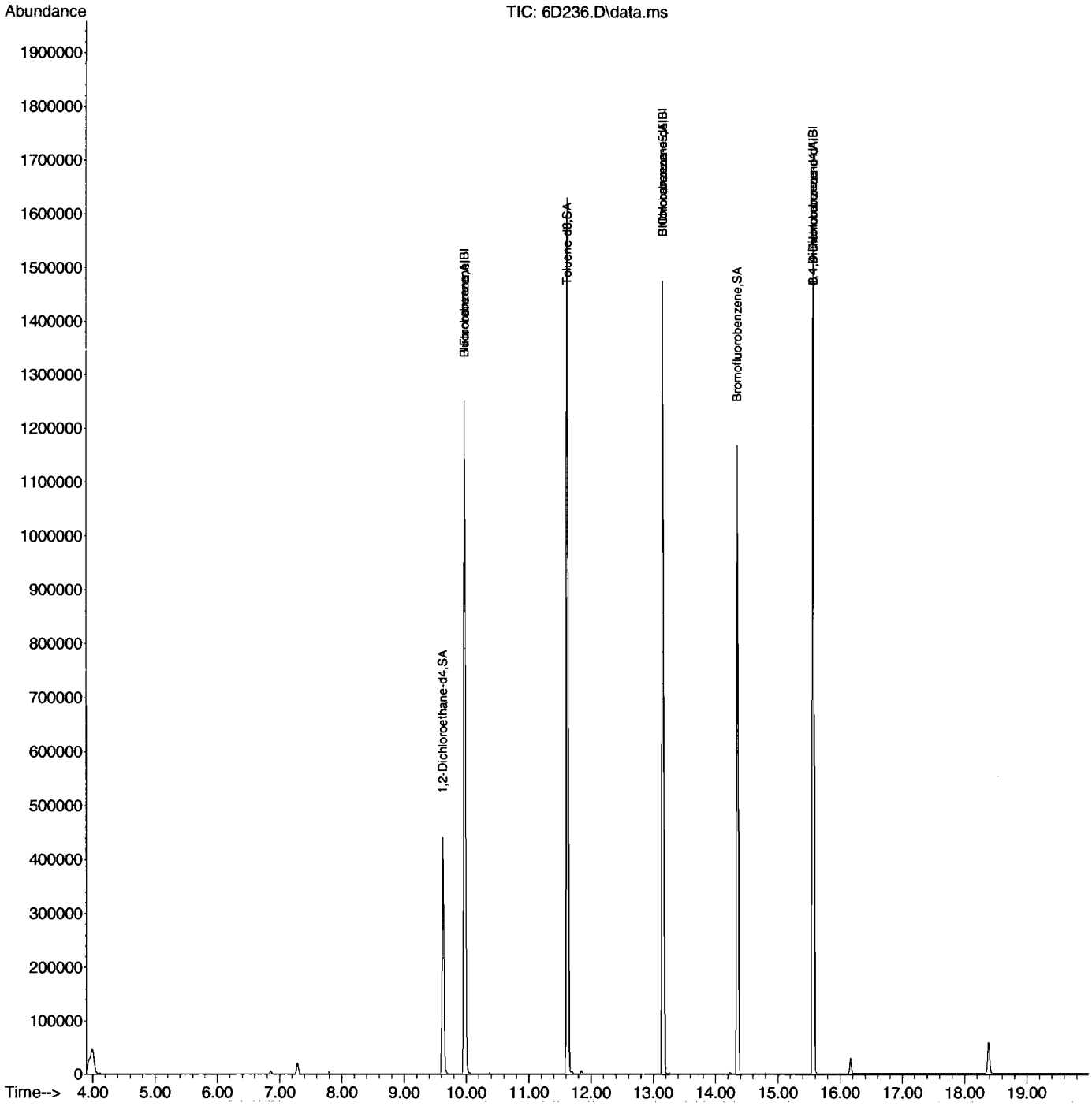

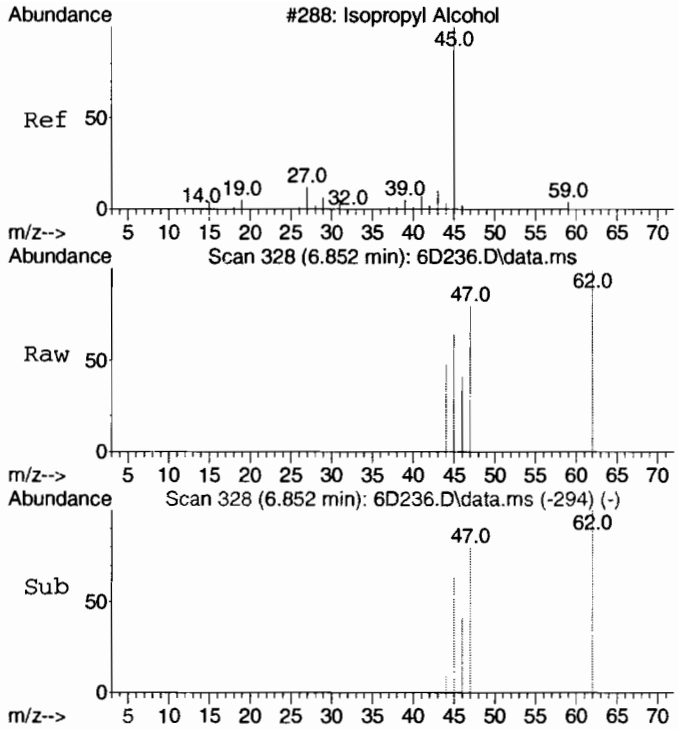

#87 BEFORE analyst DELETION
Isopropyl Alcohol
Concen: 6.12 ug/L
RT: 6.852 min Scan# 328
Delta R.T. 0.060 min
Lab File: 6D236.D
Acq: 24 Mar 2010 1:59 am

Tgt Ion: 45 Resp: 1801

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	49.6

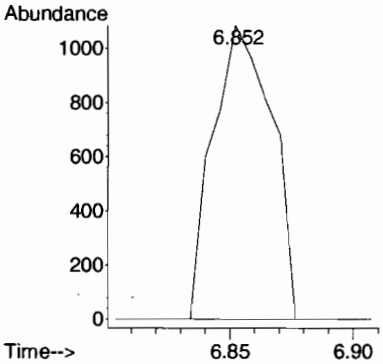

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D236.D
Acq On : 24 Mar 2010 1:59 am
Operator : RXD1
Sample : |249332006|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D236.D
Acq On : 24 Mar 2010 1:59 am
Operator : RXD1
Sample : |249332006|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13234**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 02:27**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:20**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D237.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.387	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.342	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.342	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.342	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.342	1.14
67-64-1	Acetone	U	5.70	ug/kg	1.89	5.70
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
74-88-4	Iodomethane	U	5.70	ug/kg	1.82	5.70
75-09-2	Methylene chloride	J	4.11	ug/kg	2.28	5.70
75-15-0	Carbon disulfide	U	5.70	ug/kg	1.42	5.70
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.342	1.14
78-93-3	2-Butanone	U	5.70	ug/kg	1.71	5.70
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.342	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.376	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.342	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.342	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.376	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.342	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone	U	5.70	ug/kg	1.42	5.70
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.342	1.14
591-78-6	2-Hexanone	U	5.70	ug/kg	1.71	5.70
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.342	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.342	1.14

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13234**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 02:27**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:20**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D237.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.342	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.342	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.342	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.342	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.70	ug/kg	1.82	5.70
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D237.D
Acq On : 24 Mar 2010 2:27 am
Operator : RXD1
InstName : VOA6
Sample : |249332007|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 24 08:04:35 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1125773	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	787704	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	318648	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1125750	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	787704	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	318648	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	325523	54.14	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 108.28%					
43) Toluene-d8	11.620	11.626	0.883	98	1087907	52.80	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 105.60%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	346078	57.97	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 115.94%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	0.000	4.682	0.000		0	N.D.		
4) Vinyl chloride	0.000	4.924	0.000		0	N.D.		
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.718	6.706	0.674	43	189	Below Cal #		44
10) 1,1-Dichloroethylene	0.000	6.712	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	7.279	7.072	0.730	41	206	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.084	0.000		0	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	22289	3.61	ug/L	96
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.712	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	10.358	10.364	1.039	95	1649	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D237.D
Acq On : 24 Mar 2010 2:27 am
Operator : RXD1
InstName : VOA6
Sample : |249332007|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 24 08:04:35 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.413	0.000		0	N.D.	
44) Toluene	11.693	11.699	0.889	91	2002	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.540	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	0.000	13.248	0.000		0	N.D.	
55) m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	0.000	13.796	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.583	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.729	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	184	N.D.	
71) sec-Butylbenzene	0.000	15.333	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.454	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	15.887	15.887	1.020	91	249	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	0.000	18.283	0.000		0	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.536	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.792	0.000		0	N.D.	
88) Allyl chloride	7.279	7.139	0.730	41	206	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.542	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D237.D
Acq On : 24 Mar 2010 2:27 am
Operator : RXD1
InstName : VOA6
Sample : |249332007|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 24 08:04:35 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	8.773	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	9.059	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	9.389	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	10.590	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.	
110)	Pentachloroethane	0.000	15.180	0.000		0	N.D.	
111)	Benzyl chloride	0.000	15.717	0.000		0	N.D.	
112)	bis(2-Chloroisopropyl)...	16.168	16.113	1.038	45	400	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D237.D
Acq On : 24 Mar 2010 2:27 am
Operator : RXD1
InstName : VOA6
Sample : |249332007|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 24 08:04:35 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

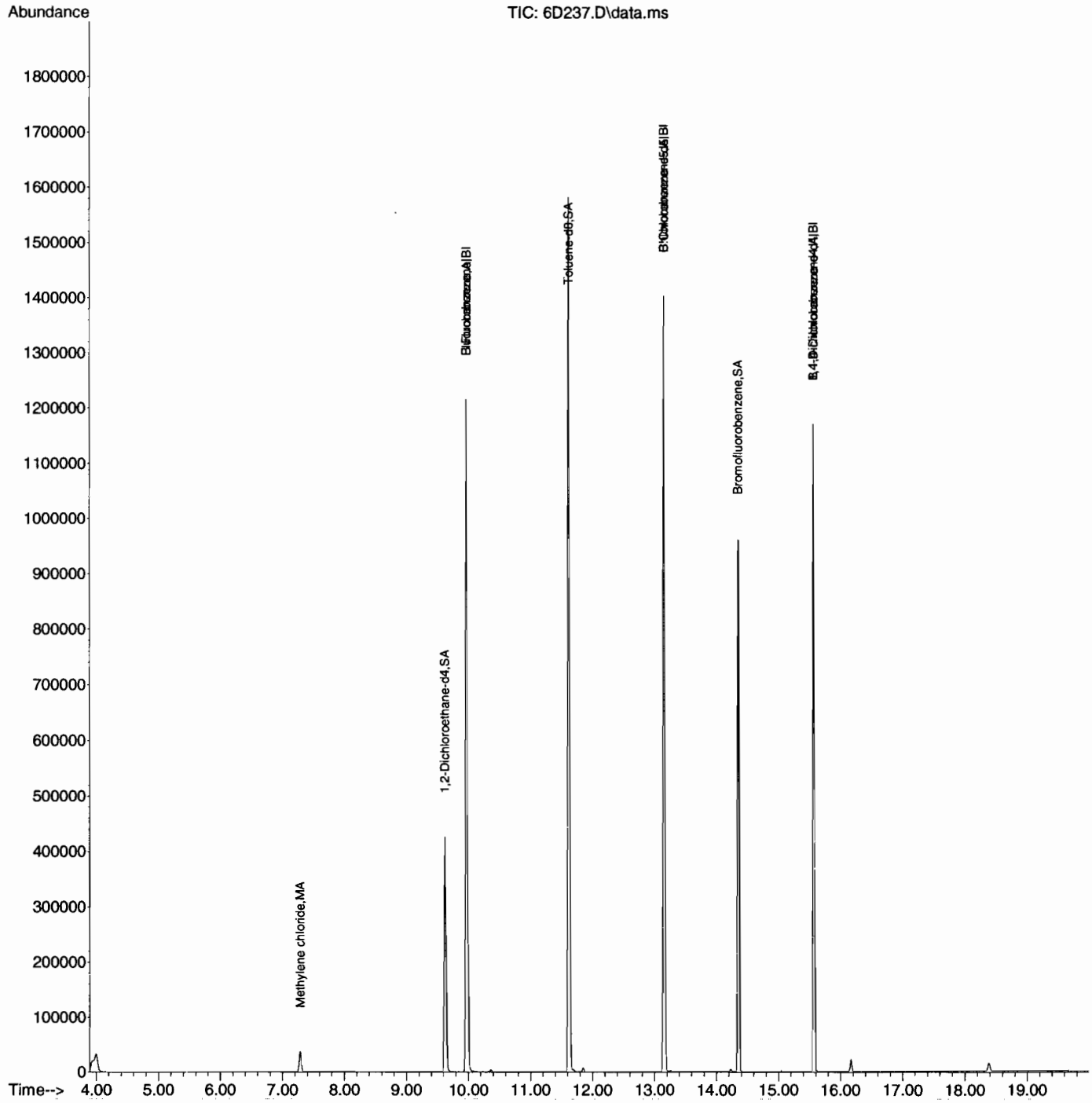

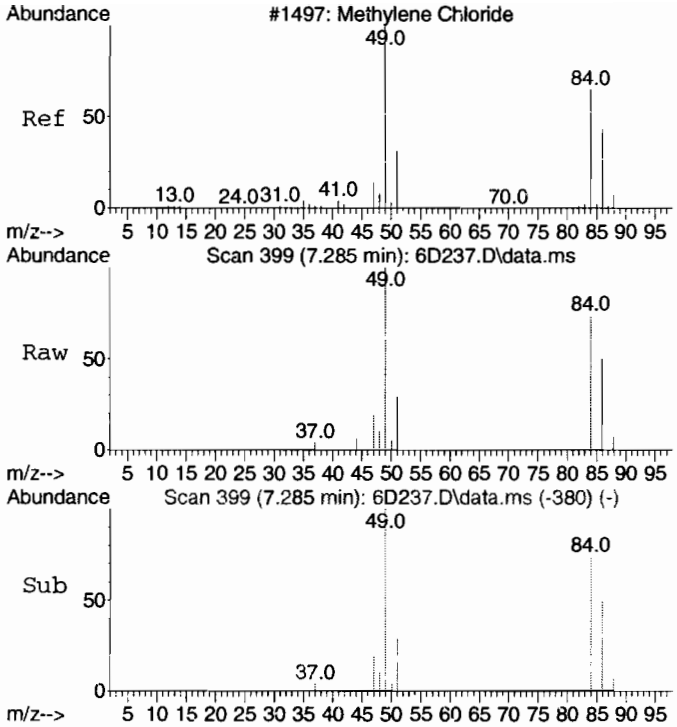

#15
Methylene chloride
Concen: 3.61 ug/L
RT: 7.285 min Scan# 399
Delta R.T. 0.000 min
Lab File: 6D237.D
Acq: 24 Mar 2010 2:27 am

Tgt Ion: 84 Resp: 22289

Ion	Ratio	Lower	Upper
84	100		
86	63.7	34.7	94.7
49	132.9	96.5	156.5

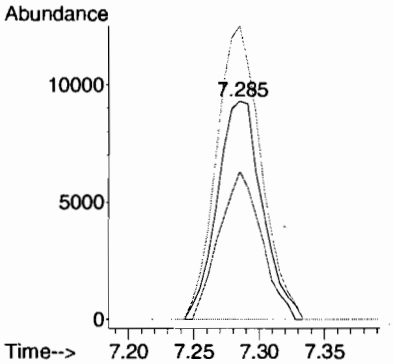

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D237.D
Acq On : 24 Mar 2010 2:27 am
Operator : RXD1
Sample : |249332007|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D237.D
Acq On : 24 Mar 2010 2:27 am
Operator : RXD1
Sample : |249332007|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332008	**Date Received:**	03/13/2010 09:30		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13237	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	968355	**Inst:**	VOA6.I	**Dilution:**	1
Run Date:	03/24/2010 02:55	**Analyst:**	RXD1	**Purge Vol:**	5 mL
Prep Date:	03/23/2010 16:22	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032310V6\6D238.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	J	0.320	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332008**	**Date Received:**	**03/13/2010 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13237**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 02:55**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:22**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D238.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D238.D
Acq On : 24 Mar 2010 2:55 am
Operator : RXD1
InstName : VOA6
Sample : |249332008|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 24 09:02:13 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1118327	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	840339	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	448798	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1118020	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	840339	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	448798	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	338474	56.67	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 113.34%					
43) Toluene-d8	11.620	11.626	0.883	98	1105977	50.31	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 100.62%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	416690	49.55	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 99.10%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	0.000	4.682	0.000		0	N.D.		
4) Vinyl chloride	0.000	4.924	0.000		0	N.D.		
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.718	6.706	0.674	43	3907	Below Cal		52
10) 1,1-Dichloroethylene	0.000	6.712	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.084	0.000		0	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	12078	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.712	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D238.D
Acq On : 24 Mar 2010 2:55 am
Operator : RXD1
InstName : VOA6
Sample : |249332008|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 24 09:02:13 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38)	Bromodichloromethane	0.000	10.864	0.000		0	N.D.		
39)	2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.		
40)	cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.		
42)	4-Methyl-2-pentanone	0.000	11.413	0.000		0	N.D.		
44)	Toluene	11.699	11.699	0.889	91	8164	0.32	ug/L	97
45)	trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.		
46)	1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.		
47)	2-Hexanone	0.000	12.260	0.000		0	N.D.		
48)	1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.		
49)	Tetrachloroethylene	0.000	12.290	0.000		0	N.D.		
50)	Dibromochloromethane	0.000	12.540	0.000		0	N.D.		
51)	1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.		
52)	Chlorobenzene	0.000	13.187	0.000		0	N.D.		
53)	1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.		
54)	Ethylbenzene	13.248	13.248	1.007	91	382	N.D.		
55)	m,p-Xylenes	0.000	13.357	0.000		0	N.D.		
56)	o-Xylene	0.000	13.796	0.000		0	N.D.		
57)	Styrene	0.000	13.796	0.000		0	N.D.		
59)	Bromoform	0.000	14.058	0.000		0	N.D.		
60)	Isopropylbenzene	0.000	14.156	0.000		0	N.D.		
62)	1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.		
63)	1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.		
64)	Bromobenzene	0.000	14.564	0.000		0	N.D.		
65)	n-Propylbenzene	0.000	14.583	0.000		0	N.D.		
66)	1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.		
67)	2-Chlorotoluene	0.000	14.729	0.000		0	N.D.		
68)	4-Chlorotoluene	0.000	14.833	0.000		0	N.D.		
69)	tert-Butylbenzene	0.000	15.107	0.000		0	N.D.		
70)	1,2,4-Trimethylbenzene	15.144	15.150	0.973	105	408	N.D.		
71)	sec-Butylbenzene	0.000	15.333	0.000		0	N.D.		
72)	4-Isopropyltoluene	0.000	15.454	0.000		0	N.D.		
73)	1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.		
74)	1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.		
75)	n-Butylbenzene	0.000	15.887	0.000		0	N.D.		
76)	1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.		
77)	1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.		
78)	1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.		
79)	Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.		
80)	Naphthalene	0.000	18.283	0.000		0	N.D.		
81)	1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.		
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.		
85)	Acrolein	0.000	6.536	0.000		0	N.D.		
86)	Trichlorotrif1uoroethane	0.000	6.682	0.000		0	N.D.		
87)	Isopropyl Alcohol	0.000	6.792	0.000		0	N.D.		
88)	Allyl chloride	0.000	7.139	0.000		0	N.D.		
89)	tert-Butyl Alcoho1	0.000	7.285	0.000		0	N.D.		
90)	Acrylonitrile	0.000	7.542	0.000		0	N.D.		
91)	Isopropyl ether	0.000	8.078	0.000		0	N.D.		
92)	2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.		
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.		
94)	Ethyl acetate	0.000	8.700	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D238.D
Acq On : 24 Mar 2010 2:55 am
Operator : RXD1
InstName : VOA6
Sample : |249332008|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 24 09:02:13 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	8.773	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	9.059	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	9.389	0.000		0m	N.D.	d
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	10.590	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.	
110)	Pentachloroethane	0.000	15.180	0.000		0	N.D.	
111)	Benzyl chloride	0.000	15.717	0.000		0	N.D.	
112)	bis(2-Chloroisopropyl)...	16.174	16.113	1.039	45	618	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D238.D
Acq On : 24 Mar 2010 2:55 am
Operator : RXD1
InstName : VOA6
Sample : |249332008|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 24 09:02:13 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

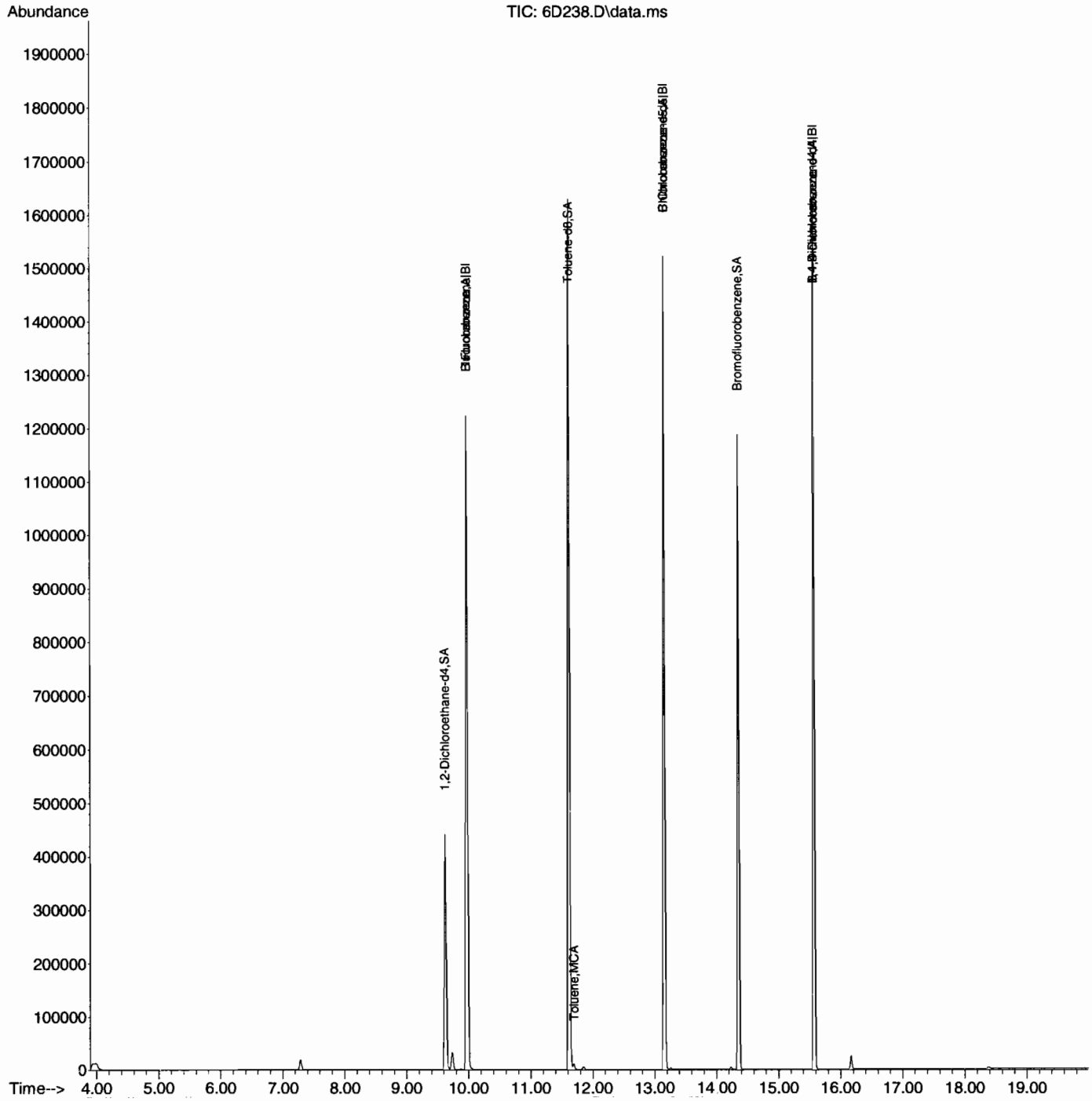

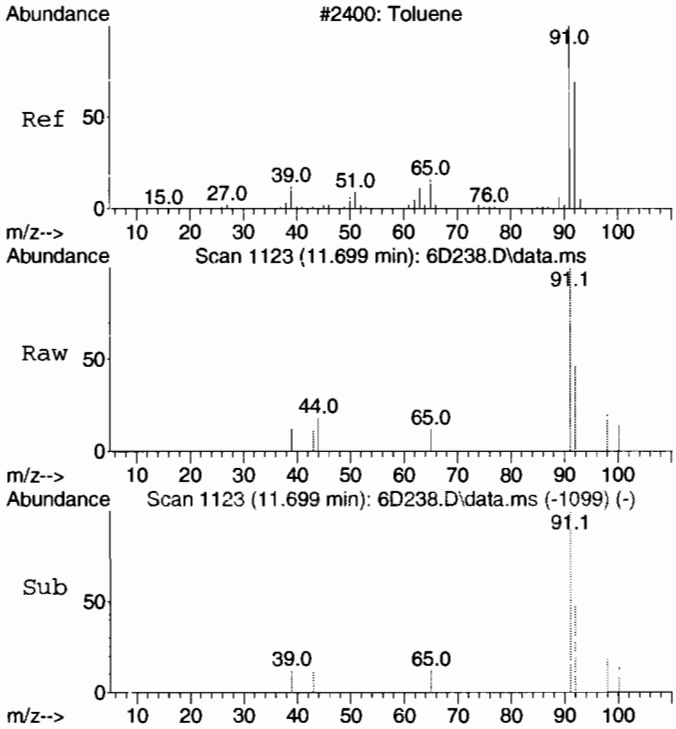

#44
Toluene
Concen: 0.32 ug/L
RT: 11.699 min Scan# 1123
Delta R.T. 0.000 min
Lab File: 6D238.D
Acq: 24 Mar 2010 2:55 am

Tgt Ion: 91 Resp: 8164

Ion	Ratio	Lower	Upper
91	100		
92	57.3	29.8	89.8

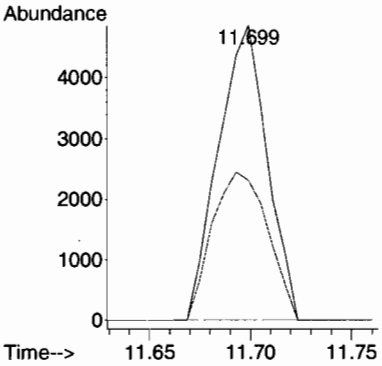

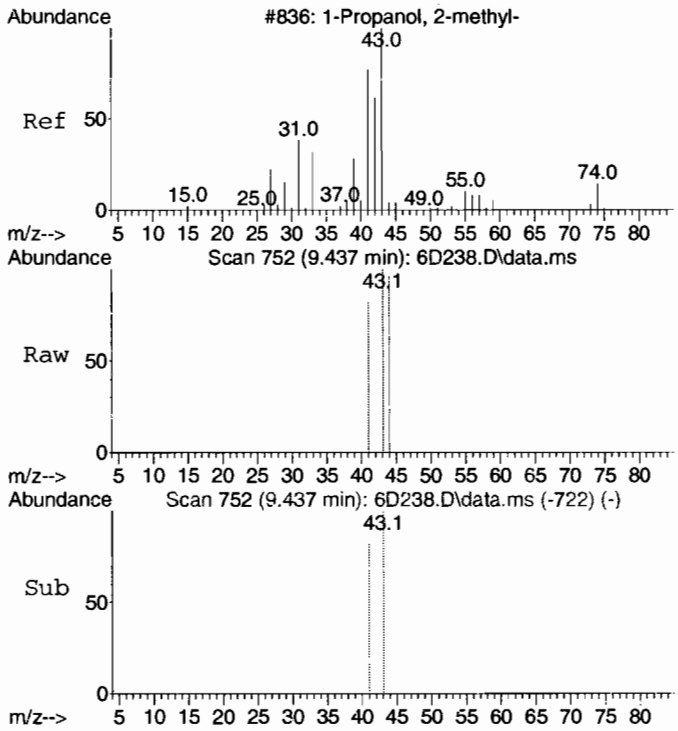

#98 BEFORE analyst DELETION
Isobutyl alcohol
Concen: 1.18 ug/L
RT: 9.437 min Scan# 752
Delta R.T. 0.048 min
Lab File: 6D238.D
Acq: 24 Mar 2010 2:55 am

Tgt Ion: 41 Resp: 202

Ion	Ratio	Lower	Upper
41	100		
43	499.5	108.3	168.3#

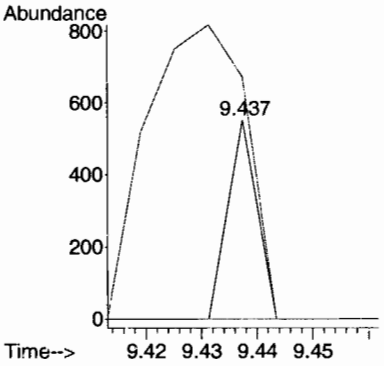

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D238.D
Acq On : 24 Mar 2010 2:55 am
Operator : RXD1
Sample : |249332008|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D238.D
Acq On : 24 Mar 2010 2:55 am
Operator : RXD1
Sample : |249332008|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332009**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**30**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-14199**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 03:22**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:24**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D239.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.43	ug/kg	0.486	1.43
74-87-3	Chloromethane	U	1.43	ug/kg	0.429	1.43
75-01-4	Vinyl chloride	U	1.43	ug/kg	0.429	1.43
74-83-9	Bromomethane	U	1.43	ug/kg	0.429	1.43
75-00-3	Chloroethane	U	1.43	ug/kg	0.429	1.43
75-69-4	Trichlorofluoromethane	U	1.43	ug/kg	0.429	1.43
67-64-1	Acetone	U	7.14	ug/kg	2.37	7.14
75-35-4	1,1-Dichloroethylene	U	1.43	ug/kg	0.429	1.43
74-88-4	Iodomethane	U	7.14	ug/kg	2.29	7.14
75-09-2	Methylene chloride	J	5.74	ug/kg	2.86	7.14
75-15-0	Carbon disulfide	U	7.14	ug/kg	1.79	7.14
156-60-5	trans-1,2-Dichloroethylene	U	1.43	ug/kg	0.429	1.43
75-34-3	1,1-Dichloroethane	U	1.43	ug/kg	0.429	1.43
78-93-3	2-Butanone	U	7.14	ug/kg	2.14	7.14
156-59-2	cis-1,2-Dichloroethylene	U	1.43	ug/kg	0.429	1.43
594-20-7	2,2-Dichloropropane	U	1.43	ug/kg	0.429	1.43
67-66-3	Chloroform	U	1.43	ug/kg	0.429	1.43
74-97-5	Bromochloromethane	U	1.43	ug/kg	0.471	1.43
71-55-6	1,1,1-Trichloroethane	U	1.43	ug/kg	0.429	1.43
563-58-6	1,1-Dichloropropene	U	1.43	ug/kg	0.429	1.43
56-23-5	Carbon tetrachloride	U	1.43	ug/kg	0.429	1.43
107-06-2	1,2-Dichloroethane	U	1.43	ug/kg	0.429	1.43
71-43-2	Benzene	U	1.43	ug/kg	0.429	1.43
79-01-6	Trichloroethylene	U	1.43	ug/kg	0.471	1.43
78-87-5	1,2-Dichloropropane	U	1.43	ug/kg	0.429	1.43
75-27-4	Bromodichloromethane	U	1.43	ug/kg	0.429	1.43
74-95-3	Dibromomethane	U	1.43	ug/kg	0.429	1.43
108-10-1	4-Methyl-2-pentanone	U	7.14	ug/kg	1.79	7.14
10061-01-5	cis-1,3-Dichloropropylene	U	1.43	ug/kg	0.429	1.43
108-88-3	Toluene	U	1.43	ug/kg	0.429	1.43
10061-02-6	trans-1,3-Dichloropropylene	U	1.43	ug/kg	0.429	1.43
79-00-5	1,1,2-Trichloroethane	U	1.43	ug/kg	0.429	1.43
591-78-6	2-Hexanone	U	7.14	ug/kg	2.14	7.14
142-28-9	1,3-Dichloropropane	U	1.43	ug/kg	0.429	1.43
127-18-4	Tetrachloroethylene	U	1.43	ug/kg	0.429	1.43
124-48-1	Dibromochloromethane	U	1.43	ug/kg	0.429	1.43
106-93-4	1,2-Dibromoethane	U	1.43	ug/kg	0.429	1.43
108-90-7	Chlorobenzene	U	1.43	ug/kg	0.429	1.43

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332009**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**30**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-14199**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 03:22**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:24**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D239.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.43	ug/kg	0.429	1.43
179601-23-1	m,p-Xylenes	U	2.86	ug/kg	0.429	2.86
95-47-6	o-Xylene	U	1.43	ug/kg	0.429	1.43
100-42-5	Styrene	U	1.43	ug/kg	0.429	1.43
75-25-2	Bromoform	U	1.43	ug/kg	0.429	1.43
79-34-5	1,1,2,2-Tetrachloroethane	U	1.43	ug/kg	0.429	1.43
96-18-4	1,2,3-Trichloropropane	U	1.43	ug/kg	0.429	1.43
108-86-1	Bromobenzene	U	1.43	ug/kg	0.429	1.43
103-65-1	n-Propylbenzene	U	1.43	ug/kg	0.429	1.43
95-49-8	2-Chlorotoluene	U	1.43	ug/kg	0.429	1.43
98-82-8	Isopropylbenzene	U	1.43	ug/kg	0.429	1.43
108-67-8	1,3,5-Trimethylbenzene	U	1.43	ug/kg	0.429	1.43
106-43-4	4-Chlorotoluene	U	1.43	ug/kg	0.429	1.43
98-06-6	tert-Butylbenzene	U	1.43	ug/kg	0.429	1.43
95-63-6	1,2,4-Trimethylbenzene	U	1.43	ug/kg	0.429	1.43
135-98-8	sec-Butylbenzene	U	1.43	ug/kg	0.429	1.43
99-87-6	4-Isopropyltoluene	U	1.43	ug/kg	0.429	1.43
541-73-1	1,3-Dichlorobenzene	U	1.43	ug/kg	0.429	1.43
106-46-7	1,4-Dichlorobenzene	U	1.43	ug/kg	0.429	1.43
104-51-8	n-Butylbenzene	U	1.43	ug/kg	0.429	1.43
96-12-8	1,2-Dibromo-3-chloropropane	U	1.43	ug/kg	0.429	1.43
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	7.14	ug/kg	2.29	7.14
630-20-6	1,1,1,2-Tetrachloroethane	U	1.43	ug/kg	0.429	1.43
95-50-1	1,2-Dichlorobenzene	U	1.43	ug/kg	0.429	1.43

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D239.D
Acq On : 24 Mar 2010 3:22 am
Operator : RXD1
InstName : VOA6
Sample : |249332009|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 24 08:04:41 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1091362	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	728964	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	282200	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1090661	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	728964	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	282200	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	309164	53.04	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 106.08%					
43) Toluene-d8	11.620	11.626	0.883	98	1035754	54.32	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 108.64%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	310172	58.66	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 117.32%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	0.000	4.682	0.000		0	N.D.		
4) Vinyl chloride	0.000	4.924	0.000		0	N.D.		
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	6.334	6.328	0.635	59	200	N.D.		
9) Acetone	6.712	6.706	0.673	43	4224	Below Cal		60
10) 1,1-Dichloroethylene	0.000	6.712	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	7.291	7.072	0.731	41	653	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.084	0.000		0	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	23743	4.02	ug/L	95
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.712	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	10.364	10.364	1.039	95	1270	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D239.D
Acq On : 24 Mar 2010 3:22 am
Operator : RXD1
InstName : VOA6
Sample : |249332009|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 24 08:04:41 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	11.413	0.000		0	N.D.	
44)	Toluene	11.693	11.699	0.889	91	3391	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47)	2-Hexanone	0.000	12.260	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	12.540	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52)	Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54)	Ethylbenzene	0.000	13.248	0.000		0	N.D.	
55)	m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56)	o-Xylene	0.000	13.796	0.000		0	N.D.	
57)	Styrene	0.000	13.796	0.000		0	N.D.	
59)	Bromoform	0.000	14.058	0.000		0	N.D.	
60)	Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64)	Bromobenzene	0.000	14.564	0.000		0	N.D.	
65)	n-Propylbenzene	0.000	14.583	0.000		0	N.D.	
66)	1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000	14.729	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.156	15.150	0.973	105	188	N.D.	
71)	sec-Butylbenzene	0.000	15.333	0.000		0	N.D.	
72)	4-Isopropyltoluene	0.000	15.454	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	15.595	15.601	1.002	146	191	N.D.	
75)	n-Butylbenzene	0.000	15.887	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80)	Naphthalene	0.000	18.283	0.000		0	N.D.	
81)	1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85)	Acrolein	0.000	6.536	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	6.792	0.000		0	N.D.	
88)	Allyl chloride	7.291	7.139	0.731	41	653	N.D.	
89)	tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90)	Acrylonitrile	0.000	7.542	0.000		0	N.D.	
91)	Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94)	Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D239.D
Acq On : 24 Mar 2010 3:22 am
Operator : RXD1
InstName : VOA6
Sample : |249332009|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 24 08:04:41 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	8.773	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	9.059	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	9.389	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	10.590	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.	
110)	Pentachloroethane	0.000	15.180	0.000		0	N.D.	
111)	Benzyl chloride	0.000	15.717	0.000		0	N.D.	
112)	bis(2-Chloroisopropyl)...	16.168	16.113	1.038	45	1033	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D239.D
Acq On : 24 Mar 2010 3:22 am
Operator : RXD1
InstName : VOA6
Sample : |249332009|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 24 08:04:41 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

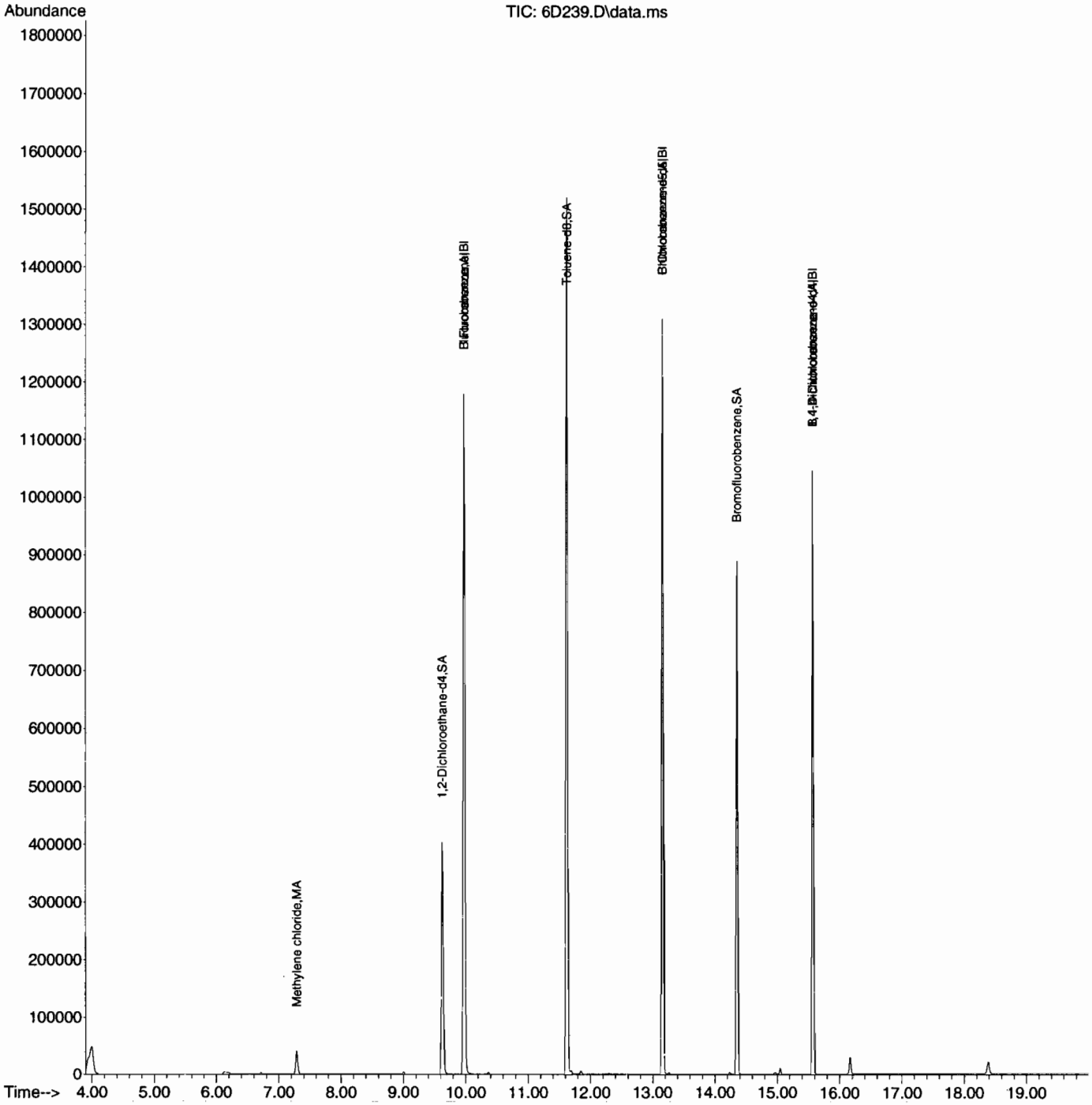

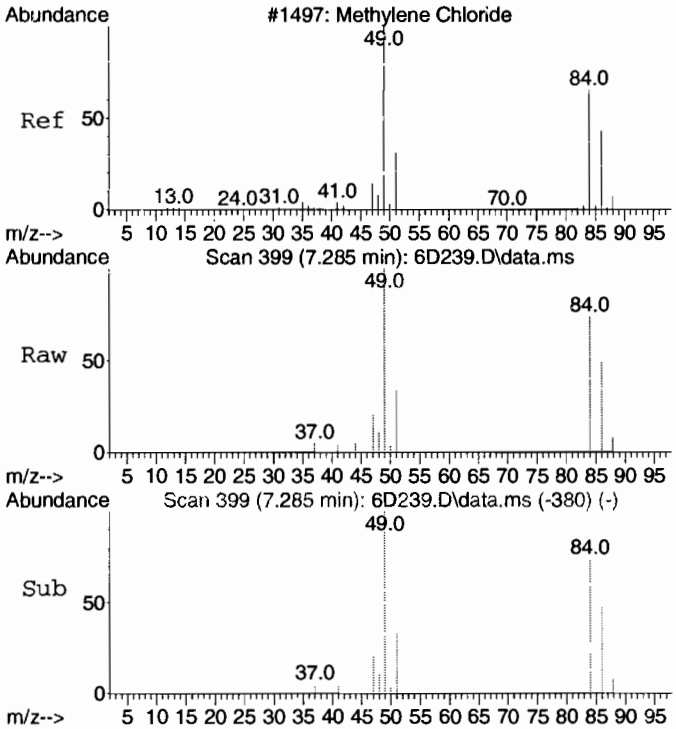

#15
Methylene chloride
Concen: 4.02 ug/L
RT: 7.285 min Scan# 399
Delta R.T. 0.000 min
Lab File: 6D239.D
Acq: 24 Mar 2010 3:22 am

Tgt Ion: 84 Resp: 23743

Ion	Ratio	Lower	Upper
84	100		
86	61.8	34.7	94.7
49	132.3	96.5	156.5

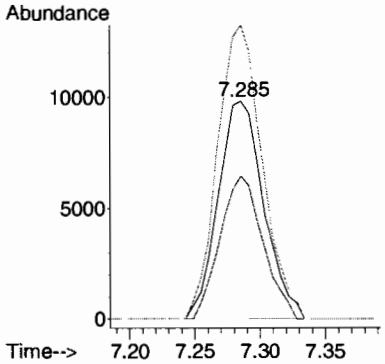

Library Search Compound Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D239.D
Acq On    : 24 Mar 2010   3:22 am
Operator  : RXD1
Sample    : |249332009|968355|1|VOAF|1|VOA8260BS|
Misc      : LANL 5g N/A SOIL
ALS Vial  : 39   Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P
```

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D239.D
Acq On    : 24 Mar 2010   3:22 am
Operator  : RXD1
Sample    : |249332009|968355|1|VOAF|1|VOA8260BS|
Misc      : LANL 5g N/A SOIL
ALS Vial  : 39   Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P

                                                  |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response  |#    RT     Resp  Conc|
-----------------------------------------------------------------------------
```

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332010**	**Date Received:**	**03/13/2010 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-14200**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 03:50**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:26**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D240.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	J	0.480	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332010**	**Date Received:**	**03/13/2010 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-14200**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 03:50**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 16:26**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D240.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D240.D
Acq On : 24 Mar 2010 3:50 am
Operator : RXD1
InstName : VOA6
Sample : |249332010|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Mar 24 09:02:54 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1080463	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	823345	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	439242	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1079708	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	823345	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	439242	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	329641	57.12	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 114.24%					
43) Toluene-d8	11.626	11.626	0.884	98	1071779	49.76	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 99.52%					
61) Bromofluorobenzene	14.357	14.357	0.922	95	409084	49.71	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 99.42%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	0.000	4.682	0.000		0	N.D.		
4) Vinyl chloride	0.000	4.924	0.000		0	N.D.		
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.712	6.706	0.673	43	6410	Below Cal		67
10) 1,1-Dichloroethylene	0.000	6.712	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.084	0.000		0	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	11902	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	9.431	9.413	0.946	56	433	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.712	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D240.D
Acq On : 24 Mar 2010 3:50 am
Operator : RXD1
InstName : VOA6
Sample : |249332010|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Mar 24 09:02:54 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.		
42) 4-Methyl-2-pentanone	0.000	11.413	0.000		0	N.D.		
44) Toluene	11.699	11.699	0.889	91	12061	0.48	ug/L	96
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.		
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.		
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.		
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.		
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.		
50) Dibromochloromethane	0.000	12.540	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.		
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.		
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.		
54) Ethylbenzene	13.254	13.248	1.007	91	675	N.D.		
55) m,p-Xylenes	0.000	13.357	0.000		0	N.D.		
56) o-Xylene	0.000	13.796	0.000		0	N.D.		
57) Styrene	0.000	13.796	0.000		0	N.D.		
59) Bromoform	0.000	14.058	0.000		0	N.D.		
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.		
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.		
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.		
64) Bromobenzene	0.000	14.564	0.000		0	N.D.		
65) n-Propylbenzene	0.000	14.583	0.000		0	N.D.		
66) 1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.		
67) 2-Chlorotoluene	0.000	14.729	0.000		0	N.D.		
68) 4-Chlorotoluene	0.000	14.833	0.000		0	N.D.		
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.		
70) 1,2,4-Trimethylbenzene	0.000	15.150	0.000		0	N.D.		
71) sec-Butylbenzene	0.000	15.333	0.000		0	N.D.		
72) 4-Isopropyltoluene	0.000	15.454	0.000		0	N.D.		
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.		
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.		
75) n-Butylbenzene	0.000	15.887	0.000		0	N.D.		
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.		
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.		
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.		
80) Naphthalene	0.000	18.283	0.000		0	N.D.		
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.		
83) Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.		
85) Acrolein	0.000	6.536	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	6.792	0.000		0	N.D.		
88) Allyl chloride	0.000	7.139	0.000		0	N.D.		
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.		
90) Acrylonitrile	0.000	7.542	0.000		0	N.D.		
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.		
94) Ethyl acetate	0.000	8.700	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D240.D
Acq On : 24 Mar 2010 3:50 am
Operator : RXD1
InstName : VOA6
Sample : |249332010|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Mar 24 09:02:54 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	8.773	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	9.059	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	9.389	0.000		0m	N.D.	d
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	10.590	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.	
110)	Pentachloroethane	0.000	15.180	0.000		0	N.D.	
111)	Benzyl chloride	0.000	15.717	0.000		0	N.D.	
112)	bis(2-Chloroisopropyl)...	0.000	16.113	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D240.D
Acq On : 24 Mar 2010 3:50 am
Operator : RXD1
InstName : VOA6
Sample : |249332010|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Mar 24 09:02:54 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

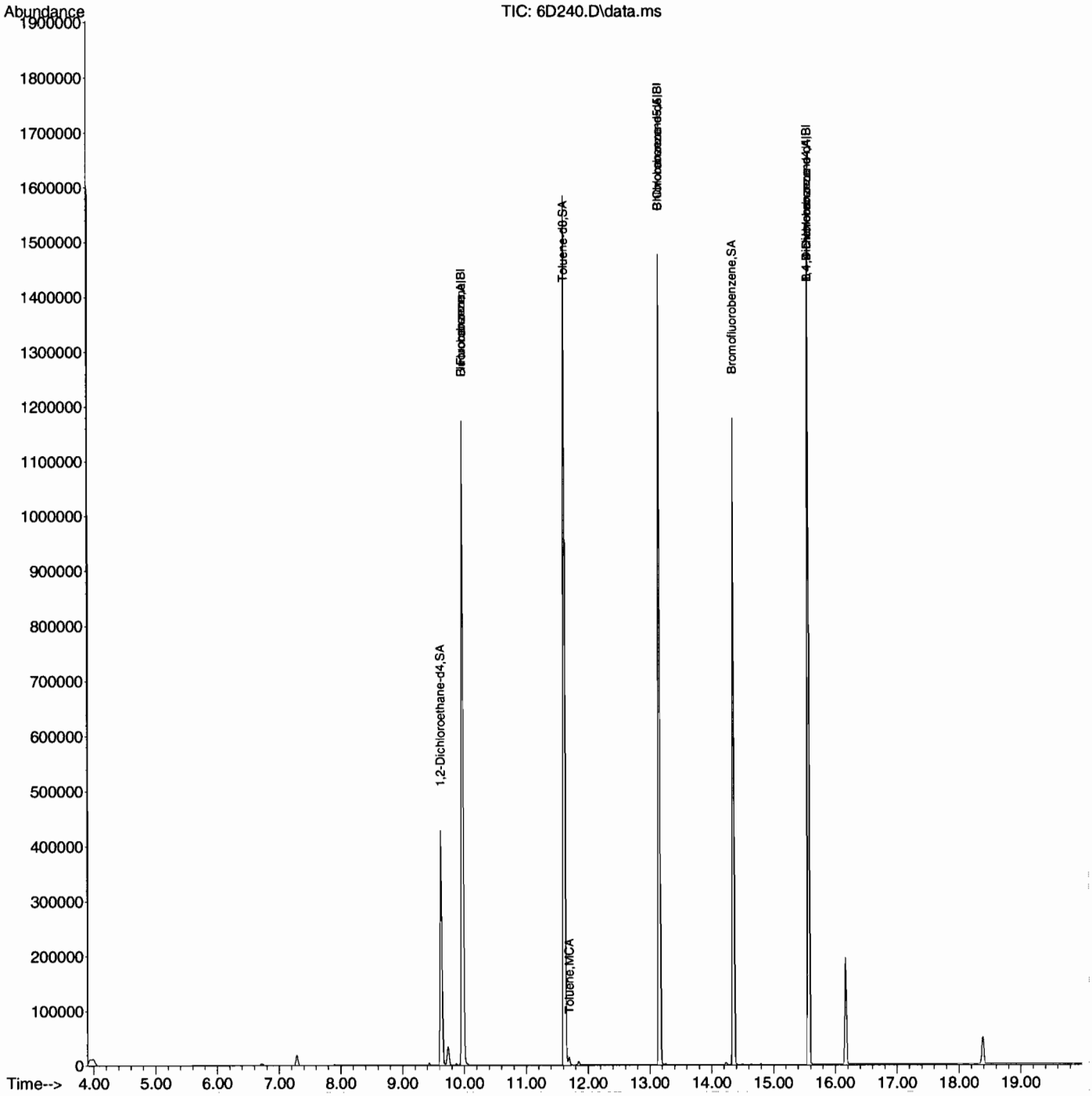

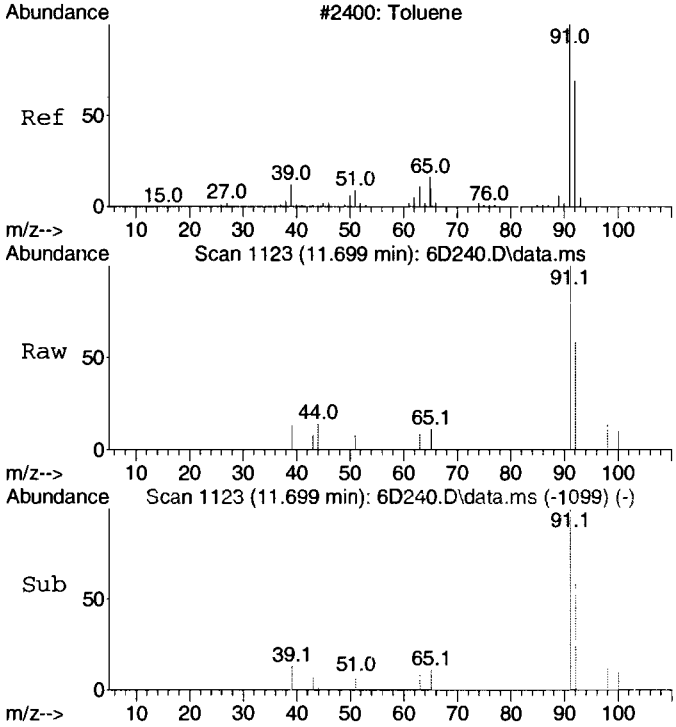

#44
Toluene
Concen: 0.48 ug/L
RT: 11.699 min Scan# 1123
Delta R.T. 0.000 min
Lab File: 6D240.D
Acq: 24 Mar 2010 3:50 am

Tgt Ion: 91 Resp: 12061

Ion	Ratio	Lower	Upper
91	100		
92	56.4	29.8	89.8

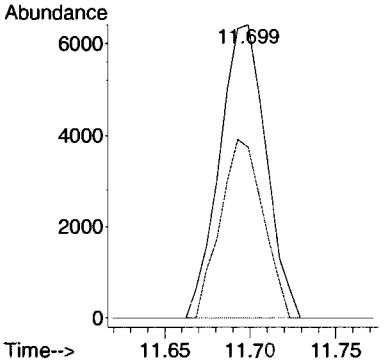

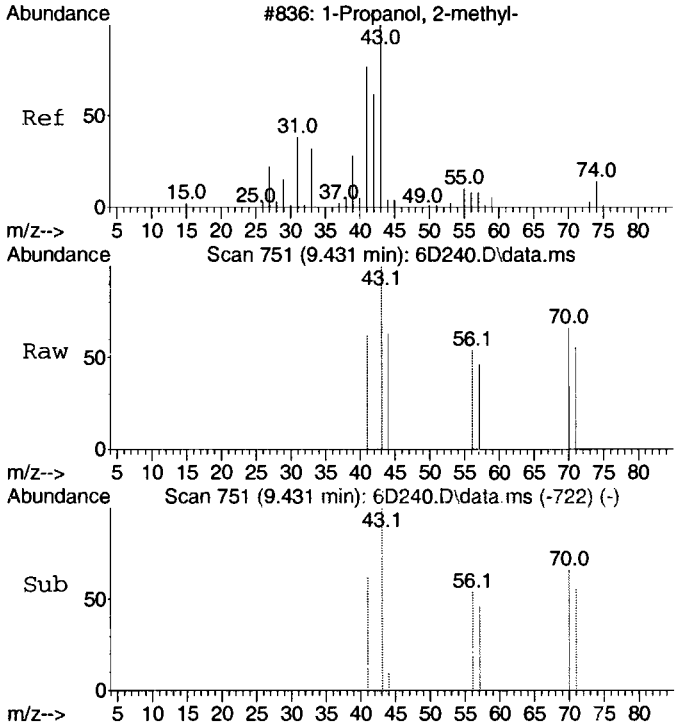

#98 BEFORE analyst DELETION
Isobutyl alcohol
Concen: 6.09 ug/L
RT: 9.431 min Scan# 751
Delta R.T. 0.042 min
Lab File: 6D240.D
Acq: 24 Mar 2010 3:50 am

Tgt Ion: 41 Resp: 1005

Ion	Ratio	Lower	Upper
41	100		
43	187.1	108.3	168.3#

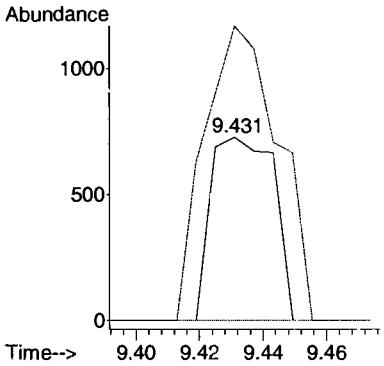

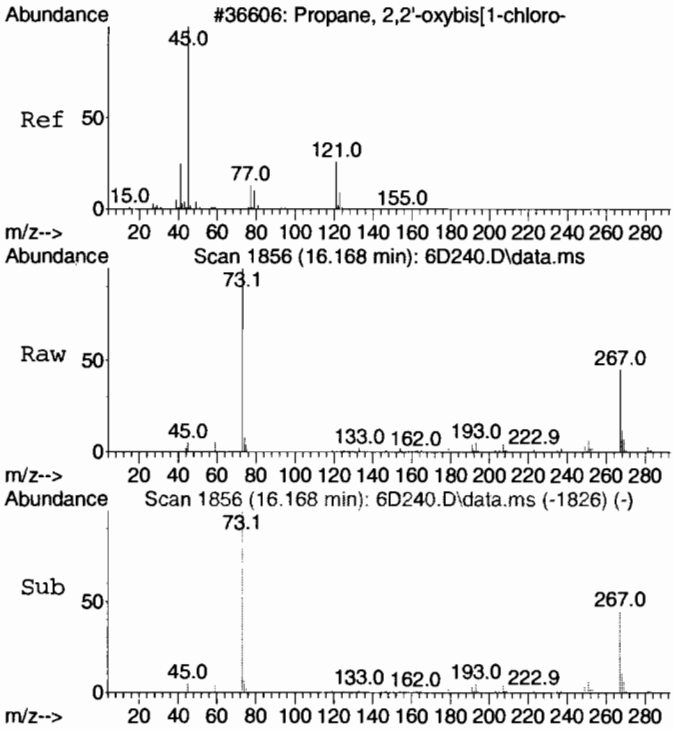

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 3.42 ug/L
RT: 16.168 min Scan# 1856
Delta R.T. 0.055 min
Lab File: 6D240.D
Acq: 24 Mar 2010 3:50 am

Tgt Ion: 45 Resp: 7111

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	58.3

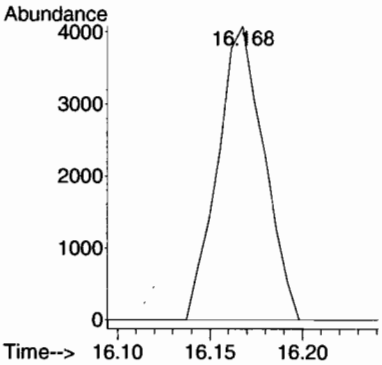

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D240.D
Acq On : 24 Mar 2010 3:50 am
Operator : RXD1
Sample : |249332010|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D240.D
Acq On : 24 Mar 2010 3:50 am
Operator : RXD1
Sample : |249332010|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**4.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13221**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 12:47**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 11:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032410V6\6D308.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.356	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.314	1.05
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.314	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.314	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.314	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.314	1.05
67-64-1	Acetone	U	5.23	ug/kg	1.74	5.23
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.314	1.05
74-88-4	Iodomethane	U	5.23	ug/kg	1.68	5.23
75-09-2	Methylene chloride	J	2.26	ug/kg	2.09	5.23
75-15-0	Carbon disulfide	U	5.23	ug/kg	1.31	5.23
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.314	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.314	1.05
78-93-3	2-Butanone	U	5.23	ug/kg	1.57	5.23
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.314	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.314	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.314	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.345	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.314	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.314	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.314	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.314	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.314	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.345	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.314	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.314	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.314	1.05
108-10-1	4-Methyl-2-pentanone	U	5.23	ug/kg	1.31	5.23
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.314	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.314	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.314	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.314	1.05
591-78-6	2-Hexanone	U	5.23	ug/kg	1.57	5.23
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.314	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.314	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.314	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.314	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.314	1.05

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**4.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13221**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 12:47**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 11:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032410V6\6D308.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.314	1.05
179601-23-1	m,p-Xylenes	U	2.09	ug/kg	0.314	2.09
95-47-6	o-Xylene	U	1.05	ug/kg	0.314	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.314	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.314	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.314	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.314	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.314	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.314	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.314	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.314	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.314	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.314	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.314	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.314	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.314	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.314	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.314	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.314	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.314	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.314	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.23	ug/kg	1.68	5.23
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.314	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.314	1.05

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D308.D
Acq On : 24 Mar 2010 12:47 pm
Operator : RXD1
InstName : VOA6
Sample : |249332002|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 25 08:30:16 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1073849	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	798920	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	378964	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1073136	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	798920	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	378964	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	299694	52.25	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 104.50%					
43) Toluene-d8	11.626	11.626	0.884	98	1042110	49.86	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 99.72%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	360650	50.79	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 101.58%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	0.000	4.682	0.000		0	N.D.		
4) Vinyl chloride	0.000	4.924	0.000		0	N.D.		
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.718	6.706	0.674	43	4020	Below Cal		53
10) 1,1-Dichloroethylene	0.000	6.712	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.084	0.000		0	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	13745	2.16	ug/L	99
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.712	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D308.D
Acq On : 24 Mar 2010 12:47 pm
Operator : RXD1
InstName : VOA6
Sample : |249332002|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 25 08:30:16 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.413	0.000		0	N.D.	
44) Toluene	11.693	11.699	0.889	91	980	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.540	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	0.000	13.248	0.000		0	N.D.	
55) m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	0.000	13.796	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.583	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.729	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	15.150	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	15.333	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.454	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	205	N.D.	
75) n-Butylbenzene	0.000	15.887	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	0.000	18.283	0.000		0	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.536	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.792	0.000		0	N.D.	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.542	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D308.D
Acq On : 24 Mar 2010 12:47 pm
Operator : RXD1
InstName : VOA6
Sample : |249332002|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 25 08:30:16 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	8.773	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	9.059	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	9.389	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	10.590	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.	
110)	Pentachloroethane	0.000	15.180	0.000		0	N.D.	
111)	Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.162	16.113	1.038	45	185	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D308.D
Acq On : 24 Mar 2010 12:47 pm
Operator : RXD1
InstName : VOA6
Sample : |249332002|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 25 08:30:16 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

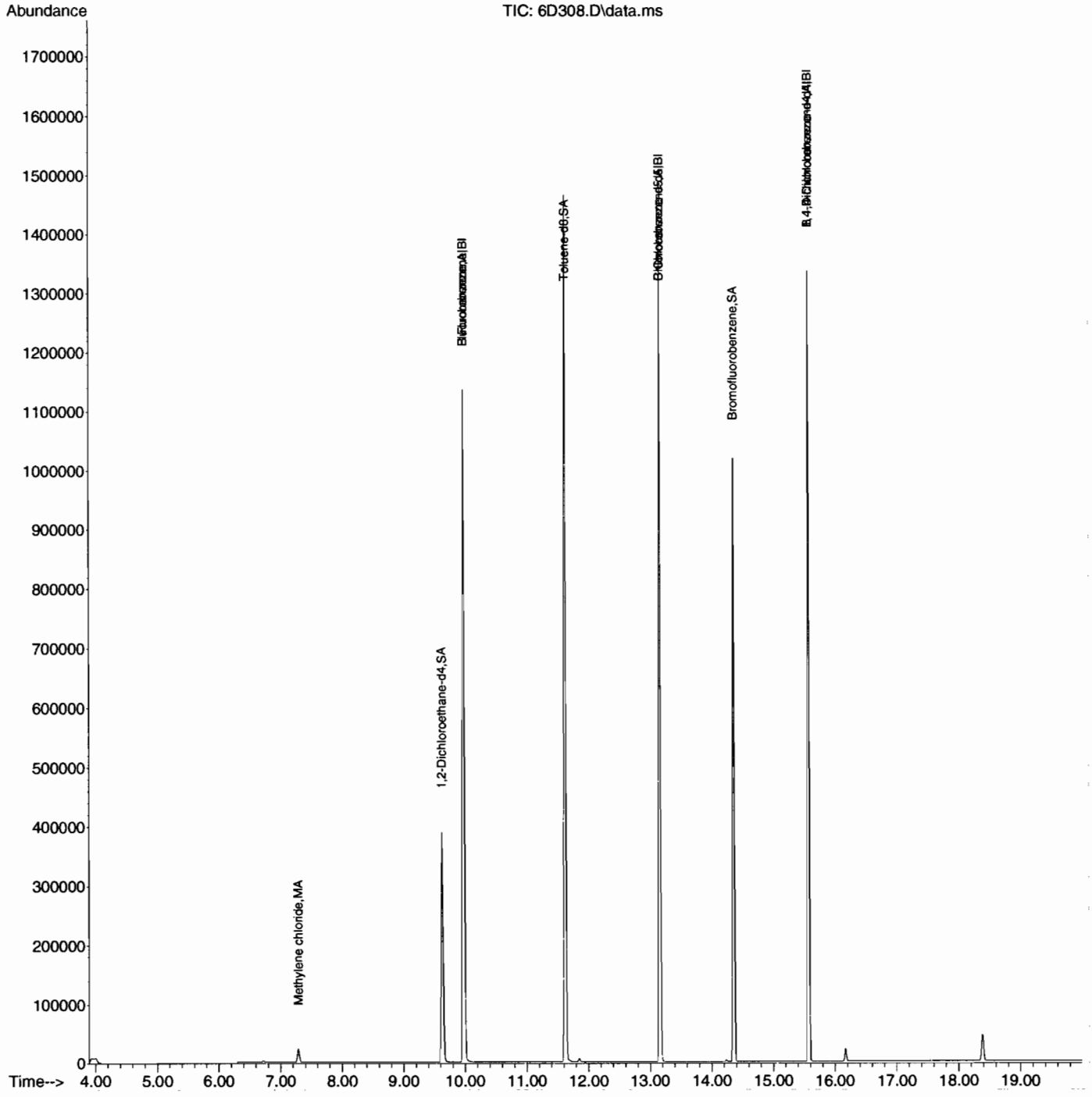

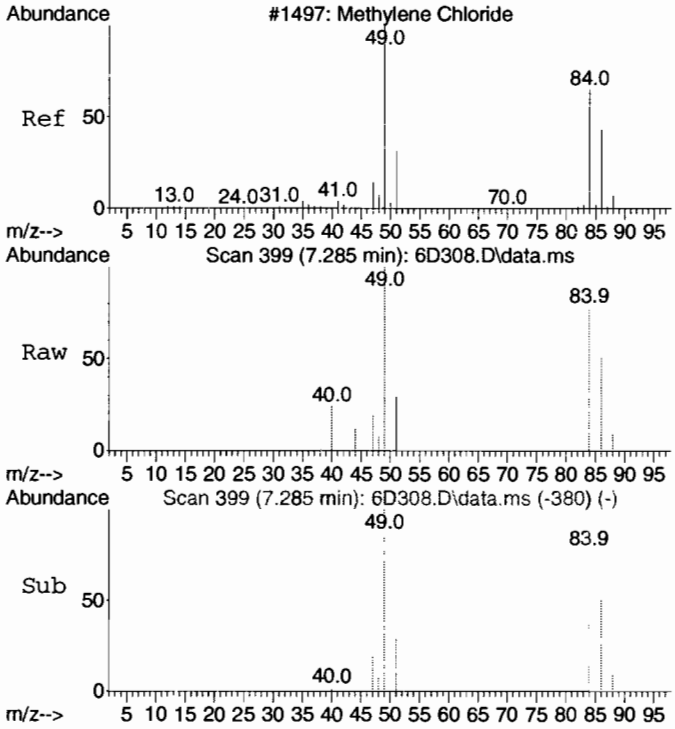

#15
Methylene chloride
Concen: 2.16 ug/L
RT: 7.285 min Scan# 399
Delta R.T. 0.000 min
Lab File: 6D308.D
Acq: 24 Mar 2010 12:47 pm

Tgt Ion: 84 Resp: 13745

Ion	Ratio	Lower	Upper
84	100		
86	63.8	34.7	94.7
49	126.2	96.5	156.5

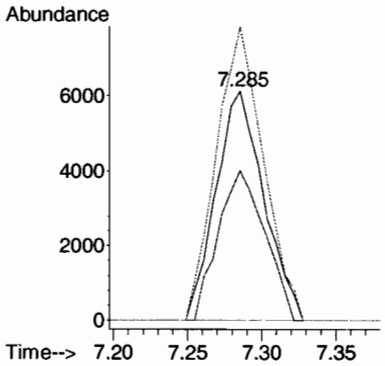

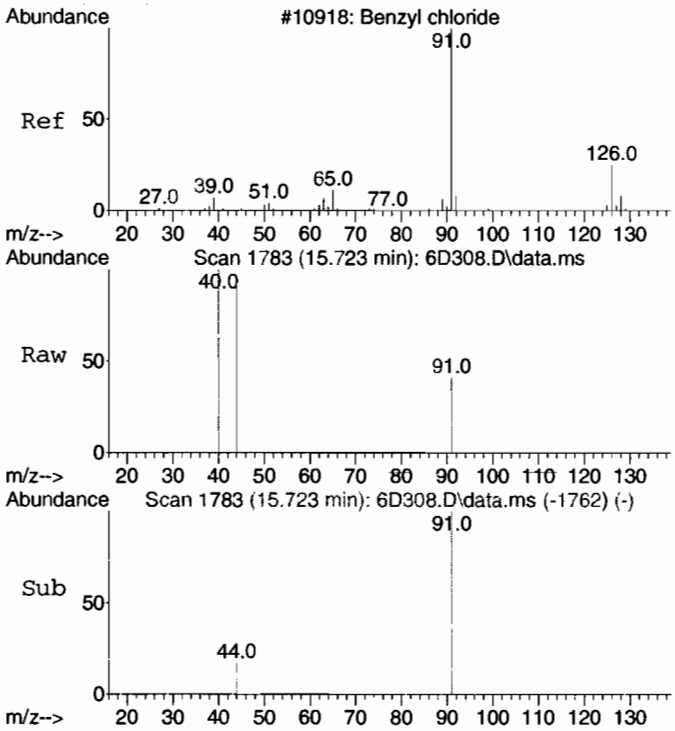

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 0.08 ug/L
RT: 15.723 min Scan# 1783
Delta R.T. 0.006 min
Lab File: 6D308.D
Acq: 24 Mar 2010 12:47 pm

Tgt Ion: 91 Resp: 637

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	53.0
65	0.0	0.0	42.7

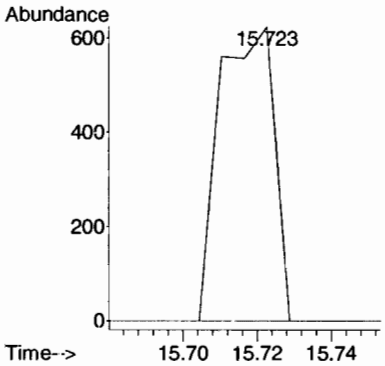

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D308.D
Acq On : 24 Mar 2010 12:47 pm
Operator : RXD1
Sample : |249332002|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D308.D
Acq On : 24 Mar 2010 12:47 pm
Operator : RXD1
Sample : |249332002|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Last Update : Sat Mar 13 09:33:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\031210V6\6B512.D

Injection Date	Mix	Calibration File
12 Mar 2010 2:28 pm	A	C:\msdchem\1\DATA\031210V6\6B512.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\031210V6\6B515.D

Injection Date	Mix	Calibration File
12 Mar 2010 10:46 am	A	C:\msdchem\1\DATA\031210V6\6B504.D
12 Mar 2010 3:52 pm	B	C:\msdchem\1\DATA\031210V6\6B515.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\031210V6\6B516.D

Injection Date	Mix	Calibration File
12 Mar 2010 11:14 am	A	C:\msdchem\1\DATA\031210V6\6B505.D
12 Mar 2010 4:19 pm	B	C:\msdchem\1\DATA\031210V6\6B516.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\031210V6\6B517.D

Injection Date	Mix	Calibration File
12 Mar 2010 11:42 am	A	C:\msdchem\1\DATA\031210V6\6B506.D
12 Mar 2010 4:48 pm	B	C:\msdchem\1\DATA\031210V6\6B517.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\031210V6\6B518.D

Injection Date	Mix	Calibration File
12 Mar 2010 12:09 pm	A	C:\msdchem\1\DATA\031210V6\6B507.D
12 Mar 2010 5:15 pm	B	C:\msdchem\1\DATA\031210V6\6B518.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\031210V6\6B519.D

Injection Date	Mix	Calibration File
12 Mar 2010 12:37 pm	A	C:\msdchem\1\DATA\031210V6\6B508.D
12 Mar 2010 5:43 pm	B	C:\msdchem\1\DATA\031210V6\6B519.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\031210V6\6B520.D

Injection Date	Mix	Calibration File
12 Mar 2010 1:05 pm	A	C:\msdchem\1\DATA\031210V6\6B509.D
12 Mar 2010 6:11 pm	B	C:\msdchem\1\DATA\031210V6\6B520.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\031210V6\6B521.D

Injection Date	Mix	Calibration File
12 Mar 2010 1:33 pm	A	C:\msdchem\1\DATA\031210V6\6B510.D
12 Mar 2010 6:39 pm	B	C:\msdchem\1\DATA\031210V6\6B521.D

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Last Update : Sat Mar 13 09:33:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane		0.2118175	0.2017264	0.2313175	0.1926607	0.1798825				
	0.1595144	0.1808732					0.1940	AVRG		12.1498
3)MPA Chloromethane		18461	28067	62665	115823	223147				
0.0041 | 0.2507 | 0.00	517947	1067500						LINR		0.9995
4)MCA Vinyl chloride		0.3432382	0.3034314	0.2940697	0.2789305	0.2667620				
	0.2487523	0.2551129					0.2843	AVRG		11.4751
5)MA Bromomethane		0.2256741	0.2060141	0.2093139	0.2060192	0.2048528				
	0.1969775	0.2042118					0.2076	AVRG		4.2477
6)MA Chloroethane		0.1984180	0.1844788	0.2046699	0.1951804	0.1907734				
	0.1813707	0.1877889					0.1918	AVRG		4.2587
7)MA Trichlorofluoromethane		0.3591636	0.3512498	0.3574494	0.3530156	0.3499062				
	0.3380579	0.3510914					0.3514	AVRG		1.9434
8)MA Ethyl ether		0.2641645	0.2330603	0.2261087	0.2237078	0.2212246				
	0.2103427	0.2146818					0.2276	AVRG		7.7965
9)MA Acetone		37378	54214	122346	247323	461484				
0.0146 | 0.0970 | 0.00	1048402	2058933						LINR		0.9995
10)MCA 1,1-Dichloroethylene		0.3616414	0.3366911	0.3519944	0.3516021	0.3238174				
	0.2909809	0.3442579					0.3373	AVRG		7.0464
11)MA Iodomethane		0.4098843	0.3866970	0.4018987	0.4044744	0.3678777				
	0.3295873	0.3759927					0.3823	AVRG		7.3064
12)MA Acetonitrile		0.0304016	0.0312918	0.0290217	0.0295354	0.0280713				
	0.0256697	0.0265236					0.0286	AVRG		7.0843
13)MA Methyl acetate		0.2030273	0.1700340	0.1592927	0.1607780	0.1671110				
	0.1525681	0.1543270					0.1667	AVRG		10.3119
14)MA Carbon disulfide		0.8279816	0.7495623	0.7797123	0.7614069	0.6277722				
	0.5862944	0.6674275					0.7143	AVRG		12.3554
15)MA Methylene chloride			31863	59484	117449	207638				
0.0024 | 0.2410 | 0.00	461538	1038857						LINR		0.9956
16)MA tert-Butyl methyl ether		0.5877966	0.6462028	0.5303401	0.5599594	0.5541895				
	0.5118207	0.5788707					0.5670	AVRG		7.7038

Response Factor Report VOA6
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle		0.3636381	0.3386775	0.3464331	0.3460859	0.3245226				
	0.2971905	0.3412927					0.3368	AVRG		6.2306
18)MA Vinyl acetate		0.4050682	0.3656826	0.4208282	0.4547981	0.4125847				
	0.4201214	0.4087983					0.4126	AVRG		6.3958
19)MPA 1,1-Dichloroethane		0.4533448	0.4271077	0.4361563	0.4384649	0.4209762				
	0.3823867	0.4305625					0.4270	AVRG		5.1917
20)MA 2-Butanone		0.1657204	0.1320748	0.1311834	0.1303007	0.1257350				
	0.1186622	0.1162723					0.1314	AVRG		12.4365
21)MA cis-1,2-Dichloroethylene		0.4072526	0.3772060	0.3761269	0.3894652	0.3704985				
	0.3383597	0.3803804					0.3770	AVRG		5.5403
22)MA 2,2-Dichloropropane		0.3064799	0.2934268	0.3049508	0.3109821	0.3130130				
	0.2932187	0.3401065					0.3089	AVRG		5.1221
23)MA Bromochloromethane		0.1275476	0.1202364	0.1187990	0.1236851	0.1187459				
	0.1110591	0.1246069					0.1207	AVRG		4.4326
24)MCA Chloroform		0.4427359	0.4202280	0.4182947	0.4216427	0.4116339				
	0.3775283	0.4145053					0.4152	AVRG		4.6813
25)MA 1,1,1-Trichloroethane		0.3705904	0.3441764	0.3386513	0.3521370	0.3404787				
	0.3175275	0.3577545					0.3459	AVRG		4.8360
26)MA Cyclohexane		0.4919314	0.5083312	0.4489105	0.4519105	0.4029849				
	0.3690491	0.4223457					0.4422	AVRG		11.0279
27)MA 1,1-Dichloropropene		0.3589471	0.3400704	0.3420208	0.3428933	0.3256159				
	0.3009533	0.3361145					0.3352	AVRG		5.3899
28)MA Carbon tetrachloride		0.3102086	0.2973754	0.3047963	0.3091232	0.3061853				
	0.2892088	0.3301603					0.3067	AVRG		4.1354
29)SA 1,2-Dichloroethane-d4		0.2709508	0.2651500	0.2644821	0.2708655	0.2657381				
	0.2683414	0.2637576					0.2670	AVRG		1.1256
30)MA 1,2-Dichloroethane		0.3565655	0.3246760	0.3233675	0.3306531	0.3190874				
	0.2933087	0.3150747					0.3232	AVRG		5.8526
31)MA Benzene	1.0171624	1.1138161	1.0335586	1.0199751	1.0143315	0.9639108				
	0.8782882	0.9640348					1.0006	AVRG		6.7975

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene	0.4408667	0.5521930 0.5004789	0.5321677	0.5281919	0.5194096	0.4814292	0.5078	AVRG		7.3436
33)MA n-Butyl alcohol -0.0081 | 0.0067 | 0.00	9523 1421817	21469 2764904	38030	108469	248187	511537		LINR	#	0.9996
34)MA Trichloroethylene	0.2232065	0.2659206 0.2467061	0.2494237	0.2534562	0.2507758	0.2413051	0.2473	AVRG		5.2680
35)MCA 1,2-Dichloropropane	0.2328437	0.2605801 0.2525978	0.2549710	0.2487108	0.2519473	0.2468328	0.2498	AVRG		3.4782
36)MA Methylcyclohexane	0.4095398	0.4957324 0.4600110	0.4706505	0.4759781	0.4742294	0.4412850	0.4611	AVRG		6.0940
37)MA Dibromomethane	0.1303543	0.1439060 0.1410351	0.1350374	0.1367475	0.1387887	0.1390451	0.1378	AVRG		3.1683
38)MA Bromodichloromethane	0.2882285	0.3084044 0.3143036	0.2790740	0.2802100	0.2951935	0.2989756	0.2949	AVRG		4.5626
39)MA 2-Chloroethylvinyl ether	0.1449496	0.1349522 0.1423222	0.1280463	0.1669831	0.1404143	0.1408395	0.1426	AVRG		8.4819
40)MA cis-1,3-Dichloropropylen	0.3683049	0.3586344 0.4036096	0.3411605	0.3542391	0.3748578	0.3785024	0.3685	AVRG		5.4519
42)MA 4-Methyl-2-pentanone	0.1165262	0.1166364 0.1202946	0.1038625	0.1131420	0.1222683	0.1213114	0.1163	AVRG		5.4557
43)SA Toluene-d8	1.2885473	1.3047931 1.3000033	1.3053391	1.3047556	1.3452290	1.3069329	1.3079	AVRG		1.3452
44)MCA Toluene	1.2750523	1.7964783 1.3643460	1.8044871	1.5437982	1.5357182	1.4195126	1.5342	AVRG		13.3342
45)MA trans-1,3-Dichloropropyl	0.4505810	0.4223590 0.4922897	0.3921591	0.4206758	0.4497572	0.4618508	0.4414	AVRG		7.3872
46)MA 1,1,2-Trichloroethane	0.2158668	0.2355383 0.2264172	0.2272393	0.2254324	0.2317492	0.2292490	0.2274	AVRG		2.7020
47)MA 2-Hexanone	0.2952851	0.3251512 0.3003943	0.2743437	0.2987469	0.3102324	0.3036136	0.3011	AVRG		5.1162

Response Factor Report VOA6
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane	0.4660754	0.5255064 0.4908158	0.4840277	0.5010807	0.5126453	0.4982285	0.4969	AVRG		3.8870
49)MA Tetrachloroethylene	0.2574323	0.3137914 0.2826557	0.2916459	0.2925478	0.2897071	0.2832760	0.2873	AVRG		5.8311
50)MA Dibromochloromethane	0.2980681	0.2807829 0.3269542	0.2561803	0.2649968	0.2868295	0.2981568	0.2874	AVRG		8.1776
51)MA 1,2-Dibromoethane	0.2606522	0.2818215 0.2750273	0.2527127	0.2636811	0.2739199	0.2766665	0.2692	AVRG		3.8562
52)MPA Chlorobenzene	0.8686342	1.0216720 0.9196467	0.9439953	0.9574266	0.9543900	0.9266808	0.9418	AVRG		4.9158
53)MA 1,1,1,2-Tetrachloroethan	0.3132195	0.3044763 0.3414279	0.2902161	0.3041182	0.3125464	0.3227814	0.3127	AVRG		5.1799
54)MCA Ethylbenzene	1.5044268	1.8526609 1.5665208	1.6763148	1.6883167	1.6733448	1.6185771	1.6543	AVRG		6.6582
55)MA m,p-Xylenes	0.6046792	0.6970725 0.6382920	0.6594820	0.6687302	0.6678113	0.6480505	0.6549	AVRG		4.4091
56)MA o-Xylene	0.6020563	0.6809091 0.6416585	0.6410754	0.6585911	0.6545585	0.6378612	0.6452	AVRG		3.7361
57)MA Styrene	1.0261777	1.1412425 1.0830552	1.0325277	1.0776207	1.0902808	1.0806620	1.0759	AVRG		3.5809
59)MPA Bromoform	0.3637803	0.3071893 0.3917796	0.2664614	0.3012421	0.3154623	0.3391076	0.3264	AVRG		12.8442
60)MA Isopropylbenzene	2.8779512	3.3241811 2.9247094	3.1851169	3.2704758	3.1697736	3.0457236	3.1140	AVRG		5.4536
61)SA Bromofluorobenzene	0.9304033	0.9573791 0.9127856	0.9446756	0.9448753	0.9533241	0.9144005	0.9368	AVRG		1.9209
62)MPA 1,1,2,2-Tetrachloroethan	0.6434592	0.7077166 0.6329169	0.6301894	0.6587123	0.6550095	0.6488275	0.6538	AVRG		3.9774
63)MA 1,2,3-Trichloropropane	0.1725076	0.1830038 0.1729410	0.1742812	0.1803590	0.1791520	0.1758728	0.1769	AVRG		2.2752

Response Factor Report VOA6
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Last Update : Sat Mar 13 09:33:19 2010
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene	0.7161573	0.8035641 0.7451922	0.7554784	0.7659647	0.7665598	0.7436759	0.7567	AVRG		3.5489
65)MA n-Propylbenzene	3.3773716	4.0172697 3.3772371	3.7858798	3.8669910	3.7411856	3.5790385	3.6779	AVRG		6.6331
66)MA 1,3,5-Trimethylbenzene	2.5087511	2.8488609 2.5672952	2.6571869	2.7915583	2.7194059	2.6162575	2.6728	AVRG		4.5506
67)MA 2-Chlorotoluene	0.7179328	0.7833052 0.7484609	0.7610641	0.7713066	0.7747280	0.7438248	0.7572	AVRG		2.9529
68)MA 4-Chlorotoluene	2.0428883	2.4894023 2.0867728	2.2590395	2.3138696	2.2532797	2.1302476	2.2251	AVRG		6.8899
69)MA tert-Butylbenzene	0.5542853	0.6140114 0.5855641	0.5754555	0.6000138	0.5969444	0.5730406	0.5856	AVRG		3.4045
70)MA 1,2,4-Trimethylbenzene	2.5310417	2.9155747 2.5970052	2.7340142	2.8148696	2.7650272	2.6736771	2.7187	AVRG		4.8061
71)MA sec-Butylbenzene	3.2805550	3.7493130 3.2874178	3.6052952	3.6878484	3.5996995	3.4709055	3.5259	AVRG		5.2805
72)MA 4-Isopropyltoluene	2.7328324	3.0366387 2.7700936	2.8929112	3.0098500	2.9753861	2.8895587	2.9010	AVRG		4.0148
73)MA 1,3-Dichlorobenzene	1.3562763	1.6307534 1.4113117	1.4673943	1.4790869	1.4913301	1.4318567	1.4669	AVRG		5.8479
74)MA 1,4-Dichlorobenzene	1.3744765	1.6497271 1.4202042	1.4991300	1.5272645	1.5096187	1.4468425	1.4896	AVRG		5.9698
75)MA n-Butylbenzene	2.5779995	2.9922649 2.5943487	2.7377276	2.8826594	2.8140483	2.7116063	2.7587	AVRG		5.4435
76)MA 1,2-Dichlorobenzene	1.2828210	1.4834323 1.3216405	1.3668511	1.4054285	1.3790134	1.3416084	1.3687	AVRG		4.7111
77)MA 1,2-Dibromo-3-chloroprop	0.1171638	0.0867279 0.1211446	0.0943022	0.1016596	0.1006879	0.1084130	0.1043	AVRG		11.7092
78)MA 1,2,4-Trichlorobenzene	0.9141406	1.0483852 0.9226872	0.9450189	0.9610077	0.9570244	0.9326724	0.9544	AVRG		4.6994

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Last Update : Sat Mar 13 09:33:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2	
79)MA Hexachlorobutadiene	0.5939383	0.6333522 0.5996099	0.6166152	0.6353508	0.6228964	0.6038196	0.6151	AVRG		2.6725	
80)MA Naphthalene	1.7881505	2.1559559 1.7715436	1.8592694	1.8689848	1.8461552	1.8536393	1.8777	AVRG		6.8308	
81)MA 1,2,3-Trichlorobenzene	0.7255148	0.8021564 0.7423670	0.7790383	0.7646731	0.7640236	0.7542940	0.7617	AVRG		3.2555	
83)B Chlorotrifluoroethylene -0.0095 | 0.1259 | 0.00	607763	19938 1125576	34344	102830	215788	619252		LINR		0.9513	#
84)B 2-Chloro-1,1,1-trifluoro	0.3015148	0.3040690 0.3039556	0.2861072	0.2951301	0.2935519	0.3061605	0.2986	AVRG		2.4371	
85)B Acrolein	0.0360140	0.0342852 0.0361440	0.0364795	0.0367400	0.0381048	0.0380237	0.0365	AVRG		3.5701	
86)B Trichlorotrifluoroethane	0.0953469	0.0993036 0.0940919	0.0988719	0.0999985	0.1009349	0.1005467	0.0984	AVRG		2.7035	
87)B Isopropyl Alcohol	0.0124696	0.0117308 0.0128192	0.0127624	0.0135213	0.0136606	0.0132783	0.0129	AVRG		5.1890	
88)B Allyl chloride	0.3333630	0.3676810 0.3277703	0.3557492	0.3513189	0.3576676	0.3559746	0.3499	AVRG		4.0629	
89)B tert-Butyl Alcohol	0.0167952	0.0149275 0.0177822	0.0161803	0.0176338	0.0180499	0.0176449	0.0170	AVRG		6.5938	
90)B Acrylonitrile	0.0640709	0.0639817 0.0649515	0.0694778	0.0715481	0.0708356	0.0696287	0.0678	AVRG		4.8936	
91)B Isopropyl ether	0.7498082	0.7415251 0.7727993	0.7257151	0.7413754	0.7498212	0.7662702	0.7496	AVRG		2.1230	
92)B 2-Chloro-1,3-butadiene	0.3198852	0.3165005 0.3257386	0.3155472	0.3202810	0.3301584	0.3295426	0.3225	AVRG		1.8553	
93)B Ethyl tert-butyl ether	0.6125627	0.5588437 0.6540362	0.5389844	0.5644184	0.5820748	0.6087273	0.5885	AVRG		6.6665	
94)B Ethyl acetate	0.1775072	0.1819134 0.1734266	0.1910496	0.1916244	0.1933254	0.1881685	0.1853	AVRG		4.1739	

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Last Update : Sat Mar 13 09:33:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile		0.0236487	0.0293700	0.0284637	0.0291015	0.0279781				
	0.0267580	0.0264019					0.0274	AVRG		7.2597
96)B Methacrylonitrile		0.1153782	0.1232713	0.1249559	0.1247090	0.1217022				
	0.1154187	0.1131760					0.1198	AVRG		4.1593
97)B Tetrahydrofuran		0.0609386	0.0638747	0.0636759	0.0629373	0.0616167				
	0.0566349	0.0559710					0.0608	AVRG		5.3562
98)B Isobutyl alcohol		0.0071421	0.0081935	0.0079302	0.0079461	0.0076496				
	0.0075260	0.0070642					0.0076	AVRG	#	5.5474
99)B Methyl tert-amyl ether		0.4506316	0.4507972	0.4737073	0.4954592	0.5169581				
	0.5376164	0.5887958					0.5020	AVRG		10.0032
100)B Methyl methacrylate		0.1240803	0.1366671	0.1461326	0.1490957	0.1503756				
	0.1495818	0.1451446					0.1430	AVRG		6.6786
101)B 1,4-Dioxane		0.0017414	0.0021312	0.0021419	0.0022147	0.0021070				
	0.0020959	0.0020285					0.0021	AVRG	#	7.4333
102)B 2-Nitropropane		0.0462847	0.0439004	0.0460169	0.0498065	0.0546800				
	0.0589066	0.0588798					0.0512	AVRG		12.2657
104)B Ethyl methacrylate		0.3046757	0.3429595	0.3692255	0.3887976	0.3884756				
	0.4002444	0.3705125					0.3664	AVRG		8.9957
106)B 1-Chlorohexane		0.6960574	0.6293392	0.6429243	0.6271740	0.6496148				
	0.6213587	0.6519695					0.6455	AVRG		3.8994
107)B cis-1,4-Dichloro-2-buten		0.1614948	0.1747775	0.1809192	0.1901204	0.1964179				
	0.2009369	0.1923293					0.1853	AVRG		7.4308
108)B Cyclohexanone		0.0105420	0.0128386	0.0141071	0.0148013	0.0148723				
	0.0150870	0.0150447					0.0139	AVRG		12.0828
109)B trans-1,4-Dichloro-2-but		0.1657652	0.1729162	0.1767336	0.1820416	0.1842876				
	0.1861249	0.1774403					0.1779	AVRG		3.9698
110)B Pentachloroethane		0.3519640	0.3186502	0.3428142	0.3575926	0.3743351				
	0.3849480	0.3704790					0.3573	AVRG		6.2177
111)B Benzyl chloride		0.8133953	0.8934589	1.0046264	1.1006820	1.1639153				
	1.2115230	1.0745648					1.0375	AVRG		13.8392

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Last Update : Sat Mar 13 09:33:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
12)B bis(2-Chloroisopropyl)et		0.2034668	0.2364583	0.2447149	0.2515408	0.2482700				
	0.2421925	0.2317176					0.2369	AVRG		6.8444

#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-2433

Instrument ID: VOA6.I **Injection Dat** 12-MAR-10 14:56

Data File: 031210V6\6B513.D **Init. Cal. Date(s)** 12-MAR-10 10:46 - 12-MAR-10 18:3

Lab Sample ID W6VM100312-10 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.267	0.26346		.01		-1.32584	30		Averaged	
S	Toluene-d8	1.3079	1.29949		.01		-0.64302	30		Averaged	
S	Bromofluorobenzene	0.9368	0.90052		.01		-3.87276	30		Averaged	
	Dichlorodifluoromethane	0.194	0.16656		.01		-14.14433	30		Averaged	
	Chloromethane	50	44.06	50			-11.88	30		Linear	spcc
	Vinyl chloride	0.2843	0.23554		.01		-17.1509	20		Averaged	ccc
	Bromomethane	0.2076	0.18854		.01		-9.18112	30		Averaged	
	Chloroethane	0.1918	0.1698		.01		-11.47028	30		Averaged	
	Trichlorofluoromethane	0.3514	0.32506		.01		-7.49573	30		Averaged	
	Ethyl ether	0.2276	0.19551		.01		-14.0993	30		Averaged	
	1,1-Dichloroethylene	0.3373	0.30974		.01		-8.17077	20		Averaged	ccc
	Acetone	250	216.44	250			-13.424	40		Linear	
	Iodomethane	0.3823	0.35715		.01		-6.5786	30		Averaged	
	Acetonitrile	0.0286	0.0259		.01		-9.44056	30		Averaged	
	Carbon disulfide	0.7143	0.69248		.01		-3.05474	30		Averaged	
	Methyl acetate	0.1667	0.14622		.01		-12.28554	40		Averaged	
	Methylene chloride	50	48.66	50			-2.68	30		Linear	
	tert-Butyl methyl ether	0.567	0.54156		.01		-4.48677	30		Averaged	
	trans-1,2-Dichloroethylene	0.3368	0.31722		.01		-5.81354	30		Averaged	
	Vinyl acetate	0.4126	0.429		.01		3.97479	40		Averaged	
	1,1-Dichloroethane	0.427	0.40704		.1		-4.67447	30		Averaged	spcc
	2-Butanone	0.1314	0.10639		.01		-19.03349	40		Averaged	
	cis-1,2-Dichloroethylene	0.377	0.36048		.01		-4.38196	30		Averaged	
	2,2-Dichloropropane	0.3089	0.31816		.01		2.99773	30		Averaged	
	Bromochloromethane	0.1207	0.11761		.01		-2.56007	30		Averaged	
	Chloroform	0.4152	0.39648		.01		-4.50867	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3459	0.33799		.01		-2.28679	30		Averaged	
	Cyclohexane	0.4422	0.40601		.01		-8.18408	30		Averaged	
	1,1-Dichloropropene	0.3352	0.32316		.01		-3.59189	30		Averaged	
	Carbon tetrachloride	0.3067	0.31062		.01		1.27812	30		Averaged	
	1,2-Dichloroethane	0.3232	0.30371		.01		-6.03032	30		Averaged	
	Benzene	1.0006	0.92863		.01		-7.19268	30		Averaged	
	Cyclohexene	0.5078	0.46069		.01		-9.27727	30		Averaged	
	n-Butyl alcohol	5000	4686.28	5000			-6.2744	40		Linear	
	Trichloroethylene	0.2473	0.23292		.01		-5.8148	30		Averaged	
	Methylcyclohexane	0.4611	0.43878		.01		-4.8406	30		Averaged	
	1,2-Dichloropropane	0.2498	0.23937		.01		-4.17534	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 12-MAR-10 14:56

Data File: 031210V6\6B513.D **Init. Cal. Date(s)** 12-MAR-10 10:46 12-MAR-10 18:3

Lab Sample ID W6VM100312-10 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1378	0.13238		.01		-3.93324	30		Averaged	
Bromodichloromethane	0.2949	0.29529		.01		0.13225	30		Averaged	
2-Chloroethylvinyl ether	0.1426	0.12064		.01		-15.39972	30		Averaged	
cis-1,3-Dichloropropylene	0.3685	0.37552		.01		1.90502	30		Averaged	
4-Methyl-2-pentanone	0.1163	0.11197		.01		-3.72313	40		Averaged	
Toluene	1.5342	1.33556		.01		-12.94746	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4414	0.45998		.01		4.20933	30		Averaged	
1,1,2-Trichloroethane	0.2274	0.21706		.01		-4.54705	30		Averaged	
2-Hexanone	0.3011	0.24457		.01		-18.77449	40		Averaged	
1,3-Dichloropropane	0.4969	0.47374		.01		-4.6609	30		Averaged	
Tetrachloroethylene	0.2873	0.27188		.01		-5.36721	30		Averaged	
Dibromochloromethane	0.2874	0.29883		.01		3.97704	30		Averaged	
1,2-Dibromoethane	0.2692	0.26354		.01		-2.10253	30		Averaged	
Chlorobenzene	0.9418	0.90194		.3		-4.23232	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3127	0.32095		.01		2.63831	30		Averaged	
Ethylbenzene	1.6543	1.53469		.01		-7.23025	20		Averaged	ccc
m,p-Xylenes	0.6549	0.62104		.01		-5.17026	30		Averaged	
o-Xylene	0.6452	0.61682		.01		-4.39864	30		Averaged	
Styrene	1.0759	1.03933		.01		-3.39901	30		Averaged	
Bromoform	0.3264	0.34846		.1		6.75858	30		Averaged	spcc
Isopropylbenzene	3.114	2.88704		.01		-7.28838	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6538	0.60415		.3		-7.59407	30		Averaged	spcc
1,2,3-Trichloropropane	0.1769	0.16513		.01		-6.65348	30		Averaged	
Bromobenzene	0.7567	0.71535		.01		-5.46452	30		Averaged	
n-Propylbenzene	3.6779	3.34156		.01		-9.14489	30		Averaged	
2-Chlorotoluene	0.7572	0.72225		.01		-4.61569	30		Averaged	
1,3,5-Trimethylbenzene	2.6728	2.50815		.01		-6.16021	30		Averaged	
4-Chlorotoluene	2.2251	2.03		.01		-8.76815	30		Averaged	
tert-Butylbenzene	0.5856	0.56388		.01		-3.70902	30		Averaged	
1,2,4-Trimethylbenzene	2.7187	2.5269		.01		-7.05484	30		Averaged	
sec-Butylbenzene	3.5259	3.28572		.01		-6.81188	30		Averaged	
4-Isopropyltoluene	2.901	2.73819		.01		-5.6122	30		Averaged	
1,3-Dichlorobenzene	1.4669	1.36376		.01		-7.03115	30		Averaged	
1,4-Dichlorobenzene	1.4896	1.38177		.01		-7.23886	30		Averaged	
n-Butylbenzene	2.7587	2.55666		.01		-7.32374	30		Averaged	
1,2-Dichlorobenzene	1.3687	1.28508		.01		-6.10945	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1043	0.10714		.01		2.72291	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 12-MAR-10 14:56

Data File: 031210V6\6B513.D **Init. Cal. Date(s)** 12-MAR-10 10:46 12-MAR-10 18:3

Lab Sample ID W6VM100312-10 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.9544	0.8715		.01		-8.68609	30		Averaged
Hexachlorobutadiene	0.6151	0.57411		.01		-6.66396	30		Averaged
Naphthalene	1.8777	1.6365		.01		-12.8455	30		Averaged
1,2,3-Trichlorobenzene	0.7617	0.71098		.01		-6.65879	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031210V6\
Data File : 6B513.D
Acq On : 12 Mar 2010 2:56 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100312-10|L-ICV|1|VOAF|1|VOA8260BS|
Misc : L-ICV 5mL N/A MIX[A] 0305-01A+0310-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 13 09:35:43 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	2100048	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	1555098	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	860960	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	2097889	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	1555098	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	860960	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	553272	49.33	ug/L	0.00
43) Toluene-d8	11.626	11.626	0.884	98	2020840	49.68	ug/L	0.00
61) Bromofluorobenzene	14.357	14.357	0.922	95	775309	48.06	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	349791	42.94	ug/L	100
3) Chloromethane	4.682	4.682	0.469	50	472689	44.06	ug/L	100
4) Vinyl chloride	4.924	4.924	0.494	62	494645	41.42	ug/L	99
5) Bromomethane	5.478	5.478	0.549	94	395941	45.41	ug/L	100
6) Chloroethane	5.619	5.619	0.563	64	356583	44.26	ug/L	100
7) Trichlorofluoromethane	6.032	6.032	0.605	101	682652	46.25	ug/L	100
8) Ethyl ether	6.328	6.328	0.634	59	410589	42.95	ug/L	98
9) Acetone	6.706	6.706	0.672	43	912336	216.44	ug/L	99
10) 1,1-Dichloroethylene	6.712	6.712	0.673	61	650459	45.92	ug/L	100
11) Iodomethane	6.956	6.956	0.697	142	3750119	233.52	ug/L	100
12) Acetonitrile	7.072	7.072	0.709	41	1360042	1130.43	ug/L	100
13) Methyl acetate	7.096	7.096	0.711	43	1535310	219.24	ug/L	100
14) Carbon disulfide	7.084	7.084	0.710	76	7271207	242.36	ug/L	100
15) Methylene chloride	7.285	7.285	0.730	84	497671	48.66	ug/L	99
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	1137295	47.75	ug/L	99
17) trans-1,2-Dichloroethy...	7.621	7.621	0.764	61	666169	47.09	ug/L	100
18) Vinyl acetate	8.060	8.060	0.808	43	4504652	259.97	ug/L	98
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	854812	47.66	ug/L	100
20) 2-Butanone	8.694	8.694	0.872	43	1117168	202.39	ug/L	100
21) cis-1,2-Dichloroethylene	8.742	8.742	0.877	61	757023	47.80	ug/L	100
22) 2,2-Dichloropropane	8.767	8.767	0.879	77	668160	51.50	ug/L	98
23) Bromochloromethane	9.017	9.017	0.904	128	246989	48.73	ug/L	98
24) Chloroform	9.053	9.053	0.908	83	832624	47.74	ug/L	100
25) 1,1,1-Trichloroethane	9.328	9.321	0.935	97	709789	48.86	ug/L	100
26) Cyclohexane	9.413	9.413	0.944	56	852647	45.91	ug/L	100
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	678654	48.20	ug/L	99
28) Carbon tetrachloride	9.517	9.510	0.954	117	652321	50.64	ug/L	100
30) 1,2-Dichloroethane	9.706	9.712	0.973	62	637796	46.98	ug/L	100
31) Benzene	9.724	9.724	0.975	78	1950165	46.40	ug/L	100
32) Cyclohexene	9.834	9.834	0.986	67	967475	45.36	ug/L	99
33) n-Butyl alcohol	10.077	10.077	1.010	56	1294290	4686.28	ug/L	100
34) Trichloroethylene	10.364	10.364	1.039	95	489147	47.10	ug/L	99
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	502692	47.92	ug/L	99
36) Methylcyclohexane	10.602	10.602	1.063	83	921466	47.58	ug/L	100
37) Dibromomethane	10.748	10.748	1.078	93	278004	48.02	ug/L	100
38) Bromodichloromethane	10.864	10.864	1.089	83	620122	50.06	ug/L	99
39) 2-Chloroethylvinyl ether	11.089	11.089	1.112	63	1266698	211.43	ug/L	100
40) cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	788609	50.96	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031210V6\
Data File : 6B513.D
Acq On : 12 Mar 2010 2:56 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100312-10|L-ICV|1|VOAF|1|VOA8260BS|
Misc : L-ICV 5mL N/A MIX[A] 0305-01A+0310-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 13 09:35:43 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42)	4-Methyl-2-pentanone	11.406	11.413	0.867	58	870638	240.71	ug/L		100
44)	Toluene	11.693	11.699	0.889	91	2076922	43.53	ug/L		99
45)	trans-1,3-Dichloroprop...	11.858	11.858	0.901	75	715321	52.11	ug/L		100
46)	1,1,2-Trichloroethane	12.077	12.077	0.918	83	337549	47.74	ug/L		99
47)	2-Hexanone	12.260	12.260	0.932	43	1901645	203.06	ug/L		100
48)	1,3-Dichloropropane	12.272	12.272	0.933	76	736719	47.67	ug/L		92
49)	Tetrachloroethylene	12.290	12.290	0.934	164	422801	47.32	ug/L		100
50)	Dibromochloromethane	12.540	12.540	0.953	129	464704	51.98	ug/L		100
51)	1,2-Dibromoethane	12.705	12.705	0.966	107	409829	48.95	ug/L		100
52)	Chlorobenzene	13.187	13.187	1.002	112	1402599	47.88	ug/L		100
53)	1,1,1,2-Tetrachloroethane	13.241	13.241	1.006	131	499113	51.32	ug/L		100
54)	Ethylbenzene	13.248	13.248	1.007	91	2386592	46.38	ug/L		100
55)	m,p-Xylenes	13.363	13.357	1.016	106	1931562	94.83	ug/L		99
56)	o-Xylene	13.796	13.796	1.049	106	959216	47.80	ug/L		100
57)	Styrene	13.802	13.796	1.049	104	1616259	48.30	ug/L		100
59)	Bromoform	14.058	14.058	0.903	173	300007	53.37	ug/L		99
60)	Isopropylbenzene	14.156	14.156	0.909	105	2485622	46.36	ug/L		100
62)	1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	520152	46.20	ug/L		99
63)	1,2,3-Trichloropropane	14.528	14.528	0.933	110	142173	46.68	ug/L	#	1
64)	Bromobenzene	14.564	14.564	0.935	156	615892	47.27	ug/L		99
65)	n-Propylbenzene	14.583	14.583	0.937	91	2876947	45.43	ug/L		100
66)	1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	2159416	46.92	ug/L		100
67)	2-Chlorotoluene	14.729	14.729	0.946	126	621828	47.69	ug/L		100
68)	4-Chlorotoluene	14.833	14.833	0.953	91	1747749	45.62	ug/L		99
69)	tert-Butylbenzene	15.107	15.107	0.970	134	485475	48.14	ug/L		98
70)	1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	2175564	46.47	ug/L		99
71)	sec-Butylbenzene	15.333	15.333	0.985	105	2828874	46.59	ug/L		100
72)	4-Isopropyltoluene	15.454	15.454	0.993	119	2357474	47.19	ug/L		100
73)	1,3-Dichlorobenzene	15.515	15.515	0.996	146	1174140	46.49	ug/L		100
74)	1,4-Dichlorobenzene	15.601	15.601	1.002	146	1189646	46.38	ug/L		100
75)	n-Butylbenzene	15.887	15.887	1.020	91	2201181	46.34	ug/L		100
76)	1,2-Dichlorobenzene	16.021	16.021	1.029	146	1106402	46.95	ug/L		100
77)	1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	92243	51.36	ug/L		99
78)	1,2,4-Trichlorobenzene	17.911	17.911	1.150	180	750328	45.66	ug/L		100
79)	Hexachlorobutadiene	18.076	18.076	1.161	225	494290	46.67	ug/L		100
80)	Naphthalene	18.289	18.283	1.175	128	1408957	43.58	ug/L		100
81)	1,2,3-Trichlorobenzene	18.618	18.618	1.196	180	612125	46.67	ug/L		99
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.			
85)	Acrolein	6.474	6.536	0.649		0m	N.D.	d		
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.			
87)	Isopropyl Alcohol	6.706	6.792	0.672		0m	N.D.	d		
88)	Allyl chloride	7.072	7.139	0.709		0m	N.D.	d		
89)	tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.			
90)	Acrylonitrile	7.572	7.542	0.759		0m	N.D.	d		
91)	Isopropyl ether	8.060	8.078	0.808		0m	N.D.	d		
92)	2-Chloro-1,3-butadiene	8.212	8.206	0.823		0m	N.D.	d		
93)	Ethyl tert-butyl ether	8.486	8.486	0.851		0m	N.D.	d		
94)	Ethyl acetate	8.694	8.700	0.872		0m	N.D.	d		
95)	Propionitrile	8.687	8.773	0.871		0m	N.D.	d		
96)	Methacrylonitrile	8.974	8.950	0.900		0m	N.D.	d		
97)	Tetrahydrofuran	9.053	9.059	0.908		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031210V6\
Data File : 6B513.D
Acq On : 12 Mar 2010 2:56 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100312-10|L-ICV|1|VOAF|1|VOA8260BS|
Misc : L-ICV 5mL N/A MIX[A] 0305-01A+0310-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 13 09:35:43 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	9.413	9.389	0.944		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724	9.736	0.975		0m	N.D.	d
100)	Methyl methacrylate	10.602	10.590	1.063		0m	N.D.	d
101)	1,4-Dioxane	10.748	10.699	1.078		0m	N.D.	d
102)	2-Nitropropane	11.089	11.071	1.112		0m	N.D.	d
104)	Ethyl methacrylate	11.858	11.858	0.901		0m	N.D.	d
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156	14.199	0.909		0m	N.D.	d
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.	
110)	Pentachloroethane	15.180	15.180	0.975		0m	N.D.	d
111)	Benzyl chloride	15.710	15.717	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.168	16.113	1.038		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\031210V6\
Data File : 6B513.D
Acq On    : 12 Mar 2010   2:56 pm
Operator  : RXD1
InstName  : VOA6
Sample    : |W6VM100312-10|L-ICV|1|VOAF|1|VOA8260BS|
Misc      : L-ICV 5mL N/A MIX[A] 0305-01A+0310-01
ALS Vial  : 13   Sample Multiplier: 1

Quant Time: Mar 13 09:35:43 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE
```

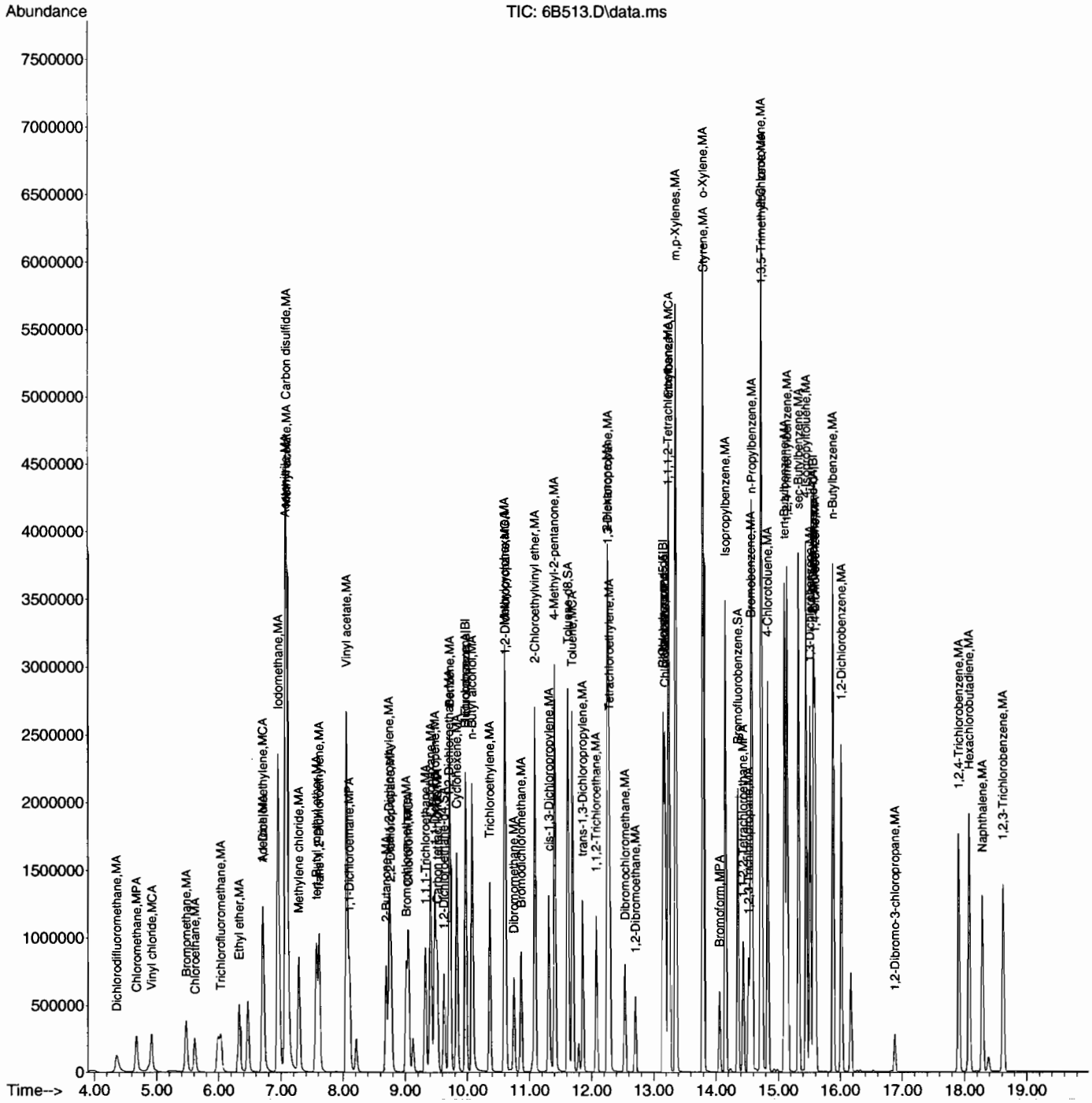

Continuing Calibration Summary

Client SDG: 10-2433

Instrument ID: VOA6.I **Injection Date** 12-MAR-10 19:34

Data File: 031210V6\6B523.D **Init. Cal. Date(s)** 12-MAR-10 10:46 - 12-MAR-10 18:3

Lab Sample ID W6VM100312-19 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.267	0.25906		.01		-2.97378	30		Averaged
S	Toluene-d8	1.3079	1.30219		.01		-0.43658	30		Averaged
S	Bromofluorobenzene	0.9368	0.93716		.01		0.03843	30		Averaged
	Chlorotrifluoroethylene	150	134.12	150			-10.58667	30		Linear
	2-Chloro-1,1,1-trifluoroethane	0.2986	0.30928		.01		3.57669	30		Averaged
	Acrolein	0.0365	0.03724		.01		2.0274	30		Averaged
	Trichlorotrifluoroethane	0.0984	0.09273		.01		-5.7622	30		Averaged
	Isopropyl Alcohol	0.0129	0.01392		.01		7.90698	40		Averaged
	Allyl chloride	0.3499	0.36373		.01		3.95256	30		Averaged
	tert-Butyl Alcohol	0.017	0.01892		.01		11.29412	40		Averaged
	Acrylonitrile	0.0678	0.07068		.01		4.24779	30		Averaged
	Isopropyl ether	0.7496	0.76805		.01		2.46131	30		Averaged
	2-Chloro-1,3-butadiene	0.3225	0.35986		.01		11.5845	30		Averaged
	Ethyl tert-butyl ether	0.5885	0.6343		.01		7.7825	30		Averaged
	Ethyl acetate	0.1853	0.17424		.01		-5.9687	40		Averaged
	Propionitrile	0.0274	0.0277		.01		1.09489	30		Averaged
	Methacrylonitrile	0.1198	0.12108		.01		1.06845	30		Averaged
	Tetrahydrofuran	0.0608	0.05973		.01		-1.75987	30		Averaged
	Isobutyl alcohol	0.0076	0.00712		.01		-6.31579	40		Averaged
	Methyl tert-amyl ether	0.502	0.54087		.01		7.74303	30		Averaged
	Methyl methacrylate	0.143	0.15285		.01		6.88811	30		Averaged
	1,4-Dioxane	0.0021	0.00205		.01		-2.38095	40		Averaged
	2-Nitropropane	0.0512	0.05876		.01		14.76563	30		Averaged
	Ethyl methacrylate	0.3664	0.39728		.01		8.42795	30		Averaged
	1-Chlorohexane	0.6455	0.64739		.01		0.2928	30		Averaged
	cis-1,4-Dichloro-2-butene	0.1853	0.20837		.01		12.45008	30		Averaged
	Cyclohexanone	0.0139	0.01299		.01		-6.54676	40		Averaged
	trans-1,4-Dichloro-2-butene	0.1779	0.19612		.01		10.24171	30		Averaged
	Pentachloroethane	0.3573	0.32498		.01		-9.04562	30		Averaged
	Benzyl chloride	1.0375	1.09027		.01		5.08627	30		Averaged
	bis(2-Chloroisopropyl)ether	0.2369	0.24335		.01		2.72267	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031210V6\
Data File : 6B523.D
Acq On : 12 Mar 2010 7:34 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100312-19|S-ICV|1|VOAF|1|VOA8260BS|
Misc : S-ICV 5mL N/A MIX[B] 0304-08A+0226-02A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 13 09:35:55 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	2117587	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	1577557	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	837515	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	2115310	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	1577557	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	15.577	1.000	152	837515	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	548585	48.51	ug/L	0.00
43) Toluene-d8	11.626	11.626	0.884	98	2054282	49.78	ug/L	0.00
61) Bromofluorobenzene	14.357	14.357	0.922	95	784884	50.02	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.279	4.360	0.429		0m	N.D.	d	
3) Chloromethane	4.662	4.682	0.467		0m	N.D.	d	
4) Vinyl chloride	4.894	4.924	0.491		0m	N.D.	d	
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.688	6.706	0.671		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.682	6.712	0.670		0m	N.D.	d	
11) Iodomethane	6.950	6.956	0.697		0m	N.D.	d	
12) Acetonitrile	7.139	7.072	0.716		0m	N.D.	d	
13) Methyl acetate	7.096	7.096	0.711		0m	N.D.	d	
14) Carbon disulfide	7.139	7.084	0.716		0m	N.D.	d	
15) Methylene chloride	7.285	7.285	0.730		0m	N.D.	d	
16) tert-Butyl methyl ether	7.578	7.572	0.760		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	8.078	8.060	0.810		0m	N.D.	d	
19) 1,1-Dichloroethane	8.206	8.102	0.823		0m	N.D.	d	
20) 2-Butanone	8.700	8.694	0.872		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.700	8.742	0.872		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	9.053	9.053	0.908		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	9.388	9.413	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	9.736	9.712	0.976		0m	N.D.	d	
31) Benzene	9.718	9.724	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	10.370	10.364	1.040		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	10.589	10.602	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031210V6\
Data File : 6B523.D
Acq On : 12 Mar 2010 7:34 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100312-19|S-ICV|1|VOAF|1|VOA8260BS|
Misc : S-ICV 5mL N/A MIX[B] 0304-08A+0226-02A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 13 09:35:55 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	0.000	11.413	0.000		0	N.D.		
44) Toluene	11.693	11.699	0.889		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.		
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.		
47) 2-Hexanone	12.254	12.260	0.931		0m	N.D.	d	
48) 1,3-Dichloropropane	12.309	12.272	0.936		0m	N.D.	d	
49) Tetrachloroethylene	12.290	12.290	0.934		0m	N.D.	d	
50) Dibromochloromethane	0.000	12.540	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.		
52) Chlorobenzene	13.186	13.187	1.002		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.		
54) Ethylbenzene	13.247	13.248	1.007		0m	N.D.	d	
55) m,p-Xylenes	13.369	13.357	1.016		0m	N.D.	d	
56) o-Xylene	0.000	13.796	0.000		0	N.D.		
57) Styrene	0.000	13.796	0.000		0	N.D.		
59) Bromoform	0.000	14.058	0.000		0	N.D.		
60) Isopropylbenzene	14.156	14.156	0.909		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	14.485	14.436	0.930		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.		
64) Bromobenzene	0.000	14.564	0.000		0	N.D.		
65) n-Propylbenzene	14.583	14.583	0.936		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946		0m	N.D.	d	
67) 2-Chlorotoluene	14.735	14.729	0.946		0m	N.D.	d	
68) 4-Chlorotoluene	14.832	14.833	0.952		0m	N.D.	d	
69) tert-Butylbenzene	15.174	15.107	0.974		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	15.149	15.150	0.973		0m	N.D.	d	
71) sec-Butylbenzene	0.000	15.333	0.000		0	N.D.		
72) 4-Isopropyltoluene	15.454	15.454	0.992		0m	N.D.	d	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.		
74) 1,4-Dichlorobenzene	15.601	15.601	1.002		0m	N.D.	d	
75) n-Butylbenzene	0.000	15.887	0.000		0	N.D.		
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.		
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.		
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.		
80) Naphthalene	18.289	18.283	1.174		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.		
83) Chlorotrifluoroethylene	4.279	4.280	0.429	116	694088	134.12	ug/L	100
84) 2-Chloro-1,1,1-trifluo...	5.035	5.035	0.505	118	1962678	155.34	ug/L	100
85) Acrolein	6.535	6.536	0.655	56	393870	254.78	ug/L	99
86) Trichlorotrifluoroethane	6.682	6.682	0.670	85	980776	235.50	ug/L	99
87) Isopropyl Alcohol	6.791	6.792	0.681	45	1472261	2699.42	ug/L	99
88) Allyl chloride	7.139	7.139	0.716	41	3846969	259.85	ug/L	100
89) tert-Butyl Alcohol	7.285	7.285	0.730	59	2001263	2782.28	ug/L	99
90) Acrylonitrile	7.541	7.542	0.756	53	747569	260.68	ug/L	100
91) Isopropyl ether	8.078	8.078	0.810	45	1624667	51.23	ug/L	100
92) 2-Chloro-1,3-butadiene	8.206	8.206	0.823	53	761222	55.79	ug/L	100
93) Ethyl tert-butyl ether	8.486	8.486	0.851	59	1341747	53.89	ug/L	100
94) Ethyl acetate	8.700	8.700	0.872	43	1842897	235.10	ug/L	100
95) Propionitrile	8.773	8.773	0.880	54	292937	252.81	ug/L	100
96) Methacrylonitrile	8.949	8.950	0.897	41	1280577	252.66	ug/L	99
97) Tetrahydrofuran	9.059	9.059	0.908	42	631720	245.57	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031210V6\
Data File : 6B523.D
Acq On : 12 Mar 2010 7:34 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100312-19|S-ICV|1|VOAF|1|VOA8260BS|
Misc : S-ICV 5mL N/A MIX[B] 0304-08A+0226-02A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 13 09:35:55 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98)	Isobutyl alcohol	9.388	9.389	0.941	41	752582	2329.62	ug/L	100
99)	Methyl tert-amyl ether	9.736	9.736	0.976	73	1144100	53.87	ug/L	99
100)	Methyl methacrylate	10.589	10.590	1.062	69	1616672	267.21	ug/L	100
101)	1,4-Dioxane	10.699	10.699	1.073	88	217091	2483.98	ug/L	100
102)	2-Nitropropane	11.071	11.071	1.110	43	621474	286.85	ug/L	99
104)	Ethyl methacrylate	11.857	11.858	0.901	69	3133625	271.06	ug/L	100
106)	1-Chlorohexane	13.052	13.053	0.838	55	542202	50.15	ug/L	99
107)	cis-1,4-Dichloro-2-butene	14.198	14.199	0.912	53	872581	281.15	ug/L	100
108)	Cyclohexanone	14.320	14.315	0.919	42	271929	1168.02	ug/L	98
109)	trans-1,4-Dichloro-2-b...	14.485	14.491	0.930	53	821262	275.60	ug/L	100
110)	Pentachloroethane	15.180	15.180	0.975	167	1360893	227.42	ug/L	99
111)	Benzyl chloride	15.716	15.717	1.009	91	4565594	262.73	ug/L	100
112)	bis(2-Chloroisopropyl)...	16.113	16.113	1.034	45	1019052	256.80	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\031210V6\
Data File : 6B523.D
Acq On    : 12 Mar 2010   7:34 pm
Operator  : RXD1
InstName  : VOA6
Sample    : |W6VM100312-19|S-ICV|1|VOAF|1|VOA8260BS|
Misc      : S-ICV 5mL N/A MIX[B] 0304-08A+0226-02A
ALS Vial  : 23   Sample Multiplier: 1

Quant Time: Mar 13 09:35:55 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE
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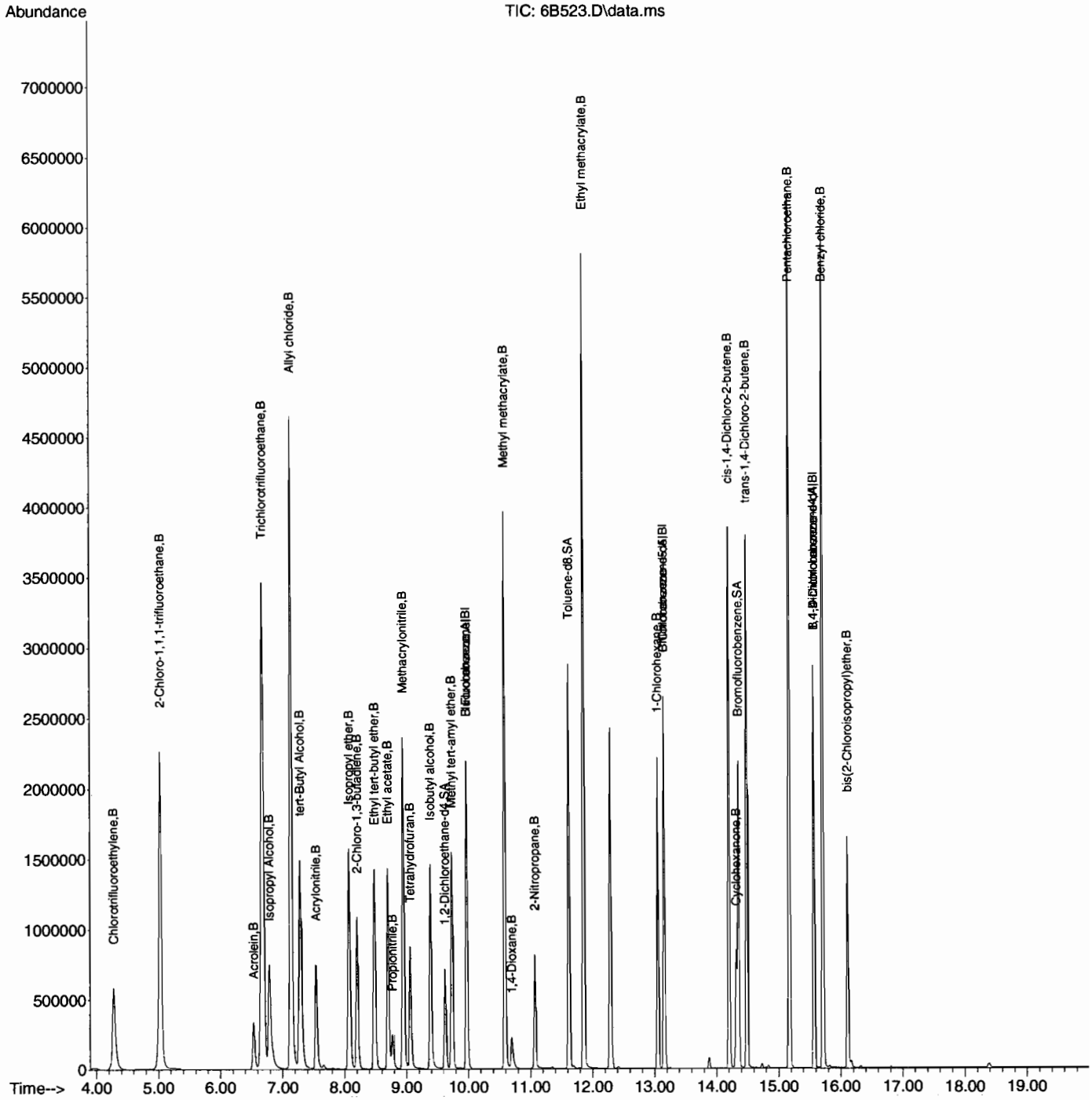

Continuing Calibration Summary

Client SDG: 10-2433

Instrument ID: VOA6.I **Injection Date** 23-MAR-10 21:49

Data File: 032310V6\6D227.D **Init. Cal. Date(s)** 12-MAR-10 10:46 - 12-MAR-10 18:3

Lab Sample ID W6VM100323-04 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.267	0.28576		.01		7.02622	30		Averaged	
S	Toluene-d8	1.3079	1.30874		.01		0.06423	30		Averaged	
S	Bromofluorobenzene	0.9368	0.90812		.01		-3.06149	30		Averaged	
	Dichlorodifluoromethane	0.194	0.18262		.01		-5.86598	30		Averaged	
	Chloromethane	50	48.8	50			-2.4	30		Linear	spcc
	Vinyl chloride	0.2843	0.26035		.01		-8.4242	20		Averaged	ccc
	Bromomethane	0.2076	0.19452		.01		-6.30058	30		Averaged	
	Chloroethane	0.1918	0.17713		.01		-7.64859	30		Averaged	
	Trichlorofluoromethane	0.3514	0.32996		.01		-6.10131	30		Averaged	
	Ethyl ether	0.2276	0.20967		.01		-7.87786	30		Averaged	
	1,1-Dichloroethylene	0.3373	0.3159		.01		-6.3445	20		Averaged	ccc
	Acetone	250	164.2	250			-34.32	40		Linear	
	Iodomethane	0.3823	0.35426		.01		-7.33455	30		Averaged	
	Acetonitrile	0.0286	0.03074		.01		7.48252	30		Averaged	
	Carbon disulfide	0.7143	0.73581		.01		3.01134	30		Averaged	
	Methyl acetate	0.1667	0.17008		.01		2.02759	40		Averaged	
	Methylene chloride	50	49.48	50			-1.04	30		Linear	
	tert-Butyl methyl ether	0.567	0.60291		.01		6.33333	30		Averaged	
	trans-1,2-Dichloroethylene	0.3368	0.32525		.01		-3.42933	30		Averaged	
	Vinyl acetate	0.4126	0.50424		.01		22.21037	40		Averaged	
	1,1-Dichloroethane	0.427	0.41957		.1		-1.74005	30		Averaged	spcc
	2-Butanone	0.1314	0.10996		.01		-16.31659	40		Averaged	
	cis-1,2-Dichloroethylene	0.377	0.37108		.01		-1.57029	30		Averaged	
	2,2-Dichloropropane	0.3089	0.31606		.01		2.3179	30		Averaged	
	Bromochloromethane	0.1207	0.11613		.01		-3.78625	30		Averaged	
	Chloroform	0.4152	0.40075		.01		-3.48025	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3459	0.33959		.01		-1.82423	30		Averaged	
	Cyclohexane	0.4422	0.41841		.01		-5.37992	30		Averaged	
	1,1-Dichloropropene	0.3352	0.33005		.01		-1.5364	30		Averaged	
	Carbon tetrachloride	0.3067	0.30819		.01		0.48582	30		Averaged	
	1,2-Dichloroethane	0.3232	0.32021		.01		-0.92512	30		Averaged	
	Benzene	1.0006	0.94649		.01		-5.40776	30		Averaged	
	Cyclohexene	0.5078	0.47442		.01		-6.57345	30		Averaged	
	n-Butyl alcohol	5000	6019.83	5000			20.3966	40		Linear	
	Trichloroethylene	0.2473	0.23063		.01		-6.7408	30		Averaged	
	Methylcyclohexane	0.4611	0.43619		.01		-5.4023	30		Averaged	
	1,2-Dichloropropane	0.2498	0.24802		.01		-0.71257	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 23-MAR-10 21:49

Data File: 032310V6\6D227.D **Init. Cal. Date(s)** 12-MAR-10 10:46 12-MAR-10 18:3

Lab Sample ID W6VM100323-04 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1378	0.13336		.01		-3.22206	30		Averaged	
Bromodichloromethane	0.2949	0.28985		.01		-1.71244	30		Averaged	
2-Chloroethylvinyl ether	0.1426	0.13102		.01		-8.12062	30		Averaged	
cis-1,3-Dichloropropylene	0.3685	0.37339		.01		1.327	30		Averaged	
4-Methyl-2-pentanone	0.1163	0.12632		.01		8.61565	40		Averaged	
Toluene	1.5342	1.33083		.01		-13.25577	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4414	0.45673		.01		3.47304	30		Averaged	
1,1,2-Trichloroethane	0.2274	0.22039		.01		-3.08267	30		Averaged	
2-Hexanone	0.3011	0.23523		.01		-21.87645	40		Averaged	
1,3-Dichloropropane	0.4969	0.49141		.01		-1.10485	30		Averaged	
Tetrachloroethylene	0.2873	0.26265		.01		-8.57988	30		Averaged	
Dibromochloromethane	0.2874	0.29096		.01		1.23869	30		Averaged	
1,2-Dibromoethane	0.2692	0.26038		.01		-3.27637	30		Averaged	
Chlorobenzene	0.9418	0.87281		.3		-7.32533	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3127	0.31084		.01		-0.59482	30		Averaged	
Ethylbenzene	1.6543	1.53239		.01		-7.36928	20		Averaged	ccc
m,p-Xylenes	0.6549	0.6066		.01		-7.37517	30		Averaged	
o-Xylene	0.6452	0.59952		.01		-7.07998	30		Averaged	
Styrene	1.0759	1.00528		.01		-6.56381	30		Averaged	
Bromoform	0.3264	0.3302		.1		1.16422	30		Averaged	spcc
Isopropylbenzene	3.114	2.79443		.01		-10.26236	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6538	0.64981		.3		-0.61028	30		Averaged	spcc
1,2,3-Trichloropropane	0.1769	0.17371		.01		-1.80328	30		Averaged	
Bromobenzene	0.7567	0.68218		.01		-9.84802	30		Averaged	
n-Propylbenzene	3.6779	3.30118		.01		-10.2428	30		Averaged	
2-Chlorotoluene	0.7572	0.70125		.01		-7.38906	30		Averaged	
1,3,5-Trimethylbenzene	2.6728	2.43716		.01		-8.81622	30		Averaged	
4-Chlorotoluene	2.2251	1.98394		.01		-10.83816	30		Averaged	
tert-Butylbenzene	0.5856	0.51602		.01		-11.88183	30		Averaged	
1,2,4-Trimethylbenzene	2.7187	2.42715		.01		-10.72388	30		Averaged	
sec-Butylbenzene	3.5259	3.16434		.01		-10.2544	30		Averaged	
4-Isopropyltoluene	2.901	2.58507		.01		-10.89038	30		Averaged	
1,3-Dichlorobenzene	1.4669	1.30108		.01		-11.30411	30		Averaged	
1,4-Dichlorobenzene	1.4896	1.33		.01		-10.71429	30		Averaged	
n-Butylbenzene	2.7587	2.4371		.01		-11.65766	30		Averaged	
1,2-Dichlorobenzene	1.3687	1.24088		.01		-9.33879	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1043	0.10824		.01		3.77756	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Dat** 23-MAR-10 21:49

Data File: 032310V6\6D227.D **Init. Cal. Date(s)** 12-MAR-10 10:46 12-MAR-10 18:3

Lab Sample ID W6VM100323-04 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.9544	0.80288		.01		-15.87594	30		Averaged
Hexachlorobutadiene	0.6151	0.51252		.01		-16.67696	30		Averaged
Naphthalene	1.8777	1.66039		.01		-11.5732	30		Averaged
1,2,3-Trichlorobenzene	0.7617	0.6836		.01		-10.25338	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D227.D
Acq On : 23 Mar 2010 9:49 pm
Operator : RXDl
InstName : VOA6
Sample : |W6VM100323-04|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5g N/A SOIL MIX[A] 0305-01D+0318-01
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 24 08:04:05 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1259430	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	952686	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	528273	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1258185	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	952686	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	528273	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	359894	53.50	ug/L	0.00
43) Toluene-d8	11.620	11.626	0.883	98	1246815	50.03	ug/L	0.00
61) Bromofluorobenzene	14.351	14.357	0.922	95	479734	48.47	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	229995	47.07	ug/L	100
3) Chloromethane	4.682	4.682	0.469	50	313396	48.80	ug/L	99
4) Vinyl chloride	4.924	4.924	0.494	62	327888	45.78	ug/L	98
5) Bromomethane	5.478	5.478	0.549	94	244990	46.86	ug/L	100
6) Chloroethane	5.619	5.619	0.563	64	223087	46.17	ug/L	99
7) Trichlorofluoromethane	6.032	6.032	0.605	101	415564	46.95	ug/L	100
8) Ethyl ether	6.328	6.328	0.634	59	264065	46.06	ug/L	98
9) Acetone	6.706	6.706	0.672	43	419536	164.20	ug/L	99
10) 1,1-Dichloroethylene	6.706	6.712	0.672	61	397850	46.83	ug/L	98
11) Iodomethane	6.956	6.956	0.697	142	2230819	231.64	ug/L	98
12) Acetonitrile	7.072	7.072	0.709	41	968008	1341.61	ug/L	99
13) Methyl acetate	7.096	7.096	0.711	43	1071017	255.02	ug/L	98
14) Carbon disulfide	7.078	7.084	0.710	76	4633502	257.53	ug/L	100
15) Methylene chloride	7.285	7.285	0.730	84	303418	49.48	ug/L	98
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	759324	53.16	ug/L	100
17) trans-1,2-Dichloroethy...	7.620	7.621	0.764	61	409629	48.28	ug/L	98
18) Vinyl acetate	8.059	8.060	0.808	43	3175296	305.56	ug/L	92
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	528415	49.13	ug/L	100
20) 2-Butanone	8.687	8.694	0.871	43	692439	209.18	ug/L	98
21) cis-1,2-Dichloroethylene	8.742	8.742	0.877	61	467343	49.21	ug/L	96
22) 2,2-Dichloropropane	8.767	8.767	0.879	77	398052	51.16	ug/L	100
23) Bromochloromethane	9.017	9.017	0.904	128	146258	48.12	ug/L	97
24) Chloroform	9.053	9.053	0.908	83	504716	48.26	ug/L	98
25) 1,1,1-Trichloroethane	9.321	9.321	0.935	97	427684	49.09	ug/L	99
26) Cyclohexane	9.413	9.413	0.944	56	526962	47.31	ug/L	98
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	415670	49.23	ug/L	98
28) Carbon tetrachloride	9.510	9.510	0.954	117	388142	50.24	ug/L	100
30) 1,2-Dichloroethane	9.705	9.712	0.973	62	403278	49.53	ug/L	100
31) Benzene	9.724	9.724	0.975	78	1192043	47.29	ug/L	100
32) Cyclohexene	9.833	9.834	0.986	67	597505	46.71	ug/L	99
33) n-Butyl alcohol	10.077	10.077	1.010	56	999997	6019.83	ug/L	97
34) Trichloroethylene	10.364	10.364	1.039	95	290459	46.64	ug/L	100
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	312363	49.65	ug/L	99
36) Methylcyclohexane	10.602	10.602	1.063	83	549349	47.30	ug/L	99
37) Dibromomethane	10.748	10.748	1.078	93	167961	48.37	ug/L	99
38) Bromodichloromethane	10.864	10.864	1.089	83	365049	49.14	ug/L	99
39) 2-Chloroethylvinyl ether	11.089	11.089	1.112	63	825076	229.63	ug/L	99
40) cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	470262	50.67	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D227.D
Acq On : 23 Mar 2010 9:49 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100323-04|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5g N/A SOIL MIX[A] 0305-01D+0318-01
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 24 08:04:05 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	11.406	11.413	0.867	58	601739	271.57	ug/L	95
44) Toluene	11.693	11.699	0.889	91	1267866	43.37	ug/L	99
45) trans-1,3-Dichloroprop...	11.857	11.858	0.901	75	435117	51.74	ug/L	98
46) 1,1,2-Trichloroethane	12.077	12.077	0.918	83	209963	48.47	ug/L	99
47) 2-Hexanone	12.260	12.260	0.932	43	1120511	195.30	ug/L	99
48) 1,3-Dichloropropane	12.272	12.272	0.933	76	468158	49.45	ug/L	90
49) Tetrachloroethylene	12.290	12.290	0.934	164	250227	45.71	ug/L	99
50) Dibromochloromethane	12.534	12.540	0.953	129	277193	50.62	ug/L	99
51) 1,2-Dibromoethane	12.705	12.705	0.966	107	248058	48.36	ug/L	100
52) Chlorobenzene	13.186	13.187	1.002	112	831510	46.34	ug/L	99
53) 1,1,1,2-Tetrachloroethane	13.241	13.241	1.006	131	296132	49.71	ug/L	100
54) Ethylbenzene	13.247	13.248	1.007	91	1459887	46.32	ug/L	99
55) m,p-Xylenes	13.357	13.357	1.015	106	1155790	92.63	ug/L	97
56) o-Xylene	13.796	13.796	1.049	106	571153	46.46	ug/L	98
57) Styrene	13.796	13.796	1.049	104	957713	46.72	ug/L	99
59) Bromoform	14.058	14.058	0.903	173	174437	50.58	ug/L	99
60) Isopropylbenzene	14.156	14.156	0.909	105	1476223	44.87	ug/L	99
62) 1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	343275	49.69	ug/L	100
63) 1,2,3-Trichloropropane	14.528	14.528	0.933	110	91768	49.11	ug/L	97
64) Bromobenzene	14.564	14.564	0.935	156	360375	45.08	ug/L	96
65) n-Propylbenzene	14.583	14.583	0.937	91	1743924	44.88	ug/L	98
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1287486	45.59	ug/L	98
67) 2-Chlorotoluene	14.729	14.729	0.946	126	370450	46.30	ug/L	97
68) 4-Chlorotoluene	14.832	14.833	0.953	91	1048060	44.58	ug/L	99
69) tert-Butylbenzene	15.107	15.107	0.970	134	272598	44.06	ug/L	95
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	1282199	44.64	ug/L	99
71) sec-Butylbenzene	15.332	15.333	0.985	105	1671635	44.87	ug/L	99
72) 4-Isopropyltoluene	15.454	15.454	0.993	119	1365621	44.55	ug/L	99
73) 1,3-Dichlorobenzene	15.515	15.515	0.996	146	687326	44.35	ug/L	100
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	702604	44.64	ug/L	99
75) n-Butylbenzene	15.887	15.887	1.020	91	1287452	44.17	ug/L	99
76) 1,2-Dichlorobenzene	16.021	16.021	1.029	146	655523	45.33	ug/L	100
77) 1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	57182	51.89	ug/L	97
78) 1,2,4-Trichlorobenzene	17.905	17.911	1.150	180	424141	42.06	ug/L	99
79) Hexachlorobutadiene	18.076	18.076	1.161	225	270753	41.66	ug/L	100
80) Naphthalene	18.283	18.283	1.174	128	877138	44.21	ug/L	100
81) 1,2,3-Trichlorobenzene	18.618	18.618	1.196	180	361128	44.87	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.		
85) Acrolein	0.000	6.536	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	6.792	0.000		0	N.D.		
88) Allyl chloride	7.072	7.139	0.709		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.		
90) Acrylonitrile	7.578	7.542	0.760		0m	N.D.	d	
91) Isopropyl ether	8.059	8.078	0.808		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.		
94) Ethyl acetate	8.687	8.700	0.871		0m	N.D.	d	
95) Propionitrile	8.693	8.773	0.872		0m	N.D.	d	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.		
97) Tetrahydrofuran	9.065	9.059	0.909		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D227.D
Acq On : 23 Mar 2010 9:49 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100323-04|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5g N/A SOIL MIX[A] 0305-01D+0318-01
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 24 08:04:05 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	9.413	9.389	0.944		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724	9.736	0.975		0m	N.D.	d
100)	Methyl methacrylate	10.602	10.590	1.063		0m	N.D.	d
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	11.083	11.071	1.111		0m	N.D.	d
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.150	14.199	0.909		0m	N.D.	d
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	14.576	14.491	0.936		0m	N.D.	d
110)	Pentachloroethane	15.174	15.180	0.975		0m	N.D.	d
111)	Benzyl chloride	15.716	15.717	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.161	16.113	1.038		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D227.D
Acq On : 23 Mar 2010 9:49 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100323-04|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5g N/A SOIL MIX[A] 0305-01D+0318-01
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 24 08:04:05 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

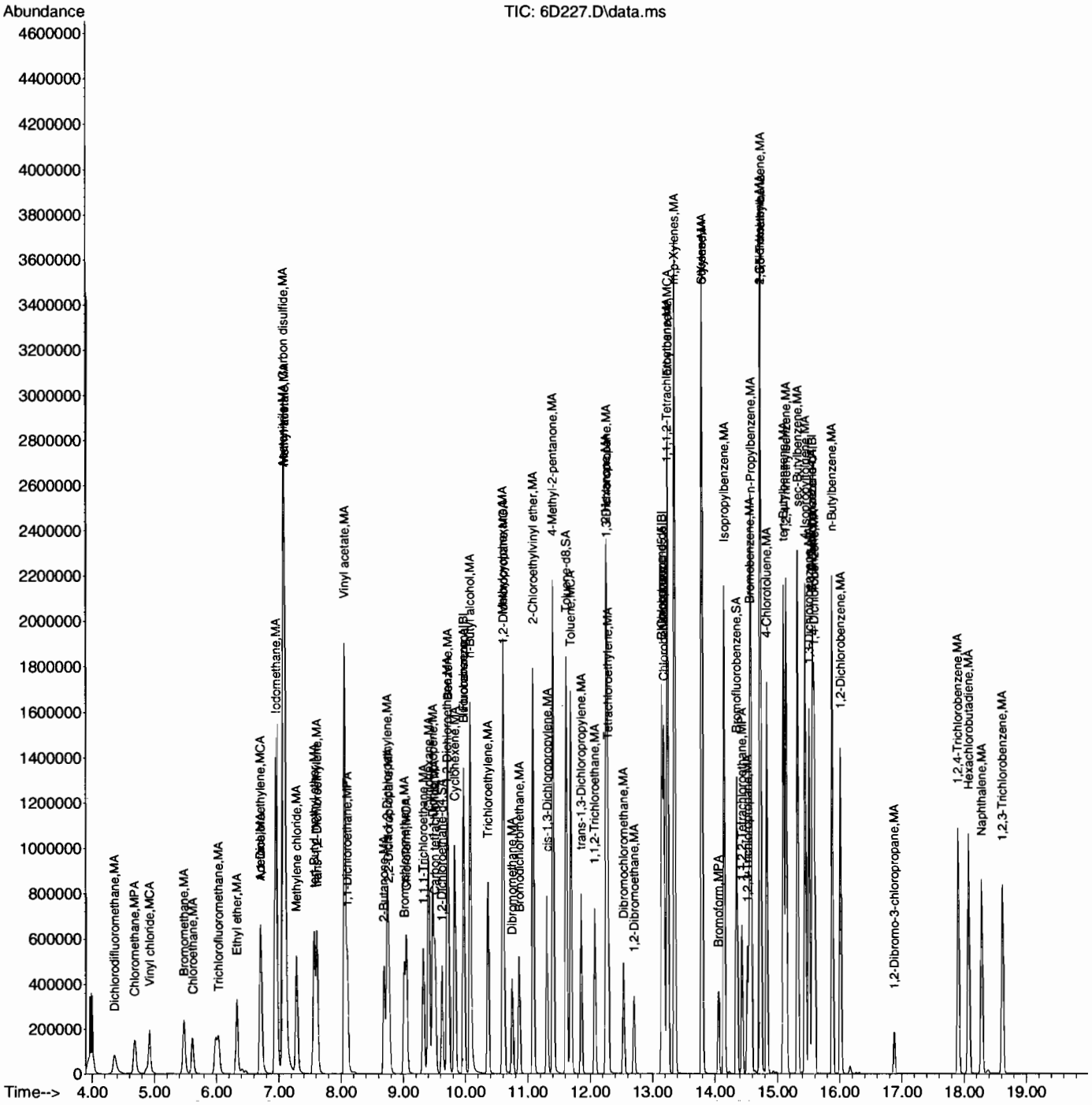

Continuing Calibration Summary

Client SDG: 10-2433

Instrument ID: VOA6.I **Injection Date** 23-MAR-10 22:45

Data File: 032310V6\6D229.D **Init. Cal. Date(s)** 12-MAR-10 10:46 - 12-MAR-10 18:3

Lab Sample ID W6VM100323-06 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.267	0.2877		.01		7.75281	30		Averaged
S	Toluene-d8	1.3079	1.30889		.01		0.07569	30		Averaged
S	Bromofluorobenzene	0.9368	0.93031		.01		-0.69278	30		Averaged
	Acrolein	0.0365	0.04533		.01		24.19178	30		Averaged
	Trichlorotrifluoroethane	0.0984	0.10526		.01		6.97154	30		Averaged
	Allyl chloride	0.3499	0.41168		.01		17.65647	30		Averaged
	Acrylonitrile	0.0678	0.08256		.01		21.76991	30		Averaged
	2-Chloro-1,3-butadiene	0.3225	0.39256		.01		21.72403	30		Averaged
	Ethyl acetate	0.1853	0.21656		.01		16.86994	40		Averaged
	Propionitrile	0.0274	0.03264		.01		19.12409	30		Averaged
	Methacrylonitrile	0.1198	0.14742		.01		23.05509	30		Averaged
	Tetrahydrofuran	0.0608	0.07538		.01		23.98026	30		Averaged
	Isobutyl alcohol	0.0076	0.00926		.01		21.84211	40		Averaged
	Methyl methacrylate	0.143	0.17939		.01		25.44755	30		Averaged
	1,4-Dioxane	0.0021	0.0023		.01		9.52381	40		Averaged
	2-Nitropropane	0.0512	0.07467		.01		45.83984	30	*	Averaged
	Ethyl methacrylate	0.3664	0.46006		.01		25.56223	30		Averaged
	cis-1,4-Dichloro-2-butene	0.1853	0.22974		.01		23.98273	30		Averaged
	Cyclohexanone	0.0139	0.01479		.01		6.40288	40		Averaged
	trans-1,4-Dichloro-2-butene	0.1779	0.2161		.01		21.47274	30		Averaged
	Pentachloroethane	0.3573	0.47178		.01		32.0403	30	*	Averaged
	Benzyl chloride	1.0375	1.13395		.01		9.29639	30		Averaged
	bis(2-Chloroisopropyl)ether	0.2369	0.29607		.01		24.97678	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D229.D
Acq On : 23 Mar 2010 10:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100323-06|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5g N/A SOIL MIX[B] UVM100304-08B
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 24 08:52:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1246652	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	951376	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	526479	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1245400	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	951376	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	526479	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	358663	53.87	ug/L	0.00
43) Toluene-d8	11.626	11.626	0.884	98	1245245	50.04	ug/L	0.00
61) Bromofluorobenzene	14.351	14.357	0.922	95	489788	49.65	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.672	4.682	0.468		0m	N.D.	d	
4) Vinyl chloride	4.924	4.924	0.494		0m	N.D.	d	
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.682	6.706	0.670		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.694	6.712	0.671		0m	N.D.	d	
11) Iodomethane	6.938	6.956	0.696		0m	N.D.	d	
12) Acetonitrile	7.139	7.072	0.716		0m	N.D.	d	
13) Methyl acetate	7.096	7.096	0.711		0m	N.D.	d	
14) Carbon disulfide	7.139	7.084	0.716		0m	N.D.	d	
15) Methylene chloride	7.285	7.285	0.730		0m	N.D.	d	
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	8.059	8.060	0.808		0m	N.D.	d	
19) 1,1-Dichloroethane	8.206	8.102	0.823		0m	N.D.	d	
20) 2-Butanone	8.700	8.694	0.872		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.700	8.742	0.872		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	9.389	9.413	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.712	0.000		0	N.D.		
31) Benzene	9.718	9.724	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	10.084	10.077	1.011		0m	N.D.	d	
34) Trichloroethylene	10.364	10.364	1.039		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	10.589	10.602	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	11.089	11.089	1.112		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D229.D
Acq On : 23 Mar 2010 10:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100323-06|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5g N/A SOIL MIX[B] UVM100304-08B
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 24 08:52:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	11.413	11.413	0.867		0m	N.D.	d	
44) Toluene	11.699	11.699	0.889		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	11.851	11.858	0.901		0m	N.D.	d	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.		
47) 2-Hexanone	12.260	12.260	0.932		0m	N.D.	d	
48) 1,3-Dichloropropane	12.315	12.272	0.936		0m	N.D.	d	
49) Tetrachloroethylene	12.290	12.290	0.934		0m	N.D.	d	
50) Dibromochloromethane	0.000	12.540	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.		
52) Chlorobenzene	13.193	13.187	1.003		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	13.241	13.241	1.006		0m	N.D.	d	
54) Ethylbenzene	13.248	13.248	1.007		0m	N.D.	d	
55) m,p-Xylenes	13.363	13.357	1.016		0m	N.D.	d	
56) o-Xylene	13.796	13.796	1.049		0m	N.D.	d	
57) Styrene	13.802	13.796	1.049		0m	N.D.	d	
59) Bromoform	0.000	14.058	0.000		0	N.D.		
60) Isopropylbenzene	14.150	14.156	0.909		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	14.442	14.436	0.928		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.		
64) Bromobenzene	14.564	14.564	0.935		0m	N.D.	d	
65) n-Propylbenzene	14.577	14.583	0.936		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946		0m	N.D.	d	
67) 2-Chlorotoluene	14.729	14.729	0.946		0m	N.D.	d	
68) 4-Chlorotoluene	14.833	14.833	0.953		0m	N.D.	d	
69) tert-Butylbenzene	15.107	15.107	0.970		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973		0m	N.D.	d	
71) sec-Butylbenzene	15.332	15.333	0.985		0m	N.D.	d	
72) 4-Isopropyltoluene	15.448	15.454	0.992		0m	N.D.	d	
73) 1,3-Dichlorobenzene	15.515	15.515	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	15.601	15.601	1.002		0m	N.D.	d	
75) n-Butylbenzene	15.887	15.887	1.020		0m	N.D.	d	
76) 1,2-Dichlorobenzene	16.015	16.021	1.029		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	16.875	16.881	1.084		0m	N.D.	d	
78) 1,2,4-Trichlorobenzene	17.911	17.911	1.150		0m	N.D.	d	
79) Hexachlorobutadiene	18.076	18.076	1.161		0m	N.D.	d	
80) Naphthalene	18.283	18.283	1.174		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	18.618	18.618	1.196		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0m	N.D.	d	
85) Acrolein	6.529	6.536	0.655	56	282281	310.14	ug/L	99
86) Trichlorotrifluoroethane	6.682	6.682	0.670	85	655425	267.30	ug/L	96
87) Isopropyl Alcohol	0.000	6.792	0.000		0m	N.D.	d	
88) Allyl chloride	7.139	7.139	0.716	41	2563514	294.11	ug/L	98
89) tert-Butyl Alcohol	0.000	7.285	0.000		0m	N.D.	d	
90) Acrylonitrile	7.541	7.542	0.756	53	514105	304.49	ug/L	99
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	8.206	8.206	0.823	53	488893	60.86	ug/L	96
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.		
94) Ethyl acetate	8.700	8.700	0.872	43	1348545	292.20	ug/L	98
95) Propionitrile	8.773	8.773	0.880	54	203275	297.97	ug/L	99
96) Methacrylonitrile	8.950	8.950	0.897	41	917960	307.63	ug/L	100
97) Tetrahydrofuran	9.059	9.059	0.908	42	469403	309.92	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D229.D
Acq On : 23 Mar 2010 10:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100323-06|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5g N/A SOIL MIX[B] UVM100304-08B
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 24 08:52:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98)	Isobutyl alcohol	9.389	9.389	0.941	41	576537	3031.26	ug/L	99
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.		
100)	Methyl methacrylate	10.589	10.590	1.062	69	1117066	313.60	ug/L	96
101)	1,4-Dioxane	10.699	10.699	1.073	88	143412	2787.13	ug/L	97
102)	2-Nitropropane	11.071	11.071	1.110	43	464970	364.52	ug/L	99
104)	Ethyl methacrylate	11.858	11.858	0.901	69	2188434	313.89	ug/L	97
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.199	14.199	0.912	53	604775	309.99	ug/L	98
108)	Cyclohexanone	14.314	14.315	0.919	42	194650	1330.02	ug/L	97
109)	trans-1,4-Dichloro-2-b...	14.485	14.491	0.930	53	568864	303.68	ug/L	98
110)	Pentachloroethane	15.180	15.180	0.975	167	1241906	330.14	ug/L	98
111)	Benzyl chloride	15.717	15.717	1.009	91	2984999	273.25	ug/L	98
112)	bis(2-Chloroisopropyl)...	16.113	16.113	1.035	45	779381	312.43	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D229.D
Acq On : 23 Mar 2010 10:45 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100323-06|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5g N/A SOIL MIX[B] UVM100304-08B
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 24 08:52:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

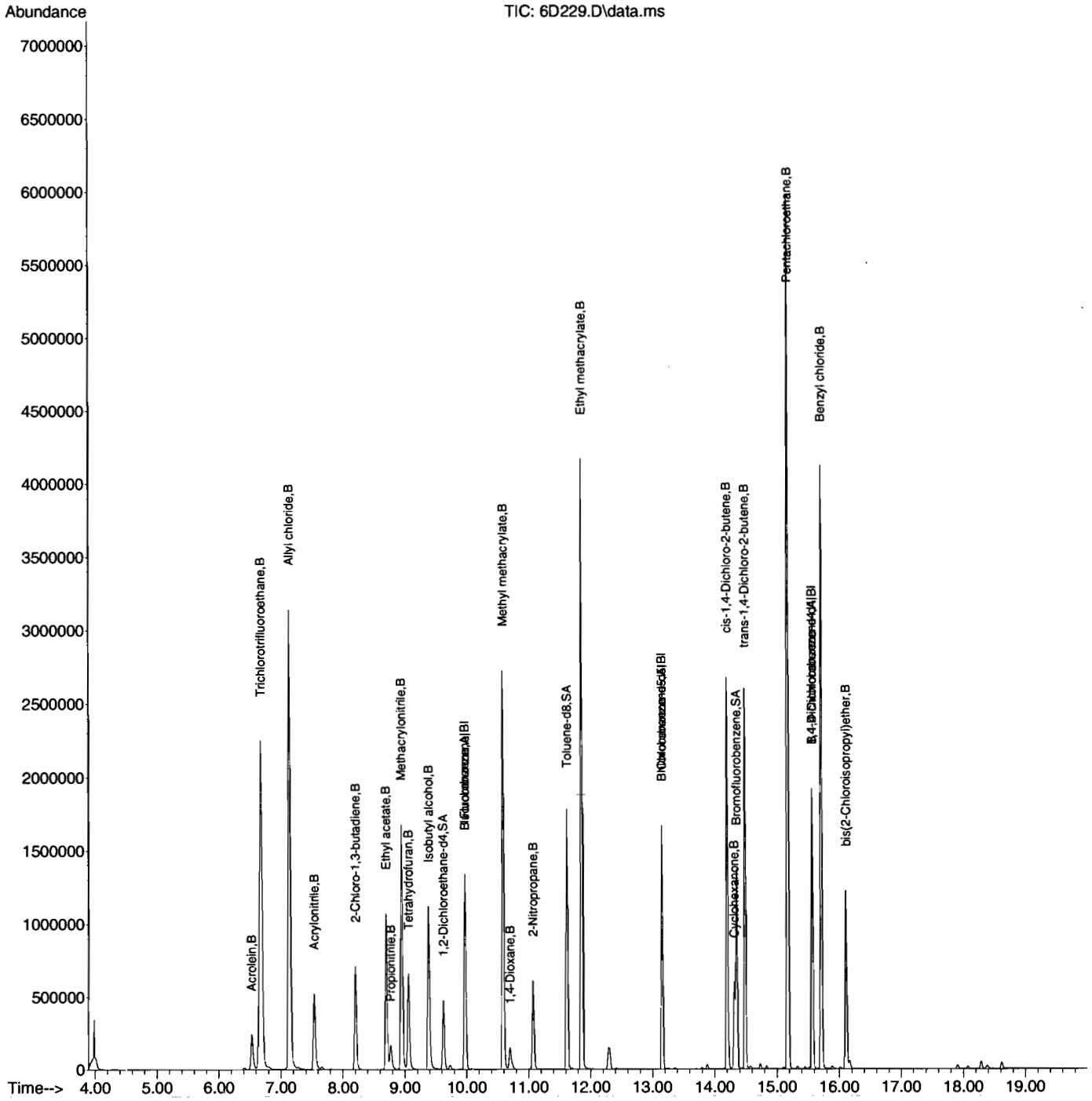

Continuing Calibration Summary

Client SDG: 10-2433

Instrument ID: VOA6.I **Injection Date** 24-MAR-10 10:01

Data File: 032410V6\6D302.D **Init. Cal. Date(s)** 12-MAR-10 10:46 - 12-MAR-10 18:3

Lab Sample ID W6VM100324-01 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.267	0.26244		.01		-1.70787	30		Averaged	
S	Toluene-d8	1.3079	1.27725		.01		-2.34345	30		Averaged	
S	Bromofluorobenzene	0.9368	0.8619		.01		-7.9953	30		Averaged	
	Dichlorodifluoromethane	0.194	0.19961		.01		2.89175	30		Averaged	
	Chloromethane	50	50.45	50			0.9	30		Linear	spcc
	Vinyl chloride	0.2843	0.28085		.01		-1.21351	20		Averaged	ccc
	Bromomethane	0.2076	0.22716		.01		9.42197	30		Averaged	
	Chloroethane	0.1918	0.19374		.01		1.01147	30		Averaged	
	Trichlorofluoromethane	0.3514	0.3911		.01		11.29767	30		Averaged	
	Ethyl ether	0.2276	0.21187		.01		-6.91125	30		Averaged	
	1,1-Dichloroethylene	0.3373	0.35482		.01		5.19419	20		Averaged	ccc
	Acetone	250	226.61	250			-9.356	40		Linear	
	Iodomethane	0.3823	0.42534		.01		11.25817	30		Averaged	
	Acetonitrile	0.0286	0.02923		.01		2.2028	30		Averaged	
	Carbon disulfide	0.7143	0.84067		.01		17.69145	30		Averaged	
	Methyl acetate	0.1667	0.16106		.01		-3.38332	40		Averaged	
	Methylene chloride	50	54.6	50			9.2	30		Linear	
	tert-Butyl methyl ether	0.567	0.64101		.01		13.05291	30		Averaged	
	trans-1,2-Dichloroethylene	0.3368	0.35631		.01		5.79276	30		Averaged	
	Vinyl acetate	0.4126	0.49079		.01		18.95056	40		Averaged	
	1,1-Dichloroethane	0.427	0.4563		.1		6.86183	30		Averaged	spcc
	2-Butanone	0.1314	0.10749		.01		-18.19635	40		Averaged	
	cis-1,2-Dichloroethylene	0.377	0.40337		.01		6.99469	30		Averaged	
	2,2-Dichloropropane	0.3089	0.37512		.01		21.43736	30		Averaged	
	Bromochloromethane	0.1207	0.13366		.01		10.73737	30		Averaged	
	Chloroform	0.4152	0.44399		.01		6.93401	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3459	0.38903		.01		12.46892	30		Averaged	
	Cyclohexane	0.4422	0.45638		.01		3.20669	30		Averaged	
	1,1-Dichloropropene	0.3352	0.37304		.01		11.28878	30		Averaged	
	Carbon tetrachloride	0.3067	0.36989		.01		20.6032	30		Averaged	
	1,2-Dichloroethane	0.3232	0.33357		.01		3.20854	30		Averaged	
	Benzene	1.0006	1.05599		.01		5.53568	30		Averaged	
	Cyclohexene	0.5078	0.52879		.01		4.13352	30		Averaged	
	n-Butyl alcohol	5000	5320.23	5000			6.4046	40		Linear	
	Trichloroethylene	0.2473	0.26737		.01		8.11565	30		Averaged	
	Methylcyclohexane	0.4611	0.50552		.01		9.63349	30		Averaged	
	1,2-Dichloropropane	0.2498	0.26868		.01		7.55805	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Dat** 24-MAR-10 10:01

Data File: 032410V6\6D302.D **Init. Cal. Date(s)** 12-MAR-10 10:46 12-MAR-10 18:3

Lab Sample ID W6VM100324-01 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1378	0.14983		.01		8.73004	30		Averaged	
Bromodichloromethane	0.2949	0.33391		.01		13.22821	30		Averaged	
2-Chloroethylvinyl ether	0.1426	0.1266		.01		-11.2202	30		Averaged	
cis-1,3-Dichloropropylene	0.3685	0.41532		.01		12.70556	30		Averaged	
4-Methyl-2-pentanone	0.1163	0.11685		.01		0.47291	40		Averaged	
Toluene	1.5342	1.47088		.01		-4.12723	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4414	0.49193		.01		11.44767	30		Averaged	
1,1,2-Trichloroethane	0.2274	0.2331		.01		2.5066	30		Averaged	
2-Hexanone	0.3011	0.24556		.01		-18.4457	40		Averaged	
1,3-Dichloropropane	0.4969	0.51821		.01		4.28859	30		Averaged	
Tetrachloroethylene	0.2873	0.31926		.01		11.12426	30		Averaged	
Dibromochloromethane	0.2874	0.33861		.01		17.81837	30		Averaged	
1,2-Dibromoethane	0.2692	0.28176		.01		4.66568	30		Averaged	
Chlorobenzene	0.9418	0.99291		.3		5.42684	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3127	0.35756		.01		14.34602	30		Averaged	
Ethylbenzene	1.6543	1.71386		.01		3.60031	20		Averaged	ccc
m,p-Xylenes	0.6549	0.70179		.01		7.15987	30		Averaged	
o-Xylene	0.6452	0.67772		.01		5.0403	30		Averaged	
Styrene	1.0759	1.14569		.01		6.48666	30		Averaged	
Bromoform	0.3264	0.39774		.1		21.85662	30		Averaged	spcc
Isopropylbenzene	3.114	3.1094		.01		-0.14772	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6538	0.64736		.3		-0.98501	30		Averaged	spcc
1,2,3-Trichloropropane	0.1769	0.17558		.01		-0.74618	30		Averaged	
Bromobenzene	0.7567	0.77518		.01		2.44218	30		Averaged	
n-Propylbenzene	3.6779	3.69128		.01		0.36379	30		Averaged	
2-Chlorotoluene	0.7572	0.802		.01		5.91653	30		Averaged	
1,3,5-Trimethylbenzene	2.6728	2.72198		.01		1.84002	30		Averaged	
4-Chlorotoluene	2.2251	2.16571		.01		-2.66909	30		Averaged	
tert-Butylbenzene	0.5856	0.59376		.01		1.39344	30		Averaged	
1,2,4-Trimethylbenzene	2.7187	2.70829		.01		-0.3829	30		Averaged	
sec-Butylbenzene	3.5259	3.54315		.01		0.48924	30		Averaged	
4-Isopropyltoluene	2.901	2.95052		.01		1.707	30		Averaged	
1,3-Dichlorobenzene	1.4669	1.50035		.01		2.28032	30		Averaged	
1,4-Dichlorobenzene	1.4896	1.52266		.01		2.21939	30		Averaged	
n-Butylbenzene	2.7587	2.76878		.01		0.36539	30		Averaged	
1,2-Dichlorobenzene	1.3687	1.38024		.01		0.84314	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1043	0.12067		.01		15.69511	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Dat** 24-MAR-10 10:01

Data File: 032410V6\6D302.D **Init. Cal. Date(s)** 12-MAR-10 10:46 12-MAR-10 18:3

Lab Sample ID W6VM100324-01 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.9544	0.96158		.01		0.75231	30		Averaged
Hexachlorobutadiene	0.6151	0.61869		.01		0.58364	30		Averaged
Naphthalene	1.8777	1.71602		.01		-8.61053	30		Averaged
1,2,3-Trichlorobenzene	0.7617	0.77231		.01		1.39294	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D302.D
Acq On : 24 Mar 2010 10:01 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100324-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 0305-01D+0318-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 25 08:10:34 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1190580	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	926524	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	521532	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1189776	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	926524	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	521532	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	312459	49.14	ug/L	0.00
43) Toluene-d8	11.626	11.626	0.884	98	1183403	48.83	ug/L	0.00
61) Bromofluorobenzene	14.357	14.357	0.922	95	449511	46.00	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	237648	51.45	ug/L	100
3) Chloromethane	4.682	4.682	0.469	50	306091	50.45	ug/L	99
4) Vinyl chloride	4.924	4.924	0.494	62	334372	49.39	ug/L	99
5) Bromomethane	5.478	5.478	0.549	94	270454	54.72	ug/L	100
6) Chloroethane	5.619	5.619	0.563	64	230659	50.50	ug/L	100
7) Trichlorofluoromethane	6.032	6.032	0.605	101	465639	55.65	ug/L	100
8) Ethyl ether	6.328	6.328	0.634	59	252245	46.54	ug/L	96
9) Acetone	6.706	6.706	0.672	43	540723	226.61	ug/L	99
10) 1,1-Dichloroethylene	6.706	6.712	0.672	61	422440	52.60	ug/L	99
11) Iodomethane	6.956	6.956	0.697	142	2531992	278.11	ug/L	100
12) Acetonitrile	7.072	7.072	0.709	41	870139	1275.71	ug/L	100
13) Methyl acetate	7.096	7.096	0.711	43	958755	241.49	ug/L	99
14) Carbon disulfide	7.078	7.084	0.710	76	5004443	294.23	ug/L	100
15) Methylene chloride	7.285	7.285	0.730	84	316202	54.60	ug/L	98
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	763169	56.52	ug/L	99
17) trans-1,2-Dichloroethy...	7.620	7.621	0.764	61	424216	52.89	ug/L	98
18) Vinyl acetate	8.059	8.060	0.808	43	2921648	297.41	ug/L	99
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	543261	53.43	ug/L	100
20) 2-Butanone	8.687	8.694	0.871	43	639851	204.47	ug/L	99
21) cis-1,2-Dichloroethylene	8.742	8.742	0.877	61	480248	53.49	ug/L	100
22) 2,2-Dichloropropane	8.767	8.767	0.879	77	446615	60.72	ug/L	95
23) Bromochloromethane	9.017	9.017	0.904	128	159133	55.38	ug/L	95
24) Chloroform	9.053	9.053	0.908	83	528606	53.46	ug/L	100
25) 1,1,1-Trichloroethane	9.321	9.321	0.935	97	463173	56.23	ug/L	100
26) Cyclohexane	9.413	9.413	0.944	56	543352	51.60	ug/L	98
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	444136	55.64	ug/L	98
28) Carbon tetrachloride	9.510	9.510	0.954	117	440381	60.30	ug/L	100
30) 1,2-Dichloroethane	9.705	9.712	0.973	62	397143	51.60	ug/L	100
31) Benzene	9.724	9.724	0.975	78	1257246	52.77	ug/L	99
32) Cyclohexene	9.833	9.834	0.986	67	629566	52.06	ug/L	99
33) n-Butyl alcohol	10.077	10.077	1.010	56	834343	5320.23	ug/L	99
34) Trichloroethylene	10.364	10.364	1.039	95	318321	54.07	ug/L	98
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	319890	53.78	ug/L	99
36) Methylcyclohexane	10.602	10.602	1.063	83	601859	54.82	ug/L	98
37) Dibromomethane	10.748	10.748	1.078	93	178390	54.35	ug/L	99
38) Bromodichloromethane	10.864	10.864	1.089	83	397546	56.61	ug/L	99
39) 2-Chloroethylvinyl ether	11.089	11.089	1.112	63	753632	221.88	ug/L	100
40) cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	494469	56.36	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D302.D
Acq On : 24 Mar 2010 10:01 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100324-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 0305-01D+0318-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 25 08:10:34 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	11.406	11.413	0.867	58	541321	251.20	ug/L	98
44) Toluene	11.693	11.699	0.889	91	1362806	47.94	ug/L	99
45) trans-1,3-Dichloroprop...	11.857	11.858	0.901	75	455788	55.73	ug/L	98
46) 1,1,2-Trichloroethane	12.077	12.077	0.918	83	215969	51.26	ug/L	99
47) 2-Hexanone	12.260	12.260	0.932	43	1137591	203.88	ug/L	99
48) 1,3-Dichloropropane	12.272	12.272	0.933	76	480134	52.14	ug/L	88
49) Tetrachloroethylene	12.290	12.290	0.934	164	295800	55.56	ug/L	98
50) Dibromochloromethane	12.540	12.540	0.953	129	313734	58.90	ug/L	99
51) 1,2-Dibromoethane	12.705	12.705	0.966	107	261058	52.33	ug/L	100
52) Chlorobenzene	13.186	13.187	1.002	112	919955	52.71	ug/L	98
53) 1,1,1,2-Tetrachloroethane	13.241	13.241	1.006	131	331291	57.18	ug/L	100
54) Ethylbenzene	13.247	13.248	1.007	91	1587929	51.80	ug/L	99
55) m,p-Xylenes	13.357	13.357	1.015	106	1300454	107.16	ug/L	99
56) o-Xylene	13.796	13.796	1.049	106	627923	52.52	ug/L	100
57) Styrene	13.796	13.796	1.049	104	1061512	53.24	ug/L	98
59) Bromoform	14.058	14.058	0.903	173	207436	60.92	ug/L	99
60) Isopropylbenzene	14.156	14.156	0.909	105	1621651	49.93	ug/L	100
62) 1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	337618	49.50	ug/L	100
63) 1,2,3-Trichloropropane	14.528	14.528	0.933	110	91571	49.63	ug/L	97
64) Bromobenzene	14.564	14.564	0.935	156	404282	51.22	ug/L	96
65) n-Propylbenzene	14.583	14.583	0.937	91	1925120	50.18	ug/L	100
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1419602	50.92	ug/L	100
67) 2-Chlorotoluene	14.729	14.729	0.946	126	418268	52.96	ug/L	96
68) 4-Chlorotoluene	14.832	14.833	0.953	91	1129487	48.67	ug/L	99
69) tert-Butylbenzene	15.107	15.107	0.970	134	309667	50.70	ug/L	98
70) 1,2,4-Trimethylbenzene	15.149	15.150	0.973	105	1412460	49.81	ug/L	99
71) sec-Butylbenzene	15.332	15.333	0.985	105	1847867	50.25	ug/L	99
72) 4-Isopropyltoluene	15.454	15.454	0.993	119	1538789	50.85	ug/L	99
73) 1,3-Dichlorobenzene	15.515	15.515	0.996	146	782483	51.14	ug/L	99
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	794114	51.11	ug/L	99
75) n-Butylbenzene	15.887	15.887	1.020	91	1444007	50.18	ug/L	100
76) 1,2-Dichlorobenzene	16.021	16.021	1.029	146	719839	50.42	ug/L	99
77) 1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	62934	57.85	ug/L	99
78) 1,2,4-Trichlorobenzene	17.905	17.911	1.150	180	501495	50.38	ug/L	100
79) Hexachlorobutadiene	18.076	18.076	1.161	225	322666	50.29	ug/L	99
80) Naphthalene	18.283	18.283	1.174	128	894958	45.70	ug/L	100
81) 1,2,3-Trichlorobenzene	18.618	18.618	1.196	180	402783	50.69	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.		
85) Acrolein	6.468	6.536	0.649		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.		
87) Isopropyl Alcohol	6.712	6.792	0.673		0m	N.D.	d	
88) Allyl chloride	7.072	7.139	0.709		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.		
90) Acrylonitrile	7.566	7.542	0.759		0m	N.D.	d	
91) Isopropyl ether	8.059	8.078	0.808		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.212	8.206	0.823		0m	N.D.	d	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.		
94) Ethyl acetate	8.687	8.700	0.871		0m	N.D.	d	
95) Propionitrile	8.687	8.773	0.871		0m	N.D.	d	
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.		
97) Tetrahydrofuran	9.035	9.059	0.906		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D302.D
Acq On : 24 Mar 2010 10:01 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100324-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 0305-01D+0318-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 25 08:10:34 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	9.407	9.389	0.943		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724	9.736	0.975		0m	N.D.	d
100)	Methyl methacrylate	10.602	10.590	1.063		0m	N.D.	d
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	11.089	11.071	1.112		0m	N.D.	d
104)	Ethyl methacrylate	11.796	11.858	0.897		0m	N.D.	d
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156	14.199	0.909		0m	N.D.	d
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	14.576	14.491	0.936		0m	N.D.	d
110)	Pentachloroethane	15.174	15.180	0.975		0m	N.D.	d
111)	Benzyl chloride	15.716	15.717	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.161	16.113	1.038		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D302.D
Acq On : 24 Mar 2010 10:01 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100324-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 0305-01D+0318-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 25 08:10:34 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

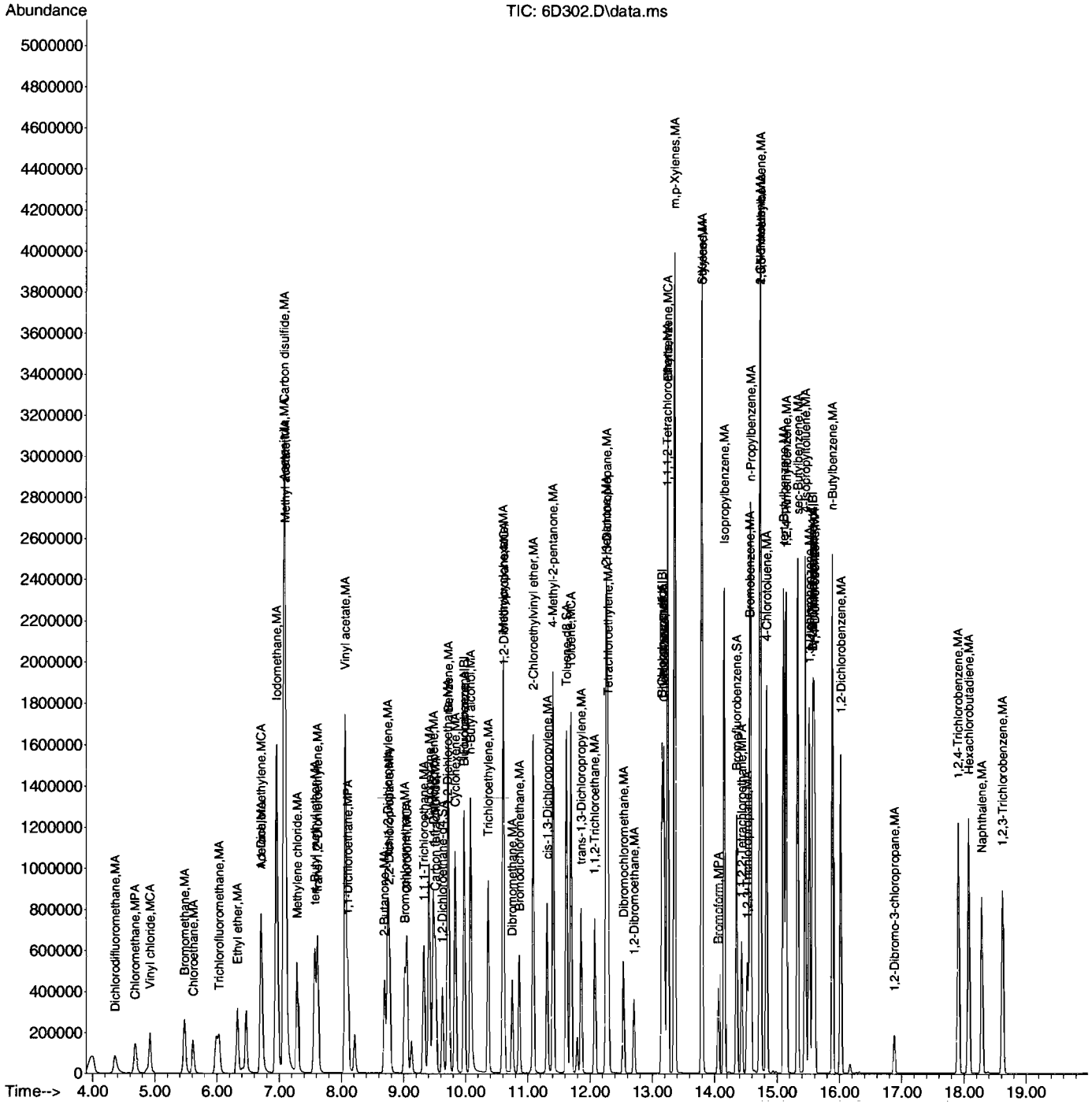

Continuing Calibration Summary

Client SDG: 10-2433

Instrument ID: VOA6.I **Injection Dat** 24-MAR-10 10:56

Data File: 032410V6\6D304.D **Init. Cal. Date(s)** 12-MAR-10 10:46 - 12-MAR-10 18:3

Lab Sample ID W6VM100324-03 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.267	0.26589		.01		-0.41573	30		Averaged
S	Toluene-d8	1.3079	1.283		.01		-1.90382	30		Averaged
S	Bromofluorobenzene	0.9368	0.89768		.01		-4.17592	30		Averaged
	Acrolein	0.0365	0.04592		.01		25.80822	30		Averaged
	Trichlorotrifluoroethane	0.0984	0.11364		.01		15.4878	30		Averaged
	Allyl chloride	0.3499	0.41658		.01		19.05687	30		Averaged
	Acrylonitrile	0.0678	0.08065		.01		18.9528	30		Averaged
	2-Chloro-1,3-butadiene	0.3225	0.40321		.01		25.02636	30		Averaged
	Ethyl acetate	0.1853	0.20389		.01		10.03238	40		Averaged
	Propionitrile	0.0274	0.03163		.01		15.43796	30		Averaged
	Methacrylonitrile	0.1198	0.13999		.01		16.85309	30		Averaged
	Tetrahydrofuran	0.0608	0.07129		.01		17.25329	30		Averaged
	Isobutyl alcohol	0.0076	0.00854		.01		12.36842	40		Averaged
	Methyl methacrylate	0.143	0.17929		.01		25.37762	30		Averaged
	1,4-Dioxane	0.0021	0.00239		.01		13.80952	40		Averaged
	2-Nitropropane	0.0512	0.06635		.01		29.58984	30		Averaged
	Ethyl methacrylate	0.3664	0.45238		.01		23.46616	30		Averaged
	cis-1,4-Dichloro-2-butene	0.1853	0.23666		.01		27.71722	30		Averaged
	Cyclohexanone	0.0139	0.01412		.01		1.58273	40		Averaged
	trans-1,4-Dichloro-2-butene	0.1779	0.22241		.01		25.01967	30		Averaged
	Pentachloroethane	0.3573	0.52957		.01		48.21439	30	*	Averaged
	Benzyl chloride	1.0375	1.34911		.01		30.0347	30	*	Averaged
	bis(2-Chloroisopropyl)ether	0.2369	0.27294		.01		15.21317	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D304.D
Acq On : 24 Mar 2010 10:56 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100324-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] UVM100304-08B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 25 08:13:44 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1194706	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	918928	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	503739	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1194050	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	918928	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	503739	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	317662	49.78	ug/L	0.00
43) Toluene-d8	11.626	11.626	0.884	98	1178982	49.05	ug/L	0.00
61) Bromofluorobenzene	14.357	14.357	0.922	95	452195	47.91	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.672	4.682	0.468		0m	N.D.	d	
4) Vinyl chloride	0.000	4.924	0.000		0	N.D.		
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.688	6.706	0.671		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.682	6.712	0.670		0m	N.D.	d	
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	7.139	7.072	0.716		0m	N.D.	d	
13) Methyl acetate	7.096	7.096	0.711		0m	N.D.	d	
14) Carbon disulfide	7.139	7.084	0.716		0m	N.D.	d	
15) Methylene chloride	7.285	7.285	0.730		0m	N.D.	d	
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	8.060	8.060	0.808		0m	N.D.	d	
19) 1,1-Dichloroethane	8.200	8.102	0.822		0m	N.D.	d	
20) 2-Butanone	8.700	8.694	0.872		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.700	8.742	0.872		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	9.389	9.413	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.712	0.000		0	N.D.		
31) Benzene	9.724	9.724	0.975		0m	N.D.	d	
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	10.084	10.077	1.011		0m	N.D.	d	
34) Trichloroethylene	10.364	10.364	1.039		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	10.590	10.602	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D304.D
Acq On : 24 Mar 2010 10:56 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100324-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] UVM100304-08B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 25 08:13:44 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42)	4-Methyl-2-pentanone	11.413	11.413	0.867		0m	N.D.	d	
44)	Toluene	11.699	11.699	0.889		0m	N.D.	d	
45)	trans-1,3-Dichloroprop...	11.858	11.858	0.901		0m	N.D.	d	
46)	1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.		
47)	2-Hexanone	12.260	12.260	0.932		0m	N.D.	d	
48)	1,3-Dichloropropane	12.315	12.272	0.936		0m	N.D.	d	
49)	Tetrachloroethylene	12.290	12.290	0.934		0m	N.D.	d	
50)	Dibromochloromethane	0.000	12.540	0.000		0	N.D.		
51)	1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.		
52)	Chlorobenzene	13.187	13.187	1.002		0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane	13.248	13.241	1.007		0m	N.D.	d	
54)	Ethylbenzene	13.254	13.248	1.007		0m	N.D.	d	
55)	m,p-Xylenes	13.363	13.357	1.016		0m	N.D.	d	
56)	o-Xylene	13.796	13.796	1.049		0m	N.D.	d	
57)	Styrene	13.796	13.796	1.049		0m	N.D.	d	
59)	Bromoform	0.000	14.058	0.000		0	N.D.		
60)	Isopropylbenzene	14.156	14.156	0.909		0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane	14.436	14.436	0.927		0m	N.D.	d	
63)	1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.		
64)	Bromobenzene	14.564	14.564	0.935		0m	N.D.	d	
65)	n-Propylbenzene	14.583	14.583	0.937		0m	N.D.	d	
66)	1,3,5-Trimethylbenzene	14.735	14.735	0.946		0m	N.D.	d	
67)	2-Chlorotoluene	14.735	14.729	0.946		0m	N.D.	d	
68)	4-Chlorotoluene	14.833	14.833	0.953		0m	N.D.	d	
69)	tert-Butylbenzene	15.101	15.107	0.970		0m	N.D.	d	
70)	1,2,4-Trimethylbenzene	15.144	15.150	0.973		0m	N.D.	d	
71)	sec-Butylbenzene	15.333	15.333	0.985		0m	N.D.	d	
72)	4-Isopropyltoluene	15.454	15.454	0.993		0m	N.D.	d	
73)	1,3-Dichlorobenzene	15.515	15.515	0.996		0m	N.D.	d	
74)	1,4-Dichlorobenzene	15.601	15.601	1.002		0m	N.D.	d	
75)	n-Butylbenzene	15.887	15.887	1.020		0m	N.D.	d	
76)	1,2-Dichlorobenzene	16.021	16.021	1.029		0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...	16.881	16.881	1.084		0m	N.D.	d	
78)	1,2,4-Trichlorobenzene	17.905	17.911	1.150		0m	N.D.	d	
79)	Hexachlorobutadiene	18.076	18.076	1.161		0m	N.D.	d	
80)	Naphthalene	18.283	18.283	1.174		0m	N.D.	d	
81)	1,2,3-Trichlorobenzene	18.618	18.618	1.196		0m	N.D.	d	
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0m	N.D.	d	
85)	Acrolein	6.535	6.536	0.655	56	274157	314.17	ug/L	100
86)	Trichlorotrifluoroethane	6.682	6.682	0.670	85	678456	288.59	ug/L	100
87)	Isopropyl Alcohol	0.000	6.792	0.000		0m	N.D.	d	
88)	Allyl chloride	7.139	7.139	0.716	41	2487071	297.61	ug/L	99
89)	tert-Butyl Alcohol	7.291	7.285	0.731	59	201	N.D.		
90)	Acrylonitrile	7.541	7.542	0.756	53	481509	297.45	ug/L	100
91)	Isopropyl ether	0.000	8.078	0.000		0	N.D.		
92)	2-Chloro-1,3-butadiene	8.206	8.206	0.823	53	481453	62.51	ug/L	99
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.		
94)	Ethyl acetate	8.700	8.700	0.872	43	1217282	275.10	ug/L	99
95)	Propionitrile	8.773	8.773	0.880	54	188839	288.71	ug/L	99
96)	Methacrylonitrile	8.950	8.950	0.897	41	835795	292.14	ug/L	100
97)	Tetrahydrofuran	9.059	9.059	0.908	42	425643	293.12	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D304.D
Acq On : 24 Mar 2010 10:56 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100324-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] UVM100304-08B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 25 08:13:44 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98)	Isobutyl alcohol	9.389	9.389	0.941	41	509763	2795.45	ug/L	98
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.		
100)	Methyl methacrylate	10.590	10.590	1.062	69	1070380	313.41	ug/L	99
101)	1,4-Dioxane	10.699	10.699	1.073	88	142679	2892.14	ug/L	97
102)	2-Nitropropane	11.071	11.071	1.110	43	396135	323.91	ug/L	98
104)	Ethyl methacrylate	11.858	11.858	0.901	69	2078523	308.65	ug/L	99
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.199	14.199	0.912	53	596063	319.31	ug/L	98
108)	Cyclohexanone	14.314	14.315	0.919	42	177865	1270.20	ug/L	99
109)	trans-1,4-Dichloro-2-b...	14.485	14.491	0.930	53	560188	312.55	ug/L	98
110)	Pentachloroethane	15.174	15.180	0.975	167	1333820	370.58	ug/L	99
111)	Benzyl chloride	15.717	15.717	1.009	91	3397985	325.10	ug/L	99
112)	bis(2-Chloroisopropyl)...	16.113	16.113	1.035	45	687463	288.03	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D304.D
Acq On : 24 Mar 2010 10:56 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100324-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] UVM100304-08B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 25 08:13:44 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

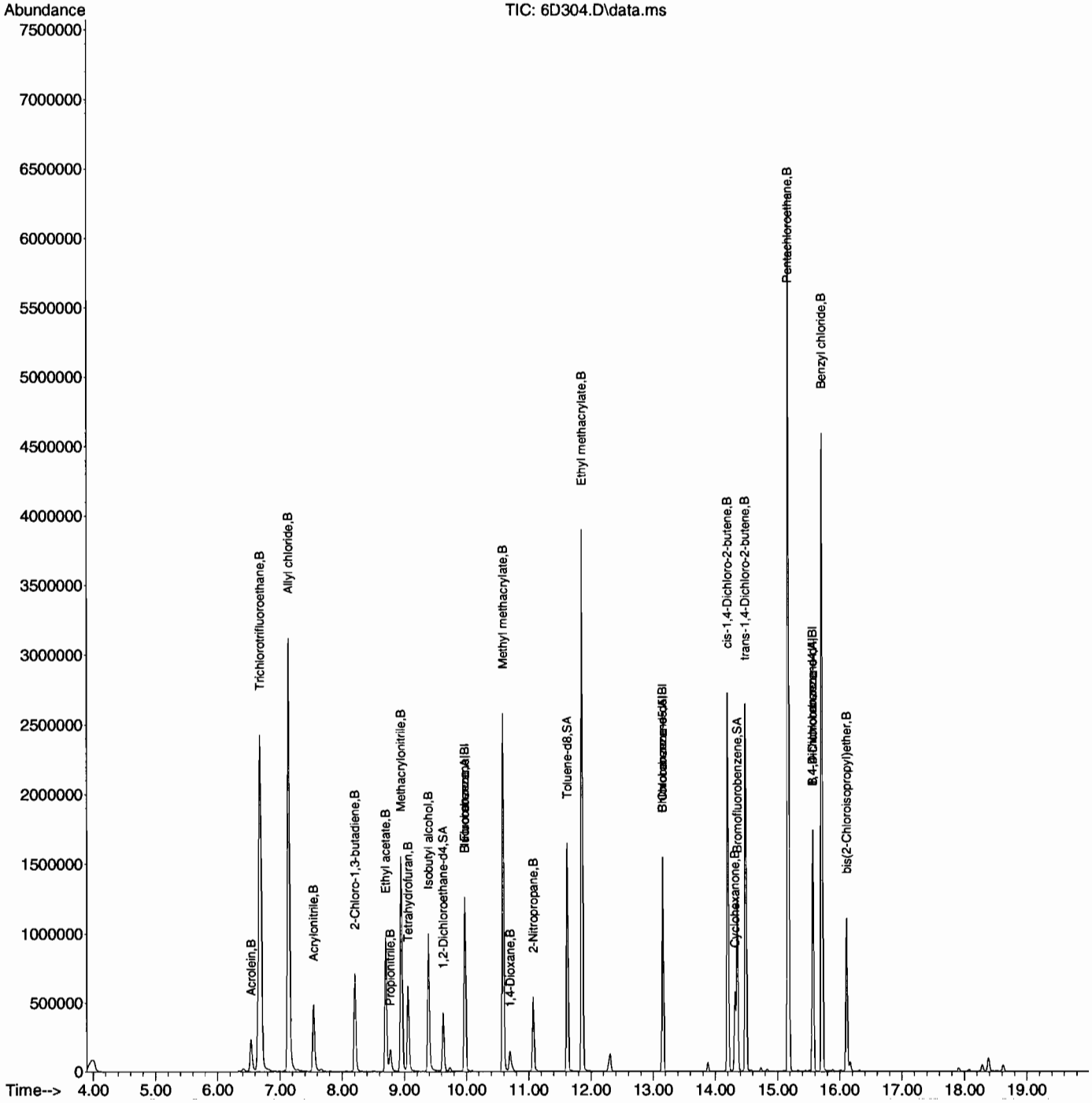

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031210V6\
Data File : 6B503.D
Acq On : 12 Mar 2010 10:14 am
Operator : RXD1
Sample : |UVM100217-02|BFB|1|VOAF|1|VOA8260BS|
Misc : BFB 5mL N/A
ALS Vial : 3 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Title : Volatile Organics 8260B SubList :
Last Update : Sat Mar 13 09:33:19 2010

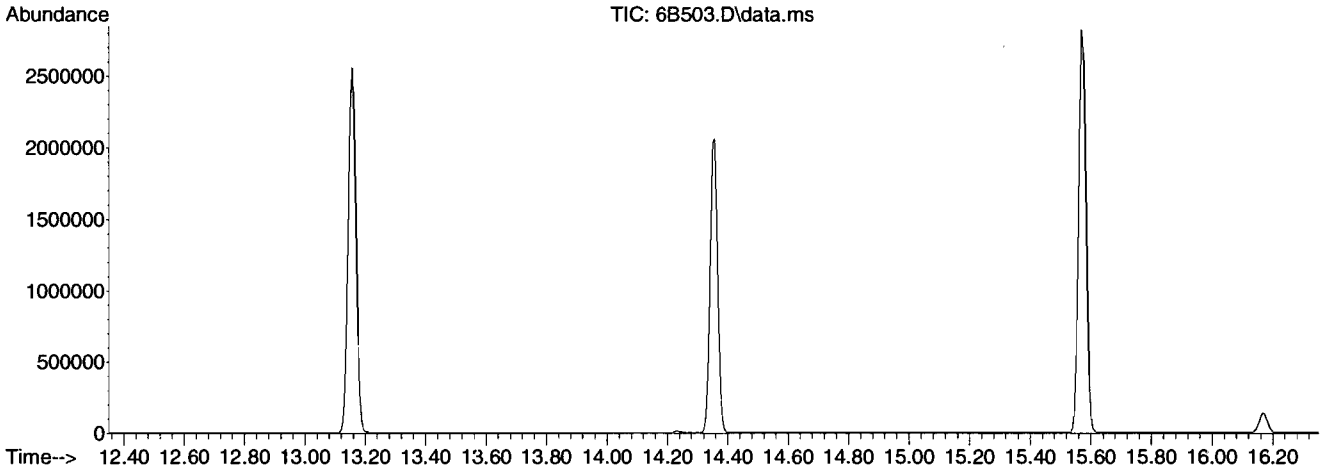

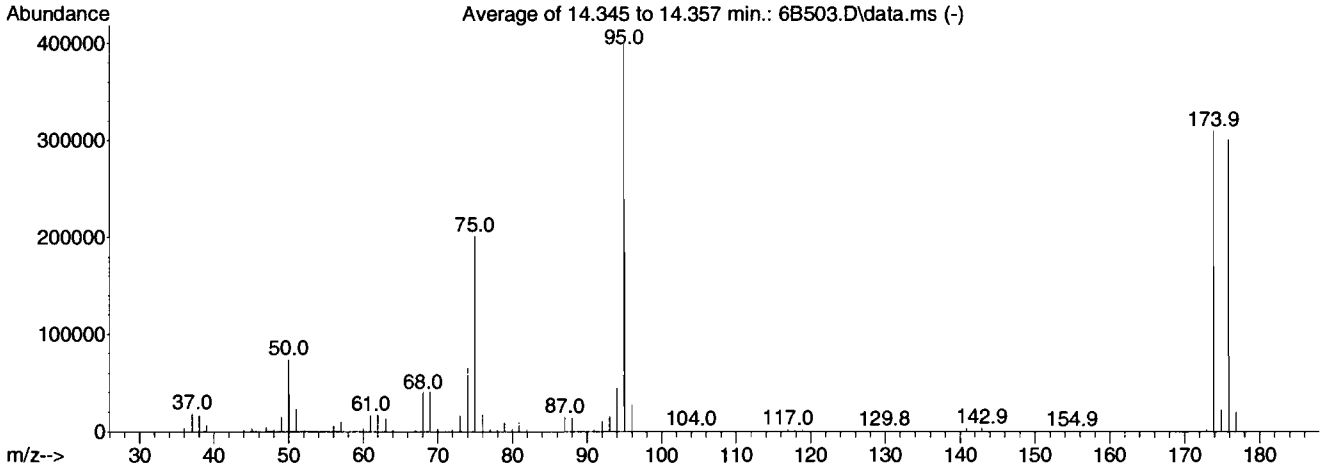

AutoFind: Scans 1557, 1558, 1559; Background Corrected with Scan 1549

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.5	73891	PASS
75	95	30	60	50.5	201173	PASS
95	95	100	100	100.0	398613	PASS
96	95	5	9	6.8	27259	PASS
173	174	0.00	2	0.6	1883	PASS
174	95	50	100	77.7	309781	PASS
175	174	5	9	7.1	21936	PASS
176	174	95	101	97.0	300395	PASS
177	176	5	9	6.6	19882	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D227BFB.D
Acq On : 23 Mar 2010 9:49 pm
Operator : RXD1
Sample : |W6VM100323-04|BFB|1|VOAF|1|VOA8260BS|
Misc : BFB 5g N/A SOIL MIX[A] 0305-01D+0318-01
ALS Vial : 27 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Title : Volatile Organics 8260B SubList :
Last Update : Sat Mar 13 09:33:19 2010

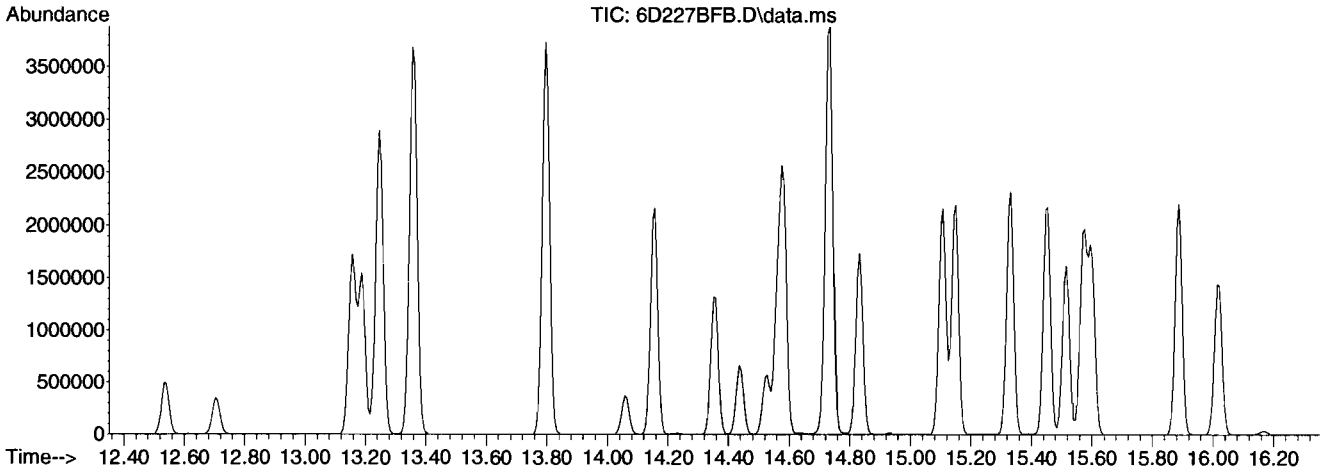

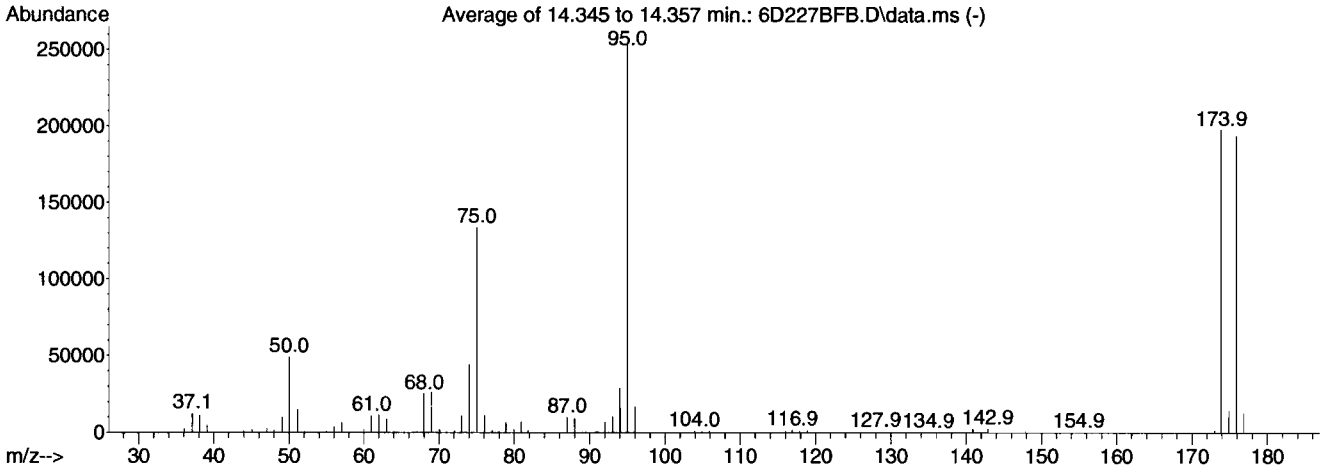

AutoFind: Scans 1557, 1558, 1559; Background Corrected with Scan 1549

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.4	49016	PASS
75	95	30	60	52.9	133565	PASS
95	95	100	100	100.0	252373	PASS
96	95	5	9	6.6	16771	PASS
173	174	0.00	2	0.7	1467	PASS
174	95	50	100	78.3	197547	PASS
175	174	5	9	7.3	14505	PASS
176	174	95	101	98.1	193792	PASS
177	176	5	9	6.6	12781	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D301.D
Acq On : 24 Mar 2010 9:33 am
Operator : RXD1
Sample : |UVM100217-02|BFB|1|VOAF|1|VOA8260BS|
Misc : BFB 5mL N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Title : Volatile Organics 8260B SubList :
Last Update : Sat Mar 13 09:33:19 2010

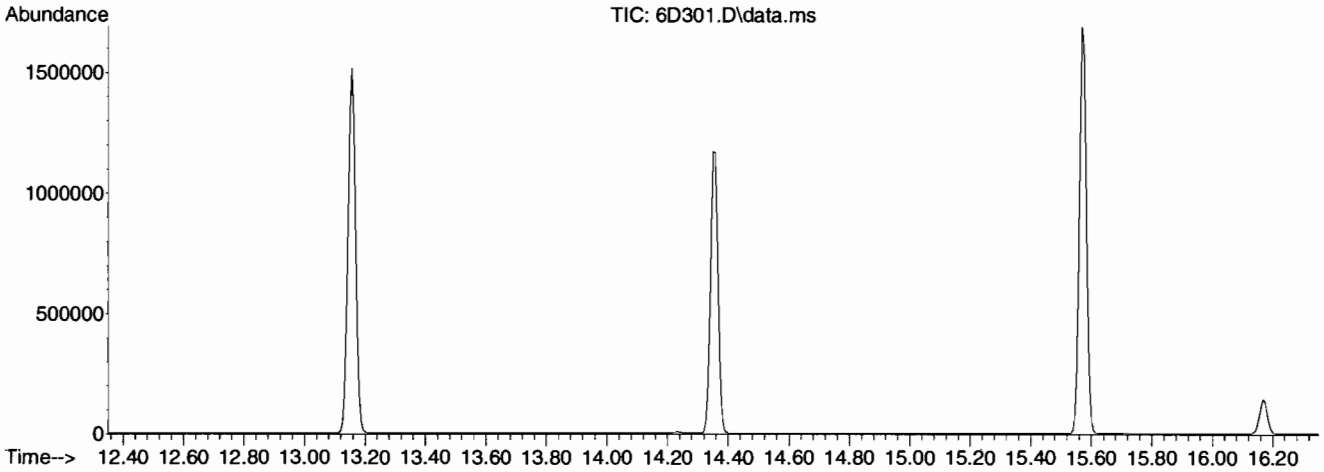

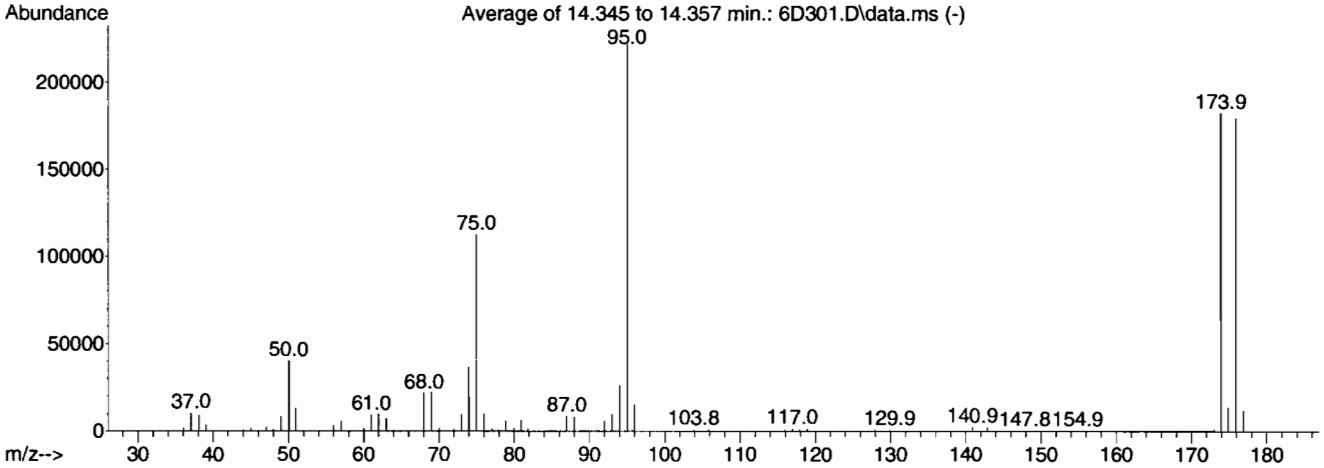

AutoFind: Scans 1557, 1558, 1559; Background Corrected with Scan 1550

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	40043	PASS
75	95	30	60	50.8	112773	PASS
95	95	100	100	100.0	221952	PASS
96	95	5	9	6.7	14881	PASS
173	174	0.00	2	0.7	1256	PASS
174	95	50	100	82.3	182656	PASS
175	174	5	9	7.4	13478	PASS
176	174	95	101	98.4	179819	PASS
177	176	5	9	6.6	11821	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202078840**				
Client Sample:	**QC for batch 968354**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 968354**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 23:12**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 09:26**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D230BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202078840**				
Client Sample:	**QC for batch 968354**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 968354**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 23:12**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 09:26**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D230BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	18.39	5.59	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D230BL.D
Acq On : 23 Mar 2010 11:12 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078840|968355|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 24 08:54:01 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1221996	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	907833	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	485044	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1221253	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	907833	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	485044	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	350005	53.63	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 107.26%					
43) Toluene-d8	11.620	11.626	0.883	98	1192372	50.21	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 100.42%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	448463	49.35	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 98.70%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.662	4.682	0.467	50	462	Below Cal	#	42
4) Vinyl chloride	0.000	4.924	0.000		0	N.D.		
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.712	6.706	0.673	43	3397	Below Cal		54
10) 1,1-Dichloroethylene	0.000	6.712	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.078	7.084	0.710	76	194	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	5279	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	8.700	8.694	0.872	43	1057	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.712	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D230BL.D
Acq On : 23 Mar 2010 11:12 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078840|968355|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 24 08:54:01 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.413	0.000		0	N.D.	
44) Toluene	11.699	11.699	0.889	91	2049	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	12.260	12.260	0.932	43	202	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.540	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	13.247	13.248	1.007	91	968	N.D.	
55) m,p-Xylenes	13.363	13.357	1.016	106	451	N.D.	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	13.796	13.796	1.049	104	579	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	14.156	14.156	0.909	105	786	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	14.583	14.583	0.937	91	2250	N.D.	
66) 1,3,5-Trimethylbenzene	14.729	14.735	0.946	105	1504	N.D.	
67) 2-Chlorotoluene	0.000	14.729	0.000		0	N.D.	
68) 4-Chlorotoluene	14.833	14.833	0.953	91	1461	N.D.	
69) tert-Butylbenzene	15.180	15.107	0.975	134	202	N.D.	
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	1979	N.D.	
71) sec-Butylbenzene	15.326	15.333	0.984	105	2584	N.D.	
72) 4-Isopropyltoluene	15.448	15.454	0.992	119	2217	N.D.	
73) 1,3-Dichlorobenzene	15.515	15.515	0.996	146	389	N.D.	
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	1150	N.D.	
75) n-Butylbenzene	15.887	15.887	1.020	91	2778	N.D.	
76) 1,2-Dichlorobenzene	16.021	16.021	1.029	146	433	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.911	17.911	1.150	180	1395	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	0.000	18.283	0.000		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	18.624	18.618	1.196	180	2015	N.D.	
83) Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.536	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.792	0.000		0	N.D.	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.542	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	8.700	8.700	0.872	43	1057	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D230BL.D
Acq On : 23 Mar 2010 11:12 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078840|968355|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 24 08:54:01 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	0.000	8.773	0.000		0	N.D.		
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.		
97)	Tetrahydrofuran	0.000	9.059	0.000		0	N.D.		
98)	Isobutyl alcohol	0.000	9.389	0.000		0	N.D.		
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.		
100)	Methyl methacrylate	0.000	10.590	0.000		0	N.D.		
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.		
102)	2-Nitropropane	0.000	11.071	0.000		0	N.D.		
104)	Ethyl methacrylate	11.858	11.858	0.901	69	1367	N.D.		
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.199	14.199	0.912	53	1008	N.D.		
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0m	N.D.	d	
110)	Pentachloroethane	0.000	15.180	0.000		0m	N.D.	d	
111)	Benzyl chloride	15.717	15.717	1.009	91	11887	1.18	ug/L	92
112)	bis(2-Chloroisopropyl)...	16.107	16.113	1.034	45	7878	3.43	ug/L	85

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D230BL.D
Acq On : 23 Mar 2010 11:12 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078840|968355|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 24 08:54:01 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

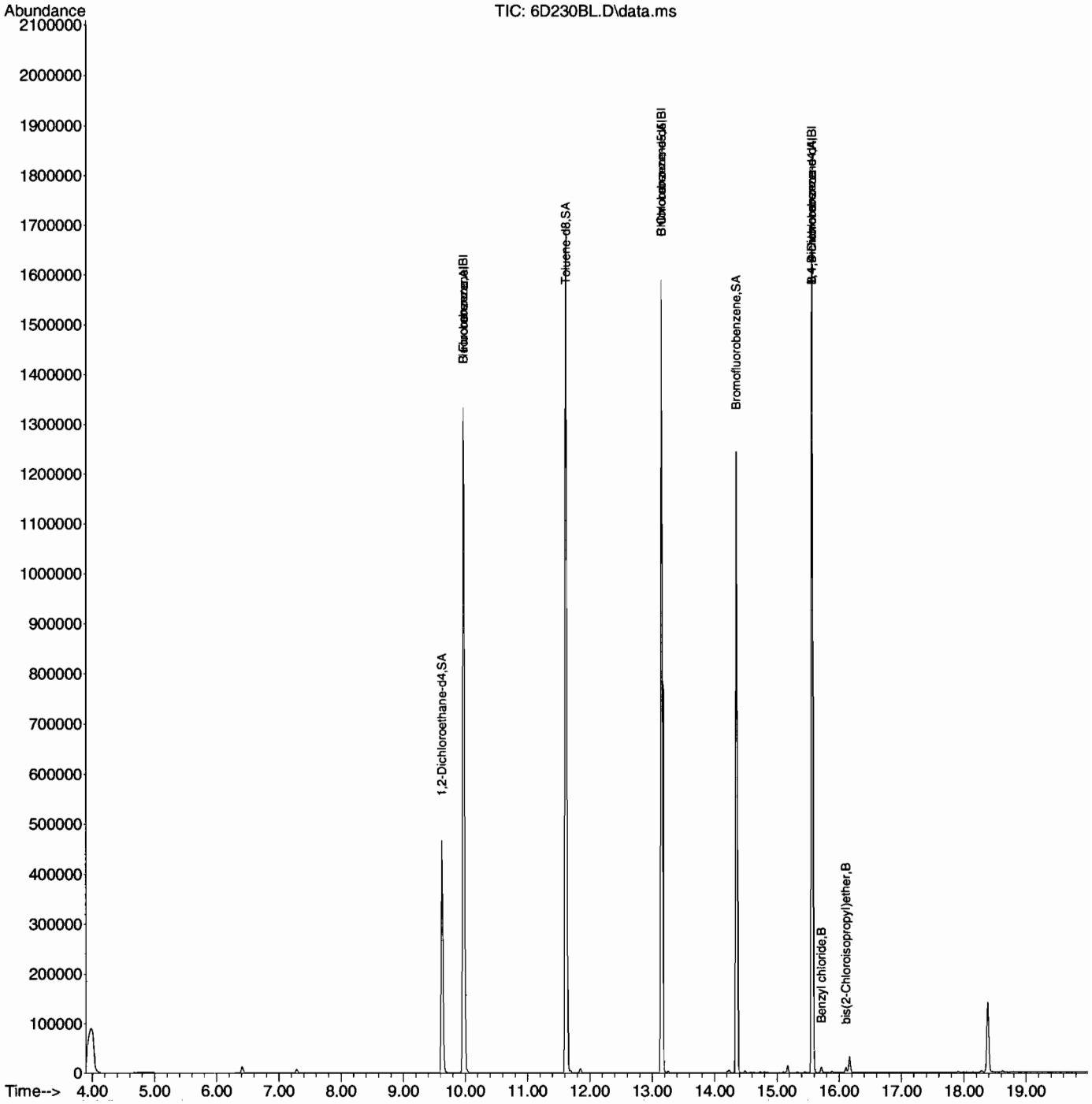

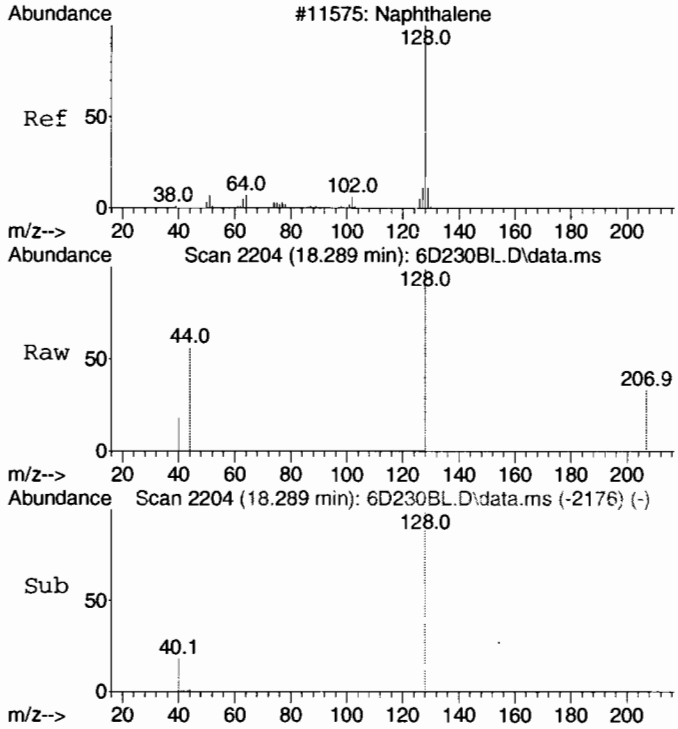

#80 BEFORE analyst DELETION
Naphthalene
Concen: 0.32 ug/L
RT: 18.289 min Scan# 2204
Delta R.T. 0.006 min
Lab File: 6D230BL.D
Acq: 23 Mar 2010 11:12 pm

Tgt Ion:128 Resp: 5806

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.7
129	0.0	0.0	40.9

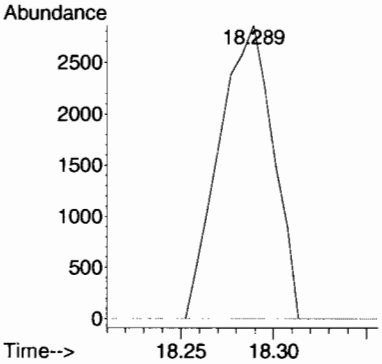

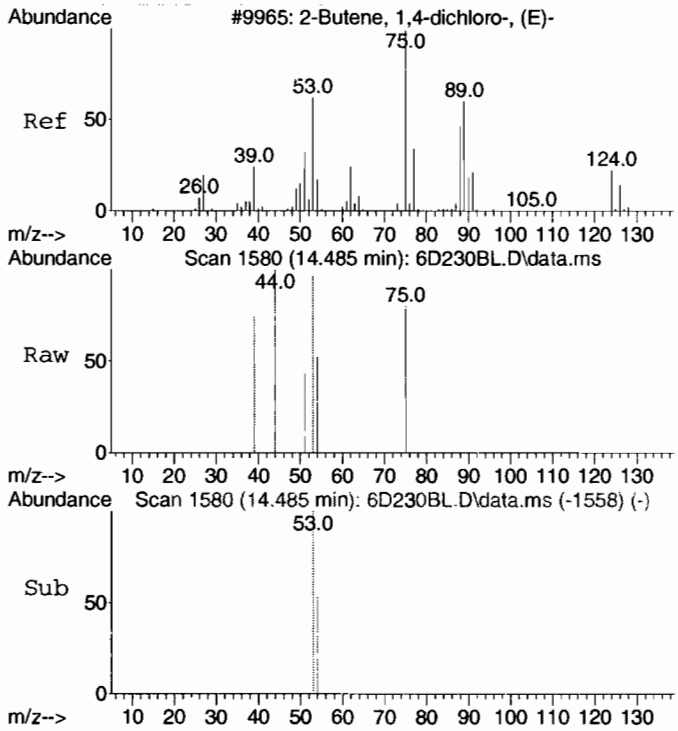

#109 BEFORE analyst DELETION
trans-1,4-Dichloro-2-butene
Concen: 0.92 ug/L
RT: 14.485 min Scan# 1580
Delta R.T. -0.006 min
Lab File: 6D230BL.D
Acq: 23 Mar 2010 11:12 pm

Tgt Ion: 53 Resp: 1585

Ion	Ratio	Lower	Upper
53	100		
88	0.0	25.5	85.5#
75	104.3	106.6	166.6#

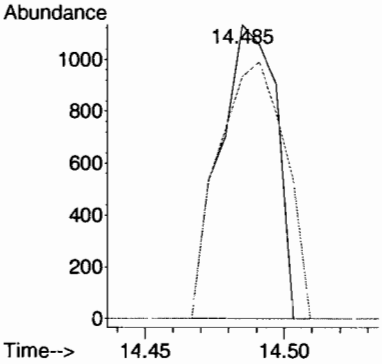

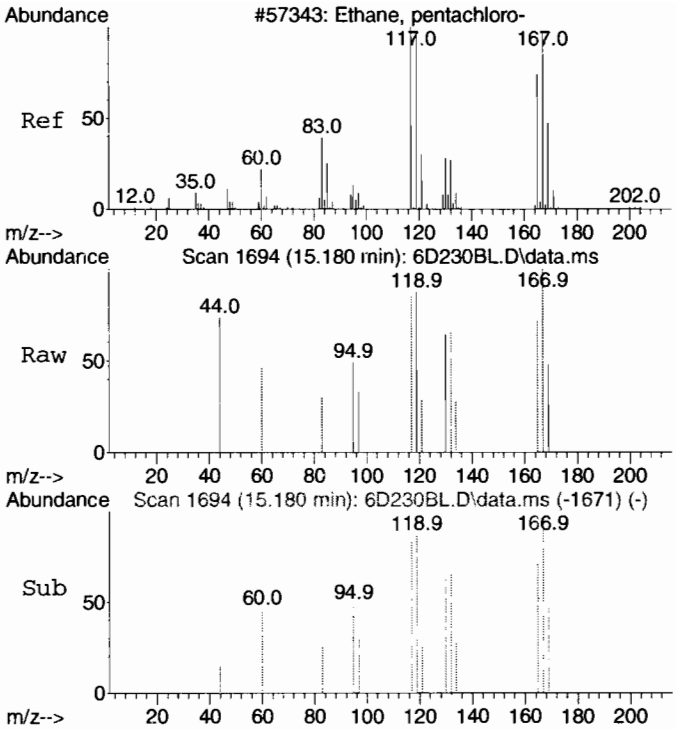

#110 BEFORE analyst DELETION
Pentachloroethane
Concen: 0.92 ug/L
RT: 15.180 min Scan# 1694
Delta R.T. 0.000 min
Lab File: 6D230BL.D
Acq: 23 Mar 2010 11:12 pm

Tgt Ion:167 Resp: 3202

Ion	Ratio	Lower	Upper
167	100		
130	74.7	10.2	70.2#
132	63.6	8.8	68.8

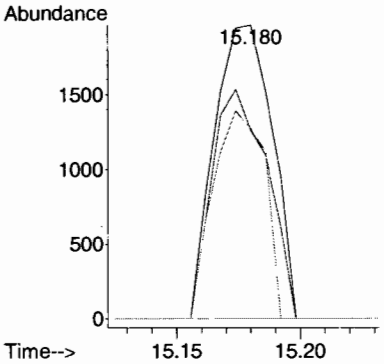

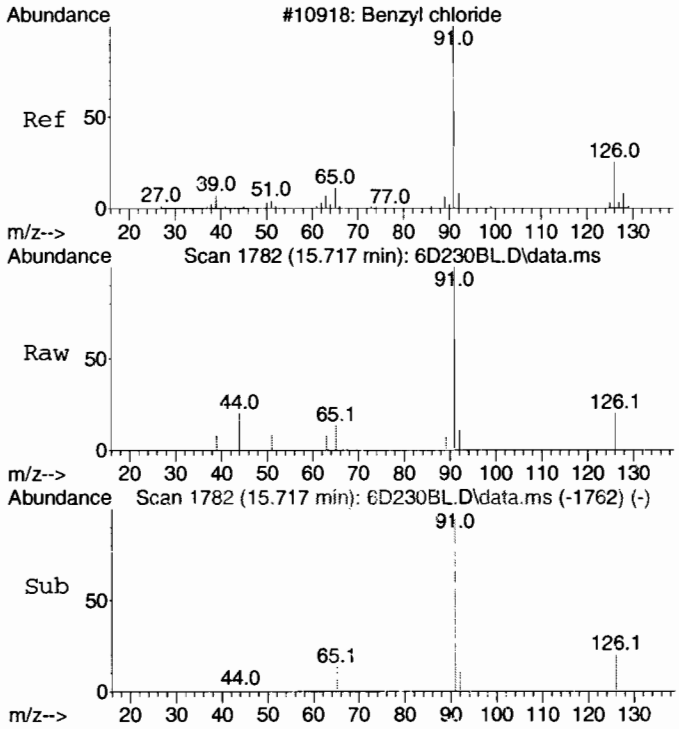

#111
Benzyl chloride
Concen: 1.18 ug/L
RT: 15.717 min Scan# 1782
Delta R.T. -0.000 min
Lab File: 6D230BL.D
Acq: 23 Mar 2010 11:12 pm

Tgt Ion: 91 Resp: 11887

Ion	Ratio	Lower	Upper
91	100		
126	17.7	0.0	53.0
65	11.4	0.0	42.7

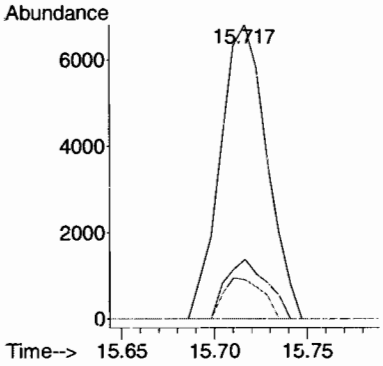

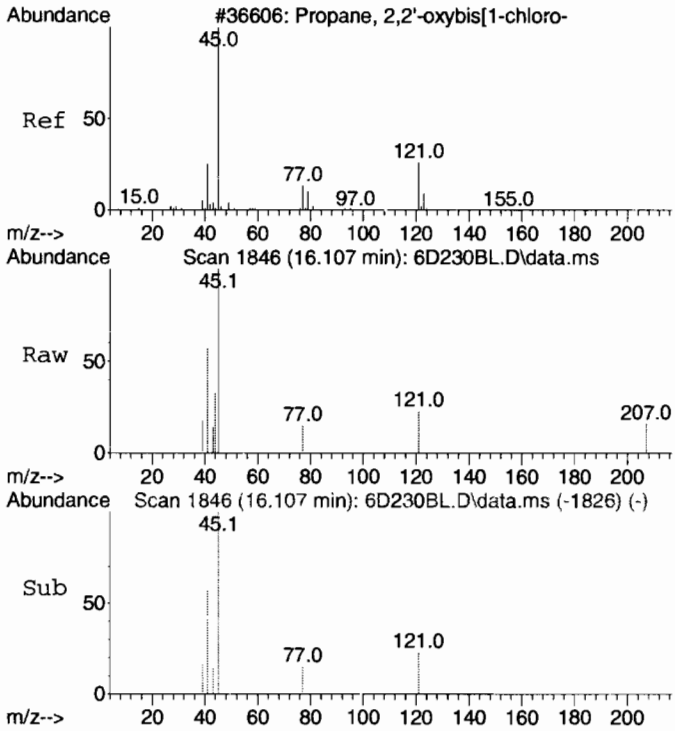

#112
bis(2-Chloroisopropyl)ether
Concen: 3.43 ug/L
RT: 16.107 min Scan# 1846
Delta R.T. -0.006 min
Lab File: 6D230BL.D
Acq: 23 Mar 2010 11:12 pm

Tgt Ion: 45 Resp: 7878

Ion	Ratio	Lower	Upper
45	100		
121	20.3	0.0	58.3

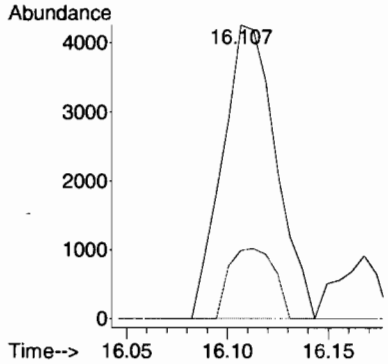

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D230BL.D
Acq On : 23 Mar 2010 11:12 pm
Operator : RXD1
Sample : |1202078840|968355|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.387	5.59 ug/L	322080	B 1,4-Dichlorobenzene-d4	15.570

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Ethyl-3-trimethylsilyloxy(trim...	276	C12H28O3Si2	1000078-93-6	38
2	3-Oxa-6-thia-2,7-disilaoctane, 2...	222	C8H22OSSi2	078921-31-0	38
3	Benzenepropanoic acid, .alpha.-[...	310	C15H26O3Si2	027750-45-4	33
4	2-Phenyl-2-trimethylsilyloxyprop...	310	C15H26O3Si2	082326-12-3	33
5	Silane, trimethyl[1-phenyl-2-[2-...	304	C17H28OSi2	097778-19-3	28

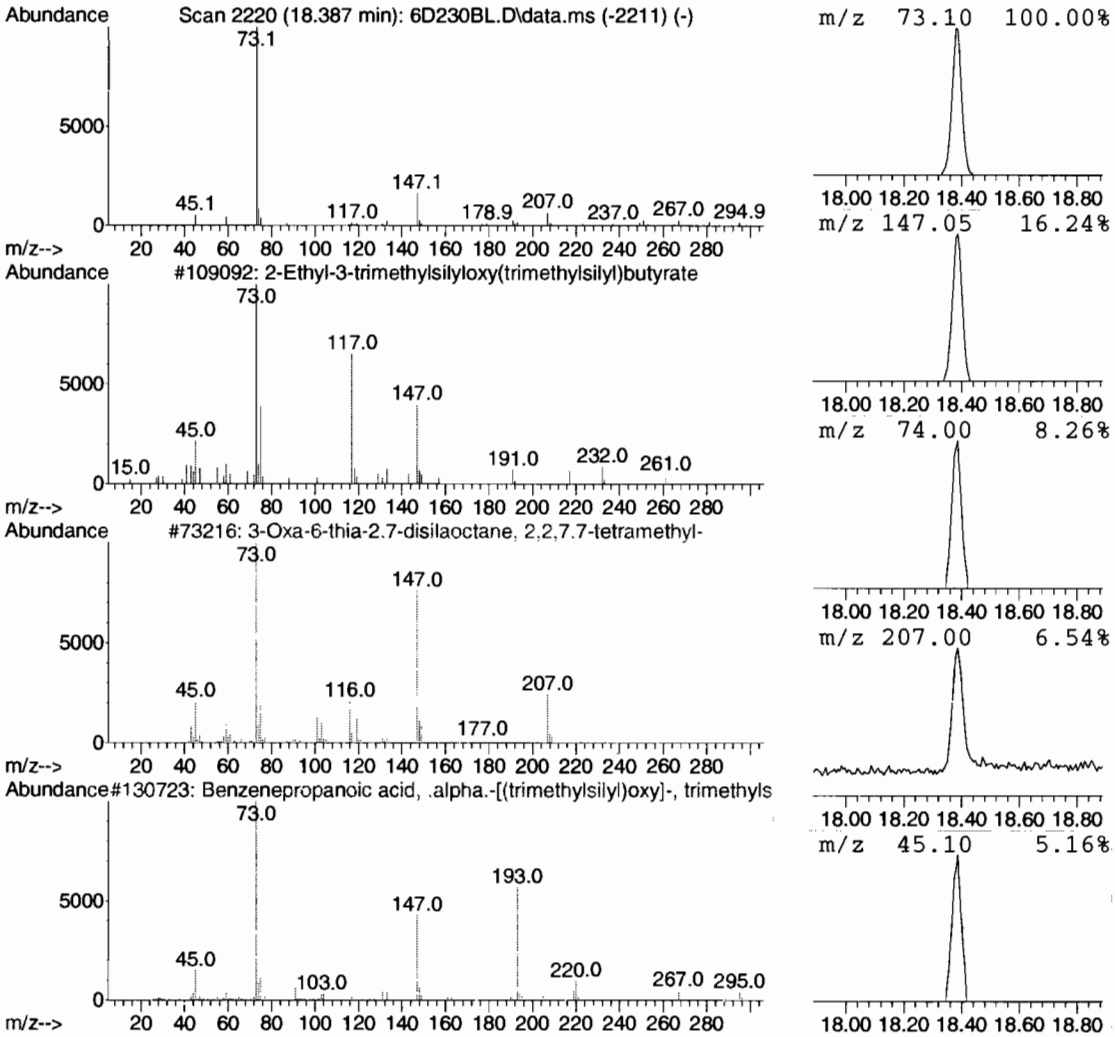

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D230BL.D
Acq On : 23 Mar 2010 11:12 pm
Operator : RXD1
Sample : |1202078840|968355|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown siloxane	18.387	5.6	ug/L	322080	6	15.570	2882590	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202088227**				
Client Sample:	**QC for batch 968354**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 968354**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 11:51**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 09:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032410V6\6D306BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202088227**				
Client Sample:	**QC for batch 968354**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 968354**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 11:51**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 09:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032410V6\6D306BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D306BL.D
Acq On : 24 Mar 2010 11:51 am
Operator : RXD1
InstName : VOA6
Sample : |1202088227|968355|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 25 08:15:17 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1144265	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	867772	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	470890	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1143138	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	867772	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	470890	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	313533	51.30	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 102.60%					
43) Toluene-d8	11.620	11.626	0.883	98	1125795	49.59	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 99.18%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	414733	47.01	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 94.02%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.672	4.682	0.468	50	341	Below Cal	#	42
4) Vinyl chloride	0.000	4.924	0.000		0	N.D.		
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.712	6.706	0.673	43	3011	Below Cal	#	44
10) 1,1-Dichloroethylene	0.000	6.712	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.084	0.000		0	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	3978	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	8.700	8.694	0.872	43	1001	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.712	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D306BL.D
Acq On : 24 Mar 2010 11:51 am
Operator : RXD1
InstName : VOA6
Sample : |1202088227|968355|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 25 08:15:17 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	11.413	0.000		0	N.D.	
44)	Toluene	11.693	11.699	0.889	91	1017	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47)	2-Hexanone	0.000	12.260	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	12.540	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52)	Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54)	Ethylbenzene	0.000	13.248	0.000		0	N.D.	
55)	m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56)	o-Xylene	0.000	13.796	0.000		0	N.D.	
57)	Styrene	0.000	13.796	0.000		0	N.D.	
59)	Bromoform	0.000	14.058	0.000		0	N.D.	
60)	Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64)	Bromobenzene	0.000	14.564	0.000		0	N.D.	
65)	n-Propylbenzene	14.583	14.583	0.937	91	445	N.D.	
66)	1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000	14.729	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	196	N.D.	
71)	sec-Butylbenzene	15.333	15.333	0.985	105	185	N.D.	
72)	4-Isopropyltoluene	0.000	15.454	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75)	n-Butylbenzene	15.887	15.887	1.020	91	416	N.D.	
76)	1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80)	Naphthalene	18.283	18.283	1.174	128	1267	N.D.	
81)	1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85)	Acrolein	0.000	6.536	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	6.792	0.000		0	N.D.	
88)	Allyl chloride	0.000	7.139	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90)	Acrylonitrile	0.000	7.542	0.000		0	N.D.	
91)	Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94)	Ethyl acetate	8.700	8.700	0.872	43	1001	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D306BL.D
Acq On : 24 Mar 2010 11:51 am
Operator : RXD1
InstName : VOA6
Sample : |1202088227|968355|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 25 08:15:17 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	0.000	8.773	0.000		0	N.D.		
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.		
97)	Tetrahydrofuran	0.000	9.059	0.000		0	N.D.		
98)	Isobutyl alcohol	0.000	9.389	0.000		0	N.D.		
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.		
100)	Methyl methacrylate	10.584	10.590	1.061	69	603	N.D.		
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.		
102)	2-Nitropropane	0.000	11.071	0.000		0	N.D.		
104)	Ethyl methacrylate	11.858	11.858	0.901	69	2058	N.D.		
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.199	14.199	0.912	53	803	N.D.		
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0m	N.D. d		
110)	Pentachloroethane	15.174	15.180	0.975	167	3808	1.13	ug/L	82
111)	Benzyl chloride	15.717	15.717	1.009	91	15524	1.59	ug/L	92
112)	bis(2-Chloroisopropyl)...	16.113	16.113	1.035	45	6571	2.95	ug/L	87

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D306BL.D
Acq On : 24 Mar 2010 11:51 am
Operator : RXD1
InstName : VOA6
Sample : |1202088227|968355|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 25 08:15:17 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

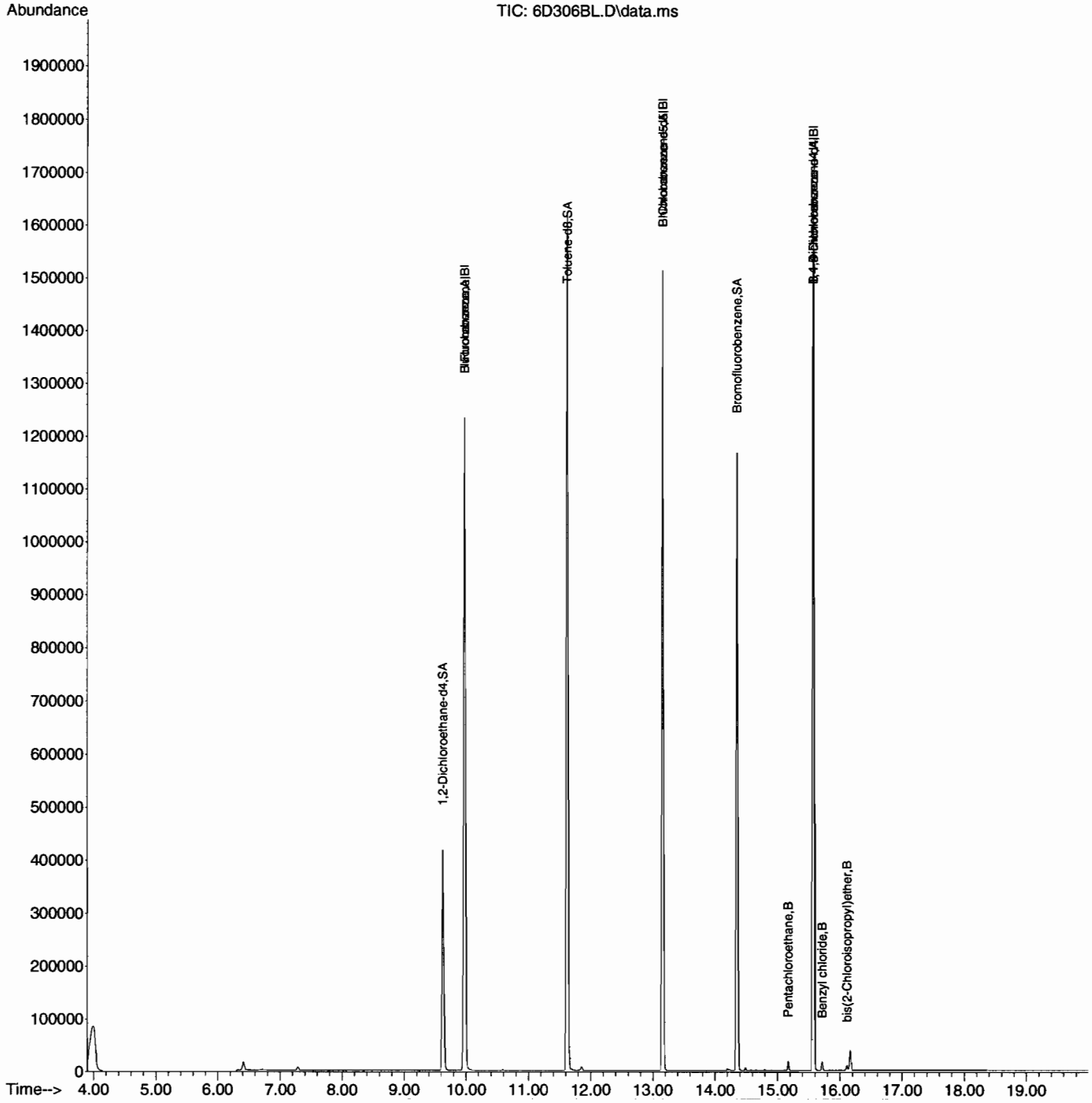

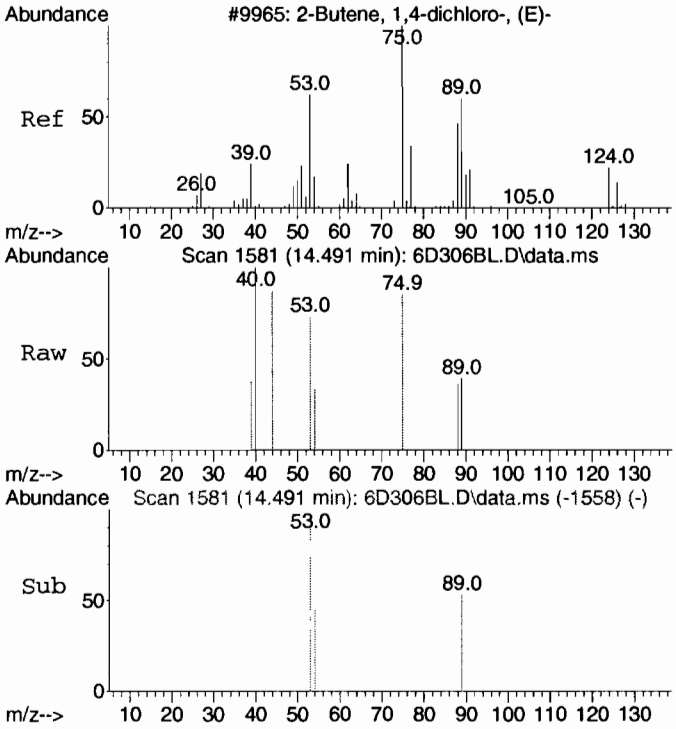

#109 BEFORE analyst DELETION
trans-1,4-Dichloro-2-butene
Concen: 0.93 ug/L
RT: 14.491 min Scan# 1581
Delta R.T. 0.000 min
Lab File: 6D306BL.D
Acq: 24 Mar 2010 11:51 am

Tgt Ion: 53 Resp: 1556

Ion	Ratio	Lower	Upper
53	100		
88	30.3	25.5	85.5
75	134.0	106.6	166.6

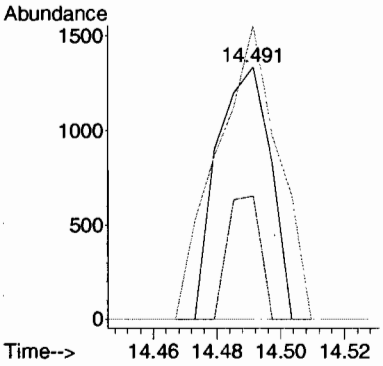

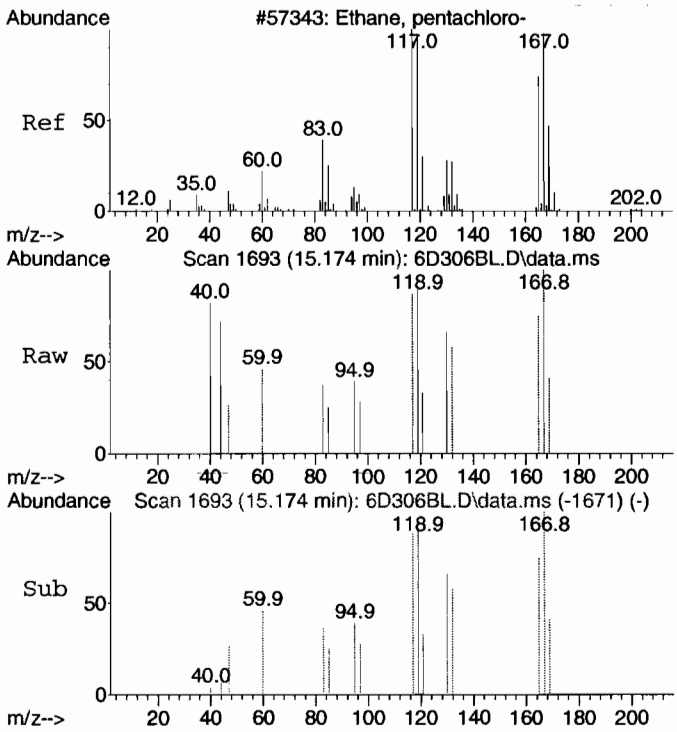

#110
Pentachloroethane
Concen: 1.13 ug/L
RT: 15.174 min Scan# 1693
Delta R.T. -0.006 min
Lab File: 6D306BL.D
Acq: 24 Mar 2010 11:51 am

Tgt Ion:167 Resp: 3808

Ion	Ratio	Lower	Upper
167	100		
130	53.7	10.2	70.2
132	47.0	8.8	68.8

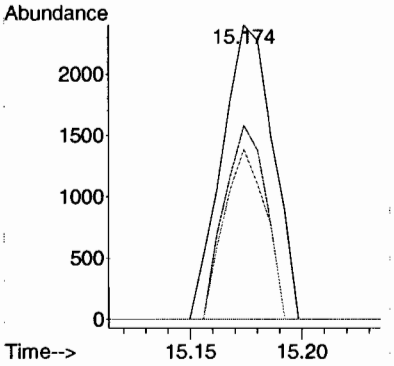

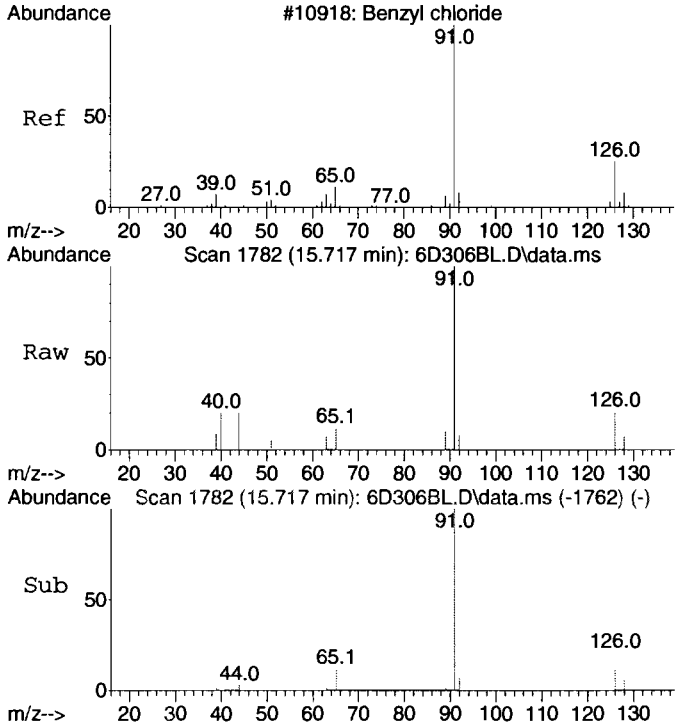

#111
Benzyl chloride
Concen: 1.59 ug/L
RT: 15.717 min Scan# 1782
Delta R.T. -0.000 min
Lab File: 6D306BL.D
Acq: 24 Mar 2010 11:51 am

Tgt Ion: 91 Resp: 15524

Ion	Ratio	Lower	Upper
91	100		
126	18.6	0.0	53.0
65	10.1	0.0	42.7

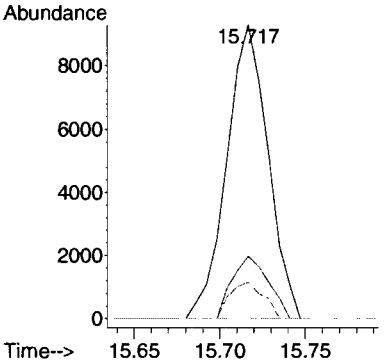

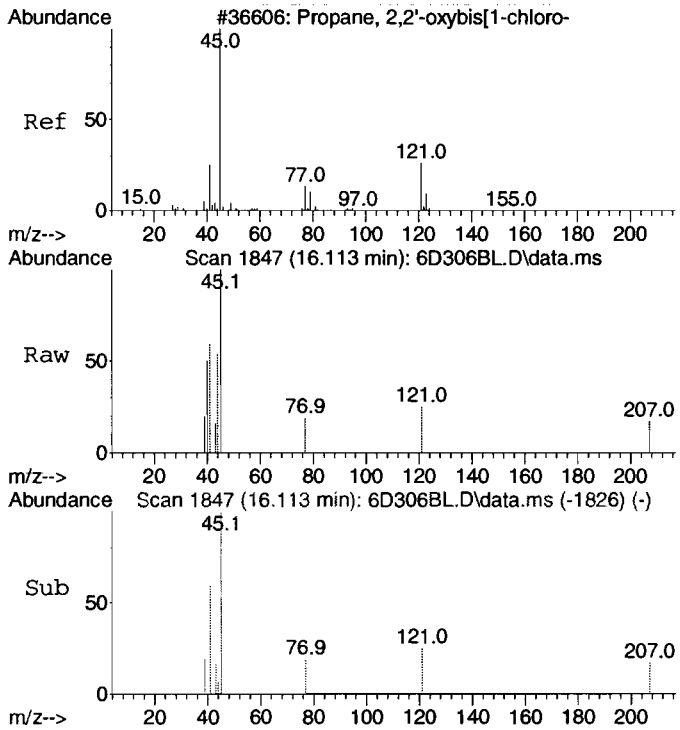

#112
bis(2-Chloroisopropyl)ether
Concen: 2.95 ug/L
RT: 16.113 min Scan# 1847
Delta R.T. -0.000 min
Lab File: 6D306BL.D
Acq: 24 Mar 2010 11:51 am

Tgt Ion: 45 Resp: 6571

Ion	Ratio	Lower	Upper
45	100		
121	21.6	0.0	58.3

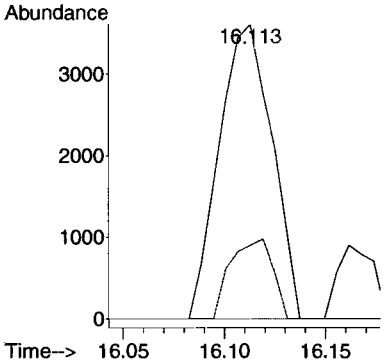

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D306BL.D
Acq On : 24 Mar 2010 11:51 am
Operator : RXD1
Sample : |1202088227|968355|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D306BL.D
Acq On : 24 Mar 2010 11:51 am
Operator : RXD1
Sample : |1202088227|968355|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202078843**				
Client Sample:	**QC for batch 968354**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 968354**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 22:17**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 09:22**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D228LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		47.5	ug/kg	0.340	1.00
74-87-3	Chloromethane		50.4	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		47.1	ug/kg	0.300	1.00
74-83-9	Bromomethane		48.3	ug/kg	0.300	1.00
75-00-3	Chloroethane		47.6	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		47.9	ug/kg	0.300	1.00
67-64-1	Acetone		166	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		48.3	ug/kg	0.300	1.00
74-88-4	Iodomethane		240	ug/kg	1.60	5.00
75-09-2	Methylene chloride		51.5	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		263	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		49.7	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		50.4	ug/kg	0.300	1.00
78-93-3	2-Butanone		207	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		50.5	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		52.4	ug/kg	0.300	1.00
67-66-3	Chloroform		49.5	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		49.2	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		50.2	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		50.5	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		51.6	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		51.1	ug/kg	0.300	1.00
71-43-2	Benzene		48.7	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		48.0	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		51.3	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		51.0	ug/kg	0.300	1.00
74-95-3	Dibromomethane		49.6	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		267	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		52.1	ug/kg	0.300	1.00
108-88-3	Toluene		44.5	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		53.1	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		49.3	ug/kg	0.300	1.00
591-78-6	2-Hexanone		190	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		50.7	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		46.8	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		51.4	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		49.3	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		47.5	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202078843**				
Client Sample:	**QC for batch 968354**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 968354**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 22:17**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 09:22**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D228LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		47.5	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		95.5	ug/kg	0.300	2.00
95-47-6	o-Xylene		47.9	ug/kg	0.300	1.00
100-42-5	Styrene		48.2	ug/kg	0.300	1.00
75-25-2	Bromoform		50.0	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		48.6	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		48.2	ug/kg	0.300	1.00
108-86-1	Bromobenzene		45.6	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		45.4	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		46.5	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		45.3	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		46.3	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		44.9	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		45.7	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		45.4	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		45.7	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		45.5	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		45.5	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		45.3	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		45.4	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		51.2	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		51.0	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		46.1	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D228LL.D
Acq On : 23 Mar 2010 10:17 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078843|968355|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 0305-01D+0318-01
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 24 08:04:08 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1254878	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	943009	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	533086	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1253940	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	943009	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	533086	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	362359	54.07	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 108.14%					
43) Toluene-d8	11.620	11.626	0.883	98	1246710	50.54	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 101.08%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	483553	48.41	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 96.82%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	231048	47.46	ug/L	100
3) Chloromethane	4.683	4.682	0.469	50	322438	50.42	ug/L	99
4) Vinyl chloride	4.924	4.924	0.494	62	336102	47.10	ug/L	98
5) Bromomethane	5.478	5.478	0.549	94	251404	48.26	ug/L	99
6) Chloroethane	5.619	5.619	0.563	64	229062	47.58	ug/L	100
7) Trichlorofluoromethane	6.032	6.032	0.605	101	422209	47.87	ug/L	100
8) Ethyl ether	6.328	6.328	0.634	59	270019	47.27	ug/L	97
9) Acetone	6.706	6.706	0.672	43	421847	165.78	ug/L	99
10) 1,1-Dichloroethylene	6.706	6.712	0.672	61	408543	48.26	ug/L	98
11) Iodomethane	6.956	6.956	0.697	142	2306610	240.37	ug/L	98
12) Acetonitrile	7.072	7.072	0.709	41	963289	1339.91	ug/L	99
13) Methyl acetate	7.096	7.096	0.711	43	1081363	258.41	ug/L	98
14) Carbon disulfide	7.078	7.084	0.710	76	4722162	263.40	ug/L	99
15) Methylene chloride	7.285	7.285	0.730	84	314208	51.45	ug/L	97
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	786622	55.28	ug/L	100
17) trans-1,2-Dichloroethy...	7.615	7.621	0.763	61	419825	49.66	ug/L	98
18) Vinyl acetate	8.060	8.060	0.808	43	3216768	310.68	ug/L	92
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	540131	50.40	ug/L	100
20) 2-Butanone	8.688	8.694	0.871	43	681905	206.74	ug/L	98
21) cis-1,2-Dichloroethylene	8.742	8.742	0.877	61	477822	50.49	ug/L	97
22) 2,2-Dichloropropane	8.767	8.767	0.879	77	406327	52.41	ug/L	99
23) Bromochloromethane	9.017	9.017	0.904	128	149120	49.24	ug/L	96
24) Chloroform	9.053	9.053	0.908	83	515392	49.46	ug/L	99
25) 1,1,1-Trichloroethane	9.322	9.321	0.935	97	435367	50.15	ug/L	100
26) Cyclohexane	9.413	9.413	0.944	56	534747	48.18	ug/L	98
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	424588	50.47	ug/L	98
28) Carbon tetrachloride	9.511	9.510	0.954	117	397324	51.61	ug/L	100
30) 1,2-Dichloroethane	9.706	9.712	0.973	62	414916	51.14	ug/L	99
31) Benzene	9.724	9.724	0.975	78	1222241	48.67	ug/L	100
32) Cyclohexene	9.828	9.834	0.985	67	609524	47.82	ug/L	99
33) n-Butyl alcohol	10.078	10.077	1.010	56	931381	5631.09	ug/L	97
34) Trichloroethylene	10.364	10.364	1.039	95	298062	48.03	ug/L	99
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	321530	51.29	ug/L	100
36) Methylcyclohexane	10.602	10.602	1.063	83	562096	48.58	ug/L	99
37) Dibromomethane	10.748	10.748	1.078	93	171522	49.58	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D228LL.D
Acq On : 23 Mar 2010 10:17 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078843|968355|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 0305-01D+0318-01
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 24 08:04:08 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38)	Bromodichloromethane	10.864	10.864	1.089	83	377555	51.01	ug/L		100
39)	2-Chloroethylvinyl ether	11.083	11.089	1.111	63	796787	222.57	ug/L		98
40)	cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	481962	52.12	ug/L		99
42)	4-Methyl-2-pentanone	11.407	11.413	0.867	58	586430	267.38	ug/L		95
44)	Toluene	11.693	11.699	0.889	91	1287224	44.49	ug/L		99
45)	trans-1,3-Dichloroprop...	11.858	11.858	0.901	75	441991	53.09	ug/L		98
46)	1,1,2-Trichloroethane	12.077	12.077	0.918	83	211435	49.31	ug/L		99
47)	2-Hexanone	12.260	12.260	0.932	43	1078767	189.96	ug/L		99
48)	1,3-Dichloropropane	12.272	12.272	0.933	76	475049	50.69	ug/L		88
49)	Tetrachloroethylene	12.291	12.290	0.934	164	253414	46.77	ug/L		99
50)	Dibromochloromethane	12.534	12.540	0.953	129	278790	51.43	ug/L		100
51)	1,2-Dibromoethane	12.705	12.705	0.966	107	250173	49.27	ug/L		100
52)	Chlorobenzene	13.187	13.187	1.002	112	844279	47.53	ug/L		99
53)	1,1,1,2-Tetrachloroethane	13.242	13.241	1.006	131	300986	51.04	ug/L		100
54)	Ethylbenzene	13.248	13.248	1.007	91	1481711	47.49	ug/L		99
55)	m,p-Xylenes	13.357	13.357	1.015	106	1179699	95.51	ug/L		97
56)	o-Xylene	13.796	13.796	1.049	106	583378	47.94	ug/L		97
57)	Styrene	13.796	13.796	1.049	104	977385	48.17	ug/L		99
59)	Bromoform	14.058	14.058	0.903	173	173924	49.97	ug/L		99
60)	Isopropylbenzene	14.156	14.156	0.909	105	1505433	45.34	ug/L		99
62)	1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	338427	48.55	ug/L		100
63)	1,2,3-Trichloropropane	14.528	14.528	0.933	110	90927	48.22	ug/L		98
64)	Bromobenzene	14.564	14.564	0.935	156	368034	45.62	ug/L		97
65)	n-Propylbenzene	14.583	14.583	0.937	91	1780368	45.40	ug/L		98
66)	1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1317919	46.25	ug/L		98
67)	2-Chlorotoluene	14.729	14.729	0.946	126	375089	46.46	ug/L		96
68)	4-Chlorotoluene	14.833	14.833	0.953	91	1064973	44.89	ug/L		99
69)	tert-Butylbenzene	15.107	15.107	0.970	134	285490	45.72	ug/L	#	90
70)	1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	1315411	45.38	ug/L		99
71)	sec-Butylbenzene	15.333	15.333	0.985	105	1719176	45.73	ug/L		98
72)	4-Isopropyltoluene	15.448	15.454	0.992	119	1407148	45.49	ug/L		99
73)	1,3-Dichlorobenzene	15.516	15.515	0.996	146	711099	45.47	ug/L		100
74)	1,4-Dichlorobenzene	15.601	15.601	1.002	146	719874	45.33	ug/L		99
75)	n-Butylbenzene	15.887	15.887	1.020	91	1334276	45.36	ug/L		99
76)	1,2-Dichlorobenzene	16.015	16.021	1.029	146	672334	46.07	ug/L		100
77)	1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	56975	51.24	ug/L		97
78)	1,2,4-Trichlorobenzene	17.905	17.911	1.150	180	442947	43.53	ug/L		100
79)	Hexachlorobutadiene	18.076	18.076	1.161	225	285618	43.55	ug/L		99
80)	Naphthalene	18.283	18.283	1.174	128	931335	46.52	ug/L		100
81)	1,2,3-Trichlorobenzene	18.619	18.618	1.196	180	388263	47.81	ug/L		99
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.			
85)	Acrolein	0.000	6.536	0.000		0	N.D.			
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.			
87)	Isopropyl Alcohol	0.000	6.792	0.000		0	N.D.			
88)	Allyl chloride	7.072	7.139	0.709		0m	N.D.		d	
89)	tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.			
90)	Acrylonitrile	7.578	7.542	0.760		0m	N.D.		d	
91)	Isopropyl ether	8.060	8.078	0.808		0m	N.D.		d	
92)	2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.			
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.			
94)	Ethyl acetate	8.688	8.700	0.871		0m	N.D.		d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D228LL.D
Acq On : 23 Mar 2010 10:17 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078843|968355|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 0305-01D+0318-01
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 24 08:04:08 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	8.688	8.773	0.871		0m	N.D.	d
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	9.041	9.059	0.906		0m	N.D.	d
98)	Isobutyl alcohol	9.413	9.389	0.944		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724	9.736	0.975		0m	N.D.	d
100)	Methyl methacrylate	10.602	10.590	1.063		0m	N.D.	d
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	11.083	11.071	1.111		0m	N.D.	d
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156	14.199	0.909		0m	N.D.	d
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.	
110)	Pentachloroethane	15.174	15.180	0.975		0m	N.D.	d
111)	Benzyl chloride	15.711	15.717	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	0.000	16.113	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D228LL.D
Acq On : 23 Mar 2010 10:17 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078843|968355|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 0305-01D+0318-01
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 24 08:04:08 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

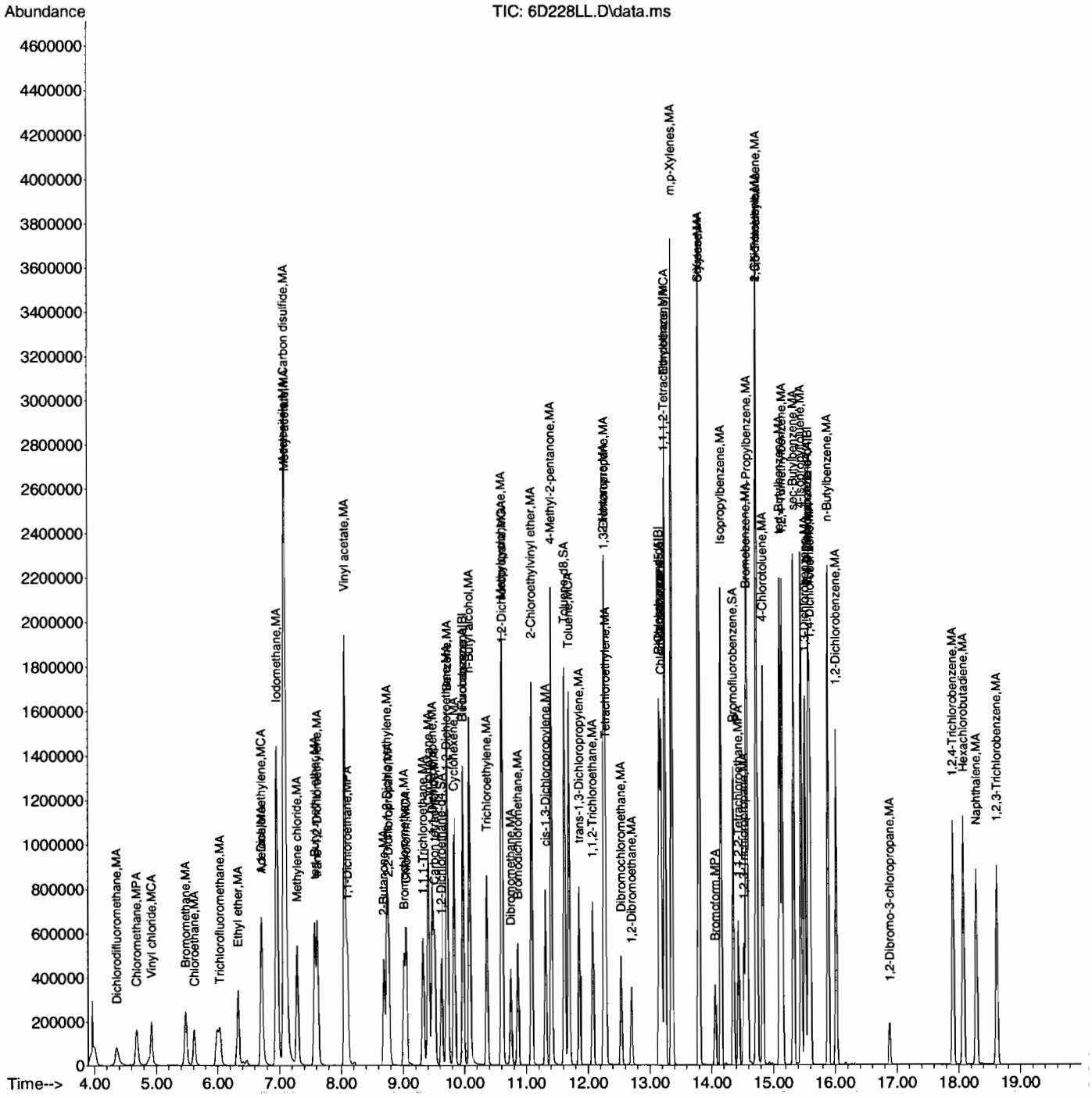

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202078844**				
Client Sample:	**QC for batch 968354**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 968354**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 22:45**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 09:23**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D229SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202078844**				
Client Sample:	**QC for batch 968354**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 968354**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 22:45**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 09:23**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V6\6D229SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		267	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D229SL.D
Acq On : 23 Mar 2010 10:45 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078844|968355|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] UVM100304-08B
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 24 08:52:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1246652	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	951376	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	526479	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1245400	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	951376	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	526479	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	358663	53.87	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 107.74%					
43) Toluene-d8	11.626	11.626	0.884	98	1245245	50.04	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 100.08%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	489788	49.65	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 99.30%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.672	4.682	0.468		0m	N.D.	d	
4) Vinyl chloride	4.924	4.924	0.494		0m	N.D.	d	
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.682	6.706	0.670		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.694	6.712	0.671		0m	N.D.	d	
11) Iodomethane	6.938	6.956	0.696		0m	N.D.	d	
12) Acetonitrile	7.139	7.072	0.716		0m	N.D.	d	
13) Methyl acetate	7.096	7.096	0.711		0m	N.D.	d	
14) Carbon disulfide	7.139	7.084	0.716		0m	N.D.	d	
15) Methylene chloride	7.285	7.285	0.730		0m	N.D.	d	
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	8.059	8.060	0.808		0m	N.D.	d	
19) 1,1-Dichloroethane	8.206	8.102	0.823		0m	N.D.	d	
20) 2-Butanone	8.700	8.694	0.872		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.700	8.742	0.872		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	9.389	9.413	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.712	0.000		0	N.D.		
31) Benzene	9.718	9.724	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	10.084	10.077	1.011		0m	N.D.	d	
34) Trichloroethylene	10.364	10.364	1.039		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	10.589	10.602	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D229SL.D
Acq On : 23 Mar 2010 10:45 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078844|968355|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] UVM100304-08B
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 24 08:52:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	11.089	11.089	1.112		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.		
42) 4-Methyl-2-pentanone	11.413	11.413	0.867		0m	N.D.	d	
44) Toluene	11.699	11.699	0.889		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	11.851	11.858	0.901		0m	N.D.	d	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.		
47) 2-Hexanone	12.260	12.260	0.932		0m	N.D.	d	
48) 1,3-Dichloropropane	12.315	12.272	0.936		0m	N.D.	d	
49) Tetrachloroethylene	12.290	12.290	0.934		0m	N.D.	d	
50) Dibromochloromethane	0.000	12.540	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.		
52) Chlorobenzene	13.193	13.187	1.003		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	13.241	13.241	1.006		0m	N.D.	d	
54) Ethylbenzene	13.248	13.248	1.007		0m	N.D.	d	
55) m,p-Xylenes	13.363	13.357	1.016		0m	N.D.	d	
56) o-Xylene	13.796	13.796	1.049		0m	N.D.	d	
57) Styrene	13.802	13.796	1.049		0m	N.D.	d	
59) Bromoform	0.000	14.058	0.000		0	N.D.		
60) Isopropylbenzene	14.150	14.156	0.909		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	14.442	14.436	0.928		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.		
64) Bromobenzene	14.564	14.564	0.935		0m	N.D.	d	
65) n-Propylbenzene	14.577	14.583	0.936		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946		0m	N.D.	d	
67) 2-Chlorotoluene	14.729	14.729	0.946		0m	N.D.	d	
68) 4-Chlorotoluene	14.833	14.833	0.953		0m	N.D.	d	
69) tert-Butylbenzene	15.107	15.107	0.970		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973		0m	N.D.	d	
71) sec-Butylbenzene	15.332	15.333	0.985		0m	N.D.	d	
72) 4-Isopropyltoluene	15.448	15.454	0.992		0m	N.D.	d	
73) 1,3-Dichlorobenzene	15.515	15.515	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	15.601	15.601	1.002		0m	N.D.	d	
75) n-Butylbenzene	15.887	15.887	1.020		0m	N.D.	d	
76) 1,2-Dichlorobenzene	16.015	16.021	1.029		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	16.875	16.881	1.084		0m	N.D.	d	
78) 1,2,4-Trichlorobenzene	17.911	17.911	1.150		0m	N.D.	d	
79) Hexachlorobutadiene	18.076	18.076	1.161		0m	N.D.	d	
80) Naphthalene	18.283	18.283	1.174		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	18.618	18.618	1.196		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0m	N.D.	d	
85) Acrolein	6.529	6.536	0.655	56	282281	310.14	ug/L	99
86) Trichlorotrifluoroethane	6.682	6.682	0.670	85	655425	267.30	ug/L	96
87) Isopropyl Alcohol	0.000	6.792	0.000		0m	N.D.	d	
88) Allyl chloride	7.139	7.139	0.716	41	2563514	294.11	ug/L	98
89) tert-Butyl Alcohol	0.000	7.285	0.000		0m	N.D.	d	
90) Acrylonitrile	7.541	7.542	0.756	53	514105	304.49	ug/L	99
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	8.206	8.206	0.823	53	488893	60.86	ug/L	96
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.		
94) Ethyl acetate	8.700	8.700	0.872	43	1348545	292.20	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D229SL.D
Acq On : 23 Mar 2010 10:45 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078844|968355|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] UVM100304-08B
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 24 08:52:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	8.773	8.773	0.880	54	203275	297.97	ug/L	99
96)	Methacrylonitrile	8.950	8.950	0.897	41	917960	307.63	ug/L	100
97)	Tetrahydrofuran	9.059	9.059	0.908	42	469403	309.92	ug/L	97
98)	Isobutyl alcohol	9.389	9.389	0.941	41	576537	3031.26	ug/L	99
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.		
100)	Methyl methacrylate	10.589	10.590	1.062	69	1117066	313.60	ug/L	96
101)	1,4-Dioxane	10.699	10.699	1.073	88	143412	2787.13	ug/L	97
102)	2-Nitropropane	11.071	11.071	1.110	43	464970	364.52	ug/L	99
104)	Ethyl methacrylate	11.858	11.858	0.901	69	2188434	313.89	ug/L	97
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.199	14.199	0.912	53	604775	309.99	ug/L	98
108)	Cyclohexanone	14.314	14.315	0.919	42	194650	1330.02	ug/L	97
109)	trans-1,4-Dichloro-2-b...	14.485	14.491	0.930	53	568864	303.68	ug/L	98
110)	Pentachloroethane	15.180	15.180	0.975	167	1241906	330.14	ug/L	98
111)	Benzyl chloride	15.717	15.717	1.009	91	2984999	273.25	ug/L	98
112)	bis(2-Chloroisopropyl)...	16.113	16.113	1.035	45	779381	312.43	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V6\
Data File : 6D229SL.D
Acq On : 23 Mar 2010 10:45 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078844|968355|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] UVM100304-08B
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 24 08:52:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

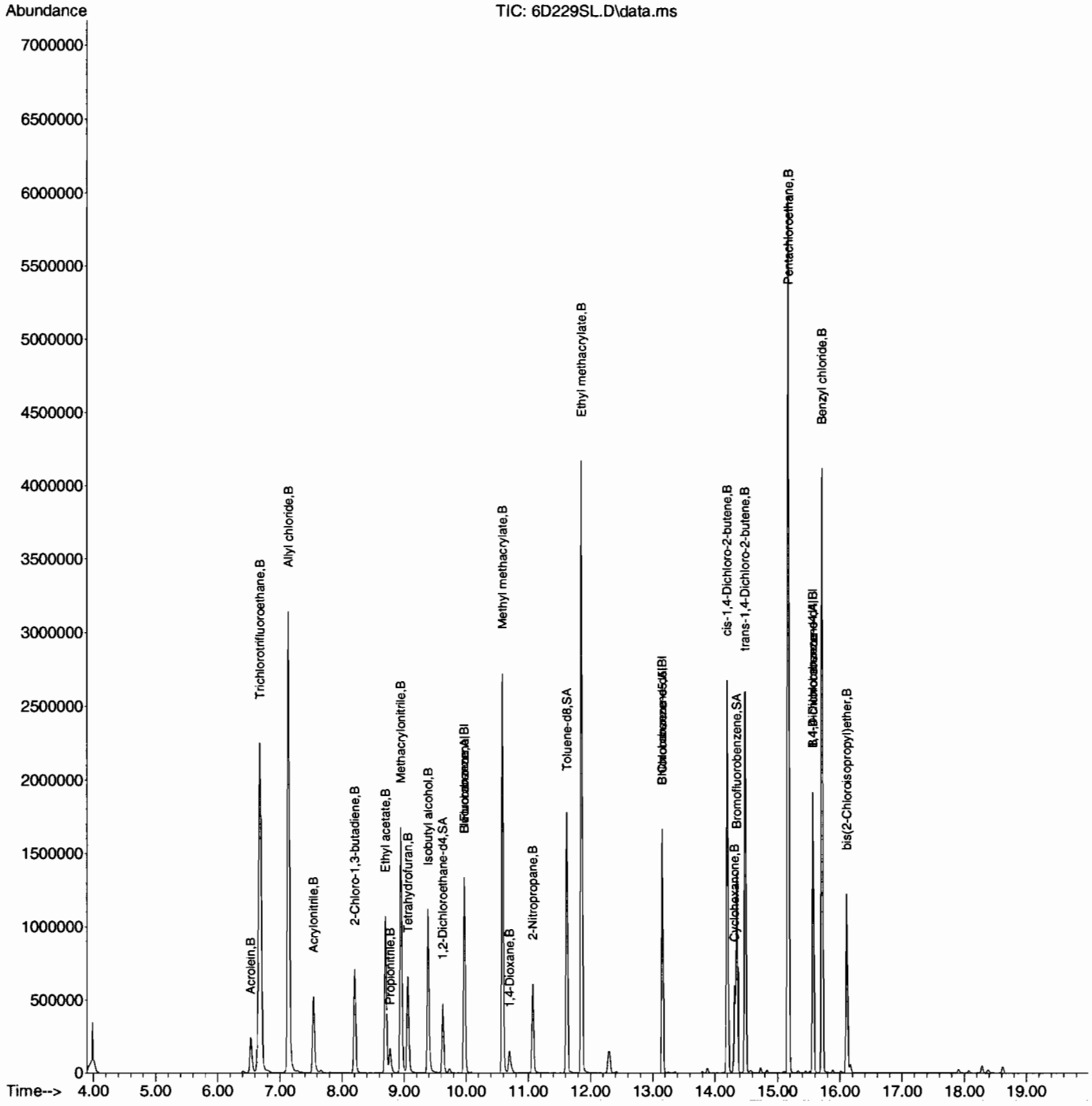

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202088228**				
Client Sample:	**QC for batch 968354**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 968354**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 10:28**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 09:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032410V6\6D303LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		50.6	ug/kg	0.340	1.00
74-87-3	Chloromethane		49.7	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		48.4	ug/kg	0.300	1.00
74-83-9	Bromomethane		53.6	ug/kg	0.300	1.00
75-00-3	Chloroethane		49.9	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		54.4	ug/kg	0.300	1.00
67-64-1	Acetone		215	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		51.4	ug/kg	0.300	1.00
74-88-4	Iodomethane		272	ug/kg	1.60	5.00
75-09-2	Methylene chloride		53.8	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		288	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		52.3	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		52.6	ug/kg	0.300	1.00
78-93-3	2-Butanone		212	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		52.5	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		58.9	ug/kg	0.300	1.00
67-66-3	Chloroform		52.4	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		54.7	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		55.1	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		54.4	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		58.4	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		51.4	ug/kg	0.300	1.00
71-43-2	Benzene		51.5	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		52.6	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		52.8	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		54.9	ug/kg	0.300	1.00
74-95-3	Dibromomethane		53.9	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		268	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		55.1	ug/kg	0.300	1.00
108-88-3	Toluene		46.8	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		55.3	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		51.3	ug/kg	0.300	1.00
591-78-6	2-Hexanone		201	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		51.8	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		53.6	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		58.5	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		52.2	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		51.1	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202088228**				
Client Sample:	**QC for batch 968354**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 968354**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 10:28**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 09:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032410V6\6D303LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		50.2	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		103	ug/kg	0.300	2.00
95-47-6	o-Xylene		51.3	ug/kg	0.300	1.00
100-42-5	Styrene		51.7	ug/kg	0.300	1.00
75-25-2	Bromoform		59.9	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		49.6	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		50.1	ug/kg	0.300	1.00
108-86-1	Bromobenzene		49.0	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		47.8	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		50.4	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		47.8	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		48.9	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		46.4	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		49.0	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		47.9	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		48.4	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		48.9	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		49.3	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		49.6	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		48.3	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		62.4	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		55.6	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		49.6	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D303LL.D
Acq On : 24 Mar 2010 10:28 am
Operator : RXD1
InstName : VOA6
Sample : |1202088228|968355|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 0305-01D+0318-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 25 08:10:46 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1189602	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	914537	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	524432	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1188434	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	914537	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	524432	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	319629	50.31	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 100.62%					
43) Toluene-d8	11.626	11.626	0.884	98	1175693	49.14	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 98.28%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	446821	45.47	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 90.94%					
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	233315	50.56	ug/L	99
3) Chloromethane	4.682	4.682	0.469	50	301186	49.67	ug/L	99
4) Vinyl chloride	4.924	4.924	0.494	62	327482	48.41	ug/L	99
5) Bromomethane	5.478	5.478	0.549	94	264548	53.57	ug/L	99
6) Chloroethane	5.619	5.619	0.563	64	227867	49.93	ug/L	100
7) Trichlorofluoromethane	5.991	6.032	0.601	101	454946	54.41	ug/L	99
8) Ethyl ether	6.328	6.328	0.634	59	255045	47.10	ug/L	94
9) Acetone	6.706	6.706	0.672	43	512363	214.51	ug/L	99
10) 1,1-Dichloroethylene	6.706	6.712	0.672	61	412212	51.37	ug/L	99
11) Iodomethane	6.956	6.956	0.697	142	2477925	272.40	ug/L	100
12) Acetonitrile	7.072	7.072	0.709	41	905245	1328.27	ug/L	99
13) Methyl acetate	7.096	7.096	0.711	43	1005758	253.53	ug/L	99
14) Carbon disulfide	7.078	7.084	0.710	76	4888271	287.63	ug/L	100
15) Methylene chloride	7.285	7.285	0.730	84	311104	53.75	ug/L	98
16) tert-Butyl methyl ether	7.578	7.572	0.760	73	779793	57.80	ug/L	99
17) trans-1,2-Dichloroethy...	7.620	7.621	0.764	61	418872	52.27	ug/L	98
18) Vinyl acetate	8.059	8.060	0.808	43	2988698	304.49	ug/L	97
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	534073	52.57	ug/L	100
20) 2-Butanone	8.693	8.694	0.872	43	661872	211.68	ug/L	99
21) cis-1,2-Dichloroethylene	8.742	8.742	0.877	61	470808	52.48	ug/L	100
22) 2,2-Dichloropropane	8.767	8.767	0.879	77	433156	58.94	ug/L	95
23) Bromochloromethane	9.017	9.017	0.904	128	157013	54.69	ug/L	95
24) Chloroform	9.053	9.053	0.908	83	517461	52.38	ug/L	100
25) 1,1,1-Trichloroethane	9.321	9.321	0.935	97	453363	55.09	ug/L	99
26) Cyclohexane	9.413	9.413	0.944	56	532146	50.58	ug/L	98
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	433713	54.38	ug/L	98
28) Carbon tetrachloride	9.510	9.510	0.954	117	426221	58.41	ug/L	100
30) 1,2-Dichloroethane	9.705	9.712	0.973	62	394926	51.35	ug/L	100
31) Benzene	9.724	9.724	0.975	78	1224798	51.45	ug/L	99
32) Cyclohexene	9.833	9.834	0.986	67	615518	50.94	ug/L	99
33) n-Butyl alcohol	10.077	10.077	1.010	56	902438	5754.14	ug/L	99
34) Trichloroethylene	10.364	10.364	1.039	95	309357	52.59	ug/L	97
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	313466	52.75	ug/L	100
36) Methylcyclohexane	10.602	10.602	1.063	83	590489	53.83	ug/L	98
37) Dibromomethane	10.748	10.748	1.078	93	176672	53.87	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D303LL.D
Acq On : 24 Mar 2010 10:28 am
Operator : RXD1
InstName : VOA6
Sample : |1202088228|968355|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 0305-01D+0318-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 25 08:10:46 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	10.864	10.864	1.089	83	385354	54.92	ug/L	99
39) 2-Chloroethylvinyl ether	11.089	11.089	1.112	63	762056	224.54	ug/L	100
40) cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	482909	55.08	ug/L	97
42) 4-Methyl-2-pentanone	11.406	11.413	0.867	58	570759	268.33	ug/L	100
44) Toluene	11.693	11.699	0.889	91	1313383	46.80	ug/L	99
45) trans-1,3-Dichloroprop...	11.857	11.858	0.901	75	446724	55.33	ug/L	99
46) 1,1,2-Trichloroethane	12.077	12.077	0.918	83	213385	51.31	ug/L	99
47) 2-Hexanone	12.260	12.260	0.932	43	1105081	200.65	ug/L	99
48) 1,3-Dichloropropane	12.272	12.272	0.933	76	470678	51.79	ug/L	86
49) Tetrachloroethylene	12.290	12.290	0.934	164	281846	53.64	ug/L	99
50) Dibromochloromethane	12.534	12.540	0.953	129	307550	58.50	ug/L	99
51) 1,2-Dibromoethane	12.705	12.705	0.966	107	256952	52.18	ug/L	99
52) Chlorobenzene	13.186	13.187	1.002	112	880505	51.12	ug/L	98
53) 1,1,1,2-Tetrachloroethane	13.241	13.241	1.006	131	318125	55.62	ug/L	100
54) Ethylbenzene	13.247	13.248	1.007	91	1518904	50.20	ug/L	100
55) m,p-Xylenes	13.357	13.357	1.015	106	1234948	103.10	ug/L	99
56) o-Xylene	13.796	13.796	1.049	106	605498	51.30	ug/L	99
57) Styrene	13.796	13.796	1.049	104	1016515	51.65	ug/L	98
59) Bromoform	14.058	14.058	0.903	173	205181	59.93	ug/L	100
60) Isopropylbenzene	14.156	14.156	0.909	105	1562555	47.84	ug/L	100
62) 1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	340099	49.59	ug/L	99
63) 1,2,3-Trichloropropane	14.528	14.528	0.933	110	92956	50.11	ug/L	95
64) Bromobenzene	14.564	14.564	0.935	156	389120	49.03	ug/L	96
65) n-Propylbenzene	14.583	14.583	0.937	91	1845395	47.84	ug/L	100
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1371866	48.94	ug/L	100
67) 2-Chlorotoluene	14.729	14.729	0.946	126	400572	50.44	ug/L	97
68) 4-Chlorotoluene	14.833	14.833	0.953	91	1083014	46.41	ug/L	98
69) tert-Butylbenzene	15.107	15.107	0.970	134	301029	49.01	ug/L	93
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	1366735	47.93	ug/L	100
71) sec-Butylbenzene	15.332	15.333	0.985	105	1790058	48.40	ug/L	100
72) 4-Isopropyltoluene	15.454	15.454	0.993	119	1487493	48.89	ug/L	99
73) 1,3-Dichlorobenzene	15.515	15.515	0.996	146	758488	49.30	ug/L	99
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	774214	49.55	ug/L	99
75) n-Butylbenzene	15.887	15.887	1.020	91	1397226	48.29	ug/L	99
76) 1,2-Dichlorobenzene	16.021	16.021	1.029	146	711381	49.55	ug/L	99
77) 1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	68244	62.38	ug/L	99
78) 1,2,4-Trichlorobenzene	17.905	17.911	1.150	180	498661	49.81	ug/L	99
79) Hexachlorobutadiene	18.076	18.076	1.161	225	314448	48.74	ug/L	99
80) Naphthalene	18.283	18.283	1.174	128	975943	49.55	ug/L	100
81) 1,2,3-Trichlorobenzene	18.618	18.618	1.196	180	427285	53.48	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.		
85) Acrolein	6.474	6.536	0.649		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.		
87) Isopropyl Alcohol	6.712	6.792	0.673		0m	N.D.	d	
88) Allyl chloride	7.072	7.139	0.709		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.		
90) Acrylonitrile	7.572	7.542	0.759		0m	N.D.	d	
91) Isopropyl ether	8.059	8.078	0.808		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.212	8.206	0.823		0m	N.D.	d	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.		
94) Ethyl acetate	8.693	8.700	0.872		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D303LL.D
Acq On : 24 Mar 2010 10:28 am
Operator : RXD1
InstName : VOA6
Sample : |1202088228|968355|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 0305-01D+0318-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 25 08:10:46 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	8.693	8.773	0.872		0m	N.D.	d
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	9.047	9.059	0.907		0m	N.D.	d
98)	Isobutyl alcohol	9.413	9.389	0.944		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724	9.736	0.975		0m	N.D.	d
100)	Methyl methacrylate	10.602	10.590	1.063		0m	N.D.	d
101)	1,4-Dioxane	10.754	10.699	1.078		0m	N.D.	d
102)	2-Nitropropane	11.089	11.071	1.112		0m	N.D.	d
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156	14.199	0.909		0m	N.D.	d
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	14.576	14.491	0.936		0m	N.D.	d
110)	Pentachloroethane	15.174	15.180	0.975		0m	N.D.	d
111)	Benzyl chloride	15.716	15.717	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.168	16.113	1.038		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D303LL.D
Acq On : 24 Mar 2010 10:28 am
Operator : RXD1
InstName : VOA6
Sample : |1202088228|968355|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 0305-01D+0318-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 25 08:10:46 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

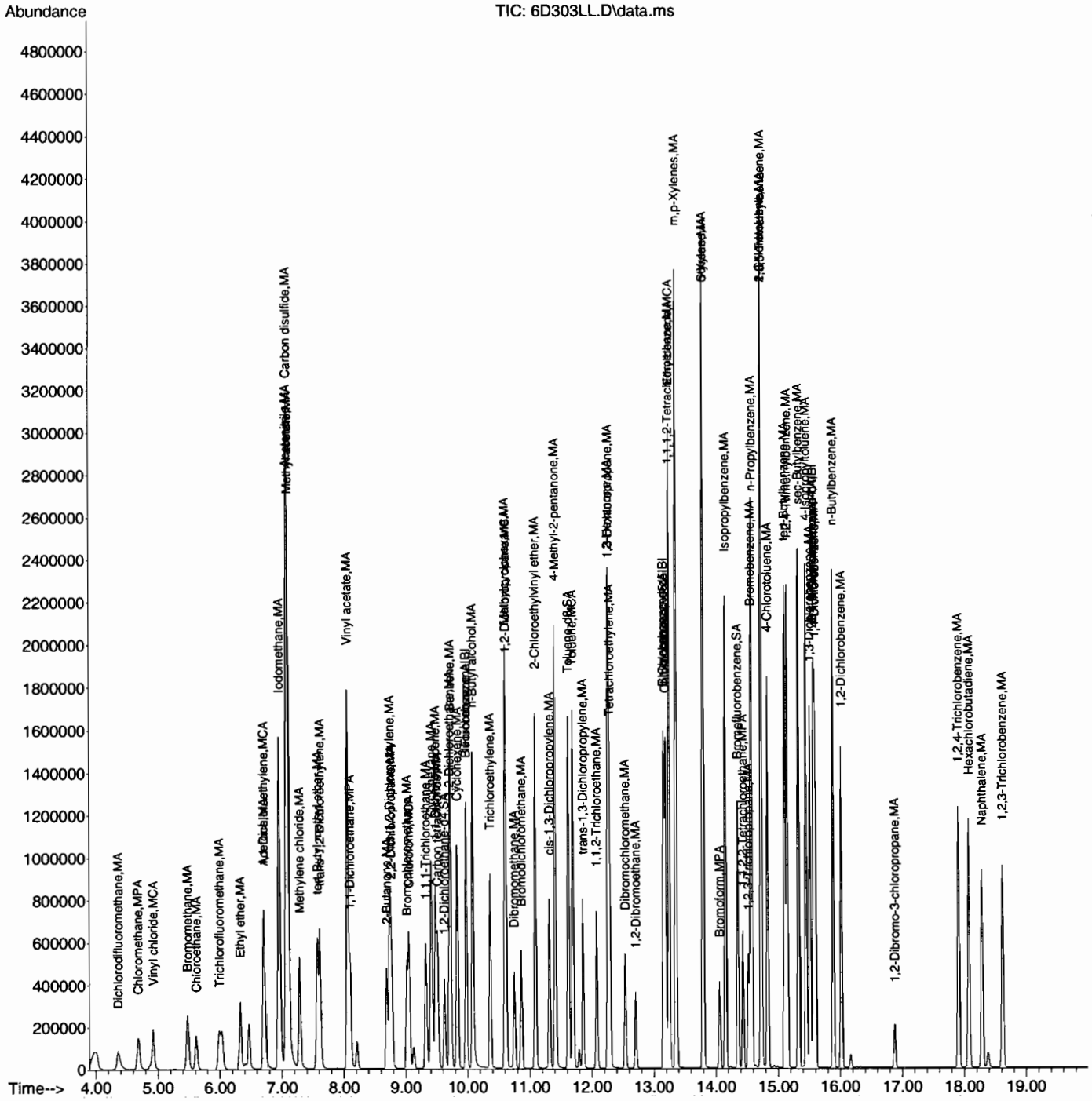

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202088229**				
Client Sample:	**QC for batch 968354**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 968354**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 11:23**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 09:13**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032410V6\6D305SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202088229**				
Client Sample:	**QC for batch 968354**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 968354**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 11:23**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 09:13**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032410V6\6D305SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		281	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D305SL.D
Acq On : 24 Mar 2010 11:23 am
Operator : RXD1
InstName : VOA6
Sample : |1202088229|968355|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] UVM100304-08B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 25 08:14:25 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1179230	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	911041	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	496297	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1178296	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	911041	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	496297	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	321090	50.98	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 101.96%					
43) Toluene-d8	11.620	11.626	0.883	98	1166397	48.94	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 97.88%					
61) Bromofluorobenzene	14.357	14.357	0.922	95	450852	48.48	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 96.96%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.682	4.682	0.469		0m	N.D.	d	
4) Vinyl chloride	4.924	4.924	0.494		0m	N.D.	d	
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.688	6.706	0.671		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.688	6.712	0.671		0m	N.D.	d	
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	7.139	7.072	0.716		0m	N.D.	d	
13) Methyl acetate	7.096	7.096	0.711		0m	N.D.	d	
14) Carbon disulfide	7.139	7.084	0.716		0m	N.D.	d	
15) Methylene chloride	7.279	7.285	0.730		0m	N.D.	d	
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	8.206	8.060	0.823		0m	N.D.	d	
19) 1,1-Dichloroethane	8.206	8.102	0.823		0m	N.D.	d	
20) 2-Butanone	8.700	8.694	0.872		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.700	8.742	0.872		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	9.388	9.413	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.712	0.000		0	N.D.		
31) Benzene	9.724	9.724	0.975		0m	N.D.	d	
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	10.589	10.602	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D305SL.D
Acq On : 24 Mar 2010 11:23 am
Operator : RXD1
InstName : VOA6
Sample : |1202088229|968355|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] UVM100304-08B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 25 08:14:25 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38)	Bromodichloromethane	0.000	10.864	0.000		0	N.D.		
39)	2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.		
40)	cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.		
42)	4-Methyl-2-pentanone	0.000	11.413	0.000		0	N.D.		
44)	Toluene	11.705	11.699	0.890		0m	N.D.	d	
45)	trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.		
46)	1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.		
47)	2-Hexanone	12.260	12.260	0.932		0m	N.D.	d	
48)	1,3-Dichloropropane	12.315	12.272	0.936		0m	N.D.	d	
49)	Tetrachloroethylene	12.290	12.290	0.934		0m	N.D.	d	
50)	Dibromochloromethane	0.000	12.540	0.000		0	N.D.		
51)	1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.		
52)	Chlorobenzene	13.180	13.187	1.002		0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.		
54)	Ethylbenzene	13.254	13.248	1.007		0m	N.D.	d	
55)	m,p-Xylenes	0.000	13.357	0.000		0	N.D.		
56)	o-Xylene	0.000	13.796	0.000		0	N.D.		
57)	Styrene	13.796	13.796	1.049		0m	N.D.	d	
59)	Bromoform	0.000	14.058	0.000		0	N.D.		
60)	Isopropylbenzene	0.000	14.156	0.000		0	N.D.		
62)	1,1,2,2-Tetrachloroethane	14.485	14.436	0.930		0m	N.D.	d	
63)	1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.		
64)	Bromobenzene	0.000	14.564	0.000		0	N.D.		
65)	n-Propylbenzene	14.583	14.583	0.937		0m	N.D.	d	
66)	1,3,5-Trimethylbenzene	14.735	14.735	0.946		0m	N.D.	d	
67)	2-Chlorotoluene	14.729	14.729	0.946		0m	N.D.	d	
68)	4-Chlorotoluene	14.839	14.833	0.953		0m	N.D.	d	
69)	tert-Butylbenzene	15.174	15.107	0.975		0m	N.D.	d	
70)	1,2,4-Trimethylbenzene	15.149	15.150	0.973		0m	N.D.	d	
71)	sec-Butylbenzene	15.326	15.333	0.984		0m	N.D.	d	
72)	4-Isopropyltoluene	15.448	15.454	0.992		0m	N.D.	d	
73)	1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.		
74)	1,4-Dichlorobenzene	15.601	15.601	1.002		0m	N.D.	d	
75)	n-Butylbenzene	15.972	15.887	1.026		0m	N.D.	d	
76)	1,2-Dichlorobenzene	16.015	16.021	1.029		0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.		
78)	1,2,4-Trichlorobenzene	17.905	17.911	1.150		0m	N.D.	d	
79)	Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.		
80)	Naphthalene	18.283	18.283	1.174		0m	N.D.	d	
81)	1,2,3-Trichlorobenzene	18.612	18.618	1.195		0m	N.D.	d	
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0m	N.D.	d	
85)	Acrolein	6.535	6.536	0.655	56	256111	297.41	ug/L	100
86)	Trichlorotrifluoroethane	6.682	6.682	0.670	85	652278	281.17	ug/L	100
87)	Isopropyl Alcohol	0.000	6.792	0.000		0m	N.D.	d	
88)	Allyl chloride	7.139	7.139	0.716	41	2386636	289.41	ug/L	99
89)	tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.		
90)	Acrylonitrile	7.541	7.542	0.756	53	458327	286.92	ug/L	99
91)	Isopropyl ether	0.000	8.078	0.000		0	N.D.		
92)	2-Chloro-1,3-butadiene	8.206	8.206	0.823	53	463006	60.92	ug/L	99
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.		
94)	Ethyl acetate	8.700	8.700	0.872	43	1152081	263.85	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D305SL.D
Acq On : 24 Mar 2010 11:23 am
Operator : RXD1
InstName : VOA6
Sample : |1202088229|968355|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] UVM100304-08B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 25 08:14:25 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	8.773	8.773	0.880	54	177367	274.80	ug/L	99
96)	Methacrylonitrile	8.949	8.950	0.897	41	798528	282.84	ug/L	100
97)	Tetrahydrofuran	9.059	9.059	0.908	42	401766	280.37	ug/L	100
98)	Isobutyl alcohol	9.388	9.389	0.941	41	479387	2664.02	ug/L	97
99)	Methyl tert-amyl ether	9.730	9.736	0.976	73	189	N.D.		
100)	Methyl methacrylate	10.589	10.590	1.062	69	1018870	302.32	ug/L	99
101)	1,4-Dioxane	10.699	10.699	1.073	88	131806	2707.46	ug/L	100
102)	2-Nitropropane	11.071	11.071	1.110	43	370357	306.88	ug/L	97
104)	Ethyl methacrylate	11.857	11.858	0.901	69	1988498	297.84	ug/L	99
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.198	14.199	0.912	53	562107	305.64	ug/L	98
108)	Cyclohexanone	14.314	14.315	0.919	42	166353	1205.80	ug/L	99
109)	trans-1,4-Dichloro-2-b...	14.485	14.491	0.930	53	527155	298.53	ug/L	98
110)	Pentachloroethane	15.180	15.180	0.975	167	1272429	358.83	ug/L	100
111)	Benzyl chloride	15.716	15.717	1.009	91	3146758	305.58	ug/L	99
112)	bis(2-Chloroisopropyl)...	16.113	16.113	1.035	45	648237	275.66	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D305SL.D
Acq On : 24 Mar 2010 11:23 am
Operator : RXD1
InstName : VOA6
Sample : |1202088229|968355|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] UVM100304-08B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 25 08:14:25 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

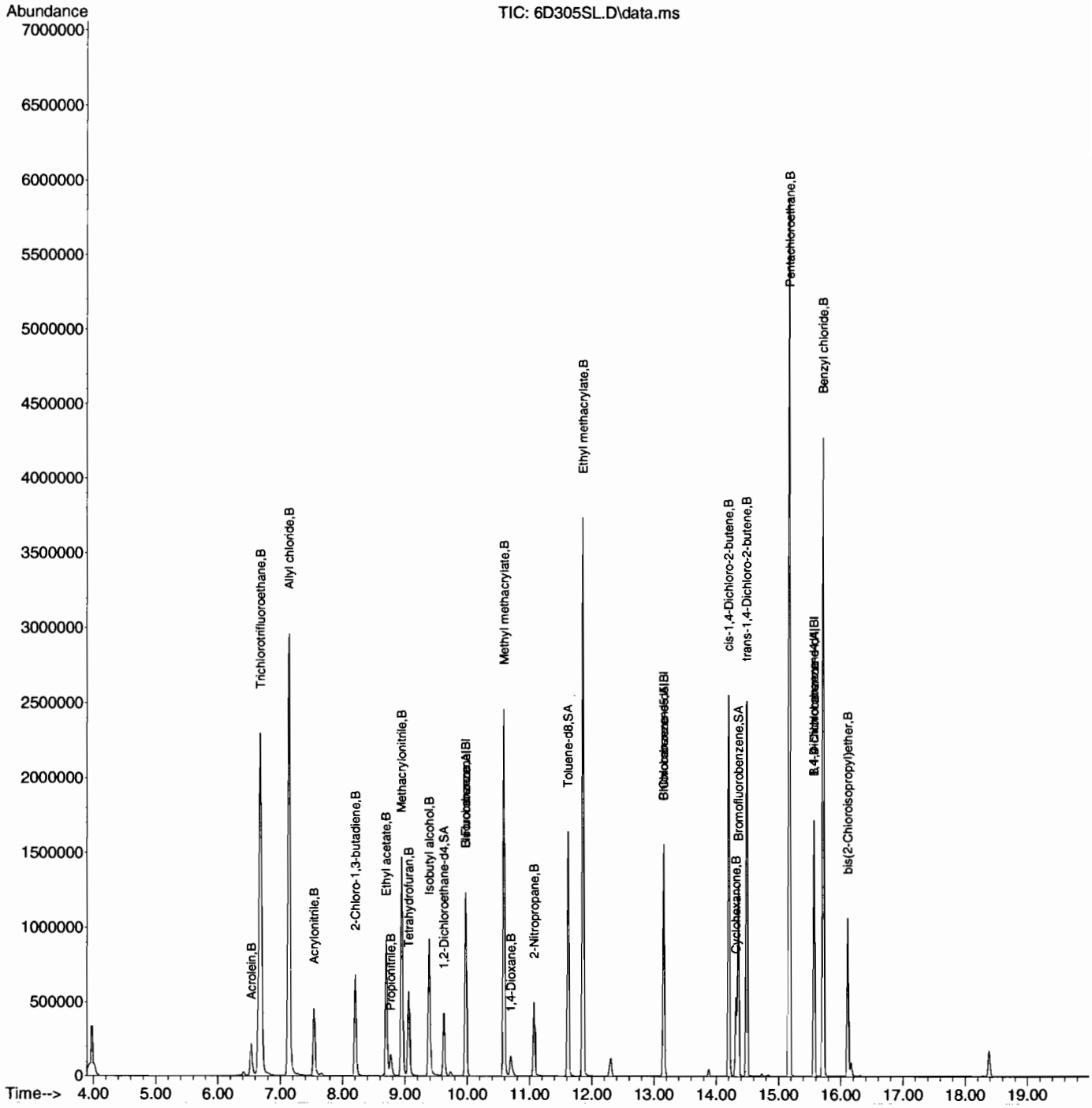

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202078841**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**7.9**
Client Sample:	**QC for batch 968354**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13219PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 13:14**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 11:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032410V6\6D309.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		48.6	ug/kg	0.369	1.09
74-87-3	Chloromethane		51.4	ug/kg	0.326	1.09
75-01-4	Vinyl chloride		49.5	ug/kg	0.326	1.09
74-83-9	Bromomethane		53.2	ug/kg	0.326	1.09
75-00-3	Chloroethane		50.5	ug/kg	0.326	1.09
75-69-4	Trichlorofluoromethane		53.0	ug/kg	0.326	1.09
67-64-1	Acetone		168	ug/kg	1.80	5.43
75-35-4	1,1-Dichloroethylene		50.9	ug/kg	0.326	1.09
74-88-4	Iodomethane		263	ug/kg	1.74	5.43
75-09-2	Methylene chloride		56.8	ug/kg	2.17	5.43
75-15-0	Carbon disulfide		287	ug/kg	1.36	5.43
156-60-5	trans-1,2-Dichloroethylene		52.0	ug/kg	0.326	1.09
75-34-3	1,1-Dichloroethane		52.1	ug/kg	0.326	1.09
78-93-3	2-Butanone		209	ug/kg	1.63	5.43
156-59-2	cis-1,2-Dichloroethylene		52.7	ug/kg	0.326	1.09
594-20-7	2,2-Dichloropropane		56.2	ug/kg	0.326	1.09
67-66-3	Chloroform		52.7	ug/kg	0.326	1.09
74-97-5	Bromochloromethane		54.1	ug/kg	0.358	1.09
71-55-6	1,1,1-Trichloroethane		53.5	ug/kg	0.326	1.09
563-58-6	1,1-Dichloropropene		53.7	ug/kg	0.326	1.09
56-23-5	Carbon tetrachloride		56.3	ug/kg	0.326	1.09
107-06-2	1,2-Dichloroethane		53.3	ug/kg	0.326	1.09
71-43-2	Benzene		52.1	ug/kg	0.326	1.09
79-01-6	Trichloroethylene		52.5	ug/kg	0.358	1.09
78-87-5	1,2-Dichloropropane		54.1	ug/kg	0.326	1.09
75-27-4	Bromodichloromethane		55.4	ug/kg	0.326	1.09
74-95-3	Dibromomethane		54.7	ug/kg	0.326	1.09
108-10-1	4-Methyl-2-pentanone		273	ug/kg	1.36	5.43
10061-01-5	cis-1,3-Dichloropropylene		52.9	ug/kg	0.326	1.09
108-88-3	Toluene		47.9	ug/kg	0.326	1.09
10061-02-6	trans-1,3-Dichloropropylene		53.7	ug/kg	0.326	1.09
79-00-5	1,1,2-Trichloroethane		53.4	ug/kg	0.326	1.09
591-78-6	2-Hexanone		183	ug/kg	1.63	5.43
142-28-9	1,3-Dichloropropane		54.5	ug/kg	0.326	1.09
127-18-4	Tetrachloroethylene		53.2	ug/kg	0.326	1.09
124-48-1	Dibromochloromethane		57.8	ug/kg	0.326	1.09
106-93-4	1,2-Dibromoethane		53.4	ug/kg	0.326	1.09
108-90-7	Chlorobenzene		51.3	ug/kg	0.326	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202078841**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**7.9**
Client Sample:	**QC for batch 968354**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13219PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 13:14**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 11:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032410V6\6D309.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		50.4	ug/kg	0.326	1.09
179601-23-1	m,p-Xylenes		102	ug/kg	0.326	2.17
95-47-6	o-Xylene		50.8	ug/kg	0.326	1.09
100-42-5	Styrene		49.8	ug/kg	0.326	1.09
75-25-2	Bromoform		62.2	ug/kg	0.326	1.09
79-34-5	1,1,2,2-Tetrachloroethane		54.2	ug/kg	0.326	1.09
96-18-4	1,2,3-Trichloropropane		56.0	ug/kg	0.326	1.09
108-86-1	Bromobenzene		52.1	ug/kg	0.326	1.09
103-65-1	n-Propylbenzene		49.9	ug/kg	0.326	1.09
95-49-8	2-Chlorotoluene		51.8	ug/kg	0.326	1.09
98-82-8	Isopropylbenzene		50.8	ug/kg	0.326	1.09
108-67-8	1,3,5-Trimethylbenzene		50.3	ug/kg	0.326	1.09
106-43-4	4-Chlorotoluene		47.6	ug/kg	0.326	1.09
98-06-6	tert-Butylbenzene		50.1	ug/kg	0.326	1.09
95-63-6	1,2,4-Trimethylbenzene		47.9	ug/kg	0.326	1.09
135-98-8	sec-Butylbenzene		48.1	ug/kg	0.326	1.09
99-87-6	4-Isopropyltoluene		44.2	ug/kg	0.326	1.09
541-73-1	1,3-Dichlorobenzene		46.2	ug/kg	0.326	1.09
106-46-7	1,4-Dichlorobenzene		46.1	ug/kg	0.326	1.09
104-51-8	n-Butylbenzene		44.8	ug/kg	0.326	1.09
96-12-8	1,2-Dibromo-3-chloropropane		58.3	ug/kg	0.326	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.43	ug/kg	1.74	5.43
630-20-6	1,1,1,2-Tetrachloroethane		55.5	ug/kg	0.326	1.09
95-50-1	1,2-Dichlorobenzene		44.7	ug/kg	0.326	1.09

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D309.D
Acq On : 24 Mar 2010 1:14 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078841|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MS 249332001
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 25 08:11:06 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1099853	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	836106	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	432835	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1098807	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	836106	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	432835	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	298632	50.84	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 101.68%					
43) Toluene-d8	11.620	11.626	0.883	98	1088514	49.77	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 99.54%					
61) Bromofluorobenzene	14.357	14.357	0.922	95	395461	48.76	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 97.52%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	191006	44.77	ug/L	99
3) Chloromethane	4.682	4.682	0.469	50	265708	47.35	ug/L	99
4) Vinyl chloride	4.924	4.924	0.494	62	285233	45.61	ug/L	99
5) Bromomethane	5.478	5.478	0.549	94	223595	48.97	ug/L	99
6) Chloroethane	5.619	5.619	0.563	64	196297	46.52	ug/L	99
7) Trichlorofluoromethane	6.032	6.032	0.605	101	377281	48.81	ug/L	100
8) Ethyl ether	6.328	6.328	0.634	59	222109	44.36	ug/L	96
9) Acetone	6.706	6.706	0.672	43	346469	154.87	ug/L	100
10) 1,1-Dichloroethylene	6.712	6.712	0.673	61	347652	46.86	ug/L	99
11) Iodomethane	6.956	6.956	0.697	142	2037276	242.23	ug/L	99
12) Acetonitrile	7.072	7.072	0.709	41	793539	1259.37	ug/L	99
13) Methyl acetate	7.096	7.096	0.711	43	1184357	322.92	ug/L	100
14) Carbon disulfide	7.084	7.084	0.710	76	4150083	264.12	ug/L	99
15) Methylene chloride	7.285	7.285	0.730	84	280280	52.37	ug/L	99
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	652451	52.31	ug/L	99
17) trans-1,2-Dichloroethy...	7.621	7.621	0.764	61	354751	47.88	ug/L	99
18) Vinyl acetate	8.066	8.060	0.809	43	11370	1.25	ug/L	81
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	450543	47.97	ug/L	100
20) 2-Butanone	8.694	8.694	0.872	43	556281	192.43	ug/L	100
21) cis-1,2-Dichloroethylene	8.742	8.742	0.877	61	402491	48.53	ug/L	99
22) 2,2-Dichloropropane	8.767	8.767	0.879	77	351882	51.79	ug/L	100
23) Bromochloromethane	9.017	9.017	0.904	128	132397	49.88	ug/L	97
24) Chloroform	9.053	9.053	0.908	83	443791	48.59	ug/L	99
25) 1,1,1-Trichloroethane	9.321	9.321	0.935	97	374885	49.27	ug/L	100
26) Cyclohexane	9.413	9.413	0.944	56	439821	45.22	ug/L	98
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	364927	49.49	ug/L	99
28) Carbon tetrachloride	9.510	9.510	0.954	117	350181	51.90	ug/L	100
30) 1,2-Dichloroethane	9.706	9.712	0.973	62	349292	49.12	ug/L	99
31) Benzene	9.724	9.724	0.975	78	1056926	48.02	ug/L	100
32) Cyclohexene	9.834	9.834	0.986	67	515629	46.16	ug/L	100
33) n-Butyl alcohol	10.077	10.077	1.010	56	771157	5322.92	ug/L	98
34) Trichloroethylene	10.364	10.364	1.039	95	262949	48.35	ug/L	99
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	274051	49.88	ug/L	100
36) Methylcyclohexane	10.602	10.602	1.063	83	474245	46.76	ug/L	99
37) Dibromomethane	10.748	10.748	1.078	93	152892	50.42	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D309.D
Acq On : 24 Mar 2010 1:14 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078841|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MS 249332001
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 25 08:11:06 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38)	Bromodichloromethane	10.864	10.864	1.089	83	330829	51.00	ug/L		99
39)	2-Chloroethylvinyl ether	11.089	11.089	1.112	63	604110	192.53	ug/L		99
40)	cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	395148	48.75	ug/L		98
42)	4-Methyl-2-pentanone	11.412	11.413	0.867	58	489241	251.58	ug/L		97
44)	Toluene	11.699	11.699	0.889	91	1132300	44.14	ug/L		99
45)	trans-1,3-Dichloroprop...	11.858	11.858	0.901	75	365166	49.47	ug/L		100
46)	1,1,2-Trichloroethane	12.077	12.077	0.918	83	186968	49.18	ug/L		99
47)	2-Hexanone	12.260	12.260	0.932	43	846784	168.17	ug/L		99
48)	1,3-Dichloropropane	12.272	12.272	0.933	76	416853	50.17	ug/L		83
49)	Tetrachloroethylene	12.290	12.290	0.934	164	235296	48.98	ug/L		98
50)	Dibromochloromethane	12.540	12.540	0.953	129	255984	53.26	ug/L		100
51)	1,2-Dibromoethane	12.705	12.705	0.966	107	221347	49.17	ug/L		99
52)	Chlorobenzene	13.187	13.187	1.002	112	744370	47.27	ug/L		99
53)	1,1,1,2-Tetrachloroethane	13.241	13.241	1.006	131	267306	51.12	ug/L		100
54)	Ethylbenzene	13.247	13.248	1.007	91	1285656	46.47	ug/L		100
55)	m,p-Xylenes	13.357	13.357	1.015	106	1029817	94.04	ug/L		100
56)	o-Xylene	13.796	13.796	1.049	106	505052	46.81	ug/L		100
57)	Styrene	13.796	13.796	1.049	104	825736	45.89	ug/L		99
59)	Bromoform	14.058	14.058	0.903	173	161820	57.26	ug/L		100
60)	Isopropylbenzene	14.156	14.156	0.909	105	1261694	46.80	ug/L		100
62)	1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	282568	49.92	ug/L		99
63)	1,2,3-Trichloropropane	14.528	14.528	0.933	110	79024	51.61	ug/L	#	88
64)	Bromobenzene	14.564	14.564	0.935	156	314386	48.00	ug/L		97
65)	n-Propylbenzene	14.583	14.583	0.937	91	1462947	45.95	ug/L		100
66)	1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1072008	46.33	ug/L		99
67)	2-Chlorotoluene	14.729	14.729	0.946	126	312841	47.72	ug/L		100
68)	4-Chlorotoluene	14.833	14.833	0.953	91	843987	43.82	ug/L		99
69)	tert-Butylbenzene	15.107	15.107	0.970	134	234034	46.17	ug/L	#	93
70)	1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	1037761	44.09	ug/L		100
71)	sec-Butylbenzene	15.332	15.333	0.985	105	1352978	44.33	ug/L		99
72)	4-Isopropyltoluene	15.454	15.454	0.993	119	1023546	40.76	ug/L		100
73)	1,3-Dichlorobenzene	15.515	15.515	0.996	146	540801	42.59	ug/L		99
74)	1,4-Dichlorobenzene	15.601	15.601	1.002	146	547939	42.49	ug/L		99
75)	n-Butylbenzene	15.887	15.887	1.020	91	985393	41.26	ug/L		99
76)	1,2-Dichlorobenzene	16.015	16.021	1.029	146	487988	41.19	ug/L		99
77)	1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	48504	53.72	ug/L		98
78)	1,2,4-Trichlorobenzene	17.905	17.911	1.150	180	234326	28.36	ug/L		100
79)	Hexachlorobutadiene	18.076	18.076	1.161	225	184035	34.56	ug/L		100
80)	Naphthalene	18.283	18.283	1.174	128	488973	30.08	ug/L		99
81)	1,2,3-Trichlorobenzene	18.618	18.618	1.196	180	179528	27.23	ug/L		99
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.			
85)	Acrolein	0.000	6.536	0.000		0	N.D.			
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.			
87)	Isopropyl Alcohol	6.791	6.792	0.681		0m	N.D.	d		
88)	Allyl chloride	7.072	7.139	0.709		0m	N.D.	d		
89)	tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.			
90)	Acrylonitrile	7.572	7.542	0.759		0m	N.D.	d		
91)	Isopropyl ether	0.000	8.078	0.000		0	N.D.			
92)	2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.			
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.			
94)	Ethyl acetate	8.694	8.700	0.872		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D309.D
Acq On : 24 Mar 2010 1:14 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078841|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MS 249332001
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 25 08:11:06 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	8.694	8.773	0.872		0m	N.D.	d
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	9.053	9.059	0.908		0m	N.D.	d
98)	Isobutyl alcohol	9.413	9.389	0.944		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724	9.736	0.975		0m	N.D.	d
100)	Methyl methacrylate	10.602	10.590	1.063		0m	N.D.	d
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	11.089	11.071	1.112		0m	N.D.	d
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156	14.199	0.909		0m	N.D.	d
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.	
110)	Pentachloroethane	15.180	15.180	0.975		0m	N.D.	d
111)	Benzyl chloride	15.710	15.717	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.168	16.113	1.038		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D309.D
Acq On : 24 Mar 2010 1:14 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078841|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MS 249332001
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 25 08:11:06 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

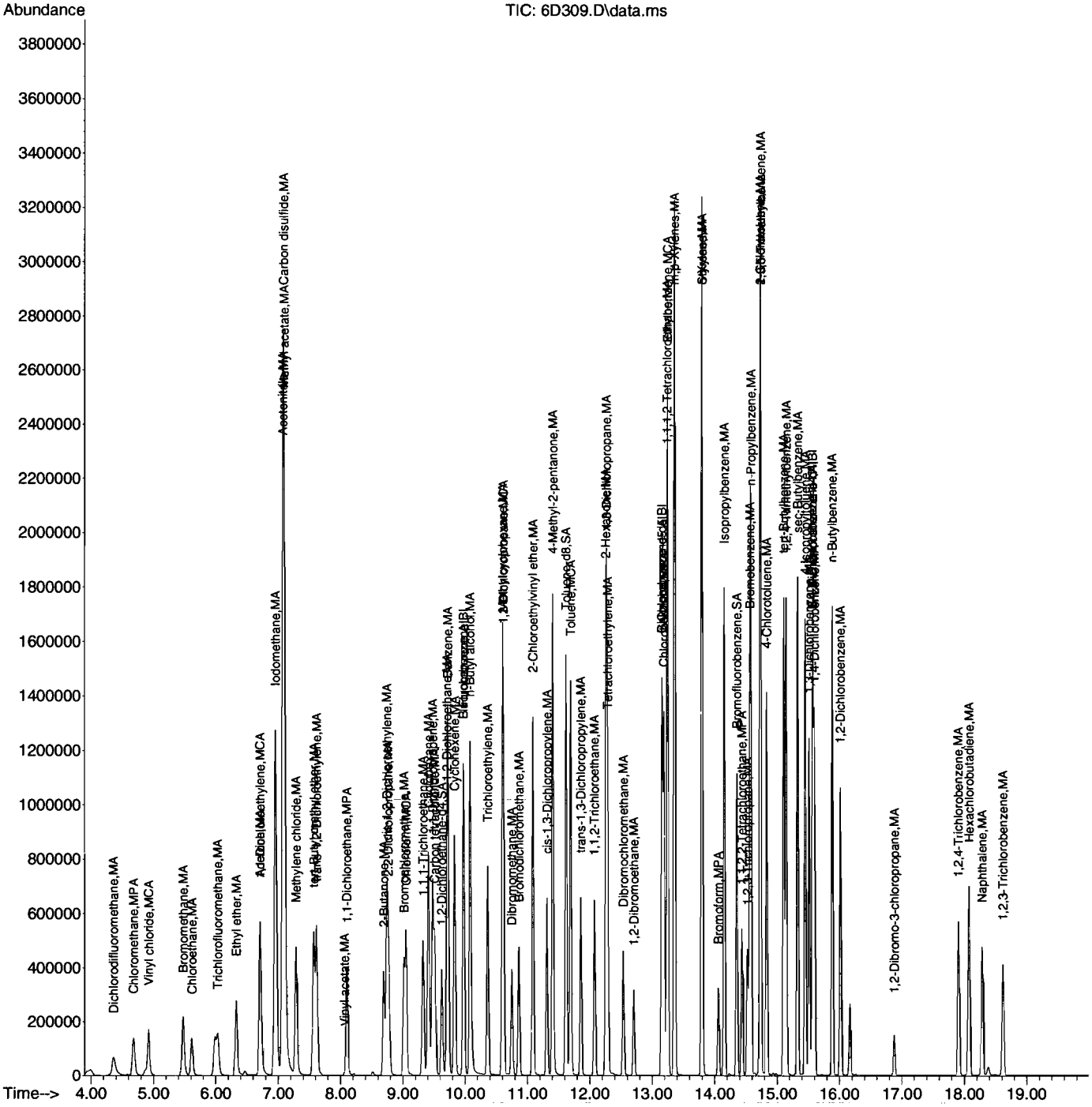

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202078842**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**7.9**
Client Sample:	**QC for batch 968354**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13219PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 13:42**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 11:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032410V6\6D310.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		48.0	ug/kg	0.369	1.09
74-87-3	Chloromethane		51.0	ug/kg	0.326	1.09
75-01-4	Vinyl chloride		48.7	ug/kg	0.326	1.09
74-83-9	Bromomethane		52.7	ug/kg	0.326	1.09
75-00-3	Chloroethane		50.0	ug/kg	0.326	1.09
75-69-4	Trichlorofluoromethane		52.3	ug/kg	0.326	1.09
67-64-1	Acetone		154	ug/kg	1.80	5.43
75-35-4	1,1-Dichloroethylene		50.5	ug/kg	0.326	1.09
74-88-4	Iodomethane		261	ug/kg	1.74	5.43
75-09-2	Methylene chloride		58.3	ug/kg	2.17	5.43
75-15-0	Carbon disulfide		281	ug/kg	1.36	5.43
156-60-5	trans-1,2-Dichloroethylene		51.8	ug/kg	0.326	1.09
75-34-3	1,1-Dichloroethane		52.2	ug/kg	0.326	1.09
78-93-3	2-Butanone		193	ug/kg	1.63	5.43
156-59-2	cis-1,2-Dichloroethylene		52.9	ug/kg	0.326	1.09
594-20-7	2,2-Dichloropropane		56.6	ug/kg	0.326	1.09
67-66-3	Chloroform		53.0	ug/kg	0.326	1.09
74-97-5	Bromochloromethane		55.4	ug/kg	0.358	1.09
71-55-6	1,1,1-Trichloroethane		53.3	ug/kg	0.326	1.09
563-58-6	1,1-Dichloropropene		52.8	ug/kg	0.326	1.09
56-23-5	Carbon tetrachloride		55.9	ug/kg	0.326	1.09
107-06-2	1,2-Dichloroethane		53.4	ug/kg	0.326	1.09
71-43-2	Benzene		52.0	ug/kg	0.326	1.09
79-01-6	Trichloroethylene		51.6	ug/kg	0.358	1.09
78-87-5	1,2-Dichloropropane		53.9	ug/kg	0.326	1.09
75-27-4	Bromodichloromethane		55.2	ug/kg	0.326	1.09
74-95-3	Dibromomethane		54.9	ug/kg	0.326	1.09
108-10-1	4-Methyl-2-pentanone		268	ug/kg	1.36	5.43
10061-01-5	cis-1,3-Dichloropropylene		51.9	ug/kg	0.326	1.09
108-88-3	Toluene		47.9	ug/kg	0.326	1.09
10061-02-6	trans-1,3-Dichloropropylene		53.4	ug/kg	0.326	1.09
79-00-5	1,1,2-Trichloroethane		53.3	ug/kg	0.326	1.09
591-78-6	2-Hexanone		168	ug/kg	1.63	5.43
142-28-9	1,3-Dichloropropane		54.3	ug/kg	0.326	1.09
127-18-4	Tetrachloroethylene		52.0	ug/kg	0.326	1.09
124-48-1	Dibromochloromethane		57.5	ug/kg	0.326	1.09
106-93-4	1,2-Dibromoethane		52.5	ug/kg	0.326	1.09
108-90-7	Chlorobenzene		51.0	ug/kg	0.326	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202078842**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**7.9**
Client Sample:	**QC for batch 968354**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13219PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**968355**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 13:42**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 11:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032410V6\6D310.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		49.7	ug/kg	0.326	1.09
179601-23-1	m,p-Xylenes		100	ug/kg	0.326	2.17
95-47-6	o-Xylene		50.4	ug/kg	0.326	1.09
100-42-5	Styrene		48.6	ug/kg	0.326	1.09
75-25-2	Bromoform		59.7	ug/kg	0.326	1.09
79-34-5	1,1,2,2-Tetrachloroethane		52.9	ug/kg	0.326	1.09
96-18-4	1,2,3-Trichloropropane		54.8	ug/kg	0.326	1.09
108-86-1	Bromobenzene		51.0	ug/kg	0.326	1.09
103-65-1	n-Propylbenzene		49.0	ug/kg	0.326	1.09
95-49-8	2-Chlorotoluene		51.2	ug/kg	0.326	1.09
98-82-8	Isopropylbenzene		50.4	ug/kg	0.326	1.09
108-67-8	1,3,5-Trimethylbenzene		49.8	ug/kg	0.326	1.09
106-43-4	4-Chlorotoluene		46.6	ug/kg	0.326	1.09
98-06-6	tert-Butylbenzene		50.6	ug/kg	0.326	1.09
95-63-6	1,2,4-Trimethylbenzene		47.4	ug/kg	0.326	1.09
135-98-8	sec-Butylbenzene		47.7	ug/kg	0.326	1.09
99-87-6	4-Isopropyltoluene		40.9	ug/kg	0.326	1.09
541-73-1	1,3-Dichlorobenzene		45.7	ug/kg	0.326	1.09
106-46-7	1,4-Dichlorobenzene		45.3	ug/kg	0.326	1.09
104-51-8	n-Butylbenzene		43.9	ug/kg	0.326	1.09
96-12-8	1,2-Dibromo-3-chloropropane		56.5	ug/kg	0.326	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.43	ug/kg	1.74	5.43
630-20-6	1,1,1,2-Tetrachloroethane		54.9	ug/kg	0.326	1.09
95-50-1	1,2-Dichlorobenzene		43.8	ug/kg	0.326	1.09

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D310.D
Acq On : 24 Mar 2010 1:42 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078842|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MSD 249332001
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 25 08:11:10 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1163314	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	869102	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	447468	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1162006	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	869102	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	447468	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	309563	49.82	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 99.64%					
43) Toluene-d8	11.620	11.626	0.883	98	1142718	50.26	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 100.52%					
61) Bromofluorobenzene	14.357	14.357	0.922	95	408972	48.78	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 97.56%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	199561	44.22	ug/L	99
3) Chloromethane	4.682	4.682	0.469	50	278602	46.94	ug/L	99
4) Vinyl chloride	4.924	4.924	0.494	62	296863	44.88	ug/L	97
5) Bromomethane	5.478	5.478	0.549	94	234460	48.55	ug/L	99
6) Chloroethane	5.619	5.619	0.563	64	205590	46.07	ug/L	100
7) Trichlorofluoromethane	6.032	6.032	0.605	101	393776	48.16	ug/L	100
8) Ethyl ether	6.328	6.328	0.634	59	241462	45.60	ug/L	95
9) Acetone	6.706	6.706	0.672	43	337051	141.84	ug/L	100
10) 1,1-Dichloroethylene	6.706	6.712	0.672	61	365122	46.53	ug/L	100
11) Iodomethane	6.956	6.956	0.697	142	2137914	240.33	ug/L	99
12) Acetonitrile	7.072	7.072	0.709	41	808395	1212.96	ug/L	99
13) Methyl acetate	7.096	7.096	0.711	43	1084513	279.57	ug/L	100
14) Carbon disulfide	7.078	7.084	0.710	76	4308179	259.23	ug/L	100
15) Methylene chloride	7.285	7.285	0.730	84	304004	53.71	ug/L	97
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	708955	53.74	ug/L	99
17) trans-1,2-Dichloroethy...	7.614	7.621	0.763	61	374202	47.75	ug/L	99
18) Vinyl acetate	8.066	8.060	0.809	43	1504	N.D.		
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	477579	48.07	ug/L	100
20) 2-Butanone	8.687	8.694	0.871	43	543452	177.73	ug/L	99
21) cis-1,2-Dichloroethylene	8.742	8.742	0.877	61	427405	48.72	ug/L	100
22) 2,2-Dichloropropane	8.767	8.767	0.879	77	374787	52.15	ug/L	99
23) Bromochloromethane	9.017	9.017	0.904	128	143275	51.03	ug/L	97
24) Chloroform	9.053	9.053	0.908	83	472150	48.87	ug/L	99
25) 1,1,1-Trichloroethane	9.321	9.321	0.935	97	394830	49.06	ug/L	100
26) Cyclohexane	9.413	9.413	0.944	56	461377	44.84	ug/L	99
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	379572	48.67	ug/L	99
28) Carbon tetrachloride	9.510	9.510	0.954	117	367449	51.49	ug/L	100
30) 1,2-Dichloroethane	9.706	9.712	0.973	62	370057	49.20	ug/L	99
31) Benzene	9.724	9.724	0.975	78	1115665	47.92	ug/L	100
32) Cyclohexene	9.827	9.834	0.985	67	538680	45.59	ug/L	100
33) n-Butyl alcohol	10.077	10.077	1.010	56	785579	5128.91	ug/L	99
34) Trichloroethylene	10.364	10.364	1.039	95	273255	47.50	ug/L	98
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	288475	49.64	ug/L	99
36) Methylcyclohexane	10.602	10.602	1.063	83	496900	46.32	ug/L	99
37) Dibromomethane	10.748	10.748	1.078	93	162270	50.60	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D310.D
Acq On : 24 Mar 2010 1:42 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078842|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MSD 249332001
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 25 08:11:10 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38)	Bromodichloromethane	10.858	10.864	1.089	83	348661	50.81	ug/L		100
39)	2-Chloroethylvinyl ether	11.089	11.089	1.112	63	548672	165.32	ug/L		99
40)	cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	409762	47.80	ug/L		98
42)	4-Methyl-2-pentanone	11.406	11.413	0.867	58	498834	246.78	ug/L		98
44)	Toluene	11.693	11.699	0.889	91	1176607	44.12	ug/L		99
45)	trans-1,3-Dichloroprop...	11.858	11.858	0.901	75	377475	49.20	ug/L		99
46)	1,1,2-Trichloroethane	12.077	12.077	0.918	83	193921	49.07	ug/L		99
47)	2-Hexanone	12.260	12.260	0.932	43	807737	154.33	ug/L		99
48)	1,3-Dichloropropane	12.272	12.272	0.933	76	432126	50.03	ug/L		81
49)	Tetrachloroethylene	12.290	12.290	0.934	164	239358	47.93	ug/L		99
50)	Dibromochloromethane	12.534	12.540	0.953	129	264459	52.93	ug/L		100
51)	1,2-Dibromoethane	12.705	12.705	0.966	107	226366	48.37	ug/L		99
52)	Chlorobenzene	13.187	13.187	1.002	112	769960	47.03	ug/L		99
53)	1,1,1,2-Tetrachloroethane	13.241	13.241	1.006	131	274766	50.55	ug/L		99
54)	Ethylbenzene	13.248	13.248	1.007	91	1316416	45.78	ug/L		100
55)	m,p-Xylenes	13.357	13.357	1.015	106	1048243	92.09	ug/L		99
56)	o-Xylene	13.796	13.796	1.049	106	520297	46.39	ug/L		99
57)	Styrene	13.796	13.796	1.049	104	837264	44.77	ug/L		99
59)	Bromoform	14.058	14.058	0.903	173	160651	54.99	ug/L		100
60)	Isopropylbenzene	14.156	14.156	0.909	105	1293740	46.42	ug/L		100
62)	1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	285020	48.71	ug/L		100
63)	1,2,3-Trichloropropane	14.528	14.528	0.933	110	79916	50.49	ug/L	#	90
64)	Bromobenzene	14.564	14.564	0.935	156	318392	47.02	ug/L		98
65)	n-Propylbenzene	14.583	14.583	0.937	91	1487022	45.18	ug/L		99
66)	1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1097898	45.90	ug/L		99
67)	2-Chlorotoluene	14.729	14.729	0.946	126	319415	47.13	ug/L		100
68)	4-Chlorotoluene	14.833	14.833	0.953	91	854687	42.92	ug/L		99
69)	tert-Butylbenzene	15.107	15.107	0.970	134	244230	46.60	ug/L	#	92
70)	1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	1061638	43.63	ug/L		100
71)	sec-Butylbenzene	15.332	15.333	0.985	105	1387474	43.97	ug/L		99
72)	4-Isopropyltoluene	15.454	15.454	0.993	119	977137	37.64	ug/L		99
73)	1,3-Dichlorobenzene	15.515	15.515	0.996	146	552311	42.07	ug/L		99
74)	1,4-Dichlorobenzene	15.601	15.601	1.002	146	555720	41.69	ug/L		99
75)	n-Butylbenzene	15.887	15.887	1.020	91	999359	40.48	ug/L		99
76)	1,2-Dichlorobenzene	16.021	16.021	1.029	146	494268	40.35	ug/L		99
77)	1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	48576	52.04	ug/L		99
78)	1,2,4-Trichlorobenzene	17.905	17.911	1.150	180	230311	26.96	ug/L		100
79)	Hexachlorobutadiene	18.076	18.076	1.161	225	172896	31.41	ug/L		99
80)	Naphthalene	18.283	18.283	1.174	128	477796	28.43	ug/L		99
81)	1,2,3-Trichlorobenzene	18.618	18.618	1.196	180	176631	25.91	ug/L		99
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.			
85)	Acrolein	0.000	6.536	0.000		0	N.D.			
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.			
87)	Isopropyl Alcohol	6.791	6.792	0.681		0m	N.D.	d		
88)	Allyl chloride	7.072	7.139	0.709		0m	N.D.	d		
89)	tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.			
90)	Acrylonitrile	7.572	7.542	0.759		0m	N.D.	d		
91)	Isopropyl ether	8.078	8.078	0.810		0m	N.D.	d		
92)	2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.			
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.			
94)	Ethyl acetate	8.687	8.700	0.871		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D310.D
Acq On : 24 Mar 2010 1:42 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078842|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MSD 249332001
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 25 08:11:10 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	8.687	8.773	0.871		0m	N.D.		d
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.		
97)	Tetrahydrofuran	9.053	9.059	0.908		0m	N.D.		d
98)	Isobutyl alcohol	9.407	9.389	0.943		0m	N.D.		d
99)	Methyl tert-amyl ether	9.724	9.736	0.975		0m	N.D.		d
100)	Methyl methacrylate	10.608	10.590	1.064		0m	N.D.		d
101)	1,4-Dioxane	10.748	10.699	1.078		0m	N.D.		d
102)	2-Nitropropane	11.083	11.071	1.111		0m	N.D.		d
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.		
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.150	14.199	0.909		0m	N.D.		d
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.		
110)	Pentachloroethane	15.174	15.180	0.975		0m	N.D.		d
111)	Benzyl chloride	15.723	15.717	1.010		0m	N.D.		d
112)	bis(2-Chloroisopropyl)...	16.168	16.113	1.038		0m	N.D.		d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032410V6\
Data File : 6D310.D
Acq On : 24 Mar 2010 1:42 pm
Operator : RXD1
InstName : VOA6
Sample : |1202078842|968355|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MSD 249332001
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Quant Time: Mar 25 08:11:10 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
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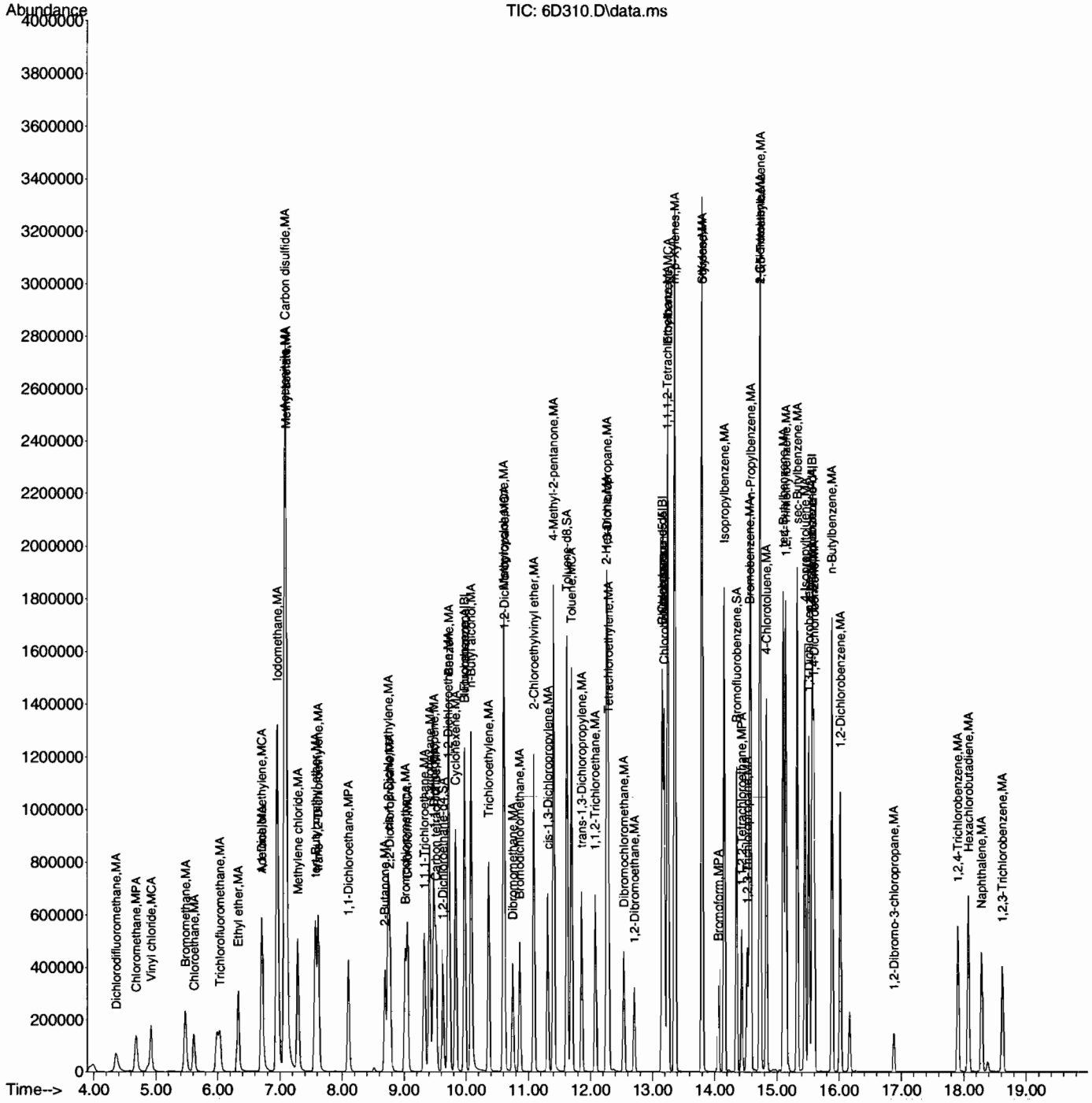

Miscellaneous

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **968354** Verified by: _____

Analyst: Ryan Dushak
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 14
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202078843 LCS	23-MAR-2010 09:22:00	Soil	5	5	1	
1202078844 LCS	23-MAR-2010 09:23:00	Soil	5	5	1	
1202078840 MB	23-MAR-2010 09:26:00	Soil	5	5	1	
249332001	23-MAR-2010 16:04:00	Soil	5	5	1	
249332003	23-MAR-2010 16:12:00	Soil	5	5	1	
249332004	23-MAR-2010 16:14:00	Soil	5	5	1	
249332005	23-MAR-2010 16:16:00	Soil	5	5	1	
249332006	23-MAR-2010 16:18:00	Soil	5	5	1	
249332007	23-MAR-2010 16:20:00	Soil	5	5	1	
249332008	23-MAR-2010 16:22:00	Misc Solid	5	5	1	
249332009	23-MAR-2010 16:24:00	Soil	5	5	1	
249332010	23-MAR-2010 16:26:00	Misc Solid	5	5	1	
1202088228 LCS	24-MAR-2010 09:12:00	Soil	5	5	1	
1202088229 LCS	24-MAR-2010 09:13:00	Soil	5	5	1	
1202088227 MB	24-MAR-2010 09:16:00	Soil	5	5	1	
1202078841 PS (249332001)	24-MAR-2010 11:00:00	Soil	5	5	1	
1202078842 PSD (249332001)	24-MAR-2010 11:02:00	Soil	5	5	1	
249332002	24-MAR-2010 11:04:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 3/12/2010 Method 8260B/624 Operator: RXD1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1447

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/12/2010

(See pg. 75 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a
Cl test lot # 72612
Sequence Number: 031210V6

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	ICV	MS/ LCS	BFB
L-ICV	W6VM100312-10		5+5		
IS	UVM100217-01	1	1		
SS	UVM100217-02	1	1		
S-ICV	W6VM100312-19		5+5		
BFB	UVM100217-02				1

Purge Amount	
5	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
3/12/2010	9:18	6B501.D	12020--	BLANK	BLANK	5mL	1	N/A	1	w	RXD1	N/A	X	RINSE
3/12/2010	9:46	6B502.D	W6VM100313-01	L-1	L-1	5mL	1	N/A	2	w	RXD1	N/A	X	MIX[A] TEST
3/12/2010	10:14	6B503.D	UVM100217-02	GEL	BFB	5mL	1	N/A	3	w	RXD1	N/A	O	
3/12/2010	10:46	6B504.D	W6VM100312-02	ICAL	I-CAL	5mL	1	N/A	4	w	RXD1	N/A	O	UVM100106-02D+UVM100222-02B
3/12/2010	11:14	6B505.D	W6VM100312-03	ICAL	I-CAL	5mL	1	N/A	5	w	RXD1	N/A	O	UVM100106-03D+UVM100222-03B
3/12/2010	11:42	6B506.D	W6VM100312-04	ICAL	I-CAL	5mL	1	N/A	6	w	RXD1	N/A	O	UVM100106-04D+UVM100222-04B
3/12/2010	12:09	6B507.D	W6VM100312-05	ICAL	I-CAL	5mL	1	N/A	7	w	RXD1	N/A	O	UVM100106-05D+UVM100222-05B
3/12/2010	12:37	6B508.D	W6VM100312-06	ICAL	I-CAL	5mL	1	N/A	8	w	RXD1	N/A	O	UVM100106-06D+UVM100222-06B
3/12/2010	13:05	6B509.D	W6VM100312-07	ICAL	I-CAL	5mL	1	N/A	9	w	RXD1	N/A	O	UVM100106-07D+UVM100222-07B
3/12/2010	13:33	6B510.D	W6VM100312-08	ICAL	I-CAL	5mL	1	N/A	10	w	RXD1	N/A	O	UVM100106-08D+UVM100222-08B
3/12/2010	14:00	6B511.D	12020--	BLANK	BLANK	5mL	1	N/A	11	w	RXD1	N/A	X	RINSE
3/12/2010	14:28	6B512.D	W6VM100312-09	ICAL	I-CAL	5mL	1	N/A	12	w	RXD1	N/A	O	UVM100106-01D+UVM100222-01B
3/12/2010	14:56	6B513.D	W6VM100312-10	L-ICV	L-ICV	5mL	1	N/A	13	w	RXD1	N/A	O	UVM100305-01A+IVM100310-01
3/12/2010	15:24	6B514.D	W6VM100312-11	L-ICV	L-ICV	5mL	1	N/A	14	w	RXD1	N/A	X	UVM100226-01A+IVM100310-01
3/12/2010	15:52	6B515.D	W6VM100312-12	ICAL	I-CAL	5mL	1	N/A	15	w	RXD1	N/A	O	UVM100304-01+UVM100227-01B
3/12/2010	16:19	6B516.D	W6VM100312-13	ICAL	I-CAL	5mL	1	N/A	16	w	RXD1	N/A	O	UVM100304-02+UVM100227-02B
3/12/2010	16:48	6B517.D	W6VM100312-14	ICAL	I-CAL	5mL	1	N/A	17	w	RXD1	N/A	O	UVM100304-03+UVM100227-03B
3/12/2010	17:15	6B518.D	W6VM100312-15	ICAL	I-CAL	5mL	1	N/A	18	w	RXD1	N/A	O	UVM100304-04+UVM100227-04B
3/12/2010	17:43	6B519.D	W6VM100312-16	ICAL	I-CAL	5mL	1	N/A	19	w	RXD1	N/A	O	UVM100304-05+UVM100227-05B
3/12/2010	18:11	6B520.D	W6VM100312-17	ICAL	I-CAL	5mL	1	N/A	20	w	RXD1	N/A	O	UVM100304-06+UVM100227-06B
3/12/2010	18:39	6B521.D	W6VM100312-18	ICAL	I-CAL	5mL	1	N/A	21	w	RXD1	N/A	O	UVM100304-07+UVM100227-07B
3/12/2010	19:07	6B522.D	12020--	BLANK	BLANK	5mL	1	N/A	22	w	RXD1	N/A	X	RINSE
3/12/2010	19:34	6B523.D	W6VM100312-19	S-ICV	S-ICV	5mL	1	N/A	23	w	RXD1	N/A	O	UVM100304-08A+UVM100226-02A
3/12/2010	20:02	6B524.D	W6VM100312-20	S-ICV	S-ICV	5mL	1	N/A	24	w	RXD1	N/A	X	UVM100215-08B+UVM100226-02A
3/12/2010	20:30	6B525.D	12020--	BLANK	BLANK	5mL	1	N/A	25	w	RXD1	N/A	X	RINSE

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 3/23/2010 Method 8260B/624 Operator: RXD1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1482

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/12/2010

(See pg. 75 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a
Cl test lot # 72612
Sequence Number: 032310V6pm

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W6VM100323-04		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100217-02	1	1	1	
LCS/MS	W6VM100323-05			5+5	
BFB	W6VM100323-04				1
SHORT	W6VM100323-06		5	5	

Purge Amount	
5	Water Purge Vol:ML
5	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
3/23/2010	21:49	6D227.D	W6VM100323-04	GEL	BFB/CCV	5g	1	N/A	27	s	RXD1	N/A	O	SOIL MIX[A] UVM100305-01D+IVM100318-01
3/23/2010	22:17	6D228.D	W6VM100323-05	GEL	LCS	5g	1	N/A	28	s	RXD1	N/A	O	SOIL MIX[A] UVM100305-01D+IVM100318-01
3/23/2010	22:45	6D229.D	W6VM100323-06	GEL	CCV/LCS	5g	1	N/A	29	s	RXD1	N/A	O	SOIL MIX[B] UVM100304-08B
3/23/2010	23:12	6D230.D	12020--	BLANK	BLANK	5g	1	N/A	30	s	RXD1	N/A	O	SOIL
3/23/2010	23:40	6D231.D	249332001	LANL	968355	5g	1	N/A	31	s	RXD1	N/A	O	SOIL
3/24/2010	0:08	6D232.D	249332002	LANL	968355	5g	1	N/A	32	s	RXD1	N/A	x	SOIL, IS low, see 032410V6
3/24/2010	0:36	6D233.D	249332003	LANL	968355	5g	1	N/A	33	s	RXD1	N/A	O	SOIL
3/24/2010	1:03	6D234.D	249332004	LANL	968355	5g	1	N/A	34	s	RXD1	N/A	O	SOIL
3/24/2010	1:31	6D235.D	249332005	LANL	968355	5g	1	N/A	35	s	RXD1	N/A	O	SOIL
3/24/2010	1:59	6D236.D	249332006	LANL	968355	5g	1	N/A	36	s	RXD1	N/A	O	SOIL
3/24/2010	2:27	6D237.D	249332007	LANL	968355	5g	1	N/A	37	s	RXD1	N/A	O	SOIL
3/24/2010	2:55	6D238.D	249332008	LANL	968355	5g	1	N/A	38	s	RXD1	N/A	O	SOIL
3/24/2010	3:22	6D239.D	249332009	LANL	968355	5g	1	N/A	39	s	RXD1	N/A	O	SOIL
3/24/2010	3:50	6D240.D	249332010	LANL	968355	5g	1	N/A	40	s	RXD1	N/A	O	SOIL
3/24/2010	4:17	6D241.D	1202078841	LANL	968355	5g	1	N/A	41	s	RXD1	N/A	x	MS 249332001, see 032310V6
3/24/2010	4:45	6D242.D	1202078842	LANL	968355	5g	1	N/A	42	s	RXD1	N/A	x	MSD 249332001, IS low, see 032310V6
3/24/2010	5:12	6D243.D	12020--	BLANK	BLANK	5mL	1	N/A	43	w	RXD1	N/A	X	RINSE

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 3/24/2010 Method 8260B/624 Operator: RXD1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1482

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/12/2010

(See pg. 75 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a
Cl test lot # 72612
Sequence Number: 032410V6

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W6VM100324-01		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100217-02	1	1	1	
LCS/MS	W6VM100324-01/02			5+5	
BFB	UVM100217-02				1
SHORT	W6VM100324-03/04		5	5	

Purge Amount	
5	Water Purge Vol:ML
varied	Soil Purge Wt.:G
x	Mid level ext. MeOH Vol:
100	ul
DA997	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
3/24/2010	9:33	6D301.D	UVM100217-02	GEL	BFB	5mL	1	N/A	1	w	RXD1	N/A	O	
3/24/2010	10:01	6D302.D	W6VM100324-01	GEL	CCV/LCS	5mL	1	N/A	2	w	RXD1	N/A	O	MIX[A] UVM100305-01D+IVM100318-01
3/24/2010	10:28	6D303.D	W6VM100324-02	GEL	LCS	5g	1	N/A	3	s	RXD1	N/A	O	SOIL MIX[A] UVM100305-01D+IVM100318-01
3/24/2010	10:56	6D304.D	W6VM100324-03	GEL	CCV	5mL	1	N/A	4	w	RXD1	N/A	O	MIX[B] UVM100304-08B
3/24/2010	11:23	6D305.D	W6VM100324-04	GEL	LCS	5g	1	N/A	5	s	RXD1	N/A	O	SOIL MIX[B] UVM100304-08B
3/24/2010	11:51	6D306.D	12020--	BLANK	BLANK	5g	1	N/A	6	s	RXD1	N/A	O	SOIL
3/24/2010	12:19	6D307.D	12020--	BLANK	BLANK	5mL	1	N/A	7	w	RXD1	N/A	X	SS Failure, use 6D306 and narrate
3/24/2010	12:47	6D308.D	249332002	LANL	968355	5g	1	N/A	8	s	RXD1	N/A	O	SOIL, RR of 6D232
3/24/2010	13:14	6D309.D	1202078841	LANL	968355	5g	1	N/A	9	s	RXD1	N/A	O	SOIL MIX[A] MS 249332001
3/24/2010	13:42	6D310.D	1202078842	LANL	968355	5g	1	N/A	10	s	RXD1	N/A	O	SOIL MIX[A] MSD 249332001
3/24/2010	14:10	6D311.D	12020--	BLANK	BLANK	5mL	1	N/A	11	w	RXD1	N/A	X	RINSE
3/24/2010	14:38	6D312.D	12020--	HB	HB	100uL	50	N/A	12	s	RXD1	N/A	O	SOIL
3/24/2010	15:06	6D313.D	1202080141	MECP	968893	500uL	10	N/A	13	w	RXD1	N/A	O	TCLPBLANK
3/24/2010	15:34	6D314.D	1202076814	CARE	968893	500uL	10	N/A	14	w	RXD1	N/A	O	TCLPBLANK
3/24/2010	16:01	6D315.D	249268001	MECP	968893	50uL	100	N/A	15	w	RXD1	N/A	O	
3/24/2010	16:29	6D316.D	249661001	CARE	968893	500uL	10	N/A	16	w	RXD1	N/A	O	
3/24/2010	16:57	6D317.D	249717001	CARE	968893	500uL	10	N/A	17	w	RXD1	N/A	O	
3/24/2010	17:25	6D318.D	1202080142	MECP	968893	50uL	100	N/A	18	w	RXD1	N/A	O	MIX[A] MS 249268001
3/24/2010	17:53	6D319.D	1202080143	MECP	968893	50uL	100	N/A	19	w	RXD1	N/A	O	MIX[A] MSD 249268001
3/24/2010	18:20	6D320.D	12020--	BLANK	BLANK	5mL	1	N/A	20	w	RXD1	N/A	X	RINSE
3/24/2010	18:48	6D321.D	249477001	CARE	968898	100uL	50	N/A	21	s	RXD1	N/A	O	SOIL
3/24/2010	19:16	6D322.D	249500001	CARE	968898	100uL	50	N/A	22	s	RXD1	N/A	O	SOIL
3/24/2010	19:44	6D323.D	1202080151	CARE	968898	100uL	50	N/A	23	s	RXD1	N/A	O	SOIL MIX[A] MS 249477001
3/24/2010	20:12	6D324.D	1202080152	CARE	968898	100uL	50	N/A	24	s	RXD1	N/A	O	SOIL MIX[A] MSD 24947700
3/24/2010	20:39	6D325.D	12020--	BLANK	BLANK	5mL	1	N/A	25	w	RXD1	N/A	X	RINSE

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2433

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	966766
Prep Batch Number:	966763

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
249332001	RE46-10-13219
249332002	RE46-10-13221
249332003	RE46-10-13220
249332004	RE46-10-13216
249332005	RE46-10-13217
249332006	RE46-10-13218
249332007	RE46-10-13234
249332009	RE46-10-14199
1202074807	Method Blank (MB)
1202074808	Laboratory Control Sample (LCS)
1202074809	249335002(RE46-10-12972) Matrix Spike (MS)
1202074810	249335002(RE46-10-12972) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
The non-SDG sample 249335002 (RE46-10-12972) was selected for analysis as the matrix spike and

matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
Multiple MS/MSD RPD values exceeded their established acceptance limit. Please see the spike recovery report for the specific failures. Because all individual MS and MSD spike recoveries were within their established acceptance limits, the data were reported un-qualified for the RPD value failures.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for the samples reported with this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the

analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD1.I	HP 5973 Mass Spectrometer	HP6890/HP5973	ZB-5ms	25m x 0.2mm, 0.33um (5% Polysilarylene-95% Polydimethylsiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: [illegible] **Date:** 4-9-10

Roadmap for LANL 10-2433 SVOA

This roadmap was analyzed by amy01291 on 03-31-2010, 15:45.
This roadmap was packaged by CHA01131 on 04-05-2010, 17:40.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD1.i/s032910.b/s1c2914.d	249332001	29-MAR-2010	17:33	10-2433.sub	RE46-10-13219	1	966766	REPORT
☐	N	/chem/MSD1.i/s032910.b/s1c2915.d	249332002	29-MAR-2010	17:56	10-2433.sub	RE46-10-13221	1	966766	REPORT
☐	N	/chem/MSD1.i/s033010.b/s1c3008.d	249332003	30-MAR-2010	12:40	10-2433.sub	RE46-10-13220	1	966766	REPORT
☐	N	/chem/MSD1.i/s033010.b/s1c3009.d	249332004	30-MAR-2010	13:04	10-2433.sub	RE46-10-13216	1	966766	REPORT
☐	N	/chem/MSD1.i/s033010.b/s1c3010.d	249332005	30-MAR-2010	13:27	10-2433.sub	RE46-10-13217	1	966766	REPORT
☐	N	/chem/MSD1.i/s033010.b/s1c3011.d	249332006	30-MAR-2010	13:51	10-2433.sub	RE46-10-13218	1	966766	REPORT
☐	N	/chem/MSD1.i/s033010.b/s1c3012.d	249332007	30-MAR-2010	14:13	10-2433.sub	RE46-10-13234	1	966766	REPORT
☐	N	/chem/MSD1.i/s033010.b/s1c3013.d	249332009	30-MAR-2010	14:36	10-2433.sub	RE46-10-14199	1	966766	REPORT

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD1.i/s032910.b/s1c2908-1.d	1202074807	mb	29-MAR-2010	14:58	10-2433.sub	SBLK01	1	966766	REPORT
☐	N	/chem/MSD1.i/s032910.b/s1c2909-1.d	1202074808	lcs	29-MAR-2010	15:22	10-2433.sub	SBLK01LCS	1	966766	REPORT

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**19**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13216**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 13:04**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3009.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	411	ug/kg	82.3	411
108-95-2	Phenol	U	411	ug/kg	82.3	411
95-57-8	2-Chlorophenol	U	411	ug/kg	82.3	411
106-46-7	1,4-Dichlorobenzene	U	411	ug/kg	82.3	411
621-64-7	N-Nitrosodipropylamine	U	411	ug/kg	82.3	411
59-50-7	4-Chloro-3-methylphenol	U	411	ug/kg	82.3	411
83-32-9	Acenaphthene	U	41.1	ug/kg	13.6	41.1
121-14-2	2,4-Dinitrotoluene	U	411	ug/kg	41.1	411
100-02-7	4-Nitrophenol	U	411	ug/kg	136	411
87-86-5	Pentachlorophenol	U	411	ug/kg	103	411
129-00-0	Pyrene	J	25.8	ug/kg	12.3	41.1
110-86-1	Pyridine	U	411	ug/kg	82.3	411
62-53-3	Aniline	U	411	ug/kg	123	411
111-44-4	bis(2-Chloroethyl) ether	U	411	ug/kg	82.3	411
541-73-1	1,3-Dichlorobenzene	U	411	ug/kg	82.3	411
100-51-6	Benzyl alcohol	U	411	ug/kg	123	411
95-50-1	1,2-Dichlorobenzene	U	411	ug/kg	82.3	411
108-60-1	bis(2-Chloroisopropyl)ether	U	411	ug/kg	82.3	411
95-48-7	o-Cresol	U	411	ug/kg	82.3	411
65794-96-9	m,p-Cresols	U	411	ug/kg	123	411
67-72-1	Hexachloroethane	U	411	ug/kg	82.3	411
98-95-3	Nitrobenzene	U	411	ug/kg	82.3	411
78-59-1	Isophorone	U	411	ug/kg	82.3	411
88-75-5	2-Nitrophenol	U	411	ug/kg	82.3	411
105-67-9	2,4-Dimethylphenol	U	411	ug/kg	144	411
111-91-1	bis(2-Chloroethoxy)methane	U	411	ug/kg	82.3	411
120-83-2	2,4-Dichlorophenol	U	411	ug/kg	82.3	411
65-85-0	Benzoic acid	U	823	ug/kg	206	823
91-20-3	Naphthalene	U	41.1	ug/kg	12.3	41.1
106-47-8	4-Chloroaniline	U	411	ug/kg	82.3	411
87-68-3	Hexachlorobutadiene	U	411	ug/kg	82.3	411
91-57-6	2-Methylnaphthalene	U	41.1	ug/kg	8.23	41.1
77-47-4	Hexachlorocyclopentadiene	U	411	ug/kg	82.3	411
88-06-2	2,4,6-Trichlorophenol	U	411	ug/kg	82.3	411
95-95-4	2,4,5-Trichlorophenol	U	411	ug/kg	82.3	411
91-58-7	2-Chloronaphthalene	U	41.1	ug/kg	13.6	41.1
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	411	ug/kg	82.3	411
99-09-2	3-Nitroaniline	U	411	ug/kg	82.3	411

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**19**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13216**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 13:04**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3009.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	411	ug/kg	82.3	411
606-20-2	2,6-Dinitrotoluene	U	411	ug/kg	41.1	411
208-96-8	Acenaphthylene	U	41.1	ug/kg	12.3	41.1
51-28-5	2,4-Dinitrophenol	U	823	ug/kg	156	823
132-64-9	Dibenzofuran	U	411	ug/kg	82.3	411
84-66-2	Diethylphthalate	U	411	ug/kg	82.3	411
86-73-7	Fluorene	U	41.1	ug/kg	12.3	41.1
7005-72-3	4-Chlorophenylphenylether	U	411	ug/kg	82.3	411
534-52-1	2-Methyl-4,6-dinitrophenol	U	411	ug/kg	82.3	411
100-01-6	4-Nitroaniline	U	411	ug/kg	123	411
	p-Nitroaniline					
122-39-4	Diphenylamine	U	411	ug/kg	82.3	411
122-66-7	Azobenzene	U	411	ug/kg	82.3	411
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	411	ug/kg	82.3	411
118-74-1	Hexachlorobenzene	U	411	ug/kg	82.3	411
85-01-8	Phenanthrene	U	41.1	ug/kg	12.3	41.1
120-12-7	Anthracene	J	11.7	ug/kg	8.23	41.1
84-74-2	Di-n-butylphthalate	U	411	ug/kg	82.3	411
206-44-0	Fluoranthene	J	29.0	ug/kg	12.3	41.1
85-68-7	Butylbenzylphthalate	U	411	ug/kg	82.3	411
56-55-3	Benzo(a)anthracene	J	26.2	ug/kg	12.3	41.1
91-94-1	3,3'-Dichlorobenzidine	U	411	ug/kg	123	411
218-01-9	Chrysene	J	20.1	ug/kg	12.3	41.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	411	ug/kg	82.3	411
117-84-0	Di-n-octylphthalate	U	411	ug/kg	82.3	411
205-99-2	Benzo(b)fluoranthene	J	30.2	ug/kg	12.3	41.1
207-08-9	Benzo(k)fluoranthene	U	41.1	ug/kg	12.3	41.1
50-32-8	Benzo(a)pyrene	J	15.6	ug/kg	12.3	41.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.1	ug/kg	12.3	41.1
53-70-3	Dibenzo(a,h)anthracene	U	41.1	ug/kg	12.3	41.1
191-24-2	Benzo(ghi)perylene	U	41.1	ug/kg	12.3	41.1
120-82-1	1,2,4-Trichlorobenzene	U	411	ug/kg	82.3	411

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	420	ug/kg		JA
	Unknown	8.49	171	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**13.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13217**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 13:27**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3010.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	385	ug/kg	77.1	385
108-95-2	Phenol	U	385	ug/kg	77.1	385
95-57-8	2-Chlorophenol	U	385	ug/kg	77.1	385
106-46-7	1,4-Dichlorobenzene	U	385	ug/kg	77.1	385
621-64-7	N-Nitrosodipropylamine	U	385	ug/kg	77.1	385
59-50-7	4-Chloro-3-methylphenol	U	385	ug/kg	77.1	385
83-32-9	Acenaphthene	U	38.5	ug/kg	12.7	38.5
121-14-2	2,4-Dinitrotoluene	U	385	ug/kg	38.5	385
100-02-7	4-Nitrophenol	U	385	ug/kg	127	385
87-86-5	Pentachlorophenol	U	385	ug/kg	96.3	385
129-00-0	Pyrene	U	38.5	ug/kg	11.6	38.5
110-86-1	Pyridine	U	385	ug/kg	77.1	385
62-53-3	Aniline	U	385	ug/kg	116	385
111-44-4	bis(2-Chloroethyl) ether	U	385	ug/kg	77.1	385
541-73-1	1,3-Dichlorobenzene	U	385	ug/kg	77.1	385
100-51-6	Benzyl alcohol	U	385	ug/kg	116	385
95-50-1	1,2-Dichlorobenzene	U	385	ug/kg	77.1	385
108-60-1	bis(2-Chloroisopropyl)ether	U	385	ug/kg	77.1	385
95-48-7	o-Cresol	U	385	ug/kg	77.1	385
65794-96-9	m,p-Cresols	U	385	ug/kg	116	385
67-72-1	Hexachloroethane	U	385	ug/kg	77.1	385
98-95-3	Nitrobenzene	U	385	ug/kg	77.1	385
78-59-1	Isophorone	U	385	ug/kg	77.1	385
88-75-5	2-Nitrophenol	U	385	ug/kg	77.1	385
105-67-9	2,4-Dimethylphenol	U	385	ug/kg	135	385
111-91-1	bis(2-Chloroethoxy)methane	U	385	ug/kg	77.1	385
120-83-2	2,4-Dichlorophenol	U	385	ug/kg	77.1	385
65-85-0	Benzoic acid	U	771	ug/kg	193	771
91-20-3	Naphthalene	U	38.5	ug/kg	11.6	38.5
106-47-8	4-Chloroaniline	U	385	ug/kg	77.1	385
87-68-3	Hexachlorobutadiene	U	385	ug/kg	77.1	385
91-57-6	2-Methylnaphthalene	U	38.5	ug/kg	7.71	38.5
77-47-4	Hexachlorocyclopentadiene	U	385	ug/kg	77.1	385
88-06-2	2,4,6-Trichlorophenol	U	385	ug/kg	77.1	385
95-95-4	2,4,5-Trichlorophenol	U	385	ug/kg	77.1	385
91-58-7	2-Chloronaphthalene	U	38.5	ug/kg	12.7	38.5
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	385	ug/kg	77.1	385
99-09-2	3-Nitroaniline	U	385	ug/kg	77.1	385

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**13.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13217**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 13:27**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3010.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	385	ug/kg	77.1	385
606-20-2	2,6-Dinitrotoluene	U	385	ug/kg	38.5	385
208-96-8	Acenaphthylene	U	38.5	ug/kg	11.6	38.5
51-28-5	2,4-Dinitrophenol	U	771	ug/kg	146	771
132-64-9	Dibenzofuran	U	385	ug/kg	77.1	385
84-66-2	Diethylphthalate	U	385	ug/kg	77.1	385
86-73-7	Fluorene	U	38.5	ug/kg	11.6	38.5
7005-72-3	4-Chlorophenylphenylether	U	385	ug/kg	77.1	385
534-52-1	2-Methyl-4,6-dinitrophenol	U	385	ug/kg	77.1	385
100-01-6	4-Nitroaniline	U	385	ug/kg	116	385
	p-Nitroaniline					
122-39-4	Diphenylamine	U	385	ug/kg	77.1	385
122-66-7	Azobenzene	U	385	ug/kg	77.1	385
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	385	ug/kg	77.1	385
118-74-1	Hexachlorobenzene	U	385	ug/kg	77.1	385
85-01-8	Phenanthrene	U	38.5	ug/kg	11.6	38.5
120-12-7	Anthracene	U	38.5	ug/kg	7.71	38.5
84-74-2	Di-n-butylphthalate	U	385	ug/kg	77.1	385
206-44-0	Fluoranthene	U	38.5	ug/kg	11.6	38.5
85-68-7	Butylbenzylphthalate	U	385	ug/kg	77.1	385
56-55-3	Benzo(a)anthracene	U	38.5	ug/kg	11.6	38.5
91-94-1	3,3'-Dichlorobenzidine	U	385	ug/kg	116	385
218-01-9	Chrysene	U	38.5	ug/kg	11.6	38.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	385	ug/kg	77.1	385
117-84-0	Di-n-octylphthalate	U	385	ug/kg	77.1	385
205-99-2	Benzo(b)fluoranthene	U	38.5	ug/kg	11.6	38.5
207-08-9	Benzo(k)fluoranthene	U	38.5	ug/kg	11.6	38.5
50-32-8	Benzo(a)pyrene	U	38.5	ug/kg	11.6	38.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.5	ug/kg	11.6	38.5
53-70-3	Dibenzo(a,h)anthracene	U	38.5	ug/kg	11.6	38.5
191-24-2	Benzo(ghi)perylene	U	38.5	ug/kg	11.6	38.5
120-82-1	1,2,4-Trichlorobenzene	U	385	ug/kg	77.1	385

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	386	ug/kg		JA
	Unknown	12.8	376	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**28.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13218**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 13:51**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3011.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	464	ug/kg	92.8	464
108-95-2	Phenol	U	464	ug/kg	92.8	464
95-57-8	2-Chlorophenol	U	464	ug/kg	92.8	464
106-46-7	1,4-Dichlorobenzene	U	464	ug/kg	92.8	464
621-64-7	N-Nitrosodipropylamine	U	464	ug/kg	92.8	464
59-50-7	4-Chloro-3-methylphenol	U	464	ug/kg	92.8	464
83-32-9	Acenaphthene	U	46.4	ug/kg	15.3	46.4
121-14-2	2,4-Dinitrotoluene	U	464	ug/kg	46.4	464
100-02-7	4-Nitrophenol	U	464	ug/kg	153	464
87-86-5	Pentachlorophenol	U	464	ug/kg	116	464
129-00-0	Pyrene	U	46.4	ug/kg	13.9	46.4
110-86-1	Pyridine	U	464	ug/kg	92.8	464
62-53-3	Aniline	U	464	ug/kg	139	464
111-44-4	bis(2-Chloroethyl) ether	U	464	ug/kg	92.8	464
541-73-1	1,3-Dichlorobenzene	U	464	ug/kg	92.8	464
100-51-6	Benzyl alcohol	U	464	ug/kg	139	464
95-50-1	1,2-Dichlorobenzene	U	464	ug/kg	92.8	464
108-60-1	bis(2-Chloroisopropyl)ether	U	464	ug/kg	92.8	464
95-48-7	o-Cresol	U	464	ug/kg	92.8	464
65794-96-9	m,p-Cresols	U	464	ug/kg	139	464
67-72-1	Hexachloroethane	U	464	ug/kg	92.8	464
98-95-3	Nitrobenzene	U	464	ug/kg	92.8	464
78-59-1	Isophorone	U	464	ug/kg	92.8	464
88-75-5	2-Nitrophenol	U	464	ug/kg	92.8	464
105-67-9	2,4-Dimethylphenol	U	464	ug/kg	162	464
111-91-1	bis(2-Chloroethoxy)methane	U	464	ug/kg	92.8	464
120-83-2	2,4-Dichlorophenol	U	464	ug/kg	92.8	464
65-85-0	Benzoic acid	U	928	ug/kg	232	928
91-20-3	Naphthalene	U	46.4	ug/kg	13.9	46.4
106-47-8	4-Chloroaniline	U	464	ug/kg	92.8	464
87-68-3	Hexachlorobutadiene	U	464	ug/kg	92.8	464
91-57-6	2-Methylnaphthalene	U	46.4	ug/kg	9.28	46.4
77-47-4	Hexachlorocyclopentadiene	U	464	ug/kg	92.8	464
88-06-2	2,4,6-Trichlorophenol	U	464	ug/kg	92.8	464
95-95-4	2,4,5-Trichlorophenol	U	464	ug/kg	92.8	464
91-58-7	2-Chloronaphthalene	U	46.4	ug/kg	15.3	46.4
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	464	ug/kg	92.8	464
99-09-2	3-Nitroaniline	U	464	ug/kg	92.8	464

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**28.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13218**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 13:51**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3011.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	464	ug/kg	92.8	464
606-20-2	2,6-Dinitrotoluene	U	464	ug/kg	46.4	464
208-96-8	Acenaphthylene	U	46.4	ug/kg	13.9	46.4
51-28-5	2,4-Dinitrophenol	U	928	ug/kg	176	928
132-64-9	Dibenzofuran	U	464	ug/kg	92.8	464
84-66-2	Diethylphthalate	U	464	ug/kg	92.8	464
86-73-7	Fluorene	U	46.4	ug/kg	13.9	46.4
7005-72-3	4-Chlorophenylphenylether	U	464	ug/kg	92.8	464
534-52-1	2-Methyl-4,6-dinitrophenol	U	464	ug/kg	92.8	464
100-01-6	4-Nitroaniline	U	464	ug/kg	139	464
	p-Nitroaniline					
122-39-4	Diphenylamine	U	464	ug/kg	92.8	464
122-66-7	Azobenzene	U	464	ug/kg	92.8	464
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	464	ug/kg	92.8	464
118-74-1	Hexachlorobenzene	U	464	ug/kg	92.8	464
85-01-8	Phenanthrene	U	46.4	ug/kg	13.9	46.4
120-12-7	Anthracene	U	46.4	ug/kg	9.28	46.4
84-74-2	Di-n-butylphthalate	U	464	ug/kg	92.8	464
206-44-0	Fluoranthene	U	46.4	ug/kg	13.9	46.4
85-68-7	Butylbenzylphthalate	U	464	ug/kg	92.8	464
56-55-3	Benzo(a)anthracene	U	46.4	ug/kg	13.9	46.4
91-94-1	3,3'-Dichlorobenzidine	U	464	ug/kg	139	464
218-01-9	Chrysene	U	46.4	ug/kg	13.9	46.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	464	ug/kg	92.8	464
117-84-0	Di-n-octylphthalate	U	464	ug/kg	92.8	464
205-99-2	Benzo(b)fluoranthene	U	46.4	ug/kg	13.9	46.4
207-08-9	Benzo(k)fluoranthene	U	46.4	ug/kg	13.9	46.4
50-32-8	Benzo(a)pyrene	U	46.4	ug/kg	13.9	46.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	46.4	ug/kg	13.9	46.4
53-70-3	Dibenzo(a,h)anthracene	U	46.4	ug/kg	13.9	46.4
191-24-2	Benzo(ghi)perylene	U	46.4	ug/kg	13.9	46.4
120-82-1	1,2,4-Trichlorobenzene	U	464	ug/kg	92.8	464

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	541	ug/kg		JA
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.3	299	ug/kg	99	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332006	**Date Received:**	03/13/2010 09:30	**%Moisture:**	28.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13218	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 13:51	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s1c3011.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.5	318	ug/kg		J
	Unknown	11.19	197	ug/kg		J
559-74-0	Friedelan-3-one	12.8	1390	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332001**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13219**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 17:33**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2914.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	361	ug/kg	72.1	361
108-95-2	Phenol	U	361	ug/kg	72.1	361
95-57-8	2-Chlorophenol	U	361	ug/kg	72.1	361
106-46-7	1,4-Dichlorobenzene	U	361	ug/kg	72.1	361
621-64-7	N-Nitrosodipropylamine	U	361	ug/kg	72.1	361
59-50-7	4-Chloro-3-methylphenol	U	361	ug/kg	72.1	361
83-32-9	Acenaphthene		1350	ug/kg	11.9	36.1
121-14-2	2,4-Dinitrotoluene	U	361	ug/kg	36.1	361
100-02-7	4-Nitrophenol	U	361	ug/kg	119	361
87-86-5	Pentachlorophenol	U	361	ug/kg	90.2	361
129-00-0	Pyrene	U	36.1	ug/kg	10.8	36.1
110-86-1	Pyridine	U	361	ug/kg	72.1	361
62-53-3	Aniline	U	361	ug/kg	108	361
111-44-4	bis(2-Chloroethyl) ether	U	361	ug/kg	72.1	361
541-73-1	1,3-Dichlorobenzene	U	361	ug/kg	72.1	361
100-51-6	Benzyl alcohol	U	361	ug/kg	108	361
95-50-1	1,2-Dichlorobenzene	U	361	ug/kg	72.1	361
108-60-1	bis(2-Chloroisopropyl)ether	U	361	ug/kg	72.1	361
95-48-7	o-Cresol	U	361	ug/kg	72.1	361
65794-96-9	m,p-Cresols	U	361	ug/kg	108	361
67-72-1	Hexachloroethane	U	361	ug/kg	72.1	361
98-95-3	Nitrobenzene	U	361	ug/kg	72.1	361
78-59-1	Isophorone	U	361	ug/kg	72.1	361
88-75-5	2-Nitrophenol	U	361	ug/kg	72.1	361
105-67-9	2,4-Dimethylphenol	U	361	ug/kg	126	361
111-91-1	bis(2-Chloroethoxy)methane	U	361	ug/kg	72.1	361
120-83-2	2,4-Dichlorophenol	U	361	ug/kg	72.1	361
65-85-0	Benzoic acid	U	721	ug/kg	180	721
91-20-3	Naphthalene	U	36.1	ug/kg	10.8	36.1
106-47-8	4-Chloroaniline	U	361	ug/kg	72.1	361
87-68-3	Hexachlorobutadiene	U	361	ug/kg	72.1	361
91-57-6	2-Methylnaphthalene	U	36.1	ug/kg	7.21	36.1
77-47-4	Hexachlorocyclopentadiene	U	361	ug/kg	72.1	361
88-06-2	2,4,6-Trichlorophenol	U	361	ug/kg	72.1	361
95-95-4	2,4,5-Trichlorophenol	U	361	ug/kg	72.1	361
91-58-7	2-Chloronaphthalene	U	36.1	ug/kg	11.9	36.1
88-74-4	2-Nitroaniline	U	361	ug/kg	72.1	361
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	361	ug/kg	72.1	361

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332001	**Date Received:**	03/13/2010 09:30	**%Moisture:**	7.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13219	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.1	**Dilution:**	1
Run Date:	03/29/2010 17:33	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s1c2914.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	361	ug/kg	72.1	361
606-20-2	2,6-Dinitrotoluene	U	361	ug/kg	36.1	361
208-96-8	Acenaphthylene	U	36.1	ug/kg	10.8	36.1
51-28-5	2,4-Dinitrophenol	U	721	ug/kg	137	721
132-64-9	Dibenzofuran	U	361	ug/kg	72.1	361
84-66-2	Diethylphthalate	U	361	ug/kg	72.1	361
86-73-7	Fluorene	U	36.1	ug/kg	10.8	36.1
7005-72-3	4-Chlorophenylphenylether	U	361	ug/kg	72.1	361
534-52-1	2-Methyl-4,6-dinitrophenol	U	361	ug/kg	72.1	361
100-01-6	4-Nitroaniline	U	361	ug/kg	108	361
	p-Nitroaniline					
122-39-4	Diphenylamine	U	361	ug/kg	72.1	361
122-66-7	Azobenzene	U	361	ug/kg	72.1	361
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	361	ug/kg	72.1	361
118-74-1	Hexachlorobenzene	U	361	ug/kg	72.1	361
85-01-8	Phenanthrene	U	36.1	ug/kg	10.8	36.1
120-12-7	Anthracene	U	36.1	ug/kg	7.21	36.1
84-74-2	Di-n-butylphthalate	U	361	ug/kg	72.1	361
206-44-0	Fluoranthene	U	36.1	ug/kg	10.8	36.1
85-68-7	Butylbenzylphthalate	U	361	ug/kg	72.1	361
56-55-3	Benzo(a)anthracene	U	36.1	ug/kg	10.8	36.1
91-94-1	3,3'-Dichlorobenzidine	U	361	ug/kg	108	361
218-01-9	Chrysene	U	36.1	ug/kg	10.8	36.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	361	ug/kg	72.1	361
117-84-0	Di-n-octylphthalate	U	361	ug/kg	72.1	361
205-99-2	Benzo(b)fluoranthene	U	36.1	ug/kg	10.8	36.1
207-08-9	Benzo(k)fluoranthene	U	36.1	ug/kg	10.8	36.1
50-32-8	Benzo(a)pyrene	U	36.1	ug/kg	10.8	36.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.1	ug/kg	10.8	36.1
53-70-3	Dibenzo(a,h)anthracene	U	36.1	ug/kg	10.8	36.1
191-24-2	Benzo(ghi)perylene	U	36.1	ug/kg	10.8	36.1
120-82-1	1,2,4-Trichlorobenzene	U	361	ug/kg	72.1	361

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.71	675	ug/kg		J
	Unknown Aldol Condensate	2.56	414	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332001**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13219**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 17:33**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2914.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
56196-06-6	Cyclopropaneoctanal, 2-octyl-	7.3	193	ug/kg	90	NJ
57-11-4	Octadecanoic acid	7.35	457	ug/kg	98	NJ
506-30-9	Eicosanoic acid	7.75	186	ug/kg	99	NJ
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	8.02	257	ug/kg	99	NJ
112-85-6	Docosanoic acid	8.15	371	ug/kg	97	NJ
557-59-5	Tetracosanoic acid	8.6	179	ug/kg	97	NJ
1599-67-3	1-Docosene	8.67	245	ug/kg	99	NJ
	Unknown	8.79	165	ug/kg		J
	Unknown	11.71	174	ug/kg		J
58-22-0	Androst-4-en-3-one, 17-hydroxy-, (17.bet	11.92	200	ug/kg	83	NJ
559-74-0	Friedelan-3-one	12.87	839	ug/kg	96	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13220**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 12:40**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3008.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	377	ug/kg	75.3	377
108-95-2	Phenol	U	377	ug/kg	75.3	377
95-57-8	2-Chlorophenol	U	377	ug/kg	75.3	377
106-46-7	1,4-Dichlorobenzene	U	377	ug/kg	75.3	377
621-64-7	N-Nitrosodipropylamine	U	377	ug/kg	75.3	377
59-50-7	4-Chloro-3-methylphenol	U	377	ug/kg	75.3	377
83-32-9	Acenaphthene	U	37.7	ug/kg	12.4	37.7
121-14-2	2,4-Dinitrotoluene	U	377	ug/kg	37.7	377
100-02-7	4-Nitrophenol	U	377	ug/kg	124	377
87-86-5	Pentachlorophenol	U	377	ug/kg	94.1	377
129-00-0	Pyrene	U	37.7	ug/kg	11.3	37.7
110-86-1	Pyridine	U	377	ug/kg	75.3	377
62-53-3	Aniline	U	377	ug/kg	113	377
111-44-4	bis(2-Chloroethyl) ether	U	377	ug/kg	75.3	377
541-73-1	1,3-Dichlorobenzene	U	377	ug/kg	75.3	377
100-51-6	Benzyl alcohol	U	377	ug/kg	113	377
95-50-1	1,2-Dichlorobenzene	U	377	ug/kg	75.3	377
108-60-1	bis(2-Chloroisopropyl)ether	U	377	ug/kg	75.3	377
95-48-7	o-Cresol	U	377	ug/kg	75.3	377
65794-96-9	m,p-Cresols	U	377	ug/kg	113	377
67-72-1	Hexachloroethane	U	377	ug/kg	75.3	377
98-95-3	Nitrobenzene	U	377	ug/kg	75.3	377
78-59-1	Isophorone	U	377	ug/kg	75.3	377
88-75-5	2-Nitrophenol	U	377	ug/kg	75.3	377
105-67-9	2,4-Dimethylphenol	U	377	ug/kg	132	377
111-91-1	bis(2-Chloroethoxy)methane	U	377	ug/kg	75.3	377
120-83-2	2,4-Dichlorophenol	U	377	ug/kg	75.3	377
65-85-0	Benzoic acid	U	753	ug/kg	188	753
91-20-3	Naphthalene	U	37.7	ug/kg	11.3	37.7
106-47-8	4-Chloroaniline	U	377	ug/kg	75.3	377
87-68-3	Hexachlorobutadiene	U	377	ug/kg	75.3	377
91-57-6	2-Methylnaphthalene	U	37.7	ug/kg	7.53	37.7
77-47-4	Hexachlorocyclopentadiene	U	377	ug/kg	75.3	377
88-06-2	2,4,6-Trichlorophenol	U	377	ug/kg	75.3	377
95-95-4	2,4,5-Trichlorophenol	U	377	ug/kg	75.3	377
91-58-7	2-Chloronaphthalene	U	37.7	ug/kg	12.4	37.7
88-74-4	2-Nitroaniline	U	377	ug/kg	75.3	377
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	377	ug/kg	75.3	377

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13220**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 12:40**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3008.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	377	ug/kg	75.3	377
606-20-2	2,6-Dinitrotoluene	U	377	ug/kg	37.7	377
208-96-8	Acenaphthylene	U	37.7	ug/kg	11.3	37.7
51-28-5	2,4-Dinitrophenol	U	753	ug/kg	143	753
132-64-9	Dibenzofuran	U	377	ug/kg	75.3	377
84-66-2	Diethylphthalate	U	377	ug/kg	75.3	377
86-73-7	Fluorene	U	37.7	ug/kg	11.3	37.7
7005-72-3	4-Chlorophenylphenylether	U	377	ug/kg	75.3	377
534-52-1	2-Methyl-4,6-dinitrophenol	U	377	ug/kg	75.3	377
100-01-6	4-Nitroaniline	U	377	ug/kg	113	377
	p-Nitroaniline					
122-39-4	Diphenylamine	U	377	ug/kg	75.3	377
122-66-7	Azobenzene	U	377	ug/kg	75.3	377
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	377	ug/kg	75.3	377
118-74-1	Hexachlorobenzene	U	377	ug/kg	75.3	377
85-01-8	Phenanthrene	U	37.7	ug/kg	11.3	37.7
120-12-7	Anthracene	U	37.7	ug/kg	7.53	37.7
84-74-2	Di-n-butylphthalate	U	377	ug/kg	75.3	377
206-44-0	Fluoranthene	U	37.7	ug/kg	11.3	37.7
85-68-7	Butylbenzylphthalate	U	377	ug/kg	75.3	377
56-55-3	Benzo(a)anthracene	U	37.7	ug/kg	11.3	37.7
91-94-1	3,3'-Dichlorobenzidine	U	377	ug/kg	113	377
218-01-9	Chrysene	U	37.7	ug/kg	11.3	37.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	377	ug/kg	75.3	377
117-84-0	Di-n-octylphthalate	U	377	ug/kg	75.3	377
205-99-2	Benzo(b)fluoranthene	U	37.7	ug/kg	11.3	37.7
207-08-9	Benzo(k)fluoranthene	U	37.7	ug/kg	11.3	37.7
50-32-8	Benzo(a)pyrene	U	37.7	ug/kg	11.3	37.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.7	ug/kg	11.3	37.7
53-70-3	Dibenzo(a,h)anthracene	U	37.7	ug/kg	11.3	37.7
191-24-2	Benzo(ghi)perylene	U	37.7	ug/kg	11.3	37.7
120-82-1	1,2,4-Trichlorobenzene	U	377	ug/kg	75.3	377

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	587	ug/kg		JA
57-10-3	n-Hexadecanoic acid	6.87	166	ug/kg	96	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332003	**Date Received:**	03/13/2010 09:30	**%Moisture:**	11.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13220	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 12:40	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s1c3008.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	10.62	176	ug/kg		J
	Unknown	11.16	183	ug/kg		J
1058-61-3	Stigmast-4-en-3-one	11.86	159	ug/kg	97	NJ
559-74-0	Friedelan-3-one	12.8	801	ug/kg	99	NJ
	Unknown	12.94	172	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**4.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13221**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 17:56**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2915.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	349	ug/kg	69.8	349
108-95-2	Phenol	U	349	ug/kg	69.8	349
95-57-8	2-Chlorophenol	U	349	ug/kg	69.8	349
106-46-7	1,4-Dichlorobenzene	U	349	ug/kg	69.8	349
621-64-7	N-Nitrosodipropylamine	U	349	ug/kg	69.8	349
59-50-7	4-Chloro-3-methylphenol	U	349	ug/kg	69.8	349
83-32-9	Acenaphthene	U	34.9	ug/kg	11.5	34.9
121-14-2	2,4-Dinitrotoluene	U	349	ug/kg	34.9	349
100-02-7	4-Nitrophenol	U	349	ug/kg	115	349
87-86-5	Pentachlorophenol	U	349	ug/kg	87.2	349
129-00-0	Pyrene	U	34.9	ug/kg	10.5	34.9
110-86-1	Pyridine	U	349	ug/kg	69.8	349
62-53-3	Aniline	U	349	ug/kg	105	349
111-44-4	bis(2-Chloroethyl) ether	U	349	ug/kg	69.8	349
541-73-1	1,3-Dichlorobenzene	U	349	ug/kg	69.8	349
100-51-6	Benzyl alcohol	U	349	ug/kg	105	349
95-50-1	1,2-Dichlorobenzene	U	349	ug/kg	69.8	349
108-60-1	bis(2-Chloroisopropyl)ether	U	349	ug/kg	69.8	349
95-48-7	o-Cresol	U	349	ug/kg	69.8	349
65794-96-9	m,p-Cresols	U	349	ug/kg	105	349
67-72-1	Hexachloroethane	U	349	ug/kg	69.8	349
98-95-3	Nitrobenzene	U	349	ug/kg	69.8	349
78-59-1	Isophorone	U	349	ug/kg	69.8	349
88-75-5	2-Nitrophenol	U	349	ug/kg	69.8	349
105-67-9	2,4-Dimethylphenol	U	349	ug/kg	122	349
111-91-1	bis(2-Chloroethoxy)methane	U	349	ug/kg	69.8	349
120-83-2	2,4-Dichlorophenol	U	349	ug/kg	69.8	349
65-85-0	Benzoic acid	U	698	ug/kg	174	698
91-20-3	Naphthalene	U	34.9	ug/kg	10.5	34.9
106-47-8	4-Chloroaniline	U	349	ug/kg	69.8	349
87-68-3	Hexachlorobutadiene	U	349	ug/kg	69.8	349
91-57-6	2-Methylnaphthalene	U	34.9	ug/kg	6.98	34.9
77-47-4	Hexachlorocyclopentadiene	U	349	ug/kg	69.8	349
88-06-2	2,4,6-Trichlorophenol	U	349	ug/kg	69.8	349
95-95-4	2,4,5-Trichlorophenol	U	349	ug/kg	69.8	349
91-58-7	2-Chloronaphthalene	U	34.9	ug/kg	11.5	34.9
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	349	ug/kg	69.8	349
99-09-2	3-Nitroaniline	U	349	ug/kg	69.8	349

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**4.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13221**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 17:56**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2915.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	349	ug/kg	69.8	349
606-20-2	2,6-Dinitrotoluene	U	349	ug/kg	34.9	349
208-96-8	Acenaphthylene	U	34.9	ug/kg	10.5	34.9
51-28-5	2,4-Dinitrophenol	U	698	ug/kg	133	698
132-64-9	Dibenzofuran	U	349	ug/kg	69.8	349
84-66-2	Diethylphthalate	U	349	ug/kg	69.8	349
86-73-7	Fluorene	U	34.9	ug/kg	10.5	34.9
7005-72-3	4-Chlorophenylphenylether	U	349	ug/kg	69.8	349
534-52-1	2-Methyl-4,6-dinitrophenol	U	349	ug/kg	69.8	349
100-01-6	4-Nitroaniline	U	349	ug/kg	105	349
	p-Nitroaniline					
122-39-4	Diphenylamine	U	349	ug/kg	69.8	349
122-66-7	Azobenzene	U	349	ug/kg	69.8	349
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	349	ug/kg	69.8	349
118-74-1	Hexachlorobenzene	U	349	ug/kg	69.8	349
85-01-8	Phenanthrene	U	34.9	ug/kg	10.5	34.9
120-12-7	Anthracene	U	34.9	ug/kg	6.98	34.9
84-74-2	Di-n-butylphthalate	U	349	ug/kg	69.8	349
206-44-0	Fluoranthene	U	34.9	ug/kg	10.5	34.9
85-68-7	Butylbenzylphthalate	U	349	ug/kg	69.8	349
56-55-3	Benzo(a)anthracene	U	34.9	ug/kg	10.5	34.9
91-94-1	3,3'-Dichlorobenzidine	U	349	ug/kg	105	349
218-01-9	Chrysene	U	34.9	ug/kg	10.5	34.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	349	ug/kg	69.8	349
117-84-0	Di-n-octylphthalate	U	349	ug/kg	69.8	349
205-99-2	Benzo(b)fluoranthene	U	34.9	ug/kg	10.5	34.9
207-08-9	Benzo(k)fluoranthene	U	34.9	ug/kg	10.5	34.9
50-32-8	Benzo(a)pyrene	U	34.9	ug/kg	10.5	34.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.9	ug/kg	10.5	34.9
53-70-3	Dibenzo(a,h)anthracene	U	34.9	ug/kg	10.5	34.9
191-24-2	Benzo(ghi)perylene	U	34.9	ug/kg	10.5	34.9
120-82-1	1,2,4-Trichlorobenzene	U	349	ug/kg	69.8	349

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	513	ug/kg		JA
	Unknown	8.04	284	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**4.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13221**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 17:56**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2915.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.57	470	ug/kg		J
	Unknown	11.09	211	ug/kg		J
	Unknown	11.36	227	ug/kg		J
	Unknown	11.91	146	ug/kg		J
559-74-0	Friedelan-3-one	12.87	1290	ug/kg	83	NJ
	Unknown	13	151	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13234**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 14:13**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3012.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	379	ug/kg	75.9	379
108-95-2	Phenol	U	379	ug/kg	75.9	379
95-57-8	2-Chlorophenol	U	379	ug/kg	75.9	379
106-46-7	1,4-Dichlorobenzene	U	379	ug/kg	75.9	379
621-64-7	N-Nitrosodipropylamine	U	379	ug/kg	75.9	379
59-50-7	4-Chloro-3-methylphenol	U	379	ug/kg	75.9	379
83-32-9	Acenaphthene	U	37.9	ug/kg	12.5	37.9
121-14-2	2,4-Dinitrotoluene	U	379	ug/kg	37.9	379
100-02-7	4-Nitrophenol	U	379	ug/kg	125	379
87-86-5	Pentachlorophenol	U	379	ug/kg	94.8	379
129-00-0	Pyrene	U	37.9	ug/kg	11.4	37.9
110-86-1	Pyridine	U	379	ug/kg	75.9	379
62-53-3	Aniline	U	379	ug/kg	114	379
111-44-4	bis(2-Chloroethyl) ether	U	379	ug/kg	75.9	379
541-73-1	1,3-Dichlorobenzene	U	379	ug/kg	75.9	379
100-51-6	Benzyl alcohol	U	379	ug/kg	114	379
95-50-1	1,2-Dichlorobenzene	U	379	ug/kg	75.9	379
108-60-1	bis(2-Chloroisopropyl)ether	U	379	ug/kg	75.9	379
95-48-7	o-Cresol	U	379	ug/kg	75.9	379
65794-96-9	m,p-Cresols	U	379	ug/kg	114	379
67-72-1	Hexachloroethane	U	379	ug/kg	75.9	379
98-95-3	Nitrobenzene	U	379	ug/kg	75.9	379
78-59-1	Isophorone	U	379	ug/kg	75.9	379
88-75-5	2-Nitrophenol	U	379	ug/kg	75.9	379
105-67-9	2,4-Dimethylphenol	U	379	ug/kg	133	379
111-91-1	bis(2-Chloroethoxy)methane	U	379	ug/kg	75.9	379
120-83-2	2,4-Dichlorophenol	U	379	ug/kg	75.9	379
65-85-0	Benzoic acid	U	759	ug/kg	190	759
91-20-3	Naphthalene	U	37.9	ug/kg	11.4	37.9
106-47-8	4-Chloroaniline	U	379	ug/kg	75.9	379
87-68-3	Hexachlorobutadiene	U	379	ug/kg	75.9	379
91-57-6	2-Methylnaphthalene	U	37.9	ug/kg	7.59	37.9
77-47-4	Hexachlorocyclopentadiene	U	379	ug/kg	75.9	379
88-06-2	2,4,6-Trichlorophenol	U	379	ug/kg	75.9	379
95-95-4	2,4,5-Trichlorophenol	U	379	ug/kg	75.9	379
91-58-7	2-Chloronaphthalene	U	37.9	ug/kg	12.5	37.9
88-74-4	2-Nitroaniline	U	379	ug/kg	75.9	379
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	379	ug/kg	75.9	379

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13234**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 14:13**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3012.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	379	ug/kg	75.9	379
606-20-2	2,6-Dinitrotoluene	U	379	ug/kg	37.9	379
208-96-8	Acenaphthylene	U	37.9	ug/kg	11.4	37.9
51-28-5	2,4-Dinitrophenol	U	759	ug/kg	144	759
132-64-9	Dibenzofuran	U	379	ug/kg	75.9	379
84-66-2	Diethylphthalate	U	379	ug/kg	75.9	379
86-73-7	Fluorene	U	37.9	ug/kg	11.4	37.9
7005-72-3	4-Chlorophenylphenylether	U	379	ug/kg	75.9	379
534-52-1	2-Methyl-4,6-dinitrophenol	U	379	ug/kg	75.9	379
100-01-6	4-Nitroaniline	U	379	ug/kg	114	379
	p-Nitroaniline					
122-39-4	Diphenylamine	U	379	ug/kg	75.9	379
122-66-7	Azobenzene	U	379	ug/kg	75.9	379
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	379	ug/kg	75.9	379
118-74-1	Hexachlorobenzene	U	379	ug/kg	75.9	379
85-01-8	Phenanthrene	U	37.9	ug/kg	11.4	37.9
120-12-7	Anthracene	U	37.9	ug/kg	7.59	37.9
84-74-2	Di-n-butylphthalate	U	379	ug/kg	75.9	379
206-44-0	Fluoranthene	U	37.9	ug/kg	11.4	37.9
85-68-7	Butylbenzylphthalate	U	379	ug/kg	75.9	379
56-55-3	Benzo(a)anthracene	U	37.9	ug/kg	11.4	37.9
91-94-1	3,3'-Dichlorobenzidine	U	379	ug/kg	114	379
218-01-9	Chrysene	U	37.9	ug/kg	11.4	37.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	379	ug/kg	75.9	379
117-84-0	Di-n-octylphthalate	U	379	ug/kg	75.9	379
205-99-2	Benzo(b)fluoranthene	U	37.9	ug/kg	11.4	37.9
207-08-9	Benzo(k)fluoranthene	U	37.9	ug/kg	11.4	37.9
50-32-8	Benzo(a)pyrene	U	37.9	ug/kg	11.4	37.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.9	ug/kg	11.4	37.9
53-70-3	Dibenzo(a,h)anthracene	U	37.9	ug/kg	11.4	37.9
191-24-2	Benzo(ghi)perylene	U	37.9	ug/kg	11.4	37.9
120-82-1	1,2,4-Trichlorobenzene	U	379	ug/kg	75.9	379

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	516	ug/kg		JA
	Unknown	8.49	331	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13234**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 14:13**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3012.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	10.61	249	ug/kg		J
	Unknown	11.05	566	ug/kg		J
83-46-5	.beta.-Sitosterol	11.15	183	ug/kg	96	NJ
	Unknown	11.31	153	ug/kg		J
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	11.48	174	ug/kg	90	NJ
1058-61-3	Stigmast-4-en-3-one	11.86	248	ug/kg	95	NJ
300574-36-1	5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	12.8	758	ug/kg	90	NJ
	Unknown	12.94	681	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332009**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**30**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-14199**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 14:36**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3013.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parnname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	475	ug/kg	95.0	475
108-95-2	Phenol	U	475	ug/kg	95.0	475
95-57-8	2-Chlorophenol	U	475	ug/kg	95.0	475
106-46-7	1,4-Dichlorobenzene	U	475	ug/kg	95.0	475
621-64-7	N-Nitrosodipropylamine	U	475	ug/kg	95.0	475
59-50-7	4-Chloro-3-methylphenol	U	475	ug/kg	95.0	475
83-32-9	Acenaphthene	U	47.5	ug/kg	15.7	47.5
121-14-2	2,4-Dinitrotoluene	U	475	ug/kg	47.5	475
100-02-7	4-Nitrophenol	U	475	ug/kg	157	475
87-86-5	Pentachlorophenol	U	475	ug/kg	119	475
129-00-0	Pyrene	U	47.5	ug/kg	14.2	47.5
110-86-1	Pyridine	U	475	ug/kg	95.0	475
62-53-3	Aniline	U	475	ug/kg	142	475
111-44-4	bis(2-Chloroethyl) ether	U	475	ug/kg	95.0	475
541-73-1	1,3-Dichlorobenzene	U	475	ug/kg	95.0	475
100-51-6	Benzyl alcohol	U	475	ug/kg	142	475
95-50-1	1,2-Dichlorobenzene	U	475	ug/kg	95.0	475
108-60-1	bis(2-Chloroisopropyl)ether	U	475	ug/kg	95.0	475
95-48-7	o-Cresol	U	475	ug/kg	95.0	475
65794-96-9	m,p-Cresols	U	475	ug/kg	142	475
67-72-1	Hexachloroethane	U	475	ug/kg	95.0	475
98-95-3	Nitrobenzene	U	475	ug/kg	95.0	475
78-59-1	Isophorone	U	475	ug/kg	95.0	475
88-75-5	2-Nitrophenol	U	475	ug/kg	95.0	475
105-67-9	2,4-Dimethylphenol	U	475	ug/kg	166	475
111-91-1	bis(2-Chloroethoxy)methane	U	475	ug/kg	95.0	475
120-83-2	2,4-Dichlorophenol	U	475	ug/kg	95.0	475
65-85-0	Benzoic acid	U	950	ug/kg	237	950
91-20-3	Naphthalene	U	47.5	ug/kg	14.2	47.5
106-47-8	4-Chloroaniline	U	475	ug/kg	95.0	475
87-68-3	Hexachlorobutadiene	U	475	ug/kg	95.0	475
91-57-6	2-Methylnaphthalene	U	47.5	ug/kg	9.50	47.5
77-47-4	Hexachlorocyclopentadiene	U	475	ug/kg	95.0	475
88-06-2	2,4,6-Trichlorophenol	U	475	ug/kg	95.0	475
95-95-4	2,4,5-Trichlorophenol	U	475	ug/kg	95.0	475
91-58-7	2-Chloronaphthalene	U	47.5	ug/kg	15.7	47.5
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	475	ug/kg	95.0	475
99-09-2	3-Nitroaniline	U	475	ug/kg	95.0	475

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332009**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**30**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-14199**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 14:36**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3013.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	475	ug/kg	95.0	475
606-20-2	2,6-Dinitrotoluene	U	475	ug/kg	47.5	475
208-96-8	Acenaphthylene	U	47.5	ug/kg	14.2	47.5
51-28-5	2,4-Dinitrophenol	U	950	ug/kg	180	950
132-64-9	Dibenzofuran	U	475	ug/kg	95.0	475
84-66-2	Diethylphthalate	U	475	ug/kg	95.0	475
86-73-7	Fluorene	U	47.5	ug/kg	14.2	47.5
7005-72-3	4-Chlorophenylphenylether	U	475	ug/kg	95.0	475
534-52-1	2-Methyl-4,6-dinitrophenol	U	475	ug/kg	95.0	475
100-01-6	4-Nitroaniline	U	475	ug/kg	142	475
	p-Nitroaniline					
122-39-4	Diphenylamine	U	475	ug/kg	95.0	475
122-66-7	Azobenzene	U	475	ug/kg	95.0	475
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	475	ug/kg	95.0	475
118-74-1	Hexachlorobenzene	U	475	ug/kg	95.0	475
85-01-8	Phenanthrene	U	47.5	ug/kg	14.2	47.5
120-12-7	Anthracene	U	47.5	ug/kg	9.50	47.5
84-74-2	Di-n-butylphthalate	U	475	ug/kg	95.0	475
206-44-0	Fluoranthene	U	47.5	ug/kg	14.2	47.5
85-68-7	Butylbenzylphthalate	U	475	ug/kg	95.0	475
56-55-3	Benzo(a)anthracene	U	47.5	ug/kg	14.2	47.5
91-94-1	3,3'-Dichlorobenzidine	U	475	ug/kg	142	475
218-01-9	Chrysene	U	47.5	ug/kg	14.2	47.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	475	ug/kg	95.0	475
117-84-0	Di-n-octylphthalate	U	475	ug/kg	95.0	475
205-99-2	Benzo(b)fluoranthene	U	47.5	ug/kg	14.2	47.5
207-08-9	Benzo(k)fluoranthene	U	47.5	ug/kg	14.2	47.5
50-32-8	Benzo(a)pyrene	U	47.5	ug/kg	14.2	47.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	47.5	ug/kg	14.2	47.5
53-70-3	Dibenzo(a,h)anthracene	U	47.5	ug/kg	14.2	47.5
191-24-2	Benzo(ghi)perylene	U	47.5	ug/kg	14.2	47.5
120-82-1	1,2,4-Trichlorobenzene	U	475	ug/kg	95.0	475

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	504	ug/kg		JA
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.3	214	ug/kg	99	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332009**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**30**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-14199**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 14:36**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3013.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.48	318	ug/kg		J
559-74-0	Friedelan-3-one	12.79	882	ug/kg	95	NJ

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-2433

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202074807	MB for batch 966763	75	69	83	77	65	88
1202074808	LCS for batch 966763	72	68	73	70	63	83
249332001	RE46-10-13219	70	67	72	70	68	79
249332002	RE46-10-13221	72	72	77	73	70	96
249332003	RE46-10-13220	69	68	77	71	66	102
249332004	RE46-10-13216	55	55	57	52	51	74
249332005	RE46-10-13217	53	54	56	52	52	66
249332006	RE46-10-13218	57	56	61	54	56	71
249332007	RE46-10-13234	70	69	77	72	72	98
249332009	RE46-10-14199	48	48	51	47	50	63

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(29%-99%)
PHL	=	Phenol-d5	(33%-98%)
NBZ	=	Nitrobenzene-d5	(31%-105%)
FBP	=	2-Fluorobiphenyl	(25%-109%)
TBP	=	2,4,6-Tribromophenol	(37%-106%)
TPH	=	p-Terphenyl-d14	(13%-150%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: LCS for batch 966763
Lab Sample ID: 1202074808
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/29/2010 15:22
Dilution: 1
Prep Batch ID: 966763
Batch ID: 966766

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	950	57	22-114
108-95-2	LCS	Phenol	1670	0.0	1160	70	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1230	74	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1040	63	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1310	79	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1330	80	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	1190	71	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1330	80	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	739	44	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	1140	69	27-116
129-00-0	LCS	Pyrene	1670	0.0	1260	75	42-113
110-86-1	LCS	Pyridine	1670	0.0	926	56	8-125
62-53-3	LCS	Aniline	1670	0.0	1060	64	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1130	68	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1040	62	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	852	51	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1070	64	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1300	78	28-117
95-48-7	LCS	o-Cresol	1670	0.0	1160	70	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1370	82	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	1060	64	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	1250	75	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: LCS for batch 966763
Lab Sample ID: 1202074808
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/29/2010 15:22
Dilution: 1
Prep Batch ID: 966763
Batch ID: 966766

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1270	76	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	1190	72	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1180	71	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1180	71	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1260	75	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	2870	86	22-138
91-20-3	LCS	Naphthalene	1670	0.0	1160	69	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	1080	65	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1130	68	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1250	75	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	980	59	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1130	68	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1250	75	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1180	71	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1300	78	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1280	77	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	1340	80	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1260	76	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	1300	78	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1170	70	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	1280	77	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	1390	83	51-126

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: LCS for batch 966763
Lab Sample ID: 1202074808
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/29/2010 15:22
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1270	76	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1320	79	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1320	79	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1430	86	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	1280	77	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1450	87	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1190	71	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1080	65	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	1260	75	46-107
120-12-7	LCS	Anthracene	1670	0.0	1280	77	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1460	87	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1380	83	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1580	95	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1330	80	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1200	72	36-103
218-01-9	LCS	Chrysene	1670	0.0	1320	79	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1690	101	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1500	90	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1200	72	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1310	79	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1330	80	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1430	86	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: LCS for batch 966763
Lab Sample ID: 1202074808
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/29/2010 15:22
Dilution: 1
Prep Batch ID: 966763
Batch ID: 966766

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1370	82	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1420	85	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1120	67	32-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: RE46-10-12972MS
Lab Sample ID: 1202074809
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:15
Prep Batch ID 966763
Batch ID: 966766

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1900	0.00	U	1120	59	27-98
108-95-2	MS	Phenol	1900	0.00	U	1200	63	33-94
95-57-8	MS	2-Chlorophenol	1900	0.00	U	1250	66	29-96
106-46-7	MS	1,4-Dichlorobenzene	1900	0.00	U	842	44	27-96
621-64-7	MS	N-Nitrosodipropylamine	1900	0.00	U	810	43	29-102
59-50-7	MS	4-Chloro-3-methylphenol	1900	0.00	U	1350	71	29-110
83-32-9	MS	Acenaphthene	1900	0.00	U	1150	60	17-109
121-14-2	MS	2,4-Dinitrotoluene	1900	0.00	U	1370	72	33-107
100-02-7	MS	4-Nitrophenol	1900	0.00	U	816	43	15-110
87-86-5	MS	Pentachlorophenol	1900	0.00	U	1080	57	23-110
129-00-0	MS	Pyrene	1900	0.00	U	1360	72	24-118
110-86-1	MS	Pyridine	1900	0.00	U	931	49	25-102
62-53-3	MS	Aniline	1900	0.00	U	1240	65	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	1900	0.00	U	1160	61	29-96
541-73-1	MS	1,3-Dichlorobenzene	1900	0.00	U	812	43	26-97
100-51-6	MS	Benzyl alcohol	1900	0.00	U	637	34	19-112
95-50-1	MS	1,2-Dichlorobenzene	1900	0.00	U	916	48	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	1900	0.00	U	1220	65	28-103
95-48-7	MS	o-Cresol	1900	0.00	U	875	46	32-107
65794-96-9	MS	m,p-Cresols	1900	0.00	U	1540	81	33-115
67-72-1	MS	Hexachloroethane	1900	0.00	U	785	41	25-100
98-95-3	MS	Nitrobenzene	1900	0.00	U	1240	66	27-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: RE46-10-12972MS
Lab Sample ID: 1202074809
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:15
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1900	0.00	U	1260	66	29-104
88-75-5	MS	2-Nitrophenol	1900	0.00	U	728	38	26-102
105-67-9	MS	2,4-Dimethylphenol	1900	0.00	U	1270	67	22-104
111-91-1	MS	bis(2-Chloroethoxy)methane	1900	0.00	U	694	37	27-101
120-83-2	MS	2,4-Dichlorophenol	1900	0.00	U	1060	56	26-103
65-85-0	MS	Benzoic acid	3790	0.00	U	2200	58	13-131
91-20-3	MS	Naphthalene	1900	0.00	U	817	43	23-103
106-47-8	MS	4-Chloroaniline	1900	0.00	U	1230	65	26-103
87-68-3	MS	Hexachlorobutadiene	1900	0.00	U	949	50	28-101
91-57-6	MS	2-Methylnaphthalene	1900	0.00	U	1230	65	27-106
77-47-4	MS	Hexachlorocyclopentadiene	1900	0.00	U	910	48	24-117
88-06-2	MS	2,4,6-Trichlorophenol	1900	0.00	U	1480	78	26-105
95-95-4	MS	2,4,5-Trichlorophenol	1900	0.00	U	1390	74	30-110
91-58-7	MS	2-Chloronaphthalene	1900	0.00	U	1120	59	28-102
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	1220	64	33-106
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	1470	77	33-116
131-11-3	MS	Dimethylphthalate	1900	0.00	U	1260	66	38-113
606-20-2	MS	2,6-Dinitrotoluene	1900	0.00	U	1210	64	29-107
208-96-8	MS	Acenaphthylene	1900	0.00	U	1250	66	25-108
51-28-5	MS	2,4-Dinitrophenol	1900	0.00	U	1150	61	14-102
132-64-9	MS	Dibenzofuran	1900	0.00	U	1280	68	35-112
84-66-2	MS	Diethylphthalate	1900	0.00	U	1390	73	36-122

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: RE46-10-12972MS
Lab Sample ID: 1202074809
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:15
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1900	0.00	U	1350	71	33-105
7005-72-3	MS	4-Chlorophenylphenylether	1900	0.00	U	1360	71	30-110
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1900	0.00	U	1120	59	26-97
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	1620	85	28-135
122-39-4	MS	Diphenylamine	1900	0.00	U	1220	65	33-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1350	71	31-113
101-55-3	MS	4-Bromophenylphenylether	1900	0.00	U	1200	63	31-109
118-74-1	MS	Hexachlorobenzene	1900	0.00	U	1120	59	37-99
85-01-8	MS	Phenanthrene	1900	0.00	U	1370	72	29-109
120-12-7	MS	Anthracene	1900	0.00	U	1320	70	19-118
84-74-2	MS	Di-n-butylphthalate	1900	0.00	U	1470	78	39-123
206-44-0	MS	Fluoranthene	1900	0.00	U	1330	70	33-114
85-68-7	MS	Butylbenzylphthalate	1900	0.00	U	1630	86	35-131
56-55-3	MS	Benzo(a)anthracene	1900	0.00	U	1340	71	30-111
91-94-1	MS	3,3'-Dichlorobenzidine	1900	0.00	U	1110	58	30-124
218-01-9	MS	Chrysene	1900	0.00	U	1340	71	32-108
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1900	0.00	U	1700	89	37-129
117-84-0	MS	Di-n-octylphthalate	1900	0.00	U	1800	95	31-143
205-99-2	MS	Benzo(b)fluoranthene	1900	0.00	U	1350	71	29-118
207-08-9	MS	Benzo(k)fluoranthene	1900	0.00	U	1410	74	32-118
50-32-8	MS	Benzo(a)pyrene	1900	0.00	U	1340	70	33-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1900	0.00	U	1230	65	29-114

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2433
Client ID: RE46-10-12972MS
Lab Sample ID: 1202074809
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:15
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1900	0.00	U	1180	62	27-119
191-24-2	MS	Benzo(ghi)perylene	1900	0.00	U	1130	60	28-112
120-82-1	MS	1,2,4-Trichlorobenzene	1900	0.00	U	1040	55	28-99

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: RE46-10-12972MSD
Lab Sample ID: 1202074810
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:38
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1900	0.00	U	981	52	27-98	13	0-30
108-95-2	MSD Phenol	1900	0.00	U	1130	60	33-94	6	0-30
95-57-8	MSD 2-Chlorophenol	1900	0.00	U	1200	63	29-96	4	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1900	0.00	U	780	41	27-96	8	0-30
621-64-7	MSD N-Nitrosodipropylamine	1900	0.00	U	1290	68	29-102	46 *	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1900	0.00	U	1280	68	29-110	5	0-30
83-32-9	MSD Acenaphthene	1900	0.00	U	1180	62	17-109	3	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1900	0.00	U	1290	68	33-107	6	0-30
100-02-7	MSD 4-Nitrophenol	1900	0.00	U	711	37	15-110	14	0-30
87-86-5	MSD Pentachlorophenol	1900	0.00	U	1090	57	23-110	1	0-30
129-00-0	MSD Pyrene	1900	0.00	U	1250	66	24-118	8	0-30
110-86-1	MSD Pyridine	1900	0.00	U	821	43	25-102	13	0-30
62-53-3	MSD Aniline	1900	0.00	U	1090	57	18-109	13	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1900	0.00	U	1070	57	29-96	8	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1900	0.00	U	746	39	26-97	8	0-30
100-51-6	MSD Benzyl alcohol	1900	0.00	U	571	30	19-112	11	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1900	0.00	U	848	45	30-97	8	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1900	0.00	U	1150	61	28-103	6	0-30
95-48-7	MSD o-Cresol	1900	0.00	U	1280	67	32-107	38 *	0-30
65794-96-9	MSD m,p-Cresols	1900	0.00	U	1230	65	33-115	22	0-30
67-72-1	MSD Hexachloroethane	1900	0.00	U	720	38	25-100	9	0-30
98-95-3	MSD Nitrobenzene	1900	0.00	U	1200	63	27-106	4	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: RE46-10-12972MSD
Lab Sample ID: 1202074810
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:38
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1900	0.00	U	1190	63	29-104	6	0-30
88-75-5	MSD 2-Nitrophenol	1900	0.00	U	1200	63	26-102	49 *	0-30
105-67-9	MSD 2,4-Dimethylphenol	1900	0.00	U	1200	63	22-104	5	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1900	0.00	U	1140	60	27-101	49 *	0-30
120-83-2	MSD 2,4-Dichlorophenol	1900	0.00	U	1250	66	26-103	17	0-30
65-85-0	MSD Benzoic acid	3800	0.00	U	2620	69	13-131	18	0-30
91-20-3	MSD Naphthalene	1900	0.00	U	1070	56	23-103	27	0-30
106-47-8	MSD 4-Chloroaniline	1900	0.00	U	1110	58	26-103	10	0-30
87-68-3	MSD Hexachlorobutadiene	1900	0.00	U	888	47	28-101	7	0-30
91-57-6	MSD 2-Methylnaphthalene	1900	0.00	U	1160	61	27-106	6	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1900	0.00	U	797	42	24-117	13	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1900	0.00	U	1220	64	26-105	19	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1900	0.00	U	1330	70	30-110	4	0-30
91-58-7	MSD 2-Chloronaphthalene	1900	0.00	U	1150	60	28-102	2	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	1280	67	33-106	5	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	1280	67	33-116	14	0-30
131-11-3	MSD Dimethylphthalate	1900	0.00	U	1290	68	38-113	3	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1900	0.00	U	1230	65	29-107	2	0-30
208-96-8	MSD Acenaphthylene	1900	0.00	U	1270	67	25-108	2	0-30
51-28-5	MSD 2,4-Dinitrophenol	1900	0.00	U	1100	58	14-102	4	0-30
132-64-9	MSD Dibenzofuran	1900	0.00	U	1250	66	35-112	2	0-30
84-66-2	MSD Diethylphthalate	1900	0.00	U	1310	69	36-122	6	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: RE46-10-12972MSD
Lab Sample ID: 1202074810
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:38
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1900	0.00	U	1240	65	33-105	9	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1900	0.00	U	1280	67	30-110	6	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1900	0.00	U	1080	57	26-97	4	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	1330	70	28-135	19	0-30
122-39-4	MSD	Diphenylamine	1900	0.00	U	1200	63	33-109	2	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1380	73	31-113	2	0-30
101-55-3	MSD	4-Bromophenylphenylether	1900	0.00	U	1160	61	31-109	4	0-30
118-74-1	MSD	Hexachlorobenzene	1900	0.00	U	1040	55	37-99	8	0-30
85-01-8	MSD	Phenanthrene	1900	0.00	U	1240	65	29-109	10	0-30
120-12-7	MSD	Anthracene	1900	0.00	U	1210	64	19-118	9	0-30
84-74-2	MSD	Di-n-butylphthalate	1900	0.00	U	1340	70	39-123	10	0-30
206-44-0	MSD	Fluoranthene	1900	0.00	U	1210	63	33-114	10	0-30
85-68-7	MSD	Butylbenzylphthalate	1900	0.00	U	1490	78	35-131	9	0-30
56-55-3	MSD	Benzo(a)anthracene	1900	0.00	U	1240	65	30-111	8	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1900	0.00	U	958	50	30-124	14	0-30
218-01-9	MSD	Chrysene	1900	0.00	U	1250	66	32-108	7	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1900	0.00	U	1530	80	37-129	11	0-30
117-84-0	MSD	Di-n-octylphthalate	1900	0.00	U	1640	87	31-143	9	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1900	0.00	U	1200	63	29-118	12	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1900	0.00	U	1290	68	32-118	9	0-30
50-32-8	MSD	Benzo(a)pyrene	1900	0.00	U	1240	65	33-115	8	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1900	0.00	U	1100	58	29-114	11	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2433
Client ID: RE46-10-12972MSD
Lab Sample ID: 1202074810
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:38
Dilution: 1
Prep Batch ID: 966763
Batch ID: 966766

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD	Dibenzo(a,h)anthracene	1900	0.00	U	1030	54	27-119	14	0-30
191-24-2	MSD	Benzo(ghi)perylene	1900	0.00	U	1010	53	28-112	11	0-30
120-82-1	MSD	1,2,4-Trichlorobenzene	1900	0.00	U	977	51	28-99	6	0-30

Method Blank Summary

SDG Number:	10-2433	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 966763	Instrument ID:	MSD1.I	Data File:	s1c2908-1.d
Lab Sample ID:	1202074807	Prep Date:	03/19/2010 11:31	Analyzed:	03/29/10 14:58
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 966763	1202074808	s1c2909-1.d	03/29/10	1522
02	RE46-10-13219	249332001	s1c2914.d	03/29/10	1733
03	RE46-10-13221	249332002	s1c2915.d	03/29/10	1756
04	RE46-10-13220	249332003	s1c3008.d	03/30/10	1240
05	RE46-10-13216	249332004	s1c3009.d	03/30/10	1304
06	RE46-10-13217	249332005	s1c3010.d	03/30/10	1327
07	RE46-10-13218	249332006	s1c3011.d	03/30/10	1351
08	RE46-10-13234	249332007	s1c3012.d	03/30/10	1413
09	RE46-10-14199	249332009	s1c3013.d	03/30/10	1436

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2433

Instrument ID: MSD1.I **Injection Date/Time:** 15-MAR-10 16:24

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s031510a.b/s1c1513.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.5
68	Less than 2% of mass 69	1.3
69	Mass 69 Relative Abundance	37.7
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	47.1
197	0 - 1% of mass 198	0.9
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	27.8
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	76.2
442	Greater than 40% of mass 198	94.4
443	17 - 23% of mass 442	19.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100309-08	s1c1515.d	15-MAR-10 17:03
MEGA040	WBN100309-05.1	s1c1516.d	15-MAR-10 17:31
MEGA010	WBN100309-07	s1c1517.d	15-MAR-10 17:59
MEGA020	WBN100309-06	s1c1518.d	15-MAR-10 18:28
MEGA050	WBN100309-04	s1c1519.d	15-MAR-10 18:57
MEGA080	WBN100309-03	s1c1520.d	15-MAR-10 19:26
MEGA100	WBN100309-02	s1c1521.d	15-MAR-10 19:55
MEGA120	WBN100309-01	s1c1522.d	15-MAR-10 20:24
AP010	WBN100312-01	s1c1523.d	15-MAR-10 20:53
AP020	WBN100312-02	s1c1524.d	15-MAR-10 21:17
AP040	WBN100312-03.1	s1c1525.d	15-MAR-10 21:40
AP050	WBN100312-04	s1c1526.d	15-MAR-10 22:04
AP080	WBN100312-05	s1c1527.d	15-MAR-10 22:27
AP100	WBN100312-06	s1c1528.d	15-MAR-10 22:50
AP120	WBN100312-07	s1c1529.d	15-MAR-10 23:14
MEGAICV	WBN100309-09.1	s1c1531-C.d	16-MAR-10 00:06

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2433

Instrument ID: MSD1.I **Injection Date/Time:** 15-MAR-10 16:24

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s031510a.b/s1c1513.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.5
68	Less than 2% of mass 69	1.3
69	Mass 69 Relative Abundance	37.7
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	47.1
197	0 - 1% of mass 198	0.9
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	27.8
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	76.2
442	Greater than 40% of mass 198	94.4
443	17 - 23% of mass 442	19.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
APICV	WBN100312-08.1	s1c1533-C.d	16-MAR-10 00:58

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2433

Instrument ID: MSD1.I **Injection Date/Time:** 29-MAR-10 10:02

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s032910.b/s1c2902.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	44.7
68	Less than 2% of mass 69	0.2
69	Mass 69 Relative Abundance	40.4
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	48
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.5
275	10 - 30% of mass 198	26.5
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	77.5
442	Greater than 40% of mass 198	82
443	17 - 23% of mass 442	19.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-05.4	s1c2903.d	29-MAR-10 10:17
APCVS	WBN100312-08.3	s1c2904.d	29-MAR-10 11:24
SBLK01	1202074807	s1c2908-1.d	29-MAR-10 14:58
SBLK01LCS	1202074808	s1c2909-1.d	29-MAR-10 15:22
RE46-10-13219	249332001	s1c2914.d	29-MAR-10 17:33
RE46-10-13221	249332002	s1c2915.d	29-MAR-10 17:56

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2433

Instrument ID: MSD1.I **Injection Date/Time:** 30-MAR-10 09:49

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s033010.b/s1c3002.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	43.3
68	Less than 2% of mass 69	0.1
69	Mass 69 Relative Abundance	39.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	47.7
197	0 - 1% of mass 198	0.4
199	5 - 9% of mass 198	6.5
275	10 - 30% of mass 198	26.5
365	Greater than 1% of mass 198	2.7
441	Present, but less than mass 443	78.2
442	Greater than 40% of mass 198	85.5
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-09.2	s1c3005.d	30-MAR-10 11:16
APCVS	WBN100312-08.3	s1c3006.d	30-MAR-10 11:52
RE46-10-13220	249332003	s1c3008.d	30-MAR-10 12:40
RE46-10-13216	249332004	s1c3009.d	30-MAR-10 13:04
RE46-10-13217	249332005	s1c3010.d	30-MAR-10 13:27
RE46-10-13218	249332006	s1c3011.d	30-MAR-10 13:51
RE46-10-13234	249332007	s1c3012.d	30-MAR-10 14:13
RE46-10-14199	249332009	s1c3013.d	30-MAR-10 14:36

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2433

Instrument: MSD1.I

STD Analysis Time: 29-MAR-10 10:17

GC Column. J&W DB-5MS

Data File: s1c2903.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	393267		3.5	1655594		4.35	825625		5.59	1464986		6.6	1271298		8.17	1100996		9.34
Upper Limit	786534		4	3311188		4.85	1651250		6.09	2929972		7.1	2542596		8.67	2201992		9.84
Lower Limit	196634		3	827797		3.85	412813		5.09	732493		6.1	635649		7.67	550498		8.84
Sample ID																		
BLK01	392001		3.5	1525914		4.35	782209		5.59	1384440		6.6	1166426		8.17	972235		9.34
BLK01LCS	373039		3.5	1576206		4.35	799705		5.59	1430652		6.6	1224060		8.17	1064475		9.35
RE46-10-13219	387831		3.5	1520903		4.35	765240		5.59	1437999		6.6	1238204		8.17	938369		9.34
RE46-10-13221	403394		3.5	1582646		4.35	817743		5.59	1441292		6.6	1096791		8.17	824616		9.33

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: MSD1.I

GC Column: J&W DB-5MS

Client SDG: 10-2433

STD Analysis Time: 30-MAR-10 11:16

Data File: s1c3005.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	424150		3.49	1781069		4.34	897037		5.57	1572324		6.59	1234792		8.16	948754		9.31
Upper Limit	848300		3.99	3562138		4.84	1794074		6.07	3144648		7.09	2469584		8.66	1897508		9.81
Lower Limit	212075		2.99	890535		3.84	448519		5.07	786162		6.09	617396		7.66	474377		8.81
Sample ID																		
RE46-10-13220	473667		3.49	1820034		4.33	939951		5.57	1612144		6.59	1079259		8.15	720647		9.31
RE46-10-13216	495517		3.49	1894522		4.33	988903		5.57	1702413		6.59	1130370		8.16	826633		9.31
RE46-10-13217	477939		3.49	1840261		4.33	961946		5.57	1730989		6.59	1354347		8.16	976707		9.31
RE46-10-13218	445485		3.49	1734604		4.33	927727		5.57	1653862		6.59	1230610		8.16	795250		9.31
RE46-10-13234	532594		3.49	2033508		4.33	1073124		5.57	1949252		6.59	1361900		8.15	843089		9.3
RE46-10-14199	428712		3.49	1659232		4.33	885306		5.57	1601688		6.58	1226894		8.15	837657		9.3

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**19**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13216**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 13:04**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3009.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	411	ug/kg	82.3	411
108-95-2	Phenol	U	411	ug/kg	82.3	411
95-57-8	2-Chlorophenol	U	411	ug/kg	82.3	411
106-46-7	1,4-Dichlorobenzene	U	411	ug/kg	82.3	411
621-64-7	N-Nitrosodipropylamine	U	411	ug/kg	82.3	411
59-50-7	4-Chloro-3-methylphenol	U	411	ug/kg	82.3	411
83-32-9	Acenaphthene	U	41.1	ug/kg	13.6	41.1
121-14-2	2,4-Dinitrotoluene	U	411	ug/kg	41.1	411
100-02-7	4-Nitrophenol	U	411	ug/kg	136	411
87-86-5	Pentachlorophenol	U	411	ug/kg	103	411
129-00-0	Pyrene	J	25.8	ug/kg	12.3	41.1
110-86-1	Pyridine	U	411	ug/kg	82.3	411
62-53-3	Aniline	U	411	ug/kg	123	411
111-44-4	bis(2-Chloroethyl) ether	U	411	ug/kg	82.3	411
541-73-1	1,3-Dichlorobenzene	U	411	ug/kg	82.3	411
100-51-6	Benzyl alcohol	U	411	ug/kg	123	411
95-50-1	1,2-Dichlorobenzene	U	411	ug/kg	82.3	411
108-60-1	bis(2-Chloroisopropyl)ether	U	411	ug/kg	82.3	411
95-48-7	o-Cresol	U	411	ug/kg	82.3	411
65794-96-9	m,p-Cresols	U	411	ug/kg	123	411
67-72-1	Hexachloroethane	U	411	ug/kg	82.3	411
98-95-3	Nitrobenzene	U	411	ug/kg	82.3	411
78-59-1	Isophorone	U	411	ug/kg	82.3	411
88-75-5	2-Nitrophenol	U	411	ug/kg	82.3	411
105-67-9	2,4-Dimethylphenol	U	411	ug/kg	144	411
111-91-1	bis(2-Chloroethoxy)methane	U	411	ug/kg	82.3	411
120-83-2	2,4-Dichlorophenol	U	411	ug/kg	82.3	411
65-85-0	Benzoic acid	U	823	ug/kg	206	823
91-20-3	Naphthalene	U	41.1	ug/kg	12.3	41.1
106-47-8	4-Chloroaniline	U	411	ug/kg	82.3	411
87-68-3	Hexachlorobutadiene	U	411	ug/kg	82.3	411
91-57-6	2-Methylnaphthalene	U	41.1	ug/kg	8.23	41.1
77-47-4	Hexachlorocyclopentadiene	U	411	ug/kg	82.3	411
88-06-2	2,4,6-Trichlorophenol	U	411	ug/kg	82.3	411
95-95-4	2,4,5-Trichlorophenol	U	411	ug/kg	82.3	411
91-58-7	2-Chloronaphthalene	U	41.1	ug/kg	13.6	41.1
88-74-4	2-Nitroaniline	U	411	ug/kg	82.3	411
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	411	ug/kg	82.3	411

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**19**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13216**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 13:04**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3009.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	411	ug/kg	82.3	411
606-20-2	2,6-Dinitrotoluene	U	411	ug/kg	41.1	411
208-96-8	Acenaphthylene	U	41.1	ug/kg	12.3	41.1
51-28-5	2,4-Dinitrophenol	U	823	ug/kg	156	823
132-64-9	Dibenzofuran	U	411	ug/kg	82.3	411
84-66-2	Diethylphthalate	U	411	ug/kg	82.3	411
86-73-7	Fluorene	U	41.1	ug/kg	12.3	41.1
7005-72-3	4-Chlorophenylphenylether	U	411	ug/kg	82.3	411
534-52-1	2-Methyl-4,6-dinitrophenol	U	411	ug/kg	82.3	411
100-01-6	4-Nitroaniline	U	411	ug/kg	123	411
	p-Nitroaniline					
122-39-4	Diphenylamine	U	411	ug/kg	82.3	411
122-66-7	Azobenzene	U	411	ug/kg	82.3	411
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	411	ug/kg	82.3	411
118-74-1	Hexachlorobenzene	U	411	ug/kg	82.3	411
85-01-8	Phenanthrene	U	41.1	ug/kg	12.3	41.1
120-12-7	Anthracene	J	11.7	ug/kg	8.23	41.1
84-74-2	Di-n-butylphthalate	U	411	ug/kg	82.3	411
206-44-0	Fluoranthene	J	29.0	ug/kg	12.3	41.1
85-68-7	Butylbenzylphthalate	U	411	ug/kg	82.3	411
56-55-3	Benzo(a)anthracene	J	26.2	ug/kg	12.3	41.1
91-94-1	3,3'-Dichlorobenzidine	U	411	ug/kg	123	411
218-01-9	Chrysene	J	20.1	ug/kg	12.3	41.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	411	ug/kg	82.3	411
117-84-0	Di-n-octylphthalate	U	411	ug/kg	82.3	411
205-99-2	Benzo(b)fluoranthene	J	30.2	ug/kg	12.3	41.1
207-08-9	Benzo(k)fluoranthene	U	41.1	ug/kg	12.3	41.1
50-32-8	Benzo(a)pyrene	J	15.6	ug/kg	12.3	41.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.1	ug/kg	12.3	41.1
53-70-3	Dibenzo(a,h)anthracene	U	41.1	ug/kg	12.3	41.1
191-24-2	Benzo(ghi)perylene	U	41.1	ug/kg	12.3	41.1
120-82-1	1,2,4-Trichlorobenzene	U	411	ug/kg	82.3	411

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	420	ug/kg		JA
	Unknown	8.49	171	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3009.d
Lab Smp Id: 249332004 Client Smp ID: RE46-10-13216
Inj Date : 30-MAR-2010 13:04
Operator : AMY Inst ID: MSD1.i
Smp Info : |249332004|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 15:41 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: slc1620.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	19.00160	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.487	3.487	(1.000)	495517	40.0000	
* 29 Naphthalene-d8	136	4.334	4.334	(1.000)	1894522	40.0000	
* 46 Acenaphthene-d10	164	5.569	5.569	(1.000)	988903	40.0000	
* 67 Phenanthrene-d10	188	6.587	6.587	(1.000)	1702413	40.0000	
* 91 Chrysene-d12	240	8.157	8.151	(1.000)	1130370	40.0000	
* 98 Perylene-d12	264	9.310	9.310	(1.000)	826633	40.0000	
$ 3 2-Fluorophenol	112	2.716	2.704	(0.779)	701441	54.9731	2260
$ 5 Phenol-d5	99	3.228	3.228	(0.926)	853075	54.8969	2260
$ 20 Nitrobenzene-d5	82	3.840	3.845	(0.886)	330683	28.4589	1170
$ 39 2-Fluorobiphenyl	172	5.075	5.075	(0.911)	714733	26.1700	1080
$ 60 2,4,6-Tribromophenol	329	6.122	6.128	(1.099)	165710	51.1119	2100
$ 81 p-Terphenyl-d14	244	7.510	7.510	(0.921)	693040	36.7753	1510

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.451	7.451	(0.913)	20144	0.62801	25.8(a)
69 Anthracene	178	6.598	6.633	(1.002)	10240	0.28347	11.6(a)
76 Fluoranthene	202	7.310	7.316	(1.110)	26632	0.70447	29.0(a)
89 Benzo(a)anthracene	228	8.145	8.145	(0.999)	16957	0.63819	26.2(a)
92 Chrysene	228	8.169	8.175	(1.001)	12153	0.48946	20.1(a)
95 Benzo(b)fluoranthene	252	8.945	8.951	(0.961)	16678	0.73363	30.2(a)
97 Benzo(a)pyrene	252	9.251	9.257	(0.994)	6891	0.37857	15.6(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s1c3009.d
Report Date: 03/30/2010 15:31
Lab. ID: 249332004 SampleType: SAMPLE
Injection Date: 30-MAR-2010 13:04
Operator: AMY Instrument: MSD1.i
Sample Info: |249332004|966766|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2433
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	41632	3.23	3.28	80-120	100	( )
93	609	3.26	3.28	200-260	1	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	46791	3.84	3.74	80-120	100	(T)
42	31122	3.84	3.74	49-109	67	(T)
41 m-Nitroaniline			CAS#: 99-09-2			
138	168	5.30	5.54	80-120	100	(T)
92	2358	5.30	5.54	73-133	1399	(QT)
108	3240	5.30	5.54	0- 41	1922	(QT)
43 Dimethylphthalate			CAS#: 131-11-3			
163	180301	5.57	5.36	80-120	100	(T)
164	988903	5.57	5.36	0- 40	548	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	127480	5.57	5.41	80-120	100	(T)
63	2139	5.57	5.41	51-111	2	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	127480	5.57	5.70	80-120	100	(T)
89	1661	5.57	5.70	40-100	1	(QT)
63	2139	5.57	5.70	20- 80	2	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	12460	6.12	5.96	80-120	100	(T)
165	12903	6.12	5.96	62-122	104	(T)
167	4428	6.12	5.96	0- 44	36	(T)
69 Anthracene			CAS#: 120-12-7			
178	10240	6.60	6.63	80-120	100	( )
179	2446	6.60	6.63	0- 45	24	( )
176	1843	6.60	6.63	0- 48	18	( )
76 Fluoranthene			CAS#: 206-44-0			
202	26632	7.31	7.32	80-120	100	( )
203	4969	7.31	7.32	0- 47	19	( )
101	3452	7.31	7.32	0- 45	13	( )
79 Pyrene			CAS#: 129-00-0			
202	20144	7.45	7.45	80-120	100	( )
200	4544	7.45	7.45	0- 49	23	( )
101	3921	7.45	7.45	0- 48	19	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	16957	8.15	8.15	80-120	100	( )
226	3590	8.15	8.15	0- 55	21	( )
229	5218	8.15	8.15	0- 49	31	( )
92 Chrysene			CAS#: 218-01-9			
228	12153	8.17	8.17	80-120	100	( )
229	3082	8.17	8.17	0- 49	25	( )
226	4001	8.17	8.17	0- 58	33	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	16678	8.95	8.95	80-120	100	( )
253	2347	8.95	8.95	0- 52	14	( )
125	2600	8.94	8.95	0- 45	16	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	16678	8.95	8.97	80-120	100	( )
253	2342	8.95	8.97	0- 51	14	( )
125	2601	8.94	8.97	0- 44	16	( )
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	6891	9.25	9.26	80-120	100	( )
253	1569	9.25	9.26	0- 51	23	( )
125	1359	9.25	9.26	0- 45	20	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3009.d
Lab Smp Id: 249332004 Client Smp ID: RE46-10-13216
Inj Date : 30-MAR-2010 13:04
Operator : AMY Inst ID: MSD1.i
Smp Info : |249332004|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 15:41 11o00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	19.00160	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.487	3001661	40.000
* 91 Chrysene-d12	8.157	3206745	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.552	766989	10.2208543	420	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	========	==========	======
Unknown				CAS #:			
8.492	332430	4.14663887	170	0		0	91

Data File: /chem/MSD1.i/s033010.b/s1c3009.d
Date : 30-MAR-2010 13:04
Client ID: RE46-10-13216
Sample Info: 1249332004196676611SVH11LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AHY
Column diameter: 0.20

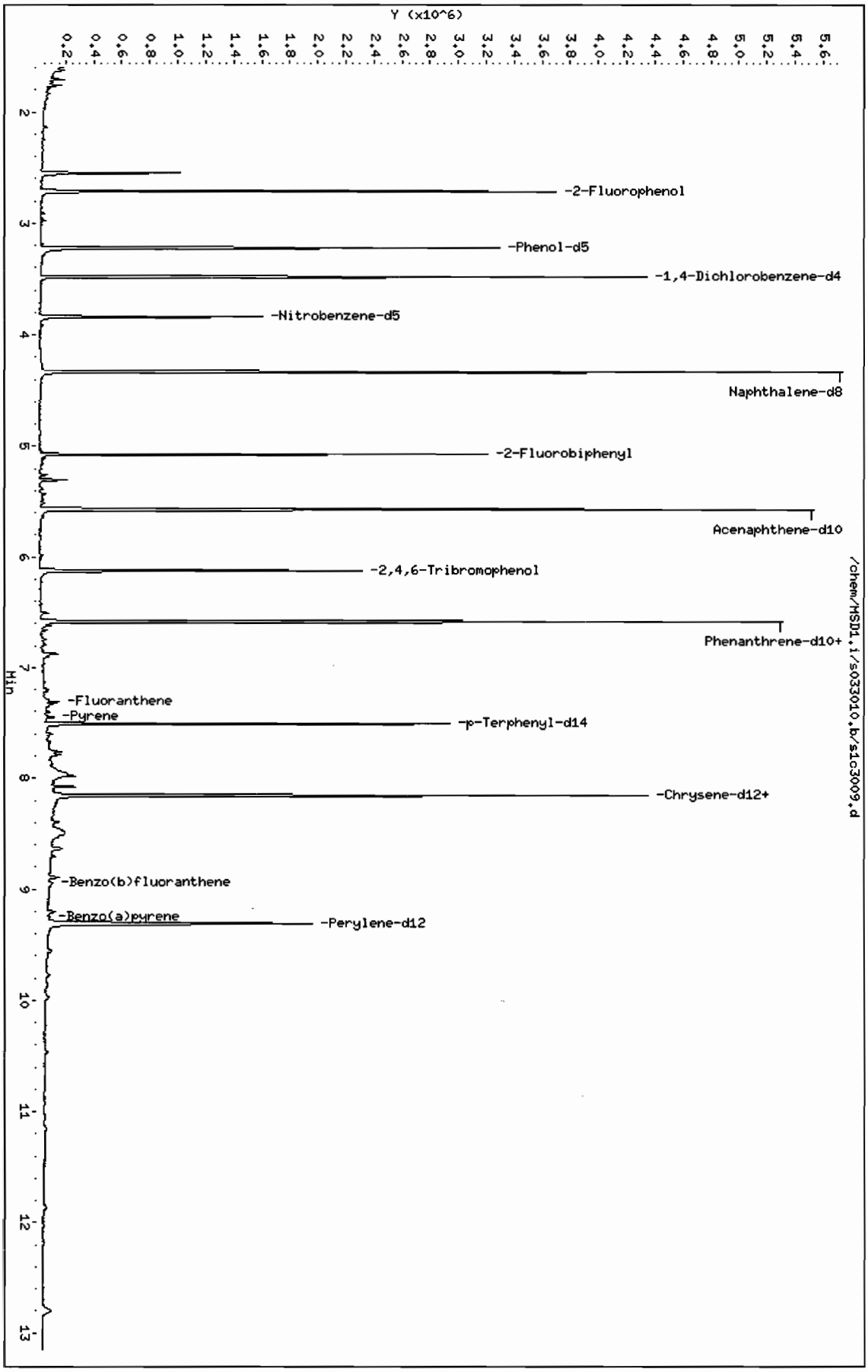

Page 1

Data File: /chem/MSD1.i/s033010.b/s1c3009.d

Date : 30-MAR-2010 13:04

Client ID: RE46-10-13216

Instrument: MSD1.i

Sample Info: 1249332004|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 25.8 ug/Kg

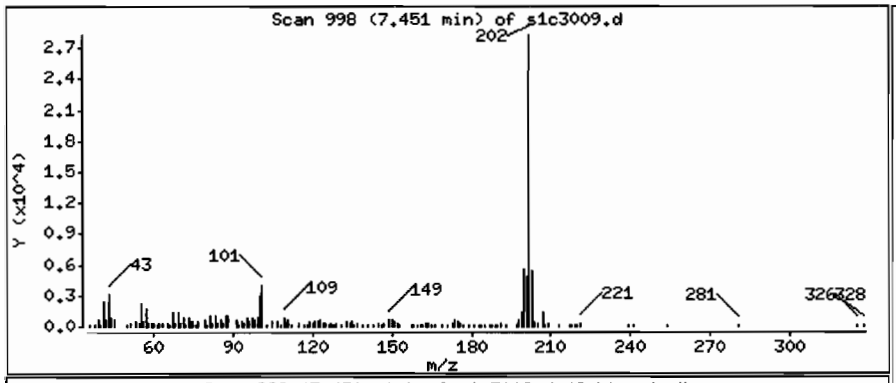

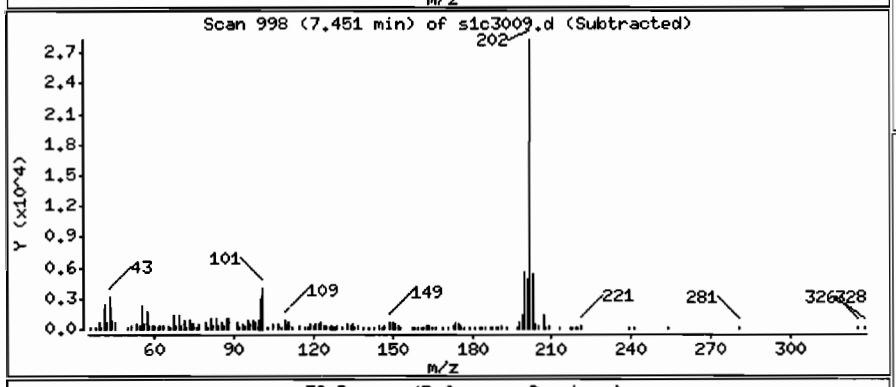

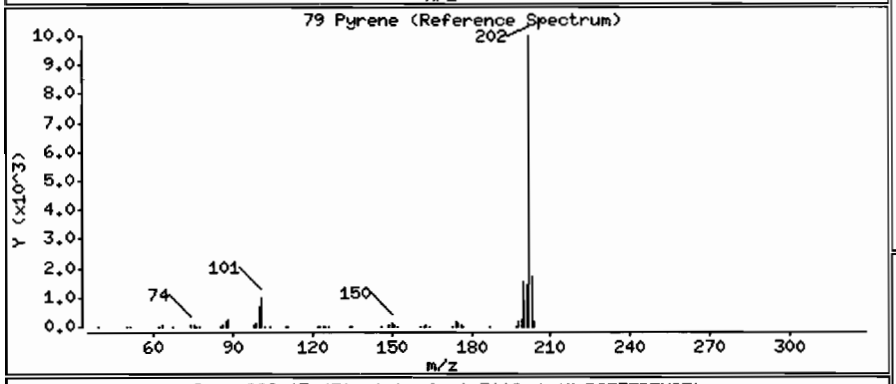

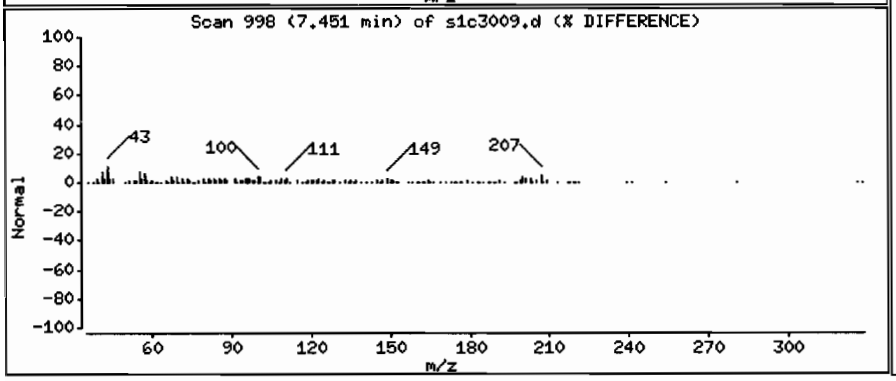

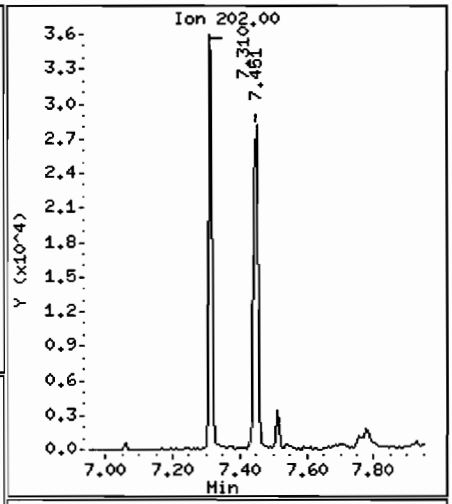

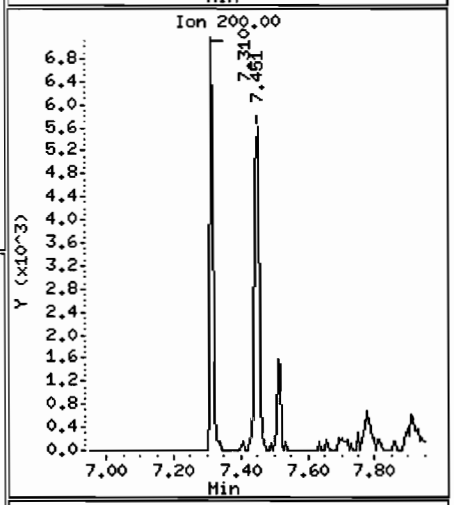

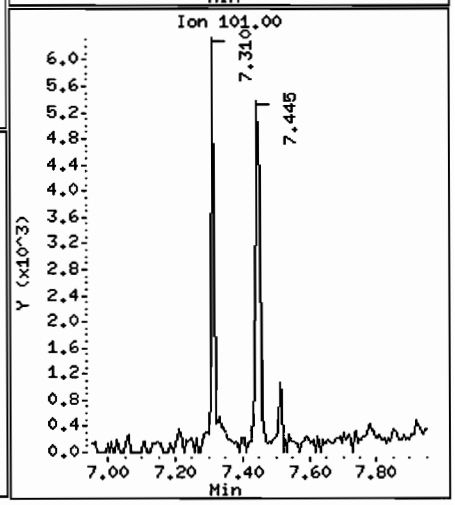

Data File: /chem/MSD1.i/s033010.b/s1c3009.d

Page 3

Date : 30-MAR-2010 13:04

Client ID: RE46-10-13216

Instrument: MSD1.i

Sample Info: |2493320041966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 11.6 ug/Kg

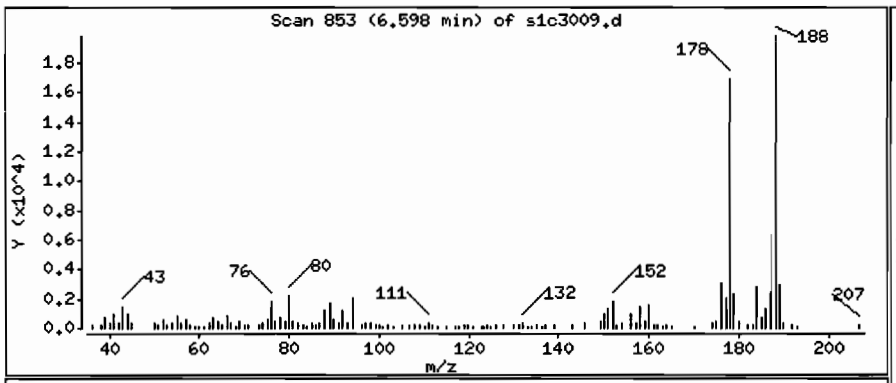

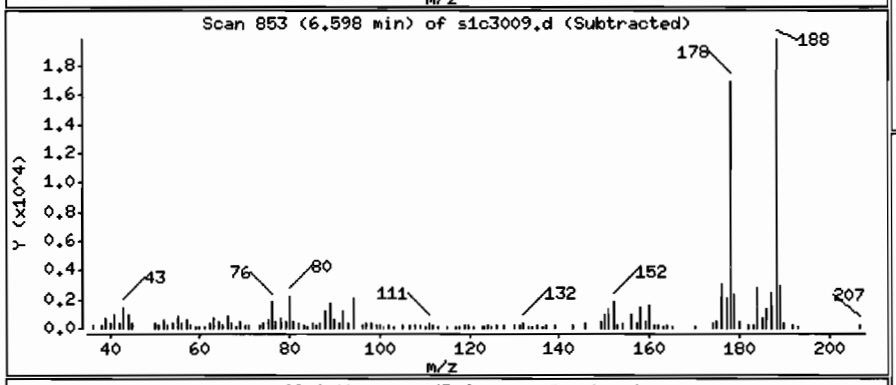

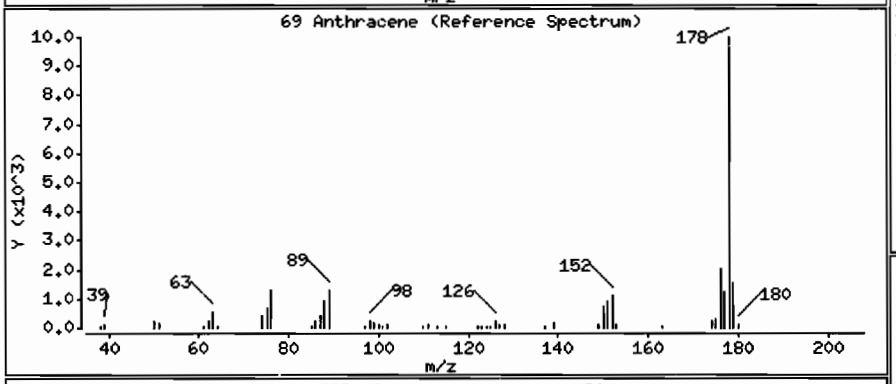

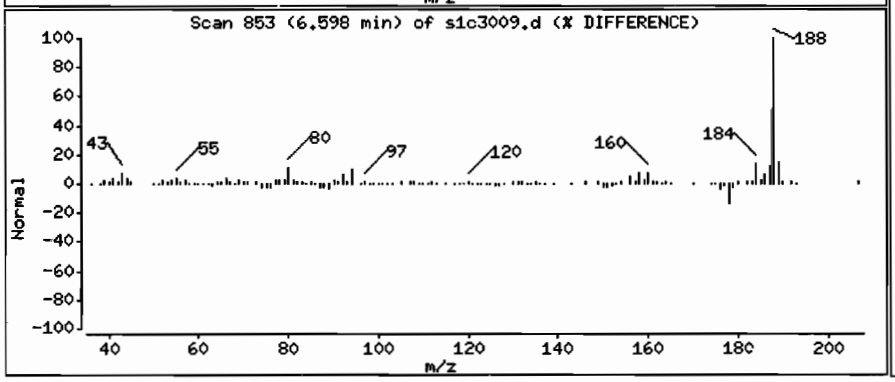

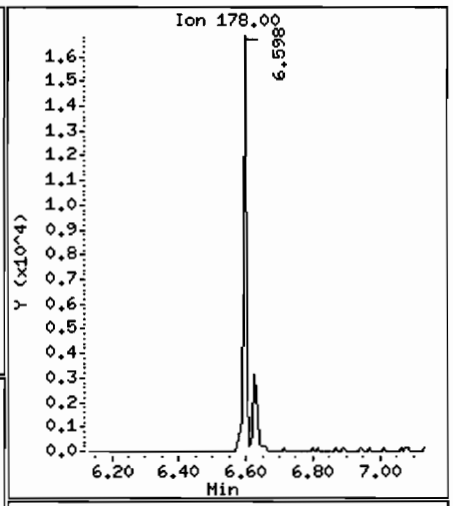

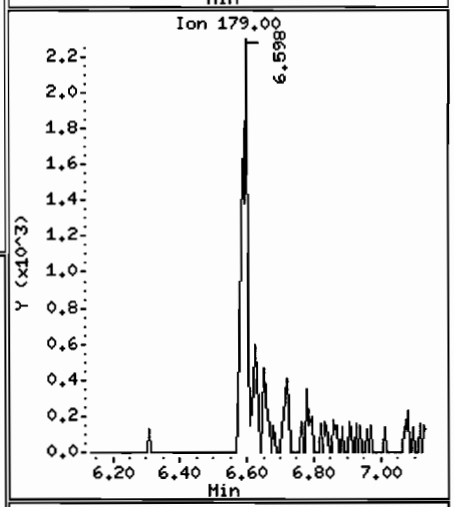

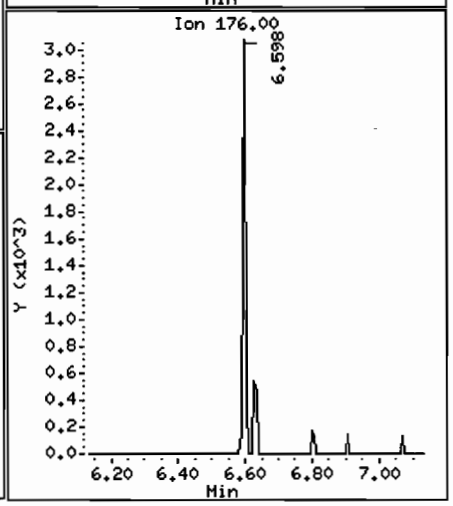

Data File: /chem/MSD1.i/s033010.b/s1c3009.d

Date : 30-MAR-2010 13:04

Client ID: RE46-10-13216

Instrument: MSD1.i

Sample Info: |2493320041966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 29.0 ug/Kg

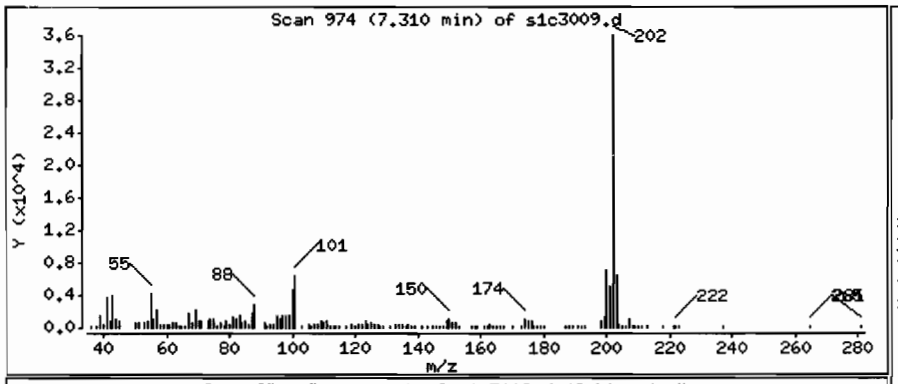

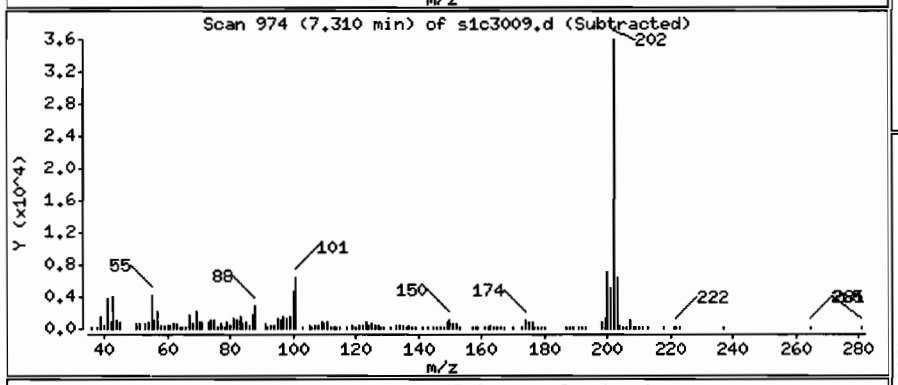

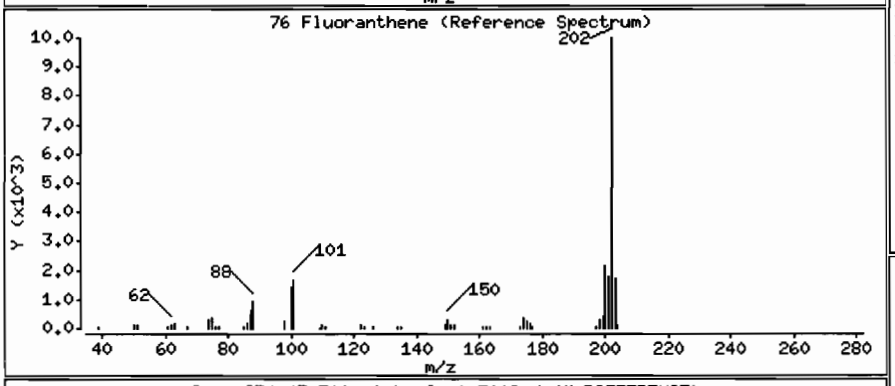

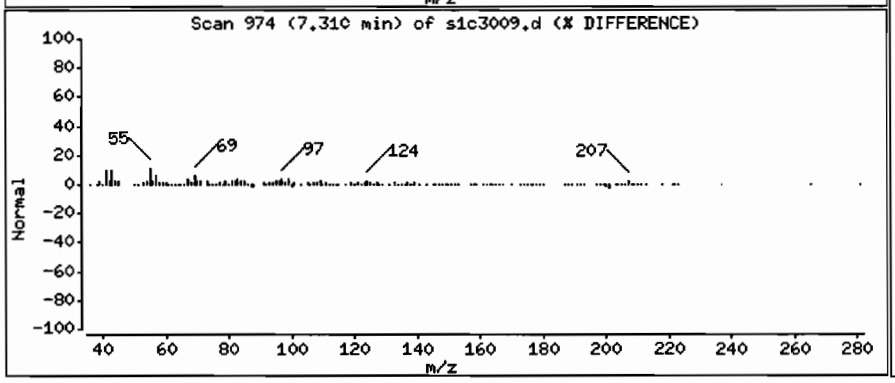

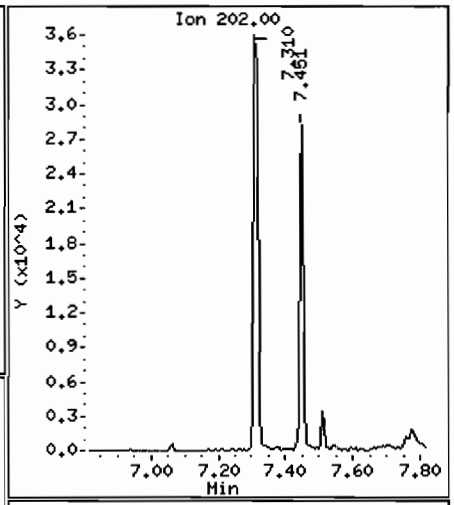

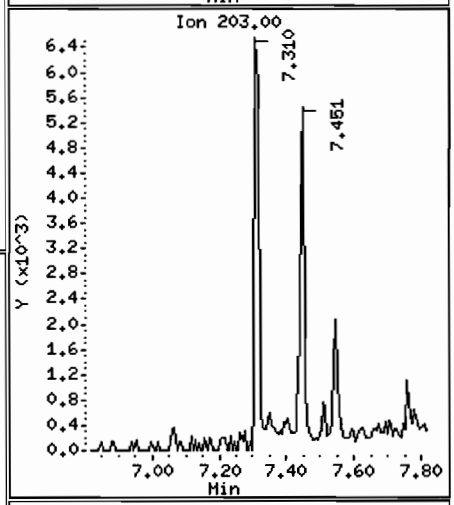

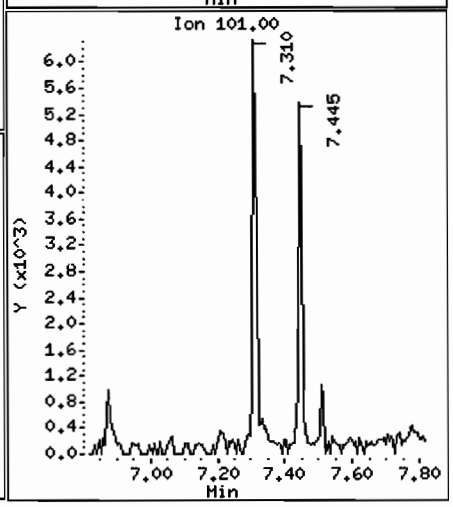

Data File: /chem/MSD1.i/s033010.b/s1c3009.d

Date : 30-MAR-2010 13:04

Client ID: RE46-10-13216

Instrument: MSD1.i

Sample Info: |249332004|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 26.2 ug/Kg

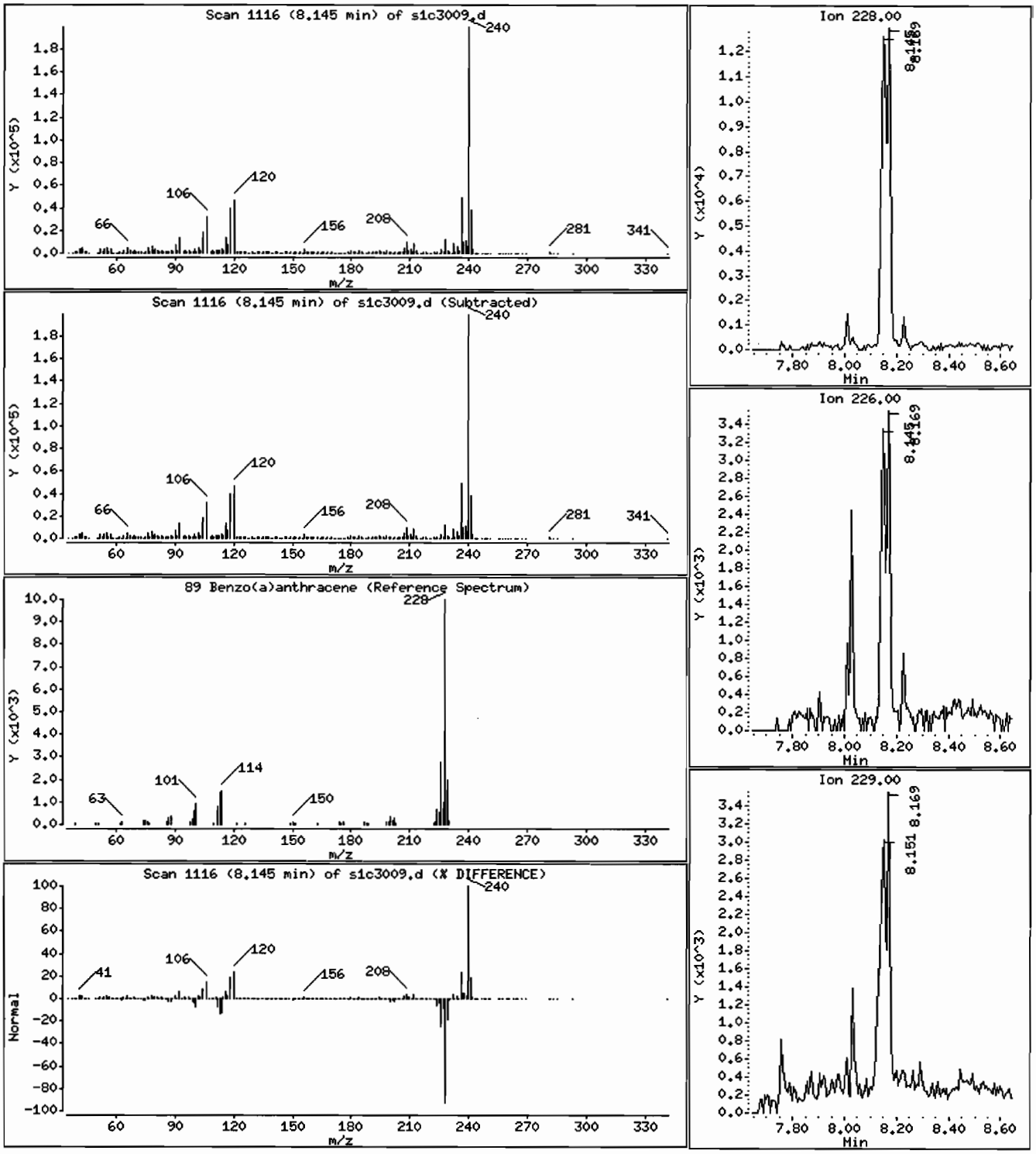

Data File: /chem/MSD1.i/s033010.b/s1c3009.d

Date : 30-MAR-2010 13:04

Client ID: RE46-10-13216

Instrument: MSD1.i

Sample Info: |2493320041966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 20.1 ug/Kg

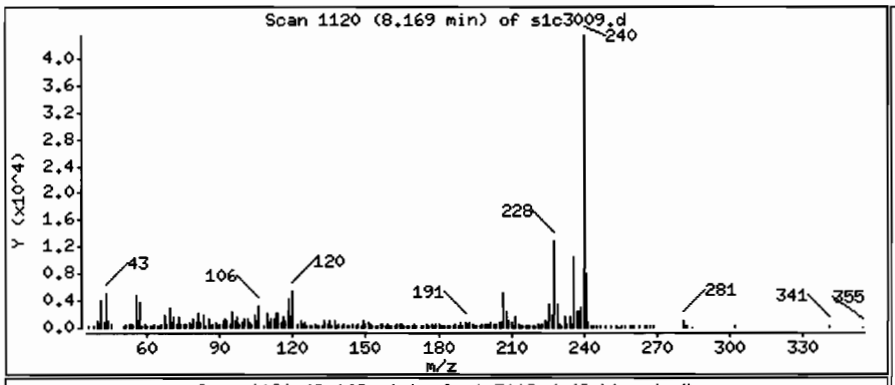

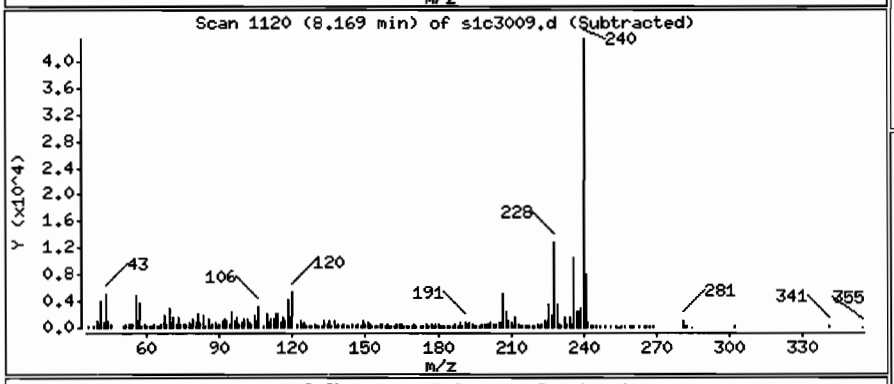

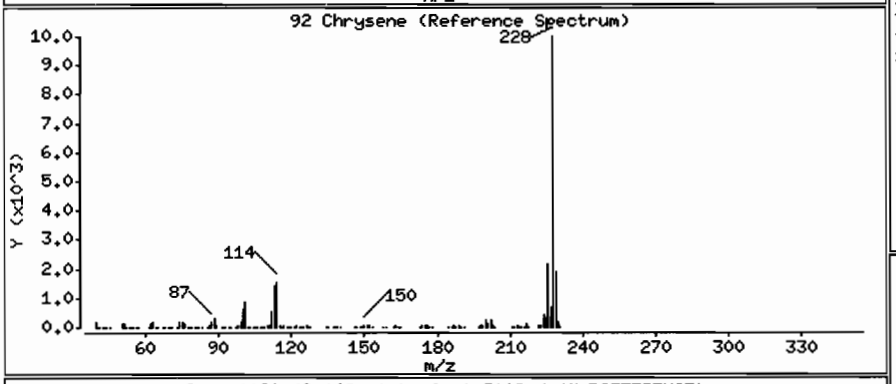

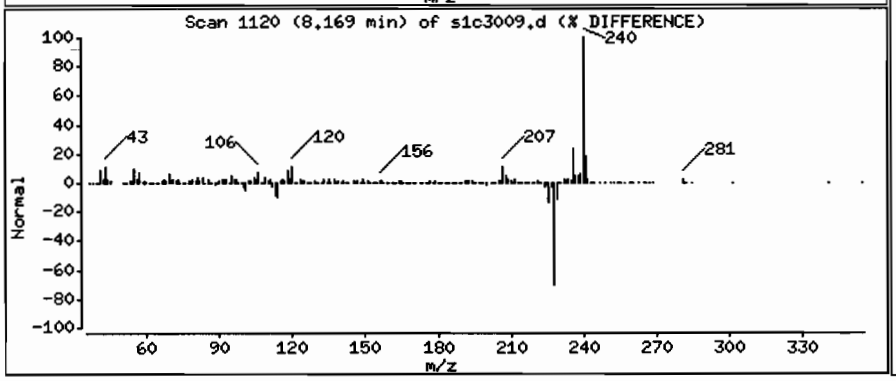

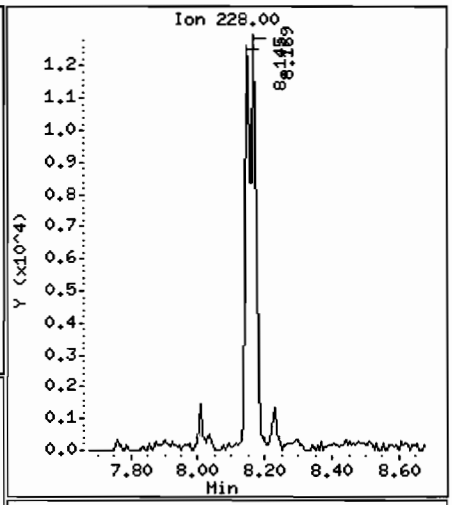

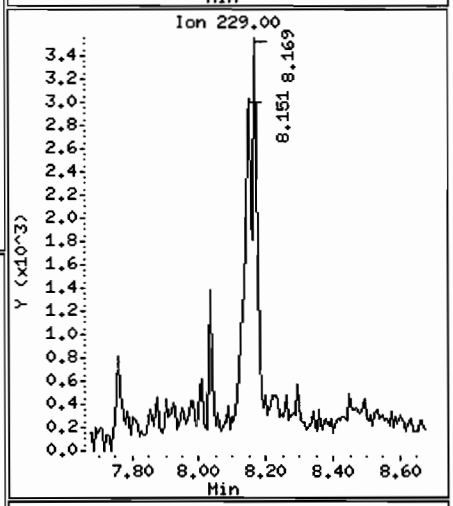

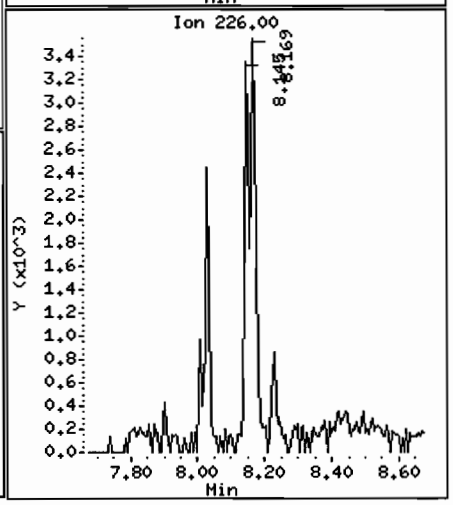

Data File: /chem/MSD1.i/s033010.b/s1c3009.d

Date : 30-MAR-2010 13:04

Client ID: RE46-10-13216

Instrument: MSD1.i

Sample Info: 1249332004|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 30.2 ug/Kg

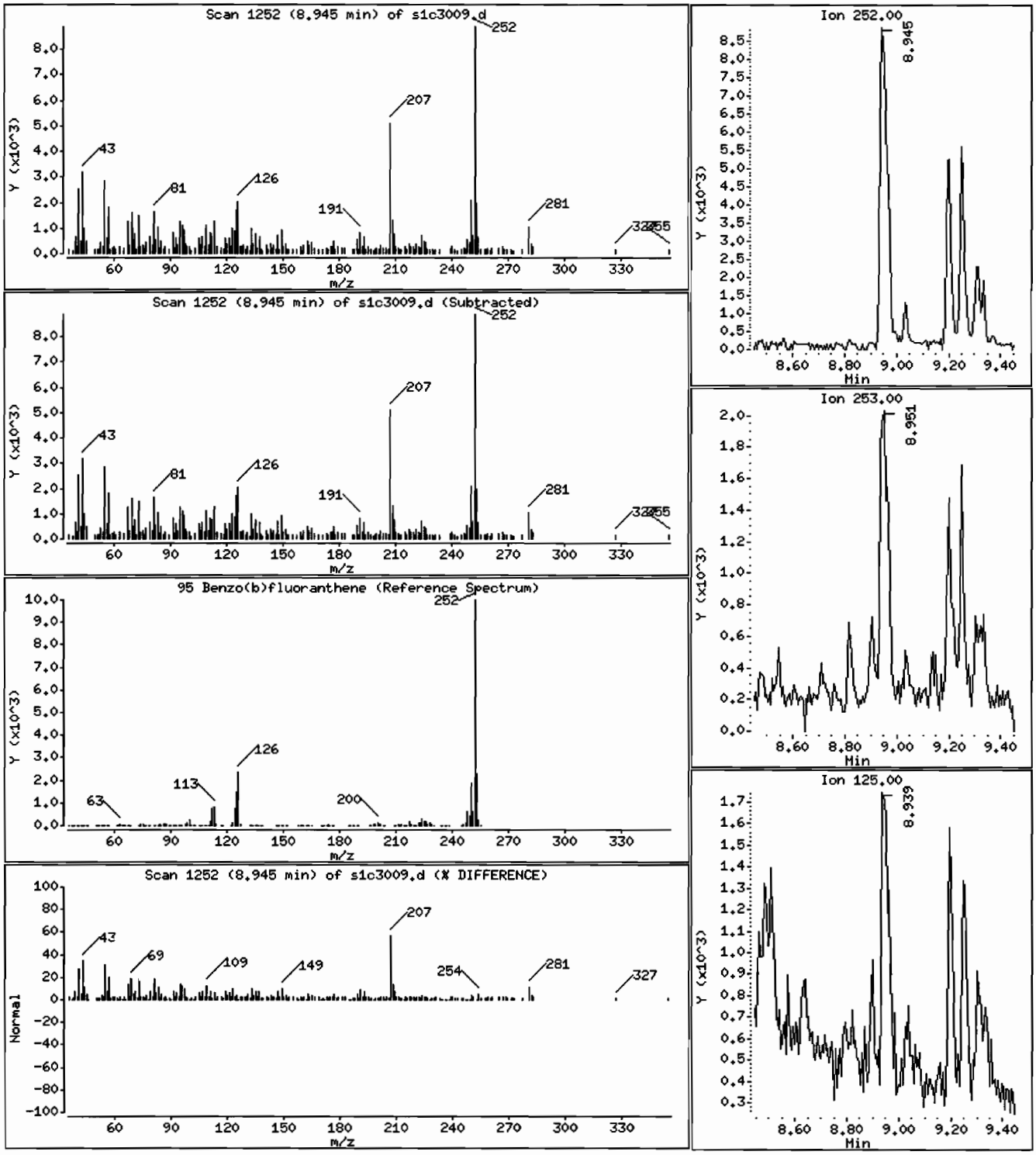

Data File: /chem/MSD1.i/s033010.b/s1c3009.d

Date : 30-MAR-2010 13:04

Client ID: RE46-10-13216

Instrument: MSD1.i

Sample Info: |249332004|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 15.6 ug/Kg

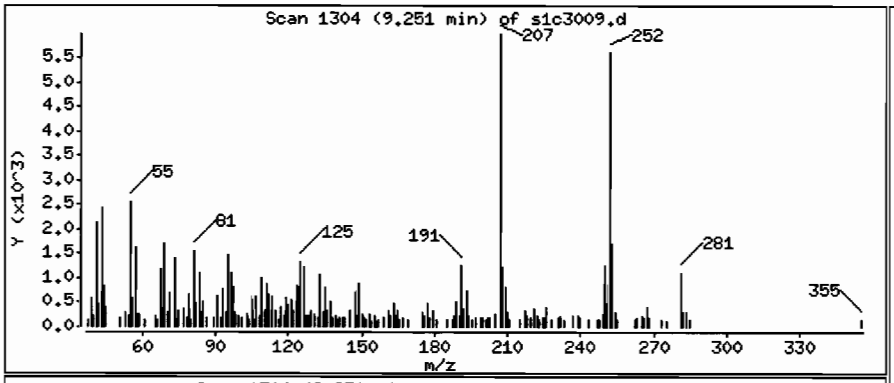

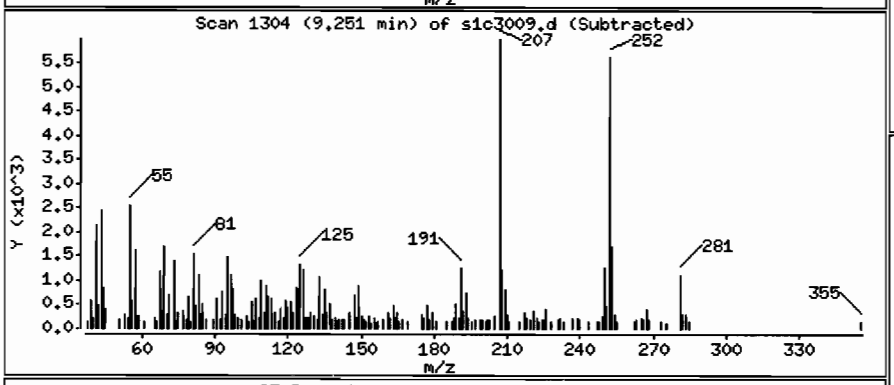

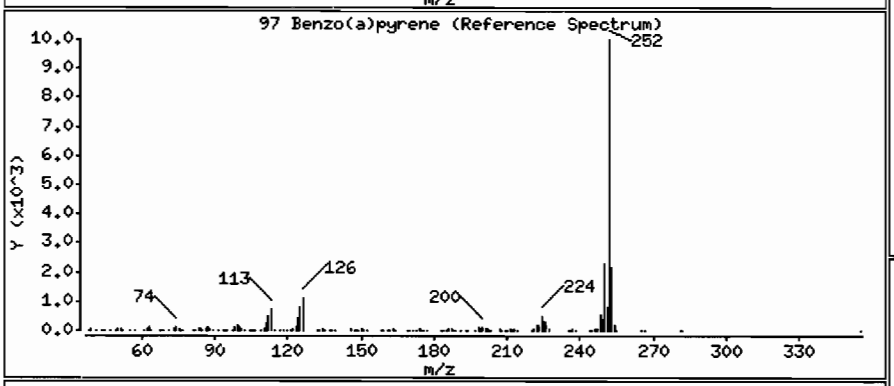

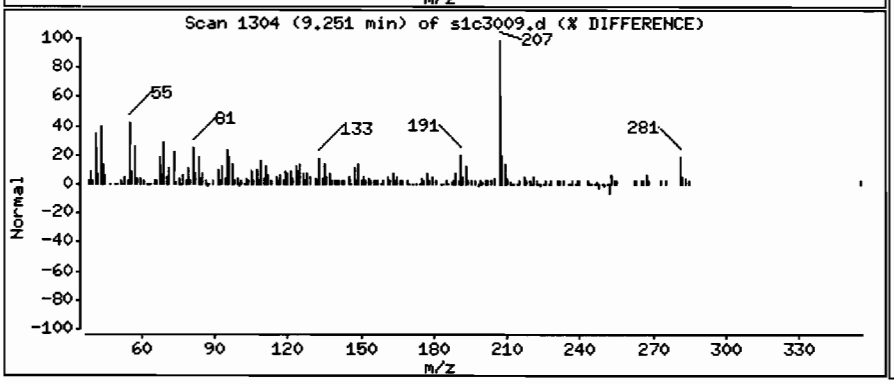

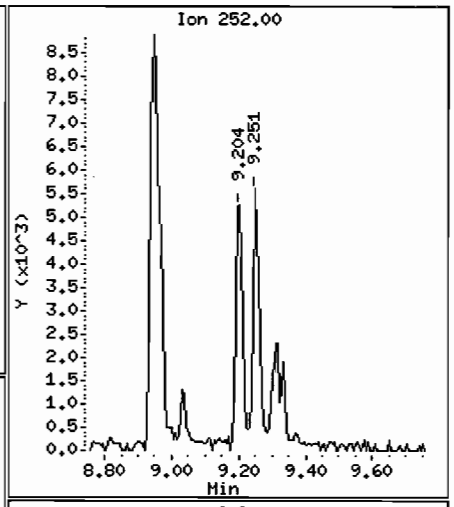

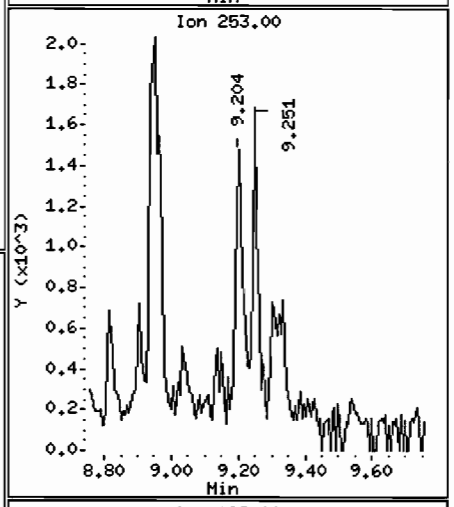

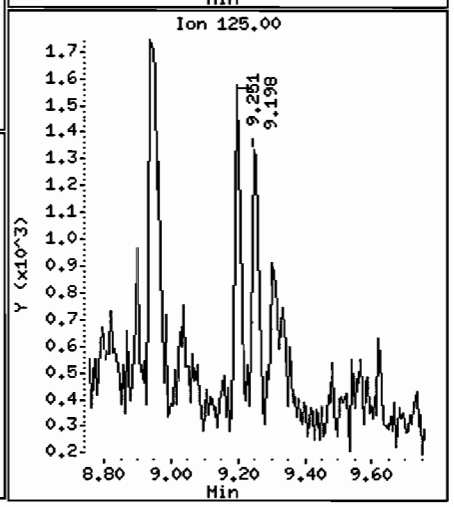

Data File: /chem/MSD1.i/s033010.b/s1c3009.d

Date : 30-MAR-2010 13:04

Client ID: RE46-10-13216

Instrument: MSD1.i

Sample Info: |249332004|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	53	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
t-Butyl nitrite	540-80-7	NIST05.L	4426	39	C4H9NO2	103

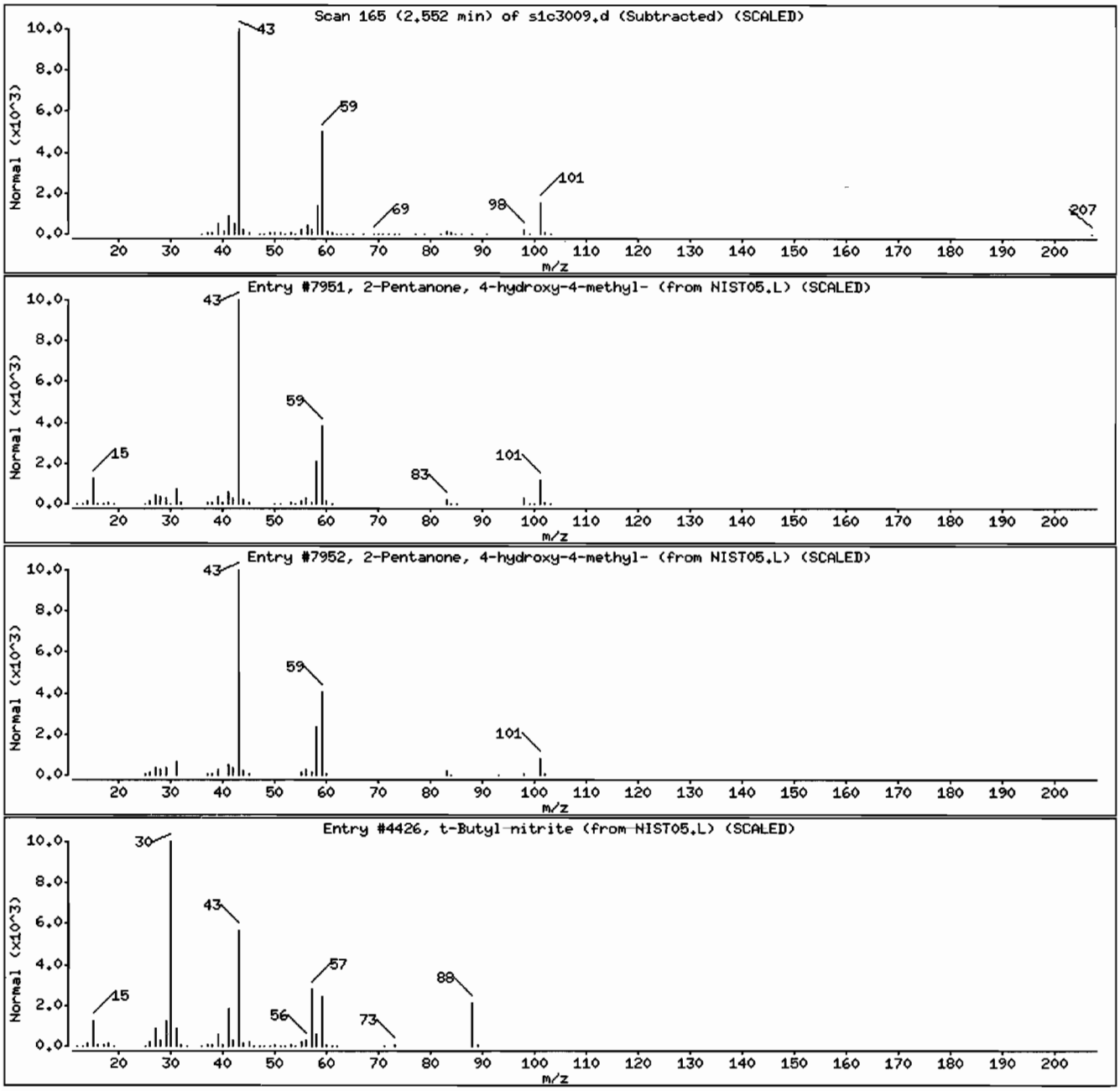

Data File: /chem/MSD1.i/s033010.b/s1c3009.d

Date : 30-MAR-2010 13:04

Client ID: RE46-10-13216 Instrument: MSD1.i

Sample Info: |249332004|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-e	1000188-72-8	NIST05.L	69963	66	C15H22O	218
Indolizine, 2-(4-methylphenyl)-	7496-81-3	NIST05.L	62239	25	C15H13N	207
1,3a-Ethano-3aH-indene, 1,2,3,6,7,7a-hex	4545-68-0	NIST05.L	60038	25	C15H24	204

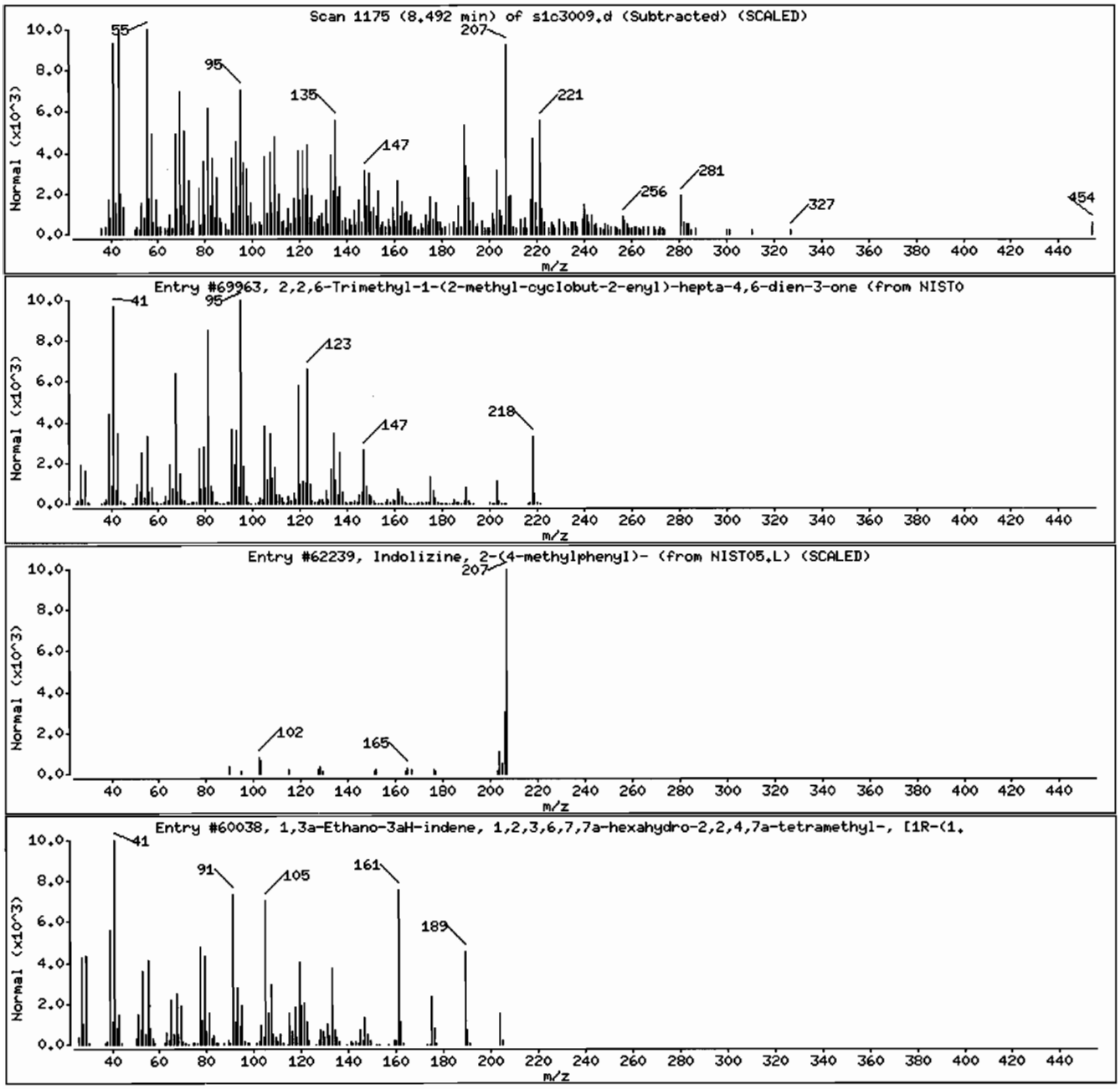

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**13.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13217**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 13:27**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3010.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	385	ug/kg	77.1	385
108-95-2	Phenol	U	385	ug/kg	77.1	385
95-57-8	2-Chlorophenol	U	385	ug/kg	77.1	385
106-46-7	1,4-Dichlorobenzene	U	385	ug/kg	77.1	385
621-64-7	N-Nitrosodipropylamine	U	385	ug/kg	77.1	385
59-50-7	4-Chloro-3-methylphenol	U	385	ug/kg	77.1	385
83-32-9	Acenaphthene	U	38.5	ug/kg	12.7	38.5
121-14-2	2,4-Dinitrotoluene	U	385	ug/kg	38.5	385
100-02-7	4-Nitrophenol	U	385	ug/kg	127	385
87-86-5	Pentachlorophenol	U	385	ug/kg	96.3	385
129-00-0	Pyrene	U	38.5	ug/kg	11.6	38.5
110-86-1	Pyridine	U	385	ug/kg	77.1	385
62-53-3	Aniline	U	385	ug/kg	116	385
111-44-4	bis(2-Chloroethyl) ether	U	385	ug/kg	77.1	385
541-73-1	1,3-Dichlorobenzene	U	385	ug/kg	77.1	385
100-51-6	Benzyl alcohol	U	385	ug/kg	116	385
95-50-1	1,2-Dichlorobenzene	U	385	ug/kg	77.1	385
108-60-1	bis(2-Chloroisopropyl)ether	U	385	ug/kg	77.1	385
95-48-7	o-Cresol	U	385	ug/kg	77.1	385
65794-96-9	m,p-Cresols	U	385	ug/kg	116	385
67-72-1	Hexachloroethane	U	385	ug/kg	77.1	385
98-95-3	Nitrobenzene	U	385	ug/kg	77.1	385
78-59-1	Isophorone	U	385	ug/kg	77.1	385
88-75-5	2-Nitrophenol	U	385	ug/kg	77.1	385
105-67-9	2,4-Dimethylphenol	U	385	ug/kg	135	385
111-91-1	bis(2-Chloroethoxy)methane	U	385	ug/kg	77.1	385
120-83-2	2,4-Dichlorophenol	U	385	ug/kg	77.1	385
65-85-0	Benzoic acid	U	771	ug/kg	193	771
91-20-3	Naphthalene	U	38.5	ug/kg	11.6	38.5
106-47-8	4-Chloroaniline	U	385	ug/kg	77.1	385
87-68-3	Hexachlorobutadiene	U	385	ug/kg	77.1	385
91-57-6	2-Methylnaphthalene	U	38.5	ug/kg	7.71	38.5
77-47-4	Hexachlorocyclopentadiene	U	385	ug/kg	77.1	385
88-06-2	2,4,6-Trichlorophenol	U	385	ug/kg	77.1	385
95-95-4	2,4,5-Trichlorophenol	U	385	ug/kg	77.1	385
91-58-7	2-Chloronaphthalene	U	38.5	ug/kg	12.7	38.5
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	385	ug/kg	77.1	385
99-09-2	3-Nitroaniline	U	385	ug/kg	77.1	385

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**13.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13217**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 13:27**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3010.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	385	ug/kg	77.1	385
606-20-2	2,6-Dinitrotoluene	U	385	ug/kg	38.5	385
208-96-8	Acenaphthylene	U	38.5	ug/kg	11.6	38.5
51-28-5	2,4-Dinitrophenol	U	771	ug/kg	146	771
132-64-9	Dibenzofuran	U	385	ug/kg	77.1	385
84-66-2	Diethylphthalate	U	385	ug/kg	77.1	385
86-73-7	Fluorene	U	38.5	ug/kg	11.6	38.5
7005-72-3	4-Chlorophenylphenylether	U	385	ug/kg	77.1	385
534-52-1	2-Methyl-4,6-dinitrophenol	U	385	ug/kg	77.1	385
100-01-6	4-Nitroaniline	U	385	ug/kg	116	385
	p-Nitroaniline					
122-39-4	Diphenylamine	U	385	ug/kg	77.1	385
122-66-7	Azobenzene	U	385	ug/kg	77.1	385
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	385	ug/kg	77.1	385
118-74-1	Hexachlorobenzene	U	385	ug/kg	77.1	385
85-01-8	Phenanthrene	U	38.5	ug/kg	11.6	38.5
120-12-7	Anthracene	U	38.5	ug/kg	7.71	38.5
84-74-2	Di-n-butylphthalate	U	385	ug/kg	77.1	385
206-44-0	Fluoranthene	U	38.5	ug/kg	11.6	38.5
85-68-7	Butylbenzylphthalate	U	385	ug/kg	77.1	385
56-55-3	Benzo(a)anthracene	U	38.5	ug/kg	11.6	38.5
91-94-1	3,3'-Dichlorobenzidine	U	385	ug/kg	116	385
218-01-9	Chrysene	U	38.5	ug/kg	11.6	38.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	385	ug/kg	77.1	385
117-84-0	Di-n-octylphthalate	U	385	ug/kg	77.1	385
205-99-2	Benzo(b)fluoranthene	U	38.5	ug/kg	11.6	38.5
207-08-9	Benzo(k)fluoranthene	U	38.5	ug/kg	11.6	38.5
50-32-8	Benzo(a)pyrene	U	38.5	ug/kg	11.6	38.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.5	ug/kg	11.6	38.5
53-70-3	Dibenzo(a,h)anthracene	U	38.5	ug/kg	11.6	38.5
191-24-2	Benzo(ghi)perylene	U	38.5	ug/kg	11.6	38.5
120-82-1	1,2,4-Trichlorobenzene	U	385	ug/kg	77.1	385

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	386	ug/kg		JA
	Unknown	12.8	376	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3010.d
Lab Smp Id: 249332005 Client Smp ID: RE46-10-13217
Inj Date : 30-MAR-2010 13:27
Operator : AMY Inst ID: MSD1.i
Smp Info : |249332005|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 15:41 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	13.67460	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.487	3.487	(1.000)	477939	40.0000	
* 29 Naphthalene-d8	136	4.334	4.334	(1.000)	1840261	40.0000	
* 46 Acenaphthene-d10	164	5.569	5.569	(1.000)	961946	40.0000	
* 67 Phenanthrene-d10	188	6.586	6.587	(1.000)	1730989	40.0000	
* 91 Chrysene-d12	240	8.157	8.151	(1.000)	1354347	40.0000	
* 98 Perylene-d12	264	9.310	9.310	(1.000)	976707	40.0000	
$ 3 2-Fluorophenol	112	2.716	2.704	(0.779)	652911	53.0517	2040
$ 5 Phenol-d5	99	3.228	3.228	(0.926)	810993	54.1083	2080
$ 20 Nitrobenzene-d5	82	3.840	3.845	(0.886)	318624	28.2296	1090
$ 39 2-Fluorobiphenyl	172	5.075	5.075	(0.911)	695905	26.1947	1010
$ 60 2,4,6-Tribromophenol	329	6.122	6.128	(1.099)	163090	51.7134	1990
$ 81 p-Terphenyl-d14	244	7.516	7.510	(0.921)	749043	33.1738	1280

ION RATIO REPORT

SV REPORT

Data file: s1c3010.d
Report Date: 03/30/2010 15:32
Lab. ID: 249332005 SampleType: SAMPLE
Injection Date: 30-MAR-2010 13:27
Operator: AMY Instrument: MSD1.i
Sample Info: |249332005|966766|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2433
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	39032	3.23	3.28	80-120	100	( )
93	678	3.26	3.28	200-260	2	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	42882	3.84	3.74	80-120	100	(T)
42	29050	3.84	3.74	49-109	68	(T)
41 m-Nitroaniline			CAS#: 99-09-2			
138	222	5.57	5.54	80-120	100	( )
92	4536	5.57	5.54	73-133	2041	(Q)
108	17534	5.57	5.54	0- 41	7890	(Q)
43 Dimethylphthalate			CAS#: 131-11-3			
163	175097	5.57	5.36	80-120	100	(T)
164	961946	5.57	5.36	0- 40	549	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	123693	5.57	5.41	80-120	100	(T)
63	2072	5.57	5.41	51-111	2	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	123693	5.57	5.70	80-120	100	(T)
89	1707	5.57	5.70	40-100	1	(QT)
63	2072	5.57	5.70	20- 80	2	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53	Fluorene		CAS#: 86-73-7			
166	12370	6.12	5.96	80-120	100	(T)
165	12886	6.12	5.96	62-122	104	(T)
167	4185	6.12	5.96	0- 44	34	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3010.d
Lab Smp Id: 249332005 Client Smp ID: RE46-10-13217
Inj Date : 30-MAR-2010 13:27
Operator : AMY Inst ID: MSD1.i
Smp Info : |249332005|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 15:41 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1cl620.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	13.67460	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.487	2890086	40.000
* 98 Perylene-d12	9.310	2760192	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.551	723907	10.0191742	386	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
Unknown				CAS #:			
12.804	673788	9.76436954	376	0		0	98

Data File: /chem/MSD1.i/s033010.b/s1o3010.d
Date : 30-MAR-2010 13:27
Client ID: RE46-10-13217
Sample Info: 1249332005|966766|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

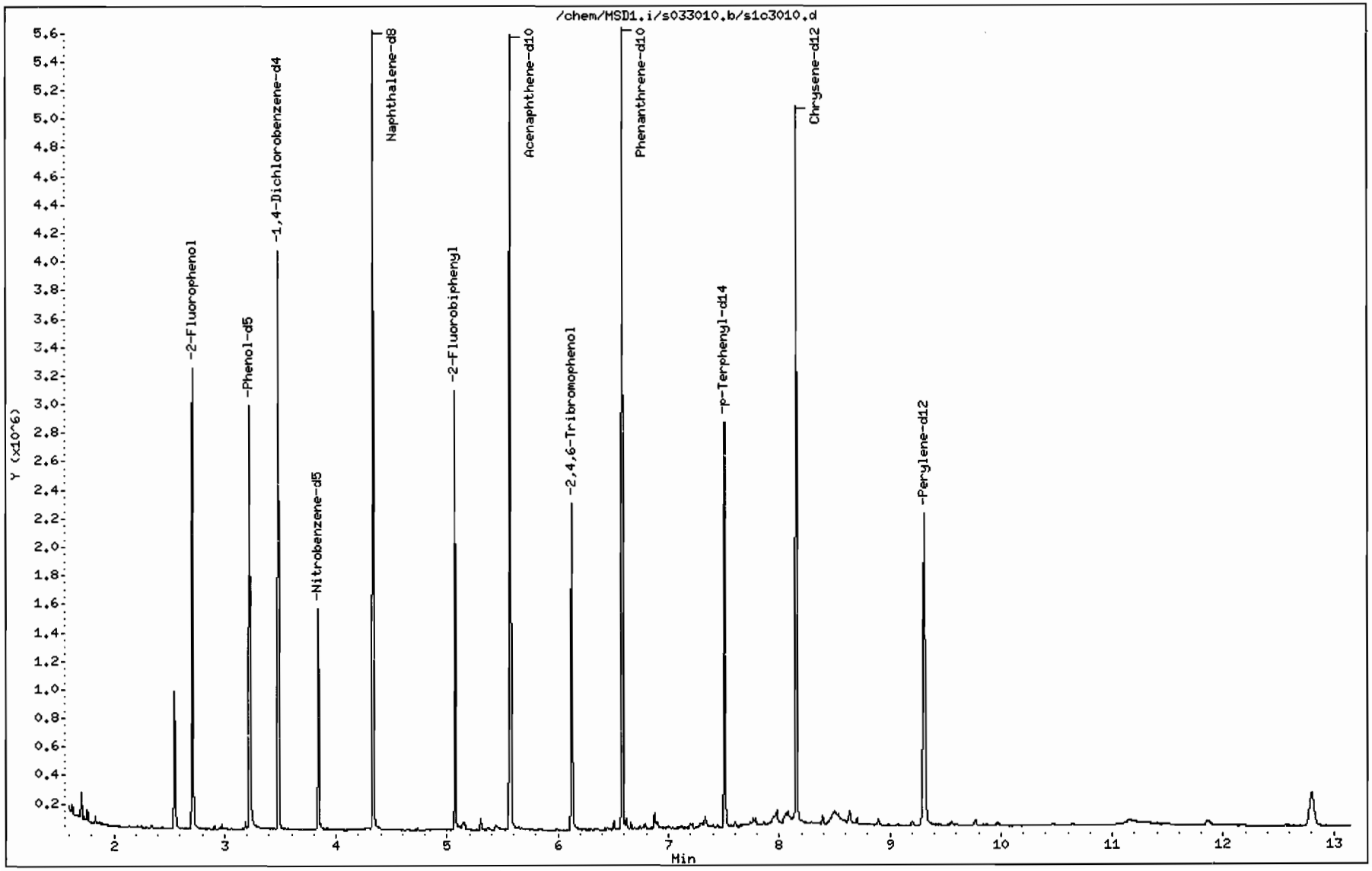

Data File: /chem/MSD1.i/s033010.b/s1c3010.d

Date : 30-MAR-2010 13:27

Client ID: RE46-10-13217

Instrument: MSD1.i

Sample Info: |249332005|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	40	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7950	17	C6H12O2	116

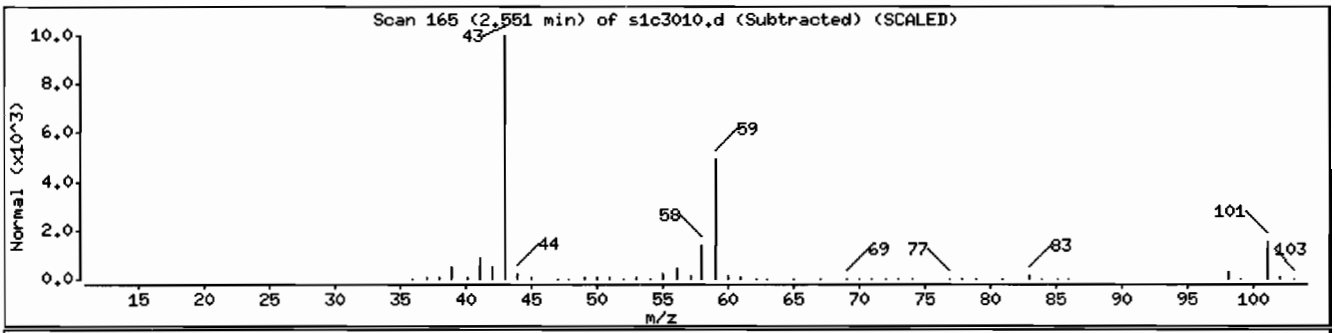

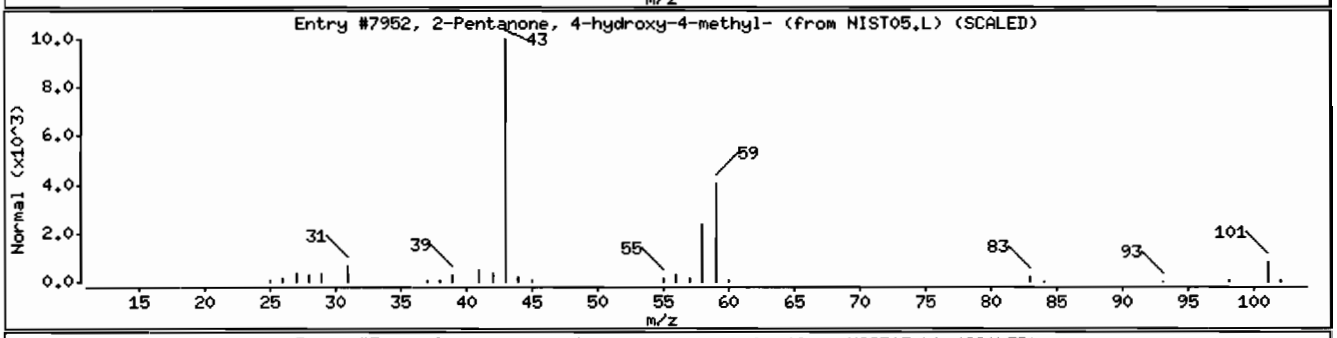

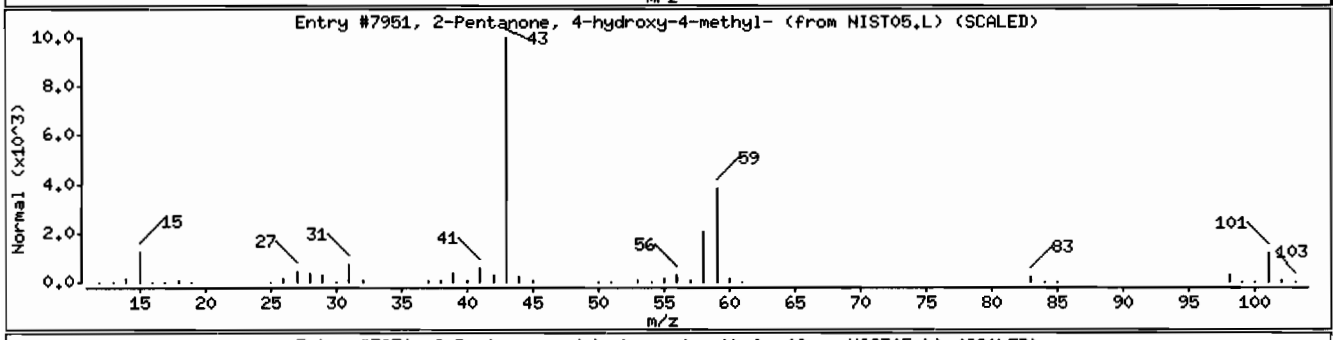

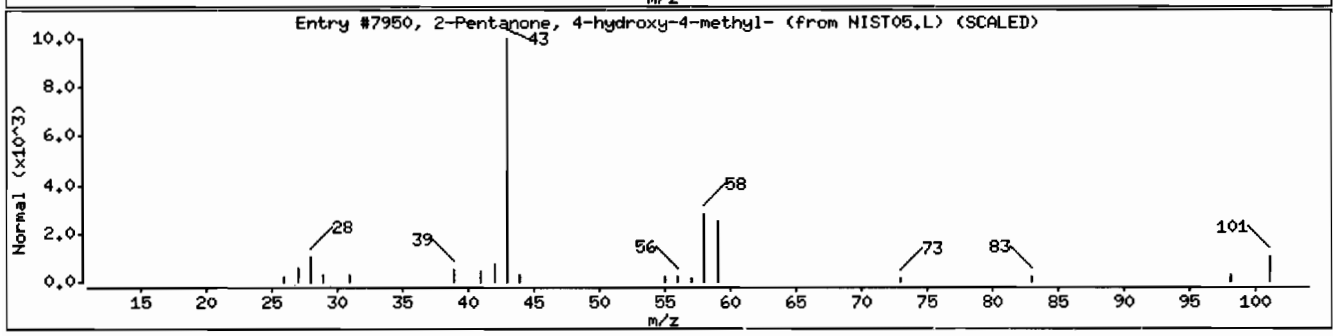

Data File: /chem/MSD1.i/s033010.b/s1c3010.d

Date : 30-MAR-2010 13:27

Client ID: RE46-10-13217 Instrument: MSD1.i

Sample Info: 1249332005|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	55	C13H21NO	207
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-e	1000188-72-8	NIST05.L	69963	47	C15H22O	218
Cyclohexanone, 2,3,3-trimethyl-2-(3-meth	69296-90-8	NIST05.L	61508	46	C14H22O	206

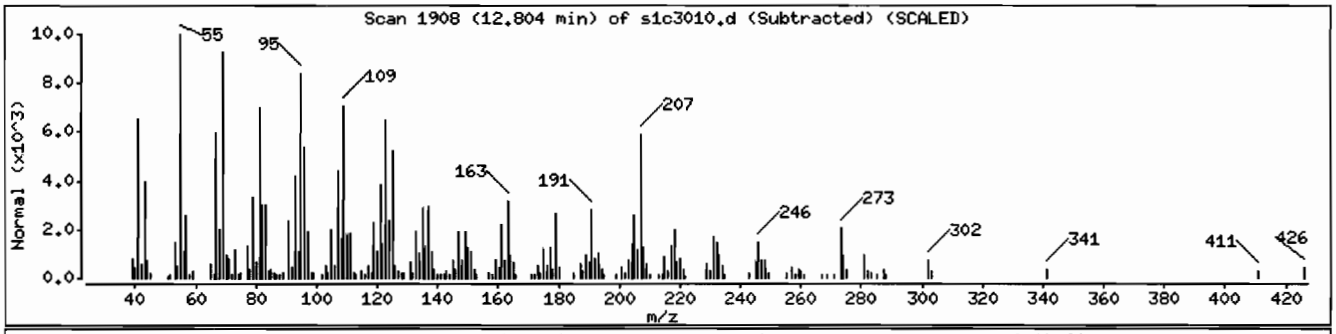

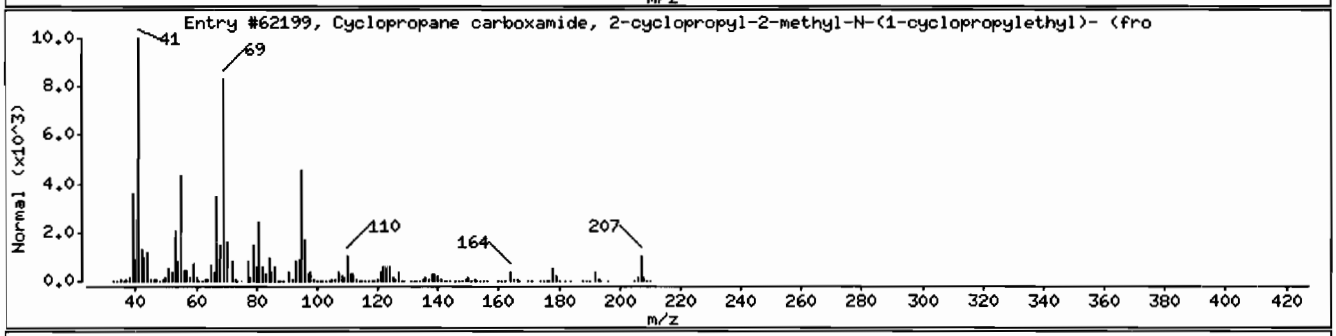

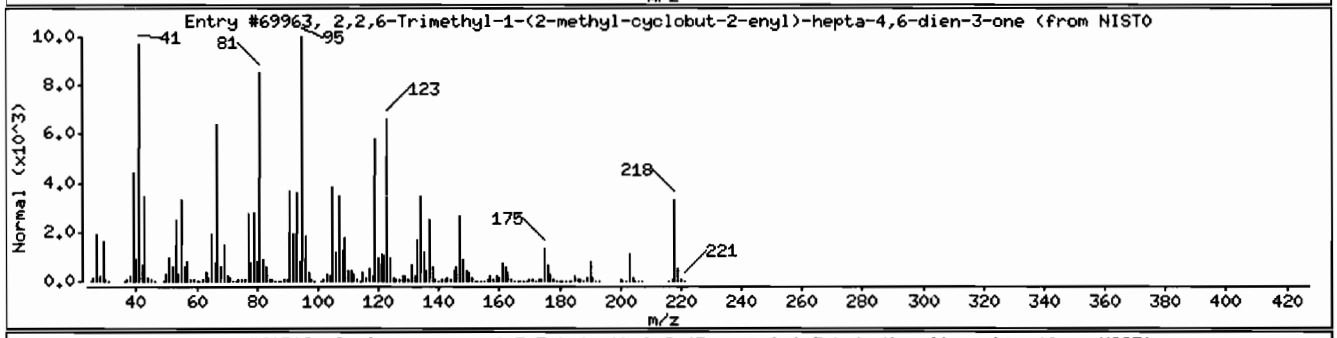

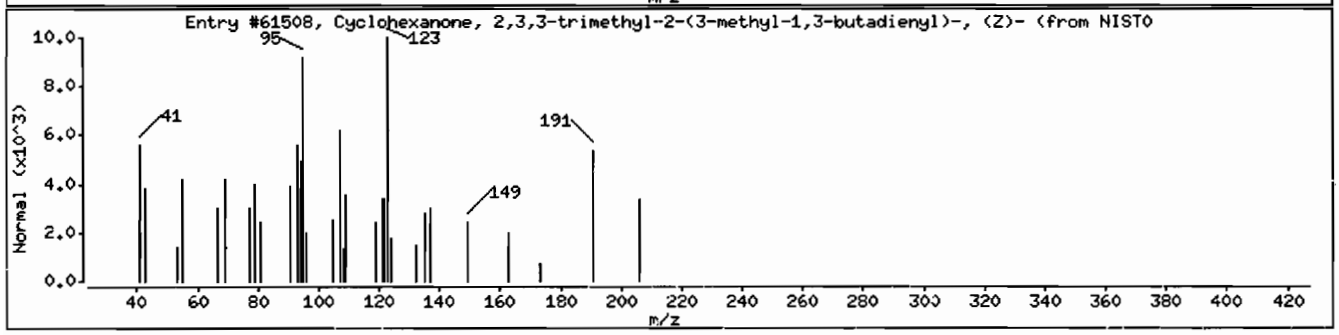

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**28.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13218**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 13:51**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3011.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	464	ug/kg	92.8	464
108-95-2	Phenol	U	464	ug/kg	92.8	464
95-57-8	2-Chlorophenol	U	464	ug/kg	92.8	464
106-46-7	1,4-Dichlorobenzene	U	464	ug/kg	92.8	464
621-64-7	N-Nitrosodipropylamine	U	464	ug/kg	92.8	464
59-50-7	4-Chloro-3-methylphenol	U	464	ug/kg	92.8	464
83-32-9	Acenaphthene	U	46.4	ug/kg	15.3	46.4
121-14-2	2,4-Dinitrotoluene	U	464	ug/kg	46.4	464
100-02-7	4-Nitrophenol	U	464	ug/kg	153	464
87-86-5	Pentachlorophenol	U	464	ug/kg	116	464
129-00-0	Pyrene	U	46.4	ug/kg	13.9	46.4
110-86-1	Pyridine	U	464	ug/kg	92.8	464
62-53-3	Aniline	U	464	ug/kg	139	464
111-44-4	bis(2-Chloroethyl) ether	U	464	ug/kg	92.8	464
541-73-1	1,3-Dichlorobenzene	U	464	ug/kg	92.8	464
100-51-6	Benzyl alcohol	U	464	ug/kg	139	464
95-50-1	1,2-Dichlorobenzene	U	464	ug/kg	92.8	464
108-60-1	bis(2-Chloroisopropyl)ether	U	464	ug/kg	92.8	464
95-48-7	o-Cresol	U	464	ug/kg	92.8	464
65794-96-9	m,p-Cresols	U	464	ug/kg	139	464
67-72-1	Hexachloroethane	U	464	ug/kg	92.8	464
98-95-3	Nitrobenzene	U	464	ug/kg	92.8	464
78-59-1	Isophorone	U	464	ug/kg	92.8	464
88-75-5	2-Nitrophenol	U	464	ug/kg	92.8	464
105-67-9	2,4-Dimethylphenol	U	464	ug/kg	162	464
111-91-1	bis(2-Chloroethoxy)methane	U	464	ug/kg	92.8	464
120-83-2	2,4-Dichlorophenol	U	464	ug/kg	92.8	464
65-85-0	Benzoic acid	U	928	ug/kg	232	928
91-20-3	Naphthalene	U	46.4	ug/kg	13.9	46.4
106-47-8	4-Chloroaniline	U	464	ug/kg	92.8	464
87-68-3	Hexachlorobutadiene	U	464	ug/kg	92.8	464
91-57-6	2-Methylnaphthalene	U	46.4	ug/kg	9.28	46.4
77-47-4	Hexachlorocyclopentadiene	U	464	ug/kg	92.8	464
88-06-2	2,4,6-Trichlorophenol	U	464	ug/kg	92.8	464
95-95-4	2,4,5-Trichlorophenol	U	464	ug/kg	92.8	464
91-58-7	2-Chloronaphthalene	U	46.4	ug/kg	15.3	46.4
88-74-4	2-Nitroaniline	U	464	ug/kg	92.8	464
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	464	ug/kg	92.8	464

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**28.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13218**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 13:51**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3011.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	464	ug/kg	92.8	464
606-20-2	2,6-Dinitrotoluene	U	464	ug/kg	46.4	464
208-96-8	Acenaphthylene	U	46.4	ug/kg	13.9	46.4
51-28-5	2,4-Dinitrophenol	U	928	ug/kg	176	928
132-64-9	Dibenzofuran	U	464	ug/kg	92.8	464
84-66-2	Diethylphthalate	U	464	ug/kg	92.8	464
86-73-7	Fluorene	U	46.4	ug/kg	13.9	46.4
7005-72-3	4-Chlorophenylphenylether	U	464	ug/kg	92.8	464
534-52-1	2-Methyl-4,6-dinitrophenol	U	464	ug/kg	92.8	464
100-01-6	4-Nitroaniline	U	464	ug/kg	139	464
	p-Nitroaniline					
122-39-4	Diphenylamine	U	464	ug/kg	92.8	464
122-66-7	Azobenzene	U	464	ug/kg	92.8	464
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	464	ug/kg	92.8	464
118-74-1	Hexachlorobenzene	U	464	ug/kg	92.8	464
85-01-8	Phenanthrene	U	46.4	ug/kg	13.9	46.4
120-12-7	Anthracene	U	46.4	ug/kg	9.28	46.4
84-74-2	Di-n-butylphthalate	U	464	ug/kg	92.8	464
206-44-0	Fluoranthene	U	46.4	ug/kg	13.9	46.4
85-68-7	Butylbenzylphthalate	U	464	ug/kg	92.8	464
56-55-3	Benzo(a)anthracene	U	46.4	ug/kg	13.9	46.4
91-94-1	3,3'-Dichlorobenzidine	U	464	ug/kg	139	464
218-01-9	Chrysene	U	46.4	ug/kg	13.9	46.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	464	ug/kg	92.8	464
117-84-0	Di-n-octylphthalate	U	464	ug/kg	92.8	464
205-99-2	Benzo(b)fluoranthene	U	46.4	ug/kg	13.9	46.4
207-08-9	Benzo(k)fluoranthene	U	46.4	ug/kg	13.9	46.4
50-32-8	Benzo(a)pyrene	U	46.4	ug/kg	13.9	46.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	46.4	ug/kg	13.9	46.4
53-70-3	Dibenzo(a,h)anthracene	U	46.4	ug/kg	13.9	46.4
191-24-2	Benzo(ghi)perylene	U	46.4	ug/kg	13.9	46.4
120-82-1	1,2,4-Trichlorobenzene	U	464	ug/kg	92.8	464

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	541	ug/kg		JA
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.3	299	ug/kg	99	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**28.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13218**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 13:51**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3011.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.5	318	ug/kg		J
	Unknown	11.19	197	ug/kg		J
559-74-0	Friedelan-3-one	12.8	1390	ug/kg	98	NJ

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3011.d
Lab Smp Id: 249332006 Client Smp ID: RE46-10-13218
Inj Date : 30-MAR-2010 13:51
Operator : AMY Inst ID: MSD1.i
Smp Info : |249332006|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 15:41 11o00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	28.21140	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.487	3.487	(1.000)	445485	40.0000	
* 29 Naphthalene-d8	136	4.334	4.334	(1.000)	1734604	40.0000	
* 46 Acenaphthene-d10	164	5.569	5.569	(1.000)	927727	40.0000	
* 67 Phenanthrene-d10	188	6.586	6.587	(1.000)	1653862	40.0000	
* 91 Chrysene-d12	240	8.157	8.151	(1.000)	1230610	40.0000	
* 98 Perylene-d12	264	9.310	9.310	(1.000)	795250	40.0000	
$ 3 2-Fluorophenol	112	2.716	2.704	(0.779)	648411	56.5243	2620
$ 5 Phenol-d5	99	3.228	3.228	(0.926)	782240	55.9920	2600
$ 20 Nitrobenzene-d5	82	3.840	3.845	(0.886)	323203	30.3795	1410
$ 39 2-Fluorobiphenyl	172	5.075	5.075	(0.911)	690455	26.9482	1250
$ 60 2,4,6-Tribromophenol	329	6.122	6.128	(1.099)	168941	55.5446	2580
$ 81 p-Terphenyl-d14	244	7.510	7.510	(0.921)	728431	35.5048	1650

ION RATIO REPORT

SV REPORT

Data file: s1c3011.d
Report Date: 03/30/2010 15:32
Lab. ID: 249332006 SampleType: SAMPLE
Injection Date: 30-MAR-2010 13:51
Operator: AMY Instrument: MSD1.i
Sample Info: |249332006|966766|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2433
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
1 N-Methyl-N-nitrosomethylamine CAS#: 62-75-9						
74	12934	1.83	2.04	80-120	100	(T)
42	2725	1.83	2.04	80-140	21	(QT)
43	24633	1.83	2.04	17- 77	190	(QT)
4 Aniline CAS#: 62-53-3						
66	38451	3.23	3.28	80-120	100	( )
93	3705	3.26	3.28	200-260	10	(Q)
17 N-Nitrosodipropylamine CAS#: 621-64-7						
70	44565	3.84	3.74	80-120	100	(T)
42	29487	3.84	3.74	49-109	66	(T)
41 m-Nitroaniline CAS#: 99-09-2						
138	322	5.56	5.54	80-120	100	( )
92	4684	5.57	5.54	73-133	1451	(Q)
108	16983	5.57	5.54	0- 41	5261	(Q)
43 Dimethylphthalate CAS#: 131-11-3						
163	168116	5.57	5.36	80-120	100	(T)
164	927727	5.57	5.36	0- 40	552	(QT)
44 2,6-Dinitrotoluene CAS#: 606-20-2						
165	119423	5.57	5.41	80-120	100	(T)
63	5018	5.56	5.41	51-111	4	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
45 Acenaphthylene			CAS#: 208-96-8			
152	20819	5.56	5.47	80-120	100	(T)
151	5645	5.56	5.47	0- 49	27	(T)
153	21699	5.56	5.47	0- 43	104	(QT)
47 Acenaphthene			CAS#: 83-32-9			
154	20002	5.56	5.60	80-120	100	( )
153	21699	5.56	5.60	74-134	108	( )
152	20819	5.56	5.60	18- 78	104	(Q)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	119423	5.57	5.70	80-120	100	(T)
89	2835	5.56	5.70	40-100	2	(QT)
63	5018	5.56	5.70	20- 80	4	(QT)
53 Fluorene			CAS#: 86-73-7			
166	13439	6.12	5.96	80-120	100	(T)
165	13869	6.12	5.96	62-122	103	(T)
167	4847	6.12	5.96	0- 44	36	(T)
56 p-Nitroaniline			CAS#: 100-01-6			
138	100	5.96	5.97	80-120	100	( )
108	448	5.89	5.97	37- 97	447	(QT)
92	397	5.98	5.97	12- 72	396	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3011.d
Lab Smp Id: 249332006 Client Smp ID: RE46-10-13218
Inj Date : 30-MAR-2010 13:51
Operator : AMY Inst ID: MSD1.i
Smp Info : |249332006|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 15:41 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	28.21140	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.487	2705387	40.000
* 46 Acenaphthene-d10	5.569	4076420	40.000
* 91 Chrysene-d12	8.157	3195010	40.000
* 98 Perylene-d12	9.310	2217917	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.551	789251	11.6693171	541	0		0	10
1,4-Methanoazulene, decahydro-4,8,8-trim				CAS #: 475-20-7			
5.304	657249	6.44927519	299	99	NIST05.L	60024	46
Unknown				CAS #:			
8.498	546560	6.84266920	318	0		0	91
Unknown				CAS #:			
11.186	235617	4.24934417	197	0		0	98
Friedelan-3-one				CAS #: 559-74-0			
12.804	1666308	30.0517542	1390	98	NIST05.L	176566	98

Data File: /chem/MSD1.i/s033010.b/s1c3011.d
Date : 30-MAR-2010 13:51
Client ID: RE46-10-13218
Sample Info: 1249332006196676611|SVM11|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

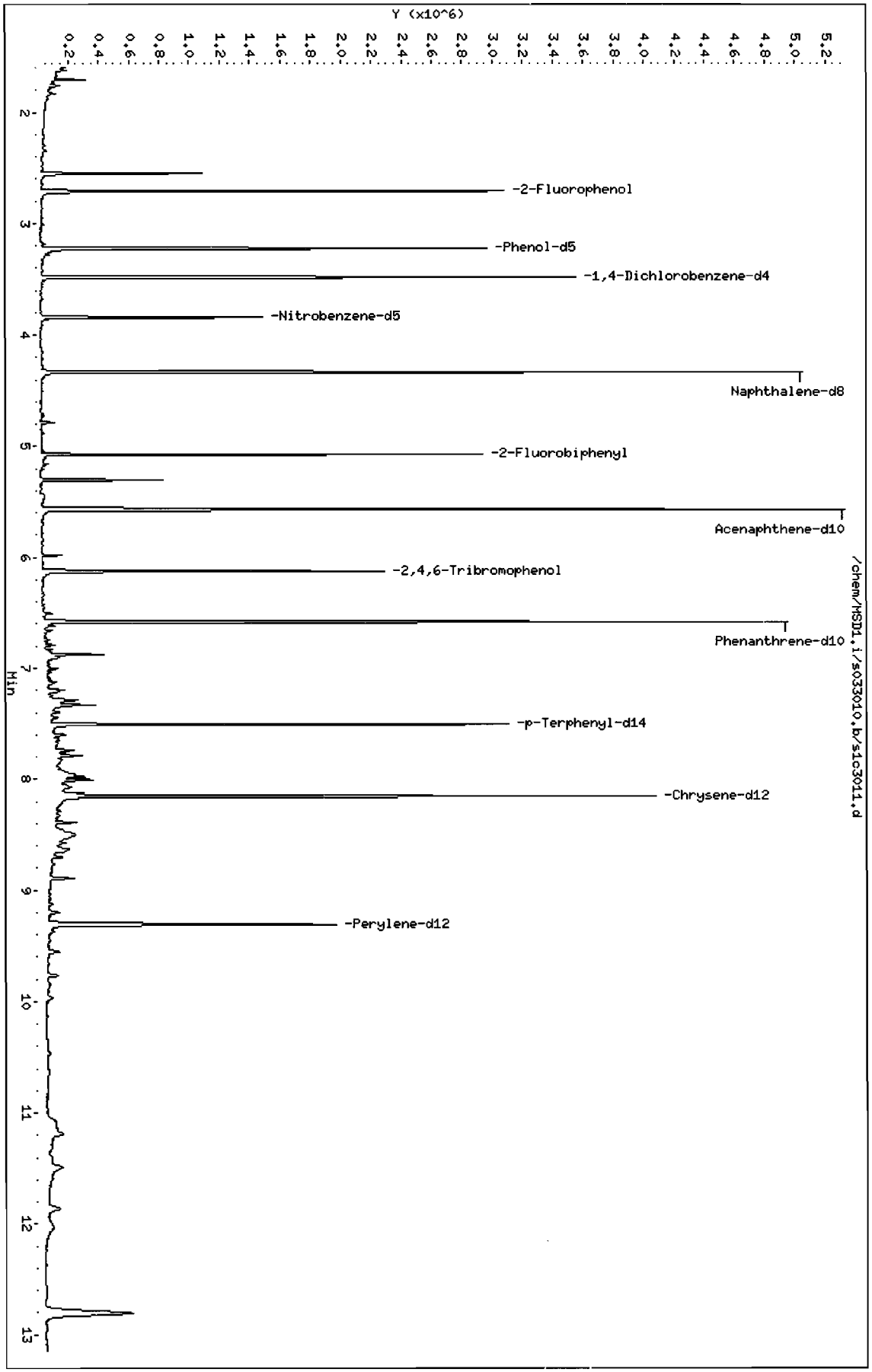

Page 1

Data File: /chem/MSD1.i/s033010.b/s1c3011.d

Date : 30-MAR-2010 13:51

Client ID: RE46-10-13218

Instrument: MSD1.i

Sample Info: 1249332006|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
t-Butyl nitrite	540-80-7	NIST05.L	4426	39	C4H9NO2	103

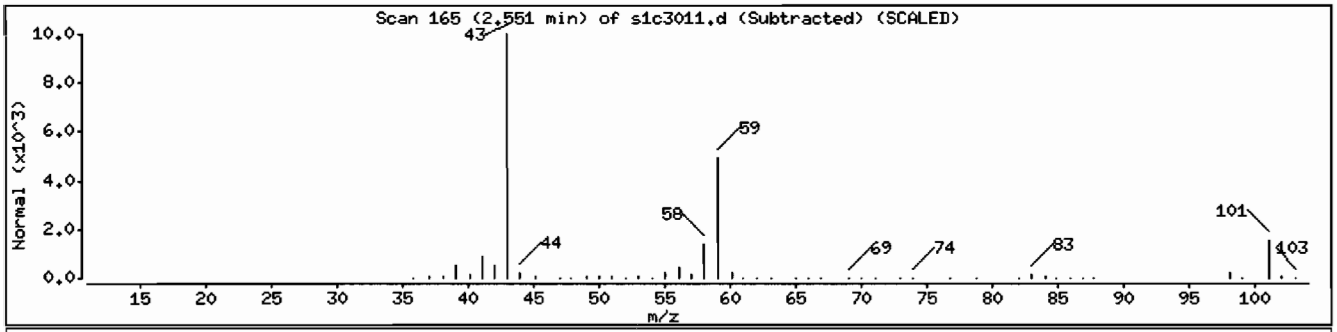

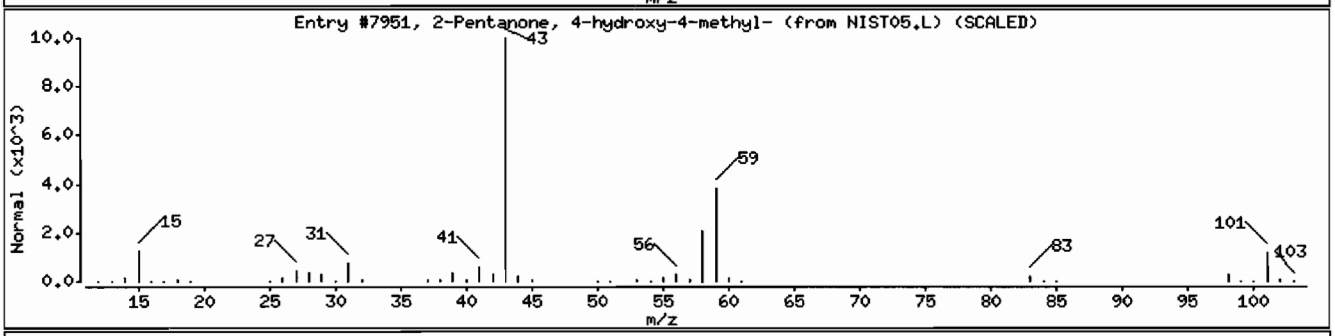

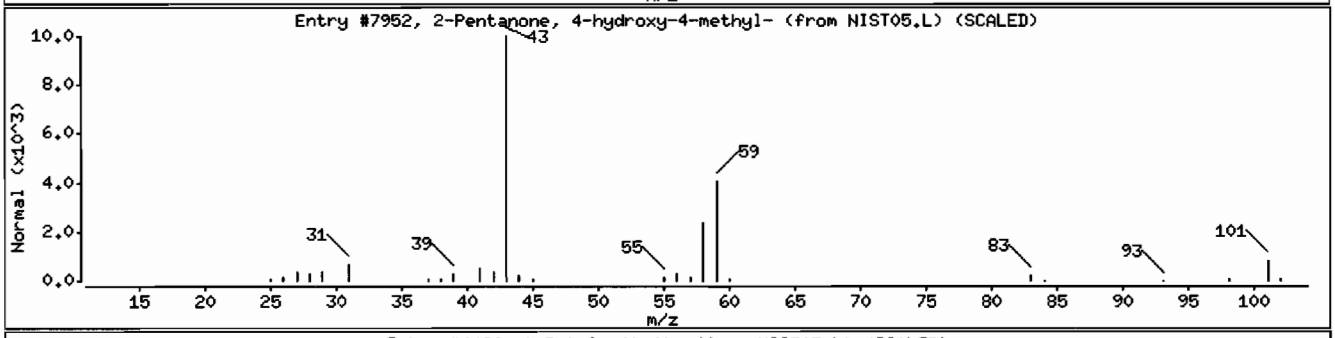

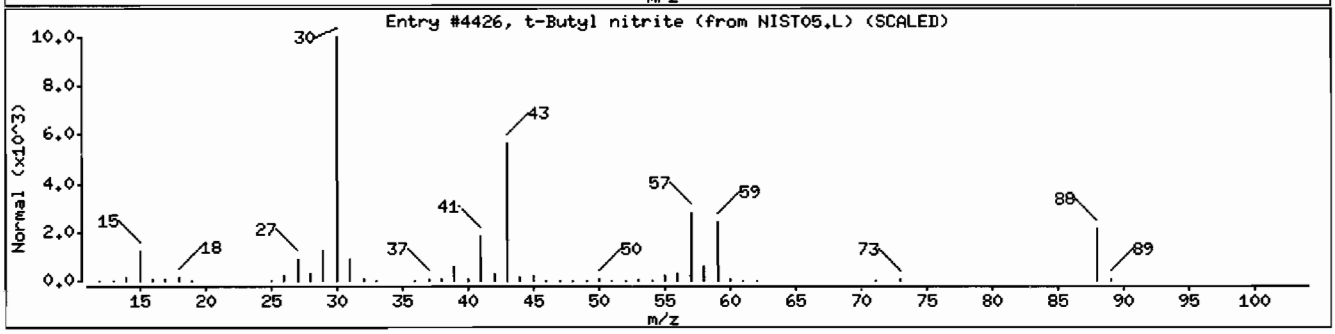

Data File: /chem/MSD1.i/s033010.b/s1c3011.d

Date : 30-MAR-2010 13:51

Client ID: RE46-10-13218

Instrument: MSD1.i

Sample Info: |2493320061966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60024	99	C15H24	204
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60020	98	C15H24	204
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60018	98	C15H24	204

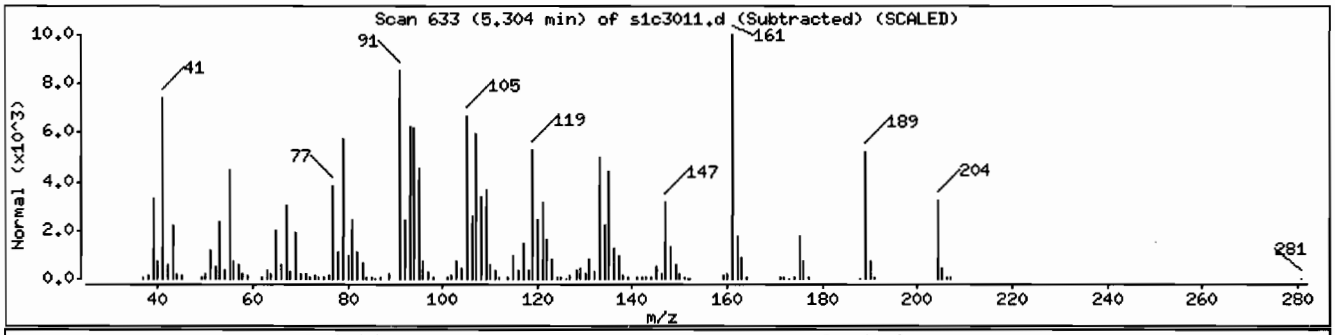

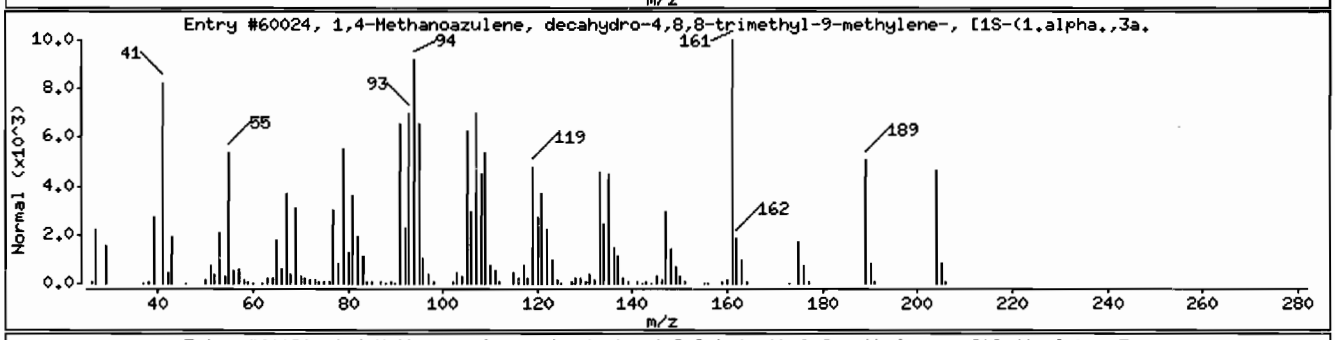

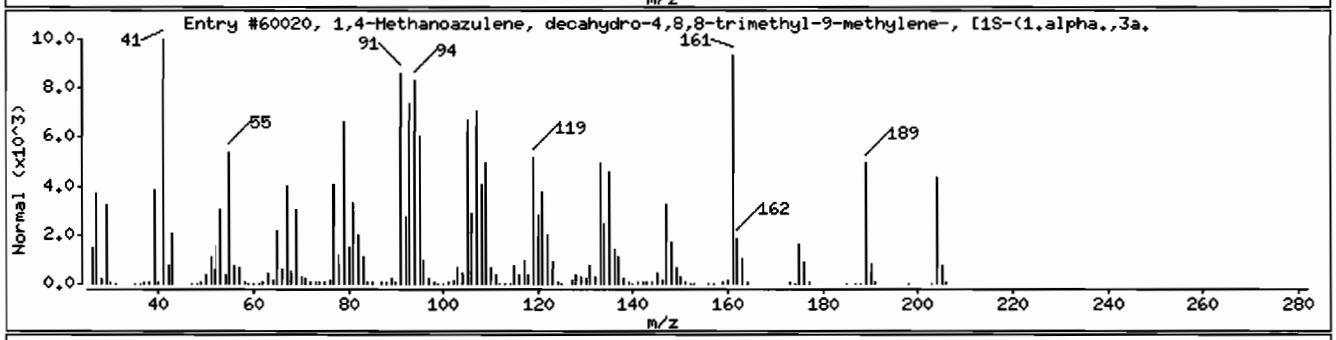

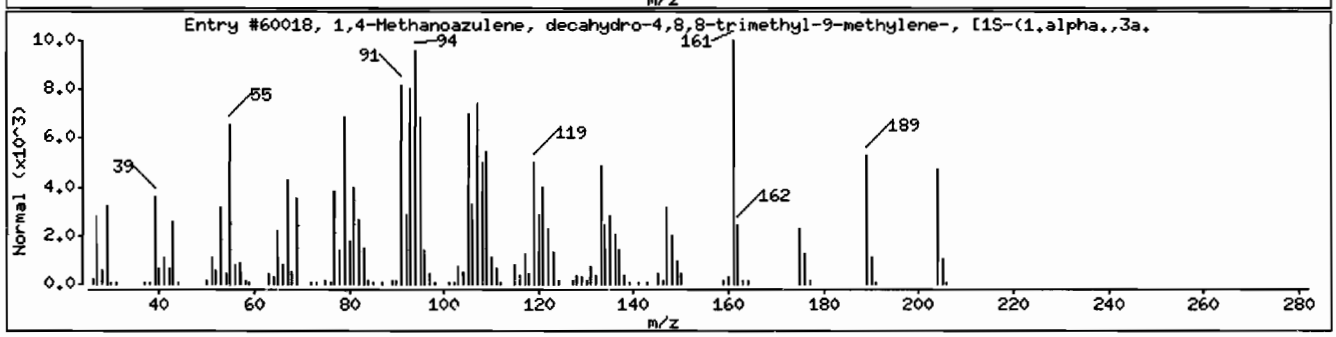

Data File: /chem/MSD1.i/s033010.b/s1c3011.d

Date : 30-MAR-2010 13:51

Client ID: RE46-10-13218

Instrument: MSD1.i

Sample Info: |249332006|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Oxirane, tetradecyl-	7320-37-8	NIST05.L	85507	49	C16H32O	240
Bromoacetic acid, octadecyl ester	18992-03-5	NIST05.L	168348	46	C20H39BrO2	390
1-Hexacosanol	506-52-5	NIST05.L	165912	42	C26H54O	382

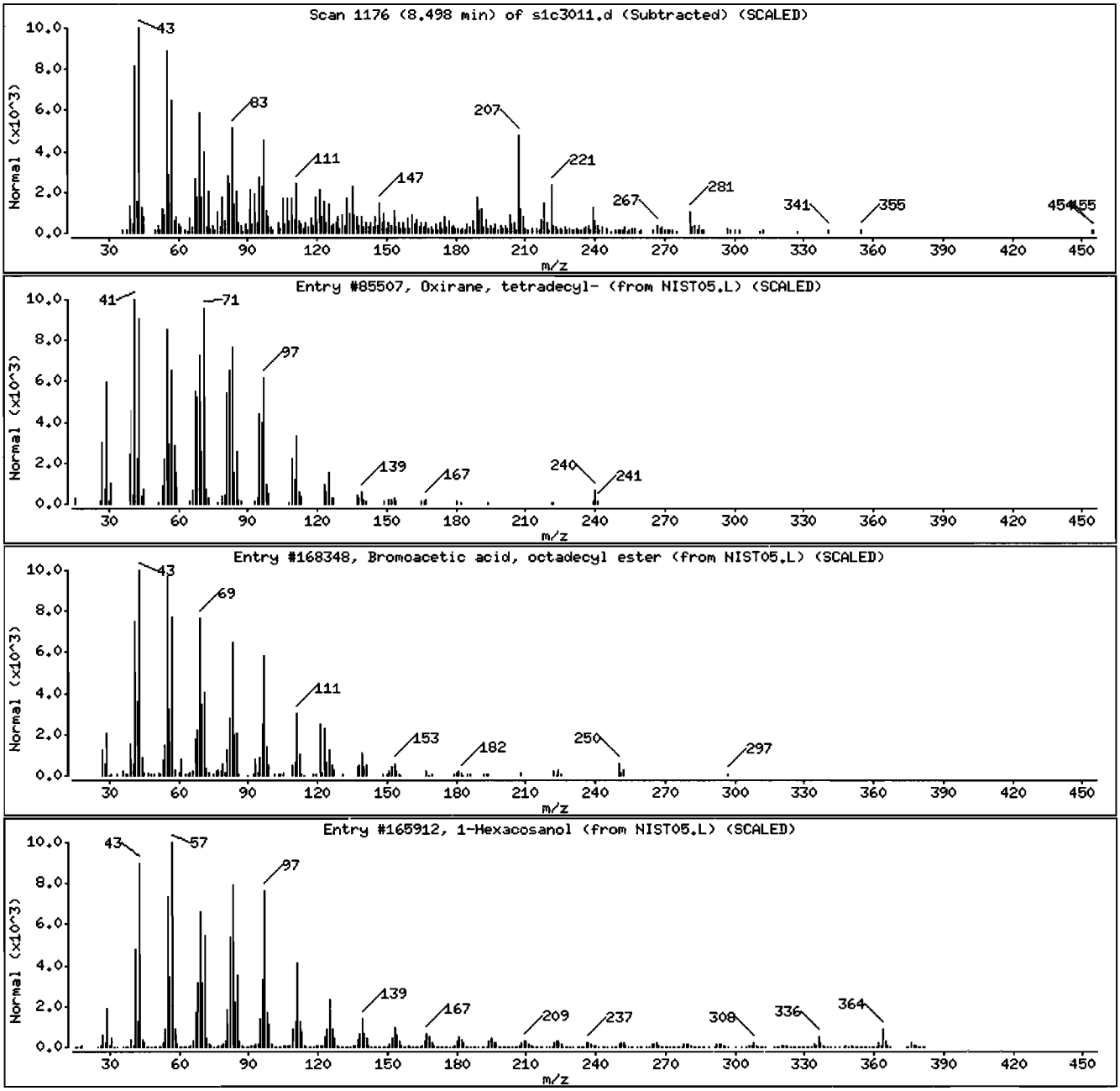

Data File: /chem/MSD1.i/s033010.b/s1c3011.d

Date : 30-MAR-2010 13:51

Client ID: RE46-10-13218 Instrument: MSD1.i

Sample Info: 1249332006|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	70038-20-9	NIST05.L	69982	50	C15H220	218
(1S,6R,9S)-5,5,9,10-Tetramethyltricyclo[	1000298-97-8	NIST05.L	70028	49	C16H26	218
2(1H)Naphthalenone, 3,5,6,7,8,8a-hexahyd	1000188-66-5	NIST05.L	69976	49	C15H220	218

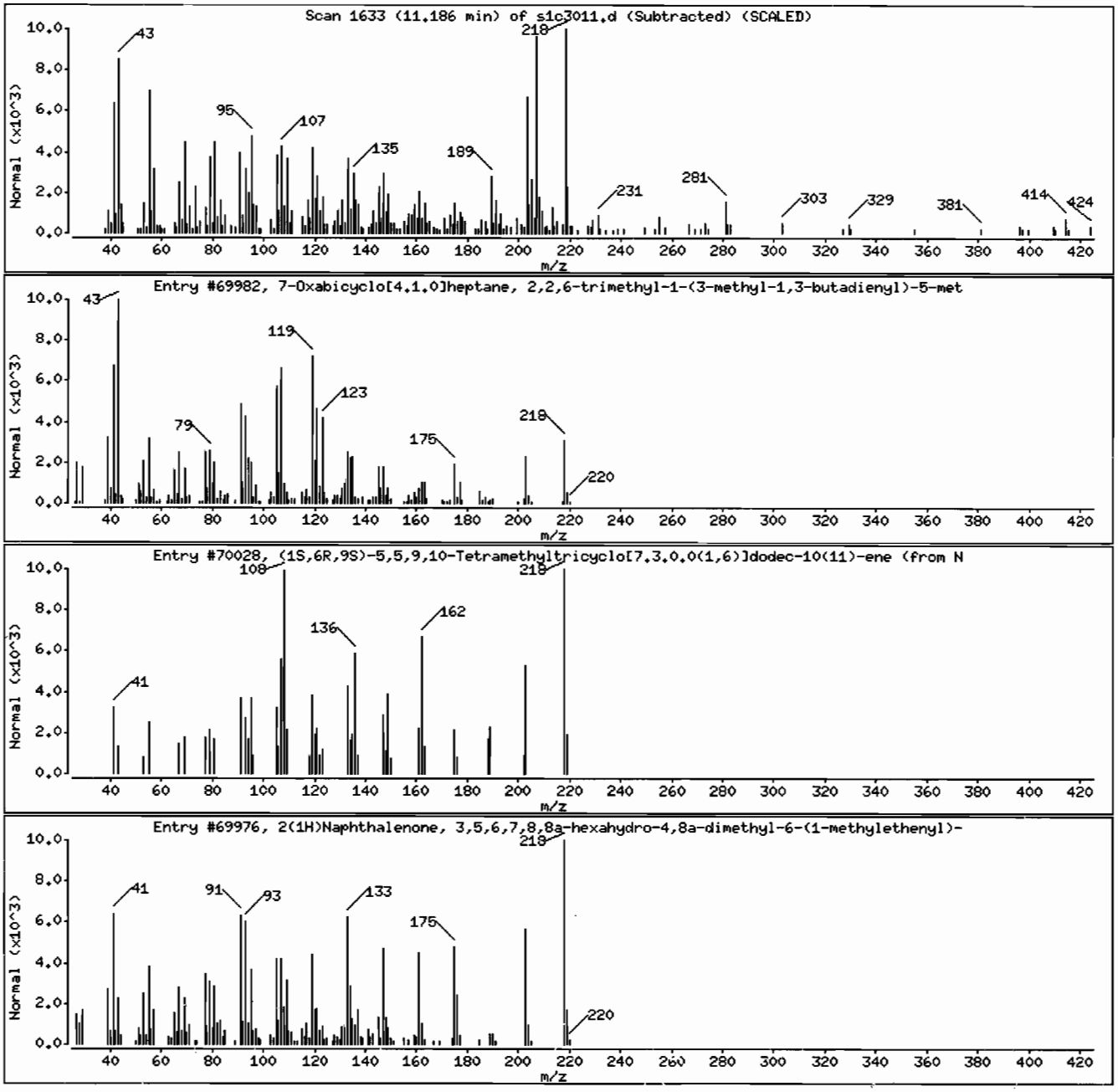

Data File: /chem/MSD1.i/s033010.b/s1c3011.d

Date : 30-MAR-2010 13:51

Client ID: RE46-10-13218 Instrument: MSD1.i

Sample Info: 1249332006|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Friedelan-3-one	559-74-0	NIST05.L	176566	98	C30H50O	426
13-Tetradece-11-yn-1-ol	1000131-00-4	NIST05.L	62946	66	C14H24O	208
5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	300574-36-1	NIST05.L	68738	59	C6H5BrN2O2	216

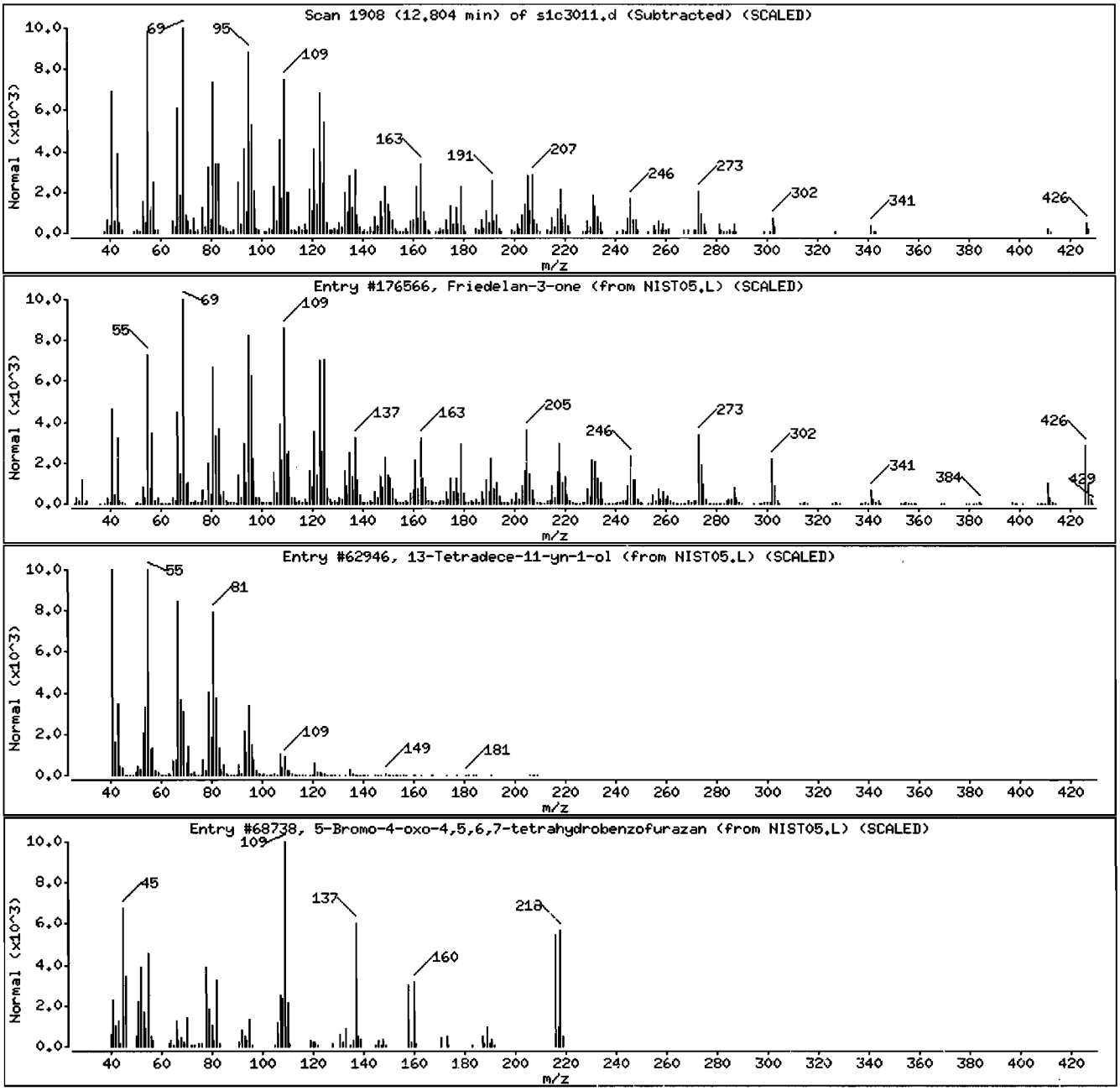

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332001**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13219**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 17:33**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2914.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	361	ug/kg	72.1	361
108-95-2	Phenol	U	361	ug/kg	72.1	361
95-57-8	2-Chlorophenol	U	361	ug/kg	72.1	361
106-46-7	1,4-Dichlorobenzene	U	361	ug/kg	72.1	361
621-64-7	N-Nitrosodipropylamine	U	361	ug/kg	72.1	361
59-50-7	4-Chloro-3-methylphenol	U	361	ug/kg	72.1	361
83-32-9	Acenaphthene		1350	ug/kg	11.9	36.1
121-14-2	2,4-Dinitrotoluene	U	361	ug/kg	36.1	361
100-02-7	4-Nitrophenol	U	361	ug/kg	119	361
87-86-5	Pentachlorophenol	U	361	ug/kg	90.2	361
129-00-0	Pyrene	U	36.1	ug/kg	10.8	36.1
110-86-1	Pyridine	U	361	ug/kg	72.1	361
62-53-3	Aniline	U	361	ug/kg	108	361
111-44-4	bis(2-Chloroethyl) ether	U	361	ug/kg	72.1	361
541-73-1	1,3-Dichlorobenzene	U	361	ug/kg	72.1	361
100-51-6	Benzyl alcohol	U	361	ug/kg	108	361
95-50-1	1,2-Dichlorobenzene	U	361	ug/kg	72.1	361
108-60-1	bis(2-Chloroisopropyl)ether	U	361	ug/kg	72.1	361
95-48-7	o-Cresol	U	361	ug/kg	72.1	361
65794-96-9	m,p-Cresols	U	361	ug/kg	108	361
67-72-1	Hexachloroethane	U	361	ug/kg	72.1	361
98-95-3	Nitrobenzene	U	361	ug/kg	72.1	361
78-59-1	Isophorone	U	361	ug/kg	72.1	361
88-75-5	2-Nitrophenol	U	361	ug/kg	72.1	361
105-67-9	2,4-Dimethylphenol	U	361	ug/kg	126	361
111-91-1	bis(2-Chloroethoxy)methane	U	361	ug/kg	72.1	361
120-83-2	2,4-Dichlorophenol	U	361	ug/kg	72.1	361
65-85-0	Benzoic acid	U	721	ug/kg	180	721
91-20-3	Naphthalene	U	36.1	ug/kg	10.8	36.1
106-47-8	4-Chloroaniline	U	361	ug/kg	72.1	361
87-68-3	Hexachlorobutadiene	U	361	ug/kg	72.1	361
91-57-6	2-Methylnaphthalene	U	36.1	ug/kg	7.21	36.1
77-47-4	Hexachlorocyclopentadiene	U	361	ug/kg	72.1	361
88-06-2	2,4,6-Trichlorophenol	U	361	ug/kg	72.1	361
95-95-4	2,4,5-Trichlorophenol	U	361	ug/kg	72.1	361
91-58-7	2-Chloronaphthalene	U	36.1	ug/kg	11.9	36.1
88-74-4	2-Nitroaniline	U	361	ug/kg	72.1	361
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	361	ug/kg	72.1	361

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332001**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13219**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 17:33**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2914.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	361	ug/kg	72.1	361
606-20-2	2,6-Dinitrotoluene	U	361	ug/kg	36.1	361
208-96-8	Acenaphthylene	U	36.1	ug/kg	10.8	36.1
51-28-5	2,4-Dinitrophenol	U	721	ug/kg	137	721
132-64-9	Dibenzofuran	U	361	ug/kg	72.1	361
84-66-2	Diethylphthalate	U	361	ug/kg	72.1	361
86-73-7	Fluorene	U	36.1	ug/kg	10.8	36.1
7005-72-3	4-Chlorophenylphenylether	U	361	ug/kg	72.1	361
534-52-1	2-Methyl-4,6-dinitrophenol	U	361	ug/kg	72.1	361
100-01-6	4-Nitroaniline	U	361	ug/kg	108	361
	p-Nitroaniline					
122-39-4	Diphenylamine	U	361	ug/kg	72.1	361
122-66-7	Azobenzene	U	361	ug/kg	72.1	361
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	361	ug/kg	72.1	361
118-74-1	Hexachlorobenzene	U	361	ug/kg	72.1	361
85-01-8	Phenanthrene	U	36.1	ug/kg	10.8	36.1
120-12-7	Anthracene	U	36.1	ug/kg	7.21	36.1
84-74-2	Di-n-butylphthalate	U	361	ug/kg	72.1	361
206-44-0	Fluoranthene	U	36.1	ug/kg	10.8	36.1
85-68-7	Butylbenzylphthalate	U	361	ug/kg	72.1	361
56-55-3	Benzo(a)anthracene	U	36.1	ug/kg	10.8	36.1
91-94-1	3,3'-Dichlorobenzidine	U	361	ug/kg	108	361
218-01-9	Chrysene	U	36.1	ug/kg	10.8	36.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	361	ug/kg	72.1	361
117-84-0	Di-n-octylphthalate	U	361	ug/kg	72.1	361
205-99-2	Benzo(b)fluoranthene	U	36.1	ug/kg	10.8	36.1
207-08-9	Benzo(k)fluoranthene	U	36.1	ug/kg	10.8	36.1
50-32-8	Benzo(a)pyrene	U	36.1	ug/kg	10.8	36.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.1	ug/kg	10.8	36.1
53-70-3	Dibenzo(a,h)anthracene	U	36.1	ug/kg	10.8	36.1
191-24-2	Benzo(ghi)perylene	U	36.1	ug/kg	10.8	36.1
120-82-1	1,2,4-Trichlorobenzene	U	361	ug/kg	72.1	361

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.71	675	ug/kg		J
	Unknown Aldol Condensate	2.56	414	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332001**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13219**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 17:33**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2914.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
56196-06-6	Cyclopropaneoctanal, 2-octyl-	7.3	193	ug/kg	90	NJ
57-11-4	Octadecanoic acid	7.35	457	ug/kg	98	NJ
506-30-9	Eicosanoic acid	7.75	186	ug/kg	99	NJ
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	8.02	257	ug/kg	99	NJ
112-85-6	Docosanoic acid	8.15	371	ug/kg	97	NJ
557-59-5	Tetracosanoic acid	8.6	179	ug/kg	97	NJ
1599-67-3	1-Docosene	8.67	245	ug/kg	99	NJ
	Unknown	8.79	165	ug/kg		J
	Unknown	11.71	174	ug/kg		J
58-22-0	Androst-4-en-3-one, 17-hydroxy-, (17.bet	11.92	200	ug/kg	83	NJ
559-74-0	Friedelan-3-one	12.87	839	ug/kg	96	NJ

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2914.d
Lab Smp Id: 249332001 Client Smp ID: RE46-10-13219
Inj Date : 29-MAR-2010 17:33
Operator : AMY Inst ID: MSD1.i
Smp Info : |249332001|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	7.87170	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.499	3.504	(1.000)	387831	40.0000	
* 29 Naphthalene-d8	136	4.351	4.351	(1.000)	1520903	40.0000	
* 46 Acenaphthene-d10	164	5.587	5.592	(1.000)	765240	40.0000	
* 67 Phenanthrene-d10	188	6.598	6.598	(1.000)	1437999	40.0000	
* 91 Chrysene-d12	240	8.175	8.175	(1.000)	1238204	40.0000	
* 98 Perylene-d12	264	9.339	9.339	(1.000)	938369	40.0000	
$ 3 2-Fluorophenol	112	2.728	2.716	(0.780)	695532	69.6454	2510
$ 5 Phenol-d5	99	3.240	3.240	(0.926)	814504	66.9683	2420
$ 20 Nitrobenzene-d5	82	3.857	3.863	(0.886)	336717	36.0968	1300
$ 39 2-Fluorobiphenyl	172	5.093	5.093	(0.912)	741806	35.1000	1270
$ 60 2,4,6-Tribromophenol	329	6.140	6.139	(1.099)	170967	68.1461	2460
$ 81 p-Terphenyl-d14	244	7.528	7.528	(0.921)	810965	39.2852	1420

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
47 Acenaphthene	154	5.581	5.610	(0.999)	698707	37.3794	1350(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

SV REPORT

Data file: s1c2914.d
Report Date: 03/30/2010 16:55
Lab. ID: 249332001 SampleType: SAMPLE
Injection Date: 29-MAR-2010 17:33
Operator: AMY Instrument: MSD1.i
Sample Info: |249332001|966766|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2433
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	40993	3.24	3.30	80-120	100	( )
93	6825	3.28	3.30	196-256	17	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	47102	3.86	3.75	80-120	100	(T)
42	31264	3.86	3.75	47-107	66	(T)
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	10032	5.32	5.19	80-120	100	(T)
164	593	5.32	5.19	2- 62	6	(T)
127	709	5.32	5.19	10- 70	7	(QT)
42 o-Nitroaniline				CAS#: 88-74-4		
65	12763	5.32	5.26	80-120	100	( )
92	14292	5.32	5.26	33- 93	112	(Q)
138	1203	5.32	5.26	80-140	9	(QT)
41 m-Nitroaniline				CAS#: 99-09-2		
138	6330	5.58	5.55	80-120	100	( )
92	3883	5.59	5.55	75-135	61	(Q)
108	16021	5.59	5.55	0- 40	253	(Q)
43 Dimethylphthalate				CAS#: 131-11-3		
163	138758	5.59	5.37	80-120	100	(T)
164	765240	5.59	5.37	0- 40	551	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	98456	5.59	5.43	80-120	100	(T)
63	117637	5.58	5.43	49-109	119	(QT)
45 Acenaphthylene			CAS#: 208-96-8			
152	805224	5.58	5.49	80-120	100	(T)
151	213048	5.58	5.49	0- 50	26	(T)
153	847449	5.58	5.49	0- 43	105	(QT)
47 Acenaphthene			CAS#: 83-32-9			
154	698707	5.58	5.61	80-120	100	( )
153	847449	5.58	5.61	75-135	121	( )
152	805224	5.58	5.61	18- 78	115	(Q)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	98456	5.59	5.72	80-120	100	(T)
89	36841	5.58	5.71	37- 97	37	(T)
63	117637	5.58	5.71	20- 80	119	(QT)
52 4-Nitrophenol			CAS#: 100-02-7			
139	130474	5.58	5.66	80-120	100	(T)
109	5879	5.58	5.66	31- 91	5	(QT)
65	22060	5.58	5.66	61-121	17	(QT)
53 Fluorene			CAS#: 86-73-7			
166	12704	6.14	5.97	80-120	100	(T)
165	12973	6.14	5.97	61-121	102	(T)
167	3987	6.14	5.97	0- 43	31	(T)
56 p-Nitroaniline			CAS#: 100-01-6			
138	124	5.97	5.99	80-120	100	( )
108	2846	5.97	5.99	34- 94	2285	(Q)
92	2256	5.97	5.99	12- 72	1811	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2914.d
Lab Smp Id: 249332001 Client Smp ID: RE46-10-13219
Inj Date : 29-MAR-2010 17:33
Operator : AMY Inst ID: MSD1.i
Smp Info : |249332001|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	7.87170	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.499	2365697	40.000
* 67 Phenanthrene-d10	6.598	3615621	40.000
* 91 Chrysene-d12	8.175	3557510	40.000
* 98 Perylene-d12	9.339	2606256	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.710	1106333	18.7062440	675	0		0	10
Unknown Aldol Condensate				CAS #:			
2.563	678811	11.4775542	414	0		0	10
Cyclopropaneoctanal, 2-octyl-				CAS #: 56196-06-6			
7.304	482735	5.34055181	193	90	NIST05.L	112082	67
Octadecanoic acid				CAS #: 57-11-4			
7.345	1144371	12.6602936	457	98	NIST05.L	114820	67
Eicosanoic acid				CAS #: 506-30-9			
7.751	459653	5.16825376	186	99	NIST05.L	132301	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4				CAS #: 1740-19-8			
8.022	632404	7.11063906	256	99	NIST05.L	125036	91
Docosanoic acid				CAS #: 112-85-6			
8.145	915746	10.2964809	371	97	NIST05.L	147935	91
Tetracosanoic acid				CAS #: 557-59-5			
8.598	441194	4.96070348	179	97	NIST05.L	160633	91
1-Docosene				CAS #: 1599-67-3			
8.675	604017	6.79145343	245	99	NIST05.L	129888	91
Unknown				CAS #:			
8.786	297477	4.56558160	165	0		0	98
Unknown				CAS #:			
11.710	315083	4.83578784	174	0		0	98
Androst-4-en-3-one, 17-hydroxy-, (17.bet				CAS #: 58-22-0			
11.916	361712	5.55144207	200	83	NIST05.L	117326	98
Friedelan-3-one				CAS #: 559-74-0			
12.869	1514944	23.2508819	839	96	NIST05.L	176566	98

Data File: /chem/MSD1.i/s032910.b/s1c2914.d

Date : 29-MAR-2010 17:33

Client ID: RE46-10-13219

Sample Info: |249332001|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY

Column diameter: 0.20

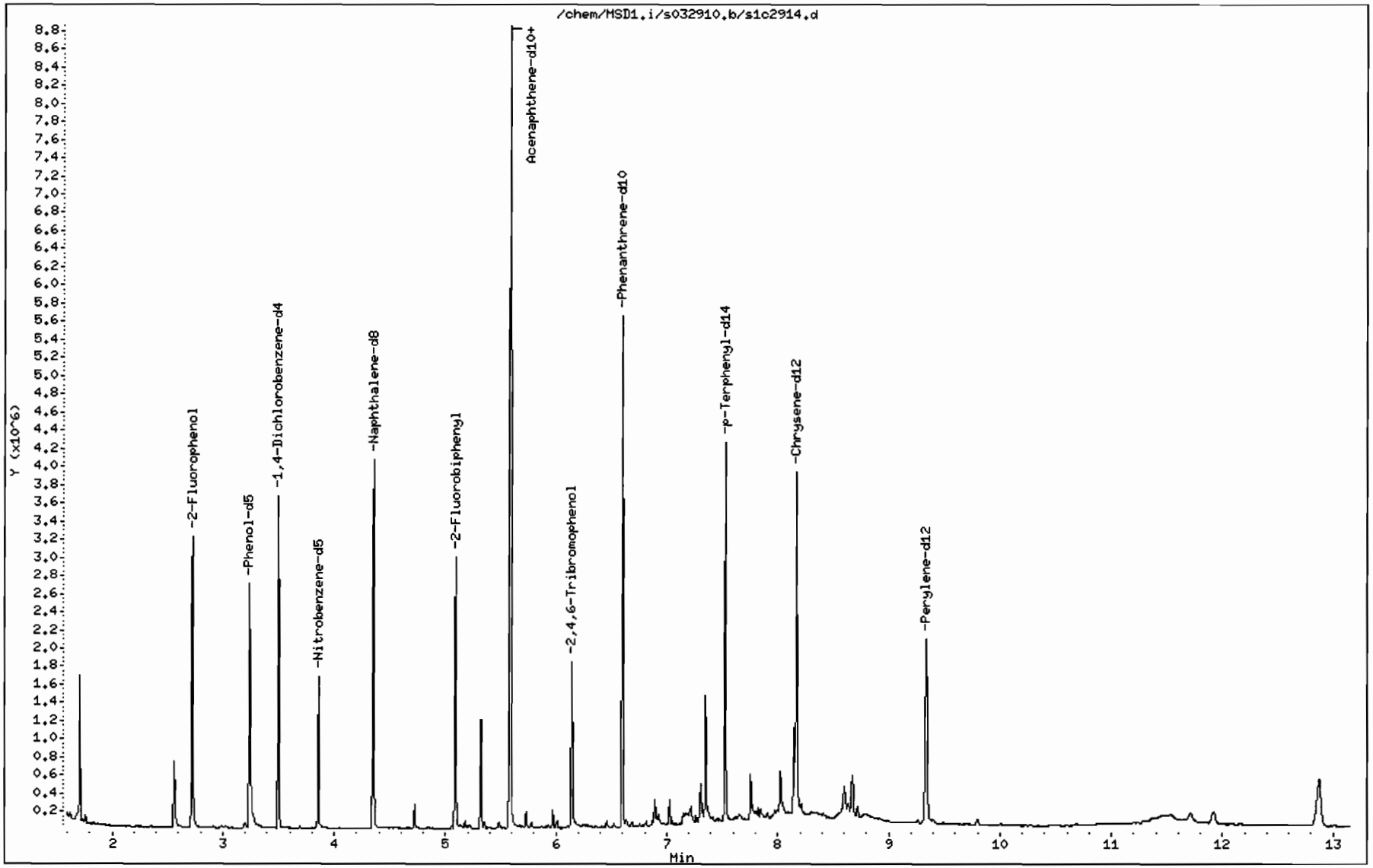

Data File: /chem/MSD1.i/s032910.b/s1c2914.d

Date : 29-MAR-2010 17:33

Client ID: RE46-10-13219

Instrument: MSD1.i

Sample Info: |2493320011966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 1350 ug/Kg

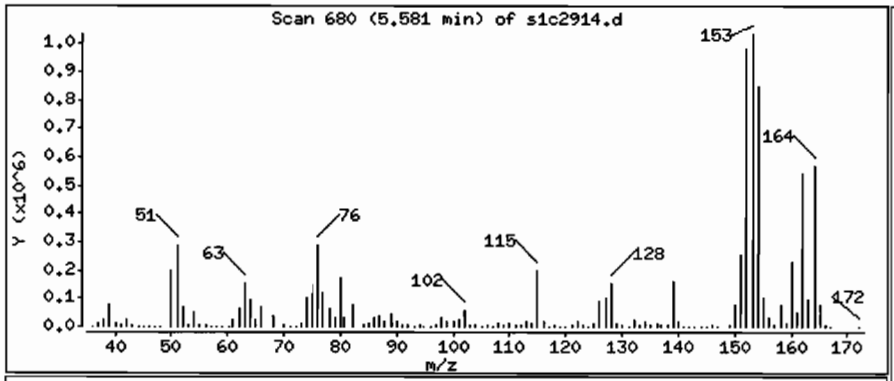

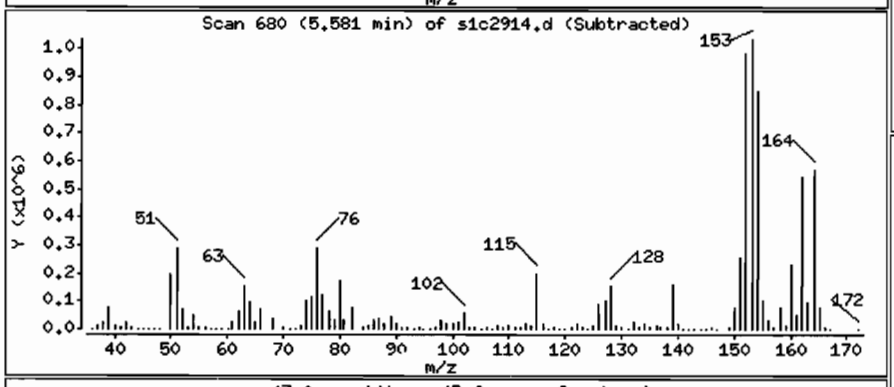

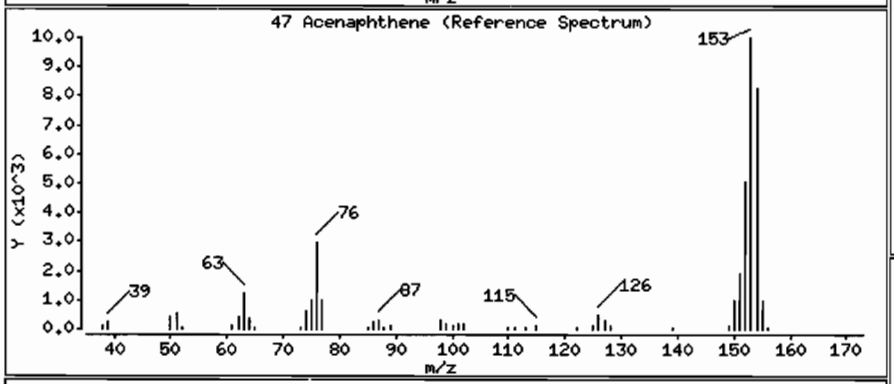

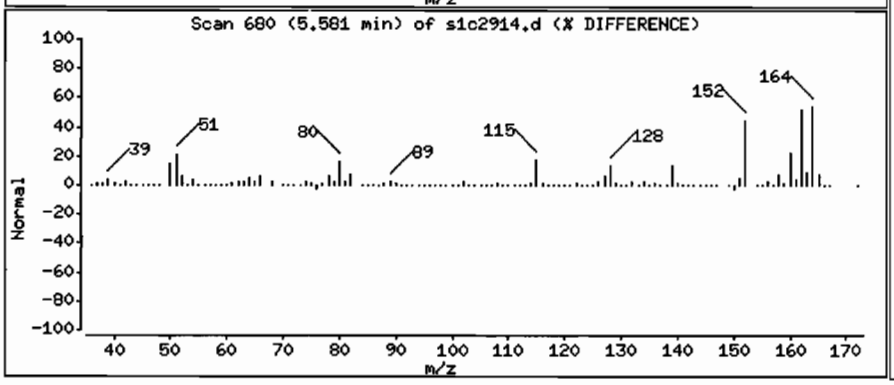

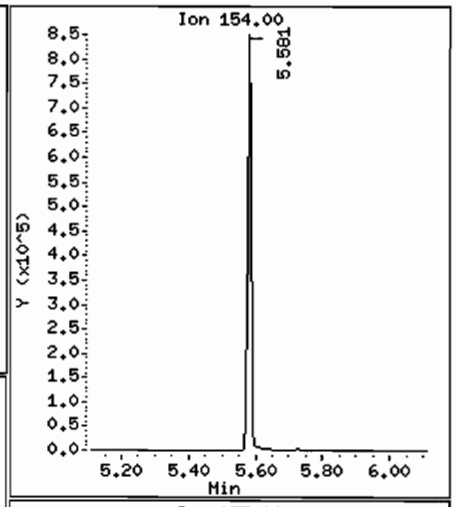

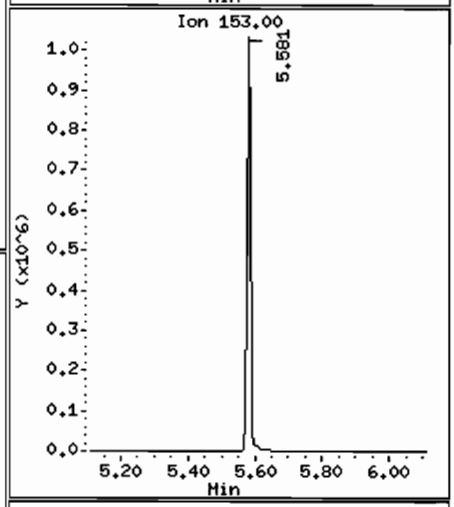

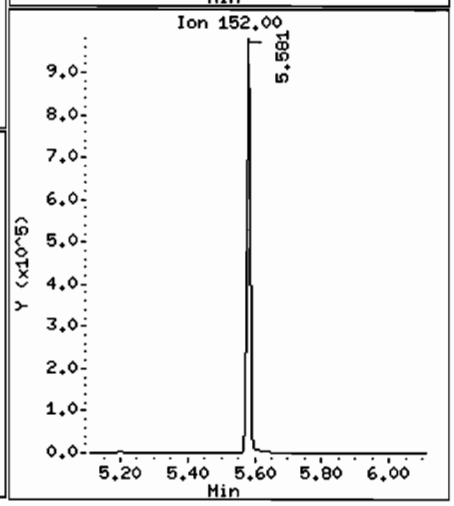

Data File: /chem/MSD1.i/s032910.b/s1c2914.d

Date : 29-MAR-2010 17:33

Client ID: RE46-10-13219

Instrument: MSD1.i

Sample Info: |249332001|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	45	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	25	C5H12O2	104
Propanoic acid, 2-methyl-, propyl ester	644-49-5	NIST05.L	13119	25	C7H14O2	130

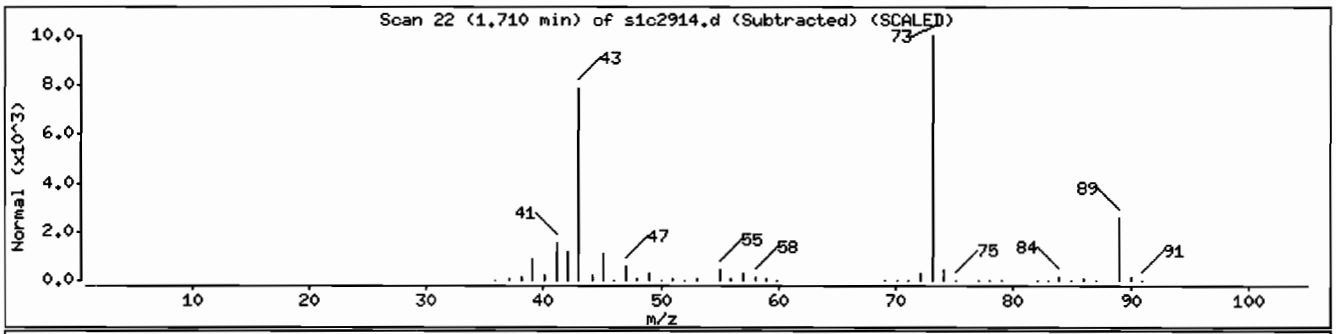

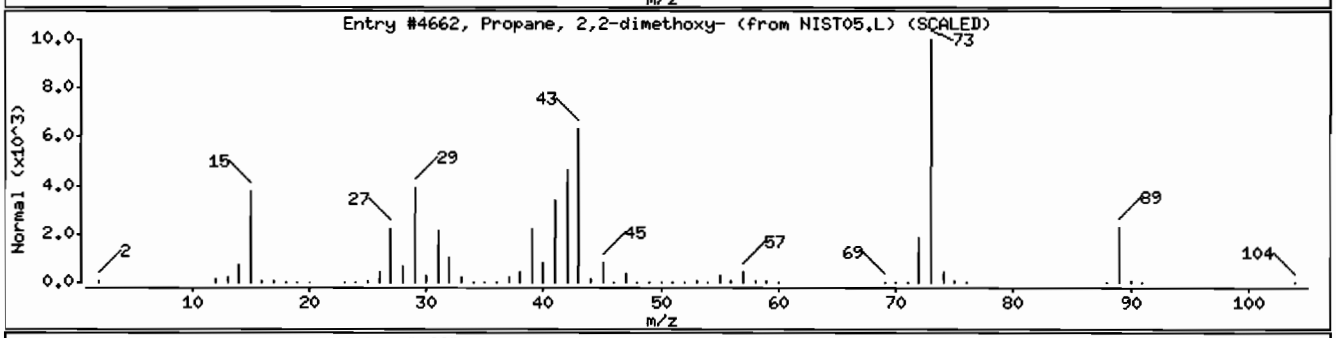

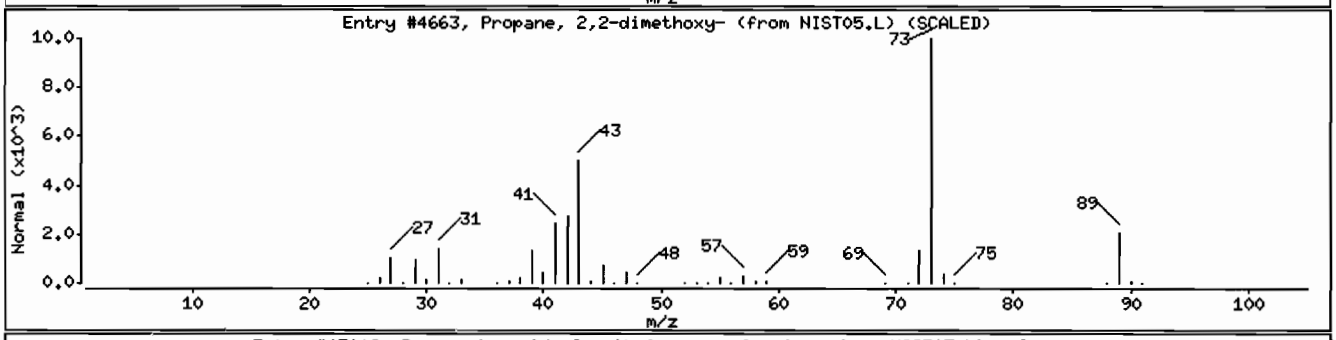

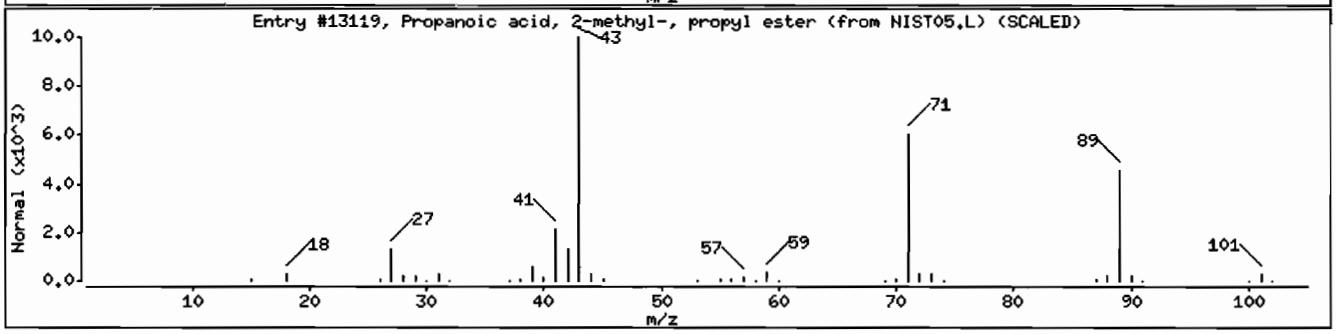

Data File: /chem/MSD1.i/s032910.b/s1c2914.d

Date : 29-MAR-2010 17:33

Client ID: RE46-10-13219

Instrument: MSD1.i

Sample Info: |249332001|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	53	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
t-Butyl nitrite	540-80-7	NIST05.L	4426	39	C4H9NO2	103

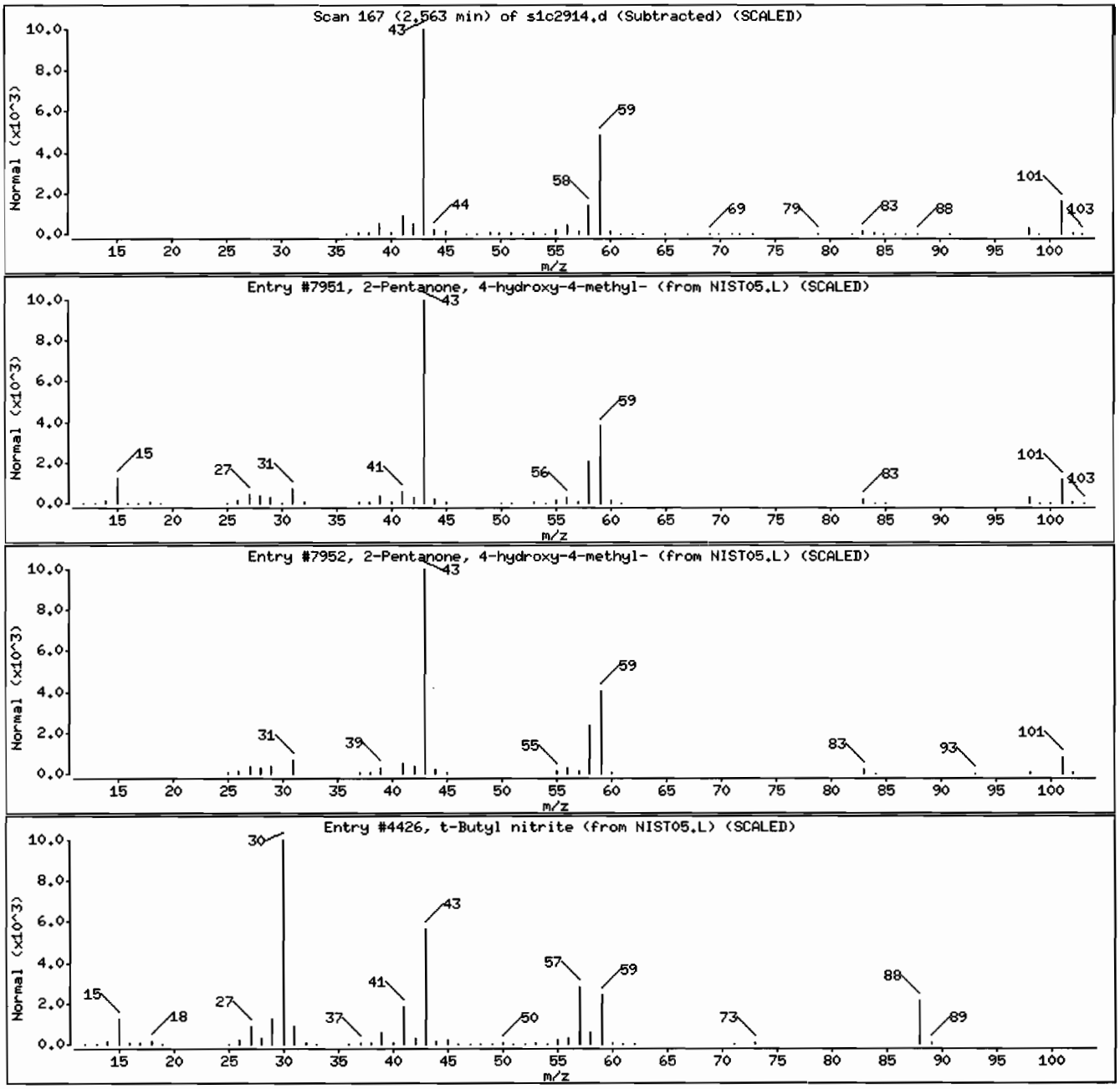

Data File: /chem/MSD1.i/s032910.b/s1c2914.d

Date : 29-MAR-2010 17:33

Client ID: RE46-10-13219 Instrument: MSD1.i

Sample Info: |249332001|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclopropaneoctanal, 2-octyl-	56196-06-6	NIST05.L	112082	90	C19H36O	280
9-Hexadecenoic acid	2091-29-4	NIST05.L	94742	83	C16H30O2	254
Oleic Acid	112-80-1	NIST05.L	113353	83	C18H34O2	282

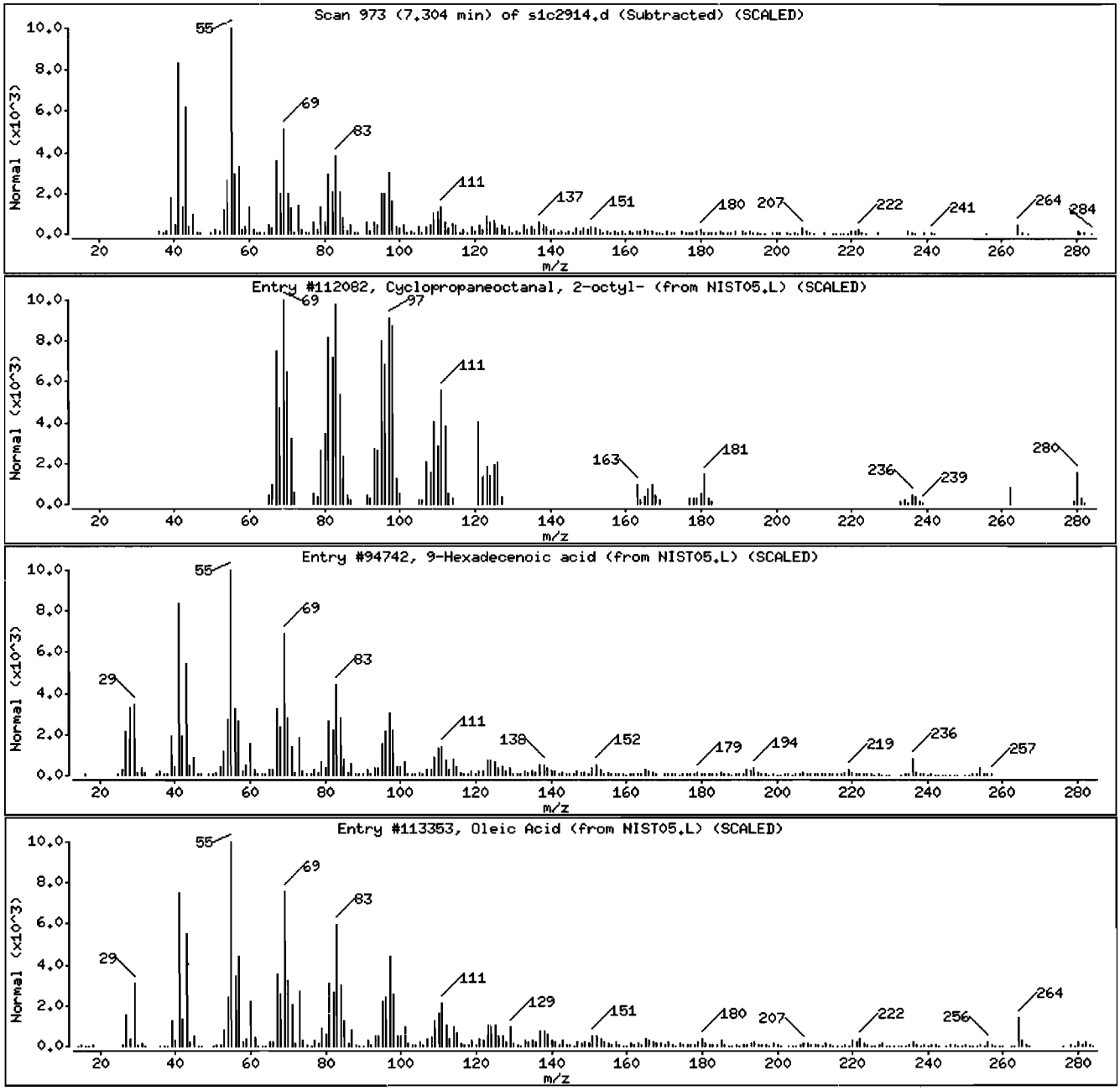

Data File: /chem/MSD1.i/s032910.b/s1c2914.d

Date : 29-MAR-2010 17:33

Client ID: RE46-10-13219 Instrument: MSD1.i

Sample Info: |249332001|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octadecanoic acid	57-11-4	NIST05.L	114820	98	C18H36O2	284
Octadecanoic acid	57-11-4	NIST05.L	114821	96	C18H36O2	284
Octadecanoic acid	57-11-4	NIST05.L	114822	94	C18H36O2	284

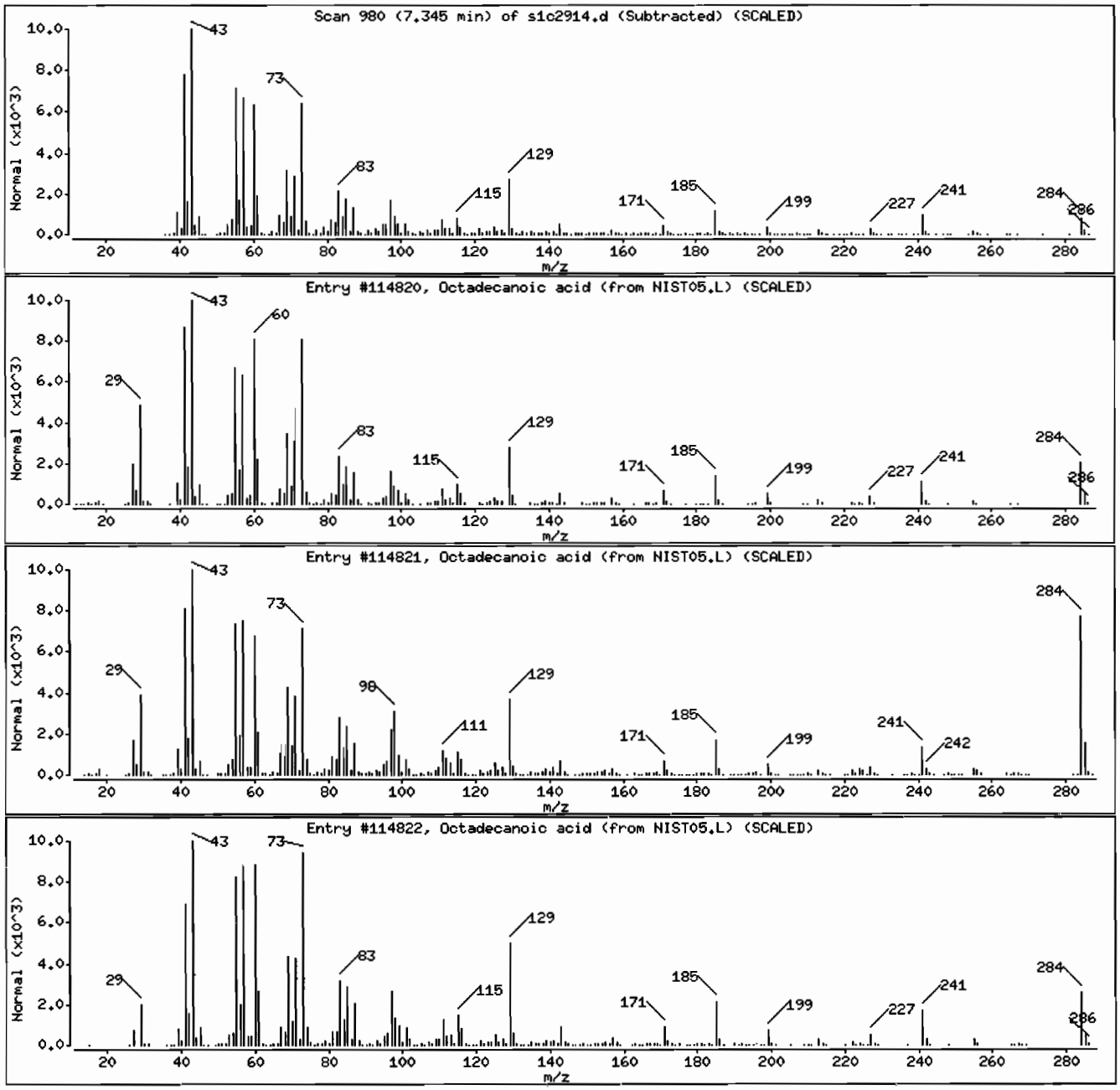

Data File: /chem/MSD1.i/s032910.b/s1c2914.d

Date : 29-MAR-2010 17:33

Client ID: RE46-10-13219

Instrument: MSD1.i

Sample Info: 1249332001|966766|1|SVH|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosanoic acid	506-30-9	NIST05.L	132301	99	C20H40O2	312
Eicosanoic acid	506-30-9	NIST05.L	132302	96	C20H40O2	312
Eicosanoic acid	506-30-9	NIST05.L	132303	94	C20H40O2	312

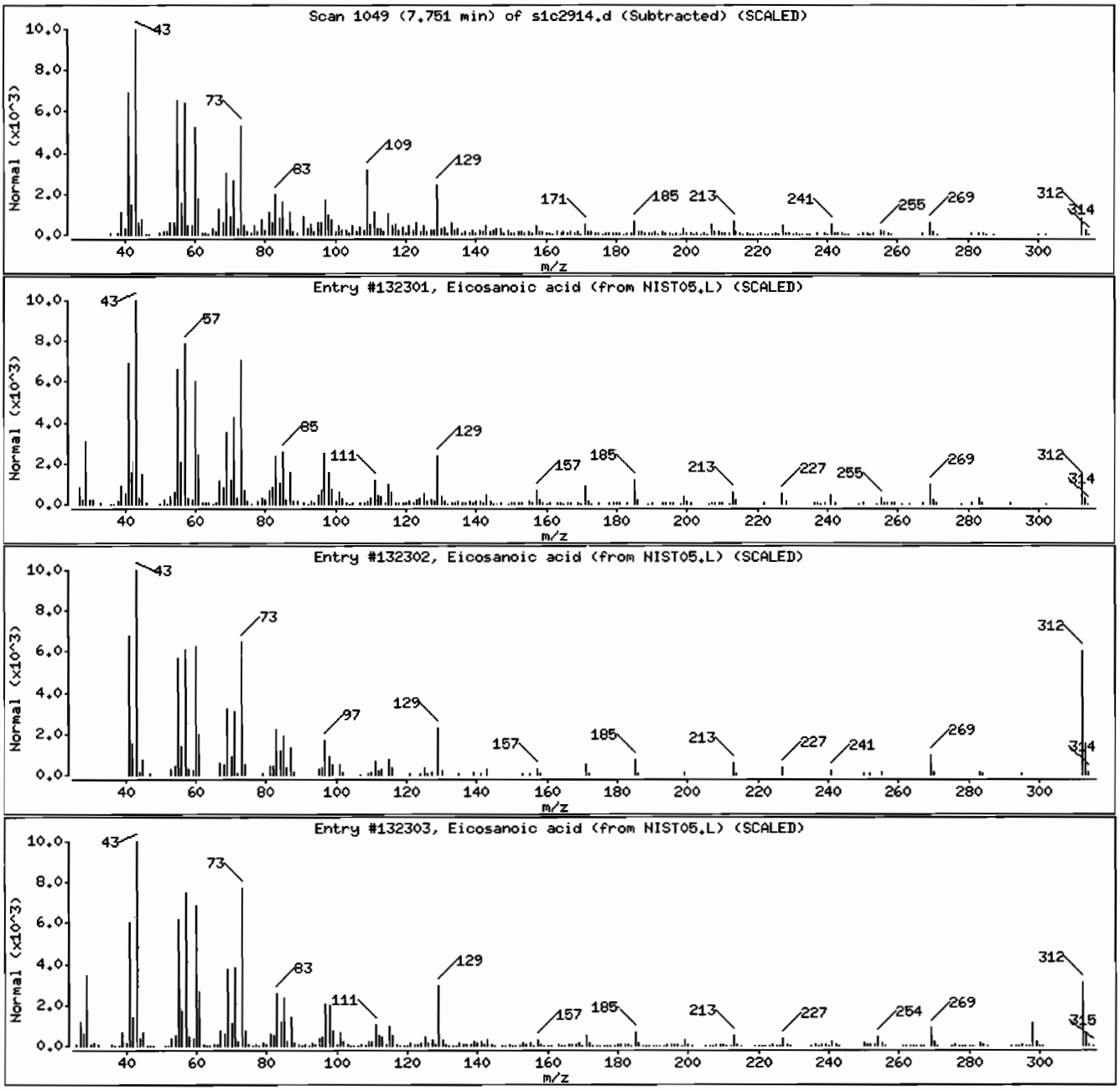

Data File: /chem/MSD1.i/s032910.b/s1c2914.d

Date : 29-MAR-2010 17:33

Client ID: RE46-10-13219 Instrument: MSD1.i

Sample Info: |249332001|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125036	99	C20H2802	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125037	91	C20H2802	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	87	C20H2802	300

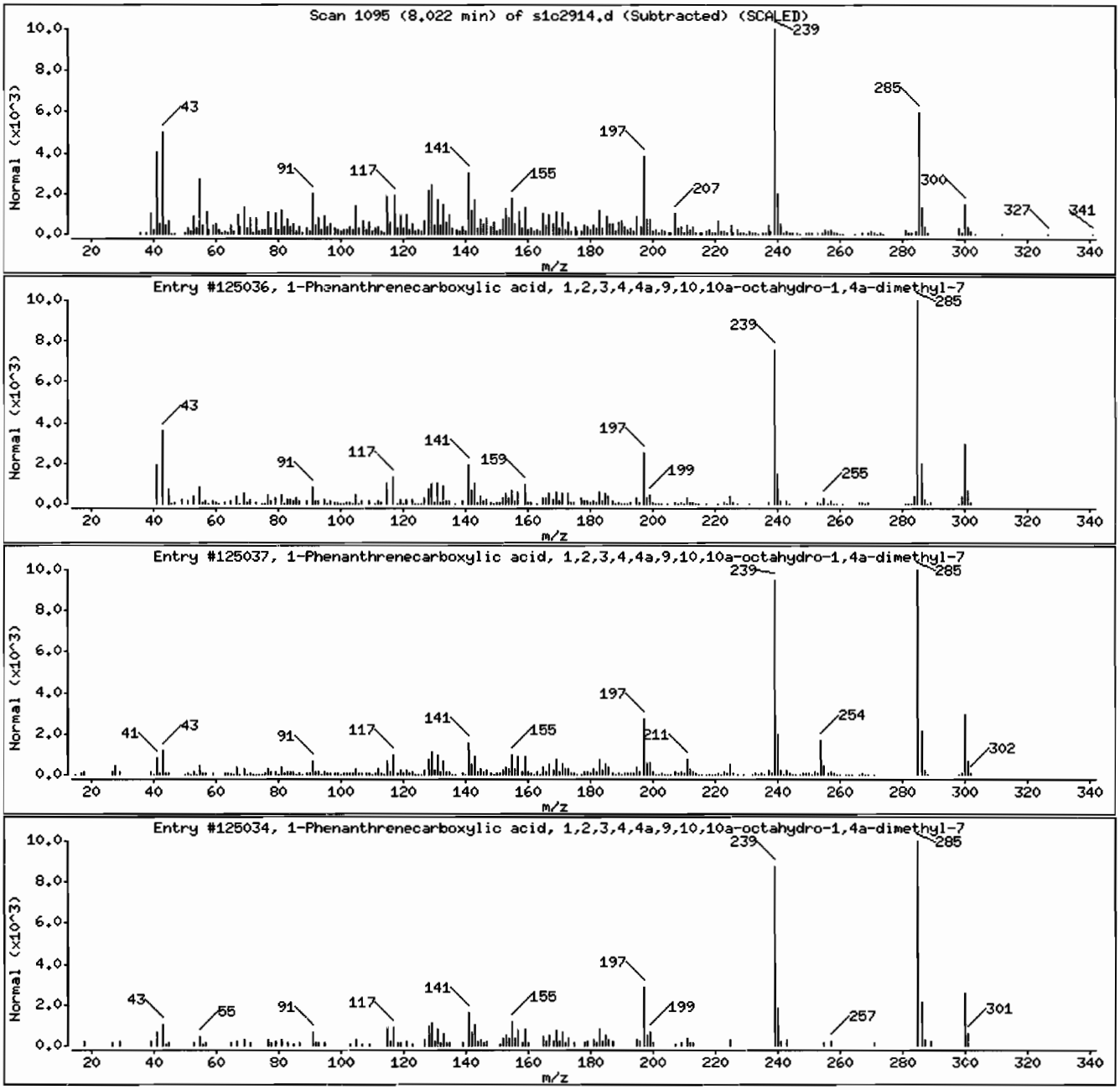

Data File: /chem/MSD1.i/s032910.b/s1c2914.d

Date : 29-MAR-2010 17:33

Client ID: RE46-10-13219 Instrument: MSD1.i

Sample Info: |249332001|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Docosanoic acid	112-85-6	NIST05.L	147935	97	C22H4402	340
Docosanoic acid	112-85-6	NIST05.L	147936	91	C22H4402	340
Tetradecanoic acid	544-63-8	NIST05.L	77275	58	C14H2802	228

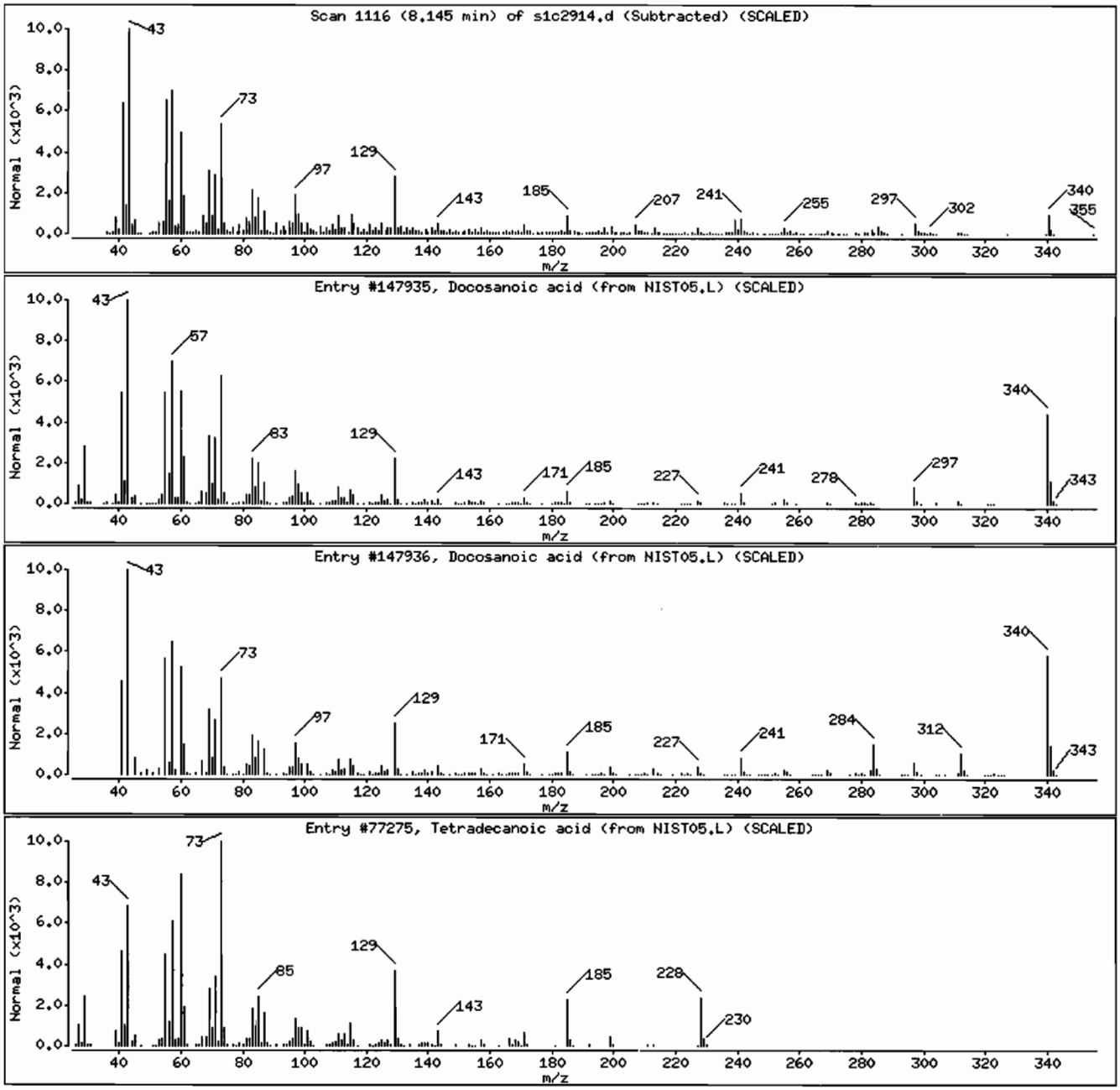

Data File: /chem/MSD1.i/s032910.b/s1c2914.d

Date : 29-MAR-2010 17:33

Client ID: RE46-10-13219

Instrument: MSD1.i

Sample Info: |249332001|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetracosanoic acid	557-59-5	NIST05.L	160633	97	C24H48O2	368
Oleic Acid	112-80-1	NIST05.L	113355	70	C18H34O2	282
Docosanoic acid	112-85-6	NIST05.L	147935	64	C22H44O2	340

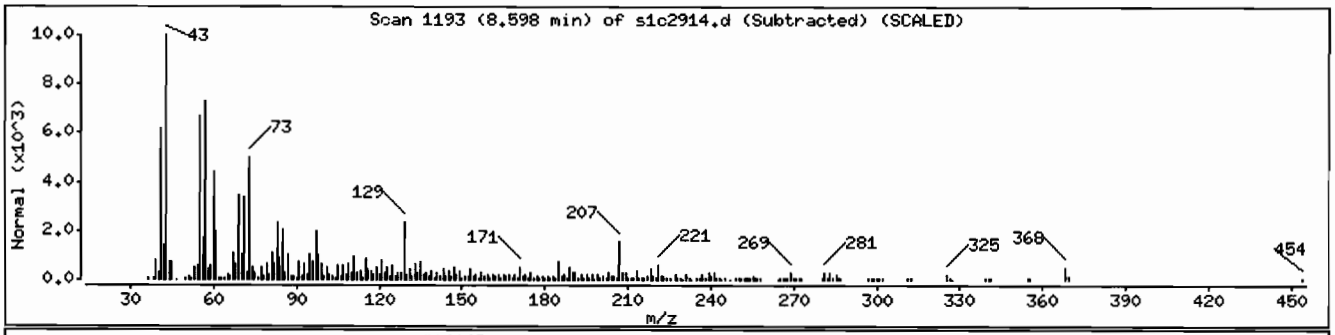

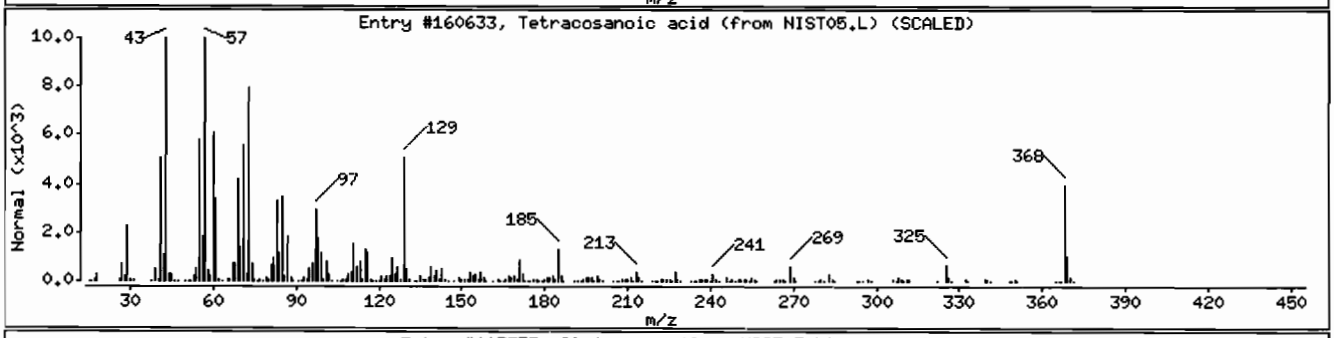

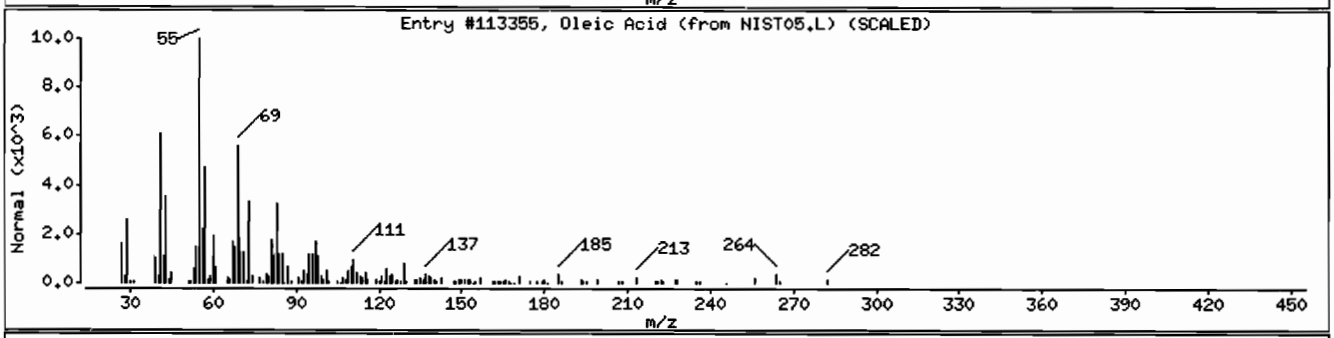

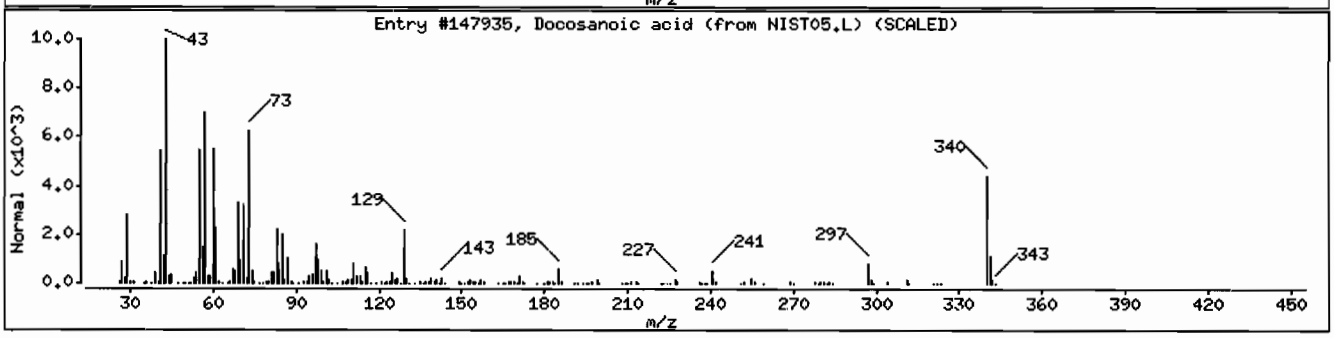

Data File: /chem/MSD1.i/s032910.b/s1c2914.d

Date : 29-MAR-2010 17:33

Client ID: RE46-10-13219

Instrument: MSD1.i

Sample Info: |249332001|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Docosene	1599-67-3	NIST05.L	129888	99	C22H44	308
1-Docosene	1599-67-3	NIST05.L	129889	98	C22H44	308
Acetic acid, trifluoro-, hexadecyl ester	6222-03-3	NIST05.L	146617	93	C18H33F3O2	338

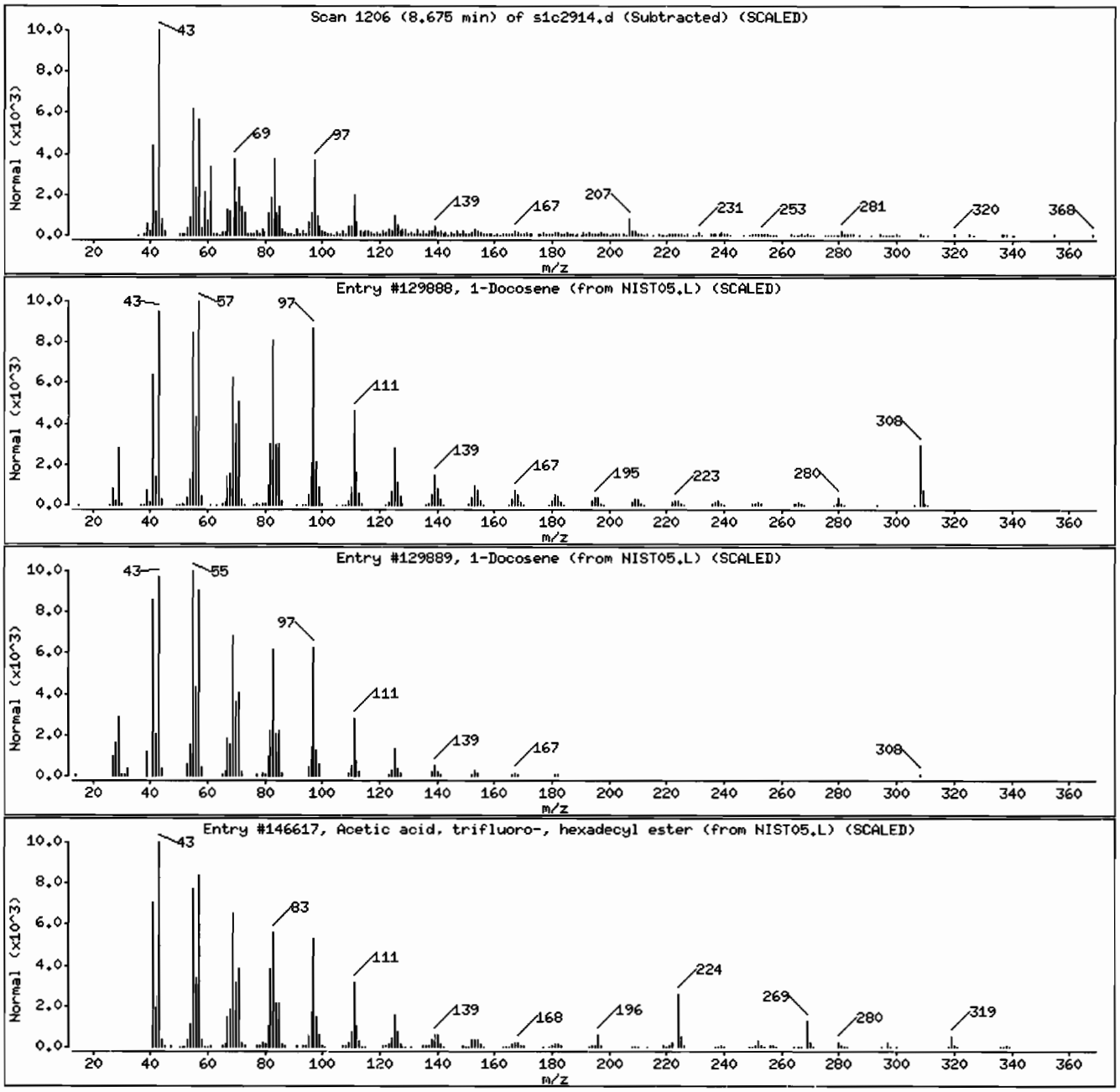

Data File: /chem/MSD1.i/s032910.b/s1c2914.d

Date : 29-MAR-2010 17:33

Client ID: RE46-10-13219

Instrument: MSD1.i

Sample Info: |249332001|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Docosene	1599-67-3	NIST05.L	129889	50	C22H44	308
13-Tetradecen-1-ol acetate	56221-91-1	NIST05.L	94752	50	C16H3002	254
Trichloroacetic acid, tridecyl ester	74339-51-8	NIST05.L	149490	50	C15H27Cl302	344

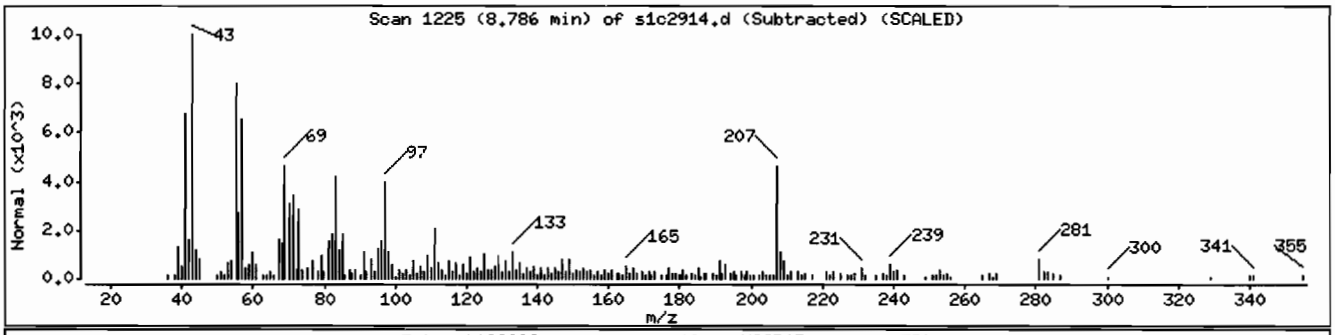

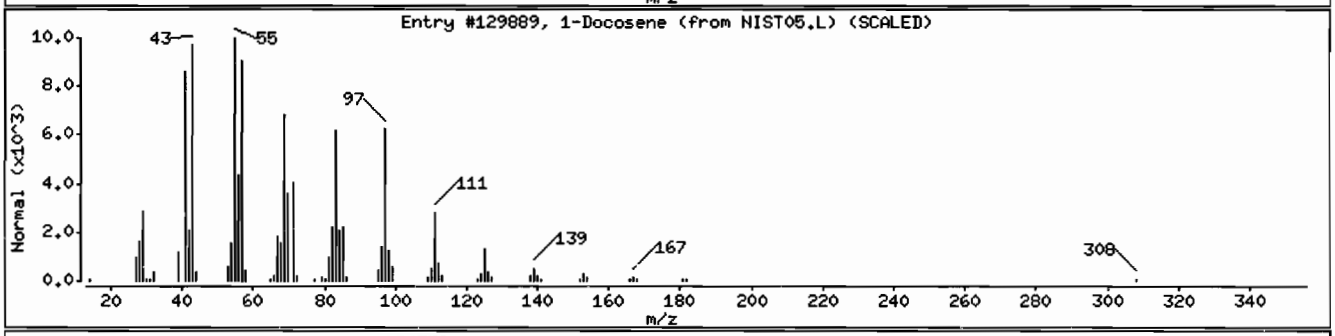

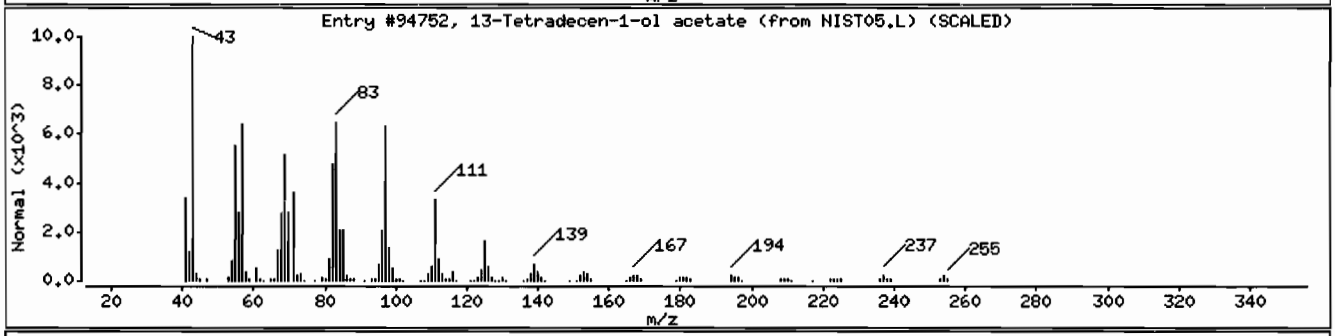

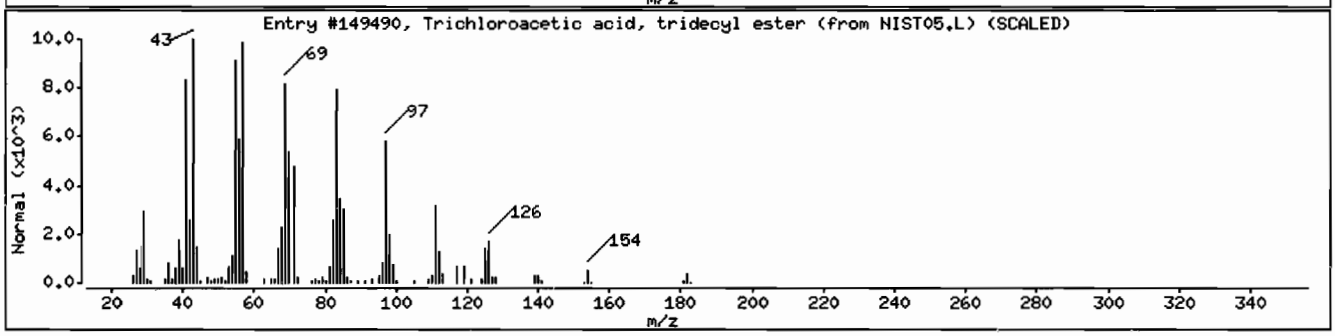

Data File: /chem/MSD1.i/s032910.b/s1c2914.d

Date : 29-MAR-2010 17:33

Client ID: RE46-10-13219 Instrument: MSD1.i

Sample Info: |2493320001|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Stigmastan-3,5-diene	1000214-16-4	NIST05.L	170301	70	C29H48	396
Formic acid, 1-(4,7-dihydro-2-methyl-7-o	1000267-28-6	NIST05.L	62365	35	C9H9N3O3	207
.beta.-Sitosterol acetate	915-05-9	NIST05.L	180704	30	C31H52O2	456

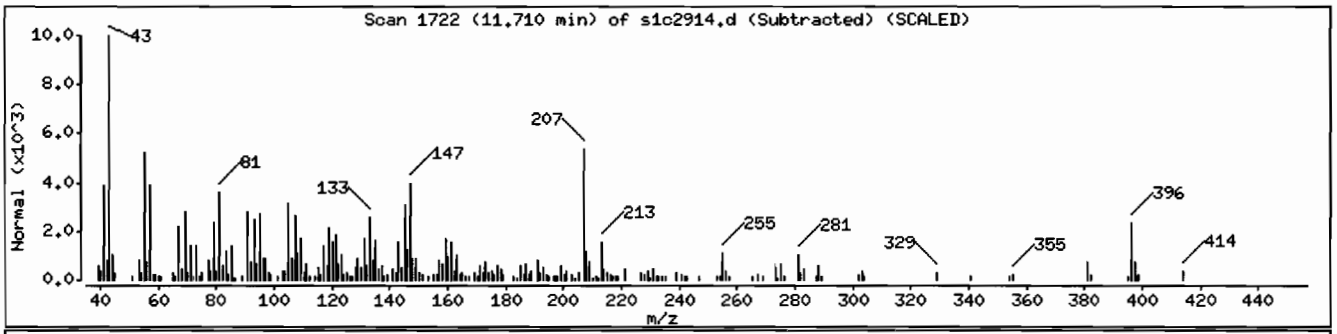

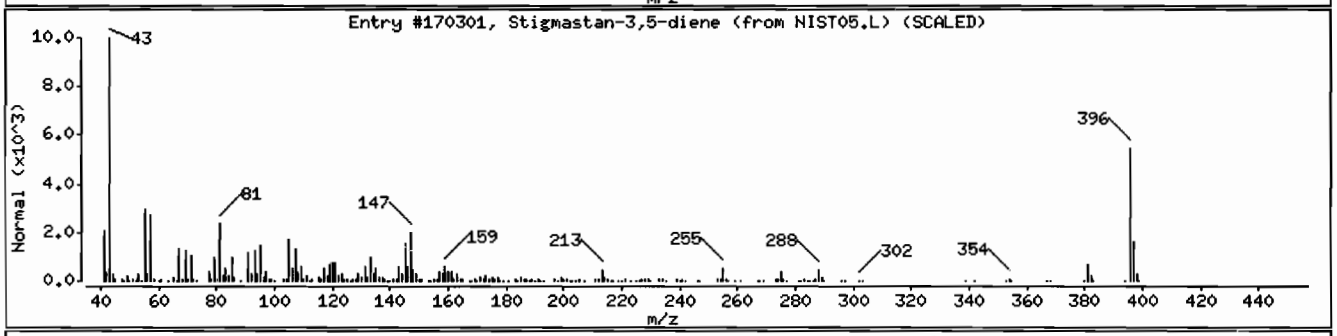

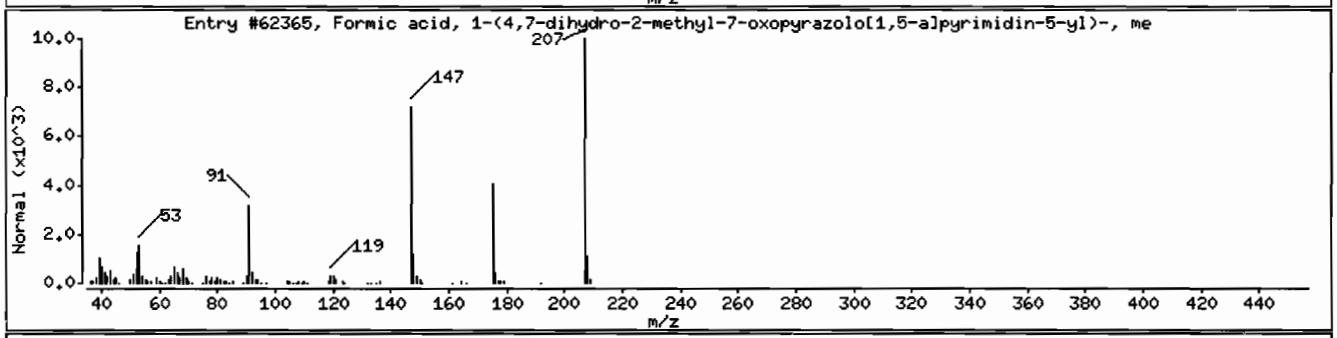

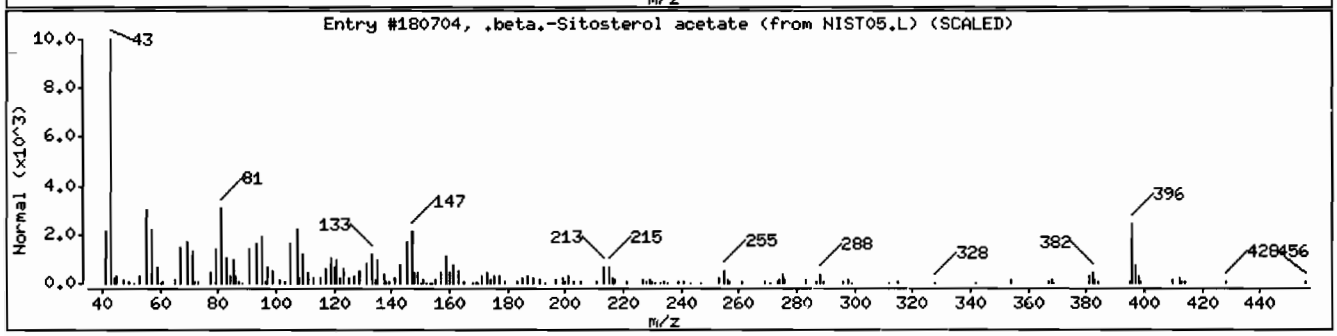

Data File: /chem/MSD1.i/s032910.b/s1c2914.d

Date : 29-MAR-2010 17:33

Client ID: RE46-10-13219 Instrument: MSD1.i

Sample Info: |249332001|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117326	83	C19H2802	288
Androst-4-en-3-one, 17-hydroxy-, (17.alp	481-30-1	NIST05.L	117331	46	C19H2802	288
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117328	42	C19H2802	288

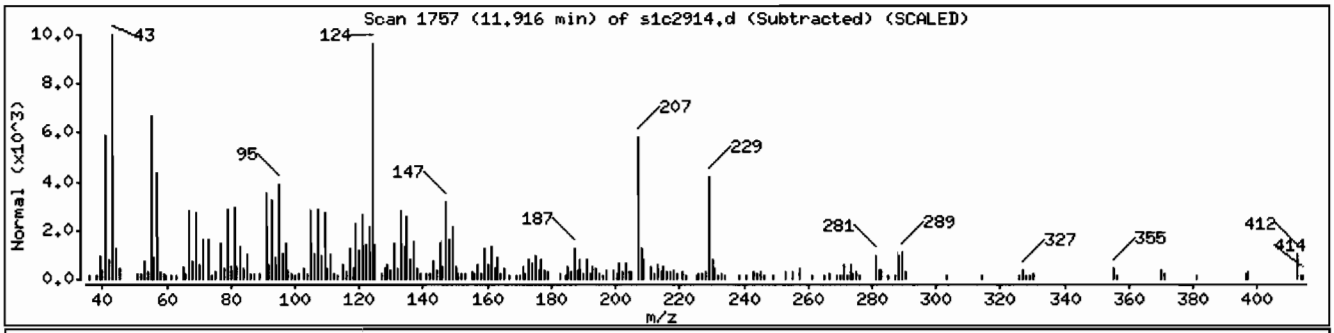

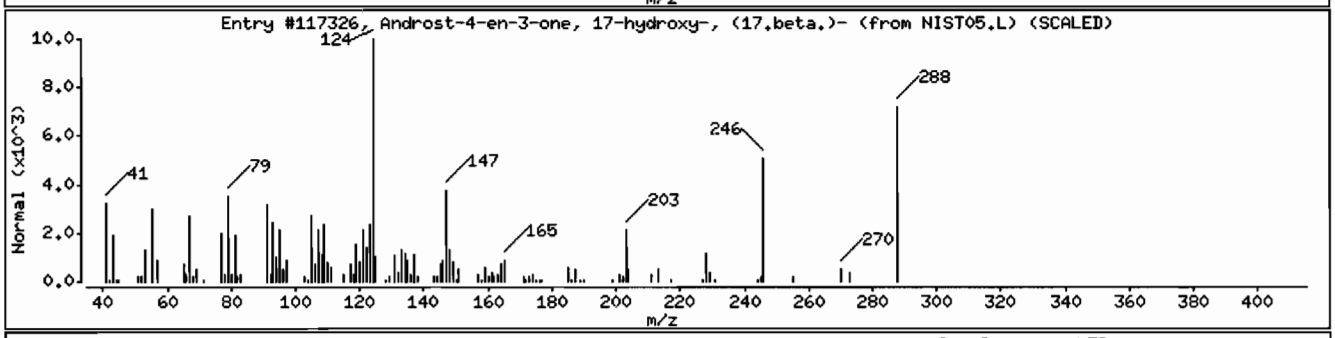

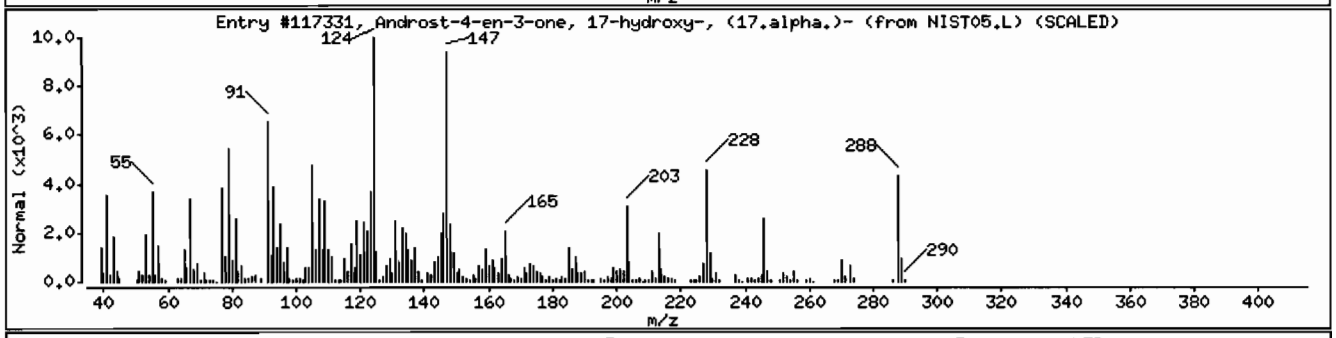

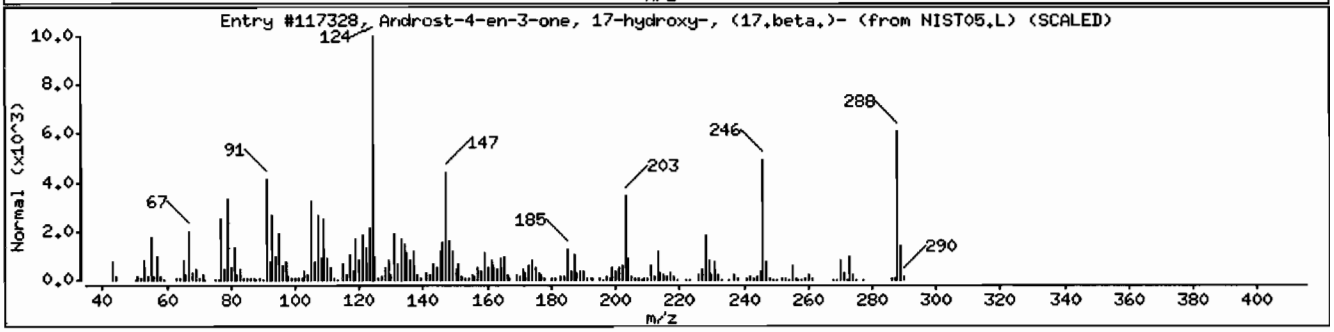

Data File: /chem/MSD1.i/s032910.b/s1c2914.d

Date : 29-MAR-2010 17:33

Client ID: RE46-10-13219 Instrument: MSD1.i

Sample Info: |249332001|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Friedelan-3-one	559-74-0	NIST05.L	176566	96	C30H500	426
1-Cyclohexene-1-butanal, .alpha.,2,6,6-t	21632-06-4	NIST05.L	62963	89	C14H240	208
13-Tetradece-11-yn-1-ol	1000131-00-4	NIST05.L	62946	64	C14H240	208

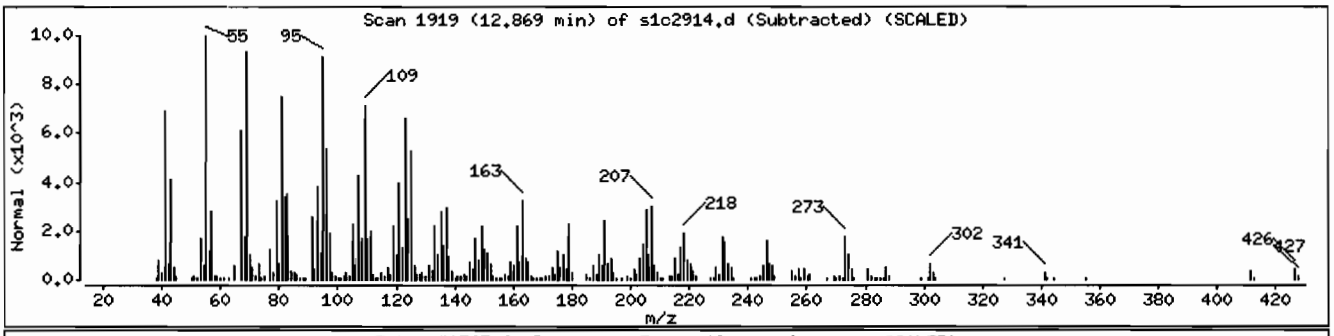

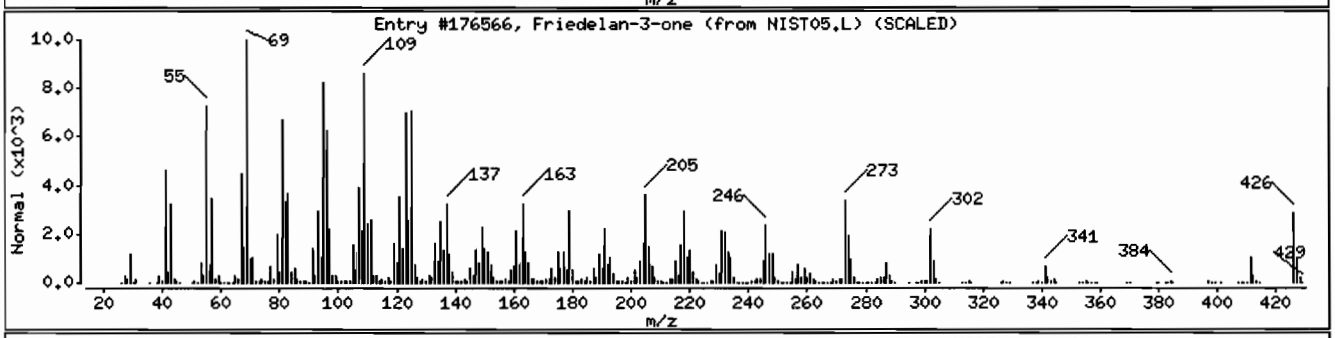

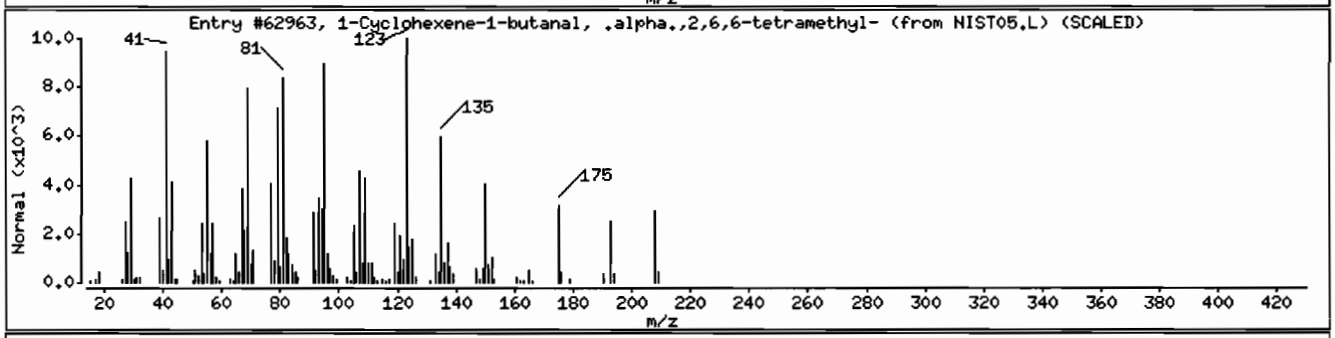

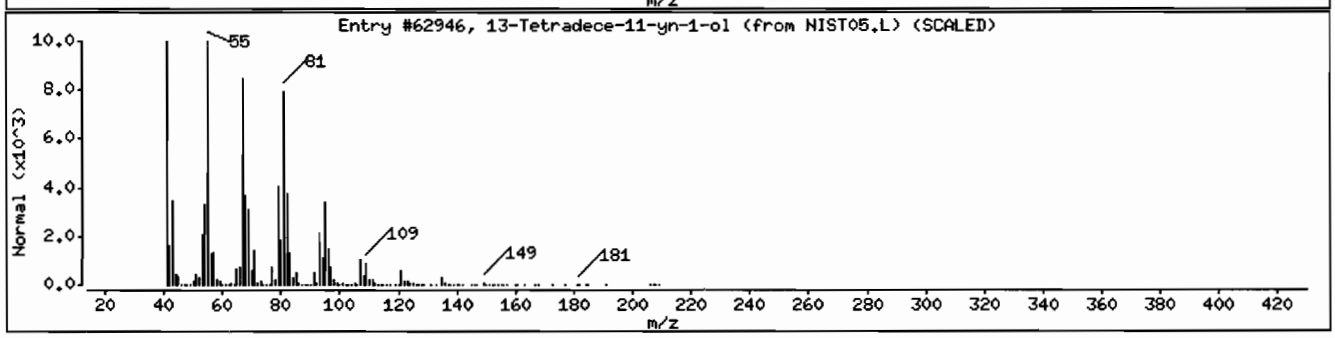

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13220**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 12:40**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3008.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	377	ug/kg	75.3	377
108-95-2	Phenol	U	377	ug/kg	75.3	377
95-57-8	2-Chlorophenol	U	377	ug/kg	75.3	377
106-46-7	1,4-Dichlorobenzene	U	377	ug/kg	75.3	377
621-64-7	N-Nitrosodipropylamine	U	377	ug/kg	75.3	377
59-50-7	4-Chloro-3-methylphenol	U	377	ug/kg	75.3	377
83-32-9	Acenaphthene	U	37.7	ug/kg	12.4	37.7
121-14-2	2,4-Dinitrotoluene	U	377	ug/kg	37.7	377
100-02-7	4-Nitrophenol	U	377	ug/kg	124	377
87-86-5	Pentachlorophenol	U	377	ug/kg	94.1	377
129-00-0	Pyrene	U	37.7	ug/kg	11.3	37.7
110-86-1	Pyridine	U	377	ug/kg	75.3	377
62-53-3	Aniline	U	377	ug/kg	113	377
111-44-4	bis(2-Chloroethyl) ether	U	377	ug/kg	75.3	377
541-73-1	1,3-Dichlorobenzene	U	377	ug/kg	75.3	377
100-51-6	Benzyl alcohol	U	377	ug/kg	113	377
95-50-1	1,2-Dichlorobenzene	U	377	ug/kg	75.3	377
108-60-1	bis(2-Chloroisopropyl)ether	U	377	ug/kg	75.3	377
95-48-7	o-Cresol	U	377	ug/kg	75.3	377
65794-96-9	m,p-Cresols	U	377	ug/kg	113	377
67-72-1	Hexachloroethane	U	377	ug/kg	75.3	377
98-95-3	Nitrobenzene	U	377	ug/kg	75.3	377
78-59-1	Isophorone	U	377	ug/kg	75.3	377
88-75-5	2-Nitrophenol	U	377	ug/kg	75.3	377
105-67-9	2,4-Dimethylphenol	U	377	ug/kg	132	377
111-91-1	bis(2-Chloroethoxy)methane	U	377	ug/kg	75.3	377
120-83-2	2,4-Dichlorophenol	U	377	ug/kg	75.3	377
65-85-0	Benzoic acid	U	753	ug/kg	188	753
91-20-3	Naphthalene	U	37.7	ug/kg	11.3	37.7
106-47-8	4-Chloroaniline	U	377	ug/kg	75.3	377
87-68-3	Hexachlorobutadiene	U	377	ug/kg	75.3	377
91-57-6	2-Methylnaphthalene	U	37.7	ug/kg	7.53	37.7
77-47-4	Hexachlorocyclopentadiene	U	377	ug/kg	75.3	377
88-06-2	2,4,6-Trichlorophenol	U	377	ug/kg	75.3	377
95-95-4	2,4,5-Trichlorophenol	U	377	ug/kg	75.3	377
91-58-7	2-Chloronaphthalene	U	37.7	ug/kg	12.4	37.7
88-74-4	2-Nitroaniline	U	377	ug/kg	75.3	377
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	377	ug/kg	75.3	377

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13220**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 12:40**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3008.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	377	ug/kg	75.3	377
606-20-2	2,6-Dinitrotoluene	U	377	ug/kg	37.7	377
208-96-8	Acenaphthylene	U	37.7	ug/kg	11.3	37.7
51-28-5	2,4-Dinitrophenol	U	753	ug/kg	143	753
132-64-9	Dibenzofuran	U	377	ug/kg	75.3	377
84-66-2	Diethylphthalate	U	377	ug/kg	75.3	377
86-73-7	Fluorene	U	37.7	ug/kg	11.3	37.7
7005-72-3	4-Chlorophenylphenylether	U	377	ug/kg	75.3	377
534-52-1	2-Methyl-4,6-dinitrophenol	U	377	ug/kg	75.3	377
100-01-6	4-Nitroaniline	U	377	ug/kg	113	377
	p-Nitroaniline					
122-39-4	Diphenylamine	U	377	ug/kg	75.3	377
122-66-7	Azobenzene	U	377	ug/kg	75.3	377
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	377	ug/kg	75.3	377
118-74-1	Hexachlorobenzene	U	377	ug/kg	75.3	377
85-01-8	Phenanthrene	U	37.7	ug/kg	11.3	37.7
120-12-7	Anthracene	U	37.7	ug/kg	7.53	37.7
84-74-2	Di-n-butylphthalate	U	377	ug/kg	75.3	377
206-44-0	Fluoranthene	U	37.7	ug/kg	11.3	37.7
85-68-7	Butylbenzylphthalate	U	377	ug/kg	75.3	377
56-55-3	Benzo(a)anthracene	U	37.7	ug/kg	11.3	37.7
91-94-1	3,3'-Dichlorobenzidine	U	377	ug/kg	113	377
218-01-9	Chrysene	U	37.7	ug/kg	11.3	37.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	377	ug/kg	75.3	377
117-84-0	Di-n-octylphthalate	U	377	ug/kg	75.3	377
205-99-2	Benzo(b)fluoranthene	U	37.7	ug/kg	11.3	37.7
207-08-9	Benzo(k)fluoranthene	U	37.7	ug/kg	11.3	37.7
50-32-8	Benzo(a)pyrene	U	37.7	ug/kg	11.3	37.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.7	ug/kg	11.3	37.7
53-70-3	Dibenzo(a,h)anthracene	U	37.7	ug/kg	11.3	37.7
191-24-2	Benzo(ghi)perylene	U	37.7	ug/kg	11.3	37.7
120-82-1	1,2,4-Trichlorobenzene	U	377	ug/kg	75.3	377

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	587	ug/kg		JA
57-10-3	n-Hexadecanoic acid	6.87	166	ug/kg	96	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13220**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 12:40**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3008.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	10.62	176	ug/kg		J
	Unknown	11.16	183	ug/kg		J
1058-61-3	Stigmast-4-en-3-one	11.86	159	ug/kg	97	NJ
559-74-0	Friedelan-3-one	12.8	801	ug/kg	99	NJ
	Unknown	12.94	172	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3008.d
Lab Smp Id: 249332003 Client Smp ID: RE46-10-13220
Inj Date : 30-MAR-2010 12:40
Operator : AMY Inst ID: MSD1.i
Smp Info : |249332003|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 15:41 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	11.50580	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.487	3.487	(1.000)	473667	40.0000	
* 29 Naphthalene-d8	136	4.334	4.334	(1.000)	1820034	40.0000	
* 46 Acenaphthene-d10	164	5.569	5.569	(1.000)	939951	40.0000	
* 67 Phenanthrene-d10	188	6.587	6.587	(1.000)	1612144	40.0000	
* 91 Chrysene-d12	240	8.151	8.151	(1.000)	1079259	40.0000	
* 98 Perylene-d12	264	9.310	9.310	(1.000)	720647	40.0000	
$ 3 2-Fluorophenol	112	2.716	2.704	(0.779)	843157	69.1279	2600
$ 5 Phenol-d5	99	3.228	3.228	(0.926)	1016270	68.4156	2580
$ 20 Nitrobenzene-d5	82	3.840	3.845	(0.886)	429155	38.4450	1450
$ 39 2-Fluorobiphenyl	172	5.075	5.075	(0.911)	927090	35.7134	1340
$ 60 2,4,6-Tribromophenol	329	6.122	6.128	(1.099)	202387	65.6756	2470
$ 81 p-Terphenyl-d14	244	7.516	7.510	(0.922)	914441	50.8216	1910

ION RATIO REPORT

SV REPORT

Data file: s1c3008.d
Report Date: 03/30/2010 15:31
Lab. ID: 249332003 SampleType: SAMPLE
Injection Date: 30-MAR-2010 12:40
Operator: AMY Instrument: MSD1.i
Sample Info: |249332003|966766|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2433
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	50446	3.23	3.28	80-120	100	( )
93	3076	3.26	3.28	200-260	6	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	59061	3.84	3.74	80-120	100	(T)
42	39612	3.84	3.74	49-109	67	(T)
41 m-Nitroaniline			CAS#: 99-09-2			
138	193	5.57	5.54	80-120	100	( )
92	4384	5.57	5.54	73-133	2262	(Q)
108	17419	5.57	5.54	0- 41	8989	(Q)
43 Dimethylphthalate			CAS#: 131-11-3			
163	169616	5.57	5.36	80-120	100	(T)
164	939951	5.57	5.36	0- 40	554	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	121267	5.57	5.41	80-120	100	(T)
63	3107	5.57	5.41	51-111	3	(QT)
47 Acenaphthene			CAS#: 83-32-9			
154	8031	5.56	5.60	80-120	100	( )
153	6383	5.56	5.60	74-134	79	( )
152	6475	5.56	5.60	18- 78	81	(Q)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	121267	5.57	5.70	80-120	100	(T)
89	1763	5.57	5.70	40-100	1	(QT)
63	3107	5.57	5.70	20- 80	3	(QT)
53 Fluorene			CAS#: 86-73-7			
166	15314	6.12	5.96	80-120	100	(T)
165	15481	6.12	5.96	62-122	101	(T)
167	5465	6.12	5.96	0- 44	36	(T)
61 4-Bromophenylphenylether			CAS#: 101-55-3			
248	15341	6.12	6.28	80-120	100	(T)
141	93116	6.12	6.28	47-107	607	(QT)
250	30903	6.12	6.28	66-126	201	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3008.d
Lab Smp Id: 249332003 Client Smp ID: RE46-10-13220
Inj Date : 30-MAR-2010 12:40
Operator : AMY Inst ID: MSD1.i
Smp Info : |249332003|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 15:41 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	11.50580	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.487	2889123	40.000
* 67 Phenanthrene-d10	6.587	3999817	40.000
* 98 Perylene-d12	9.310	2061359	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.552	1125129	15.5774395	586	0		0	10
n-Hexadecanoic acid					CAS #: 57-10-3		
6.875	441191	4.41211101	166	96	NIST05.L	96233	67
Unknown					CAS #:		
10.616	240466	4.66616701	176	0		0	98
Unknown					CAS #:		
11.157	250885	4.86833869	183	0		0	98
Stigmast-4-en-3-one					CAS #: 1058-61-3		
11.863	218075	4.23168099	159	97	NIST05.L	173936	98
Friedelan-3-one					CAS #: 559-74-0		
12.804	1095879	21.2651661	801	99	NIST05.L	176566	98
Unknown					CAS #:		
12.939	235709	4.57386244	172	0		0	98

Data File: /chem/MSD1.i/s033010.b/s1c3008.d
Date : 30-MAR-2010 12:40
Client ID: RE46-10-13220
Sample Info: |2493320031966766|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

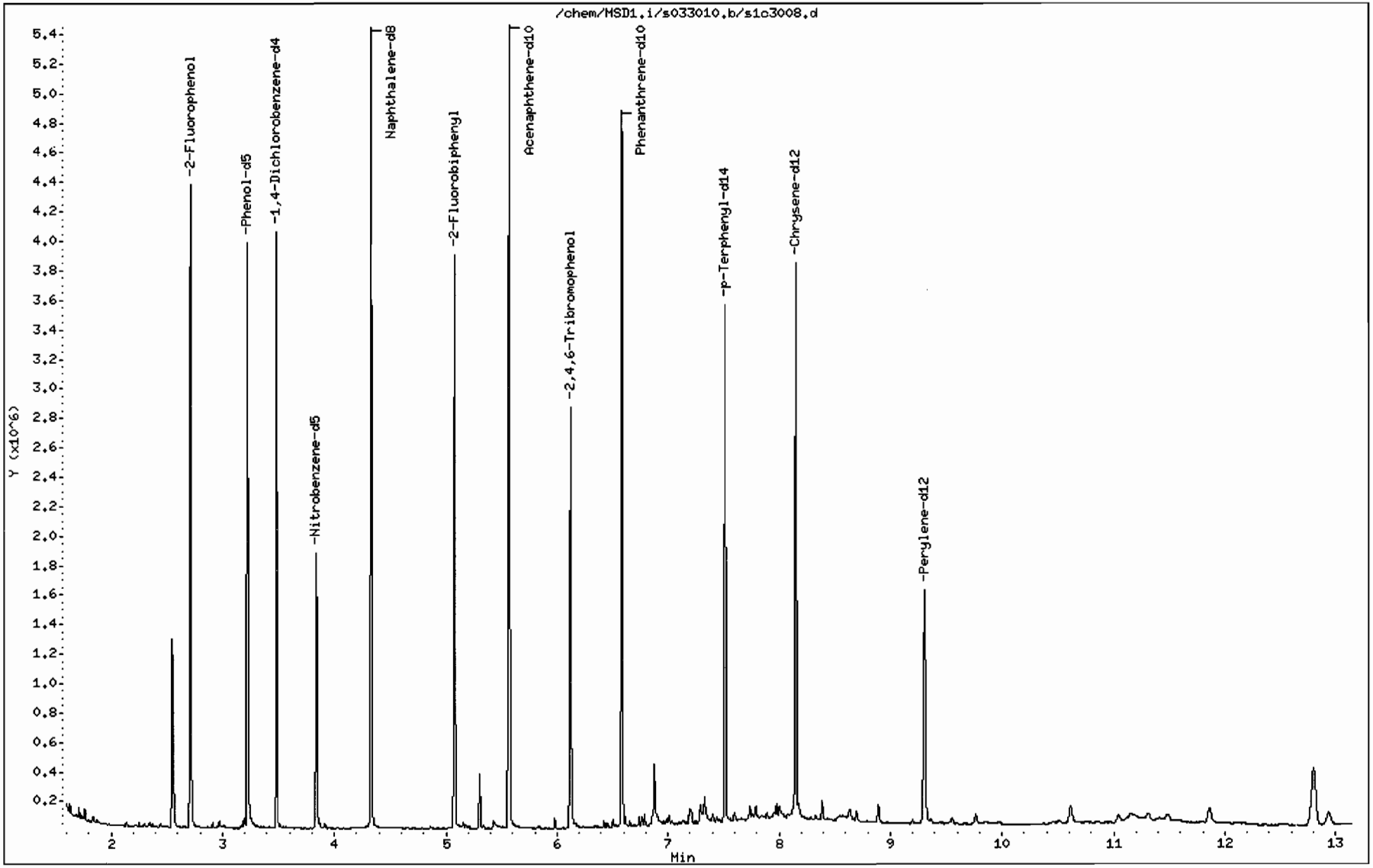

Data File: /chem/MSD1.i/s033010.b/s1c3008.d

Date : 30-MAR-2010 12:40

Client ID: RE46-10-13220

Instrument: MSD1.i

Sample Info: |249332003|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
t-Butyl nitrite	540-80-7	NIST05.L	4426	39	C4H9NO2	103

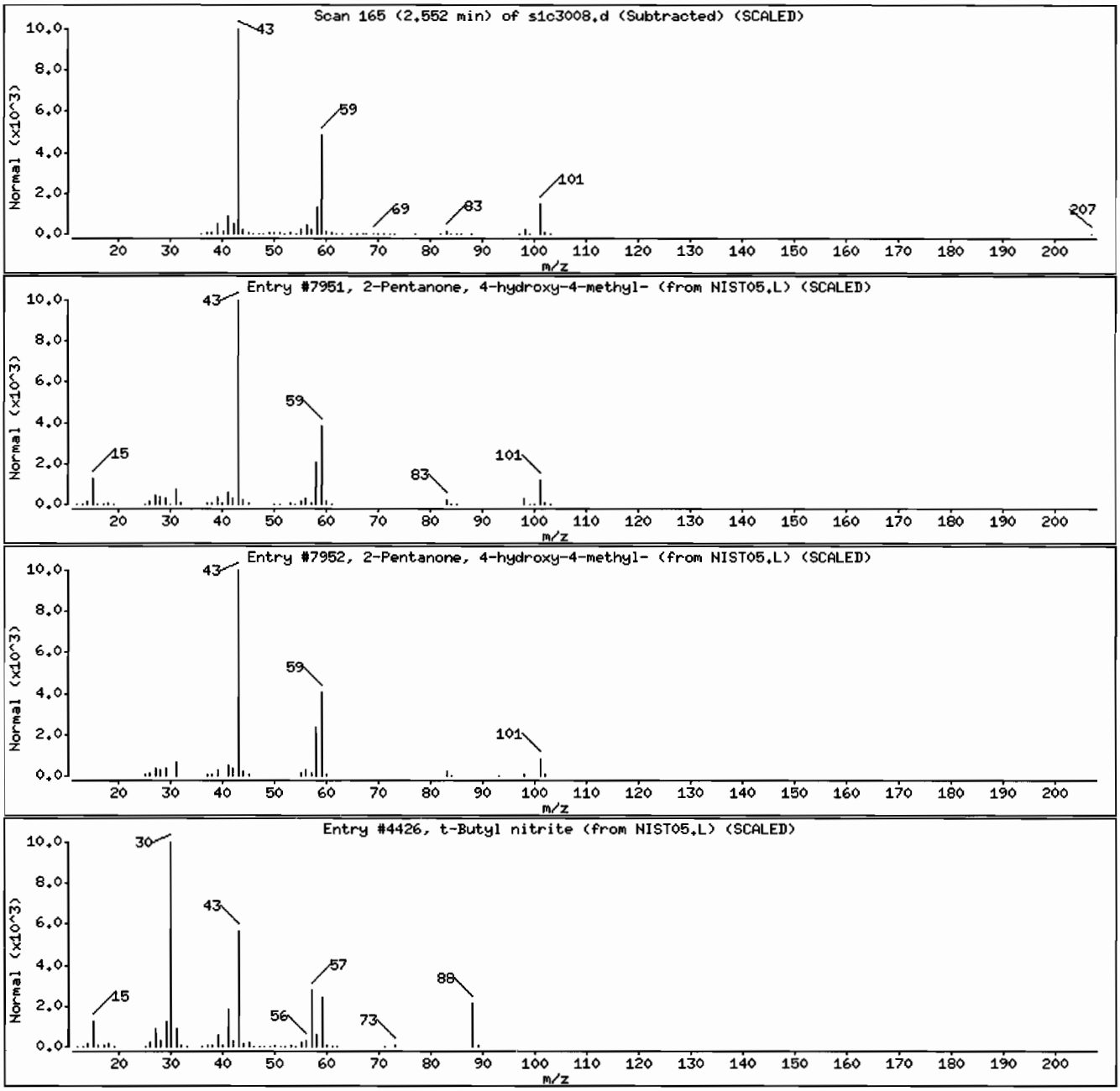

Data File: /chem/MSD1.i/s033010.b/s1c3008.d

Date : 30-MAR-2010 12:40

Client ID: RE46-10-13220

Instrument: MSD1.i

Sample Info: |249332003|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
n-Hexadecanoic acid	57-10-3	NIST05.L	96233	96	C16H32O2	256
n-Hexadecanoic acid	57-10-3	NIST05.L	96234	96	C16H32O2	256
n-Hexadecanoic acid	57-10-3	NIST05.L	96235	96	C16H32O2	256

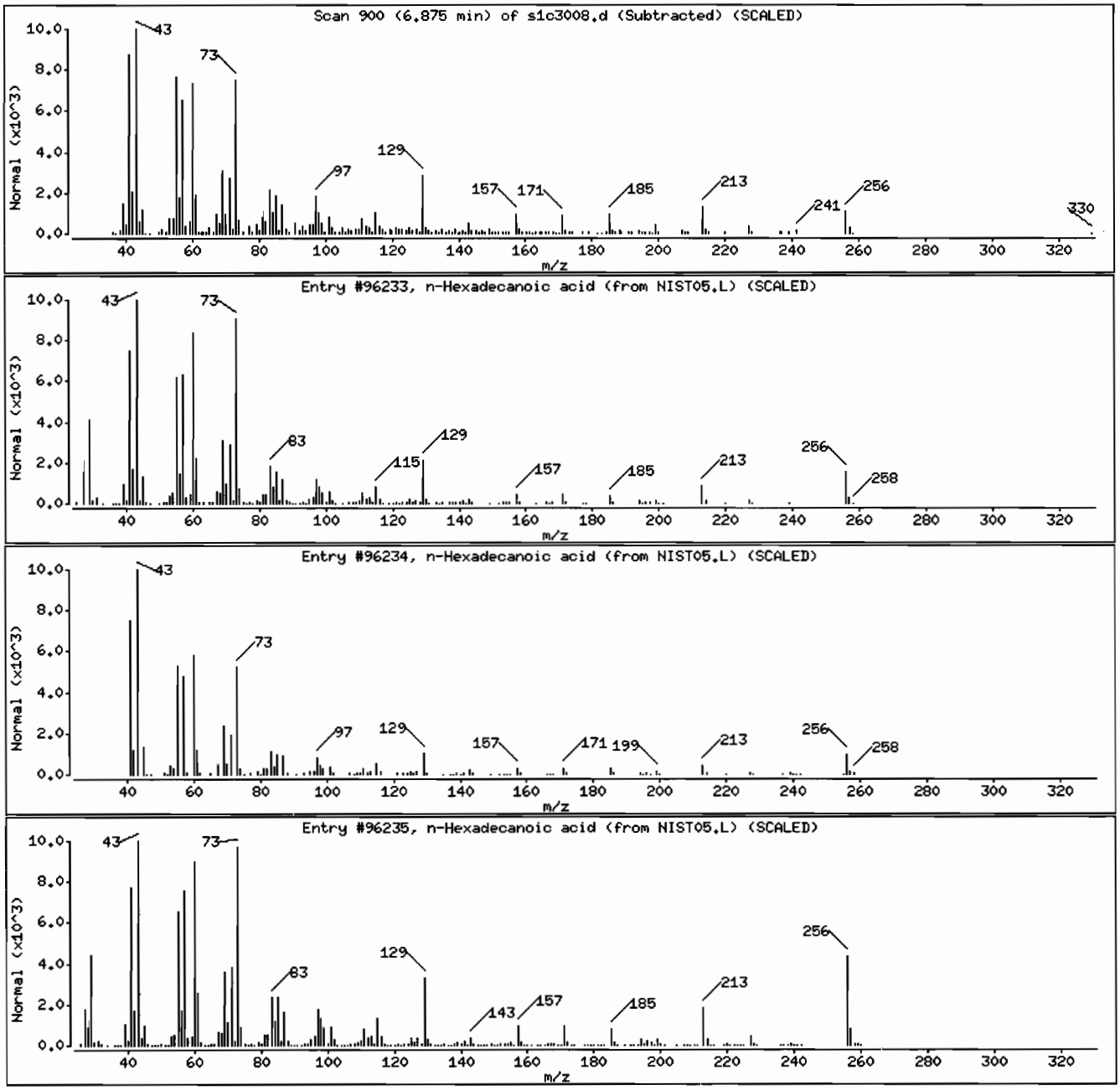

Data File: /chem/MSD1.i/s033010.b/s1c3008.d

Date : 30-MAR-2010 12:40

Client ID: RE46-10-13220 Instrument: MSD1.i

Sample Info: |249332003|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73121	22	C6H18O3Si3	222
2-Ethylacridine	55751-83-2	NIST05.L	62222	18	C15H13N	207
4-Quinolinecarboxylic acid, 2-chloro-	5467-57-2	NIST05.L	61900	15	C10H6ClNO2	207

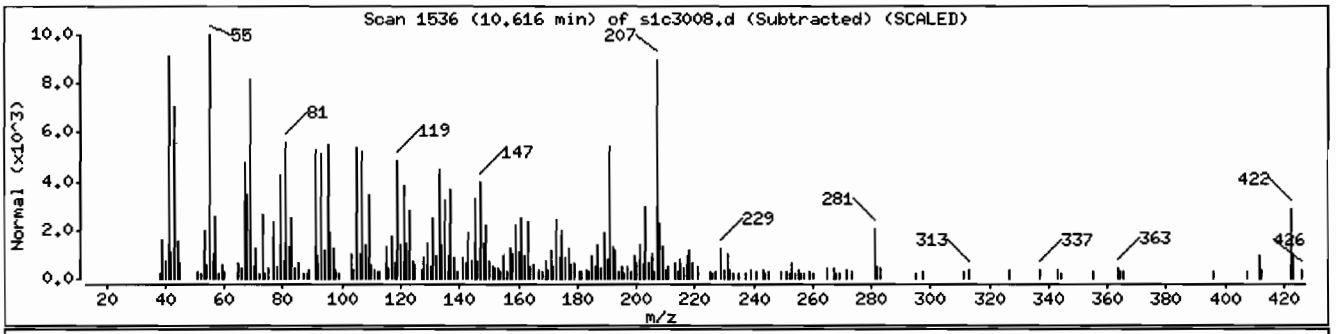

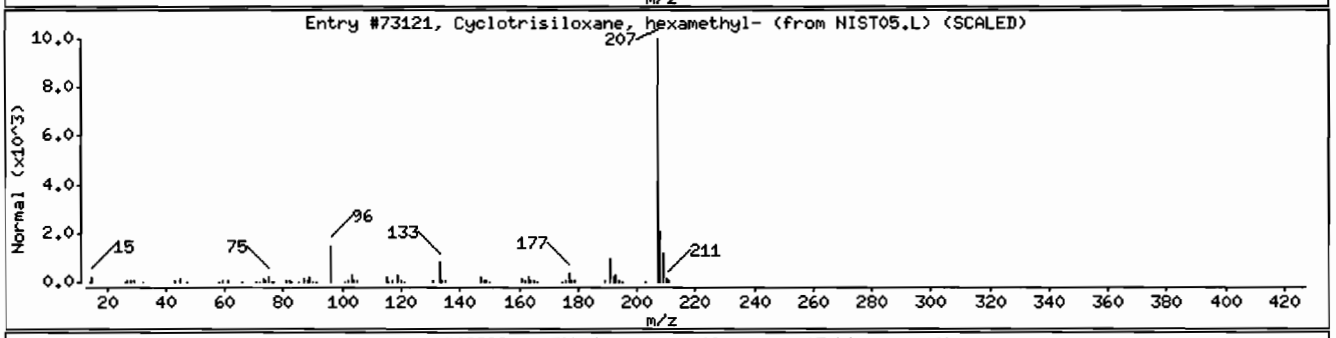

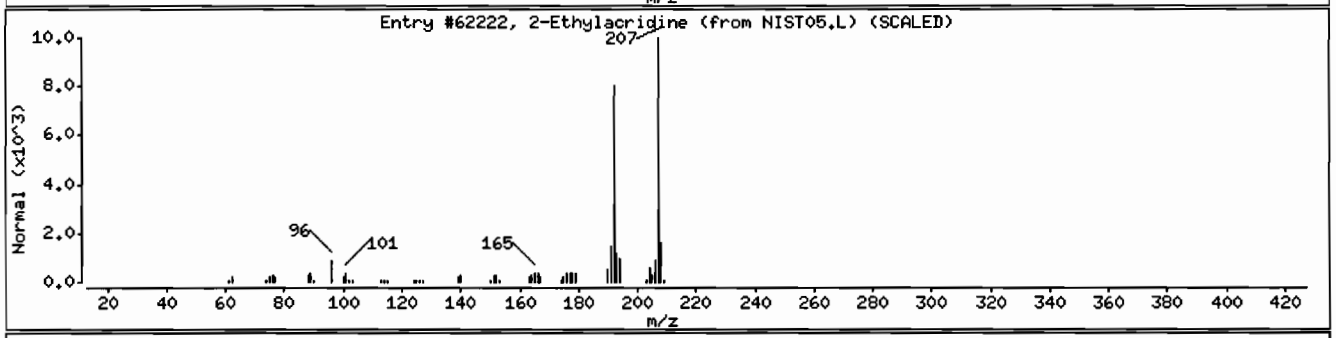

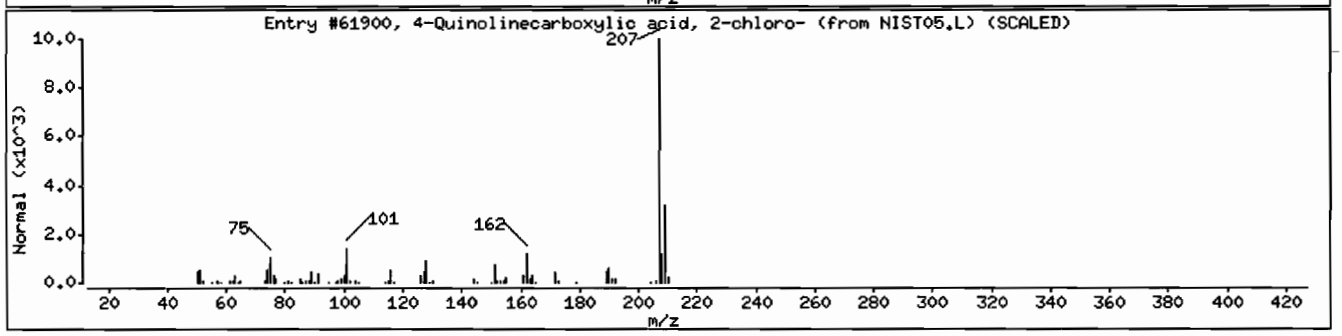

Data File: /chem/MSD1.i/s033010.b/s1c3008.d

Date : 30-MAR-2010 12:40

Client ID: RE46-10-13220 Instrument: MSD1.i

Sample Info: |249332003|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ethanone, 2-(2-benzothiazolylthio)-1-(3,	155670-84-1	NIST05.L	126423	38	C14H13N3OS2	303
Anthracene, 9-ethyl-9,10-dihydro-9,10-di	54947-86-3	NIST05.L	82678	38	C18H20	236
Formic acid, 1-(4,7-dihydro-2-methyl-7-o	1000267-28-6	NIST05.L	62365	35	C9H9N3O3	207

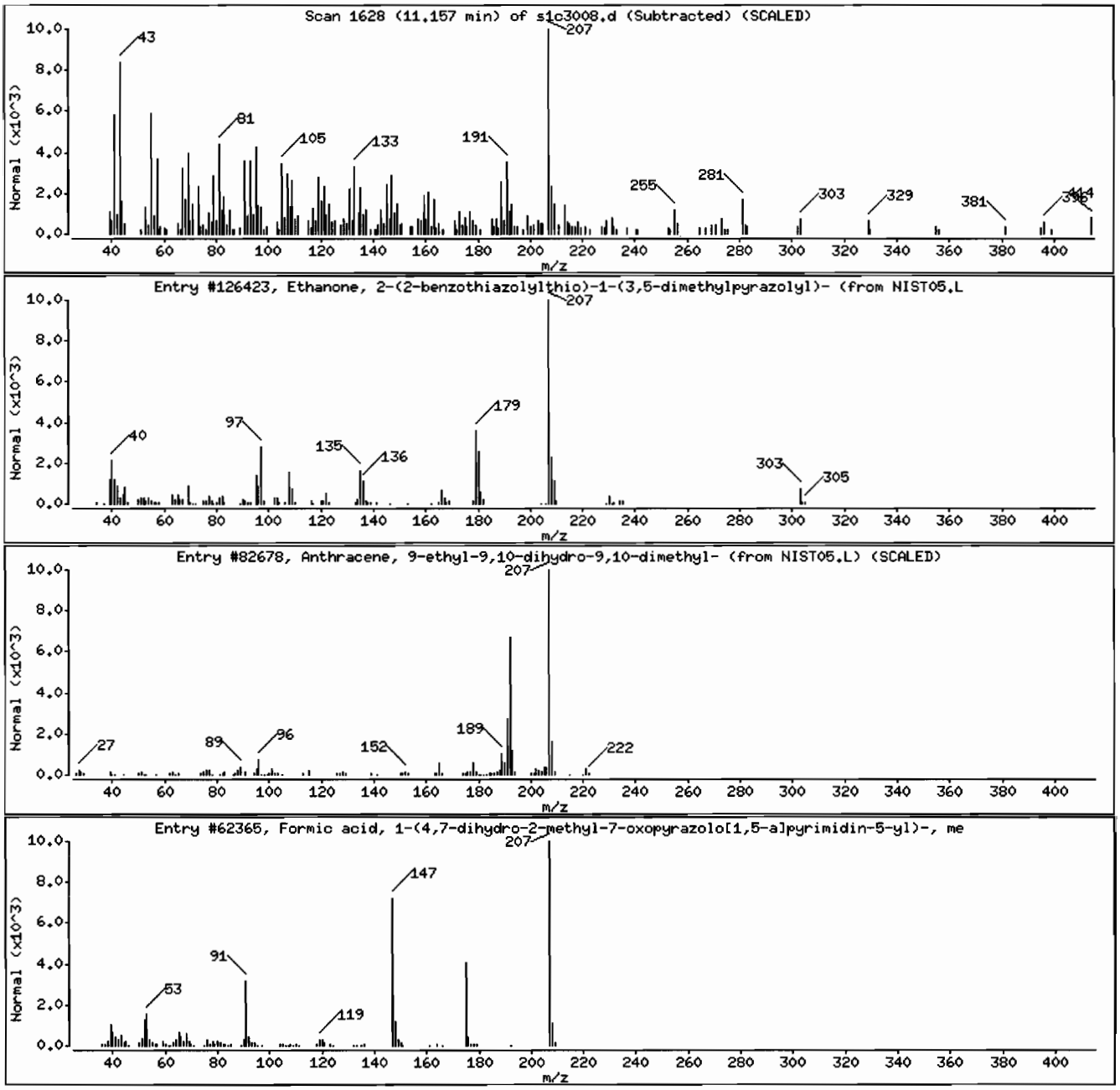

Data File: /chem/MSD1.i/s033010.b/s1c3008.d

Date : 30-MAR-2010 12:40

Client ID: RE46-10-13220

Instrument: MSD1.i

Sample Info: 1249332003|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Stigmast-4-en-3-one	1058-61-3	NIST05.L	173936	97	C29H48O	412
Thiophene-2-sulfonic acid, (3-fluoro-2-m	1000311-21-1	NIST05.L	105904	43	C11H10FNO2S2	271
Hyoscyamine	101-31-5	NIST05.L	117815	30	C17H23NO3	289

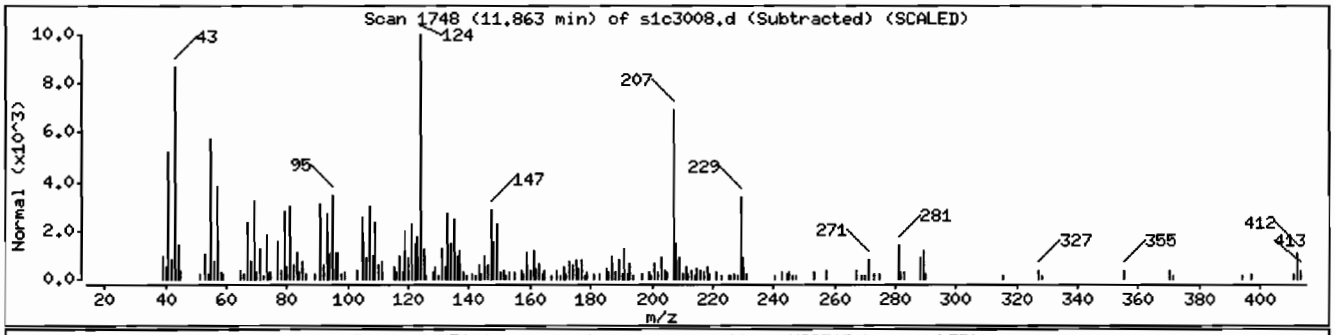

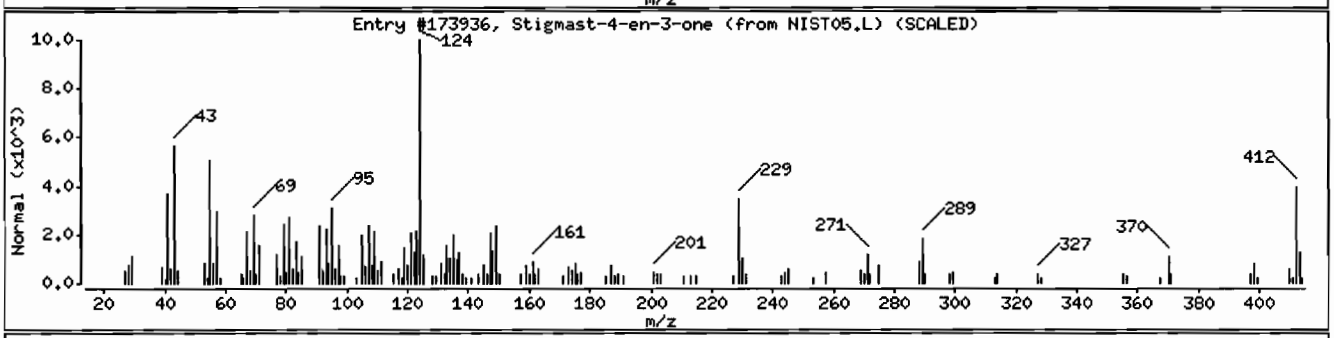

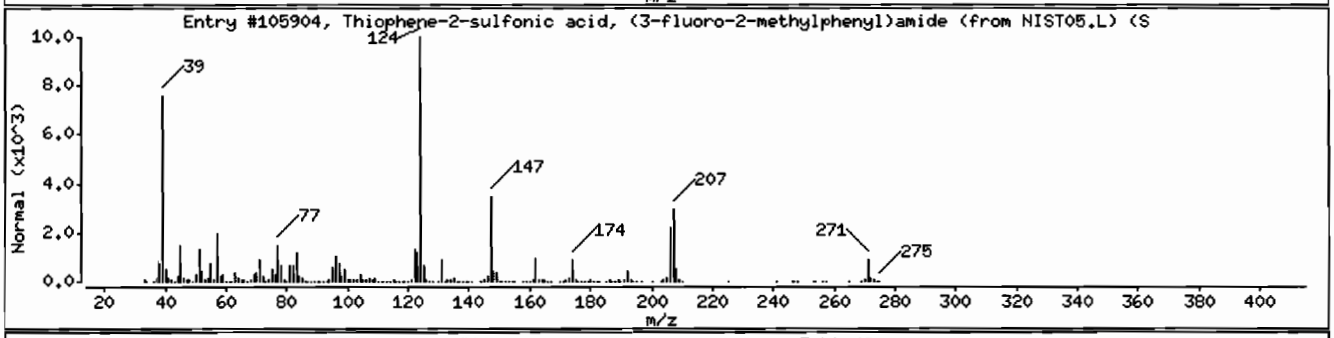

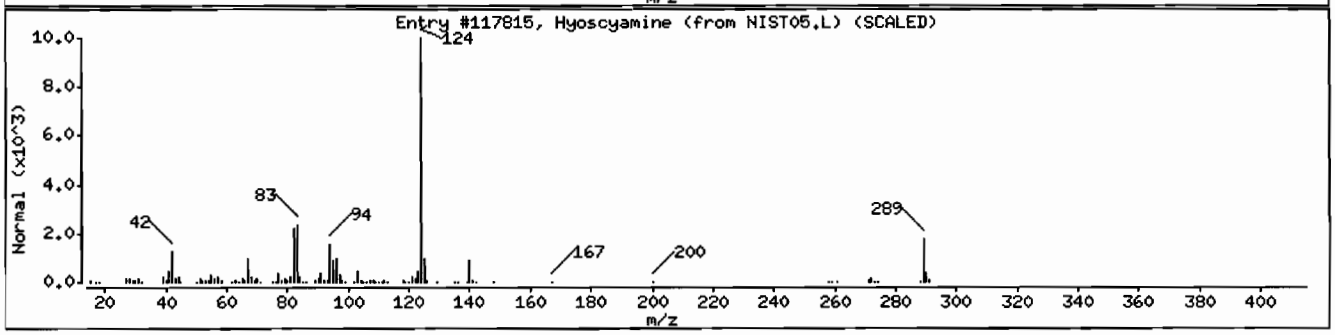

Data File: /chem/MSD1.i/s033010.b/s1c3008.d

Date : 30-MAR-2010 12:40

Client ID: RE46-10-13220 Instrument: MSD1.i

Sample Info: |249332003|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Friedelan-3-one	559-74-0	NIST05.L	176566	99	C30H50O	426
Bicyclo[3.1.1]heptane, 2,6,6-trimethyl-	473-55-2	NIST05.L	16398	60	C10H18	138
5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	300574-36-1	NIST05.L	68738	59	C6H5BrN2O2	216

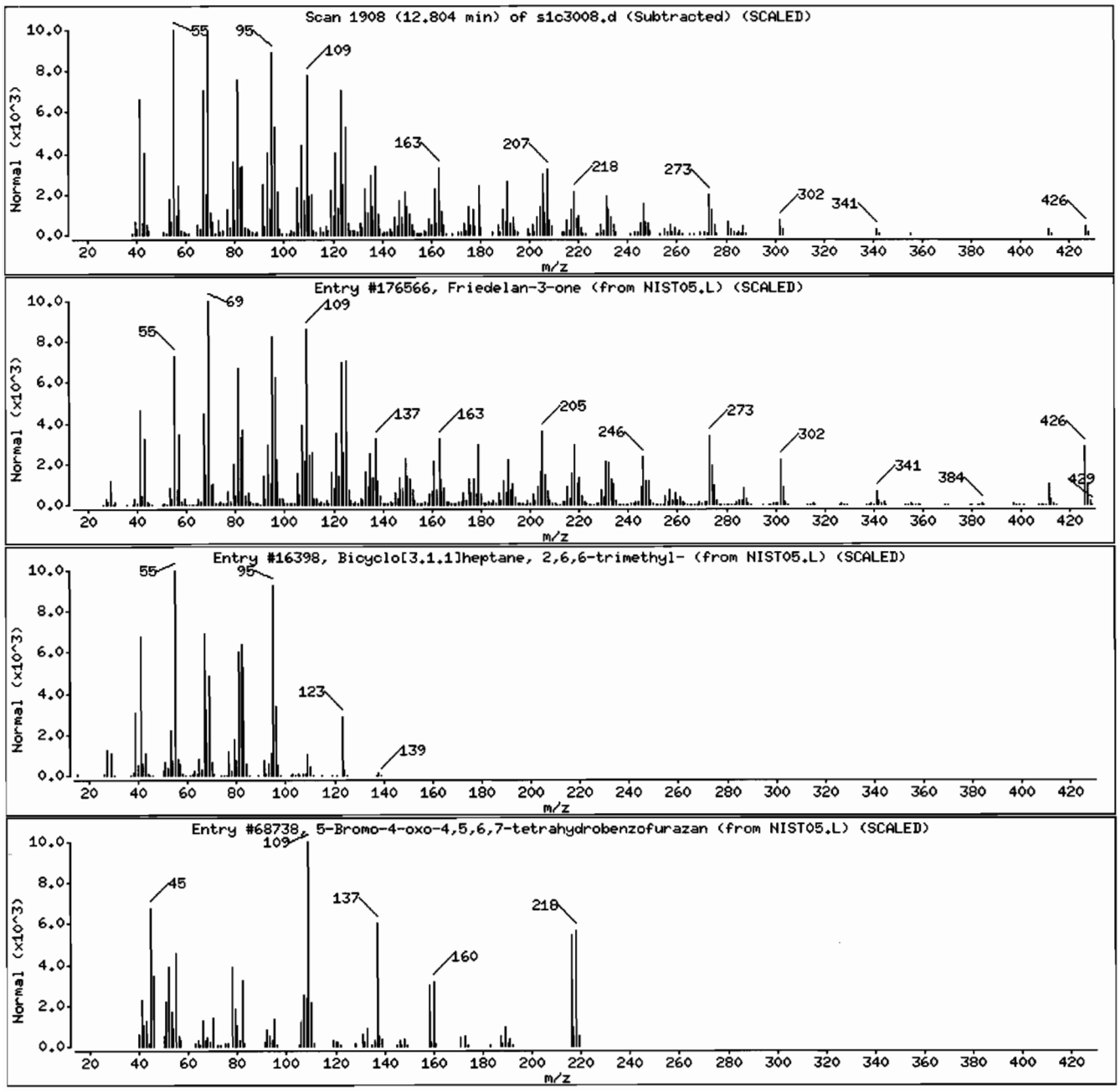

Data File: /chem/MSD1.i/s033010.b/s1c3008.d

Date : 30-MAR-2010 12:40

Client ID: RE46-10-13220 Instrument: MSD1.i

Sample Info: 1249332003|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4-Dehydroxy-N-(4,5-methylenedioxy-2-nitr	1000111-66-9	NIST05.L	123317	27	C16H14N2O4	298
1,1,1,3,5,5,5-Heptamethyltrisiloxane	1873-88-7	NIST05.L	73166	27	C7H22O2Si3	222
Hexanoic acid, 2,7-dimethyloct-7-en-5-yn	1000299-35-7	NIST05.L	92131	25	C16H26O2	250

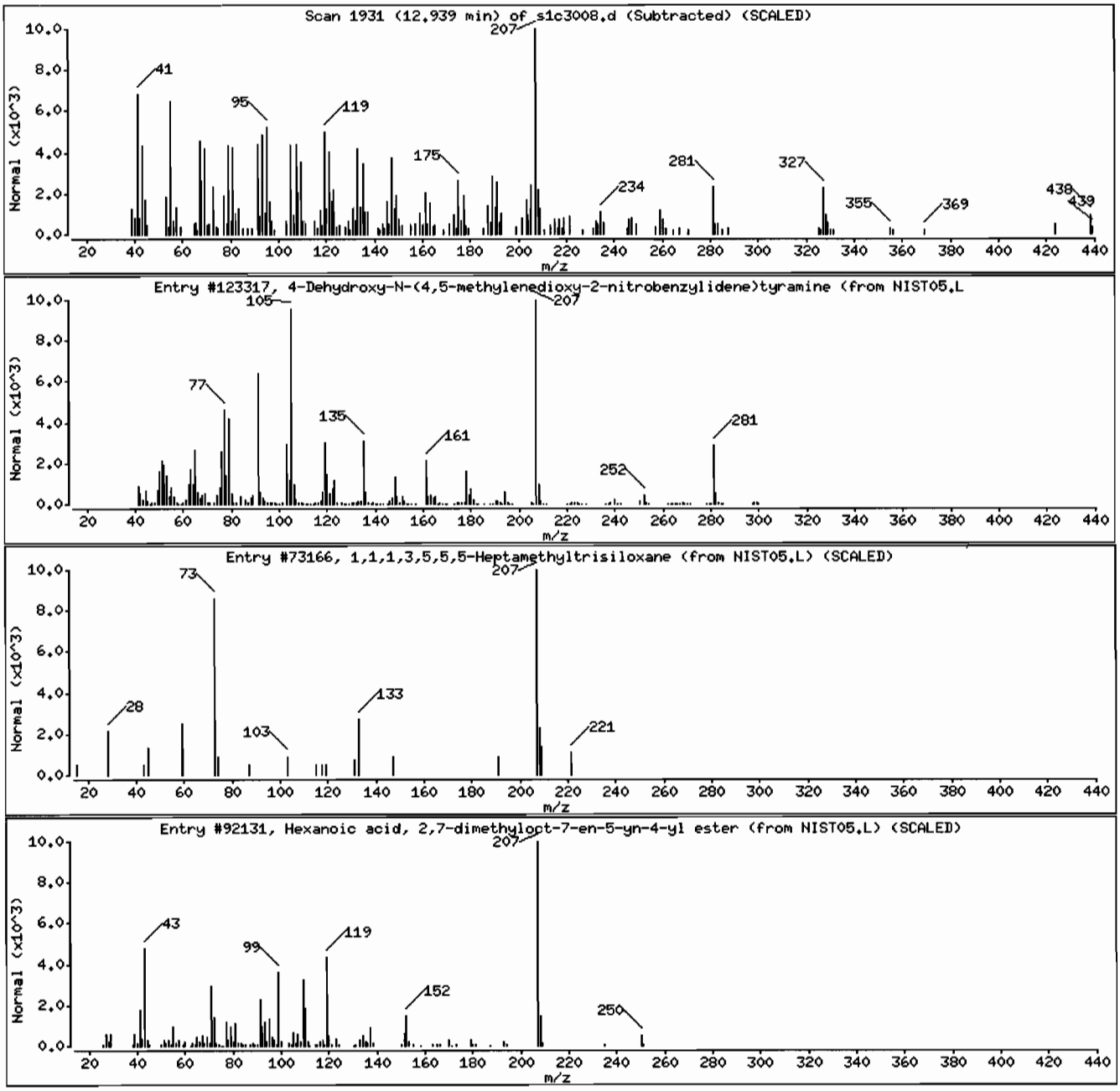

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**4.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13221**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.1**	**Dilution:**	**1**
Run Date:	**03/29/2010 17:56**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2915.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	349	ug/kg	69.8	349
108-95-2	Phenol	U	349	ug/kg	69.8	349
95-57-8	2-Chlorophenol	U	349	ug/kg	69.8	349
106-46-7	1,4-Dichlorobenzene	U	349	ug/kg	69.8	349
621-64-7	N-Nitrosodipropylamine	U	349	ug/kg	69.8	349
59-50-7	4-Chloro-3-methylphenol	U	349	ug/kg	69.8	349
83-32-9	Acenaphthene	U	34.9	ug/kg	11.5	34.9
121-14-2	2,4-Dinitrotoluene	U	349	ug/kg	34.9	349
100-02-7	4-Nitrophenol	U	349	ug/kg	115	349
87-86-5	Pentachlorophenol	U	349	ug/kg	87.2	349
129-00-0	Pyrene	U	34.9	ug/kg	10.5	34.9
110-86-1	Pyridine	U	349	ug/kg	69.8	349
62-53-3	Aniline	U	349	ug/kg	105	349
111-44-4	bis(2-Chloroethyl) ether	U	349	ug/kg	69.8	349
541-73-1	1,3-Dichlorobenzene	U	349	ug/kg	69.8	349
100-51-6	Benzyl alcohol	U	349	ug/kg	105	349
95-50-1	1,2-Dichlorobenzene	U	349	ug/kg	69.8	349
108-60-1	bis(2-Chloroisopropyl)ether	U	349	ug/kg	69.8	349
95-48-7	o-Cresol	U	349	ug/kg	69.8	349
65794-96-9	m,p-Cresols	U	349	ug/kg	105	349
67-72-1	Hexachloroethane	U	349	ug/kg	69.8	349
98-95-3	Nitrobenzene	U	349	ug/kg	69.8	349
78-59-1	Isophorone	U	349	ug/kg	69.8	349
88-75-5	2-Nitrophenol	U	349	ug/kg	69.8	349
105-67-9	2,4-Dimethylphenol	U	349	ug/kg	122	349
111-91-1	bis(2-Chloroethoxy)methane	U	349	ug/kg	69.8	349
120-83-2	2,4-Dichlorophenol	U	349	ug/kg	69.8	349
65-85-0	Benzoic acid	U	698	ug/kg	174	698
91-20-3	Naphthalene	U	34.9	ug/kg	10.5	34.9
106-47-8	4-Chloroaniline	U	349	ug/kg	69.8	349
87-68-3	Hexachlorobutadiene	U	349	ug/kg	69.8	349
91-57-6	2-Methylnaphthalene	U	34.9	ug/kg	6.98	34.9
77-47-4	Hexachlorocyclopentadiene	U	349	ug/kg	69.8	349
88-06-2	2,4,6-Trichlorophenol	U	349	ug/kg	69.8	349
95-95-4	2,4,5-Trichlorophenol	U	349	ug/kg	69.8	349
91-58-7	2-Chloronaphthalene	U	34.9	ug/kg	11.5	34.9
88-74-4	2-Nitroaniline	U	349	ug/kg	69.8	349
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	349	ug/kg	69.8	349

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**4.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13221**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 17:56**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2915.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	349	ug/kg	69.8	349
606-20-2	2,6-Dinitrotoluene	U	349	ug/kg	34.9	349
208-96-8	Acenaphthylene	U	34.9	ug/kg	10.5	34.9
51-28-5	2,4-Dinitrophenol	U	698	ug/kg	133	698
132-64-9	Dibenzofuran	U	349	ug/kg	69.8	349
84-66-2	Diethylphthalate	U	349	ug/kg	69.8	349
86-73-7	Fluorene	U	34.9	ug/kg	10.5	34.9
7005-72-3	4-Chlorophenylphenylether	U	349	ug/kg	69.8	349
534-52-1	2-Methyl-4,6-dinitrophenol	U	349	ug/kg	69.8	349
100-01-6	4-Nitroaniline	U	349	ug/kg	105	349
	p-Nitroaniline					
122-39-4	Diphenylamine	U	349	ug/kg	69.8	349
122-66-7	Azobenzene	U	349	ug/kg	69.8	349
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	349	ug/kg	69.8	349
118-74-1	Hexachlorobenzene	U	349	ug/kg	69.8	349
85-01-8	Phenanthrene	U	34.9	ug/kg	10.5	34.9
120-12-7	Anthracene	U	34.9	ug/kg	6.98	34.9
84-74-2	Di-n-butylphthalate	U	349	ug/kg	69.8	349
206-44-0	Fluoranthene	U	34.9	ug/kg	10.5	34.9
85-68-7	Butylbenzylphthalate	U	349	ug/kg	69.8	349
56-55-3	Benzo(a)anthracene	U	34.9	ug/kg	10.5	34.9
91-94-1	3,3'-Dichlorobenzidine	U	349	ug/kg	105	349
218-01-9	Chrysene	U	34.9	ug/kg	10.5	34.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	349	ug/kg	69.8	349
117-84-0	Di-n-octylphthalate	U	349	ug/kg	69.8	349
205-99-2	Benzo(b)fluoranthene	U	34.9	ug/kg	10.5	34.9
207-08-9	Benzo(k)fluoranthene	U	34.9	ug/kg	10.5	34.9
50-32-8	Benzo(a)pyrene	U	34.9	ug/kg	10.5	34.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.9	ug/kg	10.5	34.9
53-70-3	Dibenzo(a,h)anthracene	U	34.9	ug/kg	10.5	34.9
191-24-2	Benzo(ghi)perylene	U	34.9	ug/kg	10.5	34.9
120-82-1	1,2,4-Trichlorobenzene	U	349	ug/kg	69.8	349

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	513	ug/kg		JA
	Unknown	8.04	284	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**4.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13221**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 17:56**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2915.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.57	470	ug/kg		J
	Unknown	11.09	211	ug/kg		J
	Unknown	11.36	227	ug/kg		J
	Unknown	11.91	146	ug/kg		J
559-74-0	Friedelan-3-one	12.87	1290	ug/kg	83	NJ
	Unknown	13	151	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2915.d
Lab Smp Id: 249332002 Client Smp ID: RE46-10-13221
Inj Date : 29-MAR-2010 17:56
Operator : AMY Inst ID: MSD1.i
Smp Info : |249332002|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	4.48470	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.498	3.504	(1.000)	403394	40.0000	
* 29 Naphthalene-d8	136	4.351	4.351	(1.000)	1582646	40.0000	
* 46 Acenaphthene-d10	164	5.587	5.592	(1.000)	817743	40.0000	
* 67 Phenanthrene-d10	188	6.598	6.598	(1.000)	1441292	40.0000	
* 91 Chrysene-d12	240	8.169	8.175	(1.000)	1096791	40.0000	
* 98 Perylene-d12	264	9.333	9.339	(1.000)	824616	40.0000	
$ 3 2-Fluorophenol	112	2.728	2.716	(0.780)	750617	72.2615	2520
$ 5 Phenol-d5	99	3.240	3.240	(0.926)	908864	71.8436	2500
$ 20 Nitrobenzene-d5	82	3.857	3.863	(0.886)	373346	38.4621	1340
$ 39 2-Fluorobiphenyl	172	5.092	5.093	(0.912)	822174	36.4050	1270
$ 60 2,4,6-Tribromophenol	329	6.139	6.139	(1.099)	186914	69.7191	2430
$ 81 p-Terphenyl-d14	244	7.528	7.528	(0.922)	879146	48.0790	1680

ION RATIO REPORT

SV REPORT

Data file: s1c2915.d
Report Date: 03/30/2010 16:55
Lab. ID: 249332002 SampleType: SAMPLE
Injection Date: 29-MAR-2010 17:56
Operator: AMY Instrument: MSD1.i
Sample Info: |249332002|966766|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2433
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	44654	3.24	3.30	80-120	100	( )
93	2026	3.27	3.30	196-256	5	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	52029	3.86	3.75	80-120	100	(T)
42	35065	3.86	3.75	47-107	67	(T)
41 m-Nitroaniline			CAS#: 99-09-2			
138	116	5.58	5.55	80-120	100	( )
92	3504	5.59	5.55	75-135	3018	(Q)
108	14955	5.59	5.55	0- 40	12877	(Q)
43 Dimethylphthalate			CAS#: 131-11-3			
163	147900	5.59	5.37	80-120	100	(T)
164	817743	5.59	5.37	0- 40	553	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	105045	5.59	5.43	80-120	100	(T)
63	2022	5.58	5.43	49-109	2	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	105045	5.59	5.72	80-120	100	(T)
89	1454	5.59	5.71	37- 97	1	(QT)
63	2022	5.58	5.71	20- 80	2	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	13603	6.14	5.97	80-120	100	(T)
165	14927	6.14	5.97	61-121	110	(T)
167	4611	6.14	5.97	0- 43	34	(T)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	14048	6.14	6.29	80-120	100	(T)
141	85342	6.14	6.29	48-108	607	(QT)
250	29157	6.14	6.29	67-127	208	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2915.d
Lab Smp Id: 249332002 Client Smp ID: RE46-10-13221
Inj Date : 29-MAR-2010 17:56
Operator : AMY Inst ID: MSD1.i
Smp Info : |249332002|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	4.48470	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.498	2446284	40.000
* 91 Chrysene-d12	8.169	2990615	40.000
* 98 Perylene-d12	9.333	2293172	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.563	899535	14.7085965	513	0		0	10
Unknown				CAS #:			
8.039	608675	8.14112946	284	0		0	91
Unknown				CAS #:			
8.575	1006817	13.4663496	470	0		0	91
Unknown				CAS #:			
11.086	347620	6.06356936	211	0		0	98
Unknown				CAS #:			
11.357	373707	6.51860815	227	0		0	98
Unknown				CAS #:			
11.910	240210	4.19000704	146	0		0	98
Friedelan-3-one				CAS #: 559-74-0			
12.868	2114024	36.8750864	1290	83	NIST05.L	176566	98
Unknown				CAS #:			
13.004	248286	4.33087227	151	0		0	98

Data File: /chem/MSD1.i/s032910.b/s1c2915.d

Date : 29-MAR-2010 17:56

Client ID: RE46-10-13221

Sample Info: |249332002|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY

Column diameter: 0.20

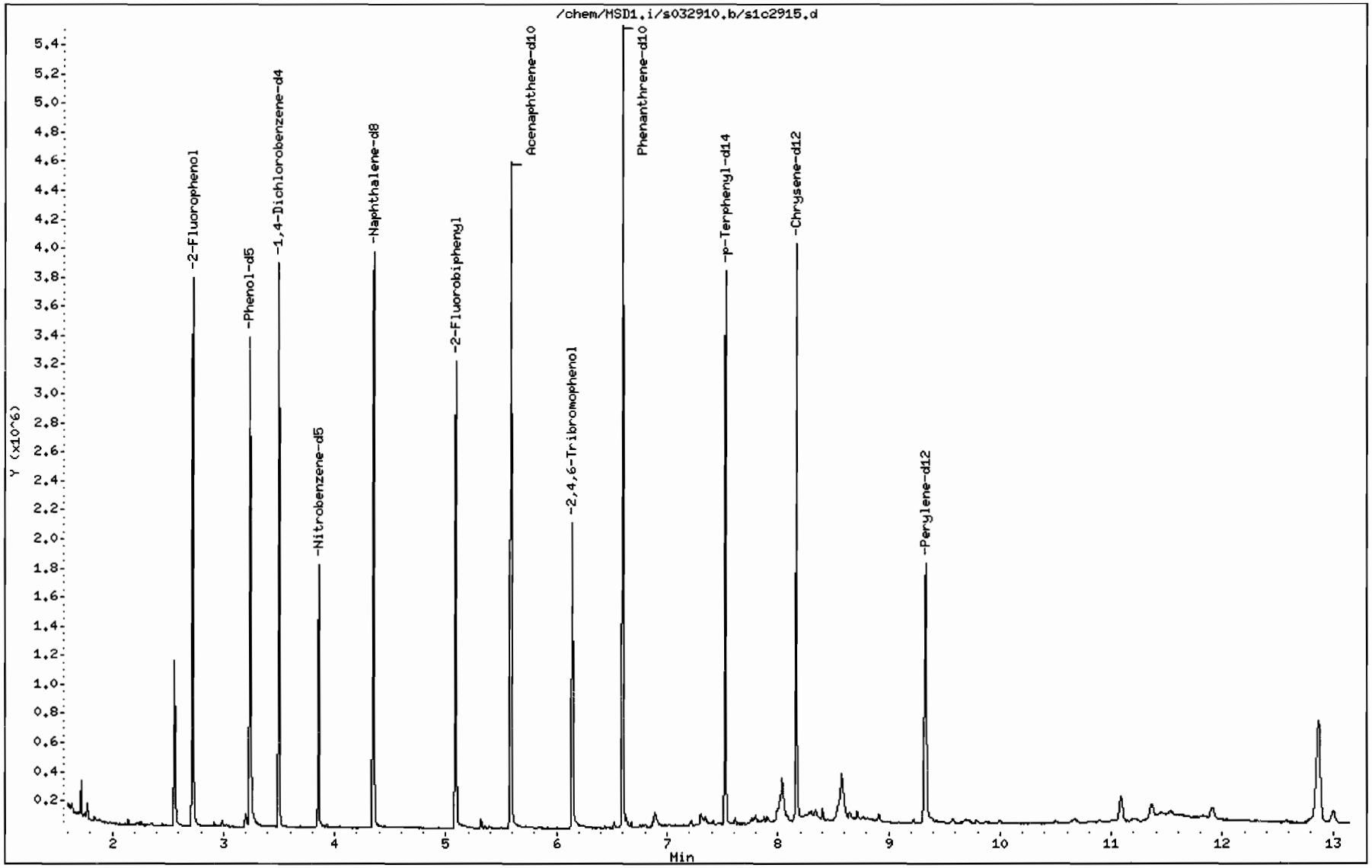

Data File: /chem/MSD1.i/s032910.b/s1c2915.d

Date : 29-MAR-2010 17:56

Client ID: RE46-10-13221

Instrument: MSD1.i

Sample Info: 1249332002|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	38	C6H12O2	116
Acetic acid, cyano-, 1,1-dimethylethyl e	1116-98-9	NIST05.L	18291	25	C7H11NO2	141

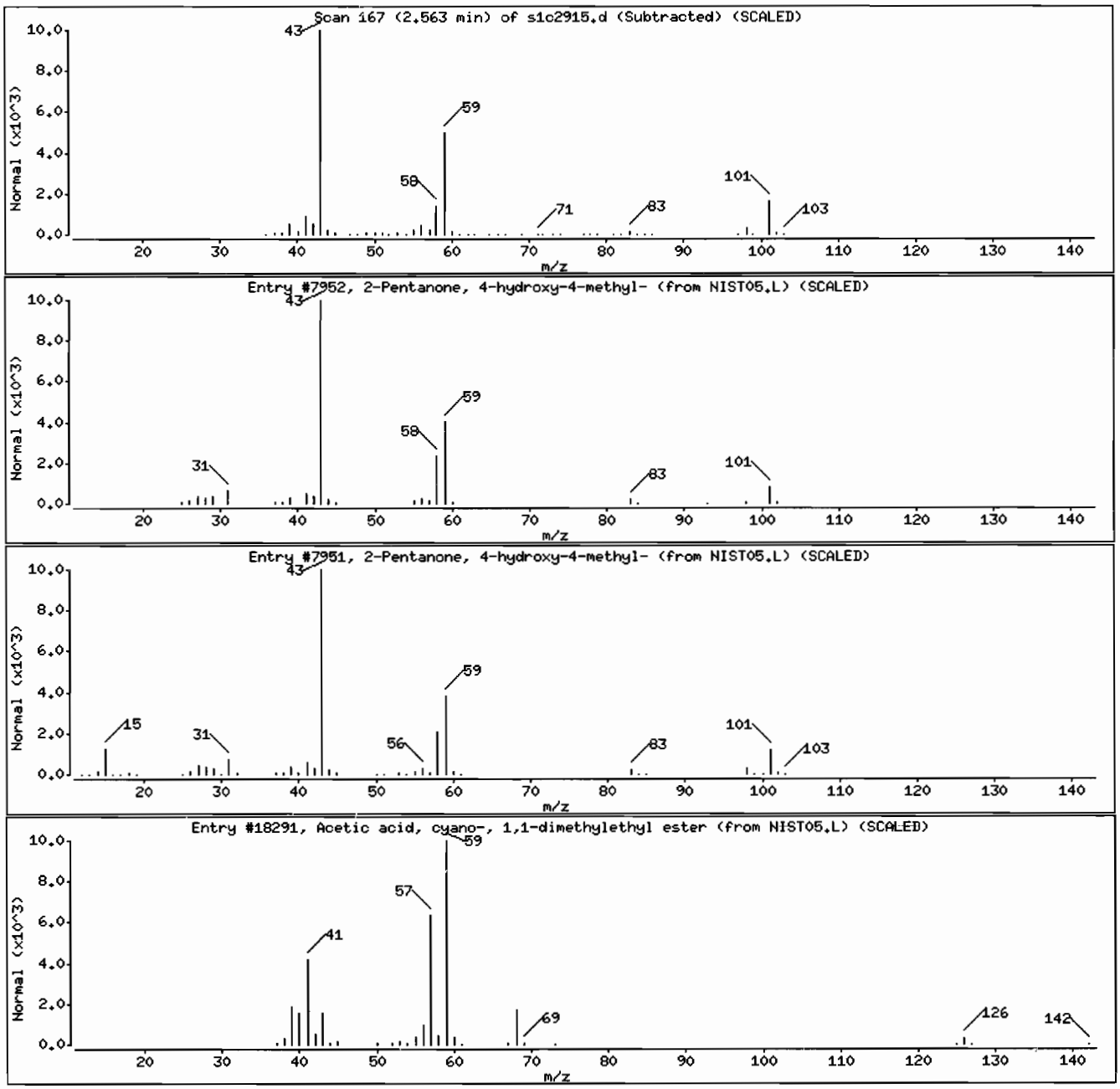

Data File: /chem/MSD1.i/s032910.b/s1c2915.d

Date : 29-MAR-2010 17:56

Client ID: RE46-10-13221 Instrument: MSD1.i

Sample Info: |2493320021966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzenepropanoic acid, .alpha.-methyl-,	34666-01-8	NIST05.L	51191	25	C12H16O2	192
Phenylacetic acid, 3,5-difluorophenyl es	1000299-00-2	NIST05.L	90496	22	C14H10F2O2	248
Benzeneacetic acid, hydrazide	937-39-3	NIST05.L	23333	14	C8H10N2O	150

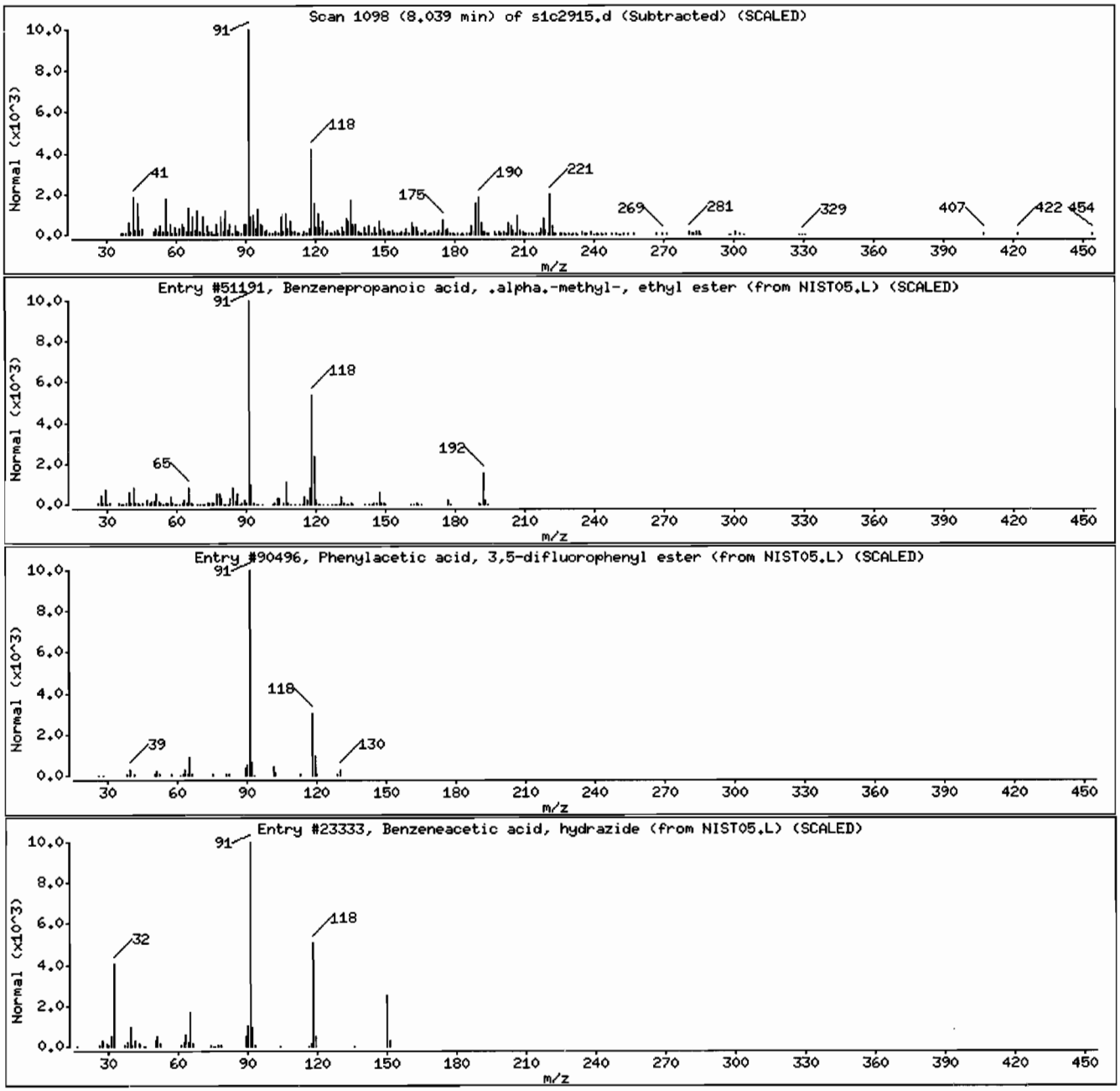

Data File: /chem/MSD1.i/s032910.b/s1c2915.d

Date : 29-MAR-2010 17:56

Client ID: RE46-10-13221

Instrument: MSD1.i

Sample Info: |2493320021966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3-Methoxymethyl-2,5,5,8a-tetramethyl-6,7	64201-73-6	NIST05.L	82517	55	C15H2402	236
2(1H)Naphthalenone, 3,5,6,7,8,8a-hexahyd	1000188-66-5	NIST05.L	69976	45	C15H220	218
Bicyclo[6.3.0]undec-1(8)-en-3-ol, 2,2,5,	1000164-02-6	NIST05.L	72958	25	C15H260	222

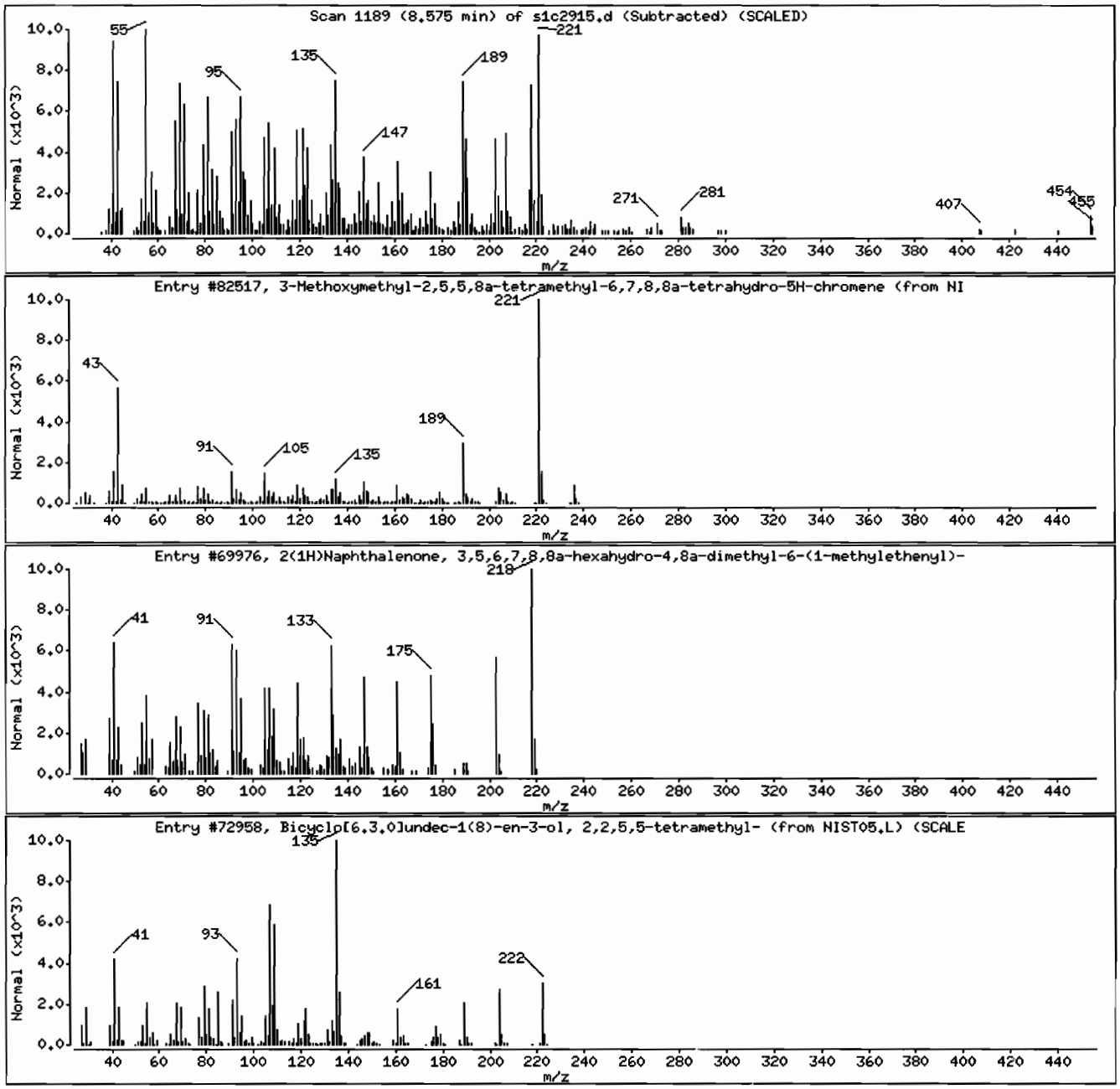

Data File: /chem/MSD1.i/s032910.b/s1c2915.d

Date : 29-MAR-2010 17:56

Client ID: RE46-10-13221

Instrument: MSD1.i

Sample Info: |249332002|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cycloprop[7,8]ergost-22-en-3-one, 3',7-d	53755-18-3	NIST05.L	173551	53	C29H460	410
4,22-Stigmastadiene-3-one	20817-72-5	NIST05.L	173535	46	C29H460	410
Pyridine-3-carboxamide, oxime, N-(2-trif	288246-53-7	NIST05.L	112295	35	C13H10F3N30	281

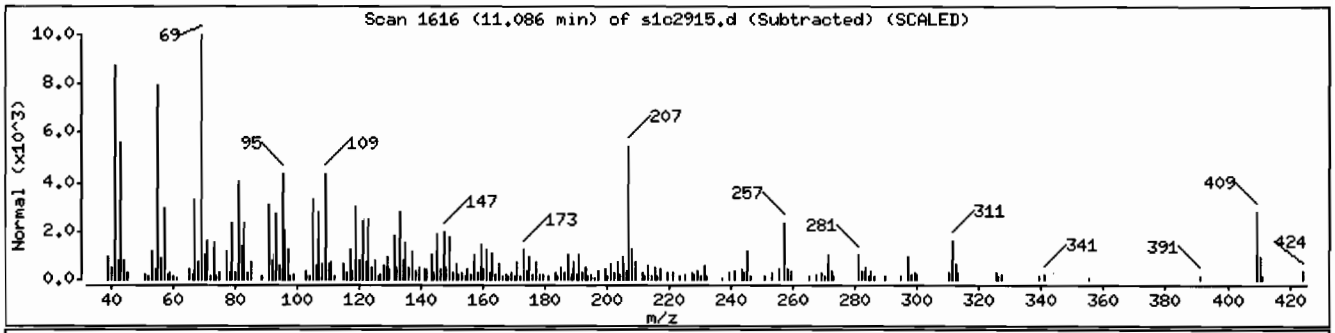

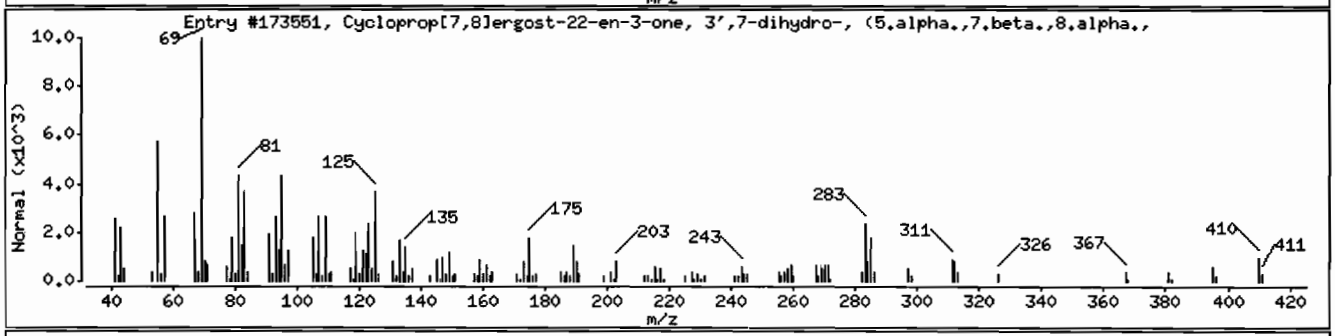

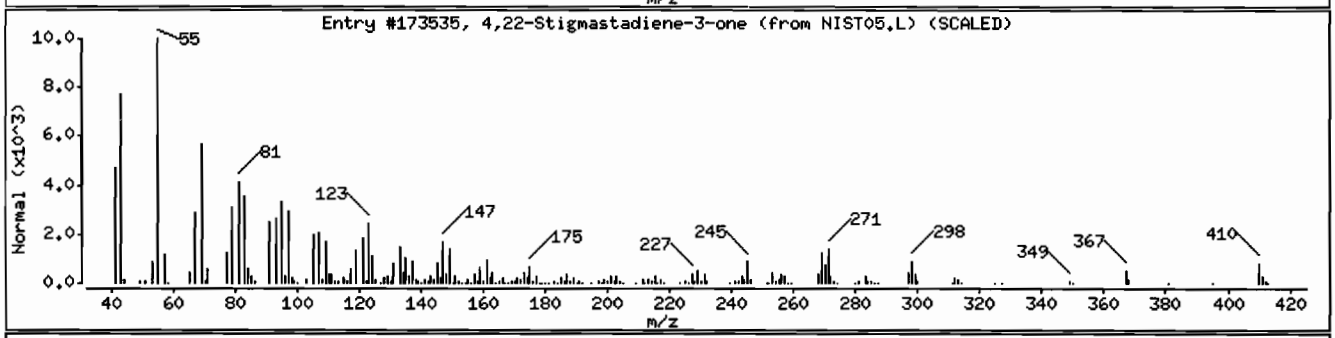

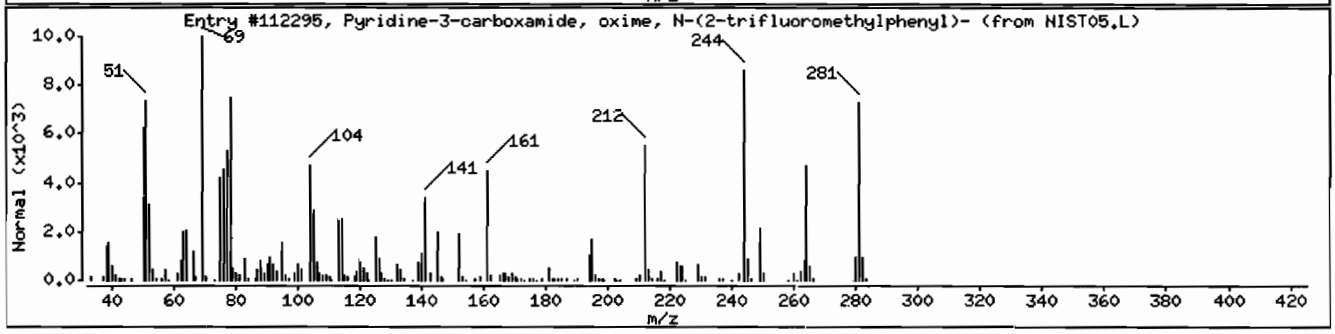

Data File: /chem/MSD1.i/s032910.b/s1c2915.d

Date : 29-MAR-2010 17:56

Client ID: RE46-10-13221

Instrument: MSD1.i

Sample Info: 1249332002|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benz[e]azulene-3,8-dione, 5-[(acetyloxy)	25536-74-7	NIST05.L	151695	38	C19H2406	348
p-Menthon-8-thiol	33281-91-3	NIST05.L	47087	35	C10H18OS	186
1-Benzopyrylium, 2-phenyl-	14051-53-7	NIST05.L	62220	15	C15H11O	207

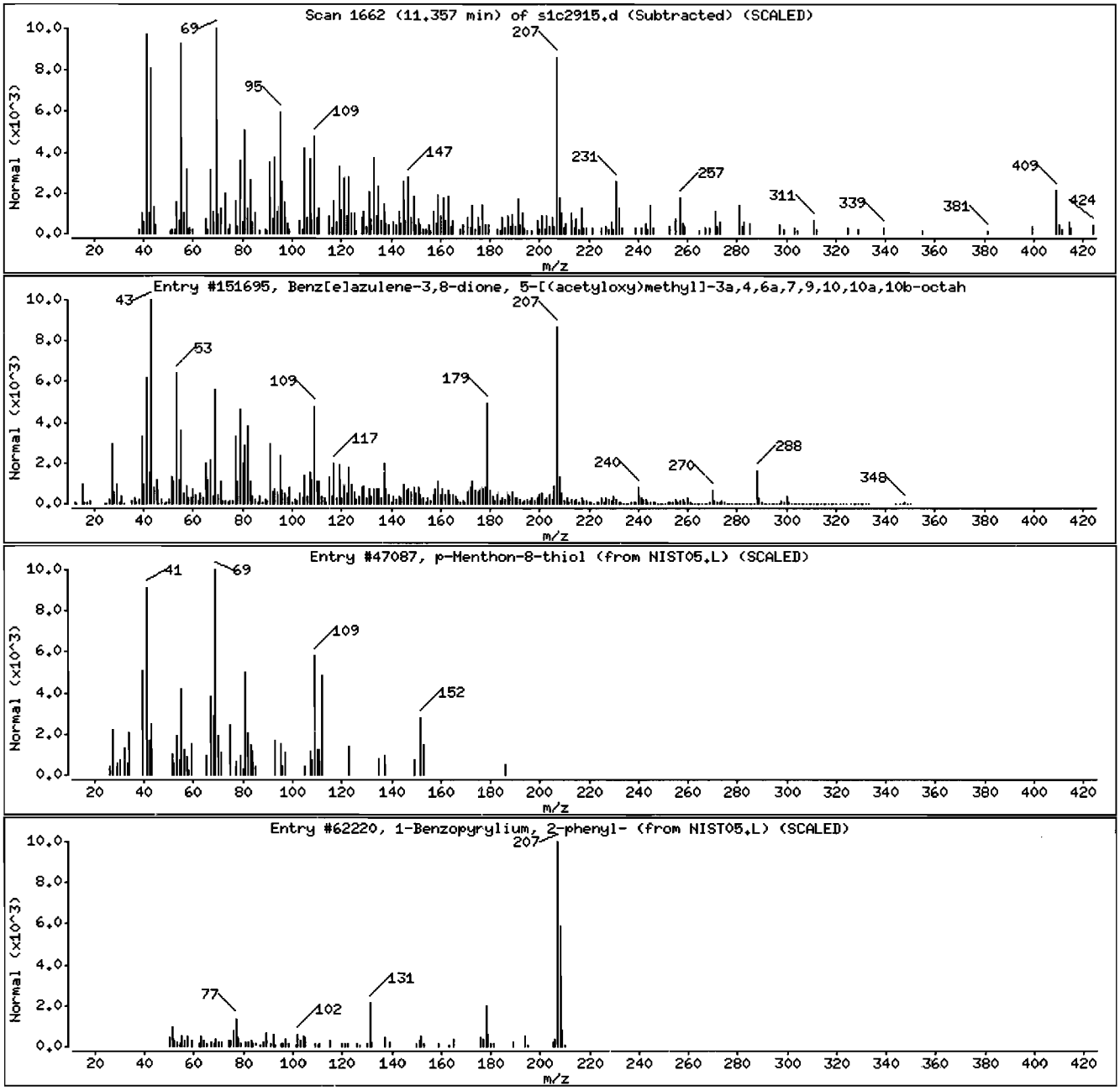

Data File: /chem/MSD1.i/s032910.b/s1c2915.d

Date : 29-MAR-2010 17:56

Client ID: RE46-10-13221

Instrument: MSD1.i

Sample Info: 1249332002|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Stigmast-4-en-3-one	1058-61-3	NIST05.L	173936	64	C29H48O	412
3-Cyclohexene-1-carboxaldehyde, 4-methyl	7560-64-7	NIST05.L	10249	38	C8H12O	124
2-Amino-4-methyl-3-pyridinol	20348-18-9	NIST05.L	10010	30	C6H8N2O	124

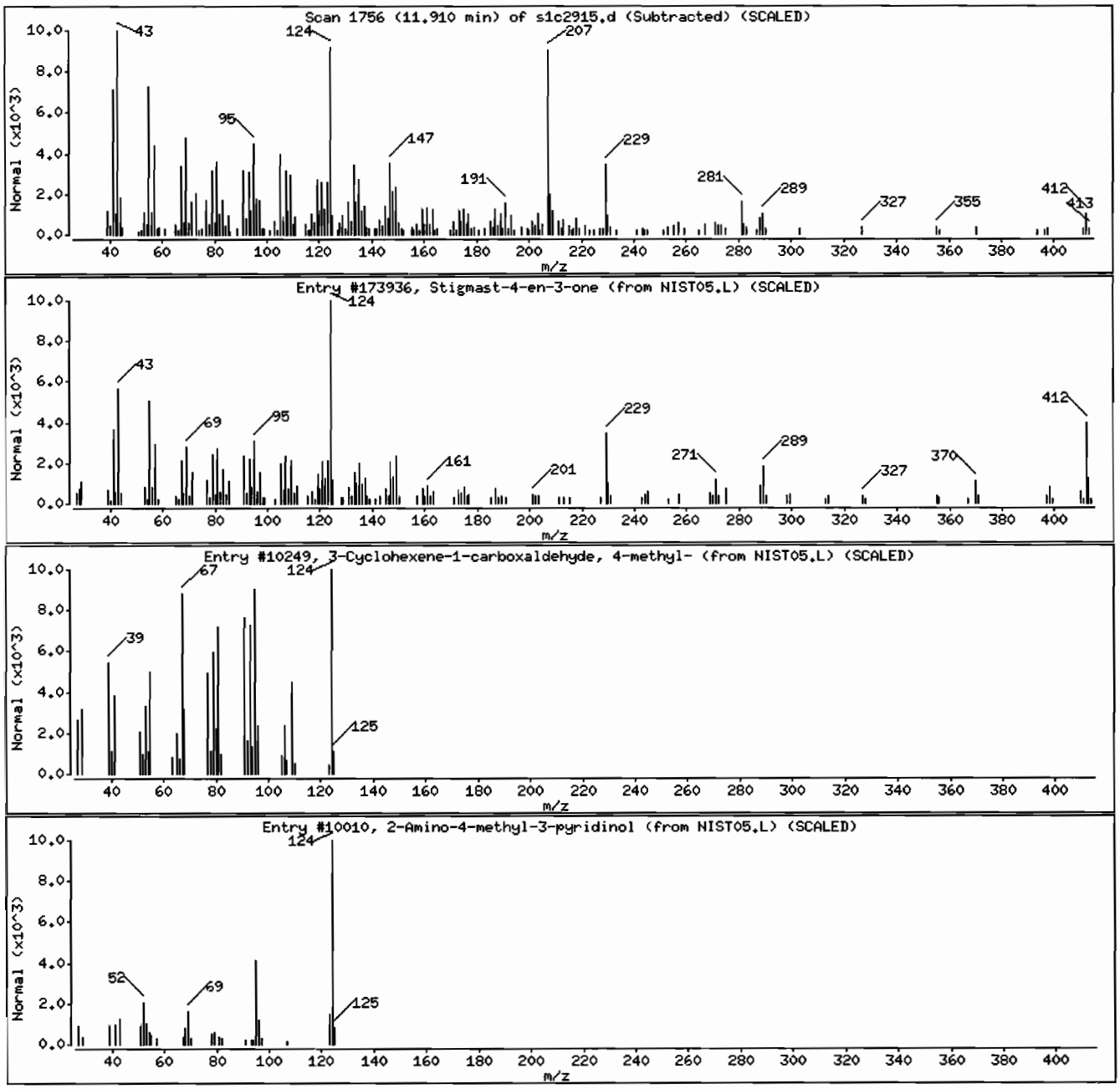

Data File: /chem/MSD1.i/s032910.b/s1c2915.d

Date : 29-MAR-2010 17:56

Client ID: RE46-10-13221 Instrument: MSD1.i

Sample Info: 1249332002|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Friedelan-3-one	559-74-0	NIST05.L	176566	83	C30H500	426
13-Tetradece-11-yn-1-ol	1000131-00-4	NIST05.L	62946	60	C14H240	208
5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	300574-36-1	NIST05.L	68738	59	C6H5BrN2O2	216

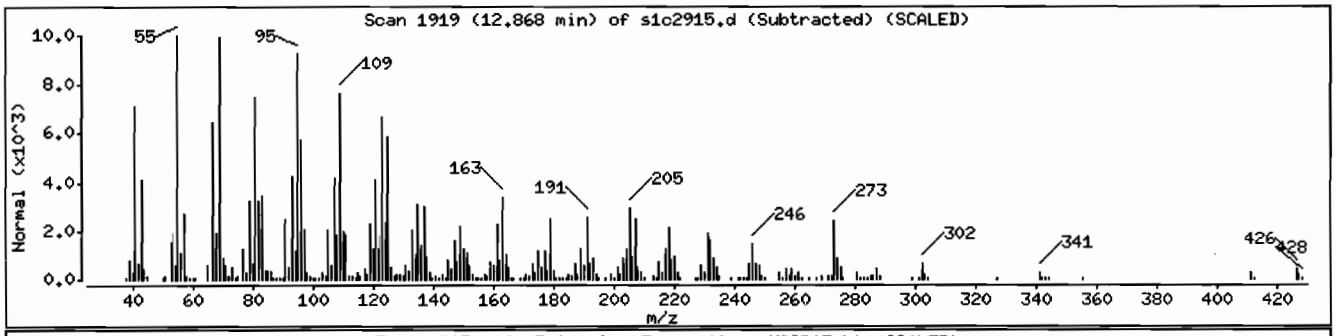

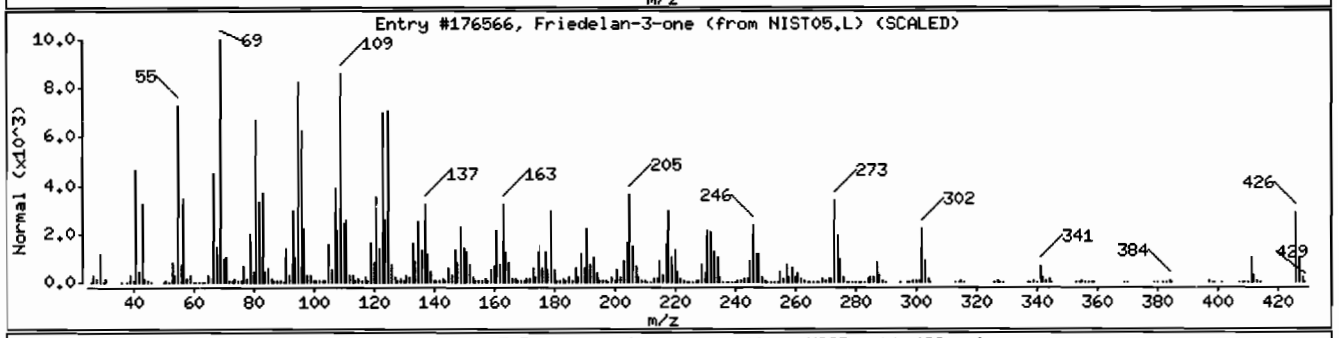

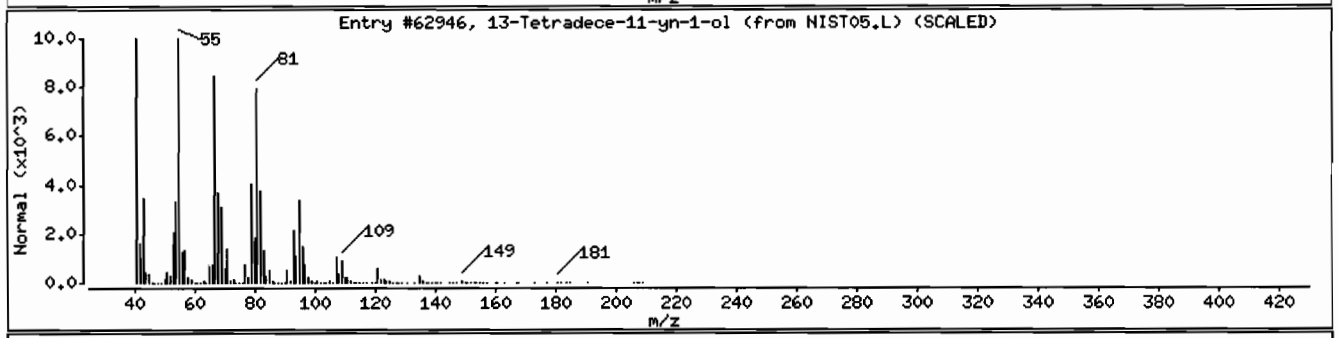

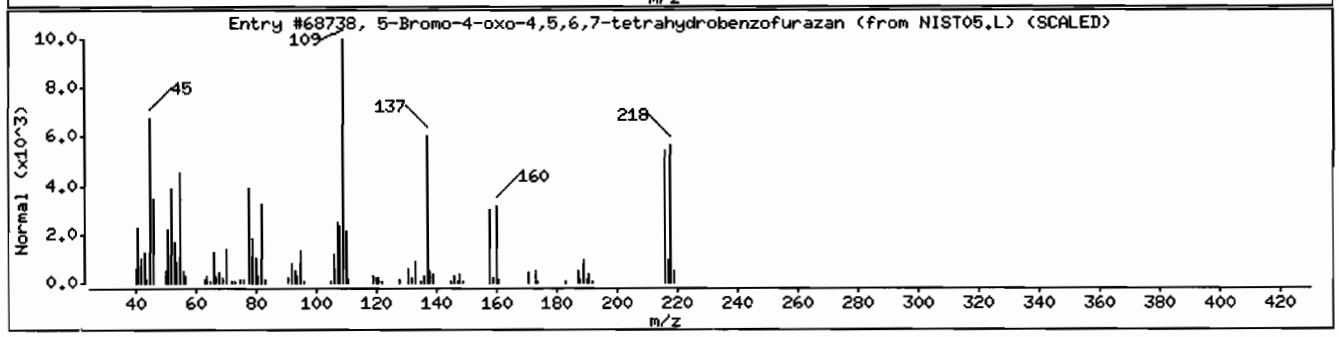

Data File: /chem/MSD1.i/s032910.b/s1c2915.d

Date : 29-MAR-2010 17:56

Client ID: RE46-10-13221 Instrument: MSD1.i

Sample Info: |2493320021966766|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Ethylacridine	55751-83-2	NIST05.L	62222	42	C15H13N	207
Anthracene, 9,10-dihydro-9,9,10-trimethy	14923-29-6	NIST05.L	73092	30	C17H18	222
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	25	C15H13N	207

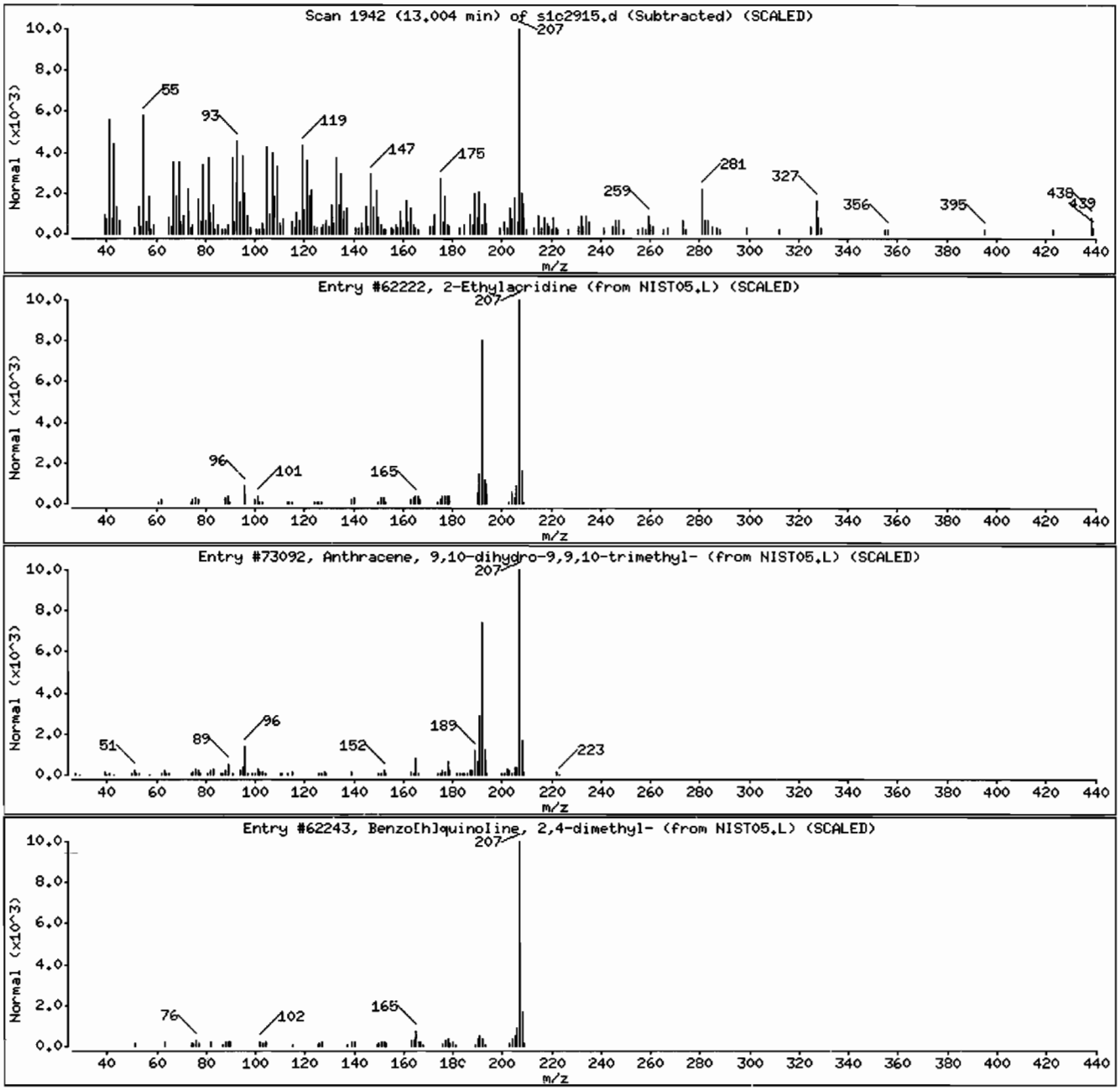

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13234**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 14:13**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3012.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	379	ug/kg	75.9	379
108-95-2	Phenol	U	379	ug/kg	75.9	379
95-57-8	2-Chlorophenol	U	379	ug/kg	75.9	379
106-46-7	1,4-Dichlorobenzene	U	379	ug/kg	75.9	379
621-64-7	N-Nitrosodipropylamine	U	379	ug/kg	75.9	379
59-50-7	4-Chloro-3-methylphenol	U	379	ug/kg	75.9	379
83-32-9	Acenaphthene	U	37.9	ug/kg	12.5	37.9
121-14-2	2,4-Dinitrotoluene	U	379	ug/kg	37.9	379
100-02-7	4-Nitrophenol	U	379	ug/kg	125	379
87-86-5	Pentachlorophenol	U	379	ug/kg	94.8	379
129-00-0	Pyrene	U	37.9	ug/kg	11.4	37.9
110-86-1	Pyridine	U	379	ug/kg	75.9	379
62-53-3	Aniline	U	379	ug/kg	114	379
111-44-4	bis(2-Chloroethyl) ether	U	379	ug/kg	75.9	379
541-73-1	1,3-Dichlorobenzene	U	379	ug/kg	75.9	379
100-51-6	Benzyl alcohol	U	379	ug/kg	114	379
95-50-1	1,2-Dichlorobenzene	U	379	ug/kg	75.9	379
108-60-1	bis(2-Chloroisopropyl)ether	U	379	ug/kg	75.9	379
95-48-7	o-Cresol	U	379	ug/kg	75.9	379
65794-96-9	m,p-Cresols	U	379	ug/kg	114	379
67-72-1	Hexachloroethane	U	379	ug/kg	75.9	379
98-95-3	Nitrobenzene	U	379	ug/kg	75.9	379
78-59-1	Isophorone	U	379	ug/kg	75.9	379
88-75-5	2-Nitrophenol	U	379	ug/kg	75.9	379
105-67-9	2,4-Dimethylphenol	U	379	ug/kg	133	379
111-91-1	bis(2-Chloroethoxy)methane	U	379	ug/kg	75.9	379
120-83-2	2,4-Dichlorophenol	U	379	ug/kg	75.9	379
65-85-0	Benzoic acid	U	759	ug/kg	190	759
91-20-3	Naphthalene	U	37.9	ug/kg	11.4	37.9
106-47-8	4-Chloroaniline	U	379	ug/kg	75.9	379
87-68-3	Hexachlorobutadiene	U	379	ug/kg	75.9	379
91-57-6	2-Methylnaphthalene	U	37.9	ug/kg	7.59	37.9
77-47-4	Hexachlorocyclopentadiene	U	379	ug/kg	75.9	379
88-06-2	2,4,6-Trichlorophenol	U	379	ug/kg	75.9	379
95-95-4	2,4,5-Trichlorophenol	U	379	ug/kg	75.9	379
91-58-7	2-Chloronaphthalene	U	37.9	ug/kg	12.5	37.9
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	379	ug/kg	75.9	379
99-09-2	3-Nitroaniline	U	379	ug/kg	75.9	379

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13234**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 14:13**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3012.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	379	ug/kg	75.9	379
606-20-2	2,6-Dinitrotoluene	U	379	ug/kg	37.9	379
208-96-8	Acenaphthylene	U	37.9	ug/kg	11.4	37.9
51-28-5	2,4-Dinitrophenol	U	759	ug/kg	144	759
132-64-9	Dibenzofuran	U	379	ug/kg	75.9	379
84-66-2	Diethylphthalate	U	379	ug/kg	75.9	379
86-73-7	Fluorene	U	37.9	ug/kg	11.4	37.9
7005-72-3	4-Chlorophenylphenylether	U	379	ug/kg	75.9	379
534-52-1	2-Methyl-4,6-dinitrophenol	U	379	ug/kg	75.9	379
100-01-6	4-Nitroaniline	U	379	ug/kg	114	379
	p-Nitroaniline					
122-39-4	Diphenylamine	U	379	ug/kg	75.9	379
122-66-7	Azobenzene	U	379	ug/kg	75.9	379
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	379	ug/kg	75.9	379
118-74-1	Hexachlorobenzene	U	379	ug/kg	75.9	379
85-01-8	Phenanthrene	U	37.9	ug/kg	11.4	37.9
120-12-7	Anthracene	U	37.9	ug/kg	7.59	37.9
84-74-2	Di-n-butylphthalate	U	379	ug/kg	75.9	379
206-44-0	Fluoranthene	U	37.9	ug/kg	11.4	37.9
85-68-7	Butylbenzylphthalate	U	379	ug/kg	75.9	379
56-55-3	Benzo(a)anthracene	U	37.9	ug/kg	11.4	37.9
91-94-1	3,3'-Dichlorobenzidine	U	379	ug/kg	114	379
218-01-9	Chrysene	U	37.9	ug/kg	11.4	37.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	379	ug/kg	75.9	379
117-84-0	Di-n-octylphthalate	U	379	ug/kg	75.9	379
205-99-2	Benzo(b)fluoranthene	U	37.9	ug/kg	11.4	37.9
207-08-9	Benzo(k)fluoranthene	U	37.9	ug/kg	11.4	37.9
50-32-8	Benzo(a)pyrene	U	37.9	ug/kg	11.4	37.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.9	ug/kg	11.4	37.9
53-70-3	Dibenzo(a,h)anthracene	U	37.9	ug/kg	11.4	37.9
191-24-2	Benzo(ghi)perylene	U	37.9	ug/kg	11.4	37.9
120-82-1	1,2,4-Trichlorobenzene	U	379	ug/kg	75.9	379

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	516	ug/kg		JA
	Unknown	8.49	331	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13234**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 14:13**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3012.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	10.61	249	ug/kg		J
	Unknown	11.05	566	ug/kg		J
83-46-5	.beta.-Sitosterol	11.15	183	ug/kg	96	NJ
	Unknown	11.31	153	ug/kg		J
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	11.48	174	ug/kg	90	NJ
1058-61-3	Stigmast-4-en-3-one	11.86	248	ug/kg	95	NJ
300574-36-1	5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	12.8	758	ug/kg	90	NJ
	Unknown	12.94	681	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3012.d
Lab Smp Id: 249332007 Client Smp ID: RE46-10-13234
Inj Date : 30-MAR-2010 14:13
Operator : AMY Inst ID: MSD1.i
Smp Info : |249332007|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 15:41 11o00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	12.21700	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.487	3.487	(1.000)	532594	40.0000	
* 29 Naphthalene-d8	136	4.334	4.334	(1.000)	2033508	40.0000	
* 46 Acenaphthene-d10	164	5.569	5.569	(1.000)	1073124	40.0000	
* 67 Phenanthrene-d10	188	6.586	6.587	(1.000)	1949252	40.0000	
* 91 Chrysene-d12	240	8.151	8.151	(1.000)	1361900	40.0000	
* 96 Perylene-d12	264	9.304	9.310	(1.000)	843089	40.0000	
$ 3 2-Fluorophenol	112	2.716	2.704	(0.779)	955464	69.6684	2640
$ 5 Phenol-d5	99	3.228	3.228	(0.926)	1157890	69.3250	2630
$ 20 Nitrobenzene-d5	82	3.840	3.845	(0.886)	477378	38.2756	1450
$ 39 2-Fluorobiphenyl	172	5.075	5.075	(0.911)	1060135	35.7705	1360
$ 60 2,4,6-Tribromophenol	329	6.122	6.128	(1.099)	251999	71.6268	2720
$ 81 p-Terphenyl-d14	244	7.510	7.510	(0.921)	1111550	48.9556	1860

ION RATIO REPORT

SV REPORT

Data file: s1c3012.d
Report Date: 03/30/2010 15:33
Lab. ID: 249332007 SampleType: SAMPLE
Injection Date: 30-MAR-2010 14:13
Operator: AMY Instrument: MSD1.i
Sample Info: |249332007|966766|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2433
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	54283	3.23	3.28	80-120	100	( )
93	7934	3.26	3.28	200-260	15	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	69093	3.84	3.74	80-120	100	(T)
42	44204	3.84	3.74	49-109	64	(T)
41 m-Nitroaniline			CAS#: 99-09-2			
138	370	5.56	5.54	80-120	100	( )
92	4895	5.57	5.54	73-133	1322	(Q)
108	19224	5.57	5.54	0- 41	5192	(Q)
43 Dimethylphthalate			CAS#: 131-11-3			
163	194982	5.57	5.36	80-120	100	(T)
164	1073124	5.57	5.36	0- 40	550	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	137832	5.57	5.41	80-120	100	(T)
63	4155	5.56	5.41	51-111	3	(QT)
45 Acenaphthylene			CAS#: 208-96-8			
152	13758	5.56	5.47	80-120	100	(T)
151	4378	5.56	5.47	0- 49	32	(T)
153	14691	5.56	5.47	0- 43	107	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
47 Acenaphthene			CAS#: 83-32-9			
154	15254	5.56	5.60	80-120	100	( )
153	14691	5.56	5.60	74-134	96	( )
152	13758	5.56	5.60	18- 78	90	(Q)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	137832	5.57	5.70	80-120	100	(T)
89	2663	5.57	5.70	40-100	2	(QT)
63	4155	5.56	5.70	20- 80	3	(QT)
53 Fluorene			CAS#: 86-73-7			
166	19379	6.12	5.96	80-120	100	(T)
165	19326	6.12	5.96	62-122	100	(T)
167	6878	6.12	5.96	0- 44	35	(T)
56 p-Nitroaniline			CAS#: 100-01-6			
138	119	5.99	5.97	80-120	100	( )
108	205	6.06	5.97	37- 97	172	(QT)
92	294	6.00	5.97	12- 72	246	(Q)
61 4-Bromophenylphenylether			CAS#: 101-55-3			
248	19679	6.12	6.28	80-120	100	(T)
141	110864	6.12	6.28	47-107	563	(QT)
250	37760	6.12	6.28	66-126	192	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3012.d
Lab Smp Id: 249332007 Client Smp ID: RE46-10-13234
Inj Date : 30-MAR-2010 14:13
Operator : AMY Inst ID: MSD1.i
Smp Info : |249332007|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 15:41 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	12.21700	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.487	3207493	40.000
* 91 Chrysene-d12	8.151	3524688	40.000
* 98 Perylene-d12	9.304	2361932	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.557	1089830	13.5910525	516	0		0	10
Unknown					CAS #:		
8.492	769474	8.73238824	331	0		0	91
Unknown					CAS #:		
10.610	387022	6.55432348	249	0		0	98
Unknown					CAS #:		
11.045	881491	14.9283021	566	0		0	98
.beta.-Sitosterol					CAS #: 83-46-5		
11.151	284565	4.81918367	183	96	NIST05.L	174400	98
Unknown					CAS #:		
11.310	237543	4.02286433	153	0		0	98
Pyridine-3-carboxamide, oxime, N-(2-trif					CAS #: 288246-53-7		
11.480	271422	4.59661496	174	90	NIST05.L	112295	98
Stigmast-4-en-3-one					CAS #: 1058-61-3		
11.857	386264	6.54149119	248	95	NIST05.L	173936	98
5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur					CAS #: 300574-36-1		
12.798	1180297	19.9886590	758	90	NIST05.L	68738	98
Unknown					CAS #:		
12.939	1059728	17.9468001	681	0		0	98

Data File: /chem/MSD1.i/s033010.b/s1c3012.d
Date : 30-MAR-2010 14:13
Client ID: RE46-10-13234
Sample Info: |249332007|966766|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

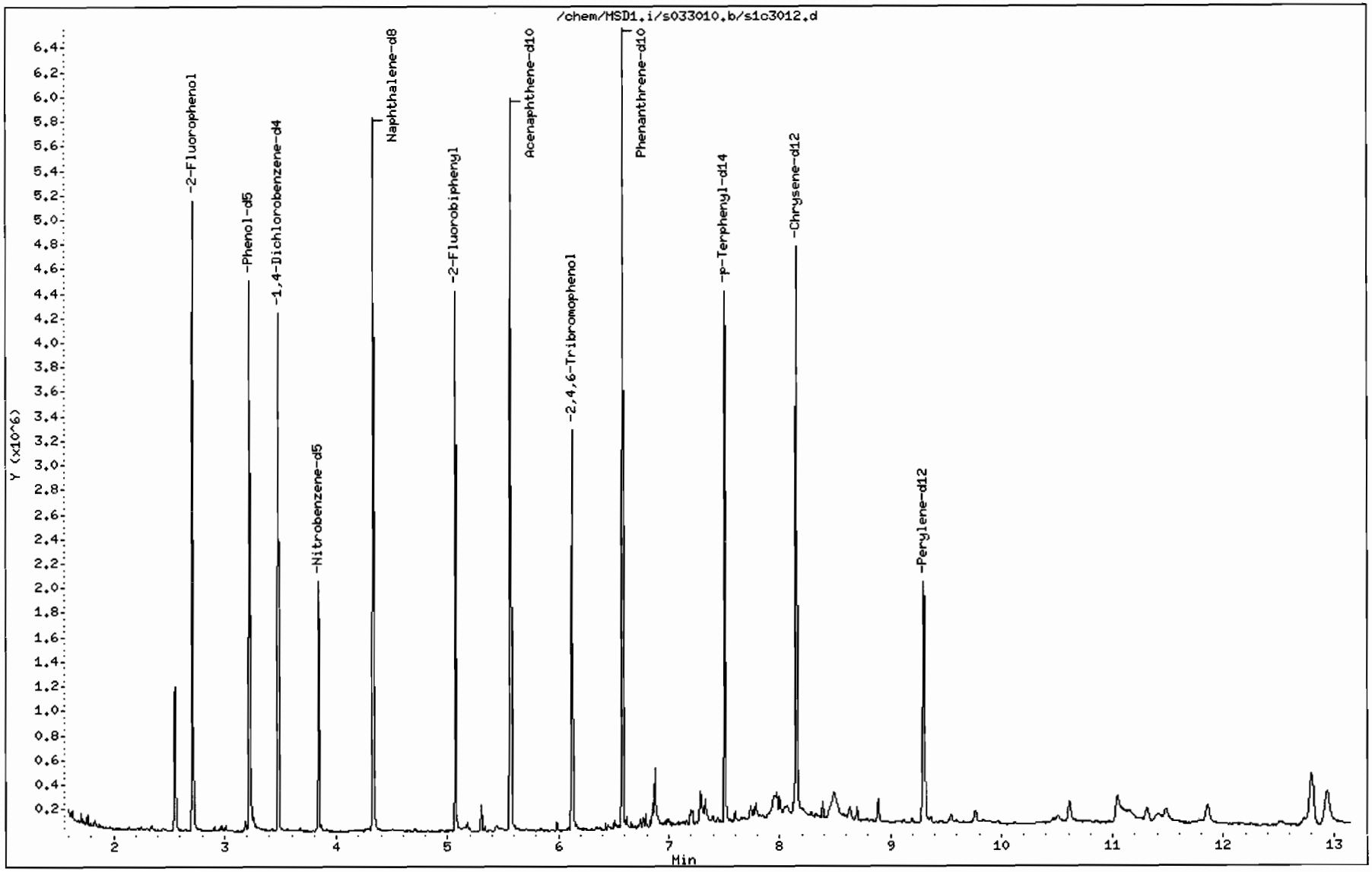

Data File: /chem/MSD1.i/s033010.b/s1c3012.d

Date : 30-MAR-2010 14:13

Client ID: RE46-10-13234

Instrument: MSD1.i

Sample Info: |249332007|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	53	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	45	C6H12O2	116
t-Butyl nitrite	540-80-7	NIST05.L	4426	39	C4H9NO2	103

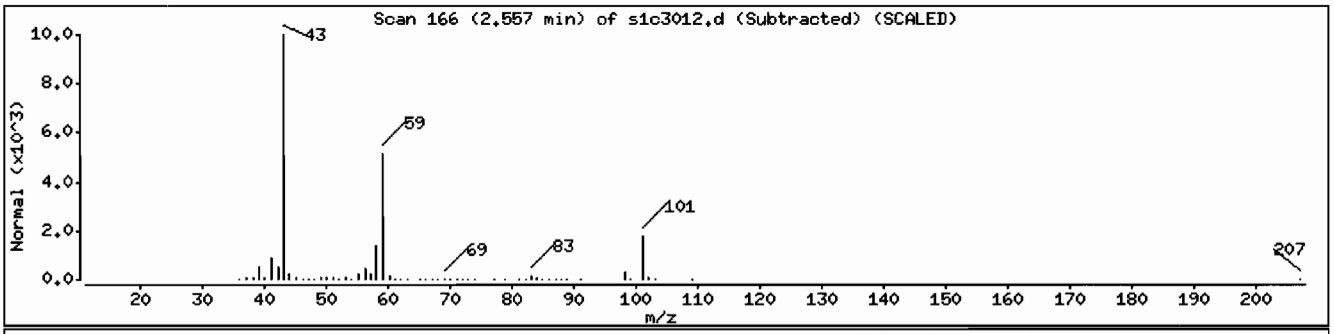

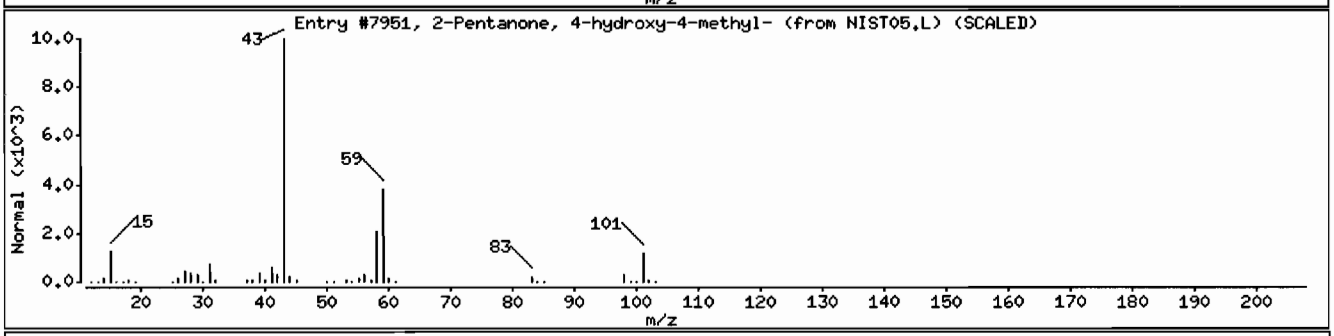

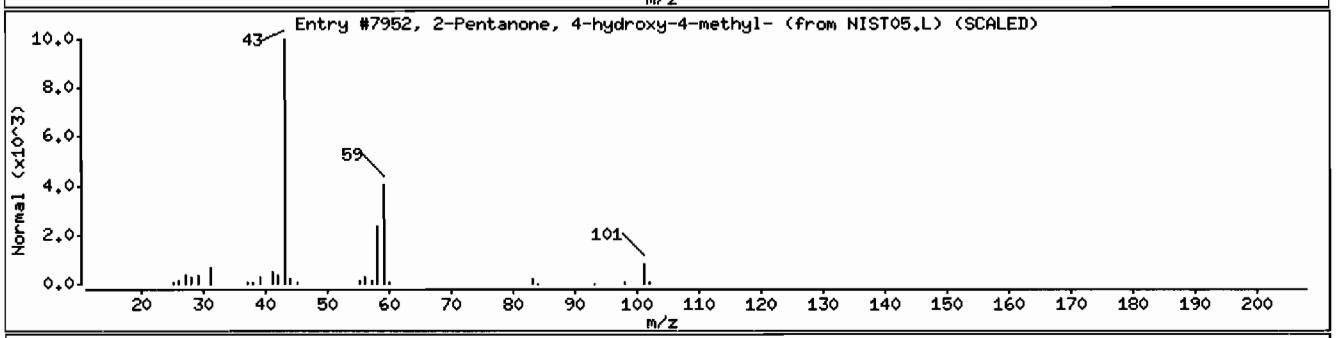

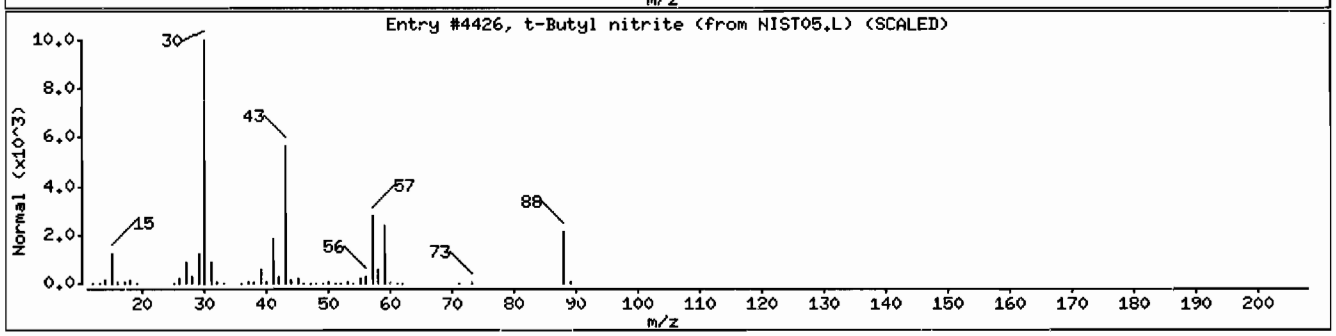

Data File: /chem/MSD1.i/s033010.b/s1c3012.d

Date : 30-MAR-2010 14:13

Client ID: RE46-10-13234

Instrument: MSD1.i

Sample Info: |249332007|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
17-Pentatriacontene	6971-40-0	NIST05.L	183897	53	C35H70	491
3-(Bromomethyl)cyclohexanone	168278-83-9	NIST05.L	50158	44	C7H11BrO	190
Bromoacetic acid, octadecyl ester	18992-03-5	NIST05.L	168348	43	C20H39BrO2	390

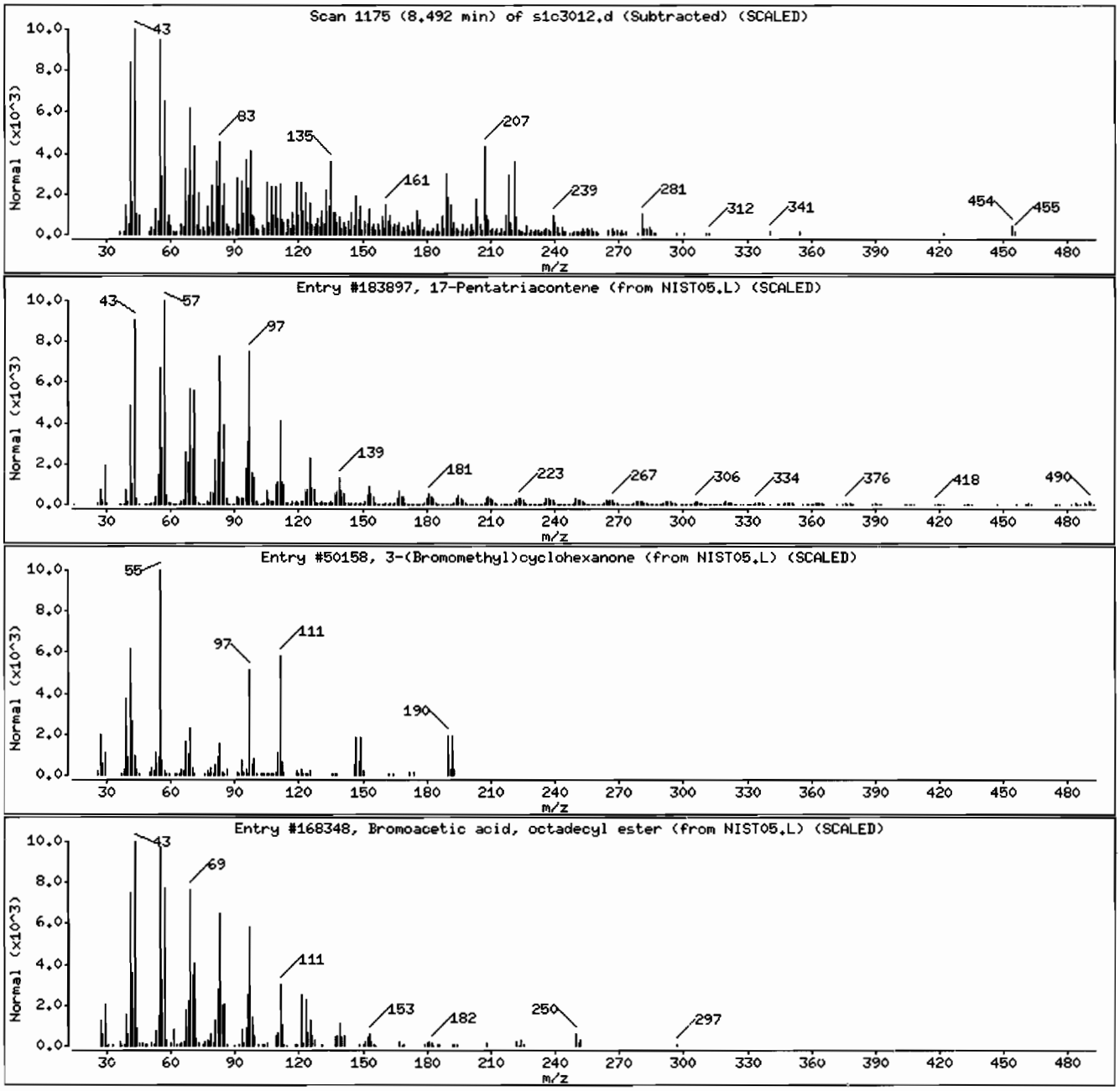

Data File: /chem/MSD1.i/s033010.b/s1c3012.d

Date : 30-MAR-2010 14:13

Client ID: RE46-10-13234 Instrument: MSD1.i

Sample Info: 1249332007196676611SVM11LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,6,10,14,18,22-Tetracosahexaen-3-ol, 2,	54159-46-5	NIST05.L	176609	41	C30H50O	426
4-Sulfamoyl-thiophene-2-carboxylic acid	1000300-36-6	NIST05.L	62256	18	C5H5NO4S2	207
4,4-Diallyl-cyclohexanone	1000186-50-2	NIST05.L	41625	15	C12H18O	178

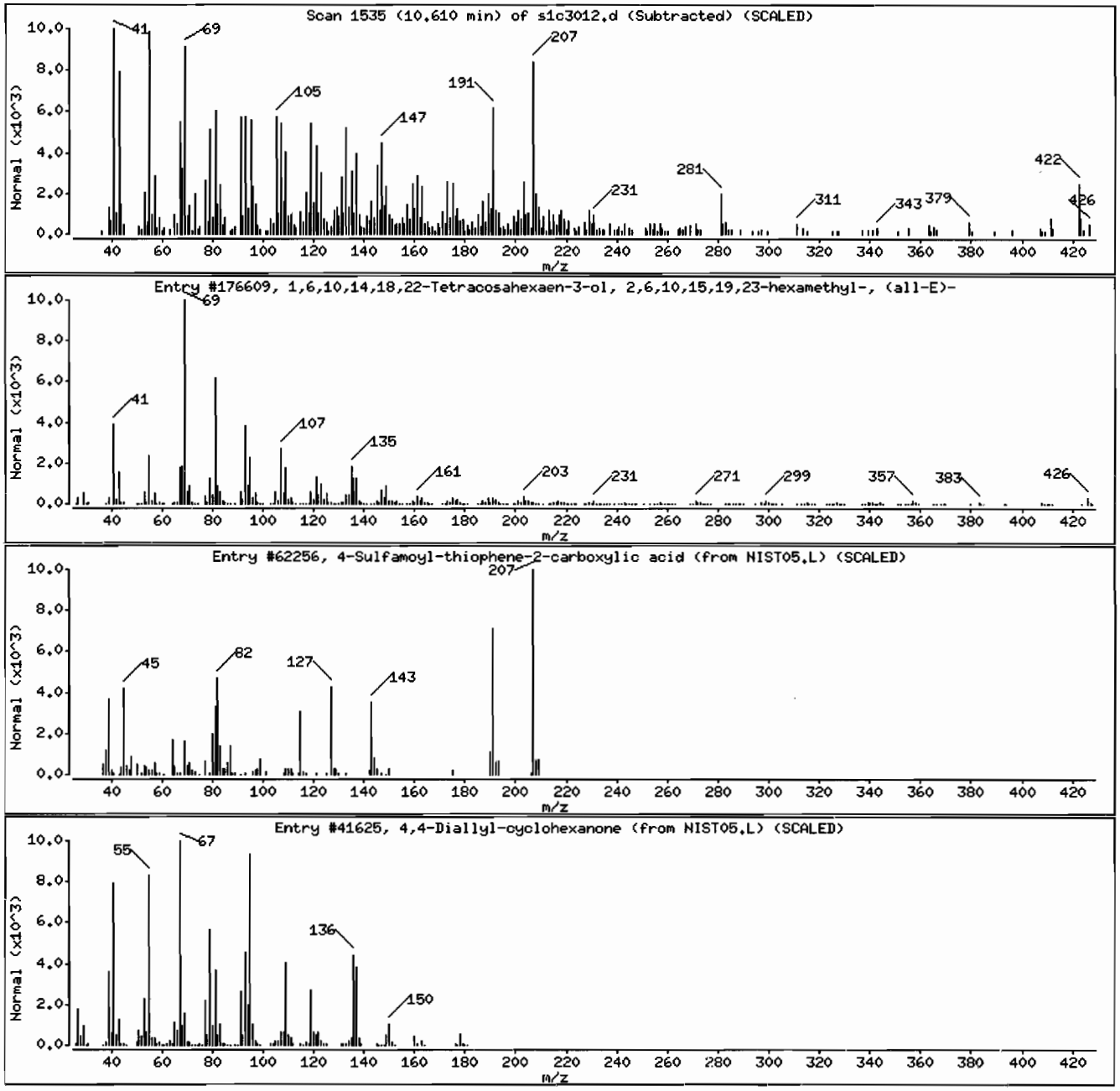

Data File: /chem/MSD1.i/s033010.b/s1c3012.d

Date : 30-MAR-2010 14:13

Client ID: RE46-10-13234

Instrument: MSD1.i

Sample Info: 1249332007|966766|1|SVH|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
8-Androsten-3-ol, 17-(2-methylallyl)-4,4	1000197-34-3	NIST05.L	173923	37	C28H4402	412
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	30	C13H21NO	207
1.alpha.,2.alpha.-Epoxy-1.beta.-methylch	118414-37-2	NIST05.L	173527	30	C28H4202	410

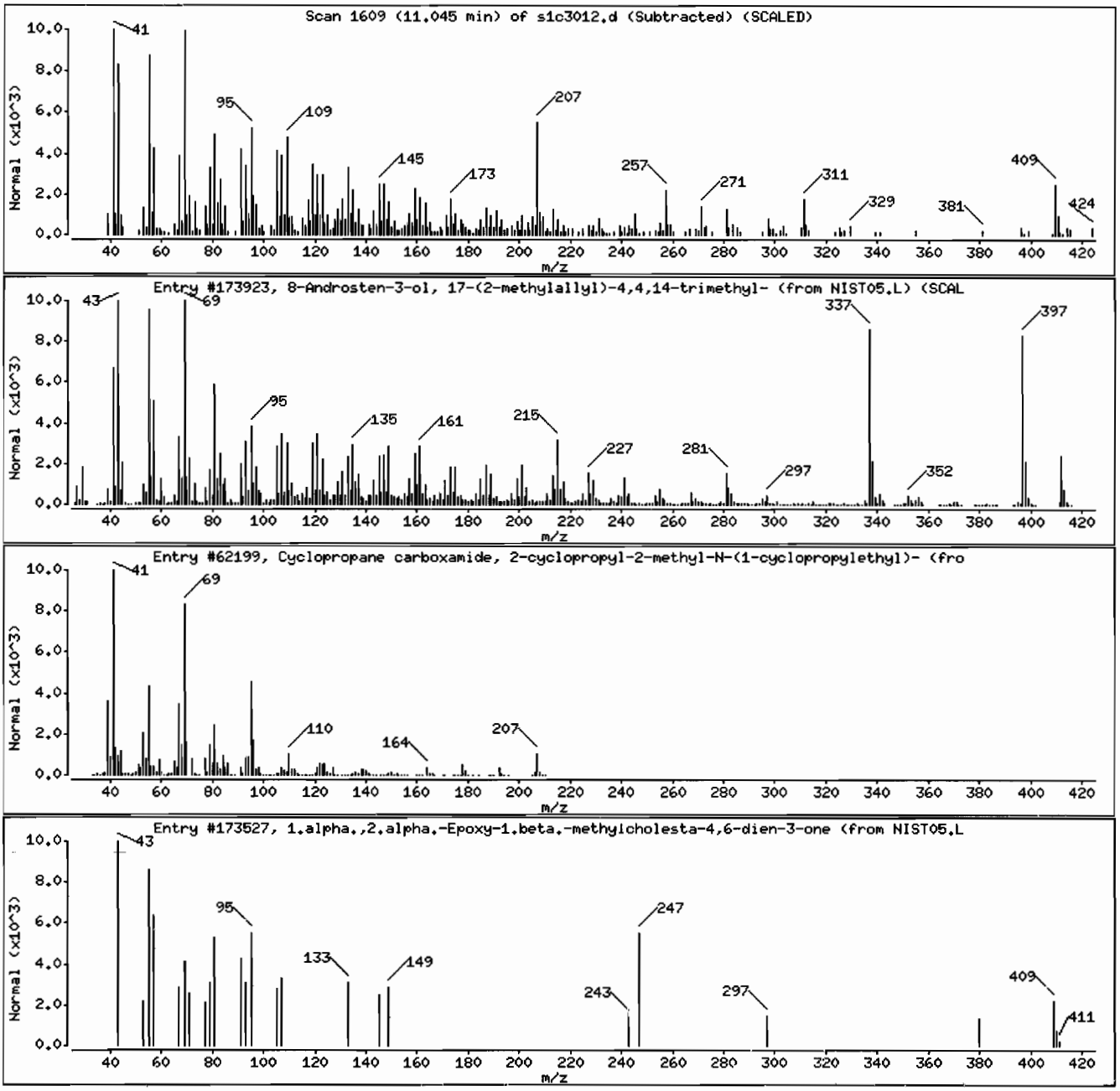

Data File: /chem/MSD1.i/s033010.b/s1c3012.d

Date : 30-MAR-2010 14:13

Client ID: RE46-10-13234 Instrument: MSD1.i

Sample Info: |249332007|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174400	96	C29H50O	414
Ethanone, 2-(2-benzothiazolylthio)-1-(3,	155670-84-1	NIST05.L	126423	42	C14H13N3OS2	303
.beta.-Sitosterol	83-46-5	NIST05.L	174399	40	C29H50O	414

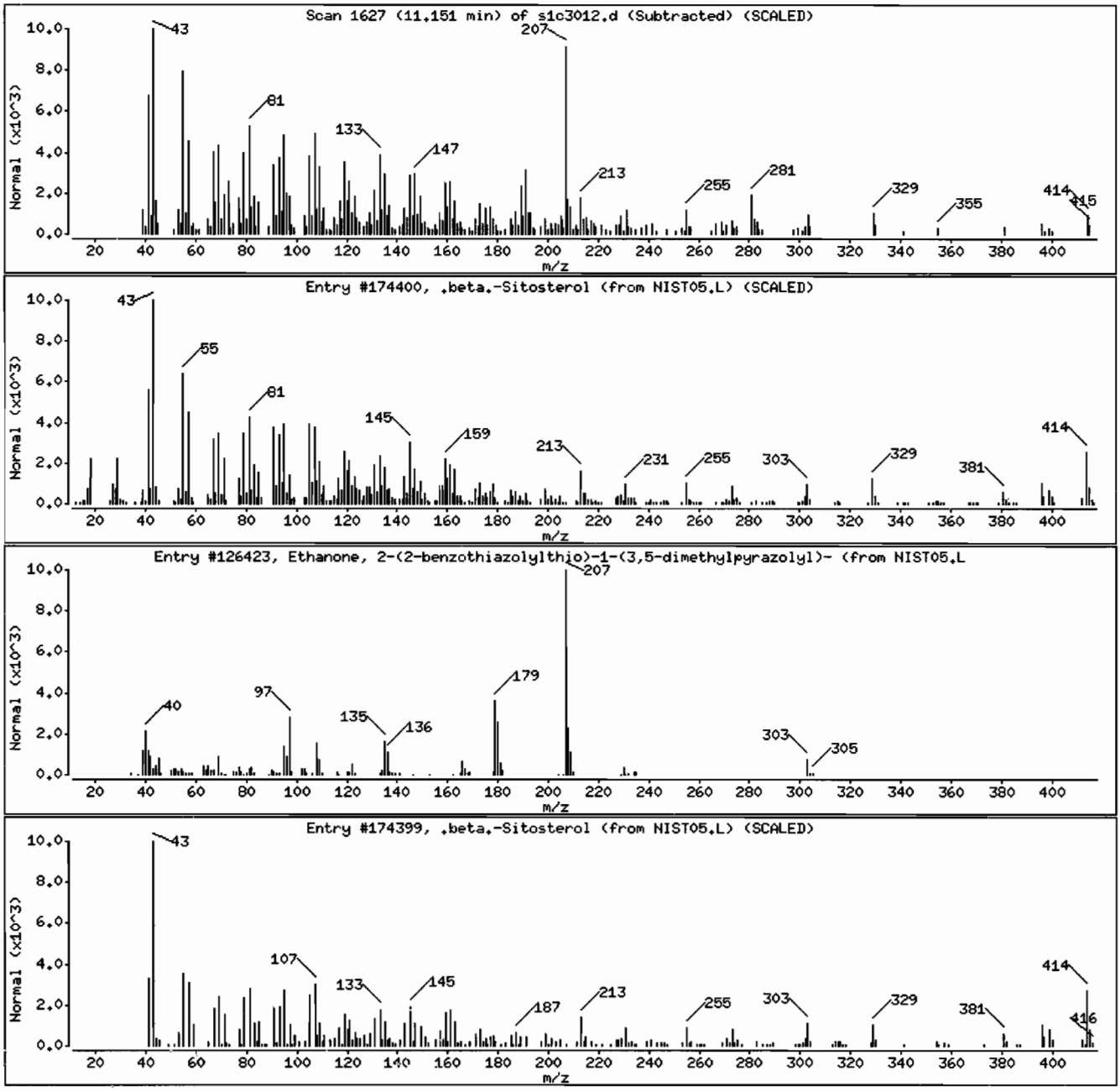

Data File: /chem/MSD1.i/s033010.b/s1c3012.d

Date : 30-MAR-2010 14:13

Client ID: RE46-10-13234 Instrument: MSD1.i

Sample Info: |2493320071966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Pyridine-3-carboxamide, oxime, N-(2-trif	288246-53-7	NIST05.L	112295	60	C13H10F3N3O	281
1.alpha.,2.alpha.-Epoxy-1.beta.-methylch	118414-37-2	NIST05.L	173527	44	C28H42O2	410
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	25	C15H13N	207

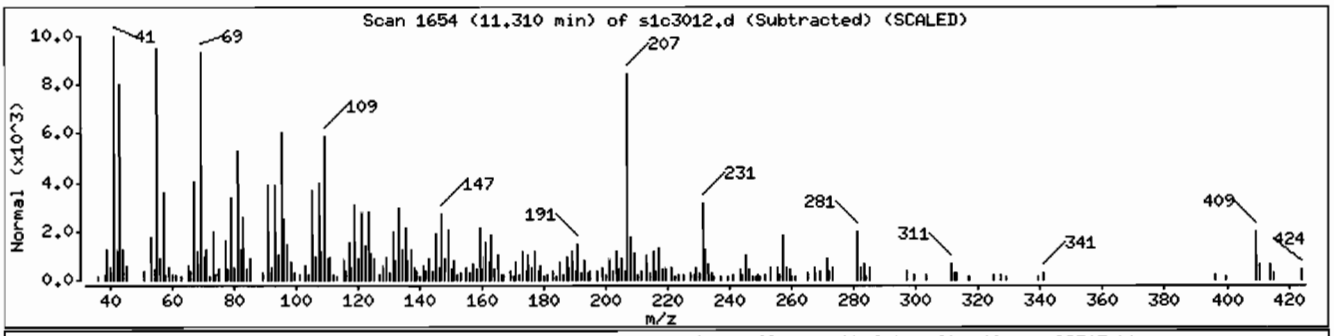

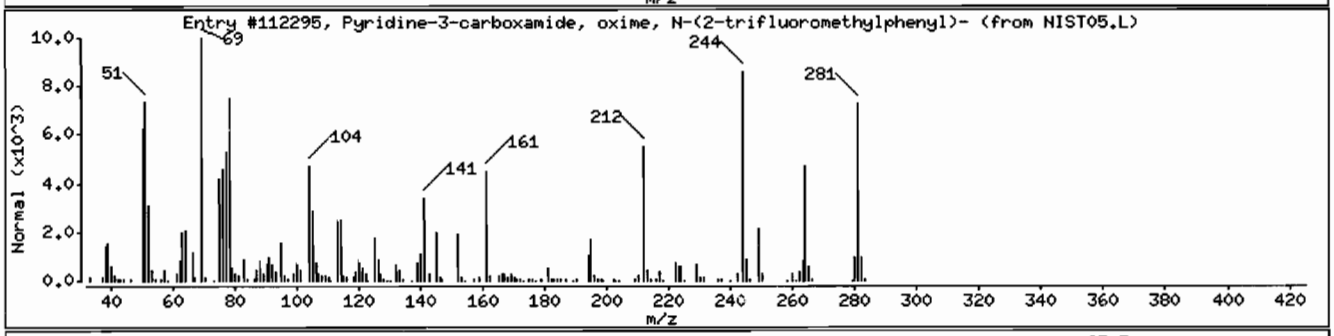

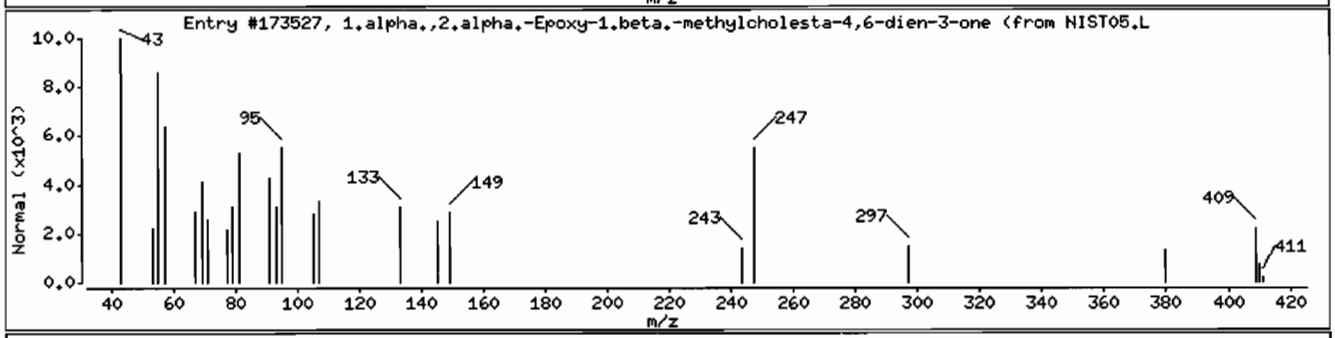

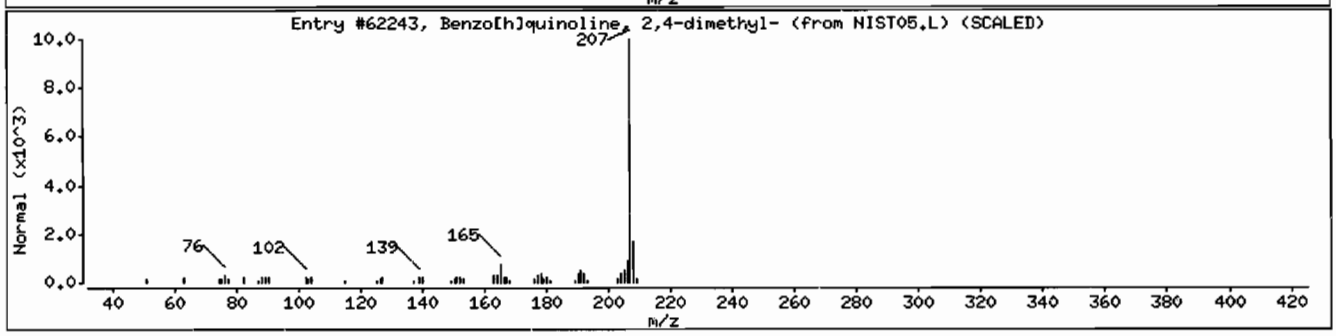

Data File: /chem/MSD1.i/s033010.b/s1c3012.d

Date : 30-MAR-2010 14:13

Client ID: RE46-10-13234 Instrument: MSD1.i

Sample Info: |249332007|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyridine-3-carboxamide, oxime, N-(2-trif	288246-53-7	NIST05.L	112295	90	C13H10F3N3O	281
2,4,4-Trimethyl-3-hydroxymethyl-5a-(3-me	1000144-10-5	NIST05.L	72978	38	C15H26O	222
2-Cyclohexene-1-carboxaldehyde, 2,6-dime	56772-07-7	NIST05.L	71436	38	C15H24O	220

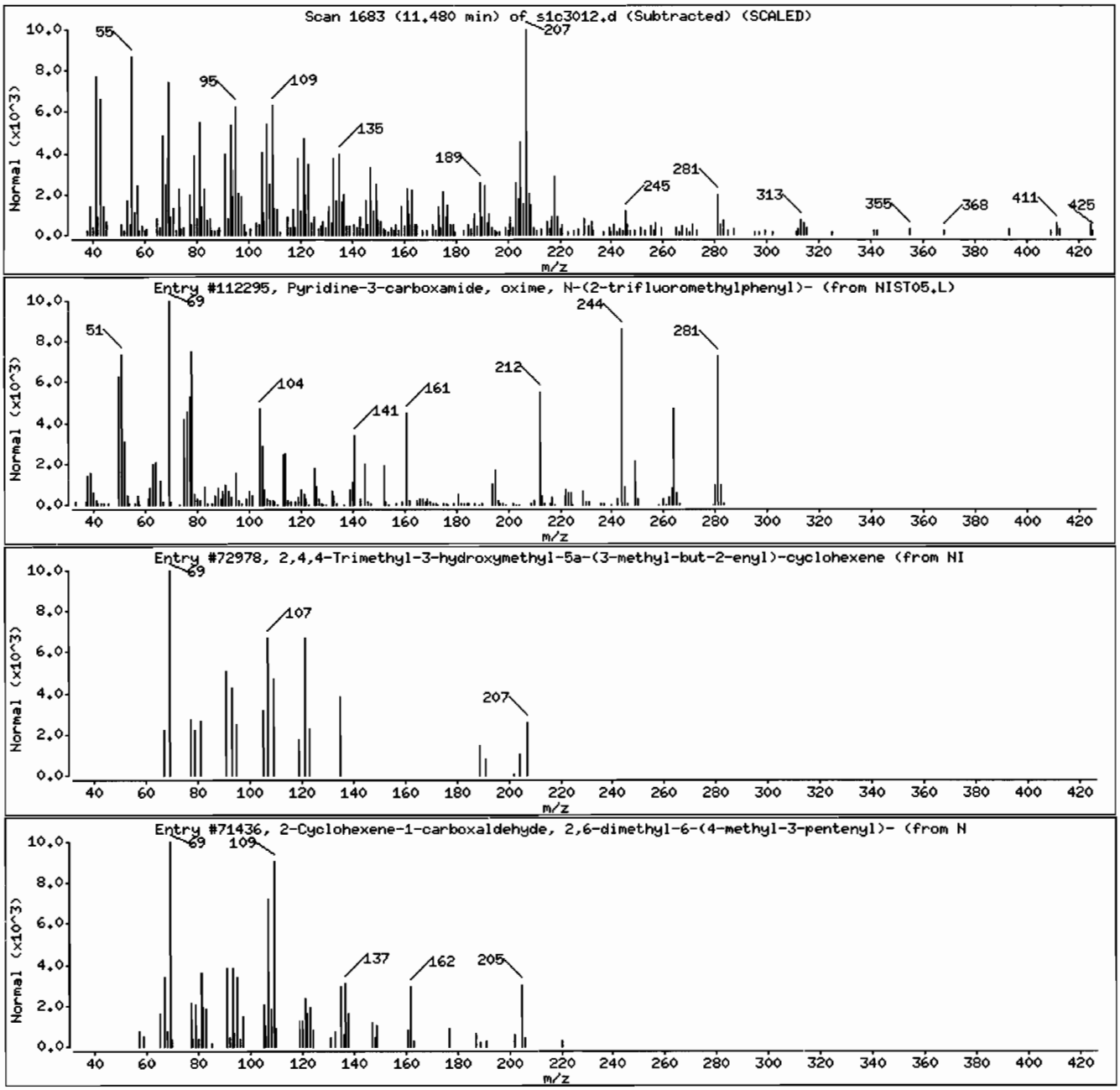

Data File: /chem/MSD1.i/s033010.b/s1c3012.d

Date : 30-MAR-2010 14:13

Client ID: RE46-10-13234

Instrument: MSD1.i

Sample Info: |2493320071966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Stigmast-4-en-3-one	1058-61-3	NIST05.L	173936	95	C29H480	412
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117326	80	C19H2802	288
Androst-4-en-3-one, 17-hydroxy-, (10.alp	604-39-7	NIST05.L	117339	42	C19H2802	288

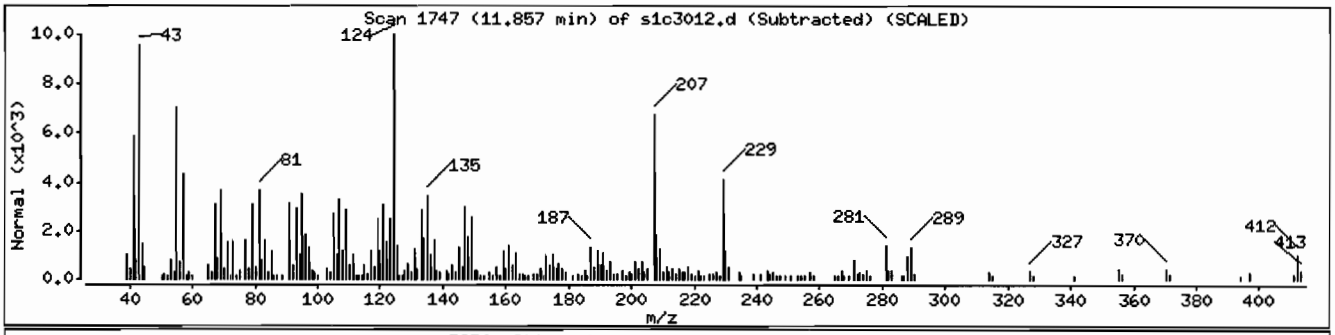

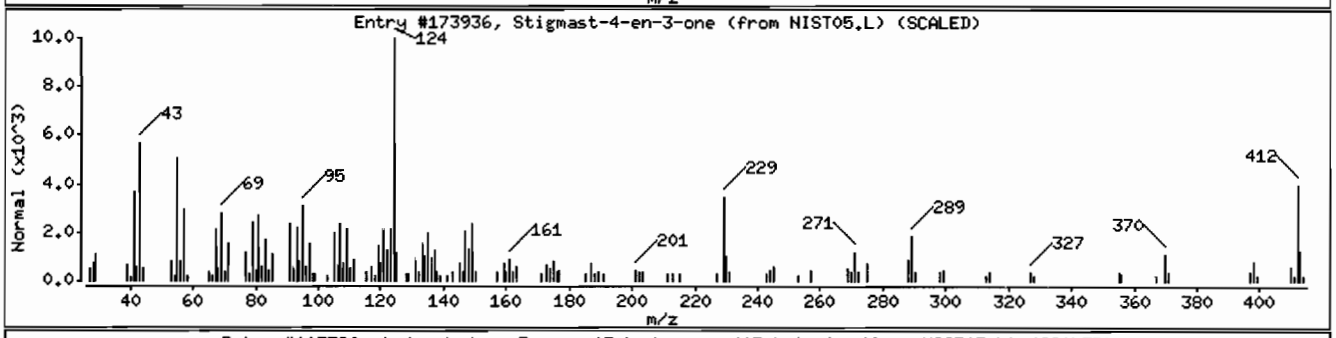

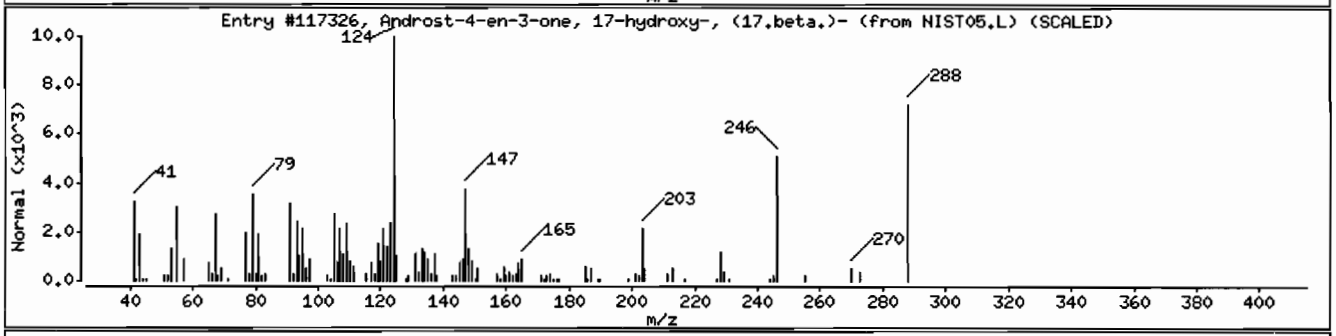

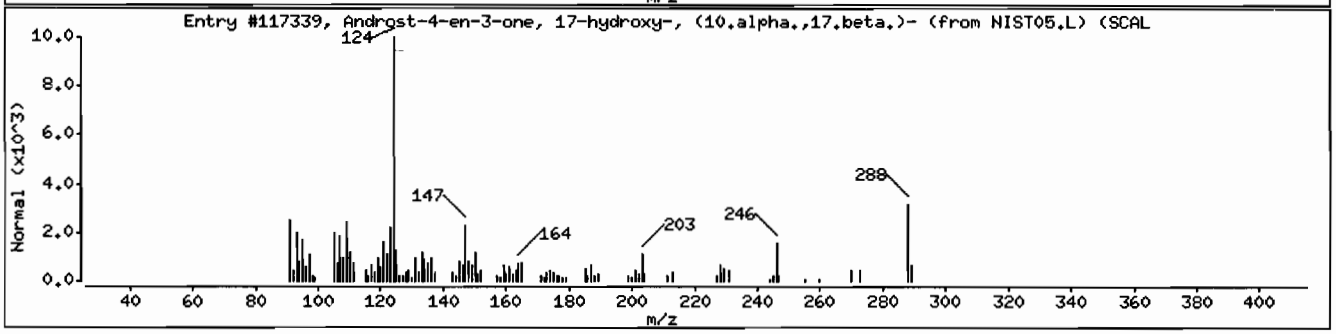

Data File: /chem/MSD1.i/s033010.b/s1c3012.d

Date : 30-MAR-2010 14:13

Client ID: RE46-10-13234 Instrument: MSD1.i

Sample Info: 1249332007|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	300574-36-1	NIST05.L	68738	90	C6H5BrN2O2	216
D:A-Friedoursan-3-one	89950-00-5	NIST05.L	176576	55	C30H50O	426
7-Tetradecyne	35216-11-6	NIST05.L	52908	53	C14H26	194

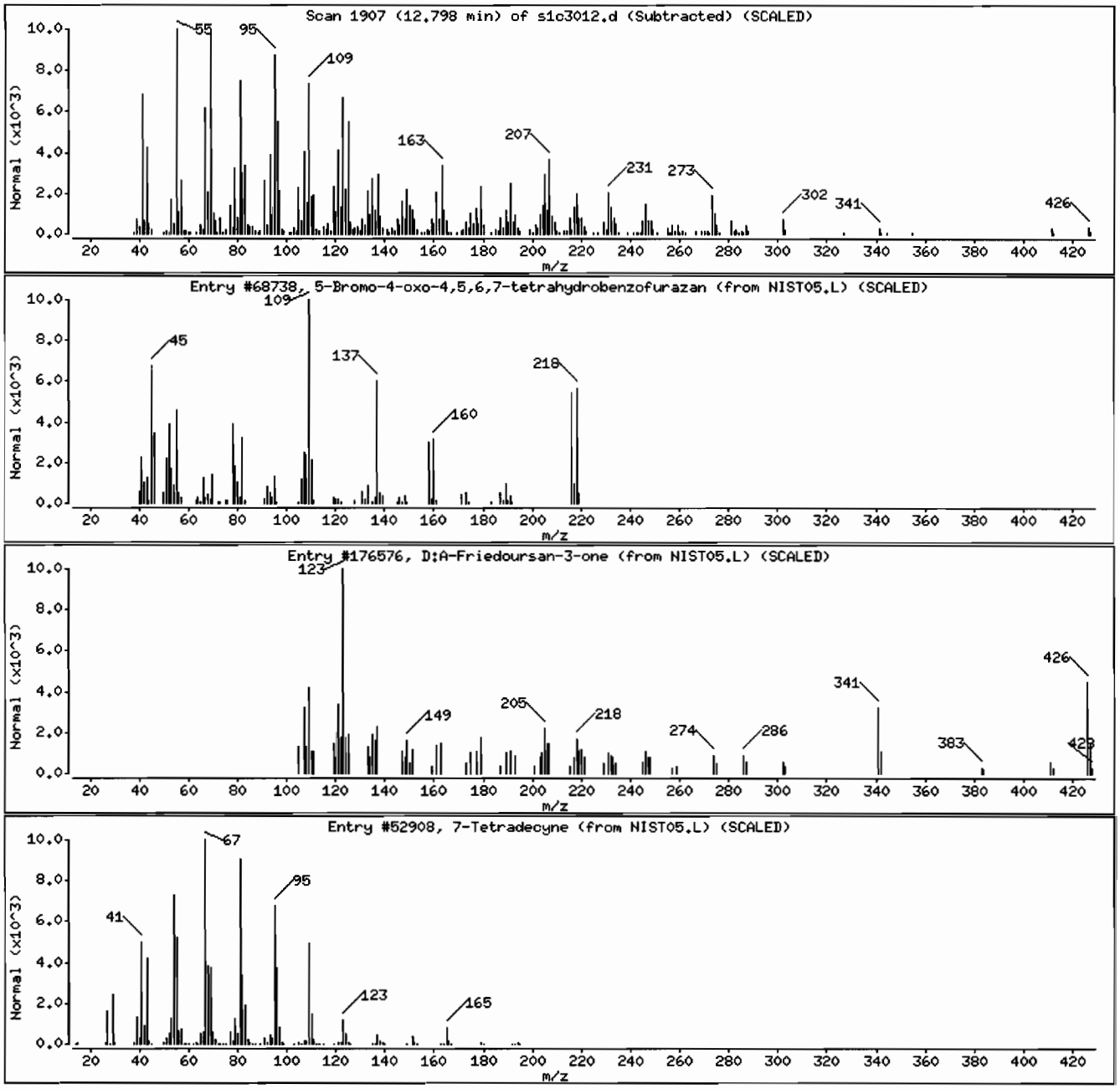

Data File: /chem/MSD1.i/s033010.b/s1c3012.d

Date : 30-MAR-2010 14:13

Client ID: RE46-10-13234 Instrument: MSD1.i

Sample Info: |249332007|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Spiro[2,7]dec-4-ene, 1,1,5,6,6,9,9-hepta	1000150-39-7	NIST05.L	89472	46	C18H30	246
.gamma.-Neoclovene	1000156-11-7	NIST05.L	59837	38	C15H24	204
Isoaromadendrene epoxide	1000159-36-6	NIST05.L	71364	38	C15H240	220

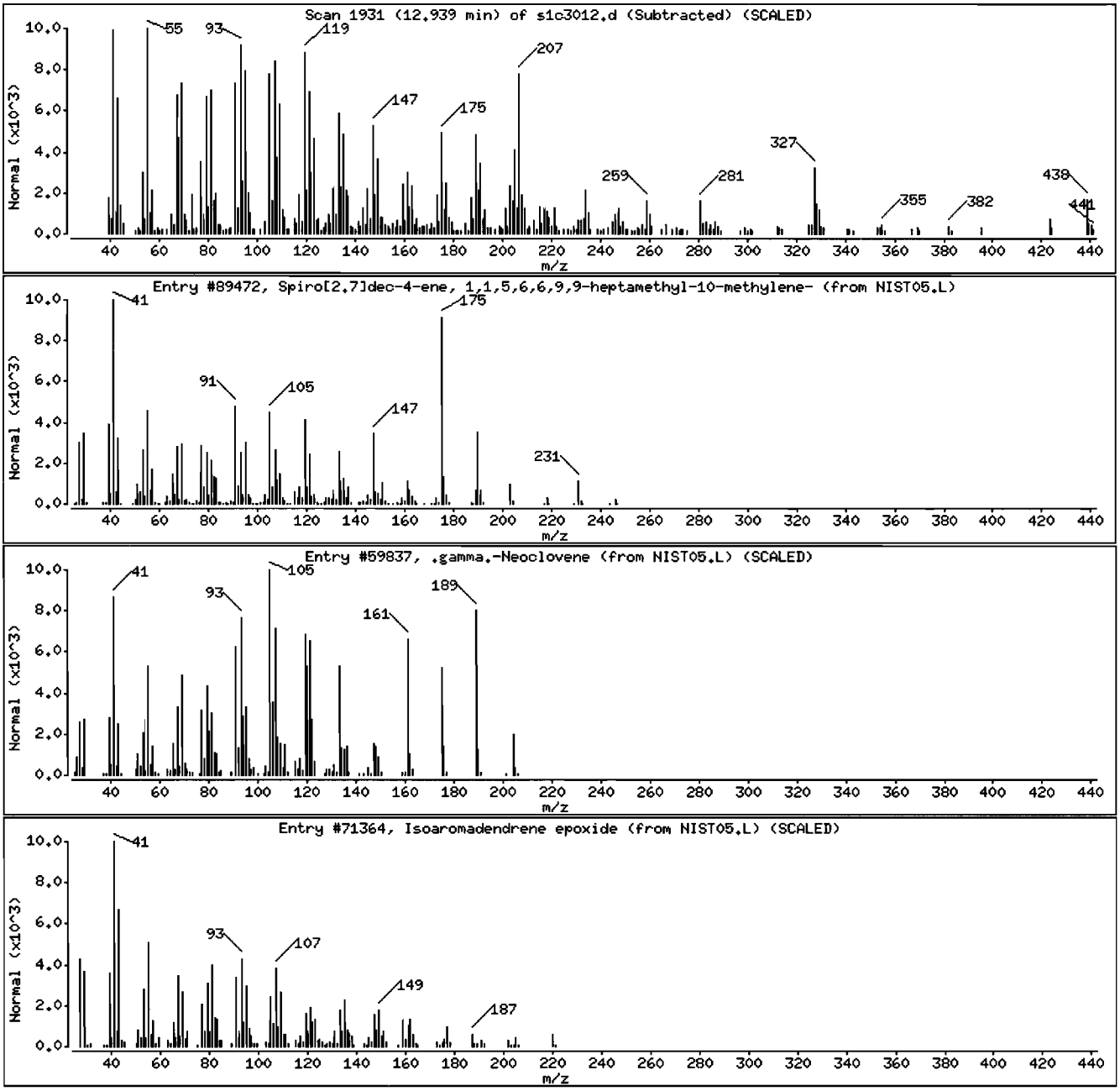

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332009**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**30**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-14199**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 14:36**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3013.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	475	ug/kg	95.0	475
108-95-2	Phenol	U	475	ug/kg	95.0	475
95-57-8	2-Chlorophenol	U	475	ug/kg	95.0	475
106-46-7	1,4-Dichlorobenzene	U	475	ug/kg	95.0	475
621-64-7	N-Nitrosodipropylamine	U	475	ug/kg	95.0	475
59-50-7	4-Chloro-3-methylphenol	U	475	ug/kg	95.0	475
83-32-9	Acenaphthene	U	47.5	ug/kg	15.7	47.5
121-14-2	2,4-Dinitrotoluene	U	475	ug/kg	47.5	475
100-02-7	4-Nitrophenol	U	475	ug/kg	157	475
87-86-5	Pentachlorophenol	U	475	ug/kg	119	475
129-00-0	Pyrene	U	47.5	ug/kg	14.2	47.5
110-86-1	Pyridine	U	475	ug/kg	95.0	475
62-53-3	Aniline	U	475	ug/kg	142	475
111-44-4	bis(2-Chloroethyl) ether	U	475	ug/kg	95.0	475
541-73-1	1,3-Dichlorobenzene	U	475	ug/kg	95.0	475
100-51-6	Benzyl alcohol	U	475	ug/kg	142	475
95-50-1	1,2-Dichlorobenzene	U	475	ug/kg	95.0	475
108-60-1	bis(2-Chloroisopropyl)ether	U	475	ug/kg	95.0	475
95-48-7	o-Cresol	U	475	ug/kg	95.0	475
65794-96-9	m,p-Cresols	U	475	ug/kg	142	475
67-72-1	Hexachloroethane	U	475	ug/kg	95.0	475
98-95-3	Nitrobenzene	U	475	ug/kg	95.0	475
78-59-1	Isophorone	U	475	ug/kg	95.0	475
88-75-5	2-Nitrophenol	U	475	ug/kg	95.0	475
105-67-9	2,4-Dimethylphenol	U	475	ug/kg	166	475
111-91-1	bis(2-Chloroethoxy)methane	U	475	ug/kg	95.0	475
120-83-2	2,4-Dichlorophenol	U	475	ug/kg	95.0	475
65-85-0	Benzoic acid	U	950	ug/kg	237	950
91-20-3	Naphthalene	U	47.5	ug/kg	14.2	47.5
106-47-8	4-Chloroaniline	U	475	ug/kg	95.0	475
87-68-3	Hexachlorobutadiene	U	475	ug/kg	95.0	475
91-57-6	2-Methylnaphthalene	U	47.5	ug/kg	9.50	47.5
77-47-4	Hexachlorocyclopentadiene	U	475	ug/kg	95.0	475
88-06-2	2,4,6-Trichlorophenol	U	475	ug/kg	95.0	475
95-95-4	2,4,5-Trichlorophenol	U	475	ug/kg	95.0	475
91-58-7	2-Chloronaphthalene	U	47.5	ug/kg	15.7	47.5
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	475	ug/kg	95.0	475
99-09-2	3-Nitroaniline	U	475	ug/kg	95.0	475

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332009**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**30**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-14199**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 14:36**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3013.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	475	ug/kg	95.0	475
606-20-2	2,6-Dinitrotoluene	U	475	ug/kg	47.5	475
208-96-8	Acenaphthylene	U	47.5	ug/kg	14.2	47.5
51-28-5	2,4-Dinitrophenol	U	950	ug/kg	180	950
132-64-9	Dibenzofuran	U	475	ug/kg	95.0	475
84-66-2	Diethylphthalate	U	475	ug/kg	95.0	475
86-73-7	Fluorene	U	47.5	ug/kg	14.2	47.5
7005-72-3	4-Chlorophenylphenylether	U	475	ug/kg	95.0	475
534-52-1	2-Methyl-4,6-dinitrophenol	U	475	ug/kg	95.0	475
100-01-6	4-Nitroaniline	U	475	ug/kg	142	475
	p-Nitroaniline					
122-39-4	Diphenylamine	U	475	ug/kg	95.0	475
122-66-7	Azobenzene	U	475	ug/kg	95.0	475
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	475	ug/kg	95.0	475
118-74-1	Hexachlorobenzene	U	475	ug/kg	95.0	475
85-01-8	Phenanthrene	U	47.5	ug/kg	14.2	47.5
120-12-7	Anthracene	U	47.5	ug/kg	9.50	47.5
84-74-2	Di-n-butylphthalate	U	475	ug/kg	95.0	475
206-44-0	Fluoranthene	U	47.5	ug/kg	14.2	47.5
85-68-7	Butylbenzylphthalate	U	475	ug/kg	95.0	475
56-55-3	Benzo(a)anthracene	U	47.5	ug/kg	14.2	47.5
91-94-1	3,3'-Dichlorobenzidine	U	475	ug/kg	142	475
218-01-9	Chrysene	U	47.5	ug/kg	14.2	47.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	475	ug/kg	95.0	475
117-84-0	Di-n-octylphthalate	U	475	ug/kg	95.0	475
205-99-2	Benzo(b)fluoranthene	U	47.5	ug/kg	14.2	47.5
207-08-9	Benzo(k)fluoranthene	U	47.5	ug/kg	14.2	47.5
50-32-8	Benzo(a)pyrene	U	47.5	ug/kg	14.2	47.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	47.5	ug/kg	14.2	47.5
53-70-3	Dibenzo(a,h)anthracene	U	47.5	ug/kg	14.2	47.5
191-24-2	Benzo(ghi)perylene	U	47.5	ug/kg	14.2	47.5
120-82-1	1,2,4-Trichlorobenzene	U	475	ug/kg	95.0	475

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	504	ug/kg		JA
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.3	214	ug/kg	99	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332009**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**30**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-14199**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 14:36**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3013.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.48	318	ug/kg		J
559-74-0	Friedelan-3-one	12.79	882	ug/kg	95	NJ

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3013.d
Lab Smp Id: 249332009 Client Smp ID: RE46-10-14199
Inj Date : 30-MAR-2010 14:36
Operator : AMY Inst ID: MSD1.i
Smp Info : |249332009|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 15:41 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	30.00180	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.487	3.487	(1.000)	428712	40.0000	
* 29 Naphthalene-d8	136	4.334	4.334	(1.000)	1659232	40.0000	
* 46 Acenaphthene-d10	164	5.569	5.569	(1.000)	885306	40.0000	
* 67 Phenanthrene-d10	188	6.581	6.587	(1.000)	1601688	40.0000	
* 91 Chrysene-d12	240	8.151	8.151	(1.000)	1226894	40.0000	
* 98 Perylene-d12	264	9.304	9.310	(1.000)	837657	40.0000	
$ 3 2-Fluorophenol	112	2.710	2.704	(0.777)	535088	48.4705	2300
$ 5 Phenol-d5	99	3.228	3.228	(0.926)	649300	48.2946	2290
$ 20 Nitrobenzene-d5	82	3.840	3.845	(0.886)	260720	25.6196	1220
$ 39 2-Fluorobiphenyl	172	5.075	5.075	(0.911)	570688	23.3410	1110
$ 60 2,4,6-Tribromophenol	329	6.122	6.128	(1.099)	146533	50.4857	2400
$ 81 p-Terphenyl-d14	244	7.510	7.510	(0.921)	641084	31.3420	1490

ION RATIO REPORT

SV REPORT

Data file: s1c3013.d
Report Date: 03/30/2010 15:33
Lab. ID: 249332009 SampleType: SAMPLE
Injection Date: 30-MAR-2010 14:36
Operator: AMY Instrument: MSD1.i
Sample Info: |249332009|966766|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2433
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
1 N-Methyl-N-nitrosomethylamine				CAS#: 62-75-9		
74	13772	1.83	2.04	80-120	100	(T)
42	2292	1.83	2.04	80-140	17	(QT)
43	23456	1.83	2.04	17- 77	170	(QT)
4 Aniline				CAS#: 62-53-3		
66	31339	3.23	3.28	80-120	100	( )
93	2934	3.26	3.28	200-260	9	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	37072	3.84	3.74	80-120	100	(T)
42	23265	3.84	3.74	49-109	63	(T)
41 m-Nitroaniline				CAS#: 99-09-2		
138	401	5.56	5.54	80-120	100	( )
92	4308	5.57	5.54	73-133	1073	(Q)
108	16479	5.57	5.54	0- 41	4106	(Q)
43 Dimethylphthalate				CAS#: 131-11-3		
163	160912	5.57	5.36	80-120	100	(T)
164	885306	5.57	5.36	0- 40	550	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	114101	5.57	5.41	80-120	100	(T)
63	3387	5.56	5.41	51-111	3	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
45 Acenaphthylene			CAS#: 208-96-8			
152	11899	5.56	5.47	80-120	100	(T)
151	3393	5.56	5.47	0- 49	29	(T)
153	12350	5.56	5.47	0- 43	104	(QT)
47 Acenaphthene			CAS#: 83-32-9			
154	12854	5.56	5.60	80-120	100	( )
153	12350	5.56	5.60	74-134	96	( )
152	11899	5.56	5.60	18- 78	93	(Q)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	114101	5.57	5.70	80-120	100	(T)
89	2227	5.57	5.70	40-100	2	(QT)
63	3387	5.56	5.70	20- 80	3	(QT)
53 Fluorene			CAS#: 86-73-7			
166	10740	6.12	5.96	80-120	100	(T)
165	12147	6.12	5.96	62-122	113	(T)
167	4059	6.12	5.96	0- 44	38	(T)
56 p-Nitroaniline			CAS#: 100-01-6			
138	147	5.98	5.97	80-120	100	( )
108	180	6.05	5.97	37- 97	122	(QT)
92	280	5.99	5.97	12- 72	190	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3013.d
Lab Smp Id: 249332009 Client Smp ID: RE46-10-14199
Inj Date : 30-MAR-2010 14:36
Operator : AMY Inst ID: MSD1.i
Smp Info : |249332009|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 15:41 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariabl

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	30.00180	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.487	2608621	40.000
* 46 Acenaphthene-d10	5.569	3847654	40.000
* 91 Chrysene-d12	8.151	3189968	40.000
* 98 Perylene-d12	9.304	2359940	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.552	691742	10.6070113	504	0		0	10
1,4-Methanoazulene, decahydro-4,8,8-trim					CAS #: 475-20-7		
5.298	433739	4.50912496	214	99	NIST05.L	60023	46
Unknown					CAS #:		
8.481	534515	6.70245194	318	0		0	91
Friedelan-3-one					CAS #: 559-74-0		
12.792	1095870	18.5745252	882	95	NIST05.L	176566	98

Data File: /chem/MSD1.i/s033010.b/s1c3013.d

Date : 30-MAR-2010 14:36

Client ID: RE46-10-14199

Sample Info: 1249332009|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Page 1

Instrument: MSD1.i

Operator: AMY

Column diameter: 0.20

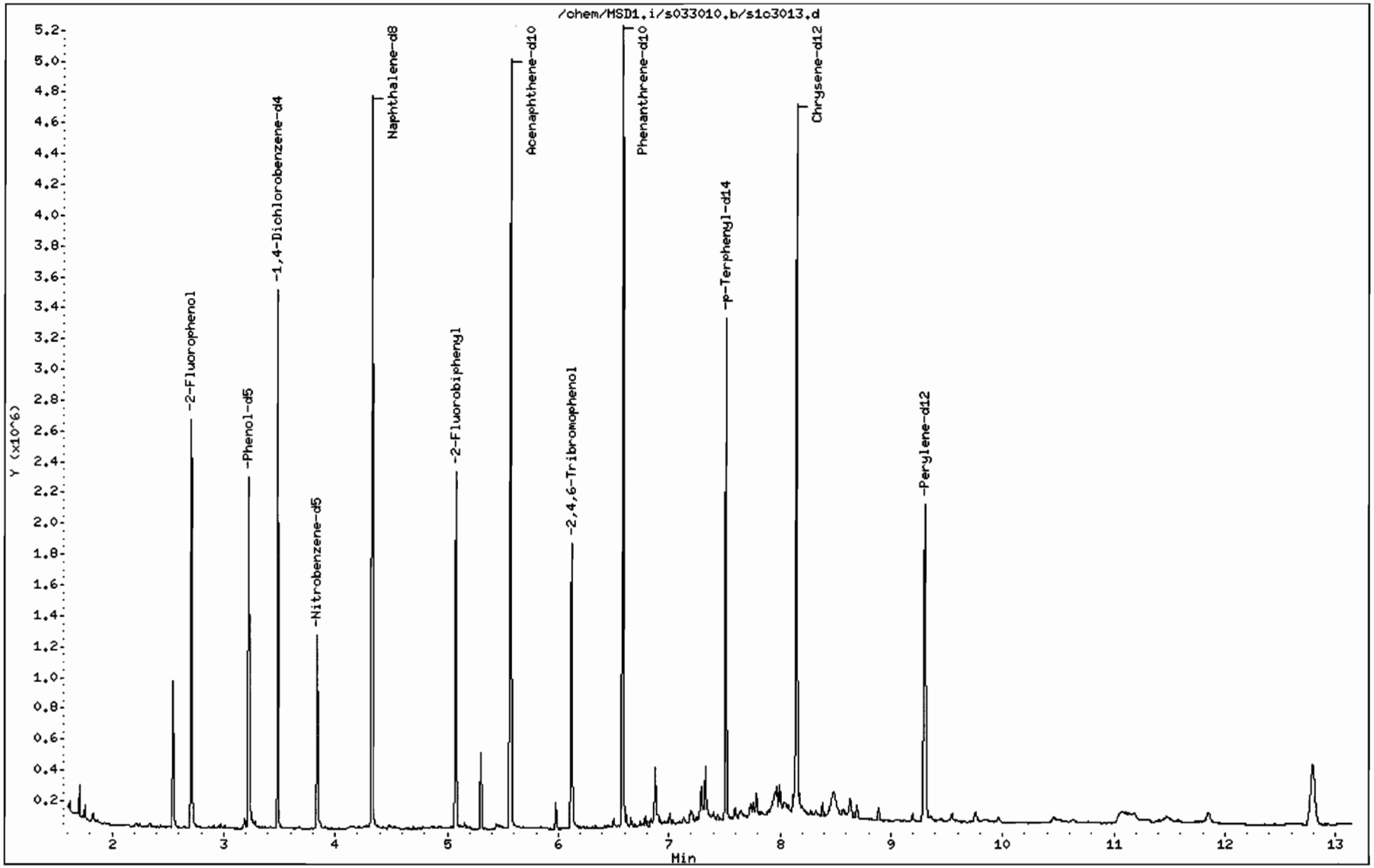

Data File: /chem/MSD1.i/s033010.b/s1c3013.d

Date : 30-MAR-2010 14:36

Client ID: RE46-10-14199

Instrument: MSD1.i

Sample Info: 1249332009196676611SVM11LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	53	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
Acetic acid, cyano-, 1,1-dimethylethyl e	1116-98-9	NIST05.L	18291	25	C7H11NO2	141

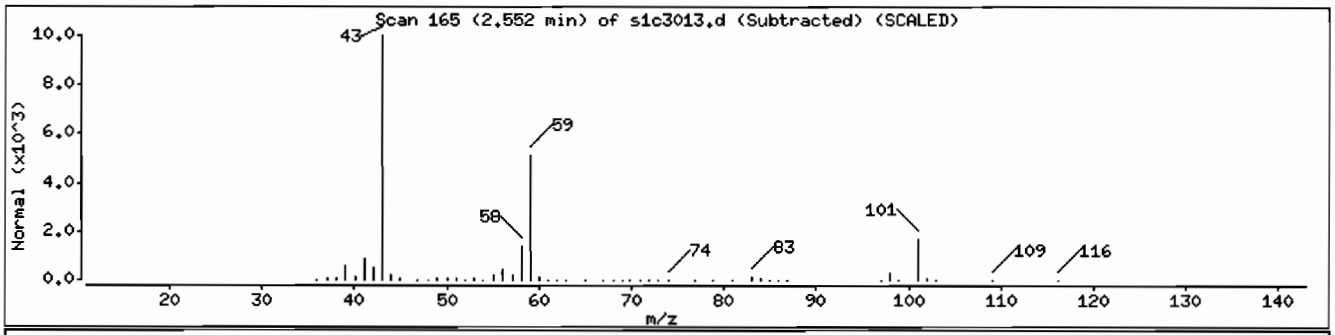

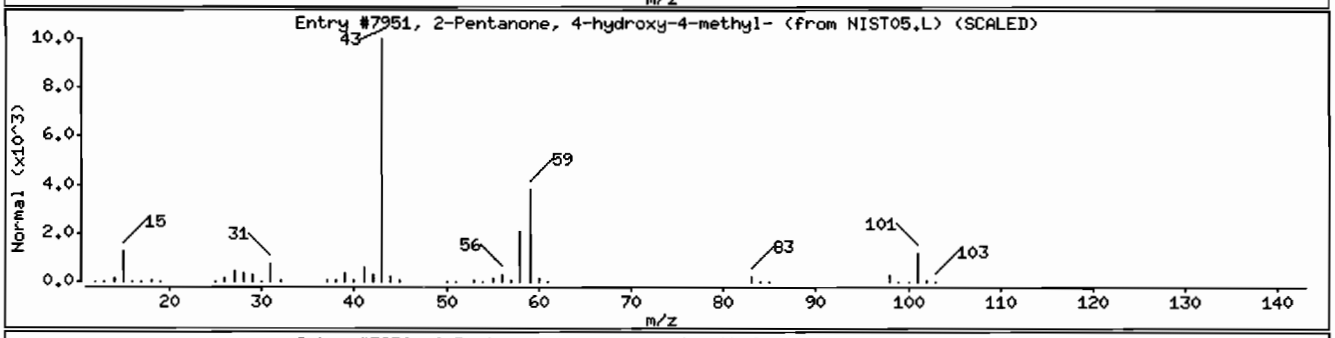

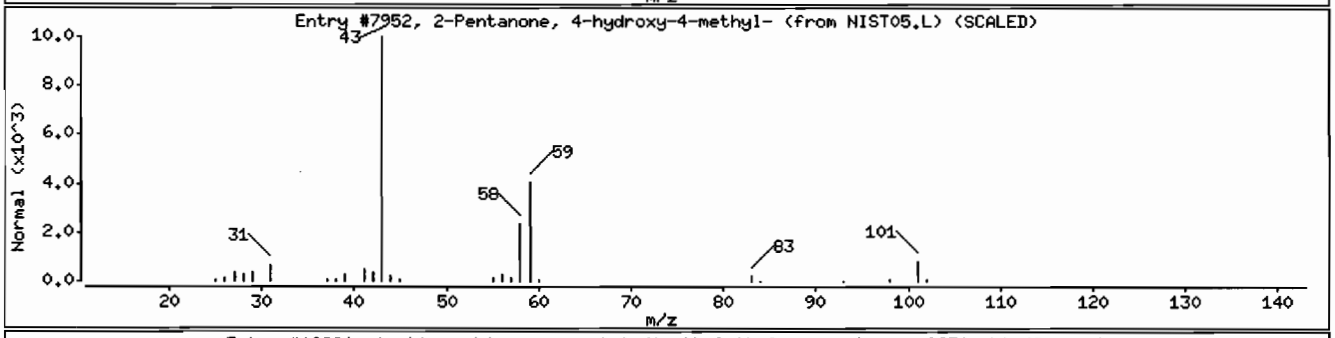

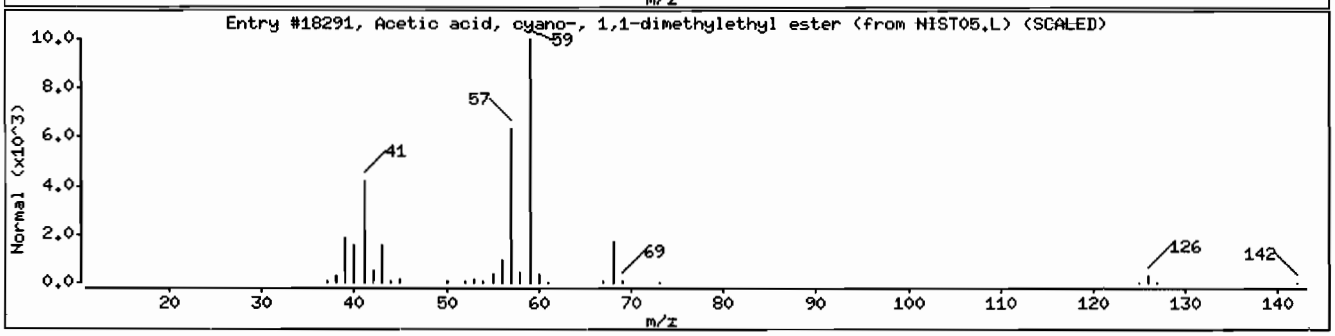

Data File: /chem/MSD1.i/s033010.b/s1c3013.d

Date : 30-MAR-2010 14:36

Client ID: RE46-10-14199

Instrument: MSD1.i

Sample Info: |2493320091966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60023	99	C15H24	204
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60020	99	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60046	93	C15H24	204

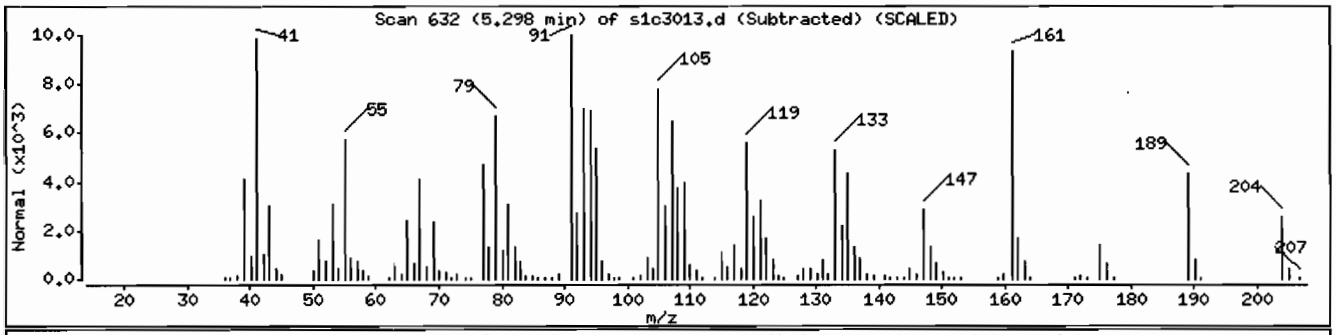

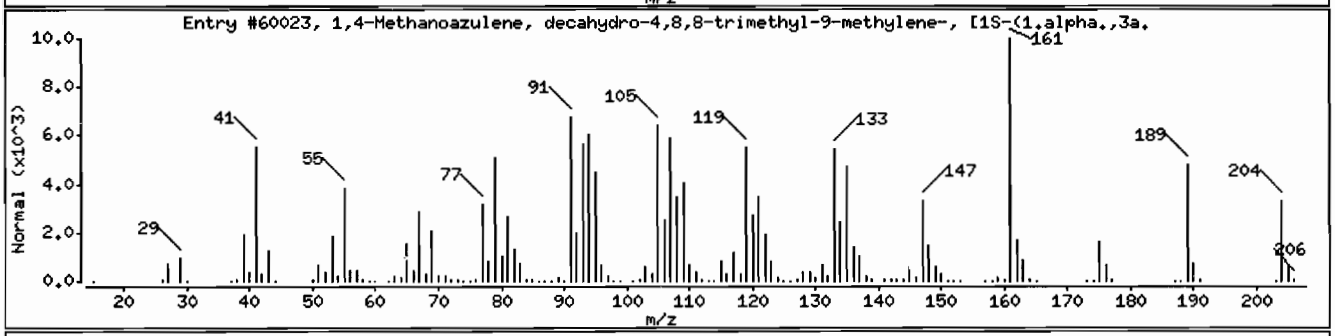

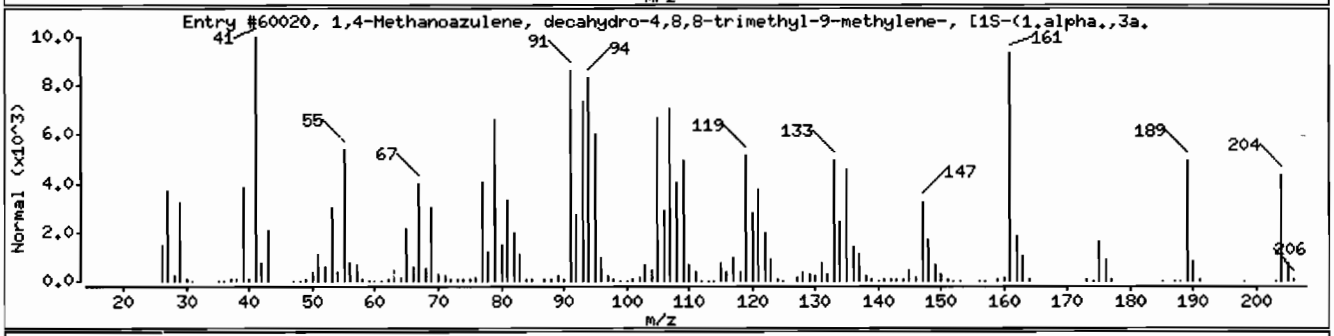

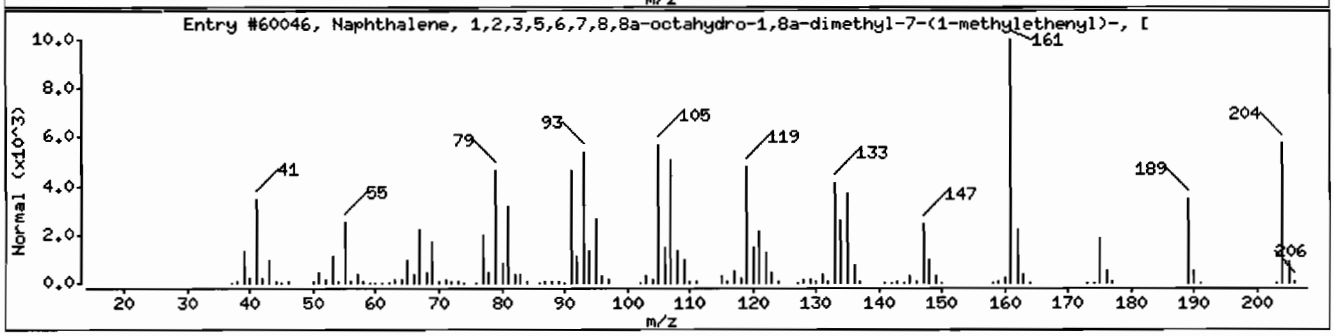

Data File: /chem/MSD1.i/s033010.b/s1c3013.d

Date : 30-MAR-2010 14:36

Client ID: RE46-10-14199 Instrument: MSD1.i

Sample Info: |2493320091966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclopentane, 1,1,3-trimethyl-	4516-69-2	NIST05.L	6609	44	C8H16	112
Cyclopentane, 1,1,3-trimethyl-	4516-69-2	NIST05.L	6614	41	C8H16	112
Heptafluorobutanoic acid, heptadecyl est	1000282-97-3	NIST05.L	180157	41	C21H35F7O2	452

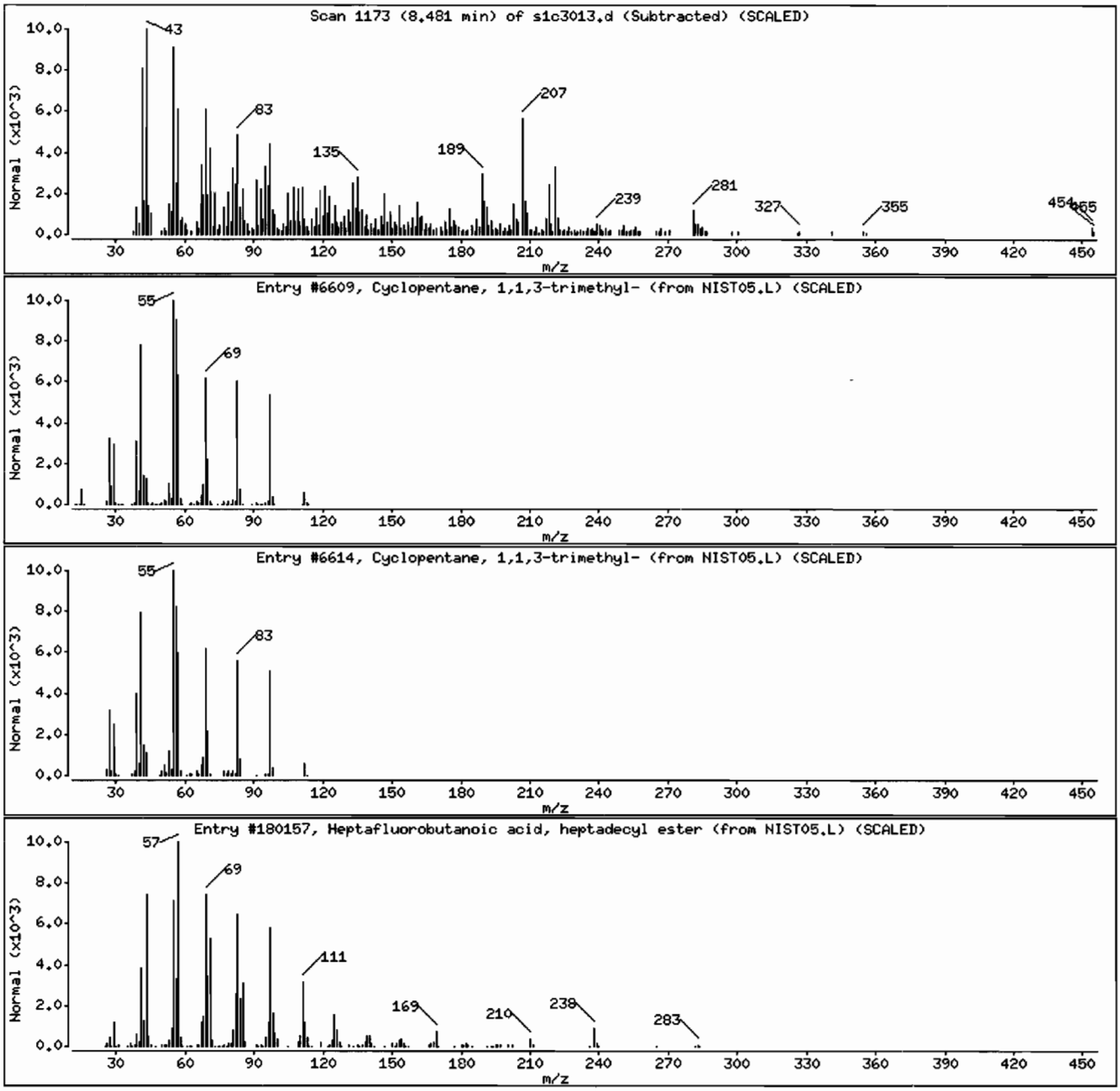

Data File: /chem/MSD1.i/s033010.b/s1c3013.d

Date : 30-MAR-2010 14:36

Client ID: RE46-10-14199

Instrument: MSD1.i

Sample Info: |249332009|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Friedelan-3-one	559-74-0	NIST05.L	176566	95	C30H50O	426
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	46	C13H21NO	207
7-Tetradecyne	35216-11-6	NIST05.L	52908	42	C14H26	194

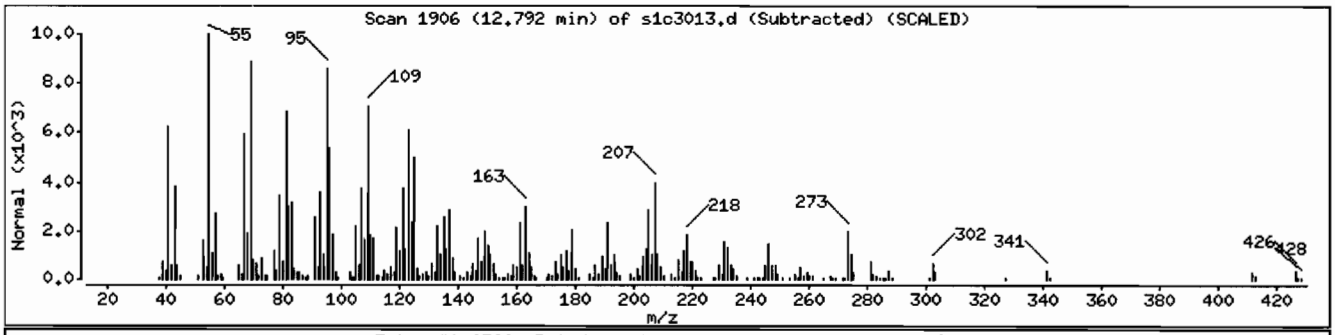

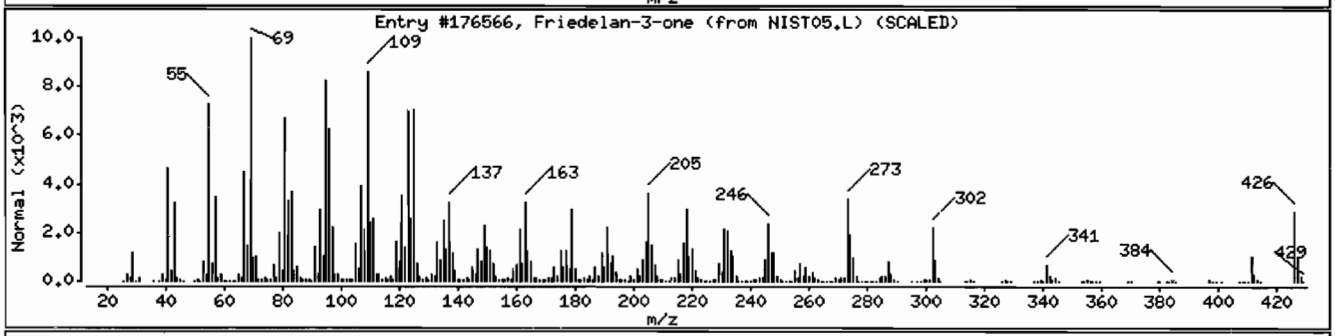

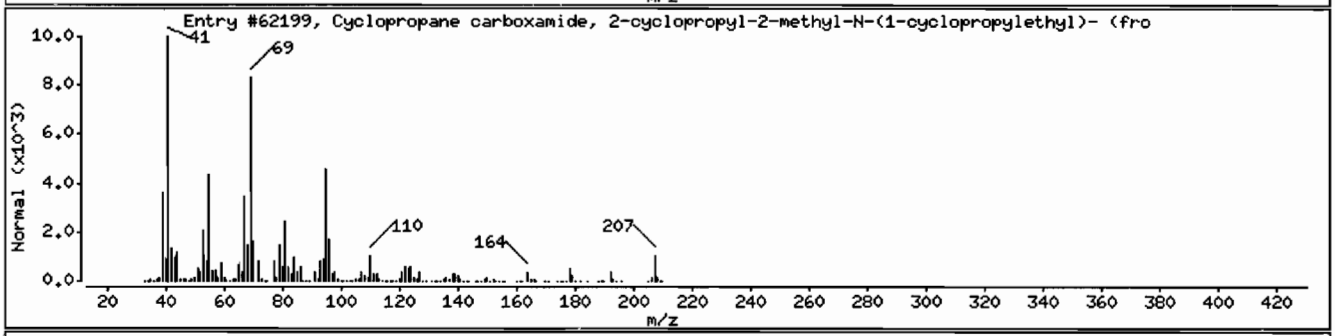

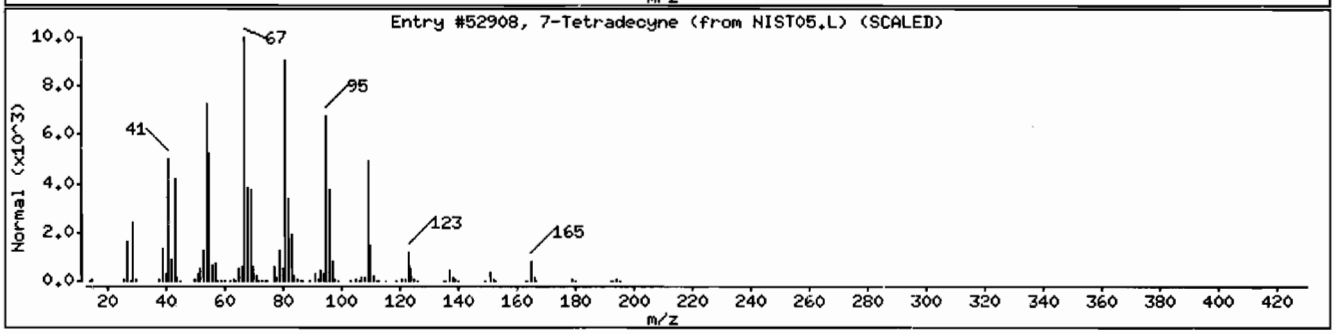

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 29-Mar-2010 17:03

Calibration History

Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Start Cal Date: 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
15-MAR-2010 17:03	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1515.d
Cal Level: 2 , Cal Amount: 10.00000		
17-MAR-2010 00:15	nev	/chem/MSD1.i/s031610.b/s1c1616.d
16-MAR-2010 21:51	hex	/chem/MSD1.i/s031610.b/s1c1610.d
16-MAR-2010 19:03	pest	/chem/MSD1.i/s031610.b/s1c1603.d
15-MAR-2010 20:53	ap12	/chem/MSD1.i/s031510a.b/s1c1523.d
15-MAR-2010 17:59	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1517.d
Cal Level: 3 , Cal Amount: 20.00000		
17-MAR-2010 00:39	nev	/chem/MSD1.i/s031610.b/s1c1617.d
16-MAR-2010 22:15	hex	/chem/MSD1.i/s031610.b/s1c1611.d
16-MAR-2010 19:28	pest	/chem/MSD1.i/s031610.b/s1c1604.d
15-MAR-2010 21:17	ap12	/chem/MSD1.i/s031510a.b/s1c1524.d
15-MAR-2010 18:28	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1518.d
Cal Level: 4 , Cal Amount: 40.00000		
17-MAR-2010 01:03	nev	/chem/MSD1.i/s031610.b/s1c1618.d
16-MAR-2010 22:40	hex	/chem/MSD1.i/s031610.b/s1c1612.d
16-MAR-2010 19:52	pest	/chem/MSD1.i/s031610.b/s1c1605.d
15-MAR-2010 21:40	ap12	/chem/MSD1.i/s031510a.b/s1c1525.d
15-MAR-2010 17:31	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1516.d
Cal Level: 5 , Cal Amount: 50.00000		
17-MAR-2010 01:27	nev	/chem/MSD1.i/s031610.b/s1c1619.d
16-MAR-2010 23:03	hex	/chem/MSD1.i/s031610.b/s1c1613.d
16-MAR-2010 20:16	pest	/chem/MSD1.i/s031610.b/s1c1606.d
15-MAR-2010 22:04	ap12	/chem/MSD1.i/s031510a.b/s1c1526.d
15-MAR-2010 18:57	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1519.d
Cal Level: 6 , Cal Amount: 80.00000		
17-MAR-2010 01:50	nev	/chem/MSD1.i/s031610.b/s1c1620.d
16-MAR-2010 23:27	hex	/chem/MSD1.i/s031610.b/s1c1614.d
16-MAR-2010 20:39	pest	/chem/MSD1.i/s031610.b/s1c1607.d
15-MAR-2010 22:27	ap12	/chem/MSD1.i/s031510a.b/s1c1527.d
15-MAR-2010 19:26	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1520.d
Cal Level: 7 , Cal Amount: 100.00000		

17-MAR-2010 02:13	nev	/chem/MSD1.i/s031610.b/s1c1621.d
16-MAR-2010 23:51	hex	/chem/MSD1.i/s031610.b/s1c1615.d
16-MAR-2010 21:03	pest	/chem/MSD1.i/s031610.b/s1c1608.d
15-MAR-2010 22:50	ap12	/chem/MSD1.i/s031510a.b/s1c1528.d
15-MAR-2010 19:55	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1521.d

Cal Level: 8 , Cal Amount: 120.00000

17-MAR-2010 02:37	nev	/chem/MSD1.i/s031610.b/s1c1622.d
16-MAR-2010 21:28	pest	/chem/MSD1.i/s031610.b/s1c1609.d
15-MAR-2010 23:14	ap12	/chem/MSD1.i/s031510a.b/s1c1529.d
15-MAR-2010 20:24	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1522.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0

29-MAR-2010 10:17	MEGAIICARE	/chem/MSD1.i/s032910.b/s1c2903.d

Ccal Level: 4 , Ccal Amount: 40.0

29-MAR-2010 14:05	nev	/chem/MSD1.i/s032910.b/s1c2907.d

Ccal Level: 4 , Ccal Amount: 40.0

29-MAR-2010 12:12	nev	/chem/MSD1.i/s032910.b/s1c2906.d

Ccal Level: 4 , Ccal Amount: 40.0

29-MAR-2010 11:48	pest	/chem/MSD1.i/s032910.b/s1c2905.d

Ccal Level: 4 , Ccal Amount: 40.0

29-MAR-2010 11:24	ap12	/chem/MSD1.i/s032910.b/s1c2904.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Calibration File Names:
Level 1: /chem/MSD1.i/s031510a.b/s1c1515.d
Level 2: /chem/MSD1.i/s031610.b/s1c1616.d
Level 3: /chem/MSD1.i/s031610.b/s1c1617.d
Level 4: /chem/MSD1.i/s031610.b/s1c1618.d
Level 5: /chem/MSD1.i/s031610.b/s1c1619.d
Level 6: /chem/MSD1.i/s031610.b/s1c1620.d
Level 7: /chem/MSD1.i/s031610.b/s1c1621.d
Level 8: /chem/MSD1.i/s031610.b/s1c1622.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.48131	0.55093	0.57608	0.58157	0.60481					
	0.64746	0.60610					AVRG		0.57832		9.04876
2 Pyridine	+++++	0.84632	0.93658	0.92242	0.81225	0.93849					
	0.82504	0.92570					AVRG		0.88669		6.33692
4 Aniline	+++++	0.54420	0.56799	0.56510	0.56874	0.56005					
	0.58635	0.57409					AVRG		0.56665		2.27765
209 Benzaldehyde	+++++	0.86759	0.87971	0.88058	0.86585	0.83648					
	0.83171	0.80849					AVRG		0.85292		3.23204
6 Phenol	+++++	1.29398	1.34703	1.35133	1.33620	1.30948					
	1.36336	1.30191					AVRG		1.32904		2.03692

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	+++++	0.86870	0.89762	0.93750	0.92566	0.91584					
	0.93301	0.90455					AVRG		0.91184		2.62192
8 2-Chlorophenol	+++++	1.10578	1.14390	1.14227	1.13239	1.10735					
	1.13818	1.09907					AVRG		1.12413		1.71559
203 n-Decane	+++++	1.51348	1.55612	1.50258	1.42479	1.38387					
	1.36005	1.29418					AVRG		1.43358		6.58986
9 1,3-Dichlorobenzene	+++++	1.27497	1.30790	1.28451	1.23875	1.22043					
	1.24970	1.19894					AVRG		1.25360		3.03485
11 1,4-Dichlorobenzene	+++++	1.28353	1.33282	1.29429	1.26258	1.24583					
	1.25252	1.18863					AVRG		1.26574		3.55650
12 Benzyl alcohol	+++++	0.52933	0.57579	0.60613	0.60166	0.58504					
	0.61392	0.58420					AVRG		0.58515		4.80559
13 1,2-Dichlorobenzene	+++++	1.20310	1.23454	1.20561	1.18595	1.15496					
	1.17196	1.12464					AVRG		1.18297		3.06630
14 bis(2-Chloroisopropyl)ether	+++++	2.00601	2.04332	2.00341	1.94439	1.86355					
	1.89800	1.81476					AVRG		1.93906		4.33321
15 o-Cresol	+++++	0.88156	0.87536	0.85555	0.84949	0.82834					
	0.85588	0.82207					AVRG		0.85261		2.58113

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
16 Acetophenone	+++++	1.18052	1.19161	1.20084	1.18098	1.16240					
	1.15538	1.12895					AVRG		1.17153		2.08764
17 N-Nitrosodipropylamine	0.62960	0.73420	0.75918	0.74992	0.75691	0.75710					
	0.65547	0.65162					AVRG		0.71175		7.84783
18 m,p-Cresols	+++++	1.06680	1.11671	1.10321	1.09614	1.08953					
	1.16869	1.09451					AVRG		1.10508		2.88155
19 Hexachloroethane	+++++	0.46679	0.49780	0.49841	0.48367	0.47761					
	0.48408	0.45898					AVRG		0.48105		3.06027
21 Nitrobenzene	+++++	0.28445	0.28425	0.27510	0.26249	0.25339					
	0.24370	0.23130					AVRG		0.26210		7.82293
22 Isophorone	+++++	0.51247	0.51789	0.51616	0.49095	0.47802					
	0.46663	0.44451					AVRG		0.48952		5.73271
23 2-Nitrophenol	+++++	0.13772	0.14310	0.14080	0.13759	0.13161					
	0.12885	0.12698					AVRG		0.13523		4.54421
24 2,4-Dimethylphenol	+++++	0.25370	0.26120	0.25278	0.24221	0.23144					
	0.22972	0.22058					AVRG		0.24166		6.18897
25 bis(2-Chloroethoxy)methane	+++++	0.32251	0.32278	0.31582	0.29812	0.28926					
	0.27986	0.26749					AVRG		0.29940		7.28569

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	++++++	0.21230	0.21517	0.21170	0.20284	0.19488					
	0.19174	0.18275					AVRG		0.20163		6.07289
27 Benzoic acid	++++++	++++++	0.10588	0.11678	0.12828	0.14941					
	0.15166	0.13535					AVRG		0.13123		13.73773
28 1,2,4-Trichlorobenzene	++++++	0.27425	0.27115	0.26365	0.24765	0.23306					
	0.22478	0.21188					AVRG		0.24663		9.82642
30 Naphthalene	0.93565	0.88535	0.87638	0.84378	0.79155	0.72952					
	0.70721	0.64855					AVRG		0.80225		12.46317
204 alpha-Terpineol	++++++	0.25055	0.24745	0.24511	0.22871	0.21434					
	0.20767	0.19325					AVRG		0.22672		9.82239
31 4-Chloroaniline	++++++	0.36850	0.39383	0.40557	0.28121	0.36732					
	0.35713	0.34387					AVRG		0.35963		11.25009
189 Caprolactam	++++++	0.07102	0.07266	0.06483	0.06266	0.06878					
	0.06299	0.06698					AVRG		0.06713		5.79727
32 Hexachlorobutadiene	++++++	0.15412	0.15407	0.14923	0.13864	0.13134					
	0.12715	0.11827					AVRG		0.13897		10.12939
33 4-Chloro-3-methylphenol	++++++	0.22047	0.22621	0.22536	0.20543	0.20769					
	0.19229	0.19532					AVRG		0.21040		6.61598

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INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.56372	0.55542	0.55121	0.53770	0.50774	0.46650					
	0.45984	0.43246					AVRG		0.50932		9.91095
35 1-Methylnaphthalene	0.56082	0.54281	0.54230	0.53093	0.49657	0.46597					
	0.44390	0.41799					AVRG		0.50016		10.50358
36 Hexachlorocyclopentadiene	+++++	0.22574	0.25617	0.26823	0.27221	0.25304					
	0.25610	0.23969					AVRG		0.25303		6.33373
208 1,1'-Biphenyl	+++++	1.26360	1.27978	1.23727	1.23785	1.17683					
	1.14450	1.11135					AVRG		1.20731		5.27488
205 2,3-Dichloroaniline	+++++	0.53876	0.54284	0.54261	0.52433	0.51018					
	0.51581	0.49471					AVRG		0.52418		3.51338
37 2,4,6-Trichlorophenol	+++++	0.29134	0.30885	0.30643	0.29867	0.28919					
	0.29712	0.28886					AVRG		0.29721		2.71658
38 2,4,5-Trichlorophenol	+++++	0.30519	0.33304	0.33769	0.33698	0.32356					
	0.30453	0.28641					AVRG		0.31820		6.21690
40 2-Chloronaphthalene	0.98550	0.99053	1.01566	0.98277	0.94552	0.92134					
	0.92529	0.89872					AVRG		0.95817		4.29147
42 o-Nitroaniline	+++++	0.24888	0.27748	0.27777	0.28022	0.27333					
	0.28650	0.28000					AVRG		0.27488		4.41359

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	28007	80600	219453	340348	512860					
	684808	821624					LINR	0.18134	0.26460		0.99898
43 Dimethylphthalate	+++++	1.14003	1.16194	1.14175	1.10205	1.07794					
	1.09725	1.07365					AVRG		1.11352		3.08852
44 2,6-Dinitrotoluene	+++++	0.25273	0.26441	0.26462	0.25689	0.25242					
	0.26499	0.25359					AVRG		0.25852		2.29604
45 Acenaphthylene	1.52722	1.57642	1.63607	1.60105	1.52856	1.47925					
	1.51676	1.43231					AVRG		1.53720		4.28288
47 Acenaphthene	1.01963	1.01169	1.02608	1.00468	0.96322	0.93979					
	0.94089	0.91056					AVRG		0.97707		4.49269
48 2,4-Dinitrophenol	+++++	+++++	46048	105894	168875	256090					
	381316	452254					LINR	0.28796	0.15040		0.99203
49 Dibenzofuran	+++++	1.35528	1.38752	1.35336	1.30876	1.26147					
	1.29890	1.22495					AVRG		1.31289		4.35277
50 2,4-Dinitrotoluene	+++++	0.30395	0.32720	0.32686	0.32764	0.31655					
	0.32953	0.32289					AVRG		0.32209		2.82172
51 Diethylphthalate	+++++	1.14920	1.17067	1.17703	1.10199	1.07083					
	1.10123	1.03953					AVRG		1.11578		4.64501

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.14092	0.17709	0.18373	0.18296	0.18282					
	0.19690	0.19984					AVRG		0.18061		10.70634
53 Fluorene	1.15179	1.13424	1.17552	1.11825	1.09833	1.04292					
	1.06955	1.01494					AVRG		1.10069		5.01271
54 4-Chlorophenylphenylether	+++++	0.56288	0.56955	0.56309	0.54739	0.51544					
	0.52901	0.48602					AVRG		0.53905		5.67579
55 2-Methyl-4,6-dinitrophenol	+++++	0.06579	0.08576	0.09355	0.09827	0.09719					
	0.10532	0.10450					AVRG		0.09291		14.72211
56 p-Nitroaniline	+++++	44466	85988	178203	291032	459551					
	638067	788664					LINR	0.20815	0.24971		0.99328
133 Diphenylamine	+++++	0.53589	0.52271	0.52892	0.50868	0.49430					
	0.49769	0.48739					AVRG		0.51080		3.65934
58 1,2-Diphenylhydrazine	+++++	0.59750	0.61143	0.61936	0.57900	0.56697					
	0.58709	0.55120					AVRG		0.58751		4.11062
59 Tributylphosphate	+++++	1.14754	1.07503	1.20023	1.18306	1.15601					
	1.12250	1.11183					AVRG		1.14231		3.76162
61 4-Bromophenylphenylether	+++++	0.18230	0.18729	0.19059	0.17585	0.17909					
	0.17658	0.17255					AVRG		0.18061		3.59651

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.20285	0.20502	0.20403	0.19105	0.19097					
	0.19090	0.18723					AVRG		0.19601		3.87134
207 Atrazine	+++++	0.04345	0.04700	0.04687	0.04368	0.04033					
	0.04026	0.03729					AVRG		0.04270		8.45596
65 Pentachlorophenol	+++++	0.07661	0.09366	0.10433	0.10380	0.10111					
	0.10411	0.10059					AVRG		0.09774		10.25964
206 n-Octadecane	+++++	0.51303	0.51675	0.49724	0.44977	0.43575					
	0.38801	0.36730					AVRG		0.45255		13.22743
68 Phenanthrene	0.92166	0.89396	0.90660	0.90959	0.85988	0.82303					
	0.81082	0.78870					AVRG		0.86428		5.91708
69 Anthracene	0.84086	0.86290	0.91101	0.89896	0.86184	0.80270					
	0.83086	0.78087					AVRG		0.84875		5.24647
72 Di-n-butylphthalate	+++++	1.10170	1.13117	1.12488	1.05162	1.02219					
	0.99566	0.89945					AVRG		1.04667		7.91560
76 Fluoranthene	0.88568	0.90229	0.95506	0.94219	0.89756	0.84861					
	0.85090	0.82377					AVRG		0.88826		5.17441
77 Benzidine	+++++	0.33087	0.31277	0.34623	0.35175	0.35654					
	0.40314	0.39753					AVRG		0.35698		9.25880

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Compound	1 Level 1 / 100 Level 7	10 Level 2 / 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
79 Pyrene	1.05629	1.17081	1.18814	1.25135	1.09633	1.11700					
	1.09129	1.10929					AVRG		1.13506		5.59485
85 Butylbenzylphthalate	+++++	0.48587	0.51180	0.53080	0.47419	0.47337					
	0.47670	0.44787					AVRG		0.48580		5.64477
89 Benzo(a)anthracene	0.97891	0.92957	0.96418	0.96061	0.94441	0.91041					
	0.91379	0.92003					AVRG		0.94024		2.73007
90 3,3'-Dichlorobenzidine	+++++	0.26285	0.29690	0.30231	0.30189	0.31146					
	0.30625	0.29460					AVRG		0.29661		5.36155
92 Chrysene	0.94574	0.88503	0.91743	0.93219	0.82886	0.83196					
	0.87236	0.81542					AVRG		0.87862		5.70854
93 bis(2-Ethylhexyl)phthalate	0.43832	0.70353	0.70263	0.74405	0.64952	0.65087					
	0.65480	0.59271					AVRG		0.64205		14.66900
94 Di-n-octylphthalate	+++++	1.18194	1.33938	1.46820	1.29055	1.30639					
	1.32377	1.28569					AVRG		1.31370		6.47148
95 Benzo(b)fluoranthene	0.91547	0.94451	1.14233	1.15275	1.04632	1.11553					
	1.23361	1.24988					AVRG		1.10005		11.19905
96 Benzo(k)fluoranthene	1.00488	1.15852	1.17217	1.12934	1.04724	0.97081					
	0.95533	0.94587					AVRG		1.04802		8.91358

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.69158	0.84417	0.93465	0.93864	0.89785	0.90677					
	0.92192	0.91098					AVRG		0.88082		9.29852
99 Indeno(1,2,3-cd)pyrene	0.70465	0.75580	0.73925	0.77833	0.75258	0.75133					
	0.78102	0.72823					AVRG		0.74890		3.36430
100 Dibenzo(a,h)anthracene	0.58557	0.61665	0.60400	0.63131	0.62600	0.62695					
	0.65127	0.60885					AVRG		0.61883		3.20627
101 Benzo(ghi)perylene	0.61886	0.62652	0.58848	0.61465	0.60633	0.59957					
	0.62683	0.57810					AVRG		0.60742		2.92249
102 1,4-Dioxane	+++++	0.33625	0.33115	0.33317	0.33267	0.33159					
	0.32370	0.32223					AVRG		0.33011		1.56471
103 Methyl methacrylate	+++++	0.18737	0.19375	0.19519	0.19155	0.19092					
	0.18526	0.18670					AVRG		0.19011		1.97325
104 Ethyl methacrylate	+++++	0.72691	0.73265	0.73429	0.73093	0.73460					
	0.71086	0.71021					AVRG		0.72578		1.47783
105 2-Picoline	+++++	1.15993	1.22732	1.21134	1.16158	1.13996					
	1.13594	1.16959					AVRG		1.17224		2.95381
106 N-Nitrosomethylethylamine	+++++	0.41323	0.44270	0.45752	0.45916	0.45596					
	0.45176	0.45292					AVRG		0.44761		3.59465

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.44805	0.44742	0.44444	0.43792	0.42505					
	0.44332	0.42292					AVRG		0.43845		2.37974
108 N-Nitrosodiethylamine	+++++	0.47787	0.49716	0.50739	0.51401	0.49785					
	0.51154	0.48756					AVRG		0.49906		2.63168
109 Ethyl Methanesulfonate	+++++	0.57975	0.58758	0.60799	0.60114	0.60221					
	0.60154	0.60035					AVRG		0.59722		1.65050
110 Pentachloroethane	+++++	0.31441	0.32027	0.32096	0.31590	0.31481					
	0.30763	0.30109					AVRG		0.31358		2.24801
111 N-Nitrosopyrrolidine	+++++	0.48068	0.49876	0.52566	0.52798	0.51075					
	0.39954	0.41996					AVRG		0.48048		10.66752
113 N-Nitrosomorpholine	+++++	0.60745	0.63246	0.65190	0.63285	0.60689					
	0.62254	0.57938					AVRG		0.61907		3.79814
114 o-Toluidine	+++++	1.60737	1.61678	1.65653	1.61059	1.70102					
	1.72289	1.64344					AVRG		1.65123		2.76038
115 N-Nitrosopiperidine	+++++	0.12321	0.12601	0.12756	0.12596	0.12593					
	0.12740	0.12651					AVRG		0.12608		1.13874
116 a,a-Dimethylphenethylamine	+++++	0.64272	0.73019	0.76676	0.76896	0.78943					
	0.79287	0.78678					AVRG		0.75396		7.09670

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	++++++	0.11831	0.12383	0.12606	0.12645	0.12268					
	0.11843	0.11673					AVRG		0.12178		3.24920
118 2,6-Dichlorophenol	++++++	0.18896	0.19290	0.19690	0.19629	0.19933					
	0.20029	0.19683					AVRG		0.19593		1.97765
119 Hexachloropropene	++++++	0.10255	0.10472	0.10945	0.11027	0.11133					
	0.11188	0.10849					AVRG		0.10838		3.21898
120 p-Phenylenediamine	++++++	0.22040	0.24467	0.26814	0.26998	0.23102					
	0.25571	0.22843					AVRG		0.24548		8.05852
121 N-Nitrosodi-n-butylamine	++++++	0.16659	0.18185	0.18429	0.18241	0.17560					
	0.18083	0.17280					AVRG		0.17777		3.59114
122 Safrole	++++++	0.18915	0.18712	0.18535	0.18566	0.18346					
	0.18235	0.17774					AVRG		0.18440		2.00392
123 1,2,4,5-Tetrachlorobenzene	++++++	0.46078	0.47777	0.45645	0.46288	0.45329					
	0.43710	0.42145					AVRG		0.45282		4.06359
124 Isosafrole	++++++	0.33174	0.34080	0.33541	0.33569	0.33612					
	0.33099	0.31950					AVRG		0.33289		2.02044
125 1,4-Naphthoquinone	++++++	0.30653	0.34858	0.34119	0.33884	0.28393					
	0.30455	0.24989					AVRG		0.31050		11.48205

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
126 m-Dinitrobenzene	+++++	0.16428	0.17750	0.17641	0.17624	0.17562					
	0.17950	0.17318					AVRG		0.17468		2.84237
127 Pentachlorobenzene	+++++	0.41357	0.41820	0.41192	0.41463	0.39943					
	0.39426	0.38339					AVRG		0.40506		3.19014
128 1-Naphthylamine	+++++	0.85053	0.87290	0.94059	0.95535	0.93741					
	0.94760	0.90004					AVRG		0.91492		4.46223
129 2-Naphthylamine	+++++	0.90857	0.93595	0.97839	0.98163	0.98509					
	0.96685	0.90301					AVRG		0.95136		3.69912
130 2,3,4,6-Tetrachlorophenol	+++++	0.23414	0.25736	0.26969	0.27526	0.27561					
	0.29039	0.29434					AVRG		0.27097		7.54303
131 5-Nitro-o-toluidine	+++++	0.25629	0.26757	0.27295	0.28243	0.28781					
	0.29736	0.27843					AVRG		0.27755		4.86769
132 Thionazin	+++++	0.13222	0.14989	0.15624	0.16026	0.15739					
	0.15386	0.15436					AVRG		0.15203		6.12353
134 Sulfotepp	+++++	0.09507	0.10071	0.10217	0.10904	0.10687					
	0.10274	0.09988					AVRG		0.10235		4.49615
135 Phorate	+++++	0.34213	0.36781	0.38380	0.39924	0.37859					
	0.37281	0.36768					AVRG		0.37315		4.69895

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	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	++++++	0.09191	0.09969	0.11986	0.12125	0.11182					
	0.11719	0.10511					AVRG		0.10955		10.10200
137 Phenacetin	++++++	0.23987	0.25244	0.26244	0.25618	0.26446					
	0.23277	0.23699					AVRG		0.24931		5.10991
138 Diallate	++++++	0.22190	0.24073	0.24088	0.23577	0.23011					
	0.21831	0.21589					AVRG		0.22908		4.58674
139 Dimethoate	++++++	0.17817	0.19912	0.22444	0.23150	0.22807					
	0.23409	0.22866					AVRG		0.21772		9.63460
140 4-Aminobiphenyl	++++++	0.56389	0.53953	0.53363	0.55119	0.57024					
	0.56079	0.52491					AVRG		0.54917		3.08530
141 Pentachloronitrobenzene	++++++	0.06618	0.07086	0.06822	0.06527	0.06285					
	0.05741	0.05649					AVRG		0.06390		8.38789
142 Pronamide	++++++	0.26010	0.27782	0.26926	0.26628	0.25163					
	0.24306	0.22688					AVRG		0.25643		6.76864
143 Dinoseb	++++++	42032	109896	241806	362268	554762					
	739915	883430					LINR	0.12360	0.15949		0.99973
144 Disulfoton	++++++	0.25987	0.27785	0.28849	0.30293	0.28767					
	0.28505	0.27845					AVRG		0.28290		4.64445

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.14617	0.16957	0.19340	0.20062	0.19984					
	0.19455	0.19503					AVRG		0.18560		10.93136
146 4-Nitroquinoline-1-oxide	+++++	0.02224	0.02139	0.02092	0.01927	0.01698					
	0.01685	0.01531					AVRG		0.01899		13.96783
147 Methapyrilene	+++++	0.45025	0.46844	0.46090	0.44622	0.41321					
	0.40110	0.38374					AVRG		0.43198		7.52216
148 Isodrin	+++++	0.09682	0.10352	0.10396	0.09979	0.09798					
	0.09275	0.08899					AVRG		0.09769		5.58440
149 Aramite	+++++	0.03608	0.03979	0.04171	0.04125	0.04126					
	0.03867	0.03683					AVRG		0.03937		5.73272
150 Kepone	+++++	0.06379	0.06458	0.07250	0.07099	0.06772					
	0.06995	0.06610					AVRG		0.06795		4.88605
151 p-(Dimethylamino)azobenzene	+++++	0.25785	0.29219	0.28221	0.28774	0.27254					
	0.25982	0.25644					AVRG		0.27269		5.49543
152 Chlorobenzilate	+++++	0.25234	0.30086	0.29966	0.29572	0.29175					
	0.28610	0.28032					AVRG		0.28668		5.86548
153 3,3'-Dimethylbenzidine	+++++	0.50686	0.54666	0.53977	0.51658	0.49689					
	0.51154	0.49896					AVRG		0.51675		3.75626

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
154 Famphur	+++++	0.34377	0.36448	0.39007	0.42302	0.39437						
	0.37103	0.39016					AVRG		0.38241		6.62802	
155 2-Acetylaminofluorene	+++++	0.25217	0.29018	0.31083	0.31317	0.33589						
	0.32396	0.32656					AVRG		0.30754		9.24021	
157 7,12Dimethylbenz(a)anthracene	+++++	0.45815	0.51069	0.51242	0.51569	0.49445						
	0.48680	0.48614					AVRG		0.49490		4.10926	
158 3-Methylcholanthrene	+++++	0.36714	0.38058	0.40375	0.40579	0.42147						
	0.41872	0.38268					AVRG		0.39716		5.20030	
26 Phthalic anhydride	+++++	19730	43771	127253	187651	289719						
	416145	476347					LINR	0.13758	0.06980		0.99534	
173 Carbazole	0.75416	0.55973	0.50398	0.58851	0.63196	0.63155						
	0.67911	0.67915					AVRG		0.62852		12.43724	
174 Hexachlorophene	+++++	0.04471	0.06336	0.06157	0.05855	0.06373						
	0.06189	+++++					AVRG		0.05897		12.24318	<-
179 Dibenzo(a,e)pyrene	+++++	0.26190	0.22013	0.26336	0.28128	0.29331						
	0.30244	0.25461					AVRG		0.26815		10.25029	
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	0.02161	0.03352	0.04535	0.04376	0.07385					
	0.07767	0.08334					AVRG		0.05416		44.36257 <-
191 Parathion	+++++	0.04697	0.05833	0.06426	0.06627	0.06793					
	0.06844	0.06730					AVRG		0.06279		12.39061
192 Methoxychlor	+++++	0.57551	0.60730	0.63679	0.59916	0.58706					
	0.57902	0.56585					AVRG		0.59295		4.03471
210 m-Toluidine	+++++	1.30665	1.39228	1.19281	1.30686	1.27578					
	1.34890	1.29557					AVRG		1.30269		4.75731
211 p-Toluidine	+++++	1.00504	1.07656	1.17574	1.16519	1.18358					
	1.35310	1.42496					AVRG		1.19774		12.25762
212 Cis Diallate	+++++	0.20688	0.23600	0.23149	0.23015	0.22689					
	0.21828	0.21831					AVRG		0.22400		4.48057
213 Trans Diallate	+++++	0.26106	0.28321	0.28339	0.27738	0.27071					
	0.25683	0.25399					AVRG		0.26951		4.58674
214 1,4-Dinitrobenzene	+++++	0.13104	0.14815	0.15439	0.15456	0.15507					
	0.16251	0.16370					AVRG		0.15277		7.16324
215 2-Ethoxyethanol	+++++	0.53224	0.49495	0.60483	0.53175	0.58093					
	0.58845	0.58827					AVRG		0.56020		7.23512

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
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Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	0.10419	0.09605	0.09779	0.11898	0.12663					
	+++++	+++++					AVRG		0.10873		12.39591
229 2,2'-Dichlorobenzil	+++++	0.61480	0.59947	0.62746	0.69807	0.65332					
	+++++	0.62091					AVRG		0.63567		5.55608
230 4-Chlorothioanisole	+++++	0.20853	0.21619	0.22540	0.24716	0.23723					
	+++++	0.23418					AVRG		0.22812		6.24742
231 4-Chlorothiophenol	+++++	30234	112284	306425	365157	697489					
	+++++	1143337					LINR	0.21751	0.19835		0.99869
232 bis(p-Chlorophenyl)sulfone	+++++	0.35952	0.33795	0.34086	0.37344	0.34056					
	+++++	0.34284					AVRG		0.34920		4.06083
233 bis(p-Chlorophenyl)disulfide	+++++	0.14011	0.12134	0.11862	0.13869	0.11855					
	+++++	0.11699					AVRG		0.12572		8.51160
234 Diphenyl disulfide	+++++	0.20120	0.18976	0.19271	0.20800	0.19332					
	+++++	0.18695					AVRG		0.19532		4.01284
235 Diphenyl sulfide	+++++	0.74581	0.74229	0.73697	0.79603	0.72939					
	+++++	0.71533					AVRG		0.74430		3.70255
236 Phenyl sulfone	+++++	0.40759	0.40387	0.39936	0.42996	0.43270					
	+++++	0.41933					AVRG		0.41547		3.36680

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
237 Hydroxymethyl phthalimide	+++++	0.09912	0.07622	0.07991	0.08769	0.07293						
	+++++	+++++					AVRG		0.08317		12.59097	
238 Phthalic acid	+++++	10449	28513	88919	143249	236309						
	+++++	402355					LINR	0.26238	0.07086		0.99477	
239 Thiophenol	+++++	67713	188965	470443	614639	1033285						
	+++++	1654650					LINR	0.14815	1.09311		0.99958	
240 bis(Chloromethyl)ether	+++++	0.71212	0.67839	0.70743	0.74887	0.72004						
	+++++	0.68326					AVRG		0.70835		3.63799	
241 Octachlorostyrene	+++++	0.06765	0.06582	0.06626	0.07146	0.06797						
	+++++	0.06723					AVRG		0.06773		2.95458	
M 225 Trichlorophenols	+++++	0.29826	0.32094	0.32206	0.31782	0.30637						
	0.30083	0.28764					AVRG		0.30770		4.24698	
M 226 Tetrachlorophenols	+++++	0.23414	0.25736	0.26969	0.27526	0.27561						
	0.29039	0.29434					AVRG		0.27097		7.54303	
M 227 Benzo(b,k)fluoranthene	0.96018	1.05151	1.15725	1.14105	1.04678	1.04317						
	1.09447	1.09787					AVRG		1.07403		5.84293	
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	0.98916	1.04952	1.03866	1.01258	1.04909						
	1.05590	1.01518					AVRG		1.03001		2.40514	
$ 5 Phenol-d5	+++++	1.21023	1.26338	1.26104	1.25802	1.25196						
	1.28766	1.24863					AVRG		1.25441		1.85086	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.26549	0.26697	0.25893	0.24381	0.23345						
	0.23192	0.21675					AVRG		0.24533		7.80447	
$ 39 2-Fluorobiphenyl	+++++	1.15336	1.18485	1.15935	1.08955	1.07025						
	1.06825	1.00732					AVRG		1.10470		5.72577	
$ 60 2,4,6-Tribromophenol	+++++	0.11966	0.13450	0.13464	0.13078	0.13150						
	0.13448	0.13242					AVRG		0.13114		4.03837	
$ 81 p-Terphenyl-d14	+++++	0.67586	0.69797	0.72034	0.64106	0.66159						
	0.63852	0.63275					AVRG		0.66687		4.96192	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 16-MAR-2010 00:06
Lab File ID: s1c1531-C.d Init. Cal. Date(s): 15-MAR-2010 15-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 23:14
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.03001	1.02290	1.02290	0.000	-0.69041	60.00000	Averaged
$ 5 Phenol-d5	1.25441	1.20148	1.20148	0.000	-4.22017	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.24533	0.26385	0.26385	0.000	7.54898	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.10470	1.13321	1.13321	0.000	2.58082	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.13114	0.13446	0.13446	0.000	2.53458	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.66687	0.77179	0.77179	0.000	15.73336	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.57832	0.54586	0.54586	0.000	-5.61225	60.00000	Averaged
2 Pyridine	0.88669	0.70919	0.70919	0.000	-20.01842	60.00000	Averaged
4 Aniline	0.56665	0.52337	0.52337	0.000	-7.63644	60.00000	Averaged
6 Phenol	1.32904	1.32788	1.32788	0.001	-0.08757	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.91184	0.84454	0.84454	0.000	-7.38071	60.00000	Averaged
8 2-Chlorophenol	1.12413	1.13019	1.13019	0.000	0.53916	60.00000	Averaged
203 n-Decane	1.43358	1.46128	1.46128	0.000	1.93209	60.00000	Averaged
9 1,3-Dichlorobenzene	1.25360	1.26448	1.26448	0.000	0.86787	60.00000	Averaged
11 1,4-Dichlorobenzene	1.26574	1.25702	1.25702	0.001	-0.68916	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.18297	1.18332	1.18332	0.000	0.02990	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.93906	1.88849	1.88849	0.000	-2.60809	60.00000	Averaged
12 Benzyl alcohol	0.58515	0.58561	0.58561	0.000	0.07823	60.00000	Averaged
15 o-Cresol	0.85261	0.82283	0.82283	0.000	-3.49268	60.00000	Averaged
18 m,p-Cresols	1.10508	1.10323	1.10323	0.000	-0.16779	60.00000	Averaged
17 N-Nitrosodipropylamine	0.71175	0.74714	0.74714	0.050	4.97174	60.00000	Averaged spcc
19 Hexachloroethane	0.48105	0.47727	0.47727	0.000	-0.78517	60.00000	Averaged
21 Nitrobenzene	0.26210	0.25658	0.25658	0.000	-2.10249	60.00000	Averaged
22 Isophorone	0.48952	0.47890	0.47890	0.000	-2.16837	60.00000	Averaged
23 2-Nitrophenol	0.13523	0.14085	0.14085	0.001	4.15139	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.24166	0.25005	0.25005	0.000	3.47157	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29940	0.28107	0.28107	0.000	-6.12482	60.00000	Averaged
26 2,4-Dichlorophenol	0.20163	0.20625	0.20625	0.001	2.29407	20.00000	Averaged ccc
27 Benzoic acid	0.13123	0.12474	0.12474	0.000	-4.94543	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24663	0.24666	0.24666	0.000	0.01333	60.00000	Averaged
30 Naphthalene	0.80225	0.78052	0.78052	0.000	-2.70857	60.00000	Averaged
204 alpha-Terpineol	0.22672	0.21458	0.21458	0.000	-5.35543	60.00000	Averaged
31 4-Chloroaniline	0.35963	0.35869	0.35869	0.000	-0.26196	60.00000	Averaged
32 Hexachlorobutadiene	0.13897	0.14357	0.14357	0.001	3.31020	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21040	0.22374	0.22374	0.001	6.34099	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.50932	0.52245	0.52245	0.000	2.57656	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 16-MAR-2010 00:06
Lab File ID: s1c1531-C.d Init. Cal. Date(s): 15-MAR-2010 15-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 23:14
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.50016	0.49755	0.49755	0.000	-0.52273	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.25303	0.19467	0.19467	0.050	-23.06155	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.52418	0.50577	0.50577	0.000	-3.51182	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.29721	0.29539	0.29539	0.001	-0.61138	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.31820	0.33668	0.33668	0.000	5.80772	60.00000	Averaged	
40	2-Chloronaphthalene	0.95817	0.94646	0.94646	0.000	-1.22152	60.00000	Averaged	
42	o-Nitroaniline	0.27488	0.26452	0.26452	0.000	-3.76874	60.00000	Averaged	
41	m-Nitroaniline	36.73213	40.00000	0.19500	0.000	-8.16968	60.00000	Linear	
43	Dimethylphthalate	1.11352	1.08063	1.08063	0.000	-2.95321	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.25852	0.24851	0.24851	0.000	-3.87225	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.32209	0.31265	0.31265	0.000	-2.93147	60.00000	Averaged	
45	Acenaphthylene	1.53720	1.54799	1.54799	0.000	0.70164	60.00000	Averaged	
47	Acenaphthene	0.97707	0.91780	0.91780	0.001	-6.06569	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	37.48260	40.00000	0.09763	0.050	-6.29351	60.00000	Linear	spcc
49	Dibenzofuran	1.31289	1.29719	1.29719	0.000	-1.19596	60.00000	Averaged	
51	Diethylphthalate	1.11578	1.09491	1.09491	0.000	-1.87066	60.00000	Averaged	
52	4-Nitrophenol	0.18061	0.17000	0.17000	0.050	-5.87640	60.00000	Averaged	spcc
53	Fluorene	1.10069	1.04957	1.04957	0.000	-4.64491	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.53905	0.52393	0.52393	0.000	-2.80632	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	0.09291	0.11435	0.11435	0.000	23.07674	60.00000	Averaged	
56	p-Nitroaniline	35.66289	40.00000	0.17066	0.000	-10.84276	60.00000	Linear	
133	Diphenylamine	0.51080	0.50164	0.50164	0.001	-1.79347	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.58751	0.59618	0.59618	0.000	1.47601	60.00000	Averaged	
61	4-Bromophenylphenylether	0.18061	0.17379	0.17379	0.000	-3.77567	60.00000	Averaged	
63	Hexachlorobenzene	0.19601	0.19605	0.19605	0.000	0.02411	60.00000	Averaged	
65	Pentachlorophenol	0.09774	0.10068	0.10068	0.001	3.00467	20.00000	Averaged	ccc
206	n-Octadecane	0.45255	0.47916	0.47916	0.000	5.88003	60.00000	Averaged	
68	Phenanthrene	0.86428	0.83654	0.83654	0.000	-3.20979	60.00000	Averaged	
69	Anthracene	0.84875	0.81908	0.81908	0.000	-3.49615	60.00000	Averaged	
72	Di-n-butylphthalate	1.04667	1.06104	1.06104	0.000	1.37316	60.00000	Averaged	
76	Fluoranthene	0.88826	0.88004	0.88004	0.001	-0.92535	20.00000	Averaged	ccc
79	Pyrene	1.13506	1.12192	1.12192	0.000	-1.15795	60.00000	Averaged	
85	Butylbenzylphthalate	0.48580	0.52166	0.52166	0.000	7.38189	60.00000	Averaged	
89	Benzo(a)anthracene	0.94024	0.87136	0.87136	0.000	-7.32597	60.00000	Averaged	
92	Chrysene	0.87862	0.86034	0.86034	0.000	-2.08090	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.64205	0.71657	0.71657	0.000	11.60668	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 16-MAR-2010 00:06
Lab File ID: s1c1531-C.d Init. Cal. Date(s): 15-MAR-2010 15-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 23:14
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.31370	1.46537	1.46537	0.001	11.54482	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	1.10005	1.10472	1.10472	0.000	0.42452	60.00000	Averaged	
96 Benzo(k)fluoranthene	1.04802	1.02616	1.02616	0.000	-2.08628	60.00000	Averaged	
97 Benzo(a)pyrene	0.88082	0.86533	0.86533	0.001	-1.75848	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	0.74890	0.69774	0.69774	0.000	-6.83179	60.00000	Averaged	
100 Dibenzo(a,h)anthracene	0.61883	0.56849	0.56849	0.000	-8.13353	60.00000	Averaged	
101 Benzo(ghi)perylene	0.60742	0.55469	0.55469	0.000	-8.67993	60.00000	Averaged	
126 m-Dinitrobenzene	0.17468	0.16956	0.16956	0.000	-2.92632	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.27097	0.24966	0.24966	0.000	-7.86483	60.00000	Averaged	
143 Dinoseb	39.78917	40.00000	0.13894	0.000	-0.52707	60.00000	Linear	
173 Carbazole	0.62852	0.63568	0.63568	0.000	1.13969	60.00000	Averaged	
184 p-Benzoquinone	0.05416	0.05435	0.05435	0.000	0.36410	60.00000	Averaged	
192 Methoxychlor	0.59295	0.60790	0.60790	0.000	2.52000	60.00000	Averaged	
211 p-Toluidine	1.19774	1.00121	1.00121	0.000	-16.40798	60.00000	Averaged	
210 m-Toluidine	1.30269	1.02040	1.02040	0.000	-21.66987	60.00000	Averaged	
26 Phthalic anhydride	62.54000	40.00000	0.09952	0.000	56.35001	60.00000	Linear	
179 Dibenzo(a,e)pyrene	0.26815	0.15655	0.15655	0.000	-41.61909	60.00000	Averaged	
214 1,4-Dinitrobenzene	0.15277	0.14752	0.14752	0.000	-3.44172	60.00000	Averaged	
215 2-Ethoxyethanol	0.56020	0.56879	0.56879	0.000	1.53272	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	0.10873	0.12473	0.12473	0.000	14.71987	60.00000	Averaged	
M 225 Trichlorophenols	0.30770	0.31603	0.31603	0.000	2.70763	60.00000	Averaged	
M 226 Tetrachlorophenols	0.27097	0.24966	0.24966	0.000	-7.86483	60.00000	Averaged	
M 227 Benzo(b,k)fluoranthene	1.07403	1.06544	1.06544	0.000	-0.80047	60.00000	Averaged	

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Data file : /chem/MSD1.i/s031510a.b/s1c1531-C.d
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGAICV
Inj Date : 16-MAR-2010 00:06
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN100309-09.1|040 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m
Meth Date : 16-Mar-2010 18:32 amy01291 Quant Type: ISTD
Cal Date : 15-MAR-2010 23:14 Cal File: s1c1529.d
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.540	3.540	(1.000)	549504	40.0000	
* 29 Naphthalene-d8	136	4.398	4.398	(1.000)	2266874	40.0000	
* 46 Acenaphthene-d10	164	5.639	5.639	(1.000)	1149176	40.0000	
* 67 Phenanthrene-d10	188	6.645	6.645	(1.000)	1944808	40.0000	
* 91 Chrysene-d12	240	8.227	8.227	(1.000)	1527388	40.0000	
* 98 Perylene-d12	264	9.422	9.422	(1.000)	1037428	40.0000	
$ 3 2-Fluorophenol	112	2.751	2.751	(0.777)	562088	40.0000	39.7
$ 5 Phenol-d5	99	3.281	3.281	(0.927)	660216	40.0000	38.3
$ 20 Nitrobenzene-d5	82	3.904	3.904	(0.888)	598120	40.0000	43.0
$ 39 2-Fluorobiphenyl	172	5.139	5.139	(0.911)	1302262	40.0000	41.0
$ 60 2,4,6-Tribromophenol	329	6.186	6.186	(1.097)	154522	40.0000	41.0
$ 81 p-Terphenyl-d14	244	7.569	7.569	(0.920)	1178825	40.0000	46.3
1 N-Methyl-N-nitrosomethylamine	74	2.075	2.075	(0.586)	299955	40.0000	37.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.104	2.104	(0.595)	389700	40.0000	32.0
4 Aniline	66	3.334	3.334	(0.942)	287596	40.0000	36.9
6 Phenol	94	3.292	3.292	(0.930)	729674	40.0000	40.0
7 bis(2-Chloroethyl) ether	63	3.357	3.357	(0.948)	464078	40.0000	37.0
8 2-Chlorophenol	128	3.410	3.410	(0.963)	621046	40.0000	40.2
203 n-Decane	43	3.398	3.398	(0.960)	802979	40.0000	40.8
9 1,3-Dichlorobenzene	146	3.504	3.504	(0.990)	694836	40.0000	40.3
11 1,4-Dichlorobenzene	146	3.551	3.551	(1.003)	690738	40.0000	39.7
13 1,2-Dichlorobenzene	146	3.651	3.651	(1.032)	650239	40.0000	40.0
14 bis(2-Chloroisopropyl)ether	45	3.692	3.692	(1.043)	1037733	40.0000	39.0
12 Benzyl alcohol	108	3.622	3.622	(1.023)	321795	40.0000	40.0
15 o-Cresol	107	3.675	3.675	(1.038)	452147	40.0000	38.6
18 m,p-Cresols	107	3.781	3.781	(1.068)	606229	40.0000	39.9
17 N-Nitrosodipropylamine	70	3.792	3.792	(1.071)	410554	40.0000	42.0
19 Hexachloroethane	117	3.875	3.875	(1.095)	262262	40.0000	39.7
21 Nitrobenzene	77	3.916	3.916	(0.890)	581645	40.0000	39.2
22 Isophorone	82	4.075	4.075	(0.926)	1085614	40.0000	39.1
23 2-Nitrophenol	139	4.128	4.128	(0.938)	319284	40.0000	41.7
24 2,4-Dimethylphenol	122	4.134	4.134	(0.940)	566834	40.0000	41.4
25 bis(2-Chloroethoxy)methane	93	4.198	4.198	(0.955)	637142	40.0000	37.6
26 2,4-Dichlorophenol	162	4.292	4.292	(0.976)	467547	40.0000	40.9
27 Benzoic acid	105	4.210	4.210	(0.957)	282761	40.0000	38.0
28 1,2,4-Trichlorobenzene	180	4.351	4.351	(0.989)	559154	40.0000	40.0
30 Naphthalene	128	4.410	4.410	(1.003)	1769339	40.0000	38.9
204 alpha-Terpineol	59	4.398	4.398	(1.000)	486432	40.0000	37.8
31 4-Chloroaniline	127	4.434	4.434	(1.008)	813105	40.0000	39.9
32 Hexachlorobutadiene	225	4.481	4.481	(1.019)	325462	40.0000	41.3
33 4-Chloro-3-methylphenol	107	4.757	4.757	(1.082)	507185	40.0000	42.5
34 2-Methylnaphthalene	142	4.886	4.886	(1.111)	1184321	40.0000	41.0
35 1-Methylnaphthalene	142	4.963	4.963	(1.128)	1127876	40.0000	39.8
36 Hexachlorocyclopentadiene	237	4.992	4.992	(0.885)	223715	40.0000	30.8
205 2,3-Dichloroaniline	161	5.086	5.086	(0.902)	581217	40.0000	38.6
37 2,4,6-Trichlorophenol	196	5.081	5.081	(0.901)	339457	40.0000	39.8
38 2,4,5-Trichlorophenol	196	5.110	5.110	(0.906)	386902	40.0000	42.3
40 2-Chloronaphthalene	162	5.239	5.239	(0.929)	1087651	40.0000	39.5
42 o-Nitroaniline	65	5.304	5.304	(0.941)	303984	40.0000	38.5
41 m-Nitroaniline	138	5.598	5.598	(0.993)	224087	40.0000	36.7
43 Dimethylphthalate	163	5.422	5.422	(0.961)	1241836	40.0000	38.8
44 2,6-Dinitrotoluene	165	5.469	5.469	(0.970)	285584	40.0000	38.4
50 2,4-Dinitrotoluene	165	5.757	5.757	(1.021)	359286	40.0000	38.8
45 Acenaphthylene	152	5.539	5.539	(0.982)	1778911	40.0000	40.3
47 Acenaphthene	154	5.663	5.663	(1.004)	1054717	40.0000	37.6
48 2,4-Dinitrophenol	184	5.663	5.663	(1.004)	112191	40.0000	37.5(Q)
49 Dibenzofuran	168	5.781	5.781	(1.025)	1490699	40.0000	39.5
51 Diethylphthalate	149	5.910	5.910	(1.048)	1258244	40.0000	39.2
52 4-Nitrophenol	139	5.704	5.704	(1.011)	195355	40.0000	37.6
53 Fluorene	166	6.022	6.022	(1.068)	1206137	40.0000	38.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	6.004	6.004	(1.065)	602084	40.0000	38.9
55 2-Methyl-4,6-dinitrophenol	198	6.045	6.045	(0.910)	222389	40.0000	49.2
56 p-Nitroaniline	138	6.033	6.033	(1.070)	196118	40.0000	35.7
133 Diphenylamine	169	6.086	6.086	(0.916)	975585	40.0000	39.3
58 1,2-Diphenylhydrazine	77	6.116	6.116	(0.920)	1159455	40.0000	40.6
61 4-Bromophenylphenylether	248	6.339	6.339	(0.954)	337982	40.0000	38.5
63 Hexachlorobenzene	284	6.392	6.392	(0.962)	381287	40.0000	40.0
65 Pentachlorophenol	266	6.516	6.516	(0.981)	195806	40.0000	41.2
206 n-Octadecane	57	6.516	6.516	(0.981)	931872	40.0000	42.4
68 Phenanthrene	178	6.663	6.663	(1.003)	1626907	40.0000	38.7
69 Anthracene	178	6.692	6.692	(1.007)	1592952	40.0000	38.6
72 Di-n-butylphthalate	149	6.957	6.957	(1.047)	2063520	40.0000	40.5
76 Fluoranthene	202	7.375	7.375	(1.110)	1711505	40.0000	39.6
79 Pyrene	202	7.510	7.510	(0.913)	1713608	40.0000	39.5
85 Butylbenzylphthalate	149	7.822	7.822	(0.951)	796781	40.0000	43.0
89 Benzo(a)anthracene	228	8.216	8.216	(0.999)	1330902	40.0000	37.1
92 Chrysene	228	8.245	8.245	(1.002)	1314075	40.0000	39.2
93 bis(2-Ethylhexyl)phthalate	149	8.139	8.139	(0.989)	1094484	40.0000	44.6
94 Di-n-octylphthalate	149	8.580	8.580	(0.911)	1520212	40.0000	44.6
95 Benzo(b)fluoranthene	252	9.045	9.045	(0.960)	1146067	40.0000	40.2
96 Benzo(k)fluoranthene	252	9.069	9.069	(0.963)	1064562	40.0000	39.2
97 Benzo(a)pyrene	252	9.363	9.363	(0.994)	897717	40.0000	39.3
99 Indeno(1,2,3-cd)pyrene	276	10.710	10.710	(1.137)	723851	40.0000	37.3
100 Dibenzo(a,h)anthracene	278	10.710	10.710	(1.137)	589771	40.0000	36.7
101 Benzo(ghi)perylene	276	11.104	11.104	(1.179)	575456	40.0000	36.5
126 m-Dinitrobenzene	168	5.457	5.457	(0.968)	194860	40.0000	38.8
130 2,3,4,6-Tetrachlorophenol	232	5.863	5.863	(1.040)	286902	40.0000	36.8
143 Dinoseb	211	6.616	6.616	(0.996)	270206	40.0000	39.8
173 Carbazole	167	6.780	6.780	(1.020)	1236279	40.0000	40.4
184 p-Benzoquinone	54	3.040	3.040	(0.859)	29868	40.0000	40.1
192 Methoxychlor	227	8.122	8.122	(0.987)	928494	40.0000	41.0
211 p-Toluidine	106	3.822	3.822	(1.080)	550171	40.0000	33.4
210 m-Toluidine	106	3.845	3.845	(1.086)	560714	40.0000	31.3
26 Phthalic anhydride	104	4.928	4.928	(1.120)	225607	40.0000	62.5
179 Dibenzo(a,e)pyrene	302	14.127	14.127	(1.499)	162405	40.0000	23.4
214 1,4-Dinitrobenzene	168	5.398	5.398	(0.957)	169521	40.0000	38.6
215 2-Ethoxyethanol	59	1.928	1.928	(0.545)	312551	40.0000	40.6
216 Methylenebis(2-chloroaniline)	231	8.169	8.169	(0.993)	190517	40.0000	45.9(Q)
M 225 Trichlorophenols	196				726359	80.0000	82.2
M 226 Tetrachlorophenols	232				286902	40.0000	36.8
M 227 Benzo(b,k)fluoranthene	252				2210629	80.0000	79.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s031510a.b/s1c1531-C.d
Date : 16-MAR-2010 00:06
Client ID: MEGAICV
Sample Info: IWBN100309-09,1l040 PPM1l1SVHF1l1MEGAICV
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

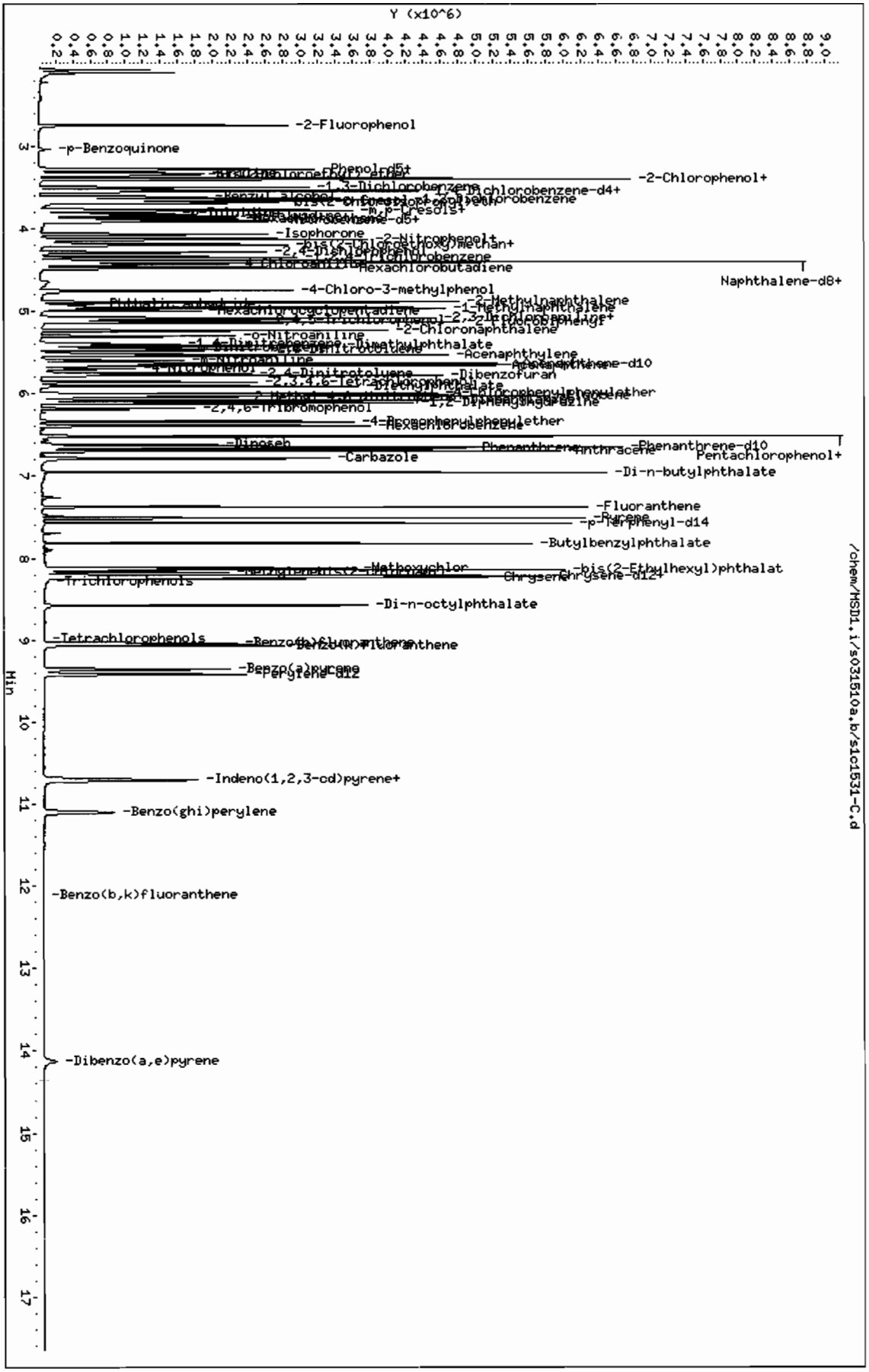

Page 1

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 16-MAR-2010 00:58
Lab File ID: s1c1533-C.d Init. Cal. Date(s): 15-MAR-2010 15-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 23:14
Lab Sample ID: WBN100312-08.1 Quant Type: ISTD
Method: /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.85292	0.68008	0.68008	0.000	-20.26453	60.00000	Averaged
16 Acetophenone	1.17153	1.12950	1.12950	0.000	-3.58768	60.00000	Averaged
189 Caprolactam	0.06713	0.07865	0.07865	0.000	17.16278	60.00000	Averaged
208 1,1'-Biphenyl	1.20731	1.24253	1.24253	0.000	2.91691	60.00000	Averaged
207 Atrazine	0.04270	0.04582	0.04582	0.000	7.30954	60.00000	Averaged
77 Benzidine	0.35698	0.37062	0.37062	0.000	3.82346	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.29661	0.28340	0.28340	0.000	-4.45426	60.00000	Averaged
102 1,4-Dioxane	0.33011	0.39318	0.39318	0.000	19.10465	60.00000	Averaged
103 Methyl methacrylate	0.19011	0.22942	0.22942	0.000	20.67753	60.00000	Averaged
104 Ethyl methacrylate	0.72578	0.86096	0.86096	0.000	18.62534	60.00000	Averaged
105 2-Picoline	1.17224	1.10026	1.10026	0.000	-6.14016	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44761	0.42428	0.42428	0.000	-5.21062	60.00000	Averaged
107 Methyl methanesulfonate	0.43845	0.44831	0.44831	0.000	2.24962	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49906	0.45859	0.45859	0.000	-8.10798	60.00000	Averaged
109 Ethyl Methanesulfonate	0.59722	0.71040	0.71040	0.000	18.95004	60.00000	Averaged
110 Pentachloroethane	0.31358	0.42274	0.42274	0.000	34.81217	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.48048	0.46459	0.46459	0.000	-3.30543	60.00000	Averaged
113 N-Nitrosomorpholine	0.61907	0.62440	0.62440	0.000	0.86172	60.00000	Averaged
114 o-Toluidine	1.65123	1.50789	1.50789	0.000	-8.68062	60.00000	Averaged
115 N-Nitrosopiperidine	0.12608	0.12465	0.12465	0.000	-1.13856	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.75396	0.72190	0.72190	0.000	-4.25126	60.00000	Averaged
118 2,6-Dichlorophenol	0.19593	0.19899	0.19899	0.000	1.56009	60.00000	Averaged
119 Hexachloropropene	0.10838	0.16507	0.16507	0.000	52.30319	60.00000	Averaged
120 p-Phenylenediamine	0.24548	0.21979	0.21979	0.000	-10.46278	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.17777	0.17279	0.17279	0.000	-2.79909	60.00000	Averaged
122 Safrole	0.18440	0.21297	0.21297	0.000	15.49122	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.45282	0.48216	0.48216	0.000	6.48115	60.00000	Averaged
124 Isosafrole	0.33289	0.44131	0.44131	0.000	32.56803	60.00000	Averaged
125 1,4-Naphthoquinone	0.31050	0.31046	0.31046	0.000	-0.01416	60.00000	Averaged
127 Pentachlorobenzene	0.40506	0.41650	0.41650	0.000	2.82553	60.00000	Averaged
128 1-Naphthylamine	0.91492	0.89910	0.89910	0.000	-1.72848	60.00000	Averaged
129 2-Naphthylamine	0.95136	0.96361	0.96361	0.000	1.28847	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27755	0.27172	0.27172	0.000	-2.10010	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.10955	0.14168	0.14168	0.000	29.32993	60.00000	Averaged
137 Phenacetin	0.24931	0.27034	0.27034	0.000	8.43612	60.00000	Averaged
138 Diallate	0.22908	0.21844	0.21844	0.000	-4.64753	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 16-MAR-2010 00:58
Lab File ID: s1c1533-C.d Init. Cal. Date(s): 15-MAR-2010 15-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 23:14
Lab Sample ID: WBN100312-08.1 Quant Type: ISTD
Method: /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.22400	0.28393	0.28393	0.000	26.75242	60.00000	Averaged
213 Trans Diallate	0.26951	0.25699	0.25699	0.000	-4.64753	60.00000	Averaged
140 4-Aminobiphenyl	0.54917	0.57230	0.57230	0.000	4.21119	60.00000	Averaged
141 Pentachloronitrobenzene	0.06390	0.06712	0.06712	0.000	5.03569	60.00000	Averaged
142 Pronamide	0.25643	0.27212	0.27212	0.000	6.11647	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01899	0.02168	0.02168	0.000	14.16476	60.00000	Averaged
147 Methapyrilene	0.43198	0.39087	0.39087	0.000	-9.51560	60.00000	Averaged
148 Isodrin	0.09769	0.09221	0.09221	0.000	-5.60212	60.00000	Averaged
149 Aramite	0.03937	0.03962	0.03962	0.000	0.63434	60.00000	Averaged
150 Kepone	0.06795	0.06455	0.06455	0.000	-4.99143	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.27269	0.27283	0.27283	0.000	0.05211	60.00000	Averaged
152 Chlorobenzilate	0.28668	0.28881	0.28881	0.000	0.74438	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.51675	0.48602	0.48602	0.000	-5.94807	60.00000	Averaged
155 2-Acetylaminofluorene	0.30754	0.27548	0.27548	0.000	-10.42377	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.49490	0.49248	0.49248	0.000	-0.49024	60.00000	Averaged
158 3-Methylcholanthrene	0.39716	0.41605	0.41605	0.000	4.75488	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD1.i/s031510a.b/s1c1533-C.d
Lab Smp Id: WBN100312-08.1 Client Smp ID: APICV
Inj Date : 16-MAR-2010 00:58
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN100312-08.1|40 PPM|1|SVMF|1|APICV
Misc Info : |MSD8270||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m
Meth Date : 16-Mar-2010 18:25 amy01291 Quant Type: ISTD
Cal Date : 15-MAR-2010 23:14 Cal File: s1c1529.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.540	3.540	(1.000)	570333	40.0000	
* 29 Naphthalene-d8	136	4.392	4.392	(1.000)	2167474	40.0000	
* 46 Acenaphthene-d10	164	5.634	5.634	(1.000)	1148170	40.0000	
* 67 Phenanthrene-d10	188	6.645	6.645	(1.000)	2008546	40.0000	
* 91 Chrysene-d12	240	8.222	8.222	(1.000)	1752326	40.0000	
* 98 Perylene-d12	264	9.416	9.416	(1.000)	1218375	40.0000	
209 Benzaldehyde	77	3.269	3.269	(0.924)	387870	40.0000	31.9
16 Acetophenone	105	3.793	3.793	(1.071)	644189	40.0000	38.6
189 Caprolactam	113	4.687	4.687	(1.067)	170479	40.0000	46.9
208 1,1'-Biphenyl	154	5.216	5.216	(0.926)	1426632	40.0000	41.2
207 Atrazine	173	6.434	6.434	(0.968)	92029	40.0000	42.9
77 Benzidine	184	7.433	7.433	(0.904)	649454	40.0000	41.5
90 3,3'-Dichlorobenzidine	252	8.175	8.175	(0.994)	496602	40.0000	38.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
102 1,4-Dioxane	88	1.928	1.928	(0.545)	224241	40.0000	47.6
103 Methyl methacrylate	100	1.928	1.928	(0.545)	130843	40.0000	48.3
104 Ethyl methacrylate	69	2.281	2.281	(0.644)	491033	40.0000	47.4
105 2-Picoline	93	2.463	2.463	(0.696)	627514	40.0000	37.5
106 N-Nitrosomethylethylamine	88	2.510	2.510	(0.709)	241983	40.0000	37.9
107 Methyl methanesulfonate	80	2.663	2.663	(0.752)	255686	40.0000	40.9
108 N-Nitrosodiethylamine	102	2.887	2.887	(0.816)	261551	40.0000	36.8
109 Ethyl Methanesulfonate	79	3.051	3.051	(0.862)	405164	40.0000	47.6
110 Pentachloroethane	167	3.369	3.369	(0.952)	241105	40.0000	53.9
111 N-Nitrosopyrrolidine	100	3.787	3.787	(1.070)	264973	40.0000	38.7(Q)
113 N-Nitrosomorpholine	56	3.810	3.810	(1.076)	356118	40.0000	40.3
114 o-Toluidine	106	3.822	3.822	(1.080)	860002	40.0000	36.5
115 N-Nitrosopiperidine	114	4.016	4.016	(0.914)	270170	40.0000	39.5
116 a,a-Dimethylphenethylamine	58	4.257	4.257	(0.969)	1564710	40.0000	38.3
118 2,6-Dichlorophenol	162	4.445	4.445	(1.012)	431295	40.0000	40.6
119 Hexachloropropene	213	4.469	4.469	(1.017)	357787	40.0000	60.9
120 p-Phenylenediamine	108	4.687	4.687	(1.067)	476398	40.0000	35.8
121 N-Nitrosodi-n-butylamine	84	4.651	4.651	(1.059)	374522	40.0000	38.9(Q)
122 Safrole	162	4.810	4.810	(1.095)	461610	40.0000	46.2
123 1,2,4,5-Tetrachlorobenzene	216	5.004	5.004	(0.888)	553607	40.0000	42.6
124 Isosafrole	162	5.181	5.181	(0.920)	506697	40.0000	53.0
125 1,4-Naphthoquinone	158	5.357	5.357	(0.951)	356459	40.0000	40.0
127 Pentachlorobenzene	250	5.745	5.745	(1.020)	478217	40.0000	41.1
128 1-Naphthylamine	143	5.834	5.834	(1.035)	1032325	40.0000	39.3
129 2-Naphthylamine	143	5.892	5.892	(1.046)	1106392	40.0000	40.5
131 5-Nitro-o-toluidine	152	6.022	6.022	(1.069)	311981	40.0000	39.2
136 1,3,5-Trinitrobenzene	75	6.251	6.251	(0.941)	284563	40.0000	51.7
137 Phenacetin	108	6.292	6.292	(0.947)	542989	40.0000	43.4(Q)
138 Diallate	86	6.269	6.269	(0.943)	438742	40.0000	38.1
212 Cis Diallate	86	6.328	6.328	(0.952)	85542	6.00000	7.6
213 Trans Diallate	86	6.269	6.269	(0.943)	438742	34.0000	32.4
140 4-Aminobiphenyl	169	6.510	6.510	(0.980)	1149481	40.0000	41.7
141 Pentachloronitrobenzene	237	6.522	6.522	(0.981)	134805	40.0000	42.0(Q)
142 Pronamide	173	6.528	6.528	(0.982)	546564	40.0000	42.4
146 4-Nitroquinoline-1-oxide	101	7.122	7.122	(1.072)	43554	40.0000	45.7
147 Methapyrilene	58	7.145	7.145	(1.075)	785090	40.0000	36.2
148 Isodrin	193	7.286	7.286	(1.096)	185218	40.0000	37.8
149 Aramite	185	7.533	7.533	(1.134)	79580	40.0000	40.2
150 Kepone	272	7.898	7.898	(1.189)	129661	40.0000	38.0
151 p-(Dimethylamino)azobenzene	120	7.645	7.645	(0.930)	478086	40.0000	40.0
152 Chlorobenzilate	251	7.663	7.663	(0.932)	506091	40.0000	40.3
153 3,3'-Dimethylbenzidine	212	7.839	7.839	(0.953)	851659	40.0000	37.6
155 2-Acetylaminofluorene	181	7.992	7.992	(0.972)	482731	40.0000	35.8
157 7,12Dimethylbenz(a)anthracene	256	9.022	9.022	(0.958)	600023	40.0000	39.8
158 3-Methylcholanthrene	268	9.704	9.704	(1.031)	506900	40.0000	41.9(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s031510a.b/s1c1533-C.d

Date : 16-MAR-2010 00:58

Client ID: APICV

Sample Info: |WBN100312-08.1|40 PPM|1|SVMF|1|APICV

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY

Column diameter: 0.20

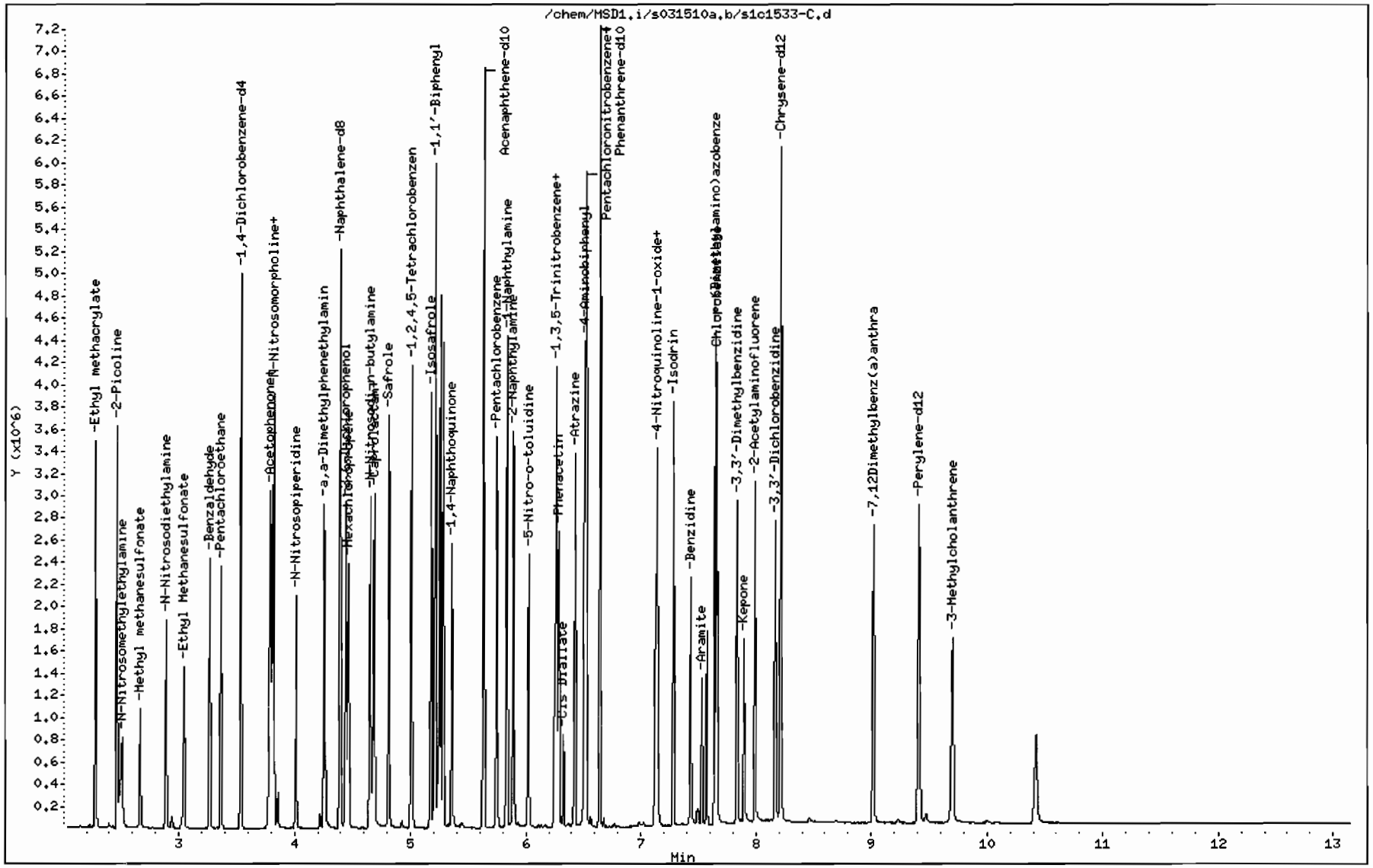

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 29-MAR-2010 10:17
Lab File ID: s1c2903.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100309-05.4 Quant Type: ISTD
Method: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.03001	0.96858	0.96858	0.000	-5.96433	60.00000	Averaged
$ 5 Phenol-d5	1.25441	1.18422	1.18422	0.000	-5.59553	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.24533	0.24019	0.24019	0.000	-2.09755	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.10470	1.07838	1.07838	0.000	-2.38268	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.13114	0.11820	0.11820	0.000	-9.86683	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.66687	0.63425	0.63425	0.000	-4.89082	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.57832	0.52486	0.52486	0.000	-9.24392	60.00000	Averaged
2 Pyridine	0.88669	0.88124	0.88124	0.000	-0.61402	60.00000	Averaged
4 Aniline	0.56665	0.55839	0.55839	0.000	-1.45615	60.00000	Averaged
6 Phenol	1.32904	1.27487	1.27487	0.001	-4.07584	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.91184	0.85850	0.85850	0.000	-5.85020	60.00000	Averaged
8 2-Chlorophenol	1.12413	1.09570	1.09570	0.000	-2.52901	60.00000	Averaged
203 n-Decane	1.43358	1.51809	1.51809	0.000	5.89515	60.00000	Averaged
9 1,3-Dichlorobenzene	1.25360	1.18779	1.18779	0.000	-5.24993	60.00000	Averaged
11 1,4-Dichlorobenzene	1.26574	1.20336	1.20336	0.001	-4.92899	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.18297	1.12993	1.12993	0.000	-4.48357	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.93906	2.00800	2.00800	0.000	3.55530	60.00000	Averaged
12 Benzyl alcohol	0.58515	0.62178	0.62178	0.000	6.25886	60.00000	Averaged
15 o-Cresol	0.85261	0.80438	0.80438	0.000	-5.65638	60.00000	Averaged
18 m,p-Cresols	1.10508	1.07002	1.07002	0.000	-3.17285	60.00000	Averaged
17 N-Nitrosodipropylamine	0.71175	0.76559	0.76559	0.050	7.56411	60.00000	Averaged spcc
19 Hexachloroethane	0.48105	0.47028	0.47028	0.000	-2.23866	60.00000	Averaged
21 Nitrobenzene	0.26210	0.25449	0.25449	0.000	-2.90354	60.00000	Averaged
22 Isophorone	0.48952	0.49940	0.49940	0.000	2.01924	60.00000	Averaged
23 2-Nitrophenol	0.13523	0.13024	0.13024	0.001	-3.69419	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.24166	0.23514	0.23514	0.000	-2.69670	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29940	0.29889	0.29889	0.000	-0.17329	60.00000	Averaged
26 2,4-Dichlorophenol	0.20163	0.19875	0.19875	0.001	-1.42551	20.00000	Averaged ccc
27 Benzoic acid	0.13123	0.09521	0.09521	0.000	-27.44938	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24663	0.23495	0.23495	0.000	-4.73488	60.00000	Averaged
30 Naphthalene	0.80225	0.78201	0.78201	0.000	-2.52314	60.00000	Averaged
204 alpha-Terpineol	0.22672	0.24185	0.24185	0.000	6.67239	60.00000	Averaged
31 4-Chloroaniline	0.35963	0.37866	0.37866	0.000	5.29124	60.00000	Averaged
32 Hexachlorobutadiene	0.13897	0.13488	0.13488	0.001	-2.94176	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21040	0.21712	0.21712	0.001	3.19581	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.50932	0.50121	0.50121	0.000	-1.59402	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 29-MAR-2010 10:17
Lab File ID: s1c2903.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100309-05.4 Quant Type: ISTD
Method: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.50016	0.48830	0.48830	0.000	-2.37217	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.25303	0.18326	0.18326	0.050	-27.57124	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.52418	0.51241	0.51241	0.000	-2.24444	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.29721	0.29360	0.29360	0.001	-1.21359	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.31820	0.28350	0.28350	0.000	-10.90472	60.00000	Averaged	
40 2-Chloronaphthalene	0.95817	0.92585	0.92585	0.000	-3.37317	60.00000	Averaged	
42 o-Nitroaniline	0.27488	0.27705	0.27705	0.000	0.78989	60.00000	Averaged	
41 m-Nitroaniline	36.80954	40.00000	0.19551	0.000	-7.97614	60.00000	Linear	
43 Dimethylphthalate	1.11352	1.09166	1.09166	0.000	-1.96311	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.25852	0.25217	0.25217	0.000	-2.45674	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.32209	0.31738	0.31738	0.000	-1.46221	60.00000	Averaged	
45 Acenaphthylene	1.53720	1.53511	1.53511	0.000	-0.13615	60.00000	Averaged	
47 Acenaphthene	0.97707	0.93988	0.93988	0.001	-3.80608	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	35.65502	40.00000	0.09076	0.050	-10.86246	60.00000	Linear	spcc
49 Dibenzofuran	1.31289	1.28522	1.28522	0.000	-2.10799	60.00000	Averaged	
51 Diethylphthalate	1.11578	1.11546	1.11546	0.000	-0.02852	60.00000	Averaged	
52 4-Nitrophenol	0.18061	0.15588	0.15588	0.050	-13.69365	60.00000	Averaged	spcc
53 Fluorene	1.10069	1.09331	1.09331	0.000	-0.67087	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.53905	0.53490	0.53490	0.000	-0.77107	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	0.09291	0.08787	0.08787	0.000	-5.42443	60.00000	Averaged	
56 p-Nitroaniline	35.27605	40.00000	0.16824	0.000	-11.80988	60.00000	Linear	
133 Diphenylamine	0.51080	0.49578	0.49578	0.001	-2.93901	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.58751	0.60059	0.60059	0.000	2.22705	60.00000	Averaged	
61 4-Bromophenylphenylether	0.18061	0.16634	0.16634	0.000	-7.90110	60.00000	Averaged	
63 Hexachlorobenzene	0.19601	0.16962	0.16962	0.000	-13.46100	60.00000	Averaged	
65 Pentachlorophenol	0.09774	0.09385	0.09385	0.001	-3.98782	20.00000	Averaged	ccc
206 n-Octadecane	0.45255	0.49308	0.49308	0.000	8.95720	60.00000	Averaged	
68 Phenanthrene	0.86428	0.84028	0.84028	0.000	-2.77686	60.00000	Averaged	
69 Anthracene	0.84875	0.82478	0.82478	0.000	-2.82426	60.00000	Averaged	
72 Di-n-butylphthalate	1.04667	1.09364	1.09364	0.000	4.48735	60.00000	Averaged	
76 Fluoranthene	0.88826	0.88938	0.88938	0.001	0.12689	20.00000	Averaged	ccc
79 Pyrene	1.13506	1.09136	1.09136	0.000	-3.85035	60.00000	Averaged	
85 Butylbenzylphthalate	0.48580	0.52223	0.52223	0.000	7.49872	60.00000	Averaged	
89 Benzo(a)anthracene	0.94024	0.95235	0.95235	0.000	1.28810	60.00000	Averaged	
92 Chrysene	0.87862	0.86342	0.86342	0.000	-1.73015	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.64205	0.75161	0.75161	0.000	17.06342	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 29-MAR-2010 10:17
Lab File ID: s1c2903.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100309-05.4 Quant Type: ISTD
Method: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.31370	1.36785	1.36785	0.001	4.12158	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.10005	1.02049	1.02049	0.000	-7.23215	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.04802	1.00781	1.00781	0.000	-3.83671	60.00000	Averaged	
	97 Benzo(a)pyrene	0.88082	0.85558	0.85558	0.001	-2.86515	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.74890	0.76587	0.76587	0.000	2.26634	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.61883	0.59755	0.59755	0.000	-3.43768	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.60742	0.64694	0.64694	0.000	6.50614	60.00000	Averaged	
	126 m-Dinitrobenzene	0.17468	0.16463	0.16463	0.000	-5.75405	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27097	0.25748	0.25748	0.000	-4.97802	60.00000	Averaged	
	143 Dinoseb	37.29094	40.00000	0.12898	0.000	-6.77264	60.00000	Linear	
	173 Carbazole	0.62852	0.71496	0.71496	0.000	13.75282	60.00000	Averaged	
	184 p-Benzoquinone	0.05416	0.06075	0.06075	0.000	12.16872	60.00000	Averaged	
	192 Methoxychlor	0.59295	0.61465	0.61465	0.000	3.65824	60.00000	Averaged	
	211 p-Toluidine	1.19774	1.06397	1.06397	0.000	-11.16869	60.00000	Averaged	
	210 m-Toluidine	1.30269	1.13169	1.13169	0.000	-13.12687	60.00000	Averaged	
	26 Phthalic anhydride	39.56802	40.00000	0.05944	0.000	-1.07995	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	0.26815	0.31082	0.31082	0.000	15.91379	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.15277	0.14327	0.14327	0.000	-6.21996	60.00000	Averaged	
	215 2-Ethoxyethanol	0.56020	0.45708	0.45708	0.000	-18.40856	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.10873	0.07362	0.07362	0.000	-32.29474	60.00000	Averaged	
M	225 Trichlorophenols	0.30770	0.28855	0.28855	0.000	-6.22442	60.00000	Averaged	
M	226 Tetrachlorophenols	0.27097	0.25748	0.25748	0.000	-4.97802	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	1.07403	1.01415	1.01415	0.000	-5.57556	60.00000	Averaged	

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Data file : /chem/MSD1.i/s032910.b/s1c2903.d
Lab Smp Id: WBN100309-05.4 Client Smp ID: MEGACVS
Inj Date : 29-MAR-2010 10:17
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN100309-05.4|40 PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.504	3.504	(1.000)	393267	40.0000	
* 29 Naphthalene-d8	136	4.351	4.351	(1.000)	1655594	40.0000	
* 46 Acenaphthene-d10	164	5.592	5.592	(1.000)	825625	40.0000	
* 67 Phenanthrene-d10	188	6.598	6.598	(1.000)	1464986	40.0000	
* 91 Chrysene-d12	240	8.175	8.175	(1.000)	1271298	40.0000	
* 98 Perylene-d12	264	9.339	9.339	(1.000)	1100996	40.0000	
$ 3 2-Fluorophenol	112	2.716	2.716	(0.775)	380910	40.0000	37.6
$ 5 Phenol-d5	99	3.240	3.240	(0.924)	465716	40.0000	37.8
$ 20 Nitrobenzene-d5	82	3.863	3.863	(0.888)	397651	40.0000	39.2
$ 39 2-Fluorobiphenyl	172	5.093	5.093	(0.911)	890339	40.0000	39.0
$ 60 2,4,6-Tribromophenol	329	6.139	6.139	(1.098)	97589	40.0000	36.0
$ 81 p-Terphenyl-d14	244	7.528	7.528	(0.921)	806327	40.0000	38.0
1 N-Methyl-N-nitrosomethylamine	74	2.052	2.052	(0.585)	206411	40.0000	36.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.081	2.081	(0.594)	346563	40.0000	39.8
4 Aniline	66	3.299	3.299	(0.941)	219598	40.0000	39.4
6 Phenol	94	3.251	3.251	(0.928)	501365	40.0000	38.4
7 bis(2-Chloroethyl) ether	63	3.316	3.316	(0.946)	337618	40.0000	37.6
8 2-Chlorophenol	128	3.369	3.369	(0.961)	430904	40.0000	39.0
203 n-Decane	43	3.363	3.363	(0.960)	597016	40.0000	42.4
9 1,3-Dichlorobenzene	146	3.469	3.469	(0.990)	467117	40.0000	37.9
11 1,4-Dichlorobenzene	146	3.510	3.510	(1.002)	473240	40.0000	38.0
13 1,2-Dichlorobenzene	146	3.610	3.610	(1.030)	444363	40.0000	38.2
14 bis(2-Chloroisopropyl)ether	45	3.651	3.651	(1.042)	789681	40.0000	41.4
12 Benzyl alcohol	108	3.575	3.575	(1.020)	244524	40.0000	42.5
15 o-Cresol	107	3.634	3.634	(1.037)	316336	40.0000	37.7
18 m,p-Cresols	107	3.740	3.740	(1.067)	420804	40.0000	38.7
17 N-Nitrosodipropylamine	70	3.751	3.751	(1.070)	301080	40.0000	43.0
19 Hexachloroethane	117	3.834	3.834	(1.094)	184945	40.0000	39.1
21 Nitrobenzene	77	3.875	3.875	(0.890)	421324	40.0000	38.8
22 Isophorone	82	4.028	4.028	(0.926)	826808	40.0000	40.8
23 2-Nitrophenol	139	4.087	4.087	(0.939)	215621	40.0000	38.5
24 2,4-Dimethylphenol	122	4.093	4.093	(0.941)	389304	40.0000	38.9
25 bis(2-Chloroethoxy)methane	93	4.157	4.157	(0.955)	494833	40.0000	39.9
26 2,4-Dichlorophenol	162	4.245	4.245	(0.976)	329053	40.0000	39.4
27 Benzoic acid	105	4.163	4.163	(0.957)	157621	40.0000	29.0
28 1,2,4-Trichlorobenzene	180	4.304	4.304	(0.989)	388986	40.0000	38.1
30 Naphthalene	128	4.369	4.369	(1.004)	1294686	40.0000	39.0
204 alpha-Terpineol	59	4.351	4.351	(1.000)	400410	40.0000	42.7
31 4-Chloroaniline	127	4.393	4.393	(1.009)	626909	40.0000	42.1
32 Hexachlorobutadiene	225	4.440	4.440	(1.020)	223314	40.0000	38.8
33 4-Chloro-3-methylphenol	107	4.710	4.710	(1.082)	359463	40.0000	41.3
34 2-Methylnaphthalene	142	4.845	4.845	(1.114)	829792	40.0000	39.4
35 1-Methylnaphthalene	142	4.916	4.916	(1.130)	808421	40.0000	39.0
36 Hexachlorocyclopentadiene	237	4.945	4.945	(0.884)	151307	40.0000	29.0
205 2,3-Dichloroaniline	161	5.045	5.045	(0.902)	423060	40.0000	39.1
37 2,4,6-Trichlorophenol	196	5.040	5.040	(0.901)	242405	40.0000	39.5
38 2,4,5-Trichlorophenol	196	5.063	5.063	(0.905)	234064	40.0000	35.6
40 2-Chloronaphthalene	162	5.192	5.192	(0.928)	764401	40.0000	38.6
42 o-Nitroaniline	65	5.257	5.257	(0.940)	228743	40.0000	40.3
41 m-Nitroaniline	138	5.551	5.551	(0.993)	161418	40.0000	36.8
43 Dimethylphthalate	163	5.375	5.375	(0.961)	901299	40.0000	39.2
44 2,6-Dinitrotoluene	165	5.428	5.428	(0.971)	208199	40.0000	39.0
50 2,4-Dinitrotoluene	165	5.716	5.716	(1.022)	262036	40.0000	39.4
45 Acenaphthylene	152	5.492	5.492	(0.982)	1267425	40.0000	39.9
47 Acenaphthene	154	5.610	5.610	(1.003)	775989	40.0000	38.5
48 2,4-Dinitrophenol	184	5.622	5.622	(1.005)	74930	40.0000	35.6(Q)
49 Dibenzofuran	168	5.734	5.734	(1.025)	1061106	40.0000	39.2
51 Diethylphthalate	149	5.869	5.869	(1.049)	920955	40.0000	40.0
52 4-Nitrophenol	139	5.657	5.657	(1.012)	128696	40.0000	34.5
53 Fluorene	166	5.975	5.975	(1.068)	902663	40.0000	39.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	5.963	5.963	(1.066)	441625	40.0000	39.7
55 2-Methyl-4,6-dinitrophenol	198	6.004	6.004	(0.910)	128728	40.0000	37.8
56 p-Nitroaniline	138	5.987	5.987	(1.070)	138907	40.0000	35.3
133 Diphenylamine	169	6.045	6.045	(0.916)	726317	40.0000	38.8
58 1,2-Diphenylhydrazine	77	6.075	6.075	(0.921)	879859	40.0000	40.9
61 4-Bromophenylphenylether	248	6.292	6.292	(0.954)	243680	40.0000	36.8
63 Hexachlorobenzene	284	6.345	6.345	(0.962)	248494	40.0000	34.6
65 Pentachlorophenol	266	6.469	6.469	(0.980)	137484	40.0000	38.4
206 n-Octadecane	57	6.475	6.475	(0.981)	722362	40.0000	43.6
68 Phenanthrene	178	6.616	6.616	(1.003)	1230999	40.0000	38.9
69 Anthracene	178	6.645	6.645	(1.007)	1208294	40.0000	38.9
72 Di-n-butylphthalate	149	6.916	6.916	(1.048)	1602161	40.0000	41.8
76 Fluoranthene	202	7.328	7.328	(1.111)	1302936	40.0000	40.0
79 Pyrene	202	7.469	7.469	(0.914)	1387444	40.0000	38.4
85 Butylbenzylphthalate	149	7.781	7.781	(0.952)	663910	40.0000	43.0
89 Benzo(a)anthracene	228	8.163	8.163	(0.999)	1210722	40.0000	40.5
92 Chrysene	228	8.192	8.192	(1.002)	1097668	40.0000	39.3
93 bis(2-Ethylhexyl)phthalate	149	8.092	8.092	(0.990)	955517	40.0000	46.8
94 Di-n-octylphthalate	149	8.528	8.528	(0.913)	1505994	40.0000	41.6
95 Benzo(b)fluoranthene	252	8.975	8.975	(0.961)	1123558	40.0000	37.1
96 Benzo(k)fluoranthene	252	8.998	8.998	(0.963)	1109595	40.0000	38.5
97 Benzo(a)pyrene	252	9.286	9.286	(0.994)	941992	40.0000	38.8
99 Indeno(1,2,3-cd)pyrene	276	10.598	10.598	(1.135)	843222	40.0000	40.9
100 Dibenzo(a,h)anthracene	278	10.598	10.598	(1.135)	657903	40.0000	38.6
101 Benzo(ghi)perylene	276	10.986	10.986	(1.176)	712276	40.0000	42.6
126 m-Dinitrobenzene	168	5.410	5.410	(0.967)	135919	40.0000	37.7
130 2,3,4,6-Tetrachlorophenol	232	5.816	5.816	(1.040)	212583	40.0000	38.0
143 Dinoseb	211	6.569	6.569	(0.996)	188948	40.0000	37.3
173 Carbazole	167	6.739	6.739	(1.021)	1047403	40.0000	45.5
184 p-Benzoquinone	54	3.010	3.010	(0.859)	23890	40.0000	44.9
192 Methoxychlor	227	8.075	8.075	(0.988)	781398	40.0000	41.5
211 p-Toluidine	106	3.781	3.781	(1.079)	418423	40.0000	35.5
210 m-Toluidine	106	3.804	3.804	(1.086)	445056	40.0000	34.7
26 Phthalic anhydride	104	4.887	4.887	(1.123)	98408	40.0000	39.6
179 Dibenzo(a,e)pyrene	302	13.933	13.933	(1.492)	342209	40.0000	46.4
214 1,4-Dinitrobenzene	168	5.351	5.351	(0.957)	118288	40.0000	37.5
215 2-Ethoxyethanol	59	1.904	1.904	(0.543)	179753	40.0000	32.6
216 Methylenebis(2-chloroaniline)	231	8.122	8.122	(0.994)	93587	40.0000	27.1
M 225 Trichlorophenols	196				476469	80.0000	75.0
M 226 Tetrachlorophenols	232				212583	40.0000	38.0
M 227 Benzo(b,k)fluoranthene	252				2233153	80.0000	75.5

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s032910.b/s1c2903.d
Date : 29-MAR-2010 10:17
Client ID: MEGACVS
Sample Info: IWBN100309-05,4140 PPM|1|SVHF1|MEGACVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

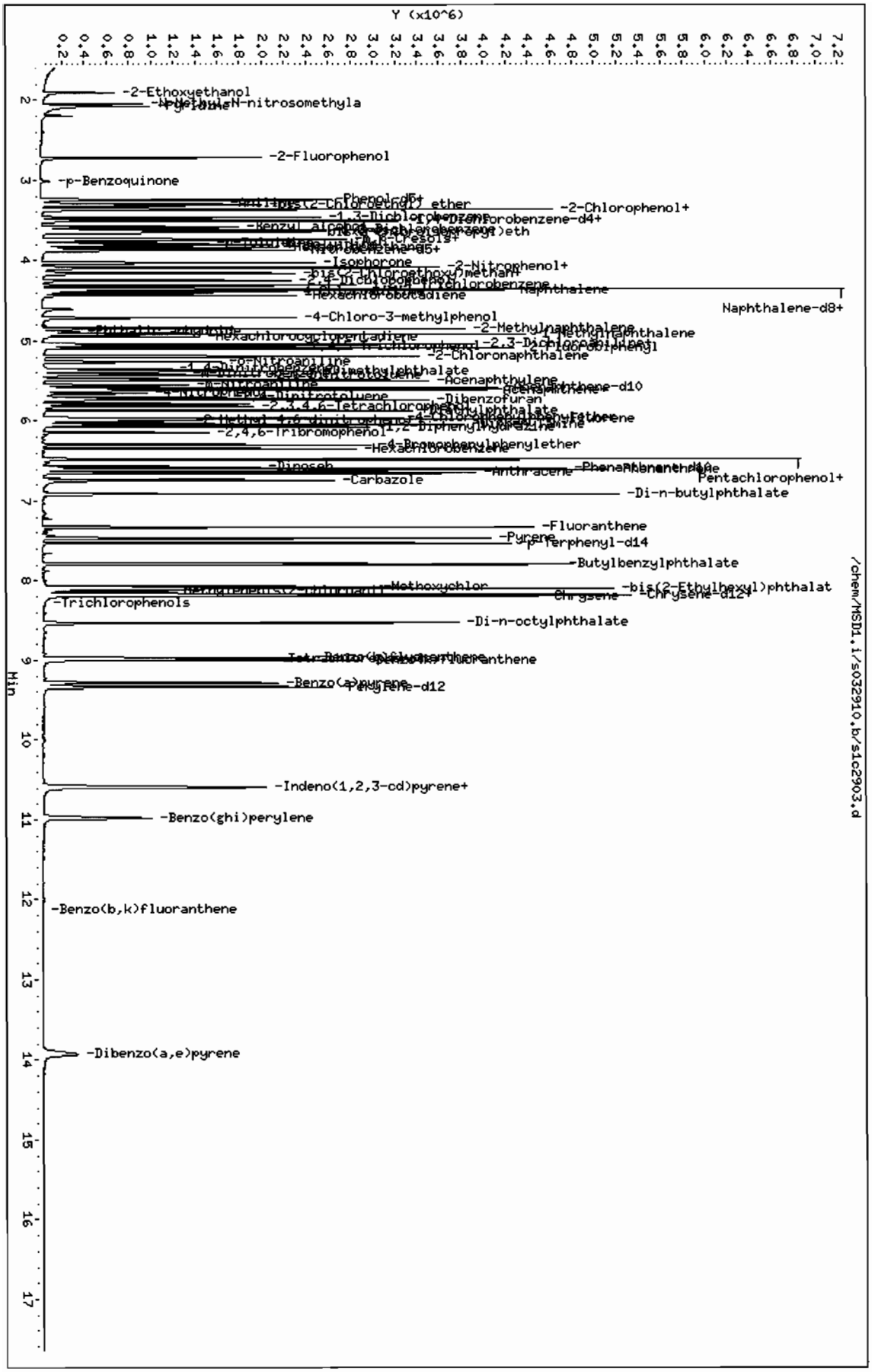

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 29-MAR-2010 11:24
Lab File ID: s1c2904.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100312-08.3 Quant Type: ISTD
Method: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.85292	0.72408	0.72408	0.000	-15.10490	60.00000	Averaged
16 Acetophenone	1.17153	1.13446	1.13446	0.000	-3.16369	60.00000	Averaged
189 Caprolactam	0.06713	0.07767	0.07767	0.000	15.70402	60.00000	Averaged
208 1,1'-Biphenyl	1.20731	1.22486	1.22486	0.000	1.45380	60.00000	Averaged
207 Atrazine	0.04270	0.04603	0.04603	0.000	7.80373	60.00000	Averaged
77 Benzidine	0.35698	0.23676	0.23676	0.000	-33.67535	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.29661	0.25584	0.25584	0.000	-13.74628	60.00000	Averaged
102 1,4-Dioxane	0.33011	0.39835	0.39835	0.000	20.67221	60.00000	Averaged
103 Methyl methacrylate	0.19011	0.23202	0.23202	0.000	22.04785	60.00000	Averaged
104 Ethyl methacrylate	0.72578	0.87117	0.87117	0.000	20.03181	60.00000	Averaged
105 2-Picoline	1.17224	1.11505	1.11505	0.000	-4.87834	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44761	0.43186	0.43186	0.000	-3.51797	60.00000	Averaged
107 Methyl methanesulfonate	0.43845	0.48961	0.48961	0.000	11.66863	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49906	0.46118	0.46118	0.000	-7.59065	60.00000	Averaged
109 Ethyl Methanesulfonate	0.59722	0.73802	0.73802	0.000	23.57492	60.00000	Averaged
110 Pentachloroethane	0.31358	0.43420	0.43420	0.000	38.46483	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.48048	0.46843	0.46843	0.000	-2.50629	60.00000	Averaged
113 N-Nitrosomorpholine	0.61907	0.65723	0.65723	0.000	6.16417	60.00000	Averaged
114 o-Toluidine	1.65123	1.56964	1.56964	0.000	-4.94140	60.00000	Averaged
115 N-Nitrosopiperidine	0.12608	0.12634	0.12634	0.000	0.20398	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.75396	0.71080	0.71080	0.000	-5.72462	60.00000	Averaged
118 2,6-Dichlorophenol	0.19593	0.20940	0.20940	0.000	6.87420	60.00000	Averaged
119 Hexachloropropene	0.10838	0.16096	0.16096	0.000	48.51215	60.00000	Averaged
120 p-Phenylenediamine	0.24548	0.20622	0.20622	0.000	-15.99085	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.17777	0.18288	0.18288	0.000	2.87732	60.00000	Averaged
122 Safrole	0.18440	0.21310	0.21310	0.000	15.56257	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.45282	0.48633	0.48633	0.000	7.40211	60.00000	Averaged
124 Isosafrole	0.33289	0.43475	0.43475	0.000	30.59762	60.00000	Averaged
125 1,4-Naphthoquinone	0.31050	0.31950	0.31950	0.000	2.89864	60.00000	Averaged
127 Pentachlorobenzene	0.40506	0.39486	0.39486	0.000	-2.51813	60.00000	Averaged
128 1-Naphthylamine	0.91492	0.83596	0.83596	0.000	-8.63013	60.00000	Averaged
129 2-Naphthylamine	0.95136	0.87495	0.87495	0.000	-8.03080	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27755	0.23849	0.23849	0.000	-14.07210	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.10955	0.14462	0.14462	0.000	32.01853	60.00000	Averaged
137 Phenacetin	0.24931	0.24277	0.24277	0.000	-2.62375	60.00000	Averaged
138 Diallate	0.22908	0.22213	0.22213	0.000	-3.03449	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 29-MAR-2010 11:24
Lab File ID: s1c2904.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100312-08.3 Quant Type: ISTD
Method: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.22400	0.29915	0.29915	0.000	33.55058	60.00000	Averaged
213 Trans Diallate	0.26951	0.26133	0.26133	0.000	-3.03449	60.00000	Averaged
140 4-Aminobiphenyl	0.54917	0.46271	0.46271	0.000	-15.74275	60.00000	Averaged
141 Pentachloronitrobenzene	0.06390	0.06942	0.06942	0.000	8.64095	60.00000	Averaged
142 Pronamide	0.25643	0.28204	0.28204	0.000	9.98355	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01899	0.01978	0.01978	0.000	4.14115	60.00000	Averaged
147 Methapyrilene	0.43198	0.41545	0.41545	0.000	-3.82670	60.00000	Averaged
148 Isodrin	0.09769	0.09587	0.09587	0.000	-1.85805	60.00000	Averaged
149 Aramite	0.03937	0.04011	0.04011	0.000	1.88160	60.00000	Averaged
150 Kepone	0.06795	0.06753	0.06753	0.000	-0.61927	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.27269	0.29239	0.29239	0.000	7.22626	60.00000	Averaged
152 Chlorobenzilate	0.28668	0.33141	0.33141	0.000	15.60332	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.51675	0.47334	0.47334	0.000	-8.40152	60.00000	Averaged
155 2-Acetylaminofluorene	0.30754	0.25043	0.25043	0.000	-18.56956	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.49490	0.46634	0.46634	0.000	-5.77164	60.00000	Averaged
158 3-Methylcholanthrene	0.39716	0.39879	0.39879	0.000	0.41001	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2904.d
Lab Smp Id: WBN100312-08.3 Client Smp ID: APCVS
Inj Date : 29-MAR-2010 11:24
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN100312-08.3|40 PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 13:45 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.498	3.498	(1.000)	398599	40.0000	
* 29 Naphthalene-d8	136	4.351	4.351	(1.000)	1517792	40.0000	
* 46 Acenaphthene-d10	164	5.586	5.586	(1.000)	815436	40.0000	
* 67 Phenanthrene-d10	188	6.598	6.598	(1.000)	1403354	40.0000	
* 91 Chrysene-d12	240	8.169	8.169	(1.000)	1075052	40.0000	
* 98 Perylene-d12	264	9.333	9.333	(1.000)	823178	40.0000	
209 Benzaldehyde	77	3.234	3.234	(0.924)	288619	40.0000	34.0
16 Acetophenone	105	3.751	3.751	(1.072)	452196	40.0000	38.7
189 Caprolactam	113	4.640	4.640	(1.066)	117893	40.0000	46.3
208 1,1'-Biphenyl	154	5.169	5.169	(0.925)	998797	40.0000	40.6
207 Atrazine	173	6.386	6.386	(0.968)	64596	40.0000	43.1
77 Benzidine	184	7.392	7.392	(0.905)	254532	40.0000	26.5
90 3,3'-Dichlorobenzidine	252	8.122	8.122	(0.994)	275036	40.0000	34.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
102 1,4-Dioxane	88	1.904	1.904	(0.544)	158782	40.0000	48.3
103 Methyl methacrylate	100	1.899	1.899	(0.543)	92483	40.0000	48.8
104 Ethyl methacrylate	69	2.251	2.251	(0.644)	347246	40.0000	48.0
105 2-Picoline	93	2.434	2.434	(0.696)	444458	40.0000	38.0
106 N-Nitrosomethylethylamine	88	2.481	2.481	(0.709)	172139	40.0000	38.6
107 Methyl methanesulfonate	80	2.634	2.634	(0.753)	195157	40.0000	44.7
108 N-Nitrosodiethylamine	102	2.851	2.851	(0.815)	183824	40.0000	37.0
109 Ethyl Methanesulfonate	79	3.016	3.016	(0.862)	294174	40.0000	49.4
110 Pentachloroethane	167	3.328	3.328	(0.951)	173071	40.0000	55.4
111 N-Nitrosopyrrolidine	100	3.745	3.745	(1.071)	186717	40.0000	39.0(Q)
113 N-Nitrosomorpholine	56	3.763	3.763	(1.076)	261971	40.0000	42.5
114 o-Toluidine	106	3.781	3.781	(1.081)	625656	40.0000	38.0
115 N-Nitrosopiperidine	114	3.975	3.975	(0.913)	191758	40.0000	40.1
116 a,a-Dimethylphenethylamine	58	4.216	4.216	(0.969)	1078841	40.0000	37.7
118 2,6-Dichlorophenol	162	4.398	4.398	(1.011)	317821	40.0000	42.7
119 Hexachloropropene	213	4.422	4.422	(1.016)	244307	40.0000	59.4
120 p-Phenylenediamine	108	4.645	4.645	(1.068)	313005	40.0000	33.6
121 N-Nitrosodi-n-butylamine	84	4.610	4.610	(1.059)	277578	40.0000	41.2(Q)
122 Safrole	162	4.769	4.769	(1.096)	323446	40.0000	46.2
123 1,2,4,5-Tetrachlorobenzene	216	4.957	4.957	(0.887)	396575	40.0000	43.0
124 Isosafrole	162	5.134	5.134	(0.919)	354510	40.0000	52.2
125 1,4-Naphthoquinone	158	5.316	5.316	(0.952)	260534	40.0000	41.2
127 Pentachlorobenzene	250	5.698	5.698	(1.020)	321982	40.0000	39.0
128 1-Naphthylamine	143	5.787	5.787	(1.036)	681672	40.0000	36.5
129 2-Naphthylamine	143	5.845	5.845	(1.046)	713469	40.0000	36.8
131 5-Nitro-o-toluidine	152	5.975	5.975	(1.069)	194475	40.0000	34.4
136 1,3,5-Trinitrobenzene	75	6.210	6.210	(0.941)	202955	40.0000	52.8
137 Phenacetin	108	6.245	6.245	(0.946)	340687	40.0000	39.0(Q)
138 Diallate	86	6.222	6.222	(0.943)	311731	40.0000	38.8
212 Cis Diallate	86	6.286	6.286	(0.953)	62973	6.00000	8.0
213 Trans Diallate	86	6.222	6.222	(0.943)	311731	34.0000	33.0
140 4-Aminobiphenyl	169	6.469	6.469	(0.980)	649352	40.0000	33.7
141 Pentachloronitrobenzene	237	6.475	6.475	(0.981)	97420	40.0000	43.4(Q)
142 Pronamide	173	6.486	6.486	(0.983)	395796	40.0000	44.0
146 4-Nitroquinoline-1-oxide	101	7.081	7.081	(1.073)	27759	40.0000	41.6
147 Methapyrilene	58	7.098	7.098	(1.076)	583023	40.0000	38.5
148 Isodrin	193	7.239	7.239	(1.097)	134543	40.0000	39.2
149 Aramite	185	7.492	7.492	(1.135)	56291	40.0000	40.8
150 Kepone	272	7.851	7.851	(1.190)	94762	40.0000	39.8
151 p-(Dimethylamino)azobenzene	120	7.604	7.604	(0.931)	314337	40.0000	42.9
152 Chlorobenzilate	251	7.622	7.622	(0.933)	356281	40.0000	46.2
153 3,3'-Dimethylbenzidine	212	7.798	7.798	(0.955)	508863	40.0000	36.6
155 2-Acetylaminofluorene	181	7.945	7.945	(0.973)	269224	40.0000	32.6
157 7,12Dimethylbenz(a)anthracene	256	8.951	8.951	(0.959)	383881	40.0000	37.7
158 3-Methylcholanthrene	268	9.610	9.610	(1.030)	328275	40.0000	40.2(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s032910.b/s1c2904.d
Date : 29-MAR-2010 11:24
Client ID: APCVS
Sample Info: IWBN100312-08,3140 PPM11SVMF11APCVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

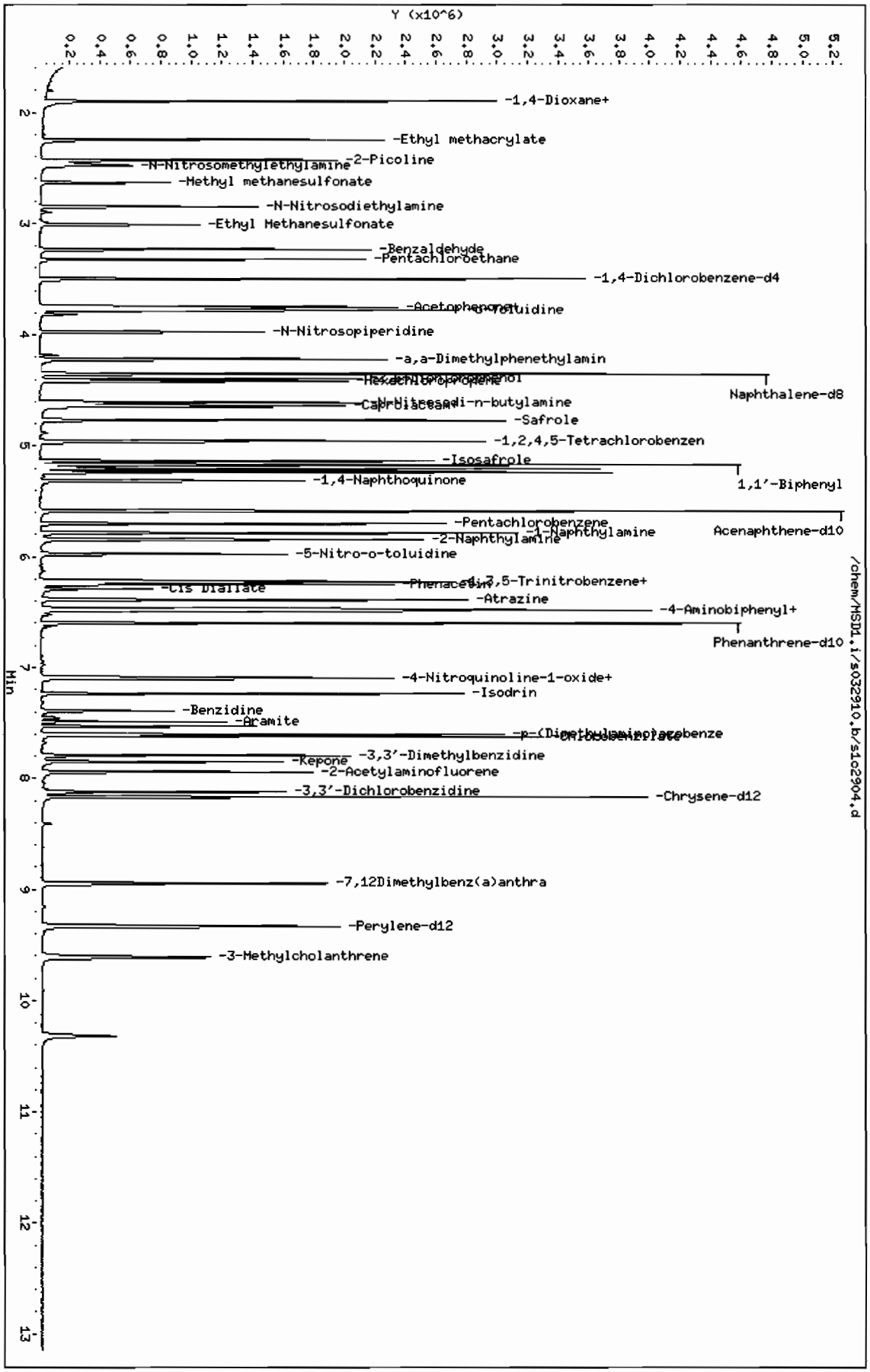

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 30-MAR-2010 11:16
Lab File ID: s1c3005.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100309-09.2 Quant Type: ISTD
Method: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.03001	0.97224	0.97224	0.000	-5.60922	60.00000	Averaged
$ 5 Phenol-d5	1.25441	1.15916	1.15916	0.000	-7.59331	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.24533	0.24657	0.24657	0.000	0.50470	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.10470	1.07317	1.07317	0.000	-2.85458	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.13114	0.11075	0.11075	0.000	-15.54524	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.66687	0.70381	0.70381	0.000	5.53890	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.57832	0.52017	0.52017	0.000	-10.05614	60.00000	Averaged
2 Pyridine	0.88669	0.64590	0.64590	0.000	-27.15554	60.00000	Averaged
4 Aniline	0.56665	0.50814	0.50814	0.000	-10.32469	60.00000	Averaged
6 Phenol	1.32904	1.26070	1.26070	0.001	-5.14196	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.91184	0.80146	0.80146	0.000	-12.10501	60.00000	Averaged
8 2-Chlorophenol	1.12413	1.10506	1.10506	0.000	-1.69693	60.00000	Averaged
203 n-Decane	1.43358	1.51842	1.51842	0.000	5.91796	60.00000	Averaged
9 1,3-Dichlorobenzene	1.25360	1.20118	1.20118	0.000	-4.18119	60.00000	Averaged
11 1,4-Dichlorobenzene	1.26574	1.21299	1.21299	0.001	-4.16776	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.18297	1.13680	1.13680	0.000	-3.90232	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.93906	1.90389	1.90389	0.000	-1.81414	60.00000	Averaged
12 Benzyl alcohol	0.58515	0.60833	0.60833	0.000	3.96093	60.00000	Averaged
15 o-Cresol	0.85261	0.81769	0.81769	0.000	-4.09558	60.00000	Averaged
18 m,p-Cresols	1.10508	1.07268	1.07268	0.000	-2.93208	60.00000	Averaged
17 N-Nitrosodipropylamine	0.71175	0.74844	0.74844	0.050	5.15473	60.00000	Averaged spcc
19 Hexachloroethane	0.48105	0.46696	0.46696	0.000	-2.92903	60.00000	Averaged
21 Nitrobenzene	0.26210	0.25196	0.25196	0.000	-3.86721	60.00000	Averaged
22 Isophorone	0.48952	0.45809	0.45809	0.000	-6.41928	60.00000	Averaged
23 2-Nitrophenol	0.13523	0.12959	0.12959	0.001	-4.17480	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.24166	0.23467	0.23467	0.000	-2.89181	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29940	0.26566	0.26566	0.000	-11.27026	60.00000	Averaged
26 2,4-Dichlorophenol	0.20163	0.19859	0.19859	0.001	-1.50805	20.00000	Averaged ccc
27 Benzoic acid	0.13123	0.07208	0.07208	0.000	-45.06896	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24663	0.23238	0.23238	0.000	-5.77791	60.00000	Averaged
30 Naphthalene	0.80225	0.74011	0.74011	0.000	-7.74593	60.00000	Averaged
204 alpha-Terpineol	0.22672	0.21216	0.21216	0.000	-6.42217	60.00000	Averaged
31 4-Chloroaniline	0.35963	0.33516	0.33516	0.000	-6.80508	60.00000	Averaged
32 Hexachlorobutadiene	0.13897	0.13327	0.13327	0.001	-4.10596	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21040	0.21194	0.21194	0.001	0.73346	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.50932	0.49139	0.49139	0.000	-3.52026	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 30-MAR-2010 11:16
Lab File ID: s1c3005.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100309-09.2 Quant Type: ISTD
Method: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.50016	0.46830	0.46830	0.000	-6.37005	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.25303	0.17084	0.17084	0.050	-32.48160	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.52418	0.48627	0.48627	0.000	-7.23233	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.29721	0.28356	0.28356	0.001	-4.59073	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.31820	0.31532	0.31532	0.000	-0.90288	60.00000	Averaged
40 2-Chloronaphthalene	0.95817	0.89409	0.89409	0.000	-6.68755	60.00000	Averaged
42 o-Nitroaniline	0.27488	0.26244	0.26244	0.000	-4.52562	60.00000	Averaged
41 m-Nitroaniline	33.55082	40.00000	0.17395	0.000	-16.12296	60.00000	Linear
43 Dimethylphthalate	1.11352	1.03703	1.03703	0.000	-6.86931	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25852	0.23494	0.23494	0.000	-9.12072	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32209	0.30002	0.30002	0.000	-6.85241	60.00000	Averaged
45 Acenaphthylene	1.53720	1.46511	1.46511	0.000	-4.68992	60.00000	Averaged
47 Acenaphthene	0.97707	0.87885	0.87885	0.001	-10.05216	20.00000	Averaged ccc
48 2,4-Dinitrophenol	32.32201	40.00000	0.07822	0.050	-19.19498	60.00000	Linear spcc
49 Dibenzofuran	1.31289	1.25025	1.25025	0.000	-4.77136	60.00000	Averaged
51 Diethylphthalate	1.11578	1.05401	1.05401	0.000	-5.53622	60.00000	Averaged
52 4-Nitrophenol	0.18061	0.14624	0.14624	0.050	-19.02686	60.00000	Averaged spcc
53 Fluorene	1.10069	1.00694	1.00694	0.000	-8.51757	60.00000	Averaged
54 4-Chlorophenylphenylether	0.53905	0.49709	0.49709	0.000	-7.78420	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	0.09291	0.10309	0.10309	0.000	10.95740	60.00000	Averaged
56 p-Nitroaniline	30.15847	40.00000	0.13630	0.000	-24.60382	60.00000	Linear
133 Diphenylamine	0.51080	0.46816	0.46816	0.001	-8.34624	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.58751	0.57195	0.57195	0.000	-2.64886	60.00000	Averaged
61 4-Bromophenylphenylether	0.18061	0.15452	0.15452	0.000	-14.44514	60.00000	Averaged
63 Hexachlorobenzene	0.19601	0.16240	0.16240	0.000	-17.14608	60.00000	Averaged
65 Pentachlorophenol	0.09774	0.08766	0.08766	0.001	-10.31326	20.00000	Averaged ccc
206 n-Octadecane	0.45255	0.46938	0.46938	0.000	3.71842	60.00000	Averaged
68 Phenanthrene	0.86428	0.79557	0.79557	0.000	-7.94976	60.00000	Averaged
69 Anthracene	0.84875	0.76924	0.76924	0.000	-9.36832	60.00000	Averaged
72 Di-n-butylphthalate	1.04667	1.01537	1.01537	0.000	-2.98987	60.00000	Averaged
76 Fluoranthene	0.88826	0.82115	0.82115	0.001	-7.55445	20.00000	Averaged ccc
79 Pyrene	1.13506	1.05018	1.05018	0.000	-7.47848	60.00000	Averaged
85 Butylbenzylphthalate	0.48580	0.51292	0.51292	0.000	5.58287	60.00000	Averaged
89 Benzo(a)anthracene	0.94024	0.88537	0.88537	0.000	-5.83579	60.00000	Averaged
92 Chrysene	0.87862	0.81172	0.81172	0.000	-7.61510	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.64205	0.69085	0.69085	0.000	7.60015	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 30-MAR-2010 11:16
Lab File ID: s1c3005.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100309-09.2 Quant Type: ISTD
Method: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.31370	1.28823	1.28823	0.001	-1.93928	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.10005	0.89587	0.89587	0.000	-18.56068	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.04802	1.07461	1.07461	0.000	2.53764	60.00000	Averaged	
	97 Benzo(a)pyrene	0.88082	0.80671	0.80671	0.001	-8.41399	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.74890	0.67517	0.67517	0.000	-9.84507	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.61883	0.52587	0.52587	0.000	-15.02086	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.60742	0.55451	0.55451	0.000	-8.71047	60.00000	Averaged	
	126 m-Dinitrobenzene	0.17468	0.15979	0.15979	0.000	-8.52079	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27097	0.23622	0.23622	0.000	-12.82606	60.00000	Averaged	
	143 Dinoseb	37.11070	40.00000	0.12826	0.000	-7.22326	60.00000	Linear	
	173 Carbazole	0.62852	0.59968	0.59968	0.000	-4.58827	60.00000	Averaged	
	184 p-Benzoquinone	0.05416	0.03898	0.03898	0.000	-28.01735	60.00000	Averaged	
	192 Methoxychlor	0.59295	0.61530	0.61530	0.000	3.76890	60.00000	Averaged	
	211 p-Toluidine	1.19774	0.90366	0.90366	0.000	-24.55249	60.00000	Averaged	
	210 m-Toluidine	1.30269	0.95810	0.95810	0.000	-26.45250	60.00000	Averaged	
	26 Phthalic anhydride	45.70096	40.00000	0.07014	0.000	14.25239	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	0.26815	0.16491	0.16491	0.000	-38.50022	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.15277	0.14110	0.14110	0.000	-7.64232	60.00000	Averaged	
	215 2-Ethoxyethanol	0.56020	0.59286	0.59286	0.000	5.83044	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.10873	0.08917	0.08917	0.000	-17.99210	60.00000	Averaged	
M	225 Trichlorophenols	0.30770	0.29944	0.29944	0.000	-2.68392	60.00000	Averaged	
M	226 Tetrachlorophenols	0.27097	0.23622	0.23622	0.000	-12.82606	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	1.07403	0.98524	0.98524	0.000	-8.26704	60.00000	Averaged	

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Data file : /chem/MSD1.i/s033010.b/s1c3005.d
Lab Smp Id: WBN100309-09.2 Client Smp ID: MEGACVS
Inj Date : 30-MAR-2010 11:16
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN100309-09.2|40 PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.487	3.487	(1.000)	424150	40.0000	
* 29 Naphthalene-d8	136	4.339	4.339	(1.000)	1781069	40.0000	
* 46 Acenaphthene-d10	164	5.575	5.575	(1.000)	897037	40.0000	
* 67 Phenanthrene-d10	188	6.586	6.586	(1.000)	1572324	40.0000	
* 91 Chrysene-d12	240	8.157	8.157	(1.000)	1234792	40.0000	
* 98 Perylene-d12	264	9.310	9.310	(1.000)	948754	40.0000	
$ 3 2-Fluorophenol	112	2.704	2.704	(0.776)	412374	40.0000	37.8
$ 5 Phenol-d5	99	3.228	3.228	(0.926)	491659	40.0000	37.0
$ 20 Nitrobenzene-d5	82	3.845	3.845	(0.886)	439159	40.0000	40.2
$ 39 2-Fluorobiphenyl	172	5.075	5.075	(0.910)	962672	40.0000	38.8
$ 60 2,4,6-Tribromophenol	329	6.128	6.128	(1.099)	99350	40.0000	33.8
$ 81 p-Terphenyl-d14	244	7.510	7.510	(0.921)	869056	40.0000	42.2
1 N-Methyl-N-nitrosomethylamine	74	2.040	2.040	(0.585)	220628	40.0000	36.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.069	2.069	(0.593)	273959	40.0000	29.1
4 Aniline	66	3.281	3.281	(0.941)	215528	40.0000	35.9
6 Phenol	94	3.240	3.240	(0.929)	534727	40.0000	37.9
7 bis(2-Chloroethyl) ether	63	3.304	3.304	(0.948)	339940	40.0000	35.2
8 2-Chlorophenol	128	3.357	3.357	(0.963)	468710	40.0000	39.3
203 n-Decane	43	3.351	3.351	(0.961)	644038	40.0000	42.4
9 1,3-Dichlorobenzene	146	3.451	3.451	(0.990)	509482	40.0000	38.3
11 1,4-Dichlorobenzene	146	3.498	3.498	(1.003)	514490	40.0000	38.3
13 1,2-Dichlorobenzene	146	3.598	3.598	(1.032)	482175	40.0000	38.4
14 bis(2-Chloroisopropyl)ether	45	3.640	3.640	(1.044)	807533	40.0000	39.3
12 Benzyl alcohol	108	3.563	3.563	(1.022)	258023	40.0000	41.6
15 o-Cresol	107	3.622	3.622	(1.039)	346822	40.0000	38.4
18 m,p-Cresols	107	3.722	3.722	(1.067)	454978	40.0000	38.8
17 N-Nitrosodipropylamine	70	3.740	3.740	(1.073)	317450	40.0000	42.1
19 Hexachloroethane	117	3.822	3.822	(1.096)	198060	40.0000	38.8
21 Nitrobenzene	77	3.863	3.863	(0.890)	448757	40.0000	38.4
22 Isophorone	82	4.016	4.016	(0.925)	815898	40.0000	37.4
23 2-Nitrophenol	139	4.069	4.069	(0.938)	230805	40.0000	38.3
24 2,4-Dimethylphenol	122	4.075	4.075	(0.939)	417969	40.0000	38.8
25 bis(2-Chloroethoxy)methane	93	4.139	4.139	(0.954)	473160	40.0000	35.5
26 2,4-Dichlorophenol	162	4.234	4.234	(0.976)	353695	40.0000	39.4
27 Benzoic acid	105	4.145	4.145	(0.955)	128386	40.0000	22.0
28 1,2,4-Trichlorobenzene	180	4.292	4.292	(0.989)	413885	40.0000	37.7
30 Naphthalene	128	4.351	4.351	(1.003)	1318182	40.0000	36.9
204 alpha-Terpineol	59	4.339	4.339	(1.000)	377879	40.0000	37.4
31 4-Chloroaniline	127	4.381	4.381	(1.009)	596941	40.0000	37.3
32 Hexachlorobutadiene	225	4.422	4.422	(1.019)	237357	40.0000	38.4
33 4-Chloro-3-methylphenol	107	4.698	4.698	(1.083)	377479	40.0000	40.3
34 2-Methylnaphthalene	142	4.828	4.828	(1.113)	875207	40.0000	38.6
35 1-Methylnaphthalene	142	4.898	4.898	(1.129)	834076	40.0000	37.4
36 Hexachlorocyclopentadiene	237	4.934	4.934	(0.885)	153249	40.0000	27.0
205 2,3-Dichloroaniline	161	5.028	5.028	(0.902)	436199	40.0000	37.1
37 2,4,6-Trichlorophenol	196	5.022	5.022	(0.901)	254368	40.0000	38.2
38 2,4,5-Trichlorophenol	196	5.045	5.045	(0.905)	282858	40.0000	39.6
40 2-Chloronaphthalene	162	5.175	5.175	(0.928)	802030	40.0000	37.3
42 o-Nitroaniline	65	5.245	5.245	(0.941)	235421	40.0000	38.2
41 m-Nitroaniline	138	5.539	5.539	(0.994)	156043	40.0000	33.6
43 Dimethylphthalate	163	5.363	5.363	(0.962)	930250	40.0000	37.2
44 2,6-Dinitrotoluene	165	5.410	5.410	(0.970)	210753	40.0000	36.4
50 2,4-Dinitrotoluene	165	5.698	5.698	(1.022)	269127	40.0000	37.2
45 Acenaphthylene	152	5.475	5.475	(0.982)	1314257	40.0000	38.1
47 Acenaphthene	154	5.598	5.598	(1.004)	788363	40.0000	36.0
48 2,4-Dinitrophenol	184	5.604	5.604	(1.005)	70169	40.0000	32.3(Q)
49 Dibenzofuran	168	5.716	5.716	(1.025)	1121519	40.0000	38.1
51 Diethylphthalate	149	5.851	5.851	(1.050)	945486	40.0000	37.8
52 4-Nitrophenol	139	5.639	5.639	(1.012)	131187	40.0000	32.4
53 Fluorene	166	5.957	5.957	(1.069)	903263	40.0000	36.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	5.945	5.945	(1.066)	445911	40.0000	36.9
55 2-Methyl-4,6-dinitrophenol	198	5.986	5.986	(0.909)	162091	40.0000	44.4
56 p-Nitroaniline	138	5.969	5.969	(1.071)	122263	40.0000	30.2
133 Diphenylamine	169	6.028	6.028	(0.915)	736106	40.0000	36.7
58 1,2-Diphenylhydrazine	77	6.057	6.057	(0.920)	899284	40.0000	38.9
61 4-Bromophenylphenylether	248	6.281	6.281	(0.954)	242951	40.0000	34.2
63 Hexachlorobenzene	284	6.333	6.333	(0.962)	255344	40.0000	33.1
65 Pentachlorophenol	266	6.457	6.457	(0.980)	137836	40.0000	35.9
206 n-Octadecane	57	6.463	6.463	(0.981)	738012	40.0000	41.5
68 Phenanthrene	178	6.604	6.604	(1.003)	1250897	40.0000	36.8
69 Anthracene	178	6.633	6.633	(1.007)	1209493	40.0000	36.2
72 Di-n-butylphthalate	149	6.904	6.904	(1.048)	1596497	40.0000	38.8
76 Fluoranthene	202	7.316	7.316	(1.111)	1291121	40.0000	37.0
79 Pyrene	202	7.451	7.451	(0.913)	1296752	40.0000	37.0
85 Butylbenzylphthalate	149	7.769	7.769	(0.952)	633353	40.0000	42.2
89 Benzo(a)anthracene	228	8.145	8.145	(0.999)	1093247	40.0000	37.7
92 Chrysene	228	8.175	8.175	(1.002)	1002301	40.0000	37.0
93 bis(2-Ethylhexyl)phthalate	149	8.080	8.080	(0.991)	853054	40.0000	43.0
94 Di-n-octylphthalate	149	8.510	8.510	(0.914)	1222209	40.0000	39.2
95 Benzo(b)fluoranthene	252	8.951	8.951	(0.961)	849963	40.0000	32.6
96 Benzo(k)fluoranthene	252	8.974	8.974	(0.964)	1019545	40.0000	41.0
97 Benzo(a)pyrene	252	9.257	9.257	(0.994)	765366	40.0000	36.6
99 Indeno(1,2,3-cd)pyrene	276	10.551	10.551	(1.133)	640570	40.0000	36.1
100 Dibenzo(a,h)anthracene	278	10.557	10.557	(1.134)	498924	40.0000	34.0
101 Benzo(ghi)perylene	276	10.933	10.933	(1.174)	526093	40.0000	36.5
126 m-Dinitrobenzene	168	5.392	5.392	(0.967)	143340	40.0000	36.6
130 2,3,4,6-Tetrachlorophenol	232	5.798	5.798	(1.040)	211894	40.0000	34.9
143 Dinoseb	211	6.557	6.557	(0.996)	201662	40.0000	37.1
173 Carbazole	167	6.728	6.728	(1.021)	942892	40.0000	38.2
184 p-Benzoquinone	54	2.993	2.993	(0.858)	16535	40.0000	28.8
192 Methoxychlor	227	8.057	8.057	(0.988)	759770	40.0000	41.5
211 p-Toluidine	106	3.769	3.769	(1.081)	383289	40.0000	30.2
210 m-Toluidine	106	3.792	3.792	(1.088)	406377	40.0000	29.4
26 Phthalic anhydride	104	4.869	4.869	(1.122)	124926	40.0000	45.7
179 Dibenzo(a,e)pyrene	302	13.839	13.839	(1.486)	156458	40.0000	24.6
214 1,4-Dinitrobenzene	168	5.339	5.339	(0.958)	126570	40.0000	36.9
215 2-Ethoxyethanol	59	1.893	1.893	(0.543)	251463	40.0000	42.3
216 Methylenebis(2-chloroaniline)	231	8.104	8.104	(0.994)	110102	40.0000	32.8
M 225 Trichlorophenols	196				537226	80.0000	77.8
M 226 Tetrachlorophenols	232				211894	40.0000	34.9
M 227 Benzo(b,k)fluoranthene	252				1869508	80.0000	73.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s033010.b/s1c3005.d

Page 1

Date : 30-MAR-2010 11:16

Client ID: MEGACVS

Instrument: MSD1.i

Sample Info: |WBN100309-09.2|40 PPM|1|SVMF|1|MEGACVS

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

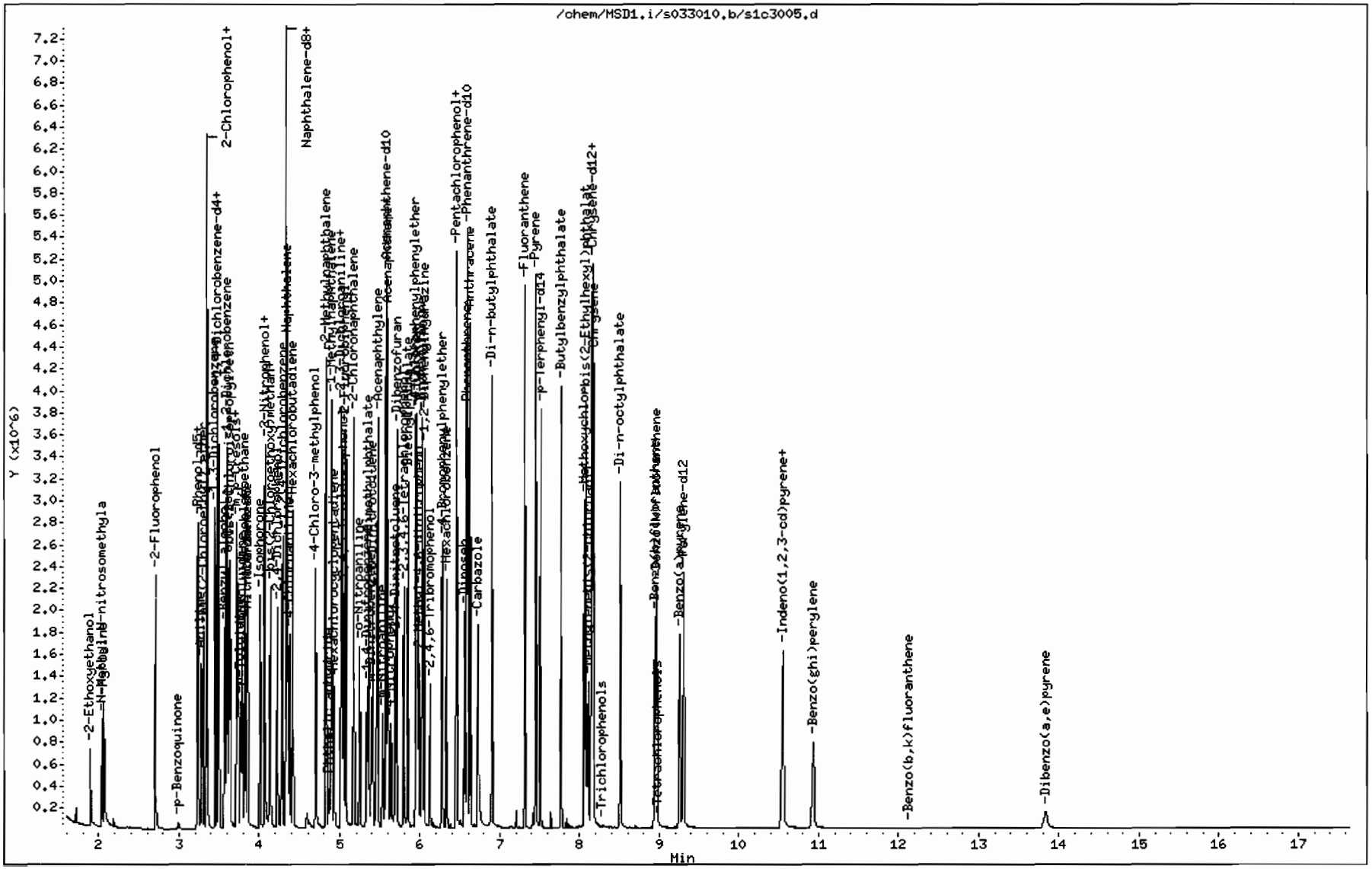

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 30-MAR-2010 11:52
Lab File ID: s1c3006.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100312-08.3 Quant Type: ISTD
Method: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.85292	0.71798	0.71798	0.000	-15.82061	60.00000	Averaged
16 Acetophenone	1.17153	1.15425	1.15425	0.000	-1.47489	60.00000	Averaged
189 Caprolactam	0.06713	0.07688	0.07688	0.000	14.51995	60.00000	Averaged
208 1,1'-Biphenyl	1.20731	1.25334	1.25334	0.000	3.81266	60.00000	Averaged
207 Atrazine	0.04270	0.04473	0.04473	0.000	4.75158	60.00000	Averaged
77 Benzidine	0.35698	0.33498	0.33498	0.000	-6.16032	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.29661	0.25464	0.25464	0.000	-14.14975	60.00000	Averaged
102 1,4-Dioxane	0.33011	0.40835	0.40835	0.000	23.70058	60.00000	Averaged
103 Methyl methacrylate	0.19011	0.23530	0.23530	0.000	23.77434	60.00000	Averaged
104 Ethyl methacrylate	0.72578	0.88781	0.88781	0.000	22.32455	60.00000	Averaged
105 2-Picoline	1.17224	1.12078	1.12078	0.000	-4.38920	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44761	0.43186	0.43186	0.000	-3.51788	60.00000	Averaged
107 Methyl methanesulfonate	0.43845	0.48594	0.48594	0.000	10.83192	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49906	0.45895	0.45895	0.000	-8.03690	60.00000	Averaged
109 Ethyl Methanesulfonate	0.59722	0.72418	0.72418	0.000	21.25685	60.00000	Averaged
110 Pentachloroethane	0.31358	0.42752	0.42752	0.000	36.33573	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.48048	0.48580	0.48580	0.000	1.10900	60.00000	Averaged
113 N-Nitrosomorpholine	0.61907	0.67830	0.67830	0.000	9.56807	60.00000	Averaged
114 o-Toluidine	1.65123	1.58480	1.58480	0.000	-4.02305	60.00000	Averaged
115 N-Nitrosopiperidine	0.12608	0.12502	0.12502	0.000	-0.84443	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.75396	0.71514	0.71514	0.000	-5.14816	60.00000	Averaged
118 2,6-Dichlorophenol	0.19593	0.20753	0.20753	0.000	5.92045	60.00000	Averaged
119 Hexachloropropene	0.10838	0.16853	0.16853	0.000	55.49696	60.00000	Averaged
120 p-Phenylenediamine	0.24548	0.24020	0.24020	0.000	-2.15027	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.17777	0.18699	0.18699	0.000	5.18921	60.00000	Averaged
122 Safrole	0.18440	0.21344	0.21344	0.000	15.74421	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.45282	0.48310	0.48310	0.000	6.68690	60.00000	Averaged
124 Isosafrole	0.33289	0.43810	0.43810	0.000	31.60439	60.00000	Averaged
125 1,4-Naphthoquinone	0.31050	0.33231	0.33231	0.000	7.02272	60.00000	Averaged
127 Pentachlorobenzene	0.40506	0.39840	0.39840	0.000	-1.64496	60.00000	Averaged
128 1-Naphthylamine	0.91492	0.88998	0.88998	0.000	-2.72585	60.00000	Averaged
129 2-Naphthylamine	0.95136	0.94086	0.94086	0.000	-1.10302	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27755	0.25961	0.25961	0.000	-6.46458	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.10955	0.15689	0.15689	0.000	43.22219	60.00000	Averaged
137 Phenacetin	0.24931	0.24554	0.24554	0.000	-1.51200	60.00000	Averaged
138 Diallate	0.22908	0.21874	0.21874	0.000	-4.51577	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 30-MAR-2010 11:52
Lab File ID: s1c3006.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100312-08.3 Quant Type: ISTD
Method: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.22400	0.28107	0.28107	0.000	25.47792	60.00000	Averaged
213 Trans Diallate	0.26951	0.25734	0.25734	0.000	-4.51577	60.00000	Averaged
140 4-Aminobiphenyl	0.54917	0.50240	0.50240	0.000	-8.51602	60.00000	Averaged
141 Pentachloronitrobenzene	0.06390	0.06662	0.06662	0.000	4.26133	60.00000	Averaged
142 Pronamide	0.25643	0.27940	0.27940	0.000	8.95468	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01899	0.02167	0.02167	0.000	14.08548	60.00000	Averaged
147 Methapyrilene	0.43198	0.39074	0.39074	0.000	-9.54621	60.00000	Averaged
148 Isodrin	0.09769	0.09285	0.09285	0.000	-4.94997	60.00000	Averaged
149 Aramite	0.03937	0.03787	0.03787	0.000	-3.81381	60.00000	Averaged
150 Kepone	0.06795	0.06709	0.06709	0.000	-1.26668	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.27269	0.28578	0.28578	0.000	4.80118	60.00000	Averaged
152 Chlorobenzilate	0.28668	0.29786	0.29786	0.000	3.90074	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.51675	0.50014	0.50014	0.000	-3.21485	60.00000	Averaged
155 2-Acetylaminofluorene	0.30754	0.23952	0.23952	0.000	-22.11607	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.49490	0.45575	0.45575	0.000	-7.91167	60.00000	Averaged
158 3-Methylcholanthrene	0.39716	0.39674	0.39674	0.000	-0.10618	60.00000	Averaged

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Data file : /chem/MSD1.i/s033010.b/s1c3006.d
Lab Smp Id: WBN100312-08.3 Client Smp ID: APCVS
Inj Date : 30-MAR-2010 11:52
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN100312-08.3|40 PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 15:07 llo00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.487	3.487	(1.000)	473646	40.0000	
* 29 Naphthalene-d8	136	4.334	4.334	(1.000)	1822094	40.0000	
* 46 Acenaphthene-d10	164	5.569	5.569	(1.000)	984135	40.0000	
* 67 Phenanthrene-d10	188	6.586	6.586	(1.000)	1741405	40.0000	
* 91 Chrysene-d12	240	8.157	8.157	(1.000)	1382608	40.0000	
* 98 Perylene-d12	264	9.310	9.310	(1.000)	1009720	40.0000	
209 Benzaldehyde	77	3.222	3.222	(0.924)	340068	40.0000	33.7
16 Acetophenone	105	3.740	3.740	(1.073)	546705	40.0000	39.4
189 Caprolactam	113	4.628	4.628	(1.068)	140081	40.0000	45.8
208 1,1'-Biphenyl	154	5.157	5.157	(0.926)	1233457	40.0000	41.5
207 Atrazine	173	6.375	6.375	(0.968)	77887	40.0000	41.9
77 Benzidine	184	7.380	7.380	(0.905)	463152	40.0000	37.5
90 3,3'-Dichlorobenzidine	252	8.110	8.110	(0.994)	352065	40.0000	34.3
102 1,4-Dioxane	88	1.898	1.898	(0.544)	193412	40.0000	49.5
103 Methyl methacrylate	100	1.893	1.893	(0.543)	111450	40.0000	49.5
104 Ethyl methacrylate	69	2.240	2.240	(0.642)	420506	40.0000	48.9
105 2-Picoline	93	2.422	2.422	(0.695)	530855	40.0000	38.2
106 N-Nitrosomethylethylamine	88	2.469	2.469	(0.708)	204549	40.0000	38.6
107 Methyl methanesulfonate	80	2.622	2.622	(0.752)	230163	40.0000	44.3
108 N-Nitrosodiethylamine	102	2.840	2.840	(0.814)	217379	40.0000	36.8
109 Ethyl Methanesulfonate	79	2.998	2.998	(0.860)	343003	40.0000	48.5
110 Pentachloroethane	167	3.310	3.310	(0.949)	202494	40.0000	54.5(H)
111 N-Nitrosopyrrolidine	100	3.734	3.734	(1.071)	230099	40.0000	40.4(Q)
113 N-Nitrosomorpholine	56	3.751	3.751	(1.076)	321275	40.0000	43.8
114 o-Toluidine	106	3.763	3.763	(1.079)	750635	40.0000	38.4
115 N-Nitrosopiperidine	114	3.957	3.957	(0.913)	227795	40.0000	39.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.198	4.198	(0.969)	1303057	40.0000	37.9
118 2,6-Dichlorophenol	162	4.387	4.387	(1.012)	378136	40.0000	42.4
119 Hexachloropropene	213	4.404	4.404	(1.016)	307082	40.0000	62.2
120 p-Phenylenediamine	108	4.628	4.628	(1.068)	437666	40.0000	39.1
121 N-Nitrosodi-n-butylamine	84	4.592	4.592	(1.060)	340718	40.0000	42.1(QH)
122 Safrole	162	4.751	4.751	(1.096)	388904	40.0000	46.3
123 1,2,4,5-Tetrachlorobenzene	216	4.945	4.945	(0.888)	475432	40.0000	42.7
124 Isosafrole	162	5.122	5.122	(0.920)	431150	40.0000	52.6
125 1,4-Naphthoquinone	158	5.298	5.298	(0.951)	327036	40.0000	42.8
127 Pentachlorobenzene	250	5.686	5.686	(1.021)	392075	40.0000	39.3
128 1-Naphthylamine	143	5.775	5.775	(1.037)	875860	40.0000	38.9
129 2-Naphthylamine	143	5.828	5.828	(1.046)	925935	40.0000	39.6
131 5-Nitro-o-toluidine	152	5.963	5.963	(1.071)	255488	40.0000	37.4
136 1,3,5-Trinitrobenzene	75	6.198	6.198	(0.941)	273217	40.0000	57.3
137 Phenacetin	108	6.233	6.233	(0.946)	427581	40.0000	39.4(Q)
138 Diallate	86	6.210	6.210	(0.943)	380914	40.0000	38.2
212 Cis Diallate	86	6.275	6.275	(0.953)	73419	6.00000	7.5
213 Trans Diallate	86	6.210	6.210	(0.943)	380914	34.0000	32.5
140 4-Aminobiphenyl	169	6.457	6.457	(0.980)	874884	40.0000	36.6
141 Pentachloronitrobenzene	237	6.463	6.463	(0.981)	116014	40.0000	41.7(Q)
142 Pronamide	173	6.475	6.475	(0.983)	486544	40.0000	43.6
146 4-Nitroquinoline-1-oxide	101	7.069	7.069	(1.073)	37735	40.0000	45.6
147 Methapyrilene	58	7.086	7.086	(1.076)	680441	40.0000	36.2
148 Isodrin	193	7.228	7.228	(1.097)	161693	40.0000	38.0
149 Aramite	185	7.480	7.480	(1.136)	65946	40.0000	38.5
150 Kepone	272	7.839	7.839	(1.190)	116823	40.0000	39.5
151 p-(Dimethylamino)azobenzene	120	7.592	7.592	(0.931)	395121	40.0000	41.9
152 Chlorobenzilate	251	7.610	7.610	(0.933)	411823	40.0000	41.6
153 3,3'-Dimethylbenzidine	212	7.780	7.780	(0.954)	691498	40.0000	38.7
155 2-Acetylaminofluorene	181	7.933	7.933	(0.973)	331165	40.0000	31.2
157 7,12Dimethylbenz(a)anthracene	256	8.927	8.927	(0.959)	460179	40.0000	36.8
158 3-Methylcholanthrene	268	9.586	9.586	(1.030)	400596	40.0000	40.0(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s033010.b/s1c3006.d
Date : 30-MAR-2010 11:52
Client ID: APCVS
Sample Info: IWBN100312-08,3140 PPM111SVMF111APCVS
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

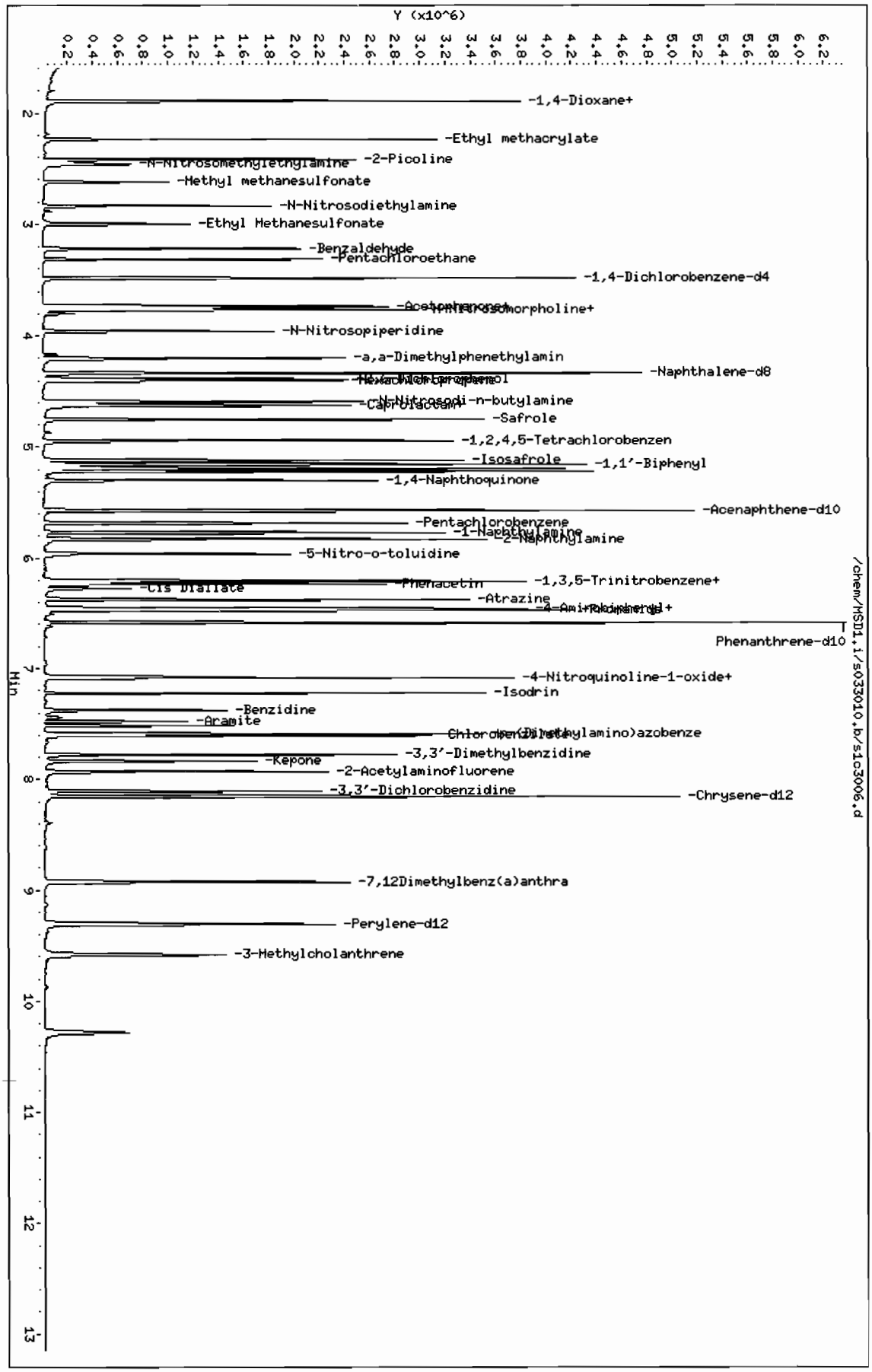

QC Data

Data File: /chem/MSD1.i/s031510a.b/s1c1513.d

Page 1

Date : 15-MAR-2010 16:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

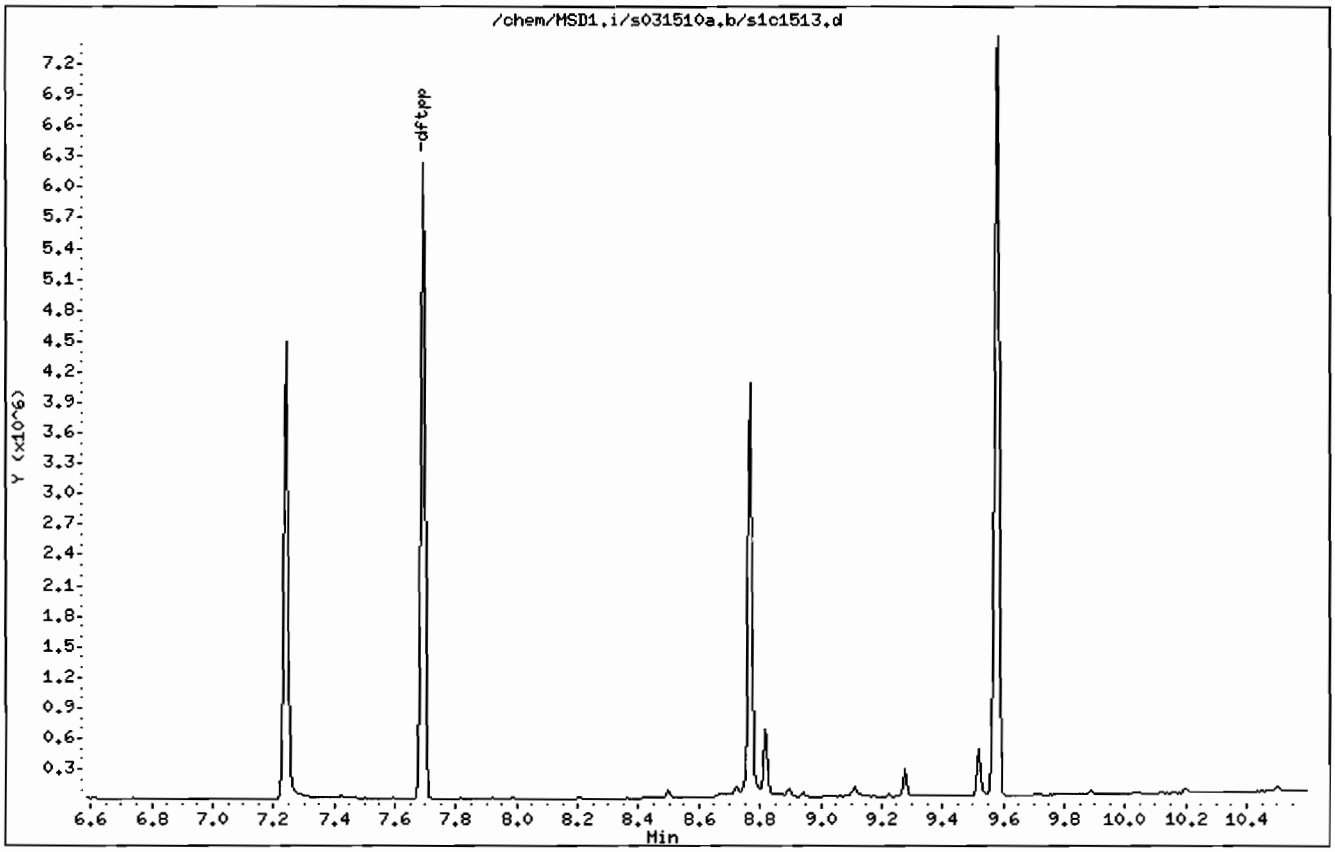

Data File: /chem/MSD1.i/s031510a.b/s1c1513.d

Date : 15-MAR-2010 16:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

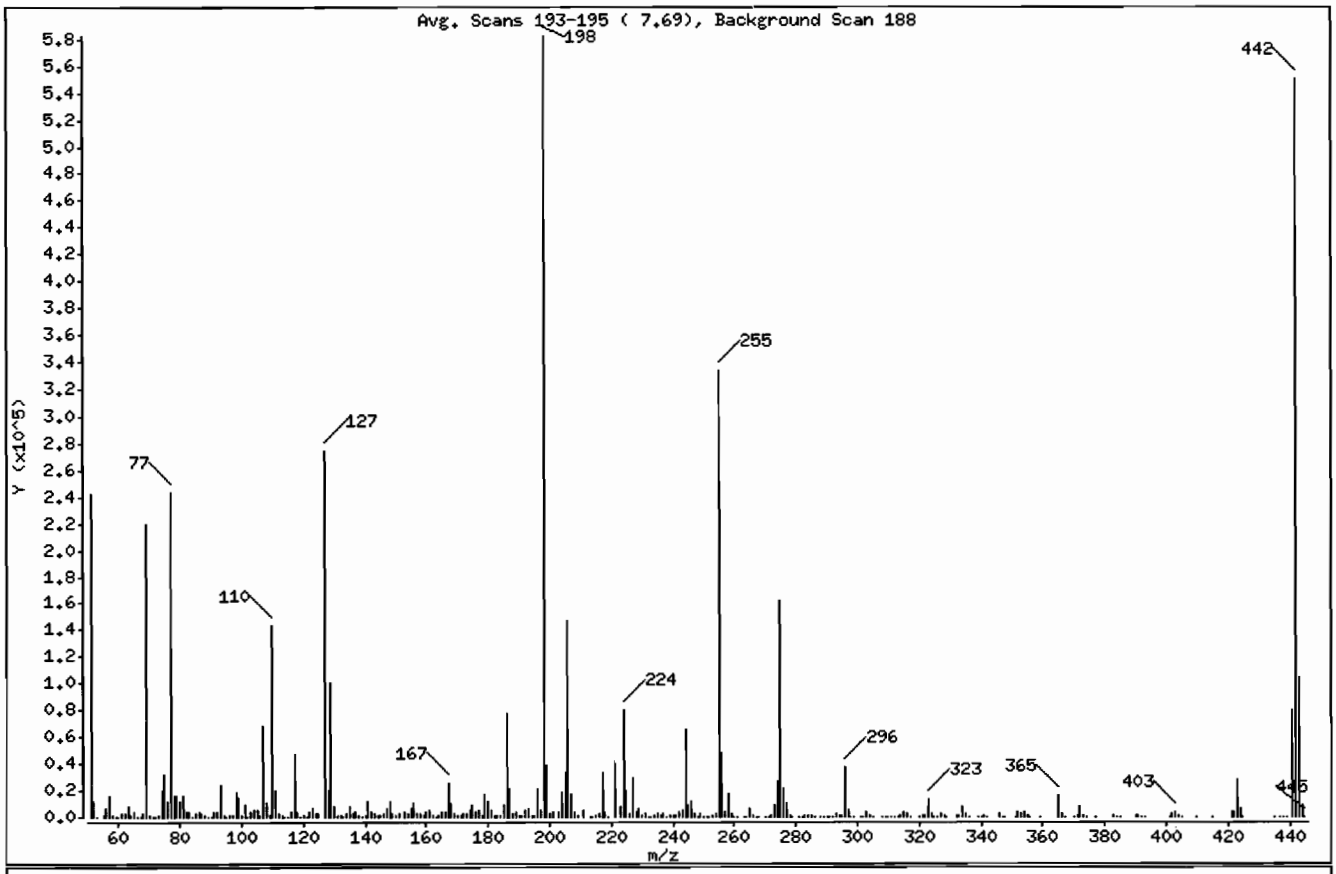

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.53
68	Less than 2.00% of mass 69	0.51 (1.35)
69	Mass 69 relative abundance	37.65
70	Less than 2.00% of mass 69	0.19 (0.50)
127	40.00 - 60.00% of mass 198	47.13
197	Less than 1.00% of mass 198	0.87
199	5.00 - 9.00% of mass 198	6.62
275	10.00 - 30.00% of mass 198	27.82
365	Greater than 1.00% of mass 198	2.87
441	Present, but less than mass 443	13.73
442	Greater than 40.00% of mass 198	94.43
443	17.00 - 23.00% of mass 442	18.01 (19.07)

Data File: /chem/MSD1.i/s031510a.b/s1c1513.d

Date : 15-MAR-2010 16:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c1513.d
Spectrum: Avg. Scans 193-195 (7.69), Background Scan 188
Location of Maximum: 198.00
Number of points: 318

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	241856	133.00	233	217.00	33440	304.00	1315
52.00	11973	134.00	2979	218.00	4340	305.00	229
53.00	550	135.00	7765	219.00	552	308.00	622
55.00	1434	136.00	3066	221.00	40216	309.00	430
56.00	7062	137.00	4020	223.00	8568	310.00	399
57.00	15923	138.00	768	224.00	79800	311.00	61
58.00	764	139.00	640	225.00	20032	312.00	64
59.00	319	140.00	1357	226.00	2076	313.00	424
60.00	272	141.00	12558	227.00	29024	314.00	1973
61.00	2874	142.00	4154	228.00	4167	315.00	3997
62.00	3241	143.00	2743	229.00	6393	316.00	2374
63.00	8658	144.00	712	230.00	992	317.00	382
64.00	1210	145.00	768	231.00	2774	320.00	195
65.00	4250	146.00	2531	232.00	580	321.00	1265
66.00	387	147.00	6077	233.00	575	322.00	771
67.00	409	148.00	12137	234.00	1864	323.00	13849
68.00	2960	149.00	2536	235.00	2265	324.00	2561
69.00	219264	150.00	832	236.00	1470	325.00	289
70.00	1093	151.00	2872	237.00	2709	326.00	323
71.00	133	153.00	3854	238.00	449	327.00	2325
72.00	179	154.00	3086	239.00	1254	328.00	1194
73.00	1688	155.00	6466	240.00	914	329.00	236
74.00	20248	156.00	10263	241.00	1755	332.00	829
75.00	32520	157.00	2602	242.00	4114	333.00	1241
76.00	11845	158.00	2440	243.00	4729	334.00	8459
77.00	243136	159.00	1768	244.00	66136	335.00	2502
78.00	16271	160.00	3741	245.00	8903	336.00	280
79.00	15405	161.00	5825	246.00	11386	339.00	198
80.00	11726	162.00	1644	247.00	2217	340.00	170
81.00	15993	163.00	523	248.00	520	341.00	1444
82.00	3893	164.00	805	249.00	2394	342.00	479
83.00	3871	165.00	4606	250.00	445	346.00	2761
84.00	493	166.00	3872	251.00	626	347.00	538
85.00	2923	167.00	24776	252.00	581	348.00	51
86.00	4314	168.00	11154	253.00	1303	351.00	197

Data File: /chem/MSD1.i/s031510a.b/s1c1513.d

Date : 15-MAR-2010 16:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN100306-01.2150 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c1513.d

Spectrum: Avg. Scans 193-195 (7.69), Background Scan 188

Location of Maximum: 198.00

Number of points: 318

m/z	Y	m/z	Y	m/z	Y	m/z	Y
87.00	2188	169.00	2168	254.00	2657	352.00	3844
88.00	813	170.00	995	255.00	333376	353.00	2892
89.00	436	171.00	1257	256.00	48232	354.00	4664
90.00	120	172.00	2258	257.00	3755	355.00	903
91.00	3924	173.00	2862	258.00	16736	356.00	63
92.00	4234	174.00	5478	259.00	2653	359.00	420
93.00	23712	175.00	9699	260.00	525	365.00	16680
94.00	1838	176.00	3662	261.00	587	366.00	2565
95.00	558	177.00	5122	263.00	193	367.00	153
96.00	1017	178.00	1461	264.00	610	370.00	387
97.00	719	179.00	18056	265.00	6158	371.00	1044
98.00	18368	180.00	12432	266.00	1260	372.00	7396
99.00	14347	181.00	5882	267.00	85	373.00	1784
100.00	1400	182.00	1044	268.00	175	374.00	207
101.00	9027	183.00	874	270.00	318	377.00	138
102.00	579	184.00	1418	271.00	587	383.00	1767
103.00	3545	185.00	9135	272.00	849	384.00	549
104.00	5824	186.00	78248	273.00	9829	385.00	71
105.00	5163	187.00	21168	274.00	26920	390.00	1009
106.00	1408	188.00	2310	275.00	161984	391.00	772
107.00	67632	189.00	4285	276.00	20992	392.00	564
108.00	11058	190.00	733	277.00	11136	393.00	53
109.00	813	191.00	1865	278.00	1960	401.00	465
110.00	143296	192.00	5338	279.00	441	402.00	2965
111.00	19696	193.00	6535	281.00	109	403.00	4056
112.00	2414	194.00	1550	282.00	293	404.00	1650
113.00	688	195.00	1175	283.00	1412	405.00	243
114.00	227	196.00	20984	284.00	1001	410.00	158
115.00	194	197.00	5045	285.00	1940	415.00	186
116.00	4126	198.00	582336	286.00	378	421.00	3617
117.00	47152	199.00	38536	288.00	143	422.00	3691
118.00	3544	200.00	2810	289.00	457	423.00	27832
119.00	489	201.00	3621	290.00	408	424.00	6215
120.00	946	203.00	3872	291.00	293	425.00	667
121.00	449	204.00	18384	292.00	459	435.00	50

Data File: /chem/MSD1.i/s031510a.b/s1c1513.d

Date : 15-MAR-2010 16:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c1513.d
Spectrum: Avg. Scans 193-195 (7.69), Background Scan 188
Location of Maximum: 198.00
Number of points: 318

m/z	Y	m/z	Y	m/z	Y	m/z	Y
122.00	4605	205.00	32968	293.00	2865	437.00	58
123.00	7129	206.00	147328	294.00	693	438.00	140
124.00	3149	207.00	17968	295.00	842	439.00	571
125.00	3000	208.00	4366	296.00	36816	441.00	79952
127.00	274432	209.00	1412	297.00	5113	442.00	549952
128.00	19888	211.00	5781	298.00	338	443.00	104896
129.00	100192	213.00	385	299.00	59	444.00	9485
130.00	8398	214.00	109	301.00	414	445.00	593
131.00	1681	215.00	1479	302.00	653		
132.00	1065	216.00	2829	303.00	4624		

Data File: /chem/MSD1.i/s032910.b/s1c2902.d

Date : 29-MAR-2010 10:02

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

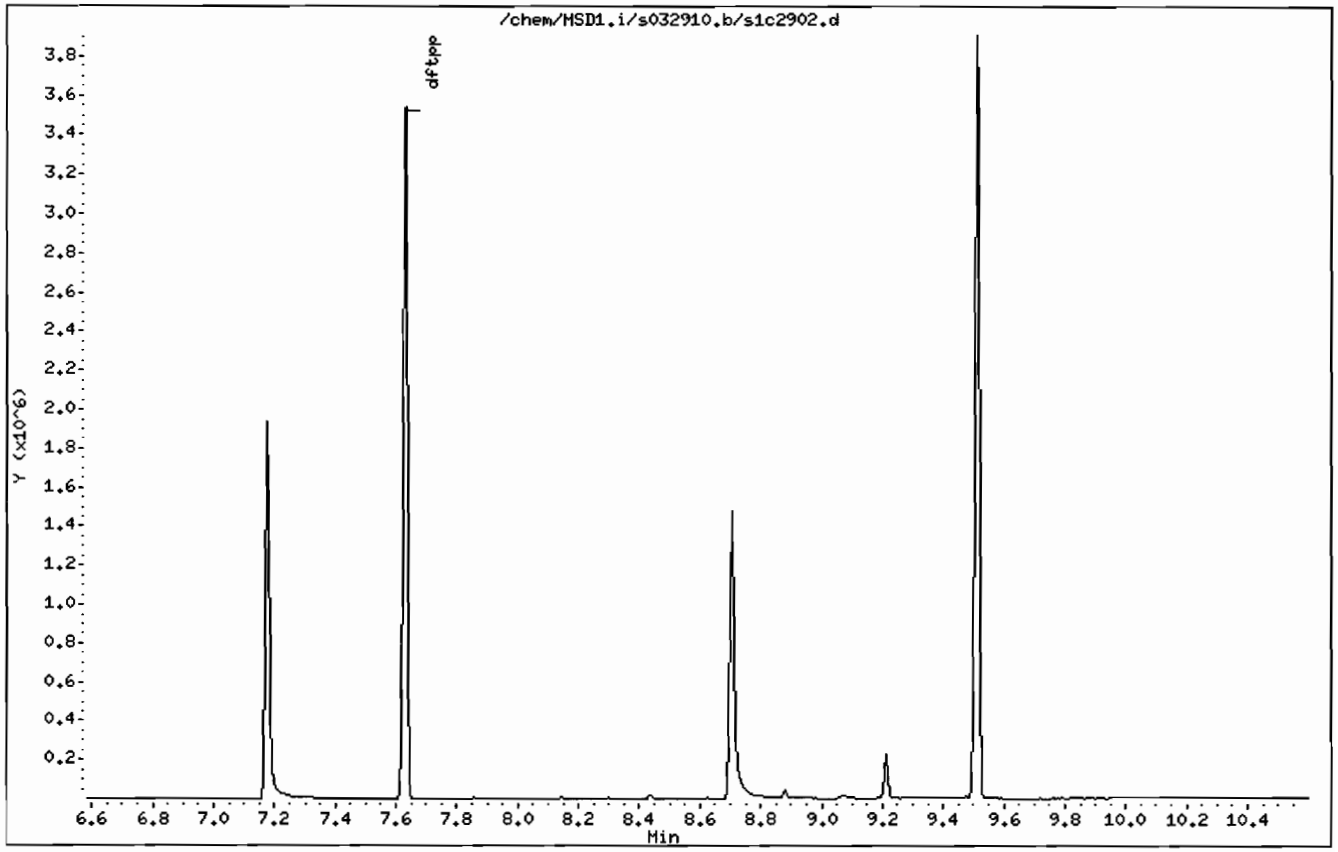

Data File: /chem/MSD1.i/s032910.b/s1c2902.d

Date : 29-MAR-2010 10:02

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

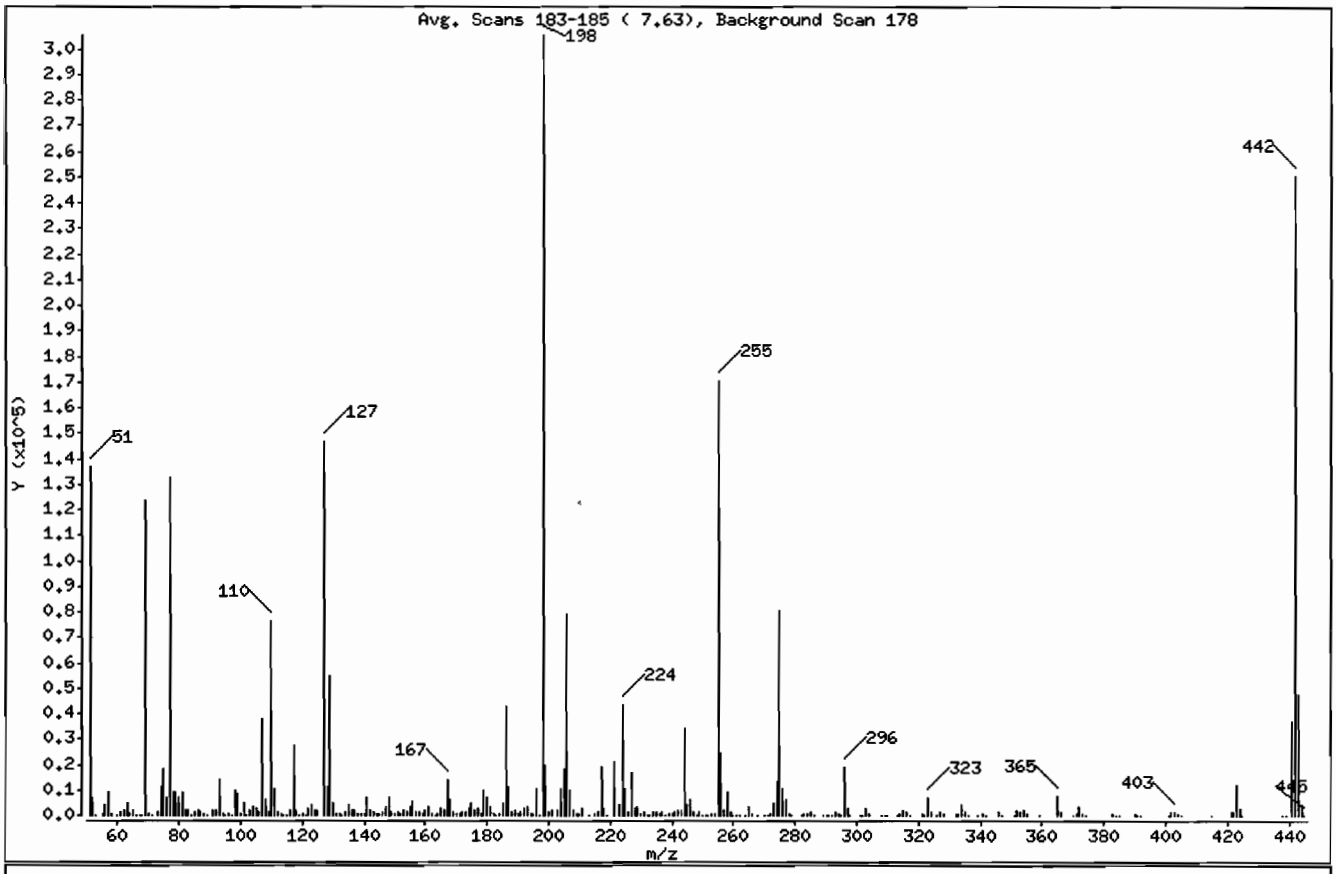

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	44.72
68	Less than 2.00% of mass 69	0.06 (0.16)
69	Mass 69 relative abundance	40.35
70	Less than 2.00% of mass 69	0.19 (0.46)
127	40.00 - 60.00% of mass 198	48.02
197	Less than 1.00% of mass 198	0.04
199	5.00 - 9.00% of mass 198	6.54
275	10.00 - 30.00% of mass 198	26.47
365	Greater than 1.00% of mass 198	2.64
441	Present, but less than mass 443	12.13
442	Greater than 40.00% of mass 198	81.96
443	17.00 - 23.00% of mass 442	15.65 (19.10)

Data File: /chem/MSD1.i/s032910.b/s1c2902.d

Date : 29-MAR-2010 10:02

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN100306-01,2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c2902.d
Spectrum: Avg. Scans 183-185 (7.63), Background Scan 178
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	136512	131.00	904	207.00	10091	293.00	1446
52.00	6799	132.00	466	208.00	2442	294.00	384
53.00	337	133.00	343	209.00	900	295.00	334
55.00	887	134.00	1530	210.00	757	296.00	18880
56.00	3960	135.00	4154	211.00	3067	297.00	2811
57.00	9162	136.00	1799	213.00	240	298.00	186
58.00	404	137.00	2053	215.00	821	301.00	254
60.00	203	138.00	439	216.00	1527	302.00	273
61.00	1537	139.00	358	217.00	18632	303.00	2474
62.00	1829	140.00	599	218.00	2610	304.00	681
63.00	4816	141.00	6720	219.00	221	308.00	294
64.00	695	142.00	2213	221.00	20744	309.00	155
65.00	2315	143.00	1492	223.00	4478	310.00	200
66.00	141	144.00	436	224.00	43480	313.00	143
67.00	125	145.00	390	225.00	10720	314.00	910
68.00	197	146.00	1391	226.00	1224	315.00	2088
69.00	123208	147.00	3552	227.00	16848	316.00	1217
70.00	571	148.00	7137	228.00	2533	317.00	208
71.00	136	149.00	1703	229.00	3396	321.00	717
73.00	1100	150.00	422	230.00	532	322.00	309
74.00	11515	151.00	1092	231.00	1549	323.00	6759
75.00	18240	152.00	608	232.00	349	324.00	1352
76.00	6877	153.00	2226	233.00	286	326.00	65
77.00	132416	154.00	1647	234.00	1084	327.00	1181
78.00	8970	155.00	3694	235.00	1182	328.00	620
79.00	9009	156.00	5789	236.00	752	332.00	431
80.00	6707	157.00	1408	237.00	1628	333.00	661
81.00	8947	158.00	1353	238.00	188	334.00	3987
82.00	2245	159.00	932	239.00	636	335.00	1099
83.00	2213	160.00	2085	240.00	572	336.00	142
84.00	100	161.00	3222	241.00	1054	339.00	53
85.00	1604	162.00	933	242.00	1948	341.00	764
86.00	2389	163.00	214	243.00	2279	342.00	206
87.00	1157	164.00	358	244.00	34216	346.00	1288
88.00	370	165.00	2636	245.00	4363	347.00	177

Data File: /chem/MSD1.i/s032910.b/s1c2902.d

Date : 29-MAR-2010 10:02

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c2902.d
Spectrum: Avg. Scans 183-185 (7.63), Background Scan 178
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
89.00	230	166.00	2240	246.00	6556	351.00	121
91.00	2098	167.00	14324	247.00	1283	352.00	1902
92.00	2342	168.00	6172	248.00	264	353.00	1353
93.00	13839	169.00	1301	249.00	1138	354.00	2147
94.00	997	170.00	494	250.00	200	355.00	414
95.00	331	171.00	628	251.00	338	359.00	117
96.00	744	172.00	1192	252.00	254	365.00	8047
97.00	241	173.00	1611	253.00	834	366.00	1232
98.00	10166	174.00	3008	254.00	939	370.00	149
99.00	8545	175.00	5217	255.00	170560	371.00	450
100.00	827	176.00	2030	256.00	24448	372.00	3335
101.00	4996	177.00	2760	257.00	1782	373.00	861
102.00	233	178.00	945	258.00	8961	374.00	70
103.00	2049	179.00	9933	259.00	1397	383.00	874
104.00	3267	180.00	7173	260.00	254	384.00	206
105.00	3022	181.00	3362	261.00	286	385.00	50
106.00	1142	182.00	507	262.00	73	390.00	452
107.00	38144	183.00	226	264.00	267	391.00	336
108.00	6219	184.00	819	265.00	3676	392.00	176
109.00	1754	185.00	4979	266.00	643	401.00	153
110.00	76280	186.00	42744	268.00	251	402.00	1320
111.00	10757	187.00	11446	270.00	202	403.00	1712
112.00	1456	188.00	1226	271.00	338	404.00	592
113.00	358	189.00	2390	272.00	359	405.00	53
114.00	144	190.00	352	273.00	5156	415.00	83
115.00	274	191.00	1149	274.00	13423	421.00	1585
116.00	2356	192.00	2927	275.00	80816	422.00	1623
117.00	27248	193.00	3617	276.00	10819	423.00	12242
118.00	2066	194.00	719	277.00	5998	424.00	2496
119.00	227	195.00	563	278.00	987	425.00	202
120.00	482	196.00	10529	279.00	207	438.00	186
121.00	277	197.00	129	282.00	221	439.00	331
122.00	2746	198.00	305280	283.00	744	441.00	37024
123.00	3951	199.00	19952	284.00	466	442.00	250240
124.00	1854	200.00	1684	285.00	1094	443.00	47792

Data File: /chem/MSD1.i/s032910.b/s1c2902.d

Date : 29-MAR-2010 10:02

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01,2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c2902.d
Spectrum: Avg. Scans 183-185 (7.63), Background Scan 178
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
125.00	1827	201.00	2064	286.00	181	444.00	4263
127.00	146560	203.00	1917	289.00	182	445.00	300
128.00	11073	204.00	10570	290.00	199		
129.00	54712	205.00	18288	291.00	56		
130.00	4581	206.00	79024	292.00	239		

Data File: /chem/MSD1.i/s033010.b/s1c3002.d

Date : 30-MAR-2010 09:49

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN100306-01,2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

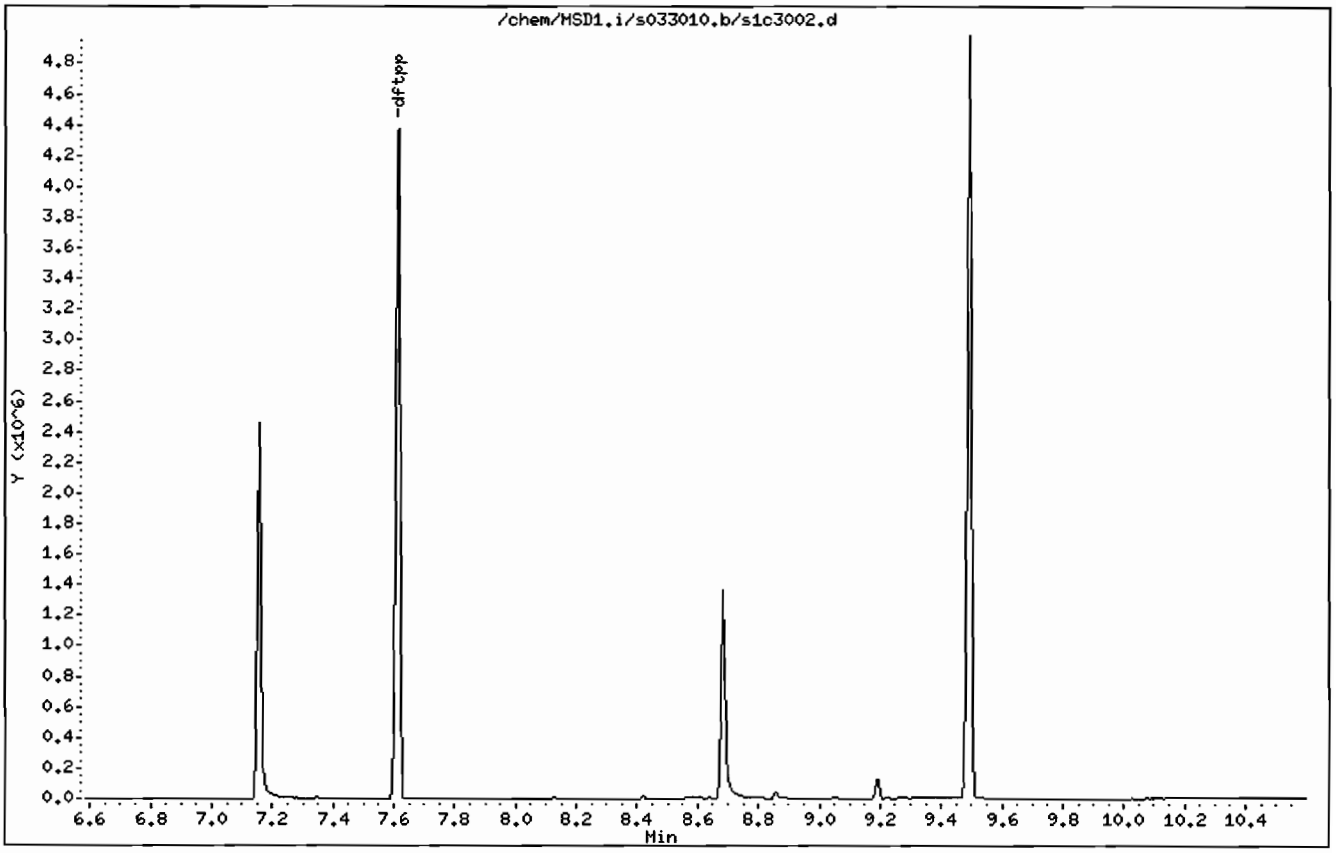

Data File: /chem/MSD1.i/s033010.b/s1c3002.d

Date : 30-MAR-2010 09:49

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

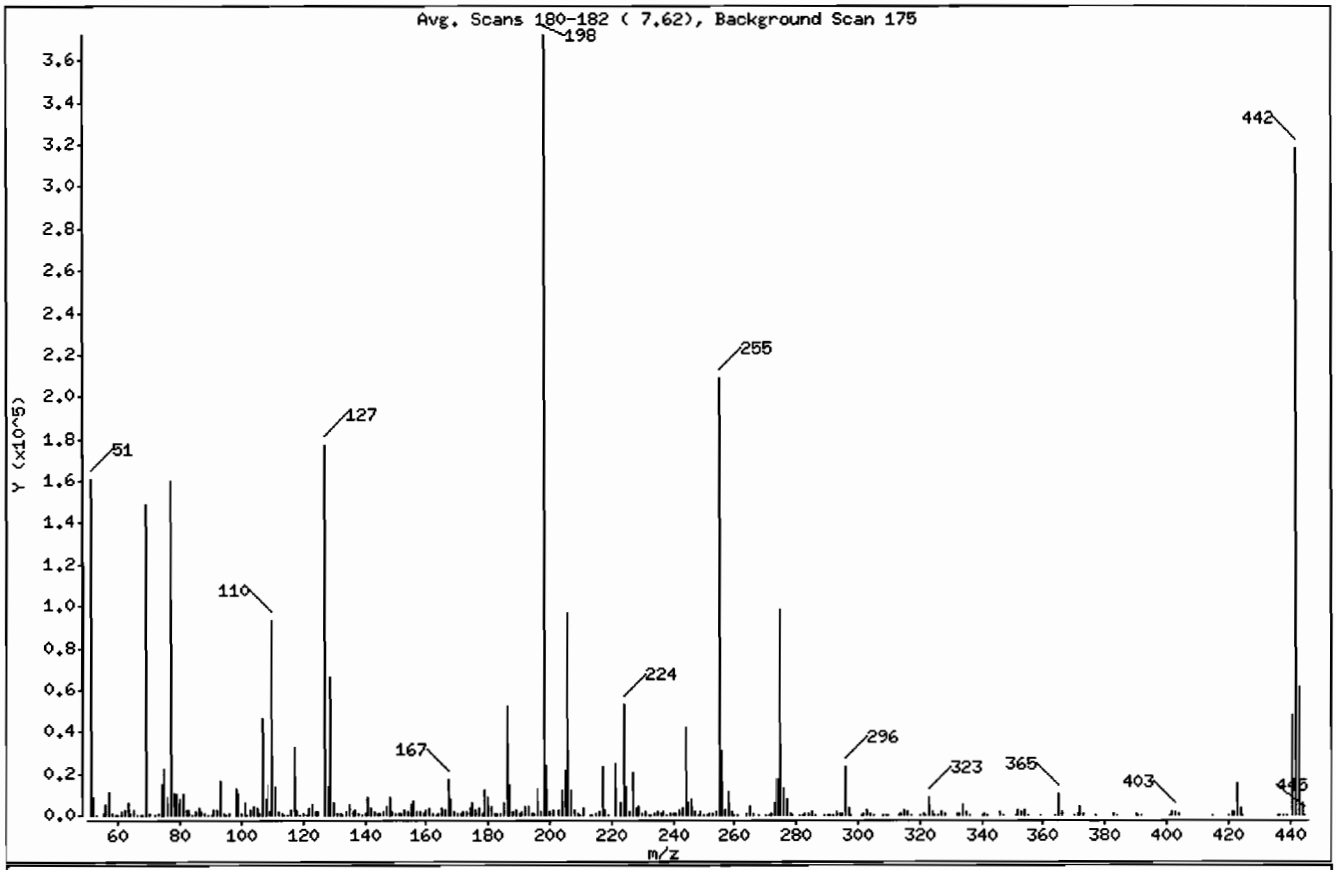

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	43.28
68	Less than 2.00% of mass 69	0.03 (0.08)
69	Mass 69 relative abundance	39.93
70	Less than 2.00% of mass 69	0.18 (0.45)
127	40.00 - 60.00% of mass 198	47.67
197	Less than 1.00% of mass 198	0.43
199	5.00 - 9.00% of mass 198	6.48
275	10.00 - 30.00% of mass 198	26.49
365	Greater than 1.00% of mass 198	2.67
441	Present, but less than mass 443	12.85
442	Greater than 40.00% of mass 198	85.47
443	17.00 - 23.00% of mass 442	16.44 (19.23)

Data File: /chem/MSD1.i/s033010.b/s1c3002.d

Date : 30-MAR-2010 09:49

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01,2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c3002.d
Spectrum: Avg. Scans 180-182 (7,62), Background Scan 175
Location of Maximum: 198.00
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	161088	132.00	678	210.00	155	297.00	3357
52.00	8245	133.00	340	211.00	3781	298.00	217
53.00	304	134.00	1965	213.00	278	301.00	284
55.00	1034	135.00	5195	214.00	58	302.00	541
56.00	4848	136.00	2101	215.00	1015	303.00	2725
57.00	10833	137.00	2571	216.00	1869	304.00	899
58.00	466	138.00	881	217.00	23000	305.00	51
59.00	141	139.00	411	218.00	2677	308.00	338
60.00	195	140.00	793	219.00	298	309.00	238
61.00	1811	141.00	8285	221.00	24968	310.00	318
62.00	2153	142.00	3078	223.00	5937	313.00	247
63.00	6027	143.00	1925	224.00	53024	314.00	1079
64.00	835	144.00	431	225.00	13381	315.00	2395
65.00	2988	145.00	445	226.00	1346	316.00	1516
66.00	183	146.00	1524	227.00	20480	317.00	247
67.00	181	147.00	4144	228.00	3101	320.00	128
68.00	122	148.00	8608	229.00	4211	321.00	693
69.00	148672	149.00	1913	230.00	673	322.00	336
70.00	676	150.00	552	231.00	1844	323.00	8232
72.00	50	151.00	1188	232.00	391	324.00	1352
73.00	1198	152.00	832	233.00	417	325.00	121
74.00	14502	153.00	2747	234.00	1240	326.00	169
75.00	22432	154.00	2117	235.00	1647	327.00	1415
76.00	8264	155.00	4955	236.00	1038	328.00	699
77.00	159808	156.00	7054	237.00	1660	332.00	548
78.00	10313	157.00	1797	238.00	243	333.00	833
79.00	10655	158.00	1472	239.00	851	334.00	4819
80.00	7855	159.00	1205	240.00	594	335.00	1370
81.00	10245	160.00	2774	241.00	1206	336.00	142
82.00	2702	161.00	3654	242.00	2620	340.00	76
83.00	2593	162.00	1219	243.00	3051	341.00	956
84.00	300	163.00	267	244.00	42168	342.00	242
85.00	1992	164.00	519	245.00	5868	346.00	1505
86.00	3011	165.00	3065	246.00	7353	347.00	243
87.00	1383	166.00	2541	247.00	1555	351.00	98

Data File: /chem/MSD1.i/s033010.b/s1c3002.d

Date : 30-MAR-2010 09:49

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c3002.d
Spectrum: Avg. Scans 180-182 (7.62), Background Scan 175
Location of Maximum: 198.00
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	444	167.00	16816	248.00	362	352.00	2213
89.00	293	168.00	7723	249.00	1467	353.00	1631
90.00	70	169.00	1384	250.00	288	354.00	2490
91.00	2424	170.00	522	251.00	328	355.00	420
92.00	2897	171.00	752	252.00	497	359.00	125
93.00	16363	172.00	1498	253.00	875	364.00	59
94.00	1076	173.00	2109	254.00	1890	365.00	9955
95.00	288	174.00	3630	255.00	208832	366.00	1375
96.00	836	175.00	6318	256.00	30440	370.00	131
98.00	12475	176.00	2343	257.00	2261	371.00	621
99.00	9859	177.00	3464	258.00	10828	372.00	4168
100.00	906	178.00	1014	259.00	1830	373.00	1067
101.00	5895	179.00	12298	260.00	309	377.00	52
102.00	396	180.00	8285	261.00	275	383.00	1083
103.00	2463	181.00	4073	264.00	470	384.00	254
104.00	3942	182.00	661	265.00	3980	390.00	532
105.00	3647	183.00	551	266.00	771	391.00	372
106.00	809	184.00	992	268.00	68	392.00	387
107.00	46088	185.00	6035	270.00	204	401.00	195
108.00	7356	186.00	52024	271.00	357	402.00	1449
109.00	1900	187.00	14319	272.00	604	403.00	2044
110.00	92984	188.00	1456	273.00	6379	404.00	793
111.00	13314	189.00	2689	274.00	16808	415.00	54
112.00	1681	190.00	581	275.00	98640	420.00	61
113.00	497	191.00	1543	276.00	12828	421.00	2023
114.00	128	192.00	3937	277.00	7510	422.00	2108
115.00	226	193.00	4243	278.00	1272	423.00	15652
116.00	2773	194.00	930	279.00	200	424.00	3177
117.00	32528	195.00	740	281.00	52	425.00	311
118.00	2433	196.00	13027	282.00	234	436.00	69
119.00	317	197.00	1614	283.00	834	437.00	70
120.00	467	198.00	372288	284.00	490	438.00	247
121.00	171	199.00	24120	285.00	1365	439.00	272
122.00	3158	200.00	1913	286.00	195	441.00	47848
123.00	4713	201.00	2204	289.00	235	442.00	318208

Data File: /chem/MSD1.i/s033010.b/s1c3002.d

Date : 30-MAR-2010 09:49

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01,2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c3002.d
Spectrum: Avg. Scans 180-182 (7.62), Background Scan 175
Location of Maximum: 198.00
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
124.00	2130	203.00	2555	290.00	249	443.00	61200
125.00	2011	204.00	11986	291.00	191	444.00	5590
127.00	177408	205.00	21648	292.00	403	445.00	261
128.00	13488	206.00	97040	293.00	1681		
129.00	66152	207.00	12001	294.00	578		
130.00	5671	208.00	2943	295.00	612		
131.00	1028	209.00	1046	296.00	23160		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074807**				
Client Sample:	**QC for batch 966763**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966763**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 14:58**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2908-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	333	ug/kg	66.7	333
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074807**				
Client Sample:	**QC for batch 966763**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966763**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 14:58**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2908-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.72	519	ug/kg		J
	Unknown Aldol Condensate	2.56	473	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2908-1.d
Lab Smp Id: 1202074807 Client Smp ID: SBLK01
Inj Date : 29-MAR-2010 14:58
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202074807|966766|1|SVM|1|SBLK01
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.499	3.504	(1.000)	392001	40.0000	
* 29 Naphthalene-d8	136	4.351	4.351	(1.000)	1525914	40.0000	
* 46 Acenaphthene-d10	164	5.587	5.592	(1.000)	782209	40.0000	
* 67 Phenanthrene-d10	188	6.598	6.598	(1.000)	1384440	40.0000	
* 91 Chrysene-d12	240	8.169	8.175	(1.000)	1166426	40.0000	
* 98 Perylene-d12	264	9.339	9.339	(1.000)	972235	40.0000	
$ 3 2-Fluorophenol	112	2.728	2.716	(0.780)	760122	75.3033	2510
$ 5 Phenol-d5	99	3.240	3.240	(0.926)	853018	69.3889	2310
$ 20 Nitrobenzene-d5	82	3.857	3.863	(0.886)	386255	41.2714	1380
$ 39 2-Fluorobiphenyl	172	5.093	5.093	(0.912)	829929	38.4178	1280
$ 60 2,4,6-Tribromophenol	329	6.140	6.139	(1.099)	167249	65.2180	2170
$ 81 p-Terphenyl-d14	244	7.528	7.528	(0.922)	853861	43.9085	1460

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2908-1.d
Lab Smp Id: 1202074807 Client Smp ID: SBLK01
Inj Date : 29-MAR-2010 14:58
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202074807|966766|1|SVM|1|SBLK01
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.499	2384903	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
1.716	928365	15.5706912	519	0		0	10
Unknown Aldol Condensate					CAS #:		
2.563	846078	14.1905638	473	0		0	10

Data File: /chem/MSD1.i/s032910.b/s1c2908-1.d

Page 1

Date : 29-MAR-2010 14:58

Client ID: SBLK01

Instrument: MSD1.i

Sample Info: |1202074807|966766|1|SVMI1|SBLK01

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

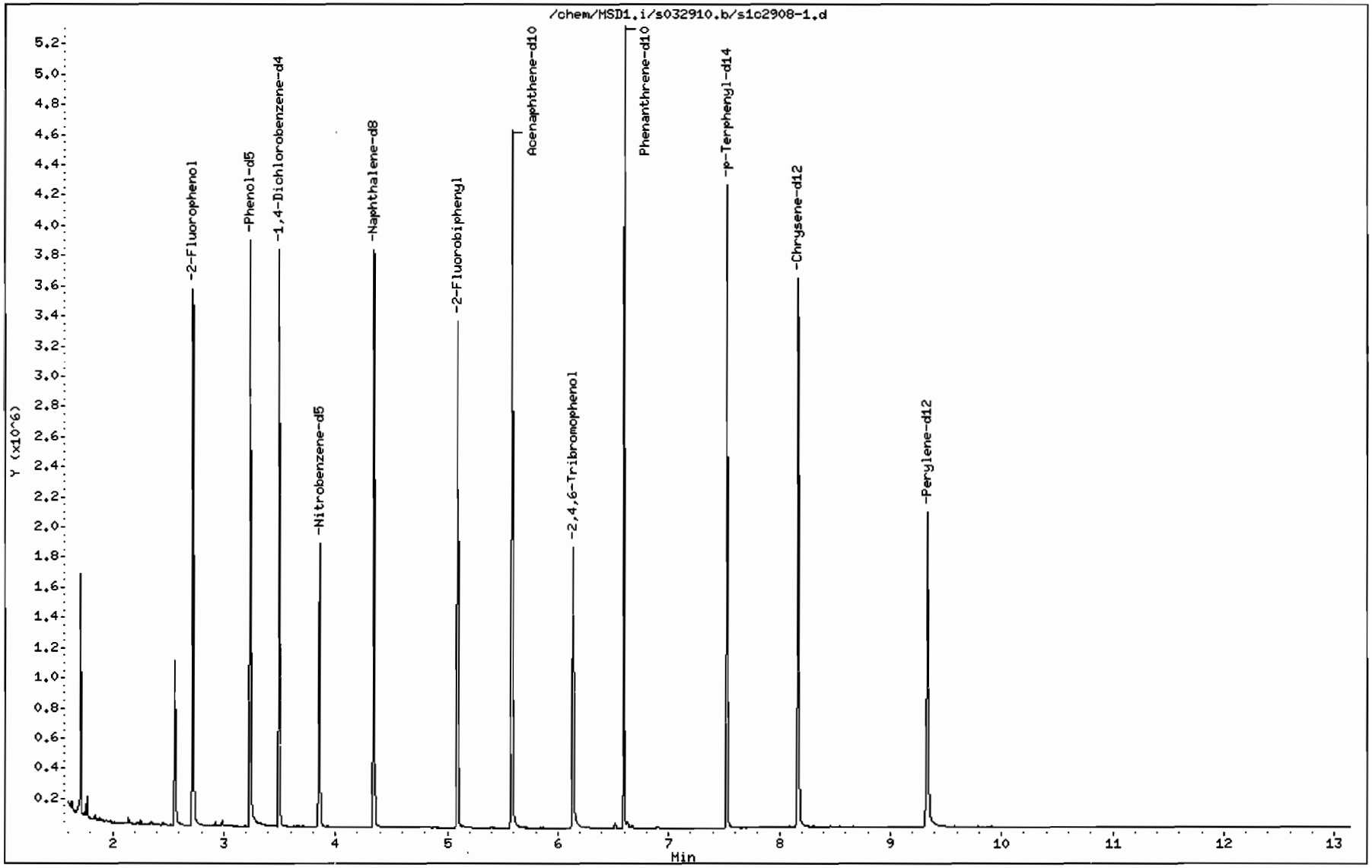

Data File: /chem/MSD1.i/s032910.b/s1c2908-1.d

Date : 29-MAR-2010 14:58

Client ID: SBLK01

Instrument: MSD1.i

Sample Info: |1202074807|966766|1|SVMI1|SBLK01

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	45	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	33	C5H12O2	104
Propanoic acid, 2-methyl-, propyl ester	644-49-5	NIST05.L	13119	25	C7H14O2	130

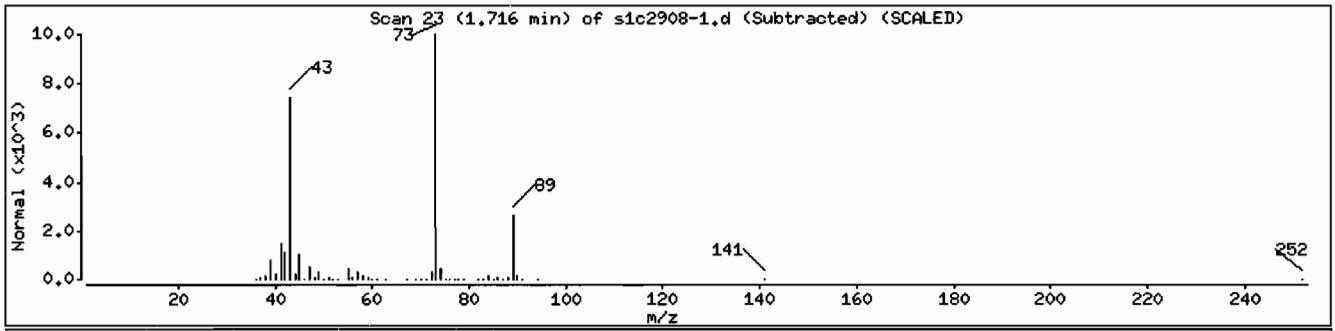

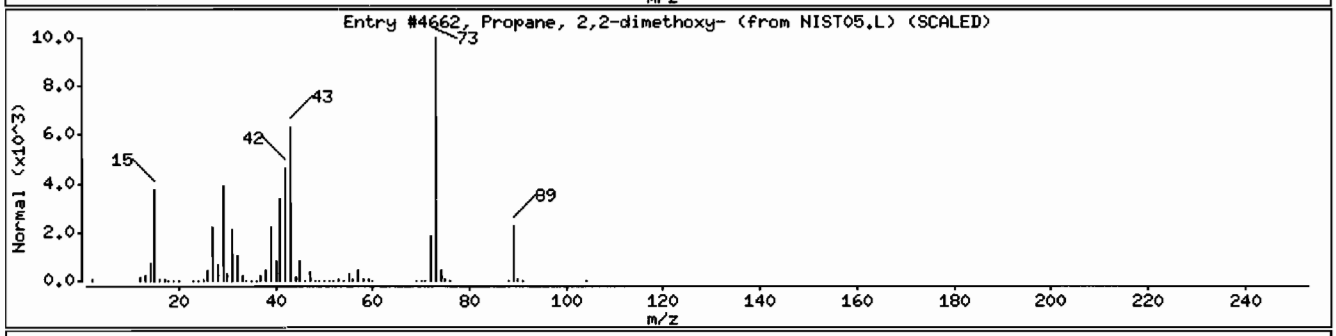

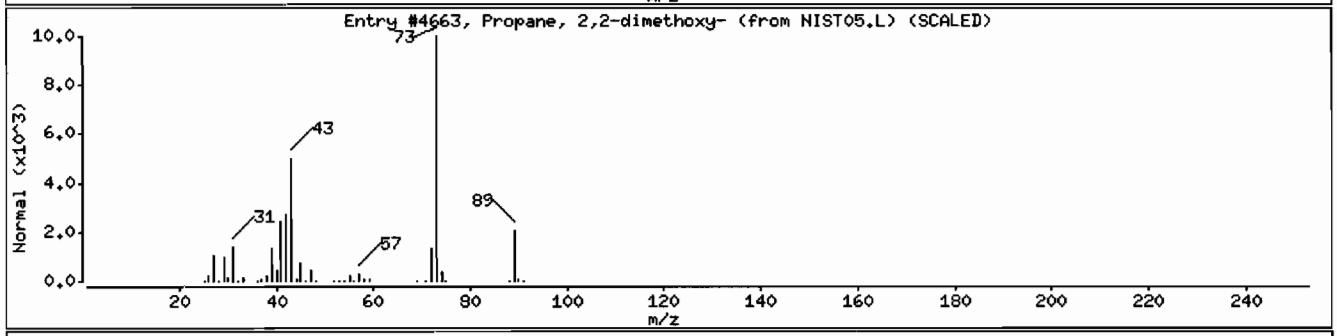

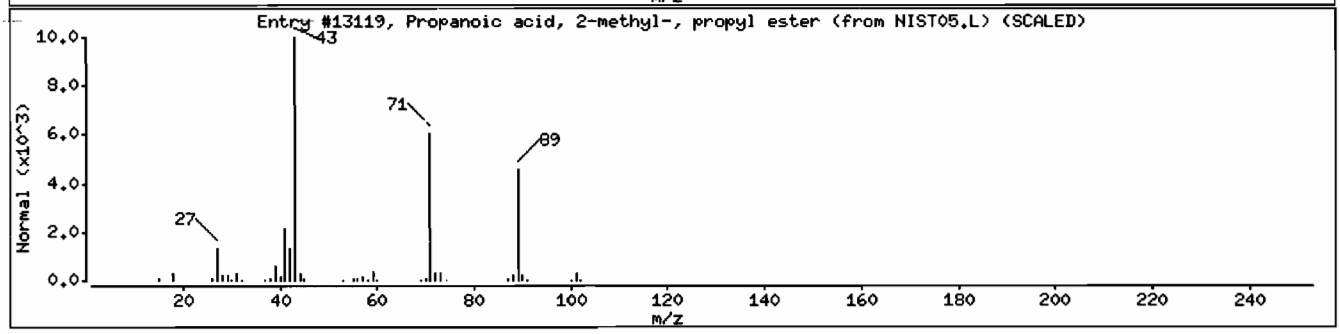

Data File: /chem/MSD1.i/s032910.b/s1c2908-1.d

Date : 29-MAR-2010 14:58

Client ID: SBLK01 Instrument: MSD1.i

Sample Info: 1120207480719667661 1SVM1 1SBLK01

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116

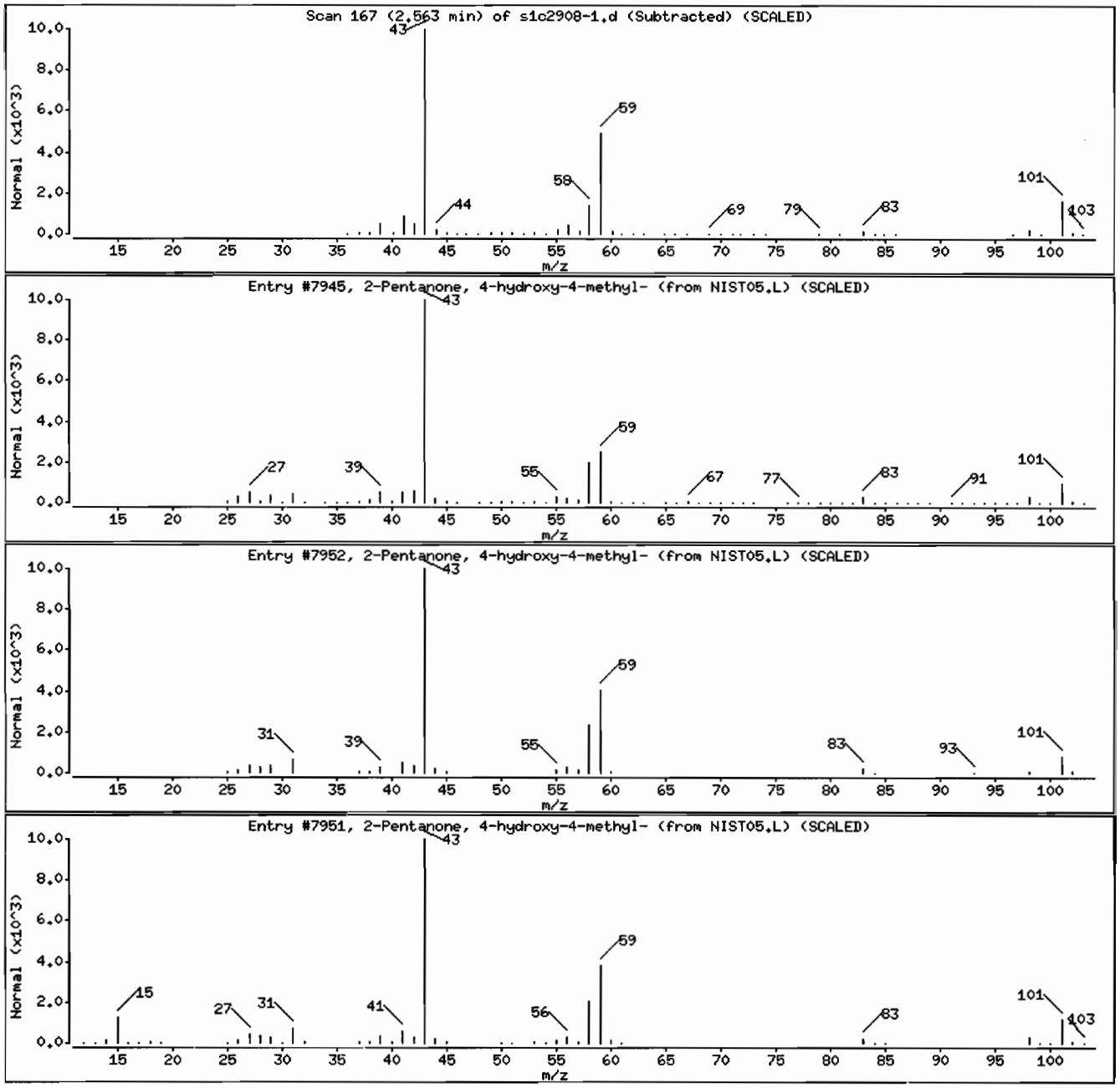

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074808**				
Client Sample:	**QC for batch 966763**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966763**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 15:22**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2909-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		950	ug/kg	66.7	333
108-95-2	Phenol		1160	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1230	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1040	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1310	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1330	ug/kg	66.7	333
83-32-9	Acenaphthene		1190	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1330	ug/kg	33.3	333
100-02-7	4-Nitrophenol		739	ug/kg	110	333
87-86-5	Pentachlorophenol		1140	ug/kg	83.3	333
129-00-0	Pyrene		1260	ug/kg	10.0	33.3
110-86-1	Pyridine		926	ug/kg	66.7	333
62-53-3	Aniline		1060	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1130	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1040	ug/kg	66.7	333
100-51-6	Benzyl alcohol		852	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1070	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1300	ug/kg	66.7	333
95-48-7	o-Cresol		1160	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1370	ug/kg	100	333
67-72-1	Hexachloroethane		1060	ug/kg	66.7	333
98-95-3	Nitrobenzene		1250	ug/kg	66.7	333
78-59-1	Isophorone		1270	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1190	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1180	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1180	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1260	ug/kg	66.7	333
65-85-0	Benzoic acid		2870	ug/kg	167	667
91-20-3	Naphthalene		1160	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1080	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1130	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1250	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		980	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1130	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1250	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1180	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1300	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1280	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074808**				
Client Sample:	**QC for batch 966763**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966763**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 15:22**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2909-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1340	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1260	ug/kg	33.3	333
208-96-8	Acenaphthylene		1300	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1170	ug/kg	127	667
132-64-9	Dibenzofuran		1280	ug/kg	66.7	333
84-66-2	Diethylphthalate		1390	ug/kg	66.7	333
86-73-7	Fluorene		1270	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1320	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1320	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1430	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1280	ug/kg	66.7	333
122-66-7	Azobenzene		1450	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1190	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1080	ug/kg	66.7	333
85-01-8	Phenanthrene		1260	ug/kg	10.0	33.3
120-12-7	Anthracene		1280	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1460	ug/kg	66.7	333
206-44-0	Fluoranthene		1380	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1580	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1330	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1200	ug/kg	100	333
218-01-9	Chrysene		1320	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1690	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1500	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1200	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1310	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1330	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1430	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1370	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1420	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1120	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2909-1.d
Lab Smp Id: 1202074808 Client Smp ID: SBLK01LCS
Inj Date : 29-MAR-2010 15:22
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202074808|966766|1|SVM|1|SBLK01LCS
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2433.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.504	3.504	(1.000)	373039	40.0000	
* 29 Naphthalene-d8	136	4.351	4.351	(1.000)	1576206	40.0000	
* 46 Acenaphthene-d10	164	5.587	5.592	(1.000)	799705	40.0000	
* 67 Phenanthrene-d10	188	6.604	6.598	(1.000)	1430652	40.0000	
* 91 Chrysene-d12	240	8.175	8.175	(1.000)	1224060	40.0000	
* 98 Perylene-d12	264	9.345	9.339	(1.000)	1064475	40.0000	
$ 3 2-Fluorophenol	112	2.728	2.716	(0.778)	689088	71.7362	2390
$ 5 Phenol-d5	99	3.246	3.240	(0.926)	794756	67.9358	2260
$ 20 Nitrobenzene-d5	82	3.863	3.863	(0.888)	355070	36.7288	1220
$ 39 2-Fluorobiphenyl	172	5.092	5.093	(0.912)	773894	35.0402	1170
$ 60 2,4,6-Tribromophenol	329	6.145	6.139	(1.100)	164682	62.8120	2090
$ 81 p-Terphenyl-d14	244	7.528	7.528	(0.921)	851189	41.7102	1390

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.251	3.251	(0.928)	432204	34.8703	1160
8 2-Chlorophenol	128	3.375	3.369	(0.963)	385766	36.7970	1230
11 1,4-Dichlorobenzene	146	3.510	3.510	(1.002)	369265	31.2823	1040
17 N-Nitrosodipropylamine	70	3.745	3.751	(1.069)	261349	39.3731	1310(Q)
28 1,2,4-Trichlorobenzene	180	4.304	4.304	(0.989)	327171	33.6648	1120
33 4-Chloro-3-methylphenol	107	4.728	4.710	(1.087)	330308	39.8408	1330
47 Acenaphthene	154	5.610	5.610	(1.004)	696274	35.6439	1190
50 2,4-Dinitrotoluene	165	5.710	5.716	(1.022)	257168	39.9367	1330
52 4-Nitrophenol	139	5.669	5.657	(1.015)	80075	22.1762	739
65 Pentachlorophenol	266	6.475	6.469	(0.980)	120079	34.3479	1140
79 Pyrene	202	7.469	7.469	(0.914)	1310957	37.7420	1260
2 Pyridine	79	2.099	2.081	(0.599)	229784	27.7879	926
4 Aniline	66	3.293	3.299	(0.940)	168585	31.9017	1060
7 bis(2-Chloroethyl) ether	63	3.316	3.316	(0.946)	288918	33.9752	1130
9 1,3-Dichlorobenzene	146	3.469	3.469	(0.990)	363250	31.0708	1040
12 Benzyl alcohol	108	3.581	3.575	(1.022)	139433	25.5507	852
13 1,2-Dichlorobenzene	146	3.610	3.610	(1.030)	354901	32.1692	1070
14 bis(2-Chloroisopropyl)ether	45	3.651	3.651	(1.042)	706140	39.0485	1300
15 o-Cresol	107	3.640	3.634	(1.039)	277377	34.8841	1160
18 m,p-Cresols	107	3.734	3.740	(1.065)	425046	41.2426	1370(Q)
19 Hexachloroethane	117	3.834	3.834	(1.094)	142717	31.8122	1060
21 Nitrobenzene	77	3.875	3.875	(0.890)	387020	37.4733	1250
22 Isophorone	82	4.028	4.028	(0.926)	732923	37.9959	1270
23 2-Nitrophenol	139	4.081	4.087	(0.938)	190905	35.8245	1190
24 2,4-Dimethylphenol	122	4.093	4.093	(0.941)	336321	35.3178	1180
25 bis(2-Chloroethoxy)methane	93	4.151	4.157	(0.954)	418340	35.4583	1180
26 2,4-Dichlorophenol	162	4.251	4.245	(0.977)	299411	37.6849	1260
27 Benzoic acid	105	4.187	4.163	(0.962)	445149	86.0861	2870
30 Naphthalene	128	4.369	4.369	(1.004)	1095977	34.6688	1160
31 4-Chloroaniline	127	4.393	4.393	(1.009)	458169	32.3306	1080
32 Hexachlorobutadiene	225	4.434	4.440	(1.019)	185732	33.9160	1130
34 2-Methylnaphthalene	142	4.845	4.845	(1.114)	755577	37.6471	1250
36 Hexachlorocyclopentadiene	237	4.945	4.945	(0.885)	148671	29.3894	980
37 2,4,6-Trichlorophenol	196	5.040	5.040	(0.902)	200848	33.8015	1130
38 2,4,5-Trichlorophenol	196	5.069	5.063	(0.907)	237787	37.3784	1240
40 2-Chloronaphthalene	162	5.192	5.192	(0.929)	678501	35.4193	1180
42 o-Nitroaniline	65	5.257	5.257	(0.941)	213594	38.8661	1300
41 m-Nitroaniline	138	5.551	5.551	(0.994)	164337	38.3193	1280
43 Dimethylphthalate	163	5.375	5.375	(0.962)	892295	40.0813	1340
44 2,6-Dinitrotoluene	165	5.428	5.428	(0.972)	195428	37.8110	1260
45 Acenaphthylene	152	5.487	5.492	(0.982)	1197358	38.9604	1300
48 2,4-Dinitrophenol	184	5.622	5.622	(1.006)	71279	35.2231	1170
49 Dibenzofuran	168	5.734	5.734	(1.026)	1010545	38.4997	1280
51 Diethylphthalate	149	5.869	5.869	(1.051)	928291	41.6136	1390
53 Fluorene	166	5.975	5.975	(1.069)	837120	38.0410	1270
54 4-Chlorophenylphenylether	204	5.963	5.963	(1.067)	426322	39.5581	1320
55 2-Methyl-4,6-dinitrophenol	198	6.004	6.004	(0.909)	131288	39.5085	1320

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	5.992	5.987	(1.073)	172481	42.8745	1430
133 Diphenylamine	169	6.045	6.045	(0.915)	702138	38.4327	1280
58 1,2-Diphenylhydrazine	77	6.075	6.075	(0.920)	912034	43.4033	1450
61 4-Bromophenylphenylether	248	6.298	6.292	(0.954)	229917	35.5930	1190
63 Hexachlorobenzene	284	6.345	6.345	(0.961)	226145	32.2584	1080
68 Phenanthrene	178	6.616	6.616	(1.002)	1164972	37.6866	1260
69 Anthracene	178	6.651	6.645	(1.007)	1168311	38.4860	1280
72 Di-n-butylphthalate	149	6.916	6.916	(1.047)	1636635	43.7189	1460
76 Fluoranthene	202	7.333	7.328	(1.110)	1311570	41.2837	1380
85 Butylbenzylphthalate	149	7.781	7.781	(0.952)	705983	47.4890	1580
89 Benzo(a)anthracene	228	8.163	8.163	(0.999)	1152328	40.0493	1330
90 3,3'-Dichlorobenzidine	252	8.128	8.122	(0.994)	326543	35.9762	1200
92 Chrysene	228	8.192	8.192	(1.002)	1064659	39.5972	1320
93 bis(2-Ethylhexyl)phthalate	149	8.092	8.092	(0.990)	994334	50.6081	1690
94 Di-n-octylphthalate	149	8.528	8.528	(0.912)	1575360	45.0617	1500
95 Benzo(b)fluoranthene	252	8.975	8.975	(0.960)	1056813	36.1003	1200
96 Benzo(k)fluoranthene	252	8.998	8.998	(0.963)	1097279	39.3434	1310
97 Benzo(a)pyrene	252	9.286	9.286	(0.994)	938685	40.0459	1330
99 Indeno(1,2,3-cd)pyrene	276	10.598	10.598	(1.134)	857376	43.0202	1430
100 Dibenzo(a,h)anthracene	278	10.604	10.598	(1.135)	678459	41.1983	1370
101 Benzo(ghi)perylene	276	10.986	10.986	(1.176)	690211	42.6991	1420
1 N-Methyl-N-nitrosomethylamine	74	2.069	2.052	(0.590)	153685	28.4949	950

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s032910.b/s1c2909-1.d
Date : 29-MAR-2010 15:22
Client ID: SBLK01LCS
Sample Info: |1202074808|966766|1|SVMI1|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

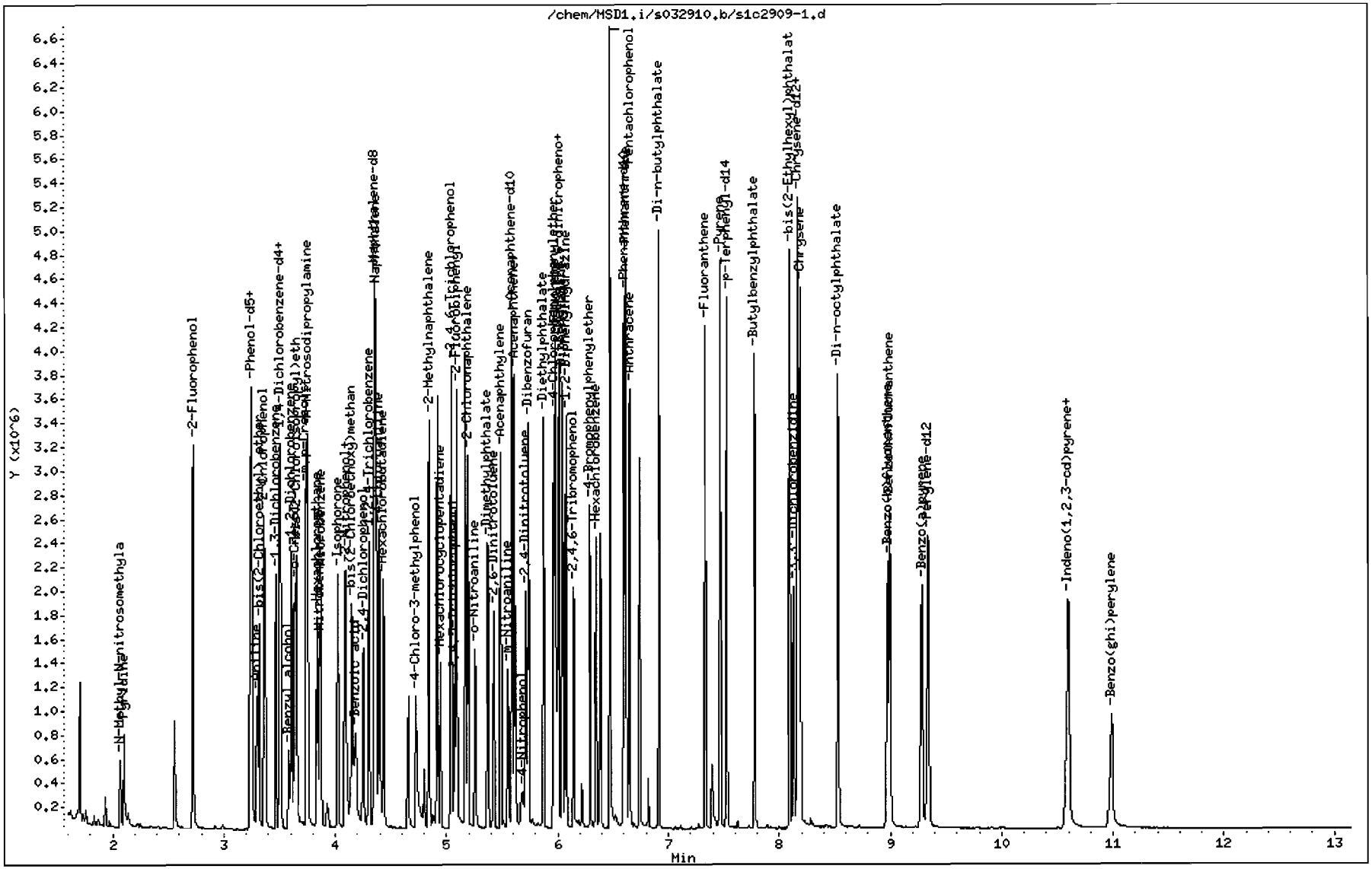

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 966763 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202074807 MB	19-MAR-2010 11:31:00	30	1	0.03333
1202074808 LCS	19-MAR-2010 11:31:00	30	1	0.03333
249329001	19-MAR-2010 11:31:00	30.06	1	0.03327
249329002	19-MAR-2010 11:31:00	30.08	1	0.03324
249329003	19-MAR-2010 11:31:00	30	1	0.03333
249329004	19-MAR-2010 11:31:00	30.06	1	0.03327
249332001	19-MAR-2010 11:31:00	30.09	1	0.03323
249332002	19-MAR-2010 11:31:00	30.02	1	0.03331
249332003	19-MAR-2010 11:31:00	30.01	1	0.03332
249332004	19-MAR-2010 11:31:00	30.02	1	0.03331
249332005	19-MAR-2010 11:31:00	30.06	1	0.03327
249332006	19-MAR-2010 11:31:00	30.02	1	0.03331
249332007	19-MAR-2010 11:31:00	30.03	1	0.0333
249332009	19-MAR-2010 11:31:00	30.09	1	0.03323
249335002	19-MAR-2010 11:31:00	30.02	1	0.03331
1202074809 MS (249335002)	19-MAR-2010 11:31:00	30.05	1	0.03328
1202074810 MSD (249335002)	19-MAR-2010 11:31:00	30.01	1	0.03332
249335003	19-MAR-2010 11:31:00	30.06	1	0.03327
249335004	19-MAR-2010 11:31:00	30	1	0.03333
249335005	19-MAR-2010 11:31:00	30.03	1	0.0333
249335006	19-MAR-2010 11:31:00	30	1	0.03333
249335007	19-MAR-2010 11:31:00	30.09	1	0.03323
249335008	19-MAR-2010 11:31:00	30.09	1	0.03323

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202074808	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
LCS	1202074808	BENZIDINE LCS	UE100310-23	1	mL
MS	1202074809	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MS	1202074809	BENZIDINE LCS	UE100310-23	1	mL
MSD	1202074810	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MSD	1202074810	BENZIDINE LCS	UE100310-23	1	mL
SURR	All	BNA for all Surrogate	UE100310-10	1	mL
REGNT	All	Acetone	1273739-B1	150	mL
REGNT	All	Methylene Chloride	1281955-D	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: RWH

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 03/15/2010 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1294 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN10306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD1.i/s031510a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s1c1513.d	WBN100306-01.2	AMY	15-MAR-2010 16:24	50 PPM	s031510a	1.0	DFTPP	PASSING
s1c1514.d	INSTBLK	AMY	15-MAR-2010 16:40		all	1.0		
s1c1515.d	WBN100309-08	AMY	15-MAR-2010 17:03	001 PPM	MEGAIICARE	1.0	MEGA001	ICAL LVL1-PASSING
s1c1516.d	WBN100309-05.1	AMY	15-MAR-2010 17:31	040 PPM	MEGAIICARE	1.0	MEGA040	ICAL LVL4-PASSING
s1c1517.d	WBN100309-07	AMY	15-MAR-2010 17:59	010 PPM	MEGAIICARE	1.0	MEGA010	ICAL LVL2-PASSING
s1c1518.d	WBN100309-06	AMY	15-MAR-2010 18:28	020 PPM	MEGAIICARE	1.0	MEGA020	ICAL LVL3-PASSING
s1c1519.d	WBN100309-04	AMY	15-MAR-2010 18:57	050 PPM	MEGAIICARE	1.0	MEGA050	ICAL LVL5-PASSING
s1c1520.d	WBN100309-03	AMY	15-MAR-2010 19:26	080 PPM	MEGAIICARE	1.0	MEGA080	ICAL LVL6-PASSING
s1c1521.d	WBN100309-02	AMY	15-MAR-2010 19:55	100 PPM	MEGAIICARE	1.0	MEGA100	ICAL LVL7-PASSING
s1c1522.d	WBN100309-01	AMY	15-MAR-2010 20:24	120 PPM	MEGAIICARE	1.0	MEGA120	ICAL LVL8-PASSING
s1c1523.d	WBN100312-01	AMY	15-MAR-2010 20:53	10 PPM	ap12	1.0	AP010	ICAL LVL2-PASSING
s1c1524.d	WBN100312-02	AMY	15-MAR-2010 21:17	20 PPM	ap12	1.0	AP020	ICAL LVL3-PASSING
s1c1525.d	WBN100312-03.1	AMY	15-MAR-2010 21:40	40 PPM	ap12	1.0	AP040	ICAL LVL4-PASSING
s1c1526.d	WBN100312-04	AMY	15-MAR-2010 22:04	50 PPM	ap12	1.0	AP050	ICAL LVL5-PASSING
s1c1527.d	WBN100312-05	AMY	15-MAR-2010 22:27	80 PPM	ap12	1.0	AP080	ICAL LVL6-PASSING
s1c1528.d	WBN100312-06	AMY	15-MAR-2010 22:50	100 PPM	ap12	1.0	AP100	ICAL LVL7-PASSING
s1c1529.d	WBN100312-07	AMY	15-MAR-2010 23:14	120 PPM	ap12	1.0	AP120	ICAL LVL8-PASSING
s1c1530.d	WBN100309-05.1	AMY	15-MAR-2010 23:37	040 PPM	MEGAIICARE	1.0	M625CVS	M625CVS-Restek
s1c1531.d	WBN100309-09.1	AMY	16-MAR-2010 00:06	040 PPM	MEGAIICARE	1.0	MEGA040	MEGAICV-O2Si

s1c1532.d	WBN100312-03.1	AMY	16-MAR-2010 00:34	40 PPM	s031510a	1.0	AP625CVS	AP625CVS-Restek
s1c1533.d	WBN100312-08.1	AMY	16-MAR-2010 00:58	40 PPM	ap12	1.0	APICV	APICV-O2Si
s1c1534.d	1202070109	AMY	16-MAR-2010 01:21	964896	249232	1.0	SBLK01	REPORT
s1c1535.d	1202070110	AMY	16-MAR-2010 01:44	964896	249232	1.0	SBLK01LCS	REPORT
s1c1536.d	1202068412	AMY	16-MAR-2010 02:07	964150	248963	1.0	SBLK01	REPORT
s1c1537.d	1202068413	AMY	16-MAR-2010 02:30	964150	248963	1.0	LCS	REPORT
s1c1538.d	249232003	AMY	16-MAR-2010 02:53	964896	249232	1.0	BJCO	REPORT
s1c1539.d	1202070111	AMY	16-MAR-2010 03:16	964896	249232	1.0	MS	REPORT
s1c1540.d	1202070112	AMY	16-MAR-2010 03:38	964896	249232	1.0	MSD	REPORT-narrate several spikes fail, not enough sample for RE
s1c1541.d	249232010	AMY	16-MAR-2010 04:01	964896	249232	1.0	BJCO	REPORT. RR s1c1552-fails. RE-s1c1832, confirms within hold.
s1c1542.d	248963001	AMY	16-MAR-2010 04:24	964150	248963	1.0	SWPC	REPORT
s1c1543.d	1202068414	AMY	16-MAR-2010 04:46	964150	248963	1.0	MS	REPORT
s1c1544.d	1202068415	AMY	16-MAR-2010 05:08	964150	248963	1.0	MSD	REPORT
s1c1545.d	249059001	AMY	16-MAR-2010 05:31	964150	249059	4.0	SONO	REPORT-several surrogates fail low due to 4X dilution.
s1c1546.d	249175001	AMY	16-MAR-2010 05:53	964150	249175	1.0	SWPC	REPORT
s1c1547.d	249175002	AMY	16-MAR-2010 06:16	964150	249175	1.0	SWPC	REPORT
s1c1548.d	1202071132	AMY	16-MAR-2010 14:37	965294	248719	1.0	SBLK01	DUSE-report original batch 963058, sample s1c1239
s1c1549.d	1202071133	AMY	16-MAR-2010 15:00	965294	248719	1.0	SBLK01LCS	DUSE-report original batch 963058, sample s1c1239
s1c1550.d	1202071134	AMY	16-MAR-2010 15:25	965294	248719	1.0	SBLK01LCSD	DUSE-report original batch 963058, sample s1c1239
s1c1551.d	248719002	AMY	16-MAR-2010 15:48	965294	248719	1.0	GEEL	DUSE-report s1c1239
s1c1552.d	249232010	AMY	16-MAR-2010 16:12	964896	249232	1.0	BJCO	DUSE-acid surrogate failures. Sent for RE (confirm failure)

Instrument Batch: /chem/MSD1.i/s031510a.b

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 03/29/2010 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1294 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN10306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD1.i/s032910.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s1c2902.d	WBN100306-01.2	AMY	29-MAR-2010 10:02	50 PPM	s032910	1.0	DFTPP	PASSING
s1c2903.d	WBN100309-05.4	AMY	29-MAR-2010 10:17	40 PPM	MEGAIICARE	1.0	MEGACVS	PASSING (393267)
s1c2904.d	WBN100312-08.3	AMY	29-MAR-2010 11:24	40 PPM	ap12	1.0	APCVS	PASSING
s1c2905.d	WBN100304-26.3	AMY	29-MAR-2010 11:48	40 PPM	pest	1.0	PESTCVS	PASSING
s1c2906.d	UBN100325-09.2	AMY	29-MAR-2010 12:12	40 PPM	nev	1.0	NCVS	DUSE-not needed
s1c2907.d	UBN100127-08.2	AMY	29-MAR-2010 14:05	40 PPM	nev	1.0	NCVS	DUSE-not needed
s1c2908-1.d	1202074807	AMY	29-MAR-2010 14:58	966766	10-2433	1.0	SBLK01	REPORT
s1c2908-2.d	1202074807	AMY	29-MAR-2010 14:58	966766	10-2436	1.0	SBLK01	REPORT
s1c2908.d	1202074807	AMY	29-MAR-2010 14:58	966766	10-2430	1.0	SBLK01	REPORT
s1c2909-1.d	1202074808	AMY	29-MAR-2010 15:22	966766	10-2433	1.0	SBLK01LCS	REPORT
s1c2909-2.d	1202074808	AMY	29-MAR-2010 15:22	966766	10-2436	1.0	SBLK01LCS	REPORT
s1c2909.d	1202074808	AMY	29-MAR-2010 15:22	966766	10-2430	1.0	SBLK01LCS	REPORT
s1c2910.d	249329001	AMY	29-MAR-2010 15:58	966766	10-2430	1.0	LANL	REPORT
s1c2911.d	249329002	AMY	29-MAR-2010 16:21	966766	10-2430	1.0	LANL	REPORT
s1c2912.d	249329003	AMY	29-MAR-2010 16:45	966766	10-2430	1.0	LANL	REPORT
s1c2913.d	249329004	AMY	29-MAR-2010 17:09	966766	10-2430	1.0	LANL	REPORT
s1c2914.d	249332001	AMY	29-MAR-2010 17:33	966766	10-2433	1.0	LANL	REPORT
s1c2915.d	249332002	AMY	29-MAR-2010 17:56	966766	10-2433	1.0	LANL	REPORT

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 03/30/2010 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1294 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN10306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD1.i/s033010.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s1c3001.d	INSTBLK	AMY	30-MAR-2010 09:24		s033010	1.0		DUSE
s1c3002.d	WBN100306-01.2	AMY	30-MAR-2010 09:49	50 PPM	s033010	1.0	DFTPP	PASSING
s1c3003.d	WBN100309-05.4	AMY	30-MAR-2010 10:04	40 PPM	MEGAIICARE	1.0	MEGACVS	DUSE
s1c3004.d	WBN100309-09.2	AMY	30-MAR-2010 10:45	40 PPM	MEGAIICARE	1.0	MEGACVS	DUSE-wrong std
s1c3005.d	WBN100309-09.2	AMY	30-MAR-2010 11:16	40 PPM	MEGAIICARE	1.0	MEGACVS	pass 424150
s1c3006.d	WBN100312-08.3	AMY	30-MAR-2010 11:52	40 PPM	s033010	1.0	APCVS	PASSING
s1c3007.d	WBN100304-26.3	AMY	30-MAR-2010 12:15	40 PPM	s033010	1.0	PESTCVS	PASSING
s1c3008.d	249332003	AMY	30-MAR-2010 12:40	966766	10-2433	1.0	LANL	REPORT
s1c3009.d	249332004	AMY	30-MAR-2010 13:04	966766	10-2433	1.0	LANL	REPORT
s1c3010.d	249332005	AMY	30-MAR-2010 13:27	966766	10-2433	1.0	LANL	REPORT
s1c3011.d	249332006	AMY	30-MAR-2010 13:51	966766	10-2433	1.0	LANL	REPORT
s1c3012.d	249332007	AMY	30-MAR-2010 14:13	966766	10-2433	1.0	LANL	REPORT
s1c3013.d	249332009	AMY	30-MAR-2010 14:36	966766	10-2433	1.0	LANL	REPORT
s1c3014.d	UBN100325-09.2	AMY	30-MAR-2010 15:03	40 PPM	nev	1.0	NEVCVS	REPORT
s1c3015.d	1202083357	AMY	30-MAR-2010 15:27	970241	249062	1.0	SBLK04	REPORT
s1c3016.d	1202083358	AMY	30-MAR-2010 15:50	970241	249062	1.0	SBLK04LCS	REPORT
s1c3017.d	1202083359	AMY	30-MAR-2010 16:15	970241	249062	1.0	SBLK04LCSD	REPORT
s1c3018.d	249062002	AMY	30-MAR-2010 16:39	970241	249062	1.0	BRCM	pass surr-out of hold-RE of s6c2528
s1c3019.d	249062004	AMY	30-MAR-2010 17:03	970241	249062	1.0	BRCM	pass surr-out of hold-RE of s6c2531

s1c3020.d	249062018	AMY	30-MAR-2010 17:27	970241	249062	1.0	BRCM	pass surr-out of hold-RE of s6c2544
s1c3021.d	249335002	AMY	30-MAR-2010 17:51	966766	10-2436	1.0	LANL	REPORT
s1c3022.d	1202074809	AMY	30-MAR-2010 18:15	966766	10-2436	1.0	LANLMS	REPORT
s1c3023.d	1202074810	AMY	30-MAR-2010 18:38	966766	10-2436	1.0	LANLMSD	REPORT
s1c3024.d	249335003	AMY	30-MAR-2010 19:02	966766	10-2436	1.0	LANL	REPORT
s1c3025.d	249335004	AMY	30-MAR-2010 19:26	966766	10-2436	1.0	LANL	REPORT
s1c3026.d	249335005	AMY	30-MAR-2010 19:50	966766	10-2436	1.0	LANL	REPORT
s1c3027.d	249335006	AMY	30-MAR-2010 20:14	966766	10-2436	1.0	LANL	REPORT
s1c3028.d	249335007	AMY	30-MAR-2010 20:38	966766	10-2436	2.0	LANL	REPORT
s1c3029.d	249335008	AMY	30-MAR-2010 21:01	966766	10-2436	2.0	LANL	REPORT

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3022.d
Lab Smp Id: 1202074809 Client Smp ID: RE46-10-12972MS
Inj Date : 30-MAR-2010 18:15
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202074809|966766|1|SVM|1|LANLMS
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 19 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	12.26540	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.481	3.487	(1.000)	500002	40.0000	
* 29 Naphthalene-d8	136	4.334	4.339	(1.000)	2103003	40.0000	
* 46 Acenaphthene-d10	164	5.575	5.575	(1.000)	905835	40.0000	
* 67 Phenanthrene-d10	188	6.586	6.586	(1.000)	1742852	40.0000	
* 91 Chrysene-d12	240	8.157	8.157	(1.000)	1350294	40.0000	
* 98 Perylene-d12	264	9.316	9.310	(1.000)	924358	40.0000	
$ 3 2-Fluorophenol	112	2.710	2.704	(0.779)	819816	63.6740	2420
$ 5 Phenol-d5	99	3.234	3.228	(0.929)	1014320	64.6878	2450
$ 20 Nitrobenzene-d5	82	3.845	3.845	(0.887)	421246	32.6589	1240
$ 39 2-Fluorobiphenyl	172	5.081	5.075	(0.911)	667073	26.6648	1010
$ 60 2,4,6-Tribromophenol	329	6.128	6.128	(1.099)	179621	60.4832	2290
$ 81 p-Terphenyl-d14	244	7.516	7.510	(0.921)	923188	41.0091	1560

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.240	3.240	(0.931)	524585	31.5766	1200
8 2-Chlorophenol	128	3.351	3.357	(0.963)	464227	33.0370	1250
11 1,4-Dichlorobenzene	146	3.487	3.498	(1.002)	351405	22.2101	842
17 N-Nitrosodipropylamine	70	3.728	3.740	(1.071)	189981	21.3536	810(Q)
28 1,2,4-Trichlorobenzene	180	4.287	4.292	(0.989)	355706	27.4325	1040
33 4-Chloro-3-methylphenol	107	4.710	4.698	(1.087)	393989	35.6177	1350
47 Acenaphthene	154	5.598	5.598	(1.004)	668430	30.2094	1140
50 2,4-Dinitrotoluene	165	5.698	5.698	(1.022)	262703	36.0164	1370
52 4-Nitrophenol	139	5.657	5.639	(1.015)	88010	21.5181	816
65 Pentachlorophenol	266	6.463	6.457	(0.981)	120809	28.3665	1080
79 Pyrene	202	7.451	7.451	(0.913)	1375549	35.8994	1360
2 Pyridine	79	2.110	2.069	(0.606)	272068	24.5469	931
4 Aniline	66	3.275	3.281	(0.941)	231451	32.6765	1240
7 bis(2-Chloroethyl) ether	63	3.292	3.304	(0.946)	349910	30.6991	1160
9 1,3-Dichlorobenzene	146	3.445	3.451	(0.990)	335509	21.4108	812
12 Benzyl alcohol	108	3.569	3.563	(1.025)	122931	16.8066	637
13 1,2-Dichlorobenzene	146	3.587	3.598	(1.030)	357014	24.1436	916
14 bis(2-Chloroisopropyl)ether	45	3.628	3.640	(1.042)	782502	32.2836	1220
15 o-Cresol	107	3.622	3.622	(1.041)	245842	23.0672	875(Q)
18 m,p-Cresols	107	3.722	3.722	(1.069)	559197	40.4816	1540(Q)
19 Hexachloroethane	117	3.810	3.822	(1.095)	124486	20.7024	785
21 Nitrobenzene	77	3.857	3.863	(0.890)	451701	32.7802	1240
22 Isophorone	82	4.010	4.016	(0.925)	854213	33.1908	1260
23 2-Nitrophenol	139	4.069	4.069	(0.939)	136381	19.1818	728(Q)
24 2,4-Dimethylphenol	122	4.081	4.075	(0.942)	424834	33.4374	1270
25 bis(2-Chloroethoxy)methane	93	4.140	4.139	(0.955)	288059	18.2997	694
26 2,4-Dichlorophenol	162	4.234	4.234	(0.977)	295030	27.8316	1060
27 Benzoic acid	105	4.175	4.145	(0.963)	400070	57.9878	2200
30 Naphthalene	128	4.351	4.351	(1.004)	908332	21.5355	817
31 4-Chloroaniline	127	4.381	4.381	(1.011)	613511	32.4477	1230
32 Hexachlorobutadiene	225	4.422	4.422	(1.020)	182883	25.0302	949
34 2-Methylnaphthalene	142	4.828	4.828	(1.114)	865482	32.3210	1220
36 Hexachlorocyclopentadiene	237	4.934	4.934	(0.885)	137449	23.9876	910
37 2,4,6-Trichlorophenol	196	5.022	5.022	(0.901)	262710	39.0325	1480
38 2,4,5-Trichlorophenol	196	5.057	5.045	(0.907)	264934	36.7664	1390
40 2-Chloronaphthalene	162	5.175	5.175	(0.928)	641711	29.5740	1120
42 o-Nitroaniline	65	5.245	5.245	(0.941)	200348	32.1846	1220
41 m-Nitroaniline	138	5.539	5.539	(0.994)	188121	38.6488	1460
43 Dimethylphthalate	163	5.357	5.363	(0.961)	835340	33.1267	1260
44 2,6-Dinitrotoluene	165	5.410	5.410	(0.970)	186408	31.8403	1210
45 Acenaphthylene	152	5.475	5.475	(0.982)	1144444	32.8756	1250
48 2,4-Dinitrophenol	184	5.610	5.604	(1.006)	64060	30.3264	1150(Q)
49 Dibenzofuran	168	5.716	5.716	(1.025)	1004798	33.7957	1280
51 Diethylphthalate	149	5.851	5.851	(1.050)	925999	36.6473	1390
53 Fluorene	166	5.957	5.957	(1.069)	890121	35.7103	1350
54 4-Chlorophenylphenylether	204	5.945	5.945	(1.066)	436167	35.7299	1360
55 2-Methyl-4,6-dinitrophenol	198	5.986	5.986	(0.909)	119986	29.6394	1120

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	5.975	5.969	(1.072)	194218	42.6706	1620
133 Diphenylamine	169	6.028	6.028	(0.915)	717937	32.2580	1220
58 1,2-Diphenylhydrazine	77	6.057	6.057	(0.920)	911671	35.6143	1350
61 4-Bromophenylphenylether	248	6.281	6.281	(0.954)	249739	31.7361	1200
63 Hexachlorobenzene	284	6.333	6.333	(0.962)	253253	29.6540	1120
68 Phenanthrene	178	6.604	6.604	(1.003)	1358719	36.0807	1370
69 Anthracene	178	6.633	6.633	(1.007)	1288170	34.8330	1320
72 Di-n-butylphthalate	149	6.904	6.904	(1.048)	1770992	38.8336	1470
76 Fluoranthene	202	7.316	7.316	(1.111)	1356513	35.0497	1330
85 Butylbenzylphthalate	149	7.769	7.769	(0.952)	702662	42.8469	1620
89 Benzo(a)anthracene	228	8.145	8.145	(0.999)	1124710	35.4351	1340
90 3,3'-Dichlorobenzidine	252	8.110	8.110	(0.994)	292278	29.1908	1110
92 Chrysene	228	8.175	8.175	(1.002)	1050752	35.4265	1340
93 bis(2-Ethylhexyl)phthalate	149	8.080	8.080	(0.991)	969669	44.7389	1700
94 Di-n-octylphthalate	149	8.510	8.510	(0.913)	1439913	47.4307	1800
95 Benzo(b)fluoranthene	252	8.951	8.951	(0.961)	907819	35.7114	1350
96 Benzo(k)fluoranthene	252	8.974	8.974	(0.963)	898543	37.1013	1410
97 Benzo(a)pyrene	252	9.257	9.257	(0.994)	716669	35.2089	1340
99 Indeno(1,2,3-cd)pyrene	276	10.551	10.551	(1.133)	559624	32.3365	1230
100 Dibenzo(a,h)anthracene	278	10.557	10.557	(1.133)	444934	31.1134	1180
101 Benzo(ghi)perylene	276	10.933	10.933	(1.174)	418645	29.8248	1130
1 N-Methyl-N-nitrosomethylamine	74	2.087	2.040	(0.600)	213611	29.5490	1120

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s033010.b/s1c3022.d

Page 1

Date : 30-MAR-2010 18:15

Client ID: RE46-10-12972MS

Instrument: MSD1.i

Sample Info: 1120207480919667661|1|SVMI1|LANLMS

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

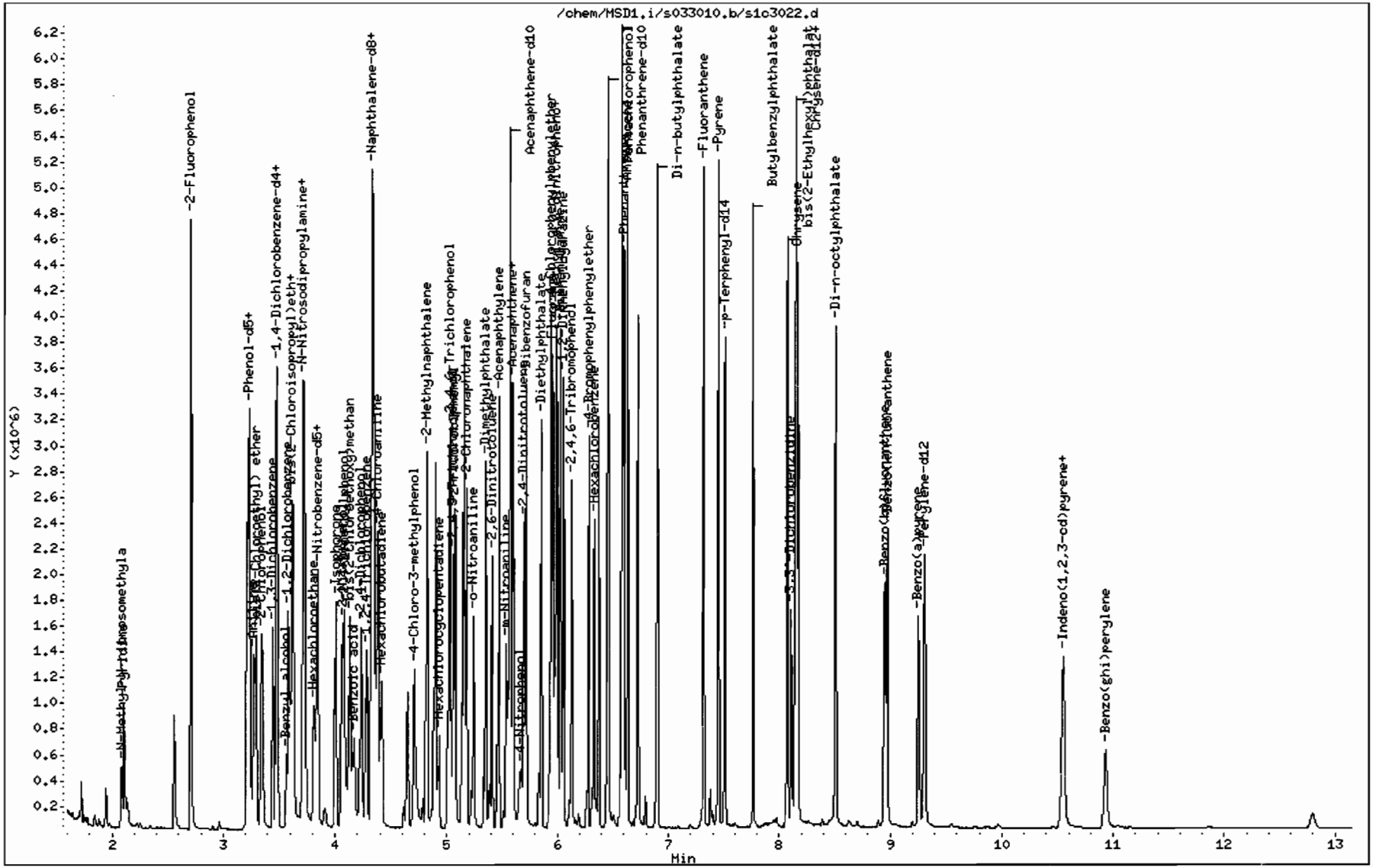

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3023.d
Lab Smp Id: 1202074810 Client Smp ID: RE46-10-12972MSD
Inj Date : 30-MAR-2010 18:38
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202074810|966766|1|SVM|1|LANLMSD
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 20 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	12.26540	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.487	3.487	(1.000)	559948	40.0000	
* 29 Naphthalene-d8	136	4.340	4.339	(1.000)	2338516	40.0000	
* 46 Acenaphthene-d10	164	5.575	5.575	(1.000)	1146122	40.0000	
* 67 Phenanthrene-d10	188	6.586	6.586	(1.000)	2055958	40.0000	
* 91 Chrysene-d12	240	8.157	8.157	(1.000)	1554812	40.0000	
* 98 Perylene-d12	264	9.310	9.310	(1.000)	1076826	40.0000	
$ 3 2-Fluorophenol	112	2.716	2.704	(0.779)	849193	58.8947	2240
$ 5 Phenol-d5	99	3.234	3.228	(0.927)	1045252	59.5240	2260
$ 20 Nitrobenzene-d5	82	3.845	3.845	(0.886)	437663	30.5144	1160
$ 39 2-Fluorobiphenyl	172	5.081	5.075	(0.911)	935229	29.5462	1120
$ 60 2,4,6-Tribromophenol	329	6.128	6.128	(1.099)	206815	55.0399	2090
$ 81 p-Terphenyl-d14	244	7.510	7.510	(0.921)	897139	34.6099	1310

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.240	3.240	(0.929)	554668	29.8131	1130
8 2-Chlorophenol	128	3.357	3.357	(0.963)	499151	31.7195	1200
11 1,4-Dichlorobenzene	146	3.493	3.498	(1.002)	363960	20.5409	780
17 N-Nitrosodipropylamine	70	3.734	3.740	(1.071)	337685	33.8920	1290(Q)
28 1,2,4-Trichlorobenzene	180	4.293	4.292	(0.989)	370924	25.7252	977
33 4-Chloro-3-methylphenol	107	4.710	4.698	(1.085)	415912	33.8129	1280
47 Acenaphthene	154	5.598	5.598	(1.004)	872618	31.1694	1180
50 2,4-Dinitrotoluene	165	5.698	5.698	(1.022)	313114	33.9278	1290
52 4-Nitrophenol	139	5.657	5.639	(1.015)	96924	18.7293	711
65 Pentachlorophenol	266	6.463	6.457	(0.981)	143966	28.6559	1090
79 Pyrene	202	7.451	7.451	(0.913)	1454996	32.9779	1250
2 Pyridine	79	2.110	2.069	(0.605)	268215	21.6086	821
4 Aniline	66	3.281	3.281	(0.941)	227487	28.6786	1090(Q)
7 bis(2-Chloroethyl) ether	63	3.298	3.304	(0.946)	360869	28.2711	1070
9 1,3-Dichlorobenzene	146	3.451	3.451	(0.990)	344719	19.6435	746
12 Benzyl alcohol	108	3.569	3.563	(1.024)	123119	15.0303	571
13 1,2-Dichlorobenzene	146	3.593	3.598	(1.030)	369565	22.3167	848
14 bis(2-Chloroisopropyl)ether	45	3.634	3.640	(1.042)	821611	30.2682	1150
15 o-Cresol	107	3.622	3.622	(1.039)	401770	33.6621	1280
18 m,p-Cresols	107	3.722	3.722	(1.067)	500136	32.3300	1230(Q)
19 Hexachloroethane	117	3.816	3.822	(1.094)	127691	18.9620	720
21 Nitrobenzene	77	3.857	3.863	(0.889)	482995	31.5212	1200
22 Isophorone	82	4.010	4.016	(0.924)	895860	31.3034	1190
23 2-Nitrophenol	139	4.069	4.069	(0.938)	250290	31.6576	1200
24 2,4-Dimethylphenol	122	4.081	4.075	(0.940)	447555	31.6781	1200
25 bis(2-Chloroethoxy)methane	93	4.140	4.139	(0.954)	526943	30.1041	1140
26 2,4-Dichlorophenol	162	4.234	4.234	(0.976)	386744	32.8092	1250
27 Benzoic acid	105	4.181	4.145	(0.963)	530201	69.1100	2620
30 Naphthalene	128	4.351	4.351	(1.003)	1316397	28.0671	1070
31 4-Chloroaniline	127	4.381	4.381	(1.009)	614801	29.2412	1110
32 Hexachlorobutadiene	225	4.422	4.422	(1.019)	189912	23.3745	888
34 2-Methylnaphthalene	142	4.828	4.828	(1.112)	906027	30.4275	1160
36 Hexachlorocyclopentadiene	237	4.934	4.934	(0.885)	152102	20.9797	797
37 2,4,6-Trichlorophenol	196	5.022	5.022	(0.901)	273184	32.0791	1220
38 2,4,5-Trichlorophenol	196	5.057	5.045	(0.907)	320244	35.1247	1330
40 2-Chloronaphthalene	162	5.175	5.175	(0.928)	827887	30.1550	1140
42 o-Nitroaniline	65	5.245	5.245	(0.941)	265161	33.6659	1280
41 m-Nitroaniline	138	5.540	5.539	(0.994)	199874	33.6170	1280
43 Dimethylphthalate	163	5.357	5.363	(0.961)	1085042	34.0078	1290
44 2,6-Dinitrotoluene	165	5.410	5.410	(0.970)	240571	32.4768	1230
45 Acenaphthylene	152	5.475	5.475	(0.982)	1472206	33.4246	1270
48 2,4-Dinitrophenol	184	5.610	5.604	(1.006)	75328	28.9979	1100(Q)
49 Dibenzofuran	168	5.716	5.716	(1.025)	1242869	33.0389	1250
51 Diethylphthalate	149	5.851	5.851	(1.050)	1100982	34.4374	1310
53 Fluorene	166	5.957	5.957	(1.069)	1028796	32.6206	1240
54 4-Chlorophenylphenylether	204	5.945	5.945	(1.066)	518708	33.5830	1280
55 2-Methyl-4,6-dinitrophenol	198	5.987	5.986	(0.909)	135414	28.3562	1080

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	5.975	5.969	(1.072)	191401	35.0765	1330
133 Diphenylamine	169	6.028	6.028	(0.915)	831280	31.6625	1200
58 1,2-Diphenylhydrazine	77	6.057	6.057	(0.920)	1096119	36.2986	1380
61 4-Bromophenylphenylether	248	6.281	6.281	(0.954)	282897	30.4749	1160
63 Hexachlorobenzene	284	6.334	6.333	(0.962)	276157	27.4114	1040
68 Phenanthrene	178	6.604	6.604	(1.003)	1449484	32.6291	1240
69 Anthracene	178	6.634	6.633	(1.007)	1385547	31.7604	1210
72 Di-n-butylphthalate	149	6.904	6.904	(1.048)	1895695	35.2375	1340
76 Fluoranthene	202	7.316	7.316	(1.111)	1449225	31.7426	1200
85 Butylbenzylphthalate	149	7.763	7.769	(0.952)	740733	39.2270	1490
89 Benzo(a)anthracene	228	8.145	8.145	(0.999)	1192280	32.6228	1240
90 3,3'-Dichlorobenzidine	252	8.110	8.110	(0.994)	290919	25.2332	958
92 Chrysene	228	8.175	8.175	(1.002)	1127212	33.0054	1250
93 bis(2-Ethylhexyl)phthalate	149	8.075	8.080	(0.990)	1002991	40.1892	1530
94 Di-n-octylphthalate	149	8.504	8.510	(0.913)	1531668	43.3094	1640
95 Benzo(b)fluoranthene	252	8.945	8.951	(0.961)	939475	31.7240	1200
96 Benzo(k)fluoranthene	252	8.969	8.974	(0.963)	956427	33.8998	1290
97 Benzo(a)pyrene	252	9.251	9.257	(0.994)	771443	32.5336	1240
99 Indeno(1,2,3-cd)pyrene	276	10.545	10.551	(1.133)	585700	29.0513	1100
100 Dibenzo(a,h)anthracene	278	10.551	10.557	(1.133)	450822	27.0615	1030
101 Benzo(ghi)perylene	276	10.927	10.933	(1.174)	435605	26.6391	1010
1 N-Methyl-N-nitrosomethylamine	74	2.075	2.040	(0.595)	209162	25.8360	981

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s033010.b/s1c3023.d
Date : 30-MAR-2010 18:38
Client ID: RE46-10-12972MSD
Sample Info: 1120207481019667661|1SVM11ILANLMSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

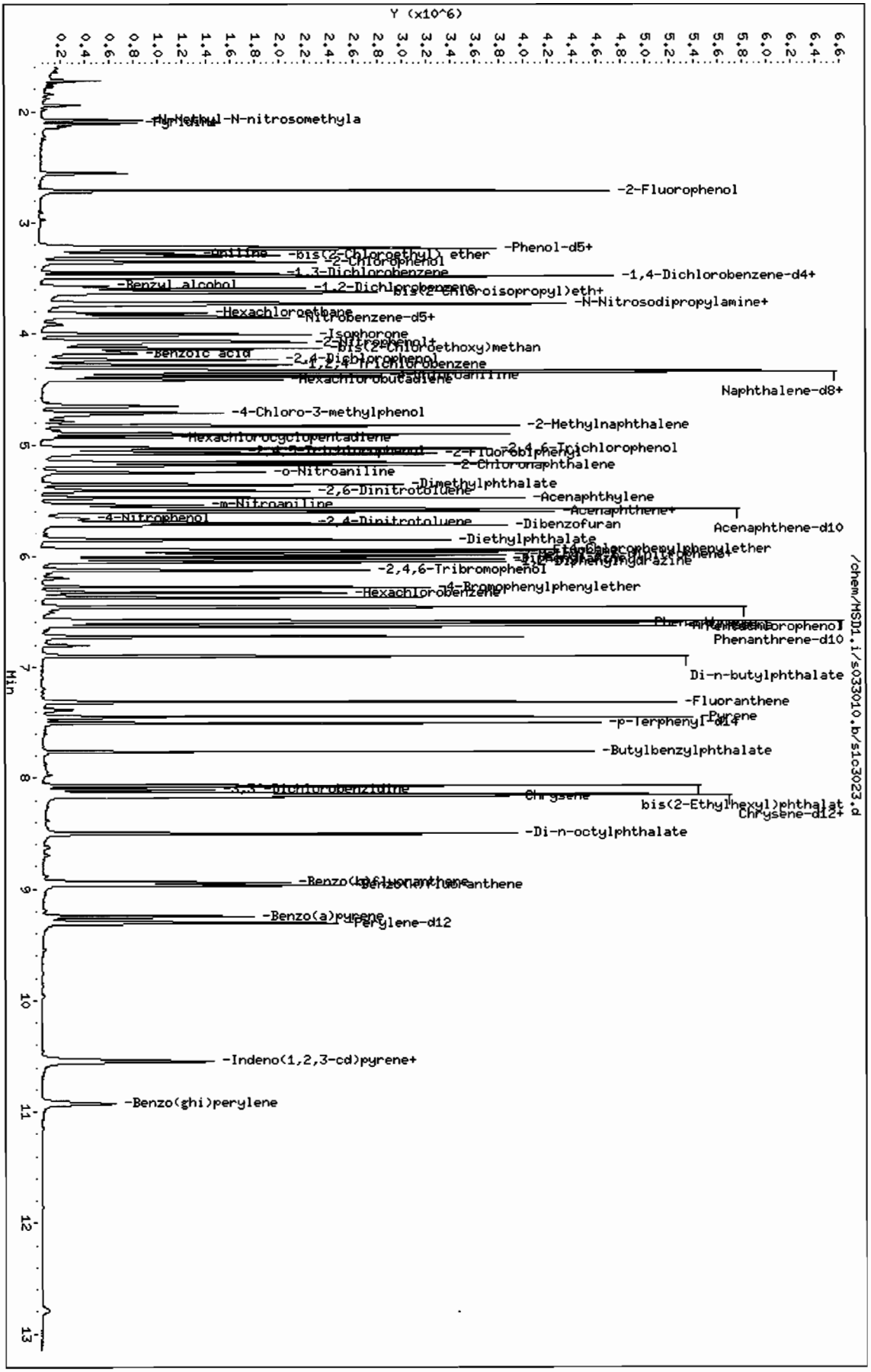

Page 1

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2433

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	968275
Prep Batch Number:	968274

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
249332001	RE46-10-13219
249332002	RE46-10-13221
249332003	RE46-10-13220
249332004	RE46-10-13216
249332005	RE46-10-13217
249332006	RE46-10-13218
249332007	RE46-10-13234
249332009	RE46-10-14199
1202078651	Method Blank (MB)
1202078652	Laboratory Control Sample (LCS)
1202078653	249614001(RE46-10-13010) Matrix Spike (MS)
1202078654	249614001(RE46-10-13010) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear

equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-2486) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimi Cao Date: 4/9/10

Roadmap for LANL 10-2433 PCB

This roadmap was analyzed by yip00818 on 03-25-2010, 11:50.
This roadmap was analyzed by yml on 04-05-2010, 17:13.
This roadmap was packaged by yml on 04-08-2010, 18:28.
This roadmap was validated by jim01140 on 04-09-2010, 09:24.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032410.b/034f3401.d	249332001	sample	24-MAR-2010	11:44	10-2433.sub	RE46-10-13219	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032410.b/035f3501.d	249332002	sample	24-MAR-2010	11:56	10-2433.sub	RE46-10-13221	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032410.b/036f3601.d	249332003	sample	24-MAR-2010	12:09	10-2433.sub	RE46-10-13220	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032410.b/037f3701.d	249332004	sample	24-MAR-2010	12:22	10-2433.sub	RE46-10-13216	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032410.b/038f3801.d	249332005	sample	24-MAR-2010	12:34	10-2433.sub	RE46-10-13217	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032410.b/039f3901.d	249332006	sample	24-MAR-2010	12:47	10-2433.sub	RE46-10-13218	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032410.b/040f4001.d	249332007	sample	24-MAR-2010	12:59	10-2433.sub	RE46-10-13234	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032410.b/041f4101.d	249332009	sample	24-MAR-2010	13:12	10-2433.sub	RE46-10-14199	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032410.b/034b3401.d	249332001	sample	24-MAR-2010	11:44	10-2433.sub	RE46-10-13219	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032410.b/035b3501.d	249332002	sample	24-MAR-2010	11:56	10-2433.sub	RE46-10-13221	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032410.b/036b3601.d	249332003	sample	24-MAR-2010	12:09	10-2433.sub	RE46-10-13220	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032410.b/037b3701.d	249332004	sample	24-MAR-2010	12:22	10-2433.sub	RE46-10-13216	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032410.b/038b3801.d	249332005	sample	24-MAR-2010	12:34	10-2433.sub	RE46-10-13217	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032410.b/039b3901.d	249332006	sample	24-MAR-2010	12:47	10-2433.sub	RE46-10-13218	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032410.b/040b4001.d	249332007	sample	24-MAR-2010	12:59	10-2433.sub	RE46-10-13234	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032410.b/041b4101.d	249332009	sample	24-MAR-2010	13:12	10-2433.sub	RE46-10-14199	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032410.b/032f3201.d	1202078651	mb	24-MAR-2010	11:23	10-2433.sub	PBLK01	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032410.b/033f3301.d	1202078652	lcs	24-MAR-2010	11:33	10-2433.sub	PBLK01LCS	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032410.b/032b3201.d	1202078651	mb	24-MAR-2010	11:23	10-2433.sub	PBLK01	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER

☐	N	/chem/ecd1a.i/032410.b/033b3301.d	1202078652	lcs	24-MAR-2010	11:33	10-2433.sub	PBLK01LCS	1.00000	968275	UPLOAD BOTH COLUMNS, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**19**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13216**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968275**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 12:22**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 19:55**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**037f3701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	037b3701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.10	ug/kg	1.37	4.10	1
11104–28–2	Aroclor–1221	U	4.10	ug/kg	1.37	4.10	1
11141–16–5	Aroclor–1232	U	4.10	ug/kg	1.37	4.10	1
53469–21–9	Aroclor–1242	U	4.10	ug/kg	1.37	4.10	1
12672–29–6	Aroclor–1248	U	4.10	ug/kg	1.37	4.10	1
11097–69–1	Aroclor–1254		29.1	ug/kg	1.37	4.10	1
11096–82–5	Aroclor–1260		17.7	ug/kg	1.37	4.10	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**13.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13217**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**968275**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 12:34**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 19:55**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**038f3801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	038b3801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.85	ug/kg	1.28	3.85	1
11104-28-2	Aroclor-1221	U	3.85	ug/kg	1.28	3.85	1
11141-16-5	Aroclor-1232	U	3.85	ug/kg	1.28	3.85	1
53469-21-9	Aroclor-1242	U	3.85	ug/kg	1.28	3.85	1
12672-29-6	Aroclor-1248	U	3.85	ug/kg	1.28	3.85	1
11097-69-1	Aroclor-1254	U	3.85	ug/kg	1.28	3.85	1
11096-82-5	Aroclor-1260	U	3.85	ug/kg	1.28	3.85	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332006	**Date Received:**	03/13/2010 09:30	**%Moisture:**	28.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13218	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	968275	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/24/2010 12:47	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/23/2010 19:55	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	039f3901.d	**Column:**	1 CLP1	**Level:**	LOW
	039b3901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.64	ug/kg	1.55	4.64	1
11104–28–2	Aroclor–1221	U	4.64	ug/kg	1.55	4.64	1
11141–16–5	Aroclor–1232	U	4.64	ug/kg	1.55	4.64	1
53469–21–9	Aroclor–1242		54.2	ug/kg	1.55	4.64	2
12672–29–6	Aroclor–1248	U	4.64	ug/kg	1.55	4.64	1
11097–69–1	Aroclor–1254		55.9	ug/kg	1.55	4.64	1
11096–82–5	Aroclor–1260		21.6	ug/kg	1.55	4.64	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332001	**Date Received:**	03/13/2010 09:30	**%Moisture:**	7.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13219	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	968275	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/24/2010 11:44	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/23/2010 19:55	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	034f3401.d	**Column:**	1 CLP1	**Level:**	LOW
	034b3401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.61	ug/kg	1.20	3.61	1
11104–28–2	Aroclor–1221	U	3.61	ug/kg	1.20	3.61	1
11141–16–5	Aroclor–1232	U	3.61	ug/kg	1.20	3.61	1
53469–21–9	Aroclor–1242	U	3.61	ug/kg	1.20	3.61	1
12672–29–6	Aroclor–1248	U	3.61	ug/kg	1.20	3.61	1
11097–69–1	Aroclor–1254	U	3.61	ug/kg	1.20	3.61	1
11096–82–5	Aroclor–1260	U	3.61	ug/kg	1.20	3.61	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13220**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968275**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 12:09**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 19:55**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**036f3601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	036b3601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.76	ug/kg	1.25	3.76	1
11104–28–2	Aroclor–1221	U	3.76	ug/kg	1.25	3.76	1
11141–16–5	Aroclor–1232	U	3.76	ug/kg	1.25	3.76	1
53469–21–9	Aroclor–1242	U	3.76	ug/kg	1.25	3.76	1
12672–29–6	Aroclor–1248	U	3.76	ug/kg	1.25	3.76	1
11097–69–1	Aroclor–1254		13.7	ug/kg	1.25	3.76	1
11096–82–5	Aroclor–1260	P	7.00	ug/kg	1.25	3.76	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**4.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13221**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968275**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 11:56**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 19:55**	**Aliquot:**	**30.16 g**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	035b3501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.47	ug/kg	1.16	3.47	1
11104–28–2	Aroclor–1221	U	3.47	ug/kg	1.16	3.47	1
11141–16–5	Aroclor–1232	U	3.47	ug/kg	1.16	3.47	1
53469–21–9	Aroclor–1242	U	3.47	ug/kg	1.16	3.47	1
12672–29–6	Aroclor–1248	U	3.47	ug/kg	1.16	3.47	1
11097–69–1	Aroclor–1254	U	3.47	ug/kg	1.16	3.47	1
11096–82–5	Aroclor–1260	U	3.47	ug/kg	1.16	3.47	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13234**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**968275**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 12:59**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 19:55**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**040f4001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	040b4001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.80	ug/kg	1.26	3.80	1
11104-28-2	Aroclor-1221	U	3.80	ug/kg	1.26	3.80	1
11141-16-5	Aroclor-1232	U	3.80	ug/kg	1.26	3.80	1
53469-21-9	Aroclor-1242	U	3.80	ug/kg	1.26	3.80	1
12672-29-6	Aroclor-1248	U	3.80	ug/kg	1.26	3.80	1
11097-69-1	Aroclor-1254		13.9	ug/kg	1.26	3.80	1
11096-82-5	Aroclor-1260	P	7.50	ug/kg	1.26	3.80	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332009**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**30**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-14199**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**968275**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 13:12**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 19:55**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**041f4101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	041b4101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.74	ug/kg	1.58	4.74	1
11104-28-2	Aroclor-1221	U	4.74	ug/kg	1.58	4.74	1
11141-16-5	Aroclor-1232	U	4.74	ug/kg	1.58	4.74	1
53469-21-9	Aroclor-1242	U	4.74	ug/kg	1.58	4.74	1
12672-29-6	Aroclor-1248	U	4.74	ug/kg	1.58	4.74	1
11097-69-1	Aroclor-1254	J	4.50	ug/kg	1.58	4.74	1
11096-82-5	Aroclor-1260	J	2.90	ug/kg	1.58	4.74	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-2433

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202078651	MB for batch 968274	92	87	84	87
1202078652	LCS for batch 968274	89	84	86	88
249332001	RE46-10-13219	64	61	62	66
249332002	RE46-10-13221	71	68	82	75
249332003	RE46-10-13220	65	62	69	67
249332004	RE46-10-13216	75	71	81	78
249332005	RE46-10-13217	67	65	48	71
249332006	RE46-10-13218	66	64	69	67
249332007	RE46-10-13234	72	67	80	72
249332009	RE46-10-14199	75	72	85	79

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%-120%)
DCB = Decachlorobiphenyl	(30%-116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **10–2433**
Client ID: **LCS for batch 968274**
Lab Sample ID: **1202078652**
Instrument: **ECD1A.I**
Analyst: **YS1**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **03/24/2010 11:33**
Dilution: 1
Prep Batch ID: **968274**
Batch ID: **968275**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674–11–2	LCS	Aroclor–1016	33.3	0.0	27.5	83	39–102
11096–82–5	LCS	Aroclor–1260	33.3	0.0	29.8	89	45–118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2486
Client ID: RE46-10-13010MS
Lab Sample ID: 1202078653
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 18.9
Analysis Date: 03/24/2010 15:22
Prep Batch ID: 968274
Batch ID: 968275
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	40.9	0.00	U	28.3	69	23-119
11096-82-5	MS	Aroclor-1260	40.9	0.00	U	35.4	86	28-124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10–2486**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE46–10–13010MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202078654**	**%Moisture:**	**18.9**
Instrument:	**ECD1A.I**	**Analysis Date:**	**03/24/2010 15:35**
Analyst:	**YS1**	**Prep Batch ID:**	**968274**
Inj. Vol:	**1 uL**	**Batch ID:**	**968275**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	41.0	0.00	U	27.2	66	23–119	4	0–28
11096–82–5	MSD Aroclor–1260	41.0	0.00	U	33.7	82	28–124	5	0–30

Method Blank Summary

SDG Number:	**10–2433**	**Client:**	**LANL010**	**Matrix:**	**SOIL**
Client ID:	**MB for batch 968274**	**Instrument ID:**	**ECD1A.I_2** **ECD1A.I_1**	**Data File:**	**032b3201–1.d** **032f3201–1.d**
Lab Sample ID:	**1202078651**				
Column:	**CLP2** **CLP1**	**Prep Date:**	**03/23/2010 19:55**	**Analyzed:**	**03/24/10 11:23**
		Level:	**LOW**		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 968274	1202078652	033f3301–1.d 033b3301–1.d	03/24/10	1133
02 RE46–10–13219	249332001	034f3401.d 034b3401.d	03/24/10	1144
03 RE46–10–13221	249332002	035f3501.d 035b3501.d	03/24/10	1156
04 RE46–10–13220	249332003	036f3601.d 036b3601.d	03/24/10	1209
05 RE46–10–13216	249332004	037f3701.d 037b3701.d	03/24/10	1222
06 RE46–10–13217	249332005	038f3801.d 038b3801.d	03/24/10	1234
07 RE46–10–13218	249332006	039f3901.d 039b3901.d	03/24/10	1247
08 RE46–10–13234	249332007	040f4001.d 040b4001.d	03/24/10	1259
09 RE46–10–14199	249332009	041f4101.d 041b4101.d	03/24/10	1312

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332004	**Date Received:**	03/13/2010 09:30	**%Moisture:**	19
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13216	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	968275	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/24/2010 12:22	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/23/2010 19:55	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	037f3701.d	**Column:**	1 CLP1	**Level:**	LOW
	037b3701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.10	ug/kg	1.37	4.10	1
11104–28–2	Aroclor–1221	U	4.10	ug/kg	1.37	4.10	1
11141–16–5	Aroclor–1232	U	4.10	ug/kg	1.37	4.10	1
53469–21–9	Aroclor–1242	U	4.10	ug/kg	1.37	4.10	1
12672–29–6	Aroclor–1248	U	4.10	ug/kg	1.37	4.10	1
11097–69–1	Aroclor–1254		29.1	ug/kg	1.37	4.10	1
11096–82–5	Aroclor–1260		17.7	ug/kg	1.37	4.10	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/037f3701.d
Lab Smp Id: 249332004 Client Smp ID: RE46-10-13216
Inj Date : 24-MAR-2010 12:22
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249332004|1|
Misc Info : |ECD82P_1S|968275|SVA|LANL|SOIL|RE46-10-13216|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	19.00160	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.910	0.001	58792795	150.935	6.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.212	5.213	-0.001	47933715	161.431	6.6	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.205	3.207	-0.002	6650151	501.446	20.6	80.00- 120.00	100.00(M)
3.360	3.362	-0.002	10248979	574.710	23.6	115.19- 155.19	154.12
3.593	3.595	-0.002	17263200	771.667	31.7	155.81- 195.81	259.59
3.756	3.758	-0.002	10880134	659.800	27.1	110.49- 150.49	163.61

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.864	3.867	-0.003	16443798	1030.03	42.3	112.27- 152.27	257.36
Average of Peak Concentrations =					29.1		
7 Aroclor-1260					CAS #: 11096-82-5		
3.701	3.701	0.000	8144624	444.331	18.2	80.00- 120.00	100.00(M)
3.864	3.864	0.000	16443798	611.525	25.1	127.17- 167.17	210.14
4.026	4.026	0.000	20894251	737.914	30.3	137.47- 177.47	305.20
4.093	4.094	-0.001	3924536	242.887	10.0	68.88- 108.88	48.19
4.236	4.237	-0.001	2100683	124.946	5.1	72.94- 112.94	25.79
Average of Peak Concentrations =					17.7		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032410.b/037f3701.d

Page 1

Date : 24-MAR-2010 12:22

Client ID: RE46-10-13216

Instrument: ecd1a.i

Sample Info: |249332004|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

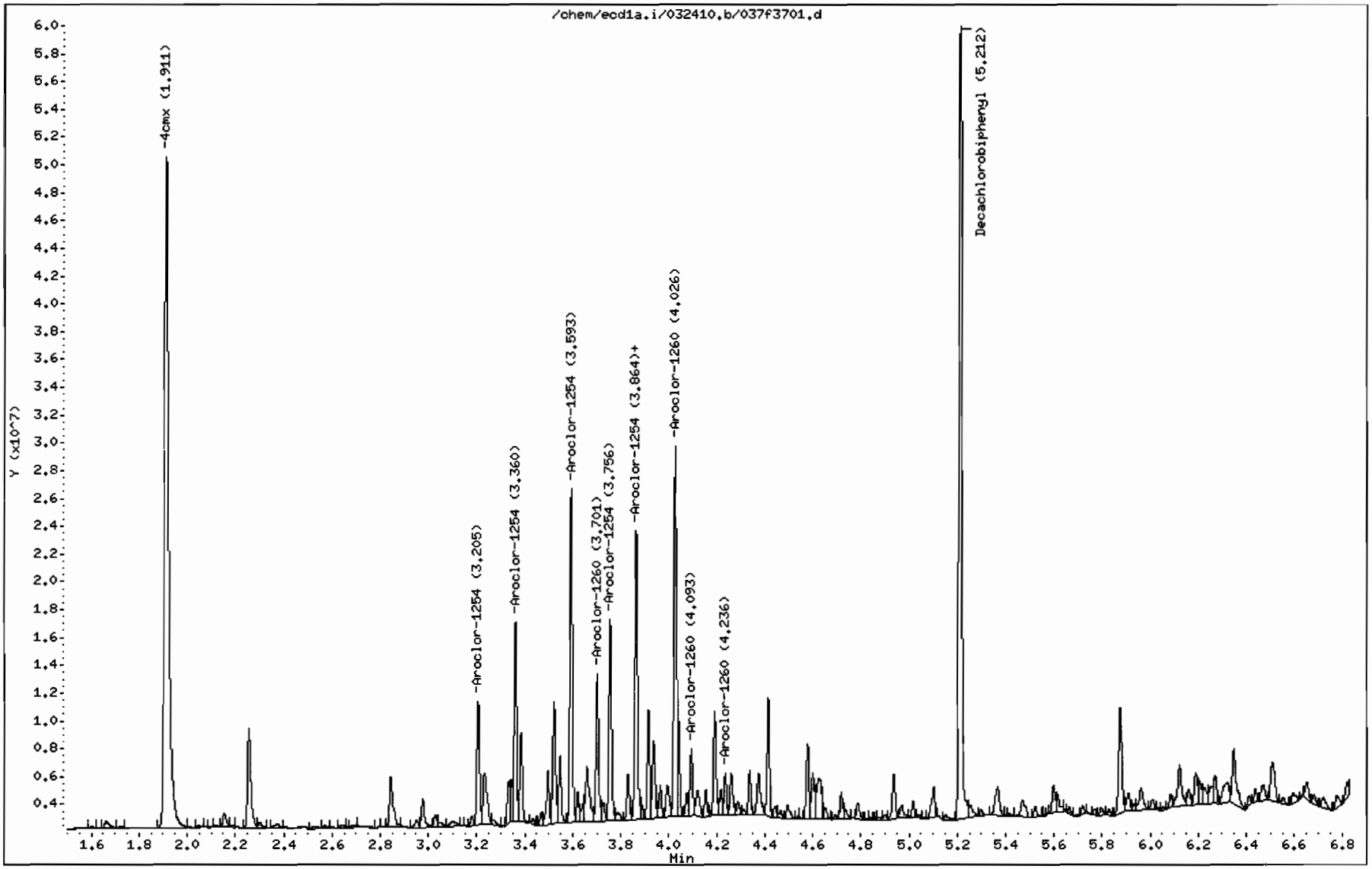

Comment: Manually Integrated
Data File: /chem/ecd1a.i/032410.b/037f3701.d
Operator: YS1
Injection Date: 24-MAR-2010 12:22
Instrument: ecd1a.i
Client Sample ID: RE46-10-13216

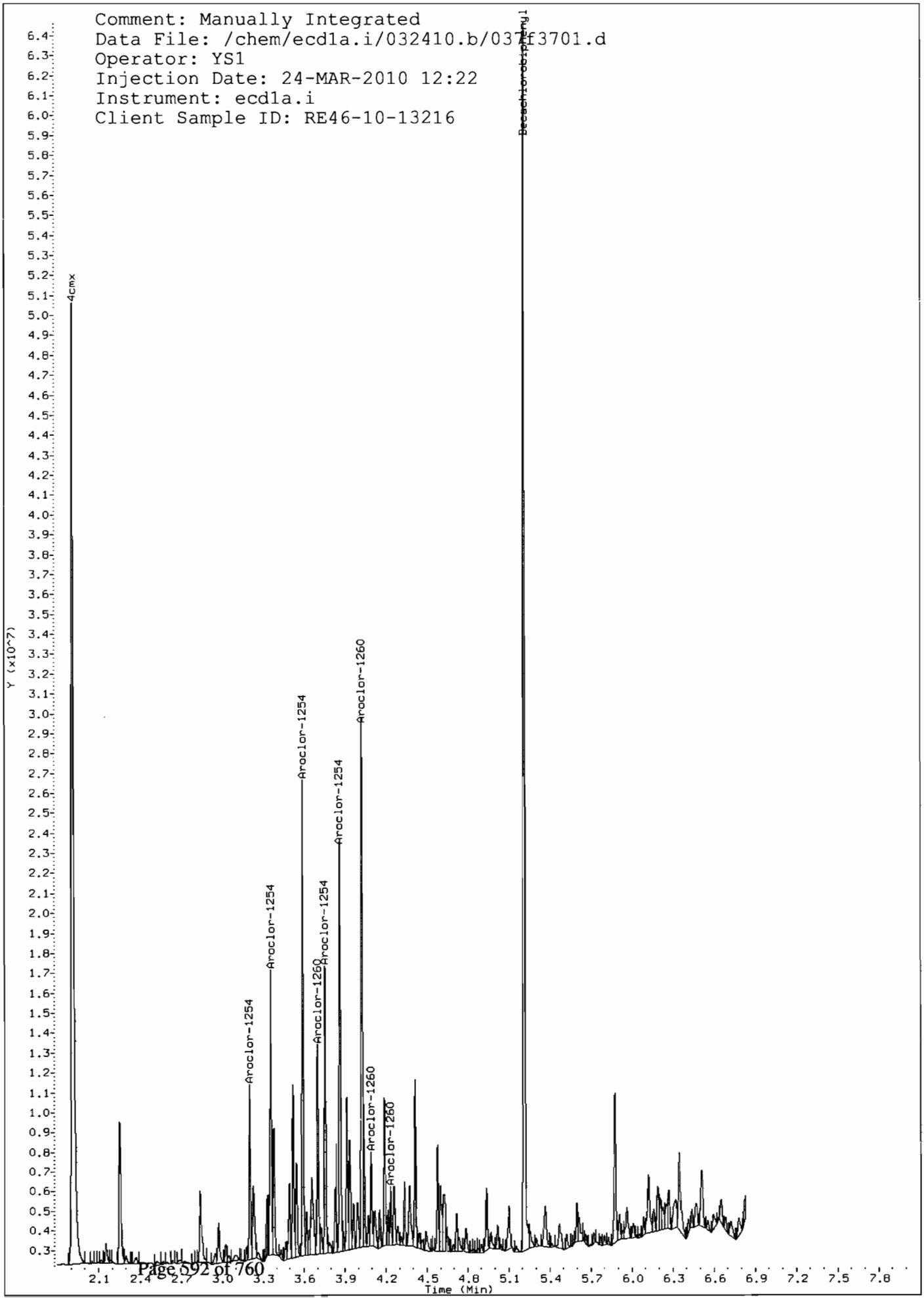

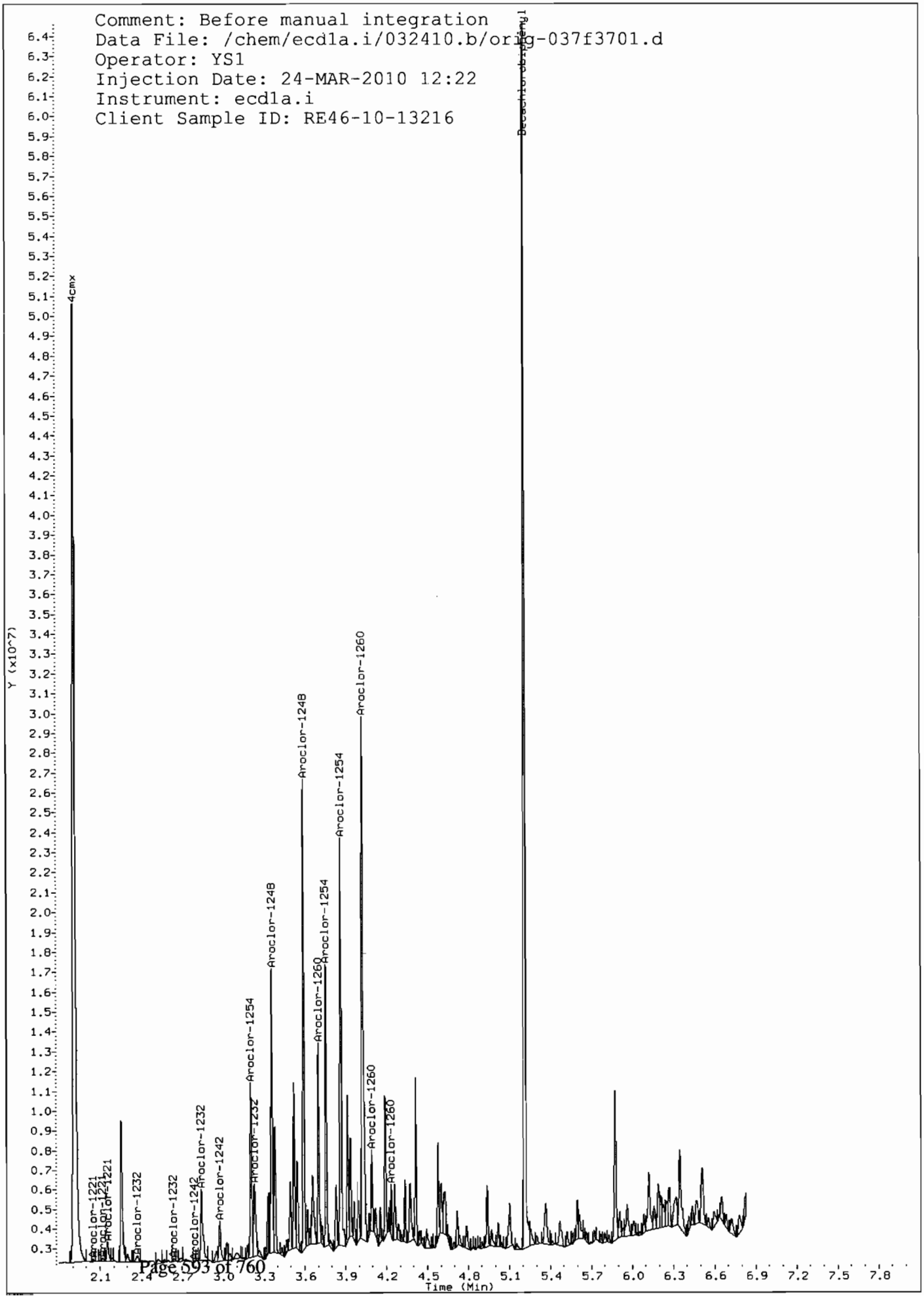
Comment: Before manual integration
Data File: /chem/ecd1a.i/032410.b/orig-037f3701.d
Operator: YS1
Injection Date: 24-MAR-2010 12:22
Instrument: ecd1a.i
Client Sample ID: RE46-10-13216
Decachlorobiphenyl
4cmx
Aroclor-1260
Aroclor-1248
Aroclor-1254
Aroclor-1248
Aroclor-1260
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1254
Aroclor-1232
Aroclor-1242
Aroclor-1232
Aroclor-1232
Aroclor-1221
Aroclor-1221
Aroclor-1221
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/037b3701.d
Lab Smp Id: 249332004 Client Smp ID: RE46-10-13216
Inj Date : 24-MAR-2010 12:22
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249332004|1|
Misc Info : |ECD82P_1S|968275|SVA|LANL|SOIL|RE46-10-13216|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	19.00160	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.268	2.269	-0.001	37411562	142.611	5.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.908	5.909	-0.001	29244053	156.240	6.4	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.372	3.373	-0.001	1921072	319.050	13.1	80.00- 120.00	100.00
3.793	3.794	-0.001	5100921	471.444	19.3	161.28- 201.28	265.52
3.910	3.911	-0.001	7564934	633.917	26.0	180.25- 220.25	393.79
4.185	4.186	-0.001	12336394	750.307	30.8	261.58- 301.58	642.16

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.321	4.323	-0.002	6892714	568.916	23.4	185.17- 225.17	358.80
Average of Peak Concentrations =					22.5		
7 Aroclor-1260					CAS #: 11096-82-5		
4.301	4.301	0.000	7446132	569.266	23.4	80.00- 120.00	100.00
4.427	4.426	0.001	8500012	546.659	22.4	102.26- 142.26	114.15
4.692	4.691	0.001	3002872	252.426	10.4	71.92- 111.92	40.33
4.865	4.864	0.001	2031116	165.276	6.8	75.68- 115.68	27.28
5.012	5.012	0.000	5391675	204.272	8.4	193.66- 233.66	72.41
Average of Peak Concentrations =					14.3		

Data File: /chem/ecd1a.i/032410.b/037b3701.d
Date : 24-MAR-2010 12:22
Client ID: RE46-10-13216
Sample Info: 1249332004111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

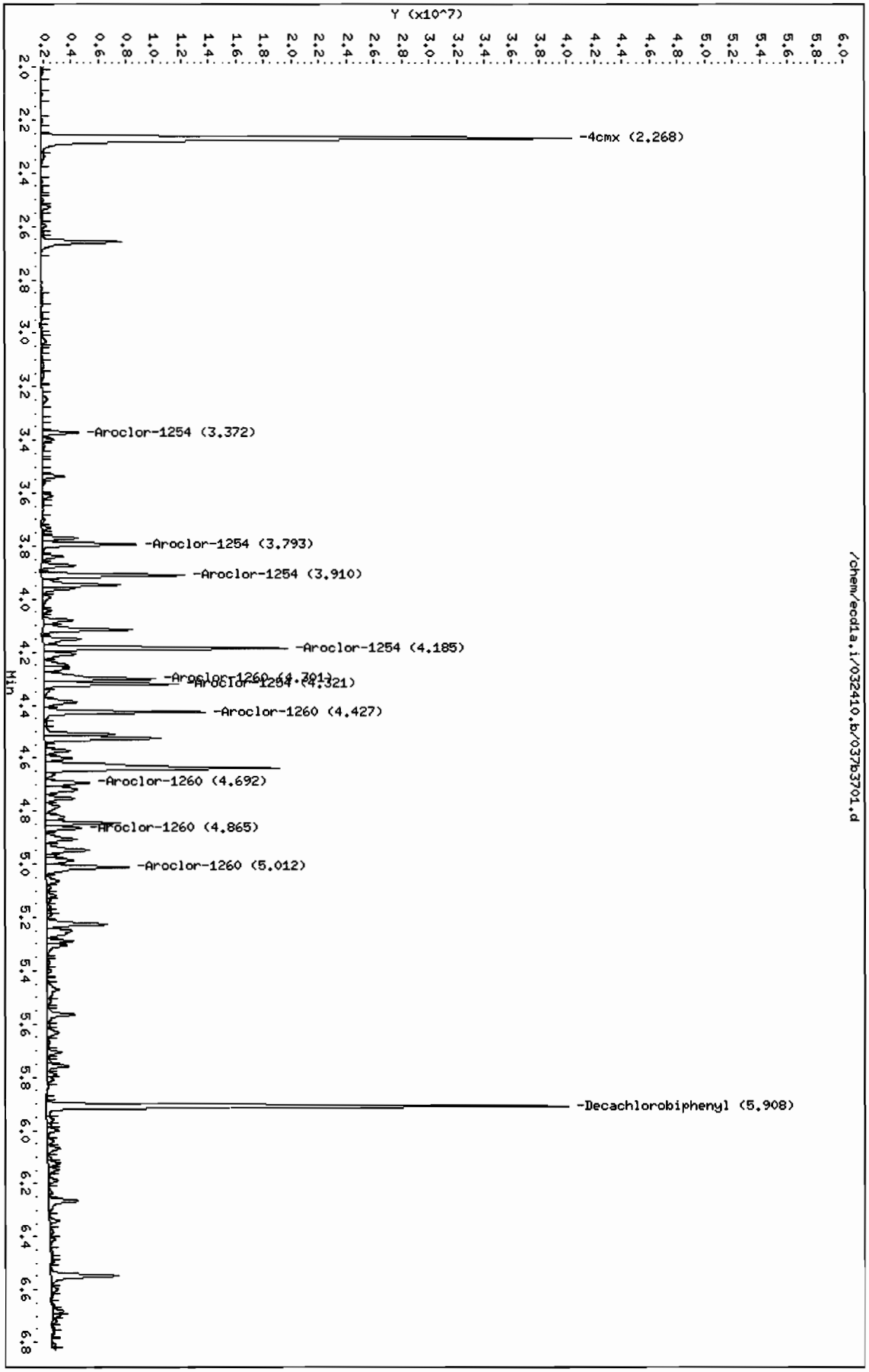

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**13.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13217**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968275**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 12:34**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 19:55**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**038f3801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	038b3801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.85	ug/kg	1.28	3.85	1
11104–28–2	Aroclor–1221	U	3.85	ug/kg	1.28	3.85	1
11141–16–5	Aroclor–1232	U	3.85	ug/kg	1.28	3.85	1
53469–21–9	Aroclor–1242	U	3.85	ug/kg	1.28	3.85	1
12672–29–6	Aroclor–1248	U	3.85	ug/kg	1.28	3.85	1
11097–69–1	Aroclor–1254	U	3.85	ug/kg	1.28	3.85	1
11096–82–5	Aroclor–1260	U	3.85	ug/kg	1.28	3.85	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/038f3801.d
Lab Smp Id: 249332005 Client Smp ID: RE46-10-13217
Inj Date : 24-MAR-2010 12:34
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249332005|1|
Misc Info : |ECD82P_1S|968275|SVA|LANL|SOIL|RE46-10-13217|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 38
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	13.67460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.910	0.000	52422194	134.580	5.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.212	5.213	-0.001	28709071	96.6862	3.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032410.b/038f3801.d

Date : 24-MAR-2010 12:34

Client ID: RE46-10-13217

Sample Info: |249332005|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

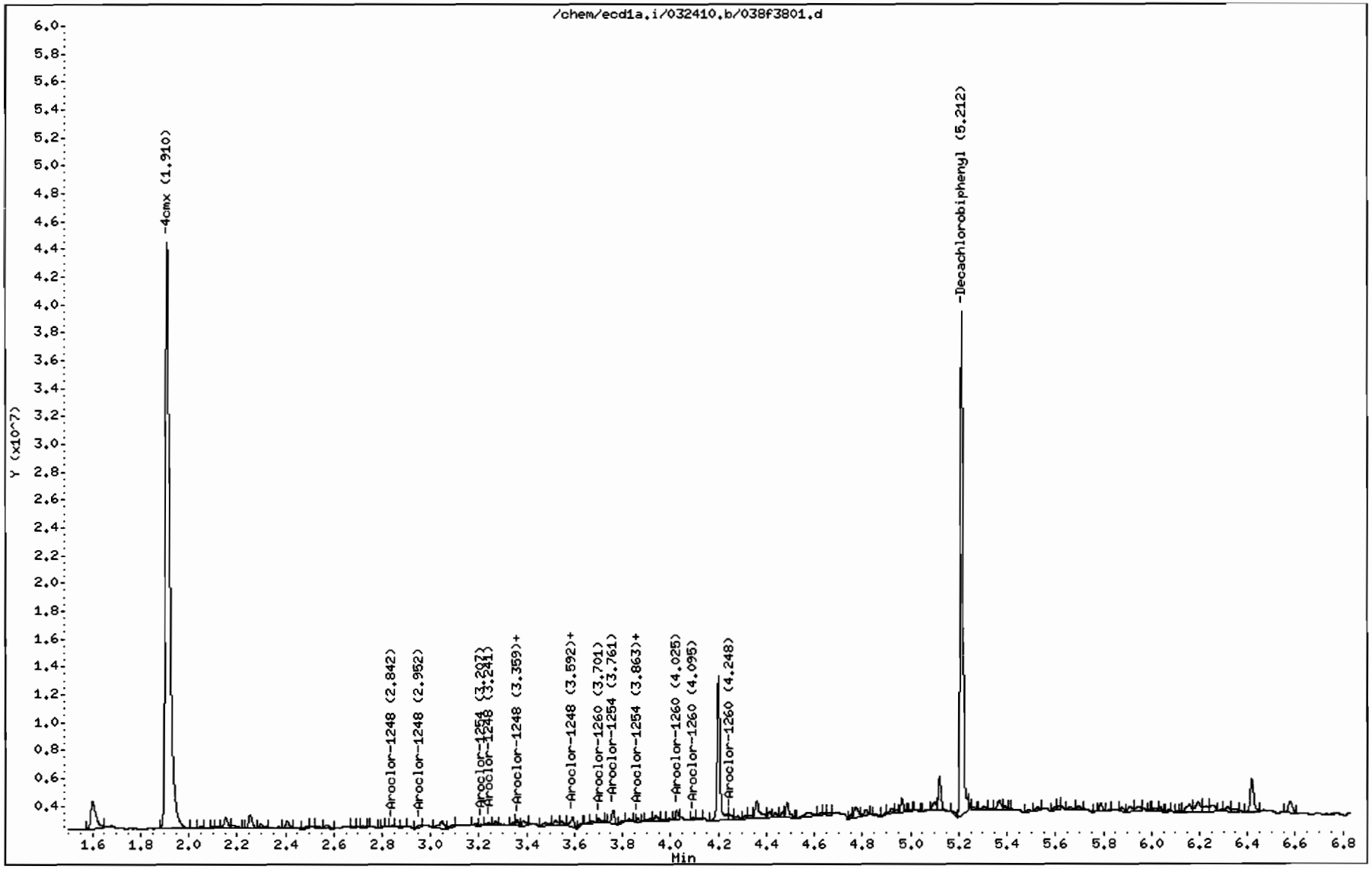

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/038b3801.d
Lab Smp Id: 249332005 Client Smp ID: RE46-10-13217
Inj Date : 24-MAR-2010 12:34
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249332005|1|
Misc Info : |ECD82P_1S|968275|SVA|LANL|SOIL|RE46-10-13217|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 38
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	13.67460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.268	2.269	-0.001	34255968	130.582	5.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.907	5.909	-0.002	26406666	141.081	5.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032410.b/038b3801.d

Date : 24-MAR-2010 12:34

Client ID: RE46-10-13217

Sample Info: |249332005|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

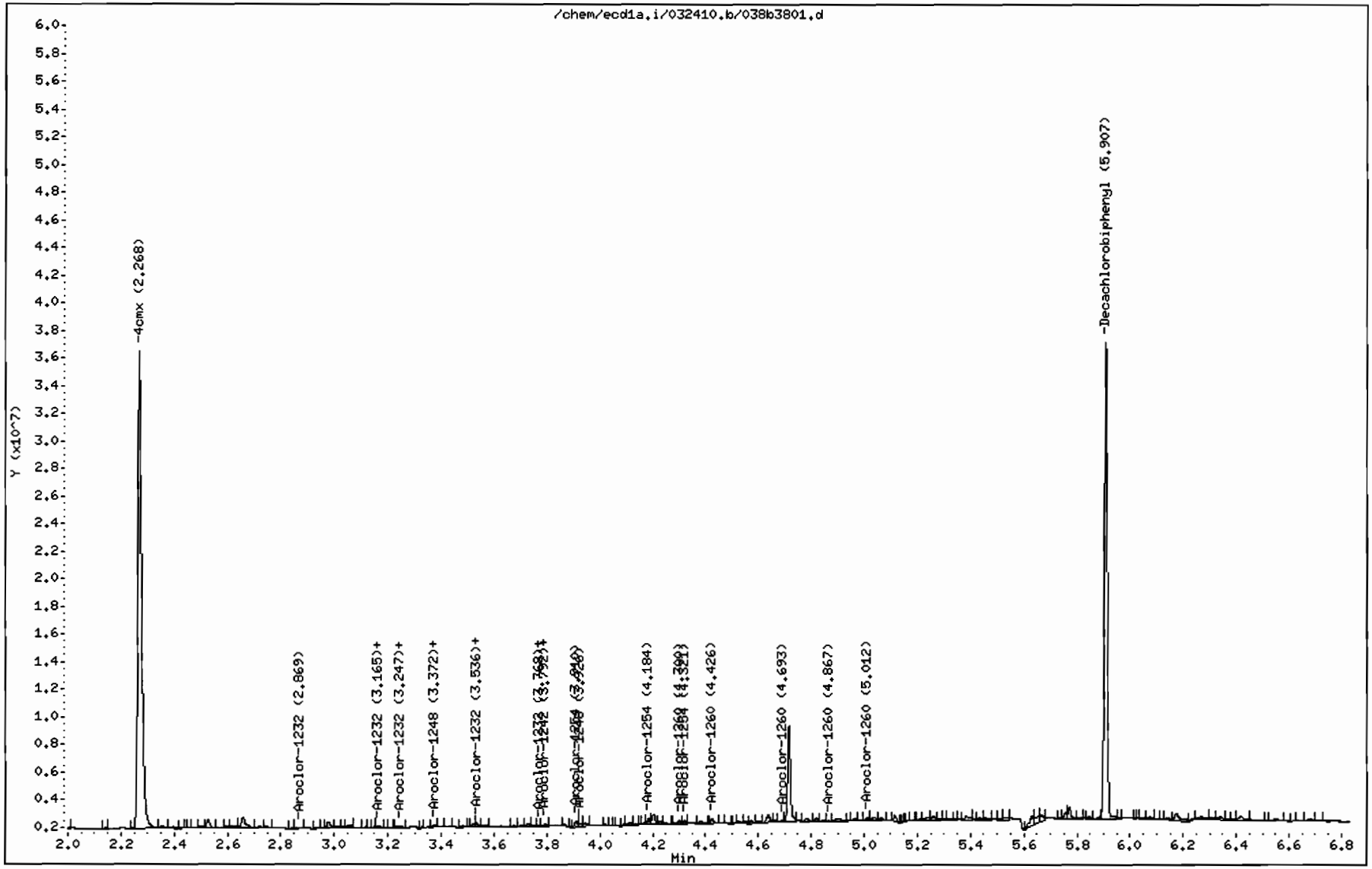

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**28.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13218**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968275**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 12:47**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 19:55**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**039f3901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	039b3901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.64	ug/kg	1.55	4.64	1
11104–28–2	Aroclor–1221	U	4.64	ug/kg	1.55	4.64	1
11141–16–5	Aroclor–1232	U	4.64	ug/kg	1.55	4.64	1
53469–21–9	Aroclor–1242		54.2	ug/kg	1.55	4.64	2
12672–29–6	Aroclor–1248	U	4.64	ug/kg	1.55	4.64	1
11097–69–1	Aroclor–1254		55.9	ug/kg	1.55	4.64	1
11096–82–5	Aroclor–1260		21.6	ug/kg	1.55	4.64	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/039f3901.d
Lab Smp Id: 249332006 Client Smp ID: RE46-10-13218
Inj Date : 24-MAR-2010 12:47
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249332006|1|
Misc Info : |ECD82P_1S|968275|SVA|LANL|SOIL|RE46-10-13218|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 39
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	28.21140	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.910	0.001	51433013	132.041	6.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.211	5.213	-0.002	41146355	138.572	6.4	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.362	2.364	-0.002	4625308	375.059	17.4	80.00- 120.00	100.00(M)
2.649	2.650	-0.001	6514763	437.159	20.3	104.12- 144.12	140.85
2.766	2.768	-0.002	2069167	350.968	16.3	26.35- 66.35	44.74
2.976	2.978	-0.002	9618596	1243.44	57.7	39.67- 79.67	207.96

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
4 Aroclor-1242 (continued)							
3.229	3.231	-0.002	15275569	2096.99	97.3	35.94- 75.94	330.26
Average of Peak Concentrations =					41.8		
6 Aroclor-1254					CAS #: 11097-69-1		
3.204	3.207	-0.003	13651544	1029.38	47.8	80.00- 120.00	100.00
3.359	3.362	-0.003	21989390	1233.05	57.2	115.19- 155.19	161.08
3.592	3.595	-0.003	26620082	1189.92	55.2	155.81- 195.81	195.00
3.754	3.758	-0.004	21947728	1330.97	61.8	110.49- 150.49	160.77
3.864	3.867	-0.003	19735370	1236.21	57.4	112.27- 152.27	144.57
Average of Peak Concentrations =					55.9		
7 Aroclor-1260					CAS #: 11096-82-5		
3.700	3.701	-0.001	9896398	539.899	25.0	80.00- 120.00	100.00(M)
3.864	3.864	0.000	19735370	733.934	34.0	127.17- 167.17	199.42
4.024	4.026	-0.002	22779679	804.501	37.3	137.47- 177.47	287.68
4.093	4.094	-0.001	2040235	126.269	5.8	68.88- 108.88	20.62
4.234	4.237	-0.003	2072139	123.249	5.7	72.94- 112.94	20.94
Average of Peak Concentrations =					21.6		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032410.b/039f3901.d
Date : 24-MAR-2010 12:47
Client ID: RE46-10-13218
Sample Info: |2493320061|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

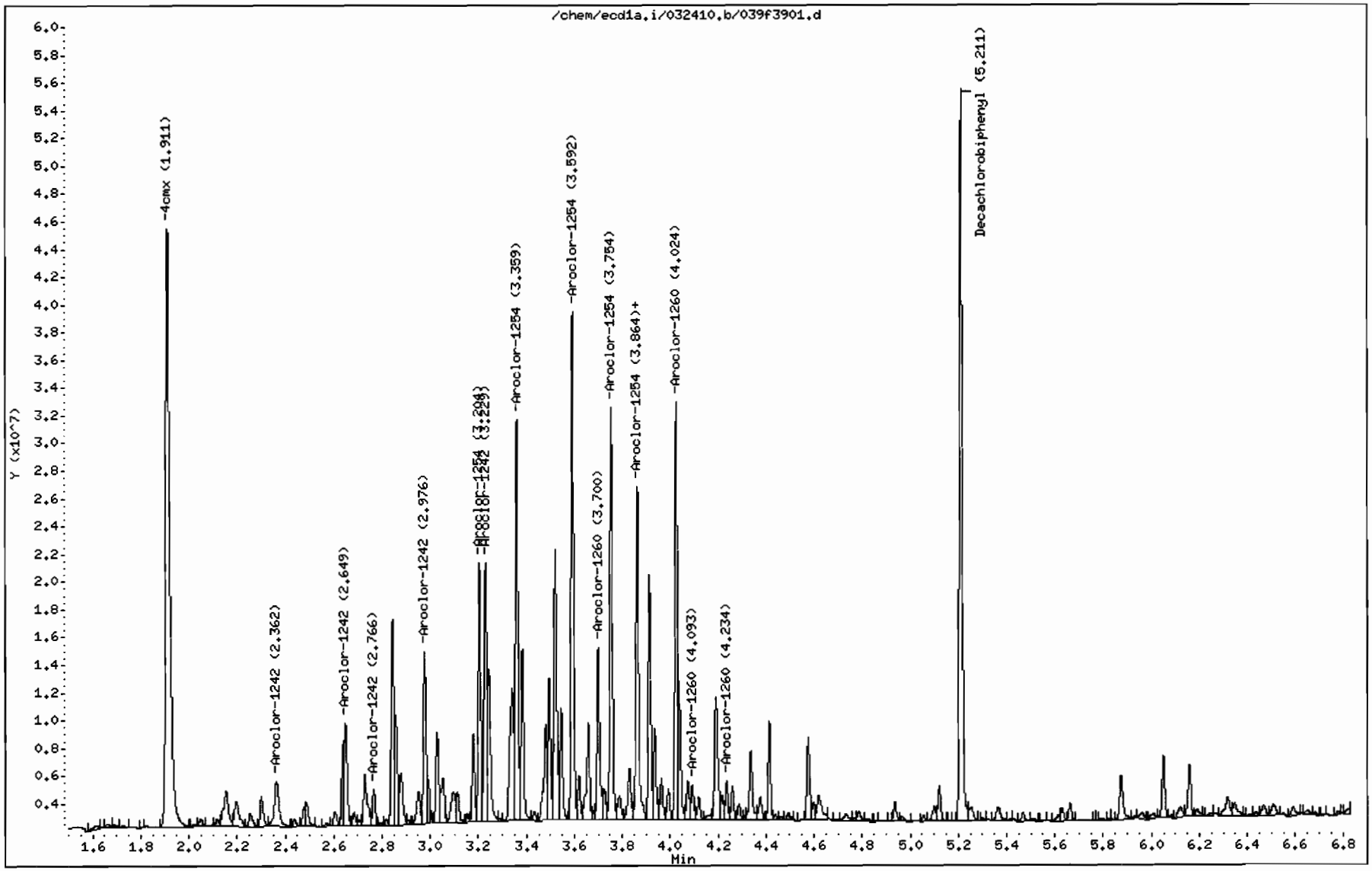

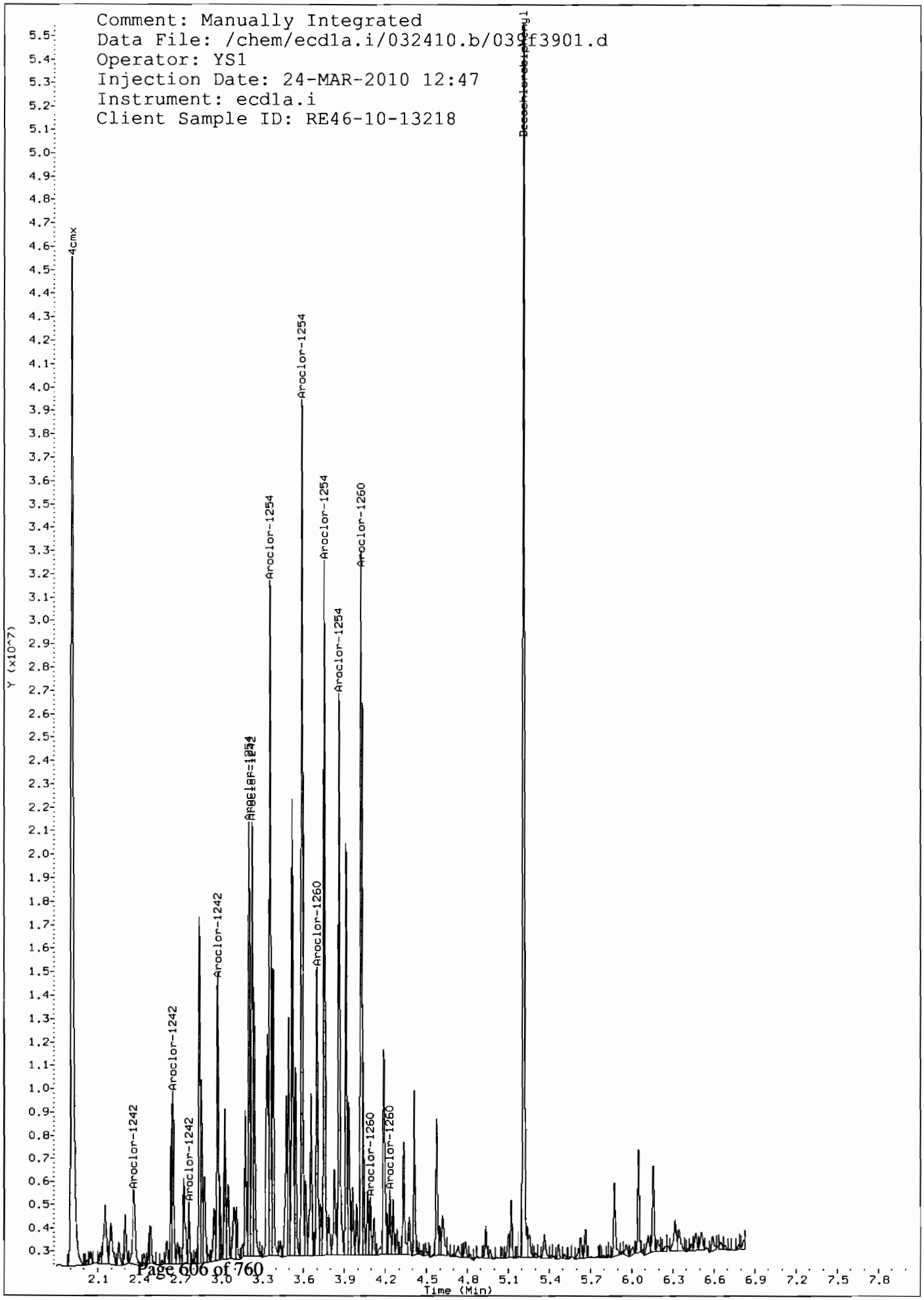
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032410.b/039f3901.d
Operator: YS1
Injection Date: 24-MAR-2010 12:47
Instrument: ecd1a.i
Client Sample ID: RE46-10-13218
4cmx
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1242
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd1a.i/032410.b/orig-039f3901.d
Operator: YS1
Injection Date: 24-MAR-2010 12:47
Instrument: ecd1a.i
Client Sample ID: RE46-10-13218

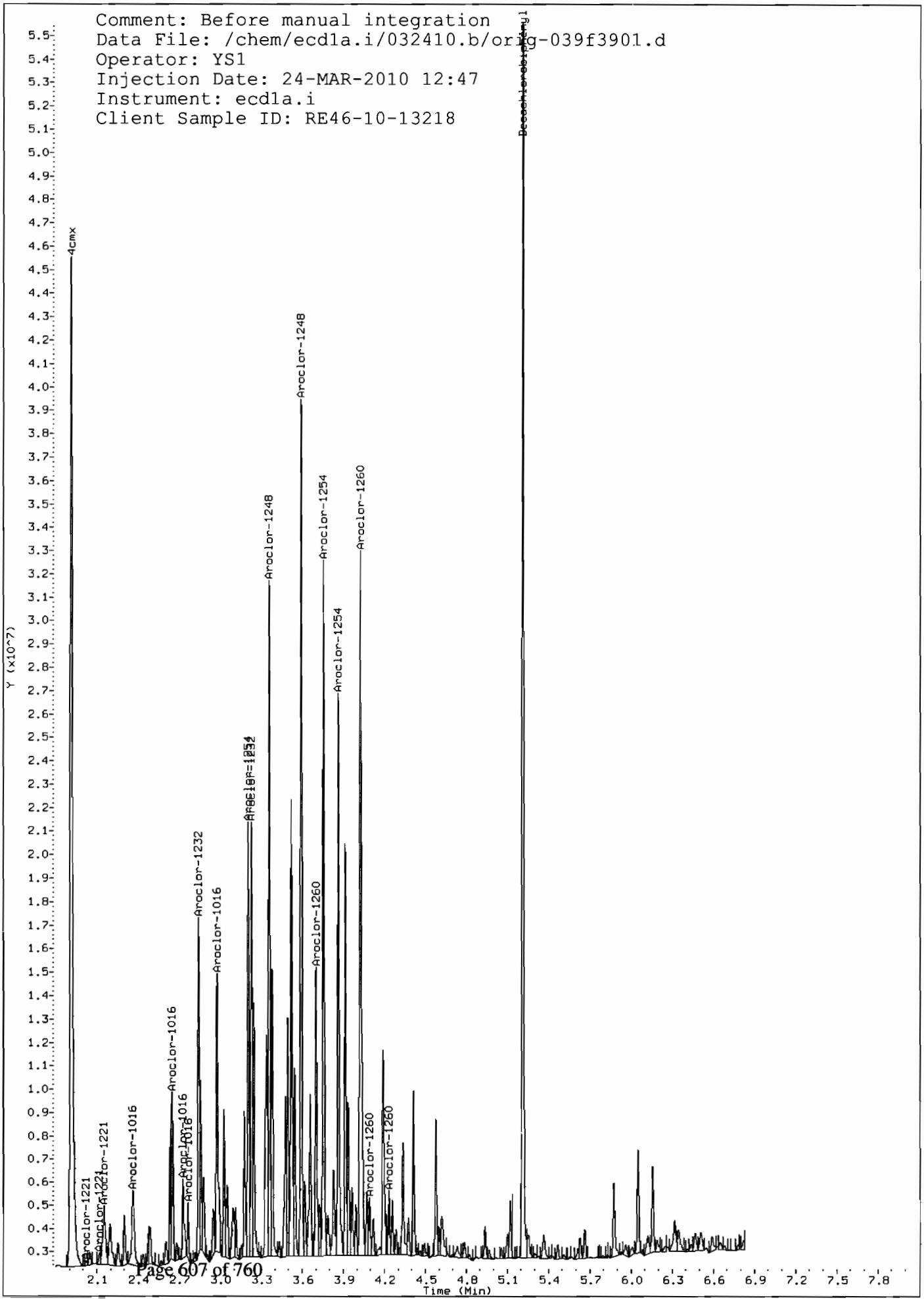

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/039b3901.d
Lab Smp Id: 249332006 Client Smp ID: RE46-10-13218
Inj Date : 24-MAR-2010 12:47
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249332006|1|
Misc Info : |ECD82P_1S|968275|SVA|LANL|SOIL|RE46-10-13218|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 39
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	28.21140	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	33487824	127.654	5.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.908	5.909	-0.001	24943923	133.266	6.2	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
3.163	3.164	-0.001	4061677	400.592	18.6	80.00- 120.00	100.00
3.245	3.247	-0.002	3444332	485.341	22.5	45.81- 85.81	84.80
3.535	3.537	-0.002	6682764	1212.06	56.2	31.98- 71.98	164.53
3.769	3.770	-0.001	9147594	1598.69	74.2	34.33- 74.33	225.22

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
4 Aroclor-1242 (continued)							
3.794	3.798	-0.004	13629577	2139.80	99.3	41.31- 81.31	335.57
Average of Peak Concentrations =					54.2		
6 Aroclor-1254					CAS #: 11097-69-1		
3.372	3.373	-0.001	7236069	1201.76	55.8	80.00- 120.00	100.00
3.794	3.794	0.000	13629577	1259.69	58.4	161.28- 201.28	188.36
3.909	3.911	-0.002	12778819	1070.82	49.7	180.25- 220.25	176.60
4.184	4.186	-0.002	17856194	1086.03	50.4	261.58- 301.58	246.77
4.320	4.323	-0.003	14828472	1223.92	56.8	185.17- 225.17	204.92
Average of Peak Concentrations =					54.2		
7 Aroclor-1260					CAS #: 11096-82-5		
4.300	4.301	-0.001	6985119	534.021	24.8	80.00- 120.00	100.00
4.425	4.426	-0.001	8513113	547.501	25.4	102.26- 142.26	121.87
4.694	4.691	0.003	2473466	207.923	9.6	71.92- 111.92	35.41
4.864	4.864	0.000	1521880	123.839	5.7	75.68- 115.68	21.79
5.011	5.012	-0.001	4257986	161.320	7.5	193.66- 233.66	60.96
Average of Peak Concentrations =					14.6		

Data File: /chem/ecd1a.i/032410.b/039b3901.d
Date : 24-MAR-2010 12:47
Client ID: RE46-10-13218
Sample Info: |2493320061|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

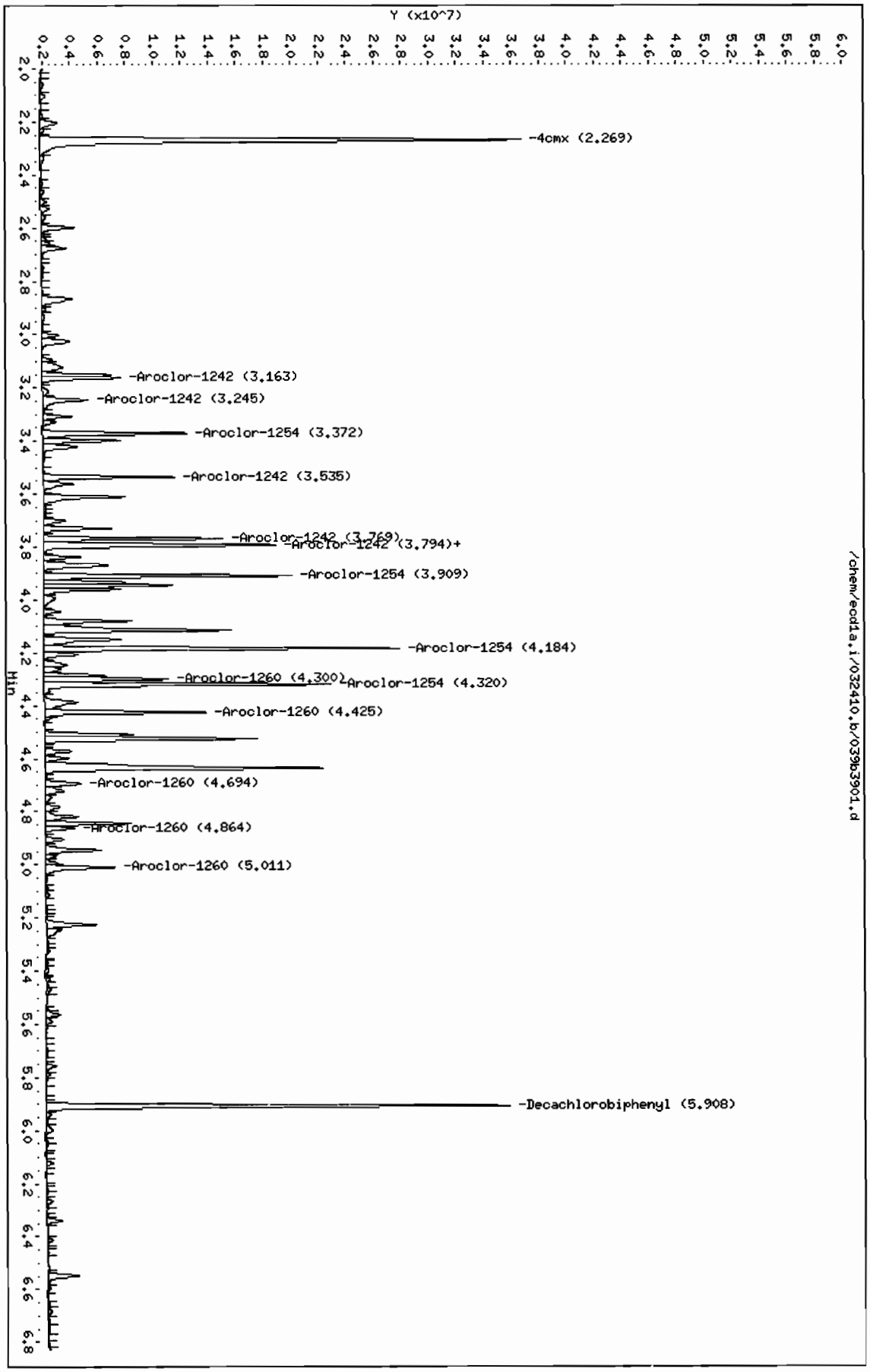

Page 1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332001**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**7.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13219**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**968275**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 11:44**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 19:55**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**034f3401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	034b3401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.61	ug/kg	1.20	3.61	1
11104-28-2	Aroclor-1221	U	3.61	ug/kg	1.20	3.61	1
11141-16-5	Aroclor-1232	U	3.61	ug/kg	1.20	3.61	1
53469-21-9	Aroclor-1242	U	3.61	ug/kg	1.20	3.61	1
12672-29-6	Aroclor-1248	U	3.61	ug/kg	1.20	3.61	1
11097-69-1	Aroclor-1254	U	3.61	ug/kg	1.20	3.61	1
11096-82-5	Aroclor-1260	U	3.61	ug/kg	1.20	3.61	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/034f3401.d
Lab Smp Id: 249332001 Client Smp ID: RE46-10-13219
Inj Date : 24-MAR-2010 11:44
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249332001|1|
Misc Info : |ECD82P_1S|968275|SVA|LANL|SOIL|RE46-10-13219|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	7.87170	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.910	0.002	49889786	128.079	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.213	0.002	36966375	124.495	4.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032410.b/034f3401.d
Date : 24-MAR-2010 11:44
Client ID: RE46-10-13219
Sample Info: |249332001|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

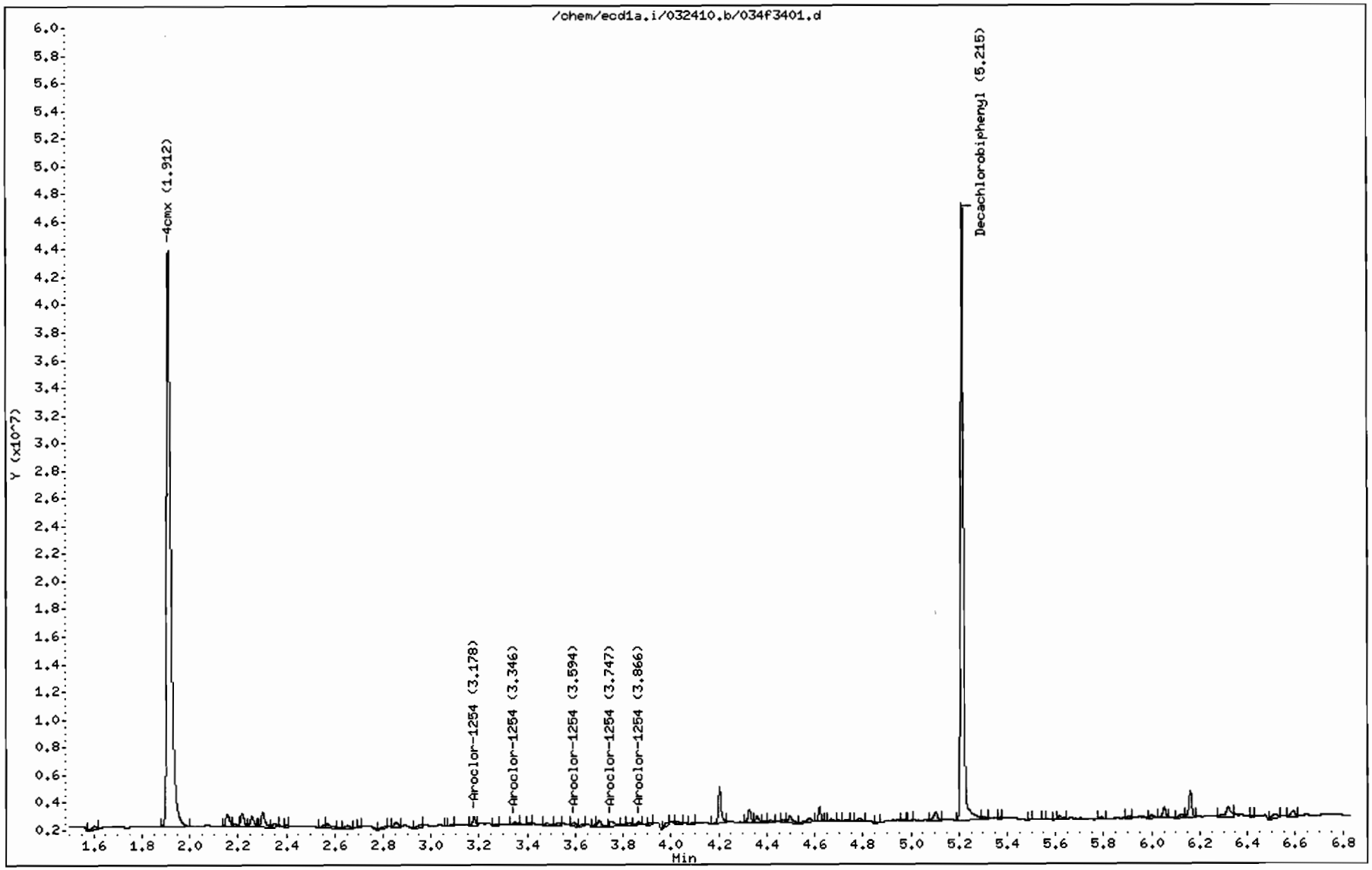

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/034b3401.d
Lab Smp Id: 249332001 Client Smp ID: RE46-10-13219
Inj Date : 24-MAR-2010 11:44
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249332001|1|
Misc Info : |ECD82P_1S|968275|SVA|LANL|SOIL|RE46-10-13219|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	7.87170	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.269	0.001	31927358	121.706	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.909	0.002	24765056	132.311	4.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032410.b/034b3401.d
Date : 24-MAR-2010 11:44
Client ID: RE46-10-13219
Sample Info: |249332001|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

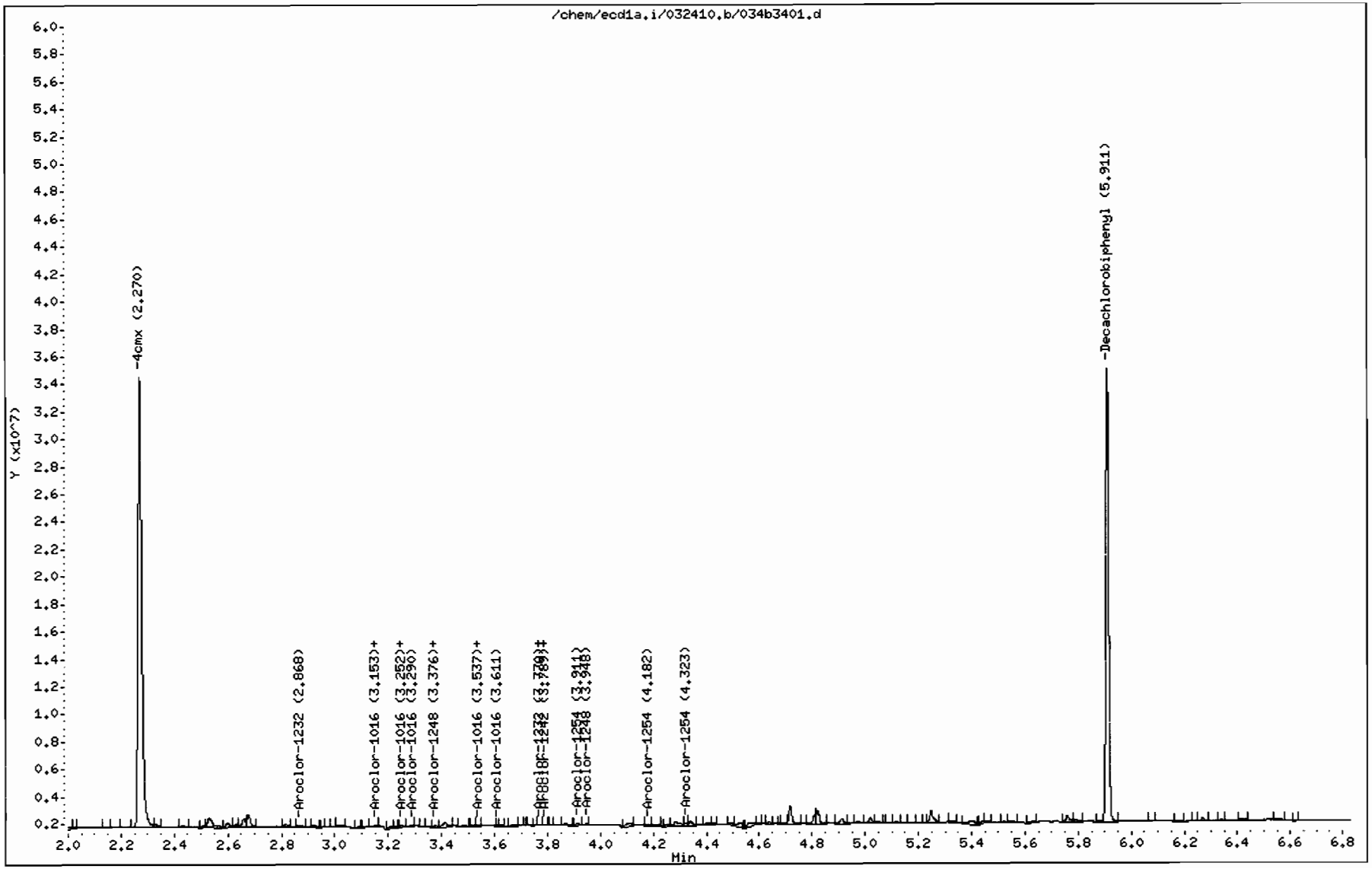

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332003	**Date Received:**	03/13/2010 09:30	**%Moisture:**	11.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13220	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	968275	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/24/2010 12:09	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/23/2010 19:55	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	036f3601.d	**Column:**	1 CLP1	**Level:**	LOW
	036b3601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.76	ug/kg	1.25	3.76	1
11104–28–2	Aroclor–1221	U	3.76	ug/kg	1.25	3.76	1
11141–16–5	Aroclor–1232	U	3.76	ug/kg	1.25	3.76	1
53469–21–9	Aroclor–1242	U	3.76	ug/kg	1.25	3.76	1
12672–29–6	Aroclor–1248	U	3.76	ug/kg	1.25	3.76	1
11097–69–1	Aroclor–1254		13.7	ug/kg	1.25	3.76	1
11096–82–5	Aroclor–1260	P	7.00	ug/kg	1.25	3.76	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/036f3601.d
Lab Smp Id: 249332003 Client Smp ID: RE46-10-13220
Inj Date : 24-MAR-2010 12:09
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249332003|1|
Misc Info : |ECD82P_1S|968275|SVA|LANL|SOIL|RE46-10-13220|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 36
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	11.50580	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.910	0.001	50676147	130.098	4.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.212	5.213	-0.001	40772503	137.313	5.2	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.205	3.207	-0.002	3409666	257.101	9.7	80.00- 120.00	100.00
3.359	3.362	-0.003	5119860	287.095	10.8	115.19- 155.19	150.16
3.593	3.595	-0.002	8119034	362.922	13.6	155.81- 195.81	238.12
3.755	3.758	-0.003	7251668	439.760	16.5	110.49- 150.49	212.68

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.864	3.867	-0.003	7546869	472.731	17.8	112.27- 152.27	221.34
Average of Peak Concentrations =					13.7		
7 Aroclor-1260					CAS #: 11096-82-5		
3.701	3.701	0.000	3837695	209.366	7.9	80.00- 120.00	100.00(M)
3.864	3.864	0.000	7546869	280.659	10.6	127.17- 167.17	196.65
4.026	4.026	0.000	9576343	338.204	12.7	137.47- 177.47	310.15
4.094	4.094	0.000	729110	45.1241	1.7	68.88- 108.88	19.00
4.236	4.237	-0.001	899426	53.4969	2.0	72.94- 112.94	23.44
Average of Peak Concentrations =					7.0		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032410.b/036f3601.d

Date : 24-MAR-2010 12:09

Client ID: RE46-10-13220

Sample Info: |249332003|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

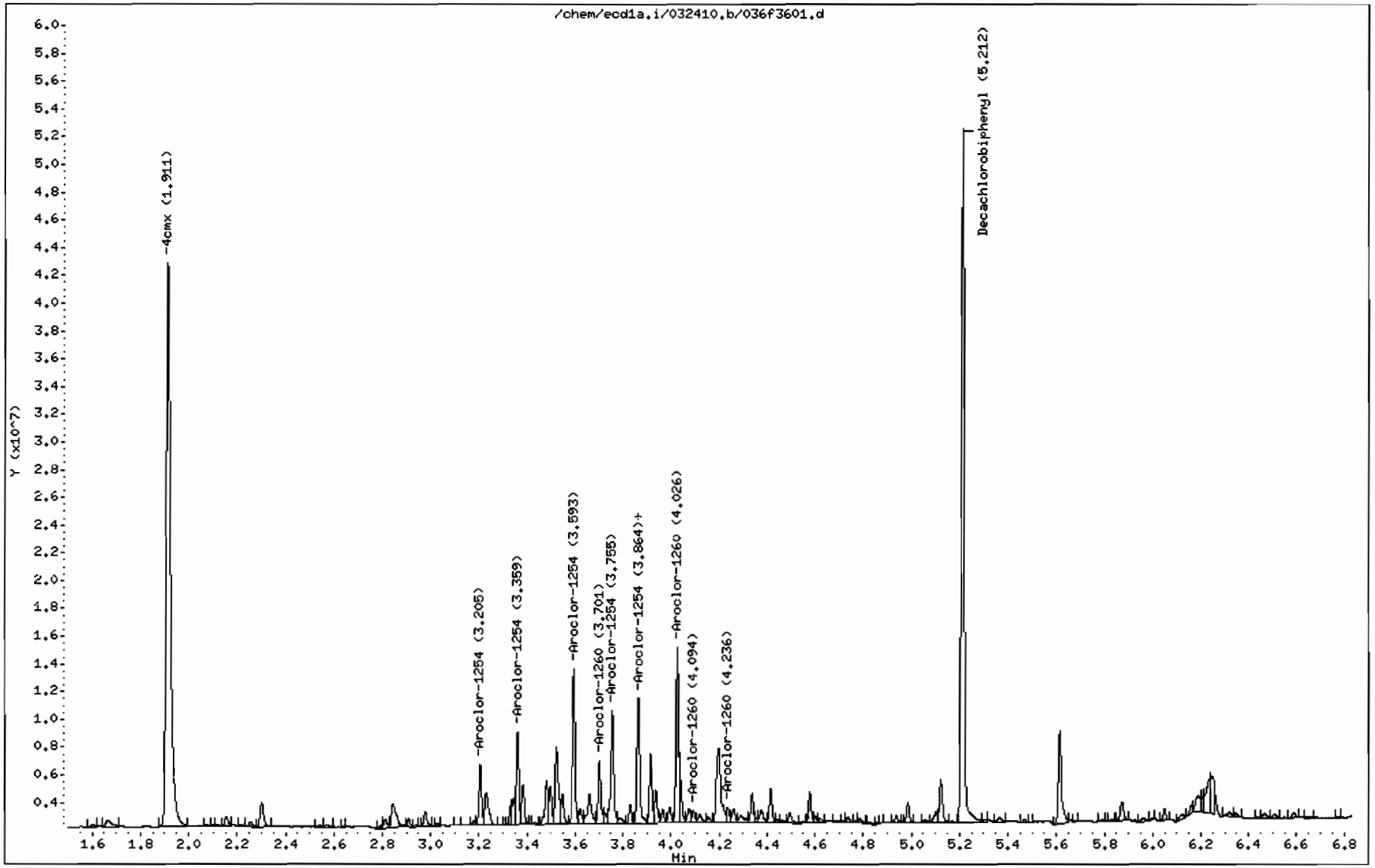

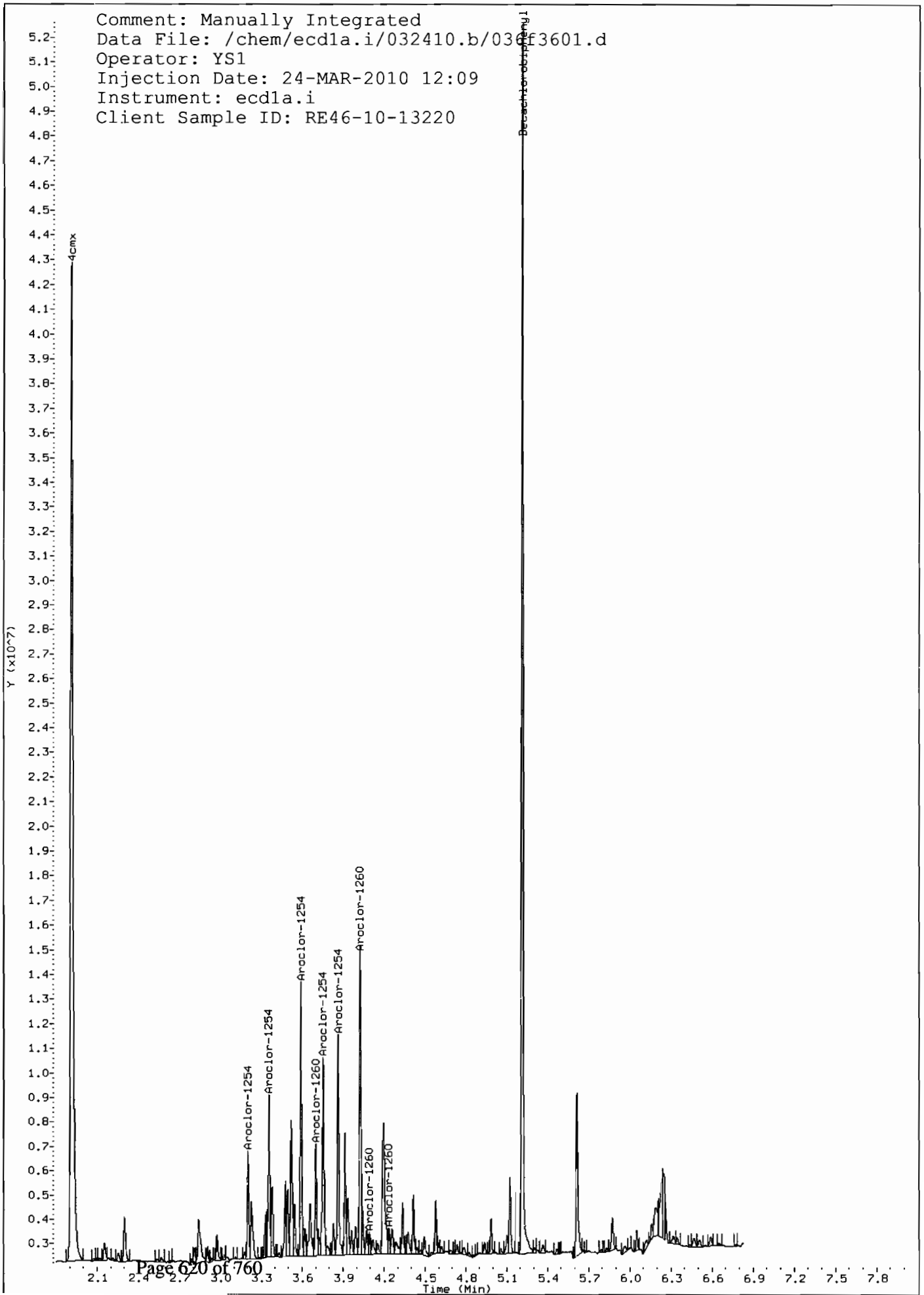
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032410.b/036f3601.d
Operator: YS1
Injection Date: 24-MAR-2010 12:09
Instrument: ecd1a.i
Client Sample ID: RE46-10-13220
4cmx
Decachlorobiphenyl
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd1a.i/032410.b/orig-036f3601.d
Operator: YS1
Injection Date: 24-MAR-2010 12:09
Instrument: ecd1a.i
Client Sample ID: RE46-10-13220

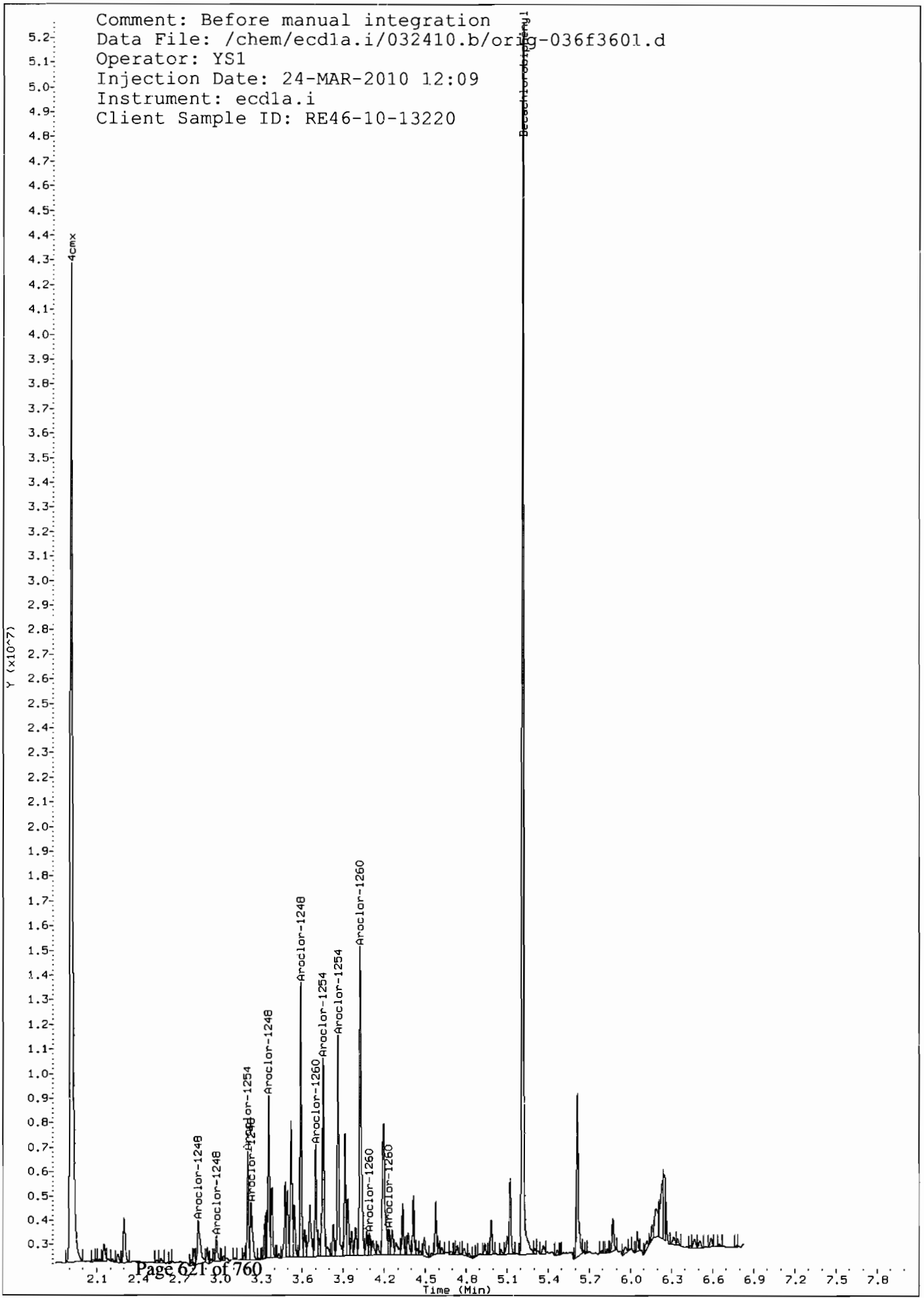

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/036b3601.d
Lab Smp Id: 249332003 Client Smp ID: RE46-10-13220
Inj Date : 24-MAR-2010 12:09
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249332003|1|
Misc Info : |ECD82P_1S|968275|SVA|LANL|SOIL|RE46-10-13220|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 36
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	11.50580	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.268	2.269	-0.001	32555628	124.101	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.907	5.909	-0.002	25204516	134.659	5.1	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.371	3.373	-0.002	909876	151.112	5.7	80.00- 120.00	100.00
3.793	3.794	-0.001	2599770	240.279	9.0	161.28- 201.28	285.73
3.908	3.911	-0.003	3490130	292.462	11.0	180.25- 220.25	383.58
4.184	4.186	-0.002	5696296	346.452	13.0	261.58- 301.58	626.05

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.321	4.323	-0.002	4337727	358.031	13.5	185.17- 225.17	476.74
Average of Peak Concentrations =					10.4		
7 Aroclor-1260					CAS #: 11096-82-5		
4.301	4.301	0.000	2606243	199.251	7.5	80.00- 120.00	100.00
4.426	4.426	0.000	3527434	226.859	8.5	102.26- 142.26	135.35
4.695	4.691	0.004	935577	78.6459	3.0	71.92- 111.92	35.90
4.864	4.864	0.000	563093	45.8201	1.7	75.68- 115.68	21.61
5.012	5.012	0.000	1787236	67.7121	2.5	193.66- 233.66	68.58
Average of Peak Concentrations =					4.6		

Data File: /chem/ecd1a.i/032410.b/036b3601.d

Date : 24-MAR-2010 12:09

Client ID: RE46-10-13220

Sample Info: |249332003|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

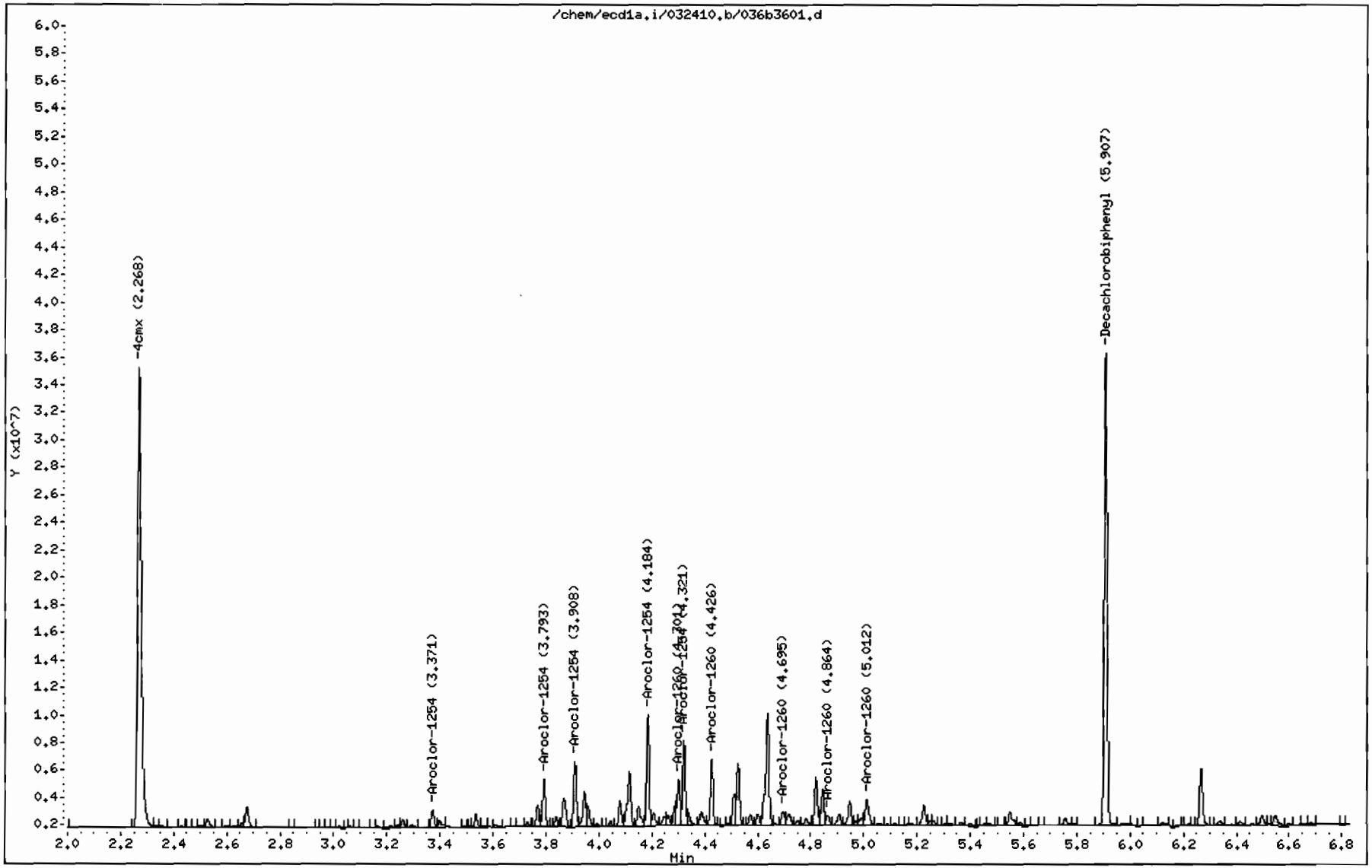

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**4.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13221**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968275**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 11:56**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 19:55**	**Aliquot:**	**30.16 g**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	035b3501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.47	ug/kg	1.16	3.47	1
11104–28–2	Aroclor–1221	U	3.47	ug/kg	1.16	3.47	1
11141–16–5	Aroclor–1232	U	3.47	ug/kg	1.16	3.47	1
53469–21–9	Aroclor–1242	U	3.47	ug/kg	1.16	3.47	1
12672–29–6	Aroclor–1248	U	3.47	ug/kg	1.16	3.47	1
11097–69–1	Aroclor–1254	U	3.47	ug/kg	1.16	3.47	1
11096–82–5	Aroclor–1260	U	3.47	ug/kg	1.16	3.47	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/035f3501.d
Lab Smp Id: 249332002 Client Smp ID: RE46-10-13221
Inj Date : 24-MAR-2010 11:56
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249332002|1|
Misc Info : |ECD82P_1S|968275|SVA|LANL|SOIL|RE46-10-13221|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.16000	Weight of sample extracted (g)
M	4.48470	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.910	0.002	55421465	142.280	4.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.213	0.000	48948585	164.849	5.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032410.b/035f3501.d

Date : 24-MAR-2010 11:56

Client ID: RE46-10-13221

Sample Info: |249332002|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

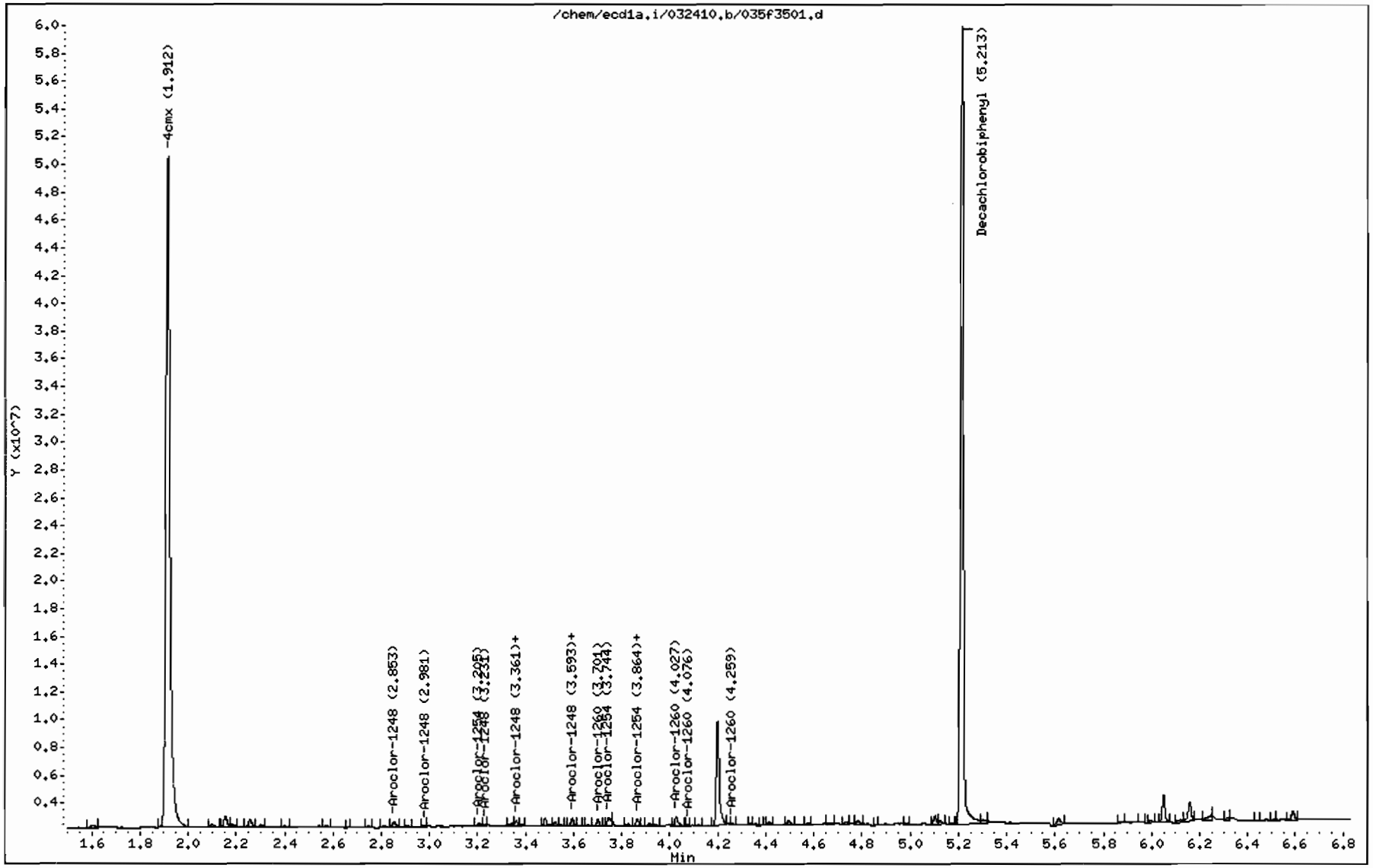

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/035b3501.d
Lab Smp Id: 249332002 Client Smp ID: RE46-10-13221
Inj Date : 24-MAR-2010 11:56
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249332002|1|
Misc Info : |ECD82P_1S|968275|SVA|LANL|SOIL|RE46-10-13221|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.16000	Weight of sample extracted (g)
M	4.48470	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.268	2.269	-0.001	35499478	135.322	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.907	5.909	-0.002	27996802	149.577	5.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032410.b/035b3501.d
Date : 24-MAR-2010 11:56
Client ID: RE46-10-13221
Sample Info: 12493320021 1
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

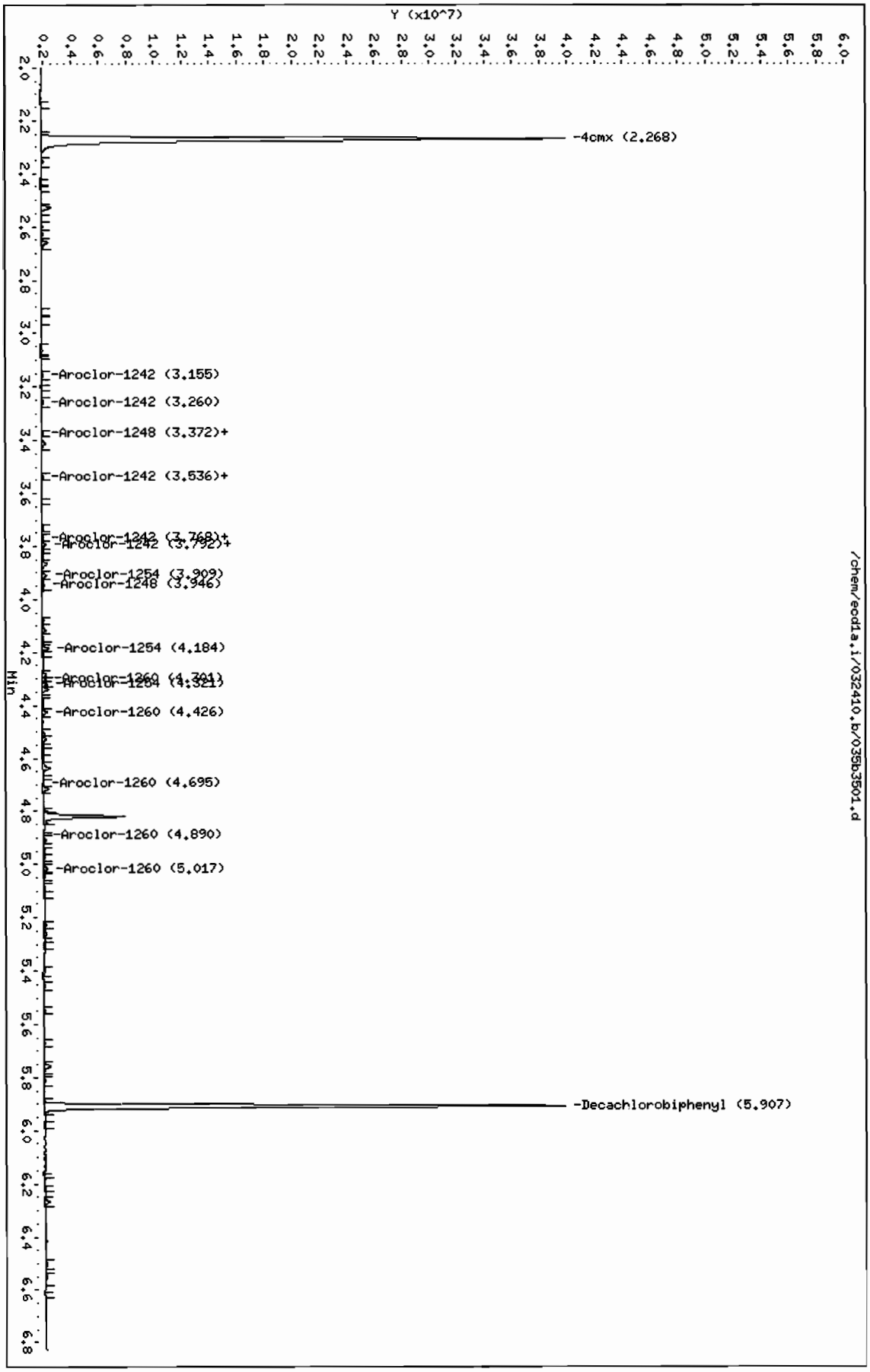

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2433	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249332007	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13234	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	968275	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/24/2010 12:59	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/23/2010 19:55	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	040f4001.d	**Column:**	1 CLP1	**Level:**	LOW
	040b4001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.80	ug/kg	1.26	3.80	1
11104–28–2	Aroclor–1221	U	3.80	ug/kg	1.26	3.80	1
11141–16–5	Aroclor–1232	U	3.80	ug/kg	1.26	3.80	1
53469–21–9	Aroclor–1242	U	3.80	ug/kg	1.26	3.80	1
12672–29–6	Aroclor–1248	U	3.80	ug/kg	1.26	3.80	1
11097–69–1	Aroclor–1254		13.9	ug/kg	1.26	3.80	1
11096–82–5	Aroclor–1260	P	7.50	ug/kg	1.26	3.80	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/040f4001.d
Lab Smp Id: 249332007 Client Smp ID: RE46-10-13234
Inj Date : 24-MAR-2010 12:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249332007|1|
Misc Info : |ECD82P_1S|968275|SVA|LANL|SOIL|RE46-10-13234|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 40
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	12.21700	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.910	0.001	55703645	143.005	5.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.211	5.213	-0.002	47328796	159.394	6.0	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.204	3.207	-0.003	3516154	265.131	10.1	80.00- 120.00	100.00
3.359	3.362	-0.003	5229260	293.230	11.1	115.19- 155.19	148.72
3.592	3.595	-0.003	8072420	360.838	13.7	155.81- 195.81	229.58
3.754	3.758	-0.004	7158055	434.083	16.5	110.49- 150.49	203.58

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.864	3.867	-0.003	7576025	474.557	18.0	112.27- 152.27	215.46
Average of Peak Concentrations =					13.9		
7 Aroclor-1260					CAS #: 11096-82-5		
3.700	3.701	-0.001	3726791	203.315	7.7	80.00- 120.00	100.00
3.864	3.864	0.000	7576025	281.743	10.7	127.17- 167.17	203.29
4.025	4.026	-0.001	11537127	407.452	15.5	137.47- 177.47	309.57
4.094	4.094	0.000	695587	43.0494	1.6	68.88- 108.88	18.66
4.235	4.237	-0.002	888564	52.8509	2.0	72.94- 112.94	23.84
Average of Peak Concentrations =					7.5		

Data File: /chem/ecd1a.i/032410.b/040f4001.d

Date : 24-MAR-2010 12:59

Client ID: RE46-10-13234

Sample Info: |249332007|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

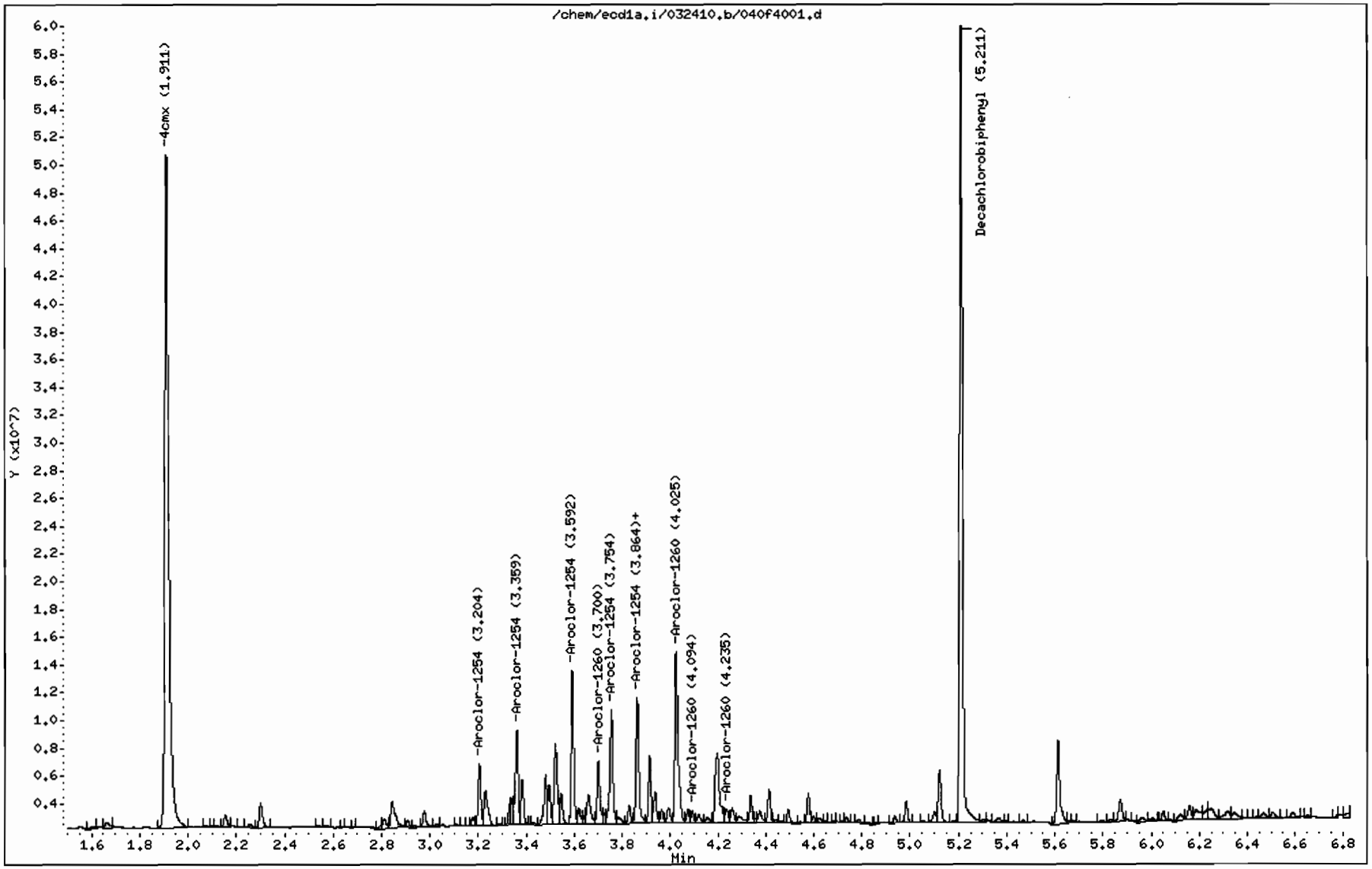

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/040b4001.d
Lab Smp Id: 249332007 Client Smp ID: RE46-10-13234
Inj Date : 24-MAR-2010 12:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249332007|1|
Misc Info : |ECD82P_1S|968275|SVA|LANL|SOIL|RE46-10-13234|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 40
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	12.21700	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	35302434	134.571	5.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.908	5.909	-0.001	27127765	144.934	5.5	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.371	3.373	-0.002	962245	159.809	6.1	80.00- 120.00	100.00
3.792	3.794	-0.002	2631419	243.204	9.2	161.28- 201.28	273.47
3.909	3.911	-0.002	3567861	298.975	11.3	180.25- 220.25	370.78
4.184	4.186	-0.002	5661291	344.323	13.1	261.58- 301.58	588.34

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.320	4.323	-0.003	4244687	350.351	13.3	185.17- 225.17	441.12
Average of Peak Concentrations =					10.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.300	4.301	-0.001	2652200	202.764	7.7	80.00- 120.00	100.00
4.425	4.426	-0.001	3557310	228.780	8.7	102.26- 142.26	134.13
4.694	4.691	0.003	973838	81.8622	3.1	71.92- 111.92	36.72
4.864	4.864	0.000	563481	45.8517	1.7	75.68- 115.68	21.25
5.012	5.012	0.000	1868199	70.7795	2.7	193.66- 233.66	70.44
Average of Peak Concentrations =					4.8		

Data File: /chem/ecd1a.i/032410.b/040b4001.d

Date : 24-MAR-2010 12:59

Client ID: RE46-10-13234

Sample Info: |249332007|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

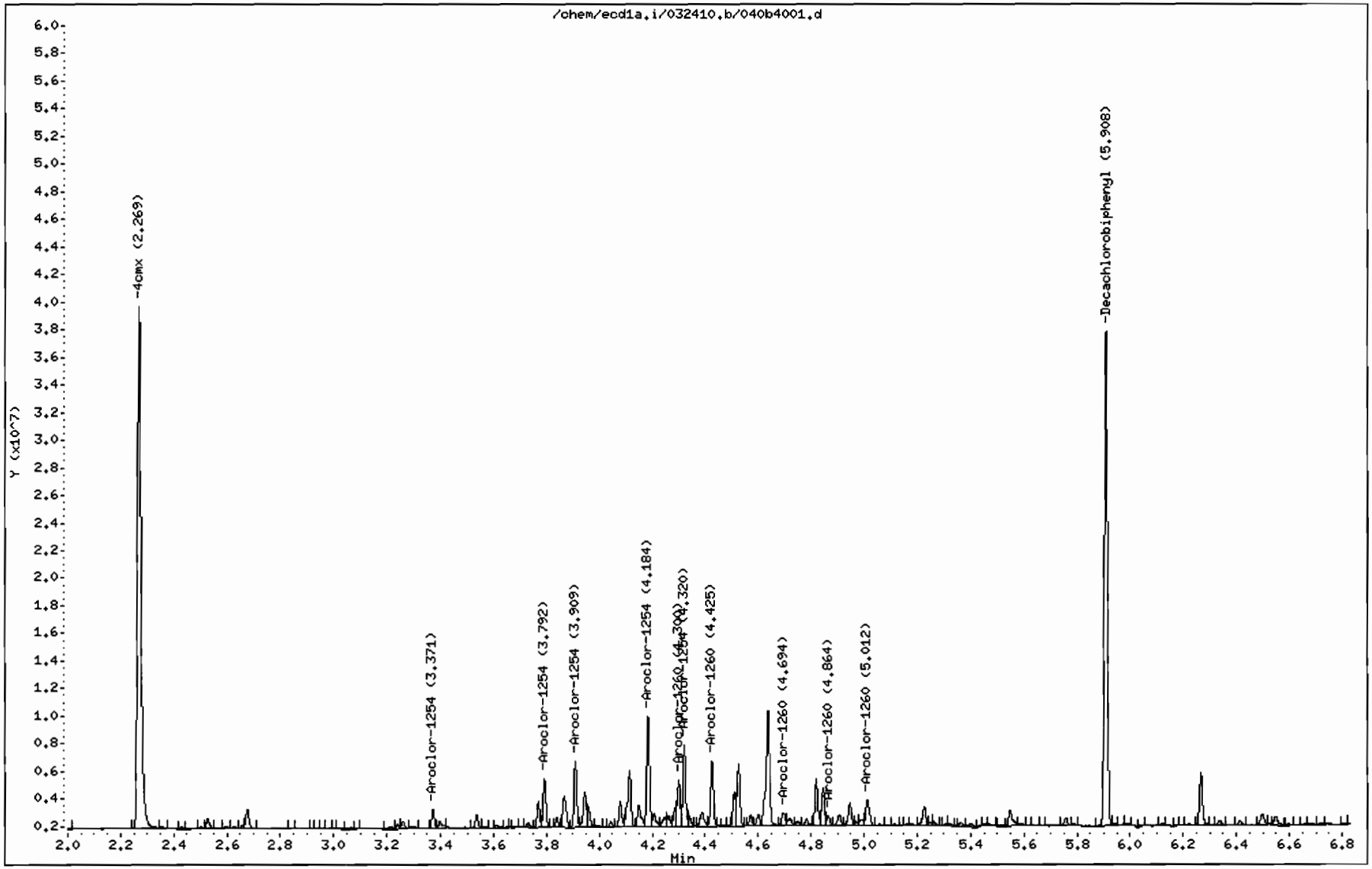

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2433**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249332009**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**30**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–14199**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968275**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 13:12**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 19:55**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**041f4101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	041b4101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.74	ug/kg	1.58	4.74	1
11104–28–2	Aroclor–1221	U	4.74	ug/kg	1.58	4.74	1
11141–16–5	Aroclor–1232	U	4.74	ug/kg	1.58	4.74	1
53469–21–9	Aroclor–1242	U	4.74	ug/kg	1.58	4.74	1
12672–29–6	Aroclor–1248	U	4.74	ug/kg	1.58	4.74	1
11097–69–1	Aroclor–1254	J	4.50	ug/kg	1.58	4.74	1
11096–82–5	Aroclor–1260	J	2.90	ug/kg	1.58	4.74	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/041f4101.d
Lab Smp Id: 249332009 Client Smp ID: RE46-10-14199
Inj Date : 24-MAR-2010 13:12
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249332009|1|
Misc Info : |ECD82P_1S|968275|SVA|LANL|SOIL|RE46-10-14199|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 41
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.15000	Weight of sample extracted (g)
M	30.00180	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.910	0.000	58582466	150.395	7.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.212	5.213	-0.001	50536335	170.196	8.1	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.204	3.207	-0.003	1049173	79.1115	3.7	80.00- 120.00	100.00(aM)
3.359	3.362	-0.003	1280147	71.7841	3.4	115.19- 155.19	122.01
3.593	3.595	-0.002	1975356	88.2987	4.2	155.81- 195.81	188.28
3.755	3.758	-0.003	1681580	101.975	4.8	110.49- 150.49	160.28

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.863	3.867	-0.004	2137159	133.870	6.3	112.27- 152.27	231.66
Average of Peak Concentrations =					4.5		
7 Aroclor-1260					CAS #: 11096-82-5		
3.701	3.701	0.000	1344200	73.3330	3.5	80.00- 120.00	100.00(aM)
3.863	3.864	-0.001	2137159	79.4783	3.8	127.17- 167.17	158.99
4.026	4.026	0.000	2409223	85.0856	4.0	137.47- 177.47	179.23
4.093	4.094	-0.001	450127	27.8581	1.3	68.88- 108.88	33.49
4.236	4.237	-0.001	592447	35.2381	1.7	72.94- 112.94	44.07
Average of Peak Concentrations =					2.9		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032410.b/041f4101.d

Page 1

Date : 24-MAR-2010 13:12

Client ID: RE46-10-14199

Instrument: ecd1a.i

Sample Info: |249332009|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

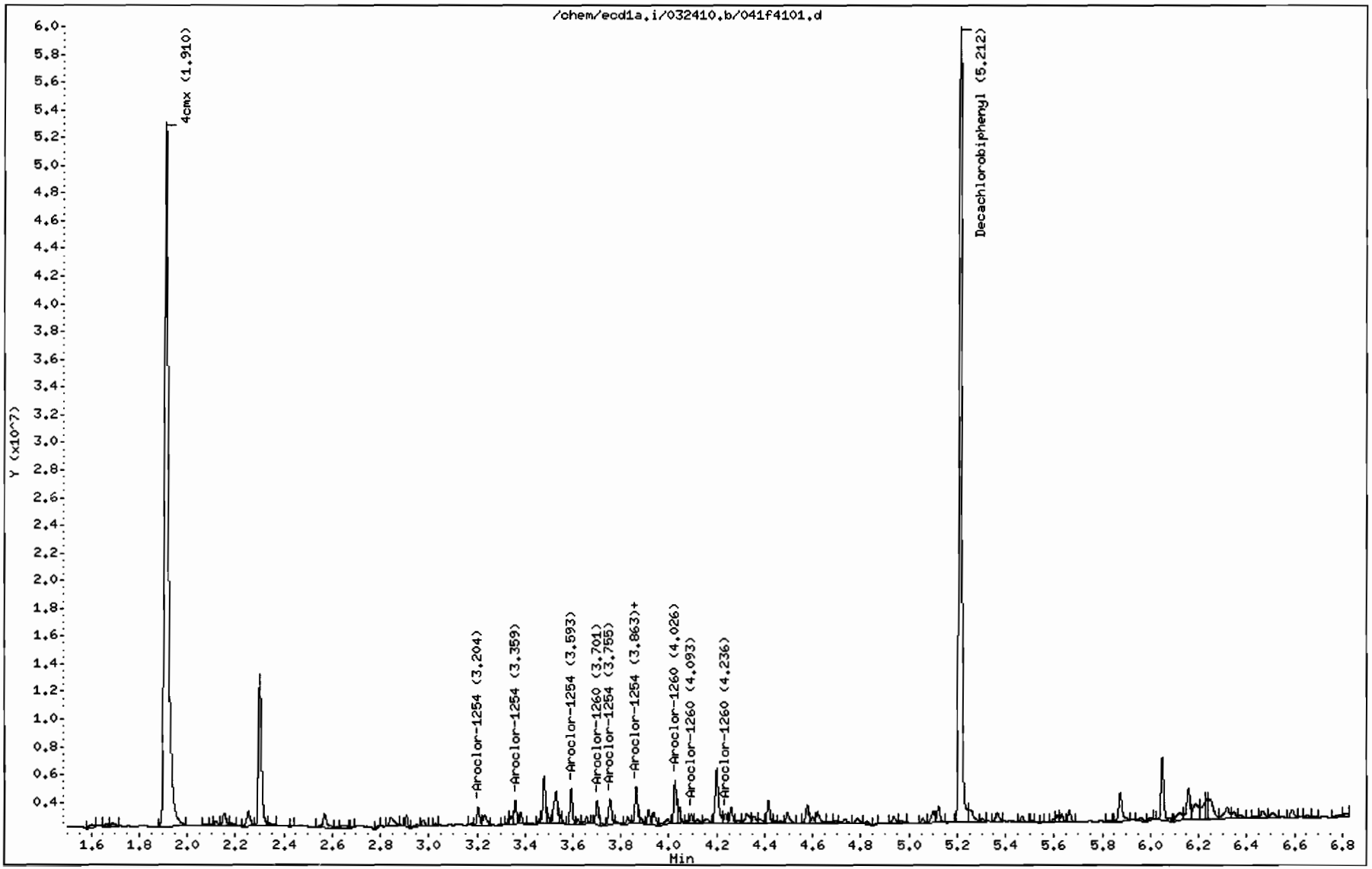

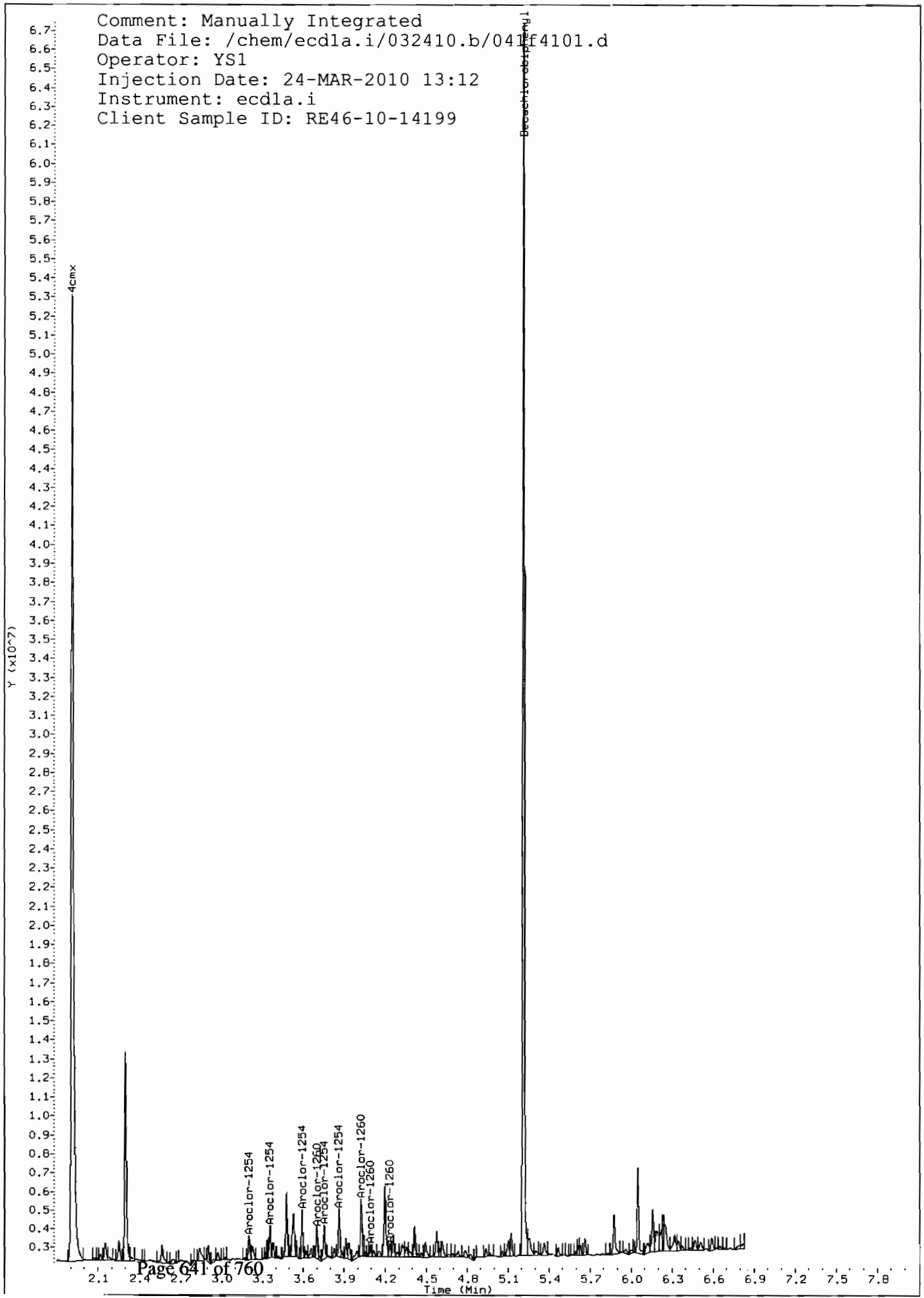
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032410.b/041f4101.d
Operator: YS1
Injection Date: 24-MAR-2010 13:12
Instrument: ecd1a.i
Client Sample ID: RE46-10-14199
Decachlorobiphenyl
4cmx
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd1a.i/032410.b/orig-041f4101.d
Operator: YS1
Injection Date: 24-MAR-2010 13:12
Instrument: ecd1a.i
Client Sample ID: RE46-10-14199

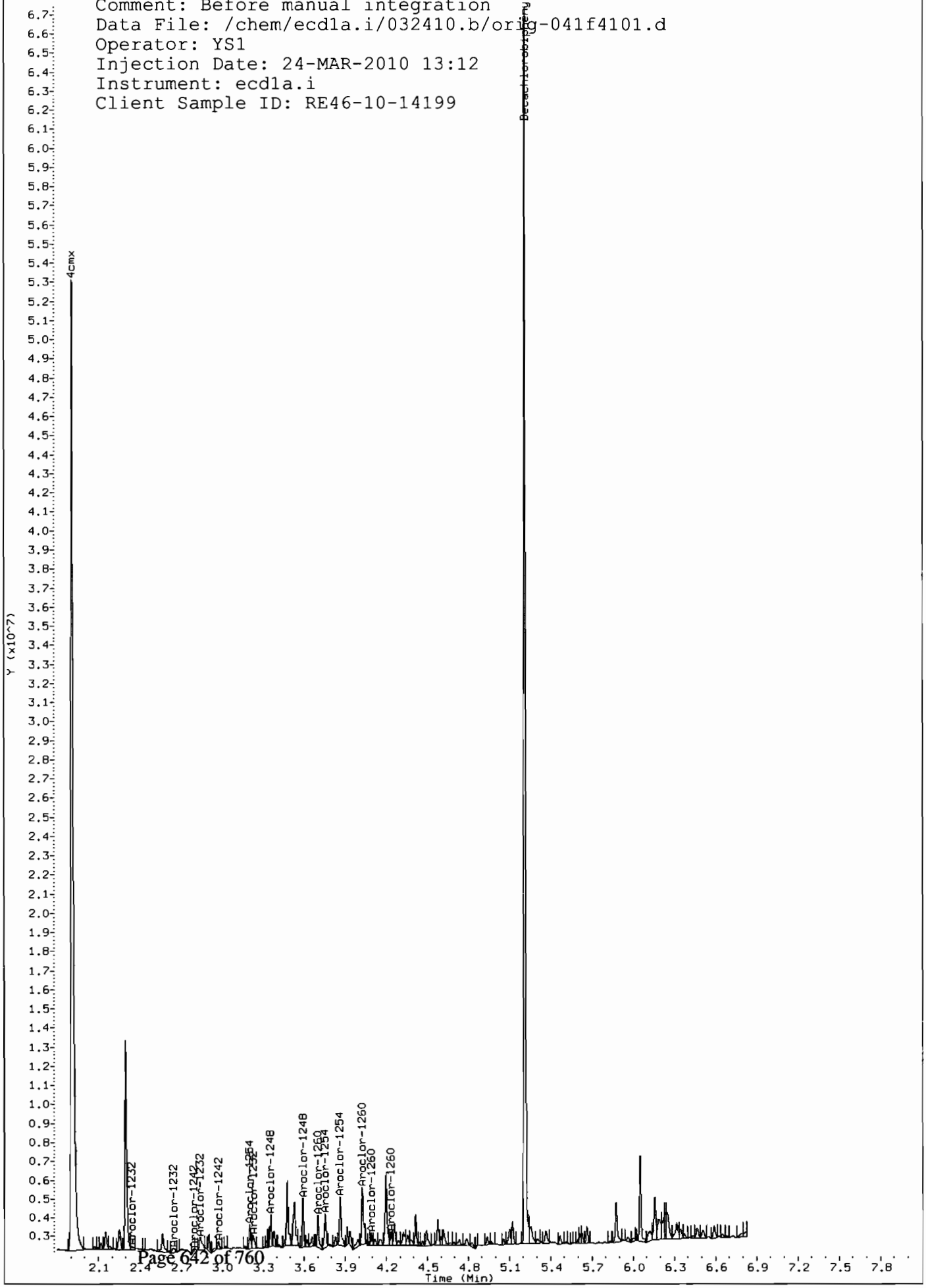

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/041b4101.d
Lab Smp Id: 249332009 Client Smp ID: RE46-10-14199
Inj Date : 24-MAR-2010 13:12
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249332009|1|
Misc Info : |ECD82P_1S|968275|SVA|LANL|SOIL|RE46-10-14199|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 41
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.15000	Weight of sample extracted (g)
M	30.00180	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.268	2.269	-0.001	37689836	143.672	6.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.908	5.909	-0.001	29673021	158.532	7.5	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.372	3.373	-0.001	442521	73.4936	3.5	80.00- 120.00	100.00(a)
3.792	3.794	-0.002	676880	62.5594	3.0	161.28- 201.28	152.96
3.909	3.911	-0.002	983962	82.4529	3.9	180.25- 220.25	222.35
4.183	4.186	-0.003	1247336	75.8638	3.6	261.58- 301.58	281.87

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.321	4.323	-0.002	859999	70.9833	3.4	185.17- 225.17	194.34
Average of Peak Concentrations =					3.5		
7 Aroclor-1260					CAS #: 11096-82-5		
4.300	4.301	-0.001	828105	63.3097	3.0	80.00- 120.00	100.00(a)
4.425	4.426	-0.001	1076001	69.2006	3.3	102.26- 142.26	129.94
4.692	4.691	0.001	431822	36.2996	1.7	71.92- 111.92	52.15
4.864	4.864	0.000	395665	32.1961	1.5	75.68- 115.68	47.78
5.013	5.012	0.001	1419132	53.7659	2.5	193.66- 233.66	171.37
Average of Peak Concentrations =					2.4		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/032410.b/041b4101.d

Date : 24-MAR-2010 13:12

Client ID: RE46-10-14199

Sample Info: 1249332009111

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

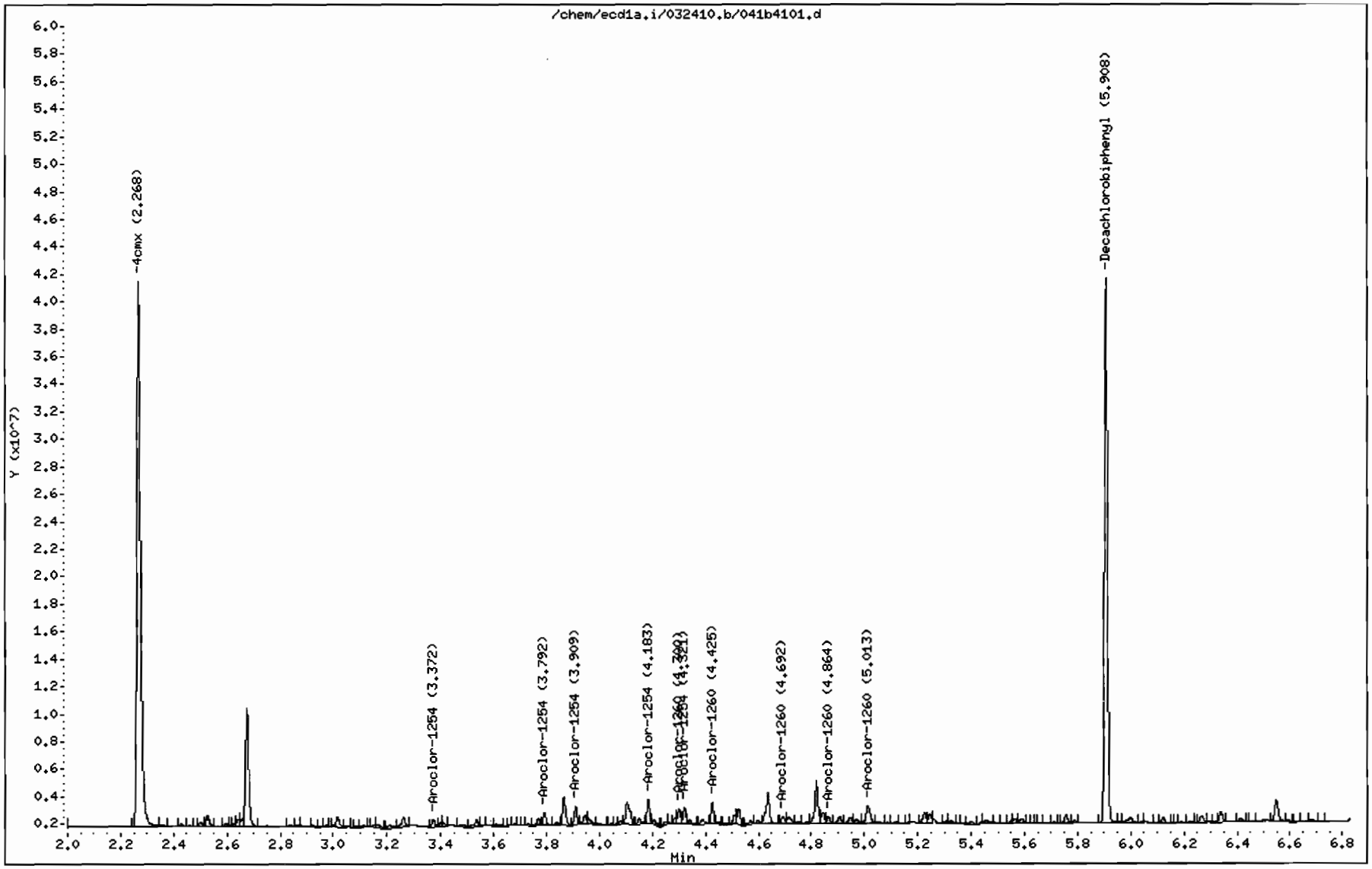

STANDARDS DATA

Report Date: 25-Mar-2010 10:54

Calibration History

Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032f3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029f2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023f2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017f1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033f3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030f3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024f2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018f1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034f3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031f3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025f2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019f1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035f3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032f3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026f2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020f2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014f1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009f0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008f0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007f0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010f1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036f3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033f3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027f2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021f2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 16:50	AR1660	/chem/ecd1a.i/032410.b/059f5901.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 17:28	AR1660	/chem/ecd1a.i/032410.b/062f6201.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 14:49	AR1660	/chem/ecd1a.i/032410.b/049f4901.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 13:24	AR1660	/chem/ecd1a.i/032410.b/042f4201.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 11:02	AR1660	/chem/ecd1a.i/032410.b/030f3001.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 08:58	AR1660	/chem/ecd1a.i/032410.b/020f2001.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 06:52	AR1262	/chem/ecd1a.i/032410.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 06:42	AR1221	/chem/ecd1a.i/032410.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 06:31	AR1232	/chem/ecd1a.i/032410.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 06:21	AR1268	/chem/ecd1a.i/032410.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 06:10	AR1248	/chem/ecd1a.i/032410.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 06:00	AR1242	/chem/ecd1a.i/032410.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 05:49	AR1254	/chem/ecd1a.i/032410.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 05:39	AR1660	/chem/ecd1a.i/032410.b/002f0201.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 08:48	AR1660	/chem/ecd1a.i/032410.b/019f1901.d

Report Date: 25-Mar-2010 10:54

Calibration History

Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029b2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023b2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017b1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030b3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024b2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018b1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031b3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025b2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019b1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032b3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026b2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020b2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014b1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009b0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008b0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007b0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010b1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033b3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027b2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021b2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000
24-MAR-2010 17:28 | AR1660 | /chem/ecd1a.i/032410.b/062b6201.d
Ccal Level: 4 , Ccal Amount: 1000
24-MAR-2010 16:50 | AR1660 | /chem/ecd1a.i/032410.b/059b5901.d
Ccal Level: 4 , Ccal Amount: 1000
24-MAR-2010 14:49 | AR1660 | /chem/ecd1a.i/032410.b/049b4901.d
Ccal Level: 4 , Ccal Amount: 1000
24-MAR-2010 13:24 | AR1660 | /chem/ecd1a.i/032410.b/042b4201.d
Ccal Level: 4 , Ccal Amount: 1000
24-MAR-2010 11:02 | AR1660 | /chem/ecd1a.i/032410.b/030b3001.d
Ccal Level: 4 , Ccal Amount: 1000
24-MAR-2010 08:58 | AR1660 | /chem/ecd1a.i/032410.b/020b2001.d
Ccal Level: 4 , Ccal Amount: 1000
24-MAR-2010 06:52 | AR1262 | /chem/ecd1a.i/032410.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000
24-MAR-2010 06:42 | AR1221 | /chem/ecd1a.i/032410.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000
24-MAR-2010 06:31 | AR1232 | /chem/ecd1a.i/032410.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000
24-MAR-2010 06:21 | AR1268 | /chem/ecd1a.i/032410.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000
24-MAR-2010 06:10 | AR1248 | /chem/ecd1a.i/032410.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000
24-MAR-2010 06:00 | AR1242 | /chem/ecd1a.i/032410.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000
24-MAR-2010 05:49 | AR1254 | /chem/ecd1a.i/032410.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000
24-MAR-2010 05:39 | AR1660 | /chem/ecd1a.i/032410.b/002b0201.d
Ccal Level: 4 , Ccal Amount: 1000
24-MAR-2010 08:48 | AR1660 | /chem/ecd1a.i/032410.b/019b1901.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Mar-2010 06:44 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.362	2.332-2.392	1.518e+04
	2.650	2.619-2.680	1.894e+04
	2.729	2.699-2.759	1.244e+04
	2.766	2.736-2.796	7.348e+03
	2.977	2.947-3.007	9.518e+03
63 4,4-DDD	3.888	3.868-3.908	3.140e+05
64 4,4-DDE	3.539	3.519-3.559	3.727e+05
62 4,4-DDT	4.052	4.032-4.072	2.363e+05
2 Aroclor-1221	2.025	1.995-2.055	4.466e+03
	2.117	2.087-2.147	2.447e+03
	2.142	2.112-2.172	1.083e+04
3 Aroclor-1232	2.364	2.334-2.394	6.667e+03
	2.651	2.621-2.681	8.344e+03
	2.731	2.701-2.761	5.531e+03
	2.845	2.815-2.875	2.649e+03
	3.232	3.202-3.262	3.555e+03
4 Aroclor-1242	2.364	2.334-2.394	1.233e+04
	2.650	2.620-2.680	1.490e+04
	2.768	2.738-2.798	5.896e+03
	2.978	2.948-3.008	7.735e+03
	3.231	3.201-3.261	7.285e+03

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COMPOUND LISTING

Method file : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.845	2.815-2.875	1.000e+04
	2.979	2.949-3.009	1.314e+04
	3.232	3.202-3.262	1.430e+04
	3.364	3.334-3.394	1.190e+04
	3.596	3.566-3.626	8.005e+03
6 Aroclor-1254	3.207	3.177-3.237	1.326e+04
	3.362	3.332-3.392	1.783e+04
	3.595	3.565-3.625	2.237e+04
	3.758	3.728-3.788	1.649e+04
	3.867	3.837-3.897	1.596e+04
7 Aroclor-1260	3.701	3.671-3.731	1.833e+04
	3.864	3.834-3.894	2.689e+04
	4.026	3.996-4.056	2.832e+04
	4.094	4.064-4.124	1.616e+04
	4.237	4.207-4.267	1.681e+04
8 Aroclor-1262	3.704	3.674-3.734	1.423e+04
	3.867	3.837-3.897	1.874e+04
	4.097	4.067-4.127	2.315e+04
	4.240	4.210-4.270	2.110e+04
	4.418	4.388-4.448	4.350e+04
9 Aroclor-1268	4.603	4.573-4.633	4.848e+04
	4.626	4.596-4.656	5.448e+04
	4.739	4.709-4.769	3.862e+04
	4.941	4.911-4.971	1.635e+04
	5.106	5.076-5.136	1.121e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.910	1.880-1.940	3.895e+05
$ 12 Decachlorobiphenyl	5.213	5.183-5.243	2.969e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Mar-2010 06:44 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.163	3.133-3.193	1.258e+04
	3.245	3.215-3.275	8.634e+03
	3.309	3.279-3.339	5.287e+03
	3.536	3.506-3.566	6.893e+03
	3.611	3.581-3.641	6.423e+03
62 4,4-DDT	4.642	4.622-4.662	7.489e+04
63 4,4-DDE	4.111	4.091-4.131	2.469e+05
64 4,4-DDD	4.455	4.435-4.475	1.989e+05
2 Aroclor-1221	2.466	2.436-2.496	3.250e+03
	2.560	2.530-2.590	2.084e+03
	2.601	2.571-2.631	7.320e+03
3 Aroclor-1232	2.867	2.837-2.897	5.054e+03
	3.165	3.135-3.195	5.712e+03
	3.247	3.217-3.277	3.888e+03
	3.537	3.507-3.567	2.840e+03
	3.771	3.741-3.801	2.821e+03
4 Aroclor-1242	3.164	3.134-3.194	1.014e+04
	3.247	3.217-3.277	7.097e+03
	3.537	3.507-3.567	5.514e+03
	3.770	3.740-3.800	5.722e+03
	3.798	3.768-3.828	6.370e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.373	3.343-3.403	7.604e+03
	3.538	3.508-3.568	9.470e+03
	3.771	3.741-3.801	1.093e+04
	3.799	3.769-3.829	1.216e+04
	3.935	3.905-3.965	1.181e+04
6 Aroclor-1254	3.373	3.343-3.403	6.021e+03
	3.794	3.764-3.824	1.082e+04
	3.911	3.881-3.941	1.193e+04
	4.186	4.156-4.216	1.644e+04
	4.323	4.293-4.353	1.212e+04
7 Aroclor-1260	4.301	4.271-4.331	1.308e+04
	4.426	4.396-4.456	1.555e+04
	4.691	4.661-4.721	1.190e+04
	4.864	4.835-4.894	1.229e+04
	5.012	4.982-5.042	2.639e+04
8 Aroclor-1262	4.428	4.398-4.458	1.160e+04
	4.694	4.664-4.724	1.620e+04
	4.868	4.838-4.898	1.484e+04
	5.014	4.984-5.044	2.937e+04
	5.227	5.197-5.257	2.065e+04
9 Aroclor-1268	5.226	5.196-5.256	3.730e+04
	5.253	5.223-5.283	3.492e+04
	5.402	5.372-5.432	2.658e+04
	5.567	5.537-5.597	1.223e+04
	5.759	5.729-5.789	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.269	2.239-2.299	2.623e+05
$ 12 Decachlorobiphenyl	5.909	5.879-5.939	1.872e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Cal Date : 24-Mar-2010 11:25 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032f3201.d
Level 2: /chem/ecd1a.i/022210.b/033f3301.d
Level 3: /chem/ecd1a.i/022210.b/034f3401.d
Level 4: /chem/ecd1a.i/022210.b/035f3501.d
Level 5: /chem/ecd1a.i/022210.b/036f3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	17517	15916	14941	14342	13168	15177	10.833
(2)	20378	19291	18809	18310	17891	18936	5.082
(3)	13830	13020	12255	11836	11271	12442	8.071
(4)	7957	7573	7201	7091	6919	7348	5.665
(5)	10680	9850	9332	8998	8729	9518	8.119
63 4,4-DDD	+++++	+++++	+++++	313980	+++++	313980	0.000
64 4,4-DDE	+++++	+++++	+++++	372684	+++++	372684	0.000
62 4,4-DDT	+++++	+++++	+++++	236265	+++++	236265	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4466	+++++	4466	0.000
(2)	+++++	+++++	+++++	2447	+++++	2447	0.000
(3)	+++++	+++++	+++++	10828	+++++	10828	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6667	+++++	6667	0.000
(2)	+++++	+++++	+++++	8344	+++++	8344	0.000
(3)	+++++	+++++	+++++	5531	+++++	5531	0.000
(4)	+++++	+++++	+++++	2649	+++++	2649	0.000
(5)	+++++	+++++	+++++	3555	+++++	3555	0.000
4 Aroclor-1242(1)	14179	12973	12200	11692	10617	12332	10.871
(2)	16141	15119	14927	14559	13766	14903	5.801
(3)	6352	6182	5816	5703	5424	5896	6.324
(4)	8823	8005	7582	7293	6975	7735	9.260
(5)	7955	7511	7149	7022	6787	7285	6.273
5 Aroclor-1248(1)	11183	10572	9738	9526	8980	10000	8.748
(2)	14876	13683	12753	12517	11873	13140	8.885
(3)	15448	14508	14083	13911	13564	14303	5.068
(4)	13161	12385	11501	11480	10960	11898	7.335
(5)	8649	8385	7955	7608	7427	8005	6.411

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Cal Date : 24-Mar-2010 11:25 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	15079	13757	12872	12576	12027	13262	8.998
(2)	20126	18408	17163	17147	16322	17833	8.313
(3)	24516	23104	21642	21571	21024	22371	6.372
(4)	18056	17097	15691	15840	15766	16490	6.365
(5)	18024	16683	15151	15091	14874	15964	8.504
7 Aroclor-1260(1)	20231	18737	18018	17739	16925	18330	6.792
(2)	29345	27114	26401	26314	25275	26890	5.656
(3)	30716	28501	27786	27176	27398	28315	5.062
(4)	17775	16311	15776	15627	15300	16158	6.034
(5)	18203	16850	16463	16434	16114	16813	4.876
8 Aroclor-1262(1)	+++++	+++++	+++++	14232	+++++	14232	0.000
(2)	+++++	+++++	+++++	18742	+++++	18742	0.000
(3)	+++++	+++++	+++++	23151	+++++	23151	0.000
(4)	+++++	+++++	+++++	21098	+++++	21098	0.000
(5)	+++++	+++++	+++++	43500	+++++	43500	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	407603	391717	384007	385362	378927	389523	2.846
$ 12 Decachlorobiphenyl	324859	292709	291687	292552	282844	296930	5.438

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Cal Date : 25-Mar-2010 06:44 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032b3201.d
Level 2: /chem/ecd1a.i/022210.b/033b3301.d
Level 3: /chem/ecd1a.i/022210.b/034b3401.d
Level 4: /chem/ecd1a.i/022210.b/035b3501.d
Level 5: /chem/ecd1a.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14376	12782	12025	12307	11436	12585	8.846
(2)	10090	9074	8445	8099	7462	8634	11.594
(3)	6137	5472	5151	4973	4701	5287	10.435
(4)	7962	7103	6817	6522	6060	6893	10.318
(5)	7497	6686	6263	5965	5703	6423	10.948
62 4,4-DDT	+++++	+++++	+++++	74891	+++++	74891	0.000
63 4,4-DDE	+++++	+++++	+++++	246875	+++++	246875	0.000
64 4,4-DDD	+++++	+++++	+++++	198885	+++++	198885	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3250	+++++	3250	0.000
(2)	+++++	+++++	+++++	2084	+++++	2084	0.000
(3)	+++++	+++++	+++++	7320	+++++	7320	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	5054	+++++	5054	0.000
(2)	+++++	+++++	+++++	5712	+++++	5712	0.000
(3)	+++++	+++++	+++++	3888	+++++	3888	0.000
(4)	+++++	+++++	+++++	2840	+++++	2840	0.000
(5)	+++++	+++++	+++++	2821	+++++	2821	0.000
4 Aroclor-1242(1)	11230	10514	10117	9526	9309	10139	7.634
(2)	8350	7546	6909	6642	6036	7097	12.487
(3)	6442	5836	5387	5177	4727	5514	11.868
(4)	6626	6011	5573	5400	4999	5722	10.877
(5)	7365	6655	6241	6005	5582	6370	10.658
5 Aroclor-1248(1)	9056	8166	7435	6980	6383	7604	13.684
(2)	11093	10088	9257	8814	8097	9470	12.242
(3)	12505	11602	10677	10284	9581	10930	10.466
(4)	13890	12873	11986	11379	10657	12157	10.405
(5)	13590	12468	11541	11009	10453	11812	10.502

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Cal Date : 25-Mar-2010 06:44 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7300	6493	5824	5480	5009	6021	14.886
(2)	12825	11548	10490	9974	9262	10820	12.909
(3)	14182	12643	11550	11031	10262	11934	12.788
(4)	19027	17317	15983	15442	14439	16442	10.826
(5)	14064	13049	11651	11174	10640	12116	11.634
7 Aroclor-1260(1)	15189	13569	12744	12369	11530	13080	10.610
(2)	17885	16016	15152	14853	13838	15549	9.776
(3)	13812	12250	11562	11271	10585	11896	10.311
(4)	14218	12635	11954	11625	11015	12289	9.981
(5)	29595	26825	25949	25629	23976	26395	7.824
8 Aroclor-1262(1)	+++++	+++++	+++++	11597	+++++	11597	0.000
(2)	+++++	+++++	+++++	16200	+++++	16200	0.000
(3)	+++++	+++++	+++++	14838	+++++	14838	0.000
(4)	+++++	+++++	+++++	29366	+++++	29366	0.000
(5)	+++++	+++++	+++++	20651	+++++	20651	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	286554	267083	258607	255362	244057	262333	6.044
$ 12 Decachlorobiphenyl	217815	191410	181026	177515	168101	187173	10.178

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2433

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 0539

Lab File ID: 002F0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	13917.336	0.01	-8.3	15.0
(2)	18935.774	17330.622	0.01	-8.5	15.0
(3)	12442.153	11091.414	0.01	-10.8	15.0
(4)	7348.319	6706.603	0.01	-8.7	15.0
(5)	9517.775	8595.230	0.01	-9.7	15.0
Aroclor-1260	18330.091	17944.577	0.01	-2.1	15.0
(2)	26889.831	26637.168	0.01	-0.9	15.0
(3)	28315.304	28619.758	0.01	1.1	15.0
(4)	16157.873	16175.637	0.01	0.1	15.0
(5)	16812.669	16935.976	0.01	0.7	15.0
4cmx	389523.02	393283.71	0.01	1.0	15.0
Decachlorobiphenyl	296930.38	300643.30	0.01	1.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2433

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 0539

Lab File ID: 002B0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11657.208	0.01	-7.4	15.0
(2)	8634.207	7555.228	0.01	-12.5	15.0
(3)	5286.637	4704.651	0.01	-11.0	15.0
(4)	6892.719	6183.823	0.01	-10.3	15.0
(5)	6422.564	5745.271	0.01	-10.5	15.0
Aroclor-1260	13080.231	12438.009	0.01	-4.9	15.0
(2)	15549.023	15198.346	0.01	-2.2	15.0
(3)	11896.069	11456.823	0.01	-3.7	15.0
(4)	12289.216	11904.207	0.01	-3.1	15.0
(5)	26394.638	26564.667	0.01	0.6	15.0
4cmx	262332.66	254554.57	0.01	-3.0	15.0
Decachlorobiphenyl	187173.38	183893.43	0.01	-1.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2433

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 0549

Lab File ID: 003F0301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	13261.954	12655.702	0.01	-4.6	15.0
(2)	17833.306	17108.757	0.01	-4.1	15.0
(3)	22371.301	22249.968	0.01	-0.5	15.0
(4)	16490.050	16514.415	0.01	0.1	15.0
(5)	15964.418	16740.316	0.01	4.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2433

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 0549

Lab File ID: 003B0301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6021.217	5572.091	0.01	-7.4	15.0
(2)	10819.790	10101.252	0.01	-6.6	15.0
(3)	11933.626	11158.366	0.01	-6.5	15.0
(4)	16441.788	15689.738	0.01	-4.6	15.0
(5)	12115.517	11432.434	0.01	-5.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2433

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 0600

Lab File ID: 004F0401 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1837 1919

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1242	12332.204	12723.972	0.01	3.2	15.0
(2)	14902.512	15792.585	0.01	6.0	15.0
(3)	5895.606	5897.944	0.01	0.0	15.0
(4)	7735.479	7592.928	0.01	-1.8	15.0
(5)	7284.532	7117.665	0.01	-2.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2433

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 0600

Lab File ID: 004B0401 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1837 1919

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1242	10139.181	10104.779	0.01	-0.3	15.0
(2)	7096.726	6649.699	0.01	-6.3	15.0
(3)	5513.568	5252.941	0.01	-4.7	15.0
(4)	5721.948	5489.763	0.01	-4.0	15.0
(5)	6369.562	6195.366	0.01	-2.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2433

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 1102

Lab File ID: 030F3001 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14832.805	0.01	-2.3	15.0
(2)	18935.774	18394.368	0.01	-2.8	15.0
(3)	12442.153	11856.903	0.01	-4.7	15.0
(4)	7348.319	7144.568	0.01	-2.8	15.0
(5)	9517.775	9297.118	0.01	-2.3	15.0
Aroclor-1260	18330.091	19634.917	0.01	7.1	15.0
(2)	26889.831	28958.109	0.01	7.7	15.0
(3)	28315.304	30550.211	0.01	7.9	15.0
(4)	16157.873	17468.052	0.01	8.1	15.0
(5)	16812.669	18164.451	0.01	8.0	15.0
4cmx	389523.02	419257.22	0.01	7.6	15.0
Decachlorobiphenyl	296930.38	288374.26	0.01	-2.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2433

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 1102

Lab File ID: 030B3001 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	12258.340	0.01	-2.6	15.0
(2)	8634.207	7916.762	0.01	-8.3	15.0
(3)	5286.637	4925.670	0.01	-6.8	15.0
(4)	6892.719	6429.520	0.01	-6.7	15.0
(5)	6422.564	6003.116	0.01	-6.5	15.0
Aroclor-1260	13080.231	12849.170	0.01	-1.8	15.0
(2)	15549.023	15722.482	0.01	1.1	15.0
(3)	11896.069	11782.608	0.01	-1.0	15.0
(4)	12289.216	12229.657	0.01	-0.5	15.0
(5)	26394.638	27416.011	0.01	3.9	15.0
4cmx	262332.66	262052.45	0.01	-0.1	15.0
Decachlorobiphenyl	187173.38	186818.23	0.01	-0.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2433

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 1324

Lab File ID: 042F4201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14636.915	0.01	-3.6	15.0
(2)	18935.774	18758.132	0.01	-0.9	15.0
(3)	12442.153	11670.117	0.01	-6.2	15.0
(4)	7348.319	7019.055	0.01	-4.5	15.0
(5)	9517.775	9081.220	0.01	-4.6	15.0
Aroclor-1260	18330.091	19359.774	0.01	5.6	15.0
(2)	26889.831	28491.159	0.01	6.0	15.0
(3)	28315.304	30485.466	0.01	7.7	15.0
(4)	16157.873	17207.188	0.01	6.5	15.0
(5)	16812.669	17993.920	0.01	7.0	15.0
4cmx	389523.02	411960.64	0.01	5.8	15.0
Decachlorobiphenyl	296930.38	311940.53	0.01	5.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2433

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 1324

Lab File ID: 042B4201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11938.841	0.01	-5.1	15.0
(2)	8634.207	7740.524	0.01	-10.4	15.0
(3)	5286.637	4841.325	0.01	-8.4	15.0
(4)	6892.719	6342.144	0.01	-8.0	15.0
(5)	6422.564	5898.289	0.01	-8.2	15.0
Aroclor-1260	13080.231	12673.717	0.01	-3.1	15.0
(2)	15549.023	15494.920	0.01	-0.3	15.0
(3)	11896.069	11649.623	0.01	-2.1	15.0
(4)	12289.216	12125.926	0.01	-1.3	15.0
(5)	26394.638	27078.325	0.01	2.6	15.0
4cmx	262332.66	260797.89	0.01	-0.6	15.0
Decachlorobiphenyl	187173.38	184851.89	0.01	-1.2	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/002f0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 24-MAR-2010 05:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.910	0.000	39328371	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.213	0.000	30064330	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.362	2.362	0.000	13917336	1000.00	917	80.00- 120.00	100.00
2.650	2.650	0.000	17330622	1000.00	915	104.01- 144.01	124.53
2.729	2.729	0.000	11091414	1000.00	891	59.94- 99.94	79.69
2.766	2.766	0.000	6706603	1000.00	913	28.17- 68.17	48.19
2.977	2.977	0.000	8595230	1000.00	903	42.68- 82.68	61.76
Average of Peak Amounts =					908		
7 Aroclor-1260					CAS #: 11096-82-5		
3.701	3.701	0.000	17944577	1000.00	979	80.00- 120.00	100.00
3.864	3.864	0.000	26637168	1000.00	991	127.48- 167.48	148.44
4.026	4.026	0.000	28619758	1000.00	1010	135.59- 175.59	159.49
4.094	4.094	0.000	16175637	1000.00	1000	68.96- 108.96	90.14
4.237	4.237	0.000	16935976	1000.00	1010	72.51- 112.51	94.38
Average of Peak Amounts =					998		

Data File: /chem/ecd1a.i/032410.b/002f0201.d

Date : 24-MAR-2010 05:39

Client ID: AR166001

Sample Info: IWAR100222-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

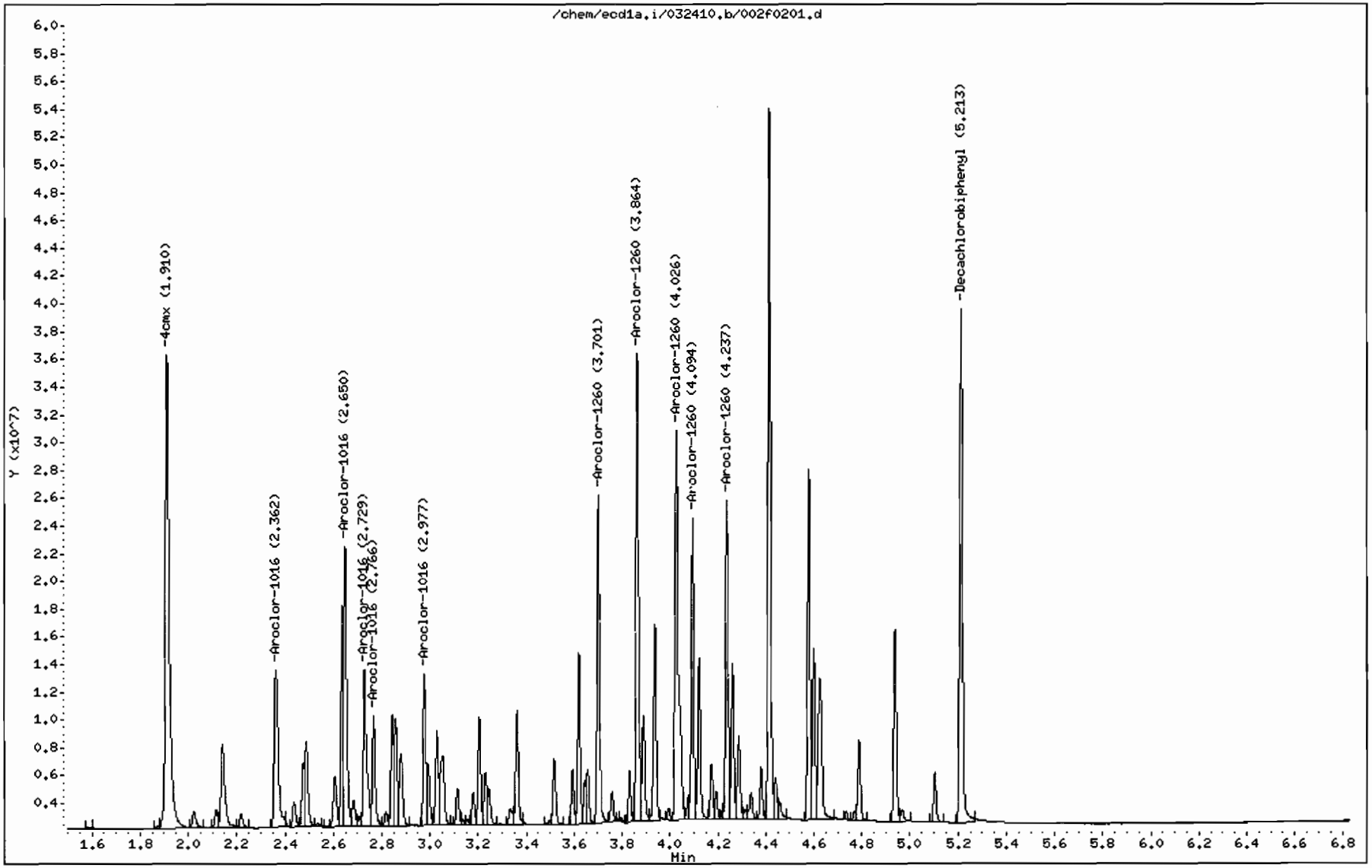

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/002b0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 24-MAR-2010 05:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	25455457	100.000	97.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.909	5.909	0.000	18389343	100.000	98.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.163	3.163	0.000	11657208	1000.00	926	80.00- 120.00	100.00(M)
3.245	3.245	0.000	7555228	1000.00	875	44.58- 84.58	64.81
3.309	3.309	0.000	4704651	1000.00	890	20.18- 60.18	40.36
3.536	3.536	0.000	6183823	1000.00	897	32.45- 72.45	53.05
3.611	3.611	0.000	5745271	1000.00	894	28.97- 68.97	49.29
Average of Peak Amounts =					897		
7 Aroclor-1260					CAS #: 11096-82-5		
4.301	4.301	0.000	12438009	1000.00	951	80.00- 120.00	100.00
4.426	4.426	0.000	15198346	1000.00	977	102.36- 142.36	122.19
4.691	4.691	0.000	11456823	1000.00	963	71.70- 111.70	92.11
4.864	4.864	0.000	11904207	1000.00	969	75.18- 115.18	95.71
5.012	5.012	0.000	26564667	1000.00	1010	193.37- 233.37	213.58
Average of Peak Amounts =					973		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032410.b/002b0201.d

Date : 24-MAR-2010 05:39

Client ID: AR166001

Sample Info: IWAR100222-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

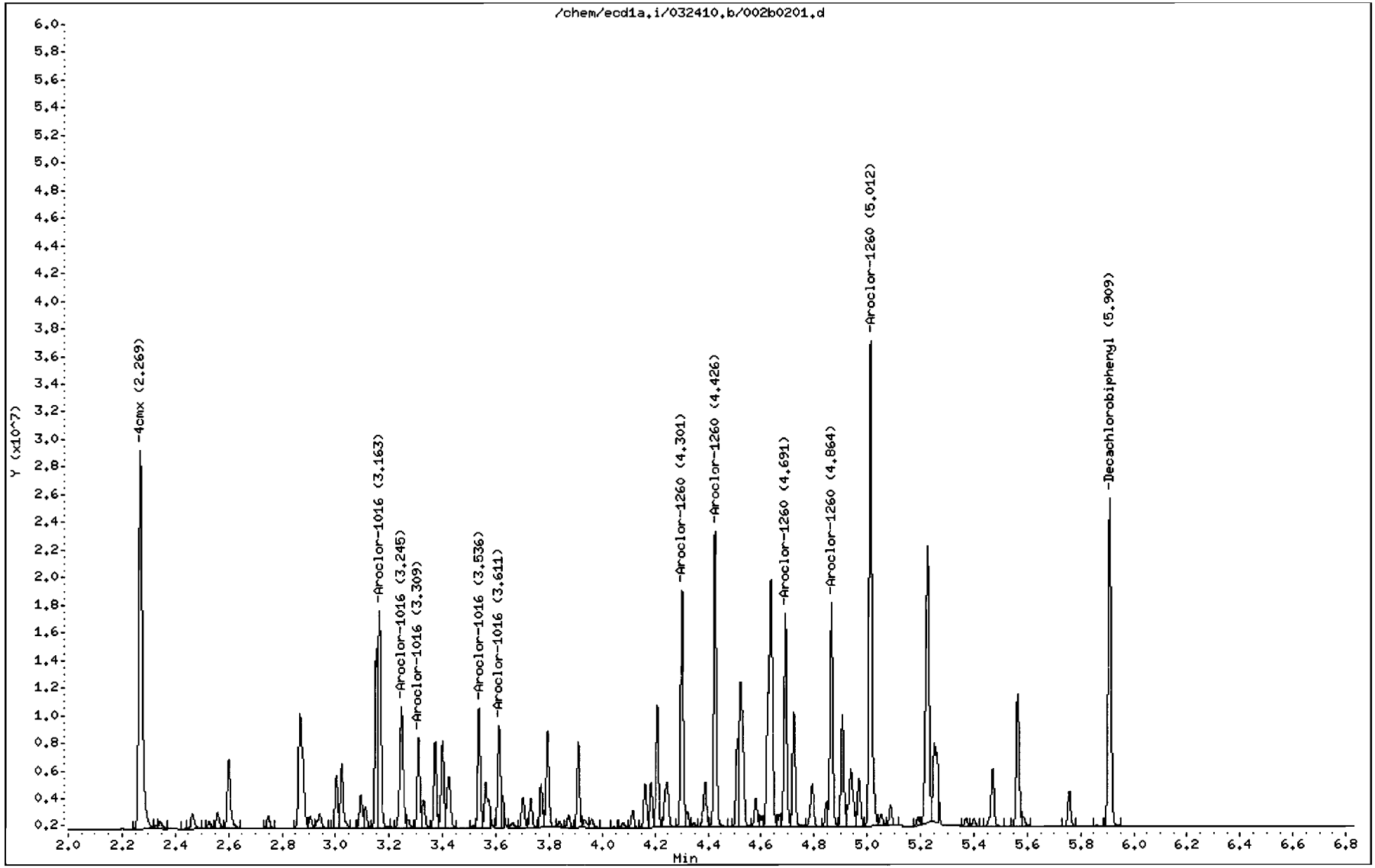

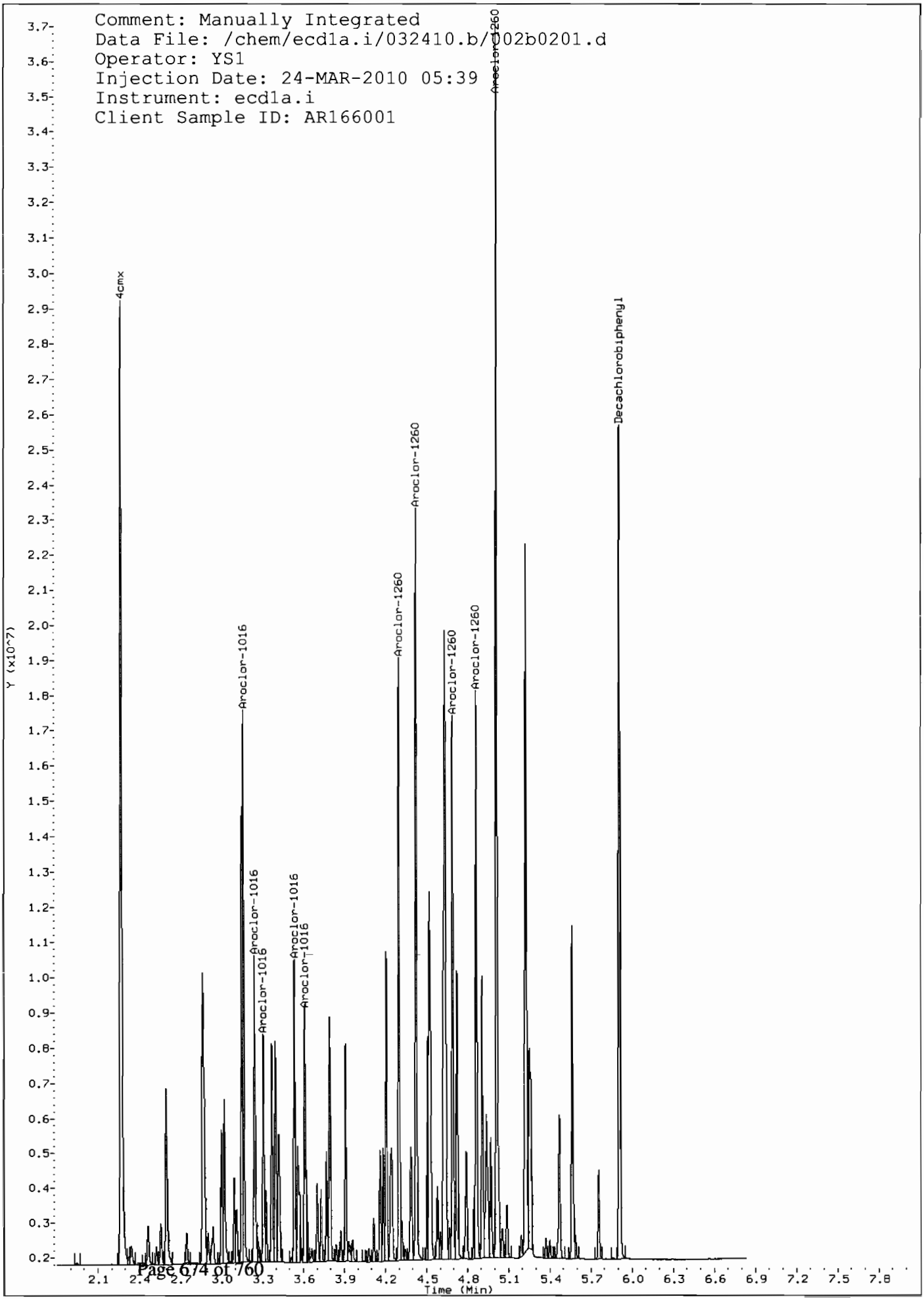
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032410.b/002b0201.d
Operator: YS1
Injection Date: 24-MAR-2010 05:39
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
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Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

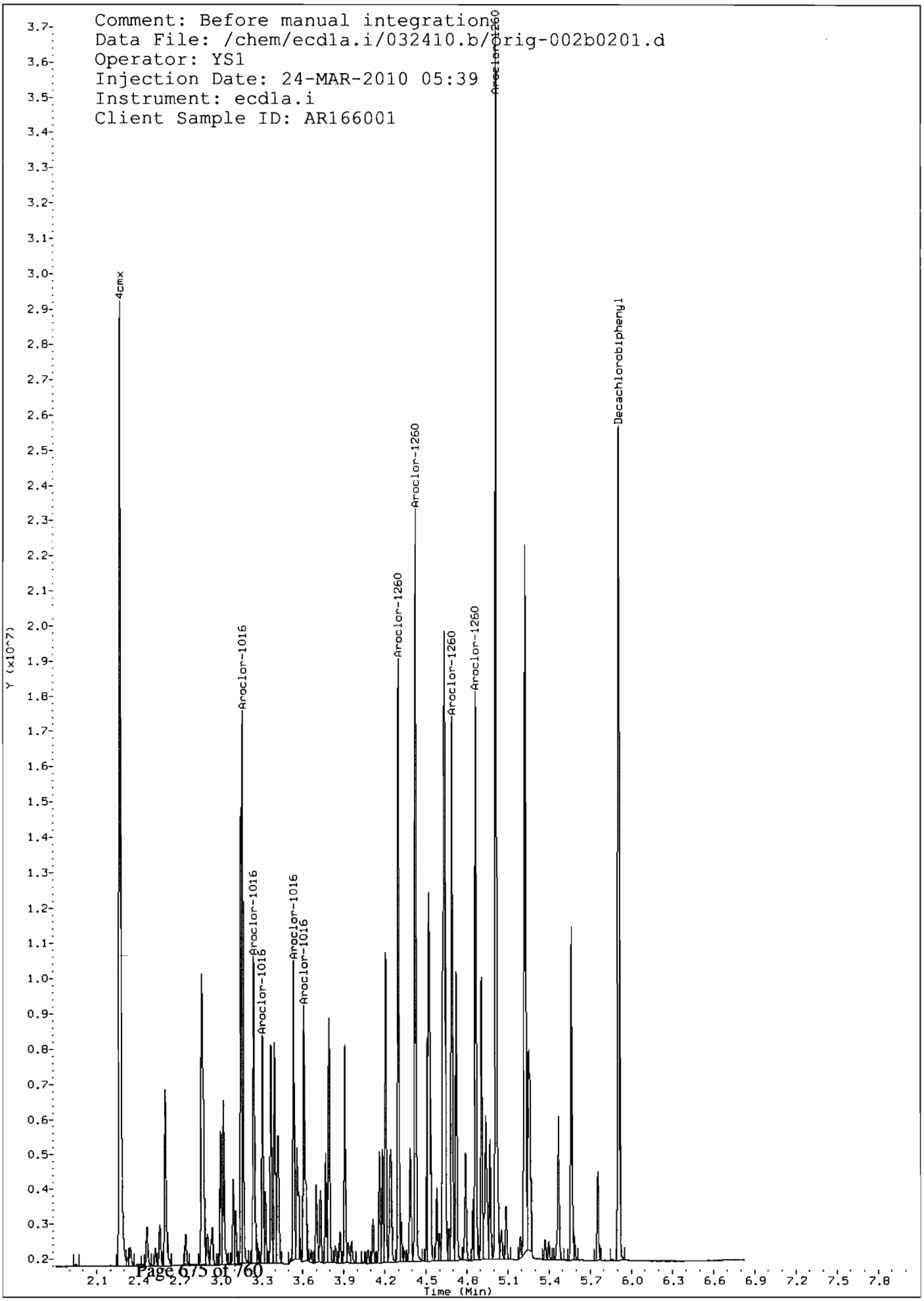
Comment: Before manual integration
Data File: /chem/ecd1a.i/032410.b/orig-002b0201.d
Operator: YS1
Injection Date: 24-MAR-2010 05:39
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 24-MAR-2010 05:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.207	3.207	0.000	12655702	1000.00	954	80.00- 120.00	100.00
3.362	3.362	0.000	17108757	1000.00	959	115.19- 155.19	135.19
3.595	3.595	0.000	22249968	1000.00	994	155.81- 195.81	175.81
3.758	3.758	0.000	16514415	1000.00	1000	110.49- 150.49	130.49
3.867	3.867	0.000	16740316	1000.00	1050	112.27- 152.27	132.27

Average of Peak Amounts = 992

Data File: /chem/ecd1a.i/032410.b/003f0301.d

Date : 24-MAR-2010 05:49

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

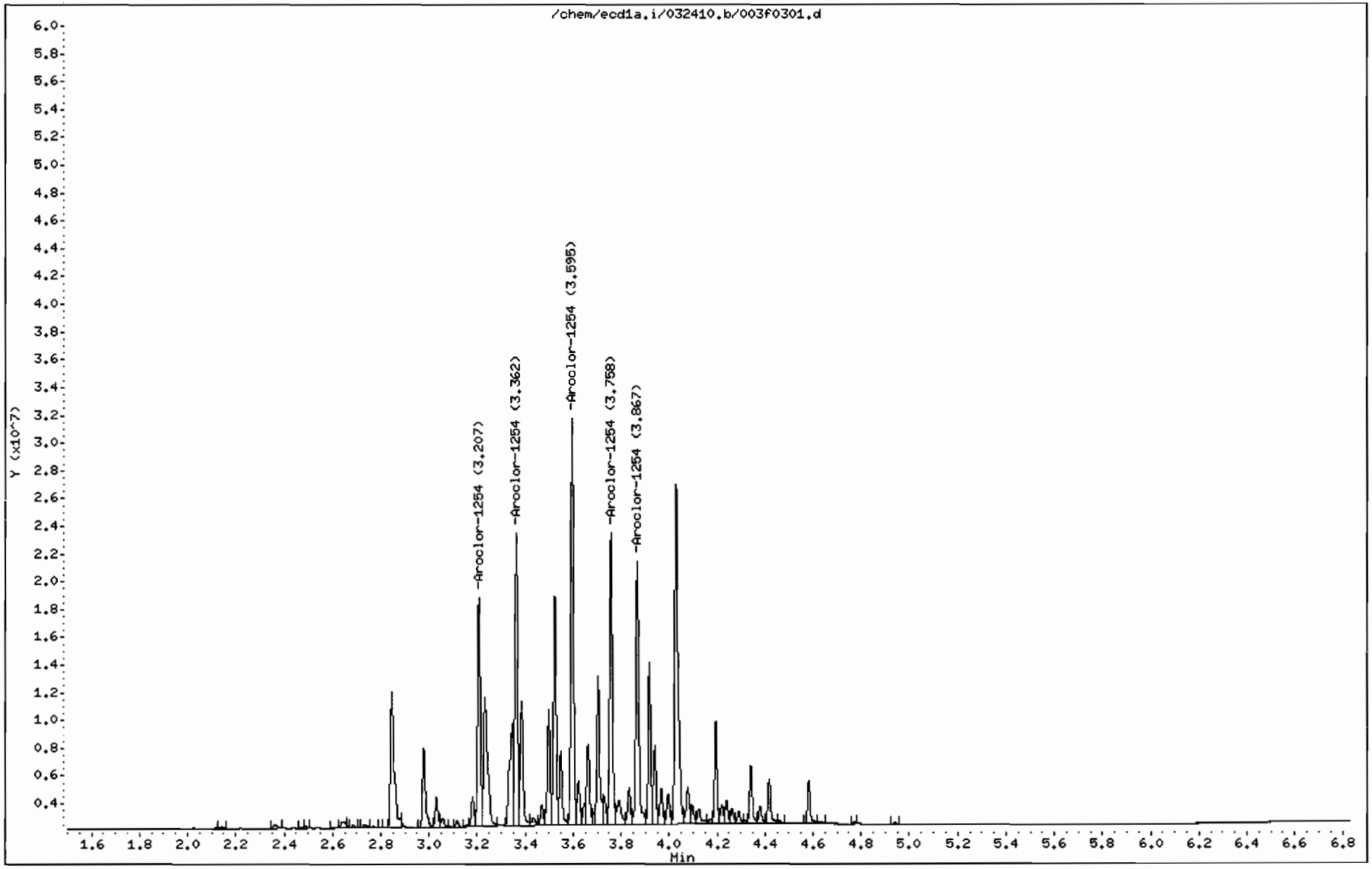

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 24-MAR-2010 05:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.373	3.373	0.000	5572091	1000.00	925	80.00- 120.00	100.00
3.794	3.794	0.000	10101252	1000.00	934	161.28- 201.28	181.28
3.911	3.911	0.000	11158366	1000.00	935	180.25- 220.25	200.25
4.186	4.186	0.000	15689738	1000.00	954	261.58- 301.58	281.58
4.323	4.323	0.000	11432434	1000.00	944	185.17- 225.17	205.17
Average of Peak Amounts =					938		

Data File: /chem/ecd1a.i/032410.b/003b0301.d

Date : 24-MAR-2010 05:49

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

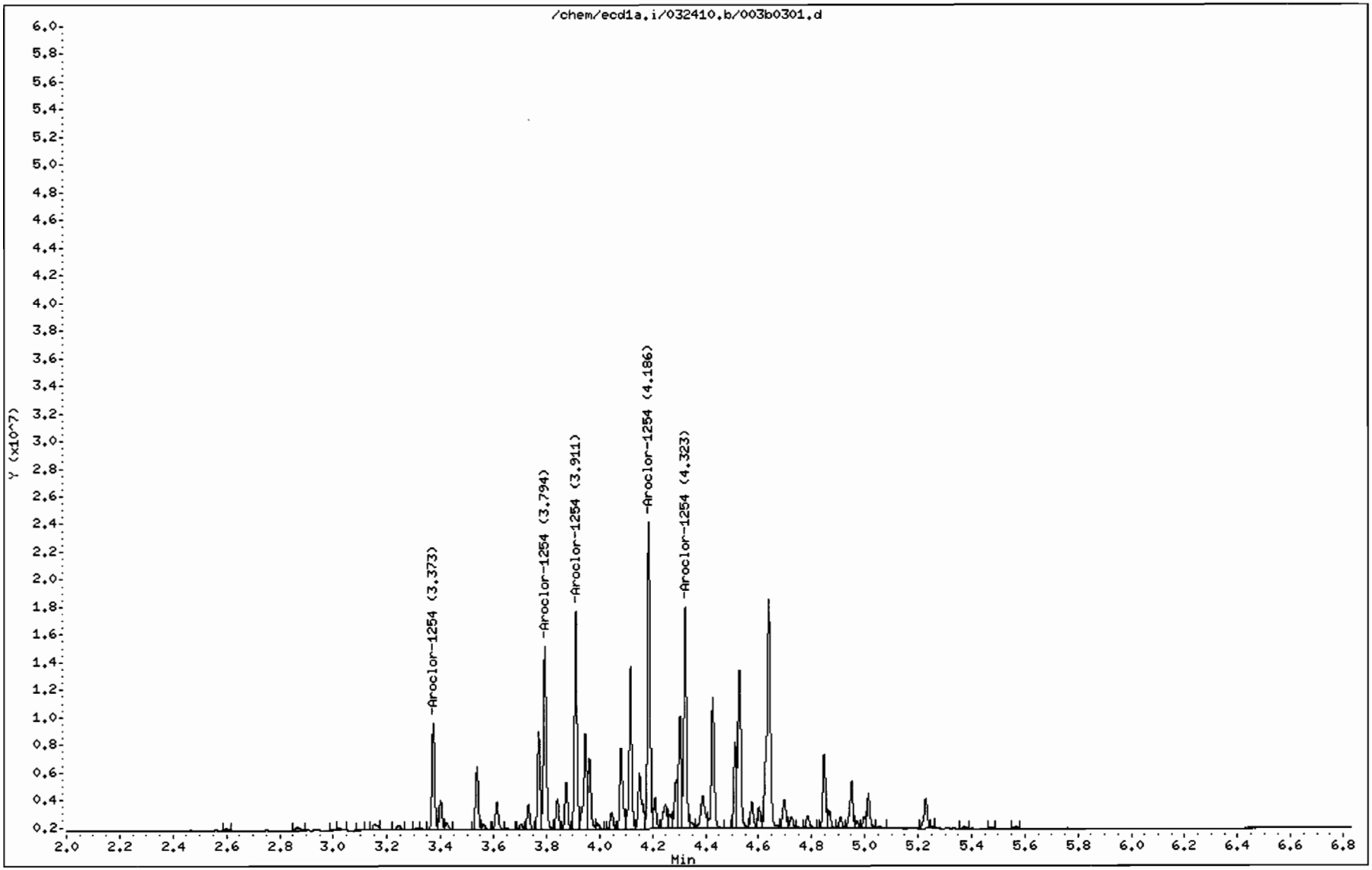

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/004f0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 24-MAR-2010 06:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.364	2.364	0.000	12723972	1000.00	1030	80.00- 120.00	100.00
2.650	2.650	0.000	15792585	1000.00	1060	104.12- 144.12	124.12
2.768	2.768	0.000	5897944	1000.00	1000	26.35- 66.35	46.35
2.978	2.978	0.000	7592928	1000.00	982	39.67- 79.67	59.67
3.231	3.231	0.000	7117665	1000.00	977	35.94- 75.94	55.94

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032410.b/004f0401.d

Page 1

Date : 24-MAR-2010 06:00

Client ID: AR124201

Instrument: ecd1a.i

Sample Info: IWAR100219-42

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

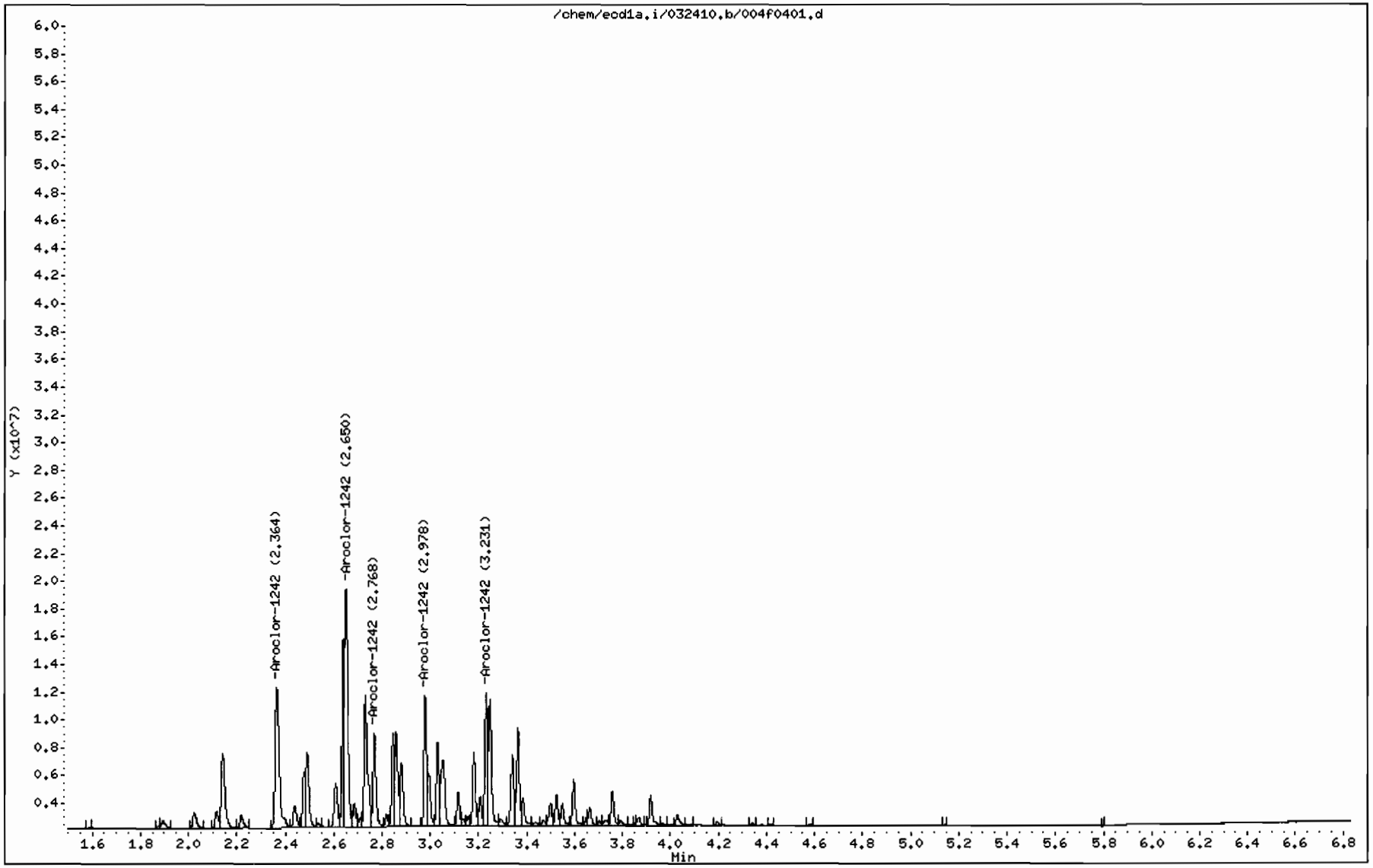

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/004b0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 24-MAR-2010 06:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.164	3.164	0.000	10104779	1000.00	997	80.00- 120.00	100.00
3.247	3.247	0.000	6649699	1000.00	937	45.81- 85.81	65.81
3.537	3.537	0.000	5252941	1000.00	953	31.98- 71.98	51.98
3.770	3.770	0.000	5489763	1000.00	959	34.33- 74.33	54.33
3.798	3.798	0.000	6195366	1000.00	973	41.31- 81.31	61.31
Average of Peak Amounts =					964		

Data File: /chem/ecd1a.i/032410.b/004b0401.d

Page 1

Date : 24-MAR-2010 06:00

Client ID: AR124201

Instrument: ecd1a.i

Sample Info: IWAR100219-42

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

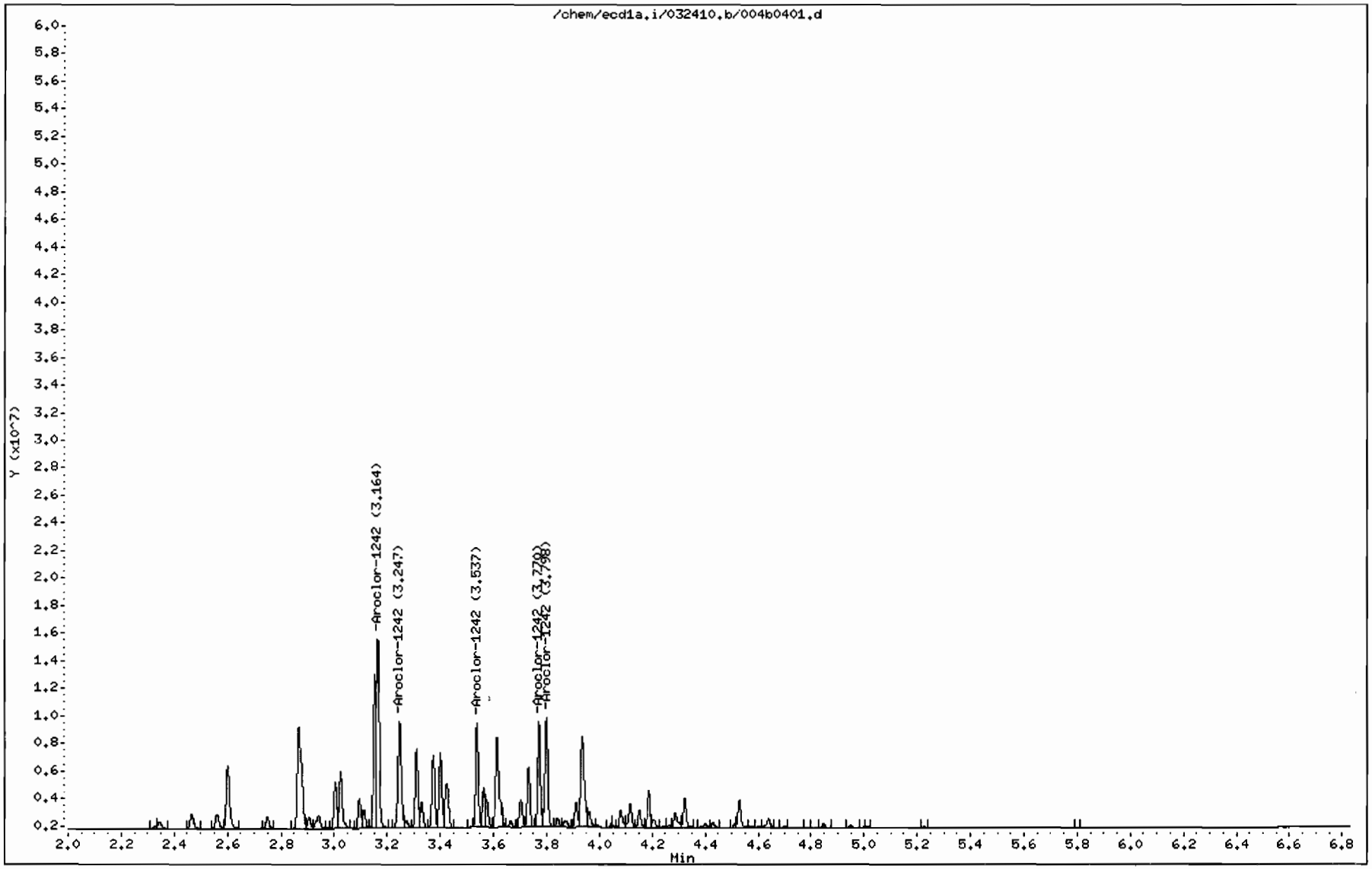

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 24-MAR-2010 06:10
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
2.845	2.845	0.000	9522430	1000.00	952	80.00- 120.00	100.00
2.979	2.979	0.000	12924894	1000.00	984	115.73- 155.73	135.73
3.232	3.232	0.000	13995374	1000.00	978	126.97- 166.97	146.97
3.364	3.364	0.000	11347074	1000.00	954	99.16- 139.16	119.16
3.596	3.596	0.000	7439990	1000.00	929	58.13- 98.13	78.13
Average of Peak Amounts =					960		

Data File: /chem/ecd1a.i/032410.b/005f0501.d

Page 1

Date : 24-MAR-2010 06:10

Client ID: AR124801

Instrument: ecd1a.i

Sample Info: IWAR100223-48

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

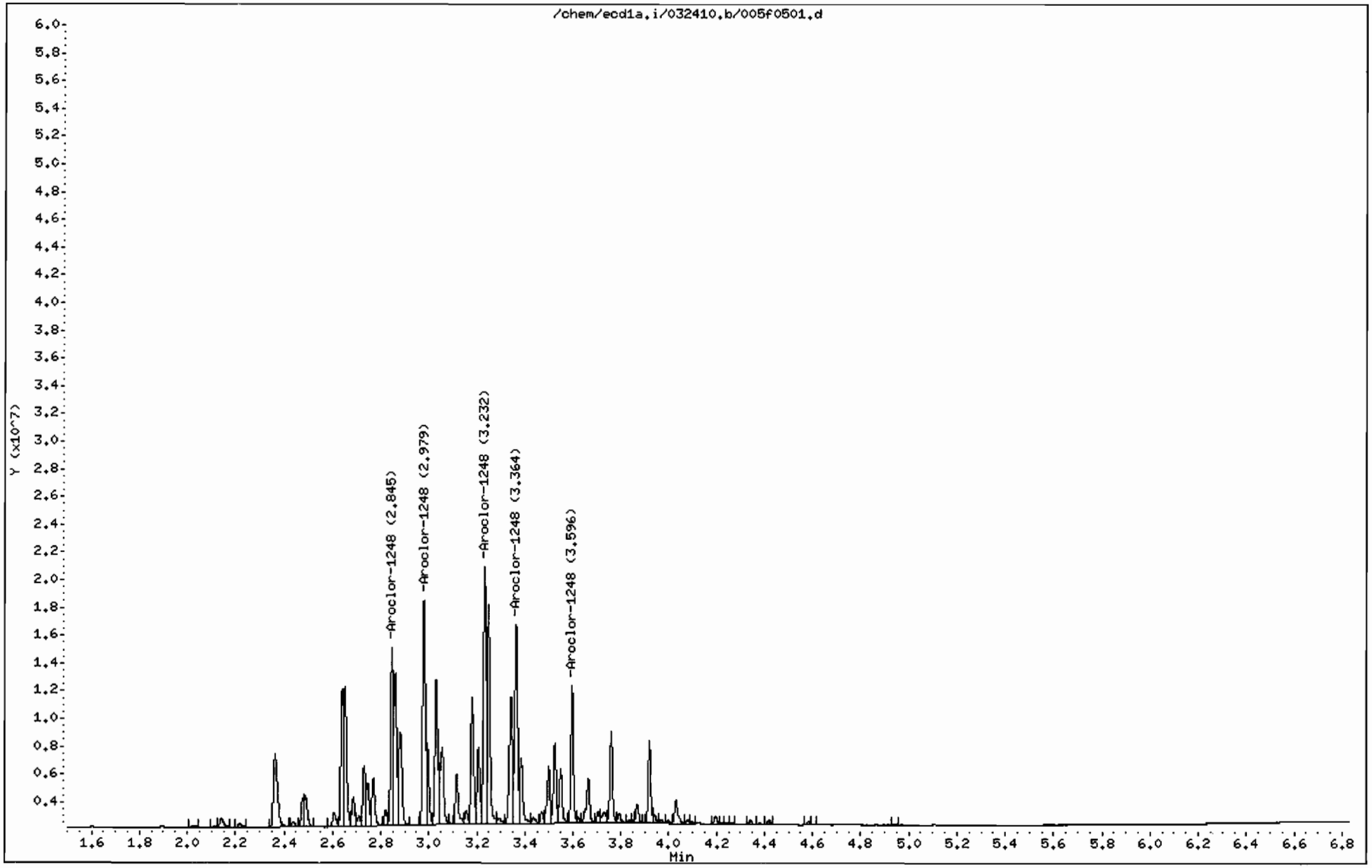

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 24-MAR-2010 06:10
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.373	3.373	0.000	7164068	1000.00	942	80.00- 120.00	100.00
3.538	3.538	0.000	9007385	1000.00	951	105.73- 145.73	125.73
3.771	3.771	0.000	10377241	1000.00	949	124.85- 164.85	144.85
3.799	3.799	0.000	11673278	1000.00	960	142.94- 182.94	162.94
3.935	3.935	0.000	11205755	1000.00	949	136.42- 176.42	156.42

Average of Peak Amounts = 950

Data File: /chem/ecd1a.i/032410.b/005b0501.d

Page 1

Date : 24-MAR-2010 06:10

Client ID: AR124801

Instrument: ecd1a.i

Sample Info: IWAR100223-48

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

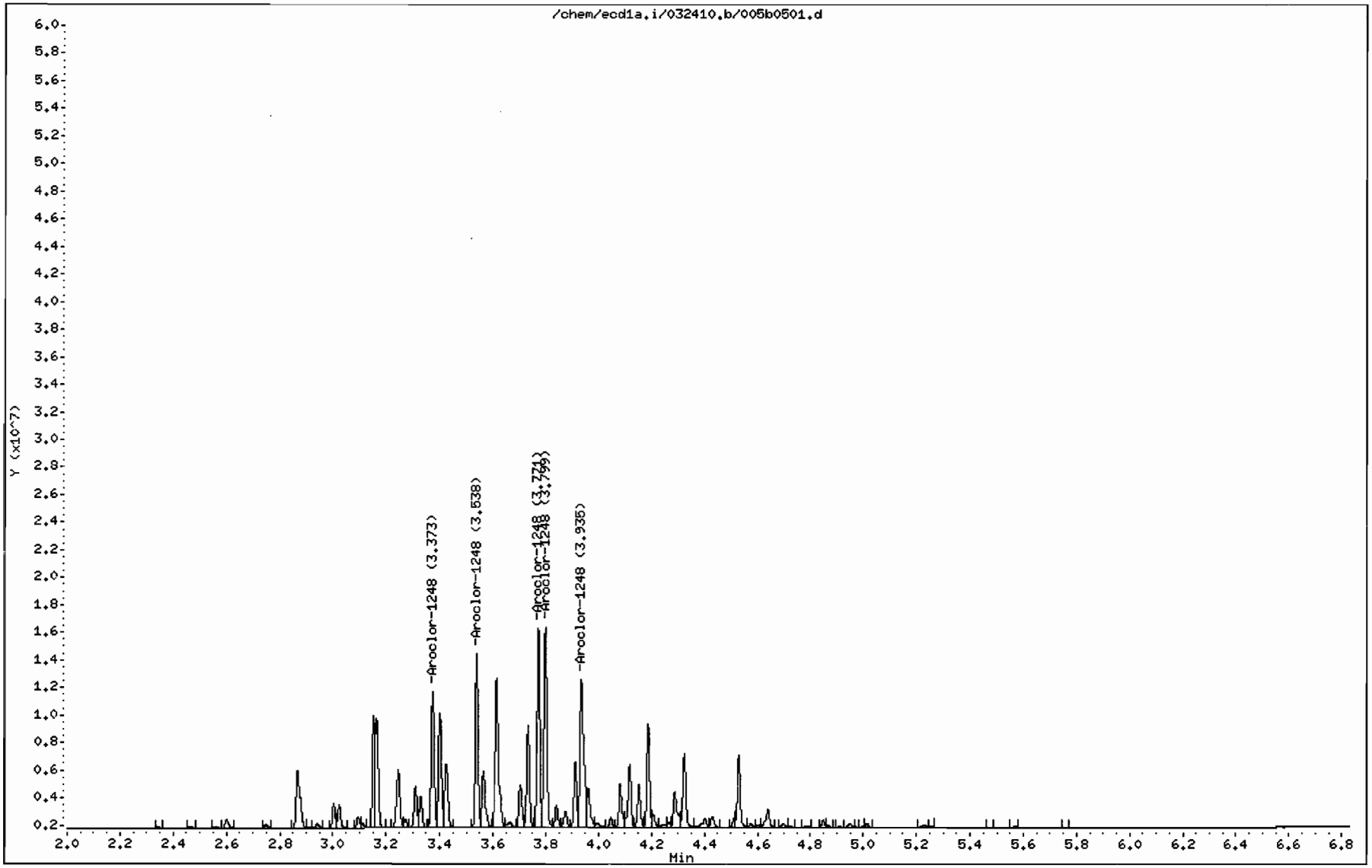

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/007f0701.d
Lab Smp Id: WAR100323-32 Client Smp ID: AR123201
Inj Date : 24-MAR-2010 06:31
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100323-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.364	2.364	0.000	6738988	1000.00	1010	80.00- 120.00	100.00
2.651	2.651	0.000	8705686	1000.00	1040	109.18- 149.18	129.18
2.731	2.731	0.000	5516778	1000.00	997	61.86- 101.86	81.86
2.845	2.845	0.000	2665659	1000.00	1010	19.56- 59.56	39.56
3.232	3.232	0.000	3558179	1000.00	1000	32.80- 72.80	52.80

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032410.b/007f0701.d
Date : 24-MAR-2010 06:31
Client ID: AR123201
Sample Info: IWAR100323-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

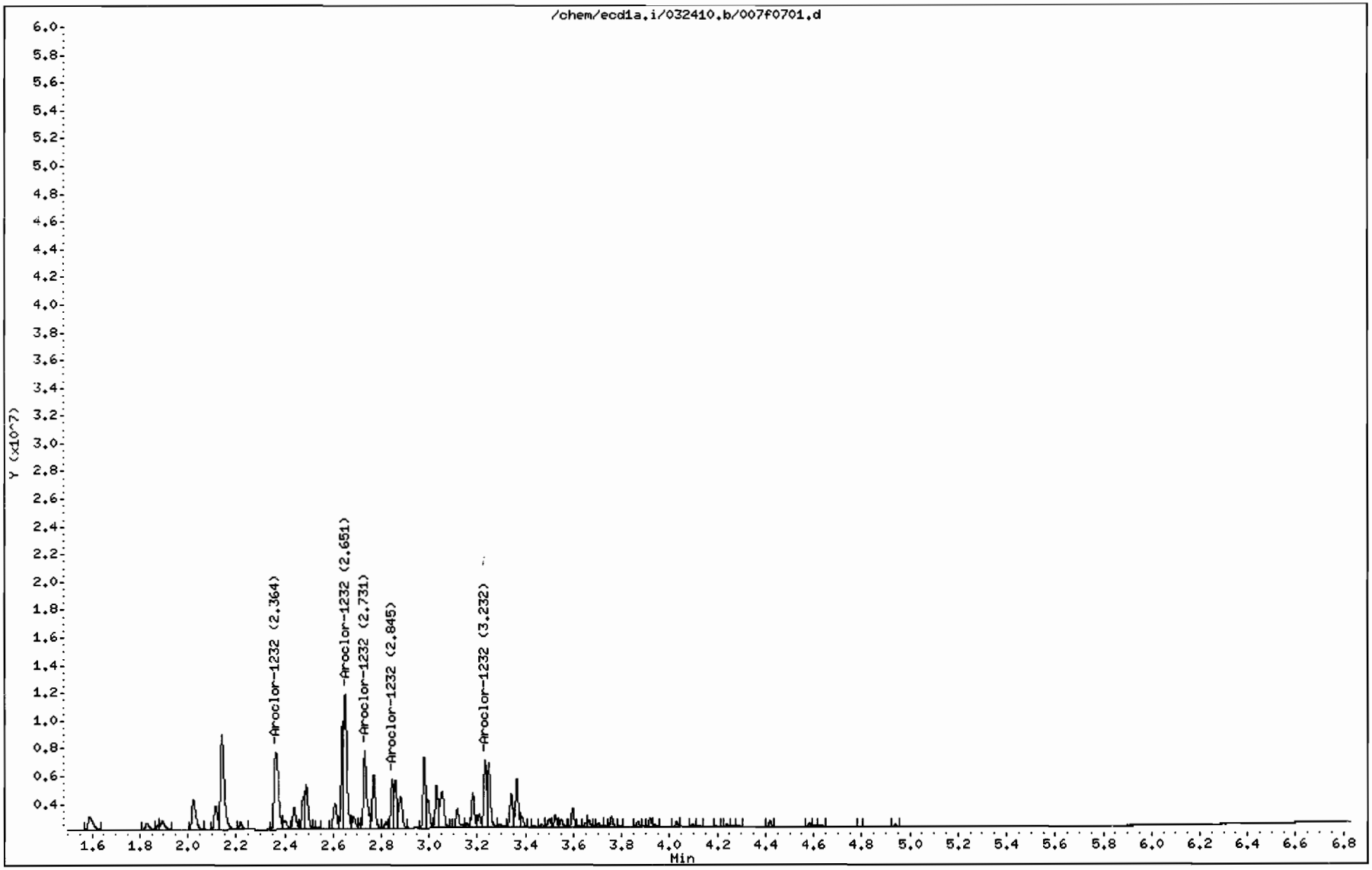

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/007b0701.d
Lab Smp Id: WAR100323-32 Client Smp ID: AR123201
Inj Date : 24-MAR-2010 06:31
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100323-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.867	2.867	0.000	5084227	1000.00	1010	80.00- 120.00	100.00
3.165	3.165	0.000	5707032	1000.00	999	92.25- 132.25	112.25
3.247	3.247	0.000	3908124	1000.00	1000	56.87- 96.87	76.87
3.537	3.537	0.000	2915616	1000.00	1030	37.35- 77.35	57.35
3.771	3.771	0.000	2894884	1000.00	1030	36.94- 76.94	56.94

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032410.b/007b0701.d

Date : 24-MAR-2010 06:31

Client ID: AR123201

Sample Info: IWAR100323-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

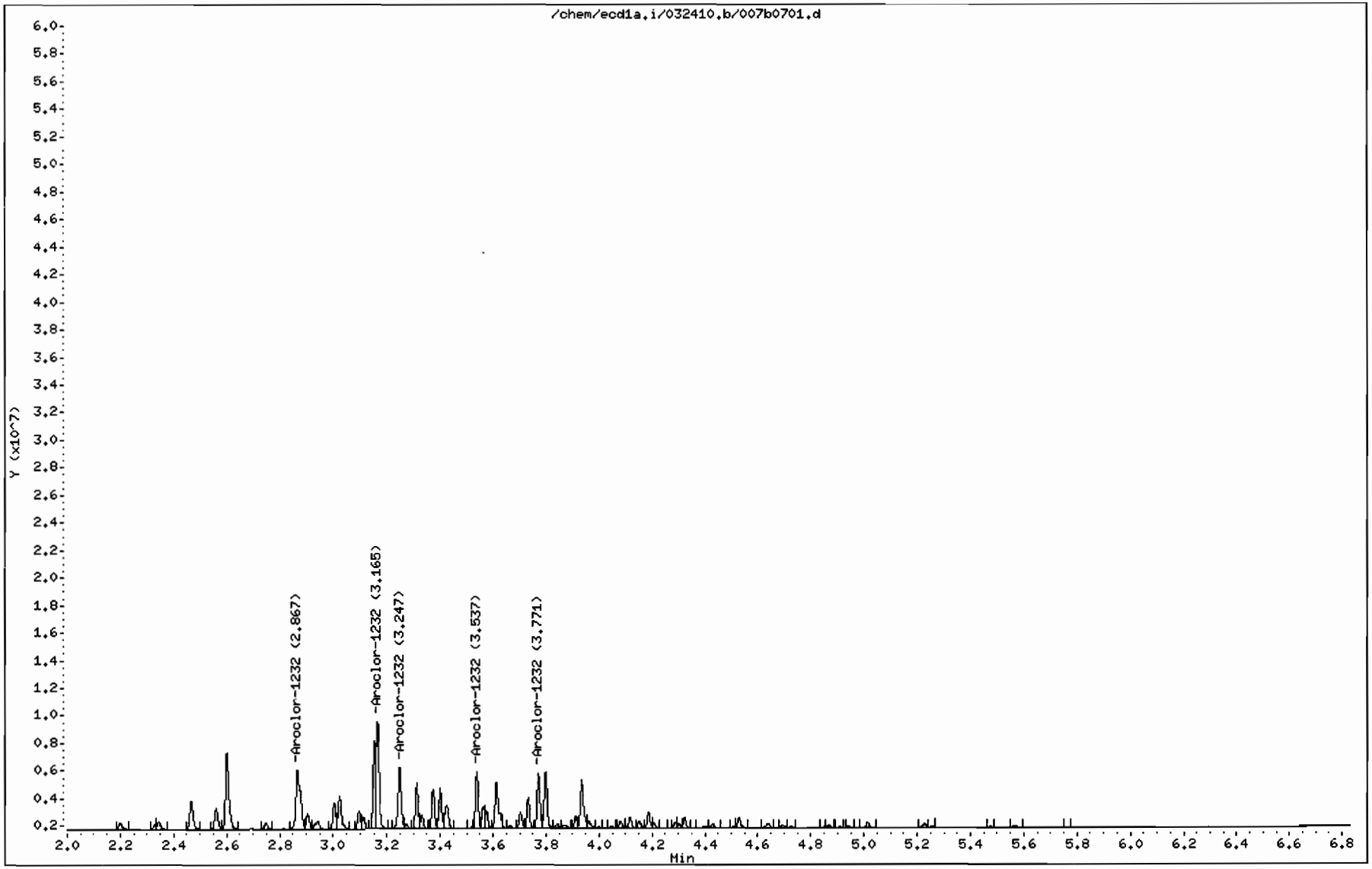

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/008f0801.d
Lab Smp Id: WAR100323-21 Client Smp ID: AR122101
Inj Date : 24-MAR-2010 06:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100323-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.025	2.025	0.000	4422553	1000.00	990	80.00- 120.00	100.00
2.117	2.117	0.000	2422317	1000.00	990	34.77- 74.77	54.77
2.142	2.142	0.000	10216985	1000.00	944	211.02- 251.02	231.02
Average of Peak Amounts =					975		

Data File: /chem/ecd1a.i/032410.b/008f0801.d

Page 1

Date : 24-MAR-2010 06:42

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: IWAR100323-21

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

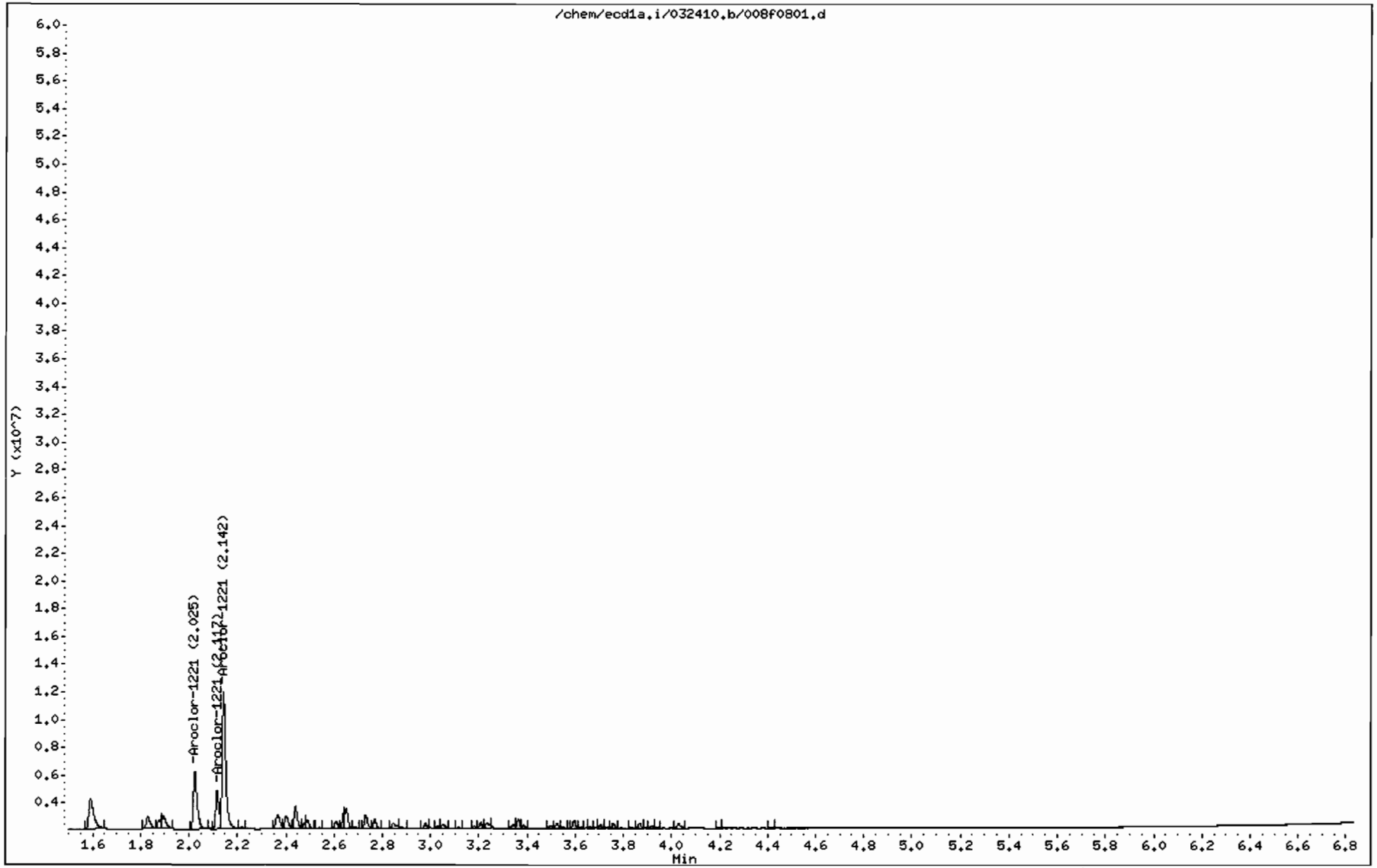

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/008b0801.d
Lab Smp Id: WAR100323-21 Client Smp ID: AR122101
Inj Date : 24-MAR-2010 06:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100323-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.466	2.466	0.000	3219361	1000.00	990	80.00- 120.00	100.00
2.560	2.560	0.000	2048586	1000.00	983	43.63- 83.63	63.63
2.601	2.601	0.000	6983091	1000.00	954	196.91- 236.91	216.91
Average of Peak Amounts =					976		

Data File: /chem/ecd1a.i/032410.b/008b0801.d

Page 1

Date : 24-MAR-2010 06:42

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: IWAR100323-21

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

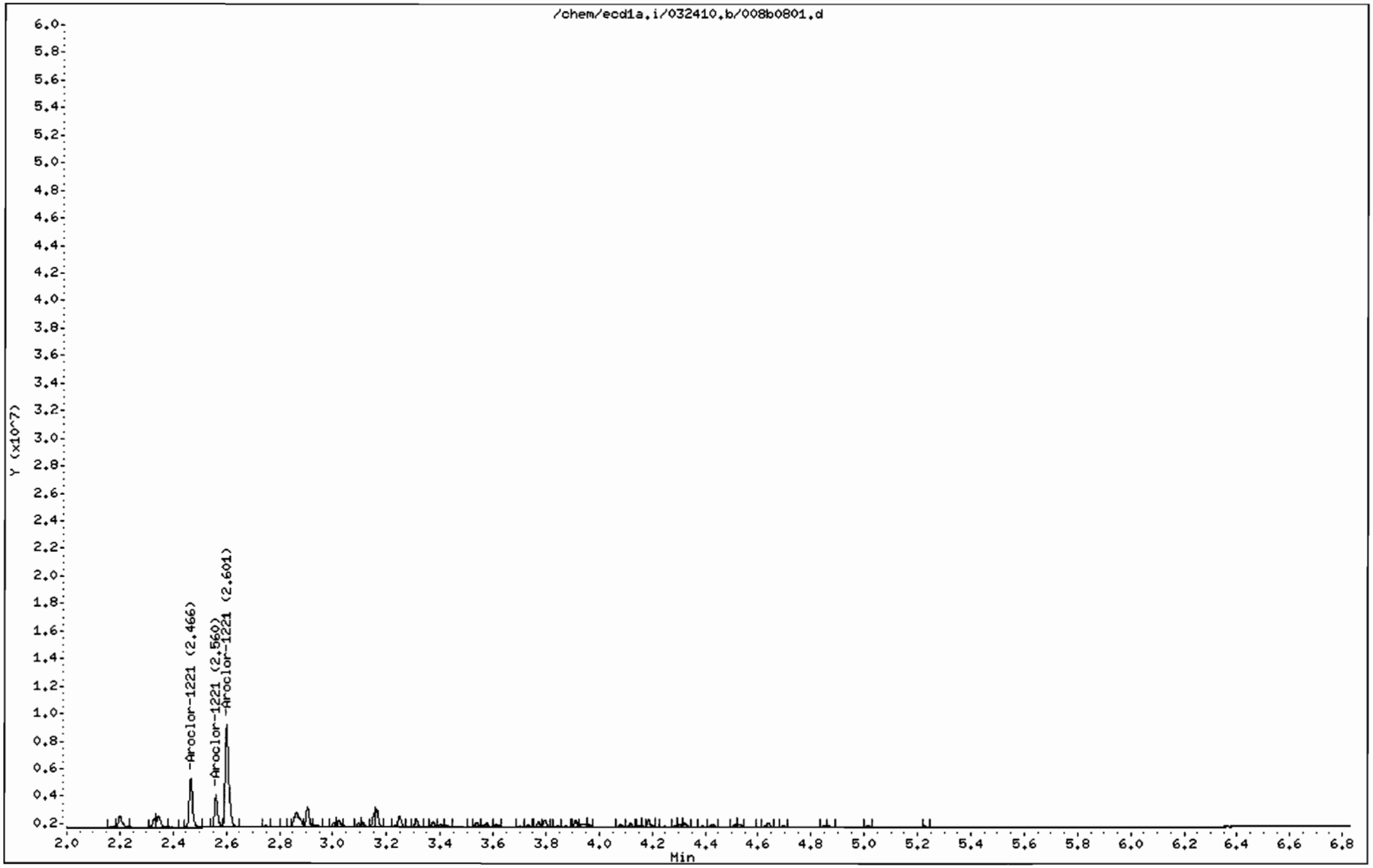

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/030f3001.d
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003
Inj Date : 24-MAR-2010 11:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.910	0.000	41925722	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.213	0.000	28837426	100.000	97.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.362	0.001	14832804	1000.00	977	80.00- 120.00	100.00
2.648	2.650	-0.002	18394368	1000.00	971	104.01- 144.01	124.01
2.728	2.729	-0.001	11856903	1000.00	953	59.94- 99.94	79.94
2.767	2.766	0.001	7144568	1000.00	972	28.17- 68.17	48.17
2.976	2.977	-0.001	9297118	1000.00	977	42.68- 82.68	62.68
Average of Peak Amounts =					970		
7 Aroclor-1260					CAS #: 11096-82-5		
3.701	3.701	0.000	19634916	1000.00	1070	80.00- 120.00	100.00
3.863	3.864	-0.001	28958109	1000.00	1080	127.48- 167.48	147.48
4.025	4.026	-0.001	30550211	1000.00	1080	135.59- 175.59	155.59
4.093	4.094	-0.001	17468051	1000.00	1080	68.96- 108.96	88.96
4.236	4.237	-0.001	18164450	1000.00	1080	72.51- 112.51	92.51
Average of Peak Amounts =					1.08e+03		

Data File: /chem/ecd1a.i/032410.b/030f3001.d

Date : 24-MAR-2010 11:02

Client ID: AR166003

Sample Info: IWAR100222-60 03

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

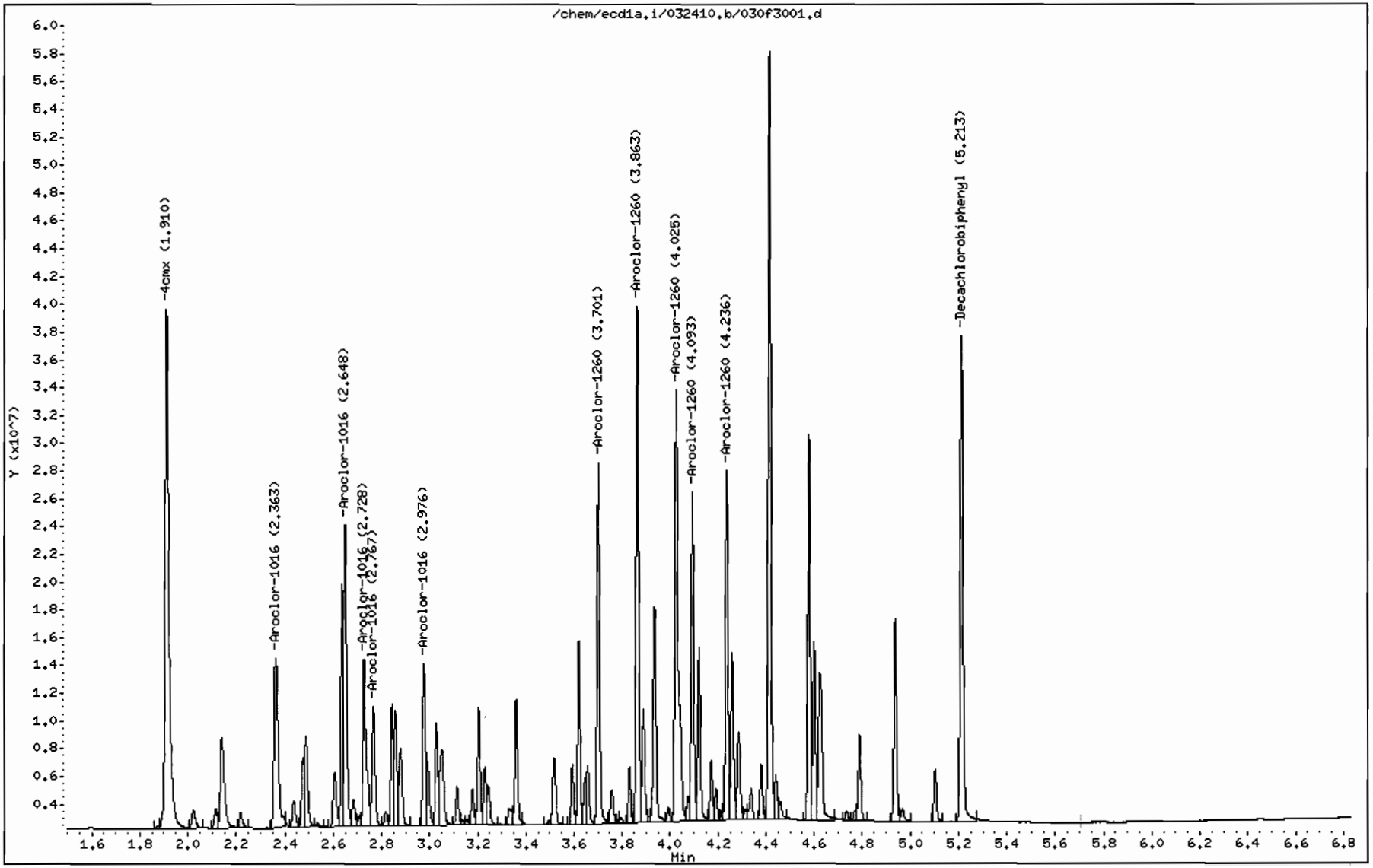

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/030b3001.d
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003
Inj Date : 24-MAR-2010 11:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.268	2.269	-0.001	26205245	100.000	99.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.908	5.909	-0.001	18681823	100.000	99.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.163	3.163	0.000	12258340	1000.00	974	80.00- 120.00	100.00(M)
3.246	3.245	0.001	7916762	1000.00	917	44.58- 84.58	64.58
3.308	3.309	-0.001	4925670	1000.00	932	20.18- 60.18	40.18
3.535	3.536	-0.001	6429520	1000.00	933	32.45- 72.45	52.45
3.611	3.611	0.000	6003115	1000.00	935	28.97- 68.97	58.74
Average of Peak Amounts =					938		
7 Aroclor-1260					CAS #: 11096-82-5		
4.301	4.301	0.000	12849170	1000.00	982	80.00- 120.00	100.00
4.425	4.426	-0.001	15722482	1000.00	1010	102.36- 142.36	122.36
4.691	4.691	0.000	11782608	1000.00	990	71.70- 111.70	91.70
4.864	4.864	0.000	12229657	1000.00	995	75.18- 115.18	95.18
5.011	5.012	-0.001	27416011	1000.00	1040	193.37- 233.37	213.37
Average of Peak Amounts =					1e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032410.b/030b3001.d
Date : 24-MAR-2010 11:02
Client ID: AR166003
Sample Info: IWAR100222-60 03

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

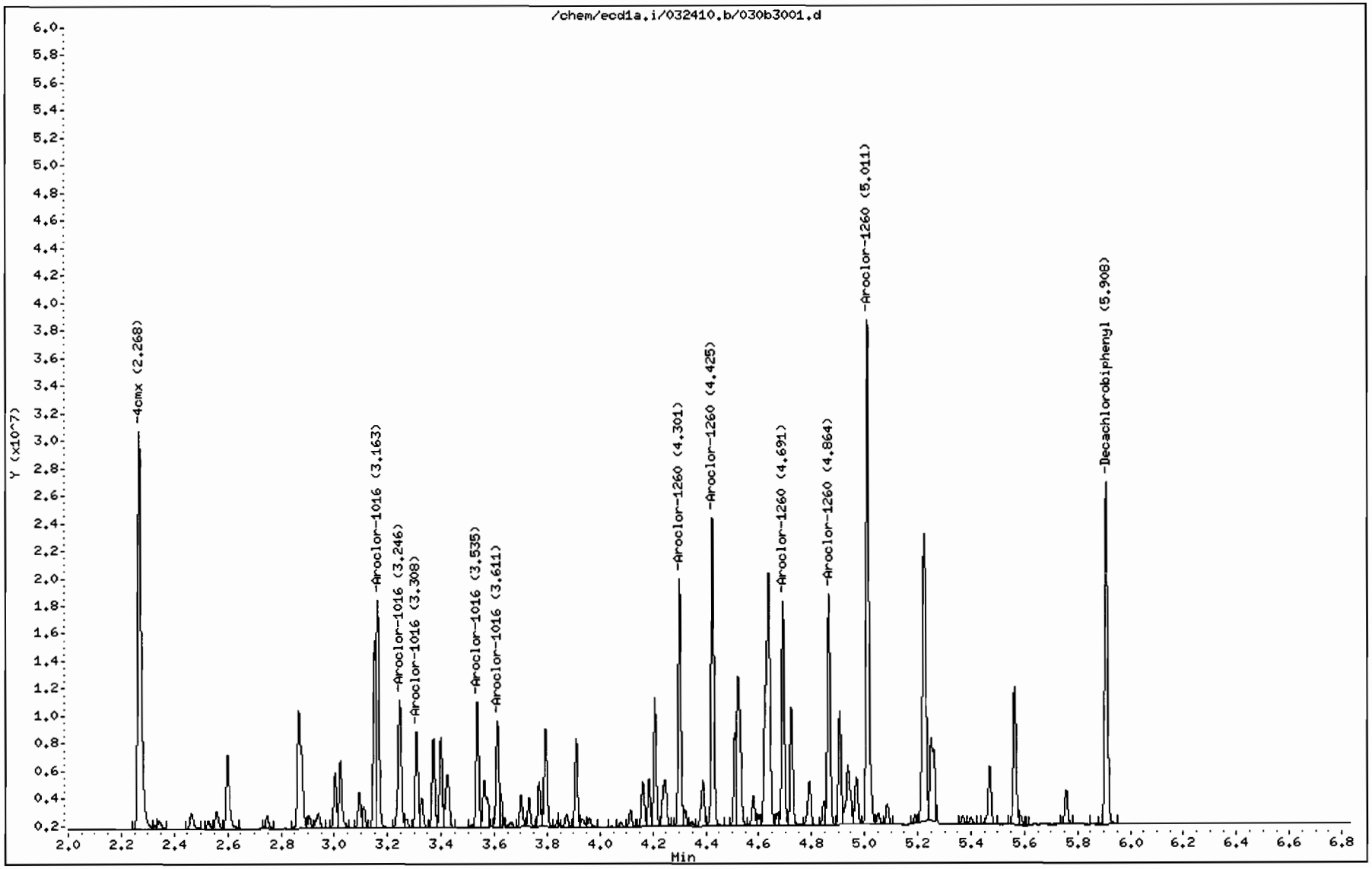

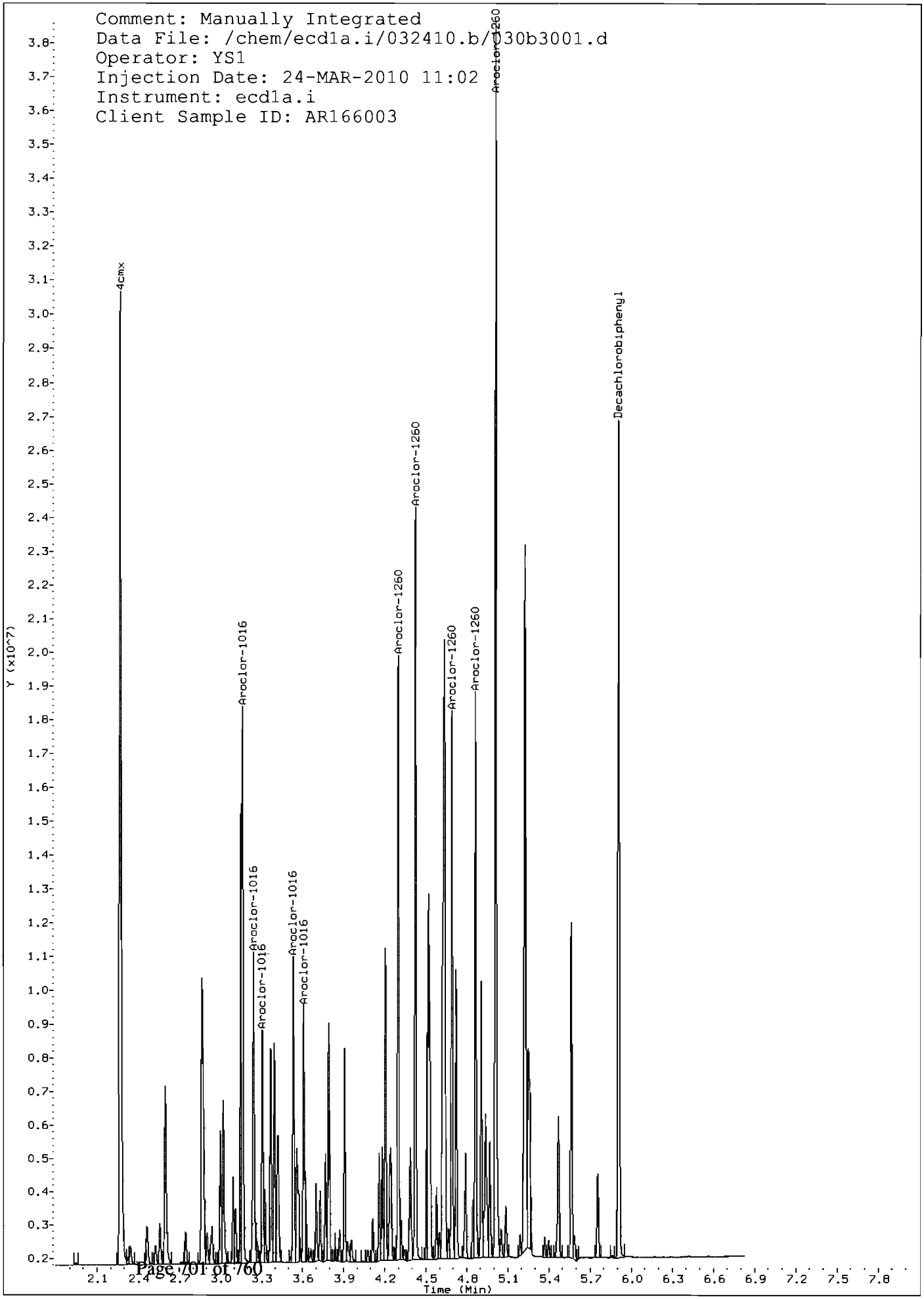
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032410.b/030b3001.d
Operator: YS1
Injection Date: 24-MAR-2010 11:02
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

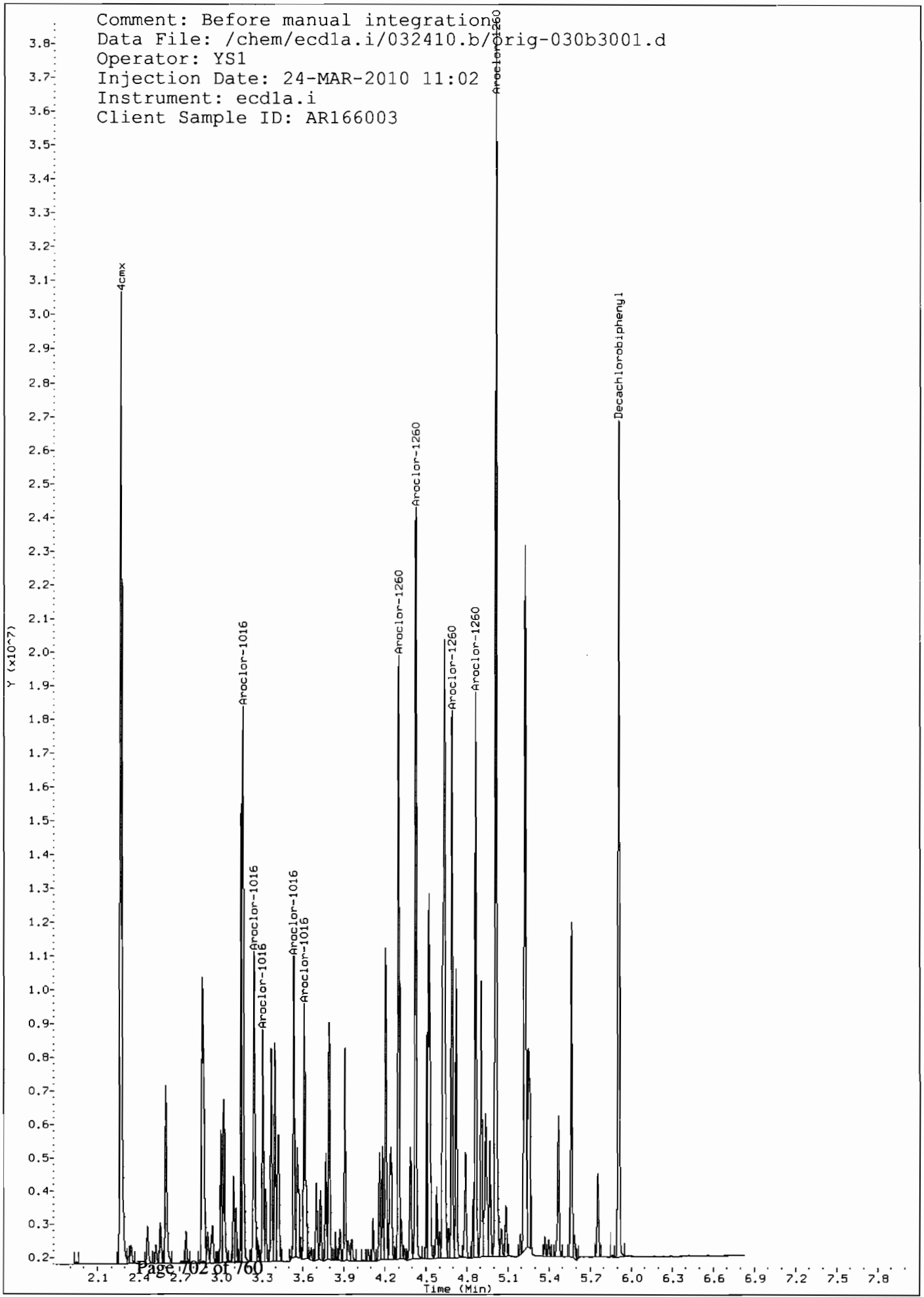
Comment: Before manual integration
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Operator: YS1
Injection Date: 24-MAR-2010 11:02
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/042f4201.d
Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004
Inj Date : 24-MAR-2010 13:24
Operator : YSJ Inst ID: ecd1a.i
Smp Info : |WAR100222-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 42 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.910	0.001	41196064	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.212	5.213	-0.001	31194053	100.000	105	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.362	0.001	14636915	1000.00	964	80.00- 120.00	100.00
2.649	2.650	-0.001	18758131	1000.00	991	108.16- 148.16	128.16
2.729	2.729	0.000	11670116	1000.00	938	59.73- 99.73	79.73
2.766	2.766	0.000	7019055	1000.00	955	27.95- 67.95	47.95
2.976	2.977	-0.001	9081219	1000.00	954	42.04- 82.04	62.04
Average of Peak Amounts =					960		
7 Aroclor-1260					CAS #: 11096-82-5		
3.701	3.701	0.000	19359774	1000.00	1060	80.00- 120.00	100.00
3.863	3.864	-0.001	28491158	1000.00	1060	127.17- 167.17	147.17
4.026	4.026	0.000	30485466	1000.00	1080	137.47- 177.47	157.47
4.094	4.094	0.000	17207187	1000.00	1060	68.88- 108.88	88.88
4.236	4.237	-0.001	17993920	1000.00	1070	72.94- 112.94	92.94
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd1a.i/032410.b/042f4201.d
Date : 24-MAR-2010 13:24
Client ID: AR166004
Sample Info: IWAR100222-60 04

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

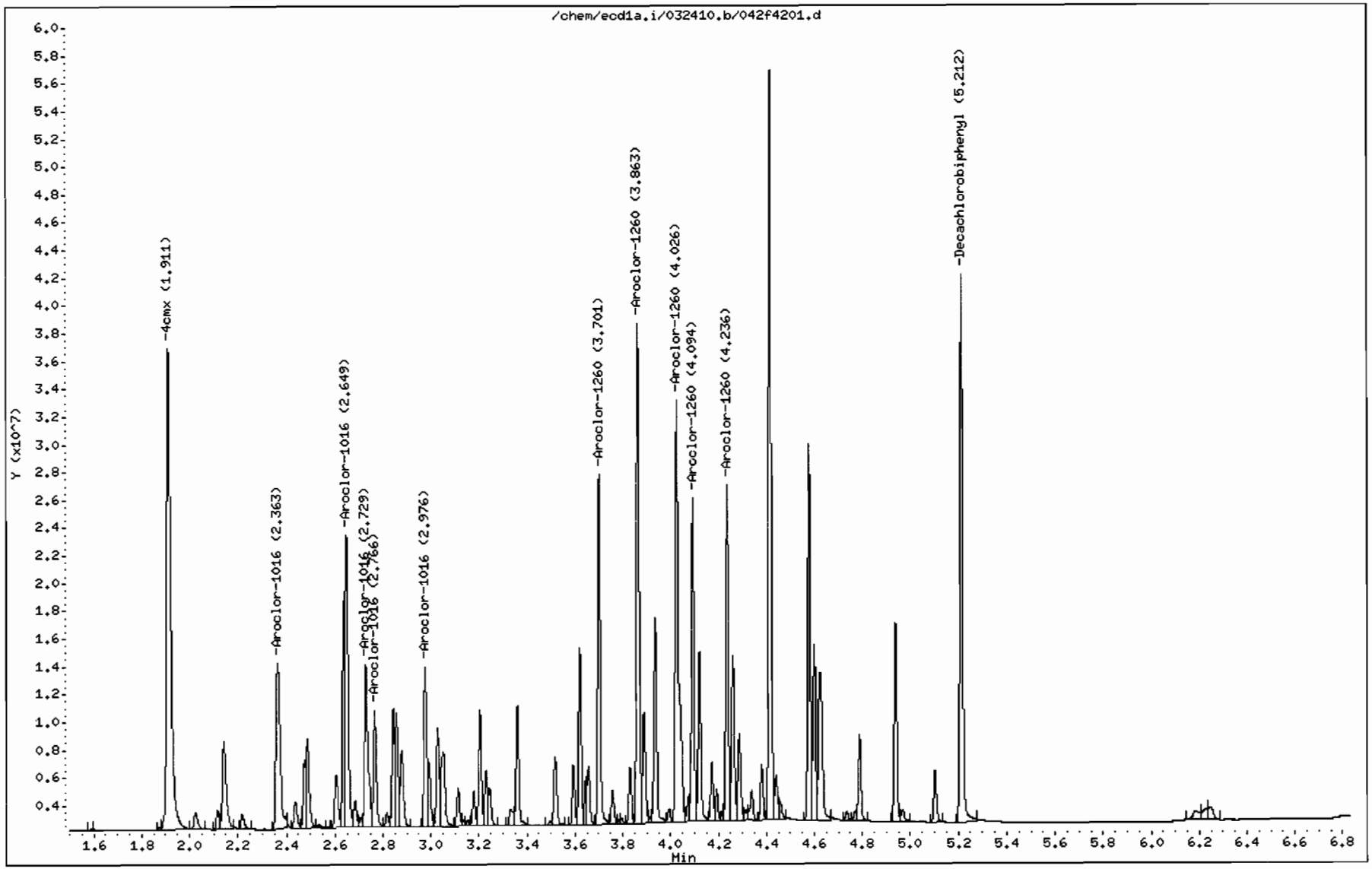

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/042b4201.d
Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004
Inj Date : 24-MAR-2010 13:24
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 42 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	26079789	100.000	99.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.908	5.909	-0.001	18485189	100.000	98.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.162	3.163	-0.001	11938841	1000.00	949	80.00- 120.00	100.00(M)
3.245	3.245	0.000	7740524	1000.00	896	44.83- 84.83	64.83
3.309	3.309	0.000	4841325	1000.00	916	20.55- 60.55	40.55
3.536	3.536	0.000	6342143	1000.00	920	33.12- 73.12	53.12
3.611	3.611	0.000	5898289	1000.00	918	29.40- 69.40	59.41
Average of Peak Amounts =					920		
7 Aroclor-1260					CAS #: 11096-82-5		
4.301	4.301	0.000	12673717	1000.00	969	80.00- 120.00	100.00
4.426	4.426	0.000	15494920	1000.00	996	102.26- 142.26	122.26
4.691	4.691	0.000	11649623	1000.00	979	71.92- 111.92	91.92
4.864	4.864	0.000	12125926	1000.00	987	75.68- 115.68	95.68
5.011	5.012	-0.001	27078325	1000.00	1020	193.66- 233.66	213.66
Average of Peak Amounts =					991		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032410.b/042b4201.d

Date : 24-MAR-2010 13:24

Client ID: AR166004

Sample Info: IWAR100222-60 04

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

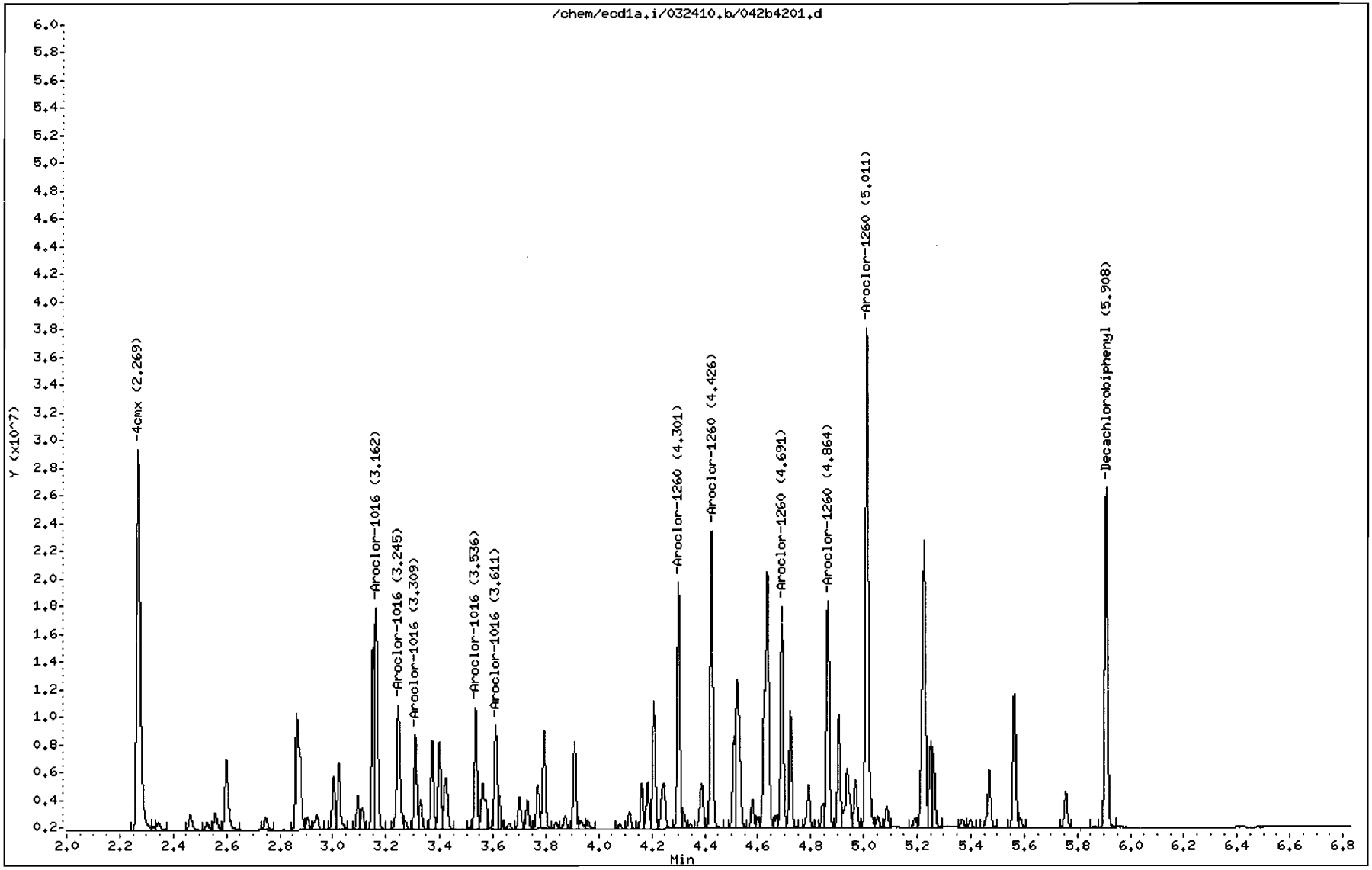

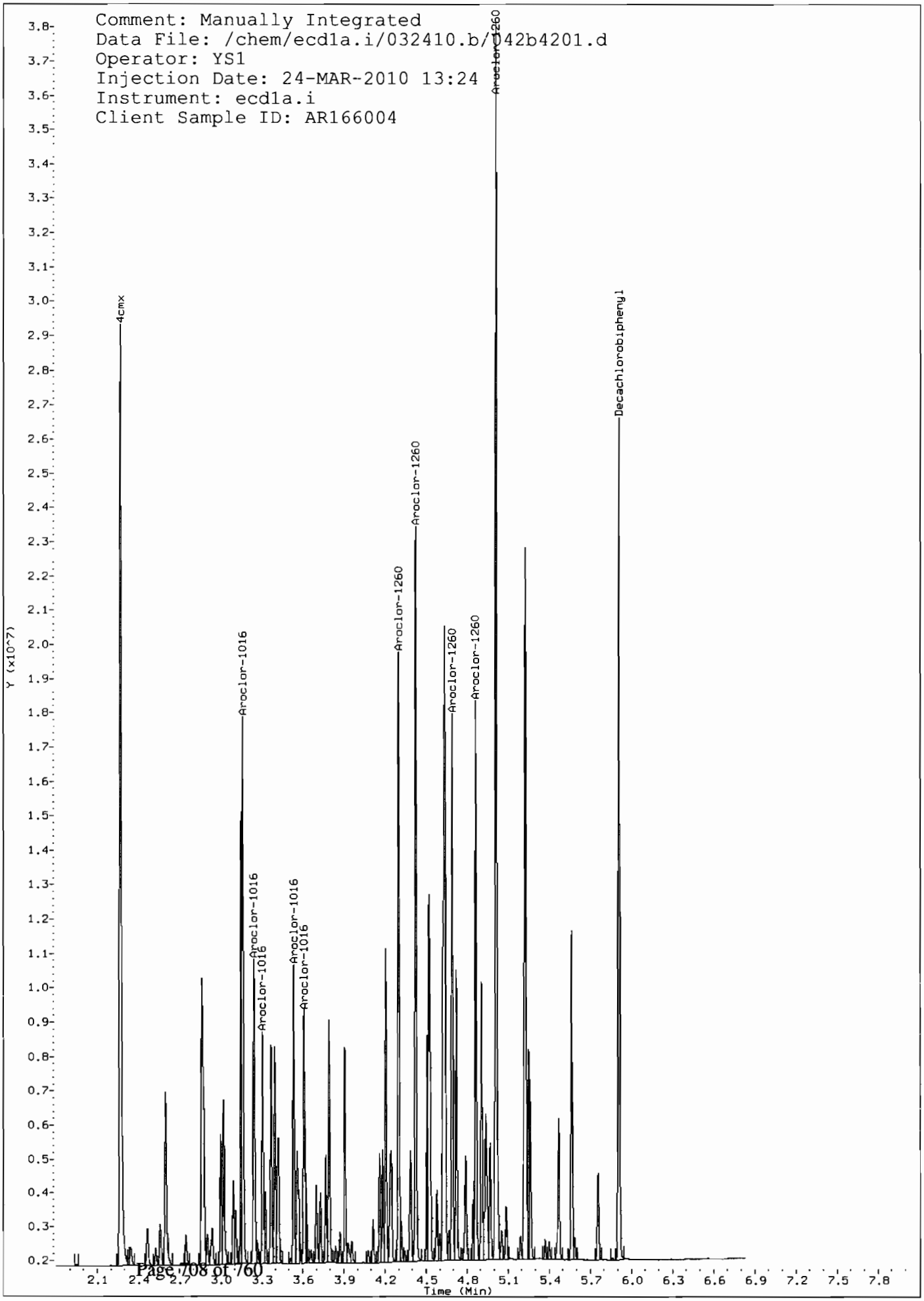
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Injection Date: 24-MAR-2010 13:24
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

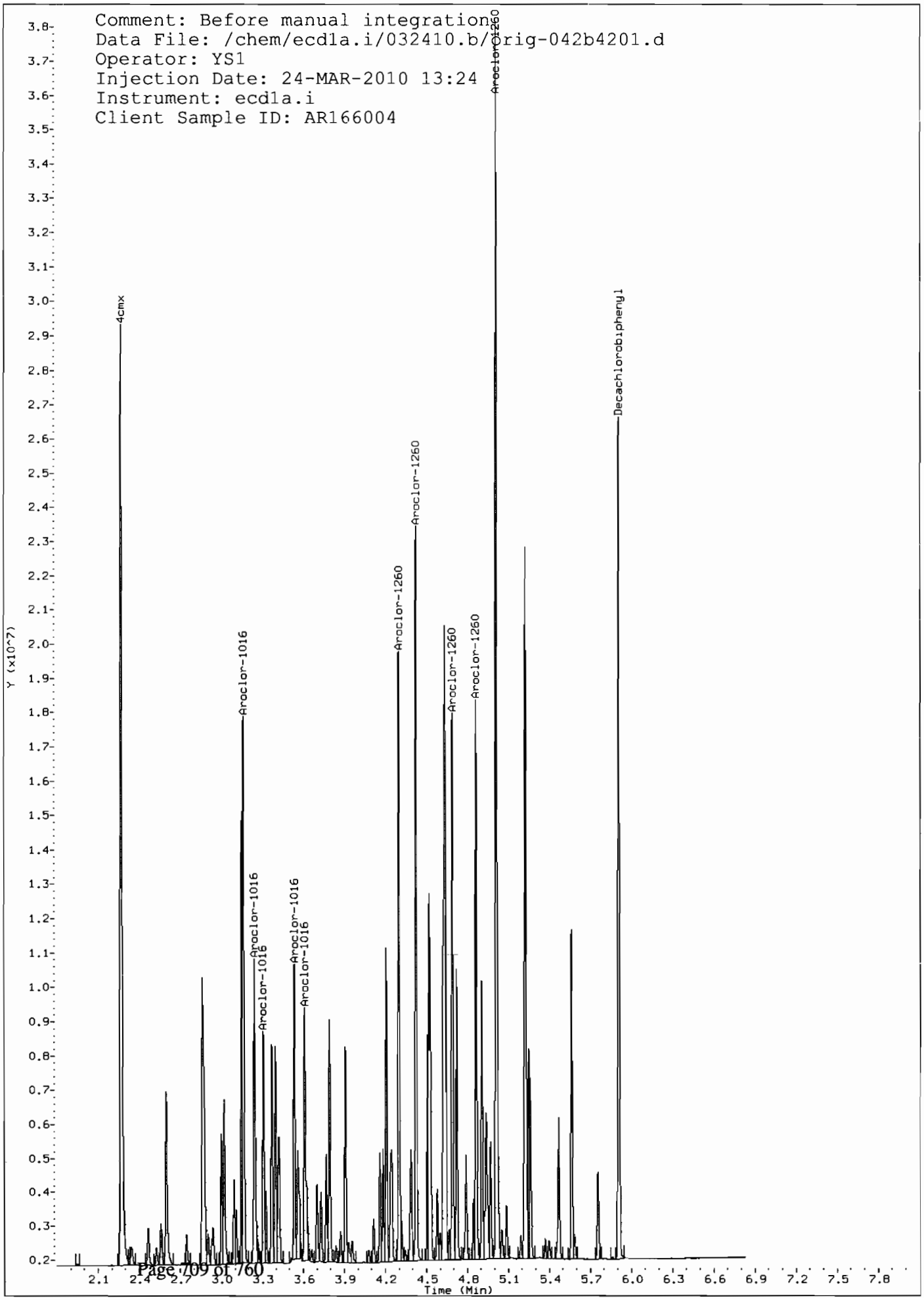
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Operator: YS1
Injection Date: 24-MAR-2010 13:24
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2433

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10	1446	1.91	5.23
02	ZZZZZ	ZZZZZ	03/11/10	1456	1.92	5.22
03	ZZZZZ	ZZZZZ	03/11/10	1507		
04	ZZZZZ	ZZZZZ	03/11/10	1517		
05	ZZZZZ	ZZZZZ	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	1.92	5.22
12	AR166002	WAR100311-02	03/11/10	1641	1.92	5.22
13	AR166003	WAR100311-03	03/11/10	1652	1.92	5.22
14	AR166004	WAR100311-04	03/11/10	1702	1.91	5.22
15	AR166005	IAR100311-01	03/11/10	1713	1.92	5.22
16	AR166001	WAR100222-60	03/11/10	1724	1.91	5.22
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2433

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	1.91	5.22
04	ZZZZZ	ZZZZZ	03/11/10	2054	1.92	5.22
05	ZZZZZ	ZZZZZ	03/11/10	2105	1.92	5.22
06	ZZZZZ	ZZZZZ	03/11/10	2115	1.92	5.22
07	ZZZZZ	ZZZZZ	03/11/10	2126	1.92	5.22
08	ZZZZZ	ZZZZZ	03/11/10	2136	1.92	5.22
09	ZZZZZ	ZZZZZ	03/11/10	2147	1.92	5.22
10	ZZZZZ	ZZZZZ	03/11/10	2157	1.92	5.22
11	ZZZZZ	ZZZZZ	03/11/10	2208	1.92	5.22
12	ZZZZZ	ZZZZZ	03/11/10	2218	1.92	5.22
13	ZZZZZ	ZZZZZ	03/11/10	2229	1.92	5.22
14	AR166002	WAR100222-60	03/11/10	2239	1.91	5.22
15	PIBLK03	WAR100219-99	03/11/10	2250	1.91	5.22
16	ZZZZZ	ZZZZZ	03/11/10	2300	1.90	5.23
17	ZZZZZ	ZZZZZ	03/11/10	2311	1.92	5.22
18	ZZZZZ	ZZZZZ	03/11/10	2321	1.91	5.22
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2433

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10	1446	2.27	5.92
02	ZZZZZ	ZZZZZ	03/11/10	1456	2.27	5.92
03	ZZZZZ	ZZZZZ	03/11/10	1507		
04	ZZZZZ	ZZZZZ	03/11/10	1517		
05	ZZZZZ	ZZZZZ	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	2.27	5.92
12	AR166002	WAR100311-02	03/11/10	1641	2.27	5.92
13	AR166003	WAR100311-03	03/11/10	1652	2.27	5.92
14	AR166004	WAR100311-04	03/11/10	1702	2.27	5.92
15	AR166005	IAR100311-01	03/11/10	1713	2.27	5.92
16	AR166001	WAR100222-60	03/11/10	1724	2.27	5.92
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2433

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	2.27	5.92
04	ZZZZZ	ZZZZZ	03/11/10	2054	2.28	5.92
05	ZZZZZ	ZZZZZ	03/11/10	2105	2.28	5.92
06	ZZZZZ	ZZZZZ	03/11/10	2115	2.28	5.92
07	ZZZZZ	ZZZZZ	03/11/10	2126	2.28	5.92
08	ZZZZZ	ZZZZZ	03/11/10	2136	2.28	5.92
09	ZZZZZ	ZZZZZ	03/11/10	2147	2.28	5.92
10	ZZZZZ	ZZZZZ	03/11/10	2157	2.28	5.92
11	ZZZZZ	ZZZZZ	03/11/10	2208	2.28	5.92
12	ZZZZZ	ZZZZZ	03/11/10	2218	2.28	5.92
13	ZZZZZ	ZZZZZ	03/11/10	2229	2.28	5.92
14	AR166002	WAR100222-60	03/11/10	2239	2.27	5.92
15	PIBLK03	WAR100219-99	03/11/10	2250	2.27	5.92
16	ZZZZZ	ZZZZZ	03/11/10	2300		5.92
17	ZZZZZ	ZZZZZ	03/11/10	2311		5.23*
18	ZZZZZ	ZZZZZ	03/11/10	2321		
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2433

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.21

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/24/10	0528	1.91	5.21
02	AR166001	WAR100222-60	03/24/10	0539	1.91	5.21
03	AR125401	WAR100219-54	03/24/10	0549		
04	AR124201	WAR100219-42	03/24/10	0600		
05	AR124801	WAR100223-48	03/24/10	0610		
06	AR126801	WAR100323-68	03/24/10	0621		
07	AR123201	WAR100323-32	03/24/10	0631		
08	AR122101	WAR100323-21	03/24/10	0642		
09	AR126201	WAR100323-62	03/24/10	0652		
10	DDTANALOGSTD	WAR100323-DD	03/24/10	0703		
11	PIBLK02	WAR100219-99	03/24/10	0713	1.91	5.22
12	ZZZZZ	ZZZZZ	03/24/10	0724	1.91	5.22
13	ZZZZZ	ZZZZZ	03/24/10	0734	1.91	5.22
14	ZZZZZ	ZZZZZ	03/24/10	0745	1.91	5.21
15	ZZZZZ	ZZZZZ	03/24/10	0757	1.91	5.21
16	ZZZZZ	ZZZZZ	03/24/10	0810	1.91	5.21
17	ZZZZZ	ZZZZZ	03/24/10	0823	1.91	5.21
18	ZZZZZ	ZZZZZ	03/24/10	0835	1.91	5.21
19	ZZZZZ	ZZZZZ	03/24/10	0848	1.91	5.21
20	AR166002	WAR100222-60	03/24/10	0858	1.91	5.21
21	PIBLK03	WAR100219-99	03/24/10	0909	1.91	5.22
22	ZZZZZ	ZZZZZ	03/24/10	0921	1.91	5.21
23	ZZZZZ	ZZZZZ	03/24/10	0934	1.91	5.21
24	ZZZZZ	ZZZZZ	03/24/10	0946	1.91	5.21
25	ZZZZZ	ZZZZZ	03/24/10	0959	1.91	5.21
26	ZZZZZ	ZZZZZ	03/24/10	1011	1.91	5.21
27	ZZZZZ	ZZZZZ	03/24/10	1024	1.91	5.21
28	ZZZZZ	ZZZZZ	03/24/10	1037	1.91	5.21
29	ZZZZZ	ZZZZZ	03/24/10	1049	1.91	5.21
30	AR166003	WAR100222-60	03/24/10	1102	1.91	5.21
31	PIBLK04	WAR100219-99	03/24/10	1112	1.91	5.21
32	PBLK01	1202078651	03/24/10	1123	1.91	5.21

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2433

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.21

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PBLK01LCS	1202078652	03/24/10	1133	1.91	5.21
02	RE46-10-13219	249332001	03/24/10	1144	1.91	5.21
03	RE46-10-13221	249332002	03/24/10	1156	1.91	5.21
04	RE46-10-13220	249332003	03/24/10	1209	1.91	5.21
05	RE46-10-13216	249332004	03/24/10	1222	1.91	5.21
06	RE46-10-13217	249332005	03/24/10	1234	1.91	5.21
07	RE46-10-13218	249332006	03/24/10	1247	1.91	5.21
08	RE46-10-13234	249332007	03/24/10	1259	1.91	5.21
09	RE46-10-14199	249332009	03/24/10	1312	1.91	5.21
10	AR166004	WAR100222-60	03/24/10	1324	1.91	5.21
11	PIBLK05	WAR100219-99	03/24/10	1335	1.91	5.21
12	ZZZZZ	ZZZZZ	03/24/10	1346	1.91	5.21
13	ZZZZZ	ZZZZZ	03/24/10	1358	1.91	5.21
14	ZZZZZ	ZZZZZ	03/24/10	1411	1.91	5.21
15	ZZZZZ	ZZZZZ	03/24/10	1423	1.91	5.21
16	ZZZZZ	ZZZZZ	03/24/10	1436	1.91	5.21
17	AR166005	WAR100222-60	03/24/10	1449	1.91	5.21
18	PIBLK06	WAR100219-99	03/24/10	1459	1.91	5.21
19	ZZZZZ	ZZZZZ	03/24/10	1510	1.91	5.21
20	ZZZZZ	ZZZZZ	03/24/10	1522	1.91	5.21
21	ZZZZZ	ZZZZZ	03/24/10	1535	1.91	5.21
22	ZZZZZ	ZZZZZ	03/24/10	1547	1.91	5.21
23	ZZZZZ	ZZZZZ	03/24/10	1600	1.91	5.21
24	ZZZZZ	ZZZZZ	03/24/10	1613	1.91	5.21
25	ZZZZZ	ZZZZZ	03/24/10	1625	1.91	5.21
26	ZZZZZ	ZZZZZ	03/24/10	1638	1.91	5.21
27	AR166006	WAR100222-60	03/24/10	1650	1.91	5.21
28	PIBLK07	WAR100219-99	03/24/10	1703	1.91	5.21
29	ZZZZZ	ZZZZZ	03/24/10	1716	1.93	5.22
30	AR166007	WAR100222-60	03/24/10	1728	1.91	5.21
31	PIBLK08	WAR100219-99	03/24/10	1741	1.91	5.21
32	ZZZZZ	ZZZZZ	03/24/10	1851	1.91	5.21

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2433

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/24/10	0528	2.27	5.91
02	AR166001	WAR100222-60	03/24/10	0539	2.27	5.91
03	AR125401	WAR100219-54	03/24/10	0549		
04	AR124201	WAR100219-42	03/24/10	0600		
05	AR124801	WAR100223-48	03/24/10	0610		
06	AR126801	WAR100323-68	03/24/10	0621		
07	AR123201	WAR100323-32	03/24/10	0631		
08	AR122101	WAR100323-21	03/24/10	0642		
09	AR126201	WAR100323-62	03/24/10	0652		
10	DDTANALOGSTD	WAR100323-DD	03/24/10	0703		
11	PIBLK02	WAR100219-99	03/24/10	0713	2.27	5.91
12	ZZZZZ	ZZZZZ	03/24/10	0724	2.27	5.91
13	ZZZZZ	ZZZZZ	03/24/10	0734	2.27	5.91
14	ZZZZZ	ZZZZZ	03/24/10	0745	2.27	5.91
15	ZZZZZ	ZZZZZ	03/24/10	0757	2.27	5.91
16	ZZZZZ	ZZZZZ	03/24/10	0810	2.27	5.91
17	ZZZZZ	ZZZZZ	03/24/10	0823	2.27	5.91
18	ZZZZZ	ZZZZZ	03/24/10	0835	2.27	5.91
19	ZZZZZ	ZZZZZ	03/24/10	0848	2.27	5.91
20	AR166002	WAR100222-60	03/24/10	0858	2.27	5.91
21	PIBLK03	WAR100219-99	03/24/10	0909	2.27	5.91
22	ZZZZZ	ZZZZZ	03/24/10	0921	2.27	5.91
23	ZZZZZ	ZZZZZ	03/24/10	0934	2.27	5.91
24	ZZZZZ	ZZZZZ	03/24/10	0946	2.27	5.91
25	ZZZZZ	ZZZZZ	03/24/10	0959	2.27	5.91
26	ZZZZZ	ZZZZZ	03/24/10	1011	2.27	5.91
27	ZZZZZ	ZZZZZ	03/24/10	1024	2.27	5.91
28	ZZZZZ	ZZZZZ	03/24/10	1037	2.27	5.91
29	ZZZZZ	ZZZZZ	03/24/10	1049	2.27	5.91
30	AR166003	WAR100222-60	03/24/10	1102	2.27	5.91
31	PIBLK04	WAR100219-99	03/24/10	1112	2.27	5.91
32	PBLK01	1202078651	03/24/10	1123	2.27	5.91

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2433

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PBLK01LCS	1202078652	03/24/10	1133	2.27	5.91
02	RE46-10-13219	249332001	03/24/10	1144	2.27	5.91
03	RE46-10-13221	249332002	03/24/10	1156	2.27	5.91
04	RE46-10-13220	249332003	03/24/10	1209	2.27	5.91
05	RE46-10-13216	249332004	03/24/10	1222	2.27	5.91
06	RE46-10-13217	249332005	03/24/10	1234	2.27	5.91
07	RE46-10-13218	249332006	03/24/10	1247	2.27	5.91
08	RE46-10-13234	249332007	03/24/10	1259	2.27	5.91
09	RE46-10-14199	249332009	03/24/10	1312	2.27	5.91
10	AR166004	WAR100222-60	03/24/10	1324	2.27	5.91
11	PIBLK05	WAR100219-99	03/24/10	1335	2.27	5.91
12	ZZZZZ	ZZZZZ	03/24/10	1346	2.27	5.91
13	ZZZZZ	ZZZZZ	03/24/10	1358	2.27	5.91
14	ZZZZZ	ZZZZZ	03/24/10	1411	2.27	5.91
15	ZZZZZ	ZZZZZ	03/24/10	1423	2.27	5.91
16	ZZZZZ	ZZZZZ	03/24/10	1436	2.27	5.91
17	AR166005	WAR100222-60	03/24/10	1449	2.27	5.91
18	PIBLK06	WAR100219-99	03/24/10	1459	2.27	5.91
19	ZZZZZ	ZZZZZ	03/24/10	1510	2.27	5.91
20	ZZZZZ	ZZZZZ	03/24/10	1522	2.27	5.91
21	ZZZZZ	ZZZZZ	03/24/10	1535	2.27	5.91
22	ZZZZZ	ZZZZZ	03/24/10	1547	2.27	5.91
23	ZZZZZ	ZZZZZ	03/24/10	1600	2.27	5.91
24	ZZZZZ	ZZZZZ	03/24/10	1613	2.27	5.91
25	ZZZZZ	ZZZZZ	03/24/10	1625	2.27	5.91
26	ZZZZZ	ZZZZZ	03/24/10	1638	2.27	5.91
27	AR166006	WAR100222-60	03/24/10	1650	2.27	5.91
28	PIBLK07	WAR100219-99	03/24/10	1703	2.27	5.91
29	ZZZZZ	ZZZZZ	03/24/10	1716	2.29	5.91
30	AR166007	WAR100222-60	03/24/10	1728	2.27	5.91
31	PIBLK08	WAR100219-99	03/24/10	1741	2.27	5.91
32	ZZZZZ	ZZZZZ	03/24/10	1851	2.27	5.90

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–2433 **Client ID:** LCS for batch 968274

Lab Sample ID: 1202078652

Data File:	033f3301.d	**Data File:**	033b3301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	24–MAR–10 11:33	**Analyzed:**	24–MAR–10 11:33

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							.919
Column 1	1	2.36	2.33 – 2.39	27.7		ug/kg	
	2	2.65	2.62 – 2.68	25.5		ug/kg	
	3	2.73	2.7 – 2.76	27.5		ug/kg	
	4	2.77	2.74 – 2.8	28.4		ug/kg	
	5	2.98	2.95 – 3.01	27.1		ug/kg	
					27.3		
Column 2	1	3.16	3.13 – 3.19	28.2		ug/kg	
	2	3.25	3.22 – 3.28	27.2		ug/kg	
	3	3.31	3.28 – 3.34	27.3		ug/kg	
	4	3.54	3.51 – 3.57	27.1		ug/kg	
	5	3.61	3.58 – 3.64	27.7		ug/kg	
					27.5		
Aroclor–1260							4.21
Column 1	1	3.7	3.67 – 3.73	29.1		ug/kg	
	2	3.87	3.83 – 3.89	30.2		ug/kg	
	3	4.03	4 – 4.06	33.6		ug/kg	
	4	4.09	4.06 – 4.12	33		ug/kg	
	5	4.24	4.21 – 4.27	16.9		ug/kg	
					28.6		
Column 2	1	4.3	4.27 – 4.33	29		ug/kg	
	2	4.43	4.4 – 4.46	30.4		ug/kg	
	3	4.69	4.66 – 4.72	29.1		ug/kg	
	4	4.86	4.83 – 4.89	29.2		ug/kg	
	5	5.01	4.98 – 5.04	31.2		ug/kg	
					29.8		

Identification Summary

SDG Number: 10–2433 **Client ID:** RE46–10–13216

Lab Sample ID: 249332004

Data File:	037f3701.d	**Data File:**	037b3701.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	24–MAR–10 12:22	**Analyzed:**	24–MAR–10 12:22

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							25.3
Column 1	1	3.2	3.18 – 3.24	20.6		ug/kg	
	2	3.36	3.33 – 3.39	23.6		ug/kg	
	3	3.59	3.57 – 3.63	31.7		ug/kg	
	4	3.76	3.73 – 3.79	27.1		ug/kg	
	5	3.86	3.84 – 3.9	42.3		ug/kg	
					29		
Column 2	1	3.37	3.34 – 3.4	13.1		ug/kg	
	2	3.79	3.76 – 3.82	19.3		ug/kg	
	3	3.91	3.88 – 3.94	26		ug/kg	
	4	4.18	4.16 – 4.22	30.8		ug/kg	
	5	4.32	4.29 – 4.35	23.3		ug/kg	
					22.5		
Aroclor–1260							21.7
Column 1	1	3.7	3.67 – 3.73	18.2		ug/kg	
	2	3.86	3.83 – 3.89	25.1		ug/kg	
	3	4.03	4 – 4.06	30.3		ug/kg	
	4	4.09	4.06 – 4.12	9.97		ug/kg	
	5	4.24	4.21 – 4.27	5.13		ug/kg	
					17.7		
Column 2	1	4.3	4.27 – 4.33	23.4		ug/kg	
	2	4.43	4.4 – 4.46	22.4		ug/kg	
	3	4.69	4.66 – 4.72	10.4		ug/kg	
	4	4.86	4.83 – 4.89	6.78		ug/kg	
	5	5.01	4.98 – 5.04	8.38		ug/kg	
					14.3		

Identification Summary

SDG Number: 10–2433 **Client ID:** RE46–10–13218

Lab Sample ID: 249332006

Data File:	039f3901.d	**Data File:**	039b3901.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	24–MAR–10 12:47	**Analyzed:**	24–MAR–10 12:47

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1242							25.8
Column 1	1	2.36	2.33 – 2.39	17.4		ug/kg	
	2	2.65	2.62 – 2.68	20.3		ug/kg	
	3	2.77	2.74 – 2.8	16.3		ug/kg	
	4	2.98	2.95 – 3.01	57.7		ug/kg	
	5	3.23	3.2 – 3.26	97.3		ug/kg	
					41.8		
Column 2	1	3.16	3.13 – 3.19	18.6		ug/kg	
	2	3.25	3.22 – 3.28	22.5		ug/kg	
	3	3.54	3.51 – 3.57	56.2		ug/kg	
	4	3.77	3.74 – 3.8	74.2		ug/kg	
	5	3.79	3.77 – 3.83	99.3		ug/kg	
					54.2		
Aroclor–1254							2.99
Column 1	1	3.2	3.18 – 3.24	47.8		ug/kg	
	2	3.36	3.33 – 3.39	57.2		ug/kg	
	3	3.59	3.57 – 3.63	55.2		ug/kg	
	4	3.75	3.73 – 3.79	61.8		ug/kg	
	5	3.86	3.84 – 3.9	57.4		ug/kg	
					55.9		
Column 2	1	3.37	3.34 – 3.4	55.8		ug/kg	
	2	3.79	3.76 – 3.82	58.4		ug/kg	
	3	3.91	3.88 – 3.94	49.7		ug/kg	
	4	4.18	4.16 – 4.22	50.4		ug/kg	
	5	4.32	4.29 – 4.35	56.8		ug/kg	
					54.2		

Identification Summary

SDG Number: 10–2433 **Client ID:** RE46–10–13218

Lab Sample ID: 249332006

Data File:	039f3901.d	**Data File:**	039b3901.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	24–MAR–10 12:47	**Analyzed:**	24–MAR–10 12:47

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1260							38.6
Column 1	1	3.7	3.67 – 3.73	25.1		ug/kg	
	2	3.86	3.83 – 3.89	34.1		ug/kg	
	3	4.02	4 – 4.06	37.3		ug/kg	
	4	4.09	4.06 – 4.12	5.86		ug/kg	
	5	4.23	4.21 – 4.27	5.72		ug/kg	
					21.6		
Column 2	1	4.3	4.27 – 4.33	24.8		ug/kg	
	2	4.43	4.4 – 4.46	25.4		ug/kg	
	3	4.69	4.66 – 4.72	9.65		ug/kg	
	4	4.86	4.83 – 4.89	5.75		ug/kg	
	5	5.01	4.98 – 5.04	7.49		ug/kg	
					14.6		

Identification Summary

SDG Number: 10–2433 **Client ID:** RE46–10–13220

Lab Sample ID: 249332003

Data File:	036f3601.d	**Data File:**	036b3601.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	24–MAR–10 12:09	**Analyzed:**	24–MAR–10 12:09

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							26.9
Column 1	1	3.21	3.18 – 3.24	9.67		ug/kg	
	2	3.36	3.33 – 3.39	10.8		ug/kg	
	3	3.59	3.57 – 3.63	13.7		ug/kg	
	4	3.76	3.73 – 3.79	16.5		ug/kg	
	5	3.86	3.84 – 3.9	17.8		ug/kg	
					13.7		
Column 2	1	3.37	3.34 – 3.4	5.68		ug/kg	
	2	3.79	3.76 – 3.82	9.04		ug/kg	
	3	3.91	3.88 – 3.94	11		ug/kg	
	4	4.18	4.16 – 4.22	13		ug/kg	
	5	4.32	4.29 – 4.35	13.5		ug/kg	
					10.4		
Aroclor–1260							39.9
Column 1	1	3.7	3.67 – 3.73	7.88		ug/kg	
	2	3.86	3.83 – 3.89	10.6		ug/kg	
	3	4.03	4 – 4.06	12.7		ug/kg	
	4	4.09	4.06 – 4.12	1.7		ug/kg	
	5	4.24	4.21 – 4.27	2.01		ug/kg	
					6.97		
Column 2	1	4.3	4.27 – 4.33	7.5		ug/kg	
	2	4.43	4.4 – 4.46	8.53		ug/kg	
	3	4.7	4.66 – 4.72	2.96		ug/kg	
	4	4.86	4.83 – 4.89	1.72		ug/kg	
	5	5.01	4.98 – 5.04	2.55		ug/kg	
					4.65		

Identification Summary

SDG Number: 10–2433 **Client ID:** RE46–10–13234

Lab Sample ID: 249332007

Data File:	040f4001.d	**Data File:**	040b4001.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	24–MAR–10 12:59	**Analyzed:**	24–MAR–10 12:59

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							26.7
Column 1	1	3.2	3.18 – 3.24	10.1		ug/kg	
	2	3.36	3.33 – 3.39	11.1		ug/kg	
	3	3.59	3.57 – 3.63	13.7		ug/kg	
	4	3.75	3.73 – 3.79	16.5		ug/kg	
	5	3.86	3.84 – 3.9	18		ug/kg	
					13.9		
Column 2	1	3.37	3.34 – 3.4	6.07		ug/kg	
	2	3.79	3.76 – 3.82	9.23		ug/kg	
	3	3.91	3.88 – 3.94	11.3		ug/kg	
	4	4.18	4.16 – 4.22	13.1		ug/kg	
	5	4.32	4.29 – 4.35	13.3		ug/kg	
					10.6		
Aroclor–1260							44.3
Column 1	1	3.7	3.67 – 3.73	7.72		ug/kg	
	2	3.86	3.83 – 3.89	10.7		ug/kg	
	3	4.03	4 – 4.06	15.5		ug/kg	
	4	4.09	4.06 – 4.12	1.63		ug/kg	
	5	4.24	4.21 – 4.27	2.01		ug/kg	
					7.5		
Column 2	1	4.3	4.27 – 4.33	7.7		ug/kg	
	2	4.43	4.4 – 4.46	8.68		ug/kg	
	3	4.69	4.66 – 4.72	3.11		ug/kg	
	4	4.86	4.83 – 4.89	1.74		ug/kg	
	5	5.01	4.98 – 5.04	2.69		ug/kg	
					4.78		

Identification Summary

SDG Number: 10–2433 **Client ID:** RE46–10–14199

Lab Sample ID: 249332009

Data File:	041f4101.d	**Data File:**	041b4101.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	24–MAR–10 13:12	**Analyzed:**	24–MAR–10 13:12

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							26.1
Column 1	1	3.2	3.18 – 3.24	3.75		ug/kg	
	2	3.36	3.33 – 3.39	3.4		ug/kg	
	3	3.59	3.57 – 3.63	4.18		ug/kg	
	4	3.76	3.73 – 3.79	4.83		ug/kg	
	5	3.86	3.84 – 3.9	6.34		ug/kg	
					4.5		
Column 2	1	3.37	3.34 – 3.4	3.48		ug/kg	
	2	3.79	3.76 – 3.82	2.96		ug/kg	
	3	3.91	3.88 – 3.94	3.91		ug/kg	
	4	4.18	4.16 – 4.22	3.59		ug/kg	
	5	4.32	4.29 – 4.35	3.36		ug/kg	
					3.46		
Aroclor–1260							16.6
Column 1	1	3.7	3.67 – 3.73	3.48		ug/kg	
	2	3.86	3.83 – 3.89	3.77		ug/kg	
	3	4.03	4 – 4.06	4.03		ug/kg	
	4	4.09	4.06 – 4.12	1.32		ug/kg	
	5	4.24	4.21 – 4.27	1.67		ug/kg	
					2.85		
Column 2	1	4.3	4.27 – 4.33	3		ug/kg	
	2	4.43	4.4 – 4.46	3.28		ug/kg	
	3	4.69	4.66 – 4.72	1.72		ug/kg	
	4	4.86	4.83 – 4.89	1.53		ug/kg	
	5	5.01	4.98 – 5.04	2.55		ug/kg	
					2.41		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2433**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202078651**				
Client Sample:	**QC for batch 968274**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 968274**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968275**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 11:23**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 19:55**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**032f3201–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	032b3201–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/032f3201.d
Lab Smp Id: 1202078651 Client Smp ID: PBLK01
Inj Date : 24-MAR-2010 11:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202078651|1|
Misc Info : |ECD82P_1S|968275|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 32 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.910	0.001	71979094	184.788	6.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.213	0.001	50058332	168.586	5.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032410.b/032f3201.d
Date : 24-MAR-2010 11:23
Client ID: PBLK01
Sample Info: |1202078651|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

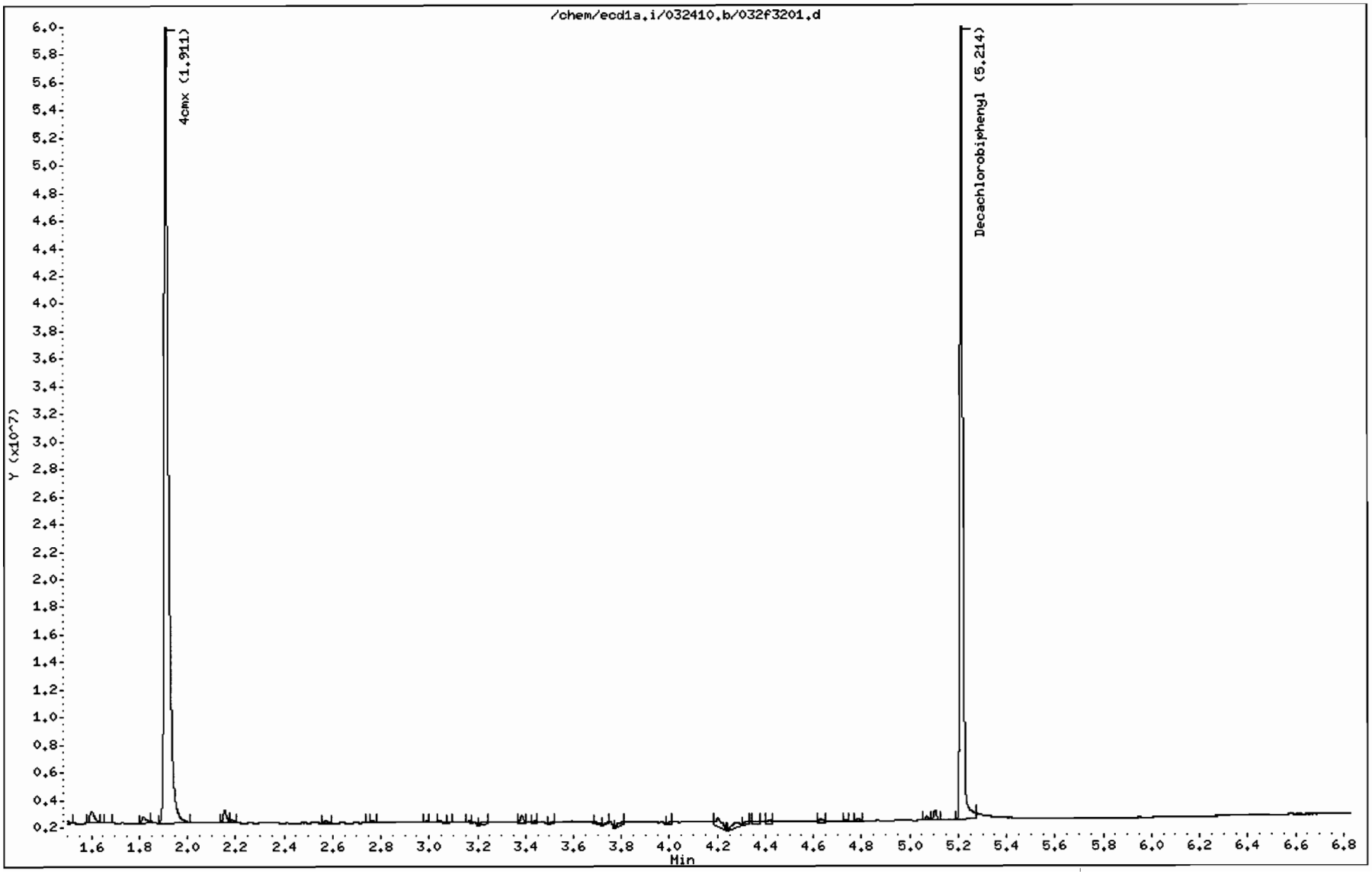

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/032b3201.d
Lab Smp Id: 1202078651 Client Smp ID: PBLK01
Inj Date : 24-MAR-2010 11:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202078651|1|
Misc Info : |ECD82P_1S|968275|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 32 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	45627868	173.931	5.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.909	5.909	0.000	32650721	174.441	5.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032410.b/032b3201.d

Date : 24-MAR-2010 11:23

Client ID: PBLK01

Sample Info: |1202078651|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

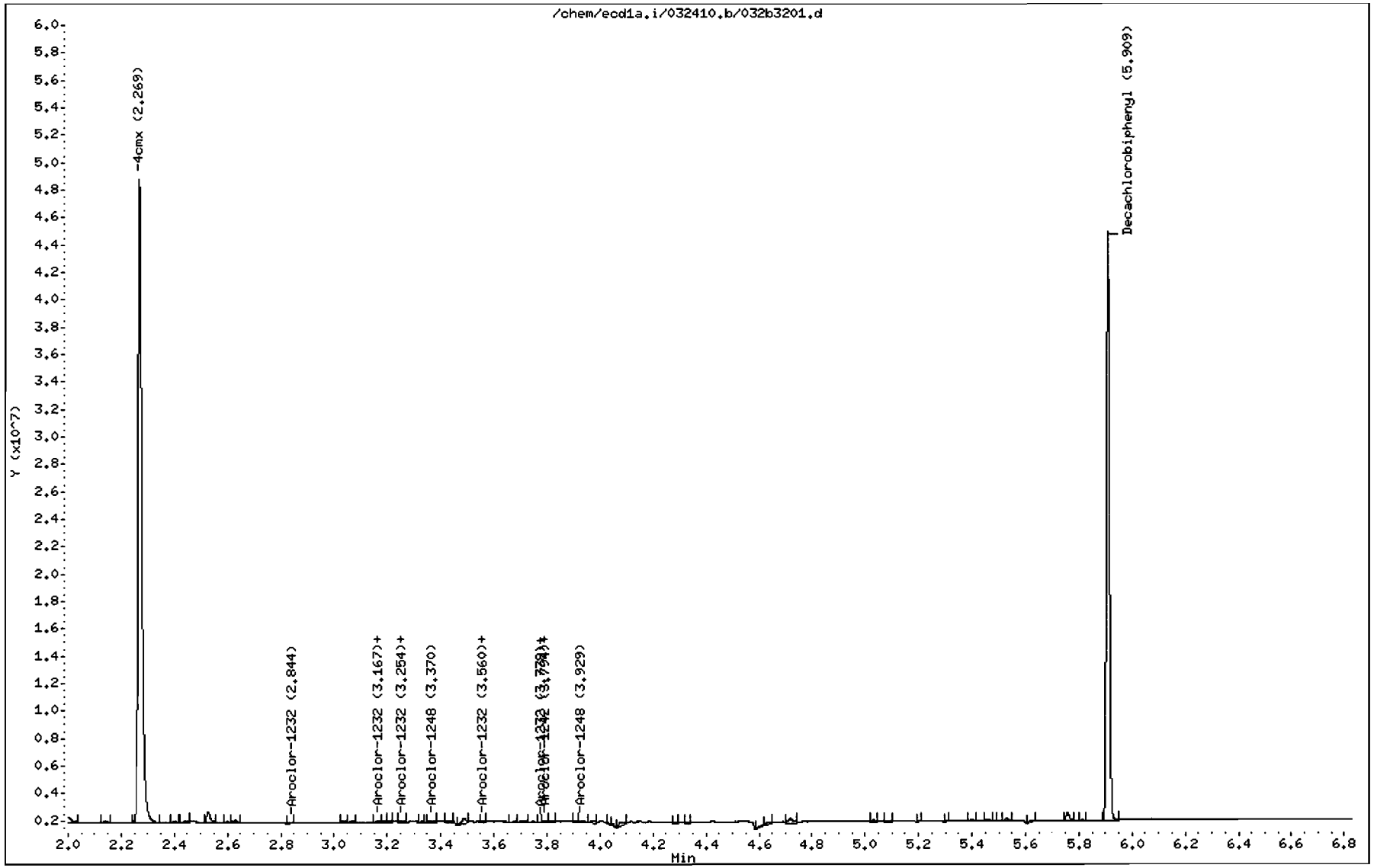

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2433**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202078652**				
Client Sample:	**QC for batch 968274**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 968274**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968275**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 11:33**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/23/2010 19:55**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**033f3301–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	033b3301–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		27.5	ug/kg	1.11	3.33	2
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		29.8	ug/kg	1.11	3.33	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/033f3301.d
Lab Smp Id: 1202078652 Client Smp ID: PBLK01LCS
Inj Date : 24-MAR-2010 11:33
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202078652|1|
Misc Info : |ECD82P_1S|968275|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 33 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.910	0.001	69291142	177.887	5.9	80.00- 120.00	100.00
$ 12 Decachlorobipheny1					CAS #: 2051-24-3		
5.214	5.213	0.001	51158998	172.293	5.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.362	0.002	12622929	831.725	27.7	80.00- 120.00	100.00
2.649	2.650	-0.001	14483724	764.887	25.5	104.01- 144.01	114.74
2.730	2.729	0.001	10283220	826.482	27.5	59.94- 99.94	81.46
2.768	2.766	0.002	6256096	851.364	28.4	28.17- 68.17	49.56

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.978	2.977	0.001	7747394	813.992	27.1	42.68- 82.68	61.38
Average of Peak Concentrations =					27.2		

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7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.701	0.002	15993848	872.546	29.1	80.00- 120.00	100.00
3.865	3.864	0.001	24364591	906.089	30.2	127.48- 167.48	152.34
4.026	4.026	0.000	28516266	1007.10	33.6	135.59- 175.59	178.30
4.094	4.094	0.000	16014705	991.139	33.0	68.96- 108.96	100.13
4.237	4.237	0.000	8546759	508.352	16.9	72.51- 112.51	53.44
Average of Peak Concentrations =					28.6		

Data File: /chem/ecd1a.i/032410.b/033f3301.d
Date : 24-MAR-2010 11:33
Client ID: PBLK01LCS
Sample Info: 1120207865211
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

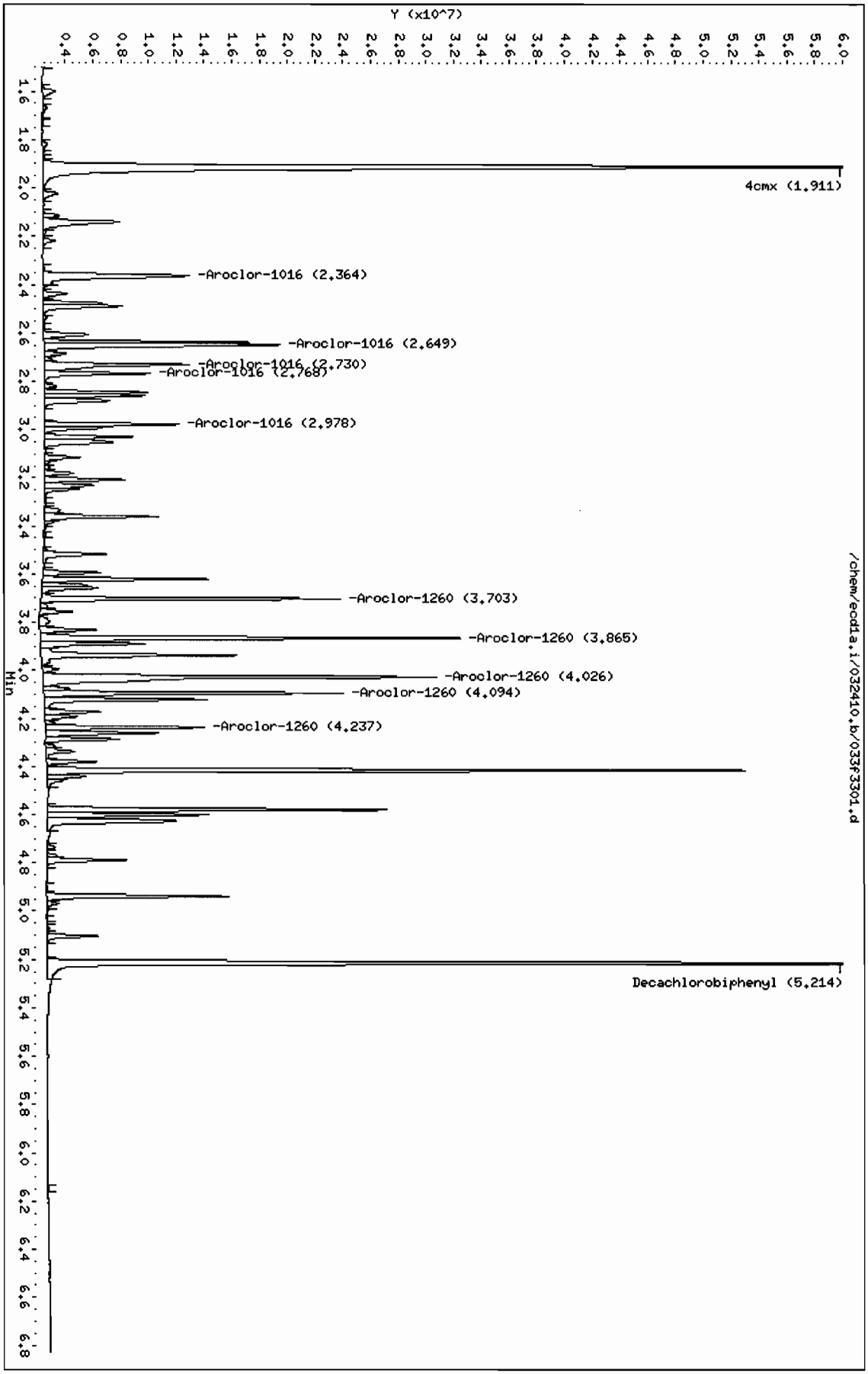

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/033b3301.d
Lab Smp Id: 1202078652 Client Smp ID: PBLK01LCS
Inj Date : 24-MAR-2010 11:33
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202078652|1|
Misc Info : |ECD82P_1S|968275|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 11:25 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 33 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2433.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	43825971	167.063	5.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.909	5.909	0.000	32954520	176.064	5.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.163	0.001	10644136	845.781	28.2	80.00- 120.00	100.00(M)
3.246	3.245	0.001	7054185	817.004	27.2	44.58- 84.58	66.27
3.309	3.309	0.000	4324425	817.992	27.3	20.18- 60.18	40.63
3.536	3.536	0.000	5611471	814.116	27.1	32.45- 72.45	52.72

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.611	3.611	0.000	5339086	831.301	27.7	28.97- 68.97	50.16
Average of Peak Concentrations =					27.5		
7 Aroclor-1260					CAS #: 11096-82-5		
4.301	4.301	0.000	11398402	871.422	29.0	80.00- 120.00	100.00
4.426	4.426	0.000	14172516	911.473	30.4	102.36- 142.36	124.34
4.691	4.691	0.000	10400320	874.265	29.1	71.70- 111.70	91.24
4.864	4.864	0.000	10758212	875.419	29.2	75.18- 115.18	94.38
5.012	5.012	0.000	24729725	936.922	31.2	193.37- 233.37	216.96
Average of Peak Concentrations =					29.8		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032410.b/033b3301.d

Page 1

Date : 24-MAR-2010 11:33

Client ID: PBLK01LCS

Instrument: ecd1a.i

Sample Info: |120207865211|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

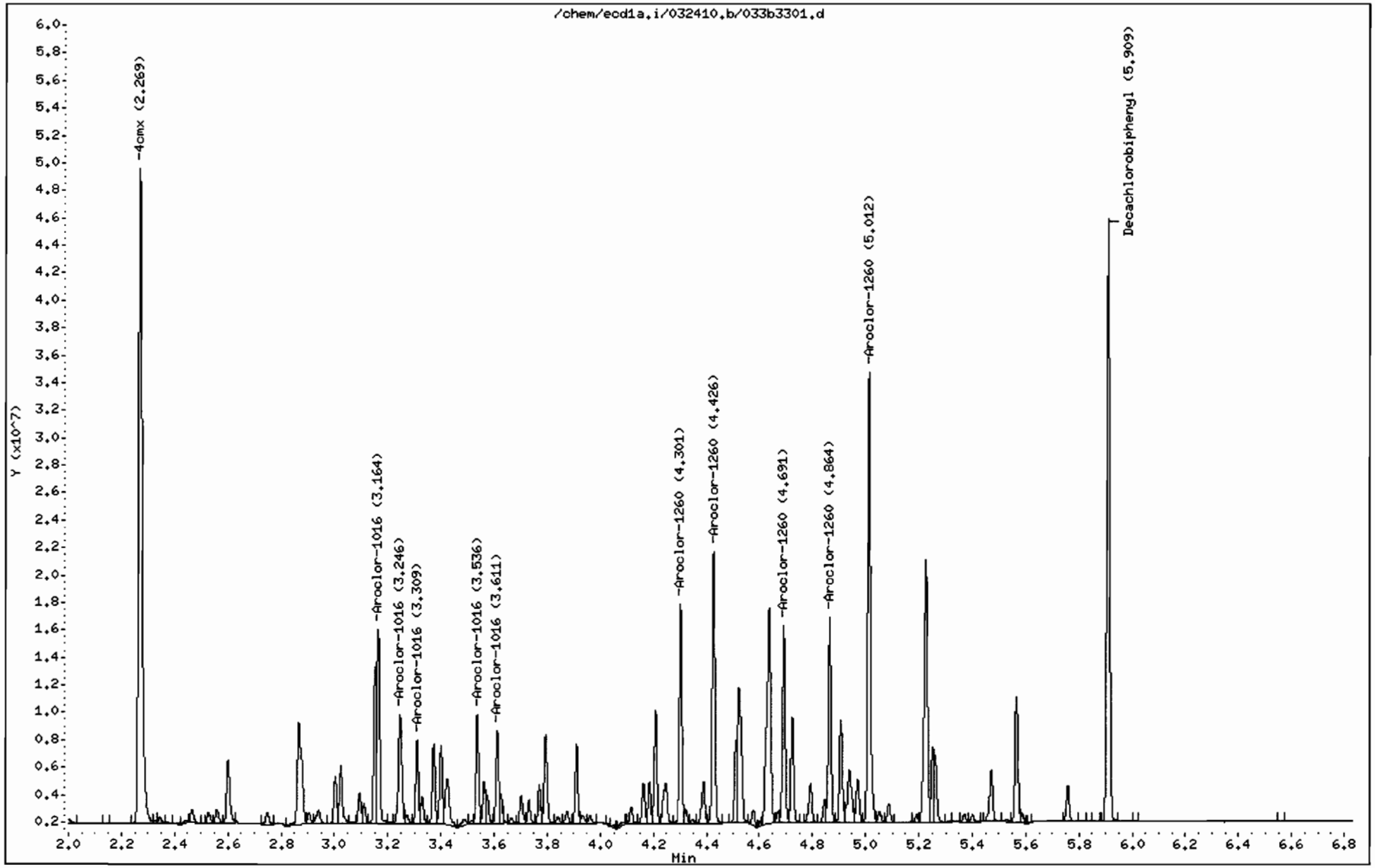

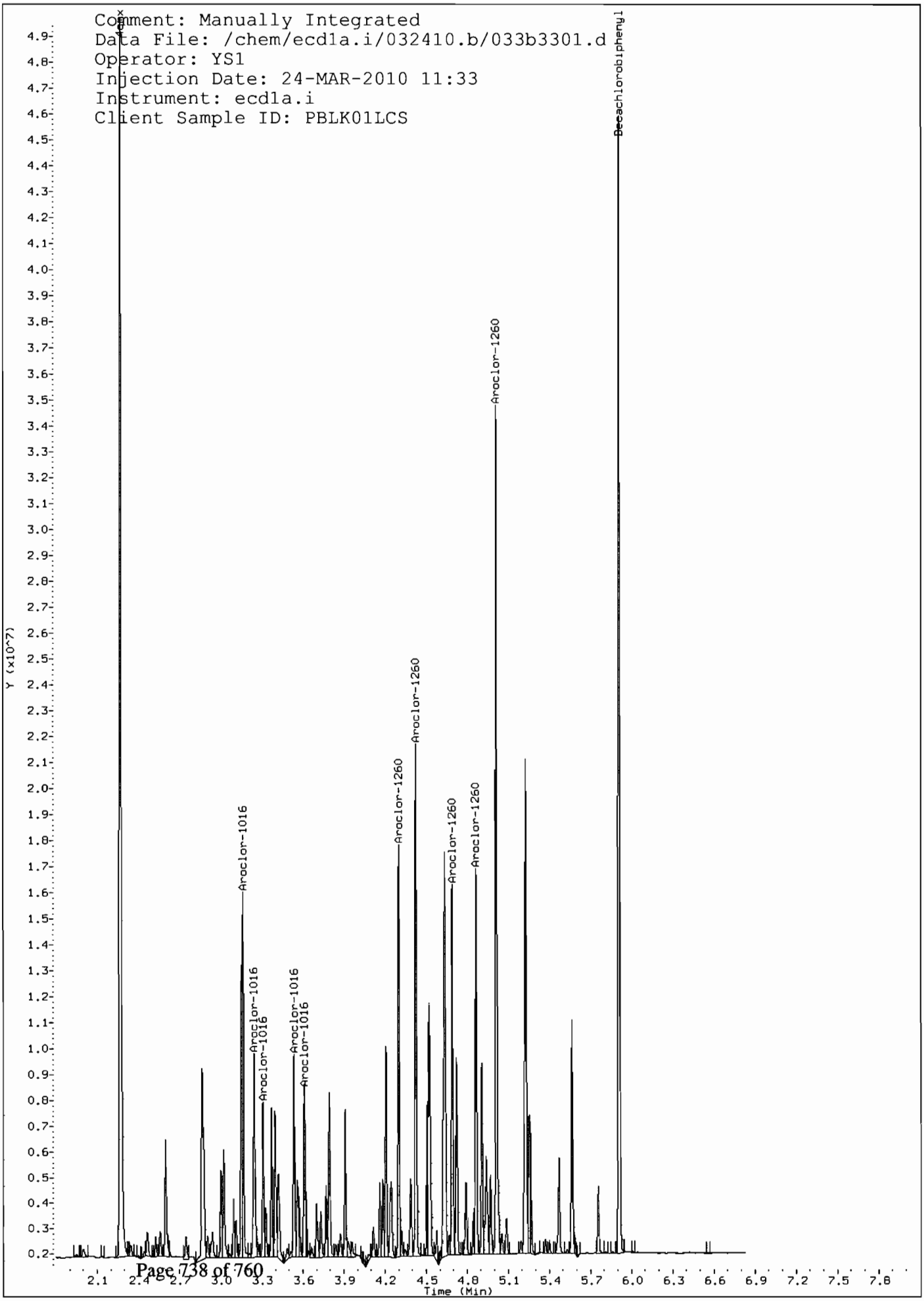
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032410.b/033b3301.d
Operator: YS1
Injection Date: 24-MAR-2010 11:33
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

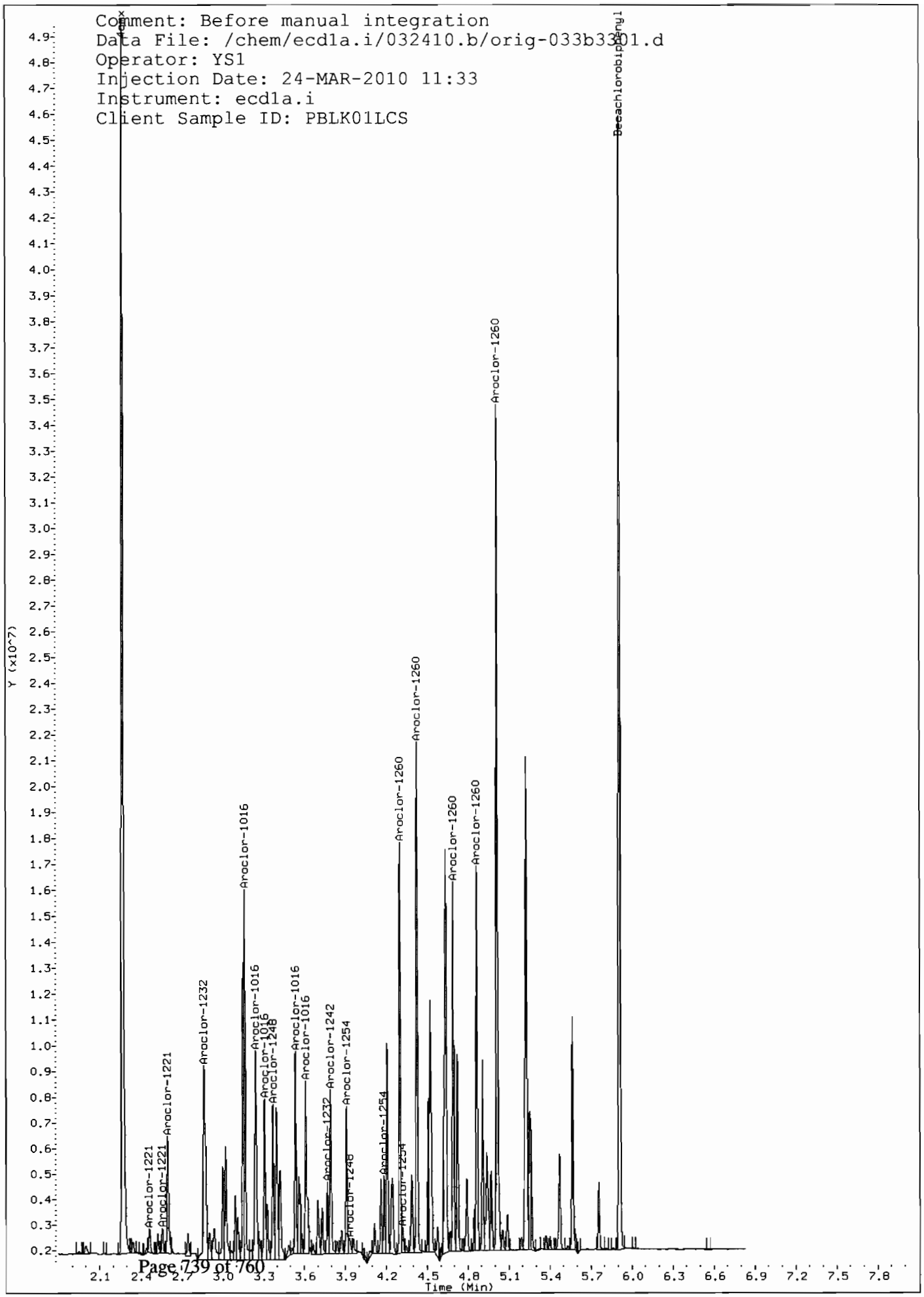
Comment: Before manual integration
Data File: /chem/ecd1a.i/032410.b/orig-033b3301.d
Operator: YS1
Injection Date: 24-MAR-2010 11:33
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/12/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/031110b.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	11-MAR-2010 14:46		031110b	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	11-MAR-2010 14:56		031110b	1.0		DUSE RE-ICAL
003f0301.d	WAR100219-54	YS1	11-MAR-2010 15:07		031110b	1.0		DUSE RE-ICAL
004f0401.d	WAR100219-42	YS1	11-MAR-2010 15:17		031110b	1.0		DUSE RE-ICAL
005f0501.d	WAR100223-48	YS1	11-MAR-2010 15:28		031110b	1.0		DUSE RE-ICAL
006f0601.d	WAR100107-68	YS1	11-MAR-2010 15:38		031110b	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	11-MAR-2010 15:49		031110b	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	11-MAR-2010 15:59		031110b	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	11-MAR-2010 16:10		031110b	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	11-MAR-2010 16:21		031110b	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100311-01	YS1	11-MAR-2010 16:31		031110b	1.0		AR1660 I-CAL LEVEL 1
012f1201.d	WAR100311-02	YS1	11-MAR-2010 16:41		031110b	1.0		AR1660 I-CAL LEVEL 2
013f1301.d	WAR100311-03	YS1	11-MAR-2010 16:52		031110b	1.0		AR1660 I-CAL LEVEL 3
014f1401.d	WAR100311-04	YS1	11-MAR-2010 17:02		031110b	1.0		AR1660 I-CAL LEVEL 4
015f1501.d	IAR100311-01	YS1	11-MAR-2010 17:13		031110b	1.0		AR1660 I-CAL LEVEL 5

Instrument Batch: /chem/ecd1a.i/031110b.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100222-60 01	YS1	11-MAR-2010 17:24		031110b	1.0	PASSED ON BOTH COLUMNS
017f1701.d	WAR100311-05	YS1	11-MAR-2010 17:34		031110b	1.0	AR1254 I-CAL LEVEL 1
018f1801.d	WAR100311-06	YS1	11-MAR-2010 17:45		031110b	1.0	AR1254 I-CAL LEVEL 2
019f1901.d	WAR100311-07	YS1	11-MAR-2010 17:55		031110b	1.0	AR1254 I-CAL LEVEL 3
020f2001.d	WAR100311-08	YS1	11-MAR-2010 18:06		031110b	1.0	AR1254 I-CAL LEVEL 4
021f2101.d	IAR100219-02	YS1	11-MAR-2010 18:16		031110b	1.0	AR1254 I-CAL LEVEL 5
022f2201.d	WAR100219-54	YS1	11-MAR-2010 18:27		031110b	1.0	PASSED ON BOTH COLUMNS
023f2301.d	WAR100311-09	YS1	11-MAR-2010 18:37		031110b	1.0	AR1242 I-CAL LEVEL 1
024f2401.d	WAR100311-10	YS1	11-MAR-2010 18:48		031110b	1.0	AR1242 I-CAL LEVEL 2
025f2501.d	WAR100311-11	YS1	11-MAR-2010 18:58		031110b	1.0	AR1242 I-CAL LEVEL 3
026f2601.d	WAR100311-12	YS1	11-MAR-2010 19:09		031110b	1.0	AR1242 I-CAL LEVEL 4
027f2701.d	IAR100219-01	YS1	11-MAR-2010 19:19		031110b	1.0	AR1242 I-CAL LEVEL 5
028f2801.d	WAR100219-42	YS1	11-MAR-2010 19:30		031110b	1.0	PASSED ON BOTH COLUMNS
029f2901.d	WAR100311-13	YS1	11-MAR-2010 19:40		031110b	1.0	AR1248 I-CAL LEVEL 1
030f3001.d	WAR100311-14	YS1	11-MAR-2010 19:51		031110b	1.0	AR1248 I-CAL LEVEL 2
031f3101.d	WAR100311-15	YS1	11-MAR-2010 20:01		031110b	1.0	AR1248 I-CAL LEVEL 3
032f3201.d	WAR100311-16	YS1	11-MAR-2010 20:12		031110b	1.0	AR1248 I-CAL LEVEL 4
033f3301.d	IAR100211-01	YS1	11-MAR-2010 20:22		031110b	1.0	AR1248 I-CAL LEVEL 5
034f3401.d	WAR100223-48	YS1	11-MAR-2010 20:33		031110b	1.0	PASSED ON BOTH COLUMNS
035f3501.d	WAR100219-99 02	YS1	11-MAR-2010 20:44		031110b	1.0	CLEAN

Instrument Batch: /chem/ecd1a.i/031110b.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202067743	YS1	11-MAR-2010 20:54	963869	246954	1.0	MB	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
037f3701.d	1202067744	YS1	11-MAR-2010 21:05	963869	246954	1.0	LCS	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
038f3801.d	246954003	YS1	11-MAR-2010 21:15	963869	246954	1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
039f3901.d	1202067745	YS1	11-MAR-2010 21:26	963869	246954	1.0	MS	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
040f4001.d	1202067746	YS1	11-MAR-2010 21:36	963869	246954	1.0	MSD	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT

041f4101.d	246954006	YS1	11-MAR-2010 21:47	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
042f4201.d	246954007	YS1	11-MAR-2010 21:57	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
043f4301.d	246954009	YS1	11-MAR-2010 22:08	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
044f4401.d	246954012	YS1	11-MAR-2010 22:18	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
045f4501.d	246954014	YS1	11-MAR-2010 22:29	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
046f4601.d	WAR100222-60 02	YS1	11-MAR-2010 22:39		031110b		1.0		PASSED ON BOTH COLUMNS
046f4901.d	WAR100222-60 03	YS1	11-MAR-2010 23:11		031110b		1.0		CLEAN
047f4701.d	WAR100219-99 03	YS1	11-MAR-2010 22:50		031210		1.0		
047f5001.d	WAR100219-99 04	YS1	11-MAR-2010 23:21		031110b		1.0		
048f4801.d	WE100311-07SCR	YS1	11-MAR-2010 23:00		031110b		1.0		LCS CSREEN FOR PREP

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/25/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/032410.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	24-MAR-2010 05:28		032410	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	24-MAR-2010 05:39		032410	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YS1	24-MAR-2010 05:49		032410	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YS1	24-MAR-2010 06:00		032410	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR100223-48	YS1	24-MAR-2010 06:10		032410	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100323-68	YS1	24-MAR-2010 06:21		032410	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100323-32	YS1	24-MAR-2010 06:31		032410	1.0		PATTERN ONLY
008f0801.d	WAR100323-21	YS1	24-MAR-2010 06:42		032410	1.0		PATTERN ONLY
009f0901.d	WAR100323-62	YS1	24-MAR-2010 06:52		032410	1.0		PATTERN ONLY
010f1001.d	WAR100323-DDT	YS1	24-MAR-2010 07:03		032410	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100219-99 02	YS1	24-MAR-2010 07:13		032410	1.0		CLEAN
012f1201.d	1202077986	YS1	24-MAR-2010 07:24	967999	10-2216	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202077987	YS1	24-MAR-2010 07:34	967999	10-2216	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	248556002	YS1	24-MAR-2010 07:45	967999	10-2216	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	248556006	YS1	24-MAR-2010 07:57	967999	10-2216	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/032410.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	248556008	YS1	24-MAR-2010 08:10	967999	10-2216	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
017f1701.d	248702001	YS1	24-MAR-2010 08:23	967999	10-2264	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	248702002	YS1	24-MAR-2010 08:35	967999	10-2264	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	248747001	YS1	24-MAR-2010 08:48	967999	10-2279	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	WAR100222-60 02	YS1	24-MAR-2010 08:58		032410	1.0		PASSED ON BOTH COLUMNS
021f2101.d	WAR100219-99 03	YS1	24-MAR-2010 09:09		032410	1.0		CLEAN
022f2201.d	1202077988	YS1	24-MAR-2010 09:21	967999	10-2279	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	1202077989	YS1	24-MAR-2010 09:34	967999	10-2279	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	248747002	YS1	24-MAR-2010 09:46	967999	10-2279	1.0	LANL	RE SURROGATE LOW
025f2501.d	248747003	YS1	24-MAR-2010 09:59	967999	10-2279	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	248747004	YS1	24-MAR-2010 10:11	967999	10-2279	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	248747005	YS1	24-MAR-2010 10:24	967999	10-2279	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	248747006	YS1	24-MAR-2010 10:37	967999	10-2279	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	248747007	YS1	24-MAR-2010 10:49	967999	10-2279	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	WAR100222-60 03	YS1	24-MAR-2010 11:02		032410	1.0		PASSED ON BOTH COLUMNS
031f3101.d	WAR100219-99 04	YS1	24-MAR-2010 11:12		032410	1.0		CLEAN
032f3201.d	1202078651	YS1	24-MAR-2010 11:23	968275	10-2433	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	1202078652	YS1	24-MAR-2010 11:33	968275	10-2433	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	249332001	YS1	24-MAR-2010 11:44	968275	10-2433	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	249332002	YS1	24-MAR-2010 11:56	968275	10-2433	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	249332003	YS1	24-MAR-2010 12:09	968275	10-2433	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	249332004	YS1	24-MAR-2010 12:22	968275	10-2433	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	249332005	YS1	24-MAR-2010 12:34	968275	10-2433	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	249332006	YS1	24-MAR-2010 12:47	968275	10-2433	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	249332007	YS1	24-MAR-2010 12:59	968275	10-2433	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

041f4101.d	249332009	YS1	24-MAR-2010 13:12	968275	10-2433		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
042f4201.d	WAR100222-60 04	YS1	24-MAR-2010 13:24		032410		1.0		PASSED ON BOTH COLUMNS
043f4301.d	WAR100219-99 05	YS1	24-MAR-2010 13:35		032410		1.0		CLEAN
044f4401.d	249523001	YS1	24-MAR-2010 13:46	968275	10-2471		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	249523002	YS1	24-MAR-2010 13:58	968275	10-2471		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	249523003	YS1	24-MAR-2010 14:11	968275	10-2471		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	249523004	YS1	24-MAR-2010 14:23	968275	10-2471		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
048f4801.d	249523006	YS1	24-MAR-2010 14:36	968275	10-2471		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	WAR100222-60 05	YS1	24-MAR-2010 14:49		032410		1.0		PASSED ON BOTH COLUMNS
050f5001.d	WAR100219-99 06	YS1	24-MAR-2010 14:59		032410		1.0		CLEAN
051f5101.d	249614001	YS1	24-MAR-2010 15:10	968275	10-2486		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	1202078653	YS1	24-MAR-2010 15:22	968275	10-2486		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	1202078654	YS1	24-MAR-2010 15:35	968275	10-2486		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	249614002	YS1	24-MAR-2010 15:47	968275	10-2486		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	249614003	YS1	24-MAR-2010 16:00	968275	10-2486		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/032410.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	249614004	YS1	24-MAR-2010 16:13	968275	10-2486		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	249614005	YS1	24-MAR-2010 16:25	968275	10-2486		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	249614006	YS1	24-MAR-2010 16:38	968275	10-2486		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	WAR100222-60 06	YS1	24-MAR-2010 16:50		032410		1.0		PASSED ON BOTH COLUMNS
060f6001.d	WAR100219-99 07	YS1	24-MAR-2010 17:03		032410		1.0		CLEAN
061f6101.d	248067001	YS1	24-MAR-2010 17:16		032410		3.0		UPLOAD BOTH COLUMNS, USE HIGHER
062f6201.d	WAR100222-60 07	YS1	24-MAR-2010 17:28		032410		1.0		PASSED ON BOTH COLUMNS
063f6301.d	WAR100219-99 08	YS1	24-MAR-2010 17:41		032410		1.0		CLEAN
064f6401.d		YS1	24-MAR-2010 18:51		032410		1.0		duse

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/052f5201.d
Lab Smp Id: 1202078653 Client Smp ID: RE46-10-13010MS
Inj Date : 24-MAR-2010 15:22
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202078653|1|
Misc Info : |ECD82P_1S|968275|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 06:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 52 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2486.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.10000	Weight of sample extracted (g)
M	18.85790	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.910	0.001	58272918	149.601	6.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.213	0.000	49993468	168.368	6.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.362	0.001	10192533	671.586	27.5	80.00- 120.00	100.00
2.648	2.650	-0.002	13488735	712.341	29.2	109.92- 149.92	132.34
2.728	2.729	-0.001	8389757	674.301	27.6	60.02- 100.02	82.31
2.766	2.766	0.000	5075629	690.720	28.3	28.22- 68.22	49.80

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.977	2.977	0.000	6733285	707.443	29.0	41.69- 81.69	66.06
Average of Peak Concentrations =					28.3		
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.701	0.001	15464787	843.683	34.5	80.00- 120.00	100.00
3.863	3.864	-0.001	22863252	850.256	34.8	128.81- 168.81	147.84
4.025	4.026	-0.001	25315604	894.061	36.6	138.76- 178.76	163.70
4.093	4.094	-0.001	14307104	885.457	36.2	70.04- 110.04	92.51
4.236	4.237	-0.001	14368448	854.620	35.0	74.40- 114.40	92.91
Average of Peak Concentrations =					35.4		

Data File: /chem/eod1a.i/032410.b/052f5201.d

Date : 24-MAR-2010 15:22

Client ID: RE46-10-13010MS

Sample Info: |1202078653|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: eod1a.i

Operator: YS1

Column diameter: 0.25

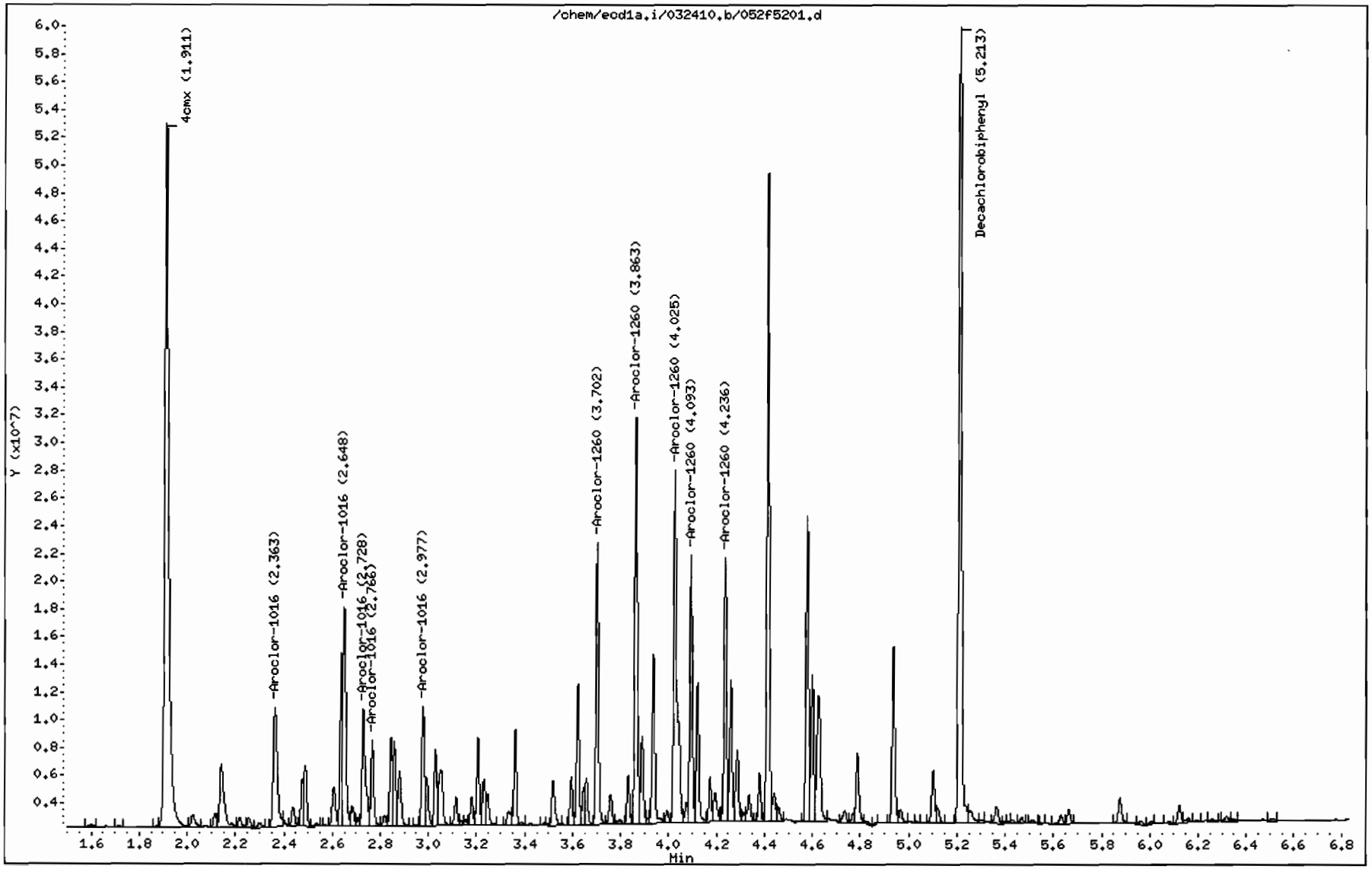

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/052b5201.d
Lab Smp Id: 1202078653 Client Smp ID: RE46-10-13010MS
Inj Date : 24-MAR-2010 15:22
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202078653|1|
Misc Info : |ECD82P_1S|968275|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 06:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 52 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2486.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.10000	Weight of sample extracted (g)
M	18.85790	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.268	2.269	-0.001	37071539	141.315	5.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.908	5.909	-0.001	30569511	163.322	6.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.163	3.163	0.000	8932613	709.784	29.1	80.00- 120.00	100.00(M)
3.246	3.245	0.001	5698669	660.011	27.0	44.44- 84.44	63.80
3.309	3.309	0.000	3281332	620.684	25.4	20.17- 60.17	36.73
3.536	3.536	0.000	4329710	628.157	25.7	32.44- 72.44	48.47

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.611	3.611	0.000	4169090	649.132	26.6	29.41- 69.41	56.08
Average of Peak Concentrations =					26.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.301	4.301	0.000	10294207	787.005	32.2	80.00- 120.00	100.00
4.426	4.426	0.000	12356212	794.662	32.5	101.81- 141.81	120.03
4.691	4.691	0.000	9750602	819.649	33.6	71.58- 111.58	94.72
4.864	4.864	0.000	9716644	790.664	32.4	74.95- 114.95	94.39
5.012	5.012	0.000	22883544	866.977	35.5	192.93- 232.93	222.30
Average of Peak Concentrations =					33.2		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032410.b/052b5201.d

Page 1

Date : 24-MAR-2010 15:22

Client ID: RE46-10-13010MS

Instrument: ecd1a.i

Sample Info: |120207865311|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

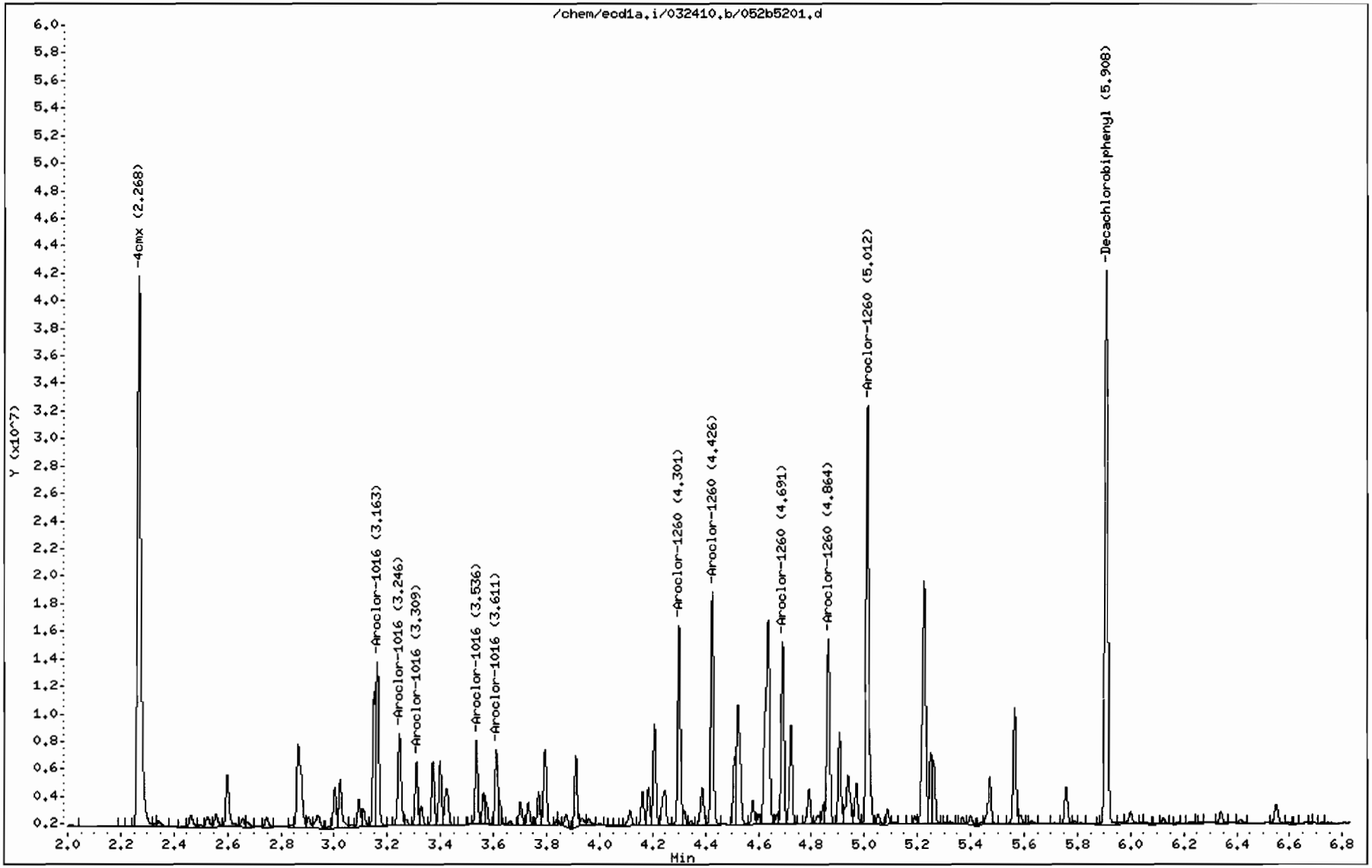

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/053f5301.d
Lab Smp Id: 1202078654 Client Smp ID: RE46-10-13010MSD
Inj Date : 24-MAR-2010 15:35
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202078654|1|
Misc Info : |ECD82P_1S|968275|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 06:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 53 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2486.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	18.85790	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.910	0.001	55775117	143.188	5.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.212	5.213	-0.001	48672053	163.917	6.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.362	0.001	10009912	659.553	27.0	80.00- 120.00	100.00
2.649	2.650	-0.001	13044747	688.894	28.2	109.92- 149.92	130.32
2.729	2.729	0.000	8062764	648.020	26.5	60.02- 100.02	80.55
2.766	2.766	0.000	4851125	660.168	27.0	28.22- 68.22	48.46

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.976	2.977	-0.001	6296207	661.521	27.1	41.69- 81.69	62.90
Average of Peak Concentrations =					27.2		
7 Aroclor-1260					CAS #: 11096-82-5		
3.701	3.701	0.000	14624637	797.849	32.7	80.00- 120.00	100.00
3.863	3.864	-0.001	21726428	807.979	33.1	128.81- 168.81	148.56
4.025	4.026	-0.001	24134711	852.356	34.9	138.76- 178.76	165.03
4.093	4.094	-0.001	13690697	847.308	34.7	70.04- 110.04	93.61
4.236	4.237	-0.001	13648815	811.817	33.3	74.40- 114.40	93.33
Average of Peak Concentrations =					33.7		

Data File: /chem/ecd1a.i/032410.b/053f5301.d

Page 1

Date : 24-MAR-2010 15:35

Client ID: RE46-10-13010MSD

Instrument: ecd1a.i

Sample Info: |1202078654|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

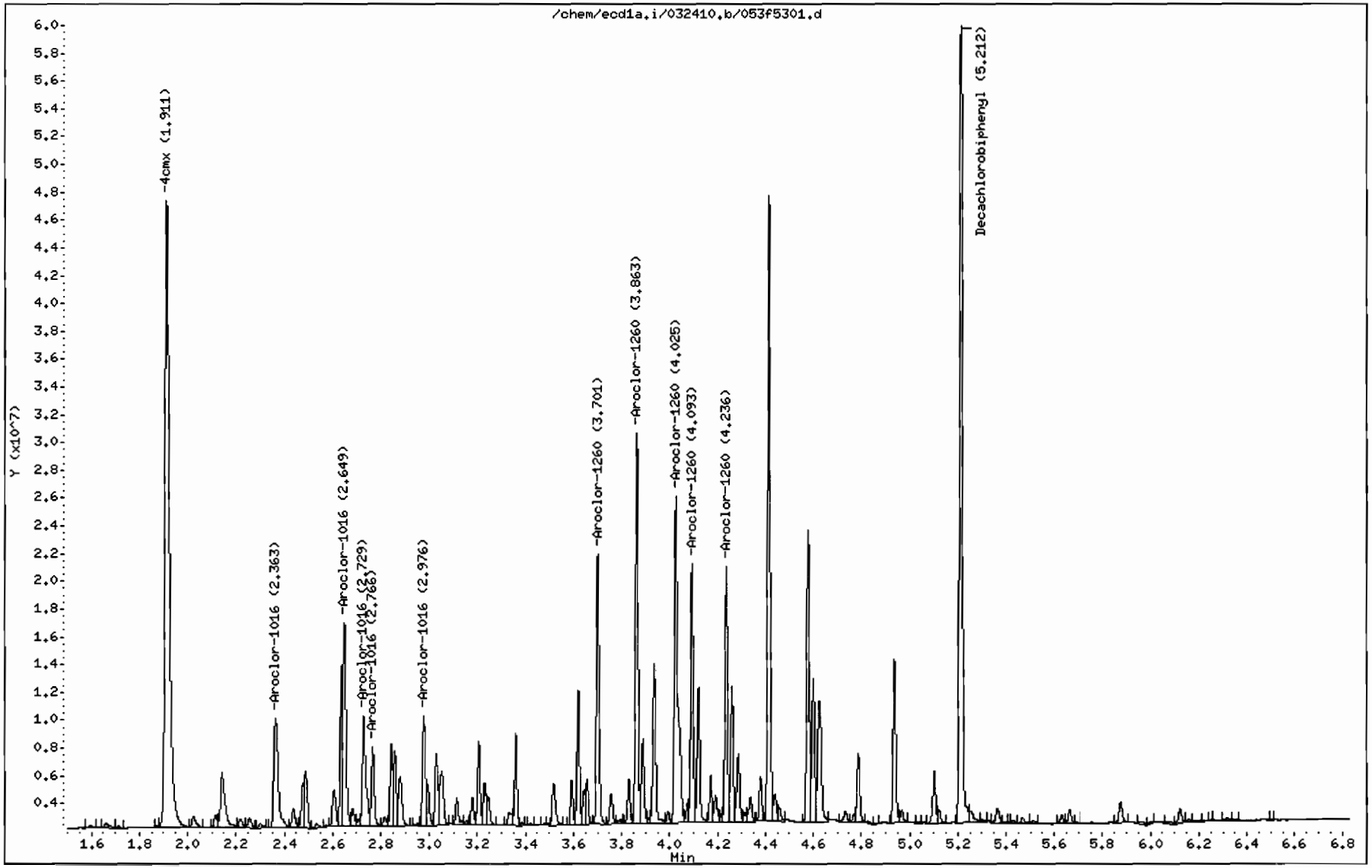

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032410.b/053b5301.d
Lab Smp Id: 1202078654 Client Smp ID: RE46-10-13010MSD
Inj Date : 24-MAR-2010 15:35
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202078654|1|
Misc Info : |ECD82P_1S|968275|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/032410.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 06:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 53 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2486.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	18.85790	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	35361923	134.798	5.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.908	5.909	-0.001	29438792	157.281	6.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.162	3.163	-0.001	8630790	685.801	28.1	80.00- 120.00	100.00(M)
3.246	3.245	0.001	5429318	628.815	25.8	44.44- 84.44	62.91
3.309	3.309	0.000	2984907	564.614	23.1	20.17- 60.17	34.58
3.536	3.536	0.000	3993196	579.335	23.7	32.44- 72.44	46.27

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.611	3.611	0.000	4101804	638.655	26.2	29.41- 69.41	55.87
Average of Peak Concentrations =					25.4		
7 Aroclor-1260					CAS #: 11096-82-5		
4.301	4.301	0.000	9714160	742.660	30.4	80.00- 120.00	100.00
4.426	4.426	0.000	11755394	756.021	31.0	101.81- 141.81	121.01
4.691	4.691	0.000	9257996	778.240	31.9	71.58- 111.58	95.30
4.864	4.864	0.000	9019624	733.946	30.1	74.95- 114.95	92.85
5.011	5.012	-0.001	21658293	820.557	33.6	192.93- 232.93	222.96
Average of Peak Concentrations =					31.4		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032410.b/053b5301.d
Date : 24-MAR-2010 15:35
Client ID: RE46-10-1301OMSD
Sample Info: 1120207865411
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YSI
Column diameter: 0.25

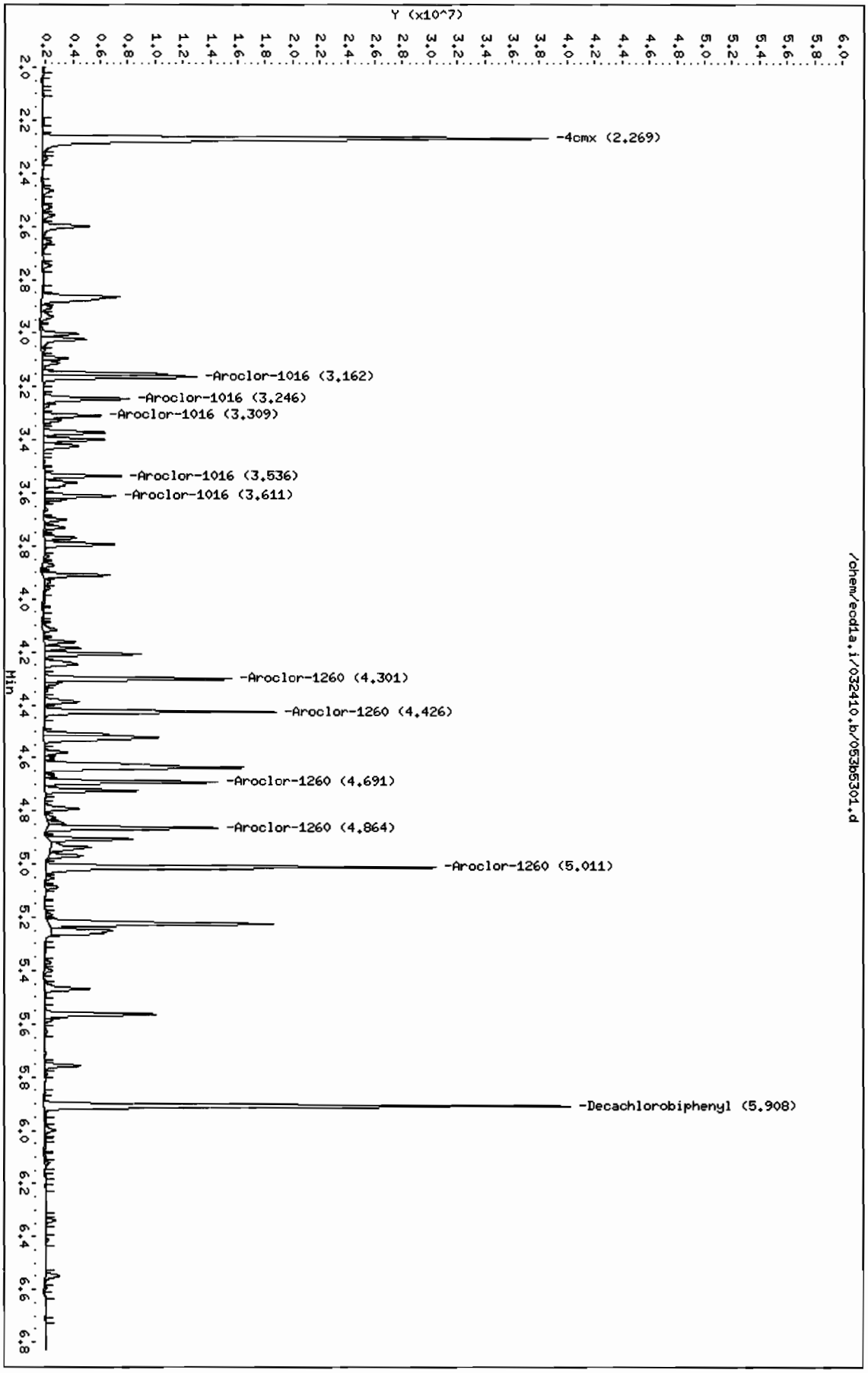

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 968274 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202078651 MB	23-MAR-2010 19:55:00	30	H2SO4/KMi2		2	9	1	0.03333
1202078652 LCS	23-MAR-2010 19:55:00	30	H2SO4/KMi2		2	9	1	0.03333
249332001	23-MAR-2010 19:55:00	30.07	H2SO4/KMi2		2	9	1	0.03326
249332002	23-MAR-2010 19:55:00	30.16	H2SO4/KMi2		2	9	1	0.03316
249332003	23-MAR-2010 19:55:00	30.04	H2SO4/KMi2		2	9	1	0.03329
249332004	23-MAR-2010 19:55:00	30.08	H2SO4/KMi2		2	9	1	0.03324
249332005	23-MAR-2010 19:55:00	30.09	H2SO4/KMi2		2	9	1	0.03323
249332006	23-MAR-2010 19:55:00	30.02	H2SO4/KMi2		2	9	1	0.03331
249332007	23-MAR-2010 19:55:00	30.01	H2SO4/KMi2		2	9	1	0.03332
249332009	23-MAR-2010 19:55:00	30.15	H2SO4/KMi2		2	9	1	0.03317
249523001	23-MAR-2010 19:55:00	30.12	H2SO4/KMi2		2	9	1	0.0332
249523002	23-MAR-2010 19:55:00	30.14	H2SO4/KMi2		2	9	1	0.03318
249523003	23-MAR-2010 19:55:00	30.15	H2SO4/KMi2		2	9	1	0.03317
249523004	23-MAR-2010 19:55:00	30.04	H2SO4/KMi2		2	9	1	0.03329
249523006	23-MAR-2010 19:55:00	30.09	H2SO4/KMi2		2	9	1	0.03323
249614001	23-MAR-2010 19:55:00	30.14	H2SO4/KMi2		2	9	1	0.03318
1202078653 MS (249614001)	23-MAR-2010 19:55:00	30.1	H2SO4/KMi2		2	9	1	0.03322
1202078654 MSD (249614001)	23-MAR-2010 19:55:00	30.08	H2SO4/KMi2		2	9	1	0.03324
249614002	23-MAR-2010 19:55:00	30.12	H2SO4/KMi2		2	9	1	0.0332
249614003	23-MAR-2010 19:55:00	30.15	H2SO4/KMi2		2	9	1	0.03317
249614004	23-MAR-2010 19:55:00	30.02	H2SO4/KMi2		2	9	1	0.03331
249614005	23-MAR-2010 19:55:00	30.13	H2SO4/KMi2		2	9	1	0.03319
249614006	23-MAR-2010 19:55:00	30.02	H2SO4/KMi2		2	9	1	0.03331

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202078652	PCB Laboratory Control	WE100311-07	1	mL
MS	1202078653	PCB Laboratory Control	WE100311-07	1	mL
MSD	1202078654	PCB Laboratory Control	WE100311-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100310-16	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1289815-B1	150	mL
REGNT	All	Hexane	1289823-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 3/23/10

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

Friday, March 12, 2010

REQUEST NUMBER: 10-2432

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-2432
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	HASL-300:AM-241	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2432

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	HASL-300:ISOPU	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	HASL-300:ISOTH	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	HASL-300:ISOU	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2432

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2432

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2432C

REQUEST NUMBER: 10-2432

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13219	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13221	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13220	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13216	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13217	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13218	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13234	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-14199	1	POLY	AM241+GS+ISOPU/TH/U	None	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/12/10	3:00				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13239 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1510	SUB-MEDIA:	OTHER	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-617560	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH

SAMPLE DESC: QC Sample of RE46-10-13220

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Sherto **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13238 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1500	SUB-MEDIA:	OTHER	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611560	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH

SAMPLE DESC: QC Sample of RE46-10-13220

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shemo **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	3-11-10 1550	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13217 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1030	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	~~46-611558~~ mp 2/17/10	46-611558	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: Gray weathered tuff 5YR 5/2

SAMPLE COMMENTS: ~~15' below base of well~~ mp 2/17/10

LOCATION DESC: ~~4d-1~~ mp 2/17/10 4d-2

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.4 ppm Background: α: 7 β: 905 dpm Samples < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. [illegible]

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. [illegible] (Signature) [illegible]	3-11-10 1650	(Printed Name) (Signature) [illegible]	3-11-10 1658
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-14198 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1515 ~~1436 1510~~	SUB-MEDIA:	OTHER	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611559	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH<2
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH<12

SAMPLE DESC: QC Sample of RE46-10-13218

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) C. Andress REVIEWED BY (PRINT) M. Hart

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/11/10 1650	(Printed Name)	3/11/10 1650
(Signature)		(Signature)	
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-14201 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		~~1500~~ 1520	SUB-MEDIA:	OTHER	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611559	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH <2
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH ~~<12~~ >12 3/11/10

SAMPLE DESC: QC Sample of RE46-10-13218

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo REVIEWED BY (PRINT) Lane Anderss

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Anderss (Signature) [signature]	3/11/10 1650	(Printed Name) (Signature) [signature]	3/11/10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13216 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	~~ALLH~~ MW 3-11-10 OK	OK
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	~~46-611558~~ mr 2/17/10	46-611558	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: Gray weathered tuff 5YR 5/2

SAMPLE COMMENTS: ~~10' below base of well~~ mr 2/17/10

LOCATION DESC: ~~4d-1~~ mr 2/17/10 4d-2

FIELD SCREENING/MEASUREMENT RESULTS: PID: 4.0 ppm Background: α: 7 β: 906 dpm Samples < MDA

COLLECTED BY (PRINT) H. Vanek REVIEWED BY (PRINT) Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) H. Vanek (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-14199 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		1436	SUB-MEDIA:	SOIL	
PRS ID:	46-004(d)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	46-611559	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ____ COMPOSITE TIME INTERVAL: ____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ____ BOREHOLE DIRECTION: ____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13218

SAMPLE COMMENTS: NA

LOCATION DESC: 46-3

FIELD SCREENING/MEASUREMENT RESULTS: Background Samples < MDA

PID: 0.5 ppm α: 7 β: 906 dpm

COLLECTED BY (PRINT) H. Shendo REVIEWED BY (PRINT) Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/11/10	(Printed Name)	3/11/10
(Signature) [signature]	1650	(Signature) [signature]	1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-14200 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1436	SUB-MEDIA:	OTHER	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611559	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1-2	NA	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13218

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Andress **REVIEWED BY (PRINT)** M. Nanek

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nanek (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13218 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1430	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611559	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: Moist dark reddish brown silty sediment 5YR 4/3

SAMPLE COMMENTS: Organic matter present

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS: Background: α: 7 dpm β: 906 Samples <MDA

PID: 0.5

COLLECTED BY (PRINT) M. Sherndo **REVIEWED BY (PRINT)** M. Marck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Marck (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13219 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1446	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611559	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: Light reddish brown weathered tuff 5YR 6/3

SAMPLE COMMENTS: ~~[illegible]~~ MW 3-11-10 Organic matter present

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS: Background: PID: 2.5 ppm α: 7 dpm β: 906 Samples < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. [illegible]

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. [illegible] (Signature) [illegible]	3-11-10 1650	(Printed Name) (Signature) [illegible]	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13221 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		~~3/10/10~~ 3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		~~1511~~ 1412	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611560	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: Pinkish gray weathered tuff 5YR 6/2

SAMPLE COMMENTS: NA

LOCATION DESC: 4d - 4

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.4 ppm

Background: α: 7 β: 906

Samples CMDA

COLLECTED BY (PRINT) J. Romero

REVIEWED BY (PRINT) M Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	3-11-10 1610	(Printed Name) (Signature)	3-11-10 1610
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13234 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		15	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(d)	ok	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	46-611560	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13220

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Sherdo **REVIEWED BY (PRINT)** M. Nard

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nard (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13220 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		~~1630~~ 1402	SUB-MEDIA:	SOIL	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611560		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: Gray weathered tuff 5YR 5/2

SAMPLE COMMENTS: NA

LOCATION DESC: 46-~~D~~ 4 MW 3-11-10

FIELD SCREENING/MEASUREMENT RESULTS: PID: 2.0 ppm Sample SMDA
Background
α 7 ~~dpm~~ β: 906 ~~dpm~~

COLLECTED BY (PRINT) M. Vaucq REVIEWED BY (PRINT) Lane Anderss

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Vaucq (Signature)	3/11/10 1650	(Printed Name) (Signature)	3/11/10 1650
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13237 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1436	SUB-MEDIA:	OTHER	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46 - 611559	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2/1	mp 2/21/10	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13218

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Andress **REVIEWED BY (PRINT)** M. Mack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Mack (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2432 VALIDATION DATE: 4/24/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. All gamma spec sample results that were rejected by the laboratory due to interference or low abundance were qualified R,R5a. In the duplicate sample, the laboratory also rejected several results. No sample data were qualified as a result.
2. The alpha spec Pu-236 tracer %R was < the laboratory LAL in sample RE46-10-14199. The associated Pu-239/240 sample result was a detect and, thus, was qualified J+,R3b. The associated Pu-238 sample result was an ND and, thus, was not qualified.
3. It should be noted that the matrix QC for all analyses <u>except</u> alpha spec Th was performed on parent samples from another LANL RN. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 04/26/10

VALIDATOR'S SIGNATURE: DATE: 4/24/10

DATA VALIDATION COVER SHEET

5119-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5119-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☐	☒	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID:	RE46-10-13219	Project:	LANL01004
Sample ID:	249331001	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	7.87%		

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
ılpha Spec Analysis													
'41 "Dry Weight Corrected"													
·icium-241	U	-0.00269		0.020	+/-0.00477	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
ᵊU "Dry Weight Corrected"													
nium-238	U	0.00509		0.0252	+/-0.00605	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
nium-239/240	U	-0.000304		0.0213	+/-0.00358	0.050	pCi/g						
'H "Dry Weight Corrected"													
um-228		1.77		0.157	+/-0.170	0.100	pCi/g		CXM2	04/05/10	1534	967216	3
um-230		1.08		0.197	+/-0.116	0.100	pCi/g						
um-232		1.72		0.084	+/-0.165	0.100	pCi/g						
'J "Dry Weight Corrected"													
.um-233/234		1.18		0.104	+/-0.108	0.100	pCi/g		CXM2	03/27/10	1253	965504	5
.um-235/236	U	0.0365		0.0635	+/-0.0147	0.100	pCi/g						
.um-238		1.02		0.0731	+/-0.0962	0.100	pCi/g						
ɜamma Spec Analysis													
ıMA SPEC "Dry Weight Corrected"													
·icium-241	U	0.077		0.430	+/-0.121	0.200	pCi/g		MXR1	03/24/10	0858	965250	6
uth-211	UI	4.81	R,R5a	0.341	+/-0.315		pCi/g						
uth-214		1.51		0.108	+/-0.110	0.200	pCi/g						
ıium-109	UI	4.95	R,R5a	1.36	+/-0.735		pCi/g						
.m-139	U	0.00374		0.0531	+/-0.0159	0.050	pCi/g						
ım-134	UI	0.105	R,R5a	0.101	+/-0.0266	0.100	pCi/g						
ım-137	U	-0.0224		0.0751	+/-0.0225	0.100	pCi/g						
lt-60	U	0.0135		0.0743	+/-0.0215	0.100	pCi/g						
ɔium-152	U	0.0656		0.176	+/-0.0562	0.200	pCi/g						
ıanum-140	U	-0.027		0.146	+/-0.0465		pCi/g						
·212		2.31		0.0987	+/-0.116	0.100	pCi/g						
·214		1.74		0.124	+/-0.124	0.100	pCi/g						
ury-203	U	0.057		0.0599	+/-0.0249	0.100	pCi/g						
sium-40		32.4		0.683	+/-1.54	1.00	pCi/g						
ım-223	U	-0.0385		1.08	+/-0.363		pCi/g						
ım-224	UI	5.12	R,R5a	1.06	+/-0.776		pCi/g						
ım-226		1.51		0.108	+/-0.110		pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
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TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13219
Sample ID: 249331001
Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtc
Gamma Spec Analysis												
MA SPEC "Dry Weight Corrected"												
m-228		2.46	0.234	+/-0.220	0.500	pCi/g						
nium-106	U	0.0146	0.563	+/-0.174	0.800	pCi/g						
m-22	U	0.013	0.0858	+/-0.025	0.080	pCi/g						
tium-85	U	0.0693	0.0767	+/-0.0237		pCi/g						
ium-208		0.698	0.0591	+/-0.0517	0.080	pCi/g						
um-227	U	-0.209	0.430	+/-0.130		pCi/g						
um-231	U	-0.0385	1.08	+/-0.363		pCi/g						
um-234	U	1.68	3.58	+/-1.03	2.00	pCi/g						
13	U	-0.0115	0.0788	+/-0.0238	0.100	pCi/g						
um-235	U	0.207	0.370	+/-0.109	0.500	pCi/g						
m-88	U	-0.00339	0.0542	+/-0.0172	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	81.3	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	77.8	(50%-105%)
m-229 Tracer	ISOTH "Dry Weight Corrected"	92.2	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	84.7	(50%-105%)

s:
J is calculated at the 67% confidence level (1-sigma).
Qualifiers in this report are defined as follows :

Analyte is a surrogate compound
Result is less than value reported
Result is greater than value reported
The TIC is a suspected aldol-condensation product
For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13221
Sample ID: 249331002
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 4.48%

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	0.000989		0.0188	+/-0.00121	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
PU "Dry Weight Corrected"													
nium-238	U	0.000669		0.0317	+/-0.00295	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
nium-239/240	U	0.00477		0.0268	+/-0.00339	0.050	pCi/g						
'H "Dry Weight Corrected"													
um-228		2.02		0.186	+/-0.199	0.100	pCi/g		CXM2	04/05/10	1534	967216	3
um-230		1.22		0.234	+/-0.135	0.100	pCi/g						
um-232		1.63		0.0996	+/-0.167	0.100	pCi/g						
J "Dry Weight Corrected"													
um-233/234		0.915		0.114	+/-0.0904	0.100	pCi/g		CXM2	03/27/10	1254	965504	5
um-235/236	U	0.0399		0.0694	+/-0.016	0.100	pCi/g						
um-238		0.975		0.0799	+/-0.095	0.100	pCi/g						
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
icium-241	U	-0.146		0.423	+/-0.125	0.200	pCi/g		MXR1	03/24/10	0911	965250	6
uth-211	UI	4.91	R,R5a	0.388	+/-0.342		pCi/g						
uth-214		1.59		0.123	+/-0.125	0.200	pCi/g						
ium-109	UI	3.89	R,R5a	1.47	+/-0.668		pCi/g						
m-139	U	-0.0186		0.0522	+/-0.0164	0.050	pCi/g						
m-134	U	0.0843		0.0996	+/-0.0379	0.100	pCi/g						
m-137	U	-0.00309		0.0679	+/-0.0203	0.100	pCi/g						
lt-60	U	0.0243		0.0795	+/-0.0227	0.100	pCi/g						
ium-152	U	-0.015		0.173	+/-0.0562	0.200	pCi/g						
anum-140	U	0.0879		0.188	+/-0.0526		pCi/g						
-212		2.24		0.104	+/-0.138	0.100	pCi/g						
-214		1.78		0.132	+/-0.133	0.100	pCi/g						
ury-203	U	0.0625		0.074	+/-0.0229	0.100	pCi/g						
sium-40		35.7		0.602	+/-1.98	1.00	pCi/g						
m-223	U	-0.245		1.18	+/-0.407		pCi/g						
m-224	UI	4.57	R,R5a	1.11	+/-0.720		pCi/g						
m-226		1.59		0.123	+/-0.125		pCi/g						
m-228		2.59		0.267	+/-0.259	0.500	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13221
Sample ID: 249331002

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtc
Gamma Spec Analysis												
MA SPEC "Dry Weight Corrected"												
nium-106	U	0.101	0.600	+/-0.174	0.800	pCi/g						
m-22	U	0.00137	0.0848	+/-0.0254	0.080	pCi/g						
tium-85	U	0.0547	0.0782	+/-0.0253		pCi/g						
ium-208		0.629	0.0688	+/-0.0521	0.080	pCi/g						
um-227	U	-0.0599	0.470	+/-0.139		pCi/g						
um-231	U	-0.245	1.18	+/-0.407		pCi/g						
um-234	U	0.390	3.65	+/-1.05	2.00	pCi/g						
13	U	0.0187	0.0823	+/-0.0242	0.100	pCi/g						
um-235	U	0.169	0.382	+/-0.115	0.500	pCi/g						
m-88	U	-0.0305	0.0471	+/-0.0182	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	82.0	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	65.0	(50%-105%)
m-229 Tracer	ISOTH "Dry Weight Corrected"	82.7	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	79.7	(50%-105%)

s:
J is calculated at the 67% confidence level (1-sigma).
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For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
) Results are either below the MDC or tracer recovery is low

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13220
Sample ID: 249331003
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 11.5%

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtc
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	0.0112		0.0179	+/-0.00364	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
PU "Dry Weight Corrected"													
nium-238	U	0.00496		0.0289	+/-0.00409	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
nium-239/240	U	0.0152		0.0244	+/-0.00583	0.050	pCi/g						
'H "Dry Weight Corrected"													
um-228		1.86		0.208	+/-0.196	0.100	pCi/g		CXM2	04/05/10	1534	967216	3
um-230		1.11		0.261	+/-0.132	0.100	pCi/g						
um-232		1.61		0.111	+/-0.173	0.100	pCi/g						
J "Dry Weight Corrected"													
um-233/234		1.05		0.137	+/-0.106	0.100	pCi/g		CXM2	03/27/10	1254	965504	5
um-235/236	U	0.0601		0.0838	+/-0.0213	0.100	pCi/g						
um-238		1.21		0.0964	+/-0.119	0.100	pCi/g						
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
icium-241	U	0.0356		0.194	+/-0.0616	0.200	pCi/g		MXR1	03/24/10	0911	965250	6
uth-211	UI	4.91	R,R5a	0.285	+/-0.405		pCi/g						
uth-214		1.33		0.106	+/-0.115	0.200	pCi/g						
ium-109	UI	4.99	R,R5a	0.912	+/-0.507		pCi/g						
m-139	U	0.0143		0.0447	+/-0.0126	0.050	pCi/g						
m-134	UI	0.0871	R,R5a	0.0825	+/-0.025	0.100	pCi/g						
m-137		0.178		0.0584	+/-0.0344	0.100	pCi/g						
lt-60	U	-0.007		0.0545	+/-0.0172	0.100	pCi/g						
ium-152	U	-0.0171		0.143	+/-0.0444	0.200	pCi/g						
anum-140	U	-0.00616		0.112	+/-0.0341		pCi/g						
-212		2.11		0.0843	+/-0.159	0.100	pCi/g						
-214		1.78		0.104	+/-0.155	0.100	pCi/g						
ury-203	U	-0.0091		0.057	+/-0.0174	0.100	pCi/g						
sium-40		35.9		0.471	+/-1.81	1.00	pCi/g						
m-223	U	-0.11		0.996	+/-0.346		pCi/g						
m-224	UI	5.24	R,R5a	0.904	+/-0.726		pCi/g						
m-226		1.33		0.106	+/-0.115		pCi/g						
m-228		2.00		0.211	+/-0.204	0.500	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13220
Sample ID: 249331003

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Gamma Spec Analysis												
AMA SPEC "Dry Weight Corrected"												
nium-106	U	0.0825	0.489	+/-0.144	0.800	pCi/g						
m-22	U	-0.0157	0.0602	+/-0.0193	0.080	pCi/g						
tium-85	U	0.0626	0.0639	+/-0.019		pCi/g						
ium-208		0.691	0.0538	+/-0.0561	0.080	pCi/g						
um-227	U	-0.188	0.366	+/-0.116		pCi/g						
um-231	U	-0.11	0.996	+/-0.346		pCi/g						
um-234		2.54	1.66	+/-0.836	2.00	pCi/g						
13	U	-0.00789	0.0689	+/-0.0201	0.100	pCi/g						
um-235	U	0.148	0.331	+/-0.0933	0.500	pCi/g						
m-88	U	0.00888	0.0548	+/-0.0159	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	88.1	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	68.8	(50%-105%)
m-229 Tracer	ISOTH "Dry Weight Corrected"	70.3	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	68.3	(50%-105%)

s:
J is calculated at the 67% confidence level (1-sigma).
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Result is less than value reported
Result is greater than value reported
The TIC is a suspected aldol-condensation product
For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
) Results are either below the MDC or tracer recovery is low

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13216
Sample ID: 249331004
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 19%

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	0.00326		0.0183	+/-0.00197	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
PU "Dry Weight Corrected"													
nium-238	U	0.0139		0.0254	+/-0.00565	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
nium-239/240	U	0.00819		0.0215	+/-0.00452	0.050	pCi/g						
TH "Dry Weight Corrected"													
um-228		1.54		0.171	+/-0.160	0.100	pCi/g		CXM2	04/05/10	1534	967216	3
um-230		1.22		0.215	+/-0.133	0.100	pCi/g						
um-232		1.47		0.0915	+/-0.150	0.100	pCi/g						
J "Dry Weight Corrected"													
um-233/234		3.13		0.161	+/-0.272	0.100	pCi/g		CXM2	03/27/10	1254	965504	5
um-235/236		0.177		0.0984	+/-0.0378	0.100	pCi/g						
um-238		1.22		0.113	+/-0.124	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
icium-241	U	-0.386		0.530	+/-0.161	0.200	pCi/g		MXR1	03/24/10	0912	965250	6
uth-211	UI	5.08	R,R5a	0.438	+/-0.376		pCi/g						
uth-214		1.28		0.167	+/-0.110	0.200	pCi/g						
ium-109	UI	3.43	R,R5a	2.20	+/-0.775		pCi/g						
m-139	U	0.0153		0.0661	+/-0.0201	0.050	pCi/g						
m-134	UI	0.123	R,R5a	0.116	+/-0.0308	0.100	pCi/g						
m-137	U	0.0567		0.085	+/-0.0328	0.100	pCi/g						
lt-60	U	0.0238		0.0904	+/-0.0267	0.100	pCi/g						
ium-152	U	-0.127		0.213	+/-0.0775	0.200	pCi/g						
anum-140	U	-0.0388		0.141	+/-0.0444		pCi/g						
-212		1.95		0.127	+/-0.138	0.100	pCi/g						
-214		1.84		0.159	+/-0.146	0.100	pCi/g						
ury-203	U	0.048		0.0898	+/-0.0253	0.100	pCi/g						
sium-40		38.6		0.559	+/-2.19	1.00	pCi/g						
m-223	U	0.463		1.44	+/-0.474		pCi/g						
m-224	UI	5.17	R,R5a	1.37	+/-0.957		pCi/g						
m-226		1.28		0.167	+/-0.110		pCi/g						
m-228		2.06		0.290	+/-0.225	0.500	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13216
Sample ID: 249331004

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
nium-106	U	-0.0259		0.608	+/-0.187	0.800	pCi/g						
m-22	U	0.00408		0.0939	+/-0.0288	0.080	pCi/g						
tium-85	UI	0.129	R,R5a	0.0926	+/-0.0276		pCi/g						
ium-208		0.537		0.0709	+/-0.0647	0.080	pCi/g						
um-227	U	0.0775		0.588	+/-0.169		pCi/g						
um-231	U	0.463		1.44	+/-0.474		pCi/g						
um-234	U	1.48		4.40	+/-1.25	2.00	pCi/g						
13	U	-0.0426		0.0952	+/-0.0296	0.100	pCi/g						
um-235	U	0.181		0.465	+/-0.138	0.500	pCi/g						
m-88	U	0.00417		0.0659	+/-0.0198	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	90.5	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	78.7	(50%-105%)
m-229 Tracer	ISOTH "Dry Weight Corrected"	84.5	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	58.5	(50%-105%)

s:
J is calculated at the 67% confidence level (1-sigma).
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Analyte is a surrogate compound
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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID:	RE46-10-13217	Project:	LANL01004
Sample ID:	249331005	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	13.7%		

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	-0.000235		0.0184	+/-0.00167	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
PU "Dry Weight Corrected"													
nium-238	U	0.00258		0.0267	+/-0.0032	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
nium-239/240	U	0.00403		0.0226	+/-0.00286	0.050	pCi/g						
'H "Dry Weight Corrected"													
um-228		1.45		0.169	+/-0.151	0.100	pCi/g		CXM2	04/05/10	1534	967216	3
um-230		1.07		0.212	+/-0.119	0.100	pCi/g						
um-232		1.48		0.0904	+/-0.151	0.100	pCi/g						
J "Dry Weight Corrected"													
um-233/234		2.67		0.118	+/-0.222	0.100	pCi/g		CXM2	03/27/10	1254	965504	5
um-235/236		0.134		0.0718	+/-0.028	0.100	pCi/g						
um-238		1.72		0.0827	+/-0.152	0.100	pCi/g						
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
icium-241	U	0.0139		0.0873	+/-0.0284	0.200	pCi/g		MXR1	03/24/10	0913	965250	6
uth-211	UI	5.29	R,R5a	0.353	+/-0.366		pCi/g						
uth-214		1.64		0.126	+/-0.144	0.200	pCi/g						
ium-109	UI	5.11	R,R5a	0.888	+/-0.439		pCi/g						
m-139	U	0.00182		0.0464	+/-0.0137	0.050	pCi/g						
m-134	UI	0.225	R,R5a	0.113	+/-0.0429	0.100	pCi/g						
m-137	U	-0.0313		0.0889	+/-0.0265	0.100	pCi/g						
lt-60	U	-0.00808		0.0756	+/-0.0236	0.100	pCi/g						
ium-152	U	0.00527		0.174	+/-0.0529	0.200	pCi/g						
anum-140	U	-0.127		0.119	+/-0.0456		pCi/g						
-212		2.55		0.0913	+/-0.160	0.100	pCi/g						
-214		1.92		0.128	+/-0.143	0.100	pCi/g						
ury-203	U	0.0189		0.0654	+/-0.0198	0.100	pCi/g						
sium-40		36.7		0.572	+/-1.88	1.00	pCi/g						
m-223	U	0.173		1.10	+/-0.360		pCi/g						
m-224	UI	6.33	R,R5a	0.980	+/-0.713		pCi/g						
m-226		1.64		0.126	+/-0.144		pCi/g						
m-228		2.56		0.291	+/-0.271	0.500	pCi/g						

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GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13217
Sample ID: 249331005

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtc
Gamma Spec Analysis												
MA SPEC "Dry Weight Corrected"												
enium-106	U	-0.0897	0.605	+/-0.182	0.800	pCi/g						
m-22	U	-0.0315	0.0922	+/-0.0295	0.080	pCi/g						
tium-85	U	0.0367	0.0729	+/-0.0239		pCi/g						
ium-208		0.752	0.0644	+/-0.0684	0.080	pCi/g						
um-227	U	-0.0112	0.435	+/-0.134		pCi/g						
um-231	U	0.173	1.10	+/-0.360		pCi/g						
um-234		2.84	0.911	+/-0.575	2.00	pCi/g						
13	U	0.0059	0.0796	+/-0.0235	0.100	pCi/g						
um-235	U	0.0273	0.329	+/-0.0967	0.500	pCi/g						
m-88	U	0.0107	0.0606	+/-0.0174	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	86.6	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	73.1	(50%-105%)
m-229 Tracer	ISOTH "Dry Weight Corrected"	83.8	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	77.0	(50%-105%)

s:
J is calculated at the 67% confidence level (1-sigma).
: Qualifiers in this report are defined as follows :

Analyte is a surrogate compound
Result is less than value reported
Result is greater than value reported
The TIC is a suspected aldol-condensation product
For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
) Results are either below the MDC or tracer recovery is low

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID:	RE46-10-13218	Project:	LANL01004
Sample ID:	249331006	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	28.2%		

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	0.0106		0.0208	+/-0.00657	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
PU "Dry Weight Corrected"													
nium-238	U	-0.00128		0.0224	+/-0.00511	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
nium-239/240		0.0359		0.019	+/-0.00828	0.050	pCi/g						
TH "Dry Weight Corrected"													
um-228		1.82		0.181	+/-0.182	0.100	pCi/g		CXM2	04/05/10	1534	967216	3
um-230		1.32		0.227	+/-0.143	0.100	pCi/g						
um-232		1.80		0.0969	+/-0.180	0.100	pCi/g						
J "Dry Weight Corrected"													
um-233/234		1.32		0.153	+/-0.132	0.100	pCi/g		CXM2	03/27/10	1254	965504	5
um-235/236		0.094		0.0936	+/-0.0278	0.100	pCi/g						
um-238		1.27		0.108	+/-0.127	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
icium-241	U	0.063		0.345	+/-0.115	0.200	pCi/g		MXR1	03/24/10	0913	965250	6
uth-211	UI	5.49	R,R5a	0.421	+/-0.388		pCi/g						
uth-214		1.58		0.141	+/-0.126	0.200	pCi/g						
ium-109	UI	3.58	R,R5a	1.68	+/-0.670		pCi/g						
m-139	U	-0.00511		0.0653	+/-0.0202	0.050	pCi/g						
m-134	U	0.0755		0.102	+/-0.0284	0.100	pCi/g						
m-137		0.211		0.075	+/-0.052	0.100	pCi/g						
lt-60	U	-0.0226		0.0667	+/-0.0214	0.100	pCi/g						
ium-152	U	0.0279		0.207	+/-0.0706	0.200	pCi/g						
anum-140	U	0.0281		0.148	+/-0.0433		pCi/g						
-212		2.48		0.119	+/-0.144	0.100	pCi/g						
-214		1.99		0.153	+/-0.151	0.100	pCi/g						
ury-203	U	0.0704		0.0852	+/-0.0241	0.100	pCi/g						
sium-40		33.0		0.718	+/-2.05	1.00	pCi/g						
m-223	U	-0.449		1.36	+/-0.486		pCi/g						
m-224	UI	7.22	R,R5a	1.27	+/-0.930		pCi/g						
m-226		1.58		0.141	+/-0.126		pCi/g						
m-228		2.15		0.297	+/-0.248	0.500	pCi/g						

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Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13218
Sample ID: 249331006

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
nium-106	U	0.163		0.646	+/-0.187	0.800	pCi/g						
m-22	U	-0.0176		0.089	+/-0.0275	0.080	pCi/g						
tium-85	UI	0.119	R,R5a	0.0897	+/-0.0277		pCi/g						
ium-208		0.647		0.0862	+/-0.0568	0.080	pCi/g						
um-227	U	0.233		0.566	+/-0.164		pCi/g						
um-231	U	-0.449		1.36	+/-0.486		pCi/g						
um-234		4.96		2.93	+/-1.62	2.00	pCi/g						
13	U	-0.0288		0.0922	+/-0.0287	0.100	pCi/g						
um-235	U	0.00571		0.467	+/-0.144	0.500	pCi/g						
m-88	U	-0.0116		0.0521	+/-0.0173	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	79.4	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	81.1	(50%-105%)
m-229 Tracer	ISOTH "Dry Weight Corrected"	80.0	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	60.0	(50%-105%)

s:
J is calculated at the 67% confidence level (1-sigma).
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Result is greater than value reported
The TIC is a suspected aldol-condensation product
For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
) Results are either below the MDC or tracer recovery is low

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13234
Sample ID: 249331007
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 12.2%

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	-0.000124		0.0202	+/-0.00606	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
PU "Dry Weight Corrected"													
nium-238	U	0.00324		0.0276	+/-0.00417	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
nium-239/240	U	0.00946		0.0233	+/-0.00553	0.050	pCi/g						
TH "Dry Weight Corrected"													
um-228		2.22		0.219	+/-0.227	0.100	pCi/g		CXM2	04/05/10	1534	967216	3
um-230		1.19		0.274	+/-0.141	0.100	pCi/g						
um-232		1.84		0.117	+/-0.194	0.100	pCi/g						
J "Dry Weight Corrected"													
um-233/234		1.04		0.129	+/-0.104	0.100	pCi/g		CXM2	03/27/10	1254	965504	5
um-235/236		0.0793		0.0789	+/-0.022	0.100	pCi/g						
um-238		0.985		0.0908	+/-0.0992	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
icium-241	U	-0.15		0.331	+/-0.101	0.200	pCi/g		MXR1	03/24/10	0921	965250	6
uth-211	UI	5.11	R,R5a	0.458	+/-0.352		pCi/g						
uth-214		1.51		0.135	+/-0.122	0.200	pCi/g						
ium-109	UI	4.10	R,R5a	1.44	+/-0.635		pCi/g						
m-139	U	0.00775		0.0624	+/-0.0179	0.050	pCi/g						
m-134	UI	0.160	R,R5a	0.122	+/-0.0392	0.100	pCi/g						
m-137		0.120		0.082	+/-0.0327	0.100	pCi/g						
lt-60	U	-0.0364		0.0629	+/-0.0216	0.100	pCi/g						
ium-152	U	-0.109		0.198	+/-0.0684	0.200	pCi/g						
anum-140	U	0.0182		0.154	+/-0.0456		pCi/g						
-212		2.22		0.115	+/-0.134	0.100	pCi/g						
-214		1.85		0.171	+/-0.138	0.100	pCi/g						
ury-203	U	0.0851		0.0872	+/-0.0243	0.100	pCi/g						
sium-40		33.2		0.440	+/-1.80	1.00	pCi/g						
m-223	U	0.235		1.37	+/-0.461		pCi/g						
m-224	UI	4.49	R,R5a	1.24	+/-0.665		pCi/g						
m-226		1.51		0.135	+/-0.122		pCi/g						
m-228		2.23		0.261	+/-0.264	0.500	pCi/g						

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4/24/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13234
Sample ID: 249331007

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Gamma Spec Analysis												
MA SPEC "Dry Weight Corrected"												
nium-106	U	0.363	0.674	+/-0.187	0.800	pCi/g						
m-22	U	-0.00114	0.0885	+/-0.0266	0.080	pCi/g						
tium-85	U	0.0631	0.0855	+/-0.0275		pCi/g						
ium-208		0.606	0.0682	+/-0.0562	0.080	pCi/g						
um-227	U	0.0282	0.525	+/-0.155		pCi/g						
um-231	U	0.235	1.37	+/-0.461		pCi/g						
um-234	U	1.44	3.13	+/-0.907	2.00	pCi/g						
13	U	-0.0561	0.0913	+/-0.0296	0.100	pCi/g						
um-235	U	-0.0615	0.411	+/-0.121	0.500	pCi/g						
m-88	U	0.00718	0.0611	+/-0.018	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	82.4	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	70.0	(50%-105%)
m-229 Tracer	ISOTH "Dry Weight Corrected"	67.5	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	73.6	(50%-105%)

s:
J is calculated at the 67% confidence level (1-sigma).
Qualifiers in this report are defined as follows :

Analyte is a surrogate compound
Result is less than value reported
Result is greater than value reported
The TIC is a suspected aldol-condensation product
For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
) Results are either below the MDC or tracer recovery is low

LMF
4/24/10

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-14199
Sample ID: 249331008
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 30%

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	0.00616		0.0197	+/-0.00378	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
PU "Dry Weight Corrected"													
nium-238	U	0.00926		0.0344	+/-0.00599	0.050	pCi/g		CXM2	03/29/10	1030	965503	2
nium-239/240		0.0304	J+,R3b	0.029	+/-0.0101	0.050	pCi/g						
"H "Dry Weight Corrected"													
um-228		2.13		0.211	+/-0.218	0.100	pCi/g		CXM2	04/05/10	1534	967216	4
um-230		1.42		0.264	+/-0.158	0.100	pCi/g						
um-232		1.88		0.113	+/-0.196	0.100	pCi/g						
J "Dry Weight Corrected"													
um-233/234		1.27		0.140	+/-0.124	0.100	pCi/g		CXM2	03/27/10	1254	965504	6
um-235/236		0.0981		0.0854	+/-0.027	0.100	pCi/g						
um-238		1.16		0.0983	+/-0.115	0.100	pCi/g						
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
icium-241	U	0.0397		0.246	+/-0.0748	0.200	pCi/g		MXR1	03/24/10	0921	965250	7
uth-211	UI	5.43	R,R5a	0.319	+/-0.393		pCi/g						
uth-214		1.62		0.117	+/-0.118	0.200	pCi/g						
ium-109	UI	4.04	R,R5a	1.19	+/-0.517		pCi/g						
m-139	U	-0.0236		0.0469	+/-0.0143	0.050	pCi/g						
m-134	U	0.0942		0.0964	+/-0.0502	0.100	pCi/g						
m-137		0.413		0.0686	+/-0.0445	0.100	pCi/g						
lt-60	U	0.0346		0.0708	+/-0.0199	0.100	pCi/g						
ium-152	U	-0.0164		0.157	+/-0.0492	0.200	pCi/g						
anum-140	U	-0.0907		0.131	+/-0.0452		pCi/g						
-212		2.10		0.0946	+/-0.139	0.100	pCi/g						
-214		1.97		0.116	+/-0.153	0.100	pCi/g						
ury-203	U	-0.000265		0.0618	+/-0.0216	0.100	pCi/g						
sium-40		34.0		0.538	+/-1.77	1.00	pCi/g						
m-223	U	-0.172		1.06	+/-0.377		pCi/g						
m-224	UI	6.11	R,R5a	1.01	+/-0.739		pCi/g						
m-226		1.62		0.117	+/-0.118		pCi/g						
m-228		2.10		0.221	+/-0.213	0.500	pCi/g						

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4/24/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-14199
Sample ID: 249331008

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
Gamma Spec Analysis												
MA SPEC "Dry Weight Corrected"												
nium-106	U	0.0739	0.524	+/-0.156	0.800	pCi/g						
m-22	U	-0.0464	0.0669	+/-0.0231	0.080	pCi/g						
tium-85	U	0.0384	0.0622	+/-0.0194		pCi/g						
ium-208		0.565	0.0563	+/-0.050	0.080	pCi/g						
um-227	U	-0.137	0.387	+/-0.122		pCi/g						
um-231	U	-0.172	1.06	+/-0.377		pCi/g						
um-234	U	1.73	2.35	+/-0.691	2.00	pCi/g						
13	U	-0.0236	0.0667	+/-0.0202	0.100	pCi/g						
um-235	U	-0.00372	0.352	+/-0.104	0.500	pCi/g						
m-88	U	0.00993	0.0524	+/-0.015	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	85.4	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	37.8 *	(50%-105%)
m-229 Tracer	ISOTH "Dry Weight Corrected"	71.4	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	64.9	(50%-105%)

s:
J is calculated at the 67% confidence level (1-sigma).
Qualifiers in this report are defined as follows :

Analyte is a surrogate compound
Result is less than value reported
Result is greater than value reported
The TIC is a suspected aldol-condensation product
For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

LMF
4/24/10

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2432C

REQUEST NUMBER: 10-2432

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

249331%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13219	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13221	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13220	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13216	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13217	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13218	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13234	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-14199	1	POLY	AM241+GS+ISOPU/TH/U	None	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/12/10	3:00	Greg Tyler		3-13-10	0930
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Friday, March 12, 2010

REQUEST NUMBER: 10-2432

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2432
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	HASL-300:AM-241	1	RE46-10-13216	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2432

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	HASL-300:ISOPU	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	HASL-300:ISOTH	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
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		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	HASL-300:ISOU	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2432

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2432

GEL Laboratories

a member of The GEL Group

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

March 18, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 249331
SDG: 10-2432

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 13, 2010, and analyzed for Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2432
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 249331
SDG: 10-2432

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 249331
SDG # : 10-2432

March 18, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 13, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 12/13C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
249331001	RE46-10-13219
249331002	RE46-10-13221
249331003	RE46-10-13220
249331004	RE46-10-13216
249331005	RE46-10-13217
249331006	RE46-10-13218
249331007	RE46-10-13234
249331008	RE46-10-14199

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 18 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2432C

REQUEST NUMBER: 10-2432

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 249331/.

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RE46-10-13218	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13234	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-14199	1	POLY	AM241+GS+ISOPU/TH/U	None	S

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		3/12/10	3:00	Greg Tyler		3-13-10	0930
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Friday, March 12, 2010

REQUEST NUMBER: 10-2432

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2432
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/12/2010
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TURNAROUND REQ'D: 30 Days

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LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

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		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	HASL-300:AM-241	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2432

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	HASL-300:ISOPU	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
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		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
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		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2432

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2432

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2432**
Received By: Greg Tyler	**Date Received: 3/13/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **2,3,6C** **12,13C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:
7209 7850 4789 2C
7209 7850 4756 2C
7209 7850 4804 2C
7209 7850 4790 3C
7209 7850 4767 6C
7209 7850 4815 12C
7209 7850 4778 13C

PM (or PMA) review: Initials MS Date 3/15/10

N ID: SAFA (505) 665-9988
NE VALDEZ
LAMOS NATL LAB
BLDG 1237 DPU 03

LAMOS, NM 87545
D STATES US

SHIP DATE: 12MAR10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
) 556-8171
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ORIGIN ID: SAFA (505) 665-9988
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 41.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
843) 556-8171
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ORIGIN ID: SAFA (505) 665-9988
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

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Matr# 7209 7850 4789 0201

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SC-US
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ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

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Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

12°

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1 of 2
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SATURDAY ### A1
PRIORITY OVERNIGHT

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Part # 156148-434 NRIT V3 04-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT:
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

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FedEx Express

3 of 3
MPS# 0263 7209 7850 4778
Matr# 7209 7850 4756 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2432

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965502
Prep Batch Number:	965113

Sample ID	Client ID
249331001	RE46-10-13219
249331002	RE46-10-13221
249331003	RE46-10-13220
249331004	RE46-10-13216
249331005	RE46-10-13217
249331006	RE46-10-13218
249331007	RE46-10-13234
249331008	RE46-10-14199
1202071683	Method Blank (MB)
1202071684	249334001(RE46-10-12972) Sample Duplicate (DUP)
1202071685	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202071683 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249334001 (RE46-10-12972). The QC was from LANL work order 249334.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965503
Prep Batch Number:	965113

Sample ID	Client ID
249331001	RE46-10-13219
249331002	RE46-10-13221
249331003	RE46-10-13220
249331004	RE46-10-13216
249331005	RE46-10-13217
249331006	RE46-10-13218
249331007	RE46-10-13234
249331008	RE46-10-14199
1202071686	Method Blank (MB)
1202071687	249334001(RE46-10-12972) Sample Duplicate (DUP)
1202071688	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202071686 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249334001 (RE46-10-12972). The QC was from LANL work order 249334.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The Pu239/240 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 249331008 (RE46-10-14199) was recounted to achieve the client's 400 tracer count requirement.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Sample 249331008 (RE46-10-14199) did not meet the client's yield requirement. However, there are 400 tracer counts, GEL's standard tracer yield requirements are met, and the client's detection limits are met.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOTH**
Analytical Method:	DOE EML HASL-300, Th-01-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	967216
Prep Batch Number:	965113

Sample ID	Client ID
249331001	RE46-10-13219
249331002	RE46-10-13221
249331003	RE46-10-13220
249331004	RE46-10-13216
249331005	RE46-10-13217
249331006	RE46-10-13218
249331007	RE46-10-13234
249331008	RE46-10-14199
1202075933	Method Blank (MB)
1202075934	249331001(RE46-10-13219) Sample Duplicate (DUP)
1202075935	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-038 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202075933 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249331001 (RE46-10-13219). The QC was from LANL work order 249331.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were recounted due to high relative percent difference/relative error ratio. Sample 1202075934 (RE46-10-13219) was given additional clean-up steps and recounted due to poor resolution.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965504
Prep Batch Number:	965113

Sample ID	Client ID
249331001	RE46-10-13219
249331002	RE46-10-13221
249331003	RE46-10-13220
249331004	RE46-10-13216
249331005	RE46-10-13217
249331006	RE46-10-13218
249331007	RE46-10-13234
249331008	RE46-10-14199
1202071689	Method Blank (MB)
1202071690	249334001(RE46-10-12972) Sample Duplicate (DUP)
1202071691	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

Aliquot for sample 1202071689 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249334001 (RE46-10-12972). The QC was from LANL work order 249334.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-233/234 and U-235/236 blank results are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965250
Prep Batch Number:	965113

Sample ID	Client ID
249331001	RE46-10-13219

249331002	RE46-10-13221
249331003	RE46-10-13220
249331004	RE46-10-13216
249331005	RE46-10-13217
249331006	RE46-10-13218
249331007	RE46-10-13234
249331008	RE46-10-14199
1202071014	Method Blank (MB)
1202071015	249334001(RE46-10-12972) Sample Duplicate (DUP)
1202071016	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 19.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in March 2009, April 2009, May 2009, October 2009, November 2009, January 2010, February 2010 and March 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 249334001 (RE46-10-12972). The QC was from LANL work order 249334.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank 1202071014 (MB) result is greater than 1.65 times the CSU but less than the MDC for Th-234.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank 1202071014 (MB) result is greater than the decision level but less than the MDC for Th-234.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	249331001	RE46-10-13219
			249331002	RE46-10-13221
			249331003	RE46-10-13220
			249331004	RE46-10-13216
			249331005	RE46-10-13217
			249331006	RE46-10-13218
			249331007	RE46-10-13234
			249331008	RE46-10-14199
			1202071015	RE46-10-12972(249334001DUP)
		Cadmium-109	249331001	RE46-10-13219
			249331002	RE46-10-13221
			249331003	RE46-10-13220
			249331004	RE46-10-13216
			249331005	RE46-10-13217
			249331006	RE46-10-13218
			249331007	RE46-10-13234
			249331008	RE46-10-14199
			1202071015	RE46-10-12972(249334001DUP)
		Radium-224	249331001	RE46-10-13219
			249331002	RE46-10-13221
			249331003	RE46-10-13220
			249331004	RE46-10-13216

			249331005	RE46-10-13217
			249331006	RE46-10-13218
			249331007	RE46-10-13234
			249331008	RE46-10-14199
			1202071015	RE46-10-12972(249334001DUP)
UI	Data rejected due to low abundance.	Cesium-134	249331001	RE46-10-13219
			249331003	RE46-10-13220
			249331004	RE46-10-13216
			249331005	RE46-10-13217
			249331007	RE46-10-13234
			1202071015	RE46-10-12972(249334001DUP)
		Strontium-85	249331004	RE46-10-13216
			249331006	RE46-10-13218
			1202071015	RE46-10-12972(249334001DUP)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 4/8/2010

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2432 GEL Work Order: 249331

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13219
Sample ID: 249331001
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 7.87%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00269	0.020	+/-0.00477	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00509	0.0252	+/-0.00605	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
Plutonium-239/240	U	-0.000304	0.0213	+/-0.00358	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.77	0.157	+/-0.170	0.100	pCi/g		CXM2	04/05/10	1534	967216	3
Thorium-230		1.08	0.197	+/-0.116	0.100	pCi/g						
Thorium-232		1.72	0.084	+/-0.165	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.18	0.104	+/-0.108	0.100	pCi/g		CXM2	03/27/10	1253	965504	5
Uranium-235/236	U	0.0365	0.0635	+/-0.0147	0.100	pCi/g						
Uranium-238		1.02	0.0731	+/-0.0962	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.077	0.430	+/-0.121	0.200	pCi/g		MXR1	03/24/10	0858	965250	6
Bismuth-211	UI	4.81	0.341	+/-0.315		pCi/g						
Bismuth-214		1.51	0.108	+/-0.110	0.200	pCi/g						
Cadmium-109	UI	4.95	1.36	+/-0.735		pCi/g						
Cerium-139	U	0.00374	0.0531	+/-0.0159	0.050	pCi/g						
Cesium-134	UI	0.105	0.101	+/-0.0266	0.100	pCi/g						
Cesium-137	U	-0.0224	0.0751	+/-0.0225	0.100	pCi/g						
Cobalt-60	U	0.0135	0.0743	+/-0.0215	0.100	pCi/g						
Europium-152	U	0.0656	0.176	+/-0.0562	0.200	pCi/g						
Lanthanum-140	U	-0.027	0.146	+/-0.0465		pCi/g						
Lead-212		2.31	0.0987	+/-0.116	0.100	pCi/g						
Lead-214		1.74	0.124	+/-0.124	0.100	pCi/g						
Mercury-203	U	0.057	0.0599	+/-0.0249	0.100	pCi/g						
Potassium-40		32.4	0.683	+/-1.54	1.00	pCi/g						
Radium-223	U	-0.0385	1.08	+/-0.363		pCi/g						
Radium-224	UI	5.12	1.06	+/-0.776		pCi/g						
Radium-226		1.51	0.108	+/-0.110		pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13219
Sample ID: 249331001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-228		2.46	0.234	+/-0.220	0.500	pCi/g						
Ruthenium-106	U	0.0146	0.563	+/-0.174	0.800	pCi/g						
Sodium-22	U	0.013	0.0858	+/-0.025	0.080	pCi/g						
Strontium-85	U	0.0693	0.0767	+/-0.0237		pCi/g						
Thallium-208		0.698	0.0591	+/-0.0517	0.080	pCi/g						
Thorium-227	U	-0.209	0.430	+/-0.130		pCi/g						
Thorium-231	U	-0.0385	1.08	+/-0.363		pCi/g						
Thorium-234	U	1.68	3.58	+/-1.03	2.00	pCi/g						
Tin-113	U	-0.0115	0.0788	+/-0.0238	0.100	pCi/g						
Uranium-235	U	0.207	0.370	+/-0.109	0.500	pCi/g						
Yttrium-88	U	-0.00339	0.0542	+/-0.0172	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Th-01-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	81.3	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	77.8	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	92.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	84.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13219
Sample ID: 249331001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13221
Sample ID: 249331002
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 4.48%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.000989	0.0188	+/-0.00121	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.000669	0.0317	+/-0.00295	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
Plutonium-239/240	U	0.00477	0.0268	+/-0.00339	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		2.02	0.186	+/-0.199	0.100	pCi/g		CXM2	04/05/10	1534	967216	3
Thorium-230		1.22	0.234	+/-0.135	0.100	pCi/g						
Thorium-232		1.63	0.0996	+/-0.167	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.915	0.114	+/-0.0904	0.100	pCi/g		CXM2	03/27/10	1254	965504	5
Uranium-235/236	U	0.0399	0.0694	+/-0.016	0.100	pCi/g						
Uranium-238		0.975	0.0799	+/-0.095	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.146	0.423	+/-0.125	0.200	pCi/g		MXR1	03/24/10	0911	965250	6
Bismuth-211	UI	4.91	0.388	+/-0.342		pCi/g						
Bismuth-214		1.59	0.123	+/-0.125	0.200	pCi/g						
Cadmium-109	UI	3.89	1.47	+/-0.668		pCi/g						
Cerium-139	U	-0.0186	0.0522	+/-0.0164	0.050	pCi/g						
Cesium-134	U	0.0843	0.0996	+/-0.0379	0.100	pCi/g						
Cesium-137	U	-0.00309	0.0679	+/-0.0203	0.100	pCi/g						
Cobalt-60	U	0.0243	0.0795	+/-0.0227	0.100	pCi/g						
Europium-152	U	-0.015	0.173	+/-0.0562	0.200	pCi/g						
Lanthanum-140	U	0.0879	0.188	+/-0.0526		pCi/g						
Lead-212		2.24	0.104	+/-0.138	0.100	pCi/g						
Lead-214		1.78	0.132	+/-0.133	0.100	pCi/g						
Mercury-203	U	0.0625	0.074	+/-0.0229	0.100	pCi/g						
Potassium-40		35.7	0.602	+/-1.98	1.00	pCi/g						
Radium-223	U	-0.245	1.18	+/-0.407		pCi/g						
Radium-224	UI	4.57	1.11	+/-0.720		pCi/g						
Radium-226		1.59	0.123	+/-0.125		pCi/g						
Radium-228		2.59	0.267	+/-0.259	0.500	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13221
Sample ID: 249331002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Ruthenium-106	U	0.101	0.600	+/-0.174	0.800	pCi/g						
Sodium-22	U	0.00137	0.0848	+/-0.0254	0.080	pCi/g						
Strontium-85	U	0.0547	0.0782	+/-0.0253		pCi/g						
Thallium-208		0.629	0.0688	+/-0.0521	0.080	pCi/g						
Thorium-227	U	-0.0599	0.470	+/-0.139		pCi/g						
Thorium-231	U	-0.245	1.18	+/-0.407		pCi/g						
Thorium-234	U	0.390	3.65	+/-1.05	2.00	pCi/g						
Tin-113	U	0.0187	0.0823	+/-0.0242	0.100	pCi/g						
Uranium-235	U	0.169	0.382	+/-0.115	0.500	pCi/g						
Yttrium-88	U	-0.0305	0.0471	+/-0.0182	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Th-01-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.0	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	65.0	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	82.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	79.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13221
Sample ID: 249331002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13220
Sample ID: 249331003
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 11.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0112	0.0179	+/-0.00364	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00496	0.0289	+/-0.00409	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
Plutonium-239/240	U	0.0152	0.0244	+/-0.00583	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.86	0.208	+/-0.196	0.100	pCi/g		CXM2	04/05/10	1534	967216	3
Thorium-230		1.11	0.261	+/-0.132	0.100	pCi/g						
Thorium-232		1.61	0.111	+/-0.173	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.05	0.137	+/-0.106	0.100	pCi/g		CXM2	03/27/10	1254	965504	5
Uranium-235/236	U	0.0601	0.0838	+/-0.0213	0.100	pCi/g						
Uranium-238		1.21	0.0964	+/-0.119	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0356	0.194	+/-0.0616	0.200	pCi/g		MXR1	03/24/10	0911	965250	6
Bismuth-211	UI	4.91	0.285	+/-0.405		pCi/g						
Bismuth-214		1.33	0.106	+/-0.115	0.200	pCi/g						
Cadmium-109	UI	4.99	0.912	+/-0.507		pCi/g						
Cerium-139	U	0.0143	0.0447	+/-0.0126	0.050	pCi/g						
Cesium-134	UI	0.0871	0.0825	+/-0.025	0.100	pCi/g						
Cesium-137		0.178	0.0584	+/-0.0344	0.100	pCi/g						
Cobalt-60	U	-0.007	0.0545	+/-0.0172	0.100	pCi/g						
Europium-152	U	-0.0171	0.143	+/-0.0444	0.200	pCi/g						
Lanthanum-140	U	-0.00616	0.112	+/-0.0341		pCi/g						
Lead-212		2.11	0.0843	+/-0.159	0.100	pCi/g						
Lead-214		1.78	0.104	+/-0.155	0.100	pCi/g						
Mercury-203	U	-0.0091	0.057	+/-0.0174	0.100	pCi/g						
Potassium-40		35.9	0.471	+/-1.81	1.00	pCi/g						
Radium-223	U	-0.11	0.996	+/-0.346		pCi/g						
Radium-224	UI	5.24	0.904	+/-0.726		pCi/g						
Radium-226		1.33	0.106	+/-0.115		pCi/g						
Radium-228		2.00	0.211	+/-0.204	0.500	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13220
Sample ID: 249331003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Ruthenium-106	U	0.0825	0.489	+/-0.144	0.800	pCi/g						
Sodium-22	U	-0.0157	0.0602	+/-0.0193	0.080	pCi/g						
Strontium-85	U	0.0626	0.0639	+/-0.019		pCi/g						
Thallium-208		0.691	0.0538	+/-0.0561	0.080	pCi/g						
Thorium-227	U	-0.188	0.366	+/-0.116		pCi/g						
Thorium-231	U	-0.11	0.996	+/-0.346		pCi/g						
Thorium-234		2.54	1.66	+/-0.836	2.00	pCi/g						
Tin-113	U	-0.00789	0.0689	+/-0.0201	0.100	pCi/g						
Uranium-235	U	0.148	0.331	+/-0.0933	0.500	pCi/g						
Yttrium-88	U	0.00888	0.0548	+/-0.0159	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Th-01-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.1	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	68.8	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	70.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	68.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13220
Sample ID: 249331003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13216
Sample ID: 249331004
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 19%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00326	0.0183	+/-0.00197	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0139	0.0254	+/-0.00565	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
Plutonium-239/240	U	0.00819	0.0215	+/-0.00452	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.54	0.171	+/-0.160	0.100	pCi/g		CXM2	04/05/10	1534	967216	3
Thorium-230		1.22	0.215	+/-0.133	0.100	pCi/g						
Thorium-232		1.47	0.0915	+/-0.150	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		3.13	0.161	+/-0.272	0.100	pCi/g		CXM2	03/27/10	1254	965504	5
Uranium-235/236		0.177	0.0984	+/-0.0378	0.100	pCi/g						
Uranium-238		1.22	0.113	+/-0.124	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.386	0.530	+/-0.161	0.200	pCi/g		MXR1	03/24/10	0912	965250	6
Bismuth-211	UI	5.08	0.438	+/-0.376		pCi/g						
Bismuth-214		1.28	0.167	+/-0.110	0.200	pCi/g						
Cadmium-109	UI	3.43	2.20	+/-0.775		pCi/g						
Cerium-139	U	0.0153	0.0661	+/-0.0201	0.050	pCi/g						
Cesium-134	UI	0.123	0.116	+/-0.0308	0.100	pCi/g						
Cesium-137	U	0.0567	0.085	+/-0.0328	0.100	pCi/g						
Cobalt-60	U	0.0238	0.0904	+/-0.0267	0.100	pCi/g						
Europium-152	U	-0.127	0.213	+/-0.0775	0.200	pCi/g						
Lanthanum-140	U	-0.0388	0.141	+/-0.0444		pCi/g						
Lead-212		1.95	0.127	+/-0.138	0.100	pCi/g						
Lead-214		1.84	0.159	+/-0.146	0.100	pCi/g						
Mercury-203	U	0.048	0.0898	+/-0.0253	0.100	pCi/g						
Potassium-40		38.6	0.559	+/-2.19	1.00	pCi/g						
Radium-223	U	0.463	1.44	+/-0.474		pCi/g						
Radium-224	UI	5.17	1.37	+/-0.957		pCi/g						
Radium-226		1.28	0.167	+/-0.110		pCi/g						
Radium-228		2.06	0.290	+/-0.225	0.500	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13216
Sample ID: 249331004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Ruthenium-106	U	-0.0259	0.608	+/-0.187	0.800	pCi/g						
Sodium-22	U	0.00408	0.0939	+/-0.0288	0.080	pCi/g						
Strontium-85	UI	0.129	0.0926	+/-0.0276		pCi/g						
Thallium-208		0.537	0.0709	+/-0.0647	0.080	pCi/g						
Thorium-227	U	0.0775	0.588	+/-0.169		pCi/g						
Thorium-231	U	0.463	1.44	+/-0.474		pCi/g						
Thorium-234	U	1.48	4.40	+/-1.25	2.00	pCi/g						
Tin-113	U	-0.0426	0.0952	+/-0.0296	0.100	pCi/g						
Uranium-235	U	0.181	0.465	+/-0.138	0.500	pCi/g						
Yttrium-88	U	0.00417	0.0659	+/-0.0198	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Th-01-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	90.5	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	78.7	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	84.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	58.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13216
Sample ID: 249331004
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13217
Sample ID: 249331005
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 13.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000235	0.0184	+/-0.00167	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00258	0.0267	+/-0.0032	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
Plutonium-239/240	U	0.00403	0.0226	+/-0.00286	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.45	0.169	+/-0.151	0.100	pCi/g		CXM2	04/05/10	1534	967216	3
Thorium-230		1.07	0.212	+/-0.119	0.100	pCi/g						
Thorium-232		1.48	0.0904	+/-0.151	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		2.67	0.118	+/-0.222	0.100	pCi/g		CXM2	03/27/10	1254	965504	5
Uranium-235/236		0.134	0.0718	+/-0.028	0.100	pCi/g						
Uranium-238		1.72	0.0827	+/-0.152	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0139	0.0873	+/-0.0284	0.200	pCi/g		MXR1	03/24/10	0913	965250	6
Bismuth-211	UI	5.29	0.353	+/-0.366		pCi/g						
Bismuth-214		1.64	0.126	+/-0.144	0.200	pCi/g						
Cadmium-109	UI	5.11	0.888	+/-0.439		pCi/g						
Cerium-139	U	0.00182	0.0464	+/-0.0137	0.050	pCi/g						
Cesium-134	UI	0.225	0.113	+/-0.0429	0.100	pCi/g						
Cesium-137	U	-0.0313	0.0889	+/-0.0265	0.100	pCi/g						
Cobalt-60	U	-0.00808	0.0756	+/-0.0236	0.100	pCi/g						
Europium-152	U	0.00527	0.174	+/-0.0529	0.200	pCi/g						
Lanthanum-140	U	-0.127	0.119	+/-0.0456		pCi/g						
Lead-212		2.55	0.0913	+/-0.160	0.100	pCi/g						
Lead-214		1.92	0.128	+/-0.143	0.100	pCi/g						
Mercury-203	U	0.0189	0.0654	+/-0.0198	0.100	pCi/g						
Potassium-40		36.7	0.572	+/-1.88	1.00	pCi/g						
Radium-223	U	0.173	1.10	+/-0.360		pCi/g						
Radium-224	UI	6.33	0.980	+/-0.713		pCi/g						
Radium-226		1.64	0.126	+/-0.144		pCi/g						
Radium-228		2.56	0.291	+/-0.271	0.500	pCi/g						

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Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13217
Sample ID: 249331005
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Ruthenium-106	U	-0.0897	0.605	+/-0.182	0.800	pCi/g						
Sodium-22	U	-0.0315	0.0922	+/-0.0295	0.080	pCi/g						
Strontium-85	U	0.0367	0.0729	+/-0.0239		pCi/g						
Thallium-208		0.752	0.0644	+/-0.0684	0.080	pCi/g						
Thorium-227	U	-0.0112	0.435	+/-0.134		pCi/g						
Thorium-231	U	0.173	1.10	+/-0.360		pCi/g						
Thorium-234		2.84	0.911	+/-0.575	2.00	pCi/g						
Tin-113	U	0.0059	0.0796	+/-0.0235	0.100	pCi/g						
Uranium-235	U	0.0273	0.329	+/-0.0967	0.500	pCi/g						
Yttrium-88	U	0.0107	0.0606	+/-0.0174	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Th-01-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.6	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	73.1	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	83.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	77.0	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13217
Sample ID: 249331005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13218
Sample ID: 249331006
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 28.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0106	0.0208	+/-0.00657	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00128	0.0224	+/-0.00511	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
Plutonium-239/240		0.0359	0.019	+/-0.00828	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.82	0.181	+/-0.182	0.100	pCi/g		CXM2	04/05/10	1534	967216	3
Thorium-230		1.32	0.227	+/-0.143	0.100	pCi/g						
Thorium-232		1.80	0.0969	+/-0.180	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.32	0.153	+/-0.132	0.100	pCi/g		CXM2	03/27/10	1254	965504	5
Uranium-235/236		0.094	0.0936	+/-0.0278	0.100	pCi/g						
Uranium-238		1.27	0.108	+/-0.127	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.063	0.345	+/-0.115	0.200	pCi/g		MXR1	03/24/10	0913	965250	6
Bismuth-211	UI	5.49	0.421	+/-0.388		pCi/g						
Bismuth-214		1.58	0.141	+/-0.126	0.200	pCi/g						
Cadmium-109	UI	3.58	1.68	+/-0.670		pCi/g						
Cerium-139	U	-0.00511	0.0653	+/-0.0202	0.050	pCi/g						
Cesium-134	U	0.0755	0.102	+/-0.0284	0.100	pCi/g						
Cesium-137		0.211	0.075	+/-0.052	0.100	pCi/g						
Cobalt-60	U	-0.0226	0.0667	+/-0.0214	0.100	pCi/g						
Europium-152	U	0.0279	0.207	+/-0.0706	0.200	pCi/g						
Lanthanum-140	U	0.0281	0.148	+/-0.0433		pCi/g						
Lead-212		2.48	0.119	+/-0.144	0.100	pCi/g						
Lead-214		1.99	0.153	+/-0.151	0.100	pCi/g						
Mercury-203	U	0.0704	0.0852	+/-0.0241	0.100	pCi/g						
Potassium-40		33.0	0.718	+/-2.05	1.00	pCi/g						
Radium-223	U	-0.449	1.36	+/-0.486		pCi/g						
Radium-224	UI	7.22	1.27	+/-0.930		pCi/g						
Radium-226		1.58	0.141	+/-0.126		pCi/g						
Radium-228		2.15	0.297	+/-0.248	0.500	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13218
Sample ID: 249331006
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Ruthenium-106	U	0.163	0.646	+/-0.187	0.800	pCi/g						
Sodium-22	U	-0.0176	0.089	+/-0.0275	0.080	pCi/g						
Strontium-85	U1	0.119	0.0897	+/-0.0277		pCi/g						
Thallium-208		0.647	0.0862	+/-0.0568	0.080	pCi/g						
Thorium-227	U	0.233	0.566	+/-0.164		pCi/g						
Thorium-231	U	-0.449	1.36	+/-0.486		pCi/g						
Thorium-234		4.96	2.93	+/-1.62	2.00	pCi/g						
Tin-113	U	-0.0288	0.0922	+/-0.0287	0.100	pCi/g						
Uranium-235	U	0.00571	0.467	+/-0.144	0.500	pCi/g						
Yttrium-88	U	-0.0116	0.0521	+/-0.0173	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Th-01-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.4	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	81.1	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	80.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	60.0	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Report Date: April 8, 2010

Client Sample ID: RE46-10-13218
Sample ID: 249331006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13234
Sample ID: 249331007
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 12.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000124	0.0202	+/-0.00606	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00324	0.0276	+/-0.00417	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
Plutonium-239/240	U	0.00946	0.0233	+/-0.00553	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		2.22	0.219	+/-0.227	0.100	pCi/g		CXM2	04/05/10	1534	967216	3
Thorium-230		1.19	0.274	+/-0.141	0.100	pCi/g						
Thorium-232		1.84	0.117	+/-0.194	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.04	0.129	+/-0.104	0.100	pCi/g		CXM2	03/27/10	1254	965504	5
Uranium-235/236		0.0793	0.0789	+/-0.022	0.100	pCi/g						
Uranium-238		0.985	0.0908	+/-0.0992	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.15	0.331	+/-0.101	0.200	pCi/g		MXR1	03/24/10	0921	965250	6
Bismuth-211	UI	5.11	0.458	+/-0.352		pCi/g						
Bismuth-214		1.51	0.135	+/-0.122	0.200	pCi/g						
Cadmium-109	UI	4.10	1.44	+/-0.635		pCi/g						
Cerium-139	U	0.00775	0.0624	+/-0.0179	0.050	pCi/g						
Cesium-134	UI	0.160	0.122	+/-0.0392	0.100	pCi/g						
Cesium-137		0.120	0.082	+/-0.0327	0.100	pCi/g						
Cobalt-60	U	-0.0364	0.0629	+/-0.0216	0.100	pCi/g						
Europium-152	U	-0.109	0.198	+/-0.0684	0.200	pCi/g						
Lanthanum-140	U	0.0182	0.154	+/-0.0456		pCi/g						
Lead-212		2.22	0.115	+/-0.134	0.100	pCi/g						
Lead-214		1.85	0.171	+/-0.138	0.100	pCi/g						
Mercury-203	U	0.0851	0.0872	+/-0.0243	0.100	pCi/g						
Potassium-40		33.2	0.440	+/-1.80	1.00	pCi/g						
Radium-223	U	0.235	1.37	+/-0.461		pCi/g						
Radium-224	UI	4.49	1.24	+/-0.665		pCi/g						
Radium-226		1.51	0.135	+/-0.122		pCi/g						
Radium-228		2.23	0.261	+/-0.264	0.500	pCi/g						

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Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13234
Sample ID: 249331007
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Ruthenium-106	U	0.363	0.674	+/-0.187	0.800	pCi/g						
Sodium-22	U	-0.00114	0.0885	+/-0.0266	0.080	pCi/g						
Strontium-85	U	0.0631	0.0855	+/-0.0275		pCi/g						
Thallium-208		0.606	0.0682	+/-0.0562	0.080	pCi/g						
Thorium-227	U	0.0282	0.525	+/-0.155		pCi/g						
Thorium-231	U	0.235	1.37	+/-0.461		pCi/g						
Thorium-234	U	1.44	3.13	+/-0.907	2.00	pCi/g						
Tin-113	U	-0.0561	0.0913	+/-0.0296	0.100	pCi/g						
Uranium-235	U	-0.0615	0.411	+/-0.121	0.500	pCi/g						
Yttrium-88	U	0.00718	0.0611	+/-0.018	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Th-01-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.4	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	70.0	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	67.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	73.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13234
Sample ID: 249331007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-14199
Sample ID: 249331008
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 30%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00616	0.0197	+/-0.00378	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00926	0.0344	+/-0.00599	0.050	pCi/g		CXM2	03/29/10	1030	965503	2
Plutonium-239/240		0.0304	0.029	+/-0.0101	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		2.13	0.211	+/-0.218	0.100	pCi/g		CXM2	04/05/10	1534	967216	4
Thorium-230		1.42	0.264	+/-0.158	0.100	pCi/g						
Thorium-232		1.88	0.113	+/-0.196	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.27	0.140	+/-0.124	0.100	pCi/g		CXM2	03/27/10	1254	965504	6
Uranium-235/236		0.0981	0.0854	+/-0.027	0.100	pCi/g						
Uranium-238		1.16	0.0983	+/-0.115	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0397	0.246	+/-0.0748	0.200	pCi/g		MXR1	03/24/10	0921	965250	7
Bismuth-211	UI	5.43	0.319	+/-0.393		pCi/g						
Bismuth-214		1.62	0.117	+/-0.118	0.200	pCi/g						
Cadmium-109	UI	4.04	1.19	+/-0.517		pCi/g						
Cerium-139	U	-0.0236	0.0469	+/-0.0143	0.050	pCi/g						
Cesium-134	U	0.0942	0.0964	+/-0.0502	0.100	pCi/g						
Cesium-137		0.413	0.0686	+/-0.0445	0.100	pCi/g						
Cobalt-60	U	0.0346	0.0708	+/-0.0199	0.100	pCi/g						
Europium-152	U	-0.0164	0.157	+/-0.0492	0.200	pCi/g						
Lanthanum-140	U	-0.0907	0.131	+/-0.0452		pCi/g						
Lead-212		2.10	0.0946	+/-0.139	0.100	pCi/g						
Lead-214		1.97	0.116	+/-0.153	0.100	pCi/g						
Mercury-203	U	-0.000265	0.0618	+/-0.0216	0.100	pCi/g						
Potassium-40		34.0	0.538	+/-1.77	1.00	pCi/g						
Radium-223	U	-0.172	1.06	+/-0.377		pCi/g						
Radium-224	UI	6.11	1.01	+/-0.739		pCi/g						
Radium-226		1.62	0.117	+/-0.118		pCi/g						
Radium-228		2.10	0.221	+/-0.213	0.500	pCi/g						

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Report Date: April 8, 2010

Client Sample ID: RE46-10-14199
Sample ID: 249331008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Ruthenium-106	U	0.0739	0.524	+/-0.156	0.800	pCi/g						
Sodium-22	U	-0.0464	0.0669	+/-0.0231	0.080	pCi/g						
Strontium-85	U	0.0384	0.0622	+/-0.0194		pCi/g						
Thallium-208		0.565	0.0563	+/-0.050	0.080	pCi/g						
Thorium-227	U	-0.137	0.387	+/-0.122		pCi/g						
Thorium-231	U	-0.172	1.06	+/-0.377		pCi/g						
Thorium-234	U	1.73	2.35	+/-0.691	2.00	pCi/g						
Tin-113	U	-0.0236	0.0667	+/-0.0202	0.100	pCi/g						
Uranium-235	U	-0.00372	0.352	+/-0.104	0.500	pCi/g						
Yttrium-88	U	0.00993	0.0524	+/-0.015	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.4	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	37.8 *	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	71.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	64.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
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> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-14199
Sample ID: 249331008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

QC Summary

Report Date: April 8, 2010

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 249331

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965502										
QC1202071684 249334001 DUP										
Americium-241	U	0.00647	U	0.00344	pCi/g	0.194		(0-1)	CXM2	03/27/1013:40
	TPU:	+/-0.00348		+/-0.00435						
	Yield:	85.4		82.4						
QC1202071685 LCS										
Americium-241	33.1			26.7	pCi/g		80.6	(75%-125%)		
	TPU:			+/-1.92						
	Yield:			101						
QC1202071683 MB										
Americium-241			U	0.00639	pCi/g					03/27/1013:40
	TPU:			+/-0.004						
	Yield:			81.5						
Batch 965503										
QC1202071687 249334001 DUP										
Plutonium-238	U	-0.00287	U	0.0121	pCi/g	0.767		(0-1)	CXM2	03/26/1021:18
	TPU:	+/-0.00285		+/-0.00691						
	Yield:	81.5		79.9						
Plutonium-239/240	U	0.00567	U	0.00368	pCi/g	0.102		(0-1)		
	TPU:	+/-0.00512		+/-0.00463						
	Yield:	81.5		79.9						
QC1202071688 LCS										
Plutonium-238				5.19	pCi/g			(75%-125%)		
	TPU:			+/-0.475						
	Yield:			84.6						
Plutonium-239/240	41.8			37.6	pCi/g		90.4	(75%-125%)		
	TPU:			+/-2.61						
	Yield:			84.6						
QC1202071686 MB										
Plutonium-238			U	0.00219	pCi/g					03/26/1017:20
	TPU:			+/-0.0022						
	Yield:			84.5						
Plutonium-239/240			U	0.00877	pCi/g					
	TPU:			+/-0.00441						
	Yield:			84.5						
Batch 965504										
QC1202071690 249334001 DUP										
Uranium-233/234		1.90		1.84	pCi/g	0.0878		(0-1)	CXM2	03/27/1012:54
	TPU:	+/-0.166		+/-0.163						
	Yield:	77.6		78.6						
Uranium-235/236		0.128		0.106	pCi/g	0.203		(0-1)		
	TPU:	+/-0.0288		+/-0.0256						
	Yield:	77.6		78.6						
Uranium-238		1.31		1.21	pCi/g	0.215		(0-1)		
	TPU:	+/-0.123		+/-0.116						

QC Summary

Workorder: 249331

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965504										
	Yield:	77.6		78.6						
QC1202071691 LCS										
Uranium-233/234				5.98	pCi/g					03/27/1012:54
	TPU:			+/-0.566						
	Yield:			86.8						
Uranium-235/236			U	0.108	pCi/g					
	TPU:			+/-0.0492						
	Yield:			86.8						
Uranium-238	5.75			5.93	pCi/g		103	(75%-125%)		
	TPU:			+/-0.562						
	Yield:			86.8						
QC1202071689 MB										
Uranium-233/234			U	0.0143	pCi/g					03/27/1012:54
	TPU:			+/-0.0062						
	Yield:			84.6						
Uranium-235/236			U	0.00756	pCi/g					
	TPU:			+/-0.0044						
	Yield:			84.6						
Uranium-238			U	0.00612	pCi/g					
	TPU:			+/-0.00458						
	Yield:			84.6						
Batch 967216										
QC1202075934 249331001 DUP										
Thorium-228		1.77		2.06	pCi/g	0.389		(0-1)	CXM2	04/07/1018:23
	TPU:	+/-0.170		+/-0.210						
	Yield:	92.2		67.9						
Thorium-230		1.08		1.43	pCi/g	0.631		(0-1)		
	TPU:	+/-0.116		+/-0.158						
	Yield:	92.2		67.9						
Thorium-232		1.72		2.01	pCi/g	0.385		(0-1)		
	TPU:	+/-0.165		+/-0.204						
	Yield:	92.2		67.9						
QC1202075935 LCS										
Thorium-228				1.08	pCi/g					04/05/1015:34
	TPU:			+/-0.171						
	Yield:			89.7						
Thorium-230	25.6			23.5	pCi/g		91.9	(75%-125%)		
	TPU:			+/-1.90						
	Yield:			89.7						
Thorium-232				1.27	pCi/g			(75%-125%)		
	TPU:			+/-0.178						
	Yield:			89.7						
QC1202075933 MB										
Thorium-228			U	-0.0113	pCi/g					04/05/1015:34
	TPU:			+/-0.00723						
	Yield:			77.2						
Thorium-230			U	0.00271	pCi/g					
	TPU:			+/-0.00244						
	Yield:			77.2						
Thorium-232			U	0.00179	pCi/g					

QC Summary

Workorder: 249331

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 967216										
	TPU:			+/-0.00366						
	Yield:			77.2						
Rad Gamma Spec										
Batch 965250										
QC1202071015 249334001 DUP										
Americium-241	U	0.00495	U	0.0717	pCi/g	0.155		(0-1)	MXR1	03/24/1011:24
	TPU:	+/-0.0978		+/-0.117						
Bismuth-211	UI	5.61	UI	5.79	pCi/g	0.135		(0-1)		
	TPU:	+/-0.276		+/-0.395						
Bismuth-214		1.60		1.94	pCi/g	0.681		(0-1)		
	TPU:	+/-0.103		+/-0.143						
Cadmium-109	UI	4.00	UI	3.91	pCi/g	0.0359		(0-1)		
	TPU:	+/-0.553		+/-0.685						
Cerium-139	U	-0.00558	U	0.0107	pCi/g	0.250		(0-1)		
	TPU:	+/-0.0139		+/-0.0187						
Cesium-134	UI	0.169	UI	0.161	pCi/g	0.0457		(0-1)		
	TPU:	+/-0.0443		+/-0.0399						
Cesium-137	U	0.0215	U	-0.0433	pCi/g	0.762		(0-1)		
	TPU:	+/-0.0181		+/-0.0244						
Cobalt-60	U	0.0195	U	-0.0197	pCi/g	0.443		(0-1)		
	TPU:	+/-0.0182		+/-0.026						
Europium-152	U	-0.00996	U	0.0114	pCi/g	0.0881		(0-1)		
	TPU:	+/-0.0491		+/-0.0723						
Lanthanum-140	U	-0.0542	U	0.0955	pCi/g	0.925		(0-1)		
	TPU:	+/-0.0327		+/-0.0481						
Lead-212		2.40		2.38	pCi/g	0.0342		(0-1)		
	TPU:	+/-0.104		+/-0.145						
Lead-214		2.04		2.10	pCi/g	0.122		(0-1)		
	TPU:	+/-0.115		+/-0.155						
Mercury-203	U	0.0584	U	0.0382	pCi/g	0.226		(0-1)		
	TPU:	+/-0.019		+/-0.0255						
Potassium-40		35.1		36.8	pCi/g	0.231		(0-1)		
	TPU:	+/-1.55		+/-2.00						
Radium-223	U	0.305	U	0.597	pCi/g	0.196		(0-1)		
	TPU:	+/-0.315		+/-0.429						
Radium-224	UI	5.58	UI	6.11	pCi/g	0.175		(0-1)		
	TPU:	+/-0.636		+/-0.881						
Radium-226		1.60		1.94	pCi/g	0.681		(0-1)		
	TPU:	+/-0.103		+/-0.143						
Radium-228		2.82		2.54	pCi/g	0.276		(0-1)		
	TPU:	+/-0.253		+/-0.267						
Ruthenium-106	U	0.019	U	0.113	pCi/g	0.140		(0-1)		
	TPU:	+/-0.137		+/-0.199						
Sodium-22	U	-0.00918	U	-0.0365	pCi/g	0.280		(0-1)		
	TPU:	+/-0.020		+/-0.0287						
Strontium-85	UI	0.0957	UI	0.174	pCi/g	0.796		(0-1)		
	TPU:	+/-0.0193		+/-0.0299						
Thallium-208		0.713		0.771	pCi/g	0.259		(0-1)		
	TPU:	+/-0.0471		+/-0.0642						
Thorium-227	U	0.0592	U	-0.0329	pCi/g	0.166		(0-1)		

QC Summary

Workorder: 249331

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 965250										
	TPU:	+/-0.118		+/-0.160						
Thorium-231	U	0.305	U	0.597	pCi/g	0.196		(0-1)		
	TPU:	+/-0.315		+/-0.429						
Thorium-234	U	2.54		3.87	pCi/g	0.264		(0-1)		
	TPU:	+/-0.947		+/-1.59						
Tin-113	U	-0.0297	U	-0.0194	pCi/g	0.107		(0-1)		
	TPU:	+/-0.0194		+/-0.0286						
Uranium-235	U	0.0103	U	0.109	pCi/g	0.211		(0-1)		
	TPU:	+/-0.104		+/-0.129						
Yttrium-88	U	-0.0225	U	0.0225	pCi/g	0.622		(0-1)		
	TPU:	+/-0.0152		+/-0.021						
QC1202071016 LCS										
Americium-241	16.3			14.7	pCi/g		90.2	(75%-125%)		03/24/1011:06
	TPU:			+/-1.06						
Bismuth-211				2.98	pCi/g					
	TPU:			+/-0.361						
Bismuth-214				0.768	pCi/g					
	TPU:			+/-0.149						
Cadmium-109				34.5	pCi/g					
	TPU:			+/-2.58						
Cerium-139			U	0.0376	pCi/g					
	TPU:			+/-0.0231						
Cesium-134			U	0.00727	pCi/g					
	TPU:			+/-0.0465						
Cesium-137	5.68			5.65	pCi/g		99.4	(75%-125%)		
	TPU:			+/-0.195						
Cobalt-60	6.47			6.47	pCi/g		100	(75%-125%)		
	TPU:			+/-0.284						
Europium-152			U	-0.161	pCi/g					
	TPU:			+/-0.0905						
Lanthanum-140			U	0.0518	pCi/g					
	TPU:			+/-0.043						
Lead-212				1.46	pCi/g					
	TPU:			+/-0.0965						
Lead-214				1.08	pCi/g					
	TPU:			+/-0.134						
Mercury-203			U	0.0484	pCi/g					
	TPU:			+/-0.0302						
Potassium-40			U	0.978	pCi/g					
	TPU:			+/-0.323						
Radium-223			U	-0.829	pCi/g					
	TPU:			+/-0.584						
Radium-224				3.80	pCi/g					
	TPU:			+/-1.08						
Radium-226				0.768	pCi/g					
	TPU:			+/-0.149						
Radium-228				1.05	pCi/g					
	TPU:			+/-0.320						
Ruthenium-106			U	0.147	pCi/g					
	TPU:			+/-0.277						
Sodium-22			U	0.0074	pCi/g					

QC Summary

Workorder: 249331

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 965250										
	TPU:			+/-0.026						
Strontium-85			U	0.0661	pCi/g					
	TPU:			+/-0.0329						
Thallium-208				0.378	pCi/g					
	TPU:			+/-0.0593						
Thorium-227			U	-0.293	pCi/g					
	TPU:			+/-0.221						
Thorium-231			U	-0.829	pCi/g					
	TPU:			+/-0.584						
Thorium-234			U	-0.655	pCi/g					
	TPU:			+/-1.55						
Tin-113			U	-0.0188	pCi/g					
	TPU:			+/-0.0391						
Uranium-235			U	-0.158	pCi/g					
	TPU:			+/-0.144						
Yttrium-88			U	0.0245	pCi/g					
	TPU:			+/-0.0218						
QC1202071014 MB										
Americium-241			U	0.0412	pCi/g					03/24/1011:03
	TPU:			+/-0.0313						
Bismuth-211			U	0.0839	pCi/g					
	TPU:			+/-0.0569						
Bismuth-214			U	0.0104	pCi/g					
	TPU:			+/-0.0208						
Cadmium-109			U	-0.156	pCi/g					
	TPU:			+/-0.173						
Cerium-139			U	-0.0101	pCi/g					
	TPU:			+/-0.00741						
Cesium-134			U	0.000215	pCi/g					
	TPU:			+/-0.0125						
Cesium-137			U	-0.0095	pCi/g					
	TPU:			+/-0.0106						
Cobalt-60			U	0.00435	pCi/g					
	TPU:			+/-0.0106						
Europium-152			U	-0.00625	pCi/g					
	TPU:			+/-0.0261						
Lanthanum-140			U	-0.0042	pCi/g					
	TPU:			+/-0.0155						
Lead-212			U	-0.00202	pCi/g					
	TPU:			+/-0.0172						
Lead-214			U	0.00673	pCi/g					
	TPU:			+/-0.021						
Mercury-203			U	0.00957	pCi/g					
	TPU:			+/-0.00871						
Potassium-40			U	0.189	pCi/g					
	TPU:			+/-0.132						
Radium-223			U	-0.0193	pCi/g					
	TPU:			+/-0.146						
Radium-224			U	0.230	pCi/g					
	TPU:			+/-0.161						
Radium-226			U	0.0104	pCi/g					

QC Summary

Workorder: 249331

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 965250										
	TPU:			+/-0.0208						
Radium-228			U	-0.0717	pCi/g					
	TPU:			+/-0.041						
Ruthenium-106			U	-0.0223	pCi/g					
	TPU:			+/-0.0782						
Sodium-22			U	0.00519	pCi/g					
	TPU:			+/-0.00893						
Strontium-85			U	-0.0198	pCi/g					
	TPU:			+/-0.0156						
Thallium-208			U	-0.00734	pCi/g					
	TPU:			+/-0.0104						
Thorium-227			U	-0.0177	pCi/g					
	TPU:			+/-0.0637						
Thorium-231			U	-0.0193	pCi/g					
	TPU:			+/-0.146						
Thorium-234			U	0.833	pCi/g					
	TPU:			+/-0.410						
Tin-113			U	0.0029	pCi/g					
	TPU:			+/-0.0118						
Uranium-235			U	-0.146	pCi/g					
	TPU:			+/-0.052						
Yttrium-88			U	0.00938	pCi/g					
	TPU:			+/-0.0116						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification

QC Summary

Workorder: **249331**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time

UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 965502 Product: Am Date: 3/29/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time	✓		
Sample was correctly preserved if required			N/A
Smears Taken for Radioactive batches.	✓		
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/29/10

Secondary Review Performed By: [signature] 3/29/10

3/31
LANL

Am/Cm Que Sheet

22-MAR-10

Batch #: 965502 Analyst: CXM2 First Client Due Date: 31-MAR-10 Internal Due Date21-MAR-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-46-2-VV Expiration Date: 3/9/11 Vol: 0.1mL

LCS Isotope(s): Am241/Cm244 LCS Code(s): 0244-B / — Expiration Date: 4/30/20 / — Vol(s): 0.115g / —

Spike Isotope(s): Am241/Cm244 Spike Code(s): — / — Expiration Date: — / — Vol(s): — / —

Prep Date: 3/23/10 Initials: CMM Pipet ID: 4497063 Balance ID: 50410272 Witness: MW 3/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det # TR 3-27-10
249060003-1	RE16-10-2826	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	1	1	1.259	13
249329001-1	RE46-10-13964	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	2	2	1.290	19
249329002-1	RE46-10-13966	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	3	3	1.254	20
249329003-1	RE46-10-13963	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	4	4	1.260	22
249329004-1	RE46-10-13965	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	5	5	1.252	23
249331001-1	RE46-10-13219	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	6	6	1.266	24
249331002-1	RE46-10-13221	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	7	7	1.252	43
249331003-1	RE46-10-13220	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	8	8	1.256	44
249331004-1	RE46-10-13216	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	9	9	1.251	45
249331005-1	RE46-10-13217	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	10	10	1.256	46
249331006-1	RE46-10-13218	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	11	11	1.277	48
249331007-1	RE46-10-13234	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	12	12	1.255	72
249331008-1	RE46-10-14199	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	13	13	1.261	73
249334001-1	RE46-10-12972	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	14	14	~~1.25~~ 1.267	74
249334002-1	RE46-10-13003	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	15	15	1.264	75
249334003-1	RE46-10-12967	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	16	16	1.292	76
249334004-1	RE46-10-12971	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	17	17	1.250	77
249334005-1	RE46-10-12968	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	18	18	1.260	79
249334006-1	RE46-10-12969	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	19	19	1.280	80
249334007-1	RE46-10-12970	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	20	20	1.259	81
1202071683-1	MB for batch 965502	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1	82
1202071684-1	RE46-10-12972(249334001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	11-MAR-10	22	22	1.259	83
1202071685-1	LCS for batch 965502	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.115	85

*SRM 0244-B Exp 4/30/20

Choose SOP Used: GL-RAD-A-011
GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: JoL MLC 3/29/10

Blank Correction Report

Batch ID 965502

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202071684	DUP	Americium-241	1.26 g	0.00344	0.00435	0.0189	.005071429	pCi/g	YES
1202071685	LCS	Americium-241	0.115 g	26.7	1.92	0.185	.055565217	pCi/g	NO
1202071683	MB	Americium-241	1.00 g	0.00639	0.004	0.0255	.00639	pCi/g	YES
249060003	RE16-10-2826	Americium-241	1.26 g	0.00677	0.00529	0.0213	.005071429	pCi/g	YES
249329001	RE46-10-13964	Americium-241	1.29 g	2.38E-05	0.00628	0.0219	.004953488	pCi/g	YES
249329002	RE46-10-13966	Americium-241	1.25 g	0.000963	0.00517	0.0186	.005112	pCi/g	YES
249329003	RE46-10-13963	Americium-241	1.26 g	0.010	0.00825	0.0198	.005071429	pCi/g	YES
249329004	RE46-10-13965	Americium-241	1.25 g	0.0102	0.00552	0.0202	.005112	pCi/g	YES
249331001	RE46-10-13219	Americium-241	1.27 g	-0.00269	0.00477	0.020	.005031496	pCi/g	YES
249331002	RE46-10-13221	Americium-241	1.25 g	0.000989	0.00121	0.0188	.005112	pCi/g	YES
249331003	RE46-10-13220	Americium-241	1.26 g	0.0112	0.00364	0.0179	.005071429	pCi/g	YES
249331004	RE46-10-13216	Americium-241	1.25 g	0.00326	0.00197	0.0183	.005112	pCi/g	YES
249331005	RE46-10-13217	Americium-241	1.26 g	-0.000235	0.00167	0.0184	.005071429	pCi/g	YES
249331006	RE46-10-13218	Americium-241	1.28 g	0.0106	0.00657	0.0208	.004992188	pCi/g	YES
249331007	RE46-10-13234	Americium-241	1.26 g	-0.000124	0.00606	0.0202	.005071429	pCi/g	YES
249331008	RE46-10-14199	Americium-241	1.26 g	0.00616	0.00378	0.0197	.005071429	pCi/g	YES
249334001	RE46-10-12972	Americium-241	1.27 g	0.00647	0.00348	0.0205	.005031496	pCi/g	YES
249334002	RE46-10-13003	Americium-241	1.26 g	-0.00141	0.00239	0.0215	.005071429	pCi/g	YES
249334003	RE46-10-12967	Americium-241	1.29 g	0.00802	0.00332	0.0209	.004953488	pCi/g	YES
249334004	RE46-10-12971	Americium-241	1.25 g	0.00613	0.00568	0.0236	.005112	pCi/g	YES
249334005	RE46-10-12968	Americium-241	1.26 g	0.00732	0.00389	0.0227	.005071429	pCi/g	YES
249334006	RE46-10-12969	Americium-241	1.28 g	-0.00139	0.00191	0.021	.004992188	pCi/g	YES
249334007	RE46-10-12970	Americium-241	1.26 g	-0.000124	0.00183	0.0201	.005071429	pCi/g	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249331001_AM
SAMPLE QTY : 1.266 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 81.320

CHAMBER : 024
DETECTOR S/N : 76542
AVERAGE %EFFICIENCY : 34.2324
COUNT DATE : 27-MAR-2010 13:40:24
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B024.CNF;1112
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W024.CNF;303
CAL DATE : 4-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.8503E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5479.932	7.331	7.000	-2.100	8.000	2.7707	99.94000	-2.69E-03	4.77E-03	8.24E-03	2.00E-02	4.77E-03
AM243	5270.000	5287.806	33.823	634.000	632.000	2.000	1.4142	99.78000	8.10E-01	6.17E-02	4.21E-03	1.19E-02	3.23E-02
CM-242	6102.000	6057.637	177.135	18.000	16.000	2.000	4.0092	100.0000	2.20E-02	6.31E-03	1.19E-02	2.73E-02	6.14E-03
CM-3/4	5795.020	5762.313	5.797	16.000	-3.000	19.000	4.8510	100.0000	-3.84E-03	7.58E-03	1.44E-02	3.23E-02	7.58E-03
CM-5/6	5386.000	5378.320	0.000	5.000	3.000	2.000	6.1294	86.09000	4.45E-03	3.94E-03	2.12E-02	4.64E-02	3.93E-03
CM-247	4946.000	4854.352	109.812	2.000	1.000	1.000	6.3427	79.30000	1.61E-03	2.79E-03	2.38E-02	5.19E-02	2.79E-03
CM-248	5078.600	5070.552	39.308	4.000	3.000	1.000	11.0244	91.00000	4.21E-03	3.15E-03	3.60E-02	7.59E-02	3.14E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

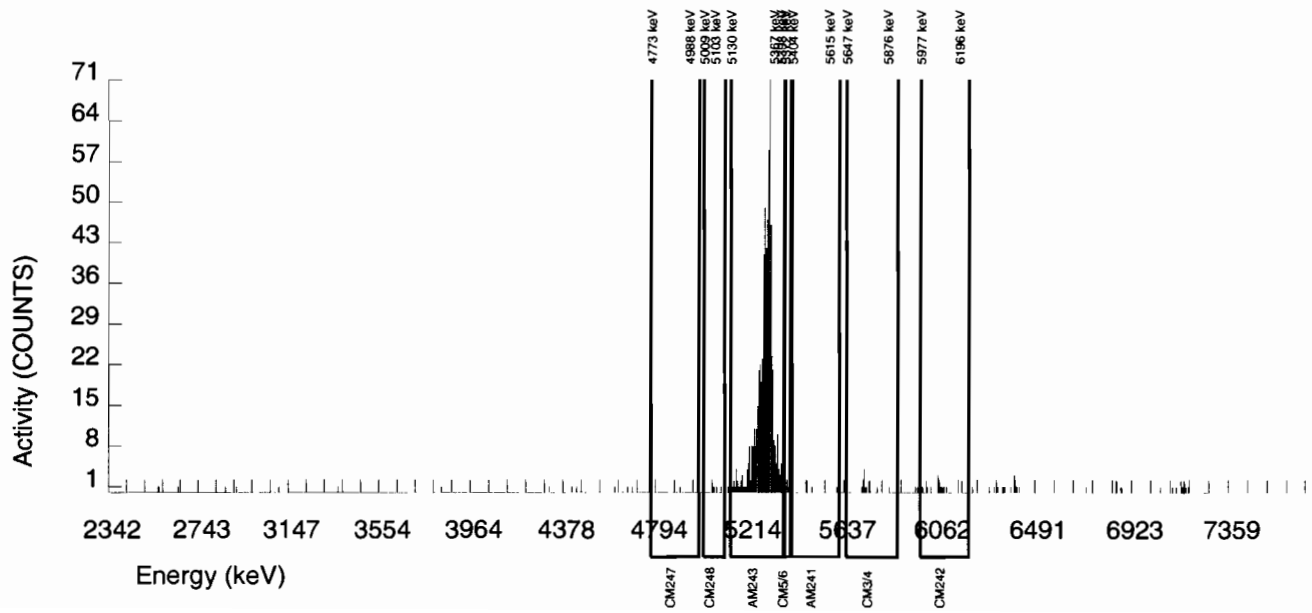

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249331002_AM
SAMPLE QTY : 1.252 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 81.997

CHAMBER : 043
DETECTOR S/N : 76543
AVERAGE %EFFICIENCY : 36.4208
COUNT DATE : 27-MAR-2010 13:40:28
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B043.CNF;1117
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W043.CNF;288
CAL DATE : 5-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.8657E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5573.908	0.000	2.000	0.820	0.000	2.7707	99.94000	9.89E-04	1.21E-03	7.77E-03	1.88E-02	1.21E-03
AM243	5270.000	5275.086	47.698	678.000	678.000	0.000	0.0000	99.78000	8.19E-01	6.11E-02	0.00E+00	3.27E-03	3.14E-02
CM-242	6102.000	6052.319	9.427	12.000	10.000	2.000	4.0092	100.0000	1.29E-02	4.91E-03	1.12E-02	2.57E-02	4.84E-03
CM-3/4	5795.020	5804.493	78.696	10.000	5.000	5.000	4.8510	100.0000	6.03E-03	4.69E-03	1.36E-02	3.05E-02	4.67E-03
CM-5/6	5386.000	5384.913	0.000	3.000	2.000	1.000	6.1294	86.09000	2.80E-03	2.80E-03	2.00E-02	4.37E-02	2.80E-03
CM-247	4946.000	4791.531	4.918	1.000	0.000	1.000	6.3427	79.30000	-1.81E-10	2.15E-03	2.24E-02	4.90E-02	2.15E-03
CM-248	5078.600	5061.829	0.000	9.000	7.000	2.000	11.0244	91.00000	9.27E-03	4.43E-03	3.40E-02	7.15E-02	4.39E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

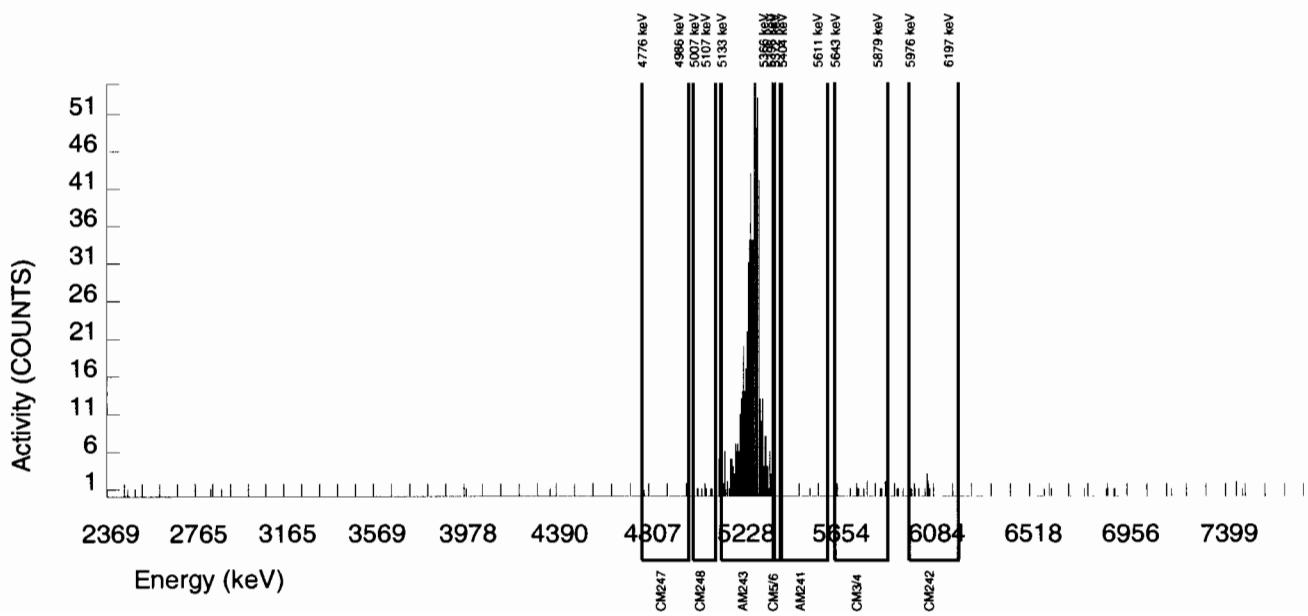

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249331003_AM
SAMPLE QTY : 1.256 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 88.110

CHAMBER : 044
DETECTOR S/N : 79459
AVERAGE %EFFICIENCY : 35.5933
COUNT DATE : 27-MAR-2010 13:40:28
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B044.CNF;1127
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W044.CNF;309
CAL DATE : 5-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 2.0048E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5513.823	24.768	11.000	9.761	0.000	2.7707	99.94000	1.12E-02	3.64E-03	7.38E-03	1.79E-02	3.58E-03
AM243	5270.000	5269.537	39.084	712.000	712.000	0.000	0.0000	99.78000	8.16E-01	6.02E-02	0.00E+00	3.11E-03	3.06E-02
CM-242	6102.000	6070.673	143.654	6.000	4.000	2.000	4.0092	100.0000	4.92E-03	3.49E-03	1.07E-02	2.44E-02	3.48E-03
CM-3/4	5795.020	5747.245	108.979	6.000	5.000	1.000	4.8510	100.0000	5.73E-03	3.05E-03	1.29E-02	2.89E-02	3.03E-03
CM-5/6	5386.000	5373.222	0.000	5.000	5.000	0.000	6.1294	86.09000	6.64E-03	3.00E-03	1.89E-02	4.15E-02	2.97E-03
CM-247	4946.000	4913.747	4.954	4.000	1.000	3.000	6.3427	79.30000	1.44E-03	3.82E-03	2.13E-02	4.65E-02	3.82E-03
CM-248	5078.600	5060.157	0.000	7.000	2.000	5.000	11.0244	91.00000	2.51E-03	4.36E-03	3.22E-02	6.79E-02	4.35E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

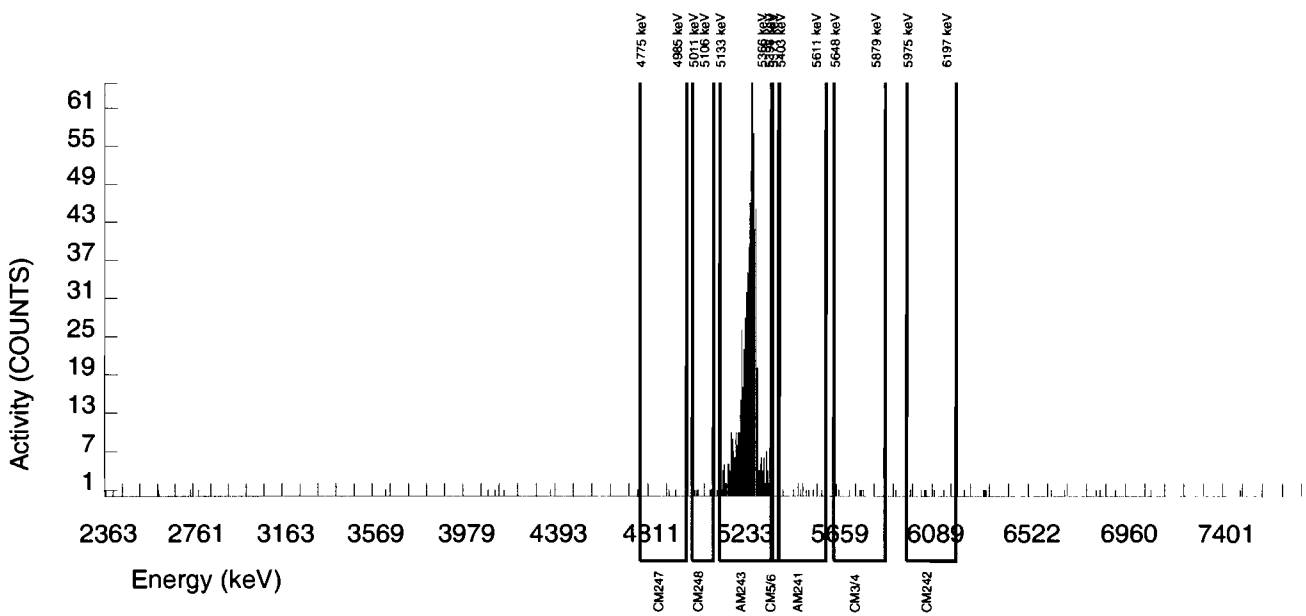

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249331004_AM
SAMPLE QTY : 1.251 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 90.509

CHAMBER : 045
DETECTOR S/N : 78783
AVERAGE %EFFICIENCY : 33.9687
COUNT DATE : 27-MAR-2010 13:40:28
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B045.CNF;1116
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W045.CNF;300
CAL DATE : 5-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 2.0594E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5493.207	103.774	4.000	2.786	0.000	2.7707	99.94000	3.26E-03	1.97E-03	7.55E-03	1.83E-02	1.96E-03
AM243	5270.000	5269.248	37.320	698.000	698.000	0.000	0.0000	99.78000	8.19E-01	6.07E-02	0.00E+00	3.18E-03	3.10E-02
CM-242	6102.000	6044.905	88.949	6.000	6.000	0.000	4.0092	100.0000	7.55E-03	3.12E-03	1.09E-02	2.50E-02	3.08E-03
CM-3/4	5795.020	5746.804	7.258	10.000	7.000	3.000	4.8510	100.0000	8.21E-03	4.26E-03	1.32E-02	2.96E-02	4.23E-03
CM-5/6	5386.000	5376.230	0.000	2.000	2.000	0.000	6.1294	86.09000	2.72E-03	1.93E-03	1.94E-02	4.25E-02	1.92E-03
CM-247	4946.000	4886.842	79.066	3.000	2.000	1.000	6.3427	79.30000	2.95E-03	2.96E-03	2.18E-02	4.76E-02	2.95E-03
CM-248	5078.600	5070.046	4.942	7.000	7.000	0.000	11.0244	91.00000	9.01E-03	3.45E-03	3.30E-02	6.95E-02	3.41E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

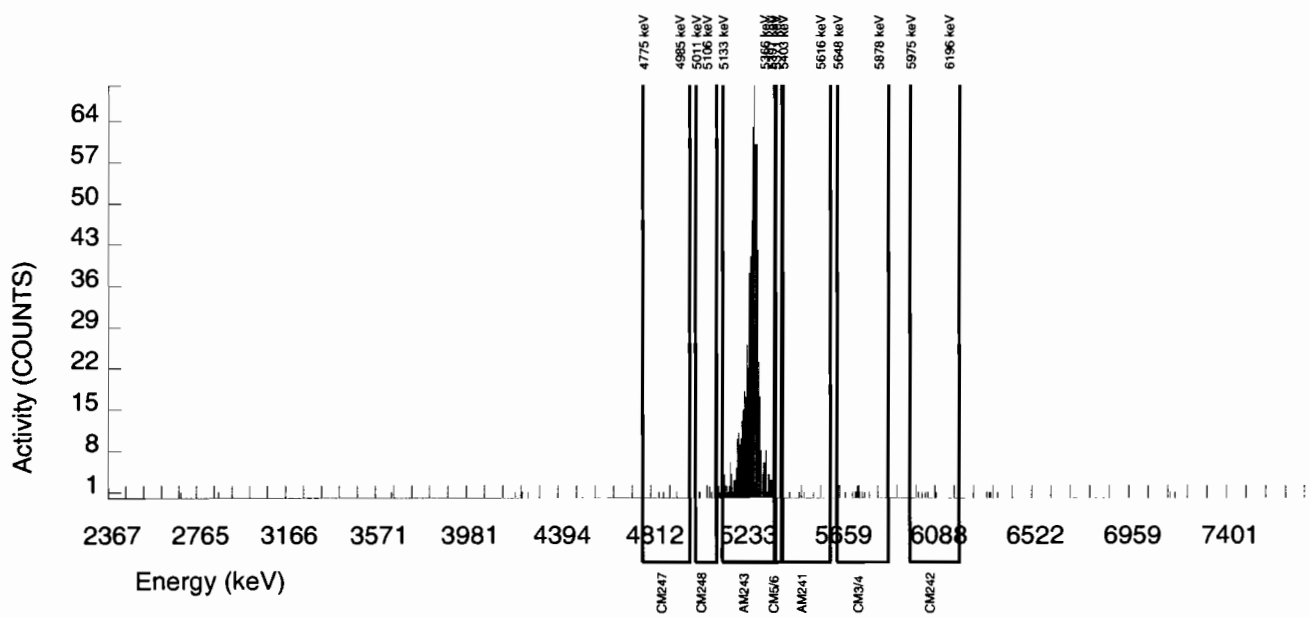

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249331005_AM
SAMPLE QTY : 1.256 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 86.586

CHAMBER : 046
DETECTOR S/N : 76544
AVERAGE %EFFICIENCY : 35.0500
COUNT DATE : 27-MAR-2010 13:40:28
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B046.CNF;1127
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W046.CNF;291
CAL DATE : 5-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.9701E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5517.587	122.052	2.000	-0.199	1.000	2.7707	99.94000	-2.35E-04	1.67E-03	7.62E-03	1.84E-02	1.67E-03
AM243	5270.000	5271.229	49.795	689.000	689.000	0.000	0.0000	99.78000	8.16E-01	6.07E-02	0.00E+00	3.21E-03	3.11E-02
CM-242	6102.000	6081.947	0.000	11.000	10.000	1.000	4.0092	100.0000	1.27E-02	4.47E-03	1.10E-02	2.52E-02	4.40E-03
CM-3/4	5795.020	5760.362	200.166	15.000	11.000	4.000	4.8510	100.0000	1.30E-02	5.23E-03	1.33E-02	2.99E-02	5.16E-03
CM-5/6	5386.000	5379.419	4.882	2.000	2.000	0.000	6.1294	86.09000	2.75E-03	1.95E-03	1.96E-02	4.29E-02	1.94E-03
CM-247	4946.000	4902.248	136.699	2.000	0.000	2.000	6.3427	79.30000	-3.55E-10	2.98E-03	2.20E-02	4.80E-02	2.98E-03
CM-248	5078.600	5065.281	6.052	11.000	11.000	0.000	11.0244	91.00000	1.43E-02	4.40E-03	3.33E-02	7.01E-02	4.31E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

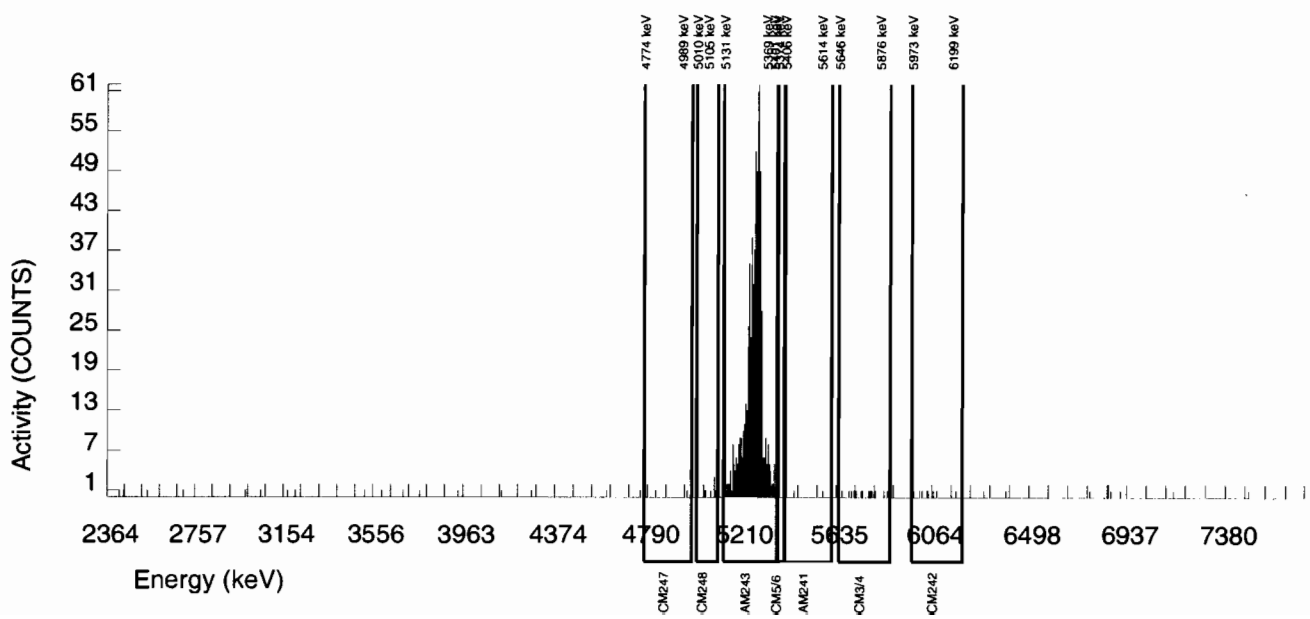

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249331006_AM
SAMPLE QTY : 1.277 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 79.419

CHAMBER : 048
DETECTOR S/N : 42483
AVERAGE %EFFICIENCY : 33.2770
COUNT DATE : 27-MAR-2010 13:40:28
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B048.CNF;1123
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W048.CNF;318
CAL DATE : 5-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.8070E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5465.792	44.577	17.000	7.956	8.000	2.7707	99.94000	1.06E-02	6.57E-03	8.61E-03	2.08E-02	6.54E-03
AM243	5270.000	5275.563	36.731	610.000	600.000	10.000	3.1623	99.78000	8.03E-01	6.26E-02	9.84E-03	2.33E-02	3.33E-02
CM-242	6102.000	6053.496	0.000	6.000	3.000	3.000	4.0092	100.0000	4.30E-03	4.31E-03	1.24E-02	2.85E-02	4.30E-03
CM-3/4	5795.020	5733.287	42.101	14.000	6.000	8.000	4.8510	100.0000	8.02E-03	6.29E-03	1.51E-02	3.37E-02	6.27E-03
CM-5/6	5386.000	5383.255	14.859	2.000	1.000	1.000	6.1294	86.09000	1.55E-03	2.69E-03	2.21E-02	4.84E-02	2.69E-03
CM-247	4946.000	4930.400	0.000	9.000	5.000	4.000	6.3427	79.30000	8.42E-03	6.09E-03	2.48E-02	5.42E-02	6.07E-03
CM-248	5078.600	5085.262	4.953	4.000	3.000	1.000	11.0244	91.00000	4.40E-03	3.29E-03	3.76E-02	7.92E-02	3.28E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)
* BKG Sg of AM243 calculated as sqrt(BKG AREA).
* Corrections made to the following net area due to tracer impurity:
  AM-241

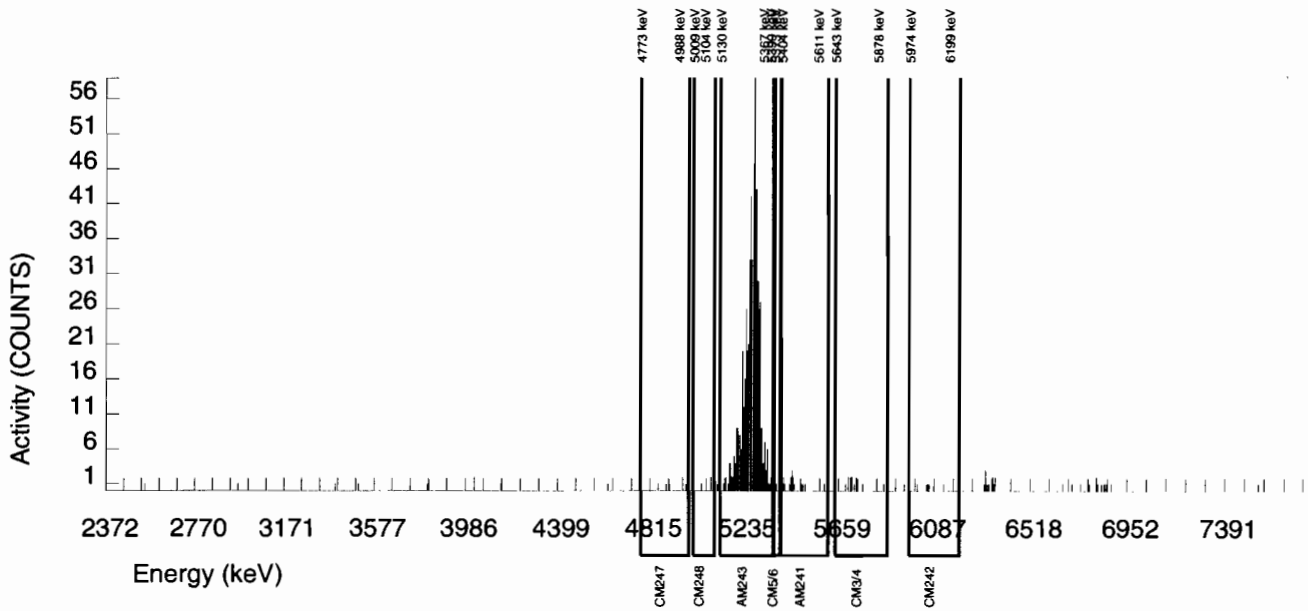

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249331007_AM
SAMPLE QTY : 1.255 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 82.379

CHAMBER : 072
DETECTOR S/N : 45-149AA3
AVERAGE %EFFICIENCY : 33.6853
COUNT DATE : 27-MAR-2010 13:40:29
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B072.CNF;1110
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W072.CNF;279
CAL DATE : 12-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.8744E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5449.490	14.235	12.000	-0.096	11.000	2.7707	99.94000	-1.24E-04	6.06E-03	8.34E-03	2.02E-02	6.06E-03
AM243	5270.000	5266.183	59.753	633.000	630.000	3.000	1.7321	99.78000	8.17E-01	6.23E-02	5.22E-03	1.40E-02	3.27E-02
CM-242	6102.000	6056.156	133.689	6.000	4.000	2.000	4.0092	100.0000	5.56E-03	3.95E-03	1.21E-02	2.76E-02	3.93E-03
CM-3/4	5795.020	5733.714	4.951	12.000	0.000	12.000	4.8510	100.0000	-2.47E-09	6.35E-03	1.46E-02	3.27E-02	6.35E-03
CM-5/6	5386.000	5388.690	0.000	3.000	2.000	1.000	6.1294	86.09000	3.00E-03	3.01E-03	2.14E-02	4.69E-02	3.00E-03
CM-247	4946.000	4883.313	153.495	6.000	5.000	1.000	6.3427	79.30000	8.16E-03	4.35E-03	2.41E-02	5.26E-02	4.32E-03
CM-248	5078.600	5069.331	0.000	9.000	8.000	1.000	11.0244	91.00000	1.14E-02	4.56E-03	3.65E-02	7.68E-02	4.49E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

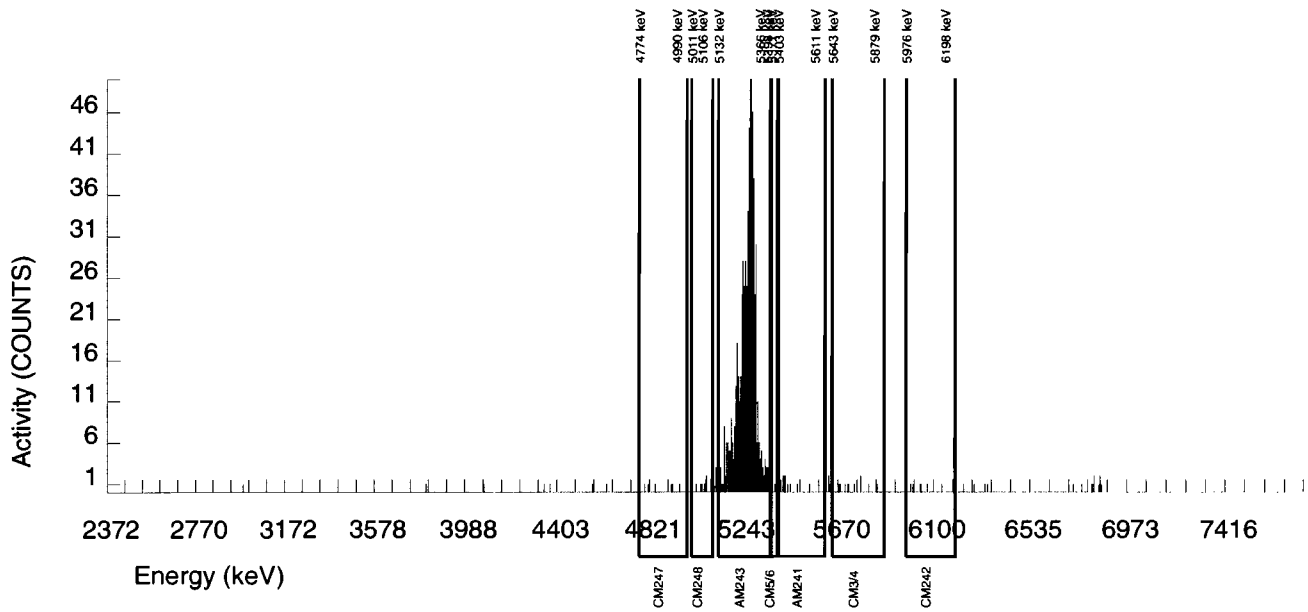

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249331008_AM
SAMPLE QTY : 1.261 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 85.369

CHAMBER : 073
DETECTOR S/N : 78775
AVERAGE %EFFICIENCY : 33.1763
COUNT DATE : 27-MAR-2010 13:40:29
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B073.CNF;1112
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W073.CNF;287
CAL DATE : 12-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.9424E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5475.258	4.931	8.000	4.881	2.000	2.7707	99.94000	6.16E-03	3.78E-03	8.13E-03	1.97E-02	3.76E-03
AM243	5270.000	5279.811	26.226	644.000	643.000	1.000	1.0000	99.78000	8.13E-01	6.16E-02	2.94E-03	9.31E-03	3.21E-02
CM-242	6102.000	6023.949	4.931	6.000	5.000	1.000	4.0092	100.0000	6.78E-03	3.61E-03	1.18E-02	2.69E-02	3.59E-03
CM-3/4	5795.020	5744.364	108.489	7.000	6.000	1.000	4.8510	100.0000	7.58E-03	3.61E-03	1.42E-02	3.19E-02	3.57E-03
CM-5/6	5386.000	5381.617	0.000	2.000	2.000	0.000	6.1294	86.09000	2.93E-03	2.08E-03	2.09E-02	4.58E-02	2.07E-03
CM-247	4946.000	4898.624	4.931	5.000	2.000	3.000	6.3427	79.30000	3.18E-03	4.50E-03	2.35E-02	5.12E-02	4.50E-03
CM-248	5078.600	5093.296	0.000	3.000	1.000	2.000	11.0244	91.00000	1.39E-03	3.10E-03	3.55E-02	7.48E-02	3.10E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

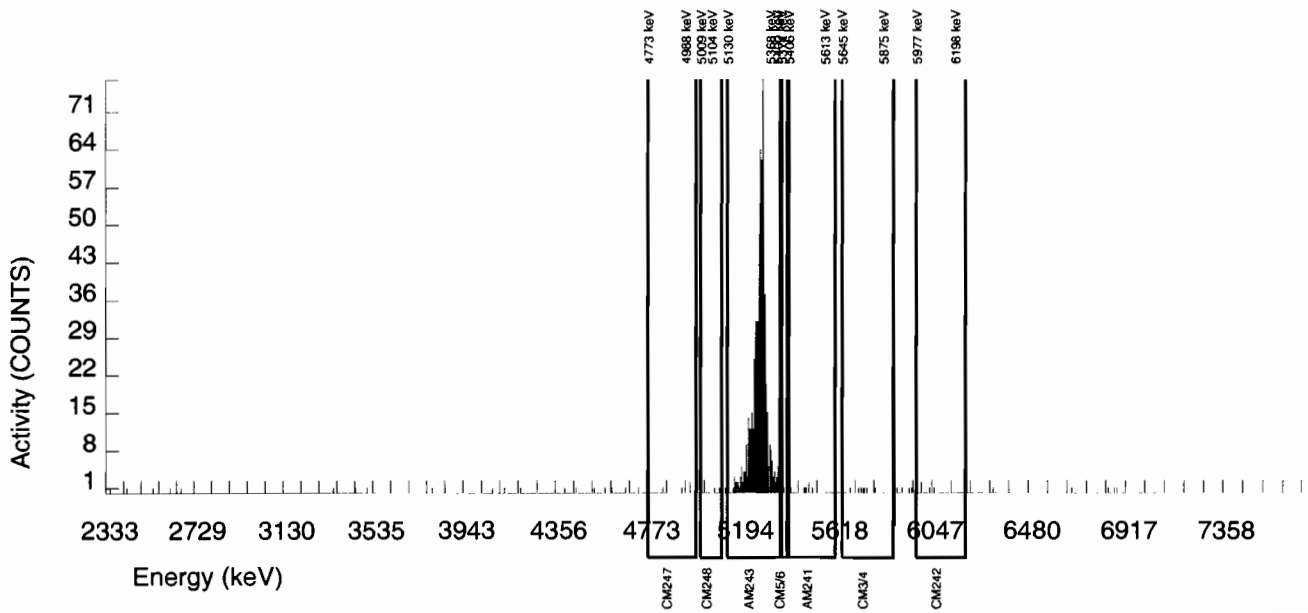

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249334001_AM
SAMPLE QTY : 1.267 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 85.417

CHAMBER : 074
DETECTOR S/N : 78266
AVERAGE %EFFICIENCY : 31.7138
COUNT DATE : 27-MAR-2010 13:40:29
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B074.CNF;1134
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W074.CNF;334
CAL DATE : 12-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.9435E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5488.044	99.355	7.000	4.930	1.000	2.7707	99.94000	6.47E-03	3.48E-03	8.46E-03	2.05E-02	3.46E-03
AM243	5270.000	5271.861	35.684	616.000	615.000	1.000	1.0000	99.78000	8.09E-01	6.21E-02	3.06E-03	9.68E-03	3.27E-02
CM-242	6102.000	6032.807	34.153	12.000	12.000	0.000	4.0092	100.0000	1.69E-02	5.01E-03	1.22E-02	2.80E-02	4.89E-03
CM-3/4	5795.020	5732.833	114.258	6.000	4.000	2.000	4.8510	100.0000	5.26E-03	3.73E-03	1.48E-02	3.32E-02	3.72E-03
CM-5/6	5386.000	5383.201	0.000	1.000	1.000	0.000	6.1294	86.09000	1.52E-03	1.53E-03	2.17E-02	4.76E-02	1.52E-03
CM-247	4946.000	4853.142	183.186	4.000	1.000	3.000	6.3427	79.30000	1.66E-03	4.38E-03	2.44E-02	5.33E-02	4.38E-03
CM-248	5078.600	5064.426	9.315	2.000	2.000	0.000	11.0244	91.00000	2.88E-03	2.05E-03	3.70E-02	7.79E-02	2.04E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

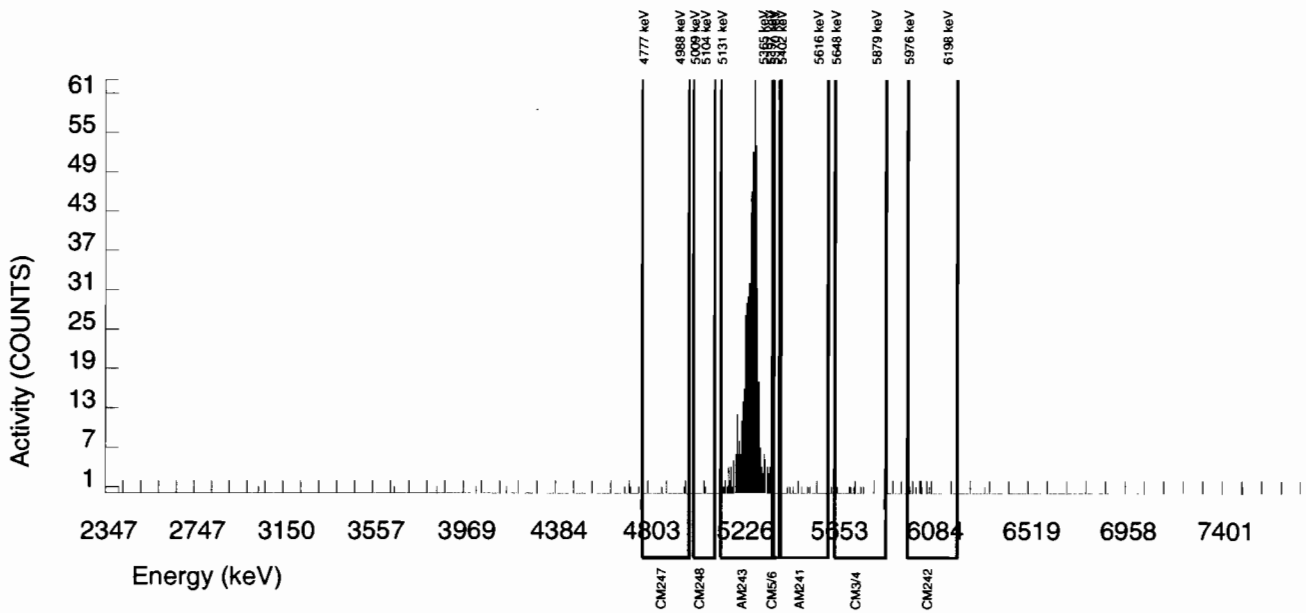

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S1202071683_AM
SAMPLE QTY : 1.000 G
SAMPLE DATE : 23-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 81.471

CHAMBER : 082
DETECTOR S/N : 79997
AVERAGE %EFFICIENCY : 33.8443
COUNT DATE : 27-MAR-2010 13:40:30
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B082.CNF;1027
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W082.CNF;259
CAL DATE : 12-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.8537E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3148E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3148E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5530.466	113.058	6.000	3.911	1.000	2.7707	99.94000	6.39E-03	4.00E-03	1.05E-02	2.55E-02	3.97E-03
AM243	5270.000	5277.986	28.480	627.000	626.000	1.000	1.0000	99.78000	1.02E+00	7.83E-02	3.81E-03	1.21E-02	4.10E-02
CM-242	6102.000	6052.082	59.206	12.000	12.000	0.000	4.0092	100.0000	2.00E-02	5.92E-03	1.52E-02	3.49E-02	5.78E-03
CM-3/4	5795.020	5788.211	4.942	5.000	5.000	0.000	4.8510	100.0000	8.17E-03	3.69E-03	1.84E-02	4.13E-02	3.65E-03
CM-5/6	5386.000	5374.251	0.000	5.000	5.000	0.000	6.1294	86.09000	9.49E-03	4.29E-03	2.71E-02	5.93E-02	4.24E-03
CM-247	4946.000	4880.654	163.100	3.000	0.000	3.000	6.3427	79.30000	0.00E+00	5.05E-03	3.04E-02	6.64E-02	5.05E-03
CM-248	5078.600	5067.046	4.942	8.000	8.000	0.000	11.0244	91.00000	1.44E-02	5.16E-03	4.60E-02	9.69E-02	5.08E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

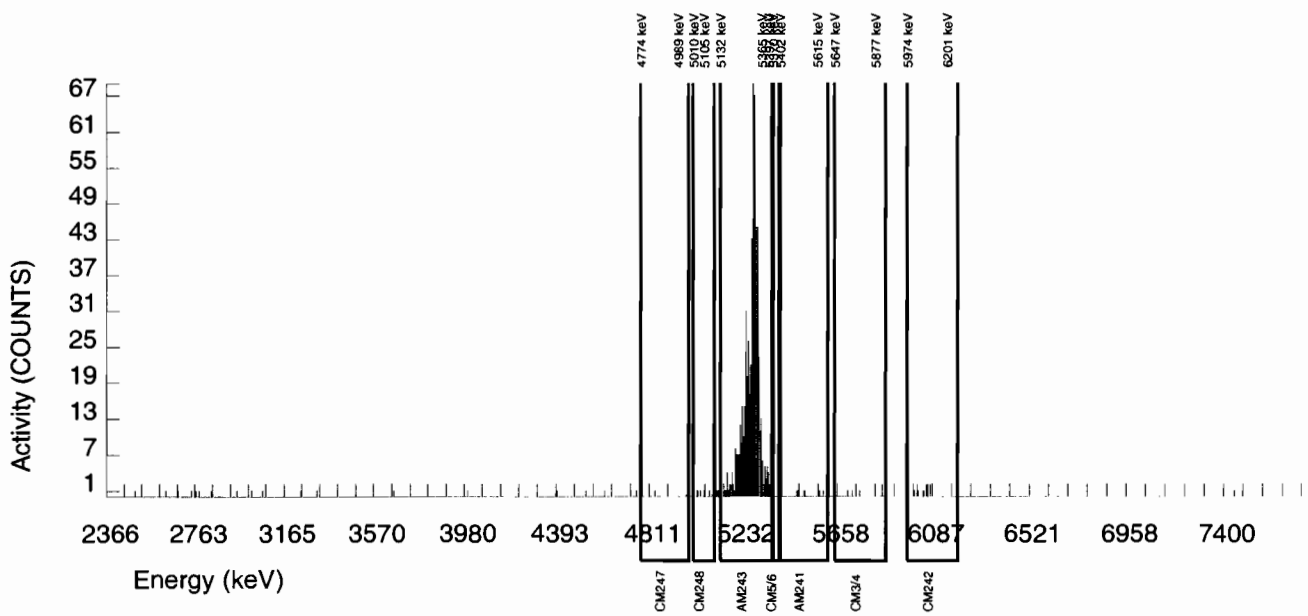

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S1202071684_AM
SAMPLE QTY : 1.259 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 82.403

CHAMBER : 083
DETECTOR S/N : 64278
AVERAGE %EFFICIENCY : 35.8135
COUNT DATE : 27-MAR-2010 13:40:31
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B083.CNF;1034
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W083.CNF;294
CAL DATE : 12-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.8749E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5479.340	7.431	9.000	2.834	5.000	2.7707	99.94000	3.44E-03	4.35E-03	7.82E-03	1.89E-02	4.35E-03
AM243	5270.000	5290.171	53.958	672.000	670.000	2.000	1.4142	99.78000	8.14E-01	6.11E-02	4.00E-03	1.13E-02	3.15E-02
CM-242	6102.000	6057.787	0.000	11.000	8.000	3.000	4.0092	100.0000	1.04E-02	4.92E-03	1.13E-02	2.59E-02	4.87E-03
CM-3/4	5795.020	5756.569	6.272	8.000	0.000	8.000	4.8510	100.0000	5.79E-10	4.86E-03	1.37E-02	3.06E-02	4.86E-03
CM-5/6	5386.000	5380.197	10.409	11.000	8.000	3.000	6.1294	86.09000	1.13E-02	5.32E-03	2.01E-02	4.40E-02	5.27E-03
CM-247	4946.000	4880.540	156.852	4.000	1.000	3.000	6.3427	79.30000	1.53E-03	4.05E-03	2.26E-02	4.93E-02	4.04E-03
CM-248	5078.600	5067.657	7.431	11.000	11.000	0.000	11.0244	91.00000	1.47E-02	4.52E-03	3.42E-02	7.19E-02	4.42E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

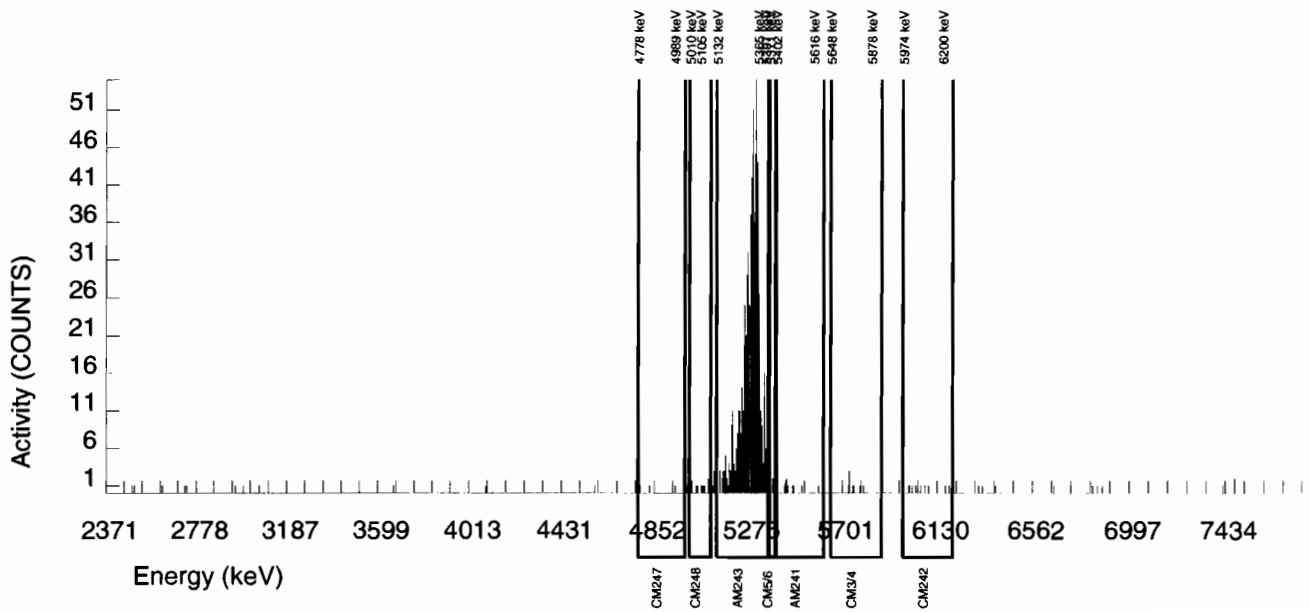

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S1202071685_AM
SAMPLE QTY : 0.115 G
SAMPLE DATE : 23-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 100.827

CHAMBER : 085
DETECTOR S/N : 78776
AVERAGE %EFFICIENCY : 32.8080
COUNT DATE : 27-MAR-2010 13:40:31
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B085.CNF;1035
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W085.CNF;304
CAL DATE : 12-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 2.2941E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3148E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3148E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5482.168	40.262	2260.000	2255.693	3.000	2.7707	99.94000	2.67E+01	1.92E+00	7.64E-02	1.85E-01	5.63E-01
AM243	5270.000	5265.295	41.816	752.000	751.000	1.000	1.0000	99.78000	8.91E+00	6.95E-01	2.76E-02	8.74E-02	3.26E-01
CM-242	6102.000	6036.202	6.201	10.000	10.000	0.000	4.0092	100.0000	1.21E-01	3.91E-02	1.10E-01	2.53E-01	3.82E-02
CM-3/4	5795.020	5734.394	6.201	7.000	6.000	1.000	4.8510	100.0000	7.11E-02	3.39E-02	1.34E-01	2.99E-01	3.35E-02
CM-5/6	5386.000	5386.222	0.000	69.000	69.000	0.000	6.1294	86.09000	9.49E-01	1.32E-01	1.96E-01	4.30E-01	1.14E-01
CM-247	4946.000	4886.554	0.000	23.000	23.000	0.000	6.3427	79.30000	3.43E-01	7.54E-02	2.20E-01	4.81E-01	7.16E-02
CM-248	5078.600	5060.574	0.000	23.000	23.000	0.000	11.0244	91.00000	2.99E-01	6.57E-02	3.34E-01	7.03E-01	6.24E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

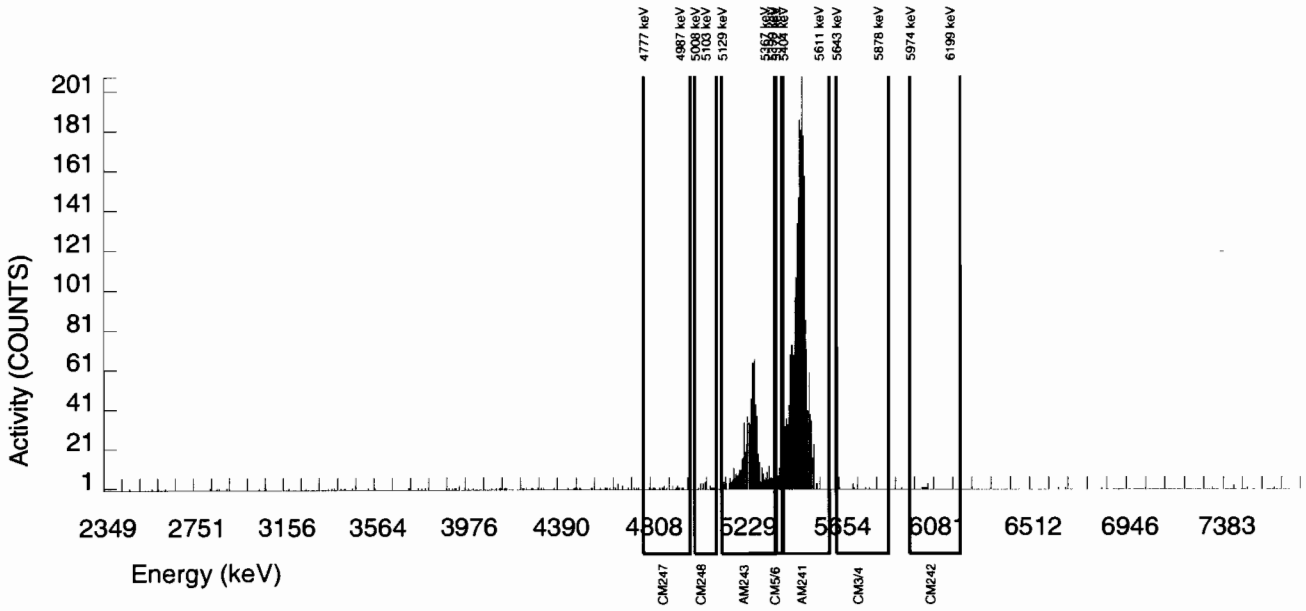

Radiochemistry Batch Checklist, Rev10

Batch# 965503 Product: Pu Date: 3/30/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125%. Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		case narrative
Sample was run within hold time	✓		
Sample was correctly preserved if required	✓		
Smears Taken for Radioactive batches			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
CC data entered into CC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JoLAL 3/30/10

Secondary Review Performed By: KBWellstt 3/30/10

3/31

LANL

Plutonium Que Sheet

15-MAR-10

Batch #: 965503 Pu-236 Analyst: CXM2 First Client Due Date:31-MAR-10 Internal Due Date:21-MAR-10

Tracer Isotope(s): ~~Pu-242~~/~~Pu-238~~ 3/31/10 CMM Tracer Code: 1430-C Expiration Date: 3/4/11 Vol: 0.1mL

LCS Isotope(s): Pu-239/Pu-238 LCS Code: 0244-B Expiration Date: 4/30/20 Vol: 0.115 g * SRM

Spike Isotope(s): Pu-239/Pu-238 Spike Code: Expiration Date: — Vol: —

Prep Date: 3/23/10 Initials: CMM Pipet ID: 4497063 Balance ID: 50410272 Witness: MW 3/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) (1/f)	Pu Det #
249060003-1	RE16-10-2826	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	1	1	1.259	72
249329001-1	RE46-10-13964	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	2	2	1.290	73
249329002-1	RE46-10-13966	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	3	3	1.254	74
249329003-1	RE46-10-13963	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	4	4	1.260	75
249329004-1	RE46-10-13965	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	5	5	1.252	76
249331001-1	RE46-10-13219	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	6	6	1.266	77
249331002-1	RE46-10-13221	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	7	7	1.252	78
249331003-1	RE46-10-13220	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	8	8	1.256	80
249331004-1	RE46-10-13216	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	9	9	1.251	81
249331005-1	RE46-10-13217	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	10	10	1.256	82
249331006-1	RE46-10-13218	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	11	11	1.277	83
249331007-1	RE46-10-13234	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	12	12	1.255	84
249331008-1	RE46-10-14199	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	13	13	1.261	31 ~~85~~ 3/34
249334001-1	RE46-10-12972	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	14	14	1.267	86
249334002-1	RE46-10-13003	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	15	15	1.264	87
249334003-1	RE46-10-12967	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	16	16	1.292	88
249334004-1	RE46-10-12971	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	17	17	1.250	89
249334005-1	RE46-10-12968	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	18	18	1.260	90
249334006-1	RE46-10-12969	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	19	19	1.280	91
249334007-1	RE46-10-12970	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	20	20	1.259	93
1202071686-1	MB for batch 965503	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1	94
1202071687-1	RE46-10-12972(249334001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	11-MAR-10	22	22	1.259	13
1202071688-1	LCS for batch 965503	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.115	14

* SRM 0244-B Exp 4/30/20

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION Circle One

Data Reviewed By: JPL 3/30/10

Blank Correction Report

Batch ID 965503

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202071687	DUP	Plutonium-238	1.26 g	0.0121	0.00691	0.0231	.001738095	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00368	0.00463	0.0195	.006960317	pCi/g	YES
1202071688	LCS	Plutonium-238	0.115 g	5.19	0.475	0.255	.019043478	pCi/g	NO
		Plutonium-239/240	0.115 g	37.6	2.61	0.215	.076260870	pCi/g	NO
1202071686	MB	Plutonium-238	1.00 g	0.00219	0.0022	0.0291	.00219	pCi/g	YES
		Plutonium-239/240	1.00 g	0.00877	0.00441	0.0246	.00877	pCi/g	YES
249060003	RE16-10-2826	Plutonium-238	1.26 g	0.00681	0.00904	0.0293	.001738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0161	0.00652	0.0248	.006960317	pCi/g	YES
249329001	RE46-10-13964	Plutonium-238	1.29 g	0.00	0.0018	0.0239	.001697674	pCi/g	YES
		Plutonium-239/240	1.29 g	0.00151	0.00384	0.0202	.006798450	pCi/g	YES
249329002	RE46-10-13966	Plutonium-238	1.25 g	0.00463	0.00382	0.027	.001752	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0133	0.00616	0.0228	.007016	pCi/g	YES
249329003	RE46-10-13963	Plutonium-238	1.26 g	0.0135	0.00656	0.0338	.001738095	pCi/g	NO
		Plutonium-239/240	1.26 g	-0.00662	0.00483	0.0286	.006960317	pCi/g	YES
249329004	RE46-10-13965	Plutonium-238	1.25 g	0.000577	0.00254	0.0273	.001752	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00585	0.00529	0.0231	.007016	pCi/g	YES
249331001	RE46-10-13219	Plutonium-238	1.27 g	0.00509	0.00605	0.0252	.001724409	pCi/g	YES
		Plutonium-239/240	1.27 g	-0.000304	0.00358	0.0213	.006905512	pCi/g	YES
249331002	RE46-10-13221	Plutonium-238	1.25 g	0.000669	0.00295	0.0317	.001752	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00477	0.00339	0.0268	.007016	pCi/g	YES
249331003	RE46-10-13220	Plutonium-238	1.26 g	0.00496	0.00409	0.0289	.001738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0152	0.00583	0.0244	.006960317	pCi/g	YES
249331004	RE46-10-13216	Plutonium-238	1.25 g	0.0139	0.00565	0.0254	.001752	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00819	0.00452	0.0215	.007016	pCi/g	YES
249331005	RE46-10-13217	Plutonium-238	1.26 g	0.00258	0.0032	0.0267	.001738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00403	0.00286	0.0226	.006960317	pCi/g	YES
249331006	RE46-10-13218	Plutonium-238	1.28 g	-0.00128	0.00511	0.0224	.001710938	pCi/g	YES
		Plutonium-239/240	1.28 g	0.0359	0.00828	0.019	.006851563	pCi/g	NO
249331007	RE46-10-13234	Plutonium-238	1.26 g	0.00324	0.00417	0.0276	.001738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00946	0.00553	0.0233	.006960317	pCi/g	YES
249331008	RE46-10-14199	Plutonium-238	1.26 g	0.00926	0.00599	0.0344	.001738095	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0304	0.0101	0.029	.006960317	pCi/g	YES
249334001	RE46-10-12972	Plutonium-238	1.27 g	-0.00287	0.00285	0.0265	.001724409	pCi/g	YES
		Plutonium-239/240	1.27 g	0.00567	0.00512	0.0224	.006905512	pCi/g	YES
249334002	RE46-10-13003	Plutonium-238	1.26 g	-0.00202	0.00536	0.0258	.001738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.000466	0.00618	0.0218	.006960317	pCi/g	YES
249334003	RE46-10-12967	Plutonium-238	1.29 g	0.00943	0.00793	0.0234	.001697674	pCi/g	NO
		Plutonium-239/240	1.29 g	0.0165	0.00701	0.0197	.006798450	pCi/g	YES
249334004	RE46-10-12971	Plutonium-238	1.25 g	0.00388	0.00275	0.0257	.001752	pCi/g	YES

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
249334004	RE46-10-12971	Plutonium-239/240	1.25 g	0.0213	0.00656	0.0218	.007016	pCi/g	YES
249334005	RE46-10-12968	Plutonium-238	1.26 g	0.0105	0.00433	0.0233	.001738095	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0123	0.00469	0.0197	.006960317	pCi/g	YES
249334006	RE46-10-12969	Plutonium-238	1.28 g	0.00	0.0021	0.0279	.001710938	pCi/g	YES
		Plutonium-239/240	1.28 g	0.0105	0.00474	0.0236	.006851563	pCi/g	YES
249334007	RE46-10-12970	Plutonium-238	1.25 g	0.00697	0.00483	0.026	.001752	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00838	0.00463	0.022	.007016	pCi/g	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249331001_PU
SAMPLE QTY : 1.266 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 77.778

CHAMBER : 077
DETECTOR S/N : 67576
AVERAGE %EFFICIENCY : 33.4679
COUNT DATE : 26-MAR-2010 17:20:07
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B077.CNF;1027
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W077.CNF;265
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.3241E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5774.144	38.972	557.000	554.120	2.880	1.6971	100.0000	1.06E+00	7.80E-02	6.95E-03	1.90E-02	4.54E-02
PU-238	5499.000	5463.800	7.255	7.000	2.680	4.320	2.4495	99.90000	5.09E-03	6.05E-03	1.00E-02	2.52E-02	6.04E-03
PU-9/0	5155.000	5032.589	9.262	2.000	-0.160	2.160	1.9732	99.90000	-3.04E-04	3.58E-03	8.09E-03	2.13E-02	3.58E-03
PU242	4890.000	4794.393	212.416	2.000	0.560	1.440	*******	100.0000	1.06E-03	3.31E-03	5.10E-01	1.03E+00	3.31E-03
PU-244	4589.000	4539.234	4.940	1.000	1.000	0.000	6.4609	99.90000	1.90E-03	1.90E-03	2.65E-02	5.81E-02	1.90E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

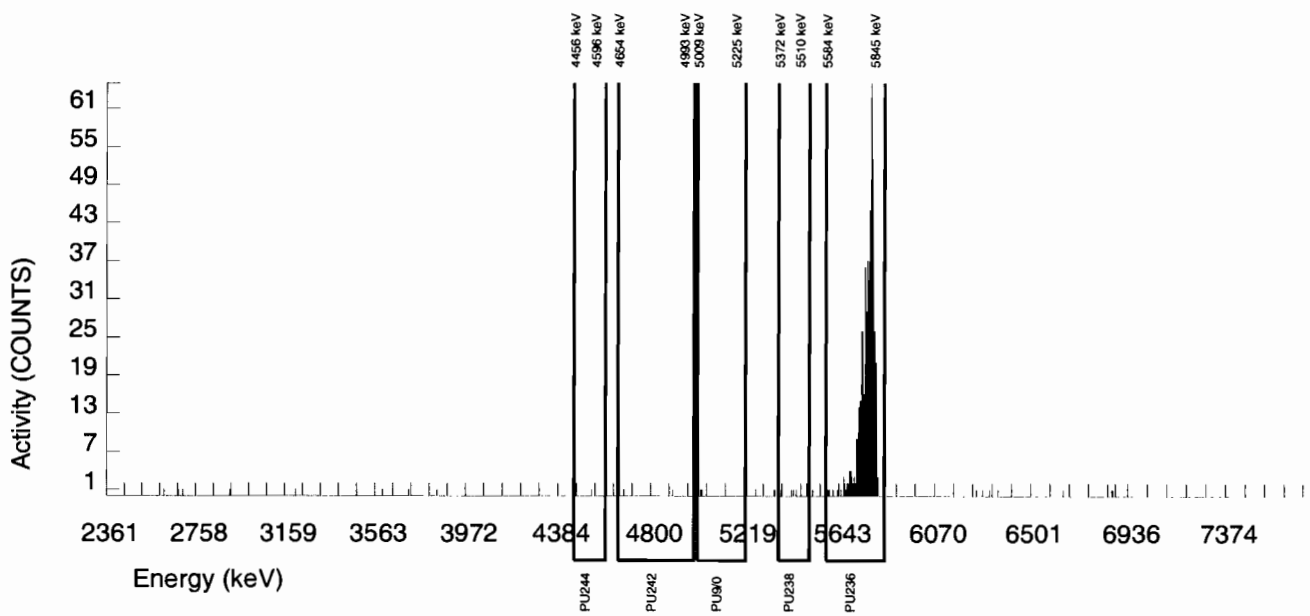

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503	CHAMBER : 079	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0249331002_PU	DETECTOR S/N : 79466	BKG FILE : B079.CNF;1029
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 32.2433	BKG DATE : 21-MAR-2010
SAMPLE DATE : 11-MAR-2010 00:00:00	COUNT DATE : 26-MAR-2010 17:20:07	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W079.CNF;270
% YIELD : 64.980		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9881E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 1.9416E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5764.573	31.064	446.000	446.000	0.000	0.0000	100.0000	1.08E+00	8.48E-02	0.00E+00	6.46E-03	5.09E-02
PU-238	5499.000	5427.479	4.900	1.000	0.280	0.720	2.4495	99.90000	6.69E-04	2.95E-03	1.26E-02	3.17E-02	2.94E-03
PU-9/0	5155.000	5077.348	19.601	2.000	2.000	0.000	1.9732	99.90000	4.77E-03	3.39E-03	1.02E-02	2.68E-02	3.38E-03
PU242	4890.000	4776.883	171.507	3.000	2.280	0.720	*******	100.0000	5.44E-03	4.49E-03	6.41E-01	1.29E+00	4.47E-03
PU-244	4589.000	4525.091	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	2.39E-03	3.33E-02	7.30E-02	2.39E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

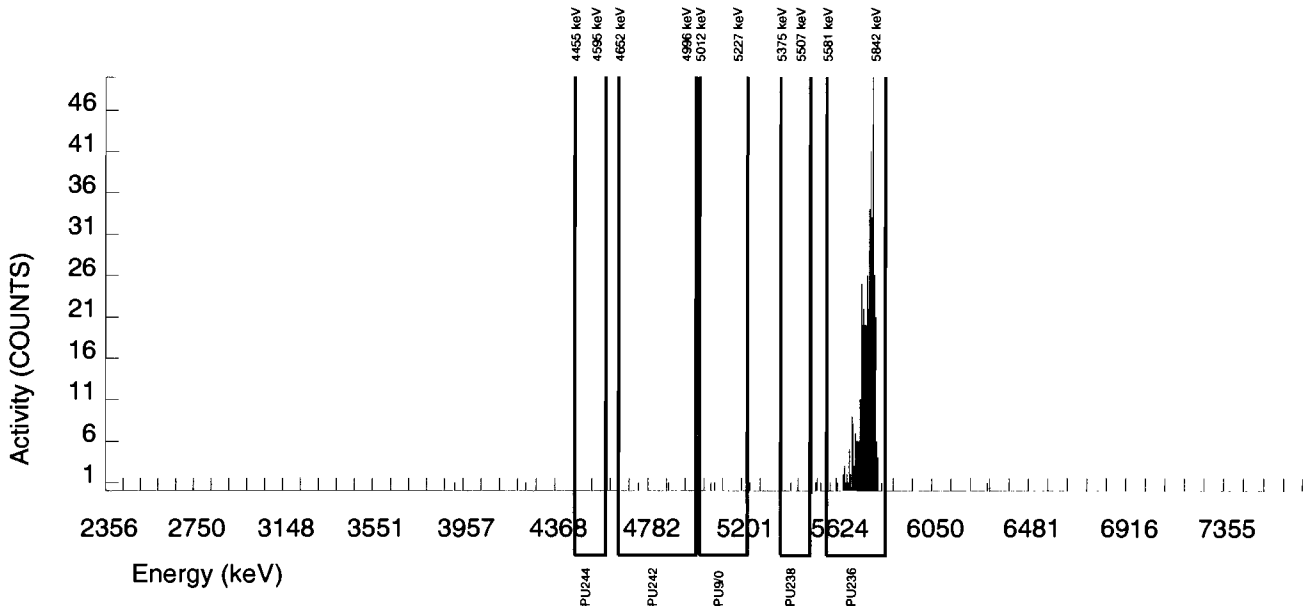

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249331003_PU
SAMPLE QTY : 1.256 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 68.789

CHAMBER : 080
DETECTOR S/N : 78197
AVERAGE %EFFICIENCY : 33.3151
COUNT DATE : 26-MAR-2010 17:20:07
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B080.CNF;1030
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W080.CNF;278
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.0555E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5764.453	44.139	490.000	487.840	2.160	1.4697	100.0000	1.07E+00	8.21E-02	6.89E-03	1.97E-02	4.87E-02
PU-238	5499.000	5407.143	54.947	3.000	2.280	0.720	2.4495	99.90000	4.96E-03	4.09E-03	1.15E-02	2.89E-02	4.08E-03
PU-9/0	5155.000	5165.558	12.020	7.000	7.000	0.000	1.9732	99.90000	1.52E-02	5.83E-03	9.26E-03	2.44E-02	5.76E-03
PU242	4890.000	4864.012	0.000	4.000	4.000	0.000	*******	100.0000	8.69E-03	4.38E-03	5.84E-01	1.17E+00	4.35E-03
PU-244	4589.000	4524.647	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	2.18E-03	3.03E-02	6.65E-02	2.18E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

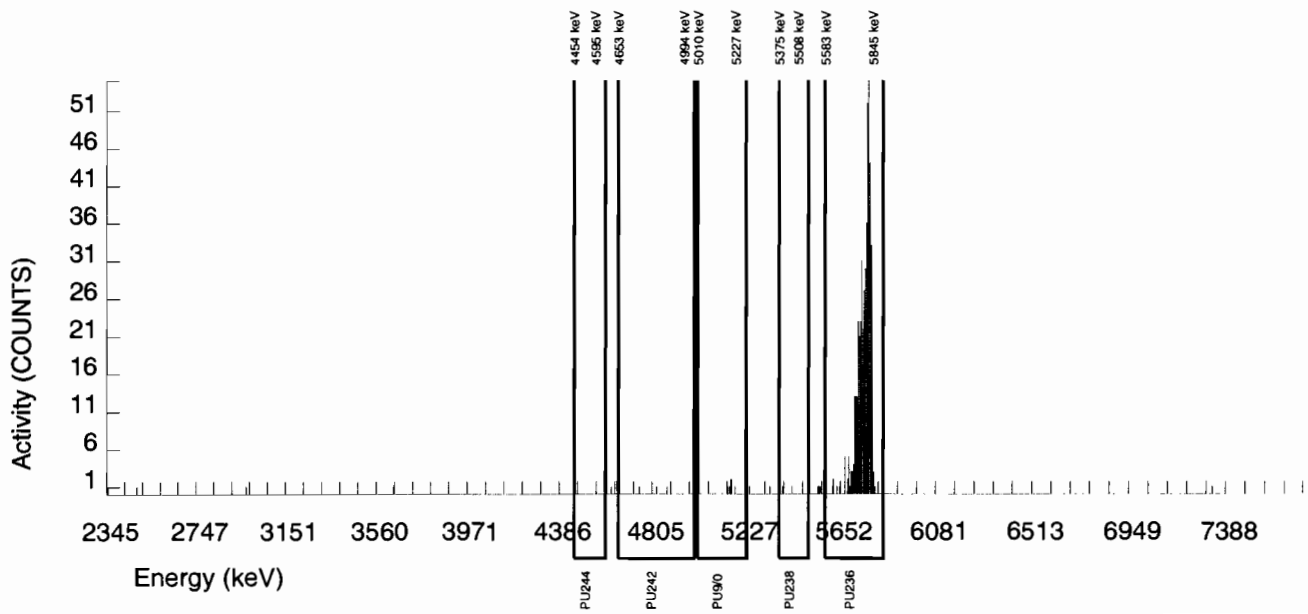

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249331004_PU
SAMPLE QTY : 1.251 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 78.730

CHAMBER : 081
DETECTOR S/N : 79996
AVERAGE %EFFICIENCY : 33.2352
COUNT DATE : 26-MAR-2010 17:20:07
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B081.CNF;1037
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W081.CNF;276
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.3525E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5759.905	36.546	557.000	557.000	0.000	0.0000	100.0000	1.08E+00	7.85E-02	0.00E+00	5.18E-03	4.56E-02
PU-238	5499.000	5443.362	0.000	8.000	7.280	0.720	2.4495	99.90000	1.39E-02	5.65E-03	1.01E-02	2.54E-02	5.59E-03
PU-9/0	5155.000	5156.637	131.876	5.000	4.280	0.720	1.9732	99.90000	8.19E-03	4.52E-03	8.14E-03	2.15E-02	4.49E-03
PU242	4890.000	4820.807	4.884	1.000	1.000	0.000	*******	100.0000	1.91E-03	1.91E-03	5.14E-01	1.03E+00	1.91E-03
PU-244	4589.000	4526.575	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.92E-03	2.67E-02	5.85E-02	1.91E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

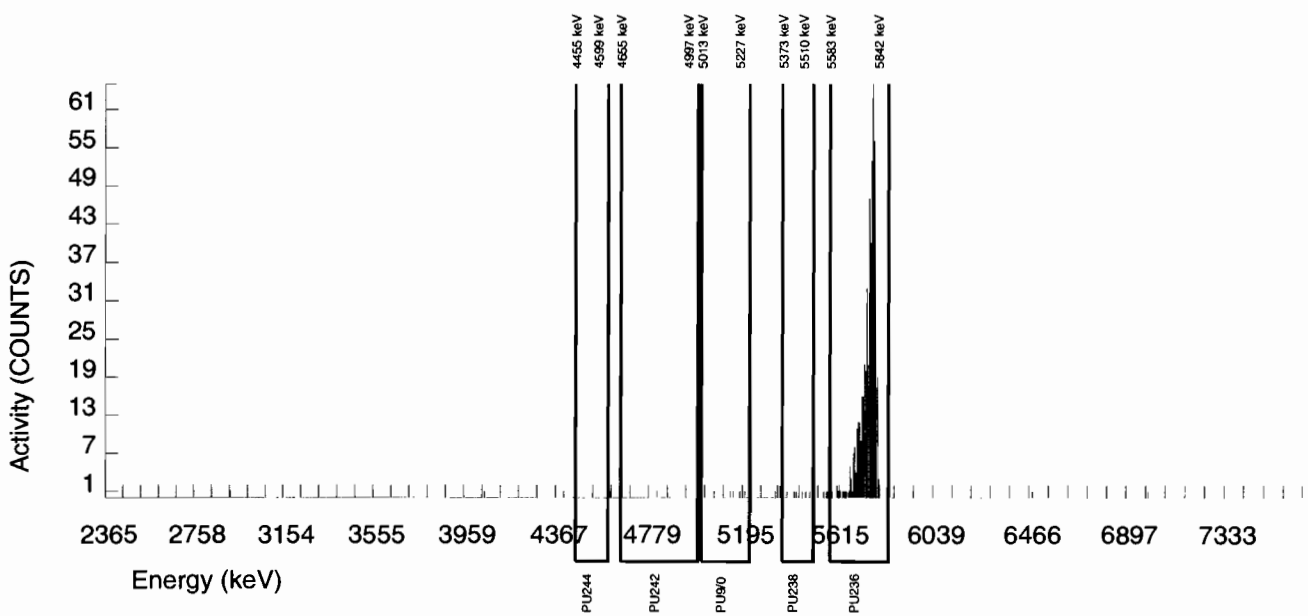

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249331005_PU
SAMPLE QTY : 1.256 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 73.149

CHAMBER : 082
DETECTOR S/N : 79997
AVERAGE %EFFICIENCY : 33.8443
COUNT DATE : 26-MAR-2010 17:20:07
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B082.CNF;1027
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W082.CNF;259
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.1857E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5769.425	37.220	527.000	527.000	0.000	0.0000	100.0000	1.07E+00	7.97E-02	0.00E+00	5.45E-03	4.67E-02
PU-238	5499.000	5478.985	39.539	2.000	1.280	0.720	2.4495	99.90000	2.58E-03	3.20E-03	1.06E-02	2.67E-02	3.20E-03
PU-9/0	5155.000	5158.114	93.906	2.000	2.000	0.000	1.9732	99.90000	4.03E-03	2.86E-03	8.57E-03	2.26E-02	2.85E-03
PU242	4890.000	4746.065	143.330	3.000	-0.600	3.600	*******	100.0000	-1.21E-03	4.76E-03	5.41E-01	1.09E+00	4.76E-03
PU-244	4589.000	4460.782	4.942	1.000	1.000	0.000	6.4609	99.90000	2.01E-03	2.02E-03	2.81E-02	6.16E-02	2.01E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

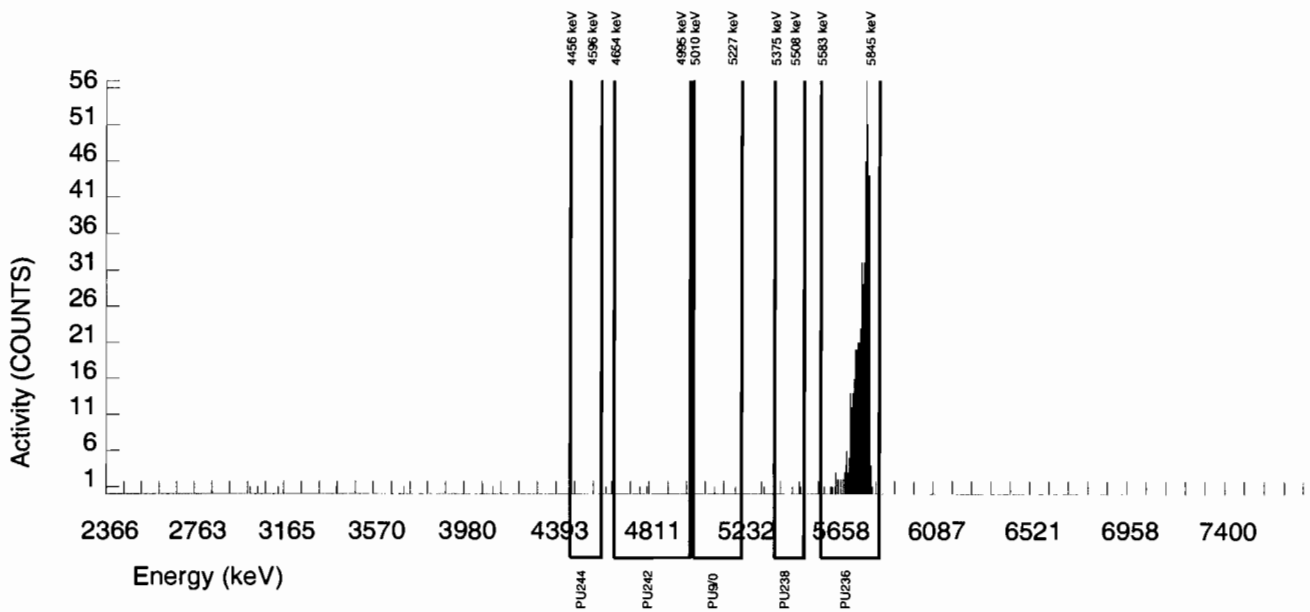

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249331006_PU
SAMPLE QTY : 1.277 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 81.095

CHAMBER : 083
DETECTOR S/N : 64278
AVERAGE %EFFICIENCY : 35.8135
COUNT DATE : 26-MAR-2010 17:20:08
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B083.CNF;1034
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W083.CNF;294
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.4232E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5781.566	49.640	624.000	618.240	5.760	2.4000	100.0000	1.05E+00	7.47E-02	8.73E-03	2.20E-02	4.27E-02
PU-238	5499.000	5479.104	5.060	5.000	-0.760	5.760	2.4495	99.90000	-1.28E-03	5.11E-03	8.92E-03	2.24E-02	5.11E-03
PU-9/0	5155.000	5155.282	11.938	22.000	21.280	0.720	1.9732	99.90000	3.59E-02	8.28E-03	7.19E-03	1.90E-02	8.01E-03
PU242	4890.000	4860.315	247.927	3.000	0.120	2.880	*******	100.0000	2.02E-04	3.80E-03	4.54E-01	9.12E-01	3.80E-03
PU-244	4589.000	4528.010	131.553	2.000	-0.160	2.160	6.4609	99.90000	-2.70E-04	3.19E-03	2.35E-02	5.16E-02	3.18E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

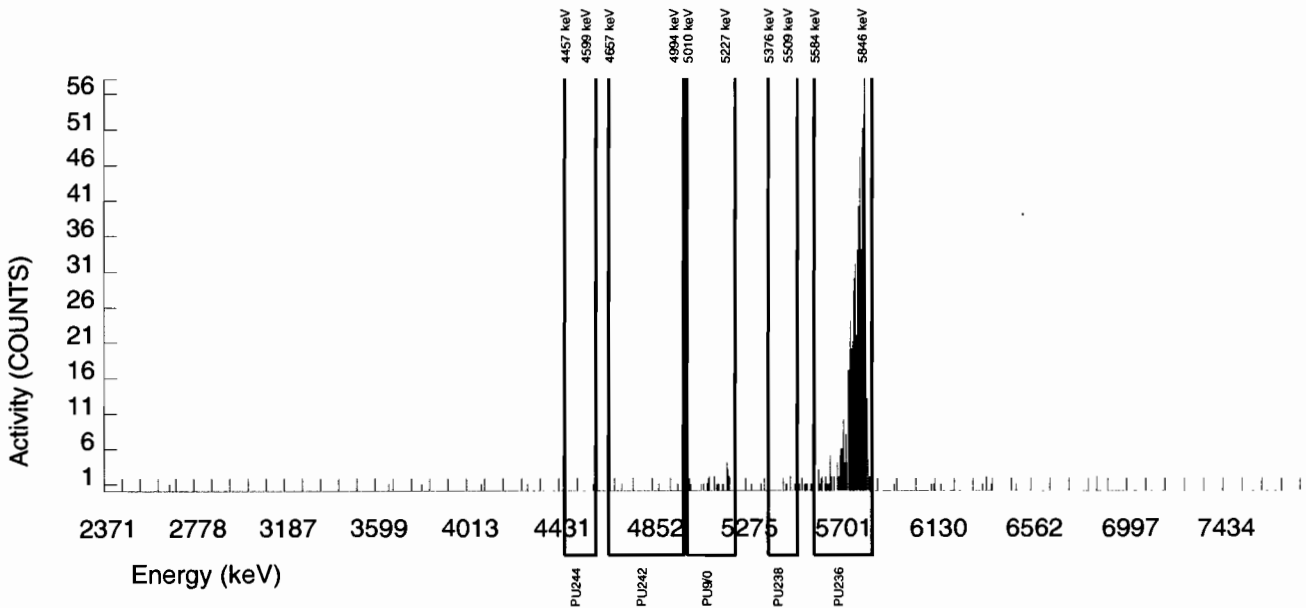

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249331007_PU
SAMPLE QTY : 1.255 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 70.031

CHAMBER : 084
DETECTOR S/N : 78265
AVERAGE %EFFICIENCY : 34.3452
COUNT DATE : 26-MAR-2010 17:20:08
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B084.CNF;1032
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W084.CNF;297
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.0926E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5768.771	55.294	512.000	512.000	0.000	0.0000	100.0000	1.07E+00	8.06E-02	0.00E+00	5.62E-03	4.74E-02
PU-238	5499.000	5472.413	35.142	3.000	1.560	1.440	2.4495	99.90000	3.24E-03	4.17E-03	1.10E-02	2.75E-02	4.17E-03
PU-9/0	5155.000	5171.883	7.374	6.000	4.560	1.440	1.9732	99.90000	9.46E-03	5.53E-03	8.83E-03	2.33E-02	5.50E-03
PU242	4890.000	4716.439	5.020	1.000	0.280	0.720	*******	100.0000	5.80E-04	2.56E-03	5.57E-01	1.12E+00	2.55E-03
PU-244	4589.000	4526.991	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	2.08E-03	2.89E-02	6.35E-02	2.07E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

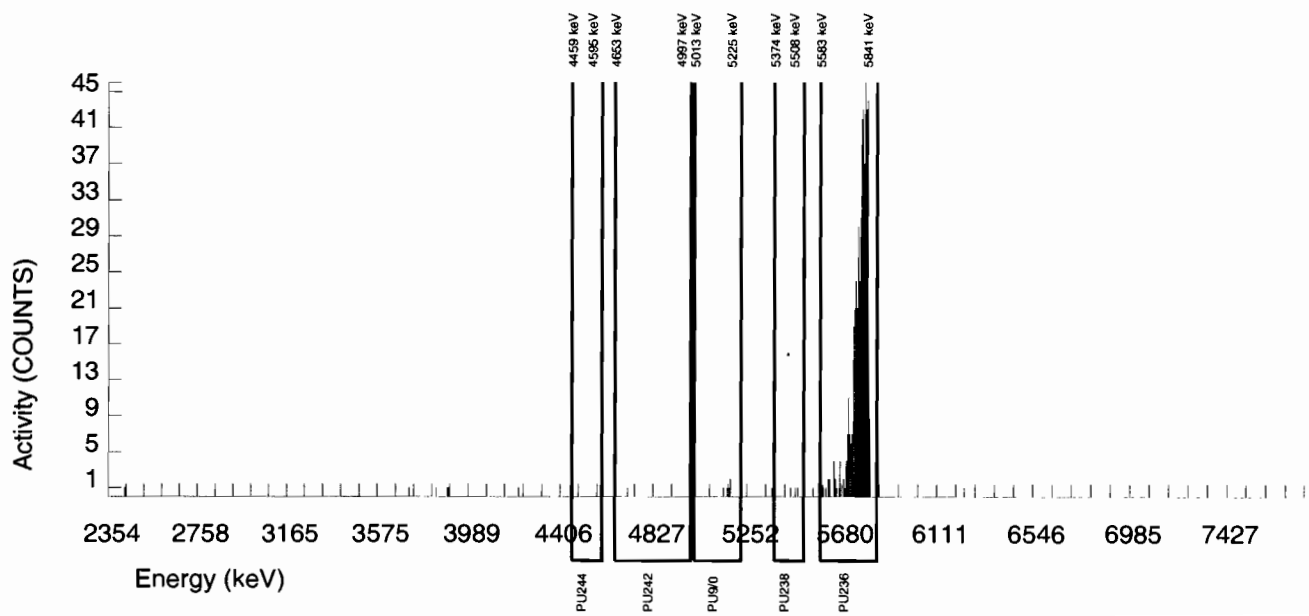

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249331008_PU
SAMPLE QTY : 1.261 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 37.819

CHAMBER : 031
DETECTOR S/N : 79988
AVERAGE %EFFICIENCY : 35.5462
COUNT DATE : 29-MAR-2010 10:30:46
ELAPSED LIVE TIME(SEC) : 66987.80

LIB FILE : ENV_ALPHA_PU
BKG FILE : B031.CNF;1123
BKG DATE : 28-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W031.CNF;347
CAL DATE : 4-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9879E+00 dpm
RESULTS : 1.1300E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5751.180	36.394	444.000	442.884	1.116	1.0566	100.0000	1.07E+00	8.46E-02	6.02E-03	1.85E-02	5.09E-02
PU-238	5499.000	5457.669	4.902	5.000	3.884	1.116	2.4495	99.90000	9.26E-03	5.99E-03	1.40E-02	3.44E-02	5.96E-03
PU-9/0	5155.000	5128.802	5.694	15.000	12.767	2.233	1.9732	99.90000	3.04E-02	1.01E-02	1.13E-02	2.90E-02	9.96E-03
PU242	4890.000	4789.292	4.902	7.000	-0.815	7.815	*******	100.0000	-1.94E-03	9.44E-03	7.10E-01	1.43E+00	9.44E-03
PU-244	4589.000	4543.982	4.902	1.000	-0.116	1.116	6.4609	99.90000	-2.77E-04	3.57E-03	3.68E-02	8.01E-02	3.57E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

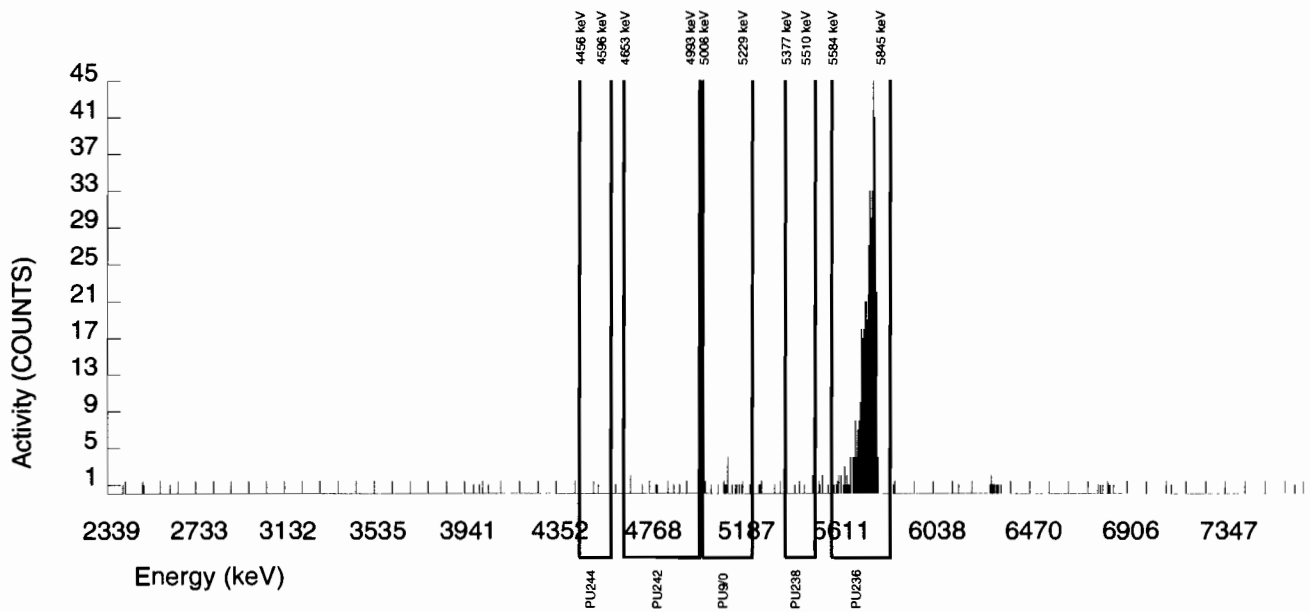

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249334001_PU
SAMPLE QTY : 1.267 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 81.504

CHAMBER : 086
DETECTOR S/N : 78198
AVERAGE %EFFICIENCY : 30.3911
COUNT DATE : 26-MAR-2010 17:20:08
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B086.CNF;1034
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W086.CNF;285
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.4354E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5772.089	43.163	528.000	527.280	0.720	0.8485	100.0000	1.06E+00	7.91E-02	3.65E-03	1.27E-02	4.63E-02
PU-238	5499.000	5442.401	0.000	0.000	-1.440	1.440	2.4495	99.90000	-2.87E-03	2.85E-03	1.05E-02	2.65E-02	2.85E-03
PU-9/0	5155.000	5139.289	105.576	5.000	2.840	2.160	1.9732	99.90000	5.67E-03	5.12E-03	8.49E-03	2.24E-02	5.11E-03
PU242	4890.000	4825.089	0.000	0.000	-2.160	2.160	*******	100.0000	-4.31E-03	3.19E-03	5.36E-01	1.08E+00	3.19E-03
PU-244	4589.000	4550.141	75.412	3.000	2.280	0.720	6.4609	99.90000	4.55E-03	3.75E-03	2.78E-02	6.10E-02	3.74E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

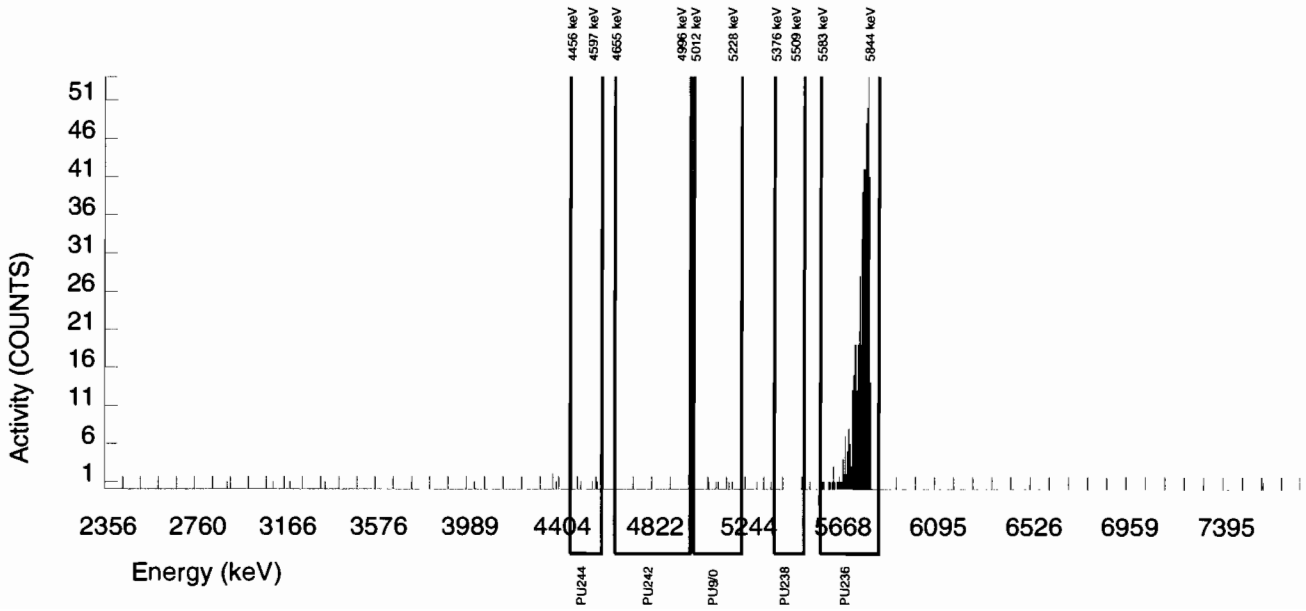

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S1202071686_PU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 23-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 84.468

CHAMBER : 094
DETECTOR S/N : 78267
AVERAGE %EFFICIENCY : 33.8294
COUNT DATE : 26-MAR-2010 17:20:09
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B094.CNF;727
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W094.CNF;195
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9643E+00 dpm
RESULTS : 2.5039E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5762.012	35.124	609.000	608.280	0.720	0.8485	100.0000	1.34E+00	9.48E-02	4.01E-03	1.39E-02	5.42E-02
PU-238	5499.000	5458.919	4.913	1.000	1.000	0.000	2.4495	99.90000	2.19E-03	2.20E-03	1.16E-02	2.91E-02	2.19E-03
PU-9/0	5155.000	5115.934	117.921	4.000	4.000	0.000	1.9732	99.90000	8.77E-03	4.41E-03	9.33E-03	2.46E-02	4.38E-03
PU242	4890.000	4699.958	68.787	3.000	1.560	1.440	*******	100.0000	3.42E-03	4.40E-03	5.89E-01	1.18E+00	4.40E-03
PU-244	4589.000	4525.383	0.000	0.000	-1.440	1.440	6.4609	99.90000	-3.16E-03	3.13E-03	3.05E-02	6.70E-02	3.13E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

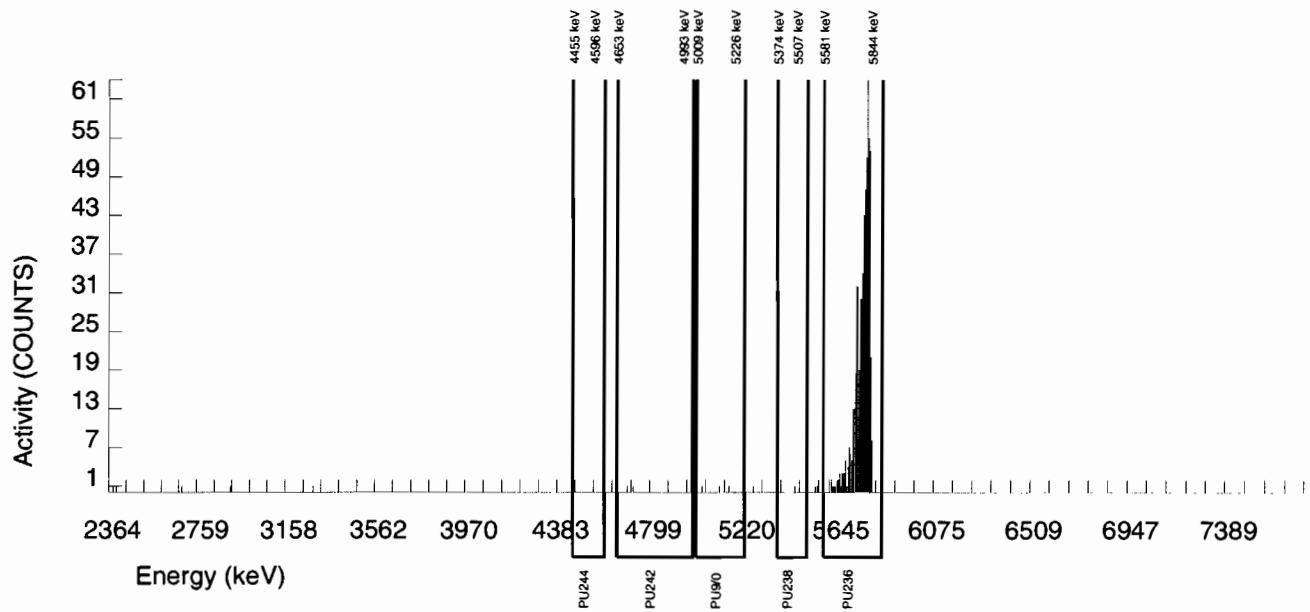

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S1202071687_PU
SAMPLE QTY : 1.259 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 79.887

CHAMBER : 013
DETECTOR S/N : 78790
AVERAGE %EFFICIENCY : 35.8414
COUNT DATE : 26-MAR-2010 21:18:56
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B013.CNF;1105
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W013.CNF;330
CAL DATE : 4-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.3871E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5774.821	34.843	626.000	609.440	16.560	4.0694	100.0000	1.07E+00	7.69E-02	1.52E-02	3.52E-02	4.43E-02
PU-238	5499.000	5434.900	0.000	12.000	6.960	5.040	2.4495	99.90000	1.21E-02	6.91E-03	9.18E-03	2.31E-02	6.87E-03
PU-9/0	5155.000	5122.941	88.452	5.000	2.120	2.880	1.9732	99.90000	3.68E-03	4.63E-03	7.40E-03	1.95E-02	4.62E-03
PU242	4890.000	4836.007	206.388	4.000	3.280	0.720	*******	100.0000	5.69E-03	3.70E-03	4.67E-01	9.38E-01	3.69E-03
PU-244	4589.000	4478.529	4.914	1.000	0.280	0.720	6.4609	99.90000	4.86E-04	2.14E-03	2.42E-02	5.31E-02	2.14E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

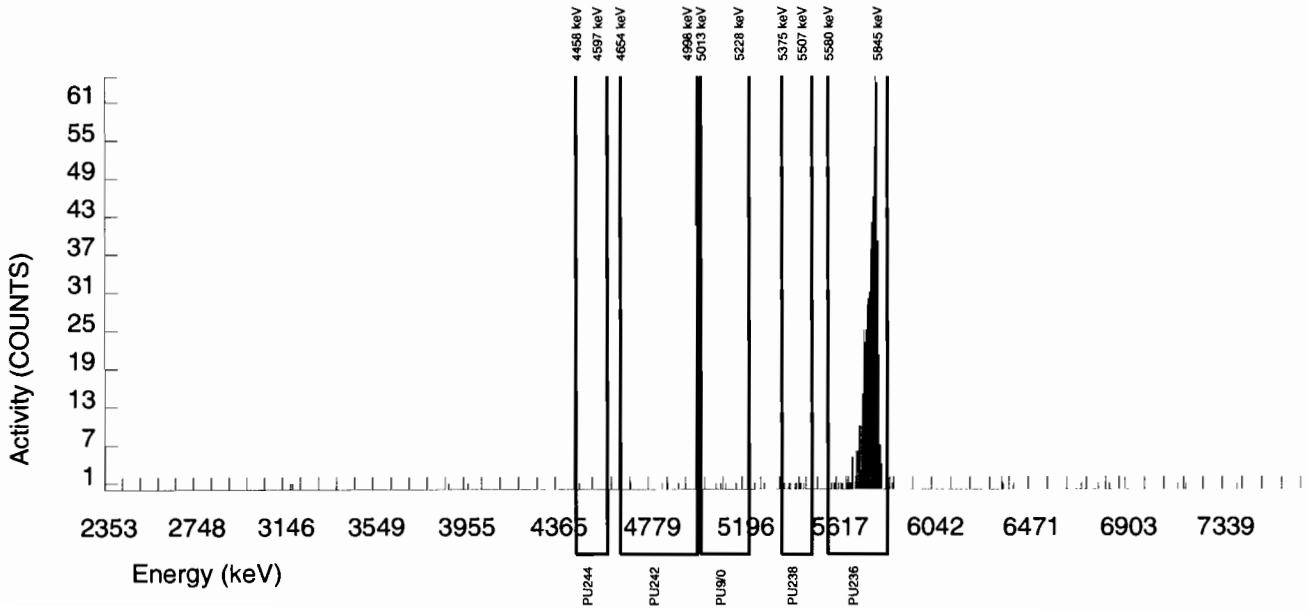

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S1202071688_PU
SAMPLE QTY : 0.115 G
SAMPLE DATE : 23-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 84.568

CHAMBER : 014
DETECTOR S/N : 67616
AVERAGE %EFFICIENCY : 33.5532
COUNT DATE : 26-MAR-2010 21:18:56
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B014.CNF;1106
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W014.CNF;328
CAL DATE : 4-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9643E+00 dpm
RESULTS : 2.5069E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5763.887	52.821	627.000	603.960	23.040	4.8000	100.0000	1.16E+01	9.03E-01	1.99E-01	4.49E-01	4.88E-01
PU-238	5499.000	5477.447	0.000	287.000	270.440	16.560	2.4495	99.90000	5.19E+00	4.75E-01	1.01E-01	2.55E-01	3.32E-01
PU-9/0	5155.000	5148.260	45.032	1965.000	1960.680	4.320	1.9732	99.90000	3.76E+01	2.61E+00	8.17E-02	2.15E-01	8.51E-01
PU242	4890.000	4886.226	0.000	36.000	34.560	1.440	*******	100.0000	6.63E-01	1.24E-01	5.16E+00	1.04E+01	1.17E-01
PU-244	4589.000	4524.693	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.92E-02	2.68E-01	5.87E-01	1.92E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

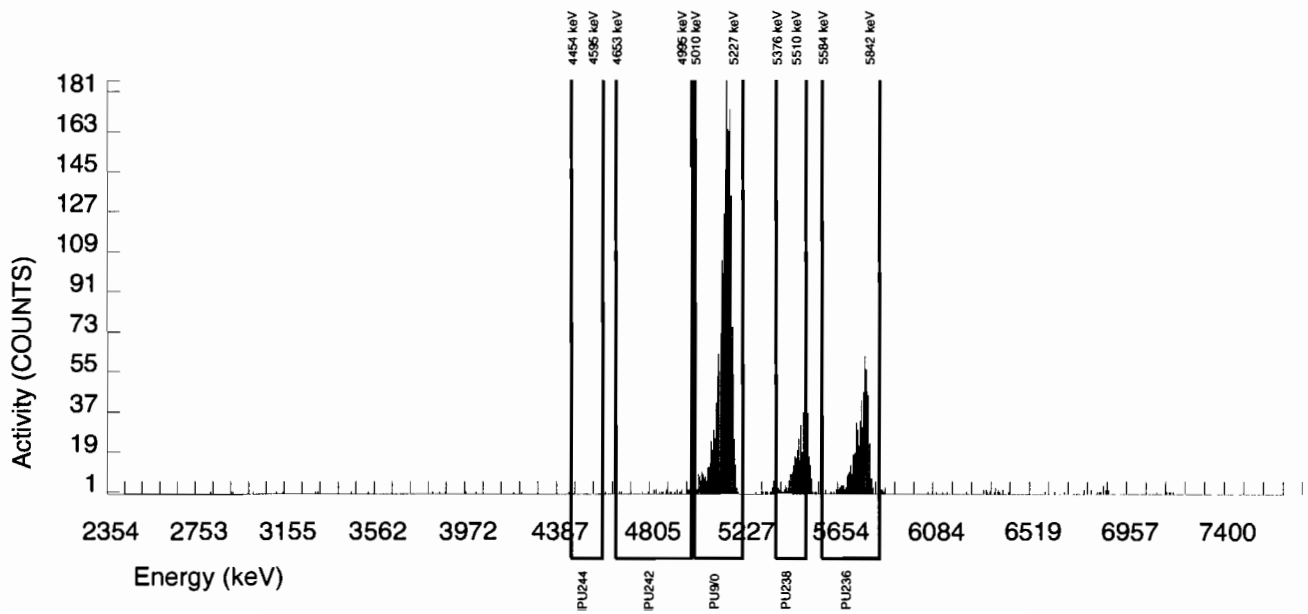

Radiochemistry Batch Checklist, Rev10

Batch# 965504 Product: U Date: 3/30/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time	✓		
Sample was correctly preserved if required	✓		
Smears Taken for Radioactive batches			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/30/10

Secondary Review Performed By: [signature] 3/30/10

3/31

Uranium Que Sheet

22-MAR-10

Batch #: 965504 Analyst: CXM2 First Client Due Date:31-MAR-10 Internal Due Date:21-MAR-10

Tracer Isotope: U-232 U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: 0.1mL

LCS Isotope: U-238 LCS Code: 0244-A Expiration Date: 10/31/20 Vol: 0.113 g

Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 3/23/10 Initials: CMM Pipet ID: 4497063 Balance ID: 50410272

Analyzed Sequentially with Pu N/A

Pu-236 ID: ~~Vol.:~~

Witness: MW 3/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) 1/f	U Det #
249060003-1	RE16-10-2826	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	1	1	0.518	131
249329001-1	RE46-10-13964	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	2	2	0.523	132
249329002-1	RE46-10-13966	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	3	3	0.505	133
249329003-1	RE46-10-13963	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	4	4	0.522	134
249329004-1	RE46-10-13965	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	5	5	0.508	135
249331001-1	RE46-10-13219	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	6	6	0.537	136
249331002-1	RE46-10-13221	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	7	7	0.543	154 ~~137~~ 3-27-
249331003-1	RE46-10-13220	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	8	8	0.513	138
249331004-1	RE46-10-13216	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	9	9	0.509	139
249331005-1	RE46-10-13217	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	10	10	0.517	140
249331006-1	RE46-10-13218	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	11	11	0.532	141
249331007-1	RE46-10-13234	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	12	12	~~0.515~~ 0.515 03/22/10	142
249331008-1	RE46-10-14199	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	13	13	0.553	143
249334001-1	RE46-10-12972	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	14	14	0.519	144
249334002-1	RE46-10-13003	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	15	15	0.504	145
249334003-1	RE46-10-12967	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	16	16	0.504	146
249334004-1	RE46-10-12971	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	17	17	0.509	117 ~~147~~
249334005-1	RE46-10-12968	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	18	18	0.518	118 ~~148~~ 5/30/1
249334006-1	RE46-10-12969	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	19	19	0.527	149
249334007-1	RE46-10-12970	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	20	20	0.524	150
1202071689-1	MB for batch 965504	MB		.1 pCi/g	SOIL	QC ACCOUNT		21	21	1.0	151
1202071690-1	RE46-10-12972(249334001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	11-MAR-10	22	22	0.503	152
1202071691-1	LCS for batch 965504	LCS		.1 pCi/g	SOIL	QC ACCOUNT		23	23	0.113	153

*SRM 0244-A Exp 10/31/20

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: JDM 3/30/10

Blank Correction Report

Batch ID 965504

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202071690	DUP	Uranium-233/234	0.503 g	1.84	0.163	0.127	.028429423	pCi/g	NO
		Uranium-235/236	0.503 g	0.106	0.0256	0.0778	.015029821	pCi/g	NO
		Uranium-238	0.503 g	1.21	0.116	0.0895	.012166998	pCi/g	NO
1202071691	LCS	Uranium-233/234	0.113 g	5.98	0.566	0.494	.126548673	pCi/g	NO
		Uranium-235/236	0.113 g	0.108	0.0492	0.302	.066902655	pCi/g	YES
		Uranium-238	0.113 g	5.93	0.562	0.348	.054159292	pCi/g	NO
1202071689	MB	Uranium-233/234	1.00 g	0.0143	0.0062	0.0575	.0143	pCi/g	YES
		Uranium-235/236	1.00 g	0.00756	0.0044	0.0351	.00756	pCi/g	YES
		Uranium-238	1.00 g	0.00612	0.00458	0.0404	.00612	pCi/g	YES
249060003	RE16-10-2826	Uranium-233/234	0.518 g	0.900	0.0911	0.121	.027606178	pCi/g	NO
		Uranium-235/236	0.518 g	0.0266	0.0121	0.0741	.014594595	pCi/g	YES
		Uranium-238	0.518 g	0.908	0.0913	0.0853	.011814672	pCi/g	NO
249329001	RE46-10-13964	Uranium-233/234	0.523 g	1.55	0.144	0.136	.027342256	pCi/g	NO
		Uranium-235/236	0.523 g	0.0891	0.0239	0.0828	.014455067	pCi/g	NO
		Uranium-238	0.523 g	1.01	0.103	0.0953	.011701721	pCi/g	NO
249329002	RE46-10-13966	Uranium-233/234	0.505 g	0.971	0.0988	0.134	.028316832	pCi/g	NO
		Uranium-235/236	0.505 g	0.0176	0.0103	0.0819	.014970297	pCi/g	YES
		Uranium-238	0.505 g	0.956	0.0976	0.0943	.012118812	pCi/g	NO
249329003	RE46-10-13963	Uranium-233/234	0.522 g	0.866	0.0912	0.134	.027394636	pCi/g	NO
		Uranium-235/236	0.522 g	0.00587	0.00589	0.0819	.014482759	pCi/g	YES
		Uranium-238	0.522 g	0.813	0.0866	0.0942	.011724138	pCi/g	NO
249329004	RE46-10-13965	Uranium-233/234	0.508 g	1.31	0.127	0.144	.028149606	pCi/g	NO
		Uranium-235/236	0.508 g	0.0632	0.0224	0.0881	.014881890	pCi/g	YES
		Uranium-238	0.508 g	0.742	0.083	0.101	.012047244	pCi/g	NO
249331001	RE46-10-13219	Uranium-233/234	0.537 g	1.18	0.108	0.104	.026629423	pCi/g	NO
		Uranium-235/236	0.537 g	0.0365	0.0147	0.0635	.014078212	pCi/g	YES
		Uranium-238	0.537 g	1.02	0.0962	0.0731	.011396648	pCi/g	NO
249331002	RE46-10-13221	Uranium-233/234	0.543 g	0.915	0.0904	0.114	.026335175	pCi/g	NO
		Uranium-235/236	0.543 g	0.0399	0.016	0.0694	.013922652	pCi/g	YES
		Uranium-238	0.543 g	0.975	0.095	0.0799	.011270718	pCi/g	NO
249331003	RE46-10-13220	Uranium-233/234	0.513 g	1.05	0.106	0.137	.027875244	pCi/g	NO
		Uranium-235/236	0.513 g	0.0601	0.0213	0.0838	.014736842	pCi/g	YES
		Uranium-238	0.513 g	1.21	0.119	0.0964	.011929825	pCi/g	NO
249331004	RE46-10-13216	Uranium-233/234	0.509 g	3.13	0.272	0.161	.028094303	pCi/g	NO
		Uranium-235/236	0.509 g	0.177	0.0378	0.0984	.014852652	pCi/g	NO
		Uranium-238	0.509 g	1.22	0.124	0.113	.012023576	pCi/g	NO
249331005	RE46-10-13217	Uranium-233/234	0.517 g	2.67	0.222	0.118	.027659574	pCi/g	NO
		Uranium-235/236	0.517 g	0.134	0.028	0.0718	.014622824	pCi/g	NO
		Uranium-238	0.517 g	1.72	0.152	0.0827	.011837524	pCi/g	NO
249331006	RE46-10-13218	Uranium-233/234	0.532 g	1.32	0.132	0.153	.026879699	pCi/g	NO
		Uranium-235/236	0.532 g	0.094	0.0278	0.0936	.014210526	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
249331006	RE46-10-13218	Uranium-238	0.532 g	1.27	0.127	0.108	.011503759	pCi/g	NO
249331007	RE46-10-13234	Uranium-233/234	0.515 g	1.04	0.104	0.129	.027766990	pCi/g	NO
		Uranium-235/236	0.515 g	0.0793	0.022	0.0789	.014679612	pCi/g	NO
		Uranium-238	0.515 g	0.985	0.0992	0.0908	.011883495	pCi/g	NO
249331008	RE46-10-14199	Uranium-233/234	0.553 g	1.27	0.124	0.140	.025858951	pCi/g	NO
		Uranium-235/236	0.553 g	0.0981	0.027	0.0854	.013670886	pCi/g	NO
		Uranium-238	0.553 g	1.16	0.115	0.0983	.011066908	pCi/g	NO
249334001	RE46-10-12972	Uranium-233/234	0.519 g	1.90	0.166	0.122	.027552987	pCi/g	NO
		Uranium-235/236	0.519 g	0.128	0.0288	0.0744	.014566474	pCi/g	NO
		Uranium-238	0.519 g	1.31	0.123	0.0856	.011791908	pCi/g	NO
249334002	RE46-10-13003	Uranium-233/234	0.504 g	1.64	0.146	0.121	.028373016	pCi/g	NO
		Uranium-235/236	0.504 g	0.116	0.0273	0.0738	.015	pCi/g	NO
		Uranium-238	0.504 g	1.31	0.122	0.0849	.012142857	pCi/g	NO
249334003	RE46-10-12967	Uranium-233/234	0.504 g	86.7	6.59	0.161	.028373016	pCi/g	NO
		Uranium-235/236	0.504 g	4.33	0.371	0.0984	.015	pCi/g	NO
		Uranium-238	0.504 g	1.99	0.185	0.113	.012142857	pCi/g	NO
249334004	RE46-10-12971	Uranium-233/234	0.509 g	4.25	0.354	0.154	.028094303	pCi/g	NO
		Uranium-235/236	0.509 g	0.156	0.0358	0.0941	.014852652	pCi/g	NO
		Uranium-238	0.509 g	1.39	0.137	0.108	.012023576	pCi/g	NO
249334005	RE46-10-12968	Uranium-233/234	0.518 g	34.2	2.56	0.131	.027606178	pCi/g	NO
		Uranium-235/236	0.518 g	1.75	0.164	0.0801	.014594595	pCi/g	NO
		Uranium-238	0.518 g	1.30	0.124	0.0922	.011814672	pCi/g	NO
249334006	RE46-10-12969	Uranium-233/234	0.527 g	0.906	0.0907	0.119	.027134725	pCi/g	NO
		Uranium-235/236	0.527 g	0.0573	0.0178	0.0726	.014345351	pCi/g	YES
		Uranium-238	0.527 g	0.851	0.0868	0.0835	.011612903	pCi/g	NO
249334007	RE46-10-12970	Uranium-233/234	0.524 g	1.07	0.103	0.116	.027290076	pCi/g	NO
		Uranium-235/236	0.524 g	0.0813	0.0212	0.0708	.014427481	pCi/g	NO
		Uranium-238	0.524 g	1.09	0.104	0.0815	.011679389	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249331001_UU
SAMPLE QTY : 0.537 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 84.736

CHAMBER : 136
DETECTOR S/N : 80006
AVERAGE %EFFICIENCY : 26.8353
COUNT DATE : 27-MAR-2010 12:53:59
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B136.CNF;455
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W136.CNF;143
CAL DATE : 18-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 3.8139E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5317.545	30.871	1024.000	1023.000	1.000	1.0000	100.0000	3.78E+00	2.98E-01	8.58E-03	2.72E-02	1.18E-01
U-3/4	4763.020	4769.315	44.964	322.000	320.964	0.000	5.4790	100.0000	1.18E+00	1.08E-01	4.70E-02	1.04E-01	6.61E-02
U-235	4391.000	4406.309	33.421	9.000	8.000	1.000	2.4127	80.90000	3.65E-02	1.47E-02	2.56E-02	6.35E-02	1.44E-02
U-238	4184.730	4204.547	32.776	278.000	277.000	1.000	3.6781	100.0000	1.02E+00	9.62E-02	3.16E-02	7.31E-02	6.16E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

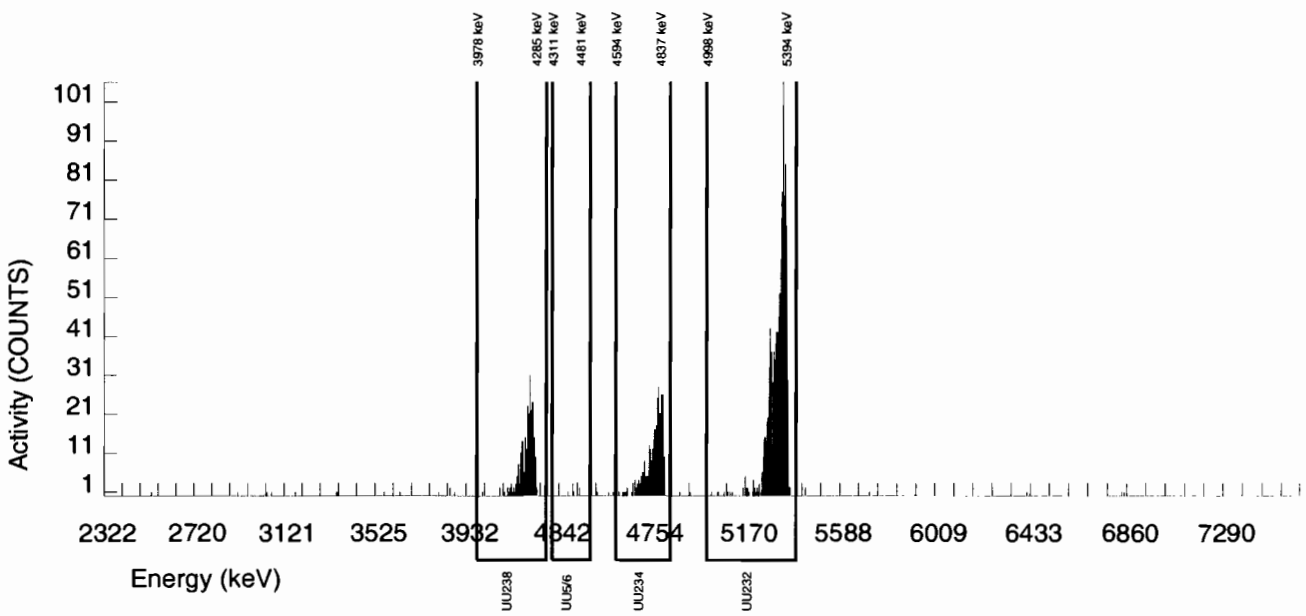

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249331002_UU
SAMPLE QTY : 0.543 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 79.684

CHAMBER : 154
DETECTOR S/N : 76224
AVERAGE %EFFICIENCY : 25.8307
COUNT DATE : 27-MAR-2010 12:54:48
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B154.CNF;401
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W154.CNF;110
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 3.5865E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5306.174	38.226	928.000	926.000	2.000	1.4142	100.0000	3.73E+00	2.99E-01	1.33E-02	3.74E-02	1.23E-01
U-3/4	4763.020	4760.031	38.697	228.000	227.062	0.000	5.4790	100.0000	9.15E-01	9.04E-02	5.14E-02	1.14E-01	6.07E-02
U-235	4391.000	4383.139	4.945	9.000	8.000	1.000	2.4127	80.90000	3.99E-02	1.60E-02	2.80E-02	6.94E-02	1.58E-02
U-238	4184.730	4187.476	61.360	242.000	242.000	0.000	3.6781	100.0000	9.75E-01	9.50E-02	3.45E-02	7.99E-02	6.27E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

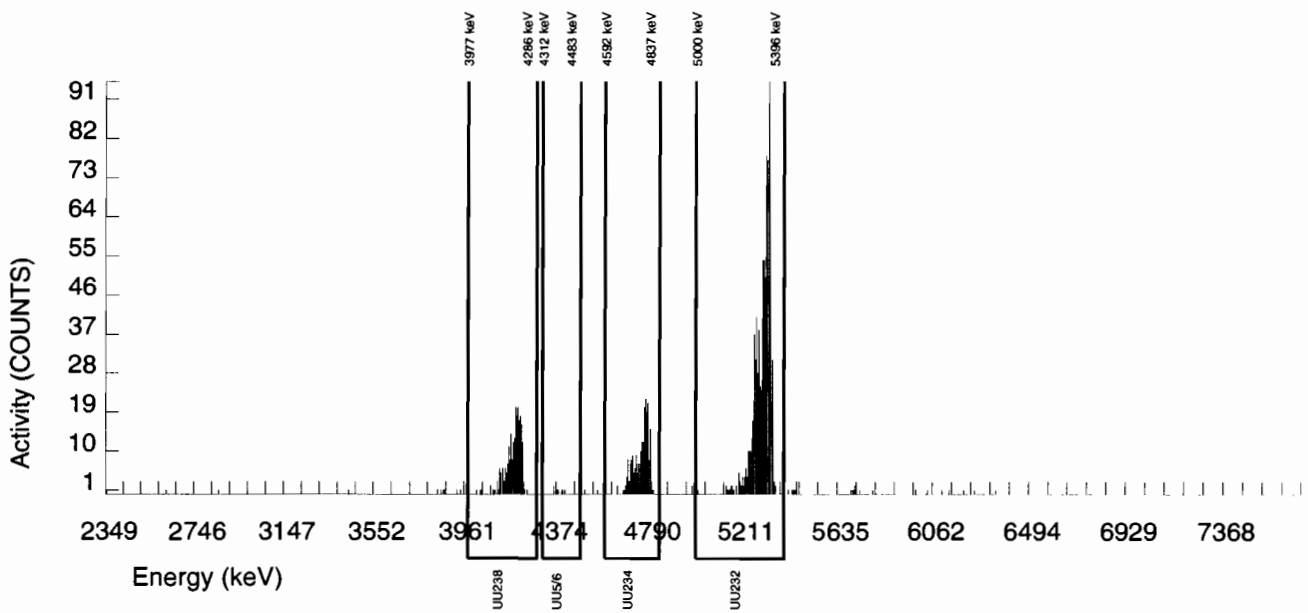

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249331003_UU
SAMPLE QTY : 0.513 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 68.275

CHAMBER : 138
DETECTOR S/N : 65877
AVERAGE %EFFICIENCY : 26.4357
COUNT DATE : 27-MAR-2010 12:54:05
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B138.CNF;412
BKG DATE : 22-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W138.CNF;106
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 3.0730E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5316.511	64.064	820.000	812.000	8.000	2.8284	100.0000	3.95E+00	3.25E-01	3.20E-02	7.72E-02	1.40E-01
U-3/4	4763.020	4772.541	61.851	218.000	216.177	1.000	5.4790	100.0000	1.05E+00	1.06E-01	6.20E-02	1.37E-01	7.19E-02
U-235	4391.000	4404.757	64.915	11.000	10.000	1.000	2.4127	80.90000	6.01E-02	2.13E-02	3.38E-02	8.38E-02	2.08E-02
U-238	4184.730	4197.446	71.479	252.000	249.000	3.000	3.6781	100.0000	1.21E+00	1.19E-01	4.16E-02	9.64E-02	7.77E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

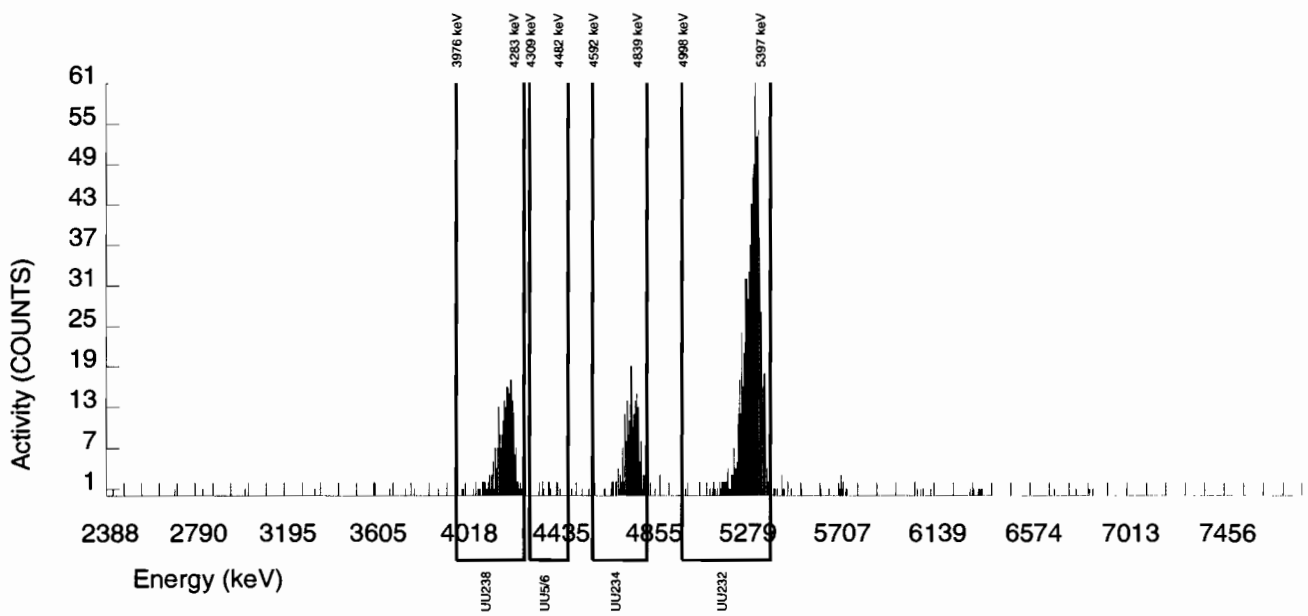

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249331004_UU
SAMPLE QTY : 0.509 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 58.488

CHAMBER : 139
DETECTOR S/N : 76231
AVERAGE %EFFICIENCY : 26.4887
COUNT DATE : 27-MAR-2010 12:54:07
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B139.CNF;407
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W139.CNF;106
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 2.6325E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.078	19.885	706.000	697.000	9.000	3.0000	100.0000	3.98E+00	3.38E-01	3.99E-02	9.52E-02	1.53E-01
U-3/4	4763.020	4759.081	29.862	552.000	547.294	4.000	5.4790	100.0000	3.13E+00	2.72E-01	7.28E-02	1.61E-01	1.35E-01
U-235	4391.000	4401.300	111.165	25.000	25.000	0.000	2.4127	80.90000	1.77E-01	3.77E-02	3.96E-02	9.84E-02	3.53E-02
U-238	4184.730	4189.785	36.263	213.000	213.000	0.000	3.6781	100.0000	1.22E+00	1.24E-01	4.89E-02	1.13E-01	8.34E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

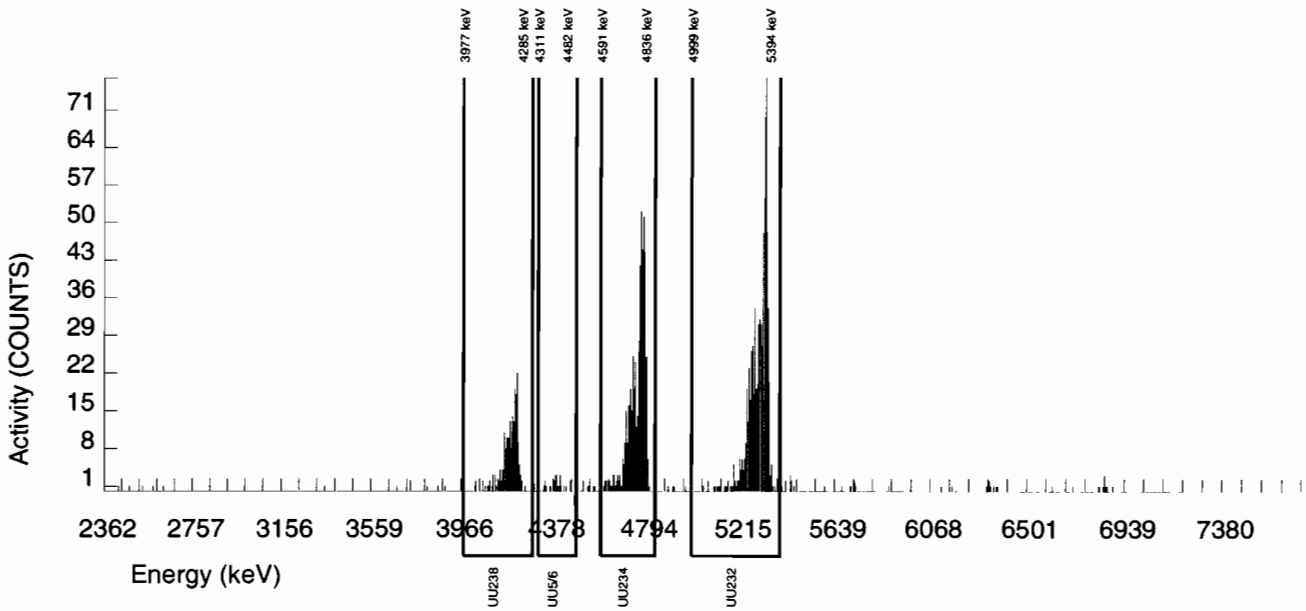

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249331005_UU
SAMPLE QTY : 0.517 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 77.009

CHAMBER : 140
DETECTOR S/N : 78771
AVERAGE %EFFICIENCY : 27.1322
COUNT DATE : 27-MAR-2010 12:54:10
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B140.CNF;407
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W140.CNF;111
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 3.4661E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5298.130	32.375	946.000	940.000	6.000	2.4495	100.0000	3.92E+00	3.14E-01	2.38E-02	5.88E-02	1.29E-01
U-3/4	4763.020	4754.720	39.628	644.000	641.048	2.000	5.4790	100.0000	2.67E+00	2.22E-01	5.32E-02	1.18E-01	1.06E-01
U-235	4391.000	4418.599	37.280	26.000	26.000	0.000	2.4127	80.90000	1.34E-01	2.80E-02	2.89E-02	7.18E-02	2.63E-02
U-238	4184.730	4186.516	30.502	413.000	412.000	1.000	3.6781	100.0000	1.72E+00	1.52E-01	3.57E-02	8.27E-02	8.48E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

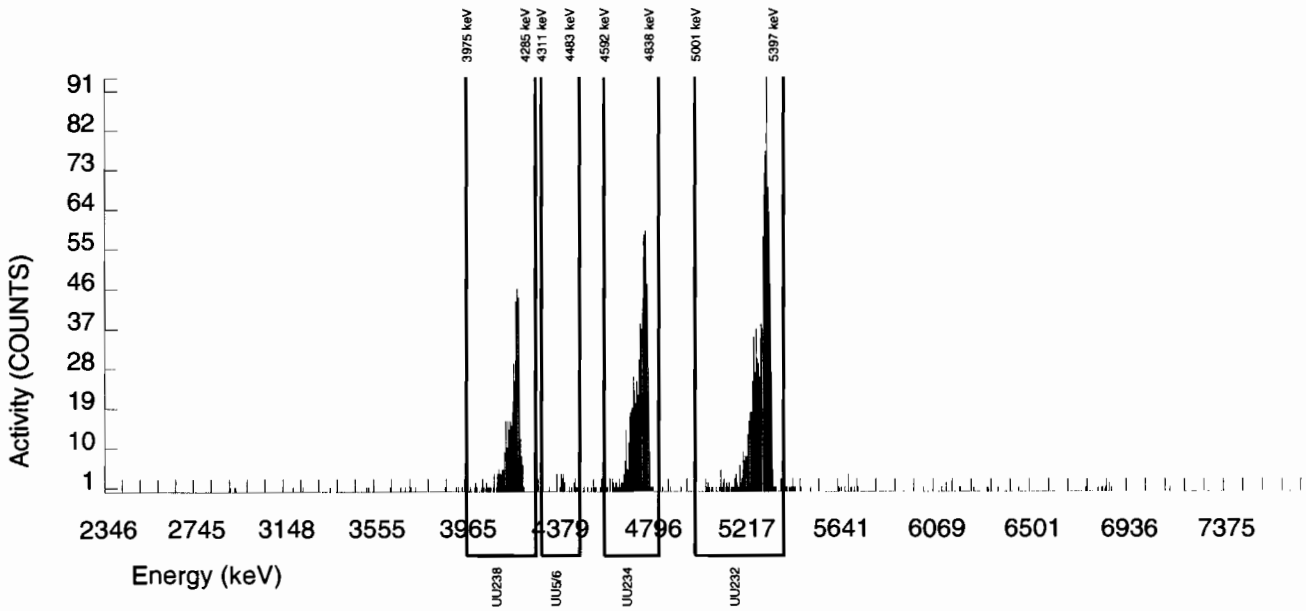

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249331006_UU
SAMPLE QTY : 0.532 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 60.016

CHAMBER : 141
DETECTOR S/N : 76232
AVERAGE %EFFICIENCY : 25.9624
COUNT DATE : 27-MAR-2010 12:54:12
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B141.CNF;410
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W141.CNF;109
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 2.7013E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5290.133	49.767	707.000	701.000	6.000	2.4495	100.0000	3.81E+00	3.23E-01	3.10E-02	7.67E-02	1.45E-01
U-3/4	4763.020	4743.255	60.160	246.000	243.290	2.000	5.4790	100.0000	1.32E+00	1.31E-01	6.93E-02	1.53E-01	8.55E-02
U-235	4391.000	4387.233	0.000	15.000	14.000	1.000	2.4127	80.90000	9.40E-02	2.78E-02	3.77E-02	9.36E-02	2.69E-02
U-238	4184.730	4175.867	66.849	233.000	233.000	0.000	3.6781	100.0000	1.27E+00	1.27E-01	4.65E-02	1.08E-01	8.29E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

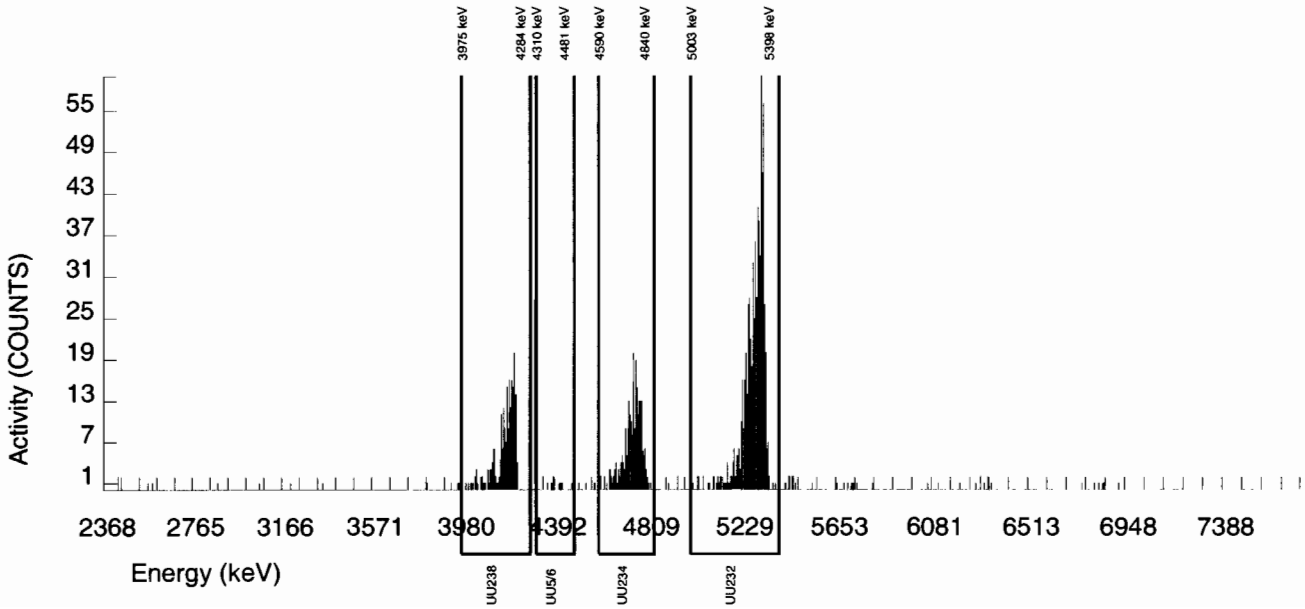

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249331007_UU
SAMPLE QTY : 0.515 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 73.586

CHAMBER : 142
DETECTOR S/N : 64261
AVERAGE %EFFICIENCY : 25.9474
COUNT DATE : 27-MAR-2010 12:54:16
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B142.CNF;404
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W142.CNF;113
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 3.3121E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5300.722	64.156	870.000	859.000	11.000	3.3166	100.0000	3.94E+00	3.21E-01	3.53E-02	8.31E-02	1.36E-01
U-3/4	4763.020	4752.427	61.816	229.000	227.130	1.000	5.4790	100.0000	1.04E+00	1.04E-01	5.84E-02	1.29E-01	6.93E-02
U-235	4391.000	4397.760	29.764	14.000	14.000	0.000	2.4127	80.90000	7.93E-02	2.20E-02	3.18E-02	7.89E-02	2.12E-02
U-238	4184.730	4179.549	71.116	216.000	215.000	1.000	3.6781	100.0000	9.85E-01	9.92E-02	3.92E-02	9.08E-02	6.75E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

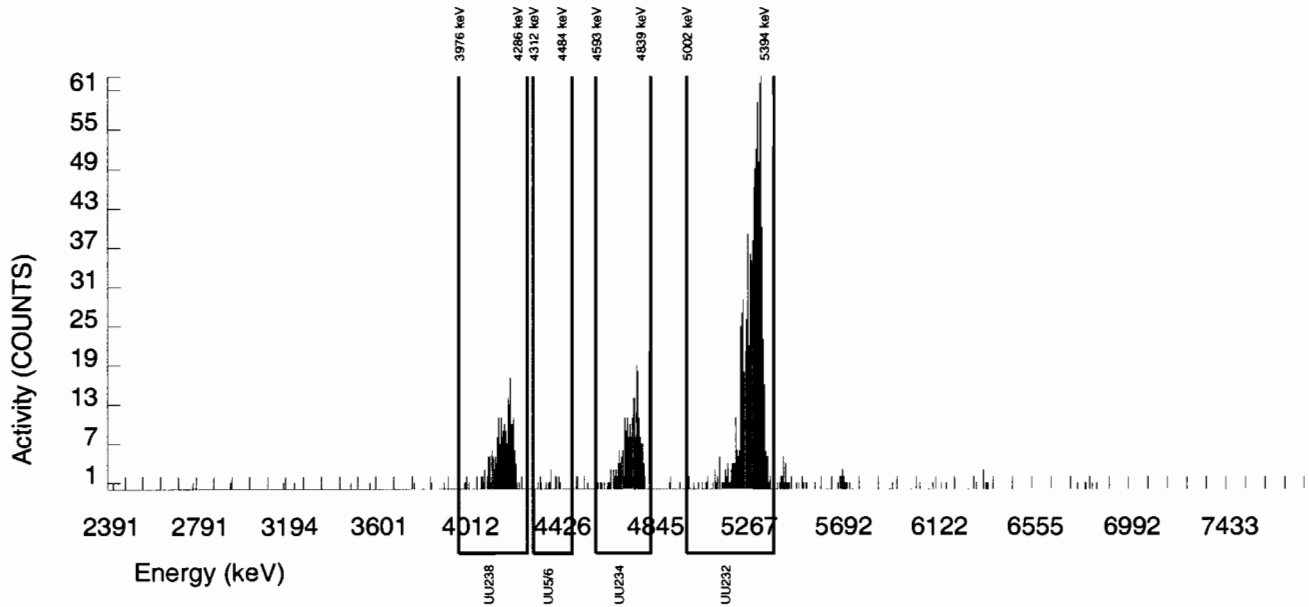

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249331008_UU
SAMPLE QTY : 0.553 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 64.905

CHAMBER : 143
DETECTOR S/N : 65882
AVERAGE %EFFICIENCY : 25.3082
COUNT DATE : 27-MAR-2010 12:54:18
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B143.CNF;406
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W143.CNF;116
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 2.9214E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5300.891	59.489	740.000	739.000	1.000	1.0000	100.0000	3.67E+00	3.06E-01	1.15E-02	3.65E-02	1.35E-01
U-3/4	4763.020	4757.166	32.523	258.000	256.251	1.000	5.4790	100.0000	1.27E+00	1.24E-01	6.32E-02	1.40E-01	7.97E-02
U-235	4391.000	4401.134	23.491	17.000	16.000	1.000	2.4127	80.90000	9.81E-02	2.70E-02	3.44E-02	8.54E-02	2.60E-02
U-238	4184.730	4183.629	41.279	234.000	234.000	0.000	3.6781	100.0000	1.16E+00	1.15E-01	4.24E-02	9.83E-02	7.59E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

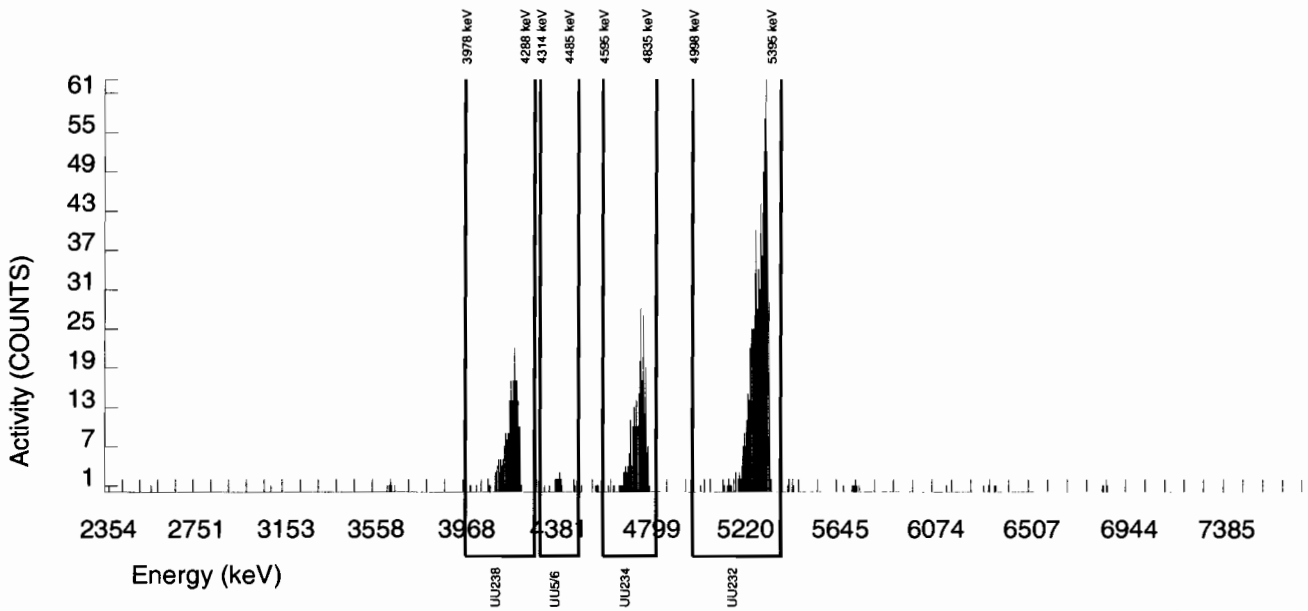

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249334001_UU
SAMPLE QTY : 0.519 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 77.641

CHAMBER : 144
DETECTOR S/N : 75551
AVERAGE %EFFICIENCY : 25.8806
COUNT DATE : 27-MAR-2010 12:54:20
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B144.CNF;405
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W144.CNF;110
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 3.4946E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.610	37.762	909.000	904.000	5.000	2.2361	100.0000	3.91E+00	3.15E-01	2.25E-02	5.66E-02	1.31E-01
U-3/4	4763.020	4757.353	56.941	443.000	439.084	3.000	5.4790	100.0000	1.90E+00	1.66E-01	5.51E-02	1.22E-01	9.11E-02
U-235	4391.000	4389.645	52.975	25.000	24.000	1.000	2.4127	80.90000	1.28E-01	2.88E-02	3.00E-02	7.44E-02	2.72E-02
U-238	4184.730	4184.521	62.212	307.000	304.000	3.000	3.6781	100.0000	1.31E+00	1.23E-01	3.70E-02	8.56E-02	7.60E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

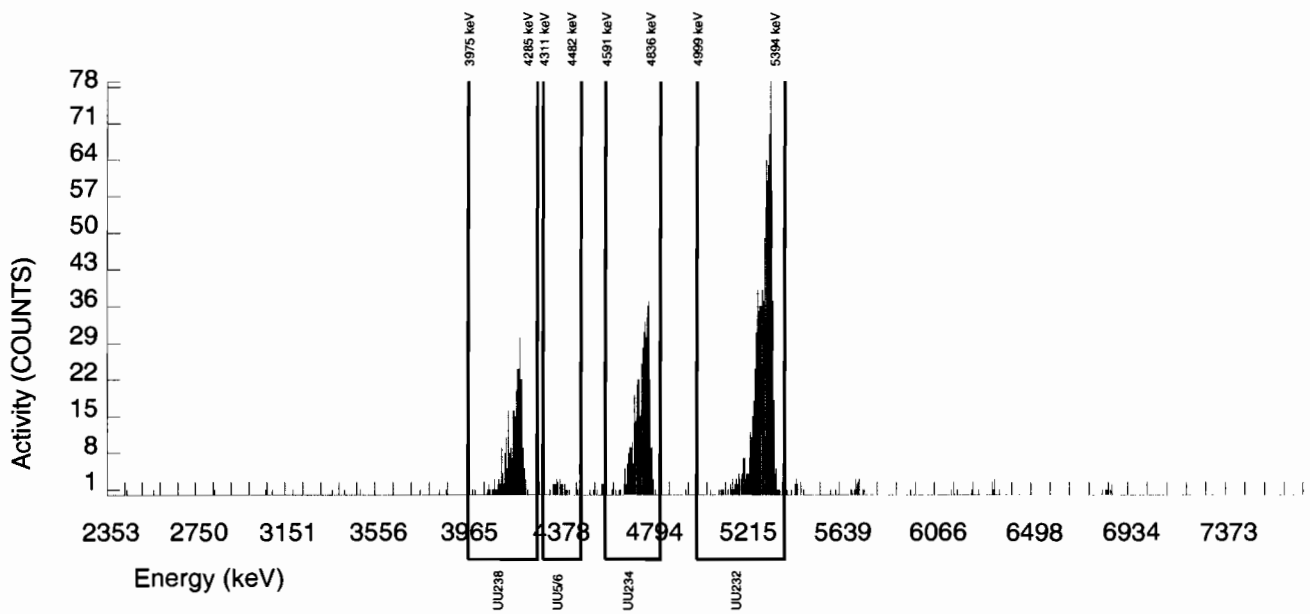

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S1202071689_UU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 23-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 84.613

CHAMBER : 151
DETECTOR S/N : 75556
AVERAGE %EFFICIENCY : 26.1124
COUNT DATE : 27-MAR-2010 12:54:39
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B151.CNF;407
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W151.CNF;122
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.4995E+00 dpm
RESULTS : 3.8071E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.331	62.610	998.000	994.000	4.000	2.0000	100.0000	2.03E+00	1.60E-01	9.49E-03	2.45E-02	6.45E-02
U-3/4	4763.020	4745.047	34.407	9.000	6.993	1.000	5.4790	100.0000	1.43E-02	6.20E-03	2.60E-02	5.75E-02	6.11E-03
U-235	4391.000	4401.571	123.249	3.000	3.000	0.000	2.4127	80.90000	7.56E-03	4.40E-03	1.41E-02	3.51E-02	4.36E-03
U-238	4184.730	4189.966	4.930	4.000	3.000	1.000	3.6781	100.0000	6.12E-03	4.58E-03	1.74E-02	4.04E-02	4.56E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

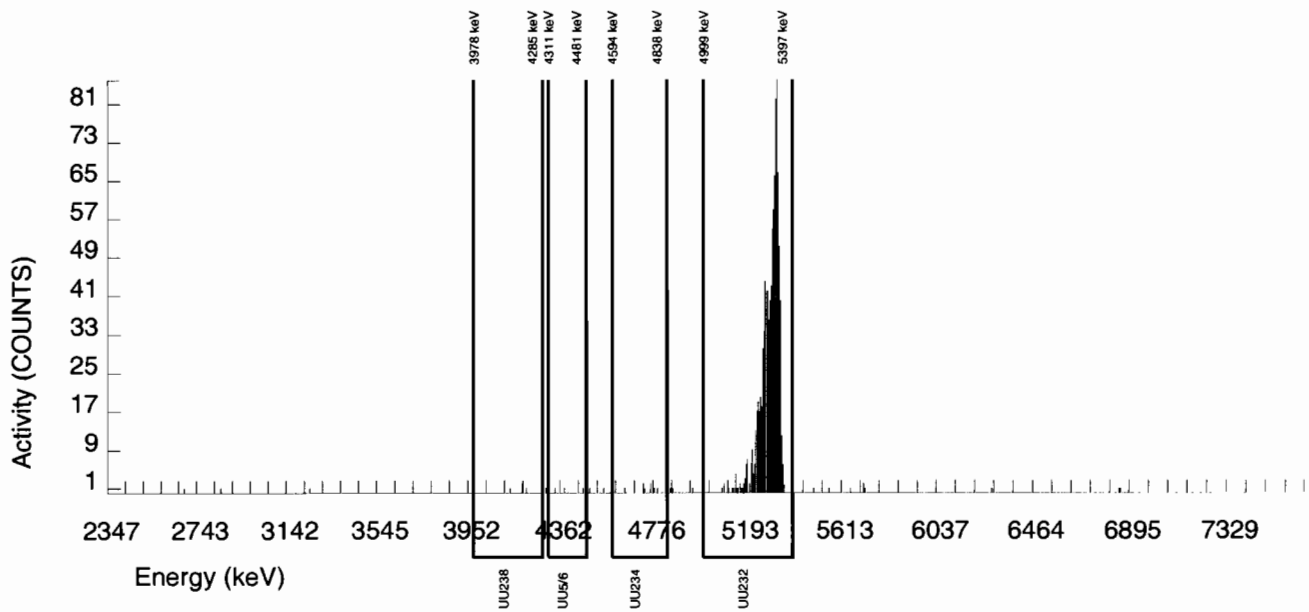

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S1202071690_UU
SAMPLE QTY : 0.503 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 78.600

CHAMBER : 152
DETECTOR S/N : 76222
AVERAGE %EFFICIENCY : 25.2253
COUNT DATE : 27-MAR-2010 12:54:43
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B152.CNF;404
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W152.CNF;109
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 3.5378E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5304.253	28.479	895.000	892.000	3.000	1.7321	100.0000	4.03E+00	3.26E-01	1.82E-02	4.86E-02	1.35E-01
U-3/4	4763.020	4757.159	63.619	408.000	407.096	0.000	5.4790	100.0000	1.84E+00	1.63E-01	5.76E-02	1.27E-01	9.11E-02
U-235	4391.000	4390.489	74.134	19.000	19.000	0.000	2.4127	80.90000	1.06E-01	2.56E-02	3.13E-02	7.78E-02	2.43E-02
U-238	4184.730	4176.903	76.454	268.000	268.000	0.000	3.6781	100.0000	1.21E+00	1.16E-01	3.86E-02	8.95E-02	7.39E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

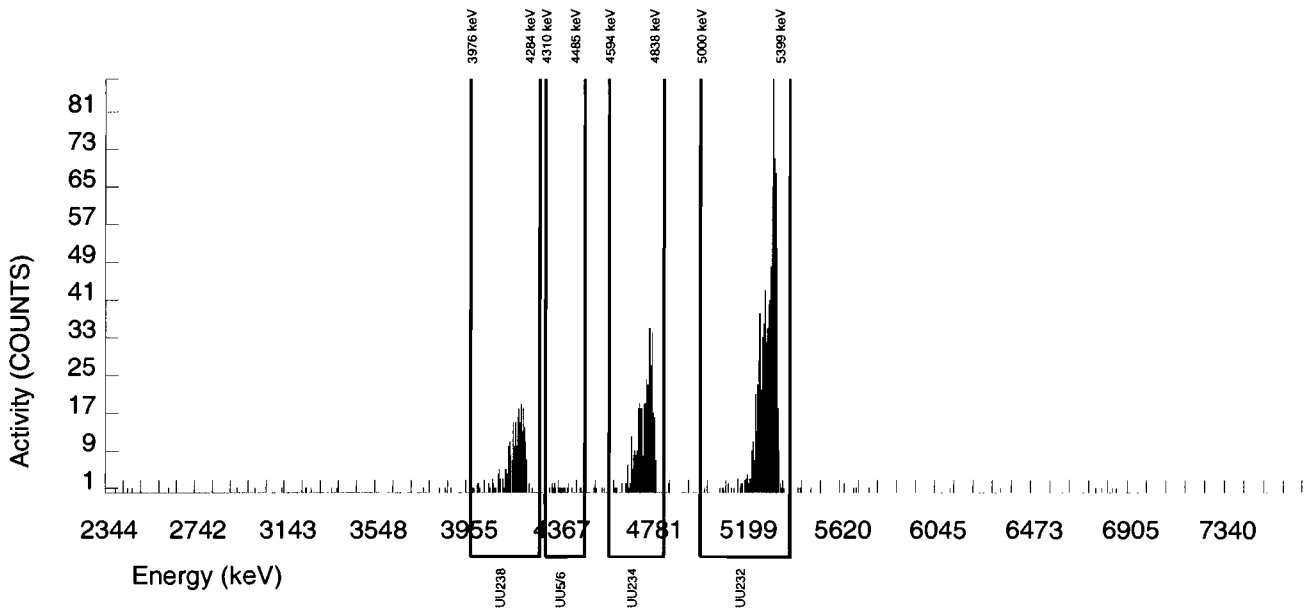

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S1202071691_UU
SAMPLE QTY : 0.113 G
SAMPLE DATE : 23-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 86.790

CHAMBER : 153
DETECTOR S/N : 76223
AVERAGE %EFFICIENCY : 26.2002
COUNT DATE : 27-MAR-2010 12:54:45
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B153.CNF;399
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W153.CNF;112
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.4995E+00 dpm
RESULTS : 3.9051E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5299.472	57.587	1029.000	1023.000	6.000	2.4495	100.0000	1.79E+01	1.50E+00	9.99E-02	2.47E-01	5.64E-01
U-3/4	4763.020	4754.737	68.329	342.000	340.964	0.000	5.4790	100.0000	5.98E+00	5.66E-01	2.23E-01	4.94E-01	3.24E-01
U-235	4391.000	4389.542	68.822	5.000	5.000	0.000	2.4127	80.90000	1.08E-01	4.92E-02	1.22E-01	3.02E-01	4.85E-02
U-238	4184.730	4183.175	45.683	338.000	338.000	0.000	3.6781	100.0000	5.93E+00	5.62E-01	1.50E-01	3.48E-01	3.22E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

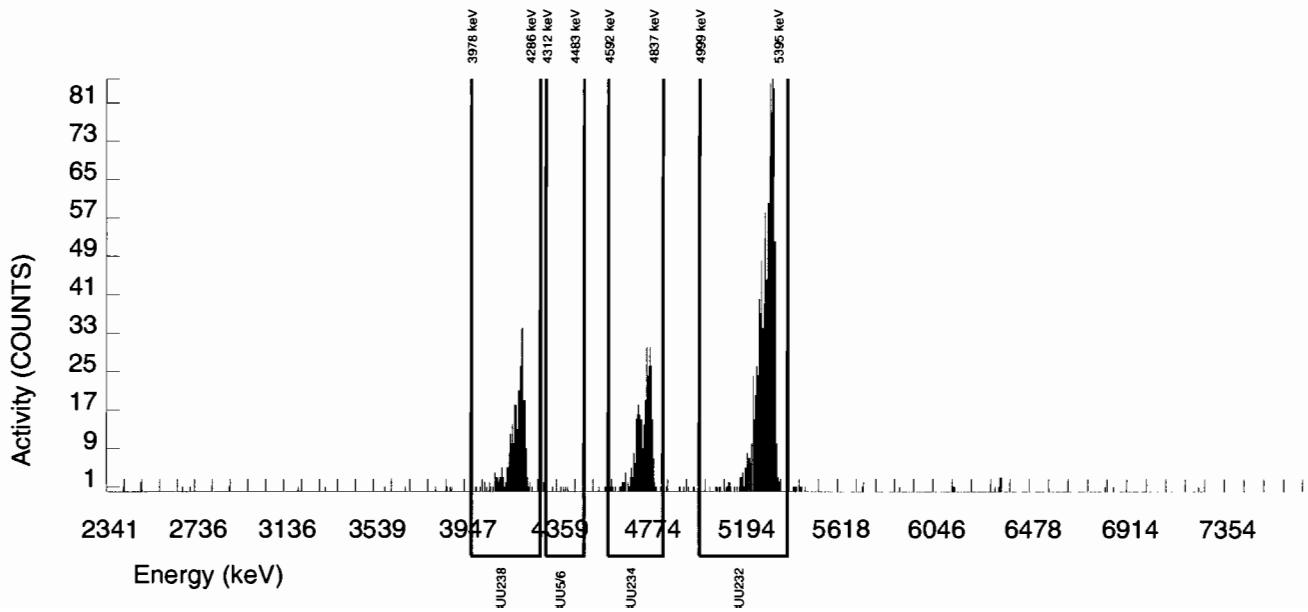

Radiochemistry Batch Checklist, Rev10

Batch# 967216 Product: Th Date: 4/8/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 4/8/10

Secondary Review Performed By: [signature] 4/8/10

4/10

Thorium Que Sheet

19-MAR-10

Batch #: 967216 **Analyst:** CXM2 **First Client Due Date:** 10-APR-10 **Internal Due Date** 30-MAR-10

Tracer Isotope: Th-229 **Tracer Code:** 0934-L **Expiration Date:** 3/9/11 **Vol:** 0.1 mL
LCS Isotope: Th-230 **LCS Code:** 0244-A **Expiration Date:** 10/31/20 **Vol:** 0.107 g # SRM
Spike Isotope: Th-230 **Spike Code:** — **Expiration Date:** — **Vol:** —
Prep Date: 3/29/10 **Initials:** CMM **Pipet ID:** 1642319 **Balance ID:** 50410272 **Witness:** JEH 3-29-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Th Det #
249329001-1	RE46-10-13964	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	1	1	0.267	173
249329002-1	RE46-10-13966	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	2	2	0.255	174
249329003-1	RE46-10-13963	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	3	3	0.258	177
249329004-1	RE46-10-13965	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	4	4	0.262	178
249331001-1	RE46-10-13219	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	5	5	0.259	179
249331002-1	RE46-10-13221	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	6	6	0.252	180
249331003-1	RE46-10-13220	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	7	7	0.256	181
249331004-1	RE46-10-13216	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	8	8	0.264	182
249331005-1	RE46-10-13217	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	9	9	0.254	183
249331006-1	RE46-10-13218	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	10	10	0.252	184
249331007-1	RE46-10-13234	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	11	11	0.250	185
249331008-1	RE46-10-14199	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	12	12	0.255	186
1202075933-1	MB for batch 967216	MB		.1 pCi/g	SOIL	QC ACCOUNT		13	13	1	187
1202075934-1	RE46-10-13219(249331001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	11-MAR-10	14	14	0.259	~~188~~ 173
1202075935-1	LCS for batch 967216	LCS		.1 pCi/g	SOIL	QC ACCOUNT		15	15	0.107	189

CM 4/8/10

Data Reviewed By: JoeLMJ 4/8/10

GEL Laboratories LLC, Radiochemistry Division

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Choose SOP Used: GL-RAD-A-032, GL-RAD-A-038, GL-RAD-A-043

Blank Correction Report

Batch ID 967216

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202075934	DUP	Thorium-228	0.259 g	2.06	0.210	0.207	-.04362934	pCi/g	NO
		Thorium-230	0.259 g	1.43	0.158	0.260	.010463320	pCi/g	NO
		Thorium-232	0.259 g	2.01	0.204	0.111	.006911197	pCi/g	NO
1202075935	LCS	Thorium-228	0.107 g	1.08	0.171	0.387	-.10560748	pCi/g	NO
		Thorium-230	0.107 g	23.5	1.90	0.486	.025327103	pCi/g	NO
		Thorium-232	0.107 g	1.27	0.178	0.207	.016728972	pCi/g	NO
1202075933	MB	Thorium-228	1.00 g	-0.0113	0.00723	0.0478	-.0113	pCi/g	NO
		Thorium-230	1.00 g	0.00271	0.00244	0.060	.00271	pCi/g	YES
		Thorium-232	1.00 g	0.00179	0.00366	0.0256	.00179	pCi/g	YES
249329001	RE46-10-13964	Thorium-228	0.267 g	2.11	0.212	0.200	-.04232210	pCi/g	NO
		Thorium-230	0.267 g	1.33	0.149	0.251	.010149813	pCi/g	NO
		Thorium-232	0.267 g	1.64	0.173	0.107	.006704120	pCi/g	NO
249329002	RE46-10-13966	Thorium-228	0.255 g	1.95	0.195	0.185	-.04431373	pCi/g	NO
		Thorium-230	0.255 g	1.13	0.128	0.232	.010627451	pCi/g	NO
		Thorium-232	0.255 g	1.49	0.156	0.0988	.007019608	pCi/g	NO
249329003	RE46-10-13963	Thorium-228	0.258 g	1.59	0.168	0.187	-.04379845	pCi/g	NO
		Thorium-230	0.258 g	1.20	0.135	0.234	.010503876	pCi/g	NO
		Thorium-232	0.258 g	1.79	0.180	0.0998	.006937984	pCi/g	NO
249329004	RE46-10-13965	Thorium-228	0.262 g	1.59	0.157	0.153	-.04312977	pCi/g	NO
		Thorium-230	0.262 g	1.17	0.123	0.193	.010343511	pCi/g	NO
		Thorium-232	0.262 g	1.62	0.156	0.0821	.006832061	pCi/g	NO
249331001	RE46-10-13219	Thorium-228	0.259 g	1.77	0.170	0.157	-.04362934	pCi/g	NO
		Thorium-230	0.259 g	1.08	0.116	0.197	.010463320	pCi/g	NO
		Thorium-232	0.259 g	1.72	0.165	0.084	.006911197	pCi/g	NO
249331002	RE46-10-13221	Thorium-228	0.252 g	2.02	0.199	0.186	-.04484127	pCi/g	NO
		Thorium-230	0.252 g	1.22	0.135	0.234	.010753968	pCi/g	NO
		Thorium-232	0.252 g	1.63	0.167	0.0996	.007103175	pCi/g	NO
249331003	RE46-10-13220	Thorium-228	0.256 g	1.86	0.196	0.208	-.04414063	pCi/g	NO
		Thorium-230	0.256 g	1.11	0.132	0.261	.010585938	pCi/g	NO
		Thorium-232	0.256 g	1.61	0.173	0.111	.006992188	pCi/g	NO
249331004	RE46-10-13216	Thorium-228	0.264 g	1.54	0.160	0.171	-.04280303	pCi/g	NO
		Thorium-230	0.264 g	1.22	0.133	0.215	.010265152	pCi/g	NO
		Thorium-232	0.264 g	1.47	0.150	0.0915	.006780303	pCi/g	NO
249331005	RE46-10-13217	Thorium-228	0.254 g	1.45	0.151	0.169	-.04448819	pCi/g	NO
		Thorium-230	0.254 g	1.07	0.119	0.212	.010669291	pCi/g	NO
		Thorium-232	0.254 g	1.48	0.151	0.0904	.007047244	pCi/g	NO
249331006	RE46-10-13218	Thorium-228	0.252 g	1.82	0.182	0.181	-.04484127	pCi/g	NO
		Thorium-230	0.252 g	1.32	0.143	0.227	.010753968	pCi/g	NO
		Thorium-232	0.252 g	1.80	0.180	0.0969	.007103175	pCi/g	NO
249331007	RE46-10-13234	Thorium-228	0.250 g	2.22	0.227	0.219	-.0452	pCi/g	NO
		Thorium-230	0.250 g	1.19	0.141	0.274	.01084	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
249331007	RE46-10-13234	Thorium-232	0.250 g	1.84	0.194	0.117	.00716	pCi/g	NO
249331008	RE46-10-14199	Thorium-228	0.255 g	2.13	0.218	0.211	-.04431373	pCi/g	NO
		Thorium-230	0.255 g	1.42	0.158	0.264	.010627451	pCi/g	NO
		Thorium-232	0.255 g	1.88	0.196	0.113	.007019608	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S0249331001_TH
SAMPLE QTY : 0.259 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 92.168

CHAMBER : 179
DETECTOR S/N : 74437
AVERAGE %EFFICIENCY : 26.3847
COUNT DATE : 5-APR-2010 15:34:28
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B179.CNF;186
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W179.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 2.0375E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6021.555	0.000	31.000	24.000	7.000	2.0641	57.44000	7.84E-01	2.09E-01	5.98E-02	1.53E-01	2.01E-01
TH-228	5363.000	5408.299	36.035	243.000	240.809	2.000	4.1318	99.94000	1.77E+00	1.70E-01	6.88E-02	1.57E-01	1.15E-01
TH229	4900.000	4903.755	64.995	538.000	535.000	3.000	1.7321	99.52000	3.84E+00	3.19E-01	2.90E-02	7.74E-02	1.67E-01
TH-230	4671.390	4667.473	32.171	156.000	150.404	0.000	5.3214	99.70000	1.08E+00	1.16E-01	8.88E-02	1.97E-01	8.80E-02
TH-232	3972.000	4005.267	31.098	242.000	240.791	1.000	1.9427	100.0000	1.72E+00	1.65E-01	3.23E-02	8.40E-02	1.11E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

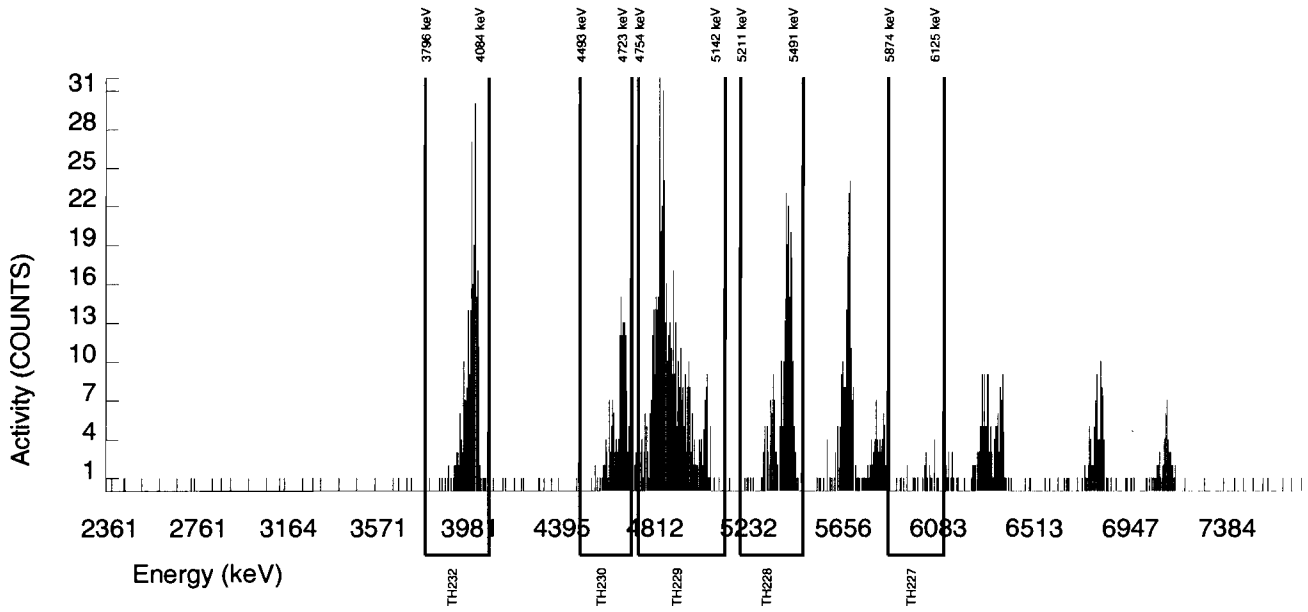

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S0249331002_TH
SAMPLE QTY : 0.252 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 82.671

CHAMBER : 180
DETECTOR S/N : 74438
AVERAGE %EFFICIENCY : 25.5122
COUNT DATE : 5-APR-2010 15:34:32
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B180.CNF;188
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W180.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.8275E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6014.759	21.687	35.000	33.000	2.000	2.0641	57.44000	1.28E+00	2.53E-01	7.09E-02	1.82E-01	2.35E-01
TH-228	5363.000	5406.395	32.268	235.000	231.834	3.000	4.1318	99.94000	2.02E+00	1.99E-01	8.15E-02	1.86E-01	1.34E-01
TH229	4900.000	4906.420	94.682	466.000	464.000	2.000	1.4142	99.52000	3.95E+00	3.41E-01	2.80E-02	7.91E-02	1.84E-01
TH-230	4671.390	4662.208	76.386	148.000	143.146	0.000	5.3214	99.70000	1.22E+00	1.35E-01	1.05E-01	2.34E-01	1.02E-01
TH-232	3972.000	4003.132	53.436	193.000	191.819	1.000	1.9427	100.0000	1.63E+00	1.67E-01	3.83E-02	9.96E-02	1.18E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

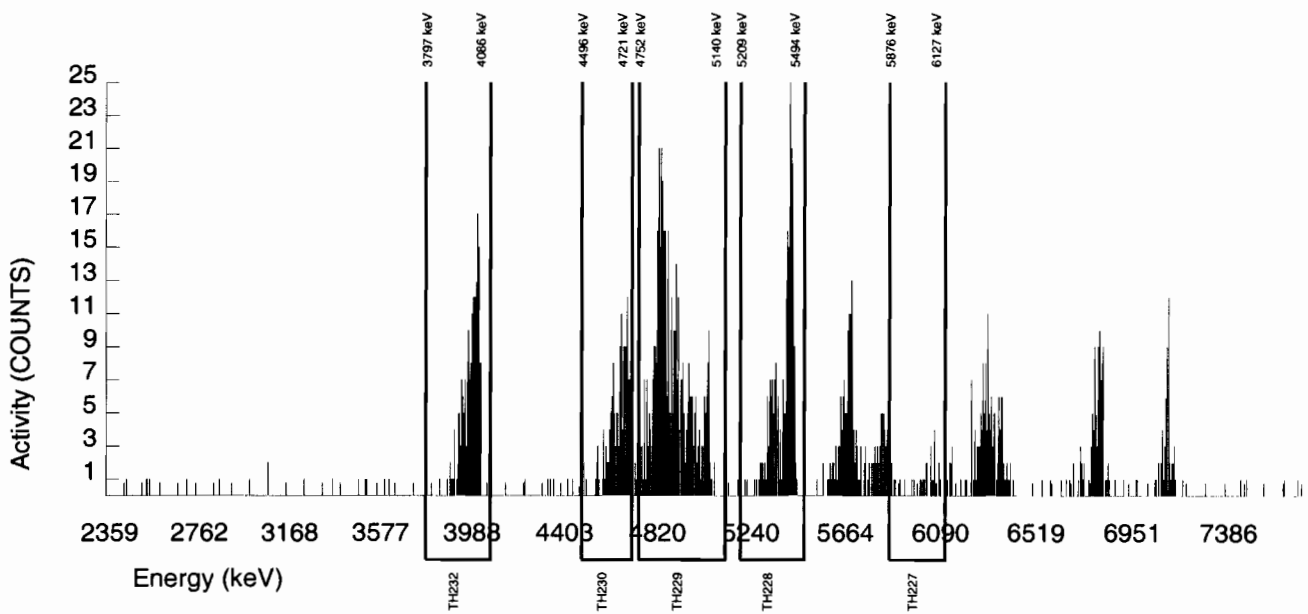

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S0249331003_TH
SAMPLE QTY : 0.256 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 70.283

CHAMBER : 181
DETECTOR S/N : 74439
AVERAGE %EFFICIENCY : 26.4515
COUNT DATE : 5-APR-2010 15:34:34
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B181.CNF;186
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W181.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.5537E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6038.377	0.000	29.000	25.000	4.000	2.0641	57.44000	1.08E+00	2.61E-01	7.91E-02	2.03E-01	2.48E-01
TH-228	5363.000	5411.013	33.921	196.000	191.854	4.000	4.1318	99.94000	1.86E+00	1.96E-01	9.10E-02	2.08E-01	1.37E-01
TH229	4900.000	4902.763	78.917	411.000	409.000	2.000	1.4142	99.52000	3.89E+00	3.49E-01	3.13E-02	8.84E-02	1.93E-01
TH-230	4671.390	4667.476	27.397	122.000	116.722	1.000	5.3214	99.70000	1.11E+00	1.32E-01	1.18E-01	2.61E-01	1.03E-01
TH-232	3972.000	4005.823	22.468	171.000	169.840	1.000	1.9427	100.0000	1.61E+00	1.73E-01	4.28E-02	1.11E-01	1.24E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

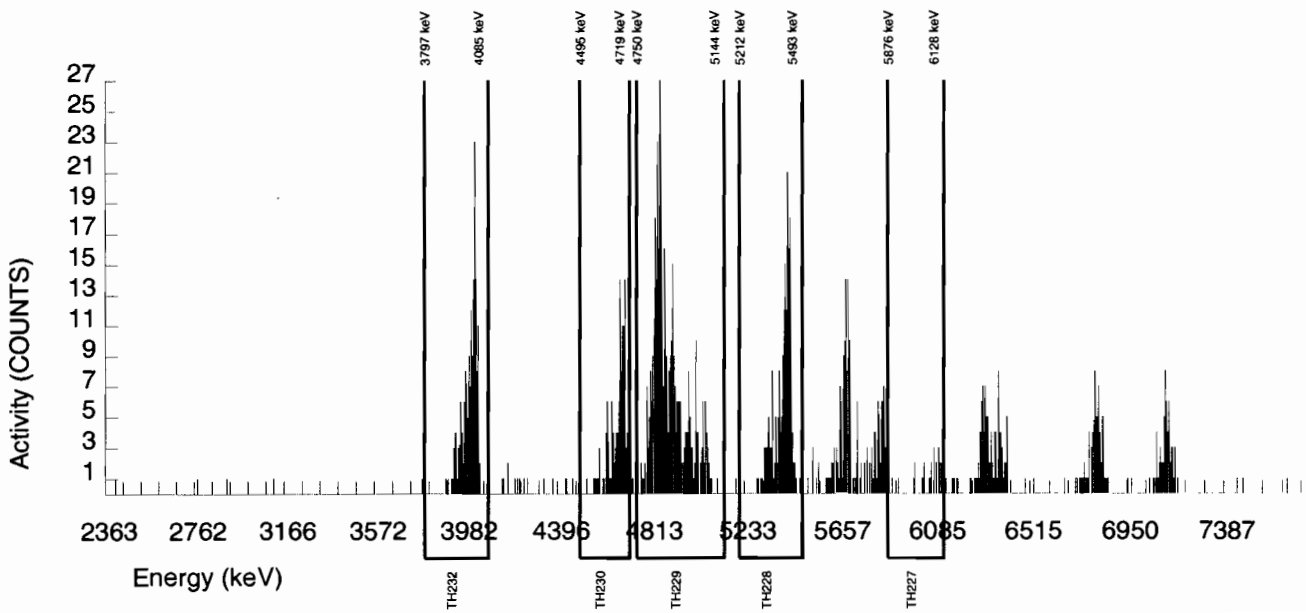

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S0249331004_TH
SAMPLE QTY : 0.264 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 84.490

CHAMBER : 182
DETECTOR S/N : 74440
AVERAGE %EFFICIENCY : 25.9311
COUNT DATE : 5-APR-2010 15:34:38
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B182.CNF;186
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W182.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.8677E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6040.691	0.000	31.000	25.000	6.000	2.0641	57.44000	8.89E-01	2.26E-01	6.51E-02	1.67E-01	2.16E-01
TH-228	5363.000	5414.266	27.506	201.000	192.828	8.000	4.1318	99.94000	1.54E+00	1.60E-01	7.49E-02	1.71E-01	1.16E-01
TH229	4900.000	4904.331	98.569	483.000	482.000	1.000	1.0000	99.52000	3.77E+00	3.21E-01	1.82E-02	5.76E-02	1.72E-01
TH-230	4671.390	4663.020	43.670	164.000	155.958	3.000	5.3214	99.70000	1.22E+00	1.33E-01	9.67E-02	2.15E-01	9.94E-02
TH-232	3972.000	4008.611	16.552	189.000	188.812	0.000	1.9427	100.0000	1.47E+00	1.50E-01	3.52E-02	9.15E-02	1.07E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

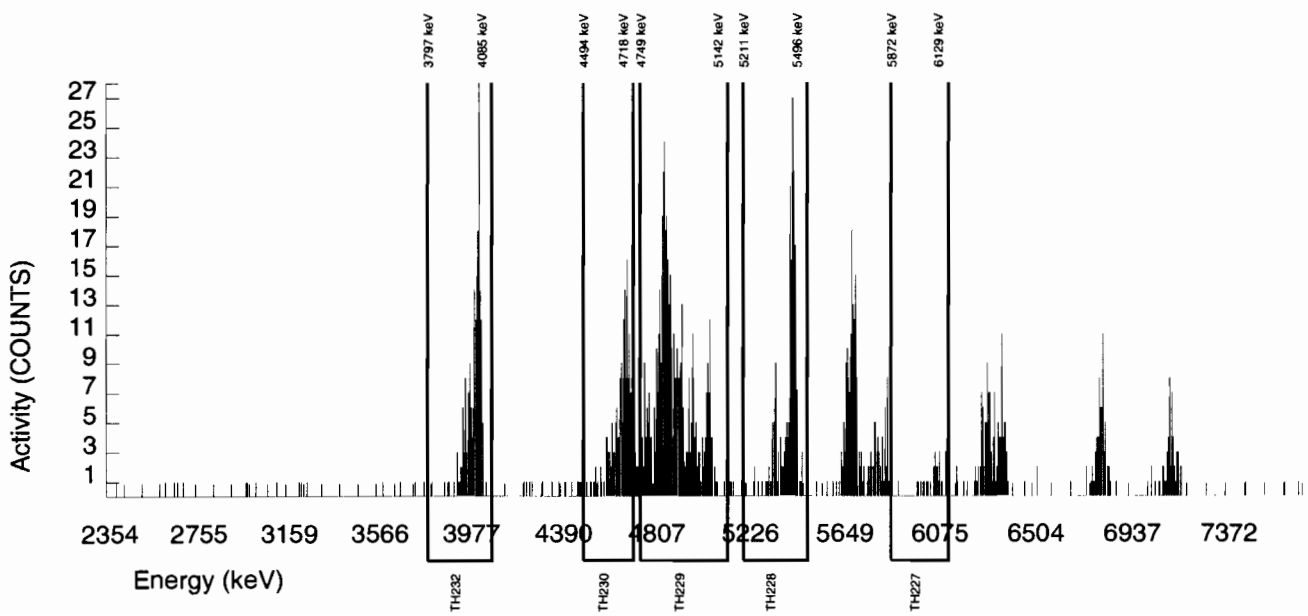

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S0249331005_TH
SAMPLE QTY : 0.254 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 83.826

CHAMBER : 183
DETECTOR S/N : 74441
AVERAGE %EFFICIENCY : 27.4921
COUNT DATE : 5-APR-2010 15:34:40
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B183.CNF;186
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W183.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.8531E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6045.739	223.805	25.000	22.000	3.000	2.0641	57.44000	7.73E-01	1.94E-01	6.43E-02	1.65E-01	1.86E-01
TH-228	5363.000	5414.068	35.669	190.000	183.819	6.000	4.1318	99.94000	1.45E+00	1.51E-01	7.40E-02	1.69E-01	1.11E-01
TH229	4900.000	4908.938	52.073	507.000	507.000	0.000	0.0000	99.52000	3.92E+00	3.29E-01	0.00E+00	2.10E-02	1.74E-01
TH-230	4671.390	4673.216	25.862	144.000	138.697	0.000	5.3214	99.70000	1.07E+00	1.19E-01	9.56E-02	2.12E-01	9.09E-02
TH-232	3972.000	4008.466	35.487	194.000	192.802	1.000	1.9427	100.0000	1.48E+00	1.51E-01	3.48E-02	9.04E-02	1.07E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)
* BKG Sg of TH229 calculated as sqrt(BKG AREA).
* Corrections made to the following net areas due to tracer impurity:
  TH-228 , TH-230, TH-232

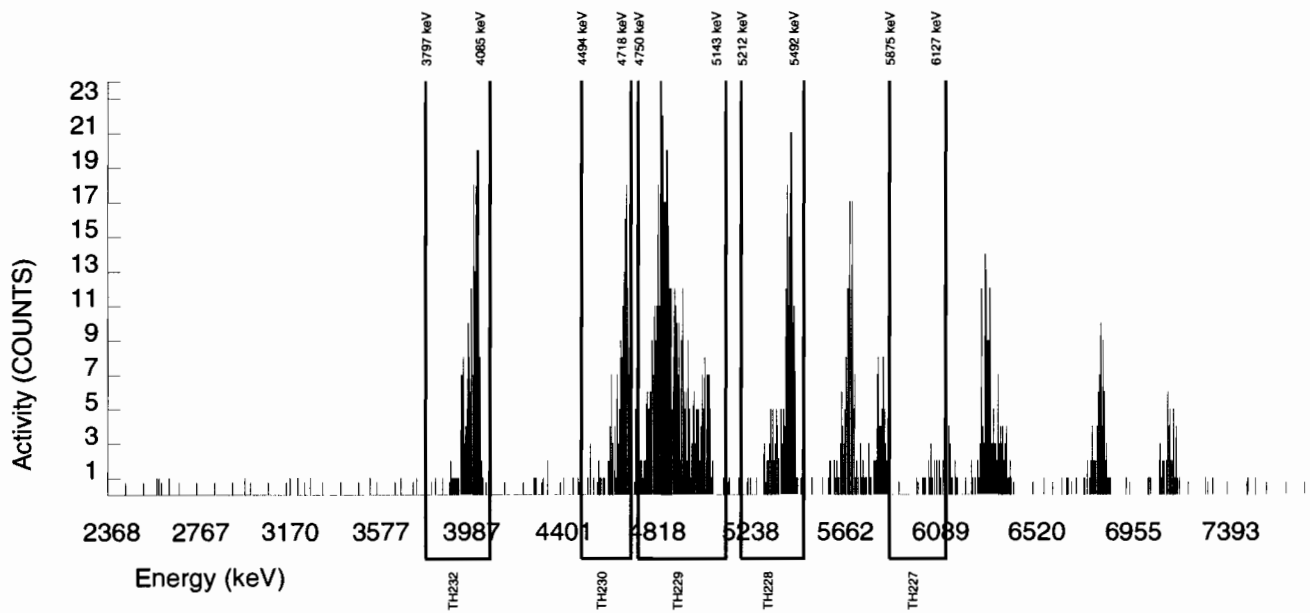

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S0249331006_TH
SAMPLE QTY : 0.252 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 79.994

CHAMBER : 184
DETECTOR S/N : 74442
AVERAGE %EFFICIENCY : 27.1043
COUNT DATE : 5-APR-2010 15:34:43
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B184.CNF;188
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W184.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.7684E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6012.245	0.000	49.000	38.000	11.000	2.0641	57.44000	1.43E+00	3.09E-01	6.89E-02	1.77E-01	2.92E-01
TH-228	5363.000	5418.823	33.269	218.000	214.830	3.000	4.1318	99.94000	1.82E+00	1.82E-01	7.93E-02	1.81E-01	1.26E-01
TH229	4900.000	4914.907	34.857	478.000	477.000	1.000	1.0000	99.52000	3.95E+00	3.38E-01	1.93E-02	6.10E-02	1.81E-01
TH-230	4671.390	4677.521	0.000	167.000	160.010	2.000	5.3214	99.70000	1.32E+00	1.43E-01	1.02E-01	2.27E-01	1.06E-01
TH-232	3972.000	4017.155	30.969	222.000	218.814	3.000	1.9427	100.0000	1.80E+00	1.80E-01	3.73E-02	9.69E-02	1.24E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)
* BKG Sg of TH229 calculated as sqrt(BKG AREA).
* Corrections made to the following net areas due to tracer impurity:
  TH-228 , TH-230, TH-232

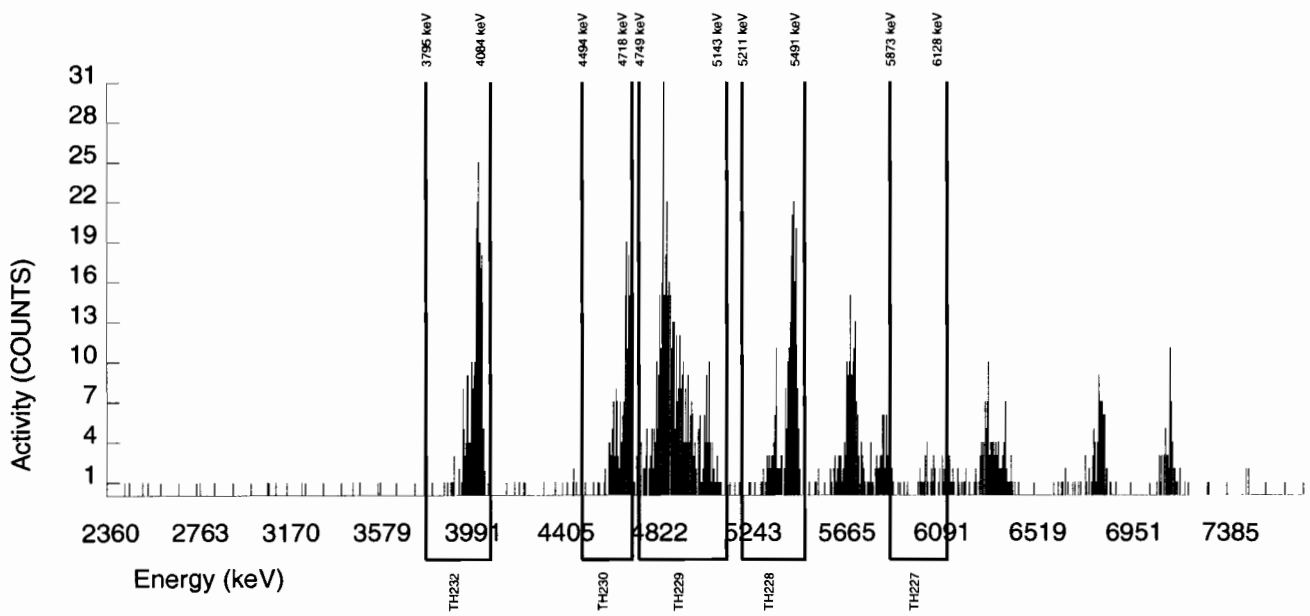

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S0249331007_TH
SAMPLE QTY : 0.250 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 67.508

CHAMBER : 185
DETECTOR S/N : 68615
AVERAGE %EFFICIENCY : 26.7982
COUNT DATE : 5-APR-2010 15:34:46
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B185.CNF;168
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W185.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.4923E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6021.831	0.000	28.000	23.000	5.000	2.0641	57.44000	1.05E+00	2.73E-01	8.33E-02	2.14E-01	2.61E-01
TH-228	5363.000	5405.261	22.427	222.000	216.858	5.000	4.1318	99.94000	2.22E+00	2.27E-01	9.58E-02	2.19E-01	1.54E-01
TH229	4900.000	4900.660	140.061	399.000	398.000	1.000	1.0000	99.52000	3.98E+00	3.60E-01	2.33E-02	7.37E-02	2.00E-01
TH-230	4671.390	4665.787	22.290	123.000	118.837	0.000	5.3214	99.70000	1.19E+00	1.41E-01	1.24E-01	2.74E-01	1.09E-01
TH-232	3972.000	4001.029	22.117	186.000	184.845	1.000	1.9427	100.0000	1.84E+00	1.94E-01	4.50E-02	1.17E-01	1.36E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

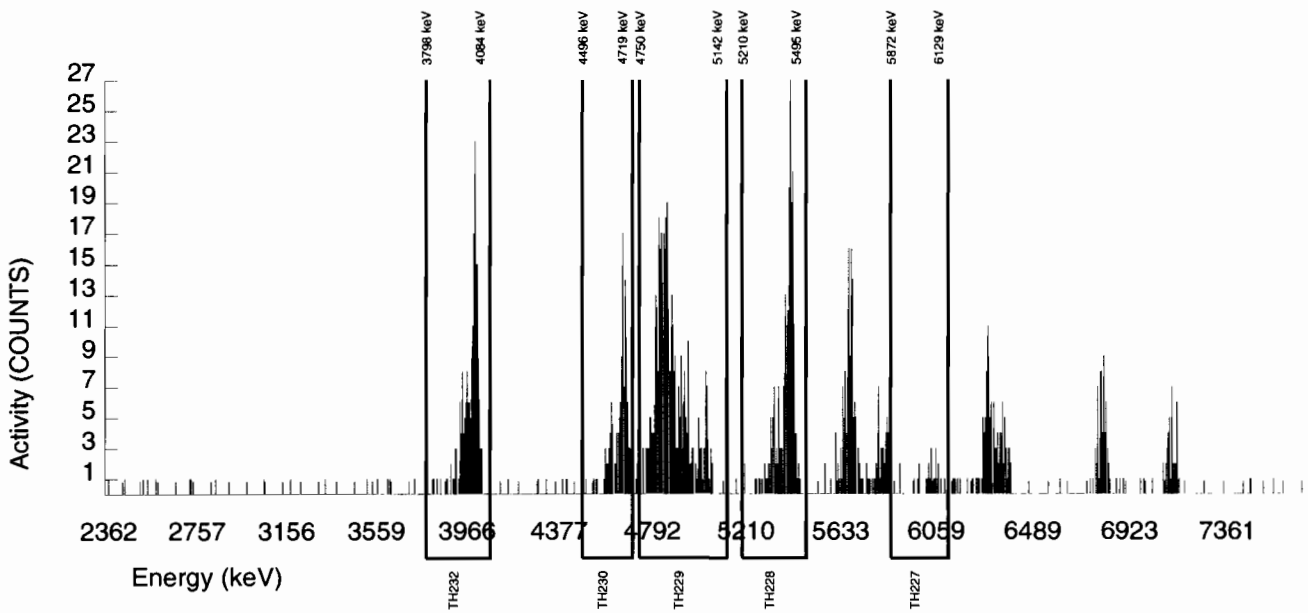

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S0249331008_TH
SAMPLE QTY : 0.255 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 71.433

CHAMBER : 186
DETECTOR S/N : 68616
AVERAGE %EFFICIENCY : 25.7712
COUNT DATE : 5-APR-2010 15:34:48
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B186.CNF;168
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W186.CNF;59
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.5791E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6051.127	31.761	32.000	21.000	11.000	2.0641	57.44000	9.20E-01	2.96E-01	8.02E-02	2.06E-01	2.87E-01
TH-228	5363.000	5410.375	30.557	221.000	215.855	5.000	4.1318	99.94000	2.13E+00	2.18E-01	9.23E-02	2.11E-01	1.48E-01
TH229	4900.000	4908.634	40.280	409.000	405.000	4.000	2.0000	99.52000	3.90E+00	3.53E-01	4.49E-02	1.16E-01	1.96E-01
TH-230	4671.390	4661.396	47.824	152.000	147.764	0.000	5.3214	99.70000	1.42E+00	1.58E-01	1.19E-01	2.64E-01	1.17E-01
TH-232	3972.000	4000.610	43.212	198.000	195.842	2.000	1.9427	100.0000	1.88E+00	1.96E-01	4.34E-02	1.13E-01	1.36E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

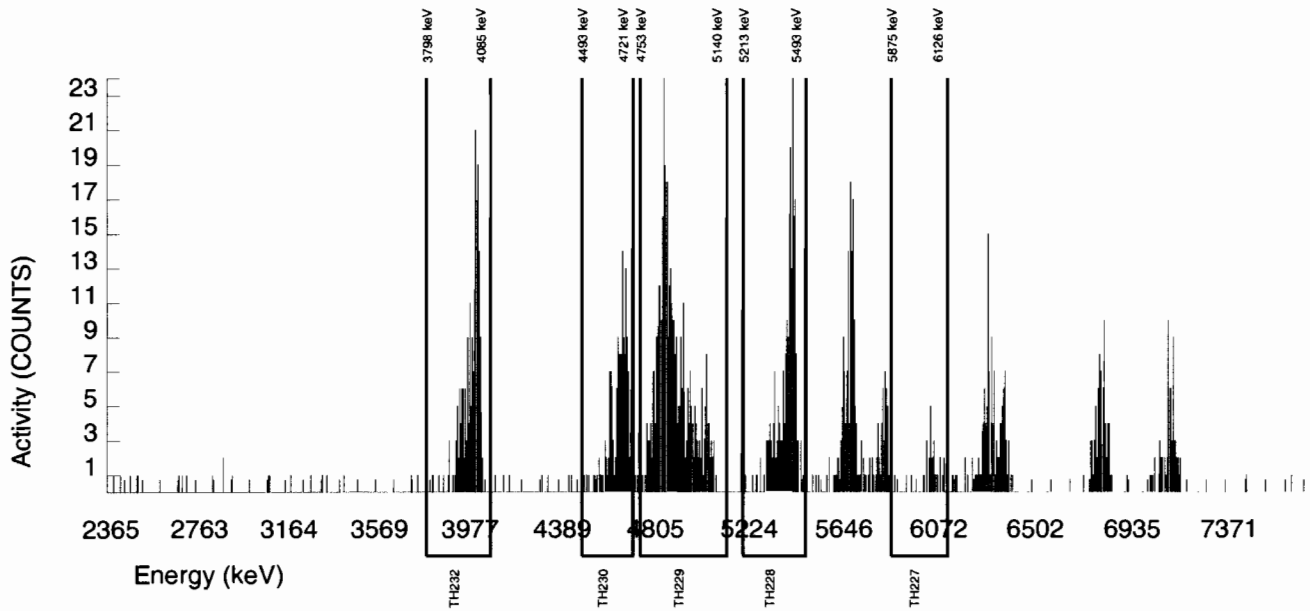

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S1202075933_TH
SAMPLE QTY : 1.000 G
SAMPLE DATE : 29-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 77.210

CHAMBER : 187
DETECTOR S/N : 68620
AVERAGE %EFFICIENCY : 26.7864
COUNT DATE : 5-APR-2010 15:34:51
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B187.CNF;168
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W187.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.7068E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5994.389	0.000	8.000	4.000	4.000	2.0641	57.44000	2.04E-02	1.77E-02	1.82E-02	4.67E-02	1.77E-02
TH-228	5363.000	5396.275	99.220	3.000	-5.162	8.000	4.1318	99.94000	-1.13E-02	7.23E-03	2.09E-02	4.78E-02	7.23E-03
TH229	4900.000	4907.035	42.054	459.000	455.000	4.000	2.0000	99.52000	9.96E-01	8.58E-02	1.02E-02	2.63E-02	4.71E-02
TH-230	4671.390	4651.975	0.000	6.000	1.240	0.000	5.3214	99.70000	2.71E-03	2.44E-03	2.70E-02	6.00E-02	2.43E-03
TH-232	3972.000	3918.157	193.479	2.000	0.822	1.000	1.9427	100.0000	1.79E-03	3.66E-03	9.84E-03	2.56E-02	3.66E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

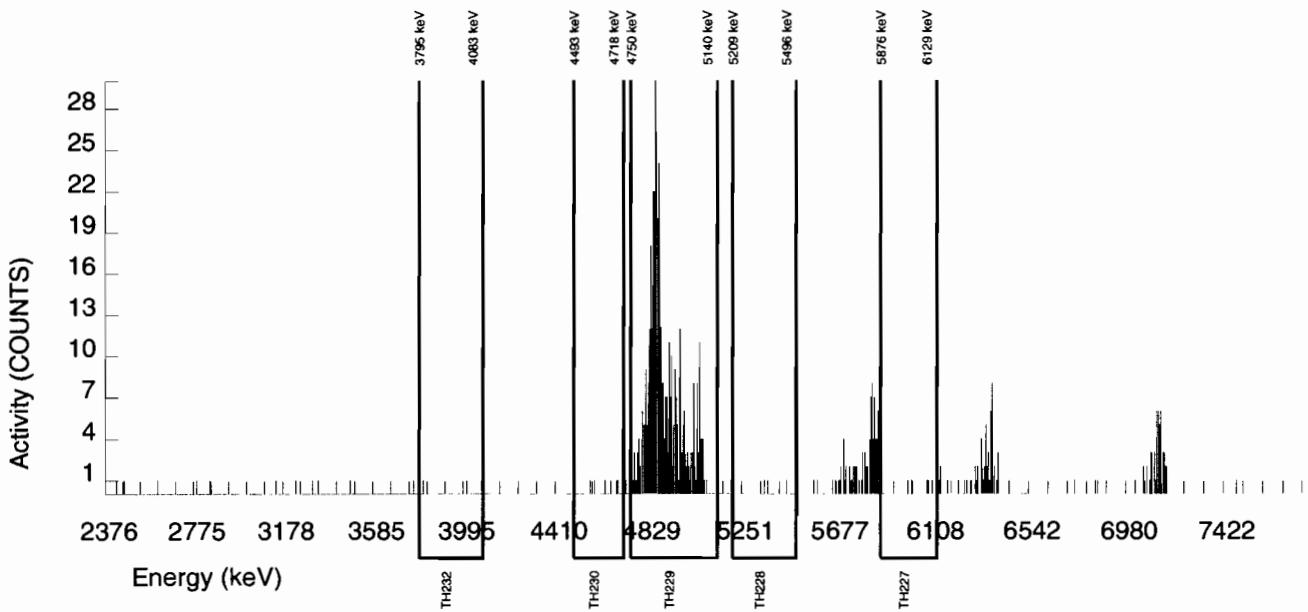

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S1202075934_TH
SAMPLE QTY : 0.259 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 67.896

CHAMBER : 173
DETECTOR S/N : 74431
AVERAGE %EFFICIENCY : 27.1809
COUNT DATE : 7-APR-2010 18:23:17
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B173.CNF;187
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W173.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.5009E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5977.485	0.000	7.000	2.000	5.000	2.0641	57.44000	9.31E-02	1.61E-01	7.88E-02	2.02E-01	1.61E-01
TH-228	5363.000	5409.509	22.154	215.000	212.855	2.000	4.1318	99.94000	2.06E+00	2.10E-01	9.06E-02	2.07E-01	1.43E-01
TH229	4900.000	4903.793	125.439	407.000	406.000	1.000	1.0000	99.52000	3.84E+00	3.45E-01	2.20E-02	6.97E-02	1.91E-01
TH-230	4671.390	4667.033	39.041	156.000	150.753	1.000	5.3214	99.70000	1.42E+00	1.58E-01	1.17E-01	2.60E-01	1.17E-01
TH-232	3972.000	4002.932	22.625	214.000	212.841	1.000	1.9427	100.0000	2.01E+00	2.04E-01	4.26E-02	1.11E-01	1.38E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

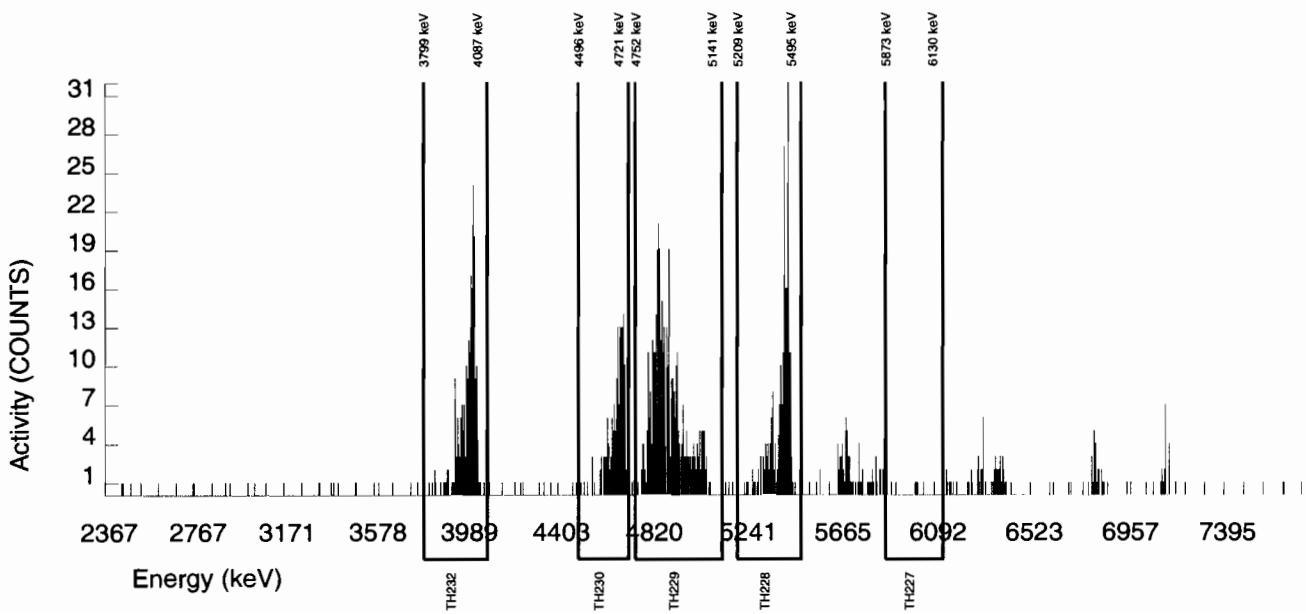

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S1202075935_TH
SAMPLE QTY : 0.107 G
SAMPLE DATE : 29-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 89.717

CHAMBER : 189
DETECTOR S/N : 68622
AVERAGE %EFFICIENCY : 26.5988
COUNT DATE : 5-APR-2010 15:34:57
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B189.CNF;168
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W189.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.9833E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5989.875	0.000	34.000	26.000	8.000	2.0641	57.44000	1.07E+00	2.80E-01	1.47E-01	3.78E-01	2.68E-01
TH-228	5363.000	5407.100	22.524	66.000	60.813	5.000	4.1318	99.94000	1.08E+00	1.71E-01	1.70E-01	3.87E-01	1.50E-01
TH229	4900.000	4897.214	28.118	526.000	525.000	1.000	1.0000	99.52000	9.31E+00	8.16E-01	4.12E-02	1.31E-01	4.07E-01
TH-230	4671.390	4672.565	36.409	1338.000	1330.508	2.000	5.3214	99.70000	2.35E+01	1.90E+00	2.19E-01	4.86E-01	6.46E-01
TH-232	3972.000	4004.897	70.255	72.000	71.795	0.000	1.9427	100.0000	1.27E+00	1.78E-01	7.97E-02	2.07E-01	1.49E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

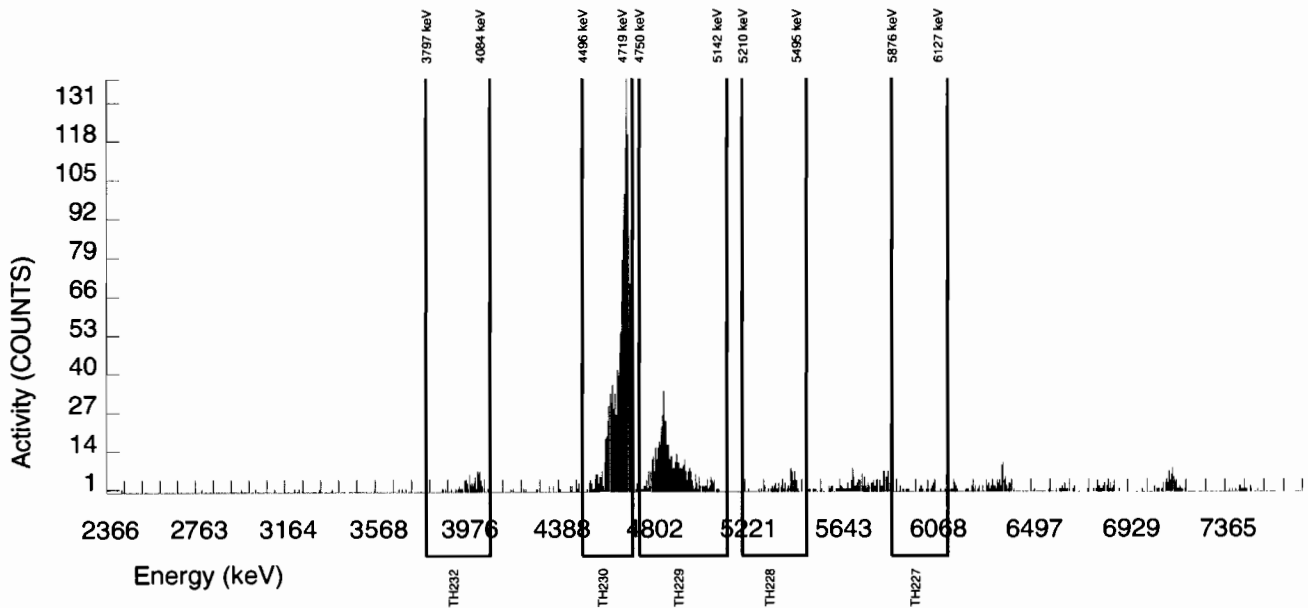

Radiochemistry Batch Checklist, Rev10

Batch# 965250 Product: Y-S Date: 3/26/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 3/26/10

Secondary Review Performed By: M. Stamps 3/26/10

LANL
3/31

I.6. -3/24/10

Gamma Spec Que Sheet

03/23/2010

Batch #: 965250 **Analyst:** GSO MxRI **First Client DueDate** 03/31/2010 **Internal Due Date:** 03/21/2010

Gamma Spike Isotope: Mixed Gamma **Spike Code:** n/a **Expiration Date:** n/a **Vol:** n/a **Nominal Concentration:** n/a Co60 6.46

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0mL **Nominal Concentration:** Cs137 5.682 Am241 16.29

Initials: RF **Prep Date:** 3/17/10 **Library:** Solid **Witness:** n/a

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Wet/Dry Aliquot (1/g/F)	Detector	Sealing Date/Time (if Applicable)
249060003-1	RE16-10-2826	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF	can	116.26	5	3/17/10
249329001-1	RE46-10-13964	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		135.71	6	
249329002-1	RE46-10-13966	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		122.41	7	
249329003-1	RE46-10-13963	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		120.02	19	
249329004-1	RE46-10-13965	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		118.49	22	
249331001-1	RE46-10-13219	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		122.51	4	
249331002-1	RE46-10-13221	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		123.63	10	
249331003-1	RE46-10-13220	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		133.14	11	
249331004-1	RE46-10-13216	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		129.85	15	
249331005-1	RE46-10-13217	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		118.26	25	
249331006-1	RE46-10-13218	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		113.55	29	
249331007-1	RE46-10-13234	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		122.74	1	
249331008-1	RE46-10-14199	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		128.17	16	
249334001-1	RE46-10-12972	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		120.31	18	
249334002-1	RE46-10-13003	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		122.81	23	
249334003-1	RE46-10-12967	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		102.94	17	
249334004-1	RE46-10-12971	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		123.57	21	
249334005-1	RE46-10-12968	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		115.515	15	
249334006-1	RE46-10-12969	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		112.40	6	
249334007-1	RE46-10-12970	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		110.71	22	MS 3/24/10
1202071014-1	MB	MB		QC ACCOUNT	SOIL	3/17/10 RF		135.71	19	
1202071015-1	DUP RE46-10-12972(249334001)	DUP		QC ACCOUNT	SOIL	11-MAR-10 12:00:00 RF		120.31	1	
1202071016-1	LCS	LCS		QC ACCOUNT	SOIL	3/17/10 RF		151.73	4	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: 3/26/10

✓ no history
✓ dot lines

M Stamps 3/26/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
965250	249060003	SAMPLE	24-MAR-10		Cerium-139	0.02054	0.05938	0.050
					Cesium-134	0.1015	0.1144	0.100
					Sodium-22	0.02652	0.09303	0.080
965250	249329001	SAMPLE	24-MAR-10		Americium-241	-0.2777	0.3037	0.200
					Cerium-139	-0.01071	0.05399	0.050
					Sodium-22	0.00343	0.0899	0.080
					Thorium-234	2.317	2.946	2.00
965250	249329002	SAMPLE	24-MAR-10		Cerium-139	0.00467	0.0553	0.050
					Sodium-22	0.01483	0.08891	0.080
965250	249329003	SAMPLE	24-MAR-10		Americium-241	0.05444	0.2922	0.200
					Cerium-139	-0.02353	0.05575	0.050
					Cesium-134	0.07045	0.1004	0.100
965250	249329004	SAMPLE	24-MAR-10		Americium-241	-0.06037	0.2308	0.200
					Cerium-139	-0.02966	0.05027	0.050
					Thorium-234	0.8055	2.328	2.00
965250	249331001	SAMPLE	24-MAR-10		Americium-241	0.07702	0.4299	0.200
					Cerium-139	0.00374	0.05309	0.050
					Sodium-22	0.01298	0.08577	0.080
					Thorium-234	1.682	3.581	2.00
965250	249331002	SAMPLE	24-MAR-10		Americium-241	-0.1455	0.4228	0.200
					Cerium-139	-0.01861	0.05223	0.050
					Sodium-22	0.00137	0.08483	0.080
					Thorium-234	0.3896	3.652	2.00
965250	249331003	SAMPLE	24-MAR-10					
965250	249331004	SAMPLE	24-MAR-10		Americium-241	-0.3863	0.5304	0.200
					Cerium-139	0.0153	0.06607	0.050
					Europium-152	-0.1267	0.2134	0.200
					Sodium-22	0.00408	0.09388	0.080
					Thorium-234	1.481	4.403	2.00
965250	249331005	SAMPLE	24-MAR-10		Sodium-22	-0.03147	0.09217	0.080
965250	249331006	SAMPLE	24-MAR-10		Americium-241	0.06295	0.3445	0.200
					Cerium-139	-0.00511	0.06533	0.050
					Cesium-134	0.07548	0.1019	0.100
					Europium-152	0.02785	0.2066	0.200
					Sodium-22	-0.01763	0.08904	0.080
965250	249331007	SAMPLE	24-MAR-10		Americium-241	-0.1499	0.3314	0.200
					Cerium-139	0.00775	0.06235	0.050
					Sodium-22	-0.00114	0.08854	0.080
					Thorium-234	1.435	3.127	2.00
965250	249331008	SAMPLE	24-MAR-10		Americium-241	0.03972	0.2464	0.200
					Thorium-234	1.725	2.347	2.00
965250	249334001	SAMPLE	24-MAR-10		Americium-241	0.00495	0.3239	0.200
					Thorium-234	2.535	2.775	2.00
965250	249334002	SAMPLE	24-MAR-10		Americium-241	-0.1776	0.3787	0.200

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
965250	249334002	SAMPLE	24-MAR-10		Cerium-139	-0.0302	0.05895	0.050
					Sodium-22	-0.01509	0.09395	0.080
					Thorium-234	3.219	3.297	2.00
965250	249334003	SAMPLE	24-MAR-10		Cerium-139	0.02498	0.06754	0.050
					Cobalt-60	0.01846	0.1106	0.100
					Europium-152	0.0252	0.2121	0.200
					Ruthenium-106	0.2558	0.8041	0.800
					Sodium-22	-0.04015	0.1085	0.080
965250	249334004	SAMPLE	24-MAR-10		Sodium-22	-0.03361	0.1004	0.080
965250	249334005	SAMPLE	24-MAR-10		Americium-241	-0.3871	0.6185	0.200
					Cerium-139	0.04101	0.08399	0.050
					Cesium-134	0.1118	0.1199	0.100
					Europium-152	-0.09595	0.2308	0.200
					Sodium-22	-0.06042	0.09652	0.080
					Thorium-234	1.563	5.23	2.00
					Tin-113	0.00999	0.1076	0.100
965250	249334006	SAMPLE	24-MAR-10		Americium-241	-0.1051	0.3377	0.200
					Cerium-139	0.02722	0.06153	0.050
					Sodium-22	-0.02334	0.1007	0.080
965250	249334007	SAMPLE	25-MAR-10		Americium-241	-0.01084	0.2566	0.200
					Cerium-139	-0.00107	0.05585	0.050
					Thorium-234	0.9429	2.515	2.00
965250	1202071014	MB	24-MAR-10					
965250	1202071015	DUP	24-MAR-10		Americium-241	0.07168	0.3571	0.200
					Cerium-139	0.0107	0.06517	0.050
					Europium-152	0.01143	0.2111	0.200
					Sodium-22	-0.03645	0.0896	0.080
965250	1202071016	LCS	24-MAR-10		Cerium-139	0.03763	0.08267	0.050
					Cesium-134	0.00727	0.1589	0.100
					Europium-152	-0.1612	0.2874	0.200
					Mercury-203	0.04835	0.1109	0.100
					Potassium-40	0.9781	1.267	1.00
					Ruthenium-106	0.1469	0.9319	0.800
					Sodium-22	0.0074	0.08969	0.080
					Thorium-234	-0.6548	5.086	2.00
					Tin-113	-0.0188	0.1327	0.100

Gamma Review Report based on Result > MDA for Batch:965250

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249060003	04-MAR-10 12:00	24-MAR-10 08:56	19.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.723	0.2088	pCi/g	0.2502	N	910.9	3	1.717	IDENTIFIED	10.32	☐	
Annihilation Rad.	HE	0.1009	0.0413	pCi/g	0.06099	N	510.3	1	2.325	IDENTIFIED	40.8	☐	
Bismuth-211	INT	3.205	0.2945	pCi/g	0.3662	Y	351.6	2	1.469	IDENTIFIED	8.293	☑ UI	
Bismuth-212	—	2.947	0.5338	pCi/g	1.447	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.9593	0.09985	pCi/g	0.1212	0.200	608.8	3	1.515	IDENTIFIED	9.515	☐	
Cadmium-109	INT	3.627	0.4518	pCi/g	0.9853	Y	86.86	3	1.263	IDENTIFIED	11.86	☑ UI	
Cadmium-115	HE	1.413	30.65	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cerium-143	—	10670	1686	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.3592	0.09972	pCi/g	0.3253	N	0	10	0	NOT_IDENTI	0	☐	
Gross Gamma	—	8.255	1.4	pCi/g	3.301	N		0				☐	
Iodine-133	HE	1.60E+05	1.62E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.646	0.1077	pCi/g	0.101	0.100	238.3	2	1.234	IDENTIFIED	3.668	☐	
Lead-214	✓	1.163	0.1116	pCi/g	0.1332	0.100	351.6	2	1.469	IDENTIFIED	8.293	☐	
Neptunium-237	INT	1.05	0.171	pCi/g	0.2841	N	86.86	3	1.263	IDENTIFIED	11.86	☐	
Niobium-95m	—	1.041	0.1111	pCi/g	0.3568	N	0	10	0	NOT_IDENTI	0	☐	
Potassium-40	✓	25.18	1.211	pCi/g	0.6373	1.00	1460	1	1.965	IDENTIFIED	3.667	☐	
Promethium-149	HE	127.7	236.5	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Radium-224	INT	3.99	0.699	pCi/g	1.082	Y	241.2	1	1.833	IDENTIFIED	16.82	☑ UI	
Radium-226	✓	0.9593	0.09985	pCi/g	0.1212	Y	608.8	3	1.515	IDENTIFIED	9.515	☐	
Radium-228	✓	1.723	0.2088	pCi/g	0.2502	0.500	910.9	3	1.717	IDENTIFIED	10.32	☐	
Sodium-24	HE	7.63E+07	8.37E+07	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.1148	0.02909	pCi/g	0.09642	Y	0	10	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	—	4.12E+21	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4579	0.05011	pCi/g	0.06949	0.080	582.8	1	1.462	IDENTIFIED	10.31	☐	
Thorium-228	NR	1.646	0.1077	pCi/g	0.101	N	238.3	2	1.234	IDENTIFIED	3.668	☐	
Thorium-230	NR	0.9592	0.09659	pCi/g	0.1212	N	608.8	3	1.515	IDENTIFIED	9.515	☐	
Thorium-232	NR	1.723	0.2088	pCi/g	0.2502	N	910.9	3	1.717	IDENTIFIED	10.32	☐	
Thorium-234	✓	1.176	0.5778	pCi/g	1.149	2.00	62.57	2	1.442	IDENTIFIED	48.3	☐	
Tin-126	NR	0.352	0.04385	pCi/g	0.09551	N	86.86	3	1.263	IDENTIFIED	11.86	☐	
Total Uranium	—	3.564	1.72E-06	ug/g	1.7123	N		0				☐	
Uranium-238	HE	1.176	0.5778	pCi/g	1.149	N	62.57	2	1.442	IDENTIFIED	48.3	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249329001	11-MAR-10 12:00	24-MAR-10 08:56	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.186	0.2294	pCi/g	0.2494	N	911.5	3	1.969	IDENTIFIED	8.581	☐	
Annihilation Rad.	—	0.1267	0.0355	pCi/g	0.05193	N	511	1	1.872	IDENTIFIED	27.68	☐	
Bismuth-211	INT	3.633	0.2995	pCi/g	0.4253	Y	352.1	2	1.314	IDENTIFIED	6.781	☑ UI	
Bismuth-212	—	3.197	0.8334	pCi/g	1.441	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.205	0.1076	pCi/g	0.1317	0.200	609.6	3	1.24	IDENTIFIED	7.425	☐	
Cadmium-109	INT	4.182	0.69	pCi/g	1.308	Y	87.05	3	1.449	IDENTIFIED	15.56	☑ UI	
Cerium-143	—	182.7	35.84	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1339	0.03601	pCi/g	0.1024	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	—	10.32	1.468	pCi/g	3.5	N		0				☐	
Lead-212	✓	1.964	0.1207	pCi/g	0.1102	0.100	238.7	2	1.122	IDENTIFIED	3.379	☐	
Lead-214	✓	1.318	0.1146	pCi/g	0.1421	0.100	352.1	2	1.314	IDENTIFIED	6.781	☐	
Neptunium-237	INT	1.224	0.2393	pCi/g	0.3897	N	87.05	3	1.449	IDENTIFIED	15.56	☐	
Potassium-40	✓	32.6	1.834	pCi/g	0.5972	1.00	1461	1	2.199	IDENTIFIED	3.07	☐	
Radium-224	INT	3.958	0.6687	pCi/g	1.181	Y	241.8	1	1.678	IDENTIFIED	16.26	☑ UI	
Radium-226	✓	1.205	0.1076	pCi/g	0.1317	Y	609.6	3	1.24	IDENTIFIED	7.425	☐	
Radium-228	✓	2.186	0.2294	pCi/g	0.2494	0.500	911.5	3	1.969	IDENTIFIED	8.581	☐	

Sodium-24	HE	35830	33070	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐
Thallium-208	✓	0.6314	0.05164	pCi/g	0.06611	0.080	583.3	1	1.64	IDENTIFIED	6.787	☐
Thorium-228	NR	1.964	0.1207	pCi/g	0.1102	N	238.7	2	1.122	IDENTIFIED	3.379	☐
Thorium-230	NR	1.205	0.1028	pCi/g	0.1317	N	609.6	3	1.24	IDENTIFIED	7.425	☐
Thorium-232	NR	2.186	0.2294	pCi/g	0.2494	N	911.5	3	1.969	IDENTIFIED	8.581	☐
Tin-126	NR	0.4101	0.06768	pCi/g	0.129	N	87.05	3	1.449	IDENTIFIED	15.56	☐
Total Uranium	✓	6.9421	2.49E-06	ug/g	4.385	N		0				☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249329002	11-MAR-10 12:00	24-MAR-10 08:57	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.873	0.2221	pCi/g	0.2695	N	911.5	3	1.616	IDENTIFIED	10.23	☐	
Annihilation Rad.	HE	0.1266	0.03785	pCi/g	0.05238	N	510.6	1	2.129	IDENTIFIED	29.57	☐	
Barium-137m	HE	0.1243	0.02993	pCi/g	0.07221	N	661.7	2	1.973	IDENTIFIED	23.66	☐	
Bismuth-211	INT	4.35	0.3263	pCi/g	0.3573	Y	352.1	2	1.266	IDENTIFIED	6.013	☑ UI	
Bismuth-212	✓	2.337	0.4498	pCi/g	0.8388	N	727.7	1	1.224	IDENTIFIED	18.16	☐	
Bismuth-214	✓	1.251	0.1112	pCi/g	0.1305	0.200	609.6	3	1.615	IDENTIFIED	7.211	☐	
Cadmium-109	INT	3.264	0.5441	pCi/g	1.241	Y	87.32	3	1.198	IDENTIFIED	16	☑ UI	
Cerium-143	—	134.2	32.38	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1199	0.04813	pCi/g	0.1112	0.100	0	3	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-137	✓	0.1313	0.03162	pCi/g	0.07628	0.100	661.7	2	1.973	IDENTIFIED	23.66	☐	
Europium-155	HE	0.2152	0.06945	pCi/g	0.169	N	105	1	1.169	IDENTIFIED	31.97	☐	
Gross Gamma	—	11.16	1.536	pCi/g	4.834	N		0				☐	
Lead-212	✓	2.054	0.119	pCi/g	0.1071	0.100	238.8	2	1.09	IDENTIFIED	3.234	☐	
Lead-214	✓	1.579	0.1262	pCi/g	0.1299	0.100	352.1	2	1.266	IDENTIFIED	6.013	☐	
Neptunium-237	INT	0.9554	0.1881	pCi/g	0.4224	N	87.32	3	1.198	IDENTIFIED	16	☐	
Potassium-40	✓	34.99	1.835	pCi/g	0.5076	1.00	1461	1	2.127	IDENTIFIED	3.012	☐	
Radium-224	INT	4.669	0.7058	pCi/g	1.148	Y	241.7	1	1.659	IDENTIFIED	14.51	☑ UI	
Radium-226	✓	1.251	0.1112	pCi/g	0.1305	Y	609.6	3	1.615	IDENTIFIED	7.211	☐	
Radium-228	✓	1.873	0.2221	pCi/g	0.2695	0.500	911.5	3	1.616	IDENTIFIED	10.23	☐	
Sodium-24	HE	557.5	32090	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.6734	0.05546	pCi/g	0.06863	0.080	583.5	1	1.468	IDENTIFIED	6.709	☐	
Thorium-228	NR	2.054	0.119	pCi/g	0.1071	N	238.8	2	1.09	IDENTIFIED	3.234	☐	
Thorium-230	NR	1.251	0.1062	pCi/g	0.1305	N	609.6	3	1.615	IDENTIFIED	7.211	☐	
Thorium-232	NR	1.873	0.2221	pCi/g	0.2695	N	911.5	3	1.616	IDENTIFIED	10.23	☐	
Tin-126	NR	0.3202	0.05337	pCi/g	0.122	N	87.32	3	1.198	IDENTIFIED	16	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249329003	11-MAR-10 12:00	24-MAR-10 08:57	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.393	0.2245	pCi/g	0.2838	N	911.4	3	1.614	IDENTIFIED	7.356	☐	
Annihilation Rad.	—	0.1416	0.04049	pCi/g	0.05022	N	511	1	1.882	IDENTIFIED	28.45	☐	
Bismuth-211	INT	4.385	0.2818	pCi/g	0.3809	Y	351.9	2	1.365	IDENTIFIED	5.578	☑ UI	
Bismuth-212	HE	2.015	0.4899	pCi/g	1.308	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.426	0.1145	pCi/g	0.1197	0.200	609.3	3	1.516	IDENTIFIED	6.986	☐	
Cadmium-109	INT	2.974	0.5657	pCi/g	1.485	Y	87.53	3	1.245	IDENTIFIED	18.5	☑ UI	
Cerium-143	—	324.5	47.42	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.3735	0.1039	pCi/g	0.3407	N	0	8	0	NOT_IDENTI	0	☐	
Europium-155	HE	0.2194	0.07175	pCi/g	0.2017	N	105.4	1	1.497	IDENTIFIED	32.51	☐	
Gross Gamma	—	10.93	1.714	pCi/g	4.699	N		0				☐	
Iodine-133	HE	64.8	511.6	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Iodine-135	HE	4.56E+12	1.33E+13	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.004	0.09842	pCi/g	0.1089	0.100	238.6	2	1.27	IDENTIFIED	3.297	☐	
Lead-214	✓	1.591	0.1113	pCi/g	0.1382	0.100	351.9	2	1.365	IDENTIFIED	5.578	☐	
Neptunium-237	INT	0.8702	0.189	pCi/g	0.4413	N	87.53	3	1.245	IDENTIFIED	18.5	☐	
Niobium-95m	—	0.4731	0.08687	pCi/g	0.2794	N	0	8	0	NOT_IDENTI	0	☐	
Potassium-40	✓	32.35	1.538	pCi/g	0.5047	1.00	1462	1	2.039	IDENTIFIED	2.958	☐	

Radium-224	INT	5.423	0.7386	pCi/g	1.166	Y	241.5	1	1.798	IDENTIFIED	13.32	☑ UI	
Radium-226	✓	1.426	0.1145	pCi/g	0.1197	Y	609.3	3	1.516	IDENTIFIED	6.986	☐	
Radium-228	✓	2.393	0.2245	pCi/g	0.2838	0.500	911.4	3	1.614	IDENTIFIED	7.356	☐	
Sodium-24	HE	1573	32020	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.1245	0.02277	pCi/g	0.08048	Y	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.5575	0.04781	pCi/g	0.06662	0.080	583.3	1	1.522	IDENTIFIED	7.876	☐	
Thorium-228	NR	2.004	0.09842	pCi/g	0.1089	N	238.6	2	1.27	IDENTIFIED	3.297	☐	
Thorium-230	NR	1.426	0.1082	pCi/g	0.1197	N	609.3	3	1.516	IDENTIFIED	6.986	☐	
Thorium-232	NR	2.393	0.2245	pCi/g	0.2838	N	911.4	3	1.614	IDENTIFIED	7.356	☐	
Thorium-234	✓	3.102	1.275	pCi/g	2.459	2.00	63.11	2	1.338	IDENTIFIED	40.11	☐	
Tin-126	NR	0.2916	0.05549	pCi/g	0.1463	N	87.53	3	1.245	IDENTIFIED	18.5	☐	
Total Uranium	–	9.2774	3.79E-06	ug/g	3.6618	N		0				☐	
Uranium-238	HE	3.102	1.275	pCi/g	2.459	N	63.11	2	1.338	IDENTIFIED	40.11	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249329004	11-MAR-10 12:00	24-MAR-10 08:58	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.466	0.219	pCi/g	0.2163	N	911.4	3	2.092	IDENTIFIED	5.745	☐	
Annihilation Rad.	–	0.1712	0.03158	pCi/g	0.04466	N	510.9	1	1.89	IDENTIFIED	17.75	☐	
Barium-137m	HE	0.0736	0.03394	pCi/g	0.05492	N	662.8	2	3.706	IDENTIFIED	45.81	☐	
Bismuth-211	INT	4.361	0.3257	pCi/g	0.3376	Y	352.1	2	1.302	IDENTIFIED	4.691	☑ UI	
Bismuth-212	–	2.114	0.4754	pCi/g	1.143	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.499	0.1171	pCi/g	0.113	0.200	609.5	3	1.744	IDENTIFIED	5.199	☐	
Cadmium-109	INT	3.267	0.5433	pCi/g	1.275	Y	87.19	3	1.173	IDENTIFIED	15.95	☑ UI	
Cerium-143	–	315.9	47.51	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1457	0.0413	pCi/g	0.09149	0.100	0	6	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.3326	0.09805	pCi/g	0.2968	N	0	6	0	NOT_IDENTI	0	☐	
Cesium-137	↑PW	0.07775	0.03586	pCi/g	0.05801	0.100	662.8	2	3.706	IDENTIFIED	45.81	☑ UI	Data rejected due to high peak-width.
Gross Gamma	–	11.87	1.491	pCi/g	3.081	N		0				☐	
Lead-212	✓	2.248	0.1605	pCi/g	0.09992	0.100	238.7	2	1.248	IDENTIFIED	2.659	☐	
Lead-214	✓	1.583	0.126	pCi/g	0.1246	0.100	352.1	2	1.302	IDENTIFIED	4.691	☐	
Neptunium-237	INT	0.9561	0.188	pCi/g	0.3683	N	87.19	3	1.173	IDENTIFIED	15.95	☐	
Niobium-95	HE	0.08319	0.02423	pCi/g	0.07557	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	✓	38.06	1.94	pCi/g	0.4688	1.00	1461	1	2.749	IDENTIFIED	2.237	☐	
Radium-224	INT	5.42	0.7383	pCi/g	1.07	Y	241.7	1	1.829	IDENTIFIED	12.09	☑ UI	
Radium-226	✓	1.499	0.1171	pCi/g	0.113	Y	609.5	3	1.744	IDENTIFIED	5.199	☐	
Radium-228	✓	2.466	0.219	pCi/g	0.2163	0.500	911.4	3	2.092	IDENTIFIED	5.745	☐	
Strontium-85	LA	0.1435	0.02436	pCi/g	0.07756	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.6578	0.05365	pCi/g	0.05382	0.080	583.2	1	1.625	IDENTIFIED	6.096	☐	
Thorium-228	NR	2.248	0.1605	pCi/g	0.09992	N	238.7	2	1.248	IDENTIFIED	2.659	☐	
Thorium-230	NR	1.499	0.1103	pCi/g	0.113	N	609.5	3	1.744	IDENTIFIED	5.199	☐	
Thorium-232	NR	2.466	0.219	pCi/g	0.2163	N	911.4	3	2.092	IDENTIFIED	5.745	☐	
Tin-126	NR	0.3204	0.05329	pCi/g	0.1336	N	87.19	3	1.173	IDENTIFIED	15.95	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331001	11-MAR-10 12:00	24-MAR-10 08:58	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.463	0.2204	pCi/g	0.2335	N	911.7	3	1.695	IDENTIFIED	6.96	☐	
Annihilation Rad.	–	0.1977	0.03558	pCi/g	0.05256	N	511.3	1	1.503	IDENTIFIED	17.78	☐	
Bismuth-211	INT	4.806	0.3149	pCi/g	0.3408	Y	352.2	2	1.186	IDENTIFIED	5.618	☑ UI	
Bismuth-212	HE	1.703	0.4294	pCi/g	1.301	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.508	0.1097	pCi/g	0.108	0.200	609.6	3	1.32	IDENTIFIED	6.26	☐	
Cadmium-109	INT	4.952	0.7346	pCi/g	1.363	Y	87.3	3	1.275	IDENTIFIED	13.57	☑ UI	
Cerium-143	–	174.2	32.06	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1053	0.02663	pCi/g	0.101	0.100	0	4	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	–	11.38	1.643	pCi/g	3.53	N		0				☐	
Lead-212	✓	2.309	0.1155	pCi/g	0.09866	0.100	238.8	2	1.181	IDENTIFIED	2.947	☐	

Lead-214	✓	1.744	0.124	pCi/g	0.1239	0.100	352.2	2	1.186	IDENTIFIED	5.618	☐	
Neptunium-237	INT	1.449	0.2633	pCi/g	0.4098	N	87.3	3	1.275	IDENTIFIED	13.57	☐	
Potassium-40	✓	32.39	1.543	pCi/g	0.6825	1.00	1462	1	1.931	IDENTIFIED	3.173	☐	
Radium-224	INT	5.12	0.7761	pCi/g	1.058	Y	241.5	1	1.863	IDENTIFIED	14.79	☑ UI	
Radium-226	✓	1.508	0.1097	pCi/g	0.108	Y	609.6	3	1.32	IDENTIFIED	6.26	☐	
Radium-228	✓	2.463	0.2204	pCi/g	0.2335	0.500	911.7	3	1.695	IDENTIFIED	6.96	☐	
Sodium-24	HE	22630	31720	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.6975	0.05165	pCi/g	0.05906	0.080	583.4	1	1.344	IDENTIFIED	6.708	☐	
Thorium-228	NR	2.309	0.1155	pCi/g	0.09866	N	238.8	2	1.181	IDENTIFIED	2.947	☐	
Thorium-230	NR	1.508	0.1022	pCi/g	0.108	N	609.6	3	1.32	IDENTIFIED	6.26	☐	
Thorium-232	NR	2.463	0.2204	pCi/g	0.2335	N	911.7	3	1.695	IDENTIFIED	6.96	☐	
Tin-126	NR	0.4857	0.07205	pCi/g	0.1347	N	87.3	3	1.275	IDENTIFIED	13.57	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331002	11-MAR-10 12:00	24-MAR-10 09:11	12.9	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.593	0.2594	pCi/g	0.2671	N	911.8	3	2.095	IDENTIFIED	7.848	☐	
Annihilation Rad.	—	0.205	0.03622	pCi/g	0.04991	N	510.6	1	2.031	IDENTIFIED	17.15	☐	
Bismuth-211	INT	4.911	0.3415	pCi/g	0.3875	Y	352.1	2	1.233	IDENTIFIED	5.133	☑ UI	
Bismuth-212	—	2.584	0.4983	pCi/g	1.315	N	0	3	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.592	0.125	pCi/g	0.1232	0.200	609.7	3	1.536	IDENTIFIED	6.119	☐	
Cadmium-109	INT	3.891	0.6682	pCi/g	1.472	Y	86.98	3	1.106	IDENTIFIED	16.23	☑ UI	
Cerium-143	—	221.1	37.25	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Europium-155	HE	0.2484	0.06055	pCi/g	0.2162	N	0	3	0	FAIL_ABUND	0	☐	
Gross Gamma	—	11.43	1.641	pCi/g	4.071	N		0				☐	
Lead-212	✓	2.239	0.138	pCi/g	0.1038	0.100	238.7	2	1.167	IDENTIFIED	2.993	☐	
Lead-214	✓	1.782	0.1333	pCi/g	0.1322	0.100	352.1	2	1.233	IDENTIFIED	5.133	☐	
Neptunium-237	INT	1.139	0.2291	pCi/g	0.5044	N	86.98	3	1.106	IDENTIFIED	16.23	☐	
Potassium-40	✓	35.68	1.978	pCi/g	0.6017	1.00	1462	1	2.039	IDENTIFIED	2.838	☐	
Radium-224	INT	4.574	0.72	pCi/g	1.113	Y	241.7	1	1.617	IDENTIFIED	14.97	☑ UI	
Radium-226	✓	1.592	0.125	pCi/g	0.1232	Y	609.7	3	1.536	IDENTIFIED	6.119	☐	
Radium-228	✓	2.593	0.2594	pCi/g	0.2671	0.500	911.8	3	2.095	IDENTIFIED	7.848	☐	
Thallium-208	✓	0.6294	0.05214	pCi/g	0.0688	0.080	583.6	1	1.524	IDENTIFIED	6.952	☐	
Thorium-228	NR	2.239	0.138	pCi/g	0.1038	N	238.7	2	1.167	IDENTIFIED	2.993	☐	
Thorium-230	NR	1.592	0.1177	pCi/g	0.1232	N	609.7	3	1.536	IDENTIFIED	6.119	☐	
Thorium-232	NR	2.593	0.2594	pCi/g	0.2671	N	911.8	3	2.095	IDENTIFIED	7.848	☐	
Tin-126	NR	0.3817	0.06553	pCi/g	0.1454	N	86.98	3	1.106	IDENTIFIED	16.23	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331003	11-MAR-10 12:00	24-MAR-10 09:11	12.9	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2	0.2041	pCi/g	0.2106	N	911.7	3	1.579	IDENTIFIED	8.065	☐	
Annihilation Rad.	—	0.1642	0.03527	pCi/g	0.04327	N	511.2	1	1.4	IDENTIFIED	20.8	☐	
Barium-137m	NR	0.1681	0.03258	pCi/g	0.05527	N	662.4	2	1.118	IDENTIFIED	18.79	☐	
Bismuth-211	INT	4.913	0.4046	pCi/g	0.2852	Y	352	2	1.169	IDENTIFIED	4.96	☑ UI	
Bismuth-212	HE	1.622	0.5529	pCi/g	1.165	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.325	0.1147	pCi/g	0.106	0.200	609.6	3	1.371	IDENTIFIED	6.546	☐	
Cadmium-109	INT	4.993	0.5069	pCi/g	0.9115	Y	87.2	3	1.236	IDENTIFIED	9.002	☑ UI	
Cerium-143	—	86.7	25.49	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.08709	0.025	pCi/g	0.08254	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-137	✓	0.1776	0.03442	pCi/g	0.05839	0.100	662.4	2	1.118	IDENTIFIED	18.79	☐	
Gross Gamma	—	11.46	1.409	pCi/g	3.464	N		0				☐	
Iodine-135	HE	9.12E+12	1.21E+13	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.109	0.1592	pCi/g	0.0843	0.100	238.7	2	1.002	IDENTIFIED	2.773	☐	
Lead-214	✓	1.783	0.1548	pCi/g	0.1037	0.100	352	2	1.169	IDENTIFIED	4.96	☐	
Neptunium-237	INT	1.461	0.2132	pCi/g	0.2698	N	87.2	3	1.236	IDENTIFIED	9.002	☐	
Potassium-40	✓	35.89	1.808	pCi/g	0.471	1.00	1462	1	1.767	IDENTIFIED	2.584	☐	

Radium-224	INT	5.237	0.7259	pCi/g	0.9037	Y	241.6	1	1.685	IDENTIFIED	12.13	☑ UI	
Radium-226	✓	1.325	0.1147	pCi/g	0.106	Y	609.6	3	1.371	IDENTIFIED	6.546	☐	
Radium-228	✓	2	0.2041	pCi/g	0.2106	0.500	911.7	3	1.579	IDENTIFIED	8.065	☐	
Thallium-208	✓	0.6912	0.05609	pCi/g	0.05378	0.080	583.4	1	1.319	IDENTIFIED	6.063	☐	
Thorium-228	NR	2.109	0.1592	pCi/g	0.0843	N	238.7	2	1.002	IDENTIFIED	2.773	☐	
Thorium-230	NR	1.325	0.1093	pCi/g	0.106	N	609.6	3	1.371	IDENTIFIED	6.546	☐	
Thorium-232	NR	2	0.2041	pCi/g	0.2106	N	911.7	3	1.579	IDENTIFIED	8.065	☐	
Thorium-234	✓	2.538	0.8358	pCi/g	1.66	2.00	63.06	2	1.243	IDENTIFIED	31.71	☐	
Tin-126	NR	0.4897	0.04971	pCi/g	0.08969	N	87.2	3	1.236	IDENTIFIED	9.002	☐	
Total Uranium	—	7.6199	2.49E-06	ug/g	2.4723	N		0				☐	
Uranium-238	HE	2.538	0.8358	pCi/g	1.66	N	63.06	2	1.243	IDENTIFIED	31.71	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331004	11-MAR-10 12:00	24-MAR-10 09:12	12.9	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.057	0.2248	pCi/g	0.2902	N	911	3	1.748	IDENTIFIED	9.098	☐	
Annihilation Rad.	—	0.2476	0.0419	pCi/g	0.0576	N	510.8	1	1.81	IDENTIFIED	16.36	☐	
Bismuth-211	INT	5.082	0.3759	pCi/g	0.4377	Y	352	2	1.566	IDENTIFIED	5.48	☑ UI	
Bismuth-212	✓	2.62	0.5469	pCi/g	0.9775	N	727.6	1	1.443	IDENTIFIED	19.93	☐	
Bismuth-214	✓	1.278	0.1101	pCi/g	0.1672	0.200	609.3	3	1.577	IDENTIFIED	7.023	☐	
Cadmium-109	INT	3.434	0.7752	pCi/g	2.196	Y	87.33	3	1.35	IDENTIFIED	21.71	☑ UI	
Cerium-143	—	284.4	45.46	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1225	0.03081	pCi/g	0.1155	0.100	0	5	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	—	10.81	1.659	pCi/g	4.178	N		0				☐	
Lead-212	✓	1.954	0.1378	pCi/g	0.1274	0.100	238.8	2	1.341	IDENTIFIED	3.747	☐	
Lead-214	✓	1.844	0.1456	pCi/g	0.1592	0.100	352	2	1.566	IDENTIFIED	5.48	☐	
Neptunium-237	HE	1.005	0.2501	pCi/g	0.6166	N	87.33	3	1.35	IDENTIFIED	21.71	☐	
Niobium-95m	HE	0.4499	0.1013	pCi/g	0.3269	N	0	5	0	NOT_IDENTI	0	☐	
Potassium-40	✓	38.6	2.187	pCi/g	0.5585	1.00	1460	1	2.049	IDENTIFIED	2.821	☐	
Radium-224	INT	5.166	0.9566	pCi/g	1.365	Y	241.7	1	2.04	IDENTIFIED	17.68	☑ UI	
Radium-226	✓	1.278	0.1101	pCi/g	0.1672	Y	609.3	3	1.577	IDENTIFIED	7.023	☐	
Radium-228	✓	2.057	0.2248	pCi/g	0.2902	0.500	911	3	1.748	IDENTIFIED	9.098	☐	
Sodium-24	HE	50770	37410	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.1286	0.02756	pCi/g	0.09258	Y	0	5	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.5367	0.06467	pCi/g	0.07092	0.080	583.4	1	1.703	IDENTIFIED	11.15	☐	
Thorium-228	NR	1.954	0.1378	pCi/g	0.1274	N	238.8	2	1.341	IDENTIFIED	3.747	☐	
Thorium-230	NR	1.278	0.1048	pCi/g	0.1672	N	609.3	3	1.577	IDENTIFIED	7.023	☐	
Thorium-232	NR	2.057	0.2248	pCi/g	0.2902	N	911	3	1.748	IDENTIFIED	9.098	☐	
Tin-126	HE	0.3368	0.07603	pCi/g	0.2204	N	87.33	3	1.35	IDENTIFIED	21.71	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331005	11-MAR-10 12:00	24-MAR-10 09:13	12.9	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.563	0.2709	pCi/g	0.2912	N	911.2	3	1.957	IDENTIFIED	8.626	☐	
Annihilation Rad.	—	0.1479	0.03846	pCi/g	0.05298	N	510.7	1	1.724	IDENTIFIED	25.49	☐	
Bismuth-211	INT	5.285	0.3662	pCi/g	0.3525	Y	351.9	2	1.215	IDENTIFIED	4.511	☑ UI	
Bismuth-212	—	2.889	0.5218	pCi/g	1.432	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.636	0.1442	pCi/g	0.1262	0.200	609.4	3	1.336	IDENTIFIED	6.407	☐	
Cadmium-109	INT	5.109	0.4388	pCi/g	0.8882	Y	87.24	3	0.914	IDENTIFIED	6.716	☑ UI	
Cerium-143	—	185.5	31.77	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.2249	0.04292	pCi/g	0.1129	0.100	0	5	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	—	12.88	1.354	pCi/g	3.92	N		0				☐	
Iodine-133	HE	668.1	563.4	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Iodine-135	HE	2.48E+13	1.54E+13	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-210	✓	1.393	0.3553	pCi/g	0.6751	N	46.43	1	0.843	IDENTIFIED	24.99	☐	
Lead-212	✓	2.549	0.1596	pCi/g	0.09132	0.100	238.7	2	1.012	IDENTIFIED	2.558	☐	
Lead-214	✓	1.918	0.143	pCi/g	0.1283	0.100	351.9	2	1.215	IDENTIFIED	4.511	☐	

Neptunium-237	INT	1.495	0.2026	pCi/g	0.3299	N	87.24	3	0.914	IDENTIFIED	6.716	☐
Potassium-40	✓	36.73	1.877	pCi/g	0.5724	1.00	1461	1	2.031	IDENTIFIED	2.825	☐
Radium-224	INT	6.334	0.7125	pCi/g	0.98	Y	241.7	1	1.773	IDENTIFIED	9.944	☑ UI
Radium-226	✓	1.636	0.1442	pCi/g	0.1262	Y	609.4	3	1.336	IDENTIFIED	6.407	☐
Radium-228	✓	2.563	0.2709	pCi/g	0.2912	0.500	911.2	3	1.957	IDENTIFIED	8.626	☐
Thallium-208	✓	0.7523	0.06843	pCi/g	0.06444	0.080	583.1	1	1.432	IDENTIFIED	7.142	☐
Thorium-228	NR	2.549	0.1596	pCi/g	0.09132	N	238.7	2	1.012	IDENTIFIED	2.558	☐
Thorium-230	NR	1.636	0.1376	pCi/g	0.1262	N	609.4	3	1.336	IDENTIFIED	6.407	☐
Thorium-232	NR	2.563	0.2709	pCi/g	0.2912	N	911.2	3	1.957	IDENTIFIED	8.626	☐
Thorium-234	✓	2.843	0.5748	pCi/g	0.9105	2.00	63.31	2	0.802	IDENTIFIED	17.86	☐
Tin-126	NR	0.5011	0.04303	pCi/g	0.08694	N	87.24	3	0.914	IDENTIFIED	6.716	☐
Total Uranium	—	8.4693	1.71E-06	ug/g	1.3573	N		0				☐
Uranium-238	NR	2.843	0.5748	pCi/g	0.9105	N	63.31	2	0.802	IDENTIFIED	17.86	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331006	11-MAR-10 12:00	24-MAR-10 09:13	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.147	0.2477	pCi/g	0.2967	N	911.1	3	1.237	IDENTIFIED	8.665	☐	
Annihilation Rad.	—	0.1603	0.04487	pCi/g	0.05942	N	510.6	1	1.659	IDENTIFIED	27.63	☐	
Barium-137m	NR	0.2001	0.04918	pCi/g	0.07096	N	661.3	2	1.025	IDENTIFIED	24.23	☐	
Bismuth-211	INT	5.487	0.3881	pCi/g	0.4211	Y	351.9	2	1.294	IDENTIFIED	5.208	☑ UI	
Bismuth-212	—	4.545	0.5942	pCi/g	1.542	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.581	0.1263	pCi/g	0.1406	0.200	609.2	3	1.469	IDENTIFIED	6.191	☐	
Cadmium-109	INT	3.583	0.6697	pCi/g	1.684	Y	87.12	3	1.185	IDENTIFIED	18.1	☑ UI	
Cerium-143	—	540.4	71.01	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.2114	0.05196	pCi/g	0.07497	0.100	661.3	2	1.025	IDENTIFIED	24.23	☐	
Gross Gamma	—	12.87	1.806	pCi/g	6.078	N		0				☐	
Iodine-135	HE	1.32E+13	1.45E+13	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.482	0.144	pCi/g	0.1185	0.100	238.5	2	1.129	IDENTIFIED	2.963	☐	
Lead-214	✓	1.991	0.1512	pCi/g	0.1531	0.100	351.9	2	1.294	IDENTIFIED	5.208	☐	
Neptunium-237	INT	1.048	0.2247	pCi/g	0.5005	N	87.12	3	1.185	IDENTIFIED	18.1	☐	
Niobium-95m	—	0.8399	0.1091	pCi/g	0.3499	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	✓	33.02	2.052	pCi/g	0.7182	1.00	1461	1	1.879	IDENTIFIED	3.007	☐	
Radium-224	INT	7.223	0.9299	pCi/g	1.268	Y	241.5	1	2.065	IDENTIFIED	12.08	☑ UI	
Radium-226	✓	1.581	0.1263	pCi/g	0.1406	Y	609.2	3	1.469	IDENTIFIED	6.191	☐	
Radium-228	✓	2.147	0.2477	pCi/g	0.2967	0.500	911.1	3	1.237	IDENTIFIED	8.665	☐	
Sodium-24	HE	24160	40320	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.1188	0.02765	pCi/g	0.0897	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.6473	0.05676	pCi/g	0.08623	0.080	583.2	1	1.446	IDENTIFIED	7.413	☐	
Thorium-228	NR	2.482	0.144	pCi/g	0.1185	N	238.5	2	1.129	IDENTIFIED	2.963	☐	
Thorium-230	NR	1.581	0.1192	pCi/g	0.1406	N	609.2	3	1.469	IDENTIFIED	6.191	☐	
Thorium-232	NR	2.147	0.2477	pCi/g	0.2967	N	911.1	3	1.237	IDENTIFIED	8.665	☐	
Thorium-234	✓	4.956	1.62	pCi/g	2.933	2.00	62.85	2	1.415	IDENTIFIED	31.42	☐	
Tin-126	NR	0.3514	0.06569	pCi/g	0.1659	N	87.12	3	1.185	IDENTIFIED	18.1	☐	
Total Uranium	—	14.748	4.82E-06	ug/g	4.367	N		0				☐	
Uranium-238	HE	4.956	1.62	pCi/g	2.933	N	62.85	2	1.415	IDENTIFIED	31.42	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331007	11-MAR-10 12:00	24-MAR-10 09:21	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.227	0.2635	pCi/g	0.261	N	911.9	3	1.675	IDENTIFIED	10.22	☐	
Annihilation Rad.	—	0.2125	0.04084	pCi/g	0.05969	N	511.3	1	1.712	IDENTIFIED	18.74	☐	
Barium-137m	HE	0.114	0.03092	pCi/g	0.07762	N	662.1	2	1.027	IDENTIFIED	26.82	☐	
Bismuth-211	INT	5.107	0.3518	pCi/g	0.4581	Y	352.4	2	1.505	IDENTIFIED	5.179	☑ UI	
Bismuth-212	—	2.833	0.4906	pCi/g	1.488	N	0	3	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.514	0.122	pCi/g	0.1345	0.200	609.8	3	1.532	IDENTIFIED	6.351	☐	
Cadmium-109	INT	4.099	0.6351	pCi/g	1.441	Y	87.24	3	1.092	IDENTIFIED	14.77	☑ UI	

Cerium-143	—	91.07	32.26	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.1604	0.03922	pCi/g	0.1217	0.100	0	3	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.	
Cesium-137	✓	0.1204	0.03267	pCi/g	0.082	0.100	662.1	2	1.027	IDENTIFIED	26.82	☐		
Gross Gamma	—	11.35	1.809	pCi/g	4.536	N		0				☐		
Lead-212	✓	2.222	0.134	pCi/g	0.1153	0.100	239.1	2	1.24	IDENTIFIED	3.243	☐		
Lead-214	✓	1.854	0.1375	pCi/g	0.1705	0.100	352.4	2	1.505	IDENTIFIED	5.179	☐		
Neptunium-237	INT	1.199	0.2244	pCi/g	0.5021	N	87.24	3	1.092	IDENTIFIED	14.77	☐		
Potassium-40	✓	33.22	1.798	pCi/g	0.4402	1.00	1461	1	1.922	IDENTIFIED	3.086	☐		
Radium-224	INT	4.487	0.6646	pCi/g	1.236	Y	241.9	1	1.558	IDENTIFIED	14.1	☑ UI		
Radium-226	✓	1.514	0.122	pCi/g	0.1345	Y	609.8	3	1.532	IDENTIFIED	6.351	☐		
Radium-228	✓	2.227	0.2635	pCi/g	0.261	0.500	911.9	3	1.675	IDENTIFIED	10.22	☐		
Thallium-208	✓	0.6058	0.05615	pCi/g	0.06818	0.080	583.6	1	1.592	IDENTIFIED	8.084	☐		
Thorium-228	NR	2.222	0.134	pCi/g	0.1153	N	239.1	2	1.24	IDENTIFIED	3.243	☐		
Thorium-230	NR	1.514	0.1153	pCi/g	0.1345	N	609.8	3	1.532	IDENTIFIED	6.351	☐		
Thorium-232	NR	2.227	0.2635	pCi/g	0.261	N	911.9	3	1.675	IDENTIFIED	10.22	☐		
Tin-126	NR	0.402	0.06229	pCi/g	0.1421	N	87.24	3	1.092	IDENTIFIED	14.77	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331008	11-MAR-10 12:00	24-MAR-10 09:21	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.104	0.213	pCi/g	0.2212	N	910.8	3	1.406	IDENTIFIED	8.074	☐	
Annihilation Rad.	—	0.1618	0.03573	pCi/g	0.04644	N	510.6	1	1.461	IDENTIFIED	21.56	☐	
Barium-137m	NR	0.3905	0.04215	pCi/g	0.06493	N	661.3	2	1.293	IDENTIFIED	9.84	☐	
Bismuth-211	INT	5.433	0.3926	pCi/g	0.3186	Y	351.8	2	1.137	IDENTIFIED	4.736	☑ UI	
Bismuth-212	✓	2.276	0.484	pCi/g	0.761	N	727.3	1	1.275	IDENTIFIED	20.28	☐	
Bismuth-214	✓	1.615	0.1177	pCi/g	0.1172	0.200	609.1	3	1.43	IDENTIFIED	4.989	☐	
Cadmium-109	INT	4.039	0.5167	pCi/g	1.191	Y	87.23	3	1.05	IDENTIFIED	11.87	☑ UI	
Cerium-143	—	219	36.78	pCi/g	0	N	0	1	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.4125	0.04454	pCi/g	0.0686	0.100	661.3	2	1.293	IDENTIFIED	9.84	☐	
Gross Gamma	—	12.35	1.601	pCi/g	4.275	N		0				☐	
Lead-212	✓	2.098	0.1389	pCi/g	0.09458	0.100	238.5	2	0.9542	IDENTIFIED	2.932	☐	
Lead-214	✓	1.972	0.1525	pCi/g	0.1159	0.100	351.8	2	1.137	IDENTIFIED	4.736	☐	
Neptunium-237	INT	1.182	0.1955	pCi/g	0.3578	N	87.23	3	1.05	IDENTIFIED	11.87	☐	
Potassium-40	✓	34	1.767	pCi/g	0.5376	1.00	1460	1	1.881	IDENTIFIED	2.773	☐	
Radium-224	INT	6.109	0.7385	pCi/g	1.014	Y	241.4	1	1.705	IDENTIFIED	10.76	☑ UI	
Radium-226	✓	1.615	0.1177	pCi/g	0.1172	Y	609.1	3	1.43	IDENTIFIED	4.989	☐	
Radium-228	✓	2.104	0.213	pCi/g	0.2212	0.500	910.8	3	1.406	IDENTIFIED	8.074	☐	
Thallium-208	✓	0.565	0.05	pCi/g	0.05633	0.080	583	1	1.134	IDENTIFIED	7.334	☐	
Thorium-228	NR	2.098	0.1389	pCi/g	0.09458	N	238.5	2	0.9542	IDENTIFIED	2.932	☐	
Thorium-230	NR	1.615	0.1097	pCi/g	0.1172	N	609.1	3	1.43	IDENTIFIED	4.989	☐	
Thorium-232	NR	2.104	0.213	pCi/g	0.2212	N	910.8	3	1.406	IDENTIFIED	8.074	☐	
Tin-126	NR	0.3961	0.05067	pCi/g	0.1173	N	87.23	3	1.05	IDENTIFIED	11.87	☐	
Total Uranium	—	5.1294	2.06E-06	ug/g	3.4941	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334001	11-MAR-10 12:00	24-MAR-10 09:22	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.824	0.2525	pCi/g	0.1969	N	910.6	3	1.947	IDENTIFIED	5.829	☐	
Annihilation Rad.	—	0.1913	0.03195	pCi/g	0.04016	N	510.7	1	2.188	IDENTIFIED	16.38	☐	
Bismuth-211	INT	5.613	0.2762	pCi/g	0.2951	Y	351.8	2	1.274	IDENTIFIED	3.73	☑ UI	
Bismuth-212	—	2.478	0.4042	pCi/g	1.14	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.602	0.1031	pCi/g	0.1028	0.200	608.9	3	1.659	IDENTIFIED	4.607	☐	
Cadmium-109	INT	3.997	0.5531	pCi/g	1.485	Y	87.4	3	1.044	IDENTIFIED	13.05	☑ UI	
Cerium-143	—	379.1	48.15	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1685	0.04429	pCi/g	0.09058	0.100	0	9	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.2972	0.08343	pCi/g	0.2658	N	0	9	0	NOT_IDENTI	0	☐	
Gross Gamma	—	12.58	1.346	pCi/g	3	N		0				☐	

Iodine-133	HE	171.5	449	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Iodine-135	HE	4.88E+12	1.07E+13	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.396	0.1042	pCi/g	0.09005	0.100	238.7	2	1.179	IDENTIFIED	2.432	☐	
Lead-214	✓	2.037	0.1149	pCi/g	0.1073	0.100	351.8	2	1.274	IDENTIFIED	3.73	☐	
Neptunium-237	INT	1.17	0.2031	pCi/g	0.4445	N	87.4	3	1.044	IDENTIFIED	13.05	☐	
Niobium-95	HE	0.09081	0.02095	pCi/g	0.07602	N	0	9	0	NOT_IDENTI	0	☐	
Potassium-40	✓	35.11	1.551	pCi/g	0.5115	1.00	1460	1	2.167	IDENTIFIED	2.257	☐	
Radium-224	INT	5.582	0.6355	pCi/g	0.9639	Y	241.6	1	1.767	IDENTIFIED	11.04	☑ UI	
Radium-226	✓	1.602	0.1031	pCi/g	0.1028	Y	608.9	3	1.659	IDENTIFIED	4.607	☐	
Radium-228	✓	2.824	0.2525	pCi/g	0.1969	0.500	910.6	3	1.947	IDENTIFIED	5.829	☐	
Strontium-85	LA	0.0957	0.01925	pCi/g	0.06416	Y	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	HE	6.00E+12	4.14E+13	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.7132	0.04713	pCi/g	0.0493	0.080	582.8	1	1.537	IDENTIFIED	5.325	☐	
Thorium-228	NR	2.396	0.1042	pCi/g	0.09005	N	238.7	2	1.179	IDENTIFIED	2.432	☐	
Thorium-230	NR	1.602	0.094	pCi/g	0.1028	N	608.9	3	1.659	IDENTIFIED	4.607	☐	
Thorium-232	NR	2.824	0.2525	pCi/g	0.1969	N	910.6	3	1.947	IDENTIFIED	5.829	☐	
Tin-126	NR	0.392	0.05425	pCi/g	0.1466	N	87.4	3	1.044	IDENTIFIED	13.05	☐	
Total Uranium	—	7.546	2.82E-06	ug/g	4.1308	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334002	11-MAR-10 12:00	24-MAR-10 09:22	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.261	0.2226	pCi/g	0.2877	N	910.1	3	1.839	IDENTIFIED	7.852	☐
Annihilation Rad.	—	0.1409	0.03796	pCi/g	0.05484	N	510.2	1	1.544	IDENTIFIED	26.79	☐
Bismuth-211	INT	5.225	0.3313	pCi/g	0.3903	Y	351.3	2	1.268	IDENTIFIED	5.439	☑ UI
Bismuth-212	—	3.067	0.4932	pCi/g	1.436	N	0	7	0	FAIL_ABUND	0	☐
Bismuth-214	✓	1.538	0.1097	pCi/g	0.133	0.200	608.6	3	1.487	IDENTIFIED	6.041	☐
Cadmium-109	INT	4.289	0.6639	pCi/g	1.83	Y	87.05	3	1.086	IDENTIFIED	14.7	☑ UI
Cerium-143	—	511.8	69.24	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐
Cesium-134	LA	0.1204	0.04904	pCi/g	0.1069	0.100	0	7	0	FAIL_ABUND	0	☑ UI Data rejected due to low abundance.
Cesium-135	HE	0.5252	0.167	pCi/g	0.3245	N	270	1	1.38	IDENTIFIED	31.57	☐
Gross Gamma	—	11.17	1.647	pCi/g	3.822	N		0				☐
Iodine-133	HE	211.7	610.3	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐
Iodine-135	HE	4.75E+12	1.65E+13	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐
Lead-212	✓	2.266	0.1073	pCi/g	0.1148	0.100	238.3	2	1.17	IDENTIFIED	3.043	☐
Lead-214	✓	1.896	0.1311	pCi/g	0.142	0.100	351.3	2	1.268	IDENTIFIED	5.439	☐
Neptunium-237	INT	1.255	0.2347	pCi/g	0.5666	N	87.05	3	1.086	IDENTIFIED	14.7	☐
Niobium-95m	—	0.9718	0.1067	pCi/g	0.3539	N	0	7	0	NOT_IDENTI	0	☐
Potassium-40	✓	32.12	1.578	pCi/g	0.4438	1.00	1459	1	2.141	IDENTIFIED	3.186	☐
Radium-224	INT	6.573	0.8237	pCi/g	1.23	Y	241.3	1	1.952	IDENTIFIED	12.21	☑ UI
Radium-226	✓	1.538	0.1097	pCi/g	0.133	Y	608.6	3	1.487	IDENTIFIED	6.041	☐
Radium-228	✓	2.261	0.2226	pCi/g	0.2877	0.500	910.1	3	1.839	IDENTIFIED	7.852	☐
Technetium-99m	HE	4.42E+12	5.17E+13	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐
Thallium-208	✓	0.6767	0.04846	pCi/g	0.06319	0.080	582.5	1	1.41	IDENTIFIED	6.387	☐
Thorium-228	NR	2.266	0.1073	pCi/g	0.1148	N	238.3	2	1.17	IDENTIFIED	3.043	☐
Thorium-230	NR	1.538	0.1019	pCi/g	0.133	N	608.6	3	1.487	IDENTIFIED	6.041	☐
Thorium-232	NR	2.261	0.2226	pCi/g	0.2877	N	910.1	3	1.839	IDENTIFIED	7.852	☐
Tin-126	NR	0.4206	0.06511	pCi/g	0.198	N	87.05	3	1.086	IDENTIFIED	14.7	☐
Total Uranium	—	9.5977	4.21E-06	ug/g	4.9088	N		0				☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334003	11-MAR-10 12:00	24-MAR-10 09:48	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.722	0.2454	pCi/g	0.3194	N	911.2	3	1.296	IDENTIFIED	13	☐
Annihilation Rad.	HE	0.1123	0.04446	pCi/g	0.07079	N	510.9	1	1.75	IDENTIFIED	39.32	☐
Barium-137m	NR	0.4024	0.06442	pCi/g	0.08194	N	661.9	2	1.363	IDENTIFIED	15.45	☐
Bismuth-211	INT	4.851	0.3752	pCi/g	0.416	Y	352	2	1.279	IDENTIFIED	6.17	☑ UI

Bismuth-212	HE	2.12	0.6131	pCi/g	1.802	N	0	5	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.483	0.1515	pCi/g	0.1526	0.200	609.2	3	1.397	IDENTIFIED	8.846	☐		
Cadmium-109	INT	3.997	0.543	pCi/g	1.323	Y	87.35	3	1.111	IDENTIFIED	12.68	☑ UI		
Cerium-141	—	0.6223	0.06729	pCi/g	0.2111	N	0	5	0	NOT_IDENTI	0	☐		
Cerium-143	—	124.8	34.36	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.234	0.04962	pCi/g	0.139	0.100	0	5	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.	
Cesium-137	✓	0.4251	0.06806	pCi/g	0.08656	0.100	661.9	2	1.363	IDENTIFIED	15.45	☐		
Europium-155	HE	0.3049	0.09552	pCi/g	0.2385	N	105.7	1	1.245	IDENTIFIED	30.87	☐		
Gross Gamma	—	15.14	1.842	pCi/g	6.257	N		0				☐		
Lead-210	HE	1.996	0.6107	pCi/g	1.05	N	46.72	1	1.033	IDENTIFIED	30.12	☐		
Lead-212	✓	1.85	0.119	pCi/g	0.1134	0.100	238.8	2	1.061	IDENTIFIED	3.966	☐		
Lead-214	✓	1.761	0.1446	pCi/g	0.1514	0.100	352	2	1.279	IDENTIFIED	6.17	☐		
Neptunium-237	INT	1.17	0.2007	pCi/g	0.4156	N	87.35	3	1.111	IDENTIFIED	12.68	☐		
Potassium-40	✓	30.34	1.813	pCi/g	0.7345	1.00	1461	1	2.007	IDENTIFIED	3.998	☐		
Radium-224	INT	5.169	0.8488	pCi/g	1.216	Y	241.7	1	1.823	IDENTIFIED	15.78	☑ UI		
Radium-226	✓	1.483	0.1515	pCi/g	0.1526	Y	609.2	3	1.397	IDENTIFIED	8.846	☐		
Radium-228	✓	1.722	0.2454	pCi/g	0.3194	0.500	911.2	3	1.296	IDENTIFIED	13	☐		
Technetium-99m	HE	1.26E+14	7.03E+13	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		
Tellurium-125m	HE	29.61	8.094	pCi/g	21.3	N	109	1	1.309	IDENTIFIED	26.62	☐		
Thallium-208	✓	0.544	0.06342	pCi/g	0.08792	0.080	583.2	1	1.102	IDENTIFIED	10.66	☐		
Thorium-228	NR	1.85	0.119	pCi/g	0.1134	N	238.8	2	1.061	IDENTIFIED	3.966	☐		
Thorium-230	NR	1.483	0.1463	pCi/g	0.1526	N	609.2	3	1.397	IDENTIFIED	8.846	☐		
Thorium-232	NR	1.722	0.2454	pCi/g	0.3194	N	911.2	3	1.296	IDENTIFIED	13	☐		
Thorium-234	✓	2.422	0.6816	pCi/g	1.351	2.00	63.46	2	1.058	IDENTIFIED	26.49	☐		
Tin-126	NR	0.392	0.05326	pCi/g	0.1295	N	87.35	3	1.111	IDENTIFIED	12.68	☐		
Total Uranium	—	8.9962	2.04E-06	ug/g	2.0144	N		0				☐		
Uranium-235	✓	3.871	0.4409	pCi/g	0.4806	0.500	143.9	1	1.076	IDENTIFIED	7.107	☐		
Uranium-238	HE	2.422	0.6816	pCi/g	1.351	N	63.46	2	1.058	IDENTIFIED	26.49	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334004	11-MAR-10 12:00	24-MAR-10 10:53	13	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.046	0.2431	pCi/g	0.2983	N	910.9	3	1.412	IDENTIFIED	10.34	☐	
Annihilation Rad.	—	0.1383	0.03706	pCi/g	0.05957	N	510.7	1	1.501	IDENTIFIED	26.37	☐	
Barium-137m	NR	0.375	0.04994	pCi/g	0.08932	N	661.6	2	1.234	IDENTIFIED	12.12	☐	
Bismuth-211	INT	4.753	0.3413	pCi/g	0.3604	Y	351.7	2	1.051	IDENTIFIED	5.588	☑ UI	
Bismuth-212	—	3.315	0.5626	pCi/g	1.678	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.369	0.1253	pCi/g	0.1463	0.200	609.2	3	1.23	IDENTIFIED	6.976	☐	
Cadmium-109	INT	3.23	0.419	pCi/g	0.9388	Y	87.3	3	0.9418	IDENTIFIED	12.1	☑ UI	
Cerium-143	—	137.6	30.53	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1533	0.0402	pCi/g	0.1219	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-137	✓	0.3961	0.05277	pCi/g	0.09436	0.100	661.6	2	1.234	IDENTIFIED	12.12	☐	
Gross Gamma	—	12.05	1.676	pCi/g	4.965	N		0				☐	
Lead-210	✓	2.445	0.373	pCi/g	0.69	N	46.46	1	0.6974	IDENTIFIED	14.5	☐	
Lead-212	✓	2.067	0.1212	pCi/g	0.0938	0.100	238.5	2	0.8382	IDENTIFIED	3.068	☐	
Lead-214	✓	1.725	0.1327	pCi/g	0.1312	0.100	351.7	2	1.051	IDENTIFIED	5.588	☐	
Neptunium-237	INT	0.9452	0.1577	pCi/g	0.2732	N	87.3	3	0.9418	IDENTIFIED	12.1	☐	
Potassium-40	✓	34.14	1.899	pCi/g	0.6962	1.00	1460	1	1.981	IDENTIFIED	3.566	☐	
Radium-224	INT	6.259	0.6379	pCi/g	1.008	Y	241.4	1	1.577	IDENTIFIED	9.172	☑ UI	
Radium-226	✓	1.369	0.1253	pCi/g	0.1463	Y	609.2	3	1.23	IDENTIFIED	6.976	☐	
Radium-228	✓	2.046	0.2431	pCi/g	0.2983	0.500	910.9	3	1.412	IDENTIFIED	10.34	☐	
Sodium-24	HE	15860	38880	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.6157	0.0638	pCi/g	0.07603	0.080	583	1	1.163	IDENTIFIED	8.818	☐	
Thorium-228	NR	2.067	0.1212	pCi/g	0.0938	N	238.5	2	0.8382	IDENTIFIED	3.068	☐	
Thorium-230	NR	1.369	0.12	pCi/g	0.1463	N	609.2	3	1.23	IDENTIFIED	6.976	☐	
Thorium-232	NR	2.046	0.2431	pCi/g	0.2983	N	910.9	3	1.412	IDENTIFIED	10.34	☐	
Thorium-234	✓	1.444	0.4345	pCi/g	0.8742	2.00	63.19	2	0.8891	IDENTIFIED	28.71	☐	
Tin-126	NR	0.3168	0.04109	pCi/g	0.09191	N	87.3	3	0.9418	IDENTIFIED	12.1	☐	

Total Uranium	–	4.5241	1.29E-06	ug/g	1.3029	N		0				☐
Uranium-235	✓	0.4947	0.1448	pCi/g	0.284	0.500	143.5	1	0.9349	IDENTIFIED	27.89	☐
Uranium-238	HE	1.444	0.4345	pCi/g	0.8742	N	63.19	2	0.8891	IDENTIFIED	28.71	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334005	11-MAR-10 12:00	24-MAR-10 11:16	13	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.512	0.2579	pCi/g	0.2968	N	910.9	3	1.521	IDENTIFIED	8.293	☐	
Annihilation Rad.	–	0.2686	0.04895	pCi/g	0.05755	N	510.9	1	2.19	IDENTIFIED	17.71	☐	
Barium-137m	HE	0.1124	0.03469	pCi/g	0.08889	N	661.5	2	0.9593	IDENTIFIED	30.57	☐	
Bismuth-211	INT	5.148	0.4203	pCi/g	0.4957	Y	352.1	2	1.318	IDENTIFIED	6.479	☑ UI	
Bismuth-212	HE	1.736	0.5964	pCi/g	1.614	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.506	0.1436	pCi/g	0.1583	0.200	609.5	3	1.573	IDENTIFIED	8.134	☐	
Cadmium-109	INT	4.556	0.7926	pCi/g	1.903	Y	87.24	3	1.241	IDENTIFIED	16.27	☑ UI	
Cerium-141	–	0.4947	0.06614	pCi/g	0.2053	N	0	9	0	NOT_IDENTI	0	☐	
Cerium-143	–	379.6	60.92	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.1188	0.03665	pCi/g	0.0939	0.100	661.5	2	0.9593	IDENTIFIED	30.57	☐	
Gross Gamma	–	13.96	1.928	pCi/g	6.244	N		0				☐	
Iodine-133	HE	9.693	764.3	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Iodine-135	HE	1.67E+13	2.09E+13	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.326	0.1628	pCi/g	0.1366	0.100	238.8	2	1.311	IDENTIFIED	3.643	☐	
Lead-214	✓	1.868	0.161	pCi/g	0.1669	0.100	352.1	2	1.318	IDENTIFIED	6.479	☐	
Neptunium-237	INT	1.333	0.2708	pCi/g	0.6739	N	87.24	3	1.241	IDENTIFIED	16.27	☐	
Niobium-95	HE	0.1282	0.03389	pCi/g	0.1137	N	0	9	0	NOT_IDENTI	0	☐	
Niobium-95m	HE	0.4949	0.1114	pCi/g	0.3544	N	0	9	0	NOT_IDENTI	0	☐	
Potassium-40	✓	35.91	2.123	pCi/g	0.7671	1.00	1461	1	2.412	IDENTIFIED	3.29	☐	
Radium-224	INT	5.983	0.9688	pCi/g	1.464	Y	241.8	1	1.888	IDENTIFIED	15.22	☑ UI	
Radium-226	✓	1.506	0.1436	pCi/g	0.1583	Y	609.5	3	1.573	IDENTIFIED	8.134	☐	
Radium-228	✓	2.512	0.2579	pCi/g	0.2968	0.500	910.9	3	1.521	IDENTIFIED	8.293	☐	
Sodium-24	HE	53810	46310	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.1718	0.03055	pCi/g	0.1043	Y	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.7471	0.05965	pCi/g	0.07889	0.080	583.2	1	1.637	IDENTIFIED	6.544	☐	
Thorium-228	NR	2.326	0.1628	pCi/g	0.1366	N	238.8	2	1.311	IDENTIFIED	3.643	☐	
Thorium-230	NR	1.506	0.138	pCi/g	0.1583	N	609.5	3	1.573	IDENTIFIED	8.134	☐	
Thorium-232	NR	2.512	0.2579	pCi/g	0.2968	N	910.9	3	1.521	IDENTIFIED	8.293	☐	
Tin-126	NR	0.4468	0.07772	pCi/g	0.1881	N	87.24	3	1.241	IDENTIFIED	16.27	☐	
Uranium-235	✓	1.766	0.3038	pCi/g	0.5385	0.500	143.9	1	1.471	IDENTIFIED	14.72	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334006	11-MAR-10 12:00	24-MAR-10 11:01	13	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.412	0.228	pCi/g	0.3006	N	911.5	3	1.589	IDENTIFIED	7.274	☐	
Annihilation Rad.	HE	0.1237	0.04488	pCi/g	0.06284	N	511	1	2.038	IDENTIFIED	36.01	☐	
Bismuth-211	INT	4.978	0.4041	pCi/g	0.4159	Y	352	2	1.369	IDENTIFIED	6.627	☑ UI	
Bismuth-212	HE	2.894	0.6737	pCi/g	1.566	N	0	3	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.506	0.1317	pCi/g	0.153	0.200	609.7	3	1.522	IDENTIFIED	7.204	☐	
Cadmium-109	INT	3.835	0.6835	pCi/g	1.771	Y	87.2	3	0.9961	IDENTIFIED	16.95	☑ UI	
Cerium-143	–	277.7	46.92	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1258	0.04219	pCi/g	0.1194	0.100	0	3	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	–	11.68	1.791	pCi/g	4.203	N		0				☐	
Lead-212	✓	2.153	0.1345	pCi/g	0.1213	0.100	238.7	2	1.113	IDENTIFIED	3.564	☐	
Lead-214	✓	1.807	0.1549	pCi/g	0.1513	0.100	352	2	1.369	IDENTIFIED	6.627	☐	
Neptunium-237	INT	1.122	0.232	pCi/g	0.487	N	87.2	3	0.9961	IDENTIFIED	16.95	☐	
Potassium-40	✓	34.28	1.995	pCi/g	0.7676	1.00	1461	1	2.283	IDENTIFIED	3.415	☐	
Radium-224	INT	4.874	0.9198	pCi/g	1.301	Y	241.7	1	1.846	IDENTIFIED	18.3	☑ UI	
Radium-226	✓	1.506	0.1317	pCi/g	0.153	Y	609.7	3	1.522	IDENTIFIED	7.204	☐	
Radium-228	✓	2.412	0.228	pCi/g	0.3006	0.500	911.5	3	1.589	IDENTIFIED	7.274	☐	

Thallium-208	✓	0.729	0.06143	pCi/g	0.06518	0.080	583.1	1	1.332	IDENTIFIED	7.082	☐
Thorium-228	NR	2.153	0.1345	pCi/g	0.1213	N	238.7	2	1.113	IDENTIFIED	3.564	☐
Thorium-230	NR	1.506	0.1256	pCi/g	0.153	N	609.7	3	1.522	IDENTIFIED	7.204	☐
Thorium-232	NR	2.412	0.228	pCi/g	0.3006	N	911.5	3	1.589	IDENTIFIED	7.274	☐
Thorium-234	✓	3.818	1.399	pCi/g	2.836	2.00	63.31	2	1.289	IDENTIFIED	35.46	☐
Tin-126	NR	0.3761	0.06703	pCi/g	0.1838	N	87.2	3	0.9961	IDENTIFIED	16.95	☐
Total Uranium	—	11.426	4.16E-06	ug/g	4.2222	N		0				☐
Uranium-238	HE	3.818	1.399	pCi/g	2.836	N	63.31	2	1.289	IDENTIFIED	35.46	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334007	11-MAR-10 12:00	24-MAR-10 11:02	13	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.206	0.2454	pCi/g	0.2867	N	911.6	3	1.652	IDENTIFIED	9.371	☐	
Annihilation Rad.	—	0.2229	0.04405	pCi/g	0.05337	N	510.9	1	1.603	IDENTIFIED	19.26	☐	
Bismuth-211	INT	5.817	0.3771	pCi/g	0.3906	Y	352	2	1.211	IDENTIFIED	4.681	☑ UI	
Bismuth-212	—	3.816	0.6487	pCi/g	1.515	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.734	0.1364	pCi/g	0.1308	0.200	609.6	3	1.705	IDENTIFIED	5.903	☐	
Cadmium-109	INT	4.871	0.5414	pCi/g	1.321	Y	87.33	3	1.019	IDENTIFIED	10.08	☑ UI	
Cerium-143	—	232.4	42.13	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1329	0.04147	pCi/g	0.1106	0.100	0	6	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cobalt-60	✓	0.2057	0.04519	pCi/g	0.07852	0.100	1333	1	1.689	IDENTIFIED	21.58	☐	
Europium-155	HE	0.2253	0.06009	pCi/g	0.2091	N	0	6	0	FAIL_ABUND	0	☐	
Gross Gamma	—	12.88	1.655	pCi/g	5.548	N		0				☐	
Iodine-135	HE	1.61E+13	1.86E+13	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.459	0.139	pCi/g	0.1057	0.100	238.8	2	1.139	IDENTIFIED	2.973	☐	
Lead-214	✓	2.111	0.1487	pCi/g	0.1421	0.100	352	2	1.211	IDENTIFIED	4.681	☐	
Mercury-203	INT	0.07542	0.03506	pCi/g	0.06542	0.100	277.8	1	1.002	IDENTIFIED	46.28	☑ UI	
Neptunium-237	INT	1.425	0.2178	pCi/g	0.4425	N	87.33	3	1.019	IDENTIFIED	10.08	☐	
Potassium-40	✓	35.98	1.879	pCi/g	0.5435	1.00	1461	1	2.15	IDENTIFIED	2.971	☐	
Radium-224	INT	6.609	0.776	pCi/g	1.134	Y	241.6	1	1.715	IDENTIFIED	10.95	☑ UI	
Radium-226	✓	1.734	0.1364	pCi/g	0.1308	Y	609.6	3	1.705	IDENTIFIED	5.903	☐	
Radium-228	✓	2.206	0.2454	pCi/g	0.2867	0.500	911.6	3	1.652	IDENTIFIED	9.371	☐	
Strontium-85	LA	0.09379	0.02398	pCi/g	0.08161	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.6796	0.05944	pCi/g	0.07524	0.080	583.5	1	1.657	IDENTIFIED	7.326	☐	
Thorium-228	NR	2.459	0.139	pCi/g	0.1057	N	238.8	2	1.139	IDENTIFIED	2.973	☐	
Thorium-230	NR	1.734	0.1284	pCi/g	0.1308	N	609.6	3	1.705	IDENTIFIED	5.903	☐	
Thorium-232	NR	2.206	0.2454	pCi/g	0.2867	N	911.6	3	1.652	IDENTIFIED	9.371	☐	
Thorium-234	✓	2.731	1.004	pCi/g	1.859	2.00	63.6	2	1.223	IDENTIFIED	35.66	☐	
Tin-126	NR	0.4777	0.05309	pCi/g	0.1298	N	87.33	3	1.019	IDENTIFIED	10.08	☐	
Total Uranium	—	8.1903	2.99E-06	ug/g	2.7677	N		0				☐	
Uranium-238	HE	2.731	1.004	pCi/g	1.859	N	63.6	2	1.223	IDENTIFIED	35.66	☐	

*** = Number of isotopes identified with a keyline at this energy.

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202071014		24-MAR-10 11:03	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Technetium-99m	HE	8.99E+06	5.62E+06	pCi/g	0	N	0	1	0	SHORT_HLIF	0	☐	
Total Uranium	—	2.4106	1.22E-06	ug/g	1.4732	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202071015	11-MAR-10 12:00	24-MAR-10 11:24	13	DUP	LOAD	1		LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.537	0.2671	pCi/g	0.3245	N	911.6	3	1.671	IDENTIFIED	8.683	☐	
Annihilation Rad.	—	0.2689	0.04812	pCi/g	0.05498	N	511.3	1	1.8	IDENTIFIED	17.38	☐	
Bismuth-211	INT	5.794	0.3945	pCi/g	0.4297	Y	352.4	2	1.359	IDENTIFIED	5.074	☑ UI	
Bismuth-212	—	3.294	0.6754	pCi/g	1.563	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.937	0.1429	pCi/g	0.1449	0.200	609.6	3	1.477	IDENTIFIED	5.466	☐	

Cadmium-109	INT	3.908	0.6848	pCi/g	1.679	Y	87.26	3	1.209	IDENTIFIED	16.88	☑ UI	
Cerium-143	–	128.8	37.93	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1608	0.03993	pCi/g	0.123	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	–	13.56	1.899	pCi/g	5.468	N		0				☐	
Lead-212	✓	2.379	0.1446	pCi/g	0.1225	0.100	239.1	2	1.284	IDENTIFIED	3.328	☐	
Lead-214	✓	2.103	0.1545	pCi/g	0.1508	0.100	352.4	2	1.359	IDENTIFIED	5.074	☐	
Neptunium-237	INT	1.144	0.2335	pCi/g	0.5209	N	87.26	3	1.209	IDENTIFIED	16.88	☐	
Potassium-40	✓	36.75	2.003	pCi/g	0.6657	1.00	1461	1	1.989	IDENTIFIED	3.152	☐	
Radium-224	INT	6.112	0.881	pCi/g	1.313	Y	241.9	1	1.74	IDENTIFIED	13.68	☑ UI	
Radium-226	✓	1.937	0.1429	pCi/g	0.1449	Y	609.6	3	1.477	IDENTIFIED	5.466	☐	
Radium-228	✓	2.537	0.2671	pCi/g	0.3245	0.500	911.6	3	1.671	IDENTIFIED	8.683	☐	
Strontium-85	LA	0.1739	0.02989	pCi/g	0.1025	Y	0	4	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.7708	0.06423	pCi/g	0.0744	0.080	583.8	1	1.431	IDENTIFIED	6.99	☐	
Thorium-228	NR	2.379	0.1446	pCi/g	0.1225	N	239.1	2	1.284	IDENTIFIED	3.328	☐	
Thorium-230	NR	1.936	0.1334	pCi/g	0.1449	N	609.6	3	1.477	IDENTIFIED	5.466	☐	
Thorium-232	NR	2.537	0.2671	pCi/g	0.3245	N	911.6	3	1.671	IDENTIFIED	8.683	☐	
Thorium-234	✓	3.872	1.585	pCi/g	2.868	2.00	63.15	2	1.13	IDENTIFIED	39.94	☐	
Tin-126	NR	0.3833	0.06716	pCi/g	0.1655	N	87.26	3	1.209	IDENTIFIED	16.88	☐	
Total Uranium	–	11.568	4.72E-06	ug/g	4.2703	N		0				☐	
Uranium-238	HE	3.872	1.585	pCi/g	2.868	N	63.15	2	1.13	IDENTIFIED	39.94	☐	

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202071016		24-MAR-10 11:06	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	HE	1.049	0.3204	pCi/g	0.6158	N	911.3	3	1.258	IDENTIFIED	30.03	☐	
Americium-241	✓	14.7	1.056	pCi/g	0.7765	0.200	59.59	1	1.03	IDENTIFIED	3.422	☐ 90.2%	
Annihilation Rad.	HE	0.1709	0.06458	pCi/g	0.09087	N	511.1	1	2.164	IDENTIFIED	37.68	☐	
Barium-137m		5.347	0.1841	pCi/g	0.1153	N	662	2	1.459	IDENTIFIED	2.428	☐	
Bismuth-211		2.983	0.3611	pCi/g	0.6226	Y	352.1	2	1.076	IDENTIFIED	11.63	☐	
Bismuth-214		0.7681	0.1494	pCi/g	0.2124	0.200	609.9	3	1.599	IDENTIFIED	19.09	☐	
Cadmium-109		34.47	2.58	pCi/g	2.249	Y	88.02	2	0.9683	IDENTIFIED	4.463	☐	
Cesium-137	✓	5.648	0.195	pCi/g	0.1218	0.100	662	2	1.459	IDENTIFIED	2.428	☐ 99.4%	
Cobalt-57		0.1617	0.02843	pCi/g	0.06764	N	122.1	1	0.9509	IDENTIFIED	17.24	☐	
Cobalt-60	✓	6.474	0.2836	pCi/g	0.09371	0.100	1333	1	1.998	IDENTIFIED	2.73	☐ 100.1%	
Gross Gamma		28.09	2.836	pCi/g	3.595	N		0				☐	
Iodine-135	HE	2.06E+06	1.45E+07	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Lead-212		1.461	0.09654	pCi/g	0.1695	0.100	238.7	2	1.078	IDENTIFIED	5.222	☐	
Lead-214		1.083	0.1344	pCi/g	0.2248	0.100	352.1	2	1.076	IDENTIFIED	11.63	☐	
Neptunium-237		3.757	0.5351	pCi/g	1.139	N	0	4	0	NOT_IDENTI	0	☐	
Radium-224		3.796	1.084	pCi/g	1.817	Y	241.5	1	1.863	IDENTIFIED	28.37	☐	
Radium-226		0.7681	0.1494	pCi/g	0.2124	Y	609.9	3	1.599	IDENTIFIED	19.09	☐	
Radium-228		1.049	0.3204	pCi/g	0.6158	0.500	911.3	3	1.258	IDENTIFIED	30.03	☐	
Sodium-24	HE	120.9	82.15	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	6.14E+06	1.74E+07	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Thallium-208		0.3783	0.05932	pCi/g	0.1085	0.080	583.4	1	1.472	IDENTIFIED	15.37	☐	
Thorium-228		1.461	0.09654	pCi/g	0.1695	N	238.7	2	1.078	IDENTIFIED	5.222	☐	
Thorium-230		0.7681	0.148	pCi/g	0.2124	N	609.9	3	1.599	IDENTIFIED	19.09	☐	
Thorium-232	HE	1.049	0.3204	pCi/g	0.6158	N	911.3	3	1.258	IDENTIFIED	30.03	☐	
Tin-126		3.408	0.2552	pCi/g	0.2242	N	88.02	2	0.9683	IDENTIFIED	4.463	☐	

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334006	11-MAR-10 12:00	24-MAR-10 11:01	13	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228		2.412	0.228	pCi/g	0.3006	N	911.5	3	1.589	IDENTIFIED	7.274	☐		
Annihilation Rad.	HE	0.1237	0.04488	pCi/g	0.06284	N	511	1	2.038	IDENTIFIED	36.01	☐		
Bismuth-211		4.978	0.4041	pCi/g	0.4159	Y	352	2	1.369	IDENTIFIED	6.627	☐		
Bismuth-212	HE	2.894	0.6737	pCi/g	1.566	N	0	3	0	FAIL_ABUND	0	☐		
Bismuth-214		1.506	0.1317	pCi/g	0.153	0.200	609.7	3	1.522	IDENTIFIED	7.204	☐		
Cadmium-109		3.835	0.6835	pCi/g	1.771	Y	87.2	3	0.9961	IDENTIFIED	16.95	☐		
Cerium-143		277.7	46.92	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐		
Cesium-134		0.1258	0.04219	pCi/g	0.1194	0.100	0	3	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma		11.68	1.791	pCi/g	4.203	N		0				☐		
Lead-212		2.153	0.1345	pCi/g	0.1213	0.100	238.7	2	1.113	IDENTIFIED	3.564	☐		
Lead-214		1.807	0.1549	pCi/g	0.1513	0.100	352	2	1.369	IDENTIFIED	6.627	☐		
Neptunium-237		1.122	0.232	pCi/g	0.487	N	87.2	3	0.9961	IDENTIFIED	16.95	☐		
Potassium-40		34.28	1.995	pCi/g	0.7676	1.00	1461	1	2.283	IDENTIFIED	3.415	☐		
Radium-224		4.874	0.9198	pCi/g	1.301	Y	241.7	1	1.846	IDENTIFIED	18.3	☐		
Radium-226		1.506	0.1317	pCi/g	0.153	Y	609.7	3	1.522	IDENTIFIED	7.204	☐		
Radium-228		2.412	0.228	pCi/g	0.3006	0.500	911.5	3	1.589	IDENTIFIED	7.274	☐		
Thallium-208		0.729	0.06143	pCi/g	0.06518	0.080	583.1	1	1.332	IDENTIFIED	7.082	☐		
Thorium-228		2.153	0.1345	pCi/g	0.1213	N	238.7	2	1.113	IDENTIFIED	3.564	☐		
Thorium-230		1.506	0.1256	pCi/g	0.153	N	609.7	3	1.522	IDENTIFIED	7.204	☐		
Thorium-232		2.412	0.228	pCi/g	0.3006	N	911.5	3	1.589	IDENTIFIED	7.274	☐		
Thorium-234		3.818	1.399	pCi/g	2.836	2.00	63.31	2	1.289	IDENTIFIED	35.46	☐		
Tin-126		0.3761	0.06703	pCi/g	0.1838	N	87.2	3	0.9961	IDENTIFIED	16.95	☐		
Total Uranium		11.426	4.16E-06	ug/g	4.2222	N		0				☐		
Uranium-238	HE	3.818	1.399	pCi/g	2.836	N	63.31	2	1.289	IDENTIFIED	35.46	☐		

*** = Number of isotopes identified with a keyline at this energy.

3/26/10

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334007	11-MAR-10 12:00	25-MAR-10 14:47	14.1	SAMPLE	LOAD	2	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	2.428	0.2349	pCi/g	0.2433	N	911.4	3	1.863	IDENTIFIED	6.906	☐		
Annihilation Rad.	—	0.1761	0.03511	pCi/g	0.05254	N	510.7	1	1.926	IDENTIFIED	19.3	☐		
Bismuth-211	INT	5.847	0.4237	pCi/g	0.3647	Y	352	2	1.376	IDENTIFIED	4.328	☑	UJ	
Bismuth-212	HE	1.786	0.4508	pCi/g	1.232	N	0	7	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.698	0.131	pCi/g	0.1123	0.200	609.4	3	1.643	IDENTIFIED	5.051	☐		
Cadmium-109	INT	6.115	0.6833	pCi/g	1.266	Y	87.22	3	1.448	IDENTIFIED	10.14	☑	UJ	
Cerium-143	←	649.6	98.31	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.1633	0.03585	pCi/g	0.0936	0.100	0	7	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
RPD = 12.5% Cobalt-60	✓	0.1815	0.03779	pCi/g	0.07036	0.100	1333	1	2.943	IDENTIFIED	20.34	☐		
Gross Gamma	—	13.14	1.589	pCi/g	3.229	N		0				☐		
Iodine-133	HE	435.2	1397	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Iodine-135	HE	3.31E+14	2.63E+14	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-212	✓	2.201	0.1691	pCi/g	0.1264	0.100	238.6	2	1.176	IDENTIFIED	3.888	☐		
Lead-214	✓	2.122	0.1645	pCi/g	0.1326	0.100	352	2	1.376	IDENTIFIED	4.328	☐		

Neptunium-237	INT	1.786	0.2737	pCi/g	0.3753	N	87.22	3	1.448	IDENTIFIED	10.14	☐		
Niobium-95m	HE	0.3015	0.08439	pCi/g	0.2548	N	0	7	0	NOT_IDENTI	0	☐		
Potassium-40	✓	38.8	1.979	pCi/g	0.5527	1.00	1461	1	2.628	IDENTIFIED	2.246	☐		
Radium-224	INT	4.3	0.5655	pCi/g	1.64	Y	241.8	1	1.477	IDENTIFIED	11.56	☑	UI	
Radium-226	✓	1.698	0.131	pCi/g	0.1123	Y	609.4	3	1.643	IDENTIFIED	5.051	☐		
Radium-228	✓	2.428	0.2349	pCi/g	0.2433	0.500	911.4	3	1.863	IDENTIFIED	6.906	☐		
Strontium-85	LA	0.1769	0.02669	pCi/g	0.08514	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208	✓	0.71	0.05676	pCi/g	0.06501	0.080	583.1	1	1.574	IDENTIFIED	5.879	☐		
Thorium-228	NR	2.201	0.1691	pCi/g	0.1264	N	238.6	2	1.176	IDENTIFIED	3.888	☐		
Thorium-230	NR	1.698	0.1231	pCi/g	0.1123	N	609.4	3	1.643	IDENTIFIED	5.051	☐		
Thorium-232	NR	2.428	0.2349	pCi/g	0.2433	N	911.4	3	1.863	IDENTIFIED	6.906	☐		
Tin-126	NR	0.5987	0.0669	pCi/g	0.1245	N	87.22	3	1.448	IDENTIFIED	10.14	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202071014		24-MAR-10 11:03	0	MB	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Technetium-99m HE	8.99E+06	5.62E+06	pCi/g	0	N	0	1	0	SHORT_HLIF	0	☐		
Total Uranium	2.4106	1.22E-06	ug/g	1.4732	N		0				☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202071015	11-MAR-10 12:00	24-MAR-10 11:24	13	DUP	LOAD	1		LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	2.537	0.2671	pCi/g	0.3245	N	911.6	3	1.671	IDENTIFIED	8.683	☐		
Annihilation Rad.	0.2689	0.04812	pCi/g	0.05498	N	511.3	1	1.8	IDENTIFIED	17.38	☐		
Bismuth-211	5.794	0.3945	pCi/g	0.4297	Y	352.4	2	1.359	IDENTIFIED	5.074	☐		
Bismuth-212	3.294	0.6754	pCi/g	1.563	N	0	4	0	FAIL_ABUND	0	☐		
Bismuth-214	1.937	0.1429	pCi/g	0.1449	0.200	609.6	3	1.477	IDENTIFIED	5.466	☐		
Cadmium-109	3.908	0.6848	pCi/g	1.679	Y	87.26	3	1.209	IDENTIFIED	16.88	☐		
Cerium-143	128.8	37.93	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐		
Cesium-134	0.1608	0.03993	pCi/g	0.123	0.100	0	4	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	13.56	1.899	pCi/g	5.468	N		0				☐		
Lead-212	2.379	0.1446	pCi/g	0.1225	0.100	239.1	2	1.284	IDENTIFIED	3.328	☐		
Lead-214	2.103	0.1545	pCi/g	0.1508	0.100	352.4	2	1.359	IDENTIFIED	5.074	☐		
Neptunium-237	1.144	0.2335	pCi/g	0.5209	N	87.26	3	1.209	IDENTIFIED	16.88	☐		
Potassium-40	36.75	2.003	pCi/g	0.6657	1.00	1461	1	1.989	IDENTIFIED	3.152	☐		
Radium-224	6.112	0.881	pCi/g	1.313	Y	241.9	1	1.74	IDENTIFIED	13.68	☐		
Radium-226	1.937	0.1429	pCi/g	0.1449	Y	609.6	3	1.477	IDENTIFIED	5.466	☐		
Radium-228	2.537	0.2671	pCi/g	0.3245	0.500	911.6	3	1.671	IDENTIFIED	8.683	☐		
Strontium-85	0.1739	0.02989	pCi/g	0.1025	Y	0	4	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208	0.7708	0.06423	pCi/g	0.0744	0.080	583.8	1	1.431	IDENTIFIED	6.99	☐		
Thorium-228	2.379	0.1446	pCi/g	0.1225	N	239.1	2	1.284	IDENTIFIED	3.328	☐		
Thorium-230	1.936	0.1334	pCi/g	0.1449	N	609.6	3	1.477	IDENTIFIED	5.466	☐		
Thorium-232	2.537	0.2671	pCi/g	0.3245	N	911.6	3	1.671	IDENTIFIED	8.683	☐		
Thorium-234	3.872	1.585	pCi/g	2.868	2.00	63.15	2	1.13	IDENTIFIED	39.94	☐		
Tin-126	0.3833	0.06716	pCi/g	0.1655	N	87.26	3	1.209	IDENTIFIED	16.88	☐		
Total Uranium	11.568	4.72E-06	ug/g	4.2703	N		0				☐		

3/26/10

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertanty	Units	DL	RDL
965250	249334006	SAMPLE	24-MAR-10	Cerium-143	277.7	46.92	pCi/g	0	N
				Cesium-134	0.1258	0.04219	pCi/g	0.05973	0.100
				Gross Gamma	11.68	1.791	pCi/g	2.038	N
				Lead-212	2.153	0.1345	pCi/g	0.0607	0.100
				Lead-214	1.807	0.1549	pCi/g	0.07568	0.100
				Mercury-203	0.05806	0.02769	pCi/g	0.04348	0.100
				Potassium-40	34.28	1.995	pCi/g	0.3841	1.00
				Radium-224	4.874	0.9198	pCi/g	0.6508	Y
				Radium-228	1.506	0.1317	pCi/g	0.07654	Y
				Radium-228	2.412	0.228	pCi/g	0.1504	0.500
				Ruthenium-106	0.5145	0.1973	pCi/g	0.3601	0.800
				Strontium-85	0.07237	0.02755	pCi/g	0.04495	Y
				Thallium-208	0.729	0.06143	pCi/g	0.03261	0.080
				Thorium-234	3.818	1.399	pCi/g	1.419	2.00
965250	249334007	SAMPLE	25-MAR-10	Bismuth-211	5.847	0.4237	pCi/g	0.1825	Y
				Bismuth-214	1.698	0.131	pCi/g	0.05619	0.200
				Cadmium-109	6.115	0.6833	pCi/g	0.6336	Y
				Cerium-143	649.6	98.31	pCi/g	0	N
				Cesium-134	0.1633	0.03585	pCi/g	0.04683	0.100
				Cobalt-60	0.1815	0.03779	pCi/g	0.0352	0.100
				Gross Gamma	13.14	1.589	pCi/g	1.574	N
				Iodine-133	435.2	1397	pCi/g	0	N
				Iodine-135	3.31E+14	2.63E+14	pCi/g	0	N
				Lead-212	2.201	0.1691	pCi/g	0.06324	0.100
				Lead-214	2.122	0.1645	pCi/g	0.06635	0.100
				Mercury-203	0.04987	0.02335	pCi/g	0.03465	0.100
				Molybdenum-99	9.073	5.135	pCi/g	8.697	N
				Potassium-40	38.8	1.979	pCi/g	0.2765	1.00
				Radium-224	4.3	0.5655	pCi/g	0.8206	Y
				Radium-226	1.698	0.131	pCi/g	0.05619	Y
				Radium-228	2.428	0.2349	pCi/g	0.1217	0.500
				Strontium-85	0.1769	0.02869	pCi/g	0.0426	Y
				Thallium-208	0.71	0.05676	pCi/g	0.03252	0.080
965250	1202071014	MB	24-MAR-10	Technetium-99m	8.99E+06	5.62E+06	pCi/g	0	N
				Thorium-234	0.8329	0.4096	pCi/g	0.4951	2.00
~~965250~~	~~1202071015~~	~~DUP~~	~~24-MAR-10~~	~~Bismuth-211~~	~~5.794~~	~~0.3945~~	~~pCi/g~~	~~0.215~~	~~Y~~
				~~Bismuth-214~~	~~1.937~~	~~0.1429~~	~~pCi/g~~	~~0.07252~~	~~0.200~~

Blank Results Greater Than CSU

Batch ID	Blank ID & Run Seq.	Run Date	Parmname	Result Units	1 Sigma TPU	1 Sigma TPU x1.65	1 Sigma TPU x2	RDL	MDA	Report Parm?
965250	1202071014-1	24-MAR-10 11:03	Americium-241	0.0412 pCi/g	0.0313	0.0516	0.0625	0.200	0.1038	Y ✓
965250	1202071014-1	24-MAR-10 11:03	Bismuth-211	0.0839 pCi/g	0.0569	0.0939	0.114		0.2087	Y ✓
965250	1202071014-1	24-MAR-10 11:03	Cadmium-115	0.318 pCi/g	0.265	0.437	0.529		0.9635	N
965250	1202071014-1	24-MAR-10 11:03	Californium-249	0.0146 pCi/g	0.0107	0.0176	0.0214		0.03915	N
965250	1202071014-1	24-MAR-10 11:03	Californium-251	0.0372 pCi/g	0.0315	0.052	0.0631		0.1115	N
965250	1202071014-1	24-MAR-10 11:03	Cerium-143	0.637 pCi/g	0.639	1.05	1.28		2.31	N
965250	1202071014-1	24-MAR-10 11:03	Cerium-144	0.0677 pCi/g	0.0454	0.0749	0.0907		0.1633	N
965250	1202071014-1	24-MAR-10 11:03	Cobalt-56	0.0197 pCi/g	0.00994	0.0164	0.0199		0.03757	N
965250	1202071014-1	24-MAR-10 11:03	Cobalt-57	0.00697 pCi/g	0.00609	0.01	0.0122		0.02176	N
965250	1202071014-1	24-MAR-10 11:03	Gross Gamma	0.056 pCi/g	0.0262	0.0432	0.0524		0.1146	N
965250	1202071014-1	24-MAR-10 11:03	Iodine-131	0.0216 pCi/g	0.016	0.0265	0.0321		0.05878	N
965250	1202071014-1	24-MAR-10 11:03	Mercury-203	0.00957 pCi/g	0.00871	0.0144	0.0174	0.100	0.03176	Y ✓
965250	1202071014-1	24-MAR-10 11:03	Neptunium-237	0.093 pCi/g	0.0506	0.0835	0.101		0.1831	N
965250	1202071014-1	24-MAR-10 11:03	Niobium-94	0.0103 pCi/g	0.00987	0.0163	0.0197		0.03488	N
965250	1202071014-1	24-MAR-10 11:03	Niobium-95	0.00952 pCi/g	0.0106	0.0175	0.0212		0.03723	N
965250	1202071014-1	24-MAR-10 11:03	Potassium-40	0.189 pCi/g	0.132	0.218	0.265	1.00	0.5102	Y ✓
965250	1202071014-1	24-MAR-10 11:03	Praseodymium-144	1.43 pCi/g	0.832	1.37	1.66		3.023	N
965250	1202071014-1	24-MAR-10 11:03	Promethium-144	0.0192 pCi/g	0.0112	0.0184	0.0223		0.04056	N
965250	1202071014-1	24-MAR-10 11:03	Radium-224	0.230 pCi/g	0.161	0.266	0.323		0.5692	Y ✓
965250	1202071014-1	24-MAR-10 11:03	Silver-108m	0.00694 pCi/g	0.0082	0.0135	0.0164		0.02922	N
965250	1202071014-1	24-MAR-10 11:03	Technetium-99m	8.99E+06 pCi/g	5620000	9270000	11200000		0	N
965250	1202071014-1	24-MAR-10 11:03	Thorium-234	0.833 pCi/g	0.41	0.676	0.819	2.00	0.9895	Y
965250	1202071014-1	24-MAR-10 11:03	Uranium-238	0.833 pCi/g	0.41	0.676	0.819		0.9895	N

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:00:57.63

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331001.CNF;2
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 08:58:44
Sample ID         : G249331001           Sample quantity  : 1.22510E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.40  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	4	74.86	360	400	1.06	149.76	146	14	4.99E-02	10.0	9.82E-01
2	4	77.18*	646	346	1.04	154.41	146	14	8.97E-02	6.2	
3	6	84.41	126	456	1.30	168.86	164	28	1.75E-02	30.0	1.06E+00
4	6	87.30	295	433	1.28	174.64	164	28	4.09E-02	13.6	
5	6	89.91	178	467	1.47	179.86	164	28	2.47E-02	24.3	
6	6	92.97*	291	437	1.47	185.98	164	28	4.05E-02	14.9	
7	0	128.75	64	299	0.77	257.55	257	6	8.87E-03	44.7	
8	0	186.20*	212	311	1.13	372.46	368	8	2.95E-02	16.2	
9	0	208.93	156	311	1.09	417.92	413	10	2.17E-02	22.6	
10	5	238.76*	1585	193	1.18	477.58	471	19	2.20E-01	2.9	2.31E+00
11	5	241.51*	328	286	1.86	483.10	471	19	4.55E-02	14.8	
12	0	270.42	93	253	1.22	540.92	536	10	1.29E-02	33.6	
13	0	277.72	54	168	0.93	555.52	552	8	7.51E-03	43.5	
14	0	295.16*	455	237	1.23	590.40	583	13	6.32E-02	8.5	
15	0	300.09	85	204	1.00	600.26	596	10	1.18E-02	33.2	
16	0	328.11	73	148	1.34	656.31	653	8	1.02E-02	30.9	
17	0	338.40*	325	273	1.21	676.89	670	14	4.52E-02	12.2	
18	0	352.16*	734	219	1.19	704.40	698	13	1.02E-01	5.6	
19	0	409.91	61	113	0.95	819.91	815	10	8.52E-03	34.8	
20	0	463.65	89	154	1.66	927.39	920	15	1.24E-02	32.3	
21	0	511.31*	176	131	1.50	1022.71	1017	15	2.45E-02	17.8	
22	0	583.44	475	123	1.34	1166.98	1161	14	6.59E-02	6.7	
23	0	609.64*	530	113	1.32	1219.37	1212	15	7.36E-02	6.3	
24	0	727.90*	75	72	0.77	1455.89	1451	10	1.05E-02	24.6	
25	0	768.34	45	127	1.26	1536.76	1532	15	6.19E-03	56.6	
26	0	911.73*	342	53	1.69	1823.52	1819	12	4.76E-02	7.0	
27	0	934.59	31	54	1.38	1869.23	1865	11	4.30E-03	48.8	
28	3	965.25	55	54	2.23	1930.56	1922	31	7.68E-03	28.3	1.95E+00
29	3	969.47*	202	23	1.80	1938.99	1922	31	2.80E-02	9.1	
30	0	1121.09*	87	67	1.97	2242.20	2237	11	1.21E-02	21.8	
31	0	1239.64	42	91	1.48	2479.26	2473	11	5.85E-03	46.9	
32	0	1461.61*	1210	39	1.93	2923.11	2912	22	1.68E-01	3.2	
33	0	1731.13	36	3	2.13	3462.01	3455	13	4.95E-03	19.7	
34	0	1765.21*	84	3	1.91	3530.13	3523	14	1.17E-02	12.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 11:01:01

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331001.CNF;2
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 08:58:44
Sample ID         : G249331001           Sample quantity  : 122.51 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA4               Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.40   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.239E+01	3.085E+00	6.836E-01	4.859E-02	47.372
CD-109	+	88.03	*	4.952E+00	1.469E+00	1.317E+00	1.583E-01	3.759
SN-126		64.28		3.407E-01	7.358E-01	1.228E+00	2.116E-01	0.277
	+	86.94		2.019E+00	1.013E+00	5.471E-01	2.308E-01	3.691
	+	87.57	*	4.857E-01	1.441E-01	1.302E-01	1.561E-02	3.731
HG-203		70.83		4.124E-01	1.872E+00	2.857E+00	5.080E-01	0.144
		72.87		3.484E-01	1.076E+00	1.647E+00	2.845E-01	0.212
	+	279.20	*	5.698E-02	4.974E-02	5.868E-02	4.067E-03	0.971
TL-208	+	277.37		5.810E-01	5.099E-01	6.605E-01	7.440E-02	0.880
	+	583.19	*	6.975E-01	1.033E-01	5.845E-02	3.668E-03	11.934
		860.56		9.016E-01	3.798E-01	7.166E-01	5.976E-02	1.258
BI-211		72.87		1.447E+00	4.466E+00	6.839E+00	7.840E-01	0.212
	+	351.06	*	4.806E+00	6.299E-01	3.351E-01	2.264E-02	14.342
PB-212	+	74.82		2.941E+00	7.377E-01	6.959E-01	1.046E-01	4.226
	+	77.11		2.938E+00	4.980E-01	3.886E-01	4.458E-02	7.561
	+	238.63	*	2.309E+00	2.311E-01	9.653E-02	7.809E-03	23.918
	+	300.09		1.931E+00	1.294E+00	1.173E+00	1.048E-01	1.646
BI-214	+	609.32	*	1.508E+00	2.194E-01	1.070E-01	7.929E-03	14.097
	+	1120.29		1.323E+00	5.907E-01	5.714E-01	5.356E-02	2.315
	+	1764.49		1.774E+00	4.511E-01	1.305E-01	7.957E-03	13.594
PB-214	+	74.82		5.213E+00	1.274E+00	1.233E+00	1.718E-01	4.226
	+	77.11		5.179E+00	9.763E-01	6.851E-01	9.679E-02	7.561
	+	242.00		2.896E+00	8.936E-01	5.873E-01	5.188E-02	4.930
	+	295.22		1.831E+00	3.548E-01	2.283E-01	2.116E-02	8.018
	+	351.93	*	1.744E+00	2.480E-01	1.219E-01	1.062E-02	14.311
RA-224	+	240.99	*	5.120E+00	1.552E+00	1.035E+00	6.900E-02	4.947
RA-226	+	609.32	*	1.508E+00	2.194E-01	1.070E-01	7.929E-03	14.097
	+	1120.29		1.323E+00	5.907E-01	5.714E-01	5.356E-02	2.315
	+	1764.49		1.774E+00	4.511E-01	1.305E-01	7.957E-03	13.594
AC-228	+	338.32		2.367E+00	1.135E+00	4.093E-01	1.690E-01	5.784
	+	911.20	*	2.463E+00	4.409E-01	2.325E-01	2.618E-02	10.592
	+	968.97		2.513E+00	7.591E-01	3.921E-01	9.449E-02	6.409
RA-228	+	338.32		2.367E+00	1.135E+00	4.093E-01	1.690E-01	5.784
	+	911.20	*	2.463E+00	4.409E-01	2.325E-01	2.618E-02	10.592

Sample ID : G249331001 Acquisition date : 24-MAR-2010 08:58:44

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		2.513E+00	7.591E-01	3.921E-01	9.449E-02	6.409
TH-228	+	74.82		2.941E+00	6.808E-01	6.959E-01	8.011E-02	4.226
	+	77.11		2.938E+00	4.980E-01	3.886E-01	4.458E-02	7.561
	+	238.63	*	2.309E+00	2.311E-01	9.653E-02	7.809E-03	23.918
	+	300.09		1.931E+00	1.741E+00	1.173E+00	7.150E-01	1.646
TH-229	+	85.43		5.522E-01	3.375E-01	3.405E-01	4.030E-02	1.622
	+	88.47		7.488E-01	2.221E-01	1.978E-01	2.351E-02	3.786
		193.51	*	-5.506E-03	5.837E-01	9.359E-01	6.073E-02	-0.006
		210.85		1.300E+00	1.093E+00	1.661E+00	1.092E-01	0.782
TH-230	+	609.32	*	1.508E+00	2.044E-01	1.069E-01	5.571E-03	14.097
	+	1120.29		1.323E+00	5.840E-01	5.714E-01	3.744E-02	2.315
	+	1764.49		1.774E+00	4.511E-01	1.305E-01	7.957E-03	13.594
TH-232	+	338.32		2.367E+00	5.956E-01	4.093E-01	2.573E-02	5.784
	+	911.20	*	2.463E+00	4.409E-01	2.325E-01	2.618E-02	10.592
	+	968.97		2.513E+00	7.591E-01	3.921E-01	9.449E-02	6.409
U-235	+	89.96		2.994E+00	1.645E+00	1.337E+00	3.443E-01	2.239
	+	93.35		2.907E+00	1.110E+00	7.923E-01	1.895E-01	3.670
		143.76	*	2.067E-01	2.177E-01	3.601E-01	5.757E-02	0.574
		163.33		2.648E-02	4.670E-01	7.582E-01	1.288E-01	0.035
	+	185.72		2.000E-01	6.618E-02	6.937E-02	4.473E-03	2.883
		205.31		4.300E-02	5.797E-01	8.283E-01	1.430E-01	0.052
NP-237	+	86.48	*	1.449E+00	5.265E-01	3.959E-01	9.547E-02	3.661
		95.86		1.840E-01	1.038E+00	1.560E+00	3.833E-01	0.118
ANH-511	+	511.00	*	1.977E-01	7.115E-02	5.193E-02	2.904E-03	3.807

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.733E-01	3.167E-01	5.378E-01	3.561E-02	0.322
NA-22		1274.54	*	1.298E-02	5.003E-02	8.576E-02	5.607E-03	0.151
NA-24		1368.63	*	2.263E-02	5.003E-02	Half-Life too short		
SC-46		889.28	*	-3.762E-02	4.694E-02	7.009E-02	5.669E-03	-0.537
	+	1120.55		2.196E-01	9.697E-02	1.515E-01	9.923E-03	1.450
V-48		944.13		-5.143E-02	8.433E-01	1.386E+00	1.108E-01	-0.037
		983.53	*	7.098E-02	6.837E-02	1.229E-01	9.521E-03	0.578
		1312.11		-8.911E-02	8.588E-02	1.269E-01	8.552E-03	-0.702
CR-51		320.08	*	1.575E-01	3.745E-01	6.407E-01	4.506E-02	0.246
MN-54		834.85	*	1.488E-02	4.035E-02	6.880E-02	4.979E-03	0.216
CO-56		846.77	*	-5.704E-03	4.413E-02	7.212E-02	5.351E-03	-0.079
		1037.84		-3.674E-01	3.366E-01	4.795E-01	3.769E-02	-0.766
	+	1238.28		1.754E-01	1.648E-01	2.263E-01	1.506E-02	0.775
		1771.35		-2.177E-02	2.289E-01	3.075E-01	1.867E-02	-0.071
CO-57		122.06	*	-6.632E-03	2.641E-02	4.225E-02	2.933E-03	-0.157
		136.47		1.588E-01	2.169E-01	3.651E-01	2.711E-02	0.435
CO-58		810.76	*	3.526E-02	3.981E-02	7.108E-02	4.907E-03	0.496
FE-59		1099.45	*	4.768E-02	1.060E-01	1.787E-01	1.365E-02	0.267
		1291.59		1.972E-02	1.419E-01	2.403E-01	1.942E-02	0.082
CO-60		1173.23		4.994E-03	4.995E-02	8.122E-02	4.830E-03	0.061

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1332.49	*	1.349E-02	4.307E-02	7.437E-02	5.096E-03	0.181
ZN-65		1115.54	*	-1.195E-02	1.272E-01	1.752E-01	1.159E-02	-0.068
SE-75		121.12		2.160E-02	1.347E-01	2.230E-01	2.205E-02	0.097
		136.00		2.213E-02	4.101E-02	6.856E-02	4.596E-03	0.323
		264.66	*	2.376E-02	4.821E-02	7.808E-02	5.254E-03	0.304
		279.54		1.190E-01	1.232E-01	1.953E-01	1.380E-02	0.609
		400.66		1.137E-01	2.756E-01	4.660E-01	4.181E-02	0.244
SR-85		514.00	*	6.934E-02	4.730E-02	7.575E-02	4.231E-03	0.915
Y-88		898.04		-2.615E-02	4.233E-02	6.510E-02	5.386E-03	-0.402
		1836.06	*	-3.386E-03	3.431E-02	5.442E-02	3.176E-03	-0.062
Y-91		1204.77	*	-1.065E+01	2.741E+01	4.250E+01	2.604E+00	-0.251
NB-94		702.65	*	-1.997E-02	3.776E-02	6.081E-02	3.276E-03	-0.328
		871.09		3.378E-02	3.523E-02	6.327E-02	4.933E-03	0.534
NB-95		765.81	*	4.933E-02	4.519E-02	7.380E-02	4.599E-03	0.669
NB-95M		235.69	*	1.379E-01	1.427E-01	2.135E-01	1.757E-02	0.646
ZR-95		724.19		2.285E-02	1.037E-01	1.546E-01	1.040E-02	0.148
		756.73	*	2.127E-02	8.379E-02	1.423E-01	1.042E-02	0.150
MO-99		140.51		-5.950E+00	1.363E+01	2.157E+01	4.977E+00	-0.276
		181.07		-8.602E-01	1.114E+01	1.700E+01	3.041E+00	-0.051
		366.42		-4.844E+01	6.075E+01	9.573E+01	5.722E+00	-0.506
		739.50	*	-1.001E+01	7.859E+00	1.149E+01	1.659E+00	-0.872
		777.92		-2.136E+01	2.419E+01	3.604E+01	2.308E+00	-0.592
TC-99M		140.51	*	-3.668E+07	2.419E+01	Half-Life too short		
RU-103		497.08	*	-4.584E-03	3.955E-02	6.369E-02	7.862E-03	-0.072
	+	610.33		1.496E+01	2.903E+00	3.252E+00	4.824E-01	4.599
RH-106		621.93	*	1.462E-02	3.475E-01	5.576E-01	6.304E-02	0.026
		1050.41		2.777E+00	2.786E+00	4.966E+00	3.590E-01	0.559
RU-106		621.93	*	1.462E-02	3.475E-01	5.576E-01	2.865E-02	0.026
		1050.41		2.777E+00	2.786E+00	4.966E+00	3.590E-01	0.559
AG-108M		433.94	*	8.717E-03	3.044E-02	5.098E-02	3.103E-03	0.171
		614.28		-2.954E-03	4.106E-02	5.678E-02	3.202E-03	-0.052
		722.91		-2.085E-03	4.494E-02	6.504E-02	3.944E-03	-0.032
AG-110M		657.76	*	-9.231E-03	3.816E-02	6.312E-02	3.373E-03	-0.146
		677.62		4.447E-01	3.305E-01	6.088E-01	3.338E-02	0.731
		706.68		2.238E-01	2.279E-01	4.087E-01	2.380E-02	0.548
		763.94		-6.935E-02	1.881E-01	2.597E-01	1.696E-02	-0.267
		884.68		4.242E-02	5.626E-02	9.864E-02	8.198E-03	0.430
		937.49		9.739E-02	1.407E-01	2.176E-01	1.820E-02	0.448
		1384.29		-1.612E-01	2.005E-01	3.023E-01	2.157E-02	-0.533
		1505.03		-6.818E-02	2.943E-01	4.687E-01	3.163E-02	-0.145
SN-113		391.69	*	-1.153E-02	4.766E-02	7.754E-02	4.672E-03	-0.149
CD-115		260.90		-1.838E+01	7.274E+01	1.217E+02	8.127E+00	-0.151
		492.35		1.350E+01	1.978E+01	3.386E+01	1.907E+00	0.399
		527.90	*	-1.436E-01	6.163E+00	9.957E+00	5.525E-01	-0.014
SN-117M		156.02		1.846E+00	2.217E+00	3.720E+00	2.386E-01	0.496
		158.56	*	-5.052E-03	5.348E-02	8.638E-02	5.525E-03	-0.058
TE-123M		159.00	*	2.542E-03	3.023E-02	4.920E-02	3.180E-03	0.052
SB-124		602.73		4.093E-02	4.864E-02	7.185E-02	3.770E-03	0.570
		645.85		8.996E-02	4.930E-01	8.430E-01	4.891E-02	0.107

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		722.78		1.001E-02	4.374E-01	6.381E-01	3.795E-02	0.016
		1690.97	*	-4.644E-02	7.371E-02	1.028E-01	7.015E-03	-0.452
SB-125		427.87	*	2.094E-03	9.592E-02	1.578E-01	9.330E-03	0.013
	+	463.37		8.896E-01	5.771E-01	6.010E-01	3.974E-02	1.480
		600.60		2.385E-02	2.032E-01	3.288E-01	2.054E-02	0.073
		635.95		7.169E-03	3.033E-01	4.852E-01	2.994E-02	0.015
TE-125M		109.28	*	1.071E+01	1.036E+01	1.772E+01	1.786E+00	0.604
I-126		388.63		7.882E-02	1.663E-01	2.826E-01	1.603E-02	0.279
		666.33	*	4.373E-02	2.235E-01	3.811E-01	1.880E-02	0.115
		753.82		2.285E+00	1.862E+00	3.374E+00	2.047E-01	0.677
SB-126		414.70		-1.171E-02	7.684E-02	1.093E-01	6.185E-03	-0.107
		666.50		5.142E-02	7.451E-02	1.313E-01	6.477E-03	0.392
		695.00		-2.682E-02	7.618E-02	1.244E-01	6.583E-03	-0.216
		697.00		2.062E-02	2.655E-01	4.478E-01	2.380E-02	0.046
		720.70	*	1.023E-02	1.382E-01	2.266E-01	1.274E-02	0.045
		856.80		-1.001E+00	5.575E-01	7.822E-01	5.924E-02	-1.279
SB-127		252.40		1.419E+00	2.924E+00	4.978E+00	2.041E+00	0.285
		473.00		-4.082E-01	1.153E+00	1.830E+00	1.892E-01	-0.223
		685.70	*	3.814E-01	8.864E-01	1.539E+00	1.269E-01	0.248
		783.70		3.705E+00	2.813E+00	5.074E+00	5.239E-01	0.730
I-131		80.19		1.434E+00	5.439E+00	6.641E+00	7.695E-01	0.216
		284.31		-1.024E-01	1.296E+00	2.176E+00	1.562E-01	-0.047
		364.49	*	6.140E-02	1.055E-01	1.810E-01	1.201E-02	0.339
		636.99		3.000E-01	1.458E+00	2.369E+00	1.380E-01	0.127
TE-132		49.72		-1.634E+01	2.590E+01	4.279E+01	5.834E+00	-0.382
		111.76		-1.421E+00	2.204E+01	3.629E+01	3.552E+00	-0.039
		116.30		3.519E+01	1.970E+01	3.428E+01	3.235E+00	1.027
		228.16	*	5.900E-03	5.178E-01	8.230E-01	1.185E-01	0.007
BA-133		81.00		-4.369E-02	1.428E-01	1.661E-01	2.880E-02	-0.263
	+	276.40		5.368E-01	4.724E-01	6.514E-01	8.472E-02	0.824
		302.85		-2.458E-02	1.552E-01	2.268E-01	2.677E-02	-0.108
		356.01	*	2.298E-02	4.643E-02	7.076E-02	8.090E-03	0.325
		383.85		-4.290E-02	3.133E-01	5.139E-01	5.464E-02	-0.083
I-133		529.87	*	-3.553E-04	3.133E-01	Half-Life too short		
		875.33		-2.907E-02	3.133E-01	Half-Life too short		
		1298.22		1.778E-02	3.133E-01	Half-Life too short		
CS-134		563.25		-6.525E-02	3.970E-01	6.254E-01	3.476E-02	-0.104
		569.33		-4.395E-02	2.095E-01	3.313E-01	1.851E-02	-0.133
		604.72		-9.508E-03	4.382E-02	5.777E-02	3.044E-03	-0.165
		795.86	*	1.053E-01	5.325E-02	1.004E-01	6.767E-03	1.049
		801.95		-8.531E-02	3.965E-01	6.447E-01	4.390E-02	-0.132
		1365.19		5.593E-02	1.313E+00	2.197E+00	1.614E-01	0.025
CS-135		268.22	*	1.539E-01	1.830E-01	2.876E-01	2.398E-02	0.535
I-135		546.56		-8.266E+06	1.830E-01	Half-Life too short		
		836.80		9.180E+07	1.830E-01	Half-Life too short		
		1038.76		-5.052E+07	1.830E-01	Half-Life too short		
		1131.51		1.029E+07	1.830E-01	Half-Life too short		
		1260.41	*	-1.555E+07	1.830E-01	Half-Life too short		
		1457.56		6.552E+08	1.830E-01	Half-Life too short		

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		1678.03		-1.781E+07	1.830E-01	Half-Life too short		
		1791.20		-1.657E+07	1.830E-01	Half-Life too short		
CS-136		153.25		-3.149E-01	8.364E-01	1.337E+00	1.138E-01	-0.236
		176.60		2.036E-01	4.991E-01	8.190E-01	6.186E-02	0.249
		273.65		4.845E-01	6.583E-01	7.824E-01	5.930E-02	0.619
		340.55		4.103E-01	1.742E-01	2.904E-01	1.947E-02	1.413
		818.51		4.220E-04	6.744E-02	1.118E-01	7.826E-03	0.004
		1048.07	*	-2.953E-02	1.097E-01	1.734E-01	1.331E-02	-0.170
		1235.36		3.366E-01	6.858E-01	1.045E+00	1.065E-01	0.322
BA-137M		661.66	*	-2.115E-02	4.265E-02	7.047E-02	3.437E-03	-0.300
CS-137		661.66	*	-2.235E-02	4.506E-02	7.444E-02	3.652E-03	-0.300
CE-139		165.86	*	3.737E-03	3.179E-02	5.170E-02	3.285E-03	0.072
BA-140		162.66		1.405E-01	7.720E-01	1.260E+00	8.994E-02	0.111
		304.85		-9.206E-01	1.366E+00	1.873E+00	5.380E-01	-0.492
		423.72		-3.748E-01	1.808E+00	2.923E+00	9.425E-01	-0.128
		537.26	*	-9.812E-02	2.548E-01	3.954E-01	1.315E-01	-0.248
LA-140	+	328.76		5.850E-01	3.635E-01	5.513E-01	3.872E-02	1.061
		487.02		3.933E-02	1.331E-01	2.214E-01	1.422E-02	0.178
		815.77		-2.134E-02	2.999E-01	4.938E-01	4.035E-02	-0.043
		1596.21	*	-2.702E-02	9.290E-02	1.462E-01	9.632E-03	-0.185
CE-141		145.44	*	-1.604E-02	6.338E-02	1.021E-01	6.856E-03	-0.157
CE-143		57.36		1.188E-04	6.338E-02	Half-Life too short		
		293.27	*	1.742E-04	6.338E-02	Half-Life too short		
		664.57		2.996E-05	6.338E-02	Half-Life too short		
		721.93		1.385E-04	6.338E-02	Half-Life too short		
CE-144		80.12		8.469E-01	3.549E+00	4.326E+00	4.998E-01	0.196
		133.52	*	-1.583E-01	2.389E-01	3.345E-01	4.775E-02	-0.473
PM-144		476.78		-1.099E-04	6.609E-02	1.077E-01	7.254E-03	-0.001
		618.01		1.654E-02	3.416E-02	5.694E-02	3.161E-03	0.290
		696.49	*	4.719E-03	3.873E-02	6.552E-02	3.481E-03	0.072
PR-144		696.51	*	4.641E-01	2.889E+00	4.900E+00	2.601E-01	0.095
		1489.16		1.517E+00	1.061E+01	1.801E+01	1.219E+00	0.084
PM-146		453.88	*	3.754E-02	4.516E-02	7.798E-02	6.526E-03	0.481
		633.25		8.202E-01	1.541E+00	2.529E+00	9.499E-01	0.324
		735.93		2.274E-01	1.698E-01	2.931E-01	8.000E-02	0.776
		747.24		-2.983E-02	1.036E-01	1.685E-01	2.224E-02	-0.177
ND-147	+	91.11		8.415E-01	4.208E-01	4.720E-01	5.537E-02	1.783
		319.41		2.128E+00	3.156E+00	5.466E+00	3.524E-01	0.389
		531.02	*	3.089E-02	5.285E-01	8.591E-01	1.152E-01	0.036
PM-149		285.90	*	3.508E+01	4.844E+01	8.408E+01	1.221E+01	0.417
EU-152		121.78		-3.725E-03	7.473E-02	1.226E-01	1.041E-02	-0.030
		244.70		-2.452E-01	4.027E-01	5.389E-01	3.596E-02	-0.455
		344.28	*	6.555E-02	1.125E-01	1.727E-01	1.194E-02	0.380
		778.90		-2.889E-01	2.886E-01	4.378E-01	2.809E-02	-0.660
	+	964.08		7.409E-01	4.235E-01	6.201E-01	4.883E-02	1.195
		1085.87		-3.713E-02	4.350E-01	6.985E-01	4.822E-02	-0.053
		1112.07		1.035E-01	3.544E-01	5.892E-01	3.912E-02	0.176
		1408.01		1.498E-01	2.082E-01	3.742E-01	2.560E-02	0.400
GD-153		69.67		-2.244E-01	2.296E+00	3.852E+00	4.448E-01	-0.058

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		97.43	*	-8.593E-02	1.021E-01	1.444E-01	1.418E-02	-0.595
		103.18		-1.501E-01	1.224E-01	1.915E-01	1.704E-02	-0.784
EU-154		123.07		-3.114E-02	5.398E-02	8.487E-02	8.579E-03	-0.367
		723.31		1.001E-02	2.007E-01	2.936E-01	2.030E-02	0.034
		873.19		2.550E-02	2.956E-01	4.916E-01	5.573E-02	0.052
		996.26		-3.442E-01	4.144E-01	6.127E-01	1.043E-01	-0.562
		1004.73		-1.959E-01	2.409E-01	3.586E-01	3.909E-02	-0.546
		1274.44	*	5.628E-02	1.400E-01	2.430E-01	2.403E-02	0.232
EU-155	+	86.55		5.884E-01	1.747E-01	2.271E-01	2.720E-02	2.591
		105.31	*	8.293E-02	1.188E-01	2.015E-01	1.755E-02	0.412
TB-160	+	86.79		1.529E+00	4.537E-01	5.952E-01	7.102E-02	2.570
		197.04		-2.263E-01	6.321E-01	9.829E-01	6.396E-02	-0.230
		215.65		-1.480E-01	8.173E-01	1.291E+00	8.511E-02	-0.115
		298.57		1.679E-01	1.637E-01	1.997E-01	1.313E-02	0.841
		879.36	*	-8.087E-02	1.474E-01	2.295E-01	1.820E-02	-0.352
		962.29		4.636E-01	5.875E-01	9.187E-01	7.244E-02	0.505
	+	966.15		5.068E-01	2.896E-01	4.949E-01	3.891E-02	1.024
		1177.93		-1.667E-01	4.234E-01	6.550E-01	3.913E-02	-0.255
		1271.85		1.164E-01	8.047E-01	1.365E+00	8.887E-02	0.085
HO-166M		80.57		-1.510E-01	4.091E-01	4.736E-01	5.480E-02	-0.319
		184.41		7.771E-02	4.180E-02	6.581E-02	4.239E-03	1.181
		280.46		-3.296E-02	9.912E-02	1.440E-01	9.567E-03	-0.229
	+	410.95		5.188E-01	3.621E-01	4.752E-01	2.687E-02	1.092
		711.68	*	-2.118E-02	6.443E-02	1.050E-01	5.782E-03	-0.202
		752.31		-1.228E-02	3.158E-01	5.250E-01	3.174E-02	-0.023
		810.29		6.278E-02	6.054E-02	1.094E-01	7.518E-03	0.574
TA-182		67.75		-2.514E-02	1.470E-01	2.461E-01	2.863E-02	-0.102
		100.11		2.286E-01	1.866E-01	3.227E-01	3.020E-02	0.708
		152.43		-3.887E-01	3.809E-01	5.907E-01	3.805E-02	-0.658
		222.11		8.926E-02	3.861E-01	6.214E-01	4.113E-02	0.144
	+	1121.30		6.115E-01	2.700E-01	4.113E-01	2.690E-02	1.487
		1189.05		-1.311E-01	3.772E-01	5.865E-01	3.541E-02	-0.224
		1221.41	*	-1.232E-01	2.142E-01	3.416E-01	2.126E-02	-0.361
		1231.02		-1.711E-01	5.933E-01	9.267E-01	5.818E-02	-0.185
IR-192	+	295.96		1.325E+00	2.423E-01	3.223E-01	2.149E-02	4.113
		308.46		6.627E-02	9.469E-02	1.649E-01	1.084E-02	0.402
		316.51	*	-2.705E-03	3.656E-02	6.098E-02	3.959E-03	-0.044
		468.07		-2.844E-02	7.888E-02	1.085E-01	7.134E-03	-0.262
BI-207		72.81		6.313E-02	2.567E-01	3.919E-01	4.493E-02	0.161
	+	74.97		8.475E-01	1.959E-01	2.982E-01	3.415E-02	2.842
		569.70		-4.124E-03	3.324E-02	5.295E-02	2.860E-03	-0.078
		1063.66	*	3.482E-02	5.787E-02	9.959E-02	7.082E-03	0.350
		1770.23		1.444E-01	4.498E-01	6.974E-01	4.237E-02	0.207
PB-210		46.54	*	1.913E+00	9.371E+00	1.603E+01	1.399E+00	0.119
PB-211		404.85	*	3.738E-02	8.594E-01	1.248E+00	5.986E-01	0.030
		427.09		9.240E-01	1.647E+00	2.719E+00	1.245E+00	0.340
		832.01		-8.943E-01	1.132E+00	1.569E+00	8.104E-01	-0.570
BI-212	+	727.33	*	1.703E+00	8.588E-01	1.292E+00	1.376E-01	1.318
		785.37		1.509E+00	3.692E+00	6.324E+00	4.116E-01	0.239

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		2.844E+00	2.647E+00	5.021E+00	3.278E-01	0.566
RN-219	+	271.23		5.985E-01	4.058E-01	4.912E-01	4.262E-02	1.219
		401.81	*	-1.013E-01	4.468E-01	7.263E-01	9.710E-02	-0.140
RA-223		81.07		-9.111E-02	3.232E-01	3.770E-01	4.370E-02	-0.242
	+	83.79		3.287E-01	2.008E-01	2.550E-01	2.991E-02	1.289
		94.87		8.332E-01	5.322E-01	8.453E-01	8.716E-02	0.986
		144.24		7.122E-01	7.339E-01	1.224E+00	9.549E-02	0.582
		154.21		2.727E-01	4.264E-01	7.104E-01	5.326E-02	0.384
	+	269.46		4.650E-01	3.143E-01	3.762E-01	2.591E-02	1.236
		323.87	*	-3.854E-02	7.263E-01	1.065E+00	1.741E-01	-0.036
	+	338.28		9.395E+00	2.493E+00	2.906E+00	3.061E-01	3.233
AC-227		79.69		-8.195E-01	1.897E+00	2.180E+00	4.112E-01	-0.376
		235.96		2.013E-01	1.803E-01	2.715E-01	2.382E-02	0.741
		256.23	*	-2.085E-01	2.596E-01	4.213E-01	4.528E-02	-0.495
	+	299.98		2.124E+00	1.432E+00	1.782E+00	2.033E-01	1.192
		304.50		-1.437E+00	1.883E+00	2.599E+00	4.041E-01	-0.553
		334.37		-4.691E-01	2.098E+00	3.029E+00	4.375E-01	-0.155
TH-227		79.80		-1.142E+00	2.500E+00	2.861E+00	6.605E-01	-0.399
		235.96		2.013E-01	1.802E-01	2.715E-01	2.193E-02	0.741
		256.23	*	-2.085E-01	2.600E-01	4.213E-01	5.252E-02	-0.495
	+	299.98		2.124E+00	1.432E+00	1.782E+00	2.033E-01	1.192
		304.50		-1.437E+00	1.883E+00	2.599E+00	4.041E-01	-0.553
		334.37		-4.691E-01	2.098E+00	3.029E+00	4.375E-01	-0.155
PA-231		283.69	*	-6.210E-01	1.522E+00	2.509E+00	3.388E-01	-0.248
	+	301.36		1.365E+00	9.184E-01	1.156E+00	1.247E-01	1.181
TH-231		81.07		-9.111E-02	3.232E-01	3.770E-01	4.370E-02	-0.242
	+	83.79		3.287E-01	2.008E-01	2.550E-01	2.991E-02	1.289
		94.87		8.332E-01	5.322E-01	8.453E-01	8.716E-02	0.986
		144.24		7.122E-01	7.339E-01	1.224E+00	9.549E-02	0.582
		154.21		2.727E-01	4.264E-01	7.104E-01	5.326E-02	0.384
	+	269.46		4.650E-01	3.143E-01	3.762E-01	2.591E-02	1.236
		323.87	*	-3.854E-02	7.263E-01	1.065E+00	1.741E-01	-0.036
	+	338.28		9.395E+00	2.493E+00	2.906E+00	3.061E-01	3.233
PA-233	+	300.13		9.612E-01	6.521E-01	8.058E-01	1.107E-01	1.193
		311.90	*	-1.634E-02	6.385E-02	1.054E-01	7.190E-03	-0.155
		340.48		2.310E+00	9.991E-01	1.442E+00	3.365E-01	1.601
PA-234		94.67		4.482E-01	2.028E-01	3.209E-01	4.385E-02	1.397
		98.44		2.388E-02	1.027E-01	1.631E-01	9.126E-02	0.146
		111.00		-4.998E-02	2.004E-01	3.273E-01	3.802E-02	-0.153
		131.20		4.761E-02	1.227E-01	1.835E-01	1.231E-02	0.259
		569.50		-1.396E-01	2.988E-01	4.622E-01	2.497E-02	-0.302
		733.00		3.896E-02	4.755E-01	6.972E-01	1.482E-01	0.056
		880.51		-1.170E-01	3.110E-01	4.939E-01	3.926E-02	-0.237
		883.24		-4.448E-02	3.320E-01	5.382E-01	3.614E-01	-0.083
		926.50		-7.382E-02	1.866E-01	2.923E-01	7.336E-02	-0.253
		946.00	*	-1.692E-02	3.084E-01	5.025E-01	9.286E-02	-0.034
		949.00		-1.725E-01	4.843E-01	7.646E-01	6.091E-02	-0.226
PA-234M		766.42		1.533E+01	1.553E+01	2.191E+01	1.104E+01	0.699
		1001.03	*	3.981E+00	5.371E+00	9.242E+00	8.426E-01	0.431

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	1.682E+00	2.058E+00	3.446E+00	6.936E-01	0.488
	+	92.59		3.849E+00	1.446E+00	1.483E+00	3.416E-01	2.595
U-238		63.29	*	1.682E+00	2.058E+00	3.446E+00	6.936E-01	0.488
	+	92.59		3.849E+00	1.216E+00	1.483E+00	1.604E-01	2.595
NP-239		99.53		2.246E-01	1.736E-01	3.010E-01	2.845E-02	0.746
		103.37		-3.834E-02	1.099E-01	1.794E-01	1.591E-02	-0.214
		106.12		-3.336E-02	9.470E-02	1.544E-01	1.314E-02	-0.216
		117.23	*	3.022E-01	4.458E-01	7.531E-01	5.526E-02	0.401
		228.18		5.492E-03	2.495E-01	3.967E-01	2.633E-02	0.014
	+	277.60		2.656E-01	2.318E-01	3.264E-01	2.171E-02	0.814
AM-241		59.54	*	7.702E-02	2.413E-01	4.134E-01	5.219E-02	0.186
CM-247	+	278.00		1.128E+00	9.844E-01	1.420E+00	9.441E-02	0.795
		287.50		3.868E-01	1.356E+00	2.244E+00	1.486E-01	0.172
		402.40	*	-2.879E-02	4.124E-02	6.496E-02	3.666E-03	-0.443
CF-249		252.80		3.638E-01	9.455E-01	1.634E+00	1.091E-01	0.223
		333.37		-2.622E-02	2.625E-01	3.225E-01	2.042E-02	-0.081
		388.16	*	8.832E-03	4.553E-02	7.614E-02	4.324E-03	0.116
CF-251		177.52	*	-8.118E-03	1.472E-01	2.366E-01	1.516E-02	-0.034
		227.38		-9.158E-02	4.099E-01	6.437E-01	4.271E-02	-0.142
		285.41		1.072E+00	2.246E+00	3.875E+00	2.569E-01	0.277

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331001       *
* Acquisition date : 24-MAR-2010 08:58:44 Detector SN#    :                 *
* Detector ID       : GAM04                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.40      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 11-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G249331001           Analyst initials: MXR1           *
* Batch Number      : 965250               Sample Quantity : 1.2251E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.239E+01	3.024E+00	6.825E-01	0.000E+00
CD-109	4.952E+00	1.440E+00	1.363E+00	0.000E+00
SN-126	4.857E-01	1.412E-01	1.347E-01	0.000E+00
HG-203	5.698E-02	4.875E-02	5.985E-02	0.000E+00
TL-208	6.975E-01	1.012E-01	5.906E-02	0.000E+00
BI-211	4.806E+00	6.173E-01	3.408E-01	0.000E+00
PB-212	2.309E+00	2.265E-01	9.866E-02	0.000E+00
BI-214	1.508E+00	2.150E-01	1.080E-01	0.000E+00
PB-214	1.744E+00	2.431E-01	1.239E-01	0.000E+00
RA-224	5.120E+00	1.521E+00	1.058E+00	0.000E+00
RA-226	1.508E+00	2.150E-01	1.080E-01	0.000E+00
AC-228	2.463E+00	4.321E-01	2.335E-01	0.000E+00
RA-228	2.463E+00	4.321E-01	2.335E-01	0.000E+00
TH-228	2.309E+00	2.265E-01	9.866E-02	0.000E+00
TH-229	-5.506E-03	5.720E-01	9.591E-01	0.000E+00
TH-230	1.508E+00	2.003E-01	1.080E-01	0.000E+00
TH-232	2.463E+00	4.321E-01	2.335E-01	0.000E+00
U-235	2.067E-01	2.134E-01	3.703E-01	0.000E+00
NP-237	1.449E+00	5.160E-01	4.098E-01	0.000E+00
ANH-511	1.977E-01	6.973E-02	5.256E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.733E-01	3.104E-01	5.448E-01	0.000E+00	NOT IDENT.
NA-22	1.298E-02	4.903E-02	8.577E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.217E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-3.762E-02	4.600E-02	7.043E-02	0.000E+00	FAIL ABUN
V-48	7.098E-02	6.700E-02	1.233E-01	0.000E+00	NOT IDENT.
CR-51	1.575E-01	3.670E-01	6.524E-01	0.000E+00	NOT IDENT.
MN-54	1.488E-02	3.954E-02	6.920E-02	0.000E+00	NOT IDENT.

CO-56	-5.704E-03	4.325E-02	7.252E-02	0.000E+00	FAIL ABUN
CO-57	-6.632E-03	2.588E-02	4.355E-02	0.000E+00	NOT IDENT.
CO-58	3.526E-02	3.901E-02	7.151E-02	0.000E+00	NOT IDENT.
FE-59	4.768E-02	1.039E-01	1.791E-01	0.000E+00	NOT IDENT.
CO-60	1.349E-02	4.221E-02	7.434E-02	0.000E+00	NOT IDENT.
ZN-65	-1.195E-02	1.247E-01	1.756E-01	0.000E+00	NOT IDENT.
SE-75	2.376E-02	4.724E-02	7.970E-02	0.000E+00	NOT IDENT.
SR-85	6.934E-02	4.635E-02	7.667E-02	0.000E+00	NOT IDENT.
Y-88	-3.386E-03	3.363E-02	5.417E-02	0.000E+00	NOT IDENT.
Y-91	-1.065E+01	2.686E+01	4.254E+01	0.000E+00	NOT IDENT.
NB-94	-1.997E-02	3.700E-02	6.130E-02	0.000E+00	NOT IDENT.
NB-95	4.933E-02	4.429E-02	7.430E-02	0.000E+00	NOT IDENT.
NB-95M	1.379E-01	1.398E-01	2.183E-01	0.000E+00	NOT IDENT.
ZR-95	2.127E-02	8.212E-02	1.433E-01	0.000E+00	NOT IDENT.
MO-99	-1.001E+01	7.702E+00	1.157E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.237E+13	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.584E-03	3.876E-02	6.449E-02	0.000E+00	FAIL ABUN
RH-106	1.462E-02	3.405E-01	5.630E-01	0.000E+00	NOT IDENT.
RU-106	1.462E-02	3.405E-01	5.630E-01	0.000E+00	NOT IDENT.
AG-108M	8.717E-03	2.983E-02	5.170E-02	0.000E+00	NOT IDENT.
AG-110M	-9.231E-03	3.739E-02	6.368E-02	0.000E+00	NOT IDENT.
SN-113	-1.153E-02	4.670E-02	7.875E-02	0.000E+00	NOT IDENT.
CD-115	-1.436E-01	6.039E+00	1.007E+01	0.000E+00	NOT IDENT.
SN-117M	-5.052E-03	5.241E-02	8.873E-02	0.000E+00	NOT IDENT.
TE-123M	2.542E-03	2.962E-02	5.054E-02	0.000E+00	NOT IDENT.
SB-124	-4.644E-02	7.223E-02	1.025E-01	0.000E+00	NOT IDENT.
SB-125	2.094E-03	9.400E-02	1.601E-01	0.000E+00	FAIL ABUN
TE-125M	1.071E+01	1.015E+01	1.829E+01	0.000E+00	NOT IDENT.
I-126	4.373E-02	2.191E-01	3.844E-01	0.000E+00	NOT IDENT.
SB-126	1.023E-02	1.354E-01	2.283E-01	0.000E+00	NOT IDENT.
SB-127	3.814E-01	8.687E-01	1.552E+00	0.000E+00	NOT IDENT.
I-131	6.140E-02	1.034E-01	1.840E-01	0.000E+00	NOT IDENT.
TE-132	5.900E-03	5.075E-01	8.416E-01	0.000E+00	NOT IDENT.
BA-133	2.298E-02	4.550E-02	7.195E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.083E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.219E-02	1.010E-01	0.000E+00	NOT IDENT.
CS-135	1.539E-01	1.793E-01	2.935E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.552E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.953E-02	1.075E-01	1.739E-01	0.000E+00	NOT IDENT.
BA-137M	-2.115E-02	4.180E-02	7.109E-02	0.000E+00	NOT IDENT.
CS-137	-2.235E-02	4.415E-02	7.510E-02	0.000E+00	NOT IDENT.
CE-139	3.737E-03	3.115E-02	5.309E-02	0.000E+00	NOT IDENT.
BA-140	-9.812E-02	2.498E-01	4.000E-01	0.000E+00	NOT IDENT.
LA-140	-2.702E-02	9.104E-02	1.458E-01	0.000E+00	FAIL ABUN
CE-141	-1.604E-02	6.212E-02	1.050E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	6.284E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.583E-01	2.342E-01	3.444E-01	0.000E+00	NOT IDENT.
PM-144	4.719E-03	3.796E-02	6.605E-02	0.000E+00	NOT IDENT.
PR-144	4.641E-01	2.831E+00	4.940E+00	0.000E+00	NOT IDENT.
PM-146	3.754E-02	4.426E-02	7.905E-02	0.000E+00	NOT IDENT.
ND-147	3.089E-02	5.179E-01	8.691E-01	0.000E+00	FAIL ABUN
PM-149	3.508E+01	4.747E+01	8.574E+01	0.000E+00	NOT IDENT.
EU-152	6.555E-02	1.102E-01	1.756E-01	0.000E+00	FAIL ABUN
GD-153	-8.593E-02	1.001E-01	1.493E-01	0.000E+00	NOT IDENT.
EU-154	5.628E-02	1.372E-01	2.430E-01	0.000E+00	NOT IDENT.
EU-155	8.293E-02	1.164E-01	2.080E-01	0.000E+00	FAIL ABUN
TB-160	-8.087E-02	1.444E-01	2.307E-01	0.000E+00	FAIL ABUN
HO-166M	-2.118E-02	6.314E-02	1.059E-01	0.000E+00	FAIL ABUN
TA-182	-1.232E-01	2.099E-01	3.419E-01	0.000E+00	FAIL ABUN
IR-192	-2.705E-03	3.582E-02	6.210E-02	0.000E+00	FAIL ABUN
BI-207	3.482E-02	5.671E-02	9.984E-02	0.000E+00	FAIL ABUN
PB-210	1.913E+00	9.183E+00	1.672E+01	0.000E+00	NOT IDENT.
PB-211	3.738E-02	8.422E-01	1.267E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	8.416E-01	1.301E+00	0.000E+00	FAIL ABUN
RN-219	-1.013E-01	4.379E-01	7.374E-01	0.000E+00	FAIL ABUN
RA-223	-3.854E-02	7.118E-01	1.084E+00	0.000E+00	FAIL ABUN
AC-227	-2.085E-01	2.545E-01	4.302E-01	0.000E+00	FAIL ABUN
TH-227	-2.085E-01	2.548E-01	4.302E-01	0.000E+00	FAIL ABUN
PA-231	-6.210E-01	1.492E+00	2.558E+00	0.000E+00	FAIL ABUN
TH-231	-3.854E-02	7.118E-01	1.084E+00	0.000E+00	FAIL ABUN
PA-233	-1.634E-02	6.257E-02	1.074E-01	0.000E+00	FAIL ABUN
PA-234	-1.692E-02	3.023E-01	5.045E-01	0.000E+00	NOT IDENT.
PA-234M	3.981E+00	5.264E+00	9.273E+00	0.000E+00	NOT IDENT.
TH-234	1.682E+00	2.017E+00	3.581E+00	0.000E+00	FAIL ABUN
U-238	1.682E+00	2.017E+00	3.581E+00	0.000E+00	FAIL ABUN
NP-239	3.022E-01	4.369E-01	7.766E-01	0.000E+00	FAIL ABUN
AM-241	7.702E-02	2.364E-01	4.299E-01	0.000E+00	NOT IDENT.
CM-247	-2.879E-02	4.042E-02	6.596E-02	0.000E+00	FAIL ABUN

CF-249	8.832E-03	4.462E-02	7.734E-02	0.000E+00	NOT IDENT.
CF-251	-8.118E-03	1.442E-01	2.428E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:00:58.54

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331001.CNF;2
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 08:58:44
Sample ID         : G249331001           Sample quantity  : 1.22510E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.40  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1210	10.66*	1.074E+00	3.239E+01	3.239E+01	9.53
CD-109	88.03	295	3.70*	5.022E+00	4.857E+00	4.952E+00	29.67
SN-126	64.28	------	9.60	2.203E+00	------ Line Not Found		------
	86.94	295	8.90	5.022E+00	2.019E+00	2.019E+00	50.16
	87.57	295	37.00*	5.022E+00	4.857E-01	4.857E-01	29.67
HG-203	70.83	------	3.69	3.109E+00	------ Line Not Found		------
	72.87	------	6.19	3.384E+00	------ Line Not Found		------
	279.20	54	81.56*	4.322E+00	4.702E-02	5.698E-02	87.30
TL-208	277.37	54	6.60	4.322E+00	5.810E-01	5.810E-01	87.75
	583.19	475	85.00*	2.454E+00	6.975E-01	6.975E-01	14.81
	860.56	------	12.50	1.744E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	3.384E+00	------ Line Not Found		------
	351.06	734	12.92*	3.624E+00	4.806E+00	4.806E+00	13.11
PB-212	74.82	360	10.28	3.645E+00	2.941E+00	2.941E+00	25.08
	77.11	646	17.10	3.937E+00	2.938E+00	2.938E+00	16.95
	238.63	1585	43.60*	4.824E+00	2.309E+00	2.309E+00	10.01
	300.09	85	3.30	4.082E+00	1.931E+00	1.931E+00	67.03
BI-214	609.32	530	45.49*	2.366E+00	1.508E+00	1.508E+00	14.55
	1120.29	87	14.92	1.357E+00	1.323E+00	1.323E+00	44.66
	1764.49	84	15.30	9.527E-01	1.774E+00	1.774E+00	25.42
PB-214	74.82	360	5.80	3.645E+00	5.213E+00	5.213E+00	24.44
	77.11	646	9.70	3.937E+00	5.179E+00	5.179E+00	18.85
	242.00	328	7.25	4.784E+00	2.896E+00	2.896E+00	30.86
	295.22	455	18.42	4.132E+00	1.831E+00	1.831E+00	19.38
	351.93	734	35.60*	3.624E+00	1.744E+00	1.744E+00	14.22
RA-224	240.99	328	4.10*	4.784E+00	5.120E+00	5.120E+00	30.31
RA-226	609.32	530	45.49*	2.366E+00	1.508E+00	1.508E+00	14.55
	1120.29	87	14.92	1.357E+00	1.323E+00	1.323E+00	44.66
	1764.49	84	15.30	9.527E-01	1.774E+00	1.774E+00	25.42
AC-228	338.32	325	11.27	3.734E+00	2.367E+00	2.367E+00	47.95
	911.20	342	25.80*	1.652E+00	2.463E+00	2.463E+00	17.90
	968.97	202	15.80	1.558E+00	2.513E+00	2.513E+00	30.20

Sample ID : G249331001 Acquisition date : 24-MAR-2010 08:58:44

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	325	11.27	3.734E+00	2.367E+00	2.367E+00	47.95
	911.20	342	25.80*	1.652E+00	2.463E+00	2.463E+00	17.90
	968.97	202	15.80	1.558E+00	2.513E+00	2.513E+00	30.20
TH-228	74.82	360	10.28	3.645E+00	2.941E+00	2.941E+00	23.15
	77.11	646	17.10	3.937E+00	2.938E+00	2.938E+00	16.95
	238.63	1585	43.60*	4.824E+00	2.309E+00	2.309E+00	10.01
	300.09	85	3.30	4.082E+00	1.931E+00	1.931E+00	90.16
TH-229	85.43	126	14.70	4.746E+00	5.522E-01	5.522E-01	61.11
	88.47	295	24.00	5.022E+00	7.488E-01	7.488E-01	29.67
	193.51	------	4.41*	5.560E+00	------ Line Not Found		------
	210.85	------	2.80	5.259E+00	------ Line Not Found		------
TH-230	609.32	530	45.49*	2.366E+00	1.508E+00	1.508E+00	13.56
	1120.29	87	14.92	1.357E+00	1.323E+00	1.323E+00	44.15
	1764.49	84	15.30	9.527E-01	1.774E+00	1.774E+00	25.42
TH-232	338.32	325	11.27	3.734E+00	2.367E+00	2.367E+00	25.16
	911.20	342	25.80*	1.652E+00	2.463E+00	2.463E+00	17.90
	968.97	202	15.80	1.558E+00	2.513E+00	2.513E+00	30.20
U-235	89.96	178	3.47	5.247E+00	2.994E+00	2.994E+00	54.95
	93.35	291	5.60	5.482E+00	2.907E+00	2.907E+00	38.18
	143.76	------	10.96*	6.399E+00	------ Line Not Found		------
	163.33	------	5.08	6.104E+00	------ Line Not Found		------
	185.72	212	57.20	5.692E+00	2.000E-01	2.000E-01	33.09
	205.31	------	5.01	5.352E+00	------ Line Not Found		------
NP-237	86.48	295	12.40*	5.022E+00	1.449E+00	1.449E+00	36.33
	95.86	------	2.68	5.677E+00	------ Line Not Found		------
ANH-511	511.00	176	100.00*	2.729E+00	1.977E-01	1.977E-01	35.99

Flag: "*" = Keyline

Sample ID : G249331001 Acquisition date : 24-MAR-2010 08:58:44

Total number of lines in spectrum 34
Number of unidentified lines 5
Number of lines tentatively identified by NID 29 85.29%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.239E+01	3.239E+01	0.309E+01	9.53	
CD-109	461.40D	1.02	4.857E+00	4.952E+00	1.469E+00	29.67	
SN-126	2.30E+05Y	1.00	4.857E-01	4.857E-01	1.441E-01	29.67	
HG-203	46.59D	1.21	4.702E-02	5.698E-02	4.974E-02	87.30	
TL-208	1.41E+10Y	1.00	6.975E-01	6.975E-01	1.033E-01	14.81	
BI-211	7.04E+08Y	1.00	4.806E+00	4.806E+00	0.630E+00	13.11	
PB-212	1.41E+10Y	1.00	2.309E+00	2.309E+00	0.231E+00	10.01	
BI-214	1600.00Y	1.00	1.508E+00	1.508E+00	0.219E+00	14.55	
PB-214	1600.00Y	1.00	1.744E+00	1.744E+00	0.248E+00	14.22	
RA-224	1.41E+10Y	1.00	5.120E+00	5.120E+00	1.552E+00	30.31	
RA-226	1600.00Y	1.00	1.508E+00	1.508E+00	0.219E+00	14.55	
AC-228	1.41E+10Y	1.00	2.463E+00	2.463E+00	0.441E+00	17.90	
RA-228	1.41E+10Y	1.00	2.463E+00	2.463E+00	0.441E+00	17.90	
TH-228	1.41E+10Y	1.00	2.309E+00	2.309E+00	0.231E+00	10.01	
TH-229	7340.00Y	1.00	7.488E-01	7.488E-01	2.221E-01	29.67	K
TH-230	7.54E+04Y	1.00	1.508E+00	1.508E+00	0.204E+00	13.56	
TH-232	1.41E+10Y	1.00	2.463E+00	2.463E+00	0.441E+00	17.90	
U-235	7.04E+08Y	1.00	2.000E-01	2.000E-01	0.662E-01	33.09	K
NP-237	2.14E+06Y	1.00	1.449E+00	1.449E+00	0.527E+00	36.33	
ANH-511	1.00E+09Y	1.00	1.977E-01	1.977E-01	0.712E-01	35.99	
			---	---			
	Total Activity :		6.927E+01	6.937E+01			

Grand Total Activity : 6.927E+01 6.937E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249331001 Acquisition date : 24-MAR-2010 08:58:44

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.75	64	299	0.77	257.55	257	6	8.87E-03	89.3	6.50E+00	
0	208.93	156	311	1.09	417.92	413	10	2.17E-02	45.2	5.29E+00	
0	270.42	93	253	1.22	540.92	536	10	1.29E-02	67.2	4.41E+00	T
0	328.11	73	148	1.34	656.31	653	8	1.02E-02	61.7	3.82E+00	T
0	409.91	61	113	0.95	819.91	815	10	8.52E-03	69.6	3.23E+00	T
0	463.65	89	154	1.66	927.39	920	15	1.24E-02	64.5	2.94E+00	T
0	727.90	75	72	0.77	1455.89	1451	10	1.05E-02	49.3	2.03E+00	T
0	768.34	45	127	1.26	1536.76	1532	15	6.19E-03	****	1.94E+00	
0	934.59	31	54	1.38	1869.23	1865	11	4.30E-03	97.7	1.61E+00	
3	965.25	55	54	2.23	1930.56	1922	31	7.68E-03	56.6	1.56E+00	T
0	1239.64	42	91	1.48	2479.26	2473	11	5.85E-03	93.7	1.24E+00	T
0	1731.13	36	3	2.13	3462.01	3455	13	4.95E-03	39.5	9.62E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:01:04.84

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331001.CNF;2  *
* Acquisition date : 24-MAR-2010 08:58:44  Detector SN#    :                *
* Detector ID      : GAM04                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.40         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G249331001            Analyst initials: MXR1           *
* Batch Number     : 965250                Sample Quantity : 1.22510E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 5-MAY-2009 14:25:41.36MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.239E+01	3.085E+00	6.836E-01	4.859E-02	47.372
CD-109	4.952E+00	1.469E+00	1.317E+00	1.583E-01	3.759
SN-126	4.857E-01	1.441E-01	1.302E-01	1.561E-02	3.731
HG-203	5.698E-02	4.974E-02	5.868E-02	4.067E-03	0.971
TL-208	6.975E-01	1.033E-01	5.845E-02	3.668E-03	11.934
BI-211	4.806E+00	6.299E-01	3.351E-01	2.264E-02	14.342
PB-212	2.309E+00	2.311E-01	9.653E-02	7.809E-03	23.918
BI-214	1.508E+00	2.194E-01	1.070E-01	7.929E-03	14.097
PB-214	1.744E+00	2.480E-01	1.219E-01	1.062E-02	14.311
RA-224	5.120E+00	1.552E+00	1.035E+00	6.900E-02	4.947
RA-226	1.508E+00	2.194E-01	1.070E-01	7.929E-03	14.097
AC-228	2.463E+00	4.409E-01	2.325E-01	2.618E-02	10.592
RA-228	2.463E+00	4.409E-01	2.325E-01	2.618E-02	10.592
TH-228	2.309E+00	2.311E-01	9.653E-02	7.809E-03	23.918
TH-229	7.488E-01	2.221E-01	9.359E-01	6.073E-02	0.800
TH-230	1.508E+00	2.044E-01	1.069E-01	5.571E-03	14.097
TH-232	2.463E+00	4.409E-01	2.325E-01	2.618E-02	10.592
U-235	2.000E-01	6.618E-02	3.601E-01	5.757E-02	0.555

Sample ID : G249331001 Acquisition date : 24-MAR-2010 08:58:44

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	1.449E+00	5.265E-01	3.959E-01	9.547E-02	3.661
ANH-511	1.977E-01	7.115E-02	5.193E-02	2.904E-03	3.807

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.733E-01		3.167E-01	5.378E-01	3.561E-02	0.322
NA-22	1.298E-02		5.003E-02	8.576E-02	5.607E-03	0.151
NA-24	2.263E-02		3.172E-02	Half-Life too short		
SC-46	-3.762E-02		4.694E-02	7.009E-02	5.669E-03	-0.537
V-48	7.098E-02		6.837E-02	1.229E-01	9.521E-03	0.578
CR-51	1.575E-01		3.745E-01	6.407E-01	4.506E-02	0.246
MN-54	1.488E-02		4.035E-02	6.880E-02	4.979E-03	0.216
CO-56	-5.704E-03		4.413E-02	7.212E-02	5.351E-03	-0.079
CO-57	-6.632E-03		2.641E-02	4.225E-02	2.933E-03	-0.157
CO-58	3.526E-02		3.981E-02	7.108E-02	4.907E-03	0.496
FE-59	4.768E-02		1.060E-01	1.787E-01	1.365E-02	0.267
CO-60	1.349E-02		4.307E-02	7.437E-02	5.096E-03	0.181
ZN-65	-1.195E-02		1.272E-01	1.752E-01	1.159E-02	-0.068
SE-75	2.376E-02		4.821E-02	7.808E-02	5.254E-03	0.304
SR-85	6.934E-02		4.730E-02	7.575E-02	4.231E-03	0.915
Y-88	-3.386E-03		3.431E-02	5.442E-02	3.176E-03	-0.062
Y-91	-1.065E+01		2.741E+01	4.250E+01	2.604E+00	-0.251
NB-94	-1.997E-02		3.776E-02	6.081E-02	3.276E-03	-0.328
NB-95	4.933E-02		4.519E-02	7.380E-02	4.599E-03	0.669
NB-95M	1.379E-01		1.427E-01	2.135E-01	1.757E-02	0.646
ZR-95	2.127E-02		8.379E-02	1.423E-01	1.042E-02	0.150
MO-99	-1.001E+01		7.859E+00	1.149E+01	1.659E+00	-0.872
TC-99M	-3.668E+07		4.203E+07	Half-Life too short		
RU-103	-4.584E-03		3.955E-02	6.369E-02	7.862E-03	-0.072
RH-106	1.462E-02		3.475E-01	5.576E-01	6.304E-02	0.026
RU-106	1.462E-02		3.475E-01	5.576E-01	2.865E-02	0.026
AG-108M	8.717E-03		3.044E-02	5.098E-02	3.103E-03	0.171
AG-110M	-9.231E-03		3.816E-02	6.312E-02	3.373E-03	-0.146
SN-113	-1.153E-02		4.766E-02	7.754E-02	4.672E-03	-0.149
CD-115	-1.436E-01		6.163E+00	9.957E+00	5.525E-01	-0.014
SN-117M	-5.052E-03		5.348E-02	8.638E-02	5.525E-03	-0.058
TE-123M	2.542E-03		3.023E-02	4.920E-02	3.180E-03	0.052
SB-124	-4.644E-02		7.371E-02	1.028E-01	7.015E-03	-0.452
SB-125	2.094E-03		9.592E-02	1.578E-01	9.330E-03	0.013
TE-125M	1.071E+01		1.036E+01	1.772E+01	1.786E+00	0.604
I-126	4.373E-02		2.235E-01	3.811E-01	1.880E-02	0.115
SB-126	1.023E-02		1.382E-01	2.266E-01	1.274E-02	0.045
SB-127	3.814E-01		8.864E-01	1.539E+00	1.269E-01	0.248
I-131	6.140E-02		1.055E-01	1.810E-01	1.201E-02	0.339
TE-132	5.900E-03		5.178E-01	8.230E-01	1.185E-01	0.007
BA-133	2.298E-02		4.643E-02	7.076E-02	8.090E-03	0.325

Sample ID : G249331001 Acquisition date : 24-MAR-2010 08:58:44

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	-3.553E-04		5.528E-04	Half-Life too short		
CS-134	1.053E-01		5.325E-02	1.004E-01	6.767E-03	1.049
CS-135	1.539E-01		1.830E-01	2.876E-01	2.398E-02	0.535
I-135	-1.555E+07		1.302E+07	Half-Life too short		
CS-136	-2.953E-02		1.097E-01	1.734E-01	1.331E-02	-0.170
BA-137M	-2.115E-02		4.265E-02	7.047E-02	3.437E-03	-0.300
CS-137	-2.235E-02		4.506E-02	7.444E-02	3.652E-03	-0.300
CE-139	3.737E-03		3.179E-02	5.170E-02	3.285E-03	0.072
BA-140	-9.812E-02		2.548E-01	3.954E-01	1.315E-01	-0.248
LA-140	-2.702E-02		9.290E-02	1.462E-01	9.632E-03	-0.185
CE-141	-1.604E-02		6.338E-02	1.021E-01	6.856E-03	-0.157
CE-143	1.742E-04		3.206E-05	Half-Life too short		
CE-144	-1.583E-01		2.389E-01	3.345E-01	4.775E-02	-0.473
PM-144	4.719E-03		3.873E-02	6.552E-02	3.481E-03	0.072
PR-144	4.641E-01		2.889E+00	4.900E+00	2.601E-01	0.095
PM-146	3.754E-02		4.516E-02	7.798E-02	6.526E-03	0.481
ND-147	3.089E-02		5.285E-01	8.591E-01	1.152E-01	0.036
PM-149	3.508E+01		4.844E+01	8.408E+01	1.221E+01	0.417
EU-152	6.555E-02		1.125E-01	1.727E-01	1.194E-02	0.380
GD-153	-8.593E-02		1.021E-01	1.444E-01	1.418E-02	-0.595
EU-154	5.628E-02		1.400E-01	2.430E-01	2.403E-02	0.232
EU-155	8.293E-02		1.188E-01	2.015E-01	1.755E-02	0.412
TB-160	-8.087E-02		1.474E-01	2.295E-01	1.820E-02	-0.352
HO-166M	-2.118E-02		6.443E-02	1.050E-01	5.782E-03	-0.202
TA-182	-1.232E-01		2.142E-01	3.416E-01	2.126E-02	-0.361
IR-192	-2.705E-03		3.656E-02	6.098E-02	3.959E-03	-0.044
BI-207	3.482E-02		5.787E-02	9.959E-02	7.082E-03	0.350
PB-210	1.913E+00		9.371E+00	1.603E+01	1.399E+00	0.119
PB-211	3.738E-02		8.594E-01	1.248E+00	5.986E-01	0.030
BI-212	1.703E+00	+	8.588E-01	1.292E+00	1.376E-01	1.318
RN-219	-1.013E-01		4.468E-01	7.263E-01	9.710E-02	-0.140
RA-223	-3.854E-02		7.263E-01	1.065E+00	1.741E-01	-0.036
AC-227	-2.085E-01		2.596E-01	4.213E-01	4.528E-02	-0.495
TH-227	-2.085E-01		2.600E-01	4.213E-01	5.252E-02	-0.495
PA-231	-6.210E-01		1.522E+00	2.509E+00	3.388E-01	-0.248
TH-231	-3.854E-02		7.263E-01	1.065E+00	1.741E-01	-0.036
PA-233	-1.634E-02		6.385E-02	1.054E-01	7.190E-03	-0.155
PA-234	-1.692E-02		3.084E-01	5.025E-01	9.286E-02	-0.034
PA-234M	3.981E+00		5.371E+00	9.242E+00	8.426E-01	0.431
TH-234	1.682E+00		2.058E+00	3.446E+00	6.936E-01	0.488
U-238	1.682E+00		2.058E+00	3.446E+00	6.936E-01	0.488
NP-239	3.022E-01		4.458E-01	7.531E-01	5.526E-02	0.401
AM-241	7.702E-02		2.413E-01	4.134E-01	5.219E-02	0.186
CM-247	-2.879E-02		4.124E-02	6.496E-02	3.666E-03	-0.443
CF-249	8.832E-03		4.553E-02	7.614E-02	4.324E-03	0.116
CF-251	-8.118E-03		1.472E-01	2.366E-01	1.516E-02	-0.034

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249331001            *
* Acquisition date : 24-MAR-2010 08:58:44 Detector SN#    :                 *
* Detector ID      : GAM04                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.40     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249331001           Analyst initials: MXRl            *
* Batch Number     : 965250               Sample Quantity : 1.2251E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.239E+01	3.024E+00	3.415E-01	1.543E+00
CD-109	4.952E+00	1.440E+00	6.821E-01	7.346E-01
SN-126	4.857E-01	1.412E-01	6.741E-02	7.205E-02
HG-203	5.698E-02	4.875E-02	2.994E-02	2.487E-02
TL-208	6.975E-01	1.012E-01	2.955E-02	5.165E-02
BI-211	4.806E+00	6.173E-01	1.705E-01	3.149E-01
PB-212	2.309E+00	2.265E-01	4.936E-02	1.155E-01
BI-214	1.508E+00	2.150E-01	5.403E-02	1.097E-01
PB-214	1.744E+00	2.431E-01	6.201E-02	1.240E-01
RA-224	5.120E+00	1.521E+00	5.291E-01	7.761E-01
RA-226	1.508E+00	2.150E-01	5.403E-02	1.097E-01
AC-228	2.463E+00	4.321E-01	1.168E-01	2.204E-01
RA-228	2.463E+00	4.321E-01	1.168E-01	2.204E-01
TH-228	2.309E+00	2.265E-01	4.936E-02	1.155E-01
TH-229	-5.506E-03	5.720E-01	4.798E-01	2.919E-01
TH-230	1.508E+00	2.003E-01	5.403E-02	1.022E-01
TH-232	2.463E+00	4.321E-01	1.168E-01	2.204E-01
U-235	2.067E-01	2.134E-01	1.853E-01	1.089E-01
NP-237	1.449E+00	5.160E-01	2.050E-01	2.633E-01
ANH-511	1.977E-01	6.973E-02	2.630E-02	3.558E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.733E-01	3.104E-01	2.726E-01	1.583E-01	NOT IDENT.
NA-22	1.298E-02	4.903E-02	4.291E-02	2.502E-02	NOT IDENT.
NA-24	2.263E+04	6.217E+04	0.000E+00	3.172E+04	SHORT HLIF
SC-46	-3.762E-02	4.600E-02	3.524E-02	2.347E-02	FAIL ABUN
V-48	7.098E-02	6.700E-02	6.171E-02	3.418E-02	NOT IDENT.
CR-51	1.575E-01	3.670E-01	3.264E-01	1.872E-01	NOT IDENT.
MN-54	1.488E-02	3.954E-02	3.462E-02	2.017E-02	NOT IDENT.

CO-56	-5.704E-03	4.325E-02	3.628E-02	2.207E-02	FAIL ABUN
CO-57	-6.632E-03	2.588E-02	2.179E-02	1.321E-02	NOT IDENT.
CO-58	3.526E-02	3.901E-02	3.578E-02	1.990E-02	NOT IDENT.
FE-59	4.768E-02	1.039E-01	8.962E-02	5.300E-02	NOT IDENT.
CO-60	1.349E-02	4.221E-02	3.719E-02	2.154E-02	NOT IDENT.
ZN-65	-1.195E-02	1.247E-01	8.783E-02	6.361E-02	NOT IDENT.
SE-75	2.376E-02	4.724E-02	3.987E-02	2.410E-02	NOT IDENT.
SR-85	6.934E-02	4.635E-02	3.836E-02	2.365E-02	NOT IDENT.
Y-88	-3.386E-03	3.363E-02	2.710E-02	1.716E-02	NOT IDENT.
Y-91	-1.065E+01	2.686E+01	2.128E+01	1.370E+01	NOT IDENT.
NB-94	-1.997E-02	3.700E-02	3.067E-02	1.888E-02	NOT IDENT.
NB-95	4.933E-02	4.429E-02	3.717E-02	2.260E-02	NOT IDENT.
NB-95M	1.379E-01	1.398E-01	1.092E-01	7.133E-02	NOT IDENT.
ZR-95	2.127E-02	8.212E-02	7.168E-02	4.190E-02	NOT IDENT.
MO-99	-1.001E+01	7.702E+00	5.790E+00	3.930E+00	NOT IDENT.
TC-99M	-3.668E+13	8.237E+13	0.000E+00	4.203E+13	SHORT HLIF
RU-103	-4.584E-03	3.876E-02	3.226E-02	1.977E-02	FAIL ABUN
RH-106	1.462E-02	3.405E-01	2.817E-01	1.737E-01	NOT IDENT.
RU-106	1.462E-02	3.405E-01	2.817E-01	1.737E-01	NOT IDENT.
AG-108M	8.717E-03	2.983E-02	2.587E-02	1.522E-02	NOT IDENT.
AG-110M	-9.231E-03	3.739E-02	3.186E-02	1.908E-02	NOT IDENT.
SN-113	-1.153E-02	4.670E-02	3.940E-02	2.383E-02	NOT IDENT.
CD-115	-1.436E-01	6.039E+00	5.040E+00	3.081E+00	NOT IDENT.
SN-117M	-5.052E-03	5.241E-02	4.439E-02	2.674E-02	NOT IDENT.
TE-123M	2.542E-03	2.962E-02	2.529E-02	1.511E-02	NOT IDENT.
SB-124	-4.644E-02	7.223E-02	5.126E-02	3.685E-02	NOT IDENT.
SB-125	2.094E-03	9.400E-02	8.010E-02	4.796E-02	FAIL ABUN
TE-125M	1.071E+01	1.015E+01	9.151E+00	5.180E+00	NOT IDENT.
I-126	4.373E-02	2.191E-01	1.923E-01	1.118E-01	NOT IDENT.
SB-126	1.023E-02	1.354E-01	1.142E-01	6.908E-02	NOT IDENT.
SB-127	3.814E-01	8.687E-01	7.765E-01	4.432E-01	NOT IDENT.
I-131	6.140E-02	1.034E-01	9.206E-02	5.277E-02	NOT IDENT.
TE-132	5.900E-03	5.075E-01	4.210E-01	2.589E-01	NOT IDENT.
BA-133	2.298E-02	4.550E-02	3.600E-02	2.321E-02	FAIL ABUN
I-133	-3.553E+02	1.083E+03	0.000E+00	5.528E+02	SHORT HLIF
CS-134	1.053E-01	5.219E-02	5.055E-02	2.663E-02	NOT IDENT.
CS-135	1.539E-01	1.793E-01	1.469E-01	9.149E-02	NOT IDENT.
I-135	-1.555E+13	2.552E+13	0.000E+00	1.302E+13	SHORT HLIF
CS-136	-2.953E-02	1.075E-01	8.701E-02	5.487E-02	NOT IDENT.
BA-137M	-2.115E-02	4.180E-02	3.556E-02	2.133E-02	NOT IDENT.
CS-137	-2.235E-02	4.415E-02	3.757E-02	2.253E-02	NOT IDENT.
CE-139	3.737E-03	3.115E-02	2.656E-02	1.589E-02	NOT IDENT.
BA-140	-9.812E-02	2.498E-01	2.001E-01	1.274E-01	NOT IDENT.
LA-140	-2.702E-02	9.104E-02	7.295E-02	4.645E-02	FAIL ABUN
CE-141	-1.604E-02	6.212E-02	5.255E-02	3.169E-02	NOT IDENT.
CE-143	1.742E+02	6.284E+01	0.000E+00	3.206E+01	SHORT HLIF
CE-144	-1.583E-01	2.342E-01	1.723E-01	1.195E-01	NOT IDENT.
PM-144	4.719E-03	3.796E-02	3.305E-02	1.937E-02	NOT IDENT.
PR-144	4.641E-01	2.831E+00	2.471E+00	1.444E+00	NOT IDENT.
PM-146	3.754E-02	4.426E-02	3.955E-02	2.258E-02	NOT IDENT.
ND-147	3.089E-02	5.179E-01	4.348E-01	2.642E-01	FAIL ABUN
PM-149	3.508E+01	4.747E+01	4.290E+01	2.422E+01	NOT IDENT.
EU-152	6.555E-02	1.102E-01	8.787E-02	5.623E-02	FAIL ABUN
GD-153	-8.593E-02	1.001E-01	7.467E-02	5.105E-02	NOT IDENT.
EU-154	5.628E-02	1.372E-01	1.216E-01	6.998E-02	NOT IDENT.
EU-155	8.293E-02	1.164E-01	1.041E-01	5.939E-02	FAIL ABUN
TB-160	-8.087E-02	1.444E-01	1.154E-01	7.368E-02	FAIL ABUN
HO-166M	-2.118E-02	6.314E-02	5.297E-02	3.222E-02	FAIL ABUN
TA-182	-1.232E-01	2.099E-01	1.710E-01	1.071E-01	FAIL ABUN
IR-192	-2.705E-03	3.582E-02	3.107E-02	1.828E-02	FAIL ABUN
BI-207	3.482E-02	5.671E-02	4.995E-02	2.893E-02	FAIL ABUN
PB-210	1.913E+00	9.183E+00	8.364E+00	4.685E+00	NOT IDENT.
PB-211	3.738E-02	8.422E-01	6.340E-01	4.297E-01	NOT IDENT.
BI-212	1.703E+00	8.416E-01	6.511E-01	4.294E-01	FAIL ABUN
RN-219	-1.013E-01	4.379E-01	3.689E-01	2.234E-01	FAIL ABUN
RA-223	-3.854E-02	7.118E-01	5.424E-01	3.631E-01	FAIL ABUN
AC-227	-2.085E-01	2.545E-01	2.152E-01	1.298E-01	FAIL ABUN
TH-227	-2.085E-01	2.548E-01	2.152E-01	1.300E-01	FAIL ABUN
PA-231	-6.210E-01	1.492E+00	1.280E+00	7.611E-01	FAIL ABUN
TH-231	-3.854E-02	7.118E-01	5.424E-01	3.631E-01	FAIL ABUN
PA-233	-1.634E-02	6.257E-02	5.371E-02	3.192E-02	FAIL ABUN
PA-234	-1.692E-02	3.023E-01	2.524E-01	1.542E-01	NOT IDENT.
PA-234M	3.981E+00	5.264E+00	4.639E+00	2.685E+00	NOT IDENT.
TH-234	1.682E+00	2.017E+00	1.791E+00	1.029E+00	FAIL ABUN
U-238	1.682E+00	2.017E+00	1.791E+00	1.029E+00	FAIL ABUN
NP-239	3.022E-01	4.369E-01	3.885E-01	2.229E-01	FAIL ABUN
AM-241	7.702E-02	2.364E-01	2.151E-01	1.206E-01	NOT IDENT.
CM-247	-2.879E-02	4.042E-02	3.300E-02	2.062E-02	FAIL ABUN

CF-249	8.832E-03	4.462E-02	3.869E-02	2.277E-02	NOT IDENT.
CF-251	-8.118E-03	1.442E-01	1.215E-01	7.359E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	217.6608
49.72	240.3780
57.36	0.0000
59.54	253.0437
63.29	274.1870
63.29	274.1870
64.28	282.9081
67.75	320.4693
69.67	350.9235
70.83	347.7632
72.81	379.4612
72.87	379.5119
72.87	379.5119
74.82	333.9129
74.82	333.9129
74.82	333.9129
74.97	334.0222
77.11	335.5810
77.11	335.5810
77.11	335.5810
79.69	322.6002
79.80	322.6746
80.12	278.3546
80.19	278.3951
80.57	323.1967
81.00	323.4870
81.07	323.5330
81.07	323.5330
83.79	288.8907
83.79	288.8907
85.43	289.8510
86.48	290.4623
86.55	290.5032
86.79	290.6399
86.94	290.7279
87.57	291.0926
88.03	291.3566
88.47	291.6096
89.96	292.4599
91.11	293.1106
92.59	293.9435
92.59	293.9435
93.35	294.3679
94.67	263.5861
94.87	272.2842
94.87	272.2842
95.86	268.4801
97.43	312.4590
98.44	275.8201
99.53	242.8343
100.11	247.9126
103.18	334.6329
103.37	304.6666
105.31	297.9192
106.12	327.5884
109.28	274.4771
111.00	305.7562
111.76	296.3015
116.30	252.9118
117.23	287.0670
121.12	254.8794
121.78	257.1464
122.06	257.2601
123.07	263.6849
131.20	271.0551
133.52	304.0841
136.00	258.6749

136.47	258.8525
140.51	303.5916
140.51	0.0000
143.76	260.5364
144.24	267.9553
144.24	267.9553
145.44	293.2774
152.43	329.5862
153.25	312.1446
154.21	284.2269
154.21	284.2269
156.02	274.4026
158.56	285.8727
159.00	272.3167
162.66	269.3737
163.33	269.6063
165.86	266.2201
176.60	271.9592
177.52	285.2266
181.07	256.5016
184.41	240.2006
185.72	252.0265
193.51	259.8103
197.04	264.1657
205.31	239.2680
210.85	232.2896
215.65	244.7541
222.11	224.8326
227.38	245.4553
228.16	237.6520
228.18	237.6563
235.69	200.3060
235.96	207.2681
235.96	207.2681
238.63	203.1938
238.63	203.1938
240.99	203.6611
242.00	203.8617
244.70	214.2647
252.40	163.1927
252.80	162.3761
256.23	195.4763
256.23	195.4763
260.90	191.0138
264.66	160.9079
268.22	169.4966
269.46	162.5558
269.46	162.5558
271.23	179.9499
273.65	143.1250
276.40	188.3066
277.37	175.1844
277.60	175.0406
278.00	164.3247
279.20	142.3850
279.54	148.1807
280.46	175.6580
283.69	176.8713
284.31	172.4497
285.41	152.7308
285.90	156.4117
287.50	165.5497
293.27	0.0000
295.22	148.7193
295.96	134.9515
298.57	135.2429
299.98	122.9587
299.98	122.9587
300.09	122.9710
300.09	122.9710
300.13	122.9751
301.36	134.8218
302.85	145.2588
304.50	161.6162
304.50	161.6162
304.85	152.8439
308.46	125.2878
311.90	135.7982

316.51	153.9153
319.41	143.1155
320.08	143.1907
323.87	134.2903
323.87	134.2903
328.76	166.2534
333.37	160.3307
334.37	160.9545
334.37	160.9545
338.28	146.1545
338.28	146.1545
338.32	146.1592
338.32	146.1592
338.32	146.1592
340.48	155.6542
340.55	155.6618
344.28	119.7247
351.06	121.8496
351.93	121.9258
356.01	105.4743
364.49	124.9596
366.42	142.4581
383.85	123.7405
388.16	134.8541
388.63	126.0986
391.69	127.3399
400.66	118.2513
401.81	129.1910
402.40	138.1201
404.85	115.4170
410.95	114.2912
414.70	103.4319
423.72	108.0313
427.09	94.2295
427.87	104.3047
433.94	92.6219
453.88	88.6647
463.37	86.0944
468.07	100.3119
473.00	97.9224
476.78	86.7737
477.60	77.5143
487.02	90.4037
492.35	75.0443
497.08	84.6498
511.00	98.9986
514.00	94.5198
527.90	85.0293
529.87	0.0000
531.02	84.1063
537.26	87.5905
546.56	0.0000
563.25	85.5311
569.33	83.6242
569.50	92.3203
569.70	85.8108
583.19	73.2690
600.60	91.5437
602.73	74.1932
604.72	91.9471
609.32	65.3469
609.32	65.3469
609.32	65.3469
610.33	65.3793
614.28	72.8290
618.01	67.8431
621.93	76.8817
621.93	76.8817
633.25	62.7283
635.95	75.1440
636.99	74.0566
645.85	68.5002
657.76	86.0891
661.66	88.9632
661.66	88.9632
664.57	0.0000
666.33	88.2402
666.50	77.3301

677.62	56.6840
685.70	59.6378
695.00	88.4344
696.49	85.7264
696.51	84.8058
697.00	84.8237
702.65	93.3461
706.68	64.8064
711.68	76.0782
720.70	70.3648
721.93	0.0000
722.78	71.4632
722.91	73.0206
723.31	69.9243
724.19	66.8411
727.33	70.0415
733.00	73.3266
735.93	52.4836
739.50	87.2897
747.24	69.6749
752.31	78.3110
753.82	63.2525
756.73	79.3960
763.94	69.5145
765.81	49.0127
766.42	60.0940
777.92	84.7287
778.90	81.0530
783.70	65.9189
785.37	75.5225
795.86	51.8339
801.95	56.7659
810.29	43.4344
810.76	46.3383
815.77	55.1325
818.51	52.2848
832.01	67.1470
834.85	62.3469
836.80	0.0000
846.77	66.5374
856.80	115.8855
860.56	56.0551
871.09	39.4863
873.19	50.3837
875.33	0.0000
879.36	59.4053
880.51	60.4207
883.24	62.4617
884.68	51.5823
889.28	67.5634
898.04	55.8127
911.20	48.3923
911.20	48.3923
911.20	48.3923
926.50	53.3455
937.49	48.8301
944.13	46.5772
946.00	46.6064
949.00	55.7815
962.29	45.8416
964.08	45.8690
966.15	45.8998
968.97	45.9426
968.97	45.9426
968.97	45.9426
983.53	36.9299
996.26	64.8949
1001.03	48.4871
1004.73	63.0045
1037.84	60.5347
1038.76	0.0000
1048.07	56.5392
1050.41	38.7687
1050.41	38.7687
1063.66	43.1341
1085.87	50.8383
1099.45	54.2348
1112.07	53.3716

1115.54	69.4529
1120.29	65.9815
1120.29	65.9815
1120.29	65.9815
1120.55	76.6882
1121.30	67.4297
1131.51	0.0000
1173.23	52.1461
1177.93	66.3554
1189.05	70.9255
1204.77	81.1001
1221.41	68.8080
1231.02	80.5780
1235.36	71.0407
1238.28	80.5769
1260.41	0.0000
1271.85	48.3543
1274.44	43.7355
1274.54	46.5271
1291.59	47.6693
1298.22	0.0000
1312.11	53.5604
1332.49	31.1705
1365.19	26.6647
1368.63	0.0000
1384.29	46.8846
1408.01	25.9838
1457.56	0.0000
1460.82	30.2104
1489.16	11.7715
1505.03	23.6289
1596.21	28.1322
1620.50	13.1301
1678.03	0.0000
1690.97	14.3515
1764.49	1.7838
1764.49	1.7838
1764.49	1.7838
1770.23	7.1434
1771.35	8.9310
1791.20	0.0000
1836.06	11.6078

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249331001

Total Uranium Activity	5.1005E+00	ug/g
Total Uranium Counting Unc.	6.0019E+00	ug/g
Total Uranium Tpu	3.0622E-06	ug/g
Total Uranium Mda	5.3301E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G249331001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM04            *
*   SAMPLE DATE   : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 08:58:44.11    SAMPLE ALQT:  122.510 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.138E+01
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.643E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 3.530E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 1.708E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:12:05.31

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331002.CNF;2
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:11:28
Sample ID         : G249331002           Sample quantity  : 1.23630E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.22  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 965250                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	76.91	503	508	1.08	153.95	152	6	6.99E-02	8.5	
2	0	86.98	246	486	1.11	174.08	171	7	3.41E-02	16.2	
3	0	89.79	105	416	0.96	179.70	177	6	1.46E-02	32.1	
4	0	92.88*	172	534	1.57	185.87	182	8	2.39E-02	25.3	
5	0	128.81	103	423	1.29	257.66	254	8	1.43E-02	36.0	
6	0	186.06*	275	471	1.44	372.07	367	12	3.82E-02	17.2	
7	0	209.83	186	504	1.46	419.58	412	14	2.58E-02	26.8	
8	3	238.68*	1609	241	1.17	477.23	470	19	2.23E-01	3.0	1.14E+00
9	3	241.67	306	307	1.62	483.20	470	19	4.26E-02	15.0	
10	0	270.44	106	214	1.40	540.70	537	9	1.48E-02	26.5	
11	0	277.48	66	212	1.22	554.77	551	8	9.17E-03	40.1	
12	0	295.28	528	217	1.16	590.33	584	11	7.33E-02	6.9	
13	0	300.59	162	219	1.21	600.96	596	12	2.25E-02	19.9	
14	0	327.97	78	186	1.13	655.68	652	9	1.08E-02	33.7	
15	0	338.42	323	230	1.29	676.57	670	12	4.49E-02	10.9	
16	0	352.09*	791	200	1.23	703.88	699	12	1.10E-01	5.1	
17	0	463.25	65	146	1.38	926.06	921	10	9.05E-03	36.9	
18	0	510.62*	193	152	2.03	1020.75	1014	15	2.68E-02	17.2	
19	0	583.60*	452	121	1.52	1166.65	1161	13	6.28E-02	7.0	
20	0	609.67*	590	147	1.54	1218.75	1213	15	8.19E-02	6.1	
21	0	727.84	120	79	1.39	1455.01	1449	14	1.67E-02	18.3	
22	0	769.00	51	147	1.18	1537.31	1532	15	7.02E-03	54.1	
23	0	795.89	41	78	1.53	1591.07	1584	11	5.71E-03	44.8	
24	0	861.67	60	86	1.53	1722.59	1717	15	8.38E-03	35.9	
25	0	911.84*	377	91	2.09	1822.92	1813	17	5.23E-02	7.8	
26	3	965.40	84	20	2.33	1930.01	1925	22	1.17E-02	16.4	2.09E+00
27	3	969.65*	205	41	1.79	1938.52	1925	22	2.84E-02	9.3	
28	0	1121.21*	107	107	1.61	2241.62	2235	16	1.49E-02	24.0	
29	0	1238.34	89	64	2.15	2475.90	2468	16	1.24E-02	22.7	
30	0	1461.76*	1374	23	2.04	2922.84	2913	18	1.91E-01	2.8	
31	0	1731.30	15	18	1.48	3462.13	3457	9	2.08E-03	57.2	
32	0	1765.75*	103	8	2.48	3531.09	3522	16	1.43E-02	12.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 11:12:08

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331002.CNF;2
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:11:28
Sample ID         : G249331002           Sample quantity  : 123.63 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA10              Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.22   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.568E+01	3.955E+00	6.025E-01	5.738E-02	59.213
CD-109	+	88.03	*	3.891E+00	1.336E+00	1.420E+00	1.605E-01	2.741
SN-126		64.28		9.356E-02	7.394E-01	1.235E+00	1.964E-01	0.076
	+	86.94		1.587E+00	8.419E-01	6.666E-01	2.798E-01	2.380
	+	87.57	*	3.817E-01	1.311E-01	1.402E-01	1.580E-02	2.722
TL-208	+	277.37		6.747E-01	5.491E-01	7.043E-01	9.371E-02	0.958
	+	583.19	*	6.294E-01	1.043E-01	6.804E-02	6.132E-03	9.251
	+	860.56		8.116E-01	5.885E-01	5.195E-01	5.224E-02	1.562
BI-211		72.87		-1.907E+00	4.947E+00	7.660E+00	7.804E-01	-0.249
	+	351.06	*	4.911E+00	6.831E-01	3.806E-01	3.577E-02	12.905
PB-212		74.82		2.377E+00	7.117E-01	1.048E+00	1.484E-01	2.268
	+	77.11		2.131E+00	4.232E-01	5.456E-01	5.680E-02	3.905
	+	238.63	*	2.239E+00	2.760E-01	1.015E-01	1.093E-02	22.069
	+	300.09		3.501E+00	1.451E+00	1.340E+00	1.519E-01	2.613
BI-214	+	609.32	*	1.592E+00	2.499E-01	1.219E-01	1.200E-02	13.054
	+	1120.29		1.563E+00	7.707E-01	5.343E-01	5.819E-02	2.926
	+	1764.49		2.105E+00	5.447E-01	2.942E-01	2.541E-02	7.155
PB-214		74.82		4.213E+00	1.239E+00	1.858E+00	2.412E-01	2.268
	+	77.11		3.756E+00	8.078E-01	9.619E-01	1.277E-01	3.905
	+	242.00		2.587E+00	8.281E-01	6.171E-01	7.001E-02	4.192
	+	295.22		2.021E+00	3.659E-01	2.368E-01	2.750E-02	8.535
	+	351.93	*	1.782E+00	2.667E-01	1.299E-01	1.414E-02	13.722
RA-224	+	240.99	*	4.574E+00	1.440E+00	1.087E+00	1.061E-01	4.207
RA-226	+	609.32	*	1.592E+00	2.499E-01	1.219E-01	1.200E-02	13.054
	+	1120.29		1.563E+00	7.707E-01	5.343E-01	5.819E-02	2.926
	+	1764.49		2.105E+00	5.447E-01	2.942E-01	2.541E-02	7.155
AC-228	+	338.32		2.233E+00	1.054E+00	4.311E-01	1.803E-01	5.181
	+	911.20	*	2.593E+00	5.189E-01	2.657E-01	3.297E-02	9.761
	+	968.97		2.445E+00	7.563E-01	4.510E-01	1.113E-01	5.420
RA-228	+	338.32		2.233E+00	1.054E+00	4.311E-01	1.803E-01	5.181
	+	911.20	*	2.593E+00	5.189E-01	2.657E-01	3.297E-02	9.761
	+	968.97		2.445E+00	7.563E-01	4.510E-01	1.113E-01	5.420
TH-228		74.82		2.377E+00	6.737E-01	1.048E+00	1.085E-01	2.268
	+	77.11		2.131E+00	4.232E-01	5.456E-01	5.680E-02	3.905

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	2.239E+00	2.760E-01	1.015E-01	1.093E-02	22.069
	+	300.09		3.501E+00	2.562E+00	1.340E+00	8.221E-01	2.613
TH-230	+	609.32	*	1.592E+00	2.354E-01	1.219E-01	1.013E-02	13.054
	+	1120.29		1.563E+00	7.635E-01	5.343E-01	4.587E-02	2.926
	+	1764.49		2.105E+00	5.447E-01	2.942E-01	2.541E-02	7.155
TH-232	+	338.32		2.233E+00	5.291E-01	4.311E-01	3.951E-02	5.181
	+	911.20	*	2.593E+00	5.189E-01	2.657E-01	3.297E-02	9.761
	+	968.97		2.445E+00	7.563E-01	4.510E-01	1.113E-01	5.420
U-235	+	89.96		1.671E+00	1.155E+00	1.579E+00	4.030E-01	1.058
	+	93.35		1.623E+00	9.087E-01	8.082E-01	1.927E-01	2.008
		143.76	*	1.691E-01	2.289E-01	3.703E-01	6.343E-02	0.457
		163.33		2.587E-01	4.821E-01	7.844E-01	1.434E-01	0.330
	+	185.72		2.485E-01	8.889E-02	7.284E-02	6.896E-03	3.412
		205.31		-3.577E-01	6.028E-01	8.700E-01	1.621E-01	-0.411
NP-237	+	86.48	*	1.139E+00	4.582E-01	4.865E-01	1.155E-01	2.341
		95.86		-9.762E-01	1.173E+00	1.607E+00	3.952E-01	-0.607
ANH-511	+	511.00	*	2.050E-01	7.243E-02	4.927E-02	4.182E-03	4.160

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.074E-01	3.464E-01	5.508E-01	5.036E-02	0.195
NA-22		1274.54	*	1.371E-03	5.084E-02	8.478E-02	7.504E-03	0.016
NA-24		1368.63	*	-1.408E-02	5.084E-02	Half-Life too short		
SC-46		889.28	*	1.031E-02	4.100E-02	6.861E-02	6.631E-03	0.150
	+	1120.55		2.596E-01	1.268E-01	1.571E-01	1.349E-02	1.652
V-48		944.13		-1.210E-01	9.054E-01	1.455E+00	1.396E-01	-0.083
		983.53	*	-1.656E-02	7.366E-02	1.169E-01	1.104E-02	-0.142
		1312.11		2.766E-03	8.954E-02	1.491E-01	1.358E-02	0.019
CR-51		320.08	*	3.156E-02	3.844E-01	6.394E-01	6.272E-02	0.049
MN-54		834.85	*	-2.877E-02	4.171E-02	6.444E-02	5.996E-03	-0.447
CO-56		846.77	*	5.489E-03	4.340E-02	7.199E-02	6.756E-03	0.076
		1037.84		1.498E-02	3.823E-01	6.197E-01	5.943E-02	0.024
	+	1238.28		3.575E-01	1.655E-01	2.126E-01	1.878E-02	1.682
		1771.35		2.851E-02	2.581E-01	3.697E-01	3.183E-02	0.077
CO-57		122.06	*	1.245E-02	2.736E-02	4.515E-02	4.033E-03	0.276
		136.47		1.525E-01	2.284E-01	3.775E-01	3.590E-02	0.404
CO-58		810.76	*	-1.926E-05	4.503E-02	7.413E-02	6.790E-03	0.000
FE-59		1099.45	*	-2.190E-02	1.159E-01	1.832E-01	1.729E-02	-0.120
		1291.59		1.125E-01	1.505E-01	2.656E-01	2.680E-02	0.424
CO-60		1173.23		4.084E-02	5.057E-02	9.005E-02	7.302E-03	0.454
		1332.49	*	2.426E-02	4.545E-02	7.955E-02	7.358E-03	0.305
ZN-65		1115.54	*	-1.251E-01	1.273E-01	1.517E-01	1.310E-02	-0.824
SE-75		121.12		-3.254E-02	1.434E-01	2.302E-01	2.609E-02	-0.141
		136.00		2.506E-02	4.325E-02	7.130E-02	6.380E-03	0.351
		264.66	*	4.226E-02	4.938E-02	8.313E-02	8.137E-03	0.508
		279.54		1.640E-01	1.285E-01	2.032E-01	2.031E-02	0.807
		400.66		-6.883E-04	2.583E-01	4.220E-01	4.559E-02	-0.002

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SR-85		514.00	*	5.473E-02	5.062E-02	7.717E-02	6.550E-03	0.709
Y-88		898.04		2.347E-02	4.524E-02	7.727E-02	7.539E-03	0.304
		1836.06	*	-3.052E-02	3.639E-02	4.730E-02	3.946E-03	-0.645
Y-91		1204.77	*	1.073E+01	2.725E+01	4.678E+01	3.901E+00	0.229
NB-94		702.65	*	1.523E-02	3.628E-02	6.213E-02	5.198E-03	0.245
		871.09		-1.219E-02	4.053E-02	6.269E-02	5.984E-03	-0.194
NB-95		765.81	*	2.653E-02	5.209E-02	7.862E-02	6.938E-03	0.337
NB-95M		235.69	*	1.057E-01	1.478E-01	2.273E-01	2.473E-02	0.465
ZR-95		724.19		2.206E-03	1.147E-01	1.656E-01	1.533E-02	0.013
		756.73	*	5.841E-02	7.810E-02	1.363E-01	1.315E-02	0.429
MO-99		140.51		-1.191E+01	1.461E+01	2.201E+01	5.250E+00	-0.541
		181.07		-2.908E+00	1.219E+01	1.694E+01	3.248E+00	-0.172
		366.42		2.275E+00	5.903E+01	9.721E+01	8.474E+00	0.023
		739.50	*	-2.364E+00	7.543E+00	1.217E+01	1.918E+00	-0.194
		777.92		-1.570E+01	2.473E+01	3.611E+01	3.218E+00	-0.435
TC-99M		140.51	*	-7.508E+07	2.473E+01	Half-Life too short		
RU-103		497.08	*	-4.881E-02	4.260E-02	6.165E-02	8.558E-03	-0.792
	+	610.33		1.579E+01	3.204E+00	3.269E+00	5.289E-01	4.832
RH-106		621.93	*	1.005E-01	3.474E-01	5.936E-01	7.730E-02	0.169
		1050.41		-3.393E-01	3.029E+00	4.725E+00	4.295E-01	-0.072
RU-106		621.93	*	1.005E-01	3.472E-01	5.936E-01	4.901E-02	0.169
		1050.41		-3.393E-01	3.029E+00	4.725E+00	4.295E-01	-0.072
AG-108M		433.94	*	-3.027E-03	3.098E-02	5.001E-02	4.332E-03	-0.061
		614.28		5.226E-03	4.335E-02	6.409E-02	5.500E-03	0.082
		722.91		1.219E-02	4.755E-02	7.034E-02	6.187E-03	0.173
AG-110M		657.76	*	-8.507E-03	3.779E-02	6.210E-02	5.189E-03	-0.137
		677.62		-6.675E-02	3.287E-01	5.394E-01	4.553E-02	-0.124
		706.68		2.018E-02	2.488E-01	4.158E-01	3.597E-02	0.049
		763.94		1.651E-01	1.906E-01	2.991E-01	2.705E-02	0.552
		884.68		3.962E-03	5.415E-02	8.916E-02	8.812E-03	0.044
		937.49		3.168E-02	1.401E-01	2.322E-01	2.298E-02	0.136
		1384.29		-2.162E-01	2.042E-01	2.953E-01	2.808E-02	-0.732
		1505.03		-3.312E-01	3.167E-01	4.361E-01	4.042E-02	-0.759
SN-113		391.69	*	1.871E-02	4.840E-02	8.098E-02	6.875E-03	0.231
CD-115		260.90		-4.468E+01	7.624E+01	1.241E+02	1.211E+01	-0.360
		492.35		1.525E+01	2.118E+01	3.582E+01	3.038E+00	0.426
		527.90	*	-3.594E+00	6.362E+00	9.739E+00	8.261E-01	-0.369
SN-117M		156.02		-2.863E+00	2.382E+00	3.600E+00	3.290E-01	-0.795
		158.56	*	1.738E-02	5.510E-02	8.930E-02	8.203E-03	0.195
TE-123M		159.00	*	2.090E-02	3.130E-02	5.141E-02	4.752E-03	0.407
SB-124		602.73		-1.895E-02	4.058E-02	6.192E-02	5.158E-03	-0.306
		645.85		-1.174E-01	5.016E-01	8.240E-01	7.143E-02	-0.142
		722.78		1.393E-01	4.669E-01	6.935E-01	6.043E-02	0.201
		1690.97	*	3.312E-02	7.604E-02	1.341E-01	1.240E-02	0.247
SB-125		427.87	*	3.566E-02	9.492E-02	1.583E-01	1.349E-02	0.225
	+	463.37		6.132E-01	4.564E-01	6.014E-01	5.477E-02	1.020
		600.60		7.065E-02	1.856E-01	3.198E-01	2.876E-02	0.221
		635.95		-1.144E-01	2.927E-01	4.758E-01	4.247E-02	-0.241
TE-125M		109.28	*	3.763E+00	1.008E+01	1.665E+01	1.829E+00	0.226

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-126		388.63		1.192E-01	1.645E-01	2.803E-01	2.320E-02	0.425
		666.33	*	9.646E-02	2.107E-01	3.628E-01	2.937E-02	0.266
		753.82		2.076E-01	1.841E+00	3.073E+00	2.685E-01	0.068
SB-126		414.70		2.324E-03	7.651E-02	1.234E-01	1.026E-02	0.019
		666.50		4.133E-02	7.181E-02	1.246E-01	1.009E-02	0.332
		695.00		3.271E-03	7.363E-02	1.230E-01	1.022E-02	0.027
		697.00		-2.061E-01	2.572E-01	4.013E-01	3.340E-02	-0.514
		720.70	*	1.802E-02	1.638E-01	2.497E-01	2.122E-02	0.072
		856.80		-8.154E-02	5.220E-01	7.257E-01	6.859E-02	-0.112
SB-127		252.40		6.338E-01	3.019E+00	5.096E+00	2.121E+00	0.124
		473.00		-4.601E-01	1.140E+00	1.784E+00	2.160E-01	-0.258
		685.70	*	-5.322E-01	9.743E-01	1.554E+00	1.623E-01	-0.343
		783.70		5.760E-01	2.573E+00	4.319E+00	5.196E-01	0.133
I-131		80.19		4.564E+00	4.783E+00	7.340E+00	7.815E-01	0.622
		284.31		1.655E-01	1.254E+00	2.104E+00	2.118E-01	0.079
		364.49	*	-3.584E-02	9.955E-02	1.598E-01	1.470E-02	-0.224
		636.99		-8.592E-01	1.428E+00	2.283E+00	1.985E-01	-0.376
TE-132		49.72		8.857E+00	2.521E+01	4.282E+01	5.223E+00	0.207
		111.76		-7.082E+00	2.263E+01	3.634E+01	3.939E+00	-0.195
		116.30		-8.239E+00	2.043E+01	3.261E+01	3.501E+00	-0.253
		228.16	*	2.522E-01	4.907E-01	8.372E-01	1.344E-01	0.301
BA-133		81.00		-1.406E-01	1.269E-01	1.743E-01	2.919E-02	-0.806
	+	276.40		6.234E-01	5.090E-01	7.206E-01	1.067E-01	0.865
		302.85		8.159E-02	1.688E-01	2.545E-01	3.487E-02	0.321
		356.01	*	-4.884E-02	5.158E-02	6.791E-02	8.924E-03	-0.719
		383.85		3.667E-02	3.216E-01	5.304E-01	6.502E-02	0.069
I-133		529.87	*	-6.516E-05	3.216E-01	Half-Life too short		
		875.33		-4.486E-03	3.216E-01	Half-Life too short		
		1298.22		5.821E-03	3.216E-01	Half-Life too short		
CS-134		563.25		3.293E-01	4.090E-01	6.905E-01	5.883E-02	0.477
		569.33		4.876E-02	2.427E-01	3.926E-01	3.354E-02	0.124
		604.72		-1.414E-02	3.911E-02	5.513E-02	4.600E-03	-0.256
	+	795.86	*	8.426E-02	7.584E-02	9.891E-02	8.997E-03	0.852
		801.95		-6.680E-02	4.706E-01	7.211E-01	6.580E-02	-0.093
		1365.19		4.922E-01	1.437E+00	2.472E+00	2.385E-01	0.199
CS-135		268.22	*	-6.676E-02	1.967E-01	2.834E-01	3.104E-02	-0.236
I-135		546.56		4.401E+05	1.967E-01	Half-Life too short		
		836.80		-2.390E+07	1.967E-01	Half-Life too short		
		1038.76		2.406E+07	1.967E-01	Half-Life too short		
		1131.51		-1.629E+07	1.967E-01	Half-Life too short		
		1260.41	*	-9.798E+06	1.967E-01	Half-Life too short		
		1457.56		5.634E+08	1.967E-01	Half-Life too short		
		1678.03		-1.071E+07	1.967E-01	Half-Life too short		
		1791.20		-1.156E+07	1.967E-01	Half-Life too short		
CS-136		153.25		4.793E-01	8.632E-01	1.412E+00	1.506E-01	0.339
		176.60		-2.190E-01	4.804E-01	7.469E-01	7.635E-02	-0.293
		273.65		-2.382E-03	7.490E-01	8.020E-01	8.324E-02	-0.003
		340.55		5.181E-01	1.764E-01	2.922E-01	2.759E-02	1.773
		818.51		-5.130E-03	6.946E-02	1.135E-01	1.044E-02	-0.045

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		1048.07	*	-9.403E-02	1.143E-01	1.690E-01	1.596E-02	-0.556
		1235.36		6.634E-01	6.603E-01	1.047E+00	1.228E-01	0.633
BA-137M		661.66	*	-2.926E-03	3.834E-02	6.368E-02	5.132E-03	-0.046
CS-137		661.66	*	-3.091E-03	4.050E-02	6.727E-02	5.434E-03	-0.046
CE-139		165.86	*	-1.861E-02	3.271E-02	5.080E-02	4.741E-03	-0.366
BA-140		162.66		6.740E-01	7.930E-01	1.309E+00	1.284E-01	0.515
		304.85		-8.337E-01	1.517E+00	2.100E+00	6.205E-01	-0.397
		423.72		5.635E-01	1.986E+00	3.275E+00	1.075E+00	0.172
		537.26	*	-8.960E-02	2.486E-01	3.833E-01	1.298E-01	-0.234
LA-140	+	328.76		5.894E-01	4.017E-01	5.450E-01	5.314E-02	1.081
		487.02		2.914E-02	1.352E-01	2.214E-01	1.997E-02	0.132
		815.77		-7.433E-02	2.956E-01	4.747E-01	4.809E-02	-0.157
		1596.21	*	8.793E-02	1.051E-01	1.880E-01	1.717E-02	0.468
CE-141		145.44	*	-7.659E-04	6.759E-02	1.068E-01	9.751E-03	-0.007
CE-143		57.36		8.281E-05	6.759E-02	Half-Life too short		
		293.27	*	2.211E-04	6.759E-02	Half-Life too short		
		664.57		1.329E-04	6.759E-02	Half-Life too short		
		721.93		5.965E-05	6.759E-02	Half-Life too short		
CE-144		80.12		1.934E+00	3.161E+00	4.790E+00	5.082E-01	0.404
		133.52	*	-3.240E-01	2.410E-01	3.383E-01	5.221E-02	-0.958
PM-144		476.78		3.126E-02	6.886E-02	1.148E-01	1.058E-02	0.272
		618.01		-1.669E-02	3.789E-02	5.791E-02	4.935E-03	-0.288
		696.49	*	-1.871E-02	3.696E-02	5.913E-02	4.921E-03	-0.316
PR-144		696.51	*	-1.403E+00	2.763E+00	4.419E+00	3.677E-01	-0.318
		1489.16		1.197E+01	1.373E+01	2.530E+01	2.348E+00	0.473
PM-146		453.88	*	3.899E-02	4.696E-02	7.998E-02	8.345E-03	0.487
		633.25		-8.506E-01	1.616E+00	2.552E+00	9.722E-01	-0.333
		735.93		1.153E-01	1.705E-01	2.783E-01	7.797E-02	0.414
		747.24		-4.514E-02	1.087E-01	1.738E-01	2.543E-02	-0.260
ND-147	+	91.11		4.698E-01	3.066E-01	4.873E-01	5.539E-02	0.964
		319.41		3.209E-01	3.140E+00	5.229E+00	4.916E-01	0.061
		531.02	*	2.015E-01	5.054E-01	8.350E-01	1.242E-01	0.241
PM-149		285.90	*	2.309E+01	4.569E+01	7.792E+01	1.258E+01	0.296
EU-152		121.78		4.934E-03	8.021E-02	1.303E-01	1.326E-02	0.038
		244.70		5.530E-02	3.772E-01	5.641E-01	5.506E-02	0.098
		344.28	*	-1.496E-02	1.124E-01	1.701E-01	1.627E-02	-0.088
		778.90		1.948E-02	2.928E-01	4.860E-01	4.334E-02	0.040
	+	964.08		1.081E+00	3.689E-01	6.148E-01	5.855E-02	1.758
		1085.87		-2.253E-01	4.662E-01	7.138E-01	6.318E-02	-0.316
		1112.07		9.631E-02	3.406E-01	5.625E-01	4.866E-02	0.171
		1408.01		2.277E-01	2.485E-01	4.451E-01	4.140E-02	0.512
GD-153		69.67		-3.064E+00	2.363E+00	3.712E+00	3.734E-01	-0.826
		97.43	*	-1.344E-01	1.017E-01	1.478E-01	1.480E-02	-0.909
		103.18		-1.116E-01	1.280E-01	2.012E-01	1.922E-02	-0.554
EU-154		123.07		2.665E-02	5.580E-02	9.206E-02	1.066E-02	0.290
		723.31		1.915E-02	2.150E-01	3.127E-01	2.939E-02	0.061
		873.19		2.488E-01	3.239E-01	5.588E-01	7.036E-02	0.445
		996.26		-3.202E-01	4.223E-01	6.277E-01	1.121E-01	-0.510
		1004.73		-1.751E-02	2.490E-01	4.007E-01	4.881E-02	-0.044

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		1274.44	*	4.218E-03	1.442E-01	2.406E-01	2.778E-02	0.018
EU-155	+	86.55		4.624E-01	1.589E-01	2.277E-01	2.557E-02	2.030
		105.31	*	2.484E-01	1.211E-01	2.090E-01	1.989E-02	1.188
TB-160	+	86.79		1.202E+00	4.127E-01	5.893E-01	6.591E-02	2.040
		197.04		1.083E-01	6.205E-01	9.890E-01	9.444E-02	0.110
		215.65		7.331E-01	8.110E-01	1.328E+00	1.283E-01	0.552
		298.57		2.099E-01	1.774E-01	2.134E-01	2.047E-02	0.984
		879.36	*	-1.483E-01	1.586E-01	2.362E-01	2.268E-02	-0.628
		962.29		5.275E-01	6.090E-01	9.466E-01	9.021E-02	0.557
	+	966.15		7.391E-01	2.523E-01	4.873E-01	4.637E-02	1.517
		1177.93		1.342E-01	3.820E-01	6.584E-01	5.361E-02	0.204
		1271.85		-3.360E-01	8.206E-01	1.312E+00	1.158E-01	-0.256
HO-166M		80.57		1.295E-01	3.414E-01	5.125E-01	5.454E-02	0.253
		184.41		1.169E-01	4.464E-02	7.083E-02	6.699E-03	1.651
		280.46		3.465E-02	9.941E-02	1.495E-01	1.450E-02	0.232
		410.95		-2.372E-02	2.862E-01	4.646E-01	3.854E-02	-0.051
		711.68	*	-5.101E-04	7.359E-02	1.222E-01	1.031E-02	-0.004
		752.31		-2.192E-02	3.106E-01	5.114E-01	4.463E-02	-0.043
		810.29		-6.636E-04	6.882E-02	1.132E-01	1.034E-02	-0.006
TA-182		67.75		8.837E-02	1.514E-01	2.559E-01	2.556E-02	0.345
		100.11		3.293E-01	1.995E-01	3.423E-01	3.345E-02	0.962
		152.43		-1.788E-01	3.974E-01	6.248E-01	5.672E-02	-0.286
		222.11		5.690E-01	3.706E-01	6.571E-01	6.370E-02	0.866
	+	1121.30		7.227E-01	3.530E-01	4.364E-01	3.743E-02	1.656
		1189.05		-8.372E-02	3.326E-01	5.441E-01	4.474E-02	-0.154
		1221.41	*	-2.781E-02	2.430E-01	4.022E-01	3.402E-02	-0.069
		1231.02		-1.159E-01	6.461E-01	9.098E-01	7.760E-02	-0.127
IR-192	+	295.96		1.463E+00	2.477E-01	3.312E-01	3.202E-02	4.418
		308.46		2.218E-02	1.053E-01	1.766E-01	1.686E-02	0.126
		316.51	*	-1.576E-02	3.646E-02	5.895E-02	5.570E-03	-0.267
		468.07		3.298E-02	7.879E-02	1.159E-01	1.054E-02	0.285
HG-203		70.83		-1.941E+00	1.806E+00	2.838E+00	4.797E-01	-0.684
		72.87		-4.593E-01	1.193E+00	1.845E+00	3.036E-01	-0.249
		279.20	*	6.249E-02	4.575E-02	7.248E-02	7.177E-03	0.862
BI-207		72.81		-1.818E-01	2.836E-01	4.346E-01	4.427E-02	-0.418
		74.97		7.679E-01	1.983E-01	3.072E-01	3.161E-02	2.500
		569.70		9.335E-03	3.787E-02	6.144E-02	5.175E-03	0.152
		1063.66	*	5.052E-02	6.563E-02	1.128E-01	1.015E-02	0.448
		1770.23		6.719E-01	5.458E-01	9.965E-01	8.584E-02	0.674
PB-210		46.54	*	8.654E-01	9.110E+00	1.536E+01	1.529E+00	0.056
PB-211		404.85	*	-2.326E-01	7.978E-01	1.266E+00	6.119E-01	-0.184
		427.09		6.946E-01	1.671E+00	2.742E+00	1.267E+00	0.253
		832.01		-1.301E-01	1.132E+00	1.839E+00	9.560E-01	-0.071
BI-212	+	727.33	*	2.584E+00	9.965E-01	1.304E+00	1.618E-01	1.982
		785.37		5.598E-01	3.547E+00	5.923E+00	5.309E-01	0.095
		1620.50		1.155E+00	2.924E+00	5.030E+00	4.568E-01	0.230
RN-219	+	271.23		6.532E-01	3.537E-01	4.931E-01	5.528E-02	1.325
		401.81	*	3.481E-01	4.164E-01	7.119E-01	1.044E-01	0.489
RA-223		81.07		-3.323E-01	2.842E-01	3.931E-01	4.199E-02	-0.845

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		83.79		2.003E-02	1.658E-01	2.437E-01	2.658E-02	0.082
		94.87		8.391E-01	5.599E-01	8.692E-01	8.940E-02	0.965
		144.24		7.348E-01	7.611E-01	1.246E+00	1.238E-01	0.590
		154.21		5.215E-01	4.404E-01	7.348E-01	7.268E-02	0.710
	+	269.46		5.075E-01	2.735E-01	3.679E-01	3.640E-02	1.379
		323.87	*	-2.450E-01	8.130E-01	1.154E+00	2.044E-01	-0.212
	+	338.28		8.862E+00	2.229E+00	2.773E+00	3.457E-01	3.196
AC-227		79.69		4.098E-01	1.610E+00	2.403E+00	4.396E-01	0.171
		235.96		2.233E-01	1.869E-01	2.924E-01	3.303E-02	0.764
		256.23	*	-5.988E-02	2.769E-01	4.597E-01	5.926E-02	-0.130
	+	299.98		3.851E+00	1.619E+00	1.837E+00	2.457E-01	2.096
		304.50		-1.030E+00	2.049E+00	2.875E+00	4.896E-01	-0.358
		334.37		-5.384E-01	2.107E+00	2.995E+00	4.770E-01	-0.180
TH-227		79.80		1.177E+00	2.108E+00	3.169E+00	7.170E-01	0.372
		235.96		2.233E-01	1.867E-01	2.924E-01	3.147E-02	0.764
		256.23	*	-5.988E-02	2.769E-01	4.597E-01	6.599E-02	-0.130
	+	299.98		3.851E+00	1.619E+00	1.837E+00	2.457E-01	2.096
		304.50		-1.030E+00	2.049E+00	2.875E+00	4.896E-01	-0.358
		334.37		-5.384E-01	2.107E+00	2.995E+00	4.770E-01	-0.180
TH-229		85.43		6.590E-01	2.885E-01	4.480E-01	4.952E-02	1.471
	+	88.47		2.415E-01	1.574E-01	2.705E-01	3.035E-02	0.893
		193.51	*	-3.214E-01	6.047E-01	9.323E-01	8.879E-02	-0.345
	+	210.85		3.697E+00	2.010E+00	1.780E+00	1.715E-01	2.077
PA-231		283.69	*	-6.063E-01	1.488E+00	2.424E+00	3.693E-01	-0.250
	+	301.36		2.474E+00	1.036E+00	1.199E+00	1.540E-01	2.063
TH-231		81.07		-3.323E-01	2.842E-01	3.931E-01	4.199E-02	-0.845
		83.79		2.003E-02	1.658E-01	2.437E-01	2.658E-02	0.082
		94.87		8.391E-01	5.599E-01	8.692E-01	8.940E-02	0.965
		144.24		7.348E-01	7.611E-01	1.246E+00	1.238E-01	0.590
		154.21		5.215E-01	4.404E-01	7.348E-01	7.268E-02	0.710
	+	269.46		5.075E-01	2.735E-01	3.679E-01	3.640E-02	1.379
		323.87	*	-2.450E-01	8.130E-01	1.154E+00	2.044E-01	-0.212
	+	338.28		8.862E+00	2.229E+00	2.773E+00	3.457E-01	3.196
PA-233	+	300.13		1.742E+00	7.447E-01	8.380E-01	1.291E-01	2.079
		311.90	*	3.006E-02	6.756E-02	1.146E-01	1.112E-02	0.262
		340.48		2.752E+00	1.061E+00	1.438E+00	3.488E-01	1.914
PA-234		94.67		4.532E-01	2.109E-01	3.266E-01	4.451E-02	1.388
		98.44		-1.361E-02	1.050E-01	1.705E-01	9.550E-02	-0.080
		111.00		-3.236E-02	2.019E-01	3.264E-01	4.075E-02	-0.099
		131.20		1.252E-01	1.288E-01	1.945E-01	1.726E-02	0.644
		569.50		7.448E-02	3.357E-01	5.437E-01	4.579E-02	0.137
		733.00		-1.183E-01	4.731E-01	6.605E-01	1.465E-01	-0.179
		880.51		-3.772E-02	3.187E-01	5.158E-01	4.956E-02	-0.073
		883.24		2.229E-01	3.467E-01	5.443E-01	3.666E-01	0.409
		926.50		3.141E-03	2.011E-01	3.282E-01	8.416E-02	0.010
		946.00	*	3.591E-02	3.261E-01	5.362E-01	1.031E-01	0.067
		949.00		-3.332E-01	5.045E-01	7.665E-01	7.342E-02	-0.435
PA-234M		766.42		1.029E+01	1.610E+01	2.327E+01	1.181E+01	0.442
		1001.03	*	7.578E+00	5.535E+00	9.912E+00	1.052E+00	0.765

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	3.896E-01	2.105E+00	3.508E+00	6.645E-01	0.111
	+	92.59		2.148E+00	1.194E+00	1.489E+00	3.412E-01	1.443
U-238		63.29	*	3.896E-01	2.105E+00	3.508E+00	6.645E-01	0.111
	+	92.59		2.148E+00	1.111E+00	1.489E+00	1.574E-01	1.443
NP-239		99.53		2.880E-01	1.866E-01	3.194E-01	3.138E-02	0.902
		103.37		-1.095E-01	1.182E-01	1.854E-01	1.768E-02	-0.591
		106.12		8.801E-02	9.382E-02	1.580E-01	1.482E-02	0.557
		117.23	*	1.511E-01	4.484E-01	7.374E-01	6.633E-02	0.205
		228.18		1.210E-01	2.353E-01	4.023E-01	3.910E-02	0.301
	+	277.60		3.084E-01	2.494E-01	3.560E-01	3.458E-02	0.866
AM-241		59.54	*	-1.455E-01	2.492E-01	4.059E-01	4.065E-02	-0.358
CM-247	+	278.00		1.310E+00	1.059E+00	1.525E+00	1.481E-01	0.859
		287.50		-4.460E-01	1.243E+00	2.031E+00	1.963E-01	-0.220
		402.40	*	1.010E-02	3.964E-02	6.577E-02	5.433E-03	0.154
CF-249		252.80		-5.407E-02	1.011E+00	1.692E+00	1.652E-01	-0.032
		333.37		-1.305E-02	2.650E-01	3.224E-01	2.977E-02	-0.040
		388.16	*	5.094E-02	4.414E-02	7.680E-02	6.365E-03	0.663
CF-251		177.52	*	-5.775E-02	1.413E-01	2.203E-01	2.072E-02	-0.262
		227.38		-6.539E-02	3.900E-01	6.496E-01	6.312E-02	-0.101
		285.41		1.427E+00	2.194E+00	3.774E+00	3.652E-01	0.378

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331002       *
* Acquisition date : 24-MAR-2010 09:11:28 Detector SN#    :                 *
* Detector ID       : GAM10               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.22     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 11-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G249331002           Analyst initials: MXR1           *
* Batch Number      : 965250               Sample Quantity : 1.2363E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 13-MAR-2010 14:58:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.568E+01	3.876E+00	6.017E-01	0.000E+00
CD-109	3.891E+00	1.310E+00	1.472E+00	0.000E+00
SN-126	3.817E-01	1.284E-01	1.454E-01	0.000E+00
TL-208	6.294E-01	1.022E-01	6.880E-02	0.000E+00
BI-211	4.911E+00	6.694E-01	3.875E-01	0.000E+00
PB-212	2.239E+00	2.705E-01	1.038E-01	0.000E+00
BI-214	1.592E+00	2.449E-01	1.232E-01	0.000E+00
PB-214	1.782E+00	2.614E-01	1.322E-01	0.000E+00
RA-224	4.574E+00	1.411E+00	1.113E+00	0.000E+00
RA-226	1.592E+00	2.449E-01	1.232E-01	0.000E+00
AC-228	2.593E+00	5.085E-01	2.671E-01	0.000E+00
RA-228	2.593E+00	5.085E-01	2.671E-01	0.000E+00
TH-228	2.239E+00	2.705E-01	1.038E-01	0.000E+00
TH-230	1.592E+00	2.307E-01	1.232E-01	0.000E+00
TH-232	2.593E+00	5.085E-01	2.671E-01	0.000E+00
U-235	1.691E-01	2.243E-01	3.815E-01	0.000E+00
NP-237	1.139E+00	4.491E-01	5.044E-01	0.000E+00
ANH-511	2.050E-01	7.098E-02	4.991E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.074E-01	3.394E-01	5.585E-01	0.000E+00	NOT IDENT.
NA-22	1.371E-03	4.982E-02	8.483E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.702E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	1.031E-02	4.018E-02	6.899E-02	0.000E+00	FAIL ABUN
V-48	-1.656E-02	7.219E-02	1.173E-01	0.000E+00	NOT IDENT.
CR-51	3.156E-02	3.767E-01	6.518E-01	0.000E+00	NOT IDENT.
MN-54	-2.877E-02	4.088E-02	6.485E-02	0.000E+00	NOT IDENT.
CO-56	5.489E-03	4.254E-02	7.243E-02	0.000E+00	FAIL ABUN
CO-57	1.245E-02	2.682E-02	4.661E-02	0.000E+00	NOT IDENT.

CO-58	-1.926E-05	4.413E-02	7.463E-02	0.000E+00	NOT IDENT.
FE-59	-2.190E-02	1.136E-01	1.837E-01	0.000E+00	NOT IDENT.
CO-60	2.426E-02	4.454E-02	7.954E-02	0.000E+00	NOT IDENT.
ZN-65	-1.251E-01	1.248E-01	1.521E-01	0.000E+00	NOT IDENT.
SE-75	4.226E-02	4.839E-02	8.495E-02	0.000E+00	NOT IDENT.
SR-85	5.473E-02	4.960E-02	7.817E-02	0.000E+00	NOT IDENT.
Y-88	-3.052E-02	3.567E-02	4.709E-02	0.000E+00	NOT IDENT.
Y-91	1.073E+01	2.670E+01	4.684E+01	0.000E+00	NOT IDENT.
NB-94	1.523E-02	3.555E-02	6.267E-02	0.000E+00	NOT IDENT.
NB-95	2.653E-02	5.105E-02	7.921E-02	0.000E+00	NOT IDENT.
NB-95M	1.057E-01	1.448E-01	2.327E-01	0.000E+00	NOT IDENT.
ZR-95	5.841E-02	7.654E-02	1.373E-01	0.000E+00	NOT IDENT.
MO-99	-2.364E+00	7.392E+00	1.226E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	9.048E+13	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.881E-02	4.175E-02	6.247E-02	0.000E+00	FAIL ABUN
RH-106	1.005E-01	3.404E-01	5.998E-01	0.000E+00	NOT IDENT.
RU-106	1.005E-01	3.403E-01	5.998E-01	0.000E+00	NOT IDENT.
AG-108M	-3.027E-03	3.036E-02	5.077E-02	0.000E+00	NOT IDENT.
AG-110M	-8.507E-03	3.703E-02	6.270E-02	0.000E+00	NOT IDENT.
SN-113	1.871E-02	4.743E-02	8.233E-02	0.000E+00	NOT IDENT.
CD-115	-3.594E+00	6.235E+00	9.862E+00	0.000E+00	NOT IDENT.
SN-117M	1.738E-02	5.400E-02	9.187E-02	0.000E+00	NOT IDENT.
TE-123M	2.090E-02	3.067E-02	5.289E-02	0.000E+00	NOT IDENT.
SB-124	3.312E-02	7.452E-02	1.337E-01	0.000E+00	NOT IDENT.
SB-125	3.566E-02	9.302E-02	1.607E-01	0.000E+00	FAIL ABUN
TE-125M	3.763E+00	9.875E+00	1.721E+01	0.000E+00	NOT IDENT.
I-126	9.646E-02	2.064E-01	3.662E-01	0.000E+00	NOT IDENT.
SB-126	1.802E-02	1.605E-01	2.517E-01	0.000E+00	NOT IDENT.
SB-127	-5.322E-01	9.548E-01	1.568E+00	0.000E+00	NOT IDENT.
I-131	-3.584E-02	9.756E-02	1.626E-01	0.000E+00	NOT IDENT.
TE-132	2.522E-01	4.809E-01	8.572E-01	0.000E+00	NOT IDENT.
BA-133	-4.884E-02	5.054E-02	6.913E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.044E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.426E-02	7.432E-02	9.960E-02	0.000E+00	FAIL ABUN
CS-135	-6.676E-02	1.928E-01	2.896E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.805E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-9.403E-02	1.121E-01	1.695E-01	0.000E+00	NOT IDENT.
BA-137M	-2.926E-03	3.757E-02	6.429E-02	0.000E+00	NOT IDENT.
CS-137	-3.091E-03	3.969E-02	6.791E-02	0.000E+00	NOT IDENT.
CE-139	-1.861E-02	3.206E-02	5.223E-02	0.000E+00	NOT IDENT.
BA-140	-8.960E-02	2.436E-01	3.880E-01	0.000E+00	NOT IDENT.
LA-140	8.793E-02	1.030E-01	1.875E-01	0.000E+00	FAIL ABUN
CE-141	-7.659E-04	6.623E-02	1.100E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.302E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.240E-01	2.362E-01	3.488E-01	0.000E+00	NOT IDENT.
PM-144	-1.871E-02	3.622E-02	5.966E-02	0.000E+00	NOT IDENT.
PR-144	-1.403E+00	2.707E+00	4.458E+00	0.000E+00	NOT IDENT.
PM-146	3.899E-02	4.602E-02	8.115E-02	0.000E+00	NOT IDENT.
ND-147	2.015E-01	4.952E-01	8.455E-01	0.000E+00	FAIL ABUN
PM-149	2.309E+01	4.477E+01	7.955E+01	0.000E+00	NOT IDENT.
EU-152	-1.496E-02	1.102E-01	1.732E-01	0.000E+00	FAIL ABUN
GD-153	-1.344E-01	9.968E-02	1.531E-01	0.000E+00	NOT IDENT.
EU-154	4.218E-03	1.413E-01	2.407E-01	0.000E+00	NOT IDENT.
EU-155	0.000E+00	1.187E-01	2.162E-01	0.000E+00	FAIL ABUN
TB-160	-1.483E-01	1.555E-01	2.376E-01	0.000E+00	FAIL ABUN
HO-166M	-5.101E-04	7.212E-02	1.233E-01	0.000E+00	NOT IDENT.
TA-182	-2.781E-02	2.381E-01	4.026E-01	0.000E+00	FAIL ABUN
IR-192	-1.576E-02	3.573E-02	6.011E-02	0.000E+00	FAIL ABUN
HG-203	6.249E-02	4.484E-02	7.402E-02	0.000E+00	NOT IDENT.
BI-207	5.052E-02	6.432E-02	1.131E-01	0.000E+00	NOT IDENT.
PB-210	8.654E-01	8.928E+00	1.606E+01	0.000E+00	NOT IDENT.
PB-211	-2.326E-01	7.819E-01	1.287E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	9.766E-01	1.315E+00	0.000E+00	FAIL ABUN
RN-219	3.481E-01	4.081E-01	7.235E-01	0.000E+00	FAIL ABUN
RA-223	-2.450E-01	7.967E-01	1.176E+00	0.000E+00	FAIL ABUN
AC-227	-5.988E-02	2.713E-01	4.699E-01	0.000E+00	FAIL ABUN
TH-227	-5.988E-02	2.714E-01	4.699E-01	0.000E+00	FAIL ABUN
TH-229	-3.214E-01	5.926E-01	9.566E-01	0.000E+00	FAIL ABUN
PA-231	-6.063E-01	1.458E+00	2.475E+00	0.000E+00	FAIL ABUN
TH-231	-2.450E-01	7.967E-01	1.176E+00	0.000E+00	FAIL ABUN
PA-233	3.006E-02	6.621E-02	1.169E-01	0.000E+00	FAIL ABUN
PA-234	3.591E-02	3.196E-01	5.387E-01	0.000E+00	NOT IDENT.
PA-234M	7.578E+00	5.425E+00	9.950E+00	0.000E+00	NOT IDENT.
TH-234	3.896E-01	2.063E+00	3.652E+00	0.000E+00	FAIL ABUN
U-238	3.896E-01	2.063E+00	3.652E+00	0.000E+00	FAIL ABUN
NP-239	1.511E-01	4.394E-01	7.616E-01	0.000E+00	FAIL ABUN
AM-241	-1.455E-01	2.442E-01	4.228E-01	0.000E+00	NOT IDENT.
CM-247	1.010E-02	3.885E-02	6.684E-02	0.000E+00	FAIL ABUN

CF-249	5.094E-02	4.326E-02	7.809E-02	0.000E+00 NOT IDENT.
CF-251	-5.775E-02	1.385E-01	2.263E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:12:06.37

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*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331002.CNF;2
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:11:28
Sample ID         : G249331002           Sample quantity  : 1.23630E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.22  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1374	10.66*	1.097E+00	3.568E+01	3.568E+01	11.09
CD-109	88.03	246	3.70*	5.281E+00	3.817E+00	3.891E+00	34.34
SN-126	64.28	------	9.60	2.443E+00	------ Line Not Found		------
	86.94	246	8.90	5.281E+00	1.587E+00	1.587E+00	53.06
	87.57	246	37.00*	5.281E+00	3.817E-01	3.817E-01	34.34
TL-208	277.37	66	6.60	4.500E+00	6.747E-01	6.747E-01	81.38
	583.19	452	85.00*	2.564E+00	6.294E-01	6.294E-01	16.57
	860.56	60	12.50	1.806E+00	8.116E-01	8.116E-01	72.51
BI-211	72.87	------	1.23	3.666E+00	------ Line Not Found		------
	351.06	791	12.92*	3.787E+00	4.911E+00	4.911E+00	13.91
PB-212	74.82	------	10.28	3.926E+00	------ Line Not Found		------
	77.11	503	17.10	4.193E+00	2.131E+00	2.131E+00	19.86
	238.63	1609	43.60*	5.005E+00	2.239E+00	2.239E+00	12.33
	300.09	162	3.30	4.248E+00	3.501E+00	3.501E+00	41.44
BI-214	609.32	590	45.49*	2.472E+00	1.592E+00	1.592E+00	15.70
	1120.29	107	14.92	1.396E+00	1.563E+00	1.563E+00	49.30
	1764.49	103	15.30	9.690E-01	2.105E+00	2.105E+00	25.87
PB-214	74.82	------	5.80	3.926E+00	------ Line Not Found		------
	77.11	503	9.70	4.193E+00	3.756E+00	3.756E+00	21.51
	242.00	306	7.25	4.962E+00	2.587E+00	2.587E+00	32.01
	295.22	528	18.42	4.303E+00	2.021E+00	2.021E+00	18.11
	351.93	791	35.60*	3.787E+00	1.782E+00	1.782E+00	14.96
RA-224	240.99	306	4.10*	4.962E+00	4.574E+00	4.574E+00	31.48
RA-226	609.32	590	45.49*	2.472E+00	1.592E+00	1.592E+00	15.70
	1120.29	107	14.92	1.396E+00	1.563E+00	1.563E+00	49.30
	1764.49	103	15.30	9.690E-01	2.105E+00	2.105E+00	25.87
AC-228	338.32	323	11.27	3.898E+00	2.233E+00	2.233E+00	47.20
	911.20	377	25.80*	1.710E+00	2.593E+00	2.593E+00	20.01
	968.97	205	15.80	1.610E+00	2.445E+00	2.445E+00	30.94
RA-228	338.32	323	11.27	3.898E+00	2.233E+00	2.233E+00	47.20
	911.20	377	25.80*	1.710E+00	2.593E+00	2.593E+00	20.01
	968.97	205	15.80	1.610E+00	2.445E+00	2.445E+00	30.94

Sample ID : G249331002 Acquisition date : 24-MAR-2010 09:11:28

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	------	10.28	3.926E+00	------ Line Not Found		------
	77.11	503	17.10	4.193E+00	2.131E+00	2.131E+00	19.86
	238.63	1609	43.60*	5.005E+00	2.239E+00	2.239E+00	12.33
	300.09	162	3.30	4.248E+00	3.501E+00	3.501E+00	73.17
TH-230	609.32	590	45.49*	2.472E+00	1.592E+00	1.592E+00	14.79
	1120.29	107	14.92	1.396E+00	1.563E+00	1.563E+00	48.84
	1764.49	103	15.30	9.690E-01	2.105E+00	2.105E+00	25.87
TH-232	338.32	323	11.27	3.898E+00	2.233E+00	2.233E+00	23.69
	911.20	377	25.80*	1.710E+00	2.593E+00	2.593E+00	20.01
	968.97	205	15.80	1.610E+00	2.445E+00	2.445E+00	30.94
U-235	89.96	105	3.47	5.523E+00	1.671E+00	1.671E+00	69.12
	93.35	172	5.60	5.756E+00	1.623E+00	1.623E+00	56.00
	143.76	------	10.96*	6.601E+00	------ Line Not Found		------
	163.33	------	5.08	6.296E+00	------ Line Not Found		------
	185.72	275	57.20	5.881E+00	2.485E-01	2.485E-01	35.77
	205.31	------	5.01	5.536E+00	------ Line Not Found		------
NP-237	86.48	246	12.40*	5.281E+00	1.139E+00	1.139E+00	40.24
	95.86	------	2.68	5.952E+00	------ Line Not Found		------
ANH-511	511.00	193	100.00*	2.858E+00	2.050E-01	2.050E-01	35.33

Flag: "*" = Keyline

Sample ID : G249331002 Acquisition date : 24-MAR-2010 09:11:28

Total number of lines in spectrum 32
Number of unidentified lines 3
Number of lines tentatively identified by NID 29 90.63%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.568E+01	3.568E+01	0.396E+01	11.09	
CD-109	461.40D	1.02	3.817E+00	3.891E+00	1.336E+00	34.34	
SN-126	2.30E+05Y	1.00	3.817E-01	3.817E-01	1.311E-01	34.34	
TL-208	1.41E+10Y	1.00	6.294E-01	6.294E-01	1.043E-01	16.57	
BI-211	7.04E+08Y	1.00	4.911E+00	4.911E+00	0.683E+00	13.91	
PB-212	1.41E+10Y	1.00	2.239E+00	2.239E+00	0.276E+00	12.33	
BI-214	1600.00Y	1.00	1.592E+00	1.592E+00	0.250E+00	15.70	
PB-214	1600.00Y	1.00	1.782E+00	1.782E+00	0.267E+00	14.96	
RA-224	1.41E+10Y	1.00	4.574E+00	4.574E+00	1.440E+00	31.48	
RA-226	1600.00Y	1.00	1.592E+00	1.592E+00	0.250E+00	15.70	
AC-228	1.41E+10Y	1.00	2.593E+00	2.593E+00	0.519E+00	20.01	
RA-228	1.41E+10Y	1.00	2.593E+00	2.593E+00	0.519E+00	20.01	
TH-228	1.41E+10Y	1.00	2.239E+00	2.239E+00	0.276E+00	12.33	
TH-230	7.54E+04Y	1.00	1.592E+00	1.592E+00	0.235E+00	14.79	
TH-232	1.41E+10Y	1.00	2.593E+00	2.593E+00	0.519E+00	20.01	
U-235	7.04E+08Y	1.00	2.485E-01	2.485E-01	0.889E-01	35.77	K
NP-237	2.14E+06Y	1.00	1.139E+00	1.139E+00	0.458E+00	40.24	
ANH-511	1.00E+09Y	1.00	2.050E-01	2.050E-01	0.724E-01	35.33	
	Total Activity :		7.040E+01	7.047E+01			

Grand Total Activity : 7.040E+01 7.047E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249331002 Acquisition date : 24-MAR-2010 09:11:28

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.81	103	423	1.29	257.66	254	8	1.43E-02	71.9	6.72E+00	
0	209.83	186	504	1.46	419.58	412	14	2.58E-02	53.5	5.46E+00	T
0	270.44	106	214	1.40	540.70	537	9	1.48E-02	53.0	4.58E+00	T
0	327.97	78	186	1.13	655.68	652	9	1.08E-02	67.5	3.99E+00	T
0	463.25	65	146	1.38	926.06	921	10	9.05E-03	73.9	3.08E+00	T
0	727.84	120	79	1.39	1455.01	1449	14	1.67E-02	36.5	2.12E+00	T
0	769.00	51	147	1.18	1537.31	1532	15	7.02E-03	****	2.01E+00	
0	795.89	41	78	1.53	1591.07	1584	11	5.71E-03	89.5	1.95E+00	T
3	965.40	84	20	2.33	1930.01	1925	22	1.17E-02	32.8	1.62E+00	T
0	1238.34	89	64	2.15	2475.90	2468	16	1.24E-02	45.4	1.27E+00	T
0	1731.30	15	18	1.48	3462.13	3457	9	2.08E-03	****	9.79E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:12:11.06

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*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331002.CNF;2    *
* Acquisition date : 24-MAR-2010 09:11:28  Detector SN#    :                  *
* Detector ID      : GAM10                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:01.22         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 11-MAR-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G249331002            Analyst initials: MXR1             *
* Batch Number     : 965250                Sample Quantity : 1.23630E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 13-MAR-2010 14:58:23.9MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.568E+01	3.955E+00	6.025E-01	5.738E-02	59.213
CD-109	3.891E+00	1.336E+00	1.420E+00	1.605E-01	2.741
SN-126	3.817E-01	1.311E-01	1.402E-01	1.580E-02	2.722
TL-208	6.294E-01	1.043E-01	6.804E-02	6.132E-03	9.251
BI-211	4.911E+00	6.831E-01	3.806E-01	3.577E-02	12.905
PB-212	2.239E+00	2.760E-01	1.015E-01	1.093E-02	22.069
BI-214	1.592E+00	2.499E-01	1.219E-01	1.200E-02	13.054
PB-214	1.782E+00	2.667E-01	1.299E-01	1.414E-02	13.722
RA-224	4.574E+00	1.440E+00	1.087E+00	1.061E-01	4.207
RA-226	1.592E+00	2.499E-01	1.219E-01	1.200E-02	13.054
AC-228	2.593E+00	5.189E-01	2.657E-01	3.297E-02	9.761
RA-228	2.593E+00	5.189E-01	2.657E-01	3.297E-02	9.761
TH-228	2.239E+00	2.760E-01	1.015E-01	1.093E-02	22.069
TH-230	1.592E+00	2.354E-01	1.219E-01	1.013E-02	13.054
TH-232	2.593E+00	5.189E-01	2.657E-01	3.297E-02	9.761
U-235	2.485E-01	8.889E-02	3.703E-01	6.343E-02	0.671
NP-237	1.139E+00	4.582E-01	4.865E-01	1.155E-01	2.341
ANH-511	2.050E-01	7.243E-02	4.927E-02	4.182E-03	4.160

Sample ID : G249331002 Acquisition date : 24-MAR-2010 09:11:28

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.074E-01		3.464E-01	5.508E-01	5.036E-02	0.195
NA-22	1.371E-03		5.084E-02	8.478E-02	7.504E-03	0.016
NA-24	-1.408E-02		3.419E-02	Half-Life too short		
SC-46	1.031E-02		4.100E-02	6.861E-02	6.631E-03	0.150
V-48	-1.656E-02		7.366E-02	1.169E-01	1.104E-02	-0.142
CR-51	3.156E-02		3.844E-01	6.394E-01	6.272E-02	0.049
MN-54	-2.877E-02		4.171E-02	6.444E-02	5.996E-03	-0.447
CO-56	5.489E-03		4.340E-02	7.199E-02	6.756E-03	0.076
CO-57	1.245E-02		2.736E-02	4.515E-02	4.033E-03	0.276
CO-58	-1.926E-05		4.503E-02	7.413E-02	6.790E-03	0.000
FE-59	-2.190E-02		1.159E-01	1.832E-01	1.729E-02	-0.120
CO-60	2.426E-02		4.545E-02	7.955E-02	7.358E-03	0.305
ZN-65	-1.251E-01		1.273E-01	1.517E-01	1.310E-02	-0.824
SE-75	4.226E-02		4.938E-02	8.313E-02	8.137E-03	0.508
SR-85	5.473E-02		5.062E-02	7.717E-02	6.550E-03	0.709
Y-88	-3.052E-02		3.639E-02	4.730E-02	3.946E-03	-0.645
Y-91	1.073E+01		2.725E+01	4.678E+01	3.901E+00	0.229
NB-94	1.523E-02		3.628E-02	6.213E-02	5.198E-03	0.245
NB-95	2.653E-02		5.209E-02	7.862E-02	6.938E-03	0.337
NB-95M	1.057E-01		1.478E-01	2.273E-01	2.473E-02	0.465
ZR-95	5.841E-02		7.810E-02	1.363E-01	1.315E-02	0.429
MO-99	-2.364E+00		7.543E+00	1.217E+01	1.918E+00	-0.194
TC-99M	-7.508E+07		4.616E+07	Half-Life too short		
RU-103	-4.881E-02		4.260E-02	6.165E-02	8.558E-03	-0.792
RH-106	1.005E-01		3.474E-01	5.936E-01	7.730E-02	0.169
RU-106	1.005E-01		3.472E-01	5.936E-01	4.901E-02	0.169
AG-108M	-3.027E-03		3.098E-02	5.001E-02	4.332E-03	-0.061
AG-110M	-8.507E-03		3.779E-02	6.210E-02	5.189E-03	-0.137
SN-113	1.871E-02		4.840E-02	8.098E-02	6.875E-03	0.231
CD-115	-3.594E+00		6.362E+00	9.739E+00	8.261E-01	-0.369
SN-117M	1.738E-02		5.510E-02	8.930E-02	8.203E-03	0.195
TE-123M	2.090E-02		3.130E-02	5.141E-02	4.752E-03	0.407
SB-124	3.312E-02		7.604E-02	1.341E-01	1.240E-02	0.247
SB-125	3.566E-02		9.492E-02	1.583E-01	1.349E-02	0.225
TE-125M	3.763E+00		1.008E+01	1.665E+01	1.829E+00	0.226
I-126	9.646E-02		2.107E-01	3.628E-01	2.937E-02	0.266
SB-126	1.802E-02		1.638E-01	2.497E-01	2.122E-02	0.072
SB-127	-5.322E-01		9.743E-01	1.554E+00	1.623E-01	-0.343
I-131	-3.584E-02		9.955E-02	1.598E-01	1.470E-02	-0.224
TE-132	2.522E-01		4.907E-01	8.372E-01	1.344E-01	0.301
BA-133	-4.884E-02		5.158E-02	6.791E-02	8.924E-03	-0.719
I-133	-6.516E-05		5.326E-04	Half-Life too short		
CS-134	8.426E-02	+	7.584E-02	9.891E-02	8.997E-03	0.852
CS-135	-6.676E-02		1.967E-01	2.834E-01	3.104E-02	-0.236
I-135	-9.798E+06		1.431E+07	Half-Life too short		
CS-136	-9.403E-02		1.143E-01	1.690E-01	1.596E-02	-0.556
BA-137M	-2.926E-03		3.834E-02	6.368E-02	5.132E-03	-0.046
CS-137	-3.091E-03		4.050E-02	6.727E-02	5.434E-03	-0.046

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-139	-1.861E-02		3.271E-02	5.080E-02	4.741E-03	-0.366
BA-140	-8.960E-02		2.486E-01	3.833E-01	1.298E-01	-0.234
LA-140	8.793E-02		1.051E-01	1.880E-01	1.717E-02	0.468
CE-141	-7.659E-04		6.759E-02	1.068E-01	9.751E-03	-0.007
CE-143	2.211E-04		3.725E-05	Half-Life too short		
CE-144	-3.240E-01		2.410E-01	3.383E-01	5.221E-02	-0.958
PM-144	-1.871E-02		3.696E-02	5.913E-02	4.921E-03	-0.316
PR-144	-1.403E+00		2.763E+00	4.419E+00	3.677E-01	-0.318
PM-146	3.899E-02		4.696E-02	7.998E-02	8.345E-03	0.487
ND-147	2.015E-01		5.054E-01	8.350E-01	1.242E-01	0.241
PM-149	2.309E+01		4.569E+01	7.792E+01	1.258E+01	0.296
EU-152	-1.496E-02		1.124E-01	1.701E-01	1.627E-02	-0.088
GD-153	-1.344E-01		1.017E-01	1.478E-01	1.480E-02	-0.909
EU-154	4.218E-03		1.442E-01	2.406E-01	2.778E-02	0.018
EU-155	2.484E-01		1.211E-01	2.090E-01	1.989E-02	1.188
TB-160	-1.483E-01		1.586E-01	2.362E-01	2.268E-02	-0.628
HO-166M	-5.101E-04		7.359E-02	1.222E-01	1.031E-02	-0.004
TA-182	-2.781E-02		2.430E-01	4.022E-01	3.402E-02	-0.069
IR-192	-1.576E-02		3.646E-02	5.895E-02	5.570E-03	-0.267
HG-203	6.249E-02		4.575E-02	7.248E-02	7.177E-03	0.862
BI-207	5.052E-02		6.563E-02	1.128E-01	1.015E-02	0.448
PB-210	8.654E-01		9.110E+00	1.536E+01	1.529E+00	0.056
PB-211	-2.326E-01		7.978E-01	1.266E+00	6.119E-01	-0.184
BI-212	2.584E+00	+	9.965E-01	1.304E+00	1.618E-01	1.982
RN-219	3.481E-01		4.164E-01	7.119E-01	1.044E-01	0.489
RA-223	-2.450E-01		8.130E-01	1.154E+00	2.044E-01	-0.212
AC-227	-5.988E-02		2.769E-01	4.597E-01	5.926E-02	-0.130
TH-227	-5.988E-02		2.769E-01	4.597E-01	6.599E-02	-0.130
TH-229	-3.214E-01		6.047E-01	9.323E-01	8.879E-02	-0.345
PA-231	-6.063E-01		1.488E+00	2.424E+00	3.693E-01	-0.250
TH-231	-2.450E-01		8.130E-01	1.154E+00	2.044E-01	-0.212
PA-233	3.006E-02		6.756E-02	1.146E-01	1.112E-02	0.262
PA-234	3.591E-02		3.261E-01	5.362E-01	1.031E-01	0.067
PA-234M	7.578E+00		5.535E+00	9.912E+00	1.052E+00	0.765
TH-234	3.896E-01		2.105E+00	3.508E+00	6.645E-01	0.111
U-238	3.896E-01		2.105E+00	3.508E+00	6.645E-01	0.111
NP-239	1.511E-01		4.484E-01	7.374E-01	6.633E-02	0.205
AM-241	-1.455E-01		2.492E-01	4.059E-01	4.065E-02	-0.358
CM-247	1.010E-02		3.964E-02	6.577E-02	5.433E-03	0.154
CF-249	5.094E-02		4.414E-02	7.680E-02	6.365E-03	0.663
CF-251	-5.775E-02		1.413E-01	2.203E-01	2.072E-02	-0.262

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249331002            *
* Acquisition date : 24-MAR-2010 09:11:28 Detector SN#    :                 *
* Detector ID      : GAM10                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.22     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249331002           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.2363E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 13-MAR-2010 14:58:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.568E+01	3.876E+00	3.010E-01	1.978E+00
CD-109	3.891E+00	1.310E+00	7.363E-01	6.682E-01
SN-126	3.817E-01	1.284E-01	7.273E-02	6.553E-02
TL-208	6.294E-01	1.022E-01	3.442E-02	5.214E-02
BI-211	4.911E+00	6.694E-01	1.938E-01	3.415E-01
PB-212	2.239E+00	2.705E-01	5.194E-02	1.380E-01
BI-214	1.592E+00	2.449E-01	6.165E-02	1.250E-01
PB-214	1.782E+00	2.614E-01	6.616E-02	1.333E-01
RA-224	4.574E+00	1.411E+00	5.567E-01	7.200E-01
RA-226	1.592E+00	2.449E-01	6.165E-02	1.250E-01
AC-228	2.593E+00	5.085E-01	1.336E-01	2.594E-01
RA-228	2.593E+00	5.085E-01	1.336E-01	2.594E-01
TH-228	2.239E+00	2.705E-01	5.194E-02	1.380E-01
TH-230	1.592E+00	2.307E-01	6.165E-02	1.177E-01
TH-232	2.593E+00	5.085E-01	1.336E-01	2.594E-01
U-235	1.691E-01	2.243E-01	1.909E-01	1.145E-01
NP-237	1.139E+00	4.491E-01	2.523E-01	2.291E-01
ANH-511	2.050E-01	7.098E-02	2.497E-02	3.622E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.074E-01	3.394E-01	2.794E-01	1.732E-01	NOT IDENT.
NA-22	1.371E-03	4.982E-02	4.244E-02	2.542E-02	NOT IDENT.
NA-24	-1.408E+04	6.702E+04	0.000E+00	3.419E+04	SHORT HLIF
SC-46	1.031E-02	4.018E-02	3.452E-02	2.050E-02	FAIL ABUN
V-48	-1.656E-02	7.219E-02	5.871E-02	3.683E-02	NOT IDENT.
CR-51	3.156E-02	3.767E-01	3.261E-01	1.922E-01	NOT IDENT.
MN-54	-2.877E-02	4.088E-02	3.245E-02	2.086E-02	NOT IDENT.
CO-56	5.489E-03	4.254E-02	3.624E-02	2.170E-02	FAIL ABUN
CO-57	1.245E-02	2.682E-02	2.332E-02	1.368E-02	NOT IDENT.

CO-58	-1.926E-05	4.413E-02	3.734E-02	2.252E-02	NOT IDENT.
FE-59	-2.190E-02	1.136E-01	9.189E-02	5.795E-02	NOT IDENT.
CO-60	2.426E-02	4.454E-02	3.979E-02	2.273E-02	NOT IDENT.
ZN-65	-1.251E-01	1.248E-01	7.608E-02	6.366E-02	NOT IDENT.
SE-75	4.226E-02	4.839E-02	4.250E-02	2.469E-02	NOT IDENT.
SR-85	5.473E-02	4.960E-02	3.911E-02	2.531E-02	NOT IDENT.
Y-88	-3.052E-02	3.567E-02	2.356E-02	1.820E-02	NOT IDENT.
Y-91	1.073E+01	2.670E+01	2.343E+01	1.362E+01	NOT IDENT.
NB-94	1.523E-02	3.555E-02	3.136E-02	1.814E-02	NOT IDENT.
NB-95	2.653E-02	5.105E-02	3.963E-02	2.604E-02	NOT IDENT.
NB-95M	1.057E-01	1.448E-01	1.164E-01	7.388E-02	NOT IDENT.
ZR-95	5.841E-02	7.654E-02	6.871E-02	3.905E-02	NOT IDENT.
MO-99	-2.364E+00	7.392E+00	6.135E+00	3.771E+00	NOT IDENT.
TC-99M	-7.508E+13	9.048E+13	0.000E+00	4.616E+13	SHORT HLIF
RU-103	-4.881E-02	4.175E-02	3.125E-02	2.130E-02	FAIL ABUN
RH-106	1.005E-01	3.404E-01	3.001E-01	1.737E-01	NOT IDENT.
RU-106	1.005E-01	3.403E-01	3.001E-01	1.736E-01	NOT IDENT.
AG-108M	-3.027E-03	3.036E-02	2.540E-02	1.549E-02	NOT IDENT.
AG-110M	-8.507E-03	3.703E-02	3.137E-02	1.889E-02	NOT IDENT.
SN-113	1.871E-02	4.743E-02	4.119E-02	2.420E-02	NOT IDENT.
CD-115	-3.594E+00	6.235E+00	4.934E+00	3.181E+00	NOT IDENT.
SN-117M	1.738E-02	5.400E-02	4.596E-02	2.755E-02	NOT IDENT.
TE-123M	2.090E-02	3.067E-02	2.646E-02	1.565E-02	NOT IDENT.
SB-124	3.312E-02	7.452E-02	6.687E-02	3.802E-02	NOT IDENT.
SB-125	3.566E-02	9.302E-02	8.041E-02	4.746E-02	FAIL ABUN
TE-125M	3.763E+00	9.875E+00	8.610E+00	5.038E+00	NOT IDENT.
I-126	9.646E-02	2.064E-01	1.832E-01	1.053E-01	NOT IDENT.
SB-126	1.802E-02	1.605E-01	1.259E-01	8.189E-02	NOT IDENT.
SB-127	-5.322E-01	9.548E-01	7.844E-01	4.872E-01	NOT IDENT.
I-131	-3.584E-02	9.756E-02	8.136E-02	4.977E-02	NOT IDENT.
TE-132	2.522E-01	4.809E-01	4.288E-01	2.454E-01	NOT IDENT.
BA-133	-4.884E-02	5.054E-02	3.459E-02	2.579E-02	FAIL ABUN
I-133	-6.516E+01	1.044E+03	0.000E+00	5.326E+02	SHORT HLIF
CS-134	8.426E-02	7.432E-02	4.983E-02	3.792E-02	FAIL ABUN
CS-135	-6.676E-02	1.928E-01	1.449E-01	9.836E-02	NOT IDENT.
I-135	-9.798E+12	2.805E+13	0.000E+00	1.431E+13	SHORT HLIF
CS-136	-9.403E-02	1.121E-01	8.482E-02	5.717E-02	NOT IDENT.
BA-137M	-2.926E-03	3.757E-02	3.216E-02	1.917E-02	NOT IDENT.
CS-137	-3.091E-03	3.969E-02	3.398E-02	2.025E-02	NOT IDENT.
CE-139	-1.861E-02	3.206E-02	2.613E-02	1.636E-02	NOT IDENT.
BA-140	-8.960E-02	2.436E-01	1.941E-01	1.243E-01	NOT IDENT.
LA-140	8.793E-02	1.030E-01	9.380E-02	5.256E-02	FAIL ABUN
CE-141	-7.659E-04	6.623E-02	5.504E-02	3.379E-02	NOT IDENT.
CE-143	2.211E+02	7.302E+01	0.000E+00	3.725E+01	SHORT HLIF
CE-144	-3.240E-01	2.362E-01	1.745E-01	1.205E-01	NOT IDENT.
PM-144	-1.871E-02	3.622E-02	2.985E-02	1.848E-02	NOT IDENT.
PR-144	-1.403E+00	2.707E+00	2.231E+00	1.381E+00	NOT IDENT.
PM-146	3.899E-02	4.602E-02	4.060E-02	2.348E-02	NOT IDENT.
ND-147	2.015E-01	4.952E-01	4.230E-01	2.527E-01	FAIL ABUN
PM-149	2.309E+01	4.477E+01	3.980E+01	2.284E+01	NOT IDENT.
EU-152	-1.496E-02	1.102E-01	8.667E-02	5.621E-02	FAIL ABUN
GD-153	-1.344E-01	9.968E-02	7.657E-02	5.086E-02	NOT IDENT.
EU-154	4.218E-03	1.413E-01	1.204E-01	7.211E-02	NOT IDENT.
EU-155	2.484E-01	1.187E-01	1.082E-01	6.055E-02	FAIL ABUN
TB-160	-1.483E-01	1.555E-01	1.189E-01	7.931E-02	FAIL ABUN
HO-166M	-5.101E-04	7.212E-02	6.168E-02	3.680E-02	NOT IDENT.
TA-182	-2.781E-02	2.381E-01	2.014E-01	1.215E-01	FAIL ABUN
IR-192	-1.576E-02	3.573E-02	3.007E-02	1.823E-02	FAIL ABUN
HG-203	6.249E-02	4.484E-02	3.703E-02	2.288E-02	NOT IDENT.
BI-207	5.052E-02	6.432E-02	5.658E-02	3.282E-02	NOT IDENT.
PB-210	8.654E-01	8.928E+00	8.033E+00	4.555E+00	NOT IDENT.
PB-211	-2.326E-01	7.819E-01	6.437E-01	3.989E-01	NOT IDENT.
BI-212	2.584E+00	9.766E-01	6.577E-01	4.983E-01	FAIL ABUN
RN-219	3.481E-01	4.081E-01	3.620E-01	2.082E-01	FAIL ABUN
RA-223	-2.450E-01	7.967E-01	5.885E-01	4.065E-01	FAIL ABUN
AC-227	-5.988E-02	2.713E-01	2.351E-01	1.384E-01	FAIL ABUN
TH-227	-5.988E-02	2.714E-01	2.351E-01	1.385E-01	FAIL ABUN
TH-229	-3.214E-01	5.926E-01	4.786E-01	3.023E-01	FAIL ABUN
PA-231	-6.063E-01	1.458E+00	1.238E+00	7.438E-01	FAIL ABUN
TH-231	-2.450E-01	7.967E-01	5.885E-01	4.065E-01	FAIL ABUN
PA-233	3.006E-02	6.621E-02	5.849E-02	3.378E-02	FAIL ABUN
PA-234	3.591E-02	3.196E-01	2.695E-01	1.631E-01	NOT IDENT.
PA-234M	7.578E+00	5.425E+00	4.978E+00	2.768E+00	NOT IDENT.
TH-234	3.896E-01	2.063E+00	1.827E+00	1.052E+00	FAIL ABUN
U-238	3.896E-01	2.063E+00	1.827E+00	1.052E+00	FAIL ABUN
NP-239	1.511E-01	4.394E-01	3.810E-01	2.242E-01	FAIL ABUN
AM-241	-1.455E-01	2.442E-01	2.115E-01	1.246E-01	NOT IDENT.
CM-247	1.010E-02	3.885E-02	3.344E-02	1.982E-02	FAIL ABUN

CF-249	5.094E-02	4.326E-02	3.907E-02	2.207E-02	NOT IDENT.
CF-251	-5.775E-02	1.385E-01	1.132E-01	7.066E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	318.8365
49.72	291.1783
57.36	0.0000
59.54	364.5019
63.29	416.2556
63.29	416.2556
64.28	413.3682
67.75	380.9522
69.67	465.6063
70.83	494.8311
72.81	614.9309
72.87	615.0081
72.87	615.0081
74.82	555.0804
74.82	555.0804
74.82	555.0804
74.97	555.2510
77.11	776.8817
77.11	776.8817
77.11	776.8817
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80.19	359.7187
80.57	380.7236
81.00	459.6217
81.07	459.6832
81.07	459.6832
83.79	429.2842
83.79	429.2842
85.43	397.7154
86.48	500.3604
86.55	500.4267
86.79	491.6522
86.94	491.7898
87.57	384.2813
88.03	384.6055
88.47	384.9141
89.96	461.3369
91.11	386.7539
92.59	377.1703
92.59	377.1703
93.35	344.3067
94.67	317.7383
94.87	333.0564
94.87	333.0564
95.86	380.8556
97.43	387.3828
98.44	357.0389
99.53	298.4235
100.11	294.6226
103.18	382.4992
103.37	390.8487
105.31	285.8127
106.12	308.9171
109.28	296.9828
111.00	329.0236
111.76	337.7554
116.30	357.9678
117.23	318.5254
121.12	316.1515
121.78	311.1682
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123.07	290.5494
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133.52	374.5361
136.00	303.4591

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144.24	304.6369
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154.21	303.0211
156.02	385.7297
158.56	309.1076
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163.33	288.5362
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176.60	285.0994
177.52	285.3981
181.07	284.2588
184.41	249.2232
185.72	301.7929
193.51	306.6650
197.04	288.0694
205.31	324.7648
210.85	266.8605
215.65	230.8484
222.11	218.9097
227.38	257.7377
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228.18	233.6671
235.69	269.3503
235.96	269.4185
235.96	269.4185
238.63	245.9432
238.63	245.9432
240.99	246.4745
242.00	246.7020
244.70	216.0977
252.40	199.3946
252.80	209.5752
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256.23	225.8818
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264.66	188.9232
268.22	235.4840
269.46	217.8273
269.46	217.8273
271.23	222.6342
273.65	205.8673
276.40	208.2131
277.37	219.6428
277.60	215.9303
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279.20	177.4840
279.54	167.0013
280.46	177.6684
283.69	182.0978
284.31	169.9173
285.41	154.0063
285.90	154.0685
287.50	172.2468
293.27	0.0000
295.22	176.7386
295.96	167.6936
298.57	168.0374
299.98	177.3984
299.98	177.3984
300.09	177.4126
300.09	177.4126
300.13	177.4183
301.36	177.5882
302.85	173.1940
304.50	201.0383
304.50	201.0383
304.85	201.0927
308.46	179.9065
311.90	151.4397

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320.08	170.8115
323.87	185.3041
323.87	185.3041
328.76	170.3418
333.37	175.0926
334.37	175.7410
334.37	175.7410
338.28	179.9703
338.28	179.9703
338.32	179.9759
338.32	179.9759
338.32	179.9759
340.48	152.8697
340.55	152.8792
344.28	156.7056
351.06	174.6492
351.93	153.9026
356.01	162.5002
364.49	136.2013
366.42	132.3666
383.85	137.9548
388.16	121.0482
388.63	130.2422
391.69	132.5371
400.66	119.9618
401.81	104.6583
402.40	124.1997
404.85	143.9221
410.95	157.8816
414.70	132.3887
423.72	133.1152
427.09	112.5434
427.87	106.3408
433.94	110.9105
453.88	105.8517
463.37	107.2753
468.07	99.0220
473.00	104.8577
476.78	96.4984
477.60	95.4697
487.02	103.5088
492.35	94.0757
497.08	119.2467
511.00	99.3778
514.00	126.0026
527.90	105.7559
529.87	0.0000
531.02	79.4421
537.26	90.7610
546.56	0.0000
563.25	89.6899
569.33	115.8153
569.50	115.8247
569.70	115.8341
583.19	110.4702
600.60	89.4609
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609.32	94.4024
609.32	94.4024
610.33	94.4452
614.28	96.4534
618.01	104.6661
621.93	90.3318
621.93	90.3318
633.25	100.0529
635.95	90.8988
636.99	97.4352
645.85	82.9095
657.76	91.7649
661.66	89.1042
661.66	89.1042
664.57	0.0000
666.33	81.7622
666.50	79.8888

677.62	82.1530
685.70	91.9061
695.00	84.6521
696.49	93.2675
696.51	93.2699
697.00	98.0487
702.65	81.1007
706.68	99.3916
711.68	102.4650
720.70	93.3648
721.93	0.0000
722.78	84.9669
722.91	84.9712
723.31	86.5898
724.19	91.4305
727.33	93.4738
733.00	82.0927
735.93	67.6843
739.50	77.4629
747.24	84.4937
752.31	82.7152
753.82	82.7629
756.73	68.2346
763.94	63.5353
765.81	79.8842
766.42	91.3167
777.92	85.9833
778.90	76.6765
783.70	73.8593
785.37	78.8320
795.86	57.7067
801.95	75.6003
810.29	76.5770
810.76	77.5849
815.77	59.7891
818.51	60.8466
832.01	76.1763
834.85	85.2843
836.80	0.0000
846.77	66.4995
856.80	67.4072
860.56	69.1842
871.09	70.0006
873.19	48.8098
875.33	0.0000
879.36	77.4454
880.51	65.2422
883.24	51.0181
884.68	59.2093
889.28	53.1680
898.04	55.3750
911.20	69.0087
911.20	69.0087
911.20	69.0087
926.50	62.1108
937.49	75.8391
944.13	61.4271
946.00	54.1722
949.00	67.7803
962.29	52.3596
964.08	71.5999
966.15	66.0546
968.97	66.1131
968.97	66.1131
968.97	66.1131
983.53	61.1450
996.26	70.9127
1001.03	51.9381
1004.73	63.6694
1037.84	68.5969
1038.76	0.0000
1048.07	70.9564
1050.41	58.0948
1050.41	58.0948
1063.66	58.3242
1085.87	66.3107
1099.45	77.4794
1112.07	52.5680

1115.54	82.2180
1120.29	62.2033
1120.29	62.2033
1120.29	62.2033
1120.55	65.8682
1121.30	65.8828
1131.51	0.0000
1173.23	53.8369
1177.93	54.8348
1189.05	63.3875
1204.77	82.3747
1221.41	86.4971
1231.02	80.7896
1235.36	63.0866
1238.28	77.4322
1260.41	0.0000
1271.85	59.0509
1274.44	53.3727
1274.54	53.3727
1291.59	49.7741
1298.22	0.0000
1312.11	50.0280
1332.49	34.8076
1365.19	31.1849
1368.63	0.0000
1384.29	52.8640
1408.01	38.3922
1457.56	0.0000
1460.82	24.9105
1489.16	16.0436
1505.03	34.2131
1596.21	27.7064
1620.50	22.6902
1678.03	0.0000
1690.97	10.4626
1764.49	9.5530
1764.49	9.5530
1764.49	9.5530
1770.23	7.2866
1771.35	10.9323
1791.20	0.0000
1836.06	17.2155

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249331002

Total Uranium Activity	1.2375E+00	ug/g
Total Uranium Counting Unc.	6.1371E+00	ug/g
Total Uranium Tpu	3.1312E-06	ug/g
Total Uranium Mda	5.4357E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID   : G249331002      *
*   ANALYST       : MXR1                      DETECTOR    : GAM10           *
*   SAMPLE DATE   : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 09:11:28.73    SAMPLE ALQT:  123.630 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.143E+01
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.641E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 4.071E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 1.982E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:12:49.15

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331003.CNF;2
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:11:53
Sample ID         : G249331003           Sample quantity  : 1.33140E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.01  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 965250                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.06*	141	598	1.24	124.99	122	8	1.96E-02	31.7	
2	4	74.83	524	527	0.89	148.55	145	19	7.27E-02	7.6	1.20E+00
3	4	77.12*	878	423	0.82	153.13	145	19	1.22E-01	5.0	
4	5	87.20	436	412	1.24	173.31	163	30	6.06E-02	9.0	1.45E+00
5	5	90.00	311	450	1.28	178.92	163	30	4.32E-02	13.3	
6	5	92.91*	337	428	1.30	184.74	163	30	4.68E-02	12.9	
7	0	128.82	104	522	0.82	256.62	252	10	1.45E-02	42.1	
8	0	185.80*	309	365	1.04	370.66	365	10	4.29E-02	13.3	
9	0	208.95	210	396	0.98	416.99	412	11	2.92E-02	19.6	
10	6	238.68*	1699	179	1.00	476.51	470	22	2.36E-01	2.8	2.87E+00
11	6	241.63	393	286	1.69	482.41	470	22	5.46E-02	12.1	
12	0	270.23	144	226	1.66	539.65	536	9	2.00E-02	20.6	
13	0	295.35*	493	260	1.14	589.93	585	11	6.84E-02	7.8	
14	0	300.27	102	236	0.99	599.76	596	10	1.42E-02	29.7	
15	0	328.32	84	177	1.07	655.91	652	9	1.16E-02	30.9	
16	0	338.31*	298	198	1.17	675.90	671	10	4.14E-02	10.7	
17	0	352.01*	883	224	1.17	703.32	696	14	1.23E-01	5.0	
18	0	463.54	120	137	1.35	926.52	921	12	1.67E-02	21.7	
19	0	511.24*	172	174	1.40	1021.97	1014	16	2.39E-02	20.8	
20	0	583.41*	554	116	1.32	1166.41	1159	15	7.70E-02	6.1	
21	0	609.57*	549	157	1.37	1218.75	1213	14	7.62E-02	6.5	
22	0	662.44	129	113	1.12	1324.54	1319	12	1.79E-02	18.8	
23	0	728.14*	85	143	1.54	1456.01	1448	16	1.18E-02	33.4	
24	0	769.02	51	62	1.54	1537.81	1533	8	7.05E-03	30.6	
25	0	795.65	48	43	1.07	1591.12	1586	9	6.72E-03	28.3	
26	0	861.35	58	67	1.50	1722.57	1715	13	8.05E-03	32.1	
27	0	911.74*	335	82	1.58	1823.40	1817	15	4.66E-02	8.1	
28	1	965.18	55	64	1.73	1930.32	1923	32	7.69E-03	28.2	1.26E+00
29	1	969.43*	221	46	1.73	1938.82	1923	32	3.07E-02	9.1	
30	0	1120.89	142	57	1.46	2241.87	2237	12	1.98E-02	13.3	
31	0	1239.06	50	78	1.73	2478.28	2472	12	6.89E-03	38.3	
32	0	1461.60*	1662	31	1.77	2923.49	2914	18	2.31E-01	2.6	
33	0	1632.00	13	7	1.24	3264.35	3260	8	1.74E-03	47.8	
34	0	1765.51*	115	0	2.27	3531.41	3525	14	1.59E-02	9.7	
35	0	1848.68	21	9	1.00	3697.77	3691	12	2.93E-03	35.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 11:12:51

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331003.CNF;2
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:11:53
Sample ID         : G249331003           Sample quantity  : 133.14 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA11              Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.01   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.589E+01	3.615E+00	4.702E-01	4.066E-02	76.323
CD-109	+	88.03	*	4.993E+00	1.014E+00	8.668E-01	8.220E-02	5.760
SN-126	+	64.28		9.783E-01	6.363E-01	6.105E-01	8.855E-02	1.603
	+	86.94		2.036E+00	9.213E-01	3.562E-01	1.479E-01	5.715
	+	87.57	*	4.897E-01	9.942E-02	8.529E-02	8.045E-03	5.741
BA-137M	+	661.66	*	1.681E-01	6.515E-02	5.440E-02	5.148E-03	3.090
CS-137	+	661.66	*	1.776E-01	6.884E-02	5.747E-02	5.447E-03	3.090
TL-208		277.37		6.736E-01	3.872E-01	6.451E-01	1.152E-01	1.044
	+	583.19	*	6.912E-01	1.122E-01	5.282E-02	5.699E-03	13.087
	+	860.56		6.792E-01	4.421E-01	4.251E-01	4.426E-02	1.598
BI-211		72.87		2.258E+00	2.870E+00	4.299E+00	3.415E-01	0.525
	+	351.06	*	4.913E+00	8.092E-01	2.776E-01	3.663E-02	17.694
PB-212	+	74.82		2.479E+00	4.901E-01	4.655E-01	5.894E-02	5.326
	+	77.11		2.404E+00	3.124E-01	2.699E-01	2.243E-02	8.906
	+	238.63	*	2.109E+00	3.183E-01	8.152E-02	1.144E-02	25.867
	+	300.09		1.981E+00	1.221E+00	1.100E+00	1.771E-01	1.801
BI-214	+	609.32	*	1.325E+00	2.294E-01	1.042E-01	1.182E-02	12.715
	+	1120.29		1.758E+00	5.065E-01	4.377E-01	4.748E-02	4.017
	+	1764.49		1.974E+00	4.168E-01	2.542E-01	2.094E-02	7.767
PB-214	+	74.82		4.395E+00	8.326E-01	8.251E-01	9.357E-02	5.326
	+	77.11		4.237E+00	6.522E-01	4.758E-01	5.570E-02	8.906
	+	242.00		2.962E+00	8.388E-01	4.960E-01	7.263E-02	5.971
	+	295.22		1.689E+00	3.835E-01	2.117E-01	3.473E-02	7.981
	+	351.93	*	1.783E+00	3.097E-01	1.010E-01	1.440E-02	17.655
RA-224	+	240.99	*	5.237E+00	1.452E+00	8.741E-01	1.171E-01	5.992
RA-226	+	609.32	*	1.325E+00	2.294E-01	1.042E-01	1.182E-02	12.715
	+	1120.29		1.758E+00	5.065E-01	4.377E-01	4.748E-02	4.017
	+	1764.49		1.974E+00	4.168E-01	2.542E-01	2.094E-02	7.767
AC-228	+	338.32		1.848E+00	8.870E-01	3.587E-01	1.542E-01	5.152
	+	911.20	*	2.000E+00	4.081E-01	2.085E-01	2.605E-02	9.594
	+	968.97		2.273E+00	6.965E-01	3.600E-01	8.895E-02	6.315
RA-228	+	338.32		1.848E+00	8.870E-01	3.587E-01	1.542E-01	5.152
	+	911.20	*	2.000E+00	4.081E-01	2.085E-01	2.605E-02	9.594
	+	968.97		2.273E+00	6.965E-01	3.600E-01	8.895E-02	6.315

Sample ID : G249331003 Acquisition date : 24-MAR-2010 09:11:53

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	74.82		2.479E+00	4.276E-01	4.655E-01	3.812E-02	5.326
	+	77.11		2.404E+00	3.124E-01	2.699E-01	2.243E-02	8.906
	+	238.63	*	2.109E+00	3.183E-01	8.152E-02	1.144E-02	25.867
	+	300.09		1.981E+00	1.708E+00	1.100E+00	6.866E-01	1.801
TH-230	+	609.32	*	1.325E+00	2.185E-01	1.042E-01	1.046E-02	12.715
	+	1120.29		1.758E+00	4.926E-01	4.377E-01	3.734E-02	4.017
	+	1764.49		1.974E+00	4.168E-01	2.542E-01	2.094E-02	7.767
TH-232	+	338.32		1.848E+00	4.667E-01	3.587E-01	4.837E-02	5.152
	+	911.20	*	2.000E+00	4.081E-01	2.085E-01	2.605E-02	9.594
	+	968.97		2.273E+00	6.965E-01	3.600E-01	8.895E-02	6.315
TH-234	+	63.29	*	2.538E+00	1.672E+00	1.570E+00	2.793E-01	1.616
	+	92.59		3.177E+00	1.083E+00	7.246E-01	1.615E-01	4.384
U-235	+	89.96		3.644E+00	1.327E+00	8.955E-01	2.227E-01	4.069
	+	93.35		2.400E+00	8.343E-01	5.455E-01	1.270E-01	4.399
		143.76	*	1.479E-01	1.866E-01	3.174E-01	5.437E-02	0.466
		163.33		-4.629E-01	3.883E-01	5.964E-01	1.101E-01	-0.776
	+	185.72		2.471E-01	7.074E-02	5.949E-02	6.309E-03	4.154
		205.31		-6.650E-02	4.848E-01	7.006E-01	1.381E-01	-0.095
NP-237	+	86.48	*	1.461E+00	4.264E-01	2.565E-01	5.885E-02	5.695
		95.86		3.827E-01	7.969E-01	1.162E+00	2.801E-01	0.329
U-238	+	63.29	*	2.538E+00	1.672E+00	1.570E+00	2.793E-01	1.616
	+	92.59		3.177E+00	8.698E-01	7.246E-01	6.625E-02	4.384
ANH-511	+	511.00	*	1.642E-01	7.054E-02	4.239E-02	4.533E-03	3.874

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-2.965E-01	2.727E-01	4.149E-01	4.695E-02	-0.715
NA-22		1274.54	*	-1.565E-02	3.866E-02	5.990E-02	4.919E-03	-0.261
NA-24		1368.63	*	-8.121E-03	3.866E-02	Half-Life too short		
SC-46		889.28	*	-1.002E-02	3.498E-02	5.717E-02	5.631E-03	-0.175
	+	1120.55		2.920E-01	8.179E-02	1.294E-01	1.103E-02	2.256
V-48		944.13		-4.031E-01	8.026E-01	1.281E+00	1.240E-01	-0.315
		983.53	*	1.422E-02	5.968E-02	1.014E-01	9.620E-03	0.140
		1312.11		-3.666E-02	6.228E-02	9.299E-02	7.667E-03	-0.394
CR-51		320.08	*	4.485E-02	3.333E-01	5.373E-01	7.796E-02	0.083
MN-54		834.85	*	-2.618E-03	3.325E-02	5.572E-02	5.487E-03	-0.047
CO-56		846.77	*	-1.336E-02	3.720E-02	6.083E-02	5.993E-03	-0.220
		1037.84		-1.398E-01	2.895E-01	4.572E-01	4.384E-02	-0.306
	+	1238.28		1.673E-01	1.291E-01	1.680E-01	1.414E-02	0.996
		1771.35		3.227E-02	2.057E-01	3.059E-01	2.517E-02	0.105
CO-57		122.06	*	1.061E-02	1.985E-02	3.440E-02	2.910E-03	0.308
		136.47		1.353E-01	1.665E-01	2.895E-01	2.717E-02	0.467
CO-58		810.76	*	-3.025E-02	3.906E-02	5.771E-02	5.682E-03	-0.524
FE-59		1099.45	*	-7.003E-02	9.620E-02	1.485E-01	1.396E-02	-0.472
		1291.59		5.125E-02	1.186E-01	2.009E-01	1.896E-02	0.255
CO-60		1173.23		-7.761E-03	4.478E-02	7.225E-02	5.804E-03	-0.107
		1332.49	*	-6.995E-03	3.449E-02	5.433E-02	4.489E-03	-0.129

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZN-65		1115.54	*	4.014E-02	9.543E-02	1.433E-01	1.229E-02	0.280
SE-75		121.12		5.938E-02	1.014E-01	1.761E-01	1.929E-02	0.337
		136.00		2.590E-02	3.224E-02	5.606E-02	4.936E-03	0.462
		264.66	*	-3.049E-02	3.876E-02	5.944E-02	8.738E-03	-0.513
		279.54		-1.464E-01	1.071E-01	1.557E-01	2.439E-02	-0.940
		400.66		-3.467E-02	2.172E-01	3.606E-01	4.604E-02	-0.096
SR-85		514.00	*	6.256E-02	3.797E-02	6.257E-02	6.684E-03	1.000
Y-88		898.04		-1.242E-03	3.804E-02	6.360E-02	6.285E-03	-0.020
		1836.06	*	8.881E-03	3.176E-02	5.490E-02	4.457E-03	0.162
Y-91		1204.77	*	-1.140E+01	2.130E+01	3.317E+01	2.685E+00	-0.344
NB-94		702.65	*	1.053E-02	3.250E-02	5.395E-02	5.181E-03	0.195
		871.09		8.763E-03	3.239E-02	5.563E-02	5.483E-03	0.158
NB-95		765.81	*	1.245E-02	4.168E-02	6.061E-02	5.916E-03	0.205
NB-95M		235.69	*	1.719E-01	1.132E-01	1.780E-01	2.487E-02	0.966
ZR-95		724.19		-5.578E-03	9.374E-02	1.313E-01	1.355E-02	-0.043
		756.73	*	2.074E-02	6.970E-02	1.149E-01	1.212E-02	0.180
MO-99		140.51		-1.595E+00	1.064E+01	1.756E+01	4.187E+00	-0.091
		181.07		-4.391E-01	9.558E+00	1.419E+01	2.791E+00	-0.031
		366.42		-1.181E+00	5.074E+01	8.016E+01	9.712E+00	-0.015
		739.50	*	1.333E+00	6.697E+00	1.098E+01	1.798E+00	0.121
		777.92		-2.039E+01	1.915E+01	2.729E+01	2.670E+00	-0.747
TC-99M		140.51	*	-1.006E+07	1.915E+01	Half-Life too short		
RU-103		497.08	*	-2.132E-03	3.313E-02	5.424E-02	8.333E-03	-0.039
	+	610.33		1.314E+01	2.834E+00	2.841E+00	4.868E-01	4.626
RH-106		621.93	*	8.253E-02	2.876E-01	4.808E-01	6.796E-02	0.172
		1050.41		1.215E+00	2.490E+00	4.292E+00	3.896E-01	0.283
RU-106		621.93	*	8.253E-02	2.874E-01	4.808E-01	4.769E-02	0.172
		1050.41		1.215E+00	2.490E+00	4.292E+00	3.896E-01	0.283
AG-108M		433.94	*	8.483E-04	2.620E-02	4.414E-02	4.857E-03	0.019
		614.28		-3.613E-03	3.387E-02	4.796E-02	4.912E-03	-0.075
		722.91		-4.495E-03	3.997E-02	5.561E-02	5.511E-03	-0.081
AG-110M		657.76	*	-1.854E-02	3.777E-02	5.067E-02	4.937E-03	-0.366
		677.62		7.395E-02	2.756E-01	4.580E-01	4.464E-02	0.161
		706.68		-2.198E-02	1.988E-01	3.187E-01	3.136E-02	-0.069
		763.94		-9.515E-02	1.677E-01	2.172E-01	2.165E-02	-0.438
		884.68		-1.315E-02	4.379E-02	7.146E-02	7.213E-03	-0.184
		937.49		-1.213E-01	1.068E-01	1.593E-01	1.590E-02	-0.762
		1384.29		-1.350E-01	1.541E-01	2.183E-01	1.870E-02	-0.618
		1505.03		-3.714E-01	2.524E-01	3.271E-01	2.753E-02	-1.135
SN-113		391.69	*	-7.888E-03	4.015E-02	6.718E-02	7.307E-03	-0.117
CD-115		260.90		6.201E-01	6.327E+01	1.012E+02	1.464E+01	0.006
		492.35		1.792E-02	1.588E+01	2.645E+01	2.843E+00	0.001
		527.90	*	1.218E+00	4.921E+00	8.306E+00	8.824E-01	0.147
SN-117M		156.02		-1.633E+00	1.816E+00	2.925E+00	2.738E-01	-0.558
		158.56	*	-1.124E-02	4.337E-02	7.184E-02	6.789E-03	-0.156
TE-123M		159.00	*	1.036E-03	2.458E-02	4.122E-02	3.922E-03	0.025
SB-124		602.73		-7.175E-03	3.882E-02	6.059E-02	6.124E-03	-0.118
		645.85		5.541E-02	4.533E-01	7.463E-01	7.538E-02	0.074
		722.78		-1.538E-03	3.942E-01	5.558E-01	5.469E-02	-0.003

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1690.97	*	2.186E-02	7.274E-02	1.265E-01	1.102E-02	0.173
SB-125		427.87	*	2.744E-02	8.268E-02	1.419E-01	1.546E-02	0.193
	+	463.37		1.018E+00	4.560E-01	5.551E-01	6.283E-02	1.834
		600.60		2.799E-03	1.826E-01	2.997E-01	3.199E-02	0.009
		635.95		2.337E-01	2.396E-01	4.211E-01	4.376E-02	0.555
TE-125M		109.28	*	1.929E+00	7.847E+00	1.323E+01	1.377E+00	0.146
I-126		388.63		-4.275E-02	1.385E-01	2.305E-01	2.500E-02	-0.186
		666.33	*	2.179E-02	2.179E-01	3.133E-01	2.970E-02	0.070
		753.82		-1.488E-01	1.518E+00	2.421E+00	2.358E-01	-0.061
SB-126		414.70		-4.302E-03	5.753E-02	9.655E-02	1.037E-02	-0.045
		666.50		3.302E-03	7.409E-02	1.059E-01	1.004E-02	0.031
		695.00		2.818E-02	7.545E-02	1.188E-01	1.138E-02	0.237
		697.00		-7.709E-02	2.634E-01	3.943E-01	3.780E-02	-0.196
		720.70	*	6.454E-02	1.273E-01	1.999E-01	1.930E-02	0.323
		856.80		1.393E-01	4.233E-01	6.448E-01	6.355E-02	0.216
SB-127		252.40		-1.116E+00	2.632E+00	4.108E+00	1.759E+00	-0.272
		473.00		-1.157E+00	9.861E-01	1.486E+00	2.056E-01	-0.779
		685.70	*	-2.502E-01	8.669E-01	1.372E+00	1.579E-01	-0.182
		783.70		1.197E+00	2.300E+00	3.846E+00	4.872E-01	0.311
I-131		80.19		-5.786E+00	3.474E+00	4.587E+00	3.968E-01	-1.261
		284.31		-2.305E-01	1.091E+00	1.736E+00	2.709E-01	-0.133
		364.49	*	1.819E-02	8.932E-02	1.434E-01	1.798E-02	0.127
		636.99		3.252E-01	1.244E+00	2.037E+00	2.074E-01	0.160
TE-132		49.72		5.519E+00	6.735E+00	1.121E+01	1.104E+00	0.493
		111.76		-1.352E+01	1.740E+01	2.825E+01	2.914E+00	-0.478
		116.30		-4.200E+00	1.451E+01	2.442E+01	2.510E+00	-0.172
		228.16	*	-2.600E-01	3.935E-01	6.176E-01	1.113E-01	-0.421
BA-133		81.00		-1.687E-01	8.921E-02	1.117E-01	1.738E-02	-1.510
		276.40		5.589E-01	3.566E-01	5.917E-01	1.122E-01	0.944
		302.85		3.886E-02	1.429E-01	2.084E-01	3.707E-02	0.186
		356.01	*	-1.754E-02	4.249E-02	5.734E-02	9.132E-03	-0.306
		383.85		1.754E-01	2.644E-01	4.630E-01	6.614E-02	0.379
I-133		529.87	*	-5.373E-04	2.644E-01	Half-Life too short		
		875.33		6.448E-03	2.644E-01	Half-Life too short		
		1298.22		1.242E-02	2.644E-01	Half-Life too short		
CS-134		563.25		2.712E-01	3.521E-01	6.092E-01	6.391E-02	0.445
		569.33		5.839E-02	1.851E-01	3.116E-01	3.265E-02	0.187
		604.72		-2.191E-03	3.771E-02	5.386E-02	5.443E-03	-0.041
	+	795.86	*	8.709E-02	5.001E-02	8.151E-02	8.040E-03	1.069
		801.95		-5.522E-02	4.007E-01	6.333E-01	6.245E-02	-0.087
		1365.19		9.054E-01	1.124E+00	2.005E+00	1.749E-01	0.452
CS-135		268.22	*	1.995E-01	1.613E-01	2.489E-01	3.905E-02	0.802
I-135		546.56		3.288E+07	1.613E-01	Half-Life too short		
		836.80		1.322E+07	1.613E-01	Half-Life too short		
		1038.76		-4.581E+07	1.613E-01	Half-Life too short		
		1131.51		-6.879E+06	1.613E-01	Half-Life too short		
		1260.41	*	9.115E+06	1.613E-01	Half-Life too short		
		1457.56		4.245E+08	1.613E-01	Half-Life too short		
		1678.03		2.880E+07	1.613E-01	Half-Life too short		

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1791.20		-1.909E+07	1.613E-01	Half-Life too short		
CS-136		153.25		1.259E+00	6.924E-01	1.217E+00	1.317E-01	1.034
		176.60		2.910E-02	3.872E-01	6.463E-01	7.075E-02	0.045
		273.65		-3.503E-01	4.770E-01	6.466E-01	1.009E-01	-0.542
		340.55		2.036E-01	1.424E-01	2.195E-01	2.984E-02	0.927
		818.51		-4.786E-02	6.167E-02	9.017E-02	8.873E-03	-0.531
		1048.07	*	8.701E-03	9.143E-02	1.526E-01	1.440E-02	0.057
		1235.36		-3.529E-01	5.772E-01	7.504E-01	8.571E-02	-0.470
CE-139		165.86	*	1.430E-02	2.518E-02	4.300E-02	4.179E-03	0.333
BA-140		162.66		-3.318E-01	6.252E-01	1.014E+00	1.027E-01	-0.327
		304.85		1.480E-01	1.221E+00	1.760E+00	5.568E-01	0.084
		423.72		-3.720E-01	1.506E+00	2.486E+00	8.334E-01	-0.150
		537.26	*	-1.907E-01	2.261E-01	3.338E-01	1.150E-01	-0.571
LA-140	+	328.76		5.676E-01	3.597E-01	4.670E-01	6.632E-02	1.215
		487.02		4.855E-02	1.133E-01	1.941E-01	2.172E-02	0.250
		815.77		1.503E-02	2.650E-01	4.260E-01	4.570E-02	0.035
		1596.21	*	-6.156E-03	6.824E-02	1.123E-01	9.441E-03	-0.055
CE-141		145.44	*	1.639E-02	5.257E-02	8.947E-02	8.200E-03	0.183
CE-143		57.36		-1.028E-04	5.257E-02	Half-Life too short		
		293.27	*	8.670E-05	5.257E-02	Half-Life too short		
		664.57		5.008E-04	5.257E-02	Half-Life too short		
		721.93		8.978E-05	5.257E-02	Half-Life too short		
CE-144		80.12		-3.772E+00	2.265E+00	2.991E+00	2.573E-01	-1.261
		133.52	*	-1.155E-01	1.834E-01	2.682E-01	4.109E-02	-0.431
PM-144		476.78		-3.466E-02	5.558E-02	8.829E-02	1.005E-02	-0.393
		618.01		1.043E-02	2.836E-02	4.776E-02	4.857E-03	0.218
		696.49	*	-6.610E-03	3.855E-02	5.838E-02	5.596E-03	-0.113
PR-144		696.51	*	-4.866E-01	2.882E+00	4.366E+00	4.184E-01	-0.111
		1489.16		4.903E+00	8.943E+00	1.638E+01	1.378E+00	0.299
PM-146		453.88	*	1.448E-03	3.815E-02	6.408E-02	7.961E-03	0.023
		633.25		-1.160E+00	1.391E+00	1.988E+00	7.651E-01	-0.584
		735.93		1.160E-01	1.450E-01	2.371E-01	6.728E-02	0.489
		747.24		2.069E-03	8.333E-02	1.345E-01	2.053E-02	0.015
ND-147	+	91.11		1.025E+00	2.910E-01	3.401E-01	3.372E-02	3.013
		319.41		-8.581E-01	2.802E+00	4.391E+00	6.260E-01	-0.195
		531.02	*	-8.601E-02	4.395E-01	7.167E-01	1.159E-01	-0.120
PM-149		285.90	*	-1.427E+01	4.166E+01	6.563E+01	1.315E+01	-0.217
EU-152		121.78		5.448E-02	5.675E-02	9.973E-02	9.732E-03	0.546
		244.70		-1.283E-01	3.175E-01	4.479E-01	6.087E-02	-0.286
		344.28	*	-1.707E-02	8.888E-02	1.394E-01	1.890E-02	-0.122
		778.90		-1.870E-01	2.457E-01	3.640E-01	3.562E-02	-0.514
	+	964.08		6.119E-01	3.503E-01	5.438E-01	5.211E-02	1.125
		1085.87		-2.891E-01	3.765E-01	5.741E-01	5.060E-02	-0.504
		1112.07		1.441E-01	3.030E-01	5.188E-01	4.462E-02	0.278
		1408.01		5.369E-02	1.726E-01	2.893E-01	2.417E-02	0.186
GD-153		69.67		2.497E-02	1.413E+00	2.232E+00	1.719E-01	0.011
		97.43	*	-1.226E-01	8.389E-02	1.079E-01	9.589E-03	-1.136
		103.18		-1.333E-01	8.791E-02	1.407E-01	1.221E-02	-0.948
EU-154		123.07		-1.921E-02	4.105E-02	6.828E-02	7.672E-03	-0.281

---- Non-Identified Nuclides ----

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		723.31		-9.766E-02	1.861E-01	2.456E-01	2.566E-02	-0.398
		873.19		-1.028E-01	2.723E-01	4.426E-01	5.673E-02	-0.232
		996.26		-2.159E-01	3.342E-01	5.179E-01	9.259E-02	-0.417
		1004.73		-3.196E-01	2.108E-01	2.943E-01	3.591E-02	-1.086
		1274.44	*	-3.377E-02	1.108E-01	1.738E-01	1.924E-02	-0.194
EU-155	+	86.55		5.932E-01	1.207E-01	1.643E-01	1.543E-02	3.610
		105.31	*	1.392E-01	8.800E-02	1.574E-01	1.372E-02	0.885
TB-160	+	86.79		1.542E+00	3.131E-01	4.327E-01	4.041E-02	3.564
		197.04		2.498E-01	4.836E-01	8.161E-01	9.096E-02	0.306
		215.65		2.573E-01	6.549E-01	1.095E+00	1.322E-01	0.235
		298.57		1.292E-01	1.414E-01	1.745E-01	2.612E-02	0.740
		879.36	*	-2.751E-02	1.298E-01	2.141E-01	2.109E-02	-0.129
		962.29		8.226E-02	5.482E-01	8.078E-01	7.748E-02	0.102
	+	966.15		4.186E-01	2.396E-01	4.138E-01	3.961E-02	1.011
		1177.93		2.956E-01	3.456E-01	6.063E-01	4.876E-02	0.488
		1271.85		5.456E-01	6.280E-01	1.113E+00	9.122E-02	0.490
HO-166M		80.57		-4.215E-01	2.480E-01	3.265E-01	2.824E-02	-1.291
	+	184.41		1.963E-01	5.620E-02	5.660E-02	5.968E-03	3.469
		280.46		-1.160E-01	8.344E-02	1.209E-01	1.868E-02	-0.960
		410.95		1.021E-01	2.289E-01	3.955E-01	4.243E-02	0.258
		711.68	*	1.035E-02	5.686E-02	9.336E-02	8.991E-03	0.111
		752.31		-2.359E-03	2.557E-01	4.111E-01	4.002E-02	-0.006
		810.29		-2.704E-02	6.066E-02	9.293E-02	9.132E-03	-0.291
TA-182		67.75		-2.642E-02	8.786E-02	1.372E-01	1.039E-02	-0.193
		100.11		1.756E-01	1.429E-01	2.510E-01	2.203E-02	0.699
		152.43		2.630E-01	3.049E-01	5.270E-01	4.869E-02	0.499
		222.11		-7.983E-02	3.132E-01	5.071E-01	6.289E-02	-0.157
	+	1121.30		8.129E-01	2.277E-01	3.667E-01	3.125E-02	2.217
		1189.05		2.513E-01	3.078E-01	5.367E-01	4.328E-02	0.468
		1221.41	*	-1.664E-01	2.070E-01	3.150E-01	2.559E-02	-0.528
		1231.02		1.167E-01	4.721E-01	7.659E-01	6.234E-02	0.152
IR-192	+	295.96		1.223E+00	2.663E-01	2.976E-01	4.487E-02	4.110
		308.46		-5.917E-02	8.776E-02	1.339E-01	1.965E-02	-0.442
		316.51	*	-1.005E-02	3.210E-02	5.029E-02	7.229E-03	-0.200
		468.07		9.419E-03	6.571E-02	9.803E-02	1.107E-02	0.096
HG-203		70.83		-1.102E+00	1.206E+00	1.660E+00	2.594E-01	-0.664
		72.87		5.438E-01	6.948E-01	1.035E+00	1.571E-01	0.525
		279.20	*	-9.101E-03	3.477E-02	5.529E-02	8.628E-03	-0.165
BI-207		72.81		1.263E-01	1.652E-01	2.472E-01	1.962E-02	0.511
	+	74.97		7.145E-01	1.229E-01	1.990E-01	1.616E-02	3.590
		569.70		4.180E-03	2.920E-02	4.857E-02	5.040E-03	0.086
		1063.66	*	1.654E-02	5.326E-02	9.034E-02	8.115E-03	0.183
		1770.23		8.894E-02	4.170E-01	6.297E-01	5.183E-02	0.141
PB-210		46.54	*	2.112E+00	2.129E+00	3.552E+00	3.277E-01	0.595
PB-211		404.85	*	-8.985E-02	6.650E-01	1.112E+00	5.429E-01	-0.081
		427.09		4.470E-01	1.410E+00	2.392E+00	1.118E+00	0.187
		832.01		-3.991E-01	9.721E-01	1.453E+00	7.565E-01	-0.275
BI-212	+	727.33	*	1.622E+00	1.106E+00	1.149E+00	1.518E-01	1.412
		785.37		7.489E-01	3.105E+00	5.081E+00	4.977E-01	0.147

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		1620.50		2.217E+00	2.404E+00	4.458E+00	3.743E-01	0.497
RN-219	+	271.23		7.878E-01	3.479E-01	4.299E-01	6.891E-02	1.833
		401.81	*	2.658E-01	3.552E-01	6.227E-01	1.007E-01	0.427
RA-223		81.07		-3.885E-01	1.960E-01	2.524E-01	2.195E-02	-1.539
		83.79		2.851E-01	1.071E-01	1.705E-01	1.533E-02	1.672
		94.87		4.884E-01	3.941E-01	5.983E-01	5.391E-02	0.816
		144.24		4.360E-01	6.250E-01	1.066E+00	1.061E-01	0.409
		154.21		3.000E-01	3.526E-01	6.080E-01	6.122E-02	0.493
	+	269.46		6.121E-01	2.684E-01	3.407E-01	5.124E-02	1.797
		323.87	*	-1.097E-01	6.909E-01	9.684E-01	1.995E-01	-0.113
	+	338.28		7.334E+00	1.953E+00	2.401E+00	3.821E-01	3.055
AC-227		79.69		-1.616E+00	1.156E+00	1.501E+00	2.582E-01	-1.076
		235.96		1.972E-01	1.444E-01	2.250E-01	3.222E-02	0.876
		256.23	*	-1.875E-01	2.306E-01	3.542E-01	5.852E-02	-0.529
	+	299.98		2.179E+00	1.352E+00	1.567E+00	2.758E-01	1.391
		304.50		9.342E-01	1.635E+00	2.430E+00	4.963E-01	0.384
		334.37		7.316E-01	1.618E+00	2.379E+00	4.484E-01	0.307
TH-227		79.80		-2.509E+00	1.579E+00	1.977E+00	4.301E-01	-1.269
		235.96		1.972E-01	1.442E-01	2.250E-01	3.128E-02	0.876
		256.23	*	-1.875E-01	2.309E-01	3.542E-01	6.265E-02	-0.529
	+	299.98		2.179E+00	1.352E+00	1.567E+00	2.758E-01	1.391
		304.50		9.342E-01	1.635E+00	2.430E+00	4.963E-01	0.384
		334.37		7.316E-01	1.618E+00	2.379E+00	4.484E-01	0.307
TH-229		85.43		4.272E-01	1.753E-01	2.773E-01	2.545E-02	1.541
	+	88.47		7.549E-01	1.533E-01	1.897E-01	1.791E-02	3.980
		193.51	*	2.067E-01	4.593E-01	7.743E-01	8.498E-02	0.267
		210.85		1.312E+00	9.034E-01	1.421E+00	1.680E-01	0.923
PA-231		283.69	*	-4.632E-01	1.290E+00	2.030E+00	3.930E-01	-0.228
	+	301.36		1.400E+00	8.667E-01	9.889E-01	1.697E-01	1.416
TH-231		81.07		-3.885E-01	1.960E-01	2.524E-01	2.195E-02	-1.539
		83.79		2.851E-01	1.071E-01	1.705E-01	1.533E-02	1.672
		94.87		4.884E-01	3.941E-01	5.983E-01	5.391E-02	0.816
		144.24		4.360E-01	6.250E-01	1.066E+00	1.061E-01	0.409
		154.21		3.000E-01	3.526E-01	6.080E-01	6.122E-02	0.493
	+	269.46		6.121E-01	2.684E-01	3.407E-01	5.124E-02	1.797
		323.87	*	-1.097E-01	6.909E-01	9.684E-01	1.995E-01	-0.113
	+	338.28		7.334E+00	1.953E+00	2.401E+00	3.821E-01	3.055
PA-233	+	300.13		9.861E-01	6.162E-01	7.099E-01	1.362E-01	1.389
		311.90	*	-1.023E-02	5.908E-02	9.356E-02	1.373E-02	-0.109
		340.48		1.204E+00	7.505E-01	1.090E+00	2.850E-01	1.105
PA-234		94.67		2.646E-01	1.489E-01	2.277E-01	2.889E-02	1.162
		98.44		6.476E-02	8.869E-02	1.293E-01	7.221E-02	0.501
		111.00		-1.083E-01	1.568E-01	2.542E-01	3.054E-02	-0.426
		131.20		5.934E-02	9.488E-02	1.490E-01	1.286E-02	0.398
		569.50		3.709E-02	2.592E-01	4.312E-01	4.475E-02	0.086
		733.00		-1.262E-01	4.236E-01	5.739E-01	1.299E-01	-0.220
		880.51		-2.119E-01	2.618E-01	4.066E-01	4.006E-02	-0.521
		883.24		2.035E-01	2.836E-01	4.472E-01	3.014E-01	0.455
		926.50		-1.390E-02	1.497E-01	2.479E-01	6.367E-02	-0.056

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	-2.040E-01	3.007E-01	4.684E-01	9.025E-02	-0.436
		949.00		2.387E-01	4.411E-01	7.676E-01	7.409E-02	0.311
PA-234M		766.42		9.063E+00	1.285E+01	1.829E+01	9.317E+00	0.496
		1001.03	*	7.145E+00	4.591E+00	8.462E+00	9.001E-01	0.844
NP-239		99.53		2.469E-01	1.420E-01	2.440E-01	2.147E-02	1.012
		103.37		-1.062E-01	8.100E-02	1.311E-01	1.137E-02	-0.810
		106.12		5.117E-02	7.089E-02	1.240E-01	1.067E-02	0.413
		117.23	*	-1.549E-01	3.132E-01	5.220E-01	4.416E-02	-0.297
		228.18		-1.530E-01	1.902E-01	2.969E-01	3.776E-02	-0.515
		277.60		2.755E-01	1.742E-01	2.935E-01	4.517E-02	0.939
AM-241		59.54	*	3.559E-02	1.232E-01	1.834E-01	1.441E-02	0.194
CM-247		278.00		8.910E-01	7.334E-01	1.228E+00	1.893E-01	0.726
		287.50		7.935E-01	1.107E+00	1.849E+00	2.825E-01	0.429
		402.40	*	9.043E-03	3.323E-02	5.704E-02	6.104E-03	0.159
CF-249		252.80		-2.505E-01	8.570E-01	1.370E+00	1.922E-01	-0.183
		333.37		6.978E-02	1.868E-01	2.505E-01	3.432E-02	0.279
		388.16	*	-4.036E-03	3.753E-02	6.320E-02	6.874E-03	-0.064
CF-251		177.52	*	5.456E-02	1.134E-01	1.922E-01	1.966E-02	0.284
		227.38		-2.997E-01	3.089E-01	4.764E-01	6.039E-02	-0.629
		285.41		-4.287E-01	1.957E+00	3.111E+00	4.769E-01	-0.138

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331003       *
* Acquisition date : 24-MAR-2010 09:11:53 Detector SN#    :                 *
* Detector ID       : GAM11                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.01      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 11-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G249331003           Analyst initials: MXR1           *
* Batch Number      : 965250               Sample Quantity : 1.3314E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.589E+01	3.543E+00	4.710E-01	0.000E+00
CD-109	4.993E+00	9.934E-01	9.115E-01	0.000E+00
SN-126	4.897E-01	9.743E-02	8.969E-02	0.000E+00
BA-137M	1.681E-01	6.385E-02	5.527E-02	0.000E+00
CS-137	1.776E-01	6.746E-02	5.839E-02	0.000E+00
TL-208	6.912E-01	1.099E-01	5.378E-02	0.000E+00
BI-211	4.913E+00	7.930E-01	2.852E-01	0.000E+00
PB-212	2.109E+00	3.120E-01	8.430E-02	0.000E+00
BI-214	1.325E+00	2.249E-01	1.060E-01	0.000E+00
PB-214	1.783E+00	3.035E-01	1.037E-01	0.000E+00
RA-224	5.237E+00	1.423E+00	9.037E-01	0.000E+00
RA-226	1.325E+00	2.249E-01	1.060E-01	0.000E+00
AC-228	2.000E+00	4.000E-01	2.106E-01	0.000E+00
RA-228	2.000E+00	4.000E-01	2.106E-01	0.000E+00
TH-228	2.109E+00	3.120E-01	8.430E-02	0.000E+00
TH-230	1.325E+00	2.142E-01	1.060E-01	0.000E+00
TH-232	2.000E+00	4.000E-01	2.106E-01	0.000E+00
TH-234	2.538E+00	1.638E+00	1.660E+00	0.000E+00
U-235	1.479E-01	1.829E-01	3.310E-01	0.000E+00
NP-237	1.461E+00	4.179E-01	2.698E-01	0.000E+00
U-238	2.538E+00	1.638E+00	1.660E+00	0.000E+00
ANH-511	1.642E-01	6.913E-02	4.327E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.965E-01	2.672E-01	4.239E-01	0.000E+00	NOT IDENT.
NA-22	-1.565E-02	3.788E-02	6.015E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.564E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-1.002E-02	3.428E-02	5.778E-02	0.000E+00	FAIL ABUN
V-48	1.422E-02	5.848E-02	1.023E-01	0.000E+00	NOT IDENT.

CR-51	4.485E-02	3.267E-01	5.529E-01	0.000E+00	NOT IDENT.
MN-54	-2.618E-03	3.258E-02	5.637E-02	0.000E+00	NOT IDENT.
CO-56	-1.336E-02	3.646E-02	6.153E-02	0.000E+00	FAIL ABUN
CO-57	1.061E-02	1.945E-02	3.598E-02	0.000E+00	NOT IDENT.
CO-58	-3.025E-02	3.828E-02	5.842E-02	0.000E+00	NOT IDENT.
FE-59	-7.003E-02	9.427E-02	1.495E-01	0.000E+00	NOT IDENT.
CO-60	-6.995E-03	3.380E-02	5.451E-02	0.000E+00	NOT IDENT.
ZN-65	4.014E-02	9.352E-02	1.442E-01	0.000E+00	NOT IDENT.
SE-75	-3.049E-02	3.798E-02	6.136E-02	0.000E+00	NOT IDENT.
SR-85	6.256E-02	3.721E-02	6.385E-02	0.000E+00	NOT IDENT.
Y-88	8.881E-03	3.113E-02	5.477E-02	0.000E+00	NOT IDENT.
Y-91	-1.140E+01	2.087E+01	3.334E+01	0.000E+00	NOT IDENT.
NB-94	1.053E-02	3.185E-02	5.475E-02	0.000E+00	NOT IDENT.
NB-95	1.245E-02	4.084E-02	6.142E-02	0.000E+00	NOT IDENT.
NB-95M	1.719E-01	1.109E-01	1.841E-01	0.000E+00	NOT IDENT.
ZR-95	2.074E-02	6.831E-02	1.165E-01	0.000E+00	NOT IDENT.
MO-99	1.333E+00	6.563E+00	1.113E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.575E+13	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.132E-03	3.246E-02	5.538E-02	0.000E+00	FAIL ABUN
RH-106	8.253E-02	2.818E-01	4.890E-01	0.000E+00	NOT IDENT.
RU-106	8.253E-02	2.817E-01	4.890E-01	0.000E+00	NOT IDENT.
AG-108M	8.483E-04	2.568E-02	4.518E-02	0.000E+00	NOT IDENT.
AG-110M	-1.854E-02	3.702E-02	5.148E-02	0.000E+00	NOT IDENT.
SN-113	-7.888E-03	3.934E-02	6.889E-02	0.000E+00	NOT IDENT.
CD-115	1.218E+00	4.823E+00	8.473E+00	0.000E+00	NOT IDENT.
SN-117M	-1.124E-02	4.250E-02	7.480E-02	0.000E+00	NOT IDENT.
TE-123M	1.036E-03	2.409E-02	4.292E-02	0.000E+00	NOT IDENT.
SB-124	2.186E-02	7.129E-02	1.263E-01	0.000E+00	NOT IDENT.
SB-125	2.744E-02	8.102E-02	1.452E-01	0.000E+00	FAIL ABUN
TE-125M	1.929E+00	7.691E+00	1.386E+01	0.000E+00	NOT IDENT.
I-126	2.179E-02	2.135E-01	3.182E-01	0.000E+00	NOT IDENT.
SB-126	6.454E-02	1.248E-01	2.028E-01	0.000E+00	NOT IDENT.
SB-127	-2.502E-01	8.495E-01	1.393E+00	0.000E+00	NOT IDENT.
I-131	1.819E-02	8.753E-02	1.472E-01	0.000E+00	NOT IDENT.
TE-132	-2.600E-01	3.856E-01	6.391E-01	0.000E+00	NOT IDENT.
BA-133	-1.754E-02	4.164E-02	5.889E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	8.888E+02	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.901E-02	8.254E-02	0.000E+00	FAIL ABUN
CS-135	1.995E-01	1.580E-01	2.569E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.375E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	8.701E-03	8.960E-02	1.538E-01	0.000E+00	NOT IDENT.
CE-139	1.430E-02	2.468E-02	4.474E-02	0.000E+00	NOT IDENT.
BA-140	-1.907E-01	2.216E-01	3.403E-01	0.000E+00	NOT IDENT.
LA-140	-6.156E-03	6.687E-02	1.123E-01	0.000E+00	FAIL ABUN
CE-141	1.639E-02	5.152E-02	9.329E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.996E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.155E-01	1.798E-01	2.801E-01	0.000E+00	NOT IDENT.
PM-144	-6.610E-03	3.777E-02	5.925E-02	0.000E+00	NOT IDENT.
PR-144	-4.866E-01	2.824E+00	4.431E+00	0.000E+00	NOT IDENT.
PM-146	1.448E-03	3.739E-02	6.553E-02	0.000E+00	NOT IDENT.
ND-147	-8.601E-02	4.308E-01	7.309E-01	0.000E+00	FAIL ABUN
PM-149	-1.427E+01	4.083E+01	6.766E+01	0.000E+00	NOT IDENT.
EU-152	-1.707E-02	8.710E-02	1.433E-01	0.000E+00	FAIL ABUN
GD-153	-1.226E-01	8.221E-02	1.133E-01	0.000E+00	NOT IDENT.
EU-154	-3.377E-02	1.086E-01	1.746E-01	0.000E+00	NOT IDENT.
EU-155	1.392E-01	8.624E-02	1.650E-01	0.000E+00	FAIL ABUN
TB-160	-2.751E-02	1.272E-01	2.164E-01	0.000E+00	FAIL ABUN
HO-166M	1.035E-02	5.572E-02	9.473E-02	0.000E+00	FAIL ABUN
TA-182	-1.664E-01	2.029E-01	3.165E-01	0.000E+00	FAIL ABUN
IR-192	-1.005E-02	3.146E-02	5.176E-02	0.000E+00	FAIL ABUN
HG-203	-9.101E-03	3.408E-02	5.702E-02	0.000E+00	NOT IDENT.
BI-207	1.654E-02	5.220E-02	9.101E-02	0.000E+00	FAIL ABUN
PB-210	2.112E+00	2.086E+00	3.774E+00	0.000E+00	NOT IDENT.
PB-211	-8.985E-02	6.517E-01	1.140E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.084E+00	1.165E+00	0.000E+00	FAIL ABUN
RN-219	2.658E-01	3.481E-01	6.382E-01	0.000E+00	FAIL ABUN
RA-223	-1.097E-01	6.771E-01	9.962E-01	0.000E+00	FAIL ABUN
AC-227	-1.875E-01	2.260E-01	3.658E-01	0.000E+00	FAIL ABUN
TH-227	-1.875E-01	2.263E-01	3.658E-01	0.000E+00	FAIL ABUN
TH-229	2.067E-01	4.501E-01	8.036E-01	0.000E+00	FAIL ABUN
PA-231	-4.632E-01	1.264E+00	2.093E+00	0.000E+00	FAIL ABUN
TH-231	-1.097E-01	6.771E-01	9.962E-01	0.000E+00	FAIL ABUN
PA-233	-1.023E-02	5.790E-02	9.631E-02	0.000E+00	FAIL ABUN
PA-234	-2.040E-01	2.947E-01	4.729E-01	0.000E+00	NOT IDENT.
PA-234M	7.145E+00	4.499E+00	8.534E+00	0.000E+00	NOT IDENT.
NP-239	-1.549E-01	3.069E-01	5.463E-01	0.000E+00	NOT IDENT.
AM-241	3.559E-02	1.207E-01	1.940E-01	0.000E+00	NOT IDENT.
CM-247	9.043E-03	3.257E-02	5.845E-02	0.000E+00	NOT IDENT.

CF-249	-4.036E-03	3.678E-02	6.481E-02	0.000E+00 NOT IDENT.
CF-251	5.456E-02	1.111E-01	1.998E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:12:50.16

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331003.CNF;2
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:11:53
Sample ID         : G249331003           Sample quantity  : 1.33140E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.01  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1662	10.66*	1.225E+00	3.589E+01	3.589E+01	10.07
CD-109	88.03	436	3.70*	6.789E+00	4.897E+00	4.993E+00	20.30
SN-126	64.28	141	9.60	4.247E+00	9.783E-01	9.783E-01	65.04
	86.94	436	8.90	6.789E+00	2.036E+00	2.036E+00	45.26
	87.57	436	37.00*	6.789E+00	4.897E-01	4.897E-01	20.30
BA-137M	661.66	129	89.90*	2.401E+00	1.680E-01	1.681E-01	38.75
CS-137	661.66	129	85.10*	2.401E+00	1.775E-01	1.776E-01	38.76
TL-208	277.37	------	6.60	4.676E+00	------ Line Not Found		------
	583.19	554	85.00*	2.661E+00	6.912E-01	6.912E-01	16.23
	860.56	58	12.50	1.925E+00	6.792E-01	6.792E-01	65.09
BI-211	72.87	------	1.23	5.576E+00	------ Line Not Found		------
	351.06	883	12.92*	3.921E+00	4.913E+00	4.913E+00	16.47
PB-212	74.82	524	10.28	5.791E+00	2.479E+00	2.479E+00	19.76
	77.11	878	17.10	6.023E+00	2.404E+00	2.404E+00	13.00
	238.63	1699	43.60*	5.209E+00	2.109E+00	2.109E+00	15.10
	300.09	102	3.30	4.412E+00	1.981E+00	1.981E+00	61.61
BI-214	609.32	549	45.49*	2.569E+00	1.325E+00	1.325E+00	17.32
	1120.29	142	14.92	1.530E+00	1.758E+00	1.758E+00	28.81
	1764.49	115	15.30	1.070E+00	1.974E+00	1.974E+00	21.11
PB-214	74.82	524	5.80	5.791E+00	4.395E+00	4.395E+00	18.94
	77.11	878	9.70	6.023E+00	4.237E+00	4.237E+00	15.39
	242.00	393	7.25	5.164E+00	2.962E+00	2.962E+00	28.32
	295.22	493	18.42	4.466E+00	1.689E+00	1.689E+00	22.70
	351.93	883	35.60*	3.921E+00	1.783E+00	1.783E+00	17.37
RA-224	240.99	393	4.10*	5.164E+00	5.237E+00	5.237E+00	27.72
RA-226	609.32	549	45.49*	2.569E+00	1.325E+00	1.325E+00	17.32
	1120.29	142	14.92	1.530E+00	1.758E+00	1.758E+00	28.81
	1764.49	115	15.30	1.070E+00	1.974E+00	1.974E+00	21.11
AC-228	338.32	298	11.27	4.038E+00	1.848E+00	1.848E+00	48.00
	911.20	335	25.80*	1.833E+00	2.000E+00	2.000E+00	20.40
	968.97	221	15.80	1.737E+00	2.273E+00	2.273E+00	30.64
RA-228	338.32	298	11.27	4.038E+00	1.848E+00	1.848E+00	48.00

Sample ID : G249331003 Acquisition date : 24-MAR-2010 09:11:53

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	335	25.80*	1.833E+00	2.000E+00	2.000E+00	20.40
	968.97	221	15.80	1.737E+00	2.273E+00	2.273E+00	30.64
TH-228	74.82	524	10.28	5.791E+00	2.479E+00	2.479E+00	17.24
	77.11	878	17.10	6.023E+00	2.404E+00	2.404E+00	13.00
	238.63	1699	43.60*	5.209E+00	2.109E+00	2.109E+00	15.10
	300.09	102	3.30	4.412E+00	1.981E+00	1.981E+00	86.21
TH-230	609.32	549	45.49*	2.569E+00	1.325E+00	1.325E+00	16.50
	1120.29	142	14.92	1.530E+00	1.758E+00	1.758E+00	28.02
	1764.49	115	15.30	1.070E+00	1.974E+00	1.974E+00	21.11
TH-232	338.32	298	11.27	4.038E+00	1.848E+00	1.848E+00	25.25
	911.20	335	25.80*	1.833E+00	2.000E+00	2.000E+00	20.40
	968.97	221	15.80	1.737E+00	2.273E+00	2.273E+00	30.64
TH-234	63.29	141	3.70*	4.247E+00	2.538E+00	2.538E+00	65.86
	92.59	337	4.23	7.064E+00	3.177E+00	3.177E+00	34.10
U-235	89.96	311	3.47	6.937E+00	3.644E+00	3.644E+00	36.40
	93.35	337	5.60	7.064E+00	2.400E+00	2.400E+00	34.77
	143.76	------	10.96*	7.034E+00	------ Line Not Found		------
	163.33	------	5.08	6.630E+00	------ Line Not Found		------
	185.72	309	57.20	6.158E+00	2.471E-01	2.471E-01	28.62
	205.31	------	5.01	5.777E+00	------ Line Not Found		------
NP-237	86.48	436	12.40*	6.789E+00	1.461E+00	1.461E+00	29.19
	95.86	------	2.68	7.169E+00	------ Line Not Found		------
U-238	63.29	141	3.70*	4.247E+00	2.538E+00	2.538E+00	65.86
	92.59	337	4.23	7.064E+00	3.177E+00	3.177E+00	27.38
ANH-511	511.00	172	100.00*	2.952E+00	1.642E-01	1.642E-01	42.95

Flag: "*" = Keyline

Sample ID : G249331003 Acquisition date : 24-MAR-2010 09:11:53

Total number of lines in spectrum 35
Number of unidentified lines 5
Number of lines tentatively identified by NID 30 85.71%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.589E+01	3.589E+01	0.362E+01	10.07	
CD-109	461.40D	1.02	4.897E+00	4.993E+00	1.014E+00	20.30	
SN-126	2.30E+05Y	1.00	4.897E-01	4.897E-01	0.994E-01	20.30	
BA-137M	30.08Y	1.00	1.680E-01	1.681E-01	0.652E-01	38.75	
CS-137	30.08Y	1.00	1.775E-01	1.776E-01	0.688E-01	38.76	
TL-208	1.41E+10Y	1.00	6.912E-01	6.912E-01	1.122E-01	16.23	
BI-211	7.04E+08Y	1.00	4.913E+00	4.913E+00	0.809E+00	16.47	
PB-212	1.41E+10Y	1.00	2.109E+00	2.109E+00	0.318E+00	15.10	
BI-214	1600.00Y	1.00	1.325E+00	1.325E+00	0.229E+00	17.32	
PB-214	1600.00Y	1.00	1.783E+00	1.783E+00	0.310E+00	17.37	
RA-224	1.41E+10Y	1.00	5.237E+00	5.237E+00	1.452E+00	27.72	
RA-226	1600.00Y	1.00	1.325E+00	1.325E+00	0.229E+00	17.32	
AC-228	1.41E+10Y	1.00	2.000E+00	2.000E+00	0.408E+00	20.40	
RA-228	1.41E+10Y	1.00	2.000E+00	2.000E+00	0.408E+00	20.40	
TH-228	1.41E+10Y	1.00	2.109E+00	2.109E+00	0.318E+00	15.10	
TH-230	7.54E+04Y	1.00	1.325E+00	1.325E+00	0.219E+00	16.50	
TH-232	1.41E+10Y	1.00	2.000E+00	2.000E+00	0.408E+00	20.40	
TH-234	4.47E+09Y	1.00	2.538E+00	2.538E+00	1.672E+00	65.86	
U-235	7.04E+08Y	1.00	2.471E-01	2.471E-01	0.707E-01	28.62	K
NP-237	2.14E+06Y	1.00	1.461E+00	1.461E+00	0.426E+00	29.19	
U-238	4.47E+09Y	1.00	2.538E+00	2.538E+00	1.672E+00	65.86	
ANH-511	1.00E+09Y	1.00	1.642E-01	1.642E-01	0.705E-01	42.95	
			---	---			
	Total Activity :		7.538E+01	7.548E+01			

Grand Total Activity : 7.538E+01 7.548E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249331003 Acquisition date : 24-MAR-2010 09:11:53

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.82	104	522	0.82	256.62	252	10	1.45E-02	84.1	7.29E+00	
0	208.95	210	396	0.98	416.99	412	11	2.92E-02	39.2	5.71E+00	
0	270.23	144	226	1.66	539.65	536	9	2.00E-02	41.2	4.77E+00	T
0	328.32	84	177	1.07	655.91	652	9	1.16E-02	61.8	4.13E+00	T
0	463.54	120	137	1.35	926.52	921	12	1.67E-02	43.3	3.18E+00	T
0	728.14	85	143	1.54	1456.01	1448	16	1.18E-02	66.9	2.22E+00	T
0	769.02	51	62	1.54	1537.81	1533	8	7.05E-03	61.2	2.12E+00	
0	795.65	48	43	1.07	1591.12	1586	9	6.72E-03	56.6	2.06E+00	T
1	965.18	55	64	1.73	1930.32	1923	32	7.69E-03	56.4	1.74E+00	T
0	1239.06	50	78	1.73	2478.28	2472	12	6.89E-03	76.7	1.40E+00	T
0	1632.00	13	7	1.24	3264.35	3260	8	1.74E-03	95.6	1.13E+00	
0	1848.68	21	9	1.00	3697.77	3691	12	2.93E-03	71.7	1.04E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:12:54.27

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331003.CNF;2 *
* Acquisition date  : 24-MAR-2010 09:11:53  Detector SN#     :             *
* Detector ID       : GAM11                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:02.01          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 11-MAR-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G249331003            Analyst initials: MXR1         *
* Batch Number      : 965250                Sample Quantity : 1.33140E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22.2MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.589E+01	3.615E+00	4.702E-01	4.066E-02	76.323
CD-109	4.993E+00	1.014E+00	8.668E-01	8.220E-02	5.760
SN-126	4.897E-01	9.942E-02	8.529E-02	8.045E-03	5.741
BA-137M	1.681E-01	6.515E-02	5.440E-02	5.148E-03	3.090
CS-137	1.776E-01	6.884E-02	5.747E-02	5.447E-03	3.090
TL-208	6.912E-01	1.122E-01	5.282E-02	5.699E-03	13.087
BI-211	4.913E+00	8.092E-01	2.776E-01	3.663E-02	17.694
PB-212	2.109E+00	3.183E-01	8.152E-02	1.144E-02	25.867
BI-214	1.325E+00	2.294E-01	1.042E-01	1.182E-02	12.715
PB-214	1.783E+00	3.097E-01	1.010E-01	1.440E-02	17.655
RA-224	5.237E+00	1.452E+00	8.741E-01	1.171E-01	5.992
RA-226	1.325E+00	2.294E-01	1.042E-01	1.182E-02	12.715
AC-228	2.000E+00	4.081E-01	2.085E-01	2.605E-02	9.594
RA-228	2.000E+00	4.081E-01	2.085E-01	2.605E-02	9.594
TH-228	2.109E+00	3.183E-01	8.152E-02	1.144E-02	25.867
TH-230	1.325E+00	2.185E-01	1.042E-01	1.046E-02	12.715
TH-232	2.000E+00	4.081E-01	2.085E-01	2.605E-02	9.594
TH-234	2.538E+00	1.672E+00	1.570E+00	2.793E-01	1.616

Sample ID : G249331003 Acquisition date : 24-MAR-2010 09:11:53

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	2.471E-01	7.074E-02	3.174E-01	5.437E-02	0.779
NP-237	1.461E+00	4.264E-01	2.565E-01	5.885E-02	5.695
U-238	2.538E+00	1.672E+00	1.570E+00	2.793E-01	1.616
ANH-511	1.642E-01	7.054E-02	4.239E-02	4.533E-03	3.874

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.965E-01		2.727E-01	4.149E-01	4.695E-02	-0.715
NA-22	-1.565E-02		3.866E-02	5.990E-02	4.919E-03	-0.261
NA-24	-8.121E-03		2.839E-02	Half-Life too short		
SC-46	-1.002E-02		3.498E-02	5.717E-02	5.631E-03	-0.175
V-48	1.422E-02		5.968E-02	1.014E-01	9.620E-03	0.140
CR-51	4.485E-02		3.333E-01	5.373E-01	7.796E-02	0.083
MN-54	-2.618E-03		3.325E-02	5.572E-02	5.487E-03	-0.047
CO-56	-1.336E-02		3.720E-02	6.083E-02	5.993E-03	-0.220
CO-57	1.061E-02		1.985E-02	3.440E-02	2.910E-03	0.308
CO-58	-3.025E-02		3.906E-02	5.771E-02	5.682E-03	-0.524
FE-59	-7.003E-02		9.620E-02	1.485E-01	1.396E-02	-0.472
CO-60	-6.995E-03		3.449E-02	5.433E-02	4.489E-03	-0.129
ZN-65	4.014E-02		9.543E-02	1.433E-01	1.229E-02	0.280
SE-75	-3.049E-02		3.876E-02	5.944E-02	8.738E-03	-0.513
SR-85	6.256E-02		3.797E-02	6.257E-02	6.684E-03	1.000
Y-88	8.881E-03		3.176E-02	5.490E-02	4.457E-03	0.162
Y-91	-1.140E+01		2.130E+01	3.317E+01	2.685E+00	-0.344
NB-94	1.053E-02		3.250E-02	5.395E-02	5.181E-03	0.195
NB-95	1.245E-02		4.168E-02	6.061E-02	5.916E-03	0.205
NB-95M	1.719E-01		1.132E-01	1.780E-01	2.487E-02	0.966
ZR-95	2.074E-02		6.970E-02	1.149E-01	1.212E-02	0.180
MO-99	1.333E+00		6.697E+00	1.098E+01	1.798E+00	0.121
TC-99M	-1.006E+07		3.355E+07	Half-Life too short		
RU-103	-2.132E-03		3.313E-02	5.424E-02	8.333E-03	-0.039
RH-106	8.253E-02		2.876E-01	4.808E-01	6.796E-02	0.172
RU-106	8.253E-02		2.874E-01	4.808E-01	4.769E-02	0.172
AG-108M	8.483E-04		2.620E-02	4.414E-02	4.857E-03	0.019
AG-110M	-1.854E-02		3.777E-02	5.067E-02	4.937E-03	-0.366
SN-113	-7.888E-03		4.015E-02	6.718E-02	7.307E-03	-0.117
CD-115	1.218E+00		4.921E+00	8.306E+00	8.824E-01	0.147
SN-117M	-1.124E-02		4.337E-02	7.184E-02	6.789E-03	-0.156
TE-123M	1.036E-03		2.458E-02	4.122E-02	3.922E-03	0.025
SB-124	2.186E-02		7.274E-02	1.265E-01	1.102E-02	0.173
SB-125	2.744E-02		8.268E-02	1.419E-01	1.546E-02	0.193
TE-125M	1.929E+00		7.847E+00	1.323E+01	1.377E+00	0.146
I-126	2.179E-02		2.179E-01	3.133E-01	2.970E-02	0.070
SB-126	6.454E-02		1.273E-01	1.999E-01	1.930E-02	0.323
SB-127	-2.502E-01		8.669E-01	1.372E+00	1.579E-01	-0.182
I-131	1.819E-02		8.932E-02	1.434E-01	1.798E-02	0.127

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-132	-2.600E-01		3.935E-01	6.176E-01	1.113E-01	-0.421
BA-133	-1.754E-02		4.249E-02	5.734E-02	9.132E-03	-0.306
I-133	-5.373E-04		4.535E-04	Half-Life too short		
CS-134	8.709E-02	+	5.001E-02	8.151E-02	8.040E-03	1.069
CS-135	1.995E-01		1.613E-01	2.489E-01	3.905E-02	0.802
I-135	9.115E+06		1.212E+07	Half-Life too short		
CS-136	8.701E-03		9.143E-02	1.526E-01	1.440E-02	0.057
CE-139	1.430E-02		2.518E-02	4.300E-02	4.179E-03	0.333
BA-140	-1.907E-01		2.261E-01	3.338E-01	1.150E-01	-0.571
LA-140	-6.156E-03		6.824E-02	1.123E-01	9.441E-03	-0.055
CE-141	1.639E-02		5.257E-02	8.947E-02	8.200E-03	0.183
CE-143	8.670E-05		2.549E-05	Half-Life too short		
CE-144	-1.155E-01		1.834E-01	2.682E-01	4.109E-02	-0.431
PM-144	-6.610E-03		3.855E-02	5.838E-02	5.596E-03	-0.113
PR-144	-4.866E-01		2.882E+00	4.366E+00	4.184E-01	-0.111
PM-146	1.448E-03		3.815E-02	6.408E-02	7.961E-03	0.023
ND-147	-8.601E-02		4.395E-01	7.167E-01	1.159E-01	-0.120
PM-149	-1.427E+01		4.166E+01	6.563E+01	1.315E+01	-0.217
EU-152	-1.707E-02		8.888E-02	1.394E-01	1.890E-02	-0.122
GD-153	-1.226E-01		8.389E-02	1.079E-01	9.589E-03	-1.136
EU-154	-3.377E-02		1.108E-01	1.738E-01	1.924E-02	-0.194
EU-155	1.392E-01		8.800E-02	1.574E-01	1.372E-02	0.885
TB-160	-2.751E-02		1.298E-01	2.141E-01	2.109E-02	-0.129
HO-166M	1.035E-02		5.686E-02	9.336E-02	8.991E-03	0.111
TA-182	-1.664E-01		2.070E-01	3.150E-01	2.559E-02	-0.528
IR-192	-1.005E-02		3.210E-02	5.029E-02	7.229E-03	-0.200
HG-203	-9.101E-03		3.477E-02	5.529E-02	8.628E-03	-0.165
BI-207	1.654E-02		5.326E-02	9.034E-02	8.115E-03	0.183
PB-210	2.112E+00		2.129E+00	3.552E+00	3.277E-01	0.595
PB-211	-8.985E-02		6.650E-01	1.112E+00	5.429E-01	-0.081
BI-212	1.622E+00	+	1.106E+00	1.149E+00	1.518E-01	1.412
RN-219	2.658E-01		3.552E-01	6.227E-01	1.007E-01	0.427
RA-223	-1.097E-01		6.909E-01	9.684E-01	1.995E-01	-0.113
AC-227	-1.875E-01		2.306E-01	3.542E-01	5.852E-02	-0.529
TH-227	-1.875E-01		2.309E-01	3.542E-01	6.265E-02	-0.529
TH-229	2.067E-01		4.593E-01	7.743E-01	8.498E-02	0.267
PA-231	-4.632E-01		1.290E+00	2.030E+00	3.930E-01	-0.228
TH-231	-1.097E-01		6.909E-01	9.684E-01	1.995E-01	-0.113
PA-233	-1.023E-02		5.908E-02	9.356E-02	1.373E-02	-0.109
PA-234	-2.040E-01		3.007E-01	4.684E-01	9.025E-02	-0.436
PA-234M	7.145E+00		4.591E+00	8.462E+00	9.001E-01	0.844
NP-239	-1.549E-01		3.132E-01	5.220E-01	4.416E-02	-0.297
AM-241	3.559E-02		1.232E-01	1.834E-01	1.441E-02	0.194
CM-247	9.043E-03		3.323E-02	5.704E-02	6.104E-03	0.159
CF-249	-4.036E-03		3.753E-02	6.320E-02	6.874E-03	-0.064
CF-251	5.456E-02		1.134E-01	1.922E-01	1.966E-02	0.284

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249331003            *
* Acquisition date : 24-MAR-2010 09:11:53 Detector SN#     :                *
* Detector ID      : GAM11                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.01     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249331003           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.3314E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.589E+01	3.543E+00	2.356E-01	1.808E+00
CD-109	4.993E+00	9.934E-01	4.560E-01	5.069E-01
SN-126	4.897E-01	9.743E-02	4.487E-02	4.971E-02
BA-137M	1.681E-01	6.385E-02	2.765E-02	3.258E-02
CS-137	1.776E-01	6.746E-02	2.921E-02	3.442E-02
TL-208	6.912E-01	1.099E-01	2.691E-02	5.609E-02
BI-211	4.913E+00	7.930E-01	1.427E-01	4.046E-01
PB-212	2.109E+00	3.120E-01	4.217E-02	1.592E-01
BI-214	1.325E+00	2.249E-01	5.303E-02	1.147E-01
PB-214	1.783E+00	3.035E-01	5.190E-02	1.548E-01
RA-224	5.237E+00	1.423E+00	4.521E-01	7.259E-01
RA-226	1.325E+00	2.249E-01	5.303E-02	1.147E-01
AC-228	2.000E+00	4.000E-01	1.054E-01	2.041E-01
RA-228	2.000E+00	4.000E-01	1.054E-01	2.041E-01
TH-228	2.109E+00	3.120E-01	4.217E-02	1.592E-01
TH-230	1.325E+00	2.142E-01	5.302E-02	1.093E-01
TH-232	2.000E+00	4.000E-01	1.054E-01	2.041E-01
TH-234	2.538E+00	1.638E+00	8.306E-01	8.358E-01
U-235	1.479E-01	1.829E-01	1.656E-01	9.332E-02
NP-237	1.461E+00	4.179E-01	1.350E-01	2.132E-01
U-238	2.538E+00	1.638E+00	8.306E-01	8.358E-01
ANH-511	1.642E-01	6.913E-02	2.165E-02	3.527E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.965E-01	2.672E-01	2.121E-01	1.363E-01	NOT IDENT.
NA-22	-1.565E-02	3.788E-02	3.009E-02	1.933E-02	NOT IDENT.
NA-24	-8.121E+03	5.564E+04	0.000E+00	2.839E+04	SHORT HLIF
SC-46	-1.002E-02	3.428E-02	2.891E-02	1.749E-02	FAIL ABUN
V-48	1.422E-02	5.848E-02	5.119E-02	2.984E-02	NOT IDENT.

CR-51	4.485E-02	3.267E-01	2.766E-01	1.667E-01	NOT IDENT.
MN-54	-2.618E-03	3.258E-02	2.820E-02	1.662E-02	NOT IDENT.
CO-56	-1.336E-02	3.646E-02	3.078E-02	1.860E-02	FAIL ABUN
CO-57	1.061E-02	1.945E-02	1.800E-02	9.923E-03	NOT IDENT.
CO-58	-3.025E-02	3.828E-02	2.923E-02	1.953E-02	NOT IDENT.
FE-59	-7.003E-02	9.427E-02	7.481E-02	4.810E-02	NOT IDENT.
CO-60	-6.995E-03	3.380E-02	2.727E-02	1.724E-02	NOT IDENT.
ZN-65	4.014E-02	9.352E-02	7.214E-02	4.772E-02	NOT IDENT.
SE-75	-3.049E-02	3.798E-02	3.070E-02	1.938E-02	NOT IDENT.
SR-85	6.256E-02	3.721E-02	3.195E-02	1.899E-02	NOT IDENT.
Y-88	8.881E-03	3.113E-02	2.740E-02	1.588E-02	NOT IDENT.
Y-91	-1.140E+01	2.087E+01	1.668E+01	1.065E+01	NOT IDENT.
NB-94	1.053E-02	3.185E-02	2.739E-02	1.625E-02	NOT IDENT.
NB-95	1.245E-02	4.084E-02	3.073E-02	2.084E-02	NOT IDENT.
NB-95M	1.719E-01	1.109E-01	9.210E-02	5.660E-02	NOT IDENT.
ZR-95	2.074E-02	6.831E-02	5.827E-02	3.485E-02	NOT IDENT.
MO-99	1.333E+00	6.563E+00	5.569E+00	3.348E+00	NOT IDENT.
TC-99M	-1.006E+13	6.575E+13	0.000E+00	3.355E+13	SHORT HLIF
RU-103	-2.132E-03	3.246E-02	2.771E-02	1.656E-02	FAIL ABUN
RH-106	8.253E-02	2.818E-01	2.446E-01	1.438E-01	NOT IDENT.
RU-106	8.253E-02	2.817E-01	2.446E-01	1.437E-01	NOT IDENT.
AG-108M	8.483E-04	2.568E-02	2.260E-02	1.310E-02	NOT IDENT.
AG-110M	-1.854E-02	3.702E-02	2.576E-02	1.889E-02	NOT IDENT.
SN-113	-7.888E-03	3.934E-02	3.446E-02	2.007E-02	NOT IDENT.
CD-115	1.218E+00	4.823E+00	4.239E+00	2.461E+00	NOT IDENT.
SN-117M	-1.124E-02	4.250E-02	3.742E-02	2.168E-02	NOT IDENT.
TE-123M	1.036E-03	2.409E-02	2.147E-02	1.229E-02	NOT IDENT.
SB-124	2.186E-02	7.129E-02	6.321E-02	3.637E-02	NOT IDENT.
SB-125	2.744E-02	8.102E-02	7.266E-02	4.134E-02	FAIL ABUN
TE-125M	1.929E+00	7.691E+00	6.933E+00	3.924E+00	NOT IDENT.
I-126	2.179E-02	2.135E-01	1.592E-01	1.089E-01	NOT IDENT.
SB-126	6.454E-02	1.248E-01	1.014E-01	6.366E-02	NOT IDENT.
SB-127	-2.502E-01	8.495E-01	6.968E-01	4.334E-01	NOT IDENT.
I-131	1.819E-02	8.753E-02	7.366E-02	4.466E-02	NOT IDENT.
TE-132	-2.600E-01	3.856E-01	3.198E-01	1.967E-01	NOT IDENT.
BA-133	-1.754E-02	4.164E-02	2.946E-02	2.125E-02	NOT IDENT.
I-133	-5.373E+02	8.888E+02	0.000E+00	4.535E+02	SHORT HLIF
CS-134	8.709E-02	4.901E-02	4.129E-02	2.500E-02	FAIL ABUN
CS-135	1.995E-01	1.580E-01	1.285E-01	8.063E-02	NOT IDENT.
I-135	9.115E+12	2.375E+13	0.000E+00	1.212E+13	SHORT HLIF
CS-136	8.701E-03	8.960E-02	7.693E-02	4.572E-02	NOT IDENT.
CE-139	1.430E-02	2.468E-02	2.238E-02	1.259E-02	NOT IDENT.
BA-140	-1.907E-01	2.216E-01	1.703E-01	1.131E-01	NOT IDENT.
LA-140	-6.156E-03	6.687E-02	5.617E-02	3.412E-02	FAIL ABUN
CE-141	1.639E-02	5.152E-02	4.668E-02	2.629E-02	NOT IDENT.
CE-143	8.670E+01	4.996E+01	0.000E+00	2.549E+01	SHORT HLIF
CE-144	-1.155E-01	1.798E-01	1.401E-01	9.172E-02	NOT IDENT.
PM-144	-6.610E-03	3.777E-02	2.964E-02	1.927E-02	NOT IDENT.
PR-144	-4.866E-01	2.824E+00	2.217E+00	1.441E+00	NOT IDENT.
PM-146	1.448E-03	3.739E-02	3.278E-02	1.908E-02	NOT IDENT.
ND-147	-8.601E-02	4.308E-01	3.657E-01	2.198E-01	FAIL ABUN
PM-149	-1.427E+01	4.083E+01	3.385E+01	2.083E+01	NOT IDENT.
EU-152	-1.707E-02	8.710E-02	7.168E-02	4.444E-02	FAIL ABUN
GD-153	-1.226E-01	8.221E-02	5.669E-02	4.194E-02	NOT IDENT.
EU-154	-3.377E-02	1.086E-01	8.733E-02	5.539E-02	NOT IDENT.
EU-155	1.392E-01	8.624E-02	8.254E-02	4.400E-02	FAIL ABUN
TB-160	-2.751E-02	1.272E-01	1.083E-01	6.491E-02	FAIL ABUN
HO-166M	1.035E-02	5.572E-02	4.739E-02	2.843E-02	FAIL ABUN
TA-182	-1.664E-01	2.029E-01	1.584E-01	1.035E-01	FAIL ABUN
IR-192	-1.005E-02	3.146E-02	2.589E-02	1.605E-02	FAIL ABUN
HG-203	-9.101E-03	3.408E-02	2.853E-02	1.739E-02	NOT IDENT.
BI-207	1.654E-02	5.220E-02	4.553E-02	2.663E-02	FAIL ABUN
PB-210	2.112E+00	2.086E+00	1.888E+00	1.064E+00	NOT IDENT.
PB-211	-8.985E-02	6.517E-01	5.702E-01	3.325E-01	NOT IDENT.
BI-212	1.622E+00	1.084E+00	5.831E-01	5.529E-01	FAIL ABUN
RN-219	2.658E-01	3.481E-01	3.193E-01	1.776E-01	FAIL ABUN
RA-223	-1.097E-01	6.771E-01	4.984E-01	3.455E-01	FAIL ABUN
AC-227	-1.875E-01	2.260E-01	1.830E-01	1.153E-01	FAIL ABUN
TH-227	-1.875E-01	2.263E-01	1.830E-01	1.155E-01	FAIL ABUN
TH-229	2.067E-01	4.501E-01	4.020E-01	2.296E-01	FAIL ABUN
PA-231	-4.632E-01	1.264E+00	1.047E+00	6.450E-01	FAIL ABUN
TH-231	-1.097E-01	6.771E-01	4.984E-01	3.455E-01	FAIL ABUN
PA-233	-1.023E-02	5.790E-02	4.818E-02	2.954E-02	FAIL ABUN
PA-234	-2.040E-01	2.947E-01	2.366E-01	1.504E-01	NOT IDENT.
PA-234M	7.145E+00	4.499E+00	4.270E+00	2.296E+00	NOT IDENT.
NP-239	-1.549E-01	3.069E-01	2.733E-01	1.566E-01	NOT IDENT.
AM-241	3.559E-02	1.207E-01	9.708E-02	6.160E-02	NOT IDENT.
CM-247	9.043E-03	3.257E-02	2.924E-02	1.662E-02	NOT IDENT.

CF-249	-4.036E-03	3.678E-02	3.242E-02	1.877E-02	NOT IDENT.
CF-251	5.456E-02	1.111E-01	9.995E-02	5.668E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	226.2281
49.72	212.2467
57.36	0.0000
59.54	325.3071
63.29	360.2872
63.29	360.2872
64.28	392.7663
67.75	404.3557
69.67	422.8378
70.83	485.8647
72.81	450.7293
72.87	450.7994
72.87	450.7994
74.82	446.7735
74.82	446.7735
74.82	446.7735
74.97	446.9462
77.11	449.3875
77.11	449.3875
77.11	449.3875
79.69	452.2893
79.80	452.4102
80.12	452.7672
80.19	452.8449
80.57	453.2652
81.00	453.7431
81.07	453.8208
81.07	453.8208
83.79	266.3324
83.79	266.3324
85.43	267.3663
86.48	268.0243
86.55	268.0679
86.79	268.2156
86.94	268.3096
87.57	268.7007
88.03	268.9861
88.47	269.2580
89.96	270.1727
91.11	270.8743
92.59	271.7706
92.59	271.7706
93.35	272.2272
94.67	273.0177
94.87	273.1369
94.87	273.1369
95.86	263.7708
97.43	351.2202
98.44	275.2434
99.53	257.8204
100.11	259.4749
103.18	326.8382
103.37	326.9665
105.31	268.1943
106.12	301.6823
109.28	276.2985
111.00	311.4591
111.76	309.3494
116.30	283.5216
117.23	261.5043
121.12	225.0204
121.78	216.5598
122.06	233.2706
123.07	260.8318
131.20	251.7337
133.52	283.4969
136.00	239.9279

136.47	232.0525
140.51	268.7954
140.51	0.0000
143.76	286.5454
144.24	292.2121
144.24	292.2121
145.44	291.8663
152.43	271.1969
153.25	253.1324
154.21	283.9250
154.21	283.9250
156.02	316.1440
158.56	283.9552
159.00	269.2849
162.66	258.6196
163.33	273.8261
165.86	236.3833
176.60	247.6406
177.52	236.5112
181.07	244.3750
184.41	255.1094
185.72	255.5596
193.51	225.0666
197.04	232.9448
205.31	231.4292
210.85	222.5519
215.65	217.3333
222.11	226.0644
227.38	216.2783
228.16	210.3755
228.18	216.4776
235.69	167.5865
235.96	184.5557
235.96	184.5557
238.63	199.5000
238.63	199.5000
240.99	200.0210
242.00	200.2421
244.70	194.1032
252.40	185.7969
252.80	181.6978
256.23	192.8365
256.23	192.8365
260.90	166.3931
264.66	172.3253
268.22	157.5637
269.46	181.6666
269.46	181.6666
271.23	166.0261
273.65	198.4310
276.40	157.2552
277.37	152.0508
277.60	157.4406
278.00	166.0750
279.20	184.5067
279.54	219.9771
280.46	213.7331
283.69	159.4571
284.31	156.3193
285.41	158.6429
285.90	165.1959
287.50	139.4980
293.27	0.0000
295.22	176.4723
295.96	176.5942
298.57	150.7999
299.98	149.3552
299.98	149.3552
300.09	149.3719
300.09	149.3719
300.13	149.3774
301.36	149.5468
302.85	151.3979
304.50	136.7950
304.50	136.7950
304.85	150.0273
308.46	158.7920
311.90	144.9070

316.51	153.2819
319.41	159.2429
320.08	148.1936
323.87	157.6324
323.87	157.6324
328.76	142.5856
333.37	114.9720
334.37	113.3774
334.37	113.3774
338.28	155.0671
338.28	155.0671
338.32	155.0727
338.32	155.0727
338.32	155.0727
340.48	144.5840
340.55	144.5918
344.28	133.0984
351.06	115.5422
351.93	115.6244
356.01	125.7740
364.49	117.9603
366.42	113.5079
383.85	113.5915
388.16	137.8163
388.63	139.6339
391.69	130.2131
400.66	108.7921
401.81	101.7452
402.40	115.1819
404.85	132.3839
410.95	124.8871
414.70	108.1091
423.72	108.8049
427.09	109.0649
427.87	107.3048
433.94	103.1942
453.88	103.6790
463.37	92.2234
468.07	95.6844
473.00	112.4890
476.78	96.7888
477.60	104.3606
487.02	92.6930
492.35	77.8197
497.08	79.9536
511.00	91.1999
514.00	83.0955
527.90	74.6736
529.87	0.0000
531.02	87.4402
537.26	99.4631
546.56	0.0000
563.25	88.0874
569.33	87.3931
569.50	92.3671
569.70	92.3784
583.19	83.0583
600.60	109.0975
602.73	107.4858
604.72	106.9052
609.32	86.2607
609.32	86.2607
609.32	86.2607
610.33	86.3048
614.28	73.2568
618.01	69.3219
621.93	73.5491
621.93	73.5491
633.25	87.3372
635.95	56.5895
636.99	70.0026
645.85	76.5203
657.76	86.5439
661.66	80.2498
661.66	80.2498
664.57	0.0000
666.33	85.2382
666.50	85.2457

677.62	64.0697
685.70	84.3530
695.00	77.3130
696.49	91.1440
696.51	91.1467
697.00	90.1076
702.65	79.7173
706.68	78.8034
711.68	71.5146
720.70	65.7375
721.93	0.0000
722.78	77.2449
722.91	77.2493
723.31	85.8472
724.19	75.5756
727.33	77.4053
733.00	81.0520
735.93	59.2048
739.50	68.1026
747.24	56.4069
752.31	67.4057
753.82	70.7129
756.73	71.8934
763.94	75.1807
765.81	64.7428
766.42	68.2614
777.92	75.8583
778.90	74.7900
783.70	68.3309
785.37	72.7917
795.86	69.1279
801.95	75.5247
810.29	78.0173
810.76	80.2617
815.77	55.8533
818.51	65.9807
832.01	69.7197
834.85	68.4501
836.80	0.0000
846.77	73.3034
856.80	57.5458
860.56	60.9674
871.09	59.3934
873.19	69.5021
875.33	0.0000
879.36	65.0856
880.51	68.7827
883.24	43.1491
884.68	57.8705
889.28	59.8140
898.04	60.9372
911.20	56.6030
911.20	56.6030
911.20	56.6030
926.50	49.4624
937.49	76.8370
944.13	72.3285
946.00	73.3173
949.00	59.2824
962.29	69.3390
964.08	56.7686
966.15	56.8096
968.97	56.8682
968.97	56.8682
968.97	56.8682
983.53	52.3990
996.26	63.1608
1001.03	47.9285
1004.73	79.6626
1037.84	62.1281
1038.76	0.0000
1048.07	56.4962
1050.41	54.5918
1050.41	54.5918
1063.66	60.7073
1085.87	66.0807
1099.45	84.2031
1112.07	58.6831

1115.54	56.4232
1120.29	58.1710
1120.29	58.1710
1120.29	58.1710
1120.55	58.1738
1121.30	57.8556
1131.51	0.0000
1173.23	68.9330
1177.93	54.8174
1189.05	60.0947
1204.77	78.7972
1221.41	93.5816
1231.02	69.8991
1235.36	84.3264
1238.28	70.2744
1260.41	0.0000
1271.85	35.4775
1274.44	45.9465
1274.54	45.9465
1291.59	45.1185
1298.22	0.0000
1312.11	37.9898
1332.49	32.8966
1365.19	22.4817
1368.63	0.0000
1384.29	40.8890
1408.01	29.2333
1457.56	0.0000
1460.82	21.9482
1489.16	11.0518
1505.03	36.0594
1596.21	22.6787
1620.50	19.0055
1678.03	0.0000
1690.97	15.4479
1764.49	10.0907
1764.49	10.0907
1764.49	10.0907
1770.23	10.1032
1771.35	10.1053
1791.20	0.0000
1836.06	12.9466

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249331003

Total Uranium Activity	7.6199E+00	ug/g
Total Uranium Counting Unc.	4.8744E+00	ug/g
Total Uranium Tpu	2.4869E-06	ug/g
Total Uranium Mda	2.4723E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G249331003       *
*   ANALYST       : MXR1                      DETECTOR   : GAM11            *
*   SAMPLE DATE   : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 09:11:53.49    SAMPLE ALQT:  133.140 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.146E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.409E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.464E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.681E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:13:36.19

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331004.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:12:53
Sample ID         : G249331004           Sample quantity  : 1.29850E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.42  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	74.98*	359	561	1.76	148.88	143	15	4.99E-02	15.1	1.57E+00
2	3	77.34*	535	396	1.29	153.60	143	15	7.43E-02	8.2	
3	0	87.33	192	512	1.35	173.58	169	8	2.66E-02	21.7	
4	0	93.51*	108	636	1.48	185.93	181	9	1.49E-02	45.4	
5	0	185.83*	247	379	1.32	370.58	366	10	3.43E-02	16.6	
6	0	209.35	88	331	1.80	417.61	414	9	1.22E-02	38.8	
7	3	238.75*	1213	243	1.34	476.41	469	23	1.68E-01	3.7	1.48E+00
8	3	241.69*	299	314	2.04	482.29	469	23	4.15E-02	17.7	
9	0	270.39	107	220	0.87	539.68	534	11	1.48E-02	28.6	
10	3	295.34*	359	173	1.47	589.57	581	24	4.99E-02	8.6	1.06E+00
11	0	328.27	46	213	0.88	655.45	652	10	6.33E-03	61.7	
12	0	338.32	239	162	1.15	675.54	671	9	3.32E-02	11.6	
13	0	351.96*	713	179	1.57	702.83	696	13	9.91E-02	5.5	
14	0	463.69	96	140	3.89	926.28	919	16	1.33E-02	29.5	
15	0	510.82*	207	123	1.81	1020.54	1011	19	2.88E-02	16.4	
16	0	583.36*	346	180	1.70	1165.62	1156	20	4.80E-02	11.1	
17	0	609.28*	426	108	1.58	1217.48	1211	12	5.92E-02	7.0	
18	0	662.78	33	88	1.90	1324.48	1316	11	4.58E-03	57.7	
19	0	727.56*	111	71	1.44	1454.06	1447	15	1.54E-02	19.9	
20	0	786.11	43	30	1.32	1571.16	1567	9	6.04E-03	27.1	
21	0	911.03*	274	68	1.75	1821.05	1813	15	3.81E-02	9.1	
22	0	969.46	107	156	1.59	1937.93	1929	18	1.49E-02	29.9	
23	0	1120.80	110	67	1.37	2240.67	2234	15	1.53E-02	19.2	
24	0	1239.00	32	81	1.77	2477.12	2467	13	4.50E-03	60.0	
25	0	1460.35*	1375	20	2.05	2919.96	2909	19	1.91E-01	2.8	
26	0	1509.43	29	12	1.12	3018.14	3010	17	3.99E-03	34.0	
27	0	1620.10	14	8	0.93	3239.57	3234	11	1.97E-03	47.2	
28	0	1764.32*	81	4	2.24	3528.13	3520	17	1.12E-02	13.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 11:13:39

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331004.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:12:53
Sample ID : G249331004 Sample quantity : 129.85 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.42 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.860E+01	4.374E+00	5.582E-01	5.485E-02	69.151
CD-109	+	88.03	*	3.434E+00	1.550E+00	2.098E+00	2.605E-01	1.637
SN-126		64.28		-8.483E-02	9.140E-01	1.506E+00	2.550E-01	-0.056
	+	86.94		1.400E+00	8.488E-01	8.347E-01	3.529E-01	1.678
	+	87.57	*	3.368E-01	1.521E-01	2.106E-01	2.606E-02	1.600
BA-137M	+	661.66	*	5.367E-02	6.212E-02	7.933E-02	6.522E-03	0.677
CS-137	+	661.66	*	5.669E-02	6.563E-02	8.380E-02	6.904E-03	0.677
TL-208		277.37		7.218E-01	5.353E-01	9.081E-01	1.284E-01	0.795
	+	583.19	*	5.367E-01	1.293E-01	6.982E-02	6.385E-03	7.688
		860.56		3.892E-01	4.194E-01	7.257E-01	7.095E-02	0.536
BI-211		72.87		4.881E+00	5.830E+00	8.690E+00	9.953E-01	0.562
	+	351.06	*	5.082E+00	7.518E-01	4.274E-01	4.256E-02	11.891
BI-212	+	727.33	*	2.620E+00	1.094E+00	9.657E-01	1.200E-01	2.713
	+	785.37		6.682E+00	3.668E+00	5.750E+00	5.091E-01	1.162
	+	1620.50		3.105E+00	2.946E+00	4.031E+00	3.752E-01	0.770
PB-212	+	74.82		3.111E+00	1.052E+00	8.693E-01	1.310E-01	3.579
	+	77.11		2.579E+00	5.177E-01	4.849E-01	5.620E-02	5.318
	+	238.63	*	1.954E+00	2.756E-01	1.236E-01	1.477E-02	15.806
		300.09		6.493E-01	1.099E+00	1.835E+00	2.235E-01	0.354
BI-214	+	609.32	*	1.278E+00	2.201E-01	1.647E-01	1.641E-02	7.763
	+	1120.29		1.736E+00	6.922E-01	5.452E-01	5.905E-02	3.184
	+	1764.49		1.783E+00	5.032E-01	3.556E-01	3.118E-02	5.013
PB-214	+	74.82		5.515E+00	1.838E+00	1.541E+00	2.153E-01	3.579
	+	77.11		4.546E+00	9.866E-01	8.548E-01	1.216E-01	5.318
	+	242.00		2.921E+00	1.095E+00	7.517E-01	9.364E-02	3.886
	+	295.22		1.591E+00	3.381E-01	2.945E-01	3.671E-02	5.402
	+	351.93	*	1.844E+00	2.912E-01	1.554E-01	1.767E-02	11.868
RA-224	+	240.99	*	5.166E+00	1.913E+00	1.325E+00	1.461E-01	3.899
RA-226	+	609.32	*	1.278E+00	2.201E-01	1.647E-01	1.641E-02	7.763
	+	1120.29		1.736E+00	6.922E-01	5.452E-01	5.905E-02	3.184
	+	1764.49		1.783E+00	5.032E-01	3.556E-01	3.118E-02	5.013
AC-228	+	338.32		1.901E+00	9.114E-01	5.226E-01	2.194E-01	3.638
	+	911.20	*	2.057E+00	4.496E-01	2.878E-01	3.486E-02	7.148
	+	968.97		1.394E+00	9.021E-01	5.793E-01	1.423E-01	2.407

Sample ID : G249331004 Acquisition date : 24-MAR-2010 09:12:53

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	+	338.32		1.901E+00	9.114E-01	5.226E-01	2.194E-01	3.638
	+	911.20	*	2.057E+00	4.496E-01	2.878E-01	3.486E-02	7.148
	+	968.97		1.394E+00	9.021E-01	5.793E-01	1.423E-01	2.407
TH-228	+	74.82		3.111E+00	1.008E+00	8.693E-01	1.005E-01	3.579
	+	77.11		2.579E+00	5.177E-01	4.849E-01	5.620E-02	5.318
	+	238.63	*	1.954E+00	2.756E-01	1.236E-01	1.477E-02	15.806
		300.09		6.493E-01	1.167E+00	1.835E+00	1.129E+00	0.354
TH-230	+	609.32	*	1.278E+00	2.095E-01	1.647E-01	1.392E-02	7.763
	+	1120.29		1.736E+00	6.824E-01	5.452E-01	4.638E-02	3.184
	+	1764.49		1.783E+00	5.031E-01	3.556E-01	3.118E-02	5.013
TH-232	+	338.32		1.901E+00	4.780E-01	5.226E-01	5.152E-02	3.638
	+	911.20	*	2.057E+00	4.496E-01	2.878E-01	3.486E-02	7.148
	+	968.97		1.394E+00	9.021E-01	5.793E-01	1.423E-01	2.407
NP-237	+	86.48	*	1.005E+00	5.003E-01	5.891E-01	1.431E-01	1.706
		95.86		2.162E+00	1.531E+00	2.200E+00	5.508E-01	0.983
ANH-511	+	511.00	*	2.476E-01	8.381E-02	5.659E-02	4.889E-03	4.376

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	8.395E-02	3.926E-01	6.492E-01	6.034E-02	0.129
NA-22		1274.54	*	4.084E-03	5.753E-02	9.361E-02	8.504E-03	0.044
NA-24		1368.63	*	5.077E-02	5.753E-02	Half-Life too short		
SC-46		889.28	*	1.003E-02	4.333E-02	7.312E-02	6.795E-03	0.137
	+	1120.55		2.883E-01	1.133E-01	1.550E-01	1.318E-02	1.860
V-48		944.13		-2.043E-01	9.943E-01	1.606E+00	1.485E-01	-0.127
		983.53	*	-8.612E-02	7.939E-02	1.159E-01	1.059E-02	-0.743
		1312.11		-2.854E-02	9.393E-02	1.462E-01	1.378E-02	-0.195
CR-51		320.08	*	1.391E-01	4.470E-01	7.536E-01	7.997E-02	0.185
MN-54		834.85	*	-9.064E-03	4.898E-02	8.008E-02	7.267E-03	-0.113
CO-56		846.77	*	-4.079E-03	4.831E-02	7.946E-02	7.250E-03	-0.051
		1037.84		-1.639E-01	4.147E-01	6.550E-01	6.142E-02	-0.250
	+	1238.28		1.409E-01	1.695E-01	2.126E-01	1.910E-02	0.663
		1771.35		7.695E-02	2.983E-01	4.482E-01	3.916E-02	0.172
CO-57		122.06	*	-3.034E-02	3.652E-02	5.672E-02	5.713E-03	-0.535
		136.47		1.124E-01	2.820E-01	4.631E-01	4.920E-02	0.243
CO-58		810.76	*	-2.469E-03	5.029E-02	8.318E-02	7.478E-03	-0.030
FE-59		1099.45	*	-5.882E-02	1.157E-01	1.797E-01	1.676E-02	-0.327
		1291.59		1.087E-01	1.554E-01	2.682E-01	2.770E-02	0.405
CO-60		1173.23		-2.085E-02	6.083E-02	9.585E-02	7.802E-03	-0.218
		1332.49	*	2.378E-02	5.342E-02	9.021E-02	8.672E-03	0.264
ZN-65		1115.54	*	-1.492E-01	1.369E-01	1.620E-01	1.385E-02	-0.921
SE-75		121.12		-6.319E-02	1.839E-01	2.916E-01	3.571E-02	-0.217
		136.00		1.392E-02	5.396E-02	8.820E-02	8.929E-03	0.158
		264.66	*	-3.816E-02	6.385E-02	8.888E-02	9.747E-03	-0.429
		279.54		1.200E-01	1.444E-01	2.487E-01	2.753E-02	0.483
		400.66		-8.883E-04	3.383E-01	5.561E-01	6.093E-02	-0.002
SR-85		514.00	*	1.286E-01	5.512E-02	9.096E-02	7.858E-03	1.413

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-88		898.04		-2.084E-03	5.086E-02	8.366E-02	7.834E-03	-0.025
		1836.06	*	4.171E-03	3.950E-02	6.608E-02	5.565E-03	0.063
Y-91		1204.77	*	1.647E+01	2.962E+01	5.009E+01	4.222E+00	0.329
NB-94		702.65	*	-4.516E-02	4.253E-02	6.557E-02	5.536E-03	-0.689
		871.09		-1.643E-02	4.354E-02	6.767E-02	6.242E-03	-0.243
NB-95		765.81	*	2.633E-02	5.470E-02	9.387E-02	8.225E-03	0.280
NB-95M		235.69	*	4.499E-01	2.027E-01	3.172E-01	3.822E-02	1.419
ZR-95		724.19		6.202E-02	1.357E-01	2.037E-01	1.891E-02	0.305
		756.73	*	-2.853E-02	8.981E-02	1.461E-01	1.404E-02	-0.195
MO-99		140.51		-2.536E+01	1.856E+01	2.626E+01	6.389E+00	-0.966
		181.07		5.167E+00	1.559E+01	2.217E+01	4.407E+00	0.233
		366.42		4.466E+01	7.296E+01	1.243E+02	1.139E+01	0.359
		739.50	*	1.627E+00	8.669E+00	1.466E+01	2.311E+00	0.111
		777.92		-8.080E+00	2.623E+01	4.162E+01	3.670E+00	-0.194
TC-99M		140.51	*	-1.602E+08	2.623E+01	Half-Life too short		
RU-103		497.08	*	2.149E-02	4.825E-02	8.077E-02	1.129E-02	0.266
	+	610.33		1.268E+01	2.725E+00	3.227E+00	5.246E-01	3.930
RH-106		621.93	*	-2.592E-02	3.746E-01	5.990E-01	7.857E-02	-0.043
		1050.41		-1.020E+00	3.089E+00	4.887E+00	4.343E-01	-0.209
RU-106		621.93	*	-2.592E-02	3.746E-01	5.990E-01	5.034E-02	-0.043
		1050.41		-1.020E+00	3.089E+00	4.887E+00	4.343E-01	-0.209
AG-108M		433.94	*	2.722E-03	3.700E-02	6.090E-02	5.382E-03	0.045
		614.28		4.885E-02	4.914E-02	7.517E-02	6.557E-03	0.650
		722.91		1.007E-02	5.223E-02	7.673E-02	6.773E-03	0.131
AG-110M		657.76	*	4.265E-02	4.258E-02	6.840E-02	5.821E-03	0.624
		677.62		-2.544E-02	3.654E-01	6.093E-01	5.219E-02	-0.042
		706.68		-4.325E-02	2.567E-01	4.241E-01	3.697E-02	-0.102
		763.94		1.154E-01	2.079E-01	3.588E-01	3.224E-02	0.322
		884.68		-4.871E-02	5.842E-02	8.864E-02	8.450E-03	-0.550
		937.49		-1.288E-01	1.472E-01	2.123E-01	2.028E-02	-0.607
		1384.29		-1.030E-01	1.935E-01	3.023E-01	2.976E-02	-0.341
		1505.03		-1.839E-01	4.107E-01	5.311E-01	5.076E-02	-0.346
SN-113		391.69	*	-4.260E-02	5.913E-02	9.313E-02	8.089E-03	-0.457
CD-115		260.90		-7.506E+00	9.060E+01	1.511E+02	1.655E+01	-0.050
		492.35		-1.756E+01	2.369E+01	3.640E+01	3.145E+00	-0.483
		527.90	*	1.788E+00	7.251E+00	1.197E+01	1.033E+00	0.149
SN-117M		156.02		1.990E+00	2.683E+00	4.440E+00	4.627E-01	0.448
		158.56	*	-1.609E-02	6.556E-02	1.046E-01	1.096E-02	-0.154
TE-123M		159.00	*	2.078E-03	3.714E-02	5.998E-02	6.320E-03	0.035
SB-124		602.73		-1.650E-02	5.735E-02	7.726E-02	6.548E-03	-0.214
		645.85		-1.257E-01	5.942E-01	9.369E-01	8.257E-02	-0.134
		722.78		8.979E-02	5.108E-01	7.491E-01	6.553E-02	0.120
		1690.97	*	-5.579E-03	9.224E-02	1.505E-01	1.418E-02	-0.037
SB-125		427.87	*	3.941E-02	1.122E-01	1.880E-01	1.636E-02	0.210
	+	463.37		1.020E+00	6.083E-01	6.501E-01	6.023E-02	1.568
		600.60		-9.685E-02	2.409E-01	3.655E-01	3.336E-02	-0.265
		635.95		-4.619E-02	3.341E-01	5.306E-01	4.810E-02	-0.087
TE-125M		109.28	*	-1.166E+01	1.337E+01	2.100E+01	2.493E+00	-0.555
I-126		388.63		2.312E-02	1.985E-01	3.289E-01	2.799E-02	0.070

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		666.33	*	3.273E-01	2.609E-01	4.241E-01	3.497E-02	0.772
		753.82		3.813E+00	1.949E+00	3.660E+00	3.185E-01	1.042
SB-126		414.70		-1.009E-01	8.981E-02	1.369E-01	1.164E-02	-0.737
		666.50		1.189E-01	8.962E-02	1.464E-01	1.207E-02	0.812
		695.00		-2.386E-02	9.003E-02	1.480E-01	1.244E-02	-0.161
		697.00		2.416E-01	3.088E-01	5.416E-01	4.556E-02	0.446
		720.70	*	1.849E-02	1.886E-01	2.744E-01	2.342E-02	0.067
		856.80		-8.776E-01	6.076E-01	8.905E-01	8.162E-02	-0.986
SB-127		252.40		-8.436E-01	3.738E+00	6.174E+00	2.588E+00	-0.137
		473.00		-6.213E-01	1.429E+00	2.260E+00	2.763E-01	-0.275
		685.70	*	-3.999E-01	1.094E+00	1.783E+00	1.879E-01	-0.224
		783.70		2.623E+00	3.069E+00	4.811E+00	5.750E-01	0.545
I-131		80.19		-3.750E-01	6.152E+00	8.846E+00	1.043E+00	-0.042
		284.31		7.952E-02	1.586E+00	2.652E+00	2.945E-01	0.030
		364.49	*	3.027E-02	1.222E-01	2.045E-01	1.971E-02	0.148
		636.99		1.344E+00	1.572E+00	2.694E+00	2.380E-01	0.499
TE-132		49.72		-6.049E+00	3.434E+01	5.667E+01	8.385E+00	-0.107
		111.76		-1.540E+01	2.844E+01	4.533E+01	5.325E+00	-0.340
		116.30		-1.036E+01	2.425E+01	3.878E+01	4.524E+00	-0.267
		228.16	*	-1.261E-01	5.880E-01	9.798E-01	1.654E-01	-0.129
BA-133		81.00		-2.063E-01	1.713E-01	2.097E-01	3.669E-02	-0.984
		276.40		8.311E-01	5.216E-01	8.377E-01	1.304E-01	0.992
		302.85		1.207E-01	2.132E-01	3.187E-01	4.586E-02	0.379
		356.01	*	4.833E-02	5.978E-02	9.068E-02	1.225E-02	0.533
		383.85		-2.510E-01	4.116E-01	6.537E-01	8.139E-02	-0.384
I-133		529.87	*	-1.148E-04	4.116E-01	Half-Life too short		
		875.33		-1.516E-02	4.116E-01	Half-Life too short		
		1298.22		9.754E-03	4.116E-01	Half-Life too short		
CS-134		563.25		-3.104E-01	4.546E-01	6.960E-01	6.030E-02	-0.446
		569.33		1.327E-01	2.477E-01	4.154E-01	3.608E-02	0.320
		604.72		2.402E-02	4.883E-02	7.112E-02	6.037E-03	0.338
		795.86	*	1.225E-01	6.162E-02	1.143E-01	1.025E-02	1.072
		801.95		-3.859E-01	5.281E-01	8.318E-01	7.468E-02	-0.464
		1365.19		1.905E-01	1.509E+00	2.560E+00	2.558E-01	0.074
CS-135		268.22	*	2.782E-01	2.247E-01	3.491E-01	4.188E-02	0.797
I-135		546.56		2.846E+07	2.247E-01	Half-Life too short		
		836.80		8.950E+07	2.247E-01	Half-Life too short		
		1038.76		4.618E+06	2.247E-01	Half-Life too short		
		1131.51		-7.349E+04	2.247E-01	Half-Life too short		
		1260.41	*	-4.687E+06	2.247E-01	Half-Life too short		
		1457.56		5.125E+09	2.247E-01	Half-Life too short		
		1678.03		2.626E+07	2.247E-01	Half-Life too short		
		1791.20		1.504E+07	2.247E-01	Half-Life too short		
CS-136		153.25		-8.779E-02	1.012E+00	1.628E+00	1.915E-01	-0.054
		176.60		2.380E-01	6.187E-01	1.008E+00	1.156E-01	0.236
		273.65		-1.296E+00	7.459E-01	9.448E-01	1.082E-01	-1.371
		340.55		6.345E-01	2.287E-01	3.633E-01	3.668E-02	1.746
		818.51		-4.773E-02	8.266E-02	1.304E-01	1.175E-02	-0.366
		1048.07	*	-1.223E-02	1.203E-01	1.949E-01	1.802E-02	-0.063

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1235.36		6.957E-02	9.004E-01	1.256E+00	1.487E-01	0.055
CE-139		165.86	*	1.530E-02	4.014E-02	6.376E-02	6.806E-03	0.240
BA-140		162.66		2.915E-01	9.446E-01	1.539E+00	1.703E-01	0.189
		304.85		6.184E-01	1.766E+00	2.601E+00	7.770E-01	0.238
		423.72		1.651E+00	2.263E+00	3.767E+00	1.238E+00	0.438
		537.26	*	3.630E-01	3.202E-01	5.206E-01	1.766E-01	0.697
LA-140	+	328.76		3.974E-01	4.923E-01	6.449E-01	6.763E-02	0.616
		487.02		6.635E-02	1.462E-01	2.456E-01	2.252E-02	0.270
		815.77		-4.613E-02	3.688E-01	6.060E-01	6.039E-02	-0.076
		1596.21	*	-3.875E-02	8.887E-02	1.408E-01	1.320E-02	-0.275
CE-141		145.44	*	5.705E-02	8.082E-02	1.337E-01	1.382E-02	0.427
CE-143		57.36		-4.163E-04	8.082E-02	Half-Life too short		
		293.27	*	2.844E-04	8.082E-02	Half-Life too short		
		664.57		4.938E-04	8.082E-02	Half-Life too short		
		721.93		2.429E-04	8.082E-02	Half-Life too short		
CE-144		80.12		4.166E-01	4.034E+00	5.844E+00	6.869E-01	0.071
		133.52	*	-2.087E-01	2.845E-01	4.356E-01	7.029E-02	-0.479
PM-144		476.78		2.495E-02	8.072E-02	1.343E-01	1.259E-02	0.186
		618.01		-3.227E-02	4.097E-02	6.164E-02	5.341E-03	-0.524
		696.49	*	4.197E-02	4.438E-02	7.854E-02	6.607E-03	0.534
PR-144		696.51	*	2.905E+00	3.329E+00	5.868E+00	4.935E-01	0.495
		1489.16		-8.133E+00	1.440E+01	2.181E+01	2.089E+00	-0.373
PM-146		453.88	*	-3.855E-02	5.343E-02	8.287E-02	8.763E-03	-0.465
		633.25		2.291E-01	1.674E+00	2.717E+00	1.036E+00	0.084
		735.93		4.642E-02	1.880E-01	2.972E-01	8.327E-02	0.156
		747.24		-1.193E-01	1.187E-01	1.799E-01	2.629E-02	-0.663
ND-147		91.11		4.757E-01	5.811E-01	6.313E-01	7.817E-02	0.753
		319.41		-2.204E+00	3.738E+00	6.003E+00	6.149E-01	-0.367
		531.02	*	-2.628E-01	6.456E-01	1.015E+00	1.518E-01	-0.259
PM-149		285.90	*	-2.580E+01	5.929E+01	9.656E+01	1.623E+01	-0.267
EU-152		121.78		-5.463E-02	1.045E-01	1.645E-01	1.840E-02	-0.332
		244.70		6.972E-01	4.985E-01	7.766E-01	8.561E-02	0.898
		344.28	*	-1.267E-01	1.550E-01	2.083E-01	2.120E-02	-0.608
		778.90		-1.334E-01	3.366E-01	5.153E-01	4.547E-02	-0.259
		964.08		1.587E-01	4.836E-01	7.039E-01	6.474E-02	0.225
		1085.87		7.105E-02	5.072E-01	8.384E-01	7.300E-02	0.085
		1112.07		-3.011E-01	4.234E-01	6.074E-01	5.197E-02	-0.496
		1408.01		9.349E-02	2.323E-01	4.045E-01	3.898E-02	0.231
GD-153		69.67		4.604E+00	3.176E+00	4.844E+00	5.529E-01	0.950
		97.43	*	7.702E-02	1.312E-01	1.932E-01	2.132E-02	0.399
		103.18		-6.811E-02	1.517E-01	2.433E-01	2.573E-02	-0.280
EU-154		123.07		5.380E-02	7.188E-02	1.195E-01	1.491E-02	0.450
		723.31		5.882E-03	2.447E-01	3.532E-01	3.331E-02	0.017
		873.19		-7.171E-02	3.442E-01	5.586E-01	6.896E-02	-0.128
		996.26		-2.047E-01	4.718E-01	7.424E-01	1.315E-01	-0.276
		1004.73		-2.619E-01	2.752E-01	4.089E-01	4.896E-02	-0.641
		1274.44	*	-2.141E-03	1.635E-01	2.638E-01	3.094E-02	-0.008
EU-155	+	86.55		4.080E-01	1.843E-01	2.679E-01	3.304E-02	1.523
		105.31	*	1.394E-01	1.480E-01	2.483E-01	2.615E-02	0.561

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TB-160	+	86.79		1.061E+00	4.788E-01	6.913E-01	8.500E-02	1.534
		197.04		-1.237E-01	7.575E-01	1.203E+00	1.311E-01	-0.103
		215.65		-1.391E-01	1.006E+00	1.592E+00	1.752E-01	-0.087
		298.57		1.670E-01	1.465E-01	2.542E-01	2.690E-02	0.657
		879.36	*	1.334E-01	1.650E-01	2.909E-01	2.692E-02	0.459
		962.29		9.765E-01	8.034E-01	1.269E+00	1.168E-01	0.769
		966.15		1.048E+00	3.850E-01	6.431E-01	5.912E-02	1.630
		1177.93		-1.199E-02	4.894E-01	7.933E-01	6.491E-02	-0.015
		1271.85		-3.491E-01	9.425E-01	1.466E+00	1.327E-01	-0.238
HO-166M		80.57		-3.691E-01	4.413E-01	6.084E-01	7.169E-02	-0.607
	+	184.41		2.038E-01	7.127E-02	9.342E-02	1.010E-02	2.181
		280.46		-6.781E-02	1.158E-01	1.879E-01	2.030E-02	-0.361
		410.95		3.942E-01	3.201E-01	5.589E-01	4.744E-02	0.705
		711.68	*	-4.240E-02	7.508E-02	1.202E-01	1.021E-02	-0.353
		752.31		2.167E-01	3.341E-01	5.829E-01	5.069E-02	0.372
		810.29		-8.161E-03	7.752E-02	1.277E-01	1.145E-02	-0.064
TA-182		67.75		-1.375E-01	1.963E-01	3.116E-01	3.556E-02	-0.441
		100.11		-1.203E-01	2.367E-01	3.789E-01	4.090E-02	-0.317
		152.43		6.854E-03	4.569E-01	7.376E-01	7.627E-02	0.009
		222.11		-1.980E-01	4.556E-01	7.532E-01	8.300E-02	-0.263
	+	1121.30		8.027E-01	3.155E-01	4.339E-01	3.688E-02	1.850
		1189.05		-9.828E-02	3.893E-01	6.172E-01	5.113E-02	-0.159
		1221.41	*	2.324E-02	2.919E-01	4.757E-01	4.083E-02	0.049
		1231.02		1.216E-01	8.106E-01	1.141E+00	9.892E-02	0.107
IR-192	+	295.96		1.152E+00	2.334E-01	3.453E-01	3.683E-02	3.337
		308.46		-6.382E-03	1.223E-01	2.028E-01	2.123E-02	-0.031
		316.51	*	-8.628E-03	4.322E-02	7.102E-02	7.323E-03	-0.121
		468.07		5.234E-02	9.600E-02	1.421E-01	1.314E-02	0.368
HG-203		70.83		1.457E+00	2.365E+00	3.499E+00	6.202E-01	0.416
		72.87		1.176E+00	1.412E+00	2.093E+00	3.614E-01	0.562
		279.20	*	4.797E-02	5.058E-02	8.738E-02	9.602E-03	0.549
BI-207		72.81		2.249E-01	3.340E-01	4.955E-01	5.674E-02	0.454
	+	74.97		8.966E-01	2.903E-01	3.484E-01	4.010E-02	2.573
		569.70		3.526E-02	3.800E-02	6.535E-02	5.597E-03	0.540
		1063.66	*	5.293E-03	7.289E-02	1.199E-01	1.057E-02	0.044
		1770.23		2.210E-02	6.153E-01	8.714E-01	7.617E-02	0.025
PB-210		46.54	*	-5.447E+00	1.279E+01	2.061E+01	2.537E+00	-0.264
PB-211		404.85	*	-7.398E-01	1.034E+00	1.526E+00	7.381E-01	-0.485
		427.09		7.630E-01	1.919E+00	3.171E+00	1.467E+00	0.241
		832.01		-1.553E-01	1.275E+00	2.090E+00	1.085E+00	-0.074
RN-219	+	271.23		7.564E-01	4.431E-01	5.717E-01	6.986E-02	1.323
		401.81	*	3.671E-01	5.270E-01	8.962E-01	1.324E-01	0.410
RA-223		81.07		-4.644E-01	3.831E-01	4.752E-01	5.615E-02	-0.977
		83.79		1.123E-01	2.046E-01	2.942E-01	3.537E-02	0.382
	+	94.87		1.121E+00	1.027E+00	1.214E+00	1.375E-01	0.923
		144.24		7.603E-01	9.216E-01	1.510E+00	1.667E-01	0.504
		154.21		1.521E-01	5.199E-01	8.477E-01	9.388E-02	0.179
	+	269.46		5.877E-01	3.429E-01	4.338E-01	4.786E-02	1.355
		323.87	*	4.630E-01	9.471E-01	1.407E+00	2.554E-01	0.329

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		7.544E+00	2.001E+00	2.999E+00	3.895E-01	2.515
AC-227		79.69		4.311E+00	2.200E+00	3.217E+00	6.106E-01	1.340
		235.96		1.007E+00	2.844E-01	4.381E-01	5.444E-02	2.299
		256.23	*	7.753E-02	3.381E-01	5.715E-01	7.909E-02	0.136
		299.98		7.323E-01	1.211E+00	2.021E+00	2.848E-01	0.362
		304.50		9.046E-01	2.398E+00	3.549E+00	6.239E-01	0.255
		334.37		3.145E-01	3.843E+00	3.740E+00	6.117E-01	0.084
TH-227		79.80		2.286E+00	2.788E+00	4.092E+00	9.489E-01	0.559
		235.96		1.007E+00	2.823E-01	4.381E-01	5.232E-02	2.299
		256.23	*	7.753E-02	3.382E-01	5.715E-01	8.693E-02	0.136
		299.98		7.323E-01	1.211E+00	2.021E+00	2.848E-01	0.362
		304.50		9.046E-01	2.398E+00	3.549E+00	6.239E-01	0.255
		334.37		3.145E-01	3.843E+00	3.740E+00	6.117E-01	0.084
TH-229		85.43		8.242E-01	3.535E-01	5.371E-01	6.534E-02	1.535
	+	88.47		5.193E-01	2.344E-01	3.334E-01	4.110E-02	1.557
		193.51	*	-2.156E-02	7.186E-01	1.148E+00	1.249E-01	-0.019
		210.85		2.380E+00	1.384E+00	2.168E+00	2.381E-01	1.098
PA-231		283.69	*	1.041E+00	1.875E+00	3.197E+00	5.098E-01	0.326
		301.36		4.986E-01	8.758E-01	1.300E+00	1.766E-01	0.383
TH-231		81.07		-4.644E-01	3.831E-01	4.752E-01	5.615E-02	-0.977
		83.79		1.123E-01	2.046E-01	2.942E-01	3.537E-02	0.382
	+	94.87		1.121E+00	1.027E+00	1.214E+00	1.375E-01	0.923
		144.24		7.603E-01	9.216E-01	1.510E+00	1.667E-01	0.504
		154.21		1.521E-01	5.199E-01	8.477E-01	9.388E-02	0.179
	+	269.46		5.877E-01	3.429E-01	4.338E-01	4.786E-02	1.355
		323.87	*	4.630E-01	9.471E-01	1.407E+00	2.554E-01	0.329
	+	338.28		7.544E+00	2.001E+00	2.999E+00	3.895E-01	2.515
PA-233		300.13		3.202E-01	5.481E-01	9.132E-01	1.464E-01	0.351
		311.90	*	-6.132E-02	8.218E-02	1.308E-01	1.384E-02	-0.469
		340.48		3.218E+00	1.322E+00	1.765E+00	4.329E-01	1.823
PA-234	+	94.67		4.064E-01	3.738E-01	4.529E-01	6.536E-02	0.897
		98.44		6.202E-02	1.383E-01	2.066E-01	1.161E-01	0.300
		111.00		3.879E-02	2.515E-01	4.120E-01	5.470E-02	0.094
		131.20		7.751E-02	1.426E-01	2.355E-01	2.364E-02	0.329
		569.50		2.163E-01	3.428E-01	5.783E-01	4.953E-02	0.374
		733.00		-3.684E-01	5.154E-01	6.688E-01	1.484E-01	-0.551
		880.51		2.070E-01	3.361E-01	5.843E-01	5.411E-02	0.354
		883.24		1.864E-02	3.427E-01	5.686E-01	3.827E-01	0.033
		926.50		-2.608E-01	2.340E-01	3.308E-01	8.438E-02	-0.789
		946.00	*	-1.434E-04	3.617E-01	5.953E-01	1.134E-01	0.000
		949.00		-6.062E-02	5.550E-01	9.043E-01	8.351E-02	-0.067
PA-234M		766.42		8.886E+00	1.562E+01	2.586E+01	1.312E+01	0.344
		1001.03	*	3.947E+00	6.091E+00	1.045E+01	1.084E+00	0.378
TH-234		63.29	*	1.481E+00	2.499E+00	4.187E+00	8.302E-01	0.354
	+	92.59		1.508E+00	1.415E+00	1.883E+00	4.409E-01	0.801
U-235		89.96		-4.991E-01	2.053E+00	2.084E+00	5.421E-01	-0.239
	+	93.35		1.139E+00	1.071E+00	1.375E+00	3.345E-01	0.829
		143.76	*	1.807E-01	2.759E-01	4.481E-01	7.973E-02	0.403
		163.33		1.727E-02	5.924E-01	9.288E-01	1.764E-01	0.019

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	185.72		2.565E-01	8.970E-02	1.229E-01	1.330E-02	2.087
		205.31		3.443E-01	7.805E-01	1.102E+00	2.133E-01	0.313
U-238		63.29	*	1.481E+00	2.499E+00	4.187E+00	8.302E-01	0.354
	+	92.59		1.508E+00	1.381E+00	1.883E+00	2.188E-01	0.801
NP-239		99.53		1.618E-02	2.209E-01	3.621E-01	3.926E-02	0.045
		103.37		-1.420E-02	1.378E-01	2.241E-01	2.367E-02	-0.063
		106.12		1.535E-01	1.183E-01	2.000E-01	2.082E-02	0.767
		117.23	*	-2.803E-02	5.385E-01	8.745E-01	8.826E-02	-0.032
		228.18		-5.814E-02	2.825E-01	4.711E-01	5.197E-02	-0.123
		277.60		3.017E-01	2.433E-01	4.145E-01	4.488E-02	0.728
AM-241		59.54	*	-3.863E-01	3.217E-01	5.039E-01	5.914E-02	-0.767
CM-247		278.00		1.277E+00	1.015E+00	1.768E+00	1.913E-01	0.722
		287.50		-2.339E-01	1.862E+00	2.674E+00	2.867E-01	-0.087
		402.40	*	3.028E-02	4.847E-02	8.239E-02	6.968E-03	0.367
CF-249		252.80		-1.390E-01	1.241E+00	2.068E+00	2.275E-01	-0.067
		333.37		-3.168E-02	4.177E-01	3.975E-01	3.961E-02	-0.080
		388.16	*	8.394E-03	5.379E-02	8.931E-02	7.614E-03	0.094
CF-251		177.52	*	-1.198E-02	1.827E-01	2.925E-01	3.148E-02	-0.041
		227.38		-1.605E-01	4.627E-01	7.670E-01	8.460E-02	-0.209
		285.41		-1.134E+00	2.821E+00	4.610E+00	4.954E-01	-0.246

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331004       *
* Acquisition date : 24-MAR-2010 09:12:53 Detector SN#    :                 *
* Detector ID       : GAM15                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.42      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 11-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G249331004           Analyst initials: MXR1           *
* Batch Number      : 965250               Sample Quantity : 1.2985E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.860E+01	4.286E+00	5.585E-01	0.000E+00
CD-109	3.434E+00	1.519E+00	2.196E+00	0.000E+00
SN-126	3.368E-01	1.490E-01	2.204E-01	0.000E+00
BA-137M	5.367E-02	6.088E-02	8.041E-02	0.000E+00
CS-137	5.669E-02	6.432E-02	8.495E-02	0.000E+00
TL-208	5.367E-01	1.268E-01	7.092E-02	0.000E+00
BI-211	5.082E+00	7.368E-01	4.377E-01	0.000E+00
BI-212	2.620E+00	1.072E+00	9.775E-01	0.000E+00
PB-212	1.954E+00	2.701E-01	1.274E-01	0.000E+00
BI-214	1.278E+00	2.157E-01	1.672E-01	0.000E+00
PB-214	1.844E+00	2.854E-01	1.592E-01	0.000E+00
RA-224	5.166E+00	1.875E+00	1.365E+00	0.000E+00
RA-226	1.278E+00	2.157E-01	1.672E-01	0.000E+00
AC-228	2.057E+00	4.406E-01	2.902E-01	0.000E+00
RA-228	2.057E+00	4.406E-01	2.902E-01	0.000E+00
TH-228	1.954E+00	2.701E-01	1.274E-01	0.000E+00
TH-230	1.278E+00	2.054E-01	1.672E-01	0.000E+00
TH-232	2.057E+00	4.406E-01	2.902E-01	0.000E+00
NP-237	1.005E+00	4.903E-01	6.166E-01	0.000E+00
ANH-511	2.476E-01	8.213E-02	5.760E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	8.395E-02	3.847E-01	6.616E-01	0.000E+00	NOT IDENT.
NA-22	4.084E-03	5.638E-02	9.388E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.333E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	1.003E-02	4.247E-02	7.377E-02	0.000E+00	FAIL ABUN
V-48	-8.612E-02	7.781E-02	1.167E-01	0.000E+00	NOT IDENT.
CR-51	1.391E-01	4.381E-01	7.729E-01	0.000E+00	NOT IDENT.
MN-54	-9.064E-03	4.800E-02	8.087E-02	0.000E+00	NOT IDENT.

CO-56	-4.079E-03	4.734E-02	8.022E-02	0.000E+00	FAIL ABUN
CO-57	-3.034E-02	3.579E-02	5.905E-02	0.000E+00	NOT IDENT.
CO-58	-2.469E-03	4.928E-02	8.404E-02	0.000E+00	NOT IDENT.
FE-59	-5.882E-02	1.134E-01	1.806E-01	0.000E+00	NOT IDENT.
CO-60	2.378E-02	5.235E-02	9.040E-02	0.000E+00	NOT IDENT.
ZN-65	-1.492E-01	1.342E-01	1.629E-01	0.000E+00	NOT IDENT.
SE-75	-3.816E-02	6.257E-02	9.143E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.401E-02	9.258E-02	0.000E+00	NOT IDENT.
Y-88	4.171E-03	3.871E-02	6.587E-02	0.000E+00	NOT IDENT.
Y-91	1.647E+01	2.902E+01	5.028E+01	0.000E+00	NOT IDENT.
NB-94	-4.516E-02	4.168E-02	6.641E-02	0.000E+00	NOT IDENT.
NB-95	2.633E-02	5.361E-02	9.494E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.986E-01	3.269E-01	0.000E+00	NOT IDENT.
ZR-95	-2.853E-02	8.802E-02	1.478E-01	0.000E+00	NOT IDENT.
MO-99	1.627E+00	8.496E+00	1.483E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.157E+14	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.149E-02	4.729E-02	8.226E-02	0.000E+00	FAIL ABUN
RH-106	-2.592E-02	3.671E-01	6.079E-01	0.000E+00	NOT IDENT.
RU-106	-2.592E-02	3.671E-01	6.079E-01	0.000E+00	NOT IDENT.
AG-108M	2.722E-03	3.626E-02	6.215E-02	0.000E+00	NOT IDENT.
AG-110M	4.265E-02	4.173E-02	6.935E-02	0.000E+00	NOT IDENT.
SN-113	-4.260E-02	5.795E-02	9.521E-02	0.000E+00	NOT IDENT.
CD-115	1.788E+00	7.106E+00	1.218E+01	0.000E+00	NOT IDENT.
SN-117M	-1.609E-02	6.425E-02	1.084E-01	0.000E+00	NOT IDENT.
TE-123M	2.078E-03	3.640E-02	6.219E-02	0.000E+00	NOT IDENT.
SB-124	-5.579E-03	9.040E-02	1.503E-01	0.000E+00	NOT IDENT.
SB-125	3.941E-02	1.100E-01	1.919E-01	0.000E+00	FAIL ABUN
TE-125M	-1.166E+01	1.310E+01	2.190E+01	0.000E+00	NOT IDENT.
I-126	3.273E-01	2.557E-01	4.298E-01	0.000E+00	NOT IDENT.
SB-126	1.849E-02	1.848E-01	2.777E-01	0.000E+00	NOT IDENT.
SB-127	-3.999E-01	1.072E+00	1.807E+00	0.000E+00	NOT IDENT.
I-131	3.027E-02	1.197E-01	2.093E-01	0.000E+00	NOT IDENT.
TE-132	-1.261E-01	5.762E-01	1.010E+00	0.000E+00	NOT IDENT.
BA-133	4.833E-02	5.859E-02	9.285E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.292E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.039E-02	1.155E-01	0.000E+00	NOT IDENT.
CS-135	2.782E-01	2.202E-01	3.590E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.921E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.223E-02	1.179E-01	1.961E-01	0.000E+00	NOT IDENT.
CE-139	1.530E-02	3.934E-02	6.607E-02	0.000E+00	NOT IDENT.
BA-140	3.630E-01	3.138E-01	5.295E-01	0.000E+00	NOT IDENT.
LA-140	-3.875E-02	8.709E-02	1.407E-01	0.000E+00	FAIL ABUN
CE-141	5.705E-02	7.920E-02	1.389E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	8.911E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.087E-01	2.788E-01	4.529E-01	0.000E+00	NOT IDENT.
PM-144	4.197E-02	4.349E-02	7.955E-02	0.000E+00	NOT IDENT.
PR-144	2.905E+00	3.263E+00	5.944E+00	0.000E+00	NOT IDENT.
PM-146	-3.855E-02	5.236E-02	8.452E-02	0.000E+00	NOT IDENT.
ND-147	-2.628E-01	6.326E-01	1.033E+00	0.000E+00	NOT IDENT.
PM-149	-2.580E+01	5.811E+01	9.921E+01	0.000E+00	NOT IDENT.
EU-152	-1.267E-01	1.519E-01	2.134E-01	0.000E+00	NOT IDENT.
GD-153	7.702E-02	1.286E-01	2.018E-01	0.000E+00	NOT IDENT.
EU-154	-2.141E-03	1.602E-01	2.646E-01	0.000E+00	NOT IDENT.
EU-155	1.394E-01	1.450E-01	2.591E-01	0.000E+00	FAIL ABUN
TB-160	1.334E-01	1.617E-01	2.935E-01	0.000E+00	FAIL ABUN
HO-166M	-4.240E-02	7.358E-02	1.217E-01	0.000E+00	FAIL ABUN
TA-182	2.324E-02	2.860E-01	4.774E-01	0.000E+00	FAIL ABUN
IR-192	-8.628E-03	4.236E-02	7.285E-02	0.000E+00	FAIL ABUN
HG-203	4.797E-02	4.956E-02	8.981E-02	0.000E+00	NOT IDENT.
BI-207	5.293E-03	7.143E-02	1.206E-01	0.000E+00	FAIL ABUN
PB-210	-5.447E+00	1.253E+01	2.178E+01	0.000E+00	NOT IDENT.
PB-211	-7.398E-01	1.014E+00	1.559E+00	0.000E+00	NOT IDENT.
RN-219	3.671E-01	5.165E-01	9.159E-01	0.000E+00	FAIL ABUN
RA-223	4.630E-01	9.282E-01	1.443E+00	0.000E+00	FAIL ABUN
AC-227	7.753E-02	3.314E-01	5.882E-01	0.000E+00	NOT IDENT.
TH-227	7.753E-02	3.314E-01	5.882E-01	0.000E+00	NOT IDENT.
TH-229	-2.156E-02	7.043E-01	1.187E+00	0.000E+00	FAIL ABUN
PA-231	1.041E+00	1.838E+00	3.285E+00	0.000E+00	NOT IDENT.
TH-231	4.630E-01	9.282E-01	1.443E+00	0.000E+00	FAIL ABUN
PA-233	-6.132E-02	8.053E-02	1.342E-01	0.000E+00	NOT IDENT.
PA-234	-1.434E-04	3.545E-01	5.999E-01	0.000E+00	FAIL ABUN
PA-234M	3.947E+00	5.969E+00	1.053E+01	0.000E+00	NOT IDENT.
TH-234	1.481E+00	2.449E+00	4.403E+00	0.000E+00	FAIL ABUN
U-235	1.807E-01	2.704E-01	4.653E-01	0.000E+00	FAIL ABUN
U-238	1.481E+00	2.449E+00	4.403E+00	0.000E+00	FAIL ABUN
NP-239	-2.803E-02	5.278E-01	9.110E-01	0.000E+00	NOT IDENT.
AM-241	-3.863E-01	3.152E-01	5.304E-01	0.000E+00	NOT IDENT.
CM-247	3.028E-02	4.750E-02	8.420E-02	0.000E+00	NOT IDENT.

CF-249	8.394E-03	5.272E-02	9.132E-02	0.000E+00	NOT IDENT.
CF-251	-1.198E-02	1.791E-01	3.028E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:13:37.04

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331004.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:12:53
Sample ID         : G249331004           Sample quantity  : 1.29850E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.42  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1375	10.66*	9.664E-01	3.860E+01	3.860E+01	11.33
CD-109	88.03	192	3.70*	4.446E+00	3.368E+00	3.434E+00	45.15
SN-126	64.28	------	9.60	1.941E+00	------ Line Not Found		------
	86.94	192	8.90	4.446E+00	1.400E+00	1.400E+00	60.62
	87.57	192	37.00*	4.446E+00	3.368E-01	3.368E-01	45.15
BA-137M	661.66	33	89.90*	1.979E+00	5.362E-02	5.367E-02	115.76
CS-137	661.66	33	85.10*	1.979E+00	5.665E-02	5.669E-02	115.76
TL-208	277.37	------	6.60	3.705E+00	------ Line Not Found		------
	583.19	346	85.00*	2.190E+00	5.367E-01	5.367E-01	24.10
	860.56	------	12.50	1.576E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	3.001E+00	------ Line Not Found		------
	351.06	713	12.92*	3.141E+00	5.082E+00	5.082E+00	14.79
BI-212	727.33	111	6.67*	1.830E+00	2.620E+00	2.620E+00	41.75
	785.37	43	1.10	1.710E+00	6.682E+00	6.682E+00	54.90
	1620.50	14	1.47	8.967E-01	3.105E+00	3.105E+00	94.88
PB-212	74.82	359	10.28	3.246E+00	3.111E+00	3.111E+00	33.81
	77.11	535	17.10	3.509E+00	2.579E+00	2.579E+00	20.08
	238.63	1213	43.60*	4.114E+00	1.954E+00	1.954E+00	14.10
	300.09	------	3.30	3.507E+00	------ Line Not Found		------
BI-214	609.32	426	45.49*	2.117E+00	1.278E+00	1.278E+00	17.22
	1120.29	110	14.92	1.226E+00	1.736E+00	1.736E+00	39.87
	1764.49	81	15.30	8.554E-01	1.783E+00	1.783E+00	28.22
PB-214	74.82	359	5.80	3.246E+00	5.515E+00	5.515E+00	33.34
	77.11	535	9.70	3.509E+00	4.546E+00	4.546E+00	21.70
	242.00	299	7.25	4.079E+00	2.921E+00	2.921E+00	37.49
	295.22	359	18.42	3.546E+00	1.591E+00	1.591E+00	21.25
	351.93	713	35.60*	3.141E+00	1.844E+00	1.844E+00	15.79
RA-224	240.99	299	4.10*	4.079E+00	5.166E+00	5.166E+00	37.04
RA-226	609.32	426	45.49*	2.117E+00	1.278E+00	1.278E+00	17.22
	1120.29	110	14.92	1.226E+00	1.736E+00	1.736E+00	39.87
	1764.49	81	15.30	8.554E-01	1.783E+00	1.783E+00	28.22
AC-228	338.32	239	11.27	3.228E+00	1.901E+00	1.901E+00	47.94

Sample ID : G249331004 Acquisition date : 24-MAR-2010 09:12:53

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	274	25.80*	1.494E+00	2.057E+00	2.057E+00	21.86
	968.97	107	15.80	1.409E+00	1.394E+00	1.394E+00	64.70
RA-228	338.32	239	11.27	3.228E+00	1.901E+00	1.901E+00	47.94
	911.20	274	25.80*	1.494E+00	2.057E+00	2.057E+00	21.86
	968.97	107	15.80	1.409E+00	1.394E+00	1.394E+00	64.70
TH-228	74.82	359	10.28	3.246E+00	3.111E+00	3.111E+00	32.40
	77.11	535	17.10	3.509E+00	2.579E+00	2.579E+00	20.08
	238.63	1213	43.60*	4.114E+00	1.954E+00	1.954E+00	14.10
	300.09	------	3.30	3.507E+00	------	Line Not Found	------
TH-230	609.32	426	45.49*	2.117E+00	1.278E+00	1.278E+00	16.39
	1120.29	110	14.92	1.226E+00	1.736E+00	1.736E+00	39.30
	1764.49	81	15.30	8.554E-01	1.783E+00	1.783E+00	28.22
TH-232	338.32	239	11.27	3.228E+00	1.901E+00	1.901E+00	25.15
	911.20	274	25.80*	1.494E+00	2.057E+00	2.057E+00	21.86
	968.97	107	15.80	1.409E+00	1.394E+00	1.394E+00	64.70
NP-237	86.48	192	12.40*	4.446E+00	1.005E+00	1.005E+00	49.78
	95.86	------	2.68	5.004E+00	------	Line Not Found	------
ANH-511	511.00	207	100.00*	2.419E+00	2.476E-01	2.476E-01	33.84

Flag: "*" = Keyline

Sample ID : G249331004 Acquisition date : 24-MAR-2010 09:12:53

Total number of lines in spectrum 28
Number of unidentified lines 2
Number of lines tentatively identified by NID 26 92.86%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.860E+01	3.860E+01	0.437E+01	11.33	
CD-109	461.40D	1.02	3.368E+00	3.434E+00	1.550E+00	45.15	
SN-126	2.30E+05Y	1.00	3.368E-01	3.368E-01	1.521E-01	45.15	
BA-137M	30.08Y	1.00	5.362E-02	5.367E-02	6.212E-02	115.76	
CS-137	30.08Y	1.00	5.665E-02	5.669E-02	6.563E-02	115.76	
TL-208	1.41E+10Y	1.00	5.367E-01	5.367E-01	1.293E-01	24.10	
BI-211	7.04E+08Y	1.00	5.082E+00	5.082E+00	0.752E+00	14.79	
BI-212	1.41E+10Y	1.00	2.620E+00	2.620E+00	1.094E+00	41.75	
PB-212	1.41E+10Y	1.00	1.954E+00	1.954E+00	0.276E+00	14.10	
BI-214	1600.00Y	1.00	1.278E+00	1.278E+00	0.220E+00	17.22	
PB-214	1600.00Y	1.00	1.844E+00	1.844E+00	0.291E+00	15.79	
RA-224	1.41E+10Y	1.00	5.166E+00	5.166E+00	1.913E+00	37.04	
RA-226	1600.00Y	1.00	1.278E+00	1.278E+00	0.220E+00	17.22	
AC-228	1.41E+10Y	1.00	2.057E+00	2.057E+00	0.450E+00	21.86	
RA-228	1.41E+10Y	1.00	2.057E+00	2.057E+00	0.450E+00	21.86	
TH-228	1.41E+10Y	1.00	1.954E+00	1.954E+00	0.276E+00	14.10	
TH-230	7.54E+04Y	1.00	1.278E+00	1.278E+00	0.210E+00	16.39	
TH-232	1.41E+10Y	1.00	2.057E+00	2.057E+00	0.450E+00	21.86	
NP-237	2.14E+06Y	1.00	1.005E+00	1.005E+00	0.500E+00	49.78	
ANH-511	1.00E+09Y	1.00	2.476E-01	2.476E-01	0.838E-01	33.84	
		Total Activity :	7.283E+01	7.289E+01			

Grand Total Activity : 7.283E+01 7.289E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249331004 Acquisition date : 24-MAR-2010 09:12:53

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	93.51	108	636	1.48	185.93	181	9	1.49E-02	90.8	4.87E+00	T
0	185.83	247	379	1.32	370.58	366	10	3.43E-02	33.3	4.86E+00	T
0	209.35	88	331	1.80	417.61	414	9	1.22E-02	77.5	4.50E+00	
0	270.39	107	220	0.87	539.68	534	11	1.48E-02	57.3	3.77E+00	T
0	328.27	46	213	0.88	655.45	652	10	6.33E-03	****	3.30E+00	T
0	463.69	96	140	3.89	926.28	919	16	1.33E-02	58.9	2.59E+00	T
0	1239.00	32	81	1.77	2477.12	2467	13	4.50E-03	****	1.12E+00	T
0	1509.43	29	12	1.12	3018.14	3010	17	3.99E-03	67.9	9.42E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:13:41.55

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331004.CNF;1    *
* Acquisition date : 24-MAR-2010 09:12:53  Detector SN#    :                  *
* Detector ID      : GAM15                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:01.42         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date      : 11-MAR-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G249331004            Analyst initials: MXR1             *
* Batch Number     : 965250                Sample Quantity : 1.29850E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.860E+01	4.374E+00	5.582E-01	5.485E-02	69.151
CD-109	3.434E+00	1.550E+00	2.098E+00	2.605E-01	1.637
SN-126	3.368E-01	1.521E-01	2.106E-01	2.606E-02	1.600
BA-137M	5.367E-02	6.212E-02	7.933E-02	6.522E-03	0.677
CS-137	5.669E-02	6.563E-02	8.380E-02	6.904E-03	0.677
TL-208	5.367E-01	1.293E-01	6.982E-02	6.385E-03	7.688
BI-211	5.082E+00	7.518E-01	4.274E-01	4.256E-02	11.891
BI-212	2.620E+00	1.094E+00	9.657E-01	1.200E-01	2.713
PB-212	1.954E+00	2.756E-01	1.236E-01	1.477E-02	15.806
BI-214	1.278E+00	2.201E-01	1.647E-01	1.641E-02	7.763
PB-214	1.844E+00	2.912E-01	1.554E-01	1.767E-02	11.868
RA-224	5.166E+00	1.913E+00	1.325E+00	1.461E-01	3.899
RA-226	1.278E+00	2.201E-01	1.647E-01	1.641E-02	7.763
AC-228	2.057E+00	4.496E-01	2.878E-01	3.486E-02	7.148
RA-228	2.057E+00	4.496E-01	2.878E-01	3.486E-02	7.148
TH-228	1.954E+00	2.756E-01	1.236E-01	1.477E-02	15.806
TH-230	1.278E+00	2.095E-01	1.647E-01	1.392E-02	7.763
TH-232	2.057E+00	4.496E-01	2.878E-01	3.486E-02	7.148

Sample ID : G249331004 Acquisition date : 24-MAR-2010 09:12:53

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	1.005E+00	5.003E-01	5.891E-01	1.431E-01	1.706
ANH-511	2.476E-01	8.381E-02	5.659E-02	4.889E-03	4.376

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	8.395E-02		3.926E-01	6.492E-01	6.034E-02	0.129
NA-22	4.084E-03		5.753E-02	9.361E-02	8.504E-03	0.044
NA-24	5.077E-02		3.741E-02	Half-Life too short		
SC-46	1.003E-02		4.333E-02	7.312E-02	6.795E-03	0.137
V-48	-8.612E-02		7.939E-02	1.159E-01	1.059E-02	-0.743
CR-51	1.391E-01		4.470E-01	7.536E-01	7.997E-02	0.185
MN-54	-9.064E-03		4.898E-02	8.008E-02	7.267E-03	-0.113
CO-56	-4.079E-03		4.831E-02	7.946E-02	7.250E-03	-0.051
CO-57	-3.034E-02		3.652E-02	5.672E-02	5.713E-03	-0.535
CO-58	-2.469E-03		5.029E-02	8.318E-02	7.478E-03	-0.030
FE-59	-5.882E-02		1.157E-01	1.797E-01	1.676E-02	-0.327
CO-60	2.378E-02		5.342E-02	9.021E-02	8.672E-03	0.264
ZN-65	-1.492E-01		1.369E-01	1.620E-01	1.385E-02	-0.921
SE-75	-3.816E-02		6.385E-02	8.888E-02	9.747E-03	-0.429
SR-85	1.286E-01		5.512E-02	9.096E-02	7.858E-03	1.413
Y-88	4.171E-03		3.950E-02	6.608E-02	5.565E-03	0.063
Y-91	1.647E+01		2.962E+01	5.009E+01	4.222E+00	0.329
NB-94	-4.516E-02		4.253E-02	6.557E-02	5.536E-03	-0.689
NB-95	2.633E-02		5.470E-02	9.387E-02	8.225E-03	0.280
NB-95M	4.499E-01		2.027E-01	3.172E-01	3.822E-02	1.419
ZR-95	-2.853E-02		8.981E-02	1.461E-01	1.404E-02	-0.195
MO-99	1.627E+00		8.669E+00	1.466E+01	2.311E+00	0.111
TC-99M	-1.602E+08		5.904E+07	Half-Life too short		
RU-103	2.149E-02		4.825E-02	8.077E-02	1.129E-02	0.266
RH-106	-2.592E-02		3.746E-01	5.990E-01	7.857E-02	-0.043
RU-106	-2.592E-02		3.746E-01	5.990E-01	5.034E-02	-0.043
AG-108M	2.722E-03		3.700E-02	6.090E-02	5.382E-03	0.045
AG-110M	4.265E-02		4.258E-02	6.840E-02	5.821E-03	0.624
SN-113	-4.260E-02		5.913E-02	9.313E-02	8.089E-03	-0.457
CD-115	1.788E+00		7.251E+00	1.197E+01	1.033E+00	0.149
SN-117M	-1.609E-02		6.556E-02	1.046E-01	1.096E-02	-0.154
TE-123M	2.078E-03		3.714E-02	5.998E-02	6.320E-03	0.035
SB-124	-5.579E-03		9.224E-02	1.505E-01	1.418E-02	-0.037
SB-125	3.941E-02		1.122E-01	1.880E-01	1.636E-02	0.210
TE-125M	-1.166E+01		1.337E+01	2.100E+01	2.493E+00	-0.555
I-126	3.273E-01		2.609E-01	4.241E-01	3.497E-02	0.772
SB-126	1.849E-02		1.886E-01	2.744E-01	2.342E-02	0.067
SB-127	-3.999E-01		1.094E+00	1.783E+00	1.879E-01	-0.224
I-131	3.027E-02		1.222E-01	2.045E-01	1.971E-02	0.148
TE-132	-1.261E-01		5.880E-01	9.798E-01	1.654E-01	-0.129
BA-133	4.833E-02		5.978E-02	9.068E-02	1.225E-02	0.533

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	-1.148E-04		6.594E-04	Half-Life too short		
CS-134	1.225E-01		6.162E-02	1.143E-01	1.025E-02	1.072
CS-135	2.782E-01		2.247E-01	3.491E-01	4.188E-02	0.797
I-135	-4.687E+06		1.490E+07	Half-Life too short		
CS-136	-1.223E-02		1.203E-01	1.949E-01	1.802E-02	-0.063
CE-139	1.530E-02		4.014E-02	6.376E-02	6.806E-03	0.240
BA-140	3.630E-01		3.202E-01	5.206E-01	1.766E-01	0.697
LA-140	-3.875E-02		8.887E-02	1.408E-01	1.320E-02	-0.275
CE-141	5.705E-02		8.082E-02	1.337E-01	1.382E-02	0.427
CE-143	2.844E-04		4.546E-05	Half-Life too short		
CE-144	-2.087E-01		2.845E-01	4.356E-01	7.029E-02	-0.479
PM-144	4.197E-02		4.438E-02	7.854E-02	6.607E-03	0.534
PR-144	2.905E+00		3.329E+00	5.868E+00	4.935E-01	0.495
PM-146	-3.855E-02		5.343E-02	8.287E-02	8.763E-03	-0.465
ND-147	-2.628E-01		6.456E-01	1.015E+00	1.518E-01	-0.259
PM-149	-2.580E+01		5.929E+01	9.656E+01	1.623E+01	-0.267
EU-152	-1.267E-01		1.550E-01	2.083E-01	2.120E-02	-0.608
GD-153	7.702E-02		1.312E-01	1.932E-01	2.132E-02	0.399
EU-154	-2.141E-03		1.635E-01	2.638E-01	3.094E-02	-0.008
EU-155	1.394E-01		1.480E-01	2.483E-01	2.615E-02	0.561
TB-160	1.334E-01		1.650E-01	2.909E-01	2.692E-02	0.459
HO-166M	-4.240E-02		7.508E-02	1.202E-01	1.021E-02	-0.353
TA-182	2.324E-02		2.919E-01	4.757E-01	4.083E-02	0.049
IR-192	-8.628E-03		4.322E-02	7.102E-02	7.323E-03	-0.121
HG-203	4.797E-02		5.058E-02	8.738E-02	9.602E-03	0.549
BI-207	5.293E-03		7.289E-02	1.199E-01	1.057E-02	0.044
PB-210	-5.447E+00		1.279E+01	2.061E+01	2.537E+00	-0.264
PB-211	-7.398E-01		1.034E+00	1.526E+00	7.381E-01	-0.485
RN-219	3.671E-01		5.270E-01	8.962E-01	1.324E-01	0.410
RA-223	4.630E-01		9.471E-01	1.407E+00	2.554E-01	0.329
AC-227	7.753E-02		3.381E-01	5.715E-01	7.909E-02	0.136
TH-227	7.753E-02		3.382E-01	5.715E-01	8.693E-02	0.136
TH-229	-2.156E-02		7.186E-01	1.148E+00	1.249E-01	-0.019
PA-231	1.041E+00		1.875E+00	3.197E+00	5.098E-01	0.326
TH-231	4.630E-01		9.471E-01	1.407E+00	2.554E-01	0.329
PA-233	-6.132E-02		8.218E-02	1.308E-01	1.384E-02	-0.469
PA-234	-1.434E-04		3.617E-01	5.953E-01	1.134E-01	0.000
PA-234M	3.947E+00		6.091E+00	1.045E+01	1.084E+00	0.378
TH-234	1.481E+00		2.499E+00	4.187E+00	8.302E-01	0.354
U-235	1.807E-01		2.759E-01	4.481E-01	7.973E-02	0.403
U-238	1.481E+00		2.499E+00	4.187E+00	8.302E-01	0.354
NP-239	-2.803E-02		5.385E-01	8.745E-01	8.826E-02	-0.032
AM-241	-3.863E-01		3.217E-01	5.039E-01	5.914E-02	-0.767
CM-247	3.028E-02		4.847E-02	8.239E-02	6.968E-03	0.367
CF-249	8.394E-03		5.379E-02	8.931E-02	7.614E-03	0.094
CF-251	-1.198E-02		1.827E-01	2.925E-01	3.148E-02	-0.041

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249331004            *
* Acquisition date : 24-MAR-2010 09:12:53 Detector SN#    :                 *
* Detector ID      : GAM15                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.42     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249331004           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.2985E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.860E+01	4.286E+00	2.794E-01	2.187E+00
CD-109	3.434E+00	1.519E+00	1.098E+00	7.752E-01
SN-126	3.368E-01	1.490E-01	1.102E-01	7.603E-02
BA-137M	5.367E-02	6.088E-02	4.023E-02	3.106E-02
CS-137	5.669E-02	6.432E-02	4.250E-02	3.281E-02
TL-208	5.367E-01	1.268E-01	3.548E-02	6.467E-02
BI-211	5.082E+00	7.368E-01	2.190E-01	3.759E-01
BI-212	2.620E+00	1.072E+00	4.890E-01	5.469E-01
PB-212	1.954E+00	2.701E-01	6.374E-02	1.378E-01
BI-214	1.278E+00	2.157E-01	8.363E-02	1.101E-01
PB-214	1.844E+00	2.854E-01	7.962E-02	1.456E-01
RA-224	5.166E+00	1.875E+00	6.829E-01	9.566E-01
RA-226	1.278E+00	2.157E-01	8.363E-02	1.101E-01
AC-228	2.057E+00	4.406E-01	1.452E-01	2.248E-01
RA-228	2.057E+00	4.406E-01	1.452E-01	2.248E-01
TH-228	1.954E+00	2.701E-01	6.374E-02	1.378E-01
TH-230	1.278E+00	2.054E-01	8.363E-02	1.048E-01
TH-232	2.057E+00	4.406E-01	1.452E-01	2.248E-01
NP-237	1.005E+00	4.903E-01	3.085E-01	2.501E-01
ANH-511	2.476E-01	8.213E-02	2.882E-02	4.190E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	8.395E-02	3.847E-01	3.310E-01	1.963E-01	NOT IDENT.
NA-22	4.084E-03	5.638E-02	4.697E-02	2.876E-02	NOT IDENT.
NA-24	5.077E+04	7.333E+04	0.000E+00	3.741E+04	SHORT HLIF
SC-46	1.003E-02	4.247E-02	3.691E-02	2.167E-02	FAIL ABUN
V-48	-8.612E-02	7.781E-02	5.839E-02	3.970E-02	NOT IDENT.
CR-51	1.391E-01	4.381E-01	3.867E-01	2.235E-01	NOT IDENT.
MN-54	-9.064E-03	4.800E-02	4.046E-02	2.449E-02	NOT IDENT.

CO-56	-4.079E-03	4.734E-02	4.014E-02	2.415E-02	FAIL ABUN
CO-57	-3.034E-02	3.579E-02	2.954E-02	1.826E-02	NOT IDENT.
CO-58	-2.469E-03	4.928E-02	4.205E-02	2.514E-02	NOT IDENT.
FE-59	-5.882E-02	1.134E-01	9.038E-02	5.784E-02	NOT IDENT.
CO-60	2.378E-02	5.235E-02	4.523E-02	2.671E-02	NOT IDENT.
ZN-65	-1.492E-01	1.342E-01	8.149E-02	6.845E-02	NOT IDENT.
SE-75	-3.816E-02	6.257E-02	4.574E-02	3.193E-02	NOT IDENT.
SR-85	1.286E-01	5.401E-02	4.632E-02	2.756E-02	NOT IDENT.
Y-88	4.171E-03	3.871E-02	3.295E-02	1.975E-02	NOT IDENT.
Y-91	1.647E+01	2.902E+01	2.516E+01	1.481E+01	NOT IDENT.
NB-94	-4.516E-02	4.168E-02	3.322E-02	2.127E-02	NOT IDENT.
NB-95	2.633E-02	5.361E-02	4.750E-02	2.735E-02	NOT IDENT.
NB-95M	4.499E-01	1.986E-01	1.635E-01	1.013E-01	NOT IDENT.
ZR-95	-2.853E-02	8.802E-02	7.393E-02	4.491E-02	NOT IDENT.
MO-99	1.627E+00	8.496E+00	7.421E+00	4.334E+00	NOT IDENT.
TC-99M	-1.602E+14	1.157E+14	0.000E+00	5.904E+13	SHORT HLIF
RU-103	2.149E-02	4.729E-02	4.116E-02	2.413E-02	FAIL ABUN
RH-106	-2.592E-02	3.671E-01	3.041E-01	1.873E-01	NOT IDENT.
RU-106	-2.592E-02	3.671E-01	3.041E-01	1.873E-01	NOT IDENT.
AG-108M	2.722E-03	3.626E-02	3.110E-02	1.850E-02	NOT IDENT.
AG-110M	4.265E-02	4.173E-02	3.469E-02	2.129E-02	NOT IDENT.
SN-113	-4.260E-02	5.795E-02	4.764E-02	2.957E-02	NOT IDENT.
CD-115	1.788E+00	7.106E+00	6.092E+00	3.625E+00	NOT IDENT.
SN-117M	-1.609E-02	6.425E-02	5.424E-02	3.278E-02	NOT IDENT.
TE-123M	2.078E-03	3.640E-02	3.112E-02	1.857E-02	NOT IDENT.
SB-124	-5.579E-03	9.040E-02	7.517E-02	4.612E-02	NOT IDENT.
SB-125	3.941E-02	1.100E-01	9.601E-02	5.611E-02	FAIL ABUN
TE-125M	-1.166E+01	1.310E+01	1.096E+01	6.686E+00	NOT IDENT.
I-126	3.273E-01	2.557E-01	2.150E-01	1.305E-01	NOT IDENT.
SB-126	1.849E-02	1.848E-01	1.390E-01	9.430E-02	NOT IDENT.
SB-127	-3.999E-01	1.072E+00	9.039E-01	5.471E-01	NOT IDENT.
I-131	3.027E-02	1.197E-01	1.047E-01	6.108E-02	NOT IDENT.
TE-132	-1.261E-01	5.762E-01	5.055E-01	2.940E-01	NOT IDENT.
BA-133	4.833E-02	5.859E-02	4.645E-02	2.989E-02	NOT IDENT.
I-133	-1.148E+02	1.292E+03	0.000E+00	6.594E+02	SHORT HLIF
CS-134	1.225E-01	6.039E-02	5.780E-02	3.081E-02	NOT IDENT.
CS-135	2.782E-01	2.202E-01	1.796E-01	1.124E-01	NOT IDENT.
I-135	-4.687E+12	2.921E+13	0.000E+00	1.490E+13	SHORT HLIF
CS-136	-1.223E-02	1.179E-01	9.813E-02	6.015E-02	NOT IDENT.
CE-139	1.530E-02	3.934E-02	3.305E-02	2.007E-02	NOT IDENT.
BA-140	3.630E-01	3.138E-01	2.649E-01	1.601E-01	NOT IDENT.
LA-140	-3.875E-02	8.709E-02	7.037E-02	4.443E-02	FAIL ABUN
CE-141	5.705E-02	7.920E-02	6.947E-02	4.041E-02	NOT IDENT.
CE-143	2.844E+02	8.911E+01	0.000E+00	4.546E+01	SHORT HLIF
CE-144	-2.087E-01	2.788E-01	2.266E-01	1.423E-01	NOT IDENT.
PM-144	4.197E-02	4.349E-02	3.980E-02	2.219E-02	NOT IDENT.
PR-144	2.905E+00	3.263E+00	2.974E+00	1.665E+00	NOT IDENT.
PM-146	-3.855E-02	5.236E-02	4.228E-02	2.671E-02	NOT IDENT.
ND-147	-2.628E-01	6.326E-01	5.166E-01	3.228E-01	NOT IDENT.
PM-149	-2.580E+01	5.811E+01	4.964E+01	2.965E+01	NOT IDENT.
EU-152	-1.267E-01	1.519E-01	1.068E-01	7.751E-02	NOT IDENT.
GD-153	7.702E-02	1.286E-01	1.010E-01	6.562E-02	NOT IDENT.
EU-154	-2.141E-03	1.602E-01	1.324E-01	8.173E-02	NOT IDENT.
EU-155	1.394E-01	1.450E-01	1.296E-01	7.398E-02	FAIL ABUN
TB-160	1.334E-01	1.617E-01	1.468E-01	8.252E-02	FAIL ABUN
HO-166M	-4.240E-02	7.358E-02	6.089E-02	3.754E-02	FAIL ABUN
TA-182	2.324E-02	2.860E-01	2.389E-01	1.459E-01	FAIL ABUN
IR-192	-8.628E-03	4.236E-02	3.645E-02	2.161E-02	FAIL ABUN
HG-203	4.797E-02	4.956E-02	4.493E-02	2.529E-02	NOT IDENT.
BI-207	5.293E-03	7.143E-02	6.032E-02	3.645E-02	FAIL ABUN
PB-210	-5.447E+00	1.253E+01	1.089E+01	6.395E+00	NOT IDENT.
PB-211	-7.398E-01	1.014E+00	7.802E-01	5.172E-01	NOT IDENT.
RN-219	3.671E-01	5.165E-01	4.582E-01	2.635E-01	FAIL ABUN
RA-223	4.630E-01	9.282E-01	7.220E-01	4.736E-01	FAIL ABUN
AC-227	7.753E-02	3.314E-01	2.943E-01	1.691E-01	NOT IDENT.
TH-227	7.753E-02	3.314E-01	2.943E-01	1.691E-01	NOT IDENT.
TH-229	-2.156E-02	7.043E-01	5.939E-01	3.593E-01	FAIL ABUN
PA-231	1.041E+00	1.838E+00	1.644E+00	9.377E-01	NOT IDENT.
TH-231	4.630E-01	9.282E-01	7.220E-01	4.736E-01	FAIL ABUN
PA-233	-6.132E-02	8.053E-02	6.714E-02	4.109E-02	NOT IDENT.
PA-234	-1.434E-04	3.545E-01	3.001E-01	1.808E-01	FAIL ABUN
PA-234M	3.947E+00	5.969E+00	5.267E+00	3.045E+00	NOT IDENT.
TH-234	1.481E+00	2.449E+00	2.203E+00	1.249E+00	FAIL ABUN
U-235	1.807E-01	2.704E-01	2.328E-01	1.380E-01	FAIL ABUN
U-238	1.481E+00	2.449E+00	2.203E+00	1.249E+00	FAIL ABUN
NP-239	-2.803E-02	5.278E-01	4.558E-01	2.693E-01	NOT IDENT.
AM-241	-3.863E-01	3.152E-01	2.653E-01	1.608E-01	NOT IDENT.
CM-247	3.028E-02	4.750E-02	4.212E-02	2.424E-02	NOT IDENT.

CF-249	8.394E-03	5.272E-02	4.569E-02	2.690E-02	NOT IDENT.
CF-251	-1.198E-02	1.791E-01	1.515E-01	9.137E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	309.1526
49.72	306.0577
57.36	0.0000
59.54	406.0832
63.29	367.3184
63.29	367.3184
64.28	404.0439
67.75	470.9291
69.67	384.8481
70.83	434.4308
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72.87	506.9150
72.87	506.9150
74.82	460.5839
74.82	460.5839
74.82	460.5839
74.97	460.6759
77.11	461.9645
77.11	461.9645
77.11	461.9645
79.69	415.5477
79.80	466.7580
80.12	466.9469
80.19	466.9879
80.57	492.8131
81.00	520.2956
81.07	520.3412
81.07	520.3412
83.79	457.8474
83.79	457.8474
85.43	455.5481
86.48	566.1312
86.55	566.1805
86.79	576.9944
86.94	595.5318
87.57	669.7599
88.03	649.9451
88.47	565.4666
89.96	651.4363
91.11	652.3183
92.59	655.4728
92.59	655.4728
93.35	433.8457
94.67	431.2509
94.87	432.9774
94.87	432.9774
95.86	381.3197
97.43	378.7318
98.44	373.1684
99.53	377.3711
100.11	393.9867
103.18	408.6627
103.37	394.3696
105.31	381.8168
106.12	372.8768
109.28	443.3701
111.00	390.3272
111.76	421.7200
116.30	394.5319
117.23	370.9370
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136.00	378.7269

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140.51	0.0000
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144.24	336.6534
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153.25	364.0633
154.21	355.7359
154.21	355.7359
156.02	330.3685
158.56	352.7099
159.00	335.5196
162.66	324.5927
163.33	332.3739
165.86	316.7294
176.60	340.2924
177.52	357.0110
181.07	329.5692
184.41	355.1433
185.72	360.3579
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197.04	337.7403
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210.85	306.1660
215.65	300.4027
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227.38	288.6627
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228.18	284.2601
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235.96	306.7650
235.96	306.7650
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238.63	272.4337
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244.70	240.9492
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252.80	235.9964
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256.23	240.2034
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268.22	189.9399
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269.46	191.6370
271.23	199.6354
273.65	312.3738
276.40	197.1108
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277.60	216.0349
278.00	217.9616
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283.69	195.1111
284.31	205.5539
285.41	214.1731
285.90	215.1778
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293.27	0.0000
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295.96	205.0049
298.57	205.3028
299.98	205.4610
299.98	205.4610
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300.09	205.4742
300.13	205.4795
301.36	203.0781
302.85	201.6569
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304.50	187.5343
304.85	187.5703
308.46	188.2562
311.90	191.4771

316.51	178.5119
319.41	189.3600
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323.87	171.8178
323.87	171.8178
328.76	182.5585
333.37	203.3247
334.37	188.8991
334.37	188.8991
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338.28	199.9523
338.32	199.9573
338.32	199.9573
338.32	199.9573
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340.55	191.1126
344.28	209.3206
351.06	167.0465
351.93	167.1174
356.01	137.0964
364.49	146.5136
366.42	144.6816
383.85	187.5603
388.16	160.0940
388.63	159.1328
391.69	173.3012
400.66	160.0117
401.81	135.0791
402.40	138.1179
404.85	177.3479
410.95	129.6063
414.70	172.0896
423.72	121.2437
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427.87	117.4132
433.94	121.7798
453.88	133.0437
463.37	128.4286
468.07	113.2334
473.00	130.9951
476.78	108.4684
477.60	110.5697
487.02	93.3530
492.35	115.3779
497.08	102.0530
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514.00	96.0827
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546.56	0.0000
563.25	112.0778
569.33	94.1359
569.50	93.0726
569.70	85.5898
583.19	93.5208
600.60	117.7574
602.73	117.2412
604.72	101.0762
609.32	139.1959
609.32	139.1959
609.32	139.1959
610.33	106.6950
614.28	79.6748
618.01	106.6085
621.93	82.7836
621.93	82.7836
633.25	75.4418
635.95	85.3563
636.99	70.0609
645.85	86.7322
657.76	58.2538
661.66	110.3467
661.66	110.3467
664.57	0.0000
666.33	67.8849
666.50	67.8894

677.62	82.2551
685.70	93.5820
695.00	109.6479
696.49	89.2461
696.51	91.1054
697.00	92.9789
702.65	113.6304
706.68	91.3905
711.68	96.1979
720.70	93.1172
721.93	0.0000
722.78	85.1416
722.91	85.1453
723.31	93.1900
724.19	99.6429
727.33	76.9467
733.00	83.7909
735.93	74.0077
739.50	79.1089
747.24	90.6152
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753.82	52.0146
756.73	90.8672
763.94	89.1596
765.81	98.6976
766.42	98.7145
777.92	84.1479
778.90	83.4438
783.70	58.8666
785.37	64.8927
795.86	65.0850
801.95	90.1235
810.29	83.6051
810.76	82.6546
815.77	76.9938
818.51	78.9787
832.01	82.1691
834.85	92.8730
836.80	0.0000
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856.80	120.6699
860.56	81.8245
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873.19	66.4588
875.33	0.0000
879.36	52.8618
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883.24	59.7738
884.68	68.6186
889.28	51.0352
898.04	66.8877
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911.20	68.1002
911.20	68.1002
926.50	80.2518
937.49	75.5052
944.13	64.6826
946.00	58.7383
949.00	64.7606
962.29	75.3948
964.08	106.2857
966.15	99.4771
968.97	92.1086
968.97	92.1086
968.97	92.1086
983.53	70.3290
996.26	73.5659
1001.03	56.4979
1004.73	76.7422
1037.84	75.3008
1038.76	0.0000
1048.07	61.1987
1050.41	59.1918
1050.41	59.1918
1063.66	71.6520
1085.87	61.7236
1099.45	71.1956
1112.07	75.7407

1115.54	83.4302
1120.29	55.0847
1120.29	55.0847
1120.29	55.0847
1120.55	55.9775
1121.30	55.9863
1131.51	0.0000
1173.23	77.5771
1177.93	77.6554
1189.05	69.4214
1204.77	75.9785
1221.41	97.4168
1231.02	96.3952
1235.36	109.2229
1238.28	72.8571
1260.41	0.0000
1271.85	62.0404
1274.44	55.6499
1274.54	54.5818
1291.59	42.9525
1298.22	0.0000
1312.11	47.4375
1332.49	40.0472
1365.19	31.7386
1368.63	0.0000
1384.29	38.4089
1408.01	32.9321
1457.56	0.0000
1460.82	18.2866
1489.16	24.8230
1505.03	31.8329
1596.21	22.3647
1620.50	15.6205
1678.03	0.0000
1690.97	16.7871
1764.49	11.9874
1764.49	11.9874
1764.49	11.9874
1770.23	13.9976
1771.35	12.2500
1791.20	0.0000
1836.06	13.1283

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249331004

Total Uranium Activity	4.4882E+00	ug/g
Total Uranium Counting Unc.	7.2866E+00	ug/g
Total Uranium Tpu	3.7177E-06	ug/g
Total Uranium Mda	6.5542E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 965250                    SAMPLE ID  : G249331004         *
*   ANALYST       : MXR1                      DETECTOR   : GAM15              *
*   SAMPLE DATE   : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 24-MAR-2010 09:12:53.24    SAMPLE ALQT:  129.850 GRAM      *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.081E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.659E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 4.178E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.035E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:14:21.73

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331005.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:13:20
Sample ID         : G249331005           Sample quantity  : 1.18260E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.12  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.43*	171	501	0.84	92.43	89	8	2.38E-02	25.0	
2	0	63.31*	324	882	0.80	126.18	122	9	4.50E-02	17.9	
3	2	74.86*	1076	500	0.91	149.28	143	22	1.49E-01	4.3	2.38E+00
4	2	77.13*	1582	439	0.86	153.82	143	22	2.20E-01	3.3	
5	9	87.24	549	406	0.91	174.03	171	21	7.63E-02	6.7	2.61E+00
6	9	89.98	349	412	1.00	179.52	171	21	4.85E-02	10.5	
7	9	92.81*	643	401	1.21	185.18	171	21	8.94E-02	7.2	
8	0	128.88	161	421	1.22	257.31	252	9	2.24E-02	24.3	
9	0	185.75*	395	418	1.14	371.03	365	11	5.48E-02	11.5	
10	0	209.41	152	307	0.92	418.35	414	9	2.11E-02	22.4	
11	5	238.68*	1869	160	1.01	476.88	472	17	2.60E-01	2.6	1.91E+00
12	5	241.69	432	225	1.77	482.90	472	17	6.01E-02	9.9	
13	0	270.24	126	241	1.31	540.01	535	10	1.75E-02	24.7	
14	1	295.25*	580	133	1.09	590.02	583	23	8.05E-02	5.4	9.31E-01
15	1	300.19	106	149	1.28	599.91	583	23	1.47E-02	22.4	
16	0	327.69	82	127	1.31	654.90	652	7	1.13E-02	25.4	
17	0	338.35*	287	196	0.94	676.21	672	9	3.99E-02	10.8	
18	0	351.93	836	167	1.22	703.38	698	10	1.16E-01	4.5	
19	0	463.21	96	165	1.36	925.92	919	12	1.33E-02	28.6	
20	0	510.68*	131	172	1.72	1020.86	1014	14	1.82E-02	25.5	
21	0	583.12*	503	152	1.43	1165.73	1158	16	6.99E-02	7.1	
22	0	609.38*	563	144	1.34	1218.25	1210	16	7.82E-02	6.4	
23	0	727.19	124	72	1.71	1453.86	1447	13	1.73E-02	16.6	
24	0	769.67	71	130	4.67	1538.82	1531	16	9.86E-03	37.6	
25	0	795.29	102	51	1.47	1590.07	1583	15	1.42E-02	18.3	
26	0	861.02*	59	78	1.43	1721.53	1714	13	8.26E-03	33.6	
27	0	911.16*	350	98	1.96	1821.80	1814	19	4.85E-02	8.6	
28	4	964.36	90	23	2.62	1928.21	1923	23	1.25E-02	14.8	3.56E+00
29	4	968.96*	246	36	1.91	1937.41	1923	23	3.42E-02	7.9	
30	0	1121.08	88	108	1.55	2241.66	2234	17	1.22E-02	29.3	
31	0	1460.76*	1367	19	2.03	2921.04	2910	19	1.90E-01	2.8	
32	0	1508.71	24	11	3.71	3016.96	3011	11	3.33E-03	33.7	
33	0	1764.05*	99	0	2.21	3527.68	3518	17	1.38E-02	10.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 11:14:24

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331005.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:13:20
Sample ID         : G249331005           Sample quantity  : 118.26 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA25              Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.12   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.673E+01	3.754E+00	5.741E-01	4.890E-02	63.983
CD-109	+	88.03	*	5.109E+00	8.776E-01	8.639E-01	9.284E-02	5.913
SN-126	+	64.28		1.096E+00	4.284E-01	3.406E-01	5.428E-02	3.216
	+	86.94		2.083E+00	9.154E-01	3.506E-01	1.467E-01	5.942
	+	87.57	*	5.011E-01	8.607E-02	8.456E-02	9.067E-03	5.926
TL-208		277.37		1.040E-01	4.165E-01	6.693E-01	9.619E-02	0.155
	+	583.19	*	7.523E-01	1.369E-01	6.398E-02	7.206E-03	11.759
	+	860.56		8.563E-01	5.827E-01	5.719E-01	5.975E-02	1.497
PB-210	+	46.54	*	1.393E+00	7.106E-01	6.522E-01	6.680E-02	2.135
BI-211		72.87		3.679E+00	1.808E+00	2.985E+00	3.013E-01	1.232
	+	351.06	*	5.285E+00	7.324E-01	3.480E-01	3.667E-02	15.187
PB-212	+	74.82		3.428E+00	5.668E-01	3.114E-01	4.380E-02	11.009
	+	77.11		3.043E+00	3.699E-01	1.887E-01	1.934E-02	16.127
	+	238.63	*	2.549E+00	3.191E-01	8.978E-02	1.026E-02	28.389
	+	300.09		2.287E+00	1.063E+00	1.249E+00	1.567E-01	1.831
BI-214	+	609.32	*	1.636E+00	2.884E-01	1.253E-01	1.517E-02	13.056
	+	1120.29		1.343E+00	7.993E-01	5.646E-01	6.156E-02	2.378
	+	1764.49		2.183E+00	4.983E-01	2.998E-01	2.470E-02	7.281
PB-214	+	74.82		6.076E+00	9.446E-01	5.519E-01	7.114E-02	11.009
	+	77.11		5.365E+00	7.880E-01	3.327E-01	4.376E-02	16.127
	+	242.00		3.582E+00	8.322E-01	5.471E-01	6.573E-02	6.547
	+	295.22		2.219E+00	3.709E-01	2.202E-01	2.822E-02	10.079
	+	351.93	*	1.918E+00	2.861E-01	1.266E-01	1.504E-02	15.148
RA-224	+	240.99	*	6.334E+00	1.425E+00	9.636E-01	1.013E-01	6.573
RA-226	+	609.32	*	1.636E+00	2.884E-01	1.253E-01	1.517E-02	13.056
	+	1120.29		1.343E+00	7.993E-01	5.646E-01	6.156E-02	2.378
	+	1764.49		2.183E+00	4.983E-01	2.998E-01	2.470E-02	7.281
AC-228	+	338.32		2.011E+00	9.524E-01	4.172E-01	1.757E-01	4.821
	+	911.20	*	2.563E+00	5.419E-01	2.905E-01	3.551E-02	8.821
	+	968.97		3.117E+00	9.116E-01	4.358E-01	1.073E-01	7.151
RA-228	+	338.32		2.011E+00	9.524E-01	4.172E-01	1.757E-01	4.821
	+	911.20	*	2.563E+00	5.419E-01	2.905E-01	3.551E-02	8.821
	+	968.97		3.117E+00	9.116E-01	4.358E-01	1.073E-01	7.151
TH-228	+	74.82		3.428E+00	4.601E-01	3.114E-01	3.185E-02	11.009

Sample ID : G249331005 Acquisition date : 24-MAR-2010 09:13:20

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		3.043E+00	3.699E-01	1.887E-01	1.934E-02	16.127
	+	238.63	*	2.549E+00	3.191E-01	8.978E-02	1.026E-02	28.389
	+	300.09		2.287E+00	1.741E+00	1.249E+00	7.693E-01	1.831
TH-230	+	609.32	*	1.636E+00	2.752E-01	1.253E-01	1.366E-02	13.056
	+	1120.29		1.343E+00	7.942E-01	5.646E-01	4.855E-02	2.378
	+	1764.49		2.183E+00	4.983E-01	2.998E-01	2.470E-02	7.281
TH-232	+	338.32		2.011E+00	4.827E-01	4.172E-01	4.348E-02	4.821
	+	911.20	*	2.563E+00	5.419E-01	2.905E-01	3.551E-02	8.821
	+	968.97		3.117E+00	9.116E-01	4.358E-01	1.073E-01	7.151
TH-234	+	63.29	*	2.843E+00	1.150E+00	8.826E-01	1.675E-01	3.221
	+	92.59		5.225E+00	1.421E+00	7.993E-01	1.847E-01	6.537
U-235	+	89.96		3.423E+00	1.132E+00	9.115E-01	2.322E-01	3.755
	+	93.35		3.947E+00	1.106E+00	6.060E-01	1.460E-01	6.513
		143.76	*	2.729E-02	1.933E-01	3.221E-01	5.917E-02	0.085
		163.33		-5.823E-02	4.174E-01	6.755E-01	1.232E-01	-0.086
	+	185.72		3.410E-01	8.468E-02	6.747E-02	6.318E-03	5.055
		205.31		4.727E-02	5.456E-01	7.800E-01	1.461E-01	0.061
NP-237	+	86.48	*	1.495E+00	4.053E-01	3.208E-01	7.547E-02	4.660
		95.86		-8.062E-01	7.129E-01	9.949E-01	2.489E-01	-0.810
U-238	+	63.29	*	2.843E+00	1.150E+00	8.826E-01	1.675E-01	3.221
	+	92.59		5.225E+00	9.432E-01	7.993E-01	8.783E-02	6.537
ANH-511	+	511.00	*	1.479E-01	7.692E-02	5.252E-02	5.406E-03	2.816

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	6.644E-03	3.405E-01	5.556E-01	5.881E-02	0.012
NA-22		1274.54	*	-3.147E-02	5.901E-02	9.230E-02	7.569E-03	-0.341
NA-24		1368.63	*	-6.394E-02	5.901E-02	Half-Life too short		
SC-46		889.28	*	1.607E-02	4.763E-02	7.977E-02	7.639E-03	0.201
	+	1120.55		2.229E-01	1.319E-01	1.516E-01	1.303E-02	1.470
V-48		944.13		-2.694E-01	1.010E+00	1.593E+00	1.494E-01	-0.169
		983.53	*	-2.412E-02	7.618E-02	1.187E-01	1.099E-02	-0.203
		1312.11		-3.682E-02	8.415E-02	1.309E-01	1.067E-02	-0.281
CR-51		320.08	*	-5.311E-02	3.596E-01	6.012E-01	6.673E-02	-0.088
MN-54		834.85	*	4.893E-02	4.902E-02	8.564E-02	8.690E-03	0.571
CO-56		846.77	*	5.568E-03	4.526E-02	7.479E-02	7.504E-03	0.074
		1037.84		1.953E-01	3.519E-01	6.176E-01	5.855E-02	0.316
		1238.28		1.650E-01	1.282E-01	2.269E-01	1.924E-02	0.727
		1771.35		-1.375E+00	4.360E-01	3.612E-01	2.974E-02	-3.808
CO-57		122.06	*	-4.587E-03	2.114E-02	3.534E-02	4.558E-03	-0.130
		136.47		-6.321E-02	1.826E-01	3.013E-01	3.693E-02	-0.210
CO-58		810.76	*	-6.749E-02	4.739E-02	6.703E-02	6.955E-03	-1.007
FE-59		1099.45	*	-4.506E-02	1.087E-01	1.748E-01	1.646E-02	-0.258
		1291.59		2.181E-02	1.469E-01	2.448E-01	2.299E-02	0.089
CO-60		1173.23		2.408E-02	5.509E-02	9.454E-02	7.781E-03	0.255
		1332.49	*	-8.081E-03	4.718E-02	7.570E-02	6.148E-03	-0.107
ZN-65		1115.54	*	7.060E-02	1.112E-01	1.725E-01	1.490E-02	0.409

Sample ID : G249331005 Acquisition date : 24-MAR-2010 09:13:20

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SE-75		121.12		9.784E-02	1.083E-01	1.878E-01	2.741E-02	0.521
		136.00		-8.955E-03	3.451E-02	5.717E-02	6.783E-03	-0.157
		264.66	*	-9.166E-03	4.465E-02	6.657E-02	7.296E-03	-0.138
		279.54		-8.455E-02	1.202E-01	1.823E-01	2.080E-02	-0.464
		400.66		2.696E-01	2.926E-01	5.064E-01	5.844E-02	0.532
SR-85		514.00	*	3.667E-02	4.782E-02	7.229E-02	7.458E-03	0.507
Y-88		898.04		2.092E-02	4.601E-02	7.800E-02	7.418E-03	0.268
		1836.06	*	1.069E-02	3.477E-02	6.096E-02	4.982E-03	0.175
Y-91		1204.77	*	-3.693E+00	2.859E+01	4.660E+01	3.835E+00	-0.079
NB-94		702.65	*	-5.586E-03	4.248E-02	7.002E-02	7.689E-03	-0.080
		871.09		-2.701E-02	4.391E-02	6.756E-02	6.609E-03	-0.400
NB-95		765.81	*	3.975E-02	5.884E-02	8.970E-02	9.581E-03	0.443
NB-95M		235.69	*	-1.528E-02	1.341E-01	1.906E-01	2.188E-02	-0.080
ZR-95		724.19		3.823E-02	1.187E-01	1.767E-01	2.029E-02	0.216
		756.73	*	8.417E-03	8.471E-02	1.410E-01	1.618E-02	0.060
MO-99		140.51		-3.118E+00	1.171E+01	1.905E+01	4.744E+00	-0.164
		181.07		-6.384E-01	1.065E+01	1.557E+01	2.971E+00	-0.041
		366.42		7.169E+01	5.729E+01	1.019E+02	9.985E+00	0.704
		739.50	*	6.743E+00	8.465E+00	1.473E+01	2.514E+00	0.458
		777.92		-2.947E+01	2.686E+01	3.694E+01	3.917E+00	-0.798
TC-99M		140.51	*	-1.971E+07	2.686E+01	Half-Life too short		
RU-103		497.08	*	-2.889E-02	4.223E-02	6.453E-02	9.666E-03	-0.448
	+	610.33		1.623E+01	3.541E+00	3.405E+00	6.012E-01	4.767
RH-106		621.93	*	-8.969E-02	3.638E-01	6.008E-01	8.938E-02	-0.149
		1050.41		2.225E+00	3.263E+00	5.746E+00	5.166E-01	0.387
RU-106		621.93	*	-8.969E-02	3.637E-01	6.008E-01	6.579E-02	-0.149
		1050.41		2.225E+00	3.263E+00	5.746E+00	5.166E-01	0.387
AG-108M		433.94	*	-2.604E-04	3.093E-02	5.080E-02	4.991E-03	-0.005
		614.28		1.091E-03	4.449E-02	6.541E-02	7.290E-03	0.017
		722.91		-9.550E-03	4.690E-02	6.592E-02	7.333E-03	-0.145
AG-110M		657.76	*	-5.750E-02	4.469E-02	6.740E-02	7.596E-03	-0.853
		677.62		3.830E-01	3.816E-01	6.765E-01	7.607E-02	0.566
		706.68		1.686E-01	2.657E-01	4.596E-01	5.130E-02	0.367
		763.94		8.220E-02	2.084E-01	3.113E-01	3.389E-02	0.264
		884.68		-2.552E-02	6.006E-02	9.381E-02	9.266E-03	-0.272
		937.49		-1.585E-01	1.514E-01	2.214E-01	2.145E-02	-0.716
		1384.29		-1.692E-01	2.166E-01	3.209E-01	2.706E-02	-0.527
		1505.03		3.778E-02	3.435E-01	4.868E-01	4.036E-02	0.078
SN-113		391.69	*	5.899E-03	4.708E-02	7.864E-02	7.345E-03	0.075
CD-115		260.90		-4.275E+01	7.164E+01	1.100E+02	1.195E+01	-0.389
		492.35		4.256E+00	2.224E+01	3.662E+01	3.713E+00	0.116
		527.90	*	2.047E-01	6.439E+00	1.042E+01	1.086E+00	0.020
SN-117M		156.02		-1.817E+00	1.906E+00	3.022E+00	3.014E-01	-0.601
		158.56	*	1.285E-02	4.524E-02	7.585E-02	7.364E-03	0.169
TE-123M		159.00	*	3.480E-03	2.598E-02	4.330E-02	4.204E-03	0.080
SB-124		602.73		9.208E-03	4.651E-02	6.969E-02	7.575E-03	0.132
		645.85		2.786E-02	5.859E-01	9.852E-01	1.126E-01	0.028
		722.78		-8.056E-02	4.601E-01	6.489E-01	7.179E-02	-0.124
		1690.97	*	4.696E-02	8.481E-02	1.540E-01	1.335E-02	0.305

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-125		427.87	*	3.423E-02	9.708E-02	1.634E-01	1.577E-02	0.210
	+	463.37		9.510E-01	5.537E-01	6.725E-01	7.024E-02	1.414
		600.60		-1.767E-02	2.052E-01	3.352E-01	3.812E-02	-0.053
		635.95		3.819E-02	3.072E-01	5.202E-01	6.013E-02	0.073
TE-125M		109.28	*	9.247E+00	7.896E+00	1.379E+01	1.848E+00	0.670
I-126		388.63		3.191E-02	1.624E-01	2.725E-01	2.502E-02	0.117
		666.33	*	-2.579E-01	2.523E-01	3.899E-01	4.317E-02	-0.661
		753.82		1.938E+00	1.905E+00	3.375E+00	3.629E-01	0.574
SB-126		414.70		-4.495E-02	7.092E-02	1.107E-01	1.036E-02	-0.406
		666.50		-6.629E-02	8.401E-02	1.323E-01	1.465E-02	-0.501
		695.00		-1.375E-02	8.032E-02	1.320E-01	1.453E-02	-0.104
		697.00		-1.626E-01	2.894E-01	4.615E-01	5.076E-02	-0.352
		720.70	*	1.034E-01	1.551E-01	2.404E-01	2.624E-02	0.430
		856.80		1.319E-01	5.541E-01	8.058E-01	8.003E-02	0.164
SB-127		252.40		9.796E-01	2.971E+00	4.792E+00	2.005E+00	0.204
		473.00		9.147E-01	1.175E+00	2.013E+00	2.658E-01	0.454
		685.70	*	-3.318E-01	1.015E+00	1.648E+00	2.104E-01	-0.201
		783.70		2.184E+00	2.839E+00	4.926E+00	6.539E-01	0.443
I-131		80.19		1.419E-02	2.431E+00	3.804E+00	3.959E-01	0.004
		284.31		-1.038E+00	1.307E+00	1.958E+00	2.244E-01	-0.530
		364.49	*	2.856E-02	9.737E-02	1.652E-01	1.693E-02	0.173
		636.99		-7.366E-02	1.464E+00	2.447E+00	2.786E-01	-0.030
TE-132		49.72		1.059E+00	2.011E+00	3.070E+00	3.429E-01	0.345
		111.76		5.311E+00	1.705E+01	2.923E+01	3.944E+00	0.182
		116.30		1.749E+01	1.464E+01	2.555E+01	3.520E+00	0.685
		228.16	*	3.764E-01	4.485E-01	7.471E-01	1.224E-01	0.504
BA-133		81.00		-3.674E-02	6.071E-02	9.216E-02	1.528E-02	-0.399
		276.40		-3.660E-02	3.924E-01	6.192E-01	9.759E-02	-0.059
		302.85		8.823E-02	1.379E-01	2.157E-01	3.174E-02	0.409
		356.01	*	2.598E-03	5.117E-02	7.558E-02	1.054E-02	0.034
		383.85		-8.504E-02	3.188E-01	5.206E-01	6.727E-02	-0.163
I-133		529.87	*	6.681E-04	3.188E-01	Half-Life too short		
		875.33		-1.336E-02	3.188E-01	Half-Life too short		
		1298.22		-2.811E-02	3.188E-01	Half-Life too short		
CS-134		563.25		1.892E-01	4.231E-01	7.013E-01	7.522E-02	0.270
		569.33		-2.896E-01	2.476E-01	3.579E-01	3.862E-02	-0.809
		604.72		-4.487E-04	3.985E-02	5.849E-02	6.373E-03	-0.008
	+	795.86	*	2.249E-01	8.585E-02	1.125E-01	1.184E-02	2.000
		801.95		-1.048E-01	5.939E-01	8.236E-01	8.622E-02	-0.127
		1365.19		7.776E-01	1.258E+00	2.231E+00	1.915E-01	0.349
CS-135		268.22	*	2.341E-01	1.680E-01	2.604E-01	3.143E-02	0.899
I-135		546.56		-3.991E+07	1.680E-01	Half-Life too short		
		836.80		2.946E+07	1.680E-01	Half-Life too short		
		1038.76		2.455E+07	1.680E-01	Half-Life too short		
		1131.51		1.888E+07	1.680E-01	Half-Life too short		
		1260.41	*	2.484E+07	1.680E-01	Half-Life too short		
		1457.56		3.249E+09	1.680E-01	Half-Life too short		
		1678.03		-5.900E+07	1.680E-01	Half-Life too short		
		1791.20		1.712E+07	1.680E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-136		153.25		9.605E-01	7.380E-01	1.273E+00	1.486E-01	0.754
		176.60		1.526E-01	4.369E-01	7.287E-01	7.285E-02	0.209
		273.65		3.447E-01	5.241E-01	7.739E-01	9.016E-02	0.445
		340.55		2.626E-01	1.591E-01	2.572E-01	2.739E-02	1.021
		818.51		3.390E-03	7.918E-02	1.303E-01	1.342E-02	0.026
		1048.07	*	9.727E-02	1.196E-01	2.127E-01	1.989E-02	0.457
		1235.36		4.137E-01	7.314E-01	1.248E+00	1.432E-01	0.331
BA-137M		661.66	*	-2.967E-02	5.017E-02	8.369E-02	9.271E-03	-0.355
CS-137		661.66	*	-3.134E-02	5.300E-02	8.841E-02	9.805E-03	-0.355
CE-139		165.86	*	1.822E-03	2.745E-02	4.547E-02	4.054E-03	0.040
BA-140		162.66		4.004E-01	6.815E-01	1.136E+00	1.115E-01	0.352
		304.85		-1.284E-01	1.246E+00	1.845E+00	5.542E-01	-0.070
		423.72		1.128E+00	1.903E+00	3.191E+00	1.057E+00	0.353
		537.26	*	9.519E-02	2.667E-01	4.387E-01	1.511E-01	0.217
LA-140	+	328.76		6.241E-01	3.244E-01	5.314E-01	5.845E-02	1.174
		487.02		6.373E-02	1.428E-01	2.392E-01	2.524E-02	0.266
		815.77		3.878E-01	3.464E-01	6.168E-01	6.892E-02	0.629
		1596.21	*	-1.270E-01	9.121E-02	1.191E-01	9.904E-03	-1.067
CE-141		145.44	*	-2.414E-03	5.557E-02	9.249E-02	1.029E-02	-0.026
CE-143		57.36		1.156E-05	5.557E-02	Half-Life too short		
		293.27	*	1.855E-04	5.557E-02	Half-Life too short		
		664.57		-2.729E-04	5.557E-02	Half-Life too short		
		721.93		-5.284E-05	5.557E-02	Half-Life too short		
CE-144		80.12		5.205E-02	1.584E+00	2.482E+00	2.574E-01	0.021
		133.52	*	-5.338E-02	1.754E-01	2.902E-01	5.059E-02	-0.184
PM-144		476.78		-3.893E-02	7.078E-02	1.104E-01	1.176E-02	-0.353
		618.01		1.394E-02	3.633E-02	6.270E-02	6.976E-03	0.222
		696.49	*	2.635E-03	4.177E-02	6.985E-02	7.685E-03	0.038
PR-144		696.51	*	1.602E-01	3.120E+00	5.213E+00	5.734E-01	0.031
		1489.16		-8.995E+00	1.359E+01	1.935E+01	1.603E+00	-0.465
PM-146		453.88	*	-1.026E-02	4.620E-02	7.442E-02	8.599E-03	-0.138
		633.25		5.342E-01	1.629E+00	2.777E+00	1.077E+00	0.192
		735.93		8.128E-02	1.679E-01	2.861E-01	8.237E-02	0.284
		747.24		-2.209E-02	1.139E-01	1.853E-01	2.958E-02	-0.119
ND-147	+	91.11		9.627E-01	2.308E-01	3.334E-01	3.828E-02	2.887
		319.41		-3.864E-01	2.987E+00	5.000E+00	5.372E-01	-0.077
		531.02	*	-3.145E-01	5.590E-01	8.577E-01	1.379E-01	-0.367
PM-149		285.90	*	-3.268E+01	4.997E+01	7.541E+01	1.286E+01	-0.433
EU-152		121.78		1.194E-05	6.094E-02	1.028E-01	1.415E-02	0.000
		244.70		9.432E-02	3.277E-01	4.780E-01	5.056E-02	0.197
		344.28	*	5.270E-03	1.057E-01	1.719E-01	1.845E-02	0.031
		778.90		-1.949E-01	3.107E-01	4.840E-01	5.129E-02	-0.403
	+	964.08		1.223E+00	3.785E-01	6.484E-01	6.048E-02	1.886
		1085.87		-4.042E-02	4.772E-01	7.910E-01	6.965E-02	-0.051
		1112.07		-2.767E-01	3.758E-01	5.506E-01	4.763E-02	-0.502
		1408.01		-3.440E-02	2.299E-01	3.674E-01	3.018E-02	-0.094
GD-153		69.67		1.622E-02	9.923E-01	1.439E+00	1.438E-01	0.011
		97.43	*	-8.139E-02	7.009E-02	1.006E-01	1.133E-02	-0.809
		103.18		-7.780E-02	8.509E-02	1.395E-01	1.619E-02	-0.558

Sample ID : G249331005 Acquisition date : 24-MAR-2010 09:13:20

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-154		123.07		6.288E-03	4.274E-02	7.248E-02	1.073E-02	0.087
		723.31		-7.607E-02	2.149E-01	2.964E-01	3.440E-02	-0.257
		873.19		-1.770E-01	3.357E-01	5.185E-01	6.609E-02	-0.341
		996.26		-4.950E-01	4.521E-01	6.326E-01	1.124E-01	-0.782
		1004.73		-3.454E-01	2.758E-01	3.834E-01	4.625E-02	-0.901
		1274.44	*	-3.644E-02	1.629E-01	2.624E-01	2.901E-02	-0.139
EU-155	+	86.55		6.070E-01	1.045E-01	1.530E-01	1.644E-02	3.967
		105.31	*	1.264E-01	8.566E-02	1.510E-01	1.785E-02	0.837
TB-160	+	86.79		1.578E+00	2.710E-01	4.077E-01	4.356E-02	3.870
		197.04		1.682E-01	5.752E-01	9.342E-01	8.982E-02	0.180
		215.65		1.107E+00	7.253E-01	1.247E+00	1.248E-01	0.888
		298.57		1.265E-01	1.092E-01	1.936E-01	2.130E-02	0.653
		879.36	*	-3.365E-02	1.597E-01	2.547E-01	2.468E-02	-0.132
		962.29		9.855E-01	6.844E-01	1.110E+00	1.036E-01	0.888
		966.15		1.319E+00	3.223E-01	6.073E-01	5.661E-02	2.171
		1177.93		-1.056E-01	4.668E-01	7.597E-01	6.253E-02	-0.139
		1271.85		-3.078E-01	9.228E-01	1.471E+00	1.205E-01	-0.209
HO-166M		80.57		-3.074E-02	1.737E-01	2.698E-01	2.803E-02	-0.114
	+	184.41		2.709E-01	6.727E-02	6.948E-02	6.485E-03	3.900
		280.46		-4.181E-02	9.466E-02	1.460E-01	1.629E-02	-0.286
		410.95		2.698E-01	2.782E-01	4.830E-01	4.500E-02	0.558
		711.68	*	-6.358E-02	7.365E-02	1.138E-01	1.246E-02	-0.559
		752.31		-6.635E-02	3.270E-01	5.317E-01	5.721E-02	-0.125
		810.29		-9.200E-02	7.373E-02	1.068E-01	1.107E-02	-0.861
TA-182		67.75		-3.980E-02	5.546E-02	8.523E-02	8.480E-03	-0.467
		100.11		1.349E-01	1.352E-01	2.349E-01	2.683E-02	0.574
		152.43		1.858E-01	3.358E-01	5.691E-01	5.880E-02	0.327
		222.11		-2.722E-02	3.411E-01	5.487E-01	5.565E-02	-0.050
	+	1121.30		6.207E-01	3.672E-01	4.234E-01	3.638E-02	1.466
		1189.05		3.240E-01	3.753E-01	6.627E-01	5.455E-02	0.489
		1221.41	*	-1.723E-01	2.455E-01	3.816E-01	3.138E-02	-0.451
		1231.02		-7.490E-02	6.440E-01	1.054E+00	8.660E-02	-0.071
IR-192	+	295.96		1.607E+00	2.479E-01	3.407E-01	3.775E-02	4.717
		308.46		-3.234E-02	8.922E-02	1.476E-01	1.613E-02	-0.219
		316.51	*	9.936E-03	3.506E-02	5.998E-02	6.478E-03	0.166
		468.07		-2.336E-02	8.048E-02	1.116E-01	1.168E-02	-0.209
HG-203		70.83		-4.161E-01	7.853E-01	1.106E+00	1.864E-01	-0.376
		72.87		8.860E-01	4.503E-01	7.190E-01	1.179E-01	1.232
		279.20	*	1.887E-02	3.962E-02	6.443E-02	7.301E-03	0.293
BI-207		72.81		1.858E-01	1.027E-01	1.692E-01	1.708E-02	1.098
	+	74.97		9.878E-01	1.321E-01	1.690E-01	1.718E-02	5.846
		569.70		-4.130E-02	3.872E-02	5.661E-02	6.056E-03	-0.730
		1063.66	*	2.780E-02	6.686E-02	1.155E-01	1.031E-02	0.241
		1770.23		4.183E-02	4.428E-01	6.989E-01	5.755E-02	0.060
PB-211		404.85	*	-1.041E+00	9.529E-01	1.230E+00	5.967E-01	-0.847
		427.09		9.833E-02	1.630E+00	2.693E+00	1.250E+00	0.037
		832.01		-8.018E-01	1.403E+00	2.093E+00	1.091E+00	-0.383
BI-212	+	727.33	*	2.889E+00	1.044E+00	1.425E+00	2.013E-01	2.027
		785.37		4.841E-02	3.871E+00	6.379E+00	6.731E-01	0.008

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		1.611E+00	2.594E+00	4.718E+00	3.922E-01	0.341
RN-219	+	271.23		7.655E-01	3.894E-01	4.819E-01	5.954E-02	1.588
		401.81	*	5.445E-01	4.606E-01	8.015E-01	1.220E-01	0.679
RA-223		81.07		-9.576E-02	1.370E-01	2.077E-01	2.162E-02	-0.461
		83.79		3.288E-01	1.096E-01	1.544E-01	1.627E-02	2.130
		94.87		7.764E-01	3.345E-01	5.538E-01	6.155E-02	1.402
		144.24		-2.474E-02	6.550E-01	1.084E+00	1.291E-01	-0.023
		154.21		-2.652E-02	3.727E-01	6.171E-01	6.704E-02	-0.043
	+	269.46		5.948E-01	3.009E-01	3.668E-01	4.087E-02	1.622
		323.87	*	1.731E-01	7.189E-01	1.086E+00	2.003E-01	0.159
	+	338.28		7.982E+00	2.031E+00	2.778E+00	3.729E-01	2.873
AC-227		79.69		1.487E-01	7.937E-01	1.250E+00	2.271E-01	0.119
		235.96		3.744E-02	1.678E-01	2.436E-01	2.894E-02	0.154
		256.23	*	-1.117E-02	2.686E-01	4.278E-01	5.853E-02	-0.026
	+	299.98		2.515E+00	1.183E+00	1.689E+00	2.436E-01	1.489
		304.50		1.812E-02	1.696E+00	2.535E+00	4.525E-01	0.007
		334.37		-8.044E-01	2.046E+00	2.934E+00	4.899E-01	-0.274
TH-227		79.80		1.716E-01	1.048E+00	1.649E+00	3.713E-01	0.104
		235.96		3.744E-02	1.678E-01	2.436E-01	2.771E-02	0.154
		256.23	*	-1.117E-02	2.686E-01	4.278E-01	6.447E-02	-0.026
	+	299.98		2.515E+00	1.183E+00	1.689E+00	2.436E-01	1.489
		304.50		1.812E-02	1.696E+00	2.535E+00	4.525E-01	0.007
		334.37		-8.044E-01	2.046E+00	2.934E+00	4.899E-01	-0.274
TH-229		85.43		4.637E-02	1.744E-01	2.520E-01	2.675E-02	0.184
	+	88.47		7.725E-01	1.327E-01	1.770E-01	1.906E-02	4.365
		193.51	*	-1.471E-01	5.189E-01	8.361E-01	7.974E-02	-0.176
	+	210.85		2.920E+00	1.338E+00	1.564E+00	1.550E-01	1.867
PA-231		283.69	*	-1.555E-01	1.525E+00	2.399E+00	3.885E-01	-0.065
	+	301.36		1.616E+00	7.573E-01	1.051E+00	1.463E-01	1.537
TH-231		81.07		-9.576E-02	1.370E-01	2.077E-01	2.162E-02	-0.461
		83.79		3.288E-01	1.096E-01	1.544E-01	1.627E-02	2.130
		94.87		7.764E-01	3.345E-01	5.538E-01	6.155E-02	1.402
		144.24		-2.474E-02	6.550E-01	1.084E+00	1.291E-01	-0.023
		154.21		-2.652E-02	3.727E-01	6.171E-01	6.704E-02	-0.043
	+	269.46		5.948E-01	3.009E-01	3.668E-01	4.087E-02	1.622
		323.87	*	1.731E-01	7.189E-01	1.086E+00	2.003E-01	0.159
	+	338.28		7.982E+00	2.031E+00	2.778E+00	3.729E-01	2.873
PA-233	+	300.13		1.138E+00	5.421E-01	7.619E-01	1.243E-01	1.494
		311.90	*	1.125E-02	6.288E-02	1.072E-01	1.184E-02	0.105
		340.48		1.492E+00	8.473E-01	1.270E+00	3.144E-01	1.175
PA-234		94.67		-2.194E-02	1.262E-01	2.151E-01	3.063E-02	-0.102
		98.44		1.162E-01	9.661E-02	1.227E-01	6.905E-02	0.947
		111.00		-3.467E-02	1.545E-01	2.601E-01	3.845E-02	-0.133
		131.20		6.540E-02	1.030E-01	1.599E-01	1.953E-02	0.409
		569.50		-3.847E-01	3.427E-01	4.982E-01	5.328E-02	-0.772
		733.00		-5.260E-01	5.238E-01	6.419E-01	1.487E-01	-0.819
		880.51		3.871E-02	3.300E-01	5.433E-01	5.258E-02	0.071
		883.24		1.327E-02	3.385E-01	5.529E-01	3.725E-01	0.024
		926.50		-1.222E-01	2.162E-01	3.275E-01	8.372E-02	-0.373

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	-9.181E-02	3.951E-01	6.250E-01	1.195E-01	-0.147
		949.00		4.782E-01	5.824E-01	1.005E+00	9.414E-02	0.476
PA-234M		766.42		2.085E+01	1.946E+01	2.617E+01	1.338E+01	0.797
		1001.03	*	1.516E+00	5.687E+00	9.333E+00	9.776E-01	0.162
NP-239		99.53		2.660E-01	1.292E-01	2.275E-01	2.590E-02	1.169
		103.37		-1.211E-02	7.607E-02	1.289E-01	1.498E-02	-0.094
		106.12		2.488E-02	6.710E-02	1.156E-01	1.364E-02	0.215
		117.23	*	-1.532E-01	3.237E-01	5.363E-01	6.728E-02	-0.286
		228.18		1.804E-01	2.142E-01	3.589E-01	3.683E-02	0.503
		277.60		8.169E-02	1.923E-01	3.117E-01	3.471E-02	0.262
AM-241		59.54	*	1.389E-02	5.684E-02	8.452E-02	8.782E-03	0.164
CM-247		278.00		9.673E-01	7.995E-01	1.341E+00	1.494E-01	0.721
		287.50		1.294E+00	1.352E+00	2.243E+00	2.491E-01	0.577
		402.40	*	2.153E-02	4.171E-02	7.100E-02	6.544E-03	0.303
CF-249		252.80		2.489E-01	9.802E-01	1.589E+00	1.703E-01	0.157
		333.37		-1.442E-01	2.170E-01	3.047E-01	3.204E-02	-0.473
		388.16	*	2.112E-02	4.362E-02	7.435E-02	6.837E-03	0.284
CF-251		177.52	*	1.941E-02	1.275E-01	2.109E-01	1.936E-02	0.092
		227.38		1.199E-02	3.557E-01	5.746E-01	5.887E-02	0.021
		285.41		-3.838E+00	2.458E+00	3.458E+00	3.845E-01	-1.110

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331005       *
* Acquisition date : 24-MAR-2010 09:13:20 Detector SN#    :                 *
* Detector ID       : GAM25               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.12     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 11-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G249331005           Analyst initials: MXR1           *
* Batch Number      : 965250               Sample Quantity : 1.1826E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.673E+01	3.679E+00	5.724E-01	0.000E+00
CD-109	5.109E+00	8.600E-01	8.882E-01	0.000E+00
SN-126	5.011E-01	8.435E-02	8.694E-02	0.000E+00
TL-208	7.523E-01	1.341E-01	6.444E-02	0.000E+00
PB-210	1.393E+00	6.964E-01	6.751E-01	0.000E+00
BI-211	5.285E+00	7.178E-01	3.525E-01	0.000E+00
PB-212	2.549E+00	3.127E-01	9.132E-02	0.000E+00
BI-214	1.636E+00	2.827E-01	1.262E-01	0.000E+00
PB-214	1.918E+00	2.804E-01	1.283E-01	0.000E+00
RA-224	6.334E+00	1.397E+00	9.800E-01	0.000E+00
RA-226	1.636E+00	2.827E-01	1.262E-01	0.000E+00
AC-228	2.563E+00	5.310E-01	2.912E-01	0.000E+00
RA-228	2.563E+00	5.310E-01	2.912E-01	0.000E+00
TH-228	2.549E+00	3.127E-01	9.132E-02	0.000E+00
TH-230	1.636E+00	2.697E-01	1.262E-01	0.000E+00
TH-232	2.563E+00	5.310E-01	2.912E-01	0.000E+00
TH-234	2.843E+00	1.127E+00	9.105E-01	0.000E+00
U-235	2.729E-02	1.894E-01	3.294E-01	0.000E+00
NP-237	1.495E+00	3.971E-01	3.299E-01	0.000E+00
U-238	2.843E+00	1.127E+00	9.105E-01	0.000E+00
ANH-511	1.479E-01	7.538E-02	5.298E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	6.644E-03	3.337E-01	5.609E-01	0.000E+00	NOT IDENT.
NA-22	-3.147E-02	5.783E-02	9.217E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.236E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	1.607E-02	4.668E-02	7.997E-02	0.000E+00	FAIL ABUN
V-48	-2.412E-02	7.465E-02	1.188E-01	0.000E+00	NOT IDENT.
CR-51	-5.311E-02	3.524E-01	6.096E-01	0.000E+00	NOT IDENT.

MN-54	4.893E-02	4.804E-02	8.592E-02	0.000E+00	NOT IDENT.
CO-56	5.568E-03	4.435E-02	7.502E-02	0.000E+00	NOT IDENT.
CO-57	-4.587E-03	2.072E-02	3.621E-02	0.000E+00	NOT IDENT.
CO-58	-6.749E-02	4.644E-02	6.727E-02	0.000E+00	NOT IDENT.
FE-59	-4.506E-02	1.066E-01	1.749E-01	0.000E+00	NOT IDENT.
CO-60	-8.081E-03	4.624E-02	7.555E-02	0.000E+00	NOT IDENT.
ZN-65	7.060E-02	1.090E-01	1.725E-01	0.000E+00	NOT IDENT.
SE-75	-9.166E-03	4.375E-02	6.763E-02	0.000E+00	NOT IDENT.
SR-85	3.667E-02	4.686E-02	7.292E-02	0.000E+00	NOT IDENT.
Y-88	1.069E-02	3.407E-02	6.062E-02	0.000E+00	NOT IDENT.
Y-91	-3.693E+00	2.802E+01	4.656E+01	0.000E+00	NOT IDENT.
NB-94	-5.586E-03	4.163E-02	7.039E-02	0.000E+00	NOT IDENT.
NB-95	3.975E-02	5.766E-02	9.008E-02	0.000E+00	NOT IDENT.
NB-95M	-1.528E-02	1.315E-01	1.939E-01	0.000E+00	NOT IDENT.
ZR-95	8.417E-03	8.302E-02	1.416E-01	0.000E+00	NOT IDENT.
MO-99	6.743E+00	8.296E+00	1.480E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	7.259E+13	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.889E-02	4.139E-02	6.511E-02	0.000E+00	FAIL ABUN
RH-106	-8.969E-02	3.566E-01	6.048E-01	0.000E+00	NOT IDENT.
RU-106	-8.969E-02	3.564E-01	6.048E-01	0.000E+00	NOT IDENT.
AG-108M	-2.604E-04	3.031E-02	5.134E-02	0.000E+00	NOT IDENT.
AG-110M	-5.750E-02	4.380E-02	6.780E-02	0.000E+00	NOT IDENT.
SN-113	5.899E-03	4.614E-02	7.956E-02	0.000E+00	NOT IDENT.
CD-115	2.047E-01	6.310E+00	1.051E+01	0.000E+00	NOT IDENT.
SN-117M	1.285E-02	4.433E-02	7.749E-02	0.000E+00	NOT IDENT.
TE-123M	3.480E-03	2.546E-02	4.423E-02	0.000E+00	NOT IDENT.
SB-124	4.696E-02	8.311E-02	1.533E-01	0.000E+00	NOT IDENT.
SB-125	3.423E-02	9.514E-02	1.651E-01	0.000E+00	FAIL ABUN
TE-125M	9.247E+00	7.738E+00	1.415E+01	0.000E+00	NOT IDENT.
I-126	-2.579E-01	2.472E-01	3.922E-01	0.000E+00	NOT IDENT.
SB-126	1.034E-01	1.520E-01	2.416E-01	0.000E+00	NOT IDENT.
SB-127	-3.318E-01	9.947E-01	1.657E+00	0.000E+00	NOT IDENT.
I-131	2.856E-02	9.542E-02	1.673E-01	0.000E+00	NOT IDENT.
TE-132	3.764E-01	4.395E-01	7.603E-01	0.000E+00	NOT IDENT.
BA-133	2.598E-03	5.015E-02	7.654E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.104E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.413E-02	1.129E-01	0.000E+00	FAIL ABUN
CS-135	2.341E-01	1.646E-01	2.645E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.012E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	9.727E-02	1.172E-01	2.129E-01	0.000E+00	NOT IDENT.
BA-137M	-2.967E-02	4.916E-02	8.418E-02	0.000E+00	NOT IDENT.
CS-137	-3.134E-02	5.194E-02	8.893E-02	0.000E+00	NOT IDENT.
CE-139	1.822E-03	2.690E-02	4.643E-02	0.000E+00	NOT IDENT.
BA-140	9.519E-02	2.613E-01	4.423E-01	0.000E+00	NOT IDENT.
LA-140	-1.270E-01	8.939E-02	1.186E-01	0.000E+00	FAIL ABUN
CE-141	-2.414E-03	5.445E-02	9.458E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	6.226E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-5.338E-02	1.719E-01	2.970E-01	0.000E+00	NOT IDENT.
PM-144	2.635E-03	4.094E-02	7.022E-02	0.000E+00	NOT IDENT.
PR-144	1.602E-01	3.058E+00	5.240E+00	0.000E+00	NOT IDENT.
PM-146	-1.026E-02	4.527E-02	7.516E-02	0.000E+00	NOT IDENT.
ND-147	-3.145E-01	5.478E-01	8.649E-01	0.000E+00	FAIL ABUN
PM-149	-3.268E+01	4.897E+01	7.655E+01	0.000E+00	NOT IDENT.
EU-152	5.270E-03	1.036E-01	1.741E-01	0.000E+00	FAIL ABUN
GD-153	-8.139E-02	6.869E-02	1.033E-01	0.000E+00	NOT IDENT.
EU-154	-3.644E-02	1.597E-01	2.620E-01	0.000E+00	NOT IDENT.
EU-155	1.264E-01	8.395E-02	1.549E-01	0.000E+00	FAIL ABUN
TB-160	-3.365E-02	1.565E-01	2.554E-01	0.000E+00	FAIL ABUN
HO-166M	-6.358E-02	7.218E-02	1.144E-01	0.000E+00	FAIL ABUN
TA-182	-1.723E-01	2.406E-01	3.812E-01	0.000E+00	FAIL ABUN
IR-192	9.936E-03	3.436E-02	6.082E-02	0.000E+00	FAIL ABUN
HG-203	1.887E-02	3.883E-02	6.542E-02	0.000E+00	NOT IDENT.
BI-207	2.780E-02	6.553E-02	1.156E-01	0.000E+00	FAIL ABUN
PB-211	-1.041E+00	9.339E-01	1.244E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.023E+00	1.432E+00	0.000E+00	FAIL ABUN
RN-219	5.445E-01	4.514E-01	8.106E-01	0.000E+00	FAIL ABUN
RA-223	1.731E-01	7.046E-01	1.101E+00	0.000E+00	FAIL ABUN
AC-227	-1.117E-02	2.632E-01	4.348E-01	0.000E+00	FAIL ABUN
TH-227	-1.117E-02	2.632E-01	4.348E-01	0.000E+00	FAIL ABUN
TH-229	-1.471E-01	5.086E-01	8.524E-01	0.000E+00	FAIL ABUN
PA-231	-1.555E-01	1.495E+00	2.435E+00	0.000E+00	FAIL ABUN
TH-231	1.731E-01	7.046E-01	1.101E+00	0.000E+00	FAIL ABUN
PA-233	1.125E-02	6.163E-02	1.087E-01	0.000E+00	FAIL ABUN
PA-234	-9.181E-02	3.872E-01	6.262E-01	0.000E+00	NOT IDENT.
PA-234M	1.516E+00	5.573E+00	9.345E+00	0.000E+00	NOT IDENT.
NP-239	-1.532E-01	3.173E-01	5.497E-01	0.000E+00	NOT IDENT.
AM-241	1.389E-02	5.570E-02	8.725E-02	0.000E+00	NOT IDENT.
CM-247	2.153E-02	4.088E-02	7.181E-02	0.000E+00	NOT IDENT.

CF-249	2.112E-02	4.275E-02	7.523E-02	0.000E+00 NOT IDENT.
CF-251	1.941E-02	1.249E-01	2.152E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:14:22.83

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331005.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:13:20
Sample ID         : G249331005           Sample quantity  : 1.18260E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.12  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1367	10.66*	1.108E+00	3.673E+01	3.673E+01	10.22
CD-109	88.03	549	3.70*	9.404E+00	5.011E+00	5.109E+00	17.18
SN-126	64.28	324	9.60	9.778E+00	1.096E+00	1.096E+00	39.10
	86.94	549	8.90	9.404E+00	2.083E+00	2.083E+00	43.95
	87.57	549	37.00*	9.404E+00	5.011E-01	5.011E-01	17.18
TL-208	277.37	------	6.60	4.738E+00	------ Line Not Found		------
	583.19	503	85.00*	2.497E+00	7.523E-01	7.523E-01	18.19
	860.56	59	12.50	1.764E+00	8.563E-01	8.563E-01	68.05
PB-210	46.54	171	4.25*	9.183E+00	1.391E+00	1.393E+00	51.02
BI-211	72.87	------	1.23	9.724E+00	------ Line Not Found		------
	351.06	836	12.92*	3.886E+00	5.285E+00	5.285E+00	13.86
PB-212	74.82	1076	10.28	9.693E+00	3.428E+00	3.428E+00	16.54
	77.11	1582	17.10	9.651E+00	3.043E+00	3.043E+00	12.15
	238.63	1869	43.60*	5.338E+00	2.549E+00	2.549E+00	12.52
	300.09	106	3.30	4.441E+00	2.287E+00	2.287E+00	46.47
BI-214	609.32	563	45.49*	2.401E+00	1.636E+00	1.636E+00	17.63
	1120.29	88	14.92	1.397E+00	1.343E+00	1.343E+00	59.53
	1764.49	99	15.30	9.414E-01	2.183E+00	2.183E+00	22.83
PB-214	74.82	1076	5.80	9.693E+00	6.076E+00	6.076E+00	15.55
	77.11	1582	9.70	9.651E+00	5.365E+00	5.365E+00	14.69
	242.00	432	7.25	5.286E+00	3.582E+00	3.582E+00	23.23
	295.22	580	18.42	4.502E+00	2.219E+00	2.219E+00	16.71
	351.93	836	35.60*	3.886E+00	1.918E+00	1.918E+00	14.92
RA-224	240.99	432	4.10*	5.286E+00	6.334E+00	6.334E+00	22.50
RA-226	609.32	563	45.49*	2.401E+00	1.636E+00	1.636E+00	17.63
	1120.29	88	14.92	1.397E+00	1.343E+00	1.343E+00	59.53
	1764.49	99	15.30	9.414E-01	2.183E+00	2.183E+00	22.83
AC-228	338.32	287	11.27	4.018E+00	2.011E+00	2.011E+00	47.35
	911.20	350	25.80*	1.678E+00	2.563E+00	2.563E+00	21.14
	968.97	246	15.80	1.589E+00	3.117E+00	3.117E+00	29.25
RA-228	338.32	287	11.27	4.018E+00	2.011E+00	2.011E+00	47.35
	911.20	350	25.80*	1.678E+00	2.563E+00	2.563E+00	21.14

Sample ID : G249331005 Acquisition date : 24-MAR-2010 09:13:20

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	246	15.80	1.589E+00	3.117E+00	3.117E+00	29.25
TH-228	74.82	1076	10.28	9.693E+00	3.428E+00	3.428E+00	13.42
	77.11	1582	17.10	9.651E+00	3.043E+00	3.043E+00	12.15
	238.63	1869	43.60*	5.338E+00	2.549E+00	2.549E+00	12.52
	300.09	106	3.30	4.441E+00	2.287E+00	2.287E+00	76.13
TH-230	609.32	563	45.49*	2.401E+00	1.636E+00	1.636E+00	16.82
	1120.29	88	14.92	1.397E+00	1.343E+00	1.343E+00	59.15
	1764.49	99	15.30	9.414E-01	2.183E+00	2.183E+00	22.83
TH-232	338.32	287	11.27	4.018E+00	2.011E+00	2.011E+00	24.00
	911.20	350	25.80*	1.678E+00	2.563E+00	2.563E+00	21.14
	968.97	246	15.80	1.589E+00	3.117E+00	3.117E+00	29.25
TH-234	63.29	324	3.70*	9.778E+00	2.843E+00	2.843E+00	40.44
	92.59	643	4.23	9.239E+00	5.225E+00	5.225E+00	27.19
U-235	89.96	349	3.47	9.325E+00	3.423E+00	3.423E+00	33.06
	93.35	643	5.60	9.239E+00	3.947E+00	3.947E+00	28.02
	143.76	------	10.96*	7.568E+00	------ Line Not Found		------
	163.33	------	5.08	6.998E+00	------ Line Not Found		------
	185.72	395	57.20	6.421E+00	3.410E-01	3.410E-01	24.83
	205.31	------	5.01	5.979E+00	------ Line Not Found		------
NP-237	86.48	549	12.40*	9.404E+00	1.495E+00	1.495E+00	27.11
	95.86	------	2.68	9.143E+00	------ Line Not Found		------
U-238	63.29	324	3.70*	9.778E+00	2.843E+00	2.843E+00	40.44
	92.59	643	4.23	9.239E+00	5.225E+00	5.225E+00	18.05
ANH-511	511.00	131	100.00*	2.809E+00	1.479E-01	1.479E-01	52.01

Flag: "*" = Keyline

Sample ID : G249331005 Acquisition date : 24-MAR-2010 09:13:20

Total number of lines in spectrum 33
Number of unidentified lines 3
Number of lines tentatively identified by NID 30 90.91%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.673E+01	3.673E+01	0.375E+01	10.22	
CD-109	461.40D	1.02	5.011E+00	5.109E+00	0.878E+00	17.18	
SN-126	2.30E+05Y	1.00	5.011E-01	5.011E-01	0.861E-01	17.18	
TL-208	1.41E+10Y	1.00	7.523E-01	7.523E-01	1.369E-01	18.19	
PB-210	22.20Y	1.00	1.391E+00	1.393E+00	0.711E+00	51.02	
BI-211	7.04E+08Y	1.00	5.285E+00	5.285E+00	0.732E+00	13.86	
PB-212	1.41E+10Y	1.00	2.549E+00	2.549E+00	0.319E+00	12.52	
BI-214	1600.00Y	1.00	1.636E+00	1.636E+00	0.288E+00	17.63	
PB-214	1600.00Y	1.00	1.918E+00	1.918E+00	0.286E+00	14.92	
RA-224	1.41E+10Y	1.00	6.334E+00	6.334E+00	1.425E+00	22.50	
RA-226	1600.00Y	1.00	1.636E+00	1.636E+00	0.288E+00	17.63	
AC-228	1.41E+10Y	1.00	2.563E+00	2.563E+00	0.542E+00	21.14	
RA-228	1.41E+10Y	1.00	2.563E+00	2.563E+00	0.542E+00	21.14	
TH-228	1.41E+10Y	1.00	2.549E+00	2.549E+00	0.319E+00	12.52	
TH-230	7.54E+04Y	1.00	1.636E+00	1.636E+00	0.275E+00	16.82	
TH-232	1.41E+10Y	1.00	2.563E+00	2.563E+00	0.542E+00	21.14	
TH-234	4.47E+09Y	1.00	2.843E+00	2.843E+00	1.150E+00	40.44	
U-235	7.04E+08Y	1.00	3.410E-01	3.410E-01	0.847E-01	24.83	K
NP-237	2.14E+06Y	1.00	1.495E+00	1.495E+00	0.405E+00	27.11	
U-238	4.47E+09Y	1.00	2.843E+00	2.843E+00	1.150E+00	40.44	
ANH-511	1.00E+09Y	1.00	1.479E-01	1.479E-01	0.769E-01	52.01	
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	Total Activity :		8.329E+01	8.339E+01			

Grand Total Activity : 8.329E+01 8.339E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249331005 Acquisition date : 24-MAR-2010 09:13:20

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.88	161	421	1.22	257.31	252	9	2.24E-02	48.6	8.04E+00	
0	209.41	152	307	0.92	418.35	414	9	2.11E-02	44.7	5.89E+00	T
0	270.24	126	241	1.31	540.01	535	10	1.75E-02	49.3	4.84E+00	T
0	327.69	82	127	1.31	654.90	652	7	1.13E-02	50.8	4.13E+00	T
0	463.21	96	165	1.36	925.92	919	12	1.33E-02	57.3	3.06E+00	T
0	727.19	124	72	1.71	1453.86	1447	13	1.73E-02	33.3	2.05E+00	T
0	769.67	71	130	4.67	1538.82	1531	16	9.86E-03	75.2	1.95E+00	
0	795.29	102	51	1.47	1590.07	1583	15	1.42E-02	36.7	1.89E+00	T
4	964.36	90	23	2.62	1928.21	1923	23	1.25E-02	29.5	1.60E+00	T
0	1508.71	24	11	3.71	3016.96	3011	11	3.33E-03	67.3	1.08E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:14:26.44

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331005.CNF;1    *
* Acquisition date : 24-MAR-2010 09:13:20  Detector SN#     :                 *
* Detector ID      : GAM25                 Sensitivity      : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:02.12         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 11-MAR-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G249331005            Analyst initials: MXR1             *
* Batch Number     : 965250                Sample Quantity : 1.18260E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 7-OCT-2009 09:38:43.34MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.673E+01	3.754E+00	5.741E-01	4.890E-02	63.983
CD-109	5.109E+00	8.776E-01	8.639E-01	9.284E-02	5.913
SN-126	5.011E-01	8.607E-02	8.456E-02	9.067E-03	5.926
TL-208	7.523E-01	1.369E-01	6.398E-02	7.206E-03	11.759
PB-210	1.393E+00	7.106E-01	6.522E-01	6.680E-02	2.135
BI-211	5.285E+00	7.324E-01	3.480E-01	3.667E-02	15.187
PB-212	2.549E+00	3.191E-01	8.978E-02	1.026E-02	28.389
BI-214	1.636E+00	2.884E-01	1.253E-01	1.517E-02	13.056
PB-214	1.918E+00	2.861E-01	1.266E-01	1.504E-02	15.148
RA-224	6.334E+00	1.425E+00	9.636E-01	1.013E-01	6.573
RA-226	1.636E+00	2.884E-01	1.253E-01	1.517E-02	13.056
AC-228	2.563E+00	5.419E-01	2.905E-01	3.551E-02	8.821
RA-228	2.563E+00	5.419E-01	2.905E-01	3.551E-02	8.821
TH-228	2.549E+00	3.191E-01	8.978E-02	1.026E-02	28.389
TH-230	1.636E+00	2.752E-01	1.253E-01	1.366E-02	13.056
TH-232	2.563E+00	5.419E-01	2.905E-01	3.551E-02	8.821
TH-234	2.843E+00	1.150E+00	8.826E-01	1.675E-01	3.221
U-235	3.410E-01	8.468E-02	3.221E-01	5.917E-02	1.059

Sample ID : G249331005 Acquisition date : 24-MAR-2010 09:13:20

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	1.495E+00	4.053E-01	3.208E-01	7.547E-02	4.660
U-238	2.843E+00	1.150E+00	8.826E-01	1.675E-01	3.221
ANH-511	1.479E-01	7.692E-02	5.252E-02	5.406E-03	2.816

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	6.644E-03		3.405E-01	5.556E-01	5.881E-02	0.012
NA-22	-3.147E-02		5.901E-02	9.230E-02	7.569E-03	-0.341
NA-24	-6.394E-02		3.692E-02	Half-Life too short		
SC-46	1.607E-02		4.763E-02	7.977E-02	7.639E-03	0.201
V-48	-2.412E-02		7.618E-02	1.187E-01	1.099E-02	-0.203
CR-51	-5.311E-02		3.596E-01	6.012E-01	6.673E-02	-0.088
MN-54	4.893E-02		4.902E-02	8.564E-02	8.690E-03	0.571
CO-56	5.568E-03		4.526E-02	7.479E-02	7.504E-03	0.074
CO-57	-4.587E-03		2.114E-02	3.534E-02	4.558E-03	-0.130
CO-58	-6.749E-02		4.739E-02	6.703E-02	6.955E-03	-1.007
FE-59	-4.506E-02		1.087E-01	1.748E-01	1.646E-02	-0.258
CO-60	-8.081E-03		4.718E-02	7.570E-02	6.148E-03	-0.107
ZN-65	7.060E-02		1.112E-01	1.725E-01	1.490E-02	0.409
SE-75	-9.166E-03		4.465E-02	6.657E-02	7.296E-03	-0.138
SR-85	3.667E-02		4.782E-02	7.229E-02	7.458E-03	0.507
Y-88	1.069E-02		3.477E-02	6.096E-02	4.982E-03	0.175
Y-91	-3.693E+00		2.859E+01	4.660E+01	3.835E+00	-0.079
NB-94	-5.586E-03		4.248E-02	7.002E-02	7.689E-03	-0.080
NB-95	3.975E-02		5.884E-02	8.970E-02	9.581E-03	0.443
NB-95M	-1.528E-02		1.341E-01	1.906E-01	2.188E-02	-0.080
ZR-95	8.417E-03		8.471E-02	1.410E-01	1.618E-02	0.060
MO-99	6.743E+00		8.465E+00	1.473E+01	2.514E+00	0.458
TC-99M	-1.971E+07		3.704E+07	Half-Life too short		
RU-103	-2.889E-02		4.223E-02	6.453E-02	9.666E-03	-0.448
RH-106	-8.969E-02		3.638E-01	6.008E-01	8.938E-02	-0.149
RU-106	-8.969E-02		3.637E-01	6.008E-01	6.579E-02	-0.149
AG-108M	-2.604E-04		3.093E-02	5.080E-02	4.991E-03	-0.005
AG-110M	-5.750E-02		4.469E-02	6.740E-02	7.596E-03	-0.853
SN-113	5.899E-03		4.708E-02	7.864E-02	7.345E-03	0.075
CD-115	2.047E-01		6.439E+00	1.042E+01	1.086E+00	0.020
SN-117M	1.285E-02		4.524E-02	7.585E-02	7.364E-03	0.169
TE-123M	3.480E-03		2.598E-02	4.330E-02	4.204E-03	0.080
SB-124	4.696E-02		8.481E-02	1.540E-01	1.335E-02	0.305
SB-125	3.423E-02		9.708E-02	1.634E-01	1.577E-02	0.210
TE-125M	9.247E+00		7.896E+00	1.379E+01	1.848E+00	0.670
I-126	-2.579E-01		2.523E-01	3.899E-01	4.317E-02	-0.661
SB-126	1.034E-01		1.551E-01	2.404E-01	2.624E-02	0.430
SB-127	-3.318E-01		1.015E+00	1.648E+00	2.104E-01	-0.201
I-131	2.856E-02		9.737E-02	1.652E-01	1.693E-02	0.173
TE-132	3.764E-01		4.485E-01	7.471E-01	1.224E-01	0.504

Sample ID : G249331005 Acquisition date : 24-MAR-2010 09:13:20

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-133	2.598E-03		5.117E-02	7.558E-02	1.054E-02	0.034
I-133	6.681E-04		5.634E-04	Half-Life too short		
CS-134	2.249E-01	+	8.585E-02	1.125E-01	1.184E-02	2.000
CS-135	2.341E-01		1.680E-01	2.604E-01	3.143E-02	0.899
I-135	2.484E+07		1.537E+07	Half-Life too short		
CS-136	9.727E-02		1.196E-01	2.127E-01	1.989E-02	0.457
BA-137M	-2.967E-02		5.017E-02	8.369E-02	9.271E-03	-0.355
CS-137	-3.134E-02		5.300E-02	8.841E-02	9.805E-03	-0.355
CE-139	1.822E-03		2.745E-02	4.547E-02	4.054E-03	0.040
BA-140	9.519E-02		2.667E-01	4.387E-01	1.511E-01	0.217
LA-140	-1.270E-01		9.121E-02	1.191E-01	9.904E-03	-1.067
CE-141	-2.414E-03		5.557E-02	9.249E-02	1.029E-02	-0.026
CE-143	1.855E-04		3.177E-05	Half-Life too short		
CE-144	-5.338E-02		1.754E-01	2.902E-01	5.059E-02	-0.184
PM-144	2.635E-03		4.177E-02	6.985E-02	7.685E-03	0.038
PR-144	1.602E-01		3.120E+00	5.213E+00	5.734E-01	0.031
PM-146	-1.026E-02		4.620E-02	7.442E-02	8.599E-03	-0.138
ND-147	-3.145E-01		5.590E-01	8.577E-01	1.379E-01	-0.367
PM-149	-3.268E+01		4.997E+01	7.541E+01	1.286E+01	-0.433
EU-152	5.270E-03		1.057E-01	1.719E-01	1.845E-02	0.031
GD-153	-8.139E-02		7.009E-02	1.006E-01	1.133E-02	-0.809
EU-154	-3.644E-02		1.629E-01	2.624E-01	2.901E-02	-0.139
EU-155	1.264E-01		8.566E-02	1.510E-01	1.785E-02	0.837
TB-160	-3.365E-02		1.597E-01	2.547E-01	2.468E-02	-0.132
HO-166M	-6.358E-02		7.365E-02	1.138E-01	1.246E-02	-0.559
TA-182	-1.723E-01		2.455E-01	3.816E-01	3.138E-02	-0.451
IR-192	9.936E-03		3.506E-02	5.998E-02	6.478E-03	0.166
HG-203	1.887E-02		3.962E-02	6.443E-02	7.301E-03	0.293
BI-207	2.780E-02		6.686E-02	1.155E-01	1.031E-02	0.241
PB-211	-1.041E+00		9.529E-01	1.230E+00	5.967E-01	-0.847
BI-212	2.889E+00	+	1.044E+00	1.425E+00	2.013E-01	2.027
RN-219	5.445E-01		4.606E-01	8.015E-01	1.220E-01	0.679
RA-223	1.731E-01		7.189E-01	1.086E+00	2.003E-01	0.159
AC-227	-1.117E-02		2.686E-01	4.278E-01	5.853E-02	-0.026
TH-227	-1.117E-02		2.686E-01	4.278E-01	6.447E-02	-0.026
TH-229	-1.471E-01		5.189E-01	8.361E-01	7.974E-02	-0.176
PA-231	-1.555E-01		1.525E+00	2.399E+00	3.885E-01	-0.065
TH-231	1.731E-01		7.189E-01	1.086E+00	2.003E-01	0.159
PA-233	1.125E-02		6.288E-02	1.072E-01	1.184E-02	0.105
PA-234	-9.181E-02		3.951E-01	6.250E-01	1.195E-01	-0.147
PA-234M	1.516E+00		5.687E+00	9.333E+00	9.776E-01	0.162
NP-239	-1.532E-01		3.237E-01	5.363E-01	6.728E-02	-0.286
AM-241	1.389E-02		5.684E-02	8.452E-02	8.782E-03	0.164
CM-247	2.153E-02		4.171E-02	7.100E-02	6.544E-03	0.303
CF-249	2.112E-02		4.362E-02	7.435E-02	6.837E-03	0.284
CF-251	1.941E-02		1.275E-01	2.109E-01	1.936E-02	0.092

VAX/VMS Nuclide Identification Report Generated

```
*******************************************************************************
*                          GEL Laboratories LLC                               *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                               DETECTOR DATA                                 *
*                                                                             *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249331005              *
* Acquisition date : 24-MAR-2010 09:13:20 Detector SN#    :                   *
* Detector ID      : GAM25                Sensitivity     : 5.000             *
* Geometry         : CAN                  Energy tolerance: 1.500             *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000            *
* Elapsed real time:    0 02:00:02.12     Half life ratio : 8.000             *
*******************************************************************************
*                                                                             *
*                               SAMPLE DATA                                   *
*                                                                             *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID             *
* Sample ID        : G249331005           Analyst initials: MXR1              *
* Batch Number     : 965250               Sample Quantity : 1.1826E+02 GRAM   *
* Recovery         :    1.00000           Carrier Weight :    0.00000         *
*******************************************************************************
*                                                                             *
*                                 QC DATA                                     *
*                                                                             *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                   *
* MSD DPM          :    0.000             MSD Isotope     :                   *
* LCS DPM          :    0.000             LCS Isotope     :                   *
* LCSD DPM         :    0.000             LCSD Isotope    :                   *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.673E+01	3.679E+00	2.864E-01	1.877E+00
CD-109	5.109E+00	8.600E-01	4.444E-01	4.388E-01
SN-126	5.011E-01	8.435E-02	4.350E-02	4.303E-02
TL-208	7.523E-01	1.341E-01	3.224E-02	6.843E-02
PB-210	1.393E+00	6.964E-01	3.377E-01	3.553E-01
BI-211	5.285E+00	7.178E-01	1.764E-01	3.662E-01
PB-212	2.549E+00	3.127E-01	4.569E-02	1.596E-01
BI-214	1.636E+00	2.827E-01	6.311E-02	1.442E-01
PB-214	1.918E+00	2.804E-01	6.416E-02	1.430E-01
RA-224	6.334E+00	1.397E+00	4.903E-01	7.125E-01
RA-226	1.636E+00	2.827E-01	6.311E-02	1.442E-01
AC-228	2.563E+00	5.310E-01	1.457E-01	2.709E-01
RA-228	2.563E+00	5.310E-01	1.457E-01	2.709E-01
TH-228	2.549E+00	3.127E-01	4.569E-02	1.596E-01
TH-230	1.636E+00	2.697E-01	6.311E-02	1.376E-01
TH-232	2.563E+00	5.310E-01	1.457E-01	2.709E-01
TH-234	2.843E+00	1.127E+00	4.555E-01	5.748E-01
U-235	2.729E-02	1.894E-01	1.648E-01	9.665E-02
NP-237	1.495E+00	3.971E-01	1.650E-01	2.026E-01
U-238	2.843E+00	1.127E+00	4.555E-01	5.748E-01
ANH-511	1.479E-01	7.538E-02	2.650E-02	3.846E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	6.644E-03	3.337E-01	2.806E-01	1.703E-01	NOT IDENT.
NA-22	-3.147E-02	5.783E-02	4.611E-02	2.950E-02	NOT IDENT.
NA-24	-6.394E+04	7.236E+04	0.000E+00	3.692E+04	SHORT HLIF
SC-46	1.607E-02	4.668E-02	4.001E-02	2.381E-02	FAIL ABUN
V-48	-2.412E-02	7.465E-02	5.945E-02	3.809E-02	NOT IDENT.
CR-51	-5.311E-02	3.524E-01	3.050E-01	1.798E-01	NOT IDENT.

MN-54	4.893E-02	4.804E-02	4.299E-02	2.451E-02	NOT IDENT.
CO-56	5.568E-03	4.435E-02	3.753E-02	2.263E-02	NOT IDENT.
CO-57	-4.587E-03	2.072E-02	1.812E-02	1.057E-02	NOT IDENT.
CO-58	-6.749E-02	4.644E-02	3.366E-02	2.369E-02	NOT IDENT.
FE-59	-4.506E-02	1.066E-01	8.748E-02	5.437E-02	NOT IDENT.
CO-60	-8.081E-03	4.624E-02	3.780E-02	2.359E-02	NOT IDENT.
ZN-65	7.060E-02	1.090E-01	8.632E-02	5.561E-02	NOT IDENT.
SE-75	-9.166E-03	4.375E-02	3.384E-02	2.232E-02	NOT IDENT.
SR-85	3.667E-02	4.686E-02	3.648E-02	2.391E-02	NOT IDENT.
Y-88	1.069E-02	3.407E-02	3.033E-02	1.738E-02	NOT IDENT.
Y-91	-3.693E+00	2.802E+01	2.330E+01	1.430E+01	NOT IDENT.
NB-94	-5.586E-03	4.163E-02	3.521E-02	2.124E-02	NOT IDENT.
NB-95	3.975E-02	5.766E-02	4.507E-02	2.942E-02	NOT IDENT.
NB-95M	-1.528E-02	1.315E-01	9.700E-02	6.707E-02	NOT IDENT.
ZR-95	8.417E-03	8.302E-02	7.087E-02	4.236E-02	NOT IDENT.
MO-99	6.743E+00	8.296E+00	7.405E+00	4.233E+00	NOT IDENT.
TC-99M	-1.971E+13	7.259E+13	0.000E+00	3.704E+13	SHORT HLIF
RU-103	-2.889E-02	4.139E-02	3.258E-02	2.112E-02	FAIL ABUN
RH-106	-8.969E-02	3.566E-01	3.026E-01	1.819E-01	NOT IDENT.
RU-106	-8.969E-02	3.564E-01	3.026E-01	1.819E-01	NOT IDENT.
AG-108M	-2.604E-04	3.031E-02	2.568E-02	1.547E-02	NOT IDENT.
AG-110M	-5.750E-02	4.380E-02	3.392E-02	2.235E-02	NOT IDENT.
SN-113	5.899E-03	4.614E-02	3.981E-02	2.354E-02	NOT IDENT.
CD-115	2.047E-01	6.310E+00	5.258E+00	3.219E+00	NOT IDENT.
SN-117M	1.285E-02	4.433E-02	3.877E-02	2.262E-02	NOT IDENT.
TE-123M	3.480E-03	2.546E-02	2.213E-02	1.299E-02	NOT IDENT.
SB-124	4.696E-02	8.311E-02	7.671E-02	4.240E-02	NOT IDENT.
SB-125	3.423E-02	9.514E-02	8.261E-02	4.854E-02	FAIL ABUN
TE-125M	9.247E+00	7.738E+00	7.079E+00	3.948E+00	NOT IDENT.
I-126	-2.579E-01	2.472E-01	1.962E-01	1.261E-01	NOT IDENT.
SB-126	1.034E-01	1.520E-01	1.209E-01	7.756E-02	NOT IDENT.
SB-127	-3.318E-01	9.947E-01	8.290E-01	5.075E-01	NOT IDENT.
I-131	2.856E-02	9.542E-02	8.368E-02	4.868E-02	NOT IDENT.
TE-132	3.764E-01	4.395E-01	3.804E-01	2.242E-01	NOT IDENT.
BA-133	2.598E-03	5.015E-02	3.829E-02	2.559E-02	NOT IDENT.
I-133	6.681E+02	1.104E+03	0.000E+00	5.634E+02	SHORT HLIF
CS-134	2.249E-01	8.413E-02	5.649E-02	4.292E-02	FAIL ABUN
CS-135	2.341E-01	1.646E-01	1.323E-01	8.399E-02	NOT IDENT.
I-135	2.484E+13	3.012E+13	0.000E+00	1.537E+13	SHORT HLIF
CS-136	9.727E-02	1.172E-01	1.065E-01	5.979E-02	NOT IDENT.
BA-137M	-2.967E-02	4.916E-02	4.212E-02	2.508E-02	NOT IDENT.
CS-137	-3.134E-02	5.194E-02	4.449E-02	2.650E-02	NOT IDENT.
CE-139	1.822E-03	2.690E-02	2.323E-02	1.372E-02	NOT IDENT.
BA-140	9.519E-02	2.613E-01	2.213E-01	1.333E-01	NOT IDENT.
LA-140	-1.270E-01	8.939E-02	5.935E-02	4.561E-02	FAIL ABUN
CE-141	-2.414E-03	5.445E-02	4.732E-02	2.778E-02	NOT IDENT.
CE-143	1.855E+02	6.226E+01	0.000E+00	3.177E+01	SHORT HLIF
CE-144	-5.338E-02	1.719E-01	1.486E-01	8.769E-02	NOT IDENT.
PM-144	2.635E-03	4.094E-02	3.513E-02	2.089E-02	NOT IDENT.
PR-144	1.602E-01	3.058E+00	2.622E+00	1.560E+00	NOT IDENT.
PM-146	-1.026E-02	4.527E-02	3.760E-02	2.310E-02	NOT IDENT.
ND-147	-3.145E-01	5.478E-01	4.327E-01	2.795E-01	FAIL ABUN
PM-149	-3.268E+01	4.897E+01	3.830E+01	2.498E+01	NOT IDENT.
EU-152	5.270E-03	1.036E-01	8.712E-02	5.287E-02	FAIL ABUN
GD-153	-8.139E-02	6.869E-02	5.169E-02	3.504E-02	NOT IDENT.
EU-154	-3.644E-02	1.597E-01	1.311E-01	8.146E-02	NOT IDENT.
EU-155	1.264E-01	8.395E-02	7.752E-02	4.283E-02	FAIL ABUN
TB-160	-3.365E-02	1.565E-01	1.278E-01	7.983E-02	FAIL ABUN
HO-166M	-6.358E-02	7.218E-02	5.723E-02	3.683E-02	FAIL ABUN
TA-182	-1.723E-01	2.406E-01	1.907E-01	1.227E-01	FAIL ABUN
IR-192	9.936E-03	3.436E-02	3.043E-02	1.753E-02	FAIL ABUN
HG-203	1.887E-02	3.883E-02	3.273E-02	1.981E-02	NOT IDENT.
BI-207	2.780E-02	6.553E-02	5.782E-02	3.343E-02	FAIL ABUN
PB-211	-1.041E+00	9.339E-01	6.223E-01	4.765E-01	NOT IDENT.
BI-212	2.889E+00	1.023E+00	7.165E-01	5.218E-01	FAIL ABUN
RN-219	5.445E-01	4.514E-01	4.056E-01	2.303E-01	FAIL ABUN
RA-223	1.731E-01	7.046E-01	5.509E-01	3.595E-01	FAIL ABUN
AC-227	-1.117E-02	2.632E-01	2.175E-01	1.343E-01	FAIL ABUN
TH-227	-1.117E-02	2.632E-01	2.175E-01	1.343E-01	FAIL ABUN
TH-229	-1.471E-01	5.086E-01	4.265E-01	2.595E-01	FAIL ABUN
PA-231	-1.555E-01	1.495E+00	1.218E+00	7.626E-01	FAIL ABUN
TH-231	1.731E-01	7.046E-01	5.509E-01	3.595E-01	FAIL ABUN
PA-233	1.125E-02	6.163E-02	5.439E-02	3.144E-02	FAIL ABUN
PA-234	-9.181E-02	3.872E-01	3.133E-01	1.976E-01	NOT IDENT.
PA-234M	1.516E+00	5.573E+00	4.675E+00	2.843E+00	NOT IDENT.
NP-239	-1.532E-01	3.173E-01	2.750E-01	1.619E-01	NOT IDENT.
AM-241	1.389E-02	5.570E-02	4.365E-02	2.842E-02	NOT IDENT.
CM-247	2.153E-02	4.088E-02	3.593E-02	2.085E-02	NOT IDENT.

CF-249	2.112E-02	4.275E-02	3.764E-02	2.181E-02	NOT IDENT.
CF-251	1.941E-02	1.249E-01	1.077E-01	6.375E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	297.2932
49.72	289.6859
57.36	0.0000
59.54	385.6555
63.29	468.0074
63.29	468.0074
64.28	469.7083
67.75	509.2081
69.67	479.5362
70.83	522.0755
72.81	439.0140
72.87	439.1020
72.87	439.1020
74.82	441.9288
74.82	441.9288
74.82	441.9288
74.97	442.1445
77.11	445.2040
77.11	445.2040
77.11	445.2040
79.69	448.8340
79.80	448.9872
80.12	449.4328
80.19	449.5293
80.57	450.0572
81.00	450.6532
81.07	450.7497
81.07	450.7497
83.79	346.9700
83.79	346.9700
85.43	530.3661
86.48	645.3013
86.55	645.4333
86.79	395.6638
86.94	395.8401
87.57	396.5650
88.03	397.0916
88.47	397.5960
89.96	399.2908
91.11	400.5912
92.59	448.6144
92.59	448.6144
93.35	449.5594
94.67	451.1927
94.87	255.9833
94.87	255.9833
95.86	335.0651
97.43	358.0681
98.44	275.0032
99.53	266.4324
100.11	292.4139
103.18	336.8511
103.37	305.2045
105.31	285.9751
106.12	310.7981
109.28	294.0420
111.00	333.8285
111.76	310.7403
116.30	249.3280
117.23	280.9907
121.12	243.1320
121.78	272.2466
122.06	278.7112
123.07	261.3198
131.20	276.5376
133.52	292.1795
136.00	279.7948

136.47	286.5599
140.51	300.1473
140.51	0.0000
143.76	303.0411
144.24	313.6915
144.24	313.6915
145.44	300.2697
152.43	298.5938
153.25	270.2988
154.21	302.4742
154.21	302.4742
156.02	304.4599
158.56	255.5540
159.00	258.6644
162.66	236.9809
163.33	258.7459
165.86	253.0475
176.60	259.7725
177.52	261.1752
181.07	253.6611
184.41	281.3653
185.72	281.9620
193.51	255.6946
197.04	256.0653
205.31	241.5203
210.85	184.9977
215.65	188.9385
222.11	214.2415
227.38	213.6520
228.16	189.0350
228.18	189.0404
235.69	230.7989
235.96	230.8806
235.96	230.8806
238.63	200.4783
238.63	200.4783
240.99	201.1001
242.00	201.3663
244.70	154.0383
252.40	176.1894
252.80	178.5107
256.23	194.9650
256.23	194.9650
260.90	189.3315
264.66	154.8769
268.22	131.3263
269.46	186.7489
269.46	186.7489
271.23	222.5171
273.65	169.9417
276.40	206.6565
277.37	190.7993
277.60	190.8500
278.00	164.4826
279.20	172.7753
279.54	210.8677
280.46	204.1737
283.69	169.0412
284.31	183.0636
285.41	213.4575
285.90	188.0376
287.50	158.1465
293.27	0.0000
295.22	153.0677
295.96	153.1952
298.57	153.6359
299.98	153.8722
299.98	153.8722
300.09	153.8908
300.09	153.8908
300.13	153.8988
301.36	145.9577
302.85	116.3875
304.50	137.9219
304.50	137.9219
304.85	139.3964
308.46	141.9029
311.90	138.8392

316.51	150.3143
319.41	156.1873
320.08	156.2955
323.87	140.7637
323.87	140.7637
328.76	163.3434
333.37	177.2904
334.37	170.1343
334.37	170.1343
338.28	163.8031
338.28	163.8031
338.32	163.8086
338.32	163.8086
338.32	163.8086
340.48	150.5098
340.55	150.5197
344.28	148.1079
351.06	140.6962
351.93	140.8137
356.01	146.7919
364.49	117.9562
366.42	101.1517
383.85	137.3399
388.16	125.3305
388.63	131.1710
391.69	124.7542
400.66	129.6251
401.81	115.1191
402.40	126.8896
404.85	160.4115
410.95	122.8981
414.70	118.3521
423.72	106.3208
427.09	109.6022
427.87	104.6860
433.94	102.1945
453.88	109.9182
463.37	112.7695
468.07	103.7054
473.00	84.6751
476.78	106.6604
477.60	97.3994
487.02	101.2035
492.35	101.5957
497.08	101.9406
511.00	99.7638
514.00	103.8013
527.90	89.1196
529.87	0.0000
531.02	98.9910
537.26	83.2013
546.56	0.0000
563.25	89.0263
569.33	123.5767
569.50	123.5903
569.70	123.6040
583.19	84.5885
600.60	97.0000
602.73	87.1133
604.72	85.7134
609.32	85.9523
609.32	85.9523
609.32	85.9523
610.33	86.0033
614.28	89.2322
618.01	82.7598
621.93	92.9779
621.93	92.9779
633.25	78.9138
635.95	79.9567
636.99	81.8448
645.85	93.3535
657.76	123.7621
661.66	103.5151
661.66	103.5151
664.57	0.0000
666.33	122.4831
666.50	114.0801

677.62	77.1473
685.70	83.1574
695.00	89.2725
696.49	94.0959
696.51	94.0983
697.00	102.6791
702.65	103.9412
706.68	88.8722
711.68	98.6874
720.70	59.3632
721.93	0.0000
722.78	75.4895
722.91	75.4953
723.31	78.7238
724.19	80.3670
727.33	67.6177
733.00	90.4189
735.93	65.9746
739.50	68.0381
747.24	77.0867
752.31	80.2163
753.82	63.6353
756.73	77.4532
763.94	70.5136
765.81	85.3506
766.42	82.0923
777.92	91.6351
778.90	82.2644
783.70	69.5403
785.37	82.5218
795.86	57.9547
801.95	80.1699
810.29	89.5389
810.76	89.5584
815.77	53.4568
818.51	66.6542
832.01	98.5725
834.85	77.3322
836.80	0.0000
846.77	62.4044
856.80	61.6582
860.56	73.0835
871.09	78.5939
873.19	67.2804
875.33	0.0000
879.36	61.2355
880.51	58.1506
883.24	59.2586
884.68	68.6587
889.28	61.4991
898.04	50.2219
911.20	72.5982
911.20	72.5982
911.20	72.5982
926.50	67.7703
937.49	92.5437
944.13	68.2641
946.00	73.6528
949.00	60.9187
962.29	51.9347
964.08	55.5555
966.15	54.8848
968.97	54.9464
968.97	54.9464
968.97	54.9464
983.53	58.5154
996.26	74.0546
1001.03	56.7353
1004.73	80.8544
1037.84	50.7143
1038.76	0.0000
1048.07	56.4627
1050.41	61.1445
1050.41	61.1445
1063.66	63.3073
1085.87	63.8219
1099.45	69.7905
1112.07	68.2090

1115.54	48.7814
1120.29	63.6576
1120.29	63.6576
1120.29	63.6576
1120.55	63.6631
1121.30	63.6794
1131.51	0.0000
1173.23	62.8920
1177.93	82.3714
1189.05	59.3345
1204.77	85.0671
1221.41	87.4971
1231.02	97.6304
1235.36	103.6926
1238.28	97.8600
1260.41	0.0000
1271.85	66.9373
1274.44	64.9921
1274.54	71.9912
1291.59	49.2552
1298.22	0.0000
1312.11	44.5085
1332.49	37.6594
1365.19	19.5273
1368.63	0.0000
1384.29	51.6744
1408.01	38.5010
1457.56	0.0000
1460.82	21.1230
1489.16	23.4162
1505.03	20.1577
1596.21	34.7211
1620.50	15.1071
1678.03	0.0000
1690.97	11.5292
1764.49	8.5550
1764.49	8.5550
1764.49	8.5550
1770.23	5.1398
1771.35	62.6719
1791.20	0.0000
1836.06	8.9444

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249331005

Total Uranium Activity	8.4693E+00	ug/g
Total Uranium Counting Unc.	3.3530E+00	ug/g
Total Uranium Tpu	1.7107E-06	ug/g
Total Uranium Mda	1.3573E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G249331005       *
*   ANALYST       : MXR1                      DETECTOR   : GAM25            *
*   SAMPLE DATE   : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 09:13:20.64    SAMPLE ALQT:  118.260 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.288E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.354E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 3.920E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.910E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:15:17.96

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331006.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:13:48
Sample ID         : G249331006           Sample quantity  : 1.13550E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:58.39  0.8%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 965250                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.85*	185	774	1.42	125.93	120	12	2.57E-02	31.4	
2	6	74.77*	513	494	1.04	149.74	145	14	7.13E-02	8.2	8.48E-01
3	6	77.11*	769	461	0.97	154.41	145	14	1.07E-01	5.8	
4	3	87.12*	231	616	1.19	174.42	169	24	3.21E-02	18.1	4.62E+00
5	3	90.03	161	517	1.09	180.23	169	24	2.24E-02	24.4	
6	3	92.73*	250	429	1.12	185.62	169	24	3.48E-02	17.1	
7	0	185.98*	190	472	1.36	371.90	365	12	2.64E-02	24.9	
8	0	209.15	100	320	0.84	418.19	415	8	1.39E-02	32.7	
9	3	238.53*	1634	209	1.13	476.88	469	20	2.27E-01	3.0	1.41E+00
10	3	241.52	444	290	2.06	482.85	469	20	6.16E-02	12.1	
11	0	270.56	202	223	1.86	540.88	535	13	2.80E-02	17.1	
12	0	294.99	513	253	1.22	589.69	583	11	7.12E-02	7.5	
13	0	299.86	56	267	0.86	599.42	595	11	7.72E-03	58.7	
14	0	328.01	117	175	1.28	655.66	652	10	1.62E-02	23.2	
15	0	338.16	324	140	1.27	675.94	671	9	4.50E-02	8.6	
16	0	351.85	825	240	1.29	703.31	697	13	1.15E-01	5.2	
17	0	462.50	101	112	1.27	924.42	919	10	1.40E-02	22.1	
18	0	510.58*	142	208	1.66	1020.51	1012	17	1.98E-02	27.6	
19	0	583.19*	440	148	1.45	1165.64	1159	12	6.12E-02	7.4	
20	0	609.21*	556	134	1.47	1217.65	1210	14	7.72E-02	6.2	
21	0	661.35	130	187	1.02	1321.88	1321	11	1.80E-02	24.2	
22	0	727.04	202	59	1.95	1453.22	1445	18	2.81E-02	11.3	
23	0	768.74*	50	113	4.78	1536.59	1530	15	6.90E-03	50.2	
24	0	800.03	146	102	12.90	1599.15	1585	30	2.03E-02	22.0	
25	0	860.42	62	57	1.08	1719.90	1714	12	8.55E-03	27.7	
26	0	911.14*	303	85	1.24	1821.33	1815	13	4.21E-02	8.7	
27	1	931.18	47	47	2.22	1861.40	1856	18	6.51E-03	31.6	5.79E+00
28	1	933.98	82	56	2.02	1867.00	1856	18	1.14E-02	20.4	
29	2	964.55*	93	56	2.39	1928.15	1922	22	1.29E-02	19.0	1.36E+00
30	2	968.94*	214	48	2.03	1936.92	1922	22	2.97E-02	9.6	
31	0	1120.50*	100	60	1.60	2240.08	2234	11	1.39E-02	18.7	
32	0	1238.66*	68	76	1.82	2476.46	2467	17	9.46E-03	32.3	
33	0	1378.56*	35	34	1.46	2756.39	2749	14	4.83E-03	42.0	
34	0	1460.76*	1289	32	1.88	2920.89	2912	19	1.79E-01	3.0	
35	0	1729.27	37	0	2.00	3458.38	3450	15	5.14E-03	16.4	
36	0	1764.60*	88	20	1.59	3529.13	3522	13	1.22E-02	15.9	
37	0	1847.41	25	3	1.50	3694.93	3688	11	3.44E-03	24.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 11:15:20

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331006.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:13:48
Sample ID : G249331006 Sample quantity : 113.55 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAM29 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:58.39 0.8%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.302E+01	4.104E+00	7.214E-01	7.846E-02	45.772
CD-109	+	88.03	*	3.583E+00	1.339E+00	1.650E+00	1.558E-01	2.171
SN-126	+	64.28		1.910E+00	1.233E+00	1.113E+00	1.650E-01	1.717
	+	86.94		1.461E+00	8.046E-01	6.800E-01	2.823E-01	2.148
	+	87.57	*	3.514E-01	1.314E-01	1.625E-01	1.528E-02	2.162
BA-137M	+	661.66	*	2.001E-01	9.837E-02	7.077E-02	5.802E-03	2.828
CS-137	+	661.66	*	2.114E-01	1.039E-01	7.477E-02	6.142E-03	2.828
TL-208		277.37		6.678E-01	5.410E-01	8.639E-01	1.111E-01	0.773
	+	583.19	*	6.473E-01	1.135E-01	8.590E-02	8.049E-03	7.535
	+	860.56		8.559E-01	4.860E-01	5.375E-01	6.894E-02	1.592
BI-211		72.87		1.920E+01	5.434E+00	8.426E+00	6.963E-01	2.279
	+	351.06	*	5.487E+00	7.763E-01	4.176E-01	3.998E-02	13.141
PB-212	+	74.82		3.409E+00	7.109E-01	7.761E-01	9.960E-02	4.393
	+	77.11		2.930E+00	4.222E-01	4.459E-01	3.797E-02	6.571
	+	238.63	*	2.482E+00	2.879E-01	1.171E-01	1.168E-02	21.201
	+	300.09		1.297E+00	1.529E+00	1.633E+00	1.794E-01	0.795
BI-214	+	609.32	*	1.581E+00	2.527E-01	1.401E-01	1.415E-02	11.287
	+	1120.29		1.481E+00	5.803E-01	5.354E-01	6.250E-02	2.766
	+	1764.49		1.761E+00	5.822E-01	4.079E-01	3.704E-02	4.316
PB-214	+	74.82		6.043E+00	1.213E+00	1.376E+00	1.586E-01	4.393
	+	77.11		5.165E+00	8.576E-01	7.861E-01	9.319E-02	6.571
	+	242.00		4.085E+00	1.078E+00	7.112E-01	7.541E-02	5.743
	+	295.22		2.119E+00	3.964E-01	3.264E-01	3.667E-02	6.494
	+	351.93	*	1.991E+00	3.024E-01	1.518E-01	1.678E-02	13.115
RA-224	+	240.99	*	7.223E+00	1.860E+00	1.254E+00	1.112E-01	5.761
RA-226	+	609.32	*	1.581E+00	2.527E-01	1.401E-01	1.415E-02	11.287
	+	1120.29		1.481E+00	5.803E-01	5.354E-01	6.250E-02	2.766
	+	1764.49		1.761E+00	5.822E-01	4.079E-01	3.704E-02	4.316
AC-228	+	338.32		2.405E+00	1.088E+00	4.787E-01	2.003E-01	5.024
	+	911.20	*	2.147E+00	4.954E-01	2.968E-01	4.521E-02	7.234
	+	968.97		2.616E+00	8.437E-01	5.158E-01	1.337E-01	5.071
RA-228	+	338.32		2.405E+00	1.088E+00	4.787E-01	2.003E-01	5.024
	+	911.20	*	2.147E+00	4.954E-01	2.968E-01	4.521E-02	7.234
	+	968.97		2.616E+00	8.437E-01	5.158E-01	1.337E-01	5.071

Sample ID : G249331006 Acquisition date : 24-MAR-2010 09:13:48

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	74.82		3.409E+00	6.300E-01	7.761E-01	6.560E-02	4.393
	+	77.11		2.930E+00	4.222E-01	4.459E-01	3.797E-02	6.571
	+	238.63	*	2.482E+00	2.879E-01	1.171E-01	1.168E-02	21.201
	+	300.09		1.297E+00	1.717E+00	1.633E+00	1.001E+00	0.795
TH-230	+	609.32	*	1.581E+00	2.385E-01	1.401E-01	1.206E-02	11.287
	+	1120.29		1.481E+00	5.717E-01	5.354E-01	5.117E-02	2.766
	+	1764.49		1.761E+00	5.822E-01	4.079E-01	3.704E-02	4.316
TH-232	+	338.32		2.405E+00	4.690E-01	4.787E-01	4.396E-02	5.024
	+	911.20	*	2.147E+00	4.954E-01	2.968E-01	4.521E-02	7.234
	+	968.97		2.616E+00	8.437E-01	5.158E-01	1.337E-01	5.071
TH-234	+	63.29	*	4.956E+00	3.240E+00	2.866E+00	5.178E-01	1.729
	+	92.59		3.168E+00	1.291E+00	1.364E+00	3.041E-01	2.323
U-235	+	89.96		2.545E+00	1.393E+00	1.696E+00	4.217E-01	1.501
	+	93.35		2.393E+00	9.884E-01	1.025E+00	2.387E-01	2.335
		143.76	*	5.707E-03	2.883E-01	4.598E-01	7.770E-02	0.012
		163.33		-8.829E-02	6.015E-01	9.494E-01	1.685E-01	-0.093
	+	185.72		1.896E-01	9.591E-02	8.855E-02	7.394E-03	2.141
		205.31		3.331E-01	7.262E-01	1.086E+00	1.967E-01	0.307
NP-237	+	86.48	*	1.048E+00	4.494E-01	4.904E-01	1.125E-01	2.138
		95.86		3.034E-01	1.381E+00	1.992E+00	4.808E-01	0.152
U-238	+	63.29	*	4.956E+00	3.240E+00	2.866E+00	5.178E-01	1.729
	+	92.59		3.168E+00	1.119E+00	1.364E+00	1.250E-01	2.323
ANH-511	+	511.00	*	1.603E-01	8.975E-02	5.912E-02	5.352E-03	2.711

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	3.075E-03	3.990E-01	6.488E-01	6.316E-02	0.005
NA-22		1274.54	*	-1.763E-02	5.492E-02	8.933E-02	8.917E-03	-0.197
NA-24		1368.63	*	2.416E-02	5.492E-02	Half-Life too short		
SC-46		889.28	*	-2.850E-02	4.804E-02	7.484E-02	9.772E-03	-0.381
	+	1120.55		2.459E-01	9.494E-02	1.531E-01	1.463E-02	1.606
V-48		944.13		-3.262E-02	9.475E-01	1.549E+00	1.967E-01	-0.021
		983.53	*	8.174E-02	7.854E-02	1.390E-01	1.686E-02	0.588
		1312.11		-4.600E-02	7.988E-02	1.248E-01	1.325E-02	-0.369
CR-51		320.08	*	3.625E-01	4.614E-01	7.895E-01	7.591E-02	0.459
MN-54		834.85	*	-2.226E-02	4.674E-02	7.435E-02	8.763E-03	-0.299
CO-56		846.77	*	-2.361E-03	4.823E-02	7.930E-02	9.562E-03	-0.030
		1037.84		8.507E-02	3.641E-01	6.062E-01	7.014E-02	0.140
	+	1238.28		2.744E-01	1.790E-01	2.140E-01	2.054E-02	1.282
		1771.35		-2.264E-01	3.273E-01	3.716E-01	3.356E-02	-0.609
CO-57		122.06	*	-8.088E-03	3.413E-02	5.482E-02	4.953E-03	-0.148
		136.47		1.784E-01	2.809E-01	4.635E-01	4.306E-02	0.385
CO-58		810.76	*	3.336E-02	5.038E-02	7.719E-02	8.692E-03	0.432
FE-59		1099.45	*	1.001E-01	1.160E-01	2.011E-01	2.135E-02	0.498
		1291.59		6.388E-02	1.404E-01	2.442E-01	2.750E-02	0.262
CO-60		1173.23		-3.131E-02	5.912E-02	9.129E-02	7.589E-03	-0.343
		1332.49	*	-2.261E-02	4.284E-02	6.697E-02	7.345E-03	-0.338

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZN-65		1115.54	*	-8.541E-02	1.345E-01	1.716E-01	1.659E-02	-0.498
SE-75		121.12		-5.166E-02	1.781E-01	2.854E-01	3.252E-02	-0.181
		136.00		5.101E-02	5.299E-02	8.834E-02	7.710E-03	0.577
		264.66	*	3.046E-02	6.490E-02	9.674E-02	8.772E-03	0.315
		279.54		1.718E-01	1.375E-01	2.395E-01	2.254E-02	0.717
		400.66		2.975E-01	3.238E-01	5.542E-01	6.320E-02	0.537
SR-85		514.00	*	1.188E-01	5.531E-02	8.926E-02	8.074E-03	1.331
Y-88		898.04		-1.444E-02	5.145E-02	8.263E-02	1.098E-02	-0.175
		1836.06	*	-1.164E-02	3.454E-02	5.240E-02	4.481E-03	-0.222
Y-91		1204.77	*	-4.289E+00	2.712E+01	4.324E+01	3.813E+00	-0.099
NB-94		702.65	*	4.807E-03	4.274E-02	7.177E-02	6.447E-03	0.067
		871.09		3.057E-02	4.174E-02	7.259E-02	9.164E-03	0.421
NB-95		765.81	*	8.392E-02	6.273E-02	9.959E-02	1.023E-02	0.843
NB-95M		235.69	*	8.399E-01	2.182E-01	3.457E-01	3.482E-02	2.429
ZR-95		724.19		2.487E-01	1.329E-01	2.190E-01	2.208E-02	1.136
		756.73	*	-5.664E-03	9.273E-02	1.534E-01	1.666E-02	-0.037
MO-99		140.51		-1.829E+01	1.808E+01	2.724E+01	6.463E+00	-0.672
		181.07		4.363E+00	1.567E+01	2.215E+01	4.130E+00	0.197
		366.42		2.121E+01	7.323E+01	1.223E+02	1.115E+01	0.173
		739.50	*	1.518E+00	8.022E+00	1.353E+01	2.217E+00	0.112
		777.92		-1.654E+01	2.745E+01	4.114E+01	4.332E+00	-0.402
TC-99M		140.51	*	-1.158E+08	2.745E+01	Half-Life too short		
RU-103		497.08	*	1.315E-02	4.938E-02	8.141E-02	1.161E-02	0.162
	+	610.33		1.569E+01	3.217E+00	3.361E+00	5.491E-01	4.668
RH-106		621.93	*	1.632E-01	3.735E-01	6.438E-01	8.494E-02	0.254
		1050.41		-5.980E-01	2.989E+00	4.777E+00	5.249E-01	-0.125
RU-106		621.93	*	1.632E-01	3.732E-01	6.438E-01	5.488E-02	0.254
		1050.41		-5.980E-01	2.989E+00	4.777E+00	5.249E-01	-0.125
AG-108M		433.94	*	1.821E-02	4.028E-02	6.737E-02	6.303E-03	0.270
		614.28		2.367E-03	4.685E-02	6.824E-02	6.047E-03	0.035
		722.91		-4.027E-03	4.926E-02	6.962E-02	6.711E-03	-0.058
AG-110M		657.76	*	-9.945E-02	5.850E-02	7.054E-02	5.997E-03	-1.410
		677.62		1.267E-01	3.812E-01	6.508E-01	5.694E-02	0.195
		706.68		-1.197E-01	2.633E-01	4.250E-01	3.951E-02	-0.282
		763.94		1.830E-01	2.287E-01	3.517E-01	3.669E-02	0.520
		884.68		-2.264E-02	6.138E-02	9.782E-02	1.285E-02	-0.231
		937.49		4.453E-02	1.575E-01	2.293E-01	2.980E-02	0.194
		1384.29		2.831E-01	2.022E-01	3.503E-01	3.876E-02	0.808
		1505.03		-1.051E-01	3.085E-01	4.865E-01	5.120E-02	-0.216
SN-113		391.69	*	-2.882E-02	5.743E-02	9.152E-02	8.464E-03	-0.315
CD-115		260.90		-4.443E+01	9.076E+01	1.482E+02	1.335E+01	-0.300
		492.35		5.752E+00	2.495E+01	4.012E+01	3.646E+00	0.143
		527.90	*	1.069E+00	7.180E+00	1.173E+01	1.057E+00	0.091
SN-117M		156.02		1.302E+00	2.732E+00	4.469E+00	3.712E-01	0.291
		158.56	*	4.297E-03	6.691E-02	1.078E-01	8.908E-03	0.040
TE-123M		159.00	*	1.402E-02	3.799E-02	6.189E-02	5.144E-03	0.227
SB-124		602.73		3.052E-03	5.640E-02	7.840E-02	6.786E-03	0.039
		645.85		-9.594E-01	5.413E-01	7.679E-01	6.794E-02	-1.249
		722.78		-5.530E-02	4.812E-01	6.775E-01	6.481E-02	-0.082

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1690.97	*	-1.406E-03	8.514E-02	1.395E-01	1.381E-02	-0.010
SB-125		427.87	*	-6.052E-02	1.243E-01	1.974E-01	1.823E-02	-0.307
	+	463.37		1.006E+00	4.548E-01	6.938E-01	6.748E-02	1.450
		600.60		-1.256E-01	2.522E-01	3.653E-01	3.398E-02	-0.344
		635.95		-3.467E-01	2.974E-01	4.501E-01	4.111E-02	-0.770
TE-125M		109.28	*	1.558E+00	1.345E+01	2.195E+01	2.341E+00	0.071
I-126		388.63		-8.915E-03	1.970E-01	3.225E-01	2.906E-02	-0.028
		666.33	*	4.499E-02	2.748E-01	4.025E-01	3.334E-02	0.112
		753.82		1.624E+00	2.076E+00	3.619E+00	3.626E-01	0.449
SB-126		414.70		-1.070E-01	9.169E-02	1.395E-01	1.264E-02	-0.767
		666.50		6.152E-02	9.002E-02	1.384E-01	1.147E-02	0.444
		695.00		-2.678E-02	8.913E-02	1.458E-01	1.288E-02	-0.184
		697.00		-1.725E-02	3.030E-01	5.037E-01	4.469E-02	-0.034
		720.70	*	5.900E-02	1.645E-01	2.453E-01	2.291E-02	0.241
		856.80		-1.413E-01	5.587E-01	7.663E-01	9.418E-02	-0.184
SB-127		252.40		-1.169E+00	3.763E+00	6.155E+00	2.550E+00	-0.190
		473.00		4.149E-01	1.317E+00	2.184E+00	2.745E-01	0.190
		685.70	*	-6.311E-01	1.144E+00	1.836E+00	1.979E-01	-0.344
		783.70		5.288E-01	3.020E+00	5.066E+00	6.761E-01	0.104
I-131		80.19		-9.833E+00	6.507E+00	8.017E+00	7.038E-01	-1.226
		284.31		-9.673E-01	1.520E+00	2.448E+00	2.331E-01	-0.395
		364.49	*	-6.916E-02	1.261E-01	2.012E-01	1.921E-02	-0.344
		636.99		-1.603E+00	1.424E+00	2.166E+00	1.927E-01	-0.740
TE-132		49.72		-1.388E+01	1.593E+01	2.501E+01	2.609E+00	-0.555
		111.76		-1.537E+01	2.880E+01	4.587E+01	4.867E+00	-0.335
		116.30		6.007E+00	2.451E+01	4.013E+01	4.275E+00	0.150
		228.16	*	2.746E-01	5.858E-01	9.973E-01	1.545E-01	0.275
BA-133		81.00		-2.967E-01	1.877E-01	2.001E-01	3.126E-02	-1.483
		276.40		5.494E-01	5.135E-01	7.830E-01	1.128E-01	0.702
		302.85		9.011E-02	2.042E-01	3.021E-01	4.059E-02	0.298
		356.01	*	7.281E-03	6.261E-02	9.014E-02	1.200E-02	0.081
		383.85		1.052E-01	3.859E-01	6.425E-01	8.172E-02	0.164
I-133		529.87	*	-1.946E-04	3.859E-01	Half-Life too short		
		875.33		-1.646E-02	3.859E-01	Half-Life too short		
		1298.22		-1.564E-02	3.859E-01	Half-Life too short		
CS-134		563.25		1.707E-01	4.751E-01	7.835E-01	7.016E-02	0.218
		569.33		9.283E-02	2.570E-01	4.237E-01	3.796E-02	0.219
		604.72		4.693E-02	4.709E-02	7.128E-02	6.175E-03	0.658
		795.86	*	7.548E-02	5.675E-02	1.018E-01	1.116E-02	0.742
		801.95		3.063E-01	4.904E-01	8.435E-01	9.353E-02	0.363
		1365.19		6.207E-01	1.475E+00	2.568E+00	2.885E-01	0.242
CS-135		268.22	*	1.352E-01	2.480E-01	3.697E-01	3.822E-02	0.366
I-135		546.56		1.487E+07	2.480E-01	Half-Life too short		
		836.80		5.920E+07	2.480E-01	Half-Life too short		
		1038.76		-1.388E+07	2.480E-01	Half-Life too short		
		1131.51		3.457E+07	2.480E-01	Half-Life too short		
		1260.41	*	1.319E+07	2.480E-01	Half-Life too short		
		1457.56		3.731E+09	2.480E-01	Half-Life too short		
		1678.03		-1.311E+07	2.480E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1791.20		-5.811E+07	2.480E-01	Half-Life too short		
CS-136		153.25		1.604E-01	1.020E+00	1.650E+00	1.657E-01	0.097
		176.60		7.691E-02	6.196E-01	9.967E-01	9.147E-02	0.077
		273.65		-8.854E-01	6.704E-01	8.803E-01	8.598E-02	-1.006
		340.55		5.076E-01	2.166E-01	3.382E-01	3.208E-02	1.501
		818.51		1.288E-02	7.929E-02	1.328E-01	1.517E-02	0.097
		1048.07	*	-9.150E-03	1.113E-01	1.800E-01	2.037E-02	-0.051
		1235.36		6.826E-01	7.598E-01	1.144E+00	1.406E-01	0.597
CE-139		165.86	*	-5.108E-03	4.032E-02	6.437E-02	5.246E-03	-0.079
BA-140		162.66		-6.529E-02	9.950E-01	1.577E+00	1.389E-01	-0.041
		304.85		-3.959E-01	1.725E+00	2.438E+00	7.178E-01	-0.162
		423.72		-1.288E-01	2.323E+00	3.786E+00	1.250E+00	-0.034
		537.26	*	-5.668E-02	3.136E-01	4.995E-01	1.699E-01	-0.113
LA-140	+	328.76		9.509E-01	4.511E-01	6.438E-01	6.216E-02	1.477
		487.02		4.380E-02	1.559E-01	2.576E-01	2.474E-02	0.170
		815.77		-1.730E-02	3.443E-01	5.672E-01	6.886E-02	-0.031
		1596.21	*	2.806E-02	8.655E-02	1.490E-01	1.507E-02	0.188
CE-141		145.44	*	9.611E-02	8.344E-02	1.393E-01	1.204E-02	0.690
CE-143		57.36		3.756E-04	8.344E-02	Half-Life too short		
		293.27	*	5.404E-04	8.344E-02	Half-Life too short		
		664.57		1.429E-03	8.344E-02	Half-Life too short		
		721.93		-1.719E-04	8.344E-02	Half-Life too short		
CE-144		80.12		-4.342E+00	3.855E+00	5.265E+00	4.598E-01	-0.825
		133.52	*	-7.477E-02	2.689E-01	4.296E-01	6.592E-02	-0.174
PM-144		476.78		-1.679E-02	8.315E-02	1.334E-01	1.309E-02	-0.126
		618.01		-3.116E-02	3.910E-02	6.201E-02	5.453E-03	-0.503
		696.49	*	-3.685E-03	4.390E-02	7.284E-02	6.457E-03	-0.051
PR-144		696.51	*	5.160E-02	3.262E+00	5.448E+00	4.828E-01	0.009
		1489.16		-1.815E+01	1.548E+01	2.123E+01	2.247E+00	-0.855
PM-146		453.88	*	-3.434E-02	5.447E-02	8.507E-02	9.351E-03	-0.404
		633.25		4.101E-01	1.600E+00	2.719E+00	1.037E+00	0.151
		735.93		-6.859E-02	1.865E-01	2.658E-01	7.537E-02	-0.258
		747.24		-7.309E-02	1.205E-01	1.904E-01	2.925E-02	-0.384
ND-147	+	91.11		7.159E-01	3.562E-01	6.439E-01	6.384E-02	1.112
		319.41		2.001E+00	3.836E+00	6.498E+00	5.973E-01	0.308
		531.02	*	-2.260E-01	6.341E-01	9.985E-01	1.515E-01	-0.226
PM-149		285.90	*	3.963E+01	5.552E+01	9.484E+01	1.501E+01	0.418
EU-152		121.78		-6.299E-02	1.000E-01	1.581E-01	1.621E-02	-0.399
		244.70		1.300E-01	4.651E-01	6.878E-01	6.121E-02	0.189
		344.28	*	2.785E-02	1.412E-01	2.049E-01	1.978E-02	0.136
		778.90		-1.907E-01	3.325E-01	5.272E-01	5.562E-02	-0.362
	+	964.08		1.225E+00	4.893E-01	7.631E-01	9.478E-02	1.605
		1085.87		2.901E-01	4.765E-01	8.157E-01	8.396E-02	0.356
		1112.07		-1.061E-01	4.270E-01	6.237E-01	6.074E-02	-0.170
		1408.01		2.073E-01	2.448E-01	4.237E-01	4.588E-02	0.489
GD-153		69.67		-2.420E-01	2.726E+00	3.923E+00	3.186E-01	-0.062
		97.43	*	3.346E-02	1.261E-01	1.804E-01	1.620E-02	0.185
		103.18		-5.501E-02	1.549E-01	2.492E-01	2.211E-02	-0.221
EU-154		123.07		1.379E-02	6.939E-02	1.132E-01	1.318E-02	0.122

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		723.31		-8.305E-04	2.243E-01	3.198E-01	3.262E-02	-0.003
		873.19		3.267E-02	3.571E-01	5.927E-01	8.946E-02	0.055
		996.26		-5.647E-01	4.654E-01	6.563E-01	1.268E-01	-0.860
		1004.73		-2.531E-01	2.812E-01	4.205E-01	5.949E-02	-0.602
		1274.44	*	-5.425E-02	1.555E-01	2.521E-01	3.135E-02	-0.215
EU-155	+	86.55		4.257E-01	1.592E-01	2.580E-01	2.421E-02	1.650
		105.31	*	9.247E-02	1.505E-01	2.496E-01	2.235E-02	0.371
TB-160	+	86.79		1.106E+00	4.137E-01	6.644E-01	6.194E-02	1.665
		197.04		-1.231E-01	7.193E-01	1.183E+00	1.002E-01	-0.104
		215.65		-4.284E-01	1.012E+00	1.629E+00	1.410E-01	-0.263
	+	298.57		1.788E-01	2.105E-01	2.647E-01	2.425E-02	0.676
		879.36	*	-1.712E-02	1.688E-01	2.757E-01	3.535E-02	-0.062
		962.29		1.665E+00	8.579E-01	1.391E+00	1.731E-01	1.197
		966.15		1.631E+00	3.964E-01	6.890E-01	8.537E-02	2.367
		1177.93		-6.586E-03	4.787E-01	7.736E-01	6.489E-02	-0.009
		1271.85		4.792E-01	8.230E-01	1.445E+00	1.435E-01	0.332
HO-166M		80.57		-7.247E-01	4.638E-01	5.694E-01	4.993E-02	-1.273
		184.41		1.349E-01	5.870E-02	9.126E-02	7.608E-03	1.479
		280.46		-3.689E-02	1.081E-01	1.771E-01	1.613E-02	-0.208
		410.95		6.465E-01	3.368E-01	5.960E-01	5.393E-02	1.085
		711.68	*	-1.847E-02	8.001E-02	1.233E-01	1.130E-02	-0.150
		752.31		6.451E-02	3.510E-01	5.904E-01	5.897E-02	0.109
		810.29		3.637E-02	7.920E-02	1.187E-01	1.333E-02	0.306
TA-182		67.75		-8.445E-02	1.770E-01	2.509E-01	2.021E-02	-0.337
		100.11		2.821E-01	2.441E-01	3.988E-01	3.557E-02	0.707
		152.43		1.229E-01	4.566E-01	7.421E-01	6.208E-02	0.166
		222.11		-5.987E-02	4.495E-01	7.509E-01	6.544E-02	-0.080
	+	1121.30		6.846E-01	2.643E-01	4.251E-01	4.053E-02	1.610
		1189.05		5.515E-02	4.126E-01	6.742E-01	5.775E-02	0.082
		1221.41	*	-3.599E-02	2.573E-01	4.106E-01	3.732E-02	-0.088
		1231.02		-1.922E-01	7.044E-01	9.387E-01	8.681E-02	-0.205
IR-192	+	295.96		1.535E+00	2.695E-01	3.780E-01	3.483E-02	4.060
		308.46		-1.606E-02	1.197E-01	1.971E-01	1.818E-02	-0.081
		316.51	*	-4.802E-03	4.513E-02	7.435E-02	6.846E-03	-0.065
		468.07		1.811E-02	8.864E-02	1.270E-01	1.232E-02	0.143
HG-203		70.83		1.065E+00	2.033E+00	2.984E+00	4.721E-01	0.357
		72.87		4.624E+00	1.439E+00	2.029E+00	3.113E-01	2.279
		279.20	*	7.040E-02	4.816E-02	8.435E-02	7.851E-03	0.835
BI-207		72.81		1.019E+00	3.091E-01	4.788E-01	3.956E-02	2.128
	+	74.97		9.824E-01	1.812E-01	3.414E-01	2.861E-02	2.878
		569.70		3.447E-02	3.973E-02	6.750E-02	5.969E-03	0.511
		1063.66	*	3.028E-02	6.724E-02	1.136E-01	1.219E-02	0.267
		1770.23		-1.936E-01	5.986E-01	7.599E-01	6.869E-02	-0.255
PB-210		46.54	*	-2.662E+00	4.706E+00	7.755E+00	7.400E-01	-0.343
PB-211		404.85	*	-1.401E+00	1.169E+00	1.430E+00	6.931E-01	-0.980
		427.09		-1.445E+00	2.200E+00	3.292E+00	1.526E+00	-0.439
		832.01		-1.615E+00	1.474E+00	1.773E+00	9.302E-01	-0.911
BI-212	+	727.33	*	4.545E+00	1.188E+00	1.540E+00	2.011E-01	2.952
		785.37		3.903E+00	3.943E+00	6.949E+00	7.428E-01	0.562

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		1.228E+00	2.691E+00	4.717E+00	4.712E-01	0.260
RN-219	+	271.23		1.342E+00	4.800E-01	5.787E-01	6.151E-02	2.318
		401.81	*	5.233E-02	5.227E-01	8.612E-01	1.301E-01	0.061
RA-223		81.07		-6.666E-01	4.164E-01	4.540E-01	3.999E-02	-1.468
		83.79		5.158E-02	1.970E-01	2.844E-01	2.571E-02	0.181
		94.87		1.978E+00	7.101E-01	1.101E+00	9.982E-02	1.797
		144.24		1.256E-01	9.643E-01	1.543E+00	1.470E-01	0.081
		154.21		1.220E-01	5.200E-01	8.437E-01	7.750E-02	0.145
	+	269.46		1.042E+00	3.688E-01	4.436E-01	4.088E-02	2.350
		323.87	*	-4.485E-01	9.713E-01	1.345E+00	2.370E-01	-0.334
	+	338.28		9.544E+00	2.028E+00	3.010E+00	3.756E-01	3.171
AC-227		79.69		-6.470E-01	1.968E+00	2.790E+00	4.820E-01	-0.232
		235.96		1.964E+00	3.437E-01	5.071E-01	5.335E-02	3.872
		256.23	*	2.328E-01	3.269E-01	5.599E-01	6.892E-02	0.416
	+	299.98		1.427E+00	1.685E+00	2.049E+00	2.681E-01	0.696
		304.50		-4.786E-01	2.346E+00	3.327E+00	5.598E-01	-0.144
		334.37		5.992E-01	3.637E+00	3.562E+00	5.666E-01	0.168
TH-227		79.80		-1.370E+00	2.594E+00	3.629E+00	7.916E-01	-0.378
		235.96		1.964E+00	3.370E-01	5.071E-01	5.044E-02	3.872
		256.23	*	2.328E-01	3.272E-01	5.599E-01	7.747E-02	0.416
	+	299.98		1.427E+00	1.685E+00	2.049E+00	2.681E-01	0.696
		304.50		-4.786E-01	2.346E+00	3.327E+00	5.598E-01	-0.144
		334.37		5.992E-01	3.637E+00	3.562E+00	5.666E-01	0.168
TH-229		85.43		8.812E-01	3.550E-01	5.387E-01	4.951E-02	1.636
	+	88.47		5.417E-01	2.025E-01	3.375E-01	3.175E-02	1.605
		193.51	*	-2.170E-01	7.089E-01	1.116E+00	9.410E-02	-0.194
		210.85		2.452E+00	1.372E+00	2.155E+00	1.855E-01	1.138
PA-231		283.69	*	-2.815E+00	1.871E+00	2.811E+00	4.184E-01	-1.001
	+	301.36		9.167E-01	1.082E+00	1.289E+00	1.617E-01	0.711
TH-231		81.07		-6.666E-01	4.164E-01	4.540E-01	3.999E-02	-1.468
		83.79		5.158E-02	1.970E-01	2.844E-01	2.571E-02	0.181
		94.87		1.978E+00	7.101E-01	1.101E+00	9.982E-02	1.797
		144.24		1.256E-01	9.643E-01	1.543E+00	1.470E-01	0.081
		154.21		1.220E-01	5.200E-01	8.437E-01	7.750E-02	0.145
	+	269.46		1.042E+00	3.688E-01	4.436E-01	4.088E-02	2.350
		323.87	*	-4.485E-01	9.713E-01	1.345E+00	2.370E-01	-0.334
	+	338.28		9.544E+00	2.028E+00	3.010E+00	3.756E-01	3.171
PA-233	+	300.13		6.457E-01	7.640E-01	9.268E-01	1.404E-01	0.697
		311.90	*	-1.410E-02	8.327E-02	1.368E-01	1.289E-02	-0.103
		340.48		3.194E+00	1.265E+00	1.664E+00	4.038E-01	1.920
PA-234		94.67		9.133E-01	2.798E-01	4.169E-01	5.304E-02	2.191
		98.44		-1.919E-02	1.425E-01	1.995E-01	1.114E-01	-0.096
		111.00		-1.080E-01	2.592E-01	4.149E-01	5.086E-02	-0.260
		131.20		-9.729E-02	1.453E-01	2.289E-01	2.009E-02	-0.425
		569.50		2.704E-01	3.502E-01	5.921E-01	5.236E-02	0.457
		733.00		7.568E-02	4.726E-01	6.894E-01	1.557E-01	0.110
		880.51		3.539E-01	3.401E-01	6.028E-01	7.744E-02	0.587
		883.24		-1.458E-02	3.603E-01	5.910E-01	4.013E-01	-0.025
		926.50		-5.971E-02	2.446E-01	3.329E-01	9.004E-02	-0.179

Sample ID : G249331006 Acquisition date : 24-MAR-2010 09:13:48

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	-2.970E-01	3.720E-01	5.576E-01	1.168E-01	-0.533
		949.00		4.579E-01	5.195E-01	9.122E-01	1.152E-01	0.502
PA-234M		766.42		1.547E+01	1.951E+01	2.740E+01	1.399E+01	0.564
		1001.03	*	1.713E+00	5.780E+00	9.763E+00	1.256E+00	0.175
NP-239		99.53		1.121E-01	2.404E-01	3.646E-01	3.256E-02	0.308
		103.37		-9.284E-03	1.416E-01	2.302E-01	2.041E-02	-0.040
		106.12		9.231E-02	1.210E-01	2.014E-01	1.782E-02	0.458
		117.23	*	2.661E-01	5.445E-01	8.983E-01	8.023E-02	0.296
		228.18		1.361E-01	2.811E-01	4.797E-01	4.206E-02	0.284
		277.60		3.597E-01	2.427E-01	3.940E-01	3.582E-02	0.913
AM-241		59.54	*	6.295E-02	2.292E-01	3.364E-01	2.903E-02	0.187
CM-247		278.00		1.351E+00	9.993E-01	1.665E+00	1.514E-01	0.812
		287.50		2.025E+00	1.634E+00	2.640E+00	2.410E-01	0.767
		402.40	*	-3.176E-03	4.768E-02	7.783E-02	7.026E-03	-0.041
CF-249		252.80		-7.027E-02	1.234E+00	2.057E+00	1.842E-01	-0.034
		333.37		1.422E-01	3.851E-01	3.876E-01	3.561E-02	0.367
		388.16	*	2.106E-02	5.271E-02	8.829E-02	7.958E-03	0.239
CF-251		177.52	*	4.517E-02	1.824E-01	2.948E-01	2.436E-02	0.153
		227.38		-1.225E-01	4.593E-01	7.625E-01	6.681E-02	-0.161
		285.41		-4.415E-01	2.667E+00	4.401E+00	4.014E-01	-0.100

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331006       *
* Acquisition date : 24-MAR-2010 09:13:48 Detector SN#    :                 *
* Detector ID       : GAM29                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:58.39      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 11-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G249331006           Analyst initials: MXR1           *
* Batch Number      : 965250               Sample Quantity : 1.1355E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.302E+01	4.022E+00	7.182E-01	0.000E+00
CD-109	3.583E+00	1.313E+00	1.684E+00	0.000E+00
SN-126	3.514E-01	1.287E-01	1.659E-01	0.000E+00
BA-137M	2.001E-01	9.640E-02	7.096E-02	0.000E+00
CS-137	2.114E-01	1.018E-01	7.497E-02	0.000E+00
TL-208	6.473E-01	1.113E-01	8.623E-02	0.000E+00
BI-211	5.487E+00	7.608E-01	4.211E-01	0.000E+00
PB-212	2.482E+00	2.822E-01	1.185E-01	0.000E+00
BI-214	1.581E+00	2.476E-01	1.406E-01	0.000E+00
PB-214	1.991E+00	2.963E-01	1.531E-01	0.000E+00
RA-224	7.223E+00	1.823E+00	1.268E+00	0.000E+00
RA-226	1.581E+00	2.476E-01	1.406E-01	0.000E+00
AC-228	2.147E+00	4.854E-01	2.967E-01	0.000E+00
RA-228	2.147E+00	4.854E-01	2.967E-01	0.000E+00
TH-228	2.482E+00	2.822E-01	1.185E-01	0.000E+00
TH-230	1.581E+00	2.337E-01	1.406E-01	0.000E+00
TH-232	2.147E+00	4.854E-01	2.967E-01	0.000E+00
TH-234	4.956E+00	3.176E+00	2.933E+00	0.000E+00
U-235	5.707E-03	2.825E-01	4.672E-01	0.000E+00
NP-237	1.048E+00	4.404E-01	5.005E-01	0.000E+00
U-238	4.956E+00	3.176E+00	2.933E+00	0.000E+00
ANH-511	1.603E-01	8.795E-02	5.942E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	3.075E-03	3.910E-01	6.524E-01	0.000E+00	NOT IDENT.
NA-22	-1.763E-02	5.382E-02	8.904E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.903E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.850E-02	4.708E-02	7.485E-02	0.000E+00	FAIL ABUN
V-48	8.174E-02	7.697E-02	1.388E-01	0.000E+00	NOT IDENT.

CR-51	3.625E-01	4.522E-01	7.967E-01	0.000E+00	NOT IDENT.
MN-54	-2.226E-02	4.581E-02	7.440E-02	0.000E+00	NOT IDENT.
CO-56	-2.361E-03	4.726E-02	7.933E-02	0.000E+00	FAIL ABUN
CO-57	-8.088E-03	3.345E-02	5.579E-02	0.000E+00	NOT IDENT.
CO-58	3.336E-02	4.937E-02	7.725E-02	0.000E+00	NOT IDENT.
FE-59	1.001E-01	1.137E-01	2.007E-01	0.000E+00	NOT IDENT.
CO-60	-2.261E-02	4.198E-02	6.673E-02	0.000E+00	NOT IDENT.
ZN-65	-8.541E-02	1.318E-01	1.712E-01	0.000E+00	NOT IDENT.
SE-75	3.046E-02	6.360E-02	9.779E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.420E-02	8.970E-02	0.000E+00	NOT IDENT.
Y-88	-1.164E-02	3.385E-02	5.206E-02	0.000E+00	NOT IDENT.
Y-91	-4.289E+00	2.658E+01	4.312E+01	0.000E+00	NOT IDENT.
NB-94	4.807E-03	4.188E-02	7.193E-02	0.000E+00	NOT IDENT.
NB-95	8.392E-02	6.147E-02	9.973E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.138E-01	3.499E-01	0.000E+00	NOT IDENT.
ZR-95	-5.664E-03	9.088E-02	1.536E-01	0.000E+00	NOT IDENT.
MO-99	1.518E+00	7.862E+00	1.355E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.126E+14	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.315E-02	4.839E-02	8.184E-02	0.000E+00	FAIL ABUN
RH-106	1.632E-01	3.661E-01	6.459E-01	0.000E+00	NOT IDENT.
RU-106	1.632E-01	3.657E-01	6.459E-01	0.000E+00	NOT IDENT.
AG-108M	1.821E-02	3.948E-02	6.780E-02	0.000E+00	NOT IDENT.
AG-110M	-9.945E-02	5.733E-02	7.073E-02	0.000E+00	NOT IDENT.
SN-113	-2.882E-02	5.628E-02	9.219E-02	0.000E+00	NOT IDENT.
CD-115	1.069E+00	7.036E+00	1.178E+01	0.000E+00	NOT IDENT.
SN-117M	4.297E-03	6.557E-02	1.094E-01	0.000E+00	NOT IDENT.
TE-123M	1.402E-02	3.723E-02	6.284E-02	0.000E+00	NOT IDENT.
SB-124	-1.406E-03	8.343E-02	1.387E-01	0.000E+00	NOT IDENT.
SB-125	-6.052E-02	1.218E-01	1.987E-01	0.000E+00	FAIL ABUN
TE-125M	1.558E+00	1.318E+01	2.236E+01	0.000E+00	NOT IDENT.
I-126	4.499E-02	2.693E-01	4.035E-01	0.000E+00	NOT IDENT.
SB-126	5.900E-02	1.613E-01	2.457E-01	0.000E+00	NOT IDENT.
SB-127	-6.311E-01	1.121E+00	1.840E+00	0.000E+00	NOT IDENT.
I-131	-6.916E-02	1.235E-01	2.028E-01	0.000E+00	NOT IDENT.
TE-132	2.746E-01	5.741E-01	1.009E+00	0.000E+00	NOT IDENT.
BA-133	7.281E-03	6.135E-02	9.088E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.257E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.548E-02	5.561E-02	1.019E-01	0.000E+00	NOT IDENT.
CS-135	1.352E-01	2.431E-01	3.737E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.848E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-9.150E-03	1.091E-01	1.798E-01	0.000E+00	NOT IDENT.
CE-139	-5.108E-03	3.952E-02	6.533E-02	0.000E+00	NOT IDENT.
BA-140	-5.668E-02	3.073E-01	5.018E-01	0.000E+00	NOT IDENT.
LA-140	2.806E-02	8.481E-02	1.482E-01	0.000E+00	FAIL ABUN
CE-141	9.611E-02	8.177E-02	1.416E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.392E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-7.477E-02	2.635E-01	4.369E-01	0.000E+00	NOT IDENT.
PM-144	-3.685E-03	4.302E-02	7.300E-02	0.000E+00	NOT IDENT.
PR-144	5.160E-02	3.197E+00	5.460E+00	0.000E+00	NOT IDENT.
PM-146	-3.434E-02	5.338E-02	8.558E-02	0.000E+00	NOT IDENT.
ND-147	-2.260E-01	6.214E-01	1.003E+00	0.000E+00	FAIL ABUN
PM-149	3.963E+01	5.441E+01	9.580E+01	0.000E+00	NOT IDENT.
EU-152	2.785E-02	1.384E-01	2.066E-01	0.000E+00	FAIL ABUN
GD-153	3.346E-02	1.236E-01	1.839E-01	0.000E+00	NOT IDENT.
EU-154	-5.425E-02	1.524E-01	2.513E-01	0.000E+00	NOT IDENT.
EU-155	9.247E-02	1.475E-01	2.543E-01	0.000E+00	FAIL ABUN
TB-160	-1.712E-02	1.655E-01	2.758E-01	0.000E+00	FAIL ABUN
HO-166M	-1.847E-02	7.841E-02	1.236E-01	0.000E+00	NOT IDENT.
TA-182	-3.599E-02	2.521E-01	4.094E-01	0.000E+00	FAIL ABUN
IR-192	-4.802E-03	4.423E-02	7.504E-02	0.000E+00	FAIL ABUN
HG-203	7.040E-02	4.719E-02	8.523E-02	0.000E+00	NOT IDENT.
BI-207	3.028E-02	6.590E-02	1.134E-01	0.000E+00	FAIL ABUN
PB-210	-2.662E+00	4.611E+00	7.958E+00	0.000E+00	NOT IDENT.
PB-211	-1.401E+00	1.145E+00	1.440E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.165E+00	1.542E+00	0.000E+00	FAIL ABUN
RN-219	5.233E-02	5.122E-01	8.673E-01	0.000E+00	FAIL ABUN
RA-223	-4.485E-01	9.519E-01	1.357E+00	0.000E+00	FAIL ABUN
AC-227	2.328E-01	3.203E-01	5.661E-01	0.000E+00	FAIL ABUN
TH-227	2.328E-01	3.207E-01	5.661E-01	0.000E+00	FAIL ABUN
TH-229	-2.170E-01	6.947E-01	1.131E+00	0.000E+00	FAIL ABUN
PA-231	-2.815E+00	1.834E+00	2.840E+00	0.000E+00	FAIL ABUN
TH-231	-4.485E-01	9.519E-01	1.357E+00	0.000E+00	FAIL ABUN
PA-233	-1.410E-02	8.161E-02	1.381E-01	0.000E+00	FAIL ABUN
PA-234	-2.970E-01	3.646E-01	5.573E-01	0.000E+00	NOT IDENT.
PA-234M	1.713E+00	5.665E+00	9.752E+00	0.000E+00	NOT IDENT.
NP-239	2.661E-01	5.336E-01	9.145E-01	0.000E+00	NOT IDENT.
AM-241	6.295E-02	2.246E-01	3.445E-01	0.000E+00	NOT IDENT.
CM-247	-3.176E-03	4.672E-02	7.838E-02	0.000E+00	NOT IDENT.

CF-249	2.106E-02	5.166E-02	8.894E-02	0.000E+00	NOT IDENT.
CF-251	4.517E-02	1.788E-01	2.990E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:15:18.82

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331006.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:13:48
Sample ID         : G249331006           Sample quantity  : 1.13550E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:58.39  0.8%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1289	10.66*	1.210E+00	3.302E+01	3.302E+01	12.43
CD-109	88.03	231	3.70*	5.872E+00	3.514E+00	3.583E+00	37.39
SN-126	64.28	185	9.60	3.337E+00	1.910E+00	1.910E+00	64.56
	86.94	231	8.90	5.872E+00	1.461E+00	1.461E+00	55.08
	87.57	231	37.00*	5.872E+00	3.514E-01	3.514E-01	37.39
BA-137M	661.66	130	89.90*	2.388E+00	2.000E-01	2.001E-01	49.15
CS-137	661.66	130	85.10*	2.388E+00	2.113E-01	2.114E-01	49.15
TL-208	277.37	------	6.60	4.524E+00	------ Line Not Found		------
	583.19	440	85.00*	2.646E+00	6.473E-01	6.473E-01	17.54
	860.56	62	12.50	1.903E+00	8.559E-01	8.559E-01	56.78
BI-211	72.87	------	1.23	4.632E+00	------ Line Not Found		------
	351.06	825	12.92*	3.847E+00	5.487E+00	5.487E+00	14.15
PB-212	74.82	513	10.28	4.839E+00	3.409E+00	3.409E+00	20.85
	77.11	769	17.10	5.076E+00	2.930E+00	2.930E+00	14.41
	238.63	1634	43.60*	4.992E+00	2.482E+00	2.482E+00	11.60
	300.09	56	3.30	4.294E+00	1.297E+00	1.297E+00	117.85
BI-214	609.32	556	45.49*	2.554E+00	1.581E+00	1.581E+00	15.98
	1120.29	100	14.92	1.503E+00	1.481E+00	1.481E+00	39.19
	1764.49	88	15.30	1.081E+00	1.761E+00	1.761E+00	33.07
PB-214	74.82	513	5.80	4.839E+00	6.043E+00	6.043E+00	20.08
	77.11	769	9.70	5.076E+00	5.165E+00	5.165E+00	16.60
	242.00	444	7.25	4.952E+00	4.085E+00	4.085E+00	26.39
	295.22	513	18.42	4.341E+00	2.119E+00	2.119E+00	18.70
	351.93	825	35.60*	3.847E+00	1.991E+00	1.991E+00	15.18
RA-224	240.99	444	4.10*	4.952E+00	7.223E+00	7.223E+00	25.75
RA-226	609.32	556	45.49*	2.554E+00	1.581E+00	1.581E+00	15.98
	1120.29	100	14.92	1.503E+00	1.481E+00	1.481E+00	39.19
	1764.49	88	15.30	1.081E+00	1.761E+00	1.761E+00	33.07
AC-228	338.32	324	11.27	3.955E+00	2.405E+00	2.405E+00	45.24
	911.20	303	25.80*	1.808E+00	2.147E+00	2.147E+00	23.07
	968.97	214	15.80	1.711E+00	2.616E+00	2.616E+00	32.26
RA-228	338.32	324	11.27	3.955E+00	2.405E+00	2.405E+00	45.24

Sample ID : G249331006 Acquisition date : 24-MAR-2010 09:13:48

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	303	25.80*	1.808E+00	2.147E+00	2.147E+00	23.07
	968.97	214	15.80	1.711E+00	2.616E+00	2.616E+00	32.26
TH-228	74.82	513	10.28	4.839E+00	3.409E+00	3.409E+00	18.48
	77.11	769	17.10	5.076E+00	2.930E+00	2.930E+00	14.41
	238.63	1634	43.60*	4.992E+00	2.482E+00	2.482E+00	11.60
	300.09	56	3.30	4.294E+00	1.297E+00	1.297E+00	132.38
TH-230	609.32	556	45.49*	2.554E+00	1.581E+00	1.581E+00	15.08
	1120.29	100	14.92	1.503E+00	1.481E+00	1.481E+00	38.61
	1764.49	88	15.30	1.081E+00	1.761E+00	1.761E+00	33.07
TH-232	338.32	324	11.27	3.955E+00	2.405E+00	2.405E+00	19.50
	911.20	303	25.80*	1.808E+00	2.147E+00	2.147E+00	23.07
	968.97	214	15.80	1.711E+00	2.616E+00	2.616E+00	32.26
TH-234	63.29	185	3.70*	3.337E+00	4.956E+00	4.956E+00	65.38
	92.59	250	4.23	6.175E+00	3.168E+00	3.168E+00	40.75
U-235	89.96	161	3.47	6.040E+00	2.545E+00	2.545E+00	54.71
	93.35	250	5.60	6.175E+00	2.393E+00	2.393E+00	41.31
	143.76	------	10.96*	6.480E+00	------ Line Not Found		------
	163.33	------	5.08	6.173E+00	------ Line Not Found		------
	185.72	190	57.20	5.788E+00	1.896E-01	1.896E-01	50.58
	205.31	------	5.01	5.473E+00	------ Line Not Found		------
NP-237	86.48	231	12.40*	5.872E+00	1.048E+00	1.048E+00	42.87
	95.86	------	2.68	6.306E+00	------ Line Not Found		------
U-238	63.29	185	3.70*	3.337E+00	4.956E+00	4.956E+00	65.38
	92.59	250	4.23	6.175E+00	3.168E+00	3.168E+00	35.32
ANH-511	511.00	142	100.00*	2.935E+00	1.603E-01	1.603E-01	55.99

Flag: "*" = Keyline

Sample ID : G249331006 Acquisition date : 24-MAR-2010 09:13:48

Total number of lines in spectrum 37
Number of unidentified lines 8
Number of lines tentatively identified by NID 29 78.38%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.302E+01	3.302E+01	0.410E+01	12.43	
CD-109	461.40D	1.02	3.514E+00	3.583E+00	1.339E+00	37.39	
SN-126	2.30E+05Y	1.00	3.514E-01	3.514E-01	1.314E-01	37.39	
BA-137M	30.08Y	1.00	2.000E-01	2.001E-01	0.984E-01	49.15	
CS-137	30.08Y	1.00	2.113E-01	2.114E-01	1.039E-01	49.15	
TL-208	1.41E+10Y	1.00	6.473E-01	6.473E-01	1.135E-01	17.54	
BI-211	7.04E+08Y	1.00	5.487E+00	5.487E+00	0.776E+00	14.15	
PB-212	1.41E+10Y	1.00	2.482E+00	2.482E+00	0.288E+00	11.60	
BI-214	1600.00Y	1.00	1.581E+00	1.581E+00	0.253E+00	15.98	
PB-214	1600.00Y	1.00	1.991E+00	1.991E+00	0.302E+00	15.18	
RA-224	1.41E+10Y	1.00	7.223E+00	7.223E+00	1.860E+00	25.75	
RA-226	1600.00Y	1.00	1.581E+00	1.581E+00	0.253E+00	15.98	
AC-228	1.41E+10Y	1.00	2.147E+00	2.147E+00	0.495E+00	23.07	
RA-228	1.41E+10Y	1.00	2.147E+00	2.147E+00	0.495E+00	23.07	
TH-228	1.41E+10Y	1.00	2.482E+00	2.482E+00	0.288E+00	11.60	
TH-230	7.54E+04Y	1.00	1.581E+00	1.581E+00	0.238E+00	15.08	
TH-232	1.41E+10Y	1.00	2.147E+00	2.147E+00	0.495E+00	23.07	
TH-234	4.47E+09Y	1.00	4.956E+00	4.956E+00	3.240E+00	65.38	
U-235	7.04E+08Y	1.00	1.896E-01	1.896E-01	0.959E-01	50.58	K
NP-237	2.14E+06Y	1.00	1.048E+00	1.048E+00	0.449E+00	42.87	
U-238	4.47E+09Y	1.00	4.956E+00	4.956E+00	3.240E+00	65.38	
ANH-511	1.00E+09Y	1.00	1.603E-01	1.603E-01	0.897E-01	55.99	
	Total Activity :		8.010E+01	8.017E+01			

Grand Total Activity : 8.010E+01 8.017E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249331006 Acquisition date : 24-MAR-2010 09:13:48

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.15	100	320	0.84	418.19	415	8	1.39E-02	65.4	5.41E+00	
0	270.56	202	223	1.86	540.88	535	13	2.80E-02	34.2	4.60E+00	T
0	328.01	117	175	1.28	655.66	652	10	1.62E-02	46.5	4.04E+00	T
0	462.50	101	112	1.27	924.42	919	10	1.40E-02	44.2	3.16E+00	T
0	727.04	202	59	1.95	1453.22	1445	18	2.81E-02	22.7	2.20E+00	T
0	768.74	50	113	4.78	1536.59	1530	15	6.90E-03	****	2.10E+00	
0	800.03	146	102	12.90	1599.15	1585	30	2.03E-02	44.1	2.03E+00	
1	931.18	47	47	2.22	1861.40	1856	18	6.51E-03	63.2	1.77E+00	
1	933.98	82	56	2.02	1867.00	1856	18	1.14E-02	40.8	1.77E+00	
2	964.55	93	56	2.39	1928.15	1922	22	1.29E-02	38.0	1.72E+00	T
0	1238.66	68	76	1.82	2476.46	2467	17	9.46E-03	64.5	1.38E+00	T
0	1378.56	35	34	1.46	2756.39	2749	14	4.83E-03	83.9	1.26E+00	
0	1729.27	37	0	2.00	3458.38	3450	15	5.14E-03	32.9	1.09E+00	
0	1847.41	25	3	1.50	3694.93	3688	11	3.44E-03	48.1	1.06E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:15:22.60

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331006.CNF;1    *
* Acquisition date : 24-MAR-2010 09:13:48  Detector SN#    :                  *
* Detector ID      : GAM29                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:58.39         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 11-MAR-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G249331006            Analyst initials: MXR1             *
* Batch Number     : 965250                Sample Quantity : 1.13550E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45.9MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.302E+01	4.104E+00	7.214E-01	7.846E-02	45.772
CD-109	3.583E+00	1.339E+00	1.650E+00	1.558E-01	2.171
SN-126	3.514E-01	1.314E-01	1.625E-01	1.528E-02	2.162
BA-137M	2.001E-01	9.837E-02	7.077E-02	5.802E-03	2.828
CS-137	2.114E-01	1.039E-01	7.477E-02	6.142E-03	2.828
TL-208	6.473E-01	1.135E-01	8.590E-02	8.049E-03	7.535
BI-211	5.487E+00	7.763E-01	4.176E-01	3.998E-02	13.141
PB-212	2.482E+00	2.879E-01	1.171E-01	1.168E-02	21.201
BI-214	1.581E+00	2.527E-01	1.401E-01	1.415E-02	11.287
PB-214	1.991E+00	3.024E-01	1.518E-01	1.678E-02	13.115
RA-224	7.223E+00	1.860E+00	1.254E+00	1.112E-01	5.761
RA-226	1.581E+00	2.527E-01	1.401E-01	1.415E-02	11.287
AC-228	2.147E+00	4.954E-01	2.968E-01	4.521E-02	7.234
RA-228	2.147E+00	4.954E-01	2.968E-01	4.521E-02	7.234
TH-228	2.482E+00	2.879E-01	1.171E-01	1.168E-02	21.201
TH-230	1.581E+00	2.385E-01	1.401E-01	1.206E-02	11.287
TH-232	2.147E+00	4.954E-01	2.968E-01	4.521E-02	7.234
TH-234	4.956E+00	3.240E+00	2.866E+00	5.178E-01	1.729

Sample ID : G249331006 Acquisition date : 24-MAR-2010 09:13:48

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	1.896E-01	9.591E-02	4.598E-01	7.770E-02	0.412
NP-237	1.048E+00	4.494E-01	4.904E-01	1.125E-01	2.138
U-238	4.956E+00	3.240E+00	2.866E+00	5.178E-01	1.729
ANH-511	1.603E-01	8.975E-02	5.912E-02	5.352E-03	2.711

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	3.075E-03		3.990E-01	6.488E-01	6.316E-02	0.005
NA-22	-1.763E-02		5.492E-02	8.933E-02	8.917E-03	-0.197
NA-24	2.416E-02		4.032E-02	Half-Life too short		
SC-46	-2.850E-02		4.804E-02	7.484E-02	9.772E-03	-0.381
V-48	8.174E-02		7.854E-02	1.390E-01	1.686E-02	0.588
CR-51	3.625E-01		4.614E-01	7.895E-01	7.591E-02	0.459
MN-54	-2.226E-02		4.674E-02	7.435E-02	8.763E-03	-0.299
CO-56	-2.361E-03		4.823E-02	7.930E-02	9.562E-03	-0.030
CO-57	-8.088E-03		3.413E-02	5.482E-02	4.953E-03	-0.148
CO-58	3.336E-02		5.038E-02	7.719E-02	8.692E-03	0.432
FE-59	1.001E-01		1.160E-01	2.011E-01	2.135E-02	0.498
CO-60	-2.261E-02		4.284E-02	6.697E-02	7.345E-03	-0.338
ZN-65	-8.541E-02		1.345E-01	1.716E-01	1.659E-02	-0.498
SE-75	3.046E-02		6.490E-02	9.674E-02	8.772E-03	0.315
SR-85	1.188E-01		5.531E-02	8.926E-02	8.074E-03	1.331
Y-88	-1.164E-02		3.454E-02	5.240E-02	4.481E-03	-0.222
Y-91	-4.289E+00		2.712E+01	4.324E+01	3.813E+00	-0.099
NB-94	4.807E-03		4.274E-02	7.177E-02	6.447E-03	0.067
NB-95	8.392E-02		6.273E-02	9.959E-02	1.023E-02	0.843
NB-95M	8.399E-01		2.182E-01	3.457E-01	3.482E-02	2.429
ZR-95	-5.664E-03		9.273E-02	1.534E-01	1.666E-02	-0.037
MO-99	1.518E+00		8.022E+00	1.353E+01	2.217E+00	0.112
TC-99M	-1.158E+08		5.746E+07	Half-Life too short		
RU-103	1.315E-02		4.938E-02	8.141E-02	1.161E-02	0.162
RH-106	1.632E-01		3.735E-01	6.438E-01	8.494E-02	0.254
RU-106	1.632E-01		3.732E-01	6.438E-01	5.488E-02	0.254
AG-108M	1.821E-02		4.028E-02	6.737E-02	6.303E-03	0.270
AG-110M	-9.945E-02		5.850E-02	7.054E-02	5.997E-03	-1.410
SN-113	-2.882E-02		5.743E-02	9.152E-02	8.464E-03	-0.315
CD-115	1.069E+00		7.180E+00	1.173E+01	1.057E+00	0.091
SN-117M	4.297E-03		6.691E-02	1.078E-01	8.908E-03	0.040
TE-123M	1.402E-02		3.799E-02	6.189E-02	5.144E-03	0.227
SB-124	-1.406E-03		8.514E-02	1.395E-01	1.381E-02	-0.010
SB-125	-6.052E-02		1.243E-01	1.974E-01	1.823E-02	-0.307
TE-125M	1.558E+00		1.345E+01	2.195E+01	2.341E+00	0.071
I-126	4.499E-02		2.748E-01	4.025E-01	3.334E-02	0.112
SB-126	5.900E-02		1.645E-01	2.453E-01	2.291E-02	0.241
SB-127	-6.311E-01		1.144E+00	1.836E+00	1.979E-01	-0.344
I-131	-6.916E-02		1.261E-01	2.012E-01	1.921E-02	-0.344

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-132	2.746E-01		5.858E-01	9.973E-01	1.545E-01	0.275
BA-133	7.281E-03		6.261E-02	9.014E-02	1.200E-02	0.081
I-133	-1.946E-04		6.412E-04	Half-Life too short		
CS-134	7.548E-02		5.675E-02	1.018E-01	1.116E-02	0.742
CS-135	1.352E-01		2.480E-01	3.697E-01	3.822E-02	0.366
I-135	1.319E+07		1.453E+07	Half-Life too short		
CS-136	-9.150E-03		1.113E-01	1.800E-01	2.037E-02	-0.051
CE-139	-5.108E-03		4.032E-02	6.437E-02	5.246E-03	-0.079
BA-140	-5.668E-02		3.136E-01	4.995E-01	1.699E-01	-0.113
LA-140	2.806E-02		8.655E-02	1.490E-01	1.507E-02	0.188
CE-141	9.611E-02		8.344E-02	1.393E-01	1.204E-02	0.690
CE-143	5.404E-04		7.101E-05	Half-Life too short		
CE-144	-7.477E-02		2.689E-01	4.296E-01	6.592E-02	-0.174
PM-144	-3.685E-03		4.390E-02	7.284E-02	6.457E-03	-0.051
PR-144	5.160E-02		3.262E+00	5.448E+00	4.828E-01	0.009
PM-146	-3.434E-02		5.447E-02	8.507E-02	9.351E-03	-0.404
ND-147	-2.260E-01		6.341E-01	9.985E-01	1.515E-01	-0.226
PM-149	3.963E+01		5.552E+01	9.484E+01	1.501E+01	0.418
EU-152	2.785E-02		1.412E-01	2.049E-01	1.978E-02	0.136
GD-153	3.346E-02		1.261E-01	1.804E-01	1.620E-02	0.185
EU-154	-5.425E-02		1.555E-01	2.521E-01	3.135E-02	-0.215
EU-155	9.247E-02		1.505E-01	2.496E-01	2.235E-02	0.371
TB-160	-1.712E-02		1.688E-01	2.757E-01	3.535E-02	-0.062
HO-166M	-1.847E-02		8.001E-02	1.233E-01	1.130E-02	-0.150
TA-182	-3.599E-02		2.573E-01	4.106E-01	3.732E-02	-0.088
IR-192	-4.802E-03		4.513E-02	7.435E-02	6.846E-03	-0.065
HG-203	7.040E-02		4.816E-02	8.435E-02	7.851E-03	0.835
BI-207	3.028E-02		6.724E-02	1.136E-01	1.219E-02	0.267
PB-210	-2.662E+00		4.706E+00	7.755E+00	7.400E-01	-0.343
PB-211	-1.401E+00		1.169E+00	1.430E+00	6.931E-01	-0.980
BI-212	4.545E+00	+	1.188E+00	1.540E+00	2.011E-01	2.952
RN-219	5.233E-02		5.227E-01	8.612E-01	1.301E-01	0.061
RA-223	-4.485E-01		9.713E-01	1.345E+00	2.370E-01	-0.334
AC-227	2.328E-01		3.269E-01	5.599E-01	6.892E-02	0.416
TH-227	2.328E-01		3.272E-01	5.599E-01	7.747E-02	0.416
TH-229	-2.170E-01		7.089E-01	1.116E+00	9.410E-02	-0.194
PA-231	-2.815E+00		1.871E+00	2.811E+00	4.184E-01	-1.001
TH-231	-4.485E-01		9.713E-01	1.345E+00	2.370E-01	-0.334
PA-233	-1.410E-02		8.327E-02	1.368E-01	1.289E-02	-0.103
PA-234	-2.970E-01		3.720E-01	5.576E-01	1.168E-01	-0.533
PA-234M	1.713E+00		5.780E+00	9.763E+00	1.256E+00	0.175
NP-239	2.661E-01		5.445E-01	8.983E-01	8.023E-02	0.296
AM-241	6.295E-02		2.292E-01	3.364E-01	2.903E-02	0.187
CM-247	-3.176E-03		4.768E-02	7.783E-02	7.026E-03	-0.041
CF-249	2.106E-02		5.271E-02	8.829E-02	7.958E-03	0.239
CF-251	4.517E-02		1.824E-01	2.948E-01	2.436E-02	0.153

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249331006            *
* Acquisition date : 24-MAR-2010 09:13:48 Detector SN#    :                 *
* Detector ID      : GAM29                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:58.39     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249331006           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.1355E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.302E+01	4.022E+00	3.593E-01	2.052E+00
CD-109	3.583E+00	1.313E+00	8.424E-01	6.697E-01
SN-126	3.514E-01	1.287E-01	8.299E-02	6.569E-02
BA-137M	2.001E-01	9.640E-02	3.550E-02	4.918E-02
CS-137	2.114E-01	1.018E-01	3.750E-02	5.196E-02
TL-208	6.473E-01	1.113E-01	4.314E-02	5.676E-02
BI-211	5.487E+00	7.608E-01	2.107E-01	3.881E-01
PB-212	2.482E+00	2.822E-01	5.926E-02	1.440E-01
BI-214	1.581E+00	2.476E-01	7.033E-02	1.263E-01
PB-214	1.991E+00	2.963E-01	7.660E-02	1.512E-01
RA-224	7.223E+00	1.823E+00	6.346E-01	9.299E-01
RA-226	1.581E+00	2.476E-01	7.033E-02	1.263E-01
AC-228	2.147E+00	4.854E-01	1.484E-01	2.477E-01
RA-228	2.147E+00	4.854E-01	1.484E-01	2.477E-01
TH-228	2.482E+00	2.822E-01	5.926E-02	1.440E-01
TH-230	1.581E+00	2.337E-01	7.032E-02	1.192E-01
TH-232	2.147E+00	4.854E-01	1.484E-01	2.477E-01
TH-234	4.956E+00	3.176E+00	1.467E+00	1.620E+00
U-235	5.707E-03	2.825E-01	2.338E-01	1.441E-01
NP-237	1.048E+00	4.404E-01	2.504E-01	2.247E-01
U-238	4.956E+00	3.176E+00	1.467E+00	1.620E+00
ANH-511	1.603E-01	8.795E-02	2.973E-02	4.487E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	3.075E-03	3.910E-01	3.264E-01	1.995E-01	NOT IDENT.
NA-22	-1.763E-02	5.382E-02	4.455E-02	2.746E-02	NOT IDENT.
NA-24	2.416E+04	7.903E+04	0.000E+00	4.032E+04	SHORT HLIF
SC-46	-2.850E-02	4.708E-02	3.745E-02	2.402E-02	FAIL ABUN
V-48	8.174E-02	7.697E-02	6.946E-02	3.927E-02	NOT IDENT.

CR-51	3.625E-01	4.522E-01	3.986E-01	2.307E-01	NOT IDENT.
MN-54	-2.226E-02	4.581E-02	3.722E-02	2.337E-02	NOT IDENT.
CO-56	-2.361E-03	4.726E-02	3.969E-02	2.411E-02	FAIL ABUN
CO-57	-8.088E-03	3.345E-02	2.791E-02	1.707E-02	NOT IDENT.
CO-58	3.336E-02	4.937E-02	3.865E-02	2.519E-02	NOT IDENT.
FE-59	1.001E-01	1.137E-01	1.004E-01	5.800E-02	NOT IDENT.
CO-60	-2.261E-02	4.198E-02	3.338E-02	2.142E-02	NOT IDENT.
ZN-65	-8.541E-02	1.318E-01	8.566E-02	6.724E-02	NOT IDENT.
SE-75	3.046E-02	6.360E-02	4.893E-02	3.245E-02	NOT IDENT.
SR-85	1.188E-01	5.420E-02	4.487E-02	2.765E-02	NOT IDENT.
Y-88	-1.164E-02	3.385E-02	2.605E-02	1.727E-02	NOT IDENT.
Y-91	-4.289E+00	2.658E+01	2.157E+01	1.356E+01	NOT IDENT.
NB-94	4.807E-03	4.188E-02	3.598E-02	2.137E-02	NOT IDENT.
NB-95	8.392E-02	6.147E-02	4.989E-02	3.136E-02	NOT IDENT.
NB-95M	8.399E-01	2.138E-01	1.750E-01	1.091E-01	NOT IDENT.
ZR-95	-5.664E-03	9.088E-02	7.685E-02	4.637E-02	NOT IDENT.
MO-99	1.518E+00	7.862E+00	6.780E+00	4.011E+00	NOT IDENT.
TC-99M	-1.158E+14	1.126E+14	0.000E+00	5.746E+13	SHORT HLIF
RU-103	1.315E-02	4.839E-02	4.094E-02	2.469E-02	FAIL ABUN
RH-106	1.632E-01	3.661E-01	3.231E-01	1.868E-01	NOT IDENT.
RU-106	1.632E-01	3.657E-01	3.231E-01	1.866E-01	NOT IDENT.
AG-108M	1.821E-02	3.948E-02	3.392E-02	2.014E-02	NOT IDENT.
AG-110M	-9.945E-02	5.733E-02	3.539E-02	2.925E-02	NOT IDENT.
SN-113	-2.882E-02	5.628E-02	4.612E-02	2.871E-02	NOT IDENT.
CD-115	1.069E+00	7.036E+00	5.895E+00	3.590E+00	NOT IDENT.
SN-117M	4.297E-03	6.557E-02	5.475E-02	3.345E-02	NOT IDENT.
TE-123M	1.402E-02	3.723E-02	3.144E-02	1.900E-02	NOT IDENT.
SB-124	-1.406E-03	8.343E-02	6.937E-02	4.257E-02	NOT IDENT.
SB-125	-6.052E-02	1.218E-01	9.941E-02	6.216E-02	FAIL ABUN
TE-125M	1.558E+00	1.318E+01	1.119E+01	6.723E+00	NOT IDENT.
I-126	4.499E-02	2.693E-01	2.019E-01	1.374E-01	NOT IDENT.
SB-126	5.900E-02	1.613E-01	1.229E-01	8.227E-02	NOT IDENT.
SB-127	-6.311E-01	1.121E+00	9.207E-01	5.718E-01	NOT IDENT.
I-131	-6.916E-02	1.235E-01	1.015E-01	6.304E-02	NOT IDENT.
TE-132	2.746E-01	5.741E-01	5.050E-01	2.929E-01	NOT IDENT.
BA-133	7.281E-03	6.135E-02	4.546E-02	3.130E-02	NOT IDENT.
I-133	-1.946E+02	1.257E+03	0.000E+00	6.412E+02	SHORT HLIF
CS-134	7.548E-02	5.561E-02	5.098E-02	2.837E-02	NOT IDENT.
CS-135	1.352E-01	2.431E-01	1.870E-01	1.240E-01	NOT IDENT.
I-135	1.319E+13	2.848E+13	0.000E+00	1.453E+13	SHORT HLIF
CS-136	-9.150E-03	1.091E-01	8.995E-02	5.567E-02	NOT IDENT.
CE-139	-5.108E-03	3.952E-02	3.269E-02	2.016E-02	NOT IDENT.
BA-140	-5.668E-02	3.073E-01	2.510E-01	1.568E-01	NOT IDENT.
LA-140	2.806E-02	8.481E-02	7.415E-02	4.327E-02	FAIL ABUN
CE-141	9.611E-02	8.177E-02	7.083E-02	4.172E-02	NOT IDENT.
CE-143	5.404E+02	1.392E+02	0.000E+00	7.101E+01	SHORT HLIF
CE-144	-7.477E-02	2.635E-01	2.186E-01	1.344E-01	NOT IDENT.
PM-144	-3.685E-03	4.302E-02	3.652E-02	2.195E-02	NOT IDENT.
PR-144	5.160E-02	3.197E+00	2.732E+00	1.631E+00	NOT IDENT.
PM-146	-3.434E-02	5.338E-02	4.281E-02	2.723E-02	NOT IDENT.
ND-147	-2.260E-01	6.214E-01	5.019E-01	3.171E-01	FAIL ABUN
PM-149	3.963E+01	5.441E+01	4.793E+01	2.776E+01	NOT IDENT.
EU-152	2.785E-02	1.384E-01	1.034E-01	7.060E-02	FAIL ABUN
GD-153	3.346E-02	1.236E-01	9.202E-02	6.306E-02	NOT IDENT.
EU-154	-5.425E-02	1.524E-01	1.257E-01	7.774E-02	NOT IDENT.
EU-155	9.247E-02	1.475E-01	1.272E-01	7.524E-02	FAIL ABUN
TB-160	-1.712E-02	1.655E-01	1.380E-01	8.442E-02	FAIL ABUN
HO-166M	-1.847E-02	7.841E-02	6.182E-02	4.001E-02	NOT IDENT.
TA-182	-3.599E-02	2.521E-01	2.048E-01	1.286E-01	FAIL ABUN
IR-192	-4.802E-03	4.423E-02	3.754E-02	2.256E-02	FAIL ABUN
HG-203	7.040E-02	4.719E-02	4.264E-02	2.408E-02	NOT IDENT.
BI-207	3.028E-02	6.590E-02	5.674E-02	3.362E-02	FAIL ABUN
PB-210	-2.662E+00	4.611E+00	3.981E+00	2.353E+00	NOT IDENT.
PB-211	-1.401E+00	1.145E+00	7.205E-01	5.843E-01	NOT IDENT.
BI-212	4.545E+00	1.165E+00	7.717E-01	5.942E-01	FAIL ABUN
RN-219	5.233E-02	5.122E-01	4.339E-01	2.613E-01	FAIL ABUN
RA-223	-4.485E-01	9.519E-01	6.788E-01	4.857E-01	FAIL ABUN
AC-227	2.328E-01	3.203E-01	2.832E-01	1.634E-01	FAIL ABUN
TH-227	2.328E-01	3.207E-01	2.832E-01	1.636E-01	FAIL ABUN
TH-229	-2.170E-01	6.947E-01	5.659E-01	3.544E-01	FAIL ABUN
PA-231	-2.815E+00	1.834E+00	1.421E+00	9.355E-01	FAIL ABUN
TH-231	-4.485E-01	9.519E-01	6.788E-01	4.857E-01	FAIL ABUN
PA-233	-1.410E-02	8.161E-02	6.911E-02	4.164E-02	FAIL ABUN
PA-234	-2.970E-01	3.646E-01	2.788E-01	1.860E-01	NOT IDENT.
PA-234M	1.713E+00	5.665E+00	4.879E+00	2.890E+00	NOT IDENT.
NP-239	2.661E-01	5.336E-01	4.575E-01	2.722E-01	NOT IDENT.
AM-241	6.295E-02	2.246E-01	1.723E-01	1.146E-01	NOT IDENT.
CM-247	-3.176E-03	4.672E-02	3.921E-02	2.384E-02	NOT IDENT.

CF-249	2.106E-02	5.166E-02	4.450E-02	2.636E-02 NOT IDENT.
CF-251	4.517E-02	1.788E-01	1.496E-01	9.122E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	437.5648
49.72	492.0927
57.36	0.0000
59.54	483.0970
63.29	550.1093
63.29	550.1093
64.28	605.0150
67.75	660.4406
69.67	647.9036
70.83	631.4078
72.81	644.3154
72.87	644.3671
72.87	644.3671
74.82	632.2372
74.82	632.2372
74.82	632.2372
74.97	632.3648
77.11	634.1605
77.11	634.1605
77.11	634.1605
79.69	676.0237
79.80	676.1183
80.12	676.3971
80.19	712.3801
80.57	712.7249
81.00	743.4205
81.07	743.4851
81.07	743.4851
83.79	626.0272
83.79	626.0272
85.43	637.0551
86.48	531.9041
86.55	531.9500
86.79	532.1056
86.94	532.2053
87.57	532.6143
88.03	532.9116
88.47	533.1949
89.96	534.1525
91.11	534.8847
92.59	535.8204
92.59	535.8204
93.35	536.2993
94.67	438.7379
94.87	438.8389
94.87	438.8389
95.86	464.0229
97.43	410.4609
98.44	447.2393
99.53	418.5984
100.11	403.9124
103.18	484.2463
103.37	475.0136
105.31	462.5101
106.12	466.0383
109.28	470.7505
111.00	473.7004
111.76	474.0780
116.30	417.4297
117.23	393.6199
121.12	408.9007
121.78	422.9141
122.06	402.9376
123.07	385.3434
131.20	444.9396
133.52	409.5557
136.00	363.3455

136.47	382.8043
140.51	463.8695
140.51	0.0000
143.76	435.0071
144.24	428.7153
144.24	428.7153
145.44	391.3363
152.43	370.9005
153.25	383.1362
154.21	378.0037
154.21	378.0037
156.02	372.0426
158.56	380.4976
159.00	363.1377
162.66	376.3181
163.33	374.3320
165.86	377.3099
176.60	373.9185
177.52	373.0781
181.07	359.8594
184.41	358.9980
185.72	364.2753
193.51	345.0588
197.04	341.6760
205.31	347.6555
210.85	335.3623
215.65	363.3849
222.11	318.4038
227.38	314.0097
228.16	294.8262
228.18	294.8301
235.69	319.4409
235.96	319.4977
235.96	319.4977
238.63	274.5949
238.63	274.5949
240.99	275.0141
242.00	275.1929
244.70	263.8715
252.40	269.5219
252.80	261.1640
256.23	240.1445
256.23	240.1445
260.90	270.9387
264.66	234.1554
268.22	286.6300
269.46	250.5952
269.46	250.5952
271.23	230.0313
273.65	284.3994
276.40	218.3933
277.37	221.2314
277.60	209.0457
278.00	213.8461
279.20	212.0950
279.54	210.2333
280.46	245.5630
283.69	256.5121
284.31	227.9865
285.41	212.8572
285.90	189.0475
287.50	176.1152
293.27	0.0000
295.22	287.9590
295.96	288.0798
298.57	288.5010
299.98	226.1703
299.98	226.1703
300.09	226.1818
300.09	226.1818
300.13	226.1875
301.36	216.7108
302.85	213.6762
304.50	215.4790
304.50	215.4790
304.85	215.5199
308.46	206.9233
311.90	212.1563

316.51	219.4810
319.41	203.2877
320.08	196.5481
323.87	224.2444
323.87	224.2444
328.76	207.2253
333.37	191.0676
334.37	191.1676
334.37	191.1676
338.28	192.5356
338.28	192.5356
338.32	192.5379
338.32	192.5379
338.32	192.5379
340.48	181.9332
340.55	204.8874
344.28	182.2855
351.06	182.9111
351.93	182.9901
356.01	186.6666
364.49	193.0859
366.42	173.3437
383.85	171.7828
388.16	170.1181
388.63	181.2305
391.69	181.4897
400.66	147.8179
401.81	164.1041
402.40	165.1609
404.85	205.9216
410.95	148.5094
414.70	201.7415
423.72	169.8157
427.09	185.4344
427.87	179.3494
433.94	156.1897
453.88	153.3784
463.37	124.8545
468.07	112.9354
473.00	113.8592
476.78	138.0973
477.60	131.8647
487.02	122.9114
492.35	115.8035
497.08	123.4027
511.00	127.2583
514.00	113.2494
527.90	111.0053
529.87	0.0000
531.02	126.0981
537.26	128.5342
546.56	0.0000
563.25	118.9536
569.33	115.9628
569.50	106.2161
569.70	106.2233
583.19	157.9247
600.60	134.2326
602.73	120.6240
604.72	96.9294
609.32	112.1029
609.32	112.1029
609.32	112.1029
610.33	119.1058
614.28	100.6540
618.01	117.5807
621.93	91.9800
621.93	91.9800
633.25	81.2503
635.95	94.2616
636.99	94.2927
645.85	105.6945
657.76	165.9422
661.66	97.4528
661.66	97.4528
664.57	0.0000
666.33	99.1996
666.50	84.8052

677.62	92.7339
685.70	114.5686
695.00	118.6710
696.49	113.0713
696.51	110.2445
697.00	112.1484
702.65	108.5682
706.68	109.6468
711.68	93.7229
720.70	74.8591
721.93	0.0000
722.78	81.4192
722.91	81.4226
723.31	81.4331
724.19	83.0831
727.33	79.9001
733.00	70.2364
735.93	81.5374
739.50	74.4644
747.24	97.6006
752.31	93.9127
753.82	87.2435
756.73	102.6701
763.94	85.7169
765.81	94.0106
766.42	98.9753
777.92	99.6349
778.90	100.4347
783.70	95.7391
785.37	78.3682
795.86	69.8687
801.95	69.9888
810.29	65.1419
810.76	60.1385
815.77	73.1873
818.51	71.2891
832.01	97.0402
834.85	97.1147
836.80	0.0000
846.77	79.7146
856.80	72.7410
860.56	69.1455
871.09	61.4147
873.19	75.3243
875.33	0.0000
879.36	73.4610
880.51	55.6081
883.24	74.5285
884.68	77.5398
889.28	79.6224
898.04	78.8071
911.20	81.0758
911.20	81.0758
911.20	81.0758
926.50	67.1809
937.49	67.3672
944.13	63.5858
946.00	76.7422
949.00	51.5364
962.29	78.2101
964.08	99.1099
966.15	82.1997
968.97	82.2557
968.97	82.2557
968.97	82.2557
983.53	51.9743
996.26	85.8679
1001.03	61.4038
1004.73	88.0909
1037.84	58.8416
1038.76	0.0000
1048.07	58.9807
1050.41	61.0838
1050.41	61.0838
1063.66	64.3840
1085.87	56.3599
1099.45	63.8594
1112.07	76.9857

1115.54	86.4509
1120.29	60.9996
1120.29	60.9996
1120.29	60.9996
1120.55	67.3151
1121.30	79.3479
1131.51	0.0000
1173.23	86.1680
1177.93	85.1888
1189.05	84.3232
1204.77	82.4579
1221.41	90.2651
1231.02	88.5971
1235.36	79.4372
1238.28	75.4801
1260.41	0.0000
1271.85	49.3178
1274.44	67.0329
1274.54	67.0329
1291.59	46.7093
1298.22	0.0000
1312.11	45.9597
1332.49	40.4910
1365.19	33.1641
1368.63	0.0000
1384.29	21.6344
1408.01	31.5210
1457.56	0.0000
1460.82	36.6482
1489.16	37.8030
1505.03	29.1609
1596.21	22.7096
1620.50	19.8277
1678.03	0.0000
1690.97	17.0486
1764.49	19.2770
1764.49	19.2770
1764.49	19.2770
1770.23	17.7710
1771.35	23.1063
1791.20	0.0000
1836.06	14.3608

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249331006

Total Uranium Activity	1.4748E+01	ug/g
Total Uranium Counting Unc.	9.4482E+00	ug/g
Total Uranium Tpu	4.8205E-06	ug/g
Total Uranium Mda	4.3670E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G249331006       *
*   ANALYST       : MXR1                      DETECTOR   : GAM29            *
*   SAMPLE DATE   : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 09:13:48.90    SAMPLE ALQT:  113.550 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.287E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.806E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 6.078E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.970E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:21:36.38

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331007.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:21:09
Sample ID         : G249331007           Sample quantity  : 1.22740E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.26  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	72.92	83	423	1.30	146.55	143	20	1.16E-02	48.8	2.04E+00
2	2	74.85	457	382	1.17	150.41	143	20	6.35E-02	8.8	
3	2	77.17*	689	462	1.31	155.04	143	20	9.57E-02	7.0	
4	0	87.24*	252	396	1.09	175.19	172	7	3.51E-02	14.8	
5	8	90.18	176	256	1.18	181.07	179	16	2.44E-02	15.5	1.21E+00
6	8	93.00*	287	435	1.50	186.70	179	16	3.98E-02	15.7	
7	0	99.57	84	325	1.04	199.84	196	8	1.17E-02	38.9	
8	0	129.05	83	365	1.05	258.76	254	8	1.15E-02	41.5	
9	0	186.29*	92	433	1.27	373.17	369	10	1.28E-02	45.5	
10	0	210.00*	88	370	1.23	420.56	415	10	1.22E-02	43.5	
11	3	239.08*	1376	191	1.24	478.69	473	17	1.91E-01	3.2	1.58E+00
12	3	241.93	259	244	1.56	484.38	473	17	3.60E-02	14.1	
13	0	270.11*	124	199	1.31	540.72	536	10	1.72E-02	23.5	
14	0	295.74	346	273	1.48	591.94	585	12	4.81E-02	11.0	
15	0	300.60	50	196	1.12	601.66	598	9	6.94E-03	52.6	
16	0	328.66	47	193	1.10	657.76	653	9	6.51E-03	55.4	
17	0	338.73	252	254	1.49	677.87	670	13	3.49E-02	14.5	
18	0	352.41*	696	161	1.51	705.22	701	10	9.66E-02	5.2	
19	0	463.84	102	105	1.27	927.94	923	12	1.42E-02	22.6	
20	0	511.26*	166	123	1.71	1022.74	1016	15	2.31E-02	18.7	
21	0	583.62*	361	115	1.59	1167.36	1162	12	5.01E-02	8.1	
22	0	609.85*	465	82	1.53	1219.78	1213	14	6.46E-02	6.4	
23	0	662.10	64	72	1.03	1324.21	1319	9	8.94E-03	26.8	
24	0	727.61	109	51	2.16	1455.16	1449	12	1.52E-02	16.2	
25	0	795.46*	65	45	2.05	1590.77	1586	11	9.05E-03	24.0	
26	0	860.95	69	37	2.08	1721.66	1716	13	9.63E-03	22.0	
27	0	911.86*	271	85	1.68	1823.41	1814	18	3.77E-02	10.2	
28	1	965.28	49	75	1.92	1930.18	1922	23	6.75E-03	35.9	1.30E+00
29	1	969.24*	130	50	1.57	1938.10	1922	23	1.81E-02	13.8	
30	0	1120.58*	98	91	2.04	2240.55	2231	19	1.36E-02	25.7	
31	0	1238.58*	41	66	1.39	2476.39	2470	13	5.66E-03	45.1	
32	0	1378.45	26	5	0.84	2755.92	2752	9	3.54E-03	24.8	
33	0	1461.35*	1095	5	1.92	2921.59	2913	18	1.52E-01	3.1	
34	0	1765.19*	82	0	2.22	3528.77	3522	13	1.14E-02	11.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 11:21:38

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331007.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:21:09
Sample ID : G249331007 Sample quantity : 122.74 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA1 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.26 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.322E+01	3.596E+00	4.409E-01	3.920E-02	75.341
CD-109	+	88.03	*	4.099E+00	1.270E+00	1.392E+00	1.317E-01	2.944
SN-126		64.28		1.244E-01	6.678E-01	1.095E+00	1.612E-01	0.114
	+	86.94		1.671E+00	8.516E-01	6.672E-01	2.770E-01	2.505
	+	87.57	*	4.020E-01	1.246E-01	1.372E-01	1.293E-02	2.929
BA-137M	+	661.66	*	1.140E-01	6.184E-02	7.693E-02	6.302E-03	1.481
CS-137	+	661.66	*	1.204E-01	6.533E-02	8.127E-02	6.671E-03	1.481
TL-208		277.37		5.608E-01	5.060E-01	8.686E-01	1.120E-01	0.646
	+	583.19	*	6.058E-01	1.123E-01	6.746E-02	6.119E-03	8.979
	+	860.56		1.115E+00	5.022E-01	5.583E-01	5.349E-02	1.997
BI-211	+	72.87		5.250E+00	5.146E+00	5.718E+00	4.690E-01	0.918
	+	351.06	*	5.107E+00	7.036E-01	4.504E-01	4.097E-02	11.340
PB-212	+	74.82		3.272E+00	7.144E-01	6.509E-01	8.334E-02	5.028
	+	77.11		2.809E+00	4.602E-01	3.715E-01	3.153E-02	7.561
	+	238.63	*	2.222E+00	2.680E-01	1.128E-01	1.147E-02	19.691
	+	300.09		1.268E+00	1.342E+00	1.600E+00	1.747E-01	0.793
BI-214	+	609.32	*	1.514E+00	2.440E-01	1.331E-01	1.319E-02	11.376
	+	1120.29		1.685E+00	8.858E-01	5.891E-01	6.332E-02	2.860
	+	1764.49		1.989E+00	4.961E-01	3.618E-01	3.034E-02	5.498
PB-214	+	74.82		5.800E+00	1.223E+00	1.154E+00	1.327E-01	5.028
	+	77.11		4.952E+00	9.082E-01	6.550E-01	7.751E-02	7.561
	+	242.00		2.538E+00	7.660E-01	6.864E-01	7.400E-02	3.697
	+	295.22		1.554E+00	3.824E-01	2.922E-01	3.271E-02	5.319
	+	351.93	*	1.854E+00	2.750E-01	1.676E-01	1.782E-02	11.058
RA-224	+	240.99	*	4.487E+00	1.329E+00	1.210E+00	1.099E-01	3.710
RA-226	+	609.32	*	1.514E+00	2.440E-01	1.331E-01	1.319E-02	11.376
	+	1120.29		1.685E+00	8.858E-01	5.891E-01	6.332E-02	2.860
	+	1764.49		1.989E+00	4.961E-01	3.618E-01	3.034E-02	5.498
AC-228	+	338.32		2.052E+00	1.043E+00	4.898E-01	2.045E-01	4.189
	+	911.20	*	2.227E+00	5.269E-01	2.598E-01	3.095E-02	8.572
	+	968.97		1.850E+00	6.822E-01	5.269E-01	1.290E-01	3.511
RA-228	+	338.32		2.052E+00	1.043E+00	4.898E-01	2.045E-01	4.189
	+	911.20	*	2.227E+00	5.269E-01	2.598E-01	3.095E-02	8.572
	+	968.97		1.850E+00	6.822E-01	5.269E-01	1.290E-01	3.511

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	74.82		3.272E+00	6.407E-01	6.509E-01	5.472E-02	5.028
	+	77.11		2.809E+00	4.602E-01	3.715E-01	3.153E-02	7.561
	+	238.63	*	2.222E+00	2.680E-01	1.128E-01	1.147E-02	19.691
	+	300.09		1.268E+00	1.545E+00	1.600E+00	9.804E-01	0.793
TH-230	+	609.32	*	1.514E+00	2.305E-01	1.331E-01	1.117E-02	11.376
	+	1120.29		1.685E+00	8.786E-01	5.891E-01	4.950E-02	2.860
	+	1764.49		1.989E+00	4.961E-01	3.618E-01	3.034E-02	5.498
TH-232	+	338.32		2.052E+00	6.216E-01	4.898E-01	4.312E-02	4.189
	+	911.20	*	2.227E+00	5.269E-01	2.598E-01	3.095E-02	8.572
	+	968.97		1.850E+00	6.822E-01	5.269E-01	1.290E-01	3.511
U-235	+	89.96		2.884E+00	1.144E+00	1.427E+00	3.547E-01	2.021
	+	93.35		2.841E+00	1.109E+00	8.377E-01	1.949E-01	3.392
		143.76	*	-6.149E-02	2.415E-01	3.996E-01	6.759E-02	-0.154
		163.33		4.642E-02	5.247E-01	8.878E-01	1.589E-01	0.052
	+	185.72		9.545E-02	8.728E-02	8.001E-02	6.953E-03	1.193
		205.31		-1.446E-01	6.597E-01	9.484E-01	1.732E-01	-0.152
NP-237	+	86.48	*	1.199E+00	4.488E-01	4.849E-01	1.112E-01	2.474
		95.86		3.459E-01	1.536E+00	1.746E+00	4.209E-01	0.198
ANH-511	+	511.00	*	2.125E-01	8.167E-02	5.896E-02	4.997E-03	3.605

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	2.665E-01	4.082E-01	6.845E-01	6.225E-02	0.389
NA-22		1274.54	*	-1.135E-03	5.314E-02	8.852E-02	7.433E-03	-0.013
NA-24		1368.63	*	-1.131E-02	5.314E-02	Half-Life too short		
SC-46		889.28	*	-5.496E-03	5.216E-02	8.444E-02	7.633E-03	-0.065
	+	1120.55		2.798E-01	1.459E-01	1.641E-01	1.379E-02	1.705
V-48		944.13		-8.830E-01	1.050E+00	1.559E+00	1.404E-01	-0.566
		983.53	*	-6.853E-02	8.292E-02	1.225E-01	1.094E-02	-0.559
		1312.11		-5.934E-02	9.505E-02	1.474E-01	1.249E-02	-0.403
CR-51		320.08	*	-1.746E-01	4.381E-01	7.009E-01	6.588E-02	-0.249
MN-54		834.85	*	6.062E-02	4.979E-02	8.901E-02	7.923E-03	0.681
CO-56		846.77	*	-6.071E-02	4.586E-02	6.410E-02	5.727E-03	-0.947
		1037.84		-1.572E-01	3.609E-01	5.542E-01	5.104E-02	-0.284
	+	1238.28		1.920E-01	1.738E-01	2.264E-01	1.936E-02	0.848
		1771.35		-1.186E+00	4.471E-01	3.922E-01	3.283E-02	-3.023
CO-57		122.06	*	3.570E-04	3.202E-02	5.081E-02	4.472E-03	0.007
		136.47		-4.053E-02	2.335E-01	3.937E-01	3.634E-02	-0.103
CO-58		810.76	*	-1.183E-02	4.923E-02	7.920E-02	7.006E-03	-0.149
FE-59		1099.45	*	-2.538E-02	1.134E-01	1.783E-01	1.644E-02	-0.142
		1291.59		-6.038E-02	1.342E-01	2.115E-01	2.035E-02	-0.285
CO-60		1173.23		-7.140E-03	5.644E-02	9.369E-02	7.583E-03	-0.076
		1332.49	*	-3.640E-02	4.310E-02	6.296E-02	5.367E-03	-0.578
ZN-65		1115.54	*	-3.511E-02	1.287E-01	1.711E-01	1.444E-02	-0.205
SE-75		121.12		-4.336E-02	1.661E-01	2.604E-01	2.919E-02	-0.167
		136.00		-2.724E-03	4.436E-02	7.513E-02	6.504E-03	-0.036
		264.66	*	2.034E-02	6.118E-02	9.086E-02	8.347E-03	0.224

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		279.54		2.050E-01	1.392E-01	2.434E-01	2.301E-02	0.842
		400.66		9.872E-02	3.056E-01	5.055E-01	5.402E-02	0.195
SR-85		514.00	*	6.314E-02	5.490E-02	8.442E-02	7.157E-03	0.748
Y-88		898.04		-1.076E-02	5.180E-02	8.290E-02	7.543E-03	-0.130
		1836.06	*	7.180E-03	3.608E-02	6.139E-02	5.049E-03	0.117
Y-91		1204.77	*	5.261E+00	2.629E+01	4.481E+01	3.671E+00	0.117
NB-94		702.65	*	1.654E-02	4.291E-02	7.319E-02	6.144E-03	0.226
		871.09		-1.144E-03	4.192E-02	6.844E-02	6.158E-03	-0.017
NB-95		765.81	*	-8.121E-02	5.684E-02	8.107E-02	7.025E-03	-1.002
NB-95M		235.69	*	8.193E-02	1.558E-01	2.349E-01	2.413E-02	0.349
ZR-95		724.19		-6.480E-02	1.174E-01	1.566E-01	1.445E-02	-0.414
		756.73	*	1.870E-02	9.238E-02	1.550E-01	1.477E-02	0.121
MO-99		140.51		-5.682E+00	1.460E+01	2.409E+01	5.716E+00	-0.236
		181.07		-6.514E+00	1.273E+01	1.927E+01	3.623E+00	-0.338
		366.42		-1.608E+01	7.313E+01	1.174E+02	9.925E+00	-0.137
		739.50	*	-3.789E+00	8.587E+00	1.362E+01	2.141E+00	-0.278
		777.92		-2.075E+01	2.617E+01	4.003E+01	3.487E+00	-0.518
TC-99M		140.51	*	-3.642E+07	2.617E+01	Half-Life too short		
RU-103		497.08	*	-3.317E-02	4.715E-02	7.061E-02	9.791E-03	-0.470
	+	610.33		1.503E+01	3.097E+00	3.457E+00	5.608E-01	4.347
RH-106		621.93	*	3.631E-01	3.748E-01	6.671E-01	8.728E-02	0.544
		1050.41		2.492E+00	3.175E+00	5.535E+00	4.827E-01	0.450
RU-106		621.93	*	3.631E-01	3.731E-01	6.671E-01	5.572E-02	0.544
		1050.41		2.492E+00	3.175E+00	5.535E+00	4.827E-01	0.450
AG-108M		433.94	*	8.821E-03	3.746E-02	6.139E-02	5.253E-03	0.144
		614.28		2.763E-02	3.936E-02	6.219E-02	5.391E-03	0.444
		722.91		-3.283E-02	4.928E-02	6.455E-02	5.660E-03	-0.509
AG-110M		657.76	*	-9.902E-03	4.847E-02	6.849E-02	5.807E-03	-0.145
		677.62		9.962E-02	3.831E-01	6.499E-01	5.544E-02	0.153
		706.68		-1.056E-01	2.582E-01	4.136E-01	3.585E-02	-0.255
		763.94		-1.408E-01	2.125E-01	3.318E-01	2.951E-02	-0.424
		884.68		-6.835E-03	6.536E-02	1.058E-01	9.836E-03	-0.065
		937.49		-2.547E-03	1.469E-01	2.389E-01	2.225E-02	-0.011
		1384.29		4.116E-02	1.764E-01	2.657E-01	2.344E-02	0.155
		1505.03		-2.141E-01	3.292E-01	4.859E-01	4.207E-02	-0.441
SN-113		391.69	*	-5.613E-02	5.916E-02	8.986E-02	7.485E-03	-0.625
CD-115		260.90		-3.248E+01	8.700E+01	1.412E+02	1.291E+01	-0.230
		492.35		1.041E+01	2.351E+01	3.895E+01	3.290E+00	0.267
		527.90	*	1.448E-01	7.208E+00	1.217E+01	1.033E+00	0.012
SN-117M		156.02		1.407E+00	2.408E+00	4.150E+00	3.534E-01	0.339
		158.56	*	-6.457E-03	5.844E-02	9.826E-02	8.365E-03	-0.066
TE-123M		159.00	*	-2.506E-03	3.338E-02	5.620E-02	4.814E-03	-0.045
SB-124		602.73		-9.673E-03	5.019E-02	7.510E-02	6.316E-03	-0.129
		645.85		1.855E-03	5.602E-01	9.342E-01	8.201E-02	0.002
		722.78		-3.140E-01	4.830E-01	6.344E-01	5.511E-02	-0.495
		1690.97	*	9.141E-03	6.440E-02	1.094E-01	9.723E-03	0.084
SB-125		427.87	*	-5.429E-02	1.183E-01	1.847E-01	1.554E-02	-0.294
	+	463.37		1.153E+00	5.304E-01	6.950E-01	6.285E-02	1.659
		600.60		1.004E-01	2.166E-01	3.740E-01	3.391E-02	0.268

---- Non-Identified Nuclides ----

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		635.95		-7.423E-02	3.541E-01	5.818E-01	5.252E-02	-0.128
TE-125M		109.28	*	1.045E+00	1.188E+01	1.898E+01	1.996E+00	0.055
I-126		388.63		1.411E-01	2.003E-01	3.381E-01	2.738E-02	0.417
		666.33	*	1.708E-01	2.796E-01	4.302E-01	3.534E-02	0.397
		753.82		6.147E-01	2.071E+00	3.502E+00	3.018E-01	0.176
SB-126		414.70		-1.733E-02	8.724E-02	1.392E-01	1.138E-02	-0.125
		666.50		9.304E-02	9.232E-02	1.476E-01	1.213E-02	0.630
		695.00		1.839E-03	8.731E-02	1.452E-01	1.213E-02	0.013
		697.00		1.347E-02	3.031E-01	5.048E-01	4.224E-02	0.027
		720.70	*	1.977E-02	1.691E-01	2.576E-01	2.184E-02	0.077
		856.80		5.543E-02	5.711E-01	8.206E-01	7.354E-02	0.068
SB-127		252.40		4.093E-01	3.359E+00	5.593E+00	2.319E+00	0.073
		473.00		2.216E-01	1.391E+00	2.258E+00	2.725E-01	0.098
		685.70	*	-3.700E-01	1.174E+00	1.902E+00	1.999E-01	-0.195
		783.70		1.220E+00	3.073E+00	5.218E+00	6.194E-01	0.234
I-131		80.19		7.692E-01	4.848E+00	7.006E+00	6.142E-01	0.110
		284.31		-7.679E-02	1.444E+00	2.373E+00	2.264E-01	-0.032
		364.49	*	5.301E-04	1.217E-01	1.982E-01	1.772E-02	0.003
		636.99		-1.056E+00	1.659E+00	2.629E+00	2.313E-01	-0.402
TE-132		49.72		-6.702E+00	1.552E+01	2.483E+01	2.556E+00	-0.270
		111.76		-6.482E+00	2.702E+01	4.256E+01	4.446E+00	-0.152
		116.30		-5.216E+00	2.238E+01	3.518E+01	3.686E+00	-0.148
		228.16	*	2.541E-01	5.409E-01	9.165E-01	1.433E-01	0.277
BA-133		81.00		-1.917E-01	1.311E-01	1.691E-01	2.640E-02	-1.134
		276.40		1.972E-01	4.861E-01	7.897E-01	1.140E-01	0.250
		302.85		1.473E-01	1.891E-01	2.871E-01	3.838E-02	0.513
		356.01	*	-3.746E-02	6.251E-02	8.440E-02	1.092E-02	-0.444
		383.85		-6.310E-02	3.890E-01	6.250E-01	7.579E-02	-0.101
I-133		529.87	*	-3.705E-04	3.890E-01	Half-Life too short		
		875.33		2.150E-02	3.890E-01	Half-Life too short		
		1298.22		2.564E-02	3.890E-01	Half-Life too short		
CS-134		563.25		2.250E-01	4.357E-01	7.576E-01	6.487E-02	0.297
		569.33		3.802E-02	2.372E-01	4.027E-01	3.460E-02	0.094
		604.72		-1.507E-02	4.640E-02	6.526E-02	5.499E-03	-0.231
	+	795.86	*	1.604E-01	7.845E-02	1.209E-01	1.069E-02	1.327
		801.95		-3.060E-01	5.811E-01	8.213E-01	7.264E-02	-0.373
		1365.19		-9.194E-01	1.757E+00	2.722E+00	2.441E-01	-0.338
CS-135		268.22	*	7.066E-03	2.172E-01	3.159E-01	3.294E-02	0.022
I-135		546.56		3.217E+07	2.172E-01	Half-Life too short		
		836.80		9.651E+07	2.172E-01	Half-Life too short		
		1038.76		-1.201E+07	2.172E-01	Half-Life too short		
		1131.51		1.030E+07	2.172E-01	Half-Life too short		
		1260.41	*	-1.250E+07	2.172E-01	Half-Life too short		
		1457.56		8.982E+08	2.172E-01	Half-Life too short		
		1678.03		2.293E+07	2.172E-01	Half-Life too short		
		1791.20		-1.086E+07	2.172E-01	Half-Life too short		
CS-136		153.25		5.625E-01	9.006E-01	1.554E+00	1.582E-01	0.362
		176.60		1.816E-01	5.081E-01	8.663E-01	8.226E-02	0.210
		273.65		-6.278E-01	6.908E-01	9.376E-01	9.224E-02	-0.670

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		340.55		7.749E-01	2.173E-01	3.626E-01	3.300E-02	2.137
		818.51		-1.394E-02	7.709E-02	1.244E-01	1.102E-02	-0.112
		1048.07	*	-7.487E-02	1.257E-01	1.903E-01	1.729E-02	-0.393
		1235.36		1.764E-01	7.178E-01	1.066E+00	1.228E-01	0.165
CE-139		165.86	*	7.749E-03	3.573E-02	6.071E-02	5.170E-03	0.128
BA-140		162.66		1.097E-01	8.571E-01	1.453E+00	1.322E-01	0.075
		304.85		1.953E-01	1.584E+00	2.303E+00	6.771E-01	0.085
		423.72		8.386E-01	2.254E+00	3.702E+00	1.214E+00	0.227
		537.26	*	-3.334E-02	2.800E-01	4.672E-01	1.583E-01	-0.071
LA-140	+	328.76		4.189E-01	4.660E-01	6.215E-01	5.825E-02	0.674
		487.02		-3.019E-02	1.410E-01	2.216E-01	1.990E-02	-0.136
		815.77		5.456E-02	3.410E-01	5.691E-01	5.595E-02	0.096
		1596.21	*	1.824E-02	9.115E-02	1.545E-01	1.333E-02	0.118
CE-141		145.44	*	3.054E-02	7.158E-02	1.213E-01	1.055E-02	0.252
CE-143		57.36		1.200E-04	7.158E-02	Half-Life too short		
		293.27	*	9.107E-05	7.158E-02	Half-Life too short		
		664.57		4.012E-04	7.158E-02	Half-Life too short		
		721.93		-2.808E-04	7.158E-02	Half-Life too short		
CE-144		80.12		4.596E-01	3.159E+00	4.562E+00	3.979E-01	0.101
		133.52	*	-1.829E-02	2.573E-01	3.850E-01	5.884E-02	-0.048
PM-144		476.78		2.584E-02	8.470E-02	1.388E-01	1.273E-02	0.186
		618.01		-8.235E-03	3.722E-02	5.941E-02	5.117E-03	-0.139
		696.49	*	1.693E-02	4.270E-02	7.297E-02	6.106E-03	0.232
PR-144		696.51	*	1.266E+00	3.192E+00	5.455E+00	4.563E-01	0.232
		1489.16		1.150E+00	1.529E+01	2.555E+01	2.211E+00	0.045
PM-146		453.88	*	-1.136E-02	5.337E-02	8.447E-02	8.758E-03	-0.134
		633.25		8.556E-01	1.877E+00	3.187E+00	1.215E+00	0.268
		735.93		8.981E-02	1.788E-01	3.053E-01	8.548E-02	0.294
		747.24		4.690E-02	1.250E-01	2.126E-01	3.097E-02	0.221
ND-147	+	91.11		8.113E-01	2.636E-01	5.438E-01	5.378E-02	1.492
		319.41		-2.301E+00	3.604E+00	5.676E+00	5.092E-01	-0.405
		531.02	*	-2.508E-01	6.089E-01	9.954E-01	1.481E-01	-0.252
PM-149		285.90	*	-1.224E+01	5.501E+01	8.946E+01	1.416E+01	-0.137
EU-152		121.78		-1.181E-02	9.215E-02	1.453E-01	1.461E-02	-0.081
		244.70		4.735E-01	4.308E-01	6.702E-01	6.101E-02	0.706
		344.28	*	-1.088E-01	1.369E-01	1.942E-01	1.795E-02	-0.560
		778.90		-7.411E-02	3.292E-01	5.320E-01	4.636E-02	-0.139
	+	964.08		7.420E-01	5.363E-01	7.599E-01	6.816E-02	0.977
		1085.87		1.424E-01	5.442E-01	8.993E-01	7.709E-02	0.158
		1112.07		-3.157E-01	4.583E-01	5.665E-01	4.784E-02	-0.557
		1408.01		1.576E-02	2.453E-01	4.098E-01	3.529E-02	0.038
GD-153		69.67		-6.343E-02	2.299E+00	3.308E+00	2.653E-01	-0.019
		97.43	*	-9.941E-03	1.447E-01	1.604E-01	1.425E-02	-0.062
		103.18		-6.729E-02	1.546E-01	2.139E-01	1.866E-02	-0.315
EU-154		123.07		-5.179E-03	6.583E-02	1.040E-01	1.193E-02	-0.050
		723.31		-1.417E-01	2.210E-01	2.903E-01	2.721E-02	-0.488
		873.19		-8.705E-02	3.671E-01	5.872E-01	7.150E-02	-0.148
		996.26		-3.570E-01	4.666E-01	6.899E-01	1.215E-01	-0.517
		1004.73		-2.786E-01	2.935E-01	4.283E-01	5.064E-02	-0.651

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1274.44	*	1.700E-02	1.480E-01	2.500E-01	2.801E-02	0.068
EU-155	+	86.55		4.870E-01	1.510E-01	2.291E-01	2.153E-02	2.126
		105.31	*	8.225E-02	1.334E-01	2.178E-01	1.915E-02	0.378
TB-160	+	86.79		1.266E+00	3.923E-01	5.952E-01	5.558E-02	2.127
		197.04		3.821E-01	6.598E-01	1.107E+00	9.732E-02	0.345
		215.65		1.740E-01	9.028E-01	1.469E+00	1.314E-01	0.118
		298.57		-4.557E-02	2.399E-01	2.438E-01	2.216E-02	-0.187
		879.36	*	1.264E-03	1.900E-01	3.110E-01	2.804E-02	0.004
		962.29		4.872E-02	8.331E-01	1.178E+00	1.057E-01	0.041
	+	966.15		5.076E-01	3.668E-01	5.951E-01	5.336E-02	0.853
		1177.93		2.514E-01	4.336E-01	7.637E-01	6.193E-02	0.329
		1271.85		-5.073E-02	9.253E-01	1.537E+00	1.288E-01	-0.033
HO-166M		80.57		-1.985E-01	3.560E-01	4.952E-01	4.337E-02	-0.401
		184.41		1.073E-01	4.780E-02	7.709E-02	6.690E-03	1.392
		280.46		-4.141E-02	1.081E-01	1.748E-01	1.598E-02	-0.237
		410.95		3.113E-01	3.246E-01	5.542E-01	4.520E-02	0.562
		711.68	*	-1.979E-02	7.161E-02	1.159E-01	9.775E-03	-0.171
		752.31		-2.523E-01	3.607E-01	5.605E-01	4.827E-02	-0.450
		810.29		-9.731E-03	7.353E-02	1.194E-01	1.054E-02	-0.081
TA-182		67.75		1.161E-02	1.358E-01	2.192E-01	1.737E-02	0.053
	+	100.11		3.420E-01	2.680E-01	3.435E-01	3.020E-02	0.996
		152.43		1.735E-01	4.039E-01	6.932E-01	5.906E-02	0.250
		222.11		8.767E-02	4.106E-01	6.904E-01	6.204E-02	0.127
	+	1121.30		7.789E-01	4.062E-01	4.605E-01	3.867E-02	1.692
		1189.05		-1.240E-01	4.251E-01	6.963E-01	5.670E-02	-0.178
		1221.41	*	1.547E-01	2.468E-01	4.338E-01	3.575E-02	0.357
		1231.02		8.314E-02	6.753E-01	1.028E+00	8.501E-02	0.081
IR-192	+	295.96		1.126E+00	2.673E-01	3.515E-01	3.220E-02	3.202
		308.46		3.065E-02	1.108E-01	1.847E-01	1.678E-02	0.166
		316.51	*	5.722E-03	4.009E-02	6.627E-02	5.971E-03	0.086
		468.07		-3.381E-02	9.128E-02	1.226E-01	1.107E-02	-0.276
HG-203		70.83		1.073E+00	1.704E+00	2.519E+00	3.975E-01	0.426
	+	72.87		1.264E+00	1.250E+00	1.640E+00	2.510E-01	0.771
		279.20	*	8.509E-02	4.850E-02	8.544E-02	7.991E-03	0.996
BI-207	+	72.81		3.020E-01	2.960E-01	3.850E-01	3.156E-02	0.784
	+	74.97		9.430E-01	1.843E-01	2.949E-01	2.458E-02	3.197
		569.70		1.418E-02	3.697E-02	6.371E-02	5.397E-03	0.222
		1063.66	*	9.863E-03	6.797E-02	1.114E-01	9.656E-03	0.089
		1770.23		2.296E-01	4.716E-01	7.774E-01	6.510E-02	0.295
PB-210		46.54	*	-1.698E+00	4.900E+00	7.810E+00	7.314E-01	-0.217
PB-211		404.85	*	-2.965E-01	9.095E-01	1.422E+00	6.867E-01	-0.209
		427.09		-1.549E+00	2.135E+00	3.073E+00	1.420E+00	-0.504
		832.01		-2.010E+00	1.708E+00	1.930E+00	1.002E+00	-1.042
BI-212	+	727.33	*	2.833E+00	9.813E-01	1.477E+00	1.828E-01	1.918
		785.37		3.387E+00	4.134E+00	7.232E+00	6.320E-01	0.468
		1620.50		-2.516E-01	2.989E+00	4.838E+00	4.164E-01	-0.052
RN-219	+	271.23		8.826E-01	4.252E-01	5.729E-01	6.133E-02	1.541
		401.81	*	-1.941E-01	5.077E-01	7.995E-01	1.166E-01	-0.243
RA-223		81.07		-4.393E-01	2.916E-01	3.824E-01	3.365E-02	-1.149

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		83.79		3.809E-02	1.867E-01	2.445E-01	2.211E-02	0.156
		94.87		1.497E+00	7.798E-01	9.877E-01	8.882E-02	1.515
		144.24		-2.081E-01	8.026E-01	1.328E+00	1.269E-01	-0.157
		154.21		3.648E-01	4.635E-01	8.033E-01	7.512E-02	0.454
	+	269.46		6.858E-01	3.284E-01	4.277E-01	3.982E-02	1.603
		323.87	*	2.346E-01	9.223E-01	1.348E+00	2.358E-01	0.174
	+	338.28		8.142E+00	2.561E+00	3.085E+00	3.765E-01	2.639
AC-227		79.69		1.259E+00	1.609E+00	2.377E+00	4.104E-01	0.530
		235.96		1.383E-01	1.972E-01	2.996E-01	3.210E-02	0.462
		256.23	*	2.818E-02	3.092E-01	5.143E-01	6.389E-02	0.055
	+	299.98		1.395E+00	1.480E+00	2.006E+00	2.613E-01	0.695
		304.50		6.774E-01	2.131E+00	3.144E+00	5.271E-01	0.215
		334.37		-3.367E-01	2.656E+00	3.498E+00	5.495E-01	-0.096
TH-227		79.80		9.191E-01	2.122E+00	3.095E+00	6.751E-01	0.297
		235.96		1.383E-01	1.971E-01	2.996E-01	3.041E-02	0.462
		256.23	*	2.818E-02	3.092E-01	5.143E-01	7.168E-02	0.055
	+	299.98		1.395E+00	1.480E+00	2.006E+00	2.613E-01	0.695
		304.50		6.774E-01	2.131E+00	3.144E+00	5.271E-01	0.215
		334.37		-3.367E-01	2.656E+00	3.498E+00	5.495E-01	-0.096
TH-229		85.43		6.171E-01	2.856E-01	4.407E-01	4.055E-02	1.400
	+	88.47		6.197E-01	1.921E-01	2.860E-01	2.694E-02	2.167
		193.51	*	-2.054E-01	6.250E-01	1.033E+00	9.047E-02	-0.199
	+	210.85		2.010E+00	1.757E+00	2.106E+00	1.876E-01	0.954
PA-231		283.69	*	-2.863E-01	1.710E+00	2.791E+00	4.158E-01	-0.103
	+	301.36		8.963E-01	9.499E-01	1.254E+00	1.565E-01	0.715
TH-231		81.07		-4.393E-01	2.916E-01	3.824E-01	3.365E-02	-1.149
		83.79		3.809E-02	1.867E-01	2.445E-01	2.211E-02	0.156
		94.87		1.497E+00	7.798E-01	9.877E-01	8.882E-02	1.515
		144.24		-2.081E-01	8.026E-01	1.328E+00	1.269E-01	-0.157
		154.21		3.648E-01	4.635E-01	8.033E-01	7.512E-02	0.454
	+	269.46		6.858E-01	3.284E-01	4.277E-01	3.982E-02	1.603
		323.87	*	2.346E-01	9.223E-01	1.348E+00	2.358E-01	0.174
	+	338.28		8.142E+00	2.561E+00	3.085E+00	3.765E-01	2.639
PA-233	+	300.13		6.314E-01	6.712E-01	9.034E-01	1.365E-01	0.699
		311.90	*	-1.540E-02	7.612E-02	1.233E-01	1.142E-02	-0.125
		340.48		3.562E+00	1.329E+00	1.759E+00	4.245E-01	2.025
PA-234		94.67		7.365E-01	2.985E-01	3.782E-01	4.793E-02	1.947
	+	98.44		1.756E-01	1.682E-01	1.858E-01	1.037E-01	0.945
		111.00		1.190E-01	2.334E-01	3.787E-01	4.589E-02	0.314
		131.20		1.043E-01	1.505E-01	2.192E-01	1.895E-02	0.476
		569.50		1.055E-01	3.266E-01	5.607E-01	4.750E-02	0.188
		733.00		-2.561E-01	5.438E-01	7.314E-01	1.621E-01	-0.350
		880.51		-5.577E-02	3.863E-01	6.238E-01	5.626E-02	-0.089
		883.24		2.707E-01	4.161E-01	6.520E-01	4.386E-01	0.415
		926.50		-9.313E-02	2.149E-01	3.321E-01	8.443E-02	-0.280
		946.00	*	-3.012E-02	3.695E-01	5.964E-01	1.130E-01	-0.050
		949.00		1.545E-01	5.425E-01	9.083E-01	8.173E-02	0.170
PA-234M		766.42		-3.532E+00	1.506E+01	2.382E+01	1.209E+01	-0.148
		1001.03	*	6.131E+00	6.359E+00	1.136E+01	1.157E+00	0.540

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	1.435E+00	1.814E+00	3.009E+00	5.404E-01	0.477
	+	92.59		3.761E+00	1.446E+00	1.674E+00	3.731E-01	2.246
U-238		63.29	*	1.435E+00	1.814E+00	3.009E+00	5.404E-01	0.477
	+	92.59		3.761E+00	1.227E+00	1.674E+00	1.527E-01	2.246
NP-239	+	99.53		3.185E-01	2.496E-01	3.304E-01	2.911E-02	0.964
		103.37		-6.778E-03	1.408E-01	1.992E-01	1.737E-02	-0.034
		106.12		8.083E-02	1.053E-01	1.729E-01	1.501E-02	0.468
		117.23	*	-6.217E-01	5.108E-01	7.629E-01	6.647E-02	-0.815
		228.18		1.222E-01	2.591E-01	4.399E-01	3.969E-02	0.278
		277.60		3.524E-01	2.303E-01	4.027E-01	3.683E-02	0.875
AM-241		59.54	*	-1.499E-01	2.025E-01	3.185E-01	2.625E-02	-0.470
CM-247		278.00		1.690E+00	9.868E-01	1.734E+00	1.586E-01	0.975
		287.50		-4.325E-01	1.505E+00	2.439E+00	2.226E-01	-0.177
		402.40	*	-1.213E-02	4.629E-02	7.361E-02	5.969E-03	-0.165
CF-249		252.80		2.282E-01	1.116E+00	1.867E+00	1.704E-01	0.122
		333.37		-1.662E-02	3.626E-01	3.714E-01	3.288E-02	-0.045
		388.16	*	3.518E-02	5.456E-02	9.176E-02	7.440E-03	0.383
CF-251		177.52	*	-3.598E-02	1.508E-01	2.511E-01	2.163E-02	-0.143
		227.38		-4.885E-02	4.338E-01	7.184E-01	6.479E-02	-0.068
		285.41		2.831E-01	2.587E+00	4.287E+00	3.915E-01	0.066

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331007      *
* Acquisition date : 24-MAR-2010 09:21:09 Detector SN#     :               *
* Detector ID        : GAM01               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.26     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 11-MAR-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G249331007           Analyst initials: MXR1         *
* Batch Number       : 965250               Sample Quantity : 1.2274E+02 GRAM *
* Recovery           :     1.00000          Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :     0.000            MSD Isotope     :                *
* LCS DPM          :     0.000            LCS Isotope     :                *
* LCSD DPM         :     0.000            LCSD Isotope    :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.322E+01	3.524E+00	4.402E-01	0.000E+00
CD-109	4.099E+00	1.245E+00	1.441E+00	0.000E+00
SN-126	4.020E-01	1.221E-01	1.421E-01	0.000E+00
BA-137M	1.140E-01	6.060E-02	7.762E-02	0.000E+00
CS-137	1.204E-01	6.402E-02	8.200E-02	0.000E+00
TL-208	6.058E-01	1.100E-01	6.818E-02	0.000E+00
BI-211	5.107E+00	6.895E-01	4.581E-01	0.000E+00
PB-212	2.222E+00	2.627E-01	1.153E-01	0.000E+00
BI-214	1.514E+00	2.391E-01	1.345E-01	0.000E+00
PB-214	1.854E+00	2.695E-01	1.705E-01	0.000E+00
RA-224	4.487E+00	1.303E+00	1.236E+00	0.000E+00
RA-226	1.514E+00	2.391E-01	1.345E-01	0.000E+00
AC-228	2.227E+00	5.164E-01	2.610E-01	0.000E+00
RA-228	2.227E+00	5.164E-01	2.610E-01	0.000E+00
TH-228	2.222E+00	2.627E-01	1.153E-01	0.000E+00
TH-230	1.514E+00	2.259E-01	1.345E-01	0.000E+00
TH-232	2.227E+00	5.164E-01	2.610E-01	0.000E+00
U-235	-6.149E-02	2.366E-01	4.111E-01	0.000E+00
NP-237	1.199E+00	4.398E-01	5.021E-01	0.000E+00
ANH-511	2.125E-01	8.004E-02	5.969E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	2.665E-01	4.001E-01	6.935E-01	0.000E+00	NOT IDENT.
NA-22	-1.135E-03	5.208E-02	8.854E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.931E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-5.496E-03	5.111E-02	8.486E-02	0.000E+00	FAIL ABUN
V-48	-6.853E-02	8.126E-02	1.229E-01	0.000E+00	NOT IDENT.
CR-51	-1.746E-01	4.294E-01	7.138E-01	0.000E+00	NOT IDENT.
MN-54	6.062E-02	4.880E-02	8.953E-02	0.000E+00	NOT IDENT.

CO-56	-6.071E-02	4.494E-02	6.446E-02	0.000E+00	FAIL ABUN
CO-57	3.570E-04	3.138E-02	5.238E-02	0.000E+00	NOT IDENT.
CO-58	-1.183E-02	4.824E-02	7.969E-02	0.000E+00	NOT IDENT.
FE-59	-2.538E-02	1.111E-01	1.787E-01	0.000E+00	NOT IDENT.
CO-60	-3.640E-02	4.224E-02	6.294E-02	0.000E+00	NOT IDENT.
ZN-65	-3.511E-02	1.261E-01	1.715E-01	0.000E+00	NOT IDENT.
SE-75	2.034E-02	5.995E-02	9.276E-02	0.000E+00	NOT IDENT.
SR-85	6.314E-02	5.380E-02	8.545E-02	0.000E+00	NOT IDENT.
Y-88	7.180E-03	3.535E-02	6.110E-02	0.000E+00	NOT IDENT.
Y-91	5.261E+00	2.577E+01	4.486E+01	0.000E+00	NOT IDENT.
NB-94	1.654E-02	4.205E-02	7.379E-02	0.000E+00	NOT IDENT.
NB-95	-8.121E-02	5.571E-02	8.164E-02	0.000E+00	NOT IDENT.
NB-95M	8.193E-02	1.527E-01	2.402E-01	0.000E+00	NOT IDENT.
ZR-95	1.870E-02	9.054E-02	1.561E-01	0.000E+00	NOT IDENT.
MO-99	-3.789E+00	8.415E+00	1.372E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	9.178E+13	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-3.317E-02	4.621E-02	7.151E-02	0.000E+00	FAIL ABUN
RH-106	3.631E-01	3.673E-01	6.736E-01	0.000E+00	NOT IDENT.
RU-106	3.631E-01	3.656E-01	6.736E-01	0.000E+00	NOT IDENT.
AG-108M	8.821E-03	3.671E-02	6.228E-02	0.000E+00	NOT IDENT.
AG-110M	-9.902E-03	4.750E-02	6.910E-02	0.000E+00	NOT IDENT.
SN-113	-5.613E-02	5.798E-02	9.128E-02	0.000E+00	NOT IDENT.
CD-115	1.448E-01	7.063E+00	1.231E+01	0.000E+00	NOT IDENT.
SN-117M	-6.457E-03	5.727E-02	1.010E-01	0.000E+00	NOT IDENT.
TE-123M	-2.506E-03	3.271E-02	5.775E-02	0.000E+00	NOT IDENT.
SB-124	9.141E-03	6.311E-02	1.090E-01	0.000E+00	NOT IDENT.
SB-125	-5.429E-02	1.160E-01	1.875E-01	0.000E+00	FAIL ABUN
TE-125M	1.045E+00	1.164E+01	1.960E+01	0.000E+00	NOT IDENT.
I-126	1.708E-01	2.741E-01	4.340E-01	0.000E+00	NOT IDENT.
SB-126	1.977E-02	1.657E-01	2.596E-01	0.000E+00	NOT IDENT.
SB-127	-3.700E-01	1.150E+00	1.918E+00	0.000E+00	NOT IDENT.
I-131	5.301E-04	1.193E-01	2.015E-01	0.000E+00	NOT IDENT.
TE-132	2.541E-01	5.301E-01	9.375E-01	0.000E+00	NOT IDENT.
BA-133	-3.746E-02	6.126E-02	8.584E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.232E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.688E-02	1.217E-01	0.000E+00	FAIL ABUN
CS-135	7.066E-03	2.129E-01	3.224E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.916E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-7.487E-02	1.232E-01	1.908E-01	0.000E+00	NOT IDENT.
CE-139	7.749E-03	3.502E-02	6.235E-02	0.000E+00	NOT IDENT.
BA-140	-3.334E-02	2.744E-01	4.727E-01	0.000E+00	NOT IDENT.
LA-140	1.824E-02	8.933E-02	1.541E-01	0.000E+00	FAIL ABUN
CE-141	3.054E-02	7.015E-02	1.248E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	6.323E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.829E-02	2.522E-01	3.965E-01	0.000E+00	NOT IDENT.
PM-144	1.693E-02	4.184E-02	7.357E-02	0.000E+00	NOT IDENT.
PR-144	1.266E+00	3.128E+00	5.500E+00	0.000E+00	NOT IDENT.
PM-146	-1.136E-02	5.230E-02	8.564E-02	0.000E+00	NOT IDENT.
ND-147	-2.508E-01	5.967E-01	1.007E+00	0.000E+00	FAIL ABUN
PM-149	-1.224E+01	5.391E+01	9.125E+01	0.000E+00	NOT IDENT.
EU-152	-1.088E-01	1.341E-01	1.976E-01	0.000E+00	FAIL ABUN
GD-153	-9.941E-03	1.418E-01	1.659E-01	0.000E+00	NOT IDENT.
EU-154	1.700E-02	1.450E-01	2.501E-01	0.000E+00	NOT IDENT.
EU-155	8.225E-02	1.307E-01	2.250E-01	0.000E+00	FAIL ABUN
TB-160	1.264E-03	1.862E-01	3.126E-01	0.000E+00	FAIL ABUN
HO-166M	-1.979E-02	7.018E-02	1.168E-01	0.000E+00	NOT IDENT.
TA-182	1.547E-01	2.419E-01	4.341E-01	0.000E+00	FAIL ABUN
IR-192	5.722E-03	3.928E-02	6.750E-02	0.000E+00	FAIL ABUN
HG-203	8.509E-02	4.753E-02	8.717E-02	0.000E+00	FAIL ABUN
BI-207	9.863E-03	6.661E-02	1.117E-01	0.000E+00	FAIL ABUN
PB-210	-1.698E+00	4.802E+00	8.149E+00	0.000E+00	NOT IDENT.
PB-211	-2.965E-01	8.913E-01	1.443E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	9.617E-01	1.488E+00	0.000E+00	FAIL ABUN
RN-219	-1.941E-01	4.975E-01	8.119E-01	0.000E+00	FAIL ABUN
RA-223	2.346E-01	9.039E-01	1.373E+00	0.000E+00	FAIL ABUN
AC-227	2.818E-02	3.031E-01	5.252E-01	0.000E+00	FAIL ABUN
TH-227	2.818E-02	3.031E-01	5.252E-01	0.000E+00	FAIL ABUN
TH-229	-2.054E-01	6.125E-01	1.059E+00	0.000E+00	FAIL ABUN
PA-231	-2.863E-01	1.676E+00	2.847E+00	0.000E+00	FAIL ABUN
TH-231	2.346E-01	9.039E-01	1.373E+00	0.000E+00	FAIL ABUN
PA-233	-1.540E-02	7.460E-02	1.257E-01	0.000E+00	FAIL ABUN
PA-234	-3.012E-02	3.621E-01	5.989E-01	0.000E+00	FAIL ABUN
PA-234M	6.131E+00	6.232E+00	1.139E+01	0.000E+00	NOT IDENT.
TH-234	1.435E+00	1.778E+00	3.127E+00	0.000E+00	FAIL ABUN
U-238	1.435E+00	1.778E+00	3.127E+00	0.000E+00	FAIL ABUN
NP-239	-6.217E-01	5.006E-01	7.870E-01	0.000E+00	FAIL ABUN
AM-241	-1.499E-01	1.984E-01	3.314E-01	0.000E+00	NOT IDENT.
CM-247	-1.213E-02	4.537E-02	7.475E-02	0.000E+00	NOT IDENT.

CF-249	3.518E-02	5.347E-02	9.322E-02	0.000E+00 NOT IDENT.
CF-251	-3.598E-02	1.478E-01	2.577E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:21:37.15

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331007.CNF;1
Sample date      : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:21:09
Sample ID        : G249331007           Sample quantity  : 1.22740E+02 GRAM
Detector name    : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:01.26  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 965250               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1095	10.66*	9.454E-01	3.322E+01	3.322E+01	10.82
CD-109	88.03	252	3.70*	5.190E+00	4.020E+00	4.099E+00	30.99
SN-126	64.28	------	9.60	2.906E+00	------ Line Not Found		------
	86.94	252	8.90	5.190E+00	1.671E+00	1.671E+00	50.96
	87.57	252	37.00*	5.190E+00	4.020E-01	4.020E-01	30.99
BA-137M	661.66	64	89.90*	1.923E+00	1.139E-01	1.140E-01	54.26
CS-137	661.66	64	85.10*	1.923E+00	1.203E-01	1.204E-01	54.26
TL-208	277.37	------	6.60	3.885E+00	------ Line Not Found		------
	583.19	361	85.00*	2.142E+00	6.058E-01	6.058E-01	18.54
	860.56	69	12.50	1.521E+00	1.115E+00	1.115E+00	45.04
BI-211	72.87	83	1.23	3.949E+00	5.250E+00	5.250E+00	98.03
	351.06	696	12.92*	3.224E+00	5.107E+00	5.107E+00	13.78
PB-212	74.82	457	10.28	4.154E+00	3.272E+00	3.272E+00	21.83
	77.11	689	17.10	4.386E+00	2.809E+00	2.809E+00	16.38
	238.63	1376	43.60*	4.344E+00	2.222E+00	2.222E+00	12.06
	300.09	50	3.30	3.651E+00	1.268E+00	1.268E+00	105.80
BI-214	609.32	465	45.49*	2.064E+00	1.514E+00	1.514E+00	16.11
	1120.29	98	14.92	1.193E+00	1.685E+00	1.685E+00	52.58
	1764.49	82	15.30	8.255E-01	1.989E+00	1.989E+00	24.94
PB-214	74.82	457	5.80	4.154E+00	5.800E+00	5.800E+00	21.09
	77.11	689	9.70	4.386E+00	4.952E+00	4.952E+00	18.34
	242.00	259	7.25	4.307E+00	2.538E+00	2.538E+00	30.18
	295.22	346	18.42	3.698E+00	1.554E+00	1.554E+00	24.60
	351.93	696	35.60*	3.224E+00	1.854E+00	1.854E+00	14.84
RA-224	240.99	259	4.10*	4.307E+00	4.487E+00	4.487E+00	29.62
RA-226	609.32	465	45.49*	2.064E+00	1.514E+00	1.514E+00	16.11
	1120.29	98	14.92	1.193E+00	1.685E+00	1.685E+00	52.58
	1764.49	82	15.30	8.255E-01	1.989E+00	1.989E+00	24.94
AC-228	338.32	252	11.27	3.326E+00	2.052E+00	2.052E+00	50.83
	911.20	271	25.80*	1.443E+00	2.227E+00	2.227E+00	23.66
	968.97	130	15.80	1.364E+00	1.850E+00	1.850E+00	36.87
RA-228	338.32	252	11.27	3.326E+00	2.052E+00	2.052E+00	50.83

Sample ID : G249331007 Acquisition date : 24-MAR-2010 09:21:09

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	271	25.80*	1.443E+00	2.227E+00	2.227E+00	23.66
	968.97	130	15.80	1.364E+00	1.850E+00	1.850E+00	36.87
TH-228	74.82	457	10.28	4.154E+00	3.272E+00	3.272E+00	19.58
	77.11	689	17.10	4.386E+00	2.809E+00	2.809E+00	16.38
	238.63	1376	43.60*	4.344E+00	2.222E+00	2.222E+00	12.06
	300.09	50	3.30	3.651E+00	1.268E+00	1.268E+00	121.78
TH-230	609.32	465	45.49*	2.064E+00	1.514E+00	1.514E+00	15.22
	1120.29	98	14.92	1.193E+00	1.685E+00	1.685E+00	52.15
	1764.49	82	15.30	8.255E-01	1.989E+00	1.989E+00	24.94
TH-232	338.32	252	11.27	3.326E+00	2.052E+00	2.052E+00	30.29
	911.20	271	25.80*	1.443E+00	2.227E+00	2.227E+00	23.66
	968.97	130	15.80	1.364E+00	1.850E+00	1.850E+00	36.87
U-235	89.96	176	3.47	5.365E+00	2.884E+00	2.884E+00	39.67
	93.35	287	5.60	5.510E+00	2.841E+00	2.841E+00	39.04
	143.76	------	10.96*	5.865E+00	------	Line Not Found	------
	163.33	------	5.08	5.555E+00	------	Line Not Found	------
	185.72	92	57.20	5.156E+00	9.545E-02	9.545E-02	91.44
	205.31	------	5.01	4.840E+00	------	Line Not Found	------
NP-237	86.48	252	12.40*	5.190E+00	1.199E+00	1.199E+00	37.42
	95.86	------	2.68	5.636E+00	------	Line Not Found	------
ANH-511	511.00	166	100.00*	2.392E+00	2.125E-01	2.125E-01	38.43

Flag: "*" = Keyline

Sample ID : G249331007 Acquisition date : 24-MAR-2010 09:21:09

Total number of lines in spectrum 34
Number of unidentified lines 2
Number of lines tentatively identified by NID 32 94.12%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.322E+01	3.322E+01	0.360E+01	10.82	
CD-109	461.40D	1.02	4.020E+00	4.099E+00	1.270E+00	30.99	
SN-126	2.30E+05Y	1.00	4.020E-01	4.020E-01	1.246E-01	30.99	
BA-137M	30.08Y	1.00	1.139E-01	1.140E-01	0.618E-01	54.26	
CS-137	30.08Y	1.00	1.203E-01	1.204E-01	0.653E-01	54.26	
TL-208	1.41E+10Y	1.00	6.058E-01	6.058E-01	1.123E-01	18.54	
BI-211	7.04E+08Y	1.00	5.107E+00	5.107E+00	0.704E+00	13.78	
PB-212	1.41E+10Y	1.00	2.222E+00	2.222E+00	0.268E+00	12.06	
BI-214	1600.00Y	1.00	1.514E+00	1.514E+00	0.244E+00	16.11	
PB-214	1600.00Y	1.00	1.854E+00	1.854E+00	0.275E+00	14.84	
RA-224	1.41E+10Y	1.00	4.487E+00	4.487E+00	1.329E+00	29.62	
RA-226	1600.00Y	1.00	1.514E+00	1.514E+00	0.244E+00	16.11	
AC-228	1.41E+10Y	1.00	2.227E+00	2.227E+00	0.527E+00	23.66	
RA-228	1.41E+10Y	1.00	2.227E+00	2.227E+00	0.527E+00	23.66	
TH-228	1.41E+10Y	1.00	2.222E+00	2.222E+00	0.268E+00	12.06	
TH-230	7.54E+04Y	1.00	1.514E+00	1.514E+00	0.231E+00	15.22	
TH-232	1.41E+10Y	1.00	2.227E+00	2.227E+00	0.527E+00	23.66	
U-235	7.04E+08Y	1.00	9.545E-02	9.545E-02	8.728E-02	91.44	K
NP-237	2.14E+06Y	1.00	1.199E+00	1.199E+00	0.449E+00	37.42	
ANH-511	1.00E+09Y	1.00	2.125E-01	2.125E-01	0.817E-01	38.43	
	Total Activity :		6.711E+01	6.718E+01			

Grand Total Activity : 6.711E+01 6.718E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249331007 Acquisition date : 24-MAR-2010 09:21:09

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	99.57	84	325	1.04	199.84	196	8	1.17E-02	77.9	5.77E+00	T
0	129.05	83	365	1.05	258.76	254	8	1.15E-02	83.0	6.03E+00	
0	210.00	88	370	1.23	420.56	415	10	1.22E-02	87.0	4.77E+00	T
0	270.11	124	199	1.31	540.72	536	10	1.72E-02	47.0	3.96E+00	T
0	328.66	47	193	1.10	657.76	653	9	6.51E-03	****	3.41E+00	T
0	463.84	102	105	1.27	927.94	923	12	1.42E-02	45.1	2.59E+00	T
0	727.61	109	51	2.16	1455.16	1449	12	1.52E-02	32.4	1.77E+00	T
0	795.46	65	45	2.05	1590.77	1586	11	9.05E-03	48.1	1.63E+00	T
1	965.28	49	75	1.92	1930.18	1922	23	6.75E-03	71.7	1.37E+00	T
0	1238.58	41	66	1.39	2476.39	2470	13	5.66E-03	90.1	1.09E+00	T
0	1378.45	26	5	0.84	2755.92	2752	9	3.54E-03	49.7	9.92E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:21:40.85

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*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331007.CNF;1    *
* Acquisition date : 24-MAR-2010 09:21:09  Detector SN#    :                  *
* Detector ID      : GAM01                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:01.26         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 11-MAR-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G249331007            Analyst initials: MXR1             *
* Batch Number     : 965250                Sample Quantity : 1.22740E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52.7MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.322E+01	3.596E+00	4.409E-01	3.920E-02	75.341
CD-109	4.099E+00	1.270E+00	1.392E+00	1.317E-01	2.944
SN-126	4.020E-01	1.246E-01	1.372E-01	1.293E-02	2.929
BA-137M	1.140E-01	6.184E-02	7.693E-02	6.302E-03	1.481
CS-137	1.204E-01	6.533E-02	8.127E-02	6.671E-03	1.481
TL-208	6.058E-01	1.123E-01	6.746E-02	6.119E-03	8.979
BI-211	5.107E+00	7.036E-01	4.504E-01	4.097E-02	11.340
PB-212	2.222E+00	2.680E-01	1.128E-01	1.147E-02	19.691
BI-214	1.514E+00	2.440E-01	1.331E-01	1.319E-02	11.376
PB-214	1.854E+00	2.750E-01	1.676E-01	1.782E-02	11.058
RA-224	4.487E+00	1.329E+00	1.210E+00	1.099E-01	3.710
RA-226	1.514E+00	2.440E-01	1.331E-01	1.319E-02	11.376
AC-228	2.227E+00	5.269E-01	2.598E-01	3.095E-02	8.572
RA-228	2.227E+00	5.269E-01	2.598E-01	3.095E-02	8.572
TH-228	2.222E+00	2.680E-01	1.128E-01	1.147E-02	19.691
TH-230	1.514E+00	2.305E-01	1.331E-01	1.117E-02	11.376
TH-232	2.227E+00	5.269E-01	2.598E-01	3.095E-02	8.572
U-235	9.545E-02	8.728E-02	3.996E-01	6.759E-02	0.239

Sample ID : G249331007 Acquisition date : 24-MAR-2010 09:21:09

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	1.199E+00	4.488E-01	4.849E-01	1.112E-01	2.474
ANH-511	2.125E-01	8.167E-02	5.896E-02	4.997E-03	3.605

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.665E-01		4.082E-01	6.845E-01	6.225E-02	0.389
NA-22	-1.135E-03		5.314E-02	8.852E-02	7.433E-03	-0.013
NA-24	-1.131E-02		4.046E-02	Half-Life too short		
SC-46	-5.496E-03		5.216E-02	8.444E-02	7.633E-03	-0.065
V-48	-6.853E-02		8.292E-02	1.225E-01	1.094E-02	-0.559
CR-51	-1.746E-01		4.381E-01	7.009E-01	6.588E-02	-0.249
MN-54	6.062E-02		4.979E-02	8.901E-02	7.923E-03	0.681
CO-56	-6.071E-02		4.586E-02	6.410E-02	5.727E-03	-0.947
CO-57	3.570E-04		3.202E-02	5.081E-02	4.472E-03	0.007
CO-58	-1.183E-02		4.923E-02	7.920E-02	7.006E-03	-0.149
FE-59	-2.538E-02		1.134E-01	1.783E-01	1.644E-02	-0.142
CO-60	-3.640E-02		4.310E-02	6.296E-02	5.367E-03	-0.578
ZN-65	-3.511E-02		1.287E-01	1.711E-01	1.444E-02	-0.205
SE-75	2.034E-02		6.118E-02	9.086E-02	8.347E-03	0.224
SR-85	6.314E-02		5.490E-02	8.442E-02	7.157E-03	0.748
Y-88	7.180E-03		3.608E-02	6.139E-02	5.049E-03	0.117
Y-91	5.261E+00		2.629E+01	4.481E+01	3.671E+00	0.117
NB-94	1.654E-02		4.291E-02	7.319E-02	6.144E-03	0.226
NB-95	-8.121E-02		5.684E-02	8.107E-02	7.025E-03	-1.002
NB-95M	8.193E-02		1.558E-01	2.349E-01	2.413E-02	0.349
ZR-95	1.870E-02		9.238E-02	1.550E-01	1.477E-02	0.121
MO-99	-3.789E+00		8.587E+00	1.362E+01	2.141E+00	-0.278
TC-99M	-3.642E+07		4.683E+07	Half-Life too short		
RU-103	-3.317E-02		4.715E-02	7.061E-02	9.791E-03	-0.470
RH-106	3.631E-01		3.748E-01	6.671E-01	8.728E-02	0.544
RU-106	3.631E-01		3.731E-01	6.671E-01	5.572E-02	0.544
AG-108M	8.821E-03		3.746E-02	6.139E-02	5.253E-03	0.144
AG-110M	-9.902E-03		4.847E-02	6.849E-02	5.807E-03	-0.145
SN-113	-5.613E-02		5.916E-02	8.986E-02	7.485E-03	-0.625
CD-115	1.448E-01		7.208E+00	1.217E+01	1.033E+00	0.012
SN-117M	-6.457E-03		5.844E-02	9.826E-02	8.365E-03	-0.066
TE-123M	-2.506E-03		3.338E-02	5.620E-02	4.814E-03	-0.045
SB-124	9.141E-03		6.440E-02	1.094E-01	9.723E-03	0.084
SB-125	-5.429E-02		1.183E-01	1.847E-01	1.554E-02	-0.294
TE-125M	1.045E+00		1.188E+01	1.898E+01	1.996E+00	0.055
I-126	1.708E-01		2.796E-01	4.302E-01	3.534E-02	0.397
SB-126	1.977E-02		1.691E-01	2.576E-01	2.184E-02	0.077
SB-127	-3.700E-01		1.174E+00	1.902E+00	1.999E-01	-0.195
I-131	5.301E-04		1.217E-01	1.982E-01	1.772E-02	0.003
TE-132	2.541E-01		5.409E-01	9.165E-01	1.433E-01	0.277
BA-133	-3.746E-02		6.251E-02	8.440E-02	1.092E-02	-0.444

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	-3.705E-04		6.288E-04	Half-Life too short		
CS-134	1.604E-01	+	7.845E-02	1.209E-01	1.069E-02	1.327
CS-135	7.066E-03		2.172E-01	3.159E-01	3.294E-02	0.022
I-135	-1.250E+07		1.488E+07	Half-Life too short		
CS-136	-7.487E-02		1.257E-01	1.903E-01	1.729E-02	-0.393
CE-139	7.749E-03		3.573E-02	6.071E-02	5.170E-03	0.128
BA-140	-3.334E-02		2.800E-01	4.672E-01	1.583E-01	-0.071
LA-140	1.824E-02		9.115E-02	1.545E-01	1.333E-02	0.118
CE-141	3.054E-02		7.158E-02	1.213E-01	1.055E-02	0.252
CE-143	9.107E-05		3.226E-05	Half-Life too short		
CE-144	-1.829E-02		2.573E-01	3.850E-01	5.884E-02	-0.048
PM-144	1.693E-02		4.270E-02	7.297E-02	6.106E-03	0.232
PR-144	1.266E+00		3.192E+00	5.455E+00	4.563E-01	0.232
PM-146	-1.136E-02		5.337E-02	8.447E-02	8.758E-03	-0.134
ND-147	-2.508E-01		6.089E-01	9.954E-01	1.481E-01	-0.252
PM-149	-1.224E+01		5.501E+01	8.946E+01	1.416E+01	-0.137
EU-152	-1.088E-01		1.369E-01	1.942E-01	1.795E-02	-0.560
GD-153	-9.941E-03		1.447E-01	1.604E-01	1.425E-02	-0.062
EU-154	1.700E-02		1.480E-01	2.500E-01	2.801E-02	0.068
EU-155	8.225E-02		1.334E-01	2.178E-01	1.915E-02	0.378
TB-160	1.264E-03		1.900E-01	3.110E-01	2.804E-02	0.004
HO-166M	-1.979E-02		7.161E-02	1.159E-01	9.775E-03	-0.171
TA-182	1.547E-01		2.468E-01	4.338E-01	3.575E-02	0.357
IR-192	5.722E-03		4.009E-02	6.627E-02	5.971E-03	0.086
HG-203	8.509E-02		4.850E-02	8.544E-02	7.991E-03	0.996
BI-207	9.863E-03		6.797E-02	1.114E-01	9.656E-03	0.089
PB-210	-1.698E+00		4.900E+00	7.810E+00	7.314E-01	-0.217
PB-211	-2.965E-01		9.095E-01	1.422E+00	6.867E-01	-0.209
BI-212	2.833E+00	+	9.813E-01	1.477E+00	1.828E-01	1.918
RN-219	-1.941E-01		5.077E-01	7.995E-01	1.166E-01	-0.243
RA-223	2.346E-01		9.223E-01	1.348E+00	2.358E-01	0.174
AC-227	2.818E-02		3.092E-01	5.143E-01	6.389E-02	0.055
TH-227	2.818E-02		3.092E-01	5.143E-01	7.168E-02	0.055
TH-229	-2.054E-01		6.250E-01	1.033E+00	9.047E-02	-0.199
PA-231	-2.863E-01		1.710E+00	2.791E+00	4.158E-01	-0.103
TH-231	2.346E-01		9.223E-01	1.348E+00	2.358E-01	0.174
PA-233	-1.540E-02		7.612E-02	1.233E-01	1.142E-02	-0.125
PA-234	-3.012E-02		3.695E-01	5.964E-01	1.130E-01	-0.050
PA-234M	6.131E+00		6.359E+00	1.136E+01	1.157E+00	0.540
TH-234	1.435E+00		1.814E+00	3.009E+00	5.404E-01	0.477
U-238	1.435E+00		1.814E+00	3.009E+00	5.404E-01	0.477
NP-239	-6.217E-01		5.108E-01	7.629E-01	6.647E-02	-0.815
AM-241	-1.499E-01		2.025E-01	3.185E-01	2.625E-02	-0.470
CM-247	-1.213E-02		4.629E-02	7.361E-02	5.969E-03	-0.165
CF-249	3.518E-02		5.456E-02	9.176E-02	7.440E-03	0.383
CF-251	-3.598E-02		1.508E-01	2.511E-01	2.163E-02	-0.143

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249331007            *
* Acquisition date : 24-MAR-2010 09:21:09 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.26     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249331007           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.2274E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.322E+01	3.524E+00	2.203E-01	1.798E+00
CD-109	4.099E+00	1.245E+00	7.210E-01	6.351E-01
SN-126	4.020E-01	1.221E-01	7.108E-02	6.229E-02
BA-137M	1.140E-01	6.060E-02	3.883E-02	3.092E-02
CS-137	1.204E-01	6.402E-02	4.102E-02	3.267E-02
TL-208	6.058E-01	1.100E-01	3.411E-02	5.615E-02
BI-211	5.107E+00	6.895E-01	2.292E-01	3.518E-01
PB-212	2.222E+00	2.627E-01	5.770E-02	1.340E-01
BI-214	1.514E+00	2.391E-01	6.727E-02	1.220E-01
PB-214	1.854E+00	2.695E-01	8.531E-02	1.375E-01
RA-224	4.487E+00	1.303E+00	6.185E-01	6.646E-01
RA-226	1.514E+00	2.391E-01	6.727E-02	1.220E-01
AC-228	2.227E+00	5.164E-01	1.306E-01	2.635E-01
RA-228	2.227E+00	5.164E-01	1.306E-01	2.635E-01
TH-228	2.222E+00	2.627E-01	5.770E-02	1.340E-01
TH-230	1.514E+00	2.259E-01	6.727E-02	1.153E-01
TH-232	2.227E+00	5.164E-01	1.306E-01	2.635E-01
U-235	-6.149E-02	2.366E-01	2.057E-01	1.207E-01
NP-237	1.199E+00	4.398E-01	2.512E-01	2.244E-01
ANH-511	2.125E-01	8.004E-02	2.986E-02	4.084E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	2.665E-01	4.001E-01	3.470E-01	2.041E-01	NOT IDENT.
NA-22	-1.135E-03	5.208E-02	4.430E-02	2.657E-02	NOT IDENT.
NA-24	-1.131E+04	7.931E+04	0.000E+00	4.046E+04	SHORT HLIF
SC-46	-5.496E-03	5.111E-02	4.246E-02	2.608E-02	FAIL ABUN
V-48	-6.853E-02	8.126E-02	6.151E-02	4.146E-02	NOT IDENT.
CR-51	-1.746E-01	4.294E-01	3.571E-01	2.191E-01	NOT IDENT.
MN-54	6.062E-02	4.880E-02	4.479E-02	2.490E-02	NOT IDENT.

CO-56	-6.071E-02	4.494E-02	3.225E-02	2.293E-02	FAIL ABUN
CO-57	3.570E-04	3.138E-02	2.621E-02	1.601E-02	NOT IDENT.
CO-58	-1.183E-02	4.824E-02	3.987E-02	2.461E-02	NOT IDENT.
FE-59	-2.538E-02	1.111E-01	8.941E-02	5.669E-02	NOT IDENT.
CO-60	-3.640E-02	4.224E-02	3.149E-02	2.155E-02	NOT IDENT.
ZN-65	-3.511E-02	1.261E-01	8.578E-02	6.435E-02	NOT IDENT.
SE-75	2.034E-02	5.995E-02	4.641E-02	3.059E-02	NOT IDENT.
SR-85	6.314E-02	5.380E-02	4.275E-02	2.745E-02	NOT IDENT.
Y-88	7.180E-03	3.535E-02	3.057E-02	1.804E-02	NOT IDENT.
Y-91	5.261E+00	2.577E+01	2.244E+01	1.315E+01	NOT IDENT.
NB-94	1.654E-02	4.205E-02	3.692E-02	2.146E-02	NOT IDENT.
NB-95	-8.121E-02	5.571E-02	4.084E-02	2.842E-02	NOT IDENT.
NB-95M	8.193E-02	1.527E-01	1.201E-01	7.792E-02	NOT IDENT.
ZR-95	1.870E-02	9.054E-02	7.810E-02	4.619E-02	NOT IDENT.
MO-99	-3.789E+00	8.415E+00	6.863E+00	4.293E+00	NOT IDENT.
TC-99M	-3.642E+13	9.178E+13	0.000E+00	4.683E+13	SHORT HLIF
RU-103	-3.317E-02	4.621E-02	3.578E-02	2.358E-02	FAIL ABUN
RH-106	3.631E-01	3.673E-01	3.370E-01	1.874E-01	NOT IDENT.
RU-106	3.631E-01	3.656E-01	3.370E-01	1.865E-01	NOT IDENT.
AG-108M	8.821E-03	3.671E-02	3.116E-02	1.873E-02	NOT IDENT.
AG-110M	-9.902E-03	4.750E-02	3.457E-02	2.424E-02	NOT IDENT.
SN-113	-5.613E-02	5.798E-02	4.567E-02	2.958E-02	NOT IDENT.
CD-115	1.448E-01	7.063E+00	6.161E+00	3.604E+00	NOT IDENT.
SN-117M	-6.457E-03	5.727E-02	5.052E-02	2.922E-02	NOT IDENT.
TE-123M	-2.506E-03	3.271E-02	2.889E-02	1.669E-02	NOT IDENT.
SB-124	9.141E-03	6.311E-02	5.455E-02	3.220E-02	NOT IDENT.
SB-125	-5.429E-02	1.160E-01	9.378E-02	5.917E-02	FAIL ABUN
TE-125M	1.045E+00	1.164E+01	9.806E+00	5.939E+00	NOT IDENT.
I-126	1.708E-01	2.741E-01	2.171E-01	1.398E-01	NOT IDENT.
SB-126	1.977E-02	1.657E-01	1.299E-01	8.453E-02	NOT IDENT.
SB-127	-3.700E-01	1.150E+00	9.597E-01	5.868E-01	NOT IDENT.
I-131	5.301E-04	1.193E-01	1.008E-01	6.087E-02	NOT IDENT.
TE-132	2.541E-01	5.301E-01	4.690E-01	2.705E-01	NOT IDENT.
BA-133	-3.746E-02	6.126E-02	4.294E-02	3.126E-02	NOT IDENT.
I-133	-3.705E+02	1.232E+03	0.000E+00	6.288E+02	SHORT HLIF
CS-134	1.604E-01	7.688E-02	6.088E-02	3.922E-02	FAIL ABUN
CS-135	7.066E-03	2.129E-01	1.613E-01	1.086E-01	NOT IDENT.
I-135	-1.250E+13	2.916E+13	0.000E+00	1.488E+13	SHORT HLIF
CS-136	-7.487E-02	1.232E-01	9.547E-02	6.286E-02	NOT IDENT.
CE-139	7.749E-03	3.502E-02	3.119E-02	1.786E-02	NOT IDENT.
BA-140	-3.334E-02	2.744E-01	2.365E-01	1.400E-01	NOT IDENT.
LA-140	1.824E-02	8.933E-02	7.708E-02	4.557E-02	FAIL ABUN
CE-141	3.054E-02	7.015E-02	6.244E-02	3.579E-02	NOT IDENT.
CE-143	9.107E+01	6.323E+01	0.000E+00	3.226E+01	SHORT HLIF
CE-144	-1.829E-02	2.522E-01	1.983E-01	1.287E-01	NOT IDENT.
PM-144	1.693E-02	4.184E-02	3.681E-02	2.135E-02	NOT IDENT.
PR-144	1.266E+00	3.128E+00	2.752E+00	1.596E+00	NOT IDENT.
PM-146	-1.136E-02	5.230E-02	4.285E-02	2.668E-02	NOT IDENT.
ND-147	-2.508E-01	5.967E-01	5.039E-01	3.044E-01	FAIL ABUN
PM-149	-1.224E+01	5.391E+01	4.565E+01	2.750E+01	NOT IDENT.
EU-152	-1.088E-01	1.341E-01	9.884E-02	6.843E-02	FAIL ABUN
GD-153	-9.941E-03	1.418E-01	8.298E-02	7.234E-02	NOT IDENT.
EU-154	1.700E-02	1.450E-01	1.251E-01	7.400E-02	NOT IDENT.
EU-155	8.225E-02	1.307E-01	1.126E-01	6.670E-02	FAIL ABUN
TB-160	1.264E-03	1.862E-01	1.564E-01	9.499E-02	FAIL ABUN
HO-166M	-1.979E-02	7.018E-02	5.843E-02	3.581E-02	NOT IDENT.
TA-182	1.547E-01	2.419E-01	2.172E-01	1.234E-01	FAIL ABUN
IR-192	5.722E-03	3.928E-02	3.377E-02	2.004E-02	FAIL ABUN
HG-203	8.509E-02	4.753E-02	4.361E-02	2.425E-02	FAIL ABUN
BI-207	9.863E-03	6.661E-02	5.588E-02	3.398E-02	FAIL ABUN
PB-210	-1.698E+00	4.802E+00	4.077E+00	2.450E+00	NOT IDENT.
PB-211	-2.965E-01	8.913E-01	7.221E-01	4.547E-01	NOT IDENT.
BI-212	2.833E+00	9.617E-01	7.445E-01	4.906E-01	FAIL ABUN
RN-219	-1.941E-01	4.975E-01	4.062E-01	2.538E-01	FAIL ABUN
RA-223	2.346E-01	9.039E-01	6.869E-01	4.612E-01	FAIL ABUN
AC-227	2.818E-02	3.031E-01	2.628E-01	1.546E-01	FAIL ABUN
TH-227	2.818E-02	3.031E-01	2.628E-01	1.546E-01	FAIL ABUN
TH-229	-2.054E-01	6.125E-01	5.296E-01	3.125E-01	FAIL ABUN
PA-231	-2.863E-01	1.676E+00	1.424E+00	8.550E-01	FAIL ABUN
TH-231	2.346E-01	9.039E-01	6.869E-01	4.612E-01	FAIL ABUN
PA-233	-1.540E-02	7.460E-02	6.287E-02	3.806E-02	FAIL ABUN
PA-234	-3.012E-02	3.621E-01	2.996E-01	1.847E-01	FAIL ABUN
PA-234M	6.131E+00	6.232E+00	5.701E+00	3.179E+00	NOT IDENT.
TH-234	1.435E+00	1.778E+00	1.565E+00	9.070E-01	FAIL ABUN
U-238	1.435E+00	1.778E+00	1.565E+00	9.070E-01	FAIL ABUN
NP-239	-6.217E-01	5.006E-01	3.937E-01	2.554E-01	FAIL ABUN
AM-241	-1.499E-01	1.984E-01	1.658E-01	1.012E-01	NOT IDENT.
CM-247	-1.213E-02	4.537E-02	3.739E-02	2.315E-02	NOT IDENT.

CF-249	3.518E-02	5.347E-02	4.664E-02	2.728E-02	NOT IDENT.
CF-251	-3.598E-02	1.478E-01	1.289E-01	7.541E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	294.8298
49.72	299.8769
57.36	0.0000
59.54	375.9739
63.29	364.7665
63.29	364.7665
64.28	390.8196
67.75	373.9748
69.67	378.3883
70.83	361.4416
72.81	380.3383
72.87	380.3743
72.87	380.3743
74.82	381.5644
74.82	381.5644
74.82	381.5644
74.97	381.6544
77.11	382.9418
77.11	382.9418
77.11	382.9418
79.69	364.9211
79.80	378.0178
80.12	378.2018
80.19	378.2426
80.57	419.2426
81.00	466.8535
81.07	466.9037
81.07	466.9037
83.79	417.4453
83.79	417.4453
85.43	382.8540
86.48	472.3067
86.55	483.8735
86.79	465.9313
86.94	466.0328
87.57	346.1350
88.03	346.3641
88.47	346.5820
89.96	347.3190
91.11	331.3171
92.59	332.0023
92.59	332.0023
93.35	332.3532
94.67	332.9575
94.87	333.0490
94.87	333.0490
95.86	326.8292
97.43	327.5245
98.44	327.9701
99.53	320.0684
100.11	310.2524
103.18	348.5465
103.37	336.8439
105.31	328.6827
106.12	318.8831
109.28	335.9967
111.00	328.7826
111.76	375.6175
116.30	329.7773
117.23	356.4193
121.12	327.0800
121.78	320.4417
122.06	320.5461
123.07	325.5246
131.20	315.1978
133.52	307.2776
136.00	293.2324

136.47	298.6378
140.51	310.4936
140.51	0.0000
143.76	315.0933
144.24	309.0698
144.24	309.0698
145.44	288.2371
152.43	300.1072
153.25	300.3566
154.21	298.8629
154.21	298.8629
156.02	298.5084
158.56	308.2200
159.00	303.8720
162.66	300.4604
163.33	306.0576
165.86	300.4856
176.60	253.3904
177.52	273.6740
181.07	291.6411
184.41	279.0532
185.72	276.4371
193.51	274.8120
197.04	242.2323
205.31	261.6818
210.85	265.8803
215.65	242.3545
222.11	228.3094
227.38	244.4708
228.16	219.8705
228.18	219.8740
235.69	219.0333
235.96	226.7388
235.96	226.7388
238.63	226.4265
238.63	226.4265
240.99	226.8263
242.00	226.9973
244.70	183.5029
252.40	180.2712
252.80	179.3542
256.23	197.2889
256.23	197.2889
260.90	211.5962
264.66	183.0210
268.22	199.1568
269.46	189.9103
269.46	189.9103
271.23	221.5690
273.65	256.5658
276.40	220.7734
277.37	198.2366
277.60	187.4168
278.00	185.4928
279.20	171.8202
279.54	174.8232
280.46	208.5338
283.69	168.3762
284.31	164.4802
285.41	163.6102
285.90	173.5821
287.50	178.7311
293.27	0.0000
295.22	196.4006
295.96	196.4937
298.57	240.0330
299.98	240.2490
299.98	240.2490
300.09	184.2050
300.09	184.2050
300.13	184.2078
301.36	165.1169
302.85	147.6223
304.50	142.9584
304.50	142.9584
304.85	149.4176
308.46	139.8951
311.90	147.2565

316.51	138.5762
319.41	166.1821
320.08	165.2360
323.87	159.3194
323.87	159.3194
328.76	166.3128
333.37	167.5910
334.37	167.6886
334.37	167.6886
338.28	167.0541
338.28	167.0541
338.32	167.0566
338.32	167.0566
338.32	167.0566
340.48	160.9081
340.55	146.1351
344.28	172.7834
351.06	175.1148
351.93	183.4671
356.01	162.3556
364.49	136.2931
366.42	145.8127
383.85	145.1110
388.16	139.1221
388.63	134.9414
391.69	159.4467
400.66	111.4007
401.81	128.4517
402.40	125.3066
404.85	129.7199
410.95	122.6613
414.70	131.4476
423.72	115.9464
427.09	135.4996
427.87	126.9451
433.94	106.8265
453.88	108.9569
463.37	105.0718
468.07	100.0381
473.00	98.9497
476.78	102.4269
477.60	95.8545
487.02	81.8849
492.35	82.0825
497.08	96.7081
511.00	98.4260
514.00	98.5549
527.90	95.5449
529.87	0.0000
531.02	99.2820
537.26	85.9731
546.56	0.0000
563.25	80.5041
569.33	84.3723
569.50	81.6275
569.70	81.6340
583.19	74.6996
600.60	81.7158
602.73	91.6069
604.72	94.5579
609.32	77.3343
609.32	77.3343
609.32	77.3343
610.33	77.3647
614.28	48.2319
618.01	71.6729
621.93	61.7928
621.93	61.7928
633.25	79.9220
635.95	88.4738
636.99	90.3914
645.85	68.0186
657.76	77.4896
661.66	87.4180
661.66	87.4180
664.57	0.0000
666.33	72.9718
666.50	63.4570

677.62	70.7191
685.70	88.1749
695.00	81.7336
696.49	74.0787
696.51	74.0805
697.00	82.7519
702.65	78.0950
706.68	79.1692
711.68	69.6357
720.70	67.9099
721.93	0.0000
722.78	71.1956
722.91	71.1974
723.31	69.5898
724.19	71.2297
727.33	61.2574
733.00	76.3138
735.93	59.4854
739.50	70.2967
747.24	67.5412
752.31	84.3245
753.82	69.6514
756.73	72.6631
763.94	91.5355
765.81	106.3652
766.42	85.7001
777.92	77.1221
778.90	70.2217
783.70	70.3309
785.37	65.4135
795.86	53.0352
801.95	74.0137
810.29	61.9349
810.76	66.9395
815.77	51.0336
818.51	53.0802
832.01	92.5233
834.85	60.3926
836.80	0.0000
846.77	65.6633
856.80	54.0404
860.56	55.7922
871.09	52.9141
873.19	62.1110
875.33	0.0000
879.36	67.3245
880.51	67.3471
883.24	51.0620
884.68	62.3210
889.28	64.4504
898.04	58.4612
911.20	46.3282
911.20	46.3282
911.20	46.3282
926.50	53.7685
937.49	61.1952
944.13	65.4656
946.00	50.9440
949.00	46.8248
962.29	80.0676
964.08	63.7373
966.15	63.7730
968.97	63.8221
968.97	63.8221
968.97	63.8221
983.53	60.9241
996.26	62.1862
1001.03	45.3799
1004.73	71.8350
1037.84	47.9509
1038.76	0.0000
1048.07	59.8309
1050.41	40.6236
1050.41	40.6236
1063.66	50.4148
1085.87	57.1717
1099.45	54.1187
1112.07	59.7158

1115.54	56.1446
1120.29	54.3945
1120.29	54.3945
1120.29	54.3945
1120.55	54.3994
1121.30	54.4092
1131.51	0.0000
1173.23	58.7630
1177.93	48.7170
1189.05	75.5704
1204.77	57.3455
1221.41	56.6365
1231.02	66.9961
1235.36	62.2732
1238.28	64.3113
1260.41	0.0000
1271.85	51.6475
1274.44	40.4035
1274.54	43.2223
1291.59	37.7262
1298.22	0.0000
1312.11	47.3673
1332.49	32.3509
1365.19	40.2397
1368.63	0.0000
1384.29	16.4900
1408.01	33.8322
1457.56	0.0000
1460.82	9.7697
1489.16	19.6484
1505.03	25.6223
1596.21	18.0469
1620.50	20.1416
1678.03	0.0000
1690.97	6.1194
1764.49	10.3300
1764.49	10.3300
1764.49	10.3300
1770.23	5.3178
1771.35	53.7795
1791.20	0.0000
1836.06	8.3639

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249331007

Total Uranium Activity	4.2410E+00	ug/g
Total Uranium Counting Unc.	5.2896E+00	ug/g
Total Uranium Tpu	2.6988E-06	ug/g
Total Uranium Mda	4.6556E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G249331007       *
*   ANALYST       : MXR1                      DETECTOR   : GAM01            *
*   SAMPLE DATE   : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 09:21:09.72    SAMPLE ALQT:  122.740 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.135E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.809E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 4.536E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 2.205E+00
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VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:22:51.40

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331008.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:21:36
Sample ID         : G249331008           Sample quantity  : 1.28170E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.29  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	4	74.88*	474	403	0.85	149.94	145	21	6.58E-02	7.8	2.90E+00
2	4	77.16*	977	399	0.97	154.51	145	21	1.36E-01	4.6	
3	0	84.21*	143	383	1.49	168.61	166	6	1.99E-02	23.7	
4	0	87.23	313	427	1.05	174.65	172	6	4.35E-02	11.9	
5	0	89.76	134	450	0.90	179.70	178	6	1.86E-02	26.5	
6	0	93.19*	385	662	1.53	186.56	183	11	5.34E-02	14.5	
7	0	129.37	128	433	0.92	258.93	254	9	1.77E-02	30.8	
8	0	185.82*	300	427	1.32	371.84	367	10	4.17E-02	14.6	
9	0	209.21	151	319	0.99	418.61	415	8	2.10E-02	22.1	
10	9	238.51*	1632	252	0.95	477.21	473	18	2.27E-01	2.9	2.62E+00
11	9	241.38	443	299	1.70	482.96	473	18	6.16E-02	10.8	
12	0	270.53	144	334	1.50	541.26	535	11	2.00E-02	26.0	
13	0	277.28*	65	237	1.02	554.75	550	8	9.01E-03	43.6	
14	0	295.10	571	216	1.13	590.39	586	10	7.93E-02	6.4	
15	0	299.72*	98	138	0.90	599.63	596	7	1.36E-02	22.9	
16	0	327.72	86	154	0.71	655.62	651	8	1.20E-02	27.1	
17	0	338.25*	335	263	1.16	676.68	670	13	4.65E-02	11.5	
18	0	351.79*	944	241	1.14	703.76	697	13	1.31E-01	4.7	
19	0	409.16	61	161	1.74	818.49	814	10	8.41E-03	41.6	
20	0	463.02	112	134	1.96	926.21	921	12	1.56E-02	22.8	
21	0	510.62*	164	180	1.46	1021.39	1014	15	2.28E-02	21.6	
22	0	583.05*	438	147	1.13	1166.24	1160	11	6.08E-02	7.3	
23	0	609.09*	646	93	1.43	1218.31	1213	11	8.97E-02	5.0	
24	0	661.32	288	129	1.29	1322.76	1317	12	4.00E-02	9.8	
25	0	727.30	115	106	1.28	1454.68	1449	12	1.60E-02	20.3	
26	0	768.09	75	77	1.29	1536.25	1531	11	1.04E-02	25.4	
27	0	795.63	50	121	1.83	1591.33	1584	17	6.98E-03	53.1	
28	0	860.20	100	52	2.52	1720.44	1713	13	1.39E-02	17.9	
29	0	910.84*	338	82	1.41	1821.68	1814	15	4.70E-02	8.1	
30	0	933.82	51	35	1.19	1867.64	1862	12	7.04E-03	27.5	
31	1	964.46	41	98	1.76	1928.91	1923	26	5.68E-03	45.0	2.08E+00
32	1	968.63*	235	64	1.73	1937.23	1923	26	3.26E-02	9.2	
33	0	1119.88*	155	61	1.84	2239.65	2235	11	2.15E-02	12.8	
34	0	1238.03	72	65	1.59	2475.86	2470	11	1.00E-02	24.8	
35	0	1460.23*	1495	36	1.88	2920.06	2910	18	2.08E-01	2.8	
36	0	1587.13	39	18	2.56	3173.74	3169	11	5.47E-03	25.7	
37	0	1619.93	16	14	1.78	3239.29	3233	11	2.23E-03	51.3	
38	0	1763.82	119	7	1.88	3526.92	3519	13	1.65E-02	10.2	

Sample ID : G249331008 Acquisition date : 24-MAR-2010 09:21:36

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1846.56	30	3	1.96	3692.30	3685	13	4.19E-03	21.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 11:22:54

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331008.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:21:36
Sample ID : G249331008 Sample quantity : 128.17 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA16 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.29 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.400E+01	3.533E+00	5.376E-01	4.725E-02	63.242
CD-109	+	88.03	*	4.039E+00	1.033E+00	1.141E+00	1.099E-01	3.541
SN-126		64.28		6.264E-01	4.982E-01	8.144E-01	1.187E-01	0.769
	+	86.94		1.647E+00	7.882E-01	4.702E-01	1.954E-01	3.502
	+	87.57	*	3.961E-01	1.013E-01	1.124E-01	1.078E-02	3.525
BA-137M	+	661.66	*	3.905E-01	8.430E-02	6.413E-02	5.691E-03	6.089
CS-137	+	661.66	*	4.125E-01	8.908E-02	6.774E-02	6.023E-03	6.089
TL-208	+	277.37		6.134E-01	5.431E-01	5.883E-01	8.840E-02	1.043
	+	583.19	*	5.650E-01	1.000E-01	5.552E-02	5.497E-03	10.176
	+	860.56		1.220E+00	4.540E-01	4.939E-01	4.943E-02	2.471
BI-211		72.87		1.555E+00	3.151E+00	4.960E+00	4.032E-01	0.313
	+	351.06	*	5.433E+00	7.851E-01	3.116E-01	3.408E-02	17.434
BI-212	+	727.33	*	2.276E+00	9.681E-01	7.526E-01	9.644E-02	3.024
		785.37		2.406E+00	3.132E+00	5.561E+00	5.168E-01	0.433
	+	1620.50		2.865E+00	2.947E+00	3.359E+00	2.854E-01	0.853
PB-212	+	74.82		2.640E+00	5.332E-01	5.243E-01	6.702E-02	5.036
	+	77.11		3.117E+00	3.920E-01	3.009E-01	2.556E-02	10.358
	+	238.63	*	2.098E+00	2.778E-01	9.196E-02	1.092E-02	22.810
	+	300.09		1.962E+00	9.350E-01	1.288E+00	1.699E-01	1.524
BI-214	+	609.32	*	1.615E+00	2.354E-01	1.156E-01	1.228E-02	13.968
	+	1120.29		2.007E+00	5.594E-01	5.064E-01	5.461E-02	3.963
	+	1764.49		2.148E+00	4.728E-01	3.636E-01	3.009E-02	5.907
PB-214	+	74.82		4.680E+00	9.076E-01	9.293E-01	1.066E-01	5.036
	+	77.11		5.494E+00	8.264E-01	5.305E-01	6.280E-02	10.358
	+	242.00		3.455E+00	8.589E-01	5.594E-01	6.978E-02	6.176
	+	295.22		2.023E+00	3.753E-01	2.171E-01	2.925E-02	9.318
	+	351.93	*	1.972E+00	3.050E-01	1.133E-01	1.386E-02	17.396
RA-224	+	240.99	*	6.109E+00	1.477E+00	9.858E-01	1.086E-01	6.197
RA-226	+	609.32	*	1.615E+00	2.354E-01	1.156E-01	1.228E-02	13.968
	+	1120.29		2.007E+00	5.594E-01	5.064E-01	5.461E-02	3.963
	+	1764.49		2.148E+00	4.728E-01	3.636E-01	3.009E-02	5.907
AC-228	+	338.32		2.143E+00	1.031E+00	3.824E-01	1.615E-01	5.604
	+	911.20	*	2.104E+00	4.260E-01	2.196E-01	2.681E-02	9.584
	+	968.97		2.522E+00	7.738E-01	3.633E-01	8.935E-02	6.943

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	+	338.32		2.143E+00	1.031E+00	3.824E-01	1.615E-01	5.604
	+	911.20	*	2.104E+00	4.260E-01	2.196E-01	2.681E-02	9.584
	+	968.97		2.522E+00	7.738E-01	3.633E-01	8.935E-02	6.943
TH-228	+	74.82		2.640E+00	4.683E-01	5.243E-01	4.390E-02	5.036
	+	77.11		3.117E+00	3.920E-01	3.009E-01	2.556E-02	10.358
	+	238.63	*	2.098E+00	2.778E-01	9.196E-02	1.092E-02	22.810
	+	300.09		1.962E+00	1.508E+00	1.288E+00	7.949E-01	1.524
TH-229	+	85.43		4.723E-01	2.281E-01	2.924E-01	2.732E-02	1.615
	+	88.47		6.107E-01	1.562E-01	1.718E-01	1.647E-02	3.556
		193.51	*	1.695E-01	5.174E-01	8.573E-01	8.363E-02	0.198
		210.85		1.043E+00	9.573E-01	1.470E+00	1.501E-01	0.709
TH-230	+	609.32	*	1.615E+00	2.194E-01	1.156E-01	1.066E-02	13.968
	+	1120.29		2.007E+00	5.429E-01	5.064E-01	4.279E-02	3.963
	+	1764.49		2.148E+00	4.728E-01	3.636E-01	3.009E-02	5.907
TH-232	+	338.32		2.143E+00	5.452E-01	3.824E-01	4.173E-02	5.604
	+	911.20	*	2.104E+00	4.260E-01	2.196E-01	2.681E-02	9.584
	+	968.97		2.522E+00	7.738E-01	3.633E-01	8.935E-02	6.943
U-235	+	89.96		1.757E+00	1.028E+00	1.400E+00	3.487E-01	1.255
	+	93.35		3.042E+00	1.129E+00	6.615E-01	1.541E-01	4.599
		143.76	*	-3.718E-03	2.069E-01	3.392E-01	5.740E-02	-0.011
		163.33		3.903E-01	4.276E-01	7.217E-01	1.309E-01	0.541
	+	185.72		2.501E-01	7.695E-02	6.407E-02	6.121E-03	3.904
		205.31		1.807E-01	5.346E-01	7.904E-01	1.492E-01	0.229
NP-237	+	86.48	*	1.182E+00	3.910E-01	3.427E-01	7.883E-02	3.449
		95.86		1.469E-01	8.772E-01	1.347E+00	3.249E-01	0.109
ANH-511	+	511.00	*	1.618E-01	7.145E-02	4.568E-02	4.344E-03	3.542

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.001E-01	3.271E-01	5.312E-01	5.373E-02	-0.188
NA-22		1274.54	*	-4.643E-02	4.626E-02	6.679E-02	5.557E-03	-0.695
NA-24		1368.63	*	-7.708E-02	4.626E-02	Half-Life too short		
SC-46		889.28	*	-3.803E-03	3.582E-02	5.925E-02	5.601E-03	-0.064
	+	1120.55		3.333E-01	9.016E-02	1.477E-01	1.248E-02	2.256
V-48		944.13		-3.412E-02	7.715E-01	1.278E+00	1.194E-01	-0.027
		983.53	*	-2.390E-02	6.108E-02	9.730E-02	8.956E-03	-0.246
		1312.11		3.058E-02	7.012E-02	1.191E-01	1.000E-02	0.257
CR-51		320.08	*	8.925E-02	3.720E-01	5.899E-01	6.894E-02	0.151
MN-54		834.85	*	-1.794E-02	3.797E-02	6.141E-02	5.767E-03	-0.292
CO-56		846.77	*	-7.463E-04	3.759E-02	6.294E-02	5.923E-03	-0.012
		1037.84		-9.707E-02	2.981E-01	4.763E-01	4.473E-02	-0.204
	+	1238.28		2.553E-01	1.283E-01	1.891E-01	1.604E-02	1.351
		1771.35		1.880E-01	2.218E-01	4.069E-01	3.362E-02	0.462
CO-57		122.06	*	-1.368E-02	2.313E-02	3.778E-02	3.139E-03	-0.362
		136.47		-6.787E-02	1.943E-01	3.190E-01	2.897E-02	-0.213
CO-58		810.76	*	2.855E-02	3.704E-02	6.595E-02	6.179E-03	0.433
FE-59		1099.45	*	-1.126E-01	9.129E-02	1.310E-01	1.218E-02	-0.859

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1291.59		4.200E-02	1.147E-01	1.933E-01	1.845E-02	0.217
CO-60		1173.23		2.344E-02	4.770E-02	8.111E-02	6.522E-03	0.289
		1332.49	*	3.458E-02	3.989E-02	7.072E-02	5.966E-03	0.489
ZN-65		1115.54	*	-6.052E-02	1.043E-01	1.364E-01	1.159E-02	-0.444
SE-75		121.12		1.372E-02	1.183E-01	1.991E-01	2.159E-02	0.069
		136.00		-1.129E-02	3.759E-02	6.188E-02	5.253E-03	-0.182
		264.66	*	-2.747E-03	4.795E-02	6.812E-02	7.950E-03	-0.040
		279.54		-1.578E-02	1.207E-01	1.698E-01	2.078E-02	-0.093
		400.66		1.084E-01	2.700E-01	4.617E-01	5.363E-02	0.235
SR-85		514.00	*	3.840E-02	3.887E-02	6.114E-02	5.813E-03	0.628
Y-88		898.04		1.241E-02	3.966E-02	6.797E-02	6.455E-03	0.183
		1836.06	*	9.929E-03	3.000E-02	5.257E-02	4.268E-03	0.189
Y-91		1204.77	*	-1.461E+01	2.240E+01	3.434E+01	2.793E+00	-0.425
NB-94		702.65	*	1.132E-02	3.412E-02	5.637E-02	5.096E-03	0.201
		871.09		-2.302E-03	3.316E-02	5.515E-02	5.206E-03	-0.042
NB-95		765.81	*	1.741E-02	5.123E-02	7.396E-02	6.837E-03	0.235
NB-95M		235.69	*	-6.183E-05	1.348E-01	1.941E-01	2.311E-02	0.000
ZR-95		724.19		1.928E-02	1.020E-01	1.460E-01	1.432E-02	0.132
		756.73	*	-3.044E-02	6.888E-02	1.054E-01	1.061E-02	-0.289
MO-99		140.51		-1.046E+01	1.262E+01	1.963E+01	4.653E+00	-0.533
		181.07		-7.330E+00	1.107E+01	1.549E+01	2.971E+00	-0.473
		366.42		8.404E+00	5.648E+01	9.601E+01	9.711E+00	0.088
		739.50	*	-4.155E+00	6.933E+00	1.043E+01	1.675E+00	-0.398
		777.92		-8.886E+00	1.919E+01	2.915E+01	2.704E+00	-0.305
TC-99M		140.51	*	-6.712E+07	1.919E+01	Half-Life too short		
RU-103		497.08	*	3.281E-04	3.667E-02	6.062E-02	8.812E-03	0.005
	+	610.33		1.603E+01	3.114E+00	3.024E+00	5.039E-01	5.300
RH-106		621.93	*	7.387E-02	3.125E-01	5.171E-01	7.034E-02	0.143
		1050.41		1.587E+00	2.443E+00	4.268E+00	3.794E-01	0.372
RU-106		621.93	*	7.387E-02	3.124E-01	5.171E-01	4.729E-02	0.143
		1050.41		1.587E+00	2.443E+00	4.268E+00	3.794E-01	0.372
AG-108M		433.94	*	-1.362E-02	3.077E-02	4.992E-02	4.830E-03	-0.273
		614.28		4.423E-02	3.627E-02	5.824E-02	5.506E-03	0.760
		722.91		-2.181E-02	4.213E-02	5.514E-02	5.169E-03	-0.396
AG-110M		657.76	*	2.350E-03	4.332E-02	6.159E-02	5.638E-03	0.038
		677.62		-1.194E-01	3.168E-01	4.949E-01	4.544E-02	-0.241
		706.68		7.917E-02	2.195E-01	3.630E-01	3.373E-02	0.218
		763.94		1.868E-01	1.741E-01	2.730E-01	2.582E-02	0.684
		884.68		1.418E-02	4.669E-02	8.008E-02	7.771E-03	0.177
		937.49		1.468E-02	1.081E-01	1.595E-01	1.539E-02	0.092
		1384.29		-1.120E-01	1.425E-01	2.005E-01	1.750E-02	-0.559
		1505.03		-8.430E-02	2.665E-01	4.265E-01	3.647E-02	-0.198
SN-113		391.69	*	-2.356E-02	4.044E-02	6.535E-02	6.203E-03	-0.360
CD-115		260.90		-1.324E+01	6.812E+01	1.081E+02	1.248E+01	-0.122
		492.35		-8.522E-01	1.815E+01	2.991E+01	2.846E+00	-0.028
		527.90	*	1.236E+00	5.492E+00	9.185E+00	8.718E-01	0.135
SN-117M		156.02		-1.597E+00	1.995E+00	3.188E+00	2.812E-01	-0.501
		158.56	*	-3.439E-02	4.644E-02	7.352E-02	6.530E-03	-0.468
TE-123M		159.00	*	-2.232E-02	2.701E-02	4.259E-02	3.809E-03	-0.524

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-124		602.73		6.953E-05	4.094E-02	6.167E-02	5.705E-03	0.001
		645.85		4.974E-03	4.810E-01	7.800E-01	7.385E-02	0.006
		722.78		-3.218E-01	4.288E-01	5.444E-01	5.062E-02	-0.591
		1690.97	*	3.416E-02	6.506E-02	1.182E-01	1.038E-02	0.289
SB-125		427.87	*	3.324E-03	8.611E-02	1.441E-01	1.376E-02	0.023
	+	463.37		9.800E-01	4.570E-01	5.684E-01	5.731E-02	1.724
		600.60		-1.430E-02	1.759E-01	2.848E-01	2.807E-02	-0.050
		635.95		2.376E-02	2.738E-01	4.472E-01	4.350E-02	0.053
TE-125M		109.28	*	4.631E+00	8.608E+00	1.476E+01	1.525E+00	0.314
I-126		388.63		8.637E-02	1.350E-01	2.351E-01	2.199E-02	0.367
		666.33	*	1.403E-01	2.383E-01	3.566E-01	3.172E-02	0.393
		753.82		2.533E+00	1.565E+00	2.833E+00	2.609E-01	0.894
SB-126		414.70		1.547E-02	6.846E-02	1.081E-01	1.011E-02	0.143
		666.50		6.793E-02	7.900E-02	1.214E-01	1.079E-02	0.560
		695.00		-2.956E-02	7.523E-02	1.175E-01	1.059E-02	-0.252
		697.00		7.149E-02	2.430E-01	4.004E-01	3.611E-02	0.179
		720.70	*	-3.068E-02	1.417E-01	2.053E-01	1.869E-02	-0.149
		856.80		2.144E-01	4.423E-01	6.821E-01	6.427E-02	0.314
SB-127		252.40		2.903E-01	2.755E+00	4.452E+00	1.870E+00	0.065
		473.00		-7.358E-01	1.096E+00	1.728E+00	2.222E-01	-0.426
		685.70	*	3.035E-01	9.309E-01	1.539E+00	1.699E-01	0.197
		783.70		4.062E+00	2.429E+00	4.338E+00	5.330E-01	0.936
I-131		80.19		-2.038E+00	3.633E+00	5.447E+00	4.808E-01	-0.374
		284.31		-3.226E-01	1.218E+00	1.912E+00	2.344E-01	-0.169
		364.49	*	1.129E-01	9.617E-02	1.710E-01	1.805E-02	0.661
		636.99		3.658E-01	1.286E+00	2.134E+00	2.029E-01	0.171
TE-132		49.72		-9.907E-01	1.094E+01	1.711E+01	1.707E+00	-0.058
		111.76		1.086E-01	1.852E+01	3.115E+01	3.184E+00	0.003
		116.30		2.237E+01	1.664E+01	2.908E+01	2.958E+00	0.769
		228.16	*	-2.331E-01	4.670E-01	7.354E-01	1.224E-01	-0.317
BA-133		81.00		-6.883E-02	9.048E-02	1.335E-01	2.091E-02	-0.515
	+	276.40		5.667E-01	5.031E-01	6.642E-01	1.086E-01	0.853
		302.85		1.295E-01	1.593E-01	2.371E-01	3.616E-02	0.546
		356.01	*	-1.783E-02	4.308E-02	6.197E-02	8.814E-03	-0.288
		383.85		-7.011E-02	2.859E-01	4.695E-01	6.137E-02	-0.149
I-133		529.87	*	-3.123E-04	2.859E-01	Half-Life too short		
		875.33		-3.363E-03	2.859E-01	Half-Life too short		
		1298.22		-8.742E-03	2.859E-01	Half-Life too short		
CS-134		563.25		2.211E-01	3.628E-01	6.187E-01	5.869E-02	0.357
		569.33		5.171E-02	1.905E-01	3.178E-01	3.019E-02	0.163
		604.72		-6.044E-04	3.685E-02	5.242E-02	4.854E-03	-0.012
	+	795.86	*	9.419E-02	1.005E-01	9.547E-02	8.951E-03	0.987
		801.95		-1.194E-01	4.413E-01	6.224E-01	5.836E-02	-0.192
		1365.19		8.104E-01	1.194E+00	2.094E+00	1.860E-01	0.387
CS-135		268.22	*	1.918E-01	1.822E-01	2.759E-01	3.518E-02	0.695
I-135		546.56		2.788E+07	1.822E-01	Half-Life too short		
		836.80		6.967E+07	1.822E-01	Half-Life too short		
		1038.76		-4.268E+07	1.822E-01	Half-Life too short		
		1131.51		-1.163E+07	1.822E-01	Half-Life too short		

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		1260.41	*	-2.260E+06	1.822E-01	Half-Life too short		
		1457.56		3.506E+09	1.822E-01	Half-Life too short		
		1678.03		3.995E+06	1.822E-01	Half-Life too short		
		1791.20		1.139E+07	1.822E-01	Half-Life too short		
CS-136		153.25		1.061E+00	7.392E-01	1.278E+00	1.326E-01	0.830
		176.60		-1.518E-01	4.338E-01	7.016E-01	7.122E-02	-0.216
		273.65		1.546E-02	6.433E-01	7.202E-01	8.937E-02	0.021
		340.55		2.142E-01	1.322E-01	2.170E-01	2.413E-02	0.987
		818.51		4.294E-02	6.201E-02	1.100E-01	1.031E-02	0.390
		1048.07	*	-2.122E-02	9.813E-02	1.586E-01	1.467E-02	-0.134
		1235.36		5.504E-01	6.806E-01	1.031E+00	1.183E-01	0.534
CE-139		165.86	*	-2.356E-02	2.856E-02	4.532E-02	4.111E-03	-0.520
BA-140		162.66		5.858E-01	6.972E-01	1.186E+00	1.132E-01	0.494
		304.85		5.636E-01	1.208E+00	1.952E+00	5.914E-01	0.289
		423.72		-2.130E-01	1.736E+00	2.876E+00	9.521E-01	-0.074
		537.26	*	-2.290E-01	2.378E-01	3.391E-01	1.158E-01	-0.675
LA-140	+	328.76		6.061E-01	3.358E-01	4.821E-01	5.559E-02	1.257
		487.02		9.607E-02	1.204E-01	2.092E-01	2.092E-02	0.459
		815.77		-2.844E-01	2.787E-01	4.245E-01	4.371E-02	-0.670
		1596.21	*	-9.065E-02	9.029E-02	1.310E-01	1.116E-02	-0.692
CE-141		145.44	*	6.592E-02	5.947E-02	1.023E-01	8.950E-03	0.644
CE-143		57.36		-7.441E-05	5.947E-02	Half-Life too short		
		293.27	*	2.190E-04	5.947E-02	Half-Life too short		
		664.57		1.785E-04	5.947E-02	Half-Life too short		
		721.93		-4.738E-04	5.947E-02	Half-Life too short		
CE-144		80.12		-1.268E+00	2.370E+00	3.558E+00	3.124E-01	-0.356
		133.52	*	1.799E-01	1.993E-01	3.099E-01	4.697E-02	0.581
PM-144		476.78		1.440E-02	6.558E-02	1.102E-01	1.122E-02	0.131
		618.01		-5.543E-03	3.299E-02	5.294E-02	4.973E-03	-0.105
		696.49	*	-1.881E-02	3.675E-02	5.676E-02	5.119E-03	-0.331
PR-144		696.51	*	-1.398E+00	2.748E+00	4.245E+00	3.828E-01	-0.329
		1489.16		1.455E+00	1.283E+01	2.179E+01	1.863E+00	0.067
PM-146		453.88	*	2.383E-02	4.111E-02	7.074E-02	7.990E-03	0.337
		633.25		3.229E-01	1.390E+00	2.291E+00	8.773E-01	0.141
		735.93		7.638E-03	1.455E-01	2.344E-01	6.608E-02	0.033
		747.24		-7.026E-03	9.139E-02	1.452E-01	2.168E-02	-0.048
ND-147	+	91.11		4.942E-01	2.664E-01	4.058E-01	4.058E-02	1.218
		319.41		4.652E-01	3.052E+00	4.816E+00	5.468E-01	0.097
		531.02	*	1.134E-01	5.005E-01	8.356E-01	1.292E-01	0.136
PM-149		285.90	*	-5.257E+01	4.743E+01	6.923E+01	1.218E+01	-0.759
EU-152		121.78		-1.692E-02	6.618E-02	1.097E-01	1.056E-02	-0.154
		244.70		-2.427E-03	3.205E-01	4.598E-01	5.112E-02	-0.005
		344.28	*	-1.643E-02	9.830E-02	1.530E-01	1.710E-02	-0.107
		778.90		-3.449E-01	2.618E-01	3.596E-01	3.336E-02	-0.959
	+	964.08		4.725E-01	4.274E-01	5.643E-01	5.235E-02	0.837
		1085.87		-7.089E-02	3.605E-01	5.806E-01	5.040E-02	-0.122
		1112.07		-1.800E-01	3.315E-01	5.175E-01	4.402E-02	-0.348
		1408.01		3.330E-01	1.936E-01	3.699E-01	3.150E-02	0.900
GD-153		69.67		4.849E-01	1.603E+00	2.661E+00	2.097E-01	0.182

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		97.43	*	-7.757E-02	8.425E-02	1.220E-01	1.084E-02	-0.636
		103.18		-3.842E-02	1.036E-01	1.724E-01	1.486E-02	-0.223
EU-154		123.07		2.296E-02	4.720E-02	8.043E-02	8.939E-03	0.285
		723.31		-9.630E-02	1.911E-01	2.505E-01	2.491E-02	-0.384
		873.19		7.970E-02	2.802E-01	4.796E-01	5.996E-02	0.166
		996.26		-2.397E-01	3.410E-01	5.211E-01	9.243E-02	-0.460
		1004.73		1.498E-01	2.251E-01	3.918E-01	4.705E-02	0.382
		1274.44	*	-1.148E-01	1.304E-01	1.908E-01	2.127E-02	-0.602
EU-155	+	86.55		4.799E-01	1.229E-01	1.848E-01	1.765E-02	2.597
		105.31	*	1.168E-01	1.009E-01	1.762E-01	1.524E-02	0.663
TB-160	+	86.79		1.247E+00	3.192E-01	4.856E-01	4.612E-02	2.569
		197.04		-1.098E-01	5.571E-01	8.839E-01	8.704E-02	-0.124
		215.65		6.222E-01	7.118E-01	1.198E+00	1.239E-01	0.519
	+	298.57		2.705E-01	1.278E-01	1.921E-01	2.256E-02	1.408
		879.36	*	1.462E-02	1.382E-01	2.331E-01	2.202E-02	0.063
		962.29		7.306E-01	6.009E-01	9.833E-01	9.128E-02	0.743
		966.15		1.223E+00	2.785E-01	5.300E-01	4.913E-02	2.307
		1177.93		2.299E-01	3.866E-01	6.615E-01	5.328E-02	0.348
		1271.85		6.355E-01	6.719E-01	1.194E+00	9.920E-02	0.532
HO-166M		80.57		-1.722E-01	2.582E-01	3.850E-01	3.397E-02	-0.447
	+	184.41		1.987E-01	6.113E-02	6.875E-02	6.544E-03	2.891
		280.46		4.070E-02	9.244E-02	1.356E-01	1.626E-02	0.300
		410.95		2.774E-01	2.703E-01	4.292E-01	4.007E-02	0.646
		711.68	*	-3.743E-02	6.276E-02	9.561E-02	8.675E-03	-0.391
		752.31		-5.840E-02	2.869E-01	4.509E-01	4.151E-02	-0.130
		810.29		2.578E-02	5.765E-02	1.004E-01	9.381E-03	0.257
TA-182		67.75		-8.074E-02	1.069E-01	1.598E-01	1.236E-02	-0.505
		100.11		9.064E-02	1.629E-01	2.804E-01	2.453E-02	0.323
		152.43		-8.305E-02	3.337E-01	5.472E-01	4.781E-02	-0.152
		222.11		6.799E-02	3.364E-01	5.505E-01	5.790E-02	0.123
	+	1121.30		9.279E-01	2.510E-01	3.968E-01	3.350E-02	2.338
		1189.05		5.415E-02	3.267E-01	5.405E-01	4.371E-02	0.100
		1221.41	*	-9.970E-02	2.000E-01	3.108E-01	2.542E-02	-0.321
		1231.02		1.454E-03	5.517E-01	8.130E-01	6.669E-02	0.002
IR-192	+	295.96		1.465E+00	2.549E-01	3.162E-01	3.740E-02	4.632
		308.46		2.321E-02	9.482E-02	1.527E-01	1.771E-02	0.152
		316.51	*	-1.331E-02	3.315E-02	5.106E-02	5.836E-03	-0.261
		468.07		5.062E-02	6.863E-02	1.068E-01	1.076E-02	0.474
HG-203		70.83		1.399E+00	1.275E+00	2.033E+00	3.195E-01	0.688
		72.87		3.745E-01	7.605E-01	1.195E+00	1.824E-01	0.313
		279.20	*	-2.652E-04	4.312E-02	6.019E-02	7.324E-03	-0.004
BI-207		72.81		8.855E-02	1.815E-01	2.856E-01	2.320E-02	0.310
	+	74.97		7.609E-01	1.347E-01	2.239E-01	1.859E-02	3.399
		569.70		1.301E-02	2.968E-02	5.010E-02	4.704E-03	0.260
		1063.66	*	6.539E-02	5.483E-02	9.903E-02	8.729E-03	0.660
		1770.23		4.913E-01	4.491E-01	8.321E-01	6.877E-02	0.590
PB-210		46.54	*	1.672E+00	3.474E+00	5.540E+00	5.122E-01	0.302
PB-211		404.85	*	-1.406E-01	8.738E-01	1.271E+00	6.165E-01	-0.111
		427.09		8.264E-02	1.445E+00	2.420E+00	1.123E+00	0.034

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		832.01		-2.482E-01	9.917E-01	1.618E+00	8.413E-01	-0.153
RN-219	+	271.23		8.175E-01	4.378E-01	4.821E-01	6.291E-02	1.696
		401.81	*	-2.574E-02	4.372E-01	7.307E-01	1.116E-01	-0.035
RA-223		81.07		-1.622E-01	2.038E-01	3.018E-01	2.678E-02	-0.537
	+	83.79		2.811E-01	1.358E-01	1.985E-01	1.819E-02	1.416
		94.87		6.266E-01	4.486E-01	7.211E-01	6.520E-02	0.869
		144.24		1.845E-01	6.941E-01	1.149E+00	1.100E-01	0.161
		154.21		7.430E-01	3.810E-01	6.663E-01	6.390E-02	1.115
	+	269.46		6.352E-01	3.385E-01	3.739E-01	4.445E-02	1.699
		323.87	*	-1.720E-01	7.546E-01	1.039E+00	1.951E-01	-0.166
	+	338.28		8.502E+00	2.280E+00	2.573E+00	3.552E-01	3.304
AC-227		79.69		-4.861E-01	1.197E+00	1.806E+00	3.124E-01	-0.269
		235.96		1.999E-02	1.696E-01	2.458E-01	3.022E-02	0.081
		256.23	*	-1.374E-01	2.430E-01	3.766E-01	5.344E-02	-0.365
	+	299.98		2.158E+00	1.040E+00	1.550E+00	2.322E-01	1.393
		304.50		1.246E+00	1.667E+00	2.738E+00	5.006E-01	0.455
		334.37		-9.089E-01	1.825E+00	2.626E+00	4.472E-01	-0.346
TH-227		79.80		-6.921E-01	1.579E+00	2.374E+00	5.182E-01	-0.292
		235.96		1.999E-02	1.695E-01	2.458E-01	2.902E-02	0.081
		256.23	*	-1.374E-01	2.432E-01	3.766E-01	5.850E-02	-0.365
	+	299.98		2.158E+00	1.040E+00	1.550E+00	2.322E-01	1.393
		304.50		1.246E+00	1.667E+00	2.738E+00	5.006E-01	0.455
		334.37		-9.089E-01	1.825E+00	2.626E+00	4.472E-01	-0.346
PA-231		283.69	*	-8.690E-01	1.478E+00	2.268E+00	3.804E-01	-0.383
		301.36		7.140E-01	6.794E-01	1.006E+00	1.458E-01	0.710
TH-231		81.07		-1.622E-01	2.038E-01	3.018E-01	2.678E-02	-0.537
	+	83.79		2.811E-01	1.358E-01	1.985E-01	1.819E-02	1.416
		94.87		6.266E-01	4.486E-01	7.211E-01	6.520E-02	0.869
		144.24		1.845E-01	6.941E-01	1.149E+00	1.100E-01	0.161
		154.21		7.430E-01	3.810E-01	6.663E-01	6.390E-02	1.115
	+	269.46		6.352E-01	3.385E-01	3.739E-01	4.445E-02	1.699
		323.87	*	-1.720E-01	7.546E-01	1.039E+00	1.951E-01	-0.166
	+	338.28		8.502E+00	2.280E+00	2.573E+00	3.552E-01	3.304
PA-233	+	300.13		9.767E-01	4.764E-01	7.053E-01	1.186E-01	1.385
		311.90	*	4.628E-02	6.630E-02	1.092E-01	1.276E-02	0.424
		340.48		1.114E+00	6.871E-01	1.056E+00	2.635E-01	1.055
PA-234	+	94.67		1.085E+00	3.429E-01	2.754E-01	3.500E-02	3.940
		98.44		8.541E-02	1.027E-01	1.447E-01	8.077E-02	0.590
		111.00		-7.339E-02	1.673E-01	2.764E-01	3.299E-02	-0.266
		131.20		-4.294E-03	1.054E-01	1.575E-01	1.317E-02	-0.027
		569.50		8.473E-02	2.641E-01	4.422E-01	4.152E-02	0.192
		733.00		8.649E-02	4.275E-01	6.124E-01	1.372E-01	0.141
		880.51		-5.393E-02	2.750E-01	4.518E-01	4.268E-02	-0.119
		883.24		1.981E-02	2.800E-01	4.703E-01	3.167E-01	0.042
		926.50		-1.095E-02	1.674E-01	2.612E-01	6.673E-02	-0.042
		946.00	*	-6.770E-02	2.966E-01	4.825E-01	9.218E-02	-0.140
		949.00		2.606E-01	4.288E-01	7.501E-01	6.996E-02	0.347
PA-234M		766.42		1.300E+01	1.585E+01	2.191E+01	1.114E+01	0.593
		1001.03	*	-1.498E+00	4.885E+00	7.951E+00	8.278E-01	-0.188

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	1.725E+00	1.381E+00	2.238E+00	3.990E-01	0.771
	+	92.59		4.027E+00	1.470E+00	1.342E+00	2.996E-01	3.000
U-238		63.29	*	1.725E+00	1.381E+00	2.238E+00	3.990E-01	0.771
	+	92.59		4.027E+00	1.221E+00	1.342E+00	1.236E-01	3.000
NP-239		99.53		1.641E-01	1.514E-01	2.646E-01	2.321E-02	0.620
		103.37		8.770E-03	9.369E-02	1.587E-01	1.366E-02	0.055
		106.12		7.103E-02	8.015E-02	1.390E-01	1.184E-02	0.511
		117.23	*	3.001E-02	3.747E-01	6.307E-01	5.250E-02	0.048
		228.18		-1.126E-01	2.236E-01	3.528E-01	3.768E-02	-0.319
	+	277.60		2.804E-01	2.469E-01	3.312E-01	3.965E-02	0.846
AM-241		59.54	*	3.972E-02	1.495E-01	2.347E-01	1.842E-02	0.169
CM-247	+	278.00		1.191E+00	1.049E+00	1.397E+00	1.674E-01	0.852
		287.50		1.116E+00	1.227E+00	2.048E+00	2.438E-01	0.545
		402.40	*	7.297E-03	4.034E-02	6.825E-02	6.346E-03	0.107
CF-249		252.80		-4.114E-01	9.322E-01	1.460E+00	1.655E-01	-0.282
		333.37		2.327E-02	1.981E-01	2.994E-01	3.305E-02	0.078
		388.16	*	1.104E-02	3.718E-02	6.355E-02	5.957E-03	0.174
CF-251		177.52	*	7.479E-02	1.245E-01	2.095E-01	1.958E-02	0.357
		227.38		2.744E-01	3.536E-01	5.915E-01	6.304E-02	0.464
		285.41		-5.539E-01	2.183E+00	3.429E+00	4.092E-01	-0.162

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331008       *
* Acquisition date : 24-MAR-2010 09:21:36 Detector SN#    :                 *
* Detector ID       : GAM16                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.29      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 11-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G249331008           Analyst initials: MXR1           *
* Batch Number      : 965250               Sample Quantity : 1.2817E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.400E+01	3.463E+00	5.376E-01	0.000E+00
CD-109	4.039E+00	1.013E+00	1.191E+00	0.000E+00
SN-126	3.961E-01	9.932E-02	1.173E-01	0.000E+00
BA-137M	3.905E-01	8.261E-02	6.493E-02	0.000E+00
CS-137	4.125E-01	8.730E-02	6.860E-02	0.000E+00
TL-208	5.650E-01	9.800E-02	5.633E-02	0.000E+00
BI-211	5.433E+00	7.694E-01	3.186E-01	0.000E+00
BI-212	2.276E+00	9.487E-01	7.610E-01	0.000E+00
PB-212	2.098E+00	2.723E-01	9.458E-02	0.000E+00
BI-214	1.615E+00	2.307E-01	1.172E-01	0.000E+00
PB-214	1.972E+00	2.989E-01	1.159E-01	0.000E+00
RA-224	6.109E+00	1.447E+00	1.014E+00	0.000E+00
RA-226	1.615E+00	2.307E-01	1.172E-01	0.000E+00
AC-228	2.104E+00	4.175E-01	2.212E-01	0.000E+00
RA-228	2.104E+00	4.175E-01	2.212E-01	0.000E+00
TH-228	2.098E+00	2.723E-01	9.458E-02	0.000E+00
TH-229	1.695E-01	5.070E-01	8.845E-01	0.000E+00
TH-230	1.615E+00	2.150E-01	1.172E-01	0.000E+00
TH-232	2.104E+00	4.175E-01	2.212E-01	0.000E+00
U-235	-3.718E-03	2.028E-01	3.515E-01	0.000E+00
NP-237	1.182E+00	3.832E-01	3.578E-01	0.000E+00
ANH-511	1.618E-01	7.002E-02	4.644E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-1.001E-01	3.206E-01	5.406E-01	0.000E+00	NOT IDENT.
NA-22	-4.643E-02	4.534E-02	6.694E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.697E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-3.803E-03	3.510E-02	5.972E-02	0.000E+00	FAIL ABUN
V-48	-2.390E-02	5.985E-02	9.792E-02	0.000E+00	NOT IDENT.

CR-51	8.925E-02	3.646E-01	6.040E-01	0.000E+00	NOT IDENT.
MN-54	-1.794E-02	3.721E-02	6.196E-02	0.000E+00	NOT IDENT.
CO-56	-7.463E-04	3.684E-02	6.349E-02	0.000E+00	FAIL ABUN
CO-57	-1.368E-02	2.267E-02	3.924E-02	0.000E+00	NOT IDENT.
CO-58	2.855E-02	3.630E-02	6.657E-02	0.000E+00	NOT IDENT.
FE-59	-1.126E-01	8.947E-02	1.316E-01	0.000E+00	NOT IDENT.
CO-60	3.458E-02	3.909E-02	7.083E-02	0.000E+00	NOT IDENT.
ZN-65	-6.052E-02	1.022E-01	1.370E-01	0.000E+00	NOT IDENT.
SE-75	-2.747E-03	4.699E-02	6.995E-02	0.000E+00	NOT IDENT.
SR-85	3.840E-02	3.809E-02	6.215E-02	0.000E+00	NOT IDENT.
Y-88	9.929E-03	2.940E-02	5.239E-02	0.000E+00	NOT IDENT.
Y-91	-1.461E+01	2.195E+01	3.445E+01	0.000E+00	NOT IDENT.
NB-94	1.132E-02	3.344E-02	5.702E-02	0.000E+00	NOT IDENT.
NB-95	1.741E-02	5.021E-02	7.473E-02	0.000E+00	NOT IDENT.
NB-95M	-6.183E-05	1.321E-01	1.996E-01	0.000E+00	NOT IDENT.
ZR-95	-3.044E-02	6.750E-02	1.065E-01	0.000E+00	NOT IDENT.
MO-99	-4.155E+00	6.794E+00	1.054E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	7.957E+13	0.000E+00	0.000E+00	SHORT HLIF
RU-103	3.281E-04	3.593E-02	6.166E-02	0.000E+00	FAIL ABUN
RH-106	7.387E-02	3.063E-01	5.241E-01	0.000E+00	NOT IDENT.
RU-106	7.387E-02	3.062E-01	5.241E-01	0.000E+00	NOT IDENT.
AG-108M	-1.362E-02	3.015E-02	5.087E-02	0.000E+00	NOT IDENT.
AG-110M	2.350E-03	4.245E-02	6.237E-02	0.000E+00	NOT IDENT.
SN-113	-2.356E-02	3.963E-02	6.671E-02	0.000E+00	NOT IDENT.
CD-115	1.236E+00	5.383E+00	9.333E+00	0.000E+00	NOT IDENT.
SN-117M	-3.439E-02	4.551E-02	7.608E-02	0.000E+00	NOT IDENT.
TE-123M	-2.232E-02	2.647E-02	4.407E-02	0.000E+00	NOT IDENT.
SB-124	3.416E-02	6.376E-02	1.180E-01	0.000E+00	NOT IDENT.
SB-125	3.324E-03	8.438E-02	1.469E-01	0.000E+00	FAIL ABUN
TE-125M	4.631E+00	8.436E+00	1.536E+01	0.000E+00	NOT IDENT.
I-126	1.403E-01	2.335E-01	3.611E-01	0.000E+00	NOT IDENT.
SB-126	-3.068E-02	1.389E-01	2.076E-01	0.000E+00	NOT IDENT.
SB-127	3.035E-01	9.122E-01	1.558E+00	0.000E+00	NOT IDENT.
I-131	1.129E-01	9.424E-02	1.747E-01	0.000E+00	NOT IDENT.
TE-132	-2.331E-01	4.576E-01	7.569E-01	0.000E+00	NOT IDENT.
BA-133	-1.783E-02	4.221E-02	6.335E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.003E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	9.419E-02	9.848E-02	9.640E-02	0.000E+00	FAIL ABUN
CS-135	1.918E-01	1.786E-01	2.832E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.279E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.122E-02	9.617E-02	1.594E-01	0.000E+00	NOT IDENT.
CE-139	-2.356E-02	2.799E-02	4.687E-02	0.000E+00	NOT IDENT.
BA-140	-2.290E-01	2.330E-01	3.445E-01	0.000E+00	NOT IDENT.
LA-140	-9.065E-02	8.849E-02	1.308E-01	0.000E+00	FAIL ABUN
CE-141	6.592E-02	5.828E-02	1.060E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.208E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.799E-01	1.953E-01	3.214E-01	0.000E+00	NOT IDENT.
PM-144	-1.881E-02	3.602E-02	5.743E-02	0.000E+00	NOT IDENT.
PR-144	-1.398E+00	2.693E+00	4.295E+00	0.000E+00	NOT IDENT.
PM-146	2.383E-02	4.029E-02	7.204E-02	0.000E+00	NOT IDENT.
ND-147	1.134E-01	4.905E-01	8.490E-01	0.000E+00	FAIL ABUN
PM-149	-5.257E+01	4.648E+01	7.101E+01	0.000E+00	NOT IDENT.
EU-152	-1.643E-02	9.634E-02	1.565E-01	0.000E+00	FAIL ABUN
GD-153	-7.757E-02	8.257E-02	1.271E-01	0.000E+00	NOT IDENT.
EU-154	-1.148E-01	1.278E-01	1.912E-01	0.000E+00	NOT IDENT.
EU-155	1.168E-01	9.891E-02	1.835E-01	0.000E+00	FAIL ABUN
TB-160	1.462E-02	1.354E-01	2.350E-01	0.000E+00	FAIL ABUN
HO-166M	-3.743E-02	6.151E-02	9.671E-02	0.000E+00	FAIL ABUN
TA-182	-9.970E-02	1.960E-01	3.117E-01	0.000E+00	FAIL ABUN
IR-192	-1.331E-02	3.249E-02	5.230E-02	0.000E+00	FAIL ABUN
HG-203	-2.652E-04	4.225E-02	6.175E-02	0.000E+00	NOT IDENT.
BI-207	6.539E-02	5.374E-02	9.953E-02	0.000E+00	FAIL ABUN
PB-210	1.672E+00	3.404E+00	5.836E+00	0.000E+00	NOT IDENT.
PB-211	-1.406E-01	8.563E-01	1.296E+00	0.000E+00	NOT IDENT.
RN-219	-2.574E-02	4.284E-01	7.456E-01	0.000E+00	FAIL ABUN
RA-223	-1.720E-01	7.396E-01	1.064E+00	0.000E+00	FAIL ABUN
AC-227	-1.374E-01	2.382E-01	3.869E-01	0.000E+00	FAIL ABUN
TH-227	-1.374E-01	2.383E-01	3.869E-01	0.000E+00	FAIL ABUN
PA-231	-8.690E-01	1.449E+00	2.326E+00	0.000E+00	NOT IDENT.
TH-231	-1.720E-01	7.396E-01	1.064E+00	0.000E+00	FAIL ABUN
PA-233	4.628E-02	6.497E-02	1.118E-01	0.000E+00	FAIL ABUN
PA-234	-6.770E-02	2.907E-01	4.859E-01	0.000E+00	FAIL ABUN
PA-234M	-1.498E+00	4.787E+00	7.999E+00	0.000E+00	NOT IDENT.
TH-234	1.725E+00	1.354E+00	2.347E+00	0.000E+00	FAIL ABUN
U-238	1.725E+00	1.354E+00	2.347E+00	0.000E+00	FAIL ABUN
NP-239	3.001E-02	3.672E-01	6.555E-01	0.000E+00	FAIL ABUN
AM-241	3.972E-02	1.465E-01	2.464E-01	0.000E+00	NOT IDENT.
CM-247	7.297E-03	3.953E-02	6.964E-02	0.000E+00	FAIL ABUN

CF-249	1.104E-02	3.643E-02	6.488E-02	0.000E+00 NOT IDENT.
CF-251	7.479E-02	1.220E-01	2.164E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:22:52.84

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331008.CNF;1
Sample date      : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:21:36
Sample ID        : G249331008           Sample quantity  : 1.28170E+02 GRAM
Detector name    : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:02.29  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 965250               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1495	10.66*	1.208E+00	3.400E+01	3.400E+01	10.39
CD-109	88.03	313	3.70*	6.258E+00	3.961E+00	4.039E+00	25.58
SN-126	64.28	------	9.60	3.681E+00	------ Line Not Found		------
	86.94	313	8.90	6.258E+00	1.647E+00	1.647E+00	47.86
	87.57	313	37.00*	6.258E+00	3.961E-01	3.961E-01	25.58
BA-137M	661.66	288	89.90*	2.406E+00	3.901E-01	3.905E-01	21.59
CS-137	661.66	288	85.10*	2.406E+00	4.122E-01	4.125E-01	21.60
TL-208	277.37	65	6.60	4.695E+00	6.134E-01	6.134E-01	88.54
	583.19	438	85.00*	2.668E+00	5.650E-01	5.650E-01	17.70
	860.56	100	12.50	1.920E+00	1.220E+00	1.220E+00	37.20
BI-211	72.87	------	1.23	4.872E+00	------ Line Not Found		------
	351.06	944	12.92*	3.941E+00	5.433E+00	5.433E+00	14.45
BI-212	727.33	115	6.67*	2.221E+00	2.276E+00	2.276E+00	42.54
	785.37	------	1.10	2.079E+00	------ Line Not Found		------
	1620.50	16	1.47	1.117E+00	2.865E+00	2.865E+00	102.86
PB-212	74.82	474	10.28	5.113E+00	2.640E+00	2.640E+00	20.19
	77.11	977	17.10	5.368E+00	3.117E+00	3.117E+00	12.58
	238.63	1632	43.60*	5.226E+00	2.098E+00	2.098E+00	13.24
	300.09	98	3.30	4.437E+00	1.962E+00	1.962E+00	47.65
BI-214	609.32	646	45.49*	2.575E+00	1.615E+00	1.615E+00	14.57
	1120.29	155	14.92	1.517E+00	2.007E+00	2.007E+00	27.87
	1764.49	119	15.30	1.056E+00	2.148E+00	2.148E+00	22.02
PB-214	74.82	474	5.80	5.113E+00	4.680E+00	4.680E+00	19.39
	77.11	977	9.70	5.368E+00	5.494E+00	5.494E+00	15.04
	242.00	443	7.25	5.183E+00	3.455E+00	3.455E+00	24.86
	295.22	571	18.42	4.487E+00	2.023E+00	2.023E+00	18.55
	351.93	944	35.60*	3.941E+00	1.972E+00	1.972E+00	15.47
RA-224	240.99	443	4.10*	5.183E+00	6.109E+00	6.109E+00	24.18
RA-226	609.32	646	45.49*	2.575E+00	1.615E+00	1.615E+00	14.57
	1120.29	155	14.92	1.517E+00	2.007E+00	2.007E+00	27.87
	1764.49	119	15.30	1.056E+00	2.148E+00	2.148E+00	22.02
AC-228	338.32	335	11.27	4.058E+00	2.143E+00	2.143E+00	48.10

Sample ID : G249331008 Acquisition date : 24-MAR-2010 09:21:36

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	338	25.80*	1.825E+00	2.104E+00	2.104E+00	20.24
	968.97	235	15.80	1.727E+00	2.522E+00	2.522E+00	30.68
RA-228	338.32	335	11.27	4.058E+00	2.143E+00	2.143E+00	48.10
	911.20	338	25.80*	1.825E+00	2.104E+00	2.104E+00	20.24
	968.97	235	15.80	1.727E+00	2.522E+00	2.522E+00	30.68
TH-228	74.82	474	10.28	5.113E+00	2.640E+00	2.640E+00	17.74
	77.11	977	17.10	5.368E+00	3.117E+00	3.117E+00	12.58
	238.63	1632	43.60*	5.226E+00	2.098E+00	2.098E+00	13.24
	300.09	98	3.30	4.437E+00	1.962E+00	1.962E+00	76.85
TH-229	85.43	143	14.70	6.030E+00	4.723E-01	4.723E-01	48.30
	88.47	313	24.00	6.258E+00	6.107E-01	6.107E-01	25.58
	193.51	------	4.41*	5.998E+00	------ Line Not Found		------
	210.85	------	2.80	5.681E+00	------ Line Not Found		------
TH-230	609.32	646	45.49*	2.575E+00	1.615E+00	1.615E+00	13.58
	1120.29	155	14.92	1.517E+00	2.007E+00	2.007E+00	27.05
	1764.49	119	15.30	1.056E+00	2.148E+00	2.148E+00	22.02
TH-232	338.32	335	11.27	4.058E+00	2.143E+00	2.143E+00	25.44
	911.20	338	25.80*	1.825E+00	2.104E+00	2.104E+00	20.24
	968.97	235	15.80	1.727E+00	2.522E+00	2.522E+00	30.68
U-235	89.96	134	3.47	6.423E+00	1.757E+00	1.757E+00	58.51
	93.35	385	5.60	6.616E+00	3.042E+00	3.042E+00	37.13
	143.76	------	10.96*	6.943E+00	------ Line Not Found		------
	163.33	------	5.08	6.588E+00	------ Line Not Found		------
	185.72	300	57.20	6.146E+00	2.501E-01	2.501E-01	30.76
	205.31	------	5.01	5.780E+00	------ Line Not Found		------
NP-237	86.48	313	12.40*	6.258E+00	1.182E+00	1.182E+00	33.08
	95.86	------	2.68	6.742E+00	------ Line Not Found		------
ANH-511	511.00	164	100.00*	2.965E+00	1.618E-01	1.618E-01	44.16

Flag: "*" = Keyline

Sample ID : G249331008 Acquisition date : 24-MAR-2010 09:21:36

Total number of lines in spectrum 39
Number of unidentified lines 7
Number of lines tentatively identified by NID 32 82.05%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.400E+01	3.400E+01	0.353E+01	10.39	
CD-109	461.40D	1.02	3.961E+00	4.039E+00	1.033E+00	25.58	
SN-126	2.30E+05Y	1.00	3.961E-01	3.961E-01	1.013E-01	25.58	
BA-137M	30.08Y	1.00	3.901E-01	3.905E-01	0.843E-01	21.59	
CS-137	30.08Y	1.00	4.122E-01	4.125E-01	0.891E-01	21.60	
TL-208	1.41E+10Y	1.00	5.650E-01	5.650E-01	0.100E+00	17.70	
BI-211	7.04E+08Y	1.00	5.433E+00	5.433E+00	0.785E+00	14.45	
BI-212	1.41E+10Y	1.00	2.276E+00	2.276E+00	0.968E+00	42.54	
PB-212	1.41E+10Y	1.00	2.098E+00	2.098E+00	0.278E+00	13.24	
BI-214	1600.00Y	1.00	1.615E+00	1.615E+00	0.235E+00	14.57	
PB-214	1600.00Y	1.00	1.972E+00	1.972E+00	0.305E+00	15.47	
RA-224	1.41E+10Y	1.00	6.109E+00	6.109E+00	1.477E+00	24.18	
RA-226	1600.00Y	1.00	1.615E+00	1.615E+00	0.235E+00	14.57	
AC-228	1.41E+10Y	1.00	2.104E+00	2.104E+00	0.426E+00	20.24	
RA-228	1.41E+10Y	1.00	2.104E+00	2.104E+00	0.426E+00	20.24	
TH-228	1.41E+10Y	1.00	2.098E+00	2.098E+00	0.278E+00	13.24	
TH-229	7340.00Y	1.00	6.107E-01	6.107E-01	1.562E-01	25.58	K
TH-230	7.54E+04Y	1.00	1.615E+00	1.615E+00	0.219E+00	13.58	
TH-232	1.41E+10Y	1.00	2.104E+00	2.104E+00	0.426E+00	20.24	
U-235	7.04E+08Y	1.00	2.501E-01	2.501E-01	0.769E-01	30.76	K
NP-237	2.14E+06Y	1.00	1.182E+00	1.182E+00	0.391E+00	33.08	
ANH-511	1.00E+09Y	1.00	1.618E-01	1.618E-01	0.715E-01	44.16	
			---	---			
	Total Activity :		7.307E+01	7.315E+01			

Grand Total Activity : 7.307E+01 7.315E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249331008 Acquisition date : 24-MAR-2010 09:21:36

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.37	128	433	0.92	258.93	254	9	1.77E-02	61.6	7.13E+00	
0	209.21	151	319	0.99	418.61	415	8	2.10E-02	44.2	5.71E+00	
0	270.53	144	334	1.50	541.26	535	11	2.00E-02	51.9	4.78E+00	T
0	327.72	86	154	0.71	655.62	651	8	1.20E-02	54.2	4.15E+00	T
0	409.16	61	161	1.74	818.49	814	10	8.41E-03	83.2	3.52E+00	
0	463.02	112	134	1.96	926.21	921	12	1.56E-02	45.5	3.20E+00	T
0	768.09	75	77	1.29	1536.25	1531	11	1.04E-02	50.9	2.12E+00	
0	795.63	50	121	1.83	1591.33	1584	17	6.98E-03	****	2.06E+00	T
0	933.82	51	35	1.19	1867.64	1862	12	7.04E-03	55.0	1.78E+00	
1	964.46	41	98	1.76	1928.91	1923	26	5.68E-03	90.0	1.73E+00	T
0	1238.03	72	65	1.59	2475.86	2470	11	1.00E-02	49.5	1.39E+00	T
0	1587.13	39	18	2.56	3173.74	3169	11	5.47E-03	51.4	1.13E+00	
0	1846.56	30	3	1.96	3692.30	3685	13	4.19E-03	43.8	1.03E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:22:56.36

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249331008.CNF;1    *
* Acquisition date : 24-MAR-2010 09:21:36  Detector SN#     :                 *
* Detector ID      : GAM16                 Sensitivity      : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:02.29         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 11-MAR-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G249331008            Analyst initials: MXR1             *
* Batch Number     : 965250                Sample Quantity : 1.28170E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16.1MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.400E+01	3.533E+00	5.376E-01	4.725E-02	63.242
CD-109	4.039E+00	1.033E+00	1.141E+00	1.099E-01	3.541
SN-126	3.961E-01	1.013E-01	1.124E-01	1.078E-02	3.525
BA-137M	3.905E-01	8.430E-02	6.413E-02	5.691E-03	6.089
CS-137	4.125E-01	8.908E-02	6.774E-02	6.023E-03	6.089
TL-208	5.650E-01	1.000E-01	5.552E-02	5.497E-03	10.176
BI-211	5.433E+00	7.851E-01	3.116E-01	3.408E-02	17.434
BI-212	2.276E+00	9.681E-01	7.526E-01	9.644E-02	3.024
PB-212	2.098E+00	2.778E-01	9.196E-02	1.092E-02	22.810
BI-214	1.615E+00	2.354E-01	1.156E-01	1.228E-02	13.968
PB-214	1.972E+00	3.050E-01	1.133E-01	1.386E-02	17.396
RA-224	6.109E+00	1.477E+00	9.858E-01	1.086E-01	6.197
RA-226	1.615E+00	2.354E-01	1.156E-01	1.228E-02	13.968
AC-228	2.104E+00	4.260E-01	2.196E-01	2.681E-02	9.584
RA-228	2.104E+00	4.260E-01	2.196E-01	2.681E-02	9.584
TH-228	2.098E+00	2.778E-01	9.196E-02	1.092E-02	22.810
TH-229	6.107E-01	1.562E-01	8.573E-01	8.363E-02	0.712
TH-230	1.615E+00	2.194E-01	1.156E-01	1.066E-02	13.968

Sample ID : G249331008 Acquisition date : 24-MAR-2010 09:21:36

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	2.104E+00	4.260E-01	2.196E-01	2.681E-02	9.584
U-235	2.501E-01	7.695E-02	3.392E-01	5.740E-02	0.737
NP-237	1.182E+00	3.910E-01	3.427E-01	7.883E-02	3.449
ANH-511	1.618E-01	7.145E-02	4.568E-02	4.344E-03	3.542

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.001E-01		3.271E-01	5.312E-01	5.373E-02	-0.188
NA-22	-4.643E-02		4.626E-02	6.679E-02	5.557E-03	-0.695
NA-24	-7.708E-02		2.906E-02	Half-Life too short		
SC-46	-3.803E-03		3.582E-02	5.925E-02	5.601E-03	-0.064
V-48	-2.390E-02		6.108E-02	9.730E-02	8.956E-03	-0.246
CR-51	8.925E-02		3.720E-01	5.899E-01	6.894E-02	0.151
MN-54	-1.794E-02		3.797E-02	6.141E-02	5.767E-03	-0.292
CO-56	-7.463E-04		3.759E-02	6.294E-02	5.923E-03	-0.012
CO-57	-1.368E-02		2.313E-02	3.778E-02	3.139E-03	-0.362
CO-58	2.855E-02		3.704E-02	6.595E-02	6.179E-03	0.433
FE-59	-1.126E-01		9.129E-02	1.310E-01	1.218E-02	-0.859
CO-60	3.458E-02		3.989E-02	7.072E-02	5.966E-03	0.489
ZN-65	-6.052E-02		1.043E-01	1.364E-01	1.159E-02	-0.444
SE-75	-2.747E-03		4.795E-02	6.812E-02	7.950E-03	-0.040
SR-85	3.840E-02		3.887E-02	6.114E-02	5.813E-03	0.628
Y-88	9.929E-03		3.000E-02	5.257E-02	4.268E-03	0.189
Y-91	-1.461E+01		2.240E+01	3.434E+01	2.793E+00	-0.425
NB-94	1.132E-02		3.412E-02	5.637E-02	5.096E-03	0.201
NB-95	1.741E-02		5.123E-02	7.396E-02	6.837E-03	0.235
NB-95M	-6.183E-05		1.348E-01	1.941E-01	2.311E-02	0.000
ZR-95	-3.044E-02		6.888E-02	1.054E-01	1.061E-02	-0.289
MO-99	-4.155E+00		6.933E+00	1.043E+01	1.675E+00	-0.398
TC-99M	-6.712E+07		4.060E+07	Half-Life too short		
RU-103	3.281E-04		3.667E-02	6.062E-02	8.812E-03	0.005
RH-106	7.387E-02		3.125E-01	5.171E-01	7.034E-02	0.143
RU-106	7.387E-02		3.124E-01	5.171E-01	4.729E-02	0.143
AG-108M	-1.362E-02		3.077E-02	4.992E-02	4.830E-03	-0.273
AG-110M	2.350E-03		4.332E-02	6.159E-02	5.638E-03	0.038
SN-113	-2.356E-02		4.044E-02	6.535E-02	6.203E-03	-0.360
CD-115	1.236E+00		5.492E+00	9.185E+00	8.718E-01	0.135
SN-117M	-3.439E-02		4.644E-02	7.352E-02	6.530E-03	-0.468
TE-123M	-2.232E-02		2.701E-02	4.259E-02	3.809E-03	-0.524
SB-124	3.416E-02		6.506E-02	1.182E-01	1.038E-02	0.289
SB-125	3.324E-03		8.611E-02	1.441E-01	1.376E-02	0.023
TE-125M	4.631E+00		8.608E+00	1.476E+01	1.525E+00	0.314
I-126	1.403E-01		2.383E-01	3.566E-01	3.172E-02	0.393
SB-126	-3.068E-02		1.417E-01	2.053E-01	1.869E-02	-0.149
SB-127	3.035E-01		9.309E-01	1.539E+00	1.699E-01	0.197
I-131	1.129E-01		9.617E-02	1.710E-01	1.805E-02	0.661

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-132	-2.331E-01		4.670E-01	7.354E-01	1.224E-01	-0.317
BA-133	-1.783E-02		4.308E-02	6.197E-02	8.814E-03	-0.288
I-133	-3.123E-04		5.118E-04	Half-Life too short		
CS-134	9.419E-02	+	1.005E-01	9.547E-02	8.951E-03	0.987
CS-135	1.918E-01		1.822E-01	2.759E-01	3.518E-02	0.695
I-135	-2.260E+06		1.163E+07	Half-Life too short		
CS-136	-2.122E-02		9.813E-02	1.586E-01	1.467E-02	-0.134
CE-139	-2.356E-02		2.856E-02	4.532E-02	4.111E-03	-0.520
BA-140	-2.290E-01		2.378E-01	3.391E-01	1.158E-01	-0.675
LA-140	-9.065E-02		9.029E-02	1.310E-01	1.116E-02	-0.692
CE-141	6.592E-02		5.947E-02	1.023E-01	8.950E-03	0.644
CE-143	2.190E-04		3.678E-05	Half-Life too short		
CE-144	1.799E-01		1.993E-01	3.099E-01	4.697E-02	0.581
PM-144	-1.881E-02		3.675E-02	5.676E-02	5.119E-03	-0.331
PR-144	-1.398E+00		2.748E+00	4.245E+00	3.828E-01	-0.329
PM-146	2.383E-02		4.111E-02	7.074E-02	7.990E-03	0.337
ND-147	1.134E-01		5.005E-01	8.356E-01	1.292E-01	0.136
PM-149	-5.257E+01		4.743E+01	6.923E+01	1.218E+01	-0.759
EU-152	-1.643E-02		9.830E-02	1.530E-01	1.710E-02	-0.107
GD-153	-7.757E-02		8.425E-02	1.220E-01	1.084E-02	-0.636
EU-154	-1.148E-01		1.304E-01	1.908E-01	2.127E-02	-0.602
EU-155	1.168E-01		1.009E-01	1.762E-01	1.524E-02	0.663
TB-160	1.462E-02		1.382E-01	2.331E-01	2.202E-02	0.063
HO-166M	-3.743E-02		6.276E-02	9.561E-02	8.675E-03	-0.391
TA-182	-9.970E-02		2.000E-01	3.108E-01	2.542E-02	-0.321
IR-192	-1.331E-02		3.315E-02	5.106E-02	5.836E-03	-0.261
HG-203	-2.652E-04		4.312E-02	6.019E-02	7.324E-03	-0.004
BI-207	6.539E-02		5.483E-02	9.903E-02	8.729E-03	0.660
PB-210	1.672E+00		3.474E+00	5.540E+00	5.122E-01	0.302
PB-211	-1.406E-01		8.738E-01	1.271E+00	6.165E-01	-0.111
RN-219	-2.574E-02		4.372E-01	7.307E-01	1.116E-01	-0.035
RA-223	-1.720E-01		7.546E-01	1.039E+00	1.951E-01	-0.166
AC-227	-1.374E-01		2.430E-01	3.766E-01	5.344E-02	-0.365
TH-227	-1.374E-01		2.432E-01	3.766E-01	5.850E-02	-0.365
PA-231	-8.690E-01		1.478E+00	2.268E+00	3.804E-01	-0.383
TH-231	-1.720E-01		7.546E-01	1.039E+00	1.951E-01	-0.166
PA-233	4.628E-02		6.630E-02	1.092E-01	1.276E-02	0.424
PA-234	-6.770E-02		2.966E-01	4.825E-01	9.218E-02	-0.140
PA-234M	-1.498E+00		4.885E+00	7.951E+00	8.278E-01	-0.188
TH-234	1.725E+00		1.381E+00	2.238E+00	3.990E-01	0.771
U-238	1.725E+00		1.381E+00	2.238E+00	3.990E-01	0.771
NP-239	3.001E-02		3.747E-01	6.307E-01	5.250E-02	0.048
AM-241	3.972E-02		1.495E-01	2.347E-01	1.842E-02	0.169
CM-247	7.297E-03		4.034E-02	6.825E-02	6.346E-03	0.107
CF-249	1.104E-02		3.718E-02	6.355E-02	5.957E-03	0.174
CF-251	7.479E-02		1.245E-01	2.095E-01	1.958E-02	0.357

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249331008           *
* Acquisition date : 24-MAR-2010 09:21:36 Detector SN#    :                *
* Detector ID      : GAM16                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.29     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G249331008           Analyst initials: MXR1           *
* Batch Number     : 965250               Sample Quantity : 1.2817E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.400E+01	3.463E+00	2.690E-01	1.767E+00
CD-109	4.039E+00	1.013E+00	5.957E-01	5.167E-01
SN-126	3.961E-01	9.932E-02	5.869E-02	5.067E-02
BA-137M	3.905E-01	8.261E-02	3.249E-02	4.215E-02
CS-137	4.125E-01	8.730E-02	3.432E-02	4.454E-02
TL-208	5.650E-01	9.800E-02	2.818E-02	5.000E-02
BI-211	5.433E+00	7.694E-01	1.594E-01	3.926E-01
BI-212	2.276E+00	9.487E-01	3.807E-01	4.840E-01
PB-212	2.098E+00	2.723E-01	4.732E-02	1.389E-01
BI-214	1.615E+00	2.307E-01	5.865E-02	1.177E-01
PB-214	1.972E+00	2.989E-01	5.798E-02	1.525E-01
RA-224	6.109E+00	1.447E+00	5.072E-01	7.385E-01
RA-226	1.615E+00	2.307E-01	5.865E-02	1.177E-01
AC-228	2.104E+00	4.175E-01	1.107E-01	2.130E-01
RA-228	2.104E+00	4.175E-01	1.107E-01	2.130E-01
TH-228	2.098E+00	2.723E-01	4.732E-02	1.389E-01
TH-229	1.695E-01	5.070E-01	4.425E-01	2.587E-01
TH-230	1.615E+00	2.150E-01	5.865E-02	1.097E-01
TH-232	2.104E+00	4.175E-01	1.107E-01	2.130E-01
U-235	-3.718E-03	2.028E-01	1.759E-01	1.035E-01
NP-237	1.182E+00	3.832E-01	1.790E-01	1.955E-01
ANH-511	1.618E-01	7.002E-02	2.323E-02	3.573E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.001E-01	3.206E-01	2.705E-01	1.636E-01	NOT IDENT.
NA-22	-4.643E-02	4.534E-02	3.349E-02	2.313E-02	NOT IDENT.
NA-24	-7.708E+04	5.697E+04	0.000E+00	2.906E+04	SHORT HLIF
SC-46	-3.803E-03	3.510E-02	2.988E-02	1.791E-02	FAIL ABUN
V-48	-2.390E-02	5.985E-02	4.899E-02	3.054E-02	NOT IDENT.

CR-51	8.925E-02	3.646E-01	3.022E-01	1.860E-01	NOT IDENT.
MN-54	-1.794E-02	3.721E-02	3.100E-02	1.898E-02	NOT IDENT.
CO-56	-7.463E-04	3.684E-02	3.176E-02	1.880E-02	FAIL ABUN
CO-57	-1.368E-02	2.267E-02	1.963E-02	1.156E-02	NOT IDENT.
CO-58	2.855E-02	3.630E-02	3.331E-02	1.852E-02	NOT IDENT.
FE-59	-1.126E-01	8.947E-02	6.585E-02	4.565E-02	NOT IDENT.
CO-60	3.458E-02	3.909E-02	3.544E-02	1.994E-02	NOT IDENT.
ZN-65	-6.052E-02	1.022E-01	6.856E-02	5.213E-02	NOT IDENT.
SE-75	-2.747E-03	4.699E-02	3.500E-02	2.397E-02	NOT IDENT.
SR-85	3.840E-02	3.809E-02	3.109E-02	1.944E-02	NOT IDENT.
Y-88	9.929E-03	2.940E-02	2.621E-02	1.500E-02	NOT IDENT.
Y-91	-1.461E+01	2.195E+01	1.724E+01	1.120E+01	NOT IDENT.
NB-94	1.132E-02	3.344E-02	2.853E-02	1.706E-02	NOT IDENT.
NB-95	1.741E-02	5.021E-02	3.739E-02	2.562E-02	NOT IDENT.
NB-95M	-6.183E-05	1.321E-01	9.987E-02	6.740E-02	NOT IDENT.
ZR-95	-3.044E-02	6.750E-02	5.331E-02	3.444E-02	NOT IDENT.
MO-99	-4.155E+00	6.794E+00	5.274E+00	3.466E+00	NOT IDENT.
TC-99M	-6.712E+13	7.957E+13	0.000E+00	4.060E+13	SHORT HLIF
RU-103	3.281E-04	3.593E-02	3.085E-02	1.833E-02	FAIL ABUN
RH-106	7.387E-02	3.063E-01	2.622E-01	1.563E-01	NOT IDENT.
RU-106	7.387E-02	3.062E-01	2.622E-01	1.562E-01	NOT IDENT.
AG-108M	-1.362E-02	3.015E-02	2.545E-02	1.538E-02	NOT IDENT.
AG-110M	2.350E-03	4.245E-02	3.120E-02	2.166E-02	NOT IDENT.
SN-113	-2.356E-02	3.963E-02	3.338E-02	2.022E-02	NOT IDENT.
CD-115	1.236E+00	5.383E+00	4.669E+00	2.746E+00	NOT IDENT.
SN-117M	-3.439E-02	4.551E-02	3.806E-02	2.322E-02	NOT IDENT.
TE-123M	-2.232E-02	2.647E-02	2.205E-02	1.350E-02	NOT IDENT.
SB-124	3.416E-02	6.376E-02	5.901E-02	3.253E-02	NOT IDENT.
SB-125	3.324E-03	8.438E-02	7.350E-02	4.305E-02	FAIL ABUN
TE-125M	4.631E+00	8.436E+00	7.685E+00	4.304E+00	NOT IDENT.
I-126	1.403E-01	2.335E-01	1.807E-01	1.192E-01	NOT IDENT.
SB-126	-3.068E-02	1.389E-01	1.038E-01	7.086E-02	NOT IDENT.
SB-127	3.035E-01	9.122E-01	7.794E-01	4.654E-01	NOT IDENT.
I-131	1.129E-01	9.424E-02	8.741E-02	4.808E-02	NOT IDENT.
TE-132	-2.331E-01	4.576E-01	3.787E-01	2.335E-01	NOT IDENT.
BA-133	-1.783E-02	4.221E-02	3.169E-02	2.154E-02	FAIL ABUN
I-133	-3.123E+02	1.003E+03	0.000E+00	5.118E+02	SHORT HLIF
CS-134	9.419E-02	9.848E-02	4.823E-02	5.024E-02	FAIL ABUN
CS-135	1.918E-01	1.786E-01	1.417E-01	9.111E-02	NOT IDENT.
I-135	-2.260E+12	2.279E+13	0.000E+00	1.163E+13	SHORT HLIF
CS-136	-2.122E-02	9.617E-02	7.976E-02	4.907E-02	NOT IDENT.
CE-139	-2.356E-02	2.799E-02	2.345E-02	1.428E-02	NOT IDENT.
BA-140	-2.290E-01	2.330E-01	1.723E-01	1.189E-01	NOT IDENT.
LA-140	-9.065E-02	8.849E-02	6.546E-02	4.515E-02	FAIL ABUN
CE-141	6.592E-02	5.828E-02	5.303E-02	2.974E-02	NOT IDENT.
CE-143	2.190E+02	7.208E+01	0.000E+00	3.678E+01	SHORT HLIF
CE-144	1.799E-01	1.953E-01	1.608E-01	9.966E-02	NOT IDENT.
PM-144	-1.881E-02	3.602E-02	2.873E-02	1.838E-02	NOT IDENT.
PR-144	-1.398E+00	2.693E+00	2.149E+00	1.374E+00	NOT IDENT.
PM-146	2.383E-02	4.029E-02	3.604E-02	2.055E-02	NOT IDENT.
ND-147	1.134E-01	4.905E-01	4.248E-01	2.503E-01	FAIL ABUN
PM-149	-5.257E+01	4.648E+01	3.552E+01	2.371E+01	NOT IDENT.
EU-152	-1.643E-02	9.634E-02	7.831E-02	4.915E-02	FAIL ABUN
GD-153	-7.757E-02	8.257E-02	6.361E-02	4.213E-02	NOT IDENT.
EU-154	-1.148E-01	1.278E-01	9.566E-02	6.522E-02	NOT IDENT.
EU-155	1.168E-01	9.891E-02	9.179E-02	5.046E-02	FAIL ABUN
TB-160	1.462E-02	1.354E-01	1.176E-01	6.910E-02	FAIL ABUN
HO-166M	-3.743E-02	6.151E-02	4.838E-02	3.138E-02	FAIL ABUN
TA-182	-9.970E-02	1.960E-01	1.560E-01	1.000E-01	FAIL ABUN
IR-192	-1.331E-02	3.249E-02	2.616E-02	1.658E-02	FAIL ABUN
HG-203	-2.652E-04	4.225E-02	3.090E-02	2.156E-02	NOT IDENT.
BI-207	6.539E-02	5.374E-02	4.980E-02	2.742E-02	FAIL ABUN
PB-210	1.672E+00	3.404E+00	2.920E+00	1.737E+00	NOT IDENT.
PB-211	-1.406E-01	8.563E-01	6.485E-01	4.369E-01	NOT IDENT.
RN-219	-2.574E-02	4.284E-01	3.730E-01	2.186E-01	FAIL ABUN
RA-223	-1.720E-01	7.396E-01	5.321E-01	3.773E-01	FAIL ABUN
AC-227	-1.374E-01	2.382E-01	1.936E-01	1.215E-01	FAIL ABUN
TH-227	-1.374E-01	2.383E-01	1.936E-01	1.216E-01	FAIL ABUN
PA-231	-8.690E-01	1.449E+00	1.164E+00	7.392E-01	NOT IDENT.
TH-231	-1.720E-01	7.396E-01	5.321E-01	3.773E-01	FAIL ABUN
PA-233	4.628E-02	6.497E-02	5.596E-02	3.315E-02	FAIL ABUN
PA-234	-6.770E-02	2.907E-01	2.431E-01	1.483E-01	FAIL ABUN
PA-234M	-1.498E+00	4.787E+00	4.002E+00	2.442E+00	NOT IDENT.
TH-234	1.725E+00	1.354E+00	1.174E+00	6.906E-01	FAIL ABUN
U-238	1.725E+00	1.354E+00	1.174E+00	6.906E-01	FAIL ABUN
NP-239	3.001E-02	3.672E-01	3.280E-01	1.873E-01	FAIL ABUN
AM-241	3.972E-02	1.465E-01	1.233E-01	7.476E-02	NOT IDENT.
CM-247	7.297E-03	3.953E-02	3.484E-02	2.017E-02	FAIL ABUN

CF-249	1.104E-02	3.643E-02	3.246E-02	1.859E-02	NOT IDENT.
CF-251	7.479E-02	1.220E-01	1.083E-01	6.226E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	265.6912
49.72	276.6288
57.36	0.0000
59.54	312.5674
63.29	341.5684
63.29	341.5684
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67.75	375.3659
69.67	394.9283
70.83	371.9083
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72.87	444.4177
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77.11	410.5382
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79.80	413.0194
80.12	413.3093
80.19	413.3732
80.57	413.7196
81.00	414.1102
81.07	414.1741
81.07	414.1741
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83.79	276.8847
85.43	373.9307
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86.79	374.9985
86.94	367.3044
87.57	367.7863
88.03	368.1370
88.47	368.4727
89.96	526.8766
91.11	294.2683
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92.59	338.6262
93.35	324.6242
94.67	325.4744
94.87	325.6021
94.87	325.6021
95.86	310.3206
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100.11	315.5423
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103.37	322.8571
105.31	306.9118
106.12	313.6758
109.28	290.9911
111.00	312.7928
111.76	297.7325
116.30	267.0460
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121.78	285.2612
122.06	299.2935
123.07	271.0187
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136.00	315.4699

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153.25	271.0788
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154.21	257.8213
156.02	335.5281
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159.00	297.7316
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163.33	269.9306
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184.41	300.6194
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193.51	261.9844
197.04	268.2137
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215.65	221.4530
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227.38	220.0133
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228.18	264.8766
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235.96	270.2443
235.96	270.2443
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238.63	236.5721
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242.00	237.3800
244.70	173.6481
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252.80	198.4904
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256.23	192.5859
260.90	190.1515
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268.22	192.5746
269.46	201.6619
269.46	201.6619
271.23	201.4365
273.65	196.8815
276.40	183.9969
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277.60	177.5002
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279.54	187.8755
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283.69	194.1921
284.31	178.5742
285.41	180.9973
285.90	202.4487
287.50	154.3034
293.27	0.0000
295.22	173.4946
295.96	153.1824
298.57	153.5257
299.98	191.2866
299.98	191.2866
300.09	191.3037
300.09	191.3037
300.13	191.3105
301.36	179.5427
302.85	160.9371
304.50	160.0208
304.50	160.0208
304.85	160.0692
308.46	154.8221
311.90	150.6665

316.51	151.2422
319.41	156.2311
320.08	158.6320
323.87	172.4796
323.87	172.4796
328.76	152.1703
333.37	168.5273
334.37	167.2566
334.37	167.2566
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338.32	164.7806
338.32	164.7806
338.32	164.7806
340.48	125.6908
340.55	125.6973
344.28	148.7252
351.06	136.1512
351.93	136.2399
356.01	135.7681
364.49	125.8432
366.42	145.8262
383.85	133.0878
388.16	117.9495
388.63	107.0132
391.69	127.4089
400.66	152.1824
401.81	161.5337
402.40	158.8276
404.85	162.7952
410.95	115.9146
414.70	116.7025
423.72	131.1411
427.09	111.7168
427.87	111.7731
433.94	138.6178
453.88	102.1819
463.37	103.7433
468.07	87.8574
473.00	120.7790
476.78	110.4010
477.60	124.9884
487.02	90.6145
492.35	93.8306
497.08	95.0699
511.00	98.7961
514.00	90.2537
527.90	85.7717
529.87	0.0000
531.02	97.9103
537.26	100.2502
546.56	0.0000
563.25	88.4390
569.33	85.6611
569.50	85.6688
569.70	83.6391
583.19	85.4547
600.60	94.2909
602.73	98.1941
604.72	93.0316
609.32	98.8646
609.32	98.8646
609.32	98.8646
610.33	73.2982
614.28	61.7582
618.01	94.0594
621.93	80.6282
621.93	80.6282
633.25	74.7506
635.95	81.1733
636.99	75.9397
645.85	80.4949
657.76	97.1338
661.66	103.4977
661.66	103.4977
664.57	0.0000
666.33	87.2528
666.50	78.7054

677.62	85.9839
685.70	80.9052
695.00	94.2403
696.49	92.1335
696.51	92.1361
697.00	82.3967
702.65	80.4294
706.68	81.6605
711.68	89.4773
720.70	83.2549
721.93	0.0000
722.78	91.2234
722.91	82.4565
723.31	82.4703
724.19	78.9917
727.33	67.0129
733.00	70.4805
735.93	70.5684
739.50	75.0909
747.24	63.1491
752.31	79.9365
753.82	47.7701
756.73	72.2978
763.94	57.1172
765.81	89.3140
766.42	89.3384
777.92	63.9528
778.90	83.0580
783.70	52.8549
785.37	68.4204
795.86	58.7634
801.95	66.4583
810.29	61.8275
810.76	56.3828
815.77	74.7169
818.51	51.9916
832.01	74.2704
834.85	86.2822
836.80	0.0000
846.77	64.5449
856.80	55.5337
860.56	75.6932
871.09	60.4821
873.19	59.5969
875.33	0.0000
879.36	63.4661
880.51	62.5590
883.24	58.8825
884.68	53.3025
889.28	55.2664
898.04	56.3804
911.20	57.5911
911.20	57.5911
911.20	57.5911
926.50	49.8353
937.49	41.2915
944.13	56.3496
946.00	61.1641
949.00	49.7478
962.29	56.0604
964.08	52.8892
966.15	52.9268
968.97	52.9778
968.97	52.9778
968.97	52.9778
983.53	56.1408
996.26	60.2668
1001.03	67.1773
1004.73	58.4868
1037.84	58.1300
1038.76	0.0000
1048.07	62.2740
1050.41	45.5036
1050.41	45.5036
1063.66	47.6813
1085.87	50.0122
1099.45	74.3252
1112.07	75.6189

1115.54	70.6494
1120.29	70.7520
1120.29	70.7520
1120.29	70.7520
1120.55	64.0168
1121.30	64.0322
1131.51	0.0000
1173.23	62.6233
1177.93	65.7906
1189.05	69.0938
1204.77	79.7634
1221.41	75.9728
1231.02	77.5176
1235.36	87.0605
1238.28	64.4790
1260.41	0.0000
1271.85	35.8760
1274.44	62.3015
1274.54	64.4134
1291.59	38.1885
1298.22	0.0000
1312.11	34.1297
1332.49	30.0221
1365.19	23.7875
1368.63	0.0000
1384.29	31.5078
1408.01	20.7655
1457.56	0.0000
1460.82	25.8319
1489.16	25.0774
1505.03	27.9675
1596.21	42.8320
1620.50	16.4049
1678.03	0.0000
1690.97	9.7160
1764.49	18.6032
1764.49	18.6032
1764.49	18.6032
1770.23	7.4075
1771.35	9.4840
1791.20	0.0000
1836.06	10.0077

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249331008

Total Uranium Activity	5.1294E+00	ug/g
Total Uranium Counting Unc.	4.0283E+00	ug/g
Total Uranium Tpu	2.0552E-06	ug/g
Total Uranium Mda	3.4941E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G249331008       *
*   ANALYST       : MXR1                      DETECTOR   : GAM16            *
*   SAMPLE DATE   : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 09:21:36.78    SAMPLE ALQT:  128.170 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.235E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.601E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 4.275E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 2.077E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:23:34.95

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                             Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334001.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:22:02
Sample ID         : G249334001           Sample quantity  : 1.20310E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.94  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 965250                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.60*	94	409	0.91	126.32	124	6	1.31E-02	36.2	
2	3	75.05	461	542	0.98	149.22	145	14	6.41E-02	9.2	5.29E-01
3	3	77.27*	876	517	1.04	153.65	145	14	1.22E-01	5.4	
4	1	87.40	300	516	1.04	173.92	169	13	4.17E-02	13.0	2.98E+00
5	1	90.02	213	465	0.92	179.14	169	13	2.96E-02	17.5	
6	0	93.14*	438	611	1.39	185.38	182	9	6.08E-02	11.7	
7	0	186.03*	423	470	1.41	371.10	366	11	5.87E-02	11.4	
8	0	209.31	198	483	1.37	417.63	413	12	2.76E-02	23.3	
9	3	238.67*	2274	256	1.18	476.34	472	24	3.16E-01	2.4	2.01E+00
10	3	241.62*	495	349	1.77	482.24	472	24	6.88E-02	11.0	
11	0	270.17	199	277	1.73	539.32	535	11	2.77E-02	17.7	
12	0	277.43	72	230	1.00	553.84	550	8	1.00E-02	38.4	
13	0	295.12*	760	316	1.29	589.21	583	13	1.06E-01	6.1	
14	0	300.23	148	262	1.34	599.43	595	10	2.06E-02	22.0	
15	0	327.92	143	226	1.75	654.78	650	10	1.98E-02	21.4	
16	0	338.33*	467	352	1.35	675.59	668	16	6.48E-02	10.3	
17	0	351.82*	1267	225	1.27	702.58	697	12	1.76E-01	3.7	
18	0	409.62*	91	161	1.82	818.13	814	10	1.27E-02	28.7	
19	0	462.88	157	153	1.44	924.63	920	11	2.18E-02	17.1	
20	0	510.67*	264	225	2.19	1020.17	1011	18	3.67E-02	16.4	
21	0	582.85*	765	177	1.54	1164.49	1158	15	1.06E-01	5.3	
22	0	608.91*	890	172	1.66	1216.61	1210	13	1.24E-01	4.6	
23	0	726.94*	177	125	1.41	1452.60	1447	12	2.46E-02	15.1	
24	0	795.06	128	159	1.96	1588.81	1579	20	1.77E-02	25.8	
25	0	860.49*	143	105	1.69	1719.64	1712	17	1.99E-02	18.7	
26	0	910.61*	649	129	1.95	1819.87	1811	19	9.02E-02	5.8	
27	1	964.01	130	120	2.31	1926.64	1920	21	1.81E-02	19.5	9.40E-01
28	1	968.39*	283	74	1.90	1935.40	1920	21	3.93E-02	8.8	
29	0	1119.59*	218	78	1.75	2237.75	2231	14	3.02E-02	11.3	
30	0	1237.99*	82	166	1.11	2474.51	2468	16	1.14E-02	37.7	
31	0	1459.64*	2272	48	2.17	2917.76	2906	24	3.16E-01	2.3	
32	0	1587.99	36	32	2.11	3174.44	3164	14	4.97E-03	37.3	
33	0	1729.44	59	22	1.02	3457.34	3447	19	8.22E-03	23.5	
34	0	1763.18*	193	24	2.30	3524.81	3515	19	2.68E-02	9.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 11:23:37

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334001.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:22:02
Sample ID         : G249334001           Sample quantity  : 120.31 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA18              Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.94   0.0%
Peak Width (FWHM):      3.00             Confidence level :      5.00 %
Energy tolerance :      1.50 keV         Half life ratio  :      8.00
Errors propagated: Yes                   Systematic Error :      0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :     75.00             WTM error limit  :      3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.511E+01	3.101E+00	5.127E-01	3.891E-02	68.482
CD-109	+	88.03	*	3.997E+00	1.106E+00	1.440E+00	1.331E-01	2.776
SN-126	+	64.28		9.770E-01	7.228E-01	1.053E+00	1.556E-01	0.928
	+	86.94		1.630E+00	7.988E-01	5.962E-01	2.473E-01	2.734
	+	87.57	*	3.920E-01	1.085E-01	1.421E-01	1.310E-02	2.758
TL-208	+	277.37		5.438E-01	4.222E-01	5.564E-01	5.969E-02	0.977
	+	583.19	*	7.132E-01	9.426E-02	4.887E-02	3.824E-03	14.596
	+	860.56		1.227E+00	4.787E-01	3.985E-01	4.458E-02	3.078
BI-211		72.87		4.467E+00	3.944E+00	6.086E+00	5.025E-01	0.734
	+	351.06	*	5.613E+00	5.524E-01	2.907E-01	1.867E-02	19.307
PB-212	+	74.82		2.832E+00	6.357E-01	6.408E-01	8.216E-02	4.420
	+	77.11		3.041E+00	4.184E-01	3.626E-01	3.074E-02	8.386
	+	238.63	*	2.396E+00	2.084E-01	8.832E-02	6.367E-03	27.128
	+	300.09		2.343E+00	1.047E+00	1.157E+00	9.666E-02	2.025
BI-214	+	609.32	*	1.602E+00	2.061E-01	1.019E-01	9.161E-03	15.711
	+	1120.29		1.950E+00	4.808E-01	4.510E-01	4.343E-02	4.324
	+	1764.49		2.325E+00	4.698E-01	3.250E-01	1.976E-02	7.154
PB-214	+	74.82		5.020E+00	1.091E+00	1.136E+00	1.308E-01	4.420
	+	77.11		5.361E+00	8.600E-01	6.393E-01	7.561E-02	8.386
	+	242.00		3.157E+00	7.417E-01	5.362E-01	4.311E-02	5.887
	+	295.22		2.130E+00	3.194E-01	1.955E-01	1.698E-02	10.894
	+	351.93	*	2.037E+00	2.298E-01	1.057E-01	8.948E-03	19.271
RA-224	+	240.99	*	5.582E+00	1.271E+00	9.455E-01	5.267E-02	5.903
RA-226	+	609.32	*	1.602E+00	2.061E-01	1.019E-01	9.161E-03	15.711
	+	1120.29		1.950E+00	4.808E-01	4.510E-01	4.343E-02	4.324
	+	1764.49		2.325E+00	4.698E-01	3.250E-01	1.976E-02	7.154
AC-228	+	338.32		2.316E+00	1.067E+00	3.331E-01	1.373E-01	6.954
	+	911.20	*	2.824E+00	5.049E-01	1.962E-01	2.657E-02	14.396
	+	968.97		2.118E+00	6.460E-01	3.442E-01	8.586E-02	6.153
RA-228	+	338.32		2.316E+00	1.067E+00	3.331E-01	1.373E-01	6.954
	+	911.20	*	2.824E+00	5.049E-01	1.962E-01	2.657E-02	14.396
	+	968.97		2.118E+00	6.460E-01	3.442E-01	8.586E-02	6.153
TH-228	+	74.82		2.832E+00	5.739E-01	6.408E-01	5.404E-02	4.420
	+	77.11		3.041E+00	4.184E-01	3.626E-01	3.074E-02	8.386

Sample ID : G249334001 Acquisition date : 24-MAR-2010 09:22:02

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	2.396E+00	2.084E-01	8.832E-02	6.367E-03	27.128
	+	300.09		2.343E+00	1.759E+00	1.157E+00	7.045E-01	2.025
TH-230	+	609.32	*	1.602E+00	1.880E-01	1.019E-01	7.416E-03	15.711
	+	1120.29		1.950E+00	4.627E-01	4.510E-01	3.118E-02	4.324
	+	1764.49		2.325E+00	4.698E-01	3.250E-01	1.976E-02	7.154
TH-232	+	338.32		2.316E+00	4.947E-01	3.331E-01	1.927E-02	6.954
	+	911.20	*	2.824E+00	5.049E-01	1.962E-01	2.657E-02	14.396
	+	968.97		2.118E+00	6.460E-01	3.442E-01	8.586E-02	6.153
TH-234	+	63.29	*	2.535E+00	1.894E+00	2.680E+00	4.828E-01	0.946
	+	92.59		4.631E+00	1.484E+00	1.054E+00	2.321E-01	4.395
U-235	+	89.96		2.859E+00	1.222E+00	1.452E+00	3.589E-01	1.968
	+	93.35		3.498E+00	1.146E+00	7.427E-01	1.708E-01	4.710
		143.76	*	1.029E-02	2.087E-01	3.284E-01	5.122E-02	0.031
		163.33		2.830E-01	4.145E-01	7.121E-01	1.183E-01	0.397
	+	185.72		3.014E-01	7.058E-02	6.287E-02	3.344E-03	4.795
		205.31		-1.158E-01	5.160E-01	7.470E-01	1.259E-01	-0.155
NP-237	+	86.48	*	1.170E+00	4.062E-01	4.309E-01	9.852E-02	2.715
		95.86		3.169E-01	1.064E+00	1.566E+00	3.724E-01	0.202
U-238	+	63.29	*	2.535E+00	1.894E+00	2.680E+00	4.828E-01	0.946
	+	92.59		4.631E+00	1.147E+00	1.054E+00	8.923E-02	4.395
ANH-511	+	511.00	*	1.913E-01	6.390E-02	3.975E-02	2.625E-03	4.811

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-2.588E-02	2.696E-01	4.421E-01	3.202E-02	-0.059
NA-22		1274.54	*	-9.178E-03	3.999E-02	6.450E-02	4.389E-03	-0.142
NA-24		1368.63	*	-7.959E-02	3.999E-02	Half-Life too short		
SC-46		889.28	*	1.279E-02	3.529E-02	5.909E-02	6.591E-03	0.216
	+	1120.55		3.239E-01	7.684E-02	1.195E-01	8.257E-03	2.709
V-48		944.13		-7.567E-02	7.375E-01	1.190E+00	1.259E-01	-0.064
		983.53	*	1.443E-02	6.253E-02	1.029E-01	1.017E-02	0.140
		1312.11		-2.628E-02	7.139E-02	1.135E-01	8.267E-03	-0.232
CR-51		320.08	*	-2.627E-02	3.236E-01	5.190E-01	3.336E-02	-0.051
MN-54		834.85	*	1.262E-02	3.534E-02	5.930E-02	6.075E-03	0.213
CO-56		846.77	*	5.661E-03	3.258E-02	5.416E-02	5.654E-03	0.105
		1037.84		-1.787E-01	2.743E-01	4.377E-01	4.051E-02	-0.408
	+	1238.28		1.995E-01	1.511E-01	1.744E-01	1.162E-02	1.144
		1771.35		1.473E-01	1.996E-01	3.235E-01	1.955E-02	0.455
CO-57		122.06	*	-2.208E-02	2.639E-02	4.091E-02	2.424E-03	-0.540
		136.47		5.356E-02	2.014E-01	3.241E-01	2.117E-02	0.165
CO-58		810.76	*	4.418E-03	3.281E-02	5.458E-02	5.388E-03	0.081
FE-59		1099.45	*	-1.782E-02	8.302E-02	1.363E-01	1.121E-02	-0.131
		1291.59		8.654E-02	1.133E-01	1.959E-01	1.647E-02	0.442
CO-60		1173.23		-2.178E-02	4.209E-02	6.727E-02	3.718E-03	-0.324
		1332.49	*	1.949E-02	3.647E-02	6.229E-02	4.706E-03	0.313
ZN-65		1115.54	*	1.083E-01	1.021E-01	1.581E-01	1.114E-02	0.685
SE-75		121.12		-2.714E-03	1.330E-01	2.133E-01	1.957E-02	-0.013

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		136.00		1.625E-02	3.823E-02	6.194E-02	3.529E-03	0.262
		264.66	*	6.306E-03	4.388E-02	6.689E-02	3.827E-03	0.094
		279.54		1.219E-01	1.085E-01	1.653E-01	1.023E-02	0.737
		400.66		-3.666E-03	2.336E-01	3.807E-01	3.456E-02	-0.010
SR-85		514.00	*	9.570E-02	3.851E-02	6.350E-02	4.207E-03	1.507
Y-88		898.04		-2.721E-02	3.883E-02	5.844E-02	6.624E-03	-0.466
		1836.06	*	-2.247E-02	3.030E-02	4.425E-02	2.520E-03	-0.508
Y-91		1204.77	*	2.737E+00	2.165E+01	3.600E+01	2.128E+00	0.076
NB-94		702.65	*	1.529E-02	3.092E-02	5.296E-02	4.345E-03	0.289
		871.09		-7.436E-03	3.079E-02	4.952E-02	5.371E-03	-0.150
NB-95		765.81	*	9.081E-02	4.191E-02	7.560E-02	6.916E-03	1.201
NB-95M		235.69	*	1.425E-01	1.308E-01	1.989E-01	1.465E-02	0.716
ZR-95		724.19		2.046E-01	1.095E-01	1.748E-01	1.617E-02	1.171
		756.73	*	3.617E-02	6.525E-02	1.116E-01	1.102E-02	0.324
MO-99		140.51		9.350E-01	1.290E+01	2.025E+01	4.618E+00	0.046
		181.07		8.471E+00	1.043E+01	1.591E+01	2.786E+00	0.532
		366.42		-1.005E+01	4.961E+01	8.277E+01	4.781E+00	-0.121
		739.50	*	1.015E+01	6.363E+00	1.125E+01	1.781E+00	0.902
		777.92		-1.770E+01	1.859E+01	2.871E+01	2.680E+00	-0.616
TC-99M		140.51	*	6.003E+06	1.859E+01	Half-Life too short		
RU-103		497.08	*	-1.127E-02	3.124E-02	5.012E-02	6.401E-03	-0.225
	+	610.33		1.589E+01	2.890E+00	2.649E+00	4.155E-01	5.999
RH-106		621.93	*	1.902E-02	2.732E-01	4.425E-01	5.519E-02	0.043
		1050.41		-1.736E-01	2.276E+00	3.786E+00	3.236E-01	-0.046
RU-106		621.93	*	1.902E-02	2.732E-01	4.425E-01	3.256E-02	0.043
		1050.41		-1.736E-01	2.276E+00	3.786E+00	3.236E-01	-0.046
AG-108M		433.94	*	-7.436E-03	2.569E-02	4.204E-02	2.710E-03	-0.177
		614.28		7.566E-03	3.547E-02	5.030E-02	3.843E-03	0.150
		722.91		-3.398E-04	4.088E-02	5.858E-02	5.144E-03	-0.006
AG-110M		657.76	*	-2.212E-02	3.209E-02	5.172E-02	4.080E-03	-0.428
		677.62		-1.018E-01	2.854E-01	4.679E-01	3.798E-02	-0.218
		706.68		-1.312E-01	1.937E-01	3.100E-01	2.641E-02	-0.423
		763.94		-1.626E-01	1.643E-01	2.565E-01	2.396E-02	-0.634
		884.68		-5.005E-02	4.446E-02	6.592E-02	7.444E-03	-0.759
		937.49		-1.539E-01	1.165E-01	1.710E-01	1.872E-02	-0.900
		1384.29		5.999E-02	1.527E-01	2.573E-01	1.991E-02	0.233
		1505.03		3.562E-01	2.889E-01	5.281E-01	3.790E-02	0.675
SN-113		391.69	*	-2.969E-02	3.884E-02	6.256E-02	3.837E-03	-0.475
CD-115		260.90		1.190E+01	6.534E+01	1.078E+02	6.084E+00	0.110
		492.35		-1.222E+01	1.546E+01	2.408E+01	1.559E+00	-0.508
		527.90	*	1.976E-01	5.075E+00	8.319E+00	5.591E-01	0.024
SN-117M		156.02		1.690E+00	2.008E+00	3.490E+00	1.864E-01	0.484
		158.56	*	-2.814E-02	4.748E-02	7.886E-02	4.191E-03	-0.357
TE-123M		159.00	*	-1.455E-02	2.681E-02	4.459E-02	2.406E-03	-0.326
SB-124		602.73		-2.016E-02	4.157E-02	5.555E-02	4.018E-03	-0.363
		645.85		-3.187E-02	4.283E-01	6.844E-01	5.531E-02	-0.047
		722.78		-2.425E-02	3.992E-01	5.696E-01	4.956E-02	-0.043
		1690.97	*	7.094E-03	6.707E-02	1.123E-01	7.775E-03	0.063
SB-125		427.87	*	6.241E-02	7.917E-02	1.370E-01	8.548E-03	0.456

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	463.37		1.019E+00	3.568E-01	5.183E-01	3.699E-02	1.967
		600.60		-4.874E-02	1.721E-01	2.656E-01	2.117E-02	-0.183
		635.95		7.828E-02	2.427E-01	3.987E-01	3.290E-02	0.196
TE-125M		109.28	*	-2.134E+00	9.882E+00	1.584E+01	1.420E+00	-0.135
I-126		388.63		4.361E-03	1.320E-01	2.217E-01	1.274E-02	0.020
		666.33	*	-4.838E-02	1.878E-01	3.106E-01	2.388E-02	-0.156
		753.82		4.116E-01	1.448E+00	2.443E+00	2.190E-01	0.168
SB-126		414.70		4.811E-02	6.577E-02	1.004E-01	5.937E-03	0.479
		666.50		-1.958E-02	6.394E-02	1.055E-01	8.109E-03	-0.186
		695.00		-4.482E-02	6.185E-02	9.881E-02	7.998E-03	-0.454
		697.00		6.457E-02	2.188E-01	3.714E-01	3.016E-02	0.174
		720.70	*	9.608E-02	1.340E-01	2.035E-01	1.723E-02	0.472
		856.80		6.808E-01	4.400E-01	6.998E-01	7.422E-02	0.973
SB-127		252.40		-7.513E-01	2.739E+00	4.414E+00	1.803E+00	-0.170
		473.00		3.370E-01	9.777E-01	1.643E+00	1.763E-01	0.205
		685.70	*	-2.397E-01	8.210E-01	1.350E+00	1.381E-01	-0.178
		783.70		3.007E+00	2.178E+00	3.841E+00	4.759E-01	0.783
I-131		80.19		3.581E-01	4.336E+00	6.411E+00	5.579E-01	0.056
		284.31		-3.569E-01	1.141E+00	1.828E+00	1.159E-01	-0.195
		364.49	*	5.552E-02	8.366E-02	1.452E-01	9.339E-03	0.382
		636.99		1.271E-01	1.155E+00	1.871E+00	1.498E-01	0.068
TE-132		49.72		-6.164E+00	1.729E+01	2.880E+01	2.801E+00	-0.214
		111.76		-7.067E+00	2.112E+01	3.364E+01	2.945E+00	-0.210
		116.30		1.035E+01	1.828E+01	3.003E+01	2.564E+00	0.344
		228.16	*	1.024E-01	4.298E-01	7.166E-01	9.971E-02	0.143
BA-133		81.00		-1.089E-01	1.129E-01	1.574E-01	2.450E-02	-0.692
	+	276.40		5.025E-01	3.915E-01	5.824E-01	7.303E-02	0.863
		302.85		1.487E-01	1.447E-01	2.169E-01	2.469E-02	0.685
		356.01	*	1.196E-02	4.284E-02	6.085E-02	6.856E-03	0.197
		383.85		-1.940E-01	2.688E-01	4.345E-01	4.622E-02	-0.447
I-133		529.87	*	1.715E-04	2.688E-01	Half-Life too short		
		875.33		-1.581E-03	2.688E-01	Half-Life too short		
		1298.22		-1.127E-02	2.688E-01	Half-Life too short		
CS-134		563.25		2.415E-01	3.252E-01	5.513E-01	3.896E-02	0.438
		569.33		2.429E-02	1.845E-01	2.862E-01	2.047E-02	0.085
		604.72		1.755E-02	3.652E-02	5.284E-02	3.842E-03	0.332
	+	795.86	*	1.685E-01	8.858E-02	9.013E-02	8.717E-03	1.870
		801.95		-9.850E-02	4.254E-01	5.875E-01	5.732E-02	-0.168
		1365.19		1.482E-01	1.143E+00	1.886E+00	1.502E-01	0.079
CS-135		268.22	*	2.972E-01	1.669E-01	2.610E-01	1.973E-02	1.139
I-135		546.56		2.158E+07	1.669E-01	Half-Life too short		
		836.80		9.793E+07	1.669E-01	Half-Life too short		
		1038.76		-4.700E+07	1.669E-01	Half-Life too short		
		1131.51		-1.001E+07	1.669E-01	Half-Life too short		
		1260.41	*	4.879E+06	1.669E-01	Half-Life too short		
		1457.56		6.323E+09	1.669E-01	Half-Life too short		
		1678.03		3.581E+06	1.669E-01	Half-Life too short		
		1791.20		1.361E+07	1.669E-01	Half-Life too short		
CS-136		153.25		4.725E-01	7.423E-01	1.283E+00	9.934E-02	0.368

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		176.60		1.264E-01	4.204E-01	7.145E-01	4.738E-02	0.177
		273.65		-1.384E-01	6.297E-01	6.296E-01	4.242E-02	-0.220
		340.55		5.637E-01	1.467E-01	2.450E-01	1.534E-02	2.300
		818.51		-2.190E-02	5.548E-02	8.862E-02	8.847E-03	-0.247
		1048.07	*	-3.366E-02	9.072E-02	1.480E-01	1.326E-02	-0.227
		1235.36		5.943E-01	6.632E-01	9.890E-01	1.007E-01	0.601
BA-137M		661.66	*	2.033E-02	3.427E-02	5.920E-02	4.512E-03	0.343
CS-137		661.66	*	2.148E-02	3.621E-02	6.253E-02	4.779E-03	0.343
CE-139		165.86	*	-5.575E-03	2.775E-02	4.657E-02	2.444E-03	-0.120
BA-140		162.66		5.937E-01	6.798E-01	1.181E+00	7.297E-02	0.503
		304.85		3.535E-02	1.226E+00	1.735E+00	4.955E-01	0.020
		423.72		-7.112E-01	1.520E+00	2.441E+00	7.885E-01	-0.291
		537.26	*	-4.873E-02	2.066E-01	3.313E-01	1.110E-01	-0.147
LA-140	+	328.76		7.793E-01	3.372E-01	4.741E-01	3.078E-02	1.644
		487.02		4.523E-02	1.050E-01	1.771E-01	1.263E-02	0.255
		815.77		-9.874E-02	2.418E-01	3.858E-01	4.176E-02	-0.256
		1596.21	*	-5.417E-02	6.548E-02	9.080E-02	6.231E-03	-0.597
CE-141		145.44	*	3.928E-03	6.233E-02	9.805E-02	5.598E-03	0.040
CE-143		57.36		1.958E-04	6.233E-02	Half-Life too short		
		293.27	*	3.791E-04	6.233E-02	Half-Life too short		
		664.57		2.265E-04	6.233E-02	Half-Life too short		
		721.93		1.831E-05	6.233E-02	Half-Life too short		
CE-144		80.12		3.000E-01	2.829E+00	4.187E+00	3.626E-01	0.072
		133.52	*	-2.073E-01	2.038E-01	3.086E-01	4.267E-02	-0.672
PM-144		476.78		-7.019E-03	5.728E-02	9.384E-02	6.888E-03	-0.075
		618.01		-4.111E-03	2.859E-02	4.567E-02	3.478E-03	-0.090
		696.49	*	8.547E-03	3.127E-02	5.301E-02	4.303E-03	0.161
PR-144		696.51	*	6.557E-01	2.338E+00	3.966E+00	3.219E-01	0.165
		1489.16		-1.279E+01	1.265E+01	1.812E+01	1.309E+00	-0.706
PM-146		453.88	*	3.610E-04	3.789E-02	6.280E-02	5.486E-03	0.006
		633.25		-5.994E-01	1.330E+00	2.045E+00	7.760E-01	-0.293
		735.93		-1.603E-01	1.362E-01	1.964E-01	5.510E-02	-0.816
		747.24		-4.022E-02	8.765E-02	1.410E-01	2.077E-02	-0.285
ND-147	+	91.11		8.043E-01	2.911E-01	4.720E-01	4.442E-02	1.704
		319.41		8.211E-01	2.643E+00	4.325E+00	2.498E-01	0.190
		531.02	*	1.803E-01	4.420E-01	7.387E-01	1.031E-01	0.244
PM-149		285.90	*	2.793E+01	4.207E+01	7.017E+01	9.918E+00	0.398
EU-152		121.78		-2.261E-02	7.462E-02	1.183E-01	9.080E-03	-0.191
		244.70		-8.813E-02	3.101E-01	5.042E-01	2.816E-02	-0.175
		344.28	*	-9.960E-03	9.814E-02	1.359E-01	8.863E-03	-0.073
		778.90		-7.246E-02	2.313E-01	3.746E-01	3.503E-02	-0.193
	+	964.08		1.050E+00	4.239E-01	6.000E-01	6.145E-02	1.749
		1085.87		-2.085E-01	3.649E-01	5.768E-01	4.469E-02	-0.361
		1112.07		5.379E-02	3.366E-01	4.863E-01	3.461E-02	0.111
		1408.01		1.823E-01	1.750E-01	3.096E-01	2.299E-02	0.589
GD-153		69.67		-2.109E+00	2.011E+00	3.214E+00	2.609E-01	-0.656
		97.43	*	-3.827E-02	1.012E-01	1.443E-01	1.129E-02	-0.265
		103.18		-8.308E-02	1.151E-01	1.814E-01	1.308E-02	-0.458
EU-154		123.07		-4.788E-03	5.244E-02	8.379E-02	7.912E-03	-0.057

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		723.31		3.557E-02	1.900E-01	2.765E-01	2.596E-02	0.129
		873.19		-1.608E-02	2.553E-01	4.160E-01	5.668E-02	-0.039
		996.26		-1.540E-01	3.297E-01	5.122E-01	9.219E-02	-0.301
		1004.73		-6.775E-02	2.082E-01	3.250E-01	3.995E-02	-0.208
		1274.44	*	-4.764E-02	1.151E-01	1.829E-01	1.841E-02	-0.260
EU-155	+	86.55		4.750E-01	1.316E-01	2.088E-01	1.924E-02	2.274
		105.31	*	-2.408E-02	1.126E-01	1.793E-01	1.281E-02	-0.134
TB-160	+	86.79		1.235E+00	3.417E-01	5.455E-01	4.991E-02	2.263
		197.04		-4.909E-01	5.334E-01	8.437E-01	4.531E-02	-0.582
		215.65		9.807E-02	7.981E-01	1.172E+00	6.396E-02	0.084
		298.57		4.061E-01	1.415E-01	1.884E-01	1.082E-02	2.155
		879.36	*	1.957E-02	1.212E-01	2.006E-01	2.204E-02	0.098
		962.29		1.988E+00	6.244E-01	1.039E+00	1.067E-01	1.913
		966.15		2.015E+00	3.320E-01	5.497E-01	5.610E-02	3.665
		1177.93		2.841E-01	3.171E-01	5.548E-01	3.098E-02	0.512
		1271.85		-7.393E-02	6.032E-01	9.809E-01	6.629E-02	-0.075
HO-166M		80.57		-9.446E-02	3.126E-01	4.540E-01	3.945E-02	-0.208
		184.41		1.168E-01	4.039E-02	6.661E-02	3.539E-03	1.753
		280.46		4.142E-02	8.412E-02	1.237E-01	7.055E-03	0.335
	+	410.95		5.112E-01	2.954E-01	4.069E-01	2.395E-02	1.256
		711.68	*	-3.037E-03	5.431E-02	9.025E-02	7.523E-03	-0.034
		752.31		-1.124E-01	2.477E-01	3.989E-01	3.567E-02	-0.282
		810.29		-3.153E-03	5.128E-02	8.417E-02	8.287E-03	-0.037
TA-182		67.75		-7.585E-03	1.403E-01	2.204E-01	1.772E-02	-0.034
		100.11		5.701E-02	1.843E-01	3.028E-01	2.276E-02	0.188
		152.43		-1.271E-02	3.549E-01	5.600E-01	3.013E-02	-0.023
		222.11		-9.138E-02	3.272E-01	5.361E-01	2.943E-02	-0.170
		1121.30		7.248E-01	1.875E-01	3.266E-01	2.250E-02	2.219
		1189.05		-6.060E-02	2.795E-01	4.553E-01	2.604E-02	-0.133
		1221.41	*	2.972E-02	1.865E-01	3.105E-01	1.899E-02	0.096
		1231.02		-6.363E-02	5.554E-01	7.732E-01	4.823E-02	-0.082
IR-192	+	295.96		1.543E+00	2.089E-01	2.932E-01	1.710E-02	5.262
		308.46		-6.005E-02	8.761E-02	1.365E-01	7.955E-03	-0.440
		316.51	*	1.049E-03	3.174E-02	5.048E-02	2.928E-03	0.021
		468.07		-6.619E-04	6.760E-02	9.676E-02	6.905E-03	-0.007
HG-203		70.83		3.519E-01	1.628E+00	2.439E+00	3.858E-01	0.144
		72.87		1.076E+00	9.601E-01	1.466E+00	2.248E-01	0.734
		279.20	*	5.838E-02	3.807E-02	5.919E-02	3.568E-03	0.986
BI-207		72.81		2.288E-01	2.263E-01	3.479E-01	2.872E-02	0.658
	+	74.97		8.162E-01	1.651E-01	2.648E-01	2.214E-02	3.082
		569.70		-1.294E-03	2.890E-02	4.436E-02	3.109E-03	-0.029
		1063.66	*	4.019E-02	4.729E-02	8.324E-02	6.871E-03	0.483
		1770.23		3.001E-01	4.010E-01	6.511E-01	3.939E-02	0.461
PB-210		46.54	*	9.467E-01	5.483E+00	9.336E+00	7.157E-01	0.101
PB-211		404.85	*	6.120E-02	7.334E-01	1.072E+00	5.141E-01	0.057
		427.09		4.997E-01	1.370E+00	2.291E+00	1.050E+00	0.218
		832.01		3.130E-01	9.501E-01	1.571E+00	8.193E-01	0.199
BI-212	+	727.33	*	2.478E+00	8.084E-01	1.134E+00	1.408E-01	2.186
		785.37		2.025E+00	3.098E+00	4.967E+00	4.695E-01	0.408

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		2.506E+00	2.198E+00	4.050E+00	2.739E-01	0.619
RN-219	+	271.23		9.074E-01	3.283E-01	4.175E-01	3.317E-02	2.173
		401.81	*	-1.222E-01	3.814E-01	6.120E-01	8.229E-02	-0.200
RA-223		81.07		-2.501E-01	2.537E-01	3.560E-01	3.105E-02	-0.702
		83.79		8.540E-02	1.499E-01	2.231E-01	1.989E-02	0.383
		94.87		1.429E+00	5.482E-01	8.678E-01	7.067E-02	1.646
		144.24		-5.536E-02	7.001E-01	1.096E+00	7.622E-02	-0.051
		154.21		4.804E-01	3.856E-01	6.769E-01	4.471E-02	0.710
	+	269.46		7.050E-01	2.524E-01	3.277E-01	1.943E-02	2.152
		323.87	*	3.054E-01	6.296E-01	9.134E-01	1.471E-01	0.334
	+	338.28		9.192E+00	2.111E+00	2.330E+00	2.386E-01	3.945
AC-227		79.69		3.038E-01	1.435E+00	2.133E+00	3.677E-01	0.142
		235.96		5.266E-01	1.771E-01	2.832E-01	2.256E-02	1.859
		256.23	*	5.921E-02	2.360E-01	3.909E-01	3.959E-02	0.151
	+	299.98		2.577E+00	1.167E+00	1.539E+00	1.687E-01	1.675
		304.50		-1.560E-01	1.690E+00	2.373E+00	3.614E-01	-0.066
		334.37		-4.702E-01	1.998E+00	2.548E+00	3.622E-01	-0.185
TH-227		79.80		4.129E-01	1.885E+00	2.801E+00	6.102E-01	0.147
		235.96		5.266E-01	1.762E-01	2.832E-01	2.036E-02	1.859
		256.23	*	5.921E-02	2.361E-01	3.909E-01	4.666E-02	0.151
	+	299.98		2.577E+00	1.167E+00	1.539E+00	1.687E-01	1.675
		304.50		-1.560E-01	1.690E+00	2.373E+00	3.614E-01	-0.066
		334.37		-4.702E-01	1.998E+00	2.548E+00	3.622E-01	-0.185
TH-229		85.43		2.524E-01	2.538E-01	3.824E-01	3.457E-02	0.660
	+	88.47		6.044E-01	1.673E-01	2.614E-01	2.394E-02	2.312
		193.51	*	-1.301E-01	4.954E-01	8.206E-01	4.393E-02	-0.159
		210.85		1.623E+00	9.745E-01	1.530E+00	8.315E-02	1.061
PA-231		283.69	*	-6.686E-01	1.323E+00	2.095E+00	2.740E-01	-0.319
	+	301.36		1.656E+00	7.469E-01	9.977E-01	1.029E-01	1.660
TH-231		81.07		-2.501E-01	2.537E-01	3.560E-01	3.105E-02	-0.702
		83.79		8.540E-02	1.499E-01	2.231E-01	1.989E-02	0.383
		94.87		1.429E+00	5.482E-01	8.678E-01	7.067E-02	1.646
		144.24		-5.536E-02	7.001E-01	1.096E+00	7.622E-02	-0.051
		154.21		4.804E-01	3.856E-01	6.769E-01	4.471E-02	0.710
	+	269.46		7.050E-01	2.524E-01	3.277E-01	1.943E-02	2.152
		323.87	*	3.054E-01	6.296E-01	9.134E-01	1.471E-01	0.334
	+	338.28		9.192E+00	2.111E+00	2.330E+00	2.386E-01	3.945
PA-233	+	300.13		1.166E+00	5.354E-01	7.024E-01	9.387E-02	1.660
		311.90	*	-3.654E-03	6.031E-02	9.666E-02	5.923E-03	-0.038
		340.48		2.967E+00	9.765E-01	1.206E+00	2.798E-01	2.461
PA-234		94.67		6.843E-01	2.157E-01	3.306E-01	3.999E-02	2.070
		98.44		1.646E-01	1.350E-01	1.641E-01	9.134E-02	1.003
		111.00		1.928E-02	1.874E-01	3.037E-01	3.258E-02	0.063
		131.20		-2.019E-02	1.107E-01	1.755E-01	9.988E-03	-0.115
		569.50		-1.997E-02	2.561E-01	3.922E-01	2.748E-02	-0.051
		733.00		-7.930E-02	3.647E-01	5.105E-01	1.134E-01	-0.155
		880.51		-2.733E-03	2.466E-01	4.031E-01	4.436E-02	-0.007
		883.24		-5.656E-02	2.514E-01	3.994E-01	2.699E-01	-0.142
		926.50		-2.320E-01	1.822E-01	2.526E-01	6.601E-02	-0.918

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	9.976E-02	2.746E-01	4.569E-01	9.013E-02	0.218
		949.00		2.533E-02	4.212E-01	6.870E-01	7.215E-02	0.037
PA-234M		766.42		2.499E+01	1.706E+01	2.090E+01	1.062E+01	1.196
		1001.03	*	3.219E+00	4.349E+00	7.327E+00	7.904E-01	0.439
NP-239		99.53		2.216E-01	1.717E-01	2.907E-01	2.204E-02	0.762
		103.37		5.511E-03	1.028E-01	1.671E-01	1.202E-02	0.033
		106.12		-3.002E-02	9.180E-02	1.456E-01	1.012E-02	-0.206
		117.23	*	8.212E-02	4.076E-01	6.608E-01	4.081E-02	0.124
		228.18		5.009E-02	2.062E-01	3.440E-01	1.897E-02	0.146
	+	277.60		2.486E-01	1.917E-01	2.838E-01	1.617E-02	0.876
AM-241		59.54	*	4.950E-03	1.955E-01	3.127E-01	2.593E-02	0.016
CM-247	+	278.00		1.056E+00	8.140E-01	1.209E+00	6.889E-02	0.873
		287.50		1.185E+00	1.134E+00	1.928E+00	1.103E-01	0.615
		402.40	*	-1.311E-02	3.504E-02	5.612E-02	3.268E-03	-0.234
CF-249		252.80		-4.975E-01	9.141E-01	1.464E+00	8.225E-02	-0.340
		333.37		4.034E-02	2.624E-01	2.678E-01	1.549E-02	0.151
		388.16	*	2.136E-03	3.587E-02	6.032E-02	3.467E-03	0.035
CF-251		177.52	*	3.801E-02	1.211E-01	2.058E-01	1.088E-02	0.185
		227.38		-1.598E-01	3.405E-01	5.527E-01	3.047E-02	-0.289
		285.41		6.831E-01	2.012E+00	3.321E+00	1.898E-01	0.206

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334001       *
* Acquisition date : 24-MAR-2010 09:22:02 Detector SN#    :                 *
* Detector ID      : GAM18                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.94     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249334001           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.2031E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.511E+01	3.039E+00	5.115E-01	0.000E+00
CD-109	3.997E+00	1.084E+00	1.485E+00	0.000E+00
SN-126	3.920E-01	1.063E-01	1.466E-01	0.000E+00
TL-208	7.132E-01	9.237E-02	4.930E-02	0.000E+00
BI-211	5.613E+00	5.414E-01	2.951E-01	0.000E+00
PB-212	2.396E+00	2.042E-01	9.005E-02	0.000E+00
BI-214	1.602E+00	2.020E-01	1.028E-01	0.000E+00
PB-214	2.037E+00	2.252E-01	1.073E-01	0.000E+00
RA-224	5.582E+00	1.246E+00	9.639E-01	0.000E+00
RA-226	1.602E+00	2.020E-01	1.028E-01	0.000E+00
AC-228	2.824E+00	4.948E-01	1.969E-01	0.000E+00
RA-228	2.824E+00	4.948E-01	1.969E-01	0.000E+00
TH-228	2.396E+00	2.042E-01	9.005E-02	0.000E+00
TH-230	1.602E+00	1.842E-01	1.028E-01	0.000E+00
TH-232	2.824E+00	4.948E-01	1.969E-01	0.000E+00
TH-234	2.535E+00	1.856E+00	2.775E+00	0.000E+00
U-235	1.029E-02	2.045E-01	3.368E-01	0.000E+00
NP-237	1.170E+00	3.980E-01	4.445E-01	0.000E+00
U-238	2.535E+00	1.856E+00	2.775E+00	0.000E+00
ANH-511	1.913E-01	6.262E-02	4.016E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.588E-02	2.642E-01	4.471E-01	0.000E+00	NOT IDENT.
NA-22	-9.178E-03	3.919E-02	6.446E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.274E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	1.279E-02	3.458E-02	5.931E-02	0.000E+00	FAIL ABUN
V-48	1.443E-02	6.128E-02	1.031E-01	0.000E+00	NOT IDENT.
CR-51	-2.627E-02	3.171E-01	5.274E-01	0.000E+00	NOT IDENT.
MN-54	1.262E-02	3.463E-02	5.957E-02	0.000E+00	NOT IDENT.

CO-56	5.661E-03	3.193E-02	5.440E-02	0.000E+00	FAIL ABUN
CO-57	-2.208E-02	2.587E-02	4.204E-02	0.000E+00	NOT IDENT.
CO-58	4.418E-03	3.215E-02	5.484E-02	0.000E+00	NOT IDENT.
FE-59	-1.782E-02	8.136E-02	1.364E-01	0.000E+00	NOT IDENT.
CO-60	1.949E-02	3.574E-02	6.221E-02	0.000E+00	NOT IDENT.
ZN-65	1.083E-01	1.001E-01	1.582E-01	0.000E+00	NOT IDENT.
SE-75	6.306E-03	4.300E-02	6.811E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.774E-02	6.416E-02	0.000E+00	NOT IDENT.
Y-88	-2.247E-02	2.970E-02	4.402E-02	0.000E+00	NOT IDENT.
Y-91	2.737E+00	2.122E+01	3.600E+01	0.000E+00	NOT IDENT.
NB-94	1.529E-02	3.030E-02	5.331E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	4.107E-02	7.602E-02	0.000E+00	NOT IDENT.
NB-95M	1.425E-01	1.281E-01	2.029E-01	0.000E+00	NOT IDENT.
ZR-95	3.617E-02	6.395E-02	1.123E-01	0.000E+00	NOT IDENT.
MO-99	1.015E+01	6.235E+00	1.132E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.119E+13	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.127E-02	3.062E-02	5.066E-02	0.000E+00	FAIL ABUN
RH-106	1.902E-02	2.678E-01	4.460E-01	0.000E+00	NOT IDENT.
RU-106	1.902E-02	2.678E-01	4.460E-01	0.000E+00	NOT IDENT.
AG-108M	-7.436E-03	2.518E-02	4.256E-02	0.000E+00	NOT IDENT.
AG-110M	-2.212E-02	3.145E-02	5.210E-02	0.000E+00	NOT IDENT.
SN-113	-2.969E-02	3.806E-02	6.341E-02	0.000E+00	NOT IDENT.
CD-115	1.976E-01	4.973E+00	8.402E+00	0.000E+00	NOT IDENT.
SN-117M	-2.814E-02	4.653E-02	8.078E-02	0.000E+00	NOT IDENT.
TE-123M	-1.455E-02	2.628E-02	4.567E-02	0.000E+00	NOT IDENT.
SB-124	7.094E-03	6.572E-02	1.118E-01	0.000E+00	NOT IDENT.
SB-125	6.241E-02	7.759E-02	1.387E-01	0.000E+00	FAIL ABUN
TE-125M	-2.134E+00	9.684E+00	1.630E+01	0.000E+00	NOT IDENT.
I-126	-4.838E-02	1.841E-01	3.128E-01	0.000E+00	NOT IDENT.
SB-126	9.608E-02	1.313E-01	2.047E-01	0.000E+00	NOT IDENT.
SB-127	-2.397E-01	8.046E-01	1.359E+00	0.000E+00	NOT IDENT.
I-131	5.552E-02	8.199E-02	1.473E-01	0.000E+00	NOT IDENT.
TE-132	1.024E-01	4.212E-01	7.309E-01	0.000E+00	NOT IDENT.
BA-133	1.196E-02	4.198E-02	6.175E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	8.801E+02	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.680E-02	9.058E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.635E-01	2.658E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.097E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.366E-02	8.891E-02	1.482E-01	0.000E+00	NOT IDENT.
BA-137M	2.033E-02	3.359E-02	5.963E-02	0.000E+00	NOT IDENT.
CS-137	2.148E-02	3.548E-02	6.299E-02	0.000E+00	NOT IDENT.
CE-139	-5.575E-03	2.720E-02	4.768E-02	0.000E+00	NOT IDENT.
BA-140	-4.873E-02	2.024E-01	3.345E-01	0.000E+00	NOT IDENT.
LA-140	-5.417E-02	6.417E-02	9.049E-02	0.000E+00	FAIL ABUN
CE-141	3.928E-03	6.108E-02	1.005E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	9.437E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.073E-01	1.997E-01	3.167E-01	0.000E+00	NOT IDENT.
PM-144	8.547E-03	3.064E-02	5.337E-02	0.000E+00	NOT IDENT.
PR-144	6.557E-01	2.292E+00	3.992E+00	0.000E+00	NOT IDENT.
PM-146	3.610E-04	3.714E-02	6.354E-02	0.000E+00	NOT IDENT.
ND-147	1.803E-01	4.332E-01	7.460E-01	0.000E+00	FAIL ABUN
PM-149	2.793E+01	4.123E+01	7.139E+01	0.000E+00	NOT IDENT.
EU-152	-9.960E-03	9.618E-02	1.380E-01	0.000E+00	FAIL ABUN
GD-153	-3.827E-02	9.918E-02	1.487E-01	0.000E+00	NOT IDENT.
EU-154	-4.764E-02	1.128E-01	1.828E-01	0.000E+00	NOT IDENT.
EU-155	-2.408E-02	1.103E-01	1.845E-01	0.000E+00	FAIL ABUN
TB-160	1.957E-02	1.188E-01	2.014E-01	0.000E+00	FAIL ABUN
HO-166M	-3.037E-03	5.322E-02	9.083E-02	0.000E+00	FAIL ABUN
TA-182	2.972E-02	1.828E-01	3.104E-01	0.000E+00	NOT IDENT.
IR-192	1.049E-03	3.111E-02	5.130E-02	0.000E+00	FAIL ABUN
HG-203	5.838E-02	3.731E-02	6.024E-02	0.000E+00	NOT IDENT.
BI-207	4.019E-02	4.634E-02	8.337E-02	0.000E+00	FAIL ABUN
PB-210	9.467E-01	5.373E+00	9.699E+00	0.000E+00	NOT IDENT.
PB-211	6.120E-02	7.187E-01	1.086E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.922E-01	1.140E+00	0.000E+00	FAIL ABUN
RN-219	-1.222E-01	3.737E-01	6.201E-01	0.000E+00	FAIL ABUN
RA-223	3.054E-01	6.170E-01	9.279E-01	0.000E+00	FAIL ABUN
AC-227	5.921E-02	2.313E-01	3.982E-01	0.000E+00	FAIL ABUN
TH-227	5.921E-02	2.313E-01	3.982E-01	0.000E+00	FAIL ABUN
TH-229	-1.301E-01	4.855E-01	8.387E-01	0.000E+00	FAIL ABUN
PA-231	-6.686E-01	1.297E+00	2.132E+00	0.000E+00	FAIL ABUN
TH-231	3.054E-01	6.170E-01	9.279E-01	0.000E+00	FAIL ABUN
PA-233	-3.654E-03	5.910E-02	9.824E-02	0.000E+00	FAIL ABUN
PA-234	9.976E-02	2.691E-01	4.582E-01	0.000E+00	NOT IDENT.
PA-234M	3.219E+00	4.262E+00	7.344E+00	0.000E+00	NOT IDENT.
NP-239	8.212E-02	3.994E-01	6.793E-01	0.000E+00	FAIL ABUN
AM-241	4.950E-03	1.916E-01	3.239E-01	0.000E+00	NOT IDENT.
CM-247	-1.311E-02	3.434E-02	5.686E-02	0.000E+00	FAIL ABUN

CF-249	2.136E-03	3.515E-02	6.115E-02	0.000E+00 NOT IDENT.
CF-251	3.801E-02	1.187E-01	2.106E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:23:35.86

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334001.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:22:02
Sample ID         : G249334001           Sample quantity  : 1.20310E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.94  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	2272	10.66*	1.894E+00	3.511E+01	3.511E+01	8.83
CD-109	88.03	300	3.70*	6.458E+00	3.920E+00	3.997E+00	27.67
SN-126	64.28	94	9.60	3.132E+00	9.770E-01	9.770E-01	73.99
	86.94	300	8.90	6.458E+00	1.630E+00	1.630E+00	49.01
	87.57	300	37.00*	6.458E+00	3.920E-01	3.920E-01	27.67
TL-208	277.37	72	6.60	6.257E+00	5.438E-01	5.438E-01	77.64
	583.19	765	85.00*	3.935E+00	7.132E-01	7.132E-01	13.22
	860.56	143	12.50	2.915E+00	1.227E+00	1.227E+00	39.03
BI-211	72.87	------	1.23	4.622E+00	------	Line Not Found	------
	351.06	1267	12.92*	5.452E+00	5.613E+00	5.613E+00	9.84
PB-212	74.82	461	10.28	4.944E+00	2.832E+00	2.832E+00	22.45
	77.11	876	17.10	5.255E+00	3.041E+00	3.041E+00	13.76
	238.63	2274	43.60*	6.793E+00	2.396E+00	2.396E+00	8.70
	300.09	148	3.30	5.983E+00	2.343E+00	2.343E+00	44.71
BI-214	609.32	890	45.49*	3.813E+00	1.602E+00	1.602E+00	12.87
	1120.29	218	14.92	2.335E+00	1.950E+00	1.950E+00	24.66
	1764.49	193	15.30	1.695E+00	2.325E+00	2.325E+00	20.21
PB-214	74.82	461	5.80	4.944E+00	5.020E+00	5.020E+00	21.73
	77.11	876	9.70	5.255E+00	5.361E+00	5.361E+00	16.04
	242.00	495	7.25	6.749E+00	3.156E+00	3.157E+00	23.50
	295.22	760	18.42	6.042E+00	2.130E+00	2.130E+00	14.99
	351.93	1267	35.60*	5.452E+00	2.037E+00	2.037E+00	11.28
RA-224	240.99	495	4.10*	6.749E+00	5.582E+00	5.582E+00	22.77
RA-226	609.32	890	45.49*	3.813E+00	1.602E+00	1.602E+00	12.87
	1120.29	218	14.92	2.335E+00	1.950E+00	1.950E+00	24.66
	1764.49	193	15.30	1.695E+00	2.325E+00	2.325E+00	20.21
AC-228	338.32	467	11.27	5.580E+00	2.316E+00	2.316E+00	46.07
	911.20	649	25.80*	2.780E+00	2.824E+00	2.824E+00	17.88
	968.97	283	15.80	2.640E+00	2.118E+00	2.118E+00	30.51
RA-228	338.32	467	11.27	5.580E+00	2.316E+00	2.316E+00	46.07
	911.20	649	25.80*	2.780E+00	2.824E+00	2.824E+00	17.88
	968.97	283	15.80	2.640E+00	2.118E+00	2.118E+00	30.51

Sample ID : G249334001 Acquisition date : 24-MAR-2010 09:22:02

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	461	10.28	4.944E+00	2.832E+00	2.832E+00	20.26
	77.11	876	17.10	5.255E+00	3.041E+00	3.041E+00	13.76
	238.63	2274	43.60*	6.793E+00	2.396E+00	2.396E+00	8.70
	300.09	148	3.30	5.983E+00	2.343E+00	2.343E+00	75.07
TH-230	609.32	890	45.49*	3.813E+00	1.602E+00	1.602E+00	11.74
	1120.29	218	14.92	2.335E+00	1.950E+00	1.950E+00	23.73
	1764.49	193	15.30	1.695E+00	2.325E+00	2.325E+00	20.21
TH-232	338.32	467	11.27	5.580E+00	2.316E+00	2.316E+00	21.36
	911.20	649	25.80*	2.780E+00	2.824E+00	2.824E+00	17.88
	968.97	283	15.80	2.640E+00	2.118E+00	2.118E+00	30.51
TH-234	63.29	94	3.70*	3.132E+00	2.535E+00	2.535E+00	74.70
	92.59	438	4.23	6.974E+00	4.631E+00	4.631E+00	32.05
U-235	89.96	213	3.47	6.707E+00	2.859E+00	2.859E+00	42.77
	93.35	438	5.60	6.974E+00	3.498E+00	3.498E+00	32.76
	143.76	------	10.96*	8.222E+00	------	Line Not Found	------
	163.33	------	5.08	8.005E+00	------	Line Not Found	------
	185.72	423	57.20	7.647E+00	3.014E-01	3.014E-01	23.42
	205.31	------	5.01	7.323E+00	------	Line Not Found	------
NP-237	86.48	300	12.40*	6.458E+00	1.170E+00	1.170E+00	34.72
	95.86	------	2.68	7.180E+00	------	Line Not Found	------
U-238	63.29	94	3.70*	3.132E+00	2.535E+00	2.535E+00	74.70
	92.59	438	4.23	6.974E+00	4.631E+00	4.631E+00	24.78
ANH-511	511.00	264	100.00*	4.311E+00	1.913E-01	1.913E-01	33.41

Flag: "*" = Keyline

Sample ID : G249334001 Acquisition date : 24-MAR-2010 09:22:02

Total number of lines in spectrum 34
Number of unidentified lines 3
Number of lines tentatively identified by NID 31 91.18%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.511E+01	3.511E+01	0.310E+01	8.83	
CD-109	461.40D	1.02	3.920E+00	3.997E+00	1.106E+00	27.67	
SN-126	2.30E+05Y	1.00	3.920E-01	3.920E-01	1.085E-01	27.67	
TL-208	1.41E+10Y	1.00	7.132E-01	7.132E-01	0.943E-01	13.22	
BI-211	7.04E+08Y	1.00	5.613E+00	5.613E+00	0.552E+00	9.84	
PB-212	1.41E+10Y	1.00	2.396E+00	2.396E+00	0.208E+00	8.70	
BI-214	1600.00Y	1.00	1.602E+00	1.602E+00	0.206E+00	12.87	
PB-214	1600.00Y	1.00	2.037E+00	2.037E+00	0.230E+00	11.28	
RA-224	1.41E+10Y	1.00	5.582E+00	5.582E+00	1.271E+00	22.77	
RA-226	1600.00Y	1.00	1.602E+00	1.602E+00	0.206E+00	12.87	
AC-228	1.41E+10Y	1.00	2.824E+00	2.824E+00	0.505E+00	17.88	
RA-228	1.41E+10Y	1.00	2.824E+00	2.824E+00	0.505E+00	17.88	
TH-228	1.41E+10Y	1.00	2.396E+00	2.396E+00	0.208E+00	8.70	
TH-230	7.54E+04Y	1.00	1.602E+00	1.602E+00	0.188E+00	11.74	
TH-232	1.41E+10Y	1.00	2.824E+00	2.824E+00	0.505E+00	17.88	
TH-234	4.47E+09Y	1.00	2.535E+00	2.535E+00	1.894E+00	74.70	
U-235	7.04E+08Y	1.00	3.014E-01	3.014E-01	0.706E-01	23.42	K
NP-237	2.14E+06Y	1.00	1.170E+00	1.170E+00	0.406E+00	34.72	
U-238	4.47E+09Y	1.00	2.535E+00	2.535E+00	1.894E+00	74.70	
ANH-511	1.00E+09Y	1.00	1.913E-01	1.913E-01	0.639E-01	33.41	
		Total Activity :	7.817E+01	7.825E+01			

Grand Total Activity : 7.817E+01 7.825E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249334001 Acquisition date : 24-MAR-2010 09:22:02

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.31	198	483	1.37	417.63	413	12	2.76E-02	46.5	7.26E+00	
0	270.17	199	277	1.73	539.32	535	11	2.77E-02	35.3	6.35E+00	T
0	327.92	143	226	1.75	654.78	650	10	1.98E-02	42.8	5.68E+00	T
0	409.62	91	161	1.82	818.13	814	10	1.27E-02	57.5	4.97E+00	T
0	462.88	157	153	1.44	924.63	920	11	2.18E-02	34.3	4.60E+00	T
0	726.94	177	125	1.41	1452.60	1447	12	2.46E-02	30.2	3.34E+00	T
0	795.06	128	159	1.96	1588.81	1579	20	1.77E-02	51.7	3.11E+00	T
1	964.01	130	120	2.31	1926.64	1920	21	1.81E-02	39.1	2.65E+00	T
0	1237.99	82	166	1.11	2474.51	2468	16	1.14E-02	75.4	2.15E+00	T
0	1587.99	36	32	2.11	3174.44	3164	14	4.97E-03	74.6	1.79E+00	
0	1729.44	59	22	1.02	3457.34	3447	19	8.22E-03	47.0	1.71E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:23:39.52

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*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334001.CNF;1    *
* Acquisition date : 24-MAR-2010 09:22:02  Detector SN#    :                  *
* Detector ID      : GAM18                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:01.94         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 11-MAR-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G249334001            Analyst initials: MXR1             *
* Batch Number     : 965250                Sample Quantity : 1.20310E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23.2MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.511E+01	3.101E+00	5.127E-01	3.891E-02	68.482
CD-109	3.997E+00	1.106E+00	1.440E+00	1.331E-01	2.776
SN-126	3.920E-01	1.085E-01	1.421E-01	1.310E-02	2.758
TL-208	7.132E-01	9.426E-02	4.887E-02	3.824E-03	14.596
BI-211	5.613E+00	5.524E-01	2.907E-01	1.867E-02	19.307
PB-212	2.396E+00	2.084E-01	8.832E-02	6.367E-03	27.128
BI-214	1.602E+00	2.061E-01	1.019E-01	9.161E-03	15.711
PB-214	2.037E+00	2.298E-01	1.057E-01	8.948E-03	19.271
RA-224	5.582E+00	1.271E+00	9.455E-01	5.267E-02	5.903
RA-226	1.602E+00	2.061E-01	1.019E-01	9.161E-03	15.711
AC-228	2.824E+00	5.049E-01	1.962E-01	2.657E-02	14.396
RA-228	2.824E+00	5.049E-01	1.962E-01	2.657E-02	14.396
TH-228	2.396E+00	2.084E-01	8.832E-02	6.367E-03	27.128
TH-230	1.602E+00	1.880E-01	1.019E-01	7.416E-03	15.711
TH-232	2.824E+00	5.049E-01	1.962E-01	2.657E-02	14.396
TH-234	2.535E+00	1.894E+00	2.680E+00	4.828E-01	0.946
U-235	3.014E-01	7.058E-02	3.284E-01	5.122E-02	0.918
NP-237	1.170E+00	4.062E-01	4.309E-01	9.852E-02	2.715

Sample ID : G249334001 Acquisition date : 24-MAR-2010 09:22:02

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-238	2.535E+00	1.894E+00	2.680E+00	4.828E-01	0.946
ANH-511	1.913E-01	6.390E-02	3.975E-02	2.625E-03	4.811

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.588E-02		2.696E-01	4.421E-01	3.202E-02	-0.059
NA-22	-9.178E-03		3.999E-02	6.450E-02	4.389E-03	-0.142
NA-24	-7.959E-02		3.201E-02	Half-Life too short		
SC-46	1.279E-02		3.529E-02	5.909E-02	6.591E-03	0.216
V-48	1.443E-02		6.253E-02	1.029E-01	1.017E-02	0.140
CR-51	-2.627E-02		3.236E-01	5.190E-01	3.336E-02	-0.051
MN-54	1.262E-02		3.534E-02	5.930E-02	6.075E-03	0.213
CO-56	5.661E-03		3.258E-02	5.416E-02	5.654E-03	0.105
CO-57	-2.208E-02		2.639E-02	4.091E-02	2.424E-03	-0.540
CO-58	4.418E-03		3.281E-02	5.458E-02	5.388E-03	0.081
FE-59	-1.782E-02		8.302E-02	1.363E-01	1.121E-02	-0.131
CO-60	1.949E-02		3.647E-02	6.229E-02	4.706E-03	0.313
ZN-65	1.083E-01		1.021E-01	1.581E-01	1.114E-02	0.685
SE-75	6.306E-03		4.388E-02	6.689E-02	3.827E-03	0.094
SR-85	9.570E-02		3.851E-02	6.350E-02	4.207E-03	1.507
Y-88	-2.247E-02		3.030E-02	4.425E-02	2.520E-03	-0.508
Y-91	2.737E+00		2.165E+01	3.600E+01	2.128E+00	0.076
NB-94	1.529E-02		3.092E-02	5.296E-02	4.345E-03	0.289
NB-95	9.081E-02		4.191E-02	7.560E-02	6.916E-03	1.201
NB-95M	1.425E-01		1.308E-01	1.989E-01	1.465E-02	0.716
ZR-95	3.617E-02		6.525E-02	1.116E-01	1.102E-02	0.324
MO-99	1.015E+01		6.363E+00	1.125E+01	1.781E+00	0.902
TC-99M	6.003E+06		4.142E+07	Half-Life too short		
RU-103	-1.127E-02		3.124E-02	5.012E-02	6.401E-03	-0.225
RH-106	1.902E-02		2.732E-01	4.425E-01	5.519E-02	0.043
RU-106	1.902E-02		2.732E-01	4.425E-01	3.256E-02	0.043
AG-108M	-7.436E-03		2.569E-02	4.204E-02	2.710E-03	-0.177
AG-110M	-2.212E-02		3.209E-02	5.172E-02	4.080E-03	-0.428
SN-113	-2.969E-02		3.884E-02	6.256E-02	3.837E-03	-0.475
CD-115	1.976E-01		5.075E+00	8.319E+00	5.591E-01	0.024
SN-117M	-2.814E-02		4.748E-02	7.886E-02	4.191E-03	-0.357
TE-123M	-1.455E-02		2.681E-02	4.459E-02	2.406E-03	-0.326
SB-124	7.094E-03		6.707E-02	1.123E-01	7.775E-03	0.063
SB-125	6.241E-02		7.917E-02	1.370E-01	8.548E-03	0.456
TE-125M	-2.134E+00		9.882E+00	1.584E+01	1.420E+00	-0.135
I-126	-4.838E-02		1.878E-01	3.106E-01	2.388E-02	-0.156
SB-126	9.608E-02		1.340E-01	2.035E-01	1.723E-02	0.472
SB-127	-2.397E-01		8.210E-01	1.350E+00	1.381E-01	-0.178
I-131	5.552E-02		8.366E-02	1.452E-01	9.339E-03	0.382
TE-132	1.024E-01		4.298E-01	7.166E-01	9.971E-02	0.143
BA-133	1.196E-02		4.284E-02	6.085E-02	6.856E-03	0.197

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	1.715E-04		4.490E-04	Half-Life too short		
CS-134	1.685E-01	+	8.858E-02	9.013E-02	8.717E-03	1.870
CS-135	2.972E-01		1.669E-01	2.610E-01	1.973E-02	1.139
I-135	4.879E+06		1.070E+07	Half-Life too short		
CS-136	-3.366E-02		9.072E-02	1.480E-01	1.326E-02	-0.227
BA-137M	2.033E-02		3.427E-02	5.920E-02	4.512E-03	0.343
CS-137	2.148E-02		3.621E-02	6.253E-02	4.779E-03	0.343
CE-139	-5.575E-03		2.775E-02	4.657E-02	2.444E-03	-0.120
BA-140	-4.873E-02		2.066E-01	3.313E-01	1.110E-01	-0.147
LA-140	-5.417E-02		6.548E-02	9.080E-02	6.231E-03	-0.597
CE-141	3.928E-03		6.233E-02	9.805E-02	5.598E-03	0.040
CE-143	3.791E-04		4.815E-05	Half-Life too short		
CE-144	-2.073E-01		2.038E-01	3.086E-01	4.267E-02	-0.672
PM-144	8.547E-03		3.127E-02	5.301E-02	4.303E-03	0.161
PR-144	6.557E-01		2.338E+00	3.966E+00	3.219E-01	0.165
PM-146	3.610E-04		3.789E-02	6.280E-02	5.486E-03	0.006
ND-147	1.803E-01		4.420E-01	7.387E-01	1.031E-01	0.244
PM-149	2.793E+01		4.207E+01	7.017E+01	9.918E+00	0.398
EU-152	-9.960E-03		9.814E-02	1.359E-01	8.863E-03	-0.073
GD-153	-3.827E-02		1.012E-01	1.443E-01	1.129E-02	-0.265
EU-154	-4.764E-02		1.151E-01	1.829E-01	1.841E-02	-0.260
EU-155	-2.408E-02		1.126E-01	1.793E-01	1.281E-02	-0.134
TB-160	1.957E-02		1.212E-01	2.006E-01	2.204E-02	0.098
HO-166M	-3.037E-03		5.431E-02	9.025E-02	7.523E-03	-0.034
TA-182	2.972E-02		1.865E-01	3.105E-01	1.899E-02	0.096
IR-192	1.049E-03		3.174E-02	5.048E-02	2.928E-03	0.021
HG-203	5.838E-02		3.807E-02	5.919E-02	3.568E-03	0.986
BI-207	4.019E-02		4.729E-02	8.324E-02	6.871E-03	0.483
PB-210	9.467E-01		5.483E+00	9.336E+00	7.157E-01	0.101
PB-211	6.120E-02		7.334E-01	1.072E+00	5.141E-01	0.057
BI-212	2.478E+00	+	8.084E-01	1.134E+00	1.408E-01	2.186
RN-219	-1.222E-01		3.814E-01	6.120E-01	8.229E-02	-0.200
RA-223	3.054E-01		6.296E-01	9.134E-01	1.471E-01	0.334
AC-227	5.921E-02		2.360E-01	3.909E-01	3.959E-02	0.151
TH-227	5.921E-02		2.361E-01	3.909E-01	4.666E-02	0.151
TH-229	-1.301E-01		4.954E-01	8.206E-01	4.393E-02	-0.159
PA-231	-6.686E-01		1.323E+00	2.095E+00	2.740E-01	-0.319
TH-231	3.054E-01		6.296E-01	9.134E-01	1.471E-01	0.334
PA-233	-3.654E-03		6.031E-02	9.666E-02	5.923E-03	-0.038
PA-234	9.976E-02		2.746E-01	4.569E-01	9.013E-02	0.218
PA-234M	3.219E+00		4.349E+00	7.327E+00	7.904E-01	0.439
NP-239	8.212E-02		4.076E-01	6.608E-01	4.081E-02	0.124
AM-241	4.950E-03		1.955E-01	3.127E-01	2.593E-02	0.016
CM-247	-1.311E-02		3.504E-02	5.612E-02	3.268E-03	-0.234
CF-249	2.136E-03		3.587E-02	6.032E-02	3.467E-03	0.035
CF-251	3.801E-02		1.211E-01	2.058E-01	1.088E-02	0.185

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249334001            *
* Acquisition date : 24-MAR-2010 09:22:02 Detector SN#    :                 *
* Detector ID      : GAM18                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.94     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249334001           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.2031E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.511E+01	3.039E+00	2.559E-01	1.551E+00
CD-109	3.997E+00	1.084E+00	7.430E-01	5.531E-01
SN-126	3.920E-01	1.063E-01	7.334E-02	5.425E-02
TL-208	7.132E-01	9.237E-02	2.466E-02	4.713E-02
BI-211	5.613E+00	5.414E-01	1.476E-01	2.762E-01
PB-212	2.396E+00	2.042E-01	4.505E-02	1.042E-01
BI-214	1.602E+00	2.020E-01	5.142E-02	1.031E-01
PB-214	2.037E+00	2.252E-01	5.367E-02	1.149E-01
RA-224	5.582E+00	1.246E+00	4.822E-01	6.355E-01
RA-226	1.602E+00	2.020E-01	5.142E-02	1.031E-01
AC-228	2.824E+00	4.948E-01	9.849E-02	2.525E-01
RA-228	2.824E+00	4.948E-01	9.849E-02	2.525E-01
TH-228	2.396E+00	2.042E-01	4.505E-02	1.042E-01
TH-230	1.602E+00	1.842E-01	5.142E-02	9.400E-02
TH-232	2.824E+00	4.948E-01	9.849E-02	2.525E-01
TH-234	2.535E+00	1.856E+00	1.388E+00	9.468E-01
U-235	1.029E-02	2.045E-01	1.685E-01	1.044E-01
NP-237	1.170E+00	3.980E-01	2.224E-01	2.031E-01
U-238	2.535E+00	1.856E+00	1.388E+00	9.468E-01
ANH-511	1.913E-01	6.262E-02	2.009E-02	3.195E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.588E-02	2.642E-01	2.237E-01	1.348E-01	NOT IDENT.
NA-22	-9.178E-03	3.919E-02	3.225E-02	1.999E-02	NOT IDENT.
NA-24	-7.959E+04	6.274E+04	0.000E+00	3.201E+04	SHORT HLIF
SC-46	1.279E-02	3.458E-02	2.967E-02	1.764E-02	FAIL ABUN
V-48	1.443E-02	6.128E-02	5.159E-02	3.126E-02	NOT IDENT.
CR-51	-2.627E-02	3.171E-01	2.638E-01	1.618E-01	NOT IDENT.
MN-54	1.262E-02	3.463E-02	2.980E-02	1.767E-02	NOT IDENT.

CO-56	5.661E-03	3.193E-02	2.721E-02	1.629E-02	FAIL ABUN
CO-57	-2.208E-02	2.587E-02	2.103E-02	1.320E-02	NOT IDENT.
CO-58	4.418E-03	3.215E-02	2.744E-02	1.640E-02	NOT IDENT.
FE-59	-1.782E-02	8.136E-02	6.825E-02	4.151E-02	NOT IDENT.
CO-60	1.949E-02	3.574E-02	3.112E-02	1.824E-02	NOT IDENT.
ZN-65	1.083E-01	1.001E-01	7.917E-02	5.107E-02	NOT IDENT.
SE-75	6.306E-03	4.300E-02	3.408E-02	2.194E-02	NOT IDENT.
SR-85	9.570E-02	3.774E-02	3.210E-02	1.925E-02	NOT IDENT.
Y-88	-2.247E-02	2.970E-02	2.202E-02	1.515E-02	NOT IDENT.
Y-91	2.737E+00	2.122E+01	1.801E+01	1.083E+01	NOT IDENT.
NB-94	1.529E-02	3.030E-02	2.667E-02	1.546E-02	NOT IDENT.
NB-95	9.081E-02	4.107E-02	3.803E-02	2.095E-02	NOT IDENT.
NB-95M	1.425E-01	1.281E-01	1.015E-01	6.538E-02	NOT IDENT.
ZR-95	3.617E-02	6.395E-02	5.616E-02	3.263E-02	NOT IDENT.
MO-99	1.015E+01	6.235E+00	5.662E+00	3.181E+00	NOT IDENT.
TC-99M	6.003E+12	8.119E+13	0.000E+00	4.142E+13	SHORT HLIF
RU-103	-1.127E-02	3.062E-02	2.534E-02	1.562E-02	FAIL ABUN
RH-106	1.902E-02	2.678E-01	2.231E-01	1.366E-01	NOT IDENT.
RU-106	1.902E-02	2.678E-01	2.231E-01	1.366E-01	NOT IDENT.
AG-108M	-7.436E-03	2.518E-02	2.129E-02	1.285E-02	NOT IDENT.
AG-110M	-2.212E-02	3.145E-02	2.607E-02	1.605E-02	NOT IDENT.
SN-113	-2.969E-02	3.806E-02	3.172E-02	1.942E-02	NOT IDENT.
CD-115	1.976E-01	4.973E+00	4.203E+00	2.537E+00	NOT IDENT.
SN-117M	-2.814E-02	4.653E-02	4.041E-02	2.374E-02	NOT IDENT.
TE-123M	-1.455E-02	2.628E-02	2.285E-02	1.341E-02	NOT IDENT.
SB-124	7.094E-03	6.572E-02	5.593E-02	3.353E-02	NOT IDENT.
SB-125	6.241E-02	7.759E-02	6.938E-02	3.959E-02	FAIL ABUN
TE-125M	-2.134E+00	9.684E+00	8.152E+00	4.941E+00	NOT IDENT.
I-126	-4.838E-02	1.841E-01	1.565E-01	9.391E-02	NOT IDENT.
SB-126	9.608E-02	1.313E-01	1.024E-01	6.698E-02	NOT IDENT.
SB-127	-2.397E-01	8.046E-01	6.799E-01	4.105E-01	NOT IDENT.
I-131	5.552E-02	8.199E-02	7.370E-02	4.183E-02	NOT IDENT.
TE-132	1.024E-01	4.212E-01	3.657E-01	2.149E-01	NOT IDENT.
BA-133	1.196E-02	4.198E-02	3.089E-02	2.142E-02	FAIL ABUN
I-133	1.715E+02	8.801E+02	0.000E+00	4.490E+02	SHORT HLIF
CS-134	1.685E-01	8.680E-02	4.532E-02	4.429E-02	FAIL ABUN
CS-135	2.972E-01	1.635E-01	1.330E-01	8.343E-02	NOT IDENT.
I-135	4.879E+12	2.097E+13	0.000E+00	1.070E+13	SHORT HLIF
CS-136	-3.366E-02	8.891E-02	7.416E-02	4.536E-02	NOT IDENT.
BA-137M	2.033E-02	3.359E-02	2.983E-02	1.714E-02	NOT IDENT.
CS-137	2.148E-02	3.548E-02	3.151E-02	1.810E-02	NOT IDENT.
CE-139	-5.575E-03	2.720E-02	2.385E-02	1.388E-02	NOT IDENT.
BA-140	-4.873E-02	2.024E-01	1.674E-01	1.033E-01	NOT IDENT.
LA-140	-5.417E-02	6.417E-02	4.527E-02	3.274E-02	FAIL ABUN
CE-141	3.928E-03	6.108E-02	5.030E-02	3.116E-02	NOT IDENT.
CE-143	3.791E+02	9.437E+01	0.000E+00	4.815E+01	SHORT HLIF
CE-144	-2.073E-01	1.997E-01	1.585E-01	1.019E-01	NOT IDENT.
PM-144	8.547E-03	3.064E-02	2.670E-02	1.563E-02	NOT IDENT.
PR-144	6.557E-01	2.292E+00	1.997E+00	1.169E+00	NOT IDENT.
PM-146	3.610E-04	3.714E-02	3.179E-02	1.895E-02	NOT IDENT.
ND-147	1.803E-01	4.332E-01	3.732E-01	2.210E-01	FAIL ABUN
PM-149	2.793E+01	4.123E+01	3.572E+01	2.103E+01	NOT IDENT.
EU-152	-9.960E-03	9.618E-02	6.903E-02	4.907E-02	FAIL ABUN
GD-153	-3.827E-02	9.918E-02	7.439E-02	5.060E-02	NOT IDENT.
EU-154	-4.764E-02	1.128E-01	9.145E-02	5.755E-02	NOT IDENT.
EU-155	-2.408E-02	1.103E-01	9.233E-02	5.628E-02	FAIL ABUN
TB-160	1.957E-02	1.188E-01	1.008E-01	6.062E-02	FAIL ABUN
HO-166M	-3.037E-03	5.322E-02	4.544E-02	2.715E-02	FAIL ABUN
TA-182	2.972E-02	1.828E-01	1.553E-01	9.325E-02	NOT IDENT.
IR-192	1.049E-03	3.111E-02	2.566E-02	1.587E-02	FAIL ABUN
HG-203	5.838E-02	3.731E-02	3.014E-02	1.904E-02	NOT IDENT.
BI-207	4.019E-02	4.634E-02	4.171E-02	2.365E-02	FAIL ABUN
PB-210	9.467E-01	5.373E+00	4.852E+00	2.741E+00	NOT IDENT.
PB-211	6.120E-02	7.187E-01	5.432E-01	3.667E-01	NOT IDENT.
BI-212	2.478E+00	7.922E-01	5.706E-01	4.042E-01	FAIL ABUN
RN-219	-1.222E-01	3.737E-01	3.102E-01	1.907E-01	FAIL ABUN
RA-223	3.054E-01	6.170E-01	4.642E-01	3.148E-01	FAIL ABUN
AC-227	5.921E-02	2.313E-01	1.992E-01	1.180E-01	FAIL ABUN
TH-227	5.921E-02	2.313E-01	1.992E-01	1.180E-01	FAIL ABUN
TH-229	-1.301E-01	4.855E-01	4.196E-01	2.477E-01	FAIL ABUN
PA-231	-6.686E-01	1.297E+00	1.067E+00	6.616E-01	FAIL ABUN
TH-231	3.054E-01	6.170E-01	4.642E-01	3.148E-01	FAIL ABUN
PA-233	-3.654E-03	5.910E-02	4.915E-02	3.015E-02	FAIL ABUN
PA-234	9.976E-02	2.691E-01	2.292E-01	1.373E-01	NOT IDENT.
PA-234M	3.219E+00	4.262E+00	3.674E+00	2.175E+00	NOT IDENT.
NP-239	8.212E-02	3.994E-01	3.399E-01	2.038E-01	FAIL ABUN
AM-241	4.950E-03	1.916E-01	1.621E-01	9.775E-02	NOT IDENT.
CM-247	-1.311E-02	3.434E-02	2.845E-02	1.752E-02	FAIL ABUN

CF-249	2.136E-03	3.515E-02	3.059E-02	1.793E-02	NOT IDENT.
CF-251	3.801E-02	1.187E-01	1.054E-01	6.054E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	338.5255
49.72	364.4930
57.36	0.0000
59.54	360.9886
63.29	443.4100
63.29	443.4100
64.28	511.1403
67.75	454.9262
69.67	519.1625
70.83	471.2564
72.81	487.2626
72.87	487.3517
72.87	487.3517
74.82	497.0704
74.82	497.0704
74.82	497.0704
74.97	497.2926
77.11	500.4397
77.11	500.4397
77.11	500.4397
79.69	454.0584
79.80	451.2220
80.12	451.6335
80.19	451.7213
80.57	474.5957
81.00	517.0096
81.07	517.1125
81.07	517.1125
83.79	480.3789
83.79	480.3789
85.43	502.1971
86.48	549.1285
86.55	549.2335
86.79	549.5815
86.94	549.8052
87.57	550.7304
88.03	551.4043
88.47	552.0450
89.96	541.9599
91.11	451.4481
92.59	453.1685
92.59	453.1685
93.35	401.5369
94.67	399.7787
94.87	399.9795
94.87	399.9795
95.86	411.8486
97.43	435.2947
98.44	347.8461
99.53	359.6421
100.11	393.6479
103.18	416.5775
103.37	377.7256
105.31	398.5208
106.12	423.6920
109.28	407.5061
111.00	379.0197
111.76	400.0956
116.30	364.9835
117.23	365.7141
121.12	368.7373
121.78	381.3333
122.06	413.4436
123.07	372.4381
131.20	425.6368
133.52	415.1926
136.00	340.3029

136.47	348.5303
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143.76	388.8824
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144.24	392.6682
145.44	385.4763
152.43	407.7957
153.25	402.5491
154.21	395.3338
154.21	395.3338
156.02	404.4899
158.56	416.8531
159.00	402.1379
162.66	356.6022
163.33	361.4544
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176.60	362.0023
177.52	348.8616
181.07	329.7189
184.41	369.6980
185.72	359.7306
193.51	365.7744
197.04	379.8420
205.31	370.4588
210.85	350.3515
215.65	351.0899
222.11	339.7408
227.38	349.8907
228.16	324.8039
228.18	324.8115
235.69	341.3443
235.96	343.0412
235.96	343.0412
238.63	325.1472
238.63	325.1472
240.99	326.0931
242.00	326.4960
244.70	327.5721
252.40	289.2794
252.80	302.5269
256.23	268.3097
256.23	268.3097
260.90	269.7674
264.66	254.9146
268.22	239.7950
269.46	241.7712
269.46	241.7712
271.23	251.3160
273.65	251.9936
276.40	237.5673
277.37	250.9546
277.60	251.0174
278.00	235.7699
279.20	214.4656
279.54	214.5444
280.46	218.0913
283.69	252.6828
284.31	257.0320
285.41	238.5066
285.90	227.1189
287.50	219.1190
293.27	0.0000
295.22	224.9246
295.96	225.0999
298.57	161.2217
299.98	248.1323
299.98	248.1323
300.09	248.1608
300.09	248.1608
300.13	248.1679
301.36	241.6739
302.85	213.0676
304.50	233.9135
304.50	233.9135
304.85	225.4570
308.46	242.1389
311.90	216.0959

316.51	213.8464
319.41	206.8749
320.08	222.1824
323.87	184.4959
323.87	184.4959
328.76	222.0888
333.37	219.5496
334.37	243.9304
334.37	243.9304
338.28	208.4318
338.28	208.4318
338.32	208.4404
338.32	208.4404
338.32	208.4404
340.48	187.4228
340.55	187.4332
344.28	193.4031
351.06	199.7389
351.93	199.8946
356.01	184.7135
364.49	177.9781
366.42	199.0930
383.85	219.5462
388.16	196.3698
388.63	193.6809
391.69	204.3441
400.66	190.0173
401.81	200.4510
402.40	202.4124
404.85	191.5969
410.95	189.4047
414.70	158.5687
423.72	180.2472
427.09	167.4020
427.87	153.2251
433.94	168.2807
453.88	169.8346
463.37	159.2831
468.07	166.6838
473.00	154.4779
476.78	159.8227
477.60	150.0443
487.02	135.1334
492.35	135.6298
497.08	132.0661
511.00	139.3653
514.00	136.6059
527.90	139.8932
529.87	0.0000
531.02	139.1510
537.26	139.7088
546.56	0.0000
563.25	133.6375
569.33	136.2302
569.50	141.4830
569.70	141.5028
583.19	126.7998
600.60	164.8702
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609.32	148.4145
609.32	148.4145
609.32	148.4145
610.33	127.0321
614.28	130.9045
618.01	133.6966
621.93	121.0262
621.93	121.0262
633.25	140.2780
635.95	118.7051
636.99	120.9537
645.85	123.7317
657.76	159.7974
661.66	151.8475
661.66	151.8475
664.57	0.0000
666.33	166.9846
666.50	166.9993

677.62	145.7054
685.70	145.3867
695.00	152.6400
696.49	140.5731
696.51	140.5762
697.00	143.4219
702.65	139.1354
706.68	154.4907
711.68	132.2127
720.70	123.5928
721.93	0.0000
722.78	151.3975
722.91	151.4072
723.31	156.3214
724.19	156.3884
727.33	128.8930
733.00	112.8927
735.93	138.5866
739.50	90.9547
747.24	129.7348
752.31	131.0140
753.82	119.5397
756.73	120.6716
763.94	189.8591
765.81	128.9466
766.42	135.7731
777.92	133.5800
778.90	120.9600
783.70	105.5852
785.37	117.4072
795.86	114.0412
801.95	111.5384
810.29	103.8998
810.76	97.9849
815.77	98.2044
818.51	98.3232
832.01	119.8926
834.85	129.0446
836.80	0.0000
846.77	91.5036
856.80	90.0225
860.56	100.1380
871.09	103.6332
873.19	102.7076
875.33	0.0000
879.36	94.8164
880.51	94.8618
883.24	94.9697
884.68	114.4404
889.28	97.2556
898.04	113.0190
911.20	94.0011
911.20	94.0011
911.20	94.0011
926.50	134.0758
937.49	155.5388
944.13	101.5212
946.00	93.2171
949.00	105.9111
962.29	93.9598
964.08	93.8744
966.15	93.9505
968.97	97.8260
968.97	97.8260
968.97	97.8260
983.53	104.1390
996.26	104.6394
1001.03	89.8516
1004.73	112.4683
1037.84	107.7992
1038.76	0.0000
1048.07	114.7291
1050.41	98.0200
1050.41	98.0200
1063.66	85.3538
1085.87	103.0353
1099.45	112.0654
1112.07	110.1665

1115.54	115.3088
1120.29	117.1680
1120.29	117.1680
1120.29	117.1680
1120.55	117.1808
1121.30	112.1874
1131.51	0.0000
1173.23	122.6470
1177.93	92.6144
1189.05	115.4484
1204.77	143.5609
1221.41	129.4877
1231.02	152.6787
1235.36	178.9487
1238.28	142.0973
1260.41	0.0000
1271.85	80.3153
1274.44	96.4520
1274.54	91.4316
1291.59	77.7627
1298.22	0.0000
1312.11	90.4279
1332.49	62.3488
1365.19	56.7456
1368.63	0.0000
1384.29	61.2018
1408.01	52.2095
1457.56	0.0000
1460.82	50.8443
1489.16	60.8329
1505.03	50.6382
1596.21	42.5201
1620.50	31.8580
1678.03	0.0000
1690.97	28.4716
1764.49	33.7283
1764.49	33.7283
1764.49	33.7283
1770.23	15.9971
1771.35	16.0015
1791.20	0.0000
1836.06	32.4639

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249334001

Total Uranium Activity	7.5460E+00	ug/g
Total Uranium Counting Unc.	5.5217E+00	ug/g
Total Uranium Tpu	2.8172E-06	ug/g
Total Uranium Mda	4.1308E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID   : G249334001      *
*   ANALYST       : MXR1                      DETECTOR    : GAM18           *
*   SAMPLE DATE   : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 09:22:02.99    SAMPLE ALQT:  120.310 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.258E+01
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.346E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 3.000E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 1.461E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:06:22.75

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071014.CNF;1
Sample date       : 17-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 11:03:00
Sample ID         : G1202071014          Sample quantity  : 1.35710E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.61  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.11*	38	60	1.03	124.09	118	12	5.34E-03	48.4	
2	0	1119.95	13	6	1.45	2239.05	2235	8	1.84E-03	42.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 13:06:35

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071014.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 17-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 11:03:00
Sample ID : G1202071014 Sample quantity : 135.71 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA19 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.61 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-6.890E-02	1.577E-01	2.402E-01	1.630E-02	-0.287
NA-22		1274.54	*	5.185E-03	1.787E-02	3.158E-02	2.106E-03	0.164
NA-24		1368.63	*	-9.599E-06	1.787E-02	Half-Life too short		
K-40		1460.82	*	1.887E-01	2.649E-01	5.089E-01	3.790E-02	0.371
SC-46		889.28	*	7.283E-03	1.846E-02	3.194E-02	2.776E-03	0.228
	+	1120.55		2.676E-02	2.258E-02	4.596E-02	2.899E-03	0.582
V-48		944.13		-6.181E-02	3.134E-01	4.838E-01	4.076E-02	-0.128
		983.53	*	-2.209E-02	2.660E-02	3.508E-02	2.820E-03	-0.630
		1312.11		-2.710E-04	2.923E-02	4.837E-02	3.442E-03	-0.006
CR-51		320.08	*	5.273E-02	1.405E-01	2.451E-01	1.584E-02	0.215
MN-54		834.85	*	-1.752E-04	1.529E-02	2.468E-02	1.963E-03	-0.007
CO-56		846.77	*	1.967E-02	1.988E-02	3.709E-02	3.009E-03	0.530
		1037.84		2.382E-02	1.338E-01	2.315E-01	1.839E-02	0.103
		1238.28		-2.190E-03	3.844E-02	6.342E-02	4.166E-03	-0.035
		1771.35		1.738E-02	1.367E-01	2.309E-01	1.391E-02	0.075
CO-57		122.06	*	6.969E-03	1.219E-02	2.073E-02	1.237E-03	0.336
		136.47		-8.433E-02	9.503E-02	1.416E-01	9.331E-03	-0.595
CO-58		810.76	*	-6.667E-03	1.712E-02	2.558E-02	1.960E-03	-0.261
FE-59		1099.45	*	1.041E-02	3.246E-02	5.787E-02	4.341E-03	0.180
		1291.59		-2.880E-02	4.928E-02	7.046E-02	5.834E-03	-0.409
CO-60		1173.23		1.515E-02	1.955E-02	3.710E-02	2.033E-03	0.408
		1332.49	*	4.349E-03	2.117E-02	3.649E-02	2.689E-03	0.119
ZN-65		1115.54	*	-2.531E-03	4.087E-02	5.778E-02	3.694E-03	-0.044
SE-75		121.12		-7.747E-03	6.191E-02	9.973E-02	9.182E-03	-0.078
		136.00		-1.278E-02	1.792E-02	2.722E-02	1.568E-03	-0.470
		264.66	*	8.449E-03	2.143E-02	3.737E-02	2.174E-03	0.226
		279.54		3.279E-02	5.353E-02	9.477E-02	5.941E-03	0.346
		400.66		7.803E-02	1.458E-01	2.374E-01	2.123E-02	0.329
SR-85		514.00	*	-1.984E-02	3.129E-02	4.928E-02	2.910E-03	-0.403
Y-88		898.04		2.410E-03	2.488E-02	4.045E-02	3.580E-03	0.060
		1836.06	*	9.380E-03	2.319E-02	4.154E-02	2.371E-03	0.226
Y-91		1204.77	*	1.291E+00	7.962E+00	1.368E+01	7.988E-01	0.094
NB-94		702.65	*	1.026E-02	1.974E-02	3.431E-02	2.161E-03	0.299
		871.09		-6.833E-03	1.701E-02	2.524E-02	2.130E-03	-0.271

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	9.520E-03	2.125E-02	3.669E-02	2.592E-03	0.260
NB-95M		235.69	*	-6.697E-02	5.835E-02	8.268E-02	6.145E-03	-0.810
ZR-95		724.19		-3.141E-02	4.377E-02	6.298E-02	4.714E-03	-0.499
		756.73	*	-3.089E-04	3.512E-02	5.700E-02	4.585E-03	-0.005
MO-99		140.51		1.169E+00	1.475E+00	2.516E+00	5.742E-01	0.465
		181.07		-8.127E-01	1.303E+00	1.973E+00	3.457E-01	-0.412
		366.42		5.169E+00	7.831E+00	1.391E+01	7.917E-01	0.372
		739.50	*	1.629E-01	8.186E-01	1.379E+00	2.043E-01	0.118
		777.92		7.561E-01	2.575E+00	4.389E+00	3.169E-01	0.172
TC-99M		140.51	*	8.991E+00	2.575E+00	Half-Life too short		
RU-103		497.08	*	-1.393E-02	1.889E-02	2.807E-02	3.499E-03	-0.496
		610.33		-7.717E-03	3.581E-01	5.857E-01	8.841E-02	-0.013
RH-106		621.93	*	-2.225E-02	1.564E-01	2.507E-01	2.926E-02	-0.089
		1050.41		-2.857E-01	1.271E+00	2.046E+00	1.488E-01	-0.140
RU-106		621.93	*	-2.225E-02	1.564E-01	2.507E-01	1.478E-02	-0.089
		1050.41		-2.857E-01	1.271E+00	2.046E+00	1.488E-01	-0.140
AG-108M		433.94	*	6.937E-03	1.640E-02	2.848E-02	1.748E-03	0.244
		614.28		-1.314E-02	1.862E-02	2.739E-02	1.729E-03	-0.480
		722.91		1.372E-03	1.923E-02	3.165E-02	2.184E-03	0.043
CD-109		88.03	*	-1.556E-01	3.463E-01	5.483E-01	4.911E-02	-0.284
AG-110M		657.76	*	-1.536E-02	1.798E-02	2.539E-02	1.576E-03	-0.605
		677.62		3.860E-02	1.696E-01	2.858E-01	1.817E-02	0.135
		706.68		-1.288E-01	1.185E-01	1.608E-01	1.074E-02	-0.801
		763.94		-1.374E-02	8.793E-02	1.395E-01	1.023E-02	-0.098
		884.68		-2.112E-02	2.649E-02	3.612E-02	3.216E-03	-0.585
		937.49		2.114E-03	6.231E-02	1.009E-01	8.875E-03	0.021
		1384.29		-6.967E-03	8.430E-02	1.369E-01	1.037E-02	-0.051
		1505.03		1.760E-02	1.491E-01	2.524E-01	1.779E-02	0.070
SN-113		391.69	*	2.896E-03	2.354E-02	3.973E-02	2.370E-03	0.073
CD-115		260.90		4.481E+00	6.184E+00	1.064E+01	6.111E-01	0.421
		492.35		1.262E+00	1.924E+00	3.427E+00	2.012E-01	0.368
		527.90	*	3.182E-01	5.292E-01	9.428E-01	5.580E-02	0.337
SN-117M		156.02		8.511E-02	7.264E-01	1.187E+00	6.364E-02	0.072
		158.56	*	-1.038E-02	1.832E-02	2.816E-02	1.499E-03	-0.369
TE-123M		159.00	*	-1.307E-02	1.379E-02	2.043E-02	1.103E-03	-0.640
SB-124		602.73		-1.670E-02	2.298E-02	3.456E-02	2.046E-03	-0.483
		645.85		9.441E-02	2.612E-01	4.476E-01	2.938E-02	0.211
		722.78		1.262E-02	1.768E-01	2.911E-01	1.979E-02	0.043
		1690.97	*	4.714E-03	5.813E-02	9.671E-02	6.650E-03	0.049
SB-125		427.87	*	-1.510E-02	4.709E-02	7.526E-02	4.475E-03	-0.201
		463.37		5.111E-02	1.483E-01	2.549E-01	1.717E-02	0.200
		600.60		8.150E-02	1.048E-01	1.872E-01	1.276E-02	0.435
		635.95		6.934E-02	1.605E-01	2.771E-01	1.901E-02	0.250
TE-125M		109.28	*	-7.127E-01	4.034E+00	6.482E+00	5.833E-01	-0.110
I-126		388.63		1.766E-02	6.075E-02	1.042E-01	5.818E-03	0.169
		666.33	*	-2.415E-02	7.570E-02	1.177E-01	6.914E-03	-0.205
		753.82		-2.859E-01	6.046E-01	9.011E-01	6.233E-02	-0.317
SB-126		414.70		-2.035E-02	2.473E-02	3.693E-02	2.089E-03	-0.551
		666.50		-7.504E-03	2.558E-02	3.993E-02	2.347E-03	-0.188

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		695.00		1.780E-02	3.723E-02	6.036E-02	3.747E-03	0.295
		697.00		5.852E-02	1.135E-01	1.961E-01	1.222E-02	0.298
		720.70	*	-5.584E-03	4.909E-02	7.853E-02	5.115E-03	-0.071
		856.80		-8.836E-03	1.322E-01	2.106E-01	1.737E-02	-0.042
SN-126		64.28		-1.479E-01	2.505E-01	3.578E-01	5.225E-02	-0.413
		86.94		8.538E-02	1.431E-01	2.375E-01	9.836E-02	0.359
		87.57	*	2.430E-03	3.313E-02	5.458E-02	4.869E-03	0.045
SB-127		252.40		2.171E-01	5.768E-01	9.452E-01	3.833E-01	0.230
		473.00		5.326E-02	2.009E-01	3.440E-01	3.168E-02	0.155
		685.70	*	-4.929E-02	1.645E-01	2.550E-01	1.878E-02	-0.193
		783.70		3.515E-02	4.945E-01	8.110E-01	7.844E-02	0.043
I-131		80.19		-4.968E-01	8.922E-01	1.395E+00	1.158E-01	-0.356
		284.31		4.549E-02	3.712E-01	6.320E-01	4.032E-02	0.072
		364.49	*	2.155E-02	3.208E-02	5.712E-02	3.612E-03	0.377
		636.99		-3.756E-01	5.049E-01	7.446E-01	4.856E-02	-0.504
TE-132		49.72		3.132E-01	1.403E+00	2.362E+00	1.869E-01	0.133
		111.76		1.408E+00	2.771E+00	4.713E+00	3.492E-01	0.299
		116.30		-2.415E+00	2.374E+00	3.480E+00	2.488E-01	-0.694
		228.16	*	1.083E-02	6.831E-02	1.111E-01	1.457E-02	0.097
BA-133		81.00		-3.265E-02	3.710E-02	5.595E-02	8.600E-03	-0.584
		276.40		-1.523E-01	1.788E-01	2.763E-01	3.476E-02	-0.551
		302.85		-3.700E-02	6.703E-02	1.061E-01	1.211E-02	-0.349
		356.01	*	-1.968E-02	2.334E-02	3.556E-02	3.997E-03	-0.553
		383.85		-7.276E-02	1.543E-01	2.438E-01	2.574E-02	-0.298
I-133		529.87	*	-7.053E-06	1.543E-01	Half-Life too short		
		875.33		7.754E-06	1.543E-01	Half-Life too short		
		1298.22		3.304E-05	1.543E-01	Half-Life too short		
CS-134		563.25		-1.456E-01	2.007E-01	2.981E-01	1.805E-02	-0.488
		569.33		1.263E-01	1.310E-01	2.274E-01	1.389E-02	0.555
		604.72		9.415E-03	2.021E-02	3.486E-02	2.074E-03	0.270
		795.86	*	2.151E-04	2.490E-02	4.044E-02	3.041E-03	0.005
		801.95		-1.184E-01	2.737E-01	4.205E-01	3.188E-02	-0.281
		1365.19		1.132E+00	7.500E-01	1.557E+00	1.213E-01	0.727
CS-135		268.22	*	2.663E-02	7.911E-02	1.371E-01	1.046E-02	0.194
I-135		546.56		-6.965E+00	7.911E-02	Half-Life too short		
		836.80		3.525E+01	7.911E-02	Half-Life too short		
		1038.76		-2.232E+01	7.911E-02	Half-Life too short		
		1131.51		-4.255E+00	7.911E-02	Half-Life too short		
		1260.41	*	-1.403E+00	7.911E-02	Half-Life too short		
		1457.56		-3.693E+01	7.911E-02	Half-Life too short		
		1678.03		1.496E+01	7.911E-02	Half-Life too short		
		1791.20		4.669E+00	7.911E-02	Half-Life too short		
CS-136		153.25		-5.647E-03	2.665E-01	4.308E-01	3.341E-02	-0.013
		176.60		6.005E-02	1.584E-01	2.643E-01	1.752E-02	0.227
		273.65		5.237E-02	1.688E-01	2.920E-01	1.989E-02	0.179
		340.55		-5.188E-03	4.833E-02	8.007E-02	5.001E-03	-0.065
		818.51		-3.914E-04	2.282E-02	3.683E-02	2.851E-03	-0.011
		1048.07	*	1.502E-03	3.792E-02	6.396E-02	4.936E-03	0.023
		1235.36		-9.102E-03	1.907E-01	3.147E-01	3.185E-02	-0.029

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-137M		661.66	*	-8.994E-03	2.003E-02	2.814E-02	1.638E-03	-0.320
CS-137		661.66	*	-9.501E-03	2.116E-02	2.972E-02	1.738E-03	-0.320
CE-139		165.86	*	-1.013E-02	1.482E-02	2.253E-02	1.176E-03	-0.450
BA-140		162.66		2.569E-01	2.563E-01	4.488E-01	2.768E-02	0.572
		304.85		-3.208E-01	4.238E-01	6.378E-01	1.822E-01	-0.503
		423.72		-4.546E-02	6.443E-01	1.062E+00	3.424E-01	-0.043
		537.26	*	1.218E-02	1.082E-01	1.804E-01	6.014E-02	0.068
LA-140		328.76		6.483E-02	9.424E-02	1.684E-01	1.096E-02	0.385
		487.02		-2.776E-02	4.501E-02	6.794E-02	4.498E-03	-0.409
		815.77		5.426E-02	8.980E-02	1.634E-01	1.441E-02	0.332
		1596.21	*	-4.196E-03	3.092E-02	4.893E-02	3.311E-03	-0.086
CE-141		145.44	*	-9.850E-03	2.465E-02	3.854E-02	2.220E-03	-0.256
CE-143		57.36		-2.580E+00	9.634E+00	1.349E+01	1.183E+00	-0.191
		293.27	*	6.372E-01	1.278E+00	2.236E+00	4.494E-01	0.285
		664.57		2.059E+00	1.196E+01	2.006E+01	5.833E+00	0.103
		721.93		2.914E-01	1.369E+01	2.237E+01	6.078E+00	0.013
CE-144		80.12		-5.210E-01	9.162E-01	1.430E+00	1.185E-01	-0.364
		133.52	*	6.765E-02	9.074E-02	1.559E-01	2.160E-02	0.434
PM-144		476.78		-9.944E-03	3.466E-02	5.393E-02	3.716E-03	-0.184
		618.01		1.093E-02	1.664E-02	2.971E-02	1.855E-03	0.368
		696.49	*	1.923E-02	2.232E-02	3.989E-02	2.484E-03	0.482
PR-144		696.51	*	1.434E+00	1.664E+00	2.974E+00	1.851E-01	0.482
		1489.16		1.592E+00	7.737E+00	1.332E+01	9.439E-01	0.120
PM-146		453.88	*	-6.912E-03	2.365E-02	3.791E-02	3.202E-03	-0.182
		633.25		5.383E-02	8.606E-01	1.406E+00	5.297E-01	0.038
		735.93		-7.065E-02	8.481E-02	1.161E-01	3.192E-02	-0.609
		747.24		2.858E-02	4.524E-02	8.131E-02	1.106E-02	0.351
ND-147		91.11		6.114E-02	7.204E-02	1.245E-01	1.151E-02	0.491
		319.41		1.753E-01	9.508E-01	1.626E+00	9.452E-02	0.108
		531.02	*	-1.445E-01	1.869E-01	2.735E-01	3.713E-02	-0.528
PM-149		285.90	*	-2.714E+00	4.073E+00	6.375E+00	9.023E-01	-0.426
EU-152		121.78		7.805E-03	3.589E-02	5.943E-02	4.583E-03	0.131
		244.70		7.289E-02	1.759E-01	2.919E-01	1.659E-02	0.250
		344.28	*	-6.247E-03	5.211E-02	8.619E-02	5.606E-03	-0.072
		778.90		3.625E-02	1.314E-01	2.231E-01	1.613E-02	0.162
		964.08		1.967E-04	1.500E-01	2.411E-01	1.986E-02	0.001
		1085.87		1.775E-01	2.086E-01	3.936E-01	2.678E-02	0.451
		1112.07		-8.715E-02	1.533E-01	2.229E-01	1.434E-02	-0.391
		1408.01		-2.290E-02	9.102E-02	1.411E-01	1.025E-02	-0.162
GD-153		69.67		-5.278E-01	7.061E-01	1.094E+00	8.419E-02	-0.482
		97.43	*	-1.430E-04	3.929E-02	6.424E-02	4.996E-03	-0.002
		103.18		-5.794E-02	5.024E-02	7.365E-02	5.333E-03	-0.787
EU-154		123.07		2.007E-02	2.561E-02	4.413E-02	4.180E-03	0.455
		723.31		-2.500E-02	9.043E-02	1.411E-01	1.080E-02	-0.177
		873.19		6.653E-02	1.369E-01	2.410E-01	2.840E-02	0.276
		996.26		1.036E-01	1.778E-01	3.158E-01	5.408E-02	0.328
		1004.73		3.881E-02	9.692E-02	1.741E-01	1.924E-02	0.223
		1274.44	*	-5.191E-03	5.414E-02	8.802E-02	8.780E-03	-0.059
EU-155		86.55		3.743E-02	4.020E-02	7.014E-02	6.249E-03	0.534

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		105.31	*	1.164E-02	4.822E-02	8.027E-02	5.771E-03	0.145
TB-160		86.79		9.062E-02	9.903E-02	1.726E-01	1.527E-02	0.525
		197.04		-6.973E-02	2.916E-01	4.390E-01	2.379E-02	-0.159
		215.65		1.231E-02	3.375E-01	5.434E-01	3.007E-02	0.023
		298.57		-1.005E-02	5.018E-02	8.275E-02	4.811E-03	-0.122
		879.36	*	1.660E-02	8.285E-02	1.284E-01	1.098E-02	0.129
		962.29		1.070E-01	2.428E-01	4.197E-01	3.464E-02	0.255
		966.15		-1.952E-02	9.983E-02	1.553E-01	1.275E-02	-0.126
		1177.93		-2.736E-02	1.271E-01	2.015E-01	1.115E-02	-0.136
		1271.85		-2.409E-01	2.973E-01	4.001E-01	2.651E-02	-0.602
HO-166M		80.57		-8.191E-02	1.044E-01	1.599E-01	1.330E-02	-0.512
		184.41		-1.354E-03	1.985E-02	3.341E-02	1.782E-03	-0.041
		280.46		3.201E-02	4.355E-02	7.785E-02	4.510E-03	0.411
		410.95		3.799E-02	1.197E-01	2.064E-01	1.164E-02	0.184
		711.68	*	4.726E-03	3.562E-02	5.909E-02	3.785E-03	0.080
		752.31		-1.568E-02	1.349E-01	2.149E-01	1.482E-02	-0.073
		810.29		-1.869E-02	2.836E-02	3.981E-02	3.039E-03	-0.470
TA-182		67.75		-7.496E-03	5.176E-02	7.257E-02	5.537E-03	-0.103
		100.11		9.816E-02	7.747E-02	1.386E-01	1.041E-02	0.708
		152.43		-1.612E-02	1.602E-01	2.572E-01	1.392E-02	-0.063
		222.11		-2.877E-02	1.617E-01	2.546E-01	1.419E-02	-0.113
	+	1121.30		7.541E-02	6.362E-02	1.237E-01	7.787E-03	0.610
		1189.05		-8.405E-03	1.091E-01	1.786E-01	1.010E-02	-0.047
		1221.41	*	1.811E-02	6.923E-02	1.216E-01	7.331E-03	0.149
		1231.02		3.267E-02	2.240E-01	3.812E-01	2.341E-02	0.086
IR-192		295.96		-7.987E-03	5.384E-02	8.228E-02	4.859E-03	-0.097
		308.46		2.705E-02	4.512E-02	8.003E-02	4.708E-03	0.338
		316.51	*	-4.260E-03	1.513E-02	2.462E-02	1.438E-03	-0.173
		468.07		-7.789E-03	3.287E-02	5.287E-02	3.550E-03	-0.147
HG-203		70.83		-3.807E-01	4.827E-01	7.391E-01	1.153E-01	-0.515
		72.87		1.775E-01	2.752E-01	4.716E-01	7.128E-02	0.376
		279.20	*	9.574E-03	1.743E-02	3.071E-02	1.878E-03	0.312
BI-207		72.81		3.136E-02	7.191E-02	1.219E-01	9.550E-03	0.257
		74.97		2.795E-02	4.368E-02	7.197E-02	5.720E-03	0.388
		569.70		7.654E-03	2.078E-02	3.404E-02	2.020E-03	0.225
		1063.66	*	3.389E-03	2.746E-02	4.690E-02	3.330E-03	0.072
		1770.23		-1.685E-01	3.196E-01	4.464E-01	2.693E-02	-0.377
TL-208		277.37		-3.139E-02	1.953E-01	3.243E-01	3.495E-02	-0.097
		583.19	*	-7.342E-03	2.076E-02	3.021E-02	2.050E-03	-0.243
		860.56		-7.308E-02	1.403E-01	2.036E-01	1.823E-02	-0.359
PB-210		46.54	*	-8.288E-01	1.463E+00	2.294E+00	1.729E-01	-0.361
BI-211		72.87		7.987E-01	1.234E+00	2.123E+00	1.663E-01	0.376
		351.06	*	8.389E-02	1.138E-01	2.026E-01	1.294E-02	0.414
PB-211		404.85	*	-1.621E-01	3.823E-01	5.930E-01	2.843E-01	-0.273
		427.09		-4.832E-01	8.374E-01	1.247E+00	5.713E-01	-0.387
		832.01		-3.780E-01	5.421E-01	7.031E-01	3.638E-01	-0.538
BI-212		727.33	*	-7.653E-02	3.122E-01	4.917E-01	5.484E-02	-0.156
		785.37		8.848E-01	1.674E+00	2.934E+00	2.146E-01	0.302
		1620.50		8.530E-01	1.597E+00	2.907E+00	1.942E-01	0.293

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PB-212		74.82		1.083E-01	1.525E-01	2.519E-01	3.163E-02	0.430
		77.11		-3.712E-02	7.985E-02	1.263E-01	1.020E-02	-0.294
		238.63	*	-2.018E-03	3.431E-02	5.413E-02	3.942E-03	-0.037
		300.09		4.107E-02	3.724E-01	6.324E-01	5.311E-02	0.065
BI-214		609.32	*	1.043E-02	4.164E-02	7.030E-02	5.570E-03	0.148
	+	1120.29		1.686E-01	1.426E-01	2.925E-01	2.693E-02	0.576
		1764.49		6.564E-02	1.588E-01	2.825E-01	1.712E-02	0.232
PB-214		74.82		1.920E-01	2.701E-01	4.464E-01	5.010E-02	0.430
		77.11		-6.545E-02	1.409E-01	2.226E-01	2.570E-02	-0.294
		242.00		-2.909E-01	2.026E-01	2.795E-01	2.266E-02	-1.041
		295.22		3.375E-03	7.778E-02	1.210E-01	1.057E-02	0.028
		351.93	*	6.726E-03	4.190E-02	7.109E-02	5.998E-03	0.095
RN-219		271.23		7.747E-02	1.192E-01	2.114E-01	1.694E-02	0.366
		401.81	*	6.873E-02	2.186E-01	3.756E-01	5.017E-02	0.183
RA-223		81.07		-7.495E-02	8.355E-02	1.266E-01	1.059E-02	-0.592
		83.79		-3.763E-04	5.449E-02	8.559E-02	7.342E-03	-0.004
		94.87		4.607E-03	2.012E-01	3.298E-01	2.656E-02	0.014
		144.24		-4.092E-01	3.454E-01	4.740E-01	3.317E-02	-0.863
		154.21		3.747E-02	1.837E-01	3.026E-01	2.005E-02	0.124
		269.46		-5.203E-02	9.270E-02	1.486E-01	8.948E-03	-0.350
		323.87	*	-1.928E-02	2.913E-01	4.849E-01	7.816E-02	-0.040
		338.28		-4.191E-01	4.956E-01	7.579E-01	7.761E-02	-0.553
RA-224		240.99	*	2.303E-01	3.227E-01	5.490E-01	3.111E-02	0.420
RA-226		609.32	*	1.043E-02	4.164E-02	7.030E-02	5.570E-03	0.148
	+	1120.29		1.686E-01	1.426E-01	2.925E-01	2.693E-02	0.576
		1764.49		6.564E-02	1.588E-01	2.825E-01	1.712E-02	0.232
AC-227		79.69		-1.060E-01	4.510E-01	7.249E-01	1.236E-01	-0.146
		235.96		-6.581E-02	7.620E-02	1.116E-01	8.964E-03	-0.590
		256.23	*	-1.769E-02	1.273E-01	2.001E-01	2.038E-02	-0.088
		299.98		4.994E-02	4.100E-01	6.970E-01	7.665E-02	0.072
		304.50		-1.057E+00	8.016E-01	1.132E+00	1.726E-01	-0.934
		334.37		4.136E-01	8.739E-01	1.526E+00	2.170E-01	0.271
TH-227		79.80		-1.451E-01	5.942E-01	9.537E-01	2.064E-01	-0.152
		235.96		-6.581E-02	7.617E-02	1.116E-01	8.106E-03	-0.590
		256.23	*	-1.769E-02	1.273E-01	2.001E-01	2.398E-02	-0.088
		299.98		4.994E-02	4.100E-01	6.970E-01	7.665E-02	0.072
		304.50		-1.057E+00	8.016E-01	1.132E+00	1.726E-01	-0.934
		334.37		4.136E-01	8.739E-01	1.526E+00	2.170E-01	0.271
AC-228		338.32		-1.066E-01	1.319E-01	1.907E-01	7.860E-02	-0.559
		911.20	*	-7.166E-02	8.200E-02	1.099E-01	1.281E-02	-0.652
		968.97		1.579E-02	1.346E-01	2.206E-01	5.340E-02	0.072
RA-228		338.32		-1.066E-01	1.319E-01	1.907E-01	7.860E-02	-0.559
		911.20	*	-7.166E-02	8.200E-02	1.099E-01	1.281E-02	-0.652
		968.97		1.579E-02	1.346E-01	2.206E-01	5.340E-02	0.072
TH-228		74.82		1.083E-01	1.522E-01	2.519E-01	2.021E-02	0.430
		77.11		-3.712E-02	7.985E-02	1.263E-01	1.020E-02	-0.294
		238.63	*	-2.018E-03	3.431E-02	5.413E-02	3.942E-03	-0.037
		300.09		4.107E-02	3.732E-01	6.324E-01	3.850E-01	0.065
TH-229		85.43		3.974E-02	9.230E-02	1.498E-01	1.307E-02	0.265

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		88.47		-7.200E-02	5.565E-02	8.209E-02	7.297E-03	-0.877
		193.51	*	-6.190E-02	2.558E-01	4.023E-01	2.170E-02	-0.154
		210.85		1.282E-01	4.120E-01	6.810E-01	3.749E-02	0.188
TH-230		609.32	*	1.042E-02	4.164E-02	7.030E-02	4.156E-03	0.148
	+	1120.29		1.686E-01	1.422E-01	2.925E-01	1.846E-02	0.576
		1764.49		6.564E-02	1.588E-01	2.825E-01	1.712E-02	0.232
PA-231		283.69	*	-1.609E-01	7.253E-01	1.195E+00	1.568E-01	-0.135
		301.36		5.563E-02	2.511E-01	4.312E-01	4.464E-02	0.129
TH-231		81.07		-7.495E-02	8.355E-02	1.266E-01	1.059E-02	-0.592
		83.79		-3.763E-04	5.449E-02	8.559E-02	7.342E-03	-0.004
		94.87		4.607E-03	2.012E-01	3.298E-01	2.656E-02	0.014
		144.24		-4.092E-01	3.454E-01	4.740E-01	3.317E-02	-0.863
		154.21		3.747E-02	1.837E-01	3.026E-01	2.005E-02	0.124
		269.46		-5.203E-02	9.270E-02	1.486E-01	8.948E-03	-0.350
		323.87	*	-1.928E-02	2.913E-01	4.849E-01	7.816E-02	-0.040
		338.28		-4.191E-01	4.956E-01	7.579E-01	7.761E-02	-0.553
TH-232		338.32		-1.066E-01	1.245E-01	1.907E-01	1.102E-02	-0.559
		911.20	*	-7.166E-02	8.200E-02	1.099E-01	1.281E-02	-0.652
		968.97		1.579E-02	1.346E-01	2.206E-01	5.340E-02	0.072
PA-233		300.13		1.966E-02	1.853E-01	3.145E-01	4.213E-02	0.063
		311.90	*	-3.677E-03	3.250E-02	5.394E-02	3.331E-03	-0.068
		340.48		-3.537E-02	3.085E-01	5.106E-01	1.185E-01	-0.069
PA-234		94.67		1.575E-02	7.611E-02	1.264E-01	1.520E-02	0.125
		98.44		2.705E-02	4.574E-02	7.399E-02	4.117E-02	0.366
		111.00		-2.054E-03	8.167E-02	1.329E-01	1.431E-02	-0.015
		131.20		2.117E-02	4.672E-02	7.891E-02	4.542E-03	0.268
		569.50		1.556E-01	1.797E-01	3.091E-01	1.835E-02	0.503
		733.00		8.440E-02	2.291E-01	3.899E-01	8.387E-02	0.216
		880.51		8.997E-02	1.716E-01	2.785E-01	2.387E-02	0.323
		883.24		-7.010E-02	1.675E-01	2.392E-01	1.608E-01	-0.293
		926.50		8.286E-03	1.056E-01	1.722E-01	4.350E-02	0.048
		946.00	*	-7.583E-02	1.576E-01	2.283E-01	4.262E-02	-0.332
		949.00		2.363E-01	2.293E-01	4.343E-01	3.639E-02	0.544
PA-234M		766.42		1.954E+00	6.333E+00	1.060E+01	5.355E+00	0.184
		1001.03	*	-1.805E+00	2.369E+00	3.589E+00	3.341E-01	-0.503
TH-234	+	63.29	*	8.329E-01	8.192E-01	9.321E-01	1.667E-01	0.894
		92.59		-4.000E-01	3.390E-01	5.189E-01	1.140E-01	-0.771
U-235		89.96		-5.414E-01	3.889E-01	5.318E-01	1.310E-01	-1.018
		93.35		-2.174E-01	2.504E-01	3.976E-01	9.128E-02	-0.547
		143.76	*	-1.455E-01	1.039E-01	1.354E-01	2.115E-02	-1.074
		163.33		1.291E-01	2.173E-01	3.669E-01	6.091E-02	0.352
		185.72		-2.608E-03	2.491E-02	4.185E-02	2.236E-03	-0.062
		205.31		-1.384E-01	2.308E-01	3.471E-01	5.859E-02	-0.399
NP-237		86.48	*	9.297E-02	1.012E-01	1.734E-01	3.943E-02	0.536
		95.86		-8.310E-01	5.032E-01	6.554E-01	1.557E-01	-1.268
U-238	+	63.29	*	8.329E-01	8.192E-01	9.321E-01	1.667E-01	0.894
		92.59		-4.000E-01	3.291E-01	5.189E-01	4.320E-02	-0.771
NP-239		99.53		8.217E-02	7.657E-02	1.350E-01	1.022E-02	0.608
		103.37		-3.938E-02	4.532E-02	6.826E-02	4.931E-03	-0.577

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		106.12		2.418E-02	3.817E-02	6.547E-02	4.584E-03	0.369
		117.23	*	-1.634E-01	1.795E-01	2.673E-01	1.668E-02	-0.611
		228.18		1.627E-02	1.062E-01	1.727E-01	9.678E-03	0.094
		277.60		-6.553E-03	9.006E-02	1.507E-01	8.723E-03	-0.043
AM-241		59.54	*	4.122E-02	6.249E-02	9.764E-02	8.039E-03	0.422
CM-247		278.00		-1.244E-01	3.856E-01	6.314E-01	3.654E-02	-0.197
		287.50		-3.832E-01	5.924E-01	9.317E-01	5.407E-02	-0.411
		402.40	*	-1.462E-03	2.010E-02	3.322E-02	1.863E-03	-0.044
CF-249		252.80		1.450E-01	5.085E-01	8.350E-01	4.772E-02	0.174
		333.37		-4.321E-04	9.428E-02	1.579E-01	9.144E-03	-0.003
		388.16	*	1.464E-02	2.137E-02	3.809E-02	2.127E-03	0.384
CF-251		177.52	*	3.724E-02	6.307E-02	1.070E-01	5.659E-03	0.348
		227.38		5.136E-02	1.725E-01	2.844E-01	1.593E-02	0.181
		285.41		-6.538E-01	1.065E+00	1.683E+00	9.764E-02	-0.388
ANH-511		511.00	*	-2.693E-02	3.347E-02	6.054E-02	3.572E-03	-0.445

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071014    *
* Acquisition date : 24-MAR-2010 11:03:00 Detector SN#     :               *
* Detector ID        : GAM19               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:00.61      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 17-MAR-2010 00:00:00 Nuclide Library : SOLID        *
* Sample ID          : G1202071014          Analyst initials: MXR1         *
* Batch Number       : 965250               Sample Quantity : 1.3571E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-6.890E-02	1.546E-01	2.460E-01	0.000E+00	NOT IDENT.
NA-22	5.185E-03	1.751E-02	3.174E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	9.548E+01	0.000E+00	0.000E+00	SHORT HLIF
K-40	1.887E-01	2.596E-01	5.102E-01	0.000E+00	NOT IDENT.
SC-46	7.283E-03	1.809E-02	3.233E-02	0.000E+00	FAIL ABUN
V-48	-2.209E-02	2.607E-02	3.543E-02	0.000E+00	NOT IDENT.
CR-51	5.273E-02	1.377E-01	2.528E-01	0.000E+00	NOT IDENT.
MN-54	-1.752E-04	1.498E-02	2.501E-02	0.000E+00	NOT IDENT.
CO-56	1.967E-02	1.948E-02	3.757E-02	0.000E+00	NOT IDENT.
CO-57	6.969E-03	1.194E-02	2.176E-02	0.000E+00	NOT IDENT.
CO-58	-6.667E-03	1.678E-02	2.593E-02	0.000E+00	NOT IDENT.
FE-59	1.041E-02	3.181E-02	5.833E-02	0.000E+00	NOT IDENT.
CO-60	4.349E-03	2.074E-02	3.665E-02	0.000E+00	NOT IDENT.
ZN-65	-2.531E-03	4.006E-02	5.822E-02	0.000E+00	NOT IDENT.
SE-75	8.449E-03	2.100E-02	3.868E-02	0.000E+00	NOT IDENT.
SR-85	-1.984E-02	3.066E-02	5.039E-02	0.000E+00	NOT IDENT.
Y-88	9.380E-03	2.273E-02	4.146E-02	0.000E+00	NOT IDENT.
Y-91	1.291E+00	7.802E+00	1.377E+01	0.000E+00	NOT IDENT.
NB-94	1.026E-02	1.934E-02	3.488E-02	0.000E+00	NOT IDENT.
NB-95	9.520E-03	2.082E-02	3.723E-02	0.000E+00	NOT IDENT.
NB-95M	-6.697E-02	5.719E-02	8.576E-02	0.000E+00	NOT IDENT.
ZR-95	-3.089E-04	3.442E-02	5.786E-02	0.000E+00	NOT IDENT.
MO-99	1.629E-01	8.022E-01	1.401E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.102E+07	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.393E-02	1.851E-02	2.872E-02	0.000E+00	NOT IDENT.
RH-106	-2.225E-02	1.533E-01	2.554E-01	0.000E+00	NOT IDENT.

RU-106	-2.225E-02	1.533E-01	2.554E-01	0.000E+00	NOT IDENT.
AG-108M	6.937E-03	1.608E-02	2.922E-02	0.000E+00	NOT IDENT.
CD-109	-1.556E-01	3.394E-01	5.788E-01	0.000E+00	NOT IDENT.
AG-110M	-1.536E-02	1.762E-02	2.584E-02	0.000E+00	NOT IDENT.
SN-113	2.896E-03	2.307E-02	4.083E-02	0.000E+00	NOT IDENT.
CD-115	3.182E-01	5.186E-01	9.635E-01	0.000E+00	NOT IDENT.
SN-117M	-1.038E-02	1.796E-02	2.941E-02	0.000E+00	NOT IDENT.
TE-123M	-1.307E-02	1.351E-02	2.134E-02	0.000E+00	NOT IDENT.
SB-124	4.714E-03	5.697E-02	9.668E-02	0.000E+00	NOT IDENT.
SB-125	-1.510E-02	4.615E-02	7.722E-02	0.000E+00	NOT IDENT.
TE-125M	-7.127E-01	3.953E+00	6.816E+00	0.000E+00	NOT IDENT.
I-126	-2.415E-02	7.419E-02	1.197E-01	0.000E+00	NOT IDENT.
SB-126	-5.584E-03	4.811E-02	7.979E-02	0.000E+00	NOT IDENT.
SN-126	2.430E-03	3.247E-02	5.762E-02	0.000E+00	NOT IDENT.
SB-127	-4.929E-02	1.612E-01	2.593E-01	0.000E+00	NOT IDENT.
I-131	2.155E-02	3.144E-02	5.878E-02	0.000E+00	NOT IDENT.
TE-132	1.083E-02	6.695E-02	1.153E-01	0.000E+00	NOT IDENT.
BA-133	-1.968E-02	2.287E-02	3.661E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.690E+00	0.000E+00	0.000E+00	SHORT HLIF
CS-134	2.151E-04	2.440E-02	4.101E-02	0.000E+00	NOT IDENT.
CS-135	2.663E-02	7.753E-02	1.419E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.331E+07	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.502E-03	3.716E-02	6.452E-02	0.000E+00	NOT IDENT.
BA-137M	-8.994E-03	1.963E-02	2.863E-02	0.000E+00	NOT IDENT.
CS-137	-9.501E-03	2.074E-02	3.025E-02	0.000E+00	NOT IDENT.
CE-139	-1.013E-02	1.452E-02	2.351E-02	0.000E+00	NOT IDENT.
BA-140	1.218E-02	1.060E-01	1.843E-01	0.000E+00	NOT IDENT.
LA-140	-4.196E-03	3.030E-02	4.896E-02	0.000E+00	NOT IDENT.
CE-141	-9.850E-03	2.416E-02	4.032E-02	0.000E+00	NOT IDENT.
CE-143	6.372E-01	1.252E+00	2.310E+00	0.000E+00	NOT IDENT.
CE-144	6.765E-02	8.892E-02	1.633E-01	0.000E+00	NOT IDENT.
PM-144	1.923E-02	2.187E-02	4.056E-02	0.000E+00	NOT IDENT.
PR-144	1.434E+00	1.630E+00	3.023E+00	0.000E+00	NOT IDENT.
PM-146	-6.912E-03	2.318E-02	3.885E-02	0.000E+00	NOT IDENT.
ND-147	-1.445E-01	1.832E-01	2.795E-01	0.000E+00	NOT IDENT.
PM-149	-2.714E+00	3.992E+00	6.589E+00	0.000E+00	NOT IDENT.
EU-152	-6.247E-03	5.107E-02	8.879E-02	0.000E+00	NOT IDENT.
GD-153	-1.430E-04	3.851E-02	6.769E-02	0.000E+00	NOT IDENT.
EU-154	-5.191E-03	5.306E-02	8.847E-02	0.000E+00	NOT IDENT.
EU-155	1.164E-02	4.725E-02	8.447E-02	0.000E+00	NOT IDENT.
TB-160	1.660E-02	8.120E-02	1.299E-01	0.000E+00	NOT IDENT.
HO-166M	4.726E-03	3.490E-02	6.005E-02	0.000E+00	NOT IDENT.
TA-182	1.811E-02	6.785E-02	1.223E-01	0.000E+00	FAIL ABUN
IR-192	-4.260E-03	1.483E-02	2.540E-02	0.000E+00	NOT IDENT.
HG-203	9.574E-03	1.708E-02	3.176E-02	0.000E+00	NOT IDENT.
BI-207	3.389E-03	2.691E-02	4.731E-02	0.000E+00	NOT IDENT.
TL-208	-7.342E-03	2.034E-02	3.081E-02	0.000E+00	NOT IDENT.
PB-210	-8.288E-01	1.434E+00	2.448E+00	0.000E+00	NOT IDENT.
BI-211	8.389E-02	1.115E-01	2.087E-01	0.000E+00	NOT IDENT.
PB-211	-1.621E-01	3.746E-01	6.090E-01	0.000E+00	NOT IDENT.
BI-212	-7.653E-02	3.060E-01	4.995E-01	0.000E+00	NOT IDENT.
PB-212	-2.018E-03	3.363E-02	5.614E-02	0.000E+00	NOT IDENT.
BI-214	1.043E-02	4.081E-02	7.165E-02	0.000E+00	FAIL ABUN
PB-214	6.726E-03	4.106E-02	7.320E-02	0.000E+00	NOT IDENT.
RN-219	6.873E-02	2.142E-01	3.858E-01	0.000E+00	NOT IDENT.
RA-223	-1.928E-02	2.855E-01	5.000E-01	0.000E+00	NOT IDENT.
RA-224	2.303E-01	3.162E-01	5.692E-01	0.000E+00	NOT IDENT.
RA-226	1.043E-02	4.081E-02	7.165E-02	0.000E+00	FAIL ABUN
AC-227	-1.769E-02	1.248E-01	2.073E-01	0.000E+00	NOT IDENT.
TH-227	-1.769E-02	1.248E-01	2.073E-01	0.000E+00	NOT IDENT.
AC-228	-7.166E-02	8.036E-02	1.112E-01	0.000E+00	NOT IDENT.
RA-228	-7.166E-02	8.036E-02	1.112E-01	0.000E+00	NOT IDENT.
TH-228	-2.018E-03	3.363E-02	5.614E-02	0.000E+00	NOT IDENT.
TH-229	-6.190E-02	2.507E-01	4.187E-01	0.000E+00	NOT IDENT.
TH-230	1.042E-02	4.081E-02	7.165E-02	0.000E+00	FAIL ABUN
PA-231	-1.609E-01	7.108E-01	1.236E+00	0.000E+00	NOT IDENT.
TH-231	-1.928E-02	2.855E-01	5.000E-01	0.000E+00	NOT IDENT.
TH-232	-7.166E-02	8.036E-02	1.112E-01	0.000E+00	NOT IDENT.
PA-233	-3.677E-03	3.185E-02	5.566E-02	0.000E+00	NOT IDENT.
PA-234	-7.583E-02	1.545E-01	2.308E-01	0.000E+00	NOT IDENT.
PA-234M	-1.805E+00	2.321E+00	3.624E+00	0.000E+00	NOT IDENT.
TH-234	8.329E-01	8.029E-01	9.895E-01	0.000E+00	FAIL ABUN
U-235	-1.455E-01	1.019E-01	1.417E-01	0.000E+00	NOT IDENT.
NP-237	9.297E-02	9.920E-02	1.831E-01	0.000E+00	NOT IDENT.
U-238	8.329E-01	8.029E-01	9.895E-01	0.000E+00	FAIL ABUN
NP-239	-1.634E-01	1.759E-01	2.808E-01	0.000E+00	NOT IDENT.
AM-241	4.122E-02	6.124E-02	1.038E-01	0.000E+00	NOT IDENT.
CM-247	-1.462E-03	1.970E-02	3.412E-02	0.000E+00	NOT IDENT.

CF-249	1.464E-02	2.094E-02	3.915E-02	0.000E+00	NOT IDENT.
CF-251	3.724E-02	6.181E-02	1.115E-01	0.000E+00	NOT IDENT.
ANH-511	-2.693E-02	3.280E-02	6.191E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:06:27.55

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071014.CNF;1
Sample date      : 17-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 11:03:00
Sample ID        : G1202071014          Sample quantity  : 1.35710E+02 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:00.61  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 965250               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202071014 Acquisition date : 24-MAR-2010 11:03:00

Total number of lines in spectrum	2	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	2	100.00%

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202071014 Acquisition date : 24-MAR-2010 11:03:00

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	62.11	38	60	1.03	124.09	118	12	5.34E-03	96.7	3.45E+00	T
0	1119.95	13	6	1.45	2239.05	2235	8	1.84E-03	84.1	1.46E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:06:44.05

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071014.CNF;1   *
* Acquisition date : 24-MAR-2010 11:03:00  Detector SN#    :                  *
* Detector ID      : GAM19                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:00.61         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date      : 17-MAR-2010 00:00:00  Nuclide Library : SOLID            *
* Sample ID        : G1202071014           Analyst initials: MXR1             *
* Batch Number     : 965250                Sample Quantity : 1.35710E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54.1MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.890E-02		1.577E-01	2.402E-01	1.630E-02	-0.287
NA-22	5.185E-03		1.787E-02	3.158E-02	2.106E-03	0.164
NA-24	-9.599E-06		4.872E-05	Half-Life too short		
K-40	1.887E-01		2.649E-01	5.089E-01	3.790E-02	0.371
SC-46	7.283E-03		1.846E-02	3.194E-02	2.776E-03	0.228
V-48	-2.209E-02		2.660E-02	3.508E-02	2.820E-03	-0.630
CR-51	5.273E-02		1.405E-01	2.451E-01	1.584E-02	0.215
MN-54	-1.752E-04		1.529E-02	2.468E-02	1.963E-03	-0.007
CO-56	1.967E-02		1.988E-02	3.709E-02	3.009E-03	0.530
CO-57	6.969E-03		1.219E-02	2.073E-02	1.237E-03	0.336
CO-58	-6.667E-03		1.712E-02	2.558E-02	1.960E-03	-0.261
FE-59	1.041E-02		3.246E-02	5.787E-02	4.341E-03	0.180
CO-60	4.349E-03		2.117E-02	3.649E-02	2.689E-03	0.119
ZN-65	-2.531E-03		4.087E-02	5.778E-02	3.694E-03	-0.044
SE-75	8.449E-03		2.143E-02	3.737E-02	2.174E-03	0.226
SR-85	-1.984E-02		3.129E-02	4.928E-02	2.910E-03	-0.403
Y-88	9.380E-03		2.319E-02	4.154E-02	2.371E-03	0.226

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	1.291E+00		7.962E+00	1.368E+01	7.988E-01	0.094
NB-94	1.026E-02		1.974E-02	3.431E-02	2.161E-03	0.299
NB-95	9.520E-03		2.125E-02	3.669E-02	2.592E-03	0.260
NB-95M	-6.697E-02		5.835E-02	8.268E-02	6.145E-03	-0.810
ZR-95	-3.089E-04		3.512E-02	5.700E-02	4.585E-03	-0.005
MO-99	1.629E-01		8.186E-01	1.379E+00	2.043E-01	0.118
TC-99M	8.991E+00		5.620E+00	Half-Life too short		
RU-103	-1.393E-02		1.889E-02	2.807E-02	3.499E-03	-0.496
RH-106	-2.225E-02		1.564E-01	2.507E-01	2.926E-02	-0.089
RU-106	-2.225E-02		1.564E-01	2.507E-01	1.478E-02	-0.089
AG-108M	6.937E-03		1.640E-02	2.848E-02	1.748E-03	0.244
CD-109	-1.556E-01		3.463E-01	5.483E-01	4.911E-02	-0.284
AG-110M	-1.536E-02		1.798E-02	2.539E-02	1.576E-03	-0.605
SN-113	2.896E-03		2.354E-02	3.973E-02	2.370E-03	0.073
CD-115	3.182E-01		5.292E-01	9.428E-01	5.580E-02	0.337
SN-117M	-1.038E-02		1.832E-02	2.816E-02	1.499E-03	-0.369
TE-123M	-1.307E-02		1.379E-02	2.043E-02	1.103E-03	-0.640
SB-124	4.714E-03		5.813E-02	9.671E-02	6.650E-03	0.049
SB-125	-1.510E-02		4.709E-02	7.526E-02	4.475E-03	-0.201
TE-125M	-7.127E-01		4.034E+00	6.482E+00	5.833E-01	-0.110
I-126	-2.415E-02		7.570E-02	1.177E-01	6.914E-03	-0.205
SB-126	-5.584E-03		4.909E-02	7.853E-02	5.115E-03	-0.071
SN-126	2.430E-03		3.313E-02	5.458E-02	4.869E-03	0.045
SB-127	-4.929E-02		1.645E-01	2.550E-01	1.878E-02	-0.193
I-131	2.155E-02		3.208E-02	5.712E-02	3.612E-03	0.377
TE-132	1.083E-02		6.831E-02	1.111E-01	1.457E-02	0.097
BA-133	-1.968E-02		2.334E-02	3.556E-02	3.997E-03	-0.553
I-133	-7.053E-06		3.413E-06	Half-Life too short		
CS-134	2.151E-04		2.490E-02	4.044E-02	3.041E-03	0.005
CS-135	2.663E-02		7.911E-02	1.371E-01	1.046E-02	0.194
I-135	-1.403E+00		6.791E+00	Half-Life too short		
CS-136	1.502E-03		3.792E-02	6.396E-02	4.936E-03	0.023
BA-137M	-8.994E-03		2.003E-02	2.814E-02	1.638E-03	-0.320
CS-137	-9.501E-03		2.116E-02	2.972E-02	1.738E-03	-0.320
CE-139	-1.013E-02		1.482E-02	2.253E-02	1.176E-03	-0.450
BA-140	1.218E-02		1.082E-01	1.804E-01	6.014E-02	0.068
LA-140	-4.196E-03		3.092E-02	4.893E-02	3.311E-03	-0.086
CE-141	-9.850E-03		2.465E-02	3.854E-02	2.220E-03	-0.256
CE-143	6.372E-01		1.278E+00	2.236E+00	4.494E-01	0.285
CE-144	6.765E-02		9.074E-02	1.559E-01	2.160E-02	0.434
PM-144	1.923E-02		2.232E-02	3.989E-02	2.484E-03	0.482
PR-144	1.434E+00		1.664E+00	2.974E+00	1.851E-01	0.482
PM-146	-6.912E-03		2.365E-02	3.791E-02	3.202E-03	-0.182
ND-147	-1.445E-01		1.869E-01	2.735E-01	3.713E-02	-0.528
PM-149	-2.714E+00		4.073E+00	6.375E+00	9.023E-01	-0.426
EU-152	-6.247E-03		5.211E-02	8.619E-02	5.606E-03	-0.072
GD-153	-1.430E-04		3.929E-02	6.424E-02	4.996E-03	-0.002
EU-154	-5.191E-03		5.414E-02	8.802E-02	8.780E-03	-0.059

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	1.164E-02		4.822E-02	8.027E-02	5.771E-03	0.145
TB-160	1.660E-02		8.285E-02	1.284E-01	1.098E-02	0.129
HO-166M	4.726E-03		3.562E-02	5.909E-02	3.785E-03	0.080
TA-182	1.811E-02		6.923E-02	1.216E-01	7.331E-03	0.149
IR-192	-4.260E-03		1.513E-02	2.462E-02	1.438E-03	-0.173
HG-203	9.574E-03		1.743E-02	3.071E-02	1.878E-03	0.312
BI-207	3.389E-03		2.746E-02	4.690E-02	3.330E-03	0.072
TL-208	-7.342E-03		2.076E-02	3.021E-02	2.050E-03	-0.243
PB-210	-8.288E-01		1.463E+00	2.294E+00	1.729E-01	-0.361
BI-211	8.389E-02		1.138E-01	2.026E-01	1.294E-02	0.414
PB-211	-1.621E-01		3.823E-01	5.930E-01	2.843E-01	-0.273
BI-212	-7.653E-02		3.122E-01	4.917E-01	5.484E-02	-0.156
PB-212	-2.018E-03		3.431E-02	5.413E-02	3.942E-03	-0.037
BI-214	1.043E-02		4.164E-02	7.030E-02	5.570E-03	0.148
PB-214	6.726E-03		4.190E-02	7.109E-02	5.998E-03	0.095
RN-219	6.873E-02		2.186E-01	3.756E-01	5.017E-02	0.183
RA-223	-1.928E-02		2.913E-01	4.849E-01	7.816E-02	-0.040
RA-224	2.303E-01		3.227E-01	5.490E-01	3.111E-02	0.420
RA-226	1.043E-02		4.164E-02	7.030E-02	5.570E-03	0.148
AC-227	-1.769E-02		1.273E-01	2.001E-01	2.038E-02	-0.088
TH-227	-1.769E-02		1.273E-01	2.001E-01	2.398E-02	-0.088
AC-228	-7.166E-02		8.200E-02	1.099E-01	1.281E-02	-0.652
RA-228	-7.166E-02		8.200E-02	1.099E-01	1.281E-02	-0.652
TH-228	-2.018E-03		3.431E-02	5.413E-02	3.942E-03	-0.037
TH-229	-6.190E-02		2.558E-01	4.023E-01	2.170E-02	-0.154
TH-230	1.042E-02		4.164E-02	7.030E-02	4.156E-03	0.148
PA-231	-1.609E-01		7.253E-01	1.195E+00	1.568E-01	-0.135
TH-231	-1.928E-02		2.913E-01	4.849E-01	7.816E-02	-0.040
TH-232	-7.166E-02		8.200E-02	1.099E-01	1.281E-02	-0.652
PA-233	-3.677E-03		3.250E-02	5.394E-02	3.331E-03	-0.068
PA-234	-7.583E-02		1.576E-01	2.283E-01	4.262E-02	-0.332
PA-234M	-1.805E+00		2.369E+00	3.589E+00	3.341E-01	-0.503
TH-234	8.329E-01	+	8.192E-01	9.321E-01	1.667E-01	0.894
U-235	-1.455E-01		1.039E-01	1.354E-01	2.115E-02	-1.074
NP-237	9.297E-02		1.012E-01	1.734E-01	3.943E-02	0.536
U-238	8.329E-01	+	8.192E-01	9.321E-01	1.667E-01	0.894
NP-239	-1.634E-01		1.795E-01	2.673E-01	1.668E-02	-0.611
AM-241	4.122E-02		6.249E-02	9.764E-02	8.039E-03	0.422
CM-247	-1.462E-03		2.010E-02	3.322E-02	1.863E-03	-0.044
CF-249	1.464E-02		2.137E-02	3.809E-02	2.127E-03	0.384
CF-251	3.724E-02		6.307E-02	1.070E-01	5.659E-03	0.348
ANH-511	-2.693E-02		3.347E-02	6.054E-02	3.572E-03	-0.445

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202071014           *
* Acquisition date : 24-MAR-2010 11:03:00 Detector SN#    :                 *
* Detector ID      : GAM19                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.61     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 17-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202071014          Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.3571E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act Error	DLC (pCi/GRAM)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-6.890E-02	1.546E-01	1.231E-01	7.886E-02 NOT IDENT.
NA-22	5.185E-03	1.751E-02	1.588E-02	8.934E-03 NOT IDENT.
NA-24	-9.599E+00	9.548E+01	0.000E+00	4.872E+01 SHORT HLIF
K-40	1.887E-01	2.596E-01	2.552E-01	1.324E-01 NOT IDENT.
SC-46	7.283E-03	1.809E-02	1.617E-02	9.228E-03 FAIL ABUN
V-48	-2.209E-02	2.607E-02	1.773E-02	1.330E-02 NOT IDENT.
CR-51	5.273E-02	1.377E-01	1.265E-01	7.027E-02 NOT IDENT.
MN-54	-1.752E-04	1.498E-02	1.251E-02	7.644E-03 NOT IDENT.
CO-56	1.967E-02	1.948E-02	1.880E-02	9.939E-03 NOT IDENT.
CO-57	6.969E-03	1.194E-02	1.089E-02	6.093E-03 NOT IDENT.
CO-58	-6.667E-03	1.678E-02	1.297E-02	8.560E-03 NOT IDENT.
FE-59	1.041E-02	3.181E-02	2.918E-02	1.623E-02 NOT IDENT.
CO-60	4.349E-03	2.074E-02	1.833E-02	1.058E-02 NOT IDENT.
ZN-65	-2.531E-03	4.006E-02	2.913E-02	2.044E-02 NOT IDENT.
SE-75	8.449E-03	2.100E-02	1.935E-02	1.072E-02 NOT IDENT.
SR-85	-1.984E-02	3.066E-02	2.521E-02	1.564E-02 NOT IDENT.
Y-88	9.380E-03	2.273E-02	2.074E-02	1.159E-02 NOT IDENT.
Y-91	1.291E+00	7.802E+00	6.889E+00	3.981E+00 NOT IDENT.
NB-94	1.026E-02	1.934E-02	1.745E-02	9.869E-03 NOT IDENT.
NB-95	9.520E-03	2.082E-02	1.863E-02	1.062E-02 NOT IDENT.
NB-95M	-6.697E-02	5.719E-02	4.290E-02	2.918E-02 NOT IDENT.
ZR-95	-3.089E-04	3.442E-02	2.895E-02	1.756E-02 NOT IDENT.
MO-99	1.629E-01	8.022E-01	7.007E-01	4.093E-01 NOT IDENT.
TC-99M	8.991E+06	1.102E+07	0.000E+00	5.620E+06 SHORT HLIF
RU-103	-1.393E-02	1.851E-02	1.437E-02	9.443E-03 NOT IDENT.
RH-106	-2.225E-02	1.533E-01	1.278E-01	7.820E-02 NOT IDENT.

RU-106	-2.225E-02	1.533E-01	1.278E-01	7.820E-02	NOT IDENT.
AG-108M	6.937E-03	1.608E-02	1.462E-02	8.202E-03	NOT IDENT.
CD-109	-1.556E-01	3.394E-01	2.896E-01	1.732E-01	NOT IDENT.
AG-110M	-1.536E-02	1.762E-02	1.293E-02	8.992E-03	NOT IDENT.
SN-113	2.896E-03	2.307E-02	2.043E-02	1.177E-02	NOT IDENT.
CD-115	3.182E-01	5.186E-01	4.820E-01	2.646E-01	NOT IDENT.
SN-117M	-1.038E-02	1.796E-02	1.472E-02	9.162E-03	NOT IDENT.
TE-123M	-1.307E-02	1.351E-02	1.068E-02	6.893E-03	NOT IDENT.
SB-124	4.714E-03	5.697E-02	4.837E-02	2.907E-02	NOT IDENT.
SB-125	-1.510E-02	4.615E-02	3.863E-02	2.355E-02	NOT IDENT.
TE-125M	-7.127E-01	3.953E+00	3.410E+00	2.017E+00	NOT IDENT.
I-126	-2.415E-02	7.419E-02	5.990E-02	3.785E-02	NOT IDENT.
SB-126	-5.584E-03	4.811E-02	3.992E-02	2.454E-02	NOT IDENT.
SN-126	2.430E-03	3.247E-02	2.883E-02	1.656E-02	NOT IDENT.
SB-127	-4.929E-02	1.612E-01	1.297E-01	8.225E-02	NOT IDENT.
I-131	2.155E-02	3.144E-02	2.941E-02	1.604E-02	NOT IDENT.
TE-132	1.083E-02	6.695E-02	5.770E-02	3.416E-02	NOT IDENT.
BA-133	-1.968E-02	2.287E-02	1.832E-02	1.167E-02	NOT IDENT.
I-133	-7.053E+00	6.690E+00	0.000E+00	3.413E+00	SHORT HLIF
CS-134	2.151E-04	2.440E-02	2.052E-02	1.245E-02	NOT IDENT.
CS-135	2.663E-02	7.753E-02	7.098E-02	3.956E-02	NOT IDENT.
I-135	-1.403E+06	1.331E+07	0.000E+00	6.791E+06	SHORT HLIF
CS-136	1.502E-03	3.716E-02	3.228E-02	1.896E-02	NOT IDENT.
BA-137M	-8.994E-03	1.963E-02	1.433E-02	1.002E-02	NOT IDENT.
CS-137	-9.501E-03	2.074E-02	1.513E-02	1.058E-02	NOT IDENT.
CE-139	-1.013E-02	1.452E-02	1.176E-02	7.408E-03	NOT IDENT.
BA-140	1.218E-02	1.060E-01	9.222E-02	5.408E-02	NOT IDENT.
LA-140	-4.196E-03	3.030E-02	2.450E-02	1.546E-02	NOT IDENT.
CE-141	-9.850E-03	2.416E-02	2.017E-02	1.233E-02	NOT IDENT.
CE-143	6.372E-01	1.252E+00	1.156E+00	6.389E-01	NOT IDENT.
CE-144	6.765E-02	8.892E-02	8.172E-02	4.537E-02	NOT IDENT.
PM-144	1.923E-02	2.187E-02	2.029E-02	1.116E-02	NOT IDENT.
PR-144	1.434E+00	1.630E+00	1.513E+00	8.318E-01	NOT IDENT.
PM-146	-6.912E-03	2.318E-02	1.944E-02	1.183E-02	NOT IDENT.
ND-147	-1.445E-01	1.832E-01	1.398E-01	9.345E-02	NOT IDENT.
PM-149	-2.714E+00	3.992E+00	3.296E+00	2.036E+00	NOT IDENT.
EU-152	-6.247E-03	5.107E-02	4.442E-02	2.606E-02	NOT IDENT.
GD-153	-1.430E-04	3.851E-02	3.386E-02	1.965E-02	NOT IDENT.
EU-154	-5.191E-03	5.306E-02	4.426E-02	2.707E-02	NOT IDENT.
EU-155	1.164E-02	4.725E-02	4.226E-02	2.411E-02	NOT IDENT.
TB-160	1.660E-02	8.120E-02	6.501E-02	4.143E-02	NOT IDENT.
HO-166M	4.726E-03	3.490E-02	3.004E-02	1.781E-02	NOT IDENT.
TA-182	1.811E-02	6.785E-02	6.118E-02	3.462E-02	FAIL ABUN
IR-192	-4.260E-03	1.483E-02	1.271E-02	7.567E-03	NOT IDENT.
HG-203	9.574E-03	1.708E-02	1.589E-02	8.713E-03	NOT IDENT.
BI-207	3.389E-03	2.691E-02	2.367E-02	1.373E-02	NOT IDENT.
TL-208	-7.342E-03	2.034E-02	1.542E-02	1.038E-02	NOT IDENT.
PB-210	-8.288E-01	1.434E+00	1.225E+00	7.315E-01	NOT IDENT.
BI-211	8.389E-02	1.115E-01	1.044E-01	5.688E-02	NOT IDENT.
PB-211	-1.621E-01	3.746E-01	3.047E-01	1.911E-01	NOT IDENT.
BI-212	-7.653E-02	3.060E-01	2.499E-01	1.561E-01	NOT IDENT.
PB-212	-2.018E-03	3.363E-02	2.809E-02	1.716E-02	NOT IDENT.
BI-214	1.043E-02	4.081E-02	3.585E-02	2.082E-02	FAIL ABUN
PB-214	6.726E-03	4.106E-02	3.662E-02	2.095E-02	NOT IDENT.
RN-219	6.873E-02	2.142E-01	1.930E-01	1.093E-01	NOT IDENT.
RA-223	-1.928E-02	2.855E-01	2.502E-01	1.457E-01	NOT IDENT.
RA-224	2.303E-01	3.162E-01	2.848E-01	1.613E-01	NOT IDENT.
RA-226	1.043E-02	4.081E-02	3.585E-02	2.082E-02	FAIL ABUN
AC-227	-1.769E-02	1.248E-01	1.037E-01	6.365E-02	NOT IDENT.
TH-227	-1.769E-02	1.248E-01	1.037E-01	6.365E-02	NOT IDENT.
AC-228	-7.166E-02	8.036E-02	5.561E-02	4.100E-02	NOT IDENT.
RA-228	-7.166E-02	8.036E-02	5.561E-02	4.100E-02	NOT IDENT.
TH-228	-2.018E-03	3.363E-02	2.809E-02	1.716E-02	NOT IDENT.
TH-229	-6.190E-02	2.507E-01	2.095E-01	1.279E-01	NOT IDENT.
TH-230	1.042E-02	4.081E-02	3.585E-02	2.082E-02	FAIL ABUN
PA-231	-1.609E-01	7.108E-01	6.182E-01	3.627E-01	NOT IDENT.
TH-231	-1.928E-02	2.855E-01	2.502E-01	1.457E-01	NOT IDENT.
TH-232	-7.166E-02	8.036E-02	5.561E-02	4.100E-02	NOT IDENT.
PA-233	-3.677E-03	3.185E-02	2.785E-02	1.625E-02	NOT IDENT.
PA-234	-7.583E-02	1.545E-01	1.155E-01	7.882E-02	NOT IDENT.
PA-234M	-1.805E+00	2.321E+00	1.813E+00	1.184E+00	NOT IDENT.
TH-234	8.329E-01	8.029E-01	4.951E-01	4.096E-01	FAIL ABUN
U-235	-1.455E-01	1.019E-01	7.090E-02	5.197E-02	NOT IDENT.
NP-237	9.297E-02	9.920E-02	9.158E-02	5.061E-02	NOT IDENT.
U-238	8.329E-01	8.029E-01	4.951E-01	4.096E-01	FAIL ABUN
NP-239	-1.634E-01	1.759E-01	1.405E-01	8.975E-02	NOT IDENT.
AM-241	4.122E-02	6.124E-02	5.191E-02	3.125E-02	NOT IDENT.
CM-247	-1.462E-03	1.970E-02	1.707E-02	1.005E-02	NOT IDENT.

CF-249	1.464E-02	2.094E-02	1.959E-02	1.069E-02	NOT IDENT.
CF-251	3.724E-02	6.181E-02	5.580E-02	3.153E-02	NOT IDENT.
ANH-511	-2.693E-02	3.280E-02	3.097E-02	1.674E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	79.6931
49.72	70.2426
57.36	66.1303
59.54	53.6601
63.29	93.4832
63.29	93.4832
64.28	84.0618
67.75	74.8061
69.67	101.6584
70.83	97.7817
72.81	84.9721
72.87	79.9783
72.87	79.9783
74.82	73.1147
74.82	73.1147
74.82	73.1147
74.97	74.1267
77.11	91.3374
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80.19	82.5355
80.57	89.6118
81.00	92.6682
81.07	92.6738
81.07	92.6738
83.79	80.7809
83.79	80.7809
85.43	79.8854
86.48	76.9219
86.55	76.9266
86.79	76.9422
86.94	83.0276
87.57	90.1642
88.03	104.3882
88.47	127.7462
89.96	122.8320
91.11	88.4025
92.59	84.4422
92.59	84.4422
93.35	78.3873
94.67	93.7593
94.87	88.6783
94.87	88.6783
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98.44	76.6683
99.53	67.5267
100.11	61.4163
103.18	92.3470
103.37	84.1508
105.31	72.9720
106.12	66.8468
109.28	76.2857
111.00	70.1909
111.76	61.9684
116.30	74.6106
117.23	77.7720
121.12	80.0689
121.78	76.9852
122.06	71.7977
123.07	70.8077
131.20	61.7818
133.52	61.8786
136.00	80.8902

136.47	81.9663
140.51	60.0576
140.51	0.0000
143.76	87.6359
144.24	86.6070
144.24	86.6070
145.44	76.1034
152.43	76.4385
153.25	71.1665
154.21	70.1456
154.21	70.1456
156.02	70.2237
158.56	82.0545
159.00	90.6037
162.66	58.7547
163.33	68.3965
165.86	88.8347
176.60	61.3870
177.52	61.4192
181.07	84.2151
184.41	68.1468
185.72	67.1134
193.51	68.4857
197.04	74.0606
205.31	70.0073
210.85	58.1402
215.65	60.4810
222.11	59.5730
227.38	54.1971
228.16	56.4307
228.18	56.4310
235.69	83.2872
235.96	79.9662
235.96	79.9662
238.63	61.1629
238.63	61.1629
240.99	59.0043
242.00	99.1296
244.70	62.4523
252.40	52.6021
252.80	54.8504
256.23	52.6937
256.23	52.6937
260.90	39.3227
264.66	50.4171
268.22	55.0057
269.46	66.7644
269.46	66.7644
271.23	52.3692
273.65	53.3283
276.40	66.0618
277.37	59.7521
277.60	59.7577
278.00	63.3905
279.20	49.8323
279.54	49.8397
280.46	48.0461
283.69	53.5595
284.31	46.3090
285.41	54.5068
285.90	54.5178
287.50	52.7367
293.27	44.6611
295.22	49.2582
295.96	52.0104
298.57	52.0668
299.98	45.6989
299.98	45.6989
300.09	45.7013
300.09	45.7013
300.13	45.7019
301.36	40.2381
302.85	51.2429
304.50	58.6031
304.50	58.6031
304.85	49.4536
308.46	40.3541
311.90	46.8388

316.51	41.4047
319.41	35.9253
320.08	34.0918
323.87	37.8339
323.87	37.8339
328.76	36.9814
333.37	50.0139
334.37	42.6208
334.37	42.6208
338.28	59.3875
338.28	59.3875
338.32	59.3883
338.32	59.3883
338.32	59.3883
340.48	49.2210
340.55	49.2223
344.28	49.2922
351.06	44.7551
351.93	52.2313
356.01	57.9154
364.49	36.5435
366.42	38.4445
383.85	44.3459
388.16	34.9630
388.63	40.6395
391.69	42.5753
400.66	36.0638
401.81	37.9766
402.40	41.7828
404.85	42.7681
410.95	31.4281
414.70	41.0033
423.72	33.4747
427.09	41.1718
427.87	37.3518
433.94	34.5467
453.88	40.5629
463.37	34.8719
468.07	34.9229
473.00	25.2605
476.78	28.2081
477.60	29.1881
487.02	31.2230
492.35	26.3866
497.08	37.1896
511.00	45.2043
514.00	110.1591
527.90	20.7380
529.87	0.0000
531.02	34.5941
537.26	36.6360
546.56	0.0000
563.25	36.9024
569.33	22.9775
569.50	22.9787
569.70	29.9736
583.19	20.0557
600.60	28.2078
602.73	49.3912
604.72	34.2897
609.32	33.3215
609.32	33.3215
609.32	33.3215
610.33	32.3203
614.28	32.3531
618.01	20.2402
621.93	23.2999
621.93	23.2999
633.25	22.3513
635.95	26.4335
636.99	38.6438
645.85	25.4803
657.76	29.6450
661.66	23.5346
661.66	23.5346
664.57	19.4555
666.33	25.6104
666.50	25.6116

677.62	23.6267
685.70	21.6142
695.00	29.9151
696.49	29.9261
696.51	29.9261
697.00	31.9937
702.65	25.8362
706.68	35.1704
711.68	26.9268
720.70	22.8325
721.93	20.7627
722.78	21.8049
722.91	21.8060
723.31	25.9619
724.19	28.0441
727.33	33.2617
733.00	26.0199
735.93	30.2036
739.50	14.5930
747.24	12.5306
752.31	18.8174
753.82	21.9613
756.73	20.9292
763.94	26.2036
765.81	22.0203
766.42	24.1208
777.92	15.7712
778.90	16.8266
783.70	23.1612
785.37	17.9035
795.86	22.1674
801.95	29.5955
810.29	19.0600
810.76	16.9441
815.77	8.4811
818.51	13.7900
832.01	22.3402
834.85	12.7734
836.80	0.0000
846.77	12.8057
856.80	12.8323
860.56	19.2634
871.09	17.1605
873.19	11.8030
875.33	0.0000
879.36	18.2638
880.51	13.9699
883.24	21.5039
884.68	22.5858
889.28	12.9182
898.04	11.8626
911.20	19.4629
911.20	19.4629
911.20	19.4629
926.50	20.6064
937.49	19.5640
944.13	15.2359
946.00	18.5078
949.00	9.8040
962.29	15.2896
964.08	20.7571
966.15	22.9513
968.97	18.5896
968.97	18.5896
968.97	18.5896
983.53	19.7376
996.26	10.9917
1001.03	17.4190
1004.73	11.0090
1037.84	11.9997
1038.76	0.0000
1048.07	16.6458
1050.41	16.6523
1050.41	16.6523
1063.66	15.7653
1085.87	12.1034
1099.45	8.3994
1112.07	18.3659

1115.54	11.2305
1120.29	9.3665
1120.29	9.3665
1120.29	9.3665
1120.55	13.1136
1121.30	17.6655
1131.51	0.0000
1173.23	8.5060
1177.93	10.4043
1189.05	9.4759
1204.77	10.4508
1221.41	8.5737
1231.02	17.1746
1235.36	20.0507
1238.28	14.3286
1260.41	0.0000
1271.85	14.4061
1274.44	10.5685
1274.54	7.6865
1291.59	12.5239
1298.22	0.0000
1312.11	11.5977
1332.49	10.6643
1365.19	4.8716
1368.63	0.0000
1384.29	10.7485
1408.01	9.8055
1457.56	0.0000
1460.82	5.9287
1489.16	8.9290
1505.03	7.9548
1596.21	8.0550
1620.50	8.0811
1678.03	0.0000
1690.97	11.2148
1764.49	8.2331
1764.49	8.2331
1764.49	8.2331
1770.23	10.2987
1771.35	6.1799
1791.20	0.0000
1836.06	6.2295

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202071014

Total Uranium Activity	2.4106E+00	ug/g
Total Uranium Counting Unc.	2.3889E+00	ug/g
Total Uranium Tpu	1.2189E-06	ug/g
Total Uranium Mda	1.4732E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G1202071014      *
*   ANALYST       : MXR1                      DETECTOR   : GAM19            *
*   SAMPLE DATE   : 17-MAR-2010 00:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 11:03:00.83    SAMPLE ALQT:  135.710 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 5.597E-02
GROSS GAMMA ERROR  (pCi/GRAM  )   : 2.621E-02
GROSS GAMMA MDA    (pCi/GRAM  )   : 1.146E-01
GROSS GAMMA DLC    (pCi/GRAM  )   : 5.367E-02
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:24:36.03

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071015.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 11:24:08
Sample ID         : G1202071015          Sample quantity  : 1.20310E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.33  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.15*	127	619	1.13	127.03	122	11	1.76E-02	39.9	
2	3	74.92	452	498	1.18	150.55	146	15	6.28E-02	9.4	1.27E+00
3	3	77.22*	792	438	1.23	155.14	146	15	1.10E-01	6.1	
4	1	84.04*	112	343	1.20	168.78	166	13	1.56E-02	27.0	2.80E+00
5	1	87.26*	236	482	1.21	175.22	166	13	3.28E-02	16.9	
6	3	89.96	176	200	1.24	180.63	179	17	2.45E-02	12.3	5.89E-01
7	3	93.00*	298	465	1.36	186.69	179	17	4.13E-02	15.0	
8	0	105.72	78	340	1.51	212.12	208	8	1.09E-02	42.3	
9	0	129.43	69	436	1.27	259.51	255	9	9.64E-03	55.6	
10	0	186.32*	348	482	1.54	373.22	366	14	4.83E-02	14.9	
11	0	209.67*	120	281	1.03	419.91	416	8	1.67E-02	26.7	
12	4	239.06*	1444	253	1.28	478.65	473	17	2.01E-01	3.3	5.54E-01
13	4	241.93	346	294	1.74	484.40	473	17	4.80E-02	13.7	
14	0	270.84*	181	206	1.82	542.18	538	11	2.52E-02	17.3	
15	0	295.76	433	235	1.31	591.99	587	10	6.01E-02	8.2	
16	0	328.59	57	132	0.88	657.60	656	6	7.95E-03	35.0	
17	0	338.77	263	218	1.09	677.96	673	11	3.66E-02	12.5	
18	0	352.35*	774	172	1.36	705.11	700	13	1.07E-01	5.1	
19	0	410.01	72	155	1.38	820.36	815	13	9.97E-03	37.7	
20	0	463.34	113	123	1.28	926.95	921	12	1.57E-02	21.7	
21	0	511.29*	206	153	1.80	1022.79	1014	19	2.86E-02	17.4	
22	0	583.79*	450	114	1.43	1167.70	1162	13	6.25E-02	7.0	
23	0	609.65*	583	95	1.48	1219.38	1213	13	8.09E-02	5.5	
24	0	728.34	125	83	2.33	1456.61	1449	18	1.73E-02	19.5	
25	0	795.62*	64	45	1.36	1591.08	1586	11	8.89E-03	24.4	
26	0	861.17	50	51	1.23	1722.10	1719	11	6.89E-03	31.5	
27	0	911.64*	303	80	1.67	1822.98	1814	14	4.21E-02	8.7	
28	1	965.33	60	50	1.92	1930.27	1925	23	8.36E-03	25.7	1.13E+00
29	1	969.58*	178	38	1.89	1938.78	1925	23	2.47E-02	10.6	
30	0	1121.06*	136	46	1.94	2241.52	2234	17	1.90E-02	14.7	
31	0	1238.90*	48	53	2.11	2477.02	2472	11	6.66E-03	33.9	
32	0	1461.46*	1187	33	1.99	2921.81	2912	19	1.65E-01	3.2	
33	2	1588.90	46	32	2.42	3176.48	3169	21	6.33E-03	26.7	3.94E+00
34	2	1593.29	30	9	2.18	3185.27	3169	21	4.21E-03	26.5	
35	0	1662.84	21	2	0.80	3324.25	3319	11	2.85E-03	26.9	
36	0	1765.73*	107	4	1.69	3529.85	3523	15	1.49E-02	10.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 13:24:39

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071015.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 11:24:08
Sample ID         : G1202071015          Sample quantity  : 120.31 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA1               Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.33   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.675E+01	4.006E+00	6.672E-01	5.932E-02	55.082
CD-109	+	88.03	*	3.908E+00	1.370E+00	1.628E+00	1.541E-01	2.400
SN-126	+	64.28		1.492E+00	1.212E+00	1.021E+00	1.503E-01	1.461
	+	86.94		1.593E+00	8.527E-01	6.996E-01	2.905E-01	2.277
	+	87.57	*	3.833E-01	1.343E-01	1.605E-01	1.512E-02	2.388
EU-155	+	86.55		4.643E-01	1.628E-01	2.048E-01	1.925E-02	2.267
	+	105.31	*	1.966E-01	1.671E-01	2.073E-01	1.823E-02	0.948
TL-208		277.37		1.320E+00	5.644E-01	9.346E-01	1.205E-01	1.412
	+	583.19	*	7.708E-01	1.285E-01	7.375E-02	6.689E-03	10.452
	+	860.56		8.144E-01	5.193E-01	4.322E-01	4.141E-02	1.884
BI-211		72.87		7.968E+00	4.748E+00	7.253E+00	5.949E-01	1.099
	+	351.06	*	5.794E+00	7.890E-01	4.234E-01	3.852E-02	13.685
PB-212	+	74.82		3.298E+00	7.486E-01	7.403E-01	9.479E-02	4.454
	+	77.11		3.291E+00	4.871E-01	4.226E-01	3.586E-02	7.787
	+	238.63	*	2.379E+00	2.892E-01	1.201E-01	1.222E-02	19.804
		300.09		2.581E+00	1.123E+00	1.828E+00	1.997E-01	1.412
BI-214	+	609.32	*	1.937E+00	2.858E-01	1.438E-01	1.425E-02	13.471
	+	1120.29		2.393E+00	7.477E-01	5.827E-01	6.263E-02	4.107
	+	1764.49		2.646E+00	6.178E-01	3.744E-01	3.139E-02	7.069
PB-214	+	74.82		5.845E+00	1.285E+00	1.312E+00	1.509E-01	4.454
	+	77.11		5.801E+00	9.830E-01	7.450E-01	8.816E-02	7.787
	+	242.00		3.456E+00	1.016E+00	7.308E-01	7.878E-02	4.730
	+	295.22		1.981E+00	3.945E-01	3.035E-01	3.398E-02	6.528
	+	351.93	*	2.103E+00	3.089E-01	1.485E-01	1.579E-02	14.155
RA-224	+	240.99	*	6.112E+00	1.762E+00	1.288E+00	1.170E-01	4.746
RA-226	+	609.32	*	1.937E+00	2.858E-01	1.438E-01	1.425E-02	13.471
	+	1120.29		2.393E+00	7.477E-01	5.827E-01	6.263E-02	4.107
	+	1764.49		2.646E+00	6.178E-01	3.744E-01	3.139E-02	7.069
AC-228	+	338.32		2.193E+00	1.067E+00	4.826E-01	2.015E-01	4.545
	+	911.20	*	2.537E+00	5.342E-01	3.234E-01	3.853E-02	7.844
	+	968.97		2.574E+00	8.332E-01	4.617E-01	1.130E-01	5.576
RA-228	+	338.32		2.193E+00	1.067E+00	4.826E-01	2.015E-01	4.545
	+	911.20	*	2.537E+00	5.342E-01	3.234E-01	3.853E-02	7.844
	+	968.97		2.574E+00	8.332E-01	4.617E-01	1.130E-01	5.576

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	74.82		3.298E+00	6.775E-01	7.403E-01	6.224E-02	4.454
	+	77.11		3.291E+00	4.871E-01	4.226E-01	3.586E-02	7.787
	+	238.63	*	2.379E+00	2.892E-01	1.201E-01	1.222E-02	19.804
		300.09		2.581E+00	1.919E+00	1.828E+00	1.120E+00	1.412
TH-229	+	85.43		4.800E-01	2.632E-01	4.316E-01	3.971E-02	1.112
	+	88.47		5.909E-01	2.071E-01	2.450E-01	2.308E-02	2.412
		193.51	*	8.141E-02	6.523E-01	1.098E+00	9.622E-02	0.074
	+	210.85		2.805E+00	1.520E+00	1.721E+00	1.533E-01	1.630
TH-230	+	609.32	*	1.936E+00	2.669E-01	1.438E-01	1.206E-02	13.471
	+	1120.29		2.393E+00	7.303E-01	5.827E-01	4.896E-02	4.107
	+	1764.49		2.646E+00	6.178E-01	3.744E-01	3.139E-02	7.069
TH-232	+	338.32		2.193E+00	5.797E-01	4.826E-01	4.248E-02	4.545
	+	911.20	*	2.537E+00	5.342E-01	3.234E-01	3.853E-02	7.844
	+	968.97		2.574E+00	8.332E-01	4.617E-01	1.130E-01	5.576
TH-234	+	63.29	*	3.872E+00	3.170E+00	2.771E+00	4.976E-01	1.397
	+	92.59		3.983E+00	1.485E+00	1.177E+00	2.624E-01	3.383
U-235	+	89.96		2.963E+00	1.036E+00	1.669E+00	4.149E-01	1.776
	+	93.35		3.009E+00	1.140E+00	8.840E-01	2.057E-01	3.403
		143.76	*	1.086E-01	2.577E-01	4.364E-01	7.382E-02	0.249
		163.33		-1.078E-01	5.470E-01	9.154E-01	1.639E-01	-0.118
	+	185.72		3.678E-01	1.144E-01	8.640E-02	7.508E-03	4.257
		205.31		2.021E-01	7.149E-01	1.058E+00	1.932E-01	0.191
NP-237	+	86.48	*	1.144E+00	4.670E-01	5.049E-01	1.158E-01	2.265
		95.86		-3.710E-02	1.297E+00	1.844E+00	4.445E-01	-0.020
U-238	+	63.29	*	3.872E+00	3.170E+00	2.771E+00	4.976E-01	1.397
	+	92.59		3.983E+00	1.245E+00	1.177E+00	1.074E-01	3.383
ANH-511	+	511.00	*	2.689E-01	9.624E-02	5.441E-02	4.612E-03	4.942

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.610E-02	4.229E-01	6.801E-01	6.185E-02	0.024
NA-22		1274.54	*	-3.645E-02	5.745E-02	8.966E-02	7.529E-03	-0.407
NA-24		1368.63	*	-1.078E-02	5.745E-02	Half-Life too short		
SC-46		889.28	*	-2.980E-02	4.931E-02	7.557E-02	6.831E-03	-0.394
	+	1120.55		3.977E-01	1.214E-01	1.708E-01	1.435E-02	2.329
V-48		944.13		-6.660E-01	1.005E+00	1.518E+00	1.367E-01	-0.439
		983.53	*	8.125E-03	8.711E-02	1.427E-01	1.274E-02	0.057
		1312.11		6.878E-02	9.050E-02	1.629E-01	1.381E-02	0.422
CR-51		320.08	*	-1.107E-01	4.487E-01	7.245E-01	6.810E-02	-0.153
MN-54		834.85	*	-2.061E-02	4.599E-02	7.233E-02	6.438E-03	-0.285
CO-56		846.77	*	-1.101E-02	5.000E-02	8.030E-02	7.175E-03	-0.137
		1037.84		-2.794E-02	3.946E-01	6.335E-01	5.835E-02	-0.044
	+	1238.28		2.308E-01	1.575E-01	2.348E-01	2.007E-02	0.983
		1771.35		4.508E-03	2.738E-01	3.845E-01	3.219E-02	0.012
CO-57		122.06	*	-1.141E-02	3.351E-02	5.235E-02	4.609E-03	-0.218
		136.47		-1.451E-01	2.519E-01	4.182E-01	3.859E-02	-0.347
CO-58		810.76	*	-2.030E-02	5.188E-02	8.236E-02	7.286E-03	-0.247

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
FE-59		1099.45	*	8.203E-02	1.191E-01	2.045E-01	1.885E-02	0.401
		1291.59		1.143E-02	1.560E-01	2.621E-01	2.521E-02	0.044
CO-60		1173.23		2.247E-02	6.296E-02	1.086E-01	8.791E-03	0.207
		1332.49	*	-1.965E-02	5.197E-02	8.269E-02	7.048E-03	-0.238
ZN-65		1115.54	*	-8.327E-02	1.342E-01	1.684E-01	1.421E-02	-0.494
SE-75		121.12		1.478E-02	1.732E-01	2.758E-01	3.092E-02	0.054
		136.00		-3.646E-02	4.839E-02	7.977E-02	6.906E-03	-0.457
		264.66	*	2.605E-04	5.823E-02	9.307E-02	8.551E-03	0.003
		279.54		4.805E-03	1.484E-01	2.451E-01	2.317E-02	0.020
		400.66		-2.319E-01	3.410E-01	5.268E-01	5.630E-02	-0.440
SR-85		514.00	*	1.739E-01	5.978E-02	1.014E-01	8.598E-03	1.715
Y-88		898.04		-2.379E-02	5.504E-02	8.618E-02	7.841E-03	-0.276
		1836.06	*	2.252E-02	4.208E-02	7.567E-02	6.224E-03	0.298
Y-91		1204.77	*	2.579E+01	2.857E+01	5.115E+01	4.190E+00	0.504
NB-94		702.65	*	6.258E-02	4.630E-02	8.344E-02	7.004E-03	0.750
		871.09		-1.869E-02	4.107E-02	6.394E-02	5.753E-03	-0.292
NB-95		765.81	*	-2.459E-02	6.265E-02	9.913E-02	8.590E-03	-0.248
NB-95M		235.69	*	2.440E-02	1.733E-01	2.553E-01	2.623E-02	0.096
ZR-95		724.19		-3.928E-03	1.300E-01	1.861E-01	1.717E-02	-0.021
		756.73	*	1.403E-02	9.204E-02	1.539E-01	1.467E-02	0.091
MO-99		140.51		-1.273E+01	1.640E+01	2.638E+01	6.257E+00	-0.483
		181.07		2.138E+00	1.473E+01	2.198E+01	4.133E+00	0.097
		366.42		2.556E+01	7.011E+01	1.168E+02	9.875E+00	0.219
		739.50	*	7.370E+00	9.130E+00	1.598E+01	2.512E+00	0.461
		777.92		-2.378E+01	2.847E+01	4.350E+01	3.789E+00	-0.547
TC-99M		140.51	*	-1.011E+08	2.847E+01	Half-Life too short		
RU-103		497.08	*	-5.076E-03	5.089E-02	8.080E-02	1.120E-02	-0.063
	+	610.33		1.924E+01	3.765E+00	3.953E+00	6.414E-01	4.869
RH-106		621.93	*	1.130E-01	3.985E-01	6.794E-01	8.889E-02	0.166
		1050.41		1.400E+00	3.368E+00	5.669E+00	4.944E-01	0.247
RU-106		621.93	*	1.130E-01	3.984E-01	6.794E-01	5.675E-02	0.166
		1050.41		1.400E+00	3.368E+00	5.669E+00	4.944E-01	0.247
AG-108M		433.94	*	3.744E-02	3.624E-02	6.260E-02	5.357E-03	0.598
		614.28		-2.253E-03	4.950E-02	7.163E-02	6.209E-03	-0.031
		722.91		-8.397E-03	5.446E-02	7.685E-02	6.738E-03	-0.109
AG-110M		657.76	*	-3.756E-03	4.418E-02	7.310E-02	6.198E-03	-0.051
		677.62		3.319E-02	4.027E-01	6.737E-01	5.747E-02	0.049
		706.68		-3.238E-01	2.757E-01	4.116E-01	3.568E-02	-0.787
		763.94		-3.020E-01	2.416E-01	3.601E-01	3.203E-02	-0.839
		884.68		2.483E-02	5.914E-02	1.007E-01	9.364E-03	0.246
		937.49		4.781E-02	1.532E-01	2.564E-01	2.388E-02	0.186
		1384.29		5.695E-02	1.816E-01	3.143E-01	2.773E-02	0.181
		1505.03		-3.595E-01	3.227E-01	4.260E-01	3.688E-02	-0.844
SN-113		391.69	*	-1.942E-02	5.726E-02	9.075E-02	7.559E-03	-0.214
CD-115		260.90		-2.482E+01	9.049E+01	1.476E+02	1.350E+01	-0.168
		492.35		-1.760E+01	2.654E+01	4.022E+01	3.398E+00	-0.438
		527.90	*	5.935E+00	7.132E+00	1.269E+01	1.077E+00	0.468
SN-117M		156.02		-7.490E-01	2.603E+00	4.352E+00	3.706E-01	-0.172
		158.56	*	-1.742E-02	6.127E-02	1.024E-01	8.714E-03	-0.170

---- Non-Identified Nuclides ----

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TE-123M		159.00	*	4.224E-03	3.450E-02	5.851E-02	5.013E-03	0.072
SB-124		602.73		3.760E-03	5.066E-02	7.774E-02	6.538E-03	0.048
		645.85		-3.277E-01	5.876E-01	9.338E-01	8.197E-02	-0.351
		722.78		-7.296E-02	5.344E-01	7.557E-01	6.565E-02	-0.097
		1690.97	*	-1.095E-02	8.319E-02	1.321E-01	1.174E-02	-0.083
SB-125		427.87	*	-1.446E-02	1.150E-01	1.839E-01	1.546E-02	-0.079
	+	463.37		1.302E+00	5.779E-01	7.583E-01	6.857E-02	1.716
		600.60		-1.562E-02	2.210E-01	3.682E-01	3.338E-02	-0.042
		635.95		9.227E-02	3.315E-01	5.651E-01	5.101E-02	0.163
TE-125M		109.28	*	8.446E+00	1.374E+01	2.006E+01	2.109E+00	0.421
I-126		388.63		5.748E-02	1.923E-01	3.178E-01	2.574E-02	0.181
		666.33	*	-1.290E-02	2.538E-01	4.208E-01	3.457E-02	-0.031
		753.82		1.230E+00	2.030E+00	3.518E+00	3.032E-01	0.350
SB-126		414.70		5.480E-02	9.337E-02	1.393E-01	1.139E-02	0.393
		666.50		5.300E-03	8.642E-02	1.445E-01	1.187E-02	0.037
		695.00		-1.122E-02	8.847E-02	1.454E-01	1.215E-02	-0.077
		697.00		-2.287E-01	3.191E-01	5.001E-01	4.185E-02	-0.457
		720.70	*	-2.914E-02	1.911E-01	2.833E-01	2.402E-02	-0.103
		856.80		-1.764E-01	6.022E-01	8.190E-01	7.340E-02	-0.215
SB-127		252.40		1.551E+00	3.690E+00	6.144E+00	2.548E+00	0.253
		473.00		-3.503E-02	1.438E+00	2.303E+00	2.785E-01	-0.015
		685.70	*	-6.680E-01	1.122E+00	1.768E+00	1.862E-01	-0.378
		783.70		4.058E-01	3.130E+00	5.213E+00	6.198E-01	0.078
I-131		80.19		5.956E+00	6.262E+00	7.559E+00	6.627E-01	0.788
		284.31		7.182E-01	1.623E+00	2.730E+00	2.605E-01	0.263
		364.49	*	3.138E-02	1.157E-01	1.916E-01	1.713E-02	0.164
		636.99		-5.955E-01	1.623E+00	2.628E+00	2.311E-01	-0.227
TE-132		49.72		-1.761E+01	1.712E+01	2.660E+01	2.744E+00	-0.662
		111.76		8.956E+00	2.756E+01	4.441E+01	4.650E+00	0.202
		116.30		-2.697E+00	2.380E+01	3.763E+01	3.950E+00	-0.072
		228.16	*	-1.611E-01	5.666E-01	9.300E-01	1.456E-01	-0.173
BA-133		81.00		1.497E-01	1.559E-01	1.869E-01	2.919E-02	0.801
		276.40		8.461E-01	5.366E-01	8.356E-01	1.207E-01	1.013
		302.85		-1.824E-01	1.841E-01	2.839E-01	3.796E-02	-0.643
		356.01	*	-1.409E-02	5.727E-02	7.980E-02	1.033E-02	-0.177
		383.85		-1.587E-01	3.766E-01	5.935E-01	7.197E-02	-0.267
I-133		529.87	*	-5.372E-04	3.766E-01	Half-Life too short		
		875.33		3.346E-02	3.766E-01	Half-Life too short		
		1298.22		4.837E-02	3.766E-01	Half-Life too short		
CS-134		563.25		1.580E-01	4.638E-01	7.968E-01	6.823E-02	0.198
		569.33		-3.551E-02	2.526E-01	4.201E-01	3.609E-02	-0.085
		604.72		1.867E-02	4.466E-02	6.786E-02	5.718E-03	0.275
	+	795.86	*	1.608E-01	7.985E-02	1.224E-01	1.082E-02	1.314
		801.95		-2.883E-01	6.174E-01	8.806E-01	7.789E-02	-0.327
		1365.19		-7.426E-01	1.546E+00	2.380E+00	2.135E-01	-0.312
CS-135		268.22	*	2.159E-01	2.309E-01	3.537E-01	3.688E-02	0.610
I-135		546.56		-3.006E+07	2.309E-01	Half-Life too short		
		836.80		-3.879E+07	2.309E-01	Half-Life too short		
		1038.76		3.774E+07	2.309E-01	Half-Life too short		

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		1131.51		1.240E+07	2.309E-01	Half-Life too short		
		1260.41	*	-3.295E+07	2.309E-01	Half-Life too short		
		1457.56		1.069E+09	2.309E-01	Half-Life too short		
		1678.03		3.149E+07	2.309E-01	Half-Life too short		
		1791.20		-8.472E+06	2.309E-01	Half-Life too short		
CS-136		153.25		1.117E+00	9.610E-01	1.678E+00	1.709E-01	0.666
		176.60		-1.080E-01	5.710E-01	9.533E-01	9.053E-02	-0.113
		273.65		-8.653E-01	7.059E-01	9.321E-01	9.170E-02	-0.928
		340.55		8.723E-01	2.341E-01	3.888E-01	3.538E-02	2.244
		818.51		-2.857E-02	8.292E-02	1.317E-01	1.167E-02	-0.217
		1048.07	*	-6.827E-02	1.309E-01	2.000E-01	1.817E-02	-0.341
		1235.36		4.753E-01	7.329E-01	1.136E+00	1.309E-01	0.418
BA-137M		661.66	*	-4.097E-02	4.617E-02	7.139E-02	5.848E-03	-0.574
CS-137		661.66	*	-4.328E-02	4.877E-02	7.542E-02	6.191E-03	-0.574
CE-139		165.86	*	1.070E-02	3.738E-02	6.365E-02	5.421E-03	0.168
BA-140		162.66		-4.089E-01	9.078E-01	1.505E+00	1.370E-01	-0.272
		304.85		-1.330E+00	1.578E+00	2.390E+00	7.028E-01	-0.556
		423.72		3.114E-01	2.280E+00	3.712E+00	1.217E+00	0.084
		537.26	*	7.998E-02	2.983E-01	5.096E-01	1.727E-01	0.157
LA-140	+	328.76		5.237E-01	3.697E-01	6.485E-01	6.078E-02	0.808
		487.02		2.349E-01	1.669E-01	2.919E-01	2.622E-02	0.804
		815.77		-7.407E-03	3.466E-01	5.685E-01	5.589E-02	-0.013
		1596.21	*	9.548E-02	9.629E-02	1.676E-01	1.446E-02	0.570
CE-141		145.44	*	4.033E-02	7.677E-02	1.306E-01	1.136E-02	0.309
CE-143		57.36		2.161E-04	7.677E-02	Half-Life too short		
		293.27	*	1.288E-04	7.677E-02	Half-Life too short		
		664.57		2.288E-04	7.677E-02	Half-Life too short		
		721.93		-3.953E-05	7.677E-02	Half-Life too short		
CE-144		80.12		3.698E+00	4.047E+00	4.875E+00	4.252E-01	0.759
		133.52	*	9.810E-02	2.941E-01	4.199E-01	6.419E-02	0.234
PM-144		476.78		-1.479E-02	8.677E-02	1.374E-01	1.261E-02	-0.108
		618.01		-4.437E-03	4.115E-02	6.824E-02	5.878E-03	-0.065
		696.49	*	-1.104E-02	4.496E-02	7.324E-02	6.128E-03	-0.151
PR-144		696.51	*	-8.198E-01	3.362E+00	5.476E+00	4.581E-01	-0.150
		1489.16		-2.286E+01	1.496E+01	1.723E+01	1.491E+00	-1.327
PM-146		453.88	*	4.235E-02	5.488E-02	9.281E-02	9.623E-03	0.456
		633.25		7.339E-03	1.796E+00	2.999E+00	1.143E+00	0.002
		735.93		-6.870E-02	2.111E-01	2.892E-01	8.099E-02	-0.238
		747.24		9.145E-02	1.203E-01	2.103E-01	3.064E-02	0.435
ND-147	+	91.11		8.382E-01	2.224E-01	5.896E-01	5.831E-02	1.422
		319.41		-6.753E-01	3.738E+00	6.062E+00	5.438E-01	-0.111
		531.02	*	1.606E-01	6.099E-01	1.046E+00	1.556E-01	0.154
PM-149		285.90	*	-1.904E+01	6.253E+01	1.013E+02	1.603E+01	-0.188
EU-152		121.78		-2.798E-02	9.713E-02	1.521E-01	1.529E-02	-0.184
		244.70		5.433E-01	4.635E-01	7.212E-01	6.565E-02	0.753
		344.28	*	1.143E-02	1.446E-01	2.080E-01	1.922E-02	0.055
		778.90		-2.274E-01	3.380E-01	5.234E-01	4.562E-02	-0.434
	+	964.08		9.382E-01	4.895E-01	7.871E-01	7.061E-02	1.192
		1085.87		-4.496E-02	5.429E-01	8.683E-01	7.443E-02	-0.052

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		1112.07		9.623E-02	4.202E-01	6.738E-01	5.691E-02	0.143
		1408.01		9.656E-02	2.236E-01	3.909E-01	3.367E-02	0.247
GD-153		69.67		-1.126E+00	2.480E+00	3.746E+00	3.004E-01	-0.301
		97.43	*	-3.138E-04	1.198E-01	1.704E-01	1.513E-02	-0.002
		103.18		6.456E-02	1.427E-01	2.079E-01	1.814E-02	0.310
EU-154		123.07		-1.882E-02	6.869E-02	1.076E-01	1.234E-02	-0.175
		723.31		-7.499E-02	2.468E-01	3.419E-01	3.205E-02	-0.219
		873.19		-1.078E-01	3.531E-01	5.598E-01	6.816E-02	-0.193
		996.26		-7.483E-02	4.718E-01	7.529E-01	1.326E-01	-0.099
		1004.73		1.729E-01	2.980E-01	5.076E-01	6.003E-02	0.341
		1274.44	*	-1.194E-01	1.648E-01	2.542E-01	2.849E-02	-0.470
TB-160	+	86.79		1.208E+00	4.233E-01	6.342E-01	5.923E-02	1.905
		197.04		-3.536E-01	7.045E-01	1.134E+00	9.965E-02	-0.312
		215.65		4.566E-01	9.477E-01	1.610E+00	1.440E-01	0.284
		298.57		1.440E-01	1.598E-01	2.441E-01	2.219E-02	0.590
		879.36	*	-6.345E-02	1.625E-01	2.545E-01	2.295E-02	-0.249
		962.29		6.855E-01	7.313E-01	1.147E+00	1.030E-01	0.597
	+	966.15		6.423E-01	3.351E-01	6.079E-01	5.451E-02	1.057
		1177.93		-2.656E-01	4.926E-01	7.892E-01	6.400E-02	-0.337
		1271.85		-4.954E-02	9.185E-01	1.526E+00	1.279E-01	-0.032
HO-166M		80.57		1.338E-02	4.744E-01	5.353E-01	4.689E-02	0.025
		184.41		1.516E-01	4.832E-02	8.605E-02	7.467E-03	1.762
		280.46		-1.494E-01	1.154E-01	1.768E-01	1.617E-02	-0.845
	+	410.95		6.992E-01	5.309E-01	5.717E-01	4.663E-02	1.223
		711.68	*	7.138E-03	7.743E-02	1.293E-01	1.091E-02	0.055
		752.31		-2.496E-01	3.516E-01	5.442E-01	4.686E-02	-0.459
		810.29		-2.321E-02	7.869E-02	1.260E-01	1.112E-02	-0.184
TA-182		67.75		1.012E-01	1.656E-01	2.449E-01	1.941E-02	0.413
		100.11		-4.783E-02	2.316E-01	3.484E-01	3.063E-02	-0.137
		152.43		3.017E-01	4.333E-01	7.490E-01	6.382E-02	0.403
		222.11		1.911E-01	4.308E-01	7.308E-01	6.567E-02	0.261
	+	1121.30		1.107E+00	3.378E-01	4.817E-01	4.045E-02	2.298
		1189.05		-3.478E-02	4.015E-01	6.685E-01	5.444E-02	-0.052
		1221.41	*	2.913E-02	2.454E-01	4.150E-01	3.420E-02	0.070
		1231.02		-1.115E-01	6.323E-01	9.932E-01	8.214E-02	-0.112
IR-192	+	295.96		1.436E+00	2.706E-01	3.840E-01	3.518E-02	3.739
		308.46		-5.259E-02	1.221E-01	1.954E-01	1.775E-02	-0.269
		316.51	*	-1.263E-03	4.364E-02	7.143E-02	6.435E-03	-0.018
		468.07		2.457E-02	9.254E-02	1.333E-01	1.204E-02	0.184
HG-203		70.83		-2.748E-01	1.977E+00	2.829E+00	4.464E-01	-0.097
		72.87		1.922E+00	1.172E+00	1.749E+00	2.677E-01	1.099
		279.20	*	3.819E-02	5.108E-02	8.691E-02	8.129E-03	0.439
BI-207		72.81		3.913E-01	2.710E-01	4.113E-01	3.372E-02	0.951
	+	74.97		9.503E-01	1.949E-01	3.103E-01	2.586E-02	3.063
		569.70		2.913E-03	3.878E-02	6.545E-02	5.544E-03	0.045
		1063.66	*	-4.823E-03	6.641E-02	1.064E-01	9.223E-03	-0.045
		1770.23		2.312E-01	6.405E-01	9.875E-01	8.270E-02	0.234
PB-210		46.54	*	2.987E+00	5.158E+00	8.538E+00	7.996E-01	0.350
PB-211		404.85	*	7.942E-02	1.114E+00	1.585E+00	7.656E-01	0.050

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.09		-5.884E-01	2.024E+00	3.172E+00	1.465E+00	-0.186
		832.01		-7.047E-01	1.313E+00	1.964E+00	1.019E+00	-0.359
BI-212	+	727.33	*	3.294E+00	1.351E+00	1.554E+00	1.923E-01	2.120
		785.37		4.083E+00	4.050E+00	7.191E+00	6.284E-01	0.568
		1620.50		3.593E+00	3.421E+00	6.382E+00	5.492E-01	0.563
RN-219	+	271.23		1.323E+00	4.804E-01	6.146E-01	6.579E-02	2.153
		401.81	*	-2.992E-01	5.642E-01	8.806E-01	1.284E-01	-0.340
RA-223		81.07		3.504E-01	3.509E-01	4.247E-01	3.738E-02	0.825
	+	83.79		2.857E-01	1.567E-01	2.808E-01	2.540E-02	1.017
		94.87		1.694E+00	6.742E-01	1.048E+00	9.428E-02	1.616
		144.24		9.478E-01	8.631E-01	1.490E+00	1.423E-01	0.636
		154.21		9.758E-01	4.920E-01	8.736E-01	8.169E-02	1.117
	+	269.46		1.028E+00	3.693E-01	4.570E-01	4.256E-02	2.250
		323.87	*	5.971E-01	8.587E-01	1.405E+00	2.458E-01	0.425
	+	338.28		8.703E+00	2.415E+00	3.188E+00	3.890E-01	2.730
AC-227		79.69		1.237E+00	1.888E+00	2.543E+00	4.392E-01	0.486
		235.96		1.501E-01	2.151E-01	3.259E-01	3.492E-02	0.460
		256.23	*	-3.287E-02	3.193E-01	5.260E-01	6.535E-02	-0.062
		299.98		2.488E+00	1.260E+00	2.006E+00	2.612E-01	1.241
		304.50		-3.611E+00	2.222E+00	3.188E+00	5.345E-01	-1.132
		334.37		-1.549E+00	2.717E+00	3.412E+00	5.361E-01	-0.454
TH-227		79.80		3.125E+00	2.775E+00	3.306E+00	7.209E-01	0.945
		235.96		1.501E-01	2.151E-01	3.259E-01	3.309E-02	0.460
		256.23	*	-3.287E-02	3.193E-01	5.260E-01	7.331E-02	-0.062
		299.98		2.488E+00	1.260E+00	2.006E+00	2.612E-01	1.241
		304.50		-3.611E+00	2.222E+00	3.188E+00	5.345E-01	-1.132
		334.37		-1.549E+00	2.717E+00	3.412E+00	5.361E-01	-0.454
PA-231		283.69	*	1.716E+00	1.874E+00	3.201E+00	4.768E-01	0.536
		301.36		1.309E+00	7.753E-01	1.275E+00	1.592E-01	1.027
TH-231		81.07		3.504E-01	3.509E-01	4.247E-01	3.738E-02	0.825
	+	83.79		2.857E-01	1.567E-01	2.808E-01	2.540E-02	1.017
		94.87		1.694E+00	6.742E-01	1.048E+00	9.428E-02	1.616
		144.24		9.478E-01	8.631E-01	1.490E+00	1.423E-01	0.636
		154.21		9.758E-01	4.920E-01	8.736E-01	8.169E-02	1.117
	+	269.46		1.028E+00	3.693E-01	4.570E-01	4.256E-02	2.250
		323.87	*	5.971E-01	8.587E-01	1.405E+00	2.458E-01	0.425
	+	338.28		8.703E+00	2.415E+00	3.188E+00	3.890E-01	2.730
PA-233		300.13		1.285E+00	5.748E-01	9.101E-01	1.375E-01	1.412
		311.90	*	1.112E-03	8.307E-02	1.364E-01	1.263E-02	0.008
		340.48		4.605E+00	1.522E+00	1.877E+00	4.528E-01	2.453
PA-234		94.67		8.088E-01	2.647E-01	3.996E-01	5.064E-02	2.024
		98.44		1.967E-01	1.665E-01	1.933E-01	1.079E-01	1.018
		111.00		2.279E-01	2.420E-01	3.974E-01	4.817E-02	0.573
		131.20		1.017E-01	1.553E-01	2.258E-01	1.952E-02	0.451
		569.50		1.549E-02	3.435E-01	5.785E-01	4.901E-02	0.027
		733.00		-1.147E-01	5.114E-01	7.117E-01	1.577E-01	-0.161
		880.51		-1.996E-01	3.489E-01	5.363E-01	4.838E-02	-0.372
		883.24		-2.407E-02	3.499E-01	5.675E-01	3.818E-01	-0.042
		926.50		1.246E-01	2.053E-01	3.524E-01	8.959E-02	0.354

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	7.313E-02	3.796E-01	6.296E-01	1.193E-01	0.116
		949.00		4.873E-01	5.701E-01	1.002E+00	9.014E-02	0.486
PA-234M		766.42		1.318E+01	1.771E+01	2.815E+01	1.429E+01	0.468
		1001.03	*	2.139E+00	6.419E+00	1.096E+01	1.117E+00	0.195
NP-239		99.53		1.691E-01	2.271E-01	3.355E-01	2.956E-02	0.504
		103.37		7.943E-02	1.314E-01	1.930E-01	1.683E-02	0.412
	+	106.12		1.569E-01	1.333E-01	1.777E-01	1.543E-02	0.883
		117.23	*	-4.026E-01	5.342E-01	8.195E-01	7.139E-02	-0.491
		228.18		-7.639E-02	2.667E-01	4.381E-01	3.953E-02	-0.174
		277.60		5.133E-01	2.467E-01	4.264E-01	3.900E-02	1.204
AM-241		59.54	*	7.168E-02	2.344E-01	3.447E-01	2.841E-02	0.208
CM-247		278.00		1.691E+00	1.009E+00	1.771E+00	1.619E-01	0.955
		287.50		-7.810E-01	1.662E+00	2.671E+00	2.438E-01	-0.292
		402.40	*	1.007E-02	5.059E-02	8.292E-02	6.723E-03	0.121
CF-249		252.80		-1.958E-01	1.195E+00	1.964E+00	1.793E-01	-0.100
		333.37		-1.418E-01	3.704E-01	3.605E-01	3.191E-02	-0.393
		388.16	*	5.015E-03	5.112E-02	8.345E-02	6.766E-03	0.060
CF-251		177.52	*	-1.518E-01	1.695E-01	2.745E-01	2.365E-02	-0.553
		227.38		-4.157E-02	4.306E-01	7.135E-01	6.435E-02	-0.058
		285.41		-3.040E-01	2.858E+00	4.683E+00	4.277E-01	-0.065

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071015      *
* Acquisition date : 24-MAR-2010 11:24:08 Detector SN#    :                 *
* Detector ID       : GAM01               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.33     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 11-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202071015          Analyst initials: MXR1           *
* Batch Number      : 965250               Sample Quantity : 1.2031E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.675E+01	3.926E+00	6.657E-01	0.000E+00
CD-109	3.908E+00	1.342E+00	1.679E+00	0.000E+00
SN-126	3.833E-01	1.316E-01	1.655E-01	0.000E+00
EU-155	1.966E-01	1.638E-01	2.134E-01	0.000E+00
TL-208	7.708E-01	1.259E-01	7.440E-02	0.000E+00
BI-211	5.794E+00	7.732E-01	4.297E-01	0.000E+00
PB-212	2.379E+00	2.834E-01	1.225E-01	0.000E+00
BI-214	1.937E+00	2.800E-01	1.449E-01	0.000E+00
PB-214	2.103E+00	3.028E-01	1.508E-01	0.000E+00
RA-224	6.112E+00	1.727E+00	1.313E+00	0.000E+00
RA-226	1.937E+00	2.800E-01	1.449E-01	0.000E+00
AC-228	2.537E+00	5.235E-01	3.245E-01	0.000E+00
RA-228	2.537E+00	5.235E-01	3.245E-01	0.000E+00
TH-228	2.379E+00	2.834E-01	1.225E-01	0.000E+00
TH-229	8.141E-02	6.393E-01	1.123E+00	0.000E+00
TH-230	1.936E+00	2.615E-01	1.449E-01	0.000E+00
TH-232	2.537E+00	5.235E-01	3.245E-01	0.000E+00
TH-234	3.872E+00	3.106E+00	2.868E+00	0.000E+00
U-235	1.086E-01	2.526E-01	4.475E-01	0.000E+00
NP-237	1.144E+00	4.577E-01	5.209E-01	0.000E+00
U-238	3.872E+00	3.106E+00	2.868E+00	0.000E+00
ANH-511	2.689E-01	9.431E-02	5.498E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	1.610E-02		4.145E-01	6.877E-01	0.000E+00	NOT IDENT.
NA-22	-3.645E-02		5.630E-02	8.960E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		7.590E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.980E-02		4.832E-02	7.585E-02	0.000E+00	FAIL ABUN
V-48	8.125E-03		8.537E-02	1.431E-01	0.000E+00	NOT IDENT.

CR-51	-1.107E-01	4.397E-01	7.361E-01	0.000E+00	NOT IDENT.
MN-54	-2.061E-02	4.507E-02	7.265E-02	0.000E+00	NOT IDENT.
CO-56	-1.101E-02	4.900E-02	8.064E-02	0.000E+00	FAIL ABUN
CO-57	-1.141E-02	3.284E-02	5.379E-02	0.000E+00	NOT IDENT.
CO-58	-2.030E-02	5.084E-02	8.275E-02	0.000E+00	NOT IDENT.
FE-59	8.203E-02	1.168E-01	2.048E-01	0.000E+00	NOT IDENT.
CO-60	-1.965E-02	5.093E-02	8.259E-02	0.000E+00	NOT IDENT.
ZN-65	-8.327E-02	1.316E-01	1.686E-01	0.000E+00	NOT IDENT.
SE-75	2.605E-04	5.707E-02	9.477E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.858E-02	1.025E-01	0.000E+00	NOT IDENT.
Y-88	2.252E-02	4.124E-02	7.528E-02	0.000E+00	NOT IDENT.
Y-91	2.579E+01	2.800E+01	5.115E+01	0.000E+00	NOT IDENT.
NB-94	6.258E-02	4.538E-02	8.399E-02	0.000E+00	NOT IDENT.
NB-95	-2.459E-02	6.140E-02	9.967E-02	0.000E+00	NOT IDENT.
NB-95M	2.440E-02	1.699E-01	2.604E-01	0.000E+00	NOT IDENT.
ZR-95	1.403E-02	9.020E-02	1.548E-01	0.000E+00	NOT IDENT.
MO-99	7.370E+00	8.948E+00	1.607E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.280E+14	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-5.076E-03	4.988E-02	8.166E-02	0.000E+00	FAIL ABUN
RH-106	1.130E-01	3.906E-01	6.848E-01	0.000E+00	NOT IDENT.
RU-106	1.130E-01	3.904E-01	6.848E-01	0.000E+00	NOT IDENT.
AG-108M	3.744E-02	3.552E-02	6.337E-02	0.000E+00	NOT IDENT.
AG-110M	-3.756E-03	4.329E-02	7.363E-02	0.000E+00	NOT IDENT.
SN-113	-1.942E-02	5.612E-02	9.199E-02	0.000E+00	NOT IDENT.
CD-115	5.935E+00	6.990E+00	1.281E+01	0.000E+00	NOT IDENT.
SN-117M	-1.742E-02	6.005E-02	1.048E-01	0.000E+00	NOT IDENT.
TE-123M	4.224E-03	3.381E-02	5.994E-02	0.000E+00	NOT IDENT.
SB-124	-1.095E-02	8.152E-02	1.315E-01	0.000E+00	NOT IDENT.
SB-125	-1.446E-02	1.127E-01	1.862E-01	0.000E+00	FAIL ABUN
TE-125M	8.446E+00	1.346E+01	2.064E+01	0.000E+00	NOT IDENT.
I-126	-1.290E-02	2.487E-01	4.238E-01	0.000E+00	NOT IDENT.
SB-126	-2.914E-02	1.873E-01	2.851E-01	0.000E+00	NOT IDENT.
SB-127	-6.680E-01	1.100E+00	1.780E+00	0.000E+00	NOT IDENT.
I-131	3.138E-02	1.133E-01	1.944E-01	0.000E+00	NOT IDENT.
TE-132	-1.611E-01	5.553E-01	9.486E-01	0.000E+00	NOT IDENT.
BA-133	-1.409E-02	5.613E-02	8.098E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.318E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.825E-02	1.230E-01	0.000E+00	FAIL ABUN
CS-135	2.159E-01	2.263E-01	3.601E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.531E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.827E-02	1.282E-01	2.003E-01	0.000E+00	NOT IDENT.
BA-137M	-4.097E-02	4.524E-02	7.191E-02	0.000E+00	NOT IDENT.
CS-137	-4.328E-02	4.779E-02	7.597E-02	0.000E+00	NOT IDENT.
CE-139	1.070E-02	3.664E-02	6.517E-02	0.000E+00	NOT IDENT.
BA-140	7.998E-02	2.924E-01	5.146E-01	0.000E+00	NOT IDENT.
LA-140	9.548E-02	9.436E-02	1.671E-01	0.000E+00	FAIL ABUN
CE-141	4.033E-02	7.523E-02	1.339E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.434E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	9.810E-02	2.882E-01	4.310E-01	0.000E+00	NOT IDENT.
PM-144	-1.104E-02	4.407E-02	7.372E-02	0.000E+00	NOT IDENT.
PR-144	-8.198E-01	3.295E+00	5.513E+00	0.000E+00	NOT IDENT.
PM-146	4.235E-02	5.378E-02	9.391E-02	0.000E+00	NOT IDENT.
ND-147	1.606E-01	5.977E-01	1.056E+00	0.000E+00	FAIL ABUN
PM-149	-1.904E+01	6.128E+01	1.031E+02	0.000E+00	NOT IDENT.
EU-152	1.143E-02	1.417E-01	2.111E-01	0.000E+00	FAIL ABUN
GD-153	-3.138E-04	1.174E-01	1.755E-01	0.000E+00	NOT IDENT.
EU-154	-1.194E-01	1.615E-01	2.541E-01	0.000E+00	NOT IDENT.
TB-160	-6.345E-02	1.592E-01	2.555E-01	0.000E+00	FAIL ABUN
HO-166M	7.138E-03	7.588E-02	1.301E-01	0.000E+00	FAIL ABUN
TA-182	2.913E-02	2.405E-01	4.149E-01	0.000E+00	FAIL ABUN
IR-192	-1.263E-03	4.277E-02	7.258E-02	0.000E+00	FAIL ABUN
HG-203	3.819E-02	5.005E-02	8.844E-02	0.000E+00	NOT IDENT.
BI-207	-4.823E-03	6.508E-02	1.066E-01	0.000E+00	FAIL ABUN
PB-210	2.987E+00	5.055E+00	8.870E+00	0.000E+00	NOT IDENT.
PB-211	7.942E-02	1.092E+00	1.606E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.324E+00	1.563E+00	0.000E+00	FAIL ABUN
RN-219	-2.992E-01	5.529E-01	8.923E-01	0.000E+00	FAIL ABUN
RA-223	5.971E-01	8.415E-01	1.427E+00	0.000E+00	FAIL ABUN
AC-227	-3.287E-02	3.129E-01	5.358E-01	0.000E+00	NOT IDENT.
TH-227	-3.287E-02	3.129E-01	5.358E-01	0.000E+00	NOT IDENT.
PA-231	1.716E+00	1.836E+00	3.257E+00	0.000E+00	NOT IDENT.
TH-231	5.971E-01	8.415E-01	1.427E+00	0.000E+00	FAIL ABUN
PA-233	1.112E-03	8.141E-02	1.386E-01	0.000E+00	NOT IDENT.
PA-234	7.313E-02	3.720E-01	6.315E-01	0.000E+00	NOT IDENT.
PA-234M	2.139E+00	6.291E+00	1.098E+01	0.000E+00	NOT IDENT.
NP-239	-4.026E-01	5.235E-01	8.424E-01	0.000E+00	FAIL ABUN
AM-241	7.168E-02	2.297E-01	3.571E-01	0.000E+00	NOT IDENT.
CM-247	1.007E-02	4.958E-02	8.402E-02	0.000E+00	NOT IDENT.

CF-249	5.015E-03	5.009E-02	8.460E-02	0.000E+00	NOT IDENT.
CF-251	-1.518E-01	1.661E-01	2.809E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:24:37.37

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071015.CNF;1
Sample date      : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 11:24:08
Sample ID        : G1202071015          Sample quantity  : 1.20310E+02 GRAM
Detector name    : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:01.33  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 965250               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1187	10.66*	9.453E-01	3.675E+01	3.675E+01	10.90
CD-109	88.03	236	3.70*	5.191E+00	3.833E+00	3.908E+00	35.04
SN-126	64.28	127	9.60	2.758E+00	1.492E+00	1.492E+00	81.22
	86.94	236	8.90	5.191E+00	1.593E+00	1.593E+00	53.52
	87.57	236	37.00*	5.191E+00	3.833E-01	3.833E-01	35.04
EU-155	86.55	236	30.70	5.191E+00	4.619E-01	4.643E-01	35.07
	105.31	78	21.10*	5.927E+00	1.956E-01	1.966E-01	84.99
TL-208	277.37	------	6.60	3.885E+00	------ Line Not Found		------
	583.19	450	85.00*	2.142E+00	7.708E-01	7.708E-01	16.66
	860.56	50	12.50	1.521E+00	8.144E-01	8.144E-01	63.77
BI-211	72.87	------	1.23	3.944E+00	------ Line Not Found		------
	351.06	774	12.92*	3.225E+00	5.794E+00	5.794E+00	13.62
PB-212	74.82	452	10.28	4.162E+00	3.298E+00	3.298E+00	22.70
	77.11	792	17.10	4.390E+00	3.291E+00	3.291E+00	14.80
	238.63	1444	43.60*	4.345E+00	2.379E+00	2.379E+00	12.16
	300.09	------	3.30	3.656E+00	------ Line Not Found		------
BI-214	609.32	583	45.49*	2.064E+00	1.936E+00	1.937E+00	14.76
	1120.29	136	14.92	1.193E+00	2.393E+00	2.393E+00	31.25
	1764.49	107	15.30	8.253E-01	2.646E+00	2.646E+00	23.35
PB-214	74.82	452	5.80	4.162E+00	5.845E+00	5.845E+00	21.99
	77.11	792	9.70	4.390E+00	5.801E+00	5.801E+00	16.94
	242.00	346	7.25	4.307E+00	3.456E+00	3.456E+00	29.41
	295.22	433	18.42	3.698E+00	1.981E+00	1.981E+00	19.91
	351.93	774	35.60*	3.225E+00	2.103E+00	2.103E+00	14.69
RA-224	240.99	346	4.10*	4.307E+00	6.112E+00	6.112E+00	28.83
RA-226	609.32	583	45.49*	2.064E+00	1.936E+00	1.937E+00	14.76
	1120.29	136	14.92	1.193E+00	2.393E+00	2.393E+00	31.25
	1764.49	107	15.30	8.253E-01	2.646E+00	2.646E+00	23.35
AC-228	338.32	263	11.27	3.326E+00	2.193E+00	2.193E+00	48.63
	911.20	303	25.80*	1.444E+00	2.537E+00	2.537E+00	21.06
	968.97	178	15.80	1.364E+00	2.574E+00	2.574E+00	32.36
RA-228	338.32	263	11.27	3.326E+00	2.193E+00	2.193E+00	48.63

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	303	25.80*	1.444E+00	2.537E+00	2.537E+00	21.06
	968.97	178	15.80	1.364E+00	2.574E+00	2.574E+00	32.36
TH-228	74.82	452	10.28	4.162E+00	3.298E+00	3.298E+00	20.54
	77.11	792	17.10	4.390E+00	3.291E+00	3.291E+00	14.80
	238.63	1444	43.60*	4.345E+00	2.379E+00	2.379E+00	12.16
	300.09	------	3.30	3.656E+00	------ Line Not Found		------
TH-229	85.43	112	14.70	4.969E+00	4.800E-01	4.800E-01	54.83
	88.47	236	24.00	5.191E+00	5.909E-01	5.909E-01	35.04
	193.51	------	4.41*	5.034E+00	------ Line Not Found		------
	210.85	120	2.80	4.771E+00	2.805E+00	2.805E+00	54.19
TH-230	609.32	583	45.49*	2.064E+00	1.936E+00	1.936E+00	13.78
	1120.29	136	14.92	1.193E+00	2.393E+00	2.393E+00	30.52
	1764.49	107	15.30	8.253E-01	2.646E+00	2.646E+00	23.35
TH-232	338.32	263	11.27	3.326E+00	2.193E+00	2.193E+00	26.43
	911.20	303	25.80*	1.444E+00	2.537E+00	2.537E+00	21.06
	968.97	178	15.80	1.364E+00	2.574E+00	2.574E+00	32.36
TH-234	63.29	127	3.70*	2.758E+00	3.872E+00	3.872E+00	81.87
	92.59	298	4.23	5.510E+00	3.983E+00	3.983E+00	37.29
U-235	89.96	176	3.47	5.353E+00	2.963E+00	2.963E+00	34.97
	93.35	298	5.60	5.510E+00	3.009E+00	3.009E+00	37.90
	143.76	------	10.96*	5.865E+00	------ Line Not Found		------
	163.33	------	5.08	5.555E+00	------ Line Not Found		------
	185.72	348	57.20	5.156E+00	3.678E-01	3.678E-01	31.10
	205.31	------	5.01	4.840E+00	------ Line Not Found		------
NP-237	86.48	236	12.40*	5.191E+00	1.144E+00	1.144E+00	40.84
	95.86	------	2.68	5.636E+00	------ Line Not Found		------
U-238	63.29	127	3.70*	2.758E+00	3.872E+00	3.872E+00	81.87
	92.59	298	4.23	5.510E+00	3.983E+00	3.983E+00	31.26
ANH-511	511.00	206	100.00*	2.392E+00	2.689E-01	2.689E-01	35.79

Flag: "*" = Keyline

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

Total number of lines in spectrum	36	
Number of unidentified lines	4	
Number of lines tentatively identified by NID	32	88.89%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.675E+01	3.675E+01	0.401E+01	10.90	
CD-109	461.40D	1.02	3.833E+00	3.908E+00	1.370E+00	35.04	
SN-126	2.30E+05Y	1.00	3.833E-01	3.833E-01	1.343E-01	35.04	
EU-155	4.75Y	1.01	1.956E-01	1.966E-01	1.671E-01	84.99	
TL-208	1.41E+10Y	1.00	7.708E-01	7.708E-01	1.285E-01	16.66	
BI-211	7.04E+08Y	1.00	5.794E+00	5.794E+00	0.789E+00	13.62	
PB-212	1.41E+10Y	1.00	2.379E+00	2.379E+00	0.289E+00	12.16	
BI-214	1600.00Y	1.00	1.936E+00	1.937E+00	0.286E+00	14.76	
PB-214	1600.00Y	1.00	2.103E+00	2.103E+00	0.309E+00	14.69	
RA-224	1.41E+10Y	1.00	6.112E+00	6.112E+00	1.762E+00	28.83	
RA-226	1600.00Y	1.00	1.936E+00	1.937E+00	0.286E+00	14.76	
AC-228	1.41E+10Y	1.00	2.537E+00	2.537E+00	0.534E+00	21.06	
RA-228	1.41E+10Y	1.00	2.537E+00	2.537E+00	0.534E+00	21.06	
TH-228	1.41E+10Y	1.00	2.379E+00	2.379E+00	0.289E+00	12.16	
TH-229	7340.00Y	1.00	5.909E-01	5.909E-01	2.071E-01	35.04	K
TH-230	7.54E+04Y	1.00	1.936E+00	1.936E+00	0.267E+00	13.78	
TH-232	1.41E+10Y	1.00	2.537E+00	2.537E+00	0.534E+00	21.06	
TH-234	4.47E+09Y	1.00	3.872E+00	3.872E+00	3.170E+00	81.87	
U-235	7.04E+08Y	1.00	3.678E-01	3.678E-01	1.144E-01	31.10	K
NP-237	2.14E+06Y	1.00	1.144E+00	1.144E+00	0.467E+00	40.84	
U-238	4.47E+09Y	1.00	3.872E+00	3.872E+00	3.170E+00	81.87	
ANH-511	1.00E+09Y	1.00	2.689E-01	2.689E-01	0.962E-01	35.79	
	Total Activity :		8.423E+01	8.431E+01			
	Grand Total Activity :		8.423E+01	8.431E+01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.43	69	436	1.27	259.51	255	9	9.64E-03	****	6.02E+00	
0	270.84	181	206	1.82	542.18	538	11	2.52E-02	34.7	3.96E+00	T
0	328.59	57	132	0.88	657.60	656	6	7.95E-03	70.0	3.41E+00	T
0	410.01	72	155	1.38	820.36	815	13	9.97E-03	75.5	2.86E+00	T
0	463.34	113	123	1.28	926.95	921	12	1.57E-02	43.5	2.59E+00	T
0	728.34	125	83	2.33	1456.61	1449	18	1.73E-02	39.1	1.77E+00	T
0	795.62	64	45	1.36	1591.08	1586	11	8.89E-03	48.9	1.63E+00	T
1	965.33	60	50	1.92	1930.27	1925	23	8.36E-03	51.4	1.37E+00	T
0	1238.90	48	53	2.11	2477.02	2472	11	6.66E-03	67.7	1.09E+00	T
2	1588.90	46	32	2.42	3176.48	3169	21	6.33E-03	53.4	8.86E-01	
2	1593.29	30	9	2.18	3185.27	3169	21	4.21E-03	52.9	8.84E-01	
0	1662.84	21	2	0.80	3324.25	3319	11	2.85E-03	53.8	8.58E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:24:41.52

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071015.CNF;1   *
* Acquisition date : 24-MAR-2010 11:24:08  Detector SN#    :                  *
* Detector ID      : GAM01                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:01.33         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 11-MAR-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G1202071015           Analyst initials: MXR1             *
* Batch Number     : 965250                Sample Quantity : 1.20310E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52.7MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.675E+01	4.006E+00	6.672E-01	5.932E-02	55.082
CD-109	3.908E+00	1.370E+00	1.628E+00	1.541E-01	2.400
SN-126	3.833E-01	1.343E-01	1.605E-01	1.512E-02	2.388
EU-155	1.966E-01	1.671E-01	2.073E-01	1.823E-02	0.948
TL-208	7.708E-01	1.285E-01	7.375E-02	6.689E-03	10.452
BI-211	5.794E+00	7.890E-01	4.234E-01	3.852E-02	13.685
PB-212	2.379E+00	2.892E-01	1.201E-01	1.222E-02	19.804
BI-214	1.937E+00	2.858E-01	1.438E-01	1.425E-02	13.471
PB-214	2.103E+00	3.089E-01	1.485E-01	1.579E-02	14.155
RA-224	6.112E+00	1.762E+00	1.288E+00	1.170E-01	4.746
RA-226	1.937E+00	2.858E-01	1.438E-01	1.425E-02	13.471
AC-228	2.537E+00	5.342E-01	3.234E-01	3.853E-02	7.844
RA-228	2.537E+00	5.342E-01	3.234E-01	3.853E-02	7.844
TH-228	2.379E+00	2.892E-01	1.201E-01	1.222E-02	19.804
TH-229	5.909E-01	2.071E-01	1.098E+00	9.622E-02	0.538
TH-230	1.936E+00	2.669E-01	1.438E-01	1.206E-02	13.471
TH-232	2.537E+00	5.342E-01	3.234E-01	3.853E-02	7.844
TH-234	3.872E+00	3.170E+00	2.771E+00	4.976E-01	1.397

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	3.678E-01	1.144E-01	4.364E-01	7.382E-02	0.843
NP-237	1.144E+00	4.670E-01	5.049E-01	1.158E-01	2.265
U-238	3.872E+00	3.170E+00	2.771E+00	4.976E-01	1.397
ANH-511	2.689E-01	9.624E-02	5.441E-02	4.612E-03	4.942

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.610E-02		4.229E-01	6.801E-01	6.185E-02	0.024
NA-22	-3.645E-02		5.745E-02	8.966E-02	7.529E-03	-0.407
NA-24	-1.078E-02		3.872E-02	Half-Life too short		
SC-46	-2.980E-02		4.931E-02	7.557E-02	6.831E-03	-0.394
V-48	8.125E-03		8.711E-02	1.427E-01	1.274E-02	0.057
CR-51	-1.107E-01		4.487E-01	7.245E-01	6.810E-02	-0.153
MN-54	-2.061E-02		4.599E-02	7.233E-02	6.438E-03	-0.285
CO-56	-1.101E-02		5.000E-02	8.030E-02	7.175E-03	-0.137
CO-57	-1.141E-02		3.351E-02	5.235E-02	4.609E-03	-0.218
CO-58	-2.030E-02		5.188E-02	8.236E-02	7.286E-03	-0.247
FE-59	8.203E-02		1.191E-01	2.045E-01	1.885E-02	0.401
CO-60	-1.965E-02		5.197E-02	8.269E-02	7.048E-03	-0.238
ZN-65	-8.327E-02		1.342E-01	1.684E-01	1.421E-02	-0.494
SE-75	2.605E-04		5.823E-02	9.307E-02	8.551E-03	0.003
SR-85	1.739E-01		5.978E-02	1.014E-01	8.598E-03	1.715
Y-88	2.252E-02		4.208E-02	7.567E-02	6.224E-03	0.298
Y-91	2.579E+01		2.857E+01	5.115E+01	4.190E+00	0.504
NB-94	6.258E-02		4.630E-02	8.344E-02	7.004E-03	0.750
NB-95	-2.459E-02		6.265E-02	9.913E-02	8.590E-03	-0.248
NB-95M	2.440E-02		1.733E-01	2.553E-01	2.623E-02	0.096
ZR-95	1.403E-02		9.204E-02	1.539E-01	1.467E-02	0.091
MO-99	7.370E+00		9.130E+00	1.598E+01	2.512E+00	0.461
TC-99M	-1.011E+08		6.529E+07	Half-Life too short		
RU-103	-5.076E-03		5.089E-02	8.080E-02	1.120E-02	-0.063
RH-106	1.130E-01		3.985E-01	6.794E-01	8.889E-02	0.166
RU-106	1.130E-01		3.984E-01	6.794E-01	5.675E-02	0.166
AG-108M	3.744E-02		3.624E-02	6.260E-02	5.357E-03	0.598
AG-110M	-3.756E-03		4.418E-02	7.310E-02	6.198E-03	-0.051
SN-113	-1.942E-02		5.726E-02	9.075E-02	7.559E-03	-0.214
CD-115	5.935E+00		7.132E+00	1.269E+01	1.077E+00	0.468
SN-117M	-1.742E-02		6.127E-02	1.024E-01	8.714E-03	-0.170
TE-123M	4.224E-03		3.450E-02	5.851E-02	5.013E-03	0.072
SB-124	-1.095E-02		8.319E-02	1.321E-01	1.174E-02	-0.083
SB-125	-1.446E-02		1.150E-01	1.839E-01	1.546E-02	-0.079
TE-125M	8.446E+00		1.374E+01	2.006E+01	2.109E+00	0.421
I-126	-1.290E-02		2.538E-01	4.208E-01	3.457E-02	-0.031
SB-126	-2.914E-02		1.911E-01	2.833E-01	2.402E-02	-0.103
SB-127	-6.680E-01		1.122E+00	1.768E+00	1.862E-01	-0.378
I-131	3.138E-02		1.157E-01	1.916E-01	1.713E-02	0.164

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-132	-1.611E-01		5.666E-01	9.300E-01	1.456E-01	-0.173
BA-133	-1.409E-02		5.727E-02	7.980E-02	1.033E-02	-0.177
I-133	-5.372E-04		6.723E-04	Half-Life too short		
CS-134	1.608E-01	+	7.985E-02	1.224E-01	1.082E-02	1.314
CS-135	2.159E-01		2.309E-01	3.537E-01	3.688E-02	0.610
I-135	-3.295E+07		1.802E+07	Half-Life too short		
CS-136	-6.827E-02		1.309E-01	2.000E-01	1.817E-02	-0.341
BA-137M	-4.097E-02		4.617E-02	7.139E-02	5.848E-03	-0.574
CS-137	-4.328E-02		4.877E-02	7.542E-02	6.191E-03	-0.574
CE-139	1.070E-02		3.738E-02	6.365E-02	5.421E-03	0.168
BA-140	7.998E-02		2.983E-01	5.096E-01	1.727E-01	0.157
LA-140	9.548E-02		9.629E-02	1.676E-01	1.446E-02	0.570
CE-141	4.033E-02		7.677E-02	1.306E-01	1.136E-02	0.309
CE-143	1.288E-04		3.793E-05	Half-Life too short		
CE-144	9.810E-02		2.941E-01	4.199E-01	6.419E-02	0.234
PM-144	-1.104E-02		4.496E-02	7.324E-02	6.128E-03	-0.151
PR-144	-8.198E-01		3.362E+00	5.476E+00	4.581E-01	-0.150
PM-146	4.235E-02		5.488E-02	9.281E-02	9.623E-03	0.456
ND-147	1.606E-01		6.099E-01	1.046E+00	1.556E-01	0.154
PM-149	-1.904E+01		6.253E+01	1.013E+02	1.603E+01	-0.188
EU-152	1.143E-02		1.446E-01	2.080E-01	1.922E-02	0.055
GD-153	-3.138E-04		1.198E-01	1.704E-01	1.513E-02	-0.002
EU-154	-1.194E-01		1.648E-01	2.542E-01	2.849E-02	-0.470
TB-160	-6.345E-02		1.625E-01	2.545E-01	2.295E-02	-0.249
HO-166M	7.138E-03		7.743E-02	1.293E-01	1.091E-02	0.055
TA-182	2.913E-02		2.454E-01	4.150E-01	3.420E-02	0.070
IR-192	-1.263E-03		4.364E-02	7.143E-02	6.435E-03	-0.018
HG-203	3.819E-02		5.108E-02	8.691E-02	8.129E-03	0.439
BI-207	-4.823E-03		6.641E-02	1.064E-01	9.223E-03	-0.045
PB-210	2.987E+00		5.158E+00	8.538E+00	7.996E-01	0.350
PB-211	7.942E-02		1.114E+00	1.585E+00	7.656E-01	0.050
BI-212	3.294E+00	+	1.351E+00	1.554E+00	1.923E-01	2.120
RN-219	-2.992E-01		5.642E-01	8.806E-01	1.284E-01	-0.340
RA-223	5.971E-01		8.587E-01	1.405E+00	2.458E-01	0.425
AC-227	-3.287E-02		3.193E-01	5.260E-01	6.535E-02	-0.062
TH-227	-3.287E-02		3.193E-01	5.260E-01	7.331E-02	-0.062
PA-231	1.716E+00		1.874E+00	3.201E+00	4.768E-01	0.536
TH-231	5.971E-01		8.587E-01	1.405E+00	2.458E-01	0.425
PA-233	1.112E-03		8.307E-02	1.364E-01	1.263E-02	0.008
PA-234	7.313E-02		3.796E-01	6.296E-01	1.193E-01	0.116
PA-234M	2.139E+00		6.419E+00	1.096E+01	1.117E+00	0.195
NP-239	-4.026E-01		5.342E-01	8.195E-01	7.139E-02	-0.491
AM-241	7.168E-02		2.344E-01	3.447E-01	2.841E-02	0.208
CM-247	1.007E-02		5.059E-02	8.292E-02	6.723E-03	0.121
CF-249	5.015E-03		5.112E-02	8.345E-02	6.766E-03	0.060
CF-251	-1.518E-01		1.695E-01	2.745E-01	2.365E-02	-0.553

VAX/VMS Nuclide Identification Report Generated

```
*******************************************************************************
*                          GEL Laboratories LLC                               *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                               DETECTOR DATA                                 *
*                                                                             *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202071015             *
* Acquisition date : 24-MAR-2010 11:24:08 Detector SN#    :                   *
* Detector ID      : GAM01                Sensitivity     : 5.000            *
* Geometry         : CAN                  Energy tolerance: 1.500            *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000           *
* Elapsed real time:    0 02:00:01.33     Half life ratio : 8.000            *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID            *
* Sample ID        : G1202071015          Analyst initials: MXR1             *
* Batch Number     : 965250               Sample Quantity : 1.2031E+02 GRAM  *
* Recovery         :    1.00000           Carrier Weight :    0.00000        *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                   *
* MSD DPM          :    0.000             MSD Isotope     :                   *
* LCS DPM          :    0.000             LCS Isotope     :                   *
* LCSD DPM         :    0.000             LCSD Isotope    :                   *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.675E+01	3.926E+00	3.330E-01	2.003E+00
CD-109	3.908E+00	1.342E+00	8.402E-01	6.848E-01
SN-126	3.833E-01	1.316E-01	8.282E-02	6.716E-02
EU-155	1.966E-01	1.638E-01	1.068E-01	8.355E-02
TL-208	7.708E-01	1.259E-01	3.722E-02	6.423E-02
BI-211	5.794E+00	7.732E-01	2.150E-01	3.945E-01
PB-212	2.379E+00	2.834E-01	6.126E-02	1.446E-01
BI-214	1.937E+00	2.800E-01	7.252E-02	1.429E-01
PB-214	2.103E+00	3.028E-01	7.542E-02	1.545E-01
RA-224	6.112E+00	1.727E+00	6.567E-01	8.810E-01
RA-226	1.937E+00	2.800E-01	7.252E-02	1.429E-01
AC-228	2.537E+00	5.235E-01	1.623E-01	2.671E-01
RA-228	2.537E+00	5.235E-01	1.623E-01	2.671E-01
TH-228	2.379E+00	2.834E-01	6.126E-02	1.446E-01
TH-229	8.141E-02	6.393E-01	5.616E-01	3.262E-01
TH-230	1.936E+00	2.615E-01	7.252E-02	1.334E-01
TH-232	2.537E+00	5.235E-01	1.623E-01	2.671E-01
TH-234	3.872E+00	3.106E+00	1.435E+00	1.585E+00
U-235	1.086E-01	2.526E-01	2.239E-01	1.289E-01
NP-237	1.144E+00	4.577E-01	2.606E-01	2.335E-01
U-238	3.872E+00	3.106E+00	1.435E+00	1.585E+00
ANH-511	2.689E-01	9.431E-02	2.751E-02	4.812E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.610E-02	4.145E-01	3.441E-01	2.115E-01	NOT IDENT.
NA-22	-3.645E-02	5.630E-02	4.483E-02	2.873E-02	NOT IDENT.
NA-24	-1.078E+04	7.590E+04	0.000E+00	3.872E+04	SHORT HLIF
SC-46	-2.980E-02	4.832E-02	3.795E-02	2.465E-02	FAIL ABUN
V-48	8.125E-03	8.537E-02	7.159E-02	4.356E-02	NOT IDENT.

CR-51	-1.107E-01	4.397E-01	3.683E-01	2.243E-01	NOT IDENT.
MN-54	-2.061E-02	4.507E-02	3.635E-02	2.300E-02	NOT IDENT.
CO-56	-1.101E-02	4.900E-02	4.035E-02	2.500E-02	FAIL ABUN
CO-57	-1.141E-02	3.284E-02	2.691E-02	1.676E-02	NOT IDENT.
CO-58	-2.030E-02	5.084E-02	4.140E-02	2.594E-02	NOT IDENT.
FE-59	8.203E-02	1.168E-01	1.024E-01	5.957E-02	NOT IDENT.
CO-60	-1.965E-02	5.093E-02	4.132E-02	2.598E-02	NOT IDENT.
ZN-65	-8.327E-02	1.316E-01	8.433E-02	6.712E-02	NOT IDENT.
SE-75	2.605E-04	5.707E-02	4.741E-02	2.912E-02	NOT IDENT.
SR-85	1.739E-01	5.858E-02	5.126E-02	2.989E-02	NOT IDENT.
Y-88	2.252E-02	4.124E-02	3.766E-02	2.104E-02	NOT IDENT.
Y-91	2.579E+01	2.800E+01	2.559E+01	1.429E+01	NOT IDENT.
NB-94	6.258E-02	4.538E-02	4.202E-02	2.315E-02	NOT IDENT.
NB-95	-2.459E-02	6.140E-02	4.987E-02	3.132E-02	NOT IDENT.
NB-95M	2.440E-02	1.699E-01	1.303E-01	8.667E-02	NOT IDENT.
ZR-95	1.403E-02	9.020E-02	7.742E-02	4.602E-02	NOT IDENT.
MO-99	7.370E+00	8.948E+00	8.041E+00	4.565E+00	NOT IDENT.
TC-99M	-1.011E+14	1.280E+14	0.000E+00	6.529E+13	SHORT HLIF
RU-103	-5.076E-03	4.988E-02	4.086E-02	2.545E-02	FAIL ABUN
RH-106	1.130E-01	3.906E-01	3.426E-01	1.993E-01	NOT IDENT.
RU-106	1.130E-01	3.904E-01	3.426E-01	1.992E-01	NOT IDENT.
AG-108M	3.744E-02	3.552E-02	3.170E-02	1.812E-02	NOT IDENT.
AG-110M	-3.756E-03	4.329E-02	3.684E-02	2.209E-02	NOT IDENT.
SN-113	-1.942E-02	5.612E-02	4.602E-02	2.863E-02	NOT IDENT.
CD-115	5.935E+00	6.990E+00	6.410E+00	3.566E+00	NOT IDENT.
SN-117M	-1.742E-02	6.005E-02	5.245E-02	3.064E-02	NOT IDENT.
TE-123M	4.224E-03	3.381E-02	2.999E-02	1.725E-02	NOT IDENT.
SB-124	-1.095E-02	8.152E-02	6.580E-02	4.159E-02	NOT IDENT.
SB-125	-1.446E-02	1.127E-01	9.315E-02	5.750E-02	FAIL ABUN
TE-125M	8.446E+00	1.346E+01	1.033E+01	6.868E+00	NOT IDENT.
I-126	-1.290E-02	2.487E-01	2.120E-01	1.269E-01	NOT IDENT.
SB-126	-2.914E-02	1.873E-01	1.426E-01	9.556E-02	NOT IDENT.
SB-127	-6.680E-01	1.100E+00	8.907E-01	5.610E-01	NOT IDENT.
I-131	3.138E-02	1.133E-01	9.725E-02	5.783E-02	NOT IDENT.
TE-132	-1.611E-01	5.553E-01	4.746E-01	2.833E-01	NOT IDENT.
BA-133	-1.409E-02	5.613E-02	4.051E-02	2.864E-02	NOT IDENT.
I-133	-5.372E+02	1.318E+03	0.000E+00	6.723E+02	SHORT HLIF
CS-134	1.608E-01	7.825E-02	6.156E-02	3.993E-02	FAIL ABUN
CS-135	2.159E-01	2.263E-01	1.802E-01	1.155E-01	NOT IDENT.
I-135	-3.295E+13	3.531E+13	0.000E+00	1.802E+13	SHORT HLIF
CS-136	-6.827E-02	1.282E-01	1.002E-01	6.543E-02	NOT IDENT.
BA-137M	-4.097E-02	4.524E-02	3.598E-02	2.308E-02	NOT IDENT.
CS-137	-4.328E-02	4.779E-02	3.801E-02	2.438E-02	NOT IDENT.
CE-139	1.070E-02	3.664E-02	3.260E-02	1.869E-02	NOT IDENT.
BA-140	7.998E-02	2.924E-01	2.575E-01	1.492E-01	NOT IDENT.
LA-140	9.548E-02	9.436E-02	8.359E-02	4.814E-02	FAIL ABUN
CE-141	4.033E-02	7.523E-02	6.698E-02	3.838E-02	NOT IDENT.
CE-143	1.288E+02	7.434E+01	0.000E+00	3.793E+01	SHORT HLIF
CE-144	9.810E-02	2.882E-01	2.156E-01	1.470E-01	NOT IDENT.
PM-144	-1.104E-02	4.407E-02	3.688E-02	2.248E-02	NOT IDENT.
PR-144	-8.198E-01	3.295E+00	2.758E+00	1.681E+00	NOT IDENT.
PM-146	4.235E-02	5.378E-02	4.698E-02	2.744E-02	NOT IDENT.
ND-147	1.606E-01	5.977E-01	5.284E-01	3.049E-01	FAIL ABUN
PM-149	-1.904E+01	6.128E+01	5.157E+01	3.126E+01	NOT IDENT.
EU-152	1.143E-02	1.417E-01	1.056E-01	7.228E-02	FAIL ABUN
GD-153	-3.138E-04	1.174E-01	8.780E-02	5.989E-02	NOT IDENT.
EU-154	-1.194E-01	1.615E-01	1.271E-01	8.239E-02	NOT IDENT.
TB-160	-6.345E-02	1.592E-01	1.278E-01	8.123E-02	FAIL ABUN
HO-166M	7.138E-03	7.588E-02	6.510E-02	3.871E-02	FAIL ABUN
TA-182	2.913E-02	2.405E-01	2.076E-01	1.227E-01	FAIL ABUN
IR-192	-1.263E-03	4.277E-02	3.631E-02	2.182E-02	FAIL ABUN
HG-203	3.819E-02	5.005E-02	4.425E-02	2.554E-02	NOT IDENT.
BI-207	-4.823E-03	6.508E-02	5.331E-02	3.320E-02	FAIL ABUN
PB-210	2.987E+00	5.055E+00	4.437E+00	2.579E+00	NOT IDENT.
PB-211	7.942E-02	1.092E+00	8.034E-01	5.570E-01	NOT IDENT.
BI-212	3.294E+00	1.324E+00	7.820E-01	6.754E-01	FAIL ABUN
RN-219	-2.992E-01	5.529E-01	4.464E-01	2.821E-01	FAIL ABUN
RA-223	5.971E-01	8.415E-01	7.141E-01	4.293E-01	FAIL ABUN
AC-227	-3.287E-02	3.129E-01	2.680E-01	1.596E-01	NOT IDENT.
TH-227	-3.287E-02	3.129E-01	2.680E-01	1.596E-01	NOT IDENT.
PA-231	1.716E+00	1.836E+00	1.629E+00	9.369E-01	NOT IDENT.
TH-231	5.971E-01	8.415E-01	7.141E-01	4.293E-01	FAIL ABUN
PA-233	1.112E-03	8.141E-02	6.934E-02	4.154E-02	NOT IDENT.
PA-234	7.313E-02	3.720E-01	3.159E-01	1.898E-01	NOT IDENT.
PA-234M	2.139E+00	6.291E+00	5.493E+00	3.210E+00	NOT IDENT.
NP-239	-4.026E-01	5.235E-01	4.214E-01	2.671E-01	FAIL ABUN
AM-241	7.168E-02	2.297E-01	1.787E-01	1.172E-01	NOT IDENT.
CM-247	1.007E-02	4.958E-02	4.203E-02	2.529E-02	NOT IDENT.

CF-249	5.015E-03	5.009E-02	4.232E-02	2.556E-02	NOT IDENT.
CF-251	-1.518E-01	1.661E-01	1.405E-01	8.473E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	290.7350
49.72	349.3412
57.36	0.0000
59.54	359.1706
63.29	384.8551
63.29	384.8551
64.28	385.5239
67.75	413.9293
69.67	493.8288
70.83	494.7734
72.81	464.1416
72.87	464.1855
72.87	464.1855
74.82	474.2609
74.82	474.2609
74.82	474.2609
74.97	474.3728
77.11	475.9729
77.11	475.9729
77.11	475.9729
79.69	408.3641
79.80	351.9476
80.12	352.1190
80.19	352.1569
80.57	427.3991
81.00	352.5886
81.07	352.6265
81.07	352.6265
83.79	460.6104
83.79	460.6104
85.43	491.3019
86.48	492.0547
86.55	492.1027
86.79	492.2737
86.94	492.3810
87.57	454.9203
88.03	455.2214
88.47	455.5078
89.96	456.4764
91.11	354.5093
92.59	355.2424
92.59	355.2424
93.35	355.6180
94.67	356.2645
94.87	356.3625
94.87	356.3625
95.86	370.1841
97.43	349.2481
98.44	284.4639
99.53	304.9866
100.11	339.4329
103.18	267.7242
103.37	267.7909
105.31	315.1752
106.12	326.2073
109.28	327.5119
111.00	325.3814
111.76	347.2476
116.30	342.3294
117.23	364.4159
121.12	332.8182
121.78	345.7096
122.06	345.8221
123.07	345.0790
131.20	323.9050
133.52	326.4825
136.00	351.8788

136.47	343.3021
140.51	363.2687
140.51	0.0000
143.76	327.4499
144.24	304.6545
144.24	304.6545
145.44	318.2986
152.43	324.1514
153.25	308.3780
154.21	281.9124
154.21	281.9124
156.02	357.4951
158.56	327.0358
159.00	306.5611
162.66	335.5441
163.33	326.7615
165.86	314.0209
176.60	319.9281
177.52	346.6537
181.07	310.4330
184.41	309.3452
185.72	309.7051
193.51	276.6626
197.04	295.1336
205.31	285.6070
210.85	249.3566
215.65	266.7246
222.11	235.8881
227.38	231.1533
228.16	240.8106
228.18	240.8144
235.69	269.5795
235.96	260.4432
235.96	260.4432
238.63	246.5747
238.63	246.5747
240.99	247.0100
242.00	247.1962
244.70	203.5494
252.40	190.9324
252.80	205.5303
256.23	206.0357
256.23	206.0357
260.90	206.7207
264.66	198.8873
268.22	197.5887
269.46	213.4529
269.46	213.4529
271.23	213.1226
273.65	259.7139
276.40	181.3496
277.37	164.3753
277.60	179.2438
278.00	187.4661
279.20	210.3316
279.54	227.1713
280.46	244.1130
283.69	169.3666
284.31	186.2788
285.41	196.3323
285.90	205.3228
287.50	212.4914
293.27	0.0000
295.22	203.5860
295.96	203.6825
298.57	177.6244
299.98	142.5477
299.98	142.5477
300.09	131.3461
300.09	131.3461
300.13	131.3481
301.36	152.2922
302.85	207.5938
304.50	218.8549
304.50	218.8549
304.85	190.7886
308.46	176.1269
311.90	164.4028

316.51	160.8293
319.41	162.1289
320.08	163.2085
323.87	150.9586
323.87	150.9586
328.76	172.2234
333.37	171.6786
334.37	173.8235
334.37	173.8235
338.28	155.7805
338.28	155.7805
338.32	155.7828
338.32	155.7828
338.32	155.7828
340.48	146.1308
340.55	159.2709
344.28	153.0368
351.06	148.6824
351.93	138.4267
356.01	127.5651
364.49	112.3638
366.42	114.5671
383.85	134.5957
388.16	125.4207
388.63	124.3991
391.69	135.1602
400.66	149.5952
401.81	153.9297
402.40	135.9258
404.85	139.5021
410.95	123.7279
414.70	99.1735
423.72	118.0936
427.09	122.5949
427.87	110.8080
433.94	84.1664
453.88	95.8821
463.37	101.7883
468.07	91.2628
473.00	101.1486
476.78	110.1364
477.60	107.9741
487.02	84.0980
492.35	110.9222
497.08	100.0429
511.00	80.5303
514.00	82.4277
527.90	73.9121
529.87	0.0000
531.02	85.7435
537.26	86.8781
546.56	0.0000
563.25	90.5671
569.33	96.2944
569.50	90.7991
569.70	90.8064
583.19	85.7662
600.60	89.1445
602.73	86.2964
604.72	75.9564
609.32	86.6517
609.32	86.6517
609.32	86.6517
610.33	86.6857
614.28	84.0168
618.01	86.9423
621.93	77.7092
621.93	77.7092
633.25	78.0415
635.95	68.7084
636.99	79.0925
645.85	78.4103
657.76	80.6525
661.66	95.0195
661.66	95.0195
664.57	0.0000
666.33	83.7590
666.50	81.8596

677.62	77.4088
685.70	78.5907
695.00	81.7336
696.49	87.5475
696.51	87.5497
697.00	97.1854
702.65	73.2743
706.68	95.5824
711.68	73.5044
720.70	85.9268
721.93	0.0000
722.78	77.6680
722.91	77.6699
723.31	79.3000
724.19	77.7051
727.33	64.1744
733.00	63.3242
735.93	69.8872
739.50	57.6042
747.24	54.8160
752.31	77.4609
753.82	59.8414
756.73	69.7173
763.94	120.0789
765.81	109.3198
766.42	84.7150
777.92	84.0433
778.90	76.1559
783.70	71.3215
785.37	57.4846
795.86	72.9233
801.95	79.7070
810.29	69.9265
810.76	72.9341
815.77	52.0343
818.51	60.0908
832.01	68.3868
834.85	67.4384
836.80	0.0000
846.77	62.6327
856.80	60.7954
860.56	32.1228
871.09	52.9141
873.19	56.0017
875.33	0.0000
879.36	51.0034
880.51	57.1430
883.24	50.0408
884.68	43.9312
889.28	60.3583
898.04	65.6406
911.20	68.9776
911.20	68.9776
911.20	68.9776
926.50	37.2243
937.49	60.1580
944.13	56.1133
946.00	48.8646
949.00	43.7032
962.29	50.4774
964.08	59.2095
966.15	47.0457
968.97	47.0819
968.97	47.0819
968.97	47.0819
983.53	54.6216
996.26	55.8622
1001.03	51.7120
1004.73	54.9326
1037.84	51.1477
1038.76	0.0000
1048.07	60.8993
1050.41	48.1069
1050.41	48.1069
1063.66	48.2695
1085.87	58.2504
1099.45	47.6244
1112.07	53.0807

1115.54	61.5780
1120.29	51.1309
1120.29	51.1309
1120.29	51.1309
1120.55	51.1354
1121.30	51.1446
1131.51	0.0000
1173.23	64.2721
1177.93	74.4543
1189.05	62.6681
1204.77	56.4205
1221.41	59.4219
1231.02	66.9961
1235.36	57.4830
1238.28	62.3140
1260.41	0.0000
1271.85	48.8304
1274.44	56.3770
1274.54	54.4977
1291.59	43.3852
1298.22	0.0000
1312.11	29.3678
1332.49	39.9629
1365.19	29.7008
1368.63	0.0000
1384.29	22.1240
1408.01	24.1659
1457.56	0.0000
1460.82	21.4933
1489.16	27.5078
1505.03	26.6078
1596.21	10.3125
1620.50	17.1204
1678.03	0.0000
1690.97	11.2189
1764.49	10.6251
1764.49	10.6251
1764.49	10.6251
1770.23	10.6356
1771.35	8.8647
1791.20	0.0000
1836.06	9.4094

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202071015

Total Uranium Activity	1.1568E+01	ug/g
Total Uranium Counting Unc.	9.2420E+00	ug/g
Total Uranium Tpu	4.7153E-06	ug/g
Total Uranium Mda	4.2703E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G1202071015      *
*   ANALYST       : MXR1                      DETECTOR   : GAM01            *
*   SAMPLE DATE   : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 11:24:08.41    SAMPLE ALQT:  120.310 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.356E+01
GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.899E+00
GROSS GAMMA MDA    (pCi/GRAM  )   : 5.468E+00
GROSS GAMMA DLC    (pCi/GRAM  )   : 2.661E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 12:07:25.39

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071016.CNF;1
Sample date       : 17-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 11:06:54
Sample ID         : G1202071016          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.40  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 965250                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.59	1680	508	1.03	119.20	114	9	4.67E-01	3.4	
2	2	74.82	120	269	0.86	149.68	146	13	3.34E-02	22.2	1.56E+00
3	2	77.16*	214	330	0.99	154.37	146	13	5.94E-02	15.0	
4	0	88.02	1296	547	0.97	176.09	171	11	3.60E-01	4.5	
5	0	122.14*	178	254	0.95	244.33	241	8	4.95E-02	17.2	
6	0	185.83*	91	259	1.27	371.71	368	8	2.51E-02	32.8	
7	5	238.73*	621	172	1.08	477.53	473	15	1.73E-01	5.2	1.38E+00
8	5	241.47*	151	280	1.86	483.02	473	15	4.18E-02	28.4	
9	0	295.39*	126	206	0.97	590.86	587	9	3.50E-02	22.5	
10	0	338.42*	99	183	1.39	676.93	673	9	2.74E-02	26.7	
11	0	352.05*	282	210	1.08	704.19	699	11	7.84E-02	11.6	
12	0	463.43	66	166	1.38	926.94	923	9	1.83E-02	37.3	
13	0	511.05*	94	199	2.16	1022.20	1015	18	2.62E-02	37.7	
14	0	583.35	159	129	1.47	1166.81	1163	10	4.43E-02	15.4	
15	0	609.91*	167	165	1.60	1219.91	1212	16	4.64E-02	19.1	
16	0	662.00*	2143	123	1.46	1324.09	1317	14	5.95E-01	2.4	
17	0	911.33*	90	152	1.26	1822.71	1818	13	2.51E-02	30.0	
18	0	969.44*	101	83	2.80	1938.93	1934	11	2.81E-02	20.2	
19	0	1173.78	1693	70	1.91	2347.56	2338	20	4.70E-01	2.7	
20	0	1333.21	1511	33	2.00	2666.36	2657	19	4.20E-01	2.7	
21	0	1765.38*	37	6	1.95	3530.48	3525	11	1.04E-02	21.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 12:07:27

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071016.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 17-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 11:06:54
Sample ID         : G1202071016          Sample quantity  : 151.73 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA4               Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.40   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	+	122.06	*	1.617E-01	5.687E-02	6.310E-02	4.380E-03	2.563
		136.47		-1.718E-01	3.185E-01	5.069E-01	3.764E-02	-0.339
CO-60	+	1173.23		6.472E+00	5.214E-01	1.200E-01	7.140E-03	53.910
	+	1332.49	*	6.474E+00	5.672E-01	9.280E-02	6.359E-03	69.763
CD-109	+	88.03	*	3.447E+01	5.161E+00	2.083E+00	2.503E-01	16.551
SN-126		64.28		-4.913E-01	1.022E+00	1.682E+00	2.898E-01	-0.292
	+	86.94		1.417E+01	6.112E+00	8.720E-01	3.678E-01	16.249
	+	87.57	*	3.408E+00	5.103E-01	2.075E-01	2.489E-02	16.425
BA-137M	+	661.66	*	5.347E+00	3.681E-01	1.121E-01	5.469E-03	47.681
CS-137	+	661.66	*	5.648E+00	3.901E-01	1.185E-01	5.812E-03	47.681
TL-208		277.37		3.281E-01	6.751E-01	1.163E+00	1.310E-01	0.282
	+	583.19	*	3.783E-01	1.186E-01	1.052E-01	6.600E-03	3.596
		860.56		-2.508E-02	6.753E-01	1.112E+00	9.275E-02	-0.023
BI-211		72.87		-9.937E-01	6.376E+00	9.550E+00	1.095E+00	-0.104
	+	351.06	*	2.983E+00	7.222E-01	5.958E-01	4.026E-02	5.006
PB-212	+	74.82		1.590E+00	7.464E-01	1.070E+00	1.608E-01	1.486
	+	77.11		1.573E+00	5.047E-01	5.975E-01	6.855E-02	2.633
	+	238.63	*	1.461E+00	1.931E-01	1.607E-01	1.300E-02	9.095
		300.09		1.912E+00	1.559E+00	2.485E+00	2.220E-01	0.769
BI-214	+	609.32	*	7.681E-01	2.987E-01	2.061E-01	1.528E-02	3.727
		1120.29		1.213E+00	6.676E-01	1.218E+00	1.142E-01	0.996
	+	1764.49		1.270E+00	5.388E-01	4.553E-01	2.776E-02	2.789
PB-214	+	74.82		2.818E+00	1.313E+00	1.896E+00	2.642E-01	1.486
	+	77.11		2.773E+00	9.186E-01	1.053E+00	1.488E-01	2.633
	+	242.00		2.147E+00	1.233E+00	9.225E-01	8.149E-02	2.327
	+	295.22		8.188E-01	3.768E-01	4.152E-01	3.848E-02	1.972
	+	351.93	*	1.083E+00	2.688E-01	2.152E-01	1.875E-02	5.031
RA-224	+	240.99	*	3.796E+00	2.169E+00	1.723E+00	1.149E-01	2.204
RA-226	+	609.32	*	7.681E-01	2.987E-01	2.061E-01	1.528E-02	3.727
		1120.29		1.213E+00	6.676E-01	1.218E+00	1.142E-01	0.996
	+	1764.49		1.270E+00	5.388E-01	4.553E-01	2.776E-02	2.789
AC-228	+	338.32		1.161E+00	7.841E-01	6.861E-01	2.833E-01	1.692
	+	911.20	*	1.049E+00	6.407E-01	6.037E-01	6.799E-02	1.737
	+	968.97		2.034E+00	9.557E-01	1.020E+00	2.457E-01	1.995

Sample ID : G1202071016 Acquisition date : 24-MAR-2010 11:06:54

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	+	338.32		1.161E+00	7.841E-01	6.861E-01	2.833E-01	1.692
	+	911.20	*	1.049E+00	6.407E-01	6.037E-01	6.799E-02	1.737
	+	968.97		2.034E+00	9.557E-01	1.020E+00	2.457E-01	1.995
TH-228	+	74.82		1.590E+00	7.304E-01	1.070E+00	1.232E-01	1.486
	+	77.11		1.573E+00	5.047E-01	5.975E-01	6.855E-02	2.633
	+	238.63	*	1.461E+00	1.931E-01	1.607E-01	1.300E-02	9.095
		300.09		1.912E+00	1.939E+00	2.485E+00	1.515E+00	0.769
TH-230	+	609.32	*	7.681E-01	2.959E-01	2.061E-01	1.073E-02	3.727
		1120.29		1.213E+00	6.626E-01	1.218E+00	7.980E-02	0.996
	+	1764.49		1.270E+00	5.388E-01	4.553E-01	2.776E-02	2.789
TH-232	+	338.32		1.161E+00	6.247E-01	6.861E-01	4.313E-02	1.692
	+	911.20	*	1.049E+00	6.407E-01	6.037E-01	6.799E-02	1.737
	+	968.97		2.034E+00	9.557E-01	1.020E+00	2.457E-01	1.995
AM-241	+	59.54	*	1.470E+01	2.111E+00	7.125E-01	8.995E-02	20.638
ANH-511	+	511.00	*	1.709E-01	1.292E-01	8.778E-02	4.909E-03	1.947

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.682E-01	6.198E-01	9.936E-01	6.578E-02	-0.169
NA-22		1274.54	*	7.400E-03	5.193E-02	8.871E-02	5.800E-03	0.083
NA-24		1368.63	*	1.209E-04	5.193E-02	Half-Life too short		
K-40		1460.82	*	9.781E-01	6.465E-01	1.258E+00	8.939E-02	0.778
SC-46		889.28	*	-6.434E-03	8.597E-02	1.410E-01	1.140E-02	-0.046
		1120.55		1.657E-01	1.068E-01	1.930E-01	1.264E-02	0.859
V-48		944.13		1.501E+00	1.661E+00	2.881E+00	2.303E-01	0.521
		983.53	*	1.516E-02	1.237E-01	2.038E-01	1.579E-02	0.074
		1312.11		-5.109E-02	5.850E-02	7.955E-02	5.360E-03	-0.642
CR-51		320.08	*	-2.852E-02	5.499E-01	9.179E-01	6.455E-02	-0.031
MN-54		834.85	*	-2.639E-02	7.709E-02	1.244E-01	9.003E-03	-0.212
CO-56		846.77	*	-7.737E-03	7.969E-02	1.308E-01	9.703E-03	-0.059
		1037.84		-1.404E-01	6.618E-01	1.058E+00	8.313E-02	-0.133
		1238.28		7.778E-02	9.918E-02	1.810E-01	1.205E-02	0.430
		1771.35		-7.524E-01	5.177E-01	6.368E-01	3.866E-02	-1.182
CO-58		810.76	*	3.654E-02	7.871E-02	1.347E-01	9.300E-03	0.271
FE-59		1099.45	*	1.244E-01	1.970E-01	3.336E-01	2.548E-02	0.373
		1291.59		2.637E-02	1.547E-01	2.643E-01	2.136E-02	0.100
ZN-65		1115.54	*	-2.488E-01	2.058E-01	2.993E-01	1.980E-02	-0.831
SE-75	+	121.12		8.245E-01	2.956E-01	4.005E-01	3.959E-02	2.059
		136.00		-3.188E-02	5.959E-02	9.488E-02	6.361E-03	-0.336
		264.66	*	2.231E-02	7.276E-02	1.249E-01	8.404E-03	0.179
		279.54		1.133E-01	1.839E-01	3.188E-01	2.253E-02	0.355
		400.66		3.061E-01	4.874E-01	8.304E-01	7.449E-02	0.369
SR-85		514.00	*	6.609E-02	6.579E-02	1.134E-01	6.333E-03	0.583
Y-88		898.04		-1.328E-04	9.702E-02	1.596E-01	1.321E-02	-0.001
		1836.06	*	2.451E-02	4.363E-02	8.076E-02	4.712E-03	0.303
Y-91		1204.77	*	-3.416E+00	2.771E+01	4.378E+01	2.683E+00	-0.078
NB-94		702.65	*	2.038E-02	6.177E-02	1.059E-01	5.706E-03	0.192

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		871.09		-4.229E-02	7.789E-02	1.232E-01	9.605E-03	-0.343
NB-95		765.81	*	4.872E-03	7.299E-02	1.222E-01	7.613E-03	0.040
NB-95M		235.69	*	8.219E-02	2.174E-01	3.140E-01	2.584E-02	0.262
ZR-95		724.19		-1.760E-01	1.635E-01	2.519E-01	1.694E-02	-0.698
		756.73	*	-1.846E-02	1.322E-01	2.182E-01	1.598E-02	-0.085
MO-99		140.51		8.336E-01	4.736E+00	7.783E+00	1.796E+00	0.107
		181.07		-3.651E-01	4.305E+00	6.565E+00	1.174E+00	-0.056
		366.42		-2.074E+01	2.734E+01	4.339E+01	2.593E+00	-0.478
		739.50	*	9.348E-01	3.518E+00	5.982E+00	8.637E-01	0.156
		777.92		-6.479E+00	1.012E+01	1.598E+01	1.023E+00	-0.406
TC-99M		140.51	*	6.135E+00	1.012E+01	Half-Life too short		
RU-103		497.08	*	-1.165E-02	6.871E-02	1.104E-01	1.363E-02	-0.106
	+	610.33		6.923E+00	2.835E+00	3.178E+00	4.713E-01	2.178
RH-106		621.93	*	1.469E-01	5.534E-01	9.047E-01	1.023E-01	0.162
		1050.41		-3.703E+00	5.927E+00	9.134E+00	6.603E-01	-0.405
RU-106		621.93	*	1.469E-01	5.532E-01	9.047E-01	4.648E-02	0.162
		1050.41		-3.703E+00	5.927E+00	9.134E+00	6.603E-01	-0.405
AG-108M		433.94	*	1.888E-02	5.859E-02	9.800E-02	5.965E-03	0.193
		614.28		-3.091E-02	7.162E-02	9.476E-02	5.344E-03	-0.326
		722.91		-7.786E-02	7.235E-02	1.114E-01	6.758E-03	-0.699
AG-110M		657.76	*	-2.212E-02	7.786E-02	1.112E-01	5.940E-03	-0.199
		677.62		-5.801E-03	5.485E-01	9.209E-01	5.049E-02	-0.006
		706.68		2.166E-02	4.171E-01	7.011E-01	4.083E-02	0.031
		763.94		-1.630E-01	2.950E-01	4.707E-01	3.074E-02	-0.346
		884.68		-1.039E-02	1.148E-01	1.879E-01	1.562E-02	-0.055
		937.49		-2.728E-01	2.833E-01	4.326E-01	3.619E-02	-0.630
		1384.29		4.555E-02	2.177E-01	3.736E-01	2.666E-02	0.122
		1505.03		-1.040E-01	4.015E-01	6.321E-01	4.266E-02	-0.165
SN-113		391.69	*	-1.880E-02	7.818E-02	1.273E-01	7.670E-03	-0.148
CD-115		260.90		4.316E-02	2.236E+01	3.788E+01	2.529E+00	0.001
		492.35		8.054E-01	7.215E+00	1.182E+01	6.656E-01	0.068
		527.90	*	1.012E+00	1.980E+00	3.324E+00	1.844E-01	0.304
SN-117M		156.02		1.237E+00	2.219E+00	3.703E+00	2.376E-01	0.334
		158.56	*	4.156E-02	5.669E-02	9.519E-02	6.089E-03	0.437
TE-123M		159.00	*	3.120E-02	4.148E-02	6.971E-02	4.506E-03	0.448
SB-124		602.73		-7.445E-02	7.760E-02	9.604E-02	5.039E-03	-0.775
		645.85		1.698E-01	8.777E-01	1.499E+00	8.695E-02	0.113
		722.78		-4.905E-01	6.484E-01	1.024E+00	6.090E-02	-0.479
		1690.97	*	-9.782E-02	1.162E-01	1.531E-01	1.045E-02	-0.639
SB-125		427.87	*	1.831E-01	1.830E-01	3.171E-01	1.875E-02	0.577
	+	463.37		1.056E+00	7.907E-01	1.099E+00	7.267E-02	0.961
		600.60		-7.751E-02	3.186E-01	5.005E-01	3.127E-02	-0.155
		635.95		-1.427E-01	5.046E-01	7.856E-01	4.847E-02	-0.182
TE-125M		109.28	*	-3.113E-01	1.343E+01	2.217E+01	2.232E+00	-0.014
I-126		388.63		1.097E-01	2.017E-01	3.439E-01	1.951E-02	0.319
		666.33	*	-3.525E-01	3.227E-01	4.197E-01	2.070E-02	-0.840
		753.82		1.960E+00	2.247E+00	3.982E+00	2.416E-01	0.492
SB-126		414.70		-1.406E-02	9.314E-02	1.519E-01	8.597E-03	-0.093
		666.50		-1.373E-01	1.100E-01	1.405E-01	6.936E-03	-0.977

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		695.00		7.743E-02	9.141E-02	1.623E-01	8.583E-03	0.477
		697.00		-2.750E-01	2.995E-01	4.653E-01	2.473E-02	-0.591
		720.70	*	1.151E-02	1.757E-01	2.953E-01	1.660E-02	0.039
		856.80		-3.104E-01	7.008E-01	1.121E+00	8.490E-02	-0.277
SB-127		252.40		4.130E-01	1.881E+00	3.211E+00	1.307E+00	0.129
		473.00		3.463E-01	8.826E-01	1.472E+00	1.339E-01	0.235
		685.70	*	1.306E-02	6.225E-01	1.047E+00	6.921E-02	0.012
		783.70		1.286E+00	1.737E+00	3.034E+00	2.753E-01	0.424
I-131		80.19		-1.196E+00	4.522E+00	6.701E+00	7.750E-01	-0.178
		284.31		-8.913E-01	1.288E+00	2.091E+00	1.494E-01	-0.426
		364.49	*	3.224E-02	1.118E-01	1.886E-01	1.245E-02	0.171
		636.99		-9.455E-02	1.548E+00	2.459E+00	1.423E-01	-0.038
TE-132		49.72		9.764E+00	1.400E+01	2.439E+01	3.118E+00	0.400
		111.76		1.315E+00	9.703E+00	1.611E+01	1.379E+00	0.082
		116.30		-5.644E-01	8.446E+00	1.387E+01	1.131E+00	-0.041
		228.16	*	3.843E-02	2.436E-01	3.901E-01	5.300E-02	0.099
BA-133		81.00		-1.941E-02	1.769E-01	2.642E-01	4.582E-02	-0.073
		276.40		1.526E-01	6.156E-01	1.051E+00	1.366E-01	0.145
		302.85		-2.122E-01	2.487E-01	3.975E-01	4.693E-02	-0.534
		356.01	*	2.772E-02	8.484E-02	1.272E-01	1.454E-02	0.218
		383.85		-2.455E-01	5.208E-01	8.354E-01	8.882E-02	-0.294
I-133		529.87	*	-1.262E-06	5.208E-01	Half-Life too short		
		875.33		9.765E-05	5.208E-01	Half-Life too short		
		1298.22		1.502E-04	5.208E-01	Half-Life too short		
CS-134		563.25		3.607E-04	6.708E-01	1.080E+00	6.005E-02	0.000
		569.33		1.698E-01	3.632E-01	6.053E-01	3.383E-02	0.281
		604.72		2.316E-02	6.867E-02	9.884E-02	5.209E-03	0.234
		795.86	*	7.273E-03	9.294E-02	1.552E-01	1.046E-02	0.047
		801.95		3.809E-01	8.058E-01	1.383E+00	9.415E-02	0.276
		1365.19		8.715E-01	1.443E+00	2.662E+00	1.956E-01	0.327
CS-135		268.22	*	-1.343E-01	2.677E-01	4.417E-01	3.682E-02	-0.304
I-135		546.56		2.819E+01	2.677E-01	Half-Life too short		
		836.80		5.619E+01	2.677E-01	Half-Life too short		
		1038.76		1.519E+02	2.677E-01	Half-Life too short		
		1131.51		-3.138E+01	2.677E-01	Half-Life too short		
		1260.41	*	2.058E+00	2.677E-01	Half-Life too short		
		1457.56		-5.637E+01	2.677E-01	Half-Life too short		
		1678.03		-4.597E+01	2.677E-01	Half-Life too short		
		1791.20		-1.425E+01	2.677E-01	Half-Life too short		
CS-136		153.25		3.304E-01	8.236E-01	1.365E+00	1.162E-01	0.242
		176.60		9.627E-02	5.475E-01	8.904E-01	6.722E-02	0.108
		273.65		-4.878E-01	5.828E-01	9.434E-01	7.146E-02	-0.517
		340.55		1.478E-01	1.978E-01	3.049E-01	2.043E-02	0.485
		818.51		8.207E-02	1.156E-01	2.003E-01	1.401E-02	0.410
		1048.07	*	1.434E-02	1.576E-01	2.581E-01	1.980E-02	0.056
		1235.36		-9.747E-02	4.534E-01	7.404E-01	7.542E-02	-0.132
CE-139		165.86	*	3.763E-02	4.627E-02	7.768E-02	4.936E-03	0.484
BA-140		162.66		-1.239E+00	8.516E-01	1.270E+00	9.061E-02	-0.976
		304.85		-1.413E+00	1.616E+00	2.504E+00	7.192E-01	-0.564

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		423.72		-3.905E+00	2.973E+00	4.054E+00	1.307E+00	-0.963
		537.26	*	-7.288E-02	3.430E-01	5.445E-01	1.811E-01	-0.134
LA-140		328.76		-1.471E-01	3.474E-01	5.673E-01	3.985E-02	-0.259
		487.02		-2.011E-01	1.800E-01	2.696E-01	1.732E-02	-0.746
		815.77		-3.113E-01	4.899E-01	7.747E-01	6.330E-02	-0.402
		1596.21	*	5.184E-02	8.594E-02	1.556E-01	1.025E-02	0.333
CE-141		145.44	*	2.802E-02	7.510E-02	1.247E-01	8.369E-03	0.225
CE-143		57.36		8.444E+01	8.556E+01	1.350E+02	1.804E+01	0.625
		293.27	*	3.971E+00	5.165E+00	7.964E+00	1.620E+00	0.499
		664.57		1.168E+03	3.526E+02	2.200E+02	6.360E+01	5.308
		721.93		-3.257E+01	5.173E+01	8.132E+01	2.193E+01	-0.400
CE-144		80.12		-1.280E+00	4.656E+00	6.896E+00	7.967E-01	-0.186
		133.52	*	-4.445E-02	2.972E-01	4.827E-01	6.891E-02	-0.092
PM-144		476.78		5.463E-02	1.362E-01	2.273E-01	1.530E-02	0.240
		618.01		-3.458E-02	5.748E-02	8.708E-02	4.833E-03	-0.397
		696.49	*	-1.291E-04	5.896E-02	9.886E-02	5.249E-03	-0.001
PR-144		696.51	*	-4.030E-01	4.414E+00	7.352E+00	3.903E-01	-0.055
		1489.16		-1.602E+00	1.805E+01	2.933E+01	1.985E+00	-0.055
PM-146		453.88	*	4.870E-02	8.947E-02	1.508E-01	1.262E-02	0.323
		633.25		1.659E+00	2.809E+00	4.587E+00	1.722E+00	0.362
		735.93		1.366E-01	2.824E-01	4.841E-01	1.321E-01	0.282
		747.24		4.135E-03	1.759E-01	2.941E-01	3.881E-02	0.014
ND-147		91.11		-3.943E-02	2.760E-01	4.089E-01	4.797E-02	-0.096
		319.41		6.796E-01	3.653E+00	6.175E+00	3.980E-01	0.110
		531.02	*	-1.359E-02	6.533E-01	1.055E+00	1.415E-01	-0.013
PM-149		285.90	*	-8.682E+00	1.416E+01	2.301E+01	3.339E+00	-0.377
EU-152	+	121.78		4.742E-01	1.683E-01	2.376E-01	2.019E-02	1.996
		244.70		-4.403E-02	6.219E-01	8.684E-01	5.794E-02	-0.051
		344.28	*	-1.612E-01	1.810E-01	2.749E-01	1.901E-02	-0.587
		778.90		-5.047E-01	5.026E-01	7.678E-01	4.926E-02	-0.657
		964.08		4.908E-01	7.742E-01	1.158E+00	9.120E-02	0.424
		1085.87		-2.464E-01	9.461E-01	1.501E+00	1.037E-01	-0.164
		1112.07		4.512E-01	7.115E-01	1.206E+00	8.007E-02	0.374
		1408.01		-1.276E-01	2.466E-01	3.723E-01	2.547E-02	-0.343
GD-153		69.67		-4.496E-01	3.286E+00	5.502E+00	6.353E-01	-0.082
		97.43	*	-7.915E-02	1.265E-01	2.035E-01	1.997E-02	-0.389
		103.18		-1.001E-01	1.709E-01	2.751E-01	2.448E-02	-0.364
EU-154	+	123.07		3.351E-01	1.204E-01	1.675E-01	1.693E-02	2.001
		723.31		-3.554E-01	3.274E-01	5.035E-01	3.482E-02	-0.706
		873.19		1.688E-01	6.510E-01	1.093E+00	1.239E-01	0.154
		996.26		-1.268E-01	8.559E-01	1.381E+00	2.349E-01	-0.092
		1004.73		-4.056E-02	5.051E-01	8.187E-01	8.923E-02	-0.050
		1274.44	*	1.186E-02	1.496E-01	2.532E-01	2.504E-02	0.047
EU-155	+	86.55		4.120E+00	6.190E-01	4.483E-01	5.370E-02	9.190
		105.31	*	7.645E-02	1.594E-01	2.695E-01	2.348E-02	0.284
TB-160	+	86.79		1.019E+01	1.525E+00	1.271E+00	1.516E-01	8.018
		197.04		-2.788E-01	8.607E-01	1.360E+00	8.848E-02	-0.205
		215.65		-1.016E+00	1.240E+00	1.890E+00	1.247E-01	-0.537
		298.57		3.195E-02	2.078E-01	3.111E-01	2.045E-02	0.103

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		879.36	*	6.932E-02	3.232E-01	5.402E-01	4.284E-02	0.128
		962.29		1.566E-01	1.271E+00	1.978E+00	1.560E-01	0.079
		966.15		-3.047E-01	5.401E-01	7.242E-01	5.693E-02	-0.421
		1177.93		1.356E+00	8.011E-01	1.326E+00	7.923E-02	1.022
		1271.85		4.705E-01	8.117E-01	1.467E+00	9.549E-02	0.321
HO-166M		80.57		-1.335E-01	5.163E-01	7.653E-01	8.855E-02	-0.174
	+	184.41		1.092E-01	7.190E-02	9.154E-02	5.896E-03	1.193
		280.46		4.602E-02	1.463E-01	2.505E-01	1.664E-02	0.184
		410.95		-9.617E-02	4.673E-01	7.604E-01	4.300E-02	-0.126
		711.68	*	-1.045E-01	1.132E-01	1.762E-01	9.699E-03	-0.593
		752.31		-2.643E-02	5.186E-01	8.615E-01	5.209E-02	-0.031
		810.29		5.803E-02	1.277E-01	2.184E-01	1.500E-02	0.266
TA-182		67.75		-2.917E-02	2.109E-01	3.535E-01	4.112E-02	-0.083
		100.11		1.196E-01	2.571E-01	4.353E-01	4.074E-02	0.275
		152.43		-2.490E-01	4.891E-01	7.736E-01	4.983E-02	-0.322
		222.11		2.804E-01	5.842E-01	9.523E-01	6.303E-02	0.294
		1121.30		4.620E-01	3.008E-01	5.430E-01	3.552E-02	0.851
		1189.05		1.484E-01	4.852E-01	8.062E-01	4.868E-02	0.184
		1221.41	*	-1.295E-01	2.341E-01	3.658E-01	2.277E-02	-0.354
		1231.02		-1.891E-01	5.391E-01	8.641E-01	5.425E-02	-0.219
IR-192	+	295.96		5.634E-01	2.567E-01	3.616E-01	2.411E-02	1.558
		308.46		1.344E-01	1.638E-01	2.855E-01	1.878E-02	0.471
		316.51	*	-2.074E-02	5.701E-02	9.359E-02	6.076E-03	-0.222
		468.07		1.805E-01	1.515E-01	2.363E-01	1.554E-02	0.764
HG-203		70.83		1.702E+00	2.502E+00	3.890E+00	6.916E-01	0.438
		72.87		-2.207E-01	1.416E+00	2.121E+00	3.665E-01	-0.104
		279.20	*	4.835E-02	6.044E-02	1.056E-01	7.317E-03	0.458
BI-207		72.81		-6.308E-02	3.672E-01	5.496E-01	6.302E-02	-0.115
	+	74.97		4.581E-01	2.103E-01	3.571E-01	4.089E-02	1.283
		569.70		2.197E-02	5.677E-02	9.406E-02	5.080E-03	0.234
		1063.66	*	-8.138E-02	1.128E-01	1.710E-01	1.216E-02	-0.476
		1770.23		-3.779E-02	8.873E-01	1.220E+00	7.411E-02	-0.031
PB-210		46.54	*	-6.425E+00	1.537E+01	2.579E+01	2.250E+00	-0.249
PB-211		404.85	*	-1.682E-01	1.432E+00	2.342E+00	1.123E+00	-0.072
		427.09		2.901E+00	3.346E+00	5.318E+00	2.436E+00	0.546
		832.01		-1.645E+00	2.296E+00	3.330E+00	1.720E+00	-0.494
BI-212		727.33	*	1.430E+00	1.015E+00	1.833E+00	1.953E-01	0.780
		785.37		2.589E+00	6.317E+00	1.080E+01	7.030E-01	0.240
		1620.50		1.837E+00	2.833E+00	5.318E+00	3.472E-01	0.346
RN-219		271.23		3.005E-01	3.998E-01	6.976E-01	6.053E-02	0.431
		401.81	*	-3.977E-01	8.303E-01	1.331E+00	1.779E-01	-0.299
RA-223		81.07		-5.131E-02	4.006E-01	5.978E-01	6.929E-02	-0.086
		83.79		1.227E-01	2.294E-01	3.529E-01	4.140E-02	0.348
		94.87		-2.670E-01	6.817E-01	1.113E+00	1.148E-01	-0.240
		144.24		-1.706E-01	9.660E-01	1.555E+00	1.213E-01	-0.110
		154.21		-1.175E-01	5.698E-01	9.156E-01	6.865E-02	-0.128
		269.46		3.488E-01	3.088E-01	5.473E-01	3.770E-02	0.637
		323.87	*	-8.285E-01	1.168E+00	1.868E+00	3.053E-01	-0.444
	+	338.28		4.607E+00	2.509E+00	3.496E+00	3.683E-01	1.318

---- Non-Identified Nuclides ----

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AC-227		79.69		-8.733E-01	2.394E+00	3.523E+00	6.645E-01	-0.248
		235.96		1.931E-01	2.793E-01	4.115E-01	3.611E-02	0.469
		256.23	*	-2.929E-01	4.411E-01	7.230E-01	7.771E-02	-0.405
		299.98		2.080E+00	1.720E+00	2.729E+00	3.114E-01	0.762
		304.50		-3.216E+00	2.952E+00	4.609E+00	7.165E-01	-0.698
		334.37		-4.820E-01	3.369E+00	4.894E+00	7.070E-01	-0.098
TH-227		79.80		-1.188E+00	3.154E+00	4.631E+00	1.069E+00	-0.257
		235.96		1.931E-01	2.792E-01	4.115E-01	3.324E-02	0.469
		256.23	*	-2.929E-01	4.415E-01	7.230E-01	9.013E-02	-0.405
		299.98		2.080E+00	1.720E+00	2.729E+00	3.114E-01	0.762
		304.50		-3.216E+00	2.952E+00	4.609E+00	7.165E-01	-0.698
		334.37		-4.820E-01	3.369E+00	4.894E+00	7.070E-01	-0.098
TH-229		85.43		1.177E-01	3.829E-01	5.823E-01	6.891E-02	0.202
	+	88.47		5.255E+00	7.867E-01	7.288E-01	8.663E-02	7.210
		193.51	*	-6.601E-02	8.780E-01	1.403E+00	9.104E-02	-0.047
		210.85		1.100E+00	1.594E+00	2.623E+00	1.724E-01	0.419
PA-231		283.69	*	-5.384E-01	2.402E+00	4.000E+00	5.403E-01	-0.135
		301.36		9.028E-01	1.005E+00	1.704E+00	1.838E-01	0.530
TH-231		81.07		-5.131E-02	4.006E-01	5.978E-01	6.929E-02	-0.086
		83.79		1.227E-01	2.294E-01	3.529E-01	4.140E-02	0.348
		94.87		-2.670E-01	6.817E-01	1.113E+00	1.148E-01	-0.240
		144.24		-1.706E-01	9.660E-01	1.555E+00	1.213E-01	-0.110
		154.21		-1.175E-01	5.698E-01	9.156E-01	6.865E-02	-0.128
		269.46		3.488E-01	3.088E-01	5.473E-01	3.770E-02	0.637
		323.87	*	-8.285E-01	1.168E+00	1.868E+00	3.053E-01	-0.444
	+	338.28		4.607E+00	2.509E+00	3.496E+00	3.683E-01	1.318
PA-233		300.13		9.560E-01	7.829E-01	1.238E+00	1.700E-01	0.772
		311.90	*	1.062E-02	1.142E-01	1.924E-01	1.312E-02	0.055
		340.48		1.117E+00	1.297E+00	1.977E+00	4.613E-01	0.565
PA-234		94.67		-7.223E-02	2.492E-01	4.088E-01	5.586E-02	-0.177
		98.44		-1.065E-01	1.509E-01	2.218E-01	1.241E-01	-0.480
		111.00		2.897E-01	2.832E-01	4.859E-01	5.645E-02	0.596
		131.20		-9.056E-02	1.600E-01	2.547E-01	1.708E-02	-0.356
		569.50		1.543E-01	5.070E-01	8.349E-01	4.510E-02	0.185
		733.00		-4.268E-01	7.536E-01	1.199E+00	2.549E-01	-0.356
		880.51		-5.042E-02	7.100E-01	1.164E+00	9.255E-02	-0.043
		883.24		6.799E-02	6.839E-01	1.132E+00	7.601E-01	0.060
		926.50		-3.144E-02	4.386E-01	7.162E-01	1.798E-01	-0.044
		946.00	*	-7.501E-02	8.077E-01	1.315E+00	2.431E-01	-0.057
		949.00		1.217E-01	1.192E+00	1.966E+00	1.566E-01	0.062
PA-234M		766.42		8.630E+00	2.078E+01	3.490E+01	1.758E+01	0.247
		1001.03	*	1.629E+00	1.079E+01	1.779E+01	1.622E+00	0.092
TH-234		63.29	*	-6.548E-01	3.104E+00	4.673E+00	9.406E-01	-0.140
		92.59		-1.233E-01	1.106E+00	1.661E+00	3.825E-01	-0.074
U-235		89.96		4.371E+00	1.962E+00	2.697E+00	6.945E-01	1.621
		93.35		6.271E-01	7.603E-01	1.245E+00	2.979E-01	0.504
		143.76	*	-1.580E-01	2.887E-01	4.542E-01	7.262E-02	-0.348
		163.33		-5.246E-01	6.801E-01	1.048E+00	1.781E-01	-0.500
	+	185.72		1.374E-01	9.050E-02	1.245E-01	8.030E-03	1.103

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		205.31		-1.469E-01	8.133E-01	1.287E+00	2.222E-01	-0.114
NP-237		86.48	*	3.757E+00	1.070E+00	1.054E+00	2.542E-01	3.563
		95.86		-7.173E-01	1.427E+00	2.301E+00	5.653E-01	-0.312
U-238		63.29	*	-6.548E-01	3.104E+00	4.673E+00	9.406E-01	-0.140
		92.59		-1.233E-01	1.105E+00	1.661E+00	1.796E-01	-0.074
NP-239		99.53		1.043E-01	2.485E-01	4.200E-01	3.970E-02	0.248
		103.37		-8.415E-02	1.575E-01	2.542E-01	2.255E-02	-0.331
		106.12		-4.583E-02	1.264E-01	2.054E-01	1.747E-02	-0.223
		117.23	*	-2.467E-01	6.244E-01	1.009E+00	7.402E-02	-0.245
		228.18		6.000E-02	3.803E-01	6.092E-01	4.043E-02	0.098
		277.60		2.591E-01	3.040E-01	5.323E-01	3.541E-02	0.487
CM-247		278.00		1.042E+00	1.298E+00	2.269E+00	1.509E-01	0.459
		287.50		7.301E-01	2.105E+00	3.607E+00	2.388E-01	0.202
		402.40	*	-2.288E-02	7.637E-02	1.239E-01	6.993E-03	-0.185
CF-249		252.80		4.057E-01	1.635E+00	2.805E+00	1.873E-01	0.145
		333.37		-4.734E-02	3.528E-01	5.130E-01	3.248E-02	-0.092
		388.16	*	3.645E-02	7.360E-02	1.252E-01	7.107E-03	0.291
CF-251		177.52	*	9.308E-02	2.112E-01	3.478E-01	2.228E-02	0.268
		227.38		2.711E-01	6.094E-01	9.909E-01	6.575E-02	0.274
		285.41		-2.418E+00	3.676E+00	5.977E+00	3.962E-01	-0.404

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071016      *
* Acquisition date : 24-MAR-2010 11:06:54 Detector SN#    :                 *
* Detector ID       : GAM04                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:01.40      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 17-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202071016          Analyst initials: MXR1           *
* Batch Number      : 965250               Sample Quantity : 1.5173E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-57	1.617E-01	5.573E-02	6.764E-02	0.000E+00
CO-60	6.474E+00	5.558E-01	9.371E-02	0.000E+00
CD-109	3.447E+01	5.058E+00	2.249E+00	0.000E+00
SN-126	3.408E+00	5.001E-01	2.242E-01	0.000E+00
BA-137M	5.347E+00	3.608E-01	1.153E-01	0.000E+00
CS-137	5.648E+00	3.823E-01	1.218E-01	0.000E+00
TL-208	3.783E-01	1.163E-01	1.085E-01	0.000E+00
BI-211	2.983E+00	7.078E-01	6.226E-01	0.000E+00
PB-212	1.461E+00	1.892E-01	1.695E-01	0.000E+00
BI-214	7.681E-01	2.927E-01	2.124E-01	0.000E+00
PB-214	1.083E+00	2.634E-01	2.248E-01	0.000E+00
RA-224	3.796E+00	2.125E+00	1.817E+00	0.000E+00
RA-226	7.681E-01	2.927E-01	2.124E-01	0.000E+00
AC-228	1.049E+00	6.279E-01	6.158E-01	0.000E+00
RA-228	1.049E+00	6.279E-01	6.158E-01	0.000E+00
TH-228	1.461E+00	1.892E-01	1.695E-01	0.000E+00
TH-230	7.681E-01	2.900E-01	2.124E-01	0.000E+00
TH-232	1.049E+00	6.279E-01	6.158E-01	0.000E+00
AM-241	1.470E+01	2.069E+00	7.765E-01	0.000E+00
ANH-511	1.709E-01	1.266E-01	9.087E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-1.682E-01	6.074E-01	1.030E+00	0.000E+00	NOT IDENT.
NA-22	7.400E-03	5.089E-02	8.969E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.610E+02	0.000E+00	0.000E+00	SHORT HLIF
K-40	9.781E-01	6.336E-01	1.267E+00	0.000E+00	NOT IDENT.
SC-46	-6.434E-03	8.425E-02	1.439E-01	0.000E+00	NOT IDENT.
V-48	1.516E-02	1.212E-01	2.075E-01	0.000E+00	NOT IDENT.
CR-51	-2.852E-02	5.389E-01	9.613E-01	0.000E+00	NOT IDENT.

MN-54	-2.639E-02	7.555E-02	1.272E-01	0.000E+00	NOT IDENT.
CO-56	-7.737E-03	7.810E-02	1.336E-01	0.000E+00	NOT IDENT.
CO-58	3.654E-02	7.713E-02	1.378E-01	0.000E+00	NOT IDENT.
FE-59	1.244E-01	1.930E-01	3.386E-01	0.000E+00	NOT IDENT.
ZN-65	-2.488E-01	2.017E-01	3.037E-01	0.000E+00	NOT IDENT.
SE-75	2.231E-02	7.131E-02	1.314E-01	0.000E+00	FAIL ABUN
SR-85	6.609E-02	6.447E-02	1.174E-01	0.000E+00	NOT IDENT.
Y-88	2.451E-02	4.276E-02	8.086E-02	0.000E+00	NOT IDENT.
Y-91	-3.416E+00	2.716E+01	4.433E+01	0.000E+00	NOT IDENT.
NB-94	2.038E-02	6.054E-02	1.088E-01	0.000E+00	NOT IDENT.
NB-95	4.872E-03	7.153E-02	1.252E-01	0.000E+00	NOT IDENT.
NB-95M	8.219E-02	2.130E-01	3.313E-01	0.000E+00	NOT IDENT.
ZR-95	-1.846E-02	1.296E-01	2.236E-01	0.000E+00	NOT IDENT.
MO-99	9.348E-01	3.448E+00	6.134E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.415E+07	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.165E-02	6.733E-02	1.144E-01	0.000E+00	FAIL ABUN
RH-106	1.469E-01	5.423E-01	9.319E-01	0.000E+00	NOT IDENT.
RU-106	1.469E-01	5.421E-01	9.319E-01	0.000E+00	NOT IDENT.
AG-108M	1.888E-02	5.742E-02	1.019E-01	0.000E+00	NOT IDENT.
AG-110M	-2.212E-02	7.630E-02	1.143E-01	0.000E+00	NOT IDENT.
SN-113	-1.880E-02	7.662E-02	1.327E-01	0.000E+00	NOT IDENT.
CD-115	1.012E+00	1.940E+00	3.438E+00	0.000E+00	NOT IDENT.
SN-117M	4.156E-02	5.556E-02	1.014E-01	0.000E+00	NOT IDENT.
TE-123M	3.120E-02	4.065E-02	7.426E-02	0.000E+00	NOT IDENT.
SB-124	-9.782E-02	1.139E-01	1.537E-01	0.000E+00	NOT IDENT.
SB-125	1.831E-01	1.793E-01	3.298E-01	0.000E+00	FAIL ABUN
TE-125M	-3.113E-01	1.317E+01	2.383E+01	0.000E+00	NOT IDENT.
I-126	-3.525E-01	3.163E-01	4.315E-01	0.000E+00	NOT IDENT.
SB-126	1.151E-02	1.721E-01	3.030E-01	0.000E+00	NOT IDENT.
SB-127	1.306E-02	6.100E-01	1.075E+00	0.000E+00	NOT IDENT.
I-131	3.224E-02	1.096E-01	1.969E-01	0.000E+00	NOT IDENT.
TE-132	3.843E-02	2.387E-01	4.119E-01	0.000E+00	NOT IDENT.
BA-133	2.772E-02	8.314E-02	1.328E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.418E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.273E-03	9.109E-02	1.589E-01	0.000E+00	NOT IDENT.
CS-135	-1.343E-01	2.624E-01	4.646E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.836E+07	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.434E-02	1.545E-01	2.623E-01	0.000E+00	NOT IDENT.
CE-139	3.763E-02	4.535E-02	8.267E-02	0.000E+00	NOT IDENT.
BA-140	-7.288E-02	3.361E-01	5.629E-01	0.000E+00	NOT IDENT.
LA-140	5.184E-02	8.422E-02	1.564E-01	0.000E+00	NOT IDENT.
CE-141	2.802E-02	7.360E-02	1.331E-01	0.000E+00	NOT IDENT.
CE-143	3.971E+00	5.062E+00	8.359E+00	0.000E+00	NOT IDENT.
CE-144	-4.445E-02	2.913E-01	5.164E-01	0.000E+00	NOT IDENT.
PM-144	-1.291E-04	5.778E-02	1.015E-01	0.000E+00	NOT IDENT.
PR-144	-4.030E-01	4.326E+00	7.551E+00	0.000E+00	NOT IDENT.
PM-146	4.870E-02	8.768E-02	1.566E-01	0.000E+00	NOT IDENT.
ND-147	-1.359E-02	6.402E-01	1.091E+00	0.000E+00	NOT IDENT.
PM-149	-8.682E+00	1.387E+01	2.416E+01	0.000E+00	NOT IDENT.
EU-152	-1.612E-01	1.774E-01	2.874E-01	0.000E+00	FAIL ABUN
GD-153	-7.915E-02	1.239E-01	2.193E-01	0.000E+00	NOT IDENT.
EU-154	1.186E-02	1.466E-01	2.560E-01	0.000E+00	FAIL ABUN
EU-155	7.645E-02	1.562E-01	2.898E-01	0.000E+00	FAIL ABUN
TB-160	6.932E-02	3.168E-01	5.515E-01	0.000E+00	FAIL ABUN
HO-166M	-1.045E-01	1.110E-01	1.809E-01	0.000E+00	FAIL ABUN
TA-182	-1.295E-01	2.294E-01	3.703E-01	0.000E+00	NOT IDENT.
IR-192	-2.074E-02	5.587E-02	9.805E-02	0.000E+00	FAIL ABUN
HG-203	4.835E-02	5.923E-02	1.109E-01	0.000E+00	NOT IDENT.
BI-207	-8.138E-02	1.106E-01	1.737E-01	0.000E+00	FAIL ABUN
PB-210	-6.425E+00	1.507E+01	2.826E+01	0.000E+00	NOT IDENT.
PB-211	-1.682E-01	1.404E+00	2.439E+00	0.000E+00	NOT IDENT.
BI-212	1.430E+00	9.945E-01	1.880E+00	0.000E+00	NOT IDENT.
RN-219	-3.977E-01	8.137E-01	1.386E+00	0.000E+00	NOT IDENT.
RA-223	-8.285E-01	1.145E+00	1.955E+00	0.000E+00	FAIL ABUN
AC-227	-2.929E-01	4.323E-01	7.614E-01	0.000E+00	NOT IDENT.
TH-227	-2.929E-01	4.327E-01	7.614E-01	0.000E+00	NOT IDENT.
TH-229	-6.601E-02	8.604E-01	1.487E+00	0.000E+00	FAIL ABUN
PA-231	-5.384E-01	2.354E+00	4.202E+00	0.000E+00	NOT IDENT.
TH-231	-8.285E-01	1.145E+00	1.955E+00	0.000E+00	FAIL ABUN
PA-233	1.062E-02	1.119E-01	2.016E-01	0.000E+00	NOT IDENT.
PA-234	-7.501E-02	7.915E-01	1.340E+00	0.000E+00	NOT IDENT.
PA-234M	1.629E+00	1.057E+01	1.810E+01	0.000E+00	NOT IDENT.
TH-234	-6.548E-01	3.042E+00	5.086E+00	0.000E+00	NOT IDENT.
U-235	-1.580E-01	2.830E-01	4.849E-01	0.000E+00	FAIL ABUN
NP-237	0.000E+00	1.049E+00	1.139E+00	0.000E+00	NOT IDENT.
U-238	-6.548E-01	3.042E+00	5.086E+00	0.000E+00	NOT IDENT.
NP-239	-2.467E-01	6.119E-01	1.082E+00	0.000E+00	NOT IDENT.
CM-247	-2.288E-02	7.485E-02	1.290E-01	0.000E+00	NOT IDENT.

CF-249	3.645E-02	7.212E-02	1.305E-01	0.000E+00 NOT IDENT.
CF-251	9.308E-02	2.070E-01	3.695E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 12:07:26.27

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071016.CNF;1
Sample date      : 17-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 11:06:54
Sample ID        : G1202071016          Sample quantity  : 1.51730E+02 GRAM
Detector name    : GAM04                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:01.40  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 965250               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	178	85.60*	6.487E+00	1.587E-01	1.617E-01	35.17
	136.47	------	10.68	6.470E+00	------ Line Not Found		------
CO-60	1173.23	1693	99.85	1.299E+00	6.454E+00	6.472E+00	8.06
	1332.49	1511	99.98*	1.158E+00	6.456E+00	6.474E+00	8.76
CD-109	88.03	1296	3.70*	5.086E+00	3.408E+01	3.447E+01	14.97
SN-126	64.28	------	9.60	2.203E+00	------ Line Not Found		------
	86.94	1296	8.90	5.086E+00	1.417E+01	1.417E+01	43.13
	87.57	1296	37.00*	5.086E+00	3.408E+00	3.408E+00	14.97
BA-137M	661.66	2143	89.90*	2.207E+00	5.344E+00	5.347E+00	6.89
CS-137	661.66	2143	85.10*	2.207E+00	5.646E+00	5.648E+00	6.91
TL-208	277.37	------	6.60	4.326E+00	------ Line Not Found		------
	583.19	159	85.00*	2.454E+00	3.783E-01	3.783E-01	31.37
	860.56	------	12.50	1.744E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	3.384E+00	------ Line Not Found		------
	351.06	282	12.92*	3.625E+00	2.983E+00	2.983E+00	24.21
PB-212	74.82	120	10.28	3.639E+00	1.590E+00	1.590E+00	46.94
	77.11	214	17.10	3.935E+00	1.573E+00	1.573E+00	32.08
	238.63	621	43.60*	4.824E+00	1.461E+00	1.461E+00	13.21
	300.09	------	3.30	4.082E+00	------ Line Not Found		------
BI-214	609.32	167	45.49*	2.365E+00	7.681E-01	7.681E-01	38.89
	1120.29	------	14.92	1.358E+00	------ Line Not Found		------
	1764.49	37	15.30	9.527E-01	1.270E+00	1.270E+00	42.43
PB-214	74.82	120	5.80	3.639E+00	2.818E+00	2.818E+00	46.60
	77.11	214	9.70	3.935E+00	2.773E+00	2.773E+00	33.12
	242.00	151	7.25	4.785E+00	2.147E+00	2.147E+00	57.41
	295.22	126	18.42	4.130E+00	8.188E-01	8.188E-01	46.02
	351.93	282	35.60*	3.625E+00	1.083E+00	1.083E+00	24.83
RA-224	240.99	151	4.10*	4.785E+00	3.796E+00	3.796E+00	57.12
RA-226	609.32	167	45.49*	2.365E+00	7.681E-01	7.681E-01	38.89
	1120.29	------	14.92	1.358E+00	------ Line Not Found		------
	1764.49	37	15.30	9.527E-01	1.270E+00	1.270E+00	42.43
AC-228	338.32	99	11.27	3.733E+00	1.161E+00	1.161E+00	67.54

Sample ID : G1202071016 Acquisition date : 24-MAR-2010 11:06:54

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	90	25.80*	1.652E+00	1.049E+00	1.049E+00	61.10
	968.97	101	15.80	1.558E+00	2.034E+00	2.034E+00	46.99
RA-228	338.32	99	11.27	3.733E+00	1.161E+00	1.161E+00	67.54
	911.20	90	25.80*	1.652E+00	1.049E+00	1.049E+00	61.10
	968.97	101	15.80	1.558E+00	2.034E+00	2.034E+00	46.99
TH-228	74.82	120	10.28	3.639E+00	1.590E+00	1.590E+00	45.93
	77.11	214	17.10	3.935E+00	1.573E+00	1.573E+00	32.08
	238.63	621	43.60*	4.824E+00	1.461E+00	1.461E+00	13.21
	300.09	------	3.30	4.082E+00	------ Line Not Found		------
TH-230	609.32	167	45.49*	2.365E+00	7.681E-01	7.681E-01	38.53
	1120.29	------	14.92	1.358E+00	------ Line Not Found		------
	1764.49	37	15.30	9.527E-01	1.270E+00	1.270E+00	42.43
TH-232	338.32	99	11.27	3.733E+00	1.161E+00	1.161E+00	53.82
	911.20	90	25.80*	1.652E+00	1.049E+00	1.049E+00	61.10
	968.97	101	15.80	1.558E+00	2.034E+00	2.034E+00	46.99
AM-241	59.54	1680	35.90*	1.575E+00	1.470E+01	1.470E+01	14.36
ANH-511	511.00	94	100.00*	2.730E+00	1.709E-01	1.709E-01	75.57

Flag: "*" = Keyline

Sample ID : G1202071016 Acquisition date : 24-MAR-2010 11:06:54

Total number of lines in spectrum 21
Number of unidentified lines 0
Number of lines tentatively identified by NID 21 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	271.74D	1.02	1.587E-01	1.617E-01	0.569E-01	35.17	
CO-60	5.27Y	1.00	6.456E+00	6.474E+00	0.567E+00	8.76	
CD-109	461.40D	1.01	3.408E+01	3.447E+01	0.516E+01	14.97	
SN-126	2.30E+05Y	1.00	3.408E+00	3.408E+00	0.510E+00	14.97	
BA-137M	30.08Y	1.00	5.344E+00	5.347E+00	0.368E+00	6.89	
CS-137	30.08Y	1.00	5.646E+00	5.648E+00	0.390E+00	6.91	
TL-208	1.41E+10Y	1.00	3.783E-01	3.783E-01	1.186E-01	31.37	
BI-211	7.04E+08Y	1.00	2.983E+00	2.983E+00	0.722E+00	24.21	
PB-212	1.41E+10Y	1.00	1.461E+00	1.461E+00	0.193E+00	13.21	
BI-214	1600.00Y	1.00	7.681E-01	7.681E-01	2.987E-01	38.89	
PB-214	1600.00Y	1.00	1.083E+00	1.083E+00	0.269E+00	24.83	
RA-224	1.41E+10Y	1.00	3.796E+00	3.796E+00	2.169E+00	57.12	
RA-226	1600.00Y	1.00	7.681E-01	7.681E-01	2.987E-01	38.89	
AC-228	1.41E+10Y	1.00	1.049E+00	1.049E+00	0.641E+00	61.10	
RA-228	1.41E+10Y	1.00	1.049E+00	1.049E+00	0.641E+00	61.10	
TH-228	1.41E+10Y	1.00	1.461E+00	1.461E+00	0.193E+00	13.21	
TH-230	7.54E+04Y	1.00	7.681E-01	7.681E-01	2.959E-01	38.53	
TH-232	1.41E+10Y	1.00	1.049E+00	1.049E+00	0.641E+00	61.10	
AM-241	432.60Y	1.00	1.470E+01	1.470E+01	0.211E+01	14.36	
ANH-511	1.00E+09Y	1.00	1.709E-01	1.709E-01	1.292E-01	75.57	
			---	---			
	Total Activity :		8.658E+01	8.700E+01			

Grand Total Activity : 8.658E+01 8.700E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202071016 Acquisition date : 24-MAR-2010 11:06:54

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	185.83	91	259	1.27	371.71	368	8	2.51E-02	65.5	5.70E+00	T
0	463.43	66	166	1.38	926.94	923	9	1.83E-02	74.6	2.95E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 12:07:29.85

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071016.CNF;1   *
* Acquisition date : 24-MAR-2010 11:06:54  Detector SN#    :                  *
* Detector ID      : GAM04                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 01:00:01.40         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 17-MAR-2010 00:00:00  Nuclide Library : SOLID            *
* Sample ID        : G1202071016           Analyst initials: MXR1             *
* Batch Number     : 965250                Sample Quantity : 1.51730E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 5-MAY-2009 14:25:41.36MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	1.617E-01	5.687E-02	6.310E-02	4.380E-03	2.563
CO-60	6.474E+00	5.672E-01	9.280E-02	6.359E-03	69.763
CD-109	3.447E+01	5.161E+00	2.083E+00	2.503E-01	16.551
SN-126	3.408E+00	5.103E-01	2.075E-01	2.489E-02	16.425
BA-137M	5.347E+00	3.681E-01	1.121E-01	5.469E-03	47.681
CS-137	5.648E+00	3.901E-01	1.185E-01	5.812E-03	47.681
TL-208	3.783E-01	1.186E-01	1.052E-01	6.600E-03	3.596
BI-211	2.983E+00	7.222E-01	5.958E-01	4.026E-02	5.006
PB-212	1.461E+00	1.931E-01	1.607E-01	1.300E-02	9.095
BI-214	7.681E-01	2.987E-01	2.061E-01	1.528E-02	3.727
PB-214	1.083E+00	2.688E-01	2.152E-01	1.875E-02	5.031
RA-224	3.796E+00	2.169E+00	1.723E+00	1.149E-01	2.204
RA-226	7.681E-01	2.987E-01	2.061E-01	1.528E-02	3.727
AC-228	1.049E+00	6.407E-01	6.037E-01	6.799E-02	1.737
RA-228	1.049E+00	6.407E-01	6.037E-01	6.799E-02	1.737
TH-228	1.461E+00	1.931E-01	1.607E-01	1.300E-02	9.095
TH-230	7.681E-01	2.959E-01	2.061E-01	1.073E-02	3.727
TH-232	1.049E+00	6.407E-01	6.037E-01	6.799E-02	1.737

Sample ID : G1202071016 Acquisition date : 24-MAR-2010 11:06:54

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-241	1.470E+01	2.111E+00	7.125E-01	8.995E-02	20.638
ANH-511	1.709E-01	1.292E-01	8.778E-02	4.909E-03	1.947

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.682E-01		6.198E-01	9.936E-01	6.578E-02	-0.169
NA-22	7.400E-03		5.193E-02	8.871E-02	5.800E-03	0.083
NA-24	1.209E-04		8.215E-05	Half-Life too short		
K-40	9.781E-01		6.465E-01	1.258E+00	8.939E-02	0.778
SC-46	-6.434E-03		8.597E-02	1.410E-01	1.140E-02	-0.046
V-48	1.516E-02		1.237E-01	2.038E-01	1.579E-02	0.074
CR-51	-2.852E-02		5.499E-01	9.179E-01	6.455E-02	-0.031
MN-54	-2.639E-02		7.709E-02	1.244E-01	9.003E-03	-0.212
CO-56	-7.737E-03		7.969E-02	1.308E-01	9.703E-03	-0.059
CO-58	3.654E-02		7.871E-02	1.347E-01	9.300E-03	0.271
FE-59	1.244E-01		1.970E-01	3.336E-01	2.548E-02	0.373
ZN-65	-2.488E-01		2.058E-01	2.993E-01	1.980E-02	-0.831
SE-75	2.231E-02		7.276E-02	1.249E-01	8.404E-03	0.179
SR-85	6.609E-02		6.579E-02	1.134E-01	6.333E-03	0.583
Y-88	2.451E-02		4.363E-02	8.076E-02	4.712E-03	0.303
Y-91	-3.416E+00		2.771E+01	4.378E+01	2.683E+00	-0.078
NB-94	2.038E-02		6.177E-02	1.059E-01	5.706E-03	0.192
NB-95	4.872E-03		7.299E-02	1.222E-01	7.613E-03	0.040
NB-95M	8.219E-02		2.174E-01	3.140E-01	2.584E-02	0.262
ZR-95	-1.846E-02		1.322E-01	2.182E-01	1.598E-02	-0.085
MO-99	9.348E-01		3.518E+00	5.982E+00	8.637E-01	0.156
TC-99M	6.135E+00		1.742E+01	Half-Life too short		
RU-103	-1.165E-02		6.871E-02	1.104E-01	1.363E-02	-0.106
RH-106	1.469E-01		5.534E-01	9.047E-01	1.023E-01	0.162
RU-106	1.469E-01		5.532E-01	9.047E-01	4.648E-02	0.162
AG-108M	1.888E-02		5.859E-02	9.800E-02	5.965E-03	0.193
AG-110M	-2.212E-02		7.786E-02	1.112E-01	5.940E-03	-0.199
SN-113	-1.880E-02		7.818E-02	1.273E-01	7.670E-03	-0.148
CD-115	1.012E+00		1.980E+00	3.324E+00	1.844E-01	0.304
SN-117M	4.156E-02		5.669E-02	9.519E-02	6.089E-03	0.437
TE-123M	3.120E-02		4.148E-02	6.971E-02	4.506E-03	0.448
SB-124	-9.782E-02		1.162E-01	1.531E-01	1.045E-02	-0.639
SB-125	1.831E-01		1.830E-01	3.171E-01	1.875E-02	0.577
TE-125M	-3.113E-01		1.343E+01	2.217E+01	2.232E+00	-0.014
I-126	-3.525E-01		3.227E-01	4.197E-01	2.070E-02	-0.840
SB-126	1.151E-02		1.757E-01	2.953E-01	1.660E-02	0.039
SB-127	1.306E-02		6.225E-01	1.047E+00	6.921E-02	0.012
I-131	3.224E-02		1.118E-01	1.886E-01	1.245E-02	0.171
TE-132	3.843E-02		2.436E-01	3.901E-01	5.300E-02	0.099
BA-133	2.772E-02		8.484E-02	1.272E-01	1.454E-02	0.218
I-133	-1.262E-06		1.234E-05	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-134	7.273E-03		9.294E-02	1.552E-01	1.046E-02	0.047
CS-135	-1.343E-01		2.677E-01	4.417E-01	3.682E-02	-0.304
I-135	2.058E+00		1.447E+01	Half-Life too short		
CS-136	1.434E-02		1.576E-01	2.581E-01	1.980E-02	0.056
CE-139	3.763E-02		4.627E-02	7.768E-02	4.936E-03	0.484
BA-140	-7.288E-02		3.430E-01	5.445E-01	1.811E-01	-0.134
LA-140	5.184E-02		8.594E-02	1.556E-01	1.025E-02	0.333
CE-141	2.802E-02		7.510E-02	1.247E-01	8.369E-03	0.225
CE-143	3.971E+00		5.165E+00	7.964E+00	1.620E+00	0.499
CE-144	-4.445E-02		2.972E-01	4.827E-01	6.891E-02	-0.092
PM-144	-1.291E-04		5.896E-02	9.886E-02	5.249E-03	-0.001
PR-144	-4.030E-01		4.414E+00	7.352E+00	3.903E-01	-0.055
PM-146	4.870E-02		8.947E-02	1.508E-01	1.262E-02	0.323
ND-147	-1.359E-02		6.533E-01	1.055E+00	1.415E-01	-0.013
PM-149	-8.682E+00		1.416E+01	2.301E+01	3.339E+00	-0.377
EU-152	-1.612E-01		1.810E-01	2.749E-01	1.901E-02	-0.587
GD-153	-7.915E-02		1.265E-01	2.035E-01	1.997E-02	-0.389
EU-154	1.186E-02		1.496E-01	2.532E-01	2.504E-02	0.047
EU-155	7.645E-02		1.594E-01	2.695E-01	2.348E-02	0.284
TB-160	6.932E-02		3.232E-01	5.402E-01	4.284E-02	0.128
HO-166M	-1.045E-01		1.132E-01	1.762E-01	9.699E-03	-0.593
TA-182	-1.295E-01		2.341E-01	3.658E-01	2.277E-02	-0.354
IR-192	-2.074E-02		5.701E-02	9.359E-02	6.076E-03	-0.222
HG-203	4.835E-02		6.044E-02	1.056E-01	7.317E-03	0.458
BI-207	-8.138E-02		1.128E-01	1.710E-01	1.216E-02	-0.476
PB-210	-6.425E+00		1.537E+01	2.579E+01	2.250E+00	-0.249
PB-211	-1.682E-01		1.432E+00	2.342E+00	1.123E+00	-0.072
BI-212	1.430E+00		1.015E+00	1.833E+00	1.953E-01	0.780
RN-219	-3.977E-01		8.303E-01	1.331E+00	1.779E-01	-0.299
RA-223	-8.285E-01		1.168E+00	1.868E+00	3.053E-01	-0.444
AC-227	-2.929E-01		4.411E-01	7.230E-01	7.771E-02	-0.405
TH-227	-2.929E-01		4.415E-01	7.230E-01	9.013E-02	-0.405
TH-229	-6.601E-02		8.780E-01	1.403E+00	9.104E-02	-0.047
PA-231	-5.384E-01		2.402E+00	4.000E+00	5.403E-01	-0.135
TH-231	-8.285E-01		1.168E+00	1.868E+00	3.053E-01	-0.444
PA-233	1.062E-02		1.142E-01	1.924E-01	1.312E-02	0.055
PA-234	-7.501E-02		8.077E-01	1.315E+00	2.431E-01	-0.057
PA-234M	1.629E+00		1.079E+01	1.779E+01	1.622E+00	0.092
TH-234	-6.548E-01		3.104E+00	4.673E+00	9.406E-01	-0.140
U-235	-1.580E-01		2.887E-01	4.542E-01	7.262E-02	-0.348
NP-237	3.757E+00		1.070E+00	1.054E+00	2.542E-01	3.563
U-238	-6.548E-01		3.104E+00	4.673E+00	9.406E-01	-0.140
NP-239	-2.467E-01		6.244E-01	1.009E+00	7.402E-02	-0.245
CM-247	-2.288E-02		7.637E-02	1.239E-01	6.993E-03	-0.185
CF-249	3.645E-02		7.360E-02	1.252E-01	7.107E-03	0.291
CF-251	9.308E-02		2.112E-01	3.478E-01	2.228E-02	0.268

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202071016           *
* Acquisition date : 24-MAR-2010 11:06:54 Detector SN#    :                 *
* Detector ID      : GAM04                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:01.40     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 17-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202071016          Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
CO-57	1.617E-01	5.573E-02	3.384E-02	2.843E-02
CO-60	6.474E+00	5.558E-01	4.688E-02	2.836E-01
CD-109	3.447E+01	5.058E+00	1.125E+00	2.580E+00
SN-126	3.408E+00	5.001E-01	1.121E-01	2.552E-01
BA-137M	5.347E+00	3.608E-01	5.769E-02	1.841E-01
CS-137	5.648E+00	3.823E-01	6.095E-02	1.950E-01
TL-208	3.783E-01	1.163E-01	5.429E-02	5.932E-02
BI-211	2.983E+00	7.078E-01	3.115E-01	3.611E-01
PB-212	1.461E+00	1.892E-01	8.480E-02	9.654E-02
BI-214	7.681E-01	2.927E-01	1.063E-01	1.494E-01
PB-214	1.083E+00	2.634E-01	1.125E-01	1.344E-01
RA-224	3.796E+00	2.125E+00	9.090E-01	1.084E+00
RA-226	7.681E-01	2.927E-01	1.063E-01	1.494E-01
AC-228	1.049E+00	6.279E-01	3.081E-01	3.204E-01
RA-228	1.049E+00	6.279E-01	3.081E-01	3.204E-01
TH-228	1.461E+00	1.892E-01	8.480E-02	9.654E-02
TH-230	7.681E-01	2.900E-01	1.063E-01	1.480E-01
TH-232	1.049E+00	6.279E-01	3.081E-01	3.204E-01
AM-241	1.470E+01	2.069E+00	3.885E-01	1.056E+00
ANH-511	1.709E-01	1.266E-01	4.546E-02	6.458E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.682E-01	6.074E-01	5.154E-01	3.099E-01	NOT IDENT.
NA-22	7.400E-03	5.089E-02	4.487E-02	2.597E-02	NOT IDENT.
NA-24	1.209E+02	1.610E+02	0.000E+00	8.215E+01	SHORT HLIF
K-40	9.781E-01	6.336E-01	6.339E-01	3.233E-01	NOT IDENT.
SC-46	-6.434E-03	8.425E-02	7.198E-02	4.298E-02	NOT IDENT.
V-48	1.516E-02	1.212E-01	1.038E-01	6.183E-02	NOT IDENT.
CR-51	-2.852E-02	5.389E-01	4.809E-01	2.750E-01	NOT IDENT.

MN-54	-2.639E-02	7.555E-02	6.362E-02	3.855E-02	NOT IDENT.
CO-56	-7.737E-03	7.810E-02	6.686E-02	3.985E-02	NOT IDENT.
CO-58	3.654E-02	7.713E-02	6.895E-02	3.935E-02	NOT IDENT.
FE-59	1.244E-01	1.930E-01	1.694E-01	9.848E-02	NOT IDENT.
ZN-65	-2.488E-01	2.017E-01	1.519E-01	1.029E-01	NOT IDENT.
SE-75	2.231E-02	7.131E-02	6.575E-02	3.638E-02	FAIL ABUN
SR-85	6.609E-02	6.447E-02	5.871E-02	3.289E-02	NOT IDENT.
Y-88	2.451E-02	4.276E-02	4.045E-02	2.182E-02	NOT IDENT.
Y-91	-3.416E+00	2.716E+01	2.218E+01	1.386E+01	NOT IDENT.
NB-94	2.038E-02	6.054E-02	5.441E-02	3.089E-02	NOT IDENT.
NB-95	4.872E-03	7.153E-02	6.261E-02	3.650E-02	NOT IDENT.
NB-95M	8.219E-02	2.130E-01	1.658E-01	1.087E-01	NOT IDENT.
ZR-95	-1.846E-02	1.296E-01	1.119E-01	6.611E-02	NOT IDENT.
MO-99	9.348E-01	3.448E+00	3.069E+00	1.759E+00	NOT IDENT.
TC-99M	6.135E+06	3.415E+07	0.000E+00	1.742E+07	SHORT HLIF
RU-103	-1.165E-02	6.733E-02	5.721E-02	3.435E-02	FAIL ABUN
RH-106	1.469E-01	5.423E-01	4.662E-01	2.767E-01	NOT IDENT.
RU-106	1.469E-01	5.421E-01	4.662E-01	2.766E-01	NOT IDENT.
AG-108M	1.888E-02	5.742E-02	5.096E-02	2.929E-02	NOT IDENT.
AG-110M	-2.212E-02	7.630E-02	5.720E-02	3.893E-02	NOT IDENT.
SN-113	-1.880E-02	7.662E-02	6.637E-02	3.909E-02	NOT IDENT.
CD-115	1.012E+00	1.940E+00	1.720E+00	9.899E-01	NOT IDENT.
SN-117M	4.156E-02	5.556E-02	5.073E-02	2.834E-02	NOT IDENT.
TE-123M	3.120E-02	4.065E-02	3.715E-02	2.074E-02	NOT IDENT.
SB-124	-9.782E-02	1.139E-01	7.688E-02	5.809E-02	NOT IDENT.
SB-125	1.831E-01	1.793E-01	1.650E-01	9.148E-02	FAIL ABUN
TE-125M	-3.113E-01	1.317E+01	1.192E+01	6.717E+00	NOT IDENT.
I-126	-3.525E-01	3.163E-01	2.159E-01	1.614E-01	NOT IDENT.
SB-126	1.151E-02	1.721E-01	1.516E-01	8.783E-02	NOT IDENT.
SB-127	1.306E-02	6.100E-01	5.380E-01	3.112E-01	NOT IDENT.
I-131	3.224E-02	1.096E-01	9.852E-02	5.592E-02	NOT IDENT.
TE-132	3.843E-02	2.387E-01	2.061E-01	1.218E-01	NOT IDENT.
BA-133	2.772E-02	8.314E-02	6.645E-02	4.242E-02	NOT IDENT.
I-133	-1.262E+00	2.418E+01	0.000E+00	1.234E+01	SHORT HLIF
CS-134	7.273E-03	9.109E-02	7.948E-02	4.647E-02	NOT IDENT.
CS-135	-1.343E-01	2.624E-01	2.324E-01	1.339E-01	NOT IDENT.
I-135	2.058E+06	2.836E+07	0.000E+00	1.447E+07	SHORT HLIF
CS-136	1.434E-02	1.545E-01	1.312E-01	7.882E-02	NOT IDENT.
CE-139	3.763E-02	4.535E-02	4.136E-02	2.314E-02	NOT IDENT.
BA-140	-7.288E-02	3.361E-01	2.816E-01	1.715E-01	NOT IDENT.
LA-140	5.184E-02	8.422E-02	7.826E-02	4.297E-02	NOT IDENT.
CE-141	2.802E-02	7.360E-02	6.658E-02	3.755E-02	NOT IDENT.
CE-143	3.971E+00	5.062E+00	4.182E+00	2.582E+00	NOT IDENT.
CE-144	-4.445E-02	2.913E-01	2.583E-01	1.486E-01	NOT IDENT.
PM-144	-1.291E-04	5.778E-02	5.080E-02	2.948E-02	NOT IDENT.
PR-144	-4.030E-01	4.326E+00	3.778E+00	2.207E+00	NOT IDENT.
PM-146	4.870E-02	8.768E-02	7.833E-02	4.473E-02	NOT IDENT.
ND-147	-1.359E-02	6.402E-01	5.461E-01	3.266E-01	NOT IDENT.
PM-149	-8.682E+00	1.387E+01	1.209E+01	7.079E+00	NOT IDENT.
EU-152	-1.612E-01	1.774E-01	1.438E-01	9.051E-02	FAIL ABUN
GD-153	-7.915E-02	1.239E-01	1.097E-01	6.323E-02	NOT IDENT.
EU-154	1.186E-02	1.466E-01	1.281E-01	7.480E-02	FAIL ABUN
EU-155	7.645E-02	1.562E-01	1.450E-01	7.971E-02	FAIL ABUN
TB-160	6.932E-02	3.168E-01	2.759E-01	1.616E-01	FAIL ABUN
HO-166M	-1.045E-01	1.110E-01	9.050E-02	5.661E-02	FAIL ABUN
TA-182	-1.295E-01	2.294E-01	1.852E-01	1.171E-01	NOT IDENT.
IR-192	-2.074E-02	5.587E-02	4.905E-02	2.851E-02	FAIL ABUN
HG-203	4.835E-02	5.923E-02	5.550E-02	3.022E-02	NOT IDENT.
BI-207	-8.138E-02	1.106E-01	8.691E-02	5.641E-02	FAIL ABUN
PB-210	-6.425E+00	1.507E+01	1.414E+01	7.686E+00	NOT IDENT.
PB-211	-1.682E-01	1.404E+00	1.220E+00	7.161E-01	NOT IDENT.
BI-212	1.430E+00	9.945E-01	9.407E-01	5.074E-01	NOT IDENT.
RN-219	-3.977E-01	8.137E-01	6.934E-01	4.152E-01	NOT IDENT.
RA-223	-8.285E-01	1.145E+00	9.783E-01	5.841E-01	FAIL ABUN
AC-227	-2.929E-01	4.323E-01	3.809E-01	2.205E-01	NOT IDENT.
TH-227	-2.929E-01	4.327E-01	3.809E-01	2.207E-01	NOT IDENT.
TH-229	-6.601E-02	8.604E-01	7.442E-01	4.390E-01	FAIL ABUN
PA-231	-5.384E-01	2.354E+00	2.102E+00	1.201E+00	NOT IDENT.
TH-231	-8.285E-01	1.145E+00	9.783E-01	5.841E-01	FAIL ABUN
PA-233	1.062E-02	1.119E-01	1.009E-01	5.711E-02	NOT IDENT.
PA-234	-7.501E-02	7.915E-01	6.705E-01	4.038E-01	NOT IDENT.
PA-234M	1.629E+00	1.057E+01	9.058E+00	5.393E+00	NOT IDENT.
TH-234	-6.548E-01	3.042E+00	2.545E+00	1.552E+00	NOT IDENT.
U-235	-1.580E-01	2.830E-01	2.426E-01	1.444E-01	FAIL ABUN
NP-237	3.757E+00	1.049E+00	5.700E-01	5.351E-01	NOT IDENT.
U-238	-6.548E-01	3.042E+00	2.545E+00	1.552E+00	NOT IDENT.
NP-239	-2.467E-01	6.119E-01	5.415E-01	3.122E-01	NOT IDENT.
CM-247	-2.288E-02	7.485E-02	6.456E-02	3.819E-02	NOT IDENT.

CF-249	3.645E-02	7.212E-02	6.526E-02	3.680E-02	NOT IDENT.
CF-251	9.308E-02	2.070E-01	1.849E-01	1.056E-01	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	245.8286
49.72	249.8552
57.36	364.2346
59.54	304.3602
63.29	238.4623
63.29	238.4623
64.28	247.0970
67.75	269.9164
69.67	285.6354
70.83	265.9366
72.81	306.8567
72.87	306.8977
72.87	306.8977
74.82	302.7232
74.82	302.7232
74.82	302.7232
74.97	302.8223
77.11	304.2355
77.11	304.2355
77.11	304.2355
79.69	312.8666
79.80	312.9387
80.12	308.9737
80.19	309.0186
80.57	312.0520
81.00	299.7832
81.07	299.8259
81.07	299.8259
83.79	286.0859
83.79	286.0859
85.43	308.1425
86.48	324.3026
86.55	324.3482
86.79	283.1153
86.94	283.2010
87.57	283.5562
88.03	283.8134
88.47	284.0599
89.96	295.2993
91.11	280.3048
92.59	265.4053
92.59	265.4053
93.35	221.7762
94.67	256.9010
94.87	256.0427
94.87	256.0427
95.86	253.6443
97.43	236.1441
98.44	235.6203
99.53	209.1073
100.11	208.3623
103.18	249.2772
103.37	244.5095
105.31	209.3223
106.12	225.2170
109.28	223.5028
111.00	204.4929
111.76	227.3941
116.30	228.1165
117.23	237.4015
121.12	229.3914
121.78	223.1270
122.06	223.2257
123.07	201.5234
131.20	239.5843
133.52	226.1530
136.00	245.3833

136.47	246.5749
140.51	211.9995
140.51	0.0000
143.76	210.9104
144.24	203.8115
144.24	203.8115
145.44	187.5732
152.43	216.5852
153.25	191.6861
154.21	209.7616
154.21	209.7616
156.02	186.0891
158.56	197.2627
159.00	195.2659
162.66	258.7685
163.33	232.4558
165.86	212.9761
176.60	226.6327
177.52	215.0003
181.07	227.8568
184.41	217.3244
185.72	254.2085
193.51	226.7836
197.04	222.1645
205.31	233.1329
210.85	249.1222
215.65	252.6494
222.11	205.5288
227.38	195.2226
228.16	209.0881
228.18	209.0918
235.69	212.3935
235.96	198.6319
235.96	198.6319
238.63	215.8935
238.63	215.8935
240.99	216.3900
242.00	192.8578
244.70	188.1348
252.40	195.6558
252.80	189.5850
256.23	213.0867
256.23	213.0867
260.90	198.0884
264.66	176.5846
268.22	204.7490
269.46	170.2201
269.46	170.2201
271.23	178.5217
273.65	212.0039
276.40	190.9967
277.37	189.3643
277.60	175.9382
278.00	178.6919
279.20	177.0824
279.54	179.8309
280.46	176.3779
283.69	166.0425
284.31	177.8669
285.41	178.0353
285.90	179.9186
287.50	162.0576
293.27	168.8542
295.22	188.6329
295.96	199.8742
298.57	188.6089
299.98	159.5535
299.98	159.5535
300.09	159.5695
300.09	159.5695
300.13	159.5748
301.36	163.2935
302.85	196.2461
304.50	200.1837
304.50	200.1837
304.85	190.1364
308.46	158.4523
311.90	159.8170

316.51	164.1145
319.41	155.1967
320.08	164.5763
323.87	181.8514
323.87	181.8514
328.76	176.9251
333.37	156.3224
334.37	157.9460
334.37	157.9460
338.28	157.4697
338.28	157.4697
338.32	157.4748
338.32	157.4748
338.32	157.4748
340.48	164.7215
340.55	164.7294
344.28	168.8703
351.06	147.7426
351.93	145.7394
356.01	139.1038
364.49	143.2229
366.42	169.4097
383.85	136.4069
388.16	129.9680
388.63	126.0986
391.69	140.0739
400.66	147.8142
401.81	174.5558
402.40	172.6501
404.85	162.0581
410.95	149.8088
414.70	139.2352
423.72	188.0545
427.09	130.3174
427.87	129.3779
433.94	131.8855
453.88	142.6788
463.37	175.2635
468.07	131.5566
473.00	141.2144
476.78	137.3917
477.60	147.7939
487.02	136.1252
492.35	124.0316
497.08	119.1367
511.00	108.4772
514.00	108.6556
527.90	91.4065
529.87	0.0000
531.02	99.0112
537.26	107.8858
546.56	0.0000
563.25	95.2751
569.33	87.9684
569.50	91.2341
569.70	89.0694
583.19	90.9848
600.60	91.5437
602.73	111.2897
604.72	86.6424
609.32	93.0363
609.32	93.0363
609.32	93.0363
610.33	93.0824
614.28	88.8159
618.01	88.9746
621.93	73.5390
621.93	73.5390
633.25	79.5305
635.95	84.1164
636.99	85.2773
645.85	94.6384
657.76	107.2338
661.66	93.5022
661.66	93.5022
664.57	81.8086
666.33	112.1954
666.50	116.7533

677.62	80.4547
685.70	86.2455
695.00	73.6953
696.49	79.2739
696.51	81.1186
697.00	88.5117
702.65	84.1039
706.68	101.8386
711.68	97.4172
720.70	84.7482
721.93	97.8376
722.78	100.6699
722.91	109.9970
723.31	110.0143
724.19	112.8526
727.33	74.7109
733.00	101.0971
735.93	77.7882
739.50	84.4739
747.24	73.4411
752.31	81.1415
753.82	67.9728
756.73	90.7383
763.94	91.9487
765.81	88.2229
766.42	77.8059
777.92	89.6006
778.90	93.4493
783.70	77.3831
785.37	85.0823
795.86	91.1893
801.95	80.8192
810.29	86.8689
810.76	86.8843
815.77	109.2977
818.51	93.9190
832.01	105.0996
834.85	100.3395
836.80	0.0000
846.77	90.9997
856.80	109.9930
860.56	112.1102
871.09	99.7030
873.19	91.8761
875.33	0.0000
879.36	106.9295
880.51	113.9078
883.24	98.1541
884.68	100.1888
889.28	93.3964
898.04	107.6388
911.20	125.1526
911.20	125.1526
911.20	125.1526
926.50	106.6910
937.49	132.3465
944.13	100.2423
946.00	122.5952
949.00	119.6767
962.29	123.5175
964.08	110.4254
966.15	144.4993
968.97	119.1105
968.97	119.1105
968.97	119.1105
983.53	93.3505
996.26	95.7973
1001.03	90.7844
1004.73	93.9904
1037.84	84.5398
1038.76	0.0000
1048.07	74.3385
1050.41	94.3022
1050.41	94.3022
1063.66	79.9559
1085.87	94.2626
1099.45	84.0108
1112.07	78.9899

1115.54	111.1246
1120.29	60.9883
1120.29	60.9883
1120.29	60.9883
1120.55	67.4143
1121.30	67.4297
1131.51	0.0000
1173.23	45.6278
1177.93	52.5767
1189.05	42.5553
1204.77	35.0703
1221.41	34.8627
1231.02	31.2746
1235.36	32.2314
1238.28	24.8840
1260.41	0.0000
1271.85	17.6679
1274.44	20.4719
1274.54	19.5414
1291.59	25.2367
1298.22	0.0000
1312.11	16.9138
1332.49	21.7249
1365.19	9.5231
1368.63	0.0000
1384.29	17.2229
1408.01	20.2096
1457.56	0.0000
1460.82	16.5670
1489.16	14.7144
1505.03	17.7217
1596.21	12.0566
1620.50	6.0601
1678.03	0.0000
1690.97	16.4017
1764.49	8.3245
1764.49	8.3245
1764.49	8.3245
1770.23	12.5010
1771.35	35.4263
1791.20	0.0000
1836.06	5.2763

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202071016

Total Uranium Activity	-2.0213E+00	ug/g
Total Uranium Counting Unc.	9.0509E+00	ug/g
Total Uranium Tpu	4.6178E-06	ug/g
Total Uranium Mda	7.5710E+00	ug/g

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*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 965250                    SAMPLE ID  : G1202071016        *
*   ANALYST       : MXR1                      DETECTOR   : GAM04              *
*   SAMPLE DATE   : 17-MAR-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00   *
*   ANALYSIS DATE: 24-MAR-2010 11:06:54.77    SAMPLE ALQT:  151.730 GRAM      *
*                                                                             *
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GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.809E+01
GROSS GAMMA ERROR  (pCi/GRAM  )   : 2.836E+00
GROSS GAMMA MDA    (pCi/GRAM  )   : 3.595E+00
GROSS GAMMA DLC    (pCi/GRAM  )   : 1.739E+00
```

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W013.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:19 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.311179 through 0.370113

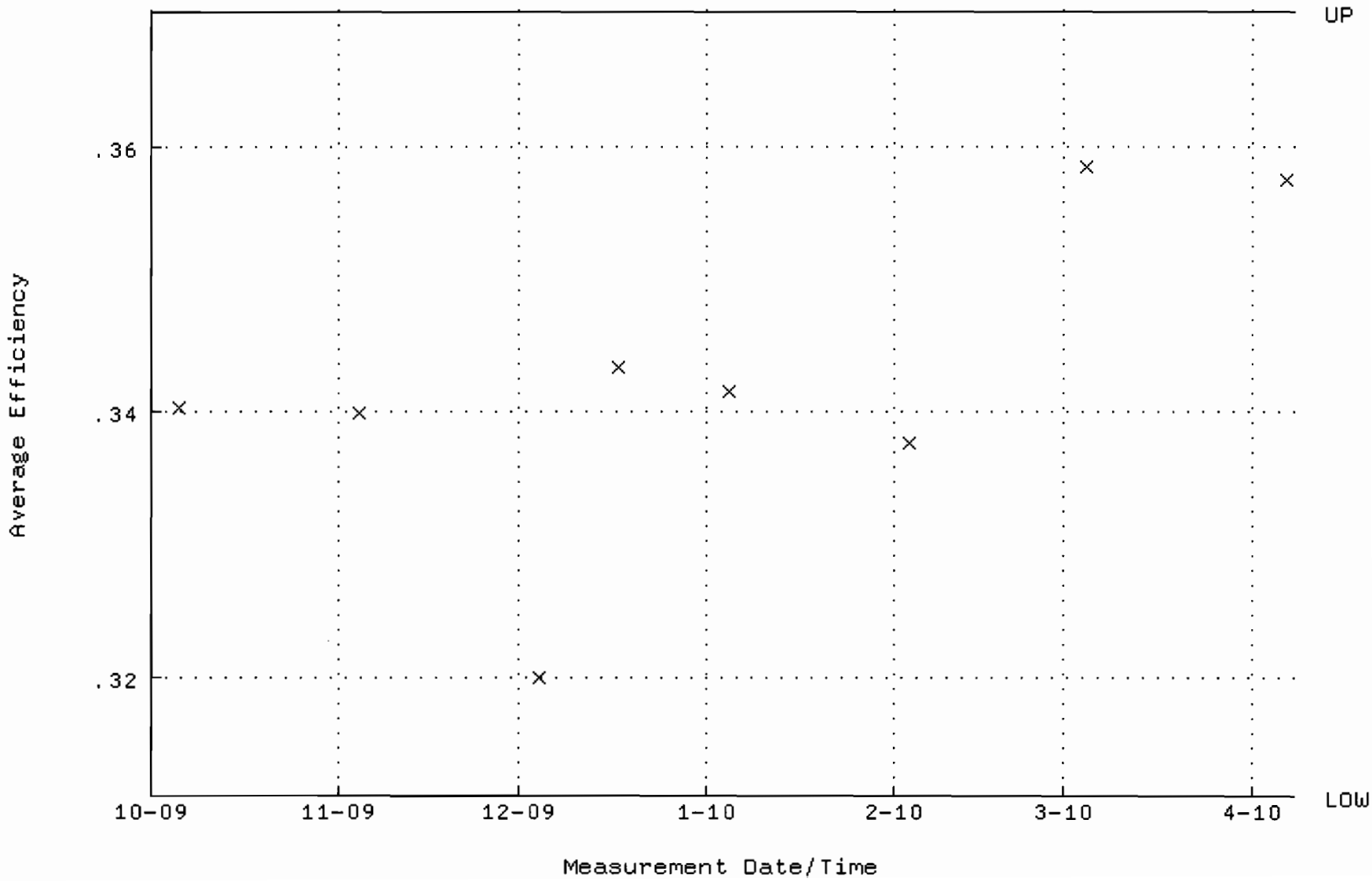

QA filename : DKA100:[ENV_ALPHA.QA.W]W013.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:19 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 85.5651 through 97.2315

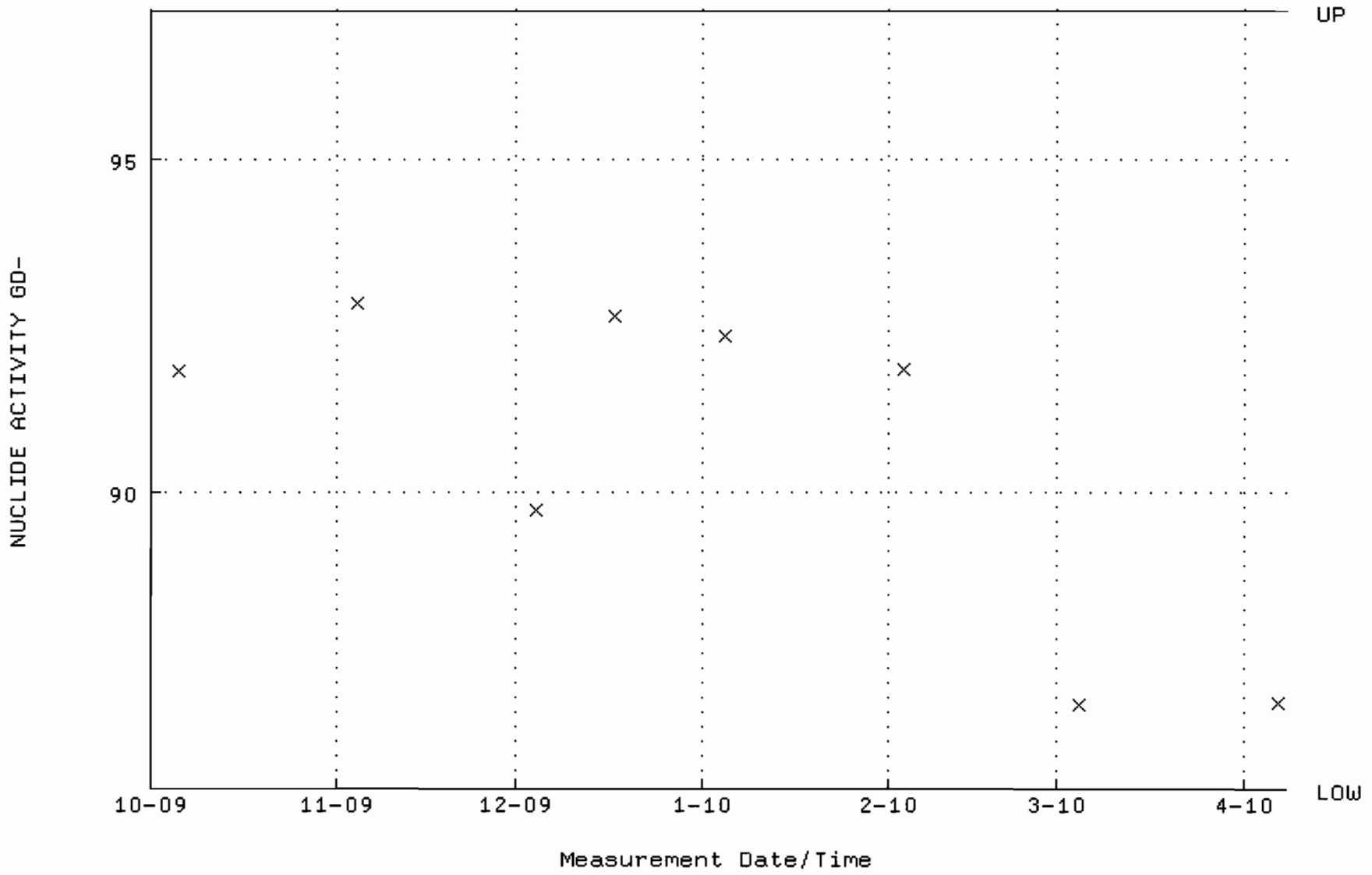

QA filename : DKA100:[ENV_ALPHA.QA.B]B013.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:07 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

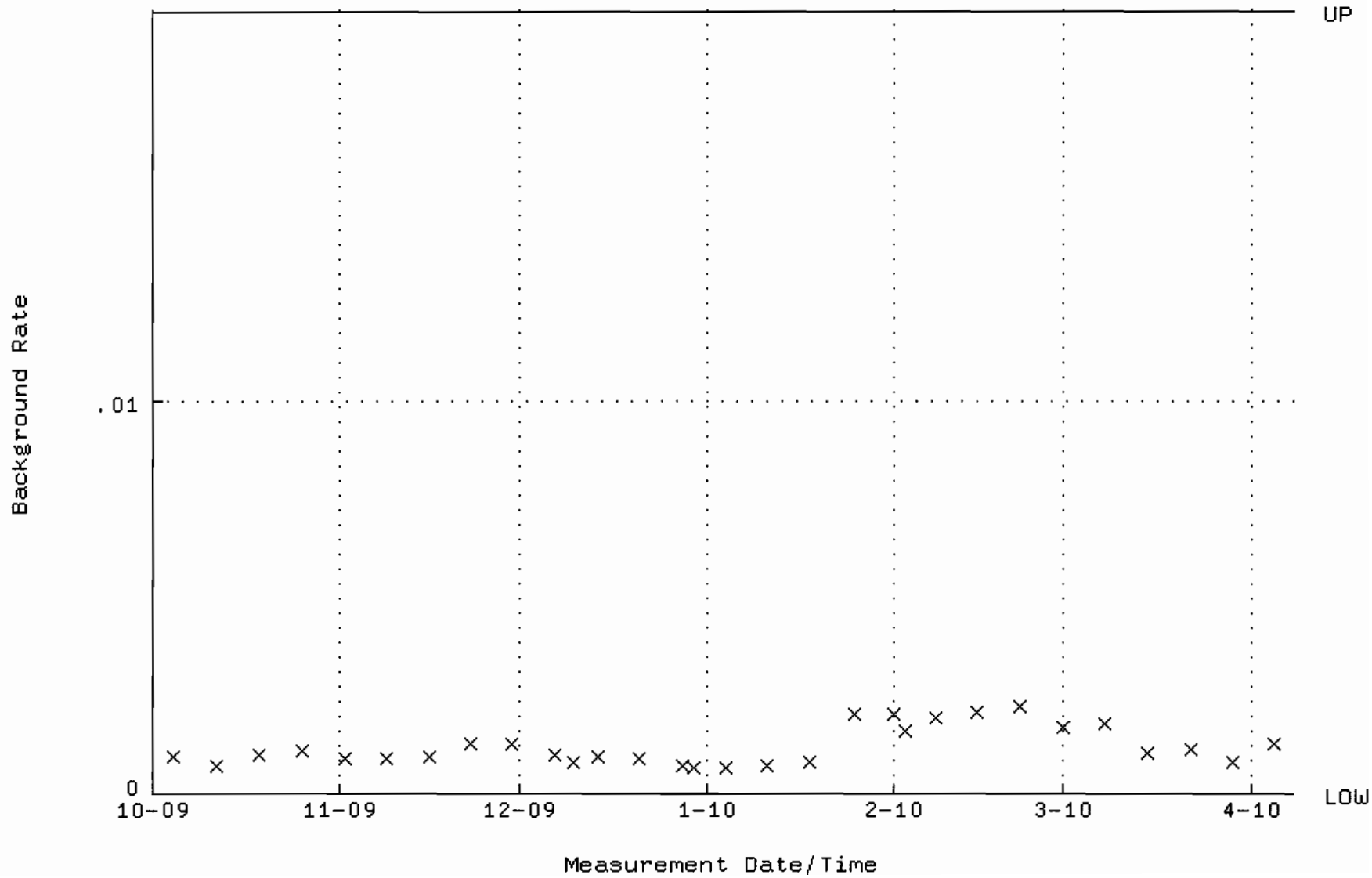

QA filename : DKA100:[ENV_ALPHA.QA.W]W014.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:19 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.288973 through 0.340739

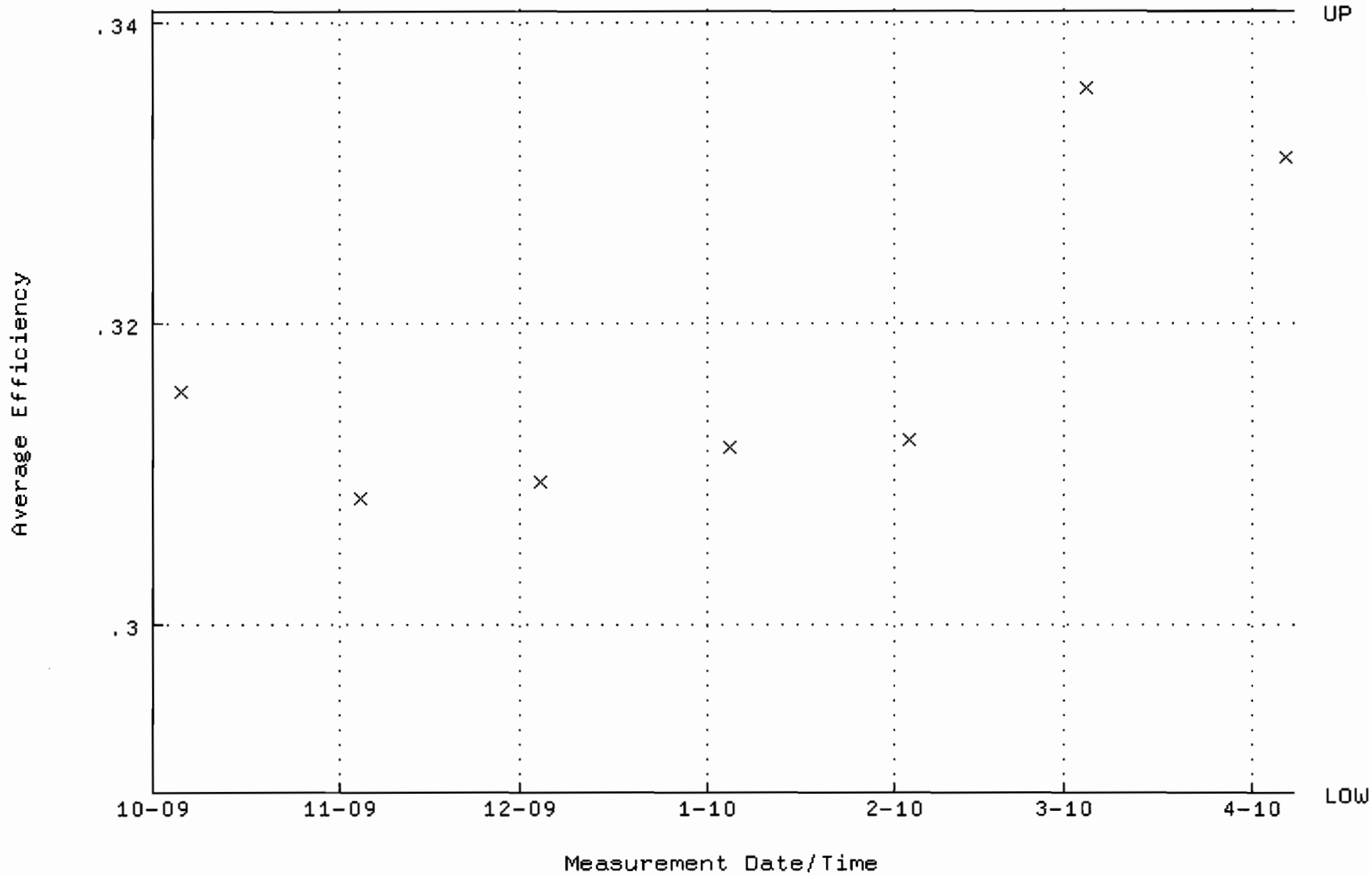

QA filename : DKA100:[ENV_ALPHA.QA.W]W014.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:19 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 87.9529 through 99.8771

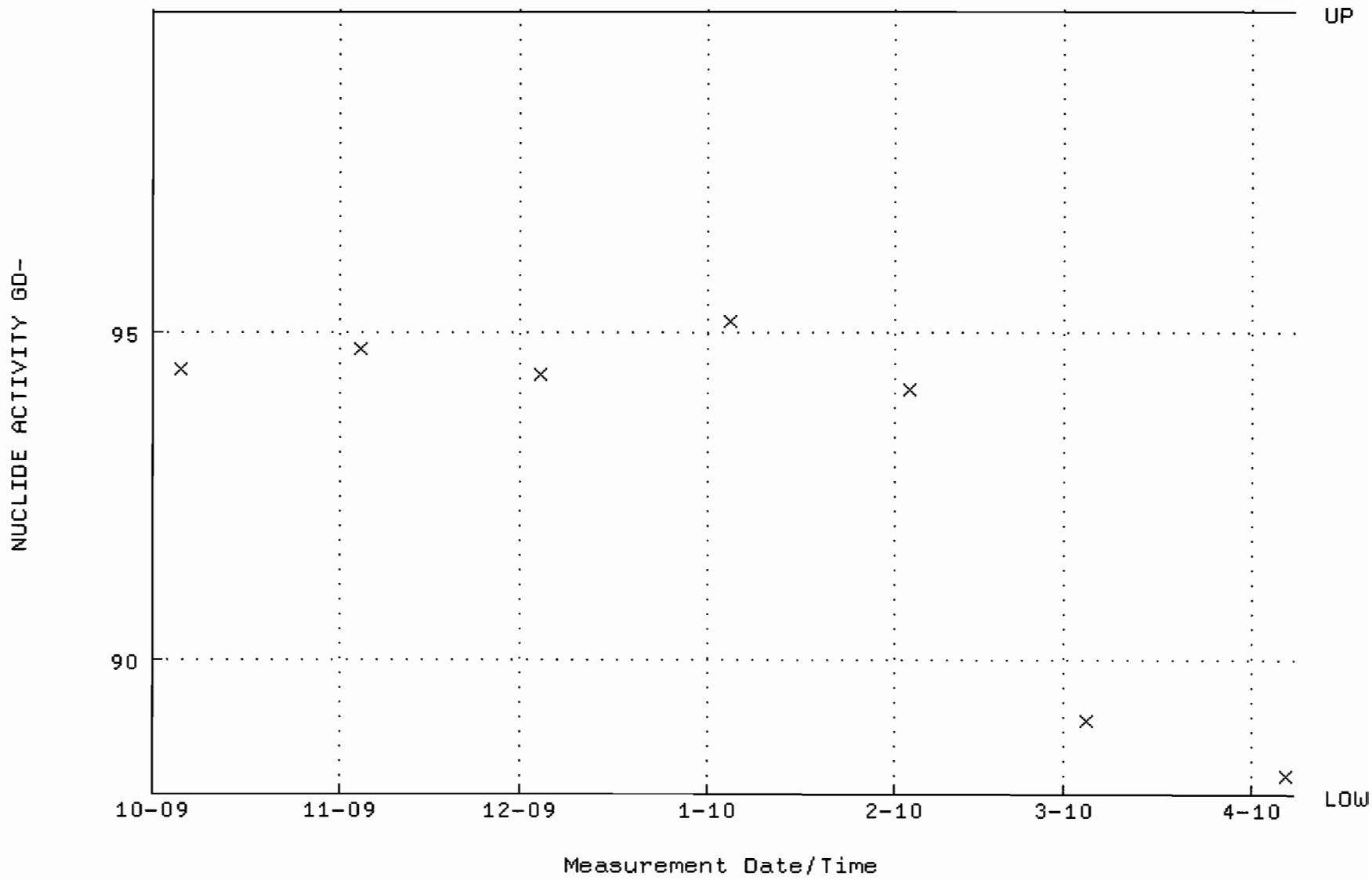

QA filename : DKA100:[ENV_ALPHA.QA.B]B014.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:07 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

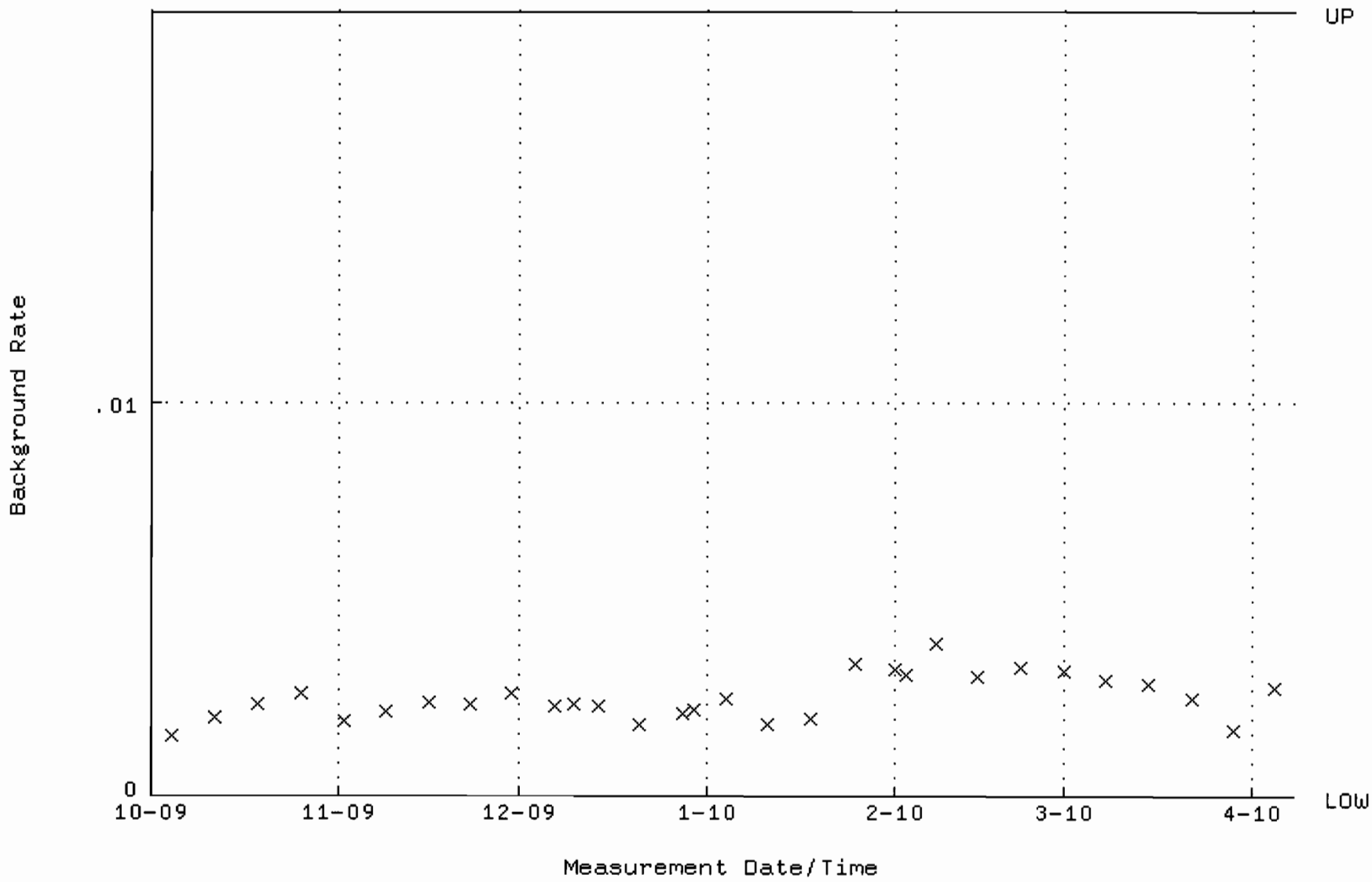

QA filename : DKA100:[ENV_ALPHA.QA.W]W024.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:21 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.311974 through 0.354132

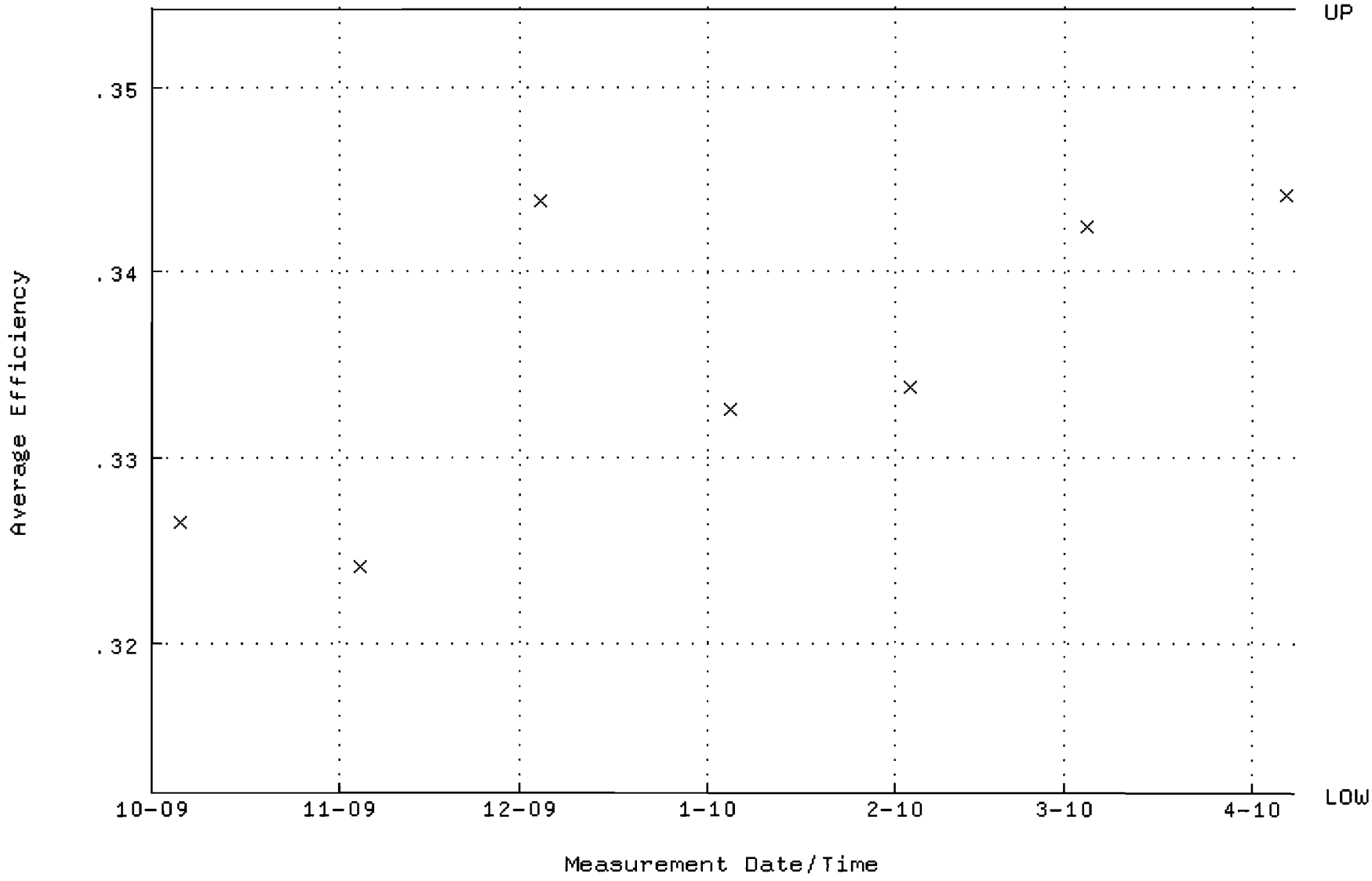

QA filename : DKA100:[ENV_ALPHA.QA.W]W024.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:21 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 84.2237 through 94.2686

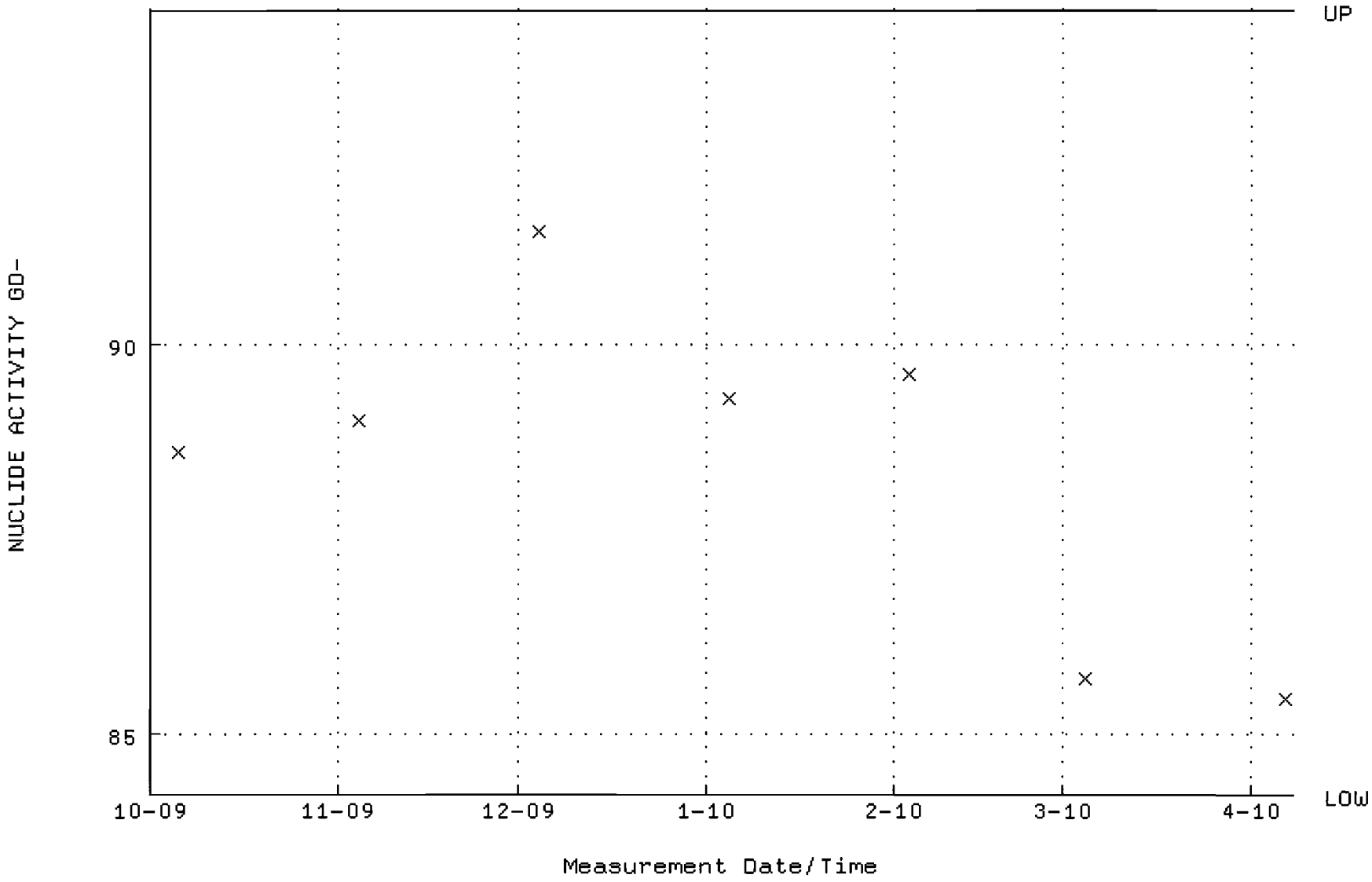

QA filename : DKA100:[ENV_ALPHA.QA.B]B024.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:07 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

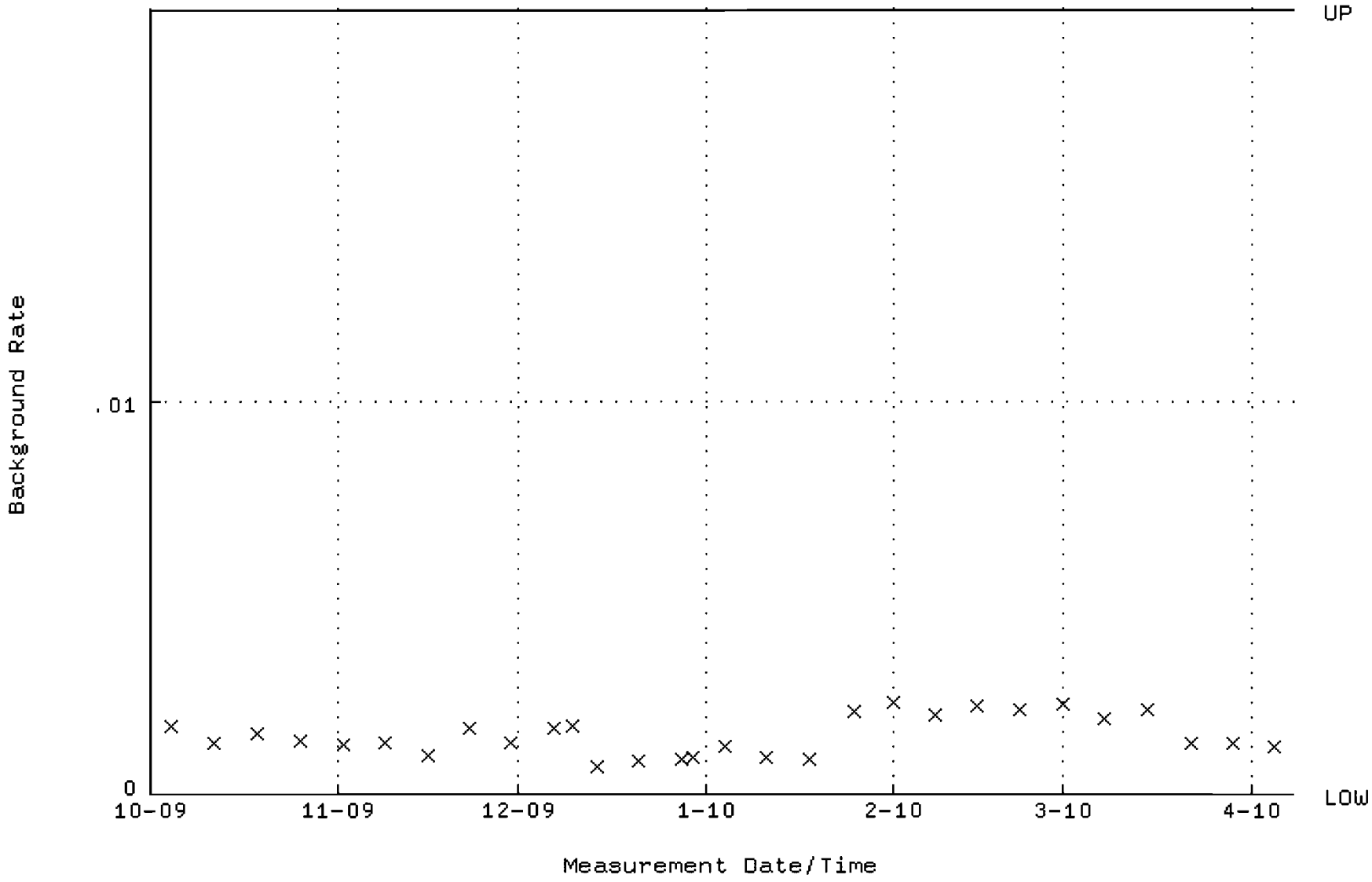

QA filename : DKA100:[ENV_ALPHA.QA.W]W031.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:26 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.339457 through 0.365361

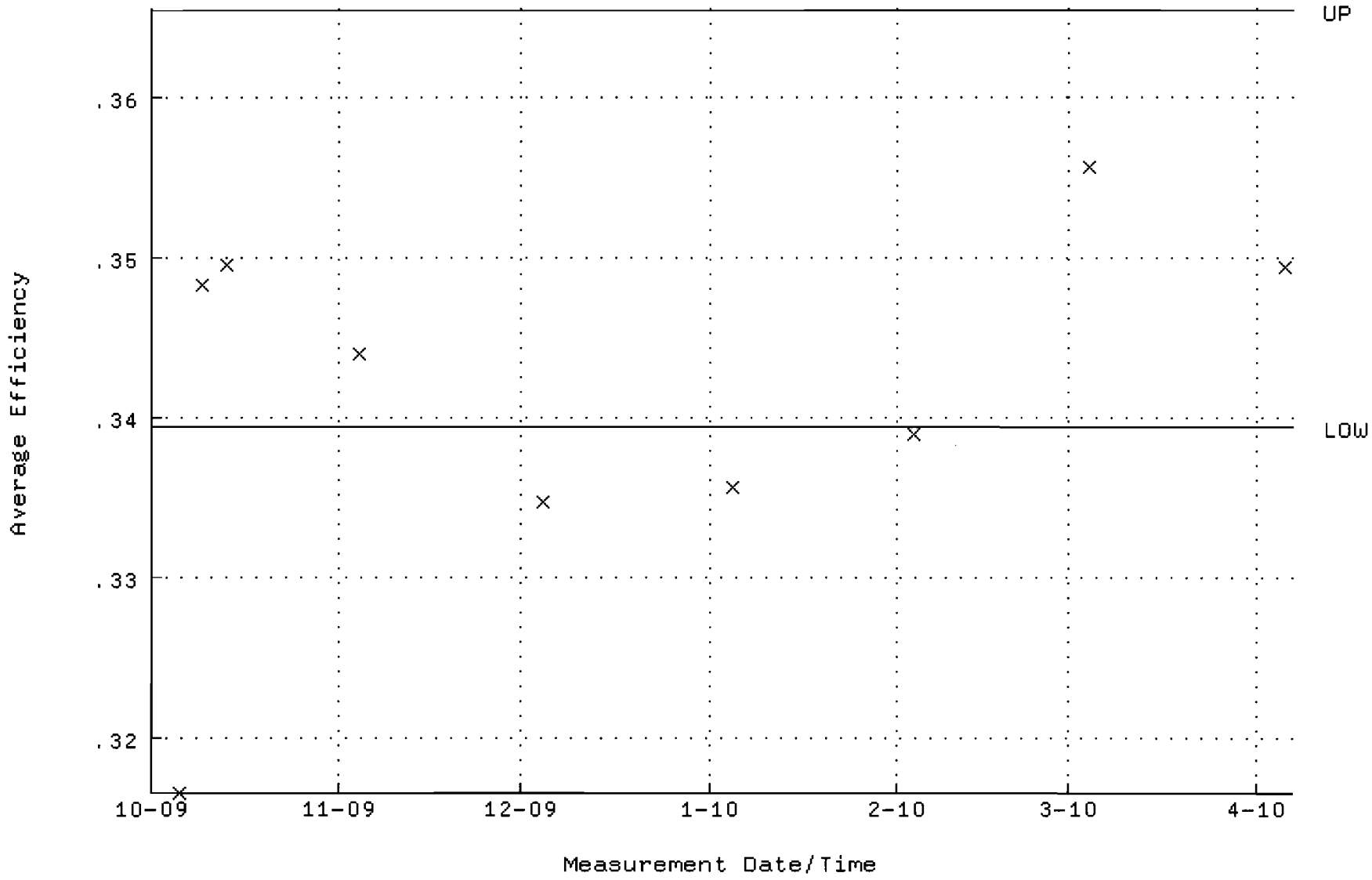

QA filename : DKA100:[ENV_ALPHA.QA.W]W031.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:26 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 79.9590 through 85.6174

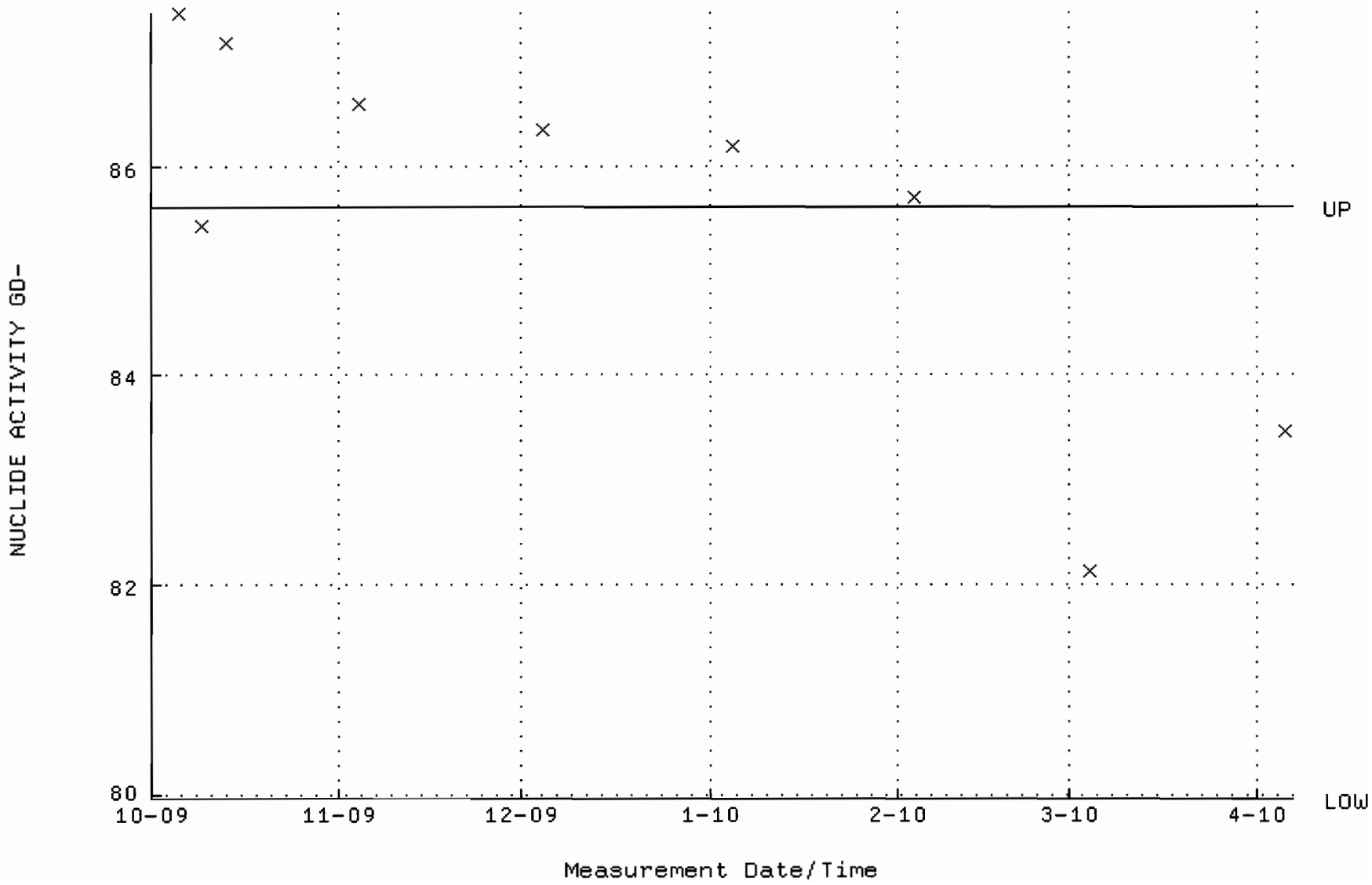

QA filename : DKA100:[ENV_ALPHA.QA.B]B031.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:09 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

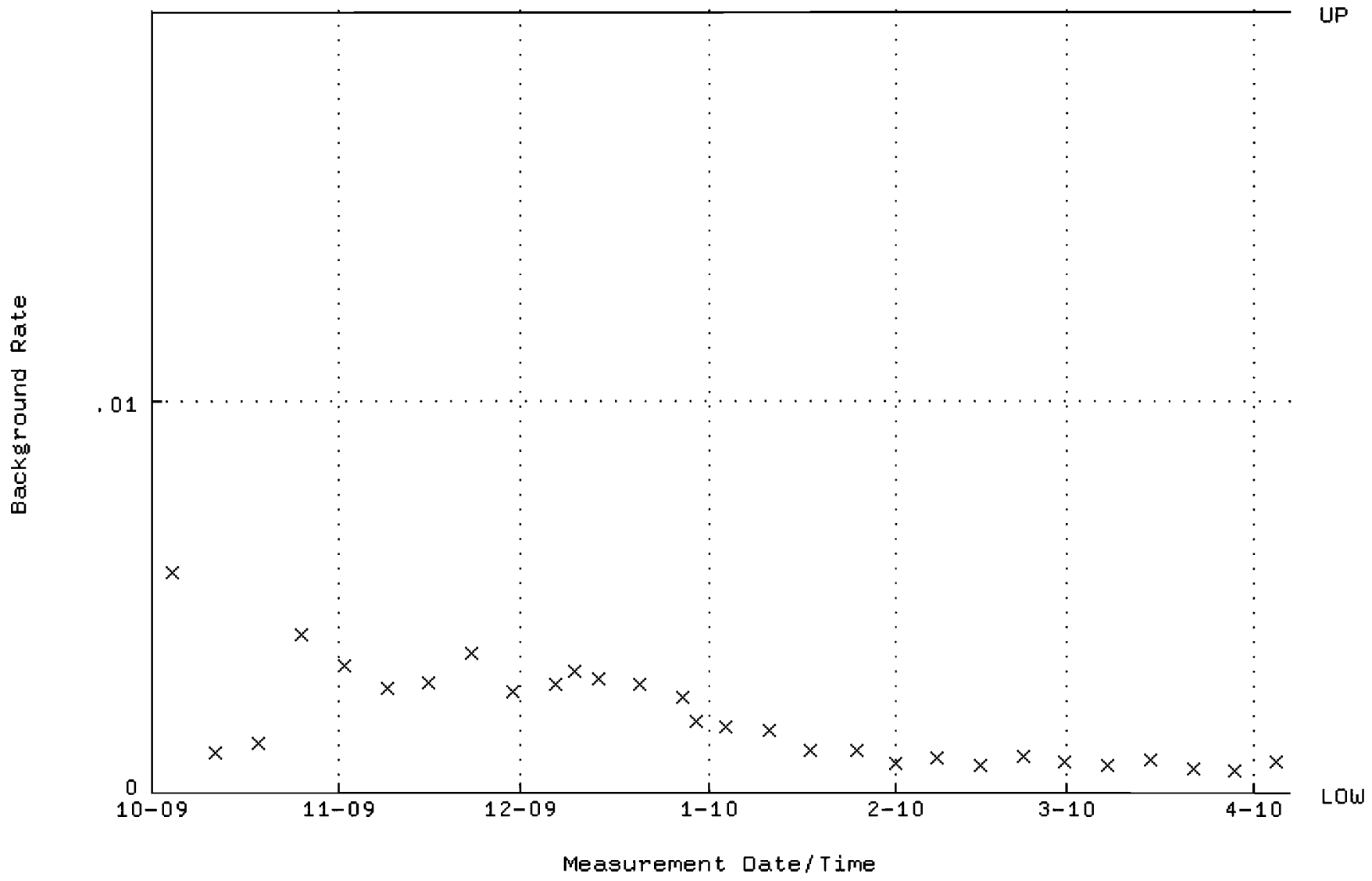

QA filename : DKA100:[ENV_ALPHA.QA.W]W043.QAF;102
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:31 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.316853 through 0.369991

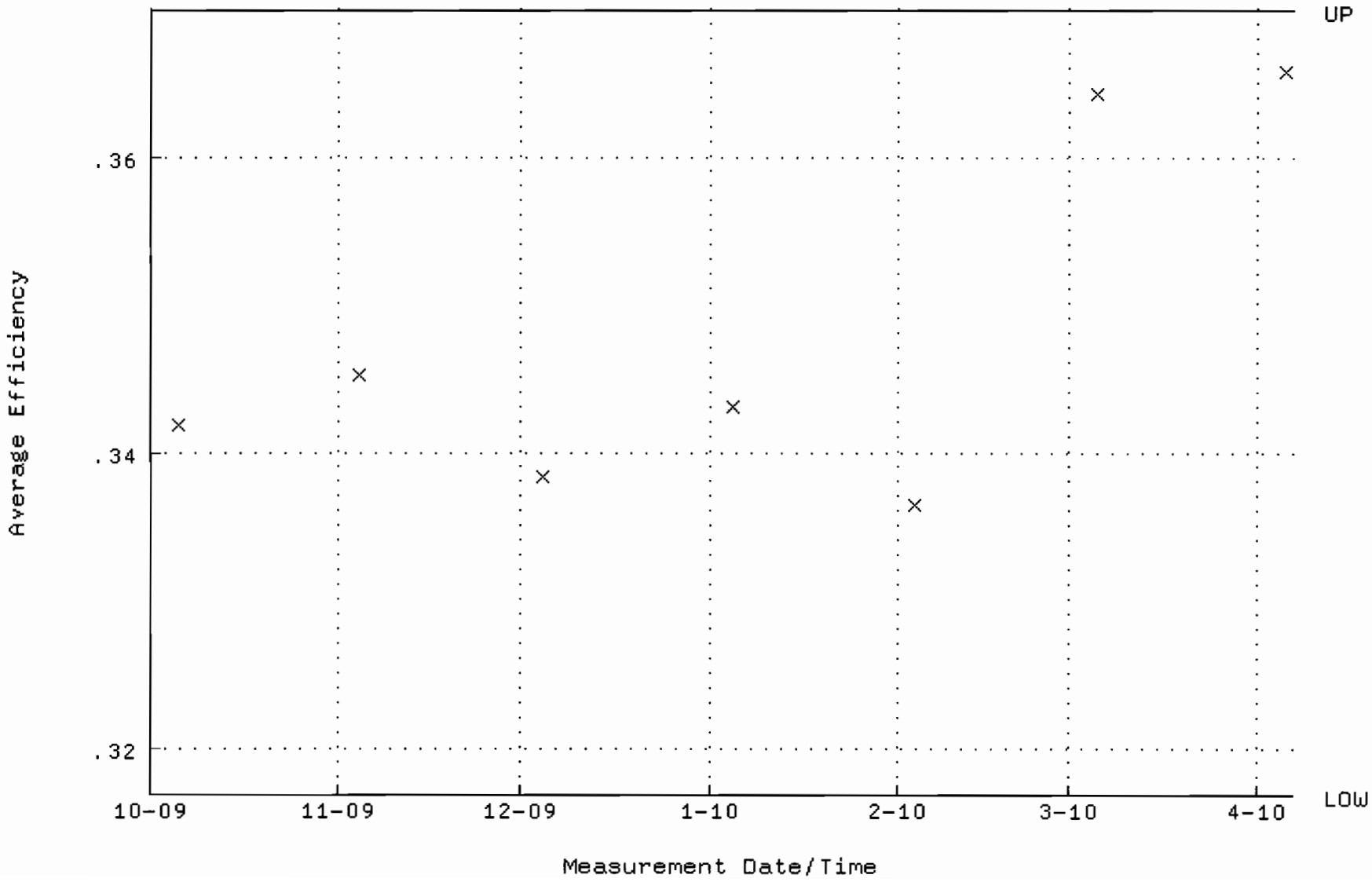

QA filename : DKA100:[ENV_ALPHA.QA.W]W043.QAF;102
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:31 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 79.8821 through 94.8741

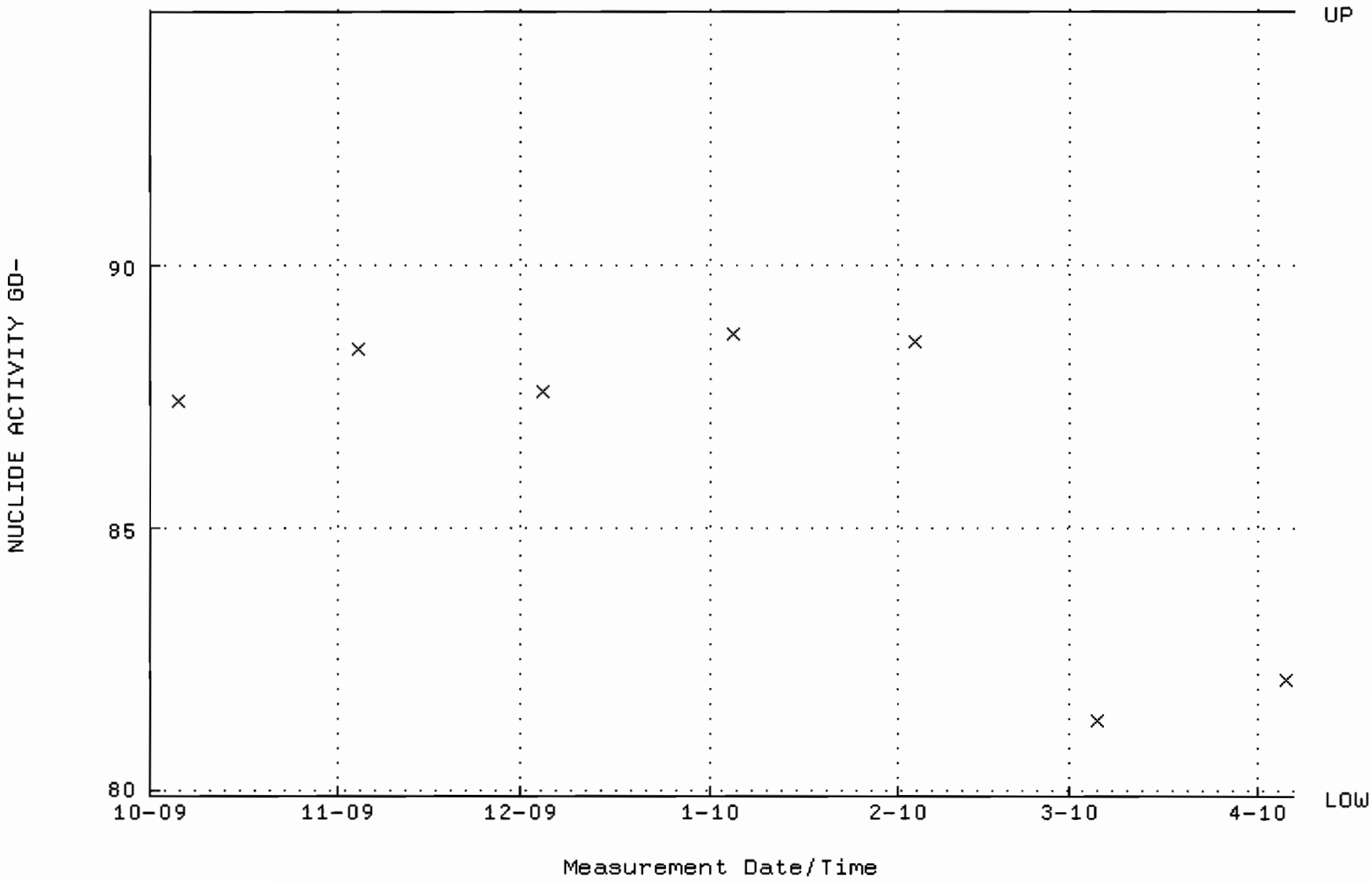

QA filename : DKA100:[ENV_ALPHA.QA.B]B043.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:11 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

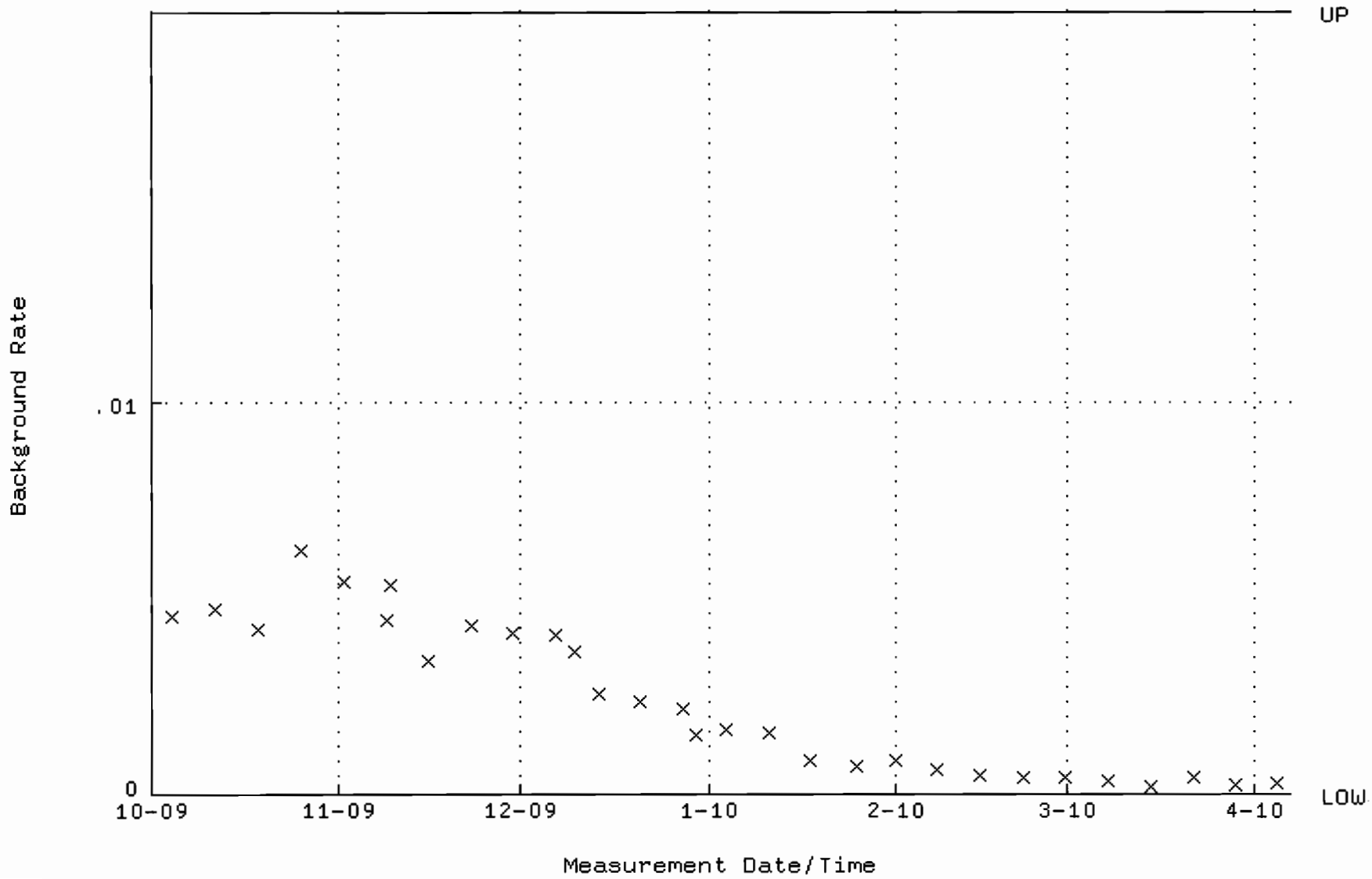

QA filename : DKA100:[ENV_ALPHA.QA.W]W044.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:31 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.353088 through 0.360534

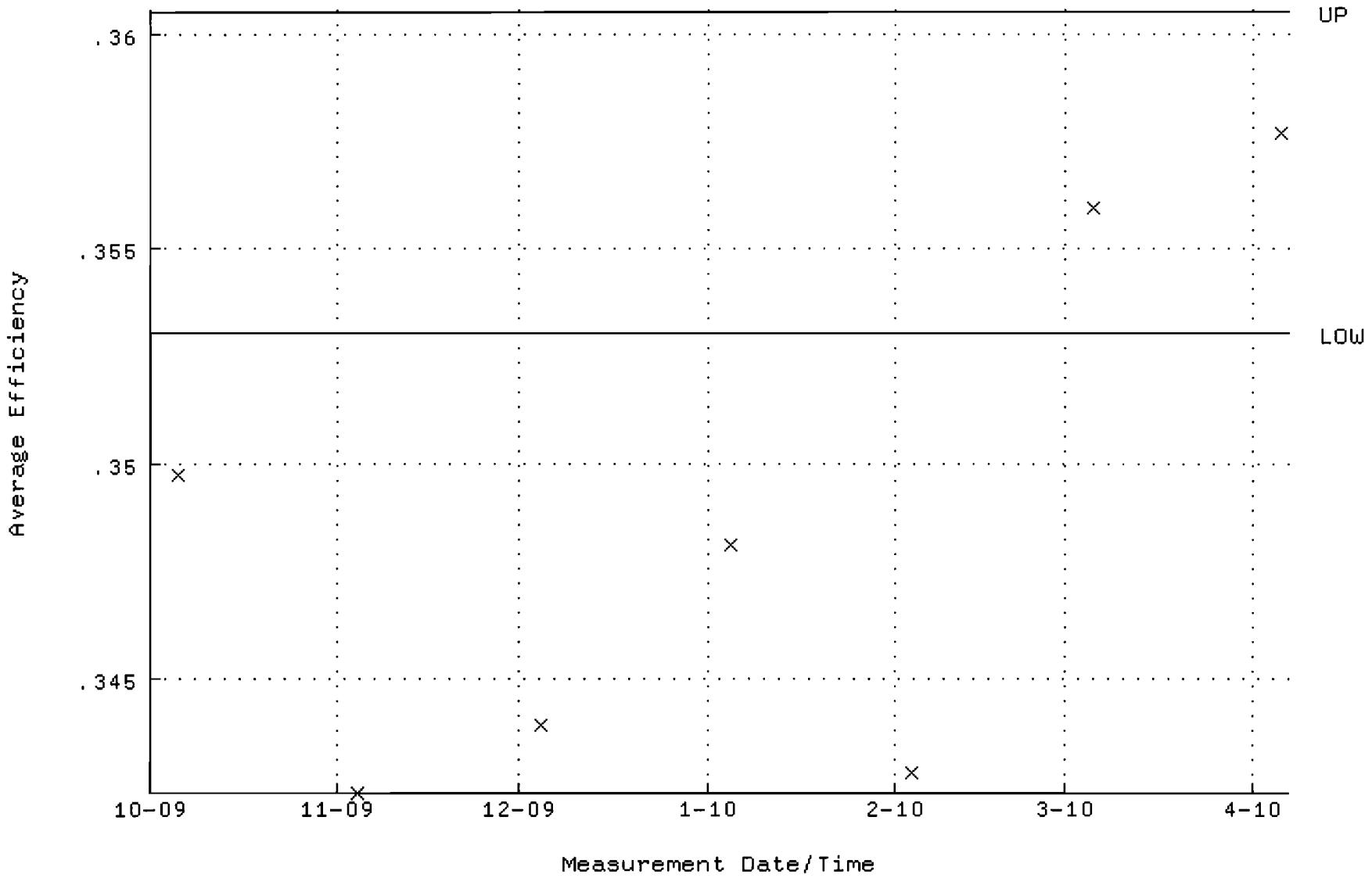

QA filename : DKA100:[ENV_ALPHA.QA.W]W044.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:31 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 82.5159 through 85.2603

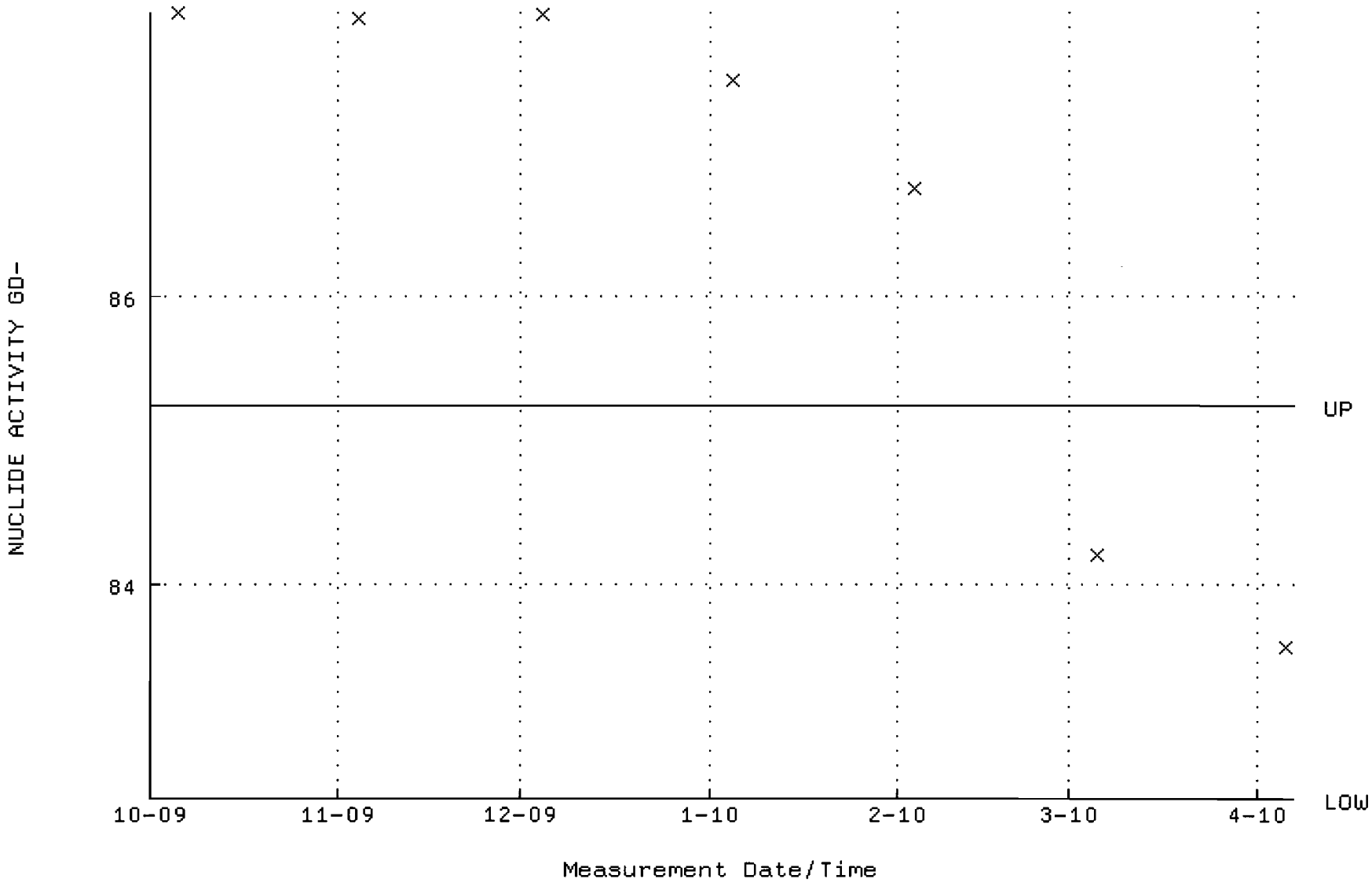

QA filename : DKA100:[ENV_ALPHA.QA.B]B044.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:11 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

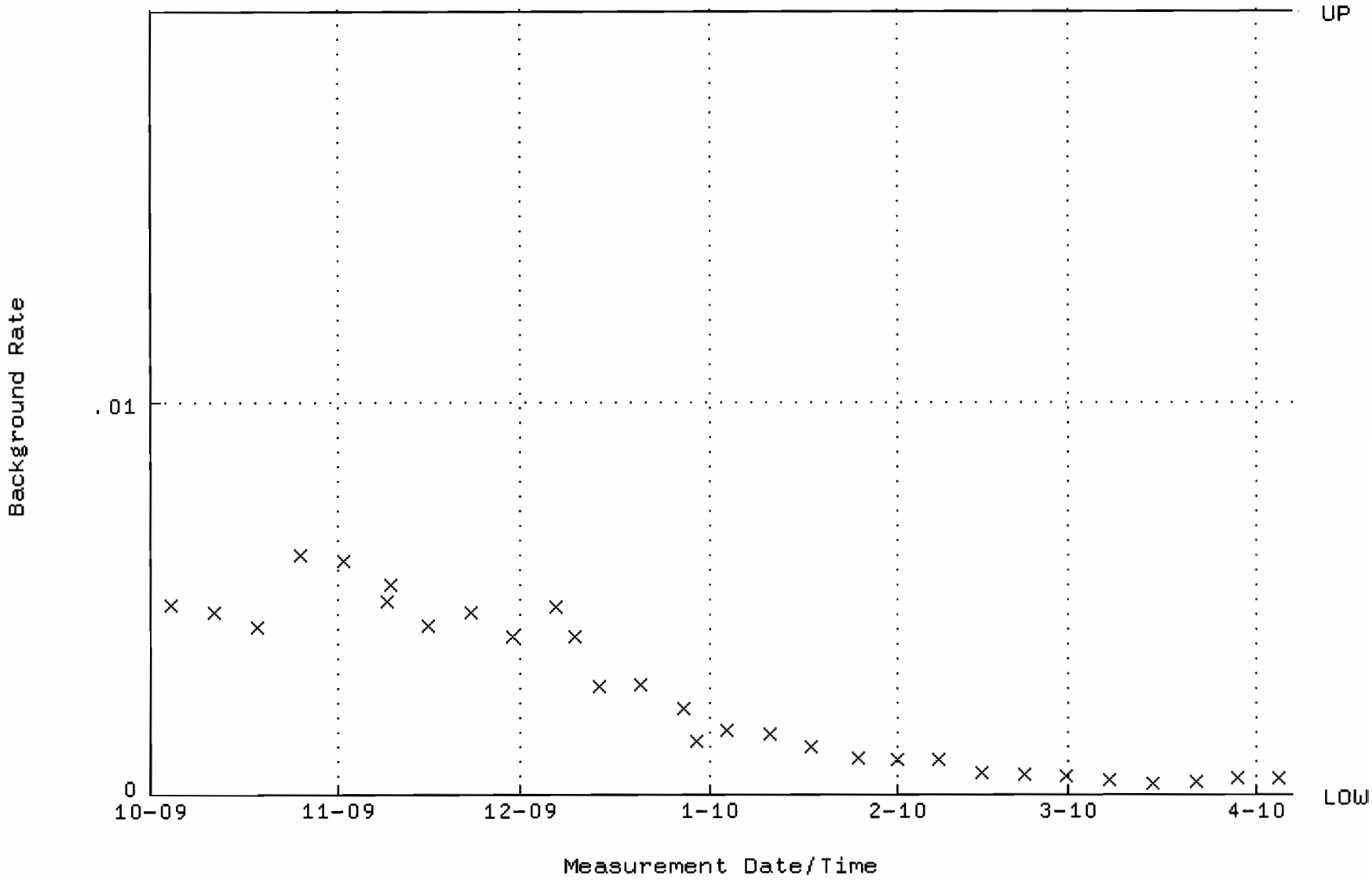

QA filename : DKA100:[ENV_ALPHA.QA.W]W045.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:31 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.332472 through 0.352472

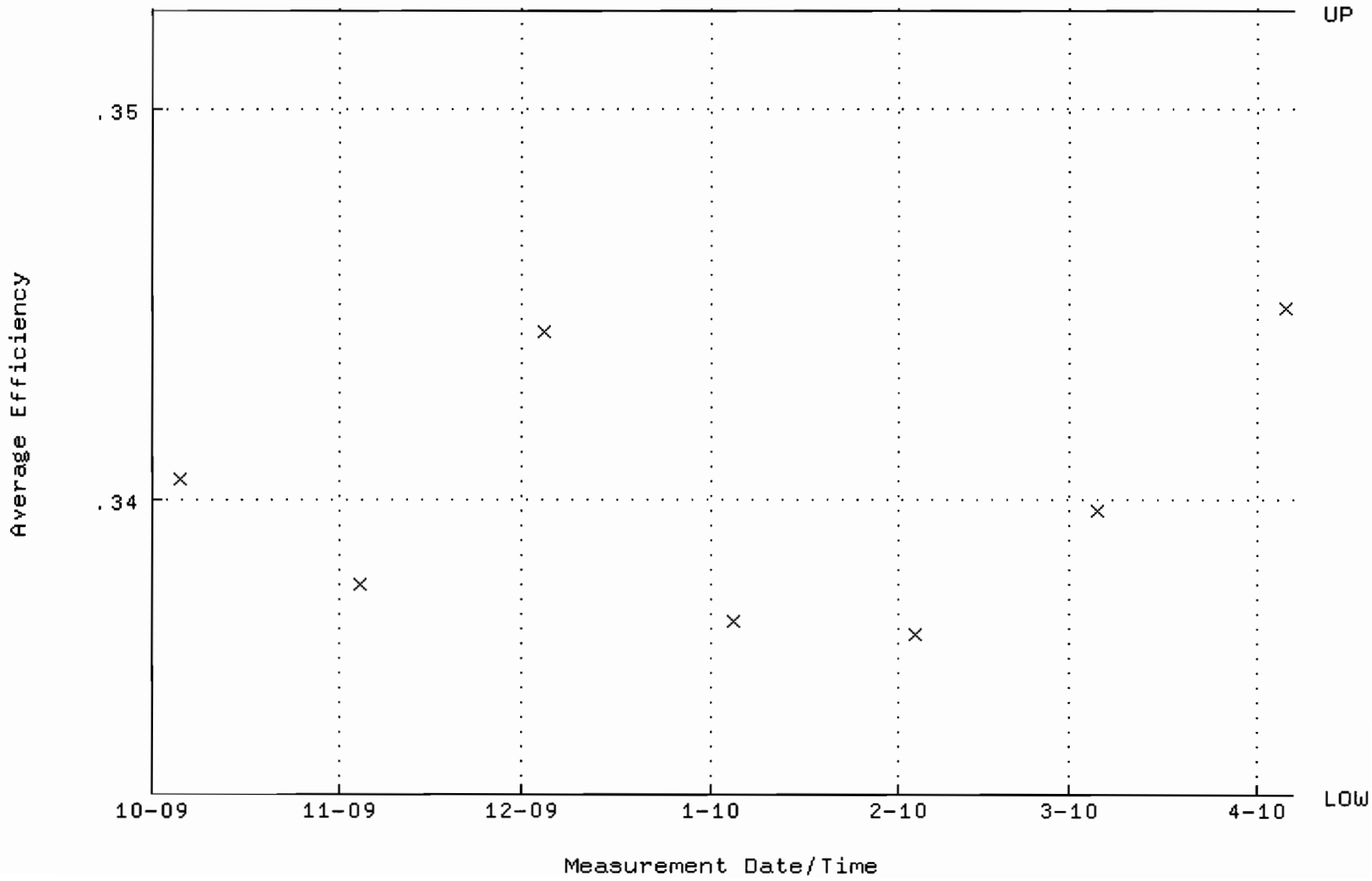

QA filename : DKA100:[ENV_ALPHA.QA.W]W045.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:31 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 80.4622 through 88.9320

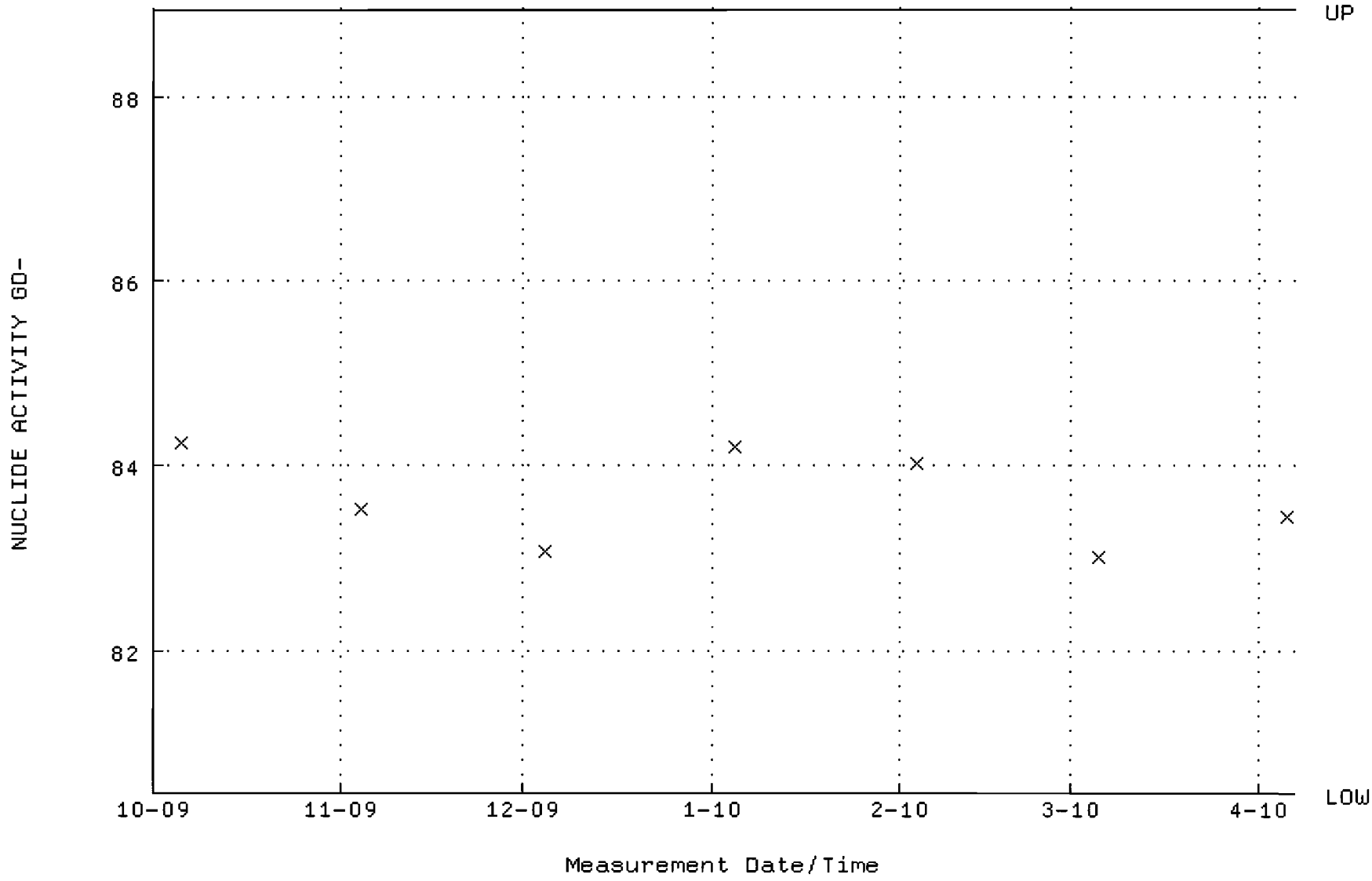

QA filename : DKA100:[ENV_ALPHA.QA.B]B045.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:11 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

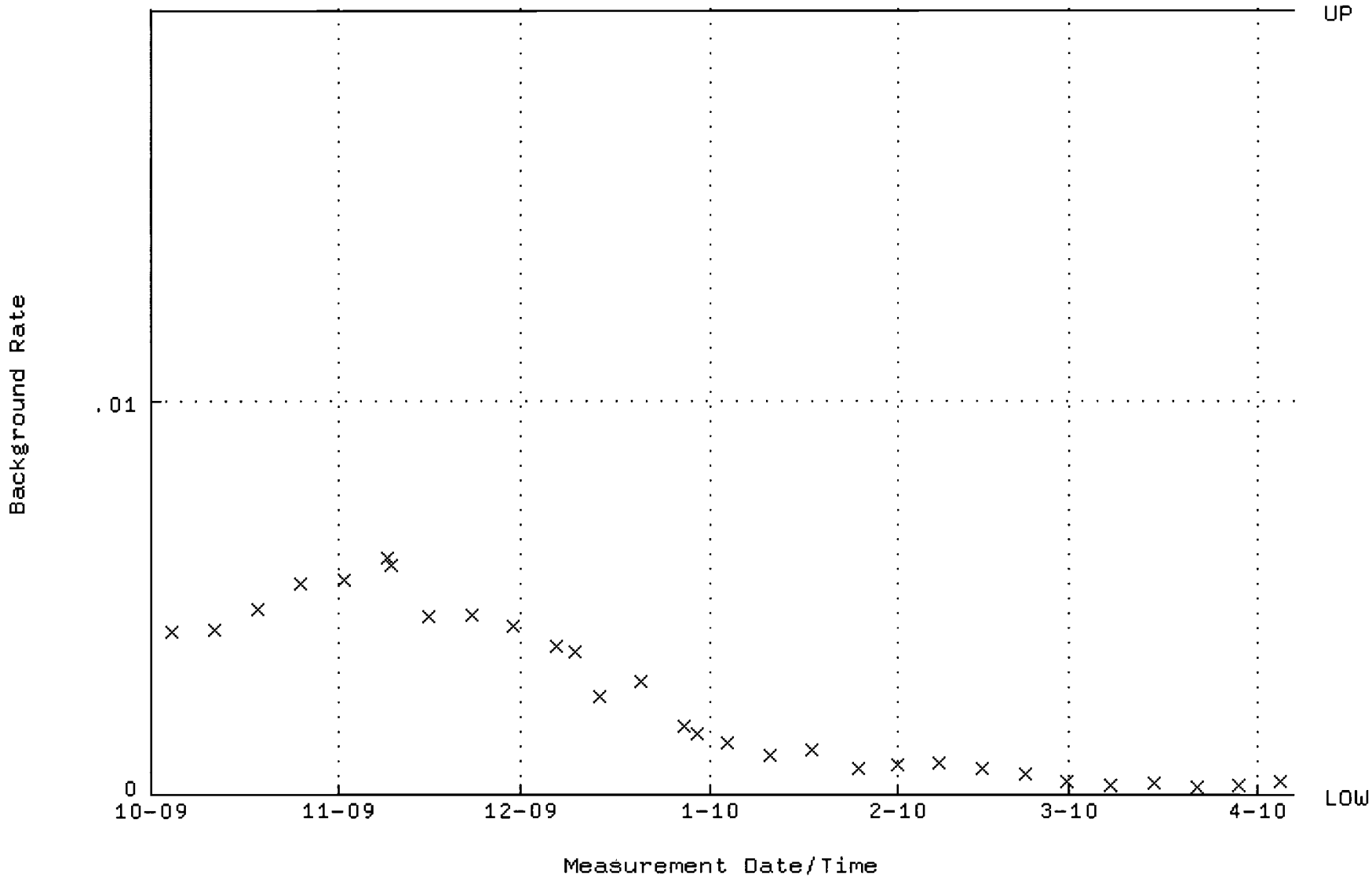

QA filename : DKA100:[ENV_ALPHA.QA.W]W046.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:31 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.345072 through 0.359276

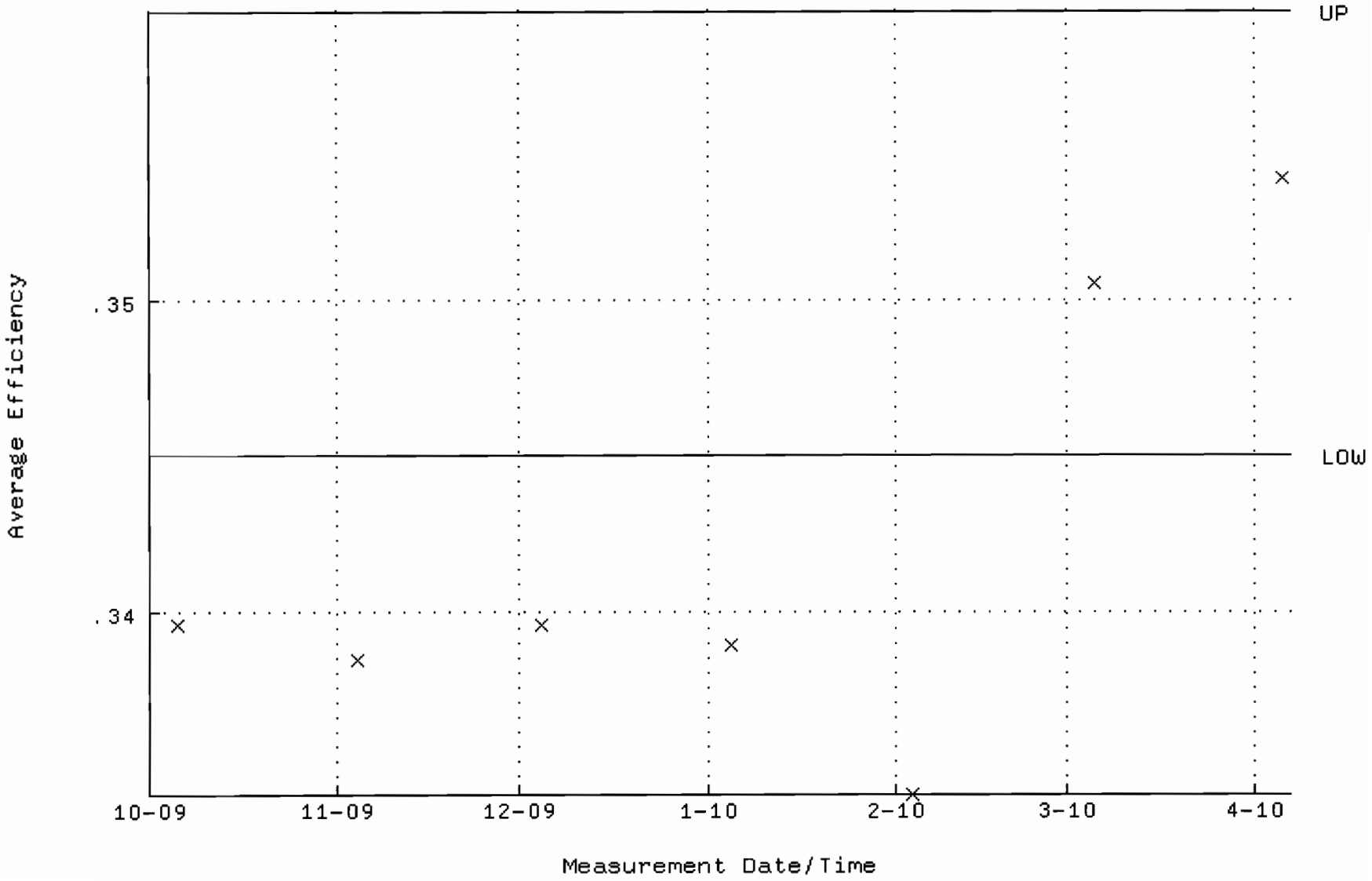

QA filename : DKA100:[ENV_ALPHA.QA.W]W046.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:31 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 80.5268 through 85.9546

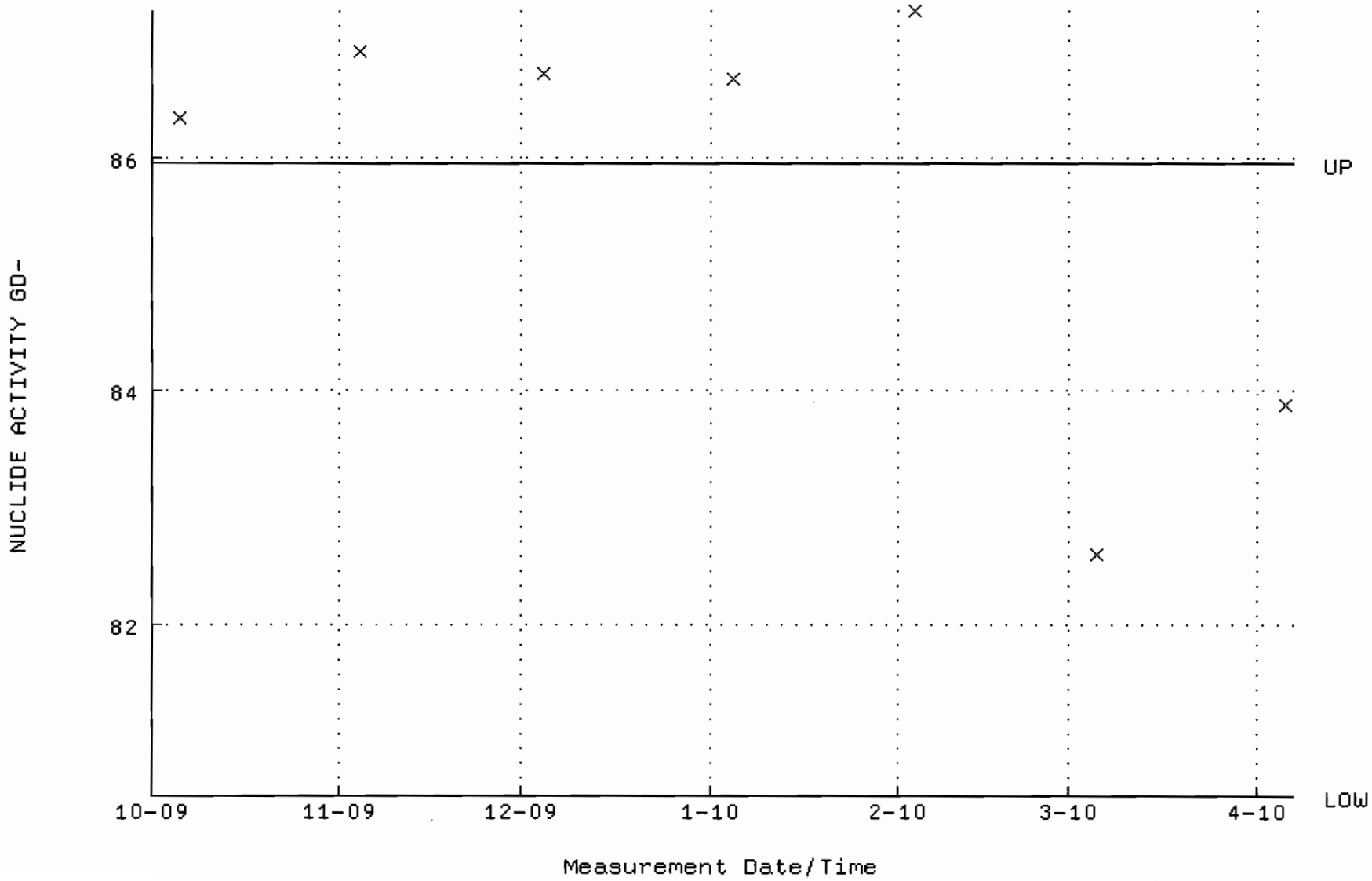

QA filename : DKA100:[ENV_ALPHA.QA.B]B046.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:11 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

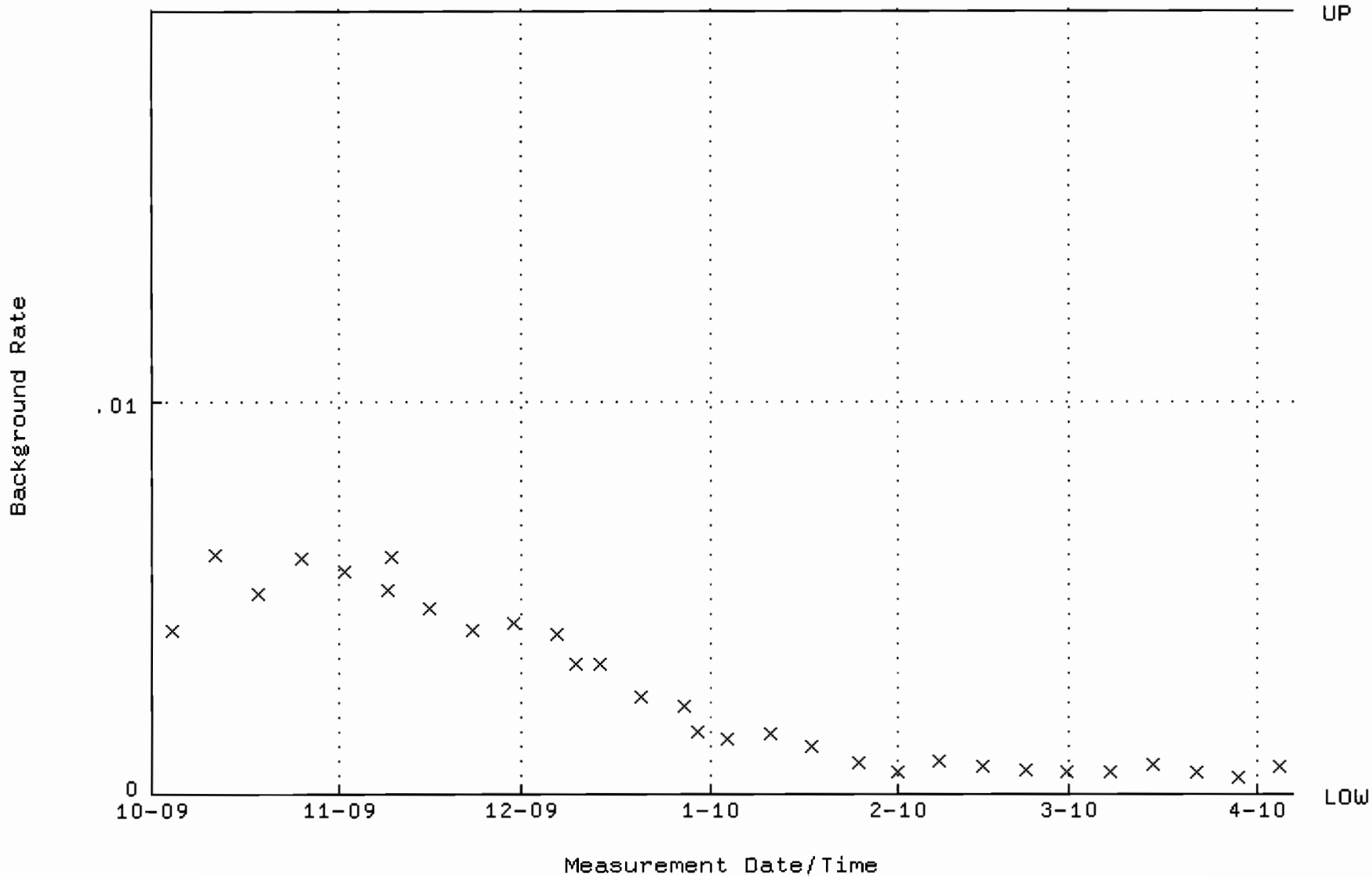

QA filename : DKA100:[ENV_ALPHA.QA.W]W048.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:31 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

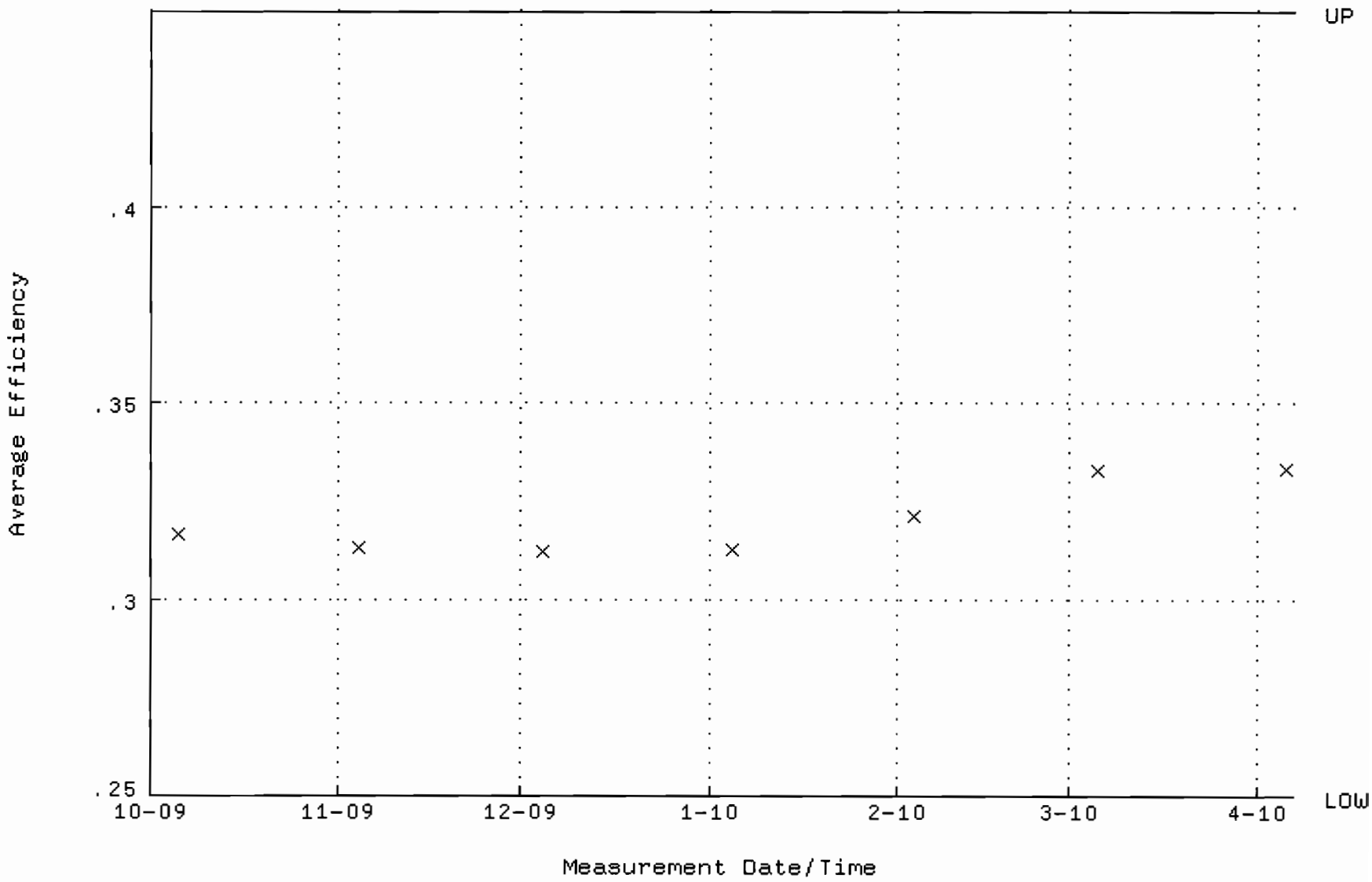

QA filename : DKA100:[ENV_ALPHA.QA.W]W048.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:31 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

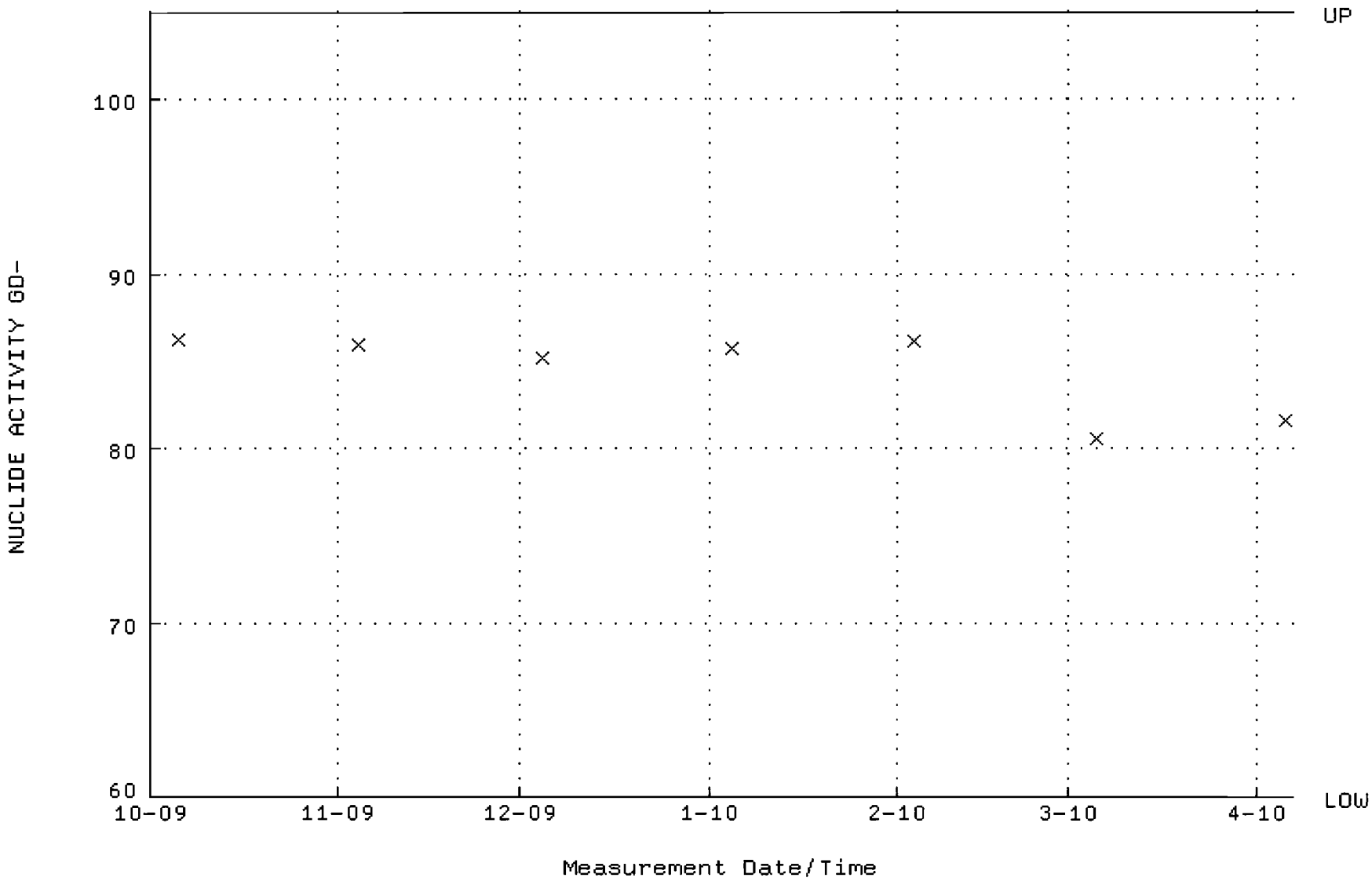

QA filename : DKA100:[ENV_ALPHA.QA.B]B048.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:11 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

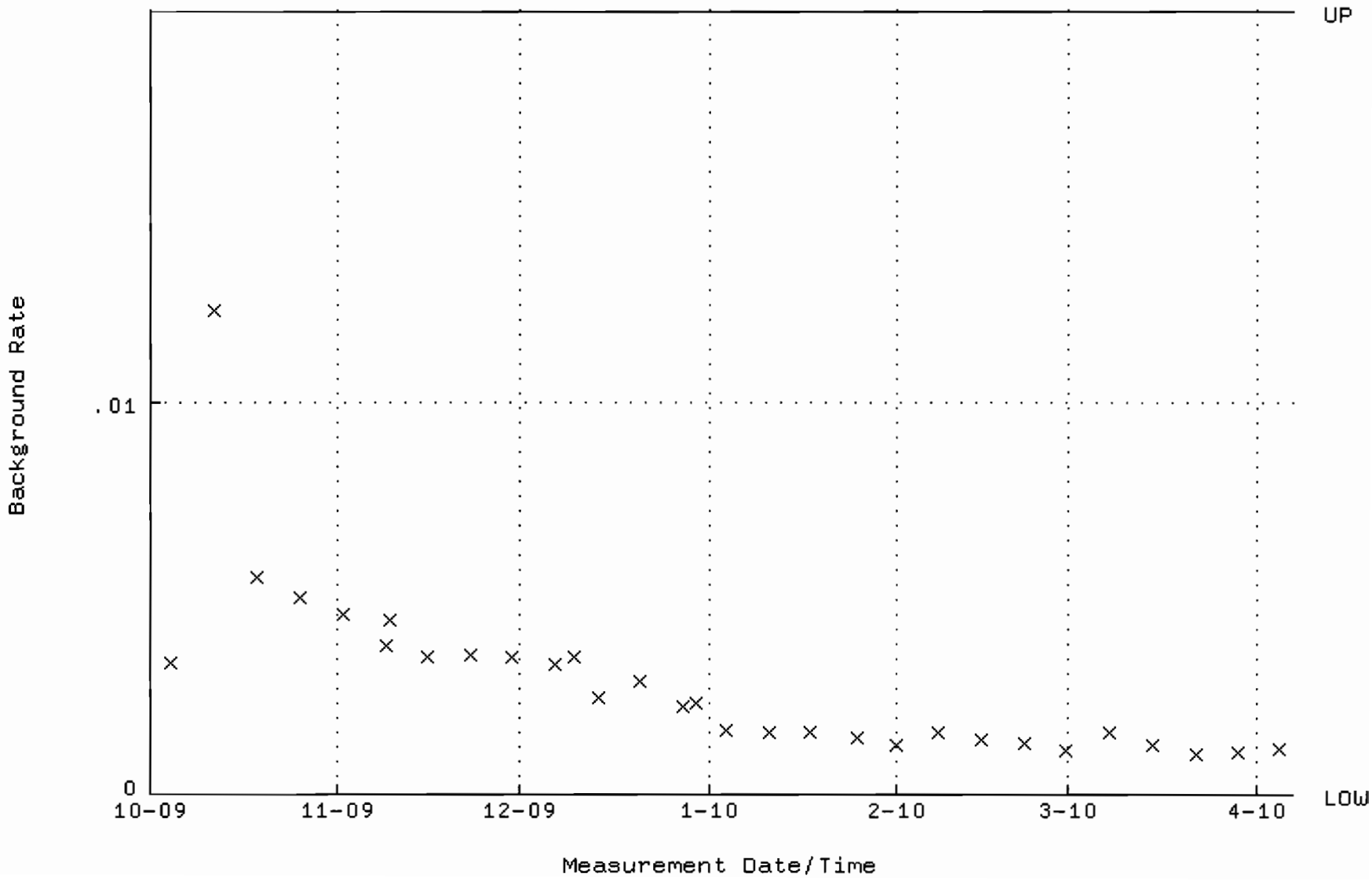

QA filename : DKA100:[ENV_ALPHA.QA.W]W072.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.307889 through 0.340829

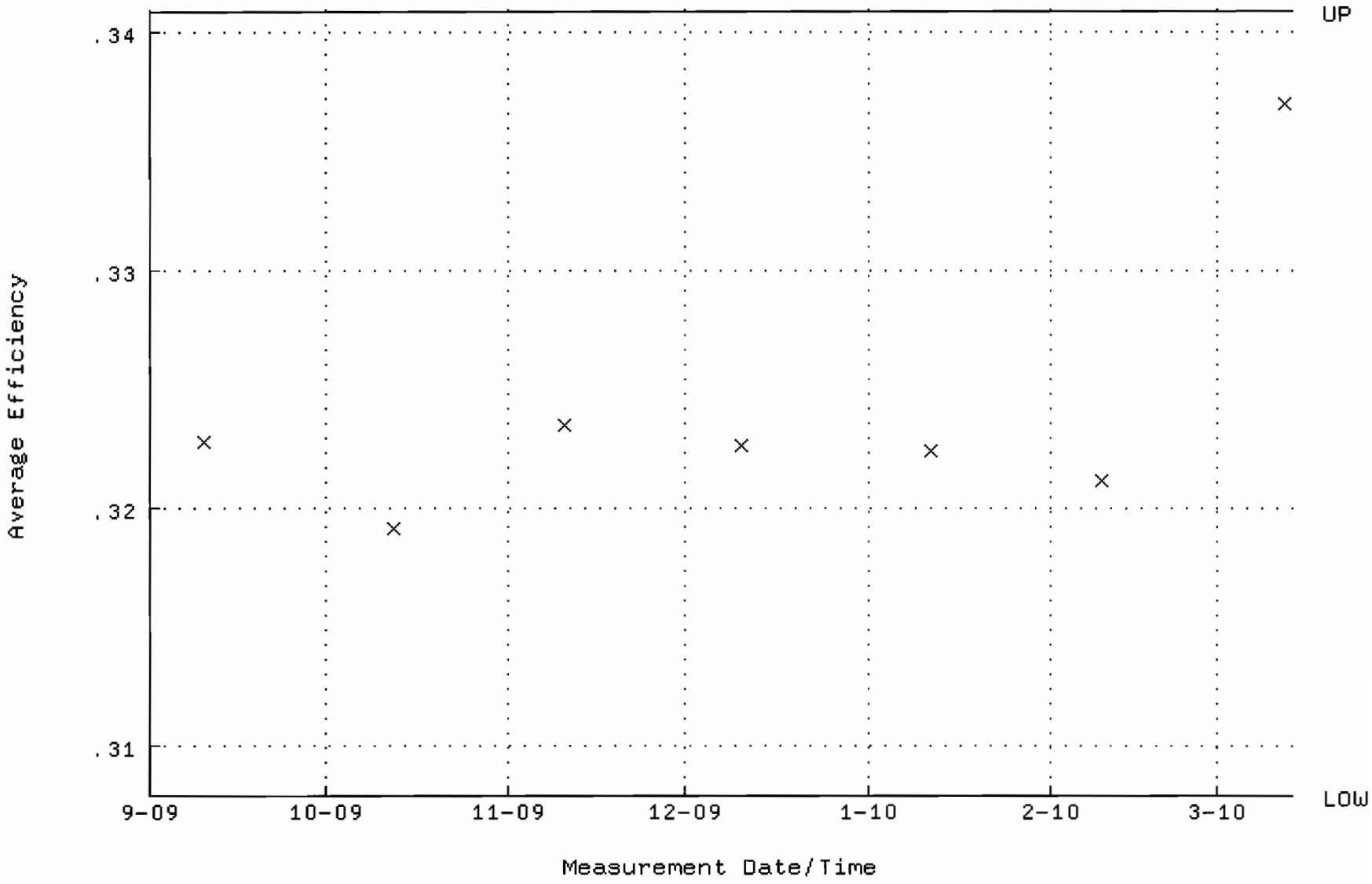

QA filename : DKA100:[ENV_ALPHA.QA.W]W072.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 88.6219 through 94.7527

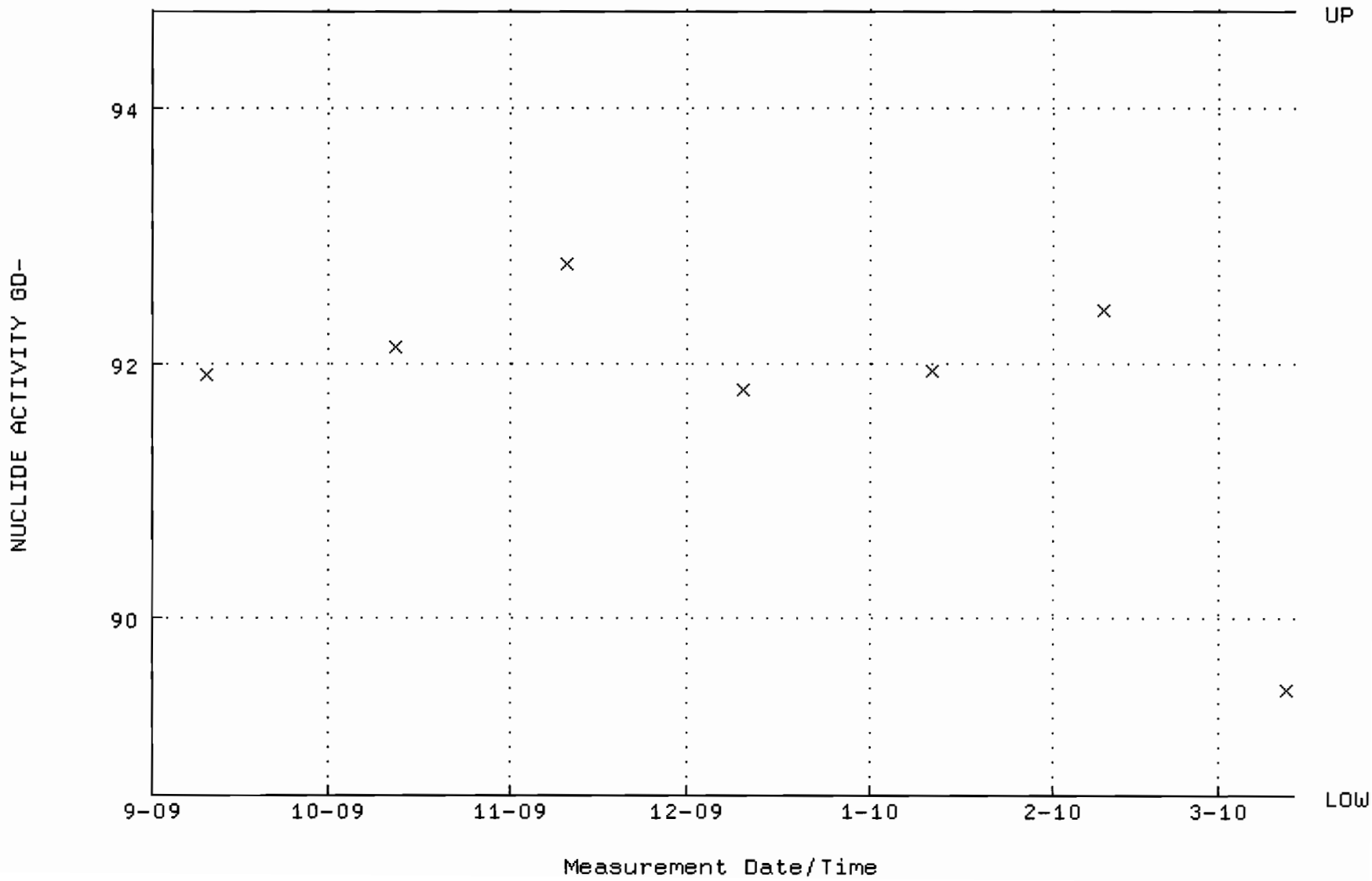

QA filename : DKA100:[ENV_ALPHA.QA.B]B072.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:07 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

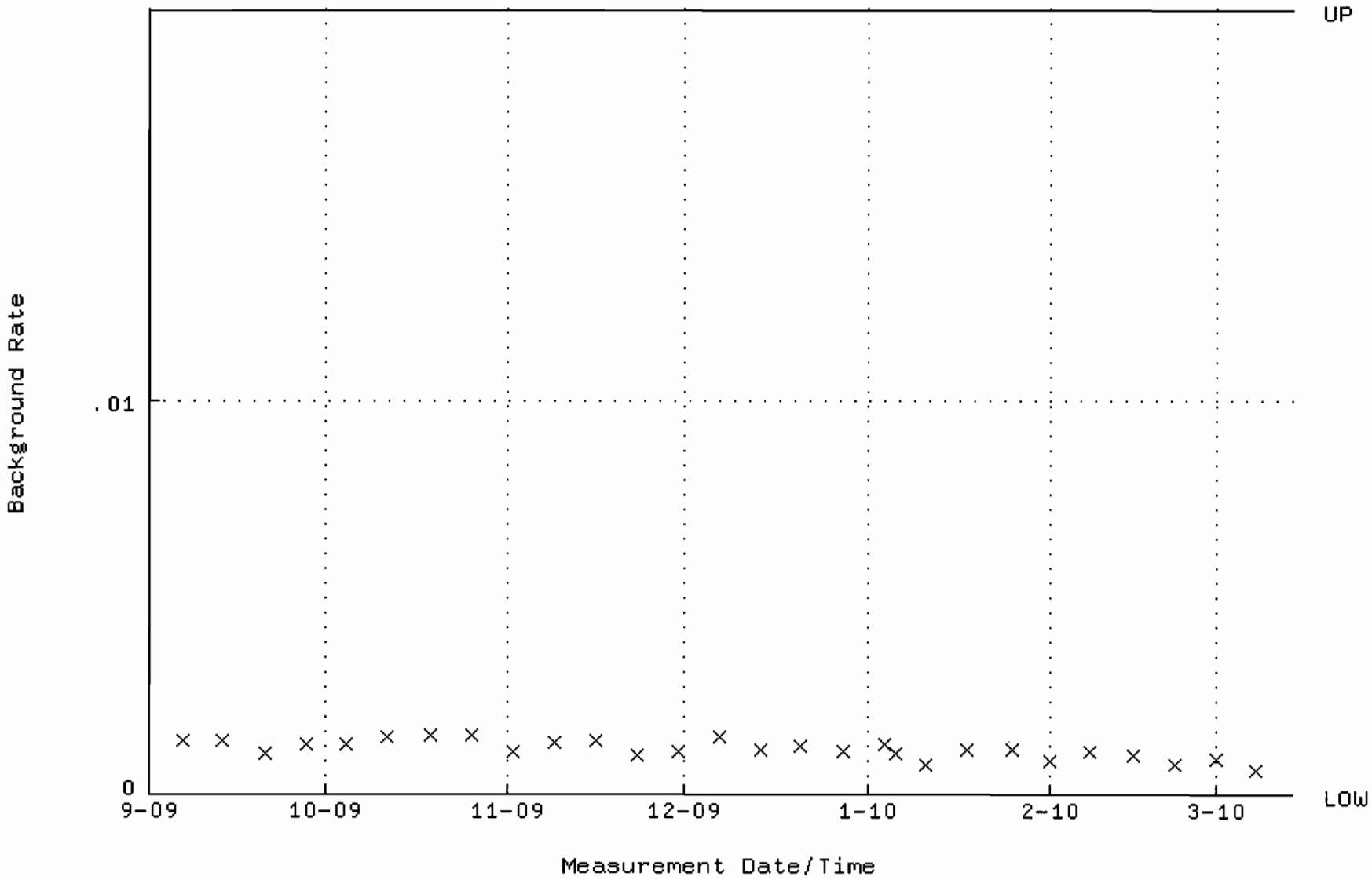

QA filename : DKA100:[ENV_ALPHA.QA.W]W073.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.326078 through 0.341146

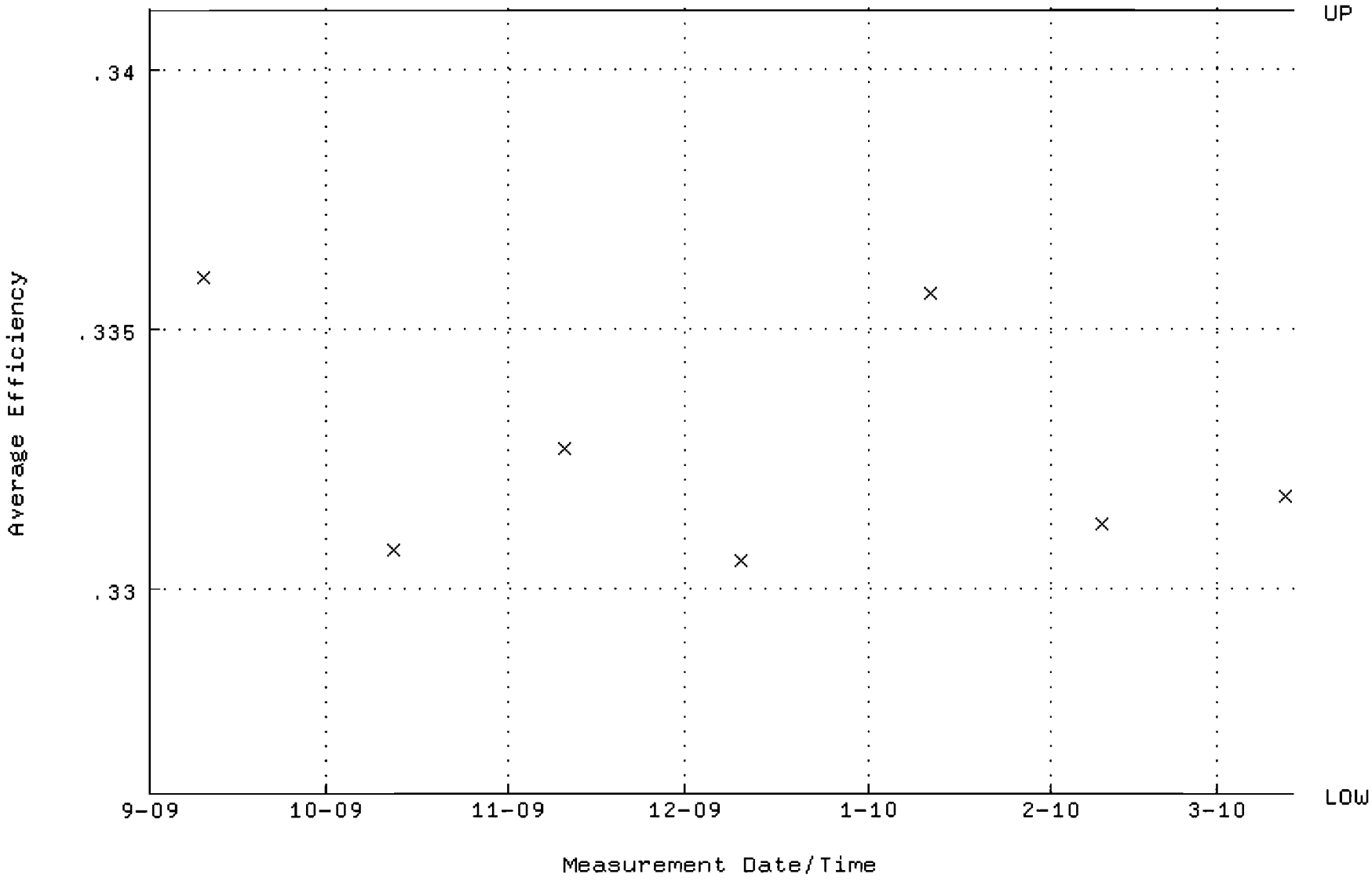

QA filename : DKA100:[ENV_ALPHA.QA.W]W073.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 89.8600 through 92.3006

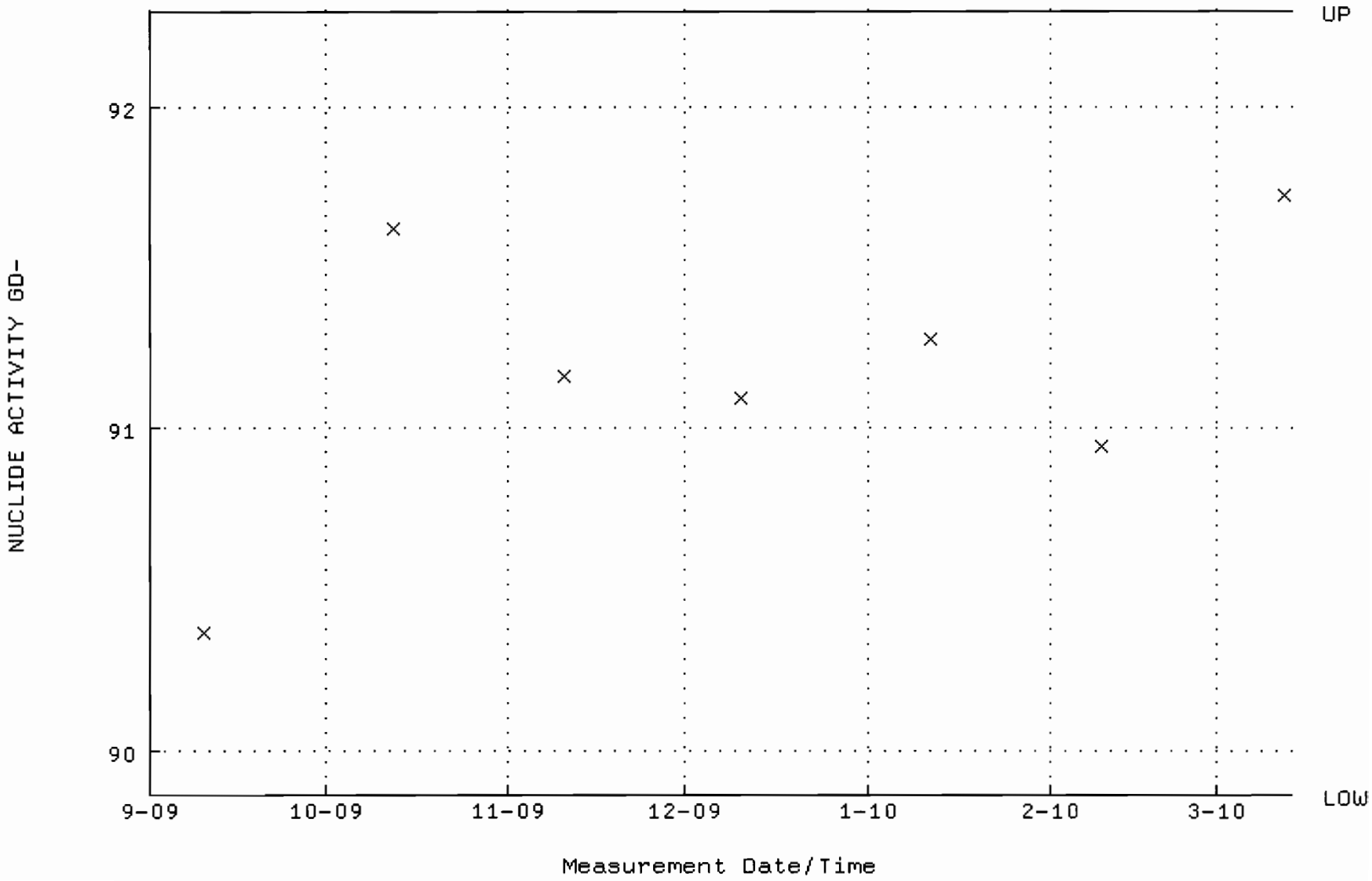

QA filename : DKA100:[ENV_ALPHA.QA.B]B073.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:07 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

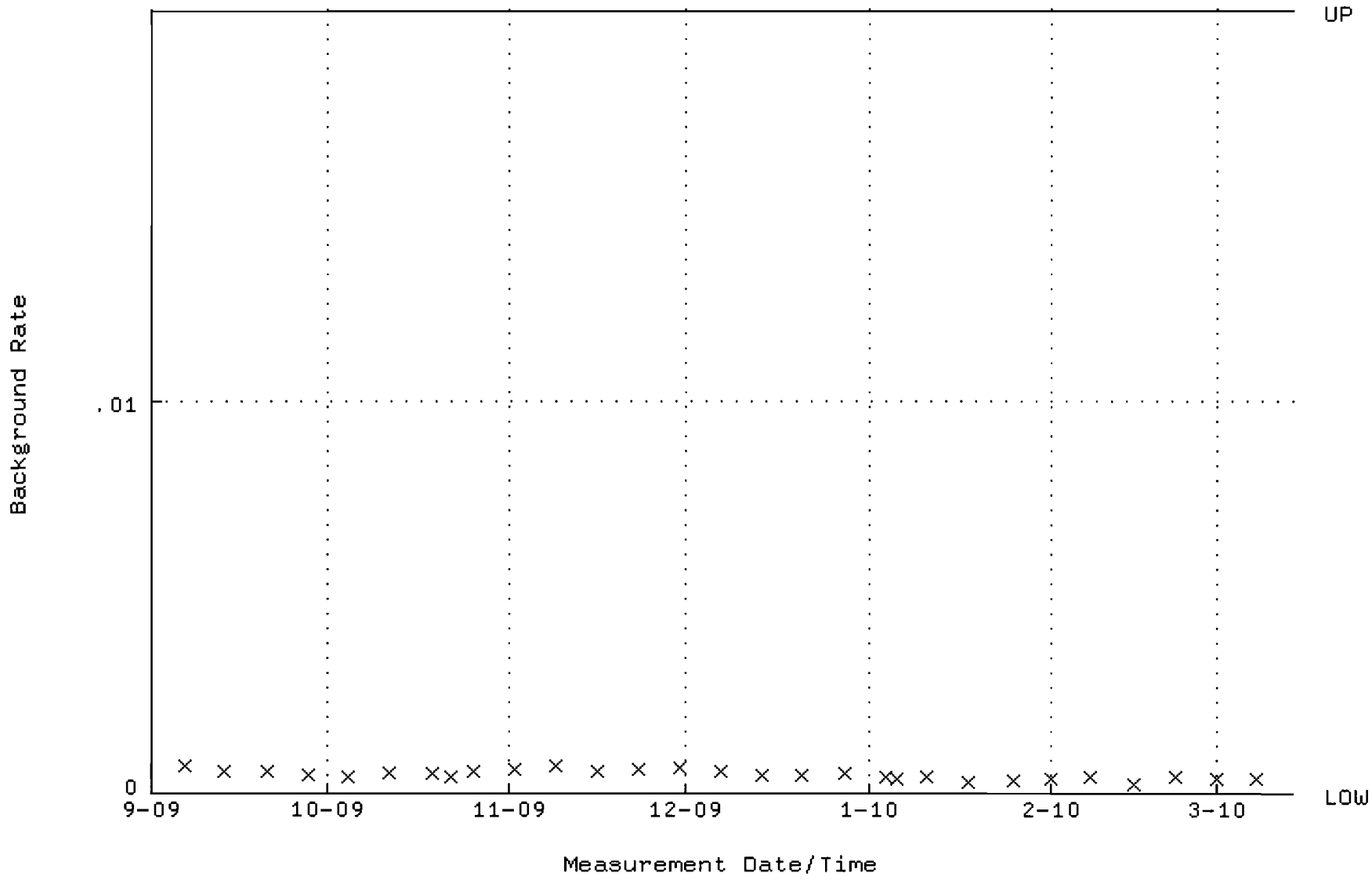

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.309960 through 0.321424

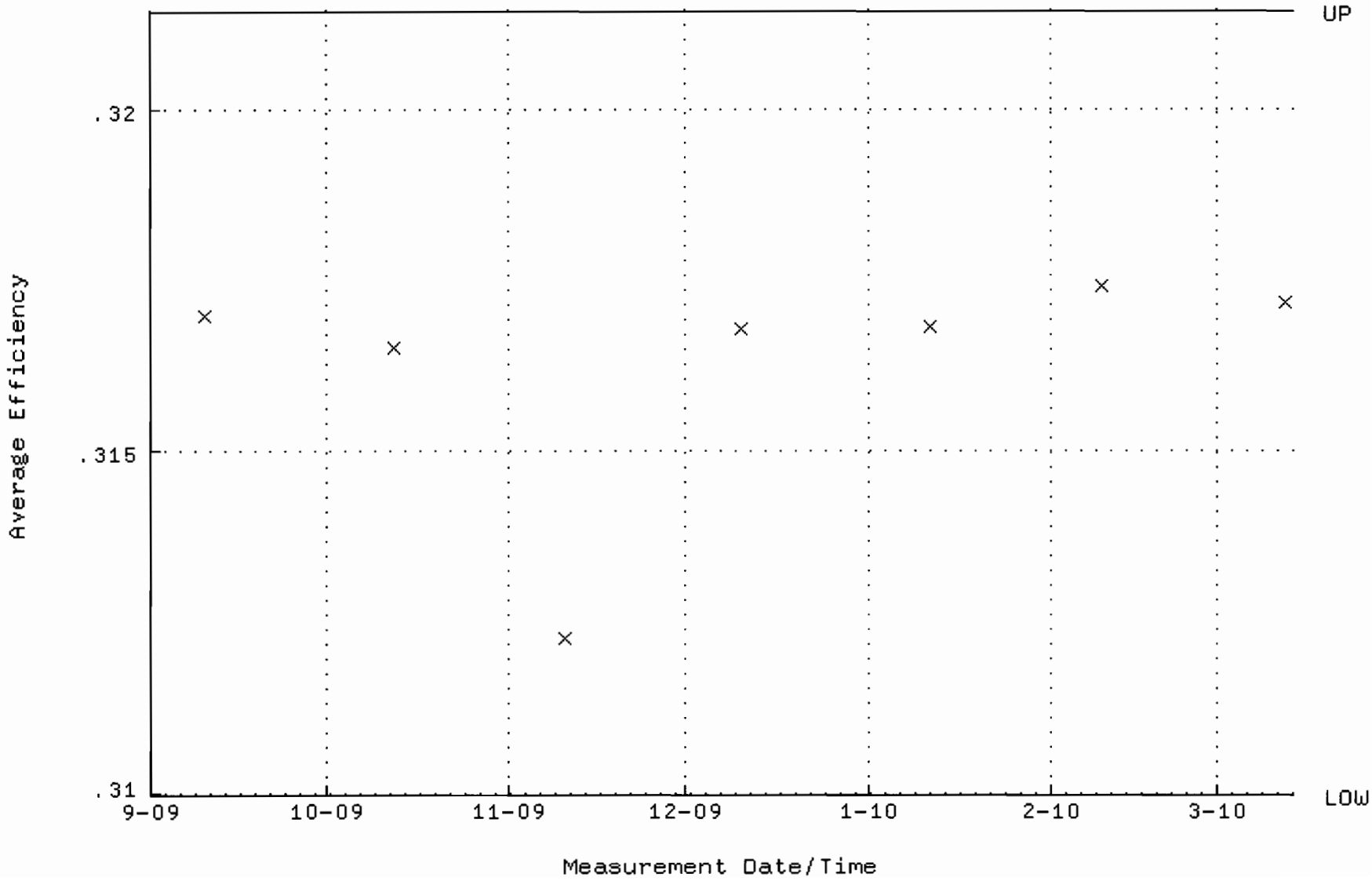

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 88.0938 through 92.5190

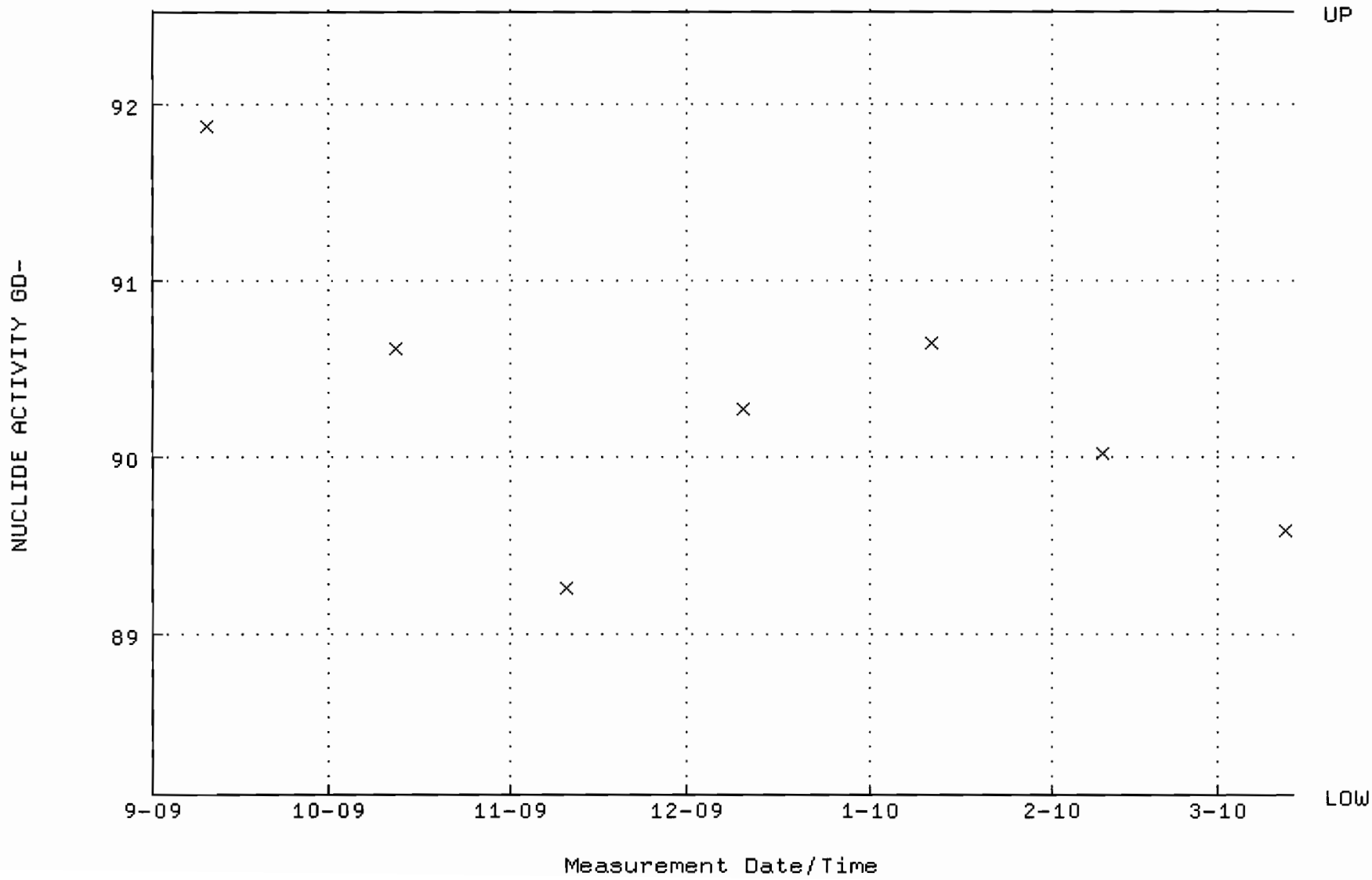

QA filename : DKA100:[ENV_ALPHA.QA.B]B074.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:07 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

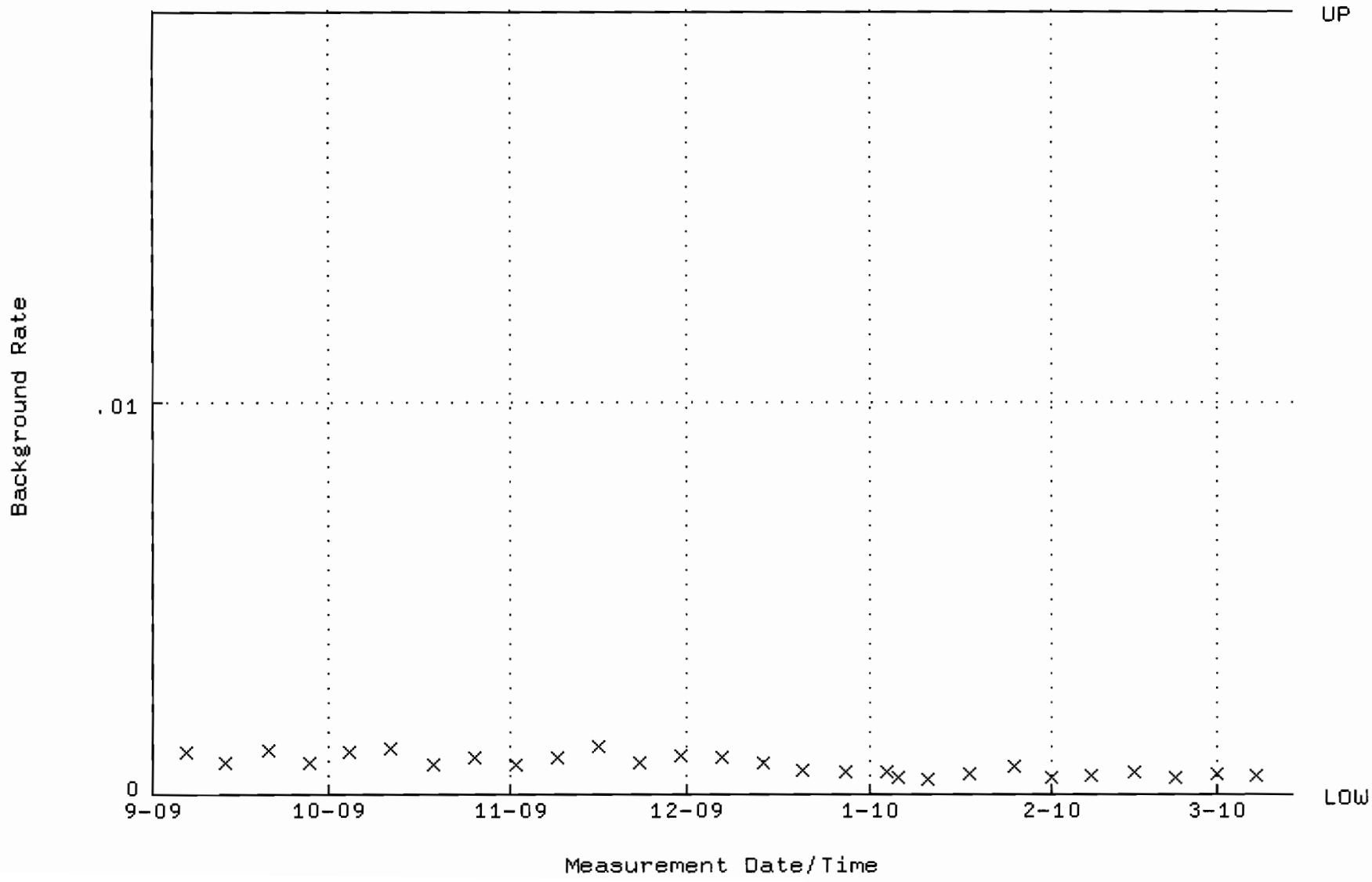

QA filename : DKA100:[ENV_ALPHA.QA.W]W077.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.308586 through 0.334896

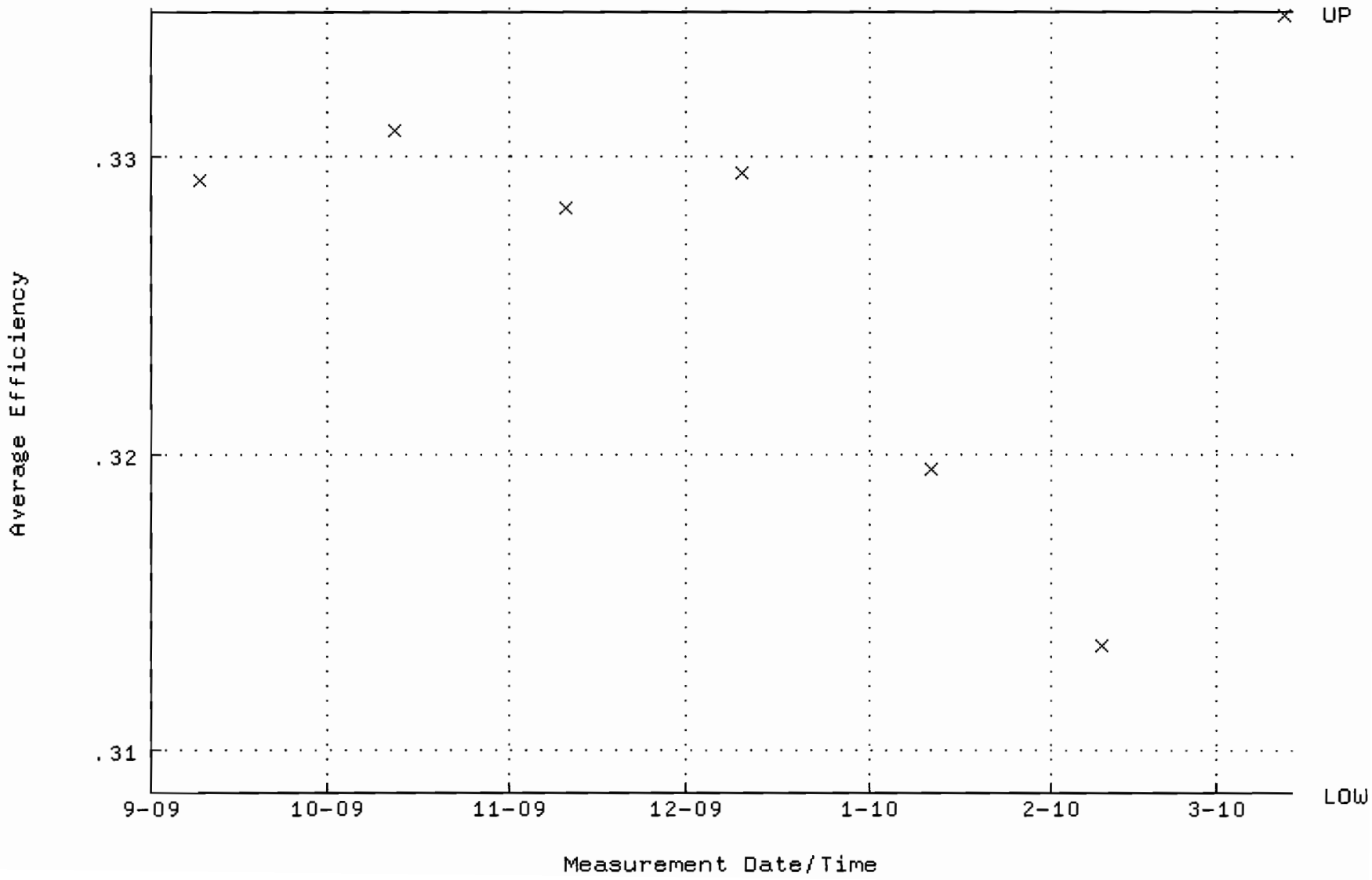

QA filename : DKA100:[ENV_ALPHA.QA.W]W077.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5208 through 109.251

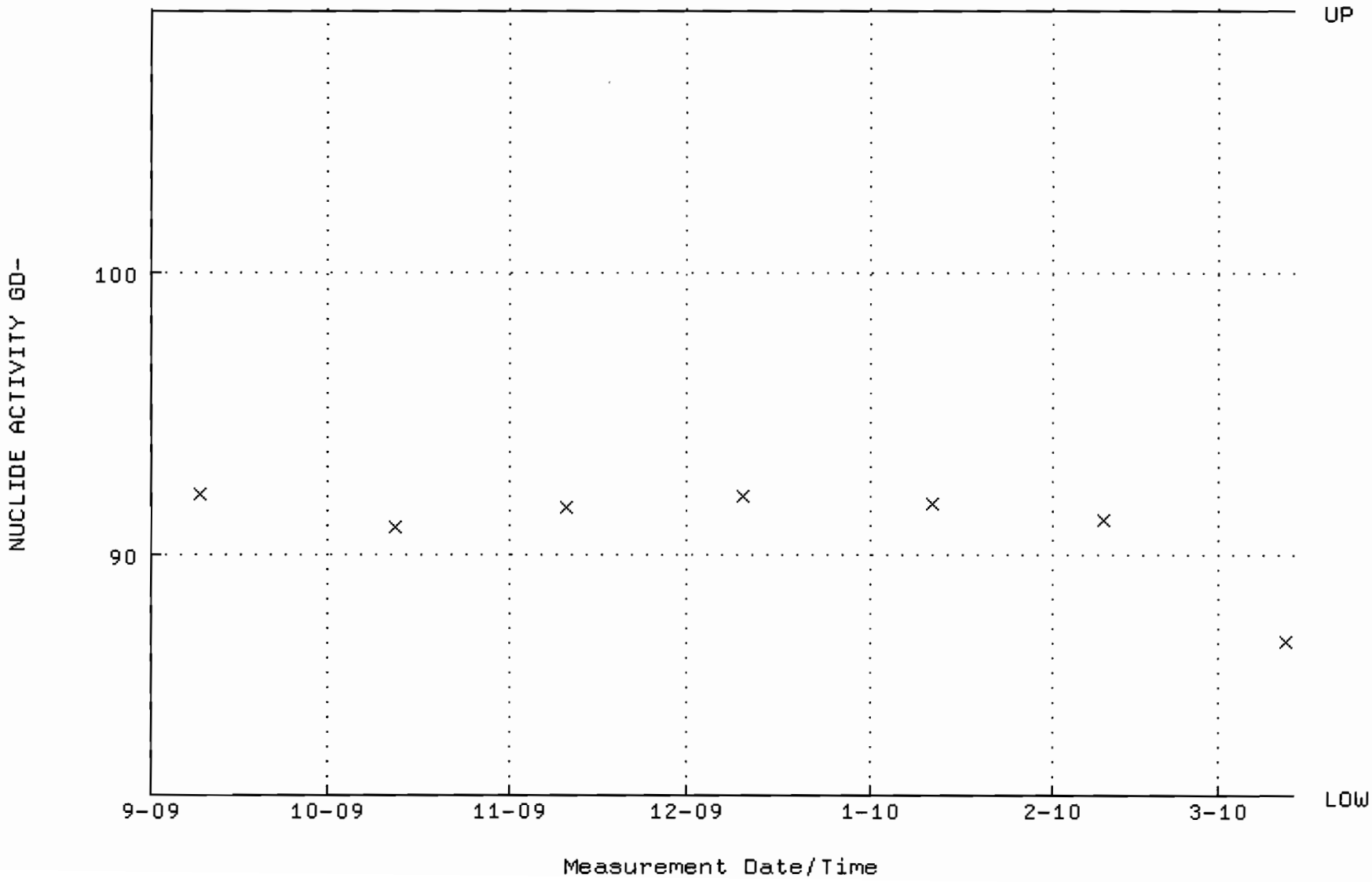

QA filename : DKA100:[ENV_ALPHA.QA.B]B077.QAF;3
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:08 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

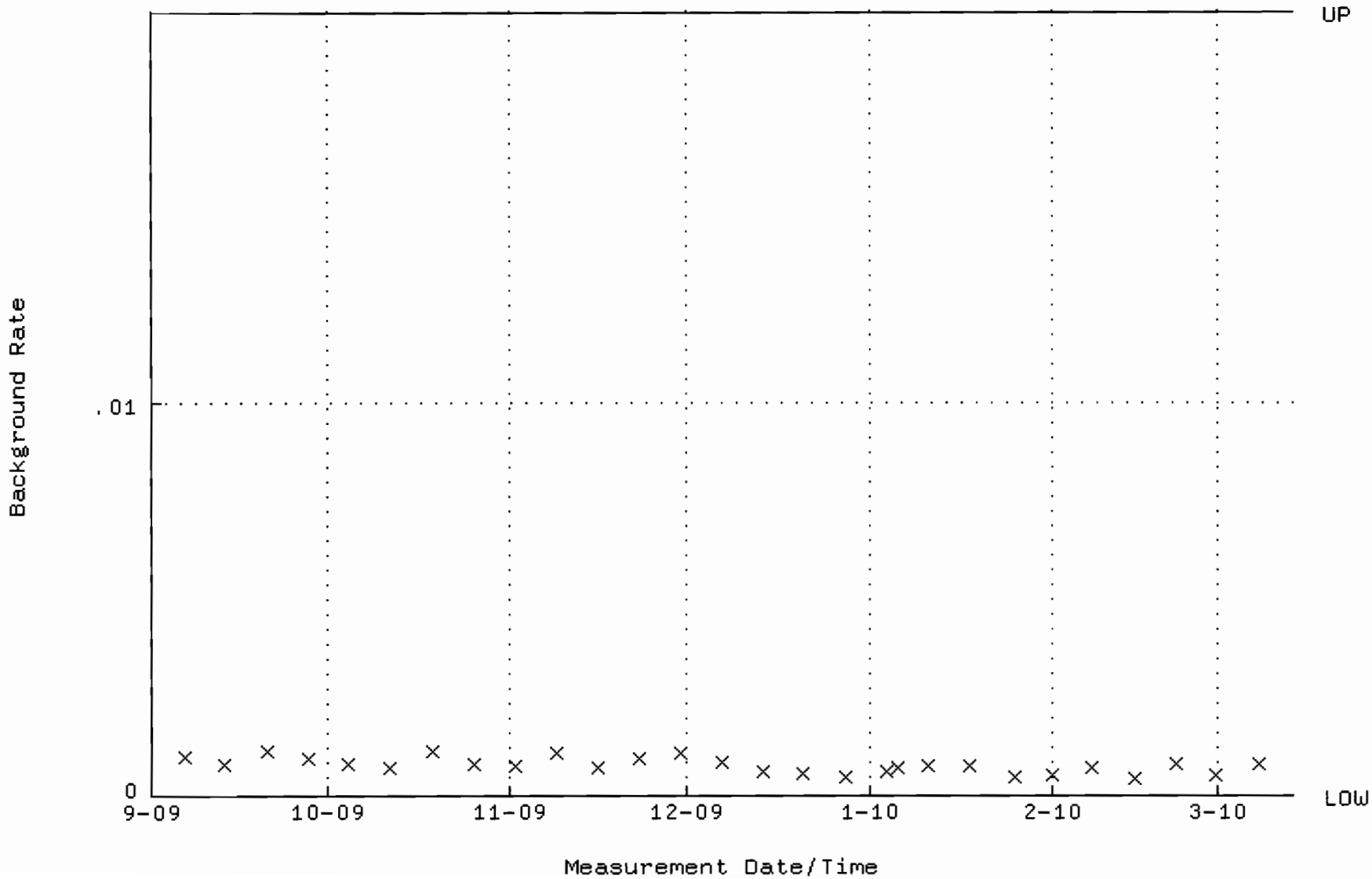

QA filename : DKA100:[ENV_ALPHA.QA.W]W079.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.318618 through 0.329958

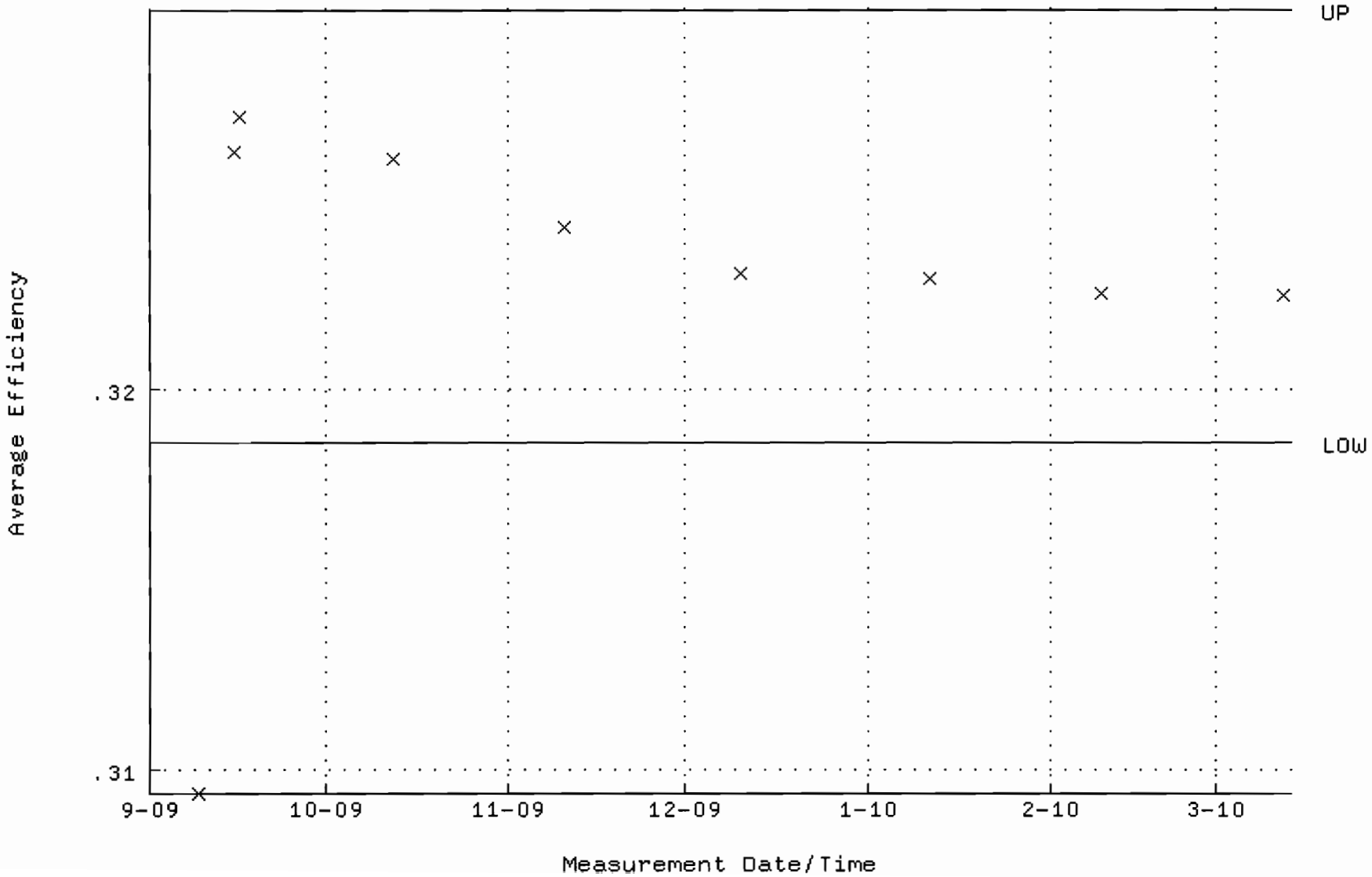

QA filename : DKA100:[ENV_ALPHA.QA.W]W079.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 88.8821 through 92.8259

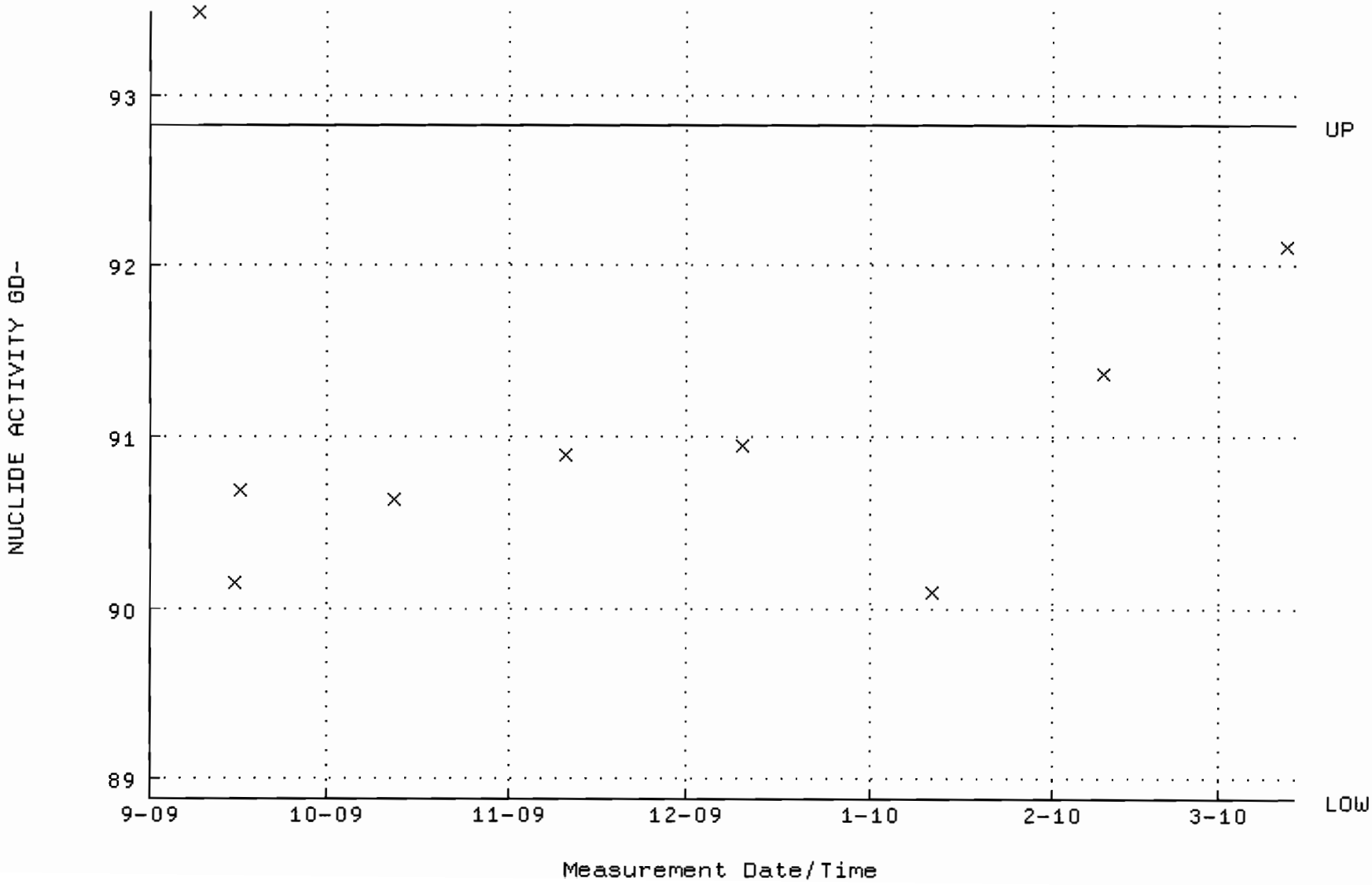

QA filename : DKA100:[ENV_ALPHA.QA.B]B079.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:08 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

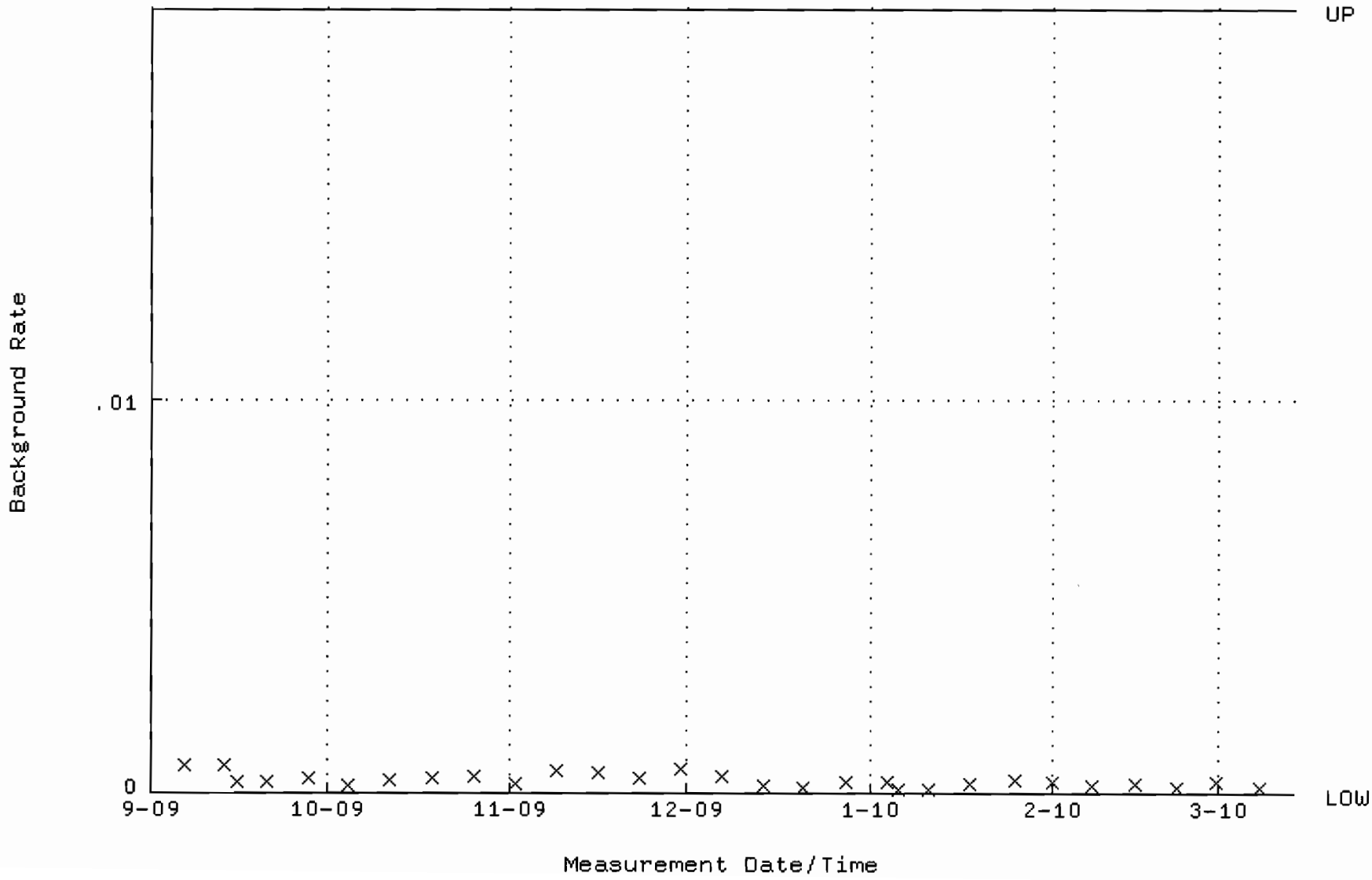

QA filename : DKA100:[ENV_ALPHA.QA.W]W080.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.329119 through 0.338613

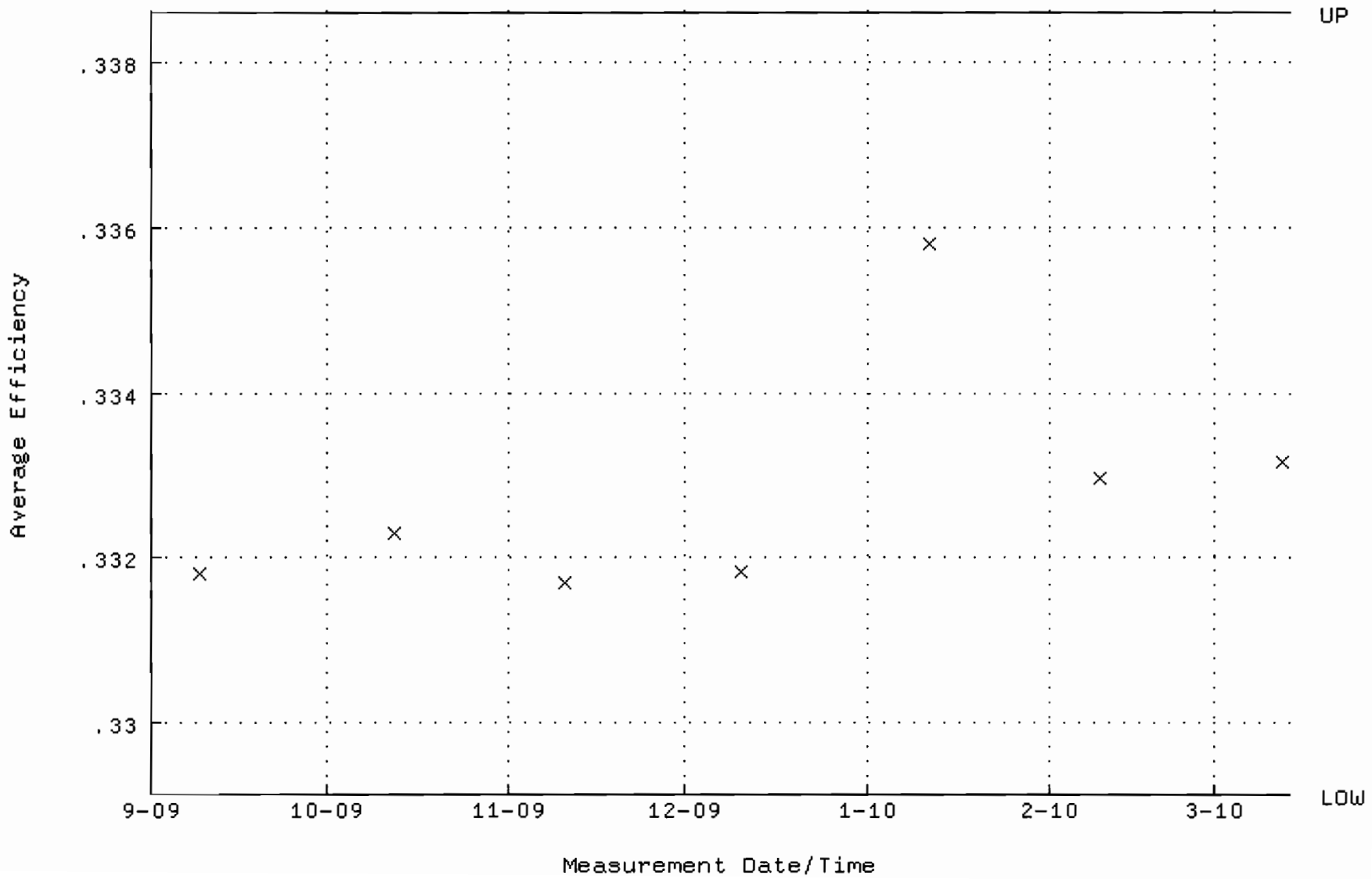

QA filename : DKA100:[ENV_ALPHA.QA.W]W080.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 89.2967 through 92.1199

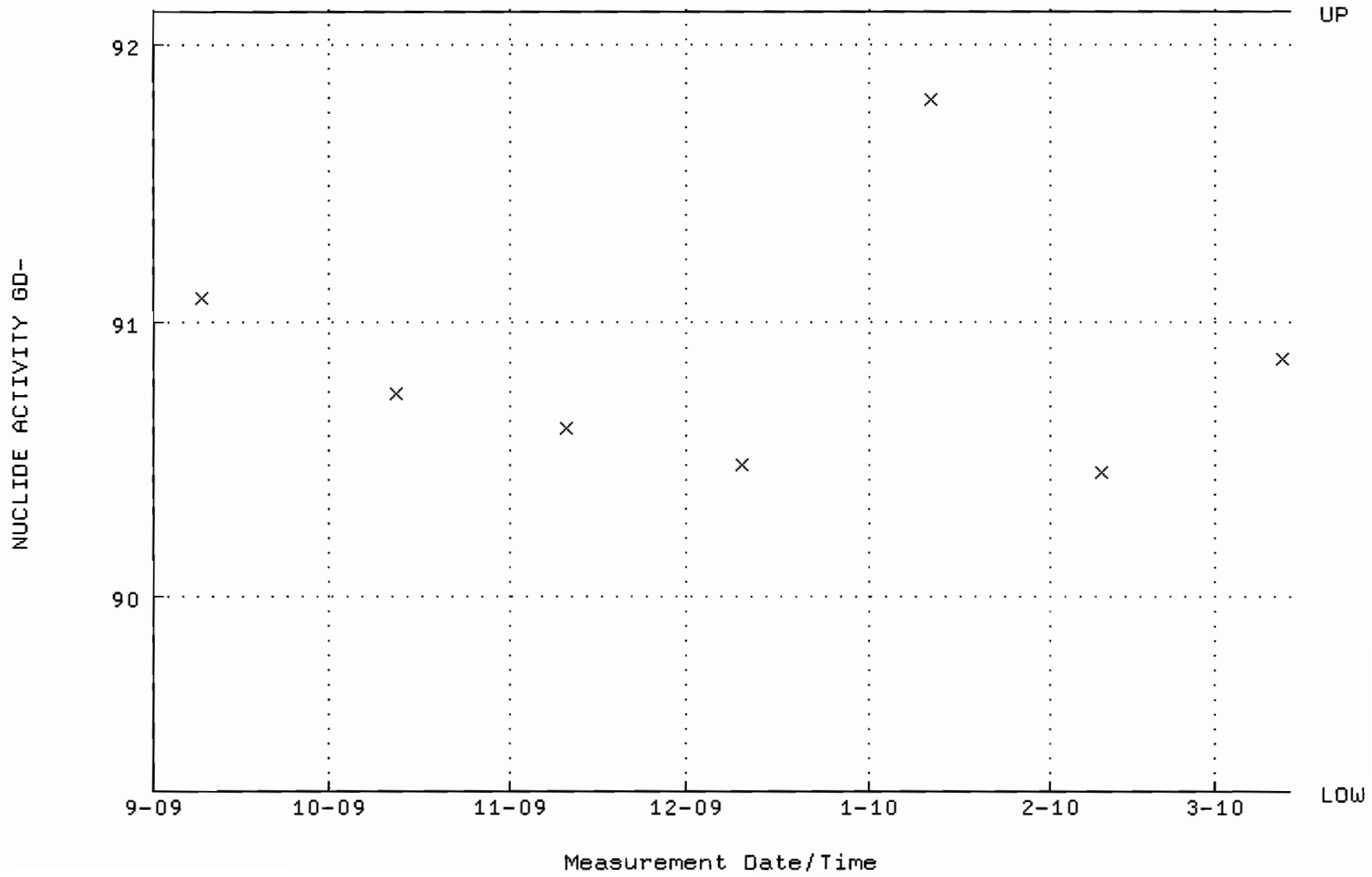

QA filename : DKA100:[ENV_ALPHA.QA.B]B080.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:08 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

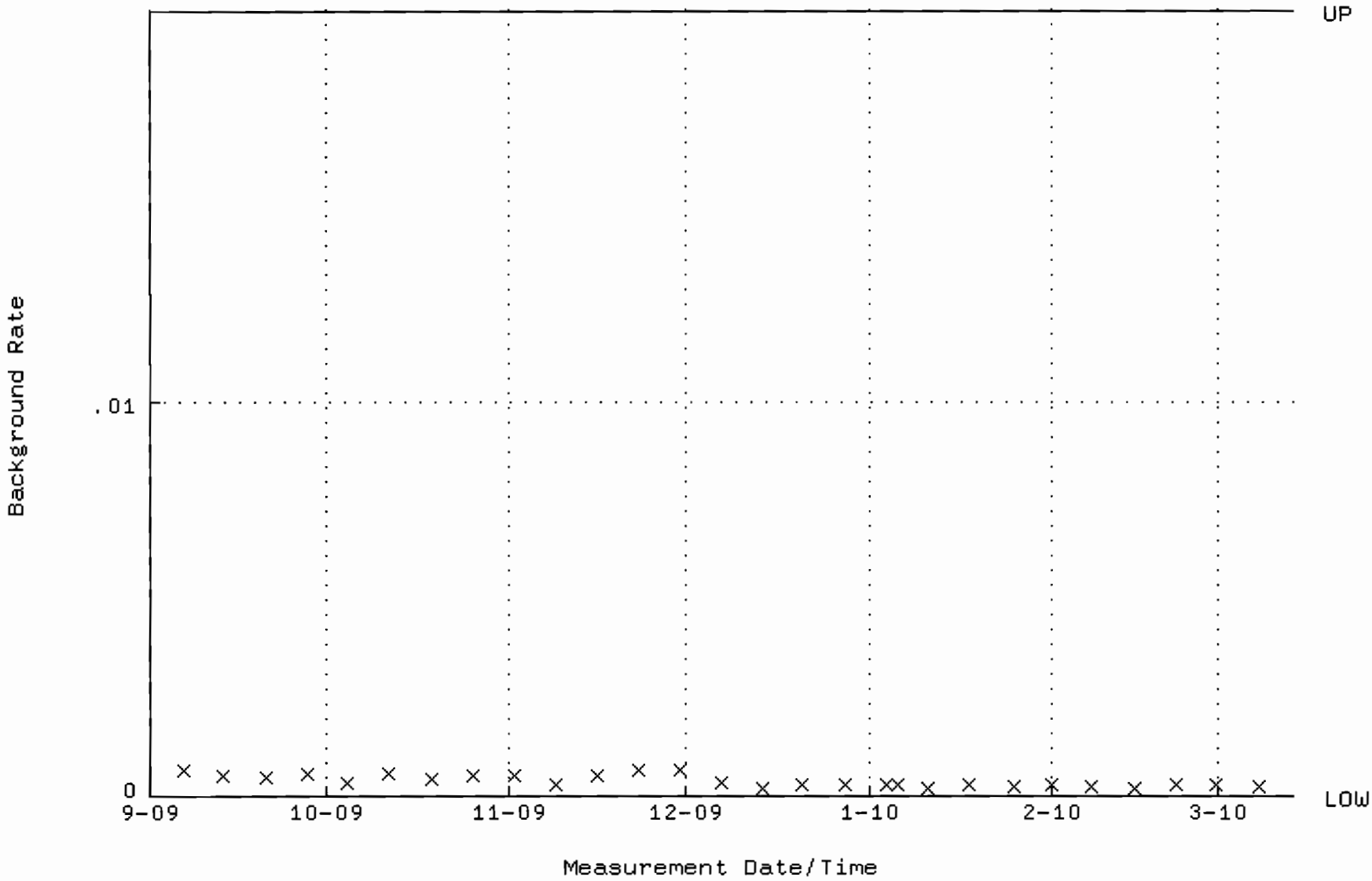

QA filename : DKA100:[ENV_ALPHA.QA.W]W081.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.306696 through 0.339366

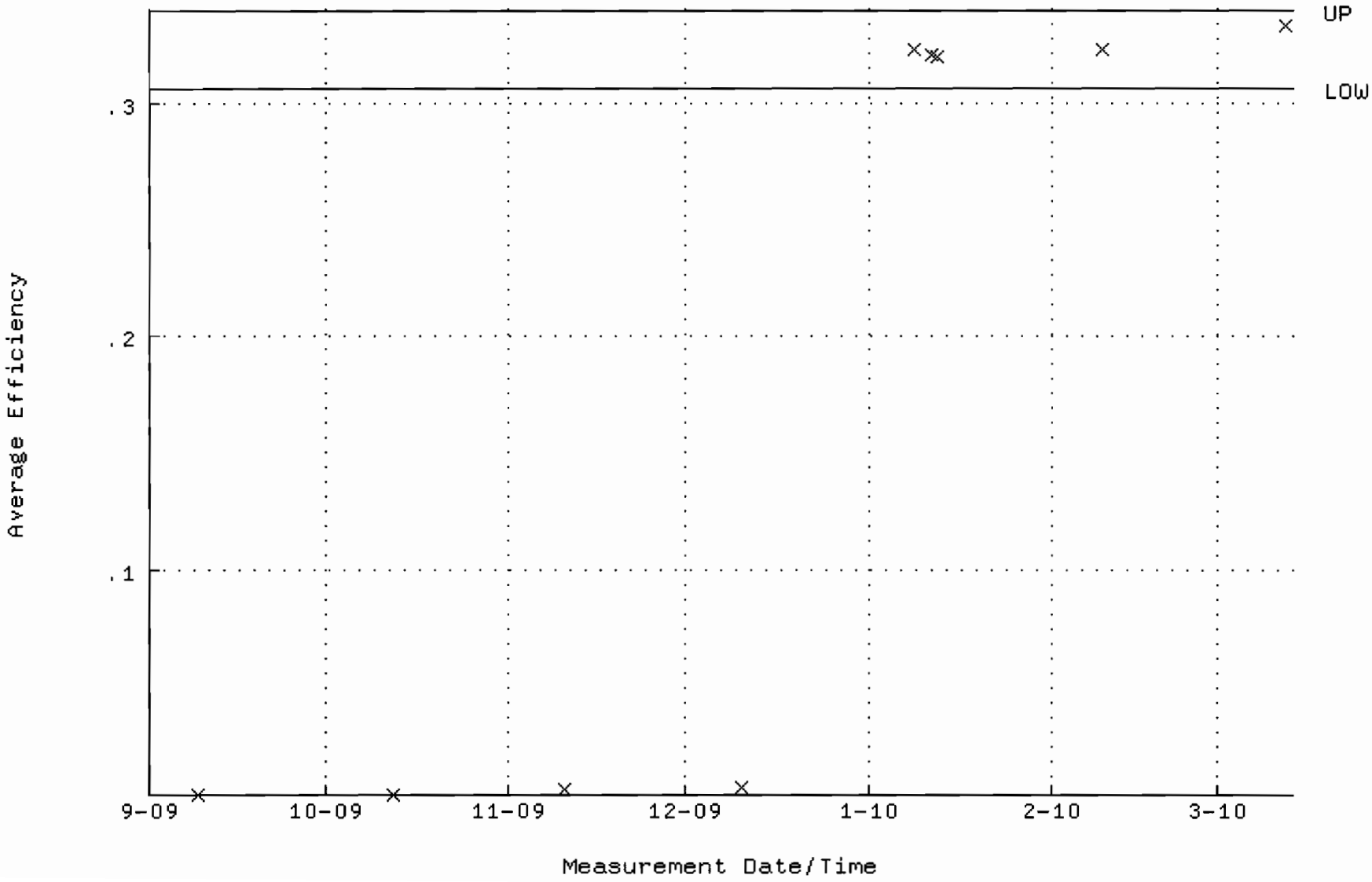

QA filename : DKA100:[ENV_ALPHA.QA.W]W081.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 87.8151 through 98.1913

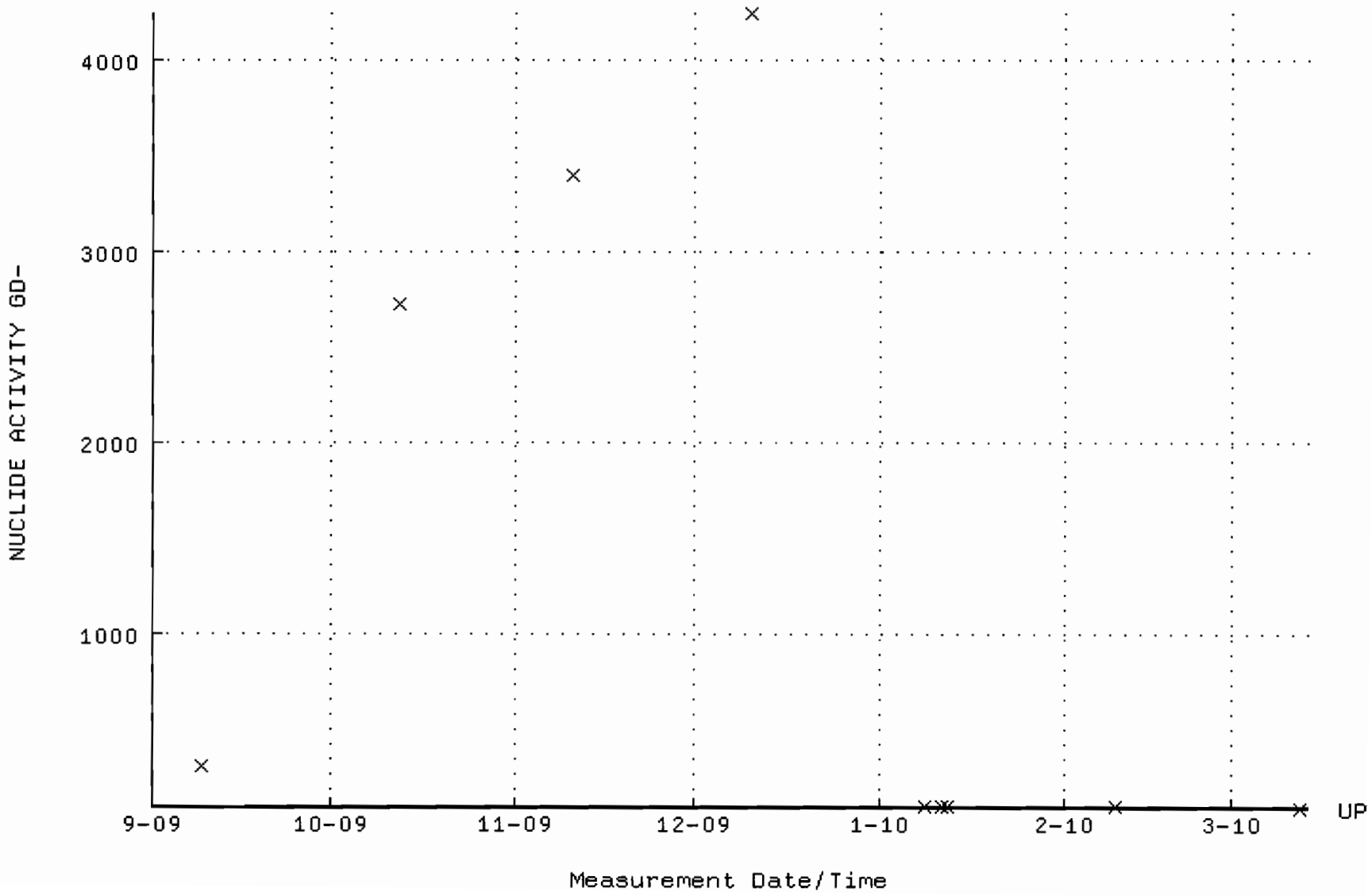

QA filename : DKA100:[ENV_ALPHA.QA.B]B081.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:08 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

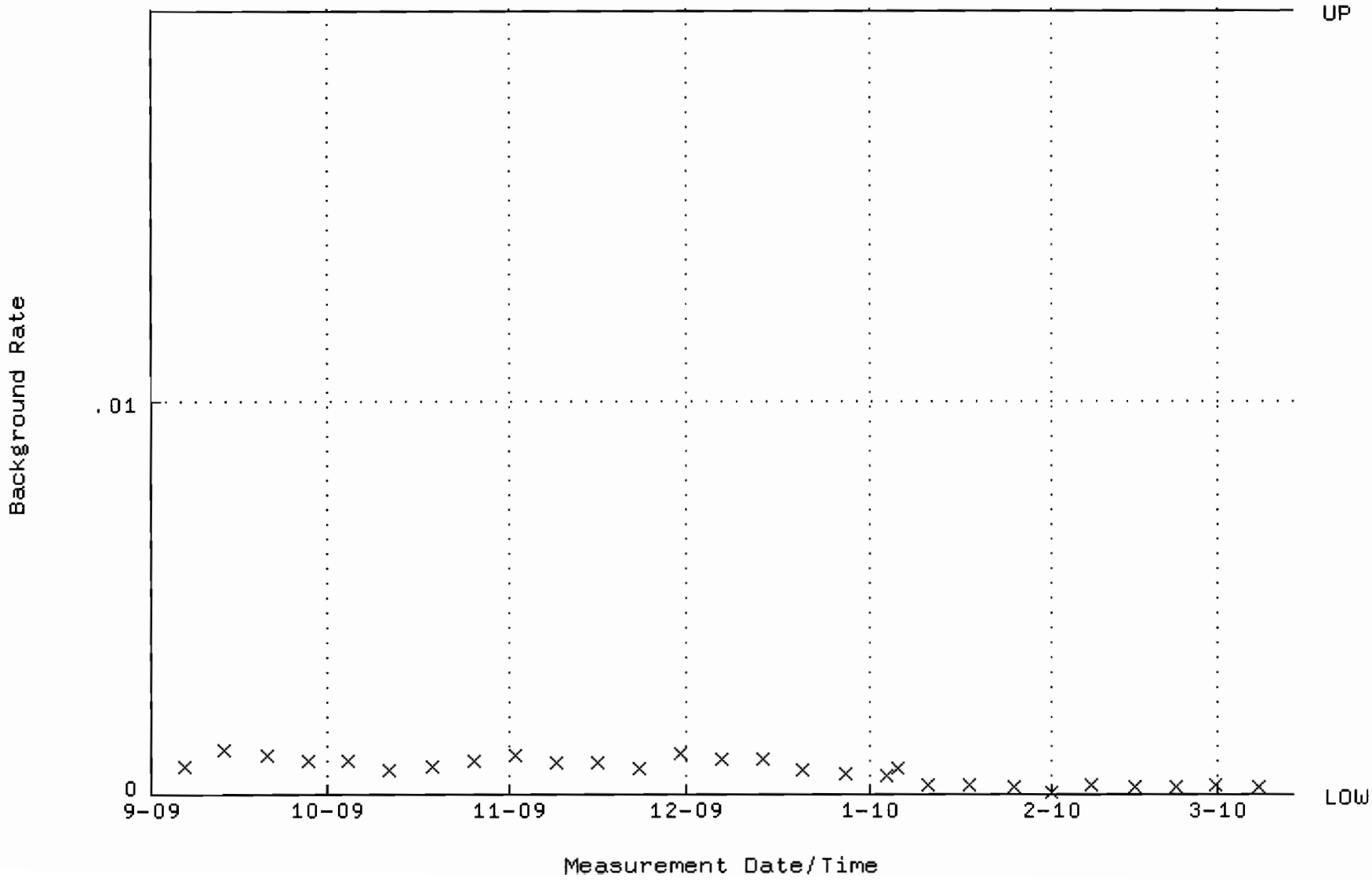

QA filename : DKA100:[ENV_ALPHA.QA.W]W082.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.300260 through 0.351240

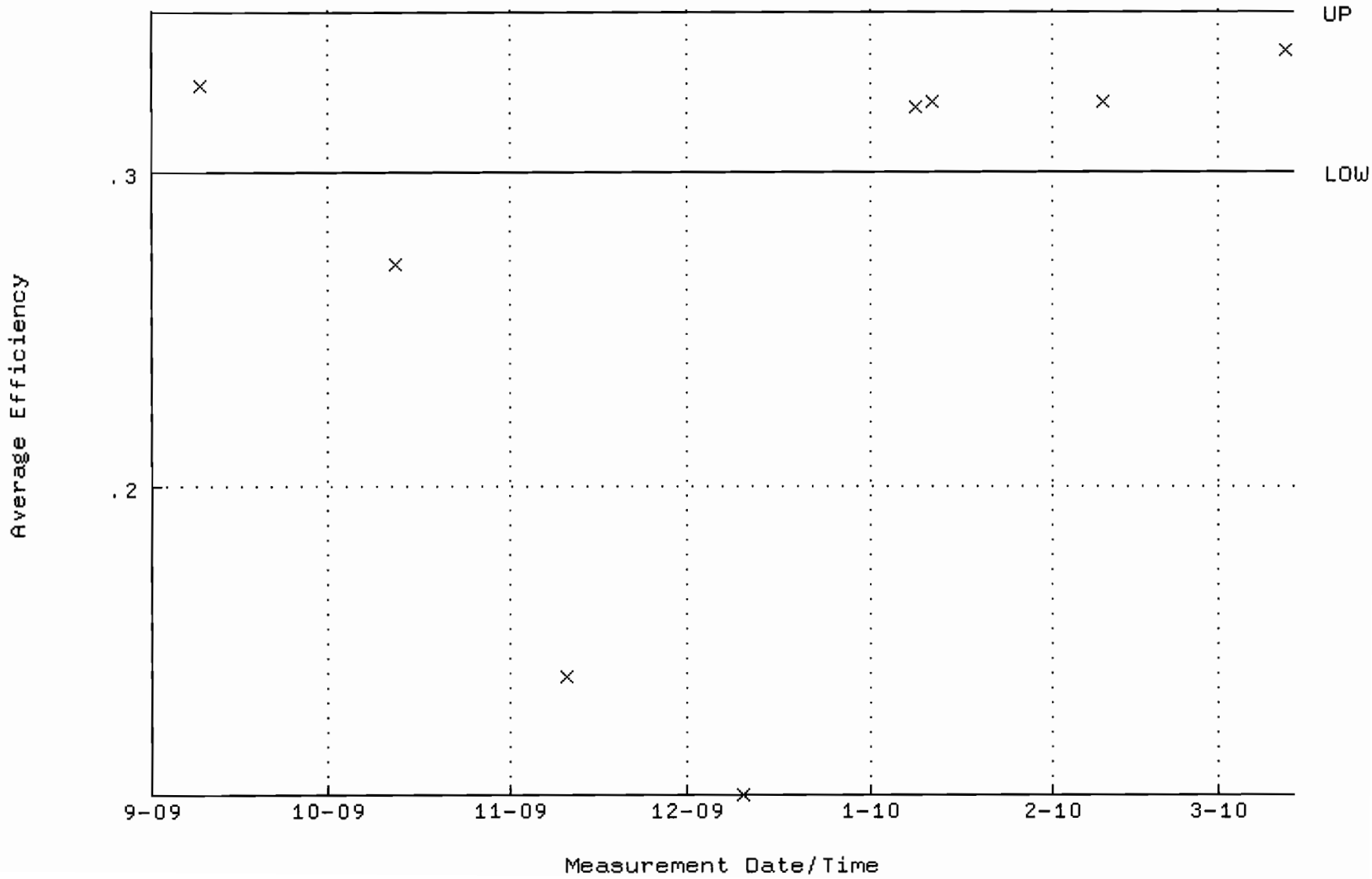

QA filename : DKA100:[ENV_ALPHA.QA.W]W082.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 85.2649 through 95.7657

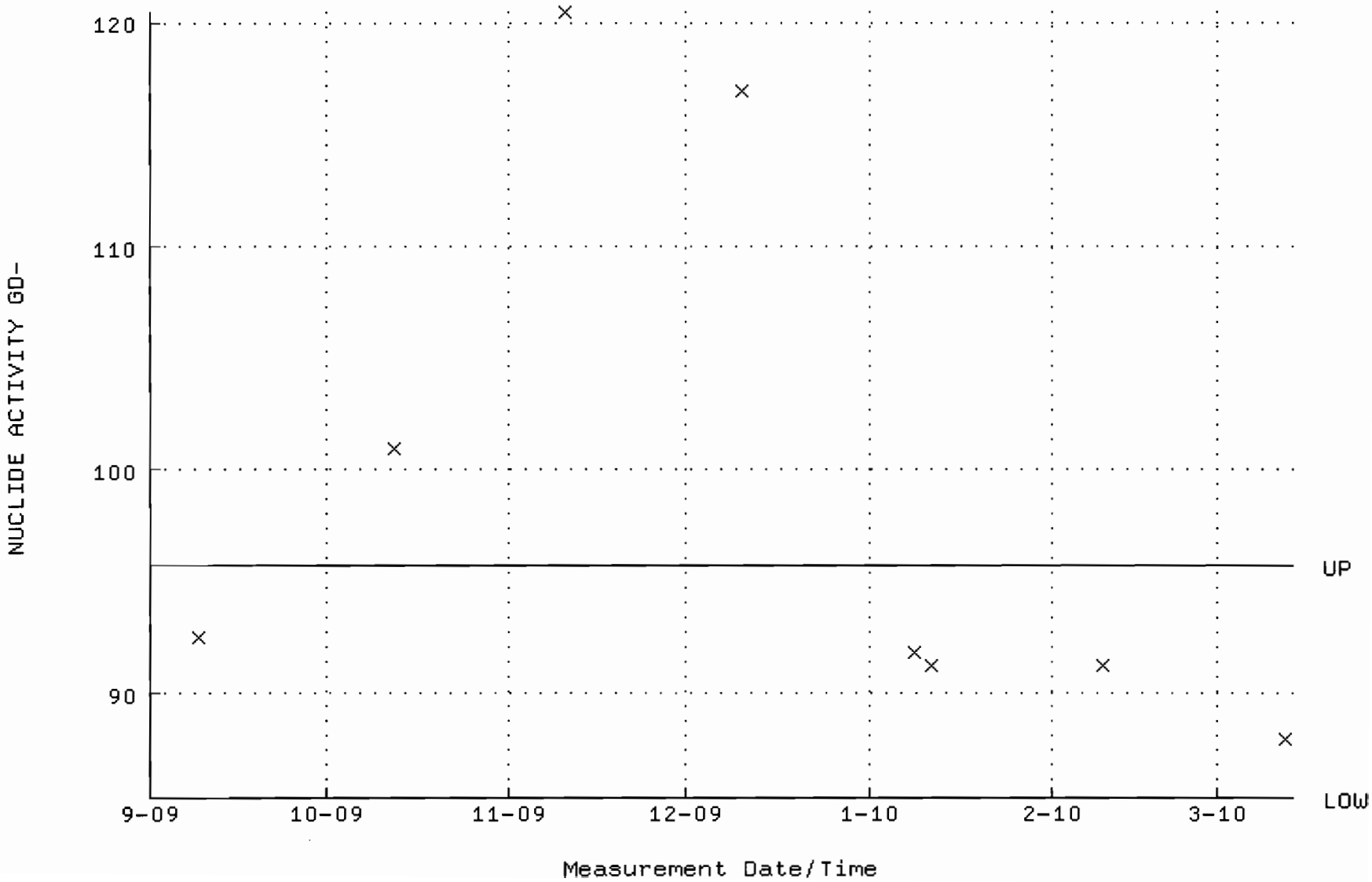

QA filename : DKA100:[ENV_ALPHA.QA.B]B082.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:08 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

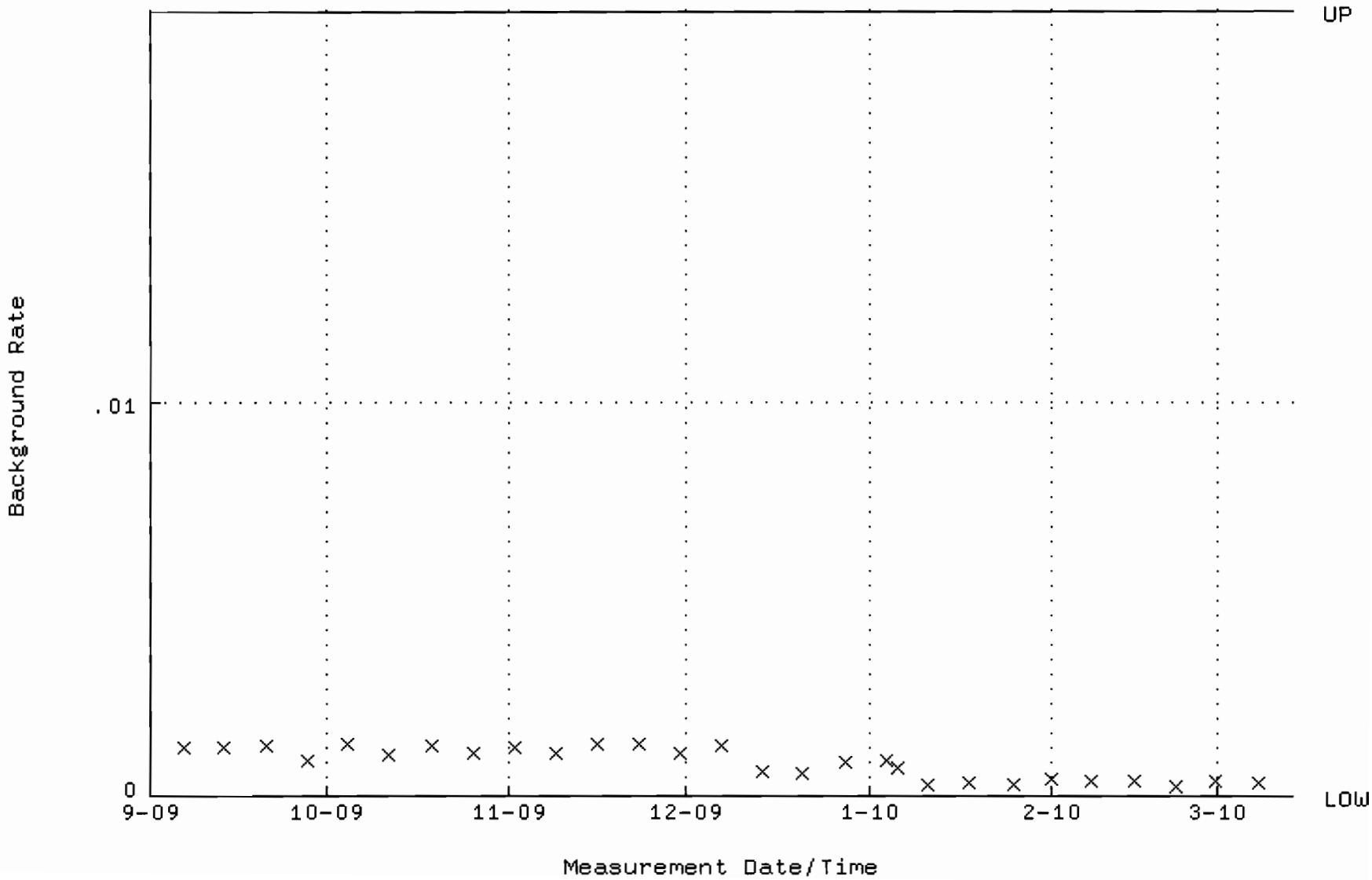

QA filename : DKA100:[ENV_ALPHA.QA.W]W083.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.316282 through 0.365366

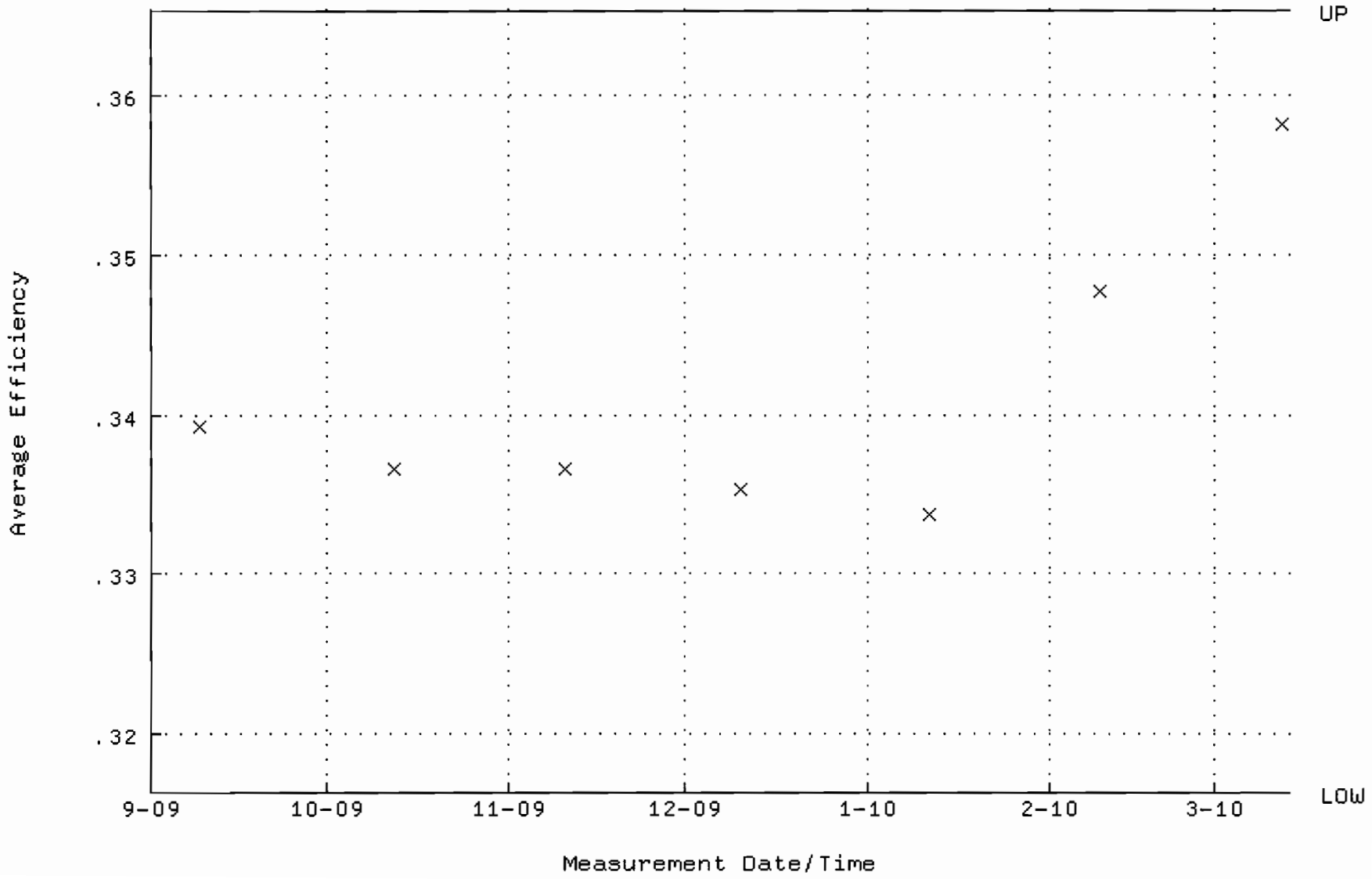

QA filename : DKA100:[ENV_ALPHA.QA.W]W083.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 82.1020 through 93.7348

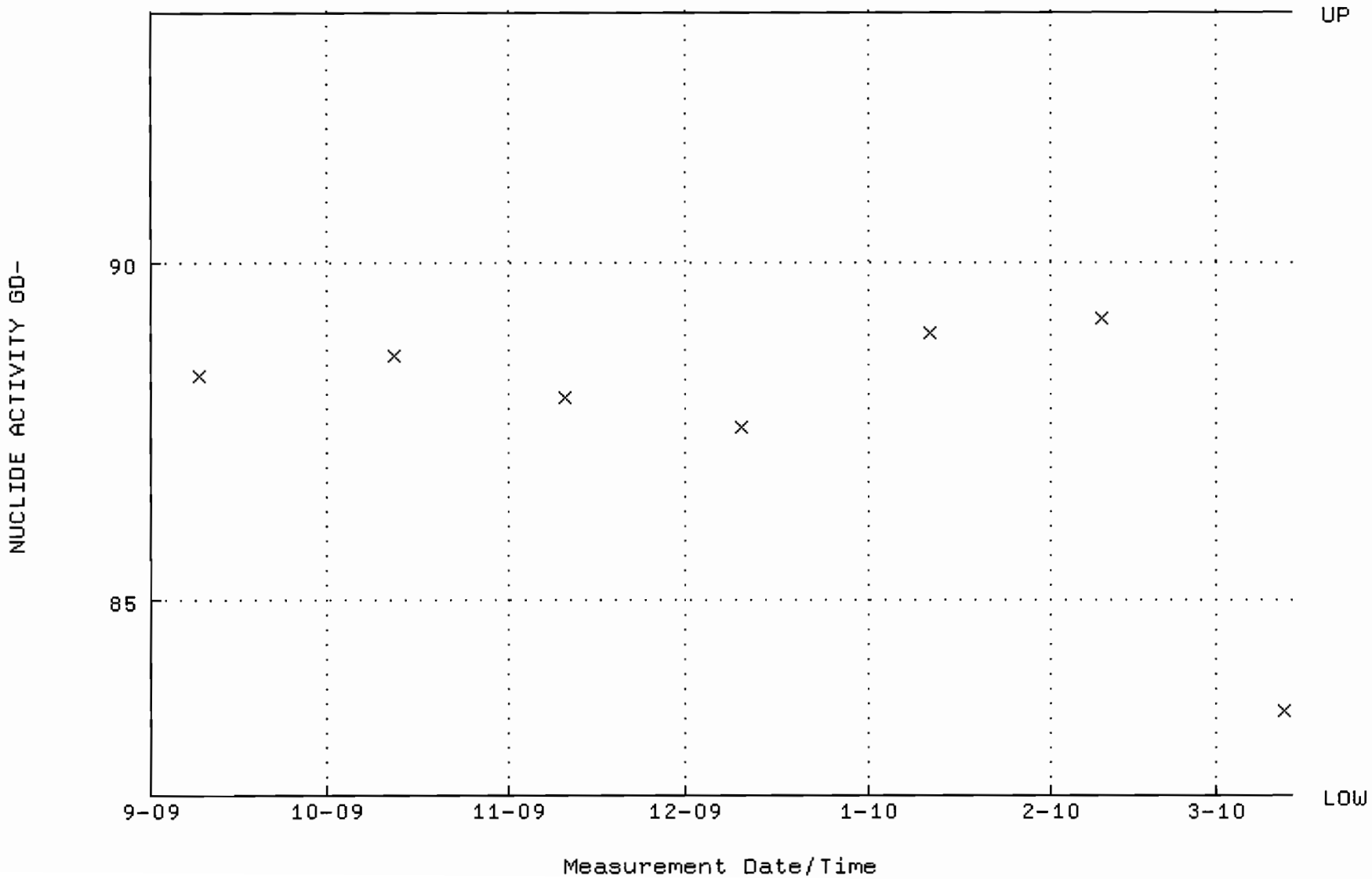

QA filename : DKA100:[ENV_ALPHA.QA.B]B083.QAF;3
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:09 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

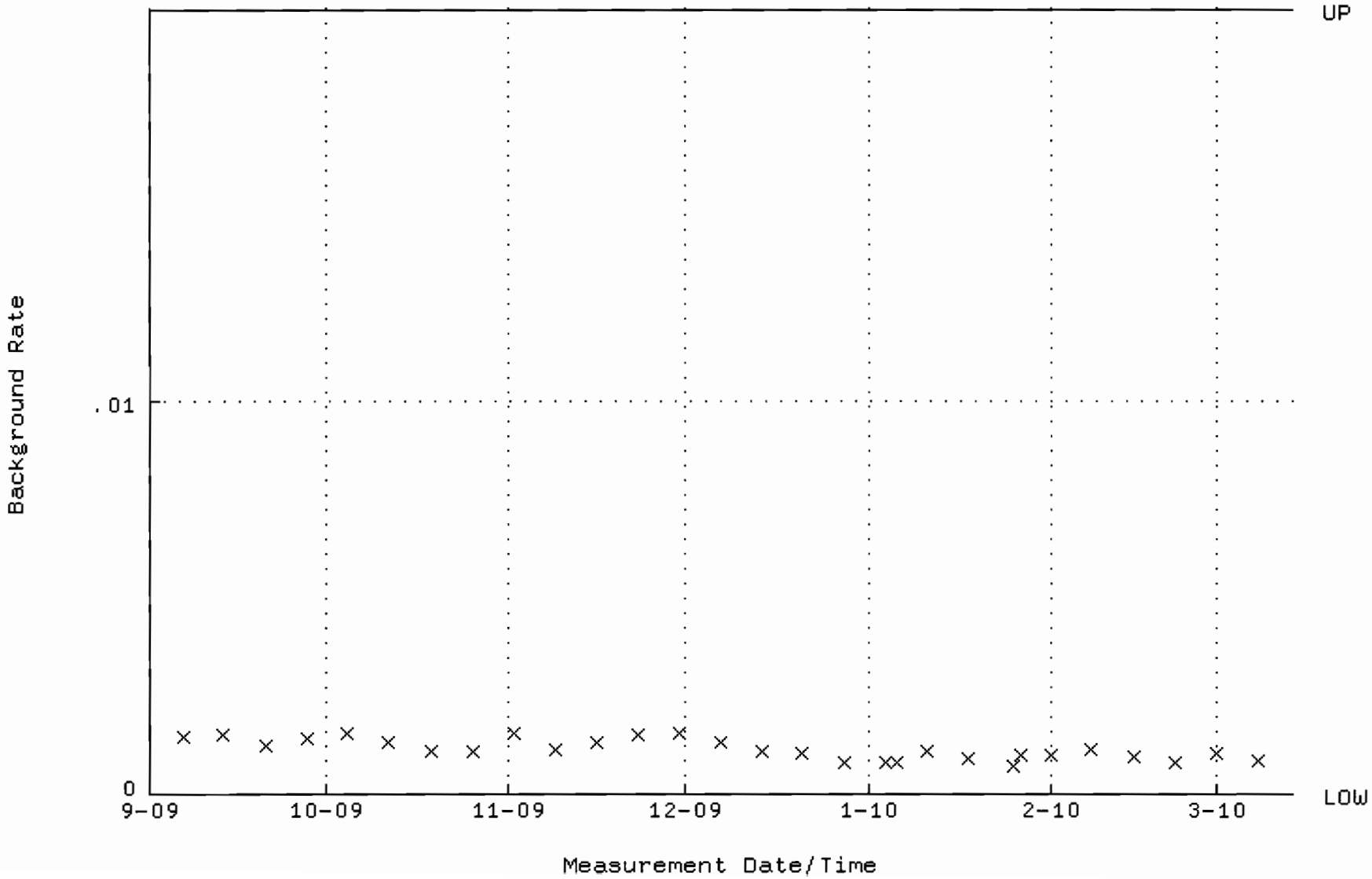

QA filename : DKA100:[ENV_ALPHA.QA.W]W084.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.329490 through 0.350492

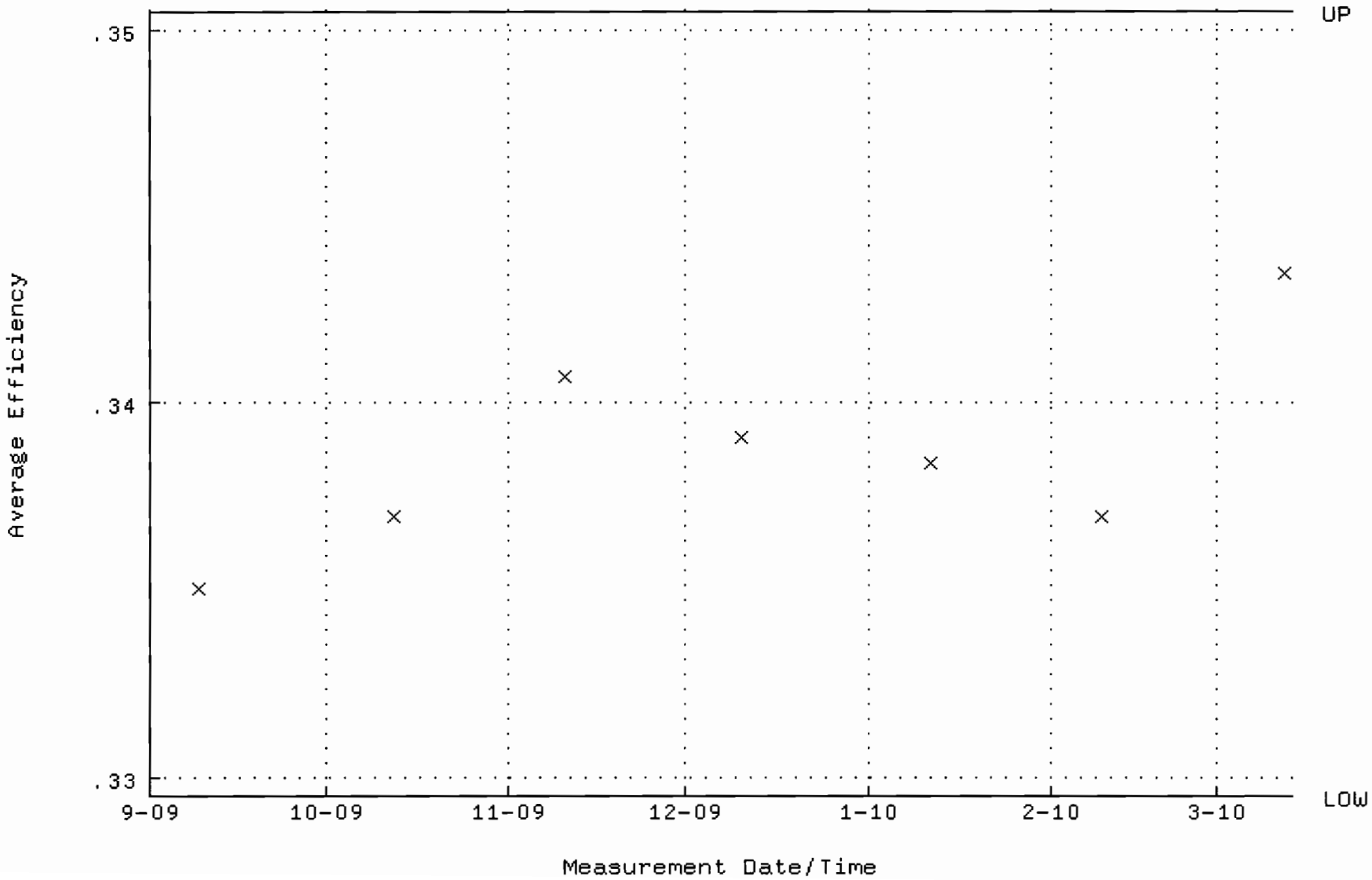

QA filename : DKA100:[ENV_ALPHA.QA.W]W084.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 88.4771 through 91.6651

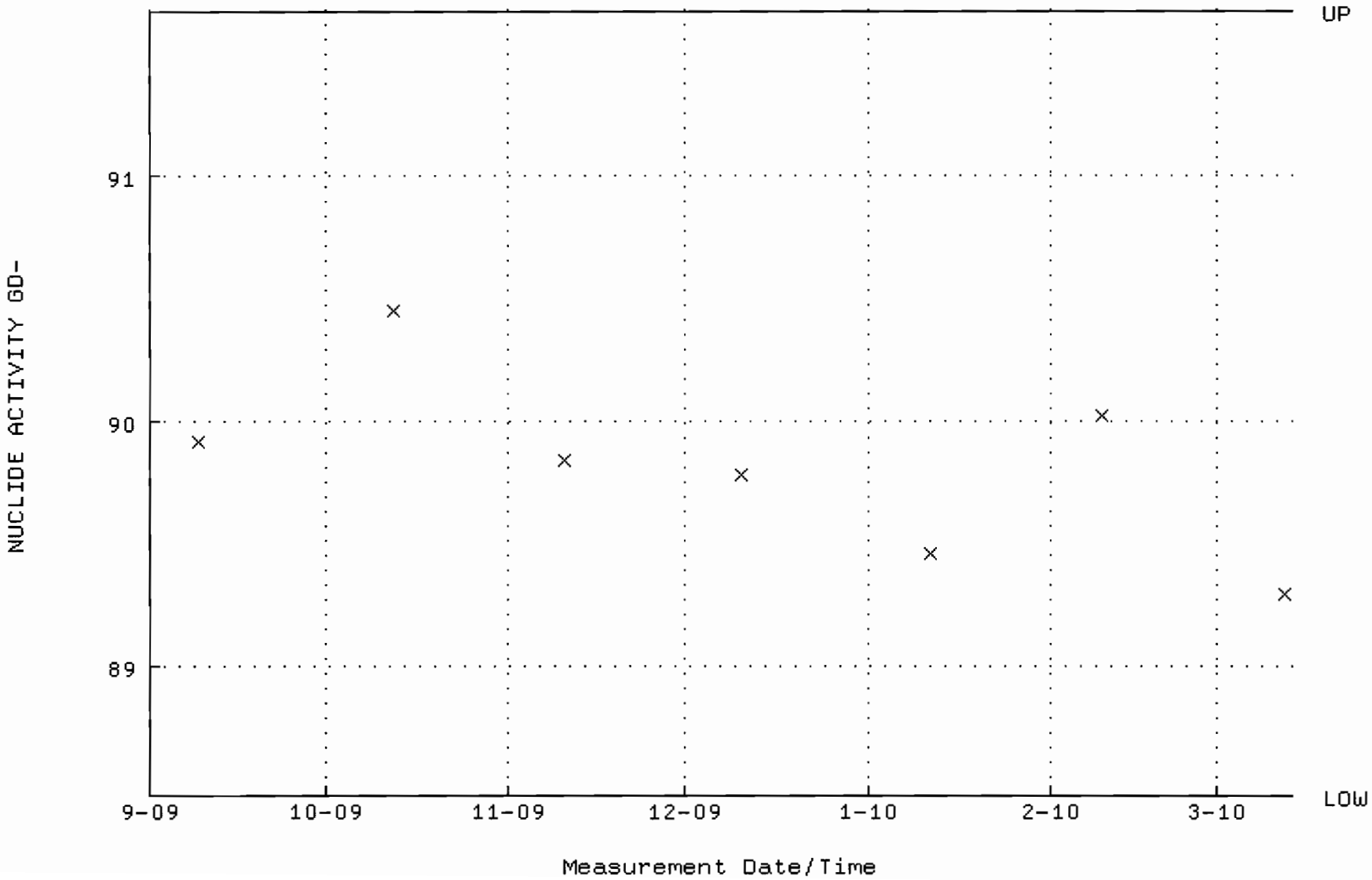

QA filename : DKA100:[ENV_ALPHA.QA.B]B084.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:09 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

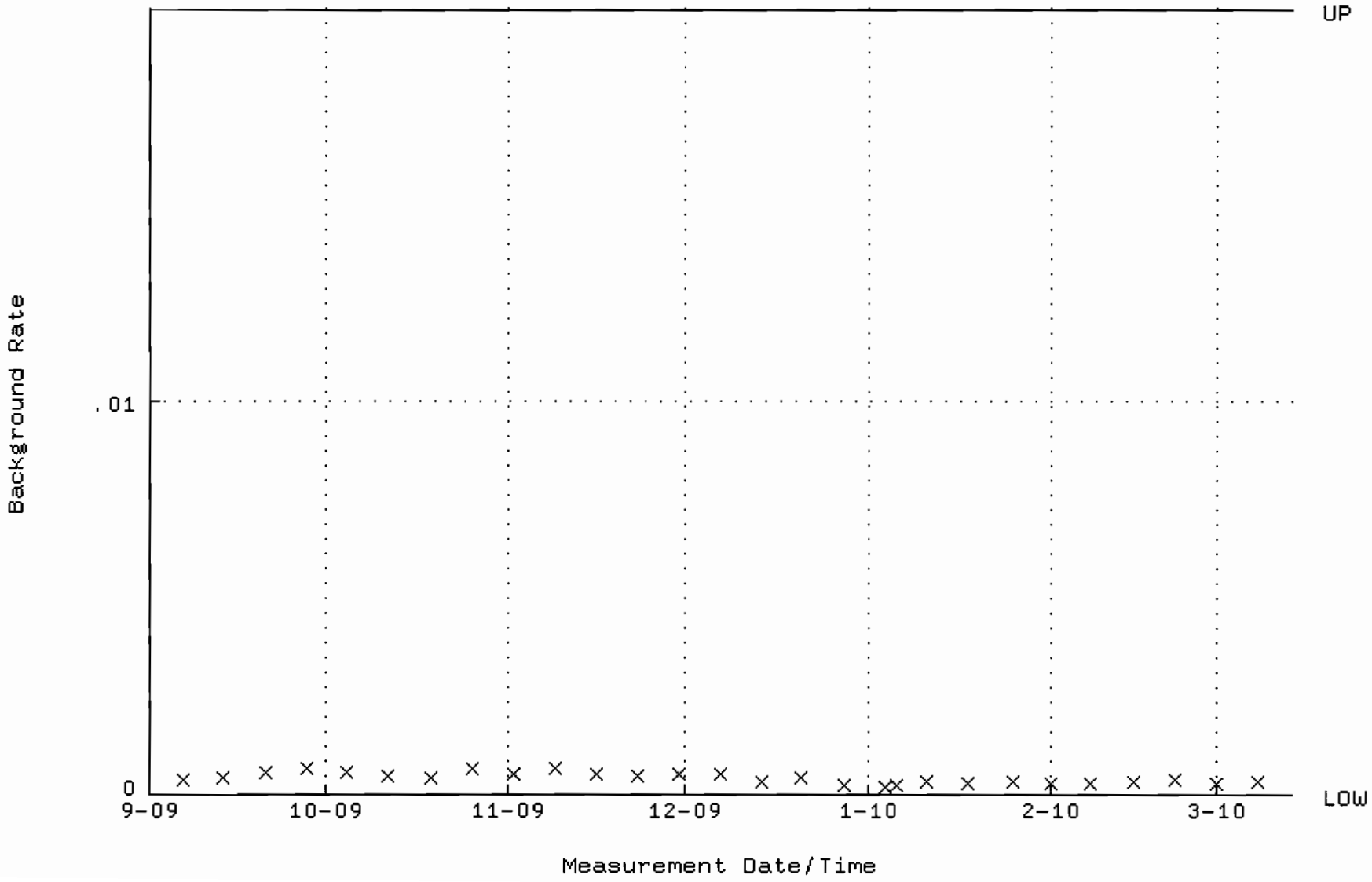

QA filename : DKA100:[ENV_ALPHA.QA.W]W085.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.306815 through 0.344543

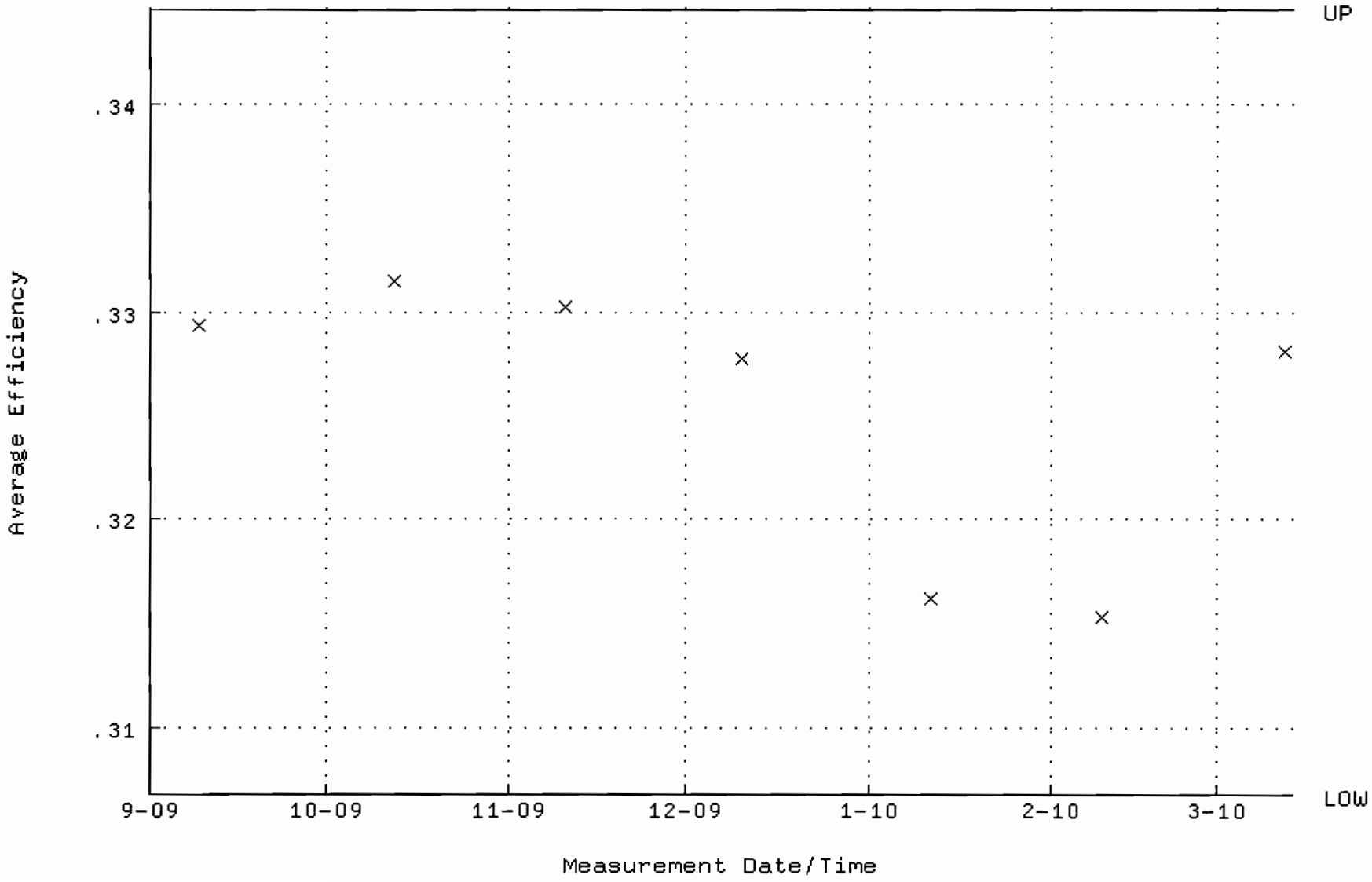

QA filename : DKA100:[ENV_ALPHA.QA.W]W085.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 86.1313 through 96.4525

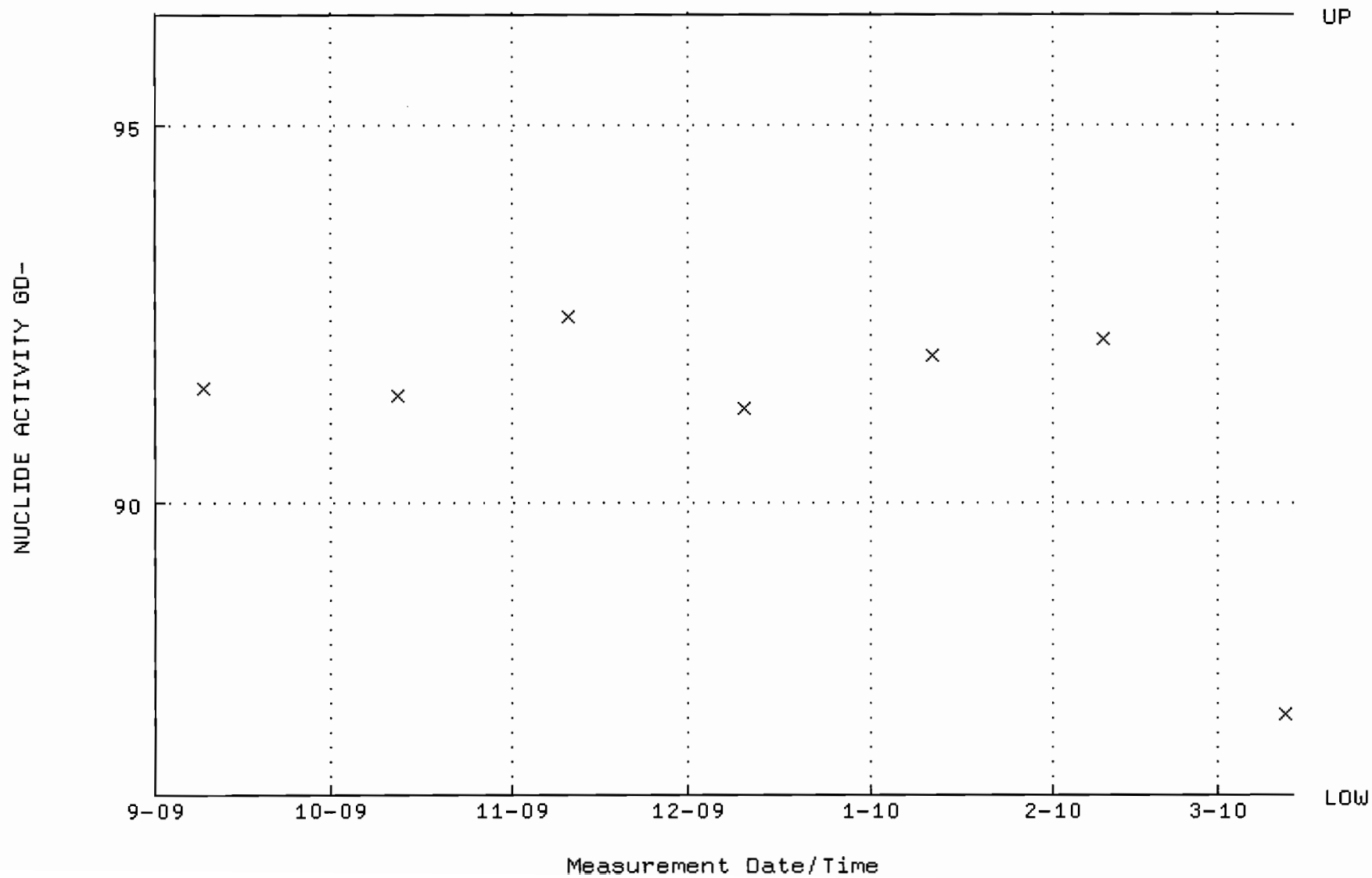

QA filename : DKA100:[ENV_ALPHA.QA.B]B085.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:09 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

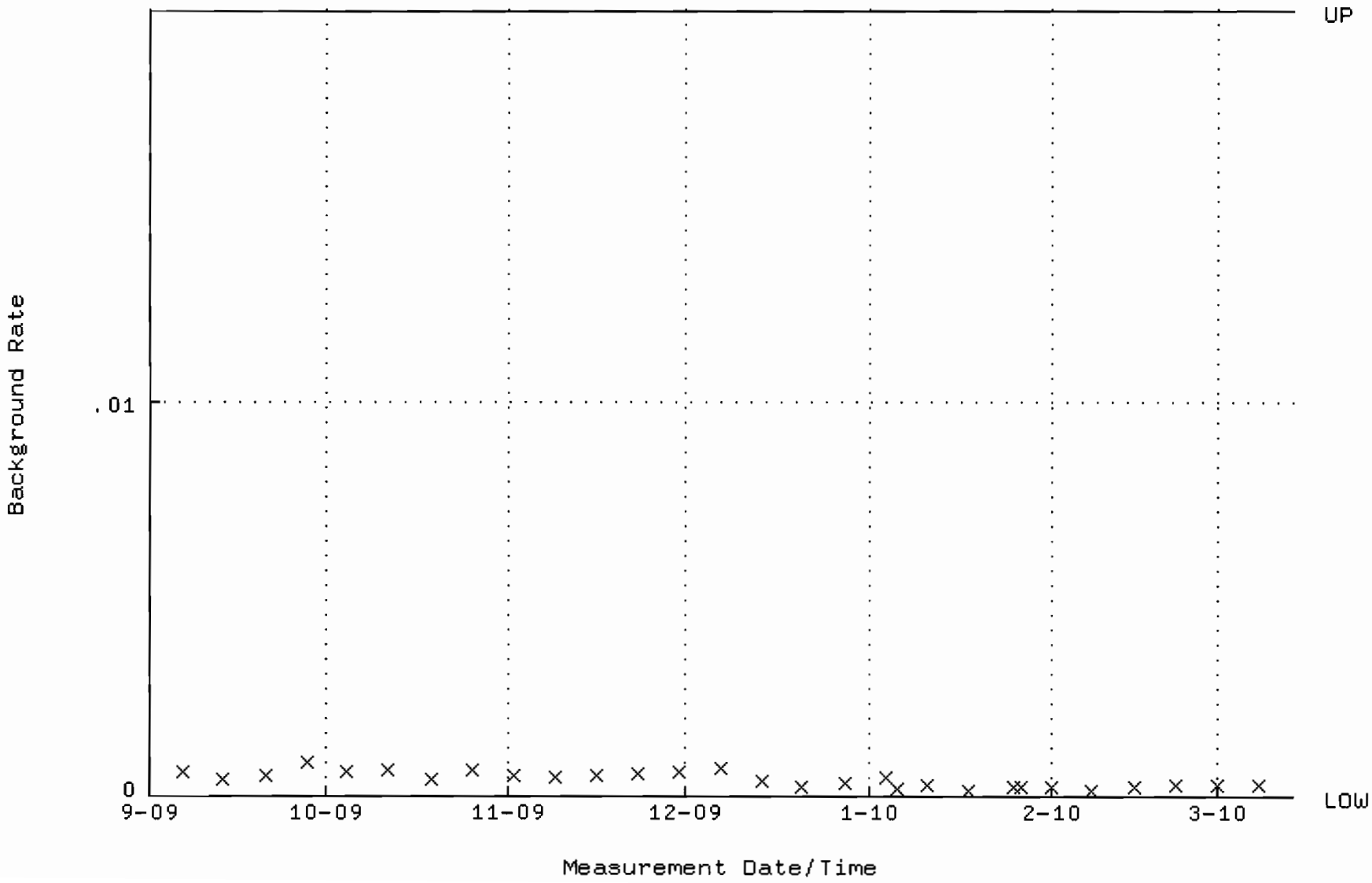

QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.287158 through 0.309794

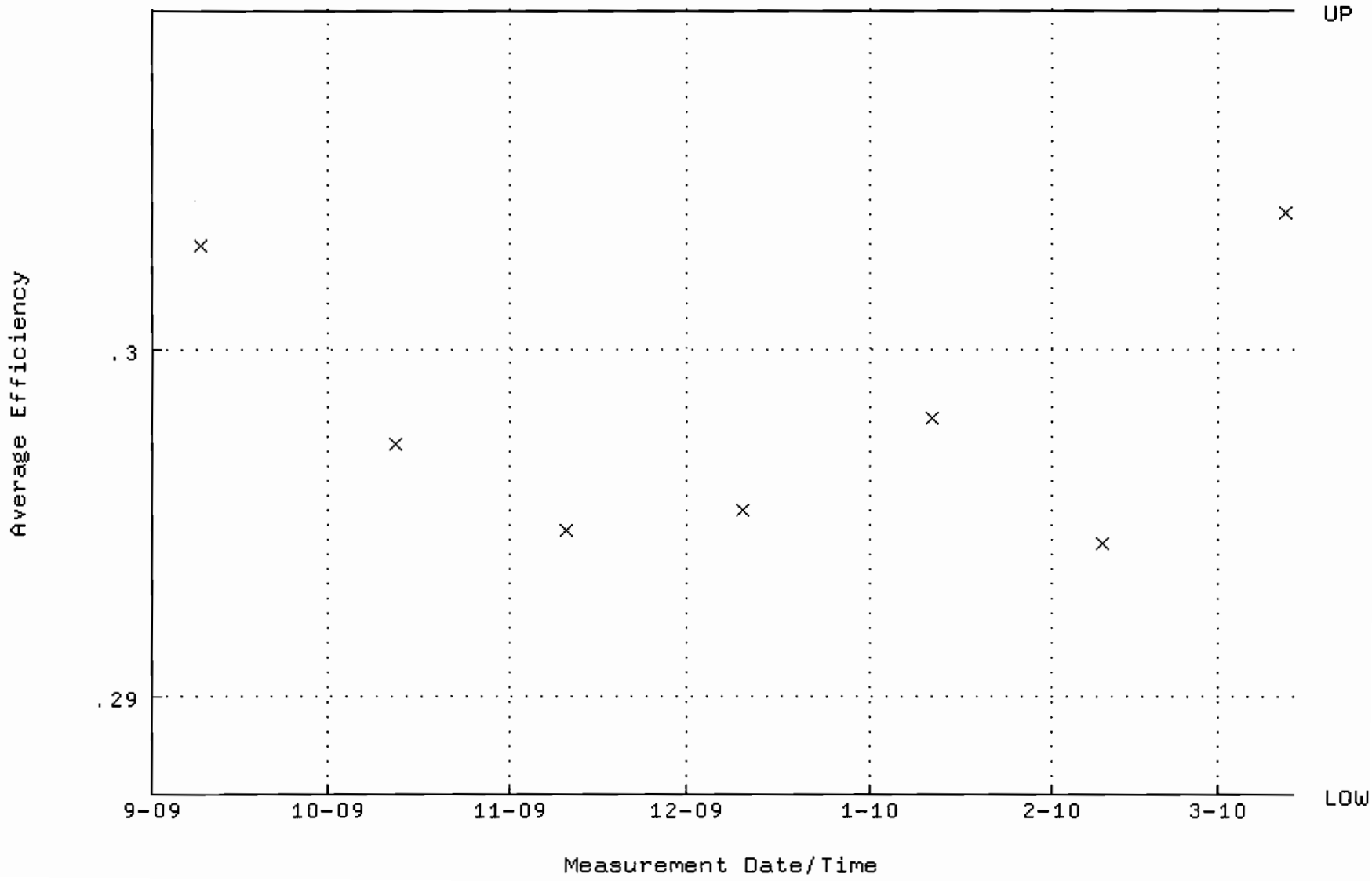

QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 89.1886 through 95.1274

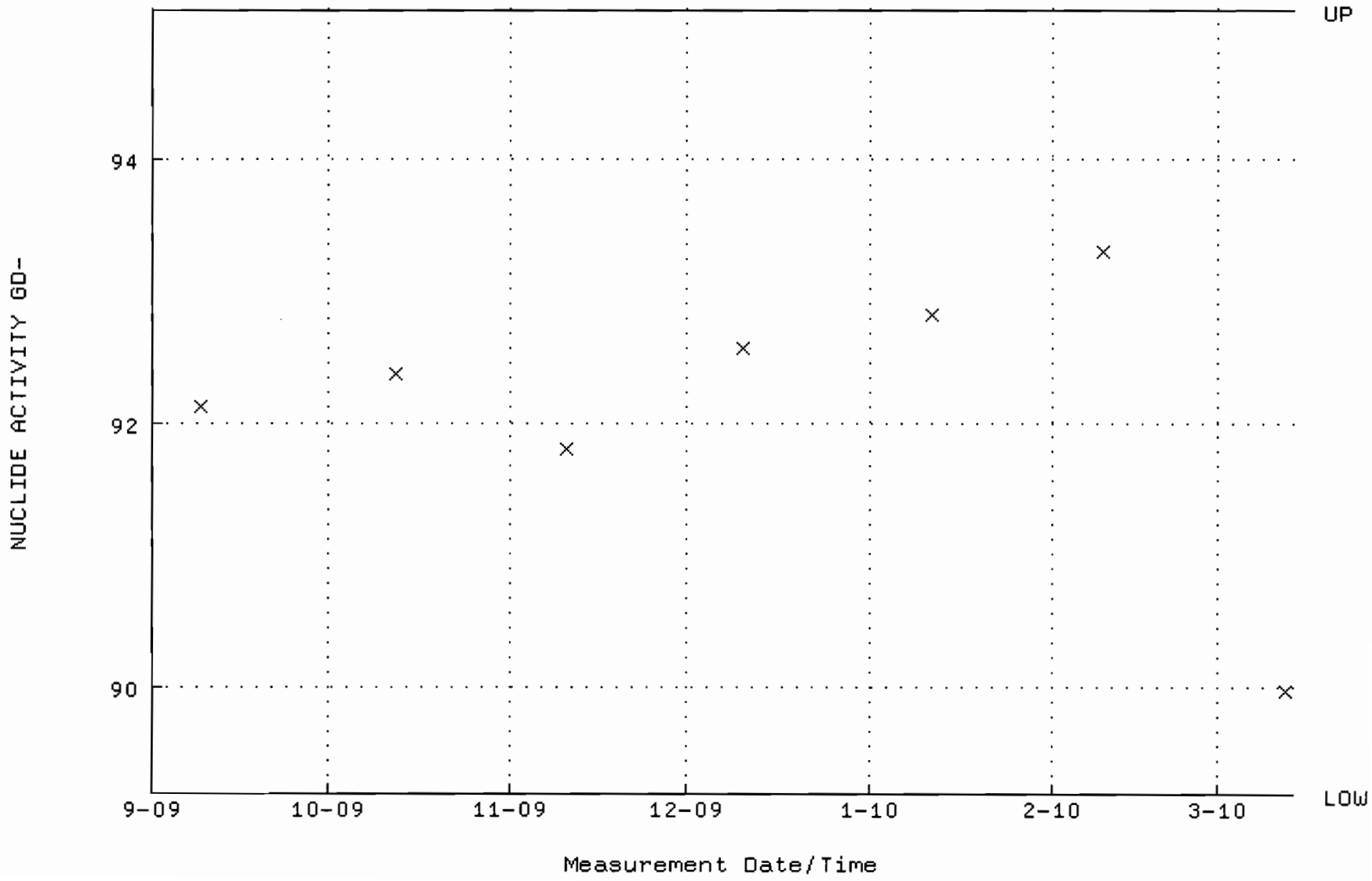

QA filename : DKA100:[ENV_ALPHA.QA.B]B086.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:09 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

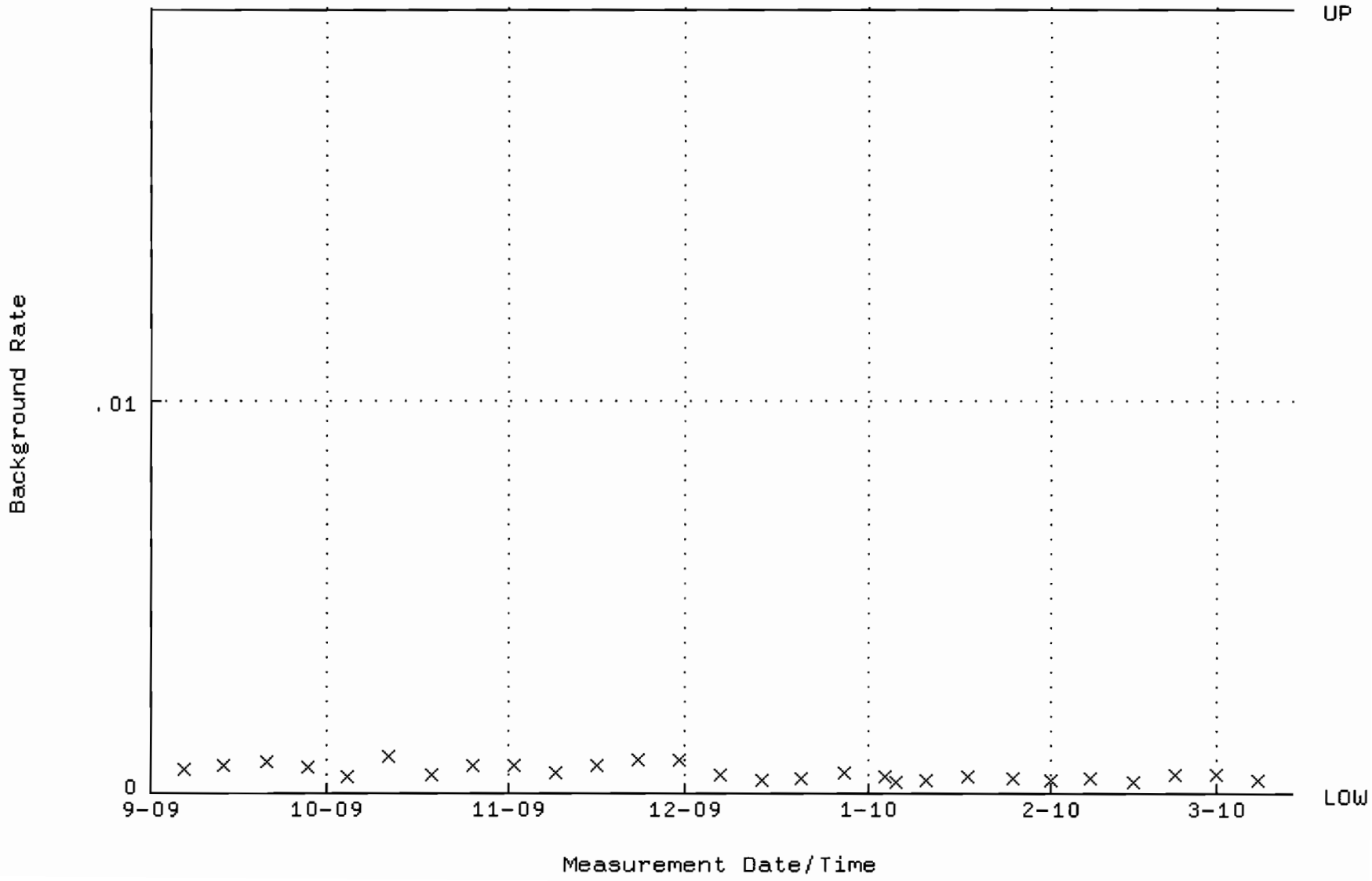

QA filename : DKA100:[ENV_ALPHA.QA.W]W094.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.276224 through 0.344338

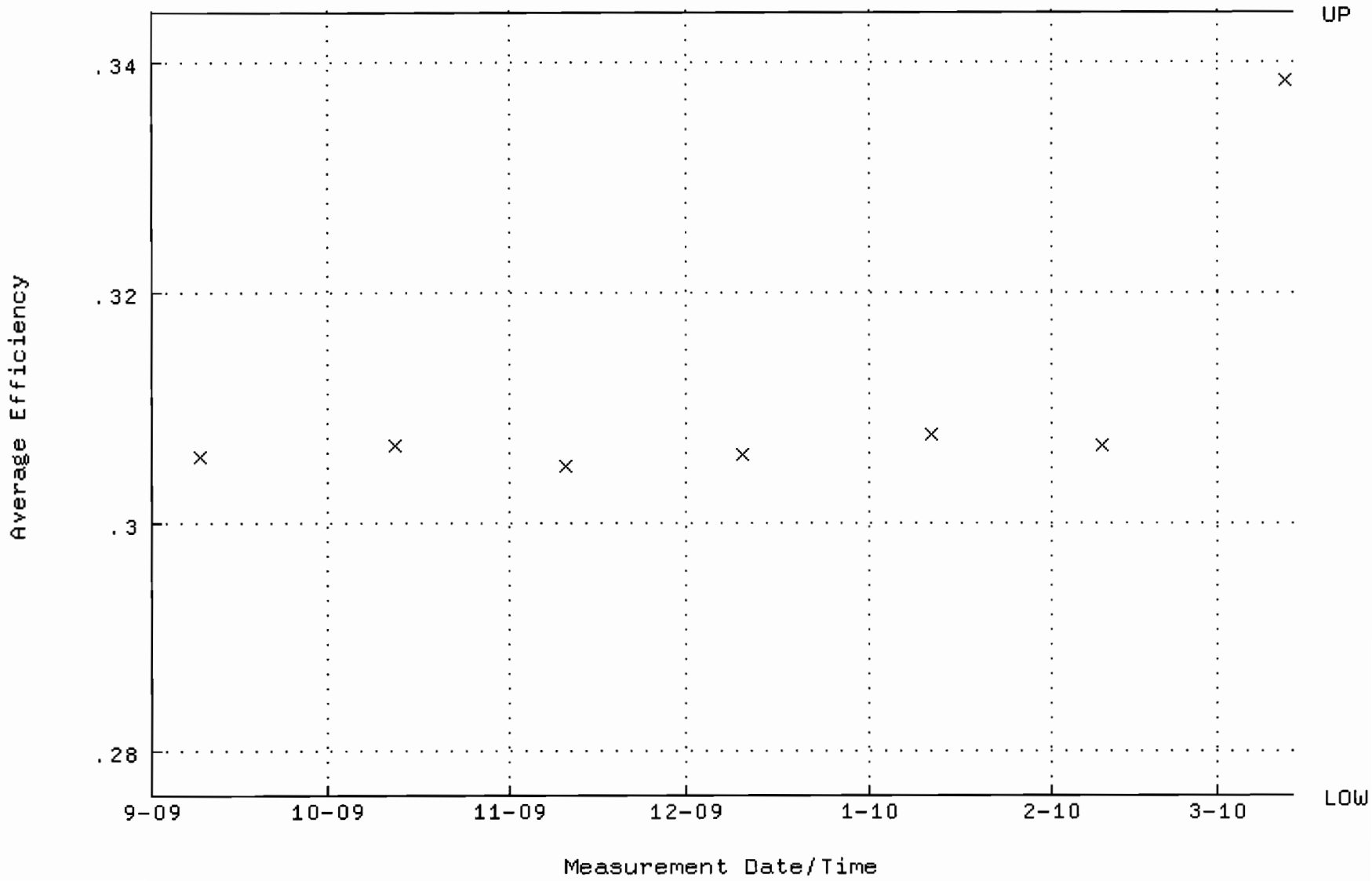

QA filename : DKA100:[ENV_ALPHA.QA.W]W094.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 85.1305 through 90.3863

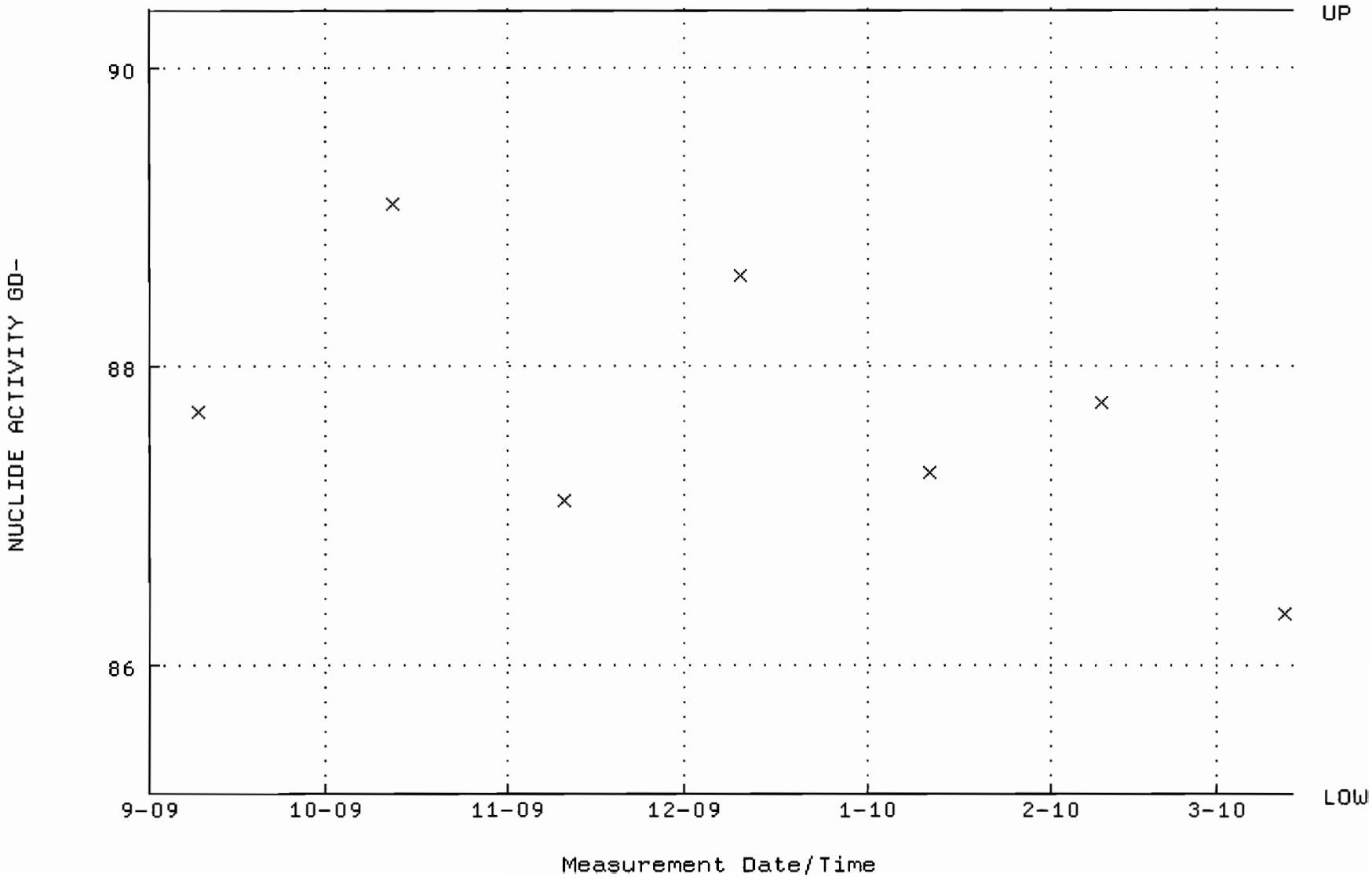

QA filename : DKA100:[ENV_ALPHA.QA.B]B094.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:10 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

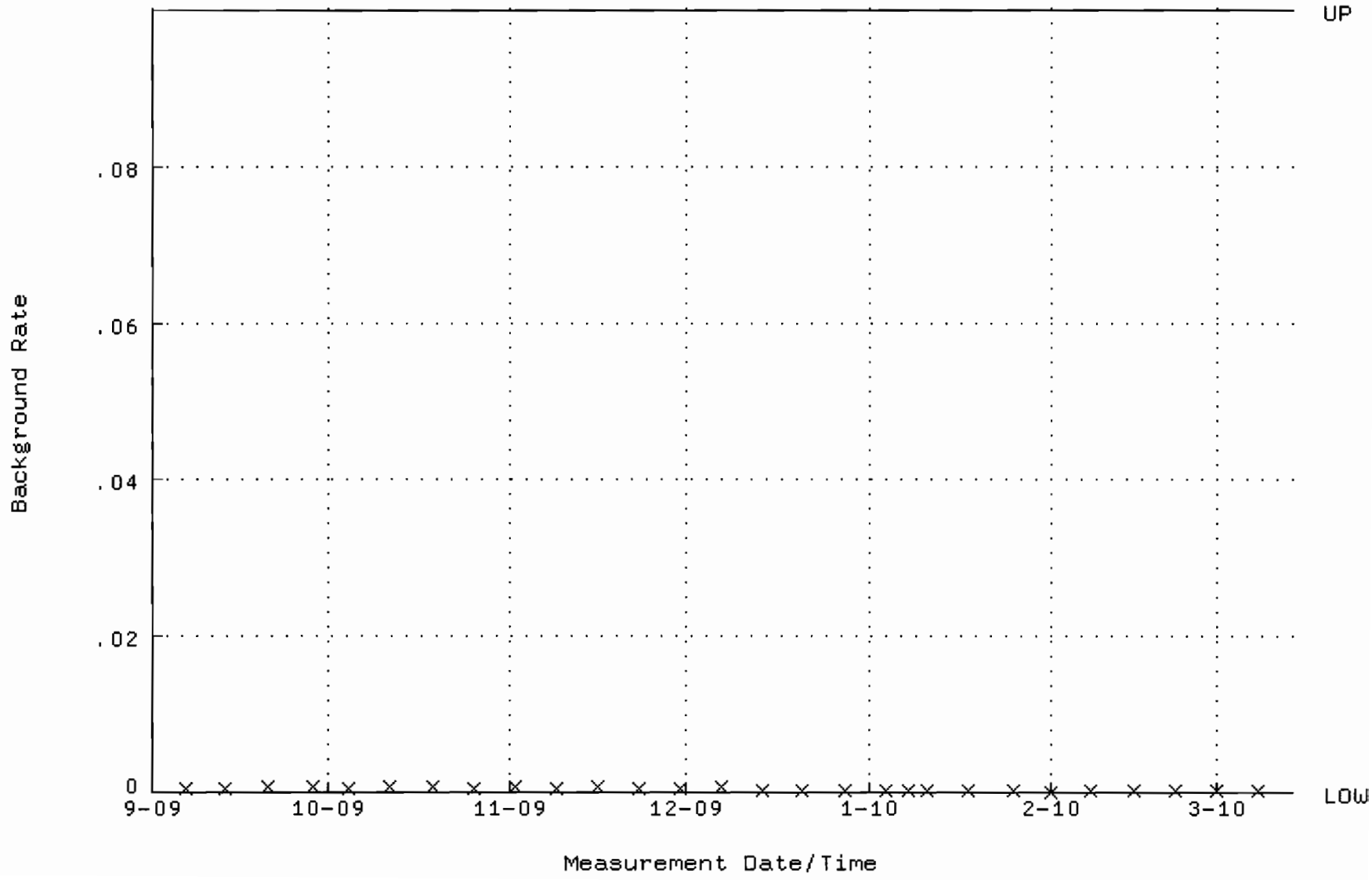

QA filename : DKA100:[ENV_ALPHA.QA.W]W136.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:58 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.220355 through 0.278559

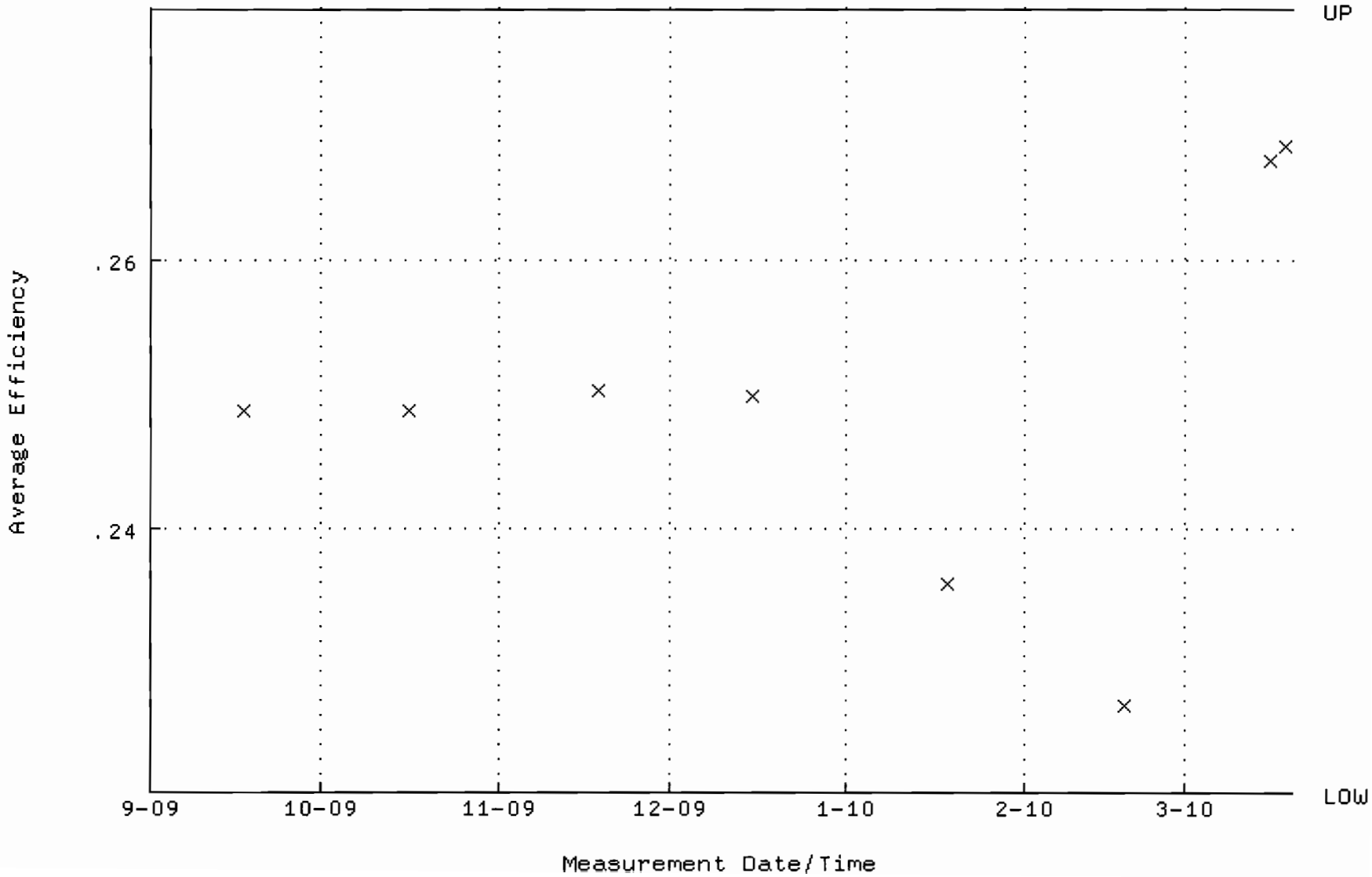

QA filename : DKA100:[ENV_ALPHA.QA.W]W136.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:58 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 81.0690 through 100.381

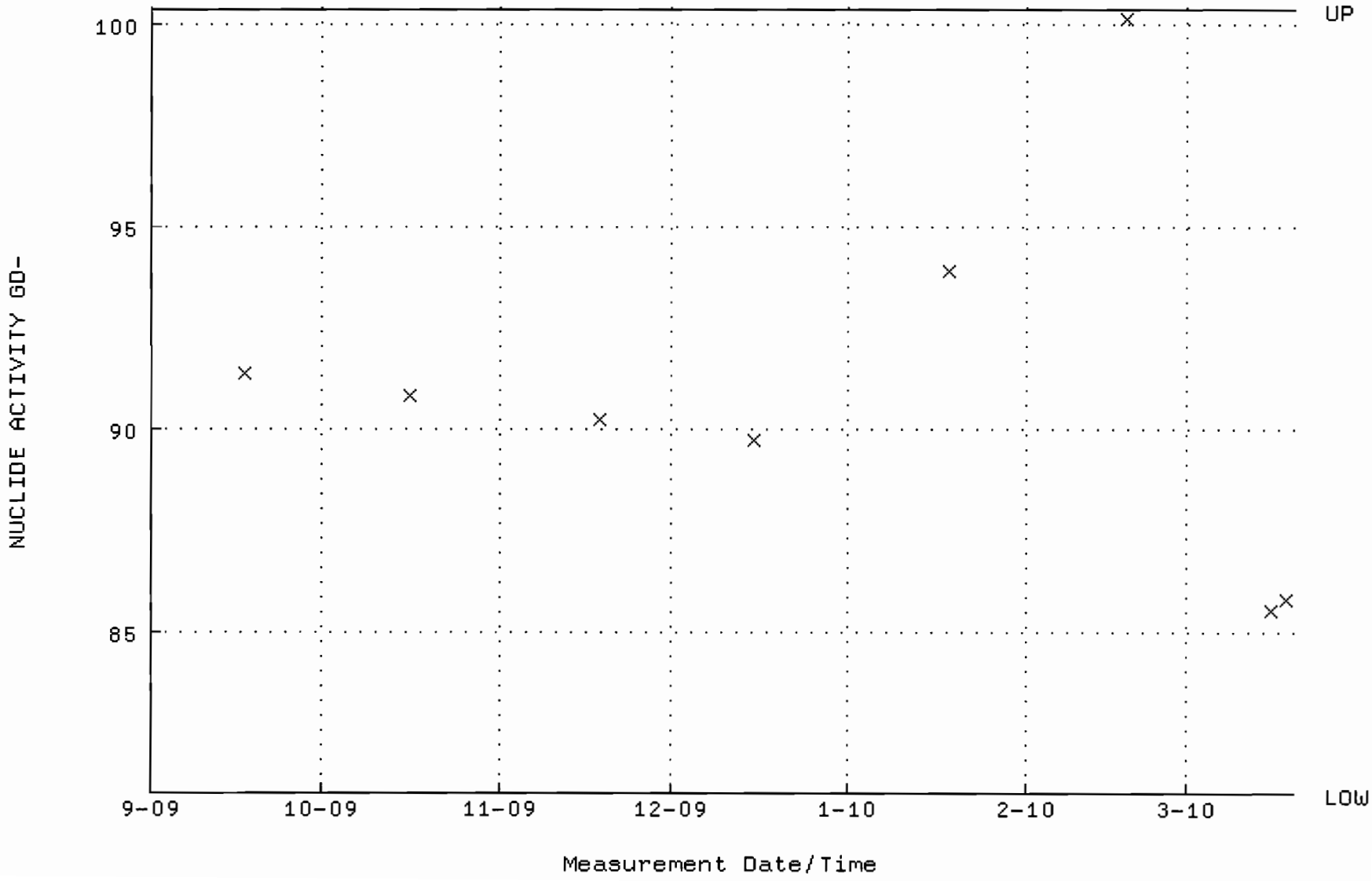

QA filename : DKA100:[ENV_ALPHA.QA.B]B136.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:49 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

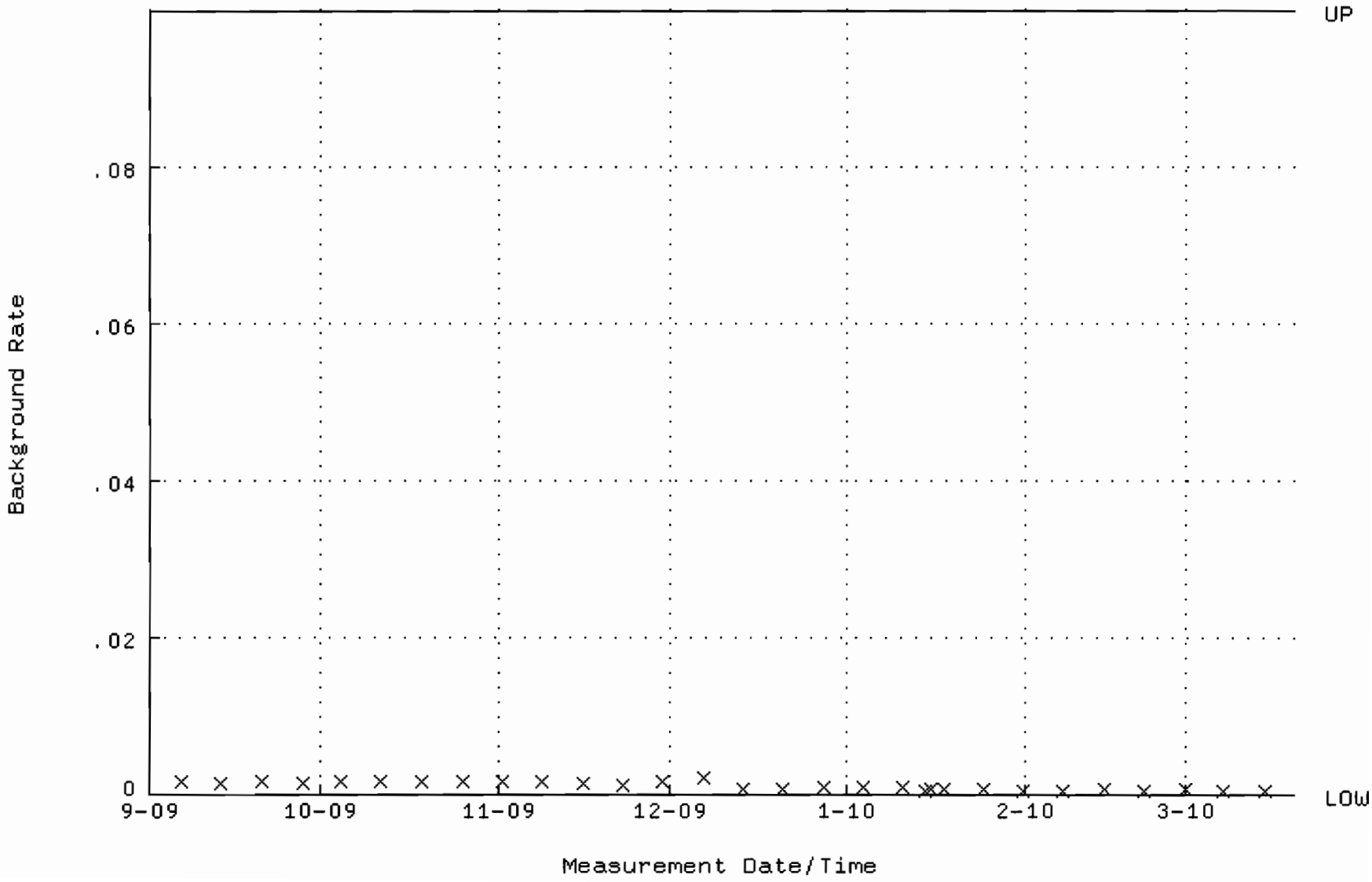

QA filename : DKA100:[ENV_ALPHA.QA.W]W138.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:03:32 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.244618 through 0.266690

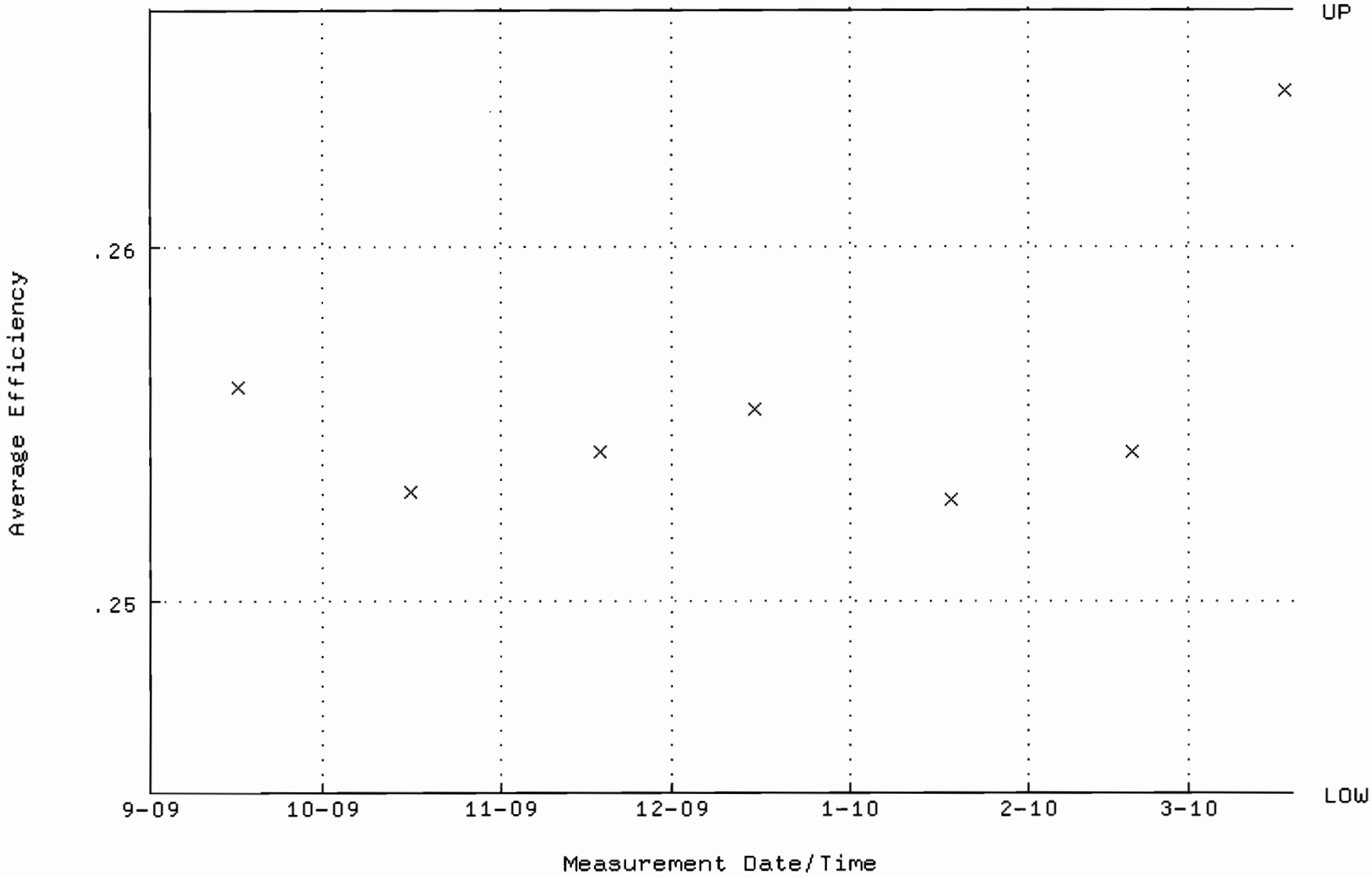

QA filename : DKA100:[ENV_ALPHA.QA.W]W138.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:03:32 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 82.0694 through 90.3942

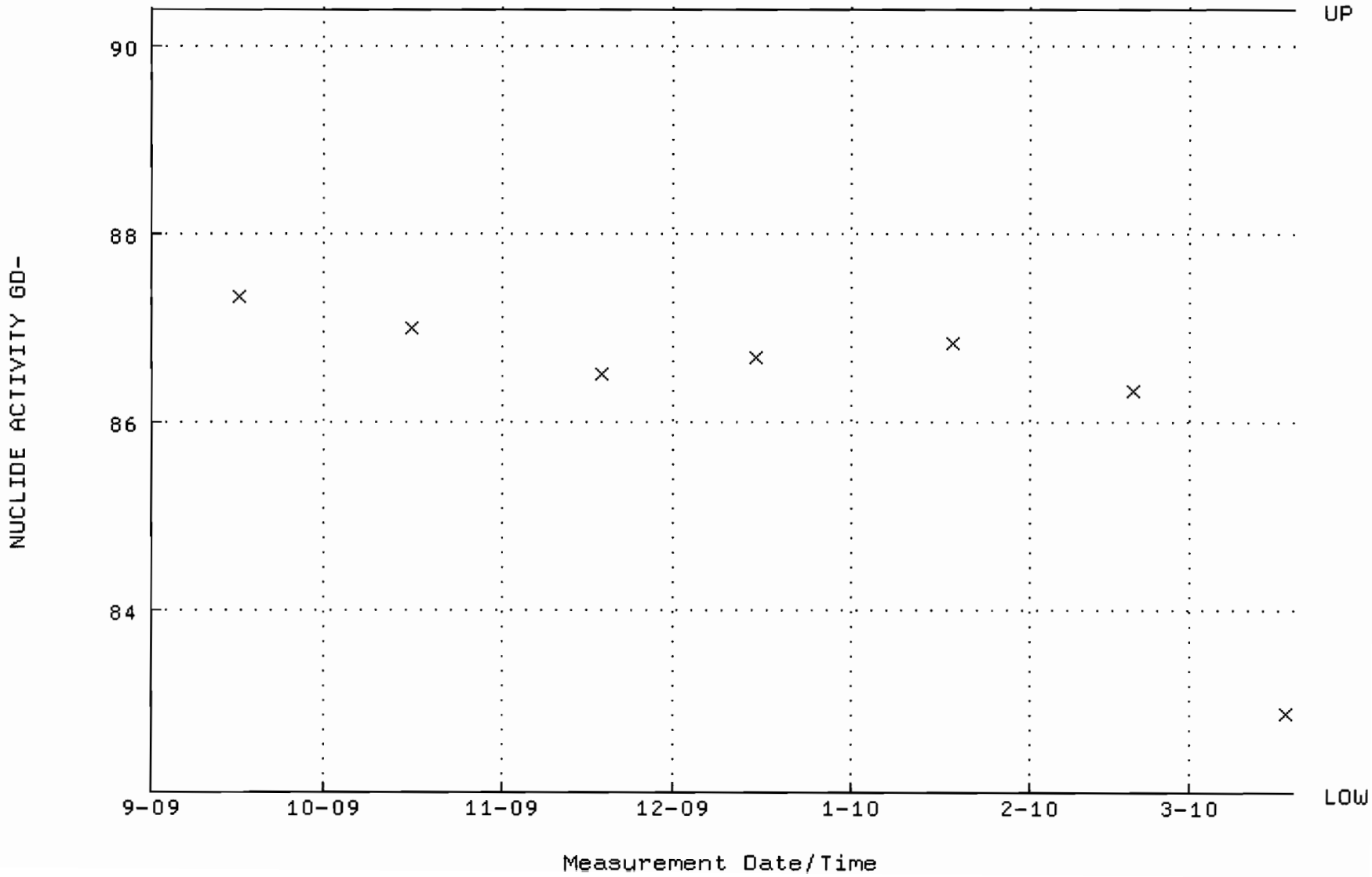

QA filename : DKA100:[ENV_ALPHA.QA.B]B138.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:57 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

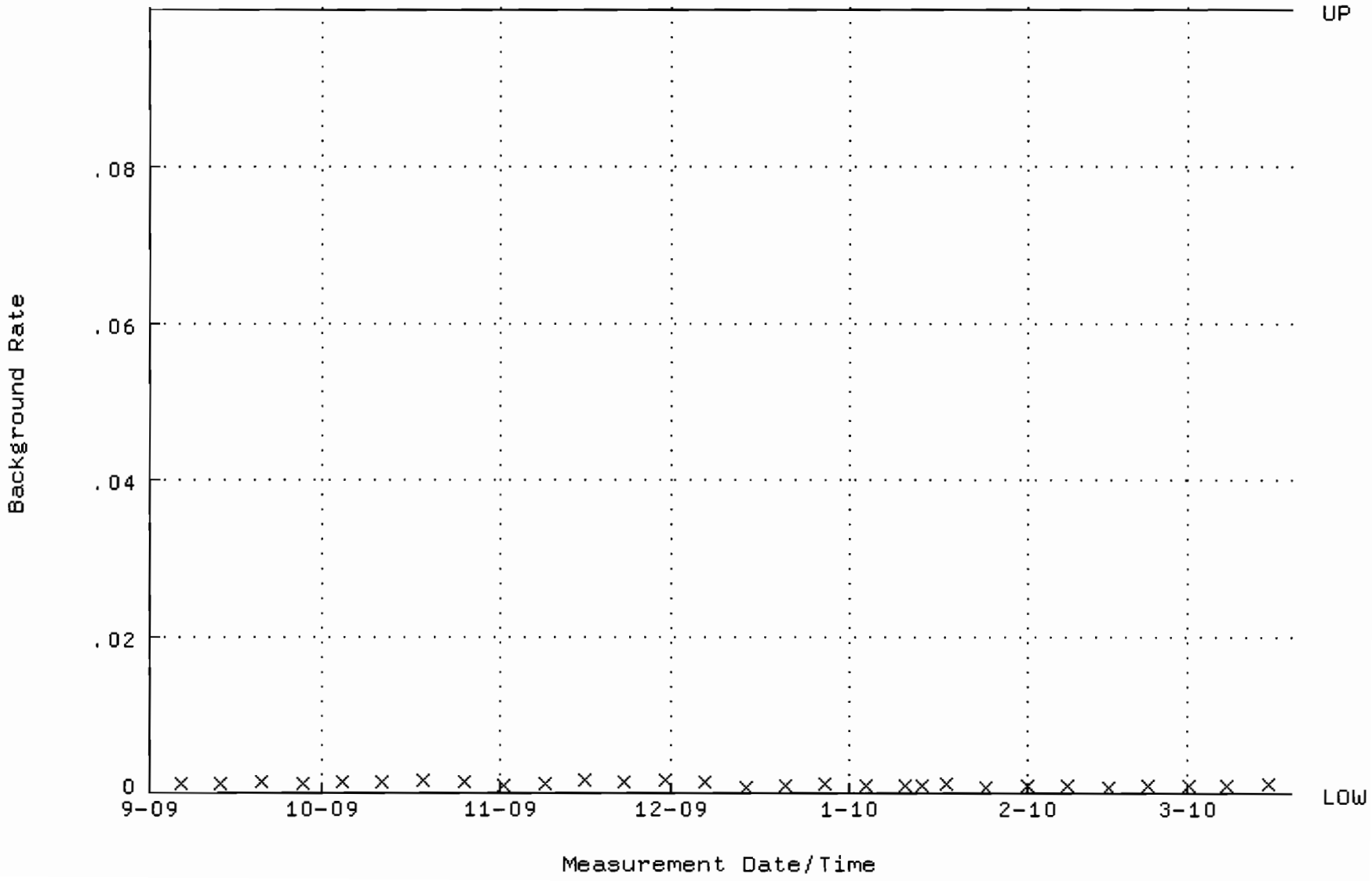

QA filename : DKA100:[ENV_ALPHA.QA.W]W139.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:03:37 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.234186 through 0.267874

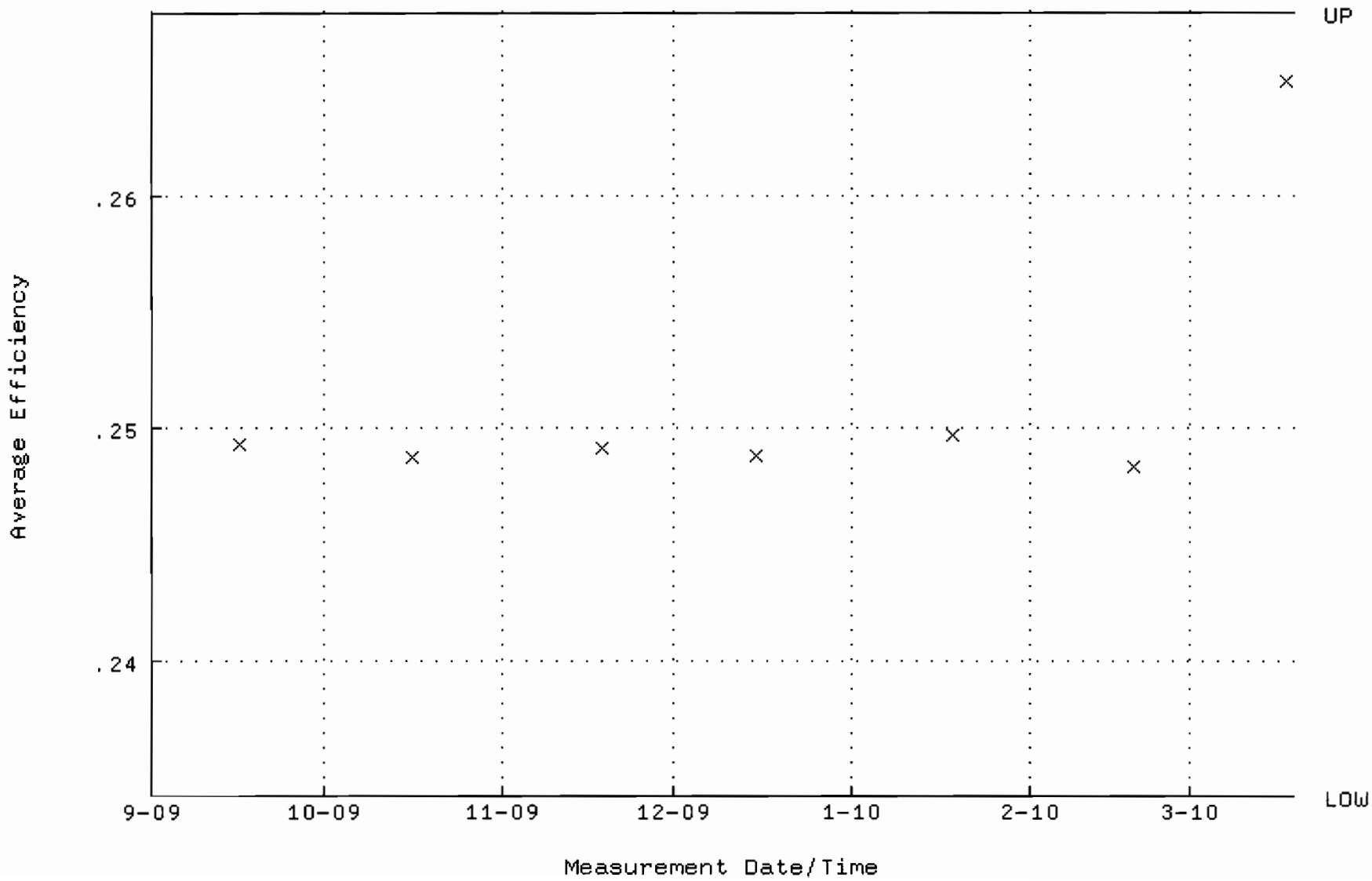

QA filename : DKA100:[ENV_ALPHA.QA.W]W139.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:03:37 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 88.4279 through 92.2045

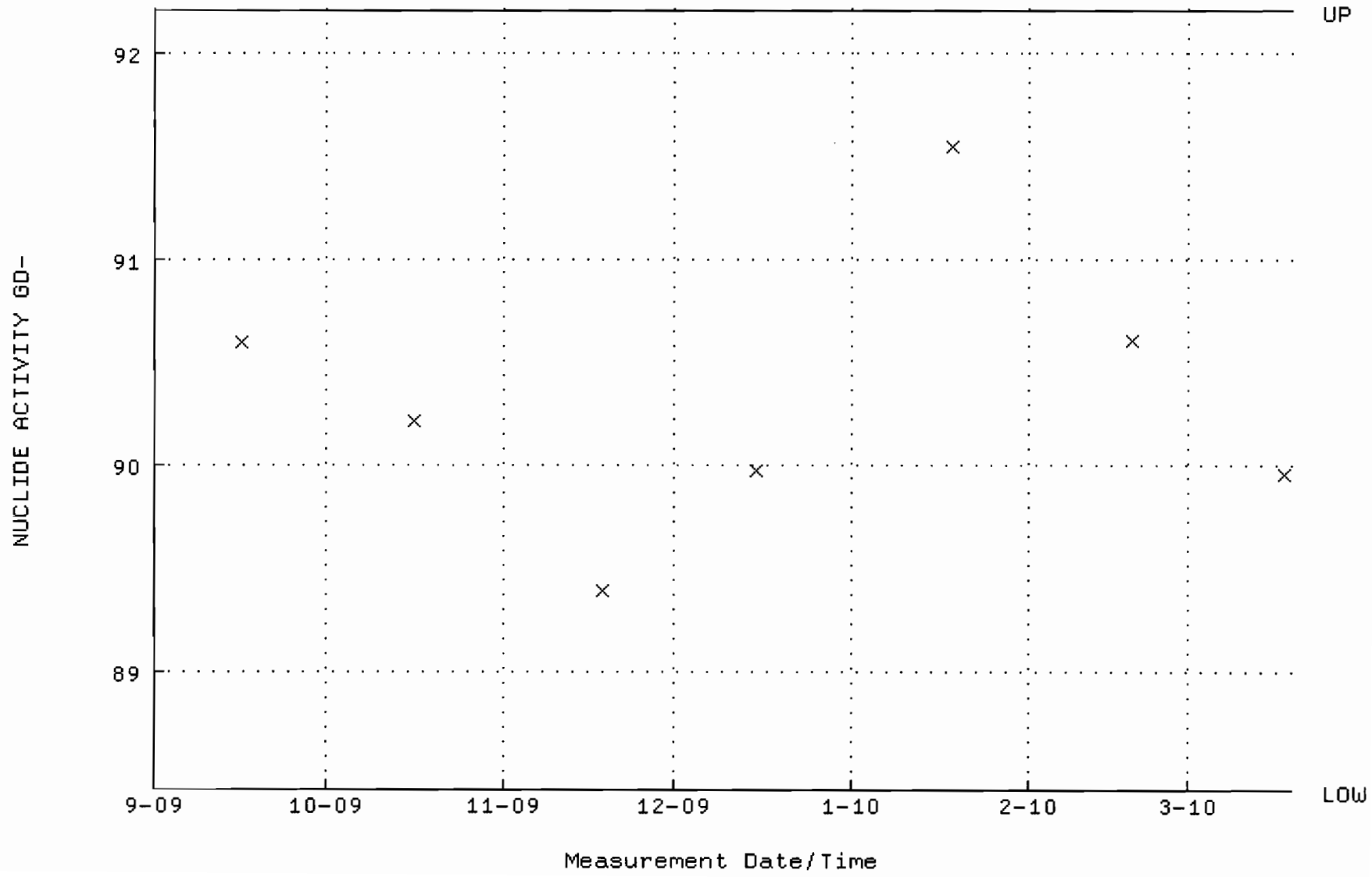

QA filename : DKA100:[ENV_ALPHA.QA.B]B139.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:01 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

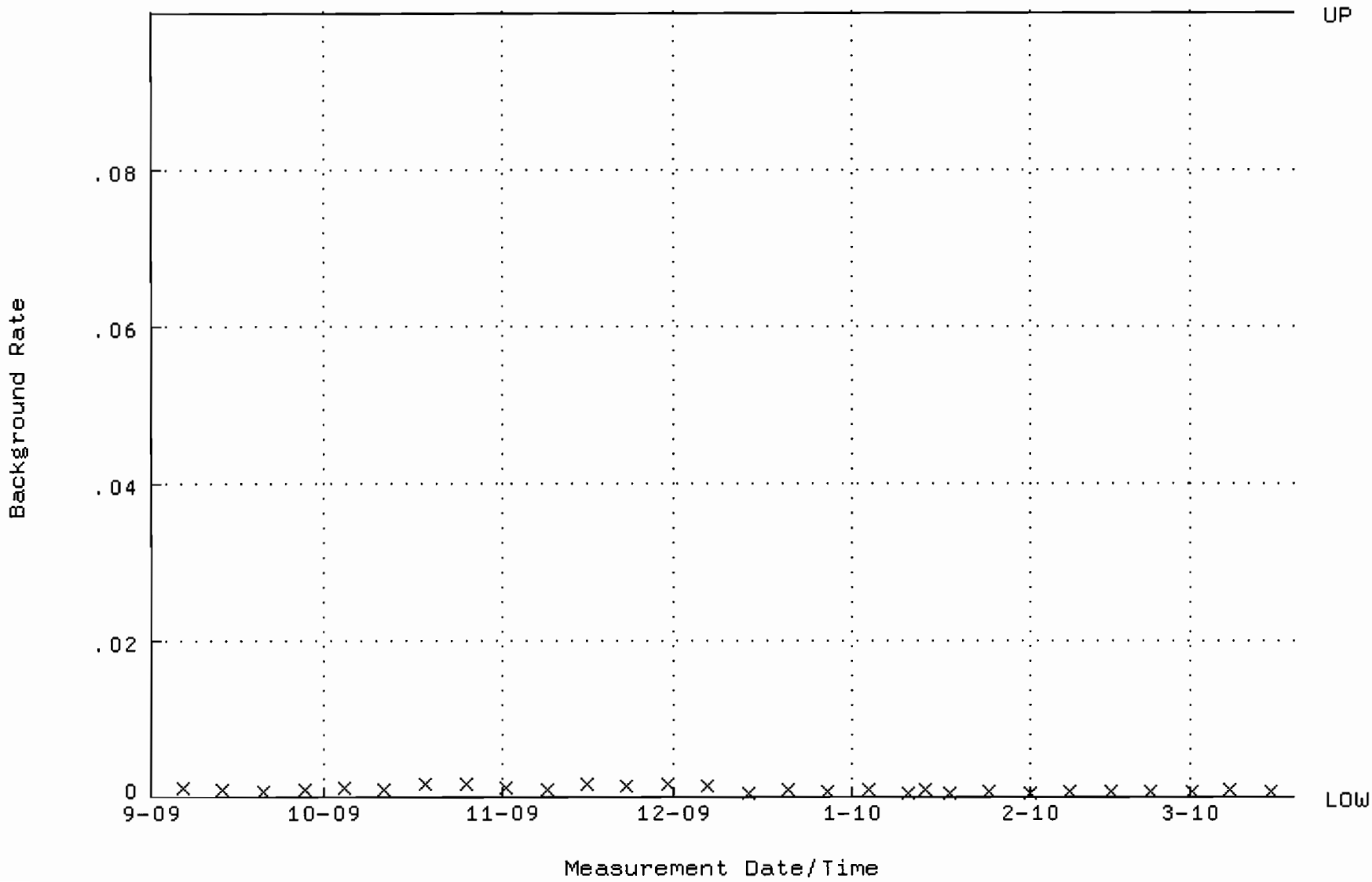

QA filename : DKA100:[ENV_ALPHA.QA.W]W140.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:03:42 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.239830 through 0.274858

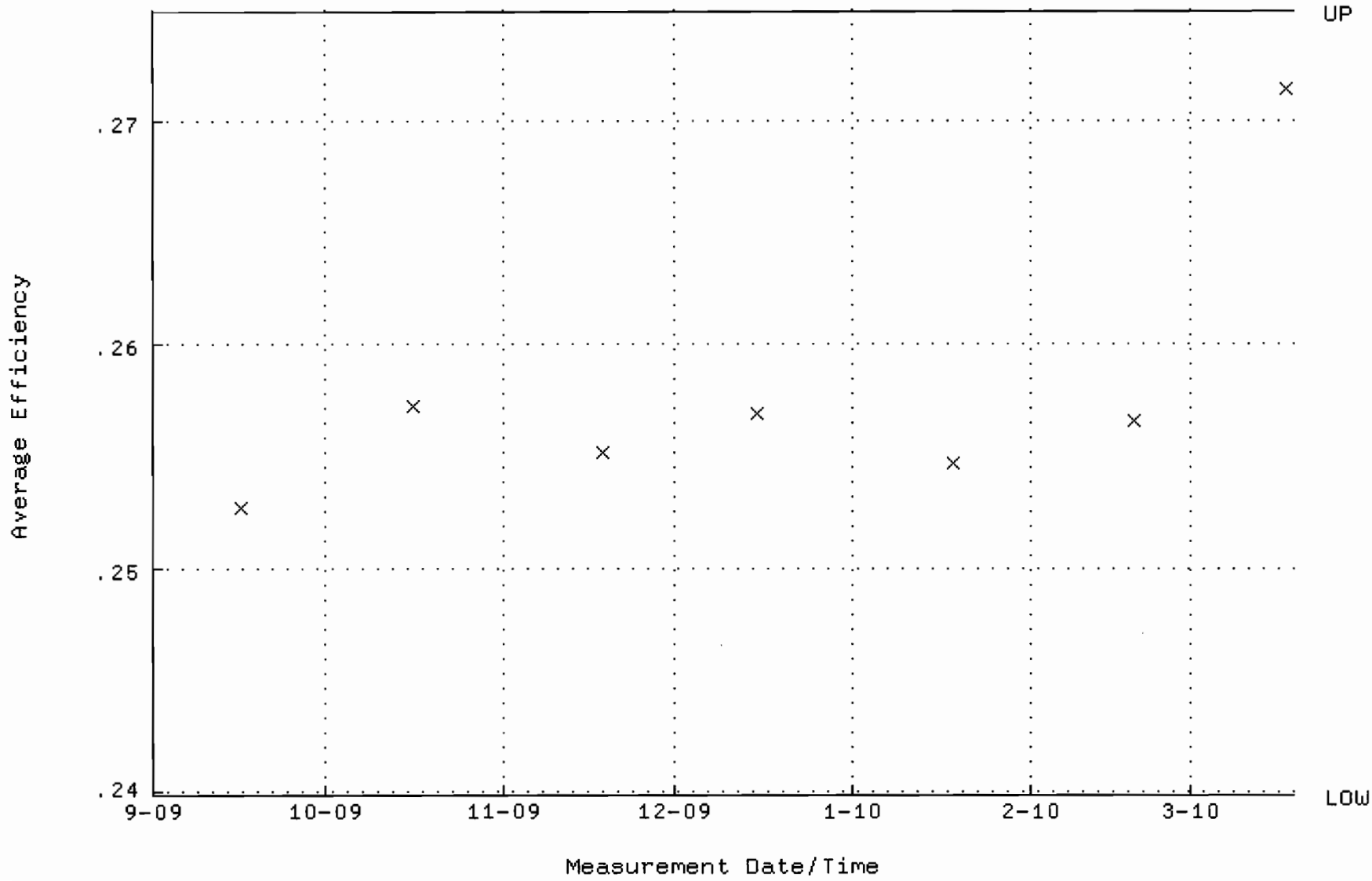

QA filename : DKA100:[ENV_ALPHA.QA.W]W140.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:03:42 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 81.1946 through 93.0200

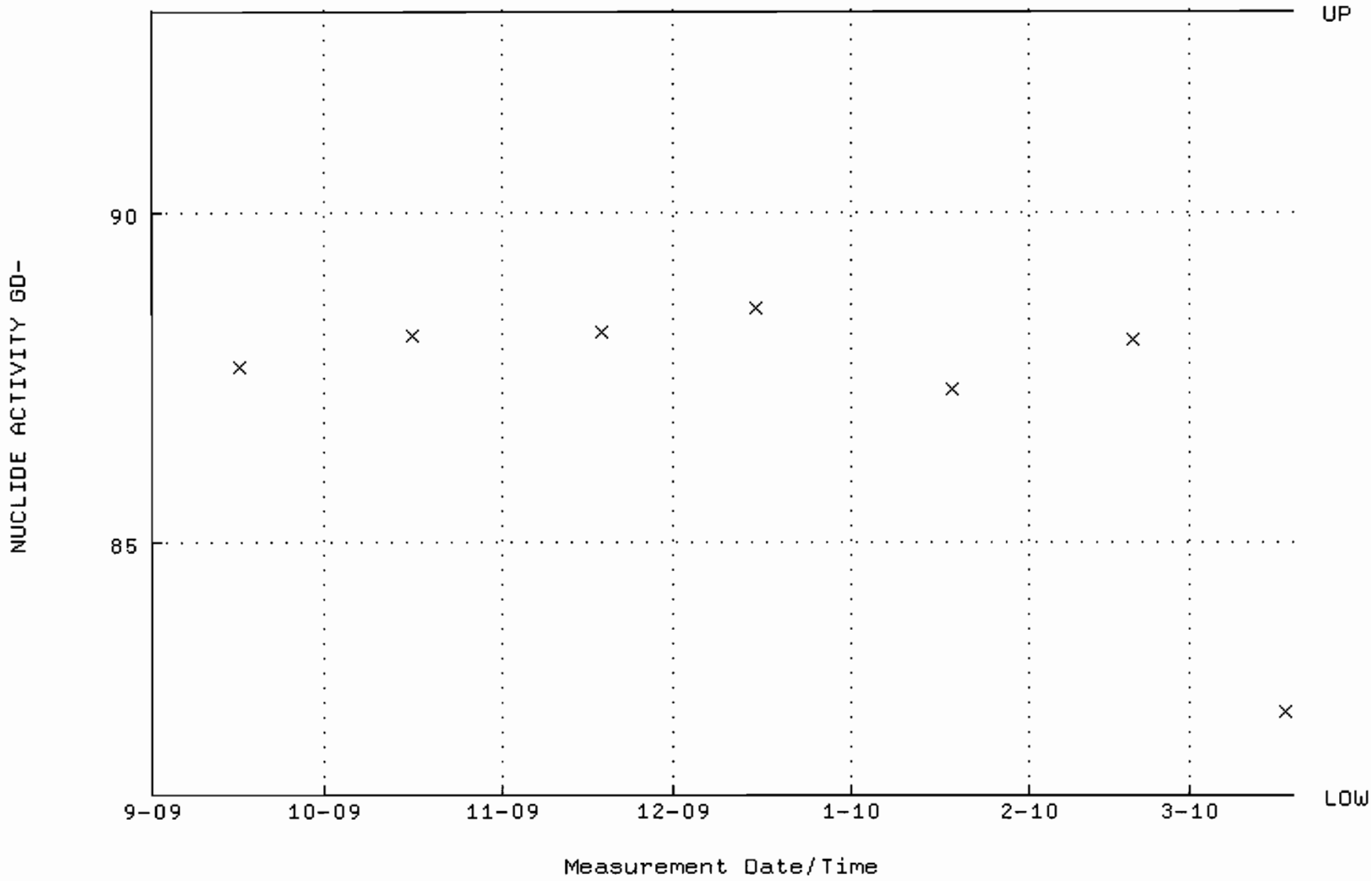

QA filename : DKA100:[ENV_ALPHA.QA.B]B140.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:05 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

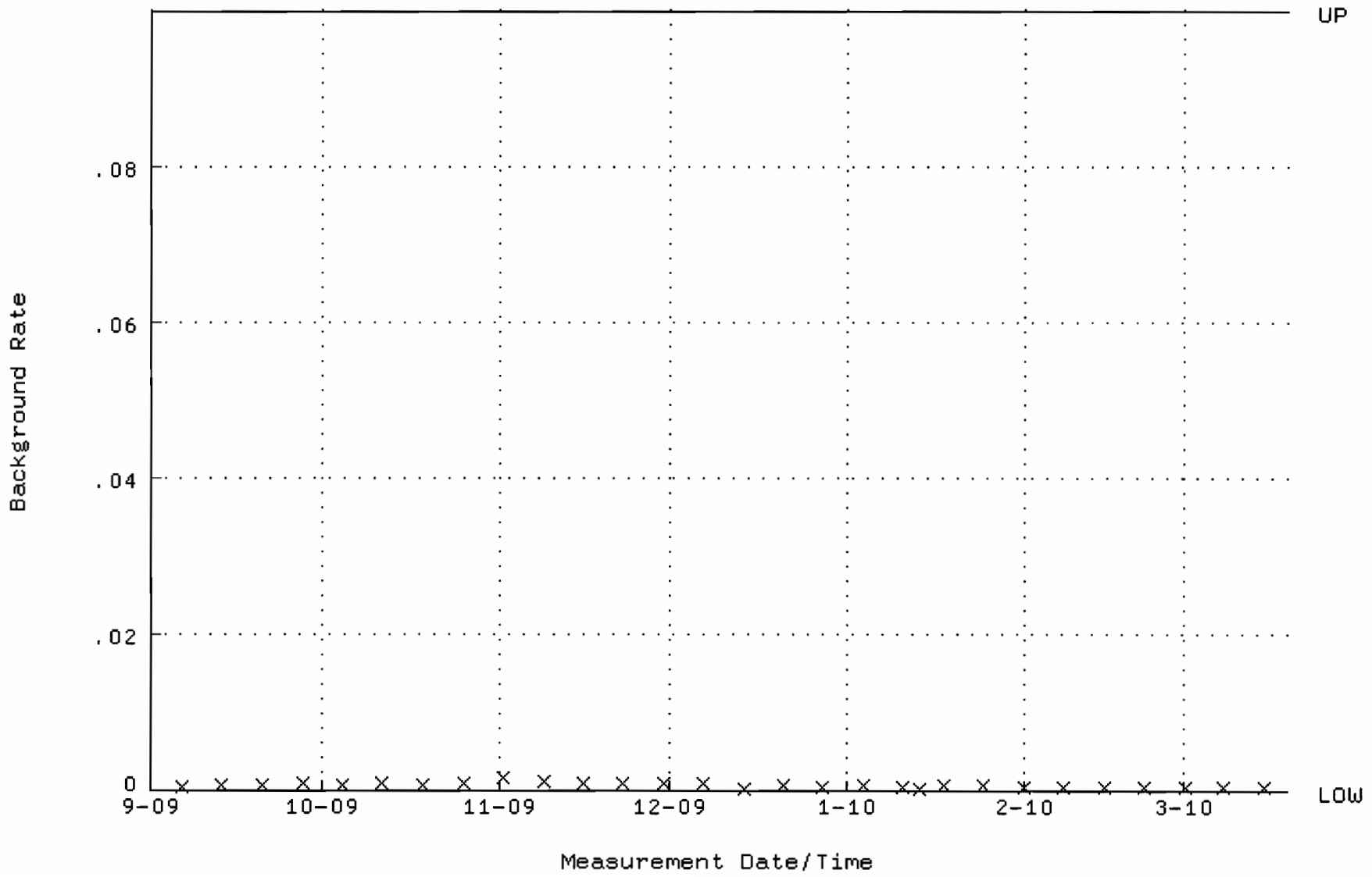

QA filename : DKA100:[ENV_ALPHA.QA.W]W141.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:03:47 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250019 through 0.264135

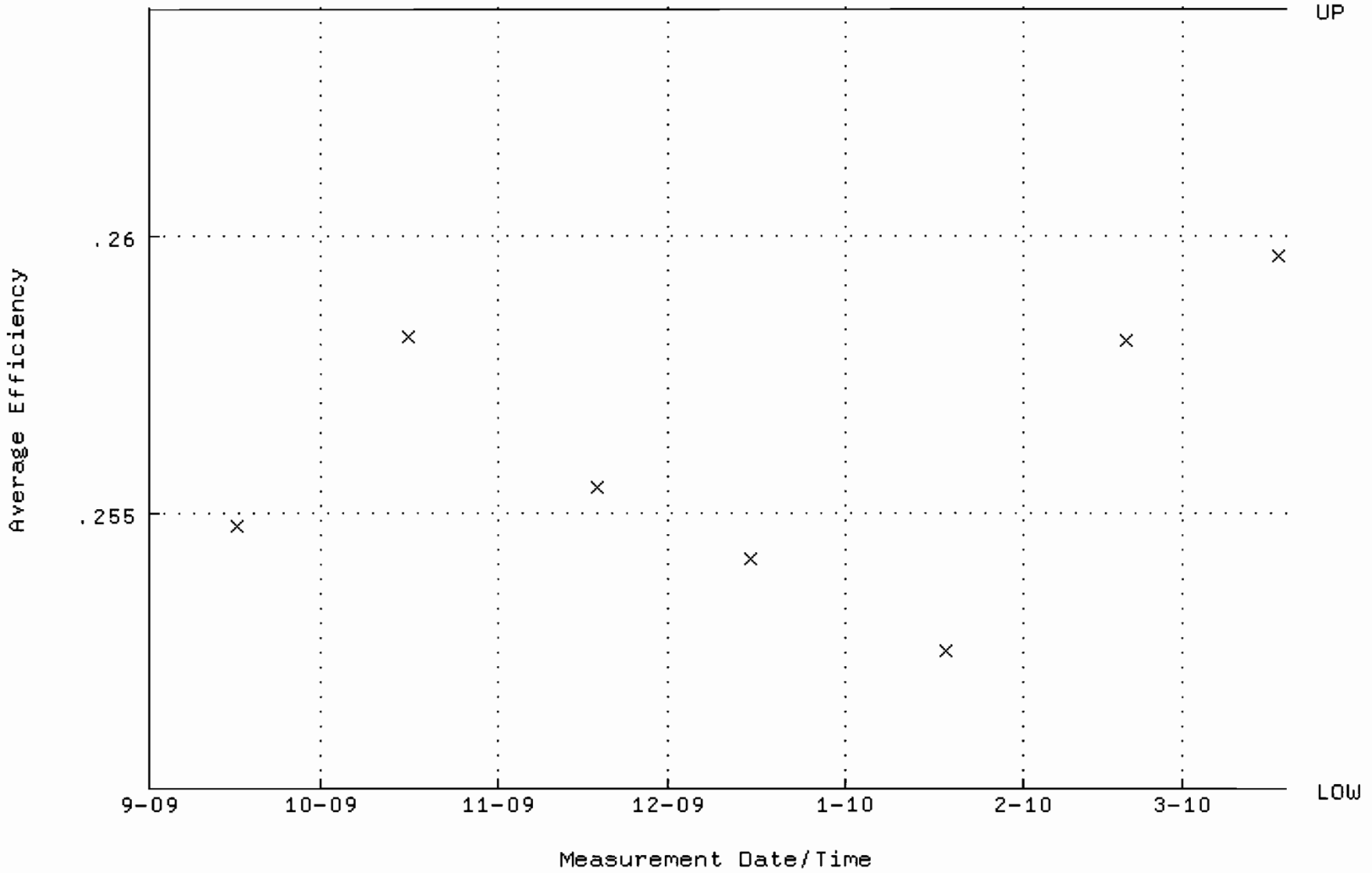

QA filename : DKA100:[ENV_ALPHA.QA.W]W141.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:03:47 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 83.2120 through 87.6868

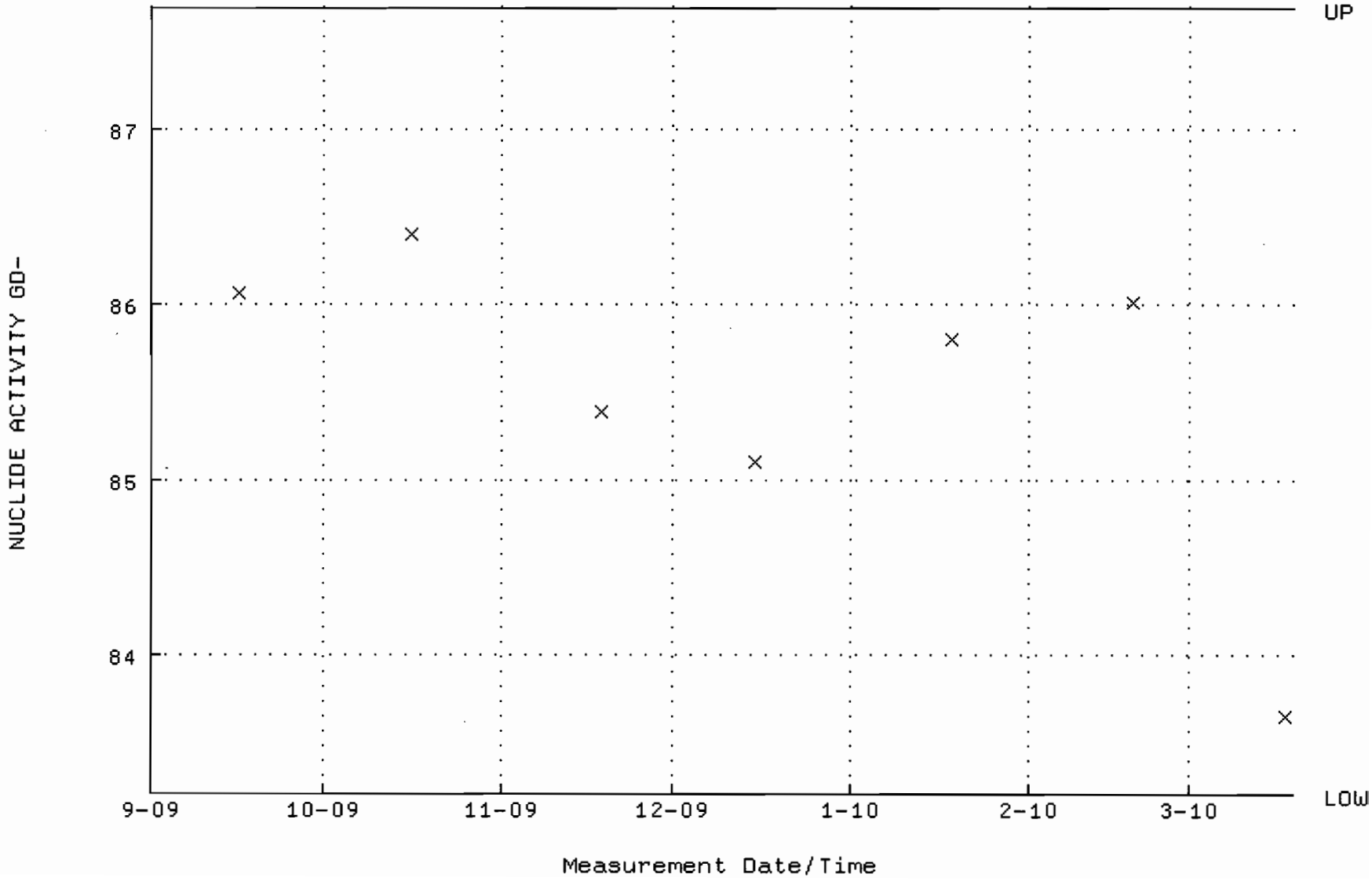

QA filename : DKA100:[ENV_ALPHA.QA.B]B141.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:10 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

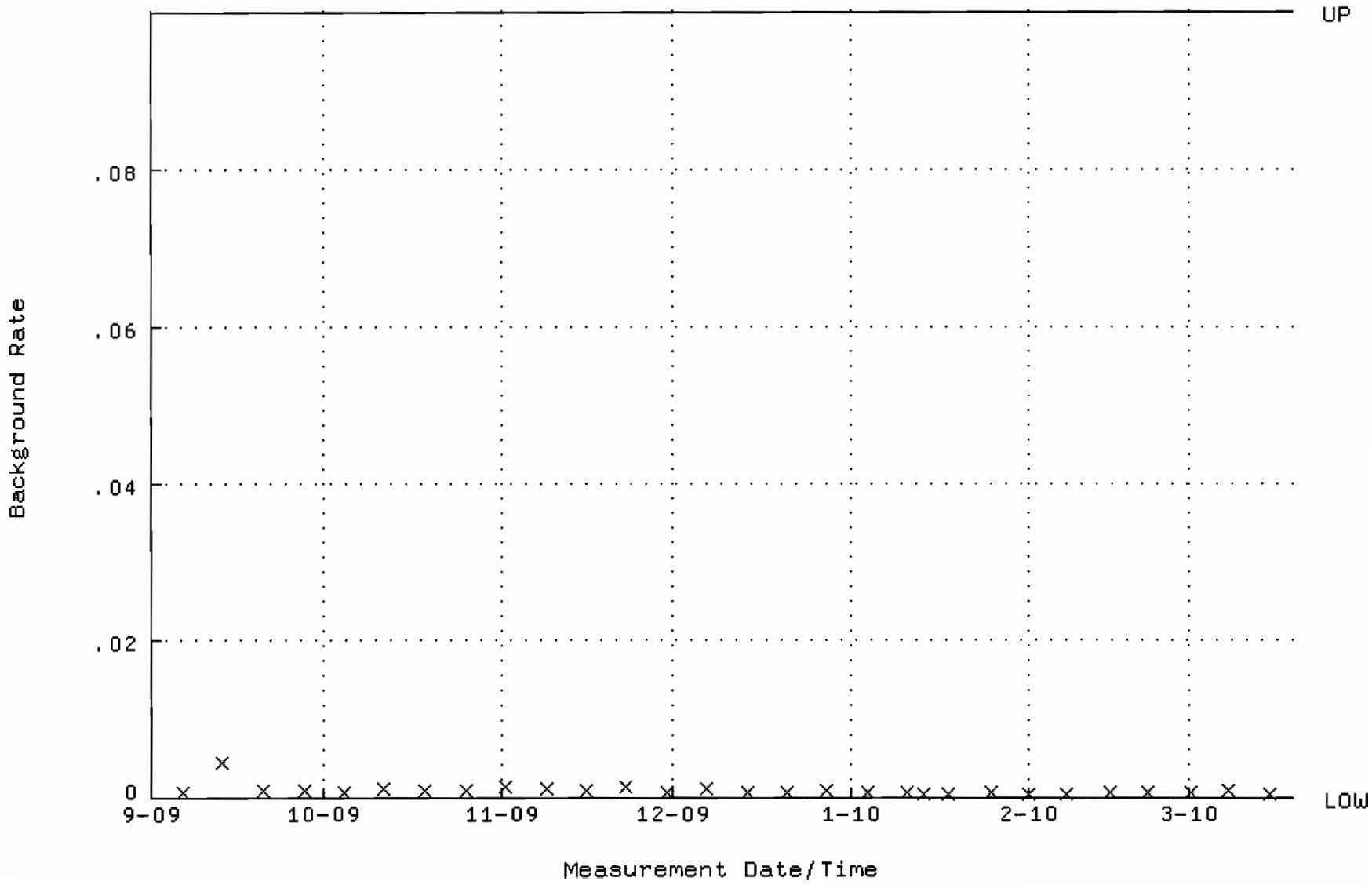

QA filename : DKA100:[ENV_ALPHA.QA.W]W142.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:03:52 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.254957 through 0.264793

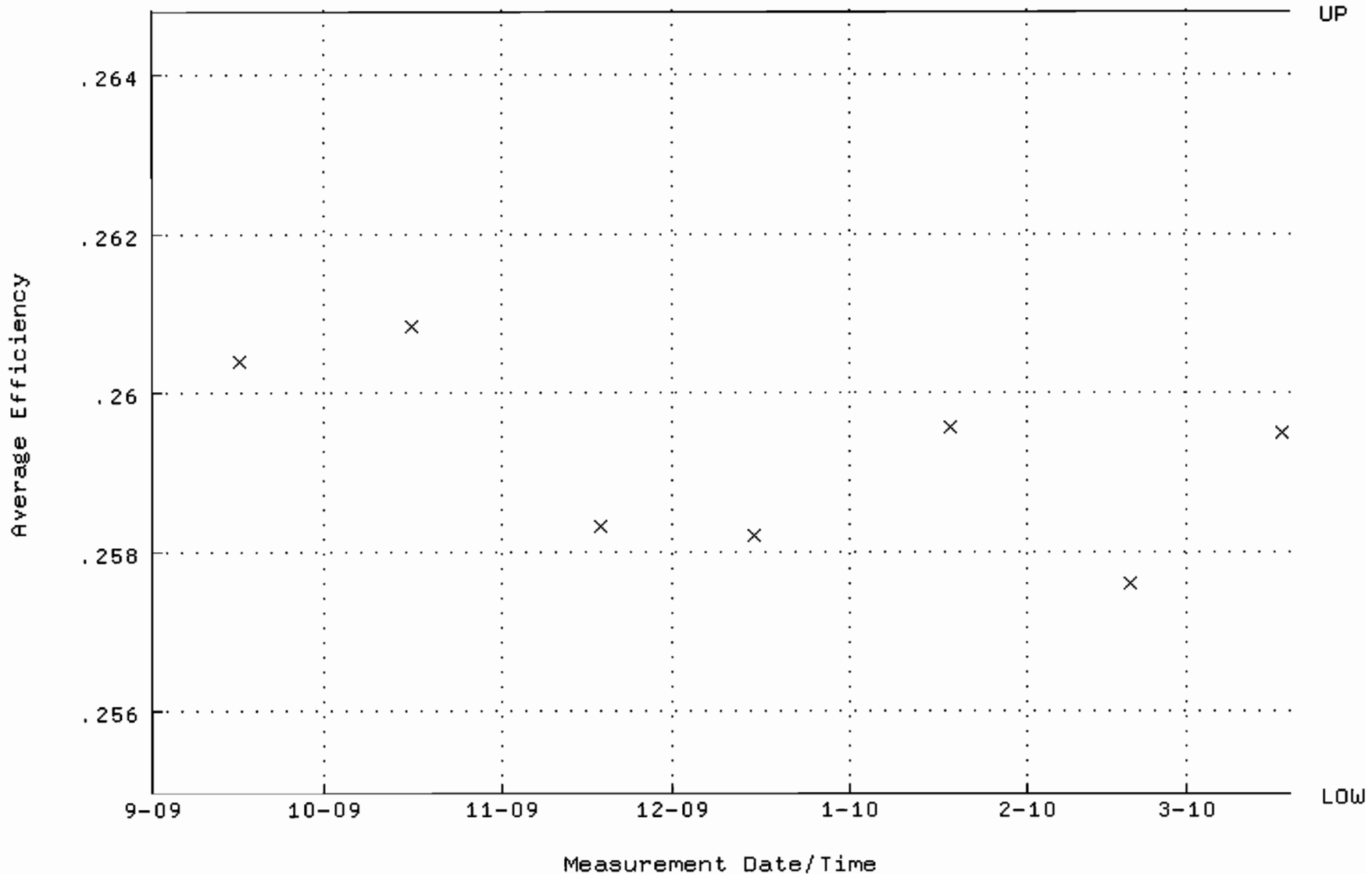

QA filename : DKA100:[ENV_ALPHA.QA.W]W142.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:03:52 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 83.8511 through 87.7879

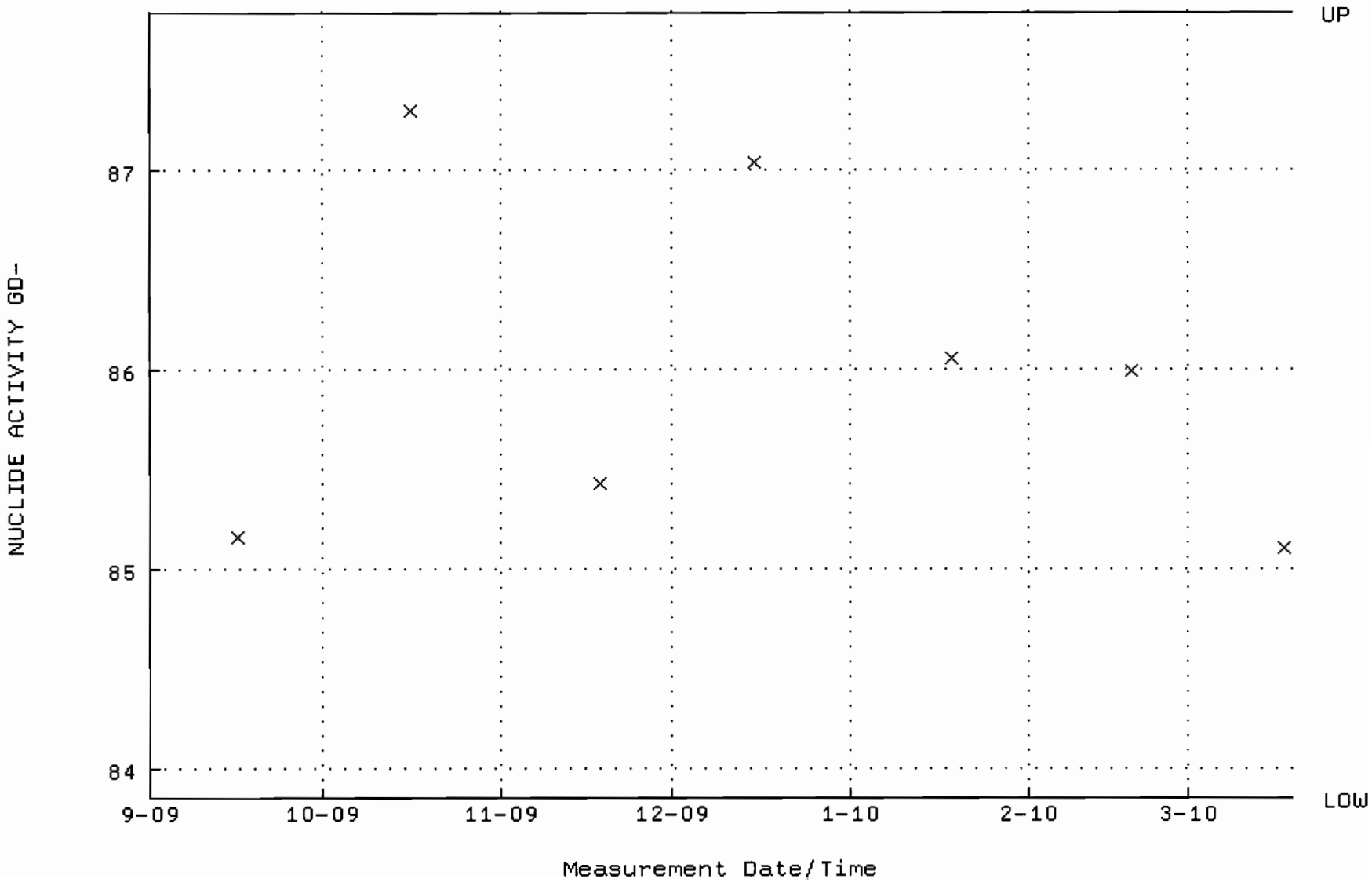

QA filename : DKA100:[ENV_ALPHA.QA.B]B142.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:14 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

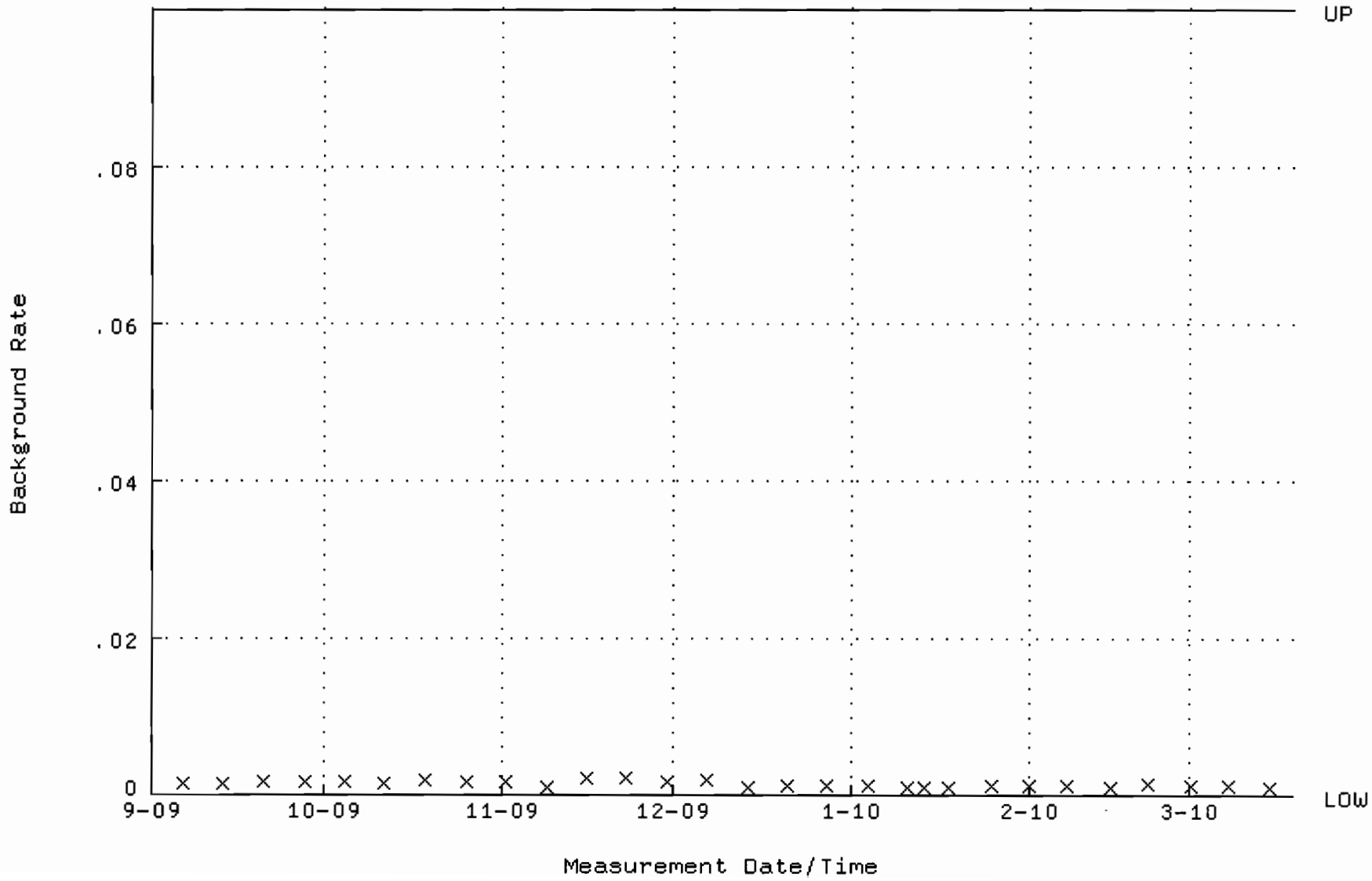

QA filename : DKA100:[ENV_ALPHA.QA.W]W143.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:03:57 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.235497 through 0.253401

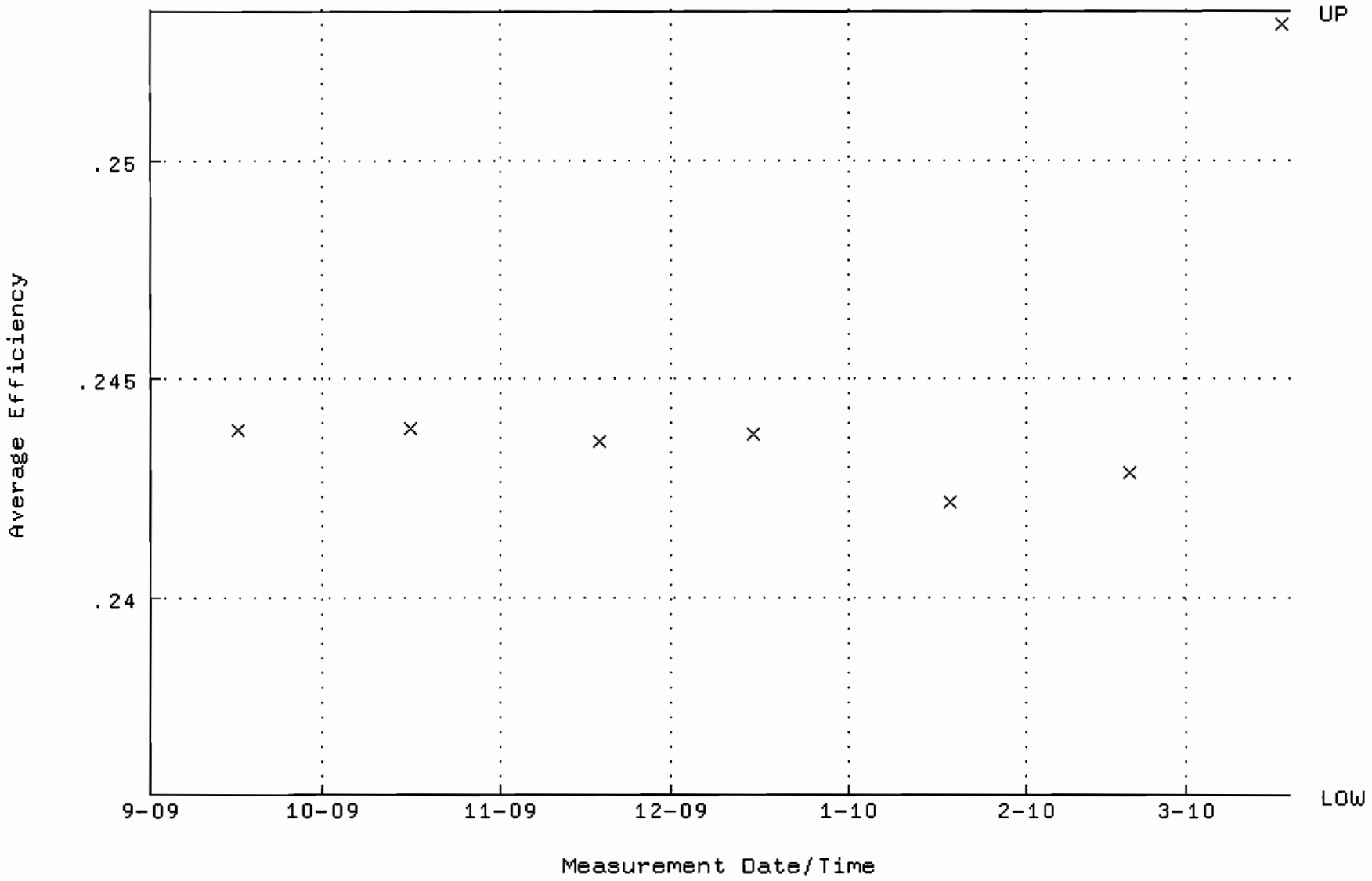

QA filename : DKA100:[ENV_ALPHA.QA.W]W143.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:03:57 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 86.4493 through 92.5939

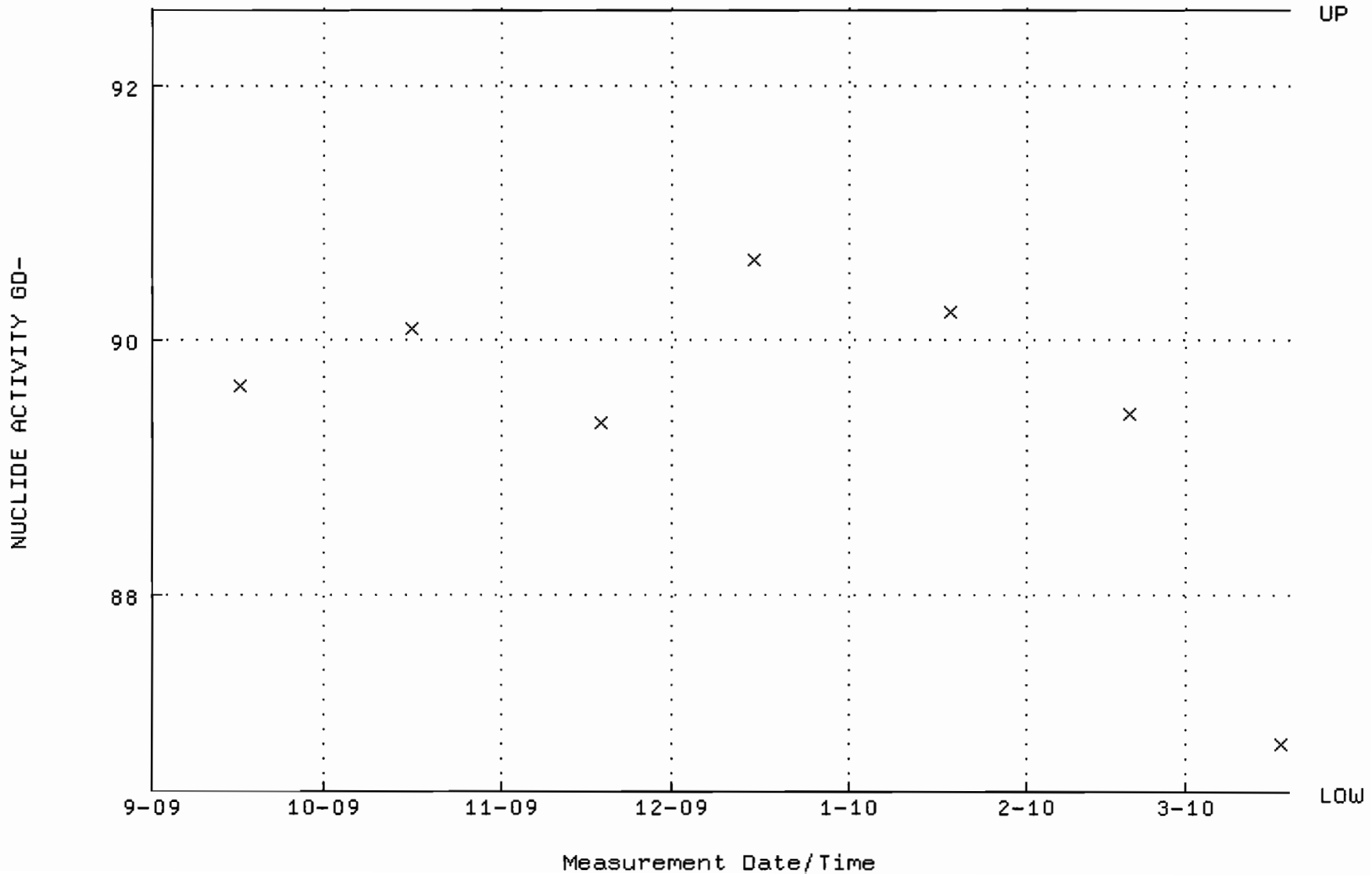

QA filename : DKA100:[ENV_ALPHA.QA.B]B143.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:18 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

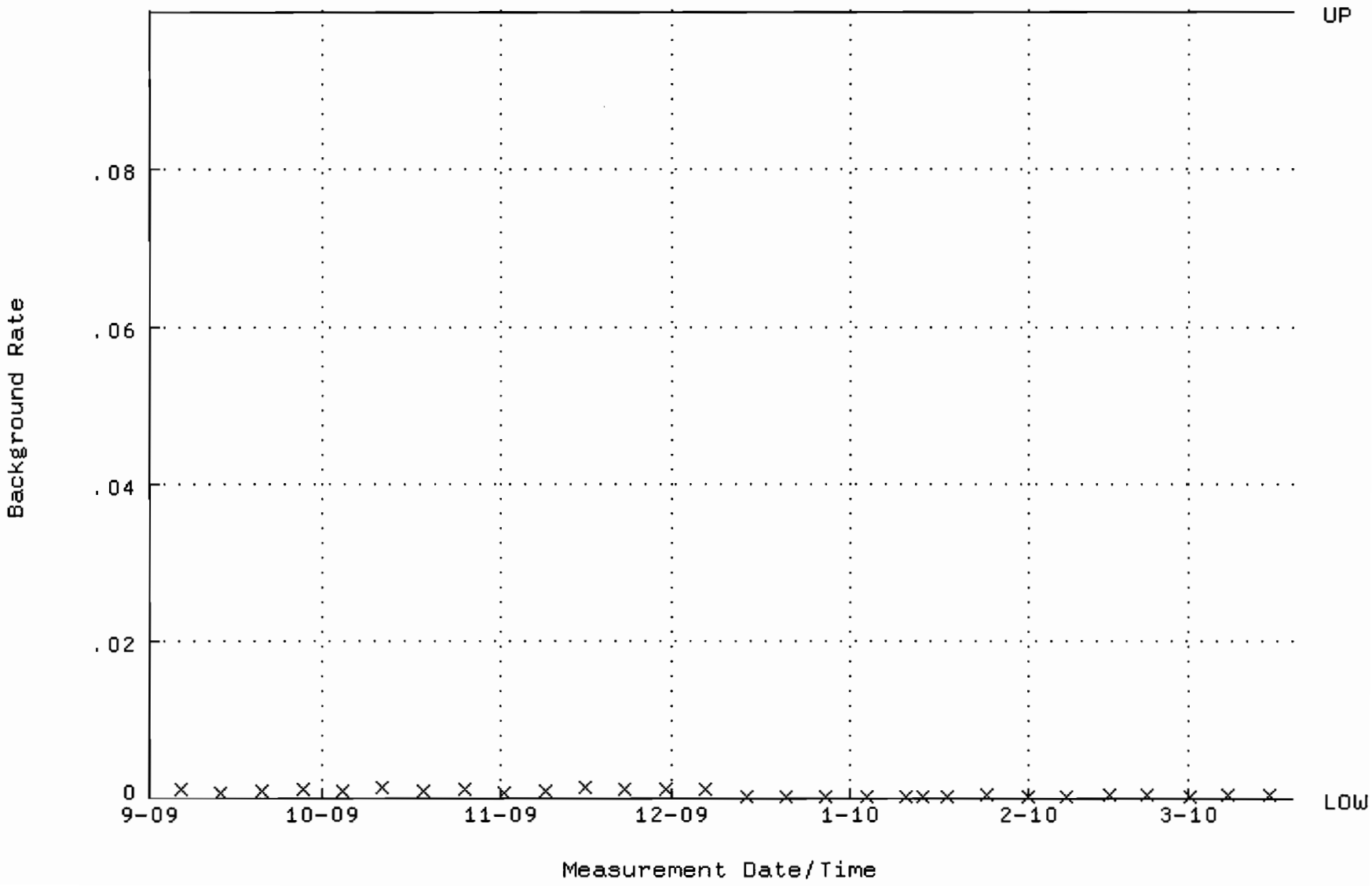

QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:04:02 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.237368 through 0.264286

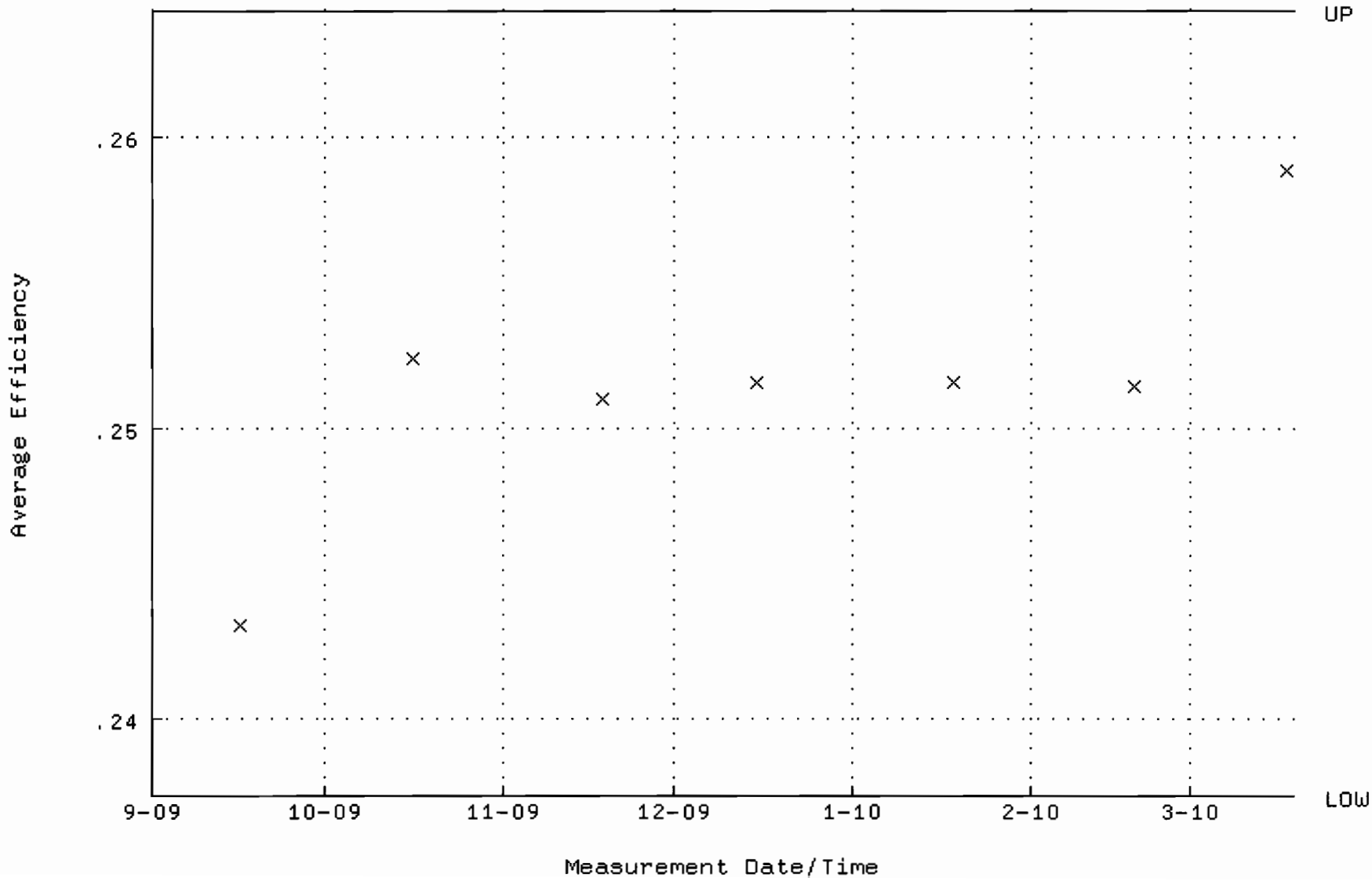

QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:04:02 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 84.3705 through 92.6214

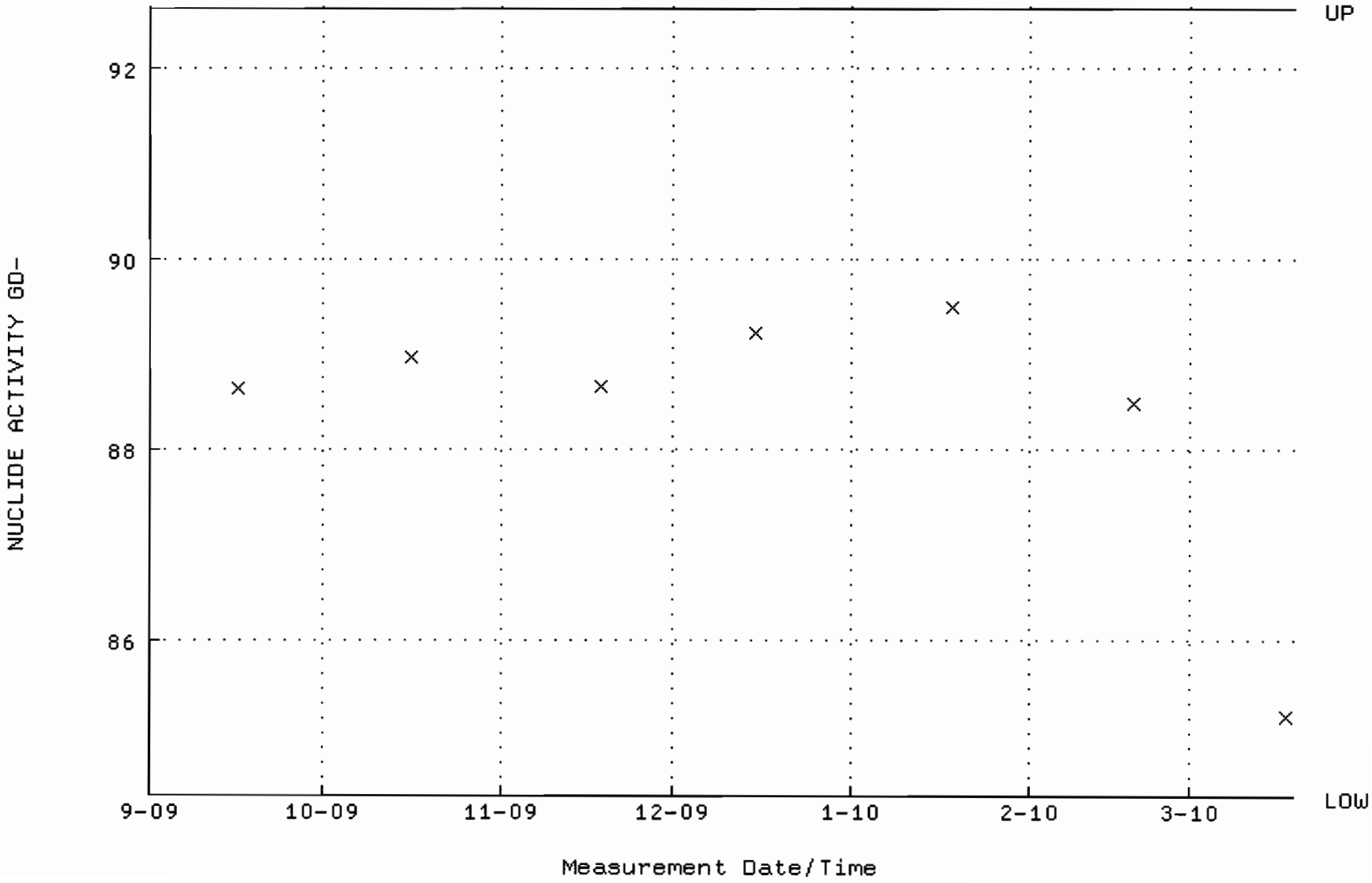

QA filename : DKA100:[ENV_ALPHA.QA.B]B144.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:22 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

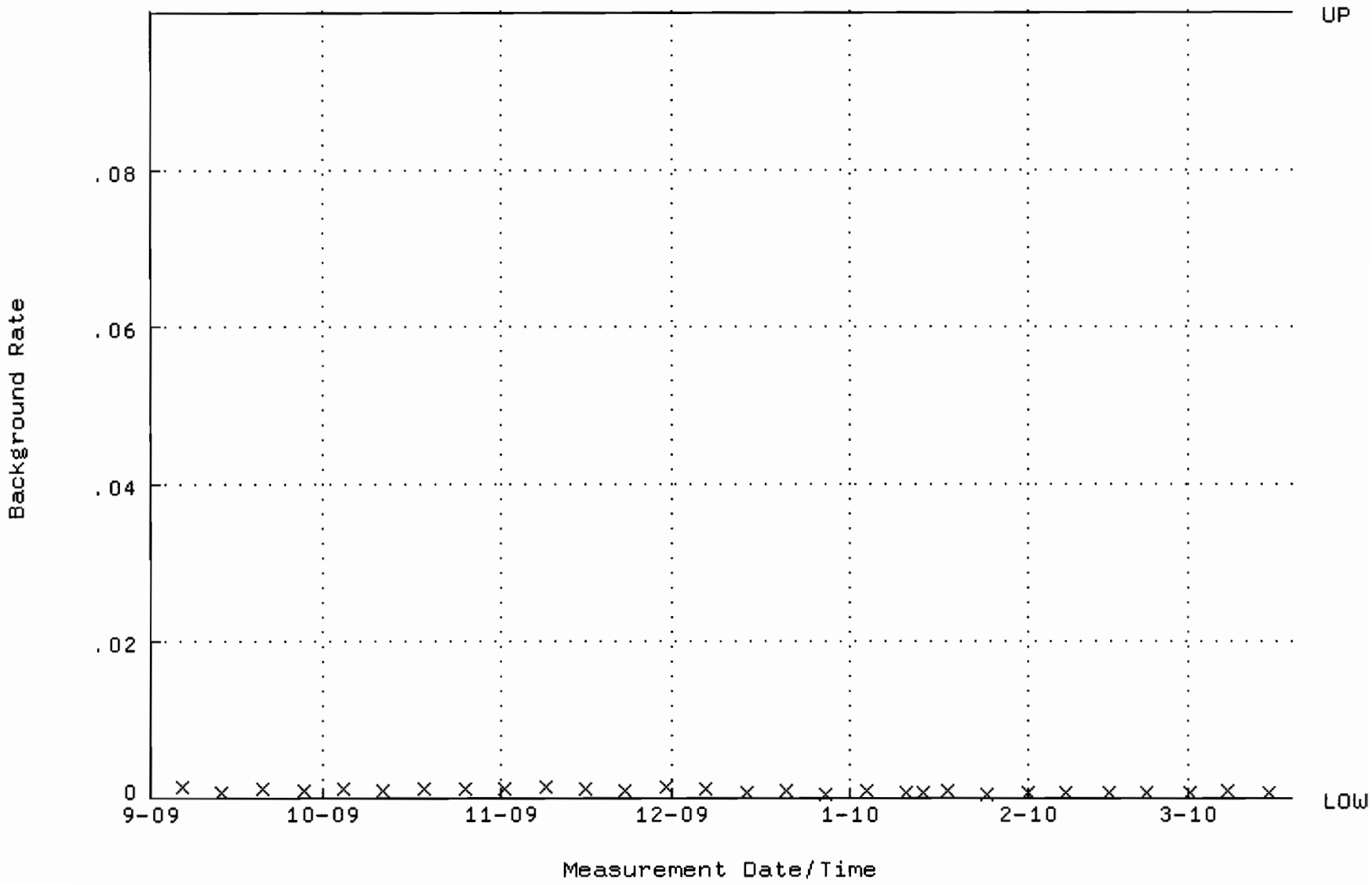

QA filename : DKA100:[ENV_ALPHA.QA.W]W151.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:30 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.229470 through 0.264472

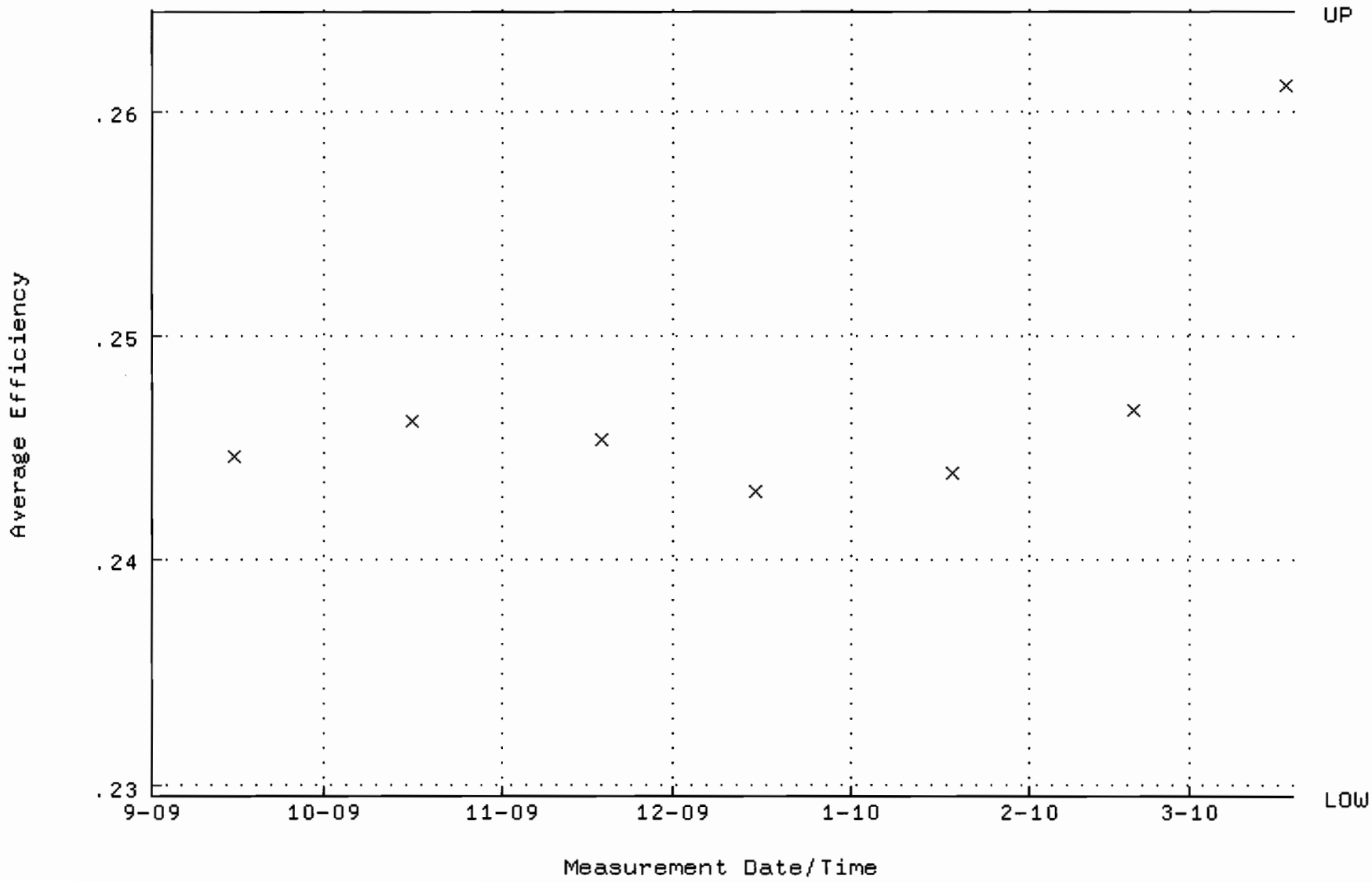

QA filename : DKA100:[ENV_ALPHA.QA.W]W151.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:30 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 84.8674 through 94.1592

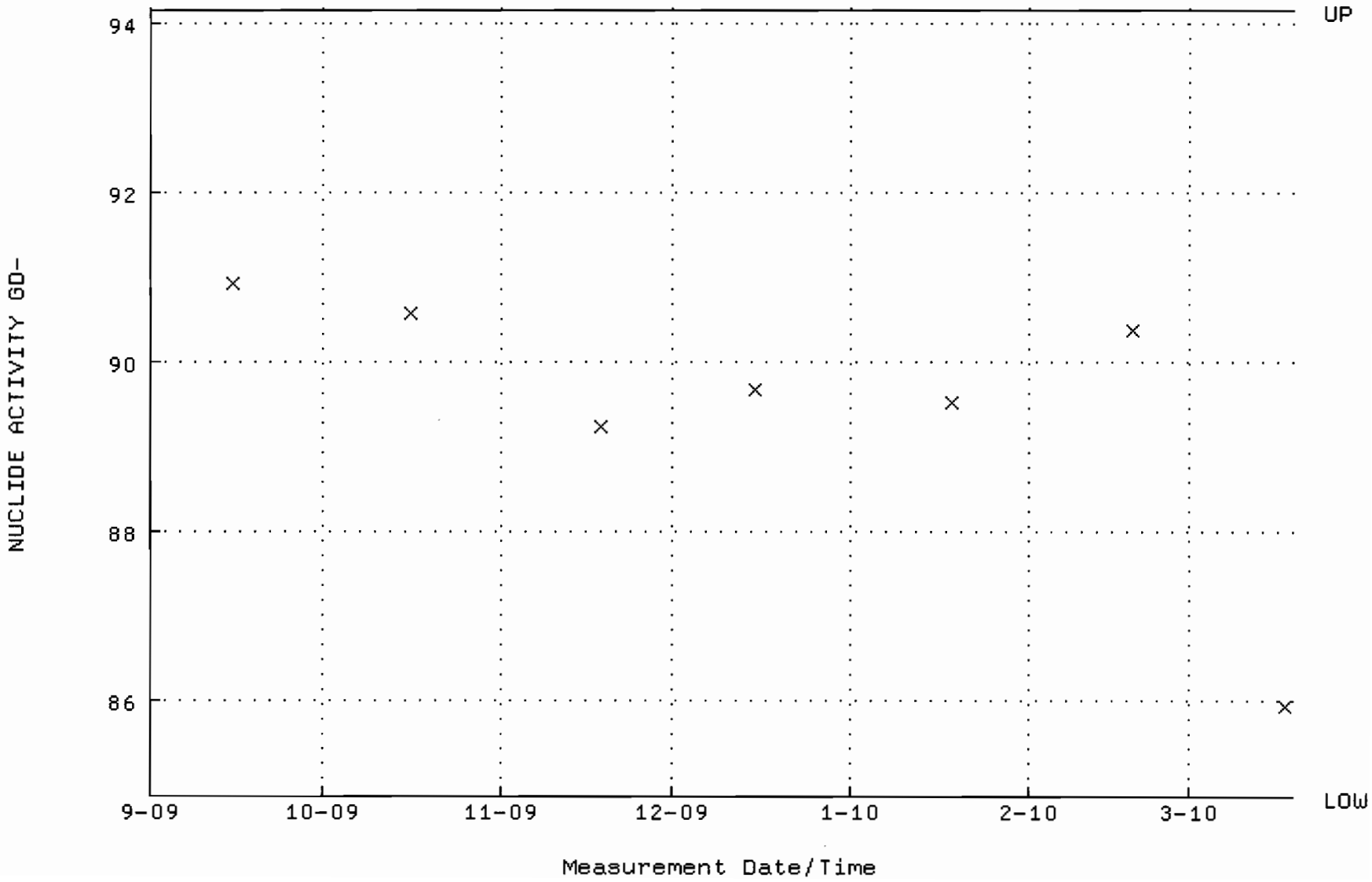

QA filename : DKA100:[ENV_ALPHA.QA.B]B151.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:51 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

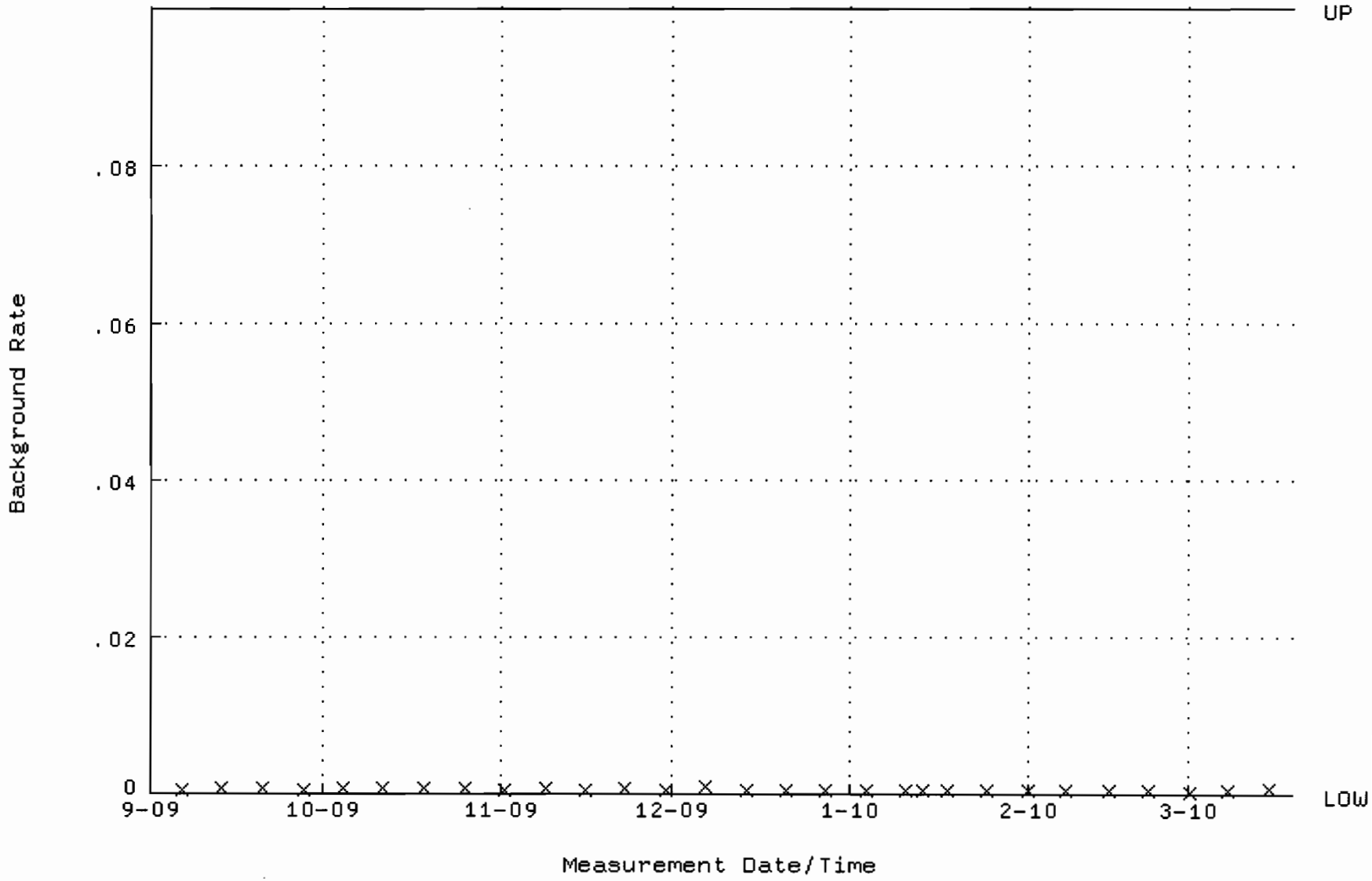

QA filename : DKA100:[ENV_ALPHA.QA.W]W152.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:36 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.236513 through 0.255567

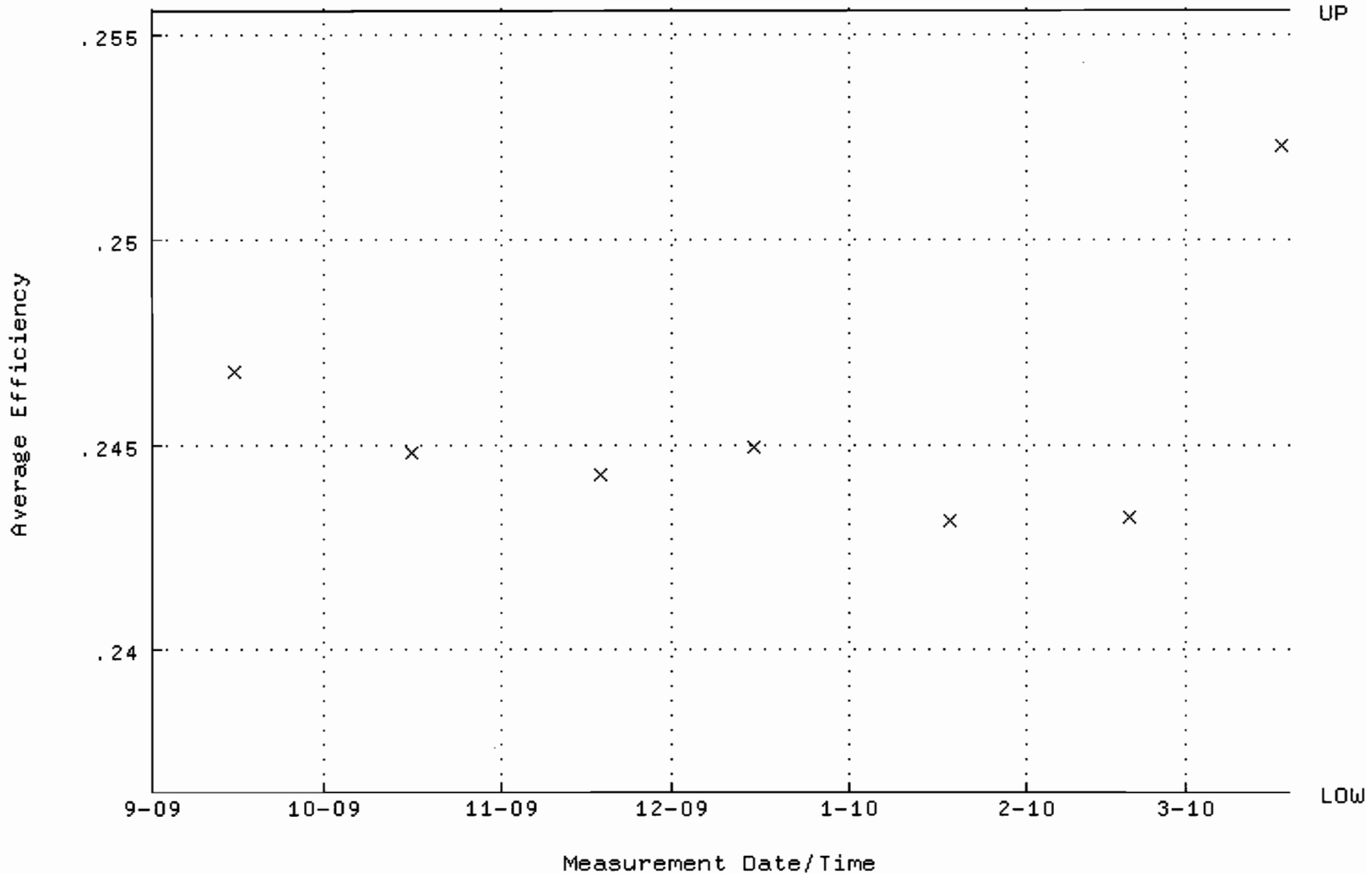

QA filename : DKA100:[ENV_ALPHA.QA.W]W152.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:36 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 83.6285 through 91.5809

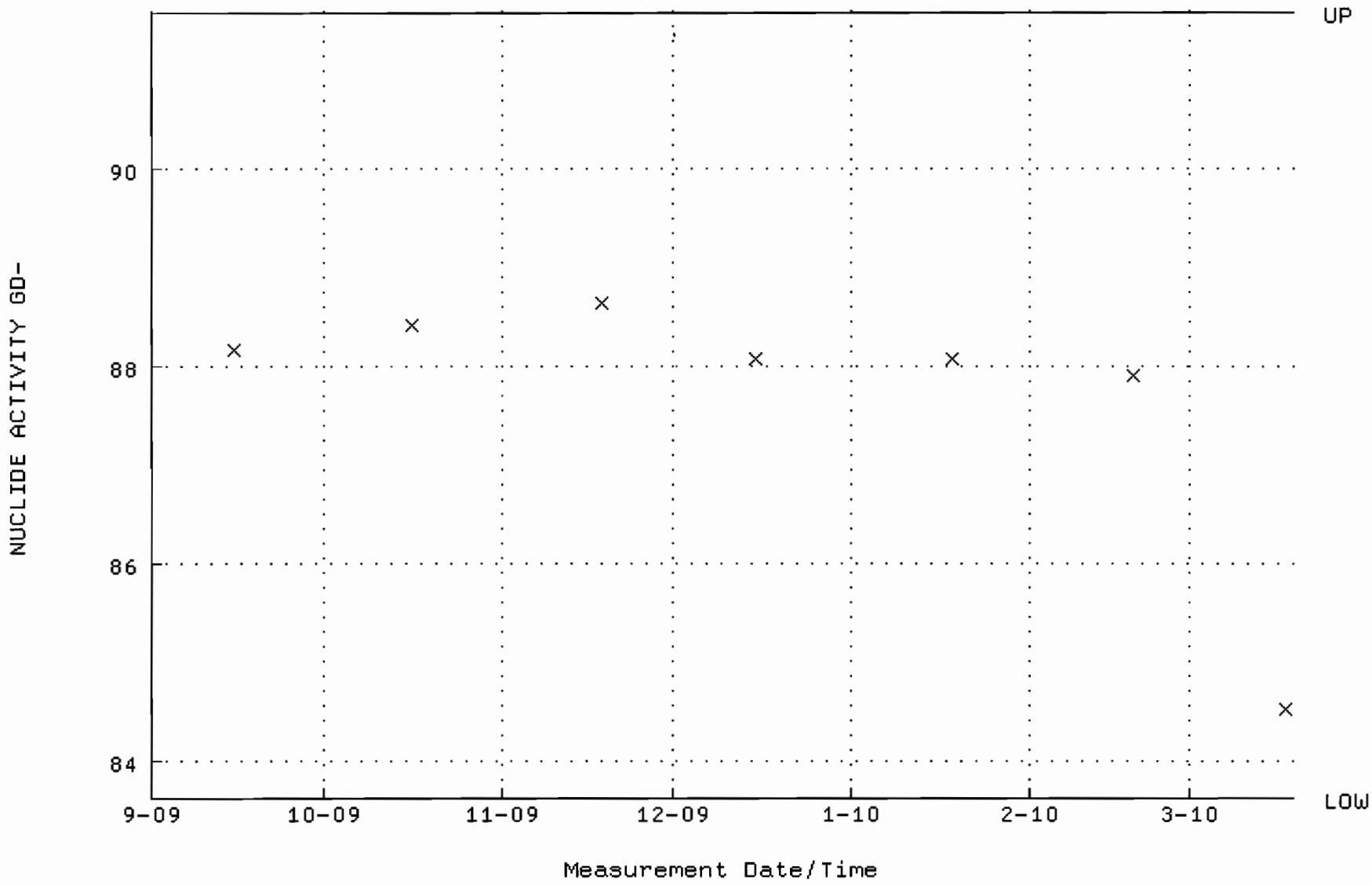

QA filename : DKA100:[ENV_ALPHA.QA.B]B152.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:55 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

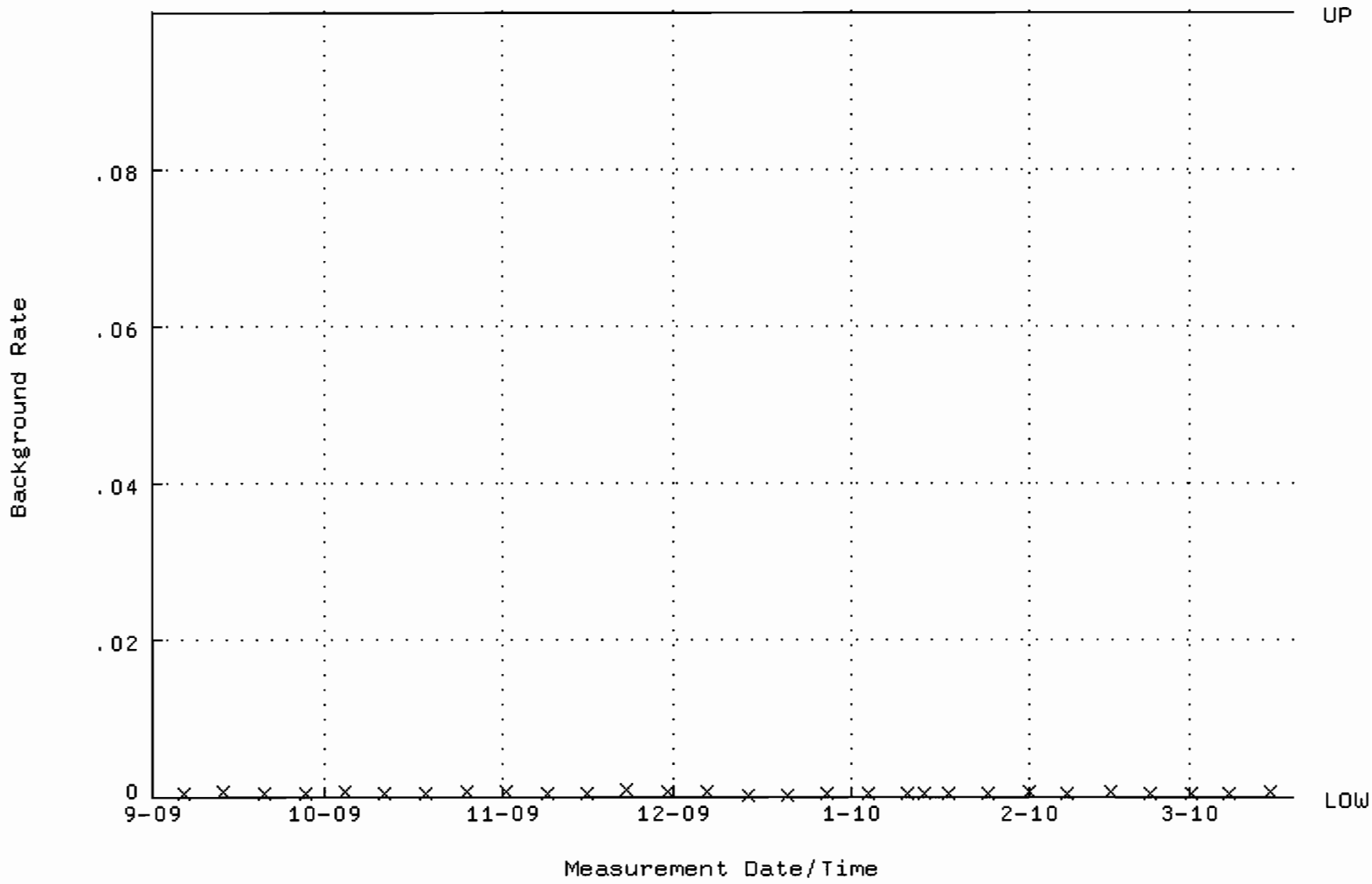

QA filename : DKA100:[ENV_ALPHA.QA.W]W153.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:41 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.243195 through 0.264993

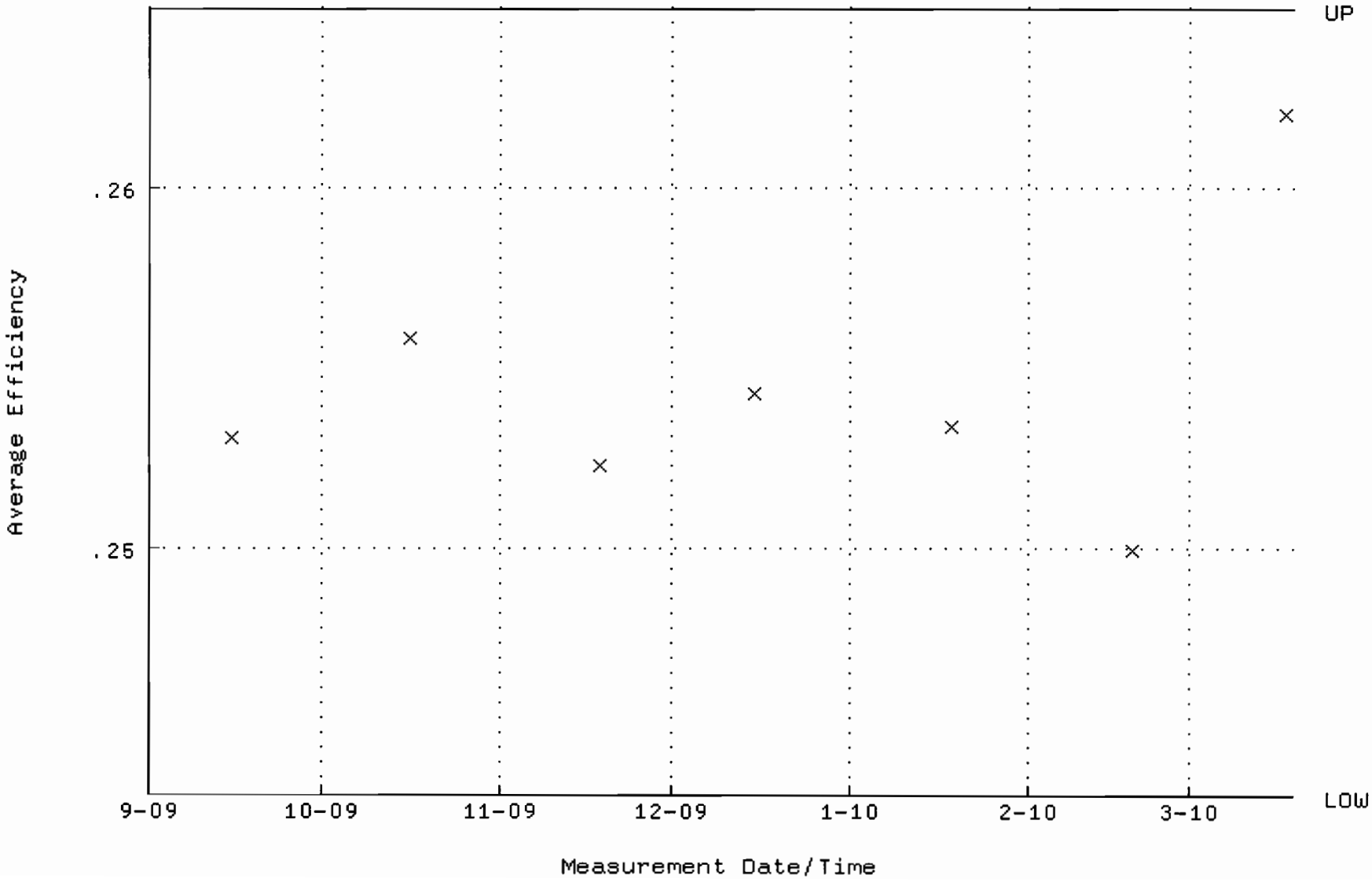

QA filename : DKA100:[ENV_ALPHA.QA.W]W153.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:41 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 82.6961 through 88.8445

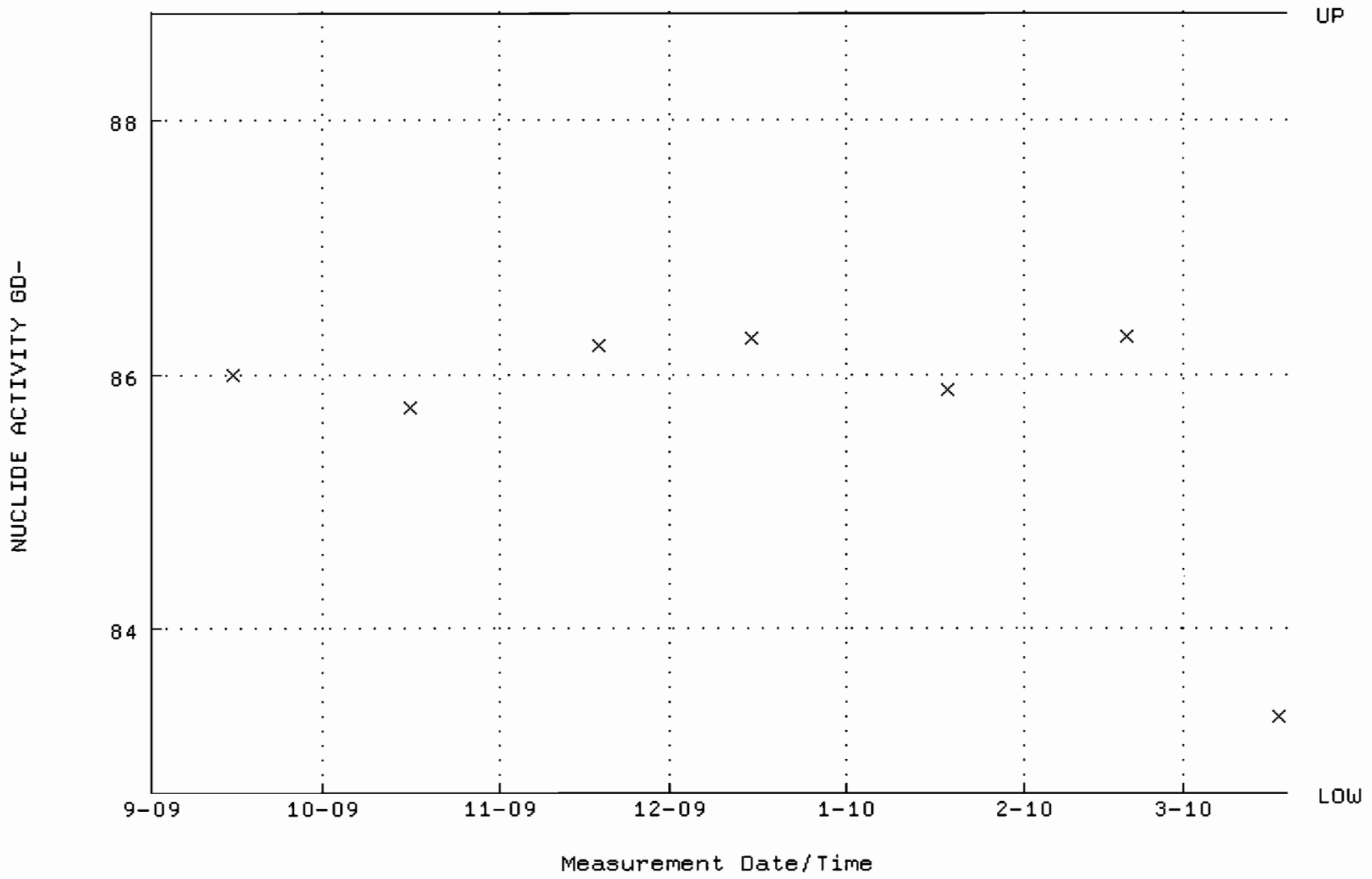

QA filename : DKA100:[ENV_ALPHA.QA.B]B153.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:58 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

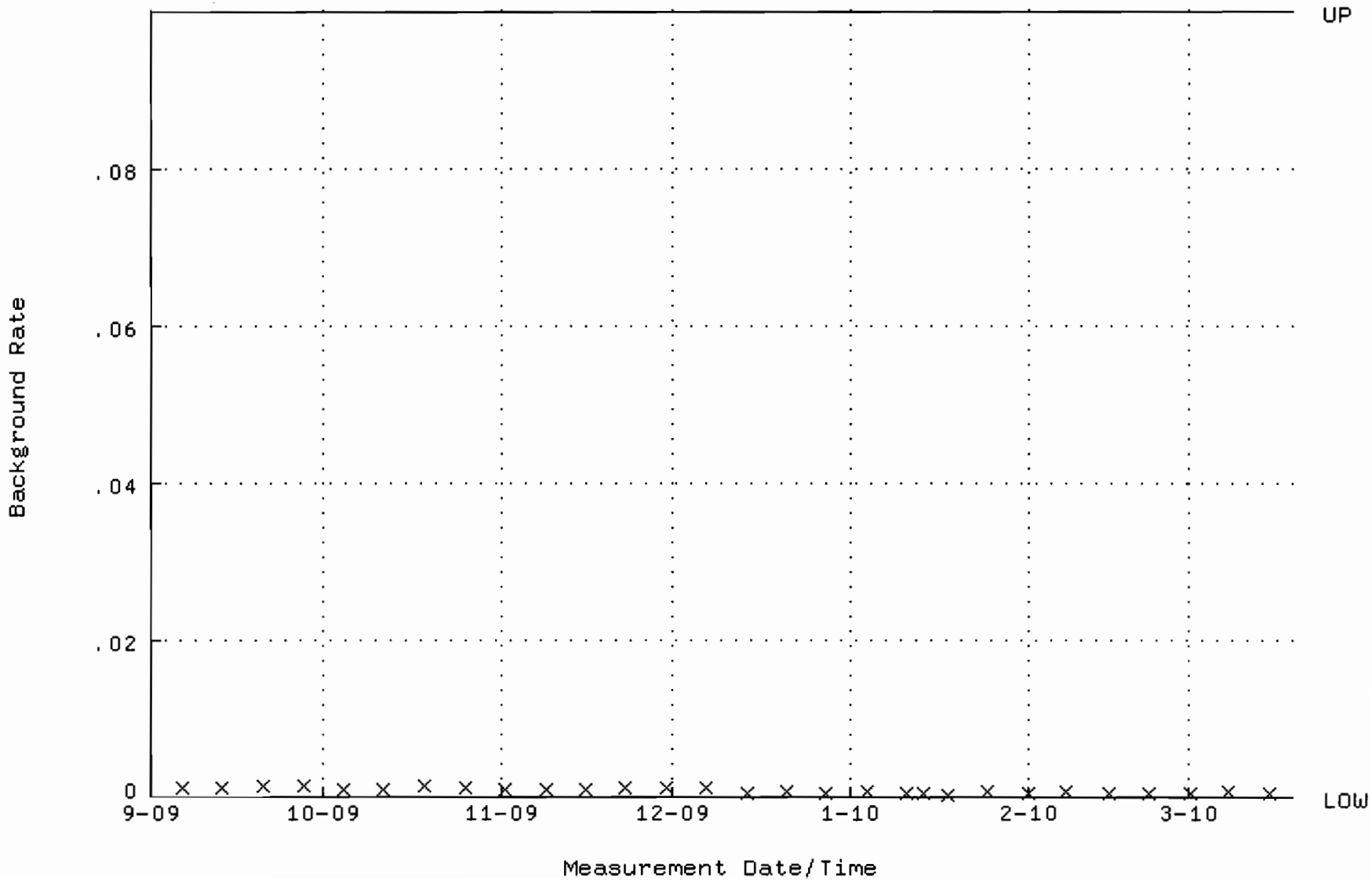

QA filename : DKA100:[ENV_ALPHA.QA.W]W154.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:46 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250737 through 0.265205

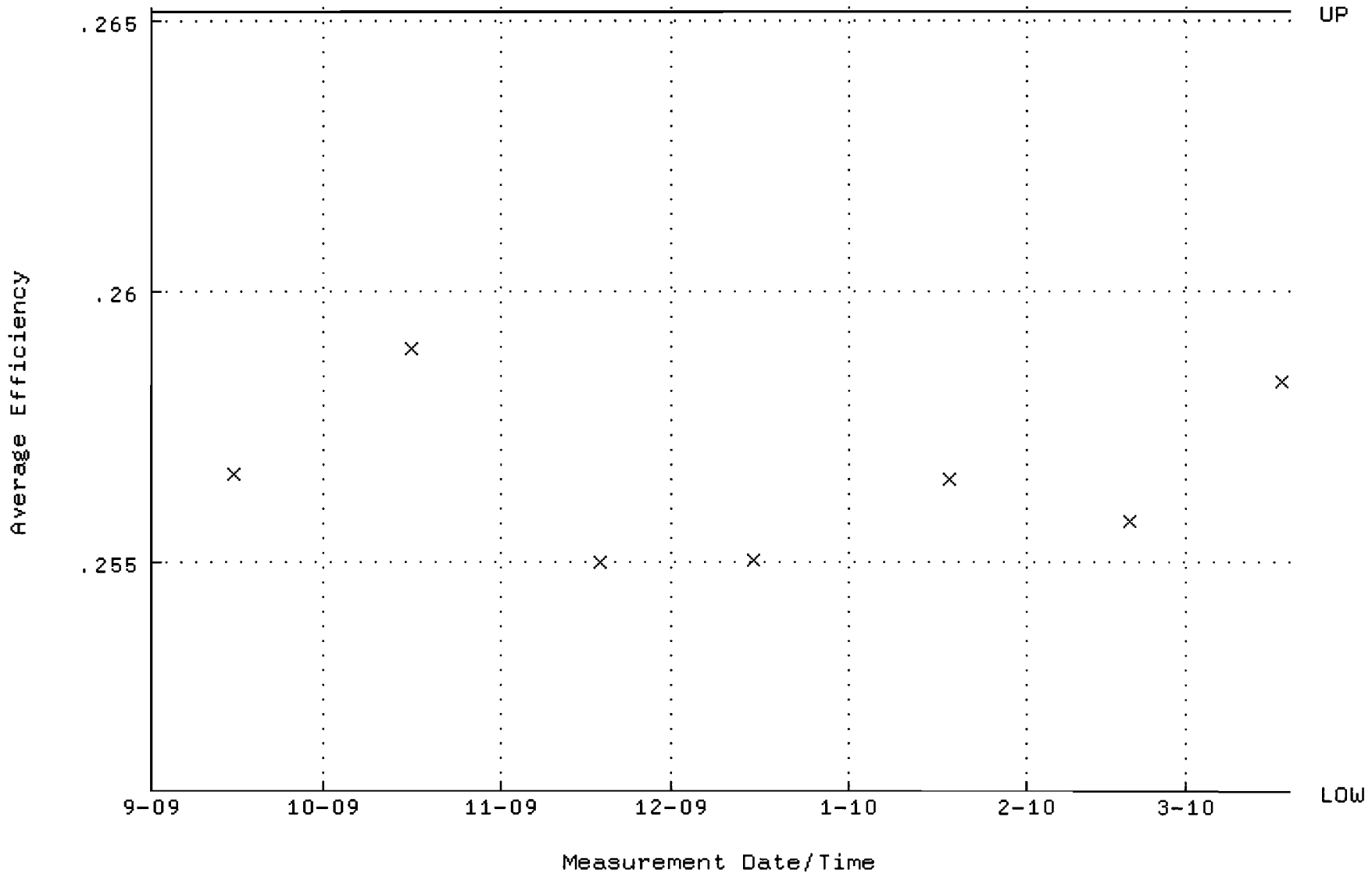

QA filename : DKA100:[ENV_ALPHA.QA.W]W154.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:46 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 82.1374 through 85.8670

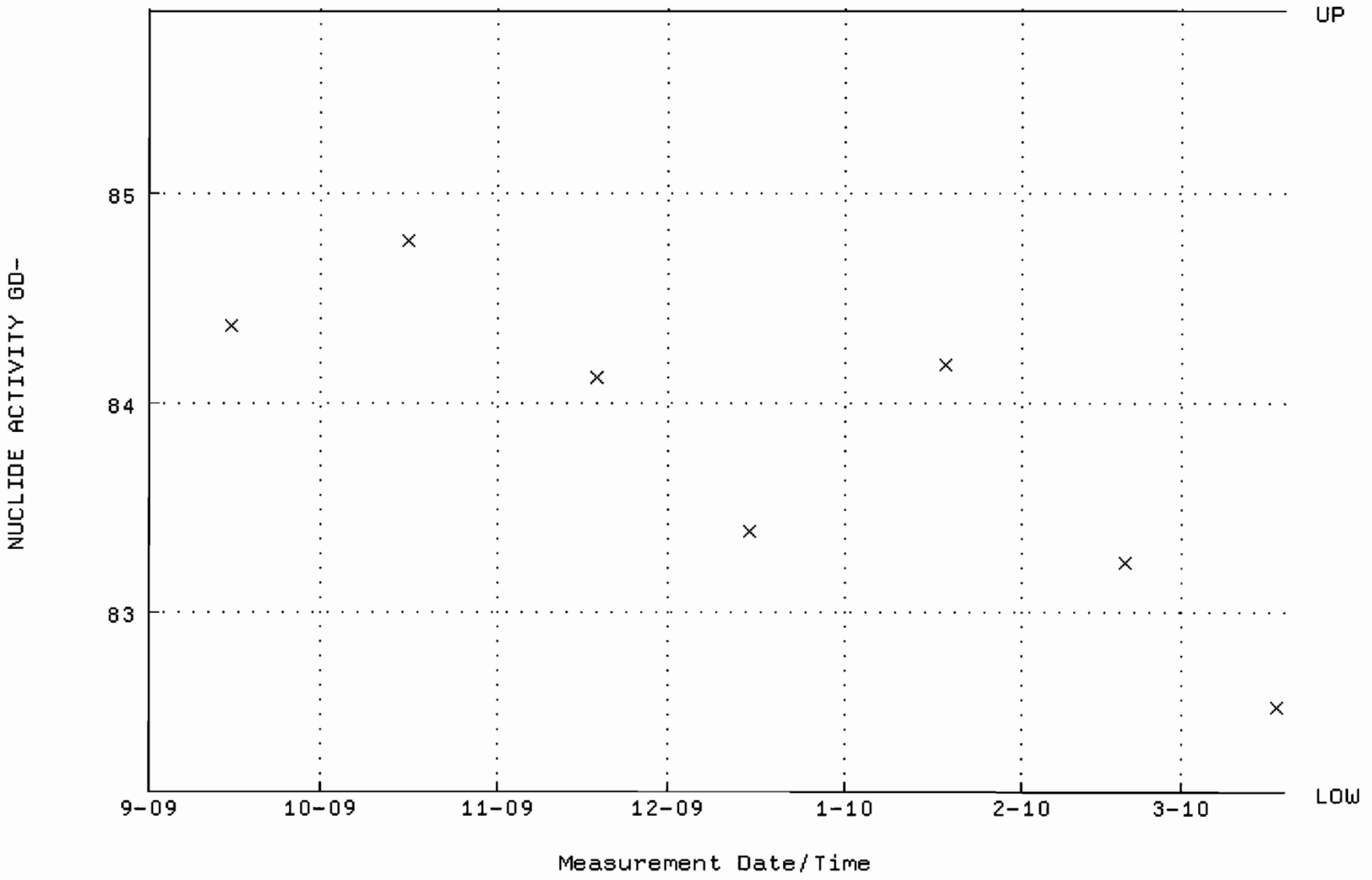

QA filename : DKA100:[ENV_ALPHA.QA.B]B154.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:43:02 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

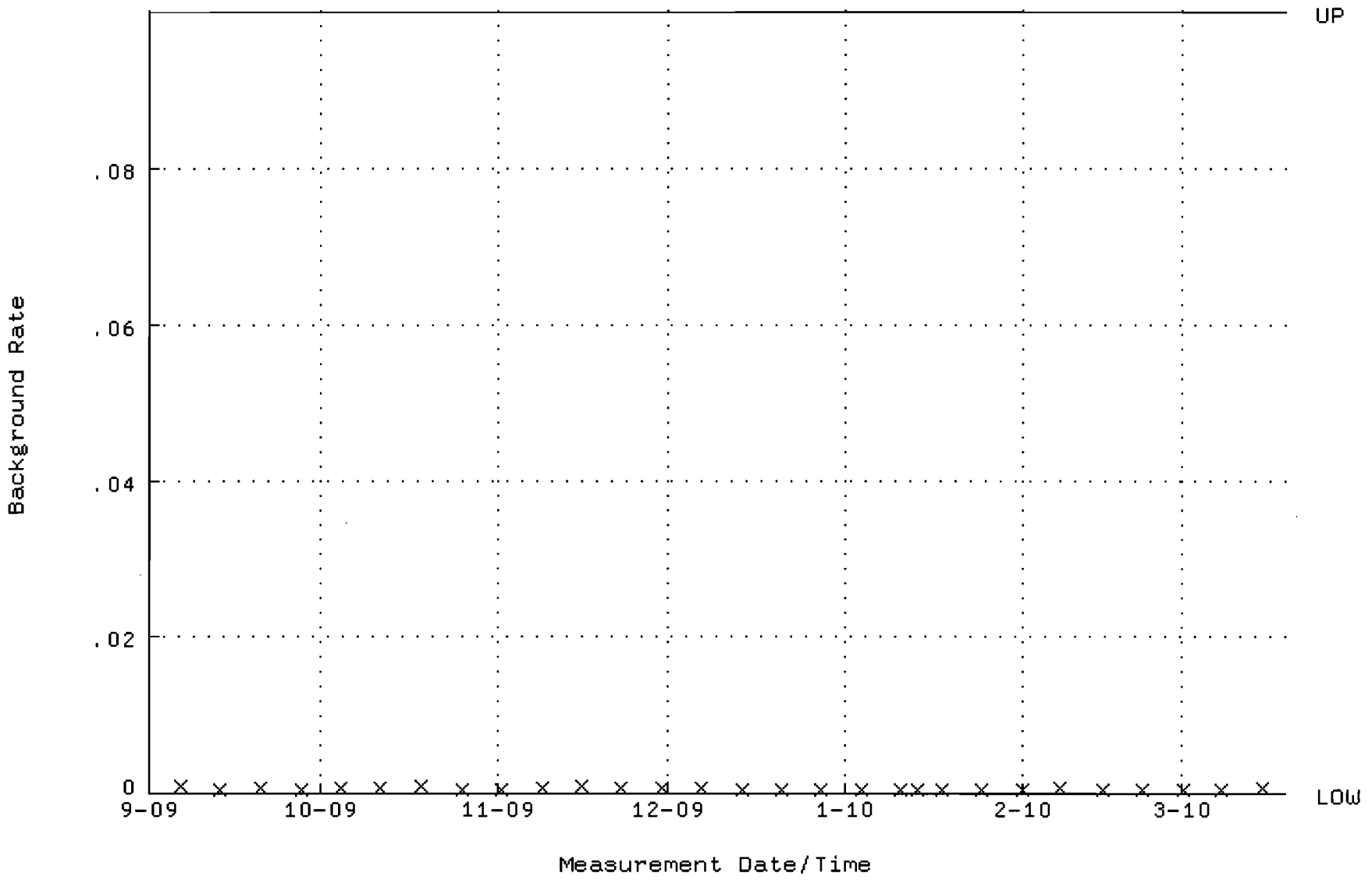

QA filename : DKA100:[ENV_ALPHA.QA.W]W173.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:29:38 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.248314 through 0.274256

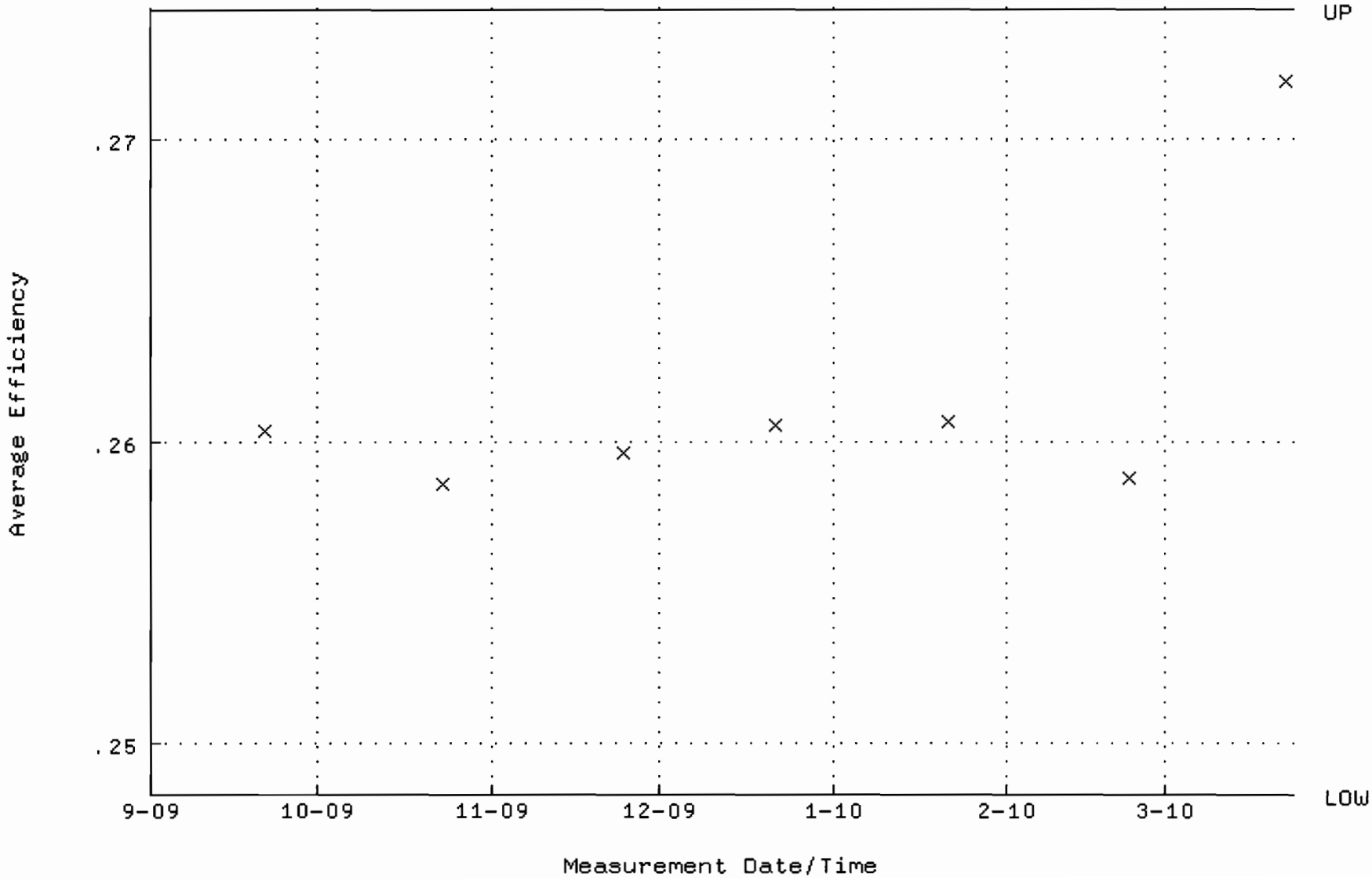

QA filename : DKA100:[ENV_ALPHA.QA.W]W173.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:29:38 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.6391 through 98.2805

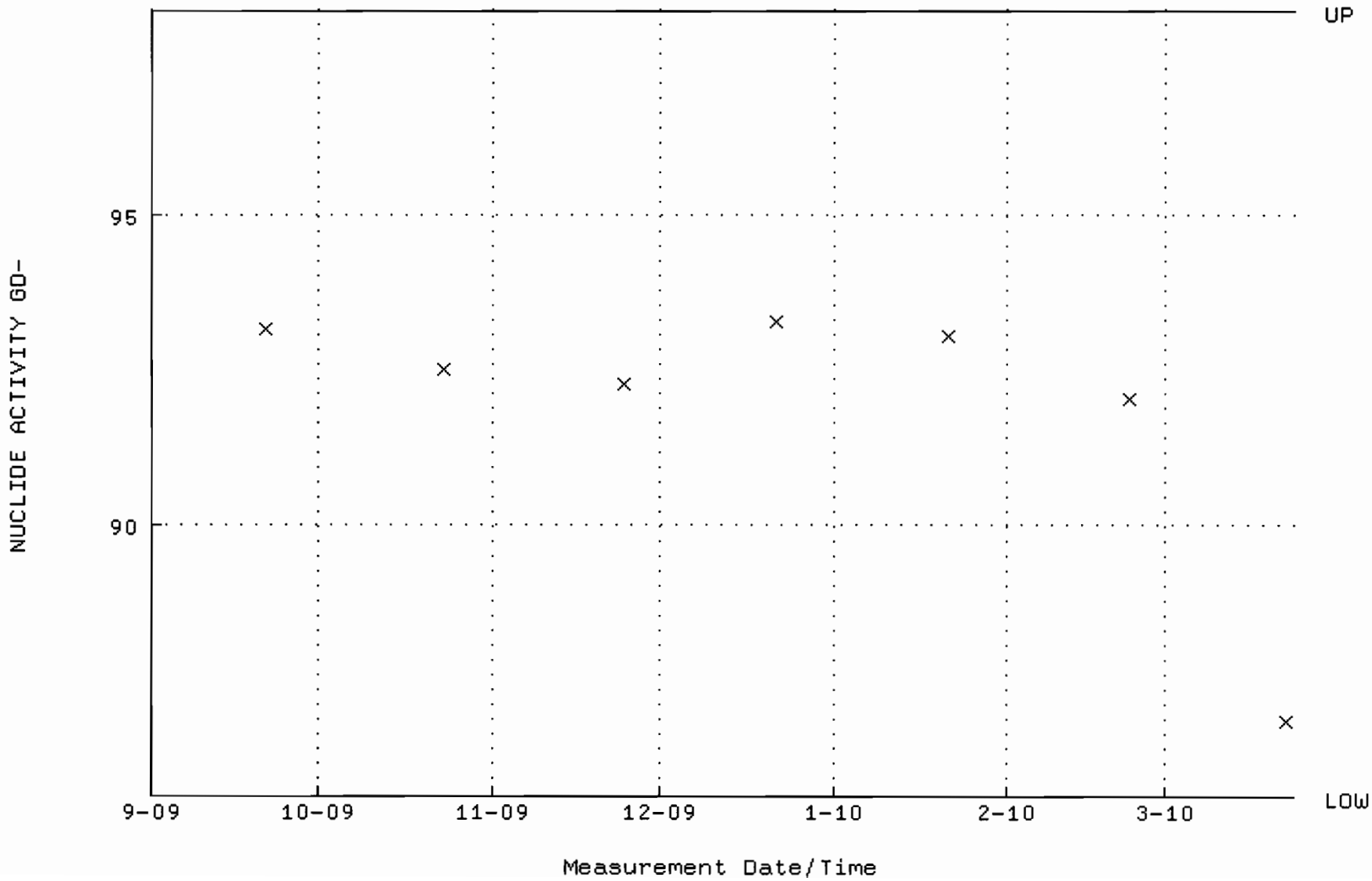

QA filename : DKA100:[ENV_ALPHA.QA.B]B173.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:07 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

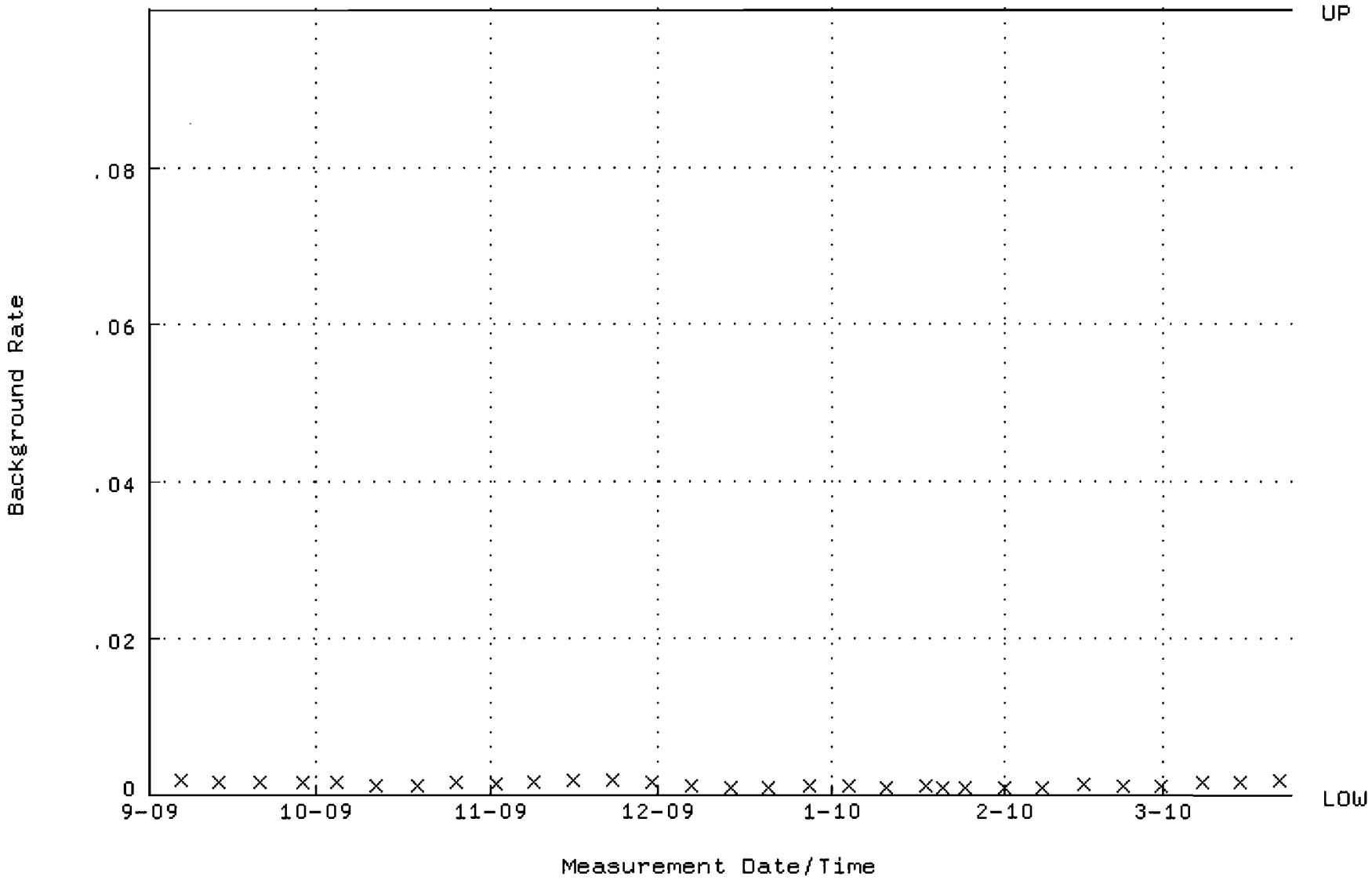

QA filename : DKA100:[ENV_ALPHA.QA.W]W179.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:16 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.256911 through 0.276911

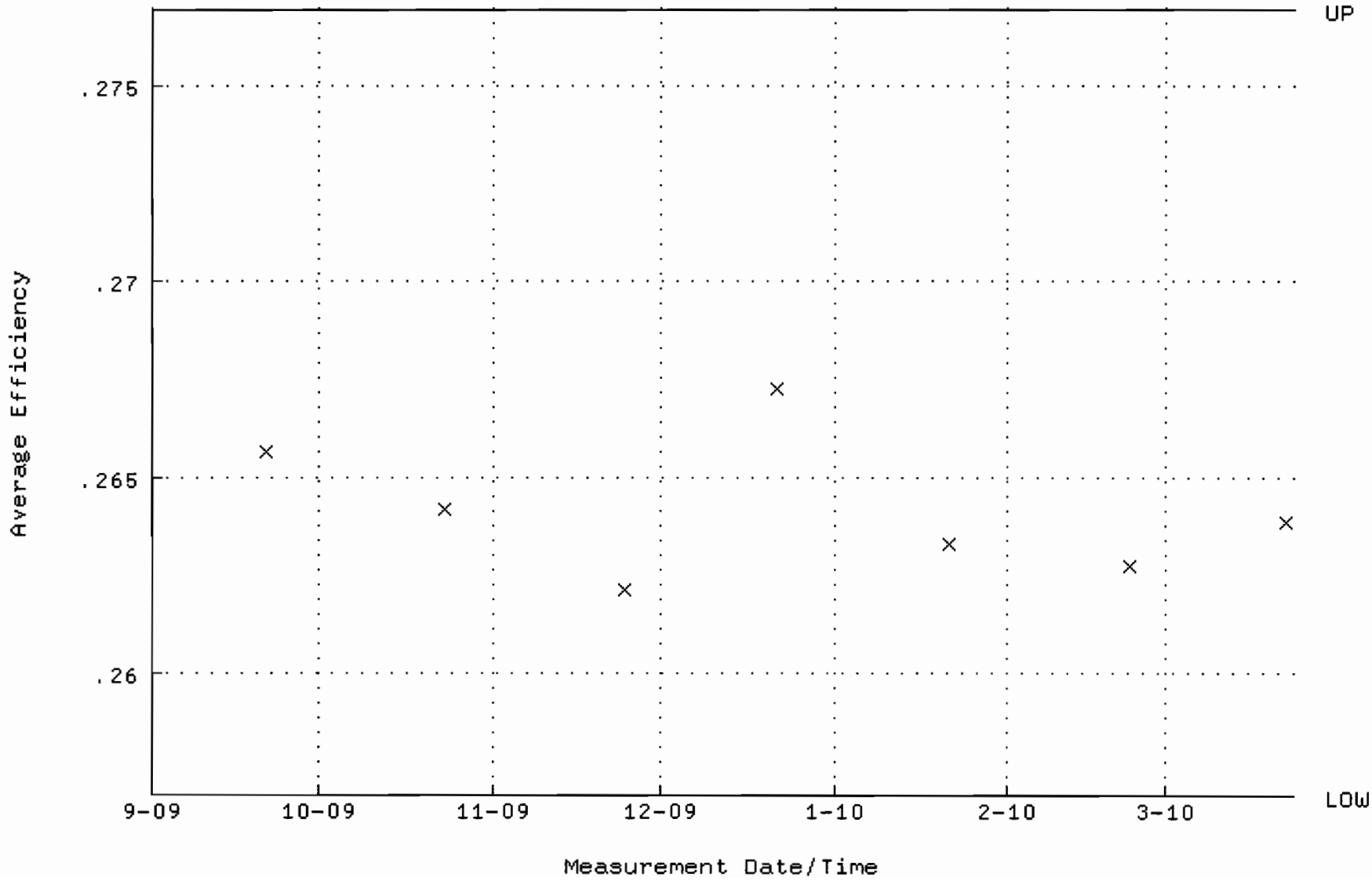

QA filename : DKA100:[ENV_ALPHA.QA.W]W179.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:16 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 86.7434 through 95.8742

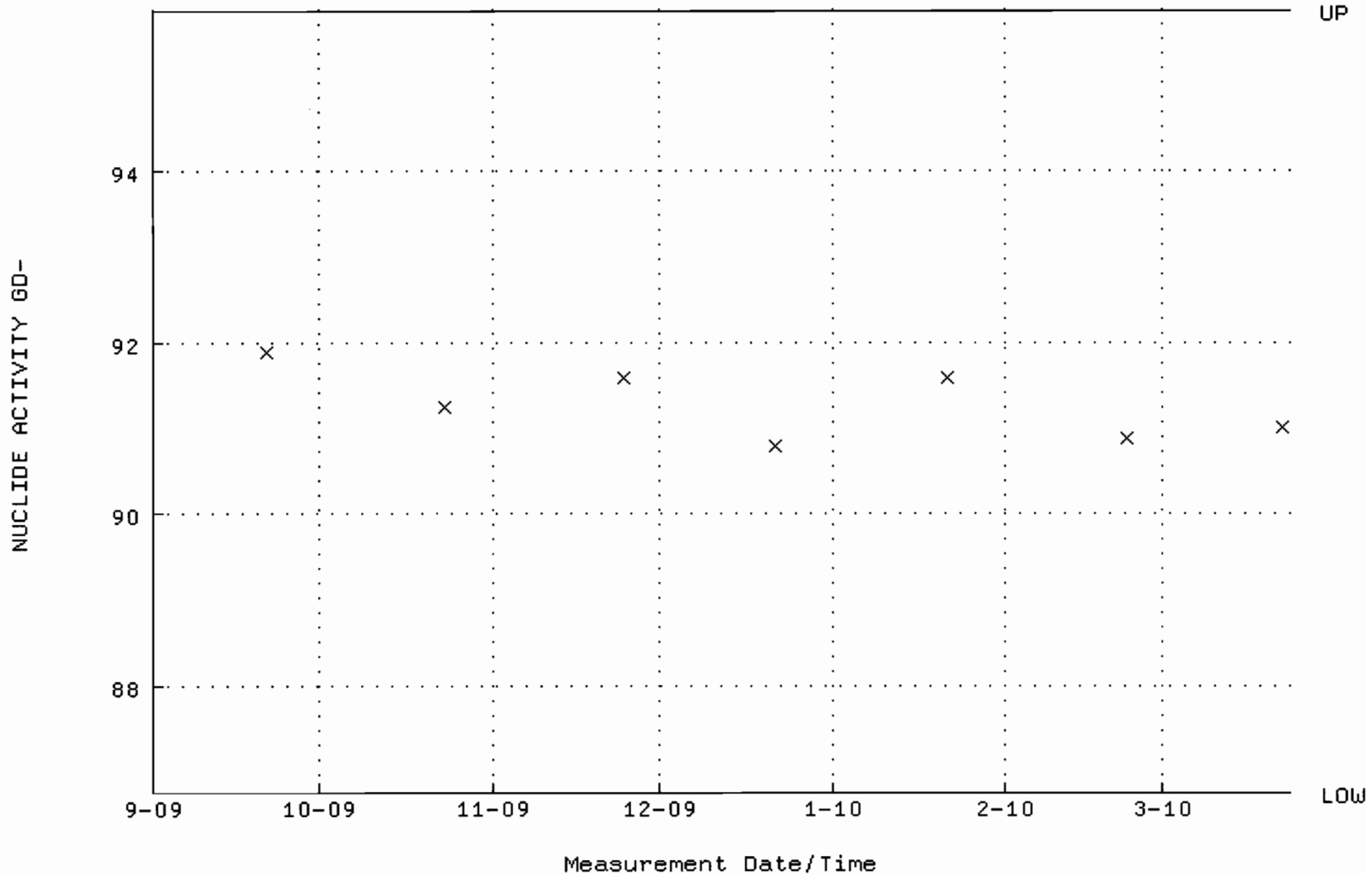

QA filename : DKA100:[ENV_ALPHA.QA.B]B179.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:34 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

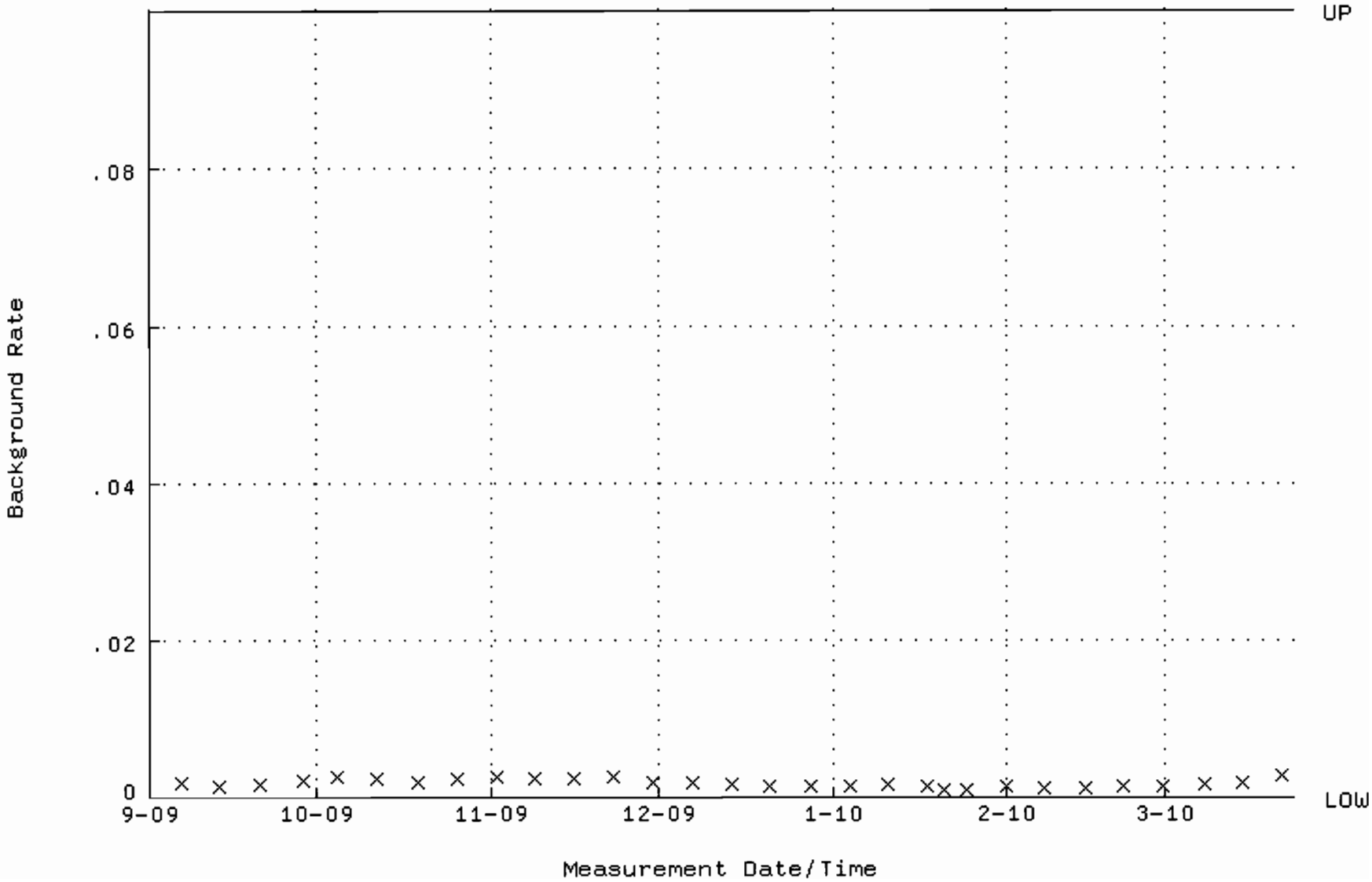

QA filename : DKA100:[ENV_ALPHA.QA.W]W180.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:22 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.242633 through 0.262633

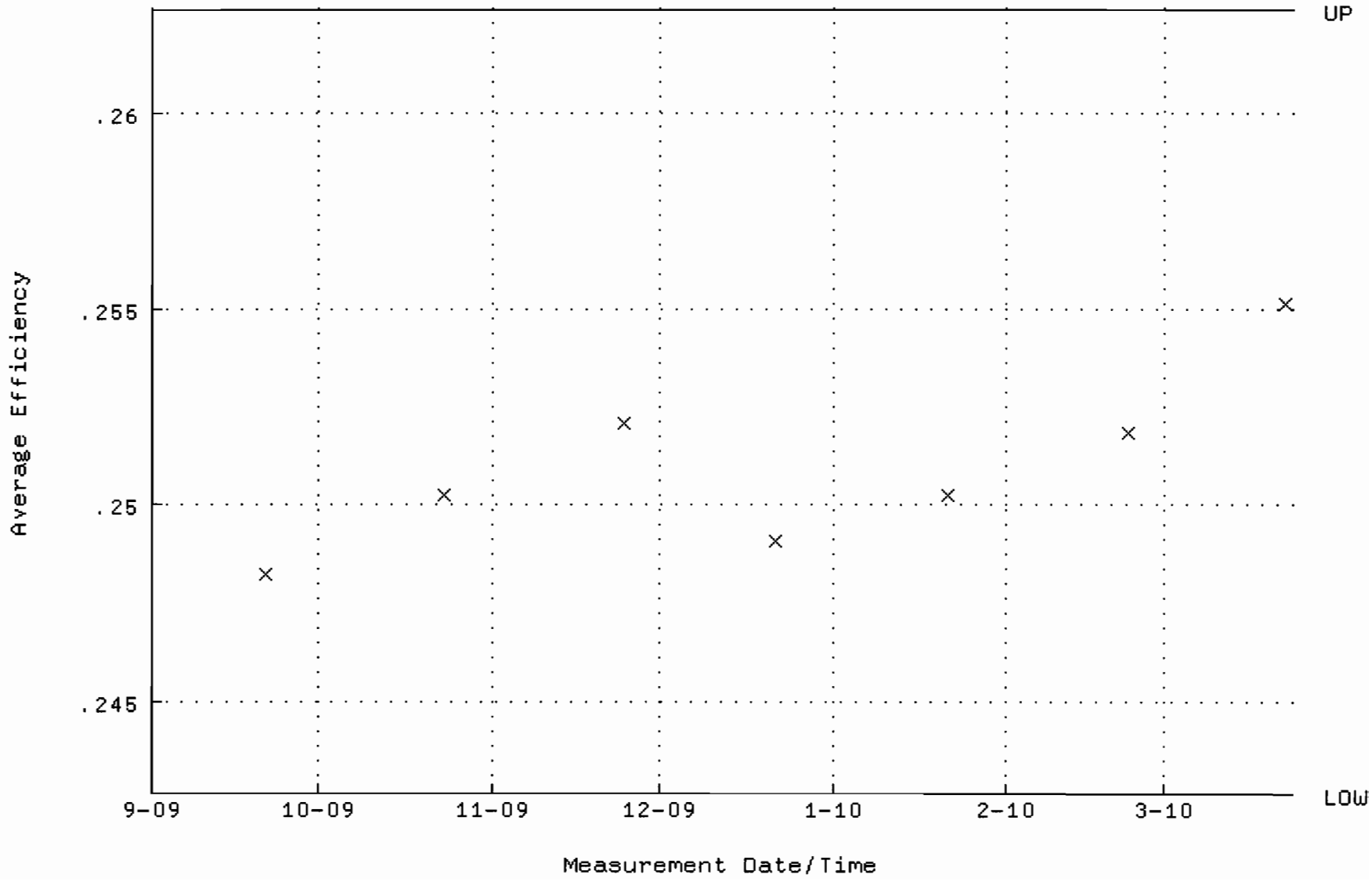

QA filename : DKA100:[ENV_ALPHA.QA.W]W180.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:22 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 88.0803 through 97.3519

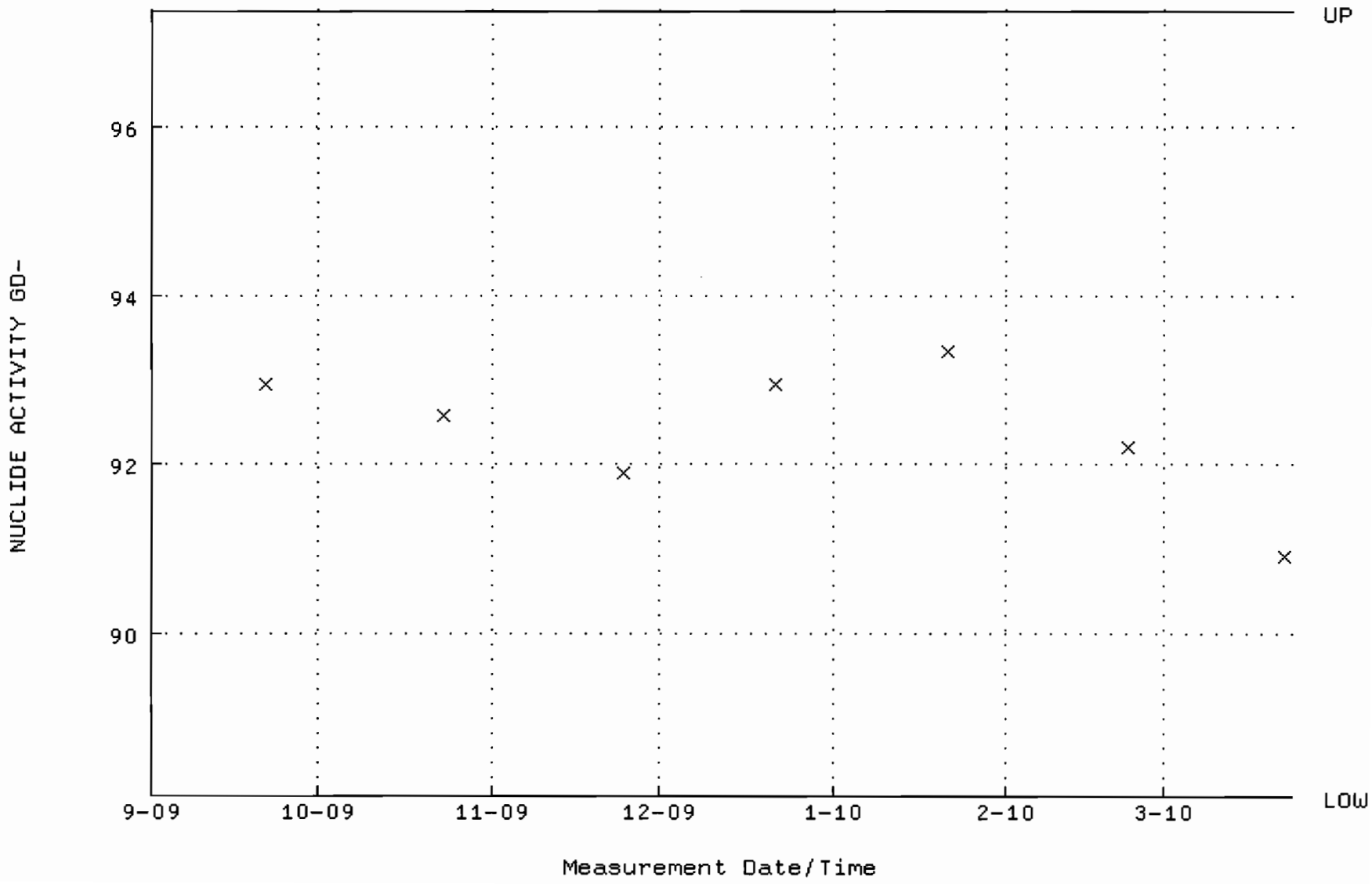

QA filename : DKA100:[ENV_ALPHA.QA.B]B180.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:40 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

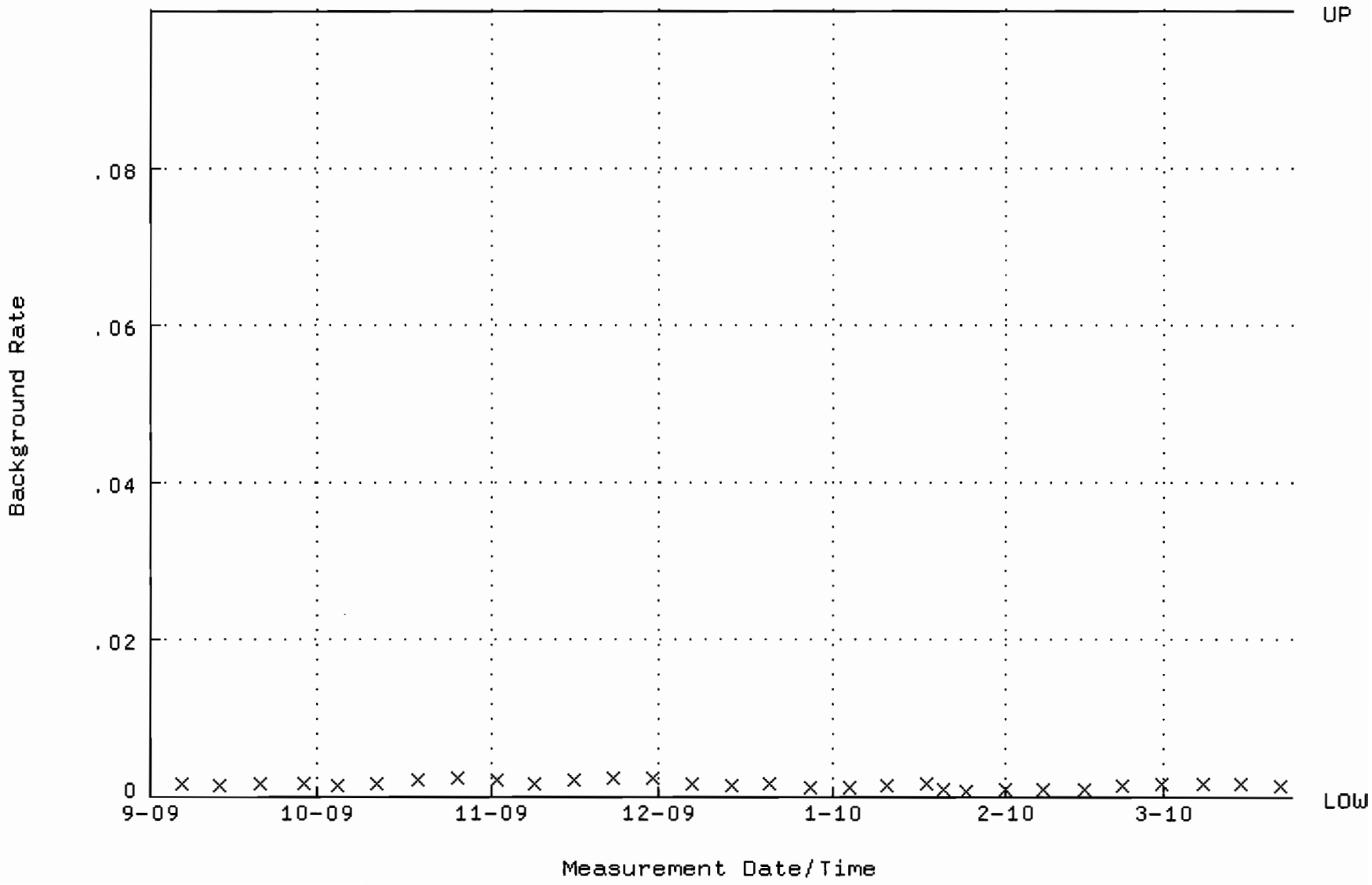

QA filename : DKA100:[ENV_ALPHA.QA.W]W181.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:28 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.247722 through 0.267722

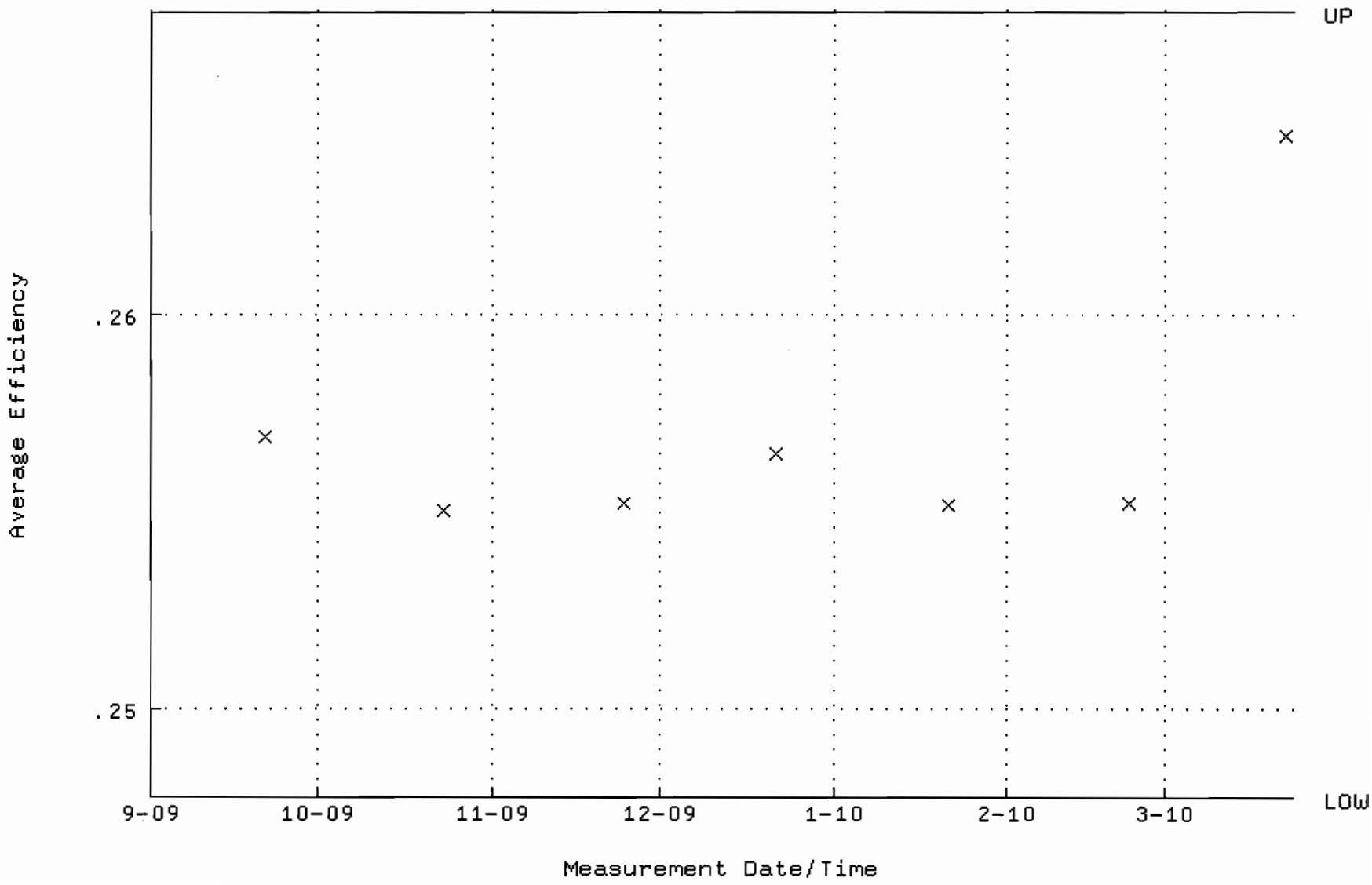

QA filename : DKA100:[ENV_ALPHA.QA.W]W181.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:28 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 89.2737 through 98.6709

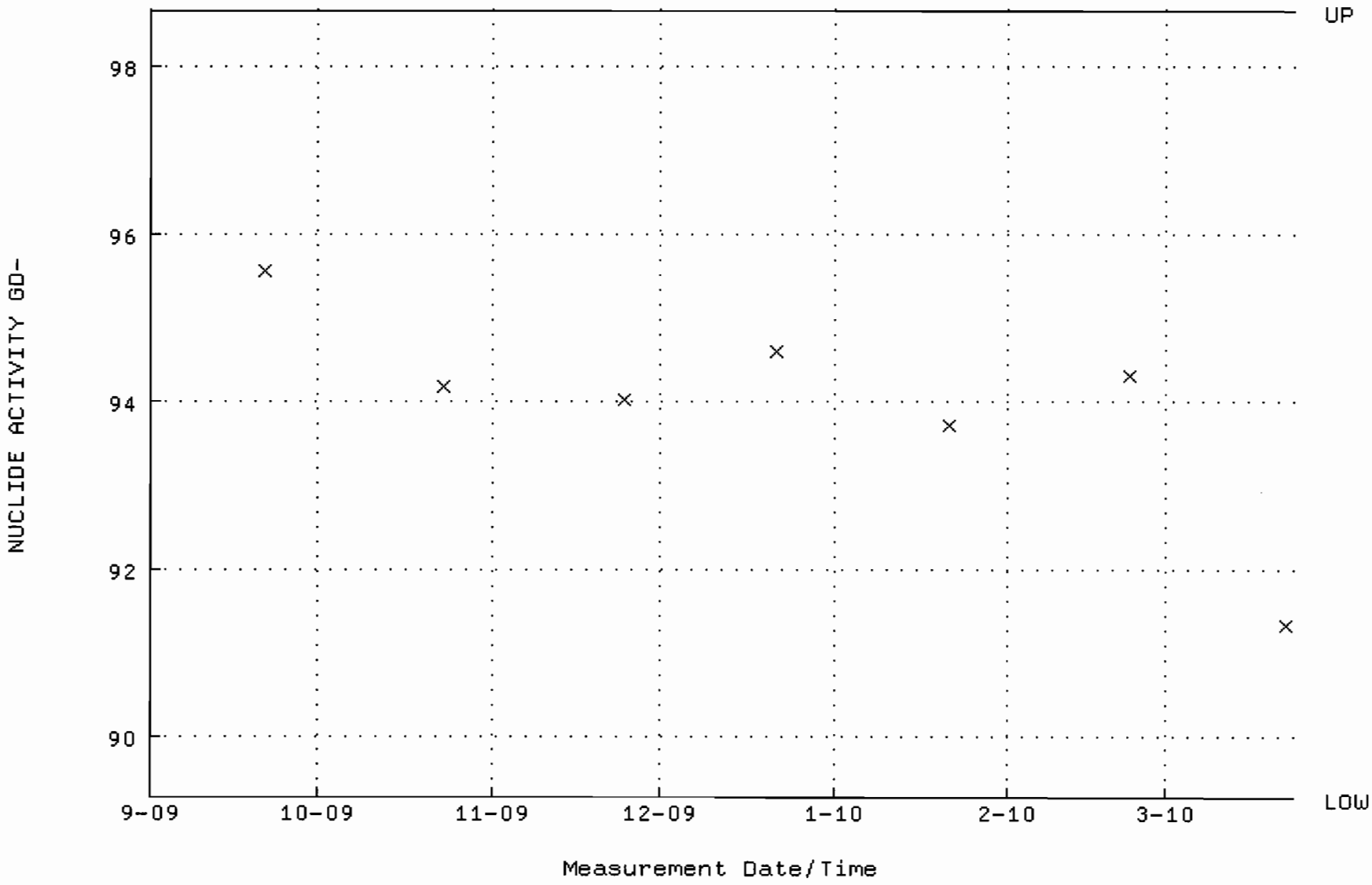

QA filename : DKA100:[ENV_ALPHA.QA.B]B181.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:44 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

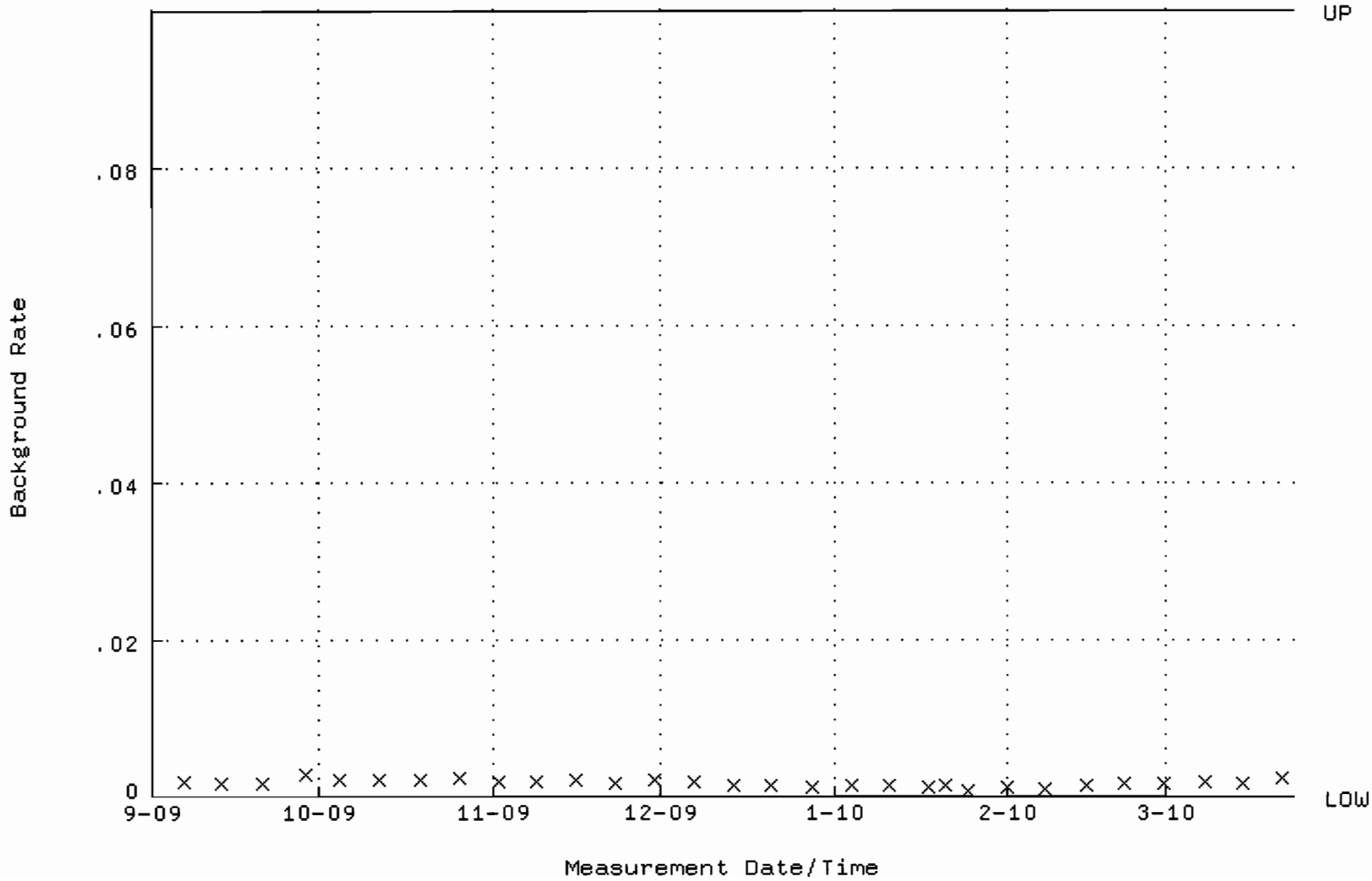

QA filename : DKA100:[ENV_ALPHA.QA.W]W182.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:34 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.245707 through 0.265707

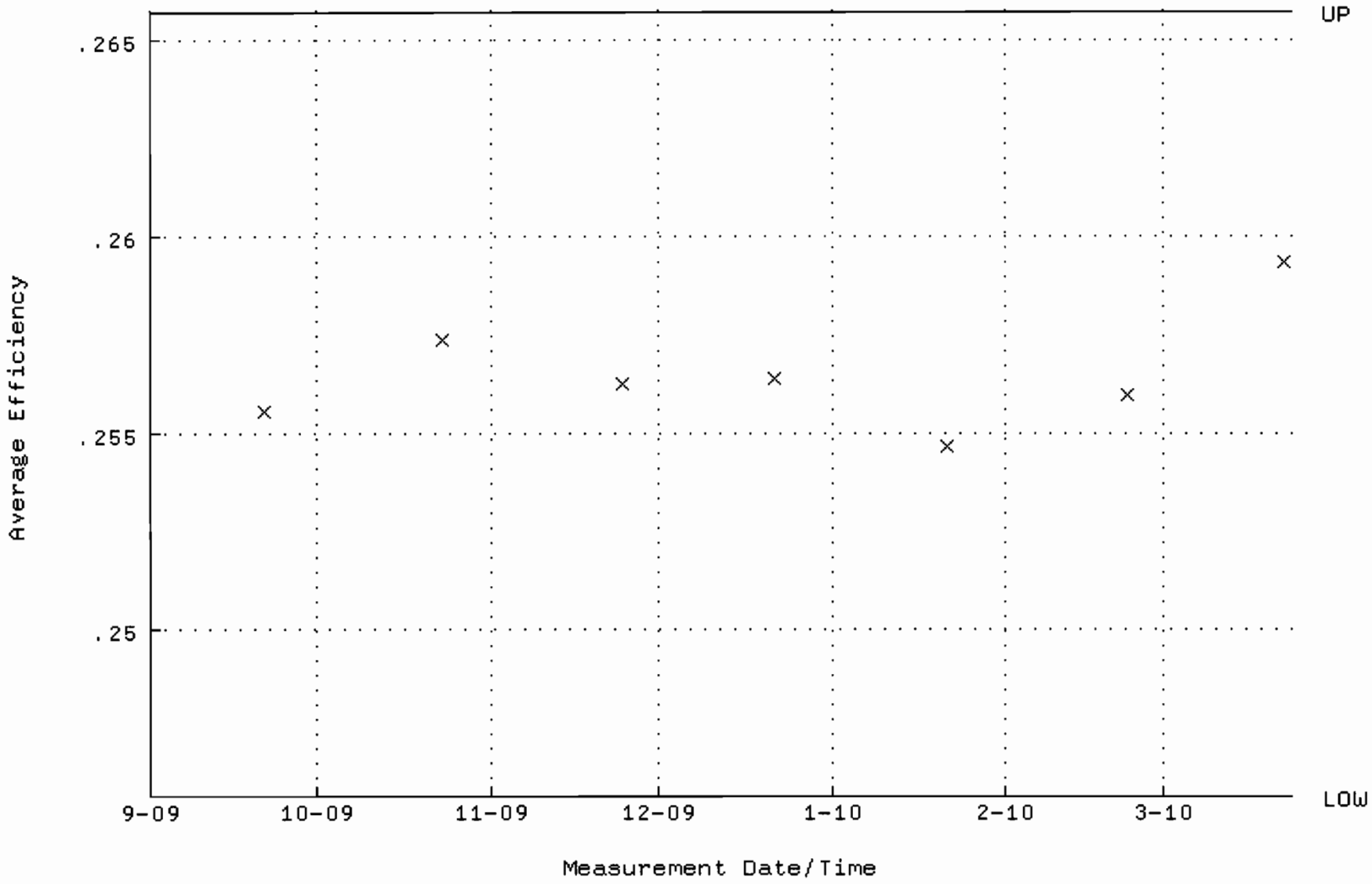

QA filename : DKA100:[ENV_ALPHA.QA.W]W182.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:34 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 87.3454 through 96.5396

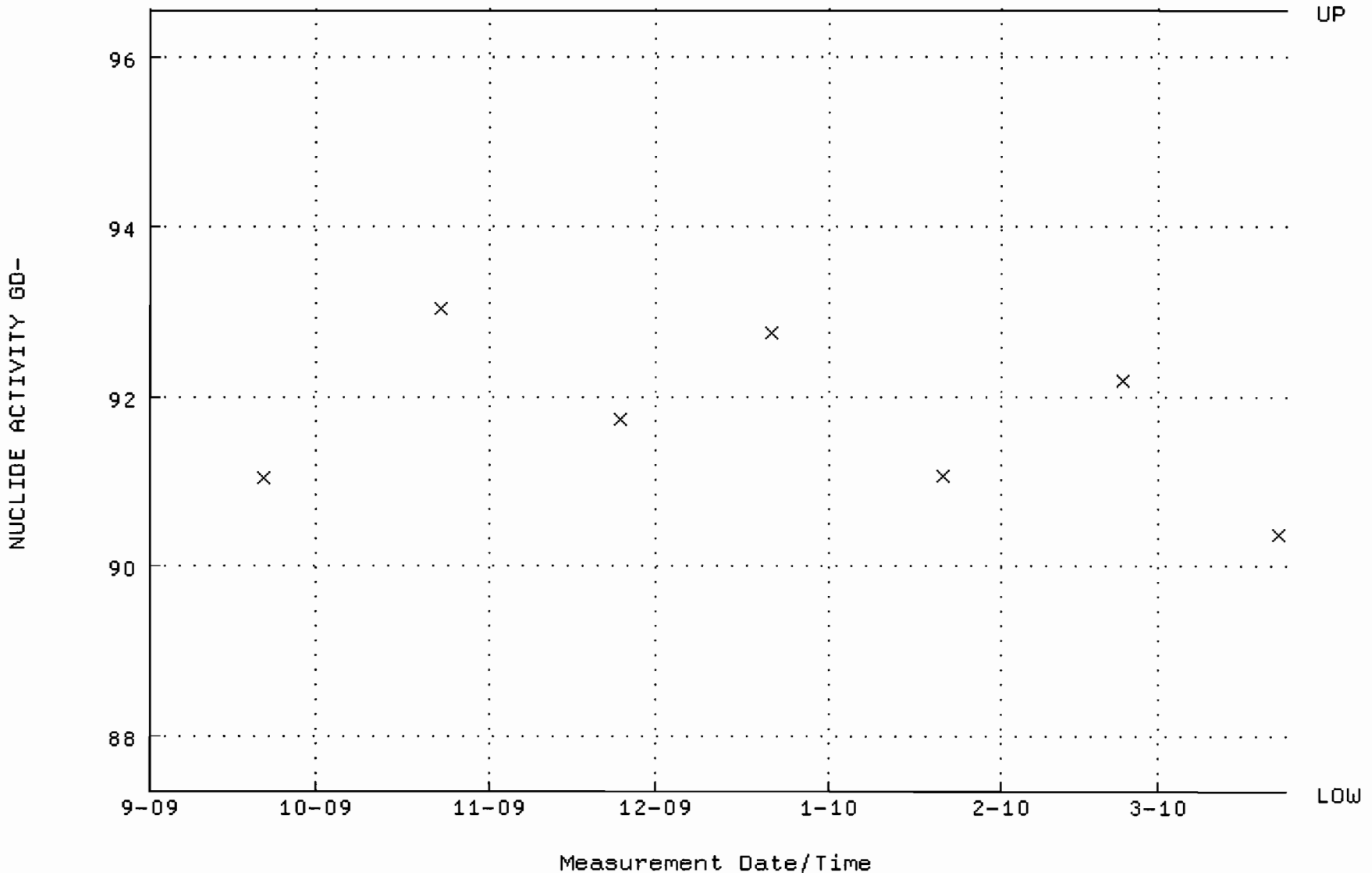

QA filename : DKA100:[ENV_ALPHA.QA.B]B182.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:49 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

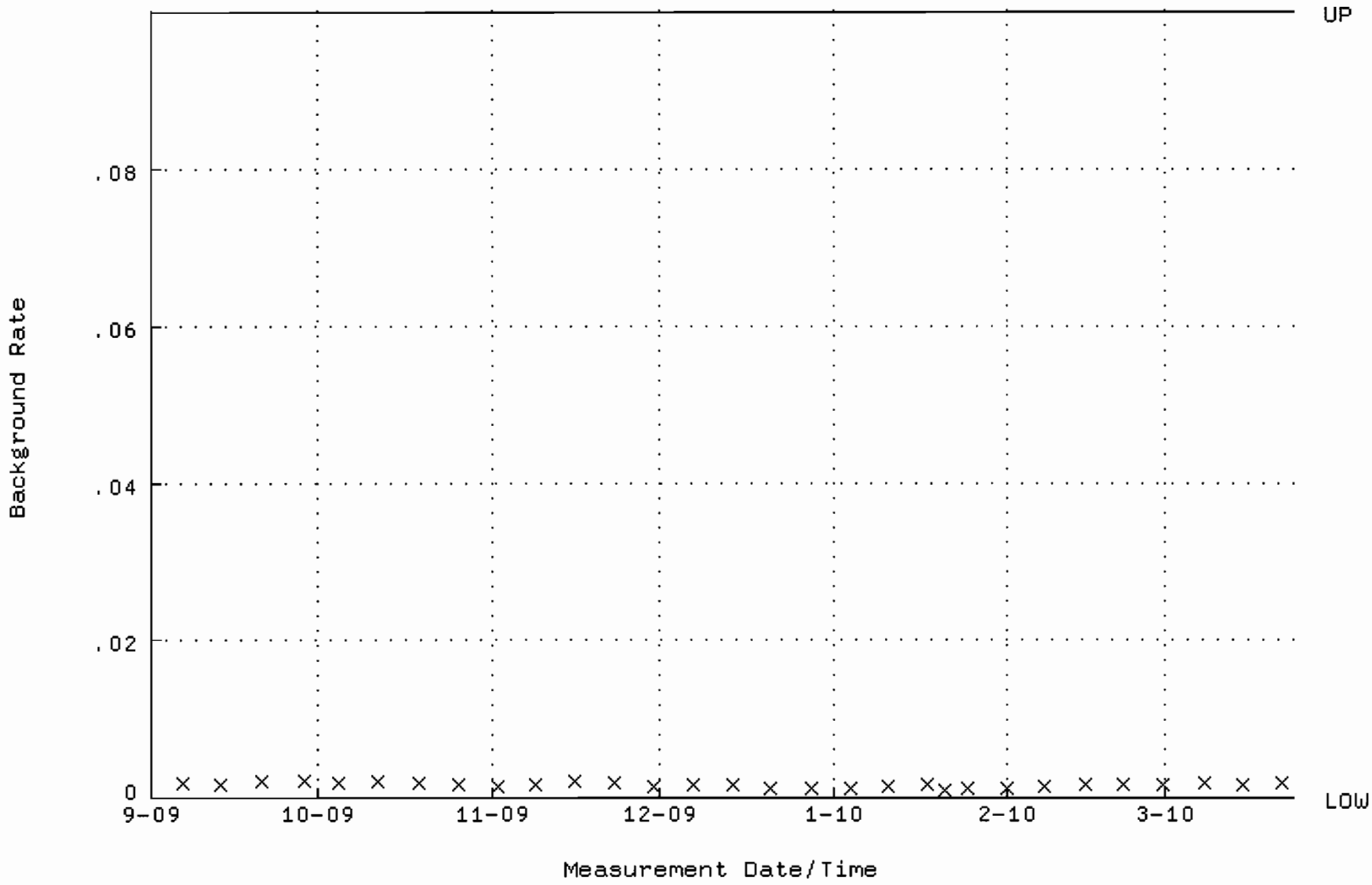

QA filename : DKA100:[ENV_ALPHA.QA.W]W183.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:39 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.248129 through 0.277879

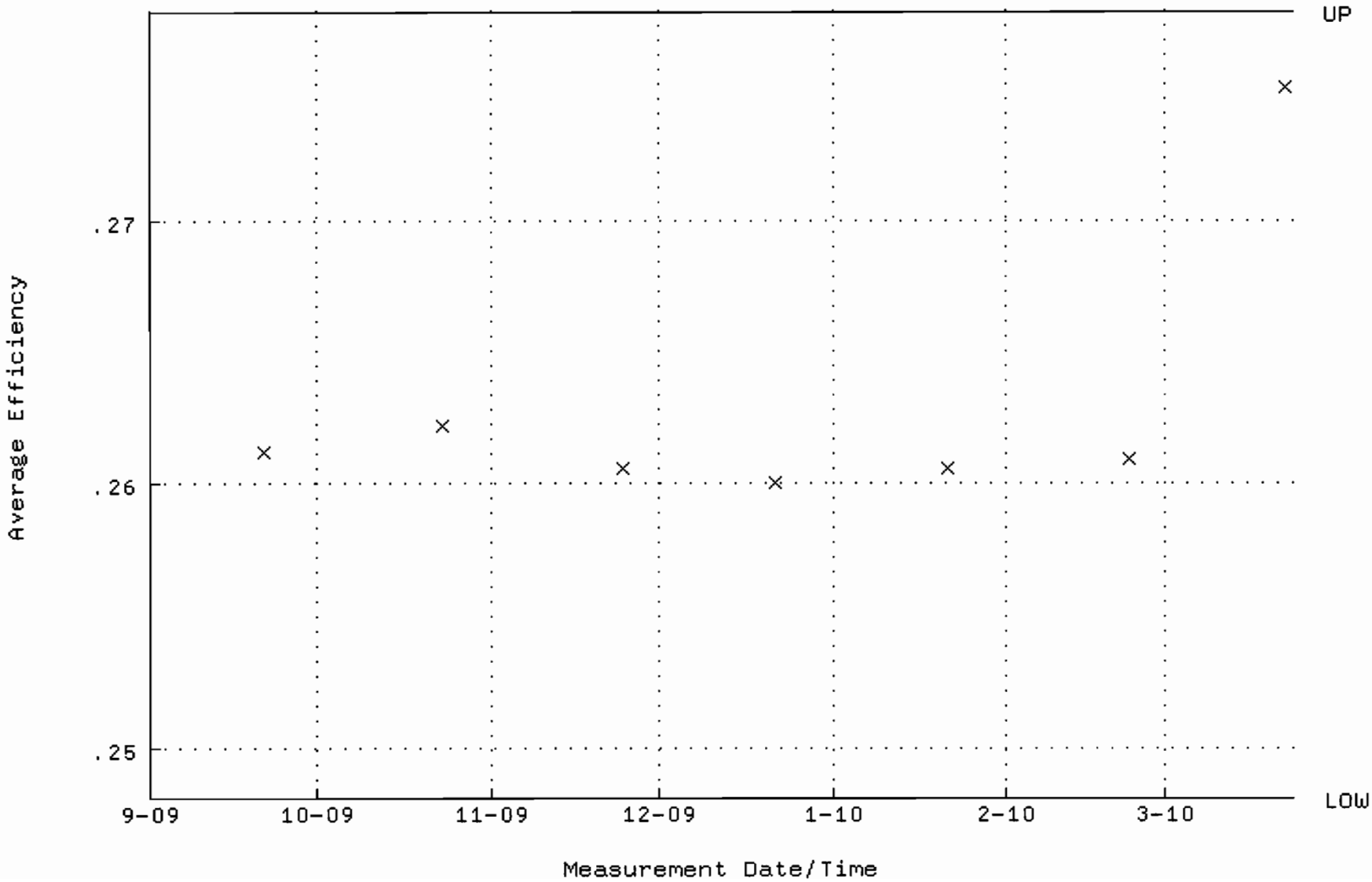

QA filename : DKA100:[ENV_ALPHA.QA.W]W183.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:39 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 87.2429 through 95.2093

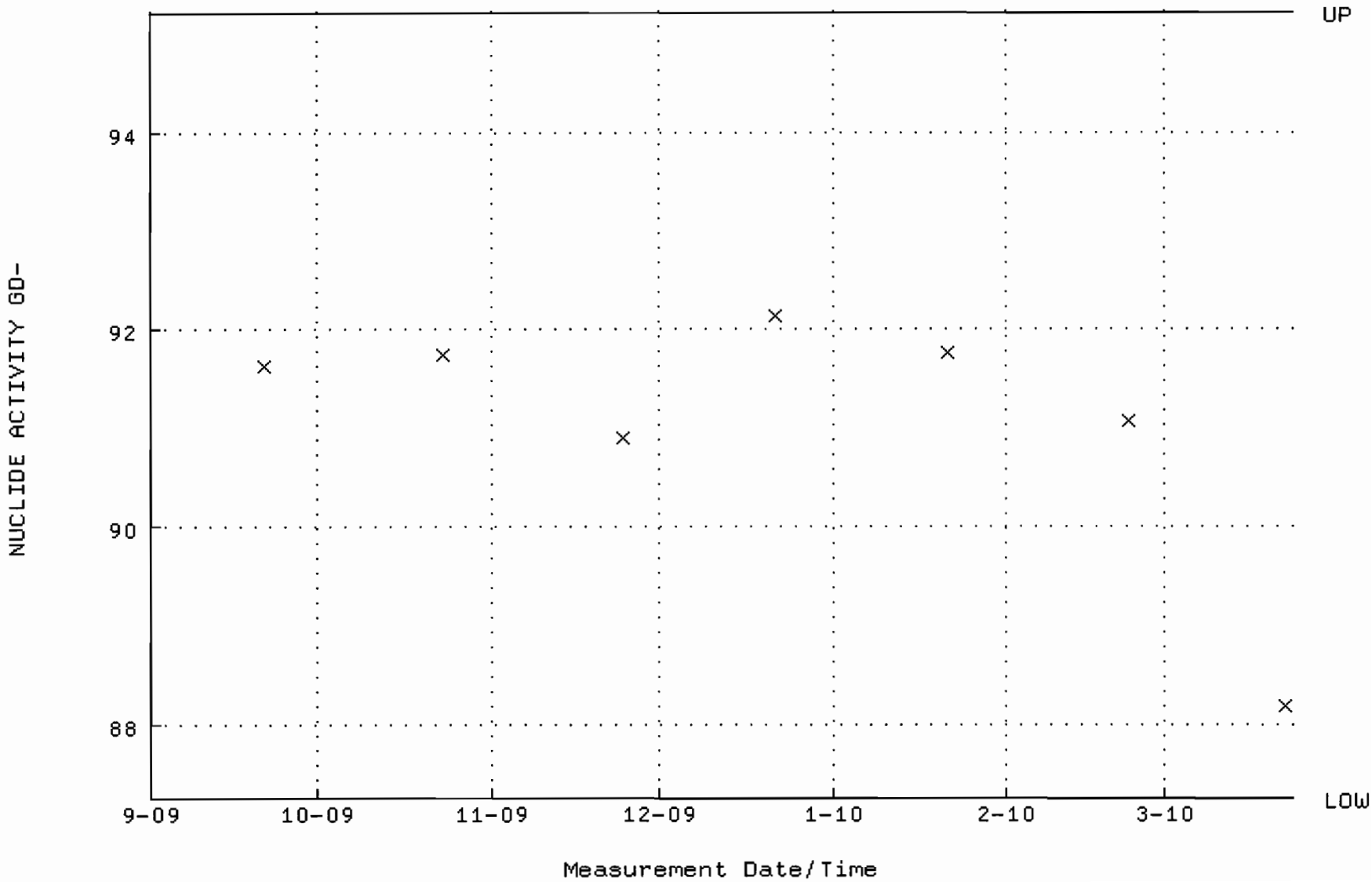

QA filename : DKA100:[ENV_ALPHA.QA.B]B183.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:53 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

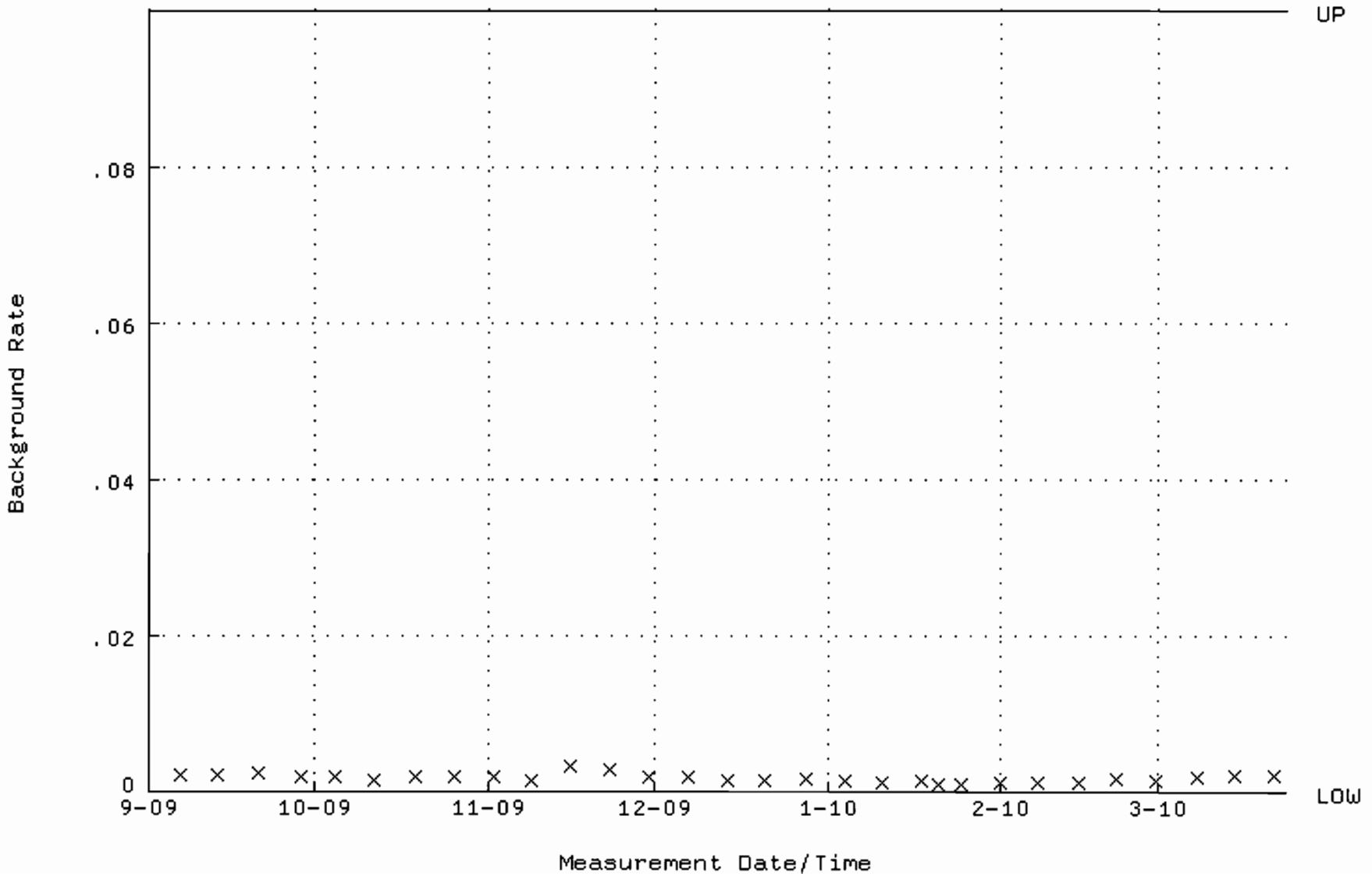

QA filename : DKA100:[ENV_ALPHA.QA.W]W184.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:45 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.251367 through 0.271367

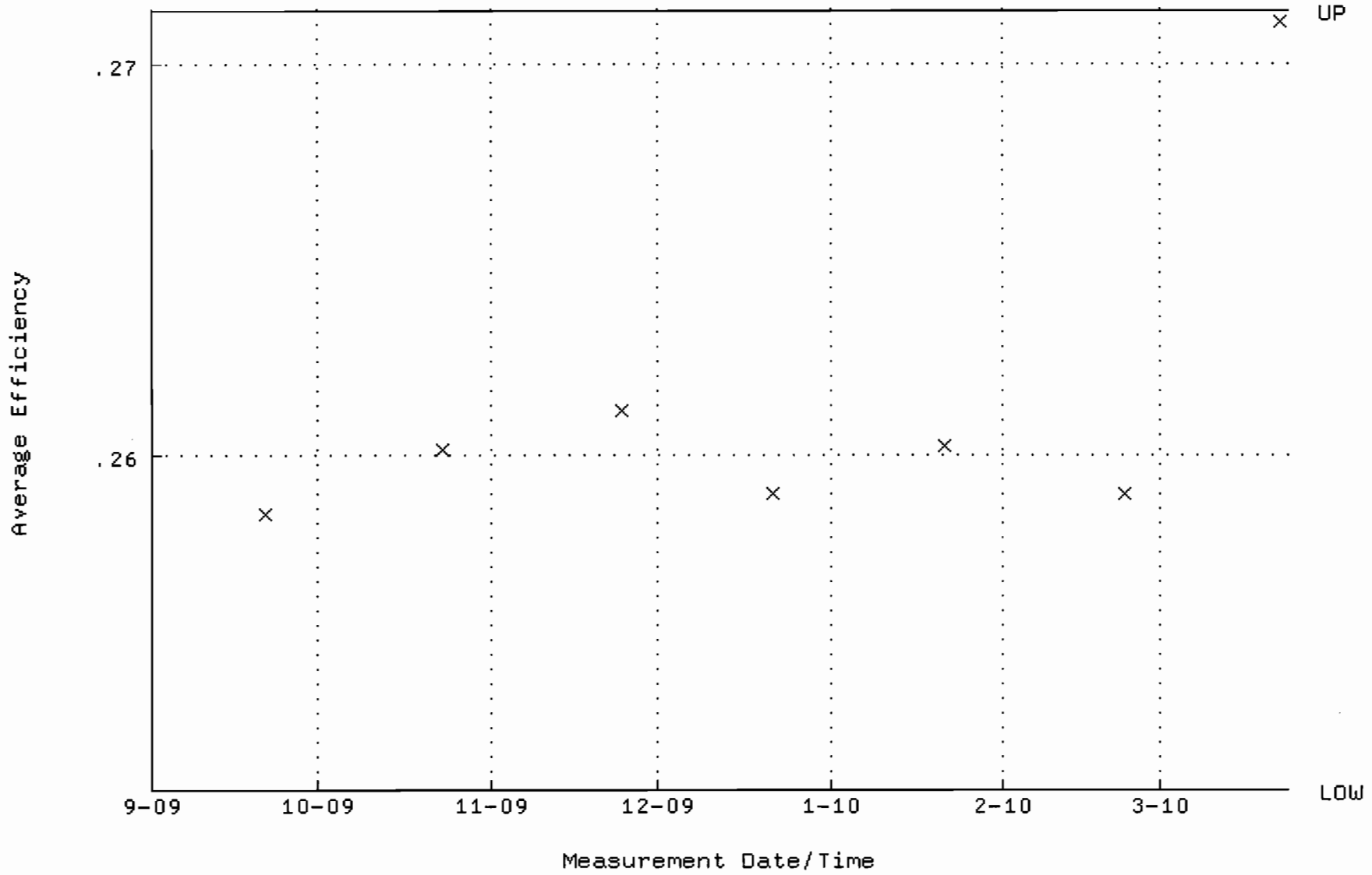

QA filename : DKA100:[ENV_ALPHA.QA.W]W184.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:45 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.4139 through 94.4049

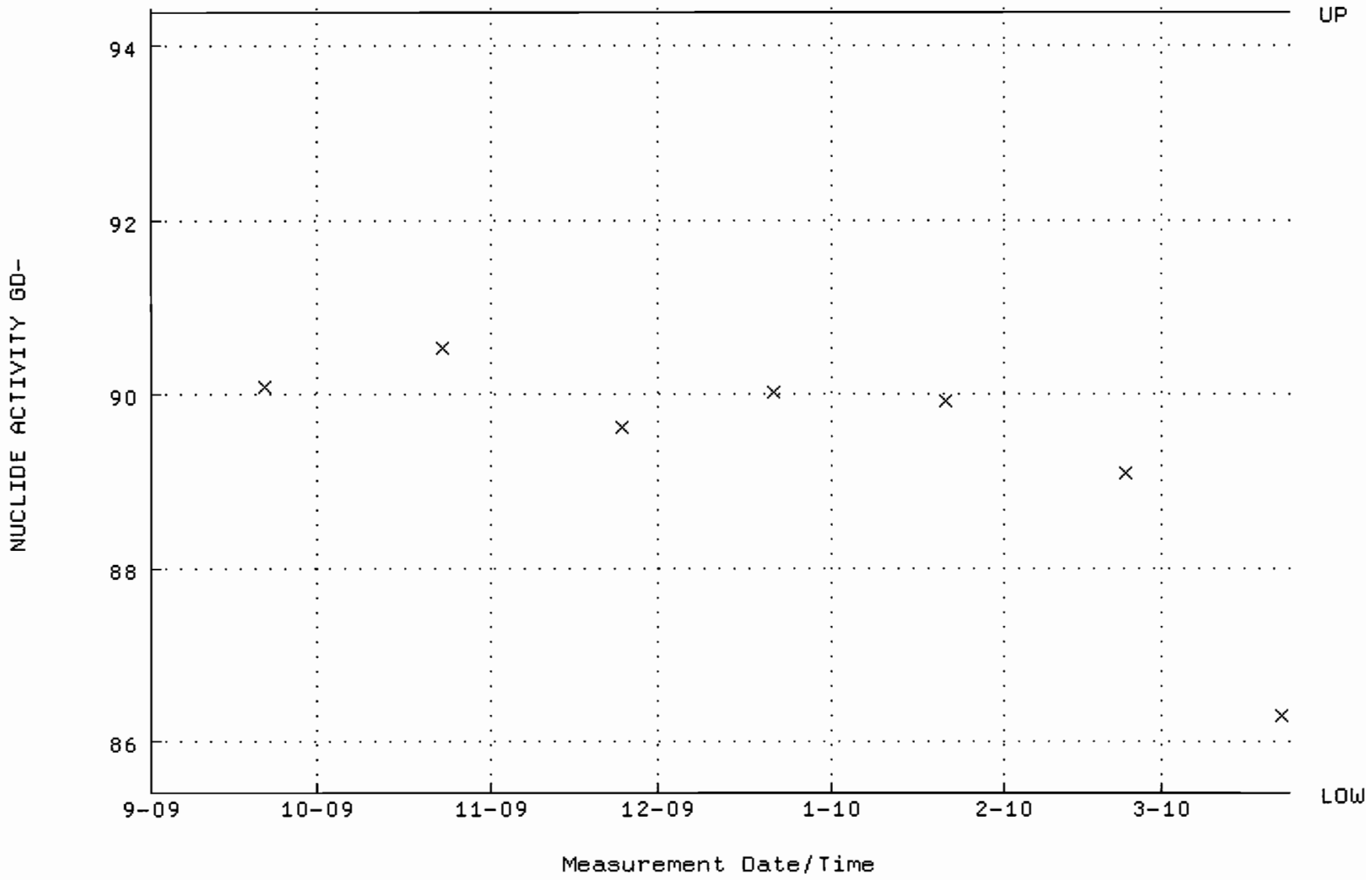

QA filename : DKA100:[ENV_ALPHA.QA.B]B184.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:57 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

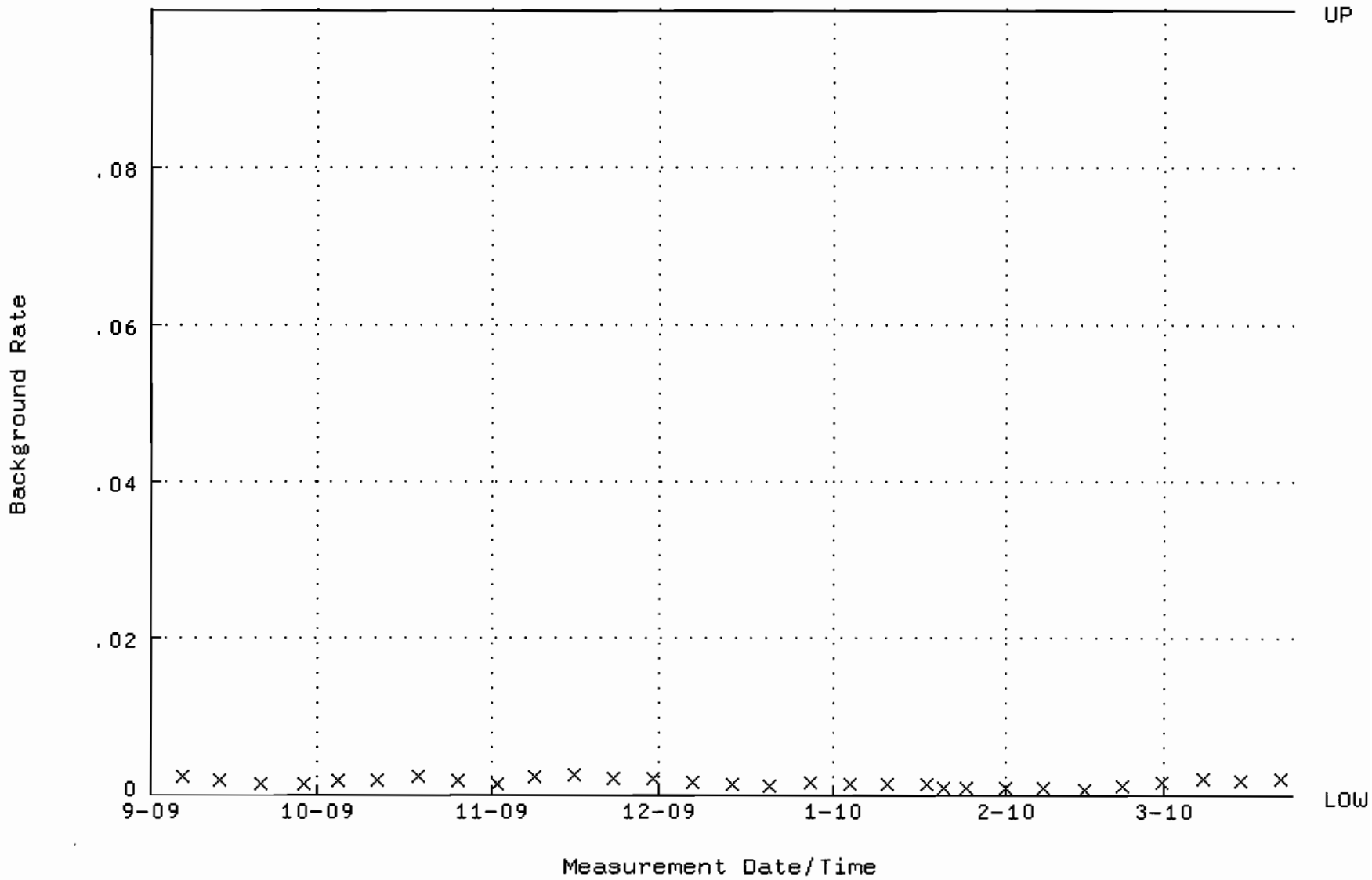

QA filename : DKA100:[ENV_ALPHA.QA.W]W185.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:51 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.249628 through 0.269628

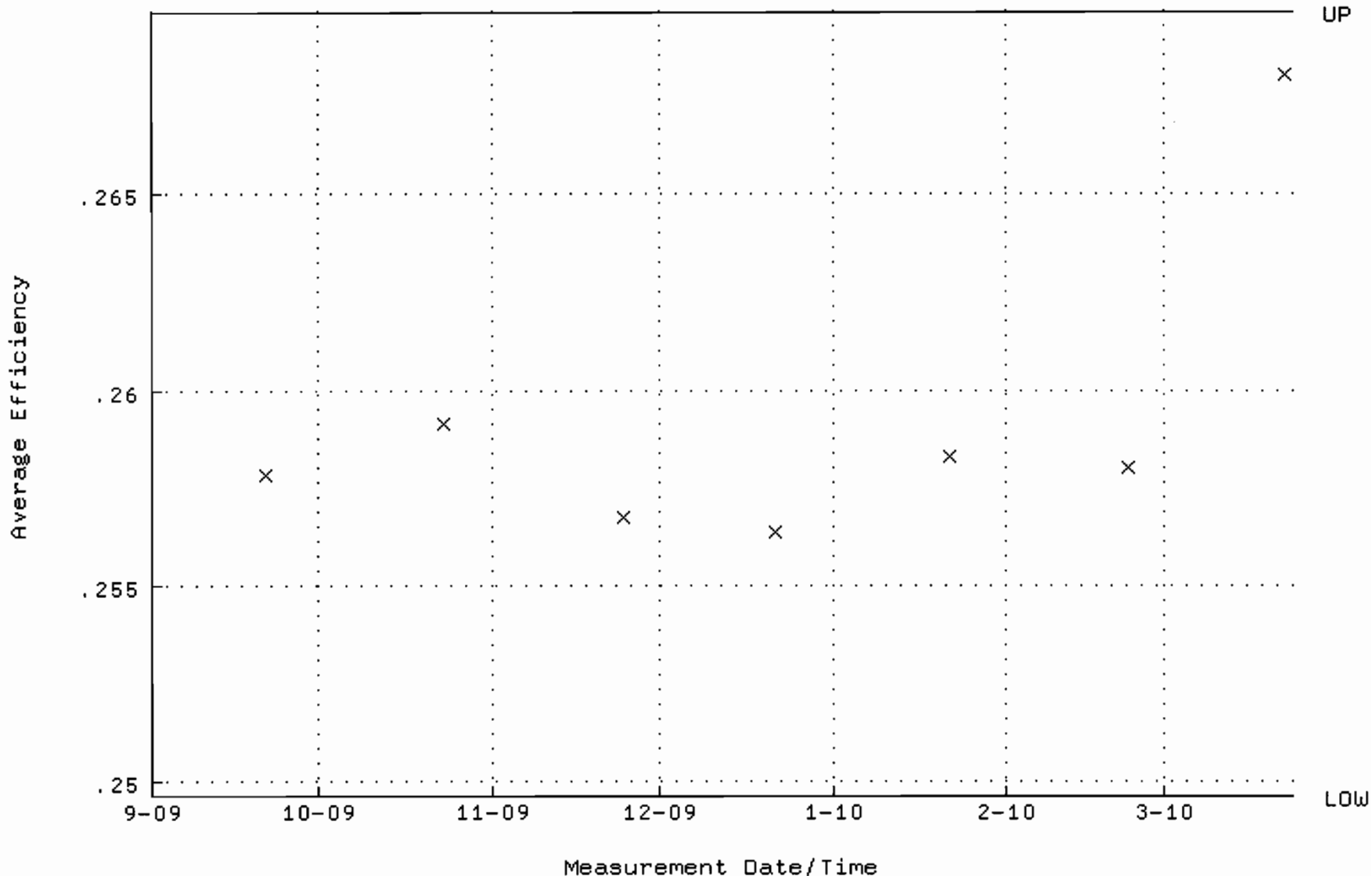

QA filename : DKA100:[ENV_ALPHA.QA.W]W185.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:51 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 84.3502 through 93.2292

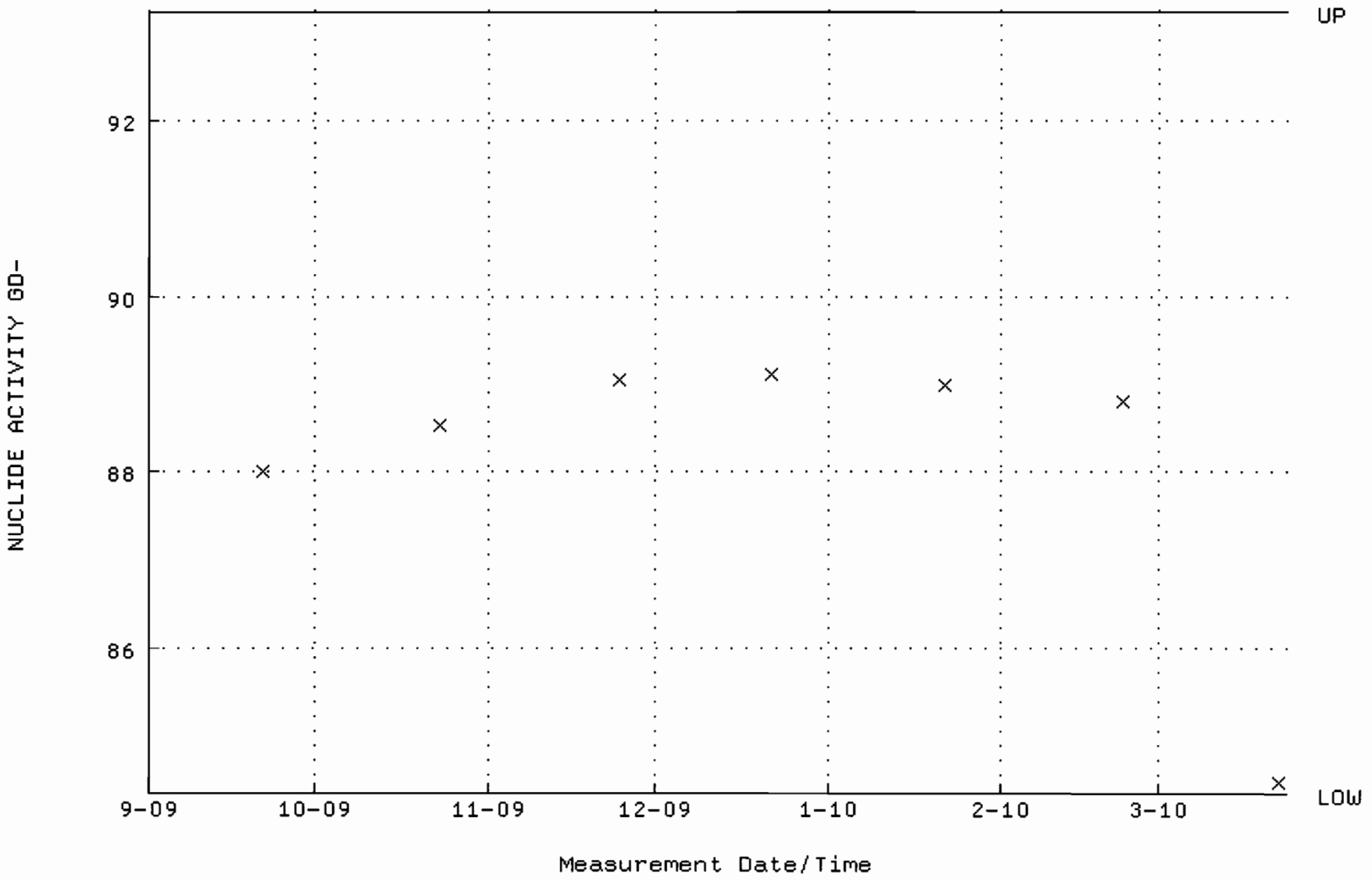

QA filename : DKA100:[ENV_ALPHA.QA.B]B185.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:02 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

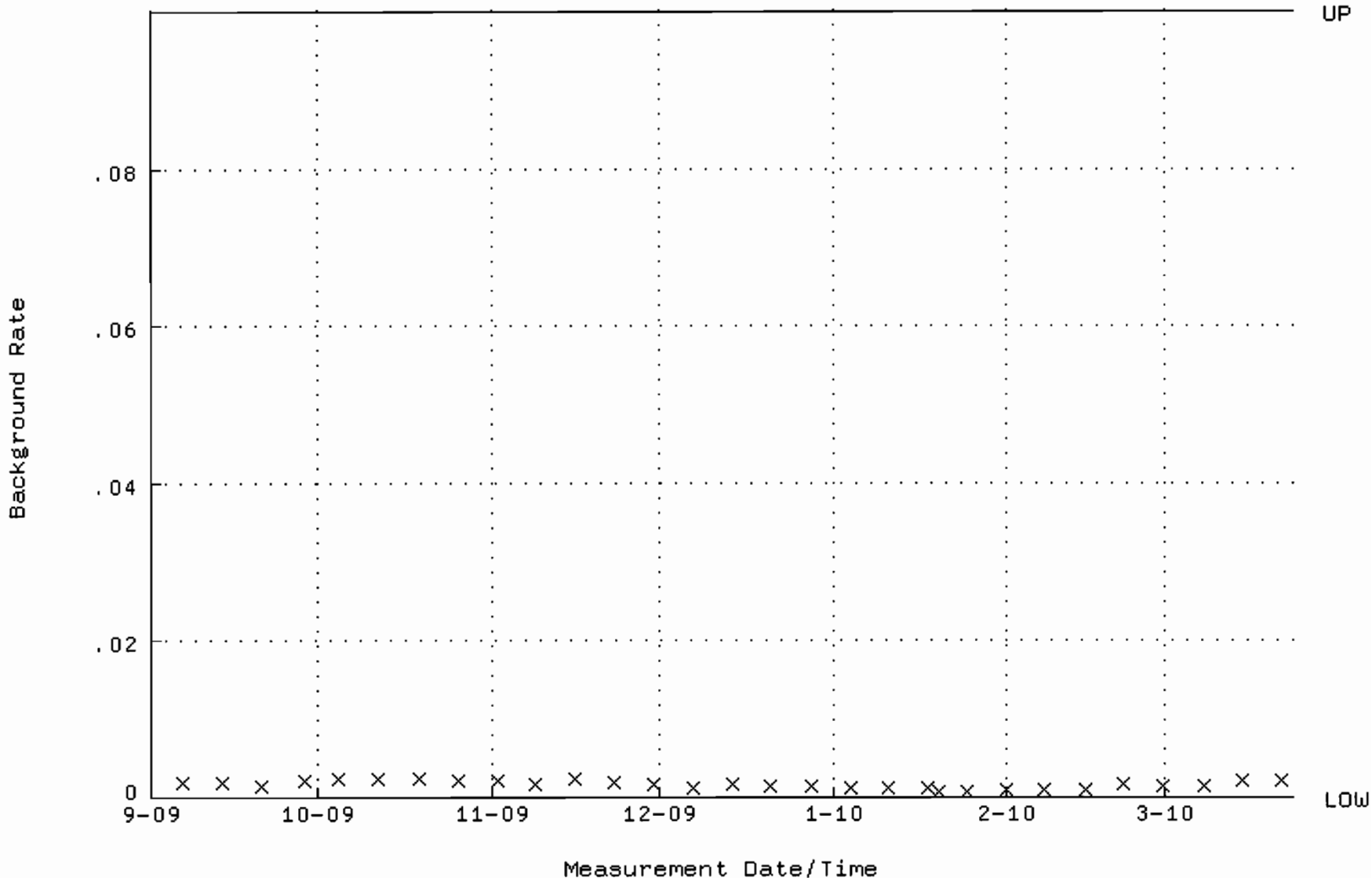

QA filename : DKA100:[ENV_ALPHA.QA.W]W186.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:57 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.242649 through 0.262649

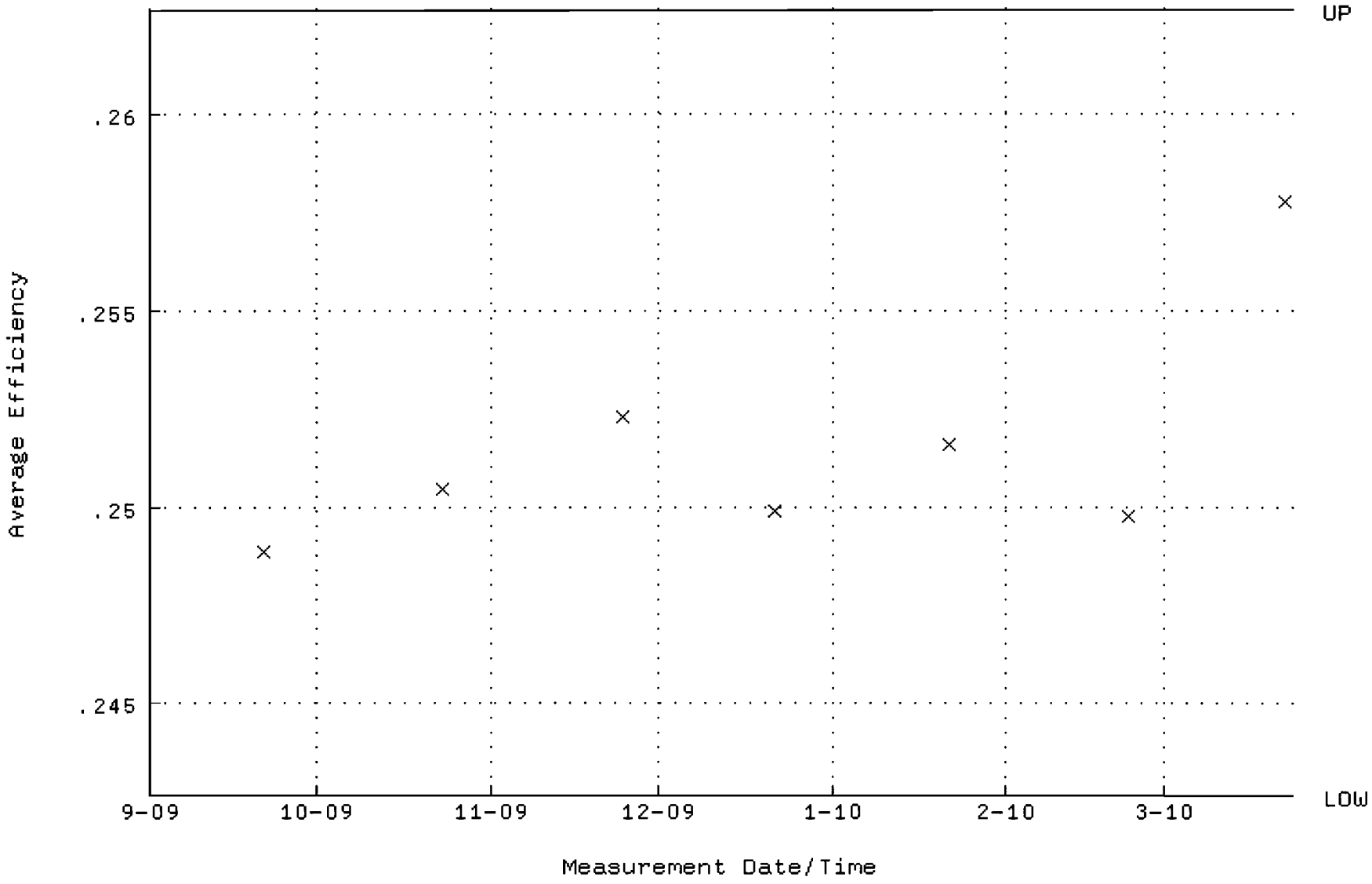

QA filename : DKA100:[ENV_ALPHA.QA.W]W186.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:57 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 82.6495 through 91.3495

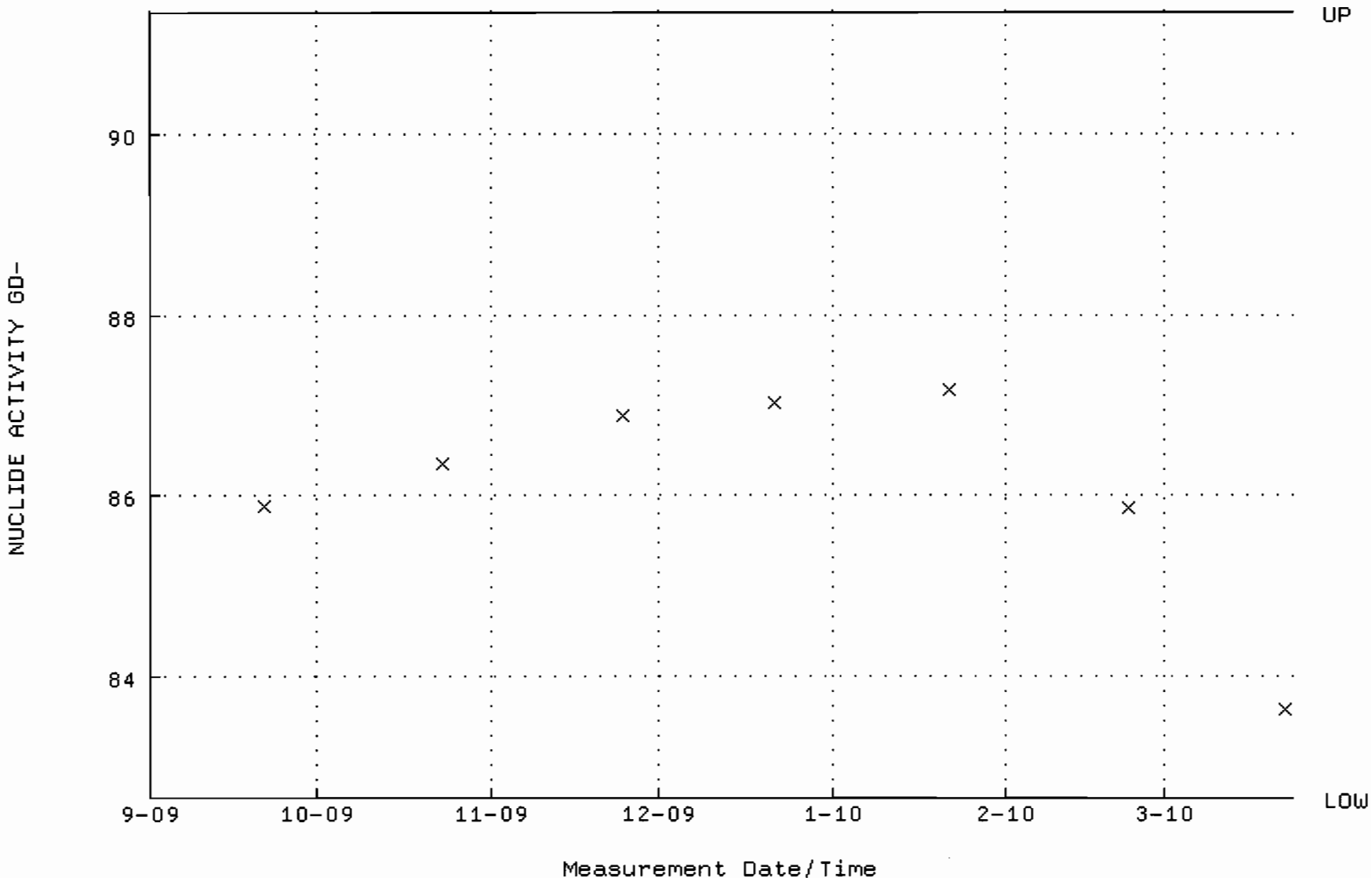

QA filename : DKA100:[ENV_ALPHA.QA.B]B186.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:06 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

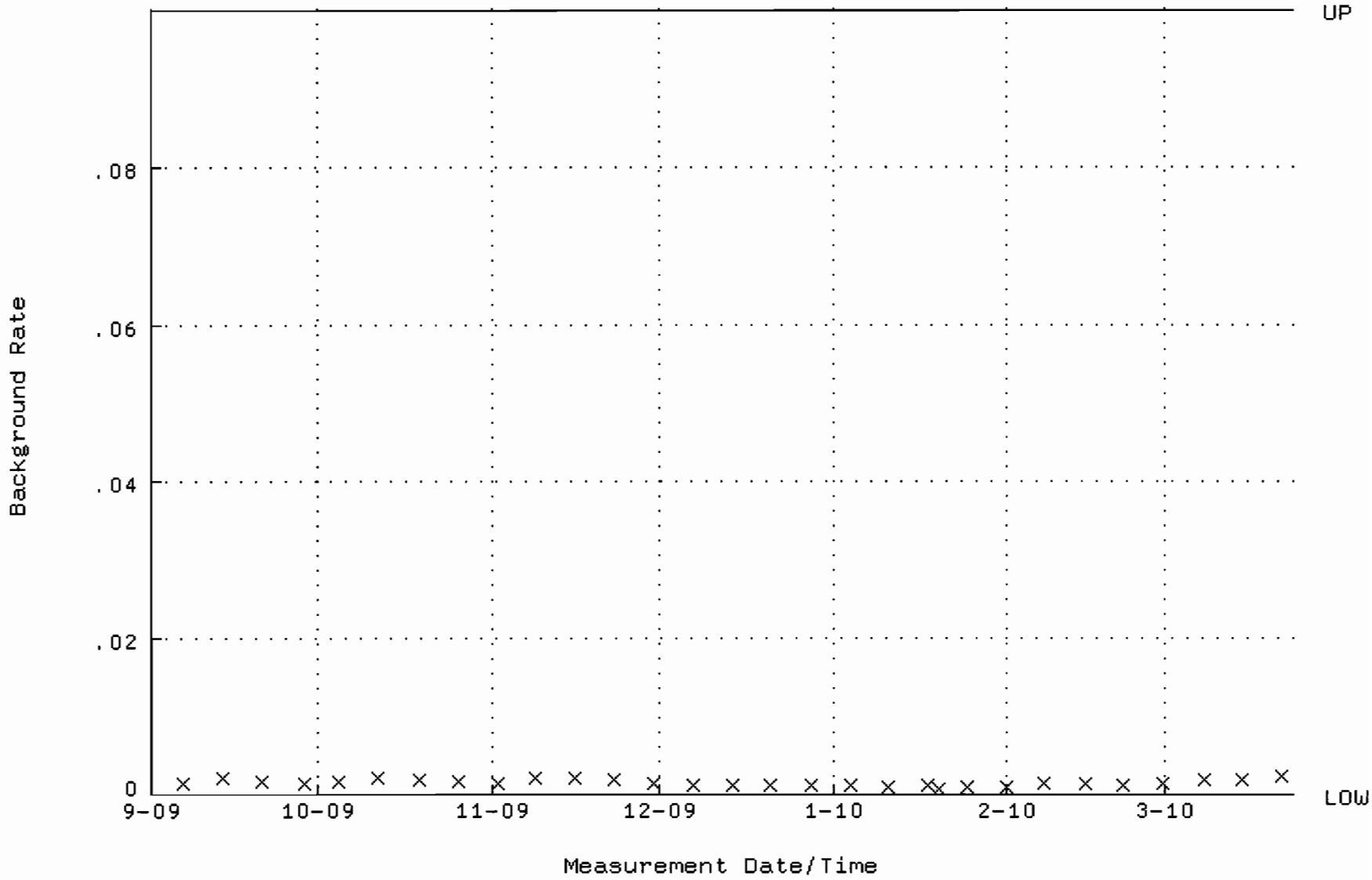

QA filename : DKA100:[ENV_ALPHA.QA.W]W187.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:03 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.237106 through 0.271130

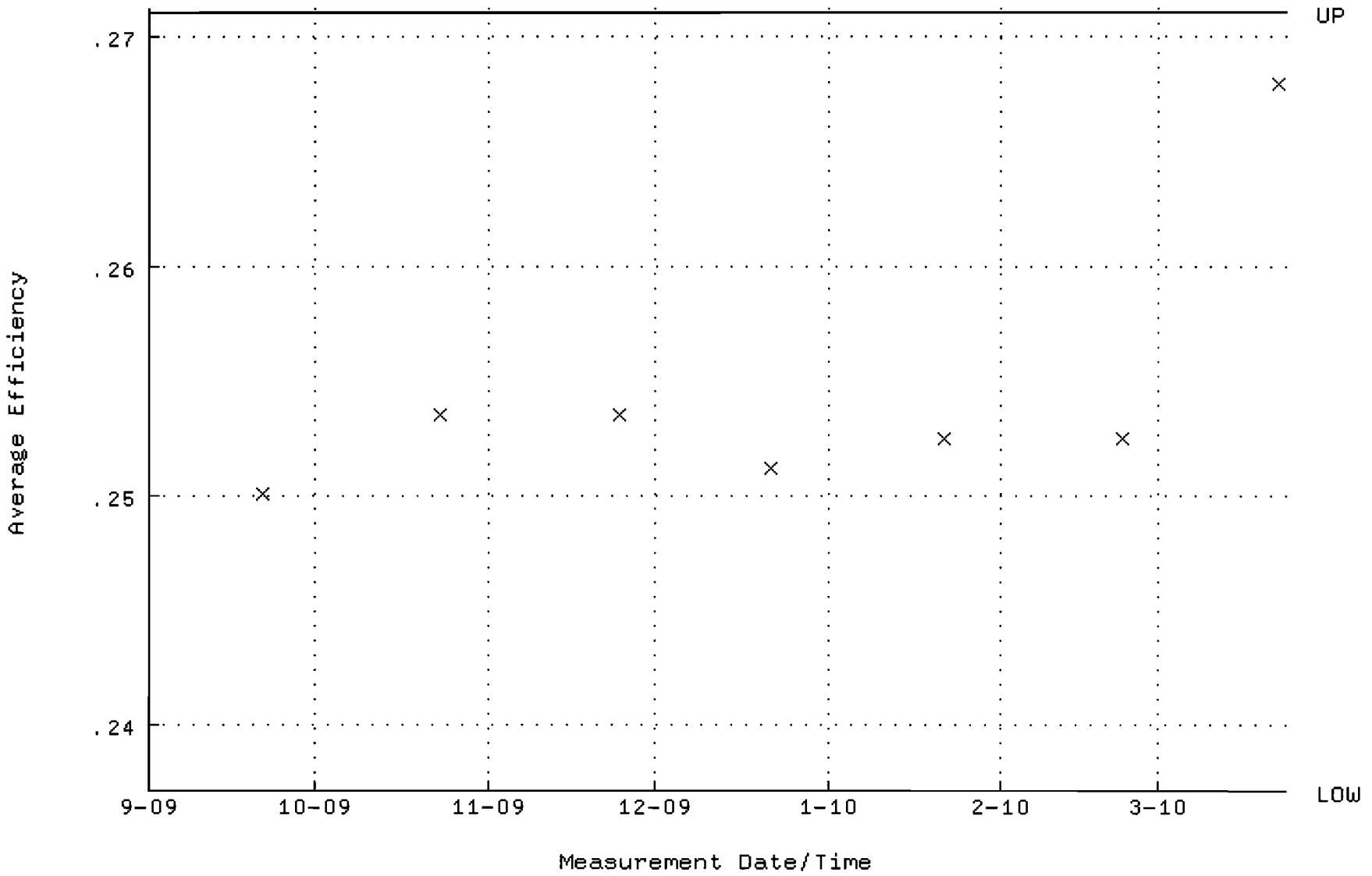

QA filename : DKA100:[ENV_ALPHA.QA.W]W187.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:03 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 88.8925 through 91.3089

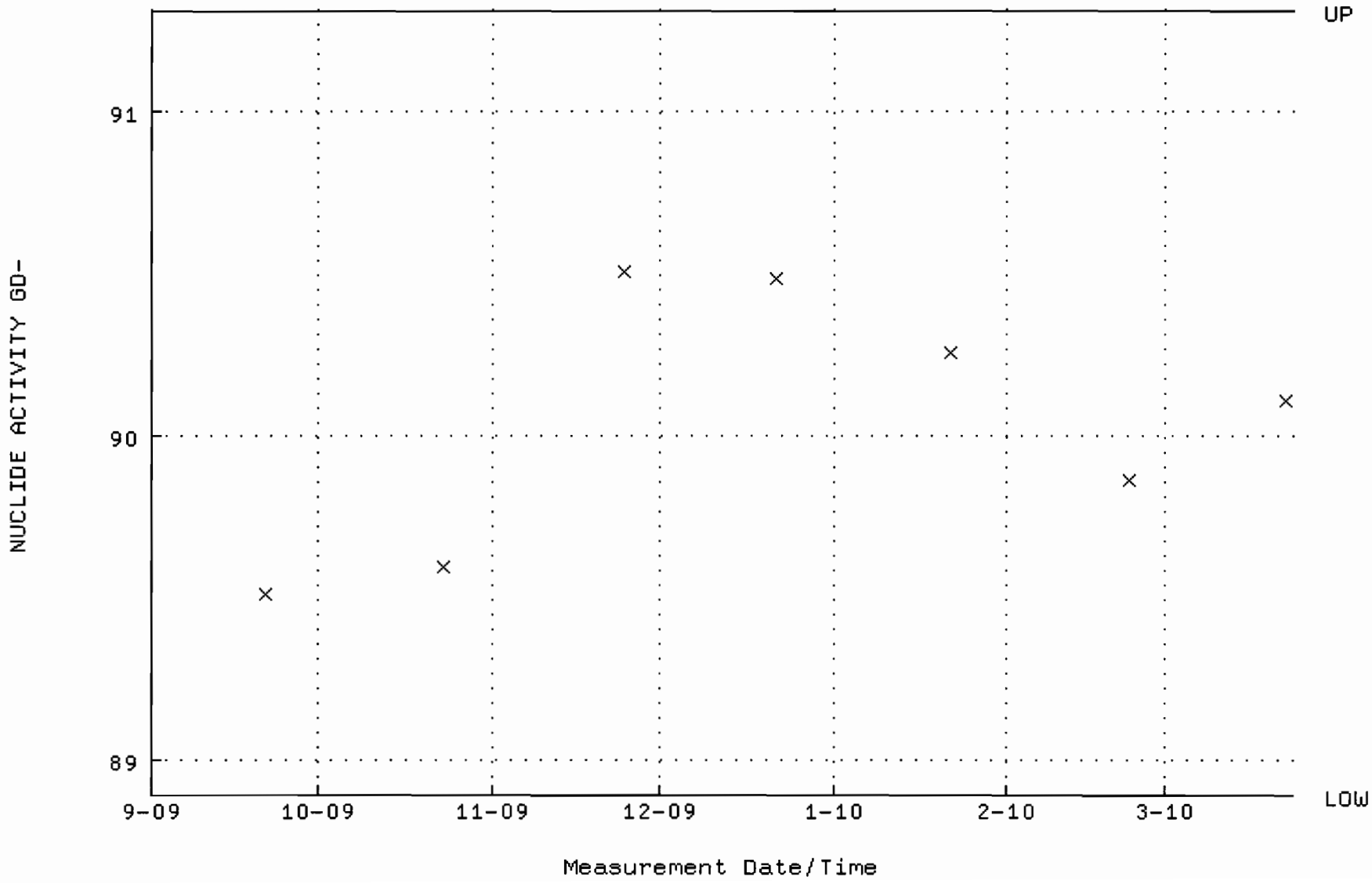

QA filename : DKA100:[ENV_ALPHA.QA.B]B187.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:11 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

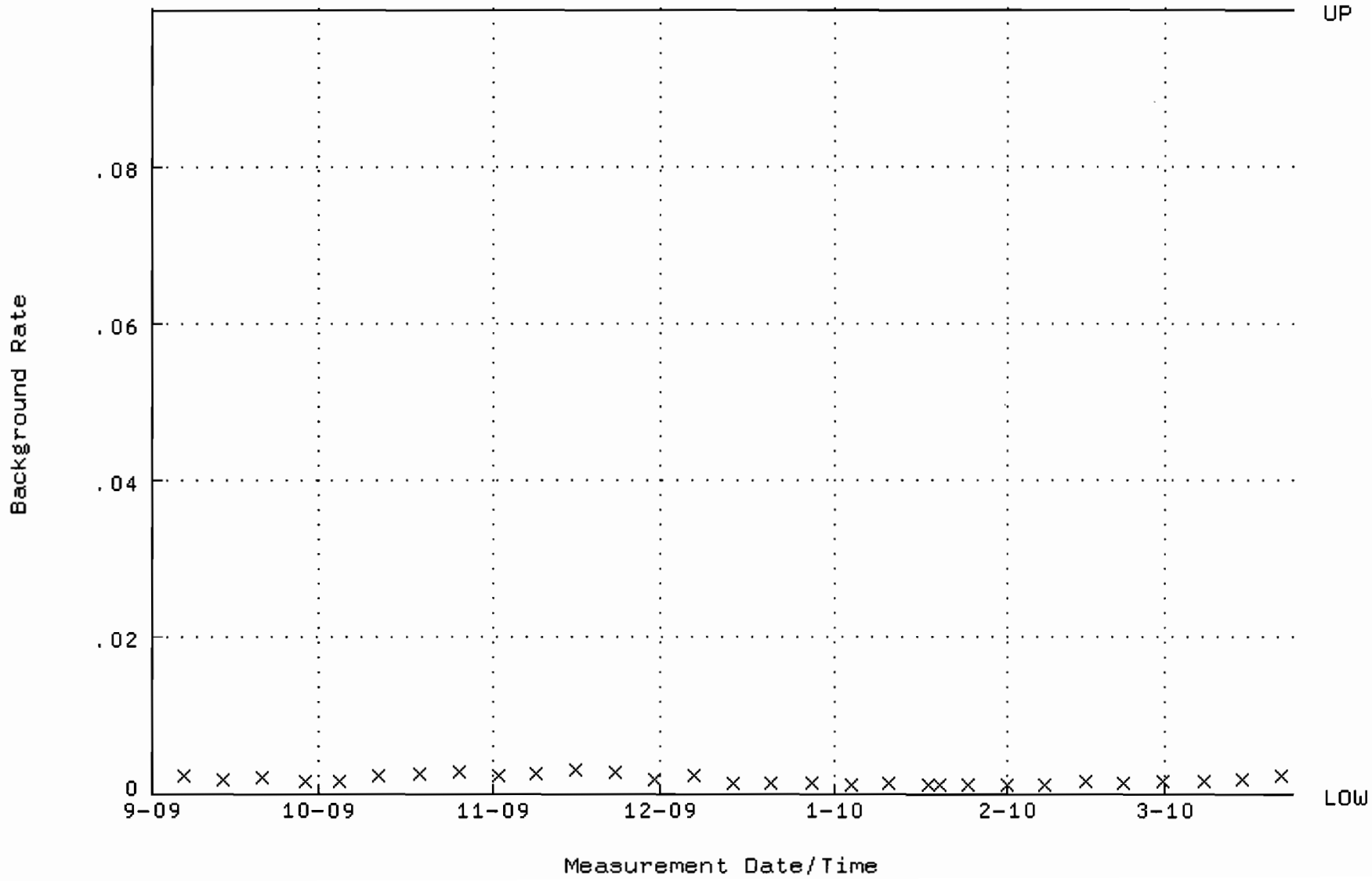

QA filename : DKA100:[ENV_ALPHA.QA.W]W189.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:15 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.251590 through 0.271590

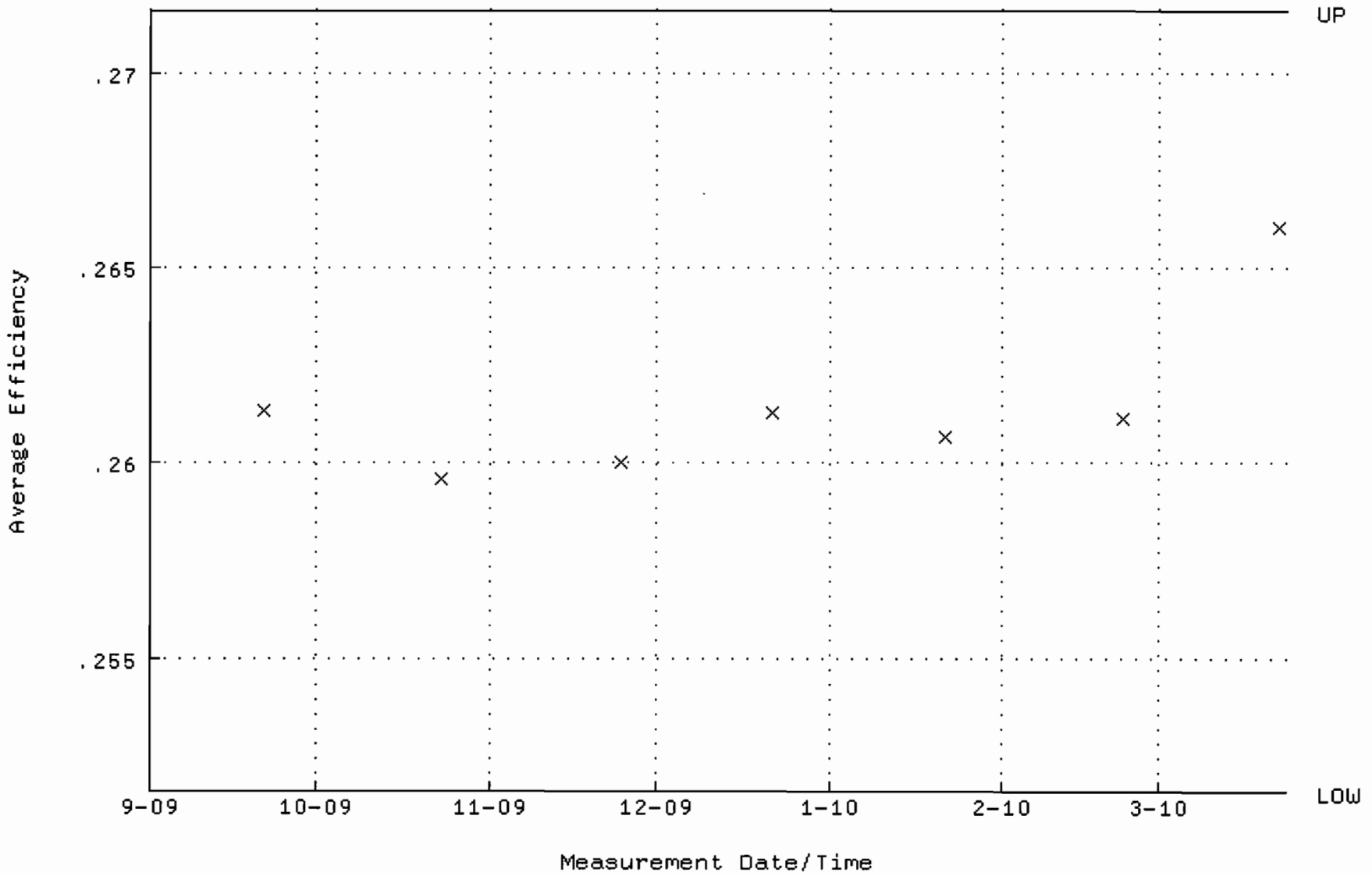

QA filename : DKA100:[ENV_ALPHA.QA.W]W189.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:15 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 81.7473 through 90.3523

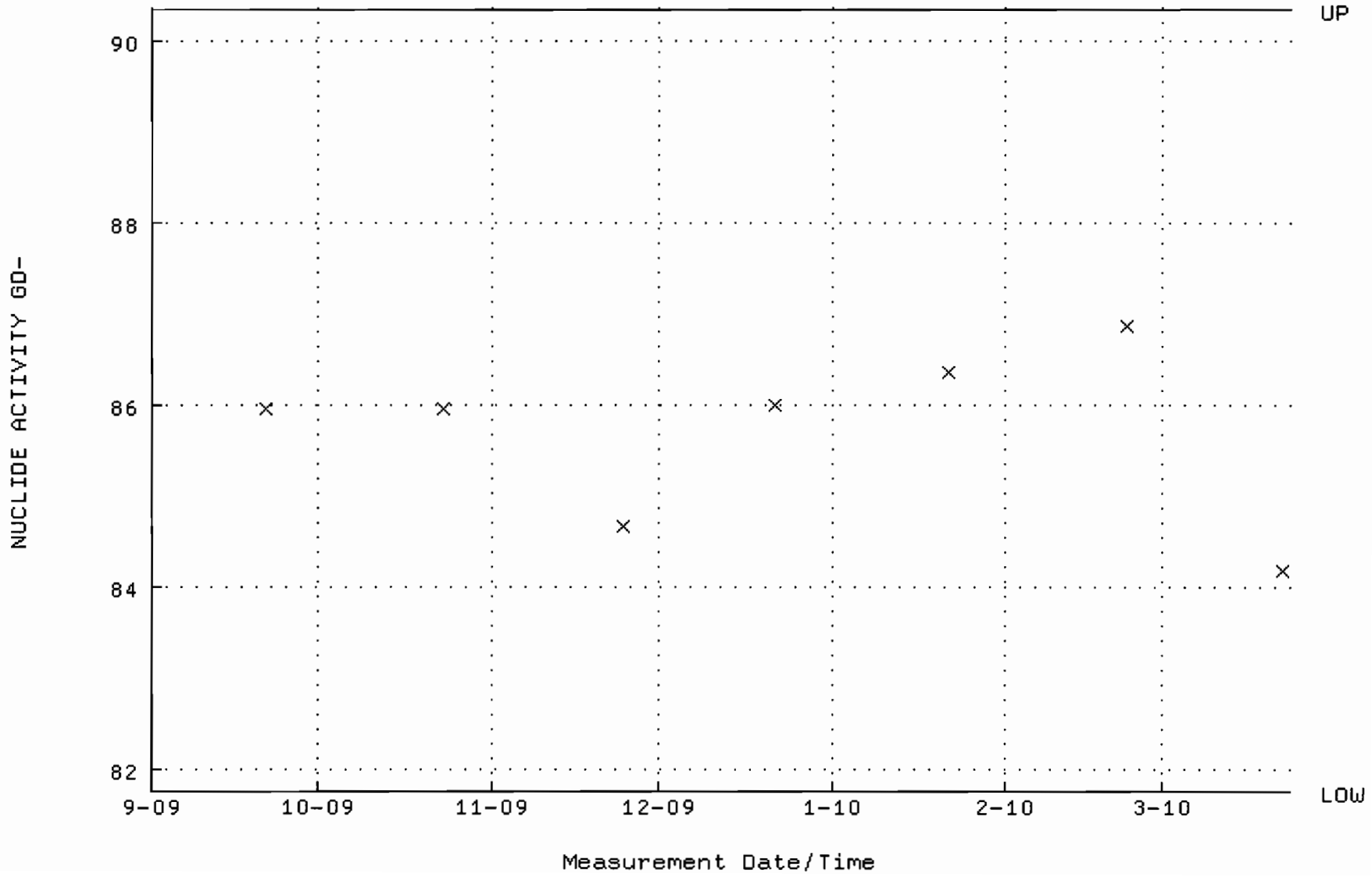

QA filename : DKA100:[ENV_ALPHA.QA.B]B189.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:20 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

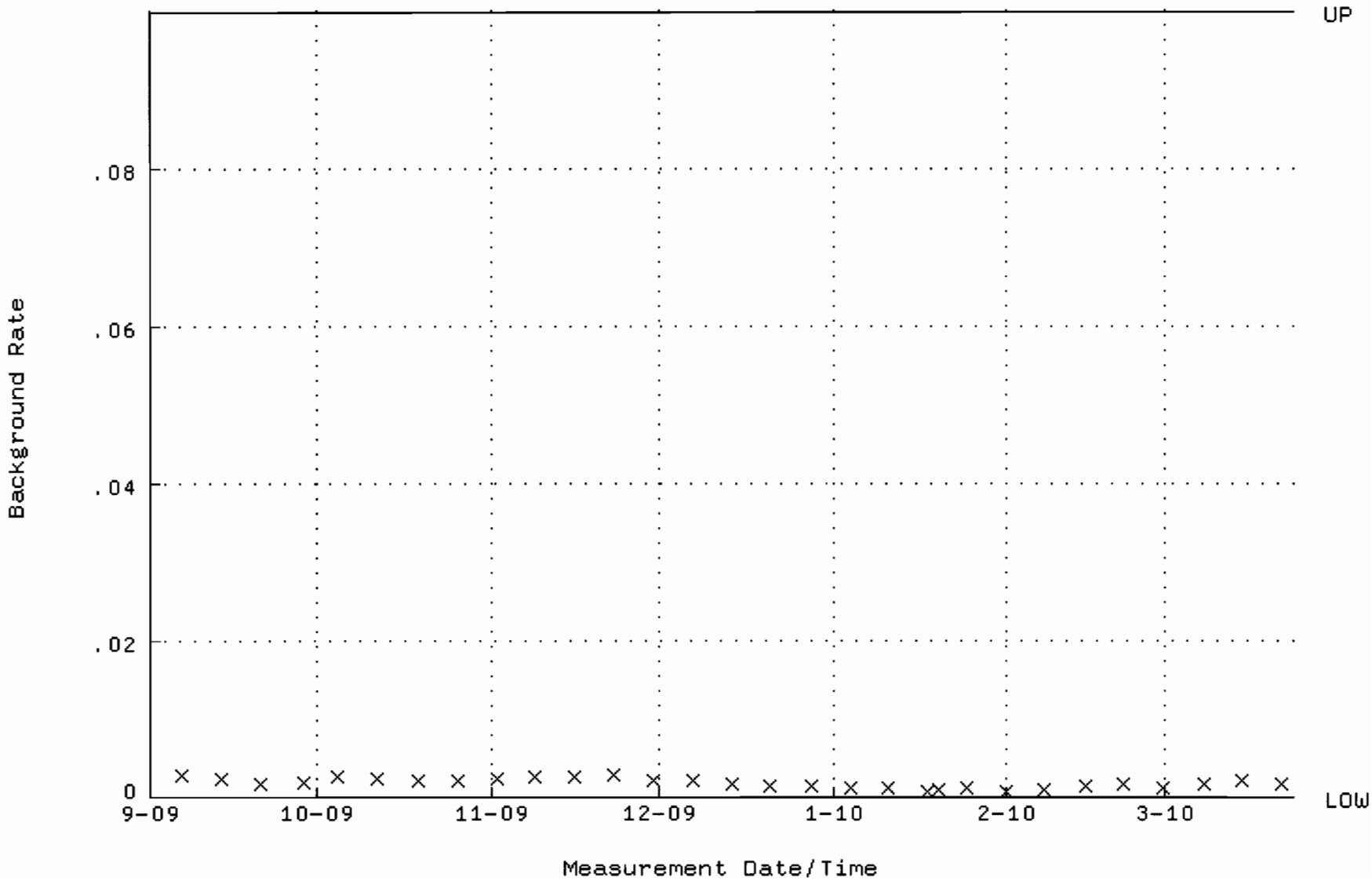

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_500MLMB.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 2-OCT-2009 10:01:56 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

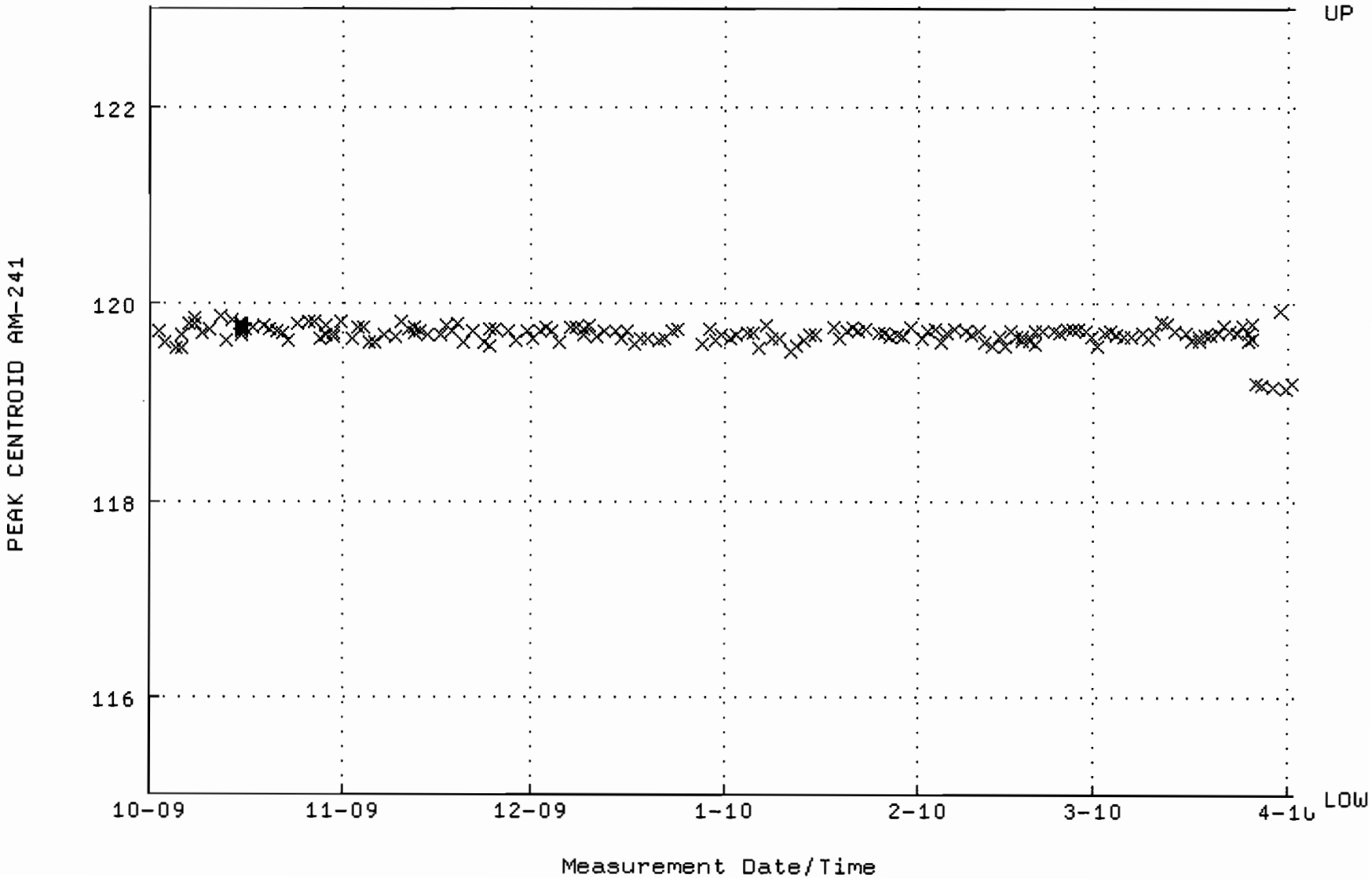

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM01.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 4-OCT-2009 12:43:56 through 1-APR-2010 12:00:00
Mean +- Std Dev : 1.75722 +- 1.751785E-02 (1.00 %)

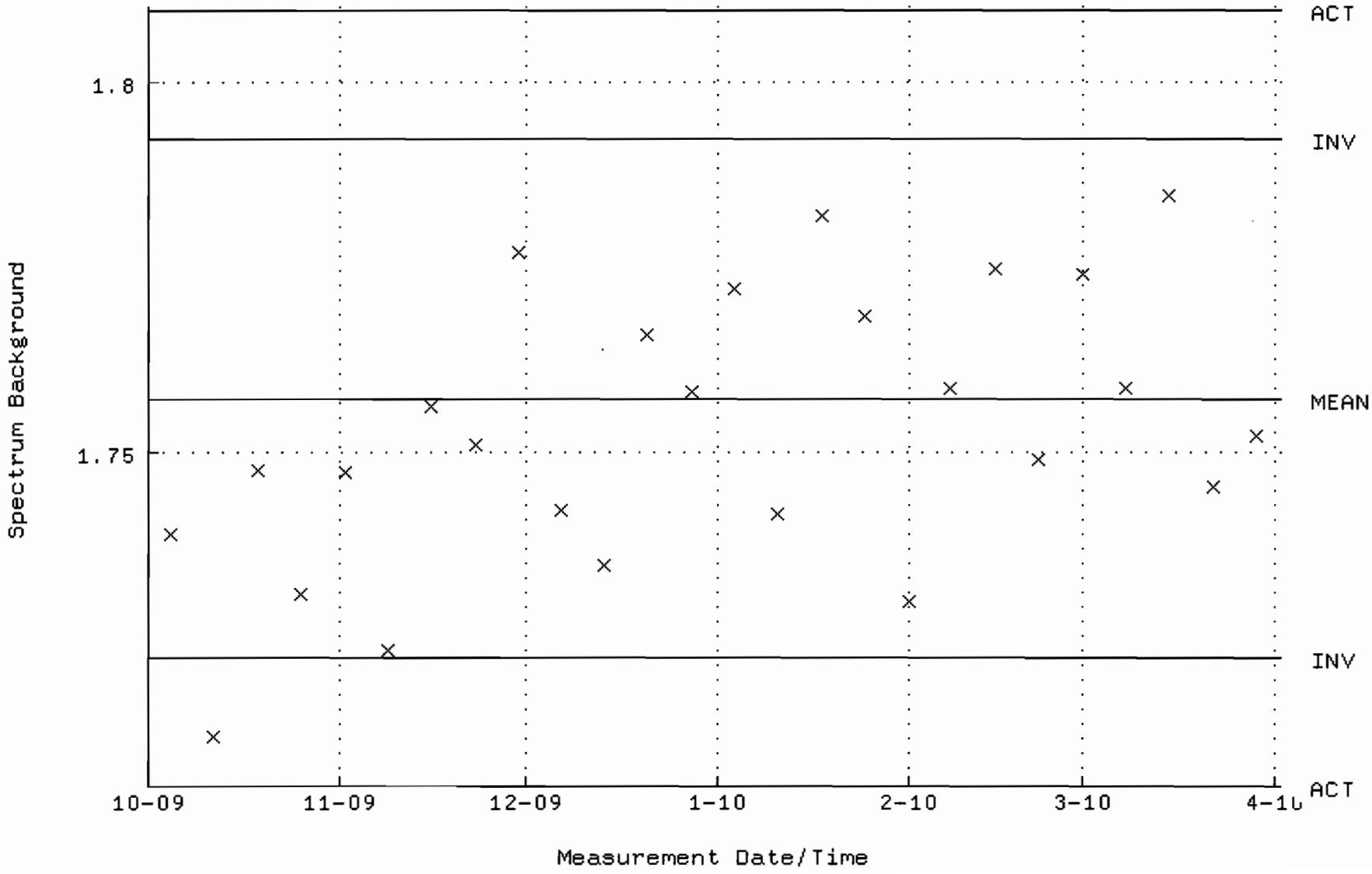

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM04_CAN.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 2-OCT-2009 04:59:16 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

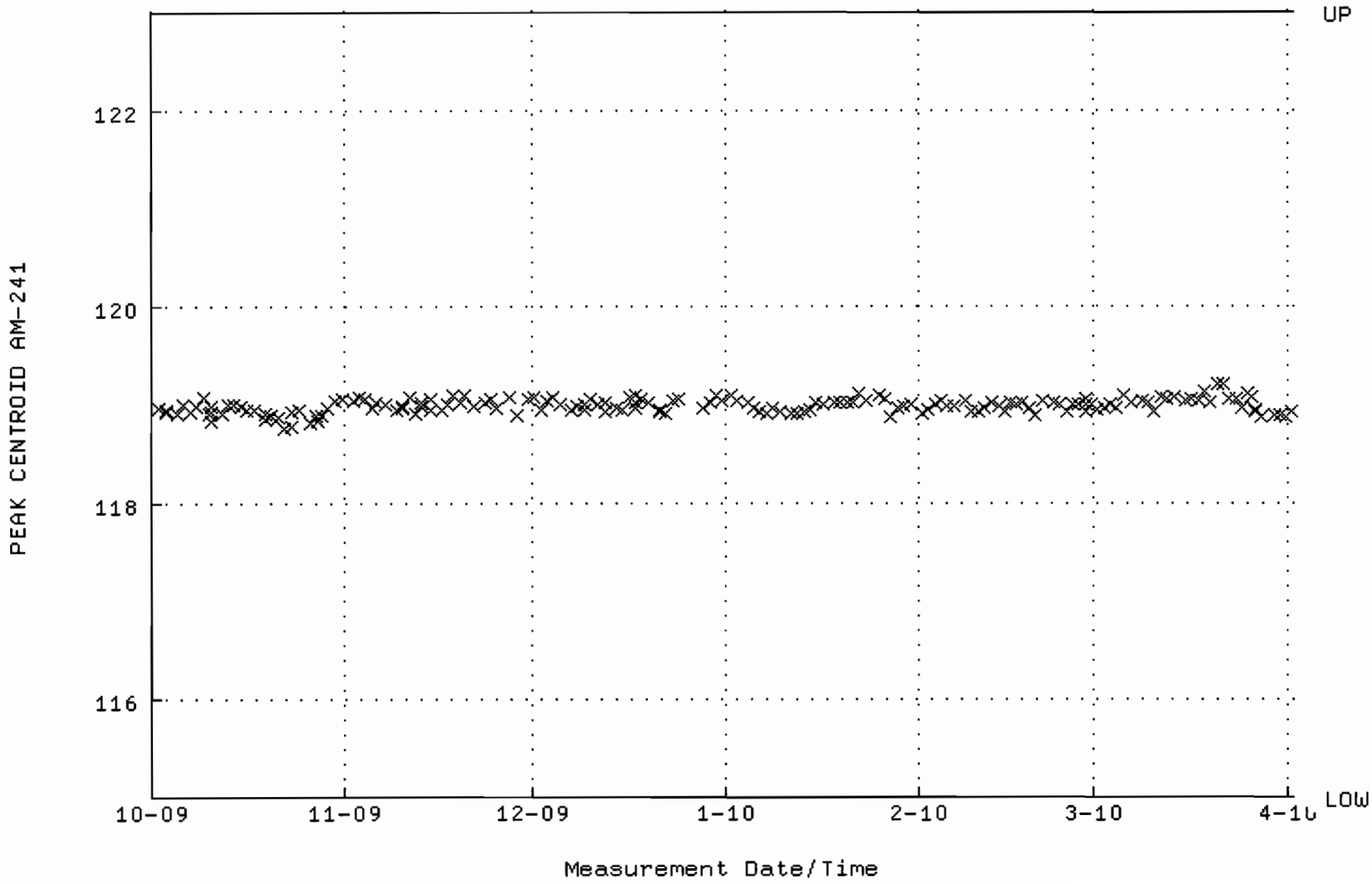

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM04.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 4-OCT-2009 12:45:35 through 1-APR-2010 12:00:00
Mean +- Std Dev : 1.31668 +- 1.420348E-02 (1.08 %)

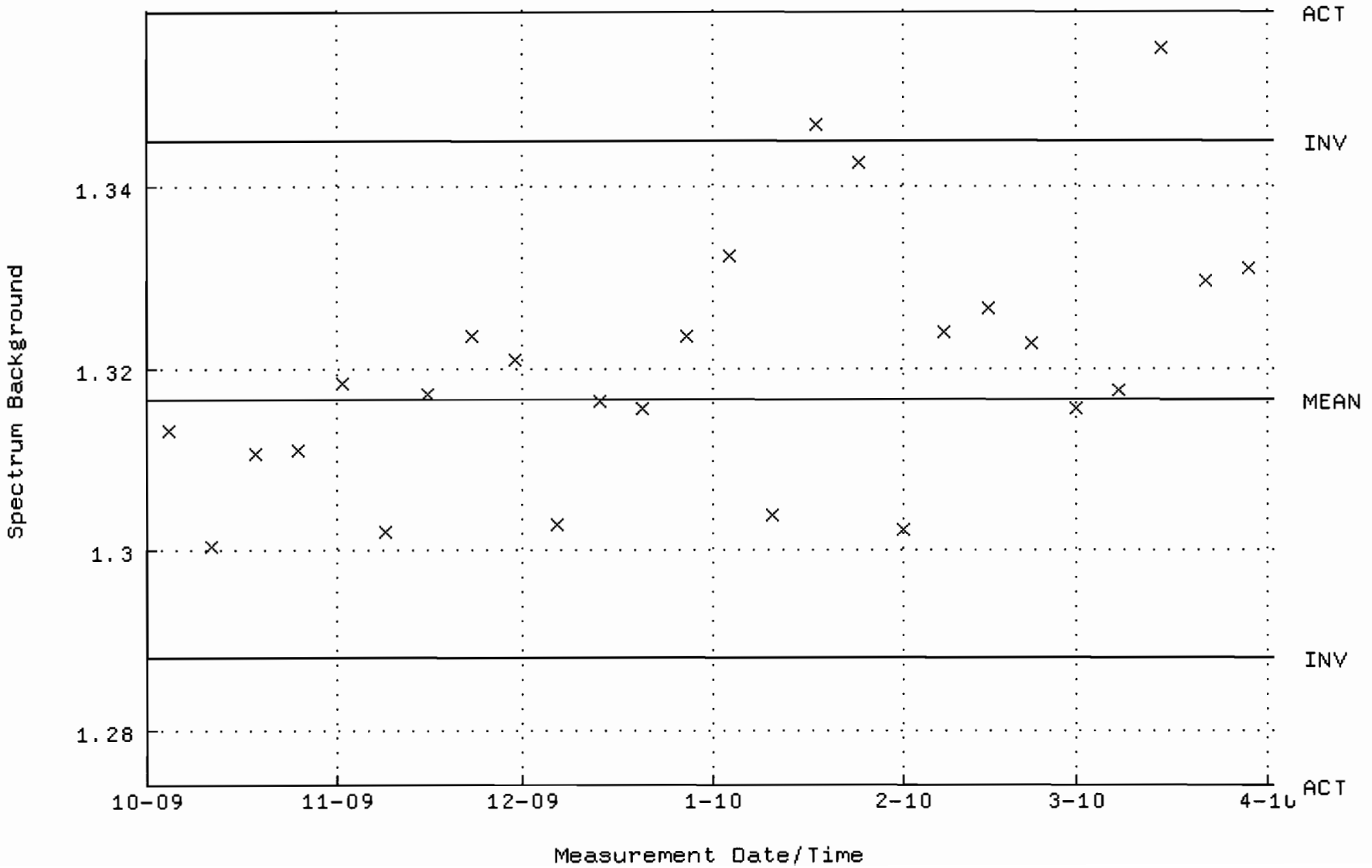

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM10_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 10:11:44 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

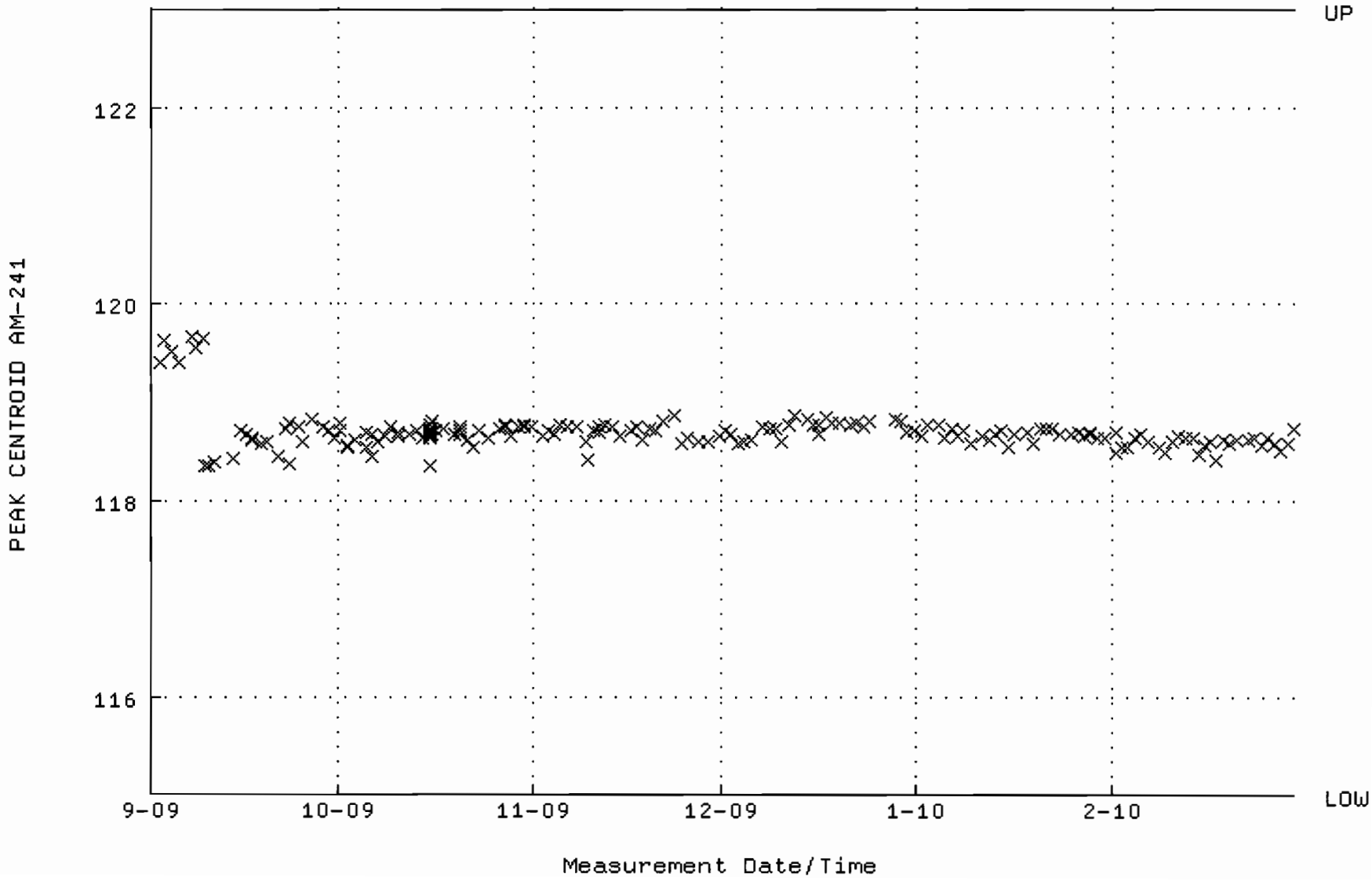

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM10.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:41:20 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.48000 +- 1.723892E-02 (1.16 %)

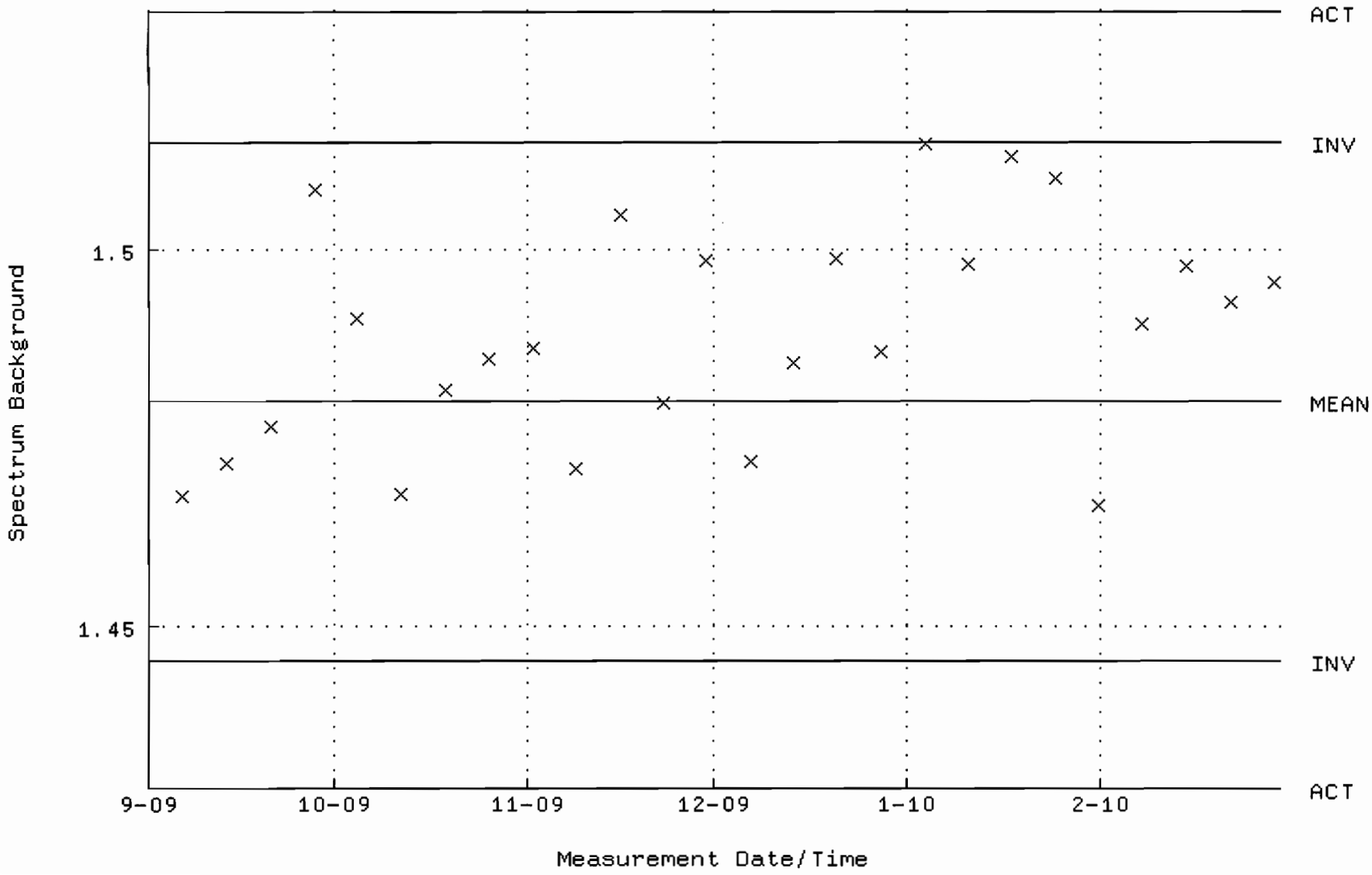

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM11_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:47:51 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

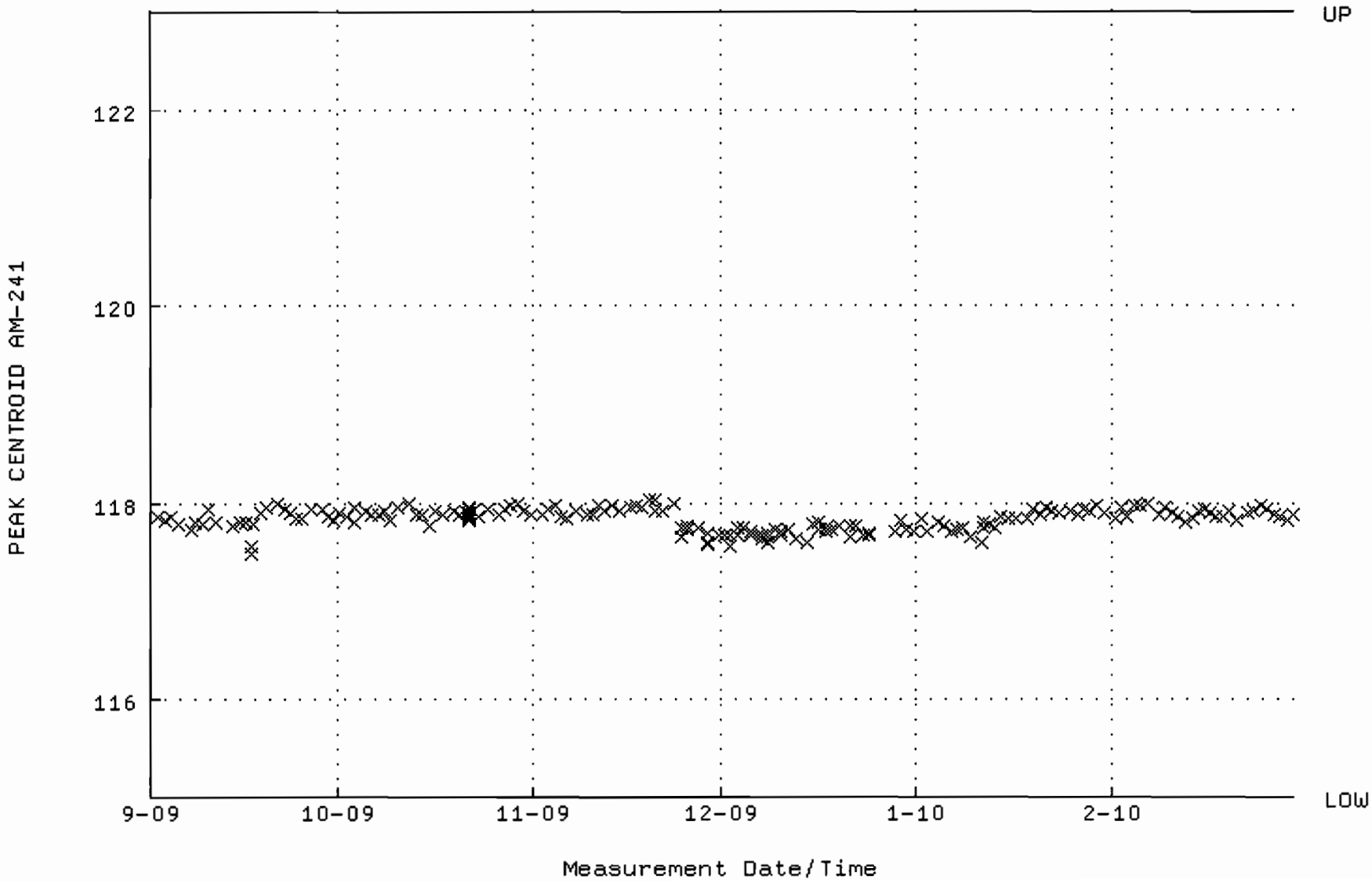

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM11.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:41:47 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.65552 +- 3.175806E-02 (1.92 %)

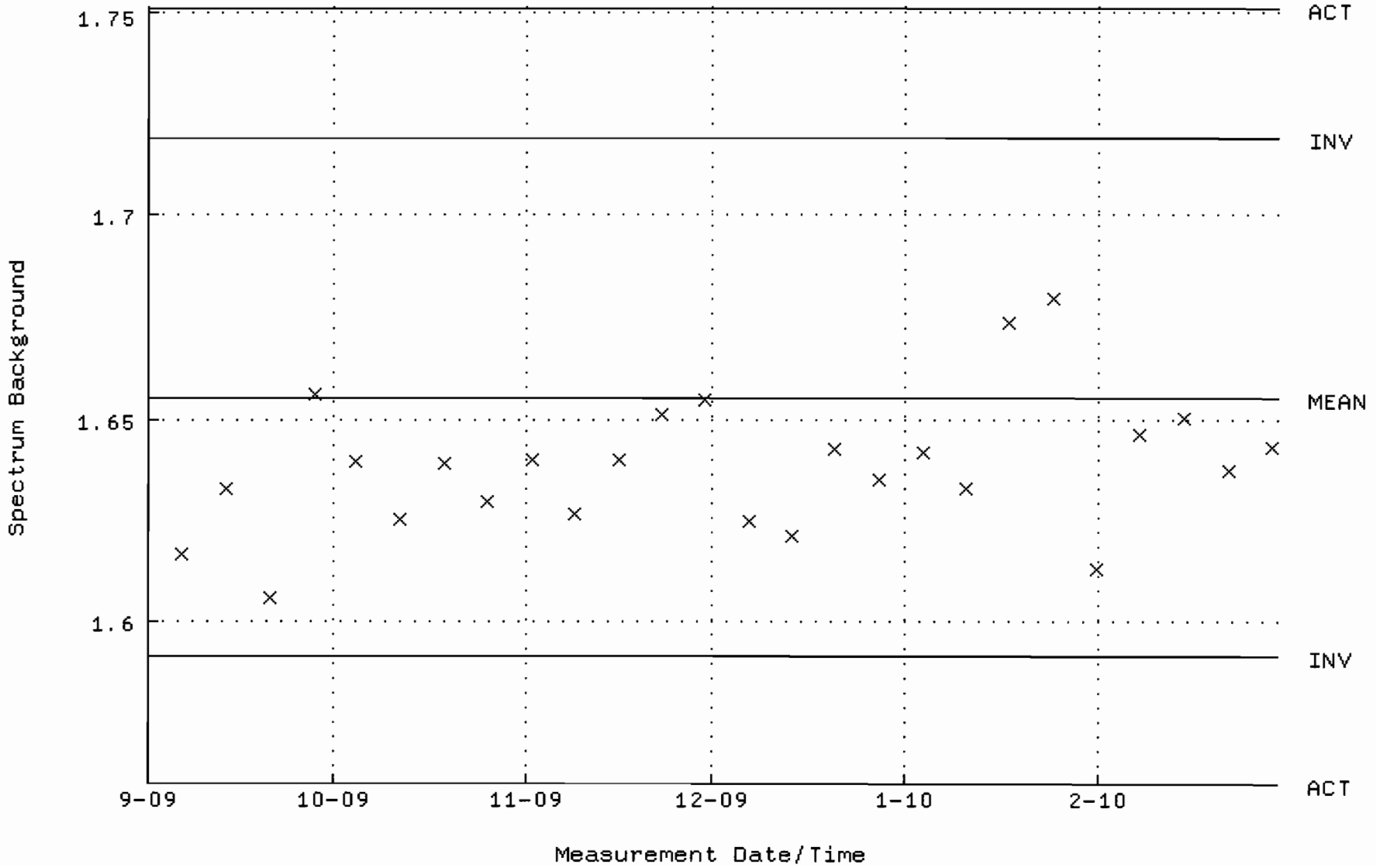

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:32:23 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

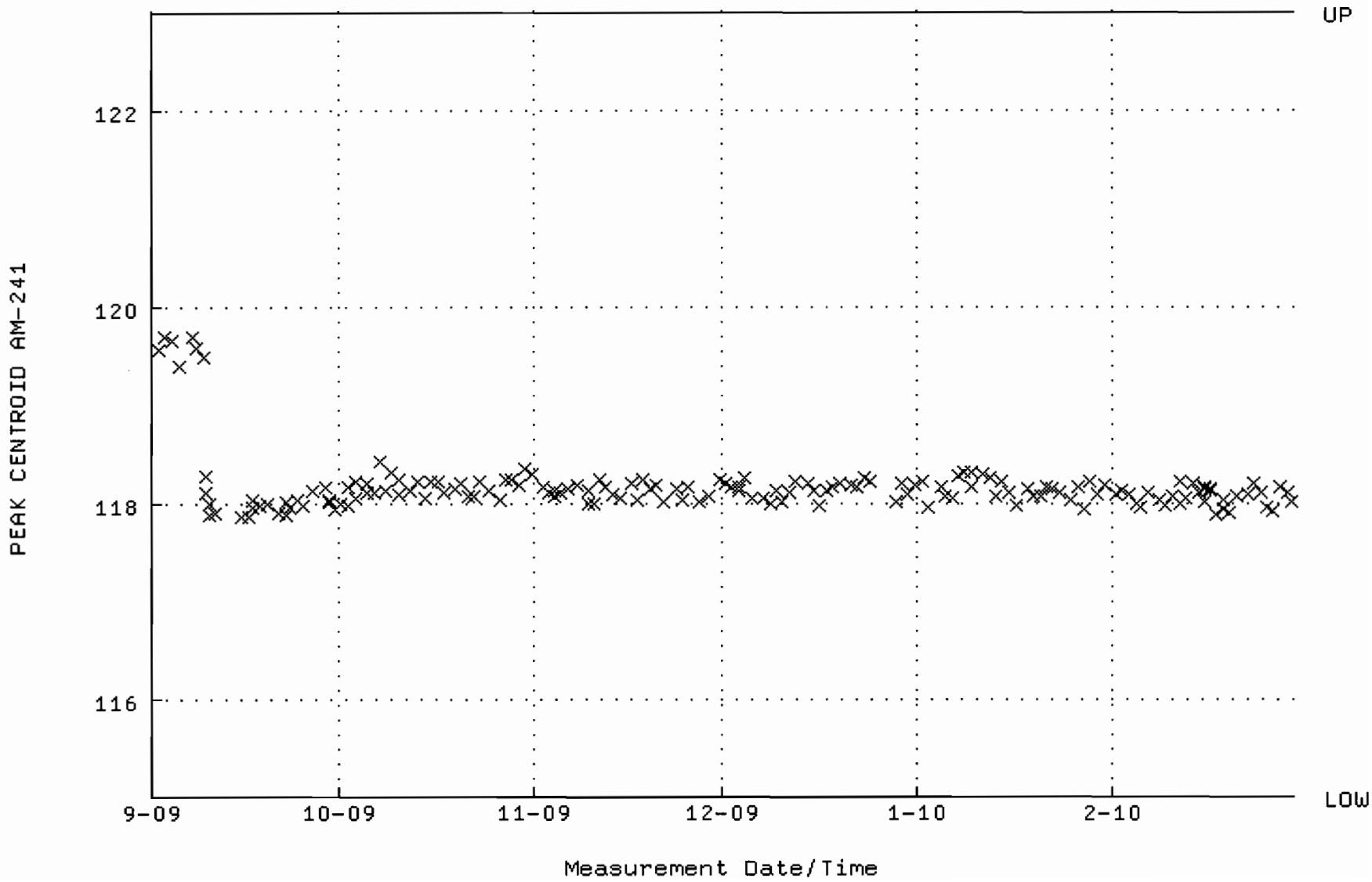

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:43:44 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)

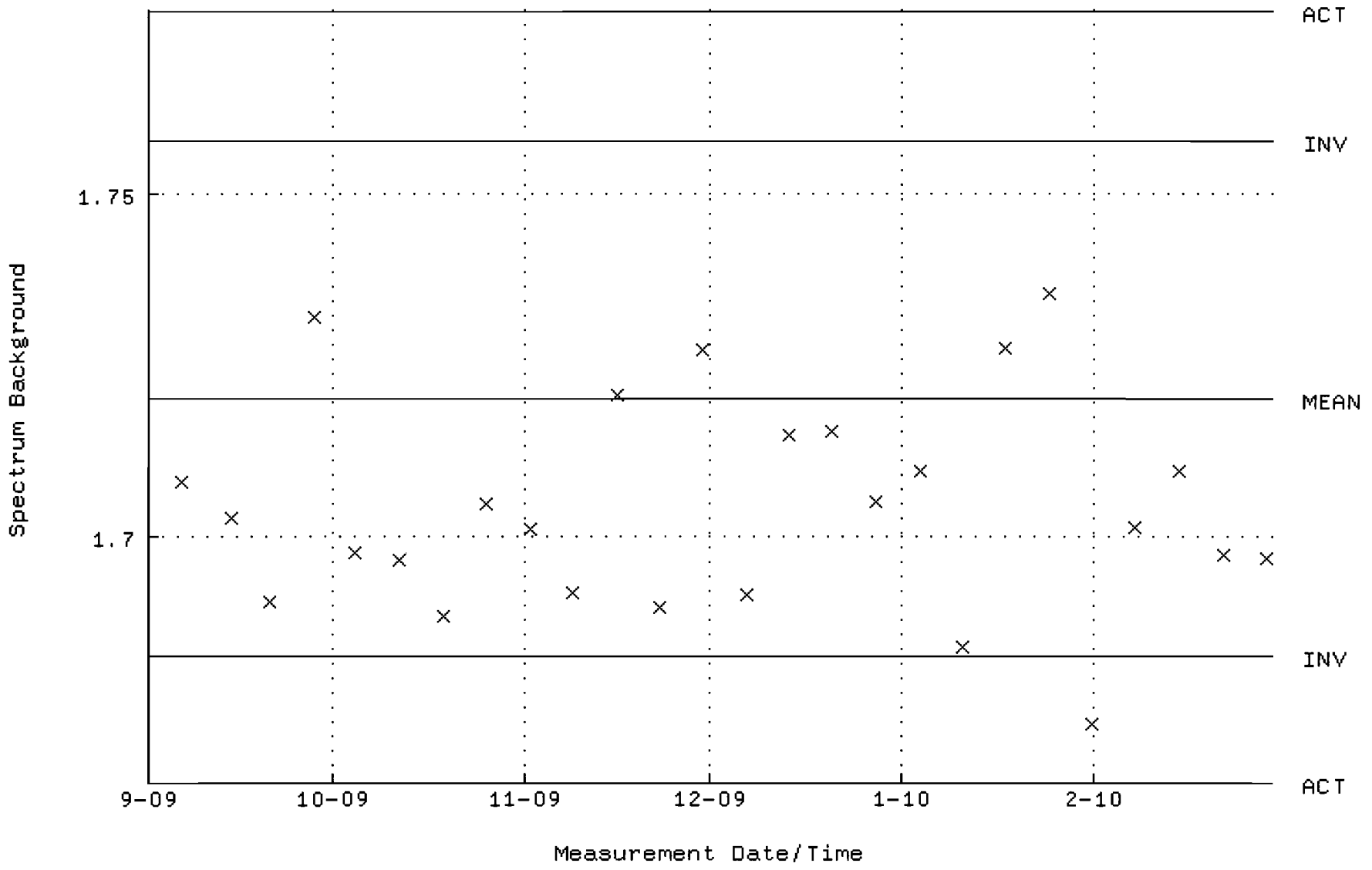

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM16_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:53:02 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

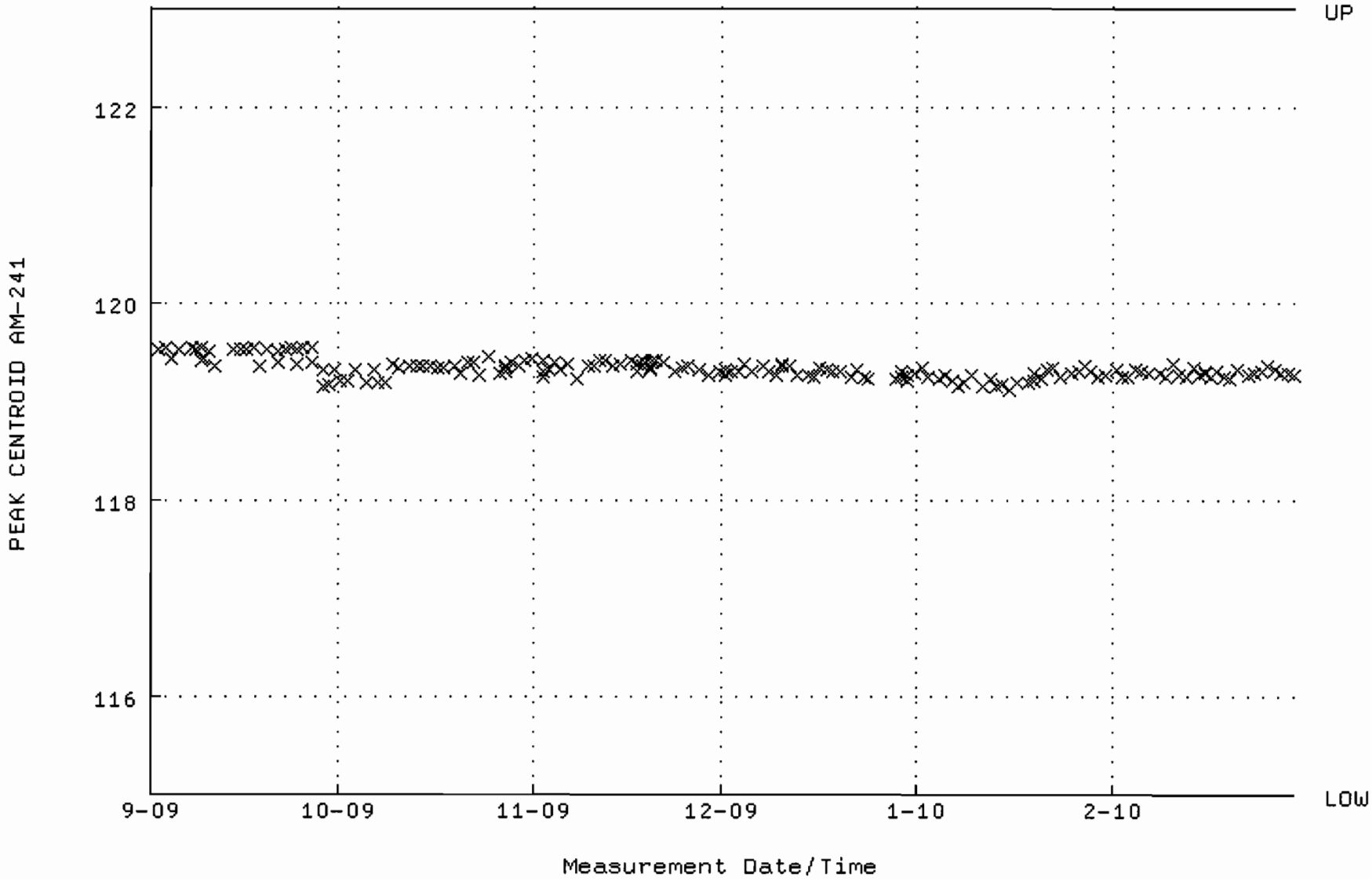

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM16.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:44:09 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.73980 +- 1.729897E-02 (0.99 %)

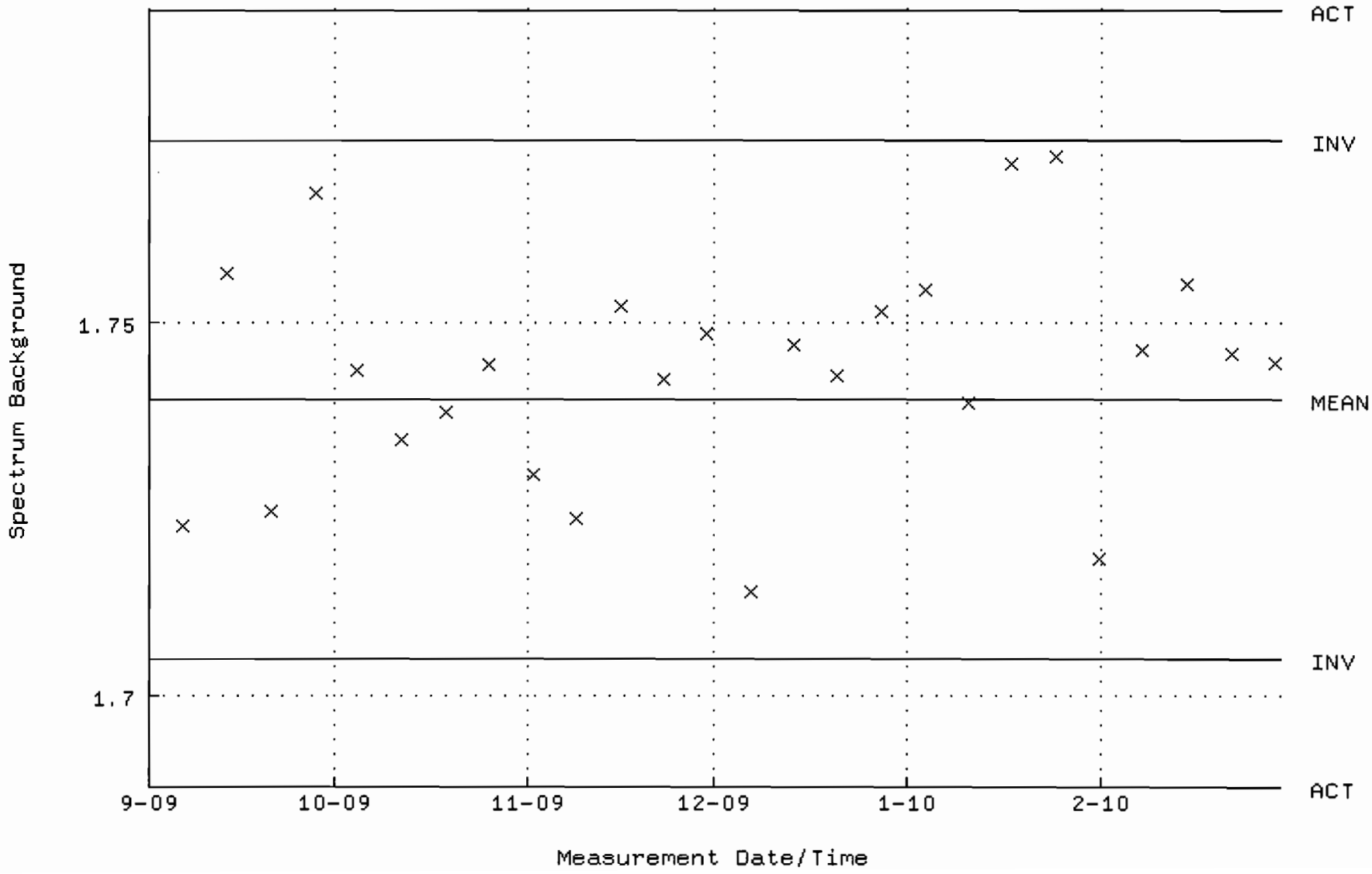

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1
Parameter Name : PSCENTRO-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:13:07 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

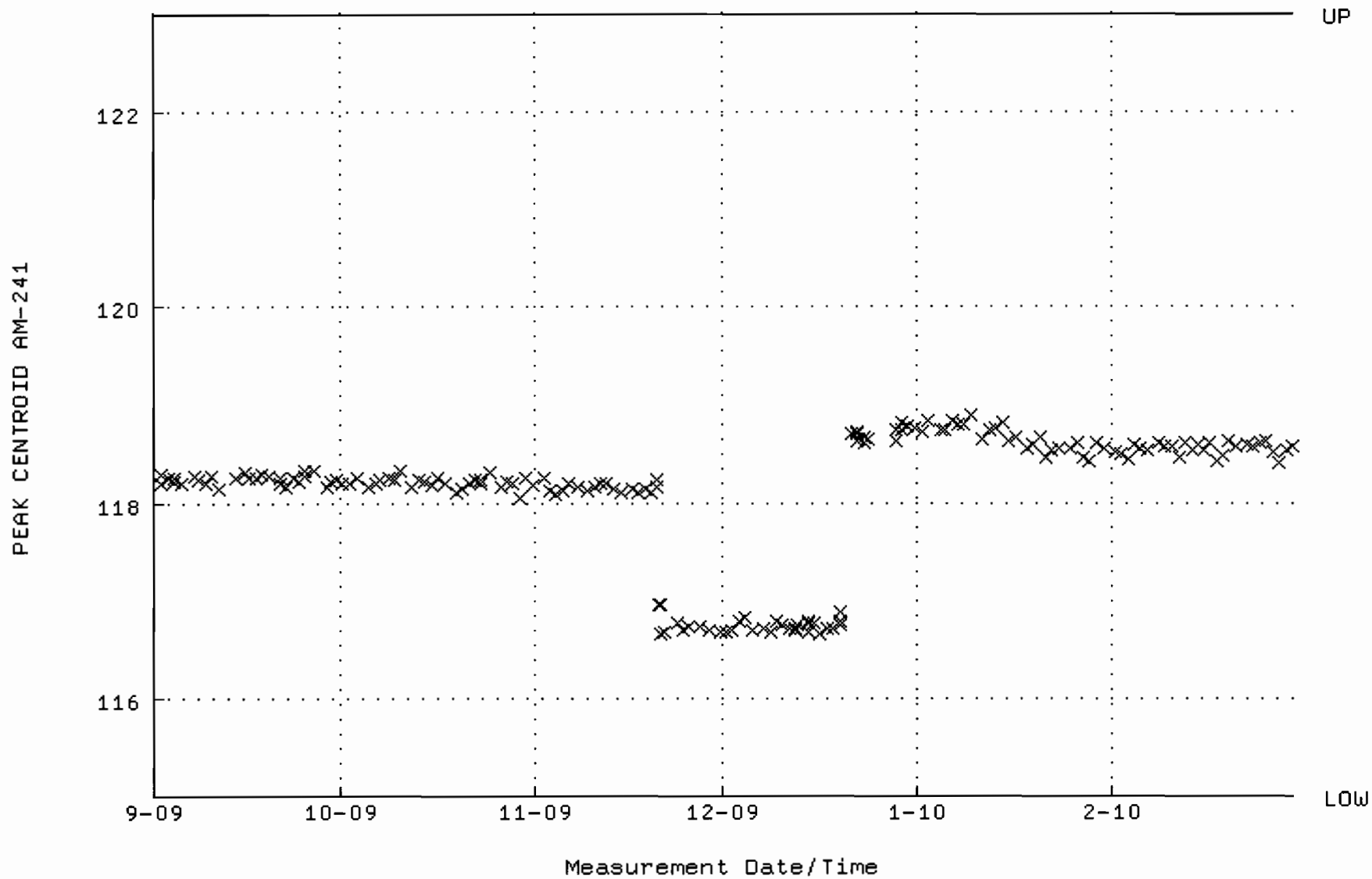

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM18.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:45:03 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)

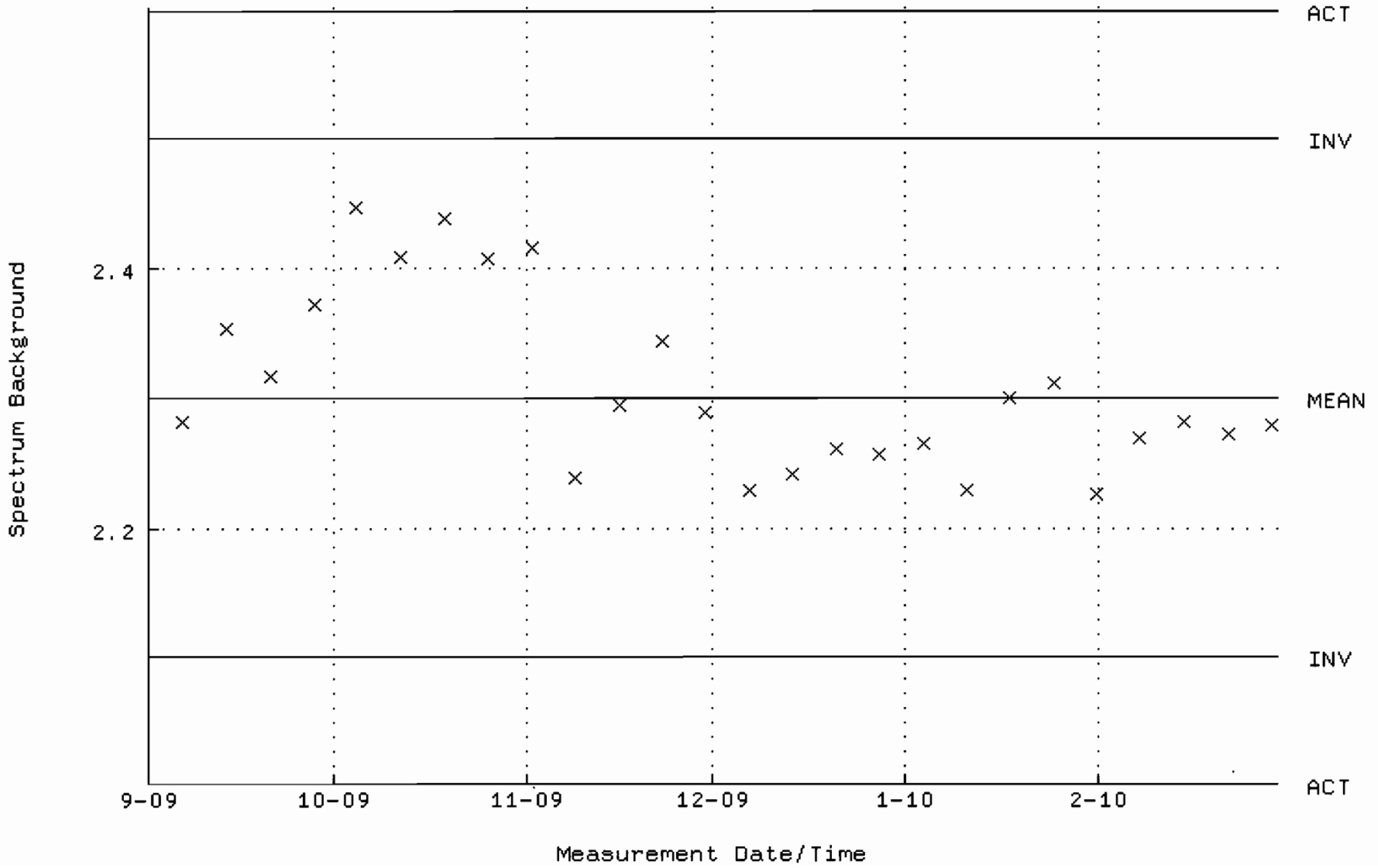

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM19_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 05:06:58 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

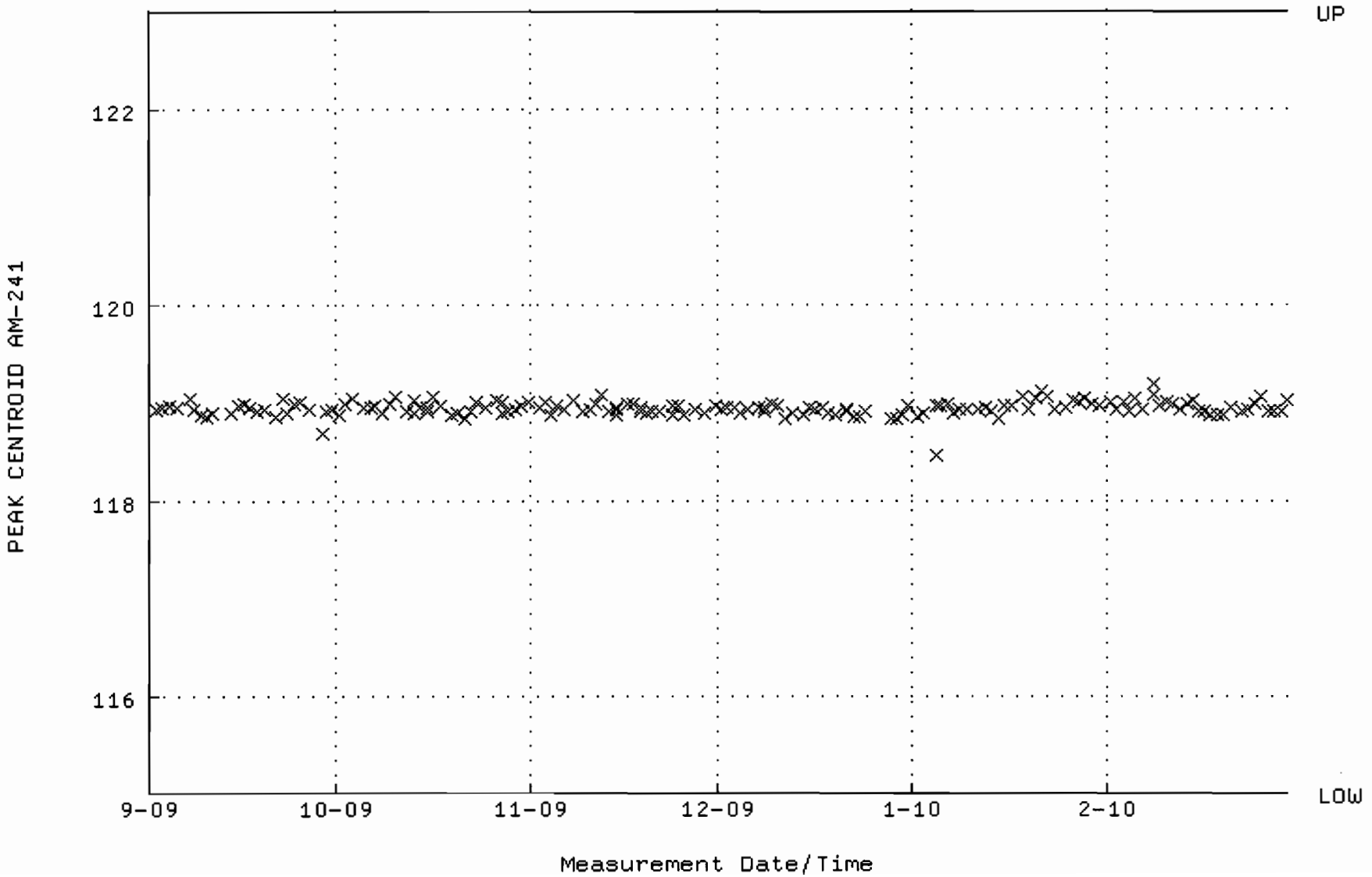

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM19.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:45:39 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.45067 +- 2.046038E-02 (1.41 %)

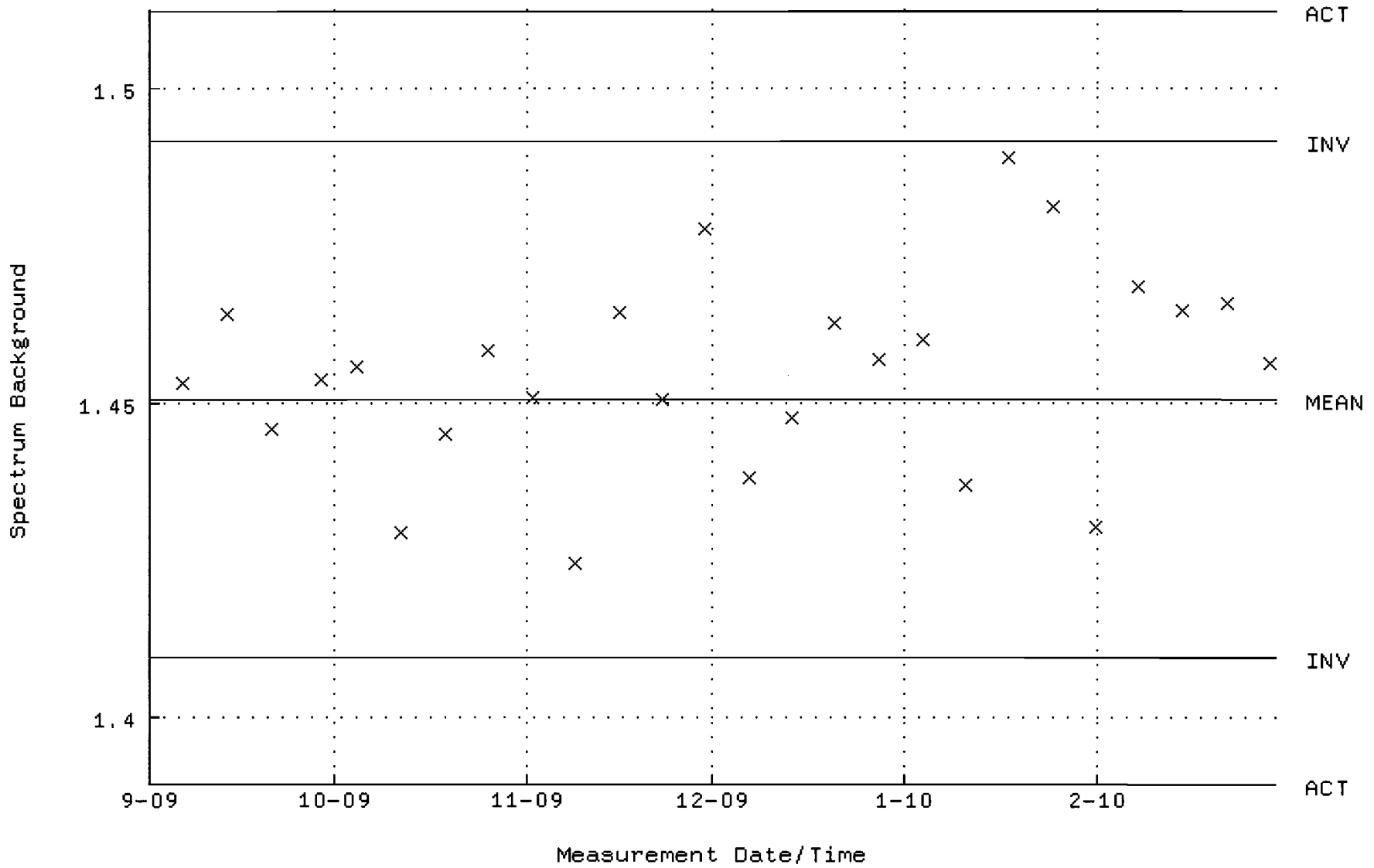

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM25_2LMB.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 9-SEP-2009 16:18:34 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

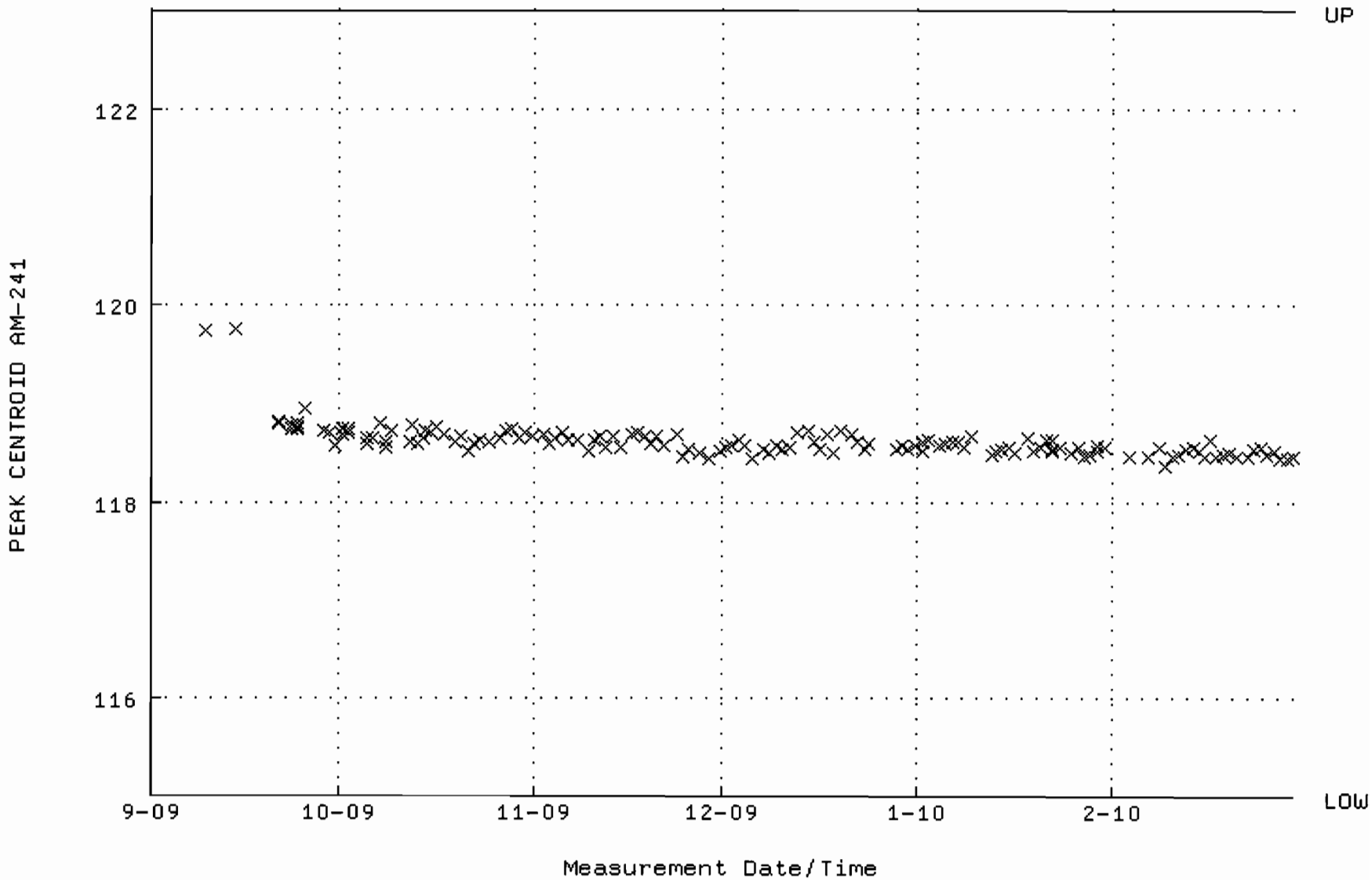

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM25.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:47:27 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.62502 +- 9.370414E-03 (0.58 %)

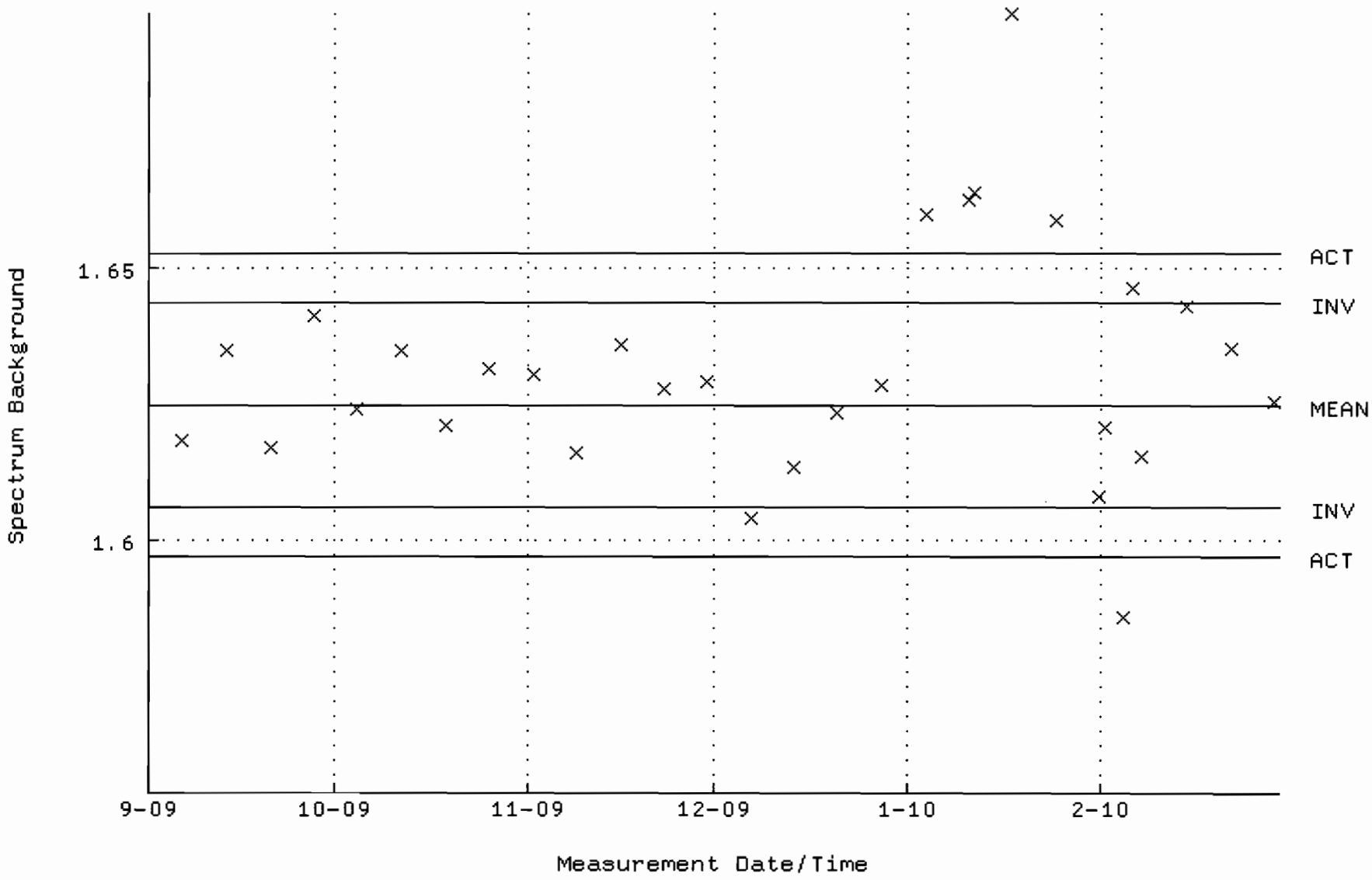

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM29_CAN.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 2-MAR-2010 08:30:43 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

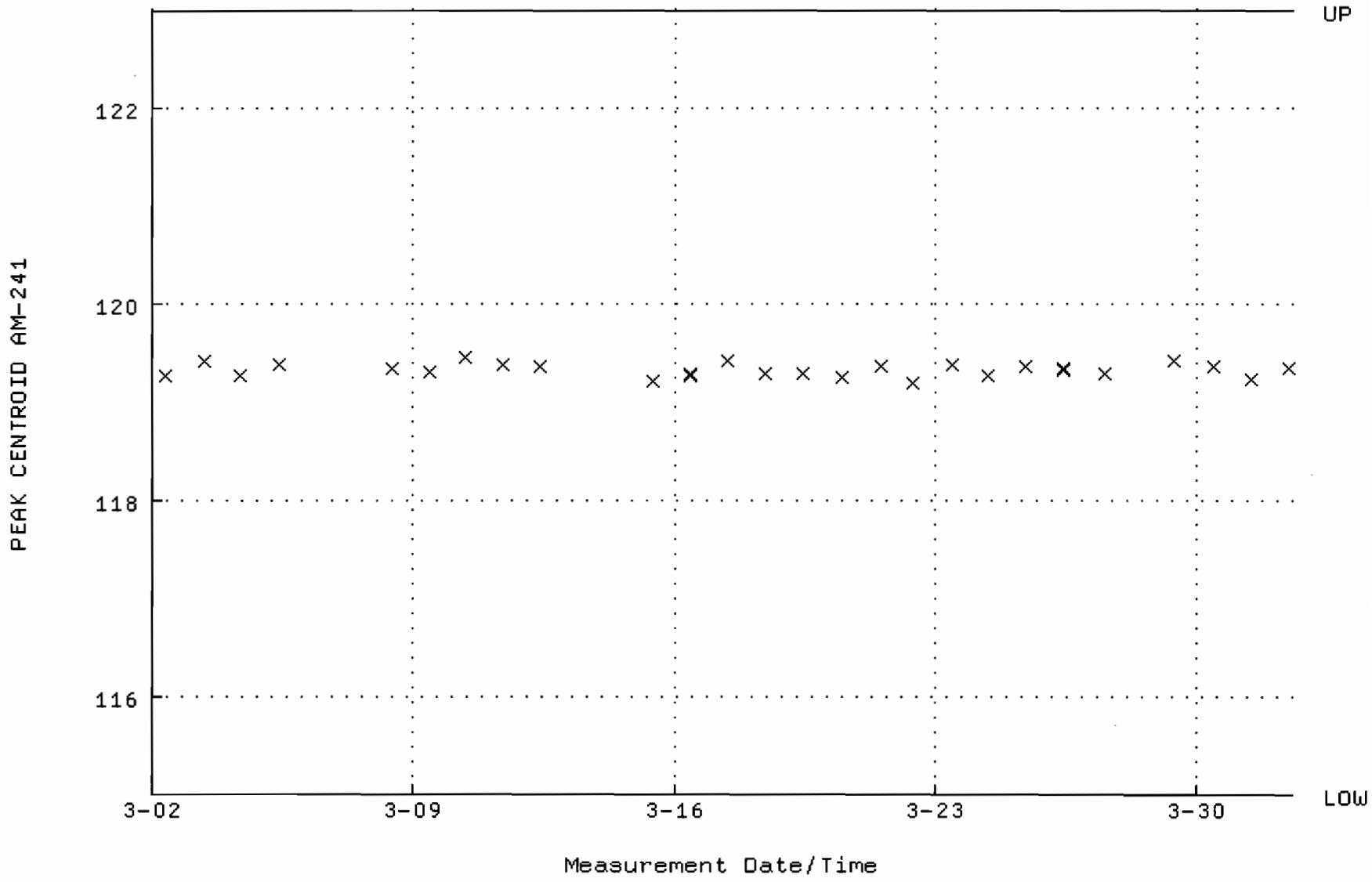

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM29.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 7-MAR-2010 16:47:12 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 1.72589 through 2.10943

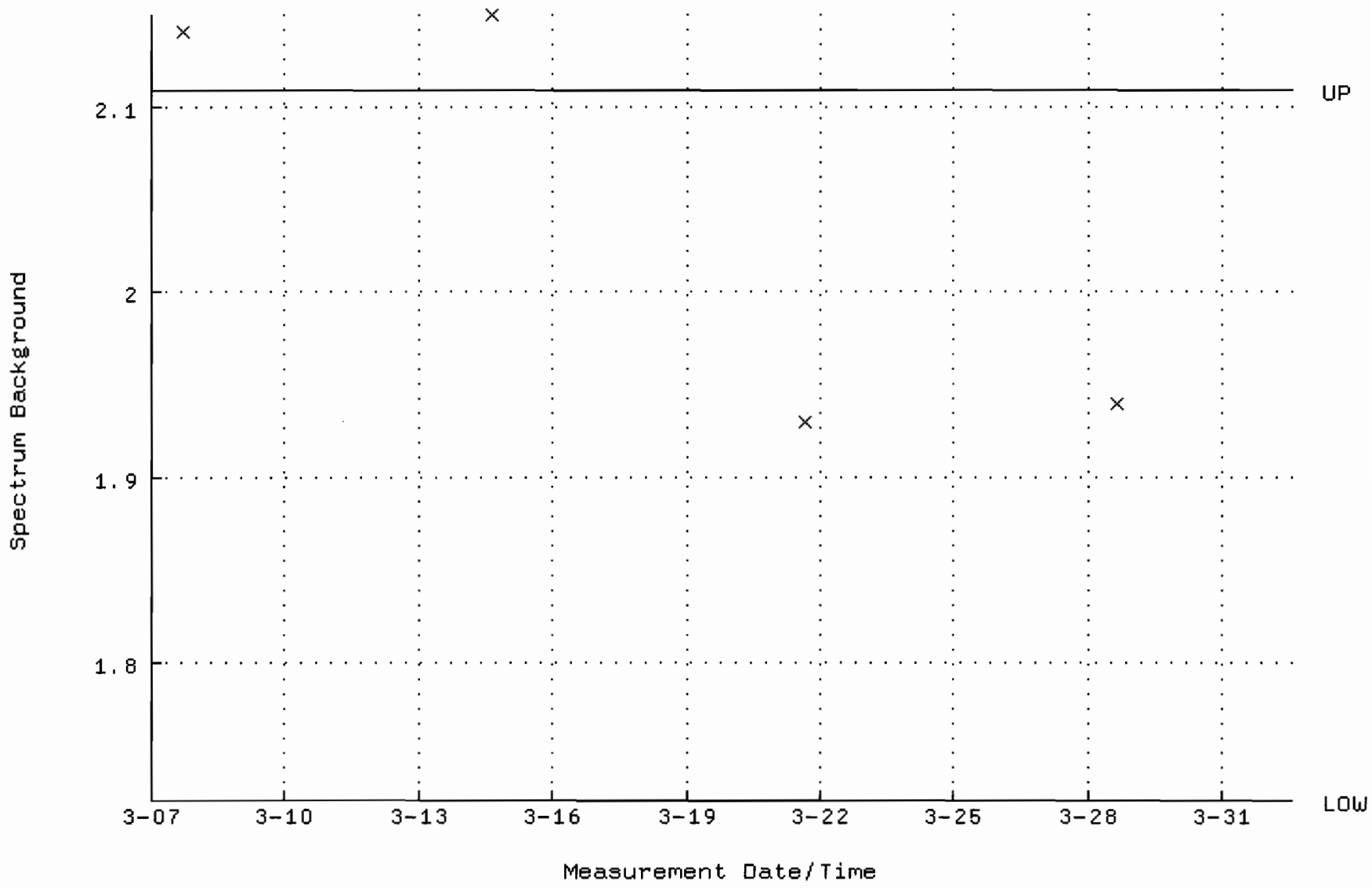

STANDARDS DATA

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

Rec'd 11/30/06
RC-S-045-073-0

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24937 Avenue Tibbitts, Valencia, California 91355

Laboratory
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ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER. JAR. 1
	Mixed Gamma N2	2510	pCi/L	- VER. JAR. 3
	Mixed Gamma N3	2413	pCi/L	- VER. JAR. 5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result		
	Mixed Gamma N1	1572	pCi/L	- VER-JAR-5
	Mixed Gamma N2	1495	pCi/L	- VER-JAR-2
	Mixed Gamma N3	1501	pCi/L	- VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**	
Stdev =	42.829	**Rule 3 (Pass/Fail)**		
Certificate Value =	1545.8378	pCi/L		
Lower Limit =	1437.008431	pCi/L		
Upper Limit =	1608.324902	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	85.65823564			
10 % of Mean =	152.26666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATE 4/14/2000 Scott C Reid 12/1/04

Angela D. Johnson 12/3/04

TRM

Invoice:

5 bottles of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM-1	TRM-2	TRM-3	TRM-4
U-238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U-234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th-230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra-225	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb-210	485 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726494
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 13
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID (LAB USE)
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking (SMO USE)
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized rad materials being sent to GEL on behalf of Hank Mintzer

Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Turnaround Time ☒Normal ☐Rush Required Report Date

QC Limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. WESTON	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
[illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726494
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 13
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept. _____
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL as behalf of Hank Mistaer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date

QC limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry SMO	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0934

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 • U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

72858-278

Th-229 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Th-229
ACTIVITY (dps):	3.842 E3
HALF-LIFE:	7340 years
CALIBRATION DATE:	May 2, 2006 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	3.5%

Impurities: Th-228 5.7 dps
Th-230 24 dps
Th-232 1.5 dps

5.05657 grams 0.5M HNO_3 solution.

P O NUMBER 2724RD, Item 1

SOURCE PREPARED BY: M Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 05-02-2006

RECEIVED 5/5/06 MLK

RCS-041-110

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0934
Prepared By:	Daniel Roy
Carrier Conc:	0.05M HNO3
Reference Date:	05/02/2006
Ampoule Mass (g):	5.05657 g
Uncertainty:	+/- 3.5 %
LogBook No:	RC-S-041-110

A Solution Material Info	
Isotope:	Thorium-229
Prepared By:	Daniel Roy
Prep Date:	04/23/2008
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	0934-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8973 g
Density(g/mL):	1.0143
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8973 g) * (3842 dps) * (60 dpm/dps) / (5.05657 g * 100 mL) = 2232.5917 dpm/mL
(4.8973 g) * (3842 dps) * (60 dpm/dps) / (1.0143 g/mL)/ (5.05657 g * 100 mL) = 2201.0332 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
04/23/2008	Daniel Roy	2.5898	250	0934-B	22.8009 dpm/ml	04/23/2008	04/23/2009
09/25/2008	Daniel Roy	2.6237	250	0934-C	23.0994 dpm/ml	09/25/2008	09/25/2009
12/16/2008	Daniel Roy	2.6547	250	0934-D	23.3723 dpm/ml	12/16/2008	12/16/2009
01/09/2009	Daniel Roy	2.5399	250	0934-E	22.3616 dpm/ml	01/09/2009	01/09/2010
04/03/2009	Mary Aders	2.5434	250	0934-F	22.3924 dpm/ml	04/03/2009	04/03/2010
04/22/2009	Mary Aders	2.5138	250	0934-G	22.1318 dpm/ml	04/28/2009	04/28/2010
07/31/2009	Mary Aders	2.579	250	0934-H	22.7059 dpm/mL	07/31/2009	07/31/2010
09/16/2009	Mary Aders	2.5029	250	0934-I	22.0359 dpm/mL	09/16/2009	09/16/2010
10/21/2009	Mary Aders	2.4847	250	0934-J	21.8756 dpm/mL	10/21/2009	10/21/2010
12/02/2009	Ashley Drochter	5.0356	500	0934-K	22.167 dpm/mL	12/02/2009	12/02/2010
03/09/2010	Ashley Drochter	5.0236	500	0934-L	22.1142 dpm/mL	03/09/2010	03/09/2011

Verification for Th-229 Standard 0934-L

A.DROCHTER	Isotope	Value	Uncertainty
3/15/2010	0934-L	0.958	0.1630
	0934-L	1.020	0.2040
	0934-L	0.978	0.1550

Mean Value (Counting) =	0.985	98.95	**Pass**
Stdev =	0.031643851		**Rule 3 (Pass/Fail)**

Target =	0.996
Lower Limit =	0.92204563
Upper Limit =	1.048621036
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.063287703
10 % of Mean =	0.098533333
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard 0934-L using 0.1 mL for each source. Each standard was combined with 0.1 mL of Th-230 standard A2796-J and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Two mL of 49% HF was added to precipitate neodymium(and Thorium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Th-229 were calculated by comparison to Th-230 certified values.

3/18/10

3/18/10

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Kuen
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-~~004~~ 005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	03/09/2010
Expiration Date:	03/09/2011
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Tara Sides	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/14/2009	09/14/2010
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/09/2010	Ashley Drochter	.011	1000	445-96-2-VV	22.7878 dpm/mL	03/09/2010	03/09/2011
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
03/23/2010	Ashley Drochter	.0163	1000	445-96-2-WW	33.7674 dpm/mL	03/23/2010	03/23/2011
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-VV*

A.Drochter	Isotope	Value	Uncertainty
3/15/2010	445-96-2-VV #1	1.040	0.1630
	445-96-2-VV #2	0.964	0.1480
	445-96-2-VV #3	0.970	0.1550

Mean Value (Counting) =	0.991	96.72	**Pass**
Stdev =	0.042253205		**Rule 3 (Pass/Fail)**

Target =	1.025
Lower Limit =	0.906826923
Upper Limit =	1.075839743
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.08450641
10 % of Mean =	0.099133333
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-VV*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

3/15/10

3/16/10

1430

NATIONAL PHYSICAL LABORATORY

Teddington Middlesex UK TW11 0LW Telephone +44 20 8977 3222

Certificate of Calibration

UKAS CALIBRATION 0478

PLUTONIUM-236 SOLUTION
R37-02

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

FOR:	GEL Laboratories LLC 2040 Savage Road Charleston, SC 29407 USA
FOR THE ATTENTION OF:	Mr Tim Winters
NPL PRODUCT CODE:	R37-02
IDENTIFICATION:	A09881
DESCRIPTION:	An aqueous solution of ^{236}Pu also containing 2 mol dm^{-3} of nitric acid. The solution is contained in a flame sealed ampoule of type Q and nominal volume 5 ml (squat) as defined in BS 795:1983.
DATE(S) OF CALIBRATION:	26 June 2009 to 1 July 2009
INTENDED USE:	Calibration of instruments for response to ^{236}Pu
STORAGE:	The material may be stored at room temperature in a suitably sealed container. Flame-sealed glass ampoules are recommended for long-term storage. Regulatory conditions may apply to the manner in which this material is stored.

RECEIVED 11 12 09 AM.

MEASUREMENTS

The samples were prepared by gravimetric dilution of a ^{236}Pu solution, which had been previously standardised using liquid scintillation counting. The accuracy of the dilution factor was checked using liquid scintillation counting.

Reference: 2009100356

Date of Issue: 4 November 2009

Checked by:

Signed:

Name: Dr Arvic Harms

(Authorised Signatory)

for Managing Director

RESULTS

Principal radionuclide:	^{236}Pu
Reference time:	2009-07-01 12:00 UTC
Activity concentration of principal radionuclide:	170.8 Bq g^{-1}
Expanded uncertainty:	±0.6 Bq g^{-1} (±0.36 %)
Contaminants present:	^{226}Ra, ^{232}U, ^{228}Th, ^{237}Np
Activity concentration of ^{226}Ra:	11.0 mBq g^{-1}
Expanded uncertainty:	±4.0 mBq g^{-1} (±36 %)
Activity concentration of ^{232}U:	0.67 Bq g^{-1}
Expanded uncertainty:	±0.12 Bq g^{-1} (±18 %)
Activity concentration of ^{228}Th:	11.38 mBq g^{-1}
Expanded uncertainty:	±0.46 mBq g^{-1} (±4 %)
Activity concentration of ^{237}Np:	5.00 mBq g^{-1}
Expanded uncertainty:	±0.34 mBq g^{-1} (±8 %)
Sample Mass:	4.97 g ± 0.02 g

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

NOTES

[1]. The reported reference time is stated consistent with the format given in ISO 8601:2004. UTC is the abbreviation for Universal Time, Coordinated. The date is stated in the format YYYY-MM-DD such that 2008-09-01 represents 1 September 2008.

[2]. The recommended half life of ^{236}Pu is 1044 (6) days and is taken from the evaluations published in *Nuclear Data Sheets*.

[3]. The recommended half life of ^{226}Ra is 5.844 (50) $\times 10^5$ days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[4]. The recommended half life of ^{232}U is 25800 (800) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[5]. The recommended half life of ^{237}Np is 7.83 (6) $\times 10^8$ days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[6]. The recommended half life of ^{228}Th is 698.60 (46) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Checked by:

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1430
Prepared By:	Ashley Drochter
Carrier Conc:	2 M HNO3
Reference Date:	07/01/2009
Ampoule Mass (g):	4.97 g
Uncertainty:	+/- .36 %
LogBook No:	RC-S-051-149

A Solution Material Info	
Isotope:	Plutonium-236
Prepared By:	Ashley Drochter
Prep Date:	01/27/2010
Verification Date:	01/27/2010
Expiration Date:	01/27/2011
Primary Code:	1430-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8051 g
Density(g/mL):	1.0610
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (100 mL) = 492.4266 dpm/mL
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (1.0610 g/mL) / (100 mL) = 464.1156 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/27/2010	Bethany Fiem	33.0429	200	1430-B	76.6786262 dpm/mL	01/27/2010	01/27/2011
03/04/2010	Ashley Drochter	15.2331	200	1430-C	35.3496 dpm/mL	03/04/2010	03/04/2011
03/17/2010	Ashley Drochter	15.0683	200	1430-D	34.9672 dpm/mL	03/17/2010	03/17/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-236 Standard 1430-C

	Isotope	Value	Uncertainty
A. Drochter	1430-C	2.760	0.4480
3/4/2010	1430-C	2.770	0.4520
	1430-C	2.950	0.4850
Mean Value (Counting) =	2.827	104.54659	% of Known Value
Stdev =	0.106926766		
Target =	2.70		
Lower Limit =	2.612813134		
Upper Limit =	3.040520199		
Rule 1 Pass/Fail	Pass	Pass	Pass
Two sigma =	0.213853532		
10 % of Mean =	0.282666667		
Rule 2 (Pass/Fail)	Pass		

The analyst prepared three standard verification sources for standard 1430-B using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. After approximately ten minutes, two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-236 were calculated by comparison to Pu-239 certified values.

3/5/10

3/5/10

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: W. Mao, Radiochemist

QA Approved: D. M. Montgomery, QA Manager Date: 12-11-08

End of Certificate

RECEIVED 12/15/08
RC-S-05

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter AMD 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 965250**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249060003	SAMPLE	MXR1	GAM05	24-MAR-10 08:56	DONE	CAN	11-JUN-09 00:00
249329001	SAMPLE	MXR1	GAM06	24-MAR-10 08:56	DONE	CAN	16-FEB-10 00:00
249329002	SAMPLE	MXR1	GAM07	24-MAR-10 08:57	DONE	CAN	20-JUL-09 00:00
249329003	SAMPLE	MXR1	GAM19	24-MAR-10 08:57	DONE	CAN	12-MAR-09 00:00
249329004	SAMPLE	MXR1	GAM22	24-MAR-10 08:58	DONE	CAN	02-DEC-09 00:00
249331001	SAMPLE	MXR1	GAM04	24-MAR-10 08:58	DONE	CAN	05-MAY-09 00:00
249331002	SAMPLE	MXR1	GAM10	24-MAR-10 09:11	DONE	CAN	13-MAR-10 00:00
249331003	SAMPLE	MXR1	GAM11	24-MAR-10 09:11	DONE	CAN	18-NOV-09 00:00
249331004	SAMPLE	MXR1	GAM15	24-MAR-10 09:12	DONE	CAN	03-FEB-10 00:00
249331005	SAMPLE	MXR1	GAM25	24-MAR-10 09:13	DONE	CAN	07-OCT-09 00:00
249331006	SAMPLE	MXR1	GAM29	24-MAR-10 09:13	DONE	CAN	23-FEB-10 00:00
249331007	SAMPLE	MXR1	GAM01	24-MAR-10 09:21	DONE	CAN	12-JAN-10 00:00
249331008	SAMPLE	MXR1	GAM16	24-MAR-10 09:21	DONE	CAN	16-NOV-09 00:00
249334001	SAMPLE	MXR1	GAM18	24-MAR-10 09:22	DONE	CAN	23-APR-09 00:00
249334002	SAMPLE	MXR1	GAM23	24-MAR-10 09:22	DONE	CAN	02-JUN-09 00:00
249334003	SAMPLE	MXR1	GAM17	24-MAR-10 09:48	DONE	CAN	06-JAN-10 00:00
249334004	SAMPLE	MXR1	GAM21	24-MAR-10 10:53	DONE	CAN	28-JUL-09 00:00
249334006	SAMPLE	MXR1	GAM06	24-MAR-10 11:01	DONE	CAN	16-FEB-10 00:00
249334007	SAMPLE	MXR1	GAM07	24-MAR-10 11:02	DUSE	CAN	20-JUL-09 00:00
1202071014	MB	MXR1	GAM19	24-MAR-10 11:03	DONE	CAN	12-MAR-09 00:00
1202071016	LCS	MXR1	GAM04	24-MAR-10 11:06	DONE	CAN	05-MAY-09 00:00
249334005	SAMPLE	MXR1	GAM15	24-MAR-10 11:16	DONE	CAN	03-FEB-10 00:00
1202071015	DUP	MXR1	GAM01	24-MAR-10 11:24	DONE	CAN	12-JAN-10 00:00
249334007	SAMPLE	MXR1	GAM22	25-MAR-10 14:47	DONE	CAN	02-DEC-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965502**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249060003	SAMPLE	CXM2	1013	27-MAR-10 13:01	DONE		
249329001	SAMPLE	CXM2	1019	27-MAR-10 13:40	DONE		
249329002	SAMPLE	CXM2	1020	27-MAR-10 13:40	DONE		
249329003	SAMPLE	CXM2	1022	27-MAR-10 13:40	DONE		
249329004	SAMPLE	CXM2	1023	27-MAR-10 13:40	DONE		
249331001	SAMPLE	CXM2	1024	27-MAR-10 13:40	DONE		
249331002	SAMPLE	CXM2	1043	27-MAR-10 13:40	DONE		
249331003	SAMPLE	CXM2	1044	27-MAR-10 13:40	DONE		
249331004	SAMPLE	CXM2	1045	27-MAR-10 13:40	DONE		
249331005	SAMPLE	CXM2	1046	27-MAR-10 13:40	DONE		
249331006	SAMPLE	CXM2	1048	27-MAR-10 13:40	DONE		
249331007	SAMPLE	CXM2	1072	27-MAR-10 13:40	DONE		
249331008	SAMPLE	CXM2	1073	27-MAR-10 13:40	DONE		
249334001	SAMPLE	CXM2	1074	27-MAR-10 13:40	DONE		
249334002	SAMPLE	CXM2	1075	27-MAR-10 13:40	DONE		
249334003	SAMPLE	CXM2	1076	27-MAR-10 13:40	DONE		
249334004	SAMPLE	CXM2	1077	27-MAR-10 13:40	DONE		
249334005	SAMPLE	CXM2	1079	27-MAR-10 13:40	DONE		
249334006	SAMPLE	CXM2	1080	27-MAR-10 13:40	DONE		
249334007	SAMPLE	CXM2	1081	27-MAR-10 13:40	DONE		
1202071683	MB	CXM2	1082	27-MAR-10 13:40	DONE		
1202071684	DUP	CXM2	1083	27-MAR-10 13:40	DONE		
1202071685	LCS	CXM2	1085	27-MAR-10 13:40	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965503**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249060003	SAMPLE	CXM2	1072	26-MAR-10 17:20	DONE		
249329001	SAMPLE	CXM2	1073	26-MAR-10 17:20	DONE		
249329002	SAMPLE	CXM2	1074	26-MAR-10 17:20	DONE		
249329003	SAMPLE	CXM2	1075	26-MAR-10 17:20	DONE		
249329004	SAMPLE	CXM2	1076	26-MAR-10 17:20	DONE		
249331001	SAMPLE	CXM2	1077	26-MAR-10 17:20	DONE		
249331002	SAMPLE	CXM2	1079	26-MAR-10 17:20	DONE		
249331003	SAMPLE	CXM2	1080	26-MAR-10 17:20	DONE		
249331004	SAMPLE	CXM2	1081	26-MAR-10 17:20	DONE		
249331005	SAMPLE	CXM2	1082	26-MAR-10 17:20	DONE		
249331006	SAMPLE	CXM2	1083	26-MAR-10 17:20	DONE		
249331007	SAMPLE	CXM2	1084	26-MAR-10 17:20	DONE		
249331008	SAMPLE	CXM2	1085	26-MAR-10 17:20	DUSE		
249334001	SAMPLE	CXM2	1086	26-MAR-10 17:20	DONE		
249334002	SAMPLE	CXM2	1087	26-MAR-10 17:20	DONE		
249334003	SAMPLE	CXM2	1088	26-MAR-10 17:20	DONE		
249334004	SAMPLE	CXM2	1089	26-MAR-10 17:20	DONE		
249334005	SAMPLE	CXM2	1090	26-MAR-10 17:20	DONE		
249334006	SAMPLE	CXM2	1091	26-MAR-10 17:20	DONE		
249334007	SAMPLE	CXM2	1093	26-MAR-10 17:20	DONE		
1202071686	MB	CXM2	1094	26-MAR-10 17:20	DONE		
1202071687	DUP	CXM2	1013	26-MAR-10 21:18	DONE		
1202071688	LCS	CXM2	1014	26-MAR-10 21:18	DONE		
249331008	SAMPLE	CXM2	1031	29-MAR-10 10:30	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965504**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249060003	SAMPLE	CXM2	1131	27-MAR-10 12:53	DONE		
249329001	SAMPLE	CXM2	1132	27-MAR-10 12:53	DONE		
249329002	SAMPLE	CXM2	1133	27-MAR-10 12:53	DONE		
249329003	SAMPLE	CXM2	1134	27-MAR-10 12:53	DONE		
249329004	SAMPLE	CXM2	1135	27-MAR-10 12:53	DONE		
249331001	SAMPLE	CXM2	1136	27-MAR-10 12:53	DONE		
249331003	SAMPLE	CXM2	1138	27-MAR-10 12:54	DONE		
249331004	SAMPLE	CXM2	1139	27-MAR-10 12:54	DONE		
249331005	SAMPLE	CXM2	1140	27-MAR-10 12:54	DONE		
249331006	SAMPLE	CXM2	1141	27-MAR-10 12:54	DONE		
249331007	SAMPLE	CXM2	1142	27-MAR-10 12:54	DONE		
249331008	SAMPLE	CXM2	1143	27-MAR-10 12:54	DONE		
249334001	SAMPLE	CXM2	1144	27-MAR-10 12:54	DONE		
249334002	SAMPLE	CXM2	1145	27-MAR-10 12:54	DONE		
249334003	SAMPLE	CXM2	1146	27-MAR-10 12:54	DONE		
249334004	SAMPLE	CXM2	1147	27-MAR-10 12:54	DUSE		
249334005	SAMPLE	CXM2	1148	27-MAR-10 12:54	DUSE		
249334006	SAMPLE	CXM2	1149	27-MAR-10 12:54	DONE		
249334007	SAMPLE	CXM2	1150	27-MAR-10 12:54	DONE		
1202071689	MB	CXM2	1151	27-MAR-10 12:54	DONE		
1202071690	DUP	CXM2	1152	27-MAR-10 12:54	DONE		
1202071691	LCS	CXM2	1153	27-MAR-10 12:54	DONE		
249331002	SAMPLE	CXM2	1154	27-MAR-10 12:54	DONE		
249334004	SAMPLE	CXM2	1117	29-MAR-10 12:37	DONE		
249334005	SAMPLE	CXM2	1118	29-MAR-10 12:38	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 967216**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249329001	SAMPLE	CXM2	1173	01-APR-10 17:52	DUSE		
249329002	SAMPLE	CXM2	1174	01-APR-10 17:52	DUSE		
249329003	SAMPLE	CXM2	1177	01-APR-10 17:52	DUSE		
249329004	SAMPLE	CXM2	1178	01-APR-10 17:52	DUSE		
249331001	SAMPLE	CXM2	1179	01-APR-10 17:52	DUSE		
249331002	SAMPLE	CXM2	1180	01-APR-10 17:52	DUSE		
249331003	SAMPLE	CXM2	1181	01-APR-10 17:52	DUSE		
249331004	SAMPLE	CXM2	1182	01-APR-10 17:52	DUSE		
249331005	SAMPLE	CXM2	1183	01-APR-10 17:52	DUSE		
249331006	SAMPLE	CXM2	1184	01-APR-10 17:52	DUSE		
249331007	SAMPLE	CXM2	1185	01-APR-10 17:52	DUSE		
249331008	SAMPLE	CXM2	1186	01-APR-10 17:52	DUSE		
1202075933	MB	CXM2	1187	01-APR-10 17:52	DUSE		
1202075934	DUP	CXM2	1188	01-APR-10 17:52	DUSE		
1202075935	LCS	CXM2	1189	01-APR-10 17:52	DUSE		
249329001	SAMPLE	CXM2	1173	05-APR-10 15:34	DONE		
249329002	SAMPLE	CXM2	1174	05-APR-10 15:34	DONE		
249329003	SAMPLE	CXM2	1177	05-APR-10 15:34	DONE		
249329004	SAMPLE	CXM2	1178	05-APR-10 15:34	DONE		
249331001	SAMPLE	CXM2	1179	05-APR-10 15:34	DONE		
249331002	SAMPLE	CXM2	1180	05-APR-10 15:34	DONE		
249331003	SAMPLE	CXM2	1181	05-APR-10 15:34	DONE		
249331004	SAMPLE	CXM2	1182	05-APR-10 15:34	DONE		
249331005	SAMPLE	CXM2	1183	05-APR-10 15:34	DONE		
249331006	SAMPLE	CXM2	1184	05-APR-10 15:34	DONE		
249331007	SAMPLE	CXM2	1185	05-APR-10 15:34	DONE		
249331008	SAMPLE	CXM2	1186	05-APR-10 15:34	DONE		
1202075933	MB	CXM2	1187	05-APR-10 15:34	DONE		
1202075935	LCS	CXM2	1189	05-APR-10 15:34	DONE		
1202075934	DUP	CXM2	1173	07-APR-10 18:23	DONE		

Friday, March 12, 2010

REQUEST NUMBER: 10-2431

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-2431
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	SW-846:6010B	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2431

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-13238	W	3/11/2010	
		1	RE46-10-13239	W	3/11/2010	
		1	RE46-10-14198	W	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
		1	RE46-10-14201	W	3/11/2010	
	SW-846:6020	1	RE46-10-13238	W	3/11/2010	
		1	RE46-10-13239	W	3/11/2010	
		1	RE46-10-14198	W	3/11/2010	
		1	RE46-10-14201	W	3/11/2010	
	SW-846:7471A	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	SW-846:9012A	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2431

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-13238	W	3/11/2010	
		1	RE46-10-13239	W	3/11/2010	
		1	RE46-10-14198	W	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
		1	RE46-10-14201	W	3/11/2010	
	SW-846:9045C	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2431

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2431C

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-2431

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13219	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13221	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13220	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13216	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13217	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13218	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13234	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13238	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-13238	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-13239	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-13239	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-14198	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-14198	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-14199	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-14201	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-14201	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:	Date	Time	Received By:	Date	Time
	3/12/10	5:00			
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name / Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13239 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1510	SUB-MEDIA:	OTHER	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-617560	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH

SAMPLE DESC: QC Sample of RE46-10-13220

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13238 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1500	SUB-MEDIA:	OTHER	
PRS ID:	46-004(d)	Ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611560	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	Ok	FIELD PREP:	UF	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH

SAMPLE DESC: QC Sample of RE46-10-13220

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shenko **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	3-11-10 1550	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13217 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1030	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	~~46-611558~~ mp 2/17/10	46-611558	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: Gray weathered tuff 5YR 5/2

SAMPLE COMMENTS: ~~15' below base of well~~ mp 2/17/10

LOCATION DESC: ~~4d-1~~ mp 2/17/10 4d-2

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples < MDA
PID: 0.4 ppm
α: 7
β: 906 dpm

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. Ward

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Ward (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1658
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-14198 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1515 ~~1430-1510~~	SUB-MEDIA:	OTHER	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611559	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH<2
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH<12

SAMPLE DESC: QC Sample of RE 46-10-13218

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) C. Andress **REVIEWED BY (PRINT)** M. Lewis

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature)	3/11/10 1650	(Printed Name) (Signature)	3/11/10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-14201 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		~~1500~~ 1520	SUB-MEDIA:	OTHER	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611559	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH <2
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH ~~<12~~ >12 3/11/10

SAMPLE DESC: QC Sample of RE46-10-13218

SAMPLE COMMENTS: NA

LOCATION DESC: 46-3

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo REVIEWED BY (PRINT) Lane Anderss

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Anderss (Signature)	3/11/10 1650	(Printed Name) (Signature)	3/11/10 1650
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13216 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	~~ALLH~~ MW 3-11-10	OK OK
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	~~46-611558~~ mr 2/17/10	46-611558	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: Gray weathered tuff 5YR 5/2

SAMPLE COMMENTS: ~~10' below base of well~~ mr 2/17/10

LOCATION DESC: ~~4d-1~~ mr 2/17/10 4d-2

FIELD SCREENING/MEASUREMENT RESULTS: PID: 4.0 ppm Background: α: 7 β: 906 dpm Samples < MDA

COLLECTED BY (PRINT) H. Vanek REVIEWED BY (PRINT) Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) H. Vanek (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-14199 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		1436	SUB-MEDIA:	SOIL	
PRS ID:	46-004(d)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	46-611559	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13218

SAMPLE COMMENTS: NA

LOCATION DESC: 46-3

FIELD SCREENING/MEASUREMENT RESULTS: Background Samples < MDA

PID: 0.5 ppm

α: 7

β: 906 dpm

COLLECTED BY (PRINT) H. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature) [signature]	3/11/10 1650	(Printed Name) (Signature) [signature]	3/11/10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-14200 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1436	SUB-MEDIA:	OTHER	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611559	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1-2	4d	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13218

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) C. Andross **REVIEWED BY (PRINT)** M. Nowak

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nowak (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13218 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1430	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611559	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: Moist dark reddish brown silty sediment 5YR 4/3

SAMPLE COMMENTS: Organic matter present

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples <MDA

PID: 0.5

α: 7 dpm

β: 906

COLLECTED BY (PRINT) M. Sherado **REVIEWED BY (PRINT)** M. Marck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Marck (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13219 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1446	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611559	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: Light reddish brown weathered tuff 5YR 6/3

SAMPLE COMMENTS: ~~[illegible]~~ MW 3-11-10 Organic matter present

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS: Background: PID: 2.5 ppm α: 7 dpm β: 906 Samples < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. Nash

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nash (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13221 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		~~3/10/10~~ 3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		~~1511~~ 1412	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611560	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: Pinkish gray weathered tuff 5YR 6/2

SAMPLE COMMENTS: NA

LOCATION DESC: 4d - 4

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.4 ppm

Background: α: 7 β: 906

Samples <MDA

COLLECTED BY (PRINT) J. Romero

REVIEWED BY (PRINT) M. Mack

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Mack (Signature)	3-11-10 1610	(Printed Name) (Signature)	3-11-10 1610
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13234 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		15	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	46-611560	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13220

SAMPLE COMMENTS: NA

LOCATION DESC: 46-4

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** M. Nard

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nard (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13220 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		~~1650~~ 1402	SUB-MEDIA:	SOIL	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611560		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Met+CN+Ph+N03	1 LITER POLY	Ice	Y	

SAMPLE DESC: Gray weathered tuff 5YR 5/2

SAMPLE COMMENTS: NA

LOCATION DESC: rd-2 4 MW 3-11-10

FIELD SCREENING/MEASUREMENT RESULTS: PID: 2.0 ppm Sample <MDA
Background
α 7 ~~dpm~~ β: 906 ~~dpm~~

COLLECTED BY (PRINT) M. Vacek REVIEWED BY (PRINT) Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Vacek (Signature)	3/11/10 1650	(Printed Name) (Signature)	3/11/10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2645 **EVENT NAME:** SWMU 46-004(b), 46-006(g), 46-008(f), 46-004(d), 46-004(e)

SAMPLE ID: RE46-10-13237 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1436	SUB-MEDIA:	OTHER	
PRS ID:	46-004(d)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46 - 611559	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2/1	mp 2/21/10	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13218

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L. Andress

REVIEWED BY (PRINT) M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

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Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2431 VALIDATION DATE: 06/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the solid MB, K, Tl and Cr were detected. Also, in the aqueous MB, Sb was detected. The associated Sb sample results and the Tl results for samples RE46-10-13216 and -13217 and -14199, were NDs and, thus, were not qualified. The Tl results for samples -13219, -13221, -13220, -13218 and -13234 and the Cr result for sample -13221 were detects ≤5X the MB concentration and, thus, were qualified U,I4. The remaining associated Cr sample results and the K results for samples -13216 and -13217 were detects >5X but ≤50X the greatest associated blank concentration and, thus, were qualified J,I4a. The remaining associated K results were detects >50X and, thus, were not qualified, based on professional judgment.

2. In the solid ICB/CCBs, Tl, Be and K were detected. Also, in the aqueous ICB/CCBs, Sb was detected. The Be result for sample -13216 was a detect ≤5X the greatest ICB/CCB concentration and, thus, was qualified U,I4b. The remaining associated sample results were either NDs or were detects >5X the greatest ICB/CCB concentrations and, thus, were not qualified.

3. In the FR blank, sample -13239, which was associated with all the soil samples, Fe and Na were detected. In the FB, sample -13238, which was associated with samples -13220, 13221 and 13234, Cr was detected. Also, in the FB, sample 14201, which was associated with samples -13218, 13219 and 14199, Zn was detected. The associated Na results for samples -13220, -13218, -13234 and -14199 were detects ≤5X the FR blank concentration and, thus were qualified U,I4d. The remaining associated sample results were detects >5X the FR blank and/or FB concentrations and, thus, were not qualified.

4. The solid MS %R was < the laboratory LAL but ≥10% for Mn. The associated sample results were detects and, thus, were qualified J-,I6a. The solid MS %Rs were > the laboratory UAL for Mg and K. The associated sample results were detects and, thus, were qualified J+,I6b. Also, the MS %Rs were > the laboratory UAL for Al and Fe. However, the

DATA VALIDATION COVER SHEET

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Data Validation Cover Sheet

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associated parent sample concentrations were >4X the spike concentrations. Thus, the associated sample results were not qualified, based on professional judgment.

5. It should be noted the matrix QC analyses <u>except</u> for solid Hg were performed on LANL samples from other RNs, and the ICP-AES and ICP-MS parent sample raw data were not included in the data package. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/14/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 06/09/10

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 **Metals Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330001 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13219 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 92.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	4440000	ug/kg		7370	21700	21700	1	P	HSC	04/05/10 19:34	040510-2	965624
7440-36-0	Antimony	1080	ug/kg	U	357	1080	1080	1	P	HSC	04/05/10 19:34	040510-2	965624
7440-38-2	Arsenic	1560	ug/kg		208	1040	1040	2	MS	BCD1	05/16/10 08:27	100515-7	965627
7440-39-3	Barium	32700	ug/kg		108	542	542	1	P	HSC	04/05/10 19:34	040510-2	965624
7440-41-7	Beryllium	609	ug/kg		20.8	104	104	2	MS	PRB	05/18/10 08:45	100517-9	965627
7440-43-9	Cadmium	542	ug/kg	U	108	542	542	1	P	HSC	04/05/10 19:34	040510-2	965624
7440-70-2	Calcium	1180000	ug/kg		8670	27100	27100	1	P	HSC	04/05/10 19:34	040510-2	965624
7440-47-3	Chromium J,I4a	4540	ug/kg		150	502	502	1	P	HSC	04/15/10 20:50	041510A-4	973755
7440-48-4	Cobalt	1040	ug/kg		162	542	542	1	P	HSC	04/05/10 19:34	040510-2	965624
7440-50-8	Copper	2860	ug/kg		301	1000	1000	1	P	HSC	04/15/10 20:50	041510A-4	973755
7439-89-6	Iron	9130000	ug/kg		8670	27100	27100	1	P	HSC	04/05/10 19:34	040510-2	965624
7439-92-1	Lead	12300	ug/kg		271	1080	1080	1	P	HSC	04/05/10 19:34	040510-2	965624
7439-95-4	Magnesium J+,I6b	796000	ug/kg		9210	32500	32500	1	P	HSC	04/05/10 19:34	040510-2	965624
7439-96-5	Manganese J-,I6a	197000	ug/kg		217	1080	1080	1	P	HSC	04/05/10 19:34	040510-2	965624
7439-97-6	Mercury	77.8	ug/kg		4.38	12.9	12.9	1	AV	JXL1	03/31/10 09:29	033110S1-11	969290
7440-02-0	Nickel	3330	ug/kg		104	416	416	2	MS	BCD1	05/16/10 08:27	100515-7	965627
7440-09-7	Potassium J+,I6b	585000	ug/kg		6930	27100	27100	1	P	HSC	04/05/10 19:34	040510-2	965624
7782-49-2	Selenium	1040	ug/kg	U	520	1040	1040	2	MS	BCD1	05/16/10 08:27	100515-7	965627
7440-22-4	Silver	542	ug/kg	U	108	542	542	1	P	HSC	04/05/10 19:34	040510-2	965624
7440-23-5	Sodium	193000	ug/kg		7580	27100	27100	1	P	HSC	04/05/10 19:34	040510-2	965624
7440-28-0	Thallium U,I4	65.7	ug/kg	J	62.4	208	208	2	MS	BCD1	05/16/10 08:27	100515-7	965627
7440-62-2	Vanadium	8480	ug/kg		108	542	542	1	P	HSC	04/05/10 19:34	040510-2	965624
7440-66-6	Zinc	41600	ug/kg		357	1080	1080	1	P	HSC	04/05/10 19:34	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.501	g	50	mL	03/31/10	LYHI
965627	965626	SW846 3050B	0.522	g	50	mL	03/31/10	LYHI
969290	969289	SW846 7471A Prep	0.505	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.541	g	50	mL	04/12/10	AXG2

P.S. 6/9/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330002 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13221 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 95.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	2640000	ug/kg		6870	20200	20200	1	P	HSC	04/05/10 19:36	040510-2	965624
7440-36-0	Antimony	1010	ug/kg	U	333	1010	1010	1	P	HSC	04/05/10 19:36	040510-2	965624
7440-38-2	Arsenic	1140	ug/kg		203	1010	1010	2	MS	BCD1	05/16/10 08:31	100515-7	965627
7440-39-3	Barium	27800	ug/kg		101	505	505	1	P	HSC	04/05/10 19:36	040510-2	965624
7440-41-7	Beryllium	365	ug/kg		20.3	101	101	2	MS	PRB	05/18/10 08:45	100517-9	965627
7440-43-9	Cadmium	505	ug/kg	U	101	505	505	1	P	HSC	04/05/10 19:36	040510-2	965624
7440-70-2	Calcium	2110000	ug/kg		8080	25300	25300	1	P	HSC	04/05/10 19:36	040510-2	965624
7440-47-3	Chromium U,I4	1760	ug/kg		147	489	489	1	P	HSC	04/15/10 20:57	041510A-4	973755
7440-48-4	Cobalt	1410	ug/kg		152	505	505	1	P	HSC	04/05/10 19:36	040510-2	965624
7440-50-8	Copper	1590	ug/kg		294	978	978	1	P	HSC	04/15/10 20:57	041510A-4	973755
7439-89-6	Iron	7870000	ug/kg		8080	25300	25300	1	P	HSC	04/05/10 19:36	040510-2	965624
7439-92-1	Lead	26100	ug/kg		253	1010	1010	1	P	HSC	04/05/10 19:36	040510-2	965624
7439-95-4	Magnesium J+,I6b	581000	ug/kg		8590	30300	30300	1	P	HSC	04/05/10 19:36	040510-2	965624
7439-96-5	Manganese J-,I6a	300000	ug/kg		202	1010	1010	1	P	HSC	04/05/10 19:36	040510-2	965624
7439-97-6	Mercury	69.4	ug/kg		4.11	12.1	12.1	1	AV	JXL1	03/31/10 09:39	033110S1-11	969290
7440-02-0	Nickel	1910	ug/kg		101	405	405	2	MS	BCD1	05/16/10 08:31	100515-7	965627
7440-09-7	Potassium J+,I6b	468000	ug/kg		6470	25300	25300	1	P	HSC	04/05/10 19:36	040510-2	965624
7782-49-2	Selenium	1010	ug/kg	U	506	1010	1010	2	MS	BCD1	05/16/10 08:31	100515-7	965627
7440-22-4	Silver	505	ug/kg	U	101	505	505	1	P	HSC	04/05/10 19:36	040510-2	965624
7440-23-5	Sodium	84100	ug/kg		7070	25300	25300	1	P	HSC	04/05/10 19:36	040510-2	965624
7440-28-0	Thallium U,I4	245	ug/kg		60.8	203	203	2	MS	BCD1	05/16/10 08:31	100515-7	965627
7440-62-2	Vanadium	5160	ug/kg		101	505	505	1	P	HSC	04/05/10 19:36	040510-2	965624
7440-66-6	Zinc	45400	ug/kg		333	1010	1010	1	P	HSC	04/05/10 19:36	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.518	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.517	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.52	g	30	mL	03/30/10	TXB1
973755	973754	SW846 3050B	0.535	g	50	mL	04/12/10	AXG2

P.S. 6/9/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330003 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13220 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	2560000	ug/kg		7170	21100	21100	1	P	HSC	04/05/10 19:38	040510-2	965624
7440-36-0	Antimony	1050	ug/kg	U	348	1050	1050	1	P	HSC	04/05/10 19:38	040510-2	965624
7440-38-2	Arsenic	1540	ug/kg		225	1130	1130	2	MS	BCD1	05/16/10 08:36	100515-7	965627
7440-39-3	Barium	25500	ug/kg		105	527	527	1	P	HSC	04/05/10 19:38	040510-2	965624
7440-41-7	Beryllium	401	ug/kg		22.5	113	113	2	MS	PRB	05/18/10 08:46	100517-9	965627
7440-43-9	Cadmium	527	ug/kg	U	105	527	527	1	P	HSC	04/05/10 19:38	040510-2	965624
7440-70-2	Calcium	1170000	ug/kg		8430	26400	26400	1	P	HSC	04/05/10 19:38	040510-2	965624
7440-47-3	Chromium J,I4a	2100	ug/kg		169	563	563	1	P	HSC	04/15/10 21:04	041510A-4	973755
7440-48-4	Cobalt	1090	ug/kg		158	527	527	1	P	HSC	04/05/10 19:38	040510-2	965624
7440-50-8	Copper	2170	ug/kg		338	1130	1130	1	P	HSC	04/15/10 21:04	041510A-4	973755
7439-89-6	Iron	7710000	ug/kg		8430	26400	26400	1	P	HSC	04/05/10 19:38	040510-2	965624
7439-92-1	Lead	23900	ug/kg		264	1050	1050	1	P	HSC	04/05/10 19:38	040510-2	965624
7439-95-4	Magnesium J+,I6b	518000	ug/kg		8960	31600	31600	1	P	HSC	04/05/10 19:38	040510-2	965624
7439-96-5	Manganese J-,I6a	244000	ug/kg		211	1050	1050	1	P	HSC	04/05/10 19:38	040510-2	965624
7439-97-6	Mercury	1670	ug/kg		44	129	129	10	AV	JXL1	03/31/10 10:21	033110S1-11	969290
7440-02-0	Nickel	2330	ug/kg		113	450	450	2	MS	BCD1	05/16/10 08:36	100515-7	965627
7440-09-7	Potassium J+,I6b	577000	ug/kg		6750	26400	26400	1	P	HSC	04/05/10 19:38	040510-2	965624
7782-49-2	Selenium	1130	ug/kg	U	563	1130	1130	2	MS	BCD1	05/16/10 08:36	100515-7	965627
7440-22-4	Silver	527	ug/kg	U	105	527	527	1	P	HSC	04/05/10 19:38	040510-2	965624
7440-23-5	Sodium U,I4d	61400	ug/kg		7380	26400	26400	1	P	HSC	04/05/10 19:38	040510-2	965624
7440-28-0	Thallium U,I4	125	ug/kg	J	67.5	225	225	2	MS	BCD1	05/16/10 08:36	100515-7	965627
7440-62-2	Vanadium	5740	ug/kg		105	527	527	1	P	HSC	04/05/10 19:38	040510-2	965624
7440-66-6	Zinc	32300	ug/kg		348	1050	1050	1	P	HSC	04/05/10 19:38	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.536	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.502	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.524	g	30	mL	03/30/10	TXB2
973755	973754	SW846 3050B	0.502	g	50	mL	04/12/10	AXG2

P.S. 6/9/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330004 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13216 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	1460000	ug/kg		8350	24500	24500	1	P	HSC	04/05/10 19:40	040510-2	965624
7440-36-0	Antimony	1230	ug/kg	U	405	1230	1230	1	P	HSC	04/05/10 19:40	040510-2	965624
7440-38-2	Arsenic	1430	ug/kg		244	1220	1220	2	MS	BCD1	05/16/10 08:40	100515-7	965627
7440-39-3	Barium	14800	ug/kg		123	614	614	1	P	HSC	04/05/10 19:40	040510-2	965624
7440-41-7	Beryllium U,I4b	255	ug/kg		24.4	122	122	2	MS	PRB	05/18/10 08:47	100517-9	965627
7440-43-9	Cadmium	178	ug/kg	J	123	614	614	1	P	HSC	04/05/10 19:40	040510-2	965624
7440-70-2	Calcium	484000	ug/kg		9820	30700	30700	1	P	HSC	04/05/10 19:40	040510-2	965624
7440-47-3	Chromium J,I4a	31500	ug/kg		177	590	590	1	P	HSC	04/15/10 21:11	041510A-4	973755
7440-48-4	Cobalt	1340	ug/kg		184	614	614	1	P	HSC	04/05/10 19:40	040510-2	965624
7440-50-8	Copper	16100	ug/kg		354	1180	1180	1	P	HSC	04/15/10 21:11	041510A-4	973755
7439-89-6	Iron	6830000	ug/kg		9820	30700	30700	1	P	HSC	04/05/10 19:40	040510-2	965624
7439-92-1	Lead	16200	ug/kg		307	1230	1230	1	P	HSC	04/05/10 19:40	040510-2	965624
7439-95-4	Magnesium J+,I6b	180000	ug/kg		10400	36800	36800	1	P	HSC	04/05/10 19:40	040510-2	965624
7439-96-5	Manganese J-,I6a	284000	ug/kg		245	1230	1230	1	P	HSC	04/05/10 19:40	040510-2	965624
7439-97-6	Mercury	7780	ug/kg		867	2550	2550	200	AV	JXL1	03/31/10 10:24	033110S1-11	969290
7440-02-0	Nickel	2580	ug/kg		122	487	487	2	MS	BCD1	05/16/10 08:40	100515-7	965627
7440-09-7	Potassium J,I4a	276000	ug/kg		7850	30700	30700	1	P	HSC	04/05/10 19:40	040510-2	965624
7782-49-2	Selenium	1220	ug/kg	U	609	1220	1220	2	MS	BCD1	05/16/10 08:40	100515-7	965627
7440-22-4	Silver	614	ug/kg	U	123	614	614	1	P	HSC	04/05/10 19:40	040510-2	965624
7440-23-5	Sodium	129000	ug/kg		8590	30700	30700	1	P	HSC	04/05/10 19:40	040510-2	965624
7440-28-0	Thallium	244	ug/kg	U	73.1	244	244	2	MS	BCD1	05/16/10 08:40	100515-7	965627
7440-62-2	Vanadium	5510	ug/kg		123	614	614	1	P	HSC	04/05/10 19:40	040510-2	965624
7440-66-6	Zinc	58700	ug/kg		405	1230	1230	1	P	HSC	04/05/10 19:40	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.503	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.507	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.581	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.523	g	50	mL	04/12/10	AXG2

P.S. 6/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330005 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13217 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	2320000	ug/kg		7530	22100	22100	1	P	HSC	04/05/10 19:42	040510-2	965624
7440-36-0	Antimony	1110	ug/kg	U	365	1110	1110	1	P	HSC	04/05/10 19:42	040510-2	965624
7440-38-2	Arsenic	1850	ug/kg		210	1050	1050	2	MS	BCD1	05/16/10 08:52	100515-7	965627
7440-39-3	Barium	18800	ug/kg		111	554	554	1	P	HSC	04/05/10 19:42	040510-2	965624
7440-41-7	Beryllium	390	ug/kg		21	105	105	2	MS	PRB	05/18/10 08:49	100517-9	965627
7440-43-9	Cadmium	554	ug/kg	U	111	554	554	1	P	HSC	04/05/10 19:42	040510-2	965624
7440-70-2	Calcium	775000	ug/kg		8860	27700	27700	1	P	HSC	04/05/10 19:42	040510-2	965624
7440-47-3	Chromium J,I4a	5820	ug/kg		165	548	548	1	P	HSC	04/15/10 21:18	041510A-4	973755
7440-48-4	Cobalt	889	ug/kg		166	554	554	1	P	HSC	04/05/10 19:42	040510-2	965624
7440-50-8	Copper	3810	ug/kg		329	1100	1100	1	P	HSC	04/15/10 21:18	041510A-4	973755
7439-89-6	Iron	7070000	ug/kg		8860	27700	27700	1	P	HSC	04/05/10 19:42	040510-2	965624
7439-92-1	Lead	7270	ug/kg		277	1110	1110	1	P	HSC	04/05/10 19:42	040510-2	965624
7439-95-4	Magnesium J+,I6b	421000	ug/kg		9410	33200	33200	1	P	HSC	04/05/10 19:42	040510-2	965624
7439-96-5	Manganese J-,I6a	147000	ug/kg		221	1110	1110	1	P	HSC	04/05/10 19:42	040510-2	965624
7439-97-6	Mercury	1370	ug/kg		47	138	138	10	AV	JXL1	03/31/10 10:26	033110S1-11	969290
7440-02-0	Nickel	2400	ug/kg		105	420	420	2	MS	BCD1	05/16/10 08:52	100515-7	965627
7440-09-7	Potassium J,I4a	301000	ug/kg		7090	27700	27700	1	P	HSC	04/05/10 19:42	040510-2	965624
7782-49-2	Selenium	1050	ug/kg	U	526	1050	1050	2	MS	BCD1	05/16/10 08:52	100515-7	965627
7440-22-4	Silver	554	ug/kg	U	111	554	554	1	P	HSC	04/05/10 19:42	040510-2	965624
7440-23-5	Sodium	129000	ug/kg		7750	27700	27700	1	P	HSC	04/05/10 19:42	040510-2	965624
7440-28-0	Thallium	210	ug/kg	U	63.1	210	210	2	MS	BCD1	05/16/10 08:52	100515-7	965627
7440-62-2	Vanadium	6410	ug/kg		111	554	554	1	P	HSC	04/05/10 19:42	040510-2	965624
7440-66-6	Zinc	40200	ug/kg		365	1110	1110	1	P	HSC	04/05/10 19:42	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.523	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.551	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.503	g	30	mL	03/30/10	TXB
973755	973754	SW846 3050B	0.528	g	50	mL	04/12/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330006 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13218 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 72

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum		3970000	ug/kg		9110	26800	26800	1	P	HSC	04/05/10 19:44	040510-2	965624
7440-36-0	Antimony		1340	ug/kg	U	442	1340	1340	1	P	HSC	04/05/10 19:44	040510-2	965624
7440-38-2	Arsenic		1280	ug/kg	J	265	1320	1320	2	MS	BCD1	05/16/10 08:57	100515-7	965627
7440-39-3	Barium		37900	ug/kg		134	670	670	1	P	HSC	04/05/10 19:44	040510-2	965624
7440-41-7	Beryllium		463	ug/kg		26.5	132	132	2	MS	PRB	05/18/10 08:50	100517-9	965627
7440-43-9	Cadmium		670	ug/kg	U	134	670	670	1	P	HSC	04/05/10 19:44	040510-2	965624
7440-70-2	Calcium		1430000	ug/kg		10700	33500	33500	1	P	HSC	04/05/10 19:44	040510-2	965624
7440-47-3	Chromium	J,I4a	2760	ug/kg		187	623	623	1	P	HSC	04/15/10 21:25	041510A-4	973755
7440-48-4	Cobalt		1250	ug/kg		201	670	670	1	P	HSC	04/05/10 19:44	040510-2	965624
7440-50-8	Copper		2570	ug/kg		374	1250	1250	1	P	HSC	04/15/10 21:25	041510A-4	973755
7439-89-6	Iron		8700000	ug/kg		10700	33500	33500	1	P	HSC	04/05/10 19:44	040510-2	965624
7439-92-1	Lead		19000	ug/kg		335	1340	1340	1	P	HSC	04/05/10 19:44	040510-2	965624
7439-95-4	Magnesium	J+,I6b	855000	ug/kg		11400	40200	40200	1	P	HSC	04/05/10 19:44	040510-2	965624
7439-96-5	Manganese	J-,I6a	229000	ug/kg		268	1340	1340	1	P	HSC	04/05/10 19:44	040510-2	965624
7439-97-6	Mercury		152	ug/kg		5.48	16.1	16.1	1	AV	JXL1	03/31/10 09:51	033110S1-11	969290
7440-02-0	Nickel		2820	ug/kg		132	530	530	2	MS	BCD1	05/16/10 08:57	100515-7	965627
7440-09-7	Potassium	J+,I6b	696000	ug/kg		8570	33500	33500	1	P	HSC	04/05/10 19:44	040510-2	965624
7782-49-2	Selenium		1320	ug/kg	U	662	1320	1320	2	MS	BCD1	05/16/10 08:57	100515-7	965627
7440-22-4	Silver		670	ug/kg	U	134	670	670	1	P	HSC	04/05/10 19:44	040510-2	965624
7440-23-5	Sodium	U,I4d	71700	ug/kg		9380	33500	33500	1	P	HSC	04/05/10 19:44	040510-2	965624
7440-28-0	Thallium	U,I4	81	ug/kg	J	79.4	265	265	2	MS	BCD1	05/16/10 08:57	100515-7	965627
7440-62-2	Vanadium		6680	ug/kg		134	670	670	1	P	HSC	04/05/10 19:44	040510-2	965624
7440-66-6	Zinc		40300	ug/kg		442	1340	1340	1	P	HSC	04/05/10 19:44	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.52	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.526	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.519	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.559	g	50	mL	04/12/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330007 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13234 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		2780000	ug/kg		7720	22700	22700	1	P	HSC	04/05/10 19:51	040510-2	965624
7440-36-0	Antimony		1130	ug/kg	U	374	1130	1130	1	P	HSC	04/05/10 19:51	040510-2	965624
7440-38-2	Arsenic		1340	ug/kg		226	1130	1130	2	MS	BCD1	05/16/10 09:01	100515-7	965627
7440-39-3	Barium		29600	ug/kg		113	567	567	1	P	HSC	04/05/10 19:51	040510-2	965624
7440-41-7	Beryllium		351	ug/kg		22.6	113	113	2	MS	PRB	05/18/10 08:50	100517-9	965627
7440-43-9	Cadmium		567	ug/kg	U	113	567	567	1	P	HSC	04/05/10 19:51	040510-2	965624
7440-70-2	Calcium		1640000	ug/kg		9080	28400	28400	1	P	HSC	04/05/10 19:51	040510-2	965624
7440-47-3	Chromium	J,I4a	1900	ug/kg		151	505	505	1	P	HSC	04/15/10 21:45	041510A-4	973755
7440-48-4	Cobalt		1190	ug/kg		170	567	567	1	P	HSC	04/05/10 19:51	040510-2	965624
7440-50-8	Copper		1910	ug/kg		303	1010	1010	1	P	HSC	04/15/10 21:45	041510A-4	973755
7439-89-6	Iron		8330000	ug/kg		9080	28400	28400	1	P	HSC	04/05/10 19:51	040510-2	965624
7439-92-1	Lead		25700	ug/kg		284	1130	1130	1	P	HSC	04/05/10 19:51	040510-2	965624
7439-95-4	Magnesium	J+,I6b	583000	ug/kg		9640	34000	34000	1	P	HSC	04/05/10 19:51	040510-2	965624
7439-96-5	Manganese	J-,I6a	276000	ug/kg		227	1130	1130	1	P	HSC	04/05/10 19:51	040510-2	965624
7439-97-6	Mercury		1940	ug/kg		39.7	117	117	10	AV	JXL1	03/31/10 10:27	033110S1-11	969290
7440-02-0	Nickel		1900	ug/kg		113	451	451	2	MS	BCD1	05/16/10 09:01	100515-7	965627
7440-09-7	Potassium	J+,I6b	626000	ug/kg		7260	28400	28400	1	P	HSC	04/05/10 19:51	040510-2	965624
7782-49-2	Selenium		1130	ug/kg	U	564	1130	1130	2	MS	BCD1	05/16/10 09:01	100515-7	965627
7440-22-4	Silver		567	ug/kg	U	113	567	567	1	P	HSC	04/05/10 19:51	040510-2	965624
7440-23-5	Sodium	U,I4d	72400	ug/kg		7940	28400	28400	1	P	HSC	04/05/10 19:51	040510-2	965624
7440-28-0	Thallium	U,I4	120	ug/kg	J	67.7	226	226	2	MS	BCD1	05/16/10 09:01	100515-7	965627
7440-62-2	Vanadium		6300	ug/kg		113	567	567	1	P	HSC	04/05/10 19:51	040510-2	965624
7440-66-6	Zinc		38500	ug/kg		374	1130	1130	1	P	HSC	04/05/10 19:51	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.502	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.505	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.586	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.564	g	50	mL	04/12/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330008 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-14199 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 70

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	3490000	ug/kg		8850	26000	26000	1	P	HSC	04/05/10 19:53	040510-2	965624
7440-36-0	Antimony	1300	ug/kg	U	429	1300	1300	1	P	HSC	04/05/10 19:53	040510-2	965624
7440-38-2	Arsenic	1210	ug/kg	J	285	1420	1420	2	MS	BCD1	05/16/10 09:05	100515-7	965627
7440-39-3	Barium	41000	ug/kg		130	651	651	1	P	HSC	04/05/10 19:53	040510-2	965624
7440-41-7	Beryllium	506	ug/kg		28.5	142	142	2	MS	PRB	05/18/10 08:51	100517-9	965527
7440-43-9	Cadmium	651	ug/kg	U	130	651	651	1	P	HSC	04/05/10 19:53	040510-2	965624
7440-70-2	Calcium	1620000	ug/kg		10400	32500	32500	1	P	HSC	04/05/10 19:53	040510-2	965624
7440-47-3	Chromium J,I4a	2780	ug/kg		194	646	646	1	P	HSC	04/15/10 21:52	041510A-4	973755
7440-48-4	Cobalt	1150	ug/kg		195	651	651	1	P	HSC	04/05/10 19:53	040510-2	965624
7440-50-8	Copper	2550	ug/kg		388	1290	1290	1	P	HSC	04/15/10 21:52	041510A-4	973755
7439-89-6	Iron	7700000	ug/kg		10400	32500	32500	1	P	HSC	04/05/10 19:53	040510-2	965624
7439-92-1	Lead	20400	ug/kg		325	1300	1300	1	P	HSC	04/05/10 19:53	040510-2	965624
7439-95-4	Magnesium J+,I6b	773000	ug/kg		11100	39000	39000	1	P	HSC	04/05/10 19:53	040510-2	965624
7439-96-5	Manganese J-,I6a	229000	ug/kg		260	1300	1300	1	P	HSC	04/05/10 19:53	040510-2	965624
7439-97-6	Mercury	138	ug/kg		5.37	15.8	15.8	1	AV	JXL1	03/31/10 09:55	033110S1-11	969290
7440-02-0	Nickel	2780	ug/kg		142	569	569	2	MS	BCD1	05/16/10 09:05	100515-7	965627
7440-09-7	Potassium J+,I6b	663000	ug/kg		8330	32500	32500	1	P	HSC	04/05/10 19:53	040510-2	965624
7782-49-2	Selenium	1420	ug/kg	U	711	1420	1420	2	MS	BCD1	05/16/10 09:05	100515-7	965527
7440-22-4	Silver	651	ug/kg	U	130	651	651	1	P	HSC	04/05/10 19:53	040510-2	965624
7440-23-5	Sodium U,I4d	63300	ug/kg		9110	32500	32500	1	P	HSC	04/05/10 19:53	040510-2	965624
7440-28-0	Thallium	285	ug/kg	U	85.4	285	285	2	MS	BCD1	05/16/10 09:05	100515-7	965627
7440-62-2	Vanadium	6060	ug/kg		130	651	651	1	P	HSC	04/05/10 19:53	040510-2	965624
7440-66-6	Zinc	38100	ug/kg		429	1300	1300	1	P	HSC	04/05/10 19:53	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.549	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.502	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.543	g	30	mL	03/30/10	TXB2
973755	973754	SW846 3050B	0.553	g	50	mL	04/12/10	AXG2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330009 **BASIS:** As Received **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13238 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BCD1	04/24/10 20:36	100424-5	965603
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BCD1	05/15/10 02:58	100514-6	979730
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BCD1	04/24/10 20:36	100424-5	965603
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-47-3	Chromium	2.19	ug/L	J	1	5	5	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	04/01/10 16:15	040110-1	965619
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	04/01/10 16:15	040110-1	965619
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BCD1	04/24/10 20:36	100424-5	965603
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	04/01/10 16:15	040110-1	965619
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BCD1	04/24/10 20:36	100424-5	965603
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/22/10 11:34	032210W1-10	967115
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	04/01/10 16:15	040110-1	965619
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BCD1	04/24/10 20:36	100424-5	965603
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	04/01/10 16:15	040110-1	965619

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965603	965602	SW846 3005A	50	mL	50	mL	03/26/10	LYH1
965619	965618	SW846 3005A	50	mL	50	mL	03/31/10	LYH1
967115	967111	SW846 7470A Prep	20	mL	20	mL	03/19/10	TXB3
979730	979729	SW846 3005A	50	mL	50	mL	04/30/10	LYH1

P.S. 6/9/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330010 **BASIS:** As Received **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13239 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BCD1	04/24/10 20:42	100424-5	965603
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BCD1	05/15/10 03:04	100514-6	979730
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BCD1	04/24/10 20:42	100424-5	965603
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	04/01/10 16:18	040110-1	965619
7439-89-6	Iron	33.6	ug/L	J	30	100	100	1	P	HSC	04/01/10 16:18	040110-1	965619
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BCD1	04/24/10 20:42	100424-5	965603
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	04/01/10 16:18	040110-1	965619
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BCD1	04/24/10 20:42	100424-5	965603
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/22/10 11:36	032210W1-10	967115
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	04/01/10 16:18	040110-1	965619
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-23-5	Sodium	162	ug/L	J	100	300	300	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BCD1	04/24/10 20:42	100424-5	965603
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	04/01/10 16:18	040110-1	965619

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965603	965602	SW846 3005A	50	mL	50	mL	03/26/10	LYH1
965619	965618	SW846 3005A	50	mL	50	mL	03/31/10	LYH1
967115	967111	SW846 7470A Prep	20	mL	20	mL	03/19/10	TXB3
979730	979729	SW846 3005A	50	mL	50	mL	04/30/10	LYH1

P.S. 6/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330011 **BASIS:** As Received **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-14198 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	04/01/10 16:21	040110-1	965619
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BCD1	04/24/10 20:49	100424-5	965603
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:21	040110-1	965619
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:21	040110-1	965619
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BCD1	05/15/10 03:10	100514-6	979730
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BCD1	04/24/10 20:49	100424-5	965603
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	04/01/10 16:21	040110-1	965619
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:21	040110-1	965619
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:21	040110-1	965619
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	04/01/10 16:21	040110-1	965619
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	04/01/10 16:21	040110-1	965619
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BCD1	04/24/10 20:49	100424-5	965603
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	04/01/10 16:21	040110-1	965619
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BCD1	04/24/10 20:49	100424-5	965603
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/22/10 11:38	032210W1-10	967115
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	04/01/10 16:21	040110-1	965619
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	04/01/10 16:21	040110-1	965619
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:21	040110-1	965619
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:21	040110-1	965619
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	04/01/10 16:21	040110-1	965619
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BCD1	04/24/10 20:49	100424-5	965603
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:21	040110-1	965619
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	04/01/10 16:21	040110-1	965619

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965603	965602	SW846 3005A	50	mL	50	mL	03/26/10	LYH1
965619	965618	SW846 3005A	50	mL	50	mL	03/31/10	LYH1
967115	967111	SW846 7470A Prep	20	mL	20	mL	03/19/10	TXB3
979730	979729	SW846 3005A	50	mL	50	mL	04/30/10	LYH1

P.S. 6/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330012 **BASIS:** As Received **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-14201 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BCD1	04/24/10 20:55	100424-5	965603
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BCD1	05/15/10 03:16	100514-6	979730
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BCD1	04/24/10 20:55	100424-5	965603
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	04/01/10 16:24	040110-1	965619
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	04/01/10 16:24	040110-1	965619
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BCD1	04/24/10 20:55	100424-5	965603
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	04/01/10 16:24	040110-1	965619
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BCD1	04/24/10 20:55	100424-5	965603
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/22/10 11:40	032210W1-10	967115
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	04/01/10 16:24	040110-1	965619
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BCD1	04/24/10 20:55	100424-5	965603
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-66-6	Zinc	11	ug/L		3.3	10	10	1	P	HSC	04/01/10 16:24	040110-1	965619

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965603	965602	SW846 3005A	50	mL	50	mL	03/26/10	LYH1
965619	965618	SW846 3005A	50	mL	50	mL	03/31/10	LYH1
967115	967111	SW846 7470A Prep	20	mL	20	mL	03/19/10	TXB3
979730	979729	SW846 3005A	50	mL	50	mL	04/30/10	LYH1

P.S. 6/9/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2431 VALIDATION DATE: 06/14/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the matrix QC analyses for total cyanide were performed on a LANL samples from other RNs. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/14/10

VALIDATOR'S SIGNATURE: ### Mr. Peter Steves DATE: 06/14/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-13219	Project:	LANL01004
Sample ID:	249330001	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	7.87%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
:trode Analysis										
)045C pH "As Received"										
ıt Temp 19.2C	H	6.21	0.010	0.100	SU	1	EXF1 03/15/10	1114	965260	1
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	67.1	247	ug/kg	1	AXC2 03/22/10	1137	965135	2
Chromatography										
: 300.0 Nitrate in Soil "Dry Weight Corrected"										
ate-N	U	ND	0.326	1.09	mg/kg	1	GXM 03/31/10 3	2054	970227	3

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/31/10	1527	970225
846 9010B Prep	SW846 9010B Prep	AXS5	03/19/10	1525	965134

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9045C/9045D	
	SW846 9012A	
	EPA 300.0	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-13221	Project:	LANL01004
Sample ID:	249330002	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	4.48%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
:trode Analysis										
)045C pH "As Received"										
ıt Temp 21.5C	H	8.42	0.010	0.100	SU	1	EXF1 03/15/10	1119	965260	1
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	63.6	234	ug/kg	1	AXC2 03/22/10	1141	965135	2
Chromatography										
: 300.0 Nitrate in Soil "Dry Weight Corrected"										
ate-N		1.26	0.314	1.05	mg/kg	1	GXM 03/31/10 3	2241	970227	3

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/31/10	1527	970225
846 9010B Prep	SW846 9010B Prep	AXS5	03/19/10	1525	965134

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9045C/9045D	
	SW846 9012A	
	EPA 300.0	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-13220	Project:	LANL01004
Sample ID:	249330003	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	11.5%		

ameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
:trode Analysis											
)045C pH "As Received"											
ıt Temp 20.5C	H	7.40	0.010	0.100	SU	1	EXF1	03/15/10	1123	965260	1
v Injection Analysis											
)012A Cyanide, Total "Dry Weight Corrected"											
nide, Total	U	ND	71.1	262	ug/kg	1	AXC2	03/22/10	1142	965135	2
Chromatography											
: 300.0 Nitrate in Soil "Dry Weight Corrected"											
ate-N		1.31	0.339	1.13	mg/kg	1	GXM 3	03/31/10	2308	970227	3

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/31/10	1527	970225
846 9010B Prep	SW846 9010B Prep	AXS5	03/19/10	1525	965134

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9045C/9045D	
	SW846 9012A	
	EPA 300.0	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-13216	Project:	LANL01004
Sample ID:	249330004	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	19%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
:trode Analysis										
)045C pH "As Received"										
ıt Temp 21.5C	H	7.52	0.010	0.100	SU	1	EXF1 03/15/10	1126	965260	1
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	76.3	281	ug/kg	1	AXC2 03/22/10	1143	965135	2
Chromatography										
: 300.0 Nitrate in Soil "Dry Weight Corrected"										
ate-N	U	ND	0.370	1.23	mg/kg	1	GXM 03/31/10 3	2335	970227	3

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/31/10	1527	970225
846 9010B Prep	SW846 9010B Prep	AXS5	03/19/10	1525	965134

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9045C/9045D	
	SW846 9012A	
	EPA 300.0	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-13217	Project:	LANL01004
Sample ID:	249330005	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	13.7%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
:trode Analysis										
)045C pH "As Received"										
ıt Temp 21.1C	H	7.56	0.010	0.100	SU	1	EXF1 03/15/10	1129	965260	1
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	78.8	290	ug/kg	1	AXC2 03/22/10	1144	965135	2
Chromatography										
: 300.0 Nitrate in Soil "Dry Weight Corrected"										
ate-N		1.33	0.348	1.16	mg/kg	1	GXM 04/01/10 3	0002	970227	3

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/31/10	1527	970225
846 9010B Prep	SW846 9010B Prep	AXS5	03/19/10	1525	965134

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9045C/9045D	
	SW846 9012A	
	EPA 300.0	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-13218	Project:	LANL01004
Sample ID:	249330006	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	28.2%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
:trode Analysis										
)045C pH "As Received"										
ıt Temp 20.7C	H	6.32	0.010	0.100	SU	1	EXF1 03/15/10	1131	965260	1
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	94.7	348	ug/kg	1	AXC2 03/22/10	1145	965135	2
Chromatography										
: 300.0 Nitrate in Soil "Dry Weight Corrected"										
ate-N	U	ND	0.418	1.39	mg/kg	1	GXM 04/01/10 3	0123	970227	3

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/31/10	1527	970225
846 9010B Prep	SW846 9010B Prep	AXS5	03/19/10	1525	965134

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9045C/9045D	
	SW846 9012A	
	EPA 300.0	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-13234	Project:	LANL01004
Sample ID:	249330007	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	12.2%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
:trode Analysis										
)045C pH "As Received"										
ıt Temp 21.2C	H	7.62	0.010	0.100	SU	1	EXF1 03/15/10	1132	965260	1
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	73.1	269	ug/kg	1	AXC2 03/22/10	1146	965135	2
Chromatography										
: 300.0 Nitrate in Soil "Dry Weight Corrected"										
ate-N		1.43	0.342	1.14	mg/kg	1	GXM 04/01/10 3	0150	970227	3

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/31/10	1527	970225
846 9010B Prep	SW846 9010B Prep	AXS5	03/19/10	1525	965134

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9045C/9045D	
	SW846 9012A	
	EPA 300.0	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-14199	Project:	LANL01004
Sample ID:	249330008	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	30%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
:trode Analysis										
)045C pH "As Received"										
ıt Temp 21.2C	H	6.31	0.010	0.100	SU	1	EXF1 03/15/10	1134	965260	1
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	J	287	97.1	357	ug/kg	1	AXC2 03/22/10	1146	965135	2
Chromatography										
: 300.0 Nitrate in Soil "Dry Weight Corrected"										
ate-N	U	ND	0.429	1.43	mg/kg	1	GXM 04/01/10 3	0217	970227	3

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/31/10	1527	970225
846 9010B Prep	SW846 9010B Prep	AXS5	03/19/10	1525	965134

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9045C/9045D	
	SW846 9012A	
	EPA 300.0	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID: RE46-10-13238
Sample ID: 249330009
Matrix: W
Collect Date: 11-MAR-10 12:00
Receive Date: 13-MAR-10
Collector: Client

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "As Received"										
nide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/22/10	1526	966125	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1528	966123

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID: RE46-10-13239
Sample ID: 249330010
Matrix: W
Collect Date: 11-MAR-10 12:00
Receive Date: 13-MAR-10
Collector: Client

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "As Received"										
nide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/22/10	1210	966125	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1528	966123

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-14198	Project:	LANL01004
Sample ID:	249330011	Client ID:	LANL010
Matrix:	W		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "As Received"										
nide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/22/10	1211	966125	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1528	966123

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-14201	Project:	LANL01004
Sample ID:	249330012	Client ID:	LANL010
Matrix:	W		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "As Received"										
nide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/22/10	1212	966125	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1528	966123

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2431C

REQUEST NUMBER: 10-2431

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

249 330 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13219	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13221	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13220	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13216	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13217	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13218	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13234	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13238	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-13238	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-13239	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-13239	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-14198	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-14198	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-14199	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-14201	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-14201	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	3/12/10	5:00	Greg Tyler [signature]	3-13-10	0930
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name / Signature

Hard Copy Required

Friday, March 12, 2010

REQUEST NUMBER: 10-2431

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2431
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	SW-846:6010B	1	RE46-10-13216	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2431

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-13238	W	3/11/2010	
		1	RE46-10-13239	W	3/11/2010	
		1	RE46-10-14198	W	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
		1	RE46-10-14201	W	3/11/2010	
	SW-846:6020	1	RE46-10-13238	W	3/11/2010	
		1	RE46-10-13239	W	3/11/2010	
		1	RE46-10-14198	W	3/11/2010	
		1	RE46-10-14201	W	3/11/2010	
	SW-846:7471A	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	SW-846:9012A	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2431

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-13238	W	3/11/2010	
		1	RE46-10-13239	W	3/11/2010	
		1	RE46-10-14198	W	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
		1	RE46-10-14201	W	3/11/2010	
	SW-846:9045C	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2431

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

March 18, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 249330
SDG: 10-2431

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 13, 2010, and analyzed for General Chemistry and Metals. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2431
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 249330
SDG: 10-2431

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- Case Narrative..... 1064
- Sample Data Summary.....1077
- Quality Control Summary.....1091
- Instrument QC Data Summary.....1095
- Cyanide, Total.....1098
- Cyanide, Total.....1114
- Ion Chromatography..... 1125
- pH..... 1177
- Miscellaneous..... 1180

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 249330
SDG # : 10-2431

March 18, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 13, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
249330001	RE46-10-13219
249330002	RE46-10-13221
249330003	RE46-10-13220
249330004	RE46-10-13216
249330005	RE46-10-13217
249330006	RE46-10-13218
249330007	RE46-10-13234
249330008	RE46-10-14199
249330009	RE46-10-13238
249330010	RE46-10-13239
249330011	RE46-10-14198
249330012	RE46-10-14201

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry and Metals.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 18 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2431C

REQUEST NUMBER: 10-2431

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

249 330 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13219	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13221	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13220	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13216	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13217	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13218	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13234	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-13238	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-13238	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-13239	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-13239	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-14198	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-14198	1	POLY	TCN	Sodium Hydroxide	W
RE46-10-14199	1	POLY	Met+CN+Ph+N03	Ice	S
RE46-10-14201	1	POLY	METALS-GEL	Nitric Acid	W
RE46-10-14201	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
		3/12/10	5:00	Greg Tyler		3-13-10	0930
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Friday, March 12, 2010

REQUEST NUMBER: 10-2431

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-2431
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	SW-846:6010B	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2431

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-13238	W	3/11/2010	
		1	RE46-10-13239	W	3/11/2010	
		1	RE46-10-14198	W	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
		1	RE46-10-14201	W	3/11/2010	
	SW-846:6020	1	RE46-10-13238	W	3/11/2010	
		1	RE46-10-13239	W	3/11/2010	
		1	RE46-10-14198	W	3/11/2010	
		1	RE46-10-14201	W	3/11/2010	
	SW-846:7471A	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
	SW-846:9012A	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	

Hard Copy Required

Friday, March 12, 2010

REQUEST NUMBER: 10-2431

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-13238	W	3/11/2010	
		1	RE46-10-13239	W	3/11/2010	
		1	RE46-10-14198	W	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	
		1	RE46-10-14201	W	3/11/2010	
	SW-846:9045C	1	RE46-10-13216	S	3/11/2010	
		1	RE46-10-13217	S	3/11/2010	
		1	RE46-10-13218	S	3/11/2010	
		1	RE46-10-13219	S	3/11/2010	
		1	RE46-10-13220	S	3/11/2010	
		1	RE46-10-13221	S	3/11/2010	
		1	RE46-10-13234	S	3/11/2010	
		1	RE46-10-14199	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2431

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2431**
Received By: Greg Tyler	**Date Received: 3/13/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **2,3,6C** **12,13C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:
7209 7850 4789 2C
7209 7850 4756 2C
7209 7850 4804 2C
7209 7850 4790 3C
7209 7850 4767 6C
7209 7850 4815 12C
7209 7850 4778 13C

PM (or PMA) review: Initials MS Date 3/15/10

N ID: SAFA (505) 665-9960
NE VALDEZ
LAMOS NATL LAB
BLDG 1237 DPU 03

LAMOS, NM 87545
ED STATES US

SHIP DATE: 12MAR10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

LERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
) 556-8171
F: MR2A0515BY00

2°

FedEx Express

1 of 3
C# 7209 7850 4789
MASTER ##

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

2°

FedEx Express

1 of 3
TRK# 7209 7850 4756
0201
MASTER

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 41.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

2°

FedEx Express

3 of 3
S# 7209 7850 4804
Mstr# 7209 7850 4789 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

0 CHSA

29407
SC-US

ORIGIN ID: SAFA (505)
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

3°

FedEx Express

2 of 3
MPS# 7209 7850 4790
0263
Mstr# 7209 7850 4789 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2450
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

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2 of 3
MPS# 0263 7209 7850 4767
Matr# 7209 7850 4756 0201

SATURDAY
PRIORITY OVERN

X0 CHSA

29

Part # 158148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

12°

FedEx Express

1 of 2
TRK# 0201 7209 7850 4815
MASTER

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS

Part # 158148-434 NRIT V3 04-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT:
CAD: 0014176/CAFE2450
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

13°

FedEx Express

3 of 3
MPS# 0263 7209 7850 4778
Matr# 7209 7850 4756 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

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SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2431

Sample Analysis

Sample ID	Client ID
249330001	RE46-10-13219
249330002	RE46-10-13221
249330003	RE46-10-13220
249330004	RE46-10-13216
249330005	RE46-10-13217
249330006	RE46-10-13218
249330007	RE46-10-13234
249330008	RE46-10-14199
249330009	RE46-10-13238
249330010	RE46-10-13239
249330011	RE46-10-14198
249330012	RE46-10-14201
1202072038	Method Blank (MB) **ICP**
1202072045	Method Blank (MB) **ICP**
1202091939	Method Blank (MB) **ICP**
1202072039	Laboratory Control Sample (LCS)
1202072046	Laboratory Control Sample (LCS)
1202091940	Laboratory Control Sample (LCS)
1202072042	249333001(RE46-10-12997L) Serial Dilution (SD)
1202072049	249333003(RE46-10-12972L) Serial Dilution (SD)
1202072040	249333001(RE46-10-12997D) Sample Duplicate (DUP)
1202072047	249333003(RE46-10-12972D) Sample Duplicate (DUP)
1202072041	249333001(RE46-10-12997S) Matrix Spike (MS)
1202072048	249333003(RE46-10-12972S) Matrix Spike (MS)
1202072050	249333003(RE46-10-12972SD) Matrix Spike Duplicate (MSD)
1202072001	Method Blank (MB) **ICP-MS**
1202072051	Method Blank (MB) **ICP-MS**
1202072002	Laboratory Control Sample (LCS)
1202072052	Laboratory Control Sample (LCS)

1202072005	249243001(CAMO-10-13924L) Serial Dilution (SD)
1202106367	249333002(RE46-10-12994L) Serial Dilution (SD)
1202072055	249333003(RE46-10-12972L) Serial Dilution (SD)
1202072003	249243001(CAMO-10-13924D) Sample Duplicate (DUP)
1202106366	249333002(RE46-10-12994D) Sample Duplicate (DUP)
1202072053	249333003(RE46-10-12972D) Sample Duplicate (DUP)
1202072004	249243001(CAMO-10-13924S) Matrix Spike (MS)
1202106368	249333002(RE46-10-12994S) Matrix Spike (MS)
1202072054	249333003(RE46-10-12972S) Matrix Spike (MS)
1202072056	249330003(RE46-10-13220SD) Matrix Spike Duplicate (MSD)
1202075645	Method Blank (MB) **CVAA**
1202081090	Method Blank (MB) **CVAA**
1202075646	Laboratory Control Sample (LCS)
1202081091	Laboratory Control Sample (LCS)
1202081094	249330001(RE46-10-13219L) Serial Dilution (SD)
1202075655	249528001(RE16-10-14224L) Serial Dilution (SD)
1202081092	249330001(RE46-10-13219D) Sample Duplicate (DUP)
1202075647	249528001(RE16-10-14224D) Sample Duplicate (DUP)
1202081093	249330001(RE46-10-13219S) Matrix Spike (MS)
1202075648	249528001(RE16-10-14224S) Matrix Spike (MS)
1202081095	249330001(RE46-10-13219SD) Matrix Spike Duplicate (MSD)

Samples 249330 001, 002, 003, 004, 005, 006, 007 and 008 in this SDG were analyzed on an "dry weight" basis. Samples 249330 009, 010, 011 and 012 in this SDG were analyzed on a "as received" basis.

Method/Analysis Information

Analytical Batch:	965619, 965624, 973755, 965603, 979730, 965627, 967115 and 969290
Prep Batch :	965618, 965623, 973754, 965602, 979729, 965626, 967111 and 969289
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-009 REV# 20, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3050B/6010B, SW846 3005/6020, SW846 3050B/6020, SW846 7470A and SW846 7471A
Prep Method :	SW846 3005A, SW846 3050B, SW846 7470A Prep and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis-ICP was performed on a P E 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits, with the exception of beryllium analyzed 18-MAY-10 08:37

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 249333001 (RE46-10-12997)-ICP, 249333003 (RE46-10-12972)-ICP and ICP-MS, 249243001 (CAMO-10-13924), 249333002 (RE46-10-12994), 249330003 (RE46-10-13220)-ICP-MS, 249528001 (RE16-10-14224) and 249330001 (RE46-10-13219)-CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes, with the exception of magnesium, manganese, and potassium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The

MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes, with the exception of magnesium and potassium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of RL is used to evaluate the DUP results. All applicable analytes met these requirements, with the exception of chromium and copper, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS. Samples 249330003 (RE46-10-13220), 249330004 (RE46-10-13216), 249330005 (RE46-10-13217) and 249330008 (RE46-10-14199) required dilutions in order to bring over range mercury concentrations within the linear calibration range of the instrument.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to

as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG. 815763, 817948, 823279, 828155, 828156. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer:_____ **Date:** 5/20/10

Sample Data Summary

GEL LABORATORIES LLC

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Qualifier Definition Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2431 GEL Work Order: 249330

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

N Metals--The Matrix spike sample recovery is not within specified control limits

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____ 5/20/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330001 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13219 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 92.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4440000	ug/kg		7370	21700	21700	1	P	HSC	04/05/10 19:34	040510-2	965624
7440-36-0	Antimony	1080	ug/kg	U	357	1080	1080	1	P	HSC	04/05/10 19:34	040510-2	965624
7440-38-2	Arsenic	1560	ug/kg		208	1040	1040	2	MS	BCD1	05/16/10 08:27	100515-7	965627
7440-39-3	Barium	32700	ug/kg		108	542	542	1	P	HSC	04/05/10 19:34	040510-2	965624
7440-41-7	Beryllium	609	ug/kg		20.8	104	104	2	MS	PRB	05/18/10 08:45	100517-9	965627
7440-43-9	Cadmium	542	ug/kg	U	108	542	542	1	P	HSC	04/05/10 19:34	040510-2	965624
7440-70-2	Calcium	1180000	ug/kg		8670	27100	27100	1	P	HSC	04/05/10 19:34	040510-2	965624
7440-47-3	Chromium	4540	ug/kg		150	502	502	1	P	HSC	04/15/10 20:50	041510A-4	973755
7440-48-4	Cobalt	1040	ug/kg		162	542	542	1	P	HSC	04/05/10 19:34	040510-2	965624
7440-50-8	Copper	2860	ug/kg		301	1000	1000	1	P	HSC	04/15/10 20:50	041510A-4	973755
7439-89-6	Iron	9130000	ug/kg		8670	27100	27100	1	P	HSC	04/05/10 19:34	040510-2	965624
7439-92-1	Lead	12300	ug/kg		271	1080	1080	1	P	HSC	04/05/10 19:34	040510-2	965624
7439-95-4	Magnesium	796000	ug/kg		9210	32500	32500	1	P	HSC	04/05/10 19:34	040510-2	965624
7439-96-5	Manganese	197000	ug/kg		217	1080	1080	1	P	HSC	04/05/10 19:34	040510-2	965624
7439-97-6	Mercury	77.8	ug/kg		4.38	12.9	12.9	1	AV	JXL1	03/31/10 09:29	033110S1-11	969290
7440-02-0	Nickel	3330	ug/kg		104	416	416	2	MS	BCD1	05/16/10 08:27	100515-7	965627
7440-09-7	Potassium	585000	ug/kg		6930	27100	27100	1	P	HSC	04/05/10 19:34	040510-2	965624
7782-49-2	Selenium	1040	ug/kg	U	520	1040	1040	2	MS	BCD1	05/16/10 08:27	100515-7	965627
7440-22-4	Silver	542	ug/kg	U	108	542	542	1	P	HSC	04/05/10 19:34	040510-2	965624
7440-23-5	Sodium	193000	ug/kg		7580	27100	27100	1	P	HSC	04/05/10 19:34	040510-2	965624
7440-28-0	Thallium	65.7	ug/kg	J	62.4	208	208	2	MS	BCD1	05/16/10 08:27	100515-7	965627
7440-62-2	Vanadium	8480	ug/kg		108	542	542	1	P	HSC	04/05/10 19:34	040510-2	965624
7440-66-6	Zinc	41600	ug/kg		357	1080	1080	1	P	HSC	04/05/10 19:34	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.501	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.522	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.505	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.541	g	50	mL	04/12/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330002 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13221 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 95.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2640000	ug/kg		6870	20200	20200	1	P	HSC	04/05/10 19:36	040510-2	965624
7440-36-0	Antimony	1010	ug/kg	U	333	1010	1010	1	P	HSC	04/05/10 19:36	040510-2	965624
7440-38-2	Arsenic	1140	ug/kg		203	1010	1010	2	MS	BCD1	05/16/10 08:31	100515-7	965627
7440-39-3	Barium	27800	ug/kg		101	505	505	1	P	HSC	04/05/10 19:36	040510-2	965624
7440-41-7	Beryllium	365	ug/kg		20.3	101	101	2	MS	PRB	05/18/10 08:45	100517-9	965627
7440-43-9	Cadmium	505	ug/kg	U	101	505	505	1	P	HSC	04/05/10 19:36	040510-2	965624
7440-70-2	Calcium	2110000	ug/kg		8080	25300	25300	1	P	HSC	04/05/10 19:36	040510-2	965624
7440-47-3	Chromium	1760	ug/kg		147	489	489	1	P	HSC	04/15/10 20:57	041510A-4	973755
7440-48-4	Cobalt	1410	ug/kg		152	505	505	1	P	HSC	04/05/10 19:36	040510-2	965624
7440-50-8	Copper	1590	ug/kg		294	978	978	1	P	HSC	04/15/10 20:57	041510A-4	973755
7439-89-6	Iron	7870000	ug/kg		8080	25300	25300	1	P	HSC	04/05/10 19:36	040510-2	965624
7439-92-1	Lead	26100	ug/kg		253	1010	1010	1	P	HSC	04/05/10 19:36	040510-2	965624
7439-95-4	Magnesium	581000	ug/kg		8590	30300	30300	1	P	HSC	04/05/10 19:36	040510-2	965624
7439-96-5	Manganese	300000	ug/kg		202	1010	1010	1	P	HSC	04/05/10 19:36	040510-2	965624
7439-97-6	Mercury	69.4	ug/kg		4.11	12.1	12.1	1	AV	JXL1	03/31/10 09:39	033110S1-11	969290
7440-02-0	Nickel	1910	ug/kg		101	405	405	2	MS	BCD1	05/16/10 08:31	100515-7	965627
7440-09-7	Potassium	468000	ug/kg		6470	25300	25300	1	P	HSC	04/05/10 19:36	040510-2	965624
7782-49-2	Selenium	1010	ug/kg	U	506	1010	1010	2	MS	BCD1	05/16/10 08:31	100515-7	965627
7440-22-4	Silver	505	ug/kg	U	101	505	505	1	P	HSC	04/05/10 19:36	040510-2	965624
7440-23-5	Sodium	84100	ug/kg		7070	25300	25300	1	P	HSC	04/05/10 19:36	040510-2	965624
7440-28-0	Thallium	245	ug/kg		60.8	203	203	2	MS	BCD1	05/16/10 08:31	100515-7	965627
7440-62-2	Vanadium	5160	ug/kg		101	505	505	1	P	HSC	04/05/10 19:36	040510-2	965624
7440-66-6	Zinc	45400	ug/kg		333	1010	1010	1	P	HSC	04/05/10 19:36	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.518	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.517	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.52	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.535	g	50	mL	04/12/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330003 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13220 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2560000	ug/kg		7170	21100	21100	1	P	HSC	04/05/10 19:38	040510-2	965624
7440-36-0	Antimony	1050	ug/kg	U	348	1050	1050	1	P	HSC	04/05/10 19:38	040510-2	965624
7440-38-2	Arsenic	1540	ug/kg		225	1130	1130	2	MS	BCD1	05/16/10 08:36	100515-7	965627
7440-39-3	Barium	25500	ug/kg		105	527	527	1	P	HSC	04/05/10 19:38	040510-2	965624
7440-41-7	Beryllium	401	ug/kg		22.5	113	113	2	MS	PRB	05/18/10 08:46	100517-9	965627
7440-43-9	Cadmium	527	ug/kg	U	105	527	527	1	P	HSC	04/05/10 19:38	040510-2	965624
7440-70-2	Calcium	1170000	ug/kg		8430	26400	26400	1	P	HSC	04/05/10 19:38	040510-2	965624
7440-47-3	Chromium	2100	ug/kg		169	563	563	1	P	HSC	04/15/10 21:04	041510A-4	973755
7440-48-4	Cobalt	1090	ug/kg		158	527	527	1	P	HSC	04/05/10 19:38	040510-2	965624
7440-50-8	Copper	2170	ug/kg		338	1130	1130	1	P	HSC	04/15/10 21:04	041510A-4	973755
7439-89-6	Iron	7710000	ug/kg		8430	26400	26400	1	P	HSC	04/05/10 19:38	040510-2	965624
7439-92-1	Lead	23900	ug/kg		264	1050	1050	1	P	HSC	04/05/10 19:38	040510-2	965624
7439-95-4	Magnesium	518000	ug/kg		8960	31600	31600	1	P	HSC	04/05/10 19:38	040510-2	965624
7439-96-5	Manganese	244000	ug/kg		211	1050	1050	1	P	HSC	04/05/10 19:38	040510-2	965624
7439-97-6	Mercury	1670	ug/kg		44	129	129	10	AV	JXL1	03/31/10 10:21	033110S1-11	969290
7440-02-0	Nickel	2330	ug/kg		113	450	450	2	MS	BCD1	05/16/10 08:36	100515-7	965627
7440-09-7	Potassium	577000	ug/kg		6750	26400	26400	1	P	HSC	04/05/10 19:38	040510-2	965624
7782-49-2	Selenium	1130	ug/kg	U	563	1130	1130	2	MS	BCD1	05/16/10 08:36	100515-7	965627
7440-22-4	Silver	527	ug/kg	U	105	527	527	1	P	HSC	04/05/10 19:38	040510-2	965624
7440-23-5	Sodium	61400	ug/kg		7380	26400	26400	1	P	HSC	04/05/10 19:38	040510-2	965624
7440-28-0	Thallium	125	ug/kg	J	67.5	225	225	2	MS	BCD1	05/16/10 08:36	100515-7	965627
7440-62-2	Vanadium	5740	ug/kg		105	527	527	1	P	HSC	04/05/10 19:38	040510-2	965624
7440-66-6	Zinc	32300	ug/kg		348	1050	1050	1	P	HSC	04/05/10 19:38	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.536	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.502	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.524	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.502	g	50	mL	04/12/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330004 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13216 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1460000	ug/kg		8350	24500	24500	1	P	HSC	04/05/10 19:40	040510-2	965624
7440-36-0	Antimony	1230	ug/kg	U	405	1230	1230	1	P	HSC	04/05/10 19:40	040510-2	965624
7440-38-2	Arsenic	1430	ug/kg		244	1220	1220	2	MS	BCD1	05/16/10 08:40	100515-7	965627
7440-39-3	Barium	14800	ug/kg		123	614	614	1	P	HSC	04/05/10 19:40	040510-2	965624
7440-41-7	Beryllium	255	ug/kg		24.4	122	122	2	MS	PRB	05/18/10 08:47	100517-9	965627
7440-43-9	Cadmium	178	ug/kg	J	123	614	614	1	P	HSC	04/05/10 19:40	040510-2	965624
7440-70-2	Calcium	484000	ug/kg		9820	30700	30700	1	P	HSC	04/05/10 19:40	040510-2	965624
7440-47-3	Chromium	31500	ug/kg		177	590	590	1	P	HSC	04/15/10 21:11	041510A-4	973755
7440-48-4	Cobalt	1340	ug/kg		184	614	614	1	P	HSC	04/05/10 19:40	040510-2	965624
7440-50-8	Copper	16100	ug/kg		354	1180	1180	1	P	HSC	04/15/10 21:11	041510A-4	973755
7439-89-6	Iron	6830000	ug/kg		9820	30700	30700	1	P	HSC	04/05/10 19:40	040510-2	965624
7439-92-1	Lead	16200	ug/kg		307	1230	1230	1	P	HSC	04/05/10 19:40	040510-2	965624
7439-95-4	Magnesium	180000	ug/kg		10400	36800	36800	1	P	HSC	04/05/10 19:40	040510-2	965624
7439-96-5	Manganese	284000	ug/kg		245	1230	1230	1	P	HSC	04/05/10 19:40	040510-2	965624
7439-97-6	Mercury	7780	ug/kg		867	2550	2550	200	AV	JXL1	03/31/10 10:24	033110S1-11	969290
7440-02-0	Nickel	2580	ug/kg		122	487	487	2	MS	BCD1	05/16/10 08:40	100515-7	965627
7440-09-7	Potassium	276000	ug/kg		7850	30700	30700	1	P	HSC	04/05/10 19:40	040510-2	965624
7782-49-2	Selenium	1220	ug/kg	U	609	1220	1220	2	MS	BCD1	05/16/10 08:40	100515-7	965627
7440-22-4	Silver	614	ug/kg	U	123	614	614	1	P	HSC	04/05/10 19:40	040510-2	965624
7440-23-5	Sodium	129000	ug/kg		8590	30700	30700	1	P	HSC	04/05/10 19:40	040510-2	965624
7440-28-0	Thallium	244	ug/kg	U	73.1	244	244	2	MS	BCD1	05/16/10 08:40	100515-7	965627
7440-62-2	Vanadium	5510	ug/kg		123	614	614	1	P	HSC	04/05/10 19:40	040510-2	965624
7440-66-6	Zinc	58700	ug/kg		405	1230	1230	1	P	HSC	04/05/10 19:40	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.503	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.507	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.581	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.523	g	50	mL	04/12/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330005 **BASIS:** Dry Weight **DATE COLLECTED** 11–MAR–10

CLIENT ID: RE46–10–13217 **LEVEL:** Low **DATE RECEIVED** 13–MAR–10

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429–90–5	Aluminum	2320000	ug/kg		7530	22100	22100	1	P	HSC	04/05/10 19:42	040510–2	965624
7440–36–0	Antimony	1110	ug/kg	U	365	1110	1110	1	P	HSC	04/05/10 19:42	040510–2	965624
7440–38–2	Arsenic	1850	ug/kg		210	1050	1050	2	MS	BCD1	05/16/10 08:52	100515–7	965627
7440–39–3	Barium	18800	ug/kg		111	554	554	1	P	HSC	04/05/10 19:42	040510–2	965624
7440–41–7	Beryllium	390	ug/kg		21	105	105	2	MS	PRB	05/18/10 08:49	100517–9	965627
7440–43–9	Cadmium	554	ug/kg	U	111	554	554	1	P	HSC	04/05/10 19:42	040510–2	965624
7440–70–2	Calcium	775000	ug/kg		8860	27700	27700	1	P	HSC	04/05/10 19:42	040510–2	965624
7440–47–3	Chromium	5820	ug/kg		165	548	548	1	P	HSC	04/15/10 21:18	041510A–4	973755
7440–48–4	Cobalt	889	ug/kg		166	554	554	1	P	HSC	04/05/10 19:42	040510–2	965624
7440–50–8	Copper	3810	ug/kg		329	1100	1100	1	P	HSC	04/15/10 21:18	041510A–4	973755
7439–89–6	Iron	7070000	ug/kg		8860	27700	27700	1	P	HSC	04/05/10 19:42	040510–2	965624
7439–92–1	Lead	7270	ug/kg		277	1110	1110	1	P	HSC	04/05/10 19:42	040510–2	965624
7439–95–4	Magnesium	421000	ug/kg		9410	33200	33200	1	P	HSC	04/05/10 19:42	040510–2	965624
7439–96–5	Manganese	147000	ug/kg		221	1110	1110	1	P	HSC	04/05/10 19:42	040510–2	965624
7439–97–6	Mercury	1370	ug/kg		47	138	138	10	AV	JXL1	03/31/10 10:26	033110S1–11	969290
7440–02–0	Nickel	2400	ug/kg		105	420	420	2	MS	BCD1	05/16/10 08:52	100515–7	965627
7440–09–7	Potassium	301000	ug/kg		7090	27700	27700	1	P	HSC	04/05/10 19:42	040510–2	965624
7782–49–2	Selenium	1050	ug/kg	U	526	1050	1050	2	MS	BCD1	05/16/10 08:52	100515–7	965627
7440–22–4	Silver	554	ug/kg	U	111	554	554	1	P	HSC	04/05/10 19:42	040510–2	965624
7440–23–5	Sodium	129000	ug/kg		7750	27700	27700	1	P	HSC	04/05/10 19:42	040510–2	965624
7440–28–0	Thallium	210	ug/kg	U	63.1	210	210	2	MS	BCD1	05/16/10 08:52	100515–7	965627
7440–62–2	Vanadium	6410	ug/kg		111	554	554	1	P	HSC	04/05/10 19:42	040510–2	965624
7440–66–6	Zinc	40200	ug/kg		365	1110	1110	1	P	HSC	04/05/10 19:42	040510–2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.523	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.551	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.503	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.528	g	50	mL	04/12/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330006 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13218 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 72

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3970000	ug/kg		9110	26800	26800	1	P	HSC	04/05/10 19:44	040510-2	965624
7440-36-0	Antimony	1340	ug/kg	U	442	1340	1340	1	P	HSC	04/05/10 19:44	040510-2	965624
7440-38-2	Arsenic	1280	ug/kg	J	265	1320	1320	2	MS	BCD1	05/16/10 08:57	100515-7	965627
7440-39-3	Barium	37900	ug/kg		134	670	670	1	P	HSC	04/05/10 19:44	040510-2	965624
7440-41-7	Beryllium	463	ug/kg		26.5	132	132	2	MS	PRB	05/18/10 08:50	100517-9	965627
7440-43-9	Cadmium	670	ug/kg	U	134	670	670	1	P	HSC	04/05/10 19:44	040510-2	965624
7440-70-2	Calcium	1430000	ug/kg		10700	33500	33500	1	P	HSC	04/05/10 19:44	040510-2	965624
7440-47-3	Chromium	2760	ug/kg		187	623	623	1	P	HSC	04/15/10 21:25	041510A-4	973755
7440-48-4	Cobalt	1250	ug/kg		201	670	670	1	P	HSC	04/05/10 19:44	040510-2	965624
7440-50-8	Copper	2570	ug/kg		374	1250	1250	1	P	HSC	04/15/10 21:25	041510A-4	973755
7439-89-6	Iron	8700000	ug/kg		10700	33500	33500	1	P	HSC	04/05/10 19:44	040510-2	965624
7439-92-1	Lead	19000	ug/kg		335	1340	1340	1	P	HSC	04/05/10 19:44	040510-2	965624
7439-95-4	Magnesium	855000	ug/kg		11400	40200	40200	1	P	HSC	04/05/10 19:44	040510-2	965624
7439-96-5	Manganese	229000	ug/kg		268	1340	1340	1	P	HSC	04/05/10 19:44	040510-2	965624
7439-97-6	Mercury	152	ug/kg		5.48	16.1	16.1	1	AV	JXL1	03/31/10 09:51	033110S1-11	969290
7440-02-0	Nickel	2820	ug/kg		132	530	530	2	MS	BCD1	05/16/10 08:57	100515-7	965627
7440-09-7	Potassium	696000	ug/kg		8570	33500	33500	1	P	HSC	04/05/10 19:44	040510-2	965624
7782-49-2	Selenium	1320	ug/kg	U	662	1320	1320	2	MS	BCD1	05/16/10 08:57	100515-7	965627
7440-22-4	Silver	670	ug/kg	U	134	670	670	1	P	HSC	04/05/10 19:44	040510-2	965624
7440-23-5	Sodium	71700	ug/kg		9380	33500	33500	1	P	HSC	04/05/10 19:44	040510-2	965624
7440-28-0	Thallium	81	ug/kg	J	79.4	265	265	2	MS	BCD1	05/16/10 08:57	100515-7	965627
7440-62-2	Vanadium	6680	ug/kg		134	670	670	1	P	HSC	04/05/10 19:44	040510-2	965624
7440-66-6	Zinc	40300	ug/kg		442	1340	1340	1	P	HSC	04/05/10 19:44	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.52	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.526	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.519	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.559	g	50	mL	04/12/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330007 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13234 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2780000	ug/kg		7720	22700	22700	1	P	HSC	04/05/10 19:51	040510-2	965624
7440-36-0	Antimony	1130	ug/kg	U	374	1130	1130	1	P	HSC	04/05/10 19:51	040510-2	965624
7440-38-2	Arsenic	1340	ug/kg		226	1130	1130	2	MS	BCD1	05/16/10 09:01	100515-7	965627
7440-39-3	Barium	29600	ug/kg		113	567	567	1	P	HSC	04/05/10 19:51	040510-2	965624
7440-41-7	Beryllium	351	ug/kg		22.6	113	113	2	MS	PRB	05/18/10 08:50	100517-9	965627
7440-43-9	Cadmium	567	ug/kg	U	113	567	567	1	P	HSC	04/05/10 19:51	040510-2	965624
7440-70-2	Calcium	1640000	ug/kg		9080	28400	28400	1	P	HSC	04/05/10 19:51	040510-2	965624
7440-47-3	Chromium	1900	ug/kg		151	505	505	1	P	HSC	04/15/10 21:45	041510A-4	973755
7440-48-4	Cobalt	1190	ug/kg		170	567	567	1	P	HSC	04/05/10 19:51	040510-2	965624
7440-50-8	Copper	1910	ug/kg		303	1010	1010	1	P	HSC	04/15/10 21:45	041510A-4	973755
7439-89-6	Iron	8330000	ug/kg		9080	28400	28400	1	P	HSC	04/05/10 19:51	040510-2	965624
7439-92-1	Lead	25700	ug/kg		284	1130	1130	1	P	HSC	04/05/10 19:51	040510-2	965624
7439-95-4	Magnesium	583000	ug/kg		9640	34000	34000	1	P	HSC	04/05/10 19:51	040510-2	965624
7439-96-5	Manganese	276000	ug/kg		227	1130	1130	1	P	HSC	04/05/10 19:51	040510-2	965624
7439-97-6	Mercury	1940	ug/kg		39.7	117	117	10	AV	JXL1	03/31/10 10:27	033110S1-11	969290
7440-02-0	Nickel	1900	ug/kg		113	451	451	2	MS	BCD1	05/16/10 09:01	100515-7	965627
7440-09-7	Potassium	626000	ug/kg		7260	28400	28400	1	P	HSC	04/05/10 19:51	040510-2	965624
7782-49-2	Selenium	1130	ug/kg	U	564	1130	1130	2	MS	BCD1	05/16/10 09:01	100515-7	965627
7440-22-4	Silver	567	ug/kg	U	113	567	567	1	P	HSC	04/05/10 19:51	040510-2	965624
7440-23-5	Sodium	72400	ug/kg		7940	28400	28400	1	P	HSC	04/05/10 19:51	040510-2	965624
7440-28-0	Thallium	120	ug/kg	J	67.7	226	226	2	MS	BCD1	05/16/10 09:01	100515-7	965627
7440-62-2	Vanadium	6300	ug/kg		113	567	567	1	P	HSC	04/05/10 19:51	040510-2	965624
7440-66-6	Zinc	38500	ug/kg		374	1130	1130	1	P	HSC	04/05/10 19:51	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.502	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.505	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.586	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.564	g	50	mL	04/12/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330008 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-14199 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 70

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3490000	ug/kg		8850	26000	26000	1	P	HSC	04/05/10 19:53	040510-2	965624
7440-36-0	Antimony	1300	ug/kg	U	429	1300	1300	1	P	HSC	04/05/10 19:53	040510-2	965624
7440-38-2	Arsenic	1210	ug/kg	J	285	1420	1420	2	MS	BCD1	05/16/10 09:05	100515-7	965627
7440-39-3	Barium	41000	ug/kg		130	651	651	1	P	HSC	04/05/10 19:53	040510-2	965624
7440-41-7	Beryllium	506	ug/kg		28.5	142	142	2	MS	PRB	05/18/10 08:51	100517-9	965627
7440-43-9	Cadmium	651	ug/kg	U	130	651	651	1	P	HSC	04/05/10 19:53	040510-2	965624
7440-70-2	Calcium	1620000	ug/kg		10400	32500	32500	1	P	HSC	04/05/10 19:53	040510-2	965624
7440-47-3	Chromium	2780	ug/kg		194	646	646	1	P	HSC	04/15/10 21:52	041510A-4	973755
7440-48-4	Cobalt	1150	ug/kg		195	651	651	1	P	HSC	04/05/10 19:53	040510-2	965624
7440-50-8	Copper	2550	ug/kg		388	1290	1290	1	P	HSC	04/15/10 21:52	041510A-4	973755
7439-89-6	Iron	7700000	ug/kg		10400	32500	32500	1	P	HSC	04/05/10 19:53	040510-2	965624
7439-92-1	Lead	20400	ug/kg		325	1300	1300	1	P	HSC	04/05/10 19:53	040510-2	965624
7439-95-4	Magnesium	773000	ug/kg		11100	39000	39000	1	P	HSC	04/05/10 19:53	040510-2	965624
7439-96-5	Manganese	229000	ug/kg		260	1300	1300	1	P	HSC	04/05/10 19:53	040510-2	965624
7439-97-6	Mercury	138	ug/kg		5.37	15.8	15.8	1	AV	JXL1	03/31/10 09:55	033110S1-11	969290
7440-02-0	Nickel	2780	ug/kg		142	569	569	2	MS	BCD1	05/16/10 09:05	100515-7	965627
7440-09-7	Potassium	663000	ug/kg		8330	32500	32500	1	P	HSC	04/05/10 19:53	040510-2	965624
7782-49-2	Selenium	1420	ug/kg	U	711	1420	1420	2	MS	BCD1	05/16/10 09:05	100515-7	965627
7440-22-4	Silver	651	ug/kg	U	130	651	651	1	P	HSC	04/05/10 19:53	040510-2	965624
7440-23-5	Sodium	63300	ug/kg		9110	32500	32500	1	P	HSC	04/05/10 19:53	040510-2	965624
7440-28-0	Thallium	285	ug/kg	U	85.4	285	285	2	MS	BCD1	05/16/10 09:05	100515-7	965627
7440-62-2	Vanadium	6060	ug/kg		130	651	651	1	P	HSC	04/05/10 19:53	040510-2	965624
7440-66-6	Zinc	38100	ug/kg		429	1300	1300	1	P	HSC	04/05/10 19:53	040510-2	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.549	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.502	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.543	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.553	g	50	mL	04/12/10	AXG2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330009 **BASIS:** As Received **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13238 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BCD1	04/24/10 20:36	100424-5	965603
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BCD1	05/15/10 02:58	100514-6	979730
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BCD1	04/24/10 20:36	100424-5	965603
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-47-3	Chromium	2.19	ug/L	J	1	5	5	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	04/01/10 16:15	040110-1	965619
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	04/01/10 16:15	040110-1	965619
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BCD1	04/24/10 20:36	100424-5	965603
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	04/01/10 16:15	040110-1	965619
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BCD1	04/24/10 20:36	100424-5	965603
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/22/10 11:34	032210W1-10	967115
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	04/01/10 16:15	040110-1	965619
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BCD1	04/24/10 20:36	100424-5	965603
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:15	040110-1	965619
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	04/01/10 16:15	040110-1	965619

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965603	965602	SW846 3005A	50	mL	50	mL	03/26/10	LYH1
965619	965618	SW846 3005A	50	mL	50	mL	03/31/10	LYH1
967115	967111	SW846 7470A Prep	20	mL	20	mL	03/19/10	TXB3
979730	979729	SW846 3005A	50	mL	50	mL	04/30/10	LYH1

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330010 **BASIS:** As Received **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13239 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BCD1	04/24/10 20:42	100424-5	965603
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BCD1	05/15/10 03:04	100514-6	979730
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BCD1	04/24/10 20:42	100424-5	965603
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	04/01/10 16:18	040110-1	965619
7439-89-6	Iron	33.6	ug/L	J	30	100	100	1	P	HSC	04/01/10 16:18	040110-1	965619
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BCD1	04/24/10 20:42	100424-5	965603
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	04/01/10 16:18	040110-1	965619
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BCD1	04/24/10 20:42	100424-5	965603
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/22/10 11:36	032210W1-10	967115
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	04/01/10 16:18	040110-1	965619
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-23-5	Sodium	162	ug/L	J	100	300	300	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BCD1	04/24/10 20:42	100424-5	965603
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:18	040110-1	965619
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	04/01/10 16:18	040110-1	965619

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965603	965602	SW846 3005A	50	mL	50	mL	03/26/10	LYH1
965619	965618	SW846 3005A	50	mL	50	mL	03/31/10	LYH1
967115	967111	SW846 7470A Prep	20	mL	20	mL	03/19/10	TXB3
979730	979729	SW846 3005A	50	mL	50	mL	04/30/10	LYH1

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330011 **BASIS:** As Received **DATE COLLECTED** 11–MAR–10

CLIENT ID: RE46–10–14198 **LEVEL:** Low **DATE RECEIVED** 13–MAR–10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429–90–5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	04/01/10 16:21	040110–1	965619
7440–36–0	Antimony	3	ug/L	U	1	3	3	1	MS	BCD1	04/24/10 20:49	100424–5	965603
7440–38–2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:21	040110–1	965619
7440–39–3	Barium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:21	040110–1	965619
7440–41–7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BCD1	05/15/10 03:10	100514–6	979730
7440–43–9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BCD1	04/24/10 20:49	100424–5	965603
7440–70–2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	04/01/10 16:21	040110–1	965619
7440–47–3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:21	040110–1	965619
7440–48–4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:21	040110–1	965619
7440–50–8	Copper	10	ug/L	U	3	10	10	1	P	HSC	04/01/10 16:21	040110–1	965619
7439–89–6	Iron	100	ug/L	U	30	100	100	1	P	HSC	04/01/10 16:21	040110–1	965619
7439–92–1	Lead	2	ug/L	U	0.5	2	2	1	MS	BCD1	04/24/10 20:49	100424–5	965603
7439–95–4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	04/01/10 16:21	040110–1	965619
7439–96–5	Manganese	5	ug/L	U	1	5	5	1	MS	BCD1	04/24/10 20:49	100424–5	965603
7439–97–6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/22/10 11:38	032210W1–10	967115
7440–02–0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	04/01/10 16:21	040110–1	965619
7440–09–7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	04/01/10 16:21	040110–1	965619
7782–49–2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:21	040110–1	965619
7440–22–4	Silver	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:21	040110–1	965619
7440–23–5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	04/01/10 16:21	040110–1	965619
7440–28–0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BCD1	04/24/10 20:49	100424–5	965603
7440–62–2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:21	040110–1	965619
7440–66–6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	04/01/10 16:21	040110–1	965619

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965603	965602	SW846 3005A	50	mL	50	mL	03/26/10	LYH1
965619	965618	SW846 3005A	50	mL	50	mL	03/31/10	LYH1
967115	967111	SW846 7470A Prep	20	mL	20	mL	03/19/10	TXB3
979730	979729	SW846 3005A	50	mL	50	mL	04/30/10	LYH1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2431 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249330012 **BASIS:** As Received **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-14201 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BCD1	04/24/10 20:55	100424-5	965603
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BCD1	05/15/10 03:16	100514-6	979730
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BCD1	04/24/10 20:55	100424-5	965603
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	04/01/10 16:24	040110-1	965619
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	04/01/10 16:24	040110-1	965619
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BCD1	04/24/10 20:55	100424-5	965603
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	04/01/10 16:24	040110-1	965619
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BCD1	04/24/10 20:55	100424-5	965603
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/22/10 11:40	032210W1-10	967115
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-09-7	Potassium	150	ug/L	U	50	150	150	1	P	HSC	04/01/10 16:24	040110-1	965619
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-23-5	Sodium	300	ug/L	U	100	300	300	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BCD1	04/24/10 20:55	100424-5	965603
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	04/01/10 16:24	040110-1	965619
7440-66-6	Zinc	11	ug/L		3.3	10	10	1	P	HSC	04/01/10 16:24	040110-1	965619

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965603	965602	SW846 3005A	50	mL	50	mL	03/26/10	LYH1
965619	965618	SW846 3005A	50	mL	50	mL	03/31/10	LYH1
967115	967111	SW846 7470A Prep	20	mL	20	mL	03/19/10	TXB3
979730	979729	SW846 3005A	50	mL	50	mL	04/30/10	LYH1

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.08	ug/L	5	ug/L	101.5	90.0 – 110.0	AV	22-MAR-10 09:25	032210W1-10
	Mercury	5.17	ug/L	5	ug/L	103.5	90.0 – 110.0	AV	31-MAR-10 08:51	033110S1-11
	Aluminum	5280	ug/L	5000	ug/L	105.7	90.0 – 110.0	P	01-APR-10 12:31	040110-1
	Arsenic	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	01-APR-10 12:31	040110-1
	Barium	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	01-APR-10 12:31	040110-1
	Calcium	5200	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	01-APR-10 12:31	040110-1
	Chromium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01-APR-10 12:31	040110-1
	Cobalt	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	01-APR-10 12:31	040110-1
	Copper	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	01-APR-10 12:31	040110-1
	Iron	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	01-APR-10 12:31	040110-1
	Magnesium	5510	ug/L	5000	ug/L	110.2	90.0 – 110.0	P	01-APR-10 12:31	040110-1
	Nickel	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	01-APR-10 12:31	040110-1
	Potassium	2560	ug/L	2500	ug/L	102.2	90.0 – 110.0	P	01-APR-10 12:31	040110-1
	Selenium	2550	ug/L	2500	ug/L	102	90.0 – 110.0	P	01-APR-10 12:31	040110-1
	Silver	267	ug/L	250	ug/L	106.7	90.0 – 110.0	P	01-APR-10 12:31	040110-1
	Sodium	2590	ug/L	2500	ug/L	103.6	90.0 – 110.0	P	01-APR-10 12:31	040110-1
	Vanadium	517	ug/L	500	ug/L	103.3	90.0 – 110.0	P	01-APR-10 12:31	040110-1
	Zinc	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	01-APR-10 12:31	040110-1
	Aluminum	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	05-APR-10 10:23	040510-2
	Antimony	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05-APR-10 10:23	040510-2
	Barium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	05-APR-10 10:23	040510-2
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05-APR-10 10:23	040510-2
	Calcium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05-APR-10 10:23	040510-2
	Cobalt	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	05-APR-10 10:23	040510-2
	Iron	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05-APR-10 10:23	040510-2
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05-APR-10 10:23	040510-2
	Magnesium	5270	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	05-APR-10 10:23	040510-2
	Manganese	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05-APR-10 10:23	040510-2
	Potassium	2540	ug/L	2500	ug/L	101.8	90.0 – 110.0	P	05-APR-10 10:23	040510-2
	Silver	259	ug/L	250	ug/L	103.6	90.0 – 110.0	P	05-APR-10 10:23	040510-2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	2530	ug/L	2500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 10:23	040510–2
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 10:23	040510–2
	Zinc	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 10:23	040510–2
	Chromium	470	ug/L	500	ug/L	94	90.0 – 110.0	P	15–APR–10 16:46	041510A–4
	Copper	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	15–APR–10 16:46	041510A–4
	Antimony	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	24–APR–10 17:57	100424–5
	Cadmium	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	24–APR–10 17:57	100424–5
	Lead	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	24–APR–10 17:57	100424–5
	Manganese	52.9	ug/L	50	ug/L	105.8	90.0 – 110.0	MS	24–APR–10 17:57	100424–5
	Thallium	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	24–APR–10 17:57	100424–5
	Beryllium	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	15–MAY–10 00:12	100514–6
	Arsenic	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	16–MAY–10 07:21	100515–7
	Nickel	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	16–MAY–10 07:21	100515–7
	Selenium	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	16–MAY–10 07:21	100515–7
	Thallium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	16–MAY–10 07:21	100515–7
	Beryllium	50.8	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	18–MAY–10 08:36	100517–9
CCV01										
	Mercury	5.21	ug/L	5	ug/L	104.2	80.0 – 120.0	AV	22–MAR–10 09:31	032210W1–10
	Mercury	5.17	ug/L	5	ug/L	103.5	80.0 – 120.0	AV	31–MAR–10 08:57	033110S1–11
	Aluminum	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Arsenic	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Barium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Calcium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Chromium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Cobalt	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Copper	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Iron	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Magnesium	5230	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Nickel	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Potassium	5700	ug/L	5000	ug/L	113.9	90.0 – 110.0	P	01–APR–10 12:43	040110–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Selenium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Silver	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Sodium	10100	ug/L	10000	ug/L	101.5	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Vanadium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	01–APR–10 12:43	040110–1
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:36	040510–2
	Antimony	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 10:36	040510–2
	Barium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 10:36	040510–2
	Cadmium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:36	040510–2
	Calcium	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 10:36	040510–2
	Cobalt	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 10:36	040510–2
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	05–APR–10 10:36	040510–2
	Lead	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05–APR–10 10:36	040510–2
	Magnesium	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	05–APR–10 10:36	040510–2
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 10:36	040510–2
	Potassium	5650	ug/L	5000	ug/L	113	90.0 – 110.0	P	05–APR–10 10:36	040510–2
	Silver	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 10:36	040510–2
	Sodium	10100	ug/L	10000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:36	040510–2
	Vanadium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 10:36	040510–2
	Zinc	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 10:36	040510–2
	Chromium	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	15–APR–10 17:33	041510A–4
	Copper	469	ug/L	500	ug/L	93.9	90.0 – 110.0	P	15–APR–10 17:33	041510A–4
	Antimony	49.2	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	24–APR–10 18:27	100424–5
	Cadmium	51	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	24–APR–10 18:27	100424–5
	Lead	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	24–APR–10 18:27	100424–5
	Manganese	53.4	ug/L	50	ug/L	106.9	90.0 – 110.0	MS	24–APR–10 18:27	100424–5
	Thallium	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	24–APR–10 18:27	100424–5
	Beryllium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	15–MAY–10 00:42	100514–6
	Arsenic	50.6	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	16–MAY–10 07:41	100515–7
	Nickel	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	16–MAY–10 07:41	100515–7

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Selenium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	16–MAY–10 07:41	100515–7
	Thallium	49	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	16–MAY–10 07:41	100515–7
	Beryllium	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	18–MAY–10 08:39	100517–9
CCV02										
	Mercury	5.16	ug/L	5	ug/L	103.1	80.0 – 120.0	AV	22–MAR–10 09:54	032210W1–10
	Mercury	5.47	ug/L	5	ug/L	109.4	80.0 – 120.0	AV	31–MAR–10 09:21	033110S1–11
	Aluminum	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Arsenic	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Barium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Calcium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Chromium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Cobalt	500	ug/L	500	ug/L	100	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Copper	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Magnesium	5210	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Nickel	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Selenium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Silver	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Zinc	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 12:50	040110–1
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Antimony	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Lead	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05–APR–10 10:49	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5180	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Potassium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Silver	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Sodium	9950	ug/L	10000	ug/L	99.5	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Vanadium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Zinc	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 10:49	040510–2
	Chromium	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	15–APR–10 17:59	041510A–4
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	15–APR–10 17:59	041510A–4
	Antimony	50	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	24–APR–10 18:46	100424–5
	Cadmium	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	24–APR–10 18:46	100424–5
	Lead	51.2	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	24–APR–10 18:46	100424–5
	Manganese	53	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	24–APR–10 18:46	100424–5
	Thallium	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	24–APR–10 18:46	100424–5
	Beryllium	50.6	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	15–MAY–10 01:01	100514–6
	Arsenic	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	16–MAY–10 07:54	100515–7
	Nickel	52.7	ug/L	50	ug/L	105.4	90.0 – 110.0	MS	16–MAY–10 07:54	100515–7
	Selenium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	16–MAY–10 07:54	100515–7
	Thallium	51.2	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	16–MAY–10 07:54	100515–7
	Beryllium	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	18–MAY–10 08:48	100517–9
CCV03										
	Mercury	5.33	ug/L	5	ug/L	106.5	80.0 – 120.0	AV	22–MAR–10 10:17	032210W1–10
	Mercury	5.35	ug/L	5	ug/L	106.9	80.0 – 120.0	AV	31–MAR–10 09:45	033110S1–11
	Aluminum	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Arsenic	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Barium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Calcium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Chromium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Cobalt	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Copper	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	01–APR–10 13:30	040110–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Magnesium	5200	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Nickel	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Potassium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Selenium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Silver	500	ug/L	500	ug/L	100	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Sodium	9930	ug/L	10000	ug/L	99.3	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Vanadium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Zinc	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	01–APR–10 13:30	040110–1
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Antimony	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Cadmium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Calcium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Iron	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Magnesium	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Manganese	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Potassium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Silver	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Sodium	9980	ug/L	10000	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Zinc	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:21	040510–2
	Chromium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	15–APR–10 19:08	041510A–4
	Copper	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	15–APR–10 19:08	041510A–4
	Antimony	49.2	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	24–APR–10 19:59	100424–5
	Cadmium	50.7	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	24–APR–10 19:59	100424–5
	Lead	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	24–APR–10 19:59	100424–5
	Manganese	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	24–APR–10 19:59	100424–5

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Thallium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	24–APR–10 19:59	100424–5
	Beryllium	53.2	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	15–MAY–10 01:50	100514–6
	Arsenic	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	16–MAY–10 08:44	100515–7
	Nickel	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	16–MAY–10 08:44	100515–7
	Selenium	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	16–MAY–10 08:44	100515–7
	Thallium	48	ug/L	50	ug/L	96	90.0 – 110.0	MS	16–MAY–10 08:44	100515–7
	Beryllium	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	18–MAY–10 08:55	100517–9
CCV04										
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 – 120.0	AV	22–MAR–10 10:40	032210W1–10
	Mercury	4.62	ug/L	5	ug/L	92.4	80.0 – 120.0	AV	31–MAR–10 10:17	033110S1–11
	Aluminum	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Arsenic	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Barium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Calcium	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Chromium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Cobalt	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Copper	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Magnesium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Nickel	490	ug/L	500	ug/L	98	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Potassium	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Selenium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Silver	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Sodium	9980	ug/L	10000	ug/L	99.8	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Vanadium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	01–APR–10 13:59	040110–1
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Antimony	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Barium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Cadmium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 11:29	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Lead	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Manganese	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Potassium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Sodium	10000	ug/L	10000	ug/L	100.1	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Zinc	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 11:29	040510–2
	Chromium	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	15–APR–10 20:23	041510A–4
	Copper	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	15–APR–10 20:23	041510A–4
	Antimony	49	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	24–APR–10 21:13	100424–5
	Cadmium	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	24–APR–10 21:13	100424–5
	Lead	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	24–APR–10 21:13	100424–5
	Manganese	48.4	ug/L	50	ug/L	96.7	90.0 – 110.0	MS	24–APR–10 21:13	100424–5
	Thallium	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	24–APR–10 21:13	100424–5
	Beryllium	49	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	15–MAY–10 02:33	100514–6
	Arsenic	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	16–MAY–10 09:30	100515–7
	Nickel	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	16–MAY–10 09:30	100515–7
	Selenium	49.8	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	16–MAY–10 09:30	100515–7
	Thallium	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	16–MAY–10 09:30	100515–7
CCV05										
	Mercury	5.28	ug/L	5	ug/L	105.6	80.0 – 120.0	AV	22–MAR–10 11:03	032210W1–10
	Mercury	5.08	ug/L	5	ug/L	101.6	80.0 – 120.0	AV	31–MAR–10 10:41	033110S1–11
	Aluminum	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Arsenic	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Barium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Calcium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	01–APR–10 14:21	040110–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Cobalt	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Copper	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Nickel	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Potassium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Selenium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Silver	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Sodium	10100	ug/L	10000	ug/L	101.2	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Vanadium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Zinc	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	01–APR–10 14:21	040110–1
	Aluminum	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Barium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Cadmium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Calcium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Iron	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Manganese	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Silver	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Zinc	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	05–APR–10 11:52	040510–2
	Chromium	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	15–APR–10 21:31	041510A–4
	Copper	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	15–APR–10 21:31	041510A–4
	Beryllium	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	15–MAY–10 03:29	100514–6

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV06										
	Mercury	5.36	ug/L	5	ug/L	107.3	80.0 – 120.0	AV	22–MAR–10 11:26	032210W1–10
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Arsenic	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Barium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Calcium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Chromium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Cobalt	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Copper	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Iron	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Magnesium	5150	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Nickel	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Potassium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Selenium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Silver	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Sodium	10000	ug/L	10000	ug/L	100.3	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Vanadium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Zinc	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	01–APR–10 14:42	040110–1
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Antimony	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Barium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Cadmium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Iron	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Lead	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Magnesium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Manganese	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Potassium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Silver	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	05–APR–10 12:16	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Zinc	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 12:16	040510–2
	Chromium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	15–APR–10 22:40	041510A–4
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	15–APR–10 22:40	041510A–4
	Beryllium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	15–MAY–10 04:06	100514–6
CCV07										
	Mercury	5.23	ug/L	5	ug/L	104.6	80.0 – 120.0	AV	22–MAR–10 11:50	032210W1–10
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Arsenic	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Barium	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Calcium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Chromium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Cobalt	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Copper	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Nickel	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Selenium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Silver	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Zinc	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	01–APR–10 15:08	040110–1
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Antimony	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Cadmium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 12:41	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Magnesium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Potassium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Silver	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Sodium	9960	ug/L	10000	ug/L	99.6	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Vanadium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 12:41	040510–2
	Zinc	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 12:41	040510–2
CCV08										
	Mercury	5.11	ug/L	5	ug/L	102.2	80.0 – 120.0	AV	22–MAR–10 12:13	032210W1–10
	Aluminum	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Arsenic	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Barium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Calcium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Chromium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Cobalt	500	ug/L	500	ug/L	100	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Copper	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Magnesium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Nickel	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Selenium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Silver	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Zinc	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	01–APR–10 15:39	040110–1
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 13:02	040510–2
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 13:02	040510–2
	Barium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 13:02	040510–2
	Cadmium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 13:02	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:02	040510–2
	Cobalt	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:02	040510–2
	Iron	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 13:02	040510–2
	Lead	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 13:02	040510–2
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 13:02	040510–2
	Manganese	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 13:02	040510–2
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 13:02	040510–2
	Silver	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 13:02	040510–2
	Sodium	10000	ug/L	10000	ug/L	100.2	90.0 – 110.0	P	05–APR–10 13:02	040510–2
	Vanadium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:02	040510–2
	Zinc	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 13:02	040510–2
CCV09										
	Aluminum	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Arsenic	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Barium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Chromium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Cobalt	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Copper	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Iron	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Nickel	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Potassium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Selenium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Silver	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Zinc	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	01–APR–10 16:06	040110–1
	Aluminum	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Antimony	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 13:19	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Cadmium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Lead	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Potassium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Silver	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Sodium	10100	ug/L	10000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Vanadium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 13:19	040510–2
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 13:19	040510–2
CCV10										
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Arsenic	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Barium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Chromium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Cobalt	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Copper	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Magnesium	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Nickel	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Potassium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Selenium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Silver	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	01–APR–10 16:30	040110–1
	Zinc	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	01–APR–10 16:30	040110–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Aluminum	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	05-APR-10 13:42	040510-2
	Antimony	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05-APR-10 13:42	040510-2
	Barium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05-APR-10 13:42	040510-2
	Cadmium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05-APR-10 13:42	040510-2
	Calcium	5140	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	05-APR-10 13:42	040510-2
	Cobalt	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	05-APR-10 13:42	040510-2
	Iron	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05-APR-10 13:42	040510-2
	Lead	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05-APR-10 13:42	040510-2
	Magnesium	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	05-APR-10 13:42	040510-2
	Manganese	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05-APR-10 13:42	040510-2
	Potassium	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05-APR-10 13:42	040510-2
	Silver	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05-APR-10 13:42	040510-2
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	05-APR-10 13:42	040510-2
	Vanadium	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05-APR-10 13:42	040510-2
	Zinc	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05-APR-10 13:42	040510-2
CCV11										
	Aluminum	4970	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Antimony	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Barium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Cadmium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Calcium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Iron	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Lead	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Potassium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Silver	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 – 110.0	P	05-APR-10 13:57	040510-2
	Vanadium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05-APR-10 13:57	040510-2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 13:57	040510–2
CCV12										
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	05–APR–10 14:22	040510–2
	Antimony	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 14:22	040510–2
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 14:22	040510–2
	Cadmium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 14:22	040510–2
	Calcium	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	05–APR–10 14:22	040510–2
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 14:22	040510–2
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 14:22	040510–2
	Lead	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	05–APR–10 14:22	040510–2
	Magnesium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	05–APR–10 14:22	040510–2
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 14:22	040510–2
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 14:22	040510–2
	Silver	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 14:22	040510–2
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 14:22	040510–2
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05–APR–10 14:22	040510–2
	Zinc	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 14:22	040510–2
CCV13										
	Aluminum	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Antimony	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Barium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Lead	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Magnesium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Manganese	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Potassium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 14:55	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 14:55	040510–2
	Zinc	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 14:55	040510–2
CCV14										
	Aluminum	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Antimony	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Cadmium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Lead	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Potassium	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Silver	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Sodium	10100	ug/L	10000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 15:16	040510–2
	Zinc	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 15:16	040510–2
CCV15										
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Antimony	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Cadmium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Calcium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Cobalt	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Iron	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Lead	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Magnesium	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 15:42	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Silver	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Sodium	10100	ug/L	10000	ug/L	101	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Vanadium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 15:42	040510–2
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 15:42	040510–2
CCV16										
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Antimony	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Cadmium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Calcium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Magnesium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Potassium	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Silver	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 16:01	040510–2
	Zinc	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 16:01	040510–2
CCV17										
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Antimony	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Cadmium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Cobalt	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Iron	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Lead	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 16:19	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Potassium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Silver	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Sodium	10100	ug/L	10000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 16:19	040510–2
	Zinc	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 16:19	040510–2
CCV18										
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Antimony	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Barium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Cobalt	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Lead	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Sodium	10100	ug/L	10000	ug/L	100.6	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:37	040510–2
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 16:37	040510–2
CCV19										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	05–APR–10 16:51	040510–2
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 16:51	040510–2
	Barium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	05–APR–10 16:51	040510–2
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 16:51	040510–2
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 16:51	040510–2
	Cobalt	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 16:51	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 16:51	040510–2
	Lead	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:51	040510–2
	Magnesium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05–APR–10 16:51	040510–2
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 16:51	040510–2
	Potassium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 16:51	040510–2
	Silver	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 16:51	040510–2
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 16:51	040510–2
	Vanadium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 16:51	040510–2
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 16:51	040510–2
CCV20										
	Aluminum	4890	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Antimony	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Barium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Cadmium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Calcium	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Cobalt	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Manganese	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Silver	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Vanadium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 17:10	040510–2
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 17:10	040510–2
CCV21										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	05–APR–10 17:26	040510–2
	Antimony	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	05–APR–10 17:26	040510–2
	Barium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	05–APR–10 17:26	040510–2
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 17:26	040510–2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 - 110.0	P	05-APR-10 17:26	040510-2
	Cobalt	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	05-APR-10 17:26	040510-2
	Iron	5000	ug/L	5000	ug/L	100	90.0 - 110.0	P	05-APR-10 17:26	040510-2
	Lead	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	05-APR-10 17:26	040510-2
	Magnesium	5010	ug/L	5000	ug/L	100.3	90.0 - 110.0	P	05-APR-10 17:26	040510-2
	Manganese	499	ug/L	500	ug/L	99.8	90.0 - 110.0	P	05-APR-10 17:26	040510-2
	Potassium	5040	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	05-APR-10 17:26	040510-2
	Silver	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	05-APR-10 17:26	040510-2
	Sodium	10000	ug/L	10000	ug/L	100	90.0 - 110.0	P	05-APR-10 17:26	040510-2
	Vanadium	503	ug/L	500	ug/L	100.5	90.0 - 110.0	P	05-APR-10 17:26	040510-2
	Zinc	499	ug/L	500	ug/L	99.7	90.0 - 110.0	P	05-APR-10 17:26	040510-2
CCV22										
	Aluminum	4950	ug/L	5000	ug/L	99.1	90.0 - 110.0	P	05-APR-10 17:45	040510-2
	Antimony	505	ug/L	500	ug/L	100.9	90.0 - 110.0	P	05-APR-10 17:45	040510-2
	Barium	499	ug/L	500	ug/L	99.8	90.0 - 110.0	P	05-APR-10 17:45	040510-2
	Cadmium	507	ug/L	500	ug/L	101.5	90.0 - 110.0	P	05-APR-10 17:45	040510-2
	Calcium	5100	ug/L	5000	ug/L	102.1	90.0 - 110.0	P	05-APR-10 17:45	040510-2
	Cobalt	510	ug/L	500	ug/L	102	90.0 - 110.0	P	05-APR-10 17:45	040510-2
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	05-APR-10 17:45	040510-2
	Lead	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	05-APR-10 17:45	040510-2
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 - 110.0	P	05-APR-10 17:45	040510-2
	Manganese	505	ug/L	500	ug/L	101	90.0 - 110.0	P	05-APR-10 17:45	040510-2
	Potassium	5150	ug/L	5000	ug/L	103.1	90.0 - 110.0	P	05-APR-10 17:45	040510-2
	Silver	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	05-APR-10 17:45	040510-2
	Sodium	10100	ug/L	10000	ug/L	101.3	90.0 - 110.0	P	05-APR-10 17:45	040510-2
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 - 110.0	P	05-APR-10 17:45	040510-2
	Zinc	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	05-APR-10 17:45	040510-2
CCV23										
	Aluminum	4960	ug/L	5000	ug/L	99.2	90.0 - 110.0	P	05-APR-10 18:06	040510-2
	Antimony	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	05-APR-10 18:06	040510-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	05-APR-10 18:06	040510-2
	Cadmium	508	ug/L	500	ug/L	101.5	90.0 - 110.0	P	05-APR-10 18:06	040510-2
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 - 110.0	P	05-APR-10 18:06	040510-2
	Cobalt	511	ug/L	500	ug/L	102.1	90.0 - 110.0	P	05-APR-10 18:06	040510-2
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	05-APR-10 18:06	040510-2
	Lead	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	05-APR-10 18:06	040510-2
	Magnesium	5060	ug/L	5000	ug/L	101.1	90.0 - 110.0	P	05-APR-10 18:06	040510-2
	Manganese	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	05-APR-10 18:06	040510-2
	Potassium	5110	ug/L	5000	ug/L	102.3	90.0 - 110.0	P	05-APR-10 18:06	040510-2
	Silver	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	05-APR-10 18:06	040510-2
	Sodium	10100	ug/L	10000	ug/L	101.1	90.0 - 110.0	P	05-APR-10 18:06	040510-2
	Vanadium	510	ug/L	500	ug/L	102.1	90.0 - 110.0	P	05-APR-10 18:06	040510-2
	Zinc	505	ug/L	500	ug/L	101	90.0 - 110.0	P	05-APR-10 18:06	040510-2
CCV24										
	Aluminum	5010	ug/L	5000	ug/L	100.2	90.0 - 110.0	P	05-APR-10 18:27	040510-2
	Antimony	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	05-APR-10 18:27	040510-2
	Barium	500	ug/L	500	ug/L	100.1	90.0 - 110.0	P	05-APR-10 18:27	040510-2
	Cadmium	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	05-APR-10 18:27	040510-2
	Calcium	5100	ug/L	5000	ug/L	102	90.0 - 110.0	P	05-APR-10 18:27	040510-2
	Cobalt	509	ug/L	500	ug/L	101.9	90.0 - 110.0	P	05-APR-10 18:27	040510-2
	Iron	5080	ug/L	5000	ug/L	101.5	90.0 - 110.0	P	05-APR-10 18:27	040510-2
	Lead	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	05-APR-10 18:27	040510-2
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	05-APR-10 18:27	040510-2
	Manganese	506	ug/L	500	ug/L	101.1	90.0 - 110.0	P	05-APR-10 18:27	040510-2
	Potassium	5170	ug/L	5000	ug/L	103.4	90.0 - 110.0	P	05-APR-10 18:27	040510-2
	Silver	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	05-APR-10 18:27	040510-2
	Sodium	10100	ug/L	10000	ug/L	101.4	90.0 - 110.0	P	05-APR-10 18:27	040510-2
	Vanadium	510	ug/L	500	ug/L	102	90.0 - 110.0	P	05-APR-10 18:27	040510-2
	Zinc	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	05-APR-10 18:27	040510-2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV25										
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Antimony	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Cadmium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Calcium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Cobalt	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Iron	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Lead	515	ug/L	500	ug/L	103	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Magnesium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Manganese	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Potassium	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Silver	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Sodium	10100	ug/L	10000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Vanadium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	05–APR–10 18:46	040510–2
	Zinc	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 18:46	040510–2
CCV26										
	Aluminum	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Antimony	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Barium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Cadmium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Calcium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Cobalt	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Iron	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Lead	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Magnesium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Manganese	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Potassium	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Silver	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Sodium	10200	ug/L	10000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 19:02	040510–2
	Vanadium	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	05–APR–10 19:02	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 19:02	040510–2
CCV27										
	Aluminum	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Antimony	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Barium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Cadmium	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Calcium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Cobalt	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Iron	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Lead	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Magnesium	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Manganese	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Potassium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Silver	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Sodium	10200	ug/L	10000	ug/L	101.8	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Vanadium	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05–APR–10 19:24	040510–2
	Zinc	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 19:24	040510–2
CCV28										
	Aluminum	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Antimony	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Cadmium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Cobalt	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Lead	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Magnesium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Manganese	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Potassium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Silver	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 19:46	040510–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	10200	ug/L	10000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 19:46	040510–2
	Zinc	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 19:46	040510–2
CCV29										
	Aluminum	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Antimony	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Barium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Cadmium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Calcium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Cobalt	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Lead	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Magnesium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Manganese	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Potassium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Silver	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Sodium	10100	ug/L	10000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 20:08	040510–2
	Zinc	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 20:08	040510–2

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.159	ug/L	.2	ug/L	79.5	70.0 – 130.0	AV	22–MAR–10 09:29	032210W1–10
	Mercury	.226	ug/L	.2	ug/L	112.9	70.0 – 130.0	AV	31–MAR–10 08:55	033110S1–11
	Lead	2.32	ug/L	2	ug/L	116	70.0 – 130.0	MS	24–APR–10 18:09	100424–5
	Manganese	6.25	ug/L	5	ug/L	124.9	70.0 – 130.0	MS	24–APR–10 18:09	100424–5
	Thallium	1.18	ug/L	1	ug/L	118	70.0 – 130.0	MS	24–APR–10 18:09	100424–5
	Cadmium	1.19	ug/L	1	ug/L	119.4	70.0 – 130.0	MS	24–APR–10 18:09	100424–5
	Antimony	2.47	ug/L	3	ug/L	82.5	70.0 – 130.0	MS	24–APR–10 18:09	100424–5
	Beryllium	.41	ug/L	.5	ug/L	82	70.0 – 130.0	MS	15–MAY–10 00:24	100514–6
	Nickel	2.35	ug/L	2	ug/L	117.5	70.0 – 130.0	MS	16–MAY–10 07:29	100515–7
	Thallium	1.24	ug/L	1	ug/L	124.3	70.0 – 130.0	MS	16–MAY–10 07:29	100515–7
	Selenium	6.09	ug/L	5	ug/L	121.7	70.0 – 130.0	MS	16–MAY–10 07:29	100515–7
	Arsenic	5.87	ug/L	5	ug/L	117.3	70.0 – 130.0	MS	16–MAY–10 07:29	100515–7
	Beryllium	.668	ug/L	.5	ug/L	133.6	70.0 – 130.0	MS	18–MAY–10 08:37	100517–9
PQL01										
	Aluminum	203	ug/L	200	ug/L	101.3	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Iron	104	ug/L	100	ug/L	104	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Nickel	4.76	ug/L	5	ug/L	95.2	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Magnesium	307	ug/L	300	ug/L	102.4	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Potassium	190	ug/L	150	ug/L	126.4	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Sodium	282	ug/L	300	ug/L	94	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Barium	5.04	ug/L	5	ug/L	100.8	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Cobalt	5.04	ug/L	5	ug/L	100.8	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Vanadium	4.78	ug/L	5	ug/L	95.7	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Selenium	31.3	ug/L	30	ug/L	104.3	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Calcium	209	ug/L	200	ug/L	104.6	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Zinc	10.3	ug/L	10	ug/L	103.3	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Copper	9.99	ug/L	10	ug/L	99.9	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Chromium	5.05	ug/L	5	ug/L	101	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Arsenic	34.1	ug/L	30	ug/L	113.6	70.0 – 130.0	P	01–APR–10 12:35	040110–1
	Silver	5.77	ug/L	5	ug/L	115.4	70.0 – 130.0	P	01–APR–10 12:35	040110–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Manganese	10.5	ug/L	10	ug/L	104.5	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Potassium	150	ug/L	150	ug/L	100.3	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Silver	4.82	ug/L	5	ug/L	96.4	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Sodium	277	ug/L	300	ug/L	92.3	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Magnesium	329	ug/L	300	ug/L	109.5	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Lead	9.5	ug/L	10	ug/L	95	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Iron	104	ug/L	100	ug/L	103.9	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Aluminum	206	ug/L	200	ug/L	103	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Antimony	7.08	ug/L	10	ug/L	70.8	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Barium	5.09	ug/L	5	ug/L	101.8	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Cadmium	5.13	ug/L	5	ug/L	102.6	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Cobalt	5.33	ug/L	5	ug/L	106.7	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Vanadium	5.27	ug/L	5	ug/L	105.5	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Zinc	10.5	ug/L	10	ug/L	104.5	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Calcium	206	ug/L	200	ug/L	103.1	70.0 – 130.0	P	05–APR–10 10:28	040510–2
	Chromium	4.9	ug/L	5	ug/L	98.1	70.0 – 130.0	P	15–APR–10 16:59	041510A–4
	Copper	9.27	ug/L	10	ug/L	92.7	70.0 – 130.0	P	15–APR–10 16:59	041510A–4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–MAR–10 09:27	032210W1–10
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 12:32	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 12:32	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:32	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 12:32	040110–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:32	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:32	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 12:32	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 12:32	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 12:32	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 12:32	040110–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	01–APR–10 12:32	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 12:32	040110–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:32	040110–1
	Sodium	100	+/–300	U	100	300	LIQ	P	01–APR–10 12:32	040110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:32	040110–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	01–APR–10 12:32	040110–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	24–APR–10 18:03	100424–5
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	24–APR–10 18:03	100424–5
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	24–APR–10 18:03	100424–5
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	24–APR–10 18:03	100424–5
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	24–APR–10 18:03	100424–5
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	15–MAY–10 00:18	100514–6
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	31–MAR–10 08:53	033110S1–11
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 10:25	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:25	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:25	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:25	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:25	040510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 10:25	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 10:25	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 10:25	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 10:25	040510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 10:25	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:25	040510–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–APR–10 16:53	041510A–4
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–APR–10 16:53	041510A–4
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 07:25	100515–7
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 07:25	100515–7
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 07:25	100515–7
	Thallium	0.466	+/–1	J	0.3	1.0	SOL	MS	16–MAY–10 07:25	100515–7
	Beryllium	0.187	+/–.5	J	0.1	0.5	SOL	MS	18–MAY–10 08:36	100517–9
CCB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–MAR–10 09:33	032210W1–10
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 12:45	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 12:45	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:45	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 12:45	040110–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:45	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:45	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 12:45	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 12:45	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 12:45	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 12:45	040110–1
	Potassium	285.64	+/–150		50.0	150	LIQ	P	01–APR–10 12:45	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 12:45	040110–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:45	040110–1
	Sodium	132.45	+/–300	J	100	300	LIQ	P	01–APR–10 12:45	040110–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:45	040110–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	01–APR–10 12:45	040110–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	24–APR–10 18:33	100424–5
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	24–APR–10 18:33	100424–5
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	24–APR–10 18:33	100424–5
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	24–APR–10 18:33	100424–5
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	24–APR–10 18:33	100424–5
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	15–MAY–10 00:49	100514–6
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	31–MAR–10 08:59	033110S1–11
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 10:38	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:38	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:38	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:38	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:38	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 10:38	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 10:38	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 10:38	040510–2
	Potassium	236.18	+/–250	J	64.0	250	SOL	P	05–APR–10 10:38	040510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–2
	Sodium	98.65	+/–250	J	70.0	250	SOL	P	05–APR–10 10:38	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:38	040510–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–APR–10 17:40	041510A–4
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–APR–10 17:40	041510A–4
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 07:46	100515–7
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 07:46	100515–7
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 07:46	100515–7
	Thallium	0.374	+/–1	J	0.3	1.0	SOL	MS	16–MAY–10 07:46	100515–7
	Beryllium	0.156	+/–.5	J	0.1	0.5	SOL	MS	18–MAY–10 08:40	100517–9

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB02										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–MAR–10 09:56	032210W1–10
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 12:52	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 12:52	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:52	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 12:52	040110–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:52	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:52	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 12:52	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 12:52	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 12:52	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 12:52	040110–1
	Potassium	92.73	+/–150	J	50.0	150	LIQ	P	01–APR–10 12:52	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 12:52	040110–1
	Silver	1.14	+/–5	J	1.0	5.0	LIQ	P	01–APR–10 12:52	040110–1
	Sodium	100	+/–300	U	100	300	LIQ	P	01–APR–10 12:52	040110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 12:52	040110–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	01–APR–10 12:52	040110–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	24–APR–10 18:52	100424–5
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	24–APR–10 18:52	100424–5
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	24–APR–10 18:52	100424–5
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	24–APR–10 18:52	100424–5
	Thallium	0.445	+/–1	J	0.3	1.0	LIQ	MS	24–APR–10 18:52	100424–5
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	15–MAY–10 01:07	100514–6
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	31–MAR–10 09:23	033110S1–11
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 10:51	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:51	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:51	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:51	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:51	040510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 10:51	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 10:51	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 10:51	040510–2
	Potassium	70.41	+/–250	J	64.0	250	SOL	P	05–APR–10 10:51	040510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 10:51	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:51	040510–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–APR–10 18:06	041510A–4
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–APR–10 18:06	041510A–4
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 07:58	100515–7
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 07:58	100515–7
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 07:58	100515–7
	Thallium	0.813	+/–1	J	0.3	1.0	SOL	MS	16–MAY–10 07:58	100515–7
	Beryllium	0.226	+/–.5	J	0.1	0.5	SOL	MS	18–MAY–10 08:48	100517–9
CCB03										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–MAR–10 10:19	032210W1–10
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 13:32	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 13:32	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 13:32	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 13:32	040110–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 13:32	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 13:32	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 13:32	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 13:32	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 13:32	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 13:32	040110–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	01–APR–10 13:32	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 13:32	040110–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 13:32	040110–1
	Sodium	100	+/–300	U	100	300	LIQ	P	01–APR–10 13:32	040110–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 13:32	040110–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	01–APR–10 13:32	040110–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	24–APR–10 20:05	100424–5
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	24–APR–10 20:05	100424–5
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	24–APR–10 20:05	100424–5
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	24–APR–10 20:05	100424–5
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	24–APR–10 20:05	100424–5
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	15–MAY–10 01:56	100514–6
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	31–MAR–10 09:47	033110S1–11
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 11:23	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:23	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:23	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:23	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:23	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 11:23	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 11:23	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 11:23	040510–2
	Potassium	85.5	+/–250	J	64.0	250	SOL	P	05–APR–10 11:23	040510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 11:23	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:23	040510–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–APR–10 19:15	041510A–4
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–APR–10 19:15	041510A–4
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 08:48	100515–7
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 08:48	100515–7
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 08:48	100515–7
	Thallium	0.309	+/–1	J	0.3	1.0	SOL	MS	16–MAY–10 08:48	100515–7
	Beryllium	0.183	+/–.5	J	0.1	0.5	SOL	MS	18–MAY–10 08:56	100517–9

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB04										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	22-MAR-10 10:42	032210W1-10
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	01-APR-10 14:01	040110-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	01-APR-10 14:01	040110-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	01-APR-10 14:01	040110-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	01-APR-10 14:01	040110-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	01-APR-10 14:01	040110-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	01-APR-10 14:01	040110-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	01-APR-10 14:01	040110-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	01-APR-10 14:01	040110-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	01-APR-10 14:01	040110-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	01-APR-10 14:01	040110-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	01-APR-10 14:01	040110-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	01-APR-10 14:01	040110-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	01-APR-10 14:01	040110-1
	Sodium	100	+/-300	U	100	300	LIQ	P	01-APR-10 14:01	040110-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	01-APR-10 14:01	040110-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	01-APR-10 14:01	040110-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	24-APR-10 21:19	100424-5
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	24-APR-10 21:19	100424-5
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	24-APR-10 21:19	100424-5
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	24-APR-10 21:19	100424-5
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	24-APR-10 21:19	100424-5
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	15-MAY-10 02:39	100514-6
	Mercury	-0.087	+/-.2	J	0.068	0.2	SOL	AV	31-MAR-10 10:19	033110S1-11
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	05-APR-10 11:31	040510-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	05-APR-10 11:31	040510-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 11:31	040510-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 11:31	040510-2
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	05-APR-10 11:31	040510-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	05-APR-10 11:31	040510-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	05-APR-10 11:31	040510-2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 11:31	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 11:31	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 11:31	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 11:31	040510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 11:31	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:31	040510–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–APR–10 20:30	041510A–4
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–APR–10 20:30	041510A–4
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 09:34	100515–7
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 09:34	100515–7
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 09:34	100515–7
	Thallium	0.32	+/–1	J	0.3	1.0	SOL	MS	16–MAY–10 09:34	100515–7
CCB05										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–MAR–10 11:05	032210W1–10
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 14:23	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 14:23	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 14:23	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 14:23	040110–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 14:23	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 14:23	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 14:23	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 14:23	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 14:23	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 14:23	040110–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	01–APR–10 14:23	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 14:23	040110–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 14:23	040110–1
	Sodium	100.8	+/–300	J	100	300	LIQ	P	01–APR–10 14:23	040110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 14:23	040110–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	01-APR-10 14:23	040110-1
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	15-MAY-10 03:35	100514-6
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	31-MAR-10 10:43	033110S1-11
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	05-APR-10 11:54	040510-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	05-APR-10 11:54	040510-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 11:54	040510-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 11:54	040510-2
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	05-APR-10 11:54	040510-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	05-APR-10 11:54	040510-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	05-APR-10 11:54	040510-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	05-APR-10 11:54	040510-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	05-APR-10 11:54	040510-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	05-APR-10 11:54	040510-2
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	05-APR-10 11:54	040510-2
	Silver	-1.55	+/-5	J	1.0	5.0	SOL	P	05-APR-10 11:54	040510-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	05-APR-10 11:54	040510-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 11:54	040510-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	05-APR-10 11:54	040510-2
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	15-APR-10 21:38	041510A-4
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	15-APR-10 21:38	041510A-4
CCB06										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	22-MAR-10 11:28	032210W1-10
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	01-APR-10 14:44	040110-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	01-APR-10 14:44	040110-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	01-APR-10 14:44	040110-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	01-APR-10 14:44	040110-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	01-APR-10 14:44	040110-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	01-APR-10 14:44	040110-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	01-APR-10 14:44	040110-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	01-APR-10 14:44	040110-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	01-APR-10 14:44	040110-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 14:44	040110–1
	Potassium	69.83	+/–150	J	50.0	150	LIQ	P	01–APR–10 14:44	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 14:44	040110–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 14:44	040110–1
	Sodium	100	+/–300	U	100	300	LIQ	P	01–APR–10 14:44	040110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 14:44	040110–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	01–APR–10 14:44	040110–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	15–MAY–10 04:12	100514–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 12:18	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 12:18	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:18	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 12:18	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:18	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 12:18	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 12:18	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 12:18	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 12:18	040510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 12:18	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 12:18	040510–2
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–APR–10 22:46	041510A–4
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–APR–10 22:46	041510A–4
CCB07										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–MAR–10 11:52	032210W1–10
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 15:10	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 15:10	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:10	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 15:10	040110–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:10	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:10	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 15:10	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 15:10	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 15:10	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 15:10	040110–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	01–APR–10 15:10	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 15:10	040110–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:10	040110–1
	Sodium	100	+/–300	U	100	300	LIQ	P	01–APR–10 15:10	040110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:10	040110–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	01–APR–10 15:10	040110–1
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 12:43	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 12:43	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:43	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:43	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:43	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 12:43	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:43	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 12:43	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 12:43	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 12:43	040510–2
	Potassium	84.07	+/–250	J	64.0	250	SOL	P	05–APR–10 12:43	040510–2
	Silver	–1.25	+/–5	J	1.0	5.0	SOL	P	05–APR–10 12:43	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 12:43	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:43	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 12:43	040510–2
CCB08										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	22–MAR–10 12:15	032210W1–10
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 15:41	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 15:41	040110–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:41	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 15:41	040110–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:41	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:41	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 15:41	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 15:41	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 15:41	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 15:41	040110–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	01–APR–10 15:41	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 15:41	040110–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:41	040110–1
	Sodium	100	+/–300	U	100	300	LIQ	P	01–APR–10 15:41	040110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 15:41	040110–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	01–APR–10 15:41	040110–1
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 13:04	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:04	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:04	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:04	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:04	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:04	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:04	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:04	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:04	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:04	040510–2
	Potassium	87.68	+/–250	J	64.0	250	SOL	P	05–APR–10 13:04	040510–2
	Silver	–1.14	+/–5	J	1.0	5.0	SOL	P	05–APR–10 13:04	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 13:04	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:04	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:04	040510–2
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 16:08	040110–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 16:08	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:08	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 16:08	040110–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:08	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:08	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 16:08	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 16:08	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 16:08	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 16:08	040110–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	01–APR–10 16:08	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 16:08	040110–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:08	040110–1
	Sodium	100	+/–300	U	100	300	LIQ	P	01–APR–10 16:08	040110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:08	040110–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	01–APR–10 16:08	040110–1
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 13:21	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:21	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:21	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:21	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:21	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:21	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:21	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:21	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 13:21	040510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 13:21	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:21	040510–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	01–APR–10 16:32	040110–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 16:32	040110–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:32	040110–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	01–APR–10 16:32	040110–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:32	040110–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:32	040110–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	01–APR–10 16:32	040110–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	01–APR–10 16:32	040110–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	01–APR–10 16:32	040110–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	01–APR–10 16:32	040110–1
	Potassium	50.47	+/–150	J	50.0	150	LIQ	P	01–APR–10 16:32	040110–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	01–APR–10 16:32	040110–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:32	040110–1
	Sodium	100	+/–300	U	100	300	LIQ	P	01–APR–10 16:32	040110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	01–APR–10 16:32	040110–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	01–APR–10 16:32	040110–1
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 13:44	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:44	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:44	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:44	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:44	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:44	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:44	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:44	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:44	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:44	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 13:44	040510–2
	Silver	–1.38	+/–5	J	1.0	5.0	SOL	P	05–APR–10 13:44	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 13:44	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:44	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:44	040510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 13:59	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:59	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:59	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:59	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:59	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:59	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:59	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:59	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:59	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:59	040510–2
	Potassium	75.96	+/–250	J	64.0	250	SOL	P	05–APR–10 13:59	040510–2
	Silver	–1.41	+/–5	J	1.0	5.0	SOL	P	05–APR–10 13:59	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 13:59	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:59	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:59	040510–2
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 14:24	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 14:24	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:24	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:24	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 14:24	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 14:24	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 14:24	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 14:24	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 14:24	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 14:24	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 14:24	040510–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:24	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 14:24	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:24	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 14:24	040510–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB13										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	05-APR-10 14:58	040510-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	05-APR-10 14:58	040510-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 14:58	040510-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 14:58	040510-2
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	05-APR-10 14:58	040510-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	05-APR-10 14:58	040510-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	05-APR-10 14:58	040510-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	05-APR-10 14:58	040510-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	05-APR-10 14:58	040510-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	05-APR-10 14:58	040510-2
	Potassium	68.95	+/-250	J	64.0	250	SOL	P	05-APR-10 14:58	040510-2
	Silver	-1.26	+/-5	J	1.0	5.0	SOL	P	05-APR-10 14:58	040510-2
	Sodium	85.97	+/-250	J	70.0	250	SOL	P	05-APR-10 14:58	040510-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 14:58	040510-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	05-APR-10 14:58	040510-2
CCB14										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	05-APR-10 15:19	040510-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	05-APR-10 15:19	040510-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 15:19	040510-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 15:19	040510-2
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	05-APR-10 15:19	040510-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	05-APR-10 15:19	040510-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	05-APR-10 15:19	040510-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	05-APR-10 15:19	040510-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	05-APR-10 15:19	040510-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	05-APR-10 15:19	040510-2
	Potassium	85.73	+/-250	J	64.0	250	SOL	P	05-APR-10 15:19	040510-2
	Silver	-1.85	+/-5	J	1.0	5.0	SOL	P	05-APR-10 15:19	040510-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	05-APR-10 15:19	040510-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 15:19	040510-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	05-APR-10 15:19	040510-2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB15										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 15:45	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 15:45	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:45	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:45	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 15:45	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 15:45	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 15:45	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 15:45	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 15:45	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 15:45	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 15:45	040510–2
	Silver	–1.39	+/–5	J	1.0	5.0	SOL	P	05–APR–10 15:45	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 15:45	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:45	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 15:45	040510–2
CCB16										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 16:03	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:03	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:03	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:03	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:03	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:03	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:03	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 16:03	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 16:03	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 16:03	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 16:03	040510–2
	Silver	–1.77	+/–5	J	1.0	5.0	SOL	P	05–APR–10 16:03	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 16:03	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:03	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:03	040510–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB17										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 16:21	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:21	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:21	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:21	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:21	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:21	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:21	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 16:21	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 16:21	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 16:21	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 16:21	040510–2
	Silver	–2.07	+/–5	J	1.0	5.0	SOL	P	05–APR–10 16:21	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 16:21	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:21	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:21	040510–2
CCB18										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 16:39	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:39	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:39	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:39	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:39	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:39	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:39	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 16:39	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 16:39	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 16:39	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 16:39	040510–2
	Silver	–2.22	+/–5	J	1.0	5.0	SOL	P	05–APR–10 16:39	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 16:39	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:39	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:39	040510–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB19										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 16:53	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:53	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:53	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:53	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:53	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:53	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:53	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 16:53	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 16:53	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 16:53	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 16:53	040510–2
	Silver	–1.09	+/–5	J	1.0	5.0	SOL	P	05–APR–10 16:53	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 16:53	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:53	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:53	040510–2
CCB20										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 17:12	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:12	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:12	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:12	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:12	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 17:12	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:12	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 17:12	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 17:12	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 17:12	040510–2
	Potassium	89.98	+/–250	J	64.0	250	SOL	P	05–APR–10 17:12	040510–2
	Silver	–2.36	+/–5	J	1.0	5.0	SOL	P	05–APR–10 17:12	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 17:12	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:12	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:12	040510–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB21										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 17:28	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:28	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:28	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:28	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:28	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 17:28	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:28	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 17:28	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 17:28	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 17:28	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 17:28	040510–2
	Silver	–1.5	+/–5	J	1.0	5.0	SOL	P	05–APR–10 17:28	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 17:28	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:28	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:28	040510–2
CCB22										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 17:47	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:47	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:47	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:47	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:47	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 17:47	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:47	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 17:47	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 17:47	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 17:47	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 17:47	040510–2
	Silver	–1.92	+/–5	J	1.0	5.0	SOL	P	05–APR–10 17:47	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 17:47	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:47	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:47	040510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB23										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 18:08	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 18:08	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:08	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:08	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 18:08	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 18:08	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 18:08	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 18:08	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 18:08	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 18:08	040510–2
	Potassium	81.71	+/–250	J	64.0	250	SOL	P	05–APR–10 18:08	040510–2
	Silver	–1.64	+/–5	J	1.0	5.0	SOL	P	05–APR–10 18:08	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 18:08	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:08	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 18:08	040510–2
CCB24										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 18:29	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 18:29	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:29	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:29	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 18:29	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 18:29	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 18:29	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 18:29	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 18:29	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 18:29	040510–2
	Potassium	100.92	+/–250	J	64.0	250	SOL	P	05–APR–10 18:29	040510–2
	Silver	–1.56	+/–5	J	1.0	5.0	SOL	P	05–APR–10 18:29	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 18:29	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:29	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 18:29	040510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB25										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 18:48	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 18:48	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:48	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:48	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 18:48	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 18:48	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 18:48	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 18:48	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 18:48	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 18:48	040510–2
	Potassium	95.03	+/–250	J	64.0	250	SOL	P	05–APR–10 18:48	040510–2
	Silver	–1.65	+/–5	J	1.0	5.0	SOL	P	05–APR–10 18:48	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 18:48	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:48	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 18:48	040510–2
CCB26										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 19:04	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 19:04	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:04	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:04	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 19:04	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 19:04	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 19:04	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 19:04	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 19:04	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 19:04	040510–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 19:04	040510–2
	Silver	–1.53	+/–5	J	1.0	5.0	SOL	P	05–APR–10 19:04	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 19:04	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:04	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 19:04	040510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB27										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 19:27	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 19:27	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:27	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:27	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 19:27	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 19:27	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 19:27	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 19:27	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 19:27	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 19:27	040510–2
	Potassium	64.02	+/–250	J	64.0	250	SOL	P	05–APR–10 19:27	040510–2
	Silver	–1.53	+/–5	J	1.0	5.0	SOL	P	05–APR–10 19:27	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 19:27	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:27	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 19:27	040510–2
CCB28										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 19:48	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 19:48	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:48	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:48	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 19:48	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 19:48	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 19:48	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 19:48	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 19:48	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 19:48	040510–2
	Potassium	73.66	+/–250	J	64.0	250	SOL	P	05–APR–10 19:48	040510–2
	Silver	–1.78	+/–5	J	1.0	5.0	SOL	P	05–APR–10 19:48	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 19:48	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:48	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 19:48	040510–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2431

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB29										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 20:10	040510–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 20:10	040510–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 20:10	040510–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 20:10	040510–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 20:10	040510–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 20:10	040510–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 20:10	040510–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 20:10	040510–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 20:10	040510–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 20:10	040510–2
	Potassium	66.39	+/–250	J	64.0	250	SOL	P	05–APR–10 20:10	040510–2
	Silver	–1.46	+/–5	J	1.0	5.0	SOL	P	05–APR–10 20:10	040510–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 20:10	040510–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 20:10	040510–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 20:10	040510–2

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2431

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202072001								
	Antimony	0.778	ug/L	+/–3	J	MS	0.5	3
	Beryllium	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Manganese	1	ug/L	+/–5	U	MS	1	5
1202072038								
	Barium	1	ug/L	+/–5	U	P	1	5
	Calcium	50	ug/L	+/–200	U	P	50	200
	Chromium	1	ug/L	+/–5	U	P	1	5
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Copper	3	ug/L	+/–10	U	P	3	10
	Iron	30	ug/L	+/–100	U	P	30	100
	Magnesium	85	ug/L	+/–300	U	P	85	300
	Nickel	1.5	ug/L	+/–5	U	P	1.5	5
	Potassium	50	ug/L	+/–150	U	P	50	150
	Arsenic	5	ug/L	+/–30	U	P	5	30
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Selenium	5	ug/L	+/–30	U	P	5	30
	Silver	1	ug/L	+/–5	U	P	1	5
	Sodium	100	ug/L	+/–300	U	P	100	300
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
1202072045								
	Aluminum	6630	ug/kg	+/–19500	U	P	6630	19500
	Antimony	322	ug/kg	+/–975	U	P	322	975
	Barium	97.5	ug/kg	+/–487	U	P	97.5	487
	Cadmium	97.5	ug/kg	+/–487	U	P	97.5	487
	Calcium	7800	ug/kg	+/–24400	U	P	7800	24400
	Cobalt	146	ug/kg	+/–487	U	P	146	487
	Iron	7800	ug/kg	+/–24400	U	P	7800	24400
	Lead	244	ug/kg	+/–975	U	P	244	975
	Magnesium	8280	ug/kg	+/–29200	U	P	8280	29200
	Manganese	195	ug/kg	+/–975	U	P	195	975
	Potassium	7280	ug/kg	+/–24400	J	P	6240	24400
	Silver	97.5	ug/kg	+/–487	U	P	97.5	487
	Sodium	6820	ug/kg	+/–24400	U	P	6820	24400

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2431
Contract: LANL01004
Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
	Vanadium	97.5	ug/kg	+/–487	U	P	97.5	487
	Zinc	322	ug/kg	+/–975	U	P	322	975
1202072051								
	Arsenic	193	ug/kg	+/–965	U	MS	193	965
	Beryllium	19.3	ug/kg	+/–96.5	U	MS	19.3	96.5
	Nickel	96.5	ug/kg	+/–386	U	MS	96.5	386
	Selenium	483	ug/kg	+/–965	U	MS	483	965
	Thallium	80.3	ug/kg	+/–193	J	MS	57.9	193
1202075645								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2
1202081090								
	Mercury	4.03	ug/kg	+/–11.9	U	AV	4.03	11.9
1202091939								
	Chromium	353	ug/kg	+/–482	J	P	145	482
	Copper	289	ug/kg	+/–963	U	P	289	963

METALS
–4–
Interference Check Sample

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	504000	ug/L	500000	ug/L	101	80.0 – 120.0	01–APR–10 12:37	040110–1
	Arsenic	12.2	ug/L					01–APR–10 12:37	040110–1
	Barium	0.177	ug/L					01–APR–10 12:37	040110–1
	Calcium	483000	ug/L	500000	ug/L	96.6	80.0 – 120.0	01–APR–10 12:37	040110–1
	Chromium	1.28	ug/L					01–APR–10 12:37	040110–1
	Cobalt	–6.39	ug/L					01–APR–10 12:37	040110–1
	Copper	3.95	ug/L					01–APR–10 12:37	040110–1
	Iron	191000	ug/L	200000	ug/L	95.5	80.0 – 120.0	01–APR–10 12:37	040110–1
	Magnesium	488000	ug/L	500000	ug/L	97.5	80.0 – 120.0	01–APR–10 12:37	040110–1
	Nickel	3.2	ug/L					01–APR–10 12:37	040110–1
	Potassium	–156.0	ug/L					01–APR–10 12:37	040110–1
	Selenium	–9.42	ug/L					01–APR–10 12:37	040110–1
	Silver	0.141	ug/L					01–APR–10 12:37	040110–1
	Sodium	71.1	ug/L					01–APR–10 12:37	040110–1
	Vanadium	0.579	ug/L					01–APR–10 12:37	040110–1
	Zinc	8.55	ug/L					01–APR–10 12:37	040110–1
ICSAB01									
	Aluminum	510000	ug/L	500000	ug/L	102	80.0 – 120.0	01–APR–10 12:39	040110–1
	Arsenic	537	ug/L	500	ug/L	107	80.0 – 120.0	01–APR–10 12:39	040110–1
	Barium	500	ug/L	500	ug/L	100	80.0 – 120.0	01–APR–10 12:39	040110–1
	Calcium	488000	ug/L	500000	ug/L	97.7	80.0 – 120.0	01–APR–10 12:39	040110–1
	Chromium	491	ug/L	500	ug/L	98.1	80.0 – 120.0	01–APR–10 12:39	040110–1
	Cobalt	449	ug/L	500	ug/L	89.7	80.0 – 120.0	01–APR–10 12:39	040110–1
	Copper	541	ug/L	500	ug/L	108	80.0 – 120.0	01–APR–10 12:39	040110–1
	Iron	193000	ug/L	200000	ug/L	96.6	80.0 – 120.0	01–APR–10 12:39	040110–1
	Magnesium	495000	ug/L	500000	ug/L	99	80.0 – 120.0	01–APR–10 12:39	040110–1
	Nickel	460	ug/L	500	ug/L	91.9	80.0 – 120.0	01–APR–10 12:39	040110–1
	Potassium	5530	ug/L	5000	ug/L	111	80.0 – 120.0	01–APR–10 12:39	040110–1
	Selenium	2470	ug/L	2500	ug/L	98.8	80.0 – 120.0	01–APR–10 12:39	040110–1

METALS
–4–
Interference Check Sample

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silver	270	ug/L	250	ug/L	108	80.0 – 120.0	01–APR–10 12:39	040110–1
	Sodium	5430	ug/L	5000	ug/L	109	80.0 – 120.0	01–APR–10 12:39	040110–1
	Vanadium	515	ug/L	500	ug/L	103	80.0 – 120.0	01–APR–10 12:39	040110–1
	Zinc	497	ug/L	500	ug/L	99.3	80.0 – 120.0	01–APR–10 12:39	040110–1

METALS
–4–
Interference Check Sample

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	507000	ug/L	500000	ug/L	101	80.0 – 120.0	05–APR–10 10:30	040510–2
	Antimony	2.46	ug/L					05–APR–10 10:30	040510–2
	Barium	0.214	ug/L					05–APR–10 10:30	040510–2
	Cadmium	–1.98	ug/L					05–APR–10 10:30	040510–2
	Calcium	489000	ug/L	500000	ug/L	97.8	80.0 – 120.0	05–APR–10 10:30	040510–2
	Cobalt	–6.2	ug/L					05–APR–10 10:30	040510–2
	Iron	192000	ug/L	200000	ug/L	95.9	80.0 – 120.0	05–APR–10 10:30	040510–2
	Lead	–2.28	ug/L					05–APR–10 10:30	040510–2
	Magnesium	488000	ug/L	500000	ug/L	97.6	80.0 – 120.0	05–APR–10 10:30	040510–2
	Manganese	2.95	ug/L					05–APR–10 10:30	040510–2
	Potassium	–150.0	ug/L					05–APR–10 10:30	040510–2
	Silver	–1.56	ug/L					05–APR–10 10:30	040510–2
	Sodium	72.8	ug/L					05–APR–10 10:30	040510–2
	Vanadium	1.44	ug/L					05–APR–10 10:30	040510–2
	Zinc	8.71	ug/L					05–APR–10 10:30	040510–2
ICSAB01									
	Aluminum	510000	ug/L	500000	ug/L	102	80.0 – 120.0	05–APR–10 10:32	040510–2
	Antimony	518	ug/L	500	ug/L	104	80.0 – 120.0	05–APR–10 10:32	040510–2
	Barium	505	ug/L	500	ug/L	101	80.0 – 120.0	05–APR–10 10:32	040510–2
	Cadmium	483	ug/L	500	ug/L	96.6	80.0 – 120.0	05–APR–10 10:32	040510–2
	Calcium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	05–APR–10 10:32	040510–2
	Cobalt	452	ug/L	500	ug/L	90.4	80.0 – 120.0	05–APR–10 10:32	040510–2
	Iron	193000	ug/L	200000	ug/L	96.5	80.0 – 120.0	05–APR–10 10:32	040510–2
	Lead	472	ug/L	500	ug/L	94.4	80.0 – 120.0	05–APR–10 10:32	040510–2
	Magnesium	491000	ug/L	500000	ug/L	98.2	80.0 – 120.0	05–APR–10 10:32	040510–2
	Manganese	486	ug/L	500	ug/L	97.3	80.0 – 120.0	05–APR–10 10:32	040510–2
	Potassium	5510	ug/L	5000	ug/L	110	80.0 – 120.0	05–APR–10 10:32	040510–2
	Silver	271	ug/L	250	ug/L	108	80.0 – 120.0	05–APR–10 10:32	040510–2
	Sodium	5380	ug/L	5000	ug/L	108	80.0 – 120.0	05–APR–10 10:32	040510–2

METALS
–4–
Interference Check Sample

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Vanadium	520	ug/L	500	ug/L	104	80.0 – 120.0	05–APR–10 10:32	040510–2
	Zinc	500	ug/L	500	ug/L	100	80.0 – 120.0	05–APR–10 10:32	040510–2

METALS
–4–
Interference Check Sample

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Chromium	2.86	ug/L					15–APR–10 17:06	041510A–4
	Copper	6.71	ug/L					15–APR–10 17:06	041510A–4
ICSAB01									
	Chromium	477	ug/L	500	ug/L	95.5	80.0 – 120.0	15–APR–10 17:13	041510A–4
	Copper	560	ug/L	500	ug/L	112	80.0 – 120.0	15–APR–10 17:13	041510A–4

METALS
–4–
Interference Check Sample

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.252	ug/L					24–APR–10 18:15	100424–5
	Cadmium	0.239	ug/L					24–APR–10 18:15	100424–5
	Lead	0.161	ug/L					24–APR–10 18:15	100424–5
	Manganese	5.82	ug/L					24–APR–10 18:15	100424–5
	Thallium	0.068	ug/L					24–APR–10 18:15	100424–5
ICSAB01									
	Antimony	18.3	ug/L	20	ug/L	91.3	80.0 – 120.0	24–APR–10 18:21	100424–5
	Cadmium	19.7	ug/L	20.44	ug/L	96.4	80.0 – 120.0	24–APR–10 18:21	100424–5
	Lead	19.0	ug/L	20.19	ug/L	94.1	80.0 – 120.0	24–APR–10 18:21	100424–5
	Manganese	26.2	ug/L	25.8	ug/L	102	80.0 – 120.0	24–APR–10 18:21	100424–5
	Thallium	18.3	ug/L	20	ug/L	91.6	80.0 – 120.0	24–APR–10 18:21	100424–5

METALS
-4-
Interference Check Sample

SDG No: 10-2431

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.046	ug/L					15-MAY-10 00:30	100514-6
ICSAB01									
	Beryllium	17.3	ug/L	20	ug/L	86.4	80.0 - 120.0	15-MAY-10 00:36	100514-6

METALS
–4–
Interference Check Sample

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.49	ug/L					16–MAY–10 07:33	100515–7
	Nickel	2.47	ug/L					16–MAY–10 07:33	100515–7
	Selenium	–0.572	ug/L					16–MAY–10 07:33	100515–7
	Thallium	0.061	ug/L					16–MAY–10 07:33	100515–7
ICSAB01									
	Arsenic	20.0	ug/L	20	ug/L	100	80.0 – 120.0	16–MAY–10 07:37	100515–7
	Nickel	21.5	ug/L	23.31	ug/L	92.3	80.0 – 120.0	16–MAY–10 07:37	100515–7
	Selenium	19.9	ug/L	20	ug/L	99.6	80.0 – 120.0	16–MAY–10 07:37	100515–7
	Thallium	17.9	ug/L	20	ug/L	89.7	80.0 – 120.0	16–MAY–10 07:37	100515–7

METALS
–4–
Interference Check Sample

SDG No: 10–2431

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS7

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.117	ug/L					18–MAY–10 08:38	100517–9
ICSAB01									
	Beryllium	20.9	ug/L	20	ug/L	105	80.0 – 120.0	18–MAY–10 08:38	100517–9

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-2431 **Client ID** CAMO-10-13924S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 249243001 **Spike ID:** 1202072004

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75-125	212		0.5	U	200	106		MS
Cadmium	ug/L	75-125	11.1		0.11	U	10	111		MS
Lead	ug/L	75-125	43.7		0.5	U	40	109		MS
Manganese	ug/L	75-125	51.4		3.24	J	50	96.3		MS
Thallium	ug/L	75-125	106		0.3	U	100	106		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2431 **Client ID** RE46–10–12997S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 249333001 **Spike ID:** 1202072041

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75–125	5030		68	U	5000	100		P
Arsenic	ug/L	75–125	493		5	U	500	98.4		P
Barium	ug/L	75–125	507		1.05	J	500	101		P
Calcium	ug/L	75–125	5170		50	U	5000	103		P
Chromium	ug/L	75–125	495		1	U	500	99		P
Cobalt	ug/L	75–125	496		1	U	500	99.1		P
Copper	ug/L	75–125	499		3	U	500	99.8		P
Iron	ug/L	75–125	5120		30	U	5000	102		P
Magnesium	ug/L	75–125	5240		85	U	5000	105		P
Nickel	ug/L	75–125	498		1.5	U	500	99.6		P
Selenium	ug/L	75–125	488		5	U	500	97.4		P
Silver	ug/L	75–125	496		1	U	500	99.1		P
Sodium	ug/L	75–125	5100		100	U	5000	101		P
Vanadium	ug/L	75–125	502		1	U	500	100		P
Zinc	ug/L	75–125	489		3.3	U	500	97.5		P
Potassium	ug/L	75–125	5060		50	U	5000	101		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2431 **Client ID** RE46–10–12972S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 249333003 **Spike ID:** 1202072048

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		6470000		3510000		568000	520	N/A	P
Antimony	ug/kg	75–125	51800		369	U	56800	91.3		P
Barium	ug/kg	75–125	83700		25200		56800	103		P
Cadmium	ug/kg	75–125	58100		112	U	56800	102		P
Calcium	ug/kg	75–125	1460000		942000		568000	91.2		P
Chromium	ug/kg	75–125	65700		11600		54900	98.5		P
Cobalt	ug/kg	75–125	58000		1290		56800	100		P
Copper	ug/kg	75–125	60700		5400		54900	101		P
Iron	ug/kg		9450000		8360000		568000	192	N/A	P
Lead	ug/kg	75–125	69200		12100		56800	101		P
Magnesium	ug/kg	75–125	1390000		576000		568000	144	N	P
Manganese	ug/kg	75–125	252000		213000		56800	69	N	P
Potassium	ug/kg	75–125	1190000		419000		568000	136	N	P
Silver	ug/kg	75–125	58400		112	U	56800	103		P
Sodium	ug/kg	75–125	683000		128000		568000	97.9		P
Vanadium	ug/kg	75–125	65400		7110		56800	103		P
Zinc	ug/kg	75–125	105000		46500		56800	102		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2431 **Client ID** RE46–10–12972SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 249333003 **Spike ID:** 1202072050

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		7160000		3510000		538000	678	N/A	P
Antimony	ug/kg	75–125	48400		369	U	53800	89.9		P
Barium	ug/kg	75–125	81900		25200		53800	106		P
Cadmium	ug/kg	75–125	54800		112	U	53800	102		P
Calcium	ug/kg	75–125	1550000		942000		538000	114		P
Chromium	ug/kg	75–125	60400		11600		53300	91.7		P
Cobalt	ug/kg	75–125	54700		1290		53800	99.3		P
Copper	ug/kg	75–125	58900		5400		53300	100		P
Iron	ug/kg		10200000		8360000		538000	348	N/A	P
Lead	ug/kg	75–125	65600		12100		53800	99.5		P
Magnesium	ug/kg	75–125	1450000		576000		538000	163	N	P
Manganese	ug/kg	75–125	257000		213000		53800	82.5		P
Potassium	ug/kg	75–125	1230000		419000		538000	150	N	P
Silver	ug/kg	75–125	55300		112	U	53800	103		P
Sodium	ug/kg	75–125	668000		128000		538000	101		P
Vanadium	ug/kg	75–125	63600		7110		53800	105		P
Zinc	ug/kg	75–125	106000		46500		53800	111		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2431 **Client ID** RE46–10–12972S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 249333003 **Spike ID:** 1202072054

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	9260		1570		8960	85.8		MS
Beryllium	ug/kg	75–125	5500		585		5600	87.8		MS
Nickel	ug/kg	75–125	8460		3500		5600	88.7		MS
Selenium	ug/kg	75–125	2110		558	U	2240	79.3		MS
Thallium	ug/kg	75–125	9290		66.9	U	11200	82.6		MS

METALS
-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-2431 **Client ID** RE46-10-13220SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 249330003 **Spike ID:** 1202072056

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75-125	9490		1540		9000	88.3		MS
Beryllium	ug/kg	75-125	5400		401		5630	88.9		MS
Nickel	ug/kg	75-125	8870		2330		5630	116		MS
Selenium	ug/kg	75-125	2200		563	U	2250	92.3		MS
Thallium	ug/kg	75-125	9520		125	J	11300	83.5		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2431 **Client ID** RE16–10–14224S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 249528001 **Spike ID:** 1202075648

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	2.17		0.066	U	2	108		AV

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2431 **Client ID** RE46–10–13219S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.1

Sample ID: 249330001 **Spike ID:** 1202081093

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	225		77.8		128	115		AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2431 **Client ID** RE46–10–13219SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.1

Sample ID: 249330001 **Spike ID:** 1202081095

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	224		77.8		122	121		AV

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2431 **Client ID** RE46–10–12994S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 249333002 **Spike ID:** 1202106368

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	ug/L	75–125	49.9		0.1	U	50	99.9		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAMO–10–13924D

Sample ID: 249243001 **Duplicate ID:** 1202072003 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		0.5	U	0.5	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Manganese	ug/L	+/–5	3.24	J	3.37	J	4.02		MS
Thallium	ug/L		0.3	U	0.3	U			MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE46–10–12997D

Sample ID: 249333001 **Duplicate ID:** 1202072040 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Arsenic	ug/L		5	U	5	U			P
Barium	ug/L		1.05	J	1	U	200		P
Calcium	ug/L		50	U	50	U			P
Chromium	ug/L		1	U	1	U			P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L		30	U	30	U			P
Magnesium	ug/L		85	U	85	U			P
Nickel	ug/L		1.5	U	1.5	U			P
Potassium	ug/L		50	U	50	U			P
Selenium	ug/L		5	U	5	U			P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L		100	U	100	U			P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L		3.3	U	3.3	U			P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12972D

Sample ID: 249333003 **Duplicate ID:** 1202072047 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	3510000		3950000		11.7		P
Antimony	ug/kg		369	U	332	U			P
Barium	ug/kg	+/–20%	25200		27700		9.4		P
Cadmium	ug/kg		112	U	101	U			P
Calcium	ug/kg	+/–20%	942000		1020000		8.4		P
Chromium	ug/kg	+/–20%	11600		14600		23.2	*	P
Cobalt	ug/kg	+/–503	1290		1490		14.1		P
Copper	ug/kg	+/–1120	5400		6600		20	*	P
Iron	ug/kg	+/–20%	8360000		9660000		14.4		P
Lead	ug/kg	+/–20%	12100		14200		15.9		P
Magnesium	ug/kg	+/–20%	576000		636000		9.9		P
Manganese	ug/kg	+/–20%	213000		252000		17.1		P
Potassium	ug/kg	+/–20%	419000		458000		8.87		P
Silver	ug/kg		112	U	101	U			P
Sodium	ug/kg	+/–20%	128000		132000		3.16		P
Vanadium	ug/kg	+/–20%	7110		8140		13.5		P
Zinc	ug/kg	+/–20%	46500		53300		13.7		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12972SD

Sample ID: 1202072048 **Duplicate ID:** 1202072050 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	6470000		7160000		10.1		P
Antimony	ug/kg	+/–20	51800		48400		6.91		P
Barium	ug/kg	+/–20	83700		81900		2.14		P
Cadmium	ug/kg	+/–20	58100		54800		5.81		P
Calcium	ug/kg	+/–20	1460000		1550000		6.28		P
Chromium	ug/kg	+/–20	65700		60400		8.36		P
Cobalt	ug/kg	+/–20	58000		54700		5.96		P
Copper	ug/kg	+/–20	60700		58900		3.03		P
Iron	ug/kg	+/–20	9450000		10200000		7.94		P
Lead	ug/kg	+/–20	69200		65600		5.33		P
Magnesium	ug/kg	+/–20	1390000		1450000		4.41		P
Manganese	ug/kg	+/–20	252000		257000		2.04		P
Potassium	ug/kg	+/–20	1190000		1230000		2.81		P
Silver	ug/kg	+/–20	58400		55300		5.34		P
Sodium	ug/kg	+/–20	683000		668000		2.23		P
Vanadium	ug/kg	+/–20	65400		63600		2.87		P
Zinc	ug/kg	+/–20	105000		106000		1.3		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12972D

Sample ID: 249333003 **Duplicate ID:** 1202072053 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–1100	1570		1730		9.78		MS
Beryllium	ug/kg	+/–110	585		511		13.5		MS
Nickel	ug/kg	+/–20%	3500		3510		.452		MS
Selenium	ug/kg		558	U	552	U			MS
Thallium	ug/kg		66.9	U	66.3	U			MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13220SD

Sample ID: 1202072054 **Duplicate ID:** 1202072056 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	9260		9490		2.45		MS
Beryllium	ug/kg	+/–20	5500		5400		1.85		MS
Nickel	ug/kg	+/–20	8460		8870		4.72		MS
Selenium	ug/kg	+/–20	2110		2200		4.04		MS
Thallium	ug/kg	+/–20	9290		9520		2.51		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE16–10–14224D

Sample ID: 249528001 **Duplicate ID:** 1202075647 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13219D

Sample ID: 249330001 **Duplicate ID:** 1202081092 **Percent Solids for Dup:** 92.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20%	77.8		80.9		3.95		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13219SD

Sample ID: 1202081093 **Duplicate ID:** 1202081095 **Percent Solids for Dup:** 92.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	225		224		.36		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2431

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE46–10–12994D

Sample ID: 249333002 **Duplicate ID:** 1202106366 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Beryllium	ug/L		0.1	U	0.1	U			MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2431

Contract: LANL01004

Aqueous LCS Source:O2si **Solid LCS Source:**

SDG NO. 10-2431

Contract: LANL01004

Aqueous LCS Source:O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202072002								
	Beryllium	ug/L	50	48.3		96.5	80-120	MS
	Cadmium	ug/L	50	52.4		105	80-120	MS
	Lead	ug/L	50	53.3		107	80-120	MS
	Manganese	ug/L	50	54.5		109	80-120	MS
	Thallium	ug/L	50	50.1		100	80-120	MS
	Antimony	ug/L	50	49.9		99.8	80-120	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2431

Contract: LANL01004

Aqueous LCS Source:OS21 **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202072039								
	Aluminum	ug/L	5000	5200		104	80–120	P
	Arsenic	ug/L	500	512		102	80–120	P
	Barium	ug/L	500	522		104	80–120	P
	Calcium	ug/L	5000	5300		106	80–120	P
	Chromium	ug/L	500	512		102	80–120	P
	Cobalt	ug/L	500	509		102	80–120	P
	Copper	ug/L	500	515		103	80–120	P
	Iron	ug/L	5000	5270		105	80–120	P
	Magnesium	ug/L	5000	5360		107	80–120	P
	Nickel	ug/L	500	513		103	80–120	P
	Potassium	ug/L	5000	5190		104	80–120	P
	Selenium	ug/L	500	507		101	80–120	P
	Silver	ug/L	500	511		102	80–120	P
	Sodium	ug/L	5000	5240		105	80–120	P
	Vanadium	ug/L	500	518		104	80–120	P
	Zinc	ug/L	500	505		101	80–120	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2431

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202072046								
	Aluminum	ug/kg	10500000	9300000		88.6	56–144	P
	Antimony	ug/kg	173000	200000		116	71–130	P
	Barium	ug/kg	198000	188000		95	80–120	P
	Cadmium	ug/kg	60700	70800		117	81–120	P
	Calcium	ug/kg	9870000	10600000		107	83–117	P
	Cobalt	ug/kg	91200	107000		117	81–120	P
	Iron	ug/kg	18000000	18700000		104	51–149	P
	Lead	ug/kg	86000	82800		96.3	79–121	P
	Magnesium	ug/kg	4000000	3880000		97	79–122	P
	Manganese	ug/kg	558000	601000		108	81–119	P
	Potassium	ug/kg	4300000	4250000		98.9	74–127	P
	Silver	ug/kg	30100	32000		106	66–134	P
	Sodium	ug/kg	1020000	1070000		105	74–127	P
	Vanadium	ug/kg	115000	131000		114	79–121	P
	Zinc	ug/kg	594000	657000		111	80–121	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2431

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202072052								
	Arsenic	ug/kg	104000	95400		91.7	78–123	MS
	Beryllium	ug/kg	77600	87000		112	84–116	MS
	Nickel	ug/kg	134000	130000		96.9	78–123	MS
	Selenium	ug/kg	286000	253000		88.6	77–123	MS
	Thallium	ug/kg	121000	102000		83.9	78–122	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2431

Contract: LANL01004

Aqueous LCS Source:GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202075646								
	Mercury	ug/L	2	2.16		108	80–120	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2431

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202081091								
	Mercury	ug/kg	5150	5400		105	71.6–128.3	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2431

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202091940								
	Chromium	ug/kg	236000	239000		101	80–120	P
	Copper	ug/kg	174000	194000		111	81–118	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2431 **Client ID** CAMO–10–13924L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 249243001 **Serial Dilution ID:** 1202072005

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	.5	U	2.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Manganese	3.24	J	5	U	100			MS
Thallium	.3	U	4.5	J				MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2431 **Client ID** RE46-10-12997L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 249333001 **Serial Dilution ID:** 1202072042

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	5	U	25	U				P
Barium	1.05	J	5	U	100			P
Calcium	50	U	250	U				P
Chromium	1	U	5	U				P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	30	U	150	U				P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	50	U	250	U				P
Selenium	5	U	25	U				P
Silver	1	U	5	U				P
Sodium	100	U	500	U				P
Vanadium	1	U	5	U				P
Zinc	3.3	U	16.5	U				P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2431 **Client ID** RE46–10–12972L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 249333003 **Serial Dilution ID:** 1202072049

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	31400		31700		.796		10	P
Antimony	3.3	U	16.5	U				P
Barium	225		226		.222		10	P
Cadmium	1	U	5	U				P
Calcium	8410		8400		.119		10	P
Chromium	104		110		5.29		10	P
Cobalt	11.5		13	J	12.6			P
Copper	48.6		38.3	J	21.2			P
Iron	74700		75000		.402		10	P
Lead	108		110		1.39			P
Magnesium	5140		5100		.778		10	P
Manganese	1900		1920		1.05		10	P
Potassium	3740		4110		9.89		10	P
Silver	1	U	5	U				P
Sodium	1140		1110	J	3.07			P
Vanadium	63.5		64.5		1.57		10	P
Zinc	415		438		5.54		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2431 **Client ID** RE46–10–12972L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 249333003 **Serial Dilution ID:** 1202072055

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	7.03		5	U	100			MS
Beryllium	2.62		3.02		15.1			MS
Nickel	15.7		16.2		2.87			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.3	U	1.5	U				MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2431 **Client ID** RE16–10–14224L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 249528001 **Serial Dilution ID:** 1202075655

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2431 **Client ID** RE46–10–13219L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 249330001 **Serial Dilution ID:** 1202081094

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	1.21		.785	J	35.1			AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2431 **Client ID** RE46–10–12994L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 249333002 **Serial Dilution ID:** 1202106367

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Beryllium	.1	U	.5	U				MS

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-2431 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 965618							
1202072038	MB for batch 965618	MB	W	31-MAR-10	50mL	50mL	
1202072039	LCS for batch 965618	LCS	W	31-MAR-10	50mL	50mL	
1202072041	RE46-10-12997S	MS	W	31-MAR-10	50mL	50mL	
1202072040	RE46-10-12997D	DUP	W	31-MAR-10	50mL	50mL	
249330009	RE46-10-13238	SAMPLE	W	31-MAR-10	50mL	50mL	
249330010	RE46-10-13239	SAMPLE	W	31-MAR-10	50mL	50mL	
249330011	RE46-10-14198	SAMPLE	W	31-MAR-10	50mL	50mL	
249330012	RE46-10-14201	SAMPLE	W	31-MAR-10	50mL	50mL	
Batch Number 965623							
1202072045	MB for batch 965623	MB	S	31-MAR-10	.513g	50mL	
1202072046	LCS for batch 965623	LCS	S	31-MAR-10	.524g	50mL	
1202072048	RE46-10-12972S	MS	S	31-MAR-10	.502g	50mL	
1202072050	RE46-10-12972SD	MSD	S	31-MAR-10	.53g	50mL	
1202072047	RE46-10-12972D	DUP	S	31-MAR-10	.567g	50mL	
249330001	RE46-10-13219	SAMPLE	S	31-MAR-10	.501g	50mL	
249330002	RE46-10-13221	SAMPLE	S	31-MAR-10	.518g	50mL	
249330003	RE46-10-13220	SAMPLE	S	31-MAR-10	.536g	50mL	
249330004	RE46-10-13216	SAMPLE	S	31-MAR-10	.503g	50mL	
249330005	RE46-10-13217	SAMPLE	S	31-MAR-10	.523g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2431 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
249330006	RE46–10–13218	SAMPLE	S	31–MAR–10	.52g	50mL	
249330007	RE46–10–13234	SAMPLE	S	31–MAR–10	.502g	50mL	
249330008	RE46–10–14199	SAMPLE	S	31–MAR–10	.549g	50mL	
Batch Number 973754							
1202091939	MB for batch 973754	MB	S	12–APR–10	.519g	50mL	
1202091940	LCS for batch 973754	LCS	S	12–APR–10	.504g	50mL	
1202072048	RE46–10–12972S	MS	S	12–APR–10	.519g	50mL	
1202072050	RE46–10–12972SD	MSD	S	12–APR–10	.535g	50mL	
1202072047	RE46–10–12972D	DUP	S	12–APR–10	.511g	50mL	
249330001	RE46–10–13219	SAMPLE	S	12–APR–10	.541g	50mL	
249330002	RE46–10–13221	SAMPLE	S	12–APR–10	.535g	50mL	
249330003	RE46–10–13220	SAMPLE	S	12–APR–10	.502g	50mL	
249330004	RE46–10–13216	SAMPLE	S	12–APR–10	.523g	50mL	
249330005	RE46–10–13217	SAMPLE	S	12–APR–10	.528g	50mL	
249330006	RE46–10–13218	SAMPLE	S	12–APR–10	.559g	50mL	
249330007	RE46–10–13234	SAMPLE	S	12–APR–10	.564g	50mL	
249330008	RE46–10–14199	SAMPLE	S	12–APR–10	.553g	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10–2431 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 965602							
1202072001	MB for batch 965602	MB	G	26–MAR–10	50mL	50mL	
1202072002	LCS for batch 965602	LCS	G	26–MAR–10	50mL	50mL	
1202072004	CAMO–10–13924S	MS	G	26–MAR–10	50mL	50mL	
1202072003	CAMO–10–13924D	DUP	G	26–MAR–10	50mL	50mL	
249330009	RE46–10–13238	SAMPLE	W	26–MAR–10	50mL	50mL	
249330010	RE46–10–13239	SAMPLE	W	26–MAR–10	50mL	50mL	
249330011	RE46–10–14198	SAMPLE	W	26–MAR–10	50mL	50mL	
249330012	RE46–10–14201	SAMPLE	W	26–MAR–10	50mL	50mL	
Batch Number 965626							
1202072051	MB for batch 965626	MB	S	31–MAR–10	.518g	50mL	
1202072052	LCS for batch 965626	LCS	S	31–MAR–10	.5g	50mL	
1202072054	RE46–10–12972S	MS	S	31–MAR–10	.509g	50mL	
1202072056	RE46–10–13220SD	MSD	S	31–MAR–10	.502g	50mL	
1202072053	RE46–10–12972D	DUP	S	31–MAR–10	.516g	50mL	
249330001	RE46–10–13219	SAMPLE	S	31–MAR–10	.522g	50mL	
249330002	RE46–10–13221	SAMPLE	S	31–MAR–10	.517g	50mL	
249330003	RE46–10–13220	SAMPLE	S	31–MAR–10	.502g	50mL	
249330004	RE46–10–13216	SAMPLE	S	31–MAR–10	.507g	50mL	
249330005	RE46–10–13217	SAMPLE	S	31–MAR–10	.551g	50mL	

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METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2431 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
249330006	RE46-10-13218	SAMPLE	S	31-MAR-10	.526g	50mL	
249330007	RE46-10-13234	SAMPLE	S	31-MAR-10	.505g	50mL	
249330008	RE46-10-14199	SAMPLE	S	31-MAR-10	.502g	50mL	
Batch Number 979729							
1202072001	MB for batch 965602	MB	G	30-APR-10	50mL	50mL	
1202072002	LCS for batch 965602	LCS	G	30-APR-10	50mL	50mL	
1202106368	RE46-10-12994S	MS	W	30-APR-10	50mL	50mL	
1202106366	RE46-10-12994D	DUP	W	30-APR-10	50mL	50mL	
249330009	RE46-10-13238	SAMPLE	W	30-APR-10	50mL	50mL	
249330010	RE46-10-13239	SAMPLE	W	30-APR-10	50mL	50mL	
249330011	RE46-10-14198	SAMPLE	W	30-APR-10	50mL	50mL	
249330012	RE46-10-14201	SAMPLE	W	30-APR-10	50mL	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-2431 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 967111							
1202075645	MB for batch 967111	MB	W	19-MAR-10	20mL	20mL	
1202075646	LCS for batch 967111	LCS	W	19-MAR-10	20mL	20mL	
1202075648	RE16-10-14224S	MS	W	19-MAR-10	20mL	20mL	
1202075647	RE16-10-14224D	DUP	W	19-MAR-10	20mL	20mL	
249330009	RE46-10-13238	SAMPLE	W	19-MAR-10	20mL	20mL	
249330010	RE46-10-13239	SAMPLE	W	19-MAR-10	20mL	20mL	
249330011	RE46-10-14198	SAMPLE	W	19-MAR-10	20mL	20mL	
249330012	RE46-10-14201	SAMPLE	W	19-MAR-10	20mL	20mL	
Batch Number 969289							
1202081090	MB for batch 969289	MB	S	30-MAR-10	.506g	30mL	
1202081091	LCS for batch 969289	LCS	S	30-MAR-10	.206g	30mL	
1202081093	RE46-10-13219S	MS	S	30-MAR-10	.507g	30mL	
1202081095	RE46-10-13219SD	MSD	S	30-MAR-10	.536g	30mL	
1202081092	RE46-10-13219D	DUP	S	30-MAR-10	.5g	30mL	
249330001	RE46-10-13219	SAMPLE	S	30-MAR-10	.505g	30mL	
249330002	RE46-10-13221	SAMPLE	S	30-MAR-10	.52g	30mL	
249330003	RE46-10-13220	SAMPLE	S	30-MAR-10	.524g	30mL	
249330004	RE46-10-13216	SAMPLE	S	30-MAR-10	.581g	30mL	
249330005	RE46-10-13217	SAMPLE	S	30-MAR-10	.503g	30mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10–2431 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
249330006	RE46–10–13218	SAMPLE	S	30–MAR–10	.519g	30mL	
249330007	RE46–10–13234	SAMPLE	S	30–MAR–10	.586g	30mL	
249330008	RE46–10–14199	SAMPLE	S	30–MAR–10	.543g	30mL	

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 15–APR–10 **End Date:** 15–APR–10

Client Sdg: 10–2431
Method P
Data File: 041510A–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	16:13:00								X		X													
S0.1	1	16:19:00								X		X													
S0.5	1	16:26:00								X		X													
SCAL	1	16:33:00								X		X													
S10	1	16:40:00																							
ICV01	1	16:46:00								X		X													
ICB01	1	16:53:00								X		X													
PQL01	1	16:59:00								X		X													
ICSA01	1	17:06:00								X		X													
ICSAB01	1	17:13:00								X		X													
LR01	1	17:20:00								X		X													
LR02	1	17:27:00								X		X													
CCV01	1	17:33:00								X		X													
CCB01	1	17:40:00								X		X													
LR03	1	17:53:00								X		X													
CCV02	1	17:59:00								X		X													
CCB02	1	18:06:00								X		X													
ZZZZZZ	1	18:13:00																							
ZZZZZZ	1	18:20:00																							
ZZZZZZ	1	18:27:00																							
ZZZZZZ	1	18:34:00																							
ZZZZZZ	1	18:41:00																							
ZZZZZZ	5	18:48:00																							
ZZZZZZ	1	18:55:00																							
ZZZZZZ	1	19:02:00																							
CCV03	1	19:08:00								X		X													
CCB03	1	19:15:00								X		X													
1202091939	1	19:22:00								X		X													
1202091940	1	19:29:00								X		X													
ZZZZZZ	1	19:35:00																							
1202072047	1	19:42:00								X		X													
1202072048	1	19:49:00								X		X													
1202072050	1	19:55:00								X		X													
1202072049	5	20:02:00								X		X													
ZZZZZZ	1	20:09:00																							
ZZZZZZ	1	20:16:00																							
CCV04	1	20:23:00								X		X													
CCB04	1	20:30:00								X		X													
ZZZZZZ	1	20:36:00																							
ZZZZZZ	1	20:43:00																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																						
249330001	1	20:50:00							X		X													
249330002	1	20:57:00							X		X													
249330003	1	21:04:00							X		X													
249330004	1	21:11:00							X		X													
249330005	1	21:18:00							X		X													
249330006	1	21:25:00							X		X													
CCV05	1	21:31:00							X		X													
CCB05	1	21:38:00							X		X													
249330007	1	21:45:00							X		X													
249330008	1	21:52:00							X		X													
ZZZZZZ	1	21:59:00																						
ZZZZZZ	1	22:05:00																						
ZZZZZZ	1	22:12:00																						
ZZZZZZ	1	22:19:00																						
ZZZZZZ	1	22:26:00																						
ZZZZZZ	1	22:33:00																						
CCV06	1	22:40:00							X		X													
CCB06	1	22:46:00							X		X													

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 22–MAR–10 **End Date:** 22–MAR–10

Client Sdg: 10–2431
Method AV
Data File: 032210W1–10

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	09:14:00															X								
S0.2	1	09:15:00															X								
S0.5	1	09:17:00															X								
S2.0	1	09:19:00															X								
S5.0	1	09:21:00															X								
S10.0	1	09:23:00															X								
ICV01	1	09:25:00															X								
ICB01	1	09:27:00															X								
CRDL01	1	09:29:00															X								
CCV01	1	09:31:00															X								
CCB01	1	09:33:00															X								
ZZZZZZ	1	09:35:00																							
ZZZZZZ	1	09:37:00																							
ZZZZZZ	1	09:39:00																							
ZZZZZZ	1	09:40:00																							
ZZZZZZ	1	09:42:00																							
ZZZZZZ	1	09:44:00																							
ZZZZZZ	1	09:46:00																							
ZZZZZZ	1	09:48:00																							
ZZZZZZ	1	09:50:00																							
ZZZZZZ	1	09:52:00																							
CCV02	1	09:54:00															X								
CCB02	1	09:56:00															X								
ZZZZZZ	1	09:58:00																							
ZZZZZZ	5	10:00:00																							
ZZZZZZ	1	10:02:00																							
ZZZZZZ	1	10:04:00																							
ZZZZZZ	1	10:06:00																							
ZZZZZZ	1	10:07:00																							
ZZZZZZ	1	10:09:00																							
ZZZZZZ	5	10:11:00																							
ZZZZZZ	1	10:13:00																							
ZZZZZZ	1	10:15:00																							
CCV03	1	10:17:00															X								
CCB03	1	10:19:00															X								
ZZZZZZ	1	10:21:00																							
ZZZZZZ	1	10:23:00																							
ZZZZZZ	1	10:25:00																							
ZZZZZZ	1	10:27:00																							
ZZZZZZ	1	10:29:00																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	10:31:00																						
ZZZZZZ	1	10:32:00																						
ZZZZZZ	1	10:34:00																						
ZZZZZZ	1	10:36:00																						
ZZZZZZ	1	10:38:00																						
CCV04	1	10:40:00													X									
CCB04	1	10:42:00													X									
ZZZZZZ	1	10:44:00																						
ZZZZZZ	5	10:46:00																						
ZZZZZZ	1	10:48:00																						
ZZZZZZ	1	10:50:00																						
ZZZZZZ	1	10:52:00																						
ZZZZZZ	1	10:54:00																						
ZZZZZZ	1	10:56:00																						
ZZZZZZ	1	10:57:00																						
ZZZZZZ	1	10:59:00																						
ZZZZZZ	5	11:01:00																						
CCV05	1	11:03:00													X									
CCB05	1	11:05:00													X									
1202075645	1	11:07:00													X									
1202075646	1	11:09:00													X									
ZZZZZZ	1	11:11:00																						
ZZZZZZ	1	11:13:00																						
ZZZZZZ	1	11:15:00																						
ZZZZZZ	1	11:17:00																						
ZZZZZZ	1	11:19:00																						
ZZZZZZ	1	11:21:00																						
ZZZZZZ	1	11:23:00																						
ZZZZZZ	1	11:25:00																						
CCV06	1	11:26:00													X									
CCB06	1	11:28:00													X									
ZZZZZZ	1	11:30:00																						
ZZZZZZ	1	11:32:00																						
249330009	1	11:34:00													X									
249330010	1	11:36:00													X									
249330011	1	11:38:00													X									
249330012	1	11:40:00													X									
ZZZZZZ	1	11:42:00																						
ZZZZZZ	1	11:44:00																						
ZZZZZZ	1	11:46:00																						

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	11:48:00																							
CCV07	1	11:50:00															X								
CCB07	1	11:52:00															X								
ZZZZZZ	1	11:53:00																							
1202075647	1	11:55:00															X								
1202075648	1	11:57:00															X								
1202075655	5	11:59:00															X								
ZZZZZZ	1	12:01:00																							
ZZZZZZ	1	12:03:00																							
ZZZZZZ	1	12:05:00																							
ZZZZZZ	1	12:07:00																							
ZZZZZZ	5	12:09:00																							
ZZZZZZ	1	12:11:00																							
CCV08	1	12:13:00															X								
CCB08	1	12:15:00															X								

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 01–APR–10 **End Date:** 01–APR–10

Client Sdg: 10–2431
Method P
Data File: 040110–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	12:20:59	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
S0.1	1	12:23:57			X	X				X	X	X						X	X	X	X			X	X
S0.5	1	12:25:55	X		X	X			X	X	X	X			X			X	X	X	X			X	X
SCAL	1	12:27:54	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
S10	1	12:29:58	X						X				X		X							X			
ICV01	1	12:31:02	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ICB01	1	12:32:22	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
PQL01	1	12:35:19	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ICSA01	1	12:37:21	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ICSAB01	1	12:39:20	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
LR01	1	12:40:26	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
LR02	1	12:41:43	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCV01	1	12:43:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB01	1	12:45:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCV02	1	12:50:03	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB02	1	12:52:16	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCV03	1	13:30:04	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB03	1	13:32:04	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	13:35:01																							
ZZZZZZ	1	13:38:00																							
ZZZZZZ	50	13:40:00																							
ZZZZZZ	50	13:43:05																							
ZZZZZZ	50	13:45:56																							
ZZZZZZ	250	13:47:54																							
ZZZZZZ	50	13:50:59																							
ZZZZZZ	50	13:54:05																							
ZZZZZZ	50	13:56:56																							
CCV04	1	13:59:47	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB04	1	14:01:50	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	14:04:47																							
ZZZZZZ	1	14:07:47																							
ZZZZZZ	1	14:09:46																							
ZZZZZZ	1	14:11:58																							
ZZZZZZ	1	14:14:09																							
ZZZZZZ	5	14:16:23																							
ZZZZZZ	1	14:19:29																							
CCV05	1	14:21:40	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB05	1	14:23:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	14:26:39																							
ZZZZZZ	1	14:29:38																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	14:31:38																							
ZZZZZZ	1	14:34:29																							
ZZZZZZ	1	14:37:20																							
ZZZZZZ	5	14:39:33																							
CCV06	1	14:42:39	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB06	1	14:44:55	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	14:47:52																							
ZZZZZZ	1	14:50:47																							
ZZZZZZ	1	14:53:53																							
ZZZZZZ	1	14:56:58																							
ZZZZZZ	1	14:59:50																							
ZZZZZZ	1	15:02:43																							
ZZZZZZ	1	15:05:36																							
CCV07	1	15:08:42	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB07	1	15:10:43	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	15:13:54																							
ZZZZZZ	1	15:17:07																							
ZZZZZZ	1	15:19:20																							
ZZZZZZ	1	15:22:25																							
ZZZZZZ	1	15:25:16																							
ZZZZZZ	5	15:27:30																							
ZZZZZZ	1	15:30:35																							
ZZZZZZ	1	15:33:26																							
ZZZZZZ	1	15:36:18																							
CCV08	1	15:39:10	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB08	1	15:41:11	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202072038	1	15:44:23	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202072039	1	15:47:21	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	15:49:21																							
1202072040	1	15:52:31	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202072041	1	15:55:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202072042	5	15:57:55	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	16:01:06																							
ZZZZZZ	1	16:03:18																							
CCV09	1	16:06:10	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB09	1	16:08:26	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	16:11:38																							
ZZZZZZ	1	16:13:38																							
249330009	1	16:15:49	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
249330010	1	16:18:45	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
249330011	1	16:21:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
249330012	1	16:24:52	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	16:28:05																							
CCV10	1	16:30:07	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB10	1	16:32:09	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 05–APR–10 **End Date:** 05–APR–10

Client Sdg: 10–2431
Method P
Data File: 040510–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	10:13:47	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
S0.1	1	10:16:46		X		X		X			X			X		X			X		X			X	X
S0.5	1	10:18:43	X	X		X		X	X		X			X	X	X			X		X			X	X
SCAL	1	10:20:41	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
S10	1	10:22:45	X						X				X		X							X			
ICV01	1	10:23:35	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ICB01	1	10:25:34	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
PQL01	1	10:28:44	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ICSA01	1	10:30:46	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ICSAB01	1	10:32:47	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
LR01	1	10:33:52	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
LR02	1	10:34:56	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCV01	1	10:36:23	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB01	1	10:38:38	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCV02	1	10:49:38	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB02	1	10:51:51	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	10:59:53																							
ZZZZZZ	1	11:02:52																							
ZZZZZZ	1	11:04:51																							
ZZZZZZ	1	11:06:48																							
ZZZZZZ	1	11:09:00																							
ZZZZZZ	5	11:11:00																							
ZZZZZZ	1	11:14:06																							
ZZZZZZ	1	11:16:04																							
ZZZZZZ	1	11:18:02																							
ZZZZZZ	1	11:20:17																							
CCV03	1	11:21:36	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB03	1	11:23:37	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	50	11:26:32																							
CCV04	1	11:29:29	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB04	1	11:31:43	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	11:39:33																							
ZZZZZZ	1	11:42:30																							
ZZZZZZ	1	11:43:52																							
ZZZZZZ	1	11:45:56																							
ZZZZZZ	1	11:48:00																							
ZZZZZZ	1	11:49:08																							
ZZZZZZ	5	11:50:20																							
CCV05	1	11:52:23	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB05	1	11:54:25	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X

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Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	11:57:21																							
ZZZZZZ	1	11:59:22																							
ZZZZZZ	1	12:01:21																							
ZZZZZZ	1	12:03:34																							
ZZZZZZ	1	12:05:52																							
ZZZZZZ	1	12:08:09																							
ZZZZZZ	1	12:10:08																							
ZZZZZZ	1	12:12:12																							
ZZZZZZ	1	12:14:30																							
CCV06	1	12:16:34	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB06	1	12:18:49	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	12:21:45																							
ZZZZZZ	1	12:23:45																							
ZZZZZZ	1	12:26:05																							
ZZZZZZ	1	12:28:05																							
ZZZZZZ	1	12:30:03																							
ZZZZZZ	1	12:32:23																							
ZZZZZZ	1	12:34:21																							
ZZZZZZ	1	12:36:40																							
ZZZZZZ	1	12:38:52																							
CCV07	1	12:41:04	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB07	1	12:43:18	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	12:47:04																							
ZZZZZZ	1	12:50:02																							
ZZZZZZ	1	12:52:06																							
ZZZZZZ	1	12:54:12																							
ZZZZZZ	1	12:56:30																							
ZZZZZZ	1	12:58:28																							
ZZZZZZ	5	13:00:34																							
CCV08	1	13:02:50	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB08	1	13:04:51	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	13:08:02																							
ZZZZZZ	1	13:10:18																							
ZZZZZZ	1	13:12:31																							
ZZZZZZ	1	13:14:44																							
ZZZZZZ	1	13:16:57																							
CCV09	1	13:19:15	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB09	1	13:21:29	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	13:29:13																							
ZZZZZZ	1	13:32:11																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	13:33:39																							
ZZZZZZ	1	13:35:42																							
ZZZZZZ	1	13:37:41																							
ZZZZZZ	1	13:38:45																							
ZZZZZZ	5	13:39:49																							
CCV10	1	13:42:06	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB10	1	13:44:07	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	13:47:03																							
ZZZZZZ	1	13:49:23																							
ZZZZZZ	1	13:51:22																							
ZZZZZZ	1	13:53:20																							
ZZZZZZ	1	13:55:19																							
CCV11	1	13:57:17	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB11	1	13:59:32	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCV12	1	14:22:36	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB12	1	14:24:50	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	14:28:01																							
ZZZZZZ	1	14:31:00																							
ZZZZZZ	1	14:33:13																							
ZZZZZZ	1	14:36:20																							
ZZZZZZ	1	14:39:27																							
ZZZZZZ	5	14:41:41																							
ZZZZZZ	1	14:44:33																							
ZZZZZZ	1	14:47:40																							
ZZZZZZ	1	14:49:53																							
ZZZZZZ	1	14:52:46																							
CCV13	1	14:55:52	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB13	1	14:58:07	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	15:01:18																							
ZZZZZZ	1	15:04:31																							
ZZZZZZ	1	15:05:54																							
ZZZZZZ	1	15:08:07																							
ZZZZZZ	1	15:10:20																							
ZZZZZZ	1	15:11:26																							
ZZZZZZ	5	15:12:34																							
ZZZZZZ	1	15:14:38																							
CCV14	1	15:16:50	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB14	1	15:19:06	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCV15	1	15:42:57	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB15	1	15:45:12	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X

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Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	15:48:24																							
ZZZZZZ	1	15:51:37																							
ZZZZZZ	1	15:53:00																							
ZZZZZZ	1	15:54:59																							
ZZZZZZ	1	15:57:11																							
ZZZZZZ	1	15:58:16																							
ZZZZZZ	5	15:59:35																							
CCV16	1	16:01:51	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB16	1	16:03:52	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	16:06:49																							
ZZZZZZ	1	16:08:49																							
ZZZZZZ	1	16:10:53																							
ZZZZZZ	1	16:12:51																							
ZZZZZZ	1	16:15:04																							
ZZZZZZ	1	16:17:02																							
CCV17	1	16:19:00	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB17	1	16:21:14	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	16:24:26																							
ZZZZZZ	1	16:27:25																							
ZZZZZZ	1	16:28:35																							
ZZZZZZ	1	16:30:48																							
ZZZZZZ	1	16:32:47																							
ZZZZZZ	1	16:33:52																							
ZZZZZZ	5	16:34:58																							
CCV18	1	16:37:14	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB18	1	16:39:29	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	16:42:40																							
ZZZZZZ	1	16:44:54																							
ZZZZZZ	1	16:47:06																							
ZZZZZZ	1	16:49:05																							
CCV19	1	16:51:03	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB19	1	16:53:18	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	16:56:30																							
ZZZZZZ	1	16:59:42																							
ZZZZZZ	1	17:00:51																							
ZZZZZZ	1	17:03:04																							
ZZZZZZ	1	17:05:25																							
ZZZZZZ	1	17:06:45																							
ZZZZZZ	5	17:08:06																							
CCV20	1	17:10:09	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
CCB20	1	17:12:25	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	17:15:37																							
ZZZZZZ	1	17:17:53																							
ZZZZZZ	1	17:20:07																							
ZZZZZZ	1	17:22:06																							
ZZZZZZ	1	17:24:24																							
CCV21	1	17:26:37	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB21	1	17:28:38	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	17:31:51																							
ZZZZZZ	1	17:34:49																							
ZZZZZZ	1	17:36:11																							
ZZZZZZ	1	17:38:24																							
ZZZZZZ	1	17:40:38																							
ZZZZZZ	1	17:42:01																							
ZZZZZZ	5	17:43:23																							
CCV22	1	17:45:41	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB22	1	17:47:57	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	17:50:55																							
ZZZZZZ	1	17:53:15																							
ZZZZZZ	1	17:55:36																							
ZZZZZZ	1	17:57:55																							
ZZZZZZ	1	18:00:14																							
ZZZZZZ	1	18:02:32																							
ZZZZZZ	1	18:04:45																							
CCV23	1	18:06:43	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB23	1	18:08:57	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	18:12:07																							
ZZZZZZ	1	18:14:21																							
ZZZZZZ	1	18:16:21																							
ZZZZZZ	1	18:18:13																							
ZZZZZZ	1	18:20:26																							
ZZZZZZ	1	18:22:33																							
ZZZZZZ	1	18:24:53																							
CCV24	1	18:27:07	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB24	1	18:29:22	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	18:32:32																							
ZZZZZZ	1	18:35:46																							
ZZZZZZ	1	18:36:55																							
ZZZZZZ	1	18:39:14																							
ZZZZZZ	1	18:41:27																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	18:42:47																							
ZZZZZZ	5	18:43:54																							
CCV25	1	18:46:10	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB25	1	18:48:12	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	18:51:22																							
ZZZZZZ	1	18:53:43																							
ZZZZZZ	1	18:55:46																							
ZZZZZZ	1	18:58:03																							
ZZZZZZ	1	19:00:22																							
CCV26	1	19:02:25	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB26	1	19:04:40	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
1202072045	1	19:07:36	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
1202072046	1	19:10:50	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:11:58																							
1202072047	1	19:14:11	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
1202072048	1	19:16:10	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
1202072050	1	19:17:15	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
1202072049	5	19:18:33	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:20:50																							
ZZZZZZ	1	19:22:49																							
CCV27	1	19:24:47	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB27	1	19:27:02	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:30:12																							
ZZZZZZ	1	19:32:12																							
249330001	1	19:34:24	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
249330002	1	19:36:23	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
249330003	1	19:38:21	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
249330004	1	19:40:19	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
249330005	1	19:42:22	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
249330006	1	19:44:34	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCV28	1	19:46:46	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB28	1	19:48:48	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
249330007	1	19:51:58	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
249330008	1	19:53:59	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:55:57																							
ZZZZZZ	1	19:57:59																							
ZZZZZZ	1	19:59:58																							
ZZZZZZ	1	20:02:11																							
ZZZZZZ	1	20:04:09																							
ZZZZZZ	1	20:06:08																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
CCV29	1	20:08:07	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB29	1	20:10:24	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS7
Start Date: 18–MAY–10 **End Date:** 18–MAY–10

Client Sdg: 10–2431
Method MS
Data File: 100517–9

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	08:34:04					X																		
S10	1	08:34:45					X																		
S100	1	08:35:26					X																		
ICV01	1	08:36:06					X																		
ICB01	1	08:36:49					X																		
CRDL01	1	08:37:30					X																		
ICSA01	1	08:38:12					X																		
ICSAB01	1	08:38:53					X																		
CCV01	1	08:39:35					X																		
CCB01	1	08:40:18					X																		
1202072051	2	08:41:01					X																		
1202072052	40	08:41:43					X																		
ZZZZZZ	2	08:42:26																							
ZZZZZZ	2	08:43:08																							
ZZZZZZ	2	08:43:51																							
ZZZZZZ	2	08:44:34																							
249330001	2	08:45:17					X																		
249330002	2	08:45:59					X																		
249330003	2	08:46:42					X																		
249330004	2	08:47:25					X																		
CCV02	1	08:48:07					X																		
CCB02	1	08:48:50					X																		
249330005	2	08:49:32					X																		
249330006	2	08:50:15					X																		
249330007	2	08:50:58					X																		
249330008	2	08:51:41					X																		
ZZZZZZ	2	08:52:24																							
1202072053	2	08:53:07					X																		
1202072054	2	08:53:50					X																		
1202072056	2	08:54:33					X																		
1202072055	10	08:55:14					X																		
CCV03	1	08:55:56					X																		
CCB03	1	08:56:39					X																		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 31-MAR-10 **End Date:** 31-MAR-10

Client Sdg: 10-2431
Method AV
Data File: 033110S1-11

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	08:39:00															X								
S0.2	1	08:41:00															X								
S0.5	1	08:43:00															X								
S2.0	1	08:45:00															X								
S5.0	1	08:47:00															X								
S10	1	08:49:00															X								
ICV01	1	08:51:00															X								
ICB01	1	08:53:00															X								
CRDL01	1	08:55:00															X								
CCV01	1	08:57:00															X								
CCB01	1	08:59:00															X								
1202081090	1	09:01:00															X								
1202081091	10	09:03:00															X								
ZZZZZZ	1	09:05:00																							
ZZZZZZ	1	09:07:00																							
ZZZZZZ	1	09:09:00																							
ZZZZZZ	1	09:11:00																							
ZZZZZZ	1	09:13:00																							
ZZZZZZ	1	09:15:00																							
ZZZZZZ	1	09:17:00																							
ZZZZZZ	1	09:19:00																							
CCV02	1	09:21:00															X								
CCB02	1	09:23:00															X								
ZZZZZZ	1	09:25:00																							
ZZZZZZ	1	09:27:00																							
249330001	1	09:29:00															X								
1202081092	1	09:31:00															X								
1202081093	1	09:33:00															X								
1202081095	1	09:35:00															X								
1202081094	5	09:37:00															X								
249330002	1	09:39:00															X								
ZZZZZZ	1	09:41:00																							
ZZZZZZ	1	09:43:00																							
CCV03	1	09:45:00															X								
CCB03	1	09:47:00															X								
ZZZZZZ	1	09:49:00																							
249330006	1	09:51:00															X								
ZZZZZZ	1	09:53:00																							
249330008	1	09:55:00															X								
ZZZZZZ	1	09:56:00																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	10	09:58:00																							
ZZZZZZ	1	10:00:00																							
ZZZZZZ	1	10:02:00																							
ZZZZZZ	1	10:04:00																							
CCV04	1	10:17:00														X									
CCB04	1	10:19:00														X									
249330003	10	10:21:00														X									
249330004	200	10:24:00														X									
249330005	10	10:26:00														X									
249330007	10	10:27:00														X									
ZZZZZZ	10	10:29:00																							
ZZZZZZ	10	10:31:00																							
ZZZZZZ	500	10:33:00																							
ZZZZZZ	1	10:35:00																							
CCV05	1	10:41:00														X									
CCB05	1	10:43:00														X									

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 24–APR–10 **End Date:** 24–APR–10

Client Sdg: 10–2431
Method MS
Data File: 100424–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	17:38:00		X				X						X		X							X		
S10	1	17:44:00		X				X						X		X							X		
S100	1	17:50:00		X				X						X		X							X		
ICV01	1	17:57:00		X				X						X		X							X		
ICB01	1	18:03:00		X				X						X		X							X		
CRDL01	1	18:09:00		X				X						X		X							X		
ICSA01	1	18:15:00		X				X						X		X							X		
ICSAB01	1	18:21:00		X				X						X		X							X		
CCV01	1	18:27:00		X				X						X		X							X		
CCB01	1	18:33:00		X				X						X		X							X		
LR01	1	18:40:00		X				X						X		X							X		
CCV02	1	18:46:00		X				X						X		X							X		
CCB02	1	18:52:00		X				X						X		X							X		
1202072001	1	18:58:00		X				X						X		X							X		
1202072002	1	19:04:00		X				X						X		X							X		
ZZZZZZ	1	19:10:00																							
ZZZZZZ	1	19:16:00																							
ZZZZZZ	1	19:23:00																							
ZZZZZZ	1	19:29:00																							
ZZZZZZ	1	19:35:00																							
ZZZZZZ	1	19:41:00																							
ZZZZZZ	1	19:47:00																							
ZZZZZZ	1	19:53:00																							
CCV03	1	19:59:00		X				X						X		X							X		
CCB03	1	20:05:00		X				X						X		X							X		
1202072003	1	20:12:00		X				X						X		X							X		
1202072004	1	20:18:00		X				X						X		X							X		
1202072005	5	20:24:00		X				X						X		X							X		
ZZZZZZ	1	20:30:00																							
249330009	1	20:36:00		X				X						X		X							X		
249330010	1	20:42:00		X				X						X		X							X		
249330011	1	20:49:00		X				X						X		X							X		
249330012	1	20:55:00		X				X						X		X							X		
ZZZZZZ	1	21:01:00																							
ZZZZZZ	1	21:07:00																							
CCV04	1	21:13:00		X				X						X		X							X		
CCB04	1	21:19:00		X				X						X		X							X		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 14-MAY-10 **End Date:** 15-MAY-10

Client Sdg: 10-2431
Method MS
Data File: 100514-6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	23:53:00					X																		
S10	1	00:00:00					X																		
S100	1	00:06:00					X																		
ICV01	1	00:12:00					X																		
ICB01	1	00:18:00					X																		
CRDL01	1	00:24:00					X																		
ICSA01	1	00:30:00					X																		
ICSAB01	1	00:36:00					X																		
CCV01	1	00:42:00					X																		
CCB01	1	00:49:00					X																		
LR01	1	00:55:00					X																		
CCV02	1	01:01:00					X																		
CCB02	1	01:07:00					X																		
ZZZZZZ	1	01:13:00																							
ZZZZZZ	1	01:19:00																							
ZZZZZZ	1	01:25:00																							
ZZZZZZ	1	01:32:00																							
ZZZZZZ	1	01:38:00																							
ZZZZZZ	5	01:44:00																							
CCV03	1	01:50:00					X																		
CCB03	1	01:56:00					X																		
ZZZZZZ	1	02:02:00																							
ZZZZZZ	1	02:09:00																							
ZZZZZZ	1	02:15:00																							
ZZZZZZ	1	02:21:00																							
ZZZZZZ	1	02:27:00																							
CCV04	1	02:33:00					X																		
CCB04	1	02:39:00					X																		
1202072001	1	02:46:00					X																		
1202072002	1	02:52:00					X																		
249330009	1	02:58:00					X																		
249330010	1	03:04:00					X																		
249330011	1	03:10:00					X																		
249330012	1	03:16:00					X																		
ZZZZZZ	1	03:23:00																							
CCV05	1	03:29:00					X																		
CCB05	1	03:35:00					X																		
ZZZZZZ	1	03:41:00																							
1202106366	1	03:47:00					X																		
1202106368	1	03:53:00					X																		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
1202106367	5	04:00:00					X																	
CCV06	1	04:06:00					X																	
CCB06	1	04:12:00					X																	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 16-MAY-10 **End Date:** 16-MAY-10

Client Sdg: 10-2431
Method MS
Data File: 100515-7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	07:09:00			X													X		X			X		
S10	1	07:13:00			X													X		X			X		
S100	1	07:17:00			X													X		X			X		
ICV01	1	07:21:00			X													X		X			X		
ICB01	1	07:25:00			X													X		X			X		
CRDL01	1	07:29:00			X													X		X			X		
ICSA01	1	07:33:00			X													X		X			X		
ICSAB01	1	07:37:00			X													X		X			X		
CCV01	1	07:41:00			X													X		X			X		
CCB01	1	07:46:00			X													X		X			X		
LR01	1	07:50:00			X													X		X			X		
CCV02	1	07:54:00			X													X		X			X		
CCB02	1	07:58:00			X													X		X			X		
1202072051	2	08:02:00			X													X		X			X		
1202072052	2	08:06:00			X													X		X			X		
ZZZZZZ	2	08:10:00																							
ZZZZZZ	2	08:15:00																							
ZZZZZZ	2	08:19:00																							
ZZZZZZ	2	08:23:00																							
249330001	2	08:27:00			X													X		X			X		
249330002	2	08:31:00			X													X		X			X		
249330003	2	08:36:00			X													X		X			X		
249330004	2	08:40:00			X													X		X			X		
CCV03	1	08:44:00			X													X		X			X		
CCB03	1	08:48:00			X													X		X			X		
249330005	2	08:52:00			X													X		X			X		
249330006	2	08:57:00			X													X		X			X		
249330007	2	09:01:00			X													X		X			X		
249330008	2	09:05:00			X													X		X			X		
ZZZZZZ	2	09:09:00																							
1202072053	2	09:13:00			X													X		X			X		
1202072054	2	09:18:00			X													X		X			X		
1202072056	2	09:22:00			X													X		X			X		
1202072055	10	09:26:00			X													X		X			X		
CCV04	1	09:30:00			X													X		X			X		
CCB04	1	09:34:00			X													X		X			X		

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2431

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	50
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Cadmium		0.11	1
	Calcium		65.0	100
	Chromium		2.0	3
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Magnesium		5.2	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		3.0	10
	Zinc		3.0	10
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2431

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2431

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09
Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2
LIQUID	Mercury		0.066	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2431

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	250
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	250
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	100	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2431

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2431
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00474	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.23816	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.24933	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.22655	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.11304	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	213.857	0.00000	0.00000	0.00000	0.00000	0.00000
	292.402	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2431
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.95244
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	236.11
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.58971	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	213.857	0.00000	0.00000	0.00000	0.00000	1.39578
	292.402	0.00000	0.00000	0.36818	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2431
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02751	0.00000	0.00000	0.00000	-19.1800
Arsenic	188.979	-0.13126	0.00000	0.00000	0.00000	1.35094
Barium	233.527	-0.05648	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.10489	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.08978	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01565	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.06697	0.00000	0.00000	0.00000	0.52273
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.10233	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	0.59882	0.00000	0.00000	0.00000	-9.53389
Manganese	257.61	-0.10168	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.06900	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.00094	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.42453	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-2.29024	0.00000	0.00000	0.00000	-3.07287
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.30508	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-6.66097	0.00000
Tin	189.927	-0.01649	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07515	0.00000	0.00000
Uranium	409.014	0.26861	0.00000	0.00000	0.00000	0.00000
Vanadium	213.857	0.13501	0.00000	0.00000	0.00000	0.00000
	292.402	0.14665	0.00000	-0.01931	0.00000	-14.4408

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2431
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silica
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	213.857	6.37026	0.00000	0.00000	0.00000	0.00000
	292.402	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2431
Effective Dates: 01-FEB-10

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	213.857	0.00000	0.00000	0.00000	0.00000	0.00000
	292.402	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2431
Effective Dates: 01-FEB-10

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-16.9980	3.16782	0.00000	-2.17579	0.00000
Arsenic	188.979	0.00000	-7.87903	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.43351	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.06265	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-9.76181	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	213.857	0.00000	0.00000	0.00000	0.00000	0.00000
	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2431
Effective Dates: 22-MAR-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2431
Effective Dates: 22-MAR-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10–2431
Effective Dates: 22–MAR–10

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	–14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	–2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	–0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	–0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	–2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	–24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	–0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	–0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	–8.43314	0.00000
Thallium	190.801	0.00000	0.00000	–2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	–6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	–10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	–0.04597	0.00000

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2431
Effective Dates: 22-MAR-10

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2431
Effective Dates: 22-MAR-10

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2431
Effective Dates: 22-MAR-10

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–2431

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
-12-
Linear Ranges

SDG NO. 10-2431

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Nickel	20	10000	ug/L	01-FEB-10
Potassium	20	300000	ug/L	01-FEB-10
Selenium	20	10000	ug/L	01-FEB-10
Silver	20	1000	ug/L	01-FEB-10
Sodium	20	500000	ug/L	01-FEB-10
Thallium	20	10000	ug/L	01-FEB-10
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10
Manganese	20	10000	ug/L	01-FEB-10
Aluminum	20	500000	ug/L	01-FEB-10
Antimony	20	10000	ug/L	01-FEB-10
Arsenic	20	10000	ug/L	01-FEB-10
Barium	20	15000	ug/L	01-FEB-10
Beryllium	20	3000	ug/L	01-FEB-10
Cadmium	20	10000	ug/L	01-FEB-10
Calcium	20	500000	ug/L	01-FEB-10
Chromium	20	25000	ug/L	01-FEB-10
Cobalt	20	10000	ug/L	01-FEB-10
Copper	20	20000	ug/L	01-FEB-10
Iron	20	500000	ug/L	01-FEB-10
Lead	20	25000	ug/L	01-FEB-10
Magnesium	20	500000	ug/L	01-FEB-10

METALS
–12–
Linear Ranges

SDG NO. 10–2431

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2431

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS7

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2431

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS4

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 052110

Sample ID: Hg_ReAlign

Hg 253.652 Rep: 1

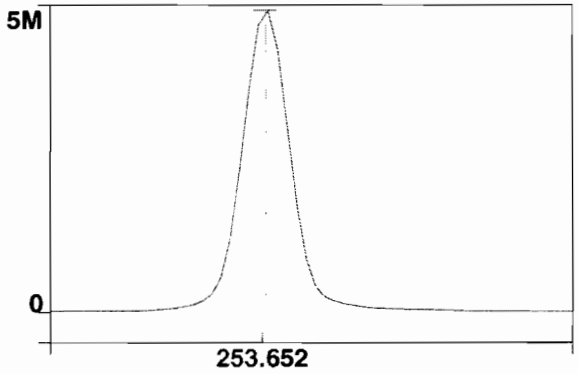

Intensity: 4913801.3 cps
Conc:

1

==========

Analysis Begun

Start Time: 4/15/2010 16:13:07 **Plasma On Time: 4/15/2010 06:47:48**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\041510.sif
Batch ID:
Results Data Set: 041510A
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 4/15/2010 16:10:37**
IEC File: 040610.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 4/15/2010 16:13:09**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3244.4	3244.4	100	%	16:15:21
1	Y RADIAL	3654.6	3654.6	100.3	%	16:15:01
1	Al 396.153Radial†	-123.4	-123.4	[0.00]	ug/L	16:15:01

1	Ca 317.933Radial†	8.6	8.6	[0.00]	ug/L	16:15:21
1	Fe 238.204 Radial†	3.1	3.1	[0.00]	ug/L	16:15:21
1	K 766.490 Radial†	3204.8	3203.7	[0.00]	ug/L	16:15:01
1	Mg 279.077 IEC†	-0.3	-0.3	[0.00]	ug/L	16:15:21
1	Na 589.592 Radial†	-1207.8	-1207.4	[0.00]	ug/L	16:15:01
1	Sr 421.552†	26.9	26.8	[0.00]	ug/L	16:15:01
1	Sc 361.383	554722.4	554722.4	99.588	%	16:16:18
1	Y 371.029	515295.5	515295.5	99.590	%	16:16:18
1	Ag 328.068†	3.9	3.9	[0.00]	ug/L	16:16:18
1	As 188.979†	-46.7	-46.9	[0.00]	ug/L	16:16:38
1	B 249.677†	-680.7	-683.5	[0.00]	ug/L	16:16:18
1	Ba 233.527†	-7.6	-7.6	[0.00]	ug/L	16:16:38
1	Be 313.107†	-9535.9	-9575.3	[0.00]	ug/L	16:16:18
1	Cd 226.502†	-313.1	-314.4	[0.00]	ug/L	16:16:38
1	Co 228.616†	-98.9	-99.3	[0.00]	ug/L	16:16:38
1	Cr 267.716†	114.3	114.8	[0.00]	ug/L	16:16:18
1	Cu 324.752†	6367.8	6394.1	[0.00]	ug/L	16:16:18
1	Mn 257.610†	616.7	619.3	[0.00]	ug/L	16:16:18
1	Mo 202.031†	21.8	21.9	[0.00]	ug/L	16:16:38
1	Ni 231.604†	111.6	112.1	[0.00]	ug/L	16:16:38
1	P 214.914†	306.8	308.0	[0.00]	ug/L	16:16:38
1	Pb 220.353†	-91.6	-92.0	[0.00]	ug/L	16:16:38
1	S 181.975 Axial†	67.2	67.5	[0.00]	ug/L	16:16:38
1	Sb 206.836†	54.8	55.0	[0.00]	ug/L	16:16:38
1	Se 196.026†	-32.7	-32.9	[0.00]	ug/L	16:16:38
1	Si 251.611†	581.9	584.3	[0.00]	ug/L	16:16:38
1	Sn 189.927†	16.7	16.8	[0.00]	ug/L	16:16:38
1	Ti 334.940†	-1957.0	-1965.1	[0.00]	ug/L	16:16:18
1	Tl 190.801†	-68.4	-68.7	[0.00]	ug/L	16:16:38
1	U 409.014†	-1825.4	-1833.0	[0.00]	ug/L	16:16:18
1	V 292.402†	-1962.7	-1970.8	[0.00]	ug/L	16:16:18
1	Zn 213.857†	934.5	938.3	[0.00]	ug/L	16:16:38
1	SiO2†	590.9	593.4	[0.00]	ug/L	16:17:35
2	Sc Radial	3253.2	3253.2	100	%	16:15:46
2	Y RADIAL	3625.1	3625.1	99.45	%	16:15:26
2	Al 396.153Radial†	-113.5	-113.1	[0.00]	ug/L	16:15:26
2	Ca 317.933Radial†	15.2	15.2	[0.00]	ug/L	16:15:46
2	Fe 238.204 Radial†	5.2	5.2	[0.00]	ug/L	16:15:46
2	K 766.490 Radial†	3183.9	3174.2	[0.00]	ug/L	16:15:26
2	Mg 279.077 IEC†	0.3	0.3	[0.00]	ug/L	16:15:46
2	Na 589.592 Radial†	-1192.4	-1188.8	[0.00]	ug/L	16:15:26
2	Sr 421.552†	34.5	34.3	[0.00]	ug/L	16:15:26
2	Sc 361.383	562141.1	562141.1	100.92	%	16:16:44
2	Y 371.029	521733.6	521733.6	100.83	%	16:16:44
2	Ag 328.068†	43.2	42.8	[0.00]	ug/L	16:16:44
2	As 188.979†	-45.7	-45.3	[0.00]	ug/L	16:17:04
2	B 249.677†	-638.8	-633.0	[0.00]	ug/L	16:16:44
2	Ba 233.527†	-1.0	-1.0	[0.00]	ug/L	16:17:04
2	Be 313.107†	-9563.7	-9476.5	[0.00]	ug/L	16:16:44
2	Cd 226.502†	-297.1	-294.4	[0.00]	ug/L	16:17:04
2	Co 228.616†	-73.7	-73.0	[0.00]	ug/L	16:17:04
2	Cr 267.716†	88.7	87.9	[0.00]	ug/L	16:16:44
2	Cu 324.752†	6471.4	6412.5	[0.00]	ug/L	16:16:44
2	Mn 257.610†	623.8	618.1	[0.00]	ug/L	16:16:44
2	Mo 202.031†	21.9	21.7	[0.00]	ug/L	16:17:04
2	Ni 231.604†	117.6	116.6	[0.00]	ug/L	16:17:04
2	P 214.914†	316.7	313.8	[0.00]	ug/L	16:17:04
2	Pb 220.353†	-98.4	-97.5	[0.00]	ug/L	16:17:04
2	S 181.975 Axial†	67.3	66.7	[0.00]	ug/L	16:17:04
2	Sb 206.836†	54.1	53.6	[0.00]	ug/L	16:17:04
2	Se 196.026†	-31.5	-31.2	[0.00]	ug/L	16:17:04
2	Si 251.611†	557.1	552.0	[0.00]	ug/L	16:17:04
2	Sn 189.927†	9.0	8.9	[0.00]	ug/L	16:17:04
2	Ti 334.940†	-2006.2	-1988.0	[0.00]	ug/L	16:16:44
2	Tl 190.801†	-43.6	-43.2	[0.00]	ug/L	16:17:04
2	U 409.014†	-1866.0	-1849.0	[0.00]	ug/L	16:16:44
2	V 292.402†	-2030.9	-2012.4	[0.00]	ug/L	16:16:44
2	Zn 213.857†	940.1	931.5	[0.00]	ug/L	16:17:04
2	SiO2†	628.6	622.8	[0.00]	ug/L	16:17:40
3	Sc Radial	3232.2	3232.2	99.7	%	16:16:11
3	Y RADIAL	3655.3	3655.3	100.3	%	16:15:51

3	Al 396.153Radial†	-108.8	-109.1	[0.00]	ug/L	16:15:51
3	Ca 317.933Radial†	10.3	10.3	[0.00]	ug/L	16:16:11
3	Fe 238.204 Radial†	6.4	6.4	[0.00]	ug/L	16:16:11
3	K 766.490 Radial†	3140.7	3151.4	[0.00]	ug/L	16:15:51
3	Mg 279.077 IEC†	0.5	0.6	[0.00]	ug/L	16:16:11
3	Na 589.592 Radial†	-1182.9	-1186.9	[0.00]	ug/L	16:15:51
3	Sr 421.552†	34.7	34.8	[0.00]	ug/L	16:15:51
3	Sc 361.383	554188.4	554188.4	99.492	%	16:17:09
3	Y 371.029	515217.9	515217.9	99.575	%	16:17:09
3	Ag 328.068†	110.6	111.2	[0.00]	ug/L	16:17:09
3	As 188.979†	-41.3	-41.5	[0.00]	ug/L	16:17:29
3	B 249.677†	-645.2	-648.5	[0.00]	ug/L	16:17:09
3	Ba 233.527†	-0.8	-0.8	[0.00]	ug/L	16:17:29
3	Be 313.107†	-9552.7	-9601.5	[0.00]	ug/L	16:17:09
3	Cd 226.502†	-312.1	-313.7	[0.00]	ug/L	16:17:29
3	Co 228.616†	-99.0	-99.5	[0.00]	ug/L	16:17:29
3	Cr 267.716†	117.1	117.7	[0.00]	ug/L	16:17:09
3	Cu 324.752†	6306.4	6338.6	[0.00]	ug/L	16:17:09
3	Mn 257.610†	632.4	635.7	[0.00]	ug/L	16:17:09
3	Mo 202.031†	4.3	4.4	[0.00]	ug/L	16:17:29
3	Ni 231.604†	124.0	124.7	[0.00]	ug/L	16:17:29
3	P 214.914†	310.5	312.1	[0.00]	ug/L	16:17:29
3	Pb 220.353†	-96.7	-97.2	[0.00]	ug/L	16:17:29
3	S 181.975 Axial†	72.4	72.8	[0.00]	ug/L	16:17:29
3	Sb 206.836†	63.8	64.1	[0.00]	ug/L	16:17:29
3	Se 196.026†	-34.7	-34.9	[0.00]	ug/L	16:17:29
3	Si 251.611†	563.6	566.5	[0.00]	ug/L	16:17:29
3	Sn 189.927†	9.9	9.9	[0.00]	ug/L	16:17:29
3	Ti 334.940†	-1972.6	-1982.7	[0.00]	ug/L	16:17:09
3	Tl 190.801†	-64.4	-64.7	[0.00]	ug/L	16:17:29
3	U 409.014†	-1710.8	-1719.5	[0.00]	ug/L	16:17:09
3	V 292.402†	-1922.6	-1932.4	[0.00]	ug/L	16:17:09
3	Zn 213.857†	951.6	956.5	[0.00]	ug/L	16:17:29
3	SiO2†	593.9	597.0	[0.00]	ug/L	16:17:45

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	557017.3	4445.36	0.80%	100.00	%
Sc Radial	3243.3	10.53	0.32%	100	%
Y 371.029	517415.7	3739.64	0.72%	100.00	%
Y RADIAL	3645.0	17.22	0.47%	100.0	%
Ag 328.068†	52.6	54.33	103.22%	[0.00]	ug/L
Al 396.153Radial†	-115.2	7.35	6.38%	[0.00]	ug/L
As 188.979†	-44.6	2.77	6.22%	[0.00]	ug/L
B 249.677†	-655.0	25.92	3.96%	[0.00]	ug/L
Ba 233.527†	-3.1	3.84	122.33%	[0.00]	ug/L
Be 313.107†	-9551.1	65.90	0.69%	[0.00]	ug/L
Ca 317.933Radial†	11.4	3.43	30.18%	[0.00]	ug/L
Cd 226.502†	-307.5	11.33	3.69%	[0.00]	ug/L
Co 228.616†	-90.6	15.24	16.82%	[0.00]	ug/L
Cr 267.716†	106.8	16.42	15.38%	[0.00]	ug/L
Cu 324.752†	6381.7	38.48	0.60%	[0.00]	ug/L
Fe 238.204 Radial†	4.9	1.68	34.38%	[0.00]	ug/L
K 766.490 Radial†	3176.4	26.23	0.83%	[0.00]	ug/L
Mg 279.077 IEC†	0.2	0.44	241.31%	[0.00]	ug/L
Mn 257.610†	624.4	9.82	1.57%	[0.00]	ug/L
Mo 202.031†	16.0	10.08	62.97%	[0.00]	ug/L
Na 589.592 Radial†	-1194.4	11.31	0.95%	[0.00]	ug/L
Ni 231.604†	117.8	6.39	5.43%	[0.00]	ug/L
P 214.914†	311.3	2.98	0.96%	[0.00]	ug/L
Pb 220.353†	-95.6	3.08	3.22%	[0.00]	ug/L
S 181.975 Axial†	69.0	3.28	4.75%	[0.00]	ug/L
Sb 206.836†	57.6	5.66	9.84%	[0.00]	ug/L
Se 196.026†	-33.0	1.83	5.54%	[0.00]	ug/L
Si 251.611†	567.6	16.20	2.85%	[0.00]	ug/L
Sn 189.927†	11.9	4.28	36.05%	[0.00]	ug/L
Sr 421.552†	32.0	4.47	13.96%	[0.00]	ug/L
Ti 334.940†	-1978.6	11.94	0.60%	[0.00]	ug/L
Tl 190.801†	-58.8	13.72	23.32%	[0.00]	ug/L

U 409.014†	-1800.5	70.59	3.92%	[0.00]	ug/L
V 292.402†	-1971.9	39.98	2.03%	[0.00]	ug/L
Zn 213.857†	942.1	12.92	1.37%	[0.00]	ug/L
SiO2†	604.4	16.08	2.66%	[0.00]	ug/L

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Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.1 **Date Collected: 4/15/2010 16:19:55**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3399.7	3399.7	105	%	16:22:08
1	Y RADIAL	3720.1	3720.1	102.1	%	16:22:08
1	K 766.490 Radial†	7464.7	3944.8	[1000]	ug/L	16:21:48
1	Sr 421.552†	9778.9	9297.0	[100]	ug/L	16:22:08
1	Sc 361.383	595892.9	595892.9	106.98	%	16:23:05
1	Y 371.029	552018.5	552018.5	106.69	%	16:23:05
1	Ag 328.068†	17332.1	16148.7	[100]	ug/L	16:23:05
1	As 188.979†	191.0	223.1	[100]	ug/L	16:23:25
1	B 249.677†	3605.7	4025.4	[100]	ug/L	16:23:05
1	Ba 233.527†	6738.2	6301.7	[100]	ug/L	16:23:25
1	Be 313.107†	228240.3	222901.2	[100]	ug/L	16:23:05
1	Cd 226.502†	7052.5	6899.9	[100]	ug/L	16:23:25
1	Co 228.616†	2739.5	2651.4	[100]	ug/L	16:23:25
1	Cr 267.716†	6788.5	6238.8	[100]	ug/L	16:23:25
1	Cu 324.752†	27829.8	19632.5	[100]	ug/L	16:23:05
1	Mn 257.610†	55184.9	50960.3	[100]	ug/L	16:23:05
1	Mo 202.031†	992.6	911.8	[100]	ug/L	16:23:25
1	Ni 231.604†	3235.4	2906.6	[100]	ug/L	16:23:25
1	P 214.914†	1275.7	881.2	[500]	ug/L	16:23:25
1	Pb 220.353†	466.8	532.0	[100]	ug/L	16:23:25
1	S 181.975 Axial†	229.5	145.5	[200]	ug/L	16:23:25
1	Sb 206.836†	280.0	204.2	[100]	ug/L	16:23:25
1	Se 196.026†	134.1	158.3	[100]	ug/L	16:23:25
1	Si 251.611†	12858.2	11451.8	[500]	ug/L	16:23:05
1	Sn 189.927†	424.9	385.3	[100]	ug/L	16:23:25
1	Ti 334.940†	37251.7	36800.1	[100]	ug/L	16:23:05
1	Tl 190.801†	111.3	162.9	[100]	ug/L	16:23:25
1	U 409.014†	279.3	2061.6	[100]	ug/L	16:23:05
1	V 292.402†	9506.1	10857.8	[100]	ug/L	16:23:05
1	Zn 213.857†	9940.2	8349.6	[100]	ug/L	16:23:25
1	SiO2†	12330.8	10921.9	[1069.5]	ug/L	16:24:21
2	Sc Radial	3394.3	3394.3	105	%	16:22:33
2	Y RADIAL	3719.2	3719.2	102.0	%	16:22:33
2	K 766.490 Radial†	7410.6	3904.5	[1000]	ug/L	16:22:13
2	Sr 421.552†	9723.3	9258.7	[100]	ug/L	16:22:33
2	Sc 361.383	577499.4	577499.4	103.68	%	16:23:30
2	Y 371.029	534935.6	534935.6	103.39	%	16:23:30
2	Ag 328.068†	16772.7	16125.1	[100]	ug/L	16:23:30
2	As 188.979†	194.3	232.0	[100]	ug/L	16:23:50
2	B 249.677†	3468.0	4000.0	[100]	ug/L	16:23:30
2	Ba 233.527†	6606.3	6375.1	[100]	ug/L	16:23:50
2	Be 313.107†	221292.2	222994.7	[100]	ug/L	16:23:30
2	Cd 226.502†	6853.9	6918.3	[100]	ug/L	16:23:50
2	Co 228.616†	2691.8	2687.0	[100]	ug/L	16:23:50
2	Cr 267.716†	6633.7	6291.7	[100]	ug/L	16:23:50
2	Cu 324.752†	27009.5	19669.8	[100]	ug/L	16:23:30
2	Mn 257.610†	53569.9	51045.6	[100]	ug/L	16:23:30
2	Mo 202.031†	978.2	927.5	[100]	ug/L	16:23:50
2	Ni 231.604†	3159.2	2929.4	[100]	ug/L	16:23:50
2	P 214.914†	1251.8	896.1	[500]	ug/L	16:23:50
2	Pb 220.353†	479.6	558.1	[100]	ug/L	16:23:50
2	S 181.975 Axial†	222.5	145.6	[200]	ug/L	16:23:50
2	Sb 206.836†	292.4	224.4	[100]	ug/L	16:23:50
2	Se 196.026†	122.9	151.5	[100]	ug/L	16:23:50
2	Si 251.611†	12501.9	11490.9	[500]	ug/L	16:23:30
2	Sn 189.927†	411.7	385.2	[100]	ug/L	16:23:50
2	Ti 334.940†	36054.3	36754.2	[100]	ug/L	16:23:30
2	Tl 190.801†	116.6	171.3	[100]	ug/L	16:23:50
2	U 409.014†	106.8	1903.5	[100]	ug/L	16:23:30

2	V 292.402†	9173.5	10820.0	[100]	ug/L	16:23:30
2	Zn 213.857†	9762.5	8474.2	[100]	ug/L	16:23:50
2	SiO2†	12183.3	11146.8	[1069.5]	ug/L	16:24:26
3	Sc Radial	3488.3	3488.3	108	%	16:22:58
3	Y RADIAL	3811.4	3811.4	104.6	%	16:22:58
3	K 766.490 Radial†	7592.6	3882.8	[1000]	ug/L	16:22:38
3	Sr 421.552†	10010.7	9275.4	[100]	ug/L	16:22:58
3	Sc 361.383	582506.3	582506.3	104.58	%	16:23:56
3	Y 371.029	539888.4	539888.4	104.34	%	16:23:56
3	Ag 328.068†	16964.8	16169.8	[100]	ug/L	16:23:56
3	As 188.979†	194.9	231.0	[100]	ug/L	16:24:16
3	B 249.677†	3502.3	4004.1	[100]	ug/L	16:23:56
3	Ba 233.527†	6597.1	6311.6	[100]	ug/L	16:24:16
3	Be 313.107†	222369.3	222190.1	[100]	ug/L	16:23:56
3	Cd 226.502†	6862.2	6869.4	[100]	ug/L	16:24:16
3	Co 228.616†	2695.8	2668.5	[100]	ug/L	16:24:16
3	Cr 267.716†	6604.8	6209.0	[100]	ug/L	16:24:16
3	Cu 324.752†	27230.7	19657.4	[100]	ug/L	16:23:56
3	Mn 257.610†	53780.9	50803.2	[100]	ug/L	16:23:56
3	Mo 202.031†	971.0	912.5	[100]	ug/L	16:24:16
3	Ni 231.604†	3123.9	2869.5	[100]	ug/L	16:24:16
3	P 214.914†	1245.4	879.6	[500]	ug/L	16:24:16
3	Pb 220.353†	460.8	536.2	[100]	ug/L	16:24:16
3	S 181.975 Axial†	216.7	138.2	[200]	ug/L	16:24:16
3	Sb 206.836†	270.4	201.0	[100]	ug/L	16:24:16
3	Se 196.026†	120.1	147.8	[100]	ug/L	16:24:16
3	Si 251.611†	12581.6	11463.4	[500]	ug/L	16:23:56
3	Sn 189.927†	413.6	383.6	[100]	ug/L	16:24:16
3	Ti 334.940†	36267.0	36658.6	[100]	ug/L	16:23:56
3	Tl 190.801†	123.5	176.9	[100]	ug/L	16:24:16
3	U 409.014†	120.6	1915.8	[100]	ug/L	16:23:56
3	V 292.402†	9257.9	10824.7	[100]	ug/L	16:23:56
3	Zn 213.857†	9712.1	8345.0	[100]	ug/L	16:24:16
3	SiO2†	12137.0	11001.6	[1069.5]	ug/L	16:24:31

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	585299.5	9509.57	1.62%	105.08	%
Sc Radial	3427.4	52.81	1.54%	106	%
Y 371.029	542280.9	8789.15	1.62%	104.81	%
Y RADIAL	3750.2	52.96	1.41%	102.9	%
Ag 328.068†	16147.9	22.34	0.14%	[100]	ug/L
As 188.979†	228.7	4.84	2.12%	[100]	ug/L
B 249.677†	4009.8	13.64	0.34%	[100]	ug/L
Ba 233.527†	6329.5	39.83	0.63%	[100]	ug/L
Be 313.107†	222695.3	440.04	0.20%	[100]	ug/L
Cd 226.502†	6895.9	24.71	0.36%	[100]	ug/L
Co 228.616†	2669.0	17.78	0.67%	[100]	ug/L
Cr 267.716†	6246.5	41.85	0.67%	[100]	ug/L
Cu 324.752†	19653.3	18.99	0.10%	[100]	ug/L
K 766.490 Radial†	3910.7	31.49	0.81%	[1000]	ug/L
Mn 257.610†	50936.4	122.94	0.24%	[100]	ug/L
Mo 202.031†	917.3	8.86	0.97%	[100]	ug/L
Ni 231.604†	2901.8	30.23	1.04%	[100]	ug/L
P 214.914†	885.6	9.10	1.03%	[500]	ug/L
Pb 220.353†	542.1	14.05	2.59%	[100]	ug/L
S 181.975 Axial†	143.1	4.24	2.96%	[200]	ug/L
Sb 206.836†	209.9	12.70	6.05%	[100]	ug/L
Se 196.026†	152.5	5.35	3.50%	[100]	ug/L
Si 251.611†	11468.7	20.08	0.18%	[500]	ug/L
Sn 189.927†	384.7	0.94	0.24%	[100]	ug/L
Sr 421.552†	9277.0	19.21	0.21%	[100]	ug/L
Ti 334.940†	36737.6	72.17	0.20%	[100]	ug/L
Tl 190.801†	170.4	7.06	4.14%	[100]	ug/L
U 409.014†	1960.3	87.93	4.49%	[100]	ug/L
V 292.402†	10834.2	20.61	0.19%	[100]	ug/L
Zn 213.857†	8389.6	73.29	0.87%	[100]	ug/L
SiO2†	11023.4	114.02	1.03%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 4/15/2010 16:26:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3256.7	3256.7	100	%	16:28:55
1	Y RADIAL	3671.2	3671.2	100.7	%	16:28:34
1	Al 396.153Radial†	4338.6	4435.9	[5000]	ug/L	16:28:34
1	Ca 317.933Radial†	2299.3	2278.4	[5000]	ug/L	16:28:55
1	K 766.490 Radial†	24312.2	21035.3	[5000]	ug/L	16:28:34
1	Mg 279.077 IEC†	115.1	114.4	[5000]	ug/L	16:28:55
1	Sr 421.552†	47076.6	46850.1	[500]	ug/L	16:28:34
1	Sc 361.383	493934.9	493934.9	88.675	%	16:29:57
1	Y 371.029	537503.2	537503.2	103.88	%	16:29:51
1	Ag 328.068†	83963.8	94634.6	[500]	ug/L	16:29:57
1	As 188.979†	1112.7	1299.5	[500]	ug/L	16:30:17
1	B 249.677†	20102.9	23325.3	[500]	ug/L	16:29:57
1	Ba 233.527†	33753.4	38067.3	[500]	ug/L	16:29:57
1	Be 313.107†	1144113.9	1299784.6	[500]	ug/L	16:29:51
1	Cd 226.502†	35960.1	40860.3	[500]	ug/L	16:29:57
1	Co 228.616†	13600.1	15427.6	[500]	ug/L	16:30:17
1	Cr 267.716†	33654.8	37846.3	[500]	ug/L	16:29:57
1	Cu 324.752†	109796.6	117437.5	[500]	ug/L	16:29:57
1	Mn 257.610†	259980.9	292559.8	[500]	ug/L	16:29:57
1	Mo 202.031†	4793.8	5390.0	[500]	ug/L	16:30:17
1	Ni 231.604†	15325.1	17164.6	[500]	ug/L	16:29:57
1	P 214.914†	5030.2	5361.3	[2500]	ug/L	16:30:17
1	Pb 220.353†	2761.8	3210.1	[500]	ug/L	16:30:17
1	S 181.975 Axial†	850.6	890.3	[1000]	ug/L	16:30:17
1	Sb 206.836†	1165.9	1257.2	[500]	ug/L	16:30:17
1	Se 196.026†	769.5	900.8	[500]	ug/L	16:30:17
1	Si 251.611†	60091.6	67198.5	[2500]	ug/L	16:29:57
1	Sn 189.927†	2018.1	2264.0	[500]	ug/L	16:30:17
1	Ti 334.940†	184824.4	210407.6	[500]	ug/L	16:29:57
1	Tl 190.801†	790.6	950.5	[500]	ug/L	16:30:17
1	U 409.014†	8203.5	11051.8	[500]	ug/L	16:29:57
1	V 292.402†	54129.9	63015.0	[500]	ug/L	16:29:57
1	Zn 213.857†	45943.2	50868.7	[500]	ug/L	16:29:57
1	SiO2†	58975.1	65902.6	[5347.5]	ug/L	16:31:24
2	Sc Radial	3287.9	3287.9	101	%	16:29:20
2	Y RADIAL	3696.4	3696.4	101.4	%	16:29:00
2	Al 396.153Radial†	4380.3	4436.1	[5000]	ug/L	16:29:00
2	Ca 317.933Radial†	2321.1	2278.2	[5000]	ug/L	16:29:20
2	K 766.490 Radial†	24657.5	21146.6	[5000]	ug/L	16:29:00
2	Mg 279.077 IEC†	122.1	120.3	[5000]	ug/L	16:29:20
2	Sr 421.552†	47735.1	47055.6	[500]	ug/L	16:29:00
2	Sc 361.383	496023.8	496023.8	89.050	%	16:30:27
2	Y 371.029	546127.6	546127.6	105.55	%	16:30:22
2	Ag 328.068†	84741.6	95109.2	[500]	ug/L	16:30:27
2	As 188.979†	1117.3	1299.3	[500]	ug/L	16:30:47
2	B 249.677†	20317.5	23470.9	[500]	ug/L	16:30:27
2	Ba 233.527†	34152.4	38355.1	[500]	ug/L	16:30:27
2	Be 313.107†	1160469.5	1312717.6	[500]	ug/L	16:30:22
2	Cd 226.502†	36315.5	41088.5	[500]	ug/L	16:30:27
2	Co 228.616†	13687.5	15461.2	[500]	ug/L	16:30:47
2	Cr 267.716†	33800.6	37850.1	[500]	ug/L	16:30:27
2	Cu 324.752†	110774.1	118013.7	[500]	ug/L	16:30:27
2	Mn 257.610†	262433.2	294078.9	[500]	ug/L	16:30:27
2	Mo 202.031†	4801.9	5376.4	[500]	ug/L	16:30:47
2	Ni 231.604†	15429.7	17209.2	[500]	ug/L	16:30:27
2	P 214.914†	5062.0	5373.1	[2500]	ug/L	16:30:47
2	Pb 220.353†	2773.4	3210.0	[500]	ug/L	16:30:47
2	S 181.975 Axial†	858.0	894.5	[1000]	ug/L	16:30:47
2	Sb 206.836†	1191.0	1279.8	[500]	ug/L	16:30:47

2	Se 196.026†	765.8	892.9	[500]	ug/L	16:30:47
2	Si 251.611†	60723.5	67622.8	[2500]	ug/L	16:30:27
2	Sn 189.927†	2028.8	2266.4	[500]	ug/L	16:30:47
2	Ti 334.940†	186706.6	211643.6	[500]	ug/L	16:30:27
2	Tl 190.801†	790.7	946.7	[500]	ug/L	16:30:47
2	U 409.014†	8479.3	11322.5	[500]	ug/L	16:30:27
2	V 292.402†	54420.0	63083.6	[500]	ug/L	16:30:27
2	Zn 213.857†	46196.4	50934.8	[500]	ug/L	16:30:27
2	SiO2†	58545.1	65139.6	[5347.5]	ug/L	16:31:29
3	Sc Radial	3322.4	3322.4	102	%	16:29:45
3	Y RADIAL	3720.7	3720.7	102.1	%	16:29:25
3	Al 396.153Radial†	4410.2	4420.4	[5000]	ug/L	16:29:25
3	Ca 317.933Radial†	2343.9	2276.8	[5000]	ug/L	16:29:45
3	K 766.490 Radial†	24773.2	21007.0	[5000]	ug/L	16:29:25
3	Mg 279.077 IEC†	119.9	116.9	[5000]	ug/L	16:29:45
3	Sr 421.552†	48071.6	46895.2	[500]	ug/L	16:29:25
3	Sc 361.383	492288.9	492288.9	88.379	%	16:30:58
3	Y 371.029	536114.5	536114.5	103.61	%	16:30:53
3	Ag 328.068†	83092.7	93965.5	[500]	ug/L	16:30:58
3	As 188.979†	1079.0	1265.5	[500]	ug/L	16:31:18
3	B 249.677†	19905.6	23177.9	[500]	ug/L	16:30:58
3	Ba 233.527†	33321.7	37706.1	[500]	ug/L	16:30:58
3	Be 313.107†	1138292.1	1297511.1	[500]	ug/L	16:30:53
3	Cd 226.502†	35553.4	40535.6	[500]	ug/L	16:30:58
3	Co 228.616†	13333.3	15177.1	[500]	ug/L	16:31:18
3	Cr 267.716†	33103.8	37349.6	[500]	ug/L	16:30:58
3	Cu 324.752†	108431.1	116306.4	[500]	ug/L	16:30:58
3	Mn 257.610†	256558.1	289667.2	[500]	ug/L	16:30:58
3	Mo 202.031†	4691.4	5292.2	[500]	ug/L	16:31:18
3	Ni 231.604†	15096.5	16963.6	[500]	ug/L	16:30:58
3	P 214.914†	4958.4	5299.0	[2500]	ug/L	16:31:18
3	Pb 220.353†	2728.1	3182.4	[500]	ug/L	16:31:18
3	S 181.975 Axial†	820.4	859.3	[1000]	ug/L	16:31:18
3	Sb 206.836†	1165.3	1260.9	[500]	ug/L	16:31:18
3	Se 196.026†	750.6	882.2	[500]	ug/L	16:31:18
3	Si 251.611†	59352.7	66589.1	[2500]	ug/L	16:30:58
3	Sn 189.927†	1990.7	2240.5	[500]	ug/L	16:31:18
3	Ti 334.940†	182818.6	208835.0	[500]	ug/L	16:30:58
3	Tl 190.801†	790.6	953.4	[500]	ug/L	16:31:18
3	U 409.014†	7924.0	10766.3	[500]	ug/L	16:30:58
3	V 292.402†	53393.0	62385.2	[500]	ug/L	16:30:58
3	Zn 213.857†	45310.6	50326.1	[500]	ug/L	16:30:58
3	SiO2†	58744.8	65864.5	[5347.5]	ug/L	16:31:34

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	494082.5	1871.81	0.38%	88.701	%
Sc Radial	3289.0	32.83	1.00%	101	%
Y 371.029	539915.1	5424.80	1.00%	104.35	%
Y RADIAL	3696.1	24.79	0.67%	101.4	%
Ag 328.068†	94569.7	574.63	0.61%	[500]	ug/L
Al 396.153Radial†	4430.8	8.99	0.20%	[5000]	ug/L
As 188.979†	1288.1	19.56	1.52%	[500]	ug/L
B 249.677†	23324.7	146.50	0.63%	[500]	ug/L
Ba 233.527†	38042.8	325.15	0.85%	[500]	ug/L
Be 313.107†	1303337.7	8202.36	0.63%	[500]	ug/L
Ca 317.933Radial†	2277.8	0.89	0.04%	[5000]	ug/L
Cd 226.502†	40828.1	277.84	0.68%	[500]	ug/L
Co 228.616†	15355.3	155.23	1.01%	[500]	ug/L
Cr 267.716†	37682.0	287.84	0.76%	[500]	ug/L
Cu 324.752†	117252.5	868.54	0.74%	[500]	ug/L
K 766.490 Radial†	21063.0	73.80	0.35%	[5000]	ug/L
Mg 279.077 IEC†	117.2	2.94	2.51%	[5000]	ug/L
Mn 257.610†	292102.0	2241.21	0.77%	[500]	ug/L
Mo 202.031†	5352.8	52.95	0.99%	[500]	ug/L
Ni 231.604†	17112.5	130.82	0.76%	[500]	ug/L
P 214.914†	5344.5	39.81	0.74%	[2500]	ug/L
Pb 220.353†	3200.8	15.97	0.50%	[500]	ug/L
S 181.975 Axial†	881.4	19.24	2.18%	[1000]	ug/L

Sb 206.836†	1266.0	12.12	0.96%	[500]	ug/L
Se 196.026†	892.0	9.30	1.04%	[500]	ug/L
Si 251.611†	67136.8	519.62	0.77%	[2500]	ug/L
Sn 189.927†	2257.0	14.27	0.63%	[500]	ug/L
Sr 421.552†	46933.6	107.99	0.23%	[500]	ug/L
Ti 334.940†	210295.4	1407.62	0.67%	[500]	ug/L
Tl 190.801†	950.2	3.35	0.35%	[500]	ug/L
U 409.014†	11046.9	278.10	2.52%	[500]	ug/L
V 292.402†	62827.9	384.95	0.61%	[500]	ug/L
Zn 213.857†	50709.9	333.97	0.66%	[500]	ug/L
SiO2†	65635.6	429.91	0.65%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 4/15/2010 16:33:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3275.5	3275.5	101	%	16:35:57
1	Y RADIAL	3752.8	3752.8	103.0	%	16:35:37
1	Al 396.153Radial†	9090.0	9115.8	[10000]	ug/L	16:35:37
1	Ca 317.933Radial†	4849.7	4790.6	[10000]	ug/L	16:35:37
1	Fe 238.204 Radial†	772.6	760.1	[10000]	ug/L	16:35:57
1	K 766.490 Radial†	47266.8	43625.1	[10000]	ug/L	16:35:37
1	Mg 279.077 IEC†	232.5	230.0	[10000]	ug/L	16:35:57
1	Na 589.592 Radial†	19901.8	20900.2	[10000]	ug/L	16:35:37
1	Sr 421.552†	98659.9	97656.7	[1000]	ug/L	16:35:37
1	Sc 361.383	563115.3	563115.3	101.09	%	16:36:57
1	Y 371.029	518768.7	518768.7	100.26	%	16:36:57
1	Ag 328.068†	164197.5	162366.8	[1000]	ug/L	16:36:57
1	As 188.979†	2159.8	2181.0	[1000]	ug/L	16:37:17
1	B 249.677†	39630.9	39856.7	[1000]	ug/L	16:36:57
1	Ba 233.527†	65649.7	64941.9	[1000]	ug/L	16:36:57
1	Be 313.107†	2215746.3	2201303.0	[1000]	ug/L	16:36:57
1	Cd 226.502†	69965.5	69515.3	[1000]	ug/L	16:36:57
1	Co 228.616†	26528.2	26331.5	[1000]	ug/L	16:37:17
1	Cr 267.716†	65034.9	64223.8	[1000]	ug/L	16:36:57
1	Cu 324.752†	208088.8	199453.7	[1000]	ug/L	16:36:57
1	Mn 257.610†	510208.8	504059.4	[1000]	ug/L	16:36:57
1	Mo 202.031†	9232.5	9116.5	[1000]	ug/L	16:37:17
1	Ni 231.604†	28935.5	28504.4	[1000]	ug/L	16:37:17
1	P 214.914†	9422.5	9009.1	[5000]	ug/L	16:37:17
1	Pb 220.353†	5431.1	5467.9	[1000]	ug/L	16:37:17
1	S 181.975 Axial†	1571.3	1485.3	[2000]	ug/L	16:37:17
1	Sb 206.836†	2214.9	2133.4	[1000]	ug/L	16:37:17
1	Se 196.026†	1485.6	1502.4	[1000]	ug/L	16:37:17
1	Si 251.611†	116006.7	114182.8	[5000]	ug/L	16:36:57
1	Sn 189.927†	3899.0	3844.9	[1000]	ug/L	16:37:17
1	Ti 334.940†	367723.3	365719.8	[1000]	ug/L	16:36:57
1	Tl 190.801†	1589.2	1630.8	[1000]	ug/L	16:37:17
1	U 409.014†	17477.9	19089.2	[1000]	ug/L	16:36:57
1	V 292.402†	107126.7	107938.5	[1000]	ug/L	16:36:57
1	Zn 213.857†	87793.9	85901.0	[1000]	ug/L	16:36:57
1	SiO2†	116901.0	115030.7	[10695]	ug/L	16:38:17
2	Sc Radial	3262.5	3262.5	101	%	16:36:23
2	Y RADIAL	3623.5	3623.5	99.41	%	16:36:02
2	Al 396.153Radial†	8736.5	8800.1	[10000]	ug/L	16:36:02
2	Ca 317.933Radial†	4653.0	4614.1	[10000]	ug/L	16:36:02
2	Fe 238.204 Radial†	761.7	752.3	[10000]	ug/L	16:36:23
2	K 766.490 Radial†	45561.3	42115.5	[10000]	ug/L	16:36:02
2	Mg 279.077 IEC†	231.5	230.0	[10000]	ug/L	16:36:23
2	Na 589.592 Radial†	18922.5	20005.0	[10000]	ug/L	16:36:02
2	Sr 421.552†	94945.5	94352.4	[1000]	ug/L	16:36:02
2	Sc 361.383	571091.8	571091.8	102.53	%	16:37:24
2	Y 371.029	524879.2	524879.2	101.44	%	16:37:24
2	Ag 328.068†	166575.3	162417.4	[1000]	ug/L	16:37:24
2	As 188.979†	2178.8	2169.7	[1000]	ug/L	16:37:44
2	B 249.677†	40563.0	40218.3	[1000]	ug/L	16:37:24
2	Ba 233.527†	66581.6	64943.8	[1000]	ug/L	16:37:24
2	Be 313.107†	2243516.5	2197776.7	[1000]	ug/L	16:37:24
2	Cd 226.502†	71031.5	69588.4	[1000]	ug/L	16:37:24
2	Co 228.616†	26795.8	26226.0	[1000]	ug/L	16:37:44
2	Cr 267.716†	65908.3	64177.3	[1000]	ug/L	16:37:24
2	Cu 324.752†	211537.1	199942.1	[1000]	ug/L	16:37:24
2	Mn 257.610†	517776.4	504391.5	[1000]	ug/L	16:37:24
2	Mo 202.031†	9310.7	9065.3	[1000]	ug/L	16:37:44
2	Ni 231.604†	29201.0	28363.6	[1000]	ug/L	16:37:44

2	P 214.914†	9505.4	8959.9	[5000]	ug/L	16:37:44
2	Pb 220.353†	5482.3	5442.8	[1000]	ug/L	16:37:44
2	S 181.975 Axial†	1584.8	1476.8	[2000]	ug/L	16:37:44
2	Sb 206.836†	2246.6	2133.7	[1000]	ug/L	16:37:44
2	Se 196.026†	1504.9	1500.8	[1000]	ug/L	16:37:44
2	Si 251.611†	117913.2	114439.6	[5000]	ug/L	16:37:24
2	Sn 189.927†	3930.2	3821.5	[1000]	ug/L	16:37:44
2	Ti 334.940†	373215.0	365995.8	[1000]	ug/L	16:37:24
2	Tl 190.801†	1601.4	1620.8	[1000]	ug/L	16:37:44
2	U 409.014†	17831.6	19192.7	[1000]	ug/L	16:37:24
2	V 292.402†	108519.0	107816.5	[1000]	ug/L	16:37:24
2	Zn 213.857†	89177.4	86037.5	[1000]	ug/L	16:37:24
2	SiO2†	118677.0	115147.8	[10695]	ug/L	16:38:22
3	Sc Radial	3233.1	3233.1	99.7	%	16:36:48
3	Y RADIAL	3686.2	3686.2	101.1	%	16:36:28
3	Al 396.153Radial†	8901.8	9045.1	[10000]	ug/L	16:36:28
3	Ca 317.933Radial†	4754.2	4757.8	[10000]	ug/L	16:36:28
3	Fe 238.204 Radial†	761.2	758.7	[10000]	ug/L	16:36:48
3	K 766.490 Radial†	46429.1	43399.1	[10000]	ug/L	16:36:28
3	Mg 279.077 IEC†	231.7	232.2	[10000]	ug/L	16:36:48
3	Na 589.592 Radial†	19227.7	20482.8	[10000]	ug/L	16:36:28
3	Sr 421.552†	96497.0	96769.5	[1000]	ug/L	16:36:28
3	Sc 361.383	566443.0	566443.0	101.69	%	16:37:52
3	Y 371.029	521556.3	521556.3	100.80	%	16:37:52
3	Ag 328.068†	165117.8	162317.6	[1000]	ug/L	16:37:52
3	As 188.979†	2207.9	2215.7	[1000]	ug/L	16:38:12
3	B 249.677†	40004.5	39993.8	[1000]	ug/L	16:37:52
3	Ba 233.527†	65727.2	64636.6	[1000]	ug/L	16:37:52
3	Be 313.107†	2226177.7	2198684.9	[1000]	ug/L	16:37:52
3	Cd 226.502†	70077.9	69219.3	[1000]	ug/L	16:37:52
3	Co 228.616†	26974.8	26616.6	[1000]	ug/L	16:38:12
3	Cr 267.716†	65282.2	64089.1	[1000]	ug/L	16:37:52
3	Cu 324.752†	209476.5	199609.0	[1000]	ug/L	16:37:52
3	Mn 257.610†	511878.6	502736.5	[1000]	ug/L	16:37:52
3	Mo 202.031†	9366.2	9194.4	[1000]	ug/L	16:38:12
3	Ni 231.604†	29370.8	28764.3	[1000]	ug/L	16:38:12
3	P 214.914†	9600.9	9129.8	[5000]	ug/L	16:38:12
3	Pb 220.353†	5523.7	5527.4	[1000]	ug/L	16:38:12
3	S 181.975 Axial†	1590.1	1494.6	[2000]	ug/L	16:38:12
3	Sb 206.836†	2251.1	2156.1	[1000]	ug/L	16:38:12
3	Se 196.026†	1521.7	1529.4	[1000]	ug/L	16:38:12
3	Si 251.611†	116541.9	114035.0	[5000]	ug/L	16:37:52
3	Sn 189.927†	3981.2	3903.1	[1000]	ug/L	16:38:12
3	Ti 334.940†	369447.0	365278.0	[1000]	ug/L	16:37:52
3	Tl 190.801†	1619.4	1651.3	[1000]	ug/L	16:38:12
3	U 409.014†	17607.2	19114.7	[1000]	ug/L	16:37:52
3	V 292.402†	107536.3	107718.7	[1000]	ug/L	16:37:52
3	Zn 213.857†	88238.3	85827.9	[1000]	ug/L	16:37:52
3	SiO2†	117243.7	114688.3	[10695]	ug/L	16:38:27

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	566883.4	4006.41	0.71%	101.77	%
Sc Radial	3257.0	21.75	0.67%	100	%
Y 371.029	521734.7	3059.14	0.59%	100.83	%
Y RADIAL	3687.5	64.70	1.75%	101.2	%
Ag 328.068†	162367.3	49.91	0.03%	[1000]	ug/L
Al 396.153Radial†	8987.0	165.66	1.84%	[10000]	ug/L
As 188.979†	2188.8	23.98	1.10%	[1000]	ug/L
B 249.677†	40022.9	182.54	0.46%	[1000]	ug/L
Ba 233.527†	64840.8	176.81	0.27%	[1000]	ug/L
Be 313.107†	2199254.9	1830.93	0.08%	[1000]	ug/L
Ca 317.933Radial†	4720.8	93.88	1.99%	[10000]	ug/L
Cd 226.502†	69441.0	195.46	0.28%	[1000]	ug/L
Co 228.616†	26391.4	202.04	0.77%	[1000]	ug/L
Cr 267.716†	64163.4	68.43	0.11%	[1000]	ug/L
Cu 324.752†	199668.3	249.54	0.12%	[1000]	ug/L
Fe 238.204 Radial†	757.0	4.17	0.55%	[10000]	ug/L
K 766.490 Radial†	43046.6	814.18	1.89%	[10000]	ug/L

Mg 279.077 IEC†	230.8	1.29	0.56%	[10000]	ug/L
Mn 257.610†	503729.1	875.55	0.17%	[1000]	ug/L
Mo 202.031†	9125.4	65.02	0.71%	[1000]	ug/L
Na 589.592 Radial†	20462.7	447.95	2.19%	[10000]	ug/L
Ni 231.604†	28544.1	203.29	0.71%	[1000]	ug/L
P 214.914†	9032.9	87.44	0.97%	[5000]	ug/L
Pb 220.353†	5479.3	43.46	0.79%	[1000]	ug/L
S 181.975 Axial†	1485.6	8.94	0.60%	[2000]	ug/L
Sb 206.836†	2141.0	13.03	0.61%	[1000]	ug/L
Se 196.026†	1510.9	16.04	1.06%	[1000]	ug/L
Si 251.611†	114219.1	204.74	0.18%	[5000]	ug/L
Sn 189.927†	3856.5	42.04	1.09%	[1000]	ug/L
Sr 421.552†	96259.5	1710.16	1.78%	[1000]	ug/L
Ti 334.940†	365664.5	362.11	0.10%	[1000]	ug/L
Tl 190.801†	1634.3	15.55	0.95%	[1000]	ug/L
U 409.014†	19132.2	53.91	0.28%	[1000]	ug/L
V 292.402†	107824.5	110.11	0.10%	[1000]	ug/L
Zn 213.857†	85922.1	106.41	0.12%	[1000]	ug/L
SiO2†	114955.6	238.77	0.21%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 4/15/2010 16:40:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3340.3	3340.3	103	%	16:42:52
1	Y RADIAL	3621.6	3621.6	99.36	%	16:42:52
1	Al 396.153Radial†	44718.5	43534.3	[50000]	ug/L	16:42:32
1	Ca 317.933Radial†	23356.6	22666.6	[50000]	ug/L	16:42:32
1	Fe 238.204 Radial†	1532.4	1483.0	[20000]	ug/L	16:42:52
1	Mg 279.077 IEC†	1130.5	1097.5	[50000]	ug/L	16:42:52
1	Na 589.592 Radial†	42282.3	42248.1	[20000]	ug/L	16:42:32
1	Sc 361.383	565011.6	565011.6	101.44	%	16:43:49
1	Y 371.029	518798.4	518798.4	100.27	%	16:43:49
2	Sc Radial	3245.6	3245.6	100	%	16:43:17
2	Y RADIAL	3530.5	3530.5	96.86	%	16:43:17
2	Al 396.153Radial†	42634.2	42718.6	[50000]	ug/L	16:42:57
2	Ca 317.933Radial†	22271.4	22244.0	[50000]	ug/L	16:42:57
2	Fe 238.204 Radial†	1486.5	1480.6	[20000]	ug/L	16:43:17
2	Mg 279.077 IEC†	1092.6	1091.6	[50000]	ug/L	16:43:17
2	Na 589.592 Radial†	39822.9	40988.5	[20000]	ug/L	16:42:57
2	Sc 361.383	567918.5	567918.5	101.96	%	16:43:55
2	Y 371.029	520737.3	520737.3	100.64	%	16:43:55
3	Sc Radial	3356.5	3356.5	103	%	16:43:42
3	Y RADIAL	3654.5	3654.5	100.3	%	16:43:42
3	Al 396.153Radial†	42625.7	41302.8	[50000]	ug/L	16:43:22
3	Ca 317.933Radial†	22264.4	21501.9	[50000]	ug/L	16:43:22
3	Fe 238.204 Radial†	1542.4	1485.5	[20000]	ug/L	16:43:42
3	Mg 279.077 IEC†	1145.9	1107.0	[50000]	ug/L	16:43:42
3	Na 589.592 Radial†	39705.4	39560.2	[20000]	ug/L	16:43:22
3	Sc 361.383	558282.9	558282.9	100.23	%	16:44:00
3	Y 371.029	512131.7	512131.7	98.979	%	16:44:00

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	563737.7	4942.50	0.88%	101.21	%
Sc Radial	3314.1	59.90	1.81%	102	%
Y 371.029	517222.5	4514.08	0.87%	99.963	%
Y RADIAL	3602.2	64.25	1.78%	98.83	%
Al 396.153Radial†	42518.6	1129.15	2.66%	[50000]	ug/L
Ca 317.933Radial†	22137.5	589.58	2.66%	[50000]	ug/L
Fe 238.204 Radial†	1483.0	2.46	0.17%	[20000]	ug/L
Mg 279.077 IEC†	1098.7	7.78	0.71%	[50000]	ug/L
Na 589.592 Radial†	40932.3	1344.82	3.29%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	167.7	0.00000	0.997977	
Al 396.153Radial	3	Lin Thru 0	0.0	0.8526	0.00000	0.999934	
As 188.979	3	Lin Thru 0	0.0	2.266	0.00000	0.997690	
B 249.677	3	Lin Thru 0	0.0	41.34	0.00000	0.997963	
Ba 233.527	3	Lin Thru 0	0.0	67.06	0.00000	0.997763	
Be 313.107	3	Lin Thru 0	0.0	2280	0.00000	0.997474	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.4440	0.00000	0.999917	
Cd 226.502	3	Lin Thru 0	0.0	71.86	0.00000	0.997708	
Co 228.616	3	Lin Thru 0	0.0	27.25	0.00000	0.998010	
Cr 267.716	3	Lin Thru 0	0.0	66.37	0.00000	0.997734	
Cu 324.752	3	Lin Thru 0	0.0	206.6	0.00000	0.997741	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0745	0.00000	0.999965	
K 766.490 Radial	3	Lin Thru 0	0.0	4.283	0.00000	0.999933	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0220	0.00000	0.999935
Mn 257.610	3	Lin Thru 0	0.0	519.7	0.00000	0.998101
Mo 202.031	3	Lin Thru 0	0.0	9.439	0.00000	0.997780
Na 589.592 Radia	2	Lin Thru 0	0.0	2.047	0.00000	1.000000
Ni 231.604	3	Lin Thru 0	0.0	29.68	0.00000	0.997102
P 214.914	3	Lin Thru 0	0.0	1.872	0.00000	0.997513
Pb 220.353	3	Lin Thru 0	0.0	5.662	0.00000	0.997893
S 181.975 Axial	3	Lin Thru 0	0.0	0.7701	0.00000	0.997420
Sb 206.836	3	Lin Thru 0	0.0	2.218	0.00000	0.997532
Se 196.026	3	Lin Thru 0	0.0	1.565	0.00000	0.997590
Si 251.611	3	Lin Thru 0	0.0	23.64	0.00000	0.997720
Sn 189.927	3	Lin Thru 0	0.0	3.987	0.00000	0.997844
Sr 421.552	3	Lin Thru 0	0.0	95.76	0.00000	0.999947
Ti 334.940	3	Lin Thru 0	0.0	376.6	0.00000	0.998313
Tl 190.801	3	Lin Thru 0	0.0	1.688	0.00000	0.998033
U 409.014	3	Lin Thru 0	0.0	19.72	0.00000	0.998215
V 292.402	3	Lin Thru 0	0.0	111.4	0.00000	0.997969
Zn 213.857	3	Lin Thru 0	0.0	88.98	0.00000	0.997588
SiO2	3	Lin Thru 0	0.0	11.05	0.00000	0.998472

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 4/15/2010 16:46:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3387.0	3387.0	104	%			16:48:24
1	Y RADIAL	3772.9	3772.9	103.5	%			16:48:04
1	Al 396.153Radial†	4485.0	4409.8	5147.3	ug/L	5147.3	ppb	16:48:04
1	Ca 317.933Radial†	2388.1	2275.3	5124.7	ug/L	5124.7	ppb	16:48:24
1	Fe 238.204 Radial†	396.9	375.2	5053.5	ug/L	5053.5	ppb	16:48:24
1	K 766.490 Radial†	13993.0	10222.6	2384.3	ug/L	2384.3	ppb	16:48:04
1	Mg 279.077 IEC†	123.8	118.3	5372.5	ug/L	5372.5	ppb	16:48:24
1	Na 589.592 Radial†	4026.1	5049.5	2467.3	ug/L	2467.3	ppb	16:48:04
1	Sr 421.552†	52197.3	49949.6	521.59	ug/L	521.59	ppb	16:48:04
1	Sc 361.383	580606.2	580606.2	104.23	%			16:49:22
1	Y 371.029	536472.1	536472.1	103.68	%			16:49:22
1	Ag 328.068†	42978.6	41179.9	248.56	ug/L	248.56	ppb	16:49:22
1	As 188.979†	1017.2	1020.5	453.96	ug/L	453.96	ppb	16:49:42
1	B 249.677†	21012.2	20813.5	501.54	ug/L	501.54	ppb	16:49:22
1	Ba 233.527†	33773.8	32404.8	484.67	ug/L	484.67	ppb	16:49:22
1	Be 313.107†	578346.6	564400.7	248.59	ug/L	248.59	ppb	16:49:22
1	Cd 226.502†	34895.5	33785.3	470.10	ug/L	470.10	ppb	16:49:42
1	Co 228.616†	14053.7	13573.4	498.26	ug/L	498.26	ppb	16:49:42
1	Cr 267.716†	32644.9	31211.9	470.81	ug/L	470.81	ppb	16:49:22
1	Cu 324.752†	110182.4	99324.2	480.65	ug/L	480.65	ppb	16:49:22
1	Mn 257.610†	262427.2	251141.0	483.53	ug/L	483.53	ppb	16:49:22
1	Mo 202.031†	5126.2	4901.9	519.73	ug/L	519.73	ppb	16:49:42
1	Ni 231.604†	14880.3	14157.9	476.80	ug/L	476.80	ppb	16:49:42
1	P 214.914†	4989.7	4475.7	2281.2	ug/L	2281.2	ppb	16:49:42
1	Pb 220.353†	2732.2	2716.8	481.67	ug/L	481.67	ppb	16:49:42
1	S 181.975 Axial†	1987.7	1837.9	2386.2	ug/L	2386.2	ppb	16:49:42
1	Sb 206.836†	1135.2	1031.5	483.64	ug/L	483.64	ppb	16:49:42
1	Se 196.026†	3908.7	3782.8	2427.7	ug/L	2427.7	ppb	16:49:42
1	Si 251.611†	112206.7	107080.4	4523.2	ug/L	4523.2	ppb	16:49:22
1	Sn 189.927†	2115.1	2017.3	506.99	ug/L	506.99	ppb	16:49:42
1	Ti 334.940†	184076.1	178576.1	473.93	ug/L	473.93	ppb	16:49:22
1	Tl 190.801†	829.9	855.0	509.45	ug/L	509.45	ppb	16:49:42
1	U 409.014†	8382.1	9842.1	496.60	ug/L	496.60	ppb	16:49:22
1	V 292.402†	53625.9	53419.1	486.87	ug/L	486.87	ppb	16:49:22
1	Zn 213.857†	46508.2	43676.6	487.62	ug/L	487.62	ppb	16:49:22
1	SiO2†	111415.2	106284.2	9606.3	ug/L	9606.3	ppb	16:50:39
2	Sc Radial	3382.7	3382.7	104	%			16:48:49
2	Y RADIAL	3753.5	3753.5	103.0	%			16:48:29
2	Al 396.153Radial†	4494.2	4424.1	5164.0	ug/L	5164.0	ppb	16:48:29
2	Ca 317.933Radial†	2397.4	2287.2	5151.6	ug/L	5151.6	ppb	16:48:49
2	Fe 238.204 Radial†	396.2	375.0	5050.4	ug/L	5050.4	ppb	16:48:49
2	K 766.490 Radial†	13995.9	10242.4	2388.9	ug/L	2388.9	ppb	16:48:29
2	Mg 279.077 IEC†	121.6	116.4	5284.4	ug/L	5284.4	ppb	16:48:49
2	Na 589.592 Radial†	4056.2	5083.4	2483.9	ug/L	2483.9	ppb	16:48:29
2	Sr 421.552†	52168.0	49985.3	521.96	ug/L	521.96	ppb	16:48:29
2	Sc 361.383	586589.9	586589.9	105.31	%			16:49:48
2	Y 371.029	540812.7	540812.7	104.52	%			16:49:48
2	Ag 328.068†	43494.3	41248.9	248.98	ug/L	248.98	ppb	16:49:48
2	As 188.979†	1015.4	1008.8	448.81	ug/L	448.81	ppb	16:50:08
2	B 249.677†	21285.5	20867.4	502.85	ug/L	502.85	ppb	16:49:48
2	Ba 233.527†	34132.9	32415.2	484.83	ug/L	484.83	ppb	16:49:48
2	Be 313.107†	583869.1	563984.9	248.41	ug/L	248.41	ppb	16:49:48
2	Cd 226.502†	35226.0	33757.6	469.71	ug/L	469.71	ppb	16:50:08
2	Co 228.616†	14182.6	13558.2	497.71	ug/L	497.71	ppb	16:50:08
2	Cr 267.716†	32919.2	31152.8	469.93	ug/L	469.93	ppb	16:49:48
2	Cu 324.752†	111528.4	99524.0	481.62	ug/L	481.62	ppb	16:49:48
2	Mn 257.610†	265341.8	251340.4	483.91	ug/L	483.91	ppb	16:49:48
2	Mo 202.031†	5190.9	4913.2	520.92	ug/L	520.92	ppb	16:50:08
2	Ni 231.604†	15030.5	14155.0	476.70	ug/L	476.70	ppb	16:50:08

2	P 214.914†	5037.3	4472.0	2279.0	ug/L	2279.0 ppb	16:50:08
2	Pb 220.353†	2733.5	2691.3	477.18	ug/L	477.18 ppb	16:50:08
2	S 181.975 Axial†	2001.8	1831.8	2378.2	ug/L	2378.2 ppb	16:50:08
2	Sb 206.836†	1164.1	1047.8	490.90	ug/L	490.90 ppb	16:50:08
2	Se 196.026†	3968.8	3801.7	2439.7	ug/L	2439.7 ppb	16:50:08
2	Si 251.611†	113725.8	107424.8	4537.7	ug/L	4537.7 ppb	16:49:48
2	Sn 189.927†	2116.1	1997.5	502.03	ug/L	502.03 ppb	16:50:08
2	Ti 334.940†	186413.8	178994.5	475.05	ug/L	475.05 ppb	16:49:48
2	Tl 190.801†	831.7	848.6	505.67	ug/L	505.67 ppb	16:50:08
2	U 409.014†	8339.0	9719.1	490.36	ug/L	490.36 ppb	16:49:48
2	V 292.402†	54220.9	53459.3	487.24	ug/L	487.24 ppb	16:49:48
2	Zn 213.857†	47107.5	43790.5	488.90	ug/L	488.90 ppb	16:49:48
2	SiO2†	108860.3	102767.8	9288.0	ug/L	9288.0 ppb	16:50:44
3	Sc Radial	3331.7	3331.7	103	%		16:49:14
3	Y RADIAL	3849.6	3849.6	105.6	%		16:48:54
3	Al 396.153Radial†	4527.5	4522.6	5279.9	ug/L	5279.9 ppb	16:48:54
3	Ca 317.933Radial†	2365.0	2290.9	5159.8	ug/L	5159.8 ppb	16:49:14
3	Fe 238.204 Radial†	391.8	376.5	5071.1	ug/L	5071.1 ppb	16:49:14
3	K 766.490 Radial†	14171.2	10618.7	2476.7	ug/L	2476.7 ppb	16:48:54
3	Mg 279.077 IEC†	117.9	114.6	5204.9	ug/L	5204.9 ppb	16:49:14
3	Na 589.592 Radial†	4067.7	5154.1	2518.4	ug/L	2518.4 ppb	16:48:54
3	Sr 421.552†	52823.6	51390.0	536.63	ug/L	536.63 ppb	16:48:54
3	Sc 361.383	583940.3	583940.3	104.83	%		16:50:14
3	Y 371.029	540015.8	540015.8	104.37	%		16:50:14
3	Ag 328.068†	43339.4	41288.6	249.22	ug/L	249.22 ppb	16:50:14
3	As 188.979†	1007.2	1005.3	447.28	ug/L	447.28 ppb	16:50:34
3	B 249.677†	21223.5	20900.0	503.65	ug/L	503.65 ppb	16:50:14
3	Ba 233.527†	33924.2	32363.2	484.06	ug/L	484.06 ppb	16:50:14
3	Be 313.107†	582356.6	565057.8	248.88	ug/L	248.88 ppb	16:50:14
3	Cd 226.502†	34522.5	33238.3	462.48	ug/L	462.48 ppb	16:50:34
3	Co 228.616†	13895.1	13345.1	489.87	ug/L	489.87 ppb	16:50:34
3	Cr 267.716†	32749.6	31132.9	469.63	ug/L	469.63 ppb	16:50:14
3	Cu 324.752†	110830.4	99338.8	480.73	ug/L	480.73 ppb	16:50:14
3	Mn 257.610†	263511.1	250737.4	482.76	ug/L	482.76 ppb	16:50:14
3	Mo 202.031†	5092.7	4841.9	513.37	ug/L	513.37 ppb	16:50:34
3	Ni 231.604†	14764.8	13966.3	470.35	ug/L	470.35 ppb	16:50:34
3	P 214.914†	4938.1	4399.1	2240.2	ug/L	2240.2 ppb	16:50:34
3	Pb 220.353†	2692.6	2664.0	472.37	ug/L	472.37 ppb	16:50:34
3	S 181.975 Axial†	1971.9	1812.0	2352.4	ug/L	2352.4 ppb	16:50:34
3	Sb 206.836†	1146.4	1035.9	485.37	ug/L	485.37 ppb	16:50:34
3	Se 196.026†	3868.0	3722.7	2389.2	ug/L	2389.2 ppb	16:50:34
3	Si 251.611†	112791.5	107023.5	4520.8	ug/L	4520.8 ppb	16:50:14
3	Sn 189.927†	2096.7	1988.2	499.69	ug/L	499.69 ppb	16:50:34
3	Ti 334.940†	185261.9	178698.9	474.27	ug/L	474.27 ppb	16:50:14
3	Tl 190.801†	818.6	839.6	500.40	ug/L	500.40 ppb	16:50:34
3	U 409.014†	8363.4	9778.3	493.36	ug/L	493.36 ppb	16:50:14
3	V 292.402†	54041.1	53521.4	487.69	ug/L	487.69 ppb	16:50:14
3	Zn 213.857†	46715.1	43619.1	487.02	ug/L	487.02 ppb	16:50:14
3	SiO2†	111820.3	106060.3	9586.2	ug/L	9586.2 ppb	16:50:49

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	583712.1	104.79	%	0.538				0.51%
Sc Radial	3367.1	104	%	0.9				0.91%
Y 371.029	539100.2	104.19	%	0.447				0.43%
Y RADIAL	3792.0	104.0	%	1.39				1.34%
Ag 328.068†	41239.1	248.92	ug/L	0.334	248.92	ppb	0.334	0.13%
QC value within limits for Ag 328.068 Recovery = 99.57%								
Al 396.153Radial†	4452.2	5197.1	ug/L	72.20	5197.1	ppb	72.20	1.39%
QC value within limits for Al 396.153Radial Recovery = 103.94%								
As 188.979†	1011.6	450.02	ug/L	3.500	450.02	ppb	3.500	0.78%
QC value within limits for As 188.979 Recovery = 90.00%								
B 249.677†	20860.3	502.68	ug/L	1.066	502.68	ppb	1.066	0.21%
QC value within limits for B 249.677 Recovery = 100.54%								
Ba 233.527†	32394.4	484.52	ug/L	0.409	484.52	ppb	0.409	0.08%
QC value within limits for Ba 233.527 Recovery = 96.90%								
Be 313.107†	564481.1	248.62	ug/L	0.236	248.62	ppb	0.236	0.10%
QC value within limits for Be 313.107 Recovery = 99.45%								
Ca 317.933Radial†	2284.5	5145.4	ug/L	18.34	5145.4	ppb	18.34	0.36%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.91%
Cd 226.502†            33593.7      467.43 ug/L         4.291      467.43 ppb          4.291   0.92%
   QC value within limits for Cd 226.502  Recovery = 93.49%
Co 228.616†            13492.2      495.28 ug/L         4.693      495.28 ppb          4.693   0.95%
   QC value within limits for Co 228.616  Recovery = 99.06%
Cr 267.716†            31165.9      470.12 ug/L         0.617      470.12 ppb          0.617   0.13%
   QC value within limits for Cr 267.716  Recovery = 94.02%
Cu 324.752†            99395.6      481.00 ug/L         0.539      481.00 ppb          0.539   0.11%
   QC value within limits for Cu 324.752  Recovery = 96.20%
Fe 238.204 Radial†       375.5      5058.3 ug/L        11.16      5058.3 ppb          11.16   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.17%
K 766.490 Radial†      10361.2      2416.6 ug/L        52.10      2416.6 ppb          52.10   2.16%
   QC value within limits for K 766.490 Radial  Recovery = 96.67%
Mg 279.077 IEC†          116.4      5287.3 ug/L        83.85      5287.3 ppb          83.85   1.59%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.75%
Mn 257.610†           251072.9      483.40 ug/L         0.588      483.40 ppb          0.588   0.12%
   QC value within limits for Mn 257.610  Recovery = 96.68%
Mo 202.031†             4885.6      518.01 ug/L         4.059      518.01 ppb          4.059   0.78%
   QC value within limits for Mo 202.031  Recovery = 103.60%
Na 589.592 Radial†      5095.7      2489.9 ug/L        26.07      2489.9 ppb          26.07   1.05%
   QC value within limits for Na 589.592 Radial  Recovery = 99.60%
Ni 231.604†            14093.1      474.62 ug/L         3.698      474.62 ppb          3.698   0.78%
   QC value within limits for Ni 231.604  Recovery = 94.92%
P 214.914†              4448.9      2266.8 ug/L        23.05      2266.8 ppb          23.05   1.02%
   QC value within limits for P 214.914  Recovery = 90.67%
Pb 220.353†             2690.7      477.07 ug/L         4.652      477.07 ppb          4.652   0.98%
   QC value within limits for Pb 220.353  Recovery = 95.41%
S 181.975 Axial†        1827.3      2372.3 ug/L        17.65      2372.3 ppb          17.65   0.74%
   QC value within limits for S 181.975 Axial  Recovery = 94.89%
Sb 206.836†             1038.4      486.63 ug/L         3.794      486.63 ppb          3.794   0.78%
   QC value within limits for Sb 206.836  Recovery = 97.33%
Se 196.026†             3769.1      2418.9 ug/L        26.35      2418.9 ppb          26.35   1.09%
   QC value within limits for Se 196.026  Recovery = 96.75%
Si 251.611†           107176.2      4527.2 ug/L         9.15      4527.2 ppb           9.15   0.20%
   QC value within limits for Si 251.611  Recovery = 90.54%
Sn 189.927†             2001.0      502.91 ug/L         3.728      502.91 ppb          3.728   0.74%
   QC value within limits for Sn 189.927  Recovery = 100.58%
Sr 421.552†            50441.6      526.73 ug/L         8.579      526.73 ppb          8.579   1.63%
   QC value within limits for Sr 421.552  Recovery = 105.35%
Ti 334.940†           178756.5      474.42 ug/L         0.576      474.42 ppb          0.576   0.12%
   QC value within limits for Ti 334.940  Recovery = 94.88%
Tl 190.801†              847.7      505.17 ug/L         4.547      505.17 ppb          4.547   0.90%
   QC value within limits for Tl 190.801  Recovery = 101.03%
U 409.014†              9779.8      493.44 ug/L         3.117      493.44 ppb          3.117   0.63%
   QC value within limits for U 409.014  Recovery = 98.69%
V 292.402†             53466.6      487.27 ug/L         0.408      487.27 ppb          0.408   0.08%
   QC value within limits for V 292.402  Recovery = 97.45%
Zn 213.857†            43695.4      487.84 ug/L         0.961      487.84 ppb          0.961   0.20%
   QC value within limits for Zn 213.857  Recovery = 97.57%
SiO2†                 105037.4      9493.5 ug/L       178.27      9493.5 ppb        178.27   1.88%
   QC value less than the lower limit for SiO2  Recovery = 88.77%
QC Failed.  Continue with analysis.
```

Sequence No.: 7 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 4/15/2010 16:53:00**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3289.4	3289.4	101	%			16:55:13
1	Y RADIAL	3676.4	3676.4	100.9	%			16:54:53
1	Al 396.153Radial†	-117.2	-0.4	-0.4857	ug/L	-0.4857	ppb	16:54:53
1	Ca 317.933Radial†	9.0	-2.5	-5.6228	ug/L	-5.6228	ppb	16:55:13
1	Fe 238.204 Radial†	6.2	1.2	16.418	ug/L	16.418	ppb	16:55:13
1	K 766.490 Radial†	3026.9	-192.0	-44.821	ug/L	-44.821	ppb	16:54:53
1	Mg 279.077 IEC†	3.2	3.0	133.98	ug/L	133.98	ppb	16:55:13
1	Na 589.592 Radial†	-1222.7	-11.1	-5.4442	ug/L	-5.4442	ppb	16:54:53
1	Sr 421.552†	57.8	25.0	0.2611	ug/L	0.2611	ppb	16:54:53
1	Sc 361.383	574195.2	574195.2	103.08	%			16:56:10
1	Y 371.029	533988.6	533988.6	103.20	%			16:56:10
1	Ag 328.068†	105.8	50.0	0.3001	ug/L	0.3001	ppb	16:56:10
1	As 188.979†	-37.1	8.6	3.7863	ug/L	3.7863	ppb	16:56:30
1	B 249.677†	-342.5	322.7	7.8053	ug/L	7.8053	ppb	16:56:10
1	Ba 233.527†	-16.4	-12.7	-0.1900	ug/L	-0.1900	ppb	16:56:30
1	Be 313.107†	-9687.1	153.8	0.0677	ug/L	0.0677	ppb	16:56:10
1	Cd 226.502†	-305.9	10.8	0.1486	ug/L	0.1486	ppb	16:56:30
1	Co 228.616†	-96.1	-2.6	-0.0947	ug/L	-0.0947	ppb	16:56:30
1	Cr 267.716†	145.3	34.1	0.5134	ug/L	0.5134	ppb	16:56:10
1	Cu 324.752†	6641.6	61.1	0.2961	ug/L	0.2961	ppb	16:56:10
1	Mn 257.610†	645.8	2.1	0.0004	ug/L	0.0004	ppb	16:56:10
1	Mo 202.031†	26.1	9.3	0.9832	ug/L	0.9832	ppb	16:56:30
1	Ni 231.604†	135.5	13.7	0.4628	ug/L	0.4628	ppb	16:56:30
1	P 214.914†	319.0	-1.8	-1.0271	ug/L	-1.0271	ppb	16:56:30
1	Pb 220.353†	-100.5	-1.9	-0.3317	ug/L	-0.3317	ppb	16:56:30
1	S 181.975 Axial†	68.3	-2.8	-3.5938	ug/L	-3.5938	ppb	16:56:30
1	Sb 206.836†	50.4	-8.7	-3.8809	ug/L	-3.8809	ppb	16:56:30
1	Se 196.026†	-25.2	8.5	5.4644	ug/L	5.4644	ppb	16:56:30
1	Si 251.611†	582.9	-2.1	-0.1030	ug/L	-0.1030	ppb	16:56:30
1	Sn 189.927†	22.5	10.0	2.5050	ug/L	2.5050	ppb	16:56:30
1	Ti 334.940†	-2005.6	33.0	0.0763	ug/L	0.0763	ppb	16:56:10
1	Tl 190.801†	-52.7	7.7	4.5541	ug/L	4.5541	ppb	16:56:30
1	U 409.014†	-1838.6	17.0	0.8539	ug/L	0.8539	ppb	16:56:10
1	V 292.402†	-2091.6	-57.2	-0.4976	ug/L	-0.4976	ppb	16:56:10
1	Zn 213.857†	942.6	-27.7	-0.3130	ug/L	-0.3130	ppb	16:56:30
1	SiO2†	595.0	-27.2	-2.4878	ug/L	-2.4878	ppb	16:57:26
2	Sc Radial	3277.6	3277.6	101	%			16:55:38
2	Y RADIAL	3692.8	3692.8	101.3	%			16:55:18
2	Al 396.153Radial†	-117.9	-1.5	-1.8393	ug/L	-1.8393	ppb	16:55:18
2	Ca 317.933Radial†	9.3	-2.2	-4.8709	ug/L	-4.8709	ppb	16:55:38
2	Fe 238.204 Radial†	5.2	0.2	3.2532	ug/L	3.2532	ppb	16:55:38
2	K 766.490 Radial†	3172.7	-37.0	-8.6262	ug/L	-8.6262	ppb	16:55:18
2	Mg 279.077 IEC†	3.0	2.8	125.65	ug/L	125.65	ppb	16:55:38
2	Na 589.592 Radial†	-1221.3	-14.1	-6.8970	ug/L	-6.8970	ppb	16:55:18
2	Sr 421.552†	53.1	20.5	0.2146	ug/L	0.2146	ppb	16:55:18
2	Sc 361.383	550149.9	550149.9	98.767	%			16:56:36
2	Y 371.029	510982.5	510982.5	98.757	%			16:56:36
2	Ag 328.068†	-17.3	-70.1	-0.4198	ug/L	-0.4198	ppb	16:56:36
2	As 188.979†	-38.9	5.2	2.2946	ug/L	2.2946	ppb	16:56:56
2	B 249.677†	-340.7	310.1	7.5004	ug/L	7.5004	ppb	16:56:36
2	Ba 233.527†	1.9	5.0	0.0730	ug/L	0.0730	ppb	16:56:56
2	Be 313.107†	-9458.1	-25.1	-0.0111	ug/L	-0.0111	ppb	16:56:36
2	Cd 226.502†	-310.8	-7.2	-0.0998	ug/L	-0.0998	ppb	16:56:56
2	Co 228.616†	-90.8	-1.3	-0.0426	ug/L	-0.0426	ppb	16:56:56
2	Cr 267.716†	121.3	16.0	0.2402	ug/L	0.2402	ppb	16:56:36
2	Cu 324.752†	6336.0	33.4	0.1615	ug/L	0.1615	ppb	16:56:36
2	Mn 257.610†	592.2	-24.7	-0.0524	ug/L	-0.0524	ppb	16:56:36
2	Mo 202.031†	31.3	15.6	1.6577	ug/L	1.6577	ppb	16:56:56
2	Ni 231.604†	148.9	33.0	1.1116	ug/L	1.1116	ppb	16:56:56

2	P 214.914†	315.8	8.5	4.4861 ug/L	4.4861 ppb	16:56:56
2	Pb 220.353†	-93.6	0.8	0.1417 ug/L	0.1417 ppb	16:56:56
2	S 181.975 Axial†	65.9	-2.3	-2.9238 ug/L	-2.9238 ppb	16:56:56
2	Sb 206.836†	57.2	0.3	0.1810 ug/L	0.1810 ppb	16:56:56
2	Se 196.026†	-23.7	8.9	5.7263 ug/L	5.7263 ppb	16:56:56
2	Si 251.611†	590.5	30.2	1.2581 ug/L	1.2581 ppb	16:56:56
2	Sn 189.927†	10.6	-1.2	-0.2976 ug/L	-0.2976 ppb	16:56:56
2	Ti 334.940†	-1973.4	-19.5	-0.0612 ug/L	-0.0612 ppb	16:56:36
2	Tl 190.801†	-50.9	7.3	4.3023 ug/L	4.3023 ppb	16:56:56
2	U 409.014†	-1799.8	-21.7	-1.1041 ug/L	-1.1041 ppb	16:56:36
2	V 292.402†	-2047.2	-100.9	-0.8819 ug/L	-0.8819 ppb	16:56:36
2	Zn 213.857†	949.4	19.1	0.2077 ug/L	0.2077 ppb	16:56:56
2	SiO2†	576.6	-20.6	-1.9074 ug/L	-1.9074 ppb	16:57:31
3	Sc Radial	3251.9	3251.9	100 %		16:56:03
3	Y RADIAL	3614.6	3614.6	99.17 %		16:55:43
3	Al 396.153Radial†	-110.7	4.8	5.6074 ug/L	5.6074 ppb	16:55:43
3	Ca 317.933Radial†	11.8	0.4	0.9324 ug/L	0.9324 ppb	16:56:03
3	Fe 238.204 Radial†	5.0	0.1	1.4672 ug/L	1.4672 ppb	16:56:03
3	K 766.490 Radial†	3147.3	-37.5	-8.7639 ug/L	-8.7639 ppb	16:55:43
3	Mg 279.077 IEC†	4.5	4.3	194.99 ug/L	194.99 ppb	16:56:03
3	Na 589.592 Radial†	-1207.0	-9.5	-4.6201 ug/L	-4.6201 ppb	16:55:43
3	Sr 421.552†	16.7	-15.3	-0.1603 ug/L	-0.1603 ppb	16:55:43
3	Sc 361.383	561863.1	561863.1	100.87 %		16:57:01
3	Y 371.029	521687.5	521687.5	100.83 %		16:57:01
3	Ag 328.068†	217.5	163.0	0.9776 ug/L	0.9776 ppb	16:57:01
3	As 188.979†	-37.0	7.9	3.4795 ug/L	3.4795 ppb	16:57:21
3	B 249.677†	-350.4	307.6	7.4412 ug/L	7.4412 ppb	16:57:01
3	Ba 233.527†	-3.1	0.0	0.0027 ug/L	0.0027 ppb	16:57:21
3	Be 313.107†	-9669.6	-35.1	-0.0148 ug/L	-0.0148 ppb	16:57:01
3	Cd 226.502†	-304.4	5.7	0.0797 ug/L	0.0797 ppb	16:57:21
3	Co 228.616†	-99.8	-8.3	-0.3007 ug/L	-0.3007 ppb	16:57:21
3	Cr 267.716†	140.6	32.6	0.4925 ug/L	0.4925 ppb	16:57:01
3	Cu 324.752†	6389.8	-47.1	-0.2274 ug/L	-0.2274 ppb	16:57:01
3	Mn 257.610†	606.4	-23.2	-0.0525 ug/L	-0.0525 ppb	16:57:01
3	Mo 202.031†	29.9	13.6	1.4440 ug/L	1.4440 ppb	16:57:21
3	Ni 231.604†	136.3	17.4	0.5866 ug/L	0.5866 ppb	16:57:21
3	P 214.914†	325.1	11.0	5.9495 ug/L	5.9495 ppb	16:57:21
3	Pb 220.353†	-106.3	-9.8	-1.7270 ug/L	-1.7270 ppb	16:57:21
3	S 181.975 Axial†	67.7	-1.9	-2.4978 ug/L	-2.4978 ppb	16:57:21
3	Sb 206.836†	57.1	-1.0	-0.3920 ug/L	-0.3920 ppb	16:57:21
3	Se 196.026†	-35.4	-2.1	-1.3636 ug/L	-1.3636 ppb	16:57:21
3	Si 251.611†	563.0	-9.5	-0.4197 ug/L	-0.4197 ppb	16:57:21
3	Sn 189.927†	15.8	3.8	0.9605 ug/L	0.9605 ppb	16:57:21
3	Ti 334.940†	-1901.5	93.5	0.2344 ug/L	0.2344 ppb	16:57:01
3	Tl 190.801†	-60.1	-0.7	-0.4414 ug/L	-0.4414 ppb	16:57:21
3	U 409.014†	-1857.4	-40.9	-2.0761 ug/L	-2.0761 ppb	16:57:01
3	V 292.402†	-1896.0	92.2	0.8483 ug/L	0.8483 ppb	16:57:01
3	Zn 213.857†	949.3	-1.0	-0.0148 ug/L	-0.0148 ppb	16:57:21
3	SiO2†	625.9	16.1	1.4187 ug/L	1.4187 ppb	16:57:36

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	562069.4	100.91	%	2.159				2.14%
Sc Radial	3273.0	101	%	0.6				0.59%
Y 371.029	522219.5	100.93	%	2.225				2.20%
Y RADIAL	3661.3	100.4	%	1.13				1.13%
Ag 328.068†	47.6	0.2860	ug/L	0.69884	0.2860	ppb	0.69884	244.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.0	1.0941	ug/L	3.96679	1.0941	ppb	3.96679	362.55%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.2	3.1868	ug/L	0.78778	3.1868	ppb	0.78778	24.72%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	313.5	7.5823	ug/L	0.19537	7.5823	ppb	0.19537	2.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.5	-0.0381	ug/L	0.13616	-0.0381	ppb	0.13616	357.47%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	31.2	0.0139	ug/L	0.04659	0.0139	ppb	0.04659	335.25%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.4	-3.1871	ug/L	3.58736	-3.1871	ppb	3.58736	112.56%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 3.1      0.0428 ug/L       0.12827      0.0428 ppb        0.12827 299.42%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -4.1     -0.1460 ug/L       0.13646     -0.1460 ppb        0.13646  93.48%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                27.6      0.4154 ug/L       0.15205      0.4154 ppb        0.15205  36.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                15.8      0.0767 ug/L       0.27188      0.0767 ppb        0.27188 354.26%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.5      7.0461 ug/L       8.16523      7.0461 ppb        8.16523 115.88%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -88.8     -20.737 ug/L       20.8577     -20.737 ppb        20.8577 100.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.3      151.54 ug/L        37.858      151.54 ppb         37.858  24.98%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -15.3     -0.0348 ug/L       0.03052     -0.0348 ppb        0.03052  87.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.8      1.3616 ug/L       0.34471      1.3616 ppb        0.34471  25.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -11.6     -5.6538 ug/L       1.15283     -5.6538 ppb        1.15283  20.39%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                21.4      0.7203 ug/L       0.34447      0.7203 ppb        0.34447  47.82%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  5.9      3.1362 ug/L       3.67897      3.1362 ppb        3.67897 117.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -3.6     -0.6390 ug/L       0.97152     -0.6390 ppb        0.97152 152.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.3     -3.0051 ug/L       0.55251     -3.0051 ppb        0.55251  18.39%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.1     -1.3640 ug/L       2.19847     -1.3640 ppb        2.19847 161.18%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.1      3.2757 ug/L       4.01989      3.2757 ppb        4.01989 122.72%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 6.2      0.2451 ug/L       0.89144      0.2451 ppb        0.89144 363.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.2      1.0560 ug/L       1.40373      1.0560 ppb        1.40373 132.93%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                10.1      0.1052 ug/L       0.23105      0.1052 ppb        0.23105 219.72%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                35.7      0.0832 ug/L       0.14792      0.0832 ppb        0.14792 177.84%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 4.7      2.8050 ug/L       2.81428      2.8050 ppb        2.81428 100.33%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -15.2     -0.7755 ug/L       1.49242     -0.7755 ppb        1.49242 192.46%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -21.9     -0.1771 ug/L       0.90854     -0.1771 ppb        0.90854 513.08%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -3.2     -0.0401 ug/L       0.26127     -0.0401 ppb        0.26127 652.28%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -10.6     -0.9922 ug/L       2.10795     -0.9922 ppb        2.10795 212.46%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 4/15/2010 16:59:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3289.4	3289.4	101	%			17:02:01
1	Y RADIAL	3643.2	3643.2	99.95	%			17:01:41
1	Al 396.153Radial†	55.7	170.1	198.99	ug/L	198.99	ppb	17:01:41
1	Ca 317.933Radial†	103.7	90.8	204.60	ug/L	204.60	ppb	17:02:01
1	Fe 238.204 Radial†	12.6	7.6	101.54	ug/L	101.54	ppb	17:02:01
1	K 766.490 Radial†	3849.2	618.7	144.29	ug/L	144.29	ppb	17:01:41
1	Mg 279.077 IEC†	10.7	10.3	469.56	ug/L	469.56	ppb	17:02:01
1	Na 589.592 Radial†	-659.8	543.8	265.73	ug/L	265.73	ppb	17:01:41
1	Sr 421.552†	507.1	468.0	4.8859	ug/L	4.8859	ppb	17:01:41
1	Sc 361.383	563033.4	563033.4	101.08	%			17:02:58
1	Y 371.029	523720.2	523720.2	101.22	%			17:02:58
1	Ag 328.068†	905.0	842.7	5.0225	ug/L	5.0225	ppb	17:02:58
1	As 188.979†	26.7	71.0	31.354	ug/L	31.354	ppb	17:03:18
1	B 249.677†	1429.3	2069.0	50.027	ug/L	50.027	ppb	17:02:58
1	Ba 233.527†	317.8	317.6	4.7517	ug/L	4.7517	ppb	17:03:18
1	Be 313.107†	1423.8	10959.7	4.8178	ug/L	4.8178	ppb	17:02:58
1	Cd 226.502†	29.7	336.9	4.6931	ug/L	4.6931	ppb	17:03:18
1	Co 228.616†	25.5	115.9	4.2641	ug/L	4.2641	ppb	17:03:18
1	Cr 267.716†	424.9	313.6	4.7090	ug/L	4.7090	ppb	17:02:58
1	Cu 324.752†	8401.3	1929.8	9.3117	ug/L	9.3117	ppb	17:02:58
1	Mn 257.610†	5796.1	5109.9	9.8232	ug/L	9.8232	ppb	17:02:58
1	Mo 202.031†	115.7	98.5	10.442	ug/L	10.442	ppb	17:03:18
1	Ni 231.604†	267.7	147.1	4.9534	ug/L	4.9534	ppb	17:03:18
1	P 214.914†	589.9	272.3	143.34	ug/L	143.34	ppb	17:03:18
1	Pb 220.353†	-44.6	51.4	9.1415	ug/L	9.1415	ppb	17:03:18
1	S 181.975 Axial†	139.9	69.4	90.077	ug/L	90.077	ppb	17:03:18
1	Sb 206.836†	80.6	22.2	10.343	ug/L	10.343	ppb	17:03:18
1	Se 196.026†	17.2	50.0	32.139	ug/L	32.139	ppb	17:03:18
1	Si 251.611†	2865.5	2267.3	95.779	ug/L	95.779	ppb	17:02:58
1	Sn 189.927†	47.4	35.0	8.8128	ug/L	8.8128	ppb	17:03:18
1	Ti 334.940†	-48.8	1930.3	5.0837	ug/L	5.0837	ppb	17:02:58
1	Tl 190.801†	-30.0	29.2	17.336	ug/L	17.336	ppb	17:03:18
1	U 409.014†	-651.6	1155.9	58.567	ug/L	58.567	ppb	17:02:58
1	V 292.402†	-1529.3	458.9	4.3717	ug/L	4.3717	ppb	17:02:58
1	Zn 213.857†	1979.9	1016.6	11.390	ug/L	11.390	ppb	17:03:18
1	SiO2†	2893.0	2257.7	204.07	ug/L	204.07	ppb	17:04:14
2	Sc Radial	3237.2	3237.2	99.8	%			17:02:26
2	Y RADIAL	3704.1	3704.1	101.6	%			17:02:06
2	Al 396.153Radial†	50.6	165.9	194.12	ug/L	194.12	ppb	17:02:06
2	Ca 317.933Radial†	114.1	103.0	231.96	ug/L	231.96	ppb	17:02:26
2	Fe 238.204 Radial†	11.2	6.3	85.036	ug/L	85.036	ppb	17:02:26
2	K 766.490 Radial†	3827.3	658.0	153.46	ug/L	153.46	ppb	17:02:06
2	Mg 279.077 IEC†	10.9	10.7	485.72	ug/L	485.72	ppb	17:02:26
2	Na 589.592 Radial†	-582.7	610.6	298.34	ug/L	298.34	ppb	17:02:06
2	Sr 421.552†	492.9	461.9	4.8216	ug/L	4.8216	ppb	17:02:06
2	Sc 361.383	555746.4	555746.4	99.772	%			17:03:23
2	Y 371.029	516419.3	516419.3	99.807	%			17:03:23
2	Ag 328.068†	789.7	738.8	4.4113	ug/L	4.4113	ppb	17:03:23
2	As 188.979†	19.3	63.9	28.246	ug/L	28.246	ppb	17:03:43
2	B 249.677†	1412.1	2070.3	50.062	ug/L	50.062	ppb	17:03:23
2	Ba 233.527†	311.8	315.7	4.7221	ug/L	4.7221	ppb	17:03:43
2	Be 313.107†	1444.7	10999.1	4.8344	ug/L	4.8344	ppb	17:03:23
2	Cd 226.502†	37.5	345.1	4.8058	ug/L	4.8058	ppb	17:03:43
2	Co 228.616†	25.8	116.4	4.2828	ug/L	4.2828	ppb	17:03:43
2	Cr 267.716†	466.6	360.9	5.4276	ug/L	5.4276	ppb	17:03:23
2	Cu 324.752†	8309.2	1946.5	9.4018	ug/L	9.4018	ppb	17:03:23
2	Mn 257.610†	5698.3	5087.0	9.7769	ug/L	9.7769	ppb	17:03:23
2	Mo 202.031†	101.0	85.3	9.0412	ug/L	9.0412	ppb	17:03:43
2	Ni 231.604†	269.4	152.3	5.1287	ug/L	5.1287	ppb	17:03:43

2	P 214.914†	580.8	270.9	142.55 ug/L	142.55 ppb	17:03:43
2	Pb 220.353†	-40.1	55.4	9.8393 ug/L	9.8393 ppb	17:03:43
2	S 181.975 Axial†	140.7	72.0	93.463 ug/L	93.463 ppb	17:03:43
2	Sb 206.836†	61.2	3.7	1.9861 ug/L	1.9861 ppb	17:03:43
2	Se 196.026†	10.3	43.3	27.823 ug/L	27.823 ppb	17:03:43
2	Si 251.611†	2826.4	2265.2	95.709 ug/L	95.709 ppb	17:03:23
2	Sn 189.927†	45.7	33.9	8.5540 ug/L	8.5540 ppb	17:03:43
2	Ti 334.940†	-178.3	1799.9	4.7461 ug/L	4.7461 ppb	17:03:23
2	Tl 190.801†	-21.0	37.7	22.419 ug/L	22.419 ppb	17:03:43
2	U 409.014†	-986.4	811.8	41.124 ug/L	41.124 ppb	17:03:23
2	V 292.402†	-1531.0	437.3	4.1270 ug/L	4.1270 ppb	17:03:23
2	Zn 213.857†	1968.0	1030.3	11.542 ug/L	11.542 ppb	17:03:43
2	SiO2†	2926.0	2328.3	210.50 ug/L	210.50 ppb	17:04:19
3	Sc Radial	3232.6	3232.6	99.7 %		17:02:51
3	Y RADIAL	3618.3	3618.3	99.27 %		17:02:31
3	Al 396.153Radial†	53.2	168.6	197.27 ug/L	197.27 ppb	17:02:31
3	Ca 317.933Radial†	105.2	94.2	212.19 ug/L	212.19 ppb	17:02:51
3	Fe 238.204 Radial†	14.5	9.6	129.62 ug/L	129.62 ppb	17:02:51
3	K 766.490 Radial†	3736.4	572.3	133.46 ug/L	133.46 ppb	17:02:31
3	Mg 279.077 IEC†	6.9	6.7	306.39 ug/L	306.39 ppb	17:02:51
3	Na 589.592 Radial†	-611.8	580.5	283.67 ug/L	283.67 ppb	17:02:31
3	Sr 421.552†	535.3	505.1	5.2731 ug/L	5.2731 ppb	17:02:31
3	Sc 361.383	558387.4	558387.4	100.25 %		17:03:49
3	Y 371.029	518232.4	518232.4	100.16 %		17:03:49
3	Ag 328.068†	900.7	845.9	5.0585 ug/L	5.0585 ppb	17:03:49
3	As 188.979†	20.0	64.5	28.504 ug/L	28.504 ppb	17:04:09
3	B 249.677†	1529.5	2180.8	52.729 ug/L	52.729 ppb	17:03:49
3	Ba 233.527†	300.5	302.9	4.5336 ug/L	4.5336 ppb	17:04:09
3	Be 313.107†	1413.6	10961.2	4.8180 ug/L	4.8180 ppb	17:03:49
3	Cd 226.502†	23.4	330.8	4.6044 ug/L	4.6044 ppb	17:04:09
3	Co 228.616†	17.8	108.4	3.9885 ug/L	3.9885 ppb	17:04:09
3	Cr 267.716†	412.1	304.3	4.5740 ug/L	4.5740 ppb	17:03:49
3	Cu 324.752†	8287.8	1885.7	9.1069 ug/L	9.1069 ppb	17:03:49
3	Mn 257.610†	5733.1	5094.7	9.8038 ug/L	9.8038 ppb	17:03:49
3	Mo 202.031†	114.2	97.9	10.388 ug/L	10.388 ppb	17:04:09
3	Ni 231.604†	275.0	156.5	5.2729 ug/L	5.2729 ppb	17:04:09
3	P 214.914†	563.0	250.4	131.67 ug/L	131.67 ppb	17:04:09
3	Pb 220.353†	-43.3	52.4	9.3103 ug/L	9.3103 ppb	17:04:09
3	S 181.975 Axial†	141.2	71.9	93.309 ug/L	93.309 ppb	17:04:09
3	Sb 206.836†	79.7	21.9	10.266 ug/L	10.266 ppb	17:04:09
3	Se 196.026†	11.8	44.8	28.871 ug/L	28.871 ppb	17:04:09
3	Si 251.611†	2863.2	2288.6	96.680 ug/L	96.680 ppb	17:03:49
3	Sn 189.927†	52.8	40.8	10.265 ug/L	10.265 ppb	17:04:09
3	Ti 334.940†	-140.5	1838.4	4.8581 ug/L	4.8581 ppb	17:03:49
3	Tl 190.801†	-18.1	40.8	24.243 ug/L	24.243 ppb	17:04:09
3	U 409.014†	-888.7	914.0	46.295 ug/L	46.295 ppb	17:03:49
3	V 292.402†	-1540.0	435.7	4.1323 ug/L	4.1323 ppb	17:03:49
3	Zn 213.857†	1976.5	1029.5	11.536 ug/L	11.536 ppb	17:04:09
3	SiO2†	2835.6	2224.2	201.05 ug/L	201.05 ppb	17:04:24

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	559055.7	100.37	%	0.662				0.66%
Sc Radial	3253.1	100	%	1.0				0.97%
Y 371.029	519457.3	100.39	%	0.735				0.73%
Y RADIAL	3655.2	100.3	%	1.21				1.21%
Ag 328.068†	809.1	4.8308	ug/L	0.36371	4.8308	ppb	0.36371	7.53%
QC value within limits for Ag 328.068 Recovery = 96.62%								
Al 396.153Radial†	168.2	196.80	ug/L	2.468	196.80	ppb	2.468	1.25%
QC value within limits for Al 396.153Radial Recovery = 98.40%								
As 188.979†	66.5	29.368	ug/L	1.7247	29.368	ppb	1.7247	5.87%
QC value within limits for As 188.979 Recovery = 97.89%								
B 249.677†	2106.7	50.939	ug/L	1.5503	50.939	ppb	1.5503	3.04%
QC value within limits for B 249.677 Recovery = 101.88%								
Ba 233.527†	312.1	4.6691	ug/L	0.11826	4.6691	ppb	0.11826	2.53%
QC value within limits for Ba 233.527 Recovery = 93.38%								
Be 313.107†	10973.3	4.8234	ug/L	0.00950	4.8234	ppb	0.00950	0.20%
QC value within limits for Be 313.107 Recovery = 96.47%								
Ca 317.933Radial†	96.0	216.25	ug/L	14.122	216.25	ppb	14.122	6.53%

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   QC value within limits for Ca 317.933Radial  Recovery = 108.13%
Cd 226.502†              337.6      4.7011 ug/L       0.10095      4.7011 ppb        0.10095   2.15%
   QC value within limits for Cd 226.502  Recovery = 94.02%
Co 228.616†              113.6      4.1785 ug/L       0.16478      4.1785 ppb        0.16478   3.94%
   QC value within limits for Co 228.616  Recovery = 83.57%
Cr 267.716†              326.3      4.9035 ug/L       0.45883      4.9035 ppb        0.45883   9.36%
   QC value within limits for Cr 267.716  Recovery = 98.07%
Cu 324.752†             1920.7      9.2735 ug/L       0.15112      9.2735 ppb        0.15112   1.63%
   QC value within limits for Cu 324.752  Recovery = 92.73%
Fe 238.204 Radial†         7.8      105.40 ug/L        22.544      105.40 ppb         22.544  21.39%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.40%
K 766.490 Radial†        616.3      143.74 ug/L        10.016      143.74 ppb         10.016   6.97%
   QC value within limits for K 766.490 Radial  Recovery = 95.82%
Mg 279.077 IEC†            9.3      420.56 ug/L        99.198      420.56 ppb         99.198  23.59%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 140.19%
Mn 257.610†             5097.2      9.8013 ug/L       0.02328      9.8013 ppb        0.02328   0.24%
   QC value within limits for Mn 257.610  Recovery = 98.01%
Mo 202.031†               93.9      9.9573 ug/L       0.79378      9.9573 ppb        0.79378   7.97%
   QC value within limits for Mo 202.031  Recovery = 99.57%
Na 589.592 Radial†       578.3      282.58 ug/L        16.331      282.58 ppb         16.331   5.78%
   QC value within limits for Na 589.592 Radial  Recovery = 94.19%
Ni 231.604†              152.0      5.1184 ug/L       0.16000      5.1184 ppb        0.16000   3.13%
   QC value within limits for Ni 231.604  Recovery = 102.37%
P 214.914†               264.5      139.19 ug/L         6.524      139.19 ppb          6.524   4.69%
   QC value within limits for P 214.914  Recovery = 92.79%
Pb 220.353†               53.0      9.4304 ug/L       0.36404      9.4304 ppb        0.36404   3.86%
   QC value within limits for Pb 220.353  Recovery = 94.30%
S 181.975 Axial†          71.1      92.283 ug/L        1.9119      92.283 ppb         1.9119   2.07%
   QC value within limits for S 181.975 Axial  Recovery = 92.28%
Sb 206.836†               15.9      7.5318 ug/L       4.80286      7.5318 ppb        4.80286  63.77%
   QC value within limits for Sb 206.836  Recovery = 75.32%
Se 196.026†               46.0      29.611 ug/L        2.2513      29.611 ppb         2.2513   7.60%
   QC value within limits for Se 196.026  Recovery = 98.70%
Si 251.611†             2273.7      96.056 ug/L        0.5414      96.056 ppb         0.5414   0.56%
   QC value within limits for Si 251.611  Recovery = 96.06%
Sn 189.927†               36.6      9.2107 ug/L       0.92238      9.2107 ppb        0.92238  10.01%
   QC value within limits for Sn 189.927  Recovery = 92.11%
Sr 421.552†              478.3      4.9935 ug/L       0.24424      4.9935 ppb        0.24424   4.89%
   QC value within limits for Sr 421.552  Recovery = 99.87%
Ti 334.940†             1856.2      4.8960 ug/L       0.17192      4.8960 ppb        0.17192   3.51%
   QC value within limits for Ti 334.940  Recovery = 97.92%
Tl 190.801†               35.9      21.333 ug/L        3.5793      21.333 ppb         3.5793  16.78%
   QC value within limits for Tl 190.801  Recovery = 106.66%
U 409.014†               960.6      48.662 ug/L        8.9588      48.662 ppb         8.9588  18.41%
   QC value within limits for U 409.014  Recovery = 97.32%
V 292.402†               444.0      4.2103 ug/L       0.13975      4.2103 ppb        0.13975   3.32%
   QC value within limits for V 292.402  Recovery = 84.21%
Zn 213.857†             1025.5      11.489 ug/L        0.0861      11.489 ppb         0.0861   0.75%
   QC value within limits for Zn 213.857  Recovery = 114.89%
SiO2†                   2270.0      205.21 ug/L         4.828      205.21 ppb          4.828   2.35%
   QC value within limits for SiO2  Recovery = 96.34%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 4/15/2010 17:06:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3076.9	3076.9	94.9	%			17:08:50
1	Y RADIAL	3356.0	3356.0	92.07	%			17:08:50
1	Al 396.153Radial†	423120.2	446104.8	523260	ug/L	523260	ppb	17:08:30
1	Ca 317.933Radial†	206343.8	217485.2	489840	ug/L	489840	ppb	17:08:30
1	Fe 238.204 Radial†	12920.1	13613.6	182830	ug/L	182830	ppb	17:08:50
1	K 766.490 Radial†	2774.0	-252.5	-106.43	ug/L	-106.43	ppb	17:08:30
1	Mg 279.077 IEC†	10167.6	10717.0	486360	ug/L	486360	ppb	17:08:50
1	Na 589.592 Radial†	-982.1	159.2	77.775	ug/L	77.775	ppb	17:08:50
1	Sr 421.552†	1107.5	1135.3	8.1987	ug/L	8.1987	ppb	17:08:50
1	Sc 361.383	441191.3	441191.3	79.206	%			17:09:47
1	Y 371.029	428828.9	428828.9	82.879	%			17:09:47
1	Ag 328.068†	-7396.3	-9390.7	-7.4506	ug/L	-7.4506	ppb	17:09:47
1	As 188.979†	-85.0	-62.7	-3.7548	ug/L	-3.7548	ppb	17:10:07
1	B 249.677†	276.6	1004.2	5.1123	ug/L	5.1123	ppb	17:09:47
1	Ba 233.527†	-561.4	-705.7	-0.1610	ug/L	-0.1610	ppb	17:10:07
1	Be 313.107†	-8875.8	-1654.9	-0.7639	ug/L	-0.7639	ppb	17:09:47
1	Cd 226.502†	832.5	1358.6	2.4987	ug/L	2.4987	ppb	17:10:07
1	Co 228.616†	-52.9	23.8	-1.7950	ug/L	-1.7950	ppb	17:10:07
1	Cr 267.716†	86.5	2.4	2.9110	ug/L	2.9110	ppb	17:10:07
1	Cu 324.752†	4112.6	-1189.4	6.4868	ug/L	6.4868	ppb	17:09:47
1	Mn 257.610†	151.1	-433.6	-1.0986	ug/L	-1.0986	ppb	17:09:47
1	Mo 202.031†	-176.7	-239.2	-5.7497	ug/L	-5.7497	ppb	17:10:07
1	Ni 231.604†	183.4	113.8	4.0066	ug/L	4.0066	ppb	17:10:07
1	P 214.914†	305.6	74.5	93.066	ug/L	93.066	ppb	17:10:07
1	Pb 220.353†	-698.7	-786.6	-11.346	ug/L	-11.346	ppb	17:10:07
1	S 181.975 Axial†	65.6	13.9	-41.153	ug/L	-41.153	ppb	17:10:07
1	Sb 206.836†	68.0	28.3	13.177	ug/L	13.177	ppb	17:10:07
1	Se 196.026†	-544.1	-653.9	-81.155	ug/L	-81.155	ppb	17:10:07
1	Si 251.611†	735.8	361.4	15.599	ug/L	15.599	ppb	17:10:07
1	Sn 189.927†	-313.0	-407.1	-11.126	ug/L	-11.126	ppb	17:10:07
1	Ti 334.940†	-6583.7	-6333.6	-4.6551	ug/L	-4.6551	ppb	17:09:47
1	Tl 190.801†	-94.8	-60.9	-36.234	ug/L	-36.234	ppb	17:10:07
1	U 409.014†	-1093.3	420.2	-27.806	ug/L	-27.806	ppb	17:09:47
1	V 292.402†	-225.4	1687.2	-0.3197	ug/L	-0.3197	ppb	17:10:07
1	Zn 213.857†	2750.3	2530.2	45.698	ug/L	45.698	ppb	17:10:07
1	SiO2†	714.6	297.8	27.647	ug/L	27.647	ppb	17:11:03
2	Sc Radial	3002.7	3002.7	92.6	%			17:09:15
2	Y RADIAL	3310.5	3310.5	90.82	%			17:09:15
2	Al 396.153Radial†	408726.8	441579.5	517950	ug/L	517950	ppb	17:08:55
2	Ca 317.933Radial†	199168.3	215109.6	484490	ug/L	484490	ppb	17:08:55
2	Fe 238.204 Radial†	12665.9	13675.5	183660	ug/L	183660	ppb	17:09:15
2	K 766.490 Radial†	2819.8	-130.7	-77.485	ug/L	-77.485	ppb	17:08:55
2	Mg 279.077 IEC†	9933.5	10728.9	486900	ug/L	486900	ppb	17:09:15
2	Na 589.592 Radial†	-965.8	151.2	73.890	ug/L	73.890	ppb	17:09:15
2	Sr 421.552†	1099.3	1155.3	8.4476	ug/L	8.4476	ppb	17:09:15
2	Sc 361.383	451348.6	451348.6	81.030	%			17:10:12
2	Y 371.029	445830.5	445830.5	86.165	%			17:10:12
2	Ag 328.068†	-7915.4	-9821.2	-9.7225	ug/L	-9.7225	ppb	17:10:12
2	As 188.979†	-90.8	-67.4	-5.7312	ug/L	-5.7312	ppb	17:10:32
2	B 249.677†	270.5	988.8	4.6492	ug/L	4.6492	ppb	17:10:12
2	Ba 233.527†	-592.7	-728.4	-0.4473	ug/L	-0.4473	ppb	17:10:32
2	Be 313.107†	-9250.1	-1864.6	-0.8577	ug/L	-0.8577	ppb	17:10:12
2	Cd 226.502†	871.3	1382.8	2.7623	ug/L	2.7623	ppb	17:10:32
2	Co 228.616†	-35.9	46.3	-0.9860	ug/L	-0.9860	ppb	17:10:32
2	Cr 267.716†	104.1	21.7	3.2122	ug/L	3.2122	ppb	17:10:32
2	Cu 324.752†	4286.8	-1091.4	7.0114	ug/L	7.0114	ppb	17:10:12
2	Mn 257.610†	148.2	-441.4	-1.0465	ug/L	-1.0465	ppb	17:10:12
2	Mo 202.031†	-195.8	-257.6	-7.7247	ug/L	-7.7247	ppb	17:10:32
2	Ni 231.604†	144.8	61.0	2.2258	ug/L	2.2258	ppb	17:10:32

2	P 214.914†	291.3	48.2	77.205	ug/L	77.205	ppb	17:10:32
2	Pb 220.353†	-759.8	-842.1	-22.692	ug/L	-22.692	ppb	17:10:32
2	S 181.975 Axial†	74.5	23.0	-28.713	ug/L	-28.713	ppb	17:10:32
2	Sb 206.836†	75.8	35.9	16.635	ug/L	16.635	ppb	17:10:32
2	Se 196.026†	-571.3	-672.1	-91.319	ug/L	-91.319	ppb	17:10:32
2	Si 251.611†	756.4	365.9	15.812	ug/L	15.812	ppb	17:10:32
2	Sn 189.927†	-317.1	-403.2	-11.087	ug/L	-11.087	ppb	17:10:32
2	Ti 334.940†	-6986.6	-6643.7	-6.0574	ug/L	-6.0574	ppb	17:10:12
2	Tl 190.801†	-80.2	-40.2	-23.983	ug/L	-23.983	ppb	17:10:32
2	U 409.014†	-920.8	664.1	-15.662	ug/L	-15.662	ppb	17:10:12
2	V 292.402†	-60.6	1897.1	1.4599	ug/L	1.4599	ppb	17:10:32
2	Zn 213.857†	2830.5	2551.0	46.021	ug/L	46.021	ppb	17:10:32
2	SiO2†	713.0	275.6	25.688	ug/L	25.688	ppb	17:11:08
3	Sc Radial	2966.3	2966.3	91.5	%			17:09:40
3	Y RADIAL	3258.5	3258.5	89.40	%			17:09:40
3	Al 396.153Radial†	412464.8	451092.5	529110	ug/L	529110	ppb	17:09:20
3	Ca 317.933Radial†	200871.6	219616.0	494640	ug/L	494640	ppb	17:09:20
3	Fe 238.204 Radial†	12461.7	13620.4	182920	ug/L	182920	ppb	17:09:40
3	K 766.490 Radial†	2995.6	98.8	-24.869	ug/L	-24.869	ppb	17:09:20
3	Mg 279.077 IEC†	9772.1	10684.3	484880	ug/L	484880	ppb	17:09:40
3	Na 589.592 Radial†	-954.5	150.8	73.673	ug/L	73.673	ppb	17:09:40
3	Sr 421.552†	1074.0	1142.3	8.2353	ug/L	8.2353	ppb	17:09:40
3	Sc 361.383	451161.1	451161.1	80.996	%			17:10:38
3	Y 371.029	445109.4	445109.4	86.025	%			17:10:38
3	Ag 328.068†	-7960.2	-9880.5	-10.399	ug/L	-10.399	ppb	17:10:38
3	As 188.979†	-79.0	-53.0	0.5274	ug/L	0.5274	ppb	17:10:58
3	B 249.677†	340.6	1075.4	6.8257	ug/L	6.8257	ppb	17:10:38
3	Ba 233.527†	-594.6	-730.9	-0.5288	ug/L	-0.5288	ppb	17:10:58
3	Be 313.107†	-9301.5	-1932.8	-0.8881	ug/L	-0.8881	ppb	17:10:38
3	Cd 226.502†	858.6	1367.5	2.6167	ug/L	2.6167	ppb	17:10:58
3	Co 228.616†	-51.3	27.3	-1.6664	ug/L	-1.6664	ppb	17:10:58
3	Cr 267.716†	64.1	-27.7	2.4555	ug/L	2.4555	ppb	17:10:58
3	Cu 324.752†	4228.3	-1161.3	6.6220	ug/L	6.6220	ppb	17:10:38
3	Mn 257.610†	152.4	-436.1	-1.0330	ug/L	-1.0330	ppb	17:10:38
3	Mo 202.031†	-182.8	-241.7	-5.9426	ug/L	-5.9426	ppb	17:10:58
3	Ni 231.604†	172.1	94.7	3.3640	ug/L	3.3640	ppb	17:10:58
3	P 214.914†	316.6	79.6	97.221	ug/L	97.221	ppb	17:10:58
3	Pb 220.353†	-730.1	-805.8	-13.172	ug/L	-13.172	ppb	17:10:58
3	S 181.975 Axial†	80.8	30.8	-19.860	ug/L	-19.860	ppb	17:10:58
3	Sb 206.836†	48.1	1.8	1.3119	ug/L	1.3119	ppb	17:10:58
3	Se 196.026†	-566.4	-666.4	-88.886	ug/L	-88.886	ppb	17:10:58
3	Si 251.611†	808.7	430.9	18.541	ug/L	18.541	ppb	17:10:58
3	Sn 189.927†	-300.6	-383.1	-4.2349	ug/L	-4.2349	ppb	17:10:58
3	Ti 334.940†	-7048.7	-6723.9	-5.1082	ug/L	-5.1082	ppb	17:10:38
3	Tl 190.801†	-98.0	-62.1	-36.985	ug/L	-36.985	ppb	17:10:58
3	U 409.014†	-916.0	669.6	-15.184	ug/L	-15.184	ppb	17:10:38
3	V 292.402†	-113.7	1831.5	0.9560	ug/L	0.9560	ppb	17:10:58
3	Zn 213.857†	2751.9	2455.5	44.871	ug/L	44.871	ppb	17:10:58
3	SiO2†	760.4	334.5	30.971	ug/L	30.971	ppb	17:11:13

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	447900.4	80.410	%	1.0432				1.30%
Sc Radial	3015.3	93.0	%	1.74				1.87%
Y 371.029	439922.9	85.023	%	1.8582				2.19%
Y RADIAL	3308.3	90.76	%	1.338				1.47%
Ag 328.068†	-9697.5	-9.1908	ug/L	1.54451	-9.1908	ppb	1.54451	16.81%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	446258.9	523440	ug/L	5581.3	523440	ppb	5581.3	1.07%
QC value within limits for Al 396.153Radial Recovery = 104.69%								
As 188.979†	-61.0	-2.9862	ug/L	3.19930	-2.9862	ppb	3.19930	107.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1022.8	5.5291	ug/L	1.14654	5.5291	ppb	1.14654	20.74%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-721.7	-0.3790	ug/L	0.19318	-0.3790	ppb	0.19318	50.97%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1817.4	-0.8366	ug/L	0.06474	-0.8366	ppb	0.06474	7.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	217403.6	489660	ug/L	5077.4	489660	ppb	5077.4	1.04%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.93%
Cd 226.502†            1369.6      2.6259 ug/L       0.13203      2.6259 ppb        0.13203   5.03%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              32.5     -1.4825 ug/L       0.43471     -1.4825 ppb        0.43471  29.32%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -1.2      2.8596 ug/L       0.38095      2.8596 ppb        0.38095  13.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -1147.4      6.7067 ug/L       0.27238      6.7067 ppb        0.27238   4.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    13636.5      183140 ug/L         455.8      183140 ppb          455.8   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 91.57%
K 766.490 Radial†        -94.8     -69.593 ug/L       41.3470     -69.593 ppb        41.3470  59.41%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       10710.1      486050 ug/L        1047.9      486050 ppb         1047.9   0.22%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.21%
Mn 257.610†            -437.1     -1.0594 ug/L       0.03463     -1.0594 ppb        0.03463   3.27%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -246.2     -6.4723 ug/L       1.08886     -6.4723 ppb        1.08886  16.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      153.7      75.113 ug/L        2.3078      75.113 ppb         2.3078   3.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              89.8      3.1988 ug/L       0.90185      3.1988 ppb        0.90185  28.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               67.4      89.164 ug/L       10.5633      89.164 ppb        10.5633  11.85%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -811.5     -15.737 ug/L        6.0925     -15.737 ppb         6.0925  38.72%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         22.5     -29.908 ug/L       10.6968     -29.908 ppb        10.6968  35.77%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              22.0      10.374 ug/L        8.0366      10.374 ppb         8.0366  77.47%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -664.1     -87.120 ug/L        5.3072     -87.120 ppb         5.3072   6.09%
   QC value less than the lower limit for Se 196.026  Recovery = Not calculated
Si 251.611†             386.0      16.650 ug/L        1.6405      16.650 ppb         1.6405   9.85%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -397.8     -8.8158 ug/L       3.96726     -8.8158 ppb        3.96726  45.00%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            1144.3      8.2939 ug/L       0.13442      8.2939 ppb        0.13442   1.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -6567.1     -5.2736 ug/L       0.71562     -5.2736 ppb        0.71562  13.57%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -54.4     -32.401 ug/L        7.2993     -32.401 ppb         7.2993  22.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              584.6     -19.551 ug/L        7.1531     -19.551 ppb         7.1531  36.59%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             1805.3      0.6987 ug/L       0.91728      0.6987 ppb        0.91728 131.28%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2512.2      45.530 ug/L        0.5933      45.530 ppb         0.5933   1.30%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
SiO2†                   302.6      28.102 ug/L        2.6709      28.102 ppb         2.6709   9.50%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 4/15/2010 17:13:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3146.3	3146.3	97.0	%			17:15:38
1	Y RADIAL	3443.5	3443.5	94.47	%			17:15:38
1	Al 396.153Radial†	439212.1	452858.7	531160	ug/L	531160	ppb	17:15:17
1	Ca 317.933Radial†	212822.2	219367.6	494080	ug/L	494080	ppb	17:15:17
1	Fe 238.204 Radial†	13511.2	13922.6	186990	ug/L	186990	ppb	17:15:38
1	K 766.490 Radial†	25349.7	22954.2	5308.1	ug/L	5308.1	ppb	17:15:17
1	Mg 279.077 IEC†	10525.6	10849.7	492390	ug/L	492390	ppb	17:15:38
1	Na 589.592 Radial†	9579.9	11069.4	5408.8	ug/L	5408.8	ppb	17:15:38
1	Sr 421.552†	47750.6	49189.7	510.00	ug/L	510.00	ppb	17:15:17
1	Sc 361.383	528275.9	528275.9	94.840	%			17:16:35
1	Y 371.029	481952.3	481952.3	93.146	%			17:16:35
1	Ag 328.068†	34806.9	36648.0	269.79	ug/L	269.79	ppb	17:16:35
1	As 188.979†	954.9	1051.5	491.67	ug/L	491.67	ppb	17:16:55
1	B 249.677†	19757.9	21487.9	498.82	ug/L	498.82	ppb	17:16:35
1	Ba 233.527†	30650.0	32320.7	493.75	ug/L	493.75	ppb	17:16:35
1	Be 313.107†	502220.2	539095.2	237.52	ug/L	237.52	ppb	17:16:35
1	Cd 226.502†	31768.0	33803.9	454.03	ug/L	454.03	ppb	17:16:55
1	Co 228.616†	12332.1	13093.7	477.88	ug/L	477.88	ppb	17:16:55
1	Cr 267.716†	29914.3	31435.1	477.01	ug/L	477.01	ppb	17:16:35
1	Cu 324.752†	113524.8	113319.6	560.55	ug/L	560.55	ppb	17:16:35
1	Mn 257.610†	241548.4	254065.8	488.77	ug/L	488.77	ppb	17:16:35
1	Mo 202.031†	4199.0	4411.5	487.29	ug/L	487.29	ppb	17:16:55
1	Ni 231.604†	13050.5	13642.8	459.63	ug/L	459.63	ppb	17:16:55
1	P 214.914†	4667.2	4609.8	2389.8	ug/L	2389.8	ppb	17:16:55
1	Pb 220.353†	1857.3	2053.9	492.79	ug/L	492.79	ppb	17:16:55
1	S 181.975 Axial†	1930.0	1966.0	2493.0	ug/L	2493.0	ppb	17:16:55
1	Sb 206.836†	1170.2	1176.3	548.74	ug/L	548.74	ppb	17:16:55
1	Se 196.026†	3180.9	3386.9	2509.7	ug/L	2509.7	ppb	17:16:55
1	Si 251.611†	113642.6	119257.9	5038.9	ug/L	5038.9	ppb	17:16:35
1	Sn 189.927†	1555.7	1628.4	500.26	ug/L	500.26	ppb	17:16:55
1	Ti 334.940†	172071.2	183411.6	498.75	ug/L	498.75	ppb	17:16:35
1	Tl 190.801†	703.9	801.0	477.65	ug/L	477.65	ppb	17:16:55
1	U 409.014†	9729.1	12058.9	560.11	ug/L	560.11	ppb	17:16:35
1	V 292.402†	50980.4	55725.9	492.01	ug/L	492.01	ppb	17:16:35
1	Zn 213.857†	44260.3	45726.2	527.87	ug/L	527.87	ppb	17:16:35
1	SiO2†	110394.0	115795.7	10469	ug/L	10469	ppb	17:17:53
2	Sc Radial	3148.5	3148.5	97.1	%			17:16:03
2	Y RADIAL	3453.7	3453.7	94.75	%			17:16:03
2	Al 396.153Radial†	433625.4	446791.3	524040	ug/L	524040	ppb	17:15:43
2	Ca 317.933Radial†	210149.9	216463.4	487540	ug/L	487540	ppb	17:15:43
2	Fe 238.204 Radial†	13520.9	13922.9	187000	ug/L	187000	ppb	17:16:03
2	K 766.490 Radial†	24899.6	22472.6	5196.3	ug/L	5196.3	ppb	17:15:43
2	Mg 279.077 IEC†	10557.4	10875.0	493540	ug/L	493540	ppb	17:16:03
2	Na 589.592 Radial†	9607.7	11091.2	5419.5	ug/L	5419.5	ppb	17:16:03
2	Sr 421.552†	47011.5	48394.4	501.75	ug/L	501.75	ppb	17:15:43
2	Sc 361.383	528513.1	528513.1	94.883	%			17:17:01
2	Y 371.029	482224.0	482224.0	93.199	%			17:17:01
2	Ag 328.068†	34794.8	36618.8	269.68	ug/L	269.68	ppb	17:17:01
2	As 188.979†	937.0	1032.2	483.16	ug/L	483.16	ppb	17:17:21
2	B 249.677†	19579.7	21290.7	494.06	ug/L	494.06	ppb	17:17:01
2	Ba 233.527†	30670.5	32327.8	493.85	ug/L	493.85	ppb	17:17:01
2	Be 313.107†	503799.6	540522.1	238.14	ug/L	238.14	ppb	17:17:01
2	Cd 226.502†	31627.7	33640.9	451.76	ug/L	451.76	ppb	17:17:21
2	Co 228.616†	12257.6	13009.3	474.78	ug/L	474.78	ppb	17:17:21
2	Cr 267.716†	29919.9	31426.8	476.88	ug/L	476.88	ppb	17:17:01
2	Cu 324.752†	113479.2	113217.7	560.06	ug/L	560.06	ppb	17:17:01
2	Mn 257.610†	240929.1	253298.8	487.24	ug/L	487.24	ppb	17:17:01
2	Mo 202.031†	4168.2	4377.0	483.54	ug/L	483.54	ppb	17:17:21
2	Ni 231.604†	13003.4	13587.0	457.75	ug/L	457.75	ppb	17:17:21

2	P 214.914†	4636.7	4575.5	2369.8 ug/L	2369.8 ppb		17:17:21
2	Pb 220.353†	1843.2	2038.2	488.07 ug/L	488.07 ppb		17:17:21
2	S 181.975 Axial†	1907.7	1941.6	2462.1 ug/L	2462.1 ppb		17:17:21
2	Sb 206.836†	1145.3	1149.5	536.56 ug/L	536.56 ppb		17:17:21
2	Se 196.026†	3162.5	3366.1	2496.3 ug/L	2496.3 ppb		17:17:21
2	Si 251.611†	113373.9	118920.9	5024.7 ug/L	5024.7 ppb		17:17:01
2	Sn 189.927†	1544.2	1615.6	495.87 ug/L	495.87 ppb		17:17:21
2	Ti 334.940†	171730.0	182970.5	496.84 ug/L	496.84 ppb		17:17:01
2	Tl 190.801†	698.7	795.2	474.20 ug/L	474.20 ppb		17:17:21
2	U 409.014†	9738.7	12064.4	560.39 ug/L	560.39 ppb		17:17:01
2	V 292.402†	51020.1	55743.6	492.14 ug/L	492.14 ppb		17:17:01
2	Zn 213.857†	44326.6	45775.1	528.43 ug/L	528.43 ppb		17:17:01
2	SiO2†	112127.0	117570.0	10629 ug/L	10629 ppb		17:17:58
3	Sc Radial	3139.2	3139.2	96.8 %			17:16:28
3	Y RADIAL	3445.3	3445.3	94.52 %			17:16:28
3	Al 396.153Radial†	434935.6	449471.5	527180 ug/L	527180 ppb		17:16:08
3	Ca 317.933Radial†	210569.5	217539.7	489970 ug/L	489970 ppb		17:16:08
3	Fe 238.204 Radial†	13509.6	13952.6	187390 ug/L	187390 ppb		17:16:28
3	K 766.490 Radial†	24961.1	22612.3	5228.7 ug/L	5228.7 ppb		17:16:08
3	Mg 279.077 IEC†	10530.3	10879.2	493730 ug/L	493730 ppb		17:16:28
3	Na 589.592 Radial†	9601.8	11114.5	5430.8 ug/L	5430.8 ppb		17:16:28
3	Sr 421.552†	47188.8	48721.4	505.14 ug/L	505.14 ppb		17:16:08
3	Sc 361.383	524768.0	524768.0	94.210 %			17:17:27
3	Y 371.029	479501.5	479501.5	92.672 %			17:17:27
3	Ag 328.068†	34496.6	36563.9	269.45 ug/L	269.45 ppb		17:17:27
3	As 188.979†	938.5	1040.8	487.01 ug/L	487.01 ppb		17:17:47
3	B 249.677†	19584.3	21442.8	497.70 ug/L	497.70 ppb		17:17:27
3	Ba 233.527†	30580.3	32462.7	495.89 ug/L	495.89 ppb		17:17:27
3	Be 313.107†	500464.6	540771.5	238.25 ug/L	238.25 ppb		17:17:27
3	Cd 226.502†	31202.7	33427.7	448.76 ug/L	448.76 ppb		17:17:47
3	Co 228.616†	12107.6	12942.3	472.31 ug/L	472.31 ppb		17:17:47
3	Cr 267.716†	29781.0	31504.4	478.06 ug/L	478.06 ppb		17:17:27
3	Cu 324.752†	112349.7	112872.4	558.42 ug/L	558.42 ppb		17:17:27
3	Mn 257.610†	239269.3	253349.1	487.38 ug/L	487.38 ppb		17:17:27
3	Mo 202.031†	4119.4	4356.5	481.43 ug/L	481.43 ppb		17:17:47
3	Ni 231.604†	12806.2	13475.4	453.99 ug/L	453.99 ppb		17:17:47
3	P 214.914†	4603.3	4574.9	2370.5 ug/L	2370.5 ppb		17:17:47
3	Pb 220.353†	1781.0	1986.0	479.66 ug/L	479.66 ppb		17:17:47
3	S 181.975 Axial†	1894.2	1941.6	2461.7 ug/L	2461.7 ppb		17:17:47
3	Sb 206.836†	1136.0	1148.2	535.84 ug/L	535.84 ppb		17:17:47
3	Se 196.026†	3105.9	3329.7	2473.8 ug/L	2473.8 ppb		17:17:47
3	Si 251.611†	112502.3	118848.4	5021.7 ug/L	5021.7 ppb		17:17:27
3	Sn 189.927†	1514.0	1595.2	491.19 ug/L	491.19 ppb		17:17:47
3	Ti 334.940†	170757.8	183230.3	497.76 ug/L	497.76 ppb		17:17:27
3	Tl 190.801†	691.0	792.3	472.49 ug/L	472.49 ppb		17:17:47
3	U 409.014†	9648.1	12041.5	559.12 ug/L	559.12 ppb		17:17:27
3	V 292.402†	50663.9	55749.3	492.10 ug/L	492.10 ppb		17:17:27
3	Zn 213.857†	43964.5	45724.2	527.92 ug/L	527.92 ppb		17:17:27
3	SiO2†	114140.4	120550.5	10899 ug/L	10899 ppb		17:18:03

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	527185.6	94.644	%	0.3765				0.40%
Sc Radial	3144.7	97.0	%	0.15				0.16%
Y 371.029	481225.9	93.006	%	0.2898				0.31%
Y RADIAL	3447.5	94.58	%	0.148				0.16%
Ag 328.068†	36610.2	269.64	ug/L	0.174	269.64	ppb	0.174	0.06%
QC value within limits for Ag 328.068 Recovery = 107.85%								
Al 396.153Radial†	449707.2	527460	ug/L	3566.3	527460	ppb	3566.3	0.68%
QC value within limits for Al 396.153Radial Recovery = 105.49%								
As 188.979†	1041.5	487.28	ug/L	4.262	487.28	ppb	4.262	0.87%
QC value within limits for As 188.979 Recovery = 97.46%								
B 249.677†	21407.1	496.86	ug/L	2.491	496.86	ppb	2.491	0.50%
QC value within limits for B 249.677 Recovery = 99.37%								
Ba 233.527†	32370.4	494.50	ug/L	1.206	494.50	ppb	1.206	0.24%
QC value within limits for Ba 233.527 Recovery = 98.90%								
Be 313.107†	540129.6	237.97	ug/L	0.396	237.97	ppb	0.396	0.17%
QC value within limits for Be 313.107 Recovery = 95.19%								
Ca 317.933Radial†	217790.2	490530	ug/L	3306.9	490530	ppb	3306.9	0.67%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.11%
Cd 226.502†            33624.2      451.52 ug/L         2.646      451.52 ppb          2.646   0.59%
   QC value within limits for Cd 226.502  Recovery = 90.30%
Co 228.616†            13015.1      474.99 ug/L         2.793      474.99 ppb          2.793   0.59%
   QC value within limits for Co 228.616  Recovery = 95.00%
Cr 267.716†            31455.4      477.32 ug/L         0.646      477.32 ppb          0.646   0.14%
   QC value within limits for Cr 267.716  Recovery = 95.46%
Cu 324.752†           113136.6      559.68 ug/L         1.118      559.68 ppb          1.118   0.20%
   QC value within limits for Cu 324.752  Recovery = 111.94%
Fe 238.204 Radial†     13932.7      187130 ug/L         231.4      187130 ppb          231.4   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.56%
K 766.490 Radial†      22679.7      5244.3 ug/L         57.53      5244.3 ppb          57.53   1.10%
   QC value within limits for K 766.490 Radial  Recovery = 104.89%
Mg 279.077 IEC†        10868.0      493220 ug/L         726.0      493220 ppb          726.0   0.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.64%
Mn 257.610†           253571.2      487.80 ug/L         0.843      487.80 ppb          0.843   0.17%
   QC value within limits for Mn 257.610  Recovery = 97.56%
Mo 202.031†             4381.7      484.08 ug/L         2.965      484.08 ppb          2.965   0.61%
   QC value within limits for Mo 202.031  Recovery = 96.82%
Na 589.592 Radial†     11091.7      5419.7 ug/L         11.02      5419.7 ppb          11.02   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 108.39%
Ni 231.604†            13568.4      457.12 ug/L         2.870      457.12 ppb          2.870   0.63%
   QC value within limits for Ni 231.604  Recovery = 91.42%
P 214.914†              4586.7      2376.7 ug/L         11.38      2376.7 ppb          11.38   0.48%
   QC value within limits for P 214.914  Recovery = 95.07%
Pb 220.353†             2026.0      486.84 ug/L         6.653      486.84 ppb          6.653   1.37%
   QC value within limits for Pb 220.353  Recovery = 97.37%
S 181.975 Axial†        1949.7      2472.3 ug/L         17.95      2472.3 ppb          17.95   0.73%
   QC value within limits for S 181.975 Axial  Recovery = 98.89%
Sb 206.836†             1158.0      540.38 ug/L         7.251      540.38 ppb          7.251   1.34%
   QC value within limits for Sb 206.836  Recovery = 108.08%
Se 196.026†             3360.9      2493.3 ug/L         18.12      2493.3 ppb          18.12   0.73%
   QC value within limits for Se 196.026  Recovery = 99.73%
Si 251.611†           119009.1      5028.4 ug/L          9.21      5028.4 ppb           9.21   0.18%
   QC value within limits for Si 251.611  Recovery = 100.57%
Sn 189.927†             1613.1      495.78 ug/L         4.539      495.78 ppb          4.539   0.92%
   QC value within limits for Sn 189.927  Recovery = 99.16%
Sr 421.552†            48768.5      505.63 ug/L         4.150      505.63 ppb          4.150   0.82%
   QC value within limits for Sr 421.552  Recovery = 101.13%
Ti 334.940†           183204.1      497.79 ug/L         0.955      497.79 ppb          0.955   0.19%
   QC value within limits for Ti 334.940  Recovery = 99.56%
Tl 190.801†              796.2      474.78 ug/L         2.629      474.78 ppb          2.629   0.55%
   QC value within limits for Tl 190.801  Recovery = 94.96%
U 409.014†             12054.9      559.87 ug/L         0.669      559.87 ppb          0.669   0.12%
   QC value within limits for U 409.014  Recovery = 111.97%
V 292.402†             55739.6      492.08 ug/L         0.067      492.08 ppb          0.067   0.01%
   QC value within limits for V 292.402  Recovery = 98.42%
Zn 213.857†            45741.8      528.07 ug/L         0.310      528.07 ppb          0.310   0.06%
   QC value within limits for Zn 213.857  Recovery = 105.61%
SiO2†                 117972.0       10666 ug/L         217.6       10666 ppb          217.6   2.04%
   QC value within limits for SiO2  Recovery = 99.73%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 4/15/2010 17:20:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3128.0	3128.0	96.4	%			17:22:26
1	Y RADIAL	3429.4	3429.4	94.09	%			17:22:26
1	Al 396.153Radial†	412430.6	427747.3	501730	ug/L	501730	ppb	17:22:06
1	Ca 317.933Radial†	201620.2	209040.3	470820	ug/L	470820	ppb	17:22:06
1	Fe 238.204 Radial†	30538.5	31659.3	425180	ug/L	425180	ppb	17:22:26
1	K 766.490 Radial†	3602.8	559.1	-123.88	ug/L	-123.88	ppb	17:22:06
1	Mg 279.077 IEC†	10077.1	10448.4	474020	ug/L	474020	ppb	17:22:26
1	Na 589.592 Radial†	961295.4	997921.7	487610	ug/L	487610	ppb	17:22:06
1	Sr 421.552†	1132.2	1141.9	8.4091	ug/L	8.4091	ppb	17:22:26
1	Sc 361.383	516164.8	516164.8	92.666	%			17:23:24
1	Y 371.029	471440.1	471440.1	91.114	%			17:23:24
1	Ag 328.068†	-18299.8	-19800.8	-11.621	ug/L	-11.621	ppb	17:23:24
1	As 188.979†	-154.0	-121.6	2.1335	ug/L	2.1335	ppb	17:23:45
1	B 249.677†	1283.3	2039.8	4.7278	ug/L	4.7278	ppb	17:23:24
1	Ba 233.527†	-1405.2	-1513.3	1.5191	ug/L	1.5191	ppb	17:23:45
1	Be 313.107†	-14042.6	-5602.9	-2.4790	ug/L	-2.4790	ppb	17:23:24
1	Cd 226.502†	2529.1	3036.7	7.2623	ug/L	7.2623	ppb	17:23:45
1	Co 228.616†	77.3	174.0	0.1560	ug/L	0.1560	ppb	17:23:45
1	Cr 267.716†	164.8	71.1	1.3096	ug/L	1.3096	ppb	17:23:45
1	Cu 324.752†	2171.9	-4037.9	-0.0717	ug/L	-0.0717	ppb	17:23:24
1	Mn 257.610†	-13672.2	-15378.7	-3.3392	ug/L	-3.3392	ppb	17:23:24
1	Mo 202.031†	-351.7	-395.6	-5.8708	ug/L	-5.8708	ppb	17:23:45
1	Ni 231.604†	236.6	137.6	5.0308	ug/L	5.0308	ppb	17:23:45
1	P 214.914†	540.8	272.3	93.782	ug/L	93.782	ppb	17:23:45
1	Pb 220.353†	-566.7	-516.0	10.496	ug/L	10.496	ppb	17:23:45
1	S 181.975 Axial†	110.3	50.0	8.2729	ug/L	8.2729	ppb	17:23:45
1	Sb 206.836†	67.0	14.7	13.597	ug/L	13.597	ppb	17:23:45
1	Se 196.026†	-1376.1	-1452.0	-151.12	ug/L	-151.12	ppb	17:23:45
1	Si 251.611†	88.1	-472.5	-19.471	ug/L	-19.471	ppb	17:23:45
1	Sn 189.927†	-343.8	-382.9	-4.4794	ug/L	-4.4794	ppb	17:23:45
1	Ti 334.940†	-5200.6	-3633.7	-5.6062	ug/L	-5.6062	ppb	17:23:24
1	Tl 190.801†	-94.1	-42.7	-25.606	ug/L	-25.606	ppb	17:23:45
1	U 409.014†	296069.7	321303.0	16176	ug/L	16176	ppb	17:23:24
1	V 292.402†	1250.3	3321.1	12.451	ug/L	12.451	ppb	17:23:45
1	Zn 213.857†	4626.6	4050.7	85.705	ug/L	85.705	ppb	17:23:45
1	SiO2†	149.7	-442.9	-38.947	ug/L	-38.947	ppb	17:24:41
2	Sc Radial	3137.9	3137.9	96.8	%			17:22:52
2	Y RADIAL	3447.4	3447.4	94.58	%			17:22:52
2	Al 396.153Radial†	414969.1	429012.5	503210	ug/L	503210	ppb	17:22:32
2	Ca 317.933Radial†	202345.9	209126.2	471020	ug/L	471020	ppb	17:22:32
2	Fe 238.204 Radial†	30685.8	31710.9	425870	ug/L	425870	ppb	17:22:52
2	K 766.490 Radial†	3808.2	759.6	-75.815	ug/L	-75.815	ppb	17:22:32
2	Mg 279.077 IEC†	10144.1	10484.4	475660	ug/L	475660	ppb	17:22:52
2	Na 589.592 Radial†	958444.9	991809.1	484630	ug/L	484630	ppb	17:22:32
2	Sr 421.552†	1135.0	1141.1	8.3993	ug/L	8.3993	ppb	17:22:52
2	Sc 361.383	533568.5	533568.5	95.790	%			17:23:50
2	Y 371.029	487327.8	487327.8	94.185	%			17:23:50
2	Ag 328.068†	-18903.2	-19786.6	-11.361	ug/L	-11.361	ppb	17:23:50
2	As 188.979†	-159.0	-121.4	2.3260	ug/L	2.3260	ppb	17:24:10
2	B 249.677†	1181.5	1888.4	0.9904	ug/L	0.9904	ppb	17:23:50
2	Ba 233.527†	-1453.1	-1513.8	1.5482	ug/L	1.5482	ppb	17:24:10
2	Be 313.107†	-14509.2	-5595.8	-2.4757	ug/L	-2.4757	ppb	17:23:50
2	Cd 226.502†	2538.5	2957.6	6.1034	ug/L	6.1034	ppb	17:24:10
2	Co 228.616†	101.7	196.8	0.9741	ug/L	0.9741	ppb	17:24:10
2	Cr 267.716†	221.2	124.1	2.1075	ug/L	2.1075	ppb	17:24:10
2	Cu 324.752†	2098.2	-4191.4	-0.7812	ug/L	-0.7812	ppb	17:23:50
2	Mn 257.610†	-14556.3	-15820.3	-4.1814	ug/L	-4.1814	ppb	17:23:50
2	Mo 202.031†	-393.5	-426.8	-9.1243	ug/L	-9.1243	ppb	17:24:10
2	Ni 231.604†	217.2	109.0	4.0677	ug/L	4.0677	ppb	17:24:10

2	P 214.914†	528.1	240.0	76.821 ug/L	76.821 ppb		17:24:10
2	Pb 220.353†	-575.0	-504.7	12.807 ug/L	12.807 ppb		17:24:10
2	S 181.975 Axial†	90.1	25.1	-24.299 ug/L	-24.299 ppb		17:24:10
2	Sb 206.836†	45.4	-10.2	2.4182 ug/L	2.4182 ppb		17:24:10
2	Se 196.026†	-1407.0	-1435.9	-139.54 ug/L	-139.54 ppb		17:24:10
2	Si 251.611†	120.3	-442.0	-18.142 ug/L	-18.142 ppb		17:24:10
2	Sn 189.927†	-331.0	-357.4	1.9640 ug/L	1.9640 ppb		17:24:10
2	Ti 334.940†	-5356.7	-3613.6	-5.6687 ug/L	-5.6687 ppb		17:23:50
2	Tl 190.801†	-107.4	-53.3	-31.881 ug/L	-31.881 ppb		17:24:10
2	U 409.014†	306558.0	321830.9	16203 ug/L	16203 ppb		17:23:50
2	V 292.402†	1206.2	3231.1	11.584 ug/L	11.584 ppb		17:24:10
2	Zn 213.857†	4682.8	3946.5	84.607 ug/L	84.607 ppb		17:24:10
2	SiO2†	78.3	-522.7	-46.081 ug/L	-46.081 ppb		17:24:46
3	Sc Radial	3100.6	3100.6	95.6 %			17:23:17
3	Y RADIAL	3409.5	3409.5	93.54 %			17:23:17
3	Al 396.153Radial†	412037.5	431103.8	505660 ug/L	505660 ppb		17:22:57
3	Ca 317.933Radial†	200912.6	210141.9	473300 ug/L	473300 ppb		17:22:57
3	Fe 238.204 Radial†	30416.7	31810.8	427210 ug/L	427210 ppb		17:23:17
3	K 766.490 Radial†	3831.2	830.9	-62.215 ug/L	-62.215 ppb		17:22:57
3	Mg 279.077 IEC†	10020.3	10480.9	475500 ug/L	475500 ppb		17:23:17
3	Na 589.592 Radial†	959995.6	1005343.6	491240 ug/L	491240 ppb		17:22:57
3	Sr 421.552†	1124.8	1144.5	8.4181 ug/L	8.4181 ppb		17:23:17
3	Sc 361.383	538133.2	538133.2	96.610 %			17:24:16
3	Y 371.029	491779.6	491779.6	95.045 %			17:24:16
3	Ag 328.068†	-19144.6	-19869.0	-11.475 ug/L	-11.475 ppb		17:24:16
3	As 188.979†	-161.9	-122.9	1.8160 ug/L	1.8160 ppb		17:24:36
3	B 249.677†	1192.9	1889.7	0.8810 ug/L	0.8810 ppb		17:24:16
3	Ba 233.527†	-1429.6	-1476.6	2.1803 ug/L	2.1803 ppb		17:24:36
3	Be 313.107†	-14518.6	-5476.9	-2.4246 ug/L	-2.4246 ppb		17:24:16
3	Cd 226.502†	2528.6	2924.9	5.5260 ug/L	5.5260 ppb		17:24:36
3	Co 228.616†	98.6	192.7	0.8075 ug/L	0.8075 ppb		17:24:36
3	Cr 267.716†	205.1	105.5	1.8518 ug/L	1.8518 ppb		17:24:36
3	Cu 324.752†	2071.5	-4237.6	-0.9111 ug/L	-0.9111 ppb		17:24:16
3	Mn 257.610†	-14549.0	-15683.9	-3.7684 ug/L	-3.7684 ppb		17:24:16
3	Mo 202.031†	-386.5	-416.1	-7.8697 ug/L	-7.8697 ppb		17:24:36
3	Ni 231.604†	231.2	121.5	4.4912 ug/L	4.4912 ppb		17:24:36
3	P 214.914†	529.1	236.4	75.021 ug/L	75.021 ppb		17:24:36
3	Pb 220.353†	-548.4	-472.1	19.130 ug/L	19.130 ppb		17:24:36
3	S 181.975 Axial†	91.9	26.2	-23.183 ug/L	-23.183 ppb		17:24:36
3	Sb 206.836†	64.3	9.0	11.175 ug/L	11.175 ppb		17:24:36
3	Se 196.026†	-1378.5	-1393.9	-110.22 ug/L	-110.22 ppb		17:24:36
3	Si 251.611†	104.8	-459.1	-18.879 ug/L	-18.879 ppb		17:24:36
3	Sn 189.927†	-326.2	-349.6	4.3639 ug/L	4.3639 ppb		17:24:36
3	Ti 334.940†	-5555.7	-3772.1	-5.8465 ug/L	-5.8465 ppb		17:24:16
3	Tl 190.801†	-96.0	-40.5	-24.317 ug/L	-24.317 ppb		17:24:36
3	U 409.014†	309023.9	321668.6	16194 ug/L	16194 ppb		17:24:16
3	V 292.402†	1263.2	3279.4	11.836 ug/L	11.836 ppb		17:24:36
3	Zn 213.857†	4668.6	3890.3	84.100 ug/L	84.100 ppb		17:24:36
3	SiO2†	193.0	-404.6	-35.423 ug/L	-35.423 ppb		17:24:52

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	529288.8	95.022	%	2.0812				2.19%
Sc Radial	3122.2	96.3	%	0.60				0.62%
Y 371.029	483515.8	93.448	%	2.0665				2.21%
Y RADIAL	3428.8	94.07	%	0.521				0.55%
Ag 328.068†	-19818.8	-11.486	ug/L	0.1306	-11.486	ppb	0.1306	1.14%
Al 396.153Radial†	429287.9	503530	ug/L	1988.3	503530	ppb	1988.3	0.39%
QC value within limits for Al 396.153Radial Recovery = 100.71%								
As 188.979†	-122.0	2.0918	ug/L	0.25753	2.0918	ppb	0.25753	12.31%
B 249.677†	1939.3	2.1998	ug/L	2.19005	2.1998	ppb	2.19005	99.56%
Ba 233.527†	-1501.2	1.7492	ug/L	0.37365	1.7492	ppb	0.37365	21.36%
Be 313.107†	-5558.5	-2.4598	ug/L	0.03052	-2.4598	ppb	0.03052	1.24%
Ca 317.933Radial†	209436.1	471710	ug/L	1380.1	471710	ppb	1380.1	0.29%
QC value within limits for Ca 317.933Radial Recovery = 94.34%								
Cd 226.502†	2973.1	6.2972	ug/L	0.88420	6.2972	ppb	0.88420	14.04%
Co 228.616†	187.8	0.6459	ug/L	0.43237	0.6459	ppb	0.43237	66.94%
Cr 267.716†	100.2	1.7563	ug/L	0.40746	1.7563	ppb	0.40746	23.20%
Cu 324.752†	-4155.6	-0.5880	ug/L	0.45179	-0.5880	ppb	0.45179	76.83%

Fe 238.204 Radial†	31727.0	426090	ug/L	1034.6	426090	ppb	1034.6	0.24%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 85.22%								
K 766.490 Radial†	716.5	-87.304	ug/L	32.3990	-87.304	ppb	32.3990	37.11%
Mg 279.077 IEC†	10471.2	475060	ug/L	902.6	475060	ppb	902.6	0.19%
QC value within limits for Mg 279.077 IEC Recovery = 95.01%								
Mn 257.610†	-15627.6	-3.7630	ug/L	0.42117	-3.7630	ppb	0.42117	11.19%
Mo 202.031†	-412.8	-7.6216	ug/L	1.64088	-7.6216	ppb	1.64088	21.53%
Na 589.592 Radial†	998358.1	487830	ug/L	3311.8	487830	ppb	3311.8	0.68%
QC value within limits for Na 589.592 Radial Recovery = 97.57%								
Ni 231.604†	122.7	4.5299	ug/L	0.48274	4.5299	ppb	0.48274	10.66%
P 214.914†	249.6	81.874	ug/L	10.3515	81.874	ppb	10.3515	12.64%
Pb 220.353†	-497.6	14.144	ug/L	4.4696	14.144	ppb	4.4696	31.60%
S 181.975 Axial†	33.8	-13.070	ug/L	18.4917	-13.070	ppb	18.4917	141.48%
Sb 206.836†	4.5	9.0633	ug/L	5.88079	9.0633	ppb	5.88079	64.89%
Se 196.026†	-1427.3	-133.63	ug/L	21.077	-133.63	ppb	21.077	15.77%
Si 251.611†	-457.9	-18.831	ug/L	0.6656	-18.831	ppb	0.6656	3.53%
Sn 189.927†	-363.3	0.6162	ug/L	4.57309	0.6162	ppb	4.57309	742.19%
Sr 421.552†	1142.5	8.4088	ug/L	0.00940	8.4088	ppb	0.00940	0.11%
Ti 334.940†	-3673.1	-5.7071	ug/L	0.12466	-5.7071	ppb	0.12466	2.18%
Tl 190.801†	-45.5	-27.268	ug/L	4.0469	-27.268	ppb	4.0469	14.84%
U 409.014†	321600.8	16191	ug/L	13.6	16191	ppb	13.6	0.08%
QC value within limits for U 409.014 Recovery = 107.94%								
V 292.402†	3277.2	11.957	ug/L	0.4459	11.957	ppb	0.4459	3.73%
Zn 213.857†	3962.5	84.804	ug/L	0.8205	84.804	ppb	0.8205	0.97%
SiO2†	-456.7	-40.151	ug/L	5.4302	-40.151	ppb	5.4302	13.52%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 4/15/2010 17:27:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3185.3	3185.3	98.2	%			17:29:20
1	Y RADIAL	3445.0	3445.0	94.51	%			17:29:20
1	Al 396.153Radial†	301.8	422.5	-44.531	ug/L	-44.531	ppb	17:29:00
1	Ca 317.933Radial†	20.9	9.9	22.396	ug/L	22.396	ppb	17:29:20
1	Fe 238.204 Radial†	-14.2	-19.4	77.052	ug/L	77.052	ppb	17:29:20
1	K 766.490 Radial†	1173604.8	1191764.1	278220	ug/L	278220	ppb	17:28:55
1	Mg 279.077 IEC†	-5.5	-5.8	-157.99	ug/L	-157.99	ppb	17:29:20
1	Na 589.592 Radial†	-824.0	355.4	173.67	ug/L	173.67	ppb	17:29:00
1	Sr 421.552†	866715.9	882440.5	9215.4	ug/L	9215.4	ppb	17:28:55
1	Sc 361.383	489264.1	489264.1	87.836	%			17:30:42
1	Y 371.029	517434.2	517434.2	100.00	%			17:30:37
1	Ag 328.068†	-6020.7	-6907.1	3.6839	ug/L	3.6839	ppb	17:30:42
1	As 188.979†	21739.3	24794.4	11013	ug/L	11013	ppb	17:30:42
1	B 249.677†	198657.0	226821.9	5454.8	ug/L	5454.8	ppb	17:30:37
1	Ba 233.527†	978398.0	1113889.6	16637	ug/L	16637	ppb	17:30:37
1	Be 313.107†	6490990.1	7399412.9	3270.5	ug/L	3270.5	ppb	17:30:31
1	Cd 226.502†	689355.2	785124.5	10933	ug/L	10933	ppb	17:30:37
1	Co 228.616†	269640.4	307070.8	11267	ug/L	11267	ppb	17:30:42
1	Cr 267.716†	1574091.1	1791964.3	27014	ug/L	27014	ppb	17:30:37
1	Cu 324.752†	4294176.0	4882451.4	23632	ug/L	23632	ppb	17:30:31
1	Mn 257.610†	5057536.3	5757279.1	11077	ug/L	11077	ppb	17:30:31
1	Mo 202.031†	92354.2	105127.4	11137	ug/L	11137	ppb	17:30:42
1	Ni 231.604†	288500.9	328334.7	11058	ug/L	11058	ppb	17:30:42
1	P 214.914†	31574.0	35635.1	13563	ug/L	13563	ppb	17:30:42
1	Pb 220.353†	139195.0	158566.3	28011	ug/L	28011	ppb	17:30:42
1	S 181.975 Axial†	38439.8	43693.9	56741	ug/L	56741	ppb	17:30:42
1	Sb 206.836†	23079.3	26217.7	12227	ug/L	12227	ppb	17:30:42
1	Se 196.026†	15397.3	17562.5	11255	ug/L	11255	ppb	17:30:42
1	Si 251.611†	1060601.8	1206906.2	50916	ug/L	50916	ppb	17:30:37
1	Sn 189.927†	40428.2	46014.8	11542	ug/L	11542	ppb	17:30:42
1	Ti 334.940†	3728088.9	4246332.9	11266	ug/L	11266	ppb	17:30:31
1	Tl 190.801†	16982.2	19392.7	11560	ug/L	11560	ppb	17:30:42
1	U 409.014†	-944.7	725.0	-23.591	ug/L	-23.591	ppb	17:30:42
1	V 292.402†	1081401.0	1233125.2	11212	ug/L	11212	ppb	17:30:37
1	Zn 213.857†	1240621.8	1411480.8	15759	ug/L	15759	ppb	17:30:37
1	SiO2†	1079354.0	1228218.5	110870	ug/L	110870	ppb	17:31:28
2	Sc Radial	3191.3	3191.3	98.4	%			17:29:50
2	Y RADIAL	3460.8	3460.8	94.95	%			17:29:50
2	Al 396.153Radial†	292.9	412.9	-58.957	ug/L	-58.957	ppb	17:29:30
2	Ca 317.933Radial†	20.9	9.9	22.262	ug/L	22.262	ppb	17:29:50
2	Fe 238.204 Radial†	-15.4	-20.5	62.842	ug/L	62.842	ppb	17:29:50
2	K 766.490 Radial†	1218714.3	1235376.4	288400	ug/L	288400	ppb	17:29:25
2	Mg 279.077 IEC†	-5.2	-5.5	-142.00	ug/L	-142.00	ppb	17:29:50
2	Na 589.592 Radial†	-882.6	297.4	145.30	ug/L	145.30	ppb	17:29:30
2	Sr 421.552†	897406.0	911982.2	9523.9	ug/L	9523.9	ppb	17:29:25
2	Sc 361.383	490148.4	490148.4	87.995	%			17:31:02
2	Y 371.029	526519.0	526519.0	101.76	%			17:30:56
2	Ag 328.068†	-5986.0	-6855.3	4.6403	ug/L	4.6403	ppb	17:31:02
2	As 188.979†	21918.8	24953.7	11084	ug/L	11084	ppb	17:31:02
2	B 249.677†	202584.6	230877.3	5552.8	ug/L	5552.8	ppb	17:30:56
2	Ba 233.527†	991837.5	1127152.9	16836	ug/L	16836	ppb	17:30:56
2	Be 313.107†	6546647.9	7449330.7	3292.5	ug/L	3292.5	ppb	17:30:50
2	Cd 226.502†	699492.0	795228.3	11073	ug/L	11073	ppb	17:30:56
2	Co 228.616†	271424.0	308543.8	11321	ug/L	11321	ppb	17:31:02
2	Cr 267.716†	1597928.1	1815820.0	27374	ug/L	27374	ppb	17:30:56
2	Cu 324.752†	4334744.8	4919734.1	23812	ug/L	23812	ppb	17:30:50
2	Mn 257.610†	5087620.1	5781078.4	11123	ug/L	11123	ppb	17:30:50
2	Mo 202.031†	93067.9	105748.8	11203	ug/L	11203	ppb	17:31:02
2	Ni 231.604†	290991.2	330572.1	11133	ug/L	11133	ppb	17:31:02

2	P 214.914†	31767.7	35790.3	13604	ug/L	13604 ppb	17:31:02
2	Pb 220.353†	140245.2	159473.8	28172	ug/L	28172 ppb	17:31:02
2	S 181.975 Axial†	38645.7	43849.0	56942	ug/L	56942 ppb	17:31:02
2	Sb 206.836†	23215.7	26325.4	12277	ug/L	12277 ppb	17:31:02
2	Se 196.026†	15526.5	17677.7	11328	ug/L	11328 ppb	17:31:02
2	Si 251.611†	1078702.7	1225297.9	51693	ug/L	51693 ppb	17:30:56
2	Sn 189.927†	40697.8	46238.2	11598	ug/L	11598 ppb	17:31:02
2	Ti 334.940†	3754820.9	4269053.9	11327	ug/L	11327 ppb	17:30:50
2	Tl 190.801†	17100.9	19492.7	11619	ug/L	11619 ppb	17:31:02
2	U 409.014†	-806.8	883.7	-16.346	ug/L	-16.346 ppb	17:31:02
2	V 292.402†	1099245.2	1251182.5	11375	ug/L	11375 ppb	17:30:56
2	Zn 213.857†	1258009.1	1428691.8	15952	ug/L	15952 ppb	17:30:56
2	SiO2†	1080186.5	1226947.4	110750	ug/L	110750 ppb	17:31:34
3	Sc Radial	3231.3	3231.3	99.6	%		17:30:21
3	Y RADIAL	3478.5	3478.5	95.43	%		17:30:21
3	Al 396.153Radial†	316.3	432.7	-40.118	ug/L	-40.118 ppb	17:30:01
3	Ca 317.933Radial†	22.7	11.5	25.830	ug/L	25.830 ppb	17:30:21
3	Fe 238.204 Radial†	-15.0	-19.9	74.271	ug/L	74.271 ppb	17:30:21
3	K 766.490 Radial†	1258250.1	1259714.0	294080	ug/L	294080 ppb	17:29:56
3	Mg 279.077 IEC†	-2.8	-3.0	-29.162	ug/L	-29.162 ppb	17:30:21
3	Na 589.592 Radial†	-852.1	339.1	165.68	ug/L	165.68 ppb	17:30:01
3	Sr 421.552†	927397.7	930785.9	9720.3	ug/L	9720.3 ppb	17:29:56
3	Sc 361.383	492357.1	492357.1	88.392	%		17:31:21
3	Y 371.029	523591.1	523591.1	101.19	%		17:31:16
3	Ag 328.068†	-6050.8	-6898.0	3.8935	ug/L	3.8935 ppb	17:31:21
3	As 188.979†	22228.6	25192.4	11189	ug/L	11189 ppb	17:31:21
3	B 249.677†	201138.2	228208.2	5487.9	ug/L	5487.9 ppb	17:31:16
3	Ba 233.527†	984877.8	1114222.9	16642	ug/L	16642 ppb	17:31:16
3	Be 313.107†	6546147.3	7415390.6	3277.5	ug/L	3277.5 ppb	17:31:10
3	Cd 226.502†	694729.6	786274.5	10949	ug/L	10949 ppb	17:31:16
3	Co 228.616†	274765.3	310940.3	11409	ug/L	11409 ppb	17:31:21
3	Cr 267.716†	1586859.9	1795152.2	27062	ug/L	27062 ppb	17:31:16
3	Cu 324.752†	4317078.2	4877649.6	23608	ug/L	23608 ppb	17:31:10
3	Mn 257.610†	5078358.0	5744664.0	11053	ug/L	11053 ppb	17:31:10
3	Mo 202.031†	94243.3	106604.0	11294	ug/L	11294 ppb	17:31:21
3	Ni 231.604†	294170.5	332685.6	11204	ug/L	11204 ppb	17:31:21
3	P 214.914†	32042.0	35938.7	13732	ug/L	13732 ppb	17:31:21
3	Pb 220.353†	141783.3	160499.0	28353	ug/L	28353 ppb	17:31:21
3	S 181.975 Axial†	39261.8	44349.0	57591	ug/L	57591 ppb	17:31:21
3	Sb 206.836†	23510.1	26540.1	12378	ug/L	12378 ppb	17:31:21
3	Se 196.026†	15739.2	17839.1	11432	ug/L	11432 ppb	17:31:21
3	Si 251.611†	1068004.6	1207695.8	50947	ug/L	50947 ppb	17:31:16
3	Sn 189.927†	41203.2	46602.5	11689	ug/L	11689 ppb	17:31:21
3	Ti 334.940†	3746408.6	4240395.5	11251	ug/L	11251 ppb	17:31:10
3	Tl 190.801†	17328.1	19662.6	11719	ug/L	11719 ppb	17:31:21
3	U 409.014†	-738.3	965.3	-11.515	ug/L	-11.515 ppb	17:31:21
3	V 292.402†	1092295.6	1237716.5	11255	ug/L	11255 ppb	17:31:16
3	Zn 213.857†	1249463.8	1412611.3	15771	ug/L	15771 ppb	17:31:16
3	SiO2†	1071000.5	1211048.4	109310	ug/L	109310 ppb	17:31:39

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	490589.9	88.074	%	0.2860				0.32%
Sc Radial	3202.7	98.7	%	0.77				0.78%
Y 371.029	522514.8	100.99	%	0.896				0.89%
Y RADIAL	3461.4	94.96	%	0.459				0.48%
Ag 328.068†	-6886.8	4.0726	ug/L	0.50268	4.0726	ppb	0.50268	12.34%
Al 396.153Radial†	422.7	-47.869	ug/L	9.8528	-47.869	ppb	9.8528	20.58%
As 188.979†	24980.2	11095	ug/L	88.2	11095	ppb	88.2	0.79%
QC value greater than the upper limit for As 188.979 Recovery = 110.95%								
B 249.677†	228635.8	5498.5	ug/L	49.82	5498.5	ppb	49.82	0.91%
QC value within limits for B 249.677 Recovery = 109.97%								
Ba 233.527†	1118421.8	16705	ug/L	113.0	16705	ppb	113.0	0.68%
QC value greater than the upper limit for Ba 233.527 Recovery = 111.37%								
Be 313.107†	7421378.1	3280.2	ug/L	11.26	3280.2	ppb	11.26	0.34%
QC value within limits for Be 313.107 Recovery = 109.34%								
Ca 317.933Radial†	10.4	23.496	ug/L	2.0227	23.496	ppb	2.0227	8.61%
Cd 226.502†	788875.8	10985	ug/L	77.0	10985	ppb	77.0	0.70%
QC value within limits for Cd 226.502 Recovery = 109.85%								

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Co 228.616†          308851.6       11332 ug/L          71.9       11332 ppb          71.9   0.63%
   QC value greater than the upper limit for Co 228.616  Recovery = 113.32%
Cr 267.716†         1800978.8       27150 ug/L         195.2       27150 ppb         195.2   0.72%
   QC value within limits for Cr 267.716  Recovery = 108.60%
Cu 324.752†         4893278.4       23684 ug/L         111.5       23684 ppb         111.5   0.47%
   QC value greater than the upper limit for Cu 324.752  Recovery = 118.42%
Fe 238.204 Radial†       -19.9      71.389 ug/L        7.5308      71.389 ppb        7.5308  10.55%
K 766.490 Radial†    1228951.5      286900 ug/L        8037.6      286900 ppb        8037.6   2.80%
   QC value within limits for K 766.490 Radial  Recovery = 95.63%
Mg 279.077 IEC†           -4.8     -109.72 ug/L        70.218     -109.72 ppb        70.218  64.00%
Mn 257.610†         5761007.2       11084 ug/L          35.6       11084 ppb          35.6   0.32%
   QC value greater than the upper limit for Mn 257.610  Recovery = 110.84%
Mo 202.031†          105826.7       11211 ug/L          78.5       11211 ppb          78.5   0.70%
   QC value greater than the upper limit for Mo 202.031  Recovery = 112.11%
Na 589.592 Radial†       330.6      161.55 ug/L        14.628      161.55 ppb        14.628   9.05%
Ni 231.604†          330530.8       11132 ug/L          73.3       11132 ppb          73.3   0.66%
   QC value greater than the upper limit for Ni 231.604  Recovery = 111.32%
P 214.914†            35788.0       13633 ug/L          88.2       13633 ppb          88.2   0.65%
   QC value within limits for P 214.914  Recovery = 90.89%
Pb 220.353†          159513.0       28179 ug/L         171.0       28179 ppb         171.0   0.61%
   QC value greater than the upper limit for Pb 220.353  Recovery = 112.71%
S 181.975 Axial†      43964.0       57091 ug/L         444.5       57091 ppb         444.5   0.78%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = 114.18%
Sb 206.836†           26361.0       12294 ug/L          76.9       12294 ppb          76.9   0.63%
   QC value greater than the upper limit for Sb 206.836  Recovery = 122.94%
Se 196.026†           17693.1       11338 ug/L          89.0       11338 ppb          89.0   0.78%
   QC value greater than the upper limit for Se 196.026  Recovery = 113.38%
Si 251.611†         1213300.0       51185 ug/L         439.9       51185 ppb         439.9   0.86%
   QC value within limits for Si 251.611  Recovery = 102.37%
Sn 189.927†           46285.1       11609 ug/L          74.4       11609 ppb          74.4   0.64%
   QC value greater than the upper limit for Sn 189.927  Recovery = 116.09%
Sr 421.552†          908402.8      9486.5 ug/L        254.50      9486.5 ppb        254.50   2.68%
   QC value within limits for Sr 421.552  Recovery = 94.87%
Ti 334.940†         4251927.4       11281 ug/L          40.1       11281 ppb          40.1   0.36%
   QC value greater than the upper limit for Ti 334.940  Recovery = 112.81%
Tl 190.801†           19516.0       11632 ug/L          80.3       11632 ppb          80.3   0.69%
   QC value greater than the upper limit for Tl 190.801  Recovery = 116.32%
U 409.014†              858.0     -17.151 ug/L        6.0785     -17.151 ppb        6.0785  35.44%
V 292.402†          1240674.7       11281 ug/L          84.4       11281 ppb          84.4   0.75%
   QC value greater than the upper limit for V 292.402  Recovery = 112.81%
Zn 213.857†         1417594.6       15827 ug/L         108.0       15827 ppb         108.0   0.68%
   QC value within limits for Zn 213.857  Recovery = 105.52%
SiO2†               1222071.4      110310 ug/L         868.0      110310 ppb         868.0   0.79%
   QC value within limits for SiO2  Recovery = 103.10%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/15/2010 17:33:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3283.8	3283.8	101	%			17:36:02
1	Y RADIAL	3643.1	3643.1	99.95	%			17:35:42
1	Al 396.153Radial†	4252.7	4315.4	5039.2	ug/L	5039.2	ppb	17:35:42
1	Ca 317.933Radial†	2249.6	2210.5	4978.6	ug/L	4978.6	ppb	17:36:02
1	Fe 238.204 Radial†	375.8	366.3	4932.9	ug/L	4932.9	ppb	17:36:02
1	K 766.490 Radial†	24384.8	20907.6	4875.9	ug/L	4875.9	ppb	17:35:42
1	Mg 279.077 IEC†	115.3	113.7	5161.8	ug/L	5161.8	ppb	17:36:02
1	Na 589.592 Radial†	18891.3	19852.6	9700.6	ug/L	9700.6	ppb	17:35:42
1	Sr 421.552†	47188.7	46574.6	486.35	ug/L	486.35	ppb	17:35:42
1	Sc 361.383	595021.8	595021.8	106.82	%			17:37:00
1	Y 371.029	549124.1	549124.1	106.13	%			17:37:00
1	Ag 328.068†	84180.2	78750.9	472.60	ug/L	472.60	ppb	17:37:00
1	As 188.979†	1080.5	1056.1	469.70	ug/L	469.70	ppb	17:37:20
1	B 249.677†	21982.1	21233.1	511.78	ug/L	511.78	ppb	17:37:00
1	Ba 233.527†	33897.2	31735.3	474.67	ug/L	474.67	ppb	17:37:00
1	Be 313.107†	1147211.9	1083489.7	476.22	ug/L	476.22	ppb	17:37:00
1	Cd 226.502†	34851.3	32932.8	458.23	ug/L	458.23	ppb	17:37:20
1	Co 228.616†	13600.5	12822.5	470.58	ug/L	470.58	ppb	17:37:20
1	Cr 267.716†	33643.4	31387.8	473.47	ug/L	473.47	ppb	17:37:00
1	Cu 324.752†	110440.8	97005.1	469.46	ug/L	469.46	ppb	17:37:00
1	Mn 257.610†	263679.2	246213.5	474.04	ug/L	474.04	ppb	17:37:00
1	Mo 202.031†	4706.6	4390.0	465.49	ug/L	465.49	ppb	17:37:20
1	Ni 231.604†	15018.4	13941.4	469.52	ug/L	469.52	ppb	17:37:20
1	P 214.914†	4946.2	4319.0	2199.8	ug/L	2199.8	ppb	17:37:20
1	Pb 220.353†	2740.4	2660.9	471.66	ug/L	471.66	ppb	17:37:20
1	S 181.975 Axial†	826.5	704.8	914.62	ug/L	914.62	ppb	17:37:20
1	Sb 206.836†	1148.2	1017.3	475.49	ug/L	475.49	ppb	17:37:20
1	Se 196.026†	743.7	729.1	476.25	ug/L	476.25	ppb	17:37:20
1	Si 251.611†	60393.0	55968.0	2361.8	ug/L	2361.8	ppb	17:37:00
1	Sn 189.927†	2001.0	1861.3	467.84	ug/L	467.84	ppb	17:37:20
1	Ti 334.940†	188321.7	178272.0	473.13	ug/L	473.13	ppb	17:37:00
1	Tl 190.801†	782.4	791.2	471.76	ug/L	471.76	ppb	17:37:20
1	U 409.014†	7919.2	9213.9	464.77	ug/L	464.77	ppb	17:37:00
1	V 292.402†	54123.3	52638.3	479.03	ug/L	479.03	ppb	17:37:00
1	Zn 213.857†	45980.8	42101.8	469.97	ug/L	469.97	ppb	17:37:00
1	SiO2†	59050.7	54674.7	4936.3	ug/L	4936.3	ppb	17:38:20
2	Sc Radial	3319.3	3319.3	102	%			17:36:27
2	Y RADIAL	3763.2	3763.2	103.2	%			17:36:07
2	Al 396.153Radial†	4436.4	4449.9	5196.7	ug/L	5196.7	ppb	17:36:07
2	Ca 317.933Radial†	2279.4	2215.8	4990.6	ug/L	4990.6	ppb	17:36:27
2	Fe 238.204 Radial†	380.1	366.5	4936.6	ug/L	4936.6	ppb	17:36:27
2	K 766.490 Radial†	25019.9	21269.9	4960.4	ug/L	4960.4	ppb	17:36:07
2	Mg 279.077 IEC†	116.1	113.2	5141.1	ug/L	5141.1	ppb	17:36:27
2	Na 589.592 Radial†	19334.6	20085.7	9814.5	ug/L	9814.5	ppb	17:36:07
2	Sr 421.552†	48530.8	47386.3	494.82	ug/L	494.82	ppb	17:36:07
2	Sc 361.383	572711.5	572711.5	102.82	%			17:37:28
2	Y 371.029	528498.5	528498.5	102.14	%			17:37:28
2	Ag 328.068†	81289.1	79008.9	474.14	ug/L	474.14	ppb	17:37:28
2	As 188.979†	1055.8	1071.4	476.48	ug/L	476.48	ppb	17:37:48
2	B 249.677†	21038.1	21116.5	508.95	ug/L	508.95	ppb	17:37:28
2	Ba 233.527†	32641.3	31750.0	474.89	ug/L	474.89	ppb	17:37:28
2	Be 313.107†	1102253.0	1081598.7	475.40	ug/L	475.40	ppb	17:37:28
2	Cd 226.502†	33869.9	33249.2	462.64	ug/L	462.64	ppb	17:37:48
2	Co 228.616†	13235.7	12963.7	475.77	ug/L	475.77	ppb	17:37:48
2	Cr 267.716†	32367.5	31373.8	473.25	ug/L	473.25	ppb	17:37:28
2	Cu 324.752†	106315.2	97020.1	469.53	ug/L	469.53	ppb	17:37:28
2	Mn 257.610†	253591.6	246018.0	473.67	ug/L	473.67	ppb	17:37:28
2	Mo 202.031†	4573.0	4431.7	469.91	ug/L	469.91	ppb	17:37:48
2	Ni 231.604†	14640.2	14121.3	475.58	ug/L	475.58	ppb	17:37:48

2	P 214.914†	4794.3	4351.6	2217.3 ug/L	2217.3 ppb	17:37:48
2	Pb 220.353†	2632.8	2656.2	470.88 ug/L	470.88 ppb	17:37:48
2	S 181.975 Axial†	804.2	713.1	925.50 ug/L	925.50 ppb	17:37:48
2	Sb 206.836†	1115.0	1026.8	479.94 ug/L	479.94 ppb	17:37:48
2	Se 196.026†	707.1	720.7	470.88 ug/L	470.88 ppb	17:37:48
2	Si 251.611†	57986.2	55829.6	2355.8 ug/L	2355.8 ppb	17:37:28
2	Sn 189.927†	1938.9	1873.9	470.99 ug/L	470.99 ppb	17:37:48
2	Ti 334.940†	181398.3	178406.0	473.49 ug/L	473.49 ppb	17:37:28
2	Tl 190.801†	768.3	806.1	480.52 ug/L	480.52 ppb	17:37:48
2	U 409.014†	7663.5	9254.0	466.81 ug/L	466.81 ppb	17:37:28
2	V 292.402†	52136.9	52680.1	479.47 ug/L	479.47 ppb	17:37:28
2	Zn 213.857†	44306.6	42150.3	470.48 ug/L	470.48 ppb	17:37:28
2	SiO2†	59683.8	57443.9	5186.8 ug/L	5186.8 ppb	17:38:25
3	Sc Radial	3396.8	3396.8	105 %		17:36:52
3	Y RADIAL	3769.9	3769.9	103.4 %		17:36:32
3	Al 396.153Radial†	4394.7	4311.2	5033.9 ug/L	5033.9 ppb	17:36:32
3	Ca 317.933Radial†	2322.3	2205.9	4968.5 ug/L	4968.5 ppb	17:36:52
3	Fe 238.204 Radial†	387.2	364.8	4913.6 ug/L	4913.6 ppb	17:36:52
3	K 766.490 Radial†	24924.4	20621.0	4809.0 ug/L	4809.0 ppb	17:36:32
3	Mg 279.077 IEC†	116.3	110.8	5033.2 ug/L	5033.2 ppb	17:36:52
3	Na 589.592 Radial†	19149.9	19478.4	9517.7 ug/L	9517.7 ppb	17:36:32
3	Sr 421.552†	48428.6	46206.9	482.51 ug/L	482.51 ppb	17:36:32
3	Sc 361.383	571041.9	571041.9	102.52 %		17:37:55
3	Y 371.029	526732.8	526732.8	101.80 %		17:37:55
3	Ag 328.068†	80865.7	78827.0	473.05 ug/L	473.05 ppb	17:37:55
3	As 188.979†	1059.6	1078.2	479.47 ug/L	479.47 ppb	17:38:15
3	B 249.677†	20843.5	20986.6	505.79 ug/L	505.79 ppb	17:37:55
3	Ba 233.527†	32501.3	31706.2	474.23 ug/L	474.23 ppb	17:37:55
3	Be 313.107†	1099869.4	1082408.1	475.75 ug/L	475.75 ppb	17:37:55
3	Cd 226.502†	34058.7	33529.7	466.55 ug/L	466.55 ppb	17:38:15
3	Co 228.616†	13319.2	13082.8	480.14 ug/L	480.14 ppb	17:38:15
3	Cr 267.716†	32312.1	31411.8	473.83 ug/L	473.83 ppb	17:37:55
3	Cu 324.752†	105857.6	96876.1	468.83 ug/L	468.83 ppb	17:37:55
3	Mn 257.610†	253079.8	246239.9	474.09 ug/L	474.09 ppb	17:37:55
3	Mo 202.031†	4593.6	4464.7	473.40 ug/L	473.40 ppb	17:38:15
3	Ni 231.604†	14686.3	14207.8	478.50 ug/L	478.50 ppb	17:38:15
3	P 214.914†	4833.7	4403.6	2245.2 ug/L	2245.2 ppb	17:38:15
3	Pb 220.353†	2673.5	2703.5	479.19 ug/L	479.19 ppb	17:38:15
3	S 181.975 Axial†	808.4	719.6	933.89 ug/L	933.89 ppb	17:38:15
3	Sb 206.836†	1109.9	1025.0	479.27 ug/L	479.27 ppb	17:38:15
3	Se 196.026†	721.1	736.4	480.88 ug/L	480.88 ppb	17:38:15
3	Si 251.611†	57785.5	55798.7	2354.5 ug/L	2354.5 ppb	17:37:55
3	Sn 189.927†	1954.6	1894.7	476.22 ug/L	476.22 ppb	17:38:15
3	Ti 334.940†	181078.5	178609.8	474.04 ug/L	474.04 ppb	17:37:55
3	Tl 190.801†	768.0	808.0	481.65 ug/L	481.65 ppb	17:38:15
3	U 409.014†	7521.0	9136.7	460.87 ug/L	460.87 ppb	17:37:55
3	V 292.402†	51873.7	52571.5	478.54 ug/L	478.54 ppb	17:37:55
3	Zn 213.857†	44156.0	42129.4	470.22 ug/L	470.22 ppb	17:37:55
3	SiO2†	59695.6	57625.1	5203.1 ug/L	5203.1 ppb	17:38:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	579591.7	104.05	%	2.404				2.31%
Sc Radial	3333.3	103	%	1.8				1.73%
Y 371.029	534785.1	103.36	%	2.406				2.33%
Y RADIAL	3725.4	102.2	%	1.96				1.91%
Ag 328.068†	78862.3	473.26	ug/L	0.792	473.26	ppb	0.792	0.17%
QC value within limits for Ag 328.068 Recovery = 94.65%								
Al 396.153Radial†	4358.8	5089.9	ug/L	92.50	5089.9	ppb	92.50	1.82%
QC value within limits for Al 396.153Radial Recovery = 101.80%								
As 188.979†	1068.6	475.22	ug/L	5.008	475.22	ppb	5.008	1.05%
QC value within limits for As 188.979 Recovery = 95.04%								
B 249.677†	21112.1	508.84	ug/L	2.996	508.84	ppb	2.996	0.59%
QC value within limits for B 249.677 Recovery = 101.77%								
Ba 233.527†	31730.5	474.60	ug/L	0.334	474.60	ppb	0.334	0.07%
QC value within limits for Ba 233.527 Recovery = 94.92%								
Be 313.107†	1082498.9	475.79	ug/L	0.416	475.79	ppb	0.416	0.09%
QC value within limits for Be 313.107 Recovery = 95.16%								
Ca 317.933Radial†	2210.7	4979.2	ug/L	11.10	4979.2	ppb	11.10	0.22%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.58%
Cd 226.502†            33237.3      462.47 ug/L         4.159      462.47 ppb          4.159   0.90%
   QC value within limits for Cd 226.502  Recovery = 92.49%
Co 228.616†            12956.3      475.50 ug/L         4.789      475.50 ppb          4.789   1.01%
   QC value within limits for Co 228.616  Recovery = 95.10%
Cr 267.716†            31391.1      473.51 ug/L         0.290      473.51 ppb          0.290   0.06%
   QC value within limits for Cr 267.716  Recovery = 94.70%
Cu 324.752†            96967.1      469.27 ug/L         0.384      469.27 ppb          0.384   0.08%
   QC value within limits for Cu 324.752  Recovery = 93.85%
Fe 238.204 Radial†       365.9      4927.7 ug/L         12.37      4927.7 ppb          12.37   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.55%
K 766.490 Radial†      20932.9      4881.8 ug/L         75.86      4881.8 ppb          75.86   1.55%
   QC value within limits for K 766.490 Radial  Recovery = 97.64%
Mg 279.077 IEC†          112.6      5112.0 ug/L         69.05      5112.0 ppb          69.05   1.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.24%
Mn 257.610†           246157.1      473.93 ug/L         0.234      473.93 ppb          0.234   0.05%
   QC value within limits for Mn 257.610  Recovery = 94.79%
Mo 202.031†             4428.8      469.60 ug/L         3.966      469.60 ppb          3.966   0.84%
   QC value within limits for Mo 202.031  Recovery = 93.92%
Na 589.592 Radial†     19805.6      9677.6 ug/L        149.70      9677.6 ppb         149.70   1.55%
   QC value within limits for Na 589.592 Radial  Recovery = 96.78%
Ni 231.604†            14090.2      474.53 ug/L         4.577      474.53 ppb          4.577   0.96%
   QC value within limits for Ni 231.604  Recovery = 94.91%
P 214.914†              4358.1      2220.8 ug/L         22.92      2220.8 ppb          22.92   1.03%
   QC value less than the lower limit for P 214.914  Recovery = 88.83%
Pb 220.353†             2673.5      473.91 ug/L         4.591      473.91 ppb          4.591   0.97%
   QC value within limits for Pb 220.353  Recovery = 94.78%
S 181.975 Axial†         712.5      924.67 ug/L         9.660      924.67 ppb          9.660   1.04%
   QC value within limits for S 181.975 Axial  Recovery = 92.47%
Sb 206.836†             1023.1      478.23 ug/L         2.398      478.23 ppb          2.398   0.50%
   QC value within limits for Sb 206.836  Recovery = 95.65%
Se 196.026†              728.7      476.01 ug/L         5.003      476.01 ppb          5.003   1.05%
   QC value within limits for Se 196.026  Recovery = 95.20%
Si 251.611†            55865.5      2357.4 ug/L          3.86      2357.4 ppb           3.86   0.16%
   QC value within limits for Si 251.611  Recovery = 94.29%
Sn 189.927†             1876.6      471.68 ug/L         4.232      471.68 ppb          4.232   0.90%
   QC value within limits for Sn 189.927  Recovery = 94.34%
Sr 421.552†            46722.6      487.89 ug/L         6.302      487.89 ppb          6.302   1.29%
   QC value within limits for Sr 421.552  Recovery = 97.58%
Ti 334.940†           178429.3      473.56 ug/L         0.457      473.56 ppb          0.457   0.10%
   QC value within limits for Ti 334.940  Recovery = 94.71%
Tl 190.801†              801.8      477.98 ug/L         5.416      477.98 ppb          5.416   1.13%
   QC value within limits for Tl 190.801  Recovery = 95.60%
U 409.014†              9201.6      464.15 ug/L         3.019      464.15 ppb          3.019   0.65%
   QC value within limits for U 409.014  Recovery = 92.83%
V 292.402†             52630.0      479.01 ug/L         0.468      479.01 ppb          0.468   0.10%
   QC value within limits for V 292.402  Recovery = 95.80%
Zn 213.857†            42127.2      470.22 ug/L         0.254      470.22 ppb          0.254   0.05%
   QC value within limits for Zn 213.857  Recovery = 94.04%
SiO2†                  56581.2      5108.7 ug/L        149.58      5108.7 ppb         149.58   2.93%
   QC value within limits for SiO2  Recovery = 95.54%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/15/2010 17:40:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3368.7	3368.7	104	%			17:42:53
1	Y RADIAL	3757.8	3757.8	103.1	%			17:42:33
1	Al 396.153Radial†	-119.9	-0.2	-0.2393	ug/L	-0.2393	ppb	17:42:33
1	Ca 317.933Radial†	18.4	6.4	14.337	ug/L	14.337	ppb	17:42:53
1	Fe 238.204 Radial†	6.4	1.3	17.066	ug/L	17.066	ppb	17:42:53
1	K 766.490 Radial†	3420.9	117.1	27.318	ug/L	27.318	ppb	17:42:33
1	Mg 279.077 IEC†	3.8	3.5	156.83	ug/L	156.83	ppb	17:42:53
1	Na 589.592 Radial†	-1159.0	78.6	38.383	ug/L	38.383	ppb	17:42:33
1	Sr 421.552†	21.0	-11.8	-0.1235	ug/L	-0.1235	ppb	17:42:33
1	Sc 361.383	561447.6	561447.6	100.80	%			17:43:50
1	Y 371.029	522349.8	522349.8	100.95	%			17:43:50
1	Ag 328.068†	55.8	2.8	0.0163	ug/L	0.0163	ppb	17:43:50
1	As 188.979†	-44.8	0.2	0.0917	ug/L	0.0917	ppb	17:44:10
1	B 249.677†	469.8	1121.1	27.121	ug/L	27.121	ppb	17:43:50
1	Ba 233.527†	-1.9	1.3	0.0190	ug/L	0.0190	ppb	17:44:10
1	Be 313.107†	-9563.5	63.1	0.0280	ug/L	0.0280	ppb	17:43:50
1	Cd 226.502†	-277.0	32.7	0.4546	ug/L	0.4546	ppb	17:44:10
1	Co 228.616†	-108.5	-17.0	-0.6224	ug/L	-0.6224	ppb	17:44:10
1	Cr 267.716†	116.0	8.3	0.1229	ug/L	0.1229	ppb	17:43:50
1	Cu 324.752†	6478.2	45.4	0.2187	ug/L	0.2187	ppb	17:43:50
1	Mn 257.610†	620.0	-9.2	-0.0224	ug/L	-0.0224	ppb	17:43:50
1	Mo 202.031†	22.2	6.0	0.6402	ug/L	0.6402	ppb	17:44:10
1	Ni 231.604†	140.9	22.1	0.7439	ug/L	0.7439	ppb	17:44:10
1	P 214.914†	324.0	10.2	5.3907	ug/L	5.3907	ppb	17:44:10
1	Pb 220.353†	-90.9	5.4	0.9455	ug/L	0.9455	ppb	17:44:10
1	S 181.975 Axial†	67.3	-2.3	-2.9483	ug/L	-2.9483	ppb	17:44:10
1	Sb 206.836†	51.8	-6.2	-2.7462	ug/L	-2.7462	ppb	17:44:10
1	Se 196.026†	-21.2	11.9	7.6552	ug/L	7.6552	ppb	17:44:10
1	Si 251.611†	602.2	29.9	1.2559	ug/L	1.2559	ppb	17:44:10
1	Sn 189.927†	22.9	10.9	2.7262	ug/L	2.7262	ppb	17:44:10
1	Ti 334.940†	-1943.5	50.4	0.1220	ug/L	0.1220	ppb	17:43:50
1	Tl 190.801†	-46.2	13.0	7.7120	ug/L	7.7120	ppb	17:44:10
1	U 409.014†	-1746.7	67.6	3.4209	ug/L	3.4209	ppb	17:43:50
1	V 292.402†	-2048.0	-59.9	-0.5219	ug/L	-0.5219	ppb	17:43:50
1	Zn 213.857†	1044.9	94.5	1.0590	ug/L	1.0590	ppb	17:44:10
1	SiO2†	637.3	27.9	2.5054	ug/L	2.5054	ppb	17:45:06
2	Sc Radial	3353.6	3353.6	103	%			17:43:18
2	Y RADIAL	3671.1	3671.1	100.7	%			17:42:58
2	Al 396.153Radial†	-116.8	2.2	2.5575	ug/L	2.5575	ppb	17:42:58
2	Ca 317.933Radial†	17.2	5.3	11.879	ug/L	11.879	ppb	17:43:18
2	Fe 238.204 Radial†	4.7	-0.3	-4.0496	ug/L	-4.0496	ppb	17:43:18
2	K 766.490 Radial†	3560.6	267.0	62.321	ug/L	62.321	ppb	17:42:58
2	Mg 279.077 IEC†	4.4	4.1	184.50	ug/L	184.50	ppb	17:43:18
2	Na 589.592 Radial†	-1145.9	86.1	42.084	ug/L	42.084	ppb	17:42:58
2	Sr 421.552†	34.6	1.4	0.0147	ug/L	0.0147	ppb	17:42:58
2	Sc 361.383	587316.6	587316.6	105.44	%			17:44:15
2	Y 371.029	545518.3	545518.3	105.43	%			17:44:15
2	Ag 328.068†	115.6	57.0	0.3336	ug/L	0.3336	ppb	17:44:15
2	As 188.979†	-40.0	6.7	2.9598	ug/L	2.9598	ppb	17:44:35
2	B 249.677†	412.5	1046.2	25.310	ug/L	25.310	ppb	17:44:15
2	Ba 233.527†	-8.3	-4.7	-0.0711	ug/L	-0.0711	ppb	17:44:35
2	Be 313.107†	-9844.4	214.5	0.0953	ug/L	0.0953	ppb	17:44:15
2	Cd 226.502†	-278.0	43.8	0.6109	ug/L	0.6109	ppb	17:44:35
2	Co 228.616†	-99.5	-3.7	-0.1331	ug/L	-0.1331	ppb	17:44:35
2	Cr 267.716†	139.2	25.2	0.3776	ug/L	0.3776	ppb	17:44:15
2	Cu 324.752†	6777.2	45.9	0.2186	ug/L	0.2186	ppb	17:44:15
2	Mn 257.610†	547.1	-105.5	-0.2109	ug/L	-0.2109	ppb	17:44:15
2	Mo 202.031†	33.1	15.4	1.6280	ug/L	1.6280	ppb	17:44:35
2	Ni 231.604†	138.0	13.1	0.4421	ug/L	0.4421	ppb	17:44:35

2	P 214.914†	309.5	-17.7	-9.4777 ug/L	-9.4777 ppb	17:44:35
2	Pb 220.353†	-101.3	-0.5	-0.0833 ug/L	-0.0833 ppb	17:44:35
2	S 181.975 Axial†	60.4	-11.7	-15.242 ug/L	-15.242 ppb	17:44:35
2	Sb 206.836†	47.9	-12.1	-5.3416 ug/L	-5.3416 ppb	17:44:35
2	Se 196.026†	-26.6	7.7	4.9262 ug/L	4.9262 ppb	17:44:35
2	Si 251.611†	608.0	9.1	0.3628 ug/L	0.3628 ppb	17:44:35
2	Sn 189.927†	35.1	21.4	5.3808 ug/L	5.3808 ppb	17:44:35
2	Ti 334.940†	-1870.9	204.2	0.5275 ug/L	0.5275 ppb	17:44:15
2	Tl 190.801†	-55.3	6.4	3.7841 ug/L	3.7841 ppb	17:44:35
2	U 409.014†	-1808.5	85.3	4.3252 ug/L	4.3252 ppb	17:44:15
2	V 292.402†	-2126.1	-44.6	-0.3652 ug/L	-0.3652 ppb	17:44:15
2	Zn 213.857†	1046.4	50.3	0.5619 ug/L	0.5619 ppb	17:44:35
2	SiO2†	702.3	61.7	5.5404 ug/L	5.5404 ppb	17:45:11
3	Sc Radial	3358.3	3358.3	104 %		17:43:43
3	Y RADIAL	3754.0	3754.0	103.0 %		17:43:23
3	Al 396.153Radial†	-103.3	15.5	18.052 ug/L	18.052 ppb	17:43:23
3	Ca 317.933Radial†	14.1	2.2	5.0447 ug/L	5.0447 ppb	17:43:43
3	Fe 238.204 Radial†	5.0	-0.0	-0.5489 ug/L	-0.5489 ppb	17:43:43
3	K 766.490 Radial†	3324.7	34.3	8.0003 ug/L	8.0003 ppb	17:43:23
3	Mg 279.077 IEC†	3.4	3.1	139.35 ug/L	139.35 ppb	17:43:43
3	Na 589.592 Radial†	-1187.9	47.1	23.039 ug/L	23.039 ppb	17:43:23
3	Sr 421.552†	47.7	14.1	0.1468 ug/L	0.1468 ppb	17:43:23
3	Sc 361.383	576478.2	576478.2	103.49 %		17:44:41
3	Y 371.029	535291.9	535291.9	103.45 %		17:44:41
3	Ag 328.068†	32.5	-21.3	-0.1220 ug/L	-0.1220 ppb	17:44:41
3	As 188.979†	-25.3	20.2	8.8938 ug/L	8.8938 ppb	17:45:01
3	B 249.677†	409.6	1050.8	25.418 ug/L	25.418 ppb	17:44:41
3	Ba 233.527†	8.6	11.4	0.1717 ug/L	0.1717 ppb	17:45:01
3	Be 313.107†	-9844.9	38.6	0.0179 ug/L	0.0179 ppb	17:44:41
3	Cd 226.502†	-276.8	40.1	0.5571 ug/L	0.5571 ppb	17:45:01
3	Co 228.616†	-80.2	13.2	0.4861 ug/L	0.4861 ppb	17:45:01
3	Cr 267.716†	151.8	39.9	0.6028 ug/L	0.6028 ppb	17:44:41
3	Cu 324.752†	6538.5	-64.0	-0.3088 ug/L	-0.3088 ppb	17:44:41
3	Mn 257.610†	585.3	-58.8	-0.1188 ug/L	-0.1188 ppb	17:44:41
3	Mo 202.031†	33.2	16.0	1.6984 ug/L	1.6984 ppb	17:45:01
3	Ni 231.604†	137.3	14.9	0.5028 ug/L	0.5028 ppb	17:45:01
3	P 214.914†	316.1	-5.9	-3.0348 ug/L	-3.0348 ppb	17:45:01
3	Pb 220.353†	-97.9	1.0	0.1877 ug/L	0.1877 ppb	17:45:01
3	S 181.975 Axial†	71.9	0.4	0.5783 ug/L	0.5783 ppb	17:45:01
3	Sb 206.836†	50.0	-9.3	-4.0869 ug/L	-4.0869 ppb	17:45:01
3	Se 196.026†	-21.6	12.1	7.7430 ug/L	7.7430 ppb	17:45:01
3	Si 251.611†	626.8	38.0	1.5871 ug/L	1.5871 ppb	17:45:01
3	Sn 189.927†	24.7	12.0	3.0152 ug/L	3.0152 ppb	17:45:01
3	Ti 334.940†	-1879.0	163.0	0.4242 ug/L	0.4242 ppb	17:44:41
3	Tl 190.801†	-57.4	3.4	2.0141 ug/L	2.0141 ppb	17:45:01
3	U 409.014†	-1929.9	-64.3	-3.2593 ug/L	-3.2593 ppb	17:44:41
3	V 292.402†	-1974.1	64.4	0.5988 ug/L	0.5988 ppb	17:44:41
3	Zn 213.857†	1044.4	67.0	0.7505 ug/L	0.7505 ppb	17:45:01
3	SiO2†	617.3	-7.9	-0.7614 ug/L	-0.7614 ppb	17:45:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	575080.8	103.24	%	2.332				2.26%
Sc Radial	3360.2	104	%	0.2				0.23%
Y 371.029	534386.7	103.28	%	2.244				2.17%
Y RADIAL	3727.6	102.3	%	1.34				1.32%
Ag 328.068†	12.8	0.0760	ug/L	0.23361	0.0760	ppb	0.23361	307.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.8	6.7901	ug/L	9.85287	6.7901	ppb	9.85287	145.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.0	3.9817	ug/L	4.48916	3.9817	ppb	4.48916	112.74%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1072.7	25.949	ug/L	1.0156	25.949	ppb	1.0156	3.91%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.7	0.0398	ug/L	0.12273	0.0398	ppb	0.12273	308.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	105.4	0.0471	ug/L	0.04209	0.0471	ppb	0.04209	89.45%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.6	10.420	ug/L	4.8151	10.420	ppb	4.8151	46.21%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                38.8      0.5409 ug/L       0.07941      0.5409 ppb        0.07941  14.68%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -2.5     -0.0898 ug/L       0.55548     -0.0898 ppb        0.55548 618.56%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                24.5      0.3678 ug/L       0.24013      0.3678 ppb        0.24013  65.29%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 9.1      0.0428 ug/L       0.30454      0.0428 ppb        0.30454 710.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.3      4.1557 ug/L      11.31648      4.1557 ppb       11.31648 272.31%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         139.5      32.547 ug/L       27.5351      32.547 ppb        27.5351  84.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.5      160.22 ug/L        22.766      160.22 ppb         22.766  14.21%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -57.8     -0.1174 ug/L       0.09429     -0.1174 ppb        0.09429  80.33%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.5      1.3222 ug/L       0.59168      1.3222 ppb        0.59168  44.75%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         70.6      34.502 ug/L       10.0984      34.502 ppb        10.0984  29.27%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                16.7      0.5629 ug/L       0.15965      0.5629 ppb        0.15965  28.36%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.5     -2.3739 ug/L       7.45617     -2.3739 ppb        7.45617 314.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.0      0.3500 ug/L       0.53327      0.3500 ppb        0.53327 152.37%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.5     -5.8707 ug/L       8.30526     -5.8707 ppb        8.30526 141.47%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -9.2     -4.0582 ug/L       1.29796     -4.0582 ppb        1.29796  31.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                10.6      6.7748 ug/L       1.60154      6.7748 ppb        1.60154  23.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                25.6      1.0686 ug/L       0.63328      1.0686 ppb        0.63328  59.26%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                14.8      3.7074 ug/L       1.45641      3.7074 ppb        1.45641  39.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 1.2      0.0127 ug/L       0.13513      0.0127 ppb        0.13513 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               139.2      0.3579 ug/L       0.21077      0.3579 ppb        0.21077  58.89%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 7.6      4.5034 ug/L       2.91622      4.5034 ppb        2.91622  64.76%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 29.5      1.4956 ug/L       4.14260      1.4956 ppb        4.14260 276.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -13.4     -0.0961 ug/L       0.60685     -0.0961 ppb        0.60685 631.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                70.6      0.7904 ug/L       0.25094      0.7904 ppb        0.25094  31.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      27.2      2.4282 ug/L       3.15158      2.4282 ppb        3.15158 129.79%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/15/2010 17:53:06 **Plasma On Time: 4/15/2010 06:47:48**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\041510.sif
Batch ID:
Results Data Set: 041510A
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 4/15/2010 16:17:46**
IEC File: 040610.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 37**
Sample ID: LR1 **Date Collected: 4/15/2010 17:53:07**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3388.0	3388.0	104	%			17:55:21
1	Y RADIAL	3894.6	3894.6	106.8	%			17:55:01
1	Al 396.153Radial†	-130.8	-10.0	-10.646	ug/L	-10.646	ppb	17:55:01

1	Ca 317.933Radial†	7.3	-4.4	-9.8008 ug/L	-9.8008 ppb	17:55:21
1	Fe 238.204 Radial†	30633.6	29319.6	393760 ug/L	393760 ppb	17:55:01
1	K 766.490 Radial†	3088.2	-220.2	-51.365 ug/L	-51.365 ppb	17:55:01
1	Mg 279.077 IEC†	9.8	9.2	182.94 ug/L	182.94 ppb	17:55:21
1	Na 589.592 Radial†	-1222.0	24.6	12.006 ug/L	12.006 ppb	17:55:01
1	Sr 421.552†	44.1	10.3	0.1072 ug/L	0.1072 ppb	17:55:01
1	Sc 361.383	588599.4	588599.4	105.67 %		17:56:18
1	Y 371.029	545453.9	545453.9	105.42 %		17:56:18
1	Ag 328.068†	-19704.0	-18699.4	3.8694 ug/L	3.8694 ppb	17:56:18
1	As 188.979†	-153.7	-100.8	7.2350 ug/L	7.2350 ppb	17:56:38
1	B 249.677†	1695.3	2259.4	13.336 ug/L	13.336 ppb	17:56:18
1	Ba 233.527†	-1569.7	-1482.3	0.2663 ug/L	0.2663 ppb	17:56:18
1	Be 313.107†	-9599.3	466.8	0.2056 ug/L	0.2056 ppb	17:56:18
1	Cd 226.502†	2216.9	2405.5	-1.8552 ug/L	-1.8552 ppb	17:56:18
1	Co 228.616†	76.0	162.5	0.2136 ug/L	0.2136 ppb	17:56:38
1	Cr 267.716†	-236.7	-330.8	1.2114 ug/L	1.2114 ppb	17:56:18
1	Cu 324.752†	1660.4	-4810.4	3.0308 ug/L	3.0308 ppb	17:56:18
1	Mn 257.610†	-20798.7	-20307.1	3.1802 ug/L	3.1802 ppb	17:56:18
1	Mo 202.031†	-217.0	-221.3	3.7189 ug/L	3.7189 ppb	17:56:18
1	Ni 231.604†	107.2	-16.3	-0.1822 ug/L	-0.1822 ppb	17:56:38
1	P 214.914†	614.7	270.4	-17.254 ug/L	-17.254 ppb	17:56:38
1	Pb 220.353†	78.2	169.5	-2.6974 ug/L	-2.6974 ppb	17:56:38
1	S 181.975 Axial†	80.2	6.9	8.9620 ug/L	8.9620 ppb	17:56:38
1	Sb 206.836†	32.4	-26.9	-1.7180 ug/L	-1.7180 ppb	17:56:38
1	Se 196.026†	-1079.8	-988.9	83.322 ug/L	83.322 ppb	17:56:38
1	Si 251.611†	41.6	-528.3	-22.058 ug/L	-22.058 ppb	17:56:18
1	Sn 189.927†	-12.2	-23.4	0.6232 ug/L	0.6232 ppb	17:56:38
1	Ti 334.940†	-1933.8	148.6	0.3145 ug/L	0.3145 ppb	17:56:18
1	Tl 190.801†	-65.4	-3.1	-2.1234 ug/L	-2.1234 ppb	17:56:38
1	U 409.014†	439.9	2216.8	6.6380 ug/L	6.6380 ppb	17:56:18
1	V 292.402†	4326.6	6066.4	1.4674 ug/L	1.4674 ppb	17:56:18
1	Zn 213.857†	3496.8	2367.0	63.852 ug/L	63.852 ppb	17:56:38
1	SiO2†	-21.5	-624.7	-55.909 ug/L	-55.909 ppb	17:57:36
2	Sc Radial	3419.1	3419.1	105 %		17:55:46
2	Y RADIAL	3852.8	3852.8	105.7 %		17:55:26
2	Al 396.153Radial†	-127.4	-5.7	-5.2001 ug/L	-5.2001 ppb	17:55:26
2	Ca 317.933Radial†	11.2	-0.7	-1.6256 ug/L	-1.6256 ppb	17:55:46
2	Fe 238.204 Radial†	30173.3	28616.6	384310 ug/L	384310 ppb	17:55:26
2	K 766.490 Radial†	3174.0	-165.7	-38.644 ug/L	-38.644 ppb	17:55:26
2	Mg 279.077 IEC†	11.4	10.6	252.39 ug/L	252.39 ppb	17:55:46
2	Na 589.592 Radial†	-1181.4	73.7	36.002 ug/L	36.002 ppb	17:55:26
2	Sr 421.552†	78.3	42.3	0.4417 ug/L	0.4417 ppb	17:55:26
2	Sc 361.383	585608.0	585608.0	105.13 %		17:56:44
2	Y 371.029	542625.8	542625.8	104.87 %		17:56:44
2	Ag 328.068†	-19585.3	-18681.8	1.2105 ug/L	1.2105 ppb	17:56:44
2	As 188.979†	-169.6	-116.7	-1.0005 ug/L	-1.0005 ppb	17:57:04
2	B 249.677†	1638.1	2213.1	13.212 ug/L	13.212 ppb	17:56:44
2	Ba 233.527†	-1423.7	-1351.1	1.6894 ug/L	1.6894 ppb	17:56:44
2	Be 313.107†	-9671.1	352.2	0.1536 ug/L	0.1536 ppb	17:56:44
2	Cd 226.502†	2235.4	2433.8	-0.6128 ug/L	-0.6128 ppb	17:56:44
2	Co 228.616†	34.2	123.1	-1.1086 ug/L	-1.1086 ppb	17:57:04
2	Cr 267.716†	-223.0	-318.9	1.2429 ug/L	1.2429 ppb	17:56:44
2	Cu 324.752†	1668.1	-4795.1	2.4767 ug/L	2.4767 ppb	17:56:44
2	Mn 257.610†	-20626.9	-20244.2	2.2849 ug/L	2.2849 ppb	17:56:44
2	Mo 202.031†	-281.5	-283.8	-3.5498 ug/L	-3.5498 ppb	17:56:44
2	Ni 231.604†	159.1	33.5	1.4884 ug/L	1.4884 ppb	17:57:04
2	P 214.914†	613.0	271.7	-12.585 ug/L	-12.585 ppb	17:57:04
2	Pb 220.353†	82.8	174.3	-1.0899 ug/L	-1.0899 ppb	17:57:04
2	S 181.975 Axial†	83.9	10.8	14.009 ug/L	14.009 ppb	17:57:04
2	Sb 206.836†	38.7	-20.8	0.6127 ug/L	0.6127 ppb	17:57:04
2	Se 196.026†	-1101.3	-1014.5	49.787 ug/L	49.787 ppb	17:57:04
2	Si 251.611†	58.8	-511.7	-21.276 ug/L	-21.276 ppb	17:56:44
2	Sn 189.927†	-19.8	-30.7	-1.3634 ug/L	-1.3634 ppb	17:57:04
2	Ti 334.940†	-2235.8	-148.0	-0.4766 ug/L	-0.4766 ppb	17:56:44
2	Tl 190.801†	-57.6	4.1	2.1058 ug/L	2.1058 ppb	17:57:04
2	U 409.014†	410.6	2191.1	7.8711 ug/L	7.8711 ppb	17:56:44
2	V 292.402†	4272.3	6035.6	2.3635 ug/L	2.3635 ppb	17:56:44
2	Zn 213.857†	3490.6	2378.1	63.073 ug/L	63.073 ppb	17:57:04
2	SiO2†	37.0	-569.2	-50.702 ug/L	-50.702 ppb	17:57:41
3	Sc Radial	3431.0	3431.0	106 %		17:56:11
3	Y RADIAL	3857.9	3857.9	105.8 %		17:55:51

3	Al 396.153Radial†	-125.4	-3.4	-2.5936 ug/L	-2.5936 ppb	17:55:51
3	Ca 317.933Radial†	15.4	3.2	7.2696 ug/L	7.2696 ppb	17:56:11
3	Fe 238.204 Radial†	30232.0	28573.0	383730 ug/L	383730 ppb	17:55:51
3	K 766.490 Radial†	2977.7	-361.7	-84.398 ug/L	-84.398 ppb	17:55:51
3	Mg 279.077 IEC†	10.8	10.1	226.33 ug/L	226.33 ppb	17:56:11
3	Na 589.592 Radial†	-1238.1	24.0	11.706 ug/L	11.706 ppb	17:55:51
3	Sr 421.552†	81.8	45.3	0.4735 ug/L	0.4735 ppb	17:55:51
3	Sc 361.383	598202.6	598202.6	107.39 %		17:57:10
3	Y 371.029	553900.6	553900.6	107.05 %		17:57:10
3	Ag 328.068†	-19958.1	-18636.7	1.3053 ug/L	1.3053 ppb	17:57:10
3	As 188.979†	-167.4	-111.3	1.3147 ug/L	1.3147 ppb	17:57:30
3	B 249.677†	1645.1	2186.8	12.634 ug/L	12.634 ppb	17:57:10
3	Ba 233.527†	-1518.2	-1410.5	0.7693 ug/L	0.7693 ppb	17:57:10
3	Be 313.107†	-9831.3	396.6	0.1748 ug/L	0.1748 ppb	17:57:10
3	Cd 226.502†	2244.9	2397.9	-1.0601 ug/L	-1.0601 ppb	17:57:10
3	Co 228.616†	60.1	146.5	-0.2373 ug/L	-0.2373 ppb	17:57:30
3	Cr 267.716†	-294.6	-381.1	0.2951 ug/L	0.2951 ppb	17:57:10
3	Cu 324.752†	1743.7	-4758.0	2.6149 ug/L	2.6149 ppb	17:57:10
3	Mn 257.610†	-21173.0	-20339.6	2.0395 ug/L	2.0395 ppb	17:57:10
3	Mo 202.031†	-263.0	-260.9	-1.1630 ug/L	-1.1630 ppb	17:57:10
3	Ni 231.604†	135.1	8.0	0.6277 ug/L	0.6277 ppb	17:57:30
3	P 214.914†	631.2	276.5	-9.8460 ug/L	-9.8460 ppb	17:57:30
3	Pb 220.353†	99.3	188.0	1.3865 ug/L	1.3865 ppb	17:57:30
3	S 181.975 Axial†	76.1	1.8	2.3721 ug/L	2.3721 ppb	17:57:30
3	Sb 206.836†	32.0	-27.8	-2.5071 ug/L	-2.5071 ppb	17:57:30
3	Se 196.026†	-1109.8	-1000.5	57.730 ug/L	57.730 ppb	17:57:30
3	Si 251.611†	-117.0	-676.6	-28.280 ug/L	-28.280 ppb	17:57:10
3	Sn 189.927†	-14.0	-24.9	0.0888 ug/L	0.0888 ppb	17:57:30
3	Ti 334.940†	-1965.2	148.7	0.3141 ug/L	0.3141 ppb	17:57:10
3	Tl 190.801†	-68.4	-4.8	-3.1735 ug/L	-3.1735 ppb	17:57:30
3	U 409.014†	449.8	2219.3	9.4619 ug/L	9.4619 ppb	17:57:10
3	V 292.402†	4326.2	6000.2	2.1614 ug/L	2.1614 ppb	17:57:10
3	Zn 213.857†	3504.6	2321.2	62.383 ug/L	62.383 ppb	17:57:30
3	SiO2†	-15.1	-618.5	-55.228 ug/L	-55.228 ppb	17:57:46

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	590803.3	106.07	%	1.181				1.11%
Sc Radial	3412.7	105	%	0.7				0.65%
Y 371.029	547326.8	105.78	%	1.134				1.07%
Y RADIAL	3868.5	106.1	%	0.63				0.59%
Ag 328.068†	-18672.6	2.1284	ug/L	1.50852	2.1284	ppb	1.50852	70.88%
Al 396.153Radial†	-6.4	-6.1465	ug/L	4.10866	-6.1465	ppb	4.10866	66.85%
As 188.979†	-109.6	2.5164	ug/L	4.24722	2.5164	ppb	4.24722	168.78%
B 249.677†	2219.8	13.061	ug/L	0.3743	13.061	ppb	0.3743	2.87%
Ba 233.527†	-1414.6	0.9083	ug/L	0.72167	0.9083	ppb	0.72167	79.45%
Be 313.107†	405.2	0.1780	ug/L	0.02617	0.1780	ppb	0.02617	14.70%
Ca 317.933Radial†	-0.6	-1.3856	ug/L	8.53774	-1.3856	ppb	8.53774	616.19%
Cd 226.502†	2412.4	-1.1760	ug/L	0.62927	-1.1760	ppb	0.62927	53.51%
Co 228.616†	144.1	-0.3774	ug/L	0.67218	-0.3774	ppb	0.67218	178.09%
Cr 267.716†	-343.6	0.9165	ug/L	0.53837	0.9165	ppb	0.53837	58.74%
Cu 324.752†	-4787.8	2.7075	ug/L	0.28842	2.7075	ppb	0.28842	10.65%
Fe 238.204 Radial†	28836.4	387270	ug/L	5628.1	387270	ppb	5628.1	1.45%
K 766.490 Radial†	-249.2	-58.136	ug/L	23.6163	-58.136	ppb	23.6163	40.62%
Mg 279.077 IEC†	10.0	220.56	ug/L	35.083	220.56	ppb	35.083	15.91%
Mn 257.610†	-20297.0	2.5015	ug/L	0.60039	2.5015	ppb	0.60039	24.00%
Mo 202.031†	-255.3	-0.3313	ug/L	3.70503	-0.3313	ppb	3.70503	>999.9%
Na 589.592 Radial†	40.7	19.905	ug/L	13.9416	19.905	ppb	13.9416	70.04%
Ni 231.604†	8.4	0.6446	ug/L	0.83543	0.6446	ppb	0.83543	129.60%
P 214.914†	272.9	-13.228	ug/L	3.7454	-13.228	ppb	3.7454	28.31%
Pb 220.353†	177.3	-0.8002	ug/L	2.05729	-0.8002	ppb	2.05729	257.09%
S 181.975 Axial†	6.5	8.4478	ug/L	5.83563	8.4478	ppb	5.83563	69.08%
Sb 206.836†	-25.2	-1.2041	ug/L	1.62209	-1.2041	ppb	1.62209	134.71%
Se 196.026†	-1001.3	63.613	ug/L	17.5246	63.613	ppb	17.5246	27.55%
Si 251.611†	-572.2	-23.871	ug/L	3.8380	-23.871	ppb	3.8380	16.08%
Sn 189.927†	-26.3	-0.2171	ug/L	1.02803	-0.2171	ppb	1.02803	473.49%
Sr 421.552†	32.6	0.3408	ug/L	0.20293	0.3408	ppb	0.20293	59.54%
Ti 334.940†	49.8	0.0506	ug/L	0.45662	0.0506	ppb	0.45662	901.71%
Tl 190.801†	-1.3	-1.0637	ug/L	2.79465	-1.0637	ppb	2.79465	262.73%

U 409.014†	2209.1	7.9903	ug/L	1.41569	7.9903	ppb	1.41569	17.72%
V 292.402†	6034.1	1.9974	ug/L	0.47004	1.9974	ppb	0.47004	23.53%
Zn 213.857†	2355.4	63.103	ug/L	0.7349	63.103	ppb	0.7349	1.16%
SiO2†	-604.1	-53.946	ug/L	2.8304	-53.946	ppb	2.8304	5.25%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/15/2010 17:59:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3376.8	3376.8	104	%			18:02:10
1	Y RADIAL	3666.6	3666.6	100.6	%			18:01:50
1	Al 396.153Radial†	4380.1	4322.0	5046.0	ug/L	5046.0	ppb	18:01:50
1	Ca 317.933Radial†	2374.3	2269.0	5110.5	ug/L	5110.5	ppb	18:02:10
1	Fe 238.204 Radial†	400.3	379.6	5112.3	ug/L	5112.3	ppb	18:02:10
1	K 766.490 Radial†	24697.5	20544.2	4791.0	ug/L	4791.0	ppb	18:01:50
1	Mg 279.077 IEC†	119.2	114.3	5191.3	ug/L	5191.3	ppb	18:02:10
1	Na 589.592 Radial†	19570.4	19990.7	9768.1	ug/L	9768.1	ppb	18:01:50
1	Sr 421.552†	48596.7	46642.6	487.05	ug/L	487.05	ppb	18:01:50
1	Sc 361.383	571286.5	571286.5	102.56	%			18:03:09
1	Y 371.029	527408.8	527408.8	101.93	%			18:03:09
1	Ag 328.068†	81762.9	79668.1	478.15	ug/L	478.15	ppb	18:03:09
1	As 188.979†	1068.3	1086.2	483.05	ug/L	483.05	ppb	18:03:29
1	B 249.677†	20031.7	20186.4	486.39	ug/L	486.39	ppb	18:03:09
1	Ba 233.527†	33035.9	32213.9	481.83	ug/L	481.83	ppb	18:03:09
1	Be 313.107†	1121067.5	1102617.4	484.63	ug/L	484.63	ppb	18:03:09
1	Cd 226.502†	34834.1	34271.6	476.86	ug/L	476.86	ppb	18:03:29
1	Co 228.616†	13621.4	13371.8	490.76	ug/L	490.76	ppb	18:03:29
1	Cr 267.716†	32853.3	31926.0	481.59	ug/L	481.59	ppb	18:03:09
1	Cu 324.752†	107300.3	98238.5	475.44	ug/L	475.44	ppb	18:03:09
1	Mn 257.610†	257340.3	250288.3	481.90	ug/L	481.90	ppb	18:03:09
1	Mo 202.031†	4709.5	4575.8	485.19	ug/L	485.19	ppb	18:03:29
1	Ni 231.604†	15058.2	14564.3	490.50	ug/L	490.50	ppb	18:03:29
1	P 214.914†	4947.5	4512.6	2301.9	ug/L	2301.9	ppb	18:03:29
1	Pb 220.353†	2714.7	2742.5	486.10	ug/L	486.10	ppb	18:03:29
1	S 181.975 Axial†	830.5	740.7	961.33	ug/L	961.33	ppb	18:03:29
1	Sb 206.836†	1144.4	1058.2	494.60	ug/L	494.60	ppb	18:03:29
1	Se 196.026†	739.2	753.7	492.34	ug/L	492.34	ppb	18:03:29
1	Si 251.611†	58643.3	56610.9	2388.7	ug/L	2388.7	ppb	18:03:09
1	Sn 189.927†	1988.5	1927.0	484.33	ug/L	484.33	ppb	18:03:29
1	Ti 334.940†	183478.0	180873.8	480.05	ug/L	480.05	ppb	18:03:09
1	Tl 190.801†	782.8	822.1	490.02	ug/L	490.02	ppb	18:03:29
1	U 409.014†	7499.1	9112.3	459.56	ug/L	459.56	ppb	18:03:09
1	V 292.402†	52723.8	53378.8	485.92	ug/L	485.92	ppb	18:03:09
1	Zn 213.857†	44786.5	42725.7	476.86	ug/L	476.86	ppb	18:03:09
1	SiO2†	59611.0	57517.7	5193.1	ug/L	5193.1	ppb	18:04:29
2	Sc Radial	3485.0	3485.0	107	%			18:02:35
2	Y RADIAL	3846.9	3846.9	105.5	%			18:02:15
2	Al 396.153Radial†	4559.6	4358.6	5088.8	ug/L	5088.8	ppb	18:02:15
2	Ca 317.933Radial†	2458.0	2276.2	5126.7	ug/L	5126.7	ppb	18:02:35
2	Fe 238.204 Radial†	408.8	375.6	5059.1	ug/L	5059.1	ppb	18:02:35
2	K 766.490 Radial†	25584.9	20634.0	4811.9	ug/L	4811.9	ppb	18:02:15
2	Mg 279.077 IEC†	126.0	117.1	5317.5	ug/L	5317.5	ppb	18:02:35
2	Na 589.592 Radial†	20339.3	20123.0	9832.7	ug/L	9832.7	ppb	18:02:15
2	Sr 421.552†	50755.5	47203.3	492.91	ug/L	492.91	ppb	18:02:15
2	Sc 361.383	572910.7	572910.7	102.85	%			18:03:36
2	Y 371.029	528307.6	528307.6	102.11	%			18:03:36
2	Ag 328.068†	82794.4	80444.9	482.77	ug/L	482.77	ppb	18:03:36
2	As 188.979†	1080.6	1095.2	487.03	ug/L	487.03	ppb	18:03:56
2	B 249.677†	20384.2	20473.7	493.34	ug/L	493.34	ppb	18:03:36
2	Ba 233.527†	33410.2	32486.5	485.90	ug/L	485.90	ppb	18:03:36
2	Be 313.107†	1130507.3	1108696.5	487.30	ug/L	487.30	ppb	18:03:36
2	Cd 226.502†	35017.8	34353.8	478.01	ug/L	478.01	ppb	18:03:56
2	Co 228.616†	13698.0	13408.6	492.11	ug/L	492.11	ppb	18:03:56
2	Cr 267.716†	33106.5	32081.3	483.92	ug/L	483.92	ppb	18:03:36
2	Cu 324.752†	108445.6	99055.5	479.38	ug/L	479.38	ppb	18:03:36
2	Mn 257.610†	260081.2	252241.8	485.65	ug/L	485.65	ppb	18:03:36
2	Mo 202.031†	4749.6	4601.8	487.94	ug/L	487.94	ppb	18:03:56
2	Ni 231.604†	15129.0	14591.6	491.42	ug/L	491.42	ppb	18:03:56

2	P 214.914†	4975.1	4525.8	2308.0 ug/L	2308.0 ppb	18:03:56
2	Pb 220.353†	2740.1	2759.7	489.15 ug/L	489.15 ppb	18:03:56
2	S 181.975 Axial†	829.8	737.8	957.50 ug/L	957.50 ppb	18:03:56
2	Sb 206.836†	1158.1	1068.4	499.26 ug/L	499.26 ppb	18:03:56
2	Se 196.026†	739.8	752.2	491.32 ug/L	491.32 ppb	18:03:56
2	Si 251.611†	59291.8	57079.4	2408.5 ug/L	2408.5 ppb	18:03:36
2	Sn 189.927†	1996.5	1929.2	484.89 ug/L	484.89 ppb	18:03:56
2	Ti 334.940†	185752.5	182578.1	484.56 ug/L	484.56 ppb	18:03:36
2	Tl 190.801†	789.3	826.3	492.54 ug/L	492.54 ppb	18:03:56
2	U 409.014†	7839.9	9422.9	475.31 ug/L	475.31 ppb	18:03:36
2	V 292.402†	53256.7	53751.1	489.34 ug/L	489.34 ppb	18:03:36
2	Zn 213.857†	45341.5	43141.6	481.52 ug/L	481.52 ppb	18:03:36
2	SiO2†	59502.1	57247.1	5168.5 ug/L	5168.5 ppb	18:04:34
3	Sc Radial	3419.0	3419.0	105 %		18:03:00
3	Y RADIAL	3857.0	3857.0	105.8 %		18:02:40
3	Al 396.153Radial†	4526.6	4409.1	5147.9 ug/L	5147.9 ppb	18:02:40
3	Ca 317.933Radial†	2378.0	2244.4	5055.1 ug/L	5055.1 ppb	18:03:00
3	Fe 238.204 Radial†	397.3	372.0	5010.0 ug/L	5010.0 ppb	18:03:00
3	K 766.490 Radial†	25493.2	21006.1	4898.7 ug/L	4898.7 ppb	18:02:40
3	Mg 279.077 IEC†	126.1	119.4	5421.7 ug/L	5421.7 ppb	18:03:00
3	Na 589.592 Radial†	20083.2	20245.0	9892.3 ug/L	9892.3 ppb	18:02:40
3	Sr 421.552†	50494.5	47866.5	499.84 ug/L	499.84 ppb	18:02:40
3	Sc 361.383	573382.0	573382.0	102.94 %		18:04:03
3	Y 371.029	528556.0	528556.0	102.15 %		18:04:03
3	Ag 328.068†	82708.1	80295.0	481.86 ug/L	481.86 ppb	18:04:03
3	As 188.979†	1079.0	1092.8	485.96 ug/L	485.96 ppb	18:04:24
3	B 249.677†	20433.8	20505.6	494.11 ug/L	494.11 ppb	18:04:03
3	Ba 233.527†	33335.6	32387.3	484.42 ug/L	484.42 ppb	18:04:03
3	Be 313.107†	1128542.3	1105884.1	486.07 ug/L	486.07 ppb	18:04:03
3	Cd 226.502†	35033.8	34341.4	477.84 ug/L	477.84 ppb	18:04:24
3	Co 228.616†	13726.0	13424.9	492.71 ug/L	492.71 ppb	18:04:24
3	Cr 267.716†	33166.3	32113.0	484.40 ug/L	484.40 ppb	18:04:03
3	Cu 324.752†	108535.6	99056.2	479.38 ug/L	479.38 ppb	18:04:03
3	Mn 257.610†	259934.9	251891.8	484.96 ug/L	484.96 ppb	18:04:03
3	Mo 202.031†	4757.9	4606.1	488.39 ug/L	488.39 ppb	18:04:24
3	Ni 231.604†	15158.8	14608.4	491.99 ug/L	491.99 ppb	18:04:24
3	P 214.914†	4991.3	4537.6	2314.4 ug/L	2314.4 ppb	18:04:24
3	Pb 220.353†	2715.1	2733.2	484.49 ug/L	484.49 ppb	18:04:24
3	S 181.975 Axial†	838.7	745.8	967.91 ug/L	967.91 ppb	18:04:24
3	Sb 206.836†	1163.7	1072.9	501.27 ug/L	501.27 ppb	18:04:24
3	Se 196.026†	737.1	749.0	489.18 ug/L	489.18 ppb	18:04:24
3	Si 251.611†	59279.8	57020.3	2406.0 ug/L	2406.0 ppb	18:04:03
3	Sn 189.927†	1994.0	1925.2	483.87 ug/L	483.87 ppb	18:04:24
3	Ti 334.940†	185434.6	182120.8	483.33 ug/L	483.33 ppb	18:04:03
3	Tl 190.801†	791.7	828.0	493.54 ug/L	493.54 ppb	18:04:24
3	U 409.014†	7876.0	9451.7	476.78 ug/L	476.78 ppb	18:04:03
3	V 292.402†	53359.0	53807.9	489.87 ug/L	489.87 ppb	18:04:03
3	Zn 213.857†	45237.9	43004.6	479.97 ug/L	479.97 ppb	18:04:03
3	SiO2†	60562.7	58229.8	5257.5 ug/L	5257.5 ppb	18:04:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	572526.4	102.78	%	0.197				0.19%
Sc Radial	3426.9	106	%	1.7				1.59%
Y 371.029	528090.8	102.06	%	0.117				0.11%
Y RADIAL	3790.2	104.0	%	2.94				2.83%
Ag 328.068†	80136.0	480.93	ug/L	2.447	480.93	ppb	2.447	0.51%
QC value within limits for Ag 328.068 Recovery = 96.19%								
Al 396.153Radial†	4363.2	5094.2	ug/L	51.18	5094.2	ppb	51.18	1.00%
QC value within limits for Al 396.153Radial Recovery = 101.88%								
As 188.979†	1091.4	485.35	ug/L	2.065	485.35	ppb	2.065	0.43%
QC value within limits for As 188.979 Recovery = 97.07%								
B 249.677†	20388.6	491.28	ug/L	4.255	491.28	ppb	4.255	0.87%
QC value within limits for B 249.677 Recovery = 98.26%								
Ba 233.527†	32362.5	484.05	ug/L	2.060	484.05	ppb	2.060	0.43%
QC value within limits for Ba 233.527 Recovery = 96.81%								
Be 313.107†	1105732.7	486.00	ug/L	1.339	486.00	ppb	1.339	0.28%
QC value within limits for Be 313.107 Recovery = 97.20%								
Ca 317.933Radial†	2263.2	5097.4	ug/L	37.54	5097.4	ppb	37.54	0.74%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.95%
Cd 226.502†            34322.3      477.57 ug/L         0.623      477.57 ppb          0.623   0.13%
   QC value within limits for Cd 226.502  Recovery = 95.51%
Co 228.616†            13401.8      491.86 ug/L         0.999      491.86 ppb          0.999   0.20%
   QC value within limits for Co 228.616  Recovery = 98.37%
Cr 267.716†            32040.1      483.30 ug/L         1.506      483.30 ppb          1.506   0.31%
   QC value within limits for Cr 267.716  Recovery = 96.66%
Cu 324.752†            98783.4      478.06 ug/L         2.275      478.06 ppb          2.275   0.48%
   QC value within limits for Cu 324.752  Recovery = 95.61%
Fe 238.204 Radial†       375.7      5060.5 ug/L        51.13      5060.5 ppb         51.13   1.01%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.21%
K 766.490 Radial†      20728.1      4833.9 ug/L        57.15      4833.9 ppb         57.15   1.18%
   QC value within limits for K 766.490 Radial  Recovery = 96.68%
Mg 279.077 IEC†          116.9      5310.2 ug/L       115.35      5310.2 ppb        115.35   2.17%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.20%
Mn 257.610†           251474.0      484.17 ug/L         1.996      484.17 ppb          1.996   0.41%
   QC value within limits for Mn 257.610  Recovery = 96.83%
Mo 202.031†             4594.6      487.17 ug/L         1.733      487.17 ppb          1.733   0.36%
   QC value within limits for Mo 202.031  Recovery = 97.43%
Na 589.592 Radial†     20119.6      9831.0 ug/L        62.14      9831.0 ppb         62.14   0.63%
   QC value within limits for Na 589.592 Radial  Recovery = 98.31%
Ni 231.604†            14588.1      491.30 ug/L         0.750      491.30 ppb          0.750   0.15%
   QC value within limits for Ni 231.604  Recovery = 98.26%
P 214.914†              4525.3      2308.1 ug/L         6.23      2308.1 ppb          6.23   0.27%
   QC value within limits for P 214.914  Recovery = 92.32%
Pb 220.353†             2745.1      486.58 ug/L         2.366      486.58 ppb          2.366   0.49%
   QC value within limits for Pb 220.353  Recovery = 97.32%
S 181.975 Axial†         741.4      962.25 ug/L         5.262      962.25 ppb          5.262   0.55%
   QC value within limits for S 181.975 Axial  Recovery = 96.22%
Sb 206.836†             1066.5      498.38 ug/L         3.425      498.38 ppb          3.425   0.69%
   QC value within limits for Sb 206.836  Recovery = 99.68%
Se 196.026†              751.7      490.94 ug/L         1.611      490.94 ppb          1.611   0.33%
   QC value within limits for Se 196.026  Recovery = 98.19%
Si 251.611†            56903.5      2401.1 ug/L        10.77      2401.1 ppb         10.77   0.45%
   QC value within limits for Si 251.611  Recovery = 96.04%
Sn 189.927†             1927.1      484.36 ug/L         0.508      484.36 ppb          0.508   0.10%
   QC value within limits for Sn 189.927  Recovery = 96.87%
Sr 421.552†            47237.5      493.27 ug/L         6.398      493.27 ppb          6.398   1.30%
   QC value within limits for Sr 421.552  Recovery = 98.65%
Ti 334.940†           181857.5      482.65 ug/L         2.331      482.65 ppb          2.331   0.48%
   QC value within limits for Ti 334.940  Recovery = 96.53%
Tl 190.801†              825.4      492.03 ug/L         1.816      492.03 ppb          1.816   0.37%
   QC value within limits for Tl 190.801  Recovery = 98.41%
U 409.014†              9329.0      470.55 ug/L         9.551      470.55 ppb          9.551   2.03%
   QC value within limits for U 409.014  Recovery = 94.11%
V 292.402†             53646.0      488.38 ug/L         2.142      488.38 ppb          2.142   0.44%
   QC value within limits for V 292.402  Recovery = 97.68%
Zn 213.857†            42957.3      479.45 ug/L         2.372      479.45 ppb          2.372   0.49%
   QC value within limits for Zn 213.857  Recovery = 95.89%
SiO2†                  57664.8      5206.4 ug/L        45.93      5206.4 ppb         45.93   0.88%
   QC value within limits for SiO2  Recovery = 97.36%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/15/2010 18:06:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3342.2	3342.2	103	%			18:09:01
1	Y RADIAL	3793.6	3793.6	104.1	%			18:08:41
1	Al 396.153Radial†	-100.5	17.7	20.664	ug/L	20.664	ppb	18:08:41
1	Ca 317.933Radial†	14.0	2.2	4.9730	ug/L	4.9730	ppb	18:09:01
1	Fe 238.204 Radial†	5.1	0.1	1.6350	ug/L	1.6350	ppb	18:09:01
1	K 766.490 Radial†	3258.8	-14.1	-3.3070	ug/L	-3.3070	ppb	18:08:41
1	Mg 279.077 IEC†	0.7	0.5	22.110	ug/L	22.110	ppb	18:09:01
1	Na 589.592 Radial†	-1190.6	39.0	19.062	ug/L	19.062	ppb	18:08:41
1	Sr 421.552†	22.1	-10.5	-0.1101	ug/L	-0.1101	ppb	18:08:41
1	Sc 361.383	567029.8	567029.8	101.80	%			18:09:58
1	Y 371.029	527463.4	527463.4	101.94	%			18:09:58
1	Ag 328.068†	-3.7	-56.3	-0.3371	ug/L	-0.3371	ppb	18:09:58
1	As 188.979†	-36.3	8.9	3.9405	ug/L	3.9405	ppb	18:10:18
1	B 249.677†	68.1	721.9	17.464	ug/L	17.464	ppb	18:09:58
1	Ba 233.527†	-0.6	2.6	0.0376	ug/L	0.0376	ppb	18:10:18
1	Be 313.107†	-9599.6	121.0	0.0531	ug/L	0.0531	ppb	18:09:58
1	Cd 226.502†	-296.0	16.7	0.2323	ug/L	0.2323	ppb	18:10:18
1	Co 228.616†	-99.5	-7.1	-0.2593	ug/L	-0.2593	ppb	18:10:18
1	Cr 267.716†	162.3	52.7	0.7934	ug/L	0.7934	ppb	18:09:58
1	Cu 324.752†	6480.1	-16.1	-0.0783	ug/L	-0.0783	ppb	18:09:58
1	Mn 257.610†	626.3	-9.2	-0.0183	ug/L	-0.0183	ppb	18:09:58
1	Mo 202.031†	27.2	10.7	1.1333	ug/L	1.1333	ppb	18:10:18
1	Ni 231.604†	140.5	20.3	0.6842	ug/L	0.6842	ppb	18:10:18
1	P 214.914†	314.4	-2.5	-1.2730	ug/L	-1.2730	ppb	18:10:18
1	Pb 220.353†	-72.3	24.5	4.3377	ug/L	4.3377	ppb	18:10:18
1	S 181.975 Axial†	64.3	-5.8	-7.5655	ug/L	-7.5655	ppb	18:10:18
1	Sb 206.836†	61.9	3.2	1.5299	ug/L	1.5299	ppb	18:10:18
1	Se 196.026†	-32.6	1.0	0.6360	ug/L	0.6360	ppb	18:10:18
1	Si 251.611†	583.8	5.9	0.2361	ug/L	0.2361	ppb	18:10:18
1	Sn 189.927†	23.2	10.9	2.7365	ug/L	2.7365	ppb	18:10:18
1	Ti 334.940†	-2002.4	11.6	0.0294	ug/L	0.0294	ppb	18:09:58
1	Tl 190.801†	-57.6	2.3	1.3628	ug/L	1.3628	ppb	18:10:18
1	U 409.014†	-1835.7	-2.7	-0.1413	ug/L	-0.1413	ppb	18:09:58
1	V 292.402†	-2061.8	-53.5	-0.4648	ug/L	-0.4648	ppb	18:09:58
1	Zn 213.857†	1004.8	45.0	0.5012	ug/L	0.5012	ppb	18:10:18
1	SiO2†	631.8	16.3	1.4426	ug/L	1.4426	ppb	18:11:14
2	Sc Radial	3371.2	3371.2	104	%			18:09:26
2	Y RADIAL	3707.6	3707.6	101.7	%			18:09:06
2	Al 396.153Radial†	-109.1	10.2	11.932	ug/L	11.932	ppb	18:09:06
2	Ca 317.933Radial†	13.7	1.8	4.0847	ug/L	4.0847	ppb	18:09:26
2	Fe 238.204 Radial†	5.6	0.5	6.9095	ug/L	6.9095	ppb	18:09:26
2	K 766.490 Radial†	3243.6	-55.9	-13.068	ug/L	-13.068	ppb	18:09:06
2	Mg 279.077 IEC†	2.2	2.0	89.511	ug/L	89.511	ppb	18:09:26
2	Na 589.592 Radial†	-1184.7	54.6	26.657	ug/L	26.657	ppb	18:09:06
2	Sr 421.552†	74.3	39.4	0.4118	ug/L	0.4118	ppb	18:09:06
2	Sc 361.383	578293.1	578293.1	103.82	%			18:10:24
2	Y 371.029	537695.1	537695.1	103.92	%			18:10:24
2	Ag 328.068†	39.2	-14.8	-0.0854	ug/L	-0.0854	ppb	18:10:24
2	As 188.979†	-39.5	6.6	2.9036	ug/L	2.9036	ppb	18:10:44
2	B 249.677†	-2.1	653.0	15.796	ug/L	15.796	ppb	18:10:24
2	Ba 233.527†	-4.9	-1.6	-0.0229	ug/L	-0.0229	ppb	18:10:44
2	Be 313.107†	-9530.9	370.8	0.1631	ug/L	0.1631	ppb	18:10:24
2	Cd 226.502†	-312.1	6.9	0.0955	ug/L	0.0955	ppb	18:10:44
2	Co 228.616†	-98.2	-3.9	-0.1426	ug/L	-0.1426	ppb	18:10:44
2	Cr 267.716†	165.1	52.2	0.7876	ug/L	0.7876	ppb	18:10:24
2	Cu 324.752†	6531.2	-90.8	-0.4393	ug/L	-0.4393	ppb	18:10:24
2	Mn 257.610†	539.7	-104.5	-0.2040	ug/L	-0.2040	ppb	18:10:24
2	Mo 202.031†	26.9	9.9	1.0447	ug/L	1.0447	ppb	18:10:44
2	Ni 231.604†	133.4	10.7	0.3615	ug/L	0.3615	ppb	18:10:44

2	P 214.914†	302.8	-19.6	-10.369 ug/L	-10.369 ppb	18:10:44
2	Pb 220.353†	-96.4	2.7	0.4811 ug/L	0.4811 ppb	18:10:44
2	S 181.975 Axial†	58.8	-12.3	-16.014 ug/L	-16.014 ppb	18:10:44
2	Sb 206.836†	59.6	-0.2	-0.0368 ug/L	-0.0368 ppb	18:10:44
2	Se 196.026†	-27.3	6.7	4.2757 ug/L	4.2757 ppb	18:10:44
2	Si 251.611†	580.2	-8.8	-0.3835 ug/L	-0.3835 ppb	18:10:44
2	Sn 189.927†	19.5	6.9	1.7237 ug/L	1.7237 ppb	18:10:44
2	Ti 334.940†	-1968.0	83.0	0.2140 ug/L	0.2140 ppb	18:10:24
2	Tl 190.801†	-53.5	7.3	4.3097 ug/L	4.3097 ppb	18:10:44
2	U 409.014†	-1884.2	-14.4	-0.7314 ug/L	-0.7314 ppb	18:10:24
2	V 292.402†	-2030.0	16.6	0.1626 ug/L	0.1626 ppb	18:10:24
2	Zn 213.857†	976.8	-1.3	-0.0152 ug/L	-0.0152 ppb	18:10:44
2	SiO2†	625.9	-1.6	-0.1705 ug/L	-0.1705 ppb	18:11:19
3	Sc Radial	3338.8	3338.8	103 %		18:09:51
3	Y RADIAL	3764.7	3764.7	103.3 %		18:09:31
3	Al 396.153Radial†	-118.8	-0.2	-0.3359 ug/L	-0.3359 ppb	18:09:31
3	Ca 317.933Radial†	15.2	3.4	7.5770 ug/L	7.5770 ppb	18:09:51
3	Fe 238.204 Radial†	2.3	-2.6	-35.310 ug/L	-35.310 ppb	18:09:51
3	K 766.490 Radial†	3265.9	-4.0	-0.9483 ug/L	-0.9483 ppb	18:09:31
3	Mg 279.077 IEC†	5.1	4.8	217.45 ug/L	217.45 ppb	18:09:51
3	Na 589.592 Radial†	-1220.4	8.9	4.3351 ug/L	4.3351 ppb	18:09:31
3	Sr 421.552†	4.7	-27.5	-0.2869 ug/L	-0.2869 ppb	18:09:31
3	Sc 361.383	558745.4	558745.4	100.31 %		18:10:49
3	Y 371.029	519331.1	519331.1	100.37 %		18:10:49
3	Ag 328.068†	71.2	18.4	0.0958 ug/L	0.0958 ppb	18:10:49
3	As 188.979†	-43.1	1.6	0.6904 ug/L	0.6904 ppb	18:11:09
3	B 249.677†	77.3	732.1	17.713 ug/L	17.713 ppb	18:10:49
3	Ba 233.527†	-14.9	-11.7	-0.1775 ug/L	-0.1775 ppb	18:11:09
3	Be 313.107†	-9448.3	132.1	0.0573 ug/L	0.0573 ppb	18:10:49
3	Cd 226.502†	-295.4	13.0	0.1850 ug/L	0.1850 ppb	18:11:09
3	Co 228.616†	-90.6	0.3	0.0143 ug/L	0.0143 ppb	18:11:09
3	Cr 267.716†	200.2	92.8	1.3962 ug/L	1.3962 ppb	18:10:49
3	Cu 324.752†	6411.6	10.1	0.0444 ug/L	0.0444 ppb	18:10:49
3	Mn 257.610†	605.2	-21.0	-0.0531 ug/L	-0.0531 ppb	18:10:49
3	Mo 202.031†	32.0	15.9	1.6821 ug/L	1.6821 ppb	18:11:09
3	Ni 231.604†	130.0	11.9	0.4003 ug/L	0.4003 ppb	18:11:09
3	P 214.914†	322.7	10.4	5.5582 ug/L	5.5582 ppb	18:11:09
3	Pb 220.353†	-81.8	14.0	2.4778 ug/L	2.4778 ppb	18:11:09
3	S 181.975 Axial†	65.8	-3.4	-4.4260 ug/L	-4.4260 ppb	18:11:09
3	Sb 206.836†	53.8	-4.0	-1.7486 ug/L	-1.7486 ppb	18:11:09
3	Se 196.026†	-30.0	3.0	1.8726 ug/L	1.8726 ppb	18:11:09
3	Si 251.611†	574.8	5.5	0.2101 ug/L	0.2101 ppb	18:11:09
3	Sn 189.927†	12.9	1.0	0.2540 ug/L	0.2540 ppb	18:11:09
3	Ti 334.940†	-2083.1	-98.1	-0.2774 ug/L	-0.2774 ppb	18:10:49
3	Tl 190.801†	-58.9	0.1	0.0445 ug/L	0.0445 ppb	18:11:09
3	U 409.014†	-1764.6	41.4	2.1046 ug/L	2.1046 ppb	18:10:49
3	V 292.402†	-2024.9	-46.8	-0.3831 ug/L	-0.3831 ppb	18:10:49
3	Zn 213.857†	963.1	18.0	0.1963 ug/L	0.1963 ppb	18:11:09
3	SiO2†	605.1	-1.2	-0.1523 ug/L	-0.1523 ppb	18:11:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	568022.8	101.98	%	1.761				1.73%
Sc Radial	3350.7	103	%	0.5				0.53%
Y 371.029	528163.2	102.08	%	1.778				1.74%
Y RADIAL	3755.3	103.0	%	1.20				1.17%
Ag 328.068†	-17.6	-0.1089	ug/L	0.21737	-0.1089	ppb	0.21737	199.65%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.2	10.753	ug/L	10.5495	10.753	ppb	10.5495	98.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.7	2.5115	ug/L	1.66013	2.5115	ppb	1.66013	66.10%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	702.3	16.991	ug/L	1.0424	16.991	ppb	1.0424	6.13%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.6	-0.0543	ug/L	0.11096	-0.0543	ppb	0.11096	204.40%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	208.0	0.0912	ug/L	0.06233	0.0912	ppb	0.06233	68.35%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.5	5.5449	ug/L	1.81501	5.5449	ppb	1.81501	32.73%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                12.2      0.1710 ug/L       0.06947      0.1710 ppb        0.06947  40.64%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -3.6     -0.1292 ug/L       0.13733     -0.1292 ppb        0.13733 106.28%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                65.9      0.9924 ug/L       0.34974      0.9924 ppb        0.34974  35.24%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -32.3     -0.1577 ug/L       0.25147     -0.1577 ppb        0.25147 159.42%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.7     -8.9218 ug/L      23.00448     -8.9218 ppb       23.00448 257.84%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -24.7     -5.7744 ug/L       6.42565     -5.7744 ppb        6.42565 111.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.4      109.69 ug/L        99.222      109.69 ppb         99.222  90.46%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -44.9     -0.0918 ug/L       0.09873     -0.0918 ppb        0.09873 107.52%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.2      1.2867 ug/L       0.34529      1.2867 ppb        0.34529  26.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         34.1      16.685 ug/L       11.3493      16.685 ppb        11.3493  68.02%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                14.3      0.4820 ug/L       0.17617      0.4820 ppb        0.17617  36.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.9     -2.0280 ug/L       7.99048     -2.0280 ppb        7.99048 394.01%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                13.7      2.4322 ug/L       1.92874      2.4322 ppb        1.92874  79.30%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -7.2     -9.3350 ug/L       5.99304     -9.3350 ppb        5.99304  64.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.3     -0.0852 ug/L       1.63979     -0.0852 ppb        1.63979 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.6      2.2614 ug/L       1.85072      2.2614 ppb        1.85072  81.84%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 0.9      0.0209 ug/L       0.35049      0.0209 ppb        0.35049 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.3      1.5714 ug/L       1.24824      1.5714 ppb        1.24824  79.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 0.5      0.0049 ug/L       0.36329      0.0049 ppb        0.36329 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -1.2     -0.0113 ug/L       0.24825     -0.0113 ppb        0.24825 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.2      1.9057 ug/L       2.18380      1.9057 ppb        2.18380 114.60%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  8.1      0.4107 ug/L       1.49640      0.4107 ppb        1.49640 364.39%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -27.9     -0.2284 ug/L       0.34111     -0.2284 ppb        0.34111 149.32%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                20.6      0.2274 ug/L       0.25959      0.2274 ppb        0.25959 114.14%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       4.5      0.3733 ug/L       0.92613      0.3733 ppb        0.92613 248.10%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/15/2010 19:08:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3354.0	3354.0	103	%			19:11:04
1	Y RADIAL	3789.0	3789.0	104.0	%			19:10:44
1	Al 396.153Radial†	4434.7	4403.6	5141.7	ug/L	5141.7	ppb	19:10:44
1	Ca 317.933Radial†	2302.3	2214.9	4988.7	ug/L	4988.7	ppb	19:11:04
1	Fe 238.204 Radial†	388.9	371.2	4999.7	ug/L	4999.7	ppb	19:11:04
1	K 766.490 Radial†	25098.7	21093.8	4919.1	ug/L	4919.1	ppb	19:10:44
1	Mg 279.077 IEC†	114.0	110.1	4999.0	ug/L	4999.0	ppb	19:11:04
1	Na 589.592 Radial†	20293.2	20817.7	10172	ug/L	10172	ppb	19:10:44
1	Sr 421.552†	49543.2	47875.9	499.93	ug/L	499.93	ppb	19:10:44
1	Sc 361.383	577117.3	577117.3	103.61	%			19:12:02
1	Y 371.029	532490.0	532490.0	102.91	%			19:12:02
1	Ag 328.068†	82213.9	79297.9	475.90	ug/L	475.90	ppb	19:12:02
1	As 188.979†	1087.0	1093.8	486.35	ug/L	486.35	ppb	19:12:23
1	B 249.677†	19697.0	19666.0	473.81	ug/L	473.81	ppb	19:12:02
1	Ba 233.527†	33197.8	32044.7	479.30	ug/L	479.30	ppb	19:12:02
1	Be 313.107†	1125267.6	1095627.6	481.56	ug/L	481.56	ppb	19:12:02
1	Cd 226.502†	35122.4	34206.6	475.97	ug/L	475.97	ppb	19:12:23
1	Co 228.616†	13706.3	13319.6	488.85	ug/L	488.85	ppb	19:12:23
1	Cr 267.716†	33066.8	31808.3	479.81	ug/L	479.81	ppb	19:12:02
1	Cu 324.752†	107539.3	97412.2	471.42	ug/L	471.42	ppb	19:12:02
1	Mn 257.610†	258206.8	248589.5	478.63	ug/L	478.63	ppb	19:12:02
1	Mo 202.031†	4741.4	4560.3	483.53	ug/L	483.53	ppb	19:12:23
1	Ni 231.604†	15149.6	14504.2	488.48	ug/L	488.48	ppb	19:12:23
1	P 214.914†	4966.9	4482.6	2286.8	ug/L	2286.8	ppb	19:12:23
1	Pb 220.353†	2741.4	2741.5	485.95	ug/L	485.95	ppb	19:12:23
1	S 181.975 Axial†	861.7	762.7	989.90	ug/L	989.90	ppb	19:12:23
1	Sb 206.836†	1147.9	1050.3	490.92	ug/L	490.92	ppb	19:12:23
1	Se 196.026†	756.8	763.4	498.32	ug/L	498.32	ppb	19:12:23
1	Si 251.611†	59131.7	56504.6	2384.2	ug/L	2384.2	ppb	19:12:02
1	Sn 189.927†	1982.6	1901.6	477.95	ug/L	477.95	ppb	19:12:23
1	Ti 334.940†	184129.4	179695.1	476.92	ug/L	476.92	ppb	19:12:02
1	Tl 190.801†	784.8	816.3	486.60	ug/L	486.60	ppb	19:12:23
1	U 409.014†	7761.4	9291.5	468.68	ug/L	468.68	ppb	19:12:02
1	V 292.402†	53150.2	53270.9	484.96	ug/L	484.96	ppb	19:12:02
1	Zn 213.857†	45081.7	42569.4	475.11	ug/L	475.11	ppb	19:12:02
1	SiO2†	63006.0	60207.2	5436.6	ug/L	5436.6	ppb	19:13:23
2	Sc Radial	3342.3	3342.3	103	%			19:11:29
2	Y RADIAL	3778.0	3778.0	103.6	%			19:11:09
2	Al 396.153Radial†	4426.9	4410.9	5150.2	ug/L	5150.2	ppb	19:11:09
2	Ca 317.933Radial†	2304.9	2225.3	5012.0	ug/L	5012.0	ppb	19:11:29
2	Fe 238.204 Radial†	392.7	376.2	5067.2	ug/L	5067.2	ppb	19:11:29
2	K 766.490 Radial†	25127.9	21206.7	4945.4	ug/L	4945.4	ppb	19:11:09
2	Mg 279.077 IEC†	116.7	113.0	5133.1	ug/L	5133.1	ppb	19:11:29
2	Na 589.592 Radial†	20310.6	20903.0	10214	ug/L	10214	ppb	19:11:09
2	Sr 421.552†	49811.7	48303.4	504.40	ug/L	504.40	ppb	19:11:09
2	Sc 361.383	575125.9	575125.9	103.25	%			19:12:30
2	Y 371.029	529876.3	529876.3	102.41	%			19:12:30
2	Ag 328.068†	81901.1	79269.7	475.75	ug/L	475.75	ppb	19:12:30
2	As 188.979†	1075.8	1086.5	483.15	ug/L	483.15	ppb	19:12:50
2	B 249.677†	19557.1	19596.3	472.11	ug/L	472.11	ppb	19:12:30
2	Ba 233.527†	33173.7	32132.3	480.61	ug/L	480.61	ppb	19:12:30
2	Be 313.107†	1120371.8	1094646.6	481.13	ug/L	481.13	ppb	19:12:30
2	Cd 226.502†	35185.2	34384.8	478.44	ug/L	478.44	ppb	19:12:50
2	Co 228.616†	13734.2	13392.4	491.52	ug/L	491.52	ppb	19:12:50
2	Cr 267.716†	33058.3	31910.7	481.35	ug/L	481.35	ppb	19:12:30
2	Cu 324.752†	107221.4	97463.7	471.68	ug/L	471.68	ppb	19:12:30
2	Mn 257.610†	257950.4	249204.1	479.81	ug/L	479.81	ppb	19:12:30
2	Mo 202.031†	4748.3	4582.8	485.92	ug/L	485.92	ppb	19:12:50
2	Ni 231.604†	15165.1	14569.8	490.69	ug/L	490.69	ppb	19:12:50

2	P 214.914†	5007.4	4538.4	2316.6	ug/L	2316.6 ppb	19:12:50
2	Pb 220.353†	2746.6	2755.7	488.47	ug/L	488.47 ppb	19:12:50
2	S 181.975 Axial†	854.9	758.9	984.97	ug/L	984.97 ppb	19:12:50
2	Sb 206.836†	1162.2	1068.1	499.10	ug/L	499.10 ppb	19:12:50
2	Se 196.026†	738.2	747.9	488.56	ug/L	488.56 ppb	19:12:50
2	Si 251.611†	58874.7	56453.3	2382.0	ug/L	2382.0 ppb	19:12:30
2	Sn 189.927†	2009.5	1934.4	486.18	ug/L	486.18 ppb	19:12:50
2	Ti 334.940†	183751.7	179944.6	477.58	ug/L	477.58 ppb	19:12:30
2	Tl 190.801†	791.7	825.7	492.12	ug/L	492.12 ppb	19:12:50
2	U 409.014†	7609.1	9170.1	462.50	ug/L	462.50 ppb	19:12:30
2	V 292.402†	52857.8	53165.4	484.03	ug/L	484.03 ppb	19:12:30
2	Zn 213.857†	45059.8	42698.9	476.56	ug/L	476.56 ppb	19:12:30
2	SiO2†	61481.1	58940.9	5321.9	ug/L	5321.9 ppb	19:13:28
3	Sc Radial	3353.9	3353.9	103	%		19:11:54
3	Y RADIAL	3722.0	3722.0	102.1	%		19:11:34
3	Al 396.153Radial†	4333.3	4305.5	5026.8	ug/L	5026.8 ppb	19:11:34
3	Ca 317.933Radial†	2313.1	2225.5	5012.4	ug/L	5012.4 ppb	19:11:54
3	Fe 238.204 Radial†	391.0	373.3	5027.5	ug/L	5027.5 ppb	19:11:54
3	K 766.490 Radial†	24656.9	20667.1	4819.6	ug/L	4819.6 ppb	19:11:34
3	Mg 279.077 IEC†	115.9	111.9	5082.3	ug/L	5082.3 ppb	19:11:54
3	Na 589.592 Radial†	19643.6	20189.9	9865.4	ug/L	9865.4 ppb	19:11:34
3	Sr 421.552†	48604.9	46969.6	490.47	ug/L	490.47 ppb	19:11:34
3	Sc 361.383	602186.5	602186.5	108.11	%		19:12:57
3	Y 371.029	554661.2	554661.2	107.20	%		19:12:57
3	Ag 328.068†	85861.4	79368.4	476.33	ug/L	476.33 ppb	19:12:57
3	As 188.979†	1127.1	1087.2	483.47	ug/L	483.47 ppb	19:13:17
3	B 249.677†	20744.8	19843.8	478.12	ug/L	478.12 ppb	19:12:57
3	Ba 233.527†	34744.6	32141.6	480.74	ug/L	480.74 ppb	19:12:57
3	Be 313.107†	1172690.4	1094279.6	480.97	ug/L	480.97 ppb	19:12:57
3	Cd 226.502†	36412.4	33988.7	472.93	ug/L	472.93 ppb	19:13:17
3	Co 228.616†	14268.3	13288.7	487.71	ug/L	487.71 ppb	19:13:17
3	Cr 267.716†	34375.2	31690.0	478.02	ug/L	478.02 ppb	19:12:57
3	Cu 324.752†	112888.0	98038.7	474.46	ug/L	474.46 ppb	19:12:57
3	Mn 257.610†	270273.1	249375.9	480.14	ug/L	480.14 ppb	19:12:57
3	Mo 202.031†	4928.7	4543.0	481.70	ug/L	481.70 ppb	19:13:17
3	Ni 231.604†	15754.0	14454.5	486.80	ug/L	486.80 ppb	19:13:17
3	P 214.914†	5174.3	4474.9	2282.0	ug/L	2282.0 ppb	19:13:17
3	Pb 220.353†	2867.9	2748.4	487.13	ug/L	487.13 ppb	19:13:17
3	S 181.975 Axial†	887.5	752.0	975.93	ug/L	975.93 ppb	19:13:17
3	Sb 206.836†	1200.4	1052.7	492.02	ug/L	492.02 ppb	19:13:17
3	Se 196.026†	788.3	762.1	497.54	ug/L	497.54 ppb	19:13:17
3	Si 251.611†	61803.7	56600.3	2388.3	ug/L	2388.3 ppb	19:12:57
3	Sn 189.927†	2083.6	1915.4	481.41	ug/L	481.41 ppb	19:13:17
3	Ti 334.940†	192793.6	180311.0	478.55	ug/L	478.55 ppb	19:12:57
3	Tl 190.801†	828.4	825.1	491.79	ug/L	491.79 ppb	19:13:17
3	U 409.014†	8123.8	9314.9	469.86	ug/L	469.86 ppb	19:12:57
3	V 292.402†	55370.2	53188.8	484.20	ug/L	484.20 ppb	19:12:57
3	Zn 213.857†	47025.5	42556.1	474.97	ug/L	474.97 ppb	19:12:57
3	SiO2†	61271.8	56071.5	5062.3	ug/L	5062.3 ppb	19:13:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	584809.9	104.99	%	2.708				2.58%
Sc Radial	3350.1	103	%	0.2				0.20%
Y 371.029	539009.2	104.17	%	2.632				2.53%
Y RADIAL	3763.0	103.2	%	0.99				0.96%
Ag 328.068†	79312.0	475.99	ug/L	0.297	475.99	ppb	0.297	0.06%
QC value within limits for Ag 328.068 Recovery = 95.20%								
Al 396.153Radial†	4373.3	5106.3	ug/L	68.92	5106.3	ppb	68.92	1.35%
QC value within limits for Al 396.153Radial Recovery = 102.13%								
As 188.979†	1089.1	484.32	ug/L	1.760	484.32	ppb	1.760	0.36%
QC value within limits for As 188.979 Recovery = 96.86%								
B 249.677†	19702.0	474.68	ug/L	3.093	474.68	ppb	3.093	0.65%
QC value within limits for B 249.677 Recovery = 94.94%								
Ba 233.527†	32106.2	480.22	ug/L	0.797	480.22	ppb	0.797	0.17%
QC value within limits for Ba 233.527 Recovery = 96.04%								
Be 313.107†	1094851.2	481.22	ug/L	0.304	481.22	ppb	0.304	0.06%
QC value within limits for Be 313.107 Recovery = 96.24%								
Ca 317.933Radial†	2221.9	5004.4	ug/L	13.53	5004.4	ppb	13.53	0.27%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.09%
Cd 226.502†            34193.4      475.78 ug/L         2.760      475.78 ppb          2.760   0.58%
   QC value within limits for Cd 226.502  Recovery = 95.16%
Co 228.616†            13333.5      489.36 ug/L         1.958      489.36 ppb          1.958   0.40%
   QC value within limits for Co 228.616  Recovery = 97.87%
Cr 267.716†            31803.0      479.73 ug/L         1.666      479.73 ppb          1.666   0.35%
   QC value within limits for Cr 267.716  Recovery = 95.95%
Cu 324.752†            97638.2      472.52 ug/L         1.683      472.52 ppb          1.683   0.36%
   QC value within limits for Cu 324.752  Recovery = 94.50%
Fe 238.204 Radial†       373.6      5031.5 ug/L         33.92      5031.5 ppb          33.92   0.67%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.63%
K 766.490 Radial†      20989.2      4894.7 ug/L         66.36      4894.7 ppb          66.36   1.36%
   QC value within limits for K 766.490 Radial  Recovery = 97.89%
Mg 279.077 IEC†          111.7      5071.5 ug/L         67.67      5071.5 ppb          67.67   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.43%
Mn 257.610†           249056.5      479.52 ug/L         0.796      479.52 ppb          0.796   0.17%
   QC value within limits for Mn 257.610  Recovery = 95.90%
Mo 202.031†             4562.0      483.72 ug/L         2.116      483.72 ppb          2.116   0.44%
   QC value within limits for Mo 202.031  Recovery = 96.74%
Na 589.592 Radial†     20636.9       10084 ug/L         190.3       10084 ppb          190.3   1.89%
   QC value within limits for Na 589.592 Radial  Recovery = 100.84%
Ni 231.604†            14509.5      488.66 ug/L         1.948      488.66 ppb          1.948   0.40%
   QC value within limits for Ni 231.604  Recovery = 97.73%
P 214.914†              4498.7      2295.2 ug/L         18.76      2295.2 ppb          18.76   0.82%
   QC value within limits for P 214.914  Recovery = 91.81%
Pb 220.353†             2748.5      487.18 ug/L         1.260      487.18 ppb          1.260   0.26%
   QC value within limits for Pb 220.353  Recovery = 97.44%
S 181.975 Axial†         757.9      983.60 ug/L         7.087      983.60 ppb          7.087   0.72%
   QC value within limits for S 181.975 Axial  Recovery = 98.36%
Sb 206.836†             1057.0      494.01 ug/L         4.439      494.01 ppb          4.439   0.90%
   QC value within limits for Sb 206.836  Recovery = 98.80%
Se 196.026†              757.8      494.81 ug/L         5.424      494.81 ppb          5.424   1.10%
   QC value within limits for Se 196.026  Recovery = 98.96%
Si 251.611†            56519.4      2384.9 ug/L          3.18      2384.9 ppb           3.18   0.13%
   QC value within limits for Si 251.611  Recovery = 95.39%
Sn 189.927†             1917.1      481.85 ug/L         4.128      481.85 ppb          4.128   0.86%
   QC value within limits for Sn 189.927  Recovery = 96.37%
Sr 421.552†            47716.3      498.27 ug/L         7.113      498.27 ppb          7.113   1.43%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           179983.6      477.68 ug/L         0.821      477.68 ppb          0.821   0.17%
   QC value within limits for Ti 334.940  Recovery = 95.54%
Tl 190.801†              822.3      490.17 ug/L         3.094      490.17 ppb          3.094   0.63%
   QC value within limits for Tl 190.801  Recovery = 98.03%
U 409.014†              9258.8      467.01 ug/L         3.954      467.01 ppb          3.954   0.85%
   QC value within limits for U 409.014  Recovery = 93.40%
V 292.402†             53208.4      484.40 ug/L         0.497      484.40 ppb          0.497   0.10%
   QC value within limits for V 292.402  Recovery = 96.88%
Zn 213.857†            42608.1      475.55 ug/L         0.879      475.55 ppb          0.879   0.18%
   QC value within limits for Zn 213.857  Recovery = 95.11%
SiO2†                  58406.6      5273.6 ug/L        191.77      5273.6 ppb         191.77   3.64%
   QC value within limits for SiO2  Recovery = 98.62%
All analyte(s) passed QC.
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Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/15/2010 19:15:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3619.0	3619.0	112	%			19:17:54
1	Y RADIAL	3669.0	3669.0	100.7	%			19:17:34
1	Al 396.153Radial†	-84.6	39.4	46.137	ug/L	46.137	ppb	19:17:34
1	Ca 317.933Radial†	12.7	0.0	0.1089	ug/L	0.1089	ppb	19:17:54
1	Fe 238.204 Radial†	6.8	1.2	16.460	ug/L	16.460	ppb	19:17:54
1	K 766.490 Radial†	3288.9	-229.0	-53.507	ug/L	-53.507	ppb	19:17:34
1	Mg 279.077 IEC†	2.4	1.9	88.299	ug/L	88.299	ppb	19:17:54
1	Na 589.592 Radial†	-1173.7	142.5	69.619	ug/L	69.619	ppb	19:17:34
1	Sr 421.552†	42.9	6.4	0.0671	ug/L	0.0671	ppb	19:17:34
1	Sc 361.383	572940.5	572940.5	102.86	%			19:18:51
1	Y 371.029	532965.5	532965.5	103.01	%			19:18:51
1	Ag 328.068†	103.8	48.3	0.2957	ug/L	0.2957	ppb	19:18:51
1	As 188.979†	-43.0	2.8	1.2412	ug/L	1.2412	ppb	19:19:11
1	B 249.677†	-393.5	272.5	6.5883	ug/L	6.5883	ppb	19:18:51
1	Ba 233.527†	-6.9	-3.6	-0.0522	ug/L	-0.0522	ppb	19:19:11
1	Be 313.107†	-9574.9	242.3	0.1070	ug/L	0.1070	ppb	19:18:51
1	Cd 226.502†	-288.6	26.9	0.3725	ug/L	0.3725	ppb	19:19:11
1	Co 228.616†	-84.5	8.5	0.3144	ug/L	0.3144	ppb	19:19:11
1	Cr 267.716†	185.8	73.9	1.1150	ug/L	1.1150	ppb	19:18:51
1	Cu 324.752†	6489.3	-72.8	-0.3506	ug/L	-0.3506	ppb	19:18:51
1	Mn 257.610†	614.2	-27.3	-0.0543	ug/L	-0.0543	ppb	19:18:51
1	Mo 202.031†	36.5	19.5	2.0625	ug/L	2.0625	ppb	19:19:11
1	Ni 231.604†	143.1	21.3	0.7186	ug/L	0.7186	ppb	19:19:11
1	P 214.914†	314.7	-5.3	-2.7463	ug/L	-2.7463	ppb	19:19:11
1	Pb 220.353†	-93.4	4.7	0.8523	ug/L	0.8523	ppb	19:19:11
1	S 181.975 Axial†	74.0	3.0	3.8716	ug/L	3.8716	ppb	19:19:11
1	Sb 206.836†	45.2	-13.7	-6.1162	ug/L	-6.1162	ppb	19:19:11
1	Se 196.026†	-20.9	12.6	8.1043	ug/L	8.1043	ppb	19:19:11
1	Si 251.611†	606.7	22.3	0.9161	ug/L	0.9161	ppb	19:19:11
1	Sn 189.927†	14.8	2.5	0.6256	ug/L	0.6256	ppb	19:19:11
1	Ti 334.940†	-1901.8	129.6	0.3385	ug/L	0.3385	ppb	19:18:51
1	Tl 190.801†	-78.8	-17.8	-10.547	ug/L	-10.547	ppb	19:19:11
1	U 409.014†	-1912.8	-59.2	-3.0062	ug/L	-3.0062	ppb	19:18:51
1	V 292.402†	-2011.3	16.5	0.1710	ug/L	0.1710	ppb	19:18:51
1	Zn 213.857†	970.8	1.7	0.0163	ug/L	0.0163	ppb	19:19:11
1	SiO2†	638.6	16.4	1.4321	ug/L	1.4321	ppb	19:20:07
2	Sc Radial	3353.5	3353.5	103	%			19:18:19
2	Y RADIAL	3857.8	3857.8	105.8	%			19:17:59
2	Al 396.153Radial†	-109.2	9.6	11.271	ug/L	11.271	ppb	19:17:59
2	Ca 317.933Radial†	10.7	-1.0	-2.3024	ug/L	-2.3024	ppb	19:18:19
2	Fe 238.204 Radial†	6.7	1.6	21.265	ug/L	21.265	ppb	19:18:19
2	K 766.490 Radial†	3227.1	-55.4	-12.954	ug/L	-12.954	ppb	19:17:59
2	Mg 279.077 IEC†	1.4	1.1	51.068	ug/L	51.068	ppb	19:18:19
2	Na 589.592 Radial†	-1161.6	70.9	34.647	ug/L	34.647	ppb	19:17:59
2	Sr 421.552†	11.1	-21.3	-0.2221	ug/L	-0.2221	ppb	19:17:59
2	Sc 361.383	573341.3	573341.3	102.93	%			19:19:17
2	Y 371.029	532963.8	532963.8	103.00	%			19:19:17
2	Ag 328.068†	139.5	82.9	0.4972	ug/L	0.4972	ppb	19:19:17
2	As 188.979†	-37.6	8.1	3.5766	ug/L	3.5766	ppb	19:19:37
2	B 249.677†	-316.0	348.0	8.4176	ug/L	8.4176	ppb	19:19:17
2	Ba 233.527†	-13.9	-10.4	-0.1553	ug/L	-0.1553	ppb	19:19:37
2	Be 313.107†	-9522.5	299.8	0.1312	ug/L	0.1312	ppb	19:19:17
2	Cd 226.502†	-293.2	22.6	0.3130	ug/L	0.3130	ppb	19:19:37
2	Co 228.616†	-102.9	-9.3	-0.3402	ug/L	-0.3402	ppb	19:19:37
2	Cr 267.716†	162.8	51.4	0.7733	ug/L	0.7733	ppb	19:19:17
2	Cu 324.752†	6460.9	-104.8	-0.5065	ug/L	-0.5065	ppb	19:19:17
2	Mn 257.610†	631.5	-10.8	-0.0207	ug/L	-0.0207	ppb	19:19:17
2	Mo 202.031†	23.8	7.1	0.7503	ug/L	0.7503	ppb	19:19:37
2	Ni 231.604†	142.2	20.4	0.6863	ug/L	0.6863	ppb	19:19:37

2	P 214.914†	332.6	11.8	6.4321 ug/L	6.4321 ppb	19:19:37
2	Pb 220.353†	-107.6	-9.0	-1.5866 ug/L	-1.5866 ppb	19:19:37
2	S 181.975 Axial†	81.9	10.5	13.679 ug/L	13.679 ppb	19:19:37
2	Sb 206.836†	48.3	-10.6	-4.7817 ug/L	-4.7817 ppb	19:19:37
2	Se 196.026†	-25.8	7.9	5.1042 ug/L	5.1042 ppb	19:19:37
2	Si 251.611†	623.4	38.0	1.5982 ug/L	1.5982 ppb	19:19:37
2	Sn 189.927†	12.8	0.6	0.1442 ug/L	0.1442 ppb	19:19:37
2	Ti 334.940†	-2074.8	-37.1	-0.1029 ug/L	-0.1029 ppb	19:19:17
2	Tl 190.801†	-53.1	7.3	4.3144 ug/L	4.3144 ppb	19:19:37
2	U 409.014†	-1851.2	2.0	0.0940 ug/L	0.0940 ppb	19:19:17
2	V 292.402†	-2121.1	-88.8	-0.7887 ug/L	-0.7887 ppb	19:19:17
2	Zn 213.857†	970.6	0.8	0.0073 ug/L	0.0073 ppb	19:19:37
2	SiO2†	675.3	51.7	4.6573 ug/L	4.6573 ppb	19:20:12
3	Sc Radial	3347.3	3347.3	103 %		19:18:44
3	Y RADIAL	3713.3	3713.3	101.9 %		19:18:24
3	Al 396.153Radial†	-97.8	20.4	23.913 ug/L	23.913 ppb	19:18:24
3	Ca 317.933Radial†	12.5	0.7	1.6439 ug/L	1.6439 ppb	19:18:44
3	Fe 238.204 Radial†	5.5	0.4	5.8323 ug/L	5.8323 ppb	19:18:44
3	K 766.490 Radial†	3138.1	-135.9	-31.745 ug/L	-31.745 ppb	19:18:24
3	Mg 279.077 IEC†	2.2	1.9	87.836 ug/L	87.836 ppb	19:18:44
3	Na 589.592 Radial†	-1116.0	113.0	55.237 ug/L	55.237 ppb	19:18:24
3	Sr 421.552†	9.4	-22.9	-0.2391 ug/L	-0.2391 ppb	19:18:24
3	Sc 361.383	572899.4	572899.4	102.85 %		19:19:42
3	Y 371.029	532276.1	532276.1	102.87 %		19:19:42
3	Ag 328.068†	41.6	-12.2	-0.0733 ug/L	-0.0733 ppb	19:19:42
3	As 188.979†	-35.5	10.1	4.4401 ug/L	4.4401 ppb	19:20:02
3	B 249.677†	-378.1	287.4	6.9491 ug/L	6.9491 ppb	19:19:42
3	Ba 233.527†	-0.0	3.1	0.0471 ug/L	0.0471 ppb	19:20:02
3	Be 313.107†	-9649.8	168.8	0.0746 ug/L	0.0746 ppb	19:19:42
3	Cd 226.502†	-310.4	5.7	0.0792 ug/L	0.0792 ppb	19:20:02
3	Co 228.616†	-71.5	21.1	0.7762 ug/L	0.7762 ppb	19:20:02
3	Cr 267.716†	118.7	8.6	0.1290 ug/L	0.1290 ppb	19:19:42
3	Cu 324.752†	6485.9	-75.6	-0.3678 ug/L	-0.3678 ppb	19:19:42
3	Mn 257.610†	646.2	4.0	0.0047 ug/L	0.0047 ppb	19:19:42
3	Mo 202.031†	23.4	6.7	0.7120 ug/L	0.7120 ppb	19:20:02
3	Ni 231.604†	122.1	0.9	0.0302 ug/L	0.0302 ppb	19:20:02
3	P 214.914†	307.1	-12.7	-6.6880 ug/L	-6.6880 ppb	19:20:02
3	Pb 220.353†	-90.4	7.7	1.3656 ug/L	1.3656 ppb	19:20:02
3	S 181.975 Axial†	74.9	3.8	4.9847 ug/L	4.9847 ppb	19:20:02
3	Sb 206.836†	41.8	-17.0	-7.6402 ug/L	-7.6402 ppb	19:20:02
3	Se 196.026†	-17.8	15.6	10.009 ug/L	10.009 ppb	19:20:02
3	Si 251.611†	644.3	58.8	2.4781 ug/L	2.4781 ppb	19:20:02
3	Sn 189.927†	12.9	0.7	0.1751 ug/L	0.1751 ppb	19:20:02
3	Ti 334.940†	-1943.5	89.0	0.2283 ug/L	0.2283 ppb	19:19:42
3	Tl 190.801†	-53.5	6.8	4.0484 ug/L	4.0484 ppb	19:20:02
3	U 409.014†	-1783.0	66.9	3.3924 ug/L	3.3924 ppb	19:19:42
3	V 292.402†	-2015.9	11.9	0.1242 ug/L	0.1242 ppb	19:19:42
3	Zn 213.857†	972.2	3.2	0.0363 ug/L	0.0363 ppb	19:20:02
3	SiO2†	647.3	25.0	2.2405 ug/L	2.2405 ppb	19:20:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	573060.4	102.88	%	0.044				0.04%
Sc Radial	3439.9	106	%	4.8				4.51%
Y 371.029	532735.2	102.96	%	0.077				0.07%
Y RADIAL	3746.7	102.8	%	2.71				2.64%
Ag 328.068†	39.7	0.2399	ug/L	0.28933	0.2399	ppb	0.28933	120.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	23.2	27.107	ug/L	17.6510	27.107	ppb	17.6510	65.12%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	3.0860	ug/L	1.65494	3.0860	ppb	1.65494	53.63%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	302.6	7.3184	ug/L	0.96893	7.3184	ppb	0.96893	13.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.6	-0.0534	ug/L	0.10122	-0.0534	ppb	0.10122	189.39%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	237.0	0.1043	ug/L	0.02844	0.1043	ppb	0.02844	27.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.1	-0.1832	ug/L	1.98930	-0.1832	ppb	1.98930	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                18.4      0.2549 ug/L       0.15507      0.2549 ppb        0.15507  60.84%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.8      0.2501 ug/L       0.56095      0.2501 ppb        0.56095 224.29%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                44.6      0.6725 ug/L       0.50071      0.6725 ppb        0.50071  74.46%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -84.4     -0.4083 ug/L       0.08544     -0.4083 ppb        0.08544  20.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.1     14.519 ug/L        7.8975      14.519 ppb         7.8975  54.39%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -140.1     -32.735 ug/L       20.2944     -32.735 ppb        20.2944  62.00%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.7     75.734 ug/L       21.3627      75.734 ppb        21.3627  28.21%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -11.4     -0.0234 ug/L       0.02958     -0.0234 ppb        0.02958 126.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                11.1      1.1750 ug/L       0.76891      1.1750 ppb        0.76891  65.44%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        108.8     53.168 ug/L       17.5777      53.168 ppb        17.5777  33.06%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                14.2      0.4784 ug/L       0.38843      0.4784 ppb        0.38843  81.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.1     -1.0008 ug/L       6.73196     -1.0008 ppb        6.73196 672.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 1.1      0.2104 ug/L       1.57732      0.2104 ppb        1.57732 749.63%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.8      7.5118 ug/L       5.36994      7.5118 ppb        5.36994  71.49%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -13.8     -6.1794 ug/L       1.43028     -6.1794 ppb        1.43028  23.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                12.1      7.7392 ug/L       2.47285      7.7392 ppb        2.47285  31.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                39.7      1.6642 ug/L       0.78307      1.6642 ppb        0.78307  47.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.3      0.3150 ug/L       0.26944      0.3150 ppb        0.26944  85.54%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -12.6     -0.1313 ug/L       0.17210     -0.1313 ppb        0.17210 131.02%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                60.5      0.1546 ug/L       0.22976      0.1546 ppb        0.22976 148.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.2     -0.7280 ug/L       8.50437     -0.7280 ppb        8.50437 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  3.3      0.1601 ug/L       3.19980      0.1601 ppb        3.19980 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -20.1     -0.1645 ug/L       0.54109     -0.1645 ppb        0.54109 328.91%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 1.9      0.0200 ug/L       0.01485      0.0200 ppb        0.01485  74.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      31.0      2.7766 ug/L       1.67808      2.7766 ppb        1.67808  60.44%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: 1202091939|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 44
Date Collected: 4/15/2010 19:22:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202091939|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3464.9	3464.9	107	%			19:24:40
1	Y RADIAL	3839.8	3839.8	105.3	%			19:24:20
1	Al 396.153Radial†	-84.3	36.3	42.536	ug/L	42.536	ppb	19:24:20
1	Ca 317.933Radial†	22.1	9.3	21.040	ug/L	21.040	ppb	19:24:40
1	Fe 238.204 Radial†	8.1	2.7	36.506	ug/L	36.506	ppb	19:24:40
1	K 766.490 Radial†	3125.7	-250.7	-58.581	ug/L	-58.581	ppb	19:24:20
1	Mg 279.077 IEC†	-0.3	-0.5	-21.886	ug/L	-21.886	ppb	19:24:40
1	Na 589.592 Radial†	-1026.1	233.9	114.29	ug/L	114.29	ppb	19:24:20
1	Sr 421.552†	87.9	50.3	0.5249	ug/L	0.5249	ppb	19:24:20
1	Sc 361.383	571833.0	571833.0	102.66	%			19:25:37
1	Y 371.029	530880.2	530880.2	102.60	%			19:25:37
1	Ag 328.068†	69.5	15.0	0.0945	ug/L	0.0945	ppb	19:25:37
1	As 188.979†	-35.2	10.3	4.5654	ug/L	4.5654	ppb	19:25:57
1	B 249.677†	-408.0	257.5	6.2254	ug/L	6.2254	ppb	19:25:37
1	Ba 233.527†	-1.3	1.8	0.0287	ug/L	0.0287	ppb	19:25:57
1	Be 313.107†	-9321.7	471.0	0.2084	ug/L	0.2084	ppb	19:25:37
1	Cd 226.502†	-308.5	7.0	0.0962	ug/L	0.0962	ppb	19:25:57
1	Co 228.616†	-84.0	8.8	0.3201	ug/L	0.3201	ppb	19:25:57
1	Cr 267.716†	370.1	253.7	3.8206	ug/L	3.8206	ppb	19:25:37
1	Cu 324.752†	6247.7	-295.9	-1.4333	ug/L	-1.4333	ppb	19:25:37
1	Mn 257.610†	911.6	263.7	0.5121	ug/L	0.5121	ppb	19:25:37
1	Mo 202.031†	23.3	6.7	0.7083	ug/L	0.7083	ppb	19:25:57
1	Ni 231.604†	181.8	59.3	1.9993	ug/L	1.9993	ppb	19:25:57
1	P 214.914†	310.0	-9.3	-4.6429	ug/L	-4.6429	ppb	19:25:57
1	Pb 220.353†	-121.2	-22.4	-3.9536	ug/L	-3.9536	ppb	19:25:57
1	S 181.975 Axial†	87.4	16.1	20.902	ug/L	20.902	ppb	19:25:57
1	Sb 206.836†	45.9	-12.9	-5.7551	ug/L	-5.7551	ppb	19:25:57
1	Se 196.026†	-34.3	-0.4	-0.1932	ug/L	-0.1932	ppb	19:25:57
1	Si 251.611†	1191.7	593.2	25.083	ug/L	25.083	ppb	19:25:57
1	Sn 189.927†	18.4	6.1	1.5224	ug/L	1.5224	ppb	19:25:57
1	Ti 334.940†	-1714.7	308.3	0.8187	ug/L	0.8187	ppb	19:25:37
1	Tl 190.801†	-46.5	13.5	8.0269	ug/L	8.0269	ppb	19:25:57
1	U 409.014†	-1744.8	100.9	5.0962	ug/L	5.0962	ppb	19:25:37
1	V 292.402†	-2063.6	-38.3	-0.3316	ug/L	-0.3316	ppb	19:25:37
1	Zn 213.857†	1116.6	145.6	1.6289	ug/L	1.6289	ppb	19:25:57
1	SiO2†	1279.7	642.1	58.101	ug/L	58.101	ppb	19:26:53
2	Sc Radial	3383.6	3383.6	104	%			19:25:05
2	Y RADIAL	3894.0	3894.0	106.8	%			19:24:45
2	Al 396.153Radial†	-88.3	30.6	35.830	ug/L	35.830	ppb	19:24:45
2	Ca 317.933Radial†	24.5	12.2	27.378	ug/L	27.378	ppb	19:25:05
2	Fe 238.204 Radial†	9.6	4.4	58.601	ug/L	58.601	ppb	19:25:05
2	K 766.490 Radial†	3228.3	-82.1	-19.215	ug/L	-19.215	ppb	19:24:45
2	Mg 279.077 IEC†	2.5	2.2	98.435	ug/L	98.435	ppb	19:25:05
2	Na 589.592 Radial†	-1008.7	227.5	111.16	ug/L	111.16	ppb	19:24:45
2	Sr 421.552†	35.0	1.6	0.0161	ug/L	0.0161	ppb	19:24:45
2	Sc 361.383	576774.4	576774.4	103.55	%			19:26:02
2	Y 371.029	535227.2	535227.2	103.44	%			19:26:02
2	Ag 328.068†	33.0	-20.8	-0.1047	ug/L	-0.1047	ppb	19:26:02
2	As 188.979†	-43.1	3.0	1.3389	ug/L	1.3389	ppb	19:26:22
2	B 249.677†	-400.3	268.4	6.4850	ug/L	6.4850	ppb	19:26:02
2	Ba 233.527†	-25.8	-21.7	-0.3191	ug/L	-0.3191	ppb	19:26:22
2	Be 313.107†	-9414.4	459.2	0.2029	ug/L	0.2029	ppb	19:26:02
2	Cd 226.502†	-308.4	9.7	0.1313	ug/L	0.1313	ppb	19:26:22
2	Co 228.616†	-80.8	12.6	0.4582	ug/L	0.4582	ppb	19:26:22
2	Cr 267.716†	365.5	246.2	3.7109	ug/L	3.7109	ppb	19:26:02
2	Cu 324.752†	6452.6	-150.2	-0.7238	ug/L	-0.7238	ppb	19:26:02
2	Mn 257.610†	950.8	293.9	0.5677	ug/L	0.5677	ppb	19:26:02
2	Mo 202.031†	21.2	4.5	0.4797	ug/L	0.4797	ppb	19:26:22
2	Ni 231.604†	189.9	65.6	2.2110	ug/L	2.2110	ppb	19:26:22

2	P 214.914†	336.1	13.3	7.2306 ug/L	7.2306 ppb	19:26:22
2	Pb 220.353†	-93.5	5.2	0.9296 ug/L	0.9296 ppb	19:26:22
2	S 181.975 Axial†	75.5	3.9	5.0856 ug/L	5.0856 ppb	19:26:22
2	Sb 206.836†	55.0	-4.4	-2.0248 ug/L	-2.0248 ppb	19:26:22
2	Se 196.026†	-32.9	1.2	0.8882 ug/L	0.8882 ppb	19:26:22
2	Si 251.611†	1199.1	590.4	24.970 ug/L	24.970 ppb	19:26:22
2	Sn 189.927†	4.6	-7.5	-1.8639 ug/L	-1.8639 ppb	19:26:22
2	Ti 334.940†	-1779.4	260.1	0.6845 ug/L	0.6845 ppb	19:26:02
2	Tl 190.801†	-49.3	11.2	6.6299 ug/L	6.6299 ppb	19:26:22
2	U 409.014†	-1851.1	12.8	0.6254 ug/L	0.6254 ppb	19:26:02
2	V 292.402†	-1956.8	82.1	0.7371 ug/L	0.7371 ppb	19:26:02
2	Zn 213.857†	1140.4	159.2	1.7814 ug/L	1.7814 ppb	19:26:22
2	SiO2†	1287.4	638.9	57.815 ug/L	57.815 ppb	19:26:58
3	Sc Radial	3337.8	3337.8	103 %		19:25:30
3	Y RADIAL	3759.8	3759.8	103.1 %		19:25:10
3	Al 396.153Radial†	-94.7	23.2	27.207 ug/L	27.207 ppb	19:25:10
3	Ca 317.933Radial†	24.9	12.8	28.924 ug/L	28.924 ppb	19:25:30
3	Fe 238.204 Radial†	8.1	3.0	40.217 ug/L	40.217 ppb	19:25:30
3	K 766.490 Radial†	3124.7	-140.3	-32.808 ug/L	-32.808 ppb	19:25:10
3	Mg 279.077 IEC†	0.4	0.2	10.902 ug/L	10.902 ppb	19:25:30
3	Na 589.592 Radial†	-1017.3	205.9	100.61 ug/L	100.61 ppb	19:25:10
3	Sr 421.552†	21.6	-11.0	-0.1148 ug/L	-0.1148 ppb	19:25:10
3	Sc 361.383	584173.6	584173.6	104.88 %		19:26:28
3	Y 371.029	542126.9	542126.9	104.78 %		19:26:28
3	Ag 328.068†	61.7	6.2	0.0476 ug/L	0.0476 ppb	19:26:28
3	As 188.979†	-39.5	7.0	3.0900 ug/L	3.0900 ppb	19:26:48
3	B 249.677†	-528.0	151.5	3.6608 ug/L	3.6608 ppb	19:26:28
3	Ba 233.527†	-5.5	-2.1	-0.0297 ug/L	-0.0297 ppb	19:26:48
3	Be 313.107†	-9658.3	341.8	0.1518 ug/L	0.1518 ppb	19:26:28
3	Cd 226.502†	-298.3	23.0	0.3183 ug/L	0.3183 ppb	19:26:48
3	Co 228.616†	-88.8	5.9	0.2152 ug/L	0.2152 ppb	19:26:48
3	Cr 267.716†	353.5	230.3	3.4697 ug/L	3.4697 ppb	19:26:28
3	Cu 324.752†	6538.3	-147.4	-0.7117 ug/L	-0.7117 ppb	19:26:28
3	Mn 257.610†	880.9	215.6	0.4186 ug/L	0.4186 ppb	19:26:28
3	Mo 202.031†	21.4	4.3	0.4638 ug/L	0.4638 ppb	19:26:48
3	Ni 231.604†	185.4	59.0	1.9895 ug/L	1.9895 ppb	19:26:48
3	P 214.914†	310.9	-14.9	-7.7896 ug/L	-7.7896 ppb	19:26:48
3	Pb 220.353†	-113.9	-13.0	-2.2930 ug/L	-2.2930 ppb	19:26:48
3	S 181.975 Axial†	86.0	13.0	16.934 ug/L	16.934 ppb	19:26:48
3	Sb 206.836†	54.1	-6.0	-2.6883 ug/L	-2.6883 ppb	19:26:48
3	Se 196.026†	-18.9	14.9	9.6010 ug/L	9.6010 ppb	19:26:48
3	Si 251.611†	1227.0	602.3	25.473 ug/L	25.473 ppb	19:26:48
3	Sn 189.927†	18.2	5.5	1.3736 ug/L	1.3736 ppb	19:26:48
3	Ti 334.940†	-1743.8	315.9	0.8392 ug/L	0.8392 ppb	19:26:28
3	Tl 190.801†	-55.4	6.0	3.5818 ug/L	3.5818 ppb	19:26:48
3	U 409.014†	-1865.0	22.2	1.1085 ug/L	1.1085 ppb	19:26:28
3	V 292.402†	-2065.9	2.0	0.0194 ug/L	0.0194 ppb	19:26:28
3	Zn 213.857†	1143.9	148.6	1.6624 ug/L	1.6624 ppb	19:26:48
3	SiO2†	1240.1	578.0	52.307 ug/L	52.307 ppb	19:27:03

Mean Data: 1202091939|973755|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	577593.7	103.69	%	1.115				1.08%
Sc Radial	3395.5	105	%	2.0				1.90%
Y 371.029	536078.1	103.61	%	1.096				1.06%
Y RADIAL	3831.2	105.1	%	1.85				1.76%
Ag 328.068†	0.1	0.0125	ug/L	0.10414	0.0125	ppb	0.10414	834.04%
Al 396.153Radial†	30.0	35.191	ug/L	7.6840	35.191	ppb	7.6840	21.84%
As 188.979†	6.8	2.9981	ug/L	1.61518	2.9981	ppb	1.61518	53.87%
B 249.677†	225.8	5.4571	ug/L	1.56100	5.4571	ppb	1.56100	28.61%
Ba 233.527†	-7.3	-0.1067	ug/L	0.18623	-0.1067	ppb	0.18623	174.54%
Be 313.107†	424.0	0.1877	ug/L	0.03123	0.1877	ppb	0.03123	16.64%
Ca 317.933Radial†	11.4	25.781	ug/L	4.1777	25.781	ppb	4.1777	16.20%
Cd 226.502†	13.2	0.1819	ug/L	0.11939	0.1819	ppb	0.11939	65.63%
Co 228.616†	9.1	0.3312	ug/L	0.12190	0.3312	ppb	0.12190	36.81%
Cr 267.716†	243.4	3.6671	ug/L	0.17954	3.6671	ppb	0.17954	4.90%
Cu 324.752†	-197.8	-0.9563	ug/L	0.41317	-0.9563	ppb	0.41317	43.21%
Fe 238.204 Radial†	3.4	45.108	ug/L	11.8315	45.108	ppb	11.8315	26.23%
K 766.490 Radial†	-157.7	-36.868	ug/L	19.9949	-36.868	ppb	19.9949	54.23%

Mg 279.077 IEC†	0.6	29.150	ug/L	62.2016	29.150	ppb	62.2016	213.38%
Mn 257.610†	257.7	0.4995	ug/L	0.07534	0.4995	ppb	0.07534	15.08%
Mo 202.031†	5.2	0.5506	ug/L	0.13680	0.5506	ppb	0.13680	24.85%
Na 589.592 Radial†	222.4	108.69	ug/L	7.166	108.69	ppb	7.166	6.59%
Ni 231.604†	61.3	2.0666	ug/L	0.12514	2.0666	ppb	0.12514	6.06%
P 214.914†	-3.7	-1.7340	ug/L	7.92135	-1.7340	ppb	7.92135	456.84%
Pb 220.353†	-10.1	-1.7724	ug/L	2.48287	-1.7724	ppb	2.48287	140.09%
S 181.975 Axial†	11.0	14.307	ug/L	8.2291	14.307	ppb	8.2291	57.52%
Sb 206.836†	-7.8	-3.4894	ug/L	1.98997	-3.4894	ppb	1.98997	57.03%
Se 196.026†	5.2	3.4320	ug/L	5.36981	3.4320	ppb	5.36981	156.46%
Si 251.611†	595.3	25.175	ug/L	0.2641	25.175	ppb	0.2641	1.05%
Sn 189.927†	1.4	0.3440	ug/L	1.91356	0.3440	ppb	1.91356	556.19%
Sr 421.552†	13.6	0.1421	ug/L	0.33795	0.1421	ppb	0.33795	237.89%
Ti 334.940†	294.8	0.7808	ug/L	0.08404	0.7808	ppb	0.08404	10.76%
Tl 190.801†	10.2	6.0795	ug/L	2.27306	6.0795	ppb	2.27306	37.39%
U 409.014†	45.3	2.2767	ug/L	2.45366	2.2767	ppb	2.45366	107.77%
V 292.402†	15.3	0.1416	ug/L	0.54472	0.1416	ppb	0.54472	384.59%
Zn 213.857†	151.1	1.6909	ug/L	0.08011	1.6909	ppb	0.08011	4.74%
SiO2†	619.7	56.074	ug/L	3.2661	56.074	ppb	3.2661	5.82%

Sequence No.: 15
Sample ID: 1202091940|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 45
Date Collected: 4/15/2010 19:29:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202091940|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4130.6	4130.6	127	%			19:31:27
1	Y RADIAL	4969.3	4969.3	136.3	%			19:31:27
1	Al 396.153Radial†	95875.2	75394.4	88409	ug/L	88409	ppb	19:31:07
1	Ca 317.933Radial†	56662.3	44478.7	100180	ug/L	100180	ppb	19:31:07
1	Fe 238.204 Radial†	16947.1	13301.6	178670	ug/L	178670	ppb	19:31:07
1	K 766.490 Radial†	224838.3	173361.9	40457	ug/L	40457	ppb	19:31:07
1	Mg 279.077 IEC†	1058.0	830.6	37599	ug/L	37599	ppb	19:31:27
1	Na 589.592 Radial†	25505.0	21220.3	10369	ug/L	10369	ppb	19:31:07
1	Sr 421.552†	286178.9	224669.6	2345.5	ug/L	2345.5	ppb	19:31:07
1	Sc 361.383	661911.4	661911.4	118.83	%			19:32:26
1	Y 371.029	670458.2	670458.2	129.58	%			19:32:26
1	Ag 328.068†	53070.7	44607.9	322.41	ug/L	322.41	ppb	19:32:26
1	As 188.979†	2658.1	2281.5	1072.1	ug/L	1072.1	ppb	19:32:31
1	B 249.677†	72729.0	61858.5	1474.8	ug/L	1474.8	ppb	19:32:26
1	Ba 233.527†	150652.7	126781.7	1903.6	ug/L	1903.6	ppb	19:32:26
1	Be 313.107†	2083277.0	1762688.2	785.30	ug/L	785.30	ppb	19:32:26
1	Cd 226.502†	51956.3	44030.2	597.53	ug/L	597.53	ppb	19:32:31
1	Co 228.616†	32172.1	27164.4	983.91	ug/L	983.91	ppb	19:32:31
1	Cr 267.716†	190112.8	159878.6	2413.4	ug/L	2413.4	ppb	19:32:26
1	Cu 324.752†	484805.0	401595.5	1956.0	ug/L	1956.0	ppb	19:32:26
1	Mn 257.610†	3311916.1	2786447.6	5378.9	ug/L	5378.9	ppb	19:32:26
1	Mo 202.031†	5669.0	4754.6	517.46	ug/L	517.46	ppb	19:32:31
1	Ni 231.604†	48984.8	41104.3	1384.7	ug/L	1384.7	ppb	19:32:31
1	P 214.914†	17051.8	14038.2	6995.8	ug/L	6995.8	ppb	19:32:31
1	Pb 220.353†	6103.3	5231.6	933.10	ug/L	933.10	ppb	19:32:31
1	S 181.975 Axial†	3664.2	3014.5	3904.6	ug/L	3904.6	ppb	19:32:31
1	Sb 206.836†	4038.6	3341.0	1524.4	ug/L	1524.4	ppb	19:32:31
1	Se 196.026†	4951.8	4200.0	3010.2	ug/L	3010.2	ppb	19:32:31
1	Si 251.611†	657441.0	552687.8	23373	ug/L	23373	ppb	19:32:26
1	Sn 189.927†	4890.1	4103.3	1050.1	ug/L	1050.1	ppb	19:32:31
1	Ti 334.940†	2422359.6	2040463.4	5424.8	ug/L	5424.8	ppb	19:32:26
1	Tl 190.801†	2338.0	2026.3	1260.9	ug/L	1260.9	ppb	19:32:31
1	U 409.014†	-5853.4	-3125.3	-211.83	ug/L	-211.83	ppb	19:32:26
1	V 292.402†	159544.7	136233.3	1200.4	ug/L	1200.4	ppb	19:32:26
1	Zn 213.857†	627623.1	527220.6	5930.4	ug/L	5930.4	ppb	19:32:26
1	SiO2†	665308.1	559271.3	50610	ug/L	50610	ppb	19:33:02
2	Sc Radial	4126.7	4126.7	127	%			19:31:52
2	Y RADIAL	4934.2	4934.2	135.4	%			19:31:52
2	Al 396.153Radial†	94095.2	74065.8	86851	ug/L	86851	ppb	19:31:32
2	Ca 317.933Radial†	55730.7	43788.1	98624	ug/L	98624	ppb	19:31:32
2	Fe 238.204 Radial†	16711.1	13128.6	176340	ug/L	176340	ppb	19:31:32
2	K 766.490 Radial†	220913.0	170441.9	39776	ug/L	39776	ppb	19:31:32
2	Mg 279.077 IEC†	1049.5	824.6	37332	ug/L	37332	ppb	19:31:52
2	Na 589.592 Radial†	24990.6	20834.8	10180	ug/L	10180	ppb	19:31:32
2	Sr 421.552†	280359.7	220306.3	2299.9	ug/L	2299.9	ppb	19:31:32
2	Sc 361.383	661988.3	661988.3	118.85	%			19:32:38
2	Y 371.029	670734.3	670734.3	129.63	%			19:32:38
2	Ag 328.068†	53079.5	44610.1	321.75	ug/L	321.75	ppb	19:32:38
2	As 188.979†	2720.5	2333.7	1094.7	ug/L	1094.7	ppb	19:32:44
2	B 249.677†	72634.2	61771.6	1472.9	ug/L	1472.9	ppb	19:32:38
2	Ba 233.527†	150418.7	126570.1	1900.4	ug/L	1900.4	ppb	19:32:38
2	Be 313.107†	2083153.7	1762380.6	785.15	ug/L	785.15	ppb	19:32:38
2	Cd 226.502†	52501.8	44484.1	604.06	ug/L	604.06	ppb	19:32:44
2	Co 228.616†	32550.0	27479.2	995.54	ug/L	995.54	ppb	19:32:44
2	Cr 267.716†	189875.1	159660.0	2410.1	ug/L	2410.1	ppb	19:32:38
2	Cu 324.752†	483447.5	400405.8	1950.1	ug/L	1950.1	ppb	19:32:38
2	Mn 257.610†	3306325.6	2781419.6	5368.9	ug/L	5368.9	ppb	19:32:38
2	Mo 202.031†	5753.1	4824.9	524.72	ug/L	524.72	ppb	19:32:44
2	Ni 231.604†	49527.1	41555.8	1399.9	ug/L	1399.9	ppb	19:32:44

2	P 214.914†	17275.0	14224.4	7097.3	ug/L	7097.3	ppb	19:32:44
2	Pb 220.353†	6183.2	5298.3	944.67	ug/L	944.67	ppb	19:32:44
2	S 181.975 Axial†	3723.8	3064.3	3969.5	ug/L	3969.5	ppb	19:32:44
2	Sb 206.836†	4075.8	3371.9	1538.8	ug/L	1538.8	ppb	19:32:44
2	Se 196.026†	5033.8	4268.6	3049.8	ug/L	3049.8	ppb	19:32:44
2	Si 251.611†	655399.7	550905.9	23297	ug/L	23297	ppb	19:32:38
2	Sn 189.927†	4975.8	4175.0	1067.8	ug/L	1067.8	ppb	19:32:44
2	Ti 334.940†	2417871.8	2036450.2	5414.0	ug/L	5414.0	ppb	19:32:38
2	Tl 190.801†	2343.6	2030.8	1263.5	ug/L	1263.5	ppb	19:32:44
2	U 409.014†	-5844.9	-3117.6	-210.81	ug/L	-210.81	ppb	19:32:38
2	V 292.402†	159320.3	136028.9	1199.0	ug/L	1199.0	ppb	19:32:38
2	Zn 213.857†	626683.2	526368.3	5920.6	ug/L	5920.6	ppb	19:32:38
2	SiO2†	647747.8	544430.5	49266	ug/L	49266	ppb	19:33:07
3	Sc Radial	4040.3	4040.3	125	%			19:32:17
3	Y RADIAL	4853.2	4853.2	133.1	%			19:32:17
3	Al 396.153Radial†	95071.6	76432.2	89626	ug/L	89626	ppb	19:31:57
3	Ca 317.933Radial†	56190.0	45094.1	101570	ug/L	101570	ppb	19:31:57
3	Fe 238.204 Radial†	16773.1	13459.4	180790	ug/L	180790	ppb	19:31:57
3	K 766.490 Radial†	223171.1	175970.0	41066	ug/L	41066	ppb	19:31:57
3	Mg 279.077 IEC†	1033.7	829.6	37554	ug/L	37554	ppb	19:32:17
3	Na 589.592 Radial†	25202.6	21425.3	10469	ug/L	10469	ppb	19:31:57
3	Sr 421.552†	283118.8	227236.3	2372.3	ug/L	2372.3	ppb	19:31:57
3	Sc 361.383	667243.9	667243.9	119.79	%			19:32:51
3	Y 371.029	675928.2	675928.2	130.64	%			19:32:51
3	Ag 328.068†	53326.0	44464.1	322.16	ug/L	322.16	ppb	19:32:51
3	As 188.979†	2709.2	2306.2	1083.2	ug/L	1083.2	ppb	19:32:56
3	B 249.677†	73486.7	62001.9	1478.1	ug/L	1478.1	ppb	19:32:51
3	Ba 233.527†	151814.4	126738.3	1903.1	ug/L	1903.1	ppb	19:32:51
3	Be 313.107†	2101238.6	1763671.7	785.72	ug/L	785.72	ppb	19:32:51
3	Cd 226.502†	52429.3	44075.6	597.97	ug/L	597.97	ppb	19:32:56
3	Co 228.616†	32494.9	27217.4	985.85	ug/L	985.85	ppb	19:32:56
3	Cr 267.716†	191567.7	159814.5	2412.5	ug/L	2412.5	ppb	19:32:51
3	Cu 324.752†	487833.8	400863.5	1952.6	ug/L	1952.6	ppb	19:32:51
3	Mn 257.610†	3336594.9	2784775.5	5375.9	ug/L	5375.9	ppb	19:32:51
3	Mo 202.031†	5741.5	4777.0	520.00	ug/L	520.00	ppb	19:32:56
3	Ni 231.604†	49494.1	41200.1	1387.9	ug/L	1387.9	ppb	19:32:56
3	P 214.914†	17243.3	14083.4	7020.2	ug/L	7020.2	ppb	19:32:56
3	Pb 220.353†	6196.8	5268.7	939.81	ug/L	939.81	ppb	19:32:56
3	S 181.975 Axial†	3743.0	3055.7	3958.0	ug/L	3958.0	ppb	19:32:56
3	Sb 206.836†	4068.2	3338.6	1523.5	ug/L	1523.5	ppb	19:32:56
3	Se 196.026†	5008.7	4214.3	3023.2	ug/L	3023.2	ppb	19:32:56
3	Si 251.611†	662018.9	552087.9	23347	ug/L	23347	ppb	19:32:51
3	Sn 189.927†	4950.9	4121.1	1054.9	ug/L	1054.9	ppb	19:32:56
3	Ti 334.940†	2439246.7	2038269.4	5419.1	ug/L	5419.1	ppb	19:32:51
3	Tl 190.801†	2369.2	2036.7	1267.0	ug/L	1267.0	ppb	19:32:56
3	U 409.014†	-5911.5	-3134.4	-212.86	ug/L	-212.86	ppb	19:32:51
3	V 292.402†	160853.5	136252.9	1200.3	ug/L	1200.3	ppb	19:32:51
3	Zn 213.857†	632351.6	526947.0	5927.5	ug/L	5927.5	ppb	19:32:51
3	SiO2†	649128.5	541290.1	48982	ug/L	48982	ppb	19:33:13

Mean Data: 1202091940|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	663714.6	119.16	%	0.549				0.46%
Sc Radial	4099.2	126	%	1.6				1.25%
Y 371.029	672373.6	129.95	%	0.596				0.46%
Y RADIAL	4918.9	134.9	%	1.63				1.21%
Ag 328.068†	44560.7	322.11	ug/L	0.333	322.11	ppb	0.333	0.10%
Al 396.153Radial†	75297.5	88295	ug/L	1391.4	88295	ppb	1391.4	1.58%
As 188.979†	2307.1	1083.3	ug/L	11.32	1083.3	ppb	11.32	1.05%
B 249.677†	61877.4	1475.3	ug/L	2.60	1475.3	ppb	2.60	0.18%
Ba 233.527†	126696.7	1902.4	ug/L	1.77	1902.4	ppb	1.77	0.09%
Be 313.107†	1762913.5	785.39	ug/L	0.298	785.39	ppb	0.298	0.04%
Ca 317.933Radial†	44453.6	100120	ug/L	1471.5	100120	ppb	1471.5	1.47%
Cd 226.502†	44196.7	599.85	ug/L	3.651	599.85	ppb	3.651	0.61%
Co 228.616†	27287.0	988.43	ug/L	6.229	988.43	ppb	6.229	0.63%
Cr 267.716†	159784.3	2412.0	ug/L	1.72	2412.0	ppb	1.72	0.07%
Cu 324.752†	400954.9	1952.9	ug/L	2.97	1952.9	ppb	2.97	0.15%
Fe 238.204 Radial†	13296.6	178600	ug/L	2222.0	178600	ppb	2222.0	1.24%
K 766.490 Radial†	173257.9	40433	ug/L	645.4	40433	ppb	645.4	1.60%

Mg 279.077 IEC†	828.3	37495	ug/L	143.0	37495	ppb	143.0	0.38%
Mn 257.610†	2784214.2	5374.6	ug/L	5.08	5374.6	ppb	5.08	0.09%
Mo 202.031†	4785.5	520.72	ug/L	3.684	520.72	ppb	3.684	0.71%
Na 589.592 Radial†	21160.1	10339	ug/L	146.5	10339	ppb	146.5	1.42%
Ni 231.604†	41286.7	1390.9	ug/L	8.01	1390.9	ppb	8.01	0.58%
P 214.914†	14115.4	7037.8	ug/L	53.02	7037.8	ppb	53.02	0.75%
Pb 220.353†	5266.2	939.19	ug/L	5.809	939.19	ppb	5.809	0.62%
S 181.975 Axial†	3044.8	3944.0	ug/L	34.60	3944.0	ppb	34.60	0.88%
Sb 206.836†	3350.5	1528.9	ug/L	8.57	1528.9	ppb	8.57	0.56%
Se 196.026†	4227.6	3027.7	ug/L	20.18	3027.7	ppb	20.18	0.67%
Si 251.611†	551893.8	23339	ug/L	38.4	23339	ppb	38.4	0.16%
Sn 189.927†	4133.1	1057.6	ug/L	9.13	1057.6	ppb	9.13	0.86%
Sr 421.552†	224070.8	2339.2	ug/L	36.58	2339.2	ppb	36.58	1.56%
Ti 334.940†	2038394.3	5419.3	ug/L	5.40	5419.3	ppb	5.40	0.10%
Tl 190.801†	2031.3	1263.8	ug/L	3.05	1263.8	ppb	3.05	0.24%
U 409.014†	-3125.8	-211.83	ug/L	1.026	-211.83	ppb	1.026	0.48%
V 292.402†	136171.7	1199.9	ug/L	0.79	1199.9	ppb	0.79	0.07%
Zn 213.857†	526845.3	5926.2	ug/L	5.08	5926.2	ppb	5.08	0.09%
SiO2†	548330.7	49619	ug/L	869.4	49619	ppb	869.4	1.75%

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Sequence No.: 17
Sample ID: 1202072047|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 47
Date Collected: 4/15/2010 19:42:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072047|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3900.6	3900.6	120	%			19:44:26
1	Y RADIAL	4970.2	4970.2	136.4	%			19:44:06
1	Al 396.153Radial†	32478.8	27120.6	31810	ug/L	31810	ppb	19:44:06
1	Ca 317.933Radial†	5046.4	4184.6	9425.1	ug/L	9425.1	ppb	19:44:06
1	Fe 238.204 Radial†	6440.5	5350.3	71854	ug/L	71854	ppb	19:44:06
1	K 766.490 Radial†	22093.7	15194.0	3545.1	ug/L	3545.1	ppb	19:44:06
1	Mg 279.077 IEC†	138.0	114.6	5157.0	ug/L	5157.0	ppb	19:44:26
1	Na 589.592 Radial†	1438.3	2390.3	1167.9	ug/L	1167.9	ppb	19:44:06
1	Sr 421.552†	9957.1	8247.1	86.055	ug/L	86.055	ppb	19:44:06
1	Sc 361.383	666204.3	666204.3	119.60	%			19:45:24
1	Y 371.029	774774.4	774774.4	149.74	%			19:45:24
1	Ag 328.068†	-4093.6	-3475.3	0.6775	ug/L	0.6775	ppb	19:45:24
1	As 188.979†	-27.9	21.3	31.388	ug/L	31.388	ppb	19:45:44
1	B 249.677†	583.9	1143.2	20.078	ug/L	20.078	ppb	19:45:24
1	Ba 233.527†	18294.3	15299.2	232.38	ug/L	232.38	ppb	19:45:24
1	Be 313.107†	-8089.1	2787.8	4.8474	ug/L	4.8474	ppb	19:45:24
1	Cd 226.502†	301.0	559.1	1.3333	ug/L	1.3333	ppb	19:45:44
1	Co 228.616†	341.7	376.3	9.5033	ug/L	9.5033	ppb	19:45:44
1	Cr 267.716†	10505.0	8676.5	132.03	ug/L	132.03	ppb	19:45:24
1	Cu 324.752†	21114.7	11272.4	59.492	ug/L	59.492	ppb	19:45:24
1	Mn 257.610†	1136921.0	949961.9	1835.3	ug/L	1835.3	ppb	19:45:24
1	Mo 202.031†	144.6	104.9	16.208	ug/L	16.208	ppb	19:45:44
1	Ni 231.604†	2549.5	2013.9	67.923	ug/L	67.923	ppb	19:45:44
1	P 214.914†	1156.8	655.9	314.84	ug/L	314.84	ppb	19:45:44
1	Pb 220.353†	670.0	655.8	118.13	ug/L	118.13	ppb	19:45:44
1	S 181.975 Axial†	275.2	161.1	205.62	ug/L	205.62	ppb	19:45:44
1	Sb 206.836†	63.7	-4.3	-4.8584	ug/L	-4.8584	ppb	19:45:44
1	Se 196.026†	-255.3	-180.5	15.525	ug/L	15.525	ppb	19:45:44
1	Si 251.611†	451052.9	376560.3	15929	ug/L	15929	ppb	19:45:24
1	Sn 189.927†	-13.4	-23.1	-2.9040	ug/L	-2.9040	ppb	19:45:44
1	Ti 334.940†	716768.5	601272.9	1597.3	ug/L	1597.3	ppb	19:45:24
1	Tl 190.801†	-102.2	-26.6	4.9635	ug/L	4.9635	ppb	19:45:44
1	U 409.014†	-6957.8	-4016.9	-223.25	ug/L	-223.25	ppb	19:45:24
1	V 292.402†	7505.8	8247.5	62.537	ug/L	62.537	ppb	19:45:24
1	Zn 213.857†	46082.3	37587.6	428.71	ug/L	428.71	ppb	19:45:24
1	SiO2†	438235.6	365807.0	33111	ug/L	33111	ppb	19:46:42
2	Sc Radial	3726.6	3726.6	115	%			19:44:52
2	Y RADIAL	5413.1	5413.1	148.5	%			19:44:31
2	Al 396.153Radial†	31289.7	27346.5	32075	ug/L	32075	ppb	19:44:31
2	Ca 317.933Radial†	4920.3	4270.7	9619.0	ug/L	9619.0	ppb	19:44:31
2	Fe 238.204 Radial†	6197.3	5388.6	72368	ug/L	72368	ppb	19:44:31
2	K 766.490 Radial†	21731.5	15736.3	3671.7	ug/L	3671.7	ppb	19:44:31
2	Mg 279.077 IEC†	141.9	123.3	5555.3	ug/L	5555.3	ppb	19:44:52
2	Na 589.592 Radial†	1428.4	2437.5	1191.0	ug/L	1191.0	ppb	19:44:31
2	Sr 421.552†	9628.0	8347.2	87.099	ug/L	87.099	ppb	19:44:31
2	Sc 361.383	651543.9	651543.9	116.97	%			19:45:50
2	Y 371.029	756574.4	756574.4	146.22	%			19:45:50
2	Ag 328.068†	-3976.0	-3451.8	0.9653	ug/L	0.9653	ppb	19:45:50
2	As 188.979†	-17.0	30.1	35.258	ug/L	35.258	ppb	19:46:10
2	B 249.677†	625.4	1189.7	21.146	ug/L	21.146	ppb	19:45:50
2	Ba 233.527†	17841.2	15255.9	231.76	ug/L	231.76	ppb	19:45:50
2	Be 313.107†	-7753.6	2922.4	4.8805	ug/L	4.8805	ppb	19:45:50
2	Cd 226.502†	302.1	565.7	1.3797	ug/L	1.3797	ppb	19:46:10
2	Co 228.616†	364.2	402.0	10.463	ug/L	10.463	ppb	19:46:10
2	Cr 267.716†	10195.8	8609.8	131.04	ug/L	131.04	ppb	19:45:50
2	Cu 324.752†	20480.1	11127.1	58.823	ug/L	58.823	ppb	19:45:50
2	Mn 257.610†	1104736.0	943835.5	1823.5	ug/L	1823.5	ppb	19:45:50
2	Mo 202.031†	135.8	100.1	15.731	ug/L	15.731	ppb	19:46:10
2	Ni 231.604†	2519.2	2036.0	68.668	ug/L	68.668	ppb	19:46:10

2	P 214.914†	1136.6	660.4	317.28	ug/L	317.28 ppb	19:46:10
2	Pb 220.353†	664.7	663.8	119.57	ug/L	119.57 ppb	19:46:10
2	S 181.975 Axial†	268.0	160.1	204.34	ug/L	204.34 ppb	19:46:10
2	Sb 206.836†	67.8	0.3	-2.7145	ug/L	-2.7145 ppb	19:46:10
2	Se 196.026†	-259.7	-189.0	10.989	ug/L	10.989 ppb	19:46:10
2	Si 251.611†	437364.4	373343.5	15792	ug/L	15792 ppb	19:45:50
2	Sn 189.927†	-15.3	-25.0	-3.3473	ug/L	-3.3473 ppb	19:46:10
2	Ti 334.940†	695948.7	596958.4	1585.8	ug/L	1585.8 ppb	19:45:50
2	Tl 190.801†	-114.7	-39.2	-2.6627	ug/L	-2.6627 ppb	19:46:10
2	U 409.014†	-6783.3	-3998.7	-222.47	ug/L	-222.47 ppb	19:45:50
2	V 292.402†	7328.2	8236.9	62.387	ug/L	62.387 ppb	19:45:50
2	Zn 213.857†	44895.6	37440.0	427.09	ug/L	427.09 ppb	19:45:50
2	SiO2†	438487.7	374267.1	33877	ug/L	33877 ppb	19:46:47
3	Sc Radial	3680.9	3680.9	113	%		19:45:17
3	Y RADIAL	5111.4	5111.4	140.2	%		19:44:57
3	Al 396.153Radial†	32117.5	28414.1	33328	ug/L	33328 ppb	19:44:57
3	Ca 317.933Radial†	5020.7	4412.4	9938.1	ug/L	9938.1 ppb	19:44:57
3	Fe 238.204 Radial†	6329.7	5572.2	74835	ug/L	74835 ppb	19:44:57
3	K 766.490 Radial†	21910.1	16128.6	3763.3	ug/L	3763.3 ppb	19:44:57
3	Mg 279.077 IEC†	142.4	125.3	5642.7	ug/L	5642.7 ppb	19:45:17
3	Na 589.592 Radial†	1447.1	2469.4	1206.6	ug/L	1206.6 ppb	19:44:57
3	Sr 421.552†	9831.0	8630.2	90.051	ug/L	90.051 ppb	19:44:57
3	Sc 361.383	650968.1	650968.1	116.87	%		19:46:16
3	Y 371.029	756260.6	756260.6	146.16	%		19:46:16
3	Ag 328.068†	-3971.8	-3451.2	1.6841	ug/L	1.6841 ppb	19:46:16
3	As 188.979†	-30.6	18.4	30.392	ug/L	30.392 ppb	19:46:36
3	B 249.677†	557.2	1131.7	19.486	ug/L	19.486 ppb	19:46:16
3	Ba 233.527†	17718.1	15164.1	230.53	ug/L	230.53 ppb	19:46:16
3	Be 313.107†	-7846.6	2837.0	4.8323	ug/L	4.8323 ppb	19:46:16
3	Cd 226.502†	292.2	557.6	1.0437	ug/L	1.0437 ppb	19:46:36
3	Co 228.616†	362.5	400.8	10.397	ug/L	10.397 ppb	19:46:36
3	Cr 267.716†	10110.0	8544.1	130.09	ug/L	130.09 ppb	19:46:16
3	Cu 324.752†	20528.9	11184.4	59.265	ug/L	59.265 ppb	19:46:16
3	Mn 257.610†	1097572.6	938541.4	1813.6	ug/L	1813.6 ppb	19:46:16
3	Mo 202.031†	160.4	121.2	18.150	ug/L	18.150 ppb	19:46:36
3	Ni 231.604†	2482.0	2006.1	67.662	ug/L	67.662 ppb	19:46:36
3	P 214.914†	1133.5	658.6	315.55	ug/L	315.55 ppb	19:46:36
3	Pb 220.353†	663.2	663.1	119.57	ug/L	119.57 ppb	19:46:36
3	S 181.975 Axial†	255.8	149.9	190.89	ug/L	190.89 ppb	19:46:36
3	Sb 206.836†	64.1	-2.7	-3.9410	ug/L	-3.9410 ppb	19:46:36
3	Se 196.026†	-258.0	-187.8	16.294	ug/L	16.294 ppb	19:46:36
3	Si 251.611†	435984.1	372493.2	15756	ug/L	15756 ppb	19:46:16
3	Sn 189.927†	-6.3	-17.2	-1.3030	ug/L	-1.3030 ppb	19:46:36
3	Ti 334.940†	693267.2	595190.2	1581.1	ug/L	1581.1 ppb	19:46:16
3	Tl 190.801†	-118.6	-42.6	-4.7598	ug/L	-4.7598 ppb	19:46:36
3	U 409.014†	-6811.3	-4027.8	-224.60	ug/L	-224.60 ppb	19:46:16
3	V 292.402†	7181.0	8116.5	61.011	ug/L	61.011 ppb	19:46:16
3	Zn 213.857†	44580.5	37204.3	424.68	ug/L	424.68 ppb	19:46:16
3	SiO2†	434521.5	371204.9	33600	ug/L	33600 ppb	19:46:53

Mean Data: 1202072047|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	656238.8	117.81	%	1.550				1.32%
Sc Radial	3769.4	116	%	3.6				3.08%
Y 371.029	762536.5	147.37	%	2.049				1.39%
Y RADIAL	5164.9	141.7	%	6.21				4.38%
Ag 328.068†	-3459.4	1.1090	ug/L	0.51846	1.1090	ppb	0.51846	46.75%
Al 396.153Radial†	27627.0	32405	ug/L	810.3	32405	ppb	810.3	2.50%
As 188.979†	23.3	32.346	ug/L	2.5709	32.346	ppb	2.5709	7.95%
B 249.677†	1154.9	20.236	ug/L	0.8413	20.236	ppb	0.8413	4.16%
Ba 233.527†	15239.7	231.56	ug/L	0.941	231.56	ppb	0.941	0.41%
Be 313.107†	2849.1	4.8534	ug/L	0.02462	4.8534	ppb	0.02462	0.51%
Ca 317.933Radial†	4289.3	9660.7	ug/L	259.02	9660.7	ppb	259.02	2.68%
Cd 226.502†	560.8	1.2522	ug/L	0.18209	1.2522	ppb	0.18209	14.54%
Co 228.616†	393.0	10.121	ug/L	0.5361	10.121	ppb	0.5361	5.30%
Cr 267.716†	8610.1	131.05	ug/L	0.975	131.05	ppb	0.975	0.74%
Cu 324.752†	11194.6	59.193	ug/L	0.3404	59.193	ppb	0.3404	0.58%
Fe 238.204 Radial†	5437.0	73019	ug/L	1593.3	73019	ppb	1593.3	2.18%
K 766.490 Radial†	15686.3	3660.1	ug/L	109.55	3660.1	ppb	109.55	2.99%

Mg 279.077 IEC†	121.1	5451.7	ug/L	258.86	5451.7	ppb	258.86	4.75%
Mn 257.610†	944113.0	1824.1	ug/L	10.85	1824.1	ppb	10.85	0.59%
Mo 202.031†	108.7	16.696	ug/L	1.2811	16.696	ppb	1.2811	7.67%
Na 589.592 Radial†	2432.4	1188.5	ug/L	19.46	1188.5	ppb	19.46	1.64%
Ni 231.604†	2018.6	68.085	ug/L	0.5222	68.085	ppb	0.5222	0.77%
P 214.914†	658.3	315.89	ug/L	1.254	315.89	ppb	1.254	0.40%
Pb 220.353†	660.9	119.09	ug/L	0.833	119.09	ppb	0.833	0.70%
S 181.975 Axial†	157.1	200.28	ug/L	8.160	200.28	ppb	8.160	4.07%
Sb 206.836†	-2.2	-3.8380	ug/L	1.07568	-3.8380	ppb	1.07568	28.03%
Se 196.026†	-185.8	14.270	ug/L	2.8667	14.270	ppb	2.8667	20.09%
Si 251.611†	374132.4	15826	ug/L	90.8	15826	ppb	90.8	0.57%
Sn 189.927†	-21.8	-2.5181	ug/L	1.07540	-2.5181	ppb	1.07540	42.71%
Sr 421.552†	8408.2	87.735	ug/L	2.0728	87.735	ppb	2.0728	2.36%
Ti 334.940†	597807.2	1588.1	ug/L	8.30	1588.1	ppb	8.30	0.52%
Tl 190.801†	-36.1	-0.8197	ug/L	5.11697	-0.8197	ppb	5.11697	624.28%
U 409.014†	-4014.5	-223.44	ug/L	1.080	-223.44	ppb	1.080	0.48%
V 292.402†	8200.3	61.979	ug/L	0.8412	61.979	ppb	0.8412	1.36%
Zn 213.857†	37410.6	426.83	ug/L	2.025	426.83	ppb	2.025	0.47%
SiO2†	370426.3	33529	ug/L	387.7	33529	ppb	387.7	1.16%

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Sequence No.: 18
Sample ID: 1202072048|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 48
Date Collected: 4/15/2010 19:49:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072048|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3914.7	3914.7	121	%			19:51:17
1	Y RADIAL	5583.0	5583.0	153.2	%			19:51:17
1	Al 396.153Radial†	55923.3	46446.1	54456	ug/L	54456	ppb	19:50:57
1	Ca 317.933Radial†	6765.3	5593.5	12598	ug/L	12598	ppb	19:51:17
1	Fe 238.204 Radial†	6919.7	5727.9	76939	ug/L	76939	ppb	19:51:17
1	K 766.490 Radial†	49971.9	38223.9	8919.0	ug/L	8919.0	ppb	19:50:57
1	Mg 279.077 IEC†	304.4	252.0	11399	ug/L	11399	ppb	19:51:17
1	Na 589.592 Radial†	12335.9	11414.3	5577.4	ug/L	5577.4	ppb	19:50:57
1	Sr 421.552†	62545.7	51785.5	540.71	ug/L	540.71	ppb	19:50:57
1	Sc 361.383	654638.4	654638.4	117.53	%			19:52:16
1	Y 371.029	796472.3	796472.3	153.93	%			19:52:16
1	Ag 328.068†	87474.0	74377.1	467.96	ug/L	467.96	ppb	19:52:16
1	As 188.979†	1209.1	1073.4	500.91	ug/L	500.91	ppb	19:52:36
1	B 249.677†	22345.6	19668.4	466.33	ug/L	466.33	ppb	19:52:16
1	Ba 233.527†	54783.7	46617.3	700.80	ug/L	700.80	ppb	19:52:16
1	Be 313.107†	1249773.3	1072955.5	475.67	ug/L	475.67	ppb	19:52:16
1	Cd 226.502†	38445.9	33020.3	452.98	ug/L	452.98	ppb	19:52:36
1	Co 228.616†	15455.9	13241.7	481.22	ug/L	481.22	ppb	19:52:36
1	Cr 267.716†	46722.3	39648.2	599.23	ug/L	599.23	ppb	19:52:16
1	Cu 324.752†	140534.2	113195.7	552.80	ug/L	552.80	ppb	19:52:16
1	Mn 257.610†	1390931.1	1182888.1	2283.7	ug/L	2283.7	ppb	19:52:16
1	Mo 202.031†	5199.2	4407.9	472.46	ug/L	472.46	ppb	19:52:36
1	Ni 231.604†	18795.7	15875.1	534.74	ug/L	534.74	ppb	19:52:36
1	P 214.914†	2166.6	1532.2	674.25	ug/L	674.25	ppb	19:52:36
1	Pb 220.353†	3833.7	3357.6	601.38	ug/L	601.38	ppb	19:52:36
1	S 181.975 Axial†	4573.6	3822.6	4957.8	ug/L	4957.8	ppb	19:52:36
1	Sb 206.836†	1231.8	990.5	459.52	ug/L	459.52	ppb	19:52:36
1	Se 196.026†	604.2	547.1	491.19	ug/L	491.19	ppb	19:52:36
1	Si 251.611†	413770.5	351500.6	14863	ug/L	14863	ppb	19:52:16
1	Sn 189.927†	2144.8	1813.1	458.30	ug/L	458.30	ppb	19:52:36
1	Ti 334.940†	1000155.3	852988.7	2265.2	ug/L	2265.2	ppb	19:52:16
1	Tl 190.801†	817.8	754.7	472.21	ug/L	472.21	ppb	19:52:36
1	U 409.014†	2967.3	4325.3	197.30	ug/L	197.30	ppb	19:52:16
1	V 292.402†	67388.0	59310.8	527.00	ug/L	527.00	ppb	19:52:16
1	Zn 213.857†	91982.6	77323.9	872.09	ug/L	872.09	ppb	19:52:16
1	SiO2†	409838.5	348118.1	31498	ug/L	31498	ppb	19:53:36
2	Sc Radial	3881.6	3881.6	120	%			19:51:42
2	Y RADIAL	5564.8	5564.8	152.7	%			19:51:42
2	Al 396.153Radial†	57197.2	47906.4	56170	ug/L	56170	ppb	19:51:22
2	Ca 317.933Radial†	6709.0	5594.4	12600	ug/L	12600	ppb	19:51:42
2	Fe 238.204 Radial†	6849.5	5718.2	76809	ug/L	76809	ppb	19:51:42
2	K 766.490 Radial†	50860.3	39319.9	9174.8	ug/L	9174.8	ppb	19:51:22
2	Mg 279.077 IEC†	308.2	257.4	11640	ug/L	11640	ppb	19:51:42
2	Na 589.592 Radial†	12491.2	11631.4	5683.4	ug/L	5683.4	ppb	19:51:22
2	Sr 421.552†	63691.5	53185.5	555.33	ug/L	555.33	ppb	19:51:22
2	Sc 361.383	647780.8	647780.8	116.29	%			19:52:43
2	Y 371.029	789288.0	789288.0	152.54	%			19:52:43
2	Ag 328.068†	86459.4	74292.5	467.42	ug/L	467.42	ppb	19:52:43
2	As 188.979†	1166.7	1047.8	489.61	ug/L	489.61	ppb	19:53:03
2	B 249.677†	21999.2	19571.8	464.05	ug/L	464.05	ppb	19:52:43
2	Ba 233.527†	54154.2	46569.6	700.08	ug/L	700.08	ppb	19:52:43
2	Be 313.107†	1230195.4	1067378.4	473.22	ug/L	473.22	ppb	19:52:43
2	Cd 226.502†	37005.6	32128.1	440.57	ug/L	440.57	ppb	19:53:03
2	Co 228.616†	14846.0	12856.5	467.06	ug/L	467.06	ppb	19:53:03
2	Cr 267.716†	46124.9	39555.4	597.83	ug/L	597.83	ppb	19:52:43
2	Cu 324.752†	139084.1	113214.7	552.89	ug/L	552.89	ppb	19:52:43
2	Mn 257.610†	1374687.7	1181449.7	2280.9	ug/L	2280.9	ppb	19:52:43
2	Mo 202.031†	5012.0	4293.8	460.36	ug/L	460.36	ppb	19:53:03
2	Ni 231.604†	18138.5	15479.3	521.41	ug/L	521.41	ppb	19:53:03

2	P 214.914†	2082.5	1479.4	646.38	ug/L	646.38 ppb	19:53:03
2	Pb 220.353†	3670.6	3251.8	583.12	ug/L	583.12 ppb	19:53:03
2	S 181.975 Axial†	4371.1	3689.7	4785.1	ug/L	4785.1 ppb	19:53:03
2	Sb 206.836†	1176.9	954.4	442.76	ug/L	442.76 ppb	19:53:03
2	Se 196.026†	564.5	518.4	472.59	ug/L	472.59 ppb	19:53:03
2	Si 251.611†	408822.1	350972.6	14841	ug/L	14841 ppb	19:52:43
2	Sn 189.927†	2057.7	1757.5	444.36	ug/L	444.36 ppb	19:53:03
2	Ti 334.940†	989022.9	852425.1	2263.7	ug/L	2263.7 ppb	19:52:43
2	Tl 190.801†	766.7	718.1	450.56	ug/L	450.56 ppb	19:53:03
2	U 409.014†	2957.8	4343.8	198.27	ug/L	198.27 ppb	19:52:43
2	V 292.402†	66702.8	59328.7	527.02	ug/L	527.02 ppb	19:52:43
2	Zn 213.857†	90697.2	77047.1	869.05	ug/L	869.05 ppb	19:52:43
2	SiO2†	412413.3	354023.8	32033	ug/L	32033 ppb	19:53:42
3	Sc Radial	3912.4	3912.4	121	%		19:52:07
3	Y RADIAL	5612.8	5612.8	154.0	%		19:52:07
3	Al 396.153Radial†	56521.0	46968.7	55069	ug/L	55069 ppb	19:51:47
3	Ca 317.933Radial†	6783.5	5611.9	12640	ug/L	12640 ppb	19:52:07
3	Fe 238.204 Radial†	6903.0	5717.4	76798	ug/L	76798 ppb	19:52:07
3	K 766.490 Radial†	50349.9	38561.5	8997.8	ug/L	8997.8 ppb	19:51:47
3	Mg 279.077 IEC†	306.8	254.1	11495	ug/L	11495 ppb	19:52:07
3	Na 589.592 Radial†	12344.9	11427.7	5583.9	ug/L	5583.9 ppb	19:51:47
3	Sr 421.552†	62940.6	52143.1	544.44	ug/L	544.44 ppb	19:51:47
3	Sc 361.383	632602.4	632602.4	113.57	%		19:53:11
3	Y 371.029	771074.4	771074.4	149.02	%		19:53:11
3	Ag 328.068†	84525.0	74373.1	467.90	ug/L	467.90 ppb	19:53:11
3	As 188.979†	1156.5	1062.9	496.25	ug/L	496.25 ppb	19:53:31
3	B 249.677†	21475.1	19564.2	463.83	ug/L	463.83 ppb	19:53:11
3	Ba 233.527†	52806.5	46500.2	699.05	ug/L	699.05 ppb	19:53:11
3	Be 313.107†	1202451.5	1068330.4	473.64	ug/L	473.64 ppb	19:53:11
3	Cd 226.502†	37038.7	32920.8	451.61	ug/L	451.61 ppb	19:53:31
3	Co 228.616†	14895.5	13206.3	479.93	ug/L	479.93 ppb	19:53:31
3	Cr 267.716†	44996.3	39513.3	597.20	ug/L	597.20 ppb	19:53:11
3	Cu 324.752†	135680.0	113086.9	552.27	ug/L	552.27 ppb	19:53:11
3	Mn 257.610†	1339653.8	1178964.0	2276.1	ug/L	2276.1 ppb	19:53:11
3	Mo 202.031†	5016.7	4401.3	471.75	ug/L	471.75 ppb	19:53:31
3	Ni 231.604†	18127.6	15843.9	533.69	ug/L	533.69 ppb	19:53:31
3	P 214.914†	2095.6	1533.9	675.47	ug/L	675.47 ppb	19:53:31
3	Pb 220.353†	3678.3	3334.4	597.46	ug/L	597.46 ppb	19:53:31
3	S 181.975 Axial†	4393.4	3799.5	4927.7	ug/L	4927.7 ppb	19:53:31
3	Sb 206.836†	1193.2	993.1	460.54	ug/L	460.54 ppb	19:53:31
3	Se 196.026†	580.9	544.5	489.24	ug/L	489.24 ppb	19:53:31
3	Si 251.611†	398462.8	350285.8	14812	ug/L	14812 ppb	19:53:11
3	Sn 189.927†	2044.7	1788.5	452.14	ug/L	452.14 ppb	19:53:31
3	Ti 334.940†	964842.0	851538.6	2261.3	ug/L	2261.3 ppb	19:53:11
3	Tl 190.801†	771.7	738.3	462.44	ug/L	462.44 ppb	19:53:31
3	U 409.014†	2770.4	4239.9	193.01	ug/L	193.01 ppb	19:53:11
3	V 292.402†	65084.2	59279.6	526.73	ug/L	526.73 ppb	19:53:11
3	Zn 213.857†	88501.7	76985.1	868.28	ug/L	868.28 ppb	19:53:11
3	SiO2†	405423.3	356377.8	32245	ug/L	32245 ppb	19:53:47

Mean Data: 1202072048|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	645007.2	115.80	%	2.024				1.75%
Sc Radial	3902.9	120	%	0.6				0.47%
Y 371.029	785611.6	151.83	%	2.530				1.67%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 151.8%								
Y RADIAL	5586.9	153.3	%	0.67				0.43%
Ag 328.068†	74347.6	467.76	ug/L	0.297	467.76	ppb	0.297	0.06%
Al 396.153Radial†	47107.1	55232	ug/L	868.2	55232	ppb	868.2	1.57%
As 188.979†	1061.4	495.59	ug/L	5.675	495.59	ppb	5.675	1.15%
B 249.677†	19601.5	464.74	ug/L	1.386	464.74	ppb	1.386	0.30%
Ba 233.527†	46562.4	699.98	ug/L	0.883	699.98	ppb	0.883	0.13%
Be 313.107†	1069554.8	474.18	ug/L	1.311	474.18	ppb	1.311	0.28%
Ca 317.933Radial†	5599.9	12613	ug/L	23.3	12613	ppb	23.3	0.19%
Cd 226.502†	32689.7	448.38	ug/L	6.805	448.38	ppb	6.805	1.52%
Co 228.616†	13101.5	476.07	ug/L	7.828	476.07	ppb	7.828	1.64%
Cr 267.716†	39572.3	598.09	ug/L	1.041	598.09	ppb	1.041	0.17%
Cu 324.752†	113165.8	552.65	ug/L	0.337	552.65	ppb	0.337	0.06%
Fe 238.204 Radial†	5721.2	76849	ug/L	78.5	76849	ppb	78.5	0.10%

K 766.490 Radial†	38701.8	9030.5	ug/L	131.02	9030.5	ppb	131.02	1.45%
Mg 279.077 IEC†	254.5	11511	ug/L	121.5	11511	ppb	121.5	1.06%
Mn 257.610†	1181100.6	2280.3	ug/L	3.83	2280.3	ppb	3.83	0.17%
Mo 202.031†	4367.7	468.19	ug/L	6.791	468.19	ppb	6.791	1.45%
Na 589.592 Radial†	11491.1	5614.9	ug/L	59.44	5614.9	ppb	59.44	1.06%
Ni 231.604†	15732.7	529.95	ug/L	7.410	529.95	ppb	7.410	1.40%
P 214.914†	1515.2	665.37	ug/L	16.454	665.37	ppb	16.454	2.47%
Pb 220.353†	3314.6	593.99	ug/L	9.612	593.99	ppb	9.612	1.62%
S 181.975 Axial†	3770.6	4890.2	ug/L	92.29	4890.2	ppb	92.29	1.89%
Sb 206.836†	979.3	454.27	ug/L	9.982	454.27	ppb	9.982	2.20%
Se 196.026†	536.6	484.34	ug/L	10.224	484.34	ppb	10.224	2.11%
Si 251.611†	350919.6	14838	ug/L	25.8	14838	ppb	25.8	0.17%
Sn 189.927†	1786.4	451.60	ug/L	6.986	451.60	ppb	6.986	1.55%
Sr 421.552†	52371.3	546.82	ug/L	7.596	546.82	ppb	7.596	1.39%
Ti 334.940†	852317.5	2263.4	ug/L	1.94	2263.4	ppb	1.94	0.09%
Tl 190.801†	737.0	461.74	ug/L	10.842	461.74	ppb	10.842	2.35%
U 409.014†	4303.0	196.19	ug/L	2.802	196.19	ppb	2.802	1.43%
V 292.402†	59306.4	526.92	ug/L	0.161	526.92	ppb	0.161	0.03%
Zn 213.857†	77118.7	869.81	ug/L	2.015	869.81	ppb	2.015	0.23%
SiO2†	352839.9	31925	ug/L	385.2	31925	ppb	385.2	1.21%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 19
Sample ID: 1202072050|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 49
Date Collected: 4/15/2010 19:55:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072050|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3746.1	3746.1	116	%			19:58:13
1	Y RADIAL	5763.3	5763.3	158.1	%			19:57:53
1	Al 396.153Radial†	59957.5	52024.6	60999	ug/L	60999	ppb	19:57:53
1	Ca 317.933Radial†	7213.9	6234.2	14041	ug/L	14041	ppb	19:57:53
1	Fe 238.204 Radial†	7525.8	6510.7	87453	ug/L	87453	ppb	19:57:53
1	K 766.490 Radial†	53248.9	42924.8	10016	ug/L	10016	ppb	19:57:53
1	Mg 279.077 IEC†	325.2	281.3	12723	ug/L	12723	ppb	19:58:13
1	Na 589.592 Radial†	12160.8	11722.8	5728.1	ug/L	5728.1	ppb	19:57:53
1	Sr 421.552†	63137.0	54630.0	570.40	ug/L	570.40	ppb	19:57:53
1	Sc 361.383	641582.0	641582.0	115.18	%			19:59:12
1	Y 371.029	795479.9	795479.9	153.74	%			19:59:12
1	Ag 328.068†	86084.2	74685.1	472.90	ug/L	472.90	ppb	19:59:12
1	As 188.979†	1221.1	1104.7	517.85	ug/L	517.85	ppb	19:59:32
1	B 249.677†	22181.0	19912.4	471.11	ug/L	471.11	ppb	19:59:12
1	Ba 233.527†	53949.8	46842.0	704.76	ug/L	704.76	ppb	19:59:12
1	Be 313.107†	1230774.1	1078101.2	478.43	ug/L	478.43	ppb	19:59:12
1	Cd 226.502†	38318.1	33575.0	459.75	ug/L	459.75	ppb	19:59:32
1	Co 228.616†	15414.3	13473.2	489.13	ug/L	489.13	ppb	19:59:32
1	Cr 267.716†	43387.7	37562.2	567.98	ug/L	567.98	ppb	19:59:12
1	Cu 324.752†	137599.9	113081.7	552.96	ug/L	552.96	ppb	19:59:12
1	Mn 257.610†	1373812.5	1192110.8	2302.5	ug/L	2302.5	ppb	19:59:12
1	Mo 202.031†	5122.7	4431.5	475.71	ug/L	475.71	ppb	19:59:32
1	Ni 231.604†	18208.7	15690.9	528.54	ug/L	528.54	ppb	19:59:32
1	P 214.914†	2408.1	1779.4	803.64	ug/L	803.64	ppb	19:59:32
1	Pb 220.353†	3715.7	3321.5	595.84	ug/L	595.84	ppb	19:59:32
1	S 181.975 Axial†	4553.9	3884.7	5037.8	ug/L	5037.8	ppb	19:59:32
1	Sb 206.836†	1190.9	976.3	452.75	ug/L	452.75	ppb	19:59:32
1	Se 196.026†	558.3	517.7	491.54	ug/L	491.54	ppb	19:59:32
1	Si 251.611†	527572.0	457467.0	19345	ug/L	19345	ppb	19:59:12
1	Sn 189.927†	2110.1	1820.1	460.50	ug/L	460.50	ppb	19:59:32
1	Ti 334.940†	1075646.6	935848.0	2485.3	ug/L	2485.3	ppb	19:59:12
1	Tl 190.801†	800.8	754.1	473.55	ug/L	473.55	ppb	19:59:32
1	U 409.014†	2510.0	3979.7	177.02	ug/L	177.02	ppb	19:59:12
1	V 292.402†	66918.5	60070.1	532.22	ug/L	532.22	ppb	19:59:12
1	Zn 213.857†	93653.2	80367.0	907.32	ug/L	907.32	ppb	19:59:12
1	SiO2†	525483.5	455617.0	41228	ug/L	41228	ppb	20:00:32
2	Sc Radial	3772.8	3772.8	116	%			19:58:38
2	Y RADIAL	5688.2	5688.2	156.1	%			19:58:18
2	Al 396.153Radial†	59291.2	51084.1	59896	ug/L	59896	ppb	19:58:18
2	Ca 317.933Radial†	7095.0	6087.7	13711	ug/L	13711	ppb	19:58:18
2	Fe 238.204 Radial†	7418.6	6372.4	85595	ug/L	85595	ppb	19:58:18
2	K 766.490 Radial†	52645.3	42079.5	9819.0	ug/L	9819.0	ppb	19:58:18
2	Mg 279.077 IEC†	323.9	278.3	12584	ug/L	12584	ppb	19:58:38
2	Na 589.592 Radial†	11995.7	11506.3	5622.3	ug/L	5622.3	ppb	19:58:18
2	Sr 421.552†	62382.5	53594.4	559.59	ug/L	559.59	ppb	19:58:18
2	Sc 361.383	649750.9	649750.9	116.65	%			19:59:39
2	Y 371.029	805133.3	805133.3	155.61	%			19:59:39
2	Ag 328.068†	87391.4	74866.1	473.43	ug/L	473.43	ppb	19:59:39
2	As 188.979†	1220.4	1090.8	511.48	ug/L	511.48	ppb	19:59:59
2	B 249.677†	22609.6	20037.7	474.34	ug/L	474.34	ppb	19:59:39
2	Ba 233.527†	54651.0	46854.3	704.84	ug/L	704.84	ppb	19:59:39
2	Be 313.107†	1248129.9	1079545.7	479.07	ug/L	479.07	ppb	19:59:39
2	Cd 226.502†	38822.0	33588.8	460.11	ug/L	460.11	ppb	19:59:59
2	Co 228.616†	15586.3	13452.4	488.39	ug/L	488.39	ppb	19:59:59
2	Cr 267.716†	43901.5	37529.0	567.45	ug/L	567.45	ppb	19:59:39
2	Cu 324.752†	139415.2	113135.9	553.09	ug/L	553.09	ppb	19:59:39
2	Mn 257.610†	1393410.2	1193915.9	2305.8	ug/L	2305.8	ppb	19:59:39
2	Mo 202.031†	5210.9	4451.2	477.66	ug/L	477.66	ppb	19:59:59
2	Ni 231.604†	18412.8	15667.1	527.74	ug/L	527.74	ppb	19:59:59

2	P 214.914†	2461.7	1799.0	814.57 ug/L	814.57 ppb	19:59:59
2	Pb 220.353†	3775.8	3332.5	597.66 ug/L	597.66 ppb	19:59:59
2	S 181.975 Axial†	4603.6	3877.6	5028.7 ug/L	5028.7 ppb	19:59:59
2	Sb 206.836†	1225.5	993.0	460.25 ug/L	460.25 ppb	19:59:59
2	Se 196.026†	590.7	539.4	502.06 ug/L	502.06 ppb	19:59:59
2	Si 251.611†	535530.3	458530.9	19390 ug/L	19390 ppb	19:59:39
2	Sn 189.927†	2133.3	1816.9	459.60 ug/L	459.60 ppb	19:59:59
2	Ti 334.940†	1090554.8	936887.5	2488.0 ug/L	2488.0 ppb	19:59:39
2	Tl 190.801†	807.3	750.9	471.71 ug/L	471.71 ppb	19:59:59
2	U 409.014†	2756.8	4163.9	186.86 ug/L	186.86 ppb	19:59:39
2	V 292.402†	67796.0	60091.9	532.70 ug/L	532.70 ppb	19:59:39
2	Zn 213.857†	95100.2	80585.2	909.61 ug/L	909.61 ppb	19:59:39
2	SiO2†	524866.4	449352.1	40661 ug/L	40661 ppb	20:00:38
3	Sc Radial	3769.6	3769.6	116 %		19:59:03
3	Y RADIAL	5697.7	5697.7	156.3 %		19:58:43
3	Al 396.153Radial†	58818.6	50721.0	59471 ug/L	59471 ppb	19:58:43
3	Ca 317.933Radial†	7059.1	6062.1	13654 ug/L	13654 ppb	19:58:43
3	Fe 238.204 Radial†	7333.4	6304.6	84684 ug/L	84684 ppb	19:58:43
3	K 766.490 Radial†	52140.0	41683.3	9726.5 ug/L	9726.5 ppb	19:58:43
3	Mg 279.077 IEC†	321.3	276.3	12494 ug/L	12494 ppb	19:59:03
3	Na 589.592 Radial†	11799.1	11345.9	5543.9 ug/L	5543.9 ppb	19:58:43
3	Sr 421.552†	61736.2	53084.0	554.26 ug/L	554.26 ppb	19:58:43
3	Sc 361.383	643800.7	643800.7	115.58 %		20:00:06
3	Y 371.029	799112.0	799112.0	154.44 %		20:00:06
3	Ag 328.068†	86407.9	74707.6	472.22 ug/L	472.22 ppb	20:00:06
3	As 188.979†	1189.2	1073.5	503.68 ug/L	503.68 ppb	20:00:26
3	B 249.677†	22276.5	19928.7	471.82 ug/L	471.82 ppb	20:00:06
3	Ba 233.527†	54129.5	46836.1	704.52 ug/L	704.52 ppb	20:00:06
3	Be 313.107†	1233519.4	1076794.0	477.85 ug/L	477.85 ppb	20:00:06
3	Cd 226.502†	37752.5	32971.1	451.59 ug/L	451.59 ppb	20:00:26
3	Co 228.616†	15147.7	13196.4	479.00 ug/L	479.00 ppb	20:00:26
3	Cr 267.716†	43369.4	37416.5	565.74 ug/L	565.74 ppb	20:00:06
3	Cu 324.752†	137896.3	112926.4	552.03 ug/L	552.03 ppb	20:00:06
3	Mn 257.610†	1375349.8	1189330.4	2296.9 ug/L	2296.9 ppb	20:00:06
3	Mo 202.031†	5039.3	4344.0	466.24 ug/L	466.24 ppb	20:00:26
3	Ni 231.604†	17898.2	15367.8	517.66 ug/L	517.66 ppb	20:00:26
3	P 214.914†	2359.6	1730.2	778.26 ug/L	778.26 ppb	20:00:26
3	Pb 220.353†	3673.3	3273.7	587.20 ug/L	587.20 ppb	20:00:26
3	S 181.975 Axial†	4442.7	3774.9	4895.3 ug/L	4895.3 ppb	20:00:26
3	Sb 206.836†	1188.3	970.5	449.76 ug/L	449.76 ppb	20:00:26
3	Se 196.026†	568.9	525.2	491.28 ug/L	491.28 ppb	20:00:26
3	Si 251.611†	528619.8	456795.1	19317 ug/L	19317 ppb	20:00:06
3	Sn 189.927†	2079.8	1787.5	452.20 ug/L	452.20 ppb	20:00:26
3	Ti 334.940†	1077482.8	934218.4	2480.9 ug/L	2480.9 ppb	20:00:06
3	Tl 190.801†	776.5	730.6	459.66 ug/L	459.66 ppb	20:00:26
3	U 409.014†	2660.9	4102.7	184.01 ug/L	184.01 ppb	20:00:06
3	V 292.402†	67052.3	59985.6	531.71 ug/L	531.71 ppb	20:00:06
3	Zn 213.857†	93857.2	80263.3	905.97 ug/L	905.97 ppb	20:00:06
3	SiO2†	527069.2	455416.7	41210 ug/L	41210 ppb	20:00:43

Mean Data: 1202072050|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	645044.5	115.80	%	0.758				0.65%
Sc Radial	3762.8	116	%	0.4				0.39%
Y 371.029	799908.4	154.60	%	0.942				0.61%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 154.6%								
Y RADIAL	5716.4	156.8	%	1.12				0.71%
Ag 328.068†	74753.0	472.85	ug/L	0.608	472.85	ppb	0.608	0.13%
Al 396.153Radial†	51276.6	60122	ug/L	789.0	60122	ppb	789.0	1.31%
As 188.979†	1089.7	511.00	ug/L	7.096	511.00	ppb	7.096	1.39%
B 249.677†	19959.6	472.42	ug/L	1.696	472.42	ppb	1.696	0.36%
Ba 233.527†	46844.1	704.71	ug/L	0.170	704.71	ppb	0.170	0.02%
Be 313.107†	1078147.0	478.45	ug/L	0.612	478.45	ppb	0.612	0.13%
Ca 317.933Radial†	6128.0	13802	ug/L	209.2	13802	ppb	209.2	1.52%
Cd 226.502†	33378.3	457.15	ug/L	4.819	457.15	ppb	4.819	1.05%
Co 228.616†	13374.0	485.51	ug/L	5.647	485.51	ppb	5.647	1.16%
Cr 267.716†	37502.5	567.06	ug/L	1.171	567.06	ppb	1.171	0.21%
Cu 324.752†	113048.0	552.69	ug/L	0.582	552.69	ppb	0.582	0.11%
Fe 238.204 Radial†	6395.9	85911	ug/L	1411.0	85911	ppb	1411.0	1.64%

K 766.490 Radial†	42229.2	9853.9	ug/L	147.99	9853.9	ppb	147.99	1.50%
Mg 279.077 IEC†	278.6	12600	ug/L	115.3	12600	ppb	115.3	0.92%
Mn 257.610†	1191785.7	2301.7	ug/L	4.51	2301.7	ppb	4.51	0.20%
Mo 202.031†	4408.9	473.20	ug/L	6.108	473.20	ppb	6.108	1.29%
Na 589.592 Radial†	11525.0	5631.5	ug/L	92.42	5631.5	ppb	92.42	1.64%
Ni 231.604†	15575.3	524.65	ug/L	6.067	524.65	ppb	6.067	1.16%
P 214.914†	1769.6	798.83	ug/L	18.629	798.83	ppb	18.629	2.33%
Pb 220.353†	3309.2	593.57	ug/L	5.584	593.57	ppb	5.584	0.94%
S 181.975 Axial†	3845.7	4987.2	ug/L	79.75	4987.2	ppb	79.75	1.60%
Sb 206.836†	979.9	454.25	ug/L	5.407	454.25	ppb	5.407	1.19%
Se 196.026†	527.4	494.96	ug/L	6.148	494.96	ppb	6.148	1.24%
Si 251.611†	457597.7	19351	ug/L	37.0	19351	ppb	37.0	0.19%
Sn 189.927†	1808.2	457.43	ug/L	4.552	457.43	ppb	4.552	1.00%
Sr 421.552†	53769.5	561.42	ug/L	8.225	561.42	ppb	8.225	1.47%
Ti 334.940†	935651.3	2484.8	ug/L	3.57	2484.8	ppb	3.57	0.14%
Tl 190.801†	745.2	468.31	ug/L	7.547	468.31	ppb	7.547	1.61%
U 409.014†	4082.1	182.63	ug/L	5.062	182.63	ppb	5.062	2.77%
V 292.402†	60049.2	532.21	ug/L	0.498	532.21	ppb	0.498	0.09%
Zn 213.857†	80405.2	907.63	ug/L	1.839	907.63	ppb	1.839	0.20%
SiO2†	453461.9	41033	ug/L	322.4	41033	ppb	322.4	0.79%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 20
Sample ID: 1202072049|973755|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 50
Date Collected: 4/15/2010 20:02:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072049|973755|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3657.3	3657.3	113	%			20:05:08
1	Y RADIAL	4320.4	4320.4	118.5	%			20:04:48
1	Al 396.153Radial†	4995.6	4545.3	5331.3	ug/L	5331.3	ppb	20:04:48
1	Ca 317.933Radial†	766.5	668.4	1505.5	ug/L	1505.5	ppb	20:05:08
1	Fe 238.204 Radial†	1105.3	975.3	13098	ug/L	13098	ppb	20:05:08
1	K 766.490 Radial†	5868.8	2028.0	473.09	ug/L	473.09	ppb	20:04:48
1	Mg 279.077 IEC†	22.6	19.8	891.85	ug/L	891.85	ppb	20:05:08
1	Na 589.592 Radial†	-746.0	532.8	260.33	ug/L	260.33	ppb	20:04:48
1	Sr 421.552†	1532.5	1327.0	13.847	ug/L	13.847	ppb	20:04:48
1	Sc 361.383	608079.6	608079.6	109.17	%			20:06:05
1	Y 371.029	591199.2	591199.2	114.26	%			20:06:05
1	Ag 328.068†	-580.3	-584.2	0.4158	ug/L	0.4158	ppb	20:06:05
1	As 188.979†	-29.8	17.3	11.685	ug/L	11.685	ppb	20:06:25
1	B 249.677†	-282.2	396.5	8.2110	ug/L	8.2110	ppb	20:06:05
1	Ba 233.527†	2916.7	2674.9	40.659	ug/L	40.659	ppb	20:06:25
1	Be 313.107†	-9589.9	766.5	1.0058	ug/L	1.0058	ppb	20:06:05
1	Cd 226.502†	-200.5	123.8	0.5474	ug/L	0.5474	ppb	20:06:25
1	Co 228.616†	-27.5	65.4	1.6073	ug/L	1.6073	ppb	20:06:25
1	Cr 267.716†	1730.5	1478.4	22.512	ug/L	22.512	ppb	20:06:05
1	Cu 324.752†	8620.1	1514.5	8.2286	ug/L	8.2286	ppb	20:06:05
1	Mn 257.610†	171037.4	156050.5	301.62	ug/L	301.62	ppb	20:06:05
1	Mo 202.031†	34.8	15.8	2.6019	ug/L	2.6019	ppb	20:06:25
1	Ni 231.604†	489.6	330.7	11.155	ug/L	11.155	ppb	20:06:25
1	P 214.914†	448.4	99.5	47.162	ug/L	47.162	ppb	20:06:25
1	Pb 220.353†	16.4	110.6	19.833	ug/L	19.833	ppb	20:06:25
1	S 181.975 Axial†	101.8	24.2	30.845	ug/L	30.845	ppb	20:06:25
1	Sb 206.836†	61.3	-1.4	-1.1860	ug/L	-1.1860	ppb	20:06:25
1	Se 196.026†	-66.0	-27.5	6.2941	ug/L	6.2941	ppb	20:06:25
1	Si 251.611†	71589.1	65009.9	2749.9	ug/L	2749.9	ppb	20:06:05
1	Sn 189.927†	12.1	-0.8	0.2855	ug/L	0.2855	ppb	20:06:25
1	Ti 334.940†	119099.6	111077.0	295.06	ug/L	295.06	ppb	20:06:05
1	Tl 190.801†	-61.7	2.4	5.0478	ug/L	5.0478	ppb	20:06:25
1	U 409.014†	-2749.5	-718.1	-39.979	ug/L	-39.979	ppb	20:06:05
1	V 292.402†	-607.3	1415.6	10.603	ug/L	10.603	ppb	20:06:05
1	Zn 213.857†	7921.2	6313.9	72.115	ug/L	72.115	ppb	20:06:05
1	SiO2†	73349.1	66585.4	6027.0	ug/L	6027.0	ppb	20:07:22
2	Sc Radial	3572.5	3572.5	110	%			20:05:33
2	Y RADIAL	4275.9	4275.9	117.3	%			20:05:13
2	Al 396.153Radial†	4910.8	4573.4	5364.3	ug/L	5364.3	ppb	20:05:13
2	Ca 317.933Radial†	744.0	664.1	1495.7	ug/L	1495.7	ppb	20:05:33
2	Fe 238.204 Radial†	1066.5	963.4	12938	ug/L	12938	ppb	20:05:33
2	K 766.490 Radial†	5857.4	2141.1	499.51	ug/L	499.51	ppb	20:05:13
2	Mg 279.077 IEC†	23.9	21.5	968.58	ug/L	968.58	ppb	20:05:33
2	Na 589.592 Radial†	-780.8	485.5	237.23	ug/L	237.23	ppb	20:05:13
2	Sr 421.552†	1511.6	1340.3	13.985	ug/L	13.985	ppb	20:05:13
2	Sc 361.383	621319.5	621319.5	111.54	%			20:06:31
2	Y 371.029	603510.6	603510.6	116.64	%			20:06:31
2	Ag 328.068†	-656.1	-640.8	0.0356	ug/L	0.0356	ppb	20:06:31
2	As 188.979†	-48.1	1.5	4.6655	ug/L	4.6655	ppb	20:06:51
2	B 249.677†	-282.7	401.5	8.3512	ug/L	8.3512	ppb	20:06:31
2	Ba 233.527†	2901.0	2603.9	39.594	ug/L	39.594	ppb	20:06:51
2	Be 313.107†	-9750.7	809.5	1.0228	ug/L	1.0228	ppb	20:06:31
2	Cd 226.502†	-194.5	133.1	0.6911	ug/L	0.6911	ppb	20:06:51
2	Co 228.616†	-43.8	51.4	1.0982	ug/L	1.0982	ppb	20:06:51
2	Cr 267.716†	1673.6	1393.6	21.234	ug/L	21.234	ppb	20:06:31
2	Cu 324.752†	8606.7	1334.2	7.3449	ug/L	7.3449	ppb	20:06:31
2	Mn 257.610†	174211.5	155557.5	300.65	ug/L	300.65	ppb	20:06:31
2	Mo 202.031†	45.3	24.6	3.5234	ug/L	3.5234	ppb	20:06:51
2	Ni 231.604†	495.3	326.3	11.007	ug/L	11.007	ppb	20:06:51

2	P 214.914†	465.6	106.1	50.990 ug/L	50.990 ppb		20:06:51
2	Pb 220.353†	25.1	118.1	21.178 ug/L	21.178 ppb		20:06:51
2	S 181.975 Axial†	100.2	20.8	26.443 ug/L	26.443 ppb		20:06:51
2	Sb 206.836†	64.8	0.5	-0.3002 ug/L	-0.3002 ppb		20:06:51
2	Se 196.026†	-54.7	-16.1	13.270 ug/L	13.270 ppb		20:06:51
2	Si 251.611†	72964.0	64845.1	2742.9 ug/L	2742.9 ppb		20:06:31
2	Sn 189.927†	6.4	-6.1	-1.0525 ug/L	-1.0525 ppb		20:06:51
2	Ti 334.940†	121359.6	110778.3	294.26 ug/L	294.26 ppb		20:06:31
2	Tl 190.801†	-70.6	-4.4	1.0117 ug/L	1.0117 ppb		20:06:51
2	U 409.014†	-2818.5	-726.3	-40.344 ug/L	-40.344 ppb		20:06:31
2	V 292.402†	-500.0	1523.6	11.610 ug/L	11.610 ppb		20:06:31
2	Zn 213.857†	8055.2	6279.4	71.714 ug/L	71.714 ppb		20:06:31
2	SiO2†	72431.8	64331.2	5823.0 ug/L	5823.0 ppb		20:07:27
3	Sc Radial	3599.4	3599.4	111 %			20:05:58
3	Y RADIAL	4247.3	4247.3	116.5 %			20:05:38
3	Al 396.153Radial†	4879.4	4511.8	5292.0 ug/L	5292.0 ppb		20:05:38
3	Ca 317.933Radial†	748.2	662.8	1492.8 ug/L	1492.8 ppb		20:05:58
3	Fe 238.204 Radial†	1074.5	963.3	12937 ug/L	12937 ppb		20:05:58
3	K 766.490 Radial†	5719.1	1976.8	461.16 ug/L	461.16 ppb		20:05:38
3	Mg 279.077 IEC†	22.6	20.2	907.31 ug/L	907.31 ppb		20:05:58
3	Na 589.592 Radial†	-825.2	450.8	220.28 ug/L	220.28 ppb		20:05:38
3	Sr 421.552†	1510.6	1329.1	13.869 ug/L	13.869 ppb		20:05:38
3	Sc 361.383	617265.8	617265.8	110.82 %			20:06:56
3	Y 371.029	598730.6	598730.6	115.72 %			20:06:56
3	Ag 328.068†	-592.6	-587.4	0.3472 ug/L	0.3472 ppb		20:06:56
3	As 188.979†	-52.9	-3.1	2.6209 ug/L	2.6209 ppb		20:07:16
3	B 249.677†	-234.8	443.1	9.3553 ug/L	9.3553 ppb		20:06:56
3	Ba 233.527†	2897.1	2617.5	39.795 ug/L	39.795 ppb		20:07:16
3	Be 313.107†	-9826.6	683.7	0.9660 ug/L	0.9660 ppb		20:06:56
3	Cd 226.502†	-217.3	111.4	0.3906 ug/L	0.3906 ppb		20:07:16
3	Co 228.616†	-35.6	58.5	1.3602 ug/L	1.3602 ppb		20:07:16
3	Cr 267.716†	1708.5	1435.0	21.853 ug/L	21.853 ppb		20:06:56
3	Cu 324.752†	8567.0	1349.1	7.4125 ug/L	7.4125 ppb		20:06:56
3	Mn 257.610†	172596.2	155125.5	299.82 ug/L	299.82 ppb		20:06:56
3	Mo 202.031†	46.0	25.5	3.6166 ug/L	3.6166 ppb		20:07:16
3	Ni 231.604†	492.4	326.6	11.016 ug/L	11.016 ppb		20:07:16
3	P 214.914†	445.2	90.5	42.598 ug/L	42.598 ppb		20:07:16
3	Pb 220.353†	7.2	102.1	18.329 ug/L	18.329 ppb		20:07:16
3	S 181.975 Axial†	104.5	25.3	32.251 ug/L	32.251 ppb		20:07:16
3	Sb 206.836†	48.0	-14.3	-6.9727 ug/L	-6.9727 ppb		20:07:16
3	Se 196.026†	-79.2	-38.5	-1.0553 ug/L	-1.0553 ppb		20:07:16
3	Si 251.611†	72501.6	64857.4	2743.5 ug/L	2743.5 ppb		20:06:56
3	Sn 189.927†	6.7	-5.9	-0.9901 ug/L	-0.9901 ppb		20:07:16
3	Ti 334.940†	120256.5	110497.4	293.51 ug/L	293.51 ppb		20:06:56
3	Tl 190.801†	-80.1	-13.4	-4.3107 ug/L	-4.3107 ppb		20:07:16
3	U 409.014†	-2638.2	-580.1	-32.937 ug/L	-32.937 ppb		20:06:56
3	V 292.402†	-529.9	1493.7	11.357 ug/L	11.357 ppb		20:06:56
3	Zn 213.857†	7952.0	6233.7	71.200 ug/L	71.200 ppb		20:06:56
3	SiO2†	73355.2	65591.0	5937.0 ug/L	5937.0 ppb		20:07:32

Mean Data: 1202072049|973755|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	615555.0	110.51	%	1.218				1.10%
Sc Radial	3609.7	111	%	1.3				1.20%
Y 371.029	597813.5	115.54	%	1.200				1.04%
Y RADIAL	4281.2	117.5	%	1.01				0.86%
Ag 328.068†	-604.1	0.2662	ug/L	0.20265	0.2662	ppb	0.20265	76.13%
Al 396.153Radial†	4543.5	5329.2	ug/L	36.20	5329.2	ppb	36.20	0.68%
As 188.979†	5.2	6.3237	ug/L	4.75396	6.3237	ppb	4.75396	75.18%
B 249.677†	413.7	8.6392	ug/L	0.62416	8.6392	ppb	0.62416	7.22%
Ba 233.527†	2632.1	40.016	ug/L	0.5661	40.016	ppb	0.5661	1.41%
Be 313.107†	753.2	0.9982	ug/L	0.02918	0.9982	ppb	0.02918	2.92%
Ca 317.933Radial†	665.1	1498.0	ug/L	6.64	1498.0	ppb	6.64	0.44%
Cd 226.502†	122.8	0.5430	ug/L	0.15032	0.5430	ppb	0.15032	27.68%
Co 228.616†	58.4	1.3552	ug/L	0.25457	1.3552	ppb	0.25457	18.78%
Cr 267.716†	1435.7	21.866	ug/L	0.6393	21.866	ppb	0.6393	2.92%
Cu 324.752†	1399.3	7.6620	ug/L	0.49182	7.6620	ppb	0.49182	6.42%
Fe 238.204 Radial†	967.3	12991	ug/L	93.0	12991	ppb	93.0	0.72%
K 766.490 Radial†	2048.6	477.92	ug/L	19.626	477.92	ppb	19.626	4.11%

Mg 279.077 IEC†	20.5	922.58	ug/L	40.580	922.58	ppb	40.580	4.40%
Mn 257.610†	155577.8	300.69	ug/L	0.900	300.69	ppb	0.900	0.30%
Mo 202.031†	22.0	3.2473	ug/L	0.56086	3.2473	ppb	0.56086	17.27%
Na 589.592 Radial†	489.7	239.28	ug/L	20.106	239.28	ppb	20.106	8.40%
Ni 231.604†	327.9	11.059	ug/L	0.0827	11.059	ppb	0.0827	0.75%
P 214.914†	98.7	46.917	ug/L	4.2011	46.917	ppb	4.2011	8.95%
Pb 220.353†	110.2	19.780	ug/L	1.4252	19.780	ppb	1.4252	7.21%
S 181.975 Axial†	23.4	29.846	ug/L	3.0301	29.846	ppb	3.0301	10.15%
Sb 206.836†	-5.1	-2.8196	ug/L	3.62383	-2.8196	ppb	3.62383	128.52%
Se 196.026†	-27.4	6.1696	ug/L	7.16349	6.1696	ppb	7.16349	116.11%
Si 251.611†	64904.1	2745.4	ug/L	3.89	2745.4	ppb	3.89	0.14%
Sn 189.927†	-4.3	-0.5857	ug/L	0.75512	-0.5857	ppb	0.75512	128.93%
Sr 421.552†	1332.1	13.900	ug/L	0.0744	13.900	ppb	0.0744	0.54%
Ti 334.940†	110784.2	294.27	ug/L	0.772	294.27	ppb	0.772	0.26%
Tl 190.801†	-5.2	0.5829	ug/L	4.69399	0.5829	ppb	4.69399	805.26%
U 409.014†	-674.9	-37.753	ug/L	4.1750	-37.753	ppb	4.1750	11.06%
V 292.402†	1477.7	11.190	ug/L	0.5238	11.190	ppb	0.5238	4.68%
Zn 213.857†	6275.7	71.676	ug/L	0.4584	71.676	ppb	0.4584	0.64%
SiO2†	65502.5	5929.0	ug/L	102.27	5929.0	ppb	102.27	1.72%

Sequence No.: 23
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/15/2010 20:23:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3715.0	3715.0	115	%			20:25:34
1	Y RADIAL	4153.7	4153.7	114.0	%			20:25:14
1	Al 396.153Radial†	4866.0	4363.3	5094.7	ug/L	5094.7	ppb	20:25:14
1	Ca 317.933Radial†	2538.6	2204.9	4966.1	ug/L	4966.1	ppb	20:25:34
1	Fe 238.204 Radial†	428.7	369.4	4975.3	ug/L	4975.3	ppb	20:25:34
1	K 766.490 Radial†	27129.0	20507.6	4782.4	ug/L	4782.4	ppb	20:25:14
1	Mg 279.077 IEC†	128.8	112.2	5096.8	ug/L	5096.8	ppb	20:25:34
1	Na 589.592 Radial†	21895.6	20309.6	9923.8	ug/L	9923.8	ppb	20:25:14
1	Sr 421.552†	54428.1	47484.6	495.85	ug/L	495.85	ppb	20:25:14
1	Sc 361.383	648804.6	648804.6	116.48	%			20:26:33
1	Y 371.029	597518.4	597518.4	115.48	%			20:26:33
1	Ag 328.068†	93094.1	79871.3	479.30	ug/L	479.30	ppb	20:26:33
1	As 188.979†	1218.9	1091.0	485.18	ug/L	485.18	ppb	20:26:53
1	B 249.677†	22001.5	19543.9	470.87	ug/L	470.87	ppb	20:26:33
1	Ba 233.527†	37542.5	32234.4	482.13	ug/L	482.13	ppb	20:26:33
1	Be 313.107†	1260979.4	1092138.1	480.04	ug/L	480.04	ppb	20:26:33
1	Cd 226.502†	39089.6	33867.0	471.24	ug/L	471.24	ppb	20:26:53
1	Co 228.616†	15360.4	13278.0	487.31	ug/L	487.31	ppb	20:26:53
1	Cr 267.716†	36956.9	31621.8	476.99	ug/L	476.99	ppb	20:26:33
1	Cu 324.752†	122827.5	99069.2	479.43	ug/L	479.43	ppb	20:26:33
1	Mn 257.610†	291818.3	249910.0	481.16	ug/L	481.16	ppb	20:26:33
1	Mo 202.031†	5290.1	4525.7	479.86	ug/L	479.86	ppb	20:26:53
1	Ni 231.604†	16866.0	14362.1	483.69	ug/L	483.69	ppb	20:26:53
1	P 214.914†	5597.2	4494.0	2291.0	ug/L	2291.0	ppb	20:26:53
1	Pb 220.353†	3053.5	2717.1	481.61	ug/L	481.61	ppb	20:26:53
1	S 181.975 Axial†	951.0	747.5	970.07	ug/L	970.07	ppb	20:26:53
1	Sb 206.836†	1292.8	1052.3	491.73	ug/L	491.73	ppb	20:26:53
1	Se 196.026†	846.9	760.1	496.13	ug/L	496.13	ppb	20:26:53
1	Si 251.611†	67082.3	57024.4	2406.3	ug/L	2406.3	ppb	20:26:33
1	Sn 189.927†	2229.0	1901.8	477.98	ug/L	477.98	ppb	20:26:53
1	Ti 334.940†	208995.1	181406.9	481.45	ug/L	481.45	ppb	20:26:33
1	Tl 190.801†	901.9	833.1	496.59	ug/L	496.59	ppb	20:26:53
1	U 409.014†	9191.4	9691.6	488.97	ug/L	488.97	ppb	20:26:33
1	V 292.402†	59916.0	53411.5	486.21	ug/L	486.21	ppb	20:26:33
1	Zn 213.857†	50606.6	42505.1	474.40	ug/L	474.40	ppb	20:26:33
1	SiO2†	64694.3	54937.5	4959.7	ug/L	4959.7	ppb	20:27:53
2	Sc Radial	3656.1	3656.1	113	%			20:25:59
2	Y RADIAL	4180.3	4180.3	114.7	%			20:25:39
2	Al 396.153Radial†	4938.0	4495.6	5250.2	ug/L	5250.2	ppb	20:25:39
2	Ca 317.933Radial†	2517.8	2222.2	5005.0	ug/L	5005.0	ppb	20:25:59
2	Fe 238.204 Radial†	426.3	373.3	5028.1	ug/L	5028.1	ppb	20:25:59
2	K 766.490 Radial†	27215.1	20965.3	4889.1	ug/L	4889.1	ppb	20:25:39
2	Mg 279.077 IEC†	128.3	113.7	5160.8	ug/L	5160.8	ppb	20:25:59
2	Na 589.592 Radial†	22021.0	20728.6	10129	ug/L	10129	ppb	20:25:39
2	Sr 421.552†	54922.6	48688.3	508.42	ug/L	508.42	ppb	20:25:39
2	Sc 361.383	633621.4	633621.4	113.75	%			20:27:00
2	Y 371.029	583471.1	583471.1	112.77	%			20:27:00
2	Ag 328.068†	90996.3	79942.3	479.75	ug/L	479.75	ppb	20:27:00
2	As 188.979†	1180.1	1082.0	481.22	ug/L	481.22	ppb	20:27:20
2	B 249.677†	21399.6	19467.4	469.02	ug/L	469.02	ppb	20:27:00
2	Ba 233.527†	36737.6	32299.2	483.10	ug/L	483.10	ppb	20:27:00
2	Be 313.107†	1236536.4	1096591.8	481.99	ug/L	481.99	ppb	20:27:00
2	Cd 226.502†	37800.5	33538.0	466.66	ug/L	466.66	ppb	20:27:20
2	Co 228.616†	14855.7	13150.3	482.61	ug/L	482.61	ppb	20:27:20
2	Cr 267.716†	36346.5	31845.5	480.36	ug/L	480.36	ppb	20:27:00
2	Cu 324.752†	119955.4	99071.2	479.45	ug/L	479.45	ppb	20:27:00
2	Mn 257.610†	286323.2	251082.7	483.42	ug/L	483.42	ppb	20:27:00
2	Mo 202.031†	5100.4	4467.7	473.73	ug/L	473.73	ppb	20:27:20
2	Ni 231.604†	16315.0	14224.8	479.07	ug/L	479.07	ppb	20:27:20

2	P 214.914†	5407.4	4442.4	2263.4 ug/L	2263.4 ppb	20:27:20
2	Pb 220.353†	2949.2	2688.2	476.54 ug/L	476.54 ppb	20:27:20
2	S 181.975 Axial†	929.6	748.2	971.07 ug/L	971.07 ppb	20:27:20
2	Sb 206.836†	1272.5	1061.0	495.46 ug/L	495.46 ppb	20:27:20
2	Se 196.026†	817.5	751.6	490.83 ug/L	490.83 ppb	20:27:20
2	Si 251.611†	65705.7	57194.3	2413.5 ug/L	2413.5 ppb	20:27:00
2	Sn 189.927†	2155.0	1882.6	473.19 ug/L	473.19 ppb	20:27:20
2	Ti 334.940†	204337.2	181611.7	481.99 ug/L	481.99 ppb	20:27:00
2	Tl 190.801†	859.5	814.5	485.57 ug/L	485.57 ppb	20:27:20
2	U 409.014†	8959.9	9677.2	488.22 ug/L	488.22 ppb	20:27:00
2	V 292.402†	58710.8	53584.6	487.67 ug/L	487.67 ppb	20:27:00
2	Zn 213.857†	49634.2	42691.4	476.53 ug/L	476.53 ppb	20:27:00
2	SiO2†	64609.9	56194.2	5073.6 ug/L	5073.6 ppb	20:27:58
3	Sc Radial	3707.4	3707.4	114 %		20:26:24
3	Y RADIAL	4187.2	4187.2	114.9 %		20:26:04
3	Al 396.153Radial†	4912.8	4412.9	5153.0 ug/L	5153.0 ppb	20:26:04
3	Ca 317.933Radial†	2540.2	2210.8	4979.4 ug/L	4979.4 ppb	20:26:24
3	Fe 238.204 Radial†	426.4	368.1	4958.6 ug/L	4958.6 ppb	20:26:24
3	K 766.490 Radial†	27293.6	20700.1	4827.3 ug/L	4827.3 ppb	20:26:04
3	Mg 279.077 IEC†	130.5	114.0	5175.9 ug/L	5175.9 ppb	20:26:24
3	Na 589.592 Radial†	22078.3	20508.5	10021 ug/L	10021 ppb	20:26:04
3	Sr 421.552†	54951.8	48040.1	501.65 ug/L	501.65 ppb	20:26:04
3	Sc 361.383	630411.0	630411.0	113.18 %		20:27:27
3	Y 371.029	580891.2	580891.2	112.27 %		20:27:27
3	Ag 328.068†	90721.3	80106.8	480.71 ug/L	480.71 ppb	20:27:27
3	As 188.979†	1186.4	1092.9	485.99 ug/L	485.99 ppb	20:27:48
3	B 249.677†	21429.9	19590.0	471.99 ug/L	471.99 ppb	20:27:27
3	Ba 233.527†	36548.3	32296.4	483.06 ug/L	483.06 ppb	20:27:27
3	Be 313.107†	1230114.9	1096453.7	481.93 ug/L	481.93 ppb	20:27:27
3	Cd 226.502†	37825.6	33729.4	469.33 ug/L	469.33 ppb	20:27:48
3	Co 228.616†	14839.1	13202.1	484.52 ug/L	484.52 ppb	20:27:48
3	Cr 267.716†	36162.1	31845.2	480.36 ug/L	480.36 ppb	20:27:27
3	Cu 324.752†	119243.8	98979.5	479.00 ug/L	479.00 ppb	20:27:27
3	Mn 257.610†	284399.6	250664.9	482.61 ug/L	482.61 ppb	20:27:27
3	Mo 202.031†	5122.3	4509.9	478.19 ug/L	478.19 ppb	20:27:48
3	Ni 231.604†	16340.9	14320.7	482.30 ug/L	482.30 ppb	20:27:48
3	P 214.914†	5378.6	4441.1	2262.8 ug/L	2262.8 ppb	20:27:48
3	Pb 220.353†	2966.5	2716.7	481.56 ug/L	481.56 ppb	20:27:48
3	S 181.975 Axial†	919.4	743.3	964.71 ug/L	964.71 ppb	20:27:48
3	Sb 206.836†	1250.0	1046.8	489.16 ug/L	489.16 ppb	20:27:48
3	Se 196.026†	821.2	758.5	495.12 ug/L	495.12 ppb	20:27:48
3	Si 251.611†	65212.2	57052.4	2407.5 ug/L	2407.5 ppb	20:27:27
3	Sn 189.927†	2146.5	1884.7	473.70 ug/L	473.70 ppb	20:27:48
3	Ti 334.940†	203408.7	181706.1	482.24 ug/L	482.24 ppb	20:27:27
3	Tl 190.801†	866.3	824.3	491.39 ug/L	491.39 ppb	20:27:48
3	U 409.014†	8870.1	9638.0	486.25 ug/L	486.25 ppb	20:27:27
3	V 292.402†	58407.3	53579.3	487.69 ug/L	487.69 ppb	20:27:27
3	Zn 213.857†	49408.6	42714.2	476.76 ug/L	476.76 ppb	20:27:27
3	SiO2†	65873.7	57600.2	5200.7 ug/L	5200.7 ppb	20:28:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	637612.3	114.47	%	1.764				1.54%
Sc Radial	3692.8	114	%	1.0				0.87%
Y 371.029	587293.6	113.51	%	1.729				1.52%
Y RADIAL	4173.7	114.5	%	0.49				0.42%
Ag 328.068†	79973.5	479.92	ug/L	0.719	479.92	ppb	0.719	0.15%
QC value within limits for Ag 328.068 Recovery = 95.98%								
Al 396.153Radial†	4423.9	5165.9	ug/L	78.54	5165.9	ppb	78.54	1.52%
QC value within limits for Al 396.153Radial Recovery = 103.32%								
As 188.979†	1088.6	484.13	ug/L	2.553	484.13	ppb	2.553	0.53%
QC value within limits for As 188.979 Recovery = 96.83%								
B 249.677†	19533.8	470.63	ug/L	1.499	470.63	ppb	1.499	0.32%
QC value within limits for B 249.677 Recovery = 94.13%								
Ba 233.527†	32276.7	482.76	ug/L	0.549	482.76	ppb	0.549	0.11%
QC value within limits for Ba 233.527 Recovery = 96.55%								
Be 313.107†	1095061.2	481.32	ug/L	1.111	481.32	ppb	1.111	0.23%
QC value within limits for Be 313.107 Recovery = 96.26%								
Ca 317.933Radial†	2212.6	4983.5	ug/L	19.75	4983.5	ppb	19.75	0.40%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.67%
Cd 226.502†            33711.5      469.08 ug/L         2.304      469.08 ppb          2.304   0.49%
   QC value within limits for Cd 226.502  Recovery = 93.82%
Co 228.616†            13210.1      484.81 ug/L         2.365      484.81 ppb          2.365   0.49%
   QC value within limits for Co 228.616  Recovery = 96.96%
Cr 267.716†            31770.8      479.24 ug/L         1.946      479.24 ppb          1.946   0.41%
   QC value within limits for Cr 267.716  Recovery = 95.85%
Cu 324.752†            99040.0      479.30 ug/L         0.255      479.30 ppb          0.255   0.05%
   QC value within limits for Cu 324.752  Recovery = 95.86%
Fe 238.204 Radial†       370.3      4987.3 ug/L         36.30      4987.3 ppb          36.30   0.73%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.75%
K 766.490 Radial†      20724.3      4832.9 ug/L         53.61      4832.9 ppb          53.61   1.11%
   QC value within limits for K 766.490 Radial  Recovery = 96.66%
Mg 279.077 IEC†          113.3      5144.5 ug/L         42.01      5144.5 ppb          42.01   0.82%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.89%
Mn 257.610†           250552.6      482.40 ug/L         1.144      482.40 ppb          1.144   0.24%
   QC value within limits for Mn 257.610  Recovery = 96.48%
Mo 202.031†             4501.1      477.26 ug/L         3.170      477.26 ppb          3.170   0.66%
   QC value within limits for Mo 202.031  Recovery = 95.45%
Na 589.592 Radial†     20515.6       10024 ug/L         102.4       10024 ppb          102.4   1.02%
   QC value within limits for Na 589.592 Radial  Recovery = 100.24%
Ni 231.604†            14302.6      481.69 ug/L         2.372      481.69 ppb          2.372   0.49%
   QC value within limits for Ni 231.604  Recovery = 96.34%
P 214.914†              4459.1      2272.4 ug/L         16.12      2272.4 ppb          16.12   0.71%
   QC value within limits for P 214.914  Recovery = 90.90%
Pb 220.353†             2707.3      479.90 ug/L         2.917      479.90 ppb          2.917   0.61%
   QC value within limits for Pb 220.353  Recovery = 95.98%
S 181.975 Axial†         746.3      968.62 ug/L         3.420      968.62 ppb          3.420   0.35%
   QC value within limits for S 181.975 Axial  Recovery = 96.86%
Sb 206.836†             1053.4      492.12 ug/L         3.169      492.12 ppb          3.169   0.64%
   QC value within limits for Sb 206.836  Recovery = 98.42%
Se 196.026†              756.7      494.03 ug/L         2.816      494.03 ppb          2.816   0.57%
   QC value within limits for Se 196.026  Recovery = 98.81%
Si 251.611†            57090.4      2409.1 ug/L          3.89      2409.1 ppb           3.89   0.16%
   QC value within limits for Si 251.611  Recovery = 96.36%
Sn 189.927†             1889.7      474.96 ug/L         2.634      474.96 ppb          2.634   0.55%
   QC value within limits for Sn 189.927  Recovery = 94.99%
Sr 421.552†            48071.0      501.97 ug/L         6.291      501.97 ppb          6.291   1.25%
   QC value within limits for Sr 421.552  Recovery = 100.39%
Ti 334.940†           181574.9      481.89 ug/L         0.404      481.89 ppb          0.404   0.08%
   QC value within limits for Ti 334.940  Recovery = 96.38%
Tl 190.801†              824.0      491.18 ug/L         5.514      491.18 ppb          5.514   1.12%
   QC value within limits for Tl 190.801  Recovery = 98.24%
U 409.014†              9668.9      487.82 ug/L         1.406      487.82 ppb          1.406   0.29%
   QC value within limits for U 409.014  Recovery = 97.56%
V 292.402†             53525.1      487.19 ug/L         0.848      487.19 ppb          0.848   0.17%
   QC value within limits for V 292.402  Recovery = 97.44%
Zn 213.857†            42636.9      475.90 ug/L         1.300      475.90 ppb          1.300   0.27%
   QC value within limits for Zn 213.857  Recovery = 95.18%
SiO2†                  56244.0      5078.0 ug/L        120.59      5078.0 ppb         120.59   2.37%
   QC value within limits for SiO2  Recovery = 94.96%
All analyte(s) passed QC.
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Sequence No.: 24
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/15/2010 20:30:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3725.6	3725.6	115	%			20:32:25
1	Y RADIAL	4103.1	4103.1	112.6	%			20:32:05
1	Al 396.153Radial†	-108.8	20.5	24.053	ug/L	24.053	ppb	20:32:05
1	Ca 317.933Radial†	16.7	3.2	7.2394	ug/L	7.2394	ppb	20:32:25
1	Fe 238.204 Radial†	4.1	-1.3	-17.218	ug/L	-17.218	ppb	20:32:25
1	K 766.490 Radial†	3018.4	-548.8	-128.15	ug/L	-128.15	ppb	20:32:05
1	Mg 279.077 IEC†	1.3	0.9	42.690	ug/L	42.690	ppb	20:32:25
1	Na 589.592 Radial†	-1227.6	125.7	61.429	ug/L	61.429	ppb	20:32:05
1	Sr 421.552†	64.6	24.3	0.2535	ug/L	0.2535	ppb	20:32:05
1	Sc 361.383	598431.8	598431.8	107.44	%			20:33:22
1	Y 371.029	554818.8	554818.8	107.23	%			20:33:22
1	Ag 328.068†	22.4	-31.8	-0.1962	ug/L	-0.1962	ppb	20:33:22
1	As 188.979†	-41.9	5.6	2.4777	ug/L	2.4777	ppb	20:33:42
1	B 249.677†	-487.1	201.6	4.8789	ug/L	4.8789	ppb	20:33:22
1	Ba 233.527†	13.5	15.7	0.2353	ug/L	0.2353	ppb	20:33:42
1	Be 313.107†	-10066.9	180.9	0.0803	ug/L	0.0803	ppb	20:33:22
1	Cd 226.502†	-299.5	28.7	0.4029	ug/L	0.4029	ppb	20:33:42
1	Co 228.616†	-92.3	4.7	0.1720	ug/L	0.1720	ppb	20:33:42
1	Cr 267.716†	216.9	95.1	1.4310	ug/L	1.4310	ppb	20:33:22
1	Cu 324.752†	6596.8	-241.5	-1.1743	ug/L	-1.1743	ppb	20:33:22
1	Mn 257.610†	576.2	-88.0	-0.1729	ug/L	-0.1729	ppb	20:33:22
1	Mo 202.031†	22.8	5.2	0.5526	ug/L	0.5526	ppb	20:33:42
1	Ni 231.604†	126.5	0.0	0.0003	ug/L	0.0003	ppb	20:33:42
1	P 214.914†	327.2	-6.8	-3.3017	ug/L	-3.3017	ppb	20:33:42
1	Pb 220.353†	-101.8	0.9	0.1620	ug/L	0.1620	ppb	20:33:42
1	S 181.975 Axial†	73.0	-1.1	-1.3948	ug/L	-1.3948	ppb	20:33:42
1	Sb 206.836†	54.9	-6.5	-2.8640	ug/L	-2.8640	ppb	20:33:42
1	Se 196.026†	-34.0	1.4	0.8376	ug/L	0.8376	ppb	20:33:42
1	Si 251.611†	581.6	-26.2	-1.1162	ug/L	-1.1162	ppb	20:33:42
1	Sn 189.927†	22.3	8.8	2.2208	ug/L	2.2208	ppb	20:33:42
1	Ti 334.940†	-1957.0	157.1	0.4111	ug/L	0.4111	ppb	20:33:22
1	Tl 190.801†	-50.0	12.3	7.2678	ug/L	7.2678	ppb	20:33:42
1	U 409.014†	-1792.7	131.8	6.6860	ug/L	6.6860	ppb	20:33:22
1	V 292.402†	-2008.5	102.4	0.9420	ug/L	0.9420	ppb	20:33:22
1	Zn 213.857†	968.6	-40.5	-0.4557	ug/L	-0.4557	ppb	20:33:42
1	SiO2†	654.9	5.2	0.4563	ug/L	0.4563	ppb	20:34:38
2	Sc Radial	3646.9	3646.9	112	%			20:32:50
2	Y RADIAL	4147.2	4147.2	113.8	%			20:32:30
2	Al 396.153Radial†	-111.2	16.3	19.101	ug/L	19.101	ppb	20:32:30
2	Ca 317.933Radial†	11.4	-1.3	-2.8189	ug/L	-2.8189	ppb	20:32:50
2	Fe 238.204 Radial†	4.0	-1.3	-17.069	ug/L	-17.069	ppb	20:32:50
2	K 766.490 Radial†	2969.4	-535.7	-125.08	ug/L	-125.08	ppb	20:32:30
2	Mg 279.077 IEC†	3.5	3.0	134.59	ug/L	134.59	ppb	20:32:50
2	Na 589.592 Radial†	-1256.7	76.7	37.497	ug/L	37.497	ppb	20:32:30
2	Sr 421.552†	35.2	-0.7	-0.0068	ug/L	-0.0068	ppb	20:32:30
2	Sc 361.383	630163.9	630163.9	113.13	%			20:33:48
2	Y 371.029	585388.2	585388.2	113.14	%			20:33:48
2	Ag 328.068†	91.3	28.1	0.1609	ug/L	0.1609	ppb	20:33:48
2	As 188.979†	-36.9	12.0	5.2806	ug/L	5.2806	ppb	20:34:08
2	B 249.677†	-460.1	248.3	6.0101	ug/L	6.0101	ppb	20:33:48
2	Ba 233.527†	-16.9	-11.8	-0.1747	ug/L	-0.1747	ppb	20:34:08
2	Be 313.107†	-10177.5	555.0	0.2448	ug/L	0.2448	ppb	20:33:48
2	Cd 226.502†	-325.8	19.5	0.2742	ug/L	0.2742	ppb	20:34:08
2	Co 228.616†	-112.4	-8.8	-0.3224	ug/L	-0.3224	ppb	20:34:08
2	Cr 267.716†	176.9	49.6	0.7461	ug/L	0.7461	ppb	20:33:48
2	Cu 324.752†	6753.3	-412.3	-2.0013	ug/L	-2.0013	ppb	20:33:48
2	Mn 257.610†	662.0	-39.2	-0.0828	ug/L	-0.0828	ppb	20:33:48
2	Mo 202.031†	21.3	2.8	0.2967	ug/L	0.2967	ppb	20:34:08
2	Ni 231.604†	123.2	-8.9	-0.2983	ug/L	-0.2983	ppb	20:34:08

2	P 214.914†	316.2	-31.8	-16.515 ug/L	-16.515 ppb	20:34:08
2	Pb 220.353†	-121.9	-12.2	-2.1493 ug/L	-2.1493 ppb	20:34:08
2	S 181.975 Axial†	75.9	-1.9	-2.4371 ug/L	-2.4371 ppb	20:34:08
2	Sb 206.836†	44.5	-18.3	-8.2061 ug/L	-8.2061 ppb	20:34:08
2	Se 196.026†	-40.7	-3.0	-1.9332 ug/L	-1.9332 ppb	20:34:08
2	Si 251.611†	602.9	-34.7	-1.4725 ug/L	-1.4725 ppb	20:34:08
2	Sn 189.927†	18.6	4.5	1.1355 ug/L	1.1355 ppb	20:34:08
2	Ti 334.940†	-1962.6	243.8	0.6339 ug/L	0.6339 ppb	20:33:48
2	Tl 190.801†	-63.3	2.9	1.7126 ug/L	1.7126 ppb	20:34:08
2	U 409.014†	-1885.7	133.7	6.7798 ug/L	6.7798 ppb	20:33:48
2	V 292.402†	-2105.0	111.3	1.0202 ug/L	1.0202 ppb	20:33:48
2	Zn 213.857†	963.5	-90.5	-1.0139 ug/L	-1.0139 ppb	20:34:08
2	SiO2†	597.8	-76.0	-6.8888 ug/L	-6.8888 ppb	20:34:43
3	Sc Radial	3581.9	3581.9	110 %		20:33:15
3	Y RADIAL	4015.8	4015.8	110.2 %		20:32:55
3	Al 396.153Radial†	-108.3	17.2	20.047 ug/L	20.047 ppb	20:32:55
3	Ca 317.933Radial†	8.3	-3.8	-8.6334 ug/L	-8.6334 ppb	20:33:15
3	Fe 238.204 Radial†	4.1	-1.2	-15.960 ug/L	-15.960 ppb	20:33:15
3	K 766.490 Radial†	3123.1	-348.7	-81.427 ug/L	-81.427 ppb	20:32:55
3	Mg 279.077 IEC†	4.2	3.6	165.04 ug/L	165.04 ppb	20:33:15
3	Na 589.592 Radial†	-1205.7	102.7	50.173 ug/L	50.173 ppb	20:32:55
3	Sr 421.552†	29.0	-5.8	-0.0600 ug/L	-0.0600 ppb	20:32:55
3	Sc 361.383	612366.7	612366.7	109.94 %		20:34:13
3	Y 371.029	568414.3	568414.3	109.86 %		20:34:13
3	Ag 328.068†	74.7	15.3	0.0912 ug/L	0.0912 ppb	20:34:13
3	As 188.979†	-43.6	4.9	2.1844 ug/L	2.1844 ppb	20:34:33
3	B 249.677†	-515.5	186.0	4.5015 ug/L	4.5015 ppb	20:34:13
3	Ba 233.527†	-30.6	-24.7	-0.3664 ug/L	-0.3664 ppb	20:34:33
3	Be 313.107†	-10090.3	372.9	0.1650 ug/L	0.1650 ppb	20:34:13
3	Cd 226.502†	-313.7	22.2	0.3102 ug/L	0.3102 ppb	20:34:33
3	Co 228.616†	-92.8	6.2	0.2307 ug/L	0.2307 ppb	20:34:33
3	Cr 267.716†	159.0	37.9	0.5718 ug/L	0.5718 ppb	20:34:13
3	Cu 324.752†	6658.1	-325.5	-1.5780 ug/L	-1.5780 ppb	20:34:13
3	Mn 257.610†	674.9	-10.4	-0.0285 ug/L	-0.0285 ppb	20:34:13
3	Mo 202.031†	34.9	15.8	1.6697 ug/L	1.6697 ppb	20:34:33
3	Ni 231.604†	126.0	-3.1	-0.1062 ug/L	-0.1062 ppb	20:34:33
3	P 214.914†	322.3	-18.1	-9.2691 ug/L	-9.2691 ppb	20:34:33
3	Pb 220.353†	-101.7	3.1	0.5602 ug/L	0.5602 ppb	20:34:33
3	S 181.975 Axial†	70.7	-4.7	-6.0743 ug/L	-6.0743 ppb	20:34:33
3	Sb 206.836†	51.7	-10.5	-4.6547 ug/L	-4.6547 ppb	20:34:33
3	Se 196.026†	-23.4	11.7	7.4414 ug/L	7.4414 ppb	20:34:33
3	Si 251.611†	571.7	-47.6	-2.0336 ug/L	-2.0336 ppb	20:34:33
3	Sn 189.927†	27.2	12.9	3.2321 ug/L	3.2321 ppb	20:34:33
3	Ti 334.940†	-1895.3	254.6	0.6624 ug/L	0.6624 ppb	20:34:13
3	Tl 190.801†	-51.4	12.1	7.1796 ug/L	7.1796 ppb	20:34:33
3	U 409.014†	-1965.4	12.8	0.6502 ug/L	0.6502 ppb	20:34:13
3	V 292.402†	-2016.8	137.3	1.2630 ug/L	1.2630 ppb	20:34:13
3	Zn 213.857†	956.8	-71.8	-0.8056 ug/L	-0.8056 ppb	20:34:33
3	SiO2†	621.8	-38.8	-3.5584 ug/L	-3.5584 ppb	20:34:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	613654.1	110.17	%	2.855				2.59%
Sc Radial	3651.5	113	%	2.2				1.97%
Y 371.029	569540.4	110.07	%	2.960				2.69%
Y RADIAL	4088.7	112.2	%	1.83				1.64%
Ag 328.068†	3.9	0.0186	ug/L	0.18932	0.0186	ppb	0.18932	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	18.0	21.067	ug/L	2.6288	21.067	ppb	2.6288	12.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.5	3.3142	ug/L	1.70920	3.3142	ppb	1.70920	51.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	212.0	5.1302	ug/L	0.78509	5.1302	ppb	0.78509	15.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.9	-0.1020	ug/L	0.30736	-0.1020	ppb	0.30736	301.45%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	369.6	0.1634	ug/L	0.08230	0.1634	ppb	0.08230	50.37%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.6	-1.4043	ug/L	8.03037	-1.4043	ppb	8.03037	571.84%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                23.5      0.3291 ug/L       0.06642      0.3291 ppb        0.06642  20.18%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 0.7      0.0268 ug/L       0.30380      0.0268 ppb        0.30380 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                60.9      0.9163 ug/L       0.45416      0.9163 ppb        0.45416  49.57%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -326.4     -1.5845 ug/L       0.41353     -1.5845 ppb        0.41353  26.10%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.2     -16.749 ug/L        0.6876     -16.749 ppb         0.6876   4.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -477.7     -111.55 ug/L        26.134     -111.55 ppb         26.134  23.43%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.5      114.11 ug/L        63.697      114.11 ppb         63.697  55.82%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -45.9     -0.0947 ug/L       0.07294     -0.0947 ppb        0.07294  76.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 7.9      0.8397 ug/L       0.73015      0.8397 ppb        0.73015  86.96%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        101.7      49.700 ug/L       11.9729      49.700 ppb        11.9729  24.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -4.0     -0.1347 ug/L       0.15137     -0.1347 ppb        0.15137 112.36%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -18.9     -9.6952 ug/L       6.61675     -9.6952 ppb        6.61675  68.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.8     -0.4757 ug/L       1.46301     -0.4757 ppb        1.46301 307.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.5     -3.3021 ug/L       2.45674     -3.3021 ppb        2.45674  74.40%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -11.7     -5.2416 ug/L       2.71900     -5.2416 ppb        2.71900  51.87%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.4      2.1153 ug/L       4.81615      2.1153 ppb        4.81615 227.69%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -36.2     -1.5408 ug/L       0.46249     -1.5408 ppb        0.46249  30.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.8      2.1961 ug/L       1.04851      2.1961 ppb        1.04851  47.74%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 6.0      0.0622 ug/L       0.16779      0.0622 ppb        0.16779 269.66%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               218.5      0.5691 ug/L       0.13758      0.5691 ppb        0.13758  24.17%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 9.1      5.3866 ug/L       3.18215      5.3866 ppb        3.18215  59.07%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 92.8      4.7053 ug/L       3.51215      4.7053 ppb        3.51215  74.64%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                117.0      1.0750 ug/L       0.16737      1.0750 ppb        0.16737  15.57%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -67.6     -0.7584 ug/L       0.28208     -0.7584 ppb        0.28208  37.19%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -36.5     -3.3303 ug/L       3.67783     -3.3303 ppb        3.67783 110.44%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: 249330001|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 55
Date Collected: 4/15/2010 20:50:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330001|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3606.1	3606.1	111	%			20:52:50
1	Y RADIAL	5573.7	5573.7	152.9	%			20:52:30
1	Al 396.153Radial†	35992.3	32486.1	38104	ug/L	38104	ppb	20:52:30
1	Ca 317.933Radial†	5333.6	4785.6	10779	ug/L	10779	ppb	20:52:30
1	Fe 238.204 Radial†	6888.2	6190.2	83134	ug/L	83134	ppb	20:52:30
1	K 766.490 Radial†	26075.0	20274.9	4730.8	ug/L	4730.8	ppb	20:52:30
1	Mg 279.077 IEC†	173.3	155.6	7015.2	ug/L	7015.2	ppb	20:52:50
1	Na 589.592 Radial†	2632.7	3562.2	1740.6	ug/L	1740.6	ppb	20:52:30
1	Sr 421.552†	10064.7	9020.0	94.117	ug/L	94.117	ppb	20:52:30
1	Sc 361.383	648663.5	648663.5	116.45	%			20:53:47
1	Y 371.029	722349.3	722349.3	139.61	%			20:53:47
1	Ag 328.068†	-4563.8	-3971.7	1.1483	ug/L	1.1483	ppb	20:53:53
1	As 188.979†	-18.0	29.1	38.726	ug/L	38.726	ppb	20:54:13
1	B 249.677†	391.2	990.9	15.212	ug/L	15.212	ppb	20:53:53
1	Ba 233.527†	25401.8	21816.0	330.24	ug/L	330.24	ppb	20:53:53
1	Be 313.107†	-6758.5	3747.5	5.9592	ug/L	5.9592	ppb	20:53:53
1	Cd 226.502†	359.7	616.4	1.0808	ug/L	1.0808	ppb	20:54:13
1	Co 228.616†	325.9	370.5	8.5597	ug/L	8.5597	ppb	20:54:13
1	Cr 267.716†	3514.4	2911.0	45.405	ug/L	45.405	ppb	20:54:13
1	Cu 324.752†	13021.6	4800.1	28.965	ug/L	28.965	ppb	20:53:53
1	Mn 257.610†	1462833.8	1255533.5	2424.3	ug/L	2424.3	ppb	20:53:47
1	Mo 202.031†	61.8	37.0	9.8122	ug/L	9.8122	ppb	20:54:13
1	Ni 231.604†	1407.6	1090.9	36.832	ug/L	36.832	ppb	20:54:13
1	P 214.914†	1161.5	686.1	335.17	ug/L	335.17	ppb	20:54:13
1	Pb 220.353†	783.5	768.4	138.72	ug/L	138.72	ppb	20:54:13
1	S 181.975 Axial†	264.4	158.0	200.90	ug/L	200.90	ppb	20:54:13
1	Sb 206.836†	70.6	3.0	-2.3504	ug/L	-2.3504	ppb	20:54:13
1	Se 196.026†	-292.3	-218.0	12.054	ug/L	12.054	ppb	20:54:13
1	Si 251.611†	451939.3	387519.6	16392	ug/L	16392	ppb	20:53:47
1	Sn 189.927†	-14.0	-23.9	-2.6776	ug/L	-2.6776	ppb	20:54:13
1	Ti 334.940†	831345.1	715867.4	1901.6	ug/L	1901.6	ppb	20:53:47
1	Tl 190.801†	-142.8	-63.8	-11.964	ug/L	-11.964	ppb	20:54:13
1	U 409.014†	-8759.0	-5721.0	-312.49	ug/L	-312.49	ppb	20:53:47
1	V 292.402†	9620.6	10233.2	78.328	ug/L	78.328	ppb	20:53:53
1	Zn 213.857†	41174.0	34414.6	394.35	ug/L	394.35	ppb	20:53:53
1	SiO2†	447453.9	383631.2	34725	ug/L	34725	ppb	20:55:21
2	Sc Radial	3780.4	3780.4	117	%			20:53:15
2	Y RADIAL	5110.1	5110.1	140.2	%			20:52:55
2	Al 396.153Radial†	38819.5	33419.3	39199	ug/L	39199	ppb	20:52:55
2	Ca 317.933Radial†	5723.3	4898.7	11033	ug/L	11033	ppb	20:52:55
2	Fe 238.204 Radial†	7415.6	6357.1	85375	ug/L	85375	ppb	20:52:55
2	K 766.490 Radial†	27236.5	20190.3	4711.0	ug/L	4711.0	ppb	20:52:55
2	Mg 279.077 IEC†	176.0	150.8	6796.0	ug/L	6796.0	ppb	20:53:15
2	Na 589.592 Radial†	2838.7	3629.8	1773.6	ug/L	1773.6	ppb	20:52:55
2	Sr 421.552†	10749.3	9190.1	95.890	ug/L	95.890	ppb	20:52:55
2	Sc 361.383	651805.6	651805.6	117.02	%			20:54:19
2	Y 371.029	725040.3	725040.3	140.13	%			20:54:19
2	Ag 328.068†	-4586.2	-3971.9	1.7904	ug/L	1.7904	ppb	20:54:24
2	As 188.979†	-10.8	35.3	41.771	ug/L	41.771	ppb	20:54:44
2	B 249.677†	392.0	990.0	14.956	ug/L	14.956	ppb	20:54:24
2	Ba 233.527†	24846.7	21236.5	321.72	ug/L	321.72	ppb	20:54:24
2	Be 313.107†	-6767.2	3768.0	5.9675	ug/L	5.9675	ppb	20:54:24
2	Cd 226.502†	330.3	589.8	0.5097	ug/L	0.5097	ppb	20:54:44
2	Co 228.616†	317.5	362.0	8.2099	ug/L	8.2099	ppb	20:54:44
2	Cr 267.716†	3485.5	2871.9	44.847	ug/L	44.847	ppb	20:54:44
2	Cu 324.752†	12757.7	4520.7	27.761	ug/L	27.761	ppb	20:54:24
2	Mn 257.610†	1469125.2	1254854.5	2423.3	ug/L	2423.3	ppb	20:54:19
2	Mo 202.031†	62.6	37.5	10.021	ug/L	10.021	ppb	20:54:44
2	Ni 231.604†	1400.3	1078.9	36.428	ug/L	36.428	ppb	20:54:44

2	P 214.914†	1137.0	660.4	321.04 ug/L	321.04 ppb	20:54:44
2	Pb 220.353†	780.8	762.8	137.84 ug/L	137.84 ppb	20:54:44
2	S 181.975 Axial†	281.2	171.3	218.06 ug/L	218.06 ppb	20:54:44
2	Sb 206.836†	63.8	-3.0	-5.0527 ug/L	-5.0527 ppb	20:54:44
2	Se 196.026†	-280.0	-206.3	23.621 ug/L	23.621 ppb	20:54:44
2	Si 251.611†	452833.1	386412.7	16345 ug/L	16345 ppb	20:54:19
2	Sn 189.927†	-20.0	-29.0	-3.8777 ug/L	-3.8777 ppb	20:54:44
2	Ti 334.940†	835245.1	715758.9	1901.4 ug/L	1901.4 ppb	20:54:19
2	Tl 190.801†	-139.9	-60.7	-10.185 ug/L	-10.185 ppb	20:54:44
2	U 409.014†	-8757.9	-5683.8	-311.20 ug/L	-311.20 ppb	20:54:19
2	V 292.402†	9403.4	10007.8	76.005 ug/L	76.005 ppb	20:54:24
2	Zn 213.857†	40191.3	33404.4	383.22 ug/L	383.22 ppb	20:54:24
2	SiO2†	449359.7	383407.6	34705 ug/L	34705 ppb	20:55:26
3	Sc Radial	3758.4	3758.4	116 %		20:53:40
3	Y RADIAL	5065.1	5065.1	139.0 %		20:53:20
3	Al 396.153Radial†	37667.7	32620.0	38261 ug/L	38261 ppb	20:53:20
3	Ca 317.933Radial†	5561.1	4787.5	10783 ug/L	10783 ppb	20:53:20
3	Fe 238.204 Radial†	7178.3	6189.5	83124 ug/L	83124 ppb	20:53:20
3	K 766.490 Radial†	26573.9	19755.1	4609.4 ug/L	4609.4 ppb	20:53:20
3	Mg 279.077 IEC†	173.6	149.6	6742.9 ug/L	6742.9 ppb	20:53:40
3	Na 589.592 Radial†	2740.4	3559.1	1739.1 ug/L	1739.1 ppb	20:53:20
3	Sr 421.552†	10462.8	8996.7	93.873 ug/L	93.873 ppb	20:53:20
3	Sc 361.383	642745.6	642745.6	115.39 %		20:54:50
3	Y 371.029	716442.3	716442.3	138.47 %		20:54:50
3	Ag 328.068†	-4569.0	-4012.2	0.8995 ug/L	0.8995 ppb	20:54:55
3	As 188.979†	-21.4	26.1	37.447 ug/L	37.447 ppb	20:55:15
3	B 249.677†	306.1	920.3	13.503 ug/L	13.503 ppb	20:54:55
3	Ba 233.527†	24973.6	21645.8	327.70 ug/L	327.70 ppb	20:54:55
3	Be 313.107†	-6931.2	3544.4	5.8860 ug/L	5.8860 ppb	20:54:55
3	Cd 226.502†	336.1	598.8	0.8369 ug/L	0.8369 ppb	20:55:15
3	Co 228.616†	331.6	378.0	8.8177 ug/L	8.8177 ppb	20:55:15
3	Cr 267.716†	3493.9	2921.1	45.555 ug/L	45.555 ppb	20:55:15
3	Cu 324.752†	12871.9	4773.4	28.835 ug/L	28.835 ppb	20:54:55
3	Mn 257.610†	1454040.3	1259478.6	2431.9 ug/L	2431.9 ppb	20:54:50
3	Mo 202.031†	62.8	38.4	9.9544 ug/L	9.9544 ppb	20:55:15
3	Ni 231.604†	1414.7	1108.3	37.416 ug/L	37.416 ppb	20:55:15
3	P 214.914†	1137.9	674.8	329.23 ug/L	329.23 ppb	20:55:15
3	Pb 220.353†	773.1	765.5	138.25 ug/L	138.25 ppb	20:55:15
3	S 181.975 Axial†	278.0	171.9	218.92 ug/L	218.92 ppb	20:55:15
3	Sb 206.836†	58.5	-6.9	-6.7990 ug/L	-6.7990 ppb	20:55:15
3	Se 196.026†	-288.1	-216.7	12.865 ug/L	12.865 ppb	20:55:15
3	Si 251.611†	448232.4	387880.3	16407 ug/L	16407 ppb	20:54:50
3	Sn 189.927†	1.0	-11.0	0.5535 ug/L	0.5535 ppb	20:55:15
3	Ti 334.940†	826807.7	718508.1	1908.7 ug/L	1908.7 ppb	20:54:50
3	Tl 190.801†	-129.6	-53.5	-5.7777 ug/L	-5.7777 ppb	20:55:15
3	U 409.014†	-8686.6	-5727.5	-312.81 ug/L	-312.81 ppb	20:54:50
3	V 292.402†	9399.7	10117.9	77.283 ug/L	77.283 ppb	20:54:55
3	Zn 213.857†	40466.8	34127.3	391.12 ug/L	391.12 ppb	20:54:55
3	SiO2†	442110.2	382537.9	34626 ug/L	34626 ppb	20:55:32

Mean Data: 249330001|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	647738.3	116.29	%	0.826				0.71%
Sc Radial	3715.0	115	%	2.9				2.55%
Y 371.029	721277.3	139.40	%	0.850				0.61%
Y RADIAL	5249.6	144.0	%	7.73				5.36%
Ag 328.068†	-3985.3	1.2794	ug/L	0.45972	1.2794	ppb	0.45972	35.93%
Al 396.153Radial†	32841.8	38522	ug/L	591.9	38522	ppb	591.9	1.54%
As 188.979†	30.2	39.315	ug/L	2.2213	39.315	ppb	2.2213	5.65%
B 249.677†	967.1	14.557	ug/L	0.9219	14.557	ppb	0.9219	6.33%
Ba 233.527†	21566.1	326.55	ug/L	4.374	326.55	ppb	4.374	1.34%
Be 313.107†	3686.6	5.9376	ug/L	0.04484	5.9376	ppb	0.04484	0.76%
Ca 317.933Radial†	4823.9	10865	ug/L	145.9	10865	ppb	145.9	1.34%
Cd 226.502†	601.7	0.8091	ug/L	0.28656	0.8091	ppb	0.28656	35.42%
Co 228.616†	370.1	8.5291	ug/L	0.30504	8.5291	ppb	0.30504	3.58%
Cr 267.716†	2901.3	45.269	ug/L	0.3732	45.269	ppb	0.3732	0.82%
Cu 324.752†	4698.0	28.520	ug/L	0.6607	28.520	ppb	0.6607	2.32%
Fe 238.204 Radial†	6245.6	83878	ug/L	1296.7	83878	ppb	1296.7	1.55%
K 766.490 Radial†	20073.4	4683.7	ug/L	65.12	4683.7	ppb	65.12	1.39%

Mg 279.077 IEC†	152.0	6851.4	ug/L	144.34	6851.4	ppb	144.34	2.11%
Mn 257.610†	1256622.2	2426.5	ug/L	4.72	2426.5	ppb	4.72	0.19%
Mo 202.031†	37.6	9.9291	ug/L	0.10644	9.9291	ppb	0.10644	1.07%
Na 589.592 Radial†	3583.7	1751.1	ug/L	19.52	1751.1	ppb	19.52	1.11%
Ni 231.604†	1092.7	36.892	ug/L	0.4966	36.892	ppb	0.4966	1.35%
P 214.914†	673.8	328.48	ug/L	7.095	328.48	ppb	7.095	2.16%
Pb 220.353†	765.6	138.27	ug/L	0.441	138.27	ppb	0.441	0.32%
S 181.975 Axial†	167.1	212.63	ug/L	10.166	212.63	ppb	10.166	4.78%
Sb 206.836†	-2.3	-4.7340	ug/L	2.24133	-4.7340	ppb	2.24133	47.35%
Se 196.026†	-213.7	16.180	ug/L	6.4566	16.180	ppb	6.4566	39.91%
Si 251.611†	387270.9	16382	ug/L	32.4	16382	ppb	32.4	0.20%
Sn 189.927†	-21.3	-2.0006	ug/L	2.29185	-2.0006	ppb	2.29185	114.56%
Sr 421.552†	9068.9	94.627	ug/L	1.1012	94.627	ppb	1.1012	1.16%
Ti 334.940†	716711.5	1903.9	ug/L	4.13	1903.9	ppb	4.13	0.22%
Tl 190.801†	-59.3	-9.3092	ug/L	3.18512	-9.3092	ppb	3.18512	34.21%
U 409.014†	-5710.7	-312.17	ug/L	0.851	-312.17	ppb	0.851	0.27%
V 292.402†	10119.6	77.205	ug/L	1.1639	77.205	ppb	1.1639	1.51%
Zn 213.857†	33982.1	389.56	ug/L	5.729	389.56	ppb	5.729	1.47%
SiO2†	383192.2	34685	ug/L	52.3	34685	ppb	52.3	0.15%

Sequence No.: 28
Sample ID: 249330002|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 56
Date Collected: 4/15/2010 20:57:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330002|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3690.7	3690.7	114	%			20:59:55
1	Y RADIAL	4638.3	4638.3	127.3	%			20:59:35
1	Al 396.153Radial†	20402.5	18044.3	21165	ug/L	21165	ppb	20:59:35
1	Ca 317.933Radial†	8353.5	7329.4	16508	ug/L	16508	ppb	20:59:35
1	Fe 238.204 Radial†	6174.4	5421.0	72803	ug/L	72803	ppb	20:59:35
1	K 766.490 Radial†	18374.3	12970.3	3025.4	ug/L	3025.4	ppb	20:59:35
1	Mg 279.077 IEC†	90.6	79.4	3561.7	ug/L	3561.7	ppb	20:59:55
1	Na 589.592 Radial†	474.7	1611.5	787.44	ug/L	787.44	ppb	20:59:35
1	Sr 421.552†	11736.3	10281.5	107.25	ug/L	107.25	ppb	20:59:35
1	Sc 361.383	647945.9	647945.9	116.32	%			21:00:52
1	Y 371.029	704192.8	704192.8	136.10	%			21:00:52
1	Ag 328.068†	-3817.2	-3334.1	1.6650	ug/L	1.6650	ppb	21:00:52
1	As 188.979†	-30.6	18.3	30.869	ug/L	30.869	ppb	21:01:12
1	B 249.677†	167.3	798.9	11.656	ug/L	11.656	ppb	21:00:52
1	Ba 233.527†	14243.2	12247.5	186.88	ug/L	186.88	ppb	21:00:52
1	Be 313.107†	-12833.5	-1481.4	3.1616	ug/L	3.1616	ppb	21:00:52
1	Cd 226.502†	237.5	511.7	0.5517	ug/L	0.5517	ppb	21:01:12
1	Co 228.616†	256.2	310.9	6.9293	ug/L	6.9293	ppb	21:01:12
1	Cr 267.716†	1412.3	1107.4	17.991	ug/L	17.991	ppb	21:01:12
1	Cu 324.752†	10379.4	2541.1	17.303	ug/L	17.303	ppb	21:00:52
1	Mn 257.610†	1171277.4	1006283.6	1943.8	ug/L	1943.8	ppb	21:00:52
1	Mo 202.031†	56.0	32.1	8.6638	ug/L	8.6638	ppb	21:01:12
1	Ni 231.604†	776.4	549.6	18.583	ug/L	18.583	ppb	21:01:12
1	P 214.914†	1100.6	634.8	310.55	ug/L	310.55	ppb	21:01:12
1	Pb 220.353†	1124.1	1061.9	187.23	ug/L	187.23	ppb	21:01:12
1	S 181.975 Axial†	319.8	205.9	265.01	ug/L	265.01	ppb	21:01:12
1	Sb 206.836†	70.8	3.3	-1.7931	ug/L	-1.7931	ppb	21:01:12
1	Se 196.026†	-235.9	-169.8	23.933	ug/L	23.933	ppb	21:01:12
1	Si 251.611†	282007.5	241864.8	10231	ug/L	10231	ppb	21:00:52
1	Sn 189.927†	1.6	-10.5	1.5223	ug/L	1.5223	ppb	21:01:12
1	Ti 334.940†	733085.4	632187.5	1680.2	ug/L	1680.2	ppb	21:00:52
1	Tl 190.801†	-129.0	-52.1	-8.9635	ug/L	-8.9635	ppb	21:01:12
1	U 409.014†	-7348.6	-4516.8	-248.60	ug/L	-248.60	ppb	21:00:52
1	V 292.402†	4726.2	6034.8	42.306	ug/L	42.306	ppb	21:00:52
1	Zn 213.857†	37233.7	31066.4	355.88	ug/L	355.88	ppb	21:00:52
1	SiO2†	280291.9	240353.1	21756	ug/L	21756	ppb	21:02:10
2	Sc Radial	3717.7	3717.7	115	%			21:00:20
2	Y RADIAL	4945.1	4945.1	135.7	%			21:00:00
2	Al 396.153Radial†	19904.8	17479.6	20502	ug/L	20502	ppb	21:00:00
2	Ca 317.933Radial†	8141.3	7090.9	15971	ug/L	15971	ppb	21:00:00
2	Fe 238.204 Radial†	6011.3	5239.2	70361	ug/L	70361	ppb	21:00:00
2	K 766.490 Radial†	17906.1	12444.3	2902.8	ug/L	2902.8	ppb	21:00:00
2	Mg 279.077 IEC†	92.4	80.4	3607.3	ug/L	3607.3	ppb	21:00:20
2	Na 589.592 Radial†	472.2	1606.3	784.86	ug/L	784.86	ppb	21:00:00
2	Sr 421.552†	11504.4	10004.1	104.35	ug/L	104.35	ppb	21:00:00
2	Sc 361.383	694101.8	694101.8	124.61	%			21:01:18
2	Y 371.029	742996.3	742996.3	143.60	%			21:01:18
2	Ag 328.068†	-3545.8	-2898.2	3.5254	ug/L	3.5254	ppb	21:01:18
2	As 188.979†	-38.4	13.8	27.371	ug/L	27.371	ppb	21:01:38
2	B 249.677†	256.9	861.2	13.422	ug/L	13.422	ppb	21:01:18
2	Ba 233.527†	13945.8	11194.7	171.03	ug/L	171.03	ppb	21:01:18
2	Be 313.107†	-12817.5	-735.0	3.1540	ug/L	3.1540	ppb	21:01:18
2	Cd 226.502†	240.3	500.4	0.6168	ug/L	0.6168	ppb	21:01:38
2	Co 228.616†	250.7	291.8	6.5665	ug/L	6.5665	ppb	21:01:38
2	Cr 267.716†	1462.6	1067.0	17.331	ug/L	17.331	ppb	21:01:38
2	Cu 324.752†	10363.3	1934.8	14.192	ug/L	14.192	ppb	21:01:18
2	Mn 257.610†	1144804.3	918082.2	1773.8	ug/L	1773.8	ppb	21:01:18
2	Mo 202.031†	60.3	32.4	8.5131	ug/L	8.5131	ppb	21:01:38
2	Ni 231.604†	784.3	511.6	17.300	ug/L	17.300	ppb	21:01:38

2	P 214.914†	1073.8	550.4	267.05 ug/L	267.05 ppb	21:01:38
2	Pb 220.353†	1125.8	999.0	176.15 ug/L	176.15 ppb	21:01:38
2	S 181.975 Axial†	331.6	197.1	253.65 ug/L	253.65 ppb	21:01:38
2	Sb 206.836†	57.1	-11.8	-8.0924 ug/L	-8.0924 ppb	21:01:38
2	Se 196.026†	-237.3	-157.5	27.389 ug/L	27.389 ppb	21:01:38
2	Si 251.611†	276471.6	221301.1	9361.1 ug/L	9361.1 ppb	21:01:18
2	Sn 189.927†	25.6	8.6	6.1967 ug/L	6.1967 ppb	21:01:38
2	Ti 334.940†	716077.0	576631.0	1532.6 ug/L	1532.6 ppb	21:01:18
2	Tl 190.801†	-122.8	-39.7	-3.5599 ug/L	-3.5599 ppb	21:01:38
2	U 409.014†	-7340.9	-4090.6	-226.33 ug/L	-226.33 ppb	21:01:18
2	V 292.402†	4627.3	5685.3	39.694 ug/L	39.694 ppb	21:01:18
2	Zn 213.857†	36427.2	28290.7	324.47 ug/L	324.47 ppb	21:01:18
2	SiO2†	282576.1	226163.1	20471 ug/L	20471 ppb	21:02:15
3	Sc Radial	3758.1	3758.1	116 %		21:00:45
3	Y RADIAL	5025.9	5025.9	137.9 %		21:00:25
3	Al 396.153Radial†	20035.3	17405.8	20416 ug/L	20416 ppb	21:00:25
3	Ca 317.933Radial†	8175.2	7043.9	15865 ug/L	15865 ppb	21:00:25
3	Fe 238.204 Radial†	6041.2	5208.7	69952 ug/L	69952 ppb	21:00:25
3	K 766.490 Radial†	17905.2	12275.8	2863.4 ug/L	2863.4 ppb	21:00:25
3	Mg 279.077 IEC†	95.1	81.8	3673.5 ug/L	3673.5 ppb	21:00:45
3	Na 589.592 Radial†	421.1	1557.8	761.18 ug/L	761.18 ppb	21:00:25
3	Sr 421.552†	11479.1	9874.6	103.00 ug/L	103.00 ppb	21:00:25
3	Sc 361.383	638281.7	638281.7	114.59 %		21:01:44
3	Y 371.029	696247.1	696247.1	134.56 %		21:01:44
3	Ag 328.068†	-3764.9	-3338.2	0.8170 ug/L	0.8170 ppb	21:01:44
3	As 188.979†	-22.5	25.0	33.454 ug/L	33.454 ppb	21:02:04
3	B 249.677†	252.8	875.6	13.810 ug/L	13.810 ppb	21:01:44
3	Ba 233.527†	13984.3	12207.0	186.12 ug/L	186.12 ppb	21:01:44
3	Be 313.107†	-12732.3	-1560.1	3.1350 ug/L	3.1350 ppb	21:01:44
3	Cd 226.502†	246.3	522.5	0.9573 ug/L	0.9573 ppb	21:02:04
3	Co 228.616†	254.7	312.9	7.0336 ug/L	7.0336 ppb	21:02:04
3	Cr 267.716†	1433.5	1144.2	18.503 ug/L	18.503 ppb	21:02:04
3	Cu 324.752†	10234.3	2549.6	17.155 ug/L	17.155 ppb	21:01:44
3	Mn 257.610†	1155296.6	1007582.9	1946.0 ug/L	1946.0 ppb	21:01:44
3	Mo 202.031†	47.2	25.2	7.7196 ug/L	7.7196 ppb	21:02:04
3	Ni 231.604†	778.4	561.6	18.982 ug/L	18.982 ppb	21:02:04
3	P 214.914†	1081.7	632.7	310.47 ug/L	310.47 ppb	21:02:04
3	Pb 220.353†	1101.8	1057.1	186.41 ug/L	186.41 ppb	21:02:04
3	S 181.975 Axial†	337.0	225.1	289.97 ug/L	289.97 ppb	21:02:04
3	Sb 206.836†	61.0	-4.4	-5.2718 ug/L	-5.2718 ppb	21:02:04
3	Se 196.026†	-241.1	-177.4	13.914 ug/L	13.914 ppb	21:02:04
3	Si 251.611†	277947.4	241992.2	10236 ug/L	10236 ppb	21:01:44
3	Sn 189.927†	16.1	2.2	4.5517 ug/L	4.5517 ppb	21:02:04
3	Ti 334.940†	723650.5	633495.8	1683.6 ug/L	1683.6 ppb	21:01:44
3	Tl 190.801†	-114.6	-41.2	-2.4644 ug/L	-2.4644 ppb	21:02:04
3	U 409.014†	-7319.2	-4586.9	-251.39 ug/L	-251.39 ppb	21:01:44
3	V 292.402†	4700.5	6073.9	43.020 ug/L	43.020 ppb	21:01:44
3	Zn 213.857†	36749.4	31128.5	356.31 ug/L	356.31 ppb	21:01:44
3	SiO2†	279392.3	243216.4	22015 ug/L	22015 ppb	21:02:20

Mean Data: 249330002|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	660109.8	118.51	%	5.356				4.52%
Sc Radial	3722.2	115	%	1.0				0.91%
Y 371.029	714478.7	138.09	%	4.834				3.50%
Y RADIAL	4869.7	133.6	%	5.61				4.20%
Ag 328.068†	-3190.2	2.0025	ug/L	1.38540	2.0025	ppb	1.38540	69.18%
Al 396.153Radial†	17643.2	20694	ug/L	409.7	20694	ppb	409.7	1.98%
As 188.979†	19.0	30.565	ug/L	3.0532	30.565	ppb	3.0532	9.99%
B 249.677†	845.2	12.962	ug/L	1.1484	12.962	ppb	1.1484	8.86%
Ba 233.527†	11883.1	181.34	ug/L	8.936	181.34	ppb	8.936	4.93%
Be 313.107†	-1258.8	3.1502	ug/L	0.01371	3.1502	ppb	0.01371	0.44%
Ca 317.933Radial†	7154.7	16115	ug/L	344.8	16115	ppb	344.8	2.14%
Cd 226.502†	511.5	0.7086	ug/L	0.21783	0.7086	ppb	0.21783	30.74%
Co 228.616†	305.2	6.8431	ug/L	0.24517	6.8431	ppb	0.24517	3.58%
Cr 267.716†	1106.2	17.942	ug/L	0.5876	17.942	ppb	0.5876	3.28%
Cu 324.752†	2341.8	16.217	ug/L	1.7548	16.217	ppb	1.7548	10.82%
Fe 238.204 Radial†	5289.6	71039	ug/L	1541.4	71039	ppb	1541.4	2.17%
K 766.490 Radial†	12563.5	2930.5	ug/L	84.53	2930.5	ppb	84.53	2.88%

Mg 279.077 IEC†	80.6	3614.1	ug/L	56.21	3614.1	ppb	56.21	1.56%
Mn 257.610†	977316.2	1887.9	ug/L	98.77	1887.9	ppb	98.77	5.23%
Mo 202.031†	29.9	8.2988	ug/L	0.50726	8.2988	ppb	0.50726	6.11%
Na 589.592 Radial†	1591.9	777.83	ug/L	14.474	777.83	ppb	14.474	1.86%
Ni 231.604†	540.9	18.289	ug/L	0.8788	18.289	ppb	0.8788	4.81%
P 214.914†	606.0	296.03	ug/L	25.090	296.03	ppb	25.090	8.48%
Pb 220.353†	1039.3	183.26	ug/L	6.172	183.26	ppb	6.172	3.37%
S 181.975 Axial†	209.4	269.54	ug/L	18.582	269.54	ppb	18.582	6.89%
Sb 206.836†	-4.3	-5.0524	ug/L	3.15538	-5.0524	ppb	3.15538	62.45%
Se 196.026†	-168.2	21.745	ug/L	6.9988	21.745	ppb	6.9988	32.19%
Si 251.611†	235052.7	9942.8	ug/L	503.78	9942.8	ppb	503.78	5.07%
Sn 189.927†	0.1	4.0902	ug/L	2.37113	4.0902	ppb	2.37113	57.97%
Sr 421.552†	10053.4	104.87	ug/L	2.169	104.87	ppb	2.169	2.07%
Ti 334.940†	614104.8	1632.2	ug/L	86.21	1632.2	ppb	86.21	5.28%
Tl 190.801†	-44.3	-4.9959	ug/L	3.47942	-4.9959	ppb	3.47942	69.65%
U 409.014†	-4398.1	-242.11	ug/L	13.733	-242.11	ppb	13.733	5.67%
V 292.402†	5931.3	41.673	ug/L	1.7511	41.673	ppb	1.7511	4.20%
Zn 213.857†	30161.9	345.55	ug/L	18.260	345.55	ppb	18.260	5.28%
SiO2†	236577.5	21414	ug/L	826.6	21414	ppb	826.6	3.86%

Sequence No.: 29
Sample ID: 249330003|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 57
Date Collected: 4/15/2010 21:04:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330003|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3771.7	3771.7	116	%			21:06:44
1	Y RADIAL	4758.2	4758.2	130.5	%			21:06:24
1	Al 396.153Radial†	20312.3	17581.7	20622	ug/L	20622	ppb	21:06:24
1	Ca 317.933Radial†	4847.0	4156.6	9361.9	ug/L	9361.9	ppb	21:06:24
1	Fe 238.204 Radial†	5618.1	4826.1	64815	ug/L	64815	ppb	21:06:24
1	K 766.490 Radial†	26056.7	19229.6	4487.5	ug/L	4487.5	ppb	21:06:24
1	Mg 279.077 IEC†	112.0	96.1	4323.9	ug/L	4323.9	ppb	21:06:44
1	Na 589.592 Radial†	-16.6	1180.1	576.64	ug/L	576.64	ppb	21:06:24
1	Sr 421.552†	6731.6	5756.5	60.045	ug/L	60.045	ppb	21:06:24
1	Sc 361.383	644871.1	644871.1	115.77	%			21:07:42
1	Y 371.029	662873.4	662873.4	128.11	%			21:07:42
1	Ag 328.068†	-3360.7	-2955.5	1.6292	ug/L	1.6292	ppb	21:07:42
1	As 188.979†	-38.7	11.2	24.781	ug/L	24.781	ppb	21:08:02
1	B 249.677†	110.7	750.6	11.326	ug/L	11.326	ppb	21:07:42
1	Ba 233.527†	15271.6	13194.2	200.56	ug/L	200.56	ppb	21:07:42
1	Be 313.107†	-11685.4	-542.4	3.0292	ug/L	3.0292	ppb	21:07:42
1	Cd 226.502†	192.1	473.4	0.7455	ug/L	0.7455	ppb	21:08:02
1	Co 228.616†	258.8	314.2	7.6752	ug/L	7.6752	ppb	21:08:02
1	Cr 267.716†	1474.7	1167.0	18.748	ug/L	18.748	ppb	21:08:02
1	Cu 324.752†	10933.0	3061.8	19.257	ug/L	19.257	ppb	21:07:42
1	Mn 257.610†	1173477.7	1012985.0	1955.8	ug/L	1955.8	ppb	21:07:42
1	Mo 202.031†	67.8	42.5	9.1101	ug/L	9.1101	ppb	21:08:02
1	Ni 231.604†	664.7	456.4	15.434	ug/L	15.434	ppb	21:08:02
1	P 214.914†	1466.1	955.0	484.35	ug/L	484.35	ppb	21:08:02
1	Pb 220.353†	1496.5	1388.2	245.24	ug/L	245.24	ppb	21:08:02
1	S 181.975 Axial†	350.1	233.4	300.80	ug/L	300.80	ppb	21:08:02
1	Sb 206.836†	63.2	-3.0	-3.8663	ug/L	-3.8663	ppb	21:08:02
1	Se 196.026†	-213.8	-151.7	21.008	ug/L	21.008	ppb	21:08:02
1	Si 251.611†	378544.7	326406.2	13807	ug/L	13807	ppb	21:07:42
1	Sn 189.927†	47.6	29.3	10.088	ug/L	10.088	ppb	21:08:02
1	Ti 334.940†	625086.0	541906.2	1439.7	ug/L	1439.7	ppb	21:07:42
1	Tl 190.801†	-122.0	-46.5	-7.4352	ug/L	-7.4352	ppb	21:08:02
1	U 409.014†	-6026.4	-3404.9	-190.08	ug/L	-190.08	ppb	21:07:42
1	V 292.402†	5266.8	6521.2	48.138	ug/L	48.138	ppb	21:07:42
1	Zn 213.857†	31118.8	25937.2	297.50	ug/L	297.50	ppb	21:07:42
1	SiO2†	379502.0	327196.3	29617	ug/L	29617	ppb	21:08:59
2	Sc Radial	3755.2	3755.2	116	%			21:07:09
2	Y RADIAL	4630.3	4630.3	127.0	%			21:06:49
2	Al 396.153Radial†	19842.1	17252.4	20236	ug/L	20236	ppb	21:06:49
2	Ca 317.933Radial†	4744.7	4086.6	9204.2	ug/L	9204.2	ppb	21:06:49
2	Fe 238.204 Radial†	5486.1	4733.4	63569	ug/L	63569	ppb	21:06:49
2	K 766.490 Radial†	25437.7	18793.6	4385.8	ug/L	4385.8	ppb	21:06:49
2	Mg 279.077 IEC†	112.5	96.9	4362.2	ug/L	4362.2	ppb	21:07:09
2	Na 589.592 Radial†	-51.8	1149.6	561.75	ug/L	561.75	ppb	21:06:49
2	Sr 421.552†	6598.7	5667.1	59.114	ug/L	59.114	ppb	21:06:49
2	Sc 361.383	639138.7	639138.7	114.74	%			21:08:07
2	Y 371.029	656839.5	656839.5	126.95	%			21:08:07
2	Ag 328.068†	-3395.1	-3011.5	0.9308	ug/L	0.9308	ppb	21:08:07
2	As 188.979†	-30.2	18.3	27.662	ug/L	27.662	ppb	21:08:28
2	B 249.677†	80.2	724.9	10.834	ug/L	10.834	ppb	21:08:07
2	Ba 233.527†	15035.2	13106.5	199.18	ug/L	199.18	ppb	21:08:07
2	Be 313.107†	-11463.6	-439.5	3.0535	ug/L	3.0535	ppb	21:08:07
2	Cd 226.502†	178.3	462.9	0.7114	ug/L	0.7114	ppb	21:08:28
2	Co 228.616†	260.9	318.0	7.8502	ug/L	7.8502	ppb	21:08:28
2	Cr 267.716†	1436.4	1145.1	18.398	ug/L	18.398	ppb	21:08:28
2	Cu 324.752†	10871.5	3092.9	19.324	ug/L	19.324	ppb	21:08:07
2	Mn 257.610†	1154588.1	1005613.6	1941.5	ug/L	1941.5	ppb	21:08:07
2	Mo 202.031†	59.0	35.4	8.2669	ug/L	8.2669	ppb	21:08:28
2	Ni 231.604†	675.4	470.8	15.919	ug/L	15.919	ppb	21:08:28

2	P 214.914†	1439.1	942.8	478.25	ug/L	478.25 ppb	21:08:28
2	Pb 220.353†	1479.6	1385.0	244.68	ug/L	244.68 ppb	21:08:28
2	S 181.975 Axial†	345.0	231.7	298.59	ug/L	298.59 ppb	21:08:28
2	Sb 206.836†	57.5	-7.5	-5.9169	ug/L	-5.9169 ppb	21:08:28
2	Se 196.026†	-218.5	-157.5	15.055	ug/L	15.055 ppb	21:08:28
2	Si 251.611†	372130.5	323748.8	13695	ug/L	13695 ppb	21:08:07
2	Sn 189.927†	47.6	29.6	10.138	ug/L	10.138 ppb	21:08:28
2	Ti 334.940†	615577.4	538462.0	1430.5	ug/L	1430.5 ppb	21:08:07
2	Tl 190.801†	-126.5	-51.4	-10.462	ug/L	-10.462 ppb	21:08:28
2	U 409.014†	-5951.0	-3385.9	-188.78	ug/L	-188.78 ppb	21:08:07
2	V 292.402†	5200.1	6503.8	48.151	ug/L	48.151 ppb	21:08:07
2	Zn 213.857†	30685.0	25800.3	295.84	ug/L	295.84 ppb	21:08:07
2	SiO2†	382672.8	332899.8	30133	ug/L	30133 ppb	21:09:04
3	Sc Radial	3751.1	3751.1	116	%		21:07:34
3	Y RADIAL	4771.7	4771.7	130.9	%		21:07:14
3	Al 396.153Radial†	20433.2	17782.1	20857	ug/L	20857 ppb	21:07:14
3	Ca 317.933Radial†	4878.8	4207.0	9475.4	ug/L	9475.4 ppb	21:07:14
3	Fe 238.204 Radial†	5634.5	4866.8	65360	ug/L	65360 ppb	21:07:14
3	K 766.490 Radial†	26234.4	19506.3	4552.1	ug/L	4552.1 ppb	21:07:14
3	Mg 279.077 IEC†	115.2	99.4	4474.2	ug/L	4474.2 ppb	21:07:34
3	Na 589.592 Radial†	-9.5	1186.1	579.58	ug/L	579.58 ppb	21:07:14
3	Sr 421.552†	6793.2	5841.5	60.933	ug/L	60.933 ppb	21:07:14
3	Sc 361.383	632905.1	632905.1	113.62	%		21:08:33
3	Y 371.029	651640.2	651640.2	125.94	%		21:08:33
3	Ag 328.068†	-3365.9	-3015.0	1.4257	ug/L	1.4257 ppb	21:08:33
3	As 188.979†	-11.7	34.3	35.006	ug/L	35.006 ppb	21:08:53
3	B 249.677†	109.9	751.7	11.295	ug/L	11.295 ppb	21:08:33
3	Ba 233.527†	14874.5	13094.2	199.09	ug/L	199.09 ppb	21:08:33
3	Be 313.107†	-11382.2	-466.3	3.0473	ug/L	3.0473 ppb	21:08:33
3	Cd 226.502†	150.6	440.0	0.2330	ug/L	0.2330 ppb	21:08:53
3	Co 228.616†	249.3	310.1	7.5303	ug/L	7.5303 ppb	21:08:53
3	Cr 267.716†	1452.7	1171.7	18.825	ug/L	18.825 ppb	21:08:53
3	Cu 324.752†	10734.1	3065.3	19.308	ug/L	19.308 ppb	21:08:33
3	Mn 257.610†	1143107.7	1005420.3	1941.3	ug/L	1941.3 ppb	21:08:33
3	Mo 202.031†	67.6	43.5	9.2524	ug/L	9.2524 ppb	21:08:53
3	Ni 231.604†	664.1	466.7	15.783	ug/L	15.783 ppb	21:08:53
3	P 214.914†	1441.6	957.4	485.46	ug/L	485.46 ppb	21:08:53
3	Pb 220.353†	1457.6	1378.4	243.54	ug/L	243.54 ppb	21:08:53
3	S 181.975 Axial†	339.6	229.9	296.17	ug/L	296.17 ppb	21:08:53
3	Sb 206.836†	70.9	4.8	-0.3250	ug/L	-0.3250 ppb	21:08:53
3	Se 196.026†	-197.5	-140.8	28.931	ug/L	28.931 ppb	21:08:53
3	Si 251.611†	368226.5	323507.1	13684	ug/L	13684 ppb	21:08:33
3	Sn 189.927†	45.6	28.2	9.8592	ug/L	9.8592 ppb	21:08:53
3	Ti 334.940†	610620.7	539383.5	1433.0	ug/L	1433.0 ppb	21:08:33
3	Tl 190.801†	-108.0	-36.2	-1.4318	ug/L	-1.4318 ppb	21:08:53
3	U 409.014†	-5812.1	-3314.7	-185.65	ug/L	-185.65 ppb	21:08:33
3	V 292.402†	5052.2	6418.3	47.161	ug/L	47.161 ppb	21:08:33
3	Zn 213.857†	30419.4	25829.9	296.34	ug/L	296.34 ppb	21:08:33
3	SiO2†	378602.9	332602.5	30106	ug/L	30106 ppb	21:09:09

Mean Data: 249330003|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	638971.6	114.71	%	1.074				0.94%
Sc Radial	3759.3	116	%	0.3				0.29%
Y 371.029	657117.7	127.00	%	1.087				0.86%
Y RADIAL	4720.1	129.5	%	2.14				1.65%
Ag 328.068†	-2994.0	1.3286	ug/L	0.35920	1.3286	ppb	0.35920	27.04%
Al 396.153Radial†	17538.7	20572	ug/L	313.7	20572	ppb	313.7	1.52%
As 188.979†	21.3	29.149	ug/L	5.2723	29.149	ppb	5.2723	18.09%
B 249.677†	742.4	11.152	ug/L	0.2760	11.152	ppb	0.2760	2.47%
Ba 233.527†	13131.6	199.61	ug/L	0.821	199.61	ppb	0.821	0.41%
Be 313.107†	-482.7	3.0433	ug/L	0.01264	3.0433	ppb	0.01264	0.42%
Ca 317.933Radial†	4150.0	9347.2	ug/L	136.18	9347.2	ppb	136.18	1.46%
Cd 226.502†	458.8	0.5633	ug/L	0.28655	0.5633	ppb	0.28655	50.87%
Co 228.616†	314.1	7.6852	ug/L	0.16021	7.6852	ppb	0.16021	2.08%
Cr 267.716†	1161.3	18.657	ug/L	0.2277	18.657	ppb	0.2277	1.22%
Cu 324.752†	3073.3	19.296	ug/L	0.0349	19.296	ppb	0.0349	0.18%
Fe 238.204 Radial†	4808.8	64581	ug/L	918.3	64581	ppb	918.3	1.42%
K 766.490 Radial†	19176.5	4475.1	ug/L	83.87	4475.1	ppb	83.87	1.87%

Mg 279.077 IEC†	97.5	4386.8	ug/L	78.13	4386.8	ppb	78.13	1.78%
Mn 257.610†	1008006.3	1946.2	ug/L	8.32	1946.2	ppb	8.32	0.43%
Mo 202.031†	40.5	8.8765	ug/L	0.53270	8.8765	ppb	0.53270	6.00%
Na 589.592 Radial†	1172.0	572.66	ug/L	9.560	572.66	ppb	9.560	1.67%
Ni 231.604†	464.7	15.712	ug/L	0.2501	15.712	ppb	0.2501	1.59%
P 214.914†	951.8	482.69	ug/L	3.884	482.69	ppb	3.884	0.80%
Pb 220.353†	1383.9	244.49	ug/L	0.868	244.49	ppb	0.868	0.35%
S 181.975 Axial†	231.7	298.52	ug/L	2.314	298.52	ppb	2.314	0.78%
Sb 206.836†	-1.9	-3.3694	ug/L	2.82885	-3.3694	ppb	2.82885	83.96%
Se 196.026†	-150.0	21.664	ug/L	6.9613	21.664	ppb	6.9613	32.13%
Si 251.611†	324554.0	13729	ug/L	68.0	13729	ppb	68.0	0.50%
Sn 189.927†	29.0	10.028	ug/L	0.1485	10.028	ppb	0.1485	1.48%
Sr 421.552†	5755.0	60.031	ug/L	0.9098	60.031	ppb	0.9098	1.52%
Ti 334.940†	539917.3	1434.4	ug/L	4.74	1434.4	ppb	4.74	0.33%
Tl 190.801†	-44.7	-6.4429	ug/L	4.59610	-6.4429	ppb	4.59610	71.34%
U 409.014†	-3368.5	-188.17	ug/L	2.275	-188.17	ppb	2.275	1.21%
V 292.402†	6481.1	47.816	ug/L	0.5678	47.816	ppb	0.5678	1.19%
Zn 213.857†	25855.8	296.56	ug/L	0.851	296.56	ppb	0.851	0.29%
SiO2†	330899.5	29952	ug/L	290.6	29952	ppb	290.6	0.97%

Sequence No.: 30
Sample ID: 249330004|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 58
Date Collected: 4/15/2010 21:11:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330004|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3647.9	3647.9	112	%			21:13:33
1	Y RADIAL	4637.9	4637.9	127.2	%			21:13:13
1	Al 396.153Radial†	12181.3	10945.3	12838	ug/L	12838	ppb	21:13:13
1	Ca 317.933Radial†	2309.0	2041.5	4598.1	ug/L	4598.1	ppb	21:13:33
1	Fe 238.204 Radial†	4289.9	3809.2	51157	ug/L	51157	ppb	21:13:13
1	K 766.490 Radial†	13049.3	8425.3	1965.4	ug/L	1965.4	ppb	21:13:13
1	Mg 279.077 IEC†	45.7	40.4	1804.1	ug/L	1804.1	ppb	21:13:33
1	Na 589.592 Radial†	649.2	1771.5	865.61	ug/L	865.61	ppb	21:13:13
1	Sr 421.552†	4089.2	3603.6	37.598	ug/L	37.598	ppb	21:13:13
1	Sc 361.383	639814.7	639814.7	114.86	%			21:14:31
1	Y 371.029	667280.5	667280.5	128.96	%			21:14:31
1	Ag 328.068†	-2430.2	-2168.3	2.3326	ug/L	2.3326	ppb	21:14:31
1	As 188.979†	-27.2	20.9	23.109	ug/L	23.109	ppb	21:14:51
1	B 249.677†	-403.8	303.4	1.9348	ug/L	1.9348	ppb	21:14:31
1	Ba 233.527†	9677.0	8427.9	128.69	ug/L	128.69	ppb	21:14:31
1	Be 313.107†	-11990.5	-887.7	1.6768	ug/L	1.6768	ppb	21:14:31
1	Cd 226.502†	195.9	478.1	2.1070	ug/L	2.1070	ppb	21:14:51
1	Co 228.616†	328.2	376.4	11.123	ug/L	11.123	ppb	21:14:51
1	Cr 267.716†	20415.9	17667.1	267.12	ug/L	267.12	ppb	21:14:31
1	Cu 324.752†	38870.5	27458.6	136.44	ug/L	136.44	ppb	21:14:31
1	Mn 257.610†	1215042.7	1057181.7	2039.5	ug/L	2039.5	ppb	21:14:31
1	Mo 202.031†	90.4	62.7	10.234	ug/L	10.234	ppb	21:14:51
1	Ni 231.604†	4218.0	3554.4	119.82	ug/L	119.82	ppb	21:14:51
1	P 214.914†	1027.5	583.2	261.74	ug/L	261.74	ppb	21:14:51
1	Pb 220.353†	1083.3	1038.7	182.46	ug/L	182.46	ppb	21:14:51
1	S 181.975 Axial†	232.3	133.2	171.58	ug/L	171.58	ppb	21:14:51
1	Sb 206.836†	71.4	4.6	1.0638	ug/L	1.0638	ppb	21:14:51
1	Se 196.026†	-168.4	-113.6	20.458	ug/L	20.458	ppb	21:14:51
1	Si 251.611†	279035.7	242358.5	10252	ug/L	10252	ppb	21:14:31
1	Sn 189.927†	66.3	45.8	13.162	ug/L	13.162	ppb	21:14:51
1	Ti 334.940†	391377.3	342708.5	910.35	ug/L	910.35	ppb	21:14:31
1	Tl 190.801†	-99.0	-27.4	0.2833	ug/L	0.2833	ppb	21:14:51
1	U 409.014†	-5448.3	-2942.7	-163.53	ug/L	-163.53	ppb	21:14:31
1	V 292.402†	4495.7	5885.8	44.763	ug/L	44.763	ppb	21:14:31
1	Zn 213.857†	53062.8	45253.9	512.47	ug/L	512.47	ppb	21:14:31
1	SiO2†	268709.1	233331.5	21120	ug/L	21120	ppb	21:15:48
2	Sc Radial	3707.3	3707.3	114	%			21:13:58
2	Y RADIAL	4779.0	4779.0	131.1	%			21:13:38
2	Al 396.153Radial†	12526.1	11073.4	12988	ug/L	12988	ppb	21:13:38
2	Ca 317.933Radial†	2348.9	2043.5	4602.6	ug/L	4602.6	ppb	21:13:58
2	Fe 238.204 Radial†	4407.6	3851.0	51719	ug/L	51719	ppb	21:13:38
2	K 766.490 Radial†	13364.6	8515.2	1986.4	ug/L	1986.4	ppb	21:13:38
2	Mg 279.077 IEC†	48.3	42.1	1878.9	ug/L	1878.9	ppb	21:13:58
2	Na 589.592 Radial†	692.6	1800.2	879.65	ug/L	879.65	ppb	21:13:38
2	Sr 421.552†	4190.8	3634.2	37.918	ug/L	37.918	ppb	21:13:38
2	Sc 361.383	638899.1	638899.1	114.70	%			21:14:57
2	Y 371.029	665899.7	665899.7	128.70	%			21:14:57
2	Ag 328.068†	-2464.0	-2200.8	2.3153	ug/L	2.3153	ppb	21:14:57
2	As 188.979†	-30.5	18.0	21.879	ug/L	21.879	ppb	21:15:17
2	B 249.677†	-471.7	243.7	0.4303	ug/L	0.4303	ppb	21:14:57
2	Ba 233.527†	9732.0	8487.9	129.62	ug/L	129.62	ppb	21:14:57
2	Be 313.107†	-11974.4	-888.6	1.6743	ug/L	1.6743	ppb	21:14:57
2	Cd 226.502†	204.5	485.8	2.1603	ug/L	2.1603	ppb	21:15:17
2	Co 228.616†	338.2	385.5	11.453	ug/L	11.453	ppb	21:15:17
2	Cr 267.716†	20337.8	17624.5	266.49	ug/L	266.49	ppb	21:14:57
2	Cu 324.752†	38783.9	27431.6	136.36	ug/L	136.36	ppb	21:14:57
2	Mn 257.610†	1212078.3	1056113.0	2037.5	ug/L	2037.5	ppb	21:14:57
2	Mo 202.031†	96.9	68.5	10.891	ug/L	10.891	ppb	21:15:17
2	Ni 231.604†	4195.1	3539.7	119.32	ug/L	119.32	ppb	21:15:17

2	P 214.914†	1029.7	586.5	263.33	ug/L	263.33 ppb	21:15:17
2	Pb 220.353†	1060.2	1019.9	179.13	ug/L	179.13 ppb	21:15:17
2	S 181.975 Axial†	231.1	132.5	170.56	ug/L	170.56 ppb	21:15:17
2	Sb 206.836†	53.9	-10.6	-5.7084	ug/L	-5.7084 ppb	21:15:17
2	Se 196.026†	-186.1	-129.3	11.481	ug/L	11.481 ppb	21:15:17
2	Si 251.611†	278938.4	242621.8	10263	ug/L	10263 ppb	21:14:57
2	Sn 189.927†	74.9	53.4	15.079	ug/L	15.079 ppb	21:15:17
2	Ti 334.940†	390426.4	342367.6	909.45	ug/L	909.45 ppb	21:14:57
2	Tl 190.801†	-107.8	-35.1	-4.3349	ug/L	-4.3349 ppb	21:15:17
2	U 409.014†	-5847.7	-3297.7	-181.68	ug/L	-181.68 ppb	21:14:57
2	V 292.402†	4414.5	5820.6	44.079	ug/L	44.079 ppb	21:14:57
2	Zn 213.857†	52881.3	45161.9	511.49	ug/L	511.49 ppb	21:14:57
2	SiO2†	270551.3	235272.8	21296	ug/L	21296 ppb	21:15:53
3	Sc Radial	3711.6	3711.6	114	%		21:14:23
3	Y RADIAL	4760.3	4760.3	130.6	%		21:14:03
3	Al 396.153Radial†	12521.8	11056.8	12969	ug/L	12969 ppb	21:14:03
3	Ca 317.933Radial†	2343.5	2036.4	4586.7	ug/L	4586.7 ppb	21:14:23
3	Fe 238.204 Radial†	4414.0	3852.1	51734	ug/L	51734 ppb	21:14:03
3	K 766.490 Radial†	13458.1	8583.3	2002.3	ug/L	2002.3 ppb	21:14:03
3	Mg 279.077 IEC†	51.7	44.9	2009.4	ug/L	2009.4 ppb	21:14:23
3	Na 589.592 Radial†	642.8	1756.1	858.07	ug/L	858.07 ppb	21:14:03
3	Sr 421.552†	4183.4	3623.5	37.806	ug/L	37.806 ppb	21:14:03
3	Sc 361.383	630471.5	630471.5	113.19	%		21:15:22
3	Y 371.029	657603.2	657603.2	127.09	%		21:15:22
3	Ag 328.068†	-2392.9	-2166.7	2.5096	ug/L	2.5096 ppb	21:15:22
3	As 188.979†	-17.6	29.1	26.755	ug/L	26.755 ppb	21:15:43
3	B 249.677†	-378.4	320.6	2.2915	ug/L	2.2915 ppb	21:15:22
3	Ba 233.527†	9517.9	8412.1	128.49	ug/L	128.49 ppb	21:15:22
3	Be 313.107†	-11744.7	-825.2	1.6984	ug/L	1.6984 ppb	21:15:22
3	Cd 226.502†	207.8	491.1	2.2369	ug/L	2.2369 ppb	21:15:43
3	Co 228.616†	311.4	365.8	10.732	ug/L	10.732 ppb	21:15:43
3	Cr 267.716†	20105.1	17655.9	266.96	ug/L	266.96 ppb	21:15:22
3	Cu 324.752†	38342.5	27493.7	136.65	ug/L	136.65 ppb	21:15:22
3	Mn 257.610†	1193069.4	1053444.5	2032.3	ug/L	2032.3 ppb	21:15:22
3	Mo 202.031†	92.4	65.6	10.584	ug/L	10.584 ppb	21:15:43
3	Ni 231.604†	4170.2	3566.6	120.23	ug/L	120.23 ppb	21:15:43
3	P 214.914†	1023.4	592.8	266.61	ug/L	266.61 ppb	21:15:43
3	Pb 220.353†	1080.8	1050.4	184.52	ug/L	184.52 ppb	21:15:43
3	S 181.975 Axial†	217.4	123.1	158.33	ug/L	158.33 ppb	21:15:43
3	Sb 206.836†	65.4	0.2	-0.9306	ug/L	-0.9306 ppb	21:15:43
3	Se 196.026†	-173.0	-119.9	17.525	ug/L	17.525 ppb	21:15:43
3	Si 251.611†	274635.9	242071.4	10240	ug/L	10240 ppb	21:15:22
3	Sn 189.927†	55.1	36.8	10.901	ug/L	10.901 ppb	21:15:43
3	Ti 334.940†	384572.2	341745.5	907.78	ug/L	907.78 ppb	21:15:22
3	Tl 190.801†	-105.7	-34.5	-4.0014	ug/L	-4.0014 ppb	21:15:43
3	U 409.014†	-5378.6	-2951.5	-164.13	ug/L	-164.13 ppb	21:15:22
3	V 292.402†	4372.2	5834.7	44.236	ug/L	44.236 ppb	21:15:22
3	Zn 213.857†	52091.0	45079.9	510.56	ug/L	510.56 ppb	21:15:22
3	SiO2†	277340.1	244423.7	22124	ug/L	22124 ppb	21:15:59

Mean Data: 249330004|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	636395.1	114.25	%	0.925				0.81%
Sc Radial	3689.0	114	%	1.1				0.97%
Y 371.029	663594.5	128.25	%	1.012				0.79%
Y RADIAL	4725.8	129.7	%	2.10				1.62%
Ag 328.068†	-2178.6	2.3858	ug/L	0.10750	2.3858	ppb	0.10750	4.51%
Al 396.153Radial†	11025.2	12932	ug/L	81.7	12932	ppb	81.7	0.63%
As 188.979†	22.7	23.914	ug/L	2.5362	23.914	ppb	2.5362	10.61%
B 249.677†	289.3	1.5522	ug/L	0.98785	1.5522	ppb	0.98785	63.64%
Ba 233.527†	8442.6	128.94	ug/L	0.601	128.94	ppb	0.601	0.47%
Be 313.107†	-867.2	1.6832	ug/L	0.01323	1.6832	ppb	0.01323	0.79%
Ca 317.933Radial†	2040.5	4595.8	ug/L	8.20	4595.8	ppb	8.20	0.18%
Cd 226.502†	485.0	2.1680	ug/L	0.06528	2.1680	ppb	0.06528	3.01%
Co 228.616†	375.9	11.103	ug/L	0.3606	11.103	ppb	0.3606	3.25%
Cr 267.716†	17649.2	266.85	ug/L	0.326	266.85	ppb	0.326	0.12%
Cu 324.752†	27461.3	136.48	ug/L	0.150	136.48	ppb	0.150	0.11%
Fe 238.204 Radial†	3837.5	51537	ug/L	328.7	51537	ppb	328.7	0.64%
K 766.490 Radial†	8508.0	1984.7	ug/L	18.50	1984.7	ppb	18.50	0.93%

Mg 279.077 IEC†	42.5	1897.5	ug/L	103.94	1897.5	ppb	103.94	5.48%
Mn 257.610†	1055579.7	2036.4	ug/L	3.68	2036.4	ppb	3.68	0.18%
Mo 202.031†	65.6	10.570	ug/L	0.3290	10.570	ppb	0.3290	3.11%
Na 589.592 Radial†	1775.9	867.78	ug/L	10.954	867.78	ppb	10.954	1.26%
Ni 231.604†	3553.6	119.79	ug/L	0.455	119.79	ppb	0.455	0.38%
P 214.914†	587.5	263.89	ug/L	2.485	263.89	ppb	2.485	0.94%
Pb 220.353†	1036.3	182.04	ug/L	2.720	182.04	ppb	2.720	1.49%
S 181.975 Axial†	129.6	166.82	ug/L	7.375	166.82	ppb	7.375	4.42%
Sb 206.836†	-1.9	-1.8584	ug/L	3.48013	-1.8584	ppb	3.48013	187.26%
Se 196.026†	-120.9	16.488	ug/L	4.5778	16.488	ppb	4.5778	27.76%
Si 251.611†	242350.6	10251	ug/L	11.6	10251	ppb	11.6	0.11%
Sn 189.927†	45.3	13.047	ug/L	2.0913	13.047	ppb	2.0913	16.03%
Sr 421.552†	3620.4	37.774	ug/L	0.1622	37.774	ppb	0.1622	0.43%
Ti 334.940†	342273.9	909.19	ug/L	1.306	909.19	ppb	1.306	0.14%
Tl 190.801†	-32.3	-2.6843	ug/L	2.57547	-2.6843	ppb	2.57547	95.94%
U 409.014†	-3064.0	-169.78	ug/L	10.311	-169.78	ppb	10.311	6.07%
V 292.402†	5847.0	44.359	ug/L	0.3581	44.359	ppb	0.3581	0.81%
Zn 213.857†	45165.2	511.51	ug/L	0.952	511.51	ppb	0.952	0.19%
SiO2†	237676.0	21513	ug/L	536.2	21513	ppb	536.2	2.49%

Sequence No.: 31
Sample ID: 249330005|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 59
Date Collected: 4/15/2010 21:18:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330005|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3761.6	3761.6	116	%			21:20:23
1	Y RADIAL	5247.5	5247.5	144.0	%			21:20:03
1	Al 396.153Radial†	17846.8	15502.6	18182	ug/L	18182	ppb	21:20:03
1	Ca 317.933Radial†	3537.0	3038.2	6843.0	ug/L	6843.0	ppb	21:20:23
1	Fe 238.204 Radial†	4952.3	4264.9	57277	ug/L	57277	ppb	21:20:03
1	K 766.490 Radial†	13806.7	8727.6	2035.9	ug/L	2035.9	ppb	21:20:03
1	Mg 279.077 IEC†	88.9	76.4	3436.2	ug/L	3436.2	ppb	21:20:23
1	Na 589.592 Radial†	1640.2	2608.5	1274.6	ug/L	1274.6	ppb	21:20:03
1	Sr 421.552†	6637.2	5690.6	59.376	ug/L	59.376	ppb	21:20:03
1	Sc 361.383	645878.6	645878.6	115.95	%			21:21:20
1	Y 371.029	693123.7	693123.7	133.96	%			21:21:20
1	Ag 328.068†	-3229.0	-2837.4	0.1890	ug/L	0.1890	ppb	21:21:20
1	As 188.979†	-18.5	28.6	31.370	ug/L	31.370	ppb	21:21:40
1	B 249.677†	-284.0	410.1	3.8857	ug/L	3.8857	ppb	21:21:20
1	Ba 233.527†	11649.5	10049.9	153.25	ug/L	153.25	ppb	21:21:20
1	Be 313.107†	-10512.7	484.8	3.4590	ug/L	3.4590	ppb	21:21:20
1	Cd 226.502†	165.6	450.3	1.1048	ug/L	1.1048	ppb	21:21:40
1	Co 228.616†	185.1	250.3	5.4920	ug/L	5.4920	ppb	21:21:40
1	Cr 267.716†	4142.1	3465.4	53.274	ug/L	53.274	ppb	21:21:40
1	Cu 324.752†	14616.7	6224.0	34.056	ug/L	34.056	ppb	21:21:20
1	Mn 257.610†	700381.6	603397.3	1167.0	ug/L	1167.0	ppb	21:21:20
1	Mo 202.031†	399.2	328.2	38.823	ug/L	38.823	ppb	21:21:40
1	Ni 231.604†	1099.9	830.8	28.046	ug/L	28.046	ppb	21:21:40
1	P 214.914†	950.7	508.6	244.74	ug/L	244.74	ppb	21:21:40
1	Pb 220.353†	336.3	385.6	68.179	ug/L	68.179	ppb	21:21:40
1	S 181.975 Axial†	253.4	149.5	192.11	ug/L	192.11	ppb	21:21:40
1	Sb 206.836†	65.4	-1.2	-2.7851	ug/L	-2.7851	ppb	21:21:40
1	Se 196.026†	-195.9	-136.0	17.421	ug/L	17.421	ppb	21:21:40
1	Si 251.611†	382654.9	329440.9	13935	ug/L	13935	ppb	21:21:20
1	Sn 189.927†	-0.5	-12.3	-0.9211	ug/L	-0.9211	ppb	21:21:40
1	Ti 334.940†	622099.3	538488.2	1430.4	ug/L	1430.4	ppb	21:21:20
1	Tl 190.801†	-119.2	-43.9	-9.7308	ug/L	-9.7308	ppb	21:21:40
1	U 409.014†	-6473.9	-3782.7	-207.29	ug/L	-207.29	ppb	21:21:20
1	V 292.402†	5918.8	7076.4	54.516	ug/L	54.516	ppb	21:21:20
1	Zn 213.857†	33888.5	28283.9	323.06	ug/L	323.06	ppb	21:21:20
1	SiO2†	378528.9	325845.7	29493	ug/L	29493	ppb	21:22:38
2	Sc Radial	3731.4	3731.4	115	%			21:20:48
2	Y RADIAL	4906.4	4906.4	134.6	%			21:20:28
2	Al 396.153Radial†	18428.8	16133.0	18922	ug/L	18922	ppb	21:20:28
2	Ca 317.933Radial†	3574.8	3095.7	6972.5	ug/L	6972.5	ppb	21:20:48
2	Fe 238.204 Radial†	5083.9	4413.9	59278	ug/L	59278	ppb	21:20:28
2	K 766.490 Radial†	14062.1	9045.9	2110.2	ug/L	2110.2	ppb	21:20:28
2	Mg 279.077 IEC†	87.3	75.7	3398.9	ug/L	3398.9	ppb	21:20:48
2	Na 589.592 Radial†	1710.6	2681.1	1310.1	ug/L	1310.1	ppb	21:20:28
2	Sr 421.552†	6806.7	5884.2	61.397	ug/L	61.397	ppb	21:20:28
2	Sc 361.383	650686.4	650686.4	116.82	%			21:21:46
2	Y 371.029	699507.1	699507.1	135.19	%			21:21:46
2	Ag 328.068†	-3306.3	-2883.0	0.5101	ug/L	0.5101	ppb	21:21:46
2	As 188.979†	-10.8	35.4	34.634	ug/L	34.634	ppb	21:22:06
2	B 249.677†	-169.4	509.9	6.0910	ug/L	6.0910	ppb	21:21:46
2	Ba 233.527†	11717.9	10034.2	153.13	ug/L	153.13	ppb	21:21:46
2	Be 313.107†	-10581.4	493.0	3.4690	ug/L	3.4690	ppb	21:21:46
2	Cd 226.502†	179.2	460.9	1.0697	ug/L	1.0697	ppb	21:22:06
2	Co 228.616†	195.1	257.7	5.7243	ug/L	5.7243	ppb	21:22:06
2	Cr 267.716†	4095.8	3399.4	52.315	ug/L	52.315	ppb	21:22:06
2	Cu 324.752†	14880.3	6356.5	34.838	ug/L	34.838	ppb	21:21:46
2	Mn 257.610†	706898.5	604513.1	1169.3	ug/L	1169.3	ppb	21:21:46
2	Mo 202.031†	383.5	312.3	37.273	ug/L	37.273	ppb	21:22:06
2	Ni 231.604†	1073.2	801.0	27.042	ug/L	27.042	ppb	21:22:06

2	P 214.914†	949.9	501.9	240.35 ug/L	240.35 ppb	21:22:06
2	Pb 220.353†	334.7	382.1	67.574 ug/L	67.574 ppb	21:22:06
2	S 181.975 Axial†	245.2	140.9	180.89 ug/L	180.89 ppb	21:22:06
2	Sb 206.836†	61.7	-4.8	-4.4034 ug/L	-4.4034 ppb	21:22:06
2	Se 196.026†	-203.2	-141.0	17.886 ug/L	17.886 ppb	21:22:06
2	Si 251.611†	384955.7	328972.1	13915 ug/L	13915 ppb	21:21:46
2	Sn 189.927†	0.3	-11.6	-0.6804 ug/L	-0.6804 ppb	21:22:06
2	Ti 334.940†	627979.8	539558.0	1433.3 ug/L	1433.3 ppb	21:21:46
2	Tl 190.801†	-120.6	-44.4	-9.9752 ug/L	-9.9752 ppb	21:22:06
2	U 409.014†	-6740.7	-3969.9	-217.31 ug/L	-217.31 ppb	21:21:46
2	V 292.402†	5995.2	7104.1	54.450 ug/L	54.450 ppb	21:21:46
2	Zn 213.857†	34205.9	28339.7	323.88 ug/L	323.88 ppb	21:21:46
2	SiO2†	375023.5	320432.8	29004 ug/L	29004 ppb	21:22:43
3	Sc Radial	3749.2	3749.2	116 %		21:21:13
3	Y RADIAL	4933.3	4933.3	135.3 %		21:20:53
3	Al 396.153Radial†	18342.7	15982.8	18745 ug/L	18745 ppb	21:20:53
3	Ca 317.933Radial†	3598.7	3101.8	6986.2 ug/L	6986.2 ppb	21:21:13
3	Fe 238.204 Radial†	5054.5	4367.6	58657 ug/L	58657 ppb	21:20:53
3	K 766.490 Radial†	13929.2	8873.2	2069.9 ug/L	2069.9 ppb	21:20:53
3	Mg 279.077 IEC†	86.8	74.9	3367.2 ug/L	3367.2 ppb	21:21:13
3	Na 589.592 Radial†	1658.9	2629.4	1284.8 ug/L	1284.8 ppb	21:20:53
3	Sr 421.552†	6808.7	5858.0	61.123 ug/L	61.123 ppb	21:20:53
3	Sc 361.383	637925.7	637925.7	114.53 %		21:22:12
3	Y 371.029	685422.1	685422.1	132.47 %		21:22:12
3	Ag 328.068†	-3126.0	-2782.2	0.9296 ug/L	0.9296 ppb	21:22:12
3	As 188.979†	-24.3	23.4	29.245 ug/L	29.245 ppb	21:22:32
3	B 249.677†	-133.3	538.6	6.8487 ug/L	6.8487 ppb	21:22:12
3	Ba 233.527†	11585.7	10119.4	154.37 ug/L	154.37 ppb	21:22:12
3	Be 313.107†	-10599.6	295.9	3.3829 ug/L	3.3829 ppb	21:22:12
3	Cd 226.502†	182.7	467.0	1.2118 ug/L	1.2118 ppb	21:22:32
3	Co 228.616†	197.3	262.9	5.9287 ug/L	5.9287 ppb	21:22:32
3	Cr 267.716†	4110.6	3482.4	53.556 ug/L	53.556 ppb	21:22:32
3	Cu 324.752†	14730.9	6480.9	35.397 ug/L	35.397 ppb	21:22:12
3	Mn 257.610†	692155.1	603744.4	1167.8 ug/L	1167.8 ppb	21:22:12
3	Mo 202.031†	396.1	329.9	39.092 ug/L	39.092 ppb	21:22:32
3	Ni 231.604†	1086.8	831.2	28.059 ug/L	28.059 ppb	21:22:32
3	P 214.914†	944.0	513.0	246.33 ug/L	246.33 ppb	21:22:32
3	Pb 220.353†	328.4	382.3	67.635 ug/L	67.635 ppb	21:22:32
3	S 181.975 Axial†	250.3	149.6	192.11 ug/L	192.11 ppb	21:22:32
3	Sb 206.836†	58.6	-6.4	-5.1639 ug/L	-5.1639 ppb	21:22:32
3	Se 196.026†	-212.2	-152.3	9.4943 ug/L	9.4943 ppb	21:22:32
3	Si 251.611†	378110.5	329587.0	13941 ug/L	13941 ppb	21:22:12
3	Sn 189.927†	-7.0	-18.0	-2.2914 ug/L	-2.2914 ppb	21:22:32
3	Ti 334.940†	615729.5	539614.9	1433.5 ug/L	1433.5 ppb	21:22:12
3	Tl 190.801†	-107.9	-35.4	-4.6333 ug/L	-4.6333 ppb	21:22:32
3	U 409.014†	-6602.6	-3964.6	-216.88 ug/L	-216.88 ppb	21:22:12
3	V 292.402†	5888.8	7113.8	54.647 ug/L	54.647 ppb	21:22:12
3	Zn 213.857†	33437.0	28254.1	322.85 ug/L	322.85 ppb	21:22:12
3	SiO2†	380139.6	331321.9	29989 ug/L	29989 ppb	21:22:48

Mean Data: 249330005|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	644830.2	115.76	%	1.157				1.00%
Sc Radial	3747.4	116	%	0.5				0.40%
Y 371.029	692684.3	133.87	%	1.363				1.02%
Y RADIAL	5029.1	138.0	%	5.20				3.77%
Ag 328.068†	-2834.2	0.5429	ug/L	0.37139	0.5429	ppb	0.37139	68.41%
Al 396.153Radial†	15872.8	18616	ug/L	386.3	18616	ppb	386.3	2.07%
As 188.979†	29.1	31.750	ug/L	2.7146	31.750	ppb	2.7146	8.55%
B 249.677†	486.2	5.6085	ug/L	1.53934	5.6085	ppb	1.53934	27.45%
Ba 233.527†	10067.8	153.59	ug/L	0.682	153.59	ppb	0.682	0.44%
Be 313.107†	424.5	3.4370	ug/L	0.04708	3.4370	ppb	0.04708	1.37%
Ca 317.933Radial†	3078.6	6933.9	ug/L	79.01	6933.9	ppb	79.01	1.14%
Cd 226.502†	459.4	1.1288	ug/L	0.07399	1.1288	ppb	0.07399	6.56%
Co 228.616†	257.0	5.7150	ug/L	0.21849	5.7150	ppb	0.21849	3.82%
Cr 267.716†	3449.1	53.049	ug/L	0.6505	53.049	ppb	0.6505	1.23%
Cu 324.752†	6353.8	34.764	ug/L	0.6737	34.764	ppb	0.6737	1.94%
Fe 238.204 Radial†	4348.8	58404	ug/L	1023.9	58404	ppb	1023.9	1.75%
K 766.490 Radial†	8882.3	2072.0	ug/L	37.19	2072.0	ppb	37.19	1.79%

Mg 279.077 IEC†	75.7	3400.8	ug/L	34.53	3400.8	ppb	34.53	1.02%
Mn 257.610†	603885.0	1168.0	ug/L	1.20	1168.0	ppb	1.20	0.10%
Mo 202.031†	323.5	38.396	ug/L	0.9818	38.396	ppb	0.9818	2.56%
Na 589.592 Radial†	2639.7	1289.8	ug/L	18.26	1289.8	ppb	18.26	1.42%
Ni 231.604†	821.0	27.715	ug/L	0.5836	27.715	ppb	0.5836	2.11%
P 214.914†	507.8	243.81	ug/L	3.097	243.81	ppb	3.097	1.27%
Pb 220.353†	383.3	67.796	ug/L	0.3332	67.796	ppb	0.3332	0.49%
S 181.975 Axial†	146.7	188.37	ug/L	6.481	188.37	ppb	6.481	3.44%
Sb 206.836†	-4.1	-4.1175	ug/L	1.21488	-4.1175	ppb	1.21488	29.51%
Se 196.026†	-143.1	14.934	ug/L	4.7164	14.934	ppb	4.7164	31.58%
Si 251.611†	329333.3	13931	ug/L	13.6	13931	ppb	13.6	0.10%
Sn 189.927†	-14.0	-1.2976	ug/L	0.86897	-1.2976	ppb	0.86897	66.97%
Sr 421.552†	5810.9	60.632	ug/L	1.0965	60.632	ppb	1.0965	1.81%
Ti 334.940†	539220.4	1432.4	ug/L	1.70	1432.4	ppb	1.70	0.12%
Tl 190.801†	-41.2	-8.1131	ug/L	3.01605	-8.1131	ppb	3.01605	37.18%
U 409.014†	-3905.7	-213.83	ug/L	5.668	-213.83	ppb	5.668	2.65%
V 292.402†	7098.1	54.537	ug/L	0.1004	54.537	ppb	0.1004	0.18%
Zn 213.857†	28292.6	323.26	ug/L	0.544	323.26	ppb	0.544	0.17%
SiO2†	325866.8	29495	ug/L	492.8	29495	ppb	492.8	1.67%

Sequence No.: 32
Sample ID: 249330006|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 60
Date Collected: 4/15/2010 21:25:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330006|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3722.7	3722.7	115	%			21:27:13
1	Y RADIAL	4619.6	4619.6	126.7	%			21:26:53
1	Al 396.153Radial†	23896.7	20934.6	24555	ug/L	24555	ppb	21:26:53
1	Ca 317.933Radial†	5648.8	4910.0	11059	ug/L	11059	ppb	21:26:53
1	Fe 238.204 Radial†	5164.5	4494.6	60361	ug/L	60361	ppb	21:26:53
1	K 766.490 Radial†	23660.1	17436.7	4068.9	ug/L	4068.9	ppb	21:26:53
1	Mg 279.077 IEC†	139.4	121.2	5466.7	ug/L	5466.7	ppb	21:27:13
1	Na 589.592 Radial†	-18.8	1178.0	575.58	ug/L	575.58	ppb	21:26:53
1	Sr 421.552†	9381.7	8141.5	84.940	ug/L	84.940	ppb	21:26:53
1	Sc 361.383	653461.2	653461.2	117.31	%			21:28:10
1	Y 371.029	672309.6	672309.6	129.94	%			21:28:10
1	Ag 328.068†	-3137.9	-2727.4	1.6681	ug/L	1.6681	ppb	21:28:10
1	As 188.979†	-24.5	23.7	29.021	ug/L	29.021	ppb	21:28:30
1	B 249.677†	112.0	750.4	11.791	ug/L	11.791	ppb	21:28:10
1	Ba 233.527†	21859.1	18636.0	281.45	ug/L	281.45	ppb	21:28:10
1	Be 313.107†	-8956.8	1916.2	3.9086	ug/L	3.9086	ppb	21:28:10
1	Cd 226.502†	173.3	455.2	0.8955	ug/L	0.8955	ppb	21:28:30
1	Co 228.616†	236.1	291.9	7.1405	ug/L	7.1405	ppb	21:28:30
1	Cr 267.716†	1746.6	1382.1	21.918	ug/L	21.918	ppb	21:28:30
1	Cu 324.752†	11371.6	3311.5	20.168	ug/L	20.168	ppb	21:28:10
1	Mn 257.610†	1021413.2	870039.2	1680.2	ug/L	1680.2	ppb	21:28:10
1	Mo 202.031†	51.1	27.5	7.2371	ug/L	7.2371	ppb	21:28:30
1	Ni 231.604†	867.8	622.0	21.009	ug/L	21.009	ppb	21:28:30
1	P 214.914†	1436.7	913.4	464.54	ug/L	464.54	ppb	21:28:30
1	Pb 220.353†	863.1	831.3	148.27	ug/L	148.27	ppb	21:28:30
1	S 181.975 Axial†	414.8	284.6	366.79	ug/L	366.79	ppb	21:28:30
1	Sb 206.836†	69.6	1.8	-1.8911	ug/L	-1.8911	ppb	21:28:30
1	Se 196.026†	-204.3	-141.2	19.643	ug/L	19.643	ppb	21:28:30
1	Si 251.611†	398269.4	338921.4	14337	ug/L	14337	ppb	21:28:10
1	Sn 189.927†	-26.1	-34.1	-5.5826	ug/L	-5.5826	ppb	21:28:30
1	Ti 334.940†	594736.6	508938.5	1352.2	ug/L	1352.2	ppb	21:28:10
1	Tl 190.801†	-110.0	-34.9	-2.5437	ug/L	-2.5437	ppb	21:28:30
1	U 409.014†	-6067.3	-3371.3	-187.19	ug/L	-187.19	ppb	21:28:10
1	V 292.402†	5361.8	6542.3	49.020	ug/L	49.020	ppb	21:28:10
1	Zn 213.857†	29682.4	24359.5	279.31	ug/L	279.31	ppb	21:28:10
1	SiO2†	387887.5	330035.1	29874	ug/L	29874	ppb	21:29:28
2	Sc Radial	3746.1	3746.1	116	%			21:27:38
2	Y RADIAL	4730.2	4730.2	129.8	%			21:27:18
2	Al 396.153Radial†	24538.1	21359.6	25054	ug/L	25054	ppb	21:27:18
2	Ca 317.933Radial†	5807.8	5016.8	11299	ug/L	11299	ppb	21:27:18
2	Fe 238.204 Radial†	5263.8	4552.3	61137	ug/L	61137	ppb	21:27:18
2	K 766.490 Radial†	24051.4	17646.5	4117.9	ug/L	4117.9	ppb	21:27:18
2	Mg 279.077 IEC†	144.0	124.5	5614.8	ug/L	5614.8	ppb	21:27:38
2	Na 589.592 Radial†	27.7	1218.3	595.32	ug/L	595.32	ppb	21:27:18
2	Sr 421.552†	9601.5	8280.7	86.392	ug/L	86.392	ppb	21:27:18
2	Sc 361.383	641153.9	641153.9	115.10	%			21:28:36
2	Y 371.029	660588.2	660588.2	127.67	%			21:28:36
2	Ag 328.068†	-3189.8	-2823.9	1.3201	ug/L	1.3201	ppb	21:28:36
2	As 188.979†	-14.4	32.1	32.838	ug/L	32.838	ppb	21:28:56
2	B 249.677†	187.9	818.2	13.350	ug/L	13.350	ppb	21:28:36
2	Ba 233.527†	21513.5	18693.5	282.35	ug/L	282.35	ppb	21:28:36
2	Be 313.107†	-8850.5	1862.1	3.8894	ug/L	3.8894	ppb	21:28:36
2	Cd 226.502†	156.0	443.0	0.6552	ug/L	0.6552	ppb	21:28:56
2	Co 228.616†	232.2	292.3	7.1420	ug/L	7.1420	ppb	21:28:56
2	Cr 267.716†	1761.2	1423.3	22.554	ug/L	22.554	ppb	21:28:56
2	Cu 324.752†	11311.9	3445.8	20.871	ug/L	20.871	ppb	21:28:36
2	Mn 257.610†	1004843.1	872356.4	1684.8	ug/L	1684.8	ppb	21:28:36
2	Mo 202.031†	56.1	32.7	7.8462	ug/L	7.8462	ppb	21:28:56
2	Ni 231.604†	842.2	613.9	20.738	ug/L	20.738	ppb	21:28:56

2	P 214.914†	1436.2	936.4	476.52 ug/L	476.52 ppb	21:28:56
2	Pb 220.353†	854.4	837.9	149.51 ug/L	149.51 ppb	21:28:56
2	S 181.975 Axial†	413.7	290.4	374.27 ug/L	374.27 ppb	21:28:56
2	Sb 206.836†	48.9	-15.1	-9.4290 ug/L	-9.4290 ppb	21:28:56
2	Se 196.026†	-202.4	-142.9	19.995 ug/L	19.995 ppb	21:28:56
2	Si 251.611†	391169.4	339269.9	14351 ug/L	14351 ppb	21:28:36
2	Sn 189.927†	-14.2	-24.2	-3.0282 ug/L	-3.0282 ppb	21:28:56
2	Ti 334.940†	584404.2	509693.3	1354.3 ug/L	1354.3 ppb	21:28:36
2	Tl 190.801†	-124.4	-49.3	-10.996 ug/L	-10.996 ppb	21:28:56
2	U 409.014†	-6021.0	-3430.4	-190.39 ug/L	-190.39 ppb	21:28:36
2	V 292.402†	5264.3	6545.3	48.945 ug/L	48.945 ppb	21:28:36
2	Zn 213.857†	29171.1	24401.0	279.85 ug/L	279.85 ppb	21:28:36
2	SiO2†	392002.1	339956.6	30772 ug/L	30772 ppb	21:29:33
3	Sc Radial	3745.4	3745.4	115 %		21:28:03
3	Y RADIAL	4715.5	4715.5	129.4 %		21:27:43
3	Al 396.153Radial†	24391.9	21236.9	24910 ug/L	24910 ppb	21:27:43
3	Ca 317.933Radial†	5753.6	4970.9	11196 ug/L	11196 ppb	21:27:43
3	Fe 238.204 Radial†	5246.6	4538.4	60949 ug/L	60949 ppb	21:27:43
3	K 766.490 Radial†	24135.0	17722.8	4135.7 ug/L	4135.7 ppb	21:27:43
3	Mg 279.077 IEC†	141.2	122.1	5505.4 ug/L	5505.4 ppb	21:28:03
3	Na 589.592 Radial†	-27.8	1170.3	571.83 ug/L	571.83 ppb	21:27:43
3	Sr 421.552†	9584.6	8267.6	86.256 ug/L	86.256 ppb	21:27:43
3	Sc 361.383	644829.3	644829.3	115.76 %		21:29:02
3	Y 371.029	663262.0	663262.0	128.19 %		21:29:02
3	Ag 328.068†	-3055.1	-2691.6	2.0497 ug/L	2.0497 ppb	21:29:02
3	As 188.979†	-38.0	11.8	23.893 ug/L	23.893 ppb	21:29:22
3	B 249.677†	141.9	777.6	12.386 ug/L	12.386 ppb	21:29:02
3	Ba 233.527†	21741.4	18783.8	283.69 ug/L	283.69 ppb	21:29:02
3	Be 313.107†	-8858.2	1899.2	3.9169 ug/L	3.9169 ppb	21:29:02
3	Cd 226.502†	149.0	436.2	0.5786 ug/L	0.5786 ppb	21:29:22
3	Co 228.616†	237.3	295.6	7.2525 ug/L	7.2525 ppb	21:29:22
3	Cr 267.716†	1732.2	1389.5	22.039 ug/L	22.039 ppb	21:29:22
3	Cu 324.752†	11393.7	3460.4	20.927 ug/L	20.927 ppb	21:29:02
3	Mn 257.610†	1014679.0	875877.1	1691.5 ug/L	1691.5 ppb	21:29:02
3	Mo 202.031†	50.2	27.3	7.2588 ug/L	7.2588 ppb	21:29:22
3	Ni 231.604†	847.5	614.4	20.754 ug/L	20.754 ppb	21:29:22
3	P 214.914†	1415.4	911.3	463.13 ug/L	463.13 ppb	21:29:22
3	Pb 220.353†	855.6	834.7	148.92 ug/L	148.92 ppb	21:29:22
3	S 181.975 Axial†	410.1	285.3	367.65 ug/L	367.65 ppb	21:29:22
3	Sb 206.836†	61.5	-4.5	-4.6930 ug/L	-4.6930 ppb	21:29:22
3	Se 196.026†	-209.5	-148.0	16.405 ug/L	16.405 ppb	21:29:22
3	Si 251.611†	395276.6	340880.8	14419 ug/L	14419 ppb	21:29:02
3	Sn 189.927†	-24.0	-32.6	-5.1692 ug/L	-5.1692 ppb	21:29:22
3	Ti 334.940†	589904.7	511550.9	1359.2 ug/L	1359.2 ppb	21:29:02
3	Tl 190.801†	-106.1	-32.8	-1.1771 ug/L	-1.1771 ppb	21:29:22
3	U 409.014†	-5986.3	-3370.6	-187.31 ug/L	-187.31 ppb	21:29:02
3	V 292.402†	5212.1	6474.2	48.322 ug/L	48.322 ppb	21:29:02
3	Zn 213.857†	29511.1	24550.2	281.51 ug/L	281.51 ppb	21:29:02
3	SiO2†	390712.5	336901.5	30495 ug/L	30495 ppb	21:29:39

Mean Data: 249330006|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	646481.5	116.06	%	1.134				0.98%
Sc Radial	3738.0	115	%	0.4				0.36%
Y 371.029	665386.6	128.60	%	1.187				0.92%
Y RADIAL	4688.4	128.6	%	1.65				1.28%
Ag 328.068†	-2747.7	1.6793	ug/L	0.36493	1.6793	ppb	0.36493	21.73%
Al 396.153Radial†	21177.0	24839	ug/L	256.6	24839	ppb	256.6	1.03%
As 188.979†	22.5	28.584	ug/L	4.4884	28.584	ppb	4.4884	15.70%
B 249.677†	782.1	12.509	ug/L	0.7865	12.509	ppb	0.7865	6.29%
Ba 233.527†	18704.4	282.50	ug/L	1.125	282.50	ppb	1.125	0.40%
Be 313.107†	1892.5	3.9049	ug/L	0.01409	3.9049	ppb	0.01409	0.36%
Ca 317.933Radial†	4965.9	11185	ug/L	120.7	11185	ppb	120.7	1.08%
Cd 226.502†	444.8	0.7098	ug/L	0.16532	0.7098	ppb	0.16532	23.29%
Co 228.616†	293.3	7.1784	ug/L	0.06425	7.1784	ppb	0.06425	0.90%
Cr 267.716†	1398.3	22.170	ug/L	0.3372	22.170	ppb	0.3372	1.52%
Cu 324.752†	3405.9	20.655	ug/L	0.4233	20.655	ppb	0.4233	2.05%
Fe 238.204 Radial†	4528.4	60816	ug/L	404.9	60816	ppb	404.9	0.67%
K 766.490 Radial†	17602.0	4107.5	ug/L	34.57	4107.5	ppb	34.57	0.84%

Mg 279.077 IEC†	122.6	5529.0	ug/L	76.83	5529.0	ppb	76.83	1.39%
Mn 257.610†	872757.6	1685.5	ug/L	5.68	1685.5	ppb	5.68	0.34%
Mo 202.031†	29.2	7.4473	ug/L	0.34557	7.4473	ppb	0.34557	4.64%
Na 589.592 Radial†	1188.9	580.91	ug/L	12.621	580.91	ppb	12.621	2.17%
Ni 231.604†	616.7	20.834	ug/L	0.1524	20.834	ppb	0.1524	0.73%
P 214.914†	920.4	468.06	ug/L	7.357	468.06	ppb	7.357	1.57%
Pb 220.353†	834.6	148.90	ug/L	0.617	148.90	ppb	0.617	0.41%
S 181.975 Axial†	286.8	369.57	ug/L	4.093	369.57	ppb	4.093	1.11%
Sb 206.836†	-5.9	-5.3377	ug/L	3.81006	-5.3377	ppb	3.81006	71.38%
Se 196.026†	-144.0	18.681	ug/L	1.9789	18.681	ppb	1.9789	10.59%
Si 251.611†	339690.7	14369	ug/L	44.2	14369	ppb	44.2	0.31%
Sn 189.927†	-30.3	-4.5933	ug/L	1.37112	-4.5933	ppb	1.37112	29.85%
Sr 421.552†	8230.0	85.863	ug/L	0.8018	85.863	ppb	0.8018	0.93%
Ti 334.940†	510060.9	1355.2	ug/L	3.57	1355.2	ppb	3.57	0.26%
Tl 190.801†	-39.0	-4.9055	ug/L	5.31837	-4.9055	ppb	5.31837	108.42%
U 409.014†	-3390.8	-188.30	ug/L	1.815	-188.30	ppb	1.815	0.96%
V 292.402†	6520.6	48.762	ug/L	0.3832	48.762	ppb	0.3832	0.79%
Zn 213.857†	24436.9	280.22	ug/L	1.146	280.22	ppb	1.146	0.41%
SiO2†	335631.0	30380	ug/L	459.9	30380	ppb	459.9	1.51%

Sequence No.: 33
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/15/2010 21:31:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3586.6	3586.6	111	%			21:34:02
1	Y RADIAL	4019.0	4019.0	110.3	%			21:33:42
1	Al 396.153Radial†	4803.8	4459.1	5207.1	ug/L	5207.1	ppb	21:33:42
1	Ca 317.933Radial†	2455.6	2209.1	4975.6	ug/L	4975.6	ppb	21:34:02
1	Fe 238.204 Radial†	407.8	363.9	4901.1	ug/L	4901.1	ppb	21:34:02
1	K 766.490 Radial†	26429.9	20723.1	4832.8	ug/L	4832.8	ppb	21:33:42
1	Mg 279.077 IEC†	124.7	112.5	5110.1	ug/L	5110.1	ppb	21:34:02
1	Na 589.592 Radial†	20502.1	19733.6	9642.4	ug/L	9642.4	ppb	21:33:42
1	Sr 421.552†	52399.3	47350.7	494.45	ug/L	494.45	ppb	21:33:42
1	Sc 361.383	625463.3	625463.3	112.29	%			21:35:00
1	Y 371.029	576591.4	576591.4	111.44	%			21:35:00
1	Ag 328.068†	89152.0	79343.2	476.13	ug/L	476.13	ppb	21:35:00
1	As 188.979†	1177.4	1093.2	486.08	ug/L	486.08	ppb	21:35:21
1	B 249.677†	20715.0	19103.1	460.22	ug/L	460.22	ppb	21:35:00
1	Ba 233.527†	35889.2	31964.9	478.10	ug/L	478.10	ppb	21:35:00
1	Be 313.107†	1209239.2	1086460.3	477.54	ug/L	477.54	ppb	21:35:00
1	Cd 226.502†	37473.0	33679.7	468.64	ug/L	468.64	ppb	21:35:21
1	Co 228.616†	14732.4	13210.8	484.85	ug/L	484.85	ppb	21:35:21
1	Cr 267.716†	35434.9	31450.3	474.41	ug/L	474.41	ppb	21:35:00
1	Cu 324.752†	117044.6	97854.4	473.56	ug/L	473.56	ppb	21:35:00
1	Mn 257.610†	278830.1	247692.7	476.89	ug/L	476.89	ppb	21:35:00
1	Mo 202.031†	5087.9	4515.1	478.74	ug/L	478.74	ppb	21:35:21
1	Ni 231.604†	16199.1	14308.7	481.89	ug/L	481.89	ppb	21:35:21
1	P 214.914†	5357.3	4459.7	2274.1	ug/L	2274.1	ppb	21:35:21
1	Pb 220.353†	2936.9	2711.1	480.60	ug/L	480.60	ppb	21:35:21
1	S 181.975 Axial†	893.6	726.8	943.20	ug/L	943.20	ppb	21:35:21
1	Sb 206.836†	1249.0	1054.7	492.73	ug/L	492.73	ppb	21:35:21
1	Se 196.026†	808.3	752.8	491.37	ug/L	491.37	ppb	21:35:21
1	Si 251.611†	63962.1	56395.0	2379.6	ug/L	2379.6	ppb	21:35:00
1	Sn 189.927†	2130.0	1885.1	473.79	ug/L	473.79	ppb	21:35:21
1	Ti 334.940†	199815.4	179927.7	477.53	ug/L	477.53	ppb	21:35:00
1	Tl 190.801†	853.7	819.1	488.27	ug/L	488.27	ppb	21:35:21
1	U 409.014†	8596.8	9456.5	477.08	ug/L	477.08	ppb	21:35:00
1	V 292.402†	57349.2	53045.2	482.90	ug/L	482.90	ppb	21:35:00
1	Zn 213.857†	48502.1	42252.3	471.58	ug/L	471.58	ppb	21:35:00
1	SiO2†	62229.7	54815.3	4948.7	ug/L	4948.7	ppb	21:36:21
2	Sc Radial	3585.6	3585.6	111	%			21:34:27
2	Y RADIAL	4050.8	4050.8	111.1	%			21:34:07
2	Al 396.153Radial†	4825.7	4480.1	5231.7	ug/L	5231.7	ppb	21:34:07
2	Ca 317.933Radial†	2452.0	2206.5	4969.8	ug/L	4969.8	ppb	21:34:27
2	Fe 238.204 Radial†	405.1	361.5	4869.8	ug/L	4869.8	ppb	21:34:27
2	K 766.490 Radial†	26584.6	20869.8	4867.0	ug/L	4867.0	ppb	21:34:07
2	Mg 279.077 IEC†	125.6	113.4	5150.5	ug/L	5150.5	ppb	21:34:27
2	Na 589.592 Radial†	20421.0	19665.5	9609.1	ug/L	9609.1	ppb	21:34:07
2	Sr 421.552†	52494.0	47449.7	495.48	ug/L	495.48	ppb	21:34:07
2	Sc 361.383	620937.1	620937.1	111.48	%			21:35:28
2	Y 371.029	572235.4	572235.4	110.59	%			21:35:28
2	Ag 328.068†	88652.4	79473.8	476.90	ug/L	476.90	ppb	21:35:28
2	As 188.979†	1167.9	1092.3	485.71	ug/L	485.71	ppb	21:35:48
2	B 249.677†	20733.7	19254.4	463.88	ug/L	463.88	ppb	21:35:28
2	Ba 233.527†	35664.4	31996.2	478.57	ug/L	478.57	ppb	21:35:28
2	Be 313.107†	1203335.6	1089014.3	478.66	ug/L	478.66	ppb	21:35:28
2	Cd 226.502†	37216.1	33692.6	468.82	ug/L	468.82	ppb	21:35:48
2	Co 228.616†	14590.9	13179.6	483.70	ug/L	483.70	ppb	21:35:48
2	Cr 267.716†	35355.2	31608.9	476.79	ug/L	476.79	ppb	21:35:28
2	Cu 324.752†	116597.7	98213.3	475.29	ug/L	475.29	ppb	21:35:28
2	Mn 257.610†	277120.1	247968.7	477.41	ug/L	477.41	ppb	21:35:28
2	Mo 202.031†	5049.6	4513.7	478.59	ug/L	478.59	ppb	21:35:48
2	Ni 231.604†	16098.7	14323.7	482.40	ug/L	482.40	ppb	21:35:48

2	P 214.914†	5318.4	4459.6	2273.6	ug/L	2273.6 ppb	21:35:48
2	Pb 220.353†	2936.2	2729.5	483.85	ug/L	483.85 ppb	21:35:48
2	S 181.975 Axial†	900.0	738.4	958.25	ug/L	958.25 ppb	21:35:48
2	Sb 206.836†	1243.7	1058.1	494.17	ug/L	494.17 ppb	21:35:48
2	Se 196.026†	796.6	747.6	487.99	ug/L	487.99 ppb	21:35:48
2	Si 251.611†	63629.6	56511.9	2384.6	ug/L	2384.6 ppb	21:35:28
2	Sn 189.927†	2100.0	1872.0	470.51	ug/L	470.51 ppb	21:35:48
2	Ti 334.940†	198616.9	180149.7	478.11	ug/L	478.11 ppb	21:35:28
2	Tl 190.801†	834.8	807.7	481.50	ug/L	481.50 ppb	21:35:48
2	U 409.014†	8708.4	9612.4	484.99	ug/L	484.99 ppb	21:35:28
2	V 292.402†	57102.2	53195.9	484.27	ug/L	484.27 ppb	21:35:28
2	Zn 213.857†	48281.9	42369.6	472.88	ug/L	472.88 ppb	21:35:28
2	SiO2†	62173.4	55168.8	4980.7	ug/L	4980.7 ppb	21:36:26
3	Sc Radial	3600.5	3600.5	111	%		21:34:52
3	Y RADIAL	4065.3	4065.3	111.5	%		21:34:32
3	Al 396.153Radial†	4785.5	4425.8	5168.2	ug/L	5168.2 ppb	21:34:32
3	Ca 317.933Radial†	2447.2	2193.0	4939.3	ug/L	4939.3 ppb	21:34:52
3	Fe 238.204 Radial†	401.8	357.1	4810.0	ug/L	4810.0 ppb	21:34:52
3	K 766.490 Radial†	26399.6	20603.5	4804.9	ug/L	4804.9 ppb	21:34:32
3	Mg 279.077 IEC†	122.9	110.6	5020.0	ug/L	5020.0 ppb	21:34:52
3	Na 589.592 Radial†	20288.8	19469.9	9513.5	ug/L	9513.5 ppb	21:34:32
3	Sr 421.552†	52100.1	46898.1	489.72	ug/L	489.72 ppb	21:34:32
3	Sc 361.383	615384.8	615384.8	110.48	%		21:35:55
3	Y 371.029	567901.8	567901.8	109.76	%		21:35:55
3	Ag 328.068†	87955.3	79560.4	477.39	ug/L	477.39 ppb	21:35:55
3	As 188.979†	1144.0	1080.1	480.30	ug/L	480.30 ppb	21:36:15
3	B 249.677†	20498.4	19209.1	462.81	ug/L	462.81 ppb	21:35:55
3	Ba 233.527†	35225.8	31887.9	476.94	ug/L	476.94 ppb	21:35:55
3	Be 313.107†	1194509.3	1090764.7	479.43	ug/L	479.43 ppb	21:35:55
3	Cd 226.502†	36571.9	33410.6	464.90	ug/L	464.90 ppb	21:36:15
3	Co 228.616†	14351.1	13080.6	480.06	ug/L	480.06 ppb	21:36:15
3	Cr 267.716†	34928.6	31509.0	475.29	ug/L	475.29 ppb	21:35:55
3	Cu 324.752†	115280.2	97964.5	474.08	ug/L	474.08 ppb	21:35:55
3	Mn 257.610†	274513.0	247851.9	477.19	ug/L	477.19 ppb	21:35:55
3	Mo 202.031†	4973.1	4485.4	475.58	ug/L	475.58 ppb	21:36:15
3	Ni 231.604†	15844.7	14224.2	479.05	ug/L	479.05 ppb	21:36:15
3	P 214.914†	5225.7	4418.7	2252.1	ug/L	2252.1 ppb	21:36:15
3	Pb 220.353†	2847.5	2673.0	473.85	ug/L	473.85 ppb	21:36:15
3	S 181.975 Axial†	886.0	733.0	951.25	ug/L	951.25 ppb	21:36:15
3	Sb 206.836†	1209.1	1036.8	484.50	ug/L	484.50 ppb	21:36:15
3	Se 196.026†	799.2	756.3	493.44	ug/L	493.44 ppb	21:36:15
3	Si 251.611†	62949.5	56411.4	2380.4	ug/L	2380.4 ppb	21:35:55
3	Sn 189.927†	2074.5	1865.9	468.97	ug/L	468.97 ppb	21:36:15
3	Ti 334.940†	196640.1	179968.0	477.64	ug/L	477.64 ppb	21:35:55
3	Tl 190.801†	814.9	796.4	474.85	ug/L	474.85 ppb	21:36:15
3	U 409.014†	8515.0	9507.8	479.71	ug/L	479.71 ppb	21:35:55
3	V 292.402†	56343.5	52971.4	482.21	ug/L	482.21 ppb	21:35:55
3	Zn 213.857†	47885.6	42401.7	473.26	ug/L	473.26 ppb	21:35:55
3	SiO2†	62327.9	55811.9	5038.9	ug/L	5038.9 ppb	21:36:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	620595.1	111.41	%	0.906				0.81%
Sc Radial	3590.9	111	%	0.3				0.23%
Y 371.029	572242.9	110.60	%	0.840				0.76%
Y RADIAL	4045.0	111.0	%	0.65				0.59%
Ag 328.068†	79459.1	476.81	ug/L	0.637	476.81	ppb	0.637	0.13%
QC value within limits for Ag 328.068 Recovery = 95.36%								
Al 396.153Radial†	4455.0	5202.4	ug/L	32.01	5202.4	ppb	32.01	0.62%
QC value within limits for Al 396.153Radial Recovery = 104.05%								
As 188.979†	1088.5	484.03	ug/L	3.233	484.03	ppb	3.233	0.67%
QC value within limits for As 188.979 Recovery = 96.81%								
B 249.677†	19188.9	462.30	ug/L	1.884	462.30	ppb	1.884	0.41%
QC value within limits for B 249.677 Recovery = 92.46%								
Ba 233.527†	31949.7	477.87	ug/L	0.836	477.87	ppb	0.836	0.17%
QC value within limits for Ba 233.527 Recovery = 95.57%								
Be 313.107†	1088746.5	478.54	ug/L	0.949	478.54	ppb	0.949	0.20%
QC value within limits for Be 313.107 Recovery = 95.71%								
Ca 317.933Radial†	2202.9	4961.5	ug/L	19.49	4961.5	ppb	19.49	0.39%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.23%
Cd 226.502†            33594.3      467.46 ug/L         2.213      467.46 ppb          2.213   0.47%
   QC value within limits for Cd 226.502  Recovery = 93.49%
Co 228.616†            13157.0      482.87 ug/L         2.498      482.87 ppb          2.498   0.52%
   QC value within limits for Co 228.616  Recovery = 96.57%
Cr 267.716†            31522.7      475.50 ug/L         1.207      475.50 ppb          1.207   0.25%
   QC value within limits for Cr 267.716  Recovery = 95.10%
Cu 324.752†            98010.7      474.31 ug/L         0.887      474.31 ppb          0.887   0.19%
   QC value within limits for Cu 324.752  Recovery = 94.86%
Fe 238.204 Radial†       360.8      4860.3 ug/L         46.31      4860.3 ppb          46.31   0.95%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.21%
K 766.490 Radial†      20732.1      4834.9 ug/L         31.12      4834.9 ppb          31.12   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 96.70%
Mg 279.077 IEC†          112.2      5093.5 ug/L         66.81      5093.5 ppb          66.81   1.31%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.87%
Mn 257.610†           247837.8      477.16 ug/L         0.264      477.16 ppb          0.264   0.06%
   QC value within limits for Mn 257.610  Recovery = 95.43%
Mo 202.031†             4504.7      477.64 ug/L         1.783      477.64 ppb          1.783   0.37%
   QC value within limits for Mo 202.031  Recovery = 95.53%
Na 589.592 Radial†     19623.0      9588.4 ug/L         66.88      9588.4 ppb          66.88   0.70%
   QC value within limits for Na 589.592 Radial  Recovery = 95.88%
Ni 231.604†            14285.5      481.11 ug/L         1.807      481.11 ppb          1.807   0.38%
   QC value within limits for Ni 231.604  Recovery = 96.22%
P 214.914†              4446.0      2266.6 ug/L         12.59      2266.6 ppb          12.59   0.56%
   QC value within limits for P 214.914  Recovery = 90.66%
Pb 220.353†             2704.5      479.43 ug/L         5.100      479.43 ppb          5.100   1.06%
   QC value within limits for Pb 220.353  Recovery = 95.89%
S 181.975 Axial†         732.7      950.90 ug/L         7.530      950.90 ppb          7.530   0.79%
   QC value within limits for S 181.975 Axial  Recovery = 95.09%
Sb 206.836†             1049.9      490.47 ug/L         5.218      490.47 ppb          5.218   1.06%
   QC value within limits for Sb 206.836  Recovery = 98.09%
Se 196.026†              752.3      490.93 ug/L         2.753      490.93 ppb          2.753   0.56%
   QC value within limits for Se 196.026  Recovery = 98.19%
Si 251.611†            56439.4      2381.5 ug/L          2.67      2381.5 ppb           2.67   0.11%
   QC value within limits for Si 251.611  Recovery = 95.26%
Sn 189.927†             1874.3      471.09 ug/L         2.463      471.09 ppb          2.463   0.52%
   QC value within limits for Sn 189.927  Recovery = 94.22%
Sr 421.552†            47232.8      493.22 ug/L         3.071      493.22 ppb          3.071   0.62%
   QC value within limits for Sr 421.552  Recovery = 98.64%
Ti 334.940†           180015.1      477.76 ug/L         0.309      477.76 ppb          0.309   0.06%
   QC value within limits for Ti 334.940  Recovery = 95.55%
Tl 190.801†              807.8      481.54 ug/L         6.711      481.54 ppb          6.711   1.39%
   QC value within limits for Tl 190.801  Recovery = 96.31%
U 409.014†              9525.6      480.59 ug/L         4.028      480.59 ppb          4.028   0.84%
   QC value within limits for U 409.014  Recovery = 96.12%
V 292.402†             53070.8      483.12 ug/L         1.050      483.12 ppb          1.050   0.22%
   QC value within limits for V 292.402  Recovery = 96.62%
Zn 213.857†            42341.2      472.57 ug/L         0.886      472.57 ppb          0.886   0.19%
   QC value within limits for Zn 213.857  Recovery = 94.51%
SiO2†                  55265.3      4989.4 ug/L         45.78      4989.4 ppb          45.78   0.92%
   QC value within limits for SiO2  Recovery = 93.30%
All analyte(s) passed QC.
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Sequence No.: 34
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/15/2010 21:38:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3713.3	3713.3	114	%			21:40:52
1	Y RADIAL	3985.6	3985.6	109.3	%			21:40:32
1	Al 396.153Radial†	-105.4	23.1	27.068	ug/L	27.068	ppb	21:40:32
1	Ca 317.933Radial†	18.7	5.0	11.300	ug/L	11.300	ppb	21:40:52
1	Fe 238.204 Radial†	4.8	-0.7	-9.5853	ug/L	-9.5853	ppb	21:40:52
1	K 766.490 Radial†	3015.1	-543.0	-126.80	ug/L	-126.80	ppb	21:40:32
1	Mg 279.077 IEC†	-1.3	-1.3	-58.831	ug/L	-58.831	ppb	21:40:52
1	Na 589.592 Radial†	-1240.7	110.7	54.115	ug/L	54.115	ppb	21:40:32
1	Sr 421.552†	46.6	8.7	0.0911	ug/L	0.0911	ppb	21:40:32
1	Sc 361.383	630172.6	630172.6	113.13	%			21:41:49
1	Y 371.029	584409.0	584409.0	112.95	%			21:41:49
1	Ag 328.068†	126.8	59.4	0.3467	ug/L	0.3467	ppb	21:41:49
1	As 188.979†	-49.6	0.8	0.3374	ug/L	0.3374	ppb	21:42:09
1	B 249.677†	-628.7	99.2	2.3998	ug/L	2.3998	ppb	21:41:49
1	Ba 233.527†	-15.1	-10.2	-0.1518	ug/L	-0.1518	ppb	21:42:09
1	Be 313.107†	-10088.4	633.8	0.2794	ug/L	0.2794	ppb	21:41:49
1	Cd 226.502†	-303.0	39.7	0.5545	ug/L	0.5545	ppb	21:42:09
1	Co 228.616†	-83.9	16.5	0.6082	ug/L	0.6082	ppb	21:42:09
1	Cr 267.716†	169.8	43.3	0.6492	ug/L	0.6492	ppb	21:41:49
1	Cu 324.752†	6705.1	-455.0	-2.2093	ug/L	-2.2093	ppb	21:41:49
1	Mn 257.610†	631.0	-66.6	-0.1267	ug/L	-0.1267	ppb	21:41:49
1	Mo 202.031†	36.6	16.3	1.7296	ug/L	1.7296	ppb	21:42:09
1	Ni 231.604†	131.9	-1.1	-0.0387	ug/L	-0.0387	ppb	21:42:09
1	P 214.914†	317.0	-31.1	-16.085	ug/L	-16.085	ppb	21:42:09
1	Pb 220.353†	-106.7	1.3	0.2418	ug/L	0.2418	ppb	21:42:09
1	S 181.975 Axial†	74.4	-3.2	-4.1850	ug/L	-4.1850	ppb	21:42:09
1	Sb 206.836†	40.8	-21.5	-9.6811	ug/L	-9.6811	ppb	21:42:09
1	Se 196.026†	-32.0	4.7	2.9668	ug/L	2.9668	ppb	21:42:09
1	Si 251.611†	561.0	-71.7	-3.0545	ug/L	-3.0545	ppb	21:42:09
1	Sn 189.927†	10.9	-2.2	-0.5597	ug/L	-0.5597	ppb	21:42:09
1	Ti 334.940†	-1965.2	241.5	0.6427	ug/L	0.6427	ppb	21:41:49
1	Tl 190.801†	-46.6	17.6	10.439	ug/L	10.439	ppb	21:42:09
1	U 409.014†	-1839.8	174.3	8.8393	ug/L	8.8393	ppb	21:41:49
1	V 292.402†	-2157.4	64.9	0.6242	ug/L	0.6242	ppb	21:41:49
1	Zn 213.857†	966.3	-88.0	-0.9869	ug/L	-0.9869	ppb	21:42:09
1	SiO2†	585.6	-86.8	-7.9061	ug/L	-7.9061	ppb	21:43:06
2	Sc Radial	3696.6	3696.6	114	%			21:41:17
2	Y RADIAL	4237.3	4237.3	116.2	%			21:40:57
2	Al 396.153Radial†	-129.5	1.6	1.8355	ug/L	1.8355	ppb	21:40:57
2	Ca 317.933Radial†	21.0	7.0	15.864	ug/L	15.864	ppb	21:41:17
2	Fe 238.204 Radial†	3.6	-1.7	-23.327	ug/L	-23.327	ppb	21:41:17
2	K 766.490 Radial†	3215.1	-355.7	-83.069	ug/L	-83.069	ppb	21:40:57
2	Mg 279.077 IEC†	4.0	3.3	149.81	ug/L	149.81	ppb	21:41:17
2	Na 589.592 Radial†	-1198.7	142.7	69.733	ug/L	69.733	ppb	21:40:57
2	Sr 421.552†	-1.9	-33.7	-0.3520	ug/L	-0.3520	ppb	21:40:57
2	Sc 361.383	611688.1	611688.1	109.81	%			21:42:15
2	Y 371.029	568336.4	568336.4	109.84	%			21:42:15
2	Ag 328.068†	116.4	53.3	0.3095	ug/L	0.3095	ppb	21:42:15
2	As 188.979†	-46.5	2.3	1.0122	ug/L	1.0122	ppb	21:42:35
2	B 249.677†	-700.1	17.5	0.4229	ug/L	0.4229	ppb	21:42:15
2	Ba 233.527†	-3.8	-0.3	-0.0034	ug/L	-0.0034	ppb	21:42:35
2	Be 313.107†	-9896.6	539.1	0.2378	ug/L	0.2378	ppb	21:42:15
2	Cd 226.502†	-291.7	41.9	0.5871	ug/L	0.5871	ppb	21:42:35
2	Co 228.616†	-77.8	19.8	0.7282	ug/L	0.7282	ppb	21:42:35
2	Cr 267.716†	118.4	1.0	0.0136	ug/L	0.0136	ppb	21:42:15
2	Cu 324.752†	6603.8	-368.1	-1.7880	ug/L	-1.7880	ppb	21:42:15
2	Mn 257.610†	649.9	-32.6	-0.0713	ug/L	-0.0713	ppb	21:42:15
2	Mo 202.031†	26.9	8.5	0.8968	ug/L	0.8968	ppb	21:42:35
2	Ni 231.604†	160.4	28.3	0.9530	ug/L	0.9530	ppb	21:42:35

2	P 214.914†	334.3	-6.9	-3.2692 ug/L	-3.2692 ppb	21:42:35
2	Pb 220.353†	-131.8	-24.5	-4.3155 ug/L	-4.3155 ppb	21:42:35
2	S 181.975 Axial†	65.3	-9.5	-12.359 ug/L	-12.359 ppb	21:42:35
2	Sb 206.836†	48.8	-13.1	-5.9253 ug/L	-5.9253 ppb	21:42:35
2	Se 196.026†	-37.6	-1.3	-0.8639 ug/L	-0.8639 ppb	21:42:35
2	Si 251.611†	569.9	-48.6	-2.0677 ug/L	-2.0677 ppb	21:42:35
2	Sn 189.927†	7.5	-5.0	-1.2602 ug/L	-1.2602 ppb	21:42:35
2	Ti 334.940†	-1925.7	225.0	0.5848 ug/L	0.5848 ppb	21:42:15
2	Tl 190.801†	-56.0	7.8	4.6266 ug/L	4.6266 ppb	21:42:35
2	U 409.014†	-1829.9	134.1	6.8068 ug/L	6.8068 ppb	21:42:15
2	V 292.402†	-2047.6	107.3	0.9948 ug/L	0.9948 ppb	21:42:15
2	Zn 213.857†	955.1	-72.4	-0.8194 ug/L	-0.8194 ppb	21:42:35
2	SiO2†	596.7	-61.1	-5.5526 ug/L	-5.5526 ppb	21:43:11
3	Sc Radial	3672.7	3672.7	113 %		21:41:43
3	Y RADIAL	4133.3	4133.3	113.4 %		21:41:22
3	Al 396.153Radial†	95.6	199.6	234.03 ug/L	234.03 ppb	21:41:22
3	Ca 317.933Radial†	23.4	9.3	21.022 ug/L	21.022 ppb	21:41:43
3	Fe 238.204 Radial†	6.1	0.5	6.8177 ug/L	6.8177 ppb	21:41:43
3	K 766.490 Radial†	3028.0	-502.5	-117.34 ug/L	-117.34 ppb	21:41:22
3	Mg 279.077 IEC†	2.1	1.7	76.893 ug/L	76.893 ppb	21:41:43
3	Na 589.592 Radial†	-1270.7	72.2	35.288 ug/L	35.288 ppb	21:41:22
3	Sr 421.552†	30.2	-5.4	-0.0563 ug/L	-0.0563 ppb	21:41:22
3	Sc 361.383	609157.3	609157.3	109.36 %		21:42:40
3	Y 371.029	566661.1	566661.1	109.52 %		21:42:40
3	Ag 328.068†	130.1	66.3	0.4033 ug/L	0.4033 ppb	21:42:40
3	As 188.979†	-41.7	6.5	2.8536 ug/L	2.8536 ppb	21:43:00
3	B 249.677†	-683.2	30.3	0.7317 ug/L	0.7317 ppb	21:42:40
3	Ba 233.527†	8.1	10.5	0.1605 ug/L	0.1605 ppb	21:43:00
3	Be 313.107†	-9798.1	591.6	0.2614 ug/L	0.2614 ppb	21:42:40
3	Cd 226.502†	-299.8	33.4	0.4634 ug/L	0.4634 ppb	21:43:00
3	Co 228.616†	-93.4	5.2	0.1931 ug/L	0.1931 ppb	21:43:00
3	Cr 267.716†	147.5	28.1	0.4258 ug/L	0.4258 ppb	21:42:40
3	Cu 324.752†	6560.3	-383.0	-1.8544 ug/L	-1.8544 ppb	21:42:40
3	Mn 257.610†	569.5	-103.6	-0.2018 ug/L	-0.2018 ppb	21:42:40
3	Mo 202.031†	36.1	17.0	1.8060 ug/L	1.8060 ppb	21:43:00
3	Ni 231.604†	123.3	-5.0	-0.1687 ug/L	-0.1687 ppb	21:43:00
3	P 214.914†	326.7	-12.5	-6.1942 ug/L	-6.1942 ppb	21:43:00
3	Pb 220.353†	-90.5	12.8	2.3326 ug/L	2.3326 ppb	21:43:00
3	S 181.975 Axial†	75.2	-0.3	-0.3621 ug/L	-0.3621 ppb	21:43:00
3	Sb 206.836†	59.6	-3.1	-1.3325 ug/L	-1.3325 ppb	21:43:00
3	Se 196.026†	-31.8	3.9	2.5325 ug/L	2.5325 ppb	21:43:00
3	Si 251.611†	563.8	-52.1	-2.2242 ug/L	-2.2242 ppb	21:43:00
3	Sn 189.927†	19.2	5.7	1.4362 ug/L	1.4362 ppb	21:43:00
3	Ti 334.940†	-1819.6	314.8	0.8322 ug/L	0.8322 ppb	21:42:40
3	Tl 190.801†	-70.4	-5.5	-3.2687 ug/L	-3.2687 ppb	21:43:00
3	U 409.014†	-1973.7	-4.3	-0.2184 ug/L	-0.2184 ppb	21:42:40
3	V 292.402†	-1987.0	155.0	1.4166 ug/L	1.4166 ppb	21:42:40
3	Zn 213.857†	979.7	-46.3	-0.5158 ug/L	-0.5158 ppb	21:43:00
3	SiO2†	587.5	-67.2	-6.1328 ug/L	-6.1328 ppb	21:43:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	617006.0	110.77	%	2.060				1.86%
Sc Radial	3694.2	114	%	0.6				0.55%
Y 371.029	573135.5	110.77	%	1.894				1.71%
Y RADIAL	4118.7	113.0	%	3.47				3.07%
Ag 328.068†	59.7	0.3531	ug/L	0.04724	0.3531	ppb	0.04724	13.38%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	74.8	87.645	ug/L	127.4012	87.645	ppb	127.4012	145.36%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.2	1.4011	ug/L	1.30240	1.4011	ppb	1.30240	92.96%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	49.0	1.1848	ug/L	1.06347	1.1848	ppb	1.06347	89.76%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.0	0.0018	ug/L	0.15623	0.0018	ppb	0.15623	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	588.2	0.2595	ug/L	0.02089	0.2595	ppb	0.02089	8.05%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.1	16.062	ug/L	4.8642	16.062	ppb	4.8642	30.28%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                38.3      0.5350 ug/L       0.06412      0.5350 ppb        0.06412  11.98%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                13.8      0.5098 ug/L       0.28078      0.5098 ppb        0.28078  55.07%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                24.1      0.3629 ug/L       0.32245      0.3629 ppb        0.32245  88.86%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -402.0     -1.9506 ug/L       0.22650     -1.9506 ppb        0.22650  11.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.6     -8.6982 ug/L      15.09193     -8.6982 ppb       15.09193 173.51%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -467.1     -109.07 ug/L        23.008     -109.07 ppb         23.008  21.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.2      55.958 ug/L      105.8859      55.958 ppb       105.8859 189.22%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -67.6     -0.1333 ug/L       0.06549     -0.1333 ppb        0.06549  49.14%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.9      1.4775 ug/L       0.50431      1.4775 ppb        0.50431  34.13%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        108.6      53.045 ug/L       17.2473      53.045 ppb        17.2473  32.51%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.4      0.2485 ug/L       0.61354      0.2485 ppb        0.61354 246.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -16.8     -8.5160 ug/L       6.71588     -8.5160 ppb        6.71588  78.86%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -3.4     -0.5804 ug/L       3.39946     -0.5804 ppb        3.39946 585.74%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.3     -5.6353 ug/L       6.12854     -5.6353 ppb        6.12854 108.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -12.6     -5.6463 ug/L       4.18127     -5.6463 ppb        4.18127  74.05%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.4      1.5451 ug/L       2.09752      1.5451 ppb        2.09752 135.75%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -57.5     -2.4488 ug/L       0.53038     -2.4488 ppb        0.53038  21.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.5     -0.1279 ug/L       1.39909     -0.1279 ppb        1.39909 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -10.1     -0.1057 ug/L       0.22567     -0.1057 ppb        0.22567 213.40%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               260.4      0.6866 ug/L       0.12938      0.6866 ppb        0.12938  18.84%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.6      3.9323 ug/L       6.88017      3.9323 ppb        6.88017 174.97%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                101.4      5.1426 ug/L       4.75263      5.1426 ppb        4.75263  92.42%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                109.1      1.0119 ug/L       0.39647      1.0119 ppb        0.39647  39.18%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -68.9     -0.7740 ug/L       0.23877     -0.7740 ppb        0.23877  30.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -71.7     -6.5305 ug/L       1.22611     -6.5305 ppb        1.22611  18.78%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 35
Sample ID: 249330007|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 61
Date Collected: 4/15/2010 21:45:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330007|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3677.0	3677.0	113	%			21:47:39
1	Y RADIAL	4662.9	4662.9	127.9	%			21:47:19
1	Al 396.153Radial†	18753.7	16656.7	19537	ug/L	19537	ppb	21:47:19
1	Ca 317.933Radial†	5391.2	4743.9	10685	ug/L	10685	ppb	21:47:19
1	Fe 238.204 Radial†	4932.3	4345.6	58360	ug/L	58360	ppb	21:47:19
1	K 766.490 Radial†	23702.7	17730.1	4137.3	ug/L	4137.3	ppb	21:47:19
1	Mg 279.077 IEC†	104.5	92.0	4139.9	ug/L	4139.9	ppb	21:47:39
1	Na 589.592 Radial†	-38.3	1160.6	567.08	ug/L	567.08	ppb	21:47:19
1	Sr 421.552†	7276.6	6386.2	66.612	ug/L	66.612	ppb	21:47:19
1	Sc 361.383	646619.6	646619.6	116.09	%			21:48:36
1	Y 371.029	674307.2	674307.2	130.32	%			21:48:36
1	Ag 328.068†	-3220.2	-2826.6	0.4794	ug/L	0.4794	ppb	21:48:36
1	As 188.979†	-16.8	30.1	31.286	ug/L	31.286	ppb	21:48:56
1	B 249.677†	216.2	841.2	14.197	ug/L	14.197	ppb	21:48:36
1	Ba 233.527†	16364.1	14099.7	213.68	ug/L	213.68	ppb	21:48:36
1	Be 313.107†	-11137.6	-43.1	2.9641	ug/L	2.9641	ppb	21:48:36
1	Cd 226.502†	150.6	437.2	0.8207	ug/L	0.8207	ppb	21:48:56
1	Co 228.616†	246.3	302.8	7.6200	ug/L	7.6200	ppb	21:48:56
1	Cr 267.716†	1478.0	1166.4	18.633	ug/L	18.633	ppb	21:48:56
1	Cu 324.752†	11054.2	3140.7	19.210	ug/L	19.210	ppb	21:48:36
1	Mn 257.610†	1231686.3	1060386.8	2046.3	ug/L	2046.3	ppb	21:48:36
1	Mo 202.031†	66.8	41.5	8.5797	ug/L	8.5797	ppb	21:48:56
1	Ni 231.604†	693.4	479.5	16.207	ug/L	16.207	ppb	21:48:56
1	P 214.914†	1447.0	935.1	476.11	ug/L	476.11	ppb	21:48:56
1	Pb 220.353†	1153.3	1089.0	192.69	ug/L	192.69	ppb	21:48:56
1	S 181.975 Axial†	363.0	243.7	314.28	ug/L	314.28	ppb	21:48:56
1	Sb 206.836†	68.2	1.2	-1.8006	ug/L	-1.8006	ppb	21:48:56
1	Se 196.026†	-209.7	-147.7	11.842	ug/L	11.842	ppb	21:48:56
1	Si 251.611†	352528.9	303111.3	12822	ug/L	12822	ppb	21:48:36
1	Sn 189.927†	45.2	27.1	9.6761	ug/L	9.6761	ppb	21:48:56
1	Ti 334.940†	572093.9	494797.3	1314.8	ug/L	1314.8	ppb	21:48:36
1	Tl 190.801†	-118.1	-42.9	-5.7753	ug/L	-5.7753	ppb	21:48:56
1	U 409.014†	-6178.8	-3522.1	-194.29	ug/L	-194.29	ppb	21:48:36
1	V 292.402†	4621.1	5952.7	44.016	ug/L	44.016	ppb	21:48:36
1	Zn 213.857†	27673.8	22896.9	262.72	ug/L	262.72	ppb	21:48:36
1	SiO2†	346817.3	298154.3	26988	ug/L	26988	ppb	21:49:54
2	Sc Radial	3640.4	3640.4	112	%			21:48:04
2	Y RADIAL	4589.6	4589.6	125.9	%			21:47:44
2	Al 396.153Radial†	18805.1	16868.9	19786	ug/L	19786	ppb	21:47:44
2	Ca 317.933Radial†	5399.8	4799.4	10810	ug/L	10810	ppb	21:47:44
2	Fe 238.204 Radial†	4921.7	4379.9	58822	ug/L	58822	ppb	21:47:44
2	K 766.490 Radial†	23738.6	17972.5	4193.9	ug/L	4193.9	ppb	21:47:44
2	Mg 279.077 IEC†	100.3	89.2	4011.9	ug/L	4011.9	ppb	21:48:04
2	Na 589.592 Radial†	-64.5	1136.9	555.51	ug/L	555.51	ppb	21:47:44
2	Sr 421.552†	7290.4	6463.1	67.414	ug/L	67.414	ppb	21:47:44
2	Sc 361.383	634214.9	634214.9	113.86	%			21:49:02
2	Y 371.029	662033.6	662033.6	127.95	%			21:49:02
2	Ag 328.068†	-3093.3	-2769.4	0.9532	ug/L	0.9532	ppb	21:49:02
2	As 188.979†	-32.6	16.0	25.088	ug/L	25.088	ppb	21:49:22
2	B 249.677†	186.6	818.9	13.604	ug/L	13.604	ppb	21:49:02
2	Ba 233.527†	16043.7	14094.0	213.62	ug/L	213.62	ppb	21:49:02
2	Be 313.107†	-10825.7	43.1	2.9921	ug/L	2.9921	ppb	21:49:02
2	Cd 226.502†	147.7	437.2	0.7794	ug/L	0.7794	ppb	21:49:22
2	Co 228.616†	267.8	325.8	8.4661	ug/L	8.4661	ppb	21:49:22
2	Cr 267.716†	1481.8	1194.7	19.066	ug/L	19.066	ppb	21:49:22
2	Cu 324.752†	10769.0	3076.5	18.929	ug/L	18.929	ppb	21:49:02
2	Mn 257.610†	1205718.2	1058332.0	2042.4	ug/L	2042.4	ppb	21:49:02
2	Mo 202.031†	59.8	36.5	8.0808	ug/L	8.0808	ppb	21:49:22
2	Ni 231.604†	696.5	494.0	16.695	ug/L	16.695	ppb	21:49:22

2	P 214.914†	1441.0	954.3	486.27	ug/L	486.27 ppb	21:49:22
2	Pb 220.353†	1177.5	1129.7	199.90	ug/L	199.90 ppb	21:49:22
2	S 181.975 Axial†	370.9	256.8	331.23	ug/L	331.23 ppb	21:49:22
2	Sb 206.836†	47.2	-16.1	-9.5950	ug/L	-9.5950 ppb	21:49:22
2	Se 196.026†	-209.2	-150.8	10.687	ug/L	10.687 ppb	21:49:22
2	Si 251.611†	344641.6	302123.7	12780	ug/L	12780 ppb	21:49:02
2	Sn 189.927†	37.5	21.0	8.1881	ug/L	8.1881 ppb	21:49:22
2	Ti 334.940†	559262.1	493166.5	1310.4	ug/L	1310.4 ppb	21:49:02
2	Tl 190.801†	-120.7	-47.2	-8.4031	ug/L	-8.4031 ppb	21:49:22
2	U 409.014†	-6016.8	-3483.9	-192.48	ug/L	-192.48 ppb	21:49:02
2	V 292.402†	4538.9	5958.3	44.002	ug/L	44.002 ppb	21:49:02
2	Zn 213.857†	26975.0	22749.5	261.10	ug/L	261.10 ppb	21:49:02
2	SiO2†	344499.2	301961.8	27332	ug/L	27332 ppb	21:49:59
3	Sc Radial	3648.8	3648.8	113	%		21:48:29
3	Y RADIAL	4500.1	4500.1	123.5	%		21:48:09
3	Al 396.153Radial†	18194.9	16288.0	19105	ug/L	19105 ppb	21:48:09
3	Ca 317.933Radial†	5202.4	4612.9	10390	ug/L	10390 ppb	21:48:09
3	Fe 238.204 Radial†	4735.9	4204.8	56469	ug/L	56469 ppb	21:48:09
3	K 766.490 Radial†	22992.8	17261.0	4027.8	ug/L	4027.8 ppb	21:48:09
3	Mg 279.077 IEC†	97.1	86.1	3876.7	ug/L	3876.7 ppb	21:48:29
3	Na 589.592 Radial†	-116.8	1090.6	532.88	ug/L	532.88 ppb	21:48:09
3	Sr 421.552†	7047.2	6232.0	65.004	ug/L	65.004 ppb	21:48:09
3	Sc 361.383	636777.2	636777.2	114.32	%		21:49:28
3	Y 371.029	664577.6	664577.6	128.44	%		21:49:28
3	Ag 328.068†	-3177.0	-2831.7	-0.0995	ug/L	-0.0995 ppb	21:49:28
3	As 188.979†	-32.5	16.2	24.851	ug/L	24.851 ppb	21:49:48
3	B 249.677†	196.9	827.3	14.056	ug/L	14.056 ppb	21:49:28
3	Ba 233.527†	16113.7	14098.5	213.56	ug/L	213.56 ppb	21:49:28
3	Be 313.107†	-10784.3	117.6	3.0244	ug/L	3.0244 ppb	21:49:28
3	Cd 226.502†	150.8	439.4	1.0190	ug/L	1.0190 ppb	21:49:48
3	Co 228.616†	256.9	315.3	8.1146	ug/L	8.1146 ppb	21:49:48
3	Cr 267.716†	1457.9	1168.5	18.637	ug/L	18.637 ppb	21:49:48
3	Cu 324.752†	10749.2	3021.1	18.508	ug/L	18.508 ppb	21:49:28
3	Mn 257.610†	1211060.0	1058743.7	2043.0	ug/L	2043.0 ppb	21:49:28
3	Mo 202.031†	55.7	32.7	7.5105	ug/L	7.5105 ppb	21:49:48
3	Ni 231.604†	682.5	479.2	16.195	ug/L	16.195 ppb	21:49:48
3	P 214.914†	1436.9	945.6	482.52	ug/L	482.52 ppb	21:49:48
3	Pb 220.353†	1161.1	1111.2	196.65	ug/L	196.65 ppb	21:49:48
3	S 181.975 Axial†	368.6	253.4	326.96	ug/L	326.96 ppb	21:49:48
3	Sb 206.836†	66.9	1.0	-1.9669	ug/L	-1.9669 ppb	21:49:48
3	Se 196.026†	-204.2	-145.6	9.7193	ug/L	9.7193 ppb	21:49:48
3	Si 251.611†	345998.7	302092.8	12779	ug/L	12779 ppb	21:49:28
3	Sn 189.927†	37.6	21.0	8.0648	ug/L	8.0648 ppb	21:49:48
3	Ti 334.940†	561468.4	493120.0	1310.3	ug/L	1310.3 ppb	21:49:28
3	Tl 190.801†	-104.5	-32.6	0.2656	ug/L	0.2656 ppb	21:49:48
3	U 409.014†	-6219.5	-3640.0	-199.76	ug/L	-199.76 ppb	21:49:28
3	V 292.402†	4463.3	5876.1	43.557	ug/L	43.557 ppb	21:49:28
3	Zn 213.857†	27076.9	22743.2	260.81	ug/L	260.81 ppb	21:49:28
3	SiO2†	343090.9	299512.5	27111	ug/L	27111 ppb	21:50:04

Mean Data: 249330007|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	639203.9	114.75	%	1.176				1.02%
Sc Radial	3655.4	113	%	0.6				0.53%
Y 371.029	666972.8	128.90	%	1.252				0.97%
Y RADIAL	4584.2	125.8	%	2.24				1.78%
Ag 328.068†	-2809.2	0.4444	ug/L	0.52721	0.4444	ppb	0.52721	118.64%
Al 396.153Radial†	16604.5	19476	ug/L	344.7	19476	ppb	344.7	1.77%
As 188.979†	20.7	27.075	ug/L	3.6486	27.075	ppb	3.6486	13.48%
B 249.677†	829.1	13.952	ug/L	0.3094	13.952	ppb	0.3094	2.22%
Ba 233.527†	14097.4	213.62	ug/L	0.063	213.62	ppb	0.063	0.03%
Be 313.107†	39.2	2.9935	ug/L	0.03021	2.9935	ppb	0.03021	1.01%
Ca 317.933Radial†	4718.7	10628	ug/L	215.6	10628	ppb	215.6	2.03%
Cd 226.502†	437.9	0.8730	ug/L	0.12811	0.8730	ppb	0.12811	14.67%
Co 228.616†	314.7	8.0669	ug/L	0.42511	8.0669	ppb	0.42511	5.27%
Cr 267.716†	1176.5	18.779	ug/L	0.2484	18.779	ppb	0.2484	1.32%
Cu 324.752†	3079.4	18.882	ug/L	0.3532	18.882	ppb	0.3532	1.87%
Fe 238.204 Radial†	4310.1	57884	ug/L	1246.7	57884	ppb	1246.7	2.15%
K 766.490 Radial†	17654.6	4119.7	ug/L	84.42	4119.7	ppb	84.42	2.05%

Mg 279.077 IEC†	89.1	4009.5	ug/L	131.61	4009.5	ppb	131.61	3.28%
Mn 257.610†	1059154.2	2043.9	ug/L	2.11	2043.9	ppb	2.11	0.10%
Mo 202.031†	36.9	8.0570	ug/L	0.53502	8.0570	ppb	0.53502	6.64%
Na 589.592 Radial†	1129.3	551.82	ug/L	17.399	551.82	ppb	17.399	3.15%
Ni 231.604†	484.3	16.366	ug/L	0.2851	16.366	ppb	0.2851	1.74%
P 214.914†	945.0	481.63	ug/L	5.140	481.63	ppb	5.140	1.07%
Pb 220.353†	1110.0	196.41	ug/L	3.609	196.41	ppb	3.609	1.84%
S 181.975 Axial†	251.3	324.16	ug/L	8.817	324.16	ppb	8.817	2.72%
Sb 206.836†	-4.7	-4.4542	ug/L	4.45290	-4.4542	ppb	4.45290	99.97%
Se 196.026†	-148.0	10.749	ug/L	1.0626	10.749	ppb	1.0626	9.88%
Si 251.611†	302442.6	12793	ug/L	24.5	12793	ppb	24.5	0.19%
Sn 189.927†	23.0	8.6430	ug/L	0.89679	8.6430	ppb	0.89679	10.38%
Sr 421.552†	6360.4	66.343	ug/L	1.2270	66.343	ppb	1.2270	1.85%
Ti 334.940†	493694.6	1311.8	ug/L	2.53	1311.8	ppb	2.53	0.19%
Tl 190.801†	-40.9	-4.6376	ug/L	4.44494	-4.6376	ppb	4.44494	95.85%
U 409.014†	-3548.7	-195.51	ug/L	3.791	-195.51	ppb	3.791	1.94%
V 292.402†	5929.0	43.858	ug/L	0.2611	43.858	ppb	0.2611	0.60%
Zn 213.857†	22796.5	261.54	ug/L	1.027	261.54	ppb	1.027	0.39%
SiO2†	299876.2	27144	ug/L	174.7	27144	ppb	174.7	0.64%

Sequence No.: 36
Sample ID: 249330008|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 62
Date Collected: 4/15/2010 21:52:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330008|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3740.5	3740.5	115	%			21:54:29
1	Y RADIAL	4597.9	4597.9	126.1	%			21:54:09
1	Al 396.153Radial†	23693.3	20658.9	24232	ug/L	24232	ppb	21:54:09
1	Ca 317.933Radial†	5707.1	4937.1	11120	ug/L	11120	ppb	21:54:09
1	Fe 238.204 Radial†	4585.2	3970.9	53328	ug/L	53328	ppb	21:54:09
1	K 766.490 Radial†	24292.3	17886.6	4174.1	ug/L	4174.1	ppb	21:54:09
1	Mg 279.077 IEC†	136.9	118.6	5349.5	ug/L	5349.5	ppb	21:54:29
1	Na 589.592 Radial†	-138.4	1074.4	524.97	ug/L	524.97	ppb	21:54:09
1	Sr 421.552†	9333.3	8060.6	84.095	ug/L	84.095	ppb	21:54:09
1	Sc 361.383	640785.5	640785.5	115.04	%			21:55:26
1	Y 371.029	644394.7	644394.7	124.54	%			21:55:26
1	Ag 328.068†	-2866.3	-2544.3	0.6427	ug/L	0.6427	ppb	21:55:26
1	As 188.979†	-19.9	27.3	28.606	ug/L	28.606	ppb	21:55:46
1	B 249.677†	182.3	813.5	14.056	ug/L	14.056	ppb	21:55:26
1	Ba 233.527†	20245.4	17601.9	265.61	ug/L	265.61	ppb	21:55:26
1	Be 313.107†	-9298.1	1468.5	3.3998	ug/L	3.3998	ppb	21:55:26
1	Cd 226.502†	100.9	395.2	0.6956	ug/L	0.6956	ppb	21:55:46
1	Co 228.616†	209.9	273.1	6.8317	ug/L	6.8317	ppb	21:55:46
1	Cr 267.716†	1715.0	1384.0	21.815	ug/L	21.815	ppb	21:55:46
1	Cu 324.752†	11226.2	3376.9	20.001	ug/L	20.001	ppb	21:55:26
1	Mn 257.610†	846864.2	735531.5	1420.7	ug/L	1420.7	ppb	21:55:26
1	Mo 202.031†	52.6	29.7	6.9840	ug/L	6.9840	ppb	21:55:46
1	Ni 231.604†	793.7	572.1	19.324	ug/L	19.324	ppb	21:55:46
1	P 214.914†	1515.4	1006.0	516.84	ug/L	516.84	ppb	21:55:46
1	Pb 220.353†	780.6	774.1	138.68	ug/L	138.68	ppb	21:55:46
1	S 181.975 Axial†	434.3	308.5	397.94	ug/L	397.94	ppb	21:55:46
1	Sb 206.836†	54.0	-10.6	-7.2610	ug/L	-7.2610	ppb	21:55:46
1	Se 196.026†	-188.7	-131.1	13.345	ug/L	13.345	ppb	21:55:46
1	Si 251.611†	429630.8	372898.7	15774	ug/L	15774	ppb	21:55:26
1	Sn 189.927†	-29.7	-37.7	-6.5766	ug/L	-6.5766	ppb	21:55:46
1	Ti 334.940†	523573.6	457106.8	1214.6	ug/L	1214.6	ppb	21:55:26
1	Tl 190.801†	-99.9	-28.0	-0.6982	ug/L	-0.6982	ppb	21:55:46
1	U 409.014†	-5445.9	-2933.5	-163.10	ug/L	-163.10	ppb	21:55:26
1	V 292.402†	3989.7	5440.0	40.255	ug/L	40.255	ppb	21:55:26
1	Zn 213.857†	25855.0	21532.9	246.89	ug/L	246.89	ppb	21:55:26
1	SiO2†	434943.9	377480.4	34168	ug/L	34168	ppb	21:56:44
2	Sc Radial	3698.2	3698.2	114	%			21:54:54
2	Y RADIAL	4578.8	4578.8	125.6	%			21:54:34
2	Al 396.153Radial†	23575.3	20790.5	24386	ug/L	24386	ppb	21:54:34
2	Ca 317.933Radial†	5682.7	4972.3	11199	ug/L	11199	ppb	21:54:34
2	Fe 238.204 Radial†	4546.5	3982.3	53482	ug/L	53482	ppb	21:54:34
2	K 766.490 Radial†	23974.5	17848.9	4165.3	ug/L	4165.3	ppb	21:54:34
2	Mg 279.077 IEC†	138.9	121.7	5490.5	ug/L	5490.5	ppb	21:54:54
2	Na 589.592 Radial†	-133.9	1076.9	526.21	ug/L	526.21	ppb	21:54:34
2	Sr 421.552†	9249.9	8080.1	84.298	ug/L	84.298	ppb	21:54:34
2	Sc 361.383	648444.6	648444.6	116.41	%			21:55:52
2	Y 371.029	653323.0	653323.0	126.27	%			21:55:52
2	Ag 328.068†	-2780.2	-2440.9	1.3023	ug/L	1.3023	ppb	21:55:52
2	As 188.979†	-25.5	22.7	26.586	ug/L	26.586	ppb	21:56:12
2	B 249.677†	158.1	790.8	13.491	ug/L	13.491	ppb	21:55:52
2	Ba 233.527†	20430.2	17552.8	264.89	ug/L	264.89	ppb	21:55:52
2	Be 313.107†	-9310.0	1553.8	3.4374	ug/L	3.4374	ppb	21:55:52
2	Cd 226.502†	116.7	407.7	0.8555	ug/L	0.8555	ppb	21:56:12
2	Co 228.616†	210.3	271.3	6.7636	ug/L	6.7636	ppb	21:56:12
2	Cr 267.716†	1697.3	1351.2	21.322	ug/L	21.322	ppb	21:56:12
2	Cu 324.752†	11267.9	3297.5	19.626	ug/L	19.626	ppb	21:55:52
2	Mn 257.610†	856424.3	735048.6	1419.8	ug/L	1419.8	ppb	21:55:52
2	Mo 202.031†	46.3	23.8	6.3673	ug/L	6.3673	ppb	21:56:12
2	Ni 231.604†	792.1	562.7	19.006	ug/L	19.006	ppb	21:56:12

2	P 214.914†	1513.5	988.8	507.76	ug/L	507.76 ppb	21:56:12
2	Pb 220.353†	763.6	751.5	134.71	ug/L	134.71 ppb	21:56:12
2	S 181.975 Axial†	431.6	301.7	389.06	ug/L	389.06 ppb	21:56:12
2	Sb 206.836†	58.9	-7.0	-5.5987	ug/L	-5.5987 ppb	21:56:12
2	Se 196.026†	-180.5	-122.1	19.359	ug/L	19.359 ppb	21:56:12
2	Si 251.611†	435159.3	373236.5	15788	ug/L	15788 ppb	21:55:52
2	Sn 189.927†	-19.5	-28.6	-4.2791	ug/L	-4.2791 ppb	21:56:12
2	Ti 334.940†	529887.7	457154.9	1214.7	ug/L	1214.7 ppb	21:55:52
2	Tl 190.801†	-108.9	-34.7	-4.6735	ug/L	-4.6735 ppb	21:56:12
2	U 409.014†	-5457.7	-2887.7	-160.82	ug/L	-160.82 ppb	21:55:52
2	V 292.402†	4052.2	5452.7	40.347	ug/L	40.347 ppb	21:55:52
2	Zn 213.857†	26114.5	21490.4	246.43	ug/L	246.43 ppb	21:55:52
2	SiO2†	438575.9	376134.6	34046	ug/L	34046 ppb	21:56:49
3	Sc Radial	3690.1	3690.1	114	%		21:55:19
3	Y RADIAL	4492.6	4492.6	123.3	%		21:54:59
3	Al 396.153Radial†	23376.6	20661.3	24234	ug/L	24234 ppb	21:54:59
3	Ca 317.933Radial†	5643.2	4948.6	11146	ug/L	11146 ppb	21:54:59
3	Fe 238.204 Radial†	4504.1	3953.9	53100	ug/L	53100 ppb	21:54:59
3	K 766.490 Radial†	23947.4	17871.3	4170.5	ug/L	4170.5 ppb	21:54:59
3	Mg 279.077 IEC†	136.4	119.7	5402.3	ug/L	5402.3 ppb	21:55:19
3	Na 589.592 Radial†	-131.5	1078.8	527.14	ug/L	527.14 ppb	21:54:59
3	Sr 421.552†	9200.1	8054.2	84.027	ug/L	84.027 ppb	21:54:59
3	Sc 361.383	650708.7	650708.7	116.82	%		21:56:18
3	Y 371.029	655579.7	655579.7	126.70	%		21:56:18
3	Ag 328.068†	-2801.7	-2451.0	1.1292	ug/L	1.1292 ppb	21:56:18
3	As 188.979†	-38.2	11.9	21.791	ug/L	21.791 ppb	21:56:38
3	B 249.677†	160.5	792.4	13.570	ug/L	13.570 ppb	21:56:18
3	Ba 233.527†	20540.6	17586.3	265.37	ug/L	265.37 ppb	21:56:18
3	Be 313.107†	-9314.8	1577.5	3.4531	ug/L	3.4531 ppb	21:56:18
3	Cd 226.502†	130.6	419.3	1.0513	ug/L	1.0513 ppb	21:56:38
3	Co 228.616†	211.4	271.6	6.7783	ug/L	6.7783 ppb	21:56:38
3	Cr 267.716†	1708.6	1355.8	21.385	ug/L	21.385 ppb	21:56:38
3	Cu 324.752†	11285.5	3278.9	19.507	ug/L	19.507 ppb	21:56:18
3	Mn 257.610†	861811.1	737100.1	1423.7	ug/L	1423.7 ppb	21:56:18
3	Mo 202.031†	61.4	36.6	7.6953	ug/L	7.6953 ppb	21:56:38
3	Ni 231.604†	792.6	560.7	18.938	ug/L	18.938 ppb	21:56:38
3	P 214.914†	1509.8	981.1	503.73	ug/L	503.73 ppb	21:56:38
3	Pb 220.353†	765.9	751.2	134.66	ug/L	134.66 ppb	21:56:38
3	S 181.975 Axial†	435.4	303.7	391.67	ug/L	391.67 ppb	21:56:38
3	Sb 206.836†	57.9	-8.0	-6.0830	ug/L	-6.0830 ppb	21:56:38
3	Se 196.026†	-187.1	-127.2	15.397	ug/L	15.397 ppb	21:56:38
3	Si 251.611†	437073.0	373574.1	15802	ug/L	15802 ppb	21:56:18
3	Sn 189.927†	-33.4	-40.4	-7.2667	ug/L	-7.2667 ppb	21:56:38
3	Ti 334.940†	532744.4	458016.5	1217.0	ug/L	1217.0 ppb	21:56:18
3	Tl 190.801†	-111.8	-36.8	-5.9094	ug/L	-5.9094 ppb	21:56:38
3	U 409.014†	-5397.9	-2820.2	-157.29	ug/L	-157.29 ppb	21:56:18
3	V 292.402†	4108.1	5488.5	40.741	ug/L	40.741 ppb	21:56:18
3	Zn 213.857†	26245.1	21524.1	246.77	ug/L	246.77 ppb	21:56:18
3	SiO2†	436220.7	372807.7	33745	ug/L	33745 ppb	21:56:55

Mean Data: 249330008|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	646646.3	116.09	%	0.934				0.80%
Sc Radial	3709.6	114	%	0.8				0.73%
Y 371.029	651099.1	125.84	%	1.143				0.91%
Y RADIAL	4556.4	125.0	%	1.54				1.23%
Ag 328.068†	-2478.7	1.0247	ug/L	0.34199	1.0247	ppb	0.34199	33.38%
Al 396.153Radial†	20703.6	24284	ug/L	88.4	24284	ppb	88.4	0.36%
As 188.979†	20.6	25.661	ug/L	3.5005	25.661	ppb	3.5005	13.64%
B 249.677†	798.9	13.706	ug/L	0.3059	13.706	ppb	0.3059	2.23%
Ba 233.527†	17580.3	265.29	ug/L	0.368	265.29	ppb	0.368	0.14%
Be 313.107†	1533.3	3.4301	ug/L	0.02739	3.4301	ppb	0.02739	0.80%
Ca 317.933Radial†	4952.7	11155	ug/L	40.4	11155	ppb	40.4	0.36%
Cd 226.502†	407.4	0.8675	ug/L	0.17814	0.8675	ppb	0.17814	20.54%
Co 228.616†	272.0	6.7912	ug/L	0.03586	6.7912	ppb	0.03586	0.53%
Cr 267.716†	1363.7	21.507	ug/L	0.2686	21.507	ppb	0.2686	1.25%
Cu 324.752†	3317.8	19.711	ug/L	0.2576	19.711	ppb	0.2576	1.31%
Fe 238.204 Radial†	3969.0	53303	ug/L	192.4	53303	ppb	192.4	0.36%
K 766.490 Radial†	17869.0	4169.9	ug/L	4.43	4169.9	ppb	4.43	0.11%

Mg 279.077 IEC†	120.0	5414.1	ug/L	71.26	5414.1	ppb	71.26	1.32%
Mn 257.610†	735893.4	1421.4	ug/L	2.04	1421.4	ppb	2.04	0.14%
Mo 202.031†	30.0	7.0155	ug/L	0.66453	7.0155	ppb	0.66453	9.47%
Na 589.592 Radial†	1076.7	526.10	ug/L	1.091	526.10	ppb	1.091	0.21%
Ni 231.604†	565.2	19.089	ug/L	0.2061	19.089	ppb	0.2061	1.08%
P 214.914†	992.0	509.44	ug/L	6.716	509.44	ppb	6.716	1.32%
Pb 220.353†	758.9	136.02	ug/L	2.310	136.02	ppb	2.310	1.70%
S 181.975 Axial†	304.7	392.89	ug/L	4.566	392.89	ppb	4.566	1.16%
Sb 206.836†	-8.5	-6.3142	ug/L	0.85493	-6.3142	ppb	0.85493	13.54%
Se 196.026†	-126.8	16.033	ug/L	3.0571	16.033	ppb	3.0571	19.07%
Si 251.611†	373236.4	15788	ug/L	14.3	15788	ppb	14.3	0.09%
Sn 189.927†	-35.6	-6.0408	ug/L	1.56422	-6.0408	ppb	1.56422	25.89%
Sr 421.552†	8065.0	84.140	ug/L	0.1407	84.140	ppb	0.1407	0.17%
Ti 334.940†	457426.1	1215.5	ug/L	1.36	1215.5	ppb	1.36	0.11%
Tl 190.801†	-33.2	-3.7604	ug/L	2.72296	-3.7604	ppb	2.72296	72.41%
U 409.014†	-2880.5	-160.41	ug/L	2.925	-160.41	ppb	2.925	1.82%
V 292.402†	5460.4	40.448	ug/L	0.2582	40.448	ppb	0.2582	0.64%
Zn 213.857†	21515.8	246.70	ug/L	0.240	246.70	ppb	0.240	0.10%
SiO2†	375474.2	33986	ug/L	217.7	33986	ppb	217.7	0.64%

Sequence No.: 43
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/15/2010 22:40:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3488.2	3488.2	108	%			22:42:16
1	Y RADIAL	3907.3	3907.3	107.2	%			22:41:56
1	Al 396.153Radial†	4618.3	4409.2	5148.7	ug/L	5148.7	ppb	22:41:56
1	Ca 317.933Radial†	2404.2	2224.0	5009.1	ug/L	5009.1	ppb	22:42:16
1	Fe 238.204 Radial†	406.0	372.6	5018.5	ug/L	5018.5	ppb	22:42:16
1	K 766.490 Radial†	25704.0	20722.6	4832.5	ug/L	4832.5	ppb	22:41:56
1	Mg 279.077 IEC†	122.4	113.7	5161.2	ug/L	5161.2	ppb	22:42:16
1	Na 589.592 Radial†	21052.2	20768.2	10148	ug/L	10148	ppb	22:41:56
1	Sr 421.552†	51925.8	48247.5	503.81	ug/L	503.81	ppb	22:41:56
1	Sc 361.383	619617.5	619617.5	111.24	%			22:43:15
1	Y 371.029	571551.1	571551.1	110.46	%			22:43:15
1	Ag 328.068†	88431.7	79444.8	476.78	ug/L	476.78	ppb	22:43:15
1	As 188.979†	1156.6	1084.4	482.23	ug/L	482.23	ppb	22:43:35
1	B 249.677†	20666.0	19233.1	463.37	ug/L	463.37	ppb	22:43:15
1	Ba 233.527†	35612.5	32017.7	478.90	ug/L	478.90	ppb	22:43:15
1	Be 313.107†	1209080.3	1096477.6	481.93	ug/L	481.93	ppb	22:43:15
1	Cd 226.502†	36876.2	33458.1	465.54	ug/L	465.54	ppb	22:43:35
1	Co 228.616†	14433.1	13065.6	479.50	ug/L	479.50	ppb	22:43:35
1	Cr 267.716†	35407.4	31723.4	478.53	ug/L	478.53	ppb	22:43:15
1	Cu 324.752†	116467.8	98319.3	475.82	ug/L	475.82	ppb	22:43:15
1	Mn 257.610†	277335.0	248691.4	478.82	ug/L	478.82	ppb	22:43:15
1	Mo 202.031†	5004.1	4482.5	475.29	ug/L	475.29	ppb	22:43:35
1	Ni 231.604†	15956.5	14226.6	479.13	ug/L	479.13	ppb	22:43:35
1	P 214.914†	5258.7	4416.1	2250.2	ug/L	2250.2	ppb	22:43:35
1	Pb 220.353†	2893.7	2696.9	478.06	ug/L	478.06	ppb	22:43:35
1	S 181.975 Axial†	880.9	722.9	938.22	ug/L	938.22	ppb	22:43:35
1	Sb 206.836†	1230.4	1048.5	489.74	ug/L	489.74	ppb	22:43:35
1	Se 196.026†	785.2	738.9	482.65	ug/L	482.65	ppb	22:43:35
1	Si 251.611†	63518.9	56534.0	2385.6	ug/L	2385.6	ppb	22:43:15
1	Sn 189.927†	2078.4	1856.5	466.64	ug/L	466.64	ppb	22:43:35
1	Ti 334.940†	198834.5	180724.8	479.64	ug/L	479.64	ppb	22:43:15
1	Tl 190.801†	830.4	805.4	480.16	ug/L	480.16	ppb	22:43:35
1	U 409.014†	8423.2	9372.7	472.79	ug/L	472.79	ppb	22:43:15
1	V 292.402†	57221.8	53412.5	486.12	ug/L	486.12	ppb	22:43:15
1	Zn 213.857†	48337.3	42511.6	474.52	ug/L	474.52	ppb	22:43:15
1	SiO2†	61406.3	54598.0	4929.1	ug/L	4929.1	ppb	22:44:35
2	Sc Radial	3495.5	3495.5	108	%			22:42:41
2	Y RADIAL	3855.5	3855.5	105.8	%			22:42:21
2	Al 396.153Radial†	4525.3	4314.0	5036.6	ug/L	5036.6	ppb	22:42:21
2	Ca 317.933Radial†	2414.7	2229.2	5020.8	ug/L	5020.8	ppb	22:42:41
2	Fe 238.204 Radial†	407.3	373.1	5024.9	ug/L	5024.9	ppb	22:42:41
2	K 766.490 Radial†	25303.6	20301.5	4734.2	ug/L	4734.2	ppb	22:42:21
2	Mg 279.077 IEC†	124.5	115.4	5238.3	ug/L	5238.3	ppb	22:42:41
2	Na 589.592 Radial†	20671.5	20374.4	9955.5	ug/L	9955.5	ppb	22:42:21
2	Sr 421.552†	50817.6	47119.1	492.03	ug/L	492.03	ppb	22:42:21
2	Sc 361.383	611939.6	611939.6	109.86	%			22:43:43
2	Y 371.029	566451.8	566451.8	109.48	%			22:43:43
2	Ag 328.068†	87491.3	79586.2	477.64	ug/L	477.64	ppb	22:43:43
2	As 188.979†	1153.9	1094.9	486.88	ug/L	486.88	ppb	22:44:03
2	B 249.677†	20418.7	19241.1	463.54	ug/L	463.54	ppb	22:43:43
2	Ba 233.527†	35282.3	32118.8	480.41	ug/L	480.41	ppb	22:43:43
2	Be 313.107†	1200814.5	1102591.1	484.62	ug/L	484.62	ppb	22:43:43
2	Cd 226.502†	37039.7	34022.9	473.41	ug/L	473.41	ppb	22:44:03
2	Co 228.616†	14498.9	13288.3	487.70	ug/L	487.70	ppb	22:44:03
2	Cr 267.716†	35149.8	31888.3	481.02	ug/L	481.02	ppb	22:43:43
2	Cu 324.752†	114691.5	98016.1	474.35	ug/L	474.35	ppb	22:43:43
2	Mn 257.610†	273873.0	248668.3	478.77	ug/L	478.77	ppb	22:43:43
2	Mo 202.031†	5043.8	4575.1	485.10	ug/L	485.10	ppb	22:44:03
2	Ni 231.604†	16057.1	14498.2	488.28	ug/L	488.28	ppb	22:44:03

2	P 214.914†	5257.4	4474.2	2281.6 ug/L	2281.6 ppb	22:44:03
2	Pb 220.353†	2907.7	2742.3	486.08 ug/L	486.08 ppb	22:44:03
2	S 181.975 Axial†	892.5	743.4	964.83 ug/L	964.83 ppb	22:44:03
2	Sb 206.836†	1230.6	1062.6	496.48 ug/L	496.48 ppb	22:44:03
2	Se 196.026†	796.9	758.3	495.14 ug/L	495.14 ppb	22:44:03
2	Si 251.611†	62624.7	56436.5	2381.3 ug/L	2381.3 ppb	22:43:43
2	Sn 189.927†	2106.2	1905.3	478.89 ug/L	478.89 ppb	22:44:03
2	Ti 334.940†	196203.0	180572.2	479.23 ug/L	479.23 ppb	22:43:43
2	Tl 190.801†	838.9	822.4	490.23 ug/L	490.23 ppb	22:44:03
2	U 409.014†	8285.1	9342.1	471.23 ug/L	471.23 ppb	22:43:43
2	V 292.402†	56760.6	53638.2	488.29 ug/L	488.29 ppb	22:43:43
2	Zn 213.857†	47811.1	42577.9	475.20 ug/L	475.20 ppb	22:43:43
2	SiO2†	61779.6	55630.4	5022.3 ug/L	5022.3 ppb	22:44:40
3	Sc Radial	3548.9	3548.9	109 %		22:43:07
3	Y RADIAL	3960.5	3960.5	108.7 %		22:42:47
3	Al 396.153Radial†	4650.8	4365.5	5097.2 ug/L	5097.2 ppb	22:42:47
3	Ca 317.933Radial†	2433.0	2212.1	4982.3 ug/L	4982.3 ppb	22:43:07
3	Fe 238.204 Radial†	417.8	377.0	5077.0 ug/L	5077.0 ppb	22:43:07
3	K 766.490 Radial†	25769.2	20373.6	4751.0 ug/L	4751.0 ppb	22:42:47
3	Mg 279.077 IEC†	125.3	114.3	5189.9 ug/L	5189.9 ppb	22:43:07
3	Na 589.592 Radial†	21105.3	20482.2	10008 ug/L	10008 ppb	22:42:47
3	Sr 421.552†	52178.0	47652.7	497.60 ug/L	497.60 ppb	22:42:47
3	Sc 361.383	609473.9	609473.9	109.42 %		22:44:10
3	Y 371.029	563387.1	563387.1	108.88 %		22:44:10
3	Ag 328.068†	87275.2	79710.9	478.39 ug/L	478.39 ppb	22:44:10
3	As 188.979†	1150.3	1095.9	487.31 ug/L	487.31 ppb	22:44:30
3	B 249.677†	20382.7	19283.4	464.56 ug/L	464.56 ppb	22:44:10
3	Ba 233.527†	35010.3	32000.1	478.64 ug/L	478.64 ppb	22:44:10
3	Be 313.107†	1191428.6	1098435.1	482.79 ug/L	482.79 ppb	22:44:10
3	Cd 226.502†	36601.4	33758.6	469.72 ug/L	469.72 ppb	22:44:30
3	Co 228.616†	14348.0	13203.7	484.59 ug/L	484.59 ppb	22:44:30
3	Cr 267.716†	34789.4	31688.3	478.00 ug/L	478.00 ppb	22:44:10
3	Cu 324.752†	114166.3	97958.4	474.07 ug/L	474.07 ppb	22:44:10
3	Mn 257.610†	272372.0	248304.9	478.08 ug/L	478.08 ppb	22:44:10
3	Mo 202.031†	4979.2	4534.7	480.82 ug/L	480.82 ppb	22:44:30
3	Ni 231.604†	15851.5	14369.5	483.94 ug/L	483.94 ppb	22:44:30
3	P 214.914†	5194.9	4436.5	2261.5 ug/L	2261.5 ppb	22:44:30
3	Pb 220.353†	2870.3	2718.8	481.92 ug/L	481.92 ppb	22:44:30
3	S 181.975 Axial†	880.7	735.9	955.07 ug/L	955.07 ppb	22:44:30
3	Sb 206.836†	1213.5	1051.5	491.32 ug/L	491.32 ppb	22:44:30
3	Se 196.026†	787.3	752.6	491.53 ug/L	491.53 ppb	22:44:30
3	Si 251.611†	62374.1	56438.0	2381.4 ug/L	2381.4 ppb	22:44:10
3	Sn 189.927†	2073.8	1883.5	473.39 ug/L	473.39 ppb	22:44:30
3	Ti 334.940†	195125.7	180310.1	478.54 ug/L	478.54 ppb	22:44:10
3	Tl 190.801†	828.4	816.0	486.40 ug/L	486.40 ppb	22:44:30
3	U 409.014†	8380.5	9459.7	477.19 ug/L	477.19 ppb	22:44:10
3	V 292.402†	56334.6	53457.8	486.61 ug/L	486.61 ppb	22:44:10
3	Zn 213.857†	47585.2	42547.5	474.90 ug/L	474.90 ppb	22:44:10
3	SiO2†	61748.9	55829.9	5040.4 ug/L	5040.4 ppb	22:44:45

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	613677.0	110.17	%	0.950				0.86%
Sc Radial	3510.8	108	%	1.0				0.94%
Y 371.029	567130.0	109.61	%	0.797				0.73%
Y RADIAL	3907.8	107.2	%	1.44				1.34%
Ag 328.068†	79580.6	477.60	ug/L	0.802	477.60	ppb	0.802	0.17%
QC value within limits for Ag 328.068 Recovery = 95.52%								
Al 396.153Radial†	4362.9	5094.2	ug/L	56.11	5094.2	ppb	56.11	1.10%
QC value within limits for Al 396.153Radial Recovery = 101.88%								
As 188.979†	1091.7	485.48	ug/L	2.817	485.48	ppb	2.817	0.58%
QC value within limits for As 188.979 Recovery = 97.10%								
B 249.677†	19252.5	463.82	ug/L	0.647	463.82	ppb	0.647	0.14%
QC value within limits for B 249.677 Recovery = 92.76%								
Ba 233.527†	32045.5	479.32	ug/L	0.957	479.32	ppb	0.957	0.20%
QC value within limits for Ba 233.527 Recovery = 95.86%								
Be 313.107†	1099167.9	483.11	ug/L	1.369	483.11	ppb	1.369	0.28%
QC value within limits for Be 313.107 Recovery = 96.62%								
Ca 317.933Radial†	2221.7	5004.1	ug/L	19.71	5004.1	ppb	19.71	0.39%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.08%
Cd 226.502†            33746.5      469.56 ug/L         3.935      469.56 ppb          3.935   0.84%
   QC value within limits for Cd 226.502  Recovery = 93.91%
Co 228.616†            13185.8      483.93 ug/L         4.137      483.93 ppb          4.137   0.85%
   QC value within limits for Co 228.616  Recovery = 96.79%
Cr 267.716†            31766.7      479.18 ug/L         1.611      479.18 ppb          1.611   0.34%
   QC value within limits for Cr 267.716  Recovery = 95.84%
Cu 324.752†            98098.0      474.75 ug/L         0.940      474.75 ppb          0.940   0.20%
   QC value within limits for Cu 324.752  Recovery = 94.95%
Fe 238.204 Radial†       374.2      5040.1 ug/L         32.07      5040.1 ppb          32.07   0.64%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.80%
K 766.490 Radial†      20465.9      4772.6 ug/L         52.54      4772.6 ppb          52.54   1.10%
   QC value within limits for K 766.490 Radial  Recovery = 95.45%
Mg 279.077 IEC†          114.4      5196.5 ug/L         39.00      5196.5 ppb          39.00   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.93%
Mn 257.610†           248554.9      478.56 ug/L         0.413      478.56 ppb          0.413   0.09%
   QC value within limits for Mn 257.610  Recovery = 95.71%
Mo 202.031†             4530.8      480.41 ug/L         4.919      480.41 ppb          4.919   1.02%
   QC value within limits for Mo 202.031  Recovery = 96.08%
Na 589.592 Radial†     20541.6       10037 ug/L          99.4       10037 ppb           99.4   0.99%
   QC value within limits for Na 589.592 Radial  Recovery = 100.37%
Ni 231.604†            14364.8      483.78 ug/L         4.575      483.78 ppb          4.575   0.95%
   QC value within limits for Ni 231.604  Recovery = 96.76%
P 214.914†              4442.3      2264.4 ug/L         15.92      2264.4 ppb          15.92   0.70%
   QC value within limits for P 214.914  Recovery = 90.58%
Pb 220.353†             2719.4      482.02 ug/L         4.011      482.02 ppb          4.011   0.83%
   QC value within limits for Pb 220.353  Recovery = 96.40%
S 181.975 Axial†         734.1      952.71 ug/L        13.460      952.71 ppb         13.460   1.41%
   QC value within limits for S 181.975 Axial  Recovery = 95.27%
Sb 206.836†             1054.2      492.51 ug/L         3.523      492.51 ppb          3.523   0.72%
   QC value within limits for Sb 206.836  Recovery = 98.50%
Se 196.026†              749.9      489.77 ug/L         6.424      489.77 ppb          6.424   1.31%
   QC value within limits for Se 196.026  Recovery = 97.95%
Si 251.611†            56469.5      2382.8 ug/L          2.42      2382.8 ppb           2.42   0.10%
   QC value within limits for Si 251.611  Recovery = 95.31%
Sn 189.927†             1881.8      472.97 ug/L         6.133      472.97 ppb          6.133   1.30%
   QC value within limits for Sn 189.927  Recovery = 94.59%
Sr 421.552†            47673.1      497.82 ug/L         5.895      497.82 ppb          5.895   1.18%
   QC value within limits for Sr 421.552  Recovery = 99.56%
Ti 334.940†           180535.7      479.14 ug/L         0.560      479.14 ppb          0.560   0.12%
   QC value within limits for Ti 334.940  Recovery = 95.83%
Tl 190.801†              814.6      485.59 ug/L         5.082      485.59 ppb          5.082   1.05%
   QC value within limits for Tl 190.801  Recovery = 97.12%
U 409.014†              9391.5      473.74 ug/L         3.090      473.74 ppb          3.090   0.65%
   QC value within limits for U 409.014  Recovery = 94.75%
V 292.402†             53502.8      487.00 ug/L         1.135      487.00 ppb          1.135   0.23%
   QC value within limits for V 292.402  Recovery = 97.40%
Zn 213.857†            42545.7      474.87 ug/L         0.345      474.87 ppb          0.345   0.07%
   QC value within limits for Zn 213.857  Recovery = 94.97%
SiO2†                  55352.8      4997.3 ug/L         59.74      4997.3 ppb          59.74   1.20%
   QC value within limits for SiO2  Recovery = 93.45%
All analyte(s) passed QC.
```

Sequence No.: 44
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/15/2010 22:46:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3560.4	3560.4	110	%			22:49:07
1	Y RADIAL	4070.9	4070.9	111.7	%			22:48:47
1	Al 396.153Radial†	-104.0	20.5	23.947	ug/L	23.947	ppb	22:48:47
1	Ca 317.933Radial†	11.9	-0.5	-1.1311	ug/L	-1.1311	ppb	22:49:07
1	Fe 238.204 Radial†	5.3	-0.0	-0.1345	ug/L	-0.1345	ppb	22:49:07
1	K 766.490 Radial†	2943.8	-494.9	-115.54	ug/L	-115.54	ppb	22:48:47
1	Mg 279.077 IEC†	-1.4	-1.5	-67.757	ug/L	-67.757	ppb	22:49:07
1	Na 589.592 Radial†	-1262.0	44.8	21.879	ug/L	21.879	ppb	22:48:47
1	Sr 421.552†	15.4	-18.0	-0.1878	ug/L	-0.1878	ppb	22:48:47
1	Sc 361.383	613576.2	613576.2	110.15	%			22:50:04
1	Y 371.029	570661.4	570661.4	110.29	%			22:50:04
1	Ag 328.068†	81.0	20.9	0.1115	ug/L	0.1115	ppb	22:50:04
1	As 188.979†	-33.8	13.9	6.1455	ug/L	6.1455	ppb	22:50:24
1	B 249.677†	-644.8	69.6	1.6829	ug/L	1.6829	ppb	22:50:04
1	Ba 233.527†	-10.7	-6.6	-0.0964	ug/L	-0.0964	ppb	22:50:24
1	Be 313.107†	-9788.9	664.6	0.2930	ug/L	0.2930	ppb	22:50:04
1	Cd 226.502†	-298.1	36.9	0.5175	ug/L	0.5175	ppb	22:50:24
1	Co 228.616†	-85.9	12.6	0.4660	ug/L	0.4660	ppb	22:50:24
1	Cr 267.716†	104.4	-12.0	-0.1872	ug/L	-0.1872	ppb	22:50:04
1	Cu 324.752†	6699.0	-300.2	-1.4656	ug/L	-1.4656	ppb	22:50:04
1	Mn 257.610†	536.0	-137.8	-0.2624	ug/L	-0.2624	ppb	22:50:04
1	Mo 202.031†	36.0	16.6	1.7636	ug/L	1.7636	ppb	22:50:24
1	Ni 231.604†	139.5	8.8	0.2979	ug/L	0.2979	ppb	22:50:24
1	P 214.914†	306.5	-33.1	-17.327	ug/L	-17.327	ppb	22:50:24
1	Pb 220.353†	-106.3	-0.9	-0.1536	ug/L	-0.1536	ppb	22:50:24
1	S 181.975 Axial†	75.1	-0.8	-1.0245	ug/L	-1.0245	ppb	22:50:24
1	Sb 206.836†	63.4	-0.0	0.0148	ug/L	0.0148	ppb	22:50:24
1	Se 196.026†	-17.1	17.4	11.147	ug/L	11.147	ppb	22:50:24
1	Si 251.611†	548.3	-69.9	-2.9767	ug/L	-2.9767	ppb	22:50:24
1	Sn 189.927†	12.9	-0.2	-0.0517	ug/L	-0.0517	ppb	22:50:24
1	Ti 334.940†	-1893.1	260.0	0.6867	ug/L	0.6867	ppb	22:50:04
1	Tl 190.801†	-60.2	4.2	2.4831	ug/L	2.4831	ppb	22:50:24
1	U 409.014†	-1545.5	397.5	20.154	ug/L	20.154	ppb	22:50:04
1	V 292.402†	-2073.3	89.7	0.8672	ug/L	0.8672	ppb	22:50:04
1	Zn 213.857†	965.7	-65.4	-0.7353	ug/L	-0.7353	ppb	22:50:24
1	SiO2†	577.3	-80.3	-7.3172	ug/L	-7.3172	ppb	22:51:20
2	Sc Radial	3675.2	3675.2	113	%			22:49:32
2	Y RADIAL	4283.1	4283.1	117.5	%			22:49:12
2	Al 396.153Radial†	-105.8	21.8	25.545	ug/L	25.545	ppb	22:49:12
2	Ca 317.933Radial†	13.7	0.7	1.6153	ug/L	1.6153	ppb	22:49:32
2	Fe 238.204 Radial†	2.9	-2.3	-31.417	ug/L	-31.417	ppb	22:49:32
2	K 766.490 Radial†	3015.3	-515.6	-120.39	ug/L	-120.39	ppb	22:49:12
2	Mg 279.077 IEC†	2.9	2.4	106.72	ug/L	106.72	ppb	22:49:32
2	Na 589.592 Radial†	-1265.4	77.7	37.971	ug/L	37.971	ppb	22:49:12
2	Sr 421.552†	29.4	-6.0	-0.0630	ug/L	-0.0630	ppb	22:49:12
2	Sc 361.383	606338.0	606338.0	108.85	%			22:50:30
2	Y 371.029	564459.1	564459.1	109.09	%			22:50:30
2	Ag 328.068†	47.7	-8.8	-0.0718	ug/L	-0.0718	ppb	22:50:30
2	As 188.979†	-51.8	-2.9	-1.3010	ug/L	-1.3010	ppb	22:50:50
2	B 249.677†	-664.9	44.2	1.0714	ug/L	1.0714	ppb	22:50:30
2	Ba 233.527†	-13.9	-9.7	-0.1448	ug/L	-0.1448	ppb	22:50:50
2	Be 313.107†	-9756.7	588.1	0.2594	ug/L	0.2594	ppb	22:50:30
2	Cd 226.502†	-291.9	39.3	0.5534	ug/L	0.5534	ppb	22:50:50
2	Co 228.616†	-95.9	2.5	0.0952	ug/L	0.0952	ppb	22:50:50
2	Cr 267.716†	105.4	-10.0	-0.1561	ug/L	-0.1561	ppb	22:50:30
2	Cu 324.752†	6604.1	-314.8	-1.5348	ug/L	-1.5348	ppb	22:50:30
2	Mn 257.610†	635.0	-41.0	-0.0866	ug/L	-0.0866	ppb	22:50:30
2	Mo 202.031†	30.0	11.5	1.2194	ug/L	1.2194	ppb	22:50:50
2	Ni 231.604†	136.9	8.0	0.2700	ug/L	0.2700	ppb	22:50:50

2	P 214.914†	321.5	-15.9	-8.1318 ug/L	-8.1318 ppb		22:50:50
2	Pb 220.353†	-103.0	0.9	0.1788 ug/L	0.1788 ppb		22:50:50
2	S 181.975 Axial†	63.0	-11.1	-14.480 ug/L	-14.480 ppb		22:50:50
2	Sb 206.836†	44.3	-16.9	-7.5743 ug/L	-7.5743 ppb		22:50:50
2	Se 196.026†	-23.6	11.3	7.1462 ug/L	7.1462 ppb		22:50:50
2	Si 251.611†	572.2	-41.9	-1.7891 ug/L	-1.7891 ppb		22:50:50
2	Sn 189.927†	13.4	0.4	0.0997 ug/L	0.0997 ppb		22:50:50
2	Ti 334.940†	-1873.8	257.2	0.6688 ug/L	0.6688 ppb		22:50:30
2	Tl 190.801†	-66.3	-2.1	-1.2154 ug/L	-1.2154 ppb		22:50:50
2	U 409.014†	-1647.6	286.9	14.557 ug/L	14.557 ppb		22:50:30
2	V 292.402†	-2087.7	54.0	0.5357 ug/L	0.5357 ppb		22:50:30
2	Zn 213.857†	981.9	-40.1	-0.4529 ug/L	-0.4529 ppb		22:50:50
2	SiO2†	597.0	-55.9	-5.0956 ug/L	-5.0956 ppb		22:51:25
3	Sc Radial	3588.5	3588.5	111 %			22:49:57
3	Y RADIAL	4088.5	4088.5	112.2 %			22:49:37
3	Al 396.153Radial†	-85.7	37.7	44.200 ug/L	44.200 ppb		22:49:37
3	Ca 317.933Radial†	14.3	1.5	3.4595 ug/L	3.4595 ppb		22:49:57
3	Fe 238.204 Radial†	6.3	0.8	10.586 ug/L	10.586 ppb		22:49:57
3	K 766.490 Radial†	3176.3	-305.7	-71.381 ug/L	-71.381 ppb		22:49:37
3	Mg 279.077 IEC†	3.2	2.7	121.16 ug/L	121.16 ppb		22:49:57
3	Na 589.592 Radial†	-1305.3	14.7	7.1664 ug/L	7.1664 ppb		22:49:37
3	Sr 421.552†	41.2	5.3	0.0551 ug/L	0.0551 ppb		22:49:37
3	Sc 361.383	605265.6	605265.6	108.66 %			22:50:55
3	Y 371.029	562742.6	562742.6	108.76 %			22:50:55
3	Ag 328.068†	176.4	109.7	0.6511 ug/L	0.6511 ppb		22:50:55
3	As 188.979†	-42.5	5.5	2.4416 ug/L	2.4416 ppb		22:51:15
3	B 249.677†	-547.8	150.8	3.6470 ug/L	3.6470 ppb		22:50:55
3	Ba 233.527†	-12.7	-8.5	-0.1253 ug/L	-0.1253 ppb		22:51:15
3	Be 313.107†	-9787.1	544.1	0.2402 ug/L	0.2402 ppb		22:50:55
3	Cd 226.502†	-290.4	40.2	0.5606 ug/L	0.5606 ppb		22:51:15
3	Co 228.616†	-91.1	6.8	0.2507 ug/L	0.2507 ppb		22:51:15
3	Cr 267.716†	156.4	37.1	0.5565 ug/L	0.5565 ppb		22:50:55
3	Cu 324.752†	6648.3	-263.4	-1.2804 ug/L	-1.2804 ppb		22:50:55
3	Mn 257.610†	633.1	-41.7	-0.0840 ug/L	-0.0840 ppb		22:50:55
3	Mo 202.031†	29.2	10.8	1.1493 ug/L	1.1493 ppb		22:51:15
3	Ni 231.604†	140.9	11.9	0.4023 ug/L	0.4023 ppb		22:51:15
3	P 214.914†	318.0	-18.7	-9.6683 ug/L	-9.6683 ppb		22:51:15
3	Pb 220.353†	-109.7	-5.4	-0.9418 ug/L	-0.9418 ppb		22:51:15
3	S 181.975 Axial†	67.4	-7.0	-9.0811 ug/L	-9.0811 ppb		22:51:15
3	Sb 206.836†	39.7	-21.1	-9.4740 ug/L	-9.4740 ppb		22:51:15
3	Se 196.026†	-32.8	2.8	1.7802 ug/L	1.7802 ppb		22:51:15
3	Si 251.611†	570.8	-42.3	-1.8045 ug/L	-1.8045 ppb		22:51:15
3	Sn 189.927†	16.9	3.7	0.9244 ug/L	0.9244 ppb		22:51:15
3	Ti 334.940†	-1861.8	265.2	0.6911 ug/L	0.6911 ppb		22:50:55
3	Tl 190.801†	-48.8	13.9	8.2384 ug/L	8.2384 ppb		22:51:15
3	U 409.014†	-1745.3	194.3	9.8490 ug/L	9.8490 ppb		22:50:55
3	V 292.402†	-2082.0	55.8	0.5364 ug/L	0.5364 ppb		22:50:55
3	Zn 213.857†	965.5	-53.5	-0.6016 ug/L	-0.6016 ppb		22:51:15
3	SiO2†	570.3	-79.5	-7.2314 ug/L	-7.2314 ppb		22:51:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	608393.3	109.22	%	0.812				0.74%
Sc Radial	3608.1	111	%	1.8				1.66%
Y 371.029	565954.4	109.38	%	0.805				0.74%
Y RADIAL	4147.5	113.8	%	3.23				2.84%
Ag 328.068†	40.6	0.2303	ug/L	0.37580	0.2303	ppb	0.37580	163.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	26.7	31.231	ug/L	11.2604	31.231	ppb	11.2604	36.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.5	2.4287	ug/L	3.72325	2.4287	ppb	3.72325	153.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	88.2	2.1337	ug/L	1.34567	2.1337	ppb	1.34567	63.07%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.3	-0.1222	ug/L	0.02435	-0.1222	ppb	0.02435	19.93%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	598.9	0.2642	ug/L	0.02671	0.2642	ppb	0.02671	10.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.6	1.3146	ug/L	2.31002	1.3146	ppb	2.31002	175.72%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                38.8      0.5438 ug/L       0.02309      0.5438 ppb        0.02309   4.25%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.3      0.2706 ug/L       0.18623      0.2706 ppb        0.18623  68.82%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 5.1      0.0711 ug/L       0.42065      0.0711 ppb        0.42065 592.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -292.8     -1.4269 ug/L       0.13153     -1.4269 ppb        0.13153   9.22%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.5     -6.9887 ug/L      21.82428     -6.9887 ppb       21.82428 312.28%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -438.7     -102.44 ug/L        27.004     -102.44 ppb         27.004  26.36%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.2      53.374 ug/L      105.1509      53.374 ppb       105.1509 197.01%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -73.5     -0.1443 ug/L       0.10223     -0.1443 ppb        0.10223  70.82%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               13.0      1.3774 ug/L       0.33625      1.3774 ppb        0.33625  24.41%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        45.7      22.339 ug/L       15.4076      22.339 ppb        15.4076  68.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                9.6      0.3234 ug/L       0.06972      0.3234 ppb        0.06972  21.56%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -22.6     -11.709 ug/L        4.9254     -11.709 ppb         4.9254  42.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -1.8     -0.3055 ug/L       0.57551     -0.3055 ppb        0.57551 188.36%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -6.3     -8.1952 ug/L       6.77136     -8.1952 ppb        6.77136  82.63%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -12.7     -5.6778 ug/L       5.02063     -5.6778 ppb        5.02063  88.42%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               10.5      6.6913 ug/L       4.70012      6.6913 ppb        4.70012  70.24%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -51.4     -2.1901 ug/L       0.68124     -2.1901 ppb        0.68124  31.11%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.3      0.3242 ug/L       0.52532      0.3242 ppb        0.52532 162.06%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -6.2     -0.0652 ug/L       0.12145     -0.0652 ppb        0.12145 186.17%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              260.8      0.6822 ug/L       0.01178      0.6822 ppb        0.01178   1.73%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.3      3.1687 ug/L       4.76404      3.1687 ppb        4.76404 150.35%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               292.9      14.853 ug/L        5.1590      14.853 ppb         5.1590  34.73%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                66.5      0.6464 ug/L       0.19118      0.6464 ppb        0.19118  29.58%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -53.0     -0.5966 ug/L       0.14128     -0.5966 ppb        0.14128  23.68%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -71.9     -6.5481 ug/L       1.25860     -6.5481 ppb        1.25860  19.22%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Method: Hg_ReAlign
Result: 052010

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

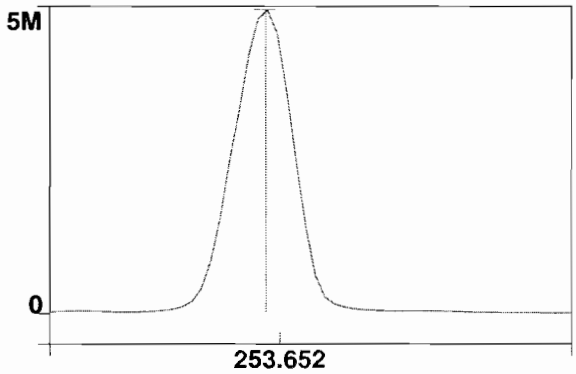

Intensity: 4449065.0 cps
Conc:

1

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4/1/2010 12:05:45 Hg ReAlign... Actual peak offset (nm): -0.007
Drift (nm): 0.000 Slit adjustment: 2

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Analysis Begun

Start Time: 4/1/2010 12:20:58 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040110.sif
Batch ID:
Results Data Set: 040110
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 3/31/2010 19:07:57**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 4/1/2010 12:20:59**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time

1	Sc RADIAL	144796.0	144796.0	100	%	12:21:30
1	Al 396.153Radial†	-53.5	-53.3	[0.00]	µg/L	12:21:50
1	Ca 317.933Radial†	544.1	541.7	[0.00]	µg/L	12:21:50
1	Fe 238.204 Radial†	134.5	133.9	[0.00]	µg/L	12:21:50
1	K 766.490 Radial†	1530.3	1523.4	[0.00]	µg/L	12:21:30
1	Mg 279.077 IEC†	161.0	160.3	[0.00]	µg/L	12:21:50
1	Na 589.592 Radial†	1336.7	1330.7	[0.00]	µg/L	12:21:30
1	Sr 421.552†	-202.2	-201.3	[0.00]	µg/L	12:21:30
1	Sc 361.383	1757409.8	1757409.8	100.03	%	12:22:37
1	Y 371.029	1048375.7	1048375.7	100.09	%	12:22:37
1	Ag 328.068†	3576.1	3575.0	[0.00]	µg/L	12:22:40
1	As 188.979†	-22.7	-22.7	[0.00]	µg/L	12:23:00
1	B 249.677†	3326.0	3325.0	[0.00]	µg/L	12:22:40
1	Ba 233.527†	-137.9	-137.8	[0.00]	µg/L	12:23:00
1	Be 313.107†	-929.5	-929.2	[0.00]	µg/L	12:22:40
1	Cd 226.502†	-98.1	-98.0	[0.00]	µg/L	12:23:00
1	Co 228.616†	-195.6	-195.6	[0.00]	µg/L	12:23:00
1	Cr 267.716†	178.6	178.6	[0.00]	µg/L	12:23:00
1	Cu 324.752†	2754.3	2753.4	[0.00]	µg/L	12:22:40
1	Mn 257.610†	213.5	213.5	[0.00]	µg/L	12:23:00
1	Mo 202.031†	-41.7	-41.7	[0.00]	µg/L	12:23:00
1	Ni 231.604†	-88.3	-88.3	[0.00]	µg/L	12:23:00
1	P 214.914†	2.9	2.9	[0.00]	µg/L	12:23:00
1	Pb 220.353†	78.7	78.7	[0.00]	µg/L	12:23:00
1	S 181.975 Axial†	110.5	110.5	[0.00]	µg/L	12:23:00
1	Sb 206.836†	69.5	69.5	[0.00]	µg/L	12:23:00
1	Se 196.026†	10.3	10.2	[0.00]	µg/L	12:23:00
1	SiO2†	1736.0	1735.5	[0.00]	µg/L	12:23:00
1	Si 251.611†	801.9	801.6	[0.00]	µg/L	12:22:40
1	Sn 189.927†	-4.7	-4.7	[0.00]	µg/L	12:23:00
1	Ti 334.940†	970.0	969.7	[0.00]	µg/L	12:22:40
1	Tl 190.801†	-111.7	-111.7	[0.00]	µg/L	12:23:00
1	U 409.014†	-275.3	-275.2	[0.00]	µg/L	12:22:40
1	V 292.402†	436.8	436.6	[0.00]	µg/L	12:22:40
1	Zn 213.857†	509.0	508.8	[0.00]	µg/L	12:23:00
2	Sc RADIAL	143753.4	143753.4	99.7	%	12:21:52
2	Al 396.153Radial†	-76.7	-76.9	[0.00]	µg/L	12:22:12
2	Ca 317.933Radial†	542.0	543.5	[0.00]	µg/L	12:22:12
2	Fe 238.204 Radial†	139.8	140.2	[0.00]	µg/L	12:22:12
2	K 766.490 Radial†	1544.7	1548.9	[0.00]	µg/L	12:21:52
2	Mg 279.077 IEC†	169.6	170.0	[0.00]	µg/L	12:22:12
2	Na 589.592 Radial†	1205.7	1209.1	[0.00]	µg/L	12:21:52
2	Sr 421.552†	-117.6	-117.9	[0.00]	µg/L	12:21:52
2	Sc 361.383	1754588.9	1754588.9	99.871	%	12:23:02
2	Y 371.029	1045608.6	1045608.6	99.831	%	12:23:02
2	Ag 328.068†	4013.5	4018.7	[0.00]	µg/L	12:23:04
2	As 188.979†	-18.7	-18.7	[0.00]	µg/L	12:23:24
2	B 249.677†	3584.7	3589.3	[0.00]	µg/L	12:23:04
2	Ba 233.527†	-138.3	-138.5	[0.00]	µg/L	12:23:24
2	Be 313.107†	-1058.3	-1059.6	[0.00]	µg/L	12:23:04
2	Cd 226.502†	-95.4	-95.6	[0.00]	µg/L	12:23:24
2	Co 228.616†	-182.0	-182.2	[0.00]	µg/L	12:23:24
2	Cr 267.716†	170.9	171.1	[0.00]	µg/L	12:23:24
2	Cu 324.752†	2955.7	2959.6	[0.00]	µg/L	12:23:04
2	Mn 257.610†	202.4	202.6	[0.00]	µg/L	12:23:24
2	Mo 202.031†	-44.8	-44.9	[0.00]	µg/L	12:23:24
2	Ni 231.604†	-79.3	-79.4	[0.00]	µg/L	12:23:24
2	P 214.914†	-2.3	-2.3	[0.00]	µg/L	12:23:24
2	Pb 220.353†	65.3	65.4	[0.00]	µg/L	12:23:24
2	S 181.975 Axial†	102.6	102.8	[0.00]	µg/L	12:23:24
2	Sb 206.836†	93.0	93.1	[0.00]	µg/L	12:23:24
2	Se 196.026†	19.4	19.4	[0.00]	µg/L	12:23:24
2	SiO2†	1745.4	1747.7	[0.00]	µg/L	12:23:24
2	Si 251.611†	852.3	853.4	[0.00]	µg/L	12:23:04
2	Sn 189.927†	-10.8	-10.8	[0.00]	µg/L	12:23:24
2	Ti 334.940†	935.2	936.4	[0.00]	µg/L	12:23:04
2	Tl 190.801†	-115.1	-115.2	[0.00]	µg/L	12:23:24
2	U 409.014†	-463.9	-464.5	[0.00]	µg/L	12:23:04
2	V 292.402†	312.2	312.6	[0.00]	µg/L	12:23:04
2	Zn 213.857†	511.0	511.6	[0.00]	µg/L	12:23:24
3	Sc RADIAL	143894.2	143894.2	99.8	%	12:22:14

3	Al 396.153Radial†	-76.3	-76.5	[0.00]	µg/L	12:22:34
3	Ca 317.933Radial†	564.2	565.1	[0.00]	µg/L	12:22:34
3	Fe 238.204 Radial†	131.6	131.9	[0.00]	µg/L	12:22:34
3	K 766.490 Radial†	1600.1	1602.9	[0.00]	µg/L	12:22:14
3	Mg 279.077 IEC†	165.0	165.3	[0.00]	µg/L	12:22:34
3	Na 589.592 Radial†	1231.0	1233.2	[0.00]	µg/L	12:22:14
3	Sr 421.552†	-309.8	-310.4	[0.00]	µg/L	12:22:14
3	Sc 361.383	1758590.0	1758590.0	100.10	%	12:23:26
3	Y 371.029	1048159.1	1048159.1	100.07	%	12:23:26
3	Ag 328.068†	3854.5	3850.7	[0.00]	µg/L	12:23:28
3	As 188.979†	-23.6	-23.6	[0.00]	µg/L	12:23:48
3	B 249.677†	3467.2	3463.8	[0.00]	µg/L	12:23:28
3	Ba 233.527†	-182.2	-182.0	[0.00]	µg/L	12:23:48
3	Be 313.107†	-942.7	-941.8	[0.00]	µg/L	12:23:28
3	Cd 226.502†	-124.0	-123.9	[0.00]	µg/L	12:23:48
3	Co 228.616†	-190.9	-190.7	[0.00]	µg/L	12:23:48
3	Cr 267.716†	180.2	180.0	[0.00]	µg/L	12:23:48
3	Cu 324.752†	2866.6	2863.8	[0.00]	µg/L	12:23:28
3	Mn 257.610†	215.8	215.6	[0.00]	µg/L	12:23:48
3	Mo 202.031†	-41.7	-41.7	[0.00]	µg/L	12:23:48
3	Ni 231.604†	-73.1	-73.0	[0.00]	µg/L	12:23:48
3	P 214.914†	0.6	0.6	[0.00]	µg/L	12:23:48
3	Pb 220.353†	58.9	58.8	[0.00]	µg/L	12:23:48
3	S 181.975 Axial†	102.4	102.3	[0.00]	µg/L	12:23:48
3	Sb 206.836†	74.5	74.5	[0.00]	µg/L	12:23:48
3	Se 196.026†	14.8	14.8	[0.00]	µg/L	12:23:48
3	SiO2†	1771.0	1769.3	[0.00]	µg/L	12:23:48
3	Si 251.611†	708.2	707.5	[0.00]	µg/L	12:23:28
3	Sn 189.927†	5.8	5.8	[0.00]	µg/L	12:23:48
3	Ti 334.940†	905.1	904.2	[0.00]	µg/L	12:23:28
3	Tl 190.801†	-120.0	-119.9	[0.00]	µg/L	12:23:48
3	U 409.014†	-53.8	-53.7	[0.00]	µg/L	12:23:28
3	V 292.402†	317.3	317.0	[0.00]	µg/L	12:23:28
3	Zn 213.857†	518.1	517.6	[0.00]	µg/L	12:23:48

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1756862.9	2055.84	0.12%	100.00	%
Sc RADIAL	144147.9	565.73	0.39%	100	%
Y 371.029	1047381.1	1538.88	0.15%	100.00	%
Ag 328.068†	3814.8	224.04	5.87%	[0.00]	µg/L
Al 396.153Radial†	-68.9	13.51	19.61%	[0.00]	µg/L
As 188.979†	-21.7	2.59	11.96%	[0.00]	µg/L
B 249.677†	3459.4	132.22	3.82%	[0.00]	µg/L
Ba 233.527†	-152.8	25.33	16.58%	[0.00]	µg/L
Be 313.107†	-976.9	71.96	7.37%	[0.00]	µg/L
Ca 317.933Radial†	550.1	13.06	2.37%	[0.00]	µg/L
Cd 226.502†	-105.8	15.71	14.84%	[0.00]	µg/L
Co 228.616†	-189.5	6.75	3.56%	[0.00]	µg/L
Cr 267.716†	176.6	4.79	2.72%	[0.00]	µg/L
Cu 324.752†	2858.9	103.16	3.61%	[0.00]	µg/L
Fe 238.204 Radial†	135.3	4.33	3.20%	[0.00]	µg/L
K 766.490 Radial†	1558.4	40.57	2.60%	[0.00]	µg/L
Mg 279.077 IEC†	165.2	4.87	2.95%	[0.00]	µg/L
Mn 257.610†	210.6	6.95	3.30%	[0.00]	µg/L
Mo 202.031†	-42.7	1.86	4.36%	[0.00]	µg/L
Na 589.592 Radial†	1257.6	64.40	5.12%	[0.00]	µg/L
Ni 231.604†	-80.3	7.66	9.55%	[0.00]	µg/L
P 214.914†	0.4	2.62	636.39%	[0.00]	µg/L
Pb 220.353†	67.6	10.09	14.92%	[0.00]	µg/L
S 181.975 Axial†	105.2	4.59	4.37%	[0.00]	µg/L
Sb 206.836†	79.0	12.45	15.75%	[0.00]	µg/L
Se 196.026†	14.8	4.56	30.82%	[0.00]	µg/L
SiO2†	1750.8	17.11	0.98%	[0.00]	µg/L
Si 251.611†	787.5	73.93	9.39%	[0.00]	µg/L
Sn 189.927†	-3.2	8.38	259.00%	[0.00]	µg/L
Sr 421.552†	-209.9	96.52	45.99%	[0.00]	µg/L
Ti 334.940†	936.8	32.74	3.50%	[0.00]	µg/L
Tl 190.801†	-115.6	4.12	3.57%	[0.00]	µg/L

U 409.014†	-264.5	205.61	77.74%	[0.00] µg/L
V 292.402†	355.4	70.38	19.80%	[0.00] µg/L
Zn 213.857†	512.7	4.46	0.87%	[0.00] µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 4/1/2010 12:23:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	142814.8	142814.8	99.1	%	12:24:28
1	K 766.490 Radial†	4167.2	2647.7	[1000]	µg/L	12:24:28
1	Sr 421.552†	45568.0	46203.2	[100]	µg/L	12:24:28
1	Sc 361.383	1758429.6	1758429.6	100.09	%	12:24:36
1	Y 371.029	1044254.8	1044254.8	99.702	%	12:24:36
1	Ag 328.068†	29991.7	26150.2	[100]	µg/L	12:24:38
1	As 188.979†	294.2	315.7	[100]	µg/L	12:24:58
1	B 249.677†	9957.6	6489.4	[100]	µg/L	12:24:38
1	Ba 233.527†	23872.0	24003.5	[100]	µg/L	12:24:38
1	Be 313.107†	349346.4	350012.0	[100]	µg/L	12:24:36
1	Cd 226.502†	15390.7	15482.9	[100]	µg/L	12:24:38
1	Co 228.616†	7699.6	7882.2	[100]	µg/L	12:24:58
1	Cr 267.716†	12386.3	12198.7	[100]	µg/L	12:24:38
1	Cu 324.752†	27783.9	24900.3	[100]	µg/L	12:24:38
1	Mn 257.610†	80599.6	80317.2	[100]	µg/L	12:24:38
1	Mo 202.031†	3167.7	3207.6	[100]	µg/L	12:24:58
1	Ni 231.604†	8504.1	8576.8	[100]	µg/L	12:24:38
1	P 214.914†	2186.8	2184.5	[500]	µg/L	12:24:58
1	Pb 220.353†	1831.8	1762.5	[100]	µg/L	12:24:58
1	S 181.975 Axial†	356.3	250.8	[200]	µg/L	12:24:58
1	Sb 206.836†	862.2	782.4	[100]	µg/L	12:24:58
1	Se 196.026†	277.7	262.7	[100]	µg/L	12:24:58
1	SiO2†	11962.3	10200.9	[1069.5]	µg/L	12:24:38
1	Si 251.611†	32525.1	31708.6	[500]	µg/L	12:24:38
1	Sn 189.927†	1528.9	1530.8	[100]	µg/L	12:24:58
1	Ti 334.940†	102332.1	101304.1	[100]	µg/L	12:24:38
1	Tl 190.801†	669.2	784.2	[100]	µg/L	12:24:58
1	U 409.014†	1493.3	1756.5	[100]	µg/L	12:24:38
1	V 292.402†	19879.8	19506.7	[100]	µg/L	12:24:38
1	Zn 213.857†	17842.7	17314.1	[100]	µg/L	12:24:38
2	Sc RADIAL	144351.6	144351.6	100	%	12:24:30
2	K 766.490 Radial†	4221.2	2656.9	[1000]	µg/L	12:24:30
2	Sr 421.552†	46246.6	46391.2	[100]	µg/L	12:24:30
2	Sc 361.383	1741792.4	1741792.4	99.142	%	12:25:00
2	Y 371.029	1037493.2	1037493.2	99.056	%	12:25:00
2	Ag 328.068†	29960.6	26405.1	[100]	µg/L	12:25:02
2	As 188.979†	293.0	317.2	[100]	µg/L	12:25:22
2	B 249.677†	9809.3	6434.8	[100]	µg/L	12:25:02
2	Ba 233.527†	23873.9	24233.2	[100]	µg/L	12:25:02
2	Be 313.107†	343477.0	347425.7	[100]	µg/L	12:25:00
2	Cd 226.502†	15243.3	15481.0	[100]	µg/L	12:25:02
2	Co 228.616†	7688.3	7944.3	[100]	µg/L	12:25:22
2	Cr 267.716†	12507.6	12439.3	[100]	µg/L	12:25:02
2	Cu 324.752†	27790.1	25171.6	[100]	µg/L	12:25:02
2	Mn 257.610†	80314.6	80798.9	[100]	µg/L	12:25:02
2	Mo 202.031†	3172.6	3242.8	[100]	µg/L	12:25:22
2	Ni 231.604†	8493.6	8647.3	[100]	µg/L	12:25:02
2	P 214.914†	2176.6	2195.0	[500]	µg/L	12:25:22
2	Pb 220.353†	1841.7	1790.0	[100]	µg/L	12:25:22
2	S 181.975 Axial†	353.4	251.3	[200]	µg/L	12:25:22
2	Sb 206.836†	853.1	781.4	[100]	µg/L	12:25:22
2	Se 196.026†	277.9	265.5	[100]	µg/L	12:25:22
2	SiO2†	11951.4	10304.0	[1069.5]	µg/L	12:25:02
2	Si 251.611†	32620.0	32114.7	[500]	µg/L	12:25:02
2	Sn 189.927†	1510.9	1527.2	[100]	µg/L	12:25:22
2	Ti 334.940†	101878.2	101822.9	[100]	µg/L	12:25:02
2	Tl 190.801†	676.1	797.5	[100]	µg/L	12:25:22
2	U 409.014†	1667.9	1946.8	[100]	µg/L	12:25:02
2	V 292.402†	19929.4	19746.4	[100]	µg/L	12:25:02

2	Zn 213.857†	17778.0	17419.1	[100]	µg/L	12:25:02
3	Sc RADIAL	143859.8	143859.8	99.8	%	12:24:32
3	K 766.490 Radial†	4231.4	2681.4	[1000]	µg/L	12:24:32
3	Sr 421.552†	46073.8	46375.9	[100]	µg/L	12:24:32
3	Sc 361.383	1748982.5	1748982.5	99.551	%	12:25:24
3	Y 371.029	1039946.2	1039946.2	99.290	%	12:25:24
3	Ag 328.068†	29816.8	26136.3	[100]	µg/L	12:25:26
3	As 188.979†	290.5	313.5	[100]	µg/L	12:25:46
3	B 249.677†	9670.3	6254.5	[100]	µg/L	12:25:26
3	Ba 233.527†	23887.2	24147.6	[100]	µg/L	12:25:26
3	Be 313.107†	345754.1	348288.8	[100]	µg/L	12:25:24
3	Cd 226.502†	15313.4	15488.2	[100]	µg/L	12:25:26
3	Co 228.616†	7731.8	7956.2	[100]	µg/L	12:25:46
3	Cr 267.716†	12404.3	12283.6	[100]	µg/L	12:25:26
3	Cu 324.752†	27534.3	24799.4	[100]	µg/L	12:25:26
3	Mn 257.610†	80423.9	80575.7	[100]	µg/L	12:25:26
3	Mo 202.031†	3188.6	3245.7	[100]	µg/L	12:25:46
3	Ni 231.604†	8398.1	8516.2	[100]	µg/L	12:25:26
3	P 214.914†	2206.4	2215.9	[500]	µg/L	12:25:46
3	Pb 220.353†	1861.6	1802.4	[100]	µg/L	12:25:46
3	S 181.975 Axial†	351.0	247.4	[200]	µg/L	12:25:46
3	Sb 206.836†	879.9	804.8	[100]	µg/L	12:25:46
3	Se 196.026†	281.3	267.7	[100]	µg/L	12:25:46
3	SiO2†	11975.9	10279.1	[1069.5]	µg/L	12:25:26
3	Si 251.611†	32459.8	31818.6	[500]	µg/L	12:25:26
3	Sn 189.927†	1521.1	1531.2	[100]	µg/L	12:25:46
3	Ti 334.940†	102256.6	101780.6	[100]	µg/L	12:25:26
3	Tl 190.801†	682.7	801.4	[100]	µg/L	12:25:46
3	U 409.014†	1547.9	1819.3	[100]	µg/L	12:25:26
3	V 292.402†	19829.6	19563.5	[100]	µg/L	12:25:26
3	Zn 213.857†	17828.0	17395.6	[100]	µg/L	12:25:26

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1749734.9	8344.07	0.48%	99.594	%
Sc RADIAL	143675.4	784.81	0.55%	99.7	%
Y 371.029	1040564.7	3422.97	0.33%	99.349	%
Ag 328.068†	26230.5	151.32	0.58%	[100]	µg/L
As 188.979†	315.5	1.87	0.59%	[100]	µg/L
B 249.677†	6392.9	122.92	1.92%	[100]	µg/L
Ba 233.527†	24128.1	116.10	0.48%	[100]	µg/L
Be 313.107†	348575.5	1316.72	0.38%	[100]	µg/L
Cd 226.502†	15484.0	3.73	0.02%	[100]	µg/L
Co 228.616†	7927.6	39.74	0.50%	[100]	µg/L
Cr 267.716†	12307.2	121.99	0.99%	[100]	µg/L
Cu 324.752†	24957.1	192.51	0.77%	[100]	µg/L
K 766.490 Radial†	2662.0	17.44	0.66%	[1000]	µg/L
Mn 257.610†	80563.9	241.06	0.30%	[100]	µg/L
Mo 202.031†	3232.0	21.20	0.66%	[100]	µg/L
Ni 231.604†	8580.1	65.60	0.76%	[100]	µg/L
P 214.914†	2198.5	16.01	0.73%	[500]	µg/L
Pb 220.353†	1785.0	20.39	1.14%	[100]	µg/L
S 181.975 Axial†	249.8	2.13	0.85%	[200]	µg/L
Sb 206.836†	789.6	13.24	1.68%	[100]	µg/L
Se 196.026†	265.3	2.54	0.96%	[100]	µg/L
SiO2†	10261.3	53.80	0.52%	[1069.5]	µg/L
Si 251.611†	31880.6	210.04	0.66%	[500]	µg/L
Sn 189.927†	1529.7	2.22	0.14%	[100]	µg/L
Sr 421.552†	46323.5	104.38	0.23%	[100]	µg/L
Ti 334.940†	101635.9	288.06	0.28%	[100]	µg/L
Tl 190.801†	794.4	8.99	1.13%	[100]	µg/L
U 409.014†	1840.9	96.99	5.27%	[100]	µg/L
V 292.402†	19605.6	125.26	0.64%	[100]	µg/L
Zn 213.857†	17376.3	55.12	0.32%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 4/1/2010 12:25:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	144234.2	144234.2	100	%	12:26:26
1	Al 396.153Radial†	25384.1	25437.7	[5000]	µg/L	12:26:26
1	Ca 317.933Radial†	82894.6	82294.8	[5000]	µg/L	12:26:26
1	K 766.490 Radial†	14254.0	12687.0	[5000]	µg/L	12:26:26
1	Mg 279.077 IEC†	12485.4	12312.7	[5000]	µg/L	12:26:26
1	Sr 421.552†	222196.6	222273.4	[500]	µg/L	12:26:24
1	Sc 361.383	1745425.2	1745425.2	99.349	%	12:26:39
1	Y 371.029	1028991.7	1028991.7	98.244	%	12:26:39
1	Ag 328.068†	128628.6	125656.7	[500]	µg/L	12:26:39
1	As 188.979†	1507.2	1538.8	[500]	µg/L	12:26:59
1	B 249.677†	34776.7	31545.3	[500]	µg/L	12:26:39
1	Ba 233.527†	115029.0	115935.5	[500]	µg/L	12:26:39
1	Be 313.107†	1717563.0	1729795.0	[500]	µg/L	12:26:39
1	Cd 226.502†	74367.8	74960.9	[500]	µg/L	12:26:39
1	Co 228.616†	38008.2	38446.8	[500]	µg/L	12:26:39
1	Cr 267.716†	59460.1	59673.2	[500]	µg/L	12:26:39
1	Cu 324.752†	122922.2	120868.8	[500]	µg/L	12:26:39
1	Mn 257.610†	379988.8	382268.3	[500]	µg/L	12:26:39
1	Mo 202.031†	15893.6	16040.5	[500]	µg/L	12:26:59
1	Ni 231.604†	40368.7	40713.5	[500]	µg/L	12:26:39
1	P 214.914†	10984.8	11056.4	[2500]	µg/L	12:26:59
1	Pb 220.353†	8509.7	8497.9	[500]	µg/L	12:26:59
1	S 181.975 Axial†	1333.1	1236.7	[1000]	µg/L	12:26:59
1	Sb 206.836†	4005.1	3952.3	[500]	µg/L	12:26:59
1	Se 196.026†	1323.6	1317.5	[500]	µg/L	12:26:59
1	SiO2†	52158.8	50749.8	[5347.5]	µg/L	12:26:39
1	Si 251.611†	157632.9	157878.3	[2500]	µg/L	12:26:39
1	Sn 189.927†	7455.1	7507.2	[500]	µg/L	12:26:59
1	Ti 334.940†	500017.3	502357.1	[500]	µg/L	12:26:39
1	Tl 190.801†	3708.0	3847.9	[500]	µg/L	12:26:59
1	U 409.014†	7260.9	7573.0	[500]	µg/L	12:26:39
1	V 292.402†	95587.8	95858.8	[500]	µg/L	12:26:39
1	Zn 213.857†	83540.8	83575.6	[500]	µg/L	12:26:39
2	Sc RADIAL	142585.8	142585.8	98.9	%	12:26:30
2	Al 396.153Radial†	25152.4	25496.9	[5000]	µg/L	12:26:30
2	Ca 317.933Radial†	82091.6	82440.9	[5000]	µg/L	12:26:30
2	K 766.490 Radial†	14188.3	12785.3	[5000]	µg/L	12:26:30
2	Mg 279.077 IEC†	12445.2	12416.3	[5000]	µg/L	12:26:30
2	Sr 421.552†	222401.7	225048.0	[500]	µg/L	12:26:28
2	Sc 361.383	1750151.9	1750151.9	99.618	%	12:27:02
2	Y 371.029	1031779.2	1031779.2	98.510	%	12:27:02
2	Ag 328.068†	128932.4	125612.0	[500]	µg/L	12:27:02
2	As 188.979†	1506.2	1533.7	[500]	µg/L	12:27:22
2	B 249.677†	35135.8	31811.2	[500]	µg/L	12:27:02
2	Ba 233.527†	115643.5	116239.7	[500]	µg/L	12:27:02
2	Be 313.107†	1726163.0	1733758.8	[500]	µg/L	12:27:02
2	Cd 226.502†	74979.7	75373.1	[500]	µg/L	12:27:02
2	Co 228.616†	37938.9	38273.9	[500]	µg/L	12:27:02
2	Cr 267.716†	59623.1	59675.1	[500]	µg/L	12:27:02
2	Cu 324.752†	123506.9	121121.6	[500]	µg/L	12:27:02
2	Mn 257.610†	381487.0	382739.2	[500]	µg/L	12:27:02
2	Mo 202.031†	15866.2	15969.8	[500]	µg/L	12:27:22
2	Ni 231.604†	40788.1	41024.8	[500]	µg/L	12:27:02
2	P 214.914†	10970.6	11012.3	[2500]	µg/L	12:27:22
2	Pb 220.353†	8511.5	8476.5	[500]	µg/L	12:27:22
2	S 181.975 Axial†	1348.6	1248.6	[1000]	µg/L	12:27:22
2	Sb 206.836†	4002.8	3939.1	[500]	µg/L	12:27:22
2	Se 196.026†	1296.7	1286.9	[500]	µg/L	12:27:22
2	SiO2†	52226.2	50675.6	[5347.5]	µg/L	12:27:02

2	Si 251.611†	158500.4	158320.6	[2500]	µg/L	12:27:02
2	Sn 189.927†	7476.4	7508.3	[500]	µg/L	12:27:22
2	Ti 334.940†	501636.5	502623.2	[500]	µg/L	12:27:02
2	Tl 190.801†	3699.5	3829.3	[500]	µg/L	12:27:22
2	U 409.014†	7028.7	7320.1	[500]	µg/L	12:27:02
2	V 292.402†	96196.8	96210.2	[500]	µg/L	12:27:02
2	Zn 213.857†	84106.3	83916.1	[500]	µg/L	12:27:02
3	Sc RADIAL	142900.4	142900.4	99.1	%	12:26:34
3	Al 396.153Radial†	25012.4	25299.6	[5000]	µg/L	12:26:34
3	Ca 317.933Radial†	82231.2	82399.0	[5000]	µg/L	12:26:34
3	K 766.490 Radial†	14063.6	12627.9	[5000]	µg/L	12:26:34
3	Mg 279.077 IEC†	12429.2	12372.5	[5000]	µg/L	12:26:34
3	Sr 421.552†	221436.1	223579.0	[500]	µg/L	12:26:32
3	Sc 361.383	1744176.6	1744176.6	99.278	%	12:27:25
3	Y 371.029	1027878.3	1027878.3	98.138	%	12:27:25
3	Ag 328.068†	129044.5	126168.4	[500]	µg/L	12:27:25
3	As 188.979†	1520.0	1552.7	[500]	µg/L	12:27:45
3	B 249.677†	35108.5	31904.5	[500]	µg/L	12:27:25
3	Ba 233.527†	115710.4	116704.8	[500]	µg/L	12:27:25
3	Be 313.107†	1725867.5	1739397.4	[500]	µg/L	12:27:25
3	Cd 226.502†	75043.8	75695.4	[500]	µg/L	12:27:25
3	Co 228.616†	38121.3	38588.1	[500]	µg/L	12:27:25
3	Cr 267.716†	59696.1	59953.7	[500]	µg/L	12:27:25
3	Cu 324.752†	123430.2	121469.1	[500]	µg/L	12:27:25
3	Mn 257.610†	381615.4	384180.5	[500]	µg/L	12:27:25
3	Mo 202.031†	15924.8	16083.4	[500]	µg/L	12:27:45
3	Ni 231.604†	40783.9	41160.8	[500]	µg/L	12:27:25
3	P 214.914†	11006.3	11086.0	[2500]	µg/L	12:27:45
3	Pb 220.353†	8600.1	8595.0	[500]	µg/L	12:27:45
3	S 181.975 Axial†	1356.0	1260.7	[1000]	µg/L	12:27:45
3	Sb 206.836†	4024.2	3974.5	[500]	µg/L	12:27:45
3	Se 196.026†	1309.6	1304.3	[500]	µg/L	12:27:45
3	SiO2†	52300.1	50929.7	[5347.5]	µg/L	12:27:25
3	Si 251.611†	158429.7	158794.5	[2500]	µg/L	12:27:25
3	Sn 189.927†	7503.9	7561.7	[500]	µg/L	12:27:45
3	Ti 334.940†	501685.9	504398.1	[500]	µg/L	12:27:25
3	Tl 190.801†	3704.5	3847.0	[500]	µg/L	12:27:45
3	U 409.014†	7233.3	7550.3	[500]	µg/L	12:27:25
3	V 292.402†	96163.7	96507.8	[500]	µg/L	12:27:25
3	Zn 213.857†	84119.2	84218.4	[500]	µg/L	12:27:25

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1746584.6	3151.85	0.18%	99.415	%
Sc RADIAL	143240.1	875.18	0.61%	99.4	%
Y 371.029	1029549.8	2009.44	0.20%	98.298	%
Ag 328.068†	125812.4	309.10	0.25%	[500]	µg/L
Al 396.153Radial†	25411.4	101.22	0.40%	[5000]	µg/L
As 188.979†	1541.7	9.87	0.64%	[500]	µg/L
B 249.677†	31753.6	186.41	0.59%	[500]	µg/L
Ba 233.527†	116293.3	387.45	0.33%	[500]	µg/L
Be 313.107†	1734317.1	4825.49	0.28%	[500]	µg/L
Ca 317.933Radial†	82378.2	75.21	0.09%	[5000]	µg/L
Cd 226.502†	75343.1	368.18	0.49%	[500]	µg/L
Co 228.616†	38436.3	157.39	0.41%	[500]	µg/L
Cr 267.716†	59767.4	161.41	0.27%	[500]	µg/L
Cu 324.752†	121153.1	301.39	0.25%	[500]	µg/L
K 766.490 Radial†	12700.1	79.49	0.63%	[5000]	µg/L
Mg 279.077 IEC†	12367.2	51.99	0.42%	[5000]	µg/L
Mn 257.610†	383062.7	996.32	0.26%	[500]	µg/L
Mo 202.031†	16031.2	57.36	0.36%	[500]	µg/L
Ni 231.604†	40966.4	229.27	0.56%	[500]	µg/L
P 214.914†	11051.5	37.09	0.34%	[2500]	µg/L
Pb 220.353†	8523.1	63.17	0.74%	[500]	µg/L
S 181.975 Axial†	1248.7	12.00	0.96%	[1000]	µg/L
Sb 206.836†	3955.3	17.86	0.45%	[500]	µg/L
Se 196.026†	1302.9	15.37	1.18%	[500]	µg/L
SiO2†	50785.0	130.64	0.26%	[5347.5]	µg/L
Si 251.611†	158331.2	458.19	0.29%	[2500]	µg/L

Sn 189.927†	7525.8	31.16	0.41%	[500] µg/L
Sr 421.552†	223633.5	1388.13	0.62%	[500] µg/L
Ti 334.940†	503126.2	1109.55	0.22%	[500] µg/L
Tl 190.801†	3841.4	10.51	0.27%	[500] µg/L
U 409.014†	7481.1	139.90	1.87%	[500] µg/L
V 292.402†	96192.3	324.86	0.34%	[500] µg/L
Zn 213.857†	83903.4	321.60	0.38%	[500] µg/L

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: SCAL **Date Collected: 4/1/2010 12:27:54**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	142444.3	142444.3	98.8	%	12:28:25
1	Al 396.153Radial†	50703.1	51378.4	[10000]	µg/L	12:28:25
1	Ca 317.933Radial†	165427.3	166855.6	[10000]	µg/L	12:28:25
1	Fe 238.204 Radial†	148206.1	149843.3	[10000]	µg/L	12:28:25
1	K 766.490 Radial†	27179.9	25946.6	[10000]	µg/L	12:28:25
1	Mg 279.077 IEC†	24950.4	25083.6	[10000]	µg/L	12:28:25
1	Na 589.592 Radial†	68866.4	68432.4	[10000]	µg/L	12:28:25
1	Sr 421.552†	449395.5	454980.0	[1000]	µg/L	12:28:23
1	Sc 361.383	1748898.5	1748898.5	99.547	%	12:28:38
1	Y 371.029	1024666.1	1024666.1	97.831	%	12:28:38
1	Ag 328.068†	259756.9	257125.1	[1000]	µg/L	12:28:40
1	As 188.979†	3068.9	3104.5	[1000]	µg/L	12:29:00
1	B 249.677†	68465.9	65318.3	[1000]	µg/L	12:28:40
1	Ba 233.527†	235678.8	236904.8	[1000]	µg/L	12:28:40
1	Be 313.107†	3510118.9	3527080.7	[1000]	µg/L	12:28:38
1	Cd 226.502†	152444.7	153244.8	[1000]	µg/L	12:28:40
1	Co 228.616†	77145.9	77686.7	[1000]	µg/L	12:28:40
1	Cr 267.716†	121452.8	121829.3	[1000]	µg/L	12:28:40
1	Cu 324.752†	249771.5	248050.1	[1000]	µg/L	12:28:40
1	Mn 257.610†	771240.6	774542.2	[1000]	µg/L	12:28:38
1	Mo 202.031†	32076.0	32264.8	[1000]	µg/L	12:28:40
1	Ni 231.604†	82906.4	83364.2	[1000]	µg/L	12:28:40
1	P 214.914†	22064.3	22164.4	[5000]	µg/L	12:29:00
1	Pb 220.353†	16888.4	16897.6	[1000]	µg/L	12:29:00
1	S 181.975 Axial†	2618.1	2524.8	[2000]	µg/L	12:29:00
1	Sb 206.836†	7941.6	7898.7	[1000]	µg/L	12:29:00
1	Se 196.026†	2616.3	2613.4	[1000]	µg/L	12:29:00
1	SiO2†	103902.5	102624.9	[10695]	µg/L	12:28:40
1	Si 251.611†	318748.5	319412.6	[5000]	µg/L	12:28:40
1	Sn 189.927†	14922.2	14993.4	[1000]	µg/L	12:29:00
1	Ti 334.940†	1011499.5	1015169.1	[1000]	µg/L	12:28:38
1	Tl 190.801†	7558.3	7708.3	[1000]	µg/L	12:29:00
1	U 409.014†	16480.6	16820.1	[1000]	µg/L	12:28:40
1	V 292.402†	196774.9	197315.5	[1000]	µg/L	12:28:40
1	Zn 213.857†	170366.0	170629.2	[1000]	µg/L	12:28:40
2	Sc RADIAL	142568.9	142568.9	98.9	%	12:28:29
2	Al 396.153Radial†	50845.1	51477.1	[10000]	µg/L	12:28:29
2	Ca 317.933Radial†	166375.6	167668.0	[10000]	µg/L	12:28:29
2	Fe 238.204 Radial†	149045.6	150561.0	[10000]	µg/L	12:28:29
2	K 766.490 Radial†	27407.7	26152.8	[10000]	µg/L	12:28:29
2	Mg 279.077 IEC†	24973.0	25084.4	[10000]	µg/L	12:28:29
2	Na 589.592 Radial†	68897.0	68402.4	[10000]	µg/L	12:28:29
2	Sr 421.552†	446056.6	451206.5	[1000]	µg/L	12:28:27
2	Sc 361.383	1732344.0	1732344.0	98.604	%	12:29:03
2	Y 371.029	1014632.7	1014632.7	96.873	%	12:29:03
2	Ag 328.068†	255642.8	255446.3	[1000]	µg/L	12:29:05
2	As 188.979†	3056.6	3121.5	[1000]	µg/L	12:29:25
2	B 249.677†	67462.1	64957.5	[1000]	µg/L	12:29:05
2	Ba 233.527†	231987.3	235423.5	[1000]	µg/L	12:29:05
2	Be 313.107†	3472489.4	3522614.4	[1000]	µg/L	12:29:03
2	Cd 226.502†	149629.9	151853.6	[1000]	µg/L	12:29:05
2	Co 228.616†	75875.2	77138.6	[1000]	µg/L	12:29:05
2	Cr 267.716†	119652.8	121169.7	[1000]	µg/L	12:29:05
2	Cu 324.752†	246045.6	246669.1	[1000]	µg/L	12:29:05
2	Mn 257.610†	764203.2	774808.8	[1000]	µg/L	12:29:03
2	Mo 202.031†	31555.8	32045.2	[1000]	µg/L	12:29:05
2	Ni 231.604†	81421.9	82654.6	[1000]	µg/L	12:29:05
2	P 214.914†	22092.7	22404.9	[5000]	µg/L	12:29:25
2	Pb 220.353†	16969.1	17141.6	[1000]	µg/L	12:29:25

2	S 181.975 Axial†	2604.5	2536.2	[2000]	µg/L	12:29:25
2	Sb 206.836†	7995.0	8029.1	[1000]	µg/L	12:29:25
2	Se 196.026†	2611.0	2633.2	[1000]	µg/L	12:29:25
2	SiO2†	102371.3	102069.4	[10695]	µg/L	12:29:05
2	Si 251.611†	314050.2	317707.6	[5000]	µg/L	12:29:05
2	Sn 189.927†	14955.7	15170.6	[1000]	µg/L	12:29:25
2	Ti 334.940†	1003206.5	1016468.7	[1000]	µg/L	12:29:03
2	Tl 190.801†	7529.8	7752.0	[1000]	µg/L	12:29:25
2	U 409.014†	16474.6	16972.3	[1000]	µg/L	12:29:05
2	V 292.402†	193809.7	196197.4	[1000]	µg/L	12:29:05
2	Zn 213.857†	167939.1	169803.4	[1000]	µg/L	12:29:05
3	Sc RADIAL	143600.6	143600.6	99.6	%	12:28:34
3	Al 396.153Radial†	50936.8	51199.8	[10000]	µg/L	12:28:34
3	Ca 317.933Radial†	166789.5	166875.1	[10000]	µg/L	12:28:34
3	Fe 238.204 Radial†	149556.6	149991.3	[10000]	µg/L	12:28:34
3	K 766.490 Radial†	27560.3	26106.9	[10000]	µg/L	12:28:34
3	Mg 279.077 IEC†	25229.0	25160.0	[10000]	µg/L	12:28:34
3	Na 589.592 Radial†	69401.2	68408.1	[10000]	µg/L	12:28:34
3	Sr 421.552†	444390.9	446294.5	[1000]	µg/L	12:28:32
3	Sc 361.383	1727667.9	1727667.9	98.338	%	12:29:28
3	Y 371.029	1012530.8	1012530.8	96.673	%	12:29:28
3	Ag 328.068†	257372.1	257906.5	[1000]	µg/L	12:29:30
3	As 188.979†	3073.6	3147.3	[1000]	µg/L	12:29:50
3	B 249.677†	67807.6	65494.1	[1000]	µg/L	12:29:30
3	Ba 233.527†	232828.6	236915.8	[1000]	µg/L	12:29:30
3	Be 313.107†	3458030.7	3517443.0	[1000]	µg/L	12:29:28
3	Cd 226.502†	150541.8	153191.6	[1000]	µg/L	12:29:30
3	Co 228.616†	76327.1	77806.4	[1000]	µg/L	12:29:30
3	Cr 267.716†	120361.7	122219.0	[1000]	µg/L	12:29:30
3	Cu 324.752†	246929.7	248243.5	[1000]	µg/L	12:29:30
3	Mn 257.610†	761320.6	773975.2	[1000]	µg/L	12:29:28
3	Mo 202.031†	31723.6	32302.4	[1000]	µg/L	12:29:30
3	Ni 231.604†	81683.4	83144.0	[1000]	µg/L	12:29:30
3	P 214.914†	22089.6	22462.5	[5000]	µg/L	12:29:50
3	Pb 220.353†	16966.5	17185.6	[1000]	µg/L	12:29:50
3	S 181.975 Axial†	2607.0	2545.8	[2000]	µg/L	12:29:50
3	Sb 206.836†	7947.3	8002.5	[1000]	µg/L	12:29:50
3	Se 196.026†	2611.5	2640.8	[1000]	µg/L	12:29:50
3	SiO2†	102959.9	102949.0	[10695]	µg/L	12:29:30
3	Si 251.611†	315423.1	319965.7	[5000]	µg/L	12:29:30
3	Sn 189.927†	14926.0	15181.5	[1000]	µg/L	12:29:50
3	Ti 334.940†	999103.7	1015050.2	[1000]	µg/L	12:29:28
3	Tl 190.801†	7510.9	7753.4	[1000]	µg/L	12:29:50
3	U 409.014†	16551.4	17095.6	[1000]	µg/L	12:29:30
3	V 292.402†	195214.1	198157.5	[1000]	µg/L	12:29:30
3	Zn 213.857†	168488.0	170822.5	[1000]	µg/L	12:29:30

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Calib Units
Sc 361.383	1736303.5	11155.36	0.64%	98.830	%
Sc RADIAL	142871.3	634.67	0.44%	99.1	%
Y 371.029	1017276.6	6485.29	0.64%	97.126	%
Ag 328.068†	256825.9	1257.09	0.49%	[1000]	µg/L
Al 396.153Radial†	51351.8	140.58	0.27%	[10000]	µg/L
As 188.979†	3124.5	21.51	0.69%	[1000]	µg/L
B 249.677†	65256.7	273.56	0.42%	[1000]	µg/L
Ba 233.527†	236414.7	858.43	0.36%	[1000]	µg/L
Be 313.107†	3522379.3	4823.12	0.14%	[1000]	µg/L
Ca 317.933Radial†	167132.9	463.52	0.28%	[10000]	µg/L
Cd 226.502†	152763.3	788.30	0.52%	[1000]	µg/L
Co 228.616†	77543.9	356.08	0.46%	[1000]	µg/L
Cr 267.716†	121739.4	530.41	0.44%	[1000]	µg/L
Cu 324.752†	247654.2	858.58	0.35%	[1000]	µg/L
Fe 238.204 Radial†	150131.9	378.92	0.25%	[10000]	µg/L
K 766.490 Radial†	26068.8	108.29	0.42%	[10000]	µg/L
Mg 279.077 IEC†	25109.3	43.87	0.17%	[10000]	µg/L
Mn 257.610†	774442.0	425.74	0.05%	[1000]	µg/L
Mo 202.031†	32204.1	138.94	0.43%	[1000]	µg/L
Na 589.592 Radial†	68414.3	15.93	0.02%	[10000]	µg/L

Ni 231.604†	83054.3	363.23	0.44%	[1000]	µg/L
P 214.914†	22343.9	158.13	0.71%	[5000]	µg/L
Pb 220.353†	17074.9	155.11	0.91%	[1000]	µg/L
S 181.975 Axial†	2535.6	10.53	0.42%	[2000]	µg/L
Sb 206.836†	7976.8	68.91	0.86%	[1000]	µg/L
Se 196.026†	2629.1	14.17	0.54%	[1000]	µg/L
SiO2†	102547.8	444.81	0.43%	[10695]	µg/L
Si 251.611†	319028.6	1177.01	0.37%	[5000]	µg/L
Sn 189.927†	15115.2	105.57	0.70%	[1000]	µg/L
Sr 421.552†	450827.0	4355.21	0.97%	[1000]	µg/L
Ti 334.940†	1015562.6	786.89	0.08%	[1000]	µg/L
Tl 190.801†	7737.9	25.65	0.33%	[1000]	µg/L
U 409.014†	16962.7	137.99	0.81%	[1000]	µg/L
V 292.402†	197223.5	983.28	0.50%	[1000]	µg/L
Zn 213.857†	170418.4	541.29	0.32%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 4/1/2010 12:29:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	140509.8	140509.8	97.5	%	12:30:27
1	Al 396.153Radial†	243816.4	250198.2	[50000]	µg/L	12:30:27
1	Ca 317.933Radial†	792884.0	812863.2	[50000]	µg/L	12:30:27
1	Fe 238.204 Radial†	287973.4	295294.3	[20000]	µg/L	12:30:27
1	Mg 279.077 IEC†	117433.4	120308.8	[50000]	µg/L	12:30:27
1	Na 589.592 Radial†	133630.1	135832.4	[20000]	µg/L	12:30:27
1	Sc 361.383	1710127.0	1710127.0	97.340	%	12:30:49
1	Y 371.029	1003012.5	1003012.5	95.764	%	12:30:49
2	Sc RADIAL	140400.6	140400.6	97.4	%	12:30:29
2	Al 396.153Radial†	244407.2	250999.3	[50000]	µg/L	12:30:29
2	Ca 317.933Radial†	793572.4	814202.7	[50000]	µg/L	12:30:29
2	Fe 238.204 Radial†	287833.3	295380.3	[20000]	µg/L	12:30:29
2	Mg 279.077 IEC†	117688.8	120664.7	[50000]	µg/L	12:30:29
2	Na 589.592 Radial†	133425.3	135728.8	[20000]	µg/L	12:30:29
2	Sc 361.383	1702308.7	1702308.7	96.895	%	12:30:52
2	Y 371.029	999099.0	999099.0	95.390	%	12:30:52
3	Sc RADIAL	140312.0	140312.0	97.3	%	12:30:31
3	Al 396.153Radial†	244157.0	250900.6	[50000]	µg/L	12:30:31
3	Ca 317.933Radial†	792654.1	813773.5	[50000]	µg/L	12:30:31
3	Fe 238.204 Radial†	287692.2	295421.8	[20000]	µg/L	12:30:31
3	Mg 279.077 IEC†	117598.4	120648.1	[50000]	µg/L	12:30:31
3	Na 589.592 Radial†	133342.1	135729.7	[20000]	µg/L	12:30:31
3	Sc 361.383	1691181.6	1691181.6	96.261	%	12:30:55
3	Y 371.029	991516.6	991516.6	94.666	%	12:30:55

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1701205.8	9520.70	0.56%	96.832	%
Sc RADIAL	140407.5	99.06	0.07%	97.4	%
Y 371.029	997876.0	5844.71	0.59%	95.273	%
Al 396.153Radial†	250699.4	436.86	0.17%	[50000]	µg/L
Ca 317.933Radial†	813613.1	683.98	0.08%	[50000]	µg/L
Fe 238.204 Radial†	295365.5	65.03	0.02%	[20000]	µg/L
Mg 279.077 IEC†	120540.5	200.88	0.17%	[50000]	µg/L
Na 589.592 Radial†	135763.7	59.56	0.04%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	255.8	0.00000	0.999965	
Al 396.153Radial	3	Lin Thru 0	0.0	5.019	0.00000	0.999989	
As 188.979	3	Lin Thru 0	0.0	3.117	0.00000	0.999986	
B 249.677	3	Lin Thru 0	0.0	64.90	0.00000	0.999941	
Ba 233.527	3	Lin Thru 0	0.0	235.7	0.00000	0.999977	
Be 313.107	3	Lin Thru 0	0.0	3511	0.00000	0.999981	
Ca 317.933Radial	3	Lin Thru 0	0.0	16.29	0.00000	0.999986	
Cd 226.502	3	Lin Thru 0	0.0	152.4	0.00000	0.999984	
Co 228.616	3	Lin Thru 0	0.0	77.42	0.00000	0.999992	
Cr 267.716	3	Lin Thru 0	0.0	121.3	0.00000	0.999973	
Cu 324.752	3	Lin Thru 0	0.0	246.6	0.00000	0.999962	
Fe 238.204 Radia	2	Lin Thru 0	0.0	14.82	0.00000	0.999978	
K 766.490 Radial	3	Lin Thru 0	0.0	2.594	0.00000	0.999945	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.415	0.00000	0.999966	
Mn 257.610	3	Lin Thru 0	0.0	773.0	0.00000	0.999984	
Mo 202.031	3	Lin Thru 0	0.0	32.18	0.00000	0.999998	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.799	0.00000	0.999995	

Ni 231.604	3	Lin Thru 0	0.0	82.85	0.00000	0.999980
P 214.914	3	Lin Thru 0	0.0	4.459	0.00000	0.999990
Pb 220.353	3	Lin Thru 0	0.0	17.08	0.00000	0.999992
S 181.975 Axial	3	Lin Thru 0	0.0	1.264	0.00000	0.999981
Sb 206.836	3	Lin Thru 0	0.0	7.963	0.00000	0.999994
Se 196.026	3	Lin Thru 0	0.0	2.625	0.00000	0.999993
SiO2	3	Lin Thru 0	0.0	9.570	0.00000	0.999993
Si 251.611	3	Lin Thru 0	0.0	63.71	0.00000	0.999996
Sn 189.927	3	Lin Thru 0	0.0	15.10	0.00000	0.999998
Sr 421.552	3	Lin Thru 0	0.0	450.2	0.00000	0.999992
Ti 334.940	3	Lin Thru 0	0.0	1014	0.00000	0.999993
Tl 190.801	3	Lin Thru 0	0.0	7.729	0.00000	0.999993
U 409.014	3	Lin Thru 0	0.0	16.58	0.00000	0.998798
V 292.402	3	Lin Thru 0	0.0	196.3	0.00000	0.999952
Zn 213.857	3	Lin Thru 0	0.0	169.9	0.00000	0.999979

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 4/1/2010 12:31:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145353.8	145353.8	101	%			12:31:34
1	Al 396.153Radial†	26761.0	26607.8	5276.1	µg/L	5276.1	ppb	12:31:34
1	Ca 317.933Radial†	85928.6	84665.5	5197.1	µg/L	5197.1	ppb	12:31:34
1	Fe 238.204 Radial†	77754.4	76974.0	5194.9	µg/L	5194.9	ppb	12:31:34
1	K 766.490 Radial†	8314.3	6686.9	2574.8	µg/L	2574.8	ppb	12:31:34
1	Mg 279.077 IEC†	13565.4	13287.7	5510.4	µg/L	5510.4	ppb	12:31:34
1	Na 589.592 Radial†	18944.4	17529.6	2576.0	µg/L	2576.0	ppb	12:31:34
1	Sr 421.552†	241832.6	240036.0	533.11	µg/L	533.11	ppb	12:31:32
1	Sc 361.383	1761331.7	1761331.7	100.25	%			12:32:01
1	Y 371.029	1039757.7	1039757.7	99.272	%			12:32:01
1	Ag 328.068†	70337.8	66344.6	265.74	µg/L	265.74	ppb	12:32:01
1	As 188.979†	1433.3	1451.3	473.04	µg/L	473.04	ppb	12:32:03
1	B 249.677†	37660.0	34105.1	523.73	µg/L	523.73	ppb	12:32:01
1	Ba 233.527†	121612.3	121456.5	515.75	µg/L	515.75	ppb	12:32:01
1	Be 313.107†	926526.6	925152.7	263.61	µg/L	263.61	ppb	12:32:01
1	Cd 226.502†	77507.9	77417.1	507.79	µg/L	507.79	ppb	12:32:01
1	Co 228.616†	39454.4	39543.8	511.07	µg/L	511.07	ppb	12:32:03
1	Cr 267.716†	59826.4	59498.1	490.31	µg/L	490.31	ppb	12:32:03
1	Cu 324.752†	130175.8	126986.6	516.53	µg/L	516.53	ppb	12:32:01
1	Mn 257.610†	404447.1	403210.4	521.36	µg/L	521.36	ppb	12:32:01
1	Mo 202.031†	17367.2	17365.9	540.18	µg/L	540.18	ppb	12:32:03
1	Ni 231.604†	41686.6	41661.1	502.83	µg/L	502.83	ppb	12:32:03
1	P 214.914†	11306.0	11276.9	2520.2	µg/L	2520.2	ppb	12:32:03
1	Pb 220.353†	8768.4	8678.5	510.03	µg/L	510.03	ppb	12:32:03
1	S 181.975 Axial†	3217.8	3104.4	2460.9	µg/L	2460.9	ppb	12:32:03
1	Sb 206.836†	4056.9	3967.6	500.16	µg/L	500.16	ppb	12:32:03
1	Se 196.026†	6606.5	6574.9	2510	µg/L	2510	ppb	12:32:03
1	SiO2†	103445.3	101432.1	10576	µg/L	10576	ppb	12:32:01
1	Si 251.611†	316696.2	315105.2	4935.1	µg/L	4935.1	ppb	12:32:01
1	Sn 189.927†	8031.5	8014.4	532.31	µg/L	532.31	ppb	12:32:03
1	Ti 334.940†	511727.2	509492.1	501.93	µg/L	501.93	ppb	12:32:01
1	Tl 190.801†	4018.8	4124.2	541.23	µg/L	541.23	ppb	12:32:03
1	U 409.014†	7435.8	7681.4	494.65	µg/L	494.65	ppb	12:32:01
1	V 292.402†	100946.7	100335.2	518.24	µg/L	518.24	ppb	12:32:01
1	Zn 213.857†	89325.0	88585.7	517.28	µg/L	517.28	ppb	12:32:01
2	Sc RADIAL	145315.9	145315.9	101	%			12:31:38
2	Al 396.153Radial†	26806.3	26659.7	5286.2	µg/L	5286.2	ppb	12:31:38
2	Ca 317.933Radial†	85997.4	84756.0	5202.6	µg/L	5202.6	ppb	12:31:38
2	Fe 238.204 Radial†	77856.4	77095.3	5203.1	µg/L	5203.1	ppb	12:31:38
2	K 766.490 Radial†	8202.5	6578.1	2532.8	µg/L	2532.8	ppb	12:31:38
2	Mg 279.077 IEC†	13542.2	13268.2	5502.4	µg/L	5502.4	ppb	12:31:38
2	Na 589.592 Radial†	19115.7	17704.4	2601.8	µg/L	2601.8	ppb	12:31:38
2	Sr 421.552†	243068.8	241324.9	535.98	µg/L	535.98	ppb	12:31:36
2	Sc 361.383	1753735.5	1753735.5	99.822	%			12:32:06
2	Y 371.029	1035981.8	1035981.8	98.912	%			12:32:06
2	Ag 328.068†	69999.6	66309.6	265.56	µg/L	265.56	ppb	12:32:06
2	As 188.979†	1494.0	1518.3	494.64	µg/L	494.64	ppb	12:32:08
2	B 249.677†	37586.0	34193.7	525.07	µg/L	525.07	ppb	12:32:06
2	Ba 233.527†	120806.8	121175.0	514.55	µg/L	514.55	ppb	12:32:06
2	Be 313.107†	920568.8	923187.3	263.05	µg/L	263.05	ppb	12:32:06
2	Cd 226.502†	76851.5	77094.4	505.68	µg/L	505.68	ppb	12:32:06
2	Co 228.616†	39940.6	40201.4	519.56	µg/L	519.56	ppb	12:32:08
2	Cr 267.716†	60611.0	60542.6	498.93	µg/L	498.93	ppb	12:32:08
2	Cu 324.752†	129294.5	126666.2	515.22	µg/L	515.22	ppb	12:32:06
2	Mn 257.610†	401828.3	402334.3	520.23	µg/L	520.23	ppb	12:32:06
2	Mo 202.031†	17447.6	17521.5	545.01	µg/L	545.01	ppb	12:32:08
2	Ni 231.604†	42166.4	42321.8	510.80	µg/L	510.80	ppb	12:32:08
2	P 214.914†	11361.0	11380.8	2543.6	µg/L	2543.6	ppb	12:32:08
2	Pb 220.353†	8905.6	8853.9	520.33	µg/L	520.33	ppb	12:32:08

2	S 181.975 Axial†	3259.6	3160.2	2505.0 µg/L	2505.0 ppb	12:32:08
2	Sb 206.836†	4132.7	4061.1	511.86 µg/L	511.86 ppb	12:32:08
2	Se 196.026†	6788.5	6785.8	2590 µg/L	2590 ppb	12:32:08
2	SiO2†	102553.5	100985.6	10529 µg/L	10529 ppb	12:32:06
2	Si 251.611†	314621.2	314394.7	4923.8 µg/L	4923.8 ppb	12:32:06
2	Sn 189.927†	8195.0	8212.8	545.45 µg/L	545.45 ppb	12:32:08
2	Ti 334.940†	509285.7	509257.1	501.70 µg/L	501.70 ppb	12:32:06
2	Tl 190.801†	4055.8	4178.7	548.21 µg/L	548.21 ppb	12:32:08
2	U 409.014†	7202.1	7479.5	482.33 µg/L	482.33 ppb	12:32:06
2	V 292.402†	100099.6	99922.7	516.22 µg/L	516.22 ppb	12:32:06
2	Zn 213.857†	88334.9	87979.8	513.66 µg/L	513.66 ppb	12:32:06
3	Sc RADIAL	144629.8	144629.8	100 %		12:31:42
3	Al 396.153Radial†	26708.1	26688.0	5291.9 µg/L	5291.9 ppb	12:31:42
3	Ca 317.933Radial†	85390.9	84556.2	5190.4 µg/L	5190.4 ppb	12:31:42
3	Fe 238.204 Radial†	77394.1	77000.9	5196.7 µg/L	5196.7 ppb	12:31:42
3	K 766.490 Radial†	8230.1	6644.2	2558.3 µg/L	2558.3 ppb	12:31:42
3	Mg 279.077 IEC†	13512.8	13302.6	5516.6 µg/L	5516.6 ppb	12:31:42
3	Na 589.592 Radial†	18980.0	17659.1	2595.1 µg/L	2595.1 ppb	12:31:42
3	Sr 421.552†	239846.1	239256.7	531.38 µg/L	531.38 ppb	12:31:40
3	Sc 361.383	1761880.9	1761880.9	100.29 %		12:32:11
3	Y 371.029	1040489.8	1040489.8	99.342 %		12:32:11
3	Ag 328.068†	71150.6	67133.2	268.78 µg/L	268.78 ppb	12:32:11
3	As 188.979†	1444.6	1462.2	476.60 µg/L	476.60 ppb	12:32:13
3	B 249.677†	37693.0	34126.3	524.04 µg/L	524.04 ppb	12:32:11
3	Ba 233.527†	121662.8	121469.1	515.80 µg/L	515.80 ppb	12:32:11
3	Be 313.107†	925541.8	923882.6	263.25 µg/L	263.25 ppb	12:32:11
3	Cd 226.502†	77146.8	77032.9	505.27 µg/L	505.27 ppb	12:32:11
3	Co 228.616†	39981.4	40057.0	517.70 µg/L	517.70 ppb	12:32:13
3	Cr 267.716†	60436.9	60088.2	495.18 µg/L	495.18 ppb	12:32:13
3	Cu 324.752†	130250.9	127021.0	516.67 µg/L	516.67 ppb	12:32:11
3	Mn 257.610†	404203.2	402841.4	520.88 µg/L	520.88 ppb	12:32:11
3	Mo 202.031†	17483.5	17476.4	543.61 µg/L	543.61 ppb	12:32:13
3	Ni 231.604†	42173.7	42133.8	508.53 µg/L	508.53 ppb	12:32:13
3	P 214.914†	11400.4	11367.5	2540.6 µg/L	2540.6 ppb	12:32:13
3	Pb 220.353†	8743.8	8651.3	508.45 µg/L	508.45 ppb	12:32:13
3	S 181.975 Axial†	3391.6	3276.7	2597.2 µg/L	2597.2 ppb	12:32:13
3	Sb 206.836†	4112.9	4022.2	507.01 µg/L	507.01 ppb	12:32:13
3	Se 196.026†	6744.6	6710.5	2560 µg/L	2560 ppb	12:32:13
3	SiO2†	103202.7	101158.0	10547 µg/L	10547 ppb	12:32:11
3	Si 251.611†	316421.8	314733.1	4929.2 µg/L	4929.2 ppb	12:32:11
3	Sn 189.927†	8175.0	8155.0	541.62 µg/L	541.62 ppb	12:32:13
3	Ti 334.940†	512788.1	510390.9	502.81 µg/L	502.81 ppb	12:32:11
3	Tl 190.801†	4024.5	4128.6	541.75 µg/L	541.75 ppb	12:32:13
3	U 409.014†	7365.7	7609.2	490.13 µg/L	490.13 ppb	12:32:11
3	V 292.402†	100445.4	99803.9	515.59 µg/L	515.59 ppb	12:32:11
3	Zn 213.857†	88963.6	88197.6	514.96 µg/L	514.96 ppb	12:32:11

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1758982.7	100.12	%	0.259				0.26%
Sc RADIAL	145099.9	101	%	0.3				0.28%
Y 371.029	1038743.1	99.175	%	0.2310				0.23%
Ag 328.068†	66595.8	266.69	µg/L	1.811	266.69	ppb	1.811	0.68%
QC value within limits for Ag 328.068 Recovery = 106.68%								
Al 396.153Radial†	26651.9	5284.7	µg/L	8.01	5284.7	ppb	8.01	0.15%
QC value within limits for Al 396.153Radial Recovery = 105.69%								
As 188.979†	1477.3	481.43	µg/L	11.578	481.43	ppb	11.578	2.40%
QC value within limits for As 188.979 Recovery = 96.29%								
B 249.677†	34141.7	524.28	µg/L	0.700	524.28	ppb	0.700	0.13%
QC value within limits for B 249.677 Recovery = 104.86%								
Ba 233.527†	121366.9	515.37	µg/L	0.705	515.37	ppb	0.705	0.14%
QC value within limits for Ba 233.527 Recovery = 103.07%								
Be 313.107†	924074.2	263.30	µg/L	0.286	263.30	ppb	0.286	0.11%
QC value within limits for Be 313.107 Recovery = 105.32%								
Ca 317.933Radial†	84659.3	5196.7	µg/L	6.14	5196.7	ppb	6.14	0.12%
QC value within limits for Ca 317.933Radial Recovery = 103.93%								
Cd 226.502†	77181.5	506.25	µg/L	1.353	506.25	ppb	1.353	0.27%
QC value within limits for Cd 226.502 Recovery = 101.25%								
Co 228.616†	39934.1	516.11	µg/L	4.463	516.11	ppb	4.463	0.86%

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   QC value within limits for Co 228.616  Recovery = 103.22%
Cr 267.716†            60043.0      494.81 µg/L         4.322      494.81 ppb          4.322   0.87%
   QC value within limits for Cr 267.716  Recovery = 98.96%
Cu 324.752†           126891.3      516.14 µg/L         0.796      516.14 ppb          0.796   0.15%
   QC value within limits for Cu 324.752  Recovery = 103.23%
Fe 238.204 Radial†     77023.4      5198.2 µg/L          4.30      5198.2 ppb           4.30   0.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.96%
K 766.490 Radial†       6636.4      2555.3 µg/L         21.14      2555.3 ppb          21.14   0.83%
   QC value within limits for K 766.490 Radial  Recovery = 102.21%
Mg 279.077 IEC†        13286.1      5509.8 µg/L          7.13      5509.8 ppb           7.13   0.13%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 110.20%
Mn 257.610†           402795.4      520.82 µg/L         0.569      520.82 ppb          0.569   0.11%
   QC value within limits for Mn 257.610  Recovery = 104.16%
Mo 202.031†            17454.6      542.93 µg/L         2.488      542.93 ppb          2.488   0.46%
   QC value within limits for Mo 202.031  Recovery = 108.59%
Na 589.592 Radial†     17631.0      2591.0 µg/L         13.36      2591.0 ppb          13.36   0.52%
   QC value within limits for Na 589.592 Radial  Recovery = 103.64%
Ni 231.604†            42038.9      507.39 µg/L         4.109      507.39 ppb          4.109   0.81%
   QC value within limits for Ni 231.604  Recovery = 101.48%
P 214.914†             11341.8      2534.8 µg/L         12.72      2534.8 ppb          12.72   0.50%
   QC value within limits for P 214.914  Recovery = 101.39%
Pb 220.353†             8727.9      512.94 µg/L         6.446      512.94 ppb          6.446   1.26%
   QC value within limits for Pb 220.353  Recovery = 102.59%
S 181.975 Axial†        3180.4      2521.0 µg/L         69.57      2521.0 ppb          69.57   2.76%
   QC value within limits for S 181.975 Axial  Recovery = 100.84%
Sb 206.836†             4016.9      506.34 µg/L         5.880      506.34 ppb          5.880   1.16%
   QC value within limits for Sb 206.836  Recovery = 101.27%
Se 196.026†             6690.4        2550 µg/L          40.7        2550 ppb           40.7   1.60%
   QC value within limits for Se 196.026  Recovery = 102.05%
SiO2†                 101191.9       10550 µg/L          23.7       10550 ppb           23.7   0.22%
   QC value within limits for SiO2  Recovery = 98.65%
Si 251.611†           314744.3      4929.4 µg/L          5.65      4929.4 ppb           5.65   0.11%
   QC value within limits for Si 251.611  Recovery = 98.59%
Sn 189.927†             8127.4      539.79 µg/L         6.758      539.79 ppb          6.758   1.25%
   QC value within limits for Sn 189.927  Recovery = 107.96%
Sr 421.552†           240205.9      533.49 µg/L         2.320      533.49 ppb          2.320   0.43%
   QC value within limits for Sr 421.552  Recovery = 106.70%
Ti 334.940†           509713.4      502.15 µg/L         0.589      502.15 ppb          0.589   0.12%
   QC value within limits for Ti 334.940  Recovery = 100.43%
Tl 190.801†             4143.8      543.73 µg/L         3.890      543.73 ppb          3.890   0.72%
   QC value within limits for Tl 190.801  Recovery = 108.75%
U 409.014†              7590.1      489.04 µg/L         6.235      489.04 ppb          6.235   1.27%
   QC value within limits for U 409.014  Recovery = 97.81%
V 292.402†            100020.6      516.68 µg/L         1.387      516.68 ppb          1.387   0.27%
   QC value within limits for V 292.402  Recovery = 103.34%
Zn 213.857†            88254.4      515.30 µg/L         1.834      515.30 ppb          1.834   0.36%
   QC value within limits for Zn 213.857  Recovery = 103.06%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 4/1/2010 12:32:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144082.3	144082.3	100.0	%			12:32:51
1	Al 396.153Radial†	-72.0	-3.1	-0.6701	µg/L	-0.6701	ppb	12:33:11
1	Ca 317.933Radial†	643.5	93.7	5.7497	µg/L	5.7497	ppb	12:33:11
1	Fe 238.204 Radial†	183.7	48.5	3.2722	µg/L	3.2722	ppb	12:33:11
1	K 766.490 Radial†	1668.9	111.3	42.890	µg/L	42.890	ppb	12:32:51
1	Mg 279.077 IEC†	200.6	35.5	14.733	µg/L	14.733	ppb	12:33:11
1	Na 589.592 Radial†	1326.9	69.8	10.232	µg/L	10.232	ppb	12:32:51
1	Sr 421.552†	-198.8	10.9	0.0242	µg/L	0.0242	ppb	12:32:51
1	Sc 361.383	1756677.5	1756677.5	99.989	%			12:33:59
1	Y 371.029	1046401.0	1046401.0	99.906	%			12:33:59
1	Ag 328.068†	3687.2	-127.2	-0.4771	µg/L	-0.4771	ppb	12:34:01
1	As 188.979†	-16.1	5.6	1.7904	µg/L	1.7904	ppb	12:34:21
1	B 249.677†	3643.8	184.8	2.8475	µg/L	2.8475	ppb	12:34:01
1	Ba 233.527†	-121.0	31.8	0.1352	µg/L	0.1352	ppb	12:34:21
1	Be 313.107†	-878.9	97.9	0.0318	µg/L	0.0318	ppb	12:34:01
1	Cd 226.502†	-86.1	19.7	0.1292	µg/L	0.1292	ppb	12:34:21
1	Co 228.616†	-187.1	2.4	0.0312	µg/L	0.0312	ppb	12:34:21
1	Cr 267.716†	215.4	38.9	0.3105	µg/L	0.3105	ppb	12:34:21
1	Cu 324.752†	2829.2	-29.5	-0.1079	µg/L	-0.1079	ppb	12:34:01
1	Mn 257.610†	274.2	63.7	0.0818	µg/L	0.0818	ppb	12:34:21
1	Mo 202.031†	-11.4	31.3	0.9731	µg/L	0.9731	ppb	12:34:21
1	Ni 231.604†	-31.9	48.4	0.5838	µg/L	0.5838	ppb	12:34:21
1	P 214.914†	12.6	12.2	2.7326	µg/L	2.7326	ppb	12:34:21
1	Pb 220.353†	111.5	43.9	2.5619	µg/L	2.5619	ppb	12:34:21
1	S 181.975 Axial†	105.9	0.8	0.6104	µg/L	0.6104	ppb	12:34:21
1	Sb 206.836†	89.8	10.8	1.3681	µg/L	1.3681	ppb	12:34:21
1	Se 196.026†	14.2	-0.6	-0.229	µg/L	-0.229	ppb	12:34:21
1	SiO2†	1759.4	8.7	0.8656	µg/L	0.8656	ppb	12:34:21
1	Si 251.611†	944.2	156.8	2.4391	µg/L	2.4391	ppb	12:34:01
1	Sn 189.927†	16.5	19.7	1.3054	µg/L	1.3054	ppb	12:34:21
1	Ti 334.940†	838.1	-98.6	-0.1037	µg/L	-0.1037	ppb	12:34:01
1	Tl 190.801†	-117.9	-2.3	-0.2908	µg/L	-0.2908	ppb	12:34:21
1	U 409.014†	-49.5	214.9	12.986	µg/L	12.986	ppb	12:34:01
1	V 292.402†	423.7	68.4	0.3682	µg/L	0.3682	ppb	12:34:01
1	Zn 213.857†	575.7	63.1	0.3673	µg/L	0.3673	ppb	12:34:21
2	Sc RADIAL	145881.7	145881.7	101	%			12:33:13
2	Al 396.153Radial†	-41.2	28.2	5.5971	µg/L	5.5971	ppb	12:33:33
2	Ca 317.933Radial†	573.0	16.1	0.9891	µg/L	0.9891	ppb	12:33:33
2	Fe 238.204 Radial†	165.9	28.6	1.9307	µg/L	1.9307	ppb	12:33:33
2	K 766.490 Radial†	1828.7	248.5	95.807	µg/L	95.807	ppb	12:33:13
2	Mg 279.077 IEC†	193.7	26.2	10.858	µg/L	10.858	ppb	12:33:33
2	Na 589.592 Radial†	1238.3	-34.0	-5.0876	µg/L	-5.0876	ppb	12:33:13
2	Sr 421.552†	-97.5	113.6	0.2522	µg/L	0.2522	ppb	12:33:13
2	Sc 361.383	1799094.0	1799094.0	102.40	%			12:34:24
2	Y 371.029	1071523.5	1071523.5	102.31	%			12:34:24
2	Ag 328.068†	4168.3	255.7	0.9923	µg/L	0.9923	ppb	12:34:26
2	As 188.979†	-13.4	8.6	2.7734	µg/L	2.7734	ppb	12:34:46
2	B 249.677†	3635.2	90.5	1.3937	µg/L	1.3937	ppb	12:34:26
2	Ba 233.527†	-157.9	-1.4	-0.0059	µg/L	-0.0059	ppb	12:34:46
2	Be 313.107†	-858.3	138.7	0.0378	µg/L	0.0378	ppb	12:34:26
2	Cd 226.502†	-114.4	-5.9	-0.0391	µg/L	-0.0391	ppb	12:34:46
2	Co 228.616†	-178.4	15.4	0.1982	µg/L	0.1982	ppb	12:34:46
2	Cr 267.716†	205.2	23.8	0.2004	µg/L	0.2004	ppb	12:34:46
2	Cu 324.752†	2966.7	38.1	0.1507	µg/L	0.1507	ppb	12:34:26
2	Mn 257.610†	232.2	16.1	0.0204	µg/L	0.0204	ppb	12:34:46
2	Mo 202.031†	-31.6	11.9	0.3686	µg/L	0.3686	ppb	12:34:46
2	Ni 231.604†	-103.0	-20.3	-0.2456	µg/L	-0.2456	ppb	12:34:46
2	P 214.914†	-6.8	-7.0	-1.5808	µg/L	-1.5808	ppb	12:34:46
2	Pb 220.353†	114.2	43.8	2.5727	µg/L	2.5727	ppb	12:34:46

2	S 181.975 Axial†	115.0	7.2	5.6661 µg/L	5.6661 ppb	12:34:46
2	Sb 206.836†	77.5	-3.4	-0.4202 µg/L	-0.4202 ppb	12:34:46
2	Se 196.026†	22.1	6.8	2.59 µg/L	2.59 ppb	12:34:46
2	SiO2†	1771.1	-21.3	-2.2309 µg/L	-2.2309 ppb	12:34:46
2	Si 251.611†	799.8	-6.5	-0.1052 µg/L	-0.1052 ppb	12:34:26
2	Sn 189.927†	-7.1	-3.7	-0.2440 µg/L	-0.2440 ppb	12:34:46
2	Ti 334.940†	971.1	11.5	0.0127 µg/L	0.0127 ppb	12:34:26
2	Tl 190.801†	-111.8	6.4	0.8310 µg/L	0.8310 ppb	12:34:46
2	U 409.014†	-366.4	-93.3	-5.6309 µg/L	-5.6309 ppb	12:34:26
2	V 292.402†	361.6	-2.3	-0.0109 µg/L	-0.0109 ppb	12:34:26
2	Zn 213.857†	553.9	28.3	0.1676 µg/L	0.1676 ppb	12:34:46
3	Sc RADIAL	145933.5	145933.5	101 %		12:33:36
3	Al 396.153Radial†	-58.5	11.1	2.1931 µg/L	2.1931 ppb	12:33:56
3	Ca 317.933Radial†	581.9	24.7	1.5142 µg/L	1.5142 ppb	12:33:56
3	Fe 238.204 Radial†	157.6	20.3	1.3729 µg/L	1.3729 ppb	12:33:56
3	K 766.490 Radial†	1581.8	4.0	1.5323 µg/L	1.5323 ppb	12:33:36
3	Mg 279.077 IEC†	184.4	16.9	7.0205 µg/L	7.0205 ppb	12:33:56
3	Na 589.592 Radial†	1374.3	99.9	14.687 µg/L	14.687 ppb	12:33:36
3	Sr 421.552†	-99.4	111.7	0.2481 µg/L	0.2481 ppb	12:33:36
3	Sc 361.383	1769697.6	1769697.6	100.73 %		12:34:48
3	Y 371.029	1053920.5	1053920.5	100.62 %		12:34:48
3	Ag 328.068†	3981.3	137.7	0.5441 µg/L	0.5441 ppb	12:34:50
3	As 188.979†	-6.3	15.4	4.9399 µg/L	4.9399 ppb	12:35:10
3	B 249.677†	3435.2	-49.1	-0.7566 µg/L	-0.7566 ppb	12:34:50
3	Ba 233.527†	-138.6	15.2	0.0647 µg/L	0.0647 ppb	12:35:10
3	Be 313.107†	-936.6	47.0	0.0142 µg/L	0.0142 ppb	12:34:50
3	Cd 226.502†	-117.4	-10.7	-0.0705 µg/L	-0.0705 ppb	12:35:10
3	Co 228.616†	-195.0	-4.0	-0.0522 µg/L	-0.0522 ppb	12:35:10
3	Cr 267.716†	181.3	3.4	0.0261 µg/L	0.0261 ppb	12:35:10
3	Cu 324.752†	2938.4	58.2	0.2386 µg/L	0.2386 ppb	12:34:50
3	Mn 257.610†	242.5	30.2	0.0388 µg/L	0.0388 ppb	12:35:10
3	Mo 202.031†	-24.7	18.2	0.5654 µg/L	0.5654 ppb	12:35:10
3	Ni 231.604†	-93.3	-12.4	-0.1491 µg/L	-0.1491 ppb	12:35:10
3	P 214.914†	-15.3	-15.6	-3.4895 µg/L	-3.4895 ppb	12:35:10
3	Pb 220.353†	112.1	43.7	2.5588 µg/L	2.5588 ppb	12:35:10
3	S 181.975 Axial†	98.7	-7.2	-5.7097 µg/L	-5.7097 ppb	12:35:10
3	Sb 206.836†	88.6	9.0	1.1400 µg/L	1.1400 ppb	12:35:10
3	Se 196.026†	16.6	1.7	0.633 µg/L	0.633 ppb	12:35:10
3	SiO2†	1745.4	-18.0	-1.9251 µg/L	-1.9251 ppb	12:35:10
3	Si 251.611†	872.1	78.3	1.2103 µg/L	1.2103 ppb	12:34:50
3	Sn 189.927†	21.6	24.7	1.6355 µg/L	1.6355 ppb	12:35:10
3	Ti 334.940†	1002.4	58.3	0.0559 µg/L	0.0559 ppb	12:34:50
3	Tl 190.801†	-121.0	-4.5	-0.5754 µg/L	-0.5754 ppb	12:35:10
3	U 409.014†	-219.7	46.4	2.8101 µg/L	2.8101 ppb	12:34:50
3	V 292.402†	400.8	42.4	0.2239 µg/L	0.2239 ppb	12:34:50
3	Zn 213.857†	558.1	41.4	0.2442 µg/L	0.2442 ppb	12:35:10

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1775156.4	101.04	%	1.237				1.22%
Sc RADIAL	145299.2	101	%	0.7				0.73%
Y 371.029	1057281.7	100.95	%	1.231				1.22%
Ag 328.068†	88.7	0.3531	µg/L	0.75306	0.3531	ppb	0.75306	213.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.1	2.3734	µg/L	3.13750	2.3734	ppb	3.13750	132.20%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.9	3.1679	µg/L	1.61137	3.1679	ppb	1.61137	50.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	75.4	1.1615	µg/L	1.81324	1.1615	ppb	1.81324	156.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.2	0.0647	µg/L	0.07055	0.0647	ppb	0.07055	109.05%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	94.5	0.0279	µg/L	0.01224	0.0279	ppb	0.01224	43.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	44.8	2.7510	µg/L	2.61022	2.7510	ppb	2.61022	94.88%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	1.0	0.0065	µg/L	0.10736	0.0065	ppb	0.10736	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.6	0.0591	µg/L	0.12751	0.0591	ppb	0.12751	215.87%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                22.0      0.1790 µg/L       0.14340      0.1790 ppb        0.14340  80.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                22.3      0.0938 µg/L       0.18014      0.0938 ppb        0.18014 192.01%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         32.5      2.1919 µg/L       0.97621      2.1919 ppb        0.97621  44.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         121.3     46.743 µg/L       47.2555     46.743 ppb        47.2555 101.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            26.2     10.871 µg/L        3.8562     10.871 ppb         3.8562  35.47%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                36.7      0.0470 µg/L       0.03150      0.0470 ppb        0.03150  67.01%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                20.4      0.6357 µg/L       0.30832      0.6357 ppb        0.30832  48.50%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         45.2      6.6106 µg/L      10.37295      6.6106 ppb       10.37295 156.91%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.2      0.0631 µg/L       0.45358      0.0631 ppb        0.45358 719.39%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.5     -0.7792 µg/L       3.18753     -0.7792 ppb        3.18753 409.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                43.8      2.5645 µg/L       0.00729      2.5645 ppb        0.00729   0.28%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.2      0.1889 µg/L       5.69964      0.1889 ppb        5.69964 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.5      0.6959 µg/L       0.97329      0.6959 ppb        0.97329 139.85%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.6       0.999 µg/L        1.4459       0.999 ppb         1.4459 144.78%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -10.2     -1.0968 µg/L       1.70632     -1.0968 ppb        1.70632 155.57%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                76.2      1.1814 µg/L       1.27240      1.1814 ppb        1.27240 107.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                13.6      0.8990 µg/L       1.00350      0.8990 ppb        1.00350 111.63%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                78.7      0.1748 µg/L       0.13045      0.1748 ppb        0.13045  74.61%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -9.6     -0.0117 µg/L       0.08254     -0.0117 ppb        0.08254 705.06%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.1     -0.0117 µg/L       0.74353     -0.0117 ppb        0.74353 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 56.0      3.3884 µg/L       9.32192      3.3884 ppb        9.32192 275.11%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 36.2      0.1937 µg/L       0.19137      0.1937 ppb        0.19137  98.78%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                44.2      0.2597 µg/L       0.10076      0.2597 ppb        0.10076  38.80%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 4/1/2010 12:35:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142777.8	142777.8	99.0	%			12:35:49
1	Al 396.153Radial†	917.4	995.1	197.79	µg/L	197.79	ppb	12:35:51
1	Ca 317.933Radial†	4022.0	3510.5	215.48	µg/L	215.48	ppb	12:35:51
1	Fe 238.204 Radial†	1657.6	1538.2	103.81	µg/L	103.81	ppb	12:35:51
1	K 766.490 Radial†	2082.8	544.4	209.69	µg/L	209.69	ppb	12:35:49
1	Mg 279.077 IEC†	902.7	746.2	309.11	µg/L	309.11	ppb	12:35:51
1	Na 589.592 Radial†	3202.3	1975.4	290.37	µg/L	290.37	ppb	12:35:51
1	Sr 421.552†	2097.9	2327.9	5.1688	µg/L	5.1688	ppb	12:35:51
1	Sc 361.383	1766554.0	1766554.0	100.55	%			12:36:03
1	Y 371.029	1052740.5	1052740.5	100.51	%			12:36:03
1	Ag 328.068†	5347.2	1503.1	5.9941	µg/L	5.9941	ppb	12:36:05
1	As 188.979†	75.8	97.1	31.255	µg/L	31.255	ppb	12:36:25
1	B 249.677†	6693.3	3197.2	49.248	µg/L	49.248	ppb	12:36:05
1	Ba 233.527†	1022.2	1169.4	4.9661	µg/L	4.9661	ppb	12:36:25
1	Be 313.107†	16494.9	17381.3	4.9681	µg/L	4.9681	ppb	12:36:05
1	Cd 226.502†	663.3	765.5	5.0153	µg/L	5.0153	ppb	12:36:25
1	Co 228.616†	193.4	381.8	4.9320	µg/L	4.9320	ppb	12:36:25
1	Cr 267.716†	794.3	613.4	5.0082	µg/L	5.0082	ppb	12:36:25
1	Cu 324.752†	5399.1	2510.5	10.256	µg/L	10.256	ppb	12:36:05
1	Mn 257.610†	8262.5	8006.6	10.345	µg/L	10.345	ppb	12:36:05
1	Mo 202.031†	281.8	323.0	10.051	µg/L	10.051	ppb	12:36:25
1	Ni 231.604†	339.3	417.7	5.0418	µg/L	5.0418	ppb	12:36:25
1	P 214.914†	645.8	641.8	143.79	µg/L	143.79	ppb	12:36:25
1	Pb 220.353†	248.0	179.0	10.477	µg/L	10.477	ppb	12:36:25
1	S 181.975 Axial†	224.4	118.0	93.414	µg/L	93.414	ppb	12:36:25
1	Sb 206.836†	151.1	71.2	9.0339	µg/L	9.0339	ppb	12:36:25
1	Se 196.026†	103.6	88.2	33.7	µg/L	33.7	ppb	12:36:25
1	SiO2†	3908.8	2136.6	222.81	µg/L	222.81	ppb	12:36:05
1	Si 251.611†	7507.6	6678.9	104.63	µg/L	104.63	ppb	12:36:05
1	Sn 189.927†	158.0	160.4	10.637	µg/L	10.637	ppb	12:36:25
1	Ti 334.940†	6018.8	5049.0	4.9348	µg/L	4.9348	ppb	12:36:05
1	Tl 190.801†	38.6	154.0	20.011	µg/L	20.011	ppb	12:36:25
1	U 409.014†	737.7	998.2	60.517	µg/L	60.517	ppb	12:36:05
1	V 292.402†	1237.7	875.5	4.6115	µg/L	4.6115	ppb	12:36:05
1	Zn 213.857†	2310.7	1785.4	10.458	µg/L	10.458	ppb	12:36:25
2	Sc RADIAL	144869.1	144869.1	101	%			12:35:53
2	Al 396.153Radial†	930.7	995.0	197.76	µg/L	197.76	ppb	12:35:55
2	Ca 317.933Radial†	3970.2	3400.3	208.72	µg/L	208.72	ppb	12:35:55
2	Fe 238.204 Radial†	1694.7	1550.9	104.67	µg/L	104.67	ppb	12:35:55
2	K 766.490 Radial†	2052.9	484.3	186.53	µg/L	186.53	ppb	12:35:53
2	Mg 279.077 IEC†	900.3	730.6	302.65	µg/L	302.65	ppb	12:35:55
2	Na 589.592 Radial†	3199.3	1925.7	283.08	µg/L	283.08	ppb	12:35:55
2	Sr 421.552†	2269.7	2468.2	5.4807	µg/L	5.4807	ppb	12:35:55
2	Sc 361.383	1769409.2	1769409.2	100.71	%			12:36:27
2	Y 371.029	1053694.2	1053694.2	100.60	%			12:36:27
2	Ag 328.068†	5250.2	1398.2	5.5748	µg/L	5.5748	ppb	12:36:29
2	As 188.979†	87.3	108.3	34.863	µg/L	34.863	ppb	12:36:49
2	B 249.677†	6713.1	3206.1	49.384	µg/L	49.384	ppb	12:36:29
2	Ba 233.527†	1055.6	1200.9	5.0999	µg/L	5.0999	ppb	12:36:49
2	Be 313.107†	16094.1	16956.8	4.8445	µg/L	4.8445	ppb	12:36:29
2	Cd 226.502†	654.7	755.9	4.9523	µg/L	4.9523	ppb	12:36:49
2	Co 228.616†	205.3	393.3	5.0807	µg/L	5.0807	ppb	12:36:49
2	Cr 267.716†	817.8	635.4	5.1972	µg/L	5.1972	ppb	12:36:49
2	Cu 324.752†	5319.8	2423.2	9.8945	µg/L	9.8945	ppb	12:36:29
2	Mn 257.610†	8175.9	7907.4	10.217	µg/L	10.217	ppb	12:36:29
2	Mo 202.031†	283.3	324.1	10.083	µg/L	10.083	ppb	12:36:49
2	Ni 231.604†	295.4	373.6	4.5087	µg/L	4.5087	ppb	12:36:49
2	P 214.914†	653.7	648.6	145.33	µg/L	145.33	ppb	12:36:49
2	Pb 220.353†	253.2	183.7	10.762	µg/L	10.762	ppb	12:36:49

2	S 181.975 Axial†	228.8	122.0	96.605 µg/L	96.605 ppb	12:36:49
2	Sb 206.836†	163.5	83.4	10.556 µg/L	10.556 ppb	12:36:49
2	Se 196.026†	98.9	83.4	31.9 µg/L	31.9 ppb	12:36:49
2	SiO2†	4797.2	3012.3	314.32 µg/L	314.32 ppb	12:36:29
2	Si 251.611†	10011.6	9153.1	143.46 µg/L	143.46 ppb	12:36:29
2	Sn 189.927†	153.3	155.5	10.311 µg/L	10.311 ppb	12:36:49
2	Ti 334.940†	5821.1	4843.1	4.7357 µg/L	4.7357 ppb	12:36:29
2	Tl 190.801†	61.2	176.4	22.903 µg/L	22.903 ppb	12:36:49
2	U 409.014†	585.1	845.5	51.313 µg/L	51.313 ppb	12:36:29
2	V 292.402†	1270.2	905.8	4.7610 µg/L	4.7610 ppb	12:36:29
2	Zn 213.857†	2277.4	1748.6	10.245 µg/L	10.245 ppb	12:36:49
3	Sc RADIAL	147334.3	147334.3	102 %		12:35:57
3	Al 396.153Radial†	1021.1	1067.9	212.30 µg/L	212.30 ppb	12:35:59
3	Ca 317.933Radial†	3950.3	3314.8	203.47 µg/L	203.47 ppb	12:35:59
3	Fe 238.204 Radial†	1706.9	1534.7	103.57 µg/L	103.57 ppb	12:35:59
3	K 766.490 Radial†	2051.2	448.4	172.71 µg/L	172.71 ppb	12:35:57
3	Mg 279.077 IEC†	932.4	747.0	309.46 µg/L	309.46 ppb	12:35:59
3	Na 589.592 Radial†	3182.0	1855.6	272.77 µg/L	272.77 ppb	12:35:59
3	Sr 421.552†	2252.4	2413.5	5.3592 µg/L	5.3592 ppb	12:35:59
3	Sc 361.383	1759611.7	1759611.7	100.16 %		12:36:51
3	Y 371.029	1048662.8	1048662.8	100.12 %		12:36:51
3	Ag 328.068†	5257.3	1434.3	5.7372 µg/L	5.7372 ppb	12:36:53
3	As 188.979†	90.6	112.1	36.072 µg/L	36.072 ppb	12:37:13
3	B 249.677†	6667.0	3197.2	49.246 µg/L	49.246 ppb	12:36:53
3	Ba 233.527†	1037.9	1189.1	5.0500 µg/L	5.0500 ppb	12:37:13
3	Be 313.107†	16271.2	17222.7	4.9248 µg/L	4.9248 ppb	12:36:53
3	Cd 226.502†	666.0	770.8	5.0502 µg/L	5.0502 ppb	12:37:13
3	Co 228.616†	206.4	395.6	5.1101 µg/L	5.1101 ppb	12:37:13
3	Cr 267.716†	784.3	606.5	4.9470 µg/L	4.9470 ppb	12:37:13
3	Cu 324.752†	5271.8	2404.6	9.8320 µg/L	9.8320 ppb	12:36:53
3	Mn 257.610†	8067.8	7844.6	10.135 µg/L	10.135 ppb	12:36:53
3	Mo 202.031†	285.6	327.9	10.202 µg/L	10.202 ppb	12:37:13
3	Ni 231.604†	312.3	392.0	4.7316 µg/L	4.7316 ppb	12:37:13
3	P 214.914†	646.4	644.9	144.51 µg/L	144.51 ppb	12:37:13
3	Pb 220.353†	256.8	188.8	11.046 µg/L	11.046 ppb	12:37:13
3	S 181.975 Axial†	233.8	128.2	101.54 µg/L	101.54 ppb	12:37:13
3	Sb 206.836†	147.6	68.3	8.6709 µg/L	8.6709 ppb	12:37:13
3	Se 196.026†	88.7	73.8	28.2 µg/L	28.2 ppb	12:37:13
3	SiO2†	3924.3	2167.4	226.02 µg/L	226.02 ppb	12:36:53
3	Si 251.611†	7322.5	6523.6	102.19 µg/L	102.19 ppb	12:36:53
3	Sn 189.927†	158.3	161.3	10.695 µg/L	10.695 ppb	12:37:13
3	Ti 334.940†	5898.1	4952.1	4.8364 µg/L	4.8364 ppb	12:36:53
3	Tl 190.801†	29.2	144.8	18.822 µg/L	18.822 ppb	12:37:13
3	U 409.014†	833.6	1096.8	66.485 µg/L	66.485 ppb	12:36:53
3	V 292.402†	1304.5	947.1	4.9816 µg/L	4.9816 ppb	12:36:53
3	Zn 213.857†	2270.8	1754.6	10.279 µg/L	10.279 ppb	12:37:13

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1765191.7	100.47	%	0.287				0.29%
Sc RADIAL	144993.7	101	%	1.6				1.57%
Y 371.029	1051699.2	100.41	%	0.255				0.25%
Ag 328.068†	1445.2	5.7687	µg/L	0.21143	5.7687	ppb	0.21143	3.67%
QC value within limits for Ag 328.068 Recovery = 115.37%								
Al 396.153Radial†	1019.3	202.61	µg/L	8.386	202.61	ppb	8.386	4.14%
QC value within limits for Al 396.153Radial Recovery = 101.31%								
As 188.979†	105.8	34.064	µg/L	2.5060	34.064	ppb	2.5060	7.36%
QC value within limits for As 188.979 Recovery = 113.55%								
B 249.677†	3200.2	49.293	µg/L	0.0788	49.293	ppb	0.0788	0.16%
QC value within limits for B 249.677 Recovery = 98.59%								
Ba 233.527†	1186.4	5.0386	µg/L	0.06762	5.0386	ppb	0.06762	1.34%
QC value within limits for Ba 233.527 Recovery = 100.77%								
Be 313.107†	17186.9	4.9124	µg/L	0.06274	4.9124	ppb	0.06274	1.28%
QC value within limits for Be 313.107 Recovery = 98.25%								
Ca 317.933Radial†	3408.5	209.23	µg/L	6.022	209.23	ppb	6.022	2.88%
QC value within limits for Ca 317.933Radial Recovery = 104.61%								
Cd 226.502†	764.1	5.0059	µg/L	0.04960	5.0059	ppb	0.04960	0.99%
QC value within limits for Cd 226.502 Recovery = 100.12%								
Co 228.616†	390.3	5.0410	µg/L	0.09547	5.0410	ppb	0.09547	1.89%

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   QC value within limits for Co 228.616  Recovery = 100.82%
Cr 267.716†              618.4      5.0508 µg/L       0.13046      5.0508 ppb        0.13046   2.58%
   QC value within limits for Cr 267.716  Recovery = 101.02%
Cu 324.752†             2446.1      9.9943 µg/L       0.22913      9.9943 ppb        0.22913   2.29%
   QC value within limits for Cu 324.752  Recovery = 99.94%
Fe 238.204 Radial†      1541.3      104.02 µg/L         0.576      104.02 ppb          0.576   0.55%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.02%
K 766.490 Radial†        492.4      189.65 µg/L        18.686      189.65 ppb         18.686   9.85%
   QC value within limits for K 766.490 Radial  Recovery = 126.43%
Mg 279.077 IEC†          741.3      307.07 µg/L         3.837      307.07 ppb          3.837   1.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.36%
Mn 257.610†             7919.5      10.232 µg/L        0.1057      10.232 ppb         0.1057   1.03%
   QC value within limits for Mn 257.610  Recovery = 102.32%
Mo 202.031†              325.0      10.112 µg/L        0.0794      10.112 ppb         0.0794   0.79%
   QC value within limits for Mo 202.031  Recovery = 101.12%
Na 589.592 Radial†      1918.9      282.07 µg/L         8.842      282.07 ppb          8.842   3.13%
   QC value within limits for Na 589.592 Radial  Recovery = 94.02%
Ni 231.604†              394.4      4.7607 µg/L       0.26778      4.7607 ppb        0.26778   5.62%
   QC value within limits for Ni 231.604  Recovery = 95.21%
P 214.914†               645.1      144.54 µg/L         0.766      144.54 ppb          0.766   0.53%
   QC value within limits for P 214.914  Recovery = 96.36%
Pb 220.353†              183.8      10.762 µg/L        0.2848      10.762 ppb         0.2848   2.65%
   QC value within limits for Pb 220.353  Recovery = 107.62%
S 181.975 Axial†         122.7      97.185 µg/L        4.0914      97.185 ppb         4.0914   4.21%
   QC value within limits for S 181.975 Axial  Recovery = 97.19%
Sb 206.836†               74.3      9.4203 µg/L       1.00018      9.4203 ppb        1.00018  10.62%
   QC value within limits for Sb 206.836  Recovery = 94.20%
Se 196.026†               81.8        31.3 µg/L          2.80        31.3 ppb           2.80   8.95%
   QC value within limits for Se 196.026  Recovery = 104.21%
SiO2†                   2438.8      254.39 µg/L        51.932      254.39 ppb         51.932  20.41%
   QC value within limits for SiO2  Recovery = 119.43%
Si 251.611†             7451.9      116.76 µg/L        23.159      116.76 ppb         23.159  19.83%
   QC value within limits for Si 251.611  Recovery = 116.76%
Sn 189.927†              159.1      10.548 µg/L        0.2072      10.548 ppb         0.2072   1.96%
   QC value within limits for Sn 189.927  Recovery = 105.48%
Sr 421.552†             2403.2      5.3362 µg/L       0.15717      5.3362 ppb        0.15717   2.95%
   QC value within limits for Sr 421.552  Recovery = 106.72%
Ti 334.940†             4948.1      4.8356 µg/L       0.09953      4.8356 ppb        0.09953   2.06%
   QC value within limits for Ti 334.940  Recovery = 96.71%
Tl 190.801†              158.4      20.579 µg/L        2.0987      20.579 ppb         2.0987  10.20%
   QC value within limits for Tl 190.801  Recovery = 102.89%
U 409.014†               980.1      59.438 µg/L        7.6437      59.438 ppb         7.6437  12.86%
   QC value within limits for U 409.014  Recovery = 118.88%
V 292.402†               909.5      4.7847 µg/L       0.18618      4.7847 ppb        0.18618   3.89%
   QC value within limits for V 292.402  Recovery = 95.69%
Zn 213.857†             1762.9      10.327 µg/L        0.1143      10.327 ppb         0.1143   1.11%
   QC value within limits for Zn 213.857  Recovery = 103.27%
All analyte(s) passed QC.
```

Sequence No.: 9 **Autosampler Location: 103**
Sample ID: ICSA **Date Collected: 4/1/2010 12:37:21**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	134082.5	134082.5	93.0	%			12:37:54
1	Al 396.153Radial†	2345791.8	2521956.7	502460	µg/L	502460	ppb	12:37:52
1	Ca 317.933Radial†	7277737.2	7823518.6	480240	µg/L	480240	ppb	12:37:52
1	Fe 238.204 Radial†	2615602.4	2811817.4	189770	µg/L	189770	ppb	12:37:52
1	K 766.490 Radial†	1650.4	215.9	-156.30	µg/L	-156.30	ppb	12:37:54
1	Mg 279.077 IEC†	1088894.4	1170471.3	484460	µg/L	484460	ppb	12:37:52
1	Na 589.592 Radial†	1639.5	505.0	74.201	µg/L	74.201	ppb	12:37:54
1	Sr 421.552†	1343.0	1653.7	-0.0858	µg/L	-0.0858	ppb	12:37:54
1	Sc 361.383	1576153.7	1576153.7	89.714	%			12:38:07
1	Y 371.029	923538.7	923538.7	88.176	%			12:38:07
1	Ag 328.068†	6534.6	3469.1	0.3042	µg/L	0.3042	ppb	12:38:07
1	As 188.979†	-100.7	-90.5	13.495	µg/L	13.495	ppb	12:38:27
1	B 249.677†	3535.6	481.6	7.4069	µg/L	7.4069	ppb	12:38:07
1	Ba 233.527†	434.3	636.9	0.2778	µg/L	0.2778	ppb	12:38:27
1	Be 313.107†	-1223.1	-386.5	-0.1073	µg/L	-0.1073	ppb	12:38:07
1	Cd 226.502†	2335.5	2709.1	-2.1744	µg/L	-2.1744	ppb	12:38:27
1	Co 228.616†	96.2	296.7	-6.0636	µg/L	-6.0636	ppb	12:38:27
1	Cr 267.716†	245.8	97.4	1.4755	µg/L	1.4755	ppb	12:38:27
1	Cu 324.752†	-5603.6	-9105.0	3.8189	µg/L	3.8189	ppb	12:38:07
1	Mn 257.610†	16256.3	17909.6	3.4509	µg/L	3.4509	ppb	12:38:07
1	Mo 202.031†	-536.4	-555.2	-0.8914	µg/L	-0.8914	ppb	12:38:27
1	Ni 231.604†	155.6	253.8	3.0627	µg/L	3.0627	ppb	12:38:27
1	P 214.914†	196.1	218.2	31.734	µg/L	31.734	ppb	12:38:27
1	Pb 220.353†	-321.8	-426.3	0.0617	µg/L	0.0617	ppb	12:38:27
1	S 181.975 Axial†	197.3	114.8	90.677	µg/L	90.677	ppb	12:38:27
1	Sb 206.836†	143.6	81.0	4.1826	µg/L	4.1826	ppb	12:38:27
1	Se 196.026†	-160.3	-193.5	-7.89	µg/L	-7.89	ppb	12:38:27
1	SiO2†	1643.9	81.6	8.9772	µg/L	8.9772	ppb	12:38:27
1	Si 251.611†	556.8	-166.8	-2.4073	µg/L	-2.4073	ppb	12:38:27
1	Sn 189.927†	35.7	43.0	2.9237	µg/L	2.9237	ppb	12:38:27
1	Ti 334.940†	21783.2	23343.9	-3.9265	µg/L	-3.9265	ppb	12:38:07
1	Tl 190.801†	-162.2	-65.2	-8.0053	µg/L	-8.0053	ppb	12:38:27
1	U 409.014†	-102.3	150.5	-12.097	µg/L	-12.097	ppb	12:38:07
1	V 292.402†	4004.4	4108.1	0.7221	µg/L	0.7221	ppb	12:38:07
1	Zn 213.857†	4254.7	4229.9	8.6156	µg/L	8.6156	ppb	12:38:27
2	Sc RADIAL	132936.8	132936.8	92.2	%			12:37:59
2	Al 396.153Radial†	2356533.9	2555338.6	509110	µg/L	509110	ppb	12:37:57
2	Ca 317.933Radial†	7344247.9	7963067.3	488800	µg/L	488800	ppb	12:37:57
2	Fe 238.204 Radial†	2640061.0	2862572.5	193190	µg/L	193190	ppb	12:37:57
2	K 766.490 Radial†	1666.3	248.5	-147.56	µg/L	-147.56	ppb	12:37:59
2	Mg 279.077 IEC†	1100625.8	1193280.7	493900	µg/L	493900	ppb	12:37:57
2	Na 589.592 Radial†	1565.8	440.2	64.659	µg/L	64.659	ppb	12:37:59
2	Sr 421.552†	1400.0	1727.9	0.0120	µg/L	0.0120	ppb	12:37:59
2	Sc 361.383	1572656.8	1572656.8	89.515	%			12:38:30
2	Y 371.029	922563.3	922563.3	88.083	%			12:38:30
2	Ag 328.068†	6273.9	3194.0	-0.9975	µg/L	-0.9975	ppb	12:38:30
2	As 188.979†	-118.1	-110.2	7.9383	µg/L	7.9383	ppb	12:38:50
2	B 249.677†	3410.1	350.2	5.3853	µg/L	5.3853	ppb	12:38:30
2	Ba 233.527†	393.4	592.3	0.0443	µg/L	0.0443	ppb	12:38:50
2	Be 313.107†	-1400.4	-587.6	-0.1601	µg/L	-0.1601	ppb	12:38:30
2	Cd 226.502†	2368.4	2751.7	-2.2551	µg/L	-2.2551	ppb	12:38:50
2	Co 228.616†	45.8	240.6	-6.9672	µg/L	-6.9672	ppb	12:38:50
2	Cr 267.716†	208.0	55.9	1.1250	µg/L	1.1250	ppb	12:38:50
2	Cu 324.752†	-5671.8	-9195.0	4.2199	µg/L	4.2199	ppb	12:38:30
2	Mn 257.610†	16145.5	17826.1	2.9593	µg/L	2.9593	ppb	12:38:30
2	Mo 202.031†	-535.8	-555.8	-0.6033	µg/L	-0.6033	ppb	12:38:50
2	Ni 231.604†	177.7	278.8	3.3653	µg/L	3.3653	ppb	12:38:50
2	P 214.914†	151.0	168.3	19.693	µg/L	19.693	ppb	12:38:50
2	Pb 220.353†	-382.8	-495.3	-3.6881	µg/L	-3.6881	ppb	12:38:50

2	S 181.975 Axial†	192.6	110.0	86.919 µg/L	86.919 ppb	12:38:50
2	Sb 206.836†	159.8	99.5	6.4226 µg/L	6.4226 ppb	12:38:50
2	Se 196.026†	-165.4	-199.6	-8.98 µg/L	-8.98 ppb	12:38:50
2	SiO2†	1657.4	100.8	10.969 µg/L	10.969 ppb	12:38:50
2	Si 251.611†	493.8	-235.8	-3.4933 µg/L	-3.4933 ppb	12:38:50
2	Sn 189.927†	43.3	51.6	3.4944 µg/L	3.4944 ppb	12:38:50
2	Ti 334.940†	21857.3	23480.7	-4.3434 µg/L	-4.3434 ppb	12:38:30
2	Tl 190.801†	-157.5	-60.3	-7.3738 µg/L	-7.3738 ppb	12:38:50
2	U 409.014†	119.3	397.7	2.3864 µg/L	2.3864 ppb	12:38:30
2	V 292.402†	3940.2	4046.3	0.0541 µg/L	0.0541 ppb	12:38:30
2	Zn 213.857†	4277.2	4265.5	8.4903 µg/L	8.4903 ppb	12:38:50
3	Sc RADIAL	133600.6	133600.6	92.7 %		12:38:03
3	Al 396.153Radial†	2326828.2	2510591.9	500190 µg/L	500190 ppb	12:38:01
3	Ca 317.933Radial†	7248501.6	7820194.9	480030 µg/L	480030 ppb	12:38:01
3	Fe 238.204 Radial†	2605468.4	2811025.5	189710 µg/L	189710 ppb	12:38:01
3	K 766.490 Radial†	1626.0	195.9	-163.46 µg/L	-163.46 ppb	12:38:03
3	Mg 279.077 IEC†	1084931.6	1170417.9	484440 µg/L	484440 ppb	12:38:01
3	Na 589.592 Radial†	1634.5	505.9	74.343 µg/L	74.343 ppb	12:38:03
3	Sr 421.552†	1336.6	1652.0	-0.0879 µg/L	-0.0879 ppb	12:38:03
3	Sc 361.383	1578020.8	1578020.8	89.820 %		12:38:53
3	Y 371.029	925678.1	925678.1	88.380 %		12:38:53
3	Ag 328.068†	6726.9	3674.5	1.1154 µg/L	1.1154 ppb	12:38:53
3	As 188.979†	-96.1	-85.3	15.161 µg/L	15.161 ppb	12:39:13
3	B 249.677†	3615.8	566.2	8.7108 µg/L	8.7108 ppb	12:38:53
3	Ba 233.527†	419.9	620.3	0.2077 µg/L	0.2077 ppb	12:39:13
3	Be 313.107†	-1116.9	-266.7	-0.0733 µg/L	-0.0733 ppb	12:38:53
3	Cd 226.502†	2351.1	2723.4	-2.0747 µg/L	-2.0747 ppb	12:39:13
3	Co 228.616†	91.7	291.6	-6.1279 µg/L	-6.1279 ppb	12:39:13
3	Cr 267.716†	220.1	68.5	1.2359 µg/L	1.2359 ppb	12:39:13
3	Cu 324.752†	-5608.7	-9103.3	3.8172 µg/L	3.8172 ppb	12:38:53
3	Mn 257.610†	16305.8	17943.2	3.4954 µg/L	3.4954 ppb	12:38:53
3	Mo 202.031†	-564.7	-586.0	-1.8526 µg/L	-1.8526 ppb	12:39:13
3	Ni 231.604†	164.1	262.9	3.1731 µg/L	3.1731 ppb	12:39:13
3	P 214.914†	157.8	175.3	21.662 µg/L	21.662 ppb	12:39:13
3	Pb 220.353†	-331.6	-436.9	-0.6978 µg/L	-0.6978 ppb	12:39:13
3	S 181.975 Axial†	174.2	88.8	70.099 µg/L	70.099 ppb	12:39:13
3	Sb 206.836†	109.5	42.9	-0.5996 µg/L	-0.5996 ppb	12:39:13
3	Se 196.026†	-168.8	-202.7	-11.4 µg/L	-11.4 ppb	12:39:13
3	SiO2†	1621.9	54.9	6.1909 µg/L	6.1909 ppb	12:39:13
3	Si 251.611†	539.5	-186.8	-2.7187 µg/L	-2.7187 ppb	12:39:13
3	Sn 189.927†	57.7	67.5	4.5458 µg/L	4.5458 ppb	12:39:13
3	Ti 334.940†	21533.9	23037.6	-4.2320 µg/L	-4.2320 ppb	12:38:53
3	Tl 190.801†	-170.3	-74.0	-9.1548 µg/L	-9.1548 ppb	12:39:13
3	U 409.014†	-107.5	144.8	-12.423 µg/L	-12.423 ppb	12:38:53
3	V 292.402†	4052.3	4156.1	0.9616 µg/L	0.9616 ppb	12:38:53
3	Zn 213.857†	4253.6	4223.0	8.5441 µg/L	8.5441 ppb	12:39:13

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1575610.4	89.683	%	0.1550				0.17%
Sc RADIAL	133539.9	92.6	%	0.40				0.43%
Y 371.029	923926.7	88.213	%	0.1521				0.17%
Ag 328.068†	3445.9	0.1407	µg/L	1.06591	0.1407	ppb	1.06591	757.68%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2529295.7	503920	µg/L	4633.9	503920	ppb	4633.9	0.92%
QC value within limits for Al 396.153Radial Recovery = 100.78%								
As 188.979†	-95.3	12.198	µg/L	3.7819	12.198	ppb	3.7819	31.00%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	466.0	7.1677	µg/L	1.67564	7.1677	ppb	1.67564	23.38%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	616.5	0.1766	µg/L	0.11981	0.1766	ppb	0.11981	67.84%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-413.6	-0.1136	µg/L	0.04372	-0.1136	ppb	0.04372	38.50%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7868926.9	483020	µg/L	5005.5	483020	ppb	5005.5	1.04%
QC value within limits for Ca 317.933Radial Recovery = 96.60%								
Cd 226.502†	2728.1	-2.1681	µg/L	0.09041	-2.1681	ppb	0.09041	4.17%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	276.3	-6.3862	µg/L	0.50418	-6.3862	ppb	0.50418	7.89%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              73.9      1.2788 µg/L       0.17913      1.2788 ppb        0.17913  14.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -9134.4      3.9520 µg/L       0.23199      3.9520 ppb        0.23199   5.87%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2828471.8      190890 µg/L        1993.3      190890 ppb         1993.3   1.04%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.45%
K 766.490 Radial†        220.1     -155.77 µg/L         7.963     -155.77 ppb          7.963   5.11%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1178056.6      487600 µg/L        5457.2      487600 ppb         5457.2   1.12%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.52%
Mn 257.610†            17892.9      3.3019 µg/L       0.29747      3.3019 ppb        0.29747   9.01%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -565.6     -1.1158 µg/L       0.65417     -1.1158 ppb        0.65417  58.63%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       483.7      71.068 µg/L        5.5508      71.068 ppb         5.5508   7.81%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              265.2      3.2004 µg/L       0.15315      3.2004 ppb        0.15315   4.79%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               187.3      24.363 µg/L        6.4586      24.363 ppb         6.4586  26.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -452.8     -1.4414 µg/L       1.98245     -1.4414 ppb        1.98245 137.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         104.5      82.565 µg/L       10.9584      82.565 ppb        10.9584  13.27%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               74.5      3.3352 µg/L       3.58696      3.3352 ppb        3.58696 107.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -198.6       -9.42 µg/L         1.798       -9.42 ppb          1.798  19.09%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    79.1      8.7124 µg/L       2.40006      8.7124 ppb        2.40006  27.55%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -196.5     -2.8731 µg/L       0.55923     -2.8731 ppb        0.55923  19.46%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               54.0      3.6546 µg/L       0.82282      3.6546 ppb        0.82282  22.51%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             1677.9     -0.0539 µg/L       0.05709     -0.0539 ppb        0.05709 105.96%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            23287.4     -4.1673 µg/L       0.21586     -4.1673 ppb        0.21586   5.18%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -66.5     -8.1780 µg/L       0.90296     -8.1780 ppb        0.90296  11.04%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               231.0     -7.3781 µg/L       8.45792     -7.3781 ppb        8.45792 114.63%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              4103.5      0.5793 µg/L       0.47031      0.5793 ppb        0.47031  81.19%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             4239.5      8.5500 µg/L       0.06286      8.5500 ppb        0.06286   0.74%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 4/1/2010 12:39:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	132420.3	132420.3	91.9	%			12:39:52
1	Al 396.153Radial†	2328081.5	2534332.9	504900	µg/L	504900	ppb	12:39:50
1	Ca 317.933Radial†	7240853.7	7881577.3	483800	µg/L	483800	ppb	12:39:50
1	Fe 238.204 Radial†	2604482.7	2835008.9	191330	µg/L	191330	ppb	12:39:50
1	K 766.490 Radial†	15202.4	14990.4	5536.3	µg/L	5536.3	ppb	12:39:52
1	Mg 279.077 IEC†	1099043.4	1196213.1	495130	µg/L	495130	ppb	12:39:52
1	Na 589.592 Radial†	35136.1	36990.2	5435.5	µg/L	5435.5	ppb	12:39:52
1	Sr 421.552†	212568.9	231604.6	510.64	µg/L	510.64	ppb	12:39:52
1	Sc 361.383	1570134.7	1570134.7	89.372	%			12:40:06
1	Y 371.029	921178.0	921178.0	87.951	%			12:40:06
1	Ag 328.068†	66920.7	71064.5	270.99	µg/L	270.99	ppb	12:40:06
1	As 188.979†	1331.2	1511.2	533.83	µg/L	533.83	ppb	12:40:08
1	B 249.677†	33516.3	34042.9	522.97	µg/L	522.97	ppb	12:40:06
1	Ba 233.527†	105505.9	118206.0	499.56	µg/L	499.56	ppb	12:40:06
1	Be 313.107†	766440.7	858566.5	244.66	µg/L	244.66	ppb	12:40:06
1	Cd 226.502†	67592.5	75736.8	477.17	µg/L	477.17	ppb	12:40:06
1	Co 228.616†	31321.3	35235.7	445.70	µg/L	445.70	ppb	12:40:08
1	Cr 267.716†	53092.1	59229.5	488.57	µg/L	488.57	ppb	12:40:08
1	Cu 324.752†	112376.9	122882.4	540.22	µg/L	540.22	ppb	12:40:06
1	Mn 257.610†	349038.8	390337.7	484.80	µg/L	484.80	ppb	12:40:06
1	Mo 202.031†	13748.0	15425.8	496.19	µg/L	496.19	ppb	12:40:08
1	Ni 231.604†	33808.6	37909.6	457.55	µg/L	457.55	ppb	12:40:08
1	P 214.914†	10378.6	11612.4	2579.9	µg/L	2579.9	ppb	12:40:08
1	Pb 220.353†	6703.3	7432.8	461.92	µg/L	461.92	ppb	12:40:08
1	S 181.975 Axial†	3216.0	3493.3	2768.0	µg/L	2768.0	ppb	12:40:08
1	Sb 206.836†	3732.0	4096.8	509.82	µg/L	509.82	ppb	12:40:08
1	Se 196.026†	5610.3	6262.7	2450	µg/L	2450	ppb	12:40:08
1	SiO2†	97978.1	107879.3	11252	µg/L	11252	ppb	12:40:06
1	Si 251.611†	301297.9	336342.2	5269.5	µg/L	5269.5	ppb	12:40:06
1	Sn 189.927†	6587.0	7373.6	489.99	µg/L	489.99	ppb	12:40:08
1	Ti 334.940†	484338.8	541001.9	505.59	µg/L	505.59	ppb	12:40:06
1	Tl 190.801†	3060.3	3539.8	466.29	µg/L	466.29	ppb	12:40:08
1	U 409.014†	7093.1	8201.1	505.13	µg/L	505.13	ppb	12:40:06
1	V 292.402†	93059.2	103770.9	515.47	µg/L	515.47	ppb	12:40:06
1	Zn 213.857†	78870.4	87737.4	496.68	µg/L	496.68	ppb	12:40:06
2	Sc RADIAL	132354.3	132354.3	91.8	%			12:39:57
2	Al 396.153Radial†	2353817.9	2563626.3	510740	µg/L	510740	ppb	12:39:55
2	Ca 317.933Radial†	7290482.7	7939559.0	487360	µg/L	487360	ppb	12:39:55
2	Fe 238.204 Radial†	2625172.4	2858955.9	192950	µg/L	192950	ppb	12:39:55
2	K 766.490 Radial†	15199.7	14995.7	5536.5	µg/L	5536.5	ppb	12:39:57
2	Mg 279.077 IEC†	1095879.1	1193363.4	493950	µg/L	493950	ppb	12:39:57
2	Na 589.592 Radial†	35022.1	36885.2	5420.1	µg/L	5420.1	ppb	12:39:57
2	Sr 421.552†	212512.7	231658.8	510.73	µg/L	510.73	ppb	12:39:57
2	Sc 361.383	1560657.0	1560657.0	88.832	%			12:40:11
2	Y 371.029	916190.3	916190.3	87.474	%			12:40:11
2	Ag 328.068†	66423.1	70959.0	270.50	µg/L	270.50	ppb	12:40:11
2	As 188.979†	1344.7	1535.5	542.08	µg/L	542.08	ppb	12:40:13
2	B 249.677†	33233.5	33952.3	521.54	µg/L	521.54	ppb	12:40:11
2	Ba 233.527†	105111.4	118478.8	500.70	µg/L	500.70	ppb	12:40:11
2	Be 313.107†	763058.7	859967.3	245.06	µg/L	245.06	ppb	12:40:11
2	Cd 226.502†	67359.2	75933.4	478.29	µg/L	478.29	ppb	12:40:11
2	Co 228.616†	31782.6	35967.8	455.07	µg/L	455.07	ppb	12:40:13
2	Cr 267.716†	53576.3	60135.3	496.11	µg/L	496.11	ppb	12:40:13
2	Cu 324.752†	111938.8	123152.8	541.53	µg/L	541.53	ppb	12:40:11
2	Mn 257.610†	347448.2	390918.8	485.59	µg/L	485.59	ppb	12:40:11
2	Mo 202.031†	13941.1	15736.5	505.90	µg/L	505.90	ppb	12:40:13
2	Ni 231.604†	34289.6	38680.8	466.86	µg/L	466.86	ppb	12:40:13
2	P 214.914†	10638.1	11975.1	2661.4	µg/L	2661.4	ppb	12:40:13
2	Pb 220.353†	6954.8	7761.6	481.51	µg/L	481.51	ppb	12:40:13

2	S 181.975 Axial†	3227.7	3528.3	2795.8 µg/L	2795.8 ppb	12:40:13
2	Sb 206.836†	3846.1	4250.7	529.12 µg/L	529.12 ppb	12:40:13
2	Se 196.026†	5786.8	6499.5	2540 µg/L	2540 ppb	12:40:13
2	SiO2†	97674.4	108203.3	11285 µg/L	11285 ppb	12:40:11
2	Si 251.611†	299893.6	336808.7	5276.7 µg/L	5276.7 ppb	12:40:11
2	Sn 189.927†	6634.5	7471.8	496.50 µg/L	496.50 ppb	12:40:13
2	Ti 334.940†	482544.9	542273.6	507.02 µg/L	507.02 ppb	12:40:11
2	Tl 190.801†	3107.7	3614.1	475.87 µg/L	475.87 ppb	12:40:13
2	U 409.014†	7152.4	8316.1	511.89 µg/L	511.89 ppb	12:40:11
2	V 292.402†	92623.9	103913.1	516.16 µg/L	516.16 ppb	12:40:11
2	Zn 213.857†	78461.2	87812.6	496.95 µg/L	496.95 ppb	12:40:11
3	Sc RADIAL	133596.0	133596.0	92.7 %		12:40:01
3	Al 396.153Radial†	2398901.5	2588444.7	515680 µg/L	515680 ppb	12:39:59
3	Ca 317.933Radial†	7457302.7	8045758.5	493880 µg/L	493880 ppb	12:39:59
3	Fe 238.204 Radial†	2685602.1	2897585.8	195550 µg/L	195550 ppb	12:39:59
3	K 766.490 Radial†	15304.1	14954.4	5518.1 µg/L	5518.1 ppb	12:40:01
3	Mg 279.077 IEC†	1111056.5	1198646.8	496130 µg/L	496130 ppb	12:40:01
3	Na 589.592 Radial†	35403.0	36941.7	5428.4 µg/L	5428.4 ppb	12:40:01
3	Sr 421.552†	214051.7	231168.1	509.59 µg/L	509.59 ppb	12:40:01
3	Sc 361.383	1573841.9	1573841.9	89.583 %		12:40:16
3	Y 371.029	924501.8	924501.8	88.268 %		12:40:16
3	Ag 328.068†	66885.0	70848.3	269.84 µg/L	269.84 ppb	12:40:16
3	As 188.979†	1335.6	1512.6	535.21 µg/L	535.21 ppb	12:40:18
3	B 249.677†	33433.6	33862.2	520.19 µg/L	520.19 ppb	12:40:16
3	Ba 233.527†	105821.7	118280.4	499.82 µg/L	499.82 ppb	12:40:16
3	Be 313.107†	768782.6	859160.6	244.83 µg/L	244.83 ppb	12:40:16
3	Cd 226.502†	67768.7	75755.3	476.84 µg/L	476.84 ppb	12:40:16
3	Co 228.616†	31343.2	35177.6	444.73 µg/L	444.73 ppb	12:40:18
3	Cr 267.716†	53062.8	59056.9	487.28 µg/L	487.28 ppb	12:40:18
3	Cu 324.752†	112660.0	122902.3	540.95 µg/L	540.95 ppb	12:40:16
3	Mn 257.610†	349642.8	390092.0	484.43 µg/L	484.43 ppb	12:40:16
3	Mo 202.031†	13731.5	15371.0	494.68 µg/L	494.68 ppb	12:40:18
3	Ni 231.604†	33639.6	37631.8	454.20 µg/L	454.20 ppb	12:40:18
3	P 214.914†	10459.9	11675.8	2593.7 µg/L	2593.7 ppb	12:40:18
3	Pb 220.353†	6763.9	7482.8	465.37 µg/L	465.37 ppb	12:40:18
3	S 181.975 Axial†	3170.9	3434.5	2721.5 µg/L	2721.5 ppb	12:40:18
3	Sb 206.836†	3713.7	4066.5	505.88 µg/L	505.88 ppb	12:40:18
3	Se 196.026†	5523.4	6150.9	2410 µg/L	2410 ppb	12:40:18
3	SiO2†	98382.1	108072.0	11272 µg/L	11272 ppb	12:40:16
3	Si 251.611†	301699.8	335996.7	5264.1 µg/L	5264.1 ppb	12:40:16
3	Sn 189.927†	6588.8	7358.2	488.97 µg/L	488.97 ppb	12:40:18
3	Ti 334.940†	486027.6	541610.7	506.36 µg/L	506.36 ppb	12:40:16
3	Tl 190.801†	3084.9	3559.2	468.80 µg/L	468.80 ppb	12:40:18
3	U 409.014†	7242.8	8349.6	513.41 µg/L	513.41 ppb	12:40:16
3	V 292.402†	92830.8	103270.6	512.46 µg/L	512.46 ppb	12:40:16
3	Zn 213.857†	78983.3	87655.5	495.86 µg/L	495.86 ppb	12:40:16

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1568211.2	89.262	%	0.3870				0.43%
Sc RADIAL	132790.2	92.1	%	0.48				0.53%
Y 371.029	920623.4	87.898	%	0.3994				0.45%
Ag 328.068†	70957.3	270.44	µg/L	0.577	270.44	ppb	0.577	0.21%
QC value within limits for Ag 328.068 Recovery = 108.18%								
Al 396.153Radial†	2562134.6	510440	µg/L	5396.6	510440	ppb	5396.6	1.06%
QC value within limits for Al 396.153Radial Recovery = 102.09%								
As 188.979†	1519.8	537.04	µg/L	4.419	537.04	ppb	4.419	0.82%
QC value within limits for As 188.979 Recovery = 107.41%								
B 249.677†	33952.5	521.57	µg/L	1.391	521.57	ppb	1.391	0.27%
QC value within limits for B 249.677 Recovery = 104.31%								
Ba 233.527†	118321.7	500.03	µg/L	0.598	500.03	ppb	0.598	0.12%
QC value within limits for Ba 233.527 Recovery = 100.01%								
Be 313.107†	859231.5	244.85	µg/L	0.201	244.85	ppb	0.201	0.08%
QC value within limits for Be 313.107 Recovery = 97.94%								
Ca 317.933Radial†	7955631.6	488350	µg/L	5110.9	488350	ppb	5110.9	1.05%
QC value within limits for Ca 317.933Radial Recovery = 97.67%								
Cd 226.502†	75808.5	477.43	µg/L	0.760	477.43	ppb	0.760	0.16%
QC value within limits for Cd 226.502 Recovery = 95.49%								
Co 228.616†	35460.4	448.50	µg/L	5.713	448.50	ppb	5.713	1.27%

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   QC value within limits for Co 228.616  Recovery = 89.70%
Cr 267.716†            59473.9      490.65 µg/L        4.767      490.65 ppb         4.767   0.97%
   QC value within limits for Cr 267.716  Recovery = 98.13%
Cu 324.752†           122979.1      540.90 µg/L        0.657      540.90 ppb         0.657   0.12%
   QC value within limits for Cu 324.752  Recovery = 108.18%
Fe 238.204 Radial†   2863850.2      193280 µg/L       2130.9      193280 ppb        2130.9   1.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.64%
K 766.490 Radial†      14980.2      5530.3 µg/L        10.58      5530.3 ppb         10.58   0.19%
   QC value within limits for K 766.490 Radial  Recovery = 110.61%
Mg 279.077 IEC†      1196074.4      495070 µg/L       1093.7      495070 ppb        1093.7   0.22%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.01%
Mn 257.610†           390449.5      484.94 µg/L        0.594      484.94 ppb         0.594   0.12%
   QC value within limits for Mn 257.610  Recovery = 96.99%
Mo 202.031†            15511.1      498.92 µg/L        6.086      498.92 ppb         6.086   1.22%
   QC value within limits for Mo 202.031  Recovery = 99.78%
Na 589.592 Radial†     36939.0      5428.0 µg/L         7.73      5428.0 ppb          7.73   0.14%
   QC value within limits for Na 589.592 Radial  Recovery = 108.56%
Ni 231.604†            38074.1      459.53 µg/L        6.559      459.53 ppb         6.559   1.43%
   QC value within limits for Ni 231.604  Recovery = 91.91%
P 214.914†             11754.5      2611.7 µg/L        43.62      2611.7 ppb         43.62   1.67%
   QC value within limits for P 214.914  Recovery = 104.47%
Pb 220.353†             7559.1      469.60 µg/L       10.455      469.60 ppb        10.455   2.23%
   QC value within limits for Pb 220.353  Recovery = 93.92%
S 181.975 Axial†        3485.4      2761.8 µg/L        37.55      2761.8 ppb         37.55   1.36%
   QC value within limits for S 181.975 Axial  Recovery = 110.47%
Sb 206.836†             4138.0      514.94 µg/L       12.435      514.94 ppb        12.435   2.41%
   QC value within limits for Sb 206.836  Recovery = 102.99%
Se 196.026†             6304.4        2470 µg/L        67.5        2470 ppb          67.5   2.73%
   QC value within limits for Se 196.026  Recovery = 98.78%
SiO2†                 108051.5       11269 µg/L        16.9       11269 ppb          16.9   0.15%
   QC value within limits for SiO2  Recovery = 105.37%
Si 251.611†           336382.5      5270.1 µg/L        6.29      5270.1 ppb         6.29   0.12%
   QC value within limits for Si 251.611  Recovery = 105.40%
Sn 189.927†             7401.2      491.82 µg/L        4.083      491.82 ppb        4.083   0.83%
   QC value within limits for Sn 189.927  Recovery = 98.36%
Sr 421.552†           231477.2      510.32 µg/L        0.634      510.32 ppb        0.634   0.12%
   QC value within limits for Sr 421.552  Recovery = 102.06%
Ti 334.940†           541628.7      506.33 µg/L        0.720      506.33 ppb        0.720   0.14%
   QC value within limits for Ti 334.940  Recovery = 101.27%
Tl 190.801†             3571.0      470.32 µg/L        4.968      470.32 ppb        4.968   1.06%
   QC value within limits for Tl 190.801  Recovery = 94.06%
U 409.014†              8288.9      510.15 µg/L        4.408      510.15 ppb        4.408   0.86%
   QC value within limits for U 409.014  Recovery = 102.03%
V 292.402†            103651.5      514.70 µg/L        1.969      514.70 ppb        1.969   0.38%
   QC value within limits for V 292.402  Recovery = 102.94%
Zn 213.857†            87735.2      496.50 µg/L        0.570      496.50 ppb        0.570   0.11%
   QC value within limits for Zn 213.857  Recovery = 99.30%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 4/1/2010 12:40:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	129700.2	129700.2	90.0	%			12:40:58
1	Al 396.153Radial†	2304882.7	2561699.3	510380	µg/L	510380	ppb	12:40:56
1	Ca 317.933Radial†	7170637.1	7968845.6	489160	µg/L	489160	ppb	12:40:56
1	Fe 238.204 Radial†	6171002.8	6858273.8	462860	µg/L	462860	ppb	12:40:56
1	K 766.490 Radial†	2058.0	728.8	-45.627	µg/L	-45.627	ppb	12:40:58
1	Mg 279.077 IEC†	1062496.2	1180685.6	488450	µg/L	488450	ppb	12:40:56
1	Na 589.592 Radial†	3132771.9	3480483.0	511920	µg/L	511920	ppb	12:40:56
1	Sr 421.552†	4914.8	5672.1	8.7699	µg/L	8.7699	ppb	12:40:58
1	Sc 361.383	1514874.0	1514874.0	86.226	%			12:41:25
1	Y 371.029	885717.4	885717.4	84.565	%			12:41:25
1	Ag 328.068†	2358.5	-1079.5	0.6473	µg/L	0.6473	ppb	12:41:25
1	As 188.979†	-191.6	-200.6	39.434	µg/L	39.434	ppb	12:41:27
1	B 249.677†	4113.9	1311.7	20.168	µg/L	20.168	ppb	12:41:25
1	Ba 233.527†	724.0	992.4	-1.7057	µg/L	-1.7057	ppb	12:41:27
1	Be 313.107†	-15095.8	-16530.4	0.1731	µg/L	0.1731	ppb	12:41:25
1	Cd 226.502†	5824.7	6861.0	-3.6432	µg/L	-3.6432	ppb	12:41:27
1	Co 228.616†	651.3	944.8	-11.937	µg/L	-11.937	ppb	12:41:27
1	Cr 267.716†	520.5	427.1	0.9194	µg/L	0.9194	ppb	12:41:27
1	Cu 324.752†	-15769.6	-21147.5	8.2097	µg/L	8.2097	ppb	12:41:27
1	Mn 257.610†	17923.7	20576.2	6.0196	µg/L	6.0196	ppb	12:41:25
1	Mo 202.031†	-936.8	-1043.7	-5.1909	µg/L	-5.1909	ppb	12:41:27
1	Ni 231.604†	182.9	292.4	3.5286	µg/L	3.5286	ppb	12:41:27
1	P 214.914†	923.8	1071.0	39.758	µg/L	39.758	ppb	12:41:27
1	Pb 220.353†	19.5	-45.0	2.0010	µg/L	2.0010	ppb	12:41:27
1	S 181.975 Axial†	203.0	130.3	102.82	µg/L	102.82	ppb	12:41:27
1	Sb 206.836†	143.7	87.6	1.3162	µg/L	1.3162	ppb	12:41:27
1	Se 196.026†	-402.0	-481.0	-7.10	µg/L	-7.10	ppb	12:41:27
1	SiO2†	1841.5	384.9	41.103	µg/L	41.103	ppb	12:41:27
1	Si 251.611†	-1981.8	-3085.8	-48.017	µg/L	-48.017	ppb	12:41:27
1	Sn 189.927†	26.7	34.2	2.3569	µg/L	2.3569	ppb	12:41:27
1	Ti 334.940†	25636.1	28794.4	-5.2676	µg/L	-5.2676	ppb	12:41:25
1	Tl 190.801†	-204.0	-121.0	-15.062	µg/L	-15.062	ppb	12:41:27
1	U 409.014†	230563.6	267658.7	16064	µg/L	16064	ppb	12:41:25
1	V 292.402†	7304.2	8115.6	3.0290	µg/L	3.0290	ppb	12:41:27
1	Zn 213.857†	8415.7	9247.4	9.3703	µg/L	9.3703	ppb	12:41:27
2	Sc RADIAL	128687.2	128687.2	89.3	%			12:41:03
2	Al 396.153Radial†	2342325.5	2623804.1	522750	µg/L	522750	ppb	12:41:01
2	Ca 317.933Radial†	7292713.3	8168318.2	501400	µg/L	501400	ppb	12:41:01
2	Fe 238.204 Radial†	6286698.2	7041854.1	475250	µg/L	475250	ppb	12:41:01
2	K 766.490 Radial†	2144.8	844.1	-9.4784	µg/L	-9.4784	ppb	12:41:03
2	Mg 279.077 IEC†	1084875.2	1215048.1	502670	µg/L	502670	ppb	12:41:01
2	Na 589.592 Radial†	3187840.5	3569573.7	525030	µg/L	525030	ppb	12:41:01
2	Sr 421.552†	5105.7	5928.9	9.2445	µg/L	9.2445	ppb	12:41:03
2	Sc 361.383	1506608.3	1506608.3	85.756	%			12:41:29
2	Y 371.029	880777.2	880777.2	84.093	%			12:41:29
2	Ag 328.068†	2130.4	-1330.5	-0.6891	µg/L	-0.6891	ppb	12:41:29
2	As 188.979†	-178.3	-186.2	46.823	µg/L	46.823	ppb	12:41:31
2	B 249.677†	4312.4	1569.4	24.133	µg/L	24.133	ppb	12:41:29
2	Ba 233.527†	680.6	946.4	-2.0590	µg/L	-2.0590	ppb	12:41:31
2	Be 313.107†	-15023.9	-16542.6	0.1760	µg/L	0.1760	ppb	12:41:29
2	Cd 226.502†	5957.5	7052.9	-3.6857	µg/L	-3.6857	ppb	12:41:31
2	Co 228.616†	763.8	1080.2	-10.835	µg/L	-10.835	ppb	12:41:31
2	Cr 267.716†	419.2	312.3	0.2121	µg/L	0.2121	ppb	12:41:31
2	Cu 324.752†	-15876.9	-21373.1	9.5022	µg/L	9.5022	ppb	12:41:31
2	Mn 257.610†	18017.9	20800.1	5.7126	µg/L	5.7126	ppb	12:41:29
2	Mo 202.031†	-906.2	-1014.0	-3.5179	µg/L	-3.5179	ppb	12:41:31
2	Ni 231.604†	295.6	425.0	5.1291	µg/L	5.1291	ppb	12:41:31
2	P 214.914†	987.3	1150.8	52.044	µg/L	52.044	ppb	12:41:31
2	Pb 220.353†	-24.0	-95.6	-0.6086	µg/L	-0.6086	ppb	12:41:31

2	S 181.975 Axial†	273.3	213.6	168.70 µg/L	168.70 ppb	12:41:31
2	Sb 206.836†	190.3	142.9	8.0553 µg/L	8.0553 ppb	12:41:31
2	Se 196.026†	-318.0	-385.6	33.6 µg/L	33.6 ppb	12:41:31
2	SiO2†	1832.0	385.5	41.040 µg/L	41.040 ppb	12:41:31
2	Si 251.611†	-2028.7	-3153.2	-49.135 µg/L	-49.135 ppb	12:41:31
2	Sn 189.927†	121.8	145.3	9.7171 µg/L	9.7171 ppb	12:41:31
2	Ti 334.940†	26032.9	29420.3	-5.4980 µg/L	-5.4980 ppb	12:41:29
2	Tl 190.801†	-253.0	-179.4	-22.606 µg/L	-22.606 ppb	12:41:31
2	U 409.014†	229604.5	268007.3	16083 µg/L	16083 ppb	12:41:29
2	V 292.402†	7425.2	8303.2	2.6969 µg/L	2.6969 ppb	12:41:31
2	Zn 213.857†	8447.6	9338.1	8.6742 µg/L	8.6742 ppb	12:41:31
3	Sc RADIAL	129608.8	129608.8	89.9 %		12:41:07
3	Al 396.153Radial†	2289216.1	2546081.2	507260 µg/L	507260 ppb	12:41:05
3	Ca 317.933Radial†	7112435.7	7909733.6	485530 µg/L	485530 ppb	12:41:05
3	Fe 238.204 Radial†	6123730.4	6810533.6	459640 µg/L	459640 ppb	12:41:05
3	K 766.490 Radial†	2056.5	728.8	-43.496 µg/L	-43.496 ppb	12:41:07
3	Mg 279.077 IEC†	1052560.6	1170467.9	484230 µg/L	484230 ppb	12:41:05
3	Na 589.592 Radial†	3113311.8	3461294.6	509100 µg/L	509100 ppb	12:41:05
3	Sr 421.552†	5060.5	5838.0	9.1667 µg/L	9.1667 ppb	12:41:07
3	Sc 361.383	1497470.8	1497470.8	85.235 %		12:41:34
3	Y 371.029	875506.8	875506.8	83.590 %		12:41:34
3	Ag 328.068†	2428.7	-965.4	1.2644 µg/L	1.2644 ppb	12:41:34
3	As 188.979†	-262.7	-286.6	11.094 µg/L	11.094 ppb	12:41:36
3	B 249.677†	4243.6	1519.3	23.366 µg/L	23.366 ppb	12:41:34
3	Ba 233.527†	699.9	973.9	-1.7428 µg/L	-1.7428 ppb	12:41:36
3	Be 313.107†	-14870.9	-16469.9	0.2040 µg/L	0.2040 ppb	12:41:34
3	Cd 226.502†	5911.6	7041.4	-2.1205 µg/L	-2.1205 ppb	12:41:36
3	Co 228.616†	683.2	991.1	-11.172 µg/L	-11.172 ppb	12:41:36
3	Cr 267.716†	260.3	128.8	-1.6349 µg/L	-1.6349 ppb	12:41:36
3	Cu 324.752†	-15804.1	-21400.6	6.6375 µg/L	6.6375 ppb	12:41:36
3	Mn 257.610†	17746.1	20609.5	6.2388 µg/L	6.2388 ppb	12:41:34
3	Mo 202.031†	-927.0	-1044.8	-5.4315 µg/L	-5.4315 ppb	12:41:36
3	Ni 231.604†	162.0	270.3	3.2622 µg/L	3.2622 ppb	12:41:36
3	P 214.914†	1063.3	1247.1	80.782 µg/L	80.782 ppb	12:41:36
3	Pb 220.353†	-131.4	-221.7	-8.4718 µg/L	-8.4718 ppb	12:41:36
3	S 181.975 Axial†	239.3	175.6	138.69 µg/L	138.69 ppb	12:41:36
3	Sb 206.836†	95.3	32.8	-5.4656 µg/L	-5.4656 ppb	12:41:36
3	Se 196.026†	-406.3	-491.4	-12.1 µg/L	-12.1 ppb	12:41:36
3	SiO2†	1947.7	534.3	56.687 µg/L	56.687 ppb	12:41:36
3	Si 251.611†	-1715.8	-2800.5	-43.553 µg/L	-43.553 ppb	12:41:36
3	Sn 189.927†	55.8	68.7	4.6417 µg/L	4.6417 ppb	12:41:36
3	Ti 334.940†	24714.9	28059.3	-5.7604 µg/L	-5.7604 ppb	12:41:34
3	Tl 190.801†	-154.1	-65.2	-7.8481 µg/L	-7.8481 ppb	12:41:36
3	U 409.014†	228549.9	268403.9	16110 µg/L	16110 ppb	12:41:34
3	V 292.402†	7253.9	8155.0	3.5896 µg/L	3.5896 ppb	12:41:36
3	Zn 213.857†	8561.3	9531.6	11.369 µg/L	11.369 ppb	12:41:36

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1506317.7	85.739	%	0.4955				0.58%
Sc RADIAL	129332.1	89.7	%	0.39				0.43%
Y 371.029	880667.1	84.083	%	0.4875				0.58%
Ag 328.068†	-1125.2	0.4075	µg/L	0.99859	0.4075	ppb	0.99859	245.04%
Al 396.153Radial†	2577194.9	513460	µg/L	8191.1	513460	ppb	8191.1	1.60%
QC value within limits for Al 396.153Radial Recovery = 102.69%								
As 188.979†	-224.4	32.450	µg/L	18.8607	32.450	ppb	18.8607	58.12%
B 249.677†	1466.8	22.556	µg/L	2.1028	22.556	ppb	2.1028	9.32%
Ba 233.527†	970.9	-1.8358	µg/L	0.19414	-1.8358	ppb	0.19414	10.57%
Be 313.107†	-16514.3	0.1844	µg/L	0.01702	0.1844	ppb	0.01702	9.23%
Ca 317.933Radial†	8015632.4	492030	µg/L	8317.0	492030	ppb	8317.0	1.69%
QC value within limits for Ca 317.933Radial Recovery = 98.41%								
Cd 226.502†	6985.1	-3.1498	µg/L	0.89162	-3.1498	ppb	0.89162	28.31%
Co 228.616†	1005.4	-11.314	µg/L	0.5649	-11.314	ppb	0.5649	4.99%
Cr 267.716†	289.4	-0.1678	µg/L	1.31883	-0.1678	ppb	1.31883	785.92%
Cu 324.752†	-21307.1	8.1164	µg/L	1.43462	8.1164	ppb	1.43462	17.68%
Fe 238.204 Radial†	6903553.8	465910	µg/L	8242.2	465910	ppb	8242.2	1.77%
QC value within limits for Fe 238.204 Radial Recovery = 93.18%								
K 766.490 Radial†	767.2	-32.867	µg/L	20.2834	-32.867	ppb	20.2834	61.71%
Mg 279.077 IEC†	1188733.9	491780	µg/L	9662.6	491780	ppb	9662.6	1.96%

QC value within limits for Mg 279.077 IEC Recovery = 98.36%

Mn 257.610†	20662.0	5.9903	µg/L	0.26432	5.9903	ppb	0.26432	4.41%
Mo 202.031†	-1034.2	-4.7134	µg/L	1.04231	-4.7134	ppb	1.04231	22.11%
Na 589.592 Radial†	3503783.8	515350	µg/L	8498.2	515350	ppb	8498.2	1.65%

QC value within limits for Na 589.592 Radial Recovery = 103.07%

Ni 231.604†	329.2	3.9733	µg/L	1.00981	3.9733	ppb	1.00981	25.41%
P 214.914†	1156.3	57.528	µg/L	21.0546	57.528	ppb	21.0546	36.60%
Pb 220.353†	-120.8	-2.3598	µg/L	5.45163	-2.3598	ppb	5.45163	231.02%
S 181.975 Axial†	173.2	136.74	µg/L	32.985	136.74	ppb	32.985	24.12%
Sb 206.836†	87.8	1.3020	µg/L	6.76045	1.3020	ppb	6.76045	519.24%
Se 196.026†	-452.7	4.78	µg/L	25.058	4.78	ppb	25.058	524.65%
SiO2†	434.9	46.277	µg/L	9.0157	46.277	ppb	9.0157	19.48%
Si 251.611†	-3013.2	-46.902	µg/L	2.9530	-46.902	ppb	2.9530	6.30%
Sn 189.927†	82.7	5.5719	µg/L	3.76724	5.5719	ppb	3.76724	67.61%
Sr 421.552†	5813.0	9.0604	µg/L	0.25458	9.0604	ppb	0.25458	2.81%
Ti 334.940†	28758.0	-5.5087	µg/L	0.24658	-5.5087	ppb	0.24658	4.48%
Tl 190.801†	-121.9	-15.172	µg/L	7.3798	-15.172	ppb	7.3798	48.64%
U 409.014†	268023.3	16086	µg/L	22.9	16086	ppb	22.9	0.14%

QC value within limits for U 409.014 Recovery = 107.24%

V 292.402†	8191.2	3.1052	µg/L	0.45122	3.1052	ppb	0.45122	14.53%
Zn 213.857†	9372.4	9.8044	µg/L	1.39868	9.8044	ppb	1.39868	14.27%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 4/1/2010 12:41:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141497.7	141497.7	98.2	%			12:42:17
1	Al 396.153Radial†	2876.9	2999.6	138.22	µg/L	138.22	ppb	12:42:19
1	Ca 317.933Radial†	3365.6	2878.6	176.70	µg/L	176.70	ppb	12:42:19
1	Fe 238.204 Radial†	962.4	845.1	57.035	µg/L	57.035	ppb	12:42:19
1	K 766.490 Radial†	759040.4	771698.3	297490	µg/L	297490	ppb	12:42:17
1	Mg 279.077 IEC†	-50.8	-217.0	152.10	µg/L	152.10	ppb	12:42:19
1	Na 589.592 Radial†	4753.9	3585.3	262.77	µg/L	262.77	ppb	12:42:17
1	Sr 421.552†	4339438.7	4420923.4	9819.5	µg/L	9819.5	ppb	12:42:14
1	Sc 361.383	1711618.0	1711618.0	97.425	%			12:42:41
1	Y 371.029	993047.4	993047.4	94.812	%			12:42:41
1	Ag 328.068†	-26497.7	-31013.0	-2.2914	µg/L	-2.2914	ppb	12:42:43
1	As 188.979†	30989.8	31830.7	10470	µg/L	10470	ppb	12:42:43
1	B 249.677†	320906.1	325929.6	4989.2	µg/L	4989.2	ppb	12:42:41
1	Ba 233.527†	3153741.9	3237260.7	13745	µg/L	13745	ppb	12:42:41
1	Be 313.107†	9808468.6	10068722.3	2867.2	µg/L	2867.2	ppb	12:42:37
1	Cd 226.502†	1451236.1	1489703.9	9781.8	µg/L	9781.8	ppb	12:42:41
1	Co 228.616†	714421.8	733496.3	9491.6	µg/L	9491.6	ppb	12:42:41
1	Cr 267.716†	2847570.3	2922666.4	24095	µg/L	24095	ppb	12:42:41
1	Cu 324.752†	4839926.7	4965006.3	20138	µg/L	20138	ppb	12:42:41
1	Mn 257.610†	7105907.3	7293534.1	9434.9	µg/L	9434.9	ppb	12:42:41
1	Mo 202.031†	310039.7	318278.0	9894.9	µg/L	9894.9	ppb	12:42:43
1	Ni 231.604†	791228.5	812224.1	9803.1	µg/L	9803.1	ppb	12:42:41
1	P 214.914†	67592.9	69379.3	15325	µg/L	15325	ppb	12:42:43
1	Pb 220.353†	395842.8	406238.9	23825	µg/L	23825	ppb	12:42:41
1	S 181.975 Axial†	65854.0	67489.6	53483	µg/L	53483	ppb	12:42:43
1	Sb 206.836†	79638.4	81664.6	10068	µg/L	10068	ppb	12:42:43
1	Se 196.026†	25716.6	26381.6	10100	µg/L	10100	ppb	12:42:43
1	SiO2†	964093.4	987827.4	102790	µg/L	102790	ppb	12:42:41
1	Si 251.611†	2986467.6	3064624.3	47903	µg/L	47903	ppb	12:42:41
1	Sn 189.927†	148484.6	152412.9	10125	µg/L	10125	ppb	12:42:43
1	Ti 334.940†	9866497.5	10126371.5	9981.4	µg/L	9981.4	ppb	12:42:37
1	Tl 190.801†	72547.7	74581.0	9801.3	µg/L	9801.3	ppb	12:42:43
1	U 409.014†	-9719.5	-9712.0	26.495	µg/L	26.495	ppb	12:42:43
1	V 292.402†	1925455.6	1975997.6	10265	µg/L	10265	ppb	12:42:41
1	Zn 213.857†	2413261.0	2476540.5	14497	µg/L	14497	ppb	12:42:41
2	Sc RADIAL	141894.5	141894.5	98.4	%			12:42:23
2	Al 396.153Radial†	2910.6	3025.7	154.19	µg/L	154.19	ppb	12:42:25
2	Ca 317.933Radial†	3265.3	2767.1	169.85	µg/L	169.85	ppb	12:42:25
2	Fe 238.204 Radial†	898.3	777.3	52.458	µg/L	52.458	ppb	12:42:25
2	K 766.490 Radial†	764922.2	775511.0	298960	µg/L	298960	ppb	12:42:23
2	Mg 279.077 IEC†	-159.9	-327.7	100.58	µg/L	100.58	ppb	12:42:25
2	Na 589.592 Radial†	4581.1	3396.3	233.65	µg/L	233.65	ppb	12:42:23
2	Sr 421.552†	4302665.9	4371203.4	9709.1	µg/L	9709.1	ppb	12:42:21
2	Sc 361.383	1697672.8	1697672.8	96.631	%			12:42:51
2	Y 371.029	985778.8	985778.8	94.118	%			12:42:51
2	Ag 328.068†	-25458.6	-30161.0	0.9822	µg/L	0.9822	ppb	12:42:53
2	As 188.979†	29703.7	30761.0	10127	µg/L	10127	ppb	12:42:53
2	B 249.677†	318232.4	325868.3	4988.2	µg/L	4988.2	ppb	12:42:51
2	Ba 233.527†	3128172.2	3237390.2	13745	µg/L	13745	ppb	12:42:51
2	Be 313.107†	9862371.8	10207204.7	2906.7	µg/L	2906.7	ppb	12:42:47
2	Cd 226.502†	1438682.0	1488948.1	9776.8	µg/L	9776.8	ppb	12:42:51
2	Co 228.616†	708209.6	733091.1	9486.4	µg/L	9486.4	ppb	12:42:51
2	Cr 267.716†	2824924.3	2923240.0	24100	µg/L	24100	ppb	12:42:51
2	Cu 324.752†	4800385.8	4964894.4	20138	µg/L	20138	ppb	12:42:51
2	Mn 257.610†	7048653.8	7294197.7	9435.7	µg/L	9435.7	ppb	12:42:51
2	Mo 202.031†	300303.0	310815.9	9663.0	µg/L	9663.0	ppb	12:42:53
2	Ni 231.604†	784853.1	812297.6	9804.0	µg/L	9804.0	ppb	12:42:51
2	P 214.914†	64896.4	67158.6	14827	µg/L	14827	ppb	12:42:53
2	Pb 220.353†	392375.2	405987.9	23810	µg/L	23810	ppb	12:42:51

2	S 181.975 Axial†	63107.6	65202.7	51672	µg/L	51672 ppb	12:42:53
2	Sb 206.836†	76736.1	79332.5	9770.9	µg/L	9770.9 ppb	12:42:53
2	Se 196.026†	24666.8	25512.0	9720	µg/L	9720 ppb	12:42:53
2	SiO2†	956744.5	988351.0	102860	µg/L	102860 ppb	12:42:51
2	Si 251.611†	2962594.8	3065099.5	47916	µg/L	47916 ppb	12:42:51
2	Sn 189.927†	143039.7	148030.1	9834.9	µg/L	9834.9 ppb	12:42:53
2	Ti 334.940†	9936637.5	10282146.0	10135	µg/L	10135 ppb	12:42:47
2	Tl 190.801†	70107.2	72667.1	9555.2	µg/L	9555.2 ppb	12:42:53
2	U 409.014†	-9877.8	-9957.7	11.518	µg/L	11.518 ppb	12:42:53
2	V 292.402†	1909267.9	1975479.9	10260	µg/L	10260 ppb	12:42:51
2	Zn 213.857†	2392562.5	2475467.6	14491	µg/L	14491 ppb	12:42:51
3	Sc RADIAL	140557.4	140557.4	97.5	%		12:42:30
3	Al 396.153Radial†	2932.9	3076.7	157.82	µg/L	157.82 ppb	12:42:32
3	Ca 317.933Radial†	3126.6	2656.3	163.06	µg/L	163.06 ppb	12:42:32
3	Fe 238.204 Radial†	821.0	706.6	47.689	µg/L	47.689 ppb	12:42:32
3	K 766.490 Radial†	755104.1	772834.4	297930	µg/L	297930 ppb	12:42:30
3	Mg 279.077 IEC†	-100.6	-268.3	128.61	µg/L	128.61 ppb	12:42:32
3	Na 589.592 Radial†	4234.1	3084.7	188.74	µg/L	188.74 ppb	12:42:30
3	Sr 421.552†	4288547.0	4398305.4	9769.3	µg/L	9769.3 ppb	12:42:28
3	Sc 361.383	1705019.0	1705019.0	97.049	%		12:43:01
3	Y 371.029	989883.7	989883.7	94.510	%		12:43:01
3	Ag 328.068†	-26202.8	-30814.3	-1.5132	µg/L	-1.5132 ppb	12:43:03
3	As 188.979†	30589.0	31540.8	10377	µg/L	10377 ppb	12:43:03
3	B 249.677†	320291.4	326571.1	4999.0	µg/L	4999.0 ppb	12:43:01
3	Ba 233.527†	3143672.7	3239414.0	13754	µg/L	13754 ppb	12:43:01
3	Be 313.107†	9776380.5	10074624.2	2868.9	µg/L	2868.9 ppb	12:42:57
3	Cd 226.502†	1446125.9	1490203.6	9785.1	µg/L	9785.1 ppb	12:43:01
3	Co 228.616†	711921.9	733758.5	9495.0	µg/L	9495.0 ppb	12:43:01
3	Cr 267.716†	2838552.7	2924687.0	24112	µg/L	24112 ppb	12:43:01
3	Cu 324.752†	4824343.0	4968176.1	20151	µg/L	20151 ppb	12:43:01
3	Mn 257.610†	7080341.4	7295420.2	9437.3	µg/L	9437.3 ppb	12:43:01
3	Mo 202.031†	305994.2	315341.2	9803.6	µg/L	9803.6 ppb	12:43:03
3	Ni 231.604†	788433.7	812487.5	9806.3	µg/L	9806.3 ppb	12:43:01
3	P 214.914†	66690.4	68717.8	15177	µg/L	15177 ppb	12:43:03
3	Pb 220.353†	394210.9	406129.9	23818	µg/L	23818 ppb	12:43:01
3	S 181.975 Axial†	64762.5	66626.5	52799	µg/L	52799 ppb	12:43:03
3	Sb 206.836†	78493.3	80801.0	9957.5	µg/L	9957.5 ppb	12:43:03
3	Se 196.026†	25294.9	26049.3	9920	µg/L	9920 ppb	12:43:03
3	SiO2†	962729.4	990251.9	103050	µg/L	103050 ppb	12:43:01
3	Si 251.611†	2981581.6	3071454.0	48012	µg/L	48012 ppb	12:43:01
3	Sn 189.927†	146648.0	151110.3	10038	µg/L	10038 ppb	12:43:03
3	Ti 334.940†	9857170.7	10155957.3	10011	µg/L	10011 ppb	12:42:57
3	Tl 190.801†	71370.1	73655.8	9681.9	µg/L	9681.9 ppb	12:43:03
3	U 409.014†	-9797.8	-9831.2	19.360	µg/L	19.360 ppb	12:43:03
3	V 292.402†	1918228.2	1976199.6	10265	µg/L	10265 ppb	12:43:01
3	Zn 213.857†	2404280.5	2476873.9	14499	µg/L	14499 ppb	12:43:01

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1704769.9	97.035	%	0.3971				0.41%
Sc RADIAL	141316.6	98.0	%	0.48				0.49%
Y 371.029	989570.0	94.480	%	0.3480				0.37%
Ag 328.068†	-30662.7	-0.9408	µg/L	1.71019	-0.9408	ppb	1.71019	181.78%
Al 396.153Radial†	3034.0	150.08	µg/L	10.423	150.08	ppb	10.423	6.95%
As 188.979†	31377.5	10325	µg/L	177.8	10325	ppb	177.8	1.72%
QC value within limits for As 188.979 Recovery = 103.25%								
B 249.677†	326123.0	4992.1	µg/L	5.99	4992.1	ppb	5.99	0.12%
QC value within limits for B 249.677 Recovery = 99.84%								
Ba 233.527†	3238021.6	13748	µg/L	5.1	13748	ppb	5.1	0.04%
QC value within limits for Ba 233.527 Recovery = 91.65%								
Be 313.107†	10116850.4	2880.9	µg/L	22.30	2880.9	ppb	22.30	0.77%
QC value within limits for Be 313.107 Recovery = 96.03%								
Ca 317.933Radial†	2767.3	169.87	µg/L	6.821	169.87	ppb	6.821	4.02%
Cd 226.502†	1489618.5	9781.2	µg/L	4.15	9781.2	ppb	4.15	0.04%
QC value within limits for Cd 226.502 Recovery = 97.81%								
Co 228.616†	733448.7	9491.0	µg/L	4.35	9491.0	ppb	4.35	0.05%
QC value within limits for Co 228.616 Recovery = 94.91%								
Cr 267.716†	2923531.1	24102	µg/L	8.6	24102	ppb	8.6	0.04%
QC value within limits for Cr 267.716 Recovery = 96.41%								

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Cu 324.752†          4966025.6       20143 µg/L          7.6       20143 ppb           7.6   0.04%
   QC value within limits for Cu 324.752  Recovery = 100.71%
Fe 238.204 Radial†       776.3      52.394 µg/L       4.6733      52.394 ppb        4.6733   8.92%
K 766.490 Radial†     773347.9      298120 µg/L        754.6      298120 ppb         754.6   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 99.37%
Mg 279.077 IEC†         -271.0      127.10 µg/L       25.791      127.10 ppb        25.791  20.29%
Mn 257.610†          7294384.0      9436.0 µg/L         1.24      9436.0 ppb          1.24   0.01%
   QC value within limits for Mn 257.610  Recovery = 94.36%
Mo 202.031†           314811.7      9787.2 µg/L       116.83      9787.2 ppb        116.83   1.19%
   QC value within limits for Mo 202.031  Recovery = 97.87%
Na 589.592 Radial†      3355.4      228.39 µg/L       37.296      228.39 ppb        37.296  16.33%
Ni 231.604†           812336.4      9804.5 µg/L         1.64      9804.5 ppb          1.64   0.02%
   QC value within limits for Ni 231.604  Recovery = 98.04%
P 214.914†             68418.6       15109 µg/L        255.8       15109 ppb         255.8   1.69%
   QC value within limits for P 214.914  Recovery = 100.73%
Pb 220.353†           406118.9       23818 µg/L          7.6       23818 ppb           7.6   0.03%
   QC value within limits for Pb 220.353  Recovery = 95.27%
S 181.975 Axial†       66439.6       52651 µg/L        914.8       52651 ppb         914.8   1.74%
   QC value within limits for S 181.975 Axial  Recovery = 105.30%
Sb 206.836†            80599.4      9932.0 µg/L       149.99      9932.0 ppb        149.99   1.51%
   QC value within limits for Sb 206.836  Recovery = 99.32%
Se 196.026†            25980.9        9900 µg/L        167.2        9900 ppb         167.2   1.69%
   QC value within limits for Se 196.026  Recovery = 98.98%
SiO2†                 988810.1      102900 µg/L        133.6      102900 ppb         133.6   0.13%
   QC value within limits for SiO2  Recovery = 96.17%
Si 251.611†          3067059.3       47944 µg/L         59.6       47944 ppb          59.6   0.12%
   QC value within limits for Si 251.611  Recovery = 95.89%
Sn 189.927†           150517.7      9999.3 µg/L       148.74      9999.3 ppb        148.74   1.49%
   QC value within limits for Sn 189.927  Recovery = 99.99%
Sr 421.552†          4396810.7      9765.9 µg/L        55.29      9765.9 ppb         55.29   0.57%
   QC value within limits for Sr 421.552  Recovery = 97.66%
Ti 334.940†         10188158.3       10042 µg/L         81.6       10042 ppb          81.6   0.81%
   QC value within limits for Ti 334.940  Recovery = 100.42%
Tl 190.801†            73634.7      9679.5 µg/L       123.06      9679.5 ppb        123.06   1.27%
   QC value within limits for Tl 190.801  Recovery = 96.79%
U 409.014†             -9833.6      19.124 µg/L       7.4915      19.124 ppb        7.4915  39.17%
V 292.402†           1975892.4       10263 µg/L          3.0       10263 ppb           3.0   0.03%
   QC value within limits for V 292.402  Recovery = 102.63%
Zn 213.857†          2476294.0       14496 µg/L          4.3       14496 ppb           4.3   0.03%
   QC value within limits for Zn 213.857  Recovery = 96.64%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/1/2010 12:43:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143423.7	143423.7	99.5	%			12:43:45
1	Al 396.153Radial†	25493.7	25691.3	5095.1	µg/L	5095.1	ppb	12:43:45
1	Ca 317.933Radial†	83641.7	83514.0	5126.4	µg/L	5126.4	ppb	12:43:45
1	Fe 238.204 Radial†	74963.1	75206.3	5075.6	µg/L	5075.6	ppb	12:43:45
1	K 766.490 Radial†	16267.3	14791.0	5697.7	µg/L	5697.7	ppb	12:43:45
1	Mg 279.077 IEC†	12774.2	12673.5	5255.3	µg/L	5255.3	ppb	12:43:45
1	Na 589.592 Radial†	69934.6	69030.1	10148	µg/L	10148	ppb	12:43:45
1	Sr 421.552†	222447.7	223780.8	497.01	µg/L	497.01	ppb	12:43:43
1	Sc 361.383	1731889.2	1731889.2	98.579	%			12:43:58
1	Y 371.029	1021315.1	1021315.1	97.511	%			12:43:58
1	Ag 328.068†	128324.7	126360.3	500.09	µg/L	500.09	ppb	12:43:58
1	As 188.979†	1526.6	1570.3	511.18	µg/L	511.18	ppb	12:44:18
1	B 249.677†	35412.0	32463.3	498.47	µg/L	498.47	ppb	12:43:58
1	Ba 233.527†	115670.0	117490.7	498.90	µg/L	498.90	ppb	12:43:58
1	Be 313.107†	1716417.0	1742144.5	496.27	µg/L	496.27	ppb	12:43:58
1	Cd 226.502†	74834.9	76019.8	498.63	µg/L	498.63	ppb	12:43:58
1	Co 228.616†	37992.8	38730.2	500.55	µg/L	500.55	ppb	12:43:58
1	Cr 267.716†	59934.0	60621.7	499.59	µg/L	499.59	ppb	12:43:58
1	Cu 324.752†	124191.1	123123.0	500.81	µg/L	500.81	ppb	12:43:58
1	Mn 257.610†	381185.9	386472.0	499.72	µg/L	499.72	ppb	12:43:58
1	Mo 202.031†	15948.1	16220.8	504.58	µg/L	504.58	ppb	12:44:18
1	Ni 231.604†	40454.3	41117.9	496.27	µg/L	496.27	ppb	12:43:58
1	P 214.914†	10958.5	11116.1	2484.5	µg/L	2484.5	ppb	12:44:18
1	Pb 220.353†	8680.4	8737.9	513.43	µg/L	513.43	ppb	12:44:18
1	S 181.975 Axial†	1406.7	1321.8	1050.1	µg/L	1050.1	ppb	12:44:18
1	Sb 206.836†	4003.0	3981.7	501.23	µg/L	501.23	ppb	12:44:18
1	Se 196.026†	1320.2	1324.5	507	µg/L	507	ppb	12:44:18
1	SiO2†	52437.6	51443.0	5353.6	µg/L	5353.6	ppb	12:43:58
1	Si 251.611†	158926.3	160430.5	2508.0	µg/L	2508.0	ppb	12:43:58
1	Sn 189.927†	7510.1	7621.7	506.30	µg/L	506.30	ppb	12:44:18
1	Ti 334.940†	501757.9	508056.4	500.54	µg/L	500.54	ppb	12:43:58
1	Tl 190.801†	3714.3	3883.5	509.94	µg/L	509.94	ppb	12:44:18
1	U 409.014†	6841.2	7204.3	464.77	µg/L	464.77	ppb	12:43:58
1	V 292.402†	95975.4	97004.0	500.93	µg/L	500.93	ppb	12:43:58
1	Zn 213.857†	84938.9	85651.1	500.08	µg/L	500.08	ppb	12:43:58
2	Sc RADIAL	141258.6	141258.6	98.0	%			12:43:49
2	Al 396.153Radial†	25239.9	25825.0	5121.9	µg/L	5121.9	ppb	12:43:49
2	Ca 317.933Radial†	82411.2	83546.8	5128.4	µg/L	5128.4	ppb	12:43:49
2	Fe 238.204 Radial†	73577.5	74947.1	5058.1	µg/L	5058.1	ppb	12:43:49
2	K 766.490 Radial†	16045.6	14815.4	5707.1	µg/L	5707.1	ppb	12:43:49
2	Mg 279.077 IEC†	12461.8	12551.5	5204.8	µg/L	5204.8	ppb	12:43:49
2	Na 589.592 Radial†	68835.8	68986.2	10142	µg/L	10142	ppb	12:43:49
2	Sr 421.552†	223408.4	228187.9	506.80	µg/L	506.80	ppb	12:43:47
2	Sc 361.383	1743277.5	1743277.5	99.227	%			12:44:21
2	Y 371.029	1027080.9	1027080.9	98.062	%			12:44:21
2	Ag 328.068†	129476.8	126671.0	501.32	µg/L	501.32	ppb	12:44:21
2	As 188.979†	1514.7	1548.2	504.09	µg/L	504.09	ppb	12:44:41
2	B 249.677†	35658.5	32477.0	498.68	µg/L	498.68	ppb	12:44:21
2	Ba 233.527†	116364.5	117424.1	498.62	µg/L	498.62	ppb	12:44:21
2	Be 313.107†	1732855.2	1747336.2	497.75	µg/L	497.75	ppb	12:44:21
2	Cd 226.502†	75400.2	76093.6	499.12	µg/L	499.12	ppb	12:44:21
2	Co 228.616†	38259.3	38747.0	500.77	µg/L	500.77	ppb	12:44:21
2	Cr 267.716†	60319.9	60613.4	499.52	µg/L	499.52	ppb	12:44:21
2	Cu 324.752†	124502.2	122613.5	498.74	µg/L	498.74	ppb	12:44:21
2	Mn 257.610†	383535.8	386314.2	499.51	µg/L	499.51	ppb	12:44:21
2	Mo 202.031†	15975.2	16142.4	502.14	µg/L	502.14	ppb	12:44:41
2	Ni 231.604†	40808.8	41207.1	497.35	µg/L	497.35	ppb	12:44:21
2	P 214.914†	11003.5	11088.9	2478.4	µg/L	2478.4	ppb	12:44:41
2	Pb 220.353†	8678.5	8678.5	509.94	µg/L	509.94	ppb	12:44:41

2	S 181.975 Axial†	1394.4	1300.1	1032.9 µg/L	1032.9 ppb	12:44:41
2	Sb 206.836†	4033.5	3985.9	501.72 µg/L	501.72 ppb	12:44:41
2	Se 196.026†	1306.7	1302.1	498 µg/L	498 ppb	12:44:41
2	SiO2†	52788.8	51449.4	5354.4 µg/L	5354.4 ppb	12:44:21
2	Si 251.611†	159619.0	160075.4	2502.5 µg/L	2502.5 ppb	12:44:21
2	Sn 189.927†	7526.1	7588.0	504.07 µg/L	504.07 ppb	12:44:41
2	Ti 334.940†	504536.0	507531.0	500.02 µg/L	500.02 ppb	12:44:21
2	Tl 190.801†	3714.1	3858.7	506.72 µg/L	506.72 ppb	12:44:41
2	U 409.014†	6998.5	7317.5	471.60 µg/L	471.60 ppb	12:44:21
2	V 292.402†	96607.9	97005.3	500.92 µg/L	500.92 ppb	12:44:21
2	Zn 213.857†	85367.0	85519.6	499.30 µg/L	499.30 ppb	12:44:21
3	Sc RADIAL	142860.9	142860.9	99.1 %		12:43:54
3	Al 396.153Radial†	25234.0	25530.2	5063.0 µg/L	5063.0 ppb	12:43:54
3	Ca 317.933Radial†	83005.3	83203.0	5107.3 µg/L	5107.3 ppb	12:43:54
3	Fe 238.204 Radial†	74372.4	74907.0	5055.4 µg/L	5055.4 ppb	12:43:54
3	K 766.490 Radial†	16163.3	14750.5	5682.1 µg/L	5682.1 ppb	12:43:54
3	Mg 279.077 IEC†	12642.0	12590.7	5221.1 µg/L	5221.1 ppb	12:43:54
3	Na 589.592 Radial†	69704.5	69074.7	10155 µg/L	10155 ppb	12:43:54
3	Sr 421.552†	219628.7	221817.0	492.65 µg/L	492.65 ppb	12:43:51
3	Sc 361.383	1736850.3	1736850.3	98.861 %		12:44:44
3	Y 371.029	1023679.0	1023679.0	97.737 %		12:44:44
3	Ag 328.068†	129269.3	126944.0	502.39 µg/L	502.39 ppb	12:44:44
3	As 188.979†	1509.8	1548.8	504.26 µg/L	504.26 ppb	12:45:05
3	B 249.677†	35404.1	32352.6	496.77 µg/L	496.77 ppb	12:44:44
3	Ba 233.527†	115715.4	117201.5	497.67 µg/L	497.67 ppb	12:44:44
3	Be 313.107†	1724431.4	1745277.8	497.16 µg/L	497.16 ppb	12:44:44
3	Cd 226.502†	75204.3	76176.6	499.66 µg/L	499.66 ppb	12:44:44
3	Co 228.616†	38022.5	38650.1	499.51 µg/L	499.51 ppb	12:44:44
3	Cr 267.716†	59680.0	60191.1	496.03 µg/L	496.03 ppb	12:44:44
3	Cu 324.752†	123665.5	122231.5	497.20 µg/L	497.20 ppb	12:44:44
3	Mn 257.610†	381895.5	386085.3	499.22 µg/L	499.22 ppb	12:44:44
3	Mo 202.031†	16016.5	16243.8	505.29 µg/L	505.29 ppb	12:45:05
3	Ni 231.604†	40765.3	41315.3	498.65 µg/L	498.65 ppb	12:44:44
3	P 214.914†	11020.8	11147.3	2491.5 µg/L	2491.5 ppb	12:45:05
3	Pb 220.353†	8637.2	8669.1	509.39 µg/L	509.39 ppb	12:45:05
3	S 181.975 Axial†	1396.2	1307.1	1038.5 µg/L	1038.5 ppb	12:45:05
3	Sb 206.836†	4012.5	3979.7	501.04 µg/L	501.04 ppb	12:45:05
3	Se 196.026†	1312.3	1312.6	502 µg/L	502 ppb	12:45:05
3	SiO2†	52490.1	51344.1	5343.3 µg/L	5343.3 ppb	12:44:44
3	Si 251.611†	158908.5	159952.0	2500.5 µg/L	2500.5 ppb	12:44:44
3	Sn 189.927†	7522.7	7612.6	505.70 µg/L	505.70 ppb	12:45:05
3	Ti 334.940†	501764.4	506609.1	499.11 µg/L	499.11 ppb	12:44:44
3	Tl 190.801†	3721.9	3880.4	509.52 µg/L	509.52 ppb	12:45:05
3	U 409.014†	7118.1	7464.6	480.43 µg/L	480.43 ppb	12:44:44
3	V 292.402†	96113.7	96865.7	500.24 µg/L	500.24 ppb	12:44:44
3	Zn 213.857†	84710.4	85173.7	497.26 µg/L	497.26 ppb	12:44:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1737339.0	98.889	%	0.3250				0.33%
Sc RADIAL	142514.4	98.9	%	0.78				0.79%
Y 371.029	1024025.0	97.770	%	0.2767				0.28%
Ag 328.068†	126658.4	501.27	µg/L	1.147	501.27	ppb	1.147	0.23%
QC value within limits for Ag 328.068 Recovery = 100.25%								
Al 396.153Radial†	25682.2	5093.3	µg/L	29.48	5093.3	ppb	29.48	0.58%
QC value within limits for Al 396.153Radial Recovery = 101.87%								
As 188.979†	1555.8	506.51	µg/L	4.047	506.51	ppb	4.047	0.80%
QC value within limits for As 188.979 Recovery = 101.30%								
B 249.677†	32431.0	497.98	µg/L	1.048	497.98	ppb	1.048	0.21%
QC value within limits for B 249.677 Recovery = 99.60%								
Ba 233.527†	117372.1	498.40	µg/L	0.643	498.40	ppb	0.643	0.13%
QC value within limits for Ba 233.527 Recovery = 99.68%								
Be 313.107†	1744919.5	497.06	µg/L	0.746	497.06	ppb	0.746	0.15%
QC value within limits for Be 313.107 Recovery = 99.41%								
Ca 317.933Radial†	83421.2	5120.7	µg/L	11.65	5120.7	ppb	11.65	0.23%
QC value within limits for Ca 317.933Radial Recovery = 102.41%								
Cd 226.502†	76096.7	499.14	µg/L	0.516	499.14	ppb	0.516	0.10%
QC value within limits for Cd 226.502 Recovery = 99.83%								
Co 228.616†	38709.1	500.28	µg/L	0.669	500.28	ppb	0.669	0.13%

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   QC value within limits for Co 228.616  Recovery = 100.06%
Cr 267.716†            60475.4      498.38 µg/L         2.036      498.38 ppb          2.036   0.41%
   QC value within limits for Cr 267.716  Recovery = 99.68%
Cu 324.752†           122656.0      498.92 µg/L         1.810      498.92 ppb          1.810   0.36%
   QC value within limits for Cu 324.752  Recovery = 99.78%
Fe 238.204 Radial†     75020.2      5063.0 µg/L         10.96      5063.0 ppb          10.96   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.26%
K 766.490 Radial†      14785.6      5695.7 µg/L         12.63      5695.7 ppb          12.63   0.22%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 113.91%
Mg 279.077 IEC†        12605.2      5227.1 µg/L         25.79      5227.1 ppb          25.79   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.54%
Mn 257.610†           386290.5      499.48 µg/L         0.251      499.48 ppb          0.251   0.05%
   QC value within limits for Mn 257.610  Recovery = 99.90%
Mo 202.031†            16202.3      504.00 µg/L         1.651      504.00 ppb          1.651   0.33%
   QC value within limits for Mo 202.031  Recovery = 100.80%
Na 589.592 Radial†     69030.3       10148 µg/L           6.5       10148 ppb            6.5   0.06%
   QC value within limits for Na 589.592 Radial  Recovery = 101.48%
Ni 231.604†            41213.4      497.42 µg/L         1.193      497.42 ppb          1.193   0.24%
   QC value within limits for Ni 231.604  Recovery = 99.48%
P 214.914†             11117.4      2484.8 µg/L          6.55      2484.8 ppb           6.55   0.26%
   QC value within limits for P 214.914  Recovery = 99.39%
Pb 220.353†             8695.2      510.92 µg/L         2.191      510.92 ppb          2.191   0.43%
   QC value within limits for Pb 220.353  Recovery = 102.18%
S 181.975 Axial†        1309.7      1040.5 µg/L          8.78      1040.5 ppb           8.78   0.84%
   QC value within limits for S 181.975 Axial  Recovery = 104.05%
Sb 206.836†             3982.4      501.33 µg/L         0.350      501.33 ppb          0.350   0.07%
   QC value within limits for Sb 206.836  Recovery = 100.27%
Se 196.026†             1313.1         502 µg/L           4.3         502 ppb            4.3   0.85%
   QC value within limits for Se 196.026  Recovery = 100.49%
SiO2†                  51412.1      5350.4 µg/L          6.21      5350.4 ppb           6.21   0.12%
   QC value within limits for SiO2  Recovery = 100.05%
Si 251.611†           160152.7      2503.7 µg/L          3.89      2503.7 ppb           3.89   0.16%
   QC value within limits for Si 251.611  Recovery = 100.15%
Sn 189.927†             7607.4      505.36 µg/L         1.153      505.36 ppb          1.153   0.23%
   QC value within limits for Sn 189.927  Recovery = 101.07%
Sr 421.552†           224595.2      498.82 µg/L         7.247      498.82 ppb          7.247   1.45%
   QC value within limits for Sr 421.552  Recovery = 99.76%
Ti 334.940†           507398.9      499.89 µg/L         0.724      499.89 ppb          0.724   0.14%
   QC value within limits for Ti 334.940  Recovery = 99.98%
Tl 190.801†             3874.2      508.73 µg/L         1.748      508.73 ppb          1.748   0.34%
   QC value within limits for Tl 190.801  Recovery = 101.75%
U 409.014†              7328.8      472.27 µg/L         7.854      472.27 ppb          7.854   1.66%
   QC value within limits for U 409.014  Recovery = 94.45%
V 292.402†             96958.3      500.70 µg/L         0.400      500.70 ppb          0.400   0.08%
   QC value within limits for V 292.402  Recovery = 100.14%
Zn 213.857†            85448.1      498.88 µg/L         1.457      498.88 ppb          1.457   0.29%
   QC value within limits for Zn 213.857  Recovery = 99.78%
QC Failed.  Continue with analysis.
```

Sequence No.: 14 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/1/2010 12:45:12**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142944.3	142944.3	99.2	%			12:45:41
1	Al 396.153Radial†	-25.0	43.7	8.6429	µg/L	8.6429	ppb	12:46:01
1	Ca 317.933Radial†	730.9	187.0	11.477	µg/L	11.477	ppb	12:46:01
1	Fe 238.204 Radial†	284.5	151.6	10.229	µg/L	10.229	ppb	12:46:01
1	K 766.490 Radial†	2417.8	879.7	339.09	µg/L	339.09	ppb	12:45:41
1	Mg 279.077 IEC†	201.5	38.0	15.748	µg/L	15.748	ppb	12:46:01
1	Na 589.592 Radial†	2273.7	1035.2	151.96	µg/L	151.96	ppb	12:45:41
1	Sr 421.552†	-51.2	158.2	0.3513	µg/L	0.3513	ppb	12:45:41
1	Sc 361.383	1754685.9	1754685.9	99.876	%			12:46:49
1	Y 371.029	1045987.5	1045987.5	99.867	%			12:46:49
1	Ag 328.068†	3627.2	-183.1	-0.7126	µg/L	-0.7126	ppb	12:46:51
1	As 188.979†	-16.3	5.4	1.7332	µg/L	1.7332	ppb	12:47:11
1	B 249.677†	3798.1	343.5	5.2912	µg/L	5.2912	ppb	12:46:51
1	Ba 233.527†	-61.8	90.9	0.3866	µg/L	0.3866	ppb	12:47:11
1	Be 313.107†	-655.9	320.2	0.0900	µg/L	0.0900	ppb	12:46:51
1	Cd 226.502†	-67.1	38.6	0.2523	µg/L	0.2523	ppb	12:47:11
1	Co 228.616†	-165.7	23.6	0.3047	µg/L	0.3047	ppb	12:47:11
1	Cr 267.716†	263.6	87.3	0.7235	µg/L	0.7235	ppb	12:47:11
1	Cu 324.752†	3025.2	170.0	0.6883	µg/L	0.6883	ppb	12:46:51
1	Mn 257.610†	415.6	205.6	0.2653	µg/L	0.2653	ppb	12:47:11
1	Mo 202.031†	0.3	43.0	1.3376	µg/L	1.3376	ppb	12:47:11
1	Ni 231.604†	-71.0	9.1	0.1102	µg/L	0.1102	ppb	12:47:11
1	P 214.914†	-24.1	-24.6	-5.5274	µg/L	-5.5274	ppb	12:47:11
1	Pb 220.353†	112.6	45.1	2.6473	µg/L	2.6473	ppb	12:47:11
1	S 181.975 Axial†	118.5	13.5	10.686	µg/L	10.686	ppb	12:47:11
1	Sb 206.836†	76.9	-2.0	-0.2434	µg/L	-0.2434	ppb	12:47:11
1	Se 196.026†	28.0	13.3	5.05	µg/L	5.05	ppb	12:47:11
1	SiO2†	1824.8	76.2	7.9070	µg/L	7.9070	ppb	12:47:11
1	Si 251.611†	986.2	199.9	3.1100	µg/L	3.1100	ppb	12:46:51
1	Sn 189.927†	18.3	21.5	1.4246	µg/L	1.4246	ppb	12:47:11
1	Ti 334.940†	987.6	52.0	0.0518	µg/L	0.0518	ppb	12:46:51
1	Tl 190.801†	-104.6	10.9	1.4130	µg/L	1.4130	ppb	12:47:11
1	U 409.014†	-330.3	-66.2	-3.9555	µg/L	-3.9555	ppb	12:46:51
1	V 292.402†	493.1	138.3	0.7177	µg/L	0.7177	ppb	12:46:51
1	Zn 213.857†	843.2	331.5	1.9487	µg/L	1.9487	ppb	12:47:11
2	Sc RADIAL	143140.3	143140.3	99.3	%			12:46:03
2	Al 396.153Radial†	-25.0	43.7	8.6547	µg/L	8.6547	ppb	12:46:23
2	Ca 317.933Radial†	661.6	116.1	7.1277	µg/L	7.1277	ppb	12:46:23
2	Fe 238.204 Radial†	246.3	112.7	7.6084	µg/L	7.6084	ppb	12:46:23
2	K 766.490 Radial†	2368.3	826.6	318.61	µg/L	318.61	ppb	12:46:03
2	Mg 279.077 IEC†	237.4	73.9	30.622	µg/L	30.622	ppb	12:46:23
2	Na 589.592 Radial†	2092.3	849.4	124.65	µg/L	124.65	ppb	12:46:03
2	Sr 421.552†	-123.3	85.7	0.1903	µg/L	0.1903	ppb	12:46:03
2	Sc 361.383	1751606.8	1751606.8	99.701	%			12:47:13
2	Y 371.029	1043193.2	1043193.2	99.600	%			12:47:13
2	Ag 328.068†	4044.1	241.5	0.9469	µg/L	0.9469	ppb	12:47:15
2	As 188.979†	-22.4	-0.8	-0.2381	µg/L	-0.2381	ppb	12:47:36
2	B 249.677†	3771.4	323.3	4.9814	µg/L	4.9814	ppb	12:47:15
2	Ba 233.527†	-85.0	67.5	0.2866	µg/L	0.2866	ppb	12:47:36
2	Be 313.107†	-552.0	423.2	0.1216	µg/L	0.1216	ppb	12:47:15
2	Cd 226.502†	-52.4	53.3	0.3489	µg/L	0.3489	ppb	12:47:36
2	Co 228.616†	-182.4	6.6	0.0853	µg/L	0.0853	ppb	12:47:36
2	Cr 267.716†	226.0	50.1	0.4101	µg/L	0.4101	ppb	12:47:36
2	Cu 324.752†	3156.2	306.7	1.2485	µg/L	1.2485	ppb	12:47:15
2	Mn 257.610†	343.5	134.0	0.1721	µg/L	0.1721	ppb	12:47:36
2	Mo 202.031†	-5.4	37.3	1.1613	µg/L	1.1613	ppb	12:47:36
2	Ni 231.604†	-68.5	11.5	0.1391	µg/L	0.1391	ppb	12:47:36
2	P 214.914†	2.0	1.6	0.3465	µg/L	0.3465	ppb	12:47:36
2	Pb 220.353†	122.2	54.9	3.2156	µg/L	3.2156	ppb	12:47:36

2	S 181.975 Axial†	118.9	14.1	11.164 µg/L	11.164 ppb	12:47:36
2	Sb 206.836†	91.7	13.0	1.6439 µg/L	1.6439 ppb	12:47:36
2	Se 196.026†	23.8	9.1	3.46 µg/L	3.46 ppb	12:47:36
2	SiO2†	1790.2	44.8	4.6346 µg/L	4.6346 ppb	12:47:36
2	Si 251.611†	983.5	199.0	3.1010 µg/L	3.1010 ppb	12:47:15
2	Sn 189.927†	12.4	15.7	1.0381 µg/L	1.0381 ppb	12:47:36
2	Ti 334.940†	1171.9	238.6	0.2316 µg/L	0.2316 ppb	12:47:15
2	Tl 190.801†	-112.5	2.8	0.3657 µg/L	0.3657 ppb	12:47:36
2	U 409.014†	-207.3	56.6	3.4074 µg/L	3.4074 ppb	12:47:15
2	V 292.402†	339.4	-15.0	-0.0615 µg/L	-0.0615 ppb	12:47:15
2	Zn 213.857†	802.1	291.8	1.7149 µg/L	1.7149 ppb	12:47:36
3	Sc RADIAL	143441.7	143441.7	99.5 %		12:46:25
3	Al 396.153Radial†	-34.1	34.6	6.8595 µg/L	6.8595 ppb	12:46:45
3	Ca 317.933Radial†	656.4	109.5	6.7234 µg/L	6.7234 ppb	12:46:45
3	Fe 238.204 Radial†	214.0	79.7	5.3816 µg/L	5.3816 ppb	12:46:45
3	K 766.490 Radial†	2065.1	516.8	199.21 µg/L	199.21 ppb	12:46:25
3	Mg 279.077 IEC†	182.6	18.3	7.5819 µg/L	7.5819 ppb	12:46:45
3	Na 589.592 Radial†	2069.6	822.2	120.75 µg/L	120.75 ppb	12:46:25
3	Sr 421.552†	-90.3	119.1	0.2644 µg/L	0.2644 ppb	12:46:25
3	Sc 361.383	1772962.6	1772962.6	100.92 %		12:47:38
3	Y 371.029	1056495.8	1056495.8	100.87 %		12:47:38
3	Ag 328.068†	3751.9	-96.9	-0.3836 µg/L	-0.3836 ppb	12:47:40
3	As 188.979†	-26.9	-4.9	-1.5794 µg/L	-1.5794 ppb	12:48:00
3	B 249.677†	3641.3	148.9	2.2936 µg/L	2.2936 ppb	12:47:40
3	Ba 233.527†	-104.3	49.5	0.2099 µg/L	0.2099 ppb	12:48:00
3	Be 313.107†	-783.6	200.4	0.0567 µg/L	0.0567 ppb	12:47:40
3	Cd 226.502†	-41.2	65.0	0.4261 µg/L	0.4261 ppb	12:48:00
3	Co 228.616†	-173.3	17.8	0.2301 µg/L	0.2301 ppb	12:48:00
3	Cr 267.716†	220.9	42.3	0.3498 µg/L	0.3498 ppb	12:48:00
3	Cu 324.752†	2985.2	99.2	0.4021 µg/L	0.4021 ppb	12:47:40
3	Mn 257.610†	368.8	154.8	0.2000 µg/L	0.2000 ppb	12:48:00
3	Mo 202.031†	-18.3	24.6	0.7661 µg/L	0.7661 ppb	12:48:00
3	Ni 231.604†	-42.4	38.3	0.4622 µg/L	0.4622 ppb	12:48:00
3	P 214.914†	-3.0	-3.4	-0.7745 µg/L	-0.7745 ppb	12:48:00
3	Pb 220.353†	139.5	70.6	4.1397 µg/L	4.1397 ppb	12:48:00
3	S 181.975 Axial†	118.7	12.5	9.8641 µg/L	9.8641 ppb	12:48:00
3	Sb 206.836†	80.4	0.7	0.0940 µg/L	0.0940 ppb	12:48:00
3	Se 196.026†	21.3	6.3	2.41 µg/L	2.41 ppb	12:48:00
3	SiO2†	1770.2	3.3	0.3058 µg/L	0.3058 ppb	12:48:00
3	Si 251.611†	949.4	153.3	2.3882 µg/L	2.3882 ppb	12:47:40
3	Sn 189.927†	13.5	16.6	1.0985 µg/L	1.0985 ppb	12:48:00
3	Ti 334.940†	1125.4	178.4	0.1760 µg/L	0.1760 ppb	12:47:40
3	Tl 190.801†	-107.6	9.0	1.1673 µg/L	1.1673 ppb	12:48:00
3	U 409.014†	-290.1	-23.0	-1.4002 µg/L	-1.4002 ppb	12:47:40
3	V 292.402†	312.8	-45.5	-0.2239 µg/L	-0.2239 ppb	12:47:40
3	Zn 213.857†	760.0	240.5	1.4114 µg/L	1.4114 ppb	12:48:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1759751.8	100.16	%	0.657				0.66%
Sc RADIAL	143175.4	99.3	%	0.17				0.17%
Y 371.029	1048558.8	100.11	%	0.670				0.67%
Ag 328.068†	-12.9	-0.0498	µg/L	0.87866	-0.0498	ppb	0.87866	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	40.7	8.0524	µg/L	1.03305	8.0524	ppb	1.03305	12.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.0281	µg/L	1.66626	-0.0281	ppb	1.66626	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	271.9	4.1887	µg/L	1.64851	4.1887	ppb	1.64851	39.36%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	69.3	0.2943	µg/L	0.08863	0.2943	ppb	0.08863	30.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	314.6	0.0894	µg/L	0.03246	0.0894	ppb	0.03246	36.31%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	137.5	8.4428	µg/L	2.63577	8.4428	ppb	2.63577	31.22%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	52.3	0.3424	µg/L	0.08706	0.3424	ppb	0.08706	25.42%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	16.0	0.2067	µg/L	0.11158	0.2067	ppb	0.11158	53.98%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                59.9      0.4945 µg/L       0.20063      0.4945 ppb        0.20063  40.57%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               192.0      0.7796 µg/L       0.43054      0.7796 ppb        0.43054  55.22%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        114.7      7.7396 µg/L       2.42631      7.7396 ppb        2.42631  31.35%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         741.0      285.64 µg/L        75.549      285.64 ppb         75.549  26.45%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            43.4      17.984 µg/L       11.6814      17.984 ppb        11.6814  64.96%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               164.8      0.2124 µg/L       0.04782      0.2124 ppb        0.04782  22.51%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                35.0      1.0884 µg/L       0.29265      1.0884 ppb        0.29265  26.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        902.3      132.45 µg/L        17.005      132.45 ppb         17.005  12.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                19.6      0.2371 µg/L       0.19543      0.2371 ppb        0.19543  82.41%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.8     -1.9851 µg/L       3.11848     -1.9851 ppb        3.11848 157.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                56.9      3.3342 µg/L       0.75323      3.3342 ppb        0.75323  22.59%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           13.3      10.571 µg/L        0.6572      10.571 ppb         0.6572   6.22%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.9      0.4982 µg/L       1.00647      0.4982 ppb        1.00647 202.04%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 9.5        3.64 µg/L         1.332        3.64 ppb          1.332  36.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      41.4      4.2825 µg/L       3.81282      4.2825 ppb        3.81282  89.03%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               184.0      2.8664 µg/L       0.41418      2.8664 ppb        0.41418  14.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                17.9      1.1871 µg/L       0.20796      1.1871 ppb        0.20796  17.52%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               121.0      0.2687 µg/L       0.08063      0.2687 ppb        0.08063  30.01%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               156.4      0.1531 µg/L       0.09206      0.1531 ppb        0.09206  60.13%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 7.6      0.9820 µg/L       0.54771      0.9820 ppb        0.54771  55.77%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -10.9     -0.6495 µg/L       3.73839     -0.6495 ppb        3.73839 575.62%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 25.9      0.1441 µg/L       0.50333      0.1441 ppb        0.50333 349.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               287.9      1.6917 µg/L       0.26943      1.6917 ppb        0.26943  15.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

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Analysis Begun

Start Time: 4/1/2010 12:50:00 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040110.sif
Batch ID:
Results Data Set: 040110
Results Library: C:\pe\optima4\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 4/1/2010 12:23:50**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/1/2010 12:50:03**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142821.4	142821.4	99.1	%			12:50:35
1	Al 396.153Radial†	25184.5	25487.3	5054.7	µg/L	5054.7	ppb	12:50:35
1	Ca 317.933Radial†	82995.9	83216.7	5108.1	µg/L	5108.1	ppb	12:50:35
1	Fe 238.204 Radial†	74381.4	74936.9	5057.4	µg/L	5057.4	ppb	12:50:35

1	K 766.490 Radial†	14498.5	13074.8	5036.2 µg/L	5036.2 ppb	12:50:35
1	Mg 279.077 IEC†	12595.9	12547.7	5203.1 µg/L	5203.1 ppb	12:50:35
1	Na 589.592 Radial†	68790.7	68172.0	10023 µg/L	10023 ppb	12:50:35
1	Sr 421.552†	220304.1	222560.0	494.30 µg/L	494.30 ppb	12:50:33
1	Sc 361.383	1744182.4	1744182.4	99.278 %		12:51:01
1	Y 371.029	1028077.5	1028077.5	98.157 %		12:51:01
1	Ag 328.068†	129483.3	126609.8	501.08 µg/L	501.08 ppb	12:51:01
1	As 188.979†	1506.7	1539.3	501.18 µg/L	501.18 ppb	12:51:21
1	B 249.677†	35169.8	31966.2	490.82 µg/L	490.82 ppb	12:51:01
1	Ba 233.527†	115961.2	116957.0	496.63 µg/L	496.63 ppb	12:51:01
1	Be 313.107†	1727458.9	1740994.7	495.95 µg/L	495.95 ppb	12:51:01
1	Cd 226.502†	75162.8	75815.1	497.29 µg/L	497.29 ppb	12:51:01
1	Co 228.616†	38127.1	38593.8	498.79 µg/L	498.79 ppb	12:51:01
1	Cr 267.716†	59788.2	60046.3	494.83 µg/L	494.83 ppb	12:51:01
1	Cu 324.752†	123655.8	121695.8	495.04 µg/L	495.04 ppb	12:51:01
1	Mn 257.610†	382771.5	385343.8	498.26 µg/L	498.26 ppb	12:51:01
1	Mo 202.031†	15911.1	16069.5	499.87 µg/L	499.87 ppb	12:51:21
1	Ni 231.604†	40829.8	41206.9	497.35 µg/L	497.35 ppb	12:51:01
1	P 214.914†	11015.0	11094.7	2479.8 µg/L	2479.8 ppb	12:51:21
1	Pb 220.353†	8602.1	8597.0	505.14 µg/L	505.14 ppb	12:51:21
1	S 181.975 Axial†	1382.3	1287.2	1022.7 µg/L	1022.7 ppb	12:51:21
1	Sb 206.836†	4051.3	4001.7	503.74 µg/L	503.74 ppb	12:51:21
1	Se 196.026†	1320.3	1315.1	503 µg/L	503 ppb	12:51:21
1	SiO2†	52535.4	51166.6	5324.9 µg/L	5324.9 ppb	12:51:01
1	Si 251.611†	159046.9	159415.7	2492.2 µg/L	2492.2 ppb	12:51:01
1	Sn 189.927†	7502.0	7559.8	502.20 µg/L	502.20 ppb	12:51:21
1	Ti 334.940†	502351.6	505067.0	497.58 µg/L	497.58 ppb	12:51:01
1	Tl 190.801†	3729.7	3872.4	508.47 µg/L	508.47 ppb	12:51:21
1	U 409.014†	7328.0	7645.8	491.31 µg/L	491.31 ppb	12:51:01
1	V 292.402†	96351.5	96696.6	499.32 µg/L	499.32 ppb	12:51:01
1	Zn 213.857†	84552.5	84654.5	494.21 µg/L	494.21 ppb	12:51:01
2	Sc RADIAL	145154.5	145154.5	101 %		12:50:39
2	Al 396.153Radial†	25528.3	25420.2	5041.2 µg/L	5041.2 ppb	12:50:39
2	Ca 317.933Radial†	84323.3	83188.4	5106.4 µg/L	5106.4 ppb	12:50:39
2	Fe 238.204 Radial†	75437.1	74778.6	5046.7 µg/L	5046.7 ppb	12:50:39
2	K 766.490 Radial†	14785.4	13124.5	5055.3 µg/L	5055.3 ppb	12:50:39
2	Mg 279.077 IEC†	12840.0	12585.7	5219.0 µg/L	5219.0 ppb	12:50:39
2	Na 589.592 Radial†	69832.5	68090.6	10011 µg/L	10011 ppb	12:50:39
2	Sr 421.552†	222708.8	221374.2	491.66 µg/L	491.66 ppb	12:50:37
2	Sc 361.383	1748472.5	1748472.5	99.522 %		12:51:25
2	Y 371.029	1030710.1	1030710.1	98.408 %		12:51:25
2	Ag 328.068†	130182.7	126992.6	502.57 µg/L	502.57 ppb	12:51:25
2	As 188.979†	1521.9	1550.9	504.90 µg/L	504.90 ppb	12:51:45
2	B 249.677†	35518.4	32229.5	494.87 µg/L	494.87 ppb	12:51:25
2	Ba 233.527†	116432.4	117143.9	497.43 µg/L	497.43 ppb	12:51:25
2	Be 313.107†	1734887.6	1744189.6	496.86 µg/L	496.86 ppb	12:51:25
2	Cd 226.502†	75743.8	76213.1	499.90 µg/L	499.90 ppb	12:51:25
2	Co 228.616†	38353.4	38726.9	500.51 µg/L	500.51 ppb	12:51:25
2	Cr 267.716†	60075.8	60187.5	496.00 µg/L	496.00 ppb	12:51:25
2	Cu 324.752†	123966.5	121702.5	495.06 µg/L	495.06 ppb	12:51:25
2	Mn 257.610†	384036.7	385669.0	498.68 µg/L	498.68 ppb	12:51:25
2	Mo 202.031†	16041.7	16161.4	502.73 µg/L	502.73 ppb	12:51:45
2	Ni 231.604†	40805.9	41082.0	495.84 µg/L	495.84 ppb	12:51:25
2	P 214.914†	11143.6	11196.7	2502.6 µg/L	2502.6 ppb	12:51:45
2	Pb 220.353†	8620.6	8594.4	505.00 µg/L	505.00 ppb	12:51:45
2	S 181.975 Axial†	1388.6	1290.0	1024.9 µg/L	1024.9 ppb	12:51:45
2	Sb 206.836†	4044.4	3984.8	501.64 µg/L	501.64 ppb	12:51:45
2	Se 196.026†	1339.9	1331.6	510 µg/L	510 ppb	12:51:45
2	SiO2†	52611.8	51113.5	5319.3 µg/L	5319.3 ppb	12:51:25
2	Si 251.611†	159613.3	159591.7	2494.9 µg/L	2494.9 ppb	12:51:25
2	Sn 189.927†	7569.8	7609.4	505.48 µg/L	505.48 ppb	12:51:45
2	Ti 334.940†	504112.4	505594.7	498.11 µg/L	498.11 ppb	12:51:25
2	Tl 190.801†	3740.8	3874.4	508.72 µg/L	508.72 ppb	12:51:45
2	U 409.014†	7273.4	7572.7	486.87 µg/L	486.87 ppb	12:51:25
2	V 292.402†	96454.7	96562.1	498.67 µg/L	498.67 ppb	12:51:25
2	Zn 213.857†	84760.7	84654.8	494.22 µg/L	494.22 ppb	12:51:25
3	Sc RADIAL	146581.1	146581.1	102 %		12:50:43
3	Al 396.153Radial†	25598.1	25242.1	5005.8 µg/L	5005.8 ppb	12:50:43
3	Ca 317.933Radial†	85019.0	83057.6	5098.4 µg/L	5098.4 ppb	12:50:43
3	Fe 238.204 Radial†	76165.0	74765.4	5045.8 µg/L	5045.8 ppb	12:50:43
3	K 766.490 Radial†	15024.6	13216.8	5091.0 µg/L	5091.0 ppb	12:50:43

3	Mg 279.077 IEC†	12912.9	12533.4	5197.3 µg/L	5197.3 ppb	12:50:43
3	Na 589.592 Radial†	70211.5	67788.3	9966.1 µg/L	9966.1 ppb	12:50:43
3	Sr 421.552†	223291.4	219794.7	488.15 µg/L	488.15 ppb	12:50:41
3	Sc 361.383	1745656.7	1745656.7	99.362 %		12:51:48
3	Y 371.029	1028700.4	1028700.4	98.216 %		12:51:48
3	Ag 328.068†	129782.0	126800.4	501.82 µg/L	501.82 ppb	12:51:48
3	As 188.979†	1515.8	1547.2	503.71 µg/L	503.71 ppb	12:52:08
3	B 249.677†	35382.9	32150.6	493.65 µg/L	493.65 ppb	12:51:48
3	Ba 233.527†	116305.7	117205.1	497.69 µg/L	497.69 ppb	12:51:48
3	Be 313.107†	1734996.5	1747111.1	497.69 µg/L	497.69 ppb	12:51:48
3	Cd 226.502†	75729.9	76321.9	500.62 µg/L	500.62 ppb	12:51:48
3	Co 228.616†	38327.1	38762.6	500.97 µg/L	500.97 ppb	12:51:48
3	Cr 267.716†	59956.9	60165.2	495.82 µg/L	495.82 ppb	12:51:48
3	Cu 324.752†	123787.4	121723.1	495.14 µg/L	495.14 ppb	12:51:48
3	Mn 257.610†	383884.9	386138.6	499.29 µg/L	499.29 ppb	12:51:48
3	Mo 202.031†	15993.8	16139.2	502.04 µg/L	502.04 ppb	12:52:08
3	Ni 231.604†	40905.2	41248.1	497.84 µg/L	497.84 ppb	12:51:48
3	P 214.914†	11052.2	11122.8	2486.1 µg/L	2486.1 ppb	12:52:08
3	Pb 220.353†	8605.3	8592.9	504.91 µg/L	504.91 ppb	12:52:08
3	S 181.975 Axial†	1369.9	1273.5	1011.9 µg/L	1011.9 ppb	12:52:08
3	Sb 206.836†	4027.8	3974.6	500.35 µg/L	500.35 ppb	12:52:08
3	Se 196.026†	1315.4	1309.0	501 µg/L	501 ppb	12:52:08
3	SiO2†	52607.1	51194.0	5327.7 µg/L	5327.7 ppb	12:51:48
3	Si 251.611†	159569.4	159806.3	2498.3 µg/L	2498.3 ppb	12:51:48
3	Sn 189.927†	7559.7	7611.5	505.62 µg/L	505.62 ppb	12:52:08
3	Ti 334.940†	503546.7	505842.4	498.35 µg/L	498.35 ppb	12:51:48
3	Tl 190.801†	3727.1	3866.7	507.73 µg/L	507.73 ppb	12:52:08
3	U 409.014†	7168.4	7478.9	481.26 µg/L	481.26 ppb	12:51:48
3	V 292.402†	96484.8	96748.8	499.61 µg/L	499.61 ppb	12:51:48
3	Zn 213.857†	84955.8	84988.5	496.17 µg/L	496.17 ppb	12:51:48

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1746103.9	99.388	%	0.1241				0.12%
Sc RADIAL	144852.3	100	%	1.3				1.31%
Y 371.029	1029162.7	98.261	%	0.1314				0.13%
Ag 328.068†	126801.0	501.82	µg/L	0.741	501.82	ppb	0.741	0.15%
QC value within limits for Ag 328.068 Recovery = 100.36%								
Al 396.153Radial†	25383.2	5033.9	µg/L	25.28	5033.9	ppb	25.28	0.50%
QC value within limits for Al 396.153Radial Recovery = 100.68%								
As 188.979†	1545.8	503.26	µg/L	1.902	503.26	ppb	1.902	0.38%
QC value within limits for As 188.979 Recovery = 100.65%								
B 249.677†	32115.4	493.11	µg/L	2.079	493.11	ppb	2.079	0.42%
QC value within limits for B 249.677 Recovery = 98.62%								
Ba 233.527†	117102.0	497.25	µg/L	0.549	497.25	ppb	0.549	0.11%
QC value within limits for Ba 233.527 Recovery = 99.45%								
Be 313.107†	1744098.5	496.83	µg/L	0.870	496.83	ppb	0.870	0.18%
QC value within limits for Be 313.107 Recovery = 99.37%								
Ca 317.933Radial†	83154.2	5104.3	µg/L	5.21	5104.3	ppb	5.21	0.10%
QC value within limits for Ca 317.933Radial Recovery = 102.09%								
Cd 226.502†	76116.7	499.27	µg/L	1.752	499.27	ppb	1.752	0.35%
QC value within limits for Cd 226.502 Recovery = 99.85%								
Co 228.616†	38694.5	500.09	µg/L	1.150	500.09	ppb	1.150	0.23%
QC value within limits for Co 228.616 Recovery = 100.02%								
Cr 267.716†	60133.0	495.55	µg/L	0.628	495.55	ppb	0.628	0.13%
QC value within limits for Cr 267.716 Recovery = 99.11%								
Cu 324.752†	121707.1	495.08	µg/L	0.053	495.08	ppb	0.053	0.01%
QC value within limits for Cu 324.752 Recovery = 99.02%								
Fe 238.204 Radial†	74827.0	5050.0	µg/L	6.44	5050.0	ppb	6.44	0.13%
QC value within limits for Fe 238.204 Radial Recovery = 101.00%								
K 766.490 Radial†	13138.7	5060.8	µg/L	27.80	5060.8	ppb	27.80	0.55%
QC value within limits for K 766.490 Radial Recovery = 101.22%								
Mg 279.077 IEC†	12555.6	5206.5	µg/L	11.22	5206.5	ppb	11.22	0.22%
QC value within limits for Mg 279.077 IEC Recovery = 104.13%								
Mn 257.610†	385717.1	498.74	µg/L	0.517	498.74	ppb	0.517	0.10%
QC value within limits for Mn 257.610 Recovery = 99.75%								
Mo 202.031†	16123.4	501.55	µg/L	1.490	501.55	ppb	1.490	0.30%
QC value within limits for Mo 202.031 Recovery = 100.31%								
Na 589.592 Radial†	68016.9	9999.7	µg/L	29.76	9999.7	ppb	29.76	0.30%

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   QC value within limits for Na 589.592 Radial  Recovery = 100.00%
Ni 231.604†            41179.0      497.01 µg/L         1.044      497.01 ppb          1.044   0.21%
   QC value within limits for Ni 231.604  Recovery = 99.40%
P 214.914†             11138.0      2489.5 µg/L         11.82      2489.5 ppb          11.82   0.47%
   QC value within limits for P 214.914  Recovery = 99.58%
Pb 220.353†             8594.7      505.02 µg/L         0.116      505.02 ppb          0.116   0.02%
   QC value within limits for Pb 220.353  Recovery = 101.00%
S 181.975 Axial†        1283.6      1019.8 µg/L          6.98      1019.8 ppb           6.98   0.68%
   QC value within limits for S 181.975 Axial  Recovery = 101.98%
Sb 206.836†             3987.1      501.91 µg/L         1.709      501.91 ppb          1.709   0.34%
   QC value within limits for Sb 206.836  Recovery = 100.38%
Se 196.026†             1318.6         505 µg/L           4.4         505 ppb            4.4   0.88%
   QC value within limits for Se 196.026  Recovery = 100.91%
SiO2†                  51158.0      5324.0 µg/L          4.30      5324.0 ppb           4.30   0.08%
   QC value within limits for SiO2  Recovery = 99.56%
Si 251.611†           159604.6      2495.1 µg/L          3.05      2495.1 ppb           3.05   0.12%
   QC value within limits for Si 251.611  Recovery = 99.80%
Sn 189.927†             7593.5      504.43 µg/L         1.938      504.43 ppb          1.938   0.38%
   QC value within limits for Sn 189.927  Recovery = 100.89%
Sr 421.552†           221243.0      491.37 µg/L         3.081      491.37 ppb          3.081   0.63%
   QC value within limits for Sr 421.552  Recovery = 98.27%
Ti 334.940†           505501.4      498.01 µg/L         0.392      498.01 ppb          0.392   0.08%
   QC value within limits for Ti 334.940  Recovery = 99.60%
Tl 190.801†             3871.2      508.30 µg/L         0.513      508.30 ppb          0.513   0.10%
   QC value within limits for Tl 190.801  Recovery = 101.66%
U 409.014†              7565.8      486.48 µg/L         5.033      486.48 ppb          5.033   1.03%
   QC value within limits for U 409.014  Recovery = 97.30%
V 292.402†             96669.1      499.20 µg/L         0.481      499.20 ppb          0.481   0.10%
   QC value within limits for V 292.402  Recovery = 99.84%
Zn 213.857†            84765.9      494.87 µg/L         1.130      494.87 ppb          1.130   0.23%
   QC value within limits for Zn 213.857  Recovery = 98.97%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/1/2010 12:52:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145994.0	145994.0	101	%			12:52:45
1	Al 396.153Radial†	-60.2	9.4	1.8561	µg/L	1.8561	ppb	12:53:05
1	Ca 317.933Radial†	587.8	30.2	1.8551	µg/L	1.8551	ppb	12:53:05
1	Fe 238.204 Radial†	180.9	43.3	2.9256	µg/L	2.9256	ppb	12:53:05
1	K 766.490 Radial†	1866.7	284.7	109.73	µg/L	109.73	ppb	12:52:45
1	Mg 279.077 IEC†	170.6	3.2	1.3518	µg/L	1.3518	ppb	12:53:05
1	Na 589.592 Radial†	1620.9	342.8	50.323	µg/L	50.323	ppb	12:52:45
1	Sr 421.552†	-91.5	119.5	0.2654	µg/L	0.2654	ppb	12:52:45
1	Sc 361.383	1807425.5	1807425.5	102.88	%			12:54:07
1	Y 371.029	1075489.5	1075489.5	102.68	%			12:54:07
1	Ag 328.068†	4301.0	365.9	1.4358	µg/L	1.4358	ppb	12:54:09
1	As 188.979†	-19.5	2.7	0.8861	µg/L	0.8861	ppb	12:54:29
1	B 249.677†	3694.7	132.0	2.0331	µg/L	2.0331	ppb	12:54:09
1	Ba 233.527†	-135.9	20.7	0.0879	µg/L	0.0879	ppb	12:54:29
1	Be 313.107†	-764.0	234.3	0.0677	µg/L	0.0677	ppb	12:54:09
1	Cd 226.502†	-77.7	30.3	0.1985	µg/L	0.1985	ppb	12:54:29
1	Co 228.616†	-171.0	23.3	0.3010	µg/L	0.3010	ppb	12:54:29
1	Cr 267.716†	219.7	37.0	0.3022	µg/L	0.3022	ppb	12:54:29
1	Cu 324.752†	2844.2	-94.3	-0.3790	µg/L	-0.3790	ppb	12:54:09
1	Mn 257.610†	285.4	66.9	0.0864	µg/L	0.0864	ppb	12:54:29
1	Mo 202.031†	-27.6	15.9	0.4945	µg/L	0.4945	ppb	12:54:29
1	Ni 231.604†	-60.3	21.6	0.2609	µg/L	0.2609	ppb	12:54:29
1	P 214.914†	-4.9	-5.2	-1.1483	µg/L	-1.1483	ppb	12:54:29
1	Pb 220.353†	131.6	60.3	3.5308	µg/L	3.5308	ppb	12:54:29
1	S 181.975 Axial†	95.4	-12.4	-9.8067	µg/L	-9.8067	ppb	12:54:29
1	Sb 206.836†	85.8	4.4	0.5612	µg/L	0.5612	ppb	12:54:29
1	Se 196.026†	12.6	-2.5	-0.957	µg/L	-0.957	ppb	12:54:29
1	SiO2†	1770.3	-30.1	-3.1718	µg/L	-3.1718	ppb	12:54:09
1	Si 251.611†	912.3	99.2	1.5431	µg/L	1.5431	ppb	12:54:09
1	Sn 189.927†	15.1	18.0	1.1882	µg/L	1.1882	ppb	12:54:29
1	Ti 334.940†	874.7	-86.6	-0.0869	µg/L	-0.0869	ppb	12:54:09
1	Tl 190.801†	-116.6	2.2	0.2890	µg/L	0.2890	ppb	12:54:29
1	U 409.014†	-214.0	56.5	3.4144	µg/L	3.4144	ppb	12:54:09
1	V 292.402†	393.2	26.8	0.1451	µg/L	0.1451	ppb	12:54:09
1	Zn 213.857†	645.1	114.4	0.6716	µg/L	0.6716	ppb	12:54:29
2	Sc RADIAL	146319.5	146319.5	102	%			12:53:07
2	Al 396.153Radial†	-53.7	16.0	3.1561	µg/L	3.1561	ppb	12:53:27
2	Ca 317.933Radial†	588.3	29.4	1.8068	µg/L	1.8068	ppb	12:53:27
2	Fe 238.204 Radial†	161.4	23.7	1.5969	µg/L	1.5969	ppb	12:53:27
2	K 766.490 Radial†	1830.9	245.3	94.571	µg/L	94.571	ppb	12:53:07
2	Mg 279.077 IEC†	187.3	19.3	8.0027	µg/L	8.0027	ppb	12:53:27
2	Na 589.592 Radial†	1665.7	383.4	56.306	µg/L	56.306	ppb	12:53:07
2	Sr 421.552†	-126.4	85.3	0.1894	µg/L	0.1894	ppb	12:53:07
2	Sc 361.383	1784630.3	1784630.3	101.58	%			12:54:31
2	Y 371.029	1061902.3	1061902.3	101.39	%			12:54:31
2	Ag 328.068†	4173.0	293.3	1.1431	µg/L	1.1431	ppb	12:54:34
2	As 188.979†	-12.6	9.2	2.9672	µg/L	2.9672	ppb	12:54:54
2	B 249.677†	3631.7	115.9	1.7851	µg/L	1.7851	ppb	12:54:34
2	Ba 233.527†	-142.1	12.9	0.0549	µg/L	0.0549	ppb	12:54:54
2	Be 313.107†	-695.7	292.0	0.0818	µg/L	0.0818	ppb	12:54:34
2	Cd 226.502†	-119.7	-12.0	-0.0791	µg/L	-0.0791	ppb	12:54:54
2	Co 228.616†	-193.1	-0.6	-0.0074	µg/L	-0.0074	ppb	12:54:54
2	Cr 267.716†	188.1	8.6	0.0743	µg/L	0.0743	ppb	12:54:54
2	Cu 324.752†	2922.2	17.8	0.0690	µg/L	0.0690	ppb	12:54:34
2	Mn 257.610†	287.2	72.2	0.0931	µg/L	0.0931	ppb	12:54:54
2	Mo 202.031†	-22.5	20.6	0.6413	µg/L	0.6413	ppb	12:54:54
2	Ni 231.604†	-99.2	-17.4	-0.2097	µg/L	-0.2097	ppb	12:54:54
2	P 214.914†	-14.5	-14.7	-3.2947	µg/L	-3.2947	ppb	12:54:54
2	Pb 220.353†	86.9	17.9	1.0524	µg/L	1.0524	ppb	12:54:54

2	S 181.975 Axial†	117.7	10.7	8.4453 µg/L	8.4453 ppb	12:54:54
2	Sb 206.836†	103.4	22.8	2.8735 µg/L	2.8735 ppb	12:54:54
2	Se 196.026†	12.4	-2.6	-0.986 µg/L	-0.986 ppb	12:54:54
2	SiO2†	1813.5	34.5	3.5714 µg/L	3.5714 ppb	12:54:34
2	Si 251.611†	855.4	54.6	0.8428 µg/L	0.8428 ppb	12:54:34
2	Sn 189.927†	8.5	11.6	0.7648 µg/L	0.7648 ppb	12:54:54
2	Ti 334.940†	824.2	-125.4	-0.1225 µg/L	-0.1225 ppb	12:54:34
2	Tl 190.801†	-133.3	-15.6	-2.0142 µg/L	-2.0142 ppb	12:54:54
2	U 409.014†	-344.2	-74.3	-4.4716 µg/L	-4.4716 ppb	12:54:34
2	V 292.402†	400.4	38.8	0.2014 µg/L	0.2014 ppb	12:54:34
2	Zn 213.857†	615.9	93.6	0.5520 µg/L	0.5520 ppb	12:54:54
3	Sc RADIAL	145417.0	145417.0	101 %		12:53:29
3	Al 396.153Radial†	-64.0	5.5	1.0747 µg/L	1.0747 ppb	12:53:49
3	Ca 317.933Radial†	559.4	4.4	0.2694 µg/L	0.2694 ppb	12:53:49
3	Fe 238.204 Radial†	153.4	16.7	1.1277 µg/L	1.1277 ppb	12:53:49
3	K 766.490 Radial†	1765.6	191.7	73.906 µg/L	73.906 ppb	12:53:29
3	Mg 279.077 IEC†	184.3	17.5	7.2367 µg/L	7.2367 ppb	12:53:49
3	Na 589.592 Radial†	1748.8	475.9	69.931 µg/L	69.931 ppb	12:53:29
3	Sr 421.552†	-264.1	-51.9	-0.1153 µg/L	-0.1153 ppb	12:53:29
3	Sc 361.383	1769829.8	1769829.8	100.74 %		12:54:56
3	Y 371.029	1053691.0	1053691.0	100.60 %		12:54:56
3	Ag 328.068†	4062.3	217.8	0.8301 µg/L	0.8301 ppb	12:54:58
3	As 188.979†	-13.7	8.1	2.6173 µg/L	2.6173 ppb	12:55:18
3	B 249.677†	3559.9	74.5	1.1470 µg/L	1.1470 ppb	12:54:58
3	Ba 233.527†	-151.5	2.4	0.0104 µg/L	0.0104 ppb	12:55:18
3	Be 313.107†	-835.8	147.2	0.0366 µg/L	0.0366 ppb	12:54:58
3	Cd 226.502†	-96.0	10.6	0.0693 µg/L	0.0693 ppb	12:55:18
3	Co 228.616†	-179.3	11.6	0.1494 µg/L	0.1494 ppb	12:55:18
3	Cr 267.716†	238.8	60.5	0.5124 µg/L	0.5124 ppb	12:55:18
3	Cu 324.752†	2972.4	91.7	0.3577 µg/L	0.3577 ppb	12:54:58
3	Mn 257.610†	295.2	82.5	0.1064 µg/L	0.1064 ppb	12:55:18
3	Mo 202.031†	-32.0	10.9	0.3403 µg/L	0.3403 ppb	12:55:18
3	Ni 231.604†	-64.1	16.6	0.2005 µg/L	0.2005 ppb	12:55:18
3	P 214.914†	-15.1	-15.4	-3.4567 µg/L	-3.4567 ppb	12:55:18
3	Pb 220.353†	101.6	33.2	1.9590 µg/L	1.9590 ppb	12:55:18
3	S 181.975 Axial†	120.0	14.0	11.061 µg/L	11.061 ppb	12:55:18
3	Sb 206.836†	85.3	5.7	0.7129 µg/L	0.7129 ppb	12:55:18
3	Se 196.026†	13.0	-1.9	-0.742 µg/L	-0.742 ppb	12:55:18
3	SiO2†	1788.2	24.3	2.5245 µg/L	2.5245 ppb	12:54:58
3	Si 251.611†	849.8	56.1	0.8714 µg/L	0.8714 ppb	12:54:58
3	Sn 189.927†	5.7	8.9	0.5867 µg/L	0.5867 ppb	12:55:18
3	Ti 334.940†	893.0	-50.3	-0.0432 µg/L	-0.0432 ppb	12:54:58
3	Tl 190.801†	-117.4	-0.9	-0.1226 µg/L	-0.1226 ppb	12:55:18
3	U 409.014†	-557.5	-289.0	-17.430 µg/L	-17.430 ppb	12:54:58
3	V 292.402†	361.6	3.5	0.0116 µg/L	0.0116 ppb	12:54:58
3	Zn 213.857†	647.7	130.3	0.7651 µg/L	0.7651 ppb	12:55:18

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787295.2	101.73	%	1.078				1.06%
Sc RADIAL	145910.2	101	%	0.3				0.31%
Y 371.029	1063694.3	101.56	%	1.051				1.03%
Ag 328.068†	292.3	1.1364	µg/L	0.30294	1.1364	ppb	0.30294	26.66%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.3	2.0290	µg/L	1.05140	2.0290	ppb	1.05140	51.82%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.7	2.1569	µg/L	1.11436	2.1569	ppb	1.11436	51.67%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	107.4	1.6551	µg/L	0.45713	1.6551	ppb	0.45713	27.62%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.0	0.0511	µg/L	0.03889	0.0511	ppb	0.03889	76.12%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	224.5	0.0621	µg/L	0.02311	0.0621	ppb	0.02311	37.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	21.3	1.3104	µg/L	0.90187	1.3104	ppb	0.90187	68.82%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	9.6	0.0629	µg/L	0.13893	0.0629	ppb	0.13893	220.87%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.4	0.1477	µg/L	0.15422	0.1477	ppb	0.15422	104.42%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                35.4      0.2963 µg/L       0.21911      0.2963 ppb        0.21911  73.95%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 5.1      0.0159 µg/L       0.37120      0.0159 ppb        0.37120 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         27.9      1.8834 µg/L       0.93258      1.8834 ppb        0.93258  49.52%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         240.6      92.734 µg/L       17.9803      92.734 ppb        17.9803  19.39%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            13.3      5.5304 µg/L       3.63899      5.5304 ppb        3.63899  65.80%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                73.8      0.0953 µg/L       0.01017      0.0953 ppb        0.01017  10.67%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                15.8      0.4920 µg/L       0.15048      0.4920 ppb        0.15048  30.58%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        400.7      58.854 µg/L       10.0492      58.854 ppb        10.0492  17.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.0      0.0839 µg/L       0.25607      0.0839 ppb        0.25607 305.23%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -11.7     -2.6332 µg/L       1.28850     -2.6332 ppb        1.28850  48.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                37.1      2.1807 µg/L       1.25397      2.1807 ppb        1.25397  57.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            4.1      3.2332 µg/L      11.36838      3.2332 ppb       11.36838 351.61%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                11.0      1.3825 µg/L       1.29340      1.3825 ppb        1.29340  93.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.3      -0.895 µg/L        0.1332      -0.895 ppb         0.1332  14.89%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       9.6      0.9747 µg/L       3.62892      0.9747 ppb        3.62892 372.31%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                69.9      1.0857 µg/L       0.39631      1.0857 ppb        0.39631  36.50%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                12.8      0.8466 µg/L       0.30897      0.8466 ppb        0.30897  36.50%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                51.0      0.1132 µg/L       0.20145      0.1132 ppb        0.20145 178.00%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -87.4     -0.0842 µg/L       0.03971     -0.0842 ppb        0.03971  47.14%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -4.8     -0.6159 µg/L       1.22833     -0.6159 ppb        1.22833 199.43%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -102.3     -6.1624 µg/L      10.52448     -6.1624 ppb       10.52448 170.79%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 23.0      0.1194 µg/L       0.09750      0.1194 ppb        0.09750  81.68%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               112.8      0.6629 µg/L       0.10677      0.6629 ppb        0.10677  16.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 4/1/2010 13:30:01 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040110.sif
Batch ID:
Results Data Set: 040110
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 4/1/2010 13:30:04**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143586.0	143586.0	99.6	%			13:30:37
1	Al 396.153Radial†	24975.9	25142.5	4985.9	µg/L	4985.9	ppb	13:30:37
1	Ca 317.933Radial†	83021.9	82796.7	5082.4	µg/L	5082.4	ppb	13:30:37
1	Fe 238.204 Radial†	74364.9	74520.6	5029.3	µg/L	5029.3	ppb	13:30:37
1	K 766.490 Radial†	14323.4	12821.0	4938.4	µg/L	4938.4	ppb	13:30:37
1	Mg 279.077 IEC†	12658.1	12542.5	5201.0	µg/L	5201.0	ppb	13:30:37
1	Na 589.592 Radial†	68442.5	67452.7	9916.8	µg/L	9916.8	ppb	13:30:37
1	Sr 421.552†	222301.9	223381.6	496.12	µg/L	496.12	ppb	13:30:35
1	Sc 361.383	1745163.7	1745163.7	99.334	%			13:30:50
1	Y 371.029	1028678.9	1028678.9	98.214	%			13:30:50
1	Ag 328.068†	129547.7	126601.4	501.03	µg/L	501.03	ppb	13:30:50
1	As 188.979†	1479.5	1511.1	492.11	µg/L	492.11	ppb	13:31:10
1	B 249.677†	35049.1	31824.7	488.64	µg/L	488.64	ppb	13:30:50
1	Ba 233.527†	115371.6	116297.8	493.84	µg/L	493.84	ppb	13:30:50
1	Be 313.107†	1722070.0	1734591.3	494.12	µg/L	494.12	ppb	13:30:50
1	Cd 226.502†	75128.7	75738.1	496.79	µg/L	496.79	ppb	13:30:50
1	Co 228.616†	38100.4	38545.3	498.16	µg/L	498.16	ppb	13:30:50
1	Cr 267.716†	59749.9	59973.9	494.23	µg/L	494.23	ppb	13:30:50
1	Cu 324.752†	123554.0	121523.3	494.33	µg/L	494.33	ppb	13:30:50
1	Mn 257.610†	382090.7	384441.6	497.09	µg/L	497.09	ppb	13:30:50
1	Mo 202.031†	15965.7	16115.5	501.30	µg/L	501.30	ppb	13:31:10
1	Ni 231.604†	40669.6	41022.5	495.12	µg/L	495.12	ppb	13:30:50
1	P 214.914†	10986.1	11059.3	2471.8	µg/L	2471.8	ppb	13:31:10
1	Pb 220.353†	8529.9	8519.5	500.61	µg/L	500.61	ppb	13:31:10
1	S 181.975 Axial†	1349.7	1253.6	996.11	µg/L	996.11	ppb	13:31:10
1	Sb 206.836†	4014.3	3962.2	498.80	µg/L	498.80	ppb	13:31:10
1	Se 196.026†	1305.0	1299.0	497	µg/L	497	ppb	13:31:10
1	SiO2†	52508.3	51109.5	5318.9	µg/L	5318.9	ppb	13:30:50
1	Si 251.611†	158779.0	159055.9	2486.5	µg/L	2486.5	ppb	13:30:50
1	Sn 189.927†	7488.0	7541.4	500.98	µg/L	500.98	ppb	13:31:10
1	Ti 334.940†	502754.1	505187.7	497.71	µg/L	497.71	ppb	13:30:50
1	Tl 190.801†	3717.2	3857.7	506.56	µg/L	506.56	ppb	13:31:10
1	U 409.014†	7275.8	7589.0	487.82	µg/L	487.82	ppb	13:30:50
1	V 292.402†	96191.7	96481.1	498.24	µg/L	498.24	ppb	13:30:50
1	Zn 213.857†	84338.3	84391.0	492.68	µg/L	492.68	ppb	13:30:50
2	Sc RADIAL	144586.8	144586.8	100	%			13:30:41
2	Al 396.153Radial†	25153.6	25146.1	4986.8	µg/L	4986.8	ppb	13:30:41
2	Ca 317.933Radial†	83979.8	83174.7	5105.6	µg/L	5105.6	ppb	13:30:41
2	Fe 238.204 Radial†	75222.7	74859.0	5052.1	µg/L	5052.1	ppb	13:30:41
2	K 766.490 Radial†	14455.9	12853.6	4950.9	µg/L	4950.9	ppb	13:30:41
2	Mg 279.077 IEC†	12754.0	12550.1	5204.1	µg/L	5204.1	ppb	13:30:41
2	Na 589.592 Radial†	69108.1	67640.6	9944.5	µg/L	9944.5	ppb	13:30:41
2	Sr 421.552†	218524.8	218071.2	484.33	µg/L	484.33	ppb	13:30:39
2	Sc 361.383	1751884.4	1751884.4	99.717	%			13:31:13
2	Y 371.029	1032974.2	1032974.2	98.624	%			13:31:13
2	Ag 328.068†	129373.9	125926.8	498.38	µg/L	498.38	ppb	13:31:13
2	As 188.979†	1494.4	1520.3	495.04	µg/L	495.04	ppb	13:31:33

2	B 249.677†	35175.0	31815.6	488.51 µg/L	488.51 ppb	13:31:13
2	Ba 233.527†	115330.7	115811.3	491.77 µg/L	491.77 ppb	13:31:13
2	Be 313.107†	1722844.2	1728717.0	492.45 µg/L	492.45 ppb	13:31:13
2	Cd 226.502†	75129.5	75448.8	494.88 µg/L	494.88 ppb	13:31:13
2	Co 228.616†	38130.5	38428.4	496.64 µg/L	496.64 ppb	13:31:13
2	Cr 267.716†	59729.3	59722.5	492.17 µg/L	492.17 ppb	13:31:13
2	Cu 324.752†	123925.6	121418.8	493.90 µg/L	493.90 ppb	13:31:13
2	Mn 257.610†	382536.2	383412.7	495.76 µg/L	495.76 ppb	13:31:13
2	Mo 202.031†	15946.5	16034.6	498.79 µg/L	498.79 ppb	13:31:33
2	Ni 231.604†	40717.8	40913.8	493.81 µg/L	493.81 ppb	13:31:13
2	P 214.914†	10968.1	10998.9	2458.2 µg/L	2458.2 ppb	13:31:33
2	Pb 220.353†	8515.3	8471.8	497.81 µg/L	497.81 ppb	13:31:33
2	S 181.975 Axial†	1366.4	1265.1	1005.2 µg/L	1005.2 ppb	13:31:33
2	Sb 206.836†	4026.5	3958.9	498.38 µg/L	498.38 ppb	13:31:33
2	Se 196.026†	1300.0	1288.8	493 µg/L	493 ppb	13:31:33
2	SiO2†	52445.1	50843.4	5291.3 µg/L	5291.3 ppb	13:31:13
2	Si 251.611†	158969.7	158633.9	2480.0 µg/L	2480.0 ppb	13:31:13
2	Sn 189.927†	7460.0	7484.4	497.20 µg/L	497.20 ppb	13:31:33
2	Ti 334.940†	503864.4	504359.5	496.89 µg/L	496.89 ppb	13:31:13
2	Tl 190.801†	3694.7	3820.8	501.77 µg/L	501.77 ppb	13:31:33
2	U 409.014†	7122.4	7407.1	476.80 µg/L	476.80 ppb	13:31:13
2	V 292.402†	96456.6	96375.3	497.65 µg/L	497.65 ppb	13:31:13
2	Zn 213.857†	84413.8	84141.0	491.21 µg/L	491.21 ppb	13:31:13
3	Sc RADIAL	145527.3	145527.3	101 %		13:30:45
3	Al 396.153Radial†	25292.8	25122.0	4982.1 µg/L	4982.1 ppb	13:30:45
3	Ca 317.933Radial†	84283.7	82934.7	5090.8 µg/L	5090.8 ppb	13:30:45
3	Fe 238.204 Radial†	75608.4	74756.4	5045.2 µg/L	5045.2 ppb	13:30:45
3	K 766.490 Radial†	14557.0	12860.6	4953.6 µg/L	4953.6 ppb	13:30:45
3	Mg 279.077 IEC†	12834.0	12547.2	5202.8 µg/L	5202.8 ppb	13:30:45
3	Na 589.592 Radial†	69354.1	67439.1	9914.8 µg/L	9914.8 ppb	13:30:45
3	Sr 421.552†	223438.9	221530.8	492.01 µg/L	492.01 ppb	13:30:43
3	Sc 361.383	1761047.7	1761047.7	100.24 %		13:31:36
3	Y 371.029	1038015.0	1038015.0	99.106 %		13:31:36
3	Ag 328.068†	130444.1	126319.4	499.92 µg/L	499.92 ppb	13:31:36
3	As 188.979†	1478.3	1496.4	487.39 µg/L	487.39 ppb	13:31:56
3	B 249.677†	35352.8	31809.5	488.40 µg/L	488.40 ppb	13:31:36
3	Ba 233.527†	116241.4	116117.9	493.07 µg/L	493.07 ppb	13:31:36
3	Be 313.107†	1735328.2	1732181.4	493.43 µg/L	493.43 ppb	13:31:36
3	Cd 226.502†	75810.1	75735.8	496.77 µg/L	496.77 ppb	13:31:36
3	Co 228.616†	38482.0	38580.0	498.61 µg/L	498.61 ppb	13:31:36
3	Cr 267.716†	60262.1	59942.3	493.98 µg/L	493.98 ppb	13:31:36
3	Cu 324.752†	124510.8	121356.0	493.64 µg/L	493.64 ppb	13:31:36
3	Mn 257.610†	385738.7	384611.5	497.31 µg/L	497.31 ppb	13:31:36
3	Mo 202.031†	15936.2	15941.1	495.88 µg/L	495.88 ppb	13:31:56
3	Ni 231.604†	41110.8	41093.4	495.98 µg/L	495.98 ppb	13:31:36
3	P 214.914†	10973.9	10947.4	2446.7 µg/L	2446.7 ppb	13:31:56
3	Pb 220.353†	8553.0	8465.0	497.41 µg/L	497.41 ppb	13:31:56
3	S 181.975 Axial†	1362.4	1254.0	996.37 µg/L	996.37 ppb	13:31:56
3	Sb 206.836†	4021.3	3932.7	495.01 µg/L	495.01 ppb	13:31:56
3	Se 196.026†	1311.0	1293.0	495 µg/L	495 ppb	13:31:56
3	SiO2†	52864.3	50987.8	5306.5 µg/L	5306.5 ppb	13:31:36
3	Si 251.611†	160067.6	158899.7	2484.2 µg/L	2484.2 ppb	13:31:36
3	Sn 189.927†	7465.5	7451.0	494.99 µg/L	494.99 ppb	13:31:56
3	Ti 334.940†	506994.9	504853.3	497.38 µg/L	497.38 ppb	13:31:36
3	Tl 190.801†	3680.4	3787.3	497.45 µg/L	497.45 ppb	13:31:56
3	U 409.014†	7135.6	7383.1	475.41 µg/L	475.41 ppb	13:31:36
3	V 292.402†	97103.0	96516.8	498.35 µg/L	498.35 ppb	13:31:36
3	Zn 213.857†	85031.8	84317.1	492.24 µg/L	492.24 ppb	13:31:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1752698.6	99.763	%	0.4538				0.45%
Sc RADIAL	144566.7	100	%	0.7				0.67%
Y 371.029	1033222.7	98.648	%	0.4462				0.45%
Ag 328.068†	126282.5	499.78	µg/L	1.334	499.78	ppb	1.334	0.27%
QC value within limits for Ag 328.068 Recovery = 99.96%								
Al 396.153Radial†	25136.9	4985.0	µg/L	2.49	4985.0	ppb	2.49	0.05%
QC value within limits for Al 396.153Radial Recovery = 99.70%								
As 188.979†	1509.3	491.51	µg/L	3.858	491.51	ppb	3.858	0.78%

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   QC value within limits for As 188.979  Recovery = 98.30%
B 249.677†            31816.6      488.52 µg/L        0.119      488.52 ppb          0.119   0.02%
   QC value within limits for B 249.677  Recovery = 97.70%
Ba 233.527†          116075.7      492.89 µg/L        1.044      492.89 ppb          1.044   0.21%
   QC value within limits for Ba 233.527  Recovery = 98.58%
Be 313.107†         1731829.9      493.33 µg/L        0.842      493.33 ppb          0.842   0.17%
   QC value within limits for Be 313.107  Recovery = 98.67%
Ca 317.933Radial†     82968.7      5092.9 µg/L        11.74      5092.9 ppb          11.74   0.23%
   QC value within limits for Ca 317.933Radial  Recovery = 101.86%
Cd 226.502†           75640.9      496.15 µg/L        1.093      496.15 ppb          1.093   0.22%
   QC value within limits for Cd 226.502  Recovery = 99.23%
Co 228.616†           38517.9      497.80 µg/L        1.027      497.80 ppb          1.027   0.21%
   QC value within limits for Co 228.616  Recovery = 99.56%
Cr 267.716†           59879.6      493.46 µg/L        1.126      493.46 ppb          1.126   0.23%
   QC value within limits for Cr 267.716  Recovery = 98.69%
Cu 324.752†          121432.7      493.96 µg/L        0.347      493.96 ppb          0.347   0.07%
   QC value within limits for Cu 324.752  Recovery = 98.79%
Fe 238.204 Radial†    74712.0      5042.2 µg/L        11.71      5042.2 ppb          11.71   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.84%
K 766.490 Radial†     12845.1      4947.6 µg/L         8.14      4947.6 ppb           8.14   0.16%
   QC value within limits for K 766.490 Radial  Recovery = 98.95%
Mg 279.077 IEC†       12546.6      5202.7 µg/L         1.55      5202.7 ppb           1.55   0.03%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.05%
Mn 257.610†          384155.3      496.72 µg/L        0.839      496.72 ppb          0.839   0.17%
   QC value within limits for Mn 257.610  Recovery = 99.34%
Mo 202.031†           16030.4      498.66 µg/L        2.712      498.66 ppb          2.712   0.54%
   QC value within limits for Mo 202.031  Recovery = 99.73%
Na 589.592 Radial†    67510.8      9925.4 µg/L        16.57      9925.4 ppb          16.57   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 99.25%
Ni 231.604†           41009.9      494.97 µg/L        1.092      494.97 ppb          1.092   0.22%
   QC value within limits for Ni 231.604  Recovery = 98.99%
P 214.914†            11001.9      2458.9 µg/L        12.56      2458.9 ppb          12.56   0.51%
   QC value within limits for P 214.914  Recovery = 98.36%
Pb 220.353†            8485.5      498.61 µg/L        1.740      498.61 ppb          1.740   0.35%
   QC value within limits for Pb 220.353  Recovery = 99.72%
S 181.975 Axial†       1257.6      999.23 µg/L        5.177      999.23 ppb          5.177   0.52%
   QC value within limits for S 181.975 Axial  Recovery = 99.92%
Sb 206.836†            3951.3      497.40 µg/L        2.076      497.40 ppb          2.076   0.42%
   QC value within limits for Sb 206.836  Recovery = 99.48%
Se 196.026†            1293.6         495 µg/L          1.9         495 ppb            1.9   0.39%
   QC value within limits for Se 196.026  Recovery = 99.01%
SiO2†                 50980.2      5305.6 µg/L        13.86      5305.6 ppb          13.86   0.26%
   QC value within limits for SiO2  Recovery = 99.22%
Si 251.611†          158863.2      2483.6 µg/L         3.33      2483.6 ppb           3.33   0.13%
   QC value within limits for Si 251.611  Recovery = 99.34%
Sn 189.927†            7492.3      497.73 µg/L        3.028      497.73 ppb          3.028   0.61%
   QC value within limits for Sn 189.927  Recovery = 99.55%
Sr 421.552†          220994.6      490.82 µg/L        5.987      490.82 ppb          5.987   1.22%
   QC value within limits for Sr 421.552  Recovery = 98.16%
Ti 334.940†          504800.2      497.33 µg/L        0.408      497.33 ppb          0.408   0.08%
   QC value within limits for Ti 334.940  Recovery = 99.47%
Tl 190.801†            3821.9      501.93 µg/L        4.557      501.93 ppb          4.557   0.91%
   QC value within limits for Tl 190.801  Recovery = 100.39%
U 409.014†             7459.7      480.01 µg/L        6.800      480.01 ppb          6.800   1.42%
   QC value within limits for U 409.014  Recovery = 96.00%
V 292.402†            96457.7      498.08 µg/L        0.374      498.08 ppb          0.374   0.08%
   QC value within limits for V 292.402  Recovery = 99.62%
Zn 213.857†           84283.0      492.04 µg/L        0.752      492.04 ppb          0.752   0.15%
   QC value within limits for Zn 213.857  Recovery = 98.41%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/1/2010 13:32:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	147203.1	147203.1	102	%			13:32:35
1	Al 396.153Radial†	-45.1	24.7	4.9198	µg/L	4.9198	ppb	13:32:55
1	Ca 317.933Radial†	626.1	63.0	3.8662	µg/L	3.8662	ppb	13:32:55
1	Fe 238.204 Radial†	202.8	63.2	4.2682	µg/L	4.2682	ppb	13:32:55
1	K 766.490 Radial†	1714.7	120.7	46.514	µg/L	46.514	ppb	13:32:35
1	Mg 279.077 IEC†	185.2	16.2	6.6994	µg/L	6.6994	ppb	13:32:55
1	Na 589.592 Radial†	1396.7	110.1	16.152	µg/L	16.152	ppb	13:32:35
1	Sr 421.552†	-64.1	147.1	0.3267	µg/L	0.3267	ppb	13:32:35
1	Sc 361.383	1748742.0	1748742.0	99.538	%			13:33:42
1	Y 371.029	1043315.1	1043315.1	99.612	%			13:33:42
1	Ag 328.068†	3704.7	-92.9	-0.3703	µg/L	-0.3703	ppb	13:33:45
1	As 188.979†	-15.9	5.8	1.8497	µg/L	1.8497	ppb	13:34:05
1	B 249.677†	3539.4	96.5	1.4877	µg/L	1.4877	ppb	13:33:45
1	Ba 233.527†	-120.1	32.1	0.1363	µg/L	0.1363	ppb	13:34:05
1	Be 313.107†	-582.7	391.4	0.1088	µg/L	0.1088	ppb	13:33:45
1	Cd 226.502†	-116.9	-11.7	-0.0770	µg/L	-0.0770	ppb	13:34:05
1	Co 228.616†	-199.3	-10.7	-0.1385	µg/L	-0.1385	ppb	13:34:05
1	Cr 267.716†	209.5	33.9	0.2865	µg/L	0.2865	ppb	13:34:05
1	Cu 324.752†	2813.8	-32.0	-0.1367	µg/L	-0.1367	ppb	13:33:45
1	Mn 257.610†	275.7	66.4	0.0856	µg/L	0.0856	ppb	13:34:05
1	Mo 202.031†	-38.4	4.2	0.1303	µg/L	0.1303	ppb	13:34:05
1	Ni 231.604†	-80.5	-0.6	-0.0068	µg/L	-0.0068	ppb	13:34:05
1	P 214.914†	-5.6	-6.0	-1.3430	µg/L	-1.3430	ppb	13:34:05
1	Pb 220.353†	96.8	29.6	1.7419	µg/L	1.7419	ppb	13:34:05
1	S 181.975 Axial†	114.0	9.4	7.4204	µg/L	7.4204	ppb	13:34:05
1	Sb 206.836†	81.3	2.7	0.3329	µg/L	0.3329	ppb	13:34:05
1	Se 196.026†	18.5	3.8	1.43	µg/L	1.43	ppb	13:34:05
1	SiO2†	1728.2	-14.6	-1.5393	µg/L	-1.5393	ppb	13:34:05
1	Si 251.611†	839.8	56.2	0.8756	µg/L	0.8756	ppb	13:33:45
1	Sn 189.927†	7.7	10.9	0.7234	µg/L	0.7234	ppb	13:34:05
1	Ti 334.940†	825.6	-107.4	-0.1028	µg/L	-0.1028	ppb	13:33:45
1	Tl 190.801†	-125.9	-10.9	-1.4096	µg/L	-1.4096	ppb	13:34:05
1	U 409.014†	-411.8	-149.3	-8.9868	µg/L	-8.9868	ppb	13:33:45
1	V 292.402†	418.3	64.8	0.3266	µg/L	0.3266	ppb	13:33:45
1	Zn 213.857†	564.6	54.6	0.3207	µg/L	0.3207	ppb	13:34:05
2	Sc RADIAL	142770.1	142770.1	99.0	%			13:32:57
2	Al 396.153Radial†	-31.6	37.0	7.3352	µg/L	7.3352	ppb	13:33:17
2	Ca 317.933Radial†	603.4	59.1	3.6284	µg/L	3.6284	ppb	13:33:17
2	Fe 238.204 Radial†	165.0	31.3	2.1092	µg/L	2.1092	ppb	13:33:17
2	K 766.490 Radial†	1577.0	33.8	13.009	µg/L	13.009	ppb	13:32:57
2	Mg 279.077 IEC†	175.8	12.3	5.1186	µg/L	5.1186	ppb	13:33:17
2	Na 589.592 Radial†	1396.6	152.4	22.407	µg/L	22.407	ppb	13:32:57
2	Sr 421.552†	-247.6	-40.1	-0.0892	µg/L	-0.0892	ppb	13:32:57
2	Sc 361.383	1745485.5	1745485.5	99.352	%			13:34:07
2	Y 371.029	1040374.9	1040374.9	99.331	%			13:34:07
2	Ag 328.068†	4021.7	233.1	0.9035	µg/L	0.9035	ppb	13:34:09
2	As 188.979†	-15.4	6.2	1.9933	µg/L	1.9933	ppb	13:34:29
2	B 249.677†	3482.4	45.7	0.7045	µg/L	0.7045	ppb	13:34:09
2	Ba 233.527†	-146.5	5.4	0.0230	µg/L	0.0230	ppb	13:34:29
2	Be 313.107†	-685.2	287.2	0.0798	µg/L	0.0798	ppb	13:34:09
2	Cd 226.502†	-79.6	25.7	0.1684	µg/L	0.1684	ppb	13:34:29
2	Co 228.616†	-187.9	0.4	0.0051	µg/L	0.0051	ppb	13:34:29
2	Cr 267.716†	206.2	31.0	0.2609	µg/L	0.2609	ppb	13:34:29
2	Cu 324.752†	2840.7	0.3	-0.0040	µg/L	-0.0040	ppb	13:34:09
2	Mn 257.610†	273.7	64.9	0.0837	µg/L	0.0837	ppb	13:34:29
2	Mo 202.031†	-20.8	21.8	0.6765	µg/L	0.6765	ppb	13:34:29
2	Ni 231.604†	-61.8	18.1	0.2183	µg/L	0.2183	ppb	13:34:29
2	P 214.914†	9.6	9.2	2.0685	µg/L	2.0685	ppb	13:34:29
2	Pb 220.353†	95.7	28.7	1.6896	µg/L	1.6896	ppb	13:34:29

2	S 181.975 Axial†	95.6	-9.0	-7.1075 µg/L	-7.1075 ppb	13:34:29
2	Sb 206.836†	69.6	-9.0	-1.1255 µg/L	-1.1255 ppb	13:34:29
2	Se 196.026†	33.5	18.9	7.19 µg/L	7.19 ppb	13:34:29
2	SiO2†	1691.7	-48.1	-5.0430 µg/L	-5.0430 ppb	13:34:29
2	Si 251.611†	729.9	-52.8	-0.8388 µg/L	-0.8388 ppb	13:34:09
2	Sn 189.927†	-1.3	1.9	0.1255 µg/L	0.1255 ppb	13:34:29
2	Ti 334.940†	872.0	-59.1	-0.0559 µg/L	-0.0559 ppb	13:34:09
2	Tl 190.801†	-122.6	-7.7	-1.0014 µg/L	-1.0014 ppb	13:34:29
2	U 409.014†	-373.8	-111.8	-6.7406 µg/L	-6.7406 ppb	13:34:09
2	V 292.402†	364.6	11.5	0.0622 µg/L	0.0622 ppb	13:34:09
2	Zn 213.857†	552.2	43.1	0.2521 µg/L	0.2521 ppb	13:34:29
3	Sc RADIAL	144255.5	144255.5	100 %		13:33:19
3	Al 396.153Radial†	-40.7	28.3	5.6078 µg/L	5.6078 ppb	13:33:39
3	Ca 317.933Radial†	617.9	67.3	4.1316 µg/L	4.1316 ppb	13:33:39
3	Fe 238.204 Radial†	148.7	13.3	0.8993 µg/L	0.8993 ppb	13:33:39
3	K 766.490 Radial†	1641.7	82.1	31.645 µg/L	31.645 ppb	13:33:19
3	Mg 279.077 IEC†	180.1	14.8	6.1282 µg/L	6.1282 ppb	13:33:39
3	Na 589.592 Radial†	1384.0	125.3	18.405 µg/L	18.405 ppb	13:33:19
3	Sr 421.552†	-171.6	38.4	0.0853 µg/L	0.0853 ppb	13:33:19
3	Sc 361.383	1747531.9	1747531.9	99.469 %		13:34:31
3	Y 371.029	1041966.4	1041966.4	99.483 %		13:34:31
3	Ag 328.068†	3943.1	149.4	0.5907 µg/L	0.5907 ppb	13:34:33
3	As 188.979†	-14.3	7.3	2.3402 µg/L	2.3402 ppb	13:34:53
3	B 249.677†	3467.0	26.1	0.4017 µg/L	0.4017 ppb	13:34:33
3	Ba 233.527†	-127.5	24.6	0.1048 µg/L	0.1048 ppb	13:34:53
3	Be 313.107†	-1089.1	-118.1	-0.0340 µg/L	-0.0340 ppb	13:34:33
3	Cd 226.502†	-93.5	11.8	0.0771 µg/L	0.0771 ppb	13:34:53
3	Co 228.616†	-174.8	13.7	0.1775 µg/L	0.1775 ppb	13:34:53
3	Cr 267.716†	210.1	34.7	0.2869 µg/L	0.2869 ppb	13:34:53
3	Cu 324.752†	2780.9	-63.2	-0.2568 µg/L	-0.2568 ppb	13:34:33
3	Mn 257.610†	288.2	79.2	0.1022 µg/L	0.1022 ppb	13:34:53
3	Mo 202.031†	-27.5	15.1	0.4702 µg/L	0.4702 ppb	13:34:53
3	Ni 231.604†	-107.1	-27.5	-0.3313 µg/L	-0.3313 ppb	13:34:53
3	P 214.914†	-5.7	-6.1	-1.3708 µg/L	-1.3708 ppb	13:34:53
3	Pb 220.353†	82.2	15.0	0.8802 µg/L	0.8802 ppb	13:34:53
3	S 181.975 Axial†	116.9	12.4	9.7833 µg/L	9.7833 ppb	13:34:53
3	Sb 206.836†	78.3	-0.3	-0.0335 µg/L	-0.0335 ppb	13:34:53
3	Se 196.026†	17.7	3.0	1.14 µg/L	1.14 ppb	13:34:53
3	SiO2†	1737.3	-4.2	-0.4636 µg/L	-0.4636 ppb	13:34:53
3	Si 251.611†	796.8	13.5	0.2007 µg/L	0.2007 ppb	13:34:33
3	Sn 189.927†	9.2	12.5	0.8255 µg/L	0.8255 ppb	13:34:53
3	Ti 334.940†	664.6	-268.6	-0.2650 µg/L	-0.2650 ppb	13:34:33
3	Tl 190.801†	-147.9	-33.1	-4.2817 µg/L	-4.2817 ppb	13:34:53
3	U 409.014†	-282.8	-19.8	-1.1548 µg/L	-1.1548 ppb	13:34:33
3	V 292.402†	489.7	136.9	0.7031 µg/L	0.7031 ppb	13:34:33
3	Zn 213.857†	550.8	41.1	0.2441 µg/L	0.2441 ppb	13:34:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1747253.1	99.453	%	0.0937				0.09%
Sc RADIAL	144742.9	100	%	1.6				1.56%
Y 371.029	1041885.5	99.475	%	0.1405				0.14%
Ag 328.068†	96.5	0.3747	µg/L	0.66382	0.3747	ppb	0.66382	177.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	30.0	5.9543	µg/L	1.24441	5.9543	ppb	1.24441	20.90%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.4	2.0611	µg/L	0.25220	2.0611	ppb	0.25220	12.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	56.1	0.8646	µg/L	0.56042	0.8646	ppb	0.56042	64.82%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	20.7	0.0880	µg/L	0.05846	0.0880	ppb	0.05846	66.40%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	186.8	0.0515	µg/L	0.07545	0.0515	ppb	0.07545	146.49%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	63.1	3.8754	µg/L	0.25171	3.8754	ppb	0.25171	6.50%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.6	0.0562	µg/L	0.12400	0.0562	ppb	0.12400	220.77%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.1	0.0147	µg/L	0.15825	0.0147	ppb	0.15825	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                33.2      0.2781 µg/L       0.01491      0.2781 ppb        0.01491   5.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -31.6     -0.1325 µg/L       0.12642     -0.1325 ppb        0.12642  95.43%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         35.9      2.4256 µg/L       1.70657      2.4256 ppb        1.70657  70.36%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          78.8      30.389 µg/L       16.7875      30.389 ppb        16.7875  55.24%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            14.4      5.9821 µg/L       0.80044      5.9821 ppb        0.80044  13.38%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                70.1      0.0905 µg/L       0.01019      0.0905 ppb        0.01019  11.26%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.7      0.4257 µg/L       0.27579      0.4257 ppb        0.27579  64.79%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        129.3      18.988 µg/L        3.1682      18.988 ppb         3.1682  16.68%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -3.3     -0.0399 µg/L       0.27632     -0.0399 ppb        0.27632 691.75%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.0     -0.2151 µg/L       1.97769     -0.2151 ppb        1.97769 919.47%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                24.4      1.4372 µg/L       0.48313      1.4372 ppb        0.48313  33.62%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            4.2      3.3654 µg/L       9.14646      3.3654 ppb        9.14646 271.78%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.2     -0.2753 µg/L       0.75871     -0.2753 ppb        0.75871 275.54%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 8.6        3.26 µg/L         3.412        3.26 ppb          3.412 104.81%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -22.3     -2.3486 µg/L       2.39458     -2.3486 ppb        2.39458 101.96%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                 5.6      0.0792 µg/L       0.86361      0.0792 ppb        0.86361 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.4      0.5582 µg/L       0.37812      0.5582 ppb        0.37812  67.74%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                48.5      0.1076 µg/L       0.20886      0.1076 ppb        0.20886 194.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -145.0     -0.1412 µg/L       0.10970     -0.1412 ppb        0.10970  77.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -17.3     -2.2309 µg/L       1.78772     -2.2309 ppb        1.78772  80.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -93.6     -5.6274 µg/L       4.03292     -5.6274 ppb        4.03292  71.67%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 71.1      0.3640 µg/L       0.32209      0.3640 ppb        0.32209  88.50%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                46.3      0.2723 µg/L       0.04211      0.2723 ppb        0.04211  15.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/1/2010 13:59:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142010.8	142010.8	98.5	%			14:00:22
1	Al 396.153Radial†	25032.6	25478.1	5052.9	µg/L	5052.9	ppb	14:00:22
1	Ca 317.933Radial†	81604.3	82282.2	5050.8	µg/L	5050.8	ppb	14:00:22
1	Fe 238.204 Radial†	73026.5	73990.2	4993.5	µg/L	4993.5	ppb	14:00:22
1	K 766.490 Radial†	14322.9	12980.0	4999.7	µg/L	4999.7	ppb	14:00:22
1	Mg 279.077 IEC†	12210.8	12229.4	5071.4	µg/L	5071.4	ppb	14:00:22
1	Na 589.592 Radial†	68018.2	67784.1	9965.5	µg/L	9965.5	ppb	14:00:22
1	Sr 421.552†	219760.9	223277.8	495.89	µg/L	495.89	ppb	14:00:20
1	Sc 361.383	1724462.4	1724462.4	98.156	%			14:00:35
1	Y 371.029	1016986.6	1016986.6	97.098	%			14:00:35
1	Ag 328.068†	127399.6	125978.5	498.58	µg/L	498.58	ppb	14:00:35
1	As 188.979†	1443.0	1491.8	485.87	µg/L	485.87	ppb	14:00:55
1	B 249.677†	34380.2	31566.8	484.68	µg/L	484.68	ppb	14:00:35
1	Ba 233.527†	113255.3	115536.0	490.60	µg/L	490.60	ppb	14:00:35
1	Be 313.107†	1686911.3	1719583.2	489.85	µg/L	489.85	ppb	14:00:35
1	Cd 226.502†	73251.4	74733.5	490.19	µg/L	490.19	ppb	14:00:35
1	Co 228.616†	37343.3	38234.5	494.14	µg/L	494.14	ppb	14:00:35
1	Cr 267.716†	58689.7	59615.8	491.28	µg/L	491.28	ppb	14:00:35
1	Cu 324.752†	121611.3	121037.3	492.35	µg/L	492.35	ppb	14:00:35
1	Mn 257.610†	375432.4	382275.7	494.30	µg/L	494.30	ppb	14:00:35
1	Mo 202.031†	15703.6	16041.4	498.99	µg/L	498.99	ppb	14:00:55
1	Ni 231.604†	39735.1	40562.0	489.56	µg/L	489.56	ppb	14:00:35
1	P 214.914†	10800.3	11002.8	2459.2	µg/L	2459.2	ppb	14:00:55
1	Pb 220.353†	8376.1	8465.9	497.46	µg/L	497.46	ppb	14:00:55
1	S 181.975 Axial†	1342.3	1262.3	1003.0	µg/L	1003.0	ppb	14:00:55
1	Sb 206.836†	3970.9	3966.5	499.33	µg/L	499.33	ppb	14:00:55
1	Se 196.026†	1285.7	1295.1	496	µg/L	496	ppb	14:00:55
1	SiO2†	51430.3	50645.8	5270.6	µg/L	5270.6	ppb	14:00:35
1	Si 251.611†	155486.4	157620.3	2464.0	µg/L	2464.0	ppb	14:00:35
1	Sn 189.927†	7341.9	7483.1	497.11	µg/L	497.11	ppb	14:00:55
1	Ti 334.940†	494384.6	502736.7	495.29	µg/L	495.29	ppb	14:00:35
1	Tl 190.801†	3633.3	3817.2	501.29	µg/L	501.29	ppb	14:00:55
1	U 409.014†	7337.6	7739.9	496.77	µg/L	496.77	ppb	14:00:35
1	V 292.402†	94555.4	95976.6	495.64	µg/L	495.64	ppb	14:00:35
1	Zn 213.857†	82289.2	83322.7	486.43	µg/L	486.43	ppb	14:00:35
2	Sc RADIAL	144502.9	144502.9	100	%			14:00:26
2	Al 396.153Radial†	25230.1	25237.0	5004.9	µg/L	5004.9	ppb	14:00:26
2	Ca 317.933Radial†	83138.3	82384.0	5057.0	µg/L	5057.0	ppb	14:00:26
2	Fe 238.204 Radial†	74394.7	74076.6	4999.3	µg/L	4999.3	ppb	14:00:26
2	K 766.490 Radial†	14398.0	12804.2	4931.9	µg/L	4931.9	ppb	14:00:26
2	Mg 279.077 IEC†	12528.5	12332.6	5114.1	µg/L	5114.1	ppb	14:00:26
2	Na 589.592 Radial†	69287.0	67859.2	9976.6	µg/L	9976.6	ppb	14:00:26
2	Sr 421.552†	221434.4	221100.3	491.06	µg/L	491.06	ppb	14:00:24
2	Sc 361.383	1731432.4	1731432.4	98.553	%			14:00:58
2	Y 371.029	1020936.0	1020936.0	97.475	%			14:00:58
2	Ag 328.068†	127473.0	125530.4	496.81	µg/L	496.81	ppb	14:00:58
2	As 188.979†	1438.8	1481.6	482.60	µg/L	482.60	ppb	14:01:18
2	B 249.677†	34584.2	31632.8	485.71	µg/L	485.71	ppb	14:00:58
2	Ba 233.527†	113284.0	115100.6	488.75	µg/L	488.75	ppb	14:00:58
2	Be 313.107†	1686964.8	1712719.0	487.90	µg/L	487.90	ppb	14:00:58
2	Cd 226.502†	73431.7	74616.1	489.42	µg/L	489.42	ppb	14:00:58
2	Co 228.616†	37321.6	38059.3	491.88	µg/L	491.88	ppb	14:00:58
2	Cr 267.716†	58727.4	59413.4	489.61	µg/L	489.61	ppb	14:00:58
2	Cu 324.752†	121954.8	120887.1	491.74	µg/L	491.74	ppb	14:00:58
2	Mn 257.610†	376269.5	381585.4	493.40	µg/L	493.40	ppb	14:00:58
2	Mo 202.031†	15749.1	16023.1	498.43	µg/L	498.43	ppb	14:01:18
2	Ni 231.604†	39876.7	40542.7	489.33	µg/L	489.33	ppb	14:00:58
2	P 214.914†	10832.0	10990.6	2456.5	µg/L	2456.5	ppb	14:01:18
2	Pb 220.353†	8423.0	8479.1	498.23	µg/L	498.23	ppb	14:01:18

2	S 181.975 Axial†	1356.6	1271.4	1010.2	µg/L	1010.2 ppb	14:01:18
2	Sb 206.836†	3982.5	3961.9	498.78	µg/L	498.78 ppb	14:01:18
2	Se 196.026†	1297.0	1301.2	498	µg/L	498 ppb	14:01:18
2	SiO2†	51554.3	50560.7	5261.8	µg/L	5261.8 ppb	14:00:58
2	Si 251.611†	155566.2	157063.5	2455.3	µg/L	2455.3 ppb	14:00:58
2	Sn 189.927†	7354.8	7466.1	495.98	µg/L	495.98 ppb	14:01:18
2	Ti 334.940†	495977.4	502325.3	494.89	µg/L	494.89 ppb	14:00:58
2	Tl 190.801†	3642.5	3811.6	500.56	µg/L	500.56 ppb	14:01:18
2	U 409.014†	7283.8	7655.2	491.57	µg/L	491.57 ppb	14:00:58
2	V 292.402†	94662.0	95697.0	494.20	µg/L	494.20 ppb	14:00:58
2	Zn 213.857†	82619.8	83320.6	486.42	µg/L	486.42 ppb	14:00:58
3	Sc RADIAL	143931.5	143931.5	99.8	%		14:00:30
3	Al 396.153Radial†	25155.1	25261.8	5009.9	µg/L	5009.9 ppb	14:00:30
3	Ca 317.933Radial†	82812.1	82386.5	5057.2	µg/L	5057.2 ppb	14:00:30
3	Fe 238.204 Radial†	74261.9	74238.3	5010.3	µg/L	5010.3 ppb	14:00:30
3	K 766.490 Radial†	14506.4	12969.8	4995.7	µg/L	4995.7 ppb	14:00:30
3	Mg 279.077 IEC†	12513.2	12366.8	5128.2	µg/L	5128.2 ppb	14:00:30
3	Na 589.592 Radial†	69247.3	68093.7	10011	µg/L	10011 ppb	14:00:30
3	Sr 421.552†	223475.8	224021.6	497.54	µg/L	497.54 ppb	14:00:28
3	Sc 361.383	1738173.8	1738173.8	98.936	%		14:01:21
3	Y 371.029	1025373.4	1025373.4	97.899	%		14:01:21
3	Ag 328.068†	128548.4	126115.8	499.12	µg/L	499.12 ppb	14:01:21
3	As 188.979†	1453.9	1491.2	485.70	µg/L	485.70 ppb	14:01:41
3	B 249.677†	34692.5	31606.1	485.29	µg/L	485.29 ppb	14:01:21
3	Ba 233.527†	114494.7	115878.5	492.05	µg/L	492.05 ppb	14:01:21
3	Be 313.107†	1700150.3	1719407.4	489.80	µg/L	489.80 ppb	14:01:21
3	Cd 226.502†	74042.4	74944.4	491.58	µg/L	491.58 ppb	14:01:21
3	Co 228.616†	37607.4	38201.2	493.71	µg/L	493.71 ppb	14:01:21
3	Cr 267.716†	59306.8	59768.0	492.53	µg/L	492.53 ppb	14:01:21
3	Cu 324.752†	122808.0	121269.5	493.30	µg/L	493.30 ppb	14:01:21
3	Mn 257.610†	378619.4	382479.8	494.56	µg/L	494.56 ppb	14:01:21
3	Mo 202.031†	15739.1	15951.1	496.19	µg/L	496.19 ppb	14:01:41
3	Ni 231.604†	40162.5	40674.6	490.92	µg/L	490.92 ppb	14:01:21
3	P 214.914†	10802.0	10917.7	2440.1	µg/L	2440.1 ppb	14:01:41
3	Pb 220.353†	8400.2	8422.8	494.92	µg/L	494.92 ppb	14:01:41
3	S 181.975 Axial†	1342.2	1251.4	994.33	µg/L	994.33 ppb	14:01:41
3	Sb 206.836†	3996.0	3959.9	498.45	µg/L	498.45 ppb	14:01:41
3	Se 196.026†	1287.8	1286.9	492	µg/L	492 ppb	14:01:41
3	SiO2†	51799.7	50605.9	5266.6	µg/L	5266.6 ppb	14:01:21
3	Si 251.611†	156951.5	157851.5	2467.7	µg/L	2467.7 ppb	14:01:21
3	Sn 189.927†	7360.3	7442.6	494.44	µg/L	494.44 ppb	14:01:41
3	Ti 334.940†	499158.7	503589.0	496.13	µg/L	496.13 ppb	14:01:21
3	Tl 190.801†	3663.6	3818.7	501.49	µg/L	501.49 ppb	14:01:41
3	U 409.014†	7428.3	7772.6	498.74	µg/L	498.74 ppb	14:01:21
3	V 292.402†	95310.5	95979.9	495.63	µg/L	495.63 ppb	14:01:21
3	Zn 213.857†	83296.1	83679.1	488.52	µg/L	488.52 ppb	14:01:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1731356.2	98.548	%	0.3902				0.40%
Sc RADIAL	143481.7	99.5	%	0.91				0.91%
Y 371.029	1021098.7	97.491	%	0.4006				0.41%
Ag 328.068†	125874.9	498.17	µg/L	1.211	498.17	ppb	1.211	0.24%
QC value within limits for Ag 328.068 Recovery = 99.63%								
Al 396.153Radial†	25325.6	5022.6	µg/L	26.39	5022.6	ppb	26.39	0.53%
QC value within limits for Al 396.153Radial Recovery = 100.45%								
As 188.979†	1488.2	484.72	µg/L	1.839	484.72	ppb	1.839	0.38%
QC value within limits for As 188.979 Recovery = 96.94%								
B 249.677†	31601.9	485.23	µg/L	0.516	485.23	ppb	0.516	0.11%
QC value within limits for B 249.677 Recovery = 97.05%								
Ba 233.527†	115505.1	490.47	µg/L	1.654	490.47	ppb	1.654	0.34%
QC value within limits for Ba 233.527 Recovery = 98.09%								
Be 313.107†	1717236.5	489.18	µg/L	1.115	489.18	ppb	1.115	0.23%
QC value within limits for Be 313.107 Recovery = 97.84%								
Ca 317.933Radial†	82350.9	5055.0	µg/L	3.65	5055.0	ppb	3.65	0.07%
QC value within limits for Ca 317.933Radial Recovery = 101.10%								
Cd 226.502†	74764.7	490.40	µg/L	1.091	490.40	ppb	1.091	0.22%
QC value within limits for Cd 226.502 Recovery = 98.08%								
Co 228.616†	38165.0	493.24	µg/L	1.203	493.24	ppb	1.203	0.24%

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   QC value within limits for Co 228.616  Recovery = 98.65%
Cr 267.716†            59599.1      491.14 µg/L         1.464      491.14 ppb          1.464   0.30%
   QC value within limits for Cr 267.716  Recovery = 98.23%
Cu 324.752†           121064.6      492.47 µg/L         0.786      492.47 ppb          0.786   0.16%
   QC value within limits for Cu 324.752  Recovery = 98.49%
Fe 238.204 Radial†     74101.7      5001.0 µg/L          8.50      5001.0 ppb           8.50   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.02%
K 766.490 Radial†      12918.0      4975.8 µg/L         38.04      4975.8 ppb          38.04   0.76%
   QC value within limits for K 766.490 Radial  Recovery = 99.52%
Mg 279.077 IEC†        12309.6      5104.5 µg/L         29.59      5104.5 ppb          29.59   0.58%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.09%
Mn 257.610†           382113.7      494.09 µg/L         0.606      494.09 ppb          0.606   0.12%
   QC value within limits for Mn 257.610  Recovery = 98.82%
Mo 202.031†            16005.2      497.87 µg/L         1.484      497.87 ppb          1.484   0.30%
   QC value within limits for Mo 202.031  Recovery = 99.57%
Na 589.592 Radial†     67912.3      9984.4 µg/L         23.75      9984.4 ppb          23.75   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 99.84%
Ni 231.604†            40593.1      489.94 µg/L         0.860      489.94 ppb          0.860   0.18%
   QC value within limits for Ni 231.604  Recovery = 97.99%
P 214.914†             10970.4      2451.9 µg/L         10.34      2451.9 ppb          10.34   0.42%
   QC value within limits for P 214.914  Recovery = 98.08%
Pb 220.353†             8455.9      496.87 µg/L         1.728      496.87 ppb          1.728   0.35%
   QC value within limits for Pb 220.353  Recovery = 99.37%
S 181.975 Axial†        1261.7      1002.5 µg/L          7.92      1002.5 ppb           7.92   0.79%
   QC value within limits for S 181.975 Axial  Recovery = 100.25%
Sb 206.836†             3962.8      498.86 µg/L         0.446      498.86 ppb          0.446   0.09%
   QC value within limits for Sb 206.836  Recovery = 99.77%
Se 196.026†             1294.4         495 µg/L           2.7         495 ppb            2.7   0.55%
   QC value within limits for Se 196.026  Recovery = 99.07%
SiO2†                  50604.1      5266.3 µg/L          4.43      5266.3 ppb           4.43   0.08%
   QC value within limits for SiO2  Recovery = 98.48%
Si 251.611†           157511.8      2462.4 µg/L          6.37      2462.4 ppb           6.37   0.26%
   QC value within limits for Si 251.611  Recovery = 98.49%
Sn 189.927†             7463.9      495.84 µg/L         1.343      495.84 ppb          1.343   0.27%
   QC value within limits for Sn 189.927  Recovery = 99.17%
Sr 421.552†           222799.9      494.83 µg/L         3.372      494.83 ppb          3.372   0.68%
   QC value within limits for Sr 421.552  Recovery = 98.97%
Ti 334.940†           502883.7      495.44 µg/L         0.633      495.44 ppb          0.633   0.13%
   QC value within limits for Ti 334.940  Recovery = 99.09%
Tl 190.801†             3815.8      501.11 µg/L         0.490      501.11 ppb          0.490   0.10%
   QC value within limits for Tl 190.801  Recovery = 100.22%
U 409.014†              7722.6      495.69 µg/L         3.703      495.69 ppb          3.703   0.75%
   QC value within limits for U 409.014  Recovery = 99.14%
V 292.402†             95884.5      495.16 µg/L         0.830      495.16 ppb          0.830   0.17%
   QC value within limits for V 292.402  Recovery = 99.03%.
Zn 213.857†            83440.8      487.12 µg/L         1.207      487.12 ppb          1.207   0.25%
   QC value within limits for Zn 213.857  Recovery = 97.42%
All analyte(s) passed QC.
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Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/1/2010 14:01:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143349.8	143349.8	99.4	%			14:02:21
1	Al 396.153Radial†	-30.6	38.1	7.5841	µg/L	7.5841	ppb	14:02:41
1	Ca 317.933Radial†	657.4	110.9	6.8102	µg/L	6.8102	ppb	14:02:41
1	Fe 238.204 Radial†	177.0	42.7	2.8787	µg/L	2.8787	ppb	14:02:41
1	K 766.490 Radial†	1616.5	67.1	25.838	µg/L	25.838	ppb	14:02:21
1	Mg 279.077 IEC†	190.8	26.7	11.054	µg/L	11.054	ppb	14:02:41
1	Na 589.592 Radial†	1684.6	436.4	64.158	µg/L	64.158	ppb	14:02:21
1	Sr 421.552†	-145.7	63.3	0.1406	µg/L	0.1406	ppb	14:02:21
1	Sc 361.383	1770531.4	1770531.4	100.78	%			14:03:29
1	Y 371.029	1056520.5	1056520.5	100.87	%			14:03:29
1	Ag 328.068†	3740.8	-102.9	-0.3776	µg/L	-0.3776	ppb	14:03:31
1	As 188.979†	-21.9	-0.0	-0.0090	µg/L	-0.0090	ppb	14:03:51
1	B 249.677†	3496.0	9.7	0.1484	µg/L	0.1484	ppb	14:03:31
1	Ba 233.527†	-145.7	8.3	0.0355	µg/L	0.0355	ppb	14:03:51
1	Be 313.107†	-783.6	199.3	0.0606	µg/L	0.0606	ppb	14:03:31
1	Cd 226.502†	-98.8	7.7	0.0506	µg/L	0.0506	ppb	14:03:51
1	Co 228.616†	-182.0	8.9	0.1147	µg/L	0.1147	ppb	14:03:51
1	Cr 267.716†	210.6	32.4	0.2575	µg/L	0.2575	ppb	14:03:51
1	Cu 324.752†	2869.4	-11.7	-0.0361	µg/L	-0.0361	ppb	14:03:31
1	Mn 257.610†	244.5	32.1	0.0410	µg/L	0.0410	ppb	14:03:51
1	Mo 202.031†	-34.4	8.6	0.2676	µg/L	0.2676	ppb	14:03:51
1	Ni 231.604†	-66.4	14.4	0.1738	µg/L	0.1738	ppb	14:03:51
1	P 214.914†	1.9	1.5	0.3325	µg/L	0.3325	ppb	14:03:51
1	Pb 220.353†	118.1	49.5	2.8911	µg/L	2.8911	ppb	14:03:51
1	S 181.975 Axial†	104.4	-1.6	-1.2615	µg/L	-1.2615	ppb	14:03:51
1	Sb 206.836†	67.9	-11.7	-1.4656	µg/L	-1.4656	ppb	14:03:51
1	Se 196.026†	9.6	-5.3	-2.02	µg/L	-2.02	ppb	14:03:51
1	SiO2†	1688.7	-75.2	-7.8666	µg/L	-7.8666	ppb	14:03:51
1	Si 251.611†	864.9	70.7	1.1037	µg/L	1.1037	ppb	14:03:31
1	Sn 189.927†	2.5	5.7	0.3767	µg/L	0.3767	ppb	14:03:51
1	Ti 334.940†	839.3	-103.9	-0.1085	µg/L	-0.1085	ppb	14:03:31
1	Tl 190.801†	-103.5	12.9	1.6791	µg/L	1.6791	ppb	14:03:51
1	U 409.014†	-53.7	211.2	12.783	µg/L	12.783	ppb	14:03:31
1	V 292.402†	507.8	148.4	0.7686	µg/L	0.7686	ppb	14:03:31
1	Zn 213.857†	566.8	49.8	0.2917	µg/L	0.2917	ppb	14:03:51
2	Sc RADIAL	145681.8	145681.8	101	%			14:02:43
2	Al 396.153Radial†	-53.5	15.9	3.1478	µg/L	3.1478	ppb	14:03:03
2	Ca 317.933Radial†	618.5	61.9	3.7969	µg/L	3.7969	ppb	14:03:03
2	Fe 238.204 Radial†	162.5	25.5	1.7182	µg/L	1.7182	ppb	14:03:03
2	K 766.490 Radial†	1504.7	-69.5	-26.808	µg/L	-26.808	ppb	14:02:43
2	Mg 279.077 IEC†	182.9	15.7	6.5318	µg/L	6.5318	ppb	14:03:03
2	Na 589.592 Radial†	1710.1	434.5	63.932	µg/L	63.932	ppb	14:02:43
2	Sr 421.552†	-181.9	29.9	0.0664	µg/L	0.0664	ppb	14:02:43
2	Sc 361.383	1746623.7	1746623.7	99.417	%			14:03:53
2	Y 371.029	1043003.5	1043003.5	99.582	%			14:03:53
2	Ag 328.068†	3761.3	-31.4	-0.1341	µg/L	-0.1341	ppb	14:03:55
2	As 188.979†	-21.1	0.5	0.1571	µg/L	0.1571	ppb	14:04:15
2	B 249.677†	3331.9	-107.9	-1.6633	µg/L	-1.6633	ppb	14:03:55
2	Ba 233.527†	-137.0	14.9	0.0635	µg/L	0.0635	ppb	14:04:15
2	Be 313.107†	-949.6	21.7	0.0037	µg/L	0.0037	ppb	14:03:55
2	Cd 226.502†	-84.9	20.4	0.1340	µg/L	0.1340	ppb	14:04:15
2	Co 228.616†	-177.0	11.4	0.1479	µg/L	0.1479	ppb	14:04:15
2	Cr 267.716†	205.6	30.2	0.2554	µg/L	0.2554	ppb	14:04:15
2	Cu 324.752†	2656.8	-186.5	-0.7626	µg/L	-0.7626	ppb	14:03:55
2	Mn 257.610†	267.9	58.9	0.0760	µg/L	0.0760	ppb	14:04:15
2	Mo 202.031†	-26.1	16.5	0.5135	µg/L	0.5135	ppb	14:04:15
2	Ni 231.604†	-47.2	32.8	0.3962	µg/L	0.3962	ppb	14:04:15
2	P 214.914†	13.2	12.8	2.8878	µg/L	2.8878	ppb	14:04:15
2	Pb 220.353†	83.9	16.7	0.9875	µg/L	0.9875	ppb	14:04:15

2	S 181.975 Axial†	111.3	6.8	5.3519 µg/L	5.3519 ppb	14:04:15
2	Sb 206.836†	77.6	-1.0	-0.1192 µg/L	-0.1192 ppb	14:04:15
2	Se 196.026†	22.5	7.8	2.97 µg/L	2.97 ppb	14:04:15
2	SiO2†	1719.6	-21.2	-2.2377 µg/L	-2.2377 ppb	14:04:15
2	Si 251.611†	932.8	150.7	2.3536 µg/L	2.3536 ppb	14:03:55
2	Sn 189.927†	9.6	12.9	0.8557 µg/L	0.8557 ppb	14:04:15
2	Ti 334.940†	869.1	-62.5	-0.0588 µg/L	-0.0588 ppb	14:03:55
2	Tl 190.801†	-113.9	1.1	0.1369 µg/L	0.1369 ppb	14:04:15
2	U 409.014†	-398.4	-136.3	-8.2266 µg/L	-8.2266 ppb	14:03:55
2	V 292.402†	336.2	-17.3	-0.0873 µg/L	-0.0873 ppb	14:03:55
2	Zn 213.857†	568.1	58.8	0.3437 µg/L	0.3437 ppb	14:04:15
3	Sc RADIAL	144058.2	144058.2	99.9 %		14:03:05
3	Al 396.153Radial†	-43.8	25.0	4.9496 µg/L	4.9496 ppb	14:03:25
3	Ca 317.933Radial†	604.2	54.5	3.3425 µg/L	3.3425 ppb	14:03:25
3	Fe 238.204 Radial†	148.2	13.0	0.8794 µg/L	0.8794 ppb	14:03:25
3	K 766.490 Radial†	1592.2	34.8	13.407 µg/L	13.407 ppb	14:03:05
3	Mg 279.077 IEC†	164.6	-0.5	-0.1774 µg/L	-0.1774 ppb	14:03:25
3	Na 589.592 Radial†	1521.4	264.8	38.930 µg/L	38.930 ppb	14:03:05
3	Sr 421.552†	-187.8	22.0	0.0488 µg/L	0.0488 ppb	14:03:05
3	Sc 361.383	1763046.3	1763046.3	100.35 %		14:04:17
3	Y 371.029	1052318.5	1052318.5	100.47 %		14:04:17
3	Ag 328.068†	4097.1	268.0	1.0552 µg/L	1.0552 ppb	14:04:20
3	As 188.979†	-19.7	2.1	0.6678 µg/L	0.6678 ppb	14:04:40
3	B 249.677†	3356.8	-114.4	-1.7632 µg/L	-1.7632 ppb	14:04:20
3	Ba 233.527†	-158.3	-5.0	-0.0209 µg/L	-0.0209 ppb	14:04:40
3	Be 313.107†	-743.0	236.5	0.0701 µg/L	0.0701 ppb	14:04:20
3	Cd 226.502†	-89.9	16.3	0.1069 µg/L	0.1069 ppb	14:04:40
3	Co 228.616†	-164.2	25.9	0.3339 µg/L	0.3339 ppb	14:04:40
3	Cr 267.716†	221.0	43.6	0.3523 µg/L	0.3523 ppb	14:04:40
3	Cu 324.752†	2739.3	-129.3	-0.5163 µg/L	-0.5163 ppb	14:04:20
3	Mn 257.610†	267.3	55.8	0.0721 µg/L	0.0721 ppb	14:04:40
3	Mo 202.031†	-15.4	27.4	0.8507 µg/L	0.8507 ppb	14:04:40
3	Ni 231.604†	-56.1	24.4	0.2944 µg/L	0.2944 ppb	14:04:40
3	P 214.914†	5.8	5.4	1.2107 µg/L	1.2107 ppb	14:04:40
3	Pb 220.353†	90.9	23.0	1.3404 µg/L	1.3404 ppb	14:04:40
3	S 181.975 Axial†	114.5	8.9	7.0405 µg/L	7.0405 ppb	14:04:40
3	Sb 206.836†	86.0	6.7	0.8455 µg/L	0.8455 ppb	14:04:40
3	Se 196.026†	19.9	5.0	1.91 µg/L	1.91 ppb	14:04:40
3	SiO2†	1744.0	-12.9	-1.3729 µg/L	-1.3729 ppb	14:04:40
3	Si 251.611†	780.2	-10.1	-0.1689 µg/L	-0.1689 ppb	14:04:20
3	Sn 189.927†	-4.0	-0.8	-0.0499 µg/L	-0.0499 ppb	14:04:40
3	Ti 334.940†	967.2	27.0	0.0228 µg/L	0.0228 ppb	14:04:20
3	Tl 190.801†	-93.7	22.2	2.8749 µg/L	2.8749 ppb	14:04:40
3	U 409.014†	-111.9	153.0	9.2120 µg/L	9.2120 ppb	14:04:20
3	V 292.402†	298.4	-58.1	-0.2797 µg/L	-0.2797 ppb	14:04:20
3	Zn 213.857†	541.4	26.8	0.1564 µg/L	0.1564 ppb	14:04:40

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1760067.1	100.18	%	0.696				0.69%
Sc RADIAL	144363.2	100	%	0.8				0.83%
Y 371.029	1050614.2	100.31	%	0.660				0.66%
Ag 328.068†	44.6	0.1812	µg/L	0.76663	0.1812	ppb	0.76663	423.19%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	26.4	5.2272	µg/L	2.23112	5.2272	ppb	2.23112	42.68%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.8	0.2720	µg/L	0.35273	0.2720	ppb	0.35273	129.69%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-70.9	-1.0927	µg/L	1.07598	-1.0927	ppb	1.07598	98.47%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.1	0.0260	µg/L	0.04302	0.0260	ppb	0.04302	165.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	152.5	0.0448	µg/L	0.03593	0.0448	ppb	0.03593	80.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	75.8	4.6499	µg/L	1.88463	4.6499	ppb	1.88463	40.53%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.8	0.0972	µg/L	0.04254	0.0972	ppb	0.04254	43.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	15.4	0.1989	µg/L	0.11816	0.1989	ppb	0.11816	59.42%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              35.4      0.2884 µg/L       0.05531      0.2884 ppb        0.05531  19.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -109.2     -0.4383 µg/L       0.36946     -0.4383 ppb        0.36946  84.29%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       27.0      1.8254 µg/L       1.00395      1.8254 ppb        1.00395  55.00%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        10.8      4.1455 µg/L      27.51763      4.1455 ppb       27.51763 663.79%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          14.0      5.8026 µg/L       5.65087      5.8026 ppb        5.65087  97.38%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              48.9      0.0630 µg/L       0.01916      0.0630 ppb        0.01916  30.40%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              17.5      0.5440 µg/L       0.29274      0.5440 ppb        0.29274  53.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      378.5     55.673 µg/L      14.5004     55.673 ppb        14.5004  26.05%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              23.9      0.2881 µg/L       0.11133      0.2881 ppb        0.11133  38.64%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                6.6      1.4770 µg/L       1.29833      1.4770 ppb        1.29833  87.90%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              29.7      1.7397 µg/L       1.01269      1.7397 ppb        1.01269  58.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.7      3.7103 µg/L       4.38768      3.7103 ppb        4.38768 118.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.0     -0.2465 µg/L       1.16077     -0.2465 ppb        1.16077 470.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.5      0.957 µg/L        2.6282       0.957 ppb         2.6282 274.59%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -36.4     -3.8257 µg/L       3.52613     -3.8257 ppb        3.52613  92.17%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              70.5      1.0961 µg/L       1.26128      1.0961 ppb        1.26128 115.07%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.0      0.3942 µg/L       0.45306      0.3942 ppb        0.45306 114.94%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              38.4      0.0852 µg/L       0.04871      0.0852 ppb        0.04871  57.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -46.5     -0.0482 µg/L       0.06632     -0.0482 ppb        0.06632 137.64%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              12.1      1.5637 µg/L       1.37269      1.5637 ppb        1.37269  87.79%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               76.0      4.5893 µg/L      11.24155      4.5893 ppb       11.24155 244.95%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               24.3      0.1339 µg/L       0.55802      0.1339 ppb        0.55802 416.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              45.1      0.2639 µg/L       0.09667      0.2639 ppb        0.09667  36.63%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/1/2010 14:21:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141173.1	141173.1	97.9	%			14:22:14
1	Al 396.153Radial†	24727.2	25317.1	5020.7	µg/L	5020.7	ppb	14:22:14
1	Ca 317.933Radial†	81509.6	82677.0	5075.0	µg/L	5075.0	ppb	14:22:14
1	Fe 238.204 Radial†	72648.4	74043.9	4997.1	µg/L	4997.1	ppb	14:22:14
1	K 766.490 Radial†	14368.2	13112.5	5050.7	µg/L	5050.7	ppb	14:22:14
1	Mg 279.077 IEC†	12239.0	12331.7	5113.8	µg/L	5113.8	ppb	14:22:14
1	Na 589.592 Radial†	68687.6	68877.4	10126	µg/L	10126	ppb	14:22:14
1	Sr 421.552†	219955.1	224799.9	499.27	µg/L	499.27	ppb	14:22:12
1	Sc 361.383	1725050.4	1725050.4	98.189	%			14:22:27
1	Y 371.029	1018226.4	1018226.4	97.216	%			14:22:27
1	Ag 328.068†	127736.6	126277.5	499.76	µg/L	499.76	ppb	14:22:27
1	As 188.979†	1444.1	1492.4	486.09	µg/L	486.09	ppb	14:22:47
1	B 249.677†	34366.3	31540.7	484.28	µg/L	484.28	ppb	14:22:27
1	Ba 233.527†	113539.0	115785.6	491.66	µg/L	491.66	ppb	14:22:27
1	Be 313.107†	1685314.0	1717370.5	489.22	µg/L	489.22	ppb	14:22:27
1	Cd 226.502†	73285.4	74742.8	490.25	µg/L	490.25	ppb	14:22:27
1	Co 228.616†	37378.6	38257.4	494.44	µg/L	494.44	ppb	14:22:27
1	Cr 267.716†	58879.3	59788.6	492.70	µg/L	492.70	ppb	14:22:27
1	Cu 324.752†	122098.0	121490.8	494.19	µg/L	494.19	ppb	14:22:27
1	Mn 257.610†	375605.6	382321.7	494.35	µg/L	494.35	ppb	14:22:27
1	Mo 202.031†	15824.6	16159.1	502.65	µg/L	502.65	ppb	14:22:47
1	Ni 231.604†	39826.8	40641.5	490.52	µg/L	490.52	ppb	14:22:27
1	P 214.914†	10854.1	11053.8	2470.6	µg/L	2470.6	ppb	14:22:47
1	Pb 220.353†	8459.7	8548.1	502.28	µg/L	502.28	ppb	14:22:47
1	S 181.975 Axial†	1352.3	1272.0	1010.7	µg/L	1010.7	ppb	14:22:47
1	Sb 206.836†	3991.9	3986.5	501.89	µg/L	501.89	ppb	14:22:47
1	Se 196.026†	1298.3	1307.5	500	µg/L	500	ppb	14:22:47
1	SiO2†	51484.4	50683.1	5274.3	µg/L	5274.3	ppb	14:22:27
1	Si 251.611†	156085.0	158175.9	2472.7	µg/L	2472.7	ppb	14:22:27
1	Sn 189.927†	7414.1	7554.1	501.81	µg/L	501.81	ppb	14:22:47
1	Ti 334.940†	494982.1	503173.5	495.72	µg/L	495.72	ppb	14:22:27
1	Tl 190.801†	3626.5	3809.0	500.24	µg/L	500.24	ppb	14:22:47
1	U 409.014†	7294.3	7693.3	494.03	µg/L	494.03	ppb	14:22:27
1	V 292.402†	94845.7	96239.4	497.02	µg/L	497.02	ppb	14:22:27
1	Zn 213.857†	82601.9	83612.5	488.13	µg/L	488.13	ppb	14:22:27
2	Sc RADIAL	142640.4	142640.4	99.0	%			14:22:18
2	Al 396.153Radial†	24812.2	25143.3	4986.2	µg/L	4986.2	ppb	14:22:18
2	Ca 317.933Radial†	82339.8	82659.9	5074.0	µg/L	5074.0	ppb	14:22:18
2	Fe 238.204 Radial†	73357.3	73997.2	4994.0	µg/L	4994.0	ppb	14:22:18
2	K 766.490 Radial†	14287.3	12879.9	4961.0	µg/L	4961.0	ppb	14:22:18
2	Mg 279.077 IEC†	12415.3	12381.4	5134.3	µg/L	5134.3	ppb	14:22:18
2	Na 589.592 Radial†	69360.1	68835.4	10120	µg/L	10120	ppb	14:22:18
2	Sr 421.552†	219665.0	222196.3	493.49	µg/L	493.49	ppb	14:22:16
2	Sc 361.383	1732033.1	1732033.1	98.587	%			14:22:50
2	Y 371.029	1022240.4	1022240.4	97.600	%			14:22:50
2	Ag 328.068†	128256.8	126280.7	499.76	µg/L	499.76	ppb	14:22:50
2	As 188.979†	1450.3	1492.8	486.21	µg/L	486.21	ppb	14:23:10
2	B 249.677†	34813.1	31852.8	489.08	µg/L	489.08	ppb	14:22:50
2	Ba 233.527†	114149.6	115938.8	492.31	µg/L	492.31	ppb	14:22:50
2	Be 313.107†	1695246.0	1720525.3	490.11	µg/L	490.11	ppb	14:22:50
2	Cd 226.502†	73694.9	74857.2	491.01	µg/L	491.01	ppb	14:22:50
2	Co 228.616†	37618.0	38346.8	495.59	µg/L	495.59	ppb	14:22:50
2	Cr 267.716†	58982.9	59651.9	491.59	µg/L	491.59	ppb	14:22:50
2	Cu 324.752†	122418.5	121314.5	493.47	µg/L	493.47	ppb	14:22:50
2	Mn 257.610†	377971.5	383179.4	495.46	µg/L	495.46	ppb	14:22:50
2	Mo 202.031†	15773.3	16042.1	499.02	µg/L	499.02	ppb	14:23:10
2	Ni 231.604†	40099.5	40754.6	491.89	µg/L	491.89	ppb	14:22:50
2	P 214.914†	10850.2	11005.3	2459.7	µg/L	2459.7	ppb	14:23:10
2	Pb 220.353†	8446.9	8500.4	499.49	µg/L	499.49	ppb	14:23:10

2	S 181.975 Axial†	1357.8	1272.1	1010.7 µg/L	1010.7 ppb	14:23:10
2	Sb 206.836†	3964.7	3942.5	496.33 µg/L	496.33 ppb	14:23:10
2	Se 196.026†	1296.0	1299.8	497 µg/L	497 ppb	14:23:10
2	SiO2†	51782.6	50774.1	5284.0 µg/L	5284.0 ppb	14:22:50
2	Si 251.611†	156618.5	158076.2	2471.2 µg/L	2471.2 ppb	14:22:50
2	Sn 189.927†	7395.1	7504.4	498.52 µg/L	498.52 ppb	14:23:10
2	Ti 334.940†	497896.2	504097.1	496.64 µg/L	496.64 ppb	14:22:50
2	Tl 190.801†	3668.2	3836.4	503.80 µg/L	503.80 ppb	14:23:10
2	U 409.014†	7062.8	7428.5	478.11 µg/L	478.11 ppb	14:22:50
2	V 292.402†	95370.6	96382.3	497.70 µg/L	497.70 ppb	14:22:50
2	Zn 213.857†	82865.6	83540.9	487.70 µg/L	487.70 ppb	14:22:50
3	Sc RADIAL	141727.2	141727.2	98.3 %		14:22:22
3	Al 396.153Radial†	24869.9	25363.5	5030.1 µg/L	5030.1 ppb	14:22:22
3	Ca 317.933Radial†	81831.3	82678.8	5075.1 µg/L	5075.1 ppb	14:22:22
3	Fe 238.204 Radial†	73105.6	74218.9	5009.0 µg/L	5009.0 ppb	14:22:22
3	K 766.490 Radial†	14353.1	13039.8	5022.7 µg/L	5022.7 ppb	14:22:22
3	Mg 279.077 IEC†	12287.3	12332.0	5113.9 µg/L	5113.9 ppb	14:22:22
3	Na 589.592 Radial†	68789.2	68706.4	10101 µg/L	10101 ppb	14:22:22
3	Sr 421.552†	220979.0	224963.1	499.64 µg/L	499.64 ppb	14:22:20
3	Sc 361.383	1744045.2	1744045.2	99.270 %		14:23:13
3	Y 371.029	1028903.9	1028903.9	98.236 %		14:23:13
3	Ag 328.068†	129085.3	126219.2	499.52 µg/L	499.52 ppb	14:23:13
3	As 188.979†	1464.3	1496.7	487.47 µg/L	487.47 ppb	14:23:33
3	B 249.677†	35041.9	31840.0	488.88 µg/L	488.88 ppb	14:23:13
3	Ba 233.527†	114788.3	115784.7	491.66 µg/L	491.66 ppb	14:23:13
3	Be 313.107†	1710045.7	1723590.3	490.99 µg/L	490.99 ppb	14:23:13
3	Cd 226.502†	74284.9	74936.7	491.53 µg/L	491.53 ppb	14:23:13
3	Co 228.616†	38019.9	38488.9	497.43 µg/L	497.43 ppb	14:23:13
3	Cr 267.716†	59507.3	59768.0	492.55 µg/L	492.55 ppb	14:23:13
3	Cu 324.752†	123175.5	121221.9	493.09 µg/L	493.09 ppb	14:23:13
3	Mn 257.610†	380444.0	383029.4	495.27 µg/L	495.27 ppb	14:23:13
3	Mo 202.031†	15908.5	16068.1	499.83 µg/L	499.83 ppb	14:23:33
3	Ni 231.604†	40286.7	40663.1	490.78 µg/L	490.78 ppb	14:23:13
3	P 214.914†	10896.6	10976.2	2453.2 µg/L	2453.2 ppb	14:23:33
3	Pb 220.353†	8505.1	8500.0	499.47 µg/L	499.47 ppb	14:23:33
3	S 181.975 Axial†	1371.8	1276.7	1014.4 µg/L	1014.4 ppb	14:23:33
3	Sb 206.836†	4004.7	3955.1	497.91 µg/L	497.91 ppb	14:23:33
3	Se 196.026†	1290.4	1285.1	492 µg/L	492 ppb	14:23:33
3	SiO2†	52325.1	50958.9	5303.3 µg/L	5303.3 ppb	14:23:13
3	Si 251.611†	158085.9	158460.2	2477.2 µg/L	2477.2 ppb	14:23:13
3	Sn 189.927†	7428.6	7486.5	497.34 µg/L	497.34 ppb	14:23:33
3	Ti 334.940†	501829.8	504581.2	497.12 µg/L	497.12 ppb	14:23:13
3	Tl 190.801†	3677.7	3820.3	501.71 µg/L	501.71 ppb	14:23:33
3	U 409.014†	7103.1	7419.7	477.55 µg/L	477.55 ppb	14:23:13
3	V 292.402†	95958.3	96308.1	497.33 µg/L	497.33 ppb	14:23:13
3	Zn 213.857†	83842.5	83946.0	490.09 µg/L	490.09 ppb	14:23:13

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733709.6	98.682	%	0.5469				0.55%
Sc RADIAL	141846.9	98.4	%	0.51				0.52%
Y 371.029	1023123.6	97.684	%	0.5149				0.53%
Ag 328.068†	126259.1	499.68	µg/L	0.141	499.68	ppb	0.141	0.03%
QC value within limits for Ag 328.068 Recovery = 99.94%								
Al 396.153Radial†	25274.6	5012.3	µg/L	23.08	5012.3	ppb	23.08	0.46%
QC value within limits for Al 396.153Radial Recovery = 100.25%								
As 188.979†	1494.0	486.59	µg/L	0.766	486.59	ppb	0.766	0.16%
QC value within limits for As 188.979 Recovery = 97.32%								
B 249.677†	31744.5	487.41	µg/L	2.718	487.41	ppb	2.718	0.56%
QC value within limits for B 249.677 Recovery = 97.48%								
Ba 233.527†	115836.4	491.88	µg/L	0.376	491.88	ppb	0.376	0.08%
QC value within limits for Ba 233.527 Recovery = 98.38%								
Be 313.107†	1720495.4	490.11	µg/L	0.883	490.11	ppb	0.883	0.18%
QC value within limits for Be 313.107 Recovery = 98.02%								
Ca 317.933Radial†	82671.9	5074.7	µg/L	0.64	5074.7	ppb	0.64	0.01%
QC value within limits for Ca 317.933Radial Recovery = 101.49%								
Cd 226.502†	74845.5	490.93	µg/L	0.639	490.93	ppb	0.639	0.13%
QC value within limits for Cd 226.502 Recovery = 98.19%								
Co 228.616†	38364.4	495.82	µg/L	1.507	495.82	ppb	1.507	0.30%

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   QC value within limits for Co 228.616  Recovery = 99.16%
Cr 267.716†            59736.2      492.28 µg/L        0.603      492.28 ppb          0.603   0.12%
   QC value within limits for Cr 267.716  Recovery = 98.46%
Cu 324.752†           121342.4      493.58 µg/L        0.560      493.58 ppb          0.560   0.11%
   QC value within limits for Cu 324.752  Recovery = 98.72%
Fe 238.204 Radial†     74086.7      5000.0 µg/L         7.89      5000.0 ppb           7.89   0.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.00%
K 766.490 Radial†      13010.7      5011.5 µg/L        45.88      5011.5 ppb          45.88   0.92%
   QC value within limits for K 766.490 Radial  Recovery = 100.23%
Mg 279.077 IEC†        12348.3      5120.7 µg/L        11.82      5120.7 ppb          11.82   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.41%
Mn 257.610†           382843.5      495.03 µg/L        0.592      495.03 ppb          0.592   0.12%
   QC value within limits for Mn 257.610  Recovery = 99.01%
Mo 202.031†            16089.8      500.50 µg/L        1.909      500.50 ppb          1.909   0.38%
   QC value within limits for Mo 202.031  Recovery = 100.10%
Na 589.592 Radial†     68806.4       10116 µg/L         13.1       10116 ppb           13.1   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 101.16%
Ni 231.604†            40686.4      491.06 µg/L        0.725      491.06 ppb          0.725   0.15%
   QC value within limits for Ni 231.604  Recovery = 98.21%
P 214.914†             11011.8      2461.2 µg/L         8.79      2461.2 ppb           8.79   0.36%
   QC value within limits for P 214.914  Recovery = 98.45%
Pb 220.353†             8516.2      500.41 µg/L        1.617      500.41 ppb          1.617   0.32%
   QC value within limits for Pb 220.353  Recovery = 100.08%
S 181.975 Axial†        1273.6      1011.9 µg/L         2.13      1011.9 ppb           2.13   0.21%
   QC value within limits for S 181.975 Axial  Recovery = 101.19%
Sb 206.836†             3961.4      498.71 µg/L        2.866      498.71 ppb          2.866   0.57%
   QC value within limits for Sb 206.836  Recovery = 99.74%
Se 196.026†             1297.4         496 µg/L          4.3         496 ppb            4.3   0.87%
   QC value within limits for Se 196.026  Recovery = 99.30%
SiO2†                  50805.4      5287.2 µg/L        14.74      5287.2 ppb          14.74   0.28%
   QC value within limits for SiO2  Recovery = 98.87%
Si 251.611†           158237.5      2473.7 µg/L         3.14      2473.7 ppb           3.14   0.13%
   QC value within limits for Si 251.611  Recovery = 98.95%
Sn 189.927†             7515.0      499.23 µg/L        2.317      499.23 ppb          2.317   0.46%
   QC value within limits for Sn 189.927  Recovery = 99.85%
Sr 421.552†           223986.4      497.47 µg/L        3.448      497.47 ppb          3.448   0.69%
   QC value within limits for Sr 421.552  Recovery = 99.49%
Ti 334.940†           503950.6      496.49 µg/L        0.709      496.49 ppb          0.709   0.14%
   QC value within limits for Ti 334.940  Recovery = 99.30%
Tl 190.801†             3821.9      501.92 µg/L        1.790      501.92 ppb          1.790   0.36%
   QC value within limits for Tl 190.801  Recovery = 100.38%
U 409.014†              7513.8      483.23 µg/L        9.357      483.23 ppb          9.357   1.94%
   QC value within limits for U 409.014  Recovery = 96.65%
V 292.402†             96309.9      497.35 µg/L        0.338      497.35 ppb          0.338   0.07%
   QC value within limits for V 292.402  Recovery = 99.47%
Zn 213.857†            83699.8      488.64 µg/L        1.275      488.64 ppb          1.275   0.26%
   QC value within limits for Zn 213.857  Recovery = 97.73%
All analyte(s) passed QC.
```

Sequence No.: 22
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/1/2010 14:23:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	146229.0	146229.0	101	%			14:24:12
1	Al 396.153Radial†	-52.1	17.5	3.4789	µg/L	3.4789	ppb	14:24:32
1	Ca 317.933Radial†	636.6	77.4	4.7507	µg/L	4.7507	ppb	14:24:32
1	Fe 238.204 Radial†	152.5	15.0	1.0129	µg/L	1.0129	ppb	14:24:32
1	K 766.490 Radial†	1703.3	120.7	46.506	µg/L	46.506	ppb	14:24:12
1	Mg 279.077 IEC†	185.1	17.3	7.1533	µg/L	7.1533	ppb	14:24:32
1	Na 589.592 Radial†	1955.6	670.1	98.520	µg/L	98.520	ppb	14:24:12
1	Sr 421.552†	-141.9	70.0	0.1555	µg/L	0.1555	ppb	14:24:12
1	Sc 361.383	1771861.7	1771861.7	100.85	%			14:25:19
1	Y 371.029	1056501.6	1056501.6	100.87	%			14:25:19
1	Ag 328.068†	3827.3	-19.9	-0.0728	µg/L	-0.0728	ppb	14:25:22
1	As 188.979†	-23.8	-1.9	-0.6148	µg/L	-0.6148	ppb	14:25:42
1	B 249.677†	3490.4	1.5	0.0226	µg/L	0.0226	ppb	14:25:42
1	Ba 233.527†	-147.0	7.1	0.0303	µg/L	0.0303	ppb	14:25:42
1	Be 313.107†	-624.8	357.3	0.1021	µg/L	0.1021	ppb	14:25:22
1	Cd 226.502†	-89.2	17.4	0.1142	µg/L	0.1142	ppb	14:25:42
1	Co 228.616†	-176.5	14.5	0.1878	µg/L	0.1878	ppb	14:25:42
1	Cr 267.716†	165.1	-12.9	-0.1071	µg/L	-0.1071	ppb	14:25:42
1	Cu 324.752†	2769.4	-113.0	-0.4568	µg/L	-0.4568	ppb	14:25:22
1	Mn 257.610†	289.4	76.4	0.0985	µg/L	0.0985	ppb	14:25:42
1	Mo 202.031†	-34.3	8.7	0.2707	µg/L	0.2707	ppb	14:25:42
1	Ni 231.604†	-82.4	-1.5	-0.0178	µg/L	-0.0178	ppb	14:25:42
1	P 214.914†	-3.9	-4.3	-0.9540	µg/L	-0.9540	ppb	14:25:42
1	Pb 220.353†	126.5	57.8	3.3851	µg/L	3.3851	ppb	14:25:42
1	S 181.975 Axial†	117.8	11.7	9.2232	µg/L	9.2232	ppb	14:25:42
1	Sb 206.836†	77.8	-1.8	-0.2245	µg/L	-0.2245	ppb	14:25:42
1	Se 196.026†	19.2	4.2	1.62	µg/L	1.62	ppb	14:25:42
1	SiO2†	1786.0	20.1	2.0866	µg/L	2.0866	ppb	14:25:42
1	Si 251.611†	844.5	49.8	0.7775	µg/L	0.7775	ppb	14:25:22
1	Sn 189.927†	-1.0	2.2	0.1477	µg/L	0.1477	ppb	14:25:42
1	Ti 334.940†	826.6	-117.2	-0.1165	µg/L	-0.1165	ppb	14:25:22
1	Tl 190.801†	-120.0	-3.3	-0.4319	µg/L	-0.4319	ppb	14:25:42
1	U 409.014†	-247.5	19.1	1.1693	µg/L	1.1693	ppb	14:25:22
1	V 292.402†	419.3	60.3	0.3104	µg/L	0.3104	ppb	14:25:22
1	Zn 213.857†	544.3	27.0	0.1592	µg/L	0.1592	ppb	14:25:42
2	Sc RADIAL	146154.3	146154.3	101	%			14:24:34
2	Al 396.153Radial†	-60.4	9.3	1.8420	µg/L	1.8420	ppb	14:24:54
2	Ca 317.933Radial†	632.6	73.8	4.5317	µg/L	4.5317	ppb	14:24:54
2	Fe 238.204 Radial†	145.7	8.4	0.5656	µg/L	0.5656	ppb	14:24:54
2	K 766.490 Radial†	1715.2	133.3	51.353	µg/L	51.353	ppb	14:24:34
2	Mg 279.077 IEC†	177.9	10.3	4.2600	µg/L	4.2600	ppb	14:24:54
2	Na 589.592 Radial†	2004.5	719.4	105.76	µg/L	105.76	ppb	14:24:34
2	Sr 421.552†	-96.8	114.4	0.2540	µg/L	0.2540	ppb	14:24:34
2	Sc 361.383	1790421.3	1790421.3	101.91	%			14:25:44
2	Y 371.029	1066176.6	1066176.6	101.79	%			14:25:44
2	Ag 328.068†	3741.5	-143.4	-0.5517	µg/L	-0.5517	ppb	14:25:46
2	As 188.979†	-8.6	13.3	4.2584	µg/L	4.2584	ppb	14:26:06
2	B 249.677†	3441.7	-82.2	-1.2677	µg/L	-1.2677	ppb	14:26:06
2	Ba 233.527†	-171.5	-15.5	-0.0654	µg/L	-0.0654	ppb	14:26:06
2	Be 313.107†	-608.6	379.7	0.1093	µg/L	0.1093	ppb	14:25:46
2	Cd 226.502†	-88.2	19.3	0.1268	µg/L	0.1268	ppb	14:26:06
2	Co 228.616†	-173.1	19.7	0.2542	µg/L	0.2542	ppb	14:26:06
2	Cr 267.716†	215.8	35.2	0.2870	µg/L	0.2870	ppb	14:26:06
2	Cu 324.752†	2918.2	4.6	0.0221	µg/L	0.0221	ppb	14:25:46
2	Mn 257.610†	245.4	30.2	0.0390	µg/L	0.0390	ppb	14:26:06
2	Mo 202.031†	-29.9	13.4	0.4168	µg/L	0.4168	ppb	14:26:06
2	Ni 231.604†	-85.2	-3.3	-0.0399	µg/L	-0.0399	ppb	14:26:06
2	P 214.914†	6.4	5.9	1.3263	µg/L	1.3263	ppb	14:26:06
2	Pb 220.353†	102.5	32.9	1.9266	µg/L	1.9266	ppb	14:26:06

2	S 181.975 Axial†	90.6	-16.3	-12.904 µg/L	-12.904 ppb	14:26:06
2	Sb 206.836†	78.4	-2.1	-0.2554 µg/L	-0.2554 ppb	14:26:06
2	Se 196.026†	33.8	18.4	7.01 µg/L	7.01 ppb	14:26:06
2	SiO2†	1734.6	-48.7	-5.1124 µg/L	-5.1124 ppb	14:26:06
2	Si 251.611†	975.1	169.3	2.6490 µg/L	2.6490 ppb	14:25:46
2	Sn 189.927†	5.0	8.1	0.5375 µg/L	0.5375 ppb	14:26:06
2	Ti 334.940†	1040.5	84.2	0.0812 µg/L	0.0812 ppb	14:25:46
2	Tl 190.801†	-112.1	5.6	0.7297 µg/L	0.7297 ppb	14:26:06
2	U 409.014†	-205.8	62.5	3.7924 µg/L	3.7924 ppb	14:25:46
2	V 292.402†	433.5	70.0	0.3646 µg/L	0.3646 ppb	14:25:46
2	Zn 213.857†	552.5	29.5	0.1739 µg/L	0.1739 ppb	14:26:06
3	Sc RADIAL	146776.1	146776.1	102 %		14:24:56
3	Al 396.153Radial†	-57.3	12.6	2.4860 µg/L	2.4860 ppb	14:25:16
3	Ca 317.933Radial†	620.0	58.8	3.6066 µg/L	3.6066 ppb	14:25:16
3	Fe 238.204 Radial†	158.3	20.2	1.3636 µg/L	1.3636 ppb	14:25:16
3	K 766.490 Radial†	1709.1	120.1	46.286 µg/L	46.286 ppb	14:24:56
3	Mg 279.077 IEC†	193.0	24.3	10.087 µg/L	10.087 ppb	14:25:16
3	Na 589.592 Radial†	1960.0	667.3	98.107 µg/L	98.107 ppb	14:24:56
3	Sr 421.552†	-270.5	-55.8	-0.1241 µg/L	-0.1241 ppb	14:24:56
3	Sc 361.383	1774895.9	1774895.9	101.03 %		14:26:08
3	Y 371.029	1058619.7	1058619.7	101.07 %		14:26:08
3	Ag 328.068†	4038.5	182.7	0.7065 µg/L	0.7065 ppb	14:26:10
3	As 188.979†	-26.4	-4.4	-1.4092 µg/L	-1.4092 ppb	14:26:30
3	B 249.677†	3488.4	-6.4	-0.0991 µg/L	-0.0991 ppb	14:26:30
3	Ba 233.527†	-151.2	3.1	0.0131 µg/L	0.0131 ppb	14:26:30
3	Be 313.107†	-605.5	377.5	0.1060 µg/L	0.1060 ppb	14:26:10
3	Cd 226.502†	-100.0	6.9	0.0448 µg/L	0.0448 ppb	14:26:30
3	Co 228.616†	-173.6	17.7	0.2287 µg/L	0.2287 ppb	14:26:30
3	Cr 267.716†	176.2	-2.2	-0.0139 µg/L	-0.0139 ppb	14:26:30
3	Cu 324.752†	2722.5	-164.1	-0.6689 µg/L	-0.6689 ppb	14:26:10
3	Mn 257.610†	254.2	41.0	0.0527 µg/L	0.0527 ppb	14:26:30
3	Mo 202.031†	-26.2	16.9	0.5239 µg/L	0.5239 ppb	14:26:30
3	Ni 231.604†	-86.9	-5.7	-0.0690 µg/L	-0.0690 ppb	14:26:30
3	P 214.914†	10.2	9.7	2.1910 µg/L	2.1910 ppb	14:26:30
3	Pb 220.353†	78.7	10.2	0.6042 µg/L	0.6042 ppb	14:26:30
3	S 181.975 Axial†	100.3	-5.9	-4.6327 µg/L	-4.6327 ppb	14:26:30
3	Sb 206.836†	71.3	-8.4	-1.0484 µg/L	-1.0484 ppb	14:26:30
3	Se 196.026†	18.0	3.0	1.14 µg/L	1.14 ppb	14:26:30
3	SiO2†	1719.9	-48.4	-5.0856 µg/L	-5.0856 ppb	14:26:30
3	Si 251.611†	924.6	127.7	1.9920 µg/L	1.9920 ppb	14:26:10
3	Sn 189.927†	9.9	13.0	0.8612 µg/L	0.8612 ppb	14:26:30
3	Ti 334.940†	674.2	-269.4	-0.2644 µg/L	-0.2644 ppb	14:26:10
3	Tl 190.801†	-122.2	-5.3	-0.6907 µg/L	-0.6907 ppb	14:26:30
3	U 409.014†	-353.1	-85.1	-5.1380 µg/L	-5.1380 ppb	14:26:10
3	V 292.402†	336.9	-21.9	-0.1097 µg/L	-0.1097 ppb	14:26:10
3	Zn 213.857†	561.5	43.2	0.2547 µg/L	0.2547 ppb	14:26:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1779059.7	101.26	%	0.567				0.56%
Sc RADIAL	146386.4	102	%	0.2				0.23%
Y 371.029	1060432.7	101.25	%	0.486				0.48%
Ag 328.068†	6.5	0.0274	µg/L	0.63504	0.0274	ppb	0.63504	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	13.2	2.6023	µg/L	0.82464	2.6023	ppb	0.82464	31.69%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.3	0.7448	µg/L	3.06869	0.7448	ppb	3.06869	412.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-29.0	-0.4481	µg/L	0.71241	-0.4481	ppb	0.71241	159.00%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.8	-0.0073	µg/L	0.05099	-0.0073	ppb	0.05099	696.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	371.5	0.1058	µg/L	0.00359	0.1058	ppb	0.00359	3.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	70.0	4.2964	µg/L	0.60730	4.2964	ppb	0.60730	14.14%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.5	0.0952	µg/L	0.04414	0.0952	ppb	0.04414	46.34%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.3	0.2236	µg/L	0.03351	0.2236	ppb	0.03351	14.99%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 6.7      0.0553 µg/L       0.20599      0.0553 ppb        0.20599 372.24%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -90.8     -0.3678 µg/L       0.35399     -0.3678 ppb        0.35399  96.23%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         14.5      0.9807 µg/L       0.39998      0.9807 ppb        0.39998  40.78%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         124.7      48.048 µg/L        2.8641      48.048 ppb         2.8641   5.96%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            17.3      7.1666 µg/L       2.91327      7.1666 ppb        2.91327  40.65%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                49.2      0.0634 µg/L       0.03117      0.0634 ppb        0.03117  49.18%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.0      0.4038 µg/L       0.12714      0.4038 ppb        0.12714  31.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        685.6      100.80 µg/L         4.306      100.80 ppb          4.306   4.27%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -3.5     -0.0422 µg/L       0.02569     -0.0422 ppb        0.02569  60.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  3.8      0.8544 µg/L       1.62476      0.8544 ppb        1.62476 190.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                33.7      1.9720 µg/L       1.39096      1.9720 ppb        1.39096  70.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.5     -2.7712 µg/L      11.18053     -2.7712 ppb       11.18053 403.45%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.1     -0.5094 µg/L       0.46699     -0.5094 ppb        0.46699  91.67%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 8.5        3.25 µg/L         3.262        3.25 ppb          3.262 100.24%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -25.7     -2.7038 µg/L       4.14861     -2.7038 ppb        4.14861 153.44%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               115.6      1.8061 µg/L       0.94947      1.8061 ppb        0.94947  52.57%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.8      0.5155 µg/L       0.35726      0.5155 ppb        0.35726  69.31%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                42.8      0.0951 µg/L       0.19612      0.0951 ppb        0.19612 206.14%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -100.8     -0.0999 µg/L       0.17342     -0.0999 ppb        0.17342 173.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.0     -0.1310 µg/L       0.75646     -0.1310 ppb        0.75646 577.63%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -1.2     -0.0588 µg/L       4.59009     -0.0588 ppb        4.59009 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 36.1      0.1884 µg/L       0.25963      0.1884 ppb        0.25963 137.77%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                33.2      0.1959 µg/L       0.05139      0.1959 ppb        0.05139  26.23%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/1/2010 14:42:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141018.8	141018.8	97.8	%			14:43:14
1	Al 396.153Radial†	24722.9	25340.4	5025.4	µg/L	5025.4	ppb	14:43:14
1	Ca 317.933Radial†	81713.7	82976.7	5093.4	µg/L	5093.4	ppb	14:43:14
1	Fe 238.204 Radial†	73035.7	74521.0	5029.3	µg/L	5029.3	ppb	14:43:14
1	K 766.490 Radial†	14311.7	13070.8	5034.7	µg/L	5034.7	ppb	14:43:14
1	Mg 279.077 IEC†	12304.6	12412.5	5147.2	µg/L	5147.2	ppb	14:43:14
1	Na 589.592 Radial†	68097.7	68351.0	10049	µg/L	10049	ppb	14:43:14
1	Sr 421.552†	218894.3	223961.2	497.41	µg/L	497.41	ppb	14:43:12
1	Sc 361.383	1728298.9	1728298.9	98.374	%			14:43:40
1	Y 371.029	1019745.4	1019745.4	97.361	%			14:43:40
1	Ag 328.068†	128050.3	126351.8	500.04	µg/L	500.04	ppb	14:43:40
1	As 188.979†	1453.0	1498.7	488.11	µg/L	488.11	ppb	14:44:00
1	B 249.677†	34708.0	31822.3	488.61	µg/L	488.61	ppb	14:43:40
1	Ba 233.527†	114131.7	116170.8	493.30	µg/L	493.30	ppb	14:43:40
1	Be 313.107†	1693945.3	1722918.3	490.80	µg/L	490.80	ppb	14:43:40
1	Cd 226.502†	73920.7	75248.2	493.57	µg/L	493.57	ppb	14:43:40
1	Co 228.616†	37652.9	38464.7	497.12	µg/L	497.12	ppb	14:43:40
1	Cr 267.716†	58948.5	59746.2	492.36	µg/L	492.36	ppb	14:43:40
1	Cu 324.752†	122283.2	121445.2	494.01	µg/L	494.01	ppb	14:43:40
1	Mn 257.610†	378013.2	384050.2	496.59	µg/L	496.59	ppb	14:43:40
1	Mo 202.031†	15786.9	16090.6	500.53	µg/L	500.53	ppb	14:44:00
1	Ni 231.604†	40201.1	40945.8	494.19	µg/L	494.19	ppb	14:43:40
1	P 214.914†	10845.3	11024.1	2463.9	µg/L	2463.9	ppb	14:44:00
1	Pb 220.353†	8426.5	8498.2	499.36	µg/L	499.36	ppb	14:44:00
1	S 181.975 Axial†	1338.3	1255.2	997.40	µg/L	997.40	ppb	14:44:00
1	Sb 206.836†	3998.8	3985.8	501.78	µg/L	501.78	ppb	14:44:00
1	Se 196.026†	1284.1	1290.5	494	µg/L	494	ppb	14:44:00
1	SiO2†	51945.6	51053.3	5313.1	µg/L	5313.1	ppb	14:43:40
1	Si 251.611†	156574.3	158374.5	2475.9	µg/L	2475.9	ppb	14:43:40
1	Sn 189.927†	7388.1	7513.5	499.13	µg/L	499.13	ppb	14:44:00
1	Ti 334.940†	497693.0	504981.7	497.51	µg/L	497.51	ppb	14:43:40
1	Tl 190.801†	3658.0	3834.1	503.49	µg/L	503.49	ppb	14:44:00
1	U 409.014†	7223.7	7607.6	488.83	µg/L	488.83	ppb	14:43:40
1	V 292.402†	94893.9	96106.8	496.31	µg/L	496.31	ppb	14:43:40
1	Zn 213.857†	83204.2	84066.7	490.78	µg/L	490.78	ppb	14:43:40
2	Sc RADIAL	140938.7	140938.7	97.8	%			14:43:18
2	Al 396.153Radial†	24670.0	25300.6	5017.5	µg/L	5017.5	ppb	14:43:18
2	Ca 317.933Radial†	81581.6	82889.1	5088.0	µg/L	5088.0	ppb	14:43:18
2	Fe 238.204 Radial†	72959.0	74484.9	5026.9	µg/L	5026.9	ppb	14:43:18
2	K 766.490 Radial†	14346.6	13114.9	5051.6	µg/L	5051.6	ppb	14:43:18
2	Mg 279.077 IEC†	12318.6	12433.9	5156.1	µg/L	5156.1	ppb	14:43:18
2	Na 589.592 Radial†	68085.8	68378.5	10053	µg/L	10053	ppb	14:43:18
2	Sr 421.552†	219303.2	224506.7	498.62	µg/L	498.62	ppb	14:43:16
2	Sc 361.383	1728029.1	1728029.1	98.359	%			14:44:03
2	Y 371.029	1018784.2	1018784.2	97.270	%			14:44:03
2	Ag 328.068†	128623.6	126955.0	502.45	µg/L	502.45	ppb	14:44:03
2	As 188.979†	1444.0	1489.8	485.28	µg/L	485.28	ppb	14:44:23
2	B 249.677†	34690.1	31809.6	488.41	µg/L	488.41	ppb	14:44:03
2	Ba 233.527†	114134.9	116192.1	493.39	µg/L	493.39	ppb	14:44:03
2	Be 313.107†	1697399.0	1726698.5	491.88	µg/L	491.88	ppb	14:44:03
2	Cd 226.502†	74037.7	75378.9	494.43	µg/L	494.43	ppb	14:44:03
2	Co 228.616†	37712.5	38531.3	497.98	µg/L	497.98	ppb	14:44:03
2	Cr 267.716†	59214.4	60025.9	494.66	µg/L	494.66	ppb	14:44:03
2	Cu 324.752†	122780.0	121969.8	496.15	µg/L	496.15	ppb	14:44:03
2	Mn 257.610†	378989.3	385102.5	497.95	µg/L	497.95	ppb	14:44:03
2	Mo 202.031†	15779.8	16085.9	500.38	µg/L	500.38	ppb	14:44:23
2	Ni 231.604†	40273.7	41026.0	495.16	µg/L	495.16	ppb	14:44:03
2	P 214.914†	10872.6	11053.6	2470.5	µg/L	2470.5	ppb	14:44:23
2	Pb 220.353†	8445.6	8518.9	500.57	µg/L	500.57	ppb	14:44:23

2	S 181.975 Axial†	1339.4	1256.5	998.43 µg/L	998.43 ppb	14:44:23
2	Sb 206.836†	3969.1	3956.3	498.03 µg/L	498.03 ppb	14:44:23
2	Se 196.026†	1289.0	1295.7	496 µg/L	496 ppb	14:44:23
2	SiO2†	51861.4	50975.9	5305.0 µg/L	5305.0 ppb	14:44:03
2	Si 251.611†	157439.0	159278.5	2490.0 µg/L	2490.0 ppb	14:44:03
2	Sn 189.927†	7384.6	7511.1	498.97 µg/L	498.97 ppb	14:44:23
2	Ti 334.940†	498684.5	506068.7	498.57 µg/L	498.57 ppb	14:44:03
2	Tl 190.801†	3650.9	3827.4	502.66 µg/L	502.66 ppb	14:44:23
2	U 409.014†	7359.5	7746.8	497.46 µg/L	497.46 ppb	14:44:03
2	V 292.402†	95623.2	96863.3	500.18 µg/L	500.18 ppb	14:44:03
2	Zn 213.857†	83314.8	84192.4	491.51 µg/L	491.51 ppb	14:44:03
3	Sc RADIAL	140395.8	140395.8	97.4 %		14:43:22
3	Al 396.153Radial†	24550.5	25275.5	5012.4 µg/L	5012.4 ppb	14:43:22
3	Ca 317.933Radial†	81122.0	82739.9	5078.9 µg/L	5078.9 ppb	14:43:22
3	Fe 238.204 Radial†	72385.9	74185.2	5006.7 µg/L	5006.7 ppb	14:43:22
3	K 766.490 Radial†	14325.7	13150.1	5065.2 µg/L	5065.2 ppb	14:43:22
3	Mg 279.077 IEC†	12218.7	12380.1	5133.8 µg/L	5133.8 ppb	14:43:22
3	Na 589.592 Radial†	67424.1	67968.3	9992.6 µg/L	9992.6 ppb	14:43:22
3	Sr 421.552†	218467.8	224516.2	498.64 µg/L	498.64 ppb	14:43:20
3	Sc 361.383	1723556.6	1723556.6	98.104 %		14:44:26
3	Y 371.029	1016740.3	1016740.3	97.075 %		14:44:26
3	Ag 328.068†	128305.1	126969.7	502.50 µg/L	502.50 ppb	14:44:26
3	As 188.979†	1458.8	1508.6	491.32 µg/L	491.32 ppb	14:44:46
3	B 249.677†	34734.5	31946.4	490.52 µg/L	490.52 ppb	14:44:26
3	Ba 233.527†	113908.8	116262.8	493.69 µg/L	493.69 ppb	14:44:26
3	Be 313.107†	1693103.3	1726797.9	491.91 µg/L	491.91 ppb	14:44:26
3	Cd 226.502†	73809.3	75341.4	494.18 µg/L	494.18 ppb	14:44:26
3	Co 228.616†	37610.7	38527.1	497.92 µg/L	497.92 ppb	14:44:26
3	Cr 267.716†	59097.1	60062.6	494.96 µg/L	494.96 ppb	14:44:26
3	Cu 324.752†	122537.6	122046.6	496.46 µg/L	496.46 ppb	14:44:26
3	Mn 257.610†	377976.3	385069.8	497.91 µg/L	497.91 ppb	14:44:26
3	Mo 202.031†	15769.3	16116.8	501.34 µg/L	501.34 ppb	14:44:46
3	Ni 231.604†	40180.8	41037.5	495.30 µg/L	495.30 ppb	14:44:26
3	P 214.914†	10829.3	11038.2	2467.1 µg/L	2467.1 ppb	14:44:46
3	Pb 220.353†	8473.5	8569.6	503.53 µg/L	503.53 ppb	14:44:46
3	S 181.975 Axial†	1349.5	1270.4	1009.4 µg/L	1009.4 ppb	14:44:46
3	Sb 206.836†	3991.6	3989.7	502.25 µg/L	502.25 ppb	14:44:46
3	Se 196.026†	1288.9	1299.0	497 µg/L	497 ppb	14:44:46
3	SiO2†	51768.6	51018.1	5309.4 µg/L	5309.4 ppb	14:44:26
3	Si 251.611†	156728.6	158969.8	2485.2 µg/L	2485.2 ppb	14:44:26
3	Sn 189.927†	7413.9	7560.4	502.24 µg/L	502.24 ppb	14:44:46
3	Ti 334.940†	497313.1	505986.5	498.49 µg/L	498.49 ppb	14:44:26
3	Tl 190.801†	3664.4	3850.8	505.69 µg/L	505.69 ppb	14:44:46
3	U 409.014†	7403.3	7810.9	501.27 µg/L	501.27 ppb	14:44:26
3	V 292.402†	95188.8	96672.8	499.23 µg/L	499.23 ppb	14:44:26
3	Zn 213.857†	83166.3	84260.7	491.91 µg/L	491.91 ppb	14:44:26

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726628.2	98.279	%	0.1516				0.15%
Sc RADIAL	140784.4	97.7	%	0.24				0.24%
Y 371.029	1018423.3	97.235	%	0.1465				0.15%
Ag 328.068†	126758.8	501.66	µg/L	1.409	501.66	ppb	1.409	0.28%
QC value within limits for Ag 328.068 Recovery = 100.33%								
Al 396.153Radial†	25305.5	5018.4	µg/L	6.54	5018.4	ppb	6.54	0.13%
QC value within limits for Al 396.153Radial Recovery = 100.37%								
As 188.979†	1499.0	488.24	µg/L	3.025	488.24	ppb	3.025	0.62%
QC value within limits for As 188.979 Recovery = 97.65%								
B 249.677†	31859.4	489.18	µg/L	1.164	489.18	ppb	1.164	0.24%
QC value within limits for B 249.677 Recovery = 97.84%								
Ba 233.527†	116208.6	493.46	µg/L	0.205	493.46	ppb	0.205	0.04%
QC value within limits for Ba 233.527 Recovery = 98.69%								
Be 313.107†	1725471.6	491.53	µg/L	0.632	491.53	ppb	0.632	0.13%
QC value within limits for Be 313.107 Recovery = 98.31%								
Ca 317.933Radial†	82868.6	5086.8	µg/L	7.35	5086.8	ppb	7.35	0.14%
QC value within limits for Ca 317.933Radial Recovery = 101.74%								
Cd 226.502†	75322.8	494.06	µg/L	0.442	494.06	ppb	0.442	0.09%
QC value within limits for Cd 226.502 Recovery = 98.81%								
Co 228.616†	38507.7	497.67	µg/L	0.482	497.67	ppb	0.482	0.10%

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   QC value within limits for Co 228.616  Recovery = 99.53%
Cr 267.716†            59944.9      493.99 µg/L         1.422      493.99 ppb          1.422   0.29%
   QC value within limits for Cr 267.716  Recovery = 98.80%
Cu 324.752†           121820.5      495.54 µg/L         1.331      495.54 ppb          1.331   0.27%
   QC value within limits for Cu 324.752  Recovery = 99.11%
Fe 238.204 Radial†     74397.0      5021.0 µg/L         12.44      5021.0 ppb          12.44   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.42%
K 766.490 Radial†      13111.9      5050.5 µg/L         15.32      5050.5 ppb          15.32   0.30%
   QC value within limits for K 766.490 Radial  Recovery = 101.01%
Mg 279.077 IEC†        12408.8      5145.7 µg/L         11.20      5145.7 ppb          11.20   0.22%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.91%
Mn 257.610†           384740.8      497.48 µg/L         0.774      497.48 ppb          0.774   0.16%
   QC value within limits for Mn 257.610  Recovery = 99.50%
Mo 202.031†            16097.8      500.75 µg/L         0.517      500.75 ppb          0.517   0.10%
   QC value within limits for Mo 202.031  Recovery = 100.15%
Na 589.592 Radial†     68232.6       10031 µg/L          33.7       10031 ppb           33.7   0.34%
   QC value within limits for Na 589.592 Radial  Recovery = 100.31%
Ni 231.604†            41003.1      494.89 µg/L         0.603      494.89 ppb          0.603   0.12%
   QC value within limits for Ni 231.604  Recovery = 98.98%
P 214.914†             11038.6      2467.2 µg/L          3.29      2467.2 ppb           3.29   0.13%
   QC value within limits for P 214.914  Recovery = 98.69%
Pb 220.353†             8528.9      501.15 µg/L         2.149      501.15 ppb          2.149   0.43%
   QC value within limits for Pb 220.353  Recovery = 100.23%
S 181.975 Axial†        1260.7      1001.7 µg/L          6.67      1001.7 ppb           6.67   0.67%
   QC value within limits for S 181.975 Axial  Recovery = 100.17%
Sb 206.836†             3977.3      500.69 µg/L         2.309      500.69 ppb          2.309   0.46%
   QC value within limits for Sb 206.836  Recovery = 100.14%
Se 196.026†             1295.1         496 µg/L           1.6         496 ppb            1.6   0.33%
   QC value within limits for Se 196.026  Recovery = 99.12%
SiO2†                  51015.8      5309.2 µg/L          4.04      5309.2 ppb           4.04   0.08%
   QC value within limits for SiO2  Recovery = 99.28%
Si 251.611†           158874.3      2483.7 µg/L          7.21      2483.7 ppb           7.21   0.29%
   QC value within limits for Si 251.611  Recovery = 99.35%
Sn 189.927†             7528.3      500.11 µg/L         1.842      500.11 ppb          1.842   0.37%
   QC value within limits for Sn 189.927  Recovery = 100.02%
Sr 421.552†           224328.0      498.22 µg/L         0.706      498.22 ppb          0.706   0.14%
   QC value within limits for Sr 421.552  Recovery = 99.64%
Ti 334.940†           505679.0      498.19 µg/L         0.594      498.19 ppb          0.594   0.12%
   QC value within limits for Ti 334.940  Recovery = 99.64%
Tl 190.801†             3837.4      503.95 µg/L         1.564      503.95 ppb          1.564   0.31%
   QC value within limits for Tl 190.801  Recovery = 100.79%
U 409.014†              7721.8      495.85 µg/L         6.373      495.85 ppb          6.373   1.29%
   QC value within limits for U 409.014  Recovery = 99.17%
V 292.402†             96547.6      498.57 µg/L         2.015      498.57 ppb          2.015   0.40%
   QC value within limits for V 292.402  Recovery = 99.71%
Zn 213.857†            84173.3      491.40 µg/L         0.575      491.40 ppb          0.575   0.12%
   QC value within limits for Zn 213.857  Recovery = 98.28%
All analyte(s) passed QC.
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Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/1/2010 14:44:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143802.7	143802.7	99.8	%			14:45:26
1	Al 396.153Radial†	-48.2	20.6	4.0966	µg/L	4.0966	ppb	14:45:46
1	Ca 317.933Radial†	635.0	86.4	5.3062	µg/L	5.3062	ppb	14:45:46
1	Fe 238.204 Radial†	159.5	24.5	1.6563	µg/L	1.6563	ppb	14:45:46
1	K 766.490 Radial†	1840.2	286.2	110.31	µg/L	110.31	ppb	14:45:26
1	Mg 279.077 IEC†	160.0	-4.8	-1.9826	µg/L	-1.9826	ppb	14:45:46
1	Na 589.592 Radial†	1741.4	488.0	71.672	µg/L	71.672	ppb	14:45:26
1	Sr 421.552†	-98.0	111.6	0.2479	µg/L	0.2479	ppb	14:45:26
1	Sc 361.383	1751172.1	1751172.1	99.676	%			14:46:33
1	Y 371.029	1045772.0	1045772.0	99.846	%			14:46:33
1	Ag 328.068†	4040.4	238.7	0.9370	µg/L	0.9370	ppb	14:46:36
1	As 188.979†	-13.5	8.2	2.6347	µg/L	2.6347	ppb	14:46:56
1	B 249.677†	3496.3	48.3	0.7437	µg/L	0.7437	ppb	14:46:56
1	Ba 233.527†	-147.2	5.1	0.0215	µg/L	0.0215	ppb	14:46:56
1	Be 313.107†	-411.4	564.1	0.1616	µg/L	0.1616	ppb	14:46:36
1	Cd 226.502†	-82.1	23.5	0.1539	µg/L	0.1539	ppb	14:46:56
1	Co 228.616†	-180.2	8.7	0.1126	µg/L	0.1126	ppb	14:46:56
1	Cr 267.716†	227.5	51.7	0.4235	µg/L	0.4235	ppb	14:46:56
1	Cu 324.752†	2817.4	-32.4	-0.1285	µg/L	-0.1285	ppb	14:46:36
1	Mn 257.610†	279.9	70.3	0.0910	µg/L	0.0910	ppb	14:46:56
1	Mo 202.031†	-38.0	4.6	0.1432	µg/L	0.1432	ppb	14:46:56
1	Ni 231.604†	-94.9	-15.0	-0.1809	µg/L	-0.1809	ppb	14:46:56
1	P 214.914†	-12.5	-13.0	-2.9089	µg/L	-2.9089	ppb	14:46:56
1	Pb 220.353†	74.8	7.4	0.4332	µg/L	0.4332	ppb	14:46:56
1	S 181.975 Axial†	92.0	-12.9	-10.202	µg/L	-10.202	ppb	14:46:56
1	Sb 206.836†	81.0	2.3	0.2794	µg/L	0.2794	ppb	14:46:56
1	Se 196.026†	18.3	3.5	1.34	µg/L	1.34	ppb	14:46:56
1	SiO2†	1703.4	-41.9	-4.3903	µg/L	-4.3903	ppb	14:46:56
1	Si 251.611†	753.3	-31.7	-0.5042	µg/L	-0.5042	ppb	14:46:36
1	Sn 189.927†	6.1	9.3	0.6159	µg/L	0.6159	ppb	14:46:56
1	Ti 334.940†	826.1	-108.0	-0.1076	µg/L	-0.1076	ppb	14:46:36
1	Tl 190.801†	-112.8	2.5	0.3193	µg/L	0.3193	ppb	14:46:56
1	U 409.014†	-211.8	52.0	3.1387	µg/L	3.1387	ppb	14:46:36
1	V 292.402†	356.4	2.2	0.0164	µg/L	0.0164	ppb	14:46:36
1	Zn 213.857†	532.1	21.1	0.1253	µg/L	0.1253	ppb	14:46:56
2	Sc RADIAL	145414.1	145414.1	101	%			14:45:48
2	Al 396.153Radial†	-75.5	-5.9	-1.1937	µg/L	-1.1937	ppb	14:46:08
2	Ca 317.933Radial†	603.4	48.1	2.9516	µg/L	2.9516	ppb	14:46:08
2	Fe 238.204 Radial†	158.4	21.7	1.4621	µg/L	1.4621	ppb	14:46:08
2	K 766.490 Radial†	1729.8	156.3	60.250	µg/L	60.250	ppb	14:45:48
2	Mg 279.077 IEC†	212.4	45.4	18.801	µg/L	18.801	ppb	14:46:08
2	Na 589.592 Radial†	1445.4	175.2	25.711	µg/L	25.711	ppb	14:45:48
2	Sr 421.552†	-190.0	21.5	0.0478	µg/L	0.0478	ppb	14:45:48
2	Sc 361.383	1755617.2	1755617.2	99.929	%			14:46:58
2	Y 371.029	1047520.4	1047520.4	100.01	%			14:46:58
2	Ag 328.068†	3766.6	-45.5	-0.1877	µg/L	-0.1877	ppb	14:47:00
2	As 188.979†	-24.6	-3.0	-0.9498	µg/L	-0.9498	ppb	14:47:20
2	B 249.677†	3472.7	15.8	0.2428	µg/L	0.2428	ppb	14:47:20
2	Ba 233.527†	-159.9	-7.2	-0.0305	µg/L	-0.0305	ppb	14:47:20
2	Be 313.107†	-813.4	162.9	0.0432	µg/L	0.0432	ppb	14:47:00
2	Cd 226.502†	-88.5	17.2	0.1129	µg/L	0.1129	ppb	14:47:20
2	Co 228.616†	-170.1	19.3	0.2491	µg/L	0.2491	ppb	14:47:20
2	Cr 267.716†	209.2	32.8	0.2787	µg/L	0.2787	ppb	14:47:20
2	Cu 324.752†	2822.1	-34.9	-0.1493	µg/L	-0.1493	ppb	14:47:00
2	Mn 257.610†	251.3	40.9	0.0522	µg/L	0.0522	ppb	14:47:20
2	Mo 202.031†	-31.6	11.1	0.3468	µg/L	0.3468	ppb	14:47:20
2	Ni 231.604†	-84.4	-4.2	-0.0506	µg/L	-0.0506	ppb	14:47:20
2	P 214.914†	7.8	7.4	1.6595	µg/L	1.6595	ppb	14:47:20
2	Pb 220.353†	104.9	37.4	2.1965	µg/L	2.1965	ppb	14:47:20

2	S 181.975 Axial†	101.9	-3.2	-2.5579 µg/L	-2.5579 ppb	14:47:20
2	Sb 206.836†	80.7	1.7	0.2233 µg/L	0.2233 ppb	14:47:20
2	Se 196.026†	21.0	6.2	2.36 µg/L	2.36 ppb	14:47:20
2	SiO2†	1708.8	-40.8	-4.2951 µg/L	-4.2951 ppb	14:47:20
2	Si 251.611†	809.2	22.2	0.3343 µg/L	0.3343 ppb	14:47:00
2	Sn 189.927†	20.0	23.2	1.5380 µg/L	1.5380 ppb	14:47:20
2	Ti 334.940†	926.8	-9.3	-0.0064 µg/L	-0.0064 ppb	14:47:00
2	Tl 190.801†	-120.4	-4.9	-0.6317 µg/L	-0.6317 ppb	14:47:20
2	U 409.014†	-440.9	-176.7	-10.643 µg/L	-10.643 ppb	14:47:00
2	V 292.402†	407.4	52.3	0.2637 µg/L	0.2637 ppb	14:47:00
2	Zn 213.857†	561.6	49.3	0.2904 µg/L	0.2904 ppb	14:47:20
3	Sc RADIAL	143607.1	143607.1	99.6 %		14:46:10
3	Al 396.153Radial†	-56.2	12.5	2.4520 µg/L	2.4520 ppb	14:46:30
3	Ca 317.933Radial†	605.7	57.9	3.5533 µg/L	3.5533 ppb	14:46:30
3	Fe 238.204 Radial†	159.1	24.4	1.6440 µg/L	1.6440 ppb	14:46:30
3	K 766.490 Radial†	1653.2	101.0	38.938 µg/L	38.938 ppb	14:46:10
3	Mg 279.077 IEC†	155.9	-8.7	-3.5952 µg/L	-3.5952 ppb	14:46:30
3	Na 589.592 Radial†	1631.0	379.5	55.791 µg/L	55.791 ppb	14:46:10
3	Sr 421.552†	-244.0	-35.1	-0.0780 µg/L	-0.0780 ppb	14:46:10
3	Sc 361.383	1754395.8	1754395.8	99.860 %		14:47:22
3	Y 371.029	1046466.2	1046466.2	99.913 %		14:47:22
3	Ag 328.068†	3877.8	68.5	0.2811 µg/L	0.2811 ppb	14:47:24
3	As 188.979†	-12.8	8.8	2.8394 µg/L	2.8394 ppb	14:47:44
3	B 249.677†	3483.0	28.6	0.4401 µg/L	0.4401 ppb	14:47:44
3	Ba 233.527†	-164.1	-11.5	-0.0486 µg/L	-0.0486 ppb	14:47:44
3	Be 313.107†	-696.6	279.3	0.0818 µg/L	0.0818 ppb	14:47:24
3	Cd 226.502†	-97.9	7.8	0.0511 µg/L	0.0511 ppb	14:47:44
3	Co 228.616†	-184.0	5.3	0.0679 µg/L	0.0679 ppb	14:47:44
3	Cr 267.716†	209.4	33.1	0.2671 µg/L	0.2671 ppb	14:47:44
3	Cu 324.752†	2802.0	-53.0	-0.2086 µg/L	-0.2086 ppb	14:47:24
3	Mn 257.610†	259.0	48.8	0.0633 µg/L	0.0633 ppb	14:47:44
3	Mo 202.031†	-21.1	21.6	0.6713 µg/L	0.6713 ppb	14:47:44
3	Ni 231.604†	-60.3	19.9	0.2403 µg/L	0.2403 ppb	14:47:44
3	P 214.914†	1.5	1.1	0.2444 µg/L	0.2444 ppb	14:47:44
3	Pb 220.353†	95.5	28.0	1.6370 µg/L	1.6370 ppb	14:47:44
3	S 181.975 Axial†	99.1	-5.9	-4.6659 µg/L	-4.6659 ppb	14:47:44
3	Sb 206.836†	85.6	6.8	0.8554 µg/L	0.8554 ppb	14:47:44
3	Se 196.026†	10.2	-4.6	-1.74 µg/L	-1.74 ppb	14:47:44
3	SiO2†	1707.2	-41.2	-4.3378 µg/L	-4.3378 ppb	14:47:44
3	Si 251.611†	832.1	45.7	0.7046 µg/L	0.7046 ppb	14:47:24
3	Sn 189.927†	6.0	9.2	0.6099 µg/L	0.6099 ppb	14:47:44
3	Ti 334.940†	811.7	-123.9	-0.1250 µg/L	-0.1250 ppb	14:47:24
3	Tl 190.801†	-113.5	2.0	0.2557 µg/L	0.2557 ppb	14:47:44
3	U 409.014†	-138.8	125.5	7.5881 µg/L	7.5881 ppb	14:47:24
3	V 292.402†	424.9	70.1	0.3704 µg/L	0.3704 ppb	14:47:24
3	Zn 213.857†	519.9	7.9	0.0451 µg/L	0.0451 ppb	14:47:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1753728.4	99.822	%	0.1307				0.13%
Sc RADIAL	144274.6	100	%	0.7				0.69%
Y 371.029	1046586.2	99.924	%	0.0841				0.08%
Ag 328.068†	87.2	0.3435	µg/L	0.56492	0.3435	ppb	0.56492	164.47%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.0	1.7850	µg/L	2.70749	1.7850	ppb	2.70749	151.68%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.7	1.5081	µg/L	2.13102	1.5081	ppb	2.13102	141.31%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	30.9	0.4755	µg/L	0.25232	0.4755	ppb	0.25232	53.06%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.6	-0.0192	µg/L	0.03639	-0.0192	ppb	0.03639	189.80%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	335.4	0.0955	µg/L	0.06040	0.0955	ppb	0.06040	63.22%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	64.1	3.9370	µg/L	1.22334	3.9370	ppb	1.22334	31.07%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.2	0.1060	µg/L	0.05173	0.1060	ppb	0.05173	48.80%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.1	0.1432	µg/L	0.09436	0.1432	ppb	0.09436	65.89%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                39.2      0.3231 µg/L       0.08713      0.3231 ppb        0.08713  26.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -40.1     -0.1621 µg/L       0.04158     -0.1621 ppb        0.04158  25.65%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         23.5      1.5875 µg/L       0.10871      1.5875 ppb        0.10871   6.85%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         181.2      69.832 µg/L       36.6363      69.832 ppb        36.6363  52.46%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            10.6      4.4077 µg/L      12.49101      4.4077 ppb       12.49101 283.39%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                53.3      0.0688 µg/L       0.01998      0.0688 ppb        0.01998  29.03%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.4      0.3871 µg/L       0.26632      0.3871 ppb        0.26632  68.80%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        347.6      51.058 µg/L       23.3431      51.058 ppb        23.3431  45.72%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.2      0.0030 µg/L       0.21561      0.0030 ppb        0.21561 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.5     -0.3350 µg/L       2.33866     -0.3350 ppb        2.33866 698.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                24.3      1.4222 µg/L       0.90104      1.4222 ppb        0.90104  63.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -7.3     -5.8084 µg/L       3.94788     -5.8084 ppb        3.94788  67.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.6      0.4527 µg/L       0.34985      0.4527 ppb        0.34985  77.28%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.7       0.654 µg/L        2.1349       0.654 ppb         2.1349 326.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -41.3     -4.3411 µg/L       0.04768     -4.3411 ppb        0.04768   1.10%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                12.1      0.1783 µg/L       0.61935      0.1783 ppb        0.61935 347.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                13.9      0.9213 µg/L       0.53412      0.9213 ppb        0.53412  57.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                32.7      0.0726 µg/L       0.16432      0.0726 ppb        0.16432 226.42%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -80.4     -0.0797 µg/L       0.06407     -0.0797 ppb        0.06407  80.40%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.1     -0.0189 µg/L       0.53164     -0.0189 ppb        0.53164 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  0.3      0.0278 µg/L       9.50556      0.0278 ppb        9.50556 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 41.5      0.2168 µg/L       0.18162      0.2168 ppb        0.18162  83.76%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                26.1      0.1536 µg/L       0.12508      0.1536 ppb        0.12508  81.42%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 38
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/1/2010 15:08:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143483.1	143483.1	99.5	%			15:09:17
1	Al 396.153Radial†	25170.3	25355.8	5028.7	µg/L	5028.7	ppb	15:09:17
1	Ca 317.933Radial†	83277.1	83112.8	5101.8	µg/L	5101.8	ppb	15:09:17
1	Fe 238.204 Radial†	74294.9	74503.8	5028.2	µg/L	5028.2	ppb	15:09:17
1	K 766.490 Radial†	14584.0	13093.2	5043.3	µg/L	5043.3	ppb	15:09:17
1	Mg 279.077 IEC†	12583.3	12476.4	5173.5	µg/L	5173.5	ppb	15:09:17
1	Na 589.592 Radial†	68975.9	68037.9	10003	µg/L	10003	ppb	15:09:17
1	Sr 421.552†	221205.5	222440.2	494.03	µg/L	494.03	ppb	15:09:15
1	Sc 361.383	1747235.4	1747235.4	99.452	%			15:09:30
1	Y 371.029	1030705.2	1030705.2	98.408	%			15:09:30
1	Ag 328.068†	129172.1	126069.1	498.94	µg/L	498.94	ppb	15:09:30
1	As 188.979†	1463.5	1493.3	486.36	µg/L	486.36	ppb	15:09:50
1	B 249.677†	35089.0	31823.0	488.61	µg/L	488.61	ppb	15:09:30
1	Ba 233.527†	115530.0	116319.4	493.93	µg/L	493.93	ppb	15:09:30
1	Be 313.107†	1717250.8	1727689.9	492.16	µg/L	492.16	ppb	15:09:30
1	Cd 226.502†	74884.6	75403.0	494.59	µg/L	494.59	ppb	15:09:30
1	Co 228.616†	38176.3	38576.2	498.56	µg/L	498.56	ppb	15:09:30
1	Cr 267.716†	59675.4	59827.7	493.03	µg/L	493.03	ppb	15:09:30
1	Cu 324.752†	123710.1	121532.9	494.36	µg/L	494.36	ppb	15:09:30
1	Mn 257.610†	382378.6	384275.0	496.88	µg/L	496.88	ppb	15:09:30
1	Mo 202.031†	15810.0	15939.9	495.84	µg/L	495.84	ppb	15:09:50
1	Ni 231.604†	40808.1	41113.3	496.22	µg/L	496.22	ppb	15:09:30
1	P 214.914†	10880.4	10939.9	2445.1	µg/L	2445.1	ppb	15:09:50
1	Pb 220.353†	8483.4	8462.5	497.26	µg/L	497.26	ppb	15:09:50
1	S 181.975 Axial†	1340.7	1242.9	987.58	µg/L	987.58	ppb	15:09:50
1	Sb 206.836†	3985.8	3928.7	494.53	µg/L	494.53	ppb	15:09:50
1	Se 196.026†	1288.2	1280.5	490	µg/L	490	ppb	15:09:50
1	SiO2†	52606.2	51145.2	5322.9	µg/L	5322.9	ppb	15:09:30
1	Si 251.611†	159561.9	159653.6	2496.0	µg/L	2496.0	ppb	15:09:30
1	Sn 189.927†	7439.5	7483.8	497.16	µg/L	497.16	ppb	15:09:50
1	Ti 334.940†	503420.5	505257.7	497.78	µg/L	497.78	ppb	15:09:30
1	Tl 190.801†	3673.6	3809.5	500.31	µg/L	500.31	ppb	15:09:50
1	U 409.014†	7225.6	7529.9	484.23	µg/L	484.23	ppb	15:09:30
1	V 292.402†	96242.2	96417.1	497.85	µg/L	497.85	ppb	15:09:30
1	Zn 213.857†	84009.2	83959.4	490.13	µg/L	490.13	ppb	15:09:30
2	Sc RADIAL	144378.9	144378.9	100	%			15:09:21
2	Al 396.153Radial†	25278.7	25307.1	5018.9	µg/L	5018.9	ppb	15:09:21
2	Ca 317.933Radial†	83843.4	83159.2	5104.6	µg/L	5104.6	ppb	15:09:21
2	Fe 238.204 Radial†	75025.1	74769.7	5046.1	µg/L	5046.1	ppb	15:09:21
2	K 766.490 Radial†	14632.1	13050.3	5026.7	µg/L	5026.7	ppb	15:09:21
2	Mg 279.077 IEC†	12587.4	12402.0	5142.8	µg/L	5142.8	ppb	15:09:21
2	Na 589.592 Radial†	69743.3	68374.1	10052	µg/L	10052	ppb	15:09:21
2	Sr 421.552†	223093.3	222946.2	495.16	µg/L	495.16	ppb	15:09:19
2	Sc 361.383	1743083.5	1743083.5	99.216	%			15:09:53
2	Y 371.029	1027499.6	1027499.6	98.102	%			15:09:53
2	Ag 328.068†	129407.8	126616.0	501.11	µg/L	501.11	ppb	15:09:53
2	As 188.979†	1466.5	1499.8	488.49	µg/L	488.49	ppb	15:10:13
2	B 249.677†	35109.3	31927.4	490.22	µg/L	490.22	ppb	15:09:53
2	Ba 233.527†	115431.8	116497.1	494.68	µg/L	494.68	ppb	15:09:53
2	Be 313.107†	1718739.6	1733303.4	493.76	µg/L	493.76	ppb	15:09:53
2	Cd 226.502†	74925.0	75623.1	496.03	µg/L	496.03	ppb	15:09:53
2	Co 228.616†	38098.4	38589.1	498.72	µg/L	498.72	ppb	15:09:53
2	Cr 267.716†	59839.0	60135.5	495.57	µg/L	495.57	ppb	15:09:53
2	Cu 324.752†	123498.8	121616.1	494.71	µg/L	494.71	ppb	15:09:53
2	Mn 257.610†	381554.1	384359.8	496.99	µg/L	496.99	ppb	15:09:53
2	Mo 202.031†	15830.8	15998.7	497.67	µg/L	497.67	ppb	15:10:13
2	Ni 231.604†	40635.2	41036.7	495.29	µg/L	495.29	ppb	15:09:53
2	P 214.914†	10888.6	10974.2	2452.7	µg/L	2452.7	ppb	15:10:13
2	Pb 220.353†	8490.4	8489.9	498.87	µg/L	498.87	ppb	15:10:13

2	S 181.975 Axial†	1353.6	1259.2	1000.5 µg/L	1000.5 ppb	15:10:13
2	Sb 206.836†	3991.2	3943.7	496.41 µg/L	496.41 ppb	15:10:13
2	Se 196.026†	1296.4	1291.8	494 µg/L	494 ppb	15:10:13
2	SiO2†	52906.1	51573.6	5367.6 µg/L	5367.6 ppb	15:09:53
2	Si 251.611†	160001.9	160479.3	2508.9 µg/L	2508.9 ppb	15:09:53
2	Sn 189.927†	7430.6	7492.6	497.75 µg/L	497.75 ppb	15:10:13
2	Ti 334.940†	502802.4	505840.4	498.35 µg/L	498.35 ppb	15:09:53
2	Tl 190.801†	3672.9	3817.5	501.37 µg/L	501.37 ppb	15:10:13
2	U 409.014†	7308.8	7631.1	490.43 µg/L	490.43 ppb	15:09:53
2	V 292.402†	96330.8	96736.9	499.51 µg/L	499.51 ppb	15:09:53
2	Zn 213.857†	84206.1	84359.1	492.49 µg/L	492.49 ppb	15:09:53
3	Sc RADIAL	144692.7	144692.7	100 %		15:09:25
3	Al 396.153Radial†	25294.3	25268.0	5011.1 µg/L	5011.1 ppb	15:09:25
3	Ca 317.933Radial†	83976.9	83110.6	5101.6 µg/L	5101.6 ppb	15:09:25
3	Fe 238.204 Radial†	75238.3	74819.7	5049.5 µg/L	5049.5 ppb	15:09:25
3	K 766.490 Radial†	14732.9	13119.0	5053.2 µg/L	5053.2 ppb	15:09:25
3	Mg 279.077 IEC†	12802.1	12588.7	5220.0 µg/L	5220.0 ppb	15:09:25
3	Na 589.592 Radial†	69944.5	68423.5	10060 µg/L	10060 ppb	15:09:25
3	Sr 421.552†	220153.0	219533.9	487.58 µg/L	487.58 ppb	15:09:23
3	Sc 361.383	1743554.8	1743554.8	99.243 %		15:10:16
3	Y 371.029	1028218.8	1028218.8	98.170 %		15:10:16
3	Ag 328.068†	129729.7	126905.1	502.24 µg/L	502.24 ppb	15:10:16
3	As 188.979†	1444.6	1477.3	481.29 µg/L	481.29 ppb	15:10:36
3	B 249.677†	35062.1	31870.4	489.34 µg/L	489.34 ppb	15:10:16
3	Ba 233.527†	115577.6	116612.6	495.17 µg/L	495.17 ppb	15:10:16
3	Be 313.107†	1717330.3	1731415.1	493.22 µg/L	493.22 ppb	15:10:16
3	Cd 226.502†	75206.8	75886.6	497.76 µg/L	497.76 ppb	15:10:16
3	Co 228.616†	38106.7	38587.1	498.70 µg/L	498.70 ppb	15:10:16
3	Cr 267.716†	59925.3	60206.1	496.15 µg/L	496.15 ppb	15:10:16
3	Cu 324.752†	123665.6	121750.6	495.25 µg/L	495.25 ppb	15:10:16
3	Mn 257.610†	383017.9	385730.8	498.76 µg/L	498.76 ppb	15:10:16
3	Mo 202.031†	15829.1	15992.7	497.49 µg/L	497.49 ppb	15:10:36
3	Ni 231.604†	40699.9	41090.8	495.94 µg/L	495.94 ppb	15:10:16
3	P 214.914†	10877.9	10960.6	2449.7 µg/L	2449.7 ppb	15:10:36
3	Pb 220.353†	8494.4	8491.5	498.96 µg/L	498.96 ppb	15:10:36
3	S 181.975 Axial†	1347.6	1252.7	995.38 µg/L	995.38 ppb	15:10:36
3	Sb 206.836†	3981.2	3932.6	494.99 µg/L	494.99 ppb	15:10:36
3	Se 196.026†	1287.2	1282.2	491 µg/L	491 ppb	15:10:36
3	SiO2†	53150.0	51804.8	5391.8 µg/L	5391.8 ppb	15:10:16
3	Si 251.611†	160256.0	160691.7	2512.3 µg/L	2512.3 ppb	15:10:16
3	Sn 189.927†	7419.0	7478.9	496.84 µg/L	496.84 ppb	15:10:36
3	Ti 334.940†	503056.3	505959.2	498.47 µg/L	498.47 ppb	15:10:16
3	Tl 190.801†	3671.9	3815.6	501.13 µg/L	501.13 ppb	15:10:36
3	U 409.014†	7225.2	7544.8	485.25 µg/L	485.25 ppb	15:10:16
3	V 292.402†	96405.3	96785.7	499.75 µg/L	499.75 ppb	15:10:16
3	Zn 213.857†	84321.5	84452.5	493.03 µg/L	493.03 ppb	15:10:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1744624.5	99.303	%	0.1294				0.13%
Sc RADIAL	144184.9	100	%	0.4				0.44%
Y 371.029	1028807.9	98.227	%	0.1606				0.16%
Ag 328.068†	126530.1	500.76	µg/L	1.672	500.76	ppb	1.672	0.33%
QC value within limits for Ag 328.068 Recovery = 100.15%								
Al 396.153Radial†	25310.3	5019.6	µg/L	8.81	5019.6	ppb	8.81	0.18%
QC value within limits for Al 396.153Radial Recovery = 100.39%								
As 188.979†	1490.1	485.38	µg/L	3.700	485.38	ppb	3.700	0.76%
QC value within limits for As 188.979 Recovery = 97.08%								
B 249.677†	31873.6	489.39	µg/L	0.806	489.39	ppb	0.806	0.16%
QC value within limits for B 249.677 Recovery = 97.88%								
Ba 233.527†	116476.3	494.59	µg/L	0.627	494.59	ppb	0.627	0.13%
QC value within limits for Ba 233.527 Recovery = 98.92%								
Be 313.107†	1730802.8	493.04	µg/L	0.814	493.04	ppb	0.814	0.17%
QC value within limits for Be 313.107 Recovery = 98.61%								
Ca 317.933Radial†	83127.5	5102.7	µg/L	1.68	5102.7	ppb	1.68	0.03%
QC value within limits for Ca 317.933Radial Recovery = 102.05%								
Cd 226.502†	75637.6	496.12	µg/L	1.588	496.12	ppb	1.588	0.32%
QC value within limits for Cd 226.502 Recovery = 99.22%								
Co 228.616†	38584.1	498.66	µg/L	0.090	498.66	ppb	0.090	0.02%

```
   QC value within limits for Co 228.616  Recovery = 99.73%
Cr 267.716†            60056.4      494.92 µg/L         1.658      494.92 ppb          1.658   0.34%
   QC value within limits for Cr 267.716  Recovery = 98.98%
Cu 324.752†           121633.2      494.77 µg/L         0.448      494.77 ppb          0.448   0.09%
   QC value within limits for Cu 324.752  Recovery = 98.95%
Fe 238.204 Radial†     74697.7      5041.3 µg/L         11.46      5041.3 ppb          11.46   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.83%
K 766.490 Radial†      13087.5      5041.1 µg/L         13.38      5041.1 ppb          13.38   0.27%
   QC value within limits for K 766.490 Radial  Recovery = 100.82%
Mg 279.077 IEC†        12489.0      5178.8 µg/L         38.89      5178.8 ppb          38.89   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.58%
Mn 257.610†           384788.5      497.54 µg/L         1.056      497.54 ppb          1.056   0.21%
   QC value within limits for Mn 257.610  Recovery = 99.51%
Mo 202.031†            15977.1      497.00 µg/L         1.007      497.00 ppb          1.007   0.20%
   QC value within limits for Mo 202.031  Recovery = 99.40%
Na 589.592 Radial†     68278.5       10038 µg/L          30.9       10038 ppb           30.9   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 100.38%
Ni 231.604†            41080.3      495.82 µg/L         0.475      495.82 ppb          0.475   0.10%
   QC value within limits for Ni 231.604  Recovery = 99.16%
P 214.914†             10958.3      2449.2 µg/L          3.85      2449.2 ppb           3.85   0.16%
   QC value within limits for P 214.914  Recovery = 97.97%
Pb 220.353†             8481.3      498.36 µg/L         0.956      498.36 ppb          0.956   0.19%
   QC value within limits for Pb 220.353  Recovery = 99.67%
S 181.975 Axial†        1251.6      994.48 µg/L         6.492      994.48 ppb          6.492   0.65%
   QC value within limits for S 181.975 Axial  Recovery = 99.45%
Sb 206.836†             3935.0      495.31 µg/L         0.977      495.31 ppb          0.977   0.20%
   QC value within limits for Sb 206.836  Recovery = 99.06%
Se 196.026†             1284.8         492 µg/L           2.3         492 ppb            2.3   0.48%
   QC value within limits for Se 196.026  Recovery = 98.34%
SiO2†                  51507.9      5360.7 µg/L         34.95      5360.7 ppb          34.95   0.65%
   QC value within limits for SiO2  Recovery = 100.25%
Si 251.611†           160274.8      2505.7 µg/L          8.59      2505.7 ppb           8.59   0.34%
   QC value within limits for Si 251.611  Recovery = 100.23%
Sn 189.927†             7485.1      497.25 µg/L         0.458      497.25 ppb          0.458   0.09%
   QC value within limits for Sn 189.927  Recovery = 99.45%
Sr 421.552†           221640.1      492.25 µg/L         4.090      492.25 ppb          4.090   0.83%
   QC value within limits for Sr 421.552  Recovery = 98.45%
Ti 334.940†           505685.8      498.20 µg/L         0.368      498.20 ppb          0.368   0.07%
   QC value within limits for Ti 334.940  Recovery = 99.64%
Tl 190.801†             3814.2      500.94 µg/L         0.555      500.94 ppb          0.555   0.11%
   QC value within limits for Tl 190.801  Recovery = 100.19%
U 409.014†              7568.6      486.64 µg/L         3.323      486.64 ppb          3.323   0.68%
   QC value within limits for U 409.014  Recovery = 97.33%
V 292.402†             96646.6      499.03 µg/L         1.037      499.03 ppb          1.037   0.21%
   QC value within limits for V 292.402  Recovery = 99.81%
Zn 213.857†            84257.0      491.88 µg/L         1.541      491.88 ppb          1.541   0.31%
   QC value within limits for Zn 213.857  Recovery = 98.38%
All analyte(s) passed QC.
```

Sequence No.: 39 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 4/1/2010 15:10:43**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	145725.8	145725.8	101	%			15:11:14
1	Al 396.153Radial†	-82.7	-13.0	-2.5960	µg/L	-2.5960	ppb	15:11:34
1	Ca 317.933Radial†	640.9	83.8	5.1468	µg/L	5.1468	ppb	15:11:34
1	Fe 238.204 Radial†	151.9	15.0	1.0092	µg/L	1.0092	ppb	15:11:34
1	K 766.490 Radial†	1604.6	28.8	11.084	µg/L	11.084	ppb	15:11:14
1	Mg 279.077 IEC†	175.3	8.2	3.4169	µg/L	3.4169	ppb	15:11:34
1	Na 589.592 Radial†	1660.6	385.0	56.617	µg/L	56.617	ppb	15:11:14
1	Sr 421.552†	-213.1	-0.9	-0.0020	µg/L	-0.0020	ppb	15:11:14
1	Sc 361.383	1751195.9	1751195.9	99.677	%			15:12:36
1	Y 371.029	1044144.7	1044144.7	99.691	%			15:12:36
1	Ag 328.068†	3820.3	17.9	0.0670	µg/L	0.0670	ppb	15:12:38
1	As 188.979†	-13.5	8.2	2.6194	µg/L	2.6194	ppb	15:12:58
1	B 249.677†	3553.6	105.8	1.6293	µg/L	1.6293	ppb	15:12:38
1	Ba 233.527†	-153.3	-1.0	-0.0038	µg/L	-0.0038	ppb	15:12:58
1	Be 313.107†	-872.9	101.1	0.0271	µg/L	0.0271	ppb	15:12:38
1	Cd 226.502†	-101.2	4.3	0.0282	µg/L	0.0282	ppb	15:12:58
1	Co 228.616†	-176.3	12.6	0.1633	µg/L	0.1633	ppb	15:12:58
1	Cr 267.716†	193.4	17.5	0.1486	µg/L	0.1486	ppb	15:12:58
1	Cu 324.752†	2880.9	31.3	0.1229	µg/L	0.1229	ppb	15:12:38
1	Mn 257.610†	234.8	25.0	0.0322	µg/L	0.0322	ppb	15:12:58
1	Mo 202.031†	-32.2	10.4	0.3236	µg/L	0.3236	ppb	15:12:58
1	Ni 231.604†	-64.8	15.3	0.1845	µg/L	0.1845	ppb	15:12:58
1	P 214.914†	-17.6	-18.0	-4.0435	µg/L	-4.0435	ppb	15:12:58
1	Pb 220.353†	82.0	14.7	0.8632	µg/L	0.8632	ppb	15:12:58
1	S 181.975 Axial†	98.7	-6.1	-4.8503	µg/L	-4.8503	ppb	15:12:58
1	Sb 206.836†	85.2	6.5	0.8163	µg/L	0.8163	ppb	15:12:58
1	Se 196.026†	19.5	4.8	1.80	µg/L	1.80	ppb	15:12:58
1	SiO2†	2053.8	309.7	32.337	µg/L	32.337	ppb	15:12:58
1	Si 251.611†	1880.2	1098.8	17.237	µg/L	17.237	ppb	15:12:38
1	Sn 189.927†	9.3	12.6	0.8339	µg/L	0.8339	ppb	15:12:58
1	Ti 334.940†	971.6	38.0	0.0395	µg/L	0.0395	ppb	15:12:38
1	Tl 190.801†	-122.1	-6.9	-0.8846	µg/L	-0.8846	ppb	15:12:58
1	U 409.014†	-354.2	-90.8	-5.4604	µg/L	-5.4604	ppb	15:12:38
1	V 292.402†	419.0	64.9	0.3308	µg/L	0.3308	ppb	15:12:38
1	Zn 213.857†	553.5	42.6	0.2492	µg/L	0.2492	ppb	15:12:58
2	Sc RADIAL	142035.3	142035.3	98.5	%			15:11:36
2	Al 396.153Radial†	-87.1	-19.5	-3.9118	µg/L	-3.9118	ppb	15:11:56
2	Ca 317.933Radial†	620.3	79.4	4.8728	µg/L	4.8728	ppb	15:11:56
2	Fe 238.204 Radial†	165.4	32.6	2.1989	µg/L	2.1989	ppb	15:11:56
2	K 766.490 Radial†	1726.4	193.7	74.642	µg/L	74.642	ppb	15:11:36
2	Mg 279.077 IEC†	207.5	45.4	18.826	µg/L	18.826	ppb	15:11:56
2	Na 589.592 Radial†	1622.3	388.8	57.121	µg/L	57.121	ppb	15:11:36
2	Sr 421.552†	-139.1	68.7	0.1525	µg/L	0.1525	ppb	15:11:36
2	Sc 361.383	1765713.3	1765713.3	100.50	%			15:13:00
2	Y 371.029	1053210.5	1053210.5	100.56	%			15:13:00
2	Ag 328.068†	3862.7	28.6	0.1204	µg/L	0.1204	ppb	15:13:02
2	As 188.979†	-24.6	-2.8	-0.8823	µg/L	-0.8823	ppb	15:13:22
2	B 249.677†	3390.6	-85.8	-1.3212	µg/L	-1.3212	ppb	15:13:02
2	Ba 233.527†	-183.1	-29.4	-0.1246	µg/L	-0.1246	ppb	15:13:22
2	Be 313.107†	-1000.3	-18.5	-0.0026	µg/L	-0.0026	ppb	15:13:02
2	Cd 226.502†	-108.8	-2.4	-0.0158	µg/L	-0.0158	ppb	15:13:22
2	Co 228.616†	-198.1	-7.6	-0.0982	µg/L	-0.0982	ppb	15:13:22
2	Cr 267.716†	219.6	41.9	0.3382	µg/L	0.3382	ppb	15:13:22
2	Cu 324.752†	2861.7	-11.6	-0.0391	µg/L	-0.0391	ppb	15:13:02
2	Mn 257.610†	264.0	52.1	0.0667	µg/L	0.0667	ppb	15:13:22
2	Mo 202.031†	-19.9	23.0	0.7143	µg/L	0.7143	ppb	15:13:22
2	Ni 231.604†	-63.0	17.6	0.2122	µg/L	0.2122	ppb	15:13:22
2	P 214.914†	8.2	7.8	1.7343	µg/L	1.7343	ppb	15:13:22
2	Pb 220.353†	83.4	15.4	0.8965	µg/L	0.8965	ppb	15:13:22

2	S 181.975 Axial†	107.1	1.3	1.0733 µg/L	1.0733 ppb	15:13:22
2	Sb 206.836†	83.3	3.9	0.4946 µg/L	0.4946 ppb	15:13:22
2	Se 196.026†	12.4	-2.4	-0.914 µg/L	-0.914 ppb	15:13:22
2	SiO2†	2092.6	331.3	34.591 µg/L	34.591 ppb	15:13:22
2	Si 251.611†	1933.9	1136.7	17.831 µg/L	17.831 ppb	15:13:02
2	Sn 189.927†	1.1	4.3	0.2847 µg/L	0.2847 ppb	15:13:22
2	Ti 334.940†	968.5	26.9	0.0214 µg/L	0.0214 ppb	15:13:02
2	Tl 190.801†	-112.3	3.9	0.5015 µg/L	0.5015 ppb	15:13:22
2	U 409.014†	-119.5	145.6	8.7741 µg/L	8.7741 ppb	15:13:02
2	V 292.402†	324.8	-32.3	-0.1498 µg/L	-0.1498 ppb	15:13:02
2	Zn 213.857†	541.1	25.7	0.1496 µg/L	0.1496 ppb	15:13:22
3	Sc RADIAL	143578.7	143578.7	99.6 %		15:11:58
3	Al 396.153Radial†	-89.4	-20.9	-4.1602 µg/L	-4.1602 ppb	15:12:18
3	Ca 317.933Radial†	585.8	38.0	2.3339 µg/L	2.3339 ppb	15:12:18
3	Fe 238.204 Radial†	154.5	19.8	1.3370 µg/L	1.3370 ppb	15:12:18
3	K 766.490 Radial†	1573.3	21.2	8.1552 µg/L	8.1552 ppb	15:11:58
3	Mg 279.077 IEC†	174.4	9.9	4.1129 µg/L	4.1129 ppb	15:12:18
3	Na 589.592 Radial†	1490.8	239.1	35.161 µg/L	35.161 ppb	15:11:58
3	Sr 421.552†	-96.3	113.2	0.2513 µg/L	0.2513 ppb	15:11:58
3	Sc 361.383	1747284.0	1747284.0	99.455 %		15:13:24
3	Y 371.029	1041594.9	1041594.9	99.448 %		15:13:24
3	Ag 328.068†	4040.0	247.4	0.9817 µg/L	0.9817 ppb	15:13:26
3	As 188.979†	-17.4	4.2	1.3479 µg/L	1.3479 ppb	15:13:47
3	B 249.677†	3643.6	204.2	3.1464 µg/L	3.1464 ppb	15:13:26
3	Ba 233.527†	-141.7	10.3	0.0434 µg/L	0.0434 ppb	15:13:47
3	Be 313.107†	-907.1	64.8	0.0228 µg/L	0.0228 ppb	15:13:26
3	Cd 226.502†	-95.8	9.5	0.0618 µg/L	0.0618 ppb	15:13:47
3	Co 228.616†	-193.3	-4.9	-0.0630 µg/L	-0.0630 ppb	15:13:47
3	Cr 267.716†	196.7	21.2	0.1633 µg/L	0.1633 ppb	15:13:47
3	Cu 324.752†	2922.7	79.8	0.3358 µg/L	0.3358 ppb	15:13:26
3	Mn 257.610†	253.9	44.7	0.0577 µg/L	0.0577 ppb	15:13:47
3	Mo 202.031†	-41.4	1.1	0.0339 µg/L	0.0339 ppb	15:13:47
3	Ni 231.604†	-105.1	-25.4	-0.3070 µg/L	-0.3070 ppb	15:13:47
3	P 214.914†	8.3	7.9	1.7691 µg/L	1.7691 ppb	15:13:47
3	Pb 220.353†	88.7	21.6	1.2510 µg/L	1.2510 ppb	15:13:47
3	S 181.975 Axial†	90.0	-14.7	-11.636 µg/L	-11.636 ppb	15:13:47
3	Sb 206.836†	86.8	8.3	1.0361 µg/L	1.0361 ppb	15:13:47
3	Se 196.026†	13.3	-1.4	-0.514 µg/L	-0.514 ppb	15:13:47
3	SiO2†	2109.6	370.3	38.686 µg/L	38.686 ppb	15:13:47
3	Si 251.611†	2067.2	1291.1	20.260 µg/L	20.260 ppb	15:13:26
3	Sn 189.927†	4.5	7.8	0.5146 µg/L	0.5146 ppb	15:13:47
3	Ti 334.940†	690.5	-242.5	-0.2455 µg/L	-0.2455 ppb	15:13:26
3	Tl 190.801†	-121.5	-6.6	-0.8556 µg/L	-0.8556 ppb	15:13:47
3	U 409.014†	-24.7	239.6	14.442 µg/L	14.442 ppb	15:13:26
3	V 292.402†	306.8	-46.9	-0.2282 µg/L	-0.2282 ppb	15:13:26
3	Zn 213.857†	564.1	54.5	0.3224 µg/L	0.3224 ppb	15:13:47

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1754731.1	99.879	%	0.5527				0.55%
Sc RADIAL	143779.9	99.7	%	1.29				1.29%
Y 371.029	1046316.7	99.898	%	0.5829				0.58%
Ag 328.068†	97.9	0.3897	µg/L	0.51339	0.3897	ppb	0.51339	131.72%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-17.8	-3.5560	µg/L	0.84061	-3.5560	ppb	0.84061	23.64%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.2	1.0283	µg/L	1.77258	1.0283	ppb	1.77258	172.37%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	74.7	1.1515	µg/L	2.27180	1.1515	ppb	2.27180	197.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.7	-0.0283	µg/L	0.08663	-0.0283	ppb	0.08663	305.98%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	49.1	0.0158	µg/L	0.01607	0.0158	ppb	0.01607	101.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	67.1	4.1178	µg/L	1.55102	4.1178	ppb	1.55102	37.67%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	3.8	0.0247	µg/L	0.03891	0.0247	ppb	0.03891	157.23%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.1	0.0007	µg/L	0.14192	0.0007	ppb	0.14192	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                26.9      0.2167 µg/L       0.10551      0.2167 ppb        0.10551  48.69%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                33.2      0.1399 µg/L       0.18801      0.1399 ppb        0.18801 134.43%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         22.4      1.5150 µg/L       0.61451      1.5150 ppb        0.61451  40.56%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          81.2      31.294 µg/L       37.5690      31.294 ppb        37.5690 120.05%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            21.2      8.7854 µg/L       8.70269      8.7854 ppb        8.70269  99.06%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                40.6      0.0522 µg/L       0.01787      0.0522 ppb        0.01787  34.24%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                11.5      0.3573 µg/L       0.34149      0.3573 ppb        0.34149  95.58%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        337.6      49.633 µg/L       12.5358      49.633 ppb        12.5358  25.26%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 2.5      0.0299 µg/L       0.29209      0.0299 ppb        0.29209 976.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.8     -0.1800 µg/L       3.34589     -0.1800 ppb        3.34589 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                17.2      1.0036 µg/L       0.21493      1.0036 ppb        0.21493  21.42%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -6.5     -5.1375 µg/L       6.35931     -5.1375 ppb        6.35931 123.78%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 6.2      0.7823 µg/L       0.27236      0.7823 ppb        0.27236  34.81%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.3       0.126 µg/L        1.4680       0.126 ppb         1.4680 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     337.1      35.205 µg/L        3.2191      35.205 ppb         3.2191   9.14%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              1175.5      18.443 µg/L        1.6021      18.443 ppb         1.6021   8.69%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.2      0.5444 µg/L       0.27582      0.5444 ppb        0.27582  50.67%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                60.3      0.1339 µg/L       0.12769      0.1339 ppb        0.12769  95.33%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -59.2     -0.0615 µg/L       0.15957     -0.0615 ppb        0.15957 259.32%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -3.2     -0.4129 µg/L       0.79205     -0.4129 ppb        0.79205 191.83%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 98.1      5.9185 µg/L      10.25377      5.9185 ppb       10.25377 173.25%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -4.8     -0.0157 µg/L       0.30266     -0.0157 ppb        0.30266 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                40.9      0.2404 µg/L       0.08673      0.2404 ppb        0.08673  36.08%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 49
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/1/2010 15:39:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143204.5	143204.5	99.3	%			15:39:44
1	Al 396.153Radial†	24848.0	25080.5	4973.7	µg/L	4973.7	ppb	15:39:44
1	Ca 317.933Radial†	83556.8	83557.2	5129.0	µg/L	5129.0	ppb	15:39:44
1	Fe 238.204 Radial†	74052.1	74404.6	5021.5	µg/L	5021.5	ppb	15:39:44
1	K 766.490 Radial†	14545.2	13082.6	5039.2	µg/L	5039.2	ppb	15:39:44
1	Mg 279.077 IEC†	12621.0	12539.0	5199.6	µg/L	5199.6	ppb	15:39:44
1	Na 589.592 Radial†	69165.7	68363.7	10051	µg/L	10051	ppb	15:39:44
1	Sr 421.552†	223138.8	224818.7	499.31	µg/L	499.31	ppb	15:39:42
1	Sc 361.383	1745928.0	1745928.0	99.378	%			15:39:57
1	Y 371.029	1029035.4	1029035.4	98.248	%			15:39:57
1	Ag 328.068†	129568.7	126565.4	500.91	µg/L	500.91	ppb	15:39:57
1	As 188.979†	1461.5	1492.3	486.10	µg/L	486.10	ppb	15:40:17
1	B 249.677†	35081.3	31841.7	488.90	µg/L	488.90	ppb	15:39:57
1	Ba 233.527†	115597.0	116473.7	494.58	µg/L	494.58	ppb	15:39:57
1	Be 313.107†	1718171.6	1729909.5	492.79	µg/L	492.79	ppb	15:39:57
1	Cd 226.502†	75261.0	75838.2	497.44	µg/L	497.44	ppb	15:39:57
1	Co 228.616†	38276.5	38705.8	500.23	µg/L	500.23	ppb	15:39:57
1	Cr 267.716†	60015.6	60214.9	496.22	µg/L	496.22	ppb	15:39:57
1	Cu 324.752†	123670.8	121586.4	494.59	µg/L	494.59	ppb	15:39:57
1	Mn 257.610†	383021.6	385209.9	498.09	µg/L	498.09	ppb	15:39:57
1	Mo 202.031†	15940.6	16083.2	500.30	µg/L	500.30	ppb	15:40:17
1	Ni 231.604†	40856.2	41192.3	497.17	µg/L	497.17	ppb	15:39:57
1	P 214.914†	11004.5	11073.0	2474.9	µg/L	2474.9	ppb	15:40:17
1	Pb 220.353†	8545.5	8531.4	501.30	µg/L	501.30	ppb	15:40:17
1	S 181.975 Axial†	1363.4	1266.8	1006.5	µg/L	1006.5	ppb	15:40:17
1	Sb 206.836†	4024.7	3970.9	499.84	µg/L	499.84	ppb	15:40:17
1	Se 196.026†	1307.1	1300.5	498	µg/L	498	ppb	15:40:17
1	SiO2†	52710.7	51290.0	5337.8	µg/L	5337.8	ppb	15:39:57
1	Si 251.611†	159698.4	159911.1	2500.0	µg/L	2500.0	ppb	15:39:57
1	Sn 189.927†	7478.7	7528.7	500.14	µg/L	500.14	ppb	15:40:17
1	Ti 334.940†	503704.0	505922.0	498.43	µg/L	498.43	ppb	15:39:57
1	Tl 190.801†	3710.8	3849.7	505.53	µg/L	505.53	ppb	15:40:17
1	U 409.014†	7382.7	7693.4	494.19	µg/L	494.19	ppb	15:39:57
1	V 292.402†	96458.8	96707.5	499.39	µg/L	499.39	ppb	15:39:57
1	Zn 213.857†	84331.1	84346.6	492.40	µg/L	492.40	ppb	15:39:57
2	Sc RADIAL	142736.9	142736.9	99.0	%			15:39:48
2	Al 396.153Radial†	24856.7	25171.3	4991.6	µg/L	4991.6	ppb	15:39:48
2	Ca 317.933Radial†	82856.6	83125.6	5102.5	µg/L	5102.5	ppb	15:39:48
2	Fe 238.204 Radial†	73944.8	74540.5	5030.7	µg/L	5030.7	ppb	15:39:48
2	K 766.490 Radial†	14595.3	13181.2	5077.2	µg/L	5077.2	ppb	15:39:48
2	Mg 279.077 IEC†	12385.7	12343.0	5118.5	µg/L	5118.5	ppb	15:39:48
2	Na 589.592 Radial†	68732.7	68154.5	10020	µg/L	10020	ppb	15:39:48
2	Sr 421.552†	223150.5	225566.2	500.97	µg/L	500.97	ppb	15:39:46
2	Sc 361.383	1739292.4	1739292.4	99.000	%			15:40:20
2	Y 371.029	1026051.8	1026051.8	97.964	%			15:40:20
2	Ag 328.068†	130010.8	127509.4	504.65	µg/L	504.65	ppb	15:40:20
2	As 188.979†	1469.2	1505.7	490.41	µg/L	490.41	ppb	15:40:40
2	B 249.677†	35148.2	32043.9	492.01	µg/L	492.01	ppb	15:40:20
2	Ba 233.527†	115678.2	116999.6	496.82	µg/L	496.82	ppb	15:40:20
2	Be 313.107†	1722414.1	1740790.9	495.89	µg/L	495.89	ppb	15:40:20
2	Cd 226.502†	75261.5	76127.6	499.34	µg/L	499.34	ppb	15:40:20
2	Co 228.616†	38187.3	38762.6	500.97	µg/L	500.97	ppb	15:40:20
2	Cr 267.716†	59943.4	60372.4	497.52	µg/L	497.52	ppb	15:40:20
2	Cu 324.752†	124095.1	122489.8	498.25	µg/L	498.25	ppb	15:40:20
2	Mn 257.610†	383809.9	387476.7	501.02	µg/L	501.02	ppb	15:40:20
2	Mo 202.031†	15983.5	16187.7	503.55	µg/L	503.55	ppb	15:40:40
2	Ni 231.604†	40992.4	41486.8	500.72	µg/L	500.72	ppb	15:40:20
2	P 214.914†	11032.0	11143.0	2490.5	µg/L	2490.5	ppb	15:40:40
2	Pb 220.353†	8588.6	8607.7	505.78	µg/L	505.78	ppb	15:40:40

2	S 181.975 Axial†	1357.1	1265.6	1005.7 µg/L	1005.7 ppb	15:40:40
2	Sb 206.836†	4033.9	3995.6	502.99 µg/L	502.99 ppb	15:40:40
2	Se 196.026†	1311.2	1309.6	501 µg/L	501 ppb	15:40:40
2	SiO2†	52747.1	51529.1	5362.7 µg/L	5362.7 ppb	15:40:20
2	Si 251.611†	159824.3	160651.3	2511.5 µg/L	2511.5 ppb	15:40:20
2	Sn 189.927†	7507.7	7586.7	503.99 µg/L	503.99 ppb	15:40:40
2	Ti 334.940†	505043.2	509208.4	501.68 µg/L	501.68 ppb	15:40:20
2	Tl 190.801†	3685.3	3838.1	504.10 µg/L	504.10 ppb	15:40:40
2	U 409.014†	7355.8	7694.6	494.48 µg/L	494.48 ppb	15:40:20
2	V 292.402†	96779.7	97402.0	502.97 µg/L	502.97 ppb	15:40:20
2	Zn 213.857†	84616.2	84958.3	495.98 µg/L	495.98 ppb	15:40:20
3	Sc RADIAL	142621.9	142621.9	98.9 %		15:39:52
3	Al 396.153Radial†	24925.0	25260.5	5009.3 µg/L	5009.3 ppb	15:39:52
3	Ca 317.933Radial†	82723.7	83058.7	5098.4 µg/L	5098.4 ppb	15:39:52
3	Fe 238.204 Radial†	74019.8	74676.5	5039.8 µg/L	5039.8 ppb	15:39:52
3	K 766.490 Radial†	14435.4	13031.4	5019.5 µg/L	5019.5 ppb	15:39:52
3	Mg 279.077 IEC†	12483.7	12452.1	5163.7 µg/L	5163.7 ppb	15:39:52
3	Na 589.592 Radial†	68930.9	68410.8	10058 µg/L	10058 ppb	15:39:52
3	Sr 421.552†	222374.8	224964.0	499.64 µg/L	499.64 ppb	15:39:50
3	Sc 361.383	1733647.0	1733647.0	98.679 %		15:40:43
3	Y 371.029	1022322.9	1022322.9	97.608 %		15:40:43
3	Ag 328.068†	129308.5	127225.3	503.51 µg/L	503.51 ppb	15:40:43
3	As 188.979†	1461.0	1502.3	489.31 µg/L	489.31 ppb	15:41:03
3	B 249.677†	35102.1	32112.8	493.08 µg/L	493.08 ppb	15:40:43
3	Ba 233.527†	115059.4	116753.0	495.77 µg/L	495.77 ppb	15:40:43
3	Be 313.107†	1709341.3	1733208.6	493.73 µg/L	493.73 ppb	15:40:43
3	Cd 226.502†	75015.2	76125.6	499.33 µg/L	499.33 ppb	15:40:43
3	Co 228.616†	37858.3	38554.7	498.28 µg/L	498.28 ppb	15:40:43
3	Cr 267.716†	59533.4	60154.0	495.71 µg/L	495.71 ppb	15:40:43
3	Cu 324.752†	123262.4	122054.1	496.49 µg/L	496.49 ppb	15:40:43
3	Mn 257.610†	381356.3	386252.6	499.44 µg/L	499.44 ppb	15:40:43
3	Mo 202.031†	15989.2	16246.0	505.36 µg/L	505.36 ppb	15:41:03
3	Ni 231.604†	40498.4	41121.0	496.31 µg/L	496.31 ppb	15:40:43
3	P 214.914†	11074.3	11222.2	2508.4 µg/L	2508.4 ppb	15:41:03
3	Pb 220.353†	8592.3	8639.7	507.65 µg/L	507.65 ppb	15:41:03
3	S 181.975 Axial†	1378.3	1291.6	1026.2 µg/L	1026.2 ppb	15:41:03
3	Sb 206.836†	4047.5	4022.7	506.44 µg/L	506.44 ppb	15:41:03
3	Se 196.026†	1304.4	1307.1	500 µg/L	500 ppb	15:41:03
3	SiO2†	52428.5	51379.8	5347.0 µg/L	5347.0 ppb	15:40:43
3	Si 251.611†	158597.9	159934.3	2500.2 µg/L	2500.2 ppb	15:40:43
3	Sn 189.927†	7543.1	7647.4	508.00 µg/L	508.00 ppb	15:41:03
3	Ti 334.940†	501527.9	507307.3	499.79 µg/L	499.79 ppb	15:40:43
3	Tl 190.801†	3715.0	3880.3	509.53 µg/L	509.53 ppb	15:41:03
3	U 409.014†	7396.3	7759.8	498.27 µg/L	498.27 ppb	15:40:43
3	V 292.402†	96021.6	96952.1	500.69 µg/L	500.69 ppb	15:40:43
3	Zn 213.857†	84100.9	84714.4	494.57 µg/L	494.57 ppb	15:40:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1739622.5	99.019	%	0.3499				0.35%
Sc RADIAL	142854.4	99.1	%	0.21				0.22%
Y 371.029	1025803.4	97.940	%	0.3211				0.33%
Ag 328.068†	127100.1	503.02	µg/L	1.914	503.02	ppb	1.914	0.38%
QC value within limits for Ag 328.068 Recovery = 100.60%								
Al 396.153Radial†	25170.8	4991.5	µg/L	17.81	4991.5	ppb	17.81	0.36%
QC value within limits for Al 396.153Radial Recovery = 99.83%								
As 188.979†	1500.1	488.61	µg/L	2.238	488.61	ppb	2.238	0.46%
QC value within limits for As 188.979 Recovery = 97.72%								
B 249.677†	31999.4	491.33	µg/L	2.174	491.33	ppb	2.174	0.44%
QC value within limits for B 249.677 Recovery = 98.27%								
Ba 233.527†	116742.1	495.72	µg/L	1.118	495.72	ppb	1.118	0.23%
QC value within limits for Ba 233.527 Recovery = 99.14%								
Be 313.107†	1734636.3	494.14	µg/L	1.589	494.14	ppb	1.589	0.32%
QC value within limits for Be 313.107 Recovery = 98.83%								
Ca 317.933Radial†	83247.1	5110.0	µg/L	16.61	5110.0	ppb	16.61	0.33%
QC value within limits for Ca 317.933Radial Recovery = 102.20%								
Cd 226.502†	76030.5	498.71	µg/L	1.092	498.71	ppb	1.092	0.22%
QC value within limits for Cd 226.502 Recovery = 99.74%								
Co 228.616†	38674.4	499.83	µg/L	1.388	499.83	ppb	1.388	0.28%

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   QC value within limits for Co 228.616  Recovery = 99.97%
Cr 267.716†            60247.1      496.48 µg/L         0.931      496.48 ppb          0.931   0.19%
   QC value within limits for Cr 267.716  Recovery = 99.30%
Cu 324.752†           122043.4      496.44 µg/L         1.832      496.44 ppb          1.832   0.37%
   QC value within limits for Cu 324.752  Recovery = 99.29%
Fe 238.204 Radial†     74540.5      5030.7 µg/L          9.17      5030.7 ppb           9.17   0.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.61%
K 766.490 Radial†      13098.4      5045.3 µg/L         29.35      5045.3 ppb          29.35   0.58%
   QC value within limits for K 766.490 Radial  Recovery = 100.91%
Mg 279.077 IEC†        12444.7      5160.6 µg/L         40.63      5160.6 ppb          40.63   0.79%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.21%
Mn 257.610†           386313.0      499.52 µg/L         1.469      499.52 ppb          1.469   0.29%
   QC value within limits for Mn 257.610  Recovery = 99.90%
Mo 202.031†            16172.3      503.07 µg/L         2.564      503.07 ppb          2.564   0.51%
   QC value within limits for Mo 202.031  Recovery = 100.61%
Na 589.592 Radial†     68309.7       10043 µg/L          20.1       10043 ppb           20.1   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 100.43%
Ni 231.604†            41266.7      498.07 µg/L         2.341      498.07 ppb          2.341   0.47%
   QC value within limits for Ni 231.604  Recovery = 99.61%
P 214.914†             11146.1      2491.3 µg/L         16.74      2491.3 ppb          16.74   0.67%
   QC value within limits for P 214.914  Recovery = 99.65%
Pb 220.353†             8592.9      504.91 µg/L         3.267      504.91 ppb          3.267   0.65%
   QC value within limits for Pb 220.353  Recovery = 100.98%
S 181.975 Axial†        1274.7      1012.8 µg/L         11.63      1012.8 ppb          11.63   1.15%
   QC value within limits for S 181.975 Axial  Recovery = 101.28%
Sb 206.836†             3996.4      503.09 µg/L         3.301      503.09 ppb          3.301   0.66%
   QC value within limits for Sb 206.836  Recovery = 100.62%
Se 196.026†             1305.7         500 µg/L           1.8         500 ppb            1.8   0.36%
   QC value within limits for Se 196.026  Recovery = 99.94%
SiO2†                  51399.6      5349.2 µg/L         12.56      5349.2 ppb          12.56   0.23%
   QC value within limits for SiO2  Recovery = 100.03%
Si 251.611†           160165.6      2503.9 µg/L          6.60      2503.9 ppb           6.60   0.26%
   QC value within limits for Si 251.611  Recovery = 100.16%
Sn 189.927†             7587.6      504.05 µg/L         3.930      504.05 ppb          3.930   0.78%
   QC value within limits for Sn 189.927  Recovery = 100.81%
Sr 421.552†           225116.3      499.97 µg/L         0.880      499.97 ppb          0.880   0.18%
   QC value within limits for Sr 421.552  Recovery = 99.99%
Ti 334.940†           507479.2      499.97 µg/L         1.630      499.97 ppb          1.630   0.33%
   QC value within limits for Ti 334.940  Recovery = 99.99%
Tl 190.801†             3856.0      506.38 µg/L         2.816      506.38 ppb          2.816   0.56%
   QC value within limits for Tl 190.801  Recovery = 101.28%
U 409.014†              7716.0      495.65 µg/L         2.277      495.65 ppb          2.277   0.46%
   QC value within limits for U 409.014  Recovery = 99.13%
V 292.402†             97020.5      501.02 µg/L         1.809      501.02 ppb          1.809   0.36%
   QC value within limits for V 292.402  Recovery = 100.20%
Zn 213.857†            84673.1      494.32 µg/L         1.801      494.32 ppb          1.801   0.36%
   QC value within limits for Zn 213.857  Recovery = 98.86%
All analyte(s) passed QC.
```

Sequence No.: 50
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/1/2010 15:41:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144032.4	144032.4	99.9	%			15:41:42
1	Al 396.153Radial†	-61.0	7.9	1.5374	µg/L	1.5374	ppb	15:42:02
1	Ca 317.933Radial†	625.8	76.2	4.6800	µg/L	4.6800	ppb	15:42:02
1	Fe 238.204 Radial†	165.2	30.1	2.0291	µg/L	2.0291	ppb	15:42:02
1	K 766.490 Radial†	1642.0	84.9	32.724	µg/L	32.724	ppb	15:41:42
1	Mg 279.077 IEC†	188.1	23.1	9.5762	µg/L	9.5762	ppb	15:42:02
1	Na 589.592 Radial†	1518.6	262.2	38.535	µg/L	38.535	ppb	15:41:42
1	Sr 421.552†	-140.3	69.5	0.1543	µg/L	0.1543	ppb	15:41:42
1	Sc 361.383	1774055.9	1774055.9	100.98	%			15:43:03
1	Y 371.029	1056832.7	1056832.7	100.90	%			15:43:03
1	Ag 328.068†	3817.5	-34.3	-0.1361	µg/L	-0.1361	ppb	15:43:06
1	As 188.979†	-18.4	3.4	1.1085	µg/L	1.1085	ppb	15:43:26
1	B 249.677†	3551.0	57.2	0.8828	µg/L	0.8828	ppb	15:43:26
1	Ba 233.527†	-146.5	7.7	0.0331	µg/L	0.0331	ppb	15:43:26
1	Be 313.107†	-897.5	88.1	0.0242	µg/L	0.0242	ppb	15:43:06
1	Cd 226.502†	-105.0	1.9	0.0122	µg/L	0.0122	ppb	15:43:26
1	Co 228.616†	-209.3	-17.8	-0.2299	µg/L	-0.2299	ppb	15:43:26
1	Cr 267.716†	212.9	34.3	0.2852	µg/L	0.2852	ppb	15:43:26
1	Cu 324.752†	2703.6	-181.5	-0.7381	µg/L	-0.7381	ppb	15:43:06
1	Mn 257.610†	246.8	33.8	0.0434	µg/L	0.0434	ppb	15:43:26
1	Mo 202.031†	-21.6	21.4	0.6648	µg/L	0.6648	ppb	15:43:26
1	Ni 231.604†	-73.5	7.4	0.0897	µg/L	0.0897	ppb	15:43:26
1	P 214.914†	14.1	13.6	3.0575	µg/L	3.0575	ppb	15:43:26
1	Pb 220.353†	100.0	31.4	1.8435	µg/L	1.8435	ppb	15:43:26
1	S 181.975 Axial†	113.9	7.6	6.0388	µg/L	6.0388	ppb	15:43:26
1	Sb 206.836†	72.4	-7.3	-0.9126	µg/L	-0.9126	ppb	15:43:26
1	Se 196.026†	-1.3	-16.1	-6.13	µg/L	-6.13	ppb	15:43:26
1	SiO2†	1783.5	15.4	1.5763	µg/L	1.5763	ppb	15:43:26
1	Si 251.611†	958.3	161.5	2.5202	µg/L	2.5202	ppb	15:43:06
1	Sn 189.927†	11.1	14.2	0.9432	µg/L	0.9432	ppb	15:43:26
1	Ti 334.940†	942.0	-3.9	-0.0035	µg/L	-0.0035	ppb	15:43:06
1	Tl 190.801†	-112.9	3.8	0.4954	µg/L	0.4954	ppb	15:43:26
1	U 409.014†	-315.9	-48.3	-2.9088	µg/L	-2.9088	ppb	15:43:06
1	V 292.402†	386.3	27.1	0.1441	µg/L	0.1441	ppb	15:43:06
1	Zn 213.857†	552.7	34.7	0.2039	µg/L	0.2039	ppb	15:43:26
2	Sc RADIAL	143140.9	143140.9	99.3	%			15:42:04
2	Al 396.153Radial†	-51.6	16.9	3.3379	µg/L	3.3379	ppb	15:42:24
2	Ca 317.933Radial†	645.4	99.8	6.1289	µg/L	6.1289	ppb	15:42:24
2	Fe 238.204 Radial†	160.8	26.6	1.7950	µg/L	1.7950	ppb	15:42:24
2	K 766.490 Radial†	1631.0	84.0	32.382	µg/L	32.382	ppb	15:42:04
2	Mg 279.077 IEC†	170.8	6.8	2.8364	µg/L	2.8364	ppb	15:42:24
2	Na 589.592 Radial†	1614.4	368.1	54.112	µg/L	54.112	ppb	15:42:04
2	Sr 421.552†	-239.6	-31.4	-0.0699	µg/L	-0.0699	ppb	15:42:04
2	Sc 361.383	1760953.9	1760953.9	100.23	%			15:43:28
2	Y 371.029	1049236.5	1049236.5	100.18	%			15:43:28
2	Ag 328.068†	3819.3	-4.4	-0.0203	µg/L	-0.0203	ppb	15:43:30
2	As 188.979†	-7.5	14.2	4.5751	µg/L	4.5751	ppb	15:43:50
2	B 249.677†	3559.1	91.4	1.4094	µg/L	1.4094	ppb	15:43:50
2	Ba 233.527†	-148.8	4.4	0.0186	µg/L	0.0186	ppb	15:43:50
2	Be 313.107†	-866.8	112.0	0.0314	µg/L	0.0314	ppb	15:43:30
2	Cd 226.502†	-108.5	-2.4	-0.0162	µg/L	-0.0162	ppb	15:43:50
2	Co 228.616†	-204.2	-14.2	-0.1836	µg/L	-0.1836	ppb	15:43:50
2	Cr 267.716†	185.7	8.7	0.0731	µg/L	0.0731	ppb	15:43:50
2	Cu 324.752†	2818.3	-47.2	-0.1927	µg/L	-0.1927	ppb	15:43:30
2	Mn 257.610†	229.9	18.7	0.0241	µg/L	0.0241	ppb	15:43:50
2	Mo 202.031†	-23.9	18.9	0.5875	µg/L	0.5875	ppb	15:43:50
2	Ni 231.604†	-72.7	7.8	0.0939	µg/L	0.0939	ppb	15:43:50
2	P 214.914†	-1.2	-1.6	-0.3638	µg/L	-0.3638	ppb	15:43:50
2	Pb 220.353†	63.1	-4.7	-0.2725	µg/L	-0.2725	ppb	15:43:50

2	S 181.975 Axial†	108.3	2.9	2.2716 µg/L	2.2716 ppb	15:43:50
2	Sb 206.836†	87.5	8.3	1.0525 µg/L	1.0525 ppb	15:43:50
2	Se 196.026†	19.5	4.6	1.76 µg/L	1.76 ppb	15:43:50
2	SiO2†	1775.1	20.2	2.0768 µg/L	2.0768 ppb	15:43:50
2	Si 251.611†	887.5	97.9	1.5221 µg/L	1.5221 ppb	15:43:30
2	Sn 189.927†	13.6	16.8	1.1130 µg/L	1.1130 ppb	15:43:50
2	Ti 334.940†	651.1	-287.2	-0.2826 µg/L	-0.2826 ppb	15:43:30
2	Tl 190.801†	-118.6	-2.7	-0.3565 µg/L	-0.3565 ppb	15:43:50
2	U 409.014†	-295.2	-30.1	-1.8185 µg/L	-1.8185 ppb	15:43:30
2	V 292.402†	342.6	-13.7	-0.0644 µg/L	-0.0644 ppb	15:43:30
2	Zn 213.857†	540.0	26.1	0.1527 µg/L	0.1527 ppb	15:43:50
3	Sc RADIAL	143857.8	143857.8	99.8 %		15:42:26
3	Al 396.153Radial†	-61.0	7.7	1.5161 µg/L	1.5161 ppb	15:42:46
3	Ca 317.933Radial†	620.4	71.5	4.3912 µg/L	4.3912 ppb	15:42:46
3	Fe 238.204 Radial†	165.3	30.3	2.0449 µg/L	2.0449 ppb	15:42:46
3	K 766.490 Radial†	1706.5	151.5	58.405 µg/L	58.405 ppb	15:42:26
3	Mg 279.077 IEC†	192.9	28.1	11.631 µg/L	11.631 ppb	15:42:46
3	Na 589.592 Radial†	1572.4	318.0	46.714 µg/L	46.714 ppb	15:42:26
3	Sr 421.552†	-237.2	-27.9	-0.0619 µg/L	-0.0619 ppb	15:42:26
3	Sc 361.383	1772102.5	1772102.5	100.87 %		15:43:52
3	Y 371.029	1055970.8	1055970.8	100.82 %		15:43:52
3	Ag 328.068†	3849.9	2.0	-0.0017 µg/L	-0.0017 ppb	15:43:54
3	As 188.979†	-13.6	8.2	2.6294 µg/L	2.6294 ppb	15:44:14
3	B 249.677†	3565.9	75.8	1.1673 µg/L	1.1673 ppb	15:44:14
3	Ba 233.527†	-155.4	-1.3	-0.0056 µg/L	-0.0056 ppb	15:44:14
3	Be 313.107†	-740.7	242.5	0.0674 µg/L	0.0674 ppb	15:43:54
3	Cd 226.502†	-100.6	6.1	0.0402 µg/L	0.0402 ppb	15:44:14
3	Co 228.616†	-167.5	23.5	0.3032 µg/L	0.3032 ppb	15:44:14
3	Cr 267.716†	218.9	40.5	0.3380 µg/L	0.3380 ppb	15:44:14
3	Cu 324.752†	2749.0	-133.5	-0.5454 µg/L	-0.5454 ppb	15:43:54
3	Mn 257.610†	280.0	67.0	0.0862 µg/L	0.0862 ppb	15:44:14
3	Mo 202.031†	-28.3	14.7	0.4576 µg/L	0.4576 ppb	15:44:14
3	Ni 231.604†	-54.4	26.3	0.3173 µg/L	0.3173 ppb	15:44:14
3	P 214.914†	11.8	11.3	2.5392 µg/L	2.5392 ppb	15:44:14
3	Pb 220.353†	125.2	56.5	3.3162 µg/L	3.3162 ppb	15:44:14
3	S 181.975 Axial†	108.0	1.9	1.5208 µg/L	1.5208 ppb	15:44:14
3	Sb 206.836†	77.4	-2.3	-0.2825 µg/L	-0.2825 ppb	15:44:14
3	Se 196.026†	24.2	9.2	3.49 µg/L	3.49 ppb	15:44:14
3	SiO2†	1753.3	-12.6	-1.3336 µg/L	-1.3336 ppb	15:44:14
3	Si 251.611†	941.6	146.0	2.2827 µg/L	2.2827 ppb	15:43:54
3	Sn 189.927†	2.9	6.1	0.4015 µg/L	0.4015 ppb	15:44:14
3	Ti 334.940†	748.5	-194.7	-0.1907 µg/L	-0.1907 ppb	15:43:54
3	Tl 190.801†	-127.7	-11.0	-1.4315 µg/L	-1.4315 ppb	15:44:14
3	U 409.014†	-361.2	-93.6	-5.6561 µg/L	-5.6561 ppb	15:43:54
3	V 292.402†	318.3	-39.9	-0.2009 µg/L	-0.2009 ppb	15:43:54
3	Zn 213.857†	547.9	30.5	0.1776 µg/L	0.1776 ppb	15:44:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769037.4	100.69	%	0.402				0.40%
Sc RADIAL	143677.1	99.7	%	0.33				0.33%
Y 371.029	1054013.3	100.63	%	0.397				0.39%
Ag 328.068†	-12.2	-0.0527	µg/L	0.07284	-0.0527	ppb	0.07284	138.22%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.8	2.1305	µg/L	1.04575	2.1305	ppb	1.04575	49.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.6	2.7710	µg/L	1.73763	2.7710	ppb	1.73763	62.71%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	74.8	1.1532	µg/L	0.26357	1.1532	ppb	0.26357	22.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.6	0.0154	µg/L	0.01955	0.0154	ppb	0.01955	127.20%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	147.5	0.0410	µg/L	0.02312	0.0410	ppb	0.02312	56.44%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	82.5	5.0667	µg/L	0.93114	5.0667	ppb	0.93114	18.38%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	1.9	0.0121	µg/L	0.02819	0.0121	ppb	0.02819	233.56%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.8	-0.0368	µg/L	0.29531	-0.0368	ppb	0.29531	803.48%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              27.8      0.2321 µg/L       0.14020      0.2321 ppb        0.14020  60.41%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -120.8     -0.4921 µg/L       0.27657     -0.4921 ppb        0.27657  56.21%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       29.0      1.9564 µg/L       0.13994      1.9564 ppb        0.13994   7.15%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       106.8     41.170 µg/L       14.9265     41.170 ppb        14.9265  36.26%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          19.3      8.0144 µg/L       4.60044      8.0144 ppb        4.60044  57.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              39.9      0.0512 µg/L       0.03177      0.0512 ppb        0.03177  62.01%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              18.3      0.5700 µg/L       0.10467      0.5700 ppb        0.10467  18.36%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      316.1     46.454 µg/L        7.7916     46.454 ppb         7.7916  16.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              13.8      0.1670 µg/L       0.13022      0.1670 ppb        0.13022  77.98%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                7.8      1.7443 µg/L       1.84395      1.7443 ppb        1.84395 105.71%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              27.7      1.6291 µg/L       1.80393      1.6291 ppb        1.80393 110.73%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.1      3.2771 µg/L       2.42102      3.2771 ppb        2.42102  73.88%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.4     -0.0475 µg/L       1.00341     -0.0475 ppb        1.00341 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.8      -0.293 µg/L        5.1269      -0.293 ppb         5.1269 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     7.7      0.7732 µg/L       1.84163      0.7732 ppb        1.84163 238.19%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             135.2      2.1083 µg/L       0.52139      2.1083 ppb        0.52139  24.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              12.4      0.8192 µg/L       0.37157      0.8192 ppb        0.37157  45.36%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               3.4      0.0075 µg/L       0.12720      0.0075 ppb        0.12720 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -162.0     -0.1589 µg/L       0.14229     -0.1589 ppb        0.14229  89.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -3.3     -0.4309 µg/L       0.96561     -0.4309 ppb        0.96561 224.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -57.3     -3.4611 µg/L       1.97751     -3.4611 ppb        1.97751  57.13%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -8.8     -0.0404 µg/L       0.17376     -0.0404 ppb        0.17376 430.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              30.4      0.1781 µg/L       0.02559      0.1781 ppb        0.02559  14.37%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 51
Sample ID: 1202072038|965619|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 239
Date Collected: 4/1/2010 15:44:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072038|965619|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144642.8	144642.8	100	%			15:44:55
1	Al 396.153Radial†	-98.2	-28.9	-5.7996	µg/L	-5.7996	ppb	15:45:15
1	Ca 317.933Radial†	756.5	203.8	12.510	µg/L	12.510	ppb	15:45:15
1	Fe 238.204 Radial†	211.7	75.7	5.1075	µg/L	5.1075	ppb	15:45:15
1	K 766.490 Radial†	1576.4	12.6	4.8479	µg/L	4.8479	ppb	15:44:55
1	Mg 279.077 IEC†	196.6	30.7	12.733	µg/L	12.733	ppb	15:45:15
1	Na 589.592 Radial†	1517.1	254.3	37.402	µg/L	37.402	ppb	15:44:55
1	Sr 421.552†	-148.9	61.5	0.1364	µg/L	0.1364	ppb	15:44:55
1	Sc 361.383	1760797.4	1760797.4	100.22	%			15:46:03
1	Y 371.029	1046367.2	1046367.2	99.903	%			15:46:03
1	Ag 328.068†	3793.7	-29.6	-0.1249	µg/L	-0.1249	ppb	15:46:05
1	As 188.979†	-16.5	5.2	1.6800	µg/L	1.6800	ppb	15:46:25
1	B 249.677†	3532.0	64.8	0.9968	µg/L	0.9968	ppb	15:46:25
1	Ba 233.527†	-170.9	-17.7	-0.0753	µg/L	-0.0753	ppb	15:46:25
1	Be 313.107†	-787.7	190.9	0.0531	µg/L	0.0531	ppb	15:46:05
1	Cd 226.502†	-78.8	27.2	0.1779	µg/L	0.1779	ppb	15:46:25
1	Co 228.616†	-168.4	21.5	0.2775	µg/L	0.2775	ppb	15:46:25
1	Cr 267.716†	206.4	29.4	0.2452	µg/L	0.2452	ppb	15:46:25
1	Cu 324.752†	2692.5	-172.4	-0.7014	µg/L	-0.7014	ppb	15:46:05
1	Mn 257.610†	342.5	131.2	0.1692	µg/L	0.1692	ppb	15:46:25
1	Mo 202.031†	-20.1	22.7	0.7058	µg/L	0.7058	ppb	15:46:25
1	Ni 231.604†	-78.1	2.3	0.0278	µg/L	0.0278	ppb	15:46:25
1	P 214.914†	27.0	26.5	5.9416	µg/L	5.9416	ppb	15:46:25
1	Pb 220.353†	118.4	50.5	2.9626	µg/L	2.9626	ppb	15:46:25
1	S 181.975 Axial†	101.9	-3.5	-2.7935	µg/L	-2.7935	ppb	15:46:25
1	Sb 206.836†	92.4	13.2	1.6578	µg/L	1.6578	ppb	15:46:25
1	Se 196.026†	20.2	5.4	2.05	µg/L	2.05	ppb	15:46:25
1	SiO2†	1956.5	201.3	21.008	µg/L	21.008	ppb	15:46:25
1	Si 251.611†	1456.5	665.7	10.437	µg/L	10.437	ppb	15:46:05
1	Sn 189.927†	2.3	5.6	0.3685	µg/L	0.3685	ppb	15:46:25
1	Ti 334.940†	967.4	28.5	0.0291	µg/L	0.0291	ppb	15:46:05
1	Tl 190.801†	-128.3	-12.4	-1.6025	µg/L	-1.6025	ppb	15:46:25
1	U 409.014†	-336.1	-70.8	-4.2910	µg/L	-4.2910	ppb	15:46:05
1	V 292.402†	294.5	-61.6	-0.3089	µg/L	-0.3089	ppb	15:46:05
1	Zn 213.857†	820.8	306.3	1.8023	µg/L	1.8023	ppb	15:46:25
2	Sc RADIAL	142843.7	142843.7	99.1	%			15:45:17
2	Al 396.153Radial†	-60.0	8.3	1.6557	µg/L	1.6557	ppb	15:45:37
2	Ca 317.933Radial†	719.9	176.4	10.825	µg/L	10.825	ppb	15:45:37
2	Fe 238.204 Radial†	201.6	68.2	4.6004	µg/L	4.6004	ppb	15:45:37
2	K 766.490 Radial†	1722.2	179.5	69.193	µg/L	69.193	ppb	15:45:17
2	Mg 279.077 IEC†	191.7	28.3	11.699	µg/L	11.699	ppb	15:45:37
2	Na 589.592 Radial†	1462.0	217.7	31.957	µg/L	31.957	ppb	15:45:17
2	Sr 421.552†	-173.8	34.4	0.0764	µg/L	0.0764	ppb	15:45:17
2	Sc 361.383	1765196.8	1765196.8	100.47	%			15:46:27
2	Y 371.029	1048372.4	1048372.4	100.09	%			15:46:27
2	Ag 328.068†	3785.9	-46.8	-0.1957	µg/L	-0.1957	ppb	15:46:29
2	As 188.979†	-10.5	11.2	3.6088	µg/L	3.6088	ppb	15:46:49
2	B 249.677†	3521.9	45.9	0.7065	µg/L	0.7065	ppb	15:46:49
2	Ba 233.527†	-173.0	-19.4	-0.0827	µg/L	-0.0827	ppb	15:46:49
2	Be 313.107†	-602.2	377.6	0.1054	µg/L	0.1054	ppb	15:46:29
2	Cd 226.502†	-87.2	19.1	0.1247	µg/L	0.1247	ppb	15:46:49
2	Co 228.616†	-170.7	19.7	0.2537	µg/L	0.2537	ppb	15:46:49
2	Cr 267.716†	205.0	27.5	0.2318	µg/L	0.2318	ppb	15:46:49
2	Cu 324.752†	2784.2	-87.8	-0.3608	µg/L	-0.3608	ppb	15:46:29
2	Mn 257.610†	350.3	138.1	0.1781	µg/L	0.1781	ppb	15:46:49
2	Mo 202.031†	-43.0	-0.0	-0.0005	µg/L	-0.0005	ppb	15:46:49
2	Ni 231.604†	-75.9	4.8	0.0574	µg/L	0.0574	ppb	15:46:49
2	P 214.914†	21.8	21.3	4.7851	µg/L	4.7851	ppb	15:46:49
2	Pb 220.353†	122.2	53.9	3.1646	µg/L	3.1646	ppb	15:46:49

2	S 181.975 Axial†	114.6	8.9	7.0194 µg/L	7.0194 ppb	15:46:49
2	Sb 206.836†	92.0	12.6	1.5789 µg/L	1.5789 ppb	15:46:49
2	Se 196.026†	28.0	13.1	4.98 µg/L	4.98 ppb	15:46:49
2	SiO2†	1971.4	211.3	22.059 µg/L	22.059 ppb	15:46:49
2	Si 251.611†	1632.7	837.5	13.137 µg/L	13.137 ppb	15:46:29
2	Sn 189.927†	15.7	18.8	1.2461 µg/L	1.2461 ppb	15:46:49
2	Ti 334.940†	1021.8	80.2	0.0812 µg/L	0.0812 ppb	15:46:29
2	Tl 190.801†	-134.1	-17.8	-2.3098 µg/L	-2.3098 ppb	15:46:49
2	U 409.014†	-381.5	-115.3	-6.9719 µg/L	-6.9719 ppb	15:46:29
2	V 292.402†	291.6	-65.2	-0.3367 µg/L	-0.3367 ppb	15:46:29
2	Zn 213.857†	833.2	316.6	1.8625 µg/L	1.8625 ppb	15:46:49
3	Sc RADIAL	144332.0	144332.0	100 %		15:45:39
3	Al 396.153Radial†	-33.4	35.5	7.0793 µg/L	7.0793 ppb	15:45:59
3	Ca 317.933Radial†	737.9	186.9	11.472 µg/L	11.472 ppb	15:45:59
3	Fe 238.204 Radial†	195.8	60.2	4.0644 µg/L	4.0644 ppb	15:45:59
3	K 766.490 Radial†	1717.1	156.5	60.320 µg/L	60.320 ppb	15:45:39
3	Mg 279.077 IEC†	191.9	26.5	10.951 µg/L	10.951 ppb	15:45:59
3	Na 589.592 Radial†	1474.6	215.1	31.585 µg/L	31.585 ppb	15:45:39
3	Sr 421.552†	-133.0	77.1	0.1711 µg/L	0.1711 ppb	15:45:39
3	Sc 361.383	1752698.1	1752698.1	99.763 %		15:46:51
3	Y 371.029	1041507.1	1041507.1	99.439 %		15:46:51
3	Ag 328.068†	3890.8	85.3	0.3279 µg/L	0.3279 ppb	15:46:54
3	As 188.979†	-12.3	9.4	3.0187 µg/L	3.0187 ppb	15:47:14
3	B 249.677†	3540.9	89.9	1.3860 µg/L	1.3860 ppb	15:47:14
3	Ba 233.527†	-182.9	-30.5	-0.1294 µg/L	-0.1294 ppb	15:47:14
3	Be 313.107†	-900.2	74.5	0.0188 µg/L	0.0188 ppb	15:46:54
3	Cd 226.502†	-103.7	1.9	0.0122 µg/L	0.0122 ppb	15:47:14
3	Co 228.616†	-194.0	-5.0	-0.0646 µg/L	-0.0646 ppb	15:47:14
3	Cr 267.716†	218.4	42.4	0.3558 µg/L	0.3558 ppb	15:47:14
3	Cu 324.752†	2932.5	80.6	0.3210 µg/L	0.3210 ppb	15:46:54
3	Mn 257.610†	366.1	156.4	0.2019 µg/L	0.2019 ppb	15:47:14
3	Mo 202.031†	-46.3	-3.7	-0.1140 µg/L	-0.1140 ppb	15:47:14
3	Ni 231.604†	-64.2	15.9	0.1914 µg/L	0.1914 ppb	15:47:14
3	P 214.914†	7.7	7.3	1.6352 µg/L	1.6352 ppb	15:47:14
3	Pb 220.353†	160.0	92.7	5.4370 µg/L	5.4370 ppb	15:47:14
3	S 181.975 Axial†	101.5	-3.4	-2.7063 µg/L	-2.7063 ppb	15:47:14
3	Sb 206.836†	83.3	4.4	0.5507 µg/L	0.5507 ppb	15:47:14
3	Se 196.026†	10.8	-4.0	-1.51 µg/L	-1.51 ppb	15:47:14
3	SiO2†	1976.5	230.4	24.081 µg/L	24.081 ppb	15:47:14
3	Si 251.611†	1544.5	760.7	11.941 µg/L	11.941 ppb	15:46:54
3	Sn 189.927†	-2.7	0.5	0.0335 µg/L	0.0335 ppb	15:47:14
3	Ti 334.940†	835.6	-99.2	-0.0953 µg/L	-0.0953 ppb	15:46:54
3	Tl 190.801†	-131.7	-16.4	-2.1237 µg/L	-2.1237 ppb	15:47:14
3	U 409.014†	-394.9	-131.4	-7.9037 µg/L	-7.9037 ppb	15:46:54
3	V 292.402†	428.5	74.1	0.3720 µg/L	0.3720 ppb	15:46:54
3	Zn 213.857†	827.3	316.5	1.8608 µg/L	1.8608 ppb	15:47:14

Mean Data: 1202072038|965619|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1759564.1	100.15	%	0.361				0.36%
Sc RADIAL	143939.5	99.9	%	0.67				0.67%
Y 371.029	1045415.6	99.812	%	0.3370				0.34%
Ag 328.068†	3.0	0.0024	µg/L	0.28408	0.0024	ppb	0.28408	>999.9%
Al 396.153Radial†	5.0	0.9785	µg/L	6.46610	0.9785	ppb	6.46610	660.83%
As 188.979†	8.6	2.7691	µg/L	0.98833	2.7691	ppb	0.98833	35.69%
B 249.677†	66.9	1.0298	µg/L	0.34098	1.0298	ppb	0.34098	33.11%
Ba 233.527†	-22.6	-0.0958	µg/L	0.02931	-0.0958	ppb	0.02931	30.59%
Be 313.107†	214.3	0.0591	µg/L	0.04361	0.0591	ppb	0.04361	73.78%
Ca 317.933Radial†	189.0	11.603	µg/L	0.8501	11.603	ppb	0.8501	7.33%
Cd 226.502†	16.1	0.1050	µg/L	0.08457	0.1050	ppb	0.08457	80.58%
Co 228.616†	12.1	0.1555	µg/L	0.19102	0.1555	ppb	0.19102	122.80%
Cr 267.716†	33.1	0.2776	µg/L	0.06806	0.2776	ppb	0.06806	24.52%
Cu 324.752†	-59.9	-0.2471	µg/L	0.52058	-0.2471	ppb	0.52058	210.70%
Fe 238.204 Radial†	68.0	4.5908	µg/L	0.52166	4.5908	ppb	0.52166	11.36%
K 766.490 Radial†	116.2	44.787	µg/L	34.8714	44.787	ppb	34.8714	77.86%
Mg 279.077 IEC†	28.5	11.794	µg/L	0.8947	11.794	ppb	0.8947	7.59%
Mn 257.610†	141.9	0.1831	µg/L	0.01692	0.1831	ppb	0.01692	9.24%
Mo 202.031†	6.3	0.1971	µg/L	0.44421	0.1971	ppb	0.44421	225.37%
Na 589.592 Radial†	229.0	33.648	µg/L	3.2563	33.648	ppb	3.2563	9.68%

Ni 231.604†	7.6	0.0922	µg/L	0.08720	0.0922	ppb	0.08720	94.60%
P 214.914†	18.4	4.1206	µg/L	2.22878	4.1206	ppb	2.22878	54.09%
Pb 220.353†	65.7	3.8547	µg/L	1.37403	3.8547	ppb	1.37403	35.65%
S 181.975 Axial†	0.6	0.5065	µg/L	5.64046	0.5065	ppb	5.64046	>999.9%
Sb 206.836†	10.1	1.2625	µg/L	0.61766	1.2625	ppb	0.61766	48.92%
Se 196.026†	4.8	1.84	µg/L	3.251	1.84	ppb	3.251	176.65%
SiO2†	214.3	22.383	µg/L	1.5621	22.383	ppb	1.5621	6.98%
Si 251.611†	754.6	11.838	µg/L	1.3526	11.838	ppb	1.3526	11.43%
Sn 189.927†	8.3	0.5493	µg/L	0.62619	0.5493	ppb	0.62619	113.99%
Sr 421.552†	57.6	0.1279	µg/L	0.04789	0.1279	ppb	0.04789	37.43%
Ti 334.940†	3.2	0.0050	µg/L	0.09071	0.0050	ppb	0.09071	>999.9%
Tl 190.801†	-15.5	-2.0120	µg/L	0.36665	-2.0120	ppb	0.36665	18.22%
U 409.014†	-105.8	-6.3889	µg/L	1.87561	-6.3889	ppb	1.87561	29.36%
V 292.402†	-17.6	-0.0912	µg/L	0.40140	-0.0912	ppb	0.40140	440.25%
Zn 213.857†	313.2	1.8419	µg/L	0.03428	1.8419	ppb	0.03428	1.86%

Sequence No.: 52
Sample ID: 1202072039|965619|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 240
Date Collected: 4/1/2010 15:47:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072039|965619|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143460.8	143460.8	99.5	%			15:47:53
1	Al 396.153Radial†	26059.2	26252.9	5206.3	µg/L	5206.3	ppb	15:47:53
1	Ca 317.933Radial†	86608.9	86473.6	5308.1	µg/L	5308.1	ppb	15:47:53
1	Fe 238.204 Radial†	77908.2	78146.0	5274.0	µg/L	5274.0	ppb	15:47:53
1	K 766.490 Radial†	14906.3	13419.3	5169.7	µg/L	5169.7	ppb	15:47:53
1	Mg 279.077 IEC†	13042.7	12940.0	5365.9	µg/L	5365.9	ppb	15:47:53
1	Na 589.592 Radial†	36788.8	35707.4	5247.4	µg/L	5247.4	ppb	15:47:53
1	Sr 421.552†	232255.3	233577.6	518.77	µg/L	518.77	ppb	15:47:51
1	Sc 361.383	1723698.3	1723698.3	98.112	%			15:48:06
1	Y 371.029	1016907.3	1016907.3	97.090	%			15:48:06
1	Ag 328.068†	130734.3	129434.9	512.35	µg/L	512.35	ppb	15:48:06
1	As 188.979†	1549.0	1600.5	521.10	µg/L	521.10	ppb	15:48:26
1	B 249.677†	35730.2	32958.3	506.07	µg/L	506.07	ppb	15:48:06
1	Ba 233.527†	120523.5	122995.2	522.27	µg/L	522.27	ppb	15:48:06
1	Be 313.107†	1754426.7	1789159.4	509.67	µg/L	509.67	ppb	15:48:06
1	Cd 226.502†	76532.5	78110.9	512.34	µg/L	512.34	ppb	15:48:06
1	Co 228.616†	38502.9	39433.2	509.64	µg/L	509.64	ppb	15:48:06
1	Cr 267.716†	61343.4	62347.1	513.79	µg/L	513.79	ppb	15:48:06
1	Cu 324.752†	127008.6	126593.4	514.95	µg/L	514.95	ppb	15:48:06
1	Mn 257.610†	393131.2	400484.6	517.84	µg/L	517.84	ppb	15:48:06
1	Mo 202.031†	16340.8	16697.9	519.42	µg/L	519.42	ppb	15:48:26
1	Ni 231.604†	41734.6	42617.8	514.38	µg/L	514.38	ppb	15:48:06
1	P 214.914†	2315.0	2359.1	520.19	µg/L	520.19	ppb	15:48:26
1	Pb 220.353†	8876.8	8979.9	527.63	µg/L	527.63	ppb	15:48:26
1	S 181.975 Axial†	6698.1	6721.8	5322.9	µg/L	5322.9	ppb	15:48:26
1	Sb 206.836†	4155.1	4156.0	523.17	µg/L	523.17	ppb	15:48:26
1	Se 196.026†	1322.7	1333.3	510	µg/L	510	ppb	15:48:26
1	SiO2†	104863.3	105130.1	10963	µg/L	10963	ppb	15:48:06
1	Si 251.611†	321907.5	327313.7	5127.1	µg/L	5127.1	ppb	15:48:06
1	Sn 189.927†	7757.6	7910.1	525.44	µg/L	525.44	ppb	15:48:26
1	Ti 334.940†	511925.7	520838.6	513.12	µg/L	513.12	ppb	15:48:06
1	Tl 190.801†	3838.3	4027.7	528.86	µg/L	528.86	ppb	15:48:26
1	U 409.014†	7489.6	7898.2	507.66	µg/L	507.66	ppb	15:48:06
1	V 292.402†	98761.1	100305.9	517.97	µg/L	517.97	ppb	15:48:06
1	Zn 213.857†	85321.8	86450.7	504.64	µg/L	504.64	ppb	15:48:06
2	Sc RADIAL	144304.0	144304.0	100	%			15:47:57
2	Al 396.153Radial†	25970.7	26011.5	5158.7	µg/L	5158.7	ppb	15:47:57
2	Ca 317.933Radial†	86767.4	86123.4	5286.6	µg/L	5286.6	ppb	15:47:57
2	Fe 238.204 Radial†	78101.5	77881.6	5256.1	µg/L	5256.1	ppb	15:47:57
2	K 766.490 Radial†	14975.7	13401.1	5162.7	µg/L	5162.7	ppb	15:47:57
2	Mg 279.077 IEC†	13146.6	12967.2	5376.9	µg/L	5376.9	ppb	15:47:57
2	Na 589.592 Radial†	36762.8	35465.4	5211.8	µg/L	5211.8	ppb	15:47:57
2	Sr 421.552†	233590.6	233547.7	518.70	µg/L	518.70	ppb	15:47:55
2	Sc 361.383	1750761.1	1750761.1	99.653	%			15:48:29
2	Y 371.029	1032754.5	1032754.5	98.604	%			15:48:29
2	Ag 328.068†	132138.4	128784.1	509.83	µg/L	509.83	ppb	15:48:29
2	As 188.979†	1525.1	1552.1	505.52	µg/L	505.52	ppb	15:48:49
2	B 249.677†	36176.5	32843.2	504.30	µg/L	504.30	ppb	15:48:29
2	Ba 233.527†	122409.4	122988.8	522.24	µg/L	522.24	ppb	15:48:29
2	Be 313.107†	1779204.9	1786382.6	508.88	µg/L	508.88	ppb	15:48:29
2	Cd 226.502†	77738.6	78115.3	512.37	µg/L	512.37	ppb	15:48:29
2	Co 228.616†	39029.3	39354.9	508.63	µg/L	508.63	ppb	15:48:29
2	Cr 267.716†	62091.2	62131.0	512.00	µg/L	512.00	ppb	15:48:29
2	Cu 324.752†	128641.9	126231.3	513.49	µg/L	513.49	ppb	15:48:29
2	Mn 257.610†	398655.4	399834.2	517.00	µg/L	517.00	ppb	15:48:29
2	Mo 202.031†	16292.8	16392.4	509.92	µg/L	509.92	ppb	15:48:49
2	Ni 231.604†	42239.9	42467.4	512.56	µg/L	512.56	ppb	15:48:29
2	P 214.914†	2328.3	2336.0	515.04	µg/L	515.04	ppb	15:48:49
2	Pb 220.353†	8803.5	8766.5	515.09	µg/L	515.09	ppb	15:48:49

2	S 181.975 Axial†	6639.0	6557.0	5192.4 µg/L	5192.4 ppb	15:48:49
2	Sb 206.836†	4144.9	4080.3	513.54 µg/L	513.54 ppb	15:48:49
2	Se 196.026†	1328.6	1318.5	505 µg/L	505 ppb	15:48:49
2	SiO2†	106580.6	105201.2	10971 µg/L	10971 ppb	15:48:29
2	Si 251.611†	326884.2	327235.9	5126.0 µg/L	5126.0 ppb	15:48:29
2	Sn 189.927†	7723.4	7753.5	515.07 µg/L	515.07 ppb	15:48:49
2	Ti 334.940†	519001.2	519873.3	512.17 µg/L	512.17 ppb	15:48:29
2	Tl 190.801†	3803.9	3932.8	516.56 µg/L	516.56 ppb	15:48:49
2	U 409.014†	7759.4	8050.9	516.92 µg/L	516.92 ppb	15:48:29
2	V 292.402†	100474.7	100469.4	518.71 µg/L	518.71 ppb	15:48:29
2	Zn 213.857†	86859.3	86649.4	505.82 µg/L	505.82 ppb	15:48:29
3	Sc RADIAL	141520.8	141520.8	98.2 %		15:48:01
3	Al 396.153Radial†	25790.6	26338.2	5223.6 µg/L	5223.6 ppb	15:48:01
3	Ca 317.933Radial†	85310.1	86343.6	5300.1 µg/L	5300.1 ppb	15:48:01
3	Fe 238.204 Radial†	76935.3	78228.1	5279.5 µg/L	5279.5 ppb	15:48:01
3	K 766.490 Radial†	14855.5	13572.9	5228.9 µg/L	5228.9 ppb	15:48:01
3	Mg 279.077 IEC†	12820.1	12892.9	5346.2 µg/L	5346.2 ppb	15:48:01
3	Na 589.592 Radial†	36380.7	35798.4	5260.7 µg/L	5260.7 ppb	15:48:01
3	Sr 421.552†	231086.9	235586.5	523.23 µg/L	523.23 ppb	15:47:59
3	Sc 361.383	1727486.3	1727486.3	98.328 %		15:48:52
3	Y 371.029	1019319.2	1019319.2	97.321 %		15:48:52
3	Ag 328.068†	130481.2	128885.3	510.22 µg/L	510.22 ppb	15:48:52
3	As 188.979†	1520.3	1567.8	510.56 µg/L	510.56 ppb	15:49:12
3	B 249.677†	35822.0	32971.8	506.28 µg/L	506.28 ppb	15:48:52
3	Ba 233.527†	120708.8	122914.3	521.92 µg/L	521.92 ppb	15:48:52
3	Be 313.107†	1753460.3	1784255.4	508.28 µg/L	508.28 ppb	15:48:52
3	Cd 226.502†	76482.4	77888.9	510.88 µg/L	510.88 ppb	15:48:52
3	Co 228.616†	38416.6	39259.4	507.40 µg/L	507.40 ppb	15:48:52
3	Cr 267.716†	61071.9	61933.9	510.37 µg/L	510.37 ppb	15:48:52
3	Cu 324.752†	127404.5	126712.1	515.44 µg/L	515.44 ppb	15:48:52
3	Mn 257.610†	393613.1	400096.1	517.34 µg/L	517.34 ppb	15:48:52
3	Mo 202.031†	16212.3	16530.8	514.23 µg/L	514.23 ppb	15:49:12
3	Ni 231.604†	41566.4	42353.5	511.18 µg/L	511.18 ppb	15:48:52
3	P 214.914†	2311.0	2349.9	518.13 µg/L	518.13 ppb	15:49:12
3	Pb 220.353†	8777.8	8859.5	520.55 µg/L	520.55 ppb	15:49:12
3	S 181.975 Axial†	6632.5	6640.1	5258.2 µg/L	5258.2 ppb	15:49:12
3	Sb 206.836†	4143.5	4135.0	520.50 µg/L	520.50 ppb	15:49:12
3	Se 196.026†	1314.9	1322.5	506 µg/L	506 ppb	15:49:12
3	SiO2†	105150.0	105187.3	10969 µg/L	10969 ppb	15:48:52
3	Si 251.611†	322064.8	326754.1	5118.4 µg/L	5118.4 ppb	15:48:52
3	Sn 189.927†	7711.5	7845.9	521.19 µg/L	521.19 ppb	15:49:12
3	Ti 334.940†	512498.8	520277.2	512.57 µg/L	512.57 ppb	15:48:52
3	Tl 190.801†	3827.8	4008.5	526.37 µg/L	526.37 ppb	15:49:12
3	U 409.014†	7752.3	8148.6	522.74 µg/L	522.74 ppb	15:48:52
3	V 292.402†	98916.3	100243.0	517.59 µg/L	517.59 ppb	15:48:52
3	Zn 213.857†	85595.5	86538.4	505.17 µg/L	505.17 ppb	15:48:52

Mean Data: 1202072039|965619|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733981.9	98.698	%	0.8341				0.85%
Sc RADIAL	143095.2	99.3	%	0.99				1.00%
Y 371.029	1022993.7	97.672	%	0.8152				0.83%
Ag 328.068†	129034.8	510.80	µg/L	1.358	510.80	ppb	1.358	0.27%
Al 396.153Radial†	26200.9	5196.2	µg/L	33.62	5196.2	ppb	33.62	0.65%
As 188.979†	1573.5	512.39	µg/L	7.946	512.39	ppb	7.946	1.55%
B 249.677†	32924.4	505.55	µg/L	1.090	505.55	ppb	1.090	0.22%
Ba 233.527†	122966.1	522.14	µg/L	0.191	522.14	ppb	0.191	0.04%
Be 313.107†	1786599.1	508.94	µg/L	0.698	508.94	ppb	0.698	0.14%
Ca 317.933Radial†	86313.6	5298.2	µg/L	10.87	5298.2	ppb	10.87	0.21%
Cd 226.502†	78038.3	511.87	µg/L	0.851	511.87	ppb	0.851	0.17%
Co 228.616†	39349.1	508.56	µg/L	1.125	508.56	ppb	1.125	0.22%
Cr 267.716†	62137.3	512.06	µg/L	1.710	512.06	ppb	1.710	0.33%
Cu 324.752†	126512.3	514.63	µg/L	1.018	514.63	ppb	1.018	0.20%
Fe 238.204 Radial†	78085.3	5269.9	µg/L	12.22	5269.9	ppb	12.22	0.23%
K 766.490 Radial†	13464.4	5187.1	µg/L	36.37	5187.1	ppb	36.37	0.70%
Mg 279.077 IEC†	12933.4	5363.0	µg/L	15.54	5363.0	ppb	15.54	0.29%
Mn 257.610†	400138.3	517.39	µg/L	0.423	517.39	ppb	0.423	0.08%
Mo 202.031†	16540.4	514.52	µg/L	4.756	514.52	ppb	4.756	0.92%
Na 589.592 Radial†	35657.0	5240.0	µg/L	25.29	5240.0	ppb	25.29	0.48%

Ni 231.604†	42479.6	512.71	µg/L	1.600	512.71	ppb	1.600	0.31%
P 214.914†	2348.3	517.79	µg/L	2.593	517.79	ppb	2.593	0.50%
Pb 220.353†	8868.7	521.09	µg/L	6.284	521.09	ppb	6.284	1.21%
S 181.975 Axial†	6639.6	5257.8	µg/L	65.25	5257.8	ppb	65.25	1.24%
Sb 206.836†	4123.8	519.07	µg/L	4.969	519.07	ppb	4.969	0.96%
Se 196.026†	1324.8	507	µg/L	2.9	507	ppb	2.9	0.58%
SiO2†	105172.9	10967	µg/L	4.1	10967	ppb	4.1	0.04%
Si 251.611†	327101.2	5123.8	µg/L	4.75	5123.8	ppb	4.75	0.09%
Sn 189.927†	7836.5	520.57	µg/L	5.213	520.57	ppb	5.213	1.00%
Sr 421.552†	234237.2	520.23	µg/L	2.596	520.23	ppb	2.596	0.50%
Ti 334.940†	520329.7	512.62	µg/L	0.481	512.62	ppb	0.481	0.09%
Tl 190.801†	3989.7	523.93	µg/L	6.499	523.93	ppb	6.499	1.24%
U 409.014†	8032.6	515.77	µg/L	7.608	515.77	ppb	7.608	1.48%
V 292.402†	100339.4	518.09	µg/L	0.567	518.09	ppb	0.567	0.11%
Zn 213.857†	86546.2	505.21	µg/L	0.592	505.21	ppb	0.592	0.12%

Sequence No.: 54
Sample ID: 1202072040|965619|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 242
Date Collected: 4/1/2010 15:52:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072040|965619|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141471.0	141471.0	98.1	%			15:53:01
1	Al 396.153Radial†	-44.3	23.8	4.7039	µg/L	4.7039	ppb	15:53:21
1	Ca 317.933Radial†	690.9	153.9	9.4471	µg/L	9.4471	ppb	15:53:21
1	Fe 238.204 Radial†	203.8	72.4	4.8853	µg/L	4.8853	ppb	15:53:21
1	K 766.490 Radial†	1593.3	65.0	25.065	µg/L	25.065	ppb	15:53:01
1	Mg 279.077 IEC†	208.6	47.4	19.634	µg/L	19.634	ppb	15:53:21
1	Na 589.592 Radial†	1521.5	292.7	43.024	µg/L	43.024	ppb	15:53:01
1	Sr 421.552†	-137.2	70.1	0.1555	µg/L	0.1555	ppb	15:53:01
1	Sc 361.383	1789366.5	1789366.5	101.85	%			15:54:23
1	Y 371.029	1062903.8	1062903.8	101.48	%			15:54:23
1	Ag 328.068†	3625.2	-255.4	-0.9899	µg/L	-0.9899	ppb	15:54:25
1	As 188.979†	-16.8	5.2	1.6788	µg/L	1.6788	ppb	15:54:45
1	B 249.677†	3631.7	106.4	1.6398	µg/L	1.6398	ppb	15:54:25
1	Ba 233.527†	-151.4	4.1	0.0175	µg/L	0.0175	ppb	15:54:45
1	Be 313.107†	-992.1	2.8	0.0032	µg/L	0.0032	ppb	15:54:25
1	Cd 226.502†	-102.0	5.7	0.0368	µg/L	0.0368	ppb	15:54:45
1	Co 228.616†	-205.9	-12.6	-0.1631	µg/L	-0.1631	ppb	15:54:45
1	Cr 267.716†	206.8	26.5	0.2123	µg/L	0.2123	ppb	15:54:45
1	Cu 324.752†	2821.0	-89.2	-0.3541	µg/L	-0.3541	ppb	15:54:25
1	Mn 257.610†	358.0	141.0	0.1816	µg/L	0.1816	ppb	15:54:45
1	Mo 202.031†	-21.6	21.5	0.6701	µg/L	0.6701	ppb	15:54:45
1	Ni 231.604†	-59.0	22.3	0.2698	µg/L	0.2698	ppb	15:54:45
1	P 214.914†	12.9	12.3	2.7482	µg/L	2.7482	ppb	15:54:45
1	Pb 220.353†	100.8	31.3	1.8306	µg/L	1.8306	ppb	15:54:45
1	S 181.975 Axial†	103.9	-3.2	-2.5152	µg/L	-2.5152	ppb	15:54:45
1	Sb 206.836†	85.3	4.7	0.5964	µg/L	0.5964	ppb	15:54:45
1	Se 196.026†	10.2	-4.8	-1.83	µg/L	-1.83	ppb	15:54:45
1	SiO2†	2007.0	219.7	22.932	µg/L	22.932	ppb	15:54:45
1	Si 251.611†	1513.5	698.5	10.952	µg/L	10.952	ppb	15:54:25
1	Sn 189.927†	1.6	4.8	0.3172	µg/L	0.3172	ppb	15:54:45
1	Ti 334.940†	972.4	18.0	0.0131	µg/L	0.0131	ppb	15:54:25
1	Tl 190.801†	-125.5	-7.6	-0.9883	µg/L	-0.9883	ppb	15:54:45
1	U 409.014†	-137.2	129.8	7.8237	µg/L	7.8237	ppb	15:54:25
1	V 292.402†	347.5	-14.3	-0.0602	µg/L	-0.0602	ppb	15:54:25
1	Zn 213.857†	684.8	159.7	0.9380	µg/L	0.9380	ppb	15:54:45
2	Sc RADIAL	144197.6	144197.6	100	%			15:53:23
2	Al 396.153Radial†	-54.8	14.1	2.8120	µg/L	2.8120	ppb	15:53:43
2	Ca 317.933Radial†	726.2	175.8	10.792	µg/L	10.792	ppb	15:53:43
2	Fe 238.204 Radial†	206.5	71.1	4.7993	µg/L	4.7993	ppb	15:53:43
2	K 766.490 Radial†	1539.4	-19.6	-7.5569	µg/L	-7.5569	ppb	15:53:23
2	Mg 279.077 IEC†	189.6	24.4	10.085	µg/L	10.085	ppb	15:53:43
2	Na 589.592 Radial†	1427.3	169.2	24.896	µg/L	24.896	ppb	15:53:23
2	Sr 421.552†	-80.1	129.8	0.2883	µg/L	0.2883	ppb	15:53:23
2	Sc 361.383	1774963.3	1774963.3	101.03	%			15:54:47
2	Y 371.029	1055050.3	1055050.3	100.73	%			15:54:47
2	Ag 328.068†	4067.6	211.3	0.8220	µg/L	0.8220	ppb	15:54:49
2	As 188.979†	-17.2	4.7	1.5048	µg/L	1.5048	ppb	15:55:09
2	B 249.677†	3568.0	72.3	1.1138	µg/L	1.1138	ppb	15:54:49
2	Ba 233.527†	-122.9	31.2	0.1321	µg/L	0.1321	ppb	15:55:09
2	Be 313.107†	-947.6	39.0	0.0113	µg/L	0.0113	ppb	15:54:49
2	Cd 226.502†	-115.7	-8.7	-0.0574	µg/L	-0.0574	ppb	15:55:09
2	Co 228.616†	-193.6	-2.1	-0.0275	µg/L	-0.0275	ppb	15:55:09
2	Cr 267.716†	236.4	57.4	0.4726	µg/L	0.4726	ppb	15:55:09
2	Cu 324.752†	2957.4	68.4	0.2788	µg/L	0.2788	ppb	15:54:49
2	Mn 257.610†	364.7	150.4	0.1942	µg/L	0.1942	ppb	15:55:09
2	Mo 202.031†	-39.7	3.5	0.1076	µg/L	0.1076	ppb	15:55:09
2	Ni 231.604†	-91.5	-10.3	-0.1240	µg/L	-0.1240	ppb	15:55:09
2	P 214.914†	19.8	19.1	4.2966	µg/L	4.2966	ppb	15:55:09
2	Pb 220.353†	98.2	29.5	1.7292	µg/L	1.7292	ppb	15:55:09

2	S 181.975 Axial†	112.4	6.1	4.8257 µg/L	4.8257 ppb	15:55:09
2	Sb 206.836†	78.2	-1.6	-0.2095 µg/L	-0.2095 ppb	15:55:09
2	Se 196.026†	8.5	-6.4	-2.42 µg/L	-2.42 ppb	15:55:09
2	SiO2†	1978.8	207.8	21.699 µg/L	21.699 ppb	15:55:09
2	Si 251.611†	1515.2	712.3	11.171 µg/L	11.171 ppb	15:54:49
2	Sn 189.927†	13.6	16.7	1.1082 µg/L	1.1082 ppb	15:55:09
2	Ti 334.940†	922.0	-24.2	-0.0249 µg/L	-0.0249 ppb	15:54:49
2	Tl 190.801†	-132.9	-15.9	-2.0590 µg/L	-2.0590 ppb	15:55:09
2	U 409.014†	-253.6	13.5	0.7922 µg/L	0.7922 ppb	15:54:49
2	V 292.402†	282.7	-75.6	-0.3821 µg/L	-0.3821 ppb	15:54:49
2	Zn 213.857†	679.2	159.6	0.9394 µg/L	0.9394 ppb	15:55:09
3	Sc RADIAL	146178.4	146178.4	101 %		15:53:45
3	Al 396.153Radial†	-38.8	30.6	6.0925 µg/L	6.0925 ppb	15:54:05
3	Ca 317.933Radial†	701.1	141.3	8.6718 µg/L	8.6718 ppb	15:54:05
3	Fe 238.204 Radial†	192.7	54.7	3.6921 µg/L	3.6921 ppb	15:54:05
3	K 766.490 Radial†	1477.8	-101.1	-38.994 µg/L	-38.994 ppb	15:53:45
3	Mg 279.077 IEC†	164.9	-2.6	-1.0771 µg/L	-1.0771 ppb	15:54:05
3	Na 589.592 Radial†	1443.8	166.2	24.473 µg/L	24.473 ppb	15:53:45
3	Sr 421.552†	-192.1	20.4	0.0453 µg/L	0.0453 ppb	15:53:45
3	Sc 361.383	1771514.6	1771514.6	100.83 %		15:55:11
3	Y 371.029	1053452.6	1053452.6	100.58 %		15:55:11
3	Ag 328.068†	3898.1	51.1	0.1943 µg/L	0.1943 ppb	15:55:13
3	As 188.979†	-7.2	14.5	4.6671 µg/L	4.6671 ppb	15:55:34
3	B 249.677†	3557.7	69.0	1.0623 µg/L	1.0623 ppb	15:55:13
3	Ba 233.527†	-124.9	29.0	0.1231 µg/L	0.1231 ppb	15:55:34
3	Be 313.107†	-1070.8	-85.1	-0.0265 µg/L	-0.0265 ppb	15:55:13
3	Cd 226.502†	-90.6	16.0	0.1048 µg/L	0.1048 ppb	15:55:34
3	Co 228.616†	-186.8	4.3	0.0556 µg/L	0.0556 ppb	15:55:34
3	Cr 267.716†	235.8	57.3	0.4783 µg/L	0.4783 ppb	15:55:34
3	Cu 324.752†	2779.8	-102.2	-0.4200 µg/L	-0.4200 ppb	15:55:13
3	Mn 257.610†	343.8	130.4	0.1687 µg/L	0.1687 ppb	15:55:34
3	Mo 202.031†	-33.9	9.1	0.2827 µg/L	0.2827 ppb	15:55:34
3	Ni 231.604†	-73.3	7.6	0.0916 µg/L	0.0916 ppb	15:55:34
3	P 214.914†	40.0	39.3	8.7957 µg/L	8.7957 ppb	15:55:34
3	Pb 220.353†	101.9	33.4	1.9648 µg/L	1.9648 ppb	15:55:34
3	S 181.975 Axial†	105.4	-0.7	-0.5416 µg/L	-0.5416 ppb	15:55:34
3	Sb 206.836†	91.5	11.8	1.4715 µg/L	1.4715 ppb	15:55:34
3	Se 196.026†	9.2	-5.7	-2.18 µg/L	-2.18 ppb	15:55:34
3	SiO2†	1990.6	223.4	23.345 µg/L	23.345 ppb	15:55:34
3	Si 251.611†	1611.7	810.8	12.729 µg/L	12.729 ppb	15:55:13
3	Sn 189.927†	-17.6	-14.3	-0.9441 µg/L	-0.9441 ppb	15:55:34
3	Ti 334.940†	1025.7	80.5	0.0827 µg/L	0.0827 ppb	15:55:13
3	Tl 190.801†	-118.1	-1.5	-0.1911 µg/L	-0.1911 ppb	15:55:34
3	U 409.014†	-394.0	-126.2	-7.5934 µg/L	-7.5934 ppb	15:55:13
3	V 292.402†	430.9	71.9	0.3659 µg/L	0.3659 ppb	15:55:13
3	Zn 213.857†	712.2	193.6	1.1389 µg/L	1.1389 ppb	15:55:34

Mean Data: 1202072040|965619|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1778614.8	101.24	%	0.539				0.53%
Sc RADIAL	143949.0	99.9	%	1.64				1.64%
Y 371.029	1057135.6	100.93	%	0.483				0.48%
Ag 328.068†	2.3	0.0088	µg/L	0.92010	0.0088	ppb	0.92010	>999.9%
Al 396.153Radial†	22.9	4.5362	µg/L	1.64664	4.5362	ppb	1.64664	36.30%
As 188.979†	8.1	2.6169	µg/L	1.77767	2.6169	ppb	1.77767	67.93%
B 249.677†	82.5	1.2720	µg/L	0.31959	1.2720	ppb	0.31959	25.13%
Ba 233.527†	21.4	0.0909	µg/L	0.06372	0.0909	ppb	0.06372	70.11%
Be 313.107†	-14.5	-0.0040	µg/L	0.01993	-0.0040	ppb	0.01993	496.73%
Ca 317.933Radial†	157.0	9.6370	µg/L	1.07292	9.6370	ppb	1.07292	11.13%
Cd 226.502†	4.3	0.0281	µg/L	0.08147	0.0281	ppb	0.08147	290.33%
Co 228.616†	-3.5	-0.0450	µg/L	0.11040	-0.0450	ppb	0.11040	245.18%
Cr 267.716†	47.1	0.3877	µg/L	0.15193	0.3877	ppb	0.15193	39.19%
Cu 324.752†	-41.0	-0.1651	µg/L	0.38584	-0.1651	ppb	0.38584	233.69%
Fe 238.204 Radial†	66.1	4.4589	µg/L	0.66544	4.4589	ppb	0.66544	14.92%
K 766.490 Radial†	-18.6	-7.1619	µg/L	32.03123	-7.1619	ppb	32.03123	447.24%
Mg 279.077 IEC†	23.0	9.5474	µg/L	10.36610	9.5474	ppb	10.36610	108.58%
Mn 257.610†	140.6	0.1815	µg/L	0.01275	0.1815	ppb	0.01275	7.03%
Mo 202.031†	11.4	0.3535	µg/L	0.28787	0.3535	ppb	0.28787	81.44%
Na 589.592 Radial†	209.3	30.798	µg/L	10.5907	30.798	ppb	10.5907	34.39%

Ni 231.604†	6.6	0.0791	µg/L	0.19720	0.0791	ppb	0.19720 249.25%
P 214.914†	23.6	5.2802	µg/L	3.14146	5.2802	ppb	3.14146 59.50%
Pb 220.353†	31.4	1.8415	µg/L	0.11816	1.8415	ppb	0.11816 6.42%
S 181.975 Axial†	0.7	0.5896	µg/L	3.79892	0.5896	ppb	3.79892 644.29%
Sb 206.836†	4.9	0.6195	µg/L	0.84073	0.6195	ppb	0.84073 135.72%
Se 196.026†	-5.6	-2.14	µg/L	0.299	-2.14	ppb	0.299 13.95%
SiO2†	217.0	22.659	µg/L	0.8567	22.659	ppb	0.8567 3.78%
Si 251.611†	740.5	11.617	µg/L	0.9691	11.617	ppb	0.9691 8.34%
Sn 189.927†	2.4	0.1604	µg/L	1.03506	0.1604	ppb	1.03506 645.24%
Sr 421.552†	73.4	0.1630	µg/L	0.12168	0.1630	ppb	0.12168 74.63%
Ti 334.940†	24.8	0.0236	µg/L	0.05453	0.0236	ppb	0.05453 230.72%
Tl 190.801†	-8.3	-1.0795	µg/L	0.93731	-1.0795	ppb	0.93731 86.83%
U 409.014†	5.7	0.3408	µg/L	7.71847	0.3408	ppb	7.71847 >999.9%
V 292.402†	-6.0	-0.0255	µg/L	0.37517	-0.0255	ppb	0.37517 >999.9%
Zn 213.857†	171.0	1.0054	µg/L	0.11557	1.0054	ppb	0.11557 11.50%

Sequence No.: 55
Sample ID: 1202072041|965619|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 243
Date Collected: 4/1/2010 15:55:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072041|965619|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144242.8	144242.8	100	%			15:56:13
1	Al 396.153Radial†	25304.0	25356.2	5028.7	µg/L	5028.7	ppb	15:56:13
1	Ca 317.933Radial†	84988.1	84382.1	5179.7	µg/L	5179.7	ppb	15:56:13
1	Fe 238.204 Radial†	76320.3	76134.7	5138.2	µg/L	5138.2	ppb	15:56:13
1	K 766.490 Radial†	14781.0	13212.8	5090.2	µg/L	5090.2	ppb	15:56:13
1	Mg 279.077 IEC†	12832.7	12659.0	5249.1	µg/L	5249.1	ppb	15:56:13
1	Na 589.592 Radial†	35874.5	34593.3	5083.6	µg/L	5083.6	ppb	15:56:13
1	Sr 421.552†	224585.6	224647.6	498.93	µg/L	498.93	ppb	15:56:11
1	Sc 361.383	1754604.3	1754604.3	99.871	%			15:56:40
1	Y 371.029	1033914.6	1033914.6	98.714	%			15:56:40
1	Ag 328.068†	128301.8	124652.1	493.47	µg/L	493.47	ppb	15:56:40
1	As 188.979†	1504.3	1528.0	497.54	µg/L	497.54	ppb	15:57:00
1	B 249.677†	35388.6	31974.8	490.97	µg/L	490.97	ppb	15:56:40
1	Ba 233.527†	119170.4	119476.6	507.32	µg/L	507.32	ppb	15:56:40
1	Be 313.107†	1726659.7	1729859.1	492.78	µg/L	492.78	ppb	15:56:40
1	Cd 226.502†	75771.7	75975.0	498.33	µg/L	498.33	ppb	15:56:40
1	Co 228.616†	37991.1	38229.5	494.09	µg/L	494.09	ppb	15:56:40
1	Cr 267.716†	60076.9	59977.7	494.25	µg/L	494.25	ppb	15:56:40
1	Cu 324.752†	125137.0	122439.2	498.08	µg/L	498.08	ppb	15:56:40
1	Mn 257.610†	387223.0	387510.9	501.06	µg/L	501.06	ppb	15:56:40
1	Mo 202.031†	15945.3	16008.5	497.98	µg/L	497.98	ppb	15:57:00
1	Ni 231.604†	40995.3	41128.3	496.40	µg/L	496.40	ppb	15:56:40
1	P 214.914†	2264.5	2267.0	499.80	µg/L	499.80	ppb	15:57:00
1	Pb 220.353†	8650.4	8593.9	504.94	µg/L	504.94	ppb	15:57:00
1	S 181.975 Axial†	6538.1	6441.4	5100.8	µg/L	5100.8	ppb	15:57:00
1	Sb 206.836†	4068.1	3994.3	502.79	µg/L	502.79	ppb	15:57:00
1	Se 196.026†	1293.9	1280.8	490	µg/L	490	ppb	15:57:00
1	SiO2†	103433.8	101816.1	10617	µg/L	10617	ppb	15:56:40
1	Si 251.611†	316767.1	316387.4	4956.0	µg/L	4956.0	ppb	15:56:40
1	Sn 189.927†	7568.5	7581.4	503.62	µg/L	503.62	ppb	15:57:00
1	Ti 334.940†	503719.9	503431.5	495.96	µg/L	495.96	ppb	15:56:40
1	Tl 190.801†	3741.3	3861.8	507.12	µg/L	507.12	ppb	15:57:00
1	U 409.014†	7676.7	7951.0	509.83	µg/L	509.83	ppb	15:56:40
1	V 292.402†	97273.3	97043.1	501.07	µg/L	501.07	ppb	15:56:40
1	Zn 213.857†	84174.5	83770.2	489.00	µg/L	489.00	ppb	15:56:40
2	Sc RADIAL	143572.5	143572.5	99.6	%			15:56:17
2	Al 396.153Radial†	25209.2	25379.1	5033.6	µg/L	5033.6	ppb	15:56:17
2	Ca 317.933Radial†	84222.0	84009.5	5156.8	µg/L	5156.8	ppb	15:56:17
2	Fe 238.204 Radial†	75372.9	75539.7	5098.1	µg/L	5098.1	ppb	15:56:17
2	K 766.490 Radial†	14600.1	13100.2	5046.8	µg/L	5046.8	ppb	15:56:17
2	Mg 279.077 IEC†	12685.8	12571.4	5212.7	µg/L	5212.7	ppb	15:56:17
2	Na 589.592 Radial†	35756.8	34642.4	5090.9	µg/L	5090.9	ppb	15:56:17
2	Sr 421.552†	227713.3	228835.7	508.24	µg/L	508.24	ppb	15:56:15
2	Sc 361.383	1769144.7	1769144.7	100.70	%			15:57:03
2	Y 371.029	1042228.8	1042228.8	99.508	%			15:57:03
2	Ag 328.068†	130102.0	125384.0	496.35	µg/L	496.35	ppb	15:57:03
2	As 188.979†	1491.6	1502.9	489.50	µg/L	489.50	ppb	15:57:23
2	B 249.677†	35854.3	32146.0	493.60	µg/L	493.60	ppb	15:57:03
2	Ba 233.527†	120229.5	119547.6	507.62	µg/L	507.62	ppb	15:57:03
2	Be 313.107†	1744499.3	1733365.4	493.78	µg/L	493.78	ppb	15:57:03
2	Cd 226.502†	76712.3	76285.6	500.37	µg/L	500.37	ppb	15:57:03
2	Co 228.616†	38539.4	38461.4	497.08	µg/L	497.08	ppb	15:57:03
2	Cr 267.716†	60798.6	60200.0	496.09	µg/L	496.09	ppb	15:57:03
2	Cu 324.752†	126587.8	122850.0	499.73	µg/L	499.73	ppb	15:57:03
2	Mn 257.610†	391901.8	388970.6	502.95	µg/L	502.95	ppb	15:57:03
2	Mo 202.031†	15844.4	15777.1	490.79	µg/L	490.79	ppb	15:57:23
2	Ni 231.604†	41584.7	41376.3	499.39	µg/L	499.39	ppb	15:57:03
2	P 214.914†	2245.3	2229.3	491.37	µg/L	491.37	ppb	15:57:23
2	Pb 220.353†	8585.2	8458.0	496.97	µg/L	496.97	ppb	15:57:23

2	S 181.975 Axial†	6490.3	6340.0	5020.5 µg/L	5020.5 ppb	15:57:23
2	Sb 206.836†	4039.1	3932.0	494.84 µg/L	494.84 ppb	15:57:23
2	Se 196.026†	1281.6	1257.9	481 µg/L	481 ppb	15:57:23
2	SiO2†	104509.9	102033.6	10640 µg/L	10640 ppb	15:57:03
2	Si 251.611†	320936.2	317920.7	4980.2 µg/L	4980.2 ppb	15:57:03
2	Sn 189.927†	7527.5	7478.5	496.81 µg/L	496.81 ppb	15:57:23
2	Ti 334.940†	509432.6	504959.2	497.48 µg/L	497.48 ppb	15:57:03
2	Tl 190.801†	3691.8	3781.8	496.79 µg/L	496.79 ppb	15:57:23
2	U 409.014†	7546.2	7758.3	498.38 µg/L	498.38 ppb	15:57:03
2	V 292.402†	98624.1	97584.0	503.75 µg/L	503.75 ppb	15:57:03
2	Zn 213.857†	84922.9	83820.7	489.28 µg/L	489.28 ppb	15:57:03
3	Sc RADIAL	145270.9	145270.9	101 %		15:56:21
3	Al 396.153Radial†	25453.2	25325.3	5022.7 µg/L	5022.7 ppb	15:56:21
3	Ca 317.933Radial†	85482.4	84271.5	5172.9 µg/L	5172.9 ppb	15:56:21
3	Fe 238.204 Radial†	76470.0	75743.5	5111.8 µg/L	5111.8 ppb	15:56:21
3	K 766.490 Radial†	14772.8	13100.2	5046.8 µg/L	5046.8 ppb	15:56:21
3	Mg 279.077 IEC†	12964.7	12699.2	5265.7 µg/L	5265.7 ppb	15:56:21
3	Na 589.592 Radial†	36362.5	34823.8	5117.5 µg/L	5117.5 ppb	15:56:21
3	Sr 421.552†	224411.9	222887.0	495.02 µg/L	495.02 ppb	15:56:19
3	Sc 361.383	1762542.2	1762542.2	100.32 %		15:57:27
3	Y 371.029	1038070.0	1038070.0	99.111 %		15:57:27
3	Ag 328.068†	129871.6	125638.3	497.32 µg/L	497.32 ppb	15:57:27
3	As 188.979†	1497.8	1514.7	493.27 µg/L	493.27 ppb	15:57:47
3	B 249.677†	35650.3	32076.1	492.52 µg/L	492.52 ppb	15:57:27
3	Ba 233.527†	119494.3	119262.0	506.41 µg/L	506.41 ppb	15:57:27
3	Be 313.107†	1736775.7	1732156.2	493.43 µg/L	493.43 ppb	15:57:27
3	Cd 226.502†	76122.9	75983.4	498.39 µg/L	498.39 ppb	15:57:27
3	Co 228.616†	38295.6	38361.7	495.80 µg/L	495.80 ppb	15:57:27
3	Cr 267.716†	60540.4	60168.8	495.84 µg/L	495.84 ppb	15:57:27
3	Cu 324.752†	126096.1	122830.8	499.65 µg/L	499.65 ppb	15:57:27
3	Mn 257.610†	389428.6	387963.2	501.65 µg/L	501.65 ppb	15:57:27
3	Mo 202.031†	15925.9	15917.3	495.15 µg/L	495.15 ppb	15:57:47
3	Ni 231.604†	41317.4	41264.5	498.04 µg/L	498.04 ppb	15:57:27
3	P 214.914†	2276.4	2268.7	500.19 µg/L	500.19 ppb	15:57:47
3	Pb 220.353†	8623.7	8528.3	501.10 µg/L	501.10 ppb	15:57:47
3	S 181.975 Axial†	6512.5	6386.4	5057.2 µg/L	5057.2 ppb	15:57:47
3	Sb 206.836†	4060.7	3968.6	499.50 µg/L	499.50 ppb	15:57:47
3	Se 196.026†	1307.7	1288.7	493 µg/L	493 ppb	15:57:47
3	SiO2†	104182.8	102096.3	10647 µg/L	10647 ppb	15:57:27
3	Si 251.611†	319938.0	318119.5	4983.2 µg/L	4983.2 ppb	15:57:27
3	Sn 189.927†	7580.9	7559.7	502.18 µg/L	502.18 ppb	15:57:47
3	Ti 334.940†	506346.3	503777.9	496.31 µg/L	496.31 ppb	15:57:27
3	Tl 190.801†	3736.3	3839.9	504.29 µg/L	504.29 ppb	15:57:47
3	U 409.014†	7529.0	7769.2	498.92 µg/L	498.92 ppb	15:57:27
3	V 292.402†	97888.5	97217.6	501.93 µg/L	501.93 ppb	15:57:27
3	Zn 213.857†	84655.6	83870.2	489.58 µg/L	489.58 ppb	15:57:27

Mean Data: 1202072041|965619|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1762097.1	100.30	%	0.414				0.41%
Sc RADIAL	144362.1	100	%	0.6				0.59%
Y 371.029	1038071.1	99.111	%	0.3969				0.40%
Ag 328.068†	125224.8	495.72	µg/L	2.003	495.72	ppb	2.003	0.40%
Al 396.153Radial†	25353.5	5028.3	µg/L	5.47	5028.3	ppb	5.47	0.11%
As 188.979†	1515.2	493.44	µg/L	4.026	493.44	ppb	4.026	0.82%
B 249.677†	32065.6	492.36	µg/L	1.322	492.36	ppb	1.322	0.27%
Ba 233.527†	119428.7	507.12	µg/L	0.631	507.12	ppb	0.631	0.12%
Be 313.107†	1731793.6	493.33	µg/L	0.505	493.33	ppb	0.505	0.10%
Ca 317.933Radial†	84221.0	5169.8	µg/L	11.75	5169.8	ppb	11.75	0.23%
Cd 226.502†	76081.3	499.03	µg/L	1.163	499.03	ppb	1.163	0.23%
Co 228.616†	38350.9	495.66	µg/L	1.503	495.66	ppb	1.503	0.30%
Cr 267.716†	60115.5	495.39	µg/L	0.997	495.39	ppb	0.997	0.20%
Cu 324.752†	122706.7	499.15	µg/L	0.933	499.15	ppb	0.933	0.19%
Fe 238.204 Radial†	75806.0	5116.1	µg/L	20.41	5116.1	ppb	20.41	0.40%
K 766.490 Radial†	13137.8	5061.2	µg/L	25.06	5061.2	ppb	25.06	0.50%
Mg 279.077 IEC†	12643.2	5242.5	µg/L	27.12	5242.5	ppb	27.12	0.52%
Mn 257.610†	388148.2	501.89	µg/L	0.968	501.89	ppb	0.968	0.19%
Mo 202.031†	15901.0	494.64	µg/L	3.623	494.64	ppb	3.623	0.73%
Na 589.592 Radial†	34686.5	5097.3	µg/L	17.87	5097.3	ppb	17.87	0.35%

Ni 231.604†	41256.4	497.94	µg/L	1.499	497.94	ppb	1.499	0.30%
P 214.914†	2255.0	497.12	µg/L	4.983	497.12	ppb	4.983	1.00%
Pb 220.353†	8526.8	501.00	µg/L	3.985	501.00	ppb	3.985	0.80%
S 181.975 Axial†	6389.3	5059.5	µg/L	40.17	5059.5	ppb	40.17	0.79%
Sb 206.836†	3965.0	499.04	µg/L	3.998	499.04	ppb	3.998	0.80%
Se 196.026†	1275.8	488	µg/L	6.1	488	ppb	6.1	1.25%
SiO2†	101982.0	10635	µg/L	15.5	10635	ppb	15.5	0.15%
Si 251.611†	317475.9	4973.1	µg/L	14.93	4973.1	ppb	14.93	0.30%
Sn 189.927†	7539.9	500.87	µg/L	3.589	500.87	ppb	3.589	0.72%
Sr 421.552†	225456.8	500.73	µg/L	6.787	500.73	ppb	6.787	1.36%
Ti 334.940†	504056.2	496.58	µg/L	0.793	496.58	ppb	0.793	0.16%
Tl 190.801†	3827.8	502.73	µg/L	5.335	502.73	ppb	5.335	1.06%
U 409.014†	7826.2	502.37	µg/L	6.460	502.37	ppb	6.460	1.29%
V 292.402†	97281.6	502.25	µg/L	1.371	502.25	ppb	1.371	0.27%
Zn 213.857†	83820.3	489.29	µg/L	0.290	489.29	ppb	0.290	0.06%

Sequence No.: 56
Sample ID: 1202072042|965619|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 244
Date Collected: 4/1/2010 15:57:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072042|965619|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144008.8	144008.8	99.9	%			15:58:25
1	Al 396.153Radial†	-66.0	2.8	0.5488	µg/L	0.5488	ppb	15:58:45
1	Ca 317.933Radial†	745.4	196.1	12.034	µg/L	12.034	ppb	15:58:45
1	Fe 238.204 Radial†	163.2	28.0	1.8920	µg/L	1.8920	ppb	15:58:45
1	K 766.490 Radial†	1438.8	-118.2	-45.585	µg/L	-45.585	ppb	15:58:25
1	Mg 279.077 IEC†	182.8	17.8	7.3637	µg/L	7.3637	ppb	15:58:45
1	Na 589.592 Radial†	1395.3	139.0	20.482	µg/L	20.482	ppb	15:58:25
1	Sr 421.552†	-216.0	-6.3	-0.0142	µg/L	-0.0142	ppb	15:58:25
1	Sc 361.383	1762434.5	1762434.5	100.32	%			15:59:47
1	Y 371.029	1047937.6	1047937.6	100.05	%			15:59:47
1	Ag 328.068†	3584.6	-241.5	-0.9555	µg/L	-0.9555	ppb	15:59:49
1	As 188.979†	-20.7	1.1	0.3551	µg/L	0.3551	ppb	16:00:09
1	B 249.677†	3549.1	78.5	1.2103	µg/L	1.2103	ppb	15:59:49
1	Ba 233.527†	-107.9	45.2	0.1922	µg/L	0.1922	ppb	16:00:09
1	Be 313.107†	-790.9	188.4	0.0494	µg/L	0.0494	ppb	15:59:49
1	Cd 226.502†	-102.6	3.5	0.0230	µg/L	0.0230	ppb	16:00:09
1	Co 228.616†	-193.0	-2.9	-0.0375	µg/L	-0.0375	ppb	16:00:09
1	Cr 267.716†	219.6	42.4	0.3607	µg/L	0.3607	ppb	16:00:09
1	Cu 324.752†	2608.0	-259.2	-1.0623	µg/L	-1.0623	ppb	15:59:49
1	Mn 257.610†	294.9	83.4	0.1076	µg/L	0.1076	ppb	16:00:09
1	Mo 202.031†	-31.2	11.6	0.3611	µg/L	0.3611	ppb	16:00:09
1	Ni 231.604†	-79.2	1.3	0.0158	µg/L	0.0158	ppb	16:00:09
1	P 214.914†	19.0	18.5	4.1710	µg/L	4.1710	ppb	16:00:09
1	Pb 220.353†	81.6	13.7	0.8153	µg/L	0.8153	ppb	16:00:09
1	S 181.975 Axial†	104.4	-1.1	-0.8451	µg/L	-0.8451	ppb	16:00:09
1	Sb 206.836†	81.5	2.3	0.2848	µg/L	0.2848	ppb	16:00:09
1	Se 196.026†	15.5	0.7	0.245	µg/L	0.245	ppb	16:00:09
1	SiO2†	1775.6	19.2	1.9886	µg/L	1.9886	ppb	16:00:09
1	Si 251.611†	985.4	194.8	3.0491	µg/L	3.0491	ppb	15:59:49
1	Sn 189.927†	4.7	8.0	0.5270	µg/L	0.5270	ppb	16:00:09
1	Ti 334.940†	976.6	36.8	0.0416	µg/L	0.0416	ppb	15:59:49
1	Tl 190.801†	-130.3	-14.2	-1.8367	µg/L	-1.8367	ppb	16:00:09
1	U 409.014†	-499.2	-233.2	-14.037	µg/L	-14.037	ppb	15:59:49
1	V 292.402†	456.5	99.7	0.5034	µg/L	0.5034	ppb	15:59:49
1	Zn 213.857†	649.1	134.4	0.7911	µg/L	0.7911	ppb	16:00:09
2	Sc RADIAL	145547.7	145547.7	101	%			15:58:47
2	Al 396.153Radial†	-83.9	-14.2	-2.8338	µg/L	-2.8338	ppb	15:59:07
2	Ca 317.933Radial†	711.4	154.4	9.4789	µg/L	9.4789	ppb	15:59:07
2	Fe 238.204 Radial†	172.4	35.4	2.3922	µg/L	2.3922	ppb	15:59:07
2	K 766.490 Radial†	1731.5	156.4	60.291	µg/L	60.291	ppb	15:58:47
2	Mg 279.077 IEC†	175.2	8.3	3.4337	µg/L	3.4337	ppb	15:59:07
2	Na 589.592 Radial†	1419.8	148.5	21.785	µg/L	21.785	ppb	15:58:47
2	Sr 421.552†	-146.9	64.3	0.1428	µg/L	0.1428	ppb	15:58:47
2	Sc 361.383	1777156.5	1777156.5	101.16	%			16:00:11
2	Y 371.029	1056987.6	1056987.6	100.92	%			16:00:11
2	Ag 328.068†	3785.0	-73.0	-0.2845	µg/L	-0.2845	ppb	16:00:13
2	As 188.979†	-13.7	8.1	2.6121	µg/L	2.6121	ppb	16:00:33
2	B 249.677†	3482.4	-16.7	-0.2585	µg/L	-0.2585	ppb	16:00:13
2	Ba 233.527†	-82.8	70.9	0.3008	µg/L	0.3008	ppb	16:00:33
2	Be 313.107†	-979.2	8.8	0.0025	µg/L	0.0025	ppb	16:00:13
2	Cd 226.502†	-96.0	10.9	0.0714	µg/L	0.0714	ppb	16:00:33
2	Co 228.616†	-161.6	29.7	0.3843	µg/L	0.3843	ppb	16:00:33
2	Cr 267.716†	223.0	43.9	0.3620	µg/L	0.3620	ppb	16:00:33
2	Cu 324.752†	3010.6	117.3	0.4760	µg/L	0.4760	ppb	16:00:13
2	Mn 257.610†	345.4	130.9	0.1691	µg/L	0.1691	ppb	16:00:33
2	Mo 202.031†	-45.9	-2.7	-0.0830	µg/L	-0.0830	ppb	16:00:33
2	Ni 231.604†	-76.3	4.8	0.0577	µg/L	0.0577	ppb	16:00:33
2	P 214.914†	10.1	9.6	2.1421	µg/L	2.1421	ppb	16:00:33
2	Pb 220.353†	55.6	-12.7	-0.7451	µg/L	-0.7451	ppb	16:00:33

2	S 181.975 Axial†	106.1	-0.3	-0.2577 µg/L	-0.2577 ppb	16:00:33
2	Sb 206.836†	101.9	21.7	2.7163 µg/L	2.7163 ppb	16:00:33
2	Se 196.026†	21.2	6.2	2.35 µg/L	2.35 ppb	16:00:33
2	SiO2†	1800.6	29.2	3.0534 µg/L	3.0534 ppb	16:00:33
2	Si 251.611†	1126.8	326.4	5.1234 µg/L	5.1234 ppb	16:00:13
2	Sn 189.927†	-0.7	2.6	0.1714 µg/L	0.1714 ppb	16:00:33
2	Ti 334.940†	1058.8	109.9	0.1084 µg/L	0.1084 ppb	16:00:13
2	Tl 190.801†	-107.1	9.8	1.2649 µg/L	1.2649 ppb	16:00:33
2	U 409.014†	-270.5	-3.0	-0.1713 µg/L	-0.1713 ppb	16:00:13
2	V 292.402†	382.1	22.3	0.1138 µg/L	0.1138 ppb	16:00:13
2	Zn 213.857†	659.8	139.6	0.8201 µg/L	0.8201 ppb	16:00:33
3	Sc RADIAL	144994.7	144994.7	101 %		15:59:09
3	Al 396.153Radial†	-102.8	-33.3	-6.6434 µg/L	-6.6434 ppb	15:59:29
3	Ca 317.933Radial†	739.7	185.3	11.373 µg/L	11.373 ppb	15:59:29
3	Fe 238.204 Radial†	178.6	42.3	2.8544 µg/L	2.8544 ppb	15:59:29
3	K 766.490 Radial†	1631.5	63.6	24.514 µg/L	24.514 ppb	15:59:09
3	Mg 279.077 IEC†	191.2	24.9	10.306 µg/L	10.306 ppb	15:59:29
3	Na 589.592 Radial†	1448.4	182.3	26.794 µg/L	26.794 ppb	15:59:09
3	Sr 421.552†	-89.8	120.5	0.2676 µg/L	0.2676 ppb	15:59:09
3	Sc 361.383	1785965.1	1785965.1	101.66 %		16:00:36
3	Y 371.029	1062925.2	1062925.2	101.48 %		16:00:36
3	Ag 328.068†	3549.5	-323.2	-1.2759 µg/L	-1.2759 ppb	16:00:38
3	As 188.979†	-16.8	5.2	1.6688 µg/L	1.6688 ppb	16:00:58
3	B 249.677†	3517.4	0.7	0.0107 µg/L	0.0107 ppb	16:00:38
3	Ba 233.527†	-94.1	60.2	0.2553 µg/L	0.2553 ppb	16:00:58
3	Be 313.107†	-578.5	407.8	0.1146 µg/L	0.1146 ppb	16:00:38
3	Cd 226.502†	-113.0	-5.3	-0.0351 µg/L	-0.0351 ppb	16:00:58
3	Co 228.616†	-194.7	-2.0	-0.0253 µg/L	-0.0253 ppb	16:00:58
3	Cr 267.716†	212.0	32.0	0.2675 µg/L	0.2675 ppb	16:00:58
3	Cu 324.752†	2812.4	-92.4	-0.3782 µg/L	-0.3782 ppb	16:00:38
3	Mn 257.610†	304.7	89.1	0.1149 µg/L	0.1149 ppb	16:00:58
3	Mo 202.031†	-37.8	5.5	0.1718 µg/L	0.1718 ppb	16:00:58
3	Ni 231.604†	-58.8	22.4	0.2705 µg/L	0.2705 ppb	16:00:58
3	P 214.914†	7.9	7.3	1.6436 µg/L	1.6436 ppb	16:00:58
3	Pb 220.353†	79.0	10.0	0.5915 µg/L	0.5915 ppb	16:00:58
3	S 181.975 Axial†	107.0	0.1	0.0941 µg/L	0.0941 ppb	16:00:58
3	Sb 206.836†	72.3	-7.9	-0.9903 µg/L	-0.9903 ppb	16:00:58
3	Se 196.026†	14.3	-0.8	-0.290 µg/L	-0.290 ppb	16:00:58
3	SiO2†	1785.3	5.4	0.5528 µg/L	0.5528 ppb	16:00:58
3	Si 251.611†	903.3	101.1	1.5834 µg/L	1.5834 ppb	16:00:38
3	Sn 189.927†	-1.3	1.9	0.1272 µg/L	0.1272 ppb	16:00:58
3	Ti 334.940†	1033.9	80.3	0.0807 µg/L	0.0807 ppb	16:00:38
3	Tl 190.801†	-113.2	4.2	0.5465 µg/L	0.5465 ppb	16:00:58
3	U 409.014†	-355.3	-85.1	-5.1617 µg/L	-5.1617 ppb	16:00:38
3	V 292.402†	258.3	-101.4	-0.5175 µg/L	-0.5175 ppb	16:00:38
3	Zn 213.857†	644.3	121.2	0.7110 µg/L	0.7110 ppb	16:00:58

Mean Data: 1202072042|965619|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1775185.3	101.04	%	0.677				0.67%
Sc RADIAL	144850.4	100	%	0.5				0.54%
Y 371.029	1055950.1	100.82	%	0.721				0.71%
Ag 328.068†	-212.6	-0.8386	µg/L	0.50595	-0.8386	ppb	0.50595	60.33%
Al 396.153Radial†	-14.9	-2.9761	µg/L	3.59824	-2.9761	ppb	3.59824	120.90%
As 188.979†	4.8	1.5453	µg/L	1.13355	1.5453	ppb	1.13355	73.35%
B 249.677†	20.8	0.3208	µg/L	0.78194	0.3208	ppb	0.78194	243.73%
Ba 233.527†	58.8	0.2494	µg/L	0.05453	0.2494	ppb	0.05453	21.86%
Be 313.107†	201.7	0.0555	µg/L	0.05631	0.0555	ppb	0.05631	101.50%
Ca 317.933Radial†	178.6	10.962	µg/L	1.3264	10.962	ppb	1.3264	12.10%
Cd 226.502†	3.0	0.0198	µg/L	0.05333	0.0198	ppb	0.05333	269.29%
Co 228.616†	8.3	0.1071	µg/L	0.24009	0.1071	ppb	0.24009	224.10%
Cr 267.716†	39.4	0.3301	µg/L	0.05420	0.3301	ppb	0.05420	16.42%
Cu 324.752†	-78.1	-0.3215	µg/L	0.77075	-0.3215	ppb	0.77075	239.73%
Fe 238.204 Radial†	35.3	2.3795	µg/L	0.48129	2.3795	ppb	0.48129	20.23%
K 766.490 Radial†	33.9	13.073	µg/L	53.8570	13.073	ppb	53.8570	411.96%
Mg 279.077 IEC†	17.0	7.0343	µg/L	3.44774	7.0343	ppb	3.44774	49.01%
Mn 257.610†	101.1	0.1305	µg/L	0.03364	0.1305	ppb	0.03364	25.78%
Mo 202.031†	4.8	0.1500	µg/L	0.22286	0.1500	ppb	0.22286	148.58%
Na 589.592 Radial†	156.6	23.020	µg/L	3.3321	23.020	ppb	3.3321	14.47%

Ni 231.604†	9.5	0.1147	µg/L	0.13655	0.1147	ppb	0.13655 119.10%
P 214.914†	11.8	2.6522	µg/L	1.33874	2.6522	ppb	1.33874 50.48%
Pb 220.353†	3.7	0.2206	µg/L	0.84371	0.2206	ppb	0.84371 382.53%
S 181.975 Axial†	-0.4	-0.3362	µg/L	0.47445	-0.3362	ppb	0.47445 141.10%
Sb 206.836†	5.4	0.6703	µg/L	1.88316	0.6703	ppb	1.88316 280.95%
Se 196.026†	2.0	0.769	µg/L	1.3972	0.769	ppb	1.3972 181.65%
SiO2†	17.9	1.8649	µg/L	1.25488	1.8649	ppb	1.25488 67.29%
Si 251.611†	207.4	3.2520	µg/L	1.77869	3.2520	ppb	1.77869 54.70%
Sn 189.927†	4.2	0.2752	µg/L	0.21915	0.2752	ppb	0.21915 79.63%
Sr 421.552†	59.5	0.1321	µg/L	0.14121	0.1321	ppb	0.14121 106.89%
Ti 334.940†	75.7	0.0769	µg/L	0.03354	0.0769	ppb	0.03354 43.61%
Tl 190.801†	-0.1	-0.0084	µg/L	1.62354	-0.0084	ppb	1.62354 >999.9%
U 409.014†	-107.1	-6.4567	µg/L	7.02298	-6.4567	ppb	7.02298 108.77%
V 292.402†	6.9	0.0333	µg/L	0.51521	0.0333	ppb	0.51521 >999.9%
Zn 213.857†	131.7	0.7741	µg/L	0.05648	0.7741	ppb	0.05648 7.30%

Sequence No.: 59
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/1/2010 16:06:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143235.3	143235.3	99.4	%			16:06:45
1	Al 396.153Radial†	24944.3	25172.1	4992.4	µg/L	4992.4	ppb	16:06:45
1	Ca 317.933Radial†	82517.2	82492.8	5063.7	µg/L	5063.7	ppb	16:06:45
1	Fe 238.204 Radial†	73562.7	73896.0	4987.2	µg/L	4987.2	ppb	16:06:45
1	K 766.490 Radial†	14336.1	12869.0	4956.9	µg/L	4956.9	ppb	16:06:45
1	Mg 279.077 IEC†	12381.1	12294.8	5098.3	µg/L	5098.3	ppb	16:06:45
1	Na 589.592 Radial†	68371.0	67549.0	9931.0	µg/L	9931.0	ppb	16:06:45
1	Sr 421.552†	219476.7	221084.8	491.02	µg/L	491.02	ppb	16:06:43
1	Sc 361.383	1763189.5	1763189.5	100.36	%			16:07:12
1	Y 371.029	1040780.7	1040780.7	99.370	%			16:07:12
1	Ag 328.068†	130205.5	125923.5	498.36	µg/L	498.36	ppb	16:07:12
1	As 188.979†	1428.3	1444.9	470.79	µg/L	470.79	ppb	16:07:32
1	B 249.677†	35432.3	31845.8	488.97	µg/L	488.97	ppb	16:07:12
1	Ba 233.527†	115916.0	115652.9	491.10	µg/L	491.10	ppb	16:07:12
1	Be 313.107†	1722008.5	1716806.6	489.06	µg/L	489.06	ppb	16:07:12
1	Cd 226.502†	75588.3	75422.9	494.72	µg/L	494.72	ppb	16:07:12
1	Co 228.616†	38326.2	38378.2	496.00	µg/L	496.00	ppb	16:07:12
1	Cr 267.716†	60087.3	59695.2	491.94	µg/L	491.94	ppb	16:07:12
1	Cu 324.752†	124194.2	120889.7	491.75	µg/L	491.75	ppb	16:07:12
1	Mn 257.610†	384458.2	382868.1	495.06	µg/L	495.06	ppb	16:07:12
1	Mo 202.031†	15762.7	15748.9	489.90	µg/L	489.90	ppb	16:07:32
1	Ni 231.604†	41137.2	41069.9	495.69	µg/L	495.69	ppb	16:07:12
1	P 214.914†	10869.0	10829.6	2420.4	µg/L	2420.4	ppb	16:07:32
1	Pb 220.353†	8423.0	8325.1	489.20	µg/L	489.20	ppb	16:07:32
1	S 181.975 Axial†	1347.1	1237.0	982.91	µg/L	982.91	ppb	16:07:32
1	Sb 206.836†	3991.2	3897.9	490.57	µg/L	490.57	ppb	16:07:32
1	Se 196.026†	1294.9	1275.5	488	µg/L	488	ppb	16:07:32
1	SiO2†	53008.0	51066.9	5315.0	µg/L	5315.0	ppb	16:07:12
1	Si 251.611†	160139.4	158777.3	2482.4	µg/L	2482.4	ppb	16:07:12
1	Sn 189.927†	7385.0	7361.7	489.08	µg/L	489.08	ppb	16:07:32
1	Ti 334.940†	505423.3	502673.0	495.23	µg/L	495.23	ppb	16:07:12
1	Tl 190.801†	3649.3	3751.8	492.83	µg/L	492.83	ppb	16:07:32
1	U 409.014†	7275.2	7513.6	483.18	µg/L	483.18	ppb	16:07:12
1	V 292.402†	96891.8	96188.7	496.62	µg/L	496.62	ppb	16:07:12
1	Zn 213.857†	84862.1	84044.9	490.64	µg/L	490.64	ppb	16:07:12
2	Sc RADIAL	144170.2	144170.2	100	%			16:06:49
2	Al 396.153Radial†	25026.0	25091.0	4975.9	µg/L	4975.9	ppb	16:06:49
2	Ca 317.933Radial†	83194.1	82631.1	5072.2	µg/L	5072.2	ppb	16:06:49
2	Fe 238.204 Radial†	74169.6	74022.9	4995.7	µg/L	4995.7	ppb	16:06:49
2	K 766.490 Radial†	14687.1	13126.4	5056.1	µg/L	5056.1	ppb	16:06:49
2	Mg 279.077 IEC†	12498.7	12331.5	5113.6	µg/L	5113.6	ppb	16:06:49
2	Na 589.592 Radial†	69153.9	67885.6	9980.4	µg/L	9980.4	ppb	16:06:49
2	Sr 421.552†	217626.3	217802.5	483.73	µg/L	483.73	ppb	16:06:47
2	Sc 361.383	1742458.0	1742458.0	99.180	%			16:07:35
2	Y 371.029	1028108.1	1028108.1	98.160	%			16:07:35
2	Ag 328.068†	128555.5	125803.5	497.89	µg/L	497.89	ppb	16:07:35
2	As 188.979†	1443.7	1477.4	481.24	µg/L	481.24	ppb	16:07:55
2	B 249.677†	34872.9	31701.8	486.76	µg/L	486.76	ppb	16:07:35
2	Ba 233.527†	114239.6	115336.8	489.76	µg/L	489.76	ppb	16:07:35
2	Be 313.107†	1697816.4	1712829.1	487.92	µg/L	487.92	ppb	16:07:35
2	Cd 226.502†	74283.8	75003.7	491.97	µg/L	491.97	ppb	16:07:35
2	Co 228.616†	37726.9	38228.3	494.06	µg/L	494.06	ppb	16:07:35
2	Cr 267.716†	59288.9	59602.5	491.18	µg/L	491.18	ppb	16:07:35
2	Cu 324.752†	122457.6	120611.0	490.61	µg/L	490.61	ppb	16:07:35
2	Mn 257.610†	379164.0	382087.9	494.05	µg/L	494.05	ppb	16:07:35
2	Mo 202.031†	15783.0	15956.2	496.35	µg/L	496.35	ppb	16:07:55
2	Ni 231.604†	40313.5	40727.1	491.56	µg/L	491.56	ppb	16:07:35
2	P 214.914†	10873.4	10962.9	2450.3	µg/L	2450.3	ppb	16:07:55
2	Pb 220.353†	8449.7	8451.9	496.64	µg/L	496.64	ppb	16:07:55

2	S 181.975 Axial†	1343.9	1249.8	993.08 µg/L	993.08 ppb	16:07:55
2	Sb 206.836†	4003.4	3957.5	498.18 µg/L	498.18 ppb	16:07:55
2	Se 196.026†	1300.5	1296.4	496 µg/L	496 ppb	16:07:55
2	SiO2†	52027.0	50706.3	5277.0 µg/L	5277.0 ppb	16:07:35
2	Si 251.611†	157660.4	158176.3	2472.8 µg/L	2472.8 ppb	16:07:35
2	Sn 189.927†	7394.8	7459.2	495.52 µg/L	495.52 ppb	16:07:55
2	Ti 334.940†	498483.2	501667.4	494.25 µg/L	494.25 ppb	16:07:35
2	Tl 190.801†	3645.2	3791.0	497.89 µg/L	497.89 ppb	16:07:55
2	U 409.014†	7075.4	7398.4	476.23 µg/L	476.23 ppb	16:07:35
2	V 292.402†	95776.0	96212.3	496.80 µg/L	496.80 ppb	16:07:35
2	Zn 213.857†	83523.7	83701.5	488.65 µg/L	488.65 ppb	16:07:35
3	Sc RADIAL	143841.5	143841.5	99.8 %		16:06:53
3	Al 396.153Radial†	24953.0	25075.0	4972.8 µg/L	4972.8 ppb	16:06:53
3	Ca 317.933Radial†	82945.4	82571.9	5068.6 µg/L	5068.6 ppb	16:06:53
3	Fe 238.204 Radial†	74122.2	74144.7	5003.9 µg/L	5003.9 ppb	16:06:53
3	K 766.490 Radial†	14502.3	12974.7	4997.6 µg/L	4997.6 ppb	16:06:53
3	Mg 279.077 IEC†	12559.9	12421.4	5150.8 µg/L	5150.8 ppb	16:06:53
3	Na 589.592 Radial†	69063.4	67952.9	9990.3 µg/L	9990.3 ppb	16:06:53
3	Sr 421.552†	221121.6	221802.4	492.61 µg/L	492.61 ppb	16:06:51
3	Sc 361.383	1749962.1	1749962.1	99.607 %		16:07:58
3	Y 371.029	1032185.0	1032185.0	98.549 %		16:07:58
3	Ag 328.068†	129239.5	125934.4	498.38 µg/L	498.38 ppb	16:07:58
3	As 188.979†	1456.4	1483.9	483.32 µg/L	483.32 ppb	16:08:18
3	B 249.677†	35016.5	31695.3	486.67 µg/L	486.67 ppb	16:07:58
3	Ba 233.527†	114530.3	115134.8	488.90 µg/L	488.90 ppb	16:07:58
3	Be 313.107†	1704951.0	1712651.2	487.87 µg/L	487.87 ppb	16:07:58
3	Cd 226.502†	74694.8	75095.2	492.57 µg/L	492.57 ppb	16:07:58
3	Co 228.616†	37793.6	38132.2	492.82 µg/L	492.82 ppb	16:07:58
3	Cr 267.716†	59477.1	59535.1	490.62 µg/L	490.62 ppb	16:07:58
3	Cu 324.752†	122995.5	120621.6	490.66 µg/L	490.66 ppb	16:07:58
3	Mn 257.610†	380335.2	381624.5	493.45 µg/L	493.45 ppb	16:07:58
3	Mo 202.031†	15790.3	15895.3	494.45 µg/L	494.45 ppb	16:08:18
3	Ni 231.604†	40513.4	40753.4	491.87 µg/L	491.87 ppb	16:07:58
3	P 214.914†	10865.6	10908.0	2438.0 µg/L	2438.0 ppb	16:08:18
3	Pb 220.353†	8453.2	8418.9	494.70 µg/L	494.70 ppb	16:08:18
3	S 181.975 Axial†	1347.9	1248.0	991.64 µg/L	991.64 ppb	16:08:18
3	Sb 206.836†	3968.7	3905.3	491.60 µg/L	491.60 ppb	16:08:18
3	Se 196.026†	1300.6	1291.0	494 µg/L	494 ppb	16:08:18
3	SiO2†	52348.8	50804.4	5287.3 µg/L	5287.3 ppb	16:07:58
3	Si 251.611†	158160.3	157996.5	2470.0 µg/L	2470.0 ppb	16:07:58
3	Sn 189.927†	7414.8	7447.2	494.73 µg/L	494.73 ppb	16:08:18
3	Ti 334.940†	500603.9	501641.2	494.21 µg/L	494.21 ppb	16:07:58
3	Tl 190.801†	3655.5	3785.6	497.18 µg/L	497.18 ppb	16:08:18
3	U 409.014†	7198.3	7491.2	481.70 µg/L	481.70 ppb	16:07:58
3	V 292.402†	95778.0	95800.2	494.68 µg/L	494.68 ppb	16:07:58
3	Zn 213.857†	83815.3	83633.2	488.24 µg/L	488.24 ppb	16:07:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1751869.8	99.716	%	0.5975				0.60%
Sc RADIAL	143749.0	99.7	%	0.33				0.33%
Y 371.029	1033691.3	98.693	%	0.6177				0.63%
Ag 328.068†	125887.1	498.21	µg/L	0.280	498.21	ppb	0.280	0.06%
QC value within limits for Ag 328.068 Recovery = 99.64%								
Al 396.153Radial†	25112.7	4980.4	µg/L	10.52	4980.4	ppb	10.52	0.21%
QC value within limits for Al 396.153Radial Recovery = 99.61%								
As 188.979†	1468.7	478.45	µg/L	6.711	478.45	ppb	6.711	1.40%
QC value within limits for As 188.979 Recovery = 95.69%								
B 249.677†	31747.6	487.47	µg/L	1.306	487.47	ppb	1.306	0.27%
QC value within limits for B 249.677 Recovery = 97.49%								
Ba 233.527†	115374.8	489.92	µg/L	1.108	489.92	ppb	1.108	0.23%
QC value within limits for Ba 233.527 Recovery = 97.98%								
Be 313.107†	1714095.6	488.28	µg/L	0.670	488.28	ppb	0.670	0.14%
QC value within limits for Be 313.107 Recovery = 97.66%								
Ca 317.933Radial†	82565.3	5068.2	µg/L	4.26	5068.2	ppb	4.26	0.08%
QC value within limits for Ca 317.933Radial Recovery = 101.36%								
Cd 226.502†	75173.9	493.09	µg/L	1.448	493.09	ppb	1.448	0.29%
QC value within limits for Cd 226.502 Recovery = 98.62%								
Co 228.616†	38246.2	494.29	µg/L	1.603	494.29	ppb	1.603	0.32%

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   QC value within limits for Co 228.616  Recovery = 98.86%
Cr 267.716†            59610.9      491.25 µg/L         0.662      491.25 ppb          0.662   0.13%
   QC value within limits for Cr 267.716  Recovery = 98.25%
Cu 324.752†           120707.4      491.00 µg/L         0.642      491.00 ppb          0.642   0.13%
   QC value within limits for Cu 324.752  Recovery = 98.20%
Fe 238.204 Radial†     74021.2      4995.6 µg/L          8.39      4995.6 ppb           8.39   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.91%
K 766.490 Radial†      12990.0      5003.5 µg/L         49.88      5003.5 ppb          49.88   1.00%
   QC value within limits for K 766.490 Radial  Recovery = 100.07%
Mg 279.077 IEC†        12349.3      5120.9 µg/L         27.01      5120.9 ppb          27.01   0.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.42%
Mn 257.610†           382193.5      494.19 µg/L         0.814      494.19 ppb          0.814   0.16%
   QC value within limits for Mn 257.610  Recovery = 98.84%
Mo 202.031†            15866.8      493.57 µg/L         3.312      493.57 ppb          3.312   0.67%
   QC value within limits for Mo 202.031  Recovery = 98.71%
Na 589.592 Radial†     67795.8      9967.2 µg/L         31.80      9967.2 ppb          31.80   0.32%
   QC value within limits for Na 589.592 Radial  Recovery = 99.67%
Ni 231.604†            40850.1      493.04 µg/L         2.302      493.04 ppb          2.302   0.47%
   QC value within limits for Ni 231.604  Recovery = 98.61%
P 214.914†             10900.2      2436.2 µg/L         15.02      2436.2 ppb          15.02   0.62%
   QC value within limits for P 214.914  Recovery = 97.45%
Pb 220.353†             8398.7      493.51 µg/L         3.862      493.51 ppb          3.862   0.78%
   QC value within limits for Pb 220.353  Recovery = 98.70%
S 181.975 Axial†        1245.0      989.21 µg/L         5.503      989.21 ppb          5.503   0.56%
   QC value within limits for S 181.975 Axial  Recovery = 98.92%
Sb 206.836†             3920.2      493.45 µg/L         4.126      493.45 ppb          4.126   0.84%
   QC value within limits for Sb 206.836  Recovery = 98.69%
Se 196.026†             1287.6         493 µg/L           4.1         493 ppb            4.1   0.84%
   QC value within limits for Se 196.026  Recovery = 98.55%
SiO2†                  50859.2      5293.1 µg/L         19.63      5293.1 ppb          19.63   0.37%
   QC value within limits for SiO2  Recovery = 98.98%
Si 251.611†           158316.7      2475.1 µg/L          6.48      2475.1 ppb           6.48   0.26%
   QC value within limits for Si 251.611  Recovery = 99.00%
Sn 189.927†             7422.7      493.11 µg/L         3.516      493.11 ppb          3.516   0.71%
   QC value within limits for Sn 189.927  Recovery = 98.62%
Sr 421.552†           220229.9      489.12 µg/L         4.737      489.12 ppb          4.737   0.97%
   QC value within limits for Sr 421.552  Recovery = 97.82%
Ti 334.940†           501993.8      494.56 µg/L         0.581      494.56 ppb          0.581   0.12%
   QC value within limits for Ti 334.940  Recovery = 98.91%
Tl 190.801†             3776.1      495.97 µg/L         2.741      495.97 ppb          2.741   0.55%
   QC value within limits for Tl 190.801  Recovery = 99.19%
U 409.014†              7467.7      480.37 µg/L         3.661      480.37 ppb          3.661   0.76%
   QC value within limits for U 409.014  Recovery = 96.07%
V 292.402†             96067.1      496.04 µg/L         1.175      496.04 ppb          1.175   0.24%
   QC value within limits for V 292.402  Recovery = 99.21%
Zn 213.857†            83793.2      489.18 µg/L         1.284      489.18 ppb          1.284   0.26%
   QC value within limits for Zn 213.857  Recovery = 97.84%
All analyte(s) passed QC.
```

Sequence No.: 60 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 4/1/2010 16:08:26**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144790.4	144790.4	100	%			16:08:57
1	Al 396.153Radial†	-42.7	26.3	5.2364	µg/L	5.2364	ppb	16:09:17
1	Ca 317.933Radial†	638.0	85.1	5.2237	µg/L	5.2237	ppb	16:09:17
1	Fe 238.204 Radial†	143.9	8.0	0.5390	µg/L	0.5390	ppb	16:09:17
1	K 766.490 Radial†	1446.6	-118.3	-45.594	µg/L	-45.594	ppb	16:08:57
1	Mg 279.077 IEC†	190.2	24.1	9.9906	µg/L	9.9906	ppb	16:09:17
1	Na 589.592 Radial†	1397.8	133.9	19.742	µg/L	19.742	ppb	16:08:57
1	Sr 421.552†	-223.6	-12.8	-0.0284	µg/L	-0.0284	ppb	16:08:57
1	Sc 361.383	1776008.0	1776008.0	101.09	%			16:10:18
1	Y 371.029	1058752.7	1058752.7	101.09	%			16:10:18
1	Ag 328.068†	4040.0	181.7	0.6986	µg/L	0.6986	ppb	16:10:21
1	As 188.979†	-16.2	5.7	1.8347	µg/L	1.8347	ppb	16:10:41
1	B 249.677†	3529.5	32.1	0.4935	µg/L	0.4935	ppb	16:10:41
1	Ba 233.527†	-149.5	4.9	0.0204	µg/L	0.0204	ppb	16:10:41
1	Be 313.107†	-649.1	334.8	0.0937	µg/L	0.0937	ppb	16:10:21
1	Cd 226.502†	-78.5	28.2	0.1850	µg/L	0.1850	ppb	16:10:41
1	Co 228.616†	-166.8	24.5	0.3160	µg/L	0.3160	ppb	16:10:41
1	Cr 267.716†	182.6	4.1	0.0377	µg/L	0.0377	ppb	16:10:41
1	Cu 324.752†	2708.5	-179.6	-0.7323	µg/L	-0.7323	ppb	16:10:21
1	Mn 257.610†	254.5	41.2	0.0528	µg/L	0.0528	ppb	16:10:41
1	Mo 202.031†	-34.4	8.7	0.2708	µg/L	0.2708	ppb	16:10:41
1	Ni 231.604†	-76.5	4.6	0.0556	µg/L	0.0556	ppb	16:10:41
1	P 214.914†	0.5	0.0	0.0252	µg/L	0.0252	ppb	16:10:41
1	Pb 220.353†	100.4	31.6	1.8581	µg/L	1.8581	ppb	16:10:41
1	S 181.975 Axial†	105.8	-0.5	-0.4058	µg/L	-0.4058	ppb	16:10:41
1	Sb 206.836†	85.5	5.6	0.7069	µg/L	0.7069	ppb	16:10:41
1	Se 196.026†	14.6	-0.4	-0.141	µg/L	-0.141	ppb	16:10:41
1	SiO2†	1738.1	-31.5	-3.3113	µg/L	-3.3113	ppb	16:10:41
1	Si 251.611†	846.8	50.2	0.7781	µg/L	0.7781	ppb	16:10:21
1	Sn 189.927†	11.7	14.8	0.9821	µg/L	0.9821	ppb	16:10:41
1	Ti 334.940†	977.3	30.0	0.0311	µg/L	0.0311	ppb	16:10:21
1	Tl 190.801†	-120.0	-3.0	-0.3980	µg/L	-0.3980	ppb	16:10:41
1	U 409.014†	-356.9	-88.6	-5.3690	µg/L	-5.3690	ppb	16:10:21
1	V 292.402†	277.8	-80.6	-0.4115	µg/L	-0.4115	ppb	16:10:21
1	Zn 213.857†	545.5	26.9	0.1587	µg/L	0.1587	ppb	16:10:41
2	Sc RADIAL	146677.9	146677.9	102	%			16:09:19
2	Al 396.153Radial†	-64.5	5.5	1.0301	µg/L	1.0301	ppb	16:09:39
2	Ca 317.933Radial†	624.6	63.7	3.9123	µg/L	3.9123	ppb	16:09:39
2	Fe 238.204 Radial†	122.0	-15.4	-1.0427	µg/L	-1.0427	ppb	16:09:39
2	K 766.490 Radial†	1729.9	141.6	54.595	µg/L	54.595	ppb	16:09:19
2	Mg 279.077 IEC†	181.8	13.4	5.5953	µg/L	5.5953	ppb	16:09:39
2	Na 589.592 Radial†	1466.6	183.7	26.969	µg/L	26.969	ppb	16:09:19
2	Sr 421.552†	-254.8	-40.6	-0.0901	µg/L	-0.0901	ppb	16:09:19
2	Sc 361.383	1793379.7	1793379.7	102.08	%			16:10:43
2	Y 371.029	1068463.3	1068463.3	102.01	%			16:10:43
2	Ag 328.068†	4104.9	206.5	0.8150	µg/L	0.8150	ppb	16:10:45
2	As 188.979†	-16.4	5.6	1.8156	µg/L	1.8156	ppb	16:11:05
2	B 249.677†	3500.9	-29.7	-0.4582	µg/L	-0.4582	ppb	16:11:05
2	Ba 233.527†	-131.0	24.4	0.1043	µg/L	0.1043	ppb	16:11:05
2	Be 313.107†	-859.8	134.6	0.0390	µg/L	0.0390	ppb	16:10:45
2	Cd 226.502†	-90.0	17.7	0.1159	µg/L	0.1159	ppb	16:11:05
2	Co 228.616†	-185.8	7.5	0.0971	µg/L	0.0971	ppb	16:11:05
2	Cr 267.716†	210.6	29.8	0.2440	µg/L	0.2440	ppb	16:11:05
2	Cu 324.752†	2827.5	-89.1	-0.3592	µg/L	-0.3592	ppb	16:10:45
2	Mn 257.610†	252.2	36.5	0.0469	µg/L	0.0469	ppb	16:11:05
2	Mo 202.031†	0.2	42.9	1.3340	µg/L	1.3340	ppb	16:11:05
2	Ni 231.604†	-90.6	-8.5	-0.1027	µg/L	-0.1027	ppb	16:11:05
2	P 214.914†	27.2	26.3	5.8835	µg/L	5.8835	ppb	16:11:05
2	Pb 220.353†	68.8	-0.2	-0.0110	µg/L	-0.0110	ppb	16:11:05

2	S 181.975 Axial†	107.9	0.5	0.4168	µg/L	0.4168 ppb	16:11:05
2	Sb 206.836†	86.8	6.0	0.7668	µg/L	0.7668 ppb	16:11:05
2	Se 196.026†	25.5	10.1	3.86	µg/L	3.86 ppb	16:11:05
2	SiO2†	1771.1	-15.8	-1.6907	µg/L	-1.6907 ppb	16:11:05
2	Si 251.611†	963.5	156.4	2.4348	µg/L	2.4348 ppb	16:10:45
2	Sn 189.927†	2.7	5.8	0.3863	µg/L	0.3863 ppb	16:11:05
2	Ti 334.940†	692.2	-258.7	-0.2566	µg/L	-0.2566 ppb	16:10:45
2	Tl 190.801†	-101.7	15.9	2.0623	µg/L	2.0623 ppb	16:11:05
2	U 409.014†	-232.7	36.6	2.2308	µg/L	2.2308 ppb	16:10:45
2	V 292.402†	450.5	85.9	0.4544	µg/L	0.4544 ppb	16:10:45
2	Zn 213.857†	558.9	34.8	0.2059	µg/L	0.2059 ppb	16:11:05
3	Sc RADIAL	144305.8	144305.8	100	%		16:09:41
3	Al 396.153Radial†	-63.2	5.8	1.1290	µg/L	1.1290 ppb	16:10:01
3	Ca 317.933Radial†	625.6	74.8	4.5914	µg/L	4.5914 ppb	16:10:01
3	Fe 238.204 Radial†	160.4	24.9	1.6824	µg/L	1.6824 ppb	16:10:01
3	K 766.490 Radial†	1622.1	61.9	23.839	µg/L	23.839 ppb	16:09:41
3	Mg 279.077 IEC†	180.8	15.4	6.3798	µg/L	6.3798 ppb	16:10:01
3	Na 589.592 Radial†	1527.7	268.4	39.462	µg/L	39.462 ppb	16:09:41
3	Sr 421.552†	-117.5	92.5	0.2055	µg/L	0.2055 ppb	16:09:41
3	Sc 361.383	1791345.4	1791345.4	101.96	%		16:11:07
3	Y 371.029	1067952.2	1067952.2	101.96	%		16:11:07
3	Ag 328.068†	3799.4	-88.5	-0.3532	µg/L	-0.3532 ppb	16:11:09
3	As 188.979†	-14.5	7.5	2.4063	µg/L	2.4063 ppb	16:11:29
3	B 249.677†	3519.2	-7.9	-0.1216	µg/L	-0.1216 ppb	16:11:29
3	Ba 233.527†	-169.1	-13.1	-0.0556	µg/L	-0.0556 ppb	16:11:29
3	Be 313.107†	-572.0	415.9	0.1172	µg/L	0.1172 ppb	16:11:09
3	Cd 226.502†	-101.7	6.1	0.0401	µg/L	0.0401 ppb	16:11:29
3	Co 228.616†	-201.9	-8.5	-0.1093	µg/L	-0.1093 ppb	16:11:29
3	Cr 267.716†	207.6	27.0	0.2257	µg/L	0.2257 ppb	16:11:29
3	Cu 324.752†	2800.0	-112.9	-0.4607	µg/L	-0.4607 ppb	16:11:09
3	Mn 257.610†	287.4	71.3	0.0920	µg/L	0.0920 ppb	16:11:29
3	Mo 202.031†	-29.2	14.1	0.4398	µg/L	0.4398 ppb	16:11:29
3	Ni 231.604†	-71.8	9.8	0.1183	µg/L	0.1183 ppb	16:11:29
3	P 214.914†	-2.5	-2.8	-0.6365	µg/L	-0.6365 ppb	16:11:29
3	Pb 220.353†	74.2	5.1	0.3028	µg/L	0.3028 ppb	16:11:29
3	S 181.975 Axial†	99.9	-7.2	-5.7206	µg/L	-5.7206 ppb	16:11:29
3	Sb 206.836†	95.2	14.4	1.8072	µg/L	1.8072 ppb	16:11:29
3	Se 196.026†	11.3	-3.8	-1.44	µg/L	-1.44 ppb	16:11:29
3	SiO2†	1789.3	4.0	0.4088	µg/L	0.4088 ppb	16:11:29
3	Si 251.611†	940.5	134.9	2.1115	µg/L	2.1115 ppb	16:11:09
3	Sn 189.927†	-2.8	0.5	0.0313	µg/L	0.0313 ppb	16:11:29
3	Ti 334.940†	844.4	-108.7	-0.1060	µg/L	-0.1060 ppb	16:11:09
3	Tl 190.801†	-119.6	-1.7	-0.2229	µg/L	-0.2229 ppb	16:11:29
3	U 409.014†	-338.1	-67.1	-4.0598	µg/L	-4.0598 ppb	16:11:09
3	V 292.402†	324.6	-37.0	-0.1860	µg/L	-0.1860 ppb	16:11:09
3	Zn 213.857†	553.9	30.6	0.1794	µg/L	0.1794 ppb	16:11:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786911.0	101.71	%	0.541				0.53%
Sc RADIAL	145258.0	101	%	0.9				0.86%
Y 371.029	1065056.1	101.69	%	0.522				0.51%
Ag 328.068†	99.9	0.3868	µg/L	0.64348	0.3868	ppb	0.64348	166.36%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.5	2.4652	µg/L	2.40045	2.4652	ppb	2.40045	97.38%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.3	2.0189	µg/L	0.33565	2.0189	ppb	0.33565	16.63%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-1.8	-0.0288	µg/L	0.48260	-0.0288	ppb	0.48260	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.4	0.0231	µg/L	0.07999	0.0231	ppb	0.07999	346.67%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	295.1	0.0833	µg/L	0.04013	0.0833	ppb	0.04013	48.17%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	74.5	4.5758	µg/L	0.65586	4.5758	ppb	0.65586	14.33%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	17.3	0.1137	µg/L	0.07246	0.1137	ppb	0.07246	63.75%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.8	0.1013	µg/L	0.21270	0.1013	ppb	0.21270	210.03%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              20.3      0.1691 µg/L       0.11421      0.1691 ppb        0.11421  67.52%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -127.2     -0.5174 µg/L       0.19292     -0.5174 ppb        0.19292  37.28%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        5.8      0.3929 µg/L       1.36838      0.3929 ppb        1.36838 348.28%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        28.4      10.947 µg/L       51.3236      10.947 ppb        51.3236 468.85%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          17.6      7.3219 µg/L       2.34420      7.3219 ppb        2.34420  32.02%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              49.6      0.0639 µg/L       0.02447      0.0639 ppb        0.02447  38.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              21.9      0.6815 µg/L       0.57134      0.6815 ppb        0.57134  83.83%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      195.4      28.724 µg/L        9.9767      28.724 ppb         9.9767  34.73%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               2.0      0.0237 µg/L       0.11392      0.0237 ppb        0.11392 479.99%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                7.8      1.7574 µg/L       3.58859      1.7574 ppb        3.58859 204.20%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              12.2      0.7166 µg/L       1.00089      0.7166 ppb        1.00089 139.67%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.4     -1.9032 µg/L       3.33145     -1.9032 ppb        3.33145 175.04%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               8.6      1.0936 µg/L       0.61866      1.0936 ppb        0.61866  56.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.0       0.759 µg/L        2.7625       0.759 ppb         2.7625 363.79%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -14.4     -1.5311 µg/L       1.86520     -1.5311 ppb        1.86520 121.82%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             113.9      1.7748 µg/L       0.87818      1.7748 ppb        0.87818  49.48%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.1      0.4666 µg/L       0.48049      0.4666 ppb        0.48049 102.99%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              13.1      0.0290 µg/L       0.15593      0.0290 ppb        0.15593 538.09%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -112.5     -0.1105 µg/L       0.14386     -0.1105 ppb        0.14386 130.19%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.7      0.4805 µg/L       1.37273      0.4805 ppb        1.37273 285.71%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -39.7     -2.3994 µg/L       4.06288     -2.3994 ppb        4.06288 169.33%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -10.6     -0.0477 µg/L       0.44924     -0.0477 ppb        0.44924 941.26%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              30.8      0.1813 µg/L       0.02369      0.1813 ppb        0.02369  13.07%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 63
Sample ID: 249330009|965619|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 249
Date Collected: 4/1/2010 16:15:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330009|965619|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	142744.6	142744.6	99.0	%			16:16:19
1	Al 396.153Radial†	-37.3	31.2	6.2261	µg/L	6.2261	ppb	16:16:39
1	Ca 317.933Radial†	821.9	279.8	17.178	µg/L	17.178	ppb	16:16:39
1	Fe 238.204 Radial†	256.6	123.8	8.3568	µg/L	8.3568	ppb	16:16:39
1	K 766.490 Radial†	1742.5	201.2	77.556	µg/L	77.556	ppb	16:16:19
1	Mg 279.077 IEC†	191.4	28.1	11.639	µg/L	11.639	ppb	16:16:39
1	Na 589.592 Radial†	1635.8	394.3	57.923	µg/L	57.923	ppb	16:16:19
1	Sr 421.552†	-254.1	-46.7	-0.1039	µg/L	-0.1039	ppb	16:16:19
1	Sc 361.383	1769477.4	1769477.4	100.72	%			16:17:27
1	Y 371.029	1051951.8	1051951.8	100.44	%			16:17:27
1	Ag 328.068†	4289.1	443.7	1.7464	µg/L	1.7464	ppb	16:17:29
1	As 188.979†	-8.1	13.6	4.4004	µg/L	4.4004	ppb	16:17:49
1	B 249.677†	3502.9	18.5	0.2858	µg/L	0.2858	ppb	16:17:49
1	Ba 233.527†	-183.5	-29.4	-0.1248	µg/L	-0.1248	ppb	16:17:49
1	Be 313.107†	-785.2	197.3	0.0583	µg/L	0.0583	ppb	16:17:29
1	Cd 226.502†	-105.3	1.3	0.0082	µg/L	0.0082	ppb	16:17:49
1	Co 228.616†	-191.4	-0.5	-0.0068	µg/L	-0.0068	ppb	16:17:49
1	Cr 267.716†	434.3	254.6	2.0935	µg/L	2.0935	ppb	16:17:49
1	Cu 324.752†	2969.2	89.1	0.3685	µg/L	0.3685	ppb	16:17:29
1	Mn 257.610†	429.5	215.9	0.2788	µg/L	0.2788	ppb	16:17:49
1	Mo 202.031†	-45.1	-2.0	-0.0625	µg/L	-0.0625	ppb	16:17:49
1	Ni 231.604†	-2.8	77.5	0.9357	µg/L	0.9357	ppb	16:17:49
1	P 214.914†	19.6	19.0	4.2636	µg/L	4.2636	ppb	16:17:49
1	Pb 220.353†	119.6	51.1	2.9882	µg/L	2.9882	ppb	16:17:49
1	S 181.975 Axial†	109.2	3.3	2.6055	µg/L	2.6055	ppb	16:17:49
1	Sb 206.836†	85.9	6.3	0.7607	µg/L	0.7607	ppb	16:17:49
1	Se 196.026†	8.8	-6.1	-2.31	µg/L	-2.31	ppb	16:17:49
1	SiO2†	2032.5	267.2	27.914	µg/L	27.914	ppb	16:17:49
1	Si 251.611†	1845.5	1044.8	16.395	µg/L	16.395	ppb	16:17:29
1	Sn 189.927†	8.0	11.1	0.7374	µg/L	0.7374	ppb	16:17:49
1	Ti 334.940†	1005.9	61.9	0.0570	µg/L	0.0570	ppb	16:17:29
1	Tl 190.801†	-119.7	-3.2	-0.4111	µg/L	-0.4111	ppb	16:17:49
1	U 409.014†	-149.6	116.0	7.0122	µg/L	7.0122	ppb	16:17:29
1	V 292.402†	419.9	61.4	0.3252	µg/L	0.3252	ppb	16:17:29
1	Zn 213.857†	683.7	166.1	0.9703	µg/L	0.9703	ppb	16:17:49
2	Sc RADIAL	142900.0	142900.0	99.1	%			16:16:41
2	Al 396.153Radial†	-75.9	-7.7	-1.5234	µg/L	-1.5234	ppb	16:17:01
2	Ca 317.933Radial†	823.5	280.6	17.223	µg/L	17.223	ppb	16:17:01
2	Fe 238.204 Radial†	257.6	124.5	8.4052	µg/L	8.4052	ppb	16:17:01
2	K 766.490 Radial†	1574.6	29.9	11.532	µg/L	11.532	ppb	16:16:41
2	Mg 279.077 IEC†	166.1	2.4	0.9872	µg/L	0.9872	ppb	16:17:01
2	Na 589.592 Radial†	1467.6	222.8	32.758	µg/L	32.758	ppb	16:16:41
2	Sr 421.552†	-150.1	58.5	0.1297	µg/L	0.1297	ppb	16:16:41
2	Sc 361.383	1780826.1	1780826.1	101.36	%			16:17:51
2	Y 371.029	1058412.4	1058412.4	101.05	%			16:17:51
2	Ag 328.068†	3875.5	8.5	0.0386	µg/L	0.0386	ppb	16:17:53
2	As 188.979†	-14.2	7.6	2.4748	µg/L	2.4748	ppb	16:18:13
2	B 249.677†	3534.7	27.8	0.4286	µg/L	0.4286	ppb	16:18:13
2	Ba 233.527†	-138.0	16.6	0.0706	µg/L	0.0706	ppb	16:18:13
2	Be 313.107†	-763.8	223.3	0.0645	µg/L	0.0645	ppb	16:17:53
2	Cd 226.502†	-88.2	18.8	0.1229	µg/L	0.1229	ppb	16:18:13
2	Co 228.616†	-196.9	-4.8	-0.0615	µg/L	-0.0615	ppb	16:18:13
2	Cr 267.716†	444.5	262.0	2.1575	µg/L	2.1575	ppb	16:18:13
2	Cu 324.752†	2759.2	-136.8	-0.5512	µg/L	-0.5512	ppb	16:17:53
2	Mn 257.610†	426.4	210.1	0.2717	µg/L	0.2717	ppb	16:18:13
2	Mo 202.031†	-44.7	-1.4	-0.0423	µg/L	-0.0423	ppb	16:18:13
2	Ni 231.604†	-12.8	67.6	0.8163	µg/L	0.8163	ppb	16:18:13
2	P 214.914†	9.9	9.3	2.0992	µg/L	2.0992	ppb	16:18:13
2	Pb 220.353†	92.3	23.4	1.3702	µg/L	1.3702	ppb	16:18:13

2	S 181.975 Axial†	116.9	10.1	8.0021 µg/L	8.0021 ppb	16:18:13
2	Sb 206.836†	79.4	-0.7	-0.1177 µg/L	-0.1177 ppb	16:18:13
2	Se 196.026†	10.4	-4.6	-1.74 µg/L	-1.74 ppb	16:18:13
2	SiO2†	2048.3	270.0	28.199 µg/L	28.199 ppb	16:18:13
2	Si 251.611†	1733.6	922.7	14.479 µg/L	14.479 ppb	16:17:53
2	Sn 189.927†	7.0	10.1	0.6716 µg/L	0.6716 ppb	16:18:13
2	Ti 334.940†	844.2	-103.9	-0.1041 µg/L	-0.1041 ppb	16:17:53
2	Tl 190.801†	-118.1	-0.9	-0.1192 µg/L	-0.1192 ppb	16:18:13
2	U 409.014†	-219.6	47.8	2.8911 µg/L	2.8911 ppb	16:17:53
2	V 292.402†	394.6	33.9	0.1828 µg/L	0.1828 ppb	16:17:53
2	Zn 213.857†	677.0	155.2	0.9070 µg/L	0.9070 ppb	16:18:13
3	Sc RADIAL	143524.9	143524.9	99.6 %		16:17:03
3	Al 396.153Radial†	-49.7	19.0	3.7517 µg/L	3.7517 ppb	16:17:23
3	Ca 317.933Radial†	828.0	281.5	17.278 µg/L	17.278 ppb	16:17:23
3	Fe 238.204 Radial†	257.6	123.4	8.3299 µg/L	8.3299 ppb	16:17:23
3	K 766.490 Radial†	1462.6	-89.5	-34.515 µg/L	-34.515 ppb	16:17:03
3	Mg 279.077 IEC†	174.2	9.8	4.0446 µg/L	4.0446 ppb	16:17:23
3	Na 589.592 Radial†	1492.2	241.0	35.481 µg/L	35.481 ppb	16:17:03
3	Sr 421.552†	-204.6	4.4	0.0096 µg/L	0.0096 ppb	16:17:03
3	Sc 361.383	1787137.2	1787137.2	101.72 %		16:18:15
3	Y 371.029	1061388.3	1061388.3	101.34 %		16:18:15
3	Ag 328.068†	3927.9	46.6	0.2028 µg/L	0.2028 ppb	16:18:17
3	As 188.979†	-13.5	8.4	2.7277 µg/L	2.7277 ppb	16:18:37
3	B 249.677†	3532.5	13.3	0.2045 µg/L	0.2045 ppb	16:18:37
3	Ba 233.527†	-160.2	-4.7	-0.0197 µg/L	-0.0197 ppb	16:18:37
3	Be 313.107†	-726.5	262.7	0.0790 µg/L	0.0790 ppb	16:18:17
3	Cd 226.502†	-89.9	17.4	0.1140 µg/L	0.1140 ppb	16:18:37
3	Co 228.616†	-184.8	7.8	0.1010 µg/L	0.1010 ppb	16:18:37
3	Cr 267.716†	467.9	283.4	2.3254 µg/L	2.3254 ppb	16:18:37
3	Cu 324.752†	2863.7	-43.7	-0.1646 µg/L	-0.1646 ppb	16:18:17
3	Mn 257.610†	416.7	199.1	0.2573 µg/L	0.2573 ppb	16:18:37
3	Mo 202.031†	-25.4	17.8	0.5536 µg/L	0.5536 ppb	16:18:37
3	Ni 231.604†	-5.2	75.2	0.9071 µg/L	0.9071 ppb	16:18:37
3	P 214.914†	29.6	28.6	6.4225 µg/L	6.4225 ppb	16:18:37
3	Pb 220.353†	95.0	25.8	1.5003 µg/L	1.5003 ppb	16:18:37
3	S 181.975 Axial†	106.1	-0.8	-0.6567 µg/L	-0.6567 ppb	16:18:37
3	Sb 206.836†	93.9	13.3	1.6435 µg/L	1.6435 ppb	16:18:37
3	Se 196.026†	18.8	3.6	1.40 µg/L	1.40 ppb	16:18:37
3	SiO2†	2071.1	285.2	29.780 µg/L	29.780 ppb	16:18:37
3	Si 251.611†	1719.6	903.0	14.161 µg/L	14.161 ppb	16:18:17
3	Sn 189.927†	6.9	10.0	0.6639 µg/L	0.6639 ppb	16:18:37
3	Ti 334.940†	865.0	-86.4	-0.0916 µg/L	-0.0916 ppb	16:18:17
3	Tl 190.801†	-109.7	7.8	1.0082 µg/L	1.0082 ppb	16:18:37
3	U 409.014†	-36.7	228.4	13.797 µg/L	13.797 ppb	16:18:17
3	V 292.402†	427.7	65.1	0.3557 µg/L	0.3557 ppb	16:18:17
3	Zn 213.857†	706.4	181.8	1.0630 µg/L	1.0630 ppb	16:18:37

Mean Data: 249330009|965619|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1779146.9	101.27	%	0.509				0.50%
Sc RADIAL	143056.5	99.2	%	0.29				0.29%
Y 371.029	1057250.9	100.94	%	0.461				0.46%
Ag 328.068†	166.3	0.6626	µg/L	0.94220	0.6626	ppb	0.94220	142.20%
Al 396.153Radial†	14.2	2.8181	µg/L	3.95820	2.8181	ppb	3.95820	140.45%
As 188.979†	9.9	3.2010	µg/L	1.04639	3.2010	ppb	1.04639	32.69%
B 249.677†	19.9	0.3063	µg/L	0.11344	0.3063	ppb	0.11344	37.04%
Ba 233.527†	-5.8	-0.0247	µg/L	0.09781	-0.0247	ppb	0.09781	396.69%
Be 313.107†	227.8	0.0672	µg/L	0.01062	0.0672	ppb	0.01062	15.79%
Ca 317.933Radial†	280.6	17.226	µg/L	0.0500	17.226	ppb	0.0500	0.29%
Cd 226.502†	12.5	0.0817	µg/L	0.06381	0.0817	ppb	0.06381	78.14%
Co 228.616†	0.8	0.0109	µg/L	0.08267	0.0109	ppb	0.08267	757.14%
Cr 267.716†	266.7	2.1921	µg/L	0.11979	2.1921	ppb	0.11979	5.46%
Cu 324.752†	-30.5	-0.1158	µg/L	0.46177	-0.1158	ppb	0.46177	398.83%
Fe 238.204 Radial†	123.9	8.3640	µg/L	0.03818	8.3640	ppb	0.03818	0.46%
K 766.490 Radial†	47.2	18.191	µg/L	56.3315	18.191	ppb	56.3315	309.66%
Mg 279.077 IEC†	13.4	5.5570	µg/L	5.48466	5.5570	ppb	5.48466	98.70%
Mn 257.610†	208.3	0.2693	µg/L	0.01094	0.2693	ppb	0.01094	4.06%
Mo 202.031†	4.8	0.1496	µg/L	0.35006	0.1496	ppb	0.35006	233.99%
Na 589.592 Radial†	286.0	42.054	µg/L	13.8105	42.054	ppb	13.8105	32.84%

Ni 231.604†	73.4	0.8863 µg/L	0.06233	0.8863 ppb	0.06233	7.03%
P 214.914†	19.0	4.2618 µg/L	2.16167	4.2618 ppb	2.16167	50.72%
Pb 220.353†	33.4	1.9529 µg/L	0.89894	1.9529 ppb	0.89894	46.03%
S 181.975 Axial†	4.2	3.3170 µg/L	4.37303	3.3170 ppb	4.37303	131.84%
Sb 206.836†	6.3	0.7622 µg/L	0.88060	0.7622 ppb	0.88060	115.54%
Se 196.026†	-2.4	-0.886 µg/L	2.0006	-0.886 ppb	2.0006	225.69%
SiO2†	274.1	28.631 µg/L	1.0052	28.631 ppb	1.0052	3.51%
Si 251.611†	956.8	15.012 µg/L	1.2084	15.012 ppb	1.2084	8.05%
Sn 189.927†	10.4	0.6909 µg/L	0.04039	0.6909 ppb	0.04039	5.85%
Sr 421.552†	5.4	0.0118 µg/L	0.11683	0.0118 ppb	0.11683	990.02%
Ti 334.940†	-42.8	-0.0462 µg/L	0.08962	-0.0462 ppb	0.08962	193.97%
Tl 190.801†	1.2	0.1593 µg/L	0.74949	0.1593 ppb	0.74949	470.46%
U 409.014†	130.7	7.9001 µg/L	5.50683	7.9001 ppb	5.50683	69.71%
V 292.402†	53.5	0.2879 µg/L	0.09232	0.2879 ppb	0.09232	32.07%
Zn 213.857†	167.7	0.9801 µg/L	0.07844	0.9801 ppb	0.07844	8.00%

Sequence No.: 64
Sample ID: 249330010|965619|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 250
Date Collected: 4/1/2010 16:18:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330010|965619|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143506.9	143506.9	99.6	%			16:19:15
1	Al 396.153Radial†	41.1	110.2	21.956	µg/L	21.956	ppb	16:19:35
1	Ca 317.933Radial†	1305.4	761.1	46.718	µg/L	46.718	ppb	16:19:35
1	Fe 238.204 Radial†	631.4	498.9	33.671	µg/L	33.671	ppb	16:19:35
1	K 766.490 Radial†	1714.5	163.7	63.063	µg/L	63.063	ppb	16:19:15
1	Mg 279.077 IEC†	205.2	40.9	16.891	µg/L	16.891	ppb	16:19:35
1	Na 589.592 Radial†	2412.1	1165.3	171.34	µg/L	171.34	ppb	16:19:15
1	Sr 421.552†	-180.1	28.9	0.0639	µg/L	0.0639	ppb	16:19:15
1	Sc 361.383	1749497.5	1749497.5	99.581	%			16:20:23
1	Y 371.029	1039119.0	1039119.0	99.211	%			16:20:23
1	Ag 328.068†	3993.9	195.9	0.7676	µg/L	0.7676	ppb	16:20:25
1	As 188.979†	-8.9	12.8	4.1126	µg/L	4.1126	ppb	16:20:45
1	B 249.677†	3555.5	111.1	1.7138	µg/L	1.7138	ppb	16:20:25
1	Ba 233.527†	-29.2	123.5	0.5239	µg/L	0.5239	ppb	16:20:45
1	Be 313.107†	-947.3	25.5	0.0059	µg/L	0.0059	ppb	16:20:25
1	Cd 226.502†	-82.7	22.8	0.1462	µg/L	0.1462	ppb	16:20:45
1	Co 228.616†	-224.3	-35.7	-0.4622	µg/L	-0.4622	ppb	16:20:45
1	Cr 267.716†	300.2	124.9	1.0346	µg/L	1.0346	ppb	16:20:45
1	Cu 324.752†	2918.7	72.1	0.2938	µg/L	0.2938	ppb	16:20:25
1	Mn 257.610†	940.6	734.0	0.9487	µg/L	0.9487	ppb	16:20:45
1	Mo 202.031†	-47.6	-5.0	-0.1541	µg/L	-0.1541	ppb	16:20:45
1	Ni 231.604†	-55.2	24.8	0.2994	µg/L	0.2994	ppb	16:20:45
1	P 214.914†	34.7	34.4	7.6993	µg/L	7.6993	ppb	16:20:45
1	Pb 220.353†	97.8	30.6	1.7943	µg/L	1.7943	ppb	16:20:45
1	S 181.975 Axial†	120.5	15.8	12.534	µg/L	12.534	ppb	16:20:45
1	Sb 206.836†	82.9	4.3	0.5213	µg/L	0.5213	ppb	16:20:45
1	Se 196.026†	6.5	-8.3	-3.16	µg/L	-3.16	ppb	16:20:45
1	SiO2†	2808.5	1069.5	111.75	µg/L	111.75	ppb	16:20:25
1	Si 251.611†	4156.6	3386.6	53.155	µg/L	53.155	ppb	16:20:25
1	Sn 189.927†	2.7	5.9	0.3929	µg/L	0.3929	ppb	16:20:45
1	Ti 334.940†	1381.9	451.0	0.4462	µg/L	0.4462	ppb	16:20:25
1	Tl 190.801†	-146.3	-31.3	-4.0412	µg/L	-4.0412	ppb	16:20:45
1	U 409.014†	-337.2	-74.2	-4.4329	µg/L	-4.4329	ppb	16:20:25
1	V 292.402†	500.3	147.0	0.7449	µg/L	0.7449	ppb	16:20:25
1	Zn 213.857†	748.2	238.7	1.3993	µg/L	1.3993	ppb	16:20:45
2	Sc RADIAL	143690.5	143690.5	99.7	%			16:19:37
2	Al 396.153Radial†	34.7	103.7	20.650	µg/L	20.650	ppb	16:19:57
2	Ca 317.933Radial†	1294.8	748.8	45.965	µg/L	45.965	ppb	16:19:57
2	Fe 238.204 Radial†	638.1	504.8	34.069	µg/L	34.069	ppb	16:19:57
2	K 766.490 Radial†	1579.9	26.5	10.196	µg/L	10.196	ppb	16:19:37
2	Mg 279.077 IEC†	188.8	24.2	10.004	µg/L	10.004	ppb	16:19:57
2	Na 589.592 Radial†	2251.2	1000.7	147.18	µg/L	147.18	ppb	16:19:37
2	Sr 421.552†	-159.2	50.2	0.1111	µg/L	0.1111	ppb	16:19:37
2	Sc 361.383	1762605.3	1762605.3	100.33	%			16:20:47
2	Y 371.029	1046824.2	1046824.2	99.947	%			16:20:47
2	Ag 328.068†	3921.9	94.4	0.3644	µg/L	0.3644	ppb	16:20:49
2	As 188.979†	-16.7	5.0	1.6284	µg/L	1.6284	ppb	16:21:09
2	B 249.677†	3530.2	59.4	0.9149	µg/L	0.9149	ppb	16:20:49
2	Ba 233.527†	-78.1	74.9	0.3176	µg/L	0.3176	ppb	16:21:09
2	Be 313.107†	-611.6	367.2	0.1030	µg/L	0.1030	ppb	16:20:49
2	Cd 226.502†	-115.8	-9.6	-0.0663	µg/L	-0.0663	ppb	16:21:09
2	Co 228.616†	-192.4	-2.3	-0.0306	µg/L	-0.0306	ppb	16:21:09
2	Cr 267.716†	281.5	104.0	0.8626	µg/L	0.8626	ppb	16:21:09
2	Cu 324.752†	2848.3	-19.9	-0.0799	µg/L	-0.0799	ppb	16:20:49
2	Mn 257.610†	944.1	730.5	0.9445	µg/L	0.9445	ppb	16:21:09
2	Mo 202.031†	-36.0	6.9	0.2146	µg/L	0.2146	ppb	16:21:09
2	Ni 231.604†	-40.6	39.8	0.4799	µg/L	0.4799	ppb	16:21:09
2	P 214.914†	44.5	43.9	9.8294	µg/L	9.8294	ppb	16:21:09
2	Pb 220.353†	72.7	4.8	0.2867	µg/L	0.2867	ppb	16:21:09

2	S 181.975 Axial†	110.4	4.9	3.8578	µg/L	3.8578 ppb	16:21:09
2	Sb 206.836†	70.7	-8.5	-1.0769	µg/L	-1.0769 ppb	16:21:09
2	Se 196.026†	5.1	-9.7	-3.70	µg/L	-3.70 ppb	16:21:09
2	SiO2†	2813.3	1053.3	110.05	µg/L	110.05 ppb	16:20:49
2	Si 251.611†	4149.8	3348.7	52.555	µg/L	52.555 ppb	16:20:49
2	Sn 189.927†	3.3	6.6	0.4351	µg/L	0.4351 ppb	16:21:09
2	Ti 334.940†	1357.3	416.1	0.4128	µg/L	0.4128 ppb	16:20:49
2	Tl 190.801†	-115.8	0.2	0.0336	µg/L	0.0336 ppb	16:21:09
2	U 409.014†	-354.5	-88.8	-5.3410	µg/L	-5.3410 ppb	16:20:49
2	V 292.402†	419.2	62.4	0.3162	µg/L	0.3162 ppb	16:20:49
2	Zn 213.857†	747.2	232.1	1.3590	µg/L	1.3590 ppb	16:21:09
3	Sc RADIAL	145210.9	145210.9	101	%		16:19:59
3	Al 396.153Radial†	73.6	141.9	28.269	µg/L	28.269 ppb	16:20:19
3	Ca 317.933Radial†	1328.5	768.6	47.182	µg/L	47.182 ppb	16:20:19
3	Fe 238.204 Radial†	629.6	489.7	33.046	µg/L	33.046 ppb	16:20:19
3	K 766.490 Radial†	1643.1	72.7	27.969	µg/L	27.969 ppb	16:19:59
3	Mg 279.077 IEC†	202.2	35.5	14.678	µg/L	14.678 ppb	16:20:19
3	Na 589.592 Radial†	2413.7	1138.4	167.42	µg/L	167.42 ppb	16:19:59
3	Sr 421.552†	-53.0	157.2	0.3489	µg/L	0.3489 ppb	16:19:59
3	Sc 361.383	1770145.3	1770145.3	100.76	%		16:21:11
3	Y 371.029	1050760.2	1050760.2	100.32	%		16:21:11
3	Ag 328.068†	3913.7	69.6	0.2626	µg/L	0.2626 ppb	16:21:13
3	As 188.979†	-16.6	5.3	1.7017	µg/L	1.7017 ppb	16:21:34
3	B 249.677†	3672.1	185.1	2.8531	µg/L	2.8531 ppb	16:21:13
3	Ba 233.527†	-85.9	67.5	0.2859	µg/L	0.2859 ppb	16:21:34
3	Be 313.107†	-970.4	13.7	0.0023	µg/L	0.0023 ppb	16:21:13
3	Cd 226.502†	-95.5	11.0	0.0691	µg/L	0.0691 ppb	16:21:34
3	Co 228.616†	-198.3	-7.3	-0.0953	µg/L	-0.0953 ppb	16:21:34
3	Cr 267.716†	272.2	93.6	0.7765	µg/L	0.7765 ppb	16:21:34
3	Cu 324.752†	2883.4	2.8	0.0123	µg/L	0.0123 ppb	16:21:13
3	Mn 257.610†	918.8	701.4	0.9066	µg/L	0.9066 ppb	16:21:34
3	Mo 202.031†	-38.1	5.0	0.1555	µg/L	0.1555 ppb	16:21:34
3	Ni 231.604†	-25.8	54.7	0.6602	µg/L	0.6602 ppb	16:21:34
3	P 214.914†	36.4	35.8	8.0001	µg/L	8.0001 ppb	16:21:34
3	Pb 220.353†	89.2	20.8	1.2263	µg/L	1.2263 ppb	16:21:34
3	S 181.975 Axial†	123.5	17.4	13.778	µg/L	13.778 ppb	16:21:34
3	Sb 206.836†	86.0	6.3	0.7807	µg/L	0.7807 ppb	16:21:34
3	Se 196.026†	9.4	-5.4	-2.07	µg/L	-2.07 ppb	16:21:34
3	SiO2†	2739.0	967.6	101.10	µg/L	101.10 ppb	16:21:13
3	Si 251.611†	4185.8	3366.9	52.844	µg/L	52.844 ppb	16:21:13
3	Sn 189.927†	-4.0	-0.8	-0.0500	µg/L	-0.0500 ppb	16:21:34
3	Ti 334.940†	1180.4	234.8	0.2335	µg/L	0.2335 ppb	16:21:13
3	Tl 190.801†	-122.8	-6.3	-0.8118	µg/L	-0.8118 ppb	16:21:34
3	U 409.014†	-352.8	-85.7	-5.1777	µg/L	-5.1777 ppb	16:21:13
3	V 292.402†	335.5	-22.4	-0.1166	µg/L	-0.1166 ppb	16:21:13
3	Zn 213.857†	751.0	232.7	1.3614	µg/L	1.3614 ppb	16:21:34

Mean Data: 249330010|965619|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1760749.4	100.22	%	0.595				0.59%
Sc RADIAL	144136.1	100.0	%	0.65				0.65%
Y 371.029	1045567.8	99.827	%	0.5654				0.57%
Ag 328.068†	120.0	0.4649	µg/L	0.26706	0.4649	ppb	0.26706	57.44%
Al 396.153Radial†	118.6	23.625	µg/L	4.0745	23.625	ppb	4.0745	17.25%
As 188.979†	7.7	2.4809	µg/L	1.41356	2.4809	ppb	1.41356	56.98%
B 249.677†	118.5	1.8273	µg/L	0.97407	1.8273	ppb	0.97407	53.31%
Ba 233.527†	88.6	0.3758	µg/L	0.12920	0.3758	ppb	0.12920	34.38%
Be 313.107†	135.5	0.0371	µg/L	0.05709	0.0371	ppb	0.05709	153.99%
Ca 317.933Radial†	759.5	46.622	µg/L	0.6139	46.622	ppb	0.6139	1.32%
Cd 226.502†	8.1	0.0497	µg/L	0.10756	0.0497	ppb	0.10756	216.48%
Co 228.616†	-15.1	-0.1960	µg/L	0.23279	-0.1960	ppb	0.23279	118.76%
Cr 267.716†	107.5	0.8912	µg/L	0.13140	0.8912	ppb	0.13140	14.74%
Cu 324.752†	18.3	0.0754	µg/L	0.19467	0.0754	ppb	0.19467	258.29%
Fe 238.204 Radial†	497.8	33.596	µg/L	0.5158	33.596	ppb	0.5158	1.54%
K 766.490 Radial†	87.6	33.743	µg/L	26.9023	33.743	ppb	26.9023	79.73%
Mg 279.077 IEC†	33.5	13.858	µg/L	3.5160	13.858	ppb	3.5160	25.37%
Mn 257.610†	721.9	0.9333	µg/L	0.02319	0.9333	ppb	0.02319	2.48%
Mo 202.031†	2.3	0.0720	µg/L	0.19803	0.0720	ppb	0.19803	275.13%
Na 589.592 Radial†	1101.5	161.98	µg/L	12.966	161.98	ppb	12.966	8.00%

Ni 231.604†	39.8	0.4798	µg/L	0.18040	0.4798	ppb	0.18040	37.60%
P 214.914†	38.0	8.5096	µg/L	1.15280	8.5096	ppb	1.15280	13.55%
Pb 220.353†	18.7	1.1024	µg/L	0.76140	1.1024	ppb	0.76140	69.07%
S 181.975 Axial†	12.7	10.057	µg/L	5.4042	10.057	ppb	5.4042	53.74%
Sb 206.836†	0.7	0.0750	µg/L	1.00599	0.0750	ppb	1.00599	>999.9%
Se 196.026†	-7.8	-2.98	µg/L	0.834	-2.98	ppb	0.834	28.00%
SiO2†	1030.1	107.63	µg/L	5.721	107.63	ppb	5.721	5.32%
Si 251.611†	3367.4	52.851	µg/L	0.3002	52.851	ppb	0.3002	0.57%
Sn 189.927†	3.9	0.2594	µg/L	0.26870	0.2594	ppb	0.26870	103.60%
Sr 421.552†	78.8	0.1746	µg/L	0.15274	0.1746	ppb	0.15274	87.47%
Ti 334.940†	367.3	0.3641	µg/L	0.11438	0.3641	ppb	0.11438	31.41%
Tl 190.801†	-12.5	-1.6065	µg/L	2.15054	-1.6065	ppb	2.15054	133.87%
U 409.014†	-82.9	-4.9839	µg/L	0.48408	-4.9839	ppb	0.48408	9.71%
V 292.402†	62.3	0.3148	µg/L	0.43074	0.3148	ppb	0.43074	136.81%
Zn 213.857†	234.5	1.3732	µg/L	0.02258	1.3732	ppb	0.02258	1.64%

Sequence No.: 65
Sample ID: 249330011|965619|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 251
Date Collected: 4/1/2010 16:21:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330011|965619|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141538.9	141538.9	98.2	%			16:22:11
1	Al 396.153Radial†	11.5	80.6	16.052	µg/L	16.052	ppb	16:22:31
1	Ca 317.933Radial†	965.9	433.6	26.615	µg/L	26.615	ppb	16:22:31
1	Fe 238.204 Radial†	471.0	344.4	23.242	µg/L	23.242	ppb	16:22:31
1	K 766.490 Radial†	1690.9	163.6	63.063	µg/L	63.063	ppb	16:22:11
1	Mg 279.077 IEC†	199.7	38.2	15.807	µg/L	15.807	ppb	16:22:31
1	Na 589.592 Radial†	1773.2	548.3	80.590	µg/L	80.590	ppb	16:22:11
1	Sr 421.552†	-170.0	36.7	0.0813	µg/L	0.0813	ppb	16:22:11
1	Sc 361.383	1763212.2	1763212.2	100.36	%			16:23:33
1	Y 371.029	1048082.3	1048082.3	100.07	%			16:23:33
1	Ag 328.068†	3502.6	-324.8	-1.2622	µg/L	-1.2622	ppb	16:23:36
1	As 188.979†	-21.6	0.2	0.0737	µg/L	0.0737	ppb	16:23:56
1	B 249.677†	3493.0	21.1	0.3266	µg/L	0.3266	ppb	16:23:56
1	Ba 233.527†	-90.5	62.6	0.2655	µg/L	0.2655	ppb	16:23:56
1	Be 313.107†	-1045.3	-64.7	-0.0177	µg/L	-0.0177	ppb	16:23:36
1	Cd 226.502†	-95.2	11.0	0.0698	µg/L	0.0698	ppb	16:23:56
1	Co 228.616†	-222.7	-32.4	-0.4187	µg/L	-0.4187	ppb	16:23:56
1	Cr 267.716†	227.6	50.2	0.4129	µg/L	0.4129	ppb	16:23:56
1	Cu 324.752†	2874.8	5.6	0.0281	µg/L	0.0281	ppb	16:23:36
1	Mn 257.610†	725.3	512.1	0.6618	µg/L	0.6618	ppb	16:23:56
1	Mo 202.031†	-36.8	6.1	0.1900	µg/L	0.1900	ppb	16:23:56
1	Ni 231.604†	-51.7	28.8	0.3476	µg/L	0.3476	ppb	16:23:56
1	P 214.914†	13.1	12.6	2.8165	µg/L	2.8165	ppb	16:23:56
1	Pb 220.353†	83.0	15.0	0.8790	µg/L	0.8790	ppb	16:23:56
1	S 181.975 Axial†	114.8	9.2	7.3095	µg/L	7.3095	ppb	16:23:56
1	Sb 206.836†	96.0	16.7	2.0903	µg/L	2.0903	ppb	16:23:56
1	Se 196.026†	15.3	0.4	0.163	µg/L	0.163	ppb	16:23:56
1	SiO2†	2453.6	694.0	72.505	µg/L	72.505	ppb	16:23:36
1	Si 251.611†	3059.9	2261.3	35.490	µg/L	35.490	ppb	16:23:36
1	Sn 189.927†	-0.2	3.1	0.2049	µg/L	0.2049	ppb	16:23:56
1	Ti 334.940†	1119.9	179.1	0.1750	µg/L	0.1750	ppb	16:23:36
1	Tl 190.801†	-135.0	-18.9	-2.4358	µg/L	-2.4358	ppb	16:23:56
1	U 409.014†	-225.4	39.9	2.4308	µg/L	2.4308	ppb	16:23:36
1	V 292.402†	448.2	91.2	0.4673	µg/L	0.4673	ppb	16:23:36
1	Zn 213.857†	697.1	182.0	1.0661	µg/L	1.0661	ppb	16:23:56
2	Sc RADIAL	143968.5	143968.5	99.9	%			16:22:33
2	Al 396.153Radial†	11.8	80.7	16.055	µg/L	16.055	ppb	16:22:53
2	Ca 317.933Radial†	978.1	429.2	26.347	µg/L	26.347	ppb	16:22:53
2	Fe 238.204 Radial†	456.6	321.9	21.725	µg/L	21.725	ppb	16:22:53
2	K 766.490 Radial†	1608.4	52.0	20.016	µg/L	20.016	ppb	16:22:33
2	Mg 279.077 IEC†	174.2	9.3	3.8278	µg/L	3.8278	ppb	16:22:53
2	Na 589.592 Radial†	1749.8	494.3	72.692	µg/L	72.692	ppb	16:22:33
2	Sr 421.552†	-155.1	54.6	0.1211	µg/L	0.1211	ppb	16:22:33
2	Sc 361.383	1759485.8	1759485.8	100.15	%			16:23:58
2	Y 371.029	1045014.0	1045014.0	99.774	%			16:23:58
2	Ag 328.068†	3950.1	129.4	0.5269	µg/L	0.5269	ppb	16:24:00
2	As 188.979†	-14.8	6.9	2.2171	µg/L	2.2171	ppb	16:24:20
2	B 249.677†	3472.3	7.8	0.1202	µg/L	0.1202	ppb	16:24:20
2	Ba 233.527†	-61.3	91.6	0.3886	µg/L	0.3886	ppb	16:24:20
2	Be 313.107†	-838.8	139.3	0.0438	µg/L	0.0438	ppb	16:24:00
2	Cd 226.502†	-74.7	31.2	0.2028	µg/L	0.2028	ppb	16:24:20
2	Co 228.616†	-188.9	0.9	0.0113	µg/L	0.0113	ppb	16:24:20
2	Cr 267.716†	225.0	48.1	0.3866	µg/L	0.3866	ppb	16:24:20
2	Cu 324.752†	2943.5	80.2	0.3396	µg/L	0.3396	ppb	16:24:00
2	Mn 257.610†	684.8	473.2	0.6119	µg/L	0.6119	ppb	16:24:20
2	Mo 202.031†	-32.0	10.8	0.3379	µg/L	0.3379	ppb	16:24:20
2	Ni 231.604†	-61.6	18.7	0.2261	µg/L	0.2261	ppb	16:24:20
2	P 214.914†	30.4	30.0	6.7159	µg/L	6.7159	ppb	16:24:20
2	Pb 220.353†	88.2	20.4	1.1854	µg/L	1.1854	ppb	16:24:20

2	S 181.975 Axial†	119.2	13.8	10.932 µg/L	10.932 ppb	16:24:20
2	Sb 206.836†	99.6	20.5	2.5701 µg/L	2.5701 ppb	16:24:20
2	Se 196.026†	30.8	15.9	6.09 µg/L	6.09 ppb	16:24:20
2	SiO2†	2497.9	743.4	77.655 µg/L	77.655 ppb	16:24:00
2	Si 251.611†	3121.6	2329.4	36.552 µg/L	36.552 ppb	16:24:00
2	Sn 189.927†	9.5	12.7	0.8430 µg/L	0.8430 ppb	16:24:20
2	Ti 334.940†	1260.7	322.0	0.3123 µg/L	0.3123 ppb	16:24:00
2	Tl 190.801†	-112.0	3.8	0.5029 µg/L	0.5029 ppb	16:24:20
2	U 409.014†	-39.8	224.8	13.584 µg/L	13.584 ppb	16:24:00
2	V 292.402†	444.2	88.1	0.4606 µg/L	0.4606 ppb	16:24:00
2	Zn 213.857†	692.0	178.3	1.0452 µg/L	1.0452 ppb	16:24:20
3	Sc RADIAL	145601.0	145601.0	101 %		16:22:55
3	Al 396.153Radial†	-16.6	52.5	10.439 µg/L	10.439 ppb	16:23:15
3	Ca 317.933Radial†	978.2	418.3	25.677 µg/L	25.677 ppb	16:23:15
3	Fe 238.204 Radial†	468.5	328.6	22.174 µg/L	22.174 ppb	16:23:15
3	K 766.490 Radial†	1624.8	50.2	19.334 µg/L	19.334 ppb	16:22:55
3	Mg 279.077 IEC†	191.1	24.0	9.9383 µg/L	9.9383 ppb	16:23:15
3	Na 589.592 Radial†	1784.1	508.6	74.795 µg/L	74.795 ppb	16:22:55
3	Sr 421.552†	-101.7	109.1	0.2422 µg/L	0.2422 ppb	16:22:55
3	Sc 361.383	1783871.5	1783871.5	101.54 %		16:24:22
3	Y 371.029	1059377.4	1059377.4	101.15 %		16:24:22
3	Ag 328.068†	3735.8	-135.5	-0.5216 µg/L	-0.5216 ppb	16:24:24
3	As 188.979†	-21.1	0.9	0.3105 µg/L	0.3105 ppb	16:24:44
3	B 249.677†	3468.4	-43.5	-0.6702 µg/L	-0.6702 ppb	16:24:44
3	Ba 233.527†	-92.4	61.8	0.2620 µg/L	0.2620 ppb	16:24:44
3	Be 313.107†	-682.8	304.4	0.0887 µg/L	0.0887 ppb	16:24:24
3	Cd 226.502†	-94.8	12.5	0.0797 µg/L	0.0797 ppb	16:24:44
3	Co 228.616†	-180.9	11.4	0.1464 µg/L	0.1464 ppb	16:24:44
3	Cr 267.716†	229.7	49.6	0.4045 µg/L	0.4045 ppb	16:24:44
3	Cu 324.752†	2748.0	-152.6	-0.6095 µg/L	-0.6095 ppb	16:24:24
3	Mn 257.610†	720.0	498.5	0.6444 µg/L	0.6444 ppb	16:24:44
3	Mo 202.031†	-31.5	11.7	0.3653 µg/L	0.3653 ppb	16:24:44
3	Ni 231.604†	-47.8	33.2	0.4001 µg/L	0.4001 ppb	16:24:44
3	P 214.914†	21.1	20.4	4.5715 µg/L	4.5715 ppb	16:24:44
3	Pb 220.353†	85.4	16.5	0.9626 µg/L	0.9626 ppb	16:24:44
3	S 181.975 Axial†	121.9	14.9	11.792 µg/L	11.792 ppb	16:24:44
3	Sb 206.836†	63.8	-16.2	-2.0380 µg/L	-2.0380 ppb	16:24:44
3	Se 196.026†	19.5	4.4	1.70 µg/L	1.70 ppb	16:24:44
3	SiO2†	2373.0	586.3	61.243 µg/L	61.243 ppb	16:24:24
3	Si 251.611†	3149.6	2314.4	36.317 µg/L	36.317 ppb	16:24:24
3	Sn 189.927†	4.5	7.7	0.5084 µg/L	0.5084 ppb	16:24:44
3	Ti 334.940†	1037.2	84.7	0.0805 µg/L	0.0805 ppb	16:24:24
3	Tl 190.801†	-126.5	-9.0	-1.1611 µg/L	-1.1611 ppb	16:24:44
3	U 409.014†	-155.4	111.4	6.7244 µg/L	6.7244 ppb	16:24:24
3	V 292.402†	374.6	13.5	0.0765 µg/L	0.0765 ppb	16:24:24
3	Zn 213.857†	716.4	192.9	1.1305 µg/L	1.1305 ppb	16:24:44

Mean Data: 249330011|965619|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1768856.5	100.68	%	0.748				0.74%
Sc RADIAL	143702.8	99.7	%	1.42				1.42%
Y 371.029	1050824.6	100.33	%	0.722				0.72%
Ag 328.068†	-110.3	-0.4190	µg/L	0.89893	-0.4190	ppb	0.89893	214.55%
Al 396.153Radial†	71.3	14.182	µg/L	3.2414	14.182	ppb	3.2414	22.86%
As 188.979†	2.7	0.8671	µg/L	1.17513	0.8671	ppb	1.17513	135.52%
B 249.677†	-4.9	-0.0745	µg/L	0.52612	-0.0745	ppb	0.52612	706.66%
Ba 233.527†	72.0	0.3054	µg/L	0.07211	0.3054	ppb	0.07211	23.61%
Be 313.107†	126.3	0.0383	µg/L	0.05342	0.0383	ppb	0.05342	139.63%
Ca 317.933Radial†	427.0	26.213	µg/L	0.4833	26.213	ppb	0.4833	1.84%
Cd 226.502†	18.2	0.1174	µg/L	0.07408	0.1174	ppb	0.07408	63.10%
Co 228.616†	-6.7	-0.0870	µg/L	0.29508	-0.0870	ppb	0.29508	339.12%
Cr 267.716†	49.3	0.4013	µg/L	0.01343	0.4013	ppb	0.01343	3.35%
Cu 324.752†	-22.3	-0.0806	µg/L	0.48376	-0.0806	ppb	0.48376	600.20%
Fe 238.204 Radial†	331.6	22.380	µg/L	0.7793	22.380	ppb	0.7793	3.48%
K 766.490 Radial†	88.6	34.138	µg/L	25.0524	34.138	ppb	25.0524	73.39%
Mg 279.077 IEC†	23.8	9.8578	µg/L	5.99022	9.8578	ppb	5.99022	60.77%
Mn 257.610†	494.6	0.6394	µg/L	0.02532	0.6394	ppb	0.02532	3.96%
Mo 202.031†	9.5	0.2977	µg/L	0.09433	0.2977	ppb	0.09433	31.68%
Na 589.592 Radial†	517.1	76.026	µg/L	4.0900	76.026	ppb	4.0900	5.38%

Ni 231.604†	26.9	0.3246	µg/L	0.08924	0.3246	ppb	0.08924 27.49%
P 214.914†	21.0	4.7013	µg/L	1.95297	4.7013	ppb	1.95297 41.54%
Pb 220.353†	17.3	1.0090	µg/L	0.15840	1.0090	ppb	0.15840 15.70%
S 181.975 Axial†	12.6	10.011	µg/L	2.3787	10.011	ppb	2.3787 23.76%
Sb 206.836†	7.0	0.8741	µg/L	2.53337	0.8741	ppb	2.53337 289.82%
Se 196.026†	6.9	2.65	µg/L	3.075	2.65	ppb	3.075 116.07%
SiO2†	674.6	70.468	µg/L	8.3934	70.468	ppb	8.3934 11.91%
Si 251.611†	2301.7	36.120	µg/L	0.5581	36.120	ppb	0.5581 1.55%
Sn 189.927†	7.8	0.5188	µg/L	0.31920	0.5188	ppb	0.31920 61.53%
Sr 421.552†	66.8	0.1482	µg/L	0.08381	0.1482	ppb	0.08381 56.55%
Ti 334.940†	195.3	0.1893	µg/L	0.11657	0.1893	ppb	0.11657 61.59%
Tl 190.801†	-8.0	-1.0314	µg/L	1.47365	-1.0314	ppb	1.47365 142.89%
U 409.014†	125.3	7.5796	µg/L	5.62540	7.5796	ppb	5.62540 74.22%
V 292.402†	64.3	0.3348	µg/L	0.22372	0.3348	ppb	0.22372 66.82%
Zn 213.857†	184.4	1.0806	µg/L	0.04443	1.0806	ppb	0.04443 4.11%

Sequence No.: 66
Sample ID: 249330012|965619|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 252
Date Collected: 4/1/2010 16:24:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330012|965619|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144398.9	144398.9	100	%			16:25:22
1	Al 396.153Radial†	-28.3	40.6	8.0684	µg/L	8.0684	ppb	16:25:42
1	Ca 317.933Radial†	785.5	234.1	14.367	µg/L	14.367	ppb	16:25:42
1	Fe 238.204 Radial†	257.7	121.9	8.2269	µg/L	8.2269	ppb	16:25:42
1	K 766.490 Radial†	1542.5	-18.6	-7.1926	µg/L	-7.1926	ppb	16:25:22
1	Mg 279.077 IEC†	177.2	11.7	4.8494	µg/L	4.8494	ppb	16:25:42
1	Na 589.592 Radial†	1452.7	192.6	28.328	µg/L	28.328	ppb	16:25:22
1	Sr 421.552†	-3.8	206.0	0.4576	µg/L	0.4576	ppb	16:25:22
1	Sc 361.383	1763477.5	1763477.5	100.38	%			16:26:44
1	Y 371.029	1048210.8	1048210.8	100.08	%			16:26:44
1	Ag 328.068†	4093.5	263.3	1.0339	µg/L	1.0339	ppb	16:26:46
1	As 188.979†	-21.7	0.0	0.0132	µg/L	0.0132	ppb	16:27:06
1	B 249.677†	3400.9	-71.3	-1.0985	µg/L	-1.0985	ppb	16:26:46
1	Ba 233.527†	-150.2	3.2	0.0133	µg/L	0.0133	ppb	16:27:06
1	Be 313.107†	-928.7	51.6	0.0167	µg/L	0.0167	ppb	16:26:46
1	Cd 226.502†	-104.9	1.4	0.0081	µg/L	0.0081	ppb	16:27:06
1	Co 228.616†	-180.7	9.5	0.1218	µg/L	0.1218	ppb	16:27:06
1	Cr 267.716†	205.8	28.5	0.2293	µg/L	0.2293	ppb	16:27:06
1	Cu 324.752†	2733.2	-136.0	-0.5446	µg/L	-0.5446	ppb	16:26:46
1	Mn 257.610†	348.0	136.1	0.1759	µg/L	0.1759	ppb	16:27:06
1	Mo 202.031†	-30.5	12.3	0.3830	µg/L	0.3830	ppb	16:27:06
1	Ni 231.604†	-65.0	15.5	0.1873	µg/L	0.1873	ppb	16:27:06
1	P 214.914†	7.1	6.6	1.4836	µg/L	1.4836	ppb	16:27:06
1	Pb 220.353†	104.0	36.0	2.1054	µg/L	2.1054	ppb	16:27:06
1	S 181.975 Axial†	101.7	-3.9	-3.0491	µg/L	-3.0491	ppb	16:27:06
1	Sb 206.836†	76.4	-2.9	-0.3575	µg/L	-0.3575	ppb	16:27:06
1	Se 196.026†	27.9	13.0	4.96	µg/L	4.96	ppb	16:27:06
1	SiO2†	1922.5	164.5	17.173	µg/L	17.173	ppb	16:27:06
1	Si 251.611†	1498.3	705.2	11.063	µg/L	11.063	ppb	16:26:46
1	Sn 189.927†	-3.1	0.2	0.0097	µg/L	0.0097	ppb	16:27:06
1	Ti 334.940†	835.1	-104.8	-0.1062	µg/L	-0.1062	ppb	16:26:46
1	Tl 190.801†	-126.7	-10.6	-1.3769	µg/L	-1.3769	ppb	16:27:06
1	U 409.014†	-153.9	111.1	6.6871	µg/L	6.6871	ppb	16:26:46
1	V 292.402†	303.9	-52.7	-0.2596	µg/L	-0.2596	ppb	16:26:46
1	Zn 213.857†	2371.6	1850.0	10.886	µg/L	10.886	ppb	16:27:06
2	Sc RADIAL	143983.1	143983.1	99.9	%			16:25:44
2	Al 396.153Radial†	-42.4	26.4	5.2710	µg/L	5.2710	ppb	16:26:04
2	Ca 317.933Radial†	809.3	260.1	15.967	µg/L	15.967	ppb	16:26:04
2	Fe 238.204 Radial†	246.8	111.8	7.5420	µg/L	7.5420	ppb	16:26:04
2	K 766.490 Radial†	1675.1	118.6	45.694	µg/L	45.694	ppb	16:25:44
2	Mg 279.077 IEC†	202.0	37.1	15.339	µg/L	15.339	ppb	16:26:04
2	Na 589.592 Radial†	1429.8	173.8	25.521	µg/L	25.521	ppb	16:25:44
2	Sr 421.552†	-229.7	-20.1	-0.0447	µg/L	-0.0447	ppb	16:25:44
2	Sc 361.383	1759072.6	1759072.6	100.13	%			16:27:09
2	Y 371.029	1045303.0	1045303.0	99.802	%			16:27:09
2	Ag 328.068†	3789.7	-29.9	-0.1034	µg/L	-0.1034	ppb	16:27:11
2	As 188.979†	-22.0	-0.3	-0.0923	µg/L	-0.0923	ppb	16:27:31
2	B 249.677†	3424.7	-38.9	-0.6001	µg/L	-0.6001	ppb	16:27:11
2	Ba 233.527†	-121.6	31.4	0.1328	µg/L	0.1328	ppb	16:27:31
2	Be 313.107†	-1163.1	-184.8	-0.0486	µg/L	-0.0486	ppb	16:27:11
2	Cd 226.502†	-84.1	21.8	0.1423	µg/L	0.1423	ppb	16:27:31
2	Co 228.616†	-187.1	2.7	0.0344	µg/L	0.0344	ppb	16:27:31
2	Cr 267.716†	189.1	12.3	0.0911	µg/L	0.0911	ppb	16:27:31
2	Cu 324.752†	2834.0	-28.5	-0.1030	µg/L	-0.1030	ppb	16:27:11
2	Mn 257.610†	375.0	163.9	0.2114	µg/L	0.2114	ppb	16:27:31
2	Mo 202.031†	-45.3	-2.5	-0.0759	µg/L	-0.0759	ppb	16:27:31
2	Ni 231.604†	-87.6	-7.2	-0.0869	µg/L	-0.0869	ppb	16:27:31
2	P 214.914†	33.4	32.9	7.3823	µg/L	7.3823	ppb	16:27:31
2	Pb 220.353†	96.2	28.4	1.6529	µg/L	1.6529	ppb	16:27:31

2	S 181.975 Axial†	107.8	2.5	2.0059 µg/L	2.0059 ppb	16:27:31
2	Sb 206.836†	79.4	0.2	0.0268 µg/L	0.0268 ppb	16:27:31
2	Se 196.026†	14.2	-0.7	-0.237 µg/L	-0.237 ppb	16:27:31
2	SiO2†	2005.9	252.5	26.390 µg/L	26.390 ppb	16:27:31
2	Si 251.611†	1555.7	766.3	12.028 µg/L	12.028 ppb	16:27:11
2	Sn 189.927†	-2.6	0.6	0.0417 µg/L	0.0417 ppb	16:27:31
2	Ti 334.940†	912.4	-25.5	-0.0315 µg/L	-0.0315 ppb	16:27:11
2	Tl 190.801†	-117.5	-1.7	-0.2205 µg/L	-0.2205 ppb	16:27:31
2	U 409.014†	-41.5	223.1	13.444 µg/L	13.444 ppb	16:27:11
2	V 292.402†	310.1	-45.7	-0.2251 µg/L	-0.2251 ppb	16:27:11
2	Zn 213.857†	2387.9	1872.2	11.018 µg/L	11.018 ppb	16:27:31
3	Sc RADIAL	145315.8	145315.8	101 %		16:26:06
3	Al 396.153Radial†	-28.1	41.0	8.1588 µg/L	8.1588 ppb	16:26:26
3	Ca 317.933Radial†	828.5	271.8	16.681 µg/L	16.681 ppb	16:26:26
3	Fe 238.204 Radial†	264.7	127.3	8.5922 µg/L	8.5922 ppb	16:26:26
3	K 766.490 Radial†	1672.2	100.4	38.684 µg/L	38.684 ppb	16:26:06
3	Mg 279.077 IEC†	183.7	17.0	7.0525 µg/L	7.0525 ppb	16:26:26
3	Na 589.592 Radial†	1390.7	121.9	17.893 µg/L	17.893 ppb	16:26:06
3	Sr 421.552†	-284.5	-72.3	-0.1608 µg/L	-0.1608 ppb	16:26:06
3	Sc 361.383	1745408.2	1745408.2	99.348 %		16:27:33
3	Y 371.029	1037630.2	1037630.2	99.069 %		16:27:33
3	Ag 328.068†	3723.7	-66.7	-0.2722 µg/L	-0.2722 ppb	16:27:35
3	As 188.979†	-17.8	3.8	1.2258 µg/L	1.2258 ppb	16:27:55
3	B 249.677†	3463.8	27.2	0.4189 µg/L	0.4189 ppb	16:27:35
3	Ba 233.527†	-117.1	34.9	0.1482 µg/L	0.1482 ppb	16:27:55
3	Be 313.107†	-623.9	348.9	0.0967 µg/L	0.0967 ppb	16:27:35
3	Cd 226.502†	-101.6	3.6	0.0226 µg/L	0.0226 ppb	16:27:55
3	Co 228.616†	-191.3	-3.1	-0.0399 µg/L	-0.0399 ppb	16:27:55
3	Cr 267.716†	185.3	10.0	0.0893 µg/L	0.0893 ppb	16:27:55
3	Cu 324.752†	2807.4	-33.1	-0.1401 µg/L	-0.1401 ppb	16:27:35
3	Mn 257.610†	410.3	202.4	0.2615 µg/L	0.2615 ppb	16:27:55
3	Mo 202.031†	-34.9	7.6	0.2375 µg/L	0.2375 ppb	16:27:55
3	Ni 231.604†	-47.2	32.8	0.3956 µg/L	0.3956 ppb	16:27:55
3	P 214.914†	43.7	43.5	9.7618 µg/L	9.7618 ppb	16:27:55
3	Pb 220.353†	62.0	-5.2	-0.2960 µg/L	-0.2960 ppb	16:27:55
3	S 181.975 Axial†	97.4	-7.1	-5.6108 µg/L	-5.6108 ppb	16:27:55
3	Sb 206.836†	73.4	-5.2	-0.6441 µg/L	-0.6441 ppb	16:27:55
3	Se 196.026†	12.4	-2.3	-0.894 µg/L	-0.894 ppb	16:27:55
3	SiO2†	1970.4	232.6	24.288 µg/L	24.288 ppb	16:27:55
3	Si 251.611†	1658.3	881.7	13.832 µg/L	13.832 ppb	16:27:35
3	Sn 189.927†	3.3	6.6	0.4358 µg/L	0.4358 ppb	16:27:55
3	Ti 334.940†	927.9	-2.8	0.0006 µg/L	0.0006 ppb	16:27:35
3	Tl 190.801†	-113.4	1.5	0.1966 µg/L	0.1966 ppb	16:27:55
3	U 409.014†	-407.7	-145.9	-8.7995 µg/L	-8.7995 ppb	16:27:35
3	V 292.402†	349.8	-3.3	-0.0211 µg/L	-0.0211 ppb	16:27:35
3	Zn 213.857†	2392.4	1895.5	11.151 µg/L	11.151 ppb	16:27:55

Mean Data: 249330012|965619|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1755986.1	99.950	%	0.5363				0.54%
Sc RADIAL	144566.0	100	%	0.5				0.47%
Y 371.029	1043714.7	99.650	%	0.5219				0.52%
Ag 328.068†	55.6	0.2194	µg/L	0.71037	0.2194	ppb	0.71037	323.78%
Al 396.153Radial†	36.0	7.1661	µg/L	1.64182	7.1661	ppb	1.64182	22.91%
As 188.979†	1.2	0.3822	µg/L	0.73245	0.3822	ppb	0.73245	191.62%
B 249.677†	-27.7	-0.4266	µg/L	0.77347	-0.4266	ppb	0.77347	181.32%
Ba 233.527†	23.2	0.0981	µg/L	0.07380	0.0981	ppb	0.07380	75.23%
Be 313.107†	71.9	0.0216	µg/L	0.07275	0.0216	ppb	0.07275	336.54%
Ca 317.933Radial†	255.3	15.672	µg/L	1.1850	15.672	ppb	1.1850	7.56%
Cd 226.502†	8.9	0.0577	µg/L	0.07363	0.0577	ppb	0.07363	127.67%
Co 228.616†	3.0	0.0388	µg/L	0.08092	0.0388	ppb	0.08092	208.71%
Cr 267.716†	16.9	0.1366	µg/L	0.08034	0.1366	ppb	0.08034	58.83%
Cu 324.752†	-65.9	-0.2626	µg/L	0.24493	-0.2626	ppb	0.24493	93.28%
Fe 238.204 Radial†	120.3	8.1204	µg/L	0.53317	8.1204	ppb	0.53317	6.57%
K 766.490 Radial†	66.8	25.729	µg/L	28.7252	25.729	ppb	28.7252	111.65%
Mg 279.077 IEC†	21.9	9.0802	µg/L	5.53082	9.0802	ppb	5.53082	60.91%
Mn 257.610†	167.5	0.2163	µg/L	0.04301	0.2163	ppb	0.04301	19.89%
Mo 202.031†	5.8	0.1815	µg/L	0.23449	0.1815	ppb	0.23449	129.16%
Na 589.592 Radial†	162.7	23.914	µg/L	5.3999	23.914	ppb	5.3999	22.58%

Ni 231.604†	13.7	0.1654	µg/L	0.24200	0.1654	ppb	0.24200 146.35%
P 214.914†	27.7	6.2092	µg/L	4.26195	6.2092	ppb	4.26195 68.64%
Pb 220.353†	19.7	1.1541	µg/L	1.27600	1.1541	ppb	1.27600 110.56%
S 181.975 Axial†	-2.8	-2.2180	µg/L	3.87575	-2.2180	ppb	3.87575 174.74%
Sb 206.836†	-2.6	-0.3249	µg/L	0.33667	-0.3249	ppb	0.33667 103.62%
Se 196.026†	3.3	1.28	µg/L	3.207	1.28	ppb	3.207 251.29%
SiO2†	216.5	22.617	µg/L	4.8300	22.617	ppb	4.8300 21.36%
Si 251.611†	784.4	12.308	µg/L	1.4055	12.308	ppb	1.4055 11.42%
Sn 189.927†	2.5	0.1624	µg/L	0.23729	0.1624	ppb	0.23729 146.11%
Sr 421.552†	37.9	0.0840	µg/L	0.32867	0.0840	ppb	0.32867 391.29%
Ti 334.940†	-44.4	-0.0457	µg/L	0.05482	-0.0457	ppb	0.05482 119.97%
Tl 190.801†	-3.6	-0.4669	µg/L	0.81518	-0.4669	ppb	0.81518 174.59%
U 409.014†	62.8	3.7771	µg/L	11.40360	3.7771	ppb	11.40360 301.91%
V 292.402†	-33.9	-0.1686	µg/L	0.12892	-0.1686	ppb	0.12892 76.47%
Zn 213.857†	1872.6	11.018	µg/L	0.1328	11.018	ppb	0.1328 1.21%

Sequence No.: 68
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/1/2010 16:30:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	143807.0	143807.0	99.8	%			16:30:41
1	Al 396.153Radial†	24982.7	25110.8	4979.5	µg/L	4979.5	ppb	16:30:41
1	Ca 317.933Radial†	83073.7	82720.5	5077.7	µg/L	5077.7	ppb	16:30:41
1	Fe 238.204 Radial†	74287.1	74327.8	5016.3	µg/L	5016.3	ppb	16:30:41
1	K 766.490 Radial†	14704.0	13180.4	5076.9	µg/L	5076.9	ppb	16:30:41
1	Mg 279.077 IEC†	12571.9	12436.5	5157.3	µg/L	5157.3	ppb	16:30:41
1	Na 589.592 Radial†	68941.2	67846.9	9974.7	µg/L	9974.7	ppb	16:30:41
1	Sr 421.552†	219317.3	220047.0	488.72	µg/L	488.72	ppb	16:30:39
1	Sc 361.383	1722593.0	1722593.0	98.049	%			16:30:54
1	Y 371.029	1016951.9	1016951.9	97.095	%			16:30:54
1	Ag 328.068†	127526.6	126248.9	499.66	µg/L	499.66	ppb	16:30:54
1	As 188.979†	1442.9	1493.3	486.40	µg/L	486.40	ppb	16:31:14
1	B 249.677†	34396.3	31621.2	485.51	µg/L	485.51	ppb	16:30:54
1	Ba 233.527†	113375.4	115783.7	491.65	µg/L	491.65	ppb	16:30:54
1	Be 313.107†	1680680.0	1715092.9	488.58	µg/L	488.58	ppb	16:30:54
1	Cd 226.502†	73529.7	75098.4	492.59	µg/L	492.59	ppb	16:30:54
1	Co 228.616†	37415.7	38349.6	495.63	µg/L	495.63	ppb	16:30:54
1	Cr 267.716†	58709.7	59701.1	491.97	µg/L	491.97	ppb	16:30:54
1	Cu 324.752†	121722.1	121284.7	493.37	µg/L	493.37	ppb	16:30:54
1	Mn 257.610†	375769.1	383034.2	495.27	µg/L	495.27	ppb	16:30:54
1	Mo 202.031†	15863.2	16221.6	504.59	µg/L	504.59	ppb	16:31:14
1	Ni 231.604†	39915.8	40790.2	492.32	µg/L	492.32	ppb	16:30:54
1	P 214.914†	10891.7	11108.0	2482.7	µg/L	2482.7	ppb	16:31:14
1	Pb 220.353†	8475.4	8576.4	503.94	µg/L	503.94	ppb	16:31:14
1	S 181.975 Axial†	1342.4	1263.9	1004.3	µg/L	1004.3	ppb	16:31:14
1	Sb 206.836†	4002.4	4003.0	504.00	µg/L	504.00	ppb	16:31:14
1	Se 196.026†	1280.6	1291.3	494	µg/L	494	ppb	16:31:14
1	SiO2†	51561.3	50836.3	5290.3	µg/L	5290.3	ppb	16:30:54
1	Si 251.611†	155996.4	158312.3	2474.8	µg/L	2474.8	ppb	16:30:54
1	Sn 189.927†	7430.1	7581.1	503.61	µg/L	503.61	ppb	16:31:14
1	Ti 334.940†	495602.0	504524.9	497.05	µg/L	497.05	ppb	16:30:54
1	Tl 190.801†	3675.6	3864.3	507.40	µg/L	507.40	ppb	16:31:14
1	U 409.014†	7449.4	7862.1	504.18	µg/L	504.18	ppb	16:30:54
1	V 292.402†	94604.2	96130.9	496.49	µg/L	496.49	ppb	16:30:54
1	Zn 213.857†	82628.9	83760.1	488.99	µg/L	488.99	ppb	16:30:54
2	Sc RADIAL	142252.5	142252.5	98.7	%			16:30:45
2	Al 396.153Radial†	24936.7	25337.8	5025.1	µg/L	5025.1	ppb	16:30:45
2	Ca 317.933Radial†	82331.6	82878.4	5087.4	µg/L	5087.4	ppb	16:30:45
2	Fe 238.204 Radial†	73564.6	74409.4	5021.8	µg/L	5021.8	ppb	16:30:45
2	K 766.490 Radial†	14341.8	12974.5	4997.5	µg/L	4997.5	ppb	16:30:45
2	Mg 279.077 IEC†	12366.7	12366.3	5128.0	µg/L	5128.0	ppb	16:30:45
2	Na 589.592 Radial†	68267.3	67919.3	9985.4	µg/L	9985.4	ppb	16:30:45
2	Sr 421.552†	219476.6	222610.7	494.41	µg/L	494.41	ppb	16:30:43
2	Sc 361.383	1739103.5	1739103.5	98.989	%			16:31:17
2	Y 371.029	1025202.2	1025202.2	97.882	%			16:31:17
2	Ag 328.068†	129052.8	126555.9	500.86	µg/L	500.86	ppb	16:31:17
2	As 188.979†	1422.8	1459.0	475.40	µg/L	475.40	ppb	16:31:37
2	B 249.677†	34985.0	31882.9	489.54	µg/L	489.54	ppb	16:31:17
2	Ba 233.527†	114878.4	116204.3	493.44	µg/L	493.44	ppb	16:31:17
2	Be 313.107†	1706716.1	1725121.6	491.42	µg/L	491.42	ppb	16:31:17
2	Cd 226.502†	74846.5	75716.7	496.65	µg/L	496.65	ppb	16:31:17
2	Co 228.616†	37998.6	38576.2	498.56	µg/L	498.56	ppb	16:31:17
2	Cr 267.716†	59610.8	60043.0	494.82	µg/L	494.82	ppb	16:31:17
2	Cu 324.752†	123003.8	121401.0	493.82	µg/L	493.82	ppb	16:31:17
2	Mn 257.610†	381336.2	385019.7	497.84	µg/L	497.84	ppb	16:31:17
2	Mo 202.031†	15779.1	15983.0	497.18	µg/L	497.18	ppb	16:31:37
2	Ni 231.604†	40698.4	41194.3	497.19	µg/L	497.19	ppb	16:31:17
2	P 214.914†	10832.0	10942.2	2445.6	µg/L	2445.6	ppb	16:31:37
2	Pb 220.353†	8427.3	8445.7	496.29	µg/L	496.29	ppb	16:31:37

2	S 181.975 Axial†	1341.4	1249.9	993.13 µg/L	993.13 ppb	16:31:37
2	Sb 206.836†	3970.7	3932.3	494.97 µg/L	494.97 ppb	16:31:37
2	Se 196.026†	1279.6	1277.8	489 µg/L	489 ppb	16:31:37
2	SiO2†	52255.8	51038.6	5311.7 µg/L	5311.7 ppb	16:31:17
2	Si 251.611†	158440.3	159270.8	2490.0 µg/L	2490.0 ppb	16:31:17
2	Sn 189.927†	7405.0	7483.8	497.17 µg/L	497.17 ppb	16:31:37
2	Ti 334.940†	501543.2	505728.1	498.25 µg/L	498.25 ppb	16:31:17
2	Tl 190.801†	3667.4	3820.5	501.77 µg/L	501.77 ppb	16:31:37
2	U 409.014†	6974.3	7310.0	471.14 µg/L	471.14 ppb	16:31:17
2	V 292.402†	96334.0	96962.3	500.64 µg/L	500.64 ppb	16:31:17
2	Zn 213.857†	84017.8	84363.1	492.50 µg/L	492.50 ppb	16:31:17
3	Sc RADIAL	142284.8	142284.8	98.7 %		16:30:49
3	Al 396.153Radial†	25111.0	25508.7	5059.0 µg/L	5059.0 ppb	16:30:49
3	Ca 317.933Radial†	82572.5	83103.6	5101.2 µg/L	5101.2 ppb	16:30:49
3	Fe 238.204 Radial†	73739.9	74570.1	5032.7 µg/L	5032.7 ppb	16:30:49
3	K 766.490 Radial†	14237.8	12865.8	4955.6 µg/L	4955.6 ppb	16:30:49
3	Mg 279.077 IEC†	12407.9	12405.1	5144.1 µg/L	5144.1 ppb	16:30:49
3	Na 589.592 Radial†	68501.7	68141.0	10018 µg/L	10018 ppb	16:30:49
3	Sr 421.552†	221674.6	224787.1	499.24 µg/L	499.24 ppb	16:30:47
3	Sc 361.383	1733319.3	1733319.3	98.660 %		16:31:40
3	Y 371.029	1022666.9	1022666.9	97.640 %		16:31:40
3	Ag 328.068†	128857.5	126793.0	501.80 µg/L	501.80 ppb	16:31:40
3	As 188.979†	1429.3	1470.4	479.07 µg/L	479.07 ppb	16:32:00
3	B 249.677†	35030.8	32047.2	492.07 µg/L	492.07 ppb	16:31:40
3	Ba 233.527†	114838.4	116551.0	494.91 µg/L	494.91 ppb	16:31:40
3	Be 313.107†	1705436.0	1729577.7	492.69 µg/L	492.69 ppb	16:31:40
3	Cd 226.502†	74762.7	75884.0	497.74 µg/L	497.74 ppb	16:31:40
3	Co 228.616†	37950.4	38655.4	499.58 µg/L	499.58 ppb	16:31:40
3	Cr 267.716†	59576.9	60209.6	496.18 µg/L	496.18 ppb	16:31:40
3	Cu 324.752†	122996.5	121808.2	495.48 µg/L	495.48 ppb	16:31:40
3	Mn 257.610†	381140.5	386107.0	499.25 µg/L	499.25 ppb	16:31:40
3	Mo 202.031†	15814.6	16072.1	499.95 µg/L	499.95 ppb	16:32:00
3	Ni 231.604†	40719.3	41352.6	499.10 µg/L	499.10 ppb	16:31:40
3	P 214.914†	10878.7	11026.0	2464.4 µg/L	2464.4 ppb	16:32:00
3	Pb 220.353†	8440.7	8487.8	498.75 µg/L	498.75 ppb	16:32:00
3	S 181.975 Axial†	1346.2	1259.3	1000.6 µg/L	1000.6 ppb	16:32:00
3	Sb 206.836†	3982.0	3957.1	498.11 µg/L	498.11 ppb	16:32:00
3	Se 196.026†	1295.0	1297.7	497 µg/L	497 ppb	16:32:00
3	SiO2†	52290.9	51250.4	5333.7 µg/L	5333.7 ppb	16:31:40
3	Si 251.611†	158595.0	159961.7	2500.8 µg/L	2500.8 ppb	16:31:40
3	Sn 189.927†	7415.4	7519.3	499.52 µg/L	499.52 ppb	16:32:00
3	Ti 334.940†	500931.5	506798.8	499.30 µg/L	499.30 ppb	16:31:40
3	Tl 190.801†	3638.4	3803.5	499.57 µg/L	499.57 ppb	16:32:00
3	U 409.014†	7172.3	7534.2	484.62 µg/L	484.62 ppb	16:31:40
3	V 292.402†	95877.8	96824.7	499.98 µg/L	499.98 ppb	16:31:40
3	Zn 213.857†	83940.8	84568.3	493.69 µg/L	493.69 ppb	16:31:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1731672.0	98.566	%	0.4769				0.48%
Sc RADIAL	142781.5	99.1	%	0.62				0.62%
Y 371.029	1021607.0	97.539	%	0.4035				0.41%
Ag 328.068†	126532.6	500.77	µg/L	1.075	500.77	ppb	1.075	0.21%
QC value within limits for Ag 328.068 Recovery = 100.15%								
Al 396.153Radial†	25319.1	5021.2	µg/L	39.89	5021.2	ppb	39.89	0.79%
QC value within limits for Al 396.153Radial Recovery = 100.42%								
As 188.979†	1474.3	480.29	µg/L	5.598	480.29	ppb	5.598	1.17%
QC value within limits for As 188.979 Recovery = 96.06%								
B 249.677†	31850.5	489.04	µg/L	3.303	489.04	ppb	3.303	0.68%
QC value within limits for B 249.677 Recovery = 97.81%								
Ba 233.527†	116179.7	493.34	µg/L	1.631	493.34	ppb	1.631	0.33%
QC value within limits for Ba 233.527 Recovery = 98.67%								
Be 313.107†	1723264.1	490.90	µg/L	2.109	490.90	ppb	2.109	0.43%
QC value within limits for Be 313.107 Recovery = 98.18%								
Ca 317.933Radial†	82900.9	5088.8	µg/L	11.82	5088.8	ppb	11.82	0.23%
QC value within limits for Ca 317.933Radial Recovery = 101.78%								
Cd 226.502†	75566.3	495.66	µg/L	2.717	495.66	ppb	2.717	0.55%
QC value within limits for Cd 226.502 Recovery = 99.13%								
Co 228.616†	38527.1	497.92	µg/L	2.052	497.92	ppb	2.052	0.41%

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   QC value within limits for Co 228.616  Recovery = 99.58%
Cr 267.716†            59984.6      494.32 µg/L         2.147      494.32 ppb          2.147   0.43%
   QC value within limits for Cr 267.716  Recovery = 98.86%
Cu 324.752†           121498.0      494.22 µg/L         1.113      494.22 ppb          1.113   0.23%
   QC value within limits for Cu 324.752  Recovery = 98.84%
Fe 238.204 Radial†     74435.8      5023.6 µg/L          8.32      5023.6 ppb           8.32   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.47%
K 766.490 Radial†      13006.9      5010.0 µg/L         61.61      5010.0 ppb          61.61   1.23%
   QC value within limits for K 766.490 Radial  Recovery = 100.20%
Mg 279.077 IEC†        12402.7      5143.1 µg/L         14.65      5143.1 ppb          14.65   0.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.86%
Mn 257.610†           384720.3      497.46 µg/L         2.016      497.46 ppb          2.016   0.41%
   QC value within limits for Mn 257.610  Recovery = 99.49%
Mo 202.031†            16092.2      500.58 µg/L         3.746      500.58 ppb          3.746   0.75%
   QC value within limits for Mo 202.031  Recovery = 100.12%
Na 589.592 Radial†     67969.1      9992.7 µg/L         22.59      9992.7 ppb          22.59   0.23%
   QC value within limits for Na 589.592 Radial  Recovery = 99.93%
Ni 231.604†            41112.4      496.21 µg/L         3.500      496.21 ppb          3.500   0.71%
   QC value within limits for Ni 231.604  Recovery = 99.24%
P 214.914†             11025.4      2464.2 µg/L         18.58      2464.2 ppb          18.58   0.75%
   QC value within limits for P 214.914  Recovery = 98.57%
Pb 220.353†             8503.3      499.66 µg/L         3.903      499.66 ppb          3.903   0.78%
   QC value within limits for Pb 220.353  Recovery = 99.93%
S 181.975 Axial†        1257.7      999.34 µg/L         5.694      999.34 ppb          5.694   0.57%
   QC value within limits for S 181.975 Axial  Recovery = 99.93%
Sb 206.836†             3964.1      499.03 µg/L         4.585      499.03 ppb          4.585   0.92%
   QC value within limits for Sb 206.836  Recovery = 99.81%
Se 196.026†             1289.0         493 µg/L           3.9         493 ppb            3.9   0.79%
   QC value within limits for Se 196.026  Recovery = 98.66%
SiO2†                  51041.8      5311.9 µg/L         21.73      5311.9 ppb          21.73   0.41%
   QC value within limits for SiO2  Recovery = 99.33%
Si 251.611†           159181.6      2488.5 µg/L         13.05      2488.5 ppb          13.05   0.52%
   QC value within limits for Si 251.611  Recovery = 99.54%
Sn 189.927†             7528.1      500.10 µg/L         3.257      500.10 ppb          3.257   0.65%
   QC value within limits for Sn 189.927  Recovery = 100.02%
Sr 421.552†           222481.6      494.12 µg/L         5.270      494.12 ppb          5.270   1.07%
   QC value within limits for Sr 421.552  Recovery = 98.82%
Ti 334.940†           505683.9      498.20 µg/L         1.127      498.20 ppb          1.127   0.23%
   QC value within limits for Ti 334.940  Recovery = 99.64%
Tl 190.801†             3829.4      502.91 µg/L         4.042      502.91 ppb          4.042   0.80%
   QC value within limits for Tl 190.801  Recovery = 100.58%
U 409.014†              7568.8      486.65 µg/L        16.617      486.65 ppb         16.617   3.41%
   QC value within limits for U 409.014  Recovery = 97.33%
V 292.402†             96639.3      499.03 µg/L         2.229      499.03 ppb          2.229   0.45%
   QC value within limits for V 292.402  Recovery = 99.81%
Zn 213.857†            84230.5      491.73 µg/L         2.448      491.73 ppb          2.448   0.50%
   QC value within limits for Zn 213.857  Recovery = 98.35%
All analyte(s) passed QC.
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Sequence No.: 69
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/1/2010 16:32:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	144345.5	144345.5	100	%			16:32:40
1	Al 396.153Radial†	-68.5	0.5	0.0662	µg/L	0.0662	ppb	16:33:00
1	Ca 317.933Radial†	598.3	47.4	2.9072	µg/L	2.9072	ppb	16:33:00
1	Fe 238.204 Radial†	132.8	-2.7	-0.1804	µg/L	-0.1804	ppb	16:33:00
1	K 766.490 Radial†	1718.1	157.3	60.648	µg/L	60.648	ppb	16:32:40
1	Mg 279.077 IEC†	160.7	-4.7	-1.9375	µg/L	-1.9375	ppb	16:33:00
1	Na 589.592 Radial†	1409.7	150.2	22.034	µg/L	22.034	ppb	16:32:40
1	Sr 421.552†	-234.8	-24.6	-0.0546	µg/L	-0.0546	ppb	16:32:40
1	Sc 361.383	1758517.9	1758517.9	100.09	%			16:33:48
1	Y 371.029	1048527.2	1048527.2	100.11	%			16:33:48
1	Ag 328.068†	3744.3	-74.0	-0.2682	µg/L	-0.2682	ppb	16:33:50
1	As 188.979†	-18.6	3.1	1.0051	µg/L	1.0051	ppb	16:34:10
1	B 249.677†	3456.4	-6.2	-0.0960	µg/L	-0.0960	ppb	16:33:50
1	Ba 233.527†	-122.9	30.0	0.1278	µg/L	0.1278	ppb	16:34:10
1	Be 313.107†	-783.4	194.2	0.0592	µg/L	0.0592	ppb	16:33:50
1	Cd 226.502†	-79.3	26.6	0.1746	µg/L	0.1746	ppb	16:34:10
1	Co 228.616†	-189.3	0.4	0.0056	µg/L	0.0056	ppb	16:34:10
1	Cr 267.716†	187.4	10.6	0.0776	µg/L	0.0776	ppb	16:34:10
1	Cu 324.752†	2737.4	-124.1	-0.4928	µg/L	-0.4928	ppb	16:33:50
1	Mn 257.610†	249.7	38.9	0.0504	µg/L	0.0504	ppb	16:34:10
1	Mo 202.031†	-17.0	25.8	0.8011	µg/L	0.8011	ppb	16:34:10
1	Ni 231.604†	-72.2	8.1	0.0980	µg/L	0.0980	ppb	16:34:10
1	P 214.914†	21.2	20.8	4.6662	µg/L	4.6662	ppb	16:34:10
1	Pb 220.353†	126.7	58.9	3.4446	µg/L	3.4446	ppb	16:34:10
1	S 181.975 Axial†	107.5	2.2	1.7444	µg/L	1.7444	ppb	16:34:10
1	Sb 206.836†	86.1	7.0	0.8878	µg/L	0.8878	ppb	16:34:10
1	Se 196.026†	23.5	8.7	3.33	µg/L	3.33	ppb	16:34:10
1	SiO2†	1739.3	-13.1	-1.3999	µg/L	-1.3999	ppb	16:34:10
1	Si 251.611†	864.7	76.3	1.1839	µg/L	1.1839	ppb	16:33:50
1	Sn 189.927†	5.2	8.4	0.5589	µg/L	0.5589	ppb	16:34:10
1	Ti 334.940†	849.7	-87.8	-0.0917	µg/L	-0.0917	ppb	16:33:50
1	Tl 190.801†	-134.1	-18.4	-2.3750	µg/L	-2.3750	ppb	16:34:10
1	U 409.014†	-50.1	214.4	12.959	µg/L	12.959	ppb	16:33:50
1	V 292.402†	441.3	85.5	0.4529	µg/L	0.4529	ppb	16:33:50
1	Zn 213.857†	533.7	20.5	0.1207	µg/L	0.1207	ppb	16:34:10
2	Sc RADIAL	143611.5	143611.5	99.6	%			16:33:02
2	Al 396.153Radial†	-86.2	-17.6	-3.5472	µg/L	-3.5472	ppb	16:33:22
2	Ca 317.933Radial†	611.2	63.4	3.8887	µg/L	3.8887	ppb	16:33:22
2	Fe 238.204 Radial†	155.4	20.7	1.3945	µg/L	1.3945	ppb	16:33:22
2	K 766.490 Radial†	1698.9	146.8	56.597	µg/L	56.597	ppb	16:33:02
2	Mg 279.077 IEC†	161.1	-3.5	-1.4230	µg/L	-1.4230	ppb	16:33:22
2	Na 589.592 Radial†	1423.5	171.2	25.135	µg/L	25.135	ppb	16:33:02
2	Sr 421.552†	-132.3	77.1	0.1712	µg/L	0.1712	ppb	16:33:02
2	Sc 361.383	1758096.2	1758096.2	100.07	%			16:34:12
2	Y 371.029	1048157.1	1048157.1	100.07	%			16:34:12
2	Ag 328.068†	3805.9	-11.6	-0.0390	µg/L	-0.0390	ppb	16:34:14
2	As 188.979†	-17.6	4.1	1.3151	µg/L	1.3151	ppb	16:34:34
2	B 249.677†	3522.5	60.6	0.9343	µg/L	0.9343	ppb	16:34:14
2	Ba 233.527†	-121.1	31.8	0.1354	µg/L	0.1354	ppb	16:34:34
2	Be 313.107†	-806.9	170.6	0.0481	µg/L	0.0481	ppb	16:34:14
2	Cd 226.502†	-93.7	12.2	0.0803	µg/L	0.0803	ppb	16:34:34
2	Co 228.616†	-194.4	-4.7	-0.0611	µg/L	-0.0611	ppb	16:34:34
2	Cr 267.716†	206.4	29.7	0.2460	µg/L	0.2460	ppb	16:34:34
2	Cu 324.752†	2719.9	-140.9	-0.5725	µg/L	-0.5725	ppb	16:34:14
2	Mn 257.610†	233.7	23.0	0.0297	µg/L	0.0297	ppb	16:34:34
2	Mo 202.031†	-18.1	24.6	0.7663	µg/L	0.7663	ppb	16:34:34
2	Ni 231.604†	-56.1	24.2	0.2916	µg/L	0.2916	ppb	16:34:34
2	P 214.914†	14.6	14.2	3.1838	µg/L	3.1838	ppb	16:34:34
2	Pb 220.353†	87.2	19.5	1.1441	µg/L	1.1441	ppb	16:34:34

2	S 181.975 Axial†	101.6	-3.7	-2.8898 µg/L	-2.8898 ppb	16:34:34
2	Sb 206.836†	83.3	4.3	0.5440 µg/L	0.5440 ppb	16:34:34
2	Se 196.026†	17.4	2.6	0.980 µg/L	0.980 ppb	16:34:34
2	SiO2†	1693.8	-58.2	-6.1144 µg/L	-6.1144 ppb	16:34:34
2	Si 251.611†	780.5	-7.6	-0.1327 µg/L	-0.1327 ppb	16:34:14
2	Sn 189.927†	5.0	8.2	0.5447 µg/L	0.5447 ppb	16:34:34
2	Ti 334.940†	1173.0	235.4	0.2330 µg/L	0.2330 ppb	16:34:14
2	Tl 190.801†	-123.5	-7.8	-1.0048 µg/L	-1.0048 ppb	16:34:34
2	U 409.014†	-290.4	-25.7	-1.5097 µg/L	-1.5097 ppb	16:34:14
2	V 292.402†	492.4	136.6	0.7037 µg/L	0.7037 ppb	16:34:14
2	Zn 213.857†	541.5	28.5	0.1660 µg/L	0.1660 ppb	16:34:34
3	Sc RADIAL	144542.9	144542.9	100 %		16:33:24
3	Al 396.153Radial†	-50.4	18.7	3.7104 µg/L	3.7104 ppb	16:33:44
3	Ca 317.933Radial†	590.2	38.5	2.3619 µg/L	2.3619 ppb	16:33:44
3	Fe 238.204 Radial†	157.1	21.4	1.4410 µg/L	1.4410 ppb	16:33:44
3	K 766.490 Radial†	1651.5	88.6	34.154 µg/L	34.154 ppb	16:33:24
3	Mg 279.077 IEC†	170.1	4.5	1.8507 µg/L	1.8507 ppb	16:33:44
3	Na 589.592 Radial†	1263.8	2.7	0.3728 µg/L	0.3728 ppb	16:33:24
3	Sr 421.552†	-255.6	-45.1	-0.1001 µg/L	-0.1001 ppb	16:33:24
3	Sc 361.383	1750749.6	1750749.6	99.652 %		16:34:36
3	Y 371.029	1043844.1	1043844.1	99.662 %		16:34:36
3	Ag 328.068†	3874.1	72.8	0.2854 µg/L	0.2854 ppb	16:34:38
3	As 188.979†	-28.0	-6.4	-2.0587 µg/L	-2.0587 ppb	16:34:58
3	B 249.677†	3563.2	116.3	1.7907 µg/L	1.7907 ppb	16:34:38
3	Ba 233.527†	-143.4	8.9	0.0377 µg/L	0.0377 ppb	16:34:58
3	Be 313.107†	-1216.7	-244.1	-0.0689 µg/L	-0.0689 ppb	16:34:38
3	Cd 226.502†	-113.0	-7.6	-0.0500 µg/L	-0.0500 ppb	16:34:58
3	Co 228.616†	-172.8	16.1	0.2085 µg/L	0.2085 ppb	16:34:58
3	Cr 267.716†	224.6	48.8	0.4008 µg/L	0.4008 ppb	16:34:58
3	Cu 324.752†	2714.4	-135.1	-0.5457 µg/L	-0.5457 ppb	16:34:38
3	Mn 257.610†	216.9	7.1	0.0091 µg/L	0.0091 ppb	16:34:58
3	Mo 202.031†	-36.1	6.5	0.2016 µg/L	0.2016 ppb	16:34:58
3	Ni 231.604†	-84.0	-4.0	-0.0487 µg/L	-0.0487 ppb	16:34:58
3	P 214.914†	18.3	17.9	4.0269 µg/L	4.0269 ppb	16:34:58
3	Pb 220.353†	91.2	23.9	1.3998 µg/L	1.3998 ppb	16:34:58
3	S 181.975 Axial†	108.4	3.6	2.8309 µg/L	2.8309 ppb	16:34:58
3	Sb 206.836†	77.4	-1.3	-0.1675 µg/L	-0.1675 ppb	16:34:58
3	Se 196.026†	5.9	-8.9	-3.39 µg/L	-3.39 ppb	16:34:58
3	SiO2†	1698.2	-46.6	-4.8877 µg/L	-4.8877 ppb	16:34:58
3	Si 251.611†	879.0	94.5	1.4771 µg/L	1.4771 ppb	16:34:38
3	Sn 189.927†	5.7	9.0	0.5944 µg/L	0.5944 ppb	16:34:58
3	Ti 334.940†	817.2	-116.7	-0.1163 µg/L	-0.1163 ppb	16:34:38
3	Tl 190.801†	-125.3	-10.1	-1.3107 µg/L	-1.3107 ppb	16:34:58
3	U 409.014†	-227.8	35.9	2.1577 µg/L	2.1577 ppb	16:34:38
3	V 292.402†	324.8	-29.5	-0.1450 µg/L	-0.1450 ppb	16:34:38
3	Zn 213.857†	535.0	24.2	0.1432 µg/L	0.1432 ppb	16:34:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1755787.9	99.939	%	0.2486				0.25%
Sc RADIAL	144166.6	100	%	0.3				0.34%
Y 371.029	1046842.8	99.949	%	0.2486				0.25%
Ag 328.068†	-4.3	-0.0073	µg/L	0.27814	-0.0073	ppb	0.27814	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.5	0.0765	µg/L	3.62879	0.0765	ppb	3.62879	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.3	0.0872	µg/L	1.86483	0.0872	ppb	1.86483	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	56.9	0.8763	µg/L	0.94471	0.8763	ppb	0.94471	107.80%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	23.5	0.1003	µg/L	0.05432	0.1003	ppb	0.05432	54.16%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	40.2	0.0128	µg/L	0.07095	0.0128	ppb	0.07095	553.25%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	49.7	3.0526	µg/L	0.77373	3.0526	ppb	0.77373	25.35%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.4	0.0683	µg/L	0.11279	0.0683	ppb	0.11279	165.10%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.9	0.0510	µg/L	0.14038	0.0510	ppb	0.14038	275.27%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              29.7      0.2415 µg/L       0.16165      0.2415 ppb        0.16165  66.94%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -133.4     -0.5370 µg/L       0.04053     -0.5370 ppb        0.04053   7.55%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       13.1      0.8850 µg/L       0.92297      0.8850 ppb        0.92297 104.29%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       130.9      50.466 µg/L       14.2715      50.466 ppb        14.2715  28.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.2     -0.5033 µg/L       2.05479     -0.5033 ppb        2.05479 408.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              23.0      0.0297 µg/L       0.02066      0.0297 ppb        0.02066  69.50%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              19.0      0.5896 µg/L       0.33651      0.5896 ppb        0.33651  57.07%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      108.0      15.847 µg/L       13.4908      15.847 ppb        13.4908  85.13%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               9.4      0.1136 µg/L       0.17070      0.1136 ppb        0.17070 150.23%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               17.6      3.9589 µg/L       0.74354      3.9589 ppb        0.74354  18.78%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              34.1      1.9962 µg/L       1.26090      1.9962 ppb        1.26090  63.17%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.7      0.5619 µg/L       3.03818      0.5619 ppb        3.03818 540.74%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.3      0.4214 µg/L       0.53823      0.4214 ppb        0.53823 127.71%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.8       0.307 µg/L        3.4090       0.307 ppb         3.4090 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -39.3     -4.1340 µg/L       2.44597     -4.1340 ppb        2.44597  59.17%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              54.4      0.8428 µg/L       0.85743      0.8428 ppb        0.85743 101.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.5      0.5660 µg/L       0.02558      0.5660 ppb        0.02558   4.52%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               2.5      0.0055 µg/L       0.14526      0.0055 ppb        0.14526 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              10.3      0.0083 µg/L       0.19494      0.0083 ppb        0.19494 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -12.1     -1.5635 µg/L       0.71922     -1.5635 ppb        0.71922  46.00%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               74.9      4.5356 µg/L       7.52163      4.5356 ppb        7.52163 165.84%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               64.2      0.3372 µg/L       0.43603      0.3372 ppb        0.43603 129.30%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              24.4      0.1433 µg/L       0.02266      0.1433 ppb        0.02266  15.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/5/2010 10:13:47 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 4/5/2010 10:13:47**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	141345.5	141345.5	101	%	10:14:20
1	Al 396.153Radial†	-71.7	-71.1	[0.00]	µg/L	10:14:40
1	Ca 317.933Radial†	562.0	557.0	[0.00]	µg/L	10:14:40
1	Fe 238.204 Radial†	133.2	132.1	[0.00]	µg/L	10:14:40
1	K 766.490 Radial†	1511.3	1497.9	[0.00]	µg/L	10:14:20
1	Mg 279.077 IEC†	180.5	178.9	[0.00]	µg/L	10:14:40
1	Na 589.592 Radial†	981.7	973.0	[0.00]	µg/L	10:14:20
1	Sr 421.552†	-166.0	-164.6	[0.00]	µg/L	10:14:20
1	Sc 361.383	1809917.0	1809917.0	100.32	%	10:15:28
1	Y 371.029	1061056.9	1061056.9	100.36	%	10:15:28
1	Ag 328.068†	4631.5	4616.7	[0.00]	µg/L	10:15:30
1	As 188.979†	-28.2	-28.1	[0.00]	µg/L	10:15:50
1	B 249.677†	4081.8	4068.8	[0.00]	µg/L	10:15:30
1	Ba 233.527†	-140.2	-139.8	[0.00]	µg/L	10:15:50
1	Be 313.107†	-1250.1	-1246.2	[0.00]	µg/L	10:15:30
1	Cd 226.502†	-99.6	-99.3	[0.00]	µg/L	10:15:50
1	Co 228.616†	-189.2	-188.6	[0.00]	µg/L	10:15:50
1	Cr 267.716†	232.1	231.3	[0.00]	µg/L	10:15:50
1	Cu 324.752†	3023.5	3013.9	[0.00]	µg/L	10:15:30
1	Mn 257.610†	175.2	174.7	[0.00]	µg/L	10:15:50
1	Mo 202.031†	-46.7	-46.6	[0.00]	µg/L	10:15:50
1	Ni 231.604†	-85.5	-85.2	[0.00]	µg/L	10:15:50
1	P 214.914†	-41.4	-41.3	[0.00]	µg/L	10:15:50
1	Pb 220.353†	103.1	102.8	[0.00]	µg/L	10:15:50
1	S 181.975 Axial†	82.1	81.8	[0.00]	µg/L	10:15:50
1	Sb 206.836†	104.3	104.0	[0.00]	µg/L	10:15:50
1	Se 196.026†	2.3	2.3	[0.00]	µg/L	10:15:50
1	SiO2†	1729.4	1723.9	[0.00]	µg/L	10:15:50
1	Si 251.611†	902.0	899.1	[0.00]	µg/L	10:15:30
1	Sn 189.927†	-6.6	-6.6	[0.00]	µg/L	10:15:50
1	Ti 334.940†	626.5	624.5	[0.00]	µg/L	10:15:30
1	Tl 190.801†	-120.7	-120.3	[0.00]	µg/L	10:15:50
1	U 409.014†	-208.2	-207.6	[0.00]	µg/L	10:15:30
1	V 292.402†	491.5	490.0	[0.00]	µg/L	10:15:30
1	Zn 213.857†	493.7	492.1	[0.00]	µg/L	10:15:50
2	Sc RADIAL	138787.4	138787.4	99.1	%	10:14:42
2	Al 396.153Radial†	-93.8	-94.7	[0.00]	µg/L	10:15:02
2	Ca 317.933Radial†	579.9	585.4	[0.00]	µg/L	10:15:02
2	Fe 238.204 Radial†	118.7	119.8	[0.00]	µg/L	10:15:02
2	K 766.490 Radial†	1516.0	1530.3	[0.00]	µg/L	10:14:42
2	Mg 279.077 IEC†	160.6	162.1	[0.00]	µg/L	10:15:02
2	Na 589.592 Radial†	883.5	891.9	[0.00]	µg/L	10:14:42
2	Sr 421.552†	-276.7	-279.3	[0.00]	µg/L	10:14:42
2	Sc 361.383	1802726.4	1802726.4	99.921	%	10:15:52
2	Y 371.029	1056514.6	1056514.6	99.926	%	10:15:52
2	Ag 328.068†	4445.4	4448.9	[0.00]	µg/L	10:15:54
2	As 188.979†	-17.6	-17.6	[0.00]	µg/L	10:16:14

2	B 249.677†	4098.2	4101.4	[0.00]	µg/L	10:15:54
2	Ba 233.527†	-137.4	-137.5	[0.00]	µg/L	10:16:14
2	Be 313.107†	-919.9	-920.6	[0.00]	µg/L	10:15:54
2	Cd 226.502†	-97.2	-97.3	[0.00]	µg/L	10:16:14
2	Co 228.616†	-212.6	-212.8	[0.00]	µg/L	10:16:14
2	Cr 267.716†	221.8	222.0	[0.00]	µg/L	10:16:14
2	Cu 324.752†	3087.1	3089.6	[0.00]	µg/L	10:15:54
2	Mn 257.610†	185.6	185.7	[0.00]	µg/L	10:16:14
2	Mo 202.031†	-31.7	-31.7	[0.00]	µg/L	10:16:14
2	Ni 231.604†	-105.8	-105.9	[0.00]	µg/L	10:16:14
2	P 214.914†	-25.3	-25.4	[0.00]	µg/L	10:16:14
2	Pb 220.353†	104.3	104.3	[0.00]	µg/L	10:16:14
2	S 181.975 Axial†	94.0	94.1	[0.00]	µg/L	10:16:14
2	Sb 206.836†	82.5	82.6	[0.00]	µg/L	10:16:14
2	Se 196.026†	-0.8	-0.8	[0.00]	µg/L	10:16:14
2	SiO2†	1742.2	1743.6	[0.00]	µg/L	10:16:14
2	Si 251.611†	730.3	730.9	[0.00]	µg/L	10:15:54
2	Sn 189.927†	-6.8	-6.8	[0.00]	µg/L	10:16:14
2	Ti 334.940†	782.7	783.4	[0.00]	µg/L	10:15:54
2	Tl 190.801†	-114.4	-114.5	[0.00]	µg/L	10:16:14
2	U 409.014†	-209.5	-209.7	[0.00]	µg/L	10:15:54
2	V 292.402†	334.7	335.0	[0.00]	µg/L	10:15:54
2	Zn 213.857†	495.4	495.8	[0.00]	µg/L	10:16:14
3	Sc RADIAL	140146.0	140146.0	100	%	10:15:04
3	Al 396.153Radial†	-69.9	-69.8	[0.00]	µg/L	10:15:24
3	Ca 317.933Radial†	572.2	572.0	[0.00]	µg/L	10:15:24
3	Fe 238.204 Radial†	100.1	100.0	[0.00]	µg/L	10:15:24
3	K 766.490 Radial†	1453.7	1453.2	[0.00]	µg/L	10:15:04
3	Mg 279.077 IEC†	176.4	176.3	[0.00]	µg/L	10:15:24
3	Na 589.592 Radial†	993.1	992.7	[0.00]	µg/L	10:15:04
3	Sr 421.552†	-169.7	-169.6	[0.00]	µg/L	10:15:04
3	Sc 361.383	1799815.0	1799815.0	99.760	%	10:16:16
3	Y 371.029	1054320.2	1054320.2	99.718	%	10:16:16
3	Ag 328.068†	4618.7	4629.8	[0.00]	µg/L	10:16:19
3	As 188.979†	-10.0	-10.0	[0.00]	µg/L	10:16:39
3	B 249.677†	4015.5	4025.2	[0.00]	µg/L	10:16:19
3	Ba 233.527†	-155.9	-156.3	[0.00]	µg/L	10:16:39
3	Be 313.107†	-1105.7	-1108.4	[0.00]	µg/L	10:16:19
3	Cd 226.502†	-113.2	-113.5	[0.00]	µg/L	10:16:39
3	Co 228.616†	-229.0	-229.5	[0.00]	µg/L	10:16:39
3	Cr 267.716†	245.8	246.4	[0.00]	µg/L	10:16:39
3	Cu 324.752†	2997.6	3004.8	[0.00]	µg/L	10:16:19
3	Mn 257.610†	193.3	193.8	[0.00]	µg/L	10:16:39
3	Mo 202.031†	-37.4	-37.5	[0.00]	µg/L	10:16:39
3	Ni 231.604†	-96.4	-96.6	[0.00]	µg/L	10:16:39
3	P 214.914†	-10.4	-10.4	[0.00]	µg/L	10:16:39
3	Pb 220.353†	103.0	103.3	[0.00]	µg/L	10:16:39
3	S 181.975 Axial†	90.6	90.9	[0.00]	µg/L	10:16:39
3	Sb 206.836†	82.4	82.6	[0.00]	µg/L	10:16:39
3	Se 196.026†	16.9	16.9	[0.00]	µg/L	10:16:39
3	SiO2†	1745.6	1749.8	[0.00]	µg/L	10:16:39
3	Si 251.611†	669.5	671.1	[0.00]	µg/L	10:16:19
3	Sn 189.927†	19.0	19.1	[0.00]	µg/L	10:16:39
3	Ti 334.940†	1058.6	1061.1	[0.00]	µg/L	10:16:19
3	Tl 190.801†	-107.8	-108.0	[0.00]	µg/L	10:16:39
3	U 409.014†	-72.6	-72.8	[0.00]	µg/L	10:16:19
3	V 292.402†	443.7	444.7	[0.00]	µg/L	10:16:19
3	Zn 213.857†	519.8	521.1	[0.00]	µg/L	10:16:39

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1804152.8	5199.83	0.29%	100.00	%
Sc RADIAL	140093.0	1279.85	0.91%	100.0	%
Y 371.029	1057297.2	3435.88	0.32%	100.00	%
Ag 328.068†	4565.2	100.87	2.21%	[0.00]	µg/L
Al 396.153Radial†	-78.5	14.00	17.83%	[0.00]	µg/L
As 188.979†	-18.6	9.07	48.89%	[0.00]	µg/L
B 249.677†	4065.1	38.25	0.94%	[0.00]	µg/L
Ba 233.527†	-144.5	10.26	7.10%	[0.00]	µg/L

Be 313.107†	-1091.7	163.40	14.97%	[0.00] µg/L
Ca 317.933Radial†	571.4	14.18	2.48%	[0.00] µg/L
Cd 226.502†	-103.4	8.84	8.55%	[0.00] µg/L
Co 228.616†	-210.3	20.61	9.80%	[0.00] µg/L
Cr 267.716†	233.2	12.30	5.28%	[0.00] µg/L
Cu 324.752†	3036.1	46.52	1.53%	[0.00] µg/L
Fe 238.204 Radial†	117.3	16.16	13.77%	[0.00] µg/L
K 766.490 Radial†	1493.8	38.73	2.59%	[0.00] µg/L
Mg 279.077 IEC†	172.5	9.01	5.22%	[0.00] µg/L
Mn 257.610†	184.7	9.58	5.18%	[0.00] µg/L
Mo 202.031†	-38.6	7.49	19.42%	[0.00] µg/L
Na 589.592 Radial†	952.5	53.45	5.61%	[0.00] µg/L
Ni 231.604†	-95.9	10.38	10.83%	[0.00] µg/L
P 214.914†	-25.7	15.43	60.06%	[0.00] µg/L
Pb 220.353†	103.5	0.81	0.78%	[0.00] µg/L
S 181.975 Axial†	88.9	6.36	7.15%	[0.00] µg/L
Sb 206.836†	89.7	12.37	13.78%	[0.00] µg/L
Se 196.026†	6.2	9.46	153.73%	[0.00] µg/L
SiO2†	1739.1	13.54	0.78%	[0.00] µg/L
Si 251.611†	767.0	118.25	15.42%	[0.00] µg/L
Sn 189.927†	1.9	14.90	789.79%	[0.00] µg/L
Sr 421.552†	-204.5	64.82	31.70%	[0.00] µg/L
Ti 334.940†	823.0	220.99	26.85%	[0.00] µg/L
Tl 190.801†	-114.3	6.14	5.38%	[0.00] µg/L
U 409.014†	-163.4	78.42	48.00%	[0.00] µg/L
V 292.402†	423.2	79.68	18.83%	[0.00] µg/L
Zn 213.857†	503.0	15.77	3.14%	[0.00] µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 4/5/2010 10:16:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139125.6	139125.6	99.3	%	10:17:17
1	K 766.490 Radial†	4201.0	2736.4	[1000]	µg/L	10:17:17
1	Sr 421.552†	43301.9	43807.5	[100]	µg/L	10:17:17
1	Sc 361.383	1787922.4	1787922.4	99.100	%	10:17:25
1	Y 371.029	1045378.7	1045378.7	98.873	%	10:17:25
1	Ag 328.068†	29278.8	24979.4	[100]	µg/L	10:17:27
1	As 188.979†	269.9	290.9	[100]	µg/L	10:17:47
1	B 249.677†	10470.2	6500.1	[100]	µg/L	10:17:27
1	Ba 233.527†	22677.6	23028.0	[100]	µg/L	10:17:27
1	Be 313.107†	339780.2	343956.4	[100]	µg/L	10:17:25
1	Cd 226.502†	14950.1	15189.2	[100]	µg/L	10:17:27
1	Co 228.616†	7586.0	7865.2	[100]	µg/L	10:17:47
1	Cr 267.716†	11980.0	11855.6	[100]	µg/L	10:17:27
1	Cu 324.752†	27030.3	24239.6	[100]	µg/L	10:17:27
1	Mn 257.610†	77870.5	78392.6	[100]	µg/L	10:17:27
1	Mo 202.031†	3044.8	3111.0	[100]	µg/L	10:17:47
1	Ni 231.604†	8145.6	8315.5	[100]	µg/L	10:17:27
1	P 214.914†	2132.7	2177.8	[500]	µg/L	10:17:47
1	Pb 220.353†	1754.2	1666.6	[100]	µg/L	10:17:47
1	S 181.975 Axial†	320.2	234.2	[200]	µg/L	10:17:47
1	Sb 206.836†	856.2	774.3	[100]	µg/L	10:17:47
1	Se 196.026†	271.1	267.4	[100]	µg/L	10:17:47
1	SiO2†	11802.6	10170.7	[1069.5]	µg/L	10:17:27
1	Si 251.611†	32208.0	31733.4	[500]	µg/L	10:17:27
1	Sn 189.927†	1460.8	1472.2	[100]	µg/L	10:17:47
1	Ti 334.940†	97532.1	97594.5	[100]	µg/L	10:17:27
1	Tl 190.801†	651.1	771.2	[100]	µg/L	10:17:47
1	U 409.014†	1450.2	1626.7	[100]	µg/L	10:17:27
1	V 292.402†	19578.5	19333.0	[100]	µg/L	10:17:27
1	Zn 213.857†	17573.4	17230.0	[100]	µg/L	10:17:27
2	Sc RADIAL	139393.7	139393.7	99.5	%	10:17:19
2	K 766.490 Radial†	4071.1	2597.8	[1000]	µg/L	10:17:19
2	Sr 421.552†	43490.4	43913.0	[100]	µg/L	10:17:19
2	Sc 361.383	1810051.8	1810051.8	100.33	%	10:17:49
2	Y 371.029	1057261.6	1057261.6	99.997	%	10:17:49
2	Ag 328.068†	29153.6	24493.4	[100]	µg/L	10:17:51
2	As 188.979†	282.4	300.0	[100]	µg/L	10:18:11
2	B 249.677†	10334.4	6235.5	[100]	µg/L	10:17:51
2	Ba 233.527†	22670.7	22741.4	[100]	µg/L	10:17:51
2	Be 313.107†	345851.8	345816.4	[100]	µg/L	10:17:49
2	Cd 226.502†	14777.3	14832.5	[100]	µg/L	10:17:51
2	Co 228.616†	7580.5	7766.1	[100]	µg/L	10:18:11
2	Cr 267.716†	11835.9	11564.1	[100]	µg/L	10:17:51
2	Cu 324.752†	26968.9	23844.9	[100]	µg/L	10:17:51
2	Mn 257.610†	77589.5	77151.9	[100]	µg/L	10:17:51
2	Mo 202.031†	3039.5	3068.1	[100]	µg/L	10:18:11
2	Ni 231.604†	8167.1	8236.4	[100]	µg/L	10:17:51
2	P 214.914†	2136.5	2155.2	[500]	µg/L	10:18:11
2	Pb 220.353†	1760.7	1651.5	[100]	µg/L	10:18:11
2	S 181.975 Axial†	328.5	238.5	[200]	µg/L	10:18:11
2	Sb 206.836†	849.0	756.5	[100]	µg/L	10:18:11
2	Se 196.026†	270.8	263.7	[100]	µg/L	10:18:11
2	SiO2†	11845.9	10068.2	[1069.5]	µg/L	10:17:51
2	Si 251.611†	32133.9	31262.1	[500]	µg/L	10:17:51
2	Sn 189.927†	1448.7	1442.0	[100]	µg/L	10:18:11
2	Ti 334.940†	97204.0	96064.2	[100]	µg/L	10:17:51
2	Tl 190.801†	624.5	736.7	[100]	µg/L	10:18:11
2	U 409.014†	1369.3	1528.2	[100]	µg/L	10:17:51
2	V 292.402†	19503.3	19016.5	[100]	µg/L	10:17:51

2	Zn 213.857†	17334.5	16775.0	[100]	µg/L	10:17:51
3	Sc RADIAL	139506.2	139506.2	99.6	%	10:17:21
3	K 766.490 Radial†	4050.2	2573.4	[1000]	µg/L	10:17:21
3	Sr 421.552†	43526.0	43913.6	[100]	µg/L	10:17:21
3	Sc 361.383	1784413.8	1784413.8	98.906	%	10:18:13
3	Y 371.029	1042010.1	1042010.1	98.554	%	10:18:13
3	Ag 328.068†	29725.5	25489.2	[100]	µg/L	10:18:15
3	As 188.979†	279.2	300.8	[100]	µg/L	10:18:35
3	B 249.677†	10468.9	6519.6	[100]	µg/L	10:18:15
3	Ba 233.527†	23077.9	23477.7	[100]	µg/L	10:18:15
3	Be 313.107†	340163.6	345018.2	[100]	µg/L	10:18:13
3	Cd 226.502†	15190.7	15462.1	[100]	µg/L	10:18:15
3	Co 228.616†	7560.7	7854.6	[100]	µg/L	10:18:35
3	Cr 267.716†	12082.6	11983.0	[100]	µg/L	10:18:15
3	Cu 324.752†	27791.7	25063.0	[100]	µg/L	10:18:15
3	Mn 257.610†	79356.0	80049.1	[100]	µg/L	10:18:15
3	Mo 202.031†	3030.9	3103.0	[100]	µg/L	10:18:35
3	Ni 231.604†	8277.7	8465.2	[100]	µg/L	10:18:15
3	P 214.914†	2104.3	2153.2	[500]	µg/L	10:18:35
3	Pb 220.353†	1742.8	1658.6	[100]	µg/L	10:18:35
3	S 181.975 Axial†	334.2	248.9	[200]	µg/L	10:18:35
3	Sb 206.836†	850.6	770.3	[100]	µg/L	10:18:35
3	Se 196.026†	268.2	265.0	[100]	µg/L	10:18:35
3	SiO2†	12111.5	10506.4	[1069.5]	µg/L	10:18:15
3	Si 251.611†	32912.6	32509.7	[500]	µg/L	10:18:15
3	Sn 189.927†	1471.6	1486.0	[100]	µg/L	10:18:35
3	Ti 334.940†	99214.9	99489.4	[100]	µg/L	10:18:15
3	Tl 190.801†	647.7	769.1	[100]	µg/L	10:18:35
3	U 409.014†	1258.3	1435.6	[100]	µg/L	10:18:15
3	V 292.402†	19749.3	19544.6	[100]	µg/L	10:18:15
3	Zn 213.857†	17875.8	17570.6	[100]	µg/L	10:18:15

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1794129.3	13900.45	0.77%	99.444	%
Sc RADIAL	139341.9	195.52	0.14%	99.5	%
Y 371.029	1048216.8	8012.07	0.76%	99.141	%
Ag 328.068†	24987.3	497.93	1.99%	[100]	µg/L
As 188.979†	297.3	5.50	1.85%	[100]	µg/L
B 249.677†	6418.4	158.67	2.47%	[100]	µg/L
Ba 233.527†	23082.4	371.18	1.61%	[100]	µg/L
Be 313.107†	344930.4	933.09	0.27%	[100]	µg/L
Cd 226.502†	15161.2	315.73	2.08%	[100]	µg/L
Co 228.616†	7828.6	54.43	0.70%	[100]	µg/L
Cr 267.716†	11800.9	214.74	1.82%	[100]	µg/L
Cu 324.752†	24382.5	621.49	2.55%	[100]	µg/L
K 766.490 Radial†	2635.9	87.91	3.34%	[1000]	µg/L
Mn 257.610†	78531.2	1453.57	1.85%	[100]	µg/L
Mo 202.031†	3094.1	22.79	0.74%	[100]	µg/L
Ni 231.604†	8339.0	116.20	1.39%	[100]	µg/L
P 214.914†	2162.1	13.62	0.63%	[500]	µg/L
Pb 220.353†	1658.9	7.56	0.46%	[100]	µg/L
S 181.975 Axial†	240.6	7.56	3.14%	[200]	µg/L
Sb 206.836†	767.0	9.36	1.22%	[100]	µg/L
Se 196.026†	265.4	1.87	0.71%	[100]	µg/L
SiO2†	10248.4	229.21	2.24%	[1069.5]	µg/L
Si 251.611†	31835.1	629.94	1.98%	[500]	µg/L
Sn 189.927†	1466.7	22.48	1.53%	[100]	µg/L
Sr 421.552†	43878.0	61.08	0.14%	[100]	µg/L
Ti 334.940†	97716.0	1715.86	1.76%	[100]	µg/L
Tl 190.801†	759.0	19.35	2.55%	[100]	µg/L
U 409.014†	1530.2	95.58	6.25%	[100]	µg/L
V 292.402†	19298.0	265.76	1.38%	[100]	µg/L
Zn 213.857†	17191.8	399.18	2.32%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 4/5/2010 10:18:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	140889.5	140889.5	101	%	10:19:14
1	Al 396.153Radial†	24220.4	24162.1	[5000]	µg/L	10:19:14
1	Ca 317.933Radial†	76005.1	75004.0	[5000]	µg/L	10:19:14
1	K 766.490 Radial†	14239.3	12665.0	[5000]	µg/L	10:19:14
1	Mg 279.077 IEC†	11509.4	11271.9	[5000]	µg/L	10:19:14
1	Sr 421.552†	210637.5	209651.1	[500]	µg/L	10:19:12
1	Sc 361.383	1784374.4	1784374.4	98.904	%	10:19:27
1	Y 371.029	1033889.2	1033889.2	97.786	%	10:19:27
1	Ag 328.068†	125108.2	121929.8	[500]	µg/L	10:19:27
1	As 188.979†	1453.4	1488.1	[500]	µg/L	10:19:47
1	B 249.677†	35710.1	32040.8	[500]	µg/L	10:19:27
1	Ba 233.527†	112243.1	113631.8	[500]	µg/L	10:19:27
1	Be 313.107†	1716024.7	1736137.2	[500]	µg/L	10:19:27
1	Cd 226.502†	74131.2	75056.2	[500]	µg/L	10:19:27
1	Co 228.616†	37990.1	38621.5	[500]	µg/L	10:19:27
1	Cr 267.716†	57961.7	58371.0	[500]	µg/L	10:19:27
1	Cu 324.752†	121855.7	120170.2	[500]	µg/L	10:19:27
1	Mn 257.610†	376432.9	380420.6	[500]	µg/L	10:19:27
1	Mo 202.031†	15177.4	15384.2	[500]	µg/L	10:19:47
1	Ni 231.604†	39962.4	40501.3	[500]	µg/L	10:19:27
1	P 214.914†	10759.6	10904.6	[2500]	µg/L	10:19:47
1	Pb 220.353†	8251.5	8239.5	[500]	µg/L	10:19:47
1	S 181.975 Axial†	1269.7	1194.8	[1000]	µg/L	10:19:47
1	Sb 206.836†	3940.0	3893.9	[500]	µg/L	10:19:47
1	Se 196.026†	1265.4	1273.2	[500]	µg/L	10:19:47
1	SiO2†	51424.7	50255.6	[5347.5]	µg/L	10:19:27
1	Si 251.611†	157621.6	158601.7	[2500]	µg/L	10:19:27
1	Sn 189.927†	7160.0	7237.4	[500]	µg/L	10:19:47
1	Ti 334.940†	483114.1	487646.0	[500]	µg/L	10:19:27
1	Tl 190.801†	3546.4	3700.0	[500]	µg/L	10:19:47
1	U 409.014†	7287.7	7531.8	[500]	µg/L	10:19:27
1	V 292.402†	96138.3	96780.7	[500]	µg/L	10:19:27
1	Zn 213.857†	84347.2	84779.1	[500]	µg/L	10:19:27
2	Sc RADIAL	138468.7	138468.7	98.8	%	10:19:18
2	Al 396.153Radial†	23978.5	24338.3	[5000]	µg/L	10:19:18
2	Ca 317.933Radial†	74778.0	75083.7	[5000]	µg/L	10:19:18
2	K 766.490 Radial†	14166.1	12838.5	[5000]	µg/L	10:19:18
2	Mg 279.077 IEC†	11391.8	11353.0	[5000]	µg/L	10:19:18
2	Sr 421.552†	211261.0	213943.6	[500]	µg/L	10:19:16
2	Sc 361.383	1766889.2	1766889.2	97.935	%	10:19:50
2	Y 371.029	1024585.0	1024585.0	96.906	%	10:19:50
2	Ag 328.068†	123756.3	121801.2	[500]	µg/L	10:19:50
2	As 188.979†	1438.9	1487.8	[500]	µg/L	10:20:10
2	B 249.677†	35488.1	32171.4	[500]	µg/L	10:19:50
2	Ba 233.527†	111071.8	113558.9	[500]	µg/L	10:19:50
2	Be 313.107†	1696070.7	1732932.4	[500]	µg/L	10:19:50
2	Cd 226.502†	73034.6	74678.2	[500]	µg/L	10:19:50
2	Co 228.616†	37302.4	38299.4	[500]	µg/L	10:19:50
2	Cr 267.716†	57219.6	58193.2	[500]	µg/L	10:19:50
2	Cu 324.752†	120326.7	119828.2	[500]	µg/L	10:19:50
2	Mn 257.610†	372256.6	379922.7	[500]	µg/L	10:19:50
2	Mo 202.031†	15119.8	15477.2	[500]	µg/L	10:20:10
2	Ni 231.604†	39549.3	40479.3	[500]	µg/L	10:19:50
2	P 214.914†	10712.4	10964.0	[2500]	µg/L	10:20:10
2	Pb 220.353†	8202.8	8272.3	[500]	µg/L	10:20:10
2	S 181.975 Axial†	1257.6	1195.2	[1000]	µg/L	10:20:10
2	Sb 206.836†	3905.6	3898.3	[500]	µg/L	10:20:10
2	Se 196.026†	1247.8	1267.9	[500]	µg/L	10:20:10
2	SiO2†	50930.2	50265.3	[5347.5]	µg/L	10:19:50

2	Si 251.611†	155571.9	158085.9	[2500]	µg/L	10:19:50
2	Sn 189.927†	7125.7	7274.1	[500]	µg/L	10:20:10
2	Ti 334.940†	478384.9	487651.0	[500]	µg/L	10:19:50
2	Tl 190.801†	3514.3	3702.7	[500]	µg/L	10:20:10
2	U 409.014†	6992.6	7303.4	[500]	µg/L	10:19:50
2	V 292.402†	95133.6	96716.8	[500]	µg/L	10:19:50
2	Zn 213.857†	83229.4	84481.7	[500]	µg/L	10:19:50
3	Sc RADIAL	140766.3	140766.3	100	%	10:19:22
3	Al 396.153Radial†	24151.9	24114.9	[5000]	µg/L	10:19:22
3	Ca 317.933Radial†	75881.7	74947.3	[5000]	µg/L	10:19:22
3	K 766.490 Radial†	14167.2	12605.6	[5000]	µg/L	10:19:22
3	Mg 279.077 IEC†	11441.7	11214.6	[5000]	µg/L	10:19:22
3	Sr 421.552†	210189.9	209388.9	[500]	µg/L	10:19:20
3	Sc 361.383	1763888.5	1763888.5	97.768	%	10:20:13
3	Y 371.029	1022018.7	1022018.7	96.663	%	10:20:13
3	Ag 328.068†	123587.5	121843.4	[500]	µg/L	10:20:13
3	As 188.979†	1445.8	1497.3	[500]	µg/L	10:20:33
3	B 249.677†	35619.8	32367.8	[500]	µg/L	10:20:13
3	Ba 233.527†	110853.9	113528.9	[500]	µg/L	10:20:13
3	Be 313.107†	1698086.3	1737940.2	[500]	µg/L	10:20:13
3	Cd 226.502†	72949.0	74717.6	[500]	µg/L	10:20:13
3	Co 228.616†	37273.2	38334.3	[500]	µg/L	10:20:13
3	Cr 267.716†	57178.4	58250.4	[500]	µg/L	10:20:13
3	Cu 324.752†	120255.8	119964.8	[500]	µg/L	10:20:13
3	Mn 257.610†	371797.5	380099.8	[500]	µg/L	10:20:13
3	Mo 202.031†	15118.6	15502.3	[500]	µg/L	10:20:33
3	Ni 231.604†	39356.5	40350.8	[500]	µg/L	10:20:13
3	P 214.914†	10731.2	11001.8	[2500]	µg/L	10:20:33
3	Pb 220.353†	8211.7	8295.7	[500]	µg/L	10:20:33
3	S 181.975 Axial†	1263.9	1203.8	[1000]	µg/L	10:20:33
3	Sb 206.836†	3912.4	3912.0	[500]	µg/L	10:20:33
3	Se 196.026†	1265.8	1288.6	[500]	µg/L	10:20:33
3	SiO2†	51139.1	50567.4	[5347.5]	µg/L	10:20:13
3	Si 251.611†	155385.6	158165.5	[2500]	µg/L	10:20:13
3	Sn 189.927†	7157.9	7319.4	[500]	µg/L	10:20:33
3	Ti 334.940†	478003.2	488091.5	[500]	µg/L	10:20:13
3	Tl 190.801†	3508.4	3702.8	[500]	µg/L	10:20:33
3	U 409.014†	7057.3	7381.7	[500]	µg/L	10:20:13
3	V 292.402†	94875.9	96618.4	[500]	µg/L	10:20:13
3	Zn 213.857†	83345.0	84744.5	[500]	µg/L	10:20:13

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1771717.4	11063.51	0.62%	98.202	%
Sc RADIAL	140041.5	1363.47	0.97%	100.0	%
Y 371.029	1026831.0	6245.79	0.61%	97.118	%
Ag 328.068†	121858.1	65.55	0.05%	[500]	µg/L
Al 396.153Radial†	24205.1	117.77	0.49%	[5000]	µg/L
As 188.979†	1491.1	5.44	0.36%	[500]	µg/L
B 249.677†	32193.3	164.59	0.51%	[500]	µg/L
Ba 233.527†	113573.2	52.90	0.05%	[500]	µg/L
Be 313.107†	1735670.0	2536.38	0.15%	[500]	µg/L
Ca 317.933Radial†	75011.7	68.50	0.09%	[5000]	µg/L
Cd 226.502†	74817.4	207.79	0.28%	[500]	µg/L
Co 228.616†	38418.4	176.73	0.46%	[500]	µg/L
Cr 267.716†	58271.5	90.76	0.16%	[500]	µg/L
Cu 324.752†	119987.7	172.15	0.14%	[500]	µg/L
K 766.490 Radial†	12703.1	121.01	0.95%	[5000]	µg/L
Mg 279.077 IEC†	11279.8	69.56	0.62%	[5000]	µg/L
Mn 257.610†	380147.7	252.39	0.07%	[500]	µg/L
Mo 202.031†	15454.6	62.19	0.40%	[500]	µg/L
Ni 231.604†	40443.8	81.27	0.20%	[500]	µg/L
P 214.914†	10956.8	49.03	0.45%	[2500]	µg/L
Pb 220.353†	8269.2	28.26	0.34%	[500]	µg/L
S 181.975 Axial†	1198.0	5.06	0.42%	[1000]	µg/L
Sb 206.836†	3901.4	9.46	0.24%	[500]	µg/L
Se 196.026†	1276.6	10.73	0.84%	[500]	µg/L
SiO2†	50362.7	177.29	0.35%	[5347.5]	µg/L
Si 251.611†	158284.4	277.66	0.18%	[2500]	µg/L

Sn 189.927†	7277.0	41.07	0.56%	[500] µg/L
Sr 421.552†	210994.5	2557.30	1.21%	[500] µg/L
Ti 334.940†	487796.2	255.79	0.05%	[500] µg/L
Tl 190.801†	3701.8	1.60	0.04%	[500] µg/L
U 409.014†	7405.7	116.08	1.57%	[500] µg/L
V 292.402†	96705.3	81.74	0.08%	[500] µg/L
Zn 213.857†	84668.5	162.65	0.19%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 4/5/2010 10:20:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	138521.2	138521.2	98.9	%	10:21:12
1	Al 396.153Radial†	47739.4	48359.6	[10000]	µg/L	10:21:12
1	Ca 317.933Radial†	147603.9	148707.2	[10000]	µg/L	10:21:12
1	Fe 238.204 Radial†	132955.6	134346.9	[10000]	µg/L	10:21:12
1	K 766.490 Radial†	26494.7	25301.6	[10000]	µg/L	10:21:12
1	Mg 279.077 IEC†	22115.4	22193.9	[10000]	µg/L	10:21:12
1	Na 589.592 Radial†	64423.3	64201.8	[10000]	µg/L	10:21:12
1	Sr 421.552†	421705.7	426695.0	[1000]	µg/L	10:21:10
1	Sc 361.383	1787517.3	1787517.3	99.078	%	10:21:25
1	Y 371.029	1030588.8	1030588.8	97.474	%	10:21:25
1	Ag 328.068†	247472.6	245210.6	[1000]	µg/L	10:21:27
1	As 188.979†	2895.1	2940.6	[1000]	µg/L	10:21:47
1	B 249.677†	67826.5	64392.6	[1000]	µg/L	10:21:27
1	Ba 233.527†	223075.2	225295.8	[1000]	µg/L	10:21:27
1	Be 313.107†	3410791.6	3443625.8	[1000]	µg/L	10:21:25
1	Cd 226.502†	146771.7	148241.0	[1000]	µg/L	10:21:27
1	Co 228.616†	74870.3	75777.4	[1000]	µg/L	10:21:27
1	Cr 267.716†	114942.2	115778.7	[1000]	µg/L	10:21:27
1	Cu 324.752†	240746.6	239950.9	[1000]	µg/L	10:21:27
1	Mn 257.610†	744414.1	751157.3	[1000]	µg/L	10:21:25
1	Mo 202.031†	30103.8	30422.6	[1000]	µg/L	10:21:47
1	Ni 231.604†	79132.1	79964.5	[1000]	µg/L	10:21:27
1	P 214.914†	21254.4	21477.9	[5000]	µg/L	10:21:47
1	Pb 220.353†	16098.9	16145.3	[1000]	µg/L	10:21:47
1	S 181.975 Axial†	2437.0	2370.8	[2000]	µg/L	10:21:47
1	Sb 206.836†	7748.6	7731.0	[1000]	µg/L	10:21:47
1	Se 196.026†	2500.5	2517.6	[1000]	µg/L	10:21:47
1	SiO2†	102325.7	101538.9	[10695]	µg/L	10:21:27
1	Si 251.611†	316394.8	318572.3	[5000]	µg/L	10:21:27
1	Sn 189.927†	14188.1	14318.3	[1000]	µg/L	10:21:47
1	Ti 334.940†	964390.5	972542.5	[1000]	µg/L	10:21:25
1	Tl 190.801†	7109.4	7289.9	[1000]	µg/L	10:21:47
1	U 409.014†	15951.4	16263.2	[1000]	µg/L	10:21:27
1	V 292.402†	192075.9	193440.2	[1000]	µg/L	10:21:27
1	Zn 213.857†	166493.8	167540.3	[1000]	µg/L	10:21:27
2	Sc RADIAL	137587.7	137587.7	98.2	%	10:21:16
2	Al 396.153Radial†	47286.5	48226.0	[10000]	µg/L	10:21:16
2	Ca 317.933Radial†	146236.4	148327.7	[10000]	µg/L	10:21:16
2	Fe 238.204 Radial†	132132.0	134420.6	[10000]	µg/L	10:21:16
2	K 766.490 Radial†	26206.6	25190.0	[10000]	µg/L	10:21:16
2	Mg 279.077 IEC†	21947.0	22174.2	[10000]	µg/L	10:21:16
2	Na 589.592 Radial†	64079.1	64293.4	[10000]	µg/L	10:21:16
2	Sr 421.552†	418133.3	425951.3	[1000]	µg/L	10:21:14
2	Sc 361.383	1788077.8	1788077.8	99.109	%	10:21:50
2	Y 371.029	1031083.9	1031083.9	97.521	%	10:21:50
2	Ag 328.068†	245852.5	243497.5	[1000]	µg/L	10:21:52
2	As 188.979†	2920.6	2965.4	[1000]	µg/L	10:22:12
2	B 249.677†	67486.4	64027.9	[1000]	µg/L	10:21:52
2	Ba 233.527†	221407.1	223542.1	[1000]	µg/L	10:21:52
2	Be 313.107†	3418889.0	3450717.0	[1000]	µg/L	10:21:50
2	Cd 226.502†	145207.6	146616.4	[1000]	µg/L	10:21:52
2	Co 228.616†	73965.8	74841.1	[1000]	µg/L	10:21:52
2	Cr 267.716†	114087.3	114879.7	[1000]	µg/L	10:21:52
2	Cu 324.752†	238734.9	237845.0	[1000]	µg/L	10:21:52
2	Mn 257.610†	745639.7	752158.3	[1000]	µg/L	10:21:50
2	Mo 202.031†	30297.9	30608.8	[1000]	µg/L	10:22:12
2	Ni 231.604†	78509.5	79311.2	[1000]	µg/L	10:21:52
2	P 214.914†	21418.7	21637.0	[5000]	µg/L	10:22:12
2	Pb 220.353†	16212.2	16254.5	[1000]	µg/L	10:22:12

2	S 181.975 Axial†	2451.4	2384.5	[2000] µg/L	10:22:12
2	Sb 206.836†	7810.0	7790.5	[1000] µg/L	10:22:12
2	Se 196.026†	2535.5	2552.1	[1000] µg/L	10:22:12
2	SiO2†	101458.8	100631.9	[10695] µg/L	10:21:52
2	Si 251.611†	313775.9	315829.7	[5000] µg/L	10:21:52
2	Sn 189.927†	14324.6	14451.5	[1000] µg/L	10:22:12
2	Ti 334.940†	965317.9	973173.2	[1000] µg/L	10:21:50
2	Tl 190.801†	7148.1	7326.6	[1000] µg/L	10:22:12
2	U 409.014†	15724.4	16029.1	[1000] µg/L	10:21:52
2	V 292.402†	190884.5	192177.3	[1000] µg/L	10:21:52
2	Zn 213.857†	165290.1	166273.1	[1000] µg/L	10:21:52
3	Sc RADIAL	139275.7	139275.7	99.4 %	10:21:20
3	Al 396.153Radial†	47754.7	48113.5	[10000] µg/L	10:21:20
3	Ca 317.933Radial†	148116.2	148413.8	[10000] µg/L	10:21:20
3	Fe 238.204 Radial†	133471.4	134137.3	[10000] µg/L	10:21:20
3	K 766.490 Radial†	26397.5	25058.6	[10000] µg/L	10:21:20
3	Mg 279.077 IEC†	22321.0	22279.5	[10000] µg/L	10:21:20
3	Na 589.592 Radial†	64773.3	64200.9	[10000] µg/L	10:21:20
3	Sr 421.552†	417779.7	420435.7	[1000] µg/L	10:21:18
3	Sc 361.383	1807535.5	1807535.5	100.19 %	10:22:15
3	Y 371.029	1042236.8	1042236.8	98.576 %	10:22:15
3	Ag 328.068†	249483.7	244451.6	[1000] µg/L	10:22:17
3	As 188.979†	2931.8	2944.9	[1000] µg/L	10:22:37
3	B 249.677†	68615.7	64422.1	[1000] µg/L	10:22:17
3	Ba 233.527†	224580.6	224304.8	[1000] µg/L	10:22:17
3	Be 313.107†	3453157.0	3447786.3	[1000] µg/L	10:22:15
3	Cd 226.502†	147846.5	147673.2	[1000] µg/L	10:22:17
3	Co 228.616†	75097.4	75167.1	[1000] µg/L	10:22:17
3	Cr 267.716†	115767.2	115317.3	[1000] µg/L	10:22:17
3	Cu 324.752†	242135.7	238646.5	[1000] µg/L	10:22:17
3	Mn 257.610†	754003.5	752407.7	[1000] µg/L	10:22:15
3	Mo 202.031†	30459.8	30441.4	[1000] µg/L	10:22:37
3	Ni 231.604†	79738.5	79685.1	[1000] µg/L	10:22:17
3	P 214.914†	21516.4	21501.8	[5000] µg/L	10:22:37
3	Pb 220.353†	16270.1	16136.2	[1000] µg/L	10:22:37
3	S 181.975 Axial†	2455.6	2362.1	[2000] µg/L	10:22:37
3	Sb 206.836†	7815.0	7710.7	[1000] µg/L	10:22:37
3	Se 196.026†	2541.3	2530.4	[1000] µg/L	10:22:37
3	SiO2†	102897.8	100966.2	[10695] µg/L	10:22:17
3	Si 251.611†	318548.9	317185.7	[5000] µg/L	10:22:17
3	Sn 189.927†	14399.1	14370.3	[1000] µg/L	10:22:37
3	Ti 334.940†	976267.5	973617.4	[1000] µg/L	10:22:15
3	Tl 190.801†	7181.7	7282.5	[1000] µg/L	10:22:37
3	U 409.014†	15907.0	16040.6	[1000] µg/L	10:22:17
3	V 292.402†	193637.0	192851.4	[1000] µg/L	10:22:17
3	Zn 213.857†	167762.6	166945.7	[1000] µg/L	10:22:17

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1794376.9	11399.19	0.64%	99.458	%
Sc RADIAL	138461.6	845.59	0.61%	98.8	%
Y 371.029	1034636.5	6586.69	0.64%	97.857	%
Ag 328.068†	244386.6	858.36	0.35%	[1000]	µg/L
Al 396.153Radial†	48233.0	123.22	0.26%	[10000]	µg/L
As 188.979†	2950.3	13.27	0.45%	[1000]	µg/L
B 249.677†	64280.9	219.57	0.34%	[1000]	µg/L
Ba 233.527†	224380.9	879.34	0.39%	[1000]	µg/L
Be 313.107†	3447376.3	3563.34	0.10%	[1000]	µg/L
Ca 317.933Radial†	148482.9	198.99	0.13%	[10000]	µg/L
Cd 226.502†	147510.2	824.46	0.56%	[1000]	µg/L
Co 228.616†	75261.9	475.26	0.63%	[1000]	µg/L
Cr 267.716†	115325.3	449.55	0.39%	[1000]	µg/L
Cu 324.752†	238814.2	1062.92	0.45%	[1000]	µg/L
Fe 238.204 Radial†	134301.6	146.99	0.11%	[10000]	µg/L
K 766.490 Radial†	25183.4	121.63	0.48%	[10000]	µg/L
Mg 279.077 IEC†	22215.9	56.02	0.25%	[10000]	µg/L
Mn 257.610†	751907.8	661.81	0.09%	[1000]	µg/L
Mo 202.031†	30490.9	102.54	0.34%	[1000]	µg/L
Na 589.592 Radial†	64232.0	53.14	0.08%	[10000]	µg/L

Ni 231.604†	79653.6	327.78	0.41%	[1000]	µg/L
P 214.914†	21538.9	85.80	0.40%	[5000]	µg/L
Pb 220.353†	16178.7	65.80	0.41%	[1000]	µg/L
S 181.975 Axial†	2372.5	11.31	0.48%	[2000]	µg/L
Sb 206.836†	7744.1	41.45	0.54%	[1000]	µg/L
Se 196.026†	2533.4	17.42	0.69%	[1000]	µg/L
SiO2†	101045.6	458.71	0.45%	[10695]	µg/L
Si 251.611†	317195.9	1371.33	0.43%	[5000]	µg/L
Sn 189.927†	14380.0	67.17	0.47%	[1000]	µg/L
Sr 421.552†	424360.7	3419.43	0.81%	[1000]	µg/L
Ti 334.940†	973111.1	540.12	0.06%	[1000]	µg/L
Tl 190.801†	7299.7	23.64	0.32%	[1000]	µg/L
U 409.014†	16111.0	131.96	0.82%	[1000]	µg/L
V 292.402†	192823.0	631.90	0.33%	[1000]	µg/L
Zn 213.857†	166919.7	633.98	0.38%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 4/5/2010 10:22:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	137102.1	137102.1	97.9	%	10:23:14
1	Al 396.153Radial†	232459.5	237609.2	[50000]	µg/L	10:23:14
1	Ca 317.933Radial†	719831.0	734962.7	[50000]	µg/L	10:23:14
1	Fe 238.204 Radial†	262262.3	267866.3	[20000]	µg/L	10:23:14
1	Mg 279.077 IEC†	106118.0	108260.5	[50000]	µg/L	10:23:14
1	Na 589.592 Radial†	127559.4	129389.6	[20000]	µg/L	10:23:14
1	Sc 361.383	1750599.2	1750599.2	97.032	%	10:23:22
1	Y 371.029	1010808.0	1010808.0	95.603	%	10:23:22
2	Sc RADIAL	136704.4	136704.4	97.6	%	10:23:16
2	Al 396.153Radial†	231023.6	236828.7	[50000]	µg/L	10:23:16
2	Ca 317.933Radial†	713826.0	730948.6	[50000]	µg/L	10:23:16
2	Fe 238.204 Radial†	260455.2	266793.9	[20000]	µg/L	10:23:16
2	Mg 279.077 IEC†	105162.9	107597.2	[50000]	µg/L	10:23:16
2	Na 589.592 Radial†	126553.4	128737.8	[20000]	µg/L	10:23:16
2	Sc 361.383	1767118.9	1767118.9	97.947	%	10:23:25
2	Y 371.029	1019622.9	1019622.9	96.437	%	10:23:25
3	Sc RADIAL	137409.9	137409.9	98.1	%	10:23:18
3	Al 396.153Radial†	232827.3	237451.9	[50000]	µg/L	10:23:18
3	Ca 317.933Radial†	721449.1	734964.4	[50000]	µg/L	10:23:18
3	Fe 238.204 Radial†	263160.9	268182.0	[20000]	µg/L	10:23:18
3	Mg 279.077 IEC†	106621.9	108531.3	[50000]	µg/L	10:23:18
3	Na 589.592 Radial†	127827.4	129370.8	[20000]	µg/L	10:23:18
3	Sc 361.383	1753846.2	1753846.2	97.212	%	10:23:28
3	Y 371.029	1011915.1	1011915.1	95.708	%	10:23:28

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1757188.1	8752.21	0.50%	97.397	%
Sc RADIAL	137072.1	353.73	0.26%	97.8	%
Y 371.029	1014115.3	4801.69	0.47%	95.916	%
Al 396.153Radial†	237296.6	412.77	0.17%	[50000]	µg/L
Ca 317.933Radial†	733625.3	2318.04	0.32%	[50000]	µg/L
Fe 238.204 Radial†	267614.1	727.59	0.27%	[20000]	µg/L
Mg 279.077 IEC†	108129.7	480.63	0.44%	[50000]	µg/L
Na 589.592 Radial†	129166.1	371.00	0.29%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	244.3	0.00000	0.999997	
Al 396.153Radial	3	Lin Thru 0	0.0	4.750	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	2.957	0.00000	0.999991	
B 249.677	3	Lin Thru 0	0.0	64.30	0.00000	1.000000	
Ba 233.527	3	Lin Thru 0	0.0	225.0	0.00000	0.999985	
Be 313.107	3	Lin Thru 0	0.0	3452	0.00000	0.999996	
Ca 317.933Radial	3	Lin Thru 0	0.0	14.68	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	148.0	0.00000	0.999981	
Co 228.616	3	Lin Thru 0	0.0	75.60	0.00000	0.999960	
Cr 267.716	3	Lin Thru 0	0.0	115.6	0.00000	0.999989	
Cu 324.752	3	Lin Thru 0	0.0	239.1	0.00000	0.999997	
Fe 238.204 Radia	2	Lin Thru 0	0.0	13.39	0.00000	0.999999	
K 766.490 Radial	3	Lin Thru 0	0.0	2.524	0.00000	0.999986	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.166	0.00000	0.999978	
Mn 257.610	3	Lin Thru 0	0.0	753.8	0.00000	0.999983	
Mo 202.031	3	Lin Thru 0	0.0	30.58	0.00000	0.999985	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.451	0.00000	0.999998	

Ni 231.604	3	Lin Thru 0	0.0	79.93	0.00000	0.999974
P 214.914	3	Lin Thru 0	0.0	4.323	0.00000	0.999976
Pb 220.353	3	Lin Thru 0	0.0	16.25	0.00000	0.999959
S 181.975 Axial	3	Lin Thru 0	0.0	1.189	0.00000	0.999992
Sb 206.836	3	Lin Thru 0	0.0	7.755	0.00000	0.999995
Se 196.026	3	Lin Thru 0	0.0	2.538	0.00000	0.999987
SiO2	3	Lin Thru 0	0.0	9.443	0.00000	0.999998
Si 251.611	3	Lin Thru 0	0.0	63.42	0.00000	1.000000
Sn 189.927	3	Lin Thru 0	0.0	14.42	0.00000	0.999987
Sr 421.552	3	Lin Thru 0	0.0	424.0	0.00000	0.999993
Ti 334.940	3	Lin Thru 0	0.0	973.6	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	7.323	0.00000	0.999979
U 409.014	3	Lin Thru 0	0.0	15.85	0.00000	0.999462
V 292.402	3	Lin Thru 0	0.0	192.9	0.00000	0.999999
Zn 213.857	3	Lin Thru 0	0.0	167.4	0.00000	0.999981

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 4/5/2010 10:23:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140523.3	140523.3	100	%			10:24:07
1	Al 396.153Radial†	24438.5	24442.2	5121.2	µg/L	5121.2	ppb	10:24:07
1	Ca 317.933Radial†	74783.5	73983.1	5038.9	µg/L	5038.9	ppb	10:24:07
1	Fe 238.204 Radial†	68030.6	67704.9	5056.2	µg/L	5056.2	ppb	10:24:07
1	K 766.490 Radial†	8010.1	6491.7	2569.4	µg/L	2569.4	ppb	10:24:07
1	Mg 279.077 IEC†	11573.0	11365.1	5256.4	µg/L	5256.4	ppb	10:24:07
1	Na 589.592 Radial†	17343.2	16337.6	2530.2	µg/L	2530.2	ppb	10:24:07
1	Sr 421.552†	225106.1	224621.2	529.72	µg/L	529.72	ppb	10:24:05
1	Sc 361.383	1811067.9	1811067.9	100.38	%			10:24:20
1	Y 371.029	1053070.2	1053070.2	99.600	%			10:24:20
1	Ag 328.068†	66564.0	61744.7	259.05	µg/L	259.05	ppb	10:24:20
1	As 188.979†	1394.2	1407.4	483.32	µg/L	483.32	ppb	10:24:40
1	B 249.677†	37900.4	33690.5	522.17	µg/L	522.17	ppb	10:24:20
1	Ba 233.527†	115320.6	115024.8	511.69	µg/L	511.69	ppb	10:24:20
1	Be 313.107†	892073.7	889759.3	257.88	µg/L	257.88	ppb	10:24:20
1	Cd 226.502†	74846.1	74663.7	504.32	µg/L	504.32	ppb	10:24:20
1	Co 228.616†	38714.5	38776.9	513.26	µg/L	513.26	ppb	10:24:20
1	Cr 267.716†	57458.5	57005.9	493.05	µg/L	493.05	ppb	10:24:20
1	Cu 324.752†	125966.4	122449.3	513.72	µg/L	513.72	ppb	10:24:20
1	Mn 257.610†	386772.5	385111.0	510.65	µg/L	510.65	ppb	10:24:20
1	Mo 202.031†	16355.4	16331.5	534.57	µg/L	534.57	ppb	10:24:40
1	Ni 231.604†	39957.0	39900.4	499.20	µg/L	499.20	ppb	10:24:20
1	P 214.914†	10952.7	10936.6	2521.1	µg/L	2521.1	ppb	10:24:40
1	Pb 220.353†	8370.6	8235.2	508.44	µg/L	508.44	ppb	10:24:40
1	S 181.975 Axial†	3038.8	2938.3	2476.4	µg/L	2476.4	ppb	10:24:40
1	Sb 206.836†	3984.8	3879.9	502.09	µg/L	502.09	ppb	10:24:40
1	Se 196.026†	6435.0	6404.3	2530	µg/L	2530	ppb	10:24:40
1	SiO2†	100095.5	97974.2	10352	µg/L	10352	ppb	10:24:20
1	Si 251.611†	309334.8	307386.6	4836.5	µg/L	4836.5	ppb	10:24:20
1	Sn 189.927†	7699.8	7668.5	533.57	µg/L	533.57	ppb	10:24:40
1	Ti 334.940†	481280.6	478620.0	490.93	µg/L	490.93	ppb	10:24:20
1	Tl 190.801†	3769.5	3869.4	535.81	µg/L	535.81	ppb	10:24:40
1	U 409.014†	7018.0	7154.6	482.25	µg/L	482.25	ppb	10:24:20
1	V 292.402†	97850.1	97053.2	509.98	µg/L	509.98	ppb	10:24:20
1	Zn 213.857†	86050.7	85219.1	504.95	µg/L	504.95	ppb	10:24:20
2	Sc RADIAL	141521.6	141521.6	101	%			10:24:11
2	Al 396.153Radial†	24648.2	24477.9	5128.8	µg/L	5128.8	ppb	10:24:11
2	Ca 317.933Radial†	75579.4	74245.0	5056.8	µg/L	5056.8	ppb	10:24:11
2	Fe 238.204 Radial†	68747.0	67935.7	5073.4	µg/L	5073.4	ppb	10:24:11
2	K 766.490 Radial†	8086.3	6510.9	2577.0	µg/L	2577.0	ppb	10:24:11
2	Mg 279.077 IEC†	11660.2	11370.0	5258.6	µg/L	5258.6	ppb	10:24:11
2	Na 589.592 Radial†	17495.8	16366.7	2534.7	µg/L	2534.7	ppb	10:24:11
2	Sr 421.552†	225995.0	223918.1	528.06	µg/L	528.06	ppb	10:24:09
2	Sc 361.383	1803387.2	1803387.2	99.958	%			10:24:43
2	Y 371.029	1048161.1	1048161.1	99.136	%			10:24:43
2	Ag 328.068†	66375.0	61838.0	259.41	µg/L	259.41	ppb	10:24:43
2	As 188.979†	1372.6	1391.8	478.02	µg/L	478.02	ppb	10:25:03
2	B 249.677†	37478.9	33429.7	518.10	µg/L	518.10	ppb	10:24:43
2	Ba 233.527†	114759.5	114952.8	511.37	µg/L	511.37	ppb	10:24:43
2	Be 313.107†	886689.4	888157.6	257.41	µg/L	257.41	ppb	10:24:43
2	Cd 226.502†	74557.3	74692.3	504.51	µg/L	504.51	ppb	10:24:43
2	Co 228.616†	38671.9	38898.6	514.87	µg/L	514.87	ppb	10:24:43
2	Cr 267.716†	57014.3	56805.3	491.33	µg/L	491.33	ppb	10:24:43
2	Cu 324.752†	124971.6	121988.6	511.78	µg/L	511.78	ppb	10:24:43
2	Mn 257.610†	384842.3	384821.0	510.26	µg/L	510.26	ppb	10:24:43
2	Mo 202.031†	16218.2	16263.6	532.35	µg/L	532.35	ppb	10:25:03
2	Ni 231.604†	39961.4	40074.3	501.38	µg/L	501.38	ppb	10:24:43
2	P 214.914†	10845.8	10876.1	2507.2	µg/L	2507.2	ppb	10:25:03
2	Pb 220.353†	8298.4	8198.4	506.19	µg/L	506.19	ppb	10:25:03

2	S 181.975 Axial†	2999.7	2912.0	2454.3	µg/L	2454.3 ppb	10:25:03
2	Sb 206.836†	3927.6	3839.5	496.87	µg/L	496.87 ppb	10:25:03
2	Se 196.026†	6386.0	6382.6	2520	µg/L	2520 ppb	10:25:03
2	SiO2†	99482.5	97785.7	10332	µg/L	10332 ppb	10:24:43
2	Si 251.611†	307517.6	306881.1	4828.6	µg/L	4828.6 ppb	10:24:43
2	Sn 189.927†	7645.8	7647.2	532.09	µg/L	532.09 ppb	10:25:03
2	Ti 334.940†	478739.3	478119.5	490.43	µg/L	490.43 ppb	10:24:43
2	Tl 190.801†	3725.8	3841.6	532.00	µg/L	532.00 ppb	10:25:03
2	U 409.014†	6667.8	6834.0	462.00	µg/L	462.00 ppb	10:24:43
2	V 292.402†	97411.1	97029.3	509.81	µg/L	509.81 ppb	10:24:43
2	Zn 213.857†	85869.6	85403.1	506.04	µg/L	506.04 ppb	10:24:43
3	Sc RADIAL	140619.3	140619.3	100	%		10:24:15
3	Al 396.153Radial†	24689.2	24675.4	5170.3	µg/L	5170.3 ppb	10:24:15
3	Ca 317.933Radial†	75209.3	74356.3	5064.3	µg/L	5064.3 ppb	10:24:15
3	Fe 238.204 Radial†	68498.2	68124.5	5087.5	µg/L	5087.5 ppb	10:24:15
3	K 766.490 Radial†	7806.5	6283.5	2486.9	µg/L	2486.9 ppb	10:24:15
3	Mg 279.077 IEC†	11680.4	11464.3	5302.2	µg/L	5302.2 ppb	10:24:15
3	Na 589.592 Radial†	17364.6	16347.1	2531.7	µg/L	2531.7 ppb	10:24:15
3	Sr 421.552†	224592.5	223956.3	528.15	µg/L	528.15 ppb	10:24:13
3	Sc 361.383	1807264.5	1807264.5	100.17	%		10:25:06
3	Y 371.029	1050693.9	1050693.9	99.375	%		10:25:06
3	Ag 328.068†	66243.0	61563.8	258.30	µg/L	258.30 ppb	10:25:06
3	As 188.979†	1388.9	1405.1	482.54	µg/L	482.54 ppb	10:25:26
3	B 249.677†	37737.0	33606.9	520.86	µg/L	520.86 ppb	10:25:06
3	Ba 233.527†	115014.8	114961.3	511.41	µg/L	511.41 ppb	10:25:06
3	Be 313.107†	890592.0	890150.3	257.99	µg/L	257.99 ppb	10:25:06
3	Cd 226.502†	74469.1	74444.2	502.83	µg/L	502.83 ppb	10:25:06
3	Co 228.616†	38759.6	38903.2	514.93	µg/L	514.93 ppb	10:25:06
3	Cr 267.716†	57275.1	56943.2	492.52	µg/L	492.52 ppb	10:25:06
3	Cu 324.752†	125282.2	122030.3	511.96	µg/L	511.96 ppb	10:25:06
3	Mn 257.610†	385605.2	384756.6	510.17	µg/L	510.17 ppb	10:25:06
3	Mo 202.031†	16300.9	16311.4	533.91	µg/L	533.91 ppb	10:25:26
3	Ni 231.604†	39880.4	39907.6	499.29	µg/L	499.29 ppb	10:25:06
3	P 214.914†	10929.8	10936.7	2521.2	µg/L	2521.2 ppb	10:25:26
3	Pb 220.353†	8313.7	8195.9	506.04	µg/L	506.04 ppb	10:25:26
3	S 181.975 Axial†	3024.1	2930.0	2469.4	µg/L	2469.4 ppb	10:25:26
3	Sb 206.836†	3985.2	3888.6	503.21	µg/L	503.21 ppb	10:25:26
3	Se 196.026†	6418.8	6401.6	2520	µg/L	2520 ppb	10:25:26
3	SiO2†	99707.6	97796.8	10334	µg/L	10334 ppb	10:25:06
3	Si 251.611†	308174.3	306876.6	4828.4	µg/L	4828.4 ppb	10:25:06
3	Sn 189.927†	7722.0	7706.8	536.23	µg/L	536.23 ppb	10:25:26
3	Ti 334.940†	480594.4	478943.9	491.27	µg/L	491.27 ppb	10:25:06
3	Tl 190.801†	3769.9	3877.6	536.93	µg/L	536.93 ppb	10:25:26
3	U 409.014†	6753.8	6905.5	466.53	µg/L	466.53 ppb	10:25:06
3	V 292.402†	97691.0	97099.6	510.20	µg/L	510.20 ppb	10:25:06
3	Zn 213.857†	85980.5	85329.5	505.61	µg/L	505.61 ppb	10:25:06

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807239.8	100.17	%	0.213				0.21%
Sc RADIAL	140888.1	101	%	0.4				0.39%
Y 371.029	1050641.7	99.371	%	0.2322				0.23%
Ag 328.068†	61715.5	258.92	µg/L	0.568	258.92	ppb	0.568	0.22%
QC value within limits for Ag 328.068 Recovery = 103.57%								
Al 396.153Radial†	24531.8	5140.1	µg/L	26.43	5140.1	ppb	26.43	0.51%
QC value within limits for Al 396.153Radial Recovery = 102.80%								
As 188.979†	1401.4	481.30	µg/L	2.864	481.30	ppb	2.864	0.60%
QC value within limits for As 188.979 Recovery = 96.26%								
B 249.677†	33575.7	520.38	µg/L	2.073	520.38	ppb	2.073	0.40%
QC value within limits for B 249.677 Recovery = 104.08%								
Ba 233.527†	114979.6	511.49	µg/L	0.175	511.49	ppb	0.175	0.03%
QC value within limits for Ba 233.527 Recovery = 102.30%								
Be 313.107†	889355.7	257.76	µg/L	0.308	257.76	ppb	0.308	0.12%
QC value within limits for Be 313.107 Recovery = 103.10%								
Ca 317.933Radial†	74194.8	5053.3	µg/L	13.05	5053.3	ppb	13.05	0.26%
QC value within limits for Ca 317.933Radial Recovery = 101.07%								
Cd 226.502†	74600.1	503.88	µg/L	0.919	503.88	ppb	0.919	0.18%
QC value within limits for Cd 226.502 Recovery = 100.78%								
Co 228.616†	38859.6	514.36	µg/L	0.946	514.36	ppb	0.946	0.18%

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   QC value within limits for Co 228.616  Recovery = 102.87%
Cr 267.716†            56918.2      492.30 µg/L        0.880      492.30 ppb          0.880   0.18%
   QC value within limits for Cr 267.716  Recovery = 98.46%
Cu 324.752†           122156.1      512.49 µg/L        1.072      512.49 ppb          1.072   0.21%
   QC value within limits for Cu 324.752  Recovery = 102.50%
Fe 238.204 Radial†     67921.7      5072.3 µg/L        15.69      5072.3 ppb          15.69   0.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.45%
K 766.490 Radial†       6428.7      2544.4 µg/L        49.99      2544.4 ppb          49.99   1.96%
   QC value within limits for K 766.490 Radial  Recovery = 101.78%
Mg 279.077 IEC†        11399.8      5272.4 µg/L        25.80      5272.4 ppb          25.80   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.45%
Mn 257.610†           384896.2      510.36 µg/L        0.251      510.36 ppb          0.251   0.05%
   QC value within limits for Mn 257.610  Recovery = 102.07%
Mo 202.031†            16302.2      533.61 µg/L        1.140      533.61 ppb          1.140   0.21%
   QC value within limits for Mo 202.031  Recovery = 106.72%
Na 589.592 Radial†     16350.4      2532.2 µg/L         2.29      2532.2 ppb           2.29   0.09%
   QC value within limits for Na 589.592 Radial  Recovery = 101.29%
Ni 231.604†            39960.8      499.96 µg/L        1.231      499.96 ppb          1.231   0.25%
   QC value within limits for Ni 231.604  Recovery = 99.99%
P 214.914†             10916.5      2516.5 µg/L         8.09      2516.5 ppb           8.09   0.32%
   QC value within limits for P 214.914  Recovery = 100.66%
Pb 220.353†             8209.8      506.89 µg/L        1.346      506.89 ppb          1.346   0.27%
   QC value within limits for Pb 220.353  Recovery = 101.38%
S 181.975 Axial†        2926.8      2466.7 µg/L        11.31      2466.7 ppb          11.31   0.46%
   QC value within limits for S 181.975 Axial  Recovery = 98.67%
Sb 206.836†             3869.3      500.72 µg/L        3.381      500.72 ppb          3.381   0.68%
   QC value within limits for Sb 206.836  Recovery = 100.14%
Se 196.026†             6396.1        2520 µg/L          4.7        2520 ppb            4.7   0.19%
   QC value within limits for Se 196.026  Recovery = 100.88%
SiO2†                  97852.2       10339 µg/L         11.2       10339 ppb           11.2   0.11%
   QC value within limits for SiO2  Recovery = 96.68%
Si 251.611†           307048.1      4831.2 µg/L         4.61      4831.2 ppb           4.61   0.10%
   QC value within limits for Si 251.611  Recovery = 96.62%
Sn 189.927†             7674.1      533.96 µg/L        2.097      533.96 ppb          2.097   0.39%
   QC value within limits for Sn 189.927  Recovery = 106.79%
Sr 421.552†           224165.2      528.65 µg/L        0.933      528.65 ppb          0.933   0.18%
   QC value within limits for Sr 421.552  Recovery = 105.73%
Ti 334.940†           478561.1      490.88 µg/L        0.423      490.88 ppb          0.423   0.09%
   QC value within limits for Ti 334.940  Recovery = 98.18%
Tl 190.801†             3862.9      534.91 µg/L        2.585      534.91 ppb          2.585   0.48%
   QC value within limits for Tl 190.801  Recovery = 106.98%
U 409.014†              6964.7      470.26 µg/L       10.624      470.26 ppb         10.624   2.26%
   QC value within limits for U 409.014  Recovery = 94.05%
V 292.402†             97060.7      510.00 µg/L        0.194      510.00 ppb          0.194   0.04%
   QC value within limits for V 292.402  Recovery = 102.00%
Zn 213.857†            85317.2      505.54 µg/L        0.546      505.54 ppb          0.546   0.11%
   QC value within limits for Zn 213.857  Recovery = 101.11%
All analyte(s) passed QC.
```

Sequence No.: 7 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 4/5/2010 10:25:34**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139162.3	139162.3	99.3	%			10:26:03
1	Al 396.153Radial†	-53.9	24.2	5.0642	µg/L	5.0642	ppb	10:26:23
1	Ca 317.933Radial†	571.7	4.0	0.2745	µg/L	0.2745	ppb	10:26:23
1	Fe 238.204 Radial†	117.8	1.3	0.0992	µg/L	0.0992	ppb	10:26:23
1	K 766.490 Radial†	1466.1	-17.9	-7.0792	µg/L	-7.0792	ppb	10:26:03
1	Mg 279.077 IEC†	183.5	12.3	5.6777	µg/L	5.6777	ppb	10:26:23
1	Na 589.592 Radial†	1119.8	174.8	27.100	µg/L	27.100	ppb	10:26:03
1	Sr 421.552†	-218.0	-14.9	-0.0352	µg/L	-0.0352	ppb	10:26:03
1	Sc 361.383	1806325.2	1806325.2	100.12	%			10:27:25
1	Y 371.029	1059354.7	1059354.7	100.19	%			10:27:25
1	Ag 328.068†	4398.9	-171.5	-0.7202	µg/L	-0.7202	ppb	10:27:27
1	As 188.979†	-12.8	5.7	1.9434	µg/L	1.9434	ppb	10:27:47
1	B 249.677†	4126.0	55.9	0.8673	µg/L	0.8673	ppb	10:27:27
1	Ba 233.527†	-124.3	20.4	0.0910	µg/L	0.0910	ppb	10:27:47
1	Be 313.107†	-698.4	394.1	0.1093	µg/L	0.1093	ppb	10:27:27
1	Cd 226.502†	-64.2	39.2	0.2652	µg/L	0.2652	ppb	10:27:47
1	Co 228.616†	-177.9	32.6	0.4308	µg/L	0.4308	ppb	10:27:47
1	Cr 267.716†	212.7	-20.7	-0.1666	µg/L	-0.1666	ppb	10:27:47
1	Cu 324.752†	2961.2	-78.4	-0.3410	µg/L	-0.3410	ppb	10:27:27
1	Mn 257.610†	244.5	59.5	0.0787	µg/L	0.0787	ppb	10:27:47
1	Mo 202.031†	-12.2	26.4	0.8620	µg/L	0.8620	ppb	10:27:47
1	Ni 231.604†	-79.6	16.4	0.2058	µg/L	0.2058	ppb	10:27:47
1	P 214.914†	-21.4	4.3	0.9939	µg/L	0.9939	ppb	10:27:47
1	Pb 220.353†	93.3	-10.3	-0.6182	µg/L	-0.6182	ppb	10:27:47
1	S 181.975 Axial†	95.5	6.5	5.4827	µg/L	5.4827	ppb	10:27:47
1	Sb 206.836†	70.6	-19.2	-2.4625	µg/L	-2.4625	ppb	10:27:47
1	Se 196.026†	27.2	21.0	8.26	µg/L	8.26	ppb	10:27:47
1	SiO2†	1772.8	31.6	3.3130	µg/L	3.3130	ppb	10:27:47
1	Si 251.611†	695.9	-72.0	-1.1503	µg/L	-1.1503	ppb	10:27:27
1	Sn 189.927†	9.8	7.9	0.5516	µg/L	0.5516	ppb	10:27:47
1	Ti 334.940†	991.0	166.8	0.1776	µg/L	0.1776	ppb	10:27:27
1	Tl 190.801†	-103.3	11.1	1.5149	µg/L	1.5149	ppb	10:27:47
1	U 409.014†	-420.2	-256.4	-16.169	µg/L	-16.169	ppb	10:27:27
1	V 292.402†	453.0	29.2	0.1483	µg/L	0.1483	ppb	10:27:27
1	Zn 213.857†	541.6	38.0	0.2259	µg/L	0.2259	ppb	10:27:47
2	Sc RADIAL	142818.3	142818.3	102	%			10:26:25
2	Al 396.153Radial†	-102.5	-22.0	-4.6648	µg/L	-4.6648	ppb	10:26:45
2	Ca 317.933Radial†	573.3	-9.1	-0.6188	µg/L	-0.6188	ppb	10:26:45
2	Fe 238.204 Radial†	110.9	-8.5	-0.6347	µg/L	-0.6347	ppb	10:26:45
2	K 766.490 Radial†	1687.2	161.2	63.862	µg/L	63.862	ppb	10:26:25
2	Mg 279.077 IEC†	188.6	12.6	5.8246	µg/L	5.8246	ppb	10:26:45
2	Na 589.592 Radial†	1002.2	30.6	4.6847	µg/L	4.6847	ppb	10:26:25
2	Sr 421.552†	-146.6	60.6	0.1430	µg/L	0.1430	ppb	10:26:25
2	Sc 361.383	1814818.2	1814818.2	100.59	%			10:27:49
2	Y 371.029	1063959.1	1063959.1	100.63	%			10:27:49
2	Ag 328.068†	4390.0	-201.0	-0.8229	µg/L	-0.8229	ppb	10:27:52
2	As 188.979†	-4.3	14.3	4.8359	µg/L	4.8359	ppb	10:28:12
2	B 249.677†	4308.2	217.8	3.3850	µg/L	3.3850	ppb	10:27:52
2	Ba 233.527†	-108.5	36.7	0.1631	µg/L	0.1631	ppb	10:28:12
2	Be 313.107†	-1008.5	89.1	0.0263	µg/L	0.0263	ppb	10:27:52
2	Cd 226.502†	-90.1	13.8	0.0933	µg/L	0.0933	ppb	10:28:12
2	Co 228.616†	-172.6	38.7	0.5117	µg/L	0.5117	ppb	10:28:12
2	Cr 267.716†	241.1	6.5	0.0544	µg/L	0.0544	ppb	10:28:12
2	Cu 324.752†	3110.8	56.4	0.2376	µg/L	0.2376	ppb	10:27:52
2	Mn 257.610†	185.1	-0.7	-0.0012	µg/L	-0.0012	ppb	10:28:12
2	Mo 202.031†	-16.1	22.5	0.7373	µg/L	0.7373	ppb	10:28:12
2	Ni 231.604†	-83.2	13.2	0.1649	µg/L	0.1649	ppb	10:28:12
2	P 214.914†	-11.2	14.6	3.3643	µg/L	3.3643	ppb	10:28:12
2	Pb 220.353†	102.7	-1.3	-0.0807	µg/L	-0.0807	ppb	10:28:12

2	S 181.975 Axial†	103.8	14.2	11.975 µg/L	11.975 ppb	10:28:12
2	Sb 206.836†	96.2	5.9	0.7677 µg/L	0.7677 ppb	10:28:12
2	Se 196.026†	20.8	14.5	5.71 µg/L	5.71 ppb	10:28:12
2	SiO2†	1717.4	-31.8	-3.3984 µg/L	-3.3984 ppb	10:28:12
2	Si 251.611†	740.6	-30.8	-0.4998 µg/L	-0.4998 ppb	10:27:52
2	Sn 189.927†	13.1	11.2	0.7737 µg/L	0.7737 ppb	10:28:12
2	Ti 334.940†	875.6	47.5	0.0476 µg/L	0.0476 ppb	10:27:52
2	Tl 190.801†	-113.0	1.9	0.2561 µg/L	0.2561 ppb	10:28:12
2	U 409.014†	-138.0	26.2	1.6406 µg/L	1.6406 ppb	10:27:52
2	V 292.402†	389.3	-36.2	-0.1786 µg/L	-0.1786 ppb	10:27:52
2	Zn 213.857†	534.3	28.2	0.1669 µg/L	0.1669 ppb	10:28:12
3	Sc RADIAL	140073.3	140073.3	100.0 %		10:26:47
3	Al 396.153Radial†	-42.9	35.6	7.4623 µg/L	7.4623 ppb	10:27:07
3	Ca 317.933Radial†	561.5	-9.9	-0.6724 µg/L	-0.6724 ppb	10:27:07
3	Fe 238.204 Radial†	131.4	14.1	1.0507 µg/L	1.0507 ppb	10:27:07
3	K 766.490 Radial†	1577.5	83.9	33.259 µg/L	33.259 ppb	10:26:47
3	Mg 279.077 IEC†	160.6	-11.8	-5.4397 µg/L	-5.4397 ppb	10:27:07
3	Na 589.592 Radial†	1138.5	186.1	28.821 µg/L	28.821 ppb	10:26:47
3	Sr 421.552†	-238.5	-34.1	-0.0803 µg/L	-0.0803 ppb	10:26:47
3	Sc 361.383	1801432.9	1801432.9	99.849 %		10:28:14
3	Y 371.029	1056501.4	1056501.4	99.925 %		10:28:14
3	Ag 328.068†	4278.5	-280.2	-1.1531 µg/L	-1.1531 ppb	10:28:16
3	As 188.979†	-13.5	5.0	1.6981 µg/L	1.6981 ppb	10:28:36
3	B 249.677†	4216.2	157.5	2.4477 µg/L	2.4477 ppb	10:28:16
3	Ba 233.527†	-133.7	10.6	0.0474 µg/L	0.0474 ppb	10:28:36
3	Be 313.107†	-1028.1	62.1	0.0170 µg/L	0.0170 ppb	10:28:16
3	Cd 226.502†	-90.6	12.6	0.0850 µg/L	0.0850 ppb	10:28:36
3	Co 228.616†	-185.7	24.3	0.3210 µg/L	0.3210 ppb	10:28:36
3	Cr 267.716†	246.4	13.6	0.1197 µg/L	0.1197 ppb	10:28:36
3	Cu 324.752†	2983.7	-48.0	-0.2030 µg/L	-0.2030 ppb	10:28:16
3	Mn 257.610†	209.1	24.6	0.0329 µg/L	0.0329 ppb	10:28:36
3	Mo 202.031†	-14.8	23.7	0.7753 µg/L	0.7753 ppb	10:28:36
3	Ni 231.604†	-104.2	-8.4	-0.1054 µg/L	-0.1054 ppb	10:28:36
3	P 214.914†	-1.5	24.2	5.6067 µg/L	5.6067 ppb	10:28:36
3	Pb 220.353†	90.7	-12.6	-0.7708 µg/L	-0.7708 ppb	10:28:36
3	S 181.975 Axial†	101.2	12.4	10.478 µg/L	10.478 ppb	10:28:36
3	Sb 206.836†	86.9	-2.7	-0.3424 µg/L	-0.3424 ppb	10:28:36
3	Se 196.026†	17.0	10.8	4.26 µg/L	4.26 ppb	10:28:36
3	SiO2†	1768.5	32.1	3.3679 µg/L	3.3679 ppb	10:28:36
3	Si 251.611†	1260.7	495.6	7.8002 µg/L	7.8002 ppb	10:28:16
3	Sn 189.927†	11.5	9.6	0.6680 µg/L	0.6680 ppb	10:28:36
3	Ti 334.940†	917.1	95.5	0.0997 µg/L	0.0997 ppb	10:28:16
3	Tl 190.801†	-97.8	16.4	2.2310 µg/L	2.2310 ppb	10:28:36
3	U 409.014†	-212.8	-49.8	-3.1540 µg/L	-3.1540 ppb	10:28:16
3	V 292.402†	387.5	-35.2	-0.1760 µg/L	-0.1760 ppb	10:28:16
3	Zn 213.857†	530.2	28.0	0.1681 µg/L	0.1681 ppb	10:28:36

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1807525.4	100.19	%	0.375				0.37%
Sc RADIAL	140684.7	100	%	1.4				1.35%
Y 371.029	1059938.4	100.25	%	0.356				0.36%
Ag 328.068†	-217.6	-0.8988	µg/L	0.22619	-0.8988	ppb	0.22619	25.17%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.6	2.6206	µg/L	6.42222	2.6206	ppb	6.42222	245.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.3	2.8258	µg/L	1.74509	2.8258	ppb	1.74509	61.76%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	143.7	2.2333	µg/L	1.27245	2.2333	ppb	1.27245	56.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	22.6	0.1005	µg/L	0.05843	0.1005	ppb	0.05843	58.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	181.8	0.0509	µg/L	0.05080	0.0509	ppb	0.05080	99.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-5.0	-0.3389	µg/L	0.53188	-0.3389	ppb	0.53188	156.95%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	21.9	0.1479	µg/L	0.10171	0.1479	ppb	0.10171	68.79%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	31.8	0.4212	µg/L	0.09568	0.4212	ppb	0.09568	22.72%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -0.2      0.0025 µg/L       0.15007      0.0025 ppb        0.15007 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -23.3     -0.1021 µg/L       0.30215     -0.1021 ppb        0.30215 295.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       2.3      0.1717 µg/L       0.84503      0.1717 ppb        0.84503 492.06%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       75.8      30.014 µg/L       35.5819      30.014 ppb        35.5819 118.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          4.3      2.0209 µg/L       6.46146      2.0209 ppb        6.46146 319.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             27.8      0.0368 µg/L       0.04010      0.0368 ppb        0.04010 108.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             24.2      0.7916 µg/L       0.06391      0.7916 ppb        0.06391   8.07%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     130.5      20.202 µg/L       13.4657      20.202 ppb        13.4657  66.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              7.1      0.0884 µg/L       0.16910      0.0884 ppb        0.16910 191.25%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              14.4      3.3216 µg/L       2.30669      3.3216 ppb        2.30669  69.44%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -8.1     -0.4899 µg/L       0.36249     -0.4899 ppb        0.36249  73.99%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        11.1      9.3117 µg/L       3.39955      9.3117 ppb        3.39955  36.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -5.4     -0.6791 µg/L       1.64121     -0.6791 ppb        1.64121 241.69%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             15.4        6.08 µg/L         2.027        6.08 ppb          2.027  33.35%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   10.6      1.0942 µg/L       3.89080      1.0942 ppb        3.89080 355.59%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            131.0      2.0500 µg/L       4.99041      2.0500 ppb        4.99041 243.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              9.6      0.6644 µg/L       0.11114      0.6644 ppb        0.11114  16.73%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              3.9      0.0092 µg/L       0.11809      0.0092 ppb        0.11809 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            103.3      0.1083 µg/L       0.06541      0.1083 ppb        0.06541  60.41%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              9.8      1.3340 µg/L       0.99980      1.3340 ppb        0.99980  74.95%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -93.3     -5.8942 µg/L       9.21571     -5.8942 ppb        9.21571 156.35%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -14.1     -0.0688 µg/L       0.18804     -0.0688 ppb        0.18804 273.40%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             31.4      0.1870 µg/L       0.03374      0.1870 ppb        0.03374  18.04%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 4/5/2010 10:28:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141650.4	141650.4	101	%			10:29:14
1	Al 396.153Radial†	1036.5	1103.7	231.88	µg/L	231.88	ppb	10:29:16
1	Ca 317.933Radial†	3603.3	2992.2	203.80	µg/L	203.80	ppb	10:29:16
1	Fe 238.204 Radial†	1560.7	1426.2	106.51	µg/L	106.51	ppb	10:29:16
1	K 766.490 Radial†	1826.1	312.3	123.57	µg/L	123.57	ppb	10:29:14
1	Mg 279.077 IEC†	874.5	692.5	319.90	µg/L	319.90	ppb	10:29:16
1	Na 589.592 Radial†	2732.4	1749.8	271.13	µg/L	271.13	ppb	10:29:16
1	Sr 421.552†	2186.1	2366.5	5.5797	µg/L	5.5797	ppb	10:29:16
1	Sc 361.383	1814341.7	1814341.7	100.56	%			10:29:28
1	Y 371.029	1064064.3	1064064.3	100.64	%			10:29:28
1	Ag 328.068†	5622.7	1026.0	4.3223	µg/L	4.3223	ppb	10:29:30
1	As 188.979†	87.6	105.7	35.836	µg/L	35.836	ppb	10:29:50
1	B 249.677†	7343.1	3236.7	50.319	µg/L	50.319	ppb	10:29:30
1	Ba 233.527†	999.3	1138.3	5.0652	µg/L	5.0652	ppb	10:29:50
1	Be 313.107†	16066.6	17068.1	4.9590	µg/L	4.9590	ppb	10:29:30
1	Cd 226.502†	646.2	745.9	5.0326	µg/L	5.0326	ppb	10:29:50
1	Co 228.616†	185.3	394.5	5.2190	µg/L	5.2190	ppb	10:29:50
1	Cr 267.716†	839.1	601.2	5.1628	µg/L	5.1628	ppb	10:29:50
1	Cu 324.752†	5479.5	2412.6	10.159	µg/L	10.159	ppb	10:29:30
1	Mn 257.610†	8022.8	7793.0	10.325	µg/L	10.325	ppb	10:29:30
1	Mo 202.031†	281.7	318.7	10.434	µg/L	10.434	ppb	10:29:50
1	Ni 231.604†	303.7	397.9	4.9784	µg/L	4.9784	ppb	10:29:50
1	P 214.914†	630.3	652.4	150.78	µg/L	150.78	ppb	10:29:50
1	Pb 220.353†	271.2	166.2	10.231	µg/L	10.231	ppb	10:29:50
1	S 181.975 Axial†	205.7	115.7	97.385	µg/L	97.385	ppb	10:29:50
1	Sb 206.836†	154.6	64.1	8.3550	µg/L	8.3550	ppb	10:29:50
1	Se 196.026†	110.2	103.4	40.8	µg/L	40.8	ppb	10:29:50
1	SiO2†	3822.7	2062.2	217.92	µg/L	217.92	ppb	10:29:30
1	Si 251.611†	7510.5	6701.3	105.46	µg/L	105.46	ppb	10:29:30
1	Sn 189.927†	160.1	157.3	10.927	µg/L	10.927	ppb	10:29:50
1	Ti 334.940†	5734.4	4879.2	4.9689	µg/L	4.9689	ppb	10:29:30
1	Tl 190.801†	38.0	152.0	20.859	µg/L	20.859	ppb	10:29:50
1	U 409.014†	615.0	774.9	49.286	µg/L	49.286	ppb	10:29:30
1	V 292.402†	1571.6	1139.6	6.0534	µg/L	6.0534	ppb	10:29:30
1	Zn 213.857†	2274.8	1759.0	10.457	µg/L	10.457	ppb	10:29:50
2	Sc RADIAL	141759.5	141759.5	101	%			10:29:18
2	Al 396.153Radial†	796.2	865.4	181.72	µg/L	181.72	ppb	10:29:20
2	Ca 317.933Radial†	3683.3	3068.5	209.00	µg/L	209.00	ppb	10:29:20
2	Fe 238.204 Radial†	1485.2	1350.5	100.85	µg/L	100.85	ppb	10:29:20
2	K 766.490 Radial†	1933.5	417.0	165.07	µg/L	165.07	ppb	10:29:18
2	Mg 279.077 IEC†	921.2	737.9	340.89	µg/L	340.89	ppb	10:29:20
2	Na 589.592 Radial†	2783.2	1797.9	278.55	µg/L	278.55	ppb	10:29:20
2	Sr 421.552†	2129.2	2308.6	5.4432	µg/L	5.4432	ppb	10:29:20
2	Sc 361.383	1776563.5	1776563.5	98.471	%			10:29:52
2	Y 371.029	1041330.5	1041330.5	98.490	%			10:29:52
2	Ag 328.068†	5648.1	1170.6	4.9166	µg/L	4.9166	ppb	10:29:54
2	As 188.979†	73.8	93.5	31.726	µg/L	31.726	ppb	10:30:14
2	B 249.677†	7226.4	3273.5	50.889	µg/L	50.889	ppb	10:29:54
2	Ba 233.527†	1019.4	1179.8	5.2489	µg/L	5.2489	ppb	10:30:14
2	Be 313.107†	16021.3	17361.8	5.0486	µg/L	5.0486	ppb	10:29:54
2	Cd 226.502†	661.1	774.7	5.2281	µg/L	5.2281	ppb	10:30:14
2	Co 228.616†	198.3	411.7	5.4466	µg/L	5.4466	ppb	10:30:14
2	Cr 267.716†	776.3	555.1	4.7513	µg/L	4.7513	ppb	10:30:14
2	Cu 324.752†	5385.0	2432.5	10.254	µg/L	10.254	ppb	10:29:54
2	Mn 257.610†	8036.2	7976.3	10.567	µg/L	10.567	ppb	10:29:54
2	Mo 202.031†	269.0	311.7	10.207	µg/L	10.207	ppb	10:30:14
2	Ni 231.604†	339.1	440.3	5.5085	µg/L	5.5085	ppb	10:30:14
2	P 214.914†	631.8	667.3	154.21	µg/L	154.21	ppb	10:30:14
2	Pb 220.353†	260.3	160.9	9.8917	µg/L	9.8917	ppb	10:30:14

2	S 181.975 Axial†	213.7	128.1	107.82 µg/L	107.82 ppb	10:30:14
2	Sb 206.836†	134.3	46.7	6.1115 µg/L	6.1115 ppb	10:30:14
2	Se 196.026†	85.8	81.0	32.0 µg/L	32.0 ppb	10:30:14
2	SiO2†	3765.3	2084.6	220.32 µg/L	220.32 ppb	10:29:54
2	Si 251.611†	7495.9	6845.3	107.74 µg/L	107.74 ppb	10:29:54
2	Sn 189.927†	145.1	145.5	10.110 µg/L	10.110 ppb	10:30:14
2	Ti 334.940†	5701.4	4966.9	5.0513 µg/L	5.0513 ppb	10:29:54
2	Tl 190.801†	42.7	157.6	21.607 µg/L	21.607 ppb	10:30:14
2	U 409.014†	837.2	1013.6	64.273 µg/L	64.273 ppb	10:29:54
2	V 292.402†	1281.9	878.6	4.7076 µg/L	4.7076 ppb	10:29:54
2	Zn 213.857†	2244.8	1776.7	10.559 µg/L	10.559 ppb	10:30:14
3	Sc RADIAL	141499.9	141499.9	101 %		10:29:22
3	Al 396.153Radial†	902.8	972.4	204.30 µg/L	204.30 ppb	10:29:24
3	Ca 317.933Radial†	3625.9	3018.4	205.58 µg/L	205.58 ppb	10:29:24
3	Fe 238.204 Radial†	1528.3	1395.8	104.24 µg/L	104.24 ppb	10:29:24
3	K 766.490 Radial†	1924.1	411.1	162.76 µg/L	162.76 ppb	10:29:22
3	Mg 279.077 IEC†	884.8	703.6	325.00 µg/L	325.00 ppb	10:29:24
3	Na 589.592 Radial†	2796.7	1816.3	281.40 µg/L	281.40 ppb	10:29:24
3	Sr 421.552†	2078.5	2262.3	5.3339 µg/L	5.3339 ppb	10:29:24
3	Sc 361.383	1809314.5	1809314.5	100.29 %		10:30:16
3	Y 371.029	1060913.4	1060913.4	100.34 %		10:30:16
3	Ag 328.068†	5830.0	1248.2	5.2210 µg/L	5.2210 ppb	10:30:18
3	As 188.979†	82.3	100.6	34.129 µg/L	34.129 ppb	10:30:38
3	B 249.677†	7300.8	3214.9	49.979 µg/L	49.979 ppb	10:30:18
3	Ba 233.527†	972.1	1113.9	4.9559 µg/L	4.9559 ppb	10:30:38
3	Be 313.107†	16413.7	17458.6	5.0723 µg/L	5.0723 ppb	10:30:18
3	Cd 226.502†	657.5	759.0	5.1213 µg/L	5.1213 ppb	10:30:38
3	Co 228.616†	193.3	403.1	5.3320 µg/L	5.3320 ppb	10:30:38
3	Cr 267.716†	830.2	594.7	5.1050 µg/L	5.1050 ppb	10:30:38
3	Cu 324.752†	5532.4	2480.5	10.443 µg/L	10.443 ppb	10:30:18
3	Mn 257.610†	8096.9	7889.1	10.452 µg/L	10.452 ppb	10:30:18
3	Mo 202.031†	245.6	283.5	9.2820 µg/L	9.2820 ppb	10:30:38
3	Ni 231.604†	321.4	416.4	5.2097 µg/L	5.2097 ppb	10:30:38
3	P 214.914†	632.2	656.1	151.62 µg/L	151.62 ppb	10:30:38
3	Pb 220.353†	240.3	136.1	8.3755 µg/L	8.3755 ppb	10:30:38
3	S 181.975 Axial†	210.4	120.9	101.79 µg/L	101.79 ppb	10:30:38
3	Sb 206.836†	142.1	52.0	6.7786 µg/L	6.7786 ppb	10:30:38
3	Se 196.026†	92.7	86.3	34.1 µg/L	34.1 ppb	10:30:38
3	SiO2†	3995.7	2245.2	237.35 µg/L	237.35 ppb	10:30:18
3	Si 251.611†	7591.6	6803.0	107.09 µg/L	107.09 ppb	10:30:18
3	Sn 189.927†	145.0	142.7	9.9131 µg/L	9.9131 ppb	10:30:38
3	Ti 334.940†	5766.5	4927.0	5.0173 µg/L	5.0173 ppb	10:30:18
3	Tl 190.801†	41.5	155.7	21.346 µg/L	21.346 ppb	10:30:38
3	U 409.014†	624.1	785.7	49.910 µg/L	49.910 ppb	10:30:18
3	V 292.402†	1376.7	949.5	5.0570 µg/L	5.0570 ppb	10:30:18
3	Zn 213.857†	2245.7	1736.3	10.320 µg/L	10.320 ppb	10:30:38

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1800073.2	99.774	%	1.1371				1.14%
Sc RADIAL	141636.6	101	%	0.1				0.09%
Y 371.029	1055436.1	99.824	%	1.1649				1.17%
Ag 328.068†	1148.3	4.8200	µg/L	0.45709	4.8200	ppb	0.45709	9.48%
QC value within limits for Ag 328.068 Recovery = 96.40%								
Al 396.153Radial†	980.5	205.96	µg/L	25.124	205.96	ppb	25.124	12.20%
QC value within limits for Al 396.153Radial Recovery = 102.98%								
As 188.979†	99.9	33.897	µg/L	2.0651	33.897	ppb	2.0651	6.09%
QC value within limits for As 188.979 Recovery = 112.99%								
B 249.677†	3241.7	50.396	µg/L	0.4603	50.396	ppb	0.4603	0.91%
QC value within limits for B 249.677 Recovery = 100.79%								
Ba 233.527†	1144.0	5.0900	µg/L	0.14810	5.0900	ppb	0.14810	2.91%
QC value within limits for Ba 233.527 Recovery = 101.80%								
Be 313.107†	17296.2	5.0266	µg/L	0.05978	5.0266	ppb	0.05978	1.19%
QC value within limits for Be 313.107 Recovery = 100.53%								
Ca 317.933Radial†	3026.4	206.12	µg/L	2.642	206.12	ppb	2.642	1.28%
QC value within limits for Ca 317.933Radial Recovery = 103.06%								
Cd 226.502†	759.9	5.1273	µg/L	0.09792	5.1273	ppb	0.09792	1.91%
QC value within limits for Cd 226.502 Recovery = 102.55%								
Co 228.616†	403.1	5.3325	µg/L	0.11382	5.3325	ppb	0.11382	2.13%

```
   QC value within limits for Co 228.616  Recovery = 106.65%
Cr 267.716†              583.7      5.0064 µg/L       0.22276      5.0064 ppb        0.22276   4.45%
   QC value within limits for Cr 267.716  Recovery = 100.13%
Cu 324.752†             2441.9      10.285 µg/L        0.1448      10.285 ppb         0.1448   1.41%
   QC value within limits for Cu 324.752  Recovery = 102.85%
Fe 238.204 Radial†      1390.8      103.87 µg/L         2.845      103.87 ppb          2.845   2.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.87%
K 766.490 Radial†        380.1      150.47 µg/L        23.319      150.47 ppb         23.319  15.50%
   QC value within limits for K 766.490 Radial  Recovery = 100.31%
Mg 279.077 IEC†          711.3      328.59 µg/L        10.947      328.59 ppb         10.947   3.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.53%
Mn 257.610†             7886.1      10.448 µg/L        0.1212      10.448 ppb         0.1212   1.16%
   QC value within limits for Mn 257.610  Recovery = 104.48%
Mo 202.031†              304.6      9.9743 µg/L       0.61026      9.9743 ppb        0.61026   6.12%
   QC value within limits for Mo 202.031  Recovery = 99.74%
Na 589.592 Radial†      1788.0      277.03 µg/L         5.304      277.03 ppb          5.304   1.91%
   QC value within limits for Na 589.592 Radial  Recovery = 92.34%
Ni 231.604†              418.2      5.2322 µg/L       0.26577      5.2322 ppb        0.26577   5.08%
   QC value within limits for Ni 231.604  Recovery = 104.64%
P 214.914†               658.6      152.20 µg/L         1.789      152.20 ppb          1.789   1.18%
   QC value within limits for P 214.914  Recovery = 101.47%
Pb 220.353†              154.4      9.4994 µg/L       0.98805      9.4994 ppb        0.98805  10.40%
   QC value within limits for Pb 220.353  Recovery = 94.99%
S 181.975 Axial†         121.5      102.33 µg/L         5.237      102.33 ppb          5.237   5.12%
   QC value within limits for S 181.975 Axial  Recovery = 102.33%
Sb 206.836†               54.2      7.0817 µg/L       1.15204      7.0817 ppb        1.15204  16.27%
   QC value within limits for Sb 206.836  Recovery = 70.82%
Se 196.026†               90.2        35.6 µg/L          4.62        35.6 ppb           4.62  12.96%
   QC value within limits for Se 196.026  Recovery = 118.81%
SiO2†                   2130.7      225.20 µg/L        10.592      225.20 ppb         10.592   4.70%
   QC value within limits for SiO2  Recovery = 105.73%
Si 251.611†             6783.2      106.76 µg/L         1.174      106.76 ppb          1.174   1.10%
   QC value within limits for Si 251.611  Recovery = 106.76%
Sn 189.927†              148.5      10.317 µg/L        0.5376      10.317 ppb         0.5376   5.21%
   QC value within limits for Sn 189.927  Recovery = 103.17%
Sr 421.552†             2312.5      5.4523 µg/L       0.12318      5.4523 ppb        0.12318   2.26%
   QC value within limits for Sr 421.552  Recovery = 109.05%
Ti 334.940†             4924.4      5.0125 µg/L       0.04145      5.0125 ppb        0.04145   0.83%
   QC value within limits for Ti 334.940  Recovery = 100.25%
Tl 190.801†              155.1      21.271 µg/L        0.3801      21.271 ppb         0.3801   1.79%
   QC value within limits for Tl 190.801  Recovery = 106.35%
U 409.014†               858.1      54.490 µg/L        8.4787      54.490 ppb         8.4787  15.56%
   QC value within limits for U 409.014  Recovery = 108.98%
V 292.402†               989.2      5.2727 µg/L       0.69837      5.2727 ppb        0.69837  13.25%
   QC value within limits for V 292.402  Recovery = 105.45%
Zn 213.857†             1757.4      10.445 µg/L        0.1201      10.445 ppb         0.1201   1.15%
   QC value within limits for Zn 213.857  Recovery = 104.45%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 4/5/2010 10:30:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128118.6	128118.6	91.5	%			10:31:19
1	Al 396.153Radial†	2213795.6	2420782.5	509660	µg/L	509660	ppb	10:31:17
1	Ca 317.933Radial†	6606069.4	7222922.0	491950	µg/L	491950	ppb	10:31:17
1	Fe 238.204 Radial†	2362080.3	2582730.5	192880	µg/L	192880	ppb	10:31:17
1	K 766.490 Radial†	1496.6	142.7	-187.26	µg/L	-187.26	ppb	10:31:19
1	Mg 279.077 IEC†	972171.2	1062860.9	490600	µg/L	490600	ppb	10:31:17
1	Na 589.592 Radial†	1170.1	326.9	50.623	µg/L	50.623	ppb	10:31:19
1	Sr 421.552†	4658.8	5298.7	8.6462	µg/L	8.6462	ppb	10:31:19
1	Sc 361.383	1581772.1	1581772.1	87.674	%			10:31:32
1	Y 371.029	913048.3	913048.3	86.357	%			10:31:32
1	Ag 328.068†	6751.4	3135.4	-0.7645	µg/L	-0.7645	ppb	10:31:32
1	As 188.979†	-94.1	-88.8	13.191	µg/L	13.191	ppb	10:31:52
1	B 249.677†	4066.1	572.6	8.8918	µg/L	8.8918	ppb	10:31:32
1	Ba 233.527†	383.0	581.4	0.1203	µg/L	0.1203	ppb	10:31:52
1	Be 313.107†	-291.7	759.0	0.2135	µg/L	0.2135	ppb	10:31:32
1	Cd 226.502†	2322.1	2751.9	-1.6829	µg/L	-1.6829	ppb	10:31:52
1	Co 228.616†	65.4	284.9	-6.2907	µg/L	-6.2907	ppb	10:31:52
1	Cr 267.716†	227.8	26.6	0.9599	µg/L	0.9599	ppb	10:31:52
1	Cu 324.752†	-5602.2	-9426.0	1.9087	µg/L	1.9087	ppb	10:31:32
1	Mn 257.610†	15226.9	17182.9	2.8255	µg/L	2.8255	ppb	10:31:32
1	Mo 202.031†	-533.4	-569.8	-2.0372	µg/L	-2.0372	ppb	10:31:52
1	Ni 231.604†	109.0	220.2	2.7550	µg/L	2.7550	ppb	10:31:52
1	P 214.914†	152.0	199.0	28.356	µg/L	28.356	ppb	10:31:52
1	Pb 220.353†	-270.6	-412.1	0.0388	µg/L	0.0388	ppb	10:31:52
1	S 181.975 Axial†	175.6	111.3	93.501	µg/L	93.501	ppb	10:31:52
1	Sb 206.836†	130.3	58.9	1.5033	µg/L	1.5033	ppb	10:31:52
1	Se 196.026†	-137.9	-163.4	2.51	µg/L	2.51	ppb	10:31:52
1	SiO2†	1649.9	142.7	15.602	µg/L	15.602	ppb	10:31:52
1	Si 251.611†	499.7	-197.1	-2.8776	µg/L	-2.8776	ppb	10:31:52
1	Sn 189.927†	36.3	39.5	2.8247	µg/L	2.8247	ppb	10:31:52
1	Ti 334.940†	21726.4	23957.9	-2.5303	µg/L	-2.5303	ppb	10:31:32
1	Tl 190.801†	-162.0	-70.5	-9.1790	µg/L	-9.1790	ppb	10:31:52
1	U 409.014†	-433.0	-330.5	-42.174	µg/L	-42.174	ppb	10:31:32
1	V 292.402†	4095.4	4247.9	1.4397	µg/L	1.4397	ppb	10:31:32
1	Zn 213.857†	4191.7	4278.1	8.9566	µg/L	8.9566	ppb	10:31:52
2	Sc RADIAL	127837.7	127837.7	91.3	%			10:31:24
2	Al 396.153Radial†	2210404.0	2422384.5	510000	µg/L	510000	ppb	10:31:22
2	Ca 317.933Radial†	6599761.5	7231881.1	492560	µg/L	492560	ppb	10:31:22
2	Fe 238.204 Radial†	2358861.0	2584877.7	193040	µg/L	193040	ppb	10:31:22
2	K 766.490 Radial†	1627.9	290.2	-129.07	µg/L	-129.07	ppb	10:31:24
2	Mg 279.077 IEC†	971105.4	1064028.7	491140	µg/L	491140	ppb	10:31:22
2	Na 589.592 Radial†	1340.9	516.9	80.019	µg/L	80.019	ppb	10:31:24
2	Sr 421.552†	4691.9	5346.2	8.7534	µg/L	8.7534	ppb	10:31:24
2	Sc 361.383	1601726.0	1601726.0	88.780	%			10:31:55
2	Y 371.029	924331.0	924331.0	87.424	%			10:31:55
2	Ag 328.068†	6732.2	3017.9	-1.2361	µg/L	-1.2361	ppb	10:31:55
2	As 188.979†	-100.4	-94.5	11.292	µg/L	11.292	ppb	10:32:15
2	B 249.677†	4142.1	600.4	9.3234	µg/L	9.3234	ppb	10:31:55
2	Ba 233.527†	415.6	612.7	0.2573	µg/L	0.2573	ppb	10:32:15
2	Be 313.107†	-658.4	350.1	0.1024	µg/L	0.1024	ppb	10:31:55
2	Cd 226.502†	2287.7	2680.2	-2.1849	µg/L	-2.1849	ppb	10:32:15
2	Co 228.616†	80.1	300.6	-6.0911	µg/L	-6.0911	ppb	10:32:15
2	Cr 267.716†	216.7	10.9	0.8039	µg/L	0.8039	ppb	10:32:15
2	Cu 324.752†	-5526.1	-9260.6	2.6582	µg/L	2.6582	ppb	10:31:55
2	Mn 257.610†	15435.0	17201.0	2.8276	µg/L	2.8276	ppb	10:31:55
2	Mo 202.031†	-532.0	-560.7	-1.7223	µg/L	-1.7223	ppb	10:32:15
2	Ni 231.604†	77.9	183.6	2.2975	µg/L	2.2975	ppb	10:32:15
2	P 214.914†	142.5	186.2	25.349	µg/L	25.349	ppb	10:32:15
2	Pb 220.353†	-320.0	-463.9	-3.1465	µg/L	-3.1465	ppb	10:32:15

2	S 181.975 Axial†	177.0	110.4	92.750 µg/L	92.750 ppb	10:32:15
2	Sb 206.836†	126.2	52.5	0.6818 µg/L	0.6818 ppb	10:32:15
2	Se 196.026†	-144.5	-168.9	0.419 µg/L	0.419 ppb	10:32:15
2	SiO2†	1619.4	85.0	9.4740 µg/L	9.4740 ppb	10:32:15
2	Si 251.611†	519.4	-182.0	-2.6482 µg/L	-2.6482 ppb	10:32:15
2	Sn 189.927†	45.3	49.1	3.4897 µg/L	3.4897 ppb	10:32:15
2	Ti 334.940†	22275.7	24268.0	-2.2496 µg/L	-2.2496 ppb	10:31:55
2	Tl 190.801†	-159.0	-64.8	-8.4026 µg/L	-8.4026 ppb	10:32:15
2	U 409.014†	-99.2	51.7	-18.085 µg/L	-18.085 ppb	10:31:55
2	V 292.402†	4098.2	4192.9	1.1561 µg/L	1.1561 ppb	10:31:55
2	Zn 213.857†	4180.5	4205.9	8.5109 µg/L	8.5109 ppb	10:32:15
3	Sc RADIAL	129703.1	129703.1	92.6 %		10:31:28
3	Al 396.153Radial†	2204567.2	2381242.2	501340 µg/L	501340 ppb	10:31:26
3	Ca 317.933Radial†	6568361.1	7093946.8	483160 µg/L	483160 ppb	10:31:26
3	Fe 238.204 Radial†	2348182.8	2536166.2	189400 µg/L	189400 ppb	10:31:26
3	K 766.490 Radial†	1631.7	268.7	-133.18 µg/L	-133.18 ppb	10:31:28
3	Mg 279.077 IEC†	966514.2	1043764.2	481780 µg/L	481780 ppb	10:31:26
3	Na 589.592 Radial†	1406.4	566.5	87.719 µg/L	87.719 ppb	10:31:28
3	Sr 421.552†	4640.9	5217.1	8.5226 µg/L	8.5226 ppb	10:31:28
3	Sc 361.383	1627878.3	1627878.3	90.230 %		10:32:18
3	Y 371.029	938743.5	938743.5	88.787 %		10:32:18
3	Ag 328.068†	6471.5	2607.1	-2.6885 µg/L	-2.6885 ppb	10:32:18
3	As 188.979†	-94.2	-85.8	13.417 µg/L	13.417 ppb	10:32:38
3	B 249.677†	4197.3	586.7	9.1112 µg/L	9.1112 ppb	10:32:18
3	Ba 233.527†	414.2	603.6	0.2637 µg/L	0.2637 ppb	10:32:38
3	Be 313.107†	-313.0	744.8	0.2077 µg/L	0.2077 ppb	10:32:18
3	Cd 226.502†	2287.7	2638.8	-2.0823 µg/L	-2.0823 ppb	10:32:38
3	Co 228.616†	59.7	276.5	-6.2204 µg/L	-6.2204 ppb	10:32:38
3	Cr 267.716†	209.3	-1.3	0.7104 µg/L	0.7104 ppb	10:32:38
3	Cu 324.752†	-5671.6	-9321.9	1.5944 µg/L	1.5944 ppb	10:32:18
3	Mn 257.610†	15670.2	17182.3	3.1834 µg/L	3.1834 ppb	10:32:18
3	Mo 202.031†	-504.6	-520.7	-0.7299 µg/L	-0.7299 ppb	10:32:38
3	Ni 231.604†	88.9	194.5	2.4329 µg/L	2.4329 ppb	10:32:38
3	P 214.914†	123.4	162.4	20.381 µg/L	20.381 ppb	10:32:38
3	Pb 220.353†	-328.2	-467.2	-3.7410 µg/L	-3.7410 ppb	10:32:38
3	S 181.975 Axial†	164.9	93.8	78.776 µg/L	78.776 ppb	10:32:38
3	Sb 206.836†	159.1	86.7	5.2093 µg/L	5.2093 ppb	10:32:38
3	Se 196.026†	-150.6	-173.0	-2.48 µg/L	-2.48 ppb	10:32:38
3	SiO2†	1645.7	84.8	9.4396 µg/L	9.4396 ppb	10:32:38
3	Si 251.611†	506.5	-205.7	-3.0292 µg/L	-3.0292 ppb	10:32:38
3	Sn 189.927†	26.5	27.5	1.9892 µg/L	1.9892 ppb	10:32:38
3	Ti 334.940†	22768.4	24410.9	-1.5733 µg/L	-1.5733 ppb	10:32:18
3	Tl 190.801†	-138.4	-39.1	-4.8829 µg/L	-4.8829 ppb	10:32:38
3	U 409.014†	-530.1	-424.2	-47.679 µg/L	-47.679 ppb	10:32:18
3	V 292.402†	4198.6	4230.0	1.7250 µg/L	1.7250 ppb	10:32:18
3	Zn 213.857†	4221.9	4176.0	8.6627 µg/L	8.6627 ppb	10:32:38

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1603792.1	88.894	%	1.2816				1.44%
Sc RADIAL	128553.1	91.8	%	0.72				0.78%
Y 371.029	925374.3	87.523	%	1.2181				1.39%
Ag 328.068†	2920.1	-1.5630	µg/L	1.00280	-1.5630	ppb	1.00280	64.16%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2408136.4	507000	µg/L	4906.5	507000	ppb	4906.5	0.97%
QC value within limits for Al 396.153Radial Recovery = 101.40%								
As 188.979†	-89.7	12.634	µg/L	1.1672	12.634	ppb	1.1672	9.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	586.6	9.1088	µg/L	0.21580	9.1088	ppb	0.21580	2.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	599.2	0.2138	µg/L	0.08101	0.2138	ppb	0.08101	37.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	618.0	0.1745	µg/L	0.06254	0.1745	ppb	0.06254	35.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7182916.7	489220	µg/L	5256.7	489220	ppb	5256.7	1.07%
QC value within limits for Ca 317.933Radial Recovery = 97.84%								
Cd 226.502†	2690.3	-1.9834	µg/L	0.26521	-1.9834	ppb	0.26521	13.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	287.3	-6.2008	µg/L	0.10120	-6.2008	ppb	0.10120	1.63%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              12.1      0.8247 µg/L       0.12605      0.8247 ppb        0.12605  15.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -9336.2      2.0538 µg/L       0.54654      2.0538 ppb        0.54654  26.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2567924.8      191770 µg/L        2055.5      191770 ppb         2055.5   1.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.89%
K 766.490 Radial†        233.8     -149.84 µg/L        32.478     -149.84 ppb         32.478  21.68%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1056884.6      487840 µg/L        5251.7      487840 ppb         5251.7   1.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.57%
Mn 257.610†           17188.8      2.9455 µg/L       0.20606      2.9455 ppb        0.20606   7.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -550.4     -1.4964 µg/L       0.68228     -1.4964 ppb        0.68228  45.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       470.1      72.787 µg/L       19.5769      72.787 ppb        19.5769  26.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              199.4      2.4952 µg/L       0.23503      2.4952 ppb        0.23503   9.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               182.6      24.695 µg/L        4.0272      24.695 ppb         4.0272  16.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -447.7     -2.2829 µg/L       2.03252     -2.2829 ppb        2.03252  89.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         105.2      88.342 µg/L        8.2929      88.342 ppb         8.2929   9.39%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               66.0      2.4648 µg/L       2.41204      2.4648 ppb        2.41204  97.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -168.5       0.151 µg/L        2.5033       0.151 ppb         2.5033 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    104.2      11.505 µg/L        3.5481      11.505 ppb         3.5481  30.84%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -195.0     -2.8517 µg/L       0.19180     -2.8517 ppb        0.19180   6.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               38.7      2.7679 µg/L       0.75190      2.7679 ppb        0.75190  27.17%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             5287.3      8.6407 µg/L       0.11552      8.6407 ppb        0.11552   1.34%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            24212.2     -2.1177 µg/L       0.49194     -2.1177 ppb        0.49194  23.23%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -58.1     -7.4882 µg/L       2.28939     -7.4882 ppb        2.28939  30.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -234.3     -35.979 µg/L       15.7394     -35.979 ppb        15.7394  43.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              4223.6      1.4403 µg/L       0.28444      1.4403 ppb        0.28444  19.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             4220.0      8.7101 µg/L       0.22657      8.7101 ppb        0.22657   2.60%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 4/5/2010 10:32:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128019.8	128019.8	91.4	%			10:33:20
1	Al 396.153Radial†	2214899.0	2423858.2	510290	µg/L	510290	ppb	10:33:18
1	Ca 317.933Radial†	6539945.8	7156137.6	487400	µg/L	487400	ppb	10:33:18
1	Fe 238.204 Radial†	2362815.2	2585528.2	193090	µg/L	193090	ppb	10:33:18
1	K 766.490 Radial†	14647.9	14535.5	5515.6	µg/L	5515.6	ppb	10:33:20
1	Mg 279.077 IEC†	974260.6	1065967.9	492040	µg/L	492040	ppb	10:33:20
1	Na 589.592 Radial†	32736.9	34871.7	5400.3	µg/L	5400.3	ppb	10:33:20
1	Sr 421.552†	200734.4	219869.6	514.74	µg/L	514.74	ppb	10:33:20
1	Sc 361.383	1596681.5	1596681.5	88.500	%			10:33:33
1	Y 371.029	922181.2	922181.2	87.221	%			10:33:33
1	Ag 328.068†	64143.4	67913.0	271.20	µg/L	271.20	ppb	10:33:33
1	As 188.979†	1228.9	1407.2	525.28	µg/L	525.28	ppb	10:33:35
1	B 249.677†	33489.8	33776.3	523.69	µg/L	523.69	ppb	10:33:33
1	Ba 233.527†	100868.2	114119.4	505.26	µg/L	505.26	ppb	10:33:33
1	Be 313.107†	749032.7	847453.0	245.64	µg/L	245.64	ppb	10:33:33
1	Cd 226.502†	65812.0	74466.9	483.20	µg/L	483.20	ppb	10:33:33
1	Co 228.616†	30517.4	34693.1	449.43	µg/L	449.43	ppb	10:33:35
1	Cr 267.716†	50564.5	56901.6	492.70	µg/L	492.70	ppb	10:33:35
1	Cu 324.752†	108957.7	120079.4	544.37	µg/L	544.37	ppb	10:33:33
1	Mn 257.610†	338390.3	382175.7	486.95	µg/L	486.95	ppb	10:33:33
1	Mo 202.031†	12995.7	14722.9	498.30	µg/L	498.30	ppb	10:33:35
1	Ni 231.604†	32630.8	36966.7	462.50	µg/L	462.50	ppb	10:33:35
1	P 214.914†	10002.4	11327.8	2595.9	µg/L	2595.9	ppb	10:33:35
1	Pb 220.353†	6487.9	7227.4	471.57	µg/L	471.57	ppb	10:33:35
1	S 181.975 Axial†	2976.8	3274.7	2758.9	µg/L	2758.9	ppb	10:33:35
1	Sb 206.836†	3581.5	3957.2	505.52	µg/L	505.52	ppb	10:33:35
1	Se 196.026†	5381.4	6074.5	2460	µg/L	2460	ppb	10:33:35
1	SiO2†	95028.9	105637.8	11166	µg/L	11166	ppb	10:33:33
1	Si 251.611†	294883.1	332432.9	5232.5	µg/L	5232.5	ppb	10:33:33
1	Sn 189.927†	6210.9	7016.0	488.46	µg/L	488.46	ppb	10:33:35
1	Ti 334.940†	461750.7	520927.2	507.28	µg/L	507.28	ppb	10:33:33
1	Tl 190.801†	2890.5	3380.4	469.95	µg/L	469.95	ppb	10:33:35
1	U 409.014†	7089.3	8173.8	526.30	µg/L	526.30	ppb	10:33:33
1	V 292.402†	91601.8	103081.2	520.84	µg/L	520.84	ppb	10:33:33
1	Zn 213.857†	77574.0	87150.9	500.68	µg/L	500.68	ppb	10:33:33
2	Sc RADIAL	126403.7	126403.7	90.2	%			10:33:24
2	Al 396.153Radial†	2203106.6	2441777.1	514060	µg/L	514060	ppb	10:33:22
2	Ca 317.933Radial†	6488979.1	7191150.9	489780	µg/L	489780	ppb	10:33:22
2	Fe 238.204 Radial†	2345597.7	2599503.8	194130	µg/L	194130	ppb	10:33:22
2	K 766.490 Radial†	14463.1	14535.7	5514.5	µg/L	5514.5	ppb	10:33:24
2	Mg 279.077 IEC†	957123.1	1060605.1	489570	µg/L	489570	ppb	10:33:24
2	Na 589.592 Radial†	32172.3	34703.9	5374.3	µg/L	5374.3	ppb	10:33:24
2	Sr 421.552†	197937.5	219578.3	514.03	µg/L	514.03	ppb	10:33:24
2	Sc 361.383	1581820.4	1581820.4	87.677	%			10:33:38
2	Y 371.029	914057.4	914057.4	86.452	%			10:33:38
2	Ag 328.068†	63616.7	67993.2	271.43	µg/L	271.43	ppb	10:33:38
2	As 188.979†	1284.1	1483.2	551.30	µg/L	551.30	ppb	10:33:40
2	B 249.677†	33289.7	33903.6	525.64	µg/L	525.64	ppb	10:33:38
2	Ba 233.527†	99713.8	113873.6	504.16	µg/L	504.16	ppb	10:33:38
2	Be 313.107†	739555.2	844594.9	244.81	µg/L	244.81	ppb	10:33:38
2	Cd 226.502†	64961.3	74195.3	481.25	µg/L	481.25	ppb	10:33:38
2	Co 228.616†	30729.7	35259.2	456.87	µg/L	456.87	ppb	10:33:40
2	Cr 267.716†	50663.4	57551.2	498.39	µg/L	498.39	ppb	10:33:40
2	Cu 324.752†	107715.1	119818.9	543.36	µg/L	543.36	ppb	10:33:38
2	Mn 257.610†	334418.8	381238.2	485.80	µg/L	485.80	ppb	10:33:38
2	Mo 202.031†	13147.6	15034.1	508.47	µg/L	508.47	ppb	10:33:40
2	Ni 231.604†	32935.7	37660.8	471.18	µg/L	471.18	ppb	10:33:40
2	P 214.914†	10097.2	11542.1	2645.6	µg/L	2645.6	ppb	10:33:40
2	Pb 220.353†	6531.5	7346.1	479.11	µg/L	479.11	ppb	10:33:40

2	S 181.975 Axial†	2995.8	3327.9	2803.8 µg/L	2803.8 ppb	10:33:40
2	Sb 206.836†	3745.1	4181.8	534.53 µg/L	534.53 ppb	10:33:40
2	Se 196.026†	5400.3	6153.2	2490 µg/L	2490 ppb	10:33:40
2	SiO2†	93970.9	105439.9	11145 µg/L	11145 ppb	10:33:38
2	Si 251.611†	291728.5	331965.3	5224.9 µg/L	5224.9 ppb	10:33:38
2	Sn 189.927†	6321.6	7208.2	501.79 µg/L	501.79 ppb	10:33:40
2	Ti 334.940†	457210.2	520650.3	507.26 µg/L	507.26 ppb	10:33:38
2	Tl 190.801†	2885.4	3405.2	473.28 µg/L	473.28 ppb	10:33:40
2	U 409.014†	6901.3	8034.6	517.25 µg/L	517.25 ppb	10:33:38
2	V 292.402†	90427.2	102714.0	518.95 µg/L	518.95 ppb	10:33:38
2	Zn 213.857†	76624.2	86891.1	499.00 µg/L	499.00 ppb	10:33:38
3	Sc RADIAL	128673.7	128673.7	91.8 %		10:33:28
3	Al 396.153Radial†	2211074.6	2407376.9	506820 µg/L	506820 ppb	10:33:26
3	Ca 317.933Radial†	6514056.0	7091580.2	483000 µg/L	483000 ppb	10:33:26
3	Fe 238.204 Radial†	2355764.0	2564711.1	191530 µg/L	191530 ppb	10:33:26
3	K 766.490 Radial†	14678.7	14487.6	5498.2 µg/L	5498.2 ppb	10:33:28
3	Mg 279.077 IEC†	977848.9	1064456.5	491350 µg/L	491350 ppb	10:33:28
3	Na 589.592 Radial†	32762.8	34717.8	5376.4 µg/L	5376.4 ppb	10:33:28
3	Sr 421.552†	201341.9	219414.6	513.70 µg/L	513.70 ppb	10:33:28
3	Sc 361.383	1602537.7	1602537.7	88.825 %		10:33:43
3	Y 371.029	925694.1	925694.1	87.553 %		10:33:43
3	Ag 328.068†	64236.0	67752.3	270.66 µg/L	270.66 ppb	10:33:43
3	As 188.979†	1257.5	1434.3	534.05 µg/L	534.05 ppb	10:33:45
3	B 249.677†	33647.4	33815.4	524.30 µg/L	524.30 ppb	10:33:43
3	Ba 233.527†	101063.2	113922.5	504.40 µg/L	504.40 ppb	10:33:43
3	Be 313.107†	751090.5	846676.9	245.41 µg/L	245.41 ppb	10:33:43
3	Cd 226.502†	66103.1	74522.9	483.74 µg/L	483.74 ppb	10:33:43
3	Co 228.616†	30595.5	34655.1	449.01 µg/L	449.01 ppb	10:33:45
3	Cr 267.716†	50288.4	56382.0	488.16 µg/L	488.16 ppb	10:33:45
3	Cu 324.752†	109381.3	120106.5	544.23 µg/L	544.23 ppb	10:33:43
3	Mn 257.610†	339181.7	381669.4	486.31 µg/L	486.31 ppb	10:33:43
3	Mo 202.031†	13013.7	14689.5	497.13 µg/L	497.13 ppb	10:33:45
3	Ni 231.604†	32496.9	36681.3	458.93 µg/L	458.93 ppb	10:33:45
3	P 214.914†	10072.5	11365.5	2604.9 µg/L	2604.9 ppb	10:33:45
3	Pb 220.353†	6417.3	7121.2	464.87 µg/L	464.87 ppb	10:33:45
3	S 181.975 Axial†	3006.9	3296.3	2777.1 µg/L	2777.1 ppb	10:33:45
3	Sb 206.836†	3648.9	4018.3	513.51 µg/L	513.51 ppb	10:33:45
3	Se 196.026†	5398.0	6071.0	2460 µg/L	2460 ppb	10:33:45
3	SiO2†	95329.6	105583.9	11160 µg/L	11160 ppb	10:33:43
3	Si 251.611†	295739.0	332178.9	5228.4 µg/L	5228.4 ppb	10:33:43
3	Sn 189.927†	6344.0	7140.3	497.08 µg/L	497.08 ppb	10:33:45
3	Ti 334.940†	463293.2	520757.1	507.05 µg/L	507.05 ppb	10:33:43
3	Tl 190.801†	2903.4	3383.0	470.31 µg/L	470.31 ppb	10:33:45
3	U 409.014†	7023.4	8070.4	519.96 µg/L	519.96 ppb	10:33:43
3	V 292.402†	92013.4	103166.3	521.41 µg/L	521.41 ppb	10:33:43
3	Zn 213.857†	77780.4	87063.0	500.33 µg/L	500.33 ppb	10:33:43

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1593679.9	88.334	%	0.5920				0.67%
Sc RADIAL	127699.1	91.2	%	0.83				0.92%
Y 371.029	920644.2	87.075	%	0.5645				0.65%
Ag 328.068†	67886.2	271.10	µg/L	0.393	271.10	ppb	0.393	0.15%
QC value within limits for Ag 328.068 Recovery = 108.44%								
Al 396.153Radial†	2424337.4	510390	µg/L	3622.0	510390	ppb	3622.0	0.71%
QC value within limits for Al 396.153Radial Recovery = 102.08%								
As 188.979†	1441.5	536.88	µg/L	13.237	536.88	ppb	13.237	2.47%
QC value within limits for As 188.979 Recovery = 107.38%								
B 249.677†	33831.8	524.54	µg/L	1.000	524.54	ppb	1.000	0.19%
QC value within limits for B 249.677 Recovery = 104.91%								
Ba 233.527†	113971.8	504.61	µg/L	0.579	504.61	ppb	0.579	0.11%
QC value within limits for Ba 233.527 Recovery = 100.92%								
Be 313.107†	846241.6	245.29	µg/L	0.429	245.29	ppb	0.429	0.18%
QC value within limits for Be 313.107 Recovery = 98.12%								
Ca 317.933Radial†	7146289.6	486730	µg/L	3440.2	486730	ppb	3440.2	0.71%
QC value within limits for Ca 317.933Radial Recovery = 97.35%								
Cd 226.502†	74395.1	482.73	µg/L	1.305	482.73	ppb	1.305	0.27%
QC value within limits for Cd 226.502 Recovery = 96.55%								
Co 228.616†	34869.1	451.77	µg/L	4.420	451.77	ppb	4.420	0.98%

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   QC value within limits for Co 228.616  Recovery = 90.35%
Cr 267.716†            56944.9      493.08 µg/L        5.125      493.08 ppb         5.125   1.04%
   QC value within limits for Cr 267.716  Recovery = 98.62%
Cu 324.752†           120001.6      543.99 µg/L        0.546      543.99 ppb         0.546   0.10%
   QC value within limits for Cu 324.752  Recovery = 108.80%
Fe 238.204 Radial†   2583247.7      192920 µg/L       1307.5      192920 ppb        1307.5   0.68%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.46%
K 766.490 Radial†      14519.6      5509.4 µg/L         9.72      5509.4 ppb          9.72   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 110.19%
Mg 279.077 IEC†      1063676.5      490990 µg/L       1277.3      490990 ppb        1277.3   0.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.20%
Mn 257.610†           381694.4      486.35 µg/L        0.575      486.35 ppb         0.575   0.12%
   QC value within limits for Mn 257.610  Recovery = 97.27%
Mo 202.031†            14815.5      501.30 µg/L        6.238      501.30 ppb         6.238   1.24%
   QC value within limits for Mo 202.031  Recovery = 100.26%
Na 589.592 Radial†     34764.5      5383.7 µg/L        14.43      5383.7 ppb         14.43   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 107.67%
Ni 231.604†            37102.9      464.20 µg/L        6.303      464.20 ppb         6.303   1.36%
   QC value within limits for Ni 231.604  Recovery = 92.84%
P 214.914†             11411.8      2615.5 µg/L        26.48      2615.5 ppb         26.48   1.01%
   QC value within limits for P 214.914  Recovery = 104.62%
Pb 220.353†             7231.6      471.85 µg/L        7.120      471.85 ppb         7.120   1.51%
   QC value within limits for Pb 220.353  Recovery = 94.37%
S 181.975 Axial†        3299.6      2779.9 µg/L        22.57      2779.9 ppb         22.57   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 111.20%
Sb 206.836†             4052.4      517.86 µg/L       14.982      517.86 ppb        14.982   2.89%
   QC value within limits for Sb 206.836  Recovery = 103.57%
Se 196.026†             6099.5       2470 µg/L         18.7        2470 ppb          18.7   0.76%
   QC value within limits for Se 196.026  Recovery = 98.82%
SiO2†                 105553.8       11157 µg/L         11.1       11157 ppb          11.1   0.10%
   QC value within limits for SiO2  Recovery = 104.32%
Si 251.611†           332192.4      5228.6 µg/L         3.80      5228.6 ppb         3.80   0.07%
   QC value within limits for Si 251.611  Recovery = 104.57%
Sn 189.927†             7121.5      495.78 µg/L        6.759      495.78 ppb         6.759   1.36%
   QC value within limits for Sn 189.927  Recovery = 99.16%
Sr 421.552†           219620.8      514.16 µg/L        0.530      514.16 ppb         0.530   0.10%
   QC value within limits for Sr 421.552  Recovery = 102.83%
Ti 334.940†           520778.2      507.19 µg/L        0.127      507.19 ppb         0.127   0.02%
   QC value within limits for Ti 334.940  Recovery = 101.44%
Tl 190.801†             3389.5      471.18 µg/L        1.829      471.18 ppb         1.829   0.39%
   QC value within limits for Tl 190.801  Recovery = 94.24%
U 409.014†              8093.0      521.17 µg/L        4.641      521.17 ppb         4.641   0.89%
   QC value within limits for U 409.014  Recovery = 104.23%
V 292.402†            102987.2      520.40 µg/L        1.288      520.40 ppb         1.288   0.25%
   QC value within limits for V 292.402  Recovery = 104.08%
Zn 213.857†            87035.0      500.01 µg/L        0.885      500.01 ppb         0.885   0.18%
   QC value within limits for Zn 213.857  Recovery = 100.00%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 4/5/2010 10:33:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	126559.3	126559.3	90.3	%			10:34:25
1	Al 396.153Radial†	2128657.4	2356365.3	496100	µg/L	496100	ppb	10:34:22
1	Ca 317.933Radial†	6314300.7	6988953.2	476010	µg/L	476010	ppb	10:34:22
1	Fe 238.204 Radial†	5465694.5	6050054.8	451810	µg/L	451810	ppb	10:34:22
1	K 766.490 Radial†	1793.1	491.1	-123.38	µg/L	-123.38	ppb	10:34:25
1	Mg 279.077 IEC†	925975.9	1024823.3	472810	µg/L	472810	ppb	10:34:22
1	Na 589.592 Radial†	2921252.7	3232686.2	501090	µg/L	501090	ppb	10:34:22
1	Sr 421.552†	4654.3	5356.4	8.9072	µg/L	8.9072	ppb	10:34:25
1	Sc 361.383	1546919.1	1546919.1	85.742	%			10:34:38
1	Y 371.029	889839.0	889839.0	84.162	%			10:34:38
1	Ag 328.068†	3005.5	-1059.9	1.4083	µg/L	1.4083	ppb	10:34:38
1	As 188.979†	-255.7	-279.7	6.6904	µg/L	6.6904	ppb	10:34:40
1	B 249.677†	4737.5	1460.2	22.664	µg/L	22.664	ppb	10:34:38
1	Ba 233.527†	794.9	1071.6	-1.0098	µg/L	-1.0098	ppb	10:34:40
1	Be 313.107†	-14682.0	-16031.7	0.3428	µg/L	0.3428	ppb	10:34:38
1	Cd 226.502†	5844.0	6919.2	-0.7482	µg/L	-0.7482	ppb	10:34:40
1	Co 228.616†	652.2	971.0	-10.720	µg/L	-10.720	ppb	10:34:40
1	Cr 267.716†	351.0	176.1	-1.5441	µg/L	-1.5441	ppb	10:34:40
1	Cu 324.752†	-15692.1	-21337.7	2.9748	µg/L	2.9748	ppb	10:34:40
1	Mn 257.610†	17073.7	19728.1	6.2222	µg/L	6.2222	ppb	10:34:38
1	Mo 202.031†	-894.4	-1004.5	-6.3291	µg/L	-6.3291	ppb	10:34:40
1	Ni 231.604†	193.6	321.7	4.0242	µg/L	4.0242	ppb	10:34:40
1	P 214.914†	900.7	1076.2	52.946	µg/L	52.946	ppb	10:34:40
1	Pb 220.353†	11.4	-90.1	-1.6997	µg/L	-1.6997	ppb	10:34:40
1	S 181.975 Axial†	192.8	136.0	114.13	µg/L	114.13	ppb	10:34:40
1	Sb 206.836†	124.5	55.5	-2.2629	µg/L	-2.2629	ppb	10:34:40
1	Se 196.026†	-394.4	-466.1	-11.0	µg/L	-11.0	ppb	10:34:40
1	SiO2†	1859.0	429.1	46.249	µg/L	46.249	ppb	10:34:40
1	Si 251.611†	-1930.6	-3018.7	-47.219	µg/L	-47.219	ppb	10:34:40
1	Sn 189.927†	106.6	122.4	8.5822	µg/L	8.5822	ppb	10:34:40
1	Ti 334.940†	23243.8	26285.9	-5.8854	µg/L	-5.8854	ppb	10:34:38
1	Tl 190.801†	-201.7	-121.0	-15.915	µg/L	-15.915	ppb	10:34:40
1	U 409.014†	224009.3	261422.7	16417	µg/L	16417	ppb	10:34:38
1	V 292.402†	7774.1	8643.6	7.8652	µg/L	7.8652	ppb	10:34:40
1	Zn 213.857†	8281.3	9155.3	10.683	µg/L	10.683	ppb	10:34:40
2	Sc RADIAL	125637.5	125637.5	89.7	%			10:34:29
2	Al 396.153Radial†	2139692.1	2385957.6	502330	µg/L	502330	ppb	10:34:27
2	Ca 317.933Radial†	6354290.4	7084825.6	482540	µg/L	482540	ppb	10:34:27
2	Fe 238.204 Radial†	5498978.2	6131557.8	457900	µg/L	457900	ppb	10:34:27
2	K 766.490 Radial†	1725.0	429.7	-152.02	µg/L	-152.02	ppb	10:34:29
2	Mg 279.077 IEC†	932671.5	1039809.6	479730	µg/L	479730	ppb	10:34:27
2	Na 589.592 Radial†	2940679.8	3278073.6	508130	µg/L	508130	ppb	10:34:27
2	Sr 421.552†	4574.3	5305.0	8.7348	µg/L	8.7348	ppb	10:34:29
2	Sc 361.383	1550512.3	1550512.3	85.941	%			10:34:42
2	Y 371.029	892357.6	892357.6	84.400	%			10:34:42
2	Ag 328.068†	3032.7	-1036.3	1.2903	µg/L	1.2903	ppb	10:34:42
2	As 188.979†	-211.5	-227.5	25.707	µg/L	25.707	ppb	10:34:44
2	B 249.677†	4893.9	1629.4	25.298	µg/L	25.298	ppb	10:34:42
2	Ba 233.527†	603.9	847.2	-2.0851	µg/L	-2.0851	ppb	10:34:44
2	Be 313.107†	-14522.2	-15806.1	0.4095	µg/L	0.4095	ppb	10:34:42
2	Cd 226.502†	5739.3	6781.5	-2.3191	µg/L	-2.3191	ppb	10:34:44
2	Co 228.616†	595.5	903.2	-11.935	µg/L	-11.935	ppb	10:34:44
2	Cr 267.716†	342.7	165.6	-1.5126	µg/L	-1.5126	ppb	10:34:44
2	Cu 324.752†	-15930.4	-21572.5	3.0692	µg/L	3.0692	ppb	10:34:44
2	Mn 257.610†	17146.9	19767.1	5.9836	µg/L	5.9836	ppb	10:34:42
2	Mo 202.031†	-828.5	-925.5	-3.3760	µg/L	-3.3760	ppb	10:34:44
2	Ni 231.604†	188.2	314.8	3.9390	µg/L	3.9390	ppb	10:34:44
2	P 214.914†	1023.7	1216.9	82.738	µg/L	82.738	ppb	10:34:44
2	Pb 220.353†	73.4	-18.1	2.9268	µg/L	2.9268	ppb	10:34:44

2	S 181.975 Axial†	158.3	95.2	79.867 µg/L	79.867 ppb	10:34:44
2	Sb 206.836†	173.2	111.9	4.9301 µg/L	4.9301 ppb	10:34:44
2	Se 196.026†	-374.2	-441.6	0.817 µg/L	0.817 ppb	10:34:44
2	SiO2†	1834.7	395.7	42.620 µg/L	42.620 ppb	10:34:44
2	Si 251.611†	-1956.2	-3043.3	-47.651 µg/L	-47.651 ppb	10:34:44
2	Sn 189.927†	124.7	143.2	10.027 µg/L	10.027 ppb	10:34:44
2	Ti 334.940†	23738.1	26798.3	-5.7543 µg/L	-5.7543 ppb	10:34:42
2	Tl 190.801†	-179.8	-95.0	-12.363 µg/L	-12.363 ppb	10:34:44
2	U 409.014†	224589.1	261491.9	16421 µg/L	16421 ppb	10:34:42
2	V 292.402†	7601.7	8422.0	6.1036 µg/L	6.1036 ppb	10:34:44
2	Zn 213.857†	8434.0	9310.7	11.011 µg/L	11.011 ppb	10:34:44
3	Sc RADIAL	125009.8	125009.8	89.2 %		10:34:33
3	Al 396.153Radial†	2147785.3	2407007.4	506760 µg/L	506760 ppb	10:34:31
3	Ca 317.933Radial†	6365764.1	7133261.2	485840 µg/L	485840 ppb	10:34:31
3	Fe 238.204 Radial†	5518715.6	6184465.3	461850 µg/L	461850 ppb	10:34:31
3	K 766.490 Radial†	1705.0	416.9	-159.53 µg/L	-159.53 ppb	10:34:33
3	Mg 279.077 IEC†	935614.4	1048329.5	483660 µg/L	483660 ppb	10:34:31
3	Na 589.592 Radial†	2945186.3	3299588.6	511460 µg/L	511460 ppb	10:34:31
3	Sr 421.552†	4533.1	5284.5	8.6605 µg/L	8.6605 ppb	10:34:33
3	Sc 361.383	1555977.3	1555977.3	86.244 %		10:34:47
3	Y 371.029	894540.6	894540.6	84.606 %		10:34:47
3	Ag 328.068†	3170.4	-889.1	1.7502 µg/L	1.7502 ppb	10:34:47
3	As 188.979†	-206.6	-220.9	28.849 µg/L	28.849 ppb	10:34:49
3	B 249.677†	4646.7	1322.7	20.528 µg/L	20.528 ppb	10:34:47
3	Ba 233.527†	637.3	883.5	-1.9741 µg/L	-1.9741 ppb	10:34:49
3	Be 313.107†	-14782.6	-16048.7	0.3304 µg/L	0.3304 ppb	10:34:47
3	Cd 226.502†	5726.3	6743.0	-2.9943 µg/L	-2.9943 ppb	10:34:49
3	Co 228.616†	615.1	923.5	-11.872 µg/L	-11.872 ppb	10:34:49
3	Cr 267.716†	615.1	480.0	1.3198 µg/L	1.3198 ppb	10:34:49
3	Cu 324.752†	-15376.1	-20864.6	6.6877 µg/L	6.6877 ppb	10:34:49
3	Mn 257.610†	17099.2	19641.7	5.6509 µg/L	5.6509 ppb	10:34:47
3	Mo 202.031†	-820.9	-913.3	-2.7493 µg/L	-2.7493 ppb	10:34:49
3	Ni 231.604†	272.9	412.4	5.1591 µg/L	5.1591 ppb	10:34:49
3	P 214.914†	953.1	1130.8	61.063 µg/L	61.063 ppb	10:34:49
3	Pb 220.353†	-35.1	-144.1	-4.6591 µg/L	-4.6591 ppb	10:34:49
3	S 181.975 Axial†	122.3	52.9	44.250 µg/L	44.250 ppb	10:34:49
3	Sb 206.836†	70.4	-8.1	-10.659 µg/L	-10.659 ppb	10:34:49
3	Se 196.026†	-357.0	-420.1	10.6 µg/L	10.6 ppb	10:34:49
3	SiO2†	2030.3	615.0	65.880 µg/L	65.880 ppb	10:34:49
3	Si 251.611†	-2018.3	-3107.2	-48.643 µg/L	-48.643 ppb	10:34:49
3	Sn 189.927†	86.3	98.2	6.9028 µg/L	6.9028 ppb	10:34:49
3	Ti 334.940†	23731.5	26693.7	-6.0852 µg/L	-6.0852 ppb	10:34:47
3	Tl 190.801†	-184.9	-100.1	-13.064 µg/L	-13.064 ppb	10:34:49
3	U 409.014†	224984.1	261032.0	16391 µg/L	16391 ppb	10:34:47
3	V 292.402†	7659.0	8457.3	5.8662 µg/L	5.8662 ppb	10:34:49
3	Zn 213.857†	8212.2	9019.0	8.8832 µg/L	8.8832 ppb	10:34:49

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1551136.2	85.976	%	0.2528				0.29%
Sc RADIAL	125735.5	89.8	%	0.56				0.62%
Y 371.029	892245.7	84.389	%	0.2225				0.26%
Ag 328.068†	-995.1	1.4829	µg/L	0.23886	1.4829	ppb	0.23886	16.11%
Al 396.153Radial†	2383110.1	501730	µg/L	5356.1	501730	ppb	5356.1	1.07%
QC value within limits for Al 396.153Radial Recovery = 100.35%								
As 188.979†	-242.7	20.416	µg/L	11.9898	20.416	ppb	11.9898	58.73%
B 249.677†	1470.8	22.830	µg/L	2.3893	22.830	ppb	2.3893	10.47%
Ba 233.527†	934.1	-1.6897	µg/L	0.59142	-1.6897	ppb	0.59142	35.00%
Be 313.107†	-15962.2	0.3609	µg/L	0.04251	0.3609	ppb	0.04251	11.78%
Ca 317.933Radial†	7069013.4	481460	µg/L	5002.1	481460	ppb	5002.1	1.04%
QC value within limits for Ca 317.933Radial Recovery = 96.29%								
Cd 226.502†	6814.5	-2.0205	µg/L	1.15241	-2.0205	ppb	1.15241	57.03%
Co 228.616†	932.6	-11.509	µg/L	0.6841	-11.509	ppb	0.6841	5.94%
Cr 267.716†	273.9	-0.5790	µg/L	1.64446	-0.5790	ppb	1.64446	284.03%
Cu 324.752†	-21258.2	4.2439	µg/L	2.11693	4.2439	ppb	2.11693	49.88%
Fe 238.204 Radial†	6122026.0	457190	µg/L	5056.6	457190	ppb	5056.6	1.11%
QC value within limits for Fe 238.204 Radial Recovery = 91.44%								
K 766.490 Radial†	445.9	-144.98	µg/L	19.077	-144.98	ppb	19.077	13.16%
Mg 279.077 IEC†	1037654.1	478730	µg/L	5490.6	478730	ppb	5490.6	1.15%

QC value within limits for Mg 279.077 IEC Recovery = 95.75%

Mn 257.610†	19712.3	5.9522 µg/L	0.28693	5.9522 ppb	0.28693	4.82%
Mo 202.031†	-947.8	-4.1515 µg/L	1.91175	-4.1515 ppb	1.91175	46.05%
Na 589.592 Radial†	3270116.1	506890 µg/L	5294.1	506890 ppb	5294.1	1.04%

QC value within limits for Na 589.592 Radial Recovery = 101.38%

Ni 231.604†	349.6	4.3741 µg/L	0.68113	4.3741 ppb	0.68113	15.57%
P 214.914†	1141.3	65.582 µg/L	15.4013	65.582 ppb	15.4013	23.48%
Pb 220.353†	-84.1	-1.1440 µg/L	3.82337	-1.1440 ppb	3.82337	334.21%
S 181.975 Axial†	94.7	79.414 µg/L	34.9395	79.414 ppb	34.9395	44.00%
Sb 206.836†	53.1	-2.6640 µg/L	7.80248	-2.6640 ppb	7.80248	292.88%
Se 196.026†	-442.6	0.161 µg/L	10.8059	0.161 ppb	10.8059	>999.9%
SiO2†	479.9	51.583 µg/L	12.5135	51.583 ppb	12.5135	24.26%
Si 251.611†	-3056.4	-47.838 µg/L	0.7304	-47.838 ppb	0.7304	1.53%
Sn 189.927†	121.3	8.5039 µg/L	1.56348	8.5039 ppb	1.56348	18.39%
Sr 421.552†	5315.3	8.7675 µg/L	0.12654	8.7675 ppb	0.12654	1.44%
Ti 334.940†	26592.6	-5.9083 µg/L	0.16664	-5.9083 ppb	0.16664	2.82%
Tl 190.801†	-105.3	-13.781 µg/L	1.8816	-13.781 ppb	1.8816	13.65%
U 409.014†	261315.5	16410 µg/L	16.3	16410 ppb	16.3	0.10%

QC value within limits for U 409.014 Recovery = 109.40%

V 292.402†	8507.6	6.6117 µg/L	1.09206	6.6117 ppb	1.09206	16.52%
Zn 213.857†	9161.7	10.192 µg/L	1.1457	10.192 ppb	1.1457	11.24%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 4/5/2010 10:34:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137041.1	137041.1	97.8	%			10:35:30
1	Al 396.153Radial†	2091.5	2216.6	10.244	µg/L	10.244	ppb	10:35:32
1	Ca 317.933Radial†	1536.0	998.8	68.025	µg/L	68.025	ppb	10:35:32
1	Fe 238.204 Radial†	-466.5	-594.2	-44.377	µg/L	-44.377	ppb	10:35:32
1	K 766.490 Radial†	729152.1	743896.6	294770	µg/L	294770	ppb	10:35:30
1	Mg 279.077 IEC†	-410.3	-591.9	-32.847	µg/L	-32.847	ppb	10:35:32
1	Na 589.592 Radial†	3206.4	2325.3	98.292	µg/L	98.292	ppb	10:35:32
1	Sr 421.552†	3999711.8	4088990.0	9643.7	µg/L	9643.7	ppb	10:35:28
1	Sc 361.383	1745097.4	1745097.4	96.727	%			10:35:54
1	Y 371.029	997842.0	997842.0	94.377	%			10:35:54
1	Ag 328.068†	-24011.8	-29389.6	-1.6157	µg/L	-1.6157	ppb	10:35:56
1	As 188.979†	28702.2	29692.0	10298	µg/L	10298	ppb	10:35:56
1	B 249.677†	314525.9	321104.5	4960.9	µg/L	4960.9	ppb	10:35:54
1	Ba 233.527†	3126133.6	3232068.9	14376	µg/L	14376	ppb	10:35:54
1	Be 313.107†	9652994.7	9980751.1	2891.0	µg/L	2891.0	ppb	10:35:50
1	Cd 226.502†	1393887.8	1441161.4	9744.7	µg/L	9744.7	ppb	10:35:54
1	Co 228.616†	690506.6	714084.2	9464.3	µg/L	9464.3	ppb	10:35:54
1	Cr 267.716†	2688558.7	2779308.4	24048	µg/L	24048	ppb	10:35:54
1	Cu 324.752†	4655201.0	4809700.5	20122	µg/L	20122	ppb	10:35:54
1	Mn 257.610†	6823928.3	7054670.5	9358.4	µg/L	9358.4	ppb	10:35:54
1	Mo 202.031†	290630.9	300504.6	9831.1	µg/L	9831.1	ppb	10:35:56
1	Ni 231.604†	756062.1	781743.7	9780.6	µg/L	9780.6	ppb	10:35:54
1	P 214.914†	64200.1	66398.4	15124	µg/L	15124	ppb	10:35:56
1	Pb 220.353†	374053.0	386607.7	23821	µg/L	23821	ppb	10:35:54
1	S 181.975 Axial†	60131.3	62077.3	52306	µg/L	52306	ppb	10:35:56
1	Sb 206.836†	76342.9	78836.7	9977.5	µg/L	9977.5	ppb	10:35:56
1	Se 196.026†	24244.9	25059.2	9870	µg/L	9870	ppb	10:35:56
1	SiO2†	922460.8	951938.4	100380	µg/L	100380	ppb	10:35:54
1	Si 251.611†	2889117.4	2986120.3	46891	µg/L	46891	ppb	10:35:54
1	Sn 189.927†	139315.0	144027.6	10024	µg/L	10024	ppb	10:35:56
1	Ti 334.940†	9511207.1	9832250.5	10091	µg/L	10091	ppb	10:35:50
1	Tl 190.801†	67486.0	69884.1	9695.8	µg/L	9695.8	ppb	10:35:56
1	U 409.014†	-9077.0	-9220.8	28.768	µg/L	28.768	ppb	10:35:56
1	V 292.402†	1875279.5	1938317.1	10241	µg/L	10241	ppb	10:35:54
1	Zn 213.857†	2352726.7	2431841.8	14447	µg/L	14447	ppb	10:35:54
2	Sc RADIAL	136238.0	136238.0	97.2	%			10:35:36
2	Al 396.153Radial†	2330.1	2474.6	66.653	µg/L	66.653	ppb	10:35:38
2	Ca 317.933Radial†	1811.3	1291.1	87.936	µg/L	87.936	ppb	10:35:38
2	Fe 238.204 Radial†	-254.9	-379.5	-28.338	µg/L	-28.338	ppb	10:35:38
2	K 766.490 Radial†	723379.4	742354.0	294150	µg/L	294150	ppb	10:35:36
2	Mg 279.077 IEC†	-266.5	-446.5	33.185	µg/L	33.185	ppb	10:35:38
2	Na 589.592 Radial†	3288.8	2429.3	114.95	µg/L	114.95	ppb	10:35:38
2	Sr 421.552†	4058247.0	4173281.4	9842.5	µg/L	9842.5	ppb	10:35:34
2	Sc 361.383	1743215.3	1743215.3	96.622	%			10:36:04
2	Y 371.029	995676.7	995676.7	94.172	%			10:36:04
2	Ag 328.068†	-23853.7	-29252.8	-0.9419	µg/L	-0.9419	ppb	10:36:06
2	As 188.979†	28504.8	29519.8	10240	µg/L	10240	ppb	10:36:06
2	B 249.677†	314697.3	321633.0	4969.1	µg/L	4969.1	ppb	10:36:04
2	Ba 233.527†	3124556.7	3233926.1	14384	µg/L	14384	ppb	10:36:04
2	Be 313.107†	9596946.2	9933517.7	2877.3	µg/L	2877.3	ppb	10:36:00
2	Cd 226.502†	1394309.9	1443154.1	9758.1	µg/L	9758.1	ppb	10:36:04
2	Co 228.616†	690666.8	715020.7	9476.7	µg/L	9476.7	ppb	10:36:04
2	Cr 267.716†	2690044.7	2783847.2	24087	µg/L	24087	ppb	10:36:04
2	Cu 324.752†	4658450.0	4818259.0	20158	µg/L	20158	ppb	10:36:04
2	Mn 257.610†	6824028.9	7062391.3	9368.6	µg/L	9368.6	ppb	10:36:04
2	Mo 202.031†	288983.5	299124.1	9785.9	µg/L	9785.9	ppb	10:36:06
2	Ni 231.604†	755753.2	782267.9	9787.1	µg/L	9787.1	ppb	10:36:04
2	P 214.914†	63999.8	66262.8	15093	µg/L	15093	ppb	10:36:06
2	Pb 220.353†	374105.8	387079.9	23849	µg/L	23849	ppb	10:36:04

2	S 181.975 Axial†	59808.2	61810.0	52081	µg/L	52081 ppb	10:36:06
2	Sb 206.836†	75810.5	78370.9	9916.1	µg/L	9916.1 ppb	10:36:06
2	Se 196.026†	24043.8	24878.2	9800	µg/L	9800 ppb	10:36:06
2	SiO2†	925226.3	955830.3	100800	µg/L	100800 ppb	10:36:04
2	Si 251.611†	2896126.6	2996599.3	47057	µg/L	47057 ppb	10:36:04
2	Sn 189.927†	138237.6	143068.1	9957.6	µg/L	9957.6 ppb	10:36:06
2	Ti 334.940†	9462409.3	9792363.1	10050	µg/L	10050 ppb	10:36:00
2	Tl 190.801†	67159.9	69621.9	9659.6	µg/L	9659.6 ppb	10:36:06
2	U 409.014†	-9085.7	-9240.0	28.141	µg/L	28.141 ppb	10:36:06
2	V 292.402†	1875085.9	1940209.9	10251	µg/L	10251 ppb	10:36:04
2	Zn 213.857†	2353882.7	2435664.2	14470	µg/L	14470 ppb	10:36:04
3	Sc RADIAL	137851.9	137851.9	98.4	%		10:35:43
3	Al 396.153Radial†	2181.4	2295.5	27.169	µg/L	27.169 ppb	10:35:45
3	Ca 317.933Radial†	1189.0	636.9	43.378	µg/L	43.378 ppb	10:35:45
3	Fe 238.204 Radial†	-552.2	-678.5	-50.673	µg/L	-50.673 ppb	10:35:45
3	K 766.490 Radial†	736719.2	747202.5	296080	µg/L	296080 ppb	10:35:43
3	Mg 279.077 IEC†	-281.6	-458.6	28.539	µg/L	28.539 ppb	10:35:45
3	Na 589.592 Radial†	3006.3	2102.7	62.614	µg/L	62.614 ppb	10:35:45
3	Sr 421.552†	4060800.1	4127022.4	9733.4	µg/L	9733.4 ppb	10:35:41
3	Sc 361.383	1752934.8	1752934.8	97.161	%		10:36:13
3	Y 371.029	1001396.2	1001396.2	94.713	%		10:36:13
3	Ag 328.068†	-24151.3	-29422.1	-1.6137	µg/L	-1.6137 ppb	10:36:15
3	As 188.979†	28800.2	29660.2	10288	µg/L	10288 ppb	10:36:15
3	B 249.677†	317129.0	322329.8	4979.9	µg/L	4979.9 ppb	10:36:13
3	Ba 233.527†	3143064.1	3235044.1	14389	µg/L	14389 ppb	10:36:13
3	Be 313.107†	9593258.2	9874649.9	2860.3	µg/L	2860.3 ppb	10:36:10
3	Cd 226.502†	1403189.2	1444291.5	9765.8	µg/L	9765.8 ppb	10:36:13
3	Co 228.616†	695082.1	715601.6	9484.4	µg/L	9484.4 ppb	10:36:13
3	Cr 267.716†	2703738.1	2782503.9	24075	µg/L	24075 ppb	10:36:13
3	Cu 324.752†	4685820.8	4819697.1	20164	µg/L	20164 ppb	10:36:13
3	Mn 257.610†	6866217.2	7066652.6	9374.3	µg/L	9374.3 ppb	10:36:13
3	Mo 202.031†	291726.8	300289.2	9824.0	µg/L	9824.0 ppb	10:36:15
3	Ni 231.604†	761256.4	783595.0	9803.7	µg/L	9803.7 ppb	10:36:13
3	P 214.914†	64499.6	66409.8	15127	µg/L	15127 ppb	10:36:15
3	Pb 220.353†	376414.3	387309.1	23863	µg/L	23863 ppb	10:36:13
3	S 181.975 Axial†	60499.1	62177.8	52391	µg/L	52391 ppb	10:36:15
3	Sb 206.836†	76694.5	78845.7	9978.2	µg/L	9978.2 ppb	10:36:15
3	Se 196.026†	24393.5	25100.1	9890	µg/L	9890 ppb	10:36:15
3	SiO2†	931438.5	956914.6	100910	µg/L	100910 ppb	10:36:13
3	Si 251.611†	2916872.0	3001331.5	47131	µg/L	47131 ppb	10:36:13
3	Sn 189.927†	139983.2	144071.4	10027	µg/L	10027 ppb	10:36:15
3	Ti 334.940†	9456296.8	9731772.1	9987.4	µg/L	9987.4 ppb	10:36:10
3	Tl 190.801†	68171.4	70277.5	9748.5	µg/L	9748.5 ppb	10:36:15
3	U 409.014†	-8744.7	-8836.8	53.587	µg/L	53.587 ppb	10:36:15
3	V 292.402†	1885383.9	1940048.7	10251	µg/L	10251 ppb	10:36:13
3	Zn 213.857†	2368680.6	2437386.7	14480	µg/L	14480 ppb	10:36:13

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1747082.5	96.837	%	0.2857				0.30%
Sc RADIAL	137043.7	97.8	%	0.58				0.59%
Y 371.029	998304.9	94.420	%	0.2731				0.29%
Ag 328.068†	-29354.8	-1.3904	µg/L	0.38842	-1.3904	ppb	0.38842	27.94%
Al 396.153Radial†	2328.9	34.689	µg/L	28.9466	34.689	ppb	28.9466	83.45%
As 188.979†	29624.0	10276	µg/L	30.9	10276	ppb	30.9	0.30%
QC value within limits for As 188.979 Recovery = 102.76%								
B 249.677†	321689.1	4970.0	µg/L	9.52	4970.0	ppb	9.52	0.19%
QC value within limits for B 249.677 Recovery = 99.40%								
Ba 233.527†	3233679.7	14383	µg/L	6.7	14383	ppb	6.7	0.05%
QC value within limits for Ba 233.527 Recovery = 95.88%								
Be 313.107†	9929639.6	2876.2	µg/L	15.39	2876.2	ppb	15.39	0.54%
QC value within limits for Be 313.107 Recovery = 95.87%								
Ca 317.933Radial†	975.6	66.446	µg/L	22.3211	66.446	ppb	22.3211	33.59%
Cd 226.502†	1442869.0	9756.2	µg/L	10.71	9756.2	ppb	10.71	0.11%
QC value within limits for Cd 226.502 Recovery = 97.56%								
Co 228.616†	714902.2	9475.1	µg/L	10.14	9475.1	ppb	10.14	0.11%
QC value within limits for Co 228.616 Recovery = 94.75%								
Cr 267.716†	2781886.5	24070	µg/L	20.2	24070	ppb	20.2	0.08%
QC value within limits for Cr 267.716 Recovery = 96.28%								

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Cu 324.752†          4815885.5       20148 µg/L          22.6       20148 ppb          22.6   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.74%
Fe 238.204 Radial†      -550.7     -41.129 µg/L       11.5159     -41.129 ppb       11.5159  28.00%
K 766.490 Radial†     744484.4      295000 µg/L         981.6      295000 ppb         981.6   0.33%
   QC value within limits for K 766.490 Radial  Recovery = 98.33%
Mg 279.077 IEC†         -499.0      9.6261 µg/L      36.85576      9.6261 ppb      36.85576 382.87%
Mn 257.610†          7061238.1      9367.1 µg/L          8.06      9367.1 ppb          8.06   0.09%
   QC value within limits for Mn 257.610  Recovery = 93.67%
Mo 202.031†           299972.6      9813.7 µg/L         24.29      9813.7 ppb         24.29   0.25%
   QC value within limits for Mo 202.031  Recovery = 98.14%
Na 589.592 Radial†      2285.8      91.953 µg/L       26.7387      91.953 ppb       26.7387  29.08%
Ni 231.604†           782535.6      9790.5 µg/L         11.94      9790.5 ppb         11.94   0.12%
   QC value within limits for Ni 231.604  Recovery = 97.90%
P 214.914†             66357.0      15115 µg/L          19.1       15115 ppb          19.1   0.13%
   QC value within limits for P 214.914  Recovery = 100.76%
Pb 220.353†           386998.9      23844 µg/L          21.9       23844 ppb          21.9   0.09%
   QC value within limits for Pb 220.353  Recovery = 95.38%
S 181.975 Axial†       62021.7      52259 µg/L         160.1       52259 ppb         160.1   0.31%
   QC value within limits for S 181.975 Axial  Recovery = 104.52%
Sb 206.836†            78684.4      9957.3 µg/L         35.64      9957.3 ppb         35.64   0.36%
   QC value within limits for Sb 206.836  Recovery = 99.57%
Se 196.026†            25012.5       9850 µg/L          46.5        9850 ppb          46.5   0.47%
   QC value within limits for Se 196.026  Recovery = 98.54%
SiO2†                 954894.4      100700 µg/L         277.6      100700 ppb         277.6   0.28%
   QC value within limits for SiO2  Recovery = 94.11%
Si 251.611†          2994683.7      47026 µg/L         122.9       47026 ppb         122.9   0.26%
   QC value within limits for Si 251.611  Recovery = 94.05%
Sn 189.927†           143722.4      10003 µg/L          39.3       10003 ppb          39.3   0.39%
   QC value within limits for Sn 189.927  Recovery = 100.03%
Sr 421.552†          4129764.6      9739.9 µg/L         99.56      9739.9 ppb         99.56   1.02%
   QC value within limits for Sr 421.552  Recovery = 97.40%
Ti 334.940†          9785461.9      10043 µg/L          52.0       10043 ppb          52.0   0.52%
   QC value within limits for Ti 334.940  Recovery = 100.43%
Tl 190.801†            69927.8      9701.3 µg/L         44.70      9701.3 ppb         44.70   0.46%
   QC value within limits for Tl 190.801  Recovery = 97.01%
U 409.014†             -9099.2      36.832 µg/L       14.5139      36.832 ppb       14.5139  39.41%
V 292.402†           1939525.2      10248 µg/L           5.4       10248 ppb           5.4   0.05%
   QC value within limits for V 292.402  Recovery = 102.48%
Zn 213.857†          2434964.2      14466 µg/L          16.8       14466 ppb          16.8   0.12%
   QC value within limits for Zn 213.857  Recovery = 96.44%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 10:36:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139383.4	139383.4	99.5	%			10:36:57
1	Al 396.153Radial†	23983.0	24183.6	5067.9	µg/L	5067.9	ppb	10:36:57
1	Ca 317.933Radial†	74884.5	74694.3	5087.4	µg/L	5087.4	ppb	10:36:57
1	Fe 238.204 Radial†	67324.3	67549.7	5044.6	µg/L	5044.6	ppb	10:36:57
1	K 766.490 Radial†	15793.3	14379.9	5693.8	µg/L	5693.8	ppb	10:36:57
1	Mg 279.077 IEC†	11375.8	11261.3	5207.8	µg/L	5207.8	ppb	10:36:57
1	Na 589.592 Radial†	66012.0	65395.6	10132	µg/L	10132	ppb	10:36:57
1	Sr 421.552†	209942.4	211215.7	498.11	µg/L	498.11	ppb	10:36:54
1	Sc 361.383	1775532.0	1775532.0	98.414	%			10:37:23
1	Y 371.029	1029238.8	1029238.8	97.346	%			10:37:23
1	Ag 328.068†	123713.3	121142.4	502.16	µg/L	502.16	ppb	10:37:23
1	As 188.979†	1429.2	1470.7	504.76	µg/L	504.76	ppb	10:37:43
1	B 249.677†	36189.7	32707.9	506.91	µg/L	506.91	ppb	10:37:23
1	Ba 233.527†	111189.9	113126.7	503.24	µg/L	503.24	ppb	10:37:23
1	Be 313.107†	1690082.4	1718417.5	497.92	µg/L	497.92	ppb	10:37:23
1	Cd 226.502†	73455.3	74742.7	504.85	µg/L	504.85	ppb	10:37:23
1	Co 228.616†	37411.0	38224.4	505.95	µg/L	505.95	ppb	10:37:23
1	Cr 267.716†	57380.8	58072.6	502.27	µg/L	502.27	ppb	10:37:23
1	Cu 324.752†	120937.5	119850.9	502.85	µg/L	502.85	ppb	10:37:23
1	Mn 257.610†	372256.9	378072.8	501.31	µg/L	501.31	ppb	10:37:23
1	Mo 202.031†	15240.8	15525.1	508.19	µg/L	508.19	ppb	10:37:43
1	Ni 231.604†	39405.2	40136.3	502.16	µg/L	502.16	ppb	10:37:23
1	P 214.914†	10778.6	10978.0	2530.9	µg/L	2530.9	ppb	10:37:43
1	Pb 220.353†	8349.3	8380.4	517.30	µg/L	517.30	ppb	10:37:43
1	S 181.975 Axial†	1311.1	1243.3	1050.2	µg/L	1050.2	ppb	10:37:43
1	Sb 206.836†	3923.4	3896.9	503.72	µg/L	503.72	ppb	10:37:43
1	Se 196.026†	1279.8	1294.3	512	µg/L	512	ppb	10:37:43
1	SiO2†	51119.4	50204.3	5294.7	µg/L	5294.7	ppb	10:37:23
1	Si 251.611†	156377.4	158131.1	2483.4	µg/L	2483.4	ppb	10:37:23
1	Sn 189.927†	7206.6	7320.9	509.48	µg/L	509.48	ppb	10:37:43
1	Ti 334.940†	478294.1	485181.0	497.67	µg/L	497.67	ppb	10:37:23
1	Tl 190.801†	3555.2	3726.8	516.38	µg/L	516.38	ppb	10:37:43
1	U 409.014†	7075.5	7352.9	494.46	µg/L	494.46	ppb	10:37:23
1	V 292.402†	95137.0	96247.3	505.57	µg/L	505.57	ppb	10:37:23
1	Zn 213.857†	83877.0	84726.1	502.00	µg/L	502.00	ppb	10:37:23
2	Sc RADIAL	141237.6	141237.6	101	%			10:37:01
2	Al 396.153Radial†	24351.7	24232.9	5078.4	µg/L	5078.4	ppb	10:37:01
2	Ca 317.933Radial†	76105.1	74916.9	5102.5	µg/L	5102.5	ppb	10:37:01
2	Fe 238.204 Radial†	68422.0	67750.2	5059.5	µg/L	5059.5	ppb	10:37:01
2	K 766.490 Radial†	15816.9	14194.9	5620.5	µg/L	5620.5	ppb	10:37:01
2	Mg 279.077 IEC†	11511.1	11245.3	5200.4	µg/L	5200.4	ppb	10:37:01
2	Na 589.592 Radial†	66852.4	65358.1	10126	µg/L	10126	ppb	10:37:01
2	Sr 421.552†	212339.4	210823.0	497.18	µg/L	497.18	ppb	10:36:59
2	Sc 361.383	1787375.4	1787375.4	99.070	%			10:37:47
2	Y 371.029	1037117.1	1037117.1	98.091	%			10:37:47
2	Ag 328.068†	124828.0	121434.6	503.37	µg/L	503.37	ppb	10:37:47
2	As 188.979†	1441.0	1473.1	505.57	µg/L	505.57	ppb	10:38:07
2	B 249.677†	36397.3	32673.8	506.38	µg/L	506.38	ppb	10:37:47
2	Ba 233.527†	111984.0	113179.7	503.48	µg/L	503.48	ppb	10:37:47
2	Be 313.107†	1706153.7	1723260.5	499.32	µg/L	499.32	ppb	10:37:47
2	Cd 226.502†	74191.2	74991.0	506.53	µg/L	506.53	ppb	10:37:47
2	Co 228.616†	37736.8	38301.3	506.97	µg/L	506.97	ppb	10:37:47
2	Cr 267.716†	57858.9	58168.8	503.11	µg/L	503.11	ppb	10:37:47
2	Cu 324.752†	122047.6	120157.1	504.13	µg/L	504.13	ppb	10:37:47
2	Mn 257.610†	375557.0	378897.5	502.41	µg/L	502.41	ppb	10:37:47
2	Mo 202.031†	15314.4	15496.7	507.27	µg/L	507.27	ppb	10:38:07
2	Ni 231.604†	39844.4	40314.3	504.38	µg/L	504.38	ppb	10:37:47
2	P 214.914†	10818.6	10945.8	2523.4	µg/L	2523.4	ppb	10:38:07
2	Pb 220.353†	8374.4	8349.6	515.41	µg/L	515.41	ppb	10:38:07

2	S 181.975 Axial†	1316.2	1239.6	1047.1 µg/L	1047.1 ppb	10:38:07
2	Sb 206.836†	3951.4	3898.7	503.93 µg/L	503.93 ppb	10:38:07
2	Se 196.026†	1293.2	1299.1	514 µg/L	514 ppb	10:38:07
2	SiO2†	51601.8	50347.1	5309.9 µg/L	5309.9 ppb	10:37:47
2	Si 251.611†	157616.5	158329.0	2486.6 µg/L	2486.6 ppb	10:37:47
2	Sn 189.927†	7228.2	7294.2	507.63 µg/L	507.63 ppb	10:38:07
2	Ti 334.940†	482143.4	485846.0	498.36 µg/L	498.36 ppb	10:37:47
2	Tl 190.801†	3577.4	3725.3	516.20 µg/L	516.20 ppb	10:38:07
2	U 409.014†	6994.8	7223.9	486.47 µg/L	486.47 ppb	10:37:47
2	V 292.402†	96271.3	96751.8	508.18 µg/L	508.18 ppb	10:37:47
2	Zn 213.857†	84512.0	84802.3	502.44 µg/L	502.44 ppb	10:37:47
3	Sc RADIAL	139619.7	139619.7	99.7 %		10:37:05
3	Al 396.153Radial†	23966.5	24126.3	5056.2 µg/L	5056.2 ppb	10:37:05
3	Ca 317.933Radial†	75181.7	74865.1	5099.0 µg/L	5099.0 ppb	10:37:05
3	Fe 238.204 Radial†	67379.8	67490.9	5040.2 µg/L	5040.2 ppb	10:37:05
3	K 766.490 Radial†	15656.1	14215.4	5628.6 µg/L	5628.6 ppb	10:37:05
3	Mg 279.077 IEC†	11320.1	11186.0	5172.9 µg/L	5172.9 ppb	10:37:05
3	Na 589.592 Radial†	66307.8	65580.0	10160 µg/L	10160 ppb	10:37:05
3	Sr 421.552†	212426.4	213350.9	503.14 µg/L	503.14 ppb	10:37:03
3	Sc 361.383	1796359.2	1796359.2	99.568 %		10:38:10
3	Y 371.029	1041972.3	1041972.3	98.551 %		10:38:10
3	Ag 328.068†	125764.0	121744.4	504.65 µg/L	504.65 ppb	10:38:10
3	As 188.979†	1434.8	1459.5	500.98 µg/L	500.98 ppb	10:38:30
3	B 249.677†	36503.8	32597.0	505.17 µg/L	505.17 ppb	10:38:10
3	Ba 233.527†	113116.0	113751.3	506.02 µg/L	506.02 ppb	10:38:10
3	Be 313.107†	1721963.8	1730526.4	501.43 µg/L	501.43 ppb	10:38:10
3	Cd 226.502†	75117.4	75546.7	510.29 µg/L	510.29 ppb	10:38:10
3	Co 228.616†	38112.7	38488.4	509.44 µg/L	509.44 ppb	10:38:10
3	Cr 267.716†	58452.0	58472.4	505.73 µg/L	505.73 ppb	10:38:10
3	Cu 324.752†	122851.6	120348.5	504.93 µg/L	504.93 ppb	10:38:10
3	Mn 257.610†	379092.5	380552.5	504.60 µg/L	504.60 ppb	10:38:10
3	Mo 202.031†	15195.9	15300.4	500.85 µg/L	500.85 ppb	10:38:30
3	Ni 231.604†	40229.0	40499.4	506.70 µg/L	506.70 ppb	10:38:10
3	P 214.914†	10704.5	10776.6	2484.3 µg/L	2484.3 ppb	10:38:30
3	Pb 220.353†	8282.2	8214.7	507.09 µg/L	507.09 ppb	10:38:30
3	S 181.975 Axial†	1291.3	1208.0	1020.5 µg/L	1020.5 ppb	10:38:30
3	Sb 206.836†	3926.1	3853.4	497.95 µg/L	497.95 ppb	10:38:30
3	Se 196.026†	1271.1	1270.5	503 µg/L	503 ppb	10:38:30
3	SiO2†	51964.0	50450.4	5321.1 µg/L	5321.1 ppb	10:38:10
3	Si 251.611†	159117.7	159041.0	2497.9 µg/L	2497.9 ppb	10:38:10
3	Sn 189.927†	7158.9	7188.1	500.28 µg/L	500.28 ppb	10:38:30
3	Ti 334.940†	486018.7	487304.3	499.85 µg/L	499.85 ppb	10:38:10
3	Tl 190.801†	3533.3	3662.9	507.69 µg/L	507.69 ppb	10:38:30
3	U 409.014†	7097.1	7291.2	490.73 µg/L	490.73 ppb	10:38:10
3	V 292.402†	96745.9	96742.4	508.08 µg/L	508.08 ppb	10:38:10
3	Zn 213.857†	85472.9	85340.8	505.64 µg/L	505.64 ppb	10:38:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786422.2	99.017	%	0.5790				0.58%
Sc RADIAL	140080.2	100.0	%	0.72				0.72%
Y 371.029	1036109.4	97.996	%	0.6078				0.62%
Ag 328.068†	121440.5	503.39	µg/L	1.245	503.39	ppb	1.245	0.25%
QC value within limits for Ag 328.068 Recovery = 100.68%								
Al 396.153Radial†	24180.9	5067.5	µg/L	11.08	5067.5	ppb	11.08	0.22%
QC value within limits for Al 396.153Radial Recovery = 101.35%								
As 188.979†	1467.8	503.77	µg/L	2.452	503.77	ppb	2.452	0.49%
QC value within limits for As 188.979 Recovery = 100.75%								
B 249.677†	32659.6	506.15	µg/L	0.889	506.15	ppb	0.889	0.18%
QC value within limits for B 249.677 Recovery = 101.23%								
Ba 233.527†	113352.6	504.25	µg/L	1.539	504.25	ppb	1.539	0.31%
QC value within limits for Ba 233.527 Recovery = 100.85%								
Be 313.107†	1724068.1	499.56	µg/L	1.765	499.56	ppb	1.765	0.35%
QC value within limits for Be 313.107 Recovery = 99.91%								
Ca 317.933Radial†	74825.4	5096.3	µg/L	7.93	5096.3	ppb	7.93	0.16%
QC value within limits for Ca 317.933Radial Recovery = 101.93%								
Cd 226.502†	75093.5	507.22	µg/L	2.784	507.22	ppb	2.784	0.55%
QC value within limits for Cd 226.502 Recovery = 101.44%								
Co 228.616†	38338.0	507.45	µg/L	1.798	507.45	ppb	1.798	0.35%

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   QC value within limits for Co 228.616  Recovery = 101.49%
Cr 267.716†            58237.9      503.70 µg/L         1.806      503.70 ppb          1.806   0.36%
   QC value within limits for Cr 267.716  Recovery = 100.74%
Cu 324.752†           120118.8      503.97 µg/L         1.048      503.97 ppb          1.048   0.21%
   QC value within limits for Cu 324.752  Recovery = 100.79%
Fe 238.204 Radial†     67596.9      5048.1 µg/L         10.15      5048.1 ppb          10.15   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.96%
K 766.490 Radial†      14263.4      5647.7 µg/L         40.19      5647.7 ppb          40.19   0.71%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 112.95%
Mg 279.077 IEC†        11230.9      5193.7 µg/L         18.41      5193.7 ppb          18.41   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.87%
Mn 257.610†           379174.3      502.77 µg/L         1.676      502.77 ppb          1.676   0.33%
   QC value within limits for Mn 257.610  Recovery = 100.55%
Mo 202.031†            15440.7      505.43 µg/L         4.001      505.43 ppb          4.001   0.79%
   QC value within limits for Mo 202.031  Recovery = 101.09%
Na 589.592 Radial†     65444.6       10139 µg/L          18.4       10139 ppb           18.4   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 101.39%
Ni 231.604†            40316.7      504.41 µg/L         2.272      504.41 ppb          2.272   0.45%
   QC value within limits for Ni 231.604  Recovery = 100.88%
P 214.914†             10900.2      2512.9 µg/L         25.04      2512.9 ppb          25.04   1.00%
   QC value within limits for P 214.914  Recovery = 100.51%
Pb 220.353†             8314.9      513.27 µg/L         5.432      513.27 ppb          5.432   1.06%
   QC value within limits for Pb 220.353  Recovery = 102.65%
S 181.975 Axial†        1230.3      1039.3 µg/L         16.35      1039.3 ppb          16.35   1.57%
   QC value within limits for S 181.975 Axial  Recovery = 103.93%
Sb 206.836†             3883.0      501.87 µg/L         3.396      501.87 ppb          3.396   0.68%
   QC value within limits for Sb 206.836  Recovery = 100.37%
Se 196.026†             1288.0         510 µg/L           6.0         510 ppb            6.0   1.19%
   QC value within limits for Se 196.026  Recovery = 101.93%
SiO2†                  50333.9      5308.6 µg/L         13.25      5308.6 ppb          13.25   0.25%
   QC value within limits for SiO2  Recovery = 99.27%
Si 251.611†           158500.4      2489.3 µg/L          7.63      2489.3 ppb           7.63   0.31%
   QC value within limits for Si 251.611  Recovery = 99.57%
Sn 189.927†             7267.7      505.80 µg/L         4.871      505.80 ppb          4.871   0.96%
   QC value within limits for Sn 189.927  Recovery = 101.16%
Sr 421.552†           211796.5      499.47 µg/L         3.208      499.47 ppb          3.208   0.64%
   QC value within limits for Sr 421.552  Recovery = 99.89%
Ti 334.940†           486110.4      498.63 µg/L         1.117      498.63 ppb          1.117   0.22%
   QC value within limits for Ti 334.940  Recovery = 99.73%
Tl 190.801†             3705.0      513.42 µg/L         4.965      513.42 ppb          4.965   0.97%
   QC value within limits for Tl 190.801  Recovery = 102.68%
U 409.014†              7289.3      490.55 µg/L         3.999      490.55 ppb          3.999   0.82%
   QC value within limits for U 409.014  Recovery = 98.11%
V 292.402†             96580.5      507.28 µg/L         1.474      507.28 ppb          1.474   0.29%
   QC value within limits for V 292.402  Recovery = 101.46%
Zn 213.857†            84956.4      503.36 µg/L         1.987      503.36 ppb          1.987   0.39%
   QC value within limits for Zn 213.857  Recovery = 100.67%
QC Failed.  Continue with analysis.
```

Sequence No.: 14 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/5/2010 10:38:38**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139909.9	139909.9	99.9	%			10:39:07
1	Al 396.153Radial†	-55.8	22.7	4.7099	µg/L	4.7099	ppb	10:39:27
1	Ca 317.933Radial†	668.4	97.8	6.6613	µg/L	6.6613	ppb	10:39:27
1	Fe 238.204 Radial†	168.4	51.3	3.8306	µg/L	3.8306	ppb	10:39:27
1	K 766.490 Radial†	2181.0	690.0	273.40	µg/L	273.40	ppb	10:39:07
1	Mg 279.077 IEC†	195.0	22.8	10.561	µg/L	10.561	ppb	10:39:27
1	Na 589.592 Radial†	1624.4	674.0	104.23	µg/L	104.23	ppb	10:39:07
1	Sr 421.552†	-97.8	106.5	0.2512	µg/L	0.2512	ppb	10:39:07
1	Sc 361.383	1822724.3	1822724.3	101.03	%			10:40:15
1	Y 371.029	1067929.9	1067929.9	101.01	%			10:40:15
1	Ag 328.068†	4558.5	-53.1	-0.2451	µg/L	-0.2451	ppb	10:40:17
1	As 188.979†	-17.1	1.6	0.5599	µg/L	0.5599	ppb	10:40:37
1	B 249.677†	4426.7	316.4	4.9210	µg/L	4.9210	ppb	10:40:17
1	Ba 233.527†	-125.1	20.7	0.0922	µg/L	0.0922	ppb	10:40:37
1	Be 313.107†	-581.3	516.4	0.1437	µg/L	0.1437	ppb	10:40:17
1	Cd 226.502†	-17.4	86.1	0.5819	µg/L	0.5819	ppb	10:40:37
1	Co 228.616†	-210.1	2.3	0.0304	µg/L	0.0304	ppb	10:40:37
1	Cr 267.716†	230.3	-5.3	-0.0307	µg/L	-0.0307	ppb	10:40:37
1	Cu 324.752†	3295.4	225.7	0.9289	µg/L	0.9289	ppb	10:40:17
1	Mn 257.610†	310.3	122.4	0.1620	µg/L	0.1620	ppb	10:40:37
1	Mo 202.031†	6.0	44.5	1.4552	µg/L	1.4552	ppb	10:40:37
1	Ni 231.604†	-50.2	46.2	0.5783	µg/L	0.5783	ppb	10:40:37
1	P 214.914†	-9.3	16.5	3.7864	µg/L	3.7864	ppb	10:40:37
1	Pb 220.353†	119.1	14.4	0.9040	µg/L	0.9040	ppb	10:40:37
1	S 181.975 Axial†	105.7	15.7	13.183	µg/L	13.183	ppb	10:40:37
1	Sb 206.836†	87.7	-2.9	-0.3534	µg/L	-0.3534	ppb	10:40:37
1	Se 196.026†	26.3	19.9	7.82	µg/L	7.82	ppb	10:40:37
1	SiO2†	1818.1	60.4	6.3488	µg/L	6.3488	ppb	10:40:37
1	Si 251.611†	861.5	85.7	1.3276	µg/L	1.3276	ppb	10:40:17
1	Sn 189.927†	11.7	9.7	0.6739	µg/L	0.6739	ppb	10:40:37
1	Ti 334.940†	1159.3	324.5	0.3406	µg/L	0.3406	ppb	10:40:17
1	Tl 190.801†	-101.6	13.7	1.8777	µg/L	1.8777	ppb	10:40:37
1	U 409.014†	-475.4	-307.2	-19.402	µg/L	-19.402	ppb	10:40:17
1	V 292.402†	369.8	-57.2	-0.2953	µg/L	-0.2953	ppb	10:40:17
1	Zn 213.857†	703.4	193.2	1.1494	µg/L	1.1494	ppb	10:40:37
2	Sc RADIAL	139104.0	139104.0	99.3	%			10:39:29
2	Al 396.153Radial†	-55.3	22.9	4.7868	µg/L	4.7868	ppb	10:39:49
2	Ca 317.933Radial†	656.3	89.5	6.0970	µg/L	6.0970	ppb	10:39:49
2	Fe 238.204 Radial†	153.3	37.1	2.7712	µg/L	2.7712	ppb	10:39:49
2	K 766.490 Radial†	2053.7	574.5	227.64	µg/L	227.64	ppb	10:39:29
2	Mg 279.077 IEC†	181.1	9.9	4.5998	µg/L	4.5998	ppb	10:39:49
2	Na 589.592 Radial†	1651.7	711.0	110.00	µg/L	110.00	ppb	10:39:29
2	Sr 421.552†	-28.2	176.1	0.4153	µg/L	0.4153	ppb	10:39:29
2	Sc 361.383	1814086.1	1814086.1	100.55	%			10:40:39
2	Y 371.029	1063810.2	1063810.2	100.62	%			10:40:39
2	Ag 328.068†	4519.4	-70.5	-0.3026	µg/L	-0.3026	ppb	10:40:41
2	As 188.979†	-16.7	1.9	0.6543	µg/L	0.6543	ppb	10:41:02
2	B 249.677†	4194.0	105.9	1.6449	µg/L	1.6449	ppb	10:40:41
2	Ba 233.527†	36.7	181.1	0.8048	µg/L	0.8048	ppb	10:41:02
2	Be 313.107†	-830.7	265.6	0.0742	µg/L	0.0742	ppb	10:40:41
2	Cd 226.502†	-39.0	64.5	0.4361	µg/L	0.4361	ppb	10:41:02
2	Co 228.616†	-158.3	52.9	0.7000	µg/L	0.7000	ppb	10:41:02
2	Cr 267.716†	280.5	45.7	0.4025	µg/L	0.4025	ppb	10:41:02
2	Cu 324.752†	3051.0	-1.8	-0.0141	µg/L	-0.0141	ppb	10:40:41
2	Mn 257.610†	250.3	64.2	0.0850	µg/L	0.0850	ppb	10:41:02
2	Mo 202.031†	-19.1	19.6	0.6409	µg/L	0.6409	ppb	10:41:02
2	Ni 231.604†	-77.8	18.5	0.2318	µg/L	0.2318	ppb	10:41:02
2	P 214.914†	-30.8	-4.9	-1.1366	µg/L	-1.1366	ppb	10:41:02
2	Pb 220.353†	140.7	36.5	2.2529	µg/L	2.2529	ppb	10:41:02

2	S 181.975 Axial†	114.2	24.6	20.708 µg/L	20.708 ppb	10:41:02
2	Sb 206.836†	82.1	-8.1	-1.0413 µg/L	-1.0413 ppb	10:41:02
2	Se 196.026†	31.3	24.9	9.81 µg/L	9.81 ppb	10:41:02
2	SiO2†	1765.7	17.0	1.7661 µg/L	1.7661 ppb	10:41:02
2	Si 251.611†	858.7	87.0	1.3574 µg/L	1.3574 ppb	10:40:41
2	Sn 189.927†	15.3	13.3	0.9228 µg/L	0.9228 ppb	10:41:02
2	Ti 334.940†	912.5	84.5	0.0902 µg/L	0.0902 ppb	10:40:41
2	Tl 190.801†	-111.6	3.3	0.4502 µg/L	0.4502 ppb	10:41:02
2	U 409.014†	-310.7	-145.6	-9.2038 µg/L	-9.2038 ppb	10:40:41
2	V 292.402†	384.0	-41.3	-0.2124 µg/L	-0.2124 ppb	10:40:41
2	Zn 213.857†	665.6	159.0	0.9477 µg/L	0.9477 ppb	10:41:02
3	Sc RADIAL	140352.9	140352.9	100 %		10:39:51
3	Al 396.153Radial†	-12.8	65.8	13.824 µg/L	13.824 ppb	10:40:11
3	Ca 317.933Radial†	842.6	269.6	18.359 µg/L	18.359 ppb	10:40:11
3	Fe 238.204 Radial†	290.3	172.4	12.876 µg/L	12.876 ppb	10:40:11
3	K 766.490 Radial†	2021.3	523.7	207.51 µg/L	207.51 ppb	10:39:51
3	Mg 279.077 IEC†	235.2	62.3	28.777 µg/L	28.777 ppb	10:40:11
3	Na 589.592 Radial†	1483.6	528.4	81.714 µg/L	81.714 ppb	10:39:51
3	Sr 421.552†	-224.6	-19.7	-0.0465 µg/L	-0.0465 ppb	10:39:51
3	Sc 361.383	1797177.6	1797177.6	99.613 %		10:41:04
3	Y 371.029	1054450.3	1054450.3	99.731 %		10:41:04
3	Ag 328.068†	4482.2	-65.5	-0.2803 µg/L	-0.2803 ppb	10:41:06
3	As 188.979†	-10.0	8.5	2.8805 µg/L	2.8805 ppb	10:41:26
3	B 249.677†	4185.2	136.3	2.1188 µg/L	2.1188 ppb	10:41:06
3	Ba 233.527†	-139.1	4.9	0.0218 µg/L	0.0218 ppb	10:41:26
3	Be 313.107†	-828.9	259.6	0.0717 µg/L	0.0717 ppb	10:41:06
3	Cd 226.502†	-11.5	91.8	0.6190 µg/L	0.6190 ppb	10:41:26
3	Co 228.616†	-203.6	5.9	0.0772 µg/L	0.0772 ppb	10:41:26
3	Cr 267.716†	250.1	17.9	0.1638 µg/L	0.1638 ppb	10:41:26
3	Cu 324.752†	3091.9	67.8	0.2766 µg/L	0.2766 ppb	10:41:06
3	Mn 257.610†	263.6	79.9	0.1048 µg/L	0.1048 ppb	10:41:26
3	Mo 202.031†	-21.8	16.7	0.5458 µg/L	0.5458 ppb	10:41:26
3	Ni 231.604†	-72.9	22.7	0.2843 µg/L	0.2843 ppb	10:41:26
3	P 214.914†	-18.9	6.8	1.5610 µg/L	1.5610 ppb	10:41:26
3	Pb 220.353†	128.4	25.5	1.5787 µg/L	1.5787 ppb	10:41:26
3	S 181.975 Axial†	101.9	13.4	11.251 µg/L	11.251 ppb	10:41:26
3	Sb 206.836†	70.7	-18.7	-2.4055 µg/L	-2.4055 ppb	10:41:26
3	Se 196.026†	9.9	3.8	1.49 µg/L	1.49 ppb	10:41:26
3	SiO2†	1766.7	34.5	3.6151 µg/L	3.6151 ppb	10:41:26
3	Si 251.611†	977.5	214.2	3.3608 µg/L	3.3608 ppb	10:41:06
3	Sn 189.927†	23.7	21.9	1.5170 µg/L	1.5170 ppb	10:41:26
3	Ti 334.940†	715.0	-105.2	-0.1052 µg/L	-0.1052 ppb	10:41:06
3	Tl 190.801†	-104.0	9.9	1.3480 µg/L	1.3480 ppb	10:41:26
3	U 409.014†	-346.8	-184.8	-11.650 µg/L	-11.650 ppb	10:41:06
3	V 292.402†	466.6	45.2	0.2316 µg/L	0.2316 ppb	10:41:06
3	Zn 213.857†	652.7	152.2	0.9057 µg/L	0.9057 ppb	10:41:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1811329.4	100.40	%	0.720				0.72%
Sc RADIAL	139788.9	99.8	%	0.45				0.45%
Y 371.029	1062063.4	100.45	%	0.653				0.65%
Ag 328.068†	-63.1	-0.2760	µg/L	0.02898	-0.2760	ppb	0.02898	10.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	37.1	7.7736	µg/L	5.23994	7.7736	ppb	5.23994	67.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.0	1.3649	µg/L	1.31341	1.3649	ppb	1.31341	96.23%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	186.2	2.8949	µg/L	1.77056	2.8949	ppb	1.77056	61.16%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	68.9	0.3062	µg/L	0.43321	0.3062	ppb	0.43321	141.46%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	347.2	0.0965	µg/L	0.04090	0.0965	ppb	0.04090	42.38%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	152.3	10.373	µg/L	6.9226	10.373	ppb	6.9226	66.74%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	80.8	0.5457	µg/L	0.09672	0.5457	ppb	0.09672	17.73%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.4	0.2692	µg/L	0.37385	0.2692	ppb	0.37385	138.88%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                19.4      0.1785 µg/L       0.21700      0.1785 ppb        0.21700 121.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                97.2      0.3971 µg/L       0.48288      0.3971 ppb        0.48288 121.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         86.9      6.4926 µg/L       5.55342      6.4926 ppb        5.55342  85.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         596.1      236.18 µg/L        33.767      236.18 ppb         33.767  14.30%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            31.7      14.646 µg/L       12.5959      14.646 ppb        12.5959  86.00%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                88.9      0.1173 µg/L       0.03997      0.1173 ppb        0.03997  34.08%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                26.9      0.8806 µg/L       0.49988      0.8806 ppb        0.49988  56.76%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        637.8      98.649 µg/L       14.9470      98.649 ppb        14.9470  15.15%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                29.2      0.3648 µg/L       0.18676      0.3648 ppb        0.18676  51.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  6.1      1.4036 µg/L       2.46530      1.4036 ppb        2.46530 175.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                25.4      1.5785 µg/L       0.67449      1.5785 ppb        0.67449  42.73%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           17.9      15.047 µg/L        4.9964      15.047 ppb         4.9964  33.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -9.9     -1.2667 µg/L       1.04446     -1.2667 ppb        1.04446  82.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                16.2        6.37 µg/L         4.348        6.37 ppb          4.348  68.22%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      37.3      3.9100 µg/L       2.30555      3.9100 ppb        2.30555  58.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               129.0      2.0153 µg/L       1.16537      2.0153 ppb        1.16537  57.83%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                15.0      1.0379 µg/L       0.43318      1.0379 ppb        0.43318  41.74%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                87.7      0.2067 µg/L       0.23409      0.2067 ppb        0.23409 113.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               101.2      0.1085 µg/L       0.22346      0.1085 ppb        0.22346 205.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 9.0      1.2253 µg/L       0.72161      1.2253 ppb        0.72161  58.89%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -212.6     -13.419 µg/L        5.3243     -13.419 ppb         5.3243  39.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -17.8     -0.0920 µg/L       0.28332     -0.0920 ppb        0.28332 307.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               168.2      1.0009 µg/L       0.13030      1.0009 ppb        0.13030  13.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

==========

Analysis Begun

Start Time: 4/5/2010 10:49:36 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 4/5/2010 9:54:36**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/5/2010 10:49:38**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139913.8	139913.8	99.9	%			10:50:08
1	Al 396.153Radial†	24335.8	24445.5	5123.4	µg/L	5123.4	ppb	10:50:10
1	Ca 317.933Radial†	76124.3	75650.4	5152.5	µg/L	5152.5	ppb	10:50:10
1	Fe 238.204 Radial†	68091.5	68061.4	5082.8	µg/L	5082.8	ppb	10:50:10

1	K 766.490 Radial†	14510.4	13035.1	5161.0 µg/L	5161.0 ppb	10:50:10
1	Mg 279.077 IEC†	11429.7	11271.9	5212.6 µg/L	5212.6 ppb	10:50:10
1	Na 589.592 Radial†	64869.2	63999.8	9915.9 µg/L	9915.9 ppb	10:50:08
1	Sr 421.552†	210128.9	210602.6	496.66 µg/L	496.66 ppb	10:50:08
1	Sc 361.383	1793135.3	1793135.3	99.389 %		10:50:37
1	Y 371.029	1039795.9	1039795.9	98.345 %		10:50:37
1	Ag 328.068†	125023.0	121226.0	502.50 µg/L	502.50 ppb	10:50:37
1	As 188.979†	1415.1	1442.4	495.14 µg/L	495.14 ppb	10:50:57
1	B 249.677†	35686.1	31840.2	493.41 µg/L	493.41 ppb	10:50:37
1	Ba 233.527†	111774.5	112605.9	500.92 µg/L	500.92 ppb	10:50:37
1	Be 313.107†	1706398.9	1717975.2	497.80 µg/L	497.80 ppb	10:50:37
1	Cd 226.502†	74086.4	74645.0	504.19 µg/L	504.19 ppb	10:50:37
1	Co 228.616†	37804.3	38246.8	506.24 µg/L	506.24 ppb	10:50:37
1	Cr 267.716†	57747.6	57869.2	500.50 µg/L	500.50 ppb	10:50:37
1	Cu 324.752†	121662.9	119374.4	500.87 µg/L	500.87 ppb	10:50:37
1	Mn 257.610†	376107.2	378233.4	501.52 µg/L	501.52 ppb	10:50:37
1	Mo 202.031†	15189.8	15321.7	501.54 µg/L	501.54 ppb	10:50:57
1	Ni 231.604†	39897.8	40238.8	503.44 µg/L	503.44 ppb	10:50:37
1	P 214.914†	10795.7	10887.8	2510.0 µg/L	2510.0 ppb	10:50:57
1	Pb 220.353†	8262.9	8210.2	506.81 µg/L	506.81 ppb	10:50:57
1	S 181.975 Axial†	1275.8	1194.7	1009.3 µg/L	1009.3 ppb	10:50:57
1	Sb 206.836†	3955.2	3889.8	502.71 µg/L	502.71 ppb	10:50:57
1	Se 196.026†	1278.3	1280.0	507 µg/L	507 ppb	10:50:57
1	SiO2†	51569.1	50146.9	5288.9 µg/L	5288.9 ppb	10:50:37
1	Si 251.611†	157499.0	157699.7	2476.8 µg/L	2476.8 ppb	10:50:37
1	Sn 189.927†	7167.7	7209.8	501.78 µg/L	501.78 ppb	10:50:57
1	Ti 334.940†	482524.4	484666.2	497.14 µg/L	497.14 ppb	10:50:37
1	Tl 190.801†	3542.3	3678.3	509.75 µg/L	509.75 ppb	10:50:57
1	U 409.014†	7309.8	7518.1	504.80 µg/L	504.80 ppb	10:50:37
1	V 292.402†	95824.9	95990.5	504.17 µg/L	504.17 ppb	10:50:37
1	Zn 213.857†	84530.8	84547.2	500.92 µg/L	500.92 ppb	10:50:37
2	Sc RADIAL	140341.7	140341.7	100 %		10:50:12
2	Al 396.153Radial†	23928.8	23965.0	5022.0 µg/L	5022.0 ppb	10:50:14
2	Ca 317.933Radial†	74480.6	73777.1	5024.9 µg/L	5024.9 ppb	10:50:14
2	Fe 238.204 Radial†	66810.1	66574.4	4971.7 µg/L	4971.7 ppb	10:50:14
2	K 766.490 Radial†	14217.3	12698.3	5027.6 µg/L	5027.6 ppb	10:50:14
2	Mg 279.077 IEC†	11311.0	11118.6	5141.9 µg/L	5141.9 ppb	10:50:14
2	Na 589.592 Radial†	65359.5	64291.2	9961.2 µg/L	9961.2 ppb	10:50:12
2	Sr 421.552†	211237.8	211067.9	497.76 µg/L	497.76 ppb	10:50:12
2	Sc 361.383	1774369.1	1774369.1	98.349 %		10:51:01
2	Y 371.029	1029276.4	1029276.4	97.350 %		10:51:01
2	Ag 328.068†	123578.9	121088.1	501.92 µg/L	501.92 ppb	10:51:01
2	As 188.979†	1412.6	1454.9	499.35 µg/L	499.35 ppb	10:51:21
2	B 249.677†	35412.9	31942.2	495.00 µg/L	495.00 ppb	10:51:01
2	Ba 233.527†	110497.4	112496.7	500.44 µg/L	500.44 ppb	10:51:01
2	Be 313.107†	1682989.4	1712331.0	496.16 µg/L	496.16 ppb	10:51:01
2	Cd 226.502†	73151.3	74482.6	503.10 µg/L	503.10 ppb	10:51:01
2	Co 228.616†	37344.3	38181.4	505.38 µg/L	505.38 ppb	10:51:01
2	Cr 267.716†	57138.9	57864.8	500.47 µg/L	500.47 ppb	10:51:01
2	Cu 324.752†	120116.3	119096.4	499.68 µg/L	499.68 ppb	10:51:01
2	Mn 257.610†	370927.0	376968.5	499.85 µg/L	499.85 ppb	10:51:01
2	Mo 202.031†	15145.9	15438.7	505.36 µg/L	505.36 ppb	10:51:21
2	Ni 231.604†	39443.9	40201.8	502.98 µg/L	502.98 ppb	10:51:01
2	P 214.914†	10729.6	10935.4	2521.1 µg/L	2521.1 ppb	10:51:21
2	Pb 220.353†	8260.4	8295.6	512.08 µg/L	512.08 ppb	10:51:21
2	S 181.975 Axial†	1287.9	1220.6	1031.1 µg/L	1031.1 ppb	10:51:21
2	Sb 206.836†	3928.5	3904.8	504.71 µg/L	504.71 ppb	10:51:21
2	Se 196.026†	1280.0	1295.4	512 µg/L	512 ppb	10:51:21
2	SiO2†	50796.5	49910.0	5263.7 µg/L	5263.7 ppb	10:51:01
2	Si 251.611†	155366.4	157207.3	2468.9 µg/L	2468.9 ppb	10:51:01
2	Sn 189.927†	7141.4	7259.3	505.21 µg/L	505.21 ppb	10:51:21
2	Ti 334.940†	476326.0	483498.4	495.95 µg/L	495.95 ppb	10:51:01
2	Tl 190.801†	3543.4	3717.2	515.05 µg/L	515.05 ppb	10:51:21
2	U 409.014†	6925.4	7205.0	485.08 µg/L	485.08 ppb	10:51:01
2	V 292.402†	94927.6	96097.8	504.77 µg/L	504.77 ppb	10:51:01
2	Zn 213.857†	83208.3	84102.0	498.28 µg/L	498.28 ppb	10:51:01
3	Sc RADIAL	137926.0	137926.0	98.5 %		10:50:16
3	Al 396.153Radial†	23743.5	24195.1	5070.7 µg/L	5070.7 ppb	10:50:18
3	Ca 317.933Radial†	74096.5	74689.2	5087.0 µg/L	5087.0 ppb	10:50:18
3	Fe 238.204 Radial†	66279.1	67203.1	5018.7 µg/L	5018.7 ppb	10:50:18
3	K 766.490 Radial†	14171.0	12899.8	5107.4 µg/L	5107.4 ppb	10:50:18

3	Mg 279.077 IEC†	11189.8	11193.2	5176.3 µg/L	5176.3 ppb	10:50:18
3	Na 589.592 Radial†	64370.5	64429.3	9982.5 µg/L	9982.5 ppb	10:50:16
3	Sr 421.552†	208116.7	211590.8	498.99 µg/L	498.99 ppb	10:50:16
3	Sc 361.383	1790832.9	1790832.9	99.262 %		10:51:24
3	Y 371.029	1039510.2	1039510.2	98.318 %		10:51:24
3	Ag 328.068†	124982.2	121346.7	502.99 µg/L	502.99 ppb	10:51:24
3	As 188.979†	1432.6	1461.8	501.68 µg/L	501.68 ppb	10:51:44
3	B 249.677†	35516.0	31715.1	491.47 µg/L	491.47 ppb	10:51:24
3	Ba 233.527†	111713.2	112688.6	501.29 µg/L	501.29 ppb	10:51:24
3	Be 313.107†	1700513.3	1714253.1	496.72 µg/L	496.72 ppb	10:51:24
3	Cd 226.502†	73950.4	74603.7	503.92 µg/L	503.92 ppb	10:51:24
3	Co 228.616†	37761.3	38252.5	506.32 µg/L	506.32 ppb	10:51:24
3	Cr 267.716†	57636.2	57831.7	500.18 µg/L	500.18 ppb	10:51:24
3	Cu 324.752†	121402.4	119269.2	500.42 µg/L	500.42 ppb	10:51:24
3	Mn 257.610†	375337.1	377944.0	501.14 µg/L	501.14 ppb	10:51:24
3	Mo 202.031†	15165.8	15317.2	501.39 µg/L	501.39 ppb	10:51:44
3	Ni 231.604†	39837.7	40229.9	503.33 µg/L	503.33 ppb	10:51:24
3	P 214.914†	10769.4	10875.2	2507.2 µg/L	2507.2 ppb	10:51:44
3	Pb 220.353†	8292.5	8250.7	509.30 µg/L	509.30 ppb	10:51:44
3	S 181.975 Axial†	1280.9	1201.5	1015.0 µg/L	1015.0 ppb	10:51:44
3	Sb 206.836†	3936.5	3876.1	500.96 µg/L	500.96 ppb	10:51:44
3	Se 196.026†	1299.1	1302.6	515 µg/L	515 ppb	10:51:44
3	SiO2†	51317.0	49959.6	5269.1 µg/L	5269.1 ppb	10:51:24
3	Si 251.611†	156975.7	157376.2	2471.7 µg/L	2471.7 ppb	10:51:24
3	Sn 189.927†	7161.2	7212.6	501.97 µg/L	501.97 ppb	10:51:44
3	Ti 334.940†	481658.8	484418.3	496.89 µg/L	496.89 ppb	10:51:24
3	Tl 190.801†	3540.4	3681.0	510.11 µg/L	510.11 ppb	10:51:44
3	U 409.014†	7215.7	7432.8	499.47 µg/L	499.47 ppb	10:51:24
3	V 292.402†	95838.7	96128.3	504.89 µg/L	504.89 ppb	10:51:24
3	Zn 213.857†	84238.2	84361.7	499.82 µg/L	499.82 ppb	10:51:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786112.4	99.000	%	0.5673				0.57%
Sc RADIAL	139393.8	99.5	%	0.92				0.92%
Y 371.029	1036194.2	98.004	%	0.5668				0.58%
Ag 328.068†	121220.3	502.47	µg/L	0.538	502.47	ppb	0.538	0.11%
QC value within limits for Ag 328.068 Recovery = 100.49%								
Al 396.153Radial†	24201.9	5072.0	µg/L	50.69	5072.0	ppb	50.69	1.00%
QC value within limits for Al 396.153Radial Recovery = 101.44%								
As 188.979†	1453.0	498.73	µg/L	3.315	498.73	ppb	3.315	0.66%
QC value within limits for As 188.979 Recovery = 99.75%								
B 249.677†	31832.5	493.29	µg/L	1.771	493.29	ppb	1.771	0.36%
QC value within limits for B 249.677 Recovery = 98.66%								
Ba 233.527†	112597.1	500.89	µg/L	0.427	500.89	ppb	0.427	0.09%
QC value within limits for Ba 233.527 Recovery = 100.18%								
Be 313.107†	1714853.1	496.89	µg/L	0.834	496.89	ppb	0.834	0.17%
QC value within limits for Be 313.107 Recovery = 99.38%								
Ca 317.933Radial†	74705.6	5088.1	µg/L	63.80	5088.1	ppb	63.80	1.25%
QC value within limits for Ca 317.933Radial Recovery = 101.76%								
Cd 226.502†	74577.1	503.74	µg/L	0.565	503.74	ppb	0.565	0.11%
QC value within limits for Cd 226.502 Recovery = 100.75%								
Co 228.616†	38226.9	505.98	µg/L	0.521	505.98	ppb	0.521	0.10%
QC value within limits for Co 228.616 Recovery = 101.20%								
Cr 267.716†	57855.2	500.38	µg/L	0.179	500.38	ppb	0.179	0.04%
QC value within limits for Cr 267.716 Recovery = 100.08%								
Cu 324.752†	119246.7	500.32	µg/L	0.605	500.32	ppb	0.605	0.12%
QC value within limits for Cu 324.752 Recovery = 100.06%								
Fe 238.204 Radial†	67279.6	5024.4	µg/L	55.74	5024.4	ppb	55.74	1.11%
QC value within limits for Fe 238.204 Radial Recovery = 100.49%								
K 766.490 Radial†	12877.8	5098.6	µg/L	67.14	5098.6	ppb	67.14	1.32%
QC value within limits for K 766.490 Radial Recovery = 101.97%								
Mg 279.077 IEC†	11194.5	5176.9	µg/L	35.31	5176.9	ppb	35.31	0.68%
QC value within limits for Mg 279.077 IEC Recovery = 103.54%								
Mn 257.610†	377715.3	500.84	µg/L	0.878	500.84	ppb	0.878	0.18%
QC value within limits for Mn 257.610 Recovery = 100.17%								
Mo 202.031†	15359.2	502.77	µg/L	2.250	502.77	ppb	2.250	0.45%
QC value within limits for Mo 202.031 Recovery = 100.55%								
Na 589.592 Radial†	64240.1	9953.2	µg/L	34.02	9953.2	ppb	34.02	0.34%

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   QC value within limits for Na 589.592 Radial  Recovery = 99.53%
Ni 231.604†            40223.5      503.25 µg/L         0.242      503.25 ppb          0.242   0.05%
   QC value within limits for Ni 231.604  Recovery = 100.65%
P 214.914†             10899.5      2512.8 µg/L          7.37      2512.8 ppb           7.37   0.29%
   QC value within limits for P 214.914  Recovery = 100.51%
Pb 220.353†             8252.2      509.40 µg/L         2.637      509.40 ppb          2.637   0.52%
   QC value within limits for Pb 220.353  Recovery = 101.88%
S 181.975 Axial†        1205.6      1018.5 µg/L         11.31      1018.5 ppb          11.31   1.11%
   QC value within limits for S 181.975 Axial  Recovery = 101.85%
Sb 206.836†             3890.2      502.79 µg/L         1.880      502.79 ppb          1.880   0.37%
   QC value within limits for Sb 206.836  Recovery = 100.56%
Se 196.026†             1292.7         511 µg/L           4.5         511 ppb            4.5   0.89%
   QC value within limits for Se 196.026  Recovery = 102.29%
SiO2†                  50005.5      5273.9 µg/L         13.29      5273.9 ppb          13.29   0.25%
   QC value within limits for SiO2  Recovery = 98.62%
Si 251.611†           157427.7      2472.4 µg/L          3.98      2472.4 ppb           3.98   0.16%
   QC value within limits for Si 251.611  Recovery = 98.90%
Sn 189.927†             7227.3      502.98 µg/L         1.927      502.98 ppb          1.927   0.38%
   QC value within limits for Sn 189.927  Recovery = 100.60%
Sr 421.552†           211087.1      497.80 µg/L         1.166      497.80 ppb          1.166   0.23%
   QC value within limits for Sr 421.552  Recovery = 99.56%
Ti 334.940†           484194.3      496.66 µg/L         0.627      496.66 ppb          0.627   0.13%
   QC value within limits for Ti 334.940  Recovery = 99.33%
Tl 190.801†             3692.2      511.63 µg/L         2.962      511.63 ppb          2.962   0.58%
   QC value within limits for Tl 190.801  Recovery = 102.33%
U 409.014†              7385.3      496.45 µg/L        10.200      496.45 ppb         10.200   2.05%
   QC value within limits for U 409.014  Recovery = 99.29%
V 292.402†             96072.2      504.61 µg/L         0.383      504.61 ppb          0.383   0.08%
   QC value within limits for V 292.402  Recovery = 100.92%
Zn 213.857†            84337.0      499.68 µg/L         1.328      499.68 ppb          1.328   0.27%
   QC value within limits for Zn 213.857  Recovery = 99.94%
All analyte(s) passed QC.
```

Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/5/2010 10:51:51**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141670.1	141670.1	101	%			10:52:20
1	Al 396.153Radial†	-83.7	-4.2	-0.9279	µg/L	-0.9279	ppb	10:52:40
1	Ca 317.933Radial†	599.3	21.2	1.4420	µg/L	1.4420	ppb	10:52:40
1	Fe 238.204 Radial†	137.4	18.5	1.3846	µg/L	1.3846	ppb	10:52:40
1	K 766.490 Radial†	1758.8	245.4	97.233	µg/L	97.233	ppb	10:52:20
1	Mg 279.077 IEC†	184.3	9.8	4.5283	µg/L	4.5283	ppb	10:52:40
1	Na 589.592 Radial†	1104.6	139.8	21.576	µg/L	21.576	ppb	10:52:20
1	Sr 421.552†	-36.3	168.6	0.3976	µg/L	0.3976	ppb	10:52:20
1	Sc 361.383	1813398.6	1813398.6	100.51	%			10:53:28
1	Y 371.029	1064259.3	1064259.3	100.66	%			10:53:28
1	Ag 328.068†	4348.3	-239.0	-1.0007	µg/L	-1.0007	ppb	10:53:30
1	As 188.979†	-15.0	3.6	1.2220	µg/L	1.2220	ppb	10:53:50
1	B 249.677†	4013.1	-72.5	-1.1296	µg/L	-1.1296	ppb	10:53:30
1	Ba 233.527†	-146.0	-0.7	-0.0036	µg/L	-0.0036	ppb	10:53:50
1	Be 313.107†	-909.5	186.9	0.0514	µg/L	0.0514	ppb	10:53:30
1	Cd 226.502†	-65.4	38.2	0.2586	µg/L	0.2586	ppb	10:53:50
1	Co 228.616†	-181.4	29.8	0.3948	µg/L	0.3948	ppb	10:53:50
1	Cr 267.716†	242.1	7.7	0.0733	µg/L	0.0733	ppb	10:53:50
1	Cu 324.752†	3041.7	-9.9	-0.0485	µg/L	-0.0485	ppb	10:53:30
1	Mn 257.610†	243.5	57.6	0.0762	µg/L	0.0762	ppb	10:53:50
1	Mo 202.031†	-14.2	24.4	0.7983	µg/L	0.7983	ppb	10:53:50
1	Ni 231.604†	-58.3	37.9	0.4745	µg/L	0.4745	ppb	10:53:50
1	P 214.914†	0.8	26.5	6.1321	µg/L	6.1321	ppb	10:53:50
1	Pb 220.353†	99.2	-4.8	-0.2869	µg/L	-0.2869	ppb	10:53:50
1	S 181.975 Axial†	102.5	13.1	10.998	µg/L	10.998	ppb	10:53:50
1	Sb 206.836†	75.3	-14.9	-1.9041	µg/L	-1.9041	ppb	10:53:50
1	Se 196.026†	27.7	21.5	8.44	µg/L	8.44	ppb	10:53:50
1	SiO2†	1765.5	17.4	1.8071	µg/L	1.8071	ppb	10:53:50
1	Si 251.611†	842.0	70.7	1.0963	µg/L	1.0963	ppb	10:53:30
1	Sn 189.927†	18.8	16.8	1.1641	µg/L	1.1641	ppb	10:53:50
1	Ti 334.940†	736.5	-90.2	-0.0892	µg/L	-0.0892	ppb	10:53:30
1	Tl 190.801†	-110.4	4.4	0.5942	µg/L	0.5942	ppb	10:53:50
1	U 409.014†	-310.6	-145.7	-9.2474	µg/L	-9.2474	ppb	10:53:30
1	V 292.402†	247.2	-177.3	-0.9167	µg/L	-0.9167	ppb	10:53:30
1	Zn 213.857†	582.2	76.3	0.4523	µg/L	0.4523	ppb	10:53:50
2	Sc RADIAL	141550.1	141550.1	101	%			10:52:42
2	Al 396.153Radial†	-103.9	-24.3	-5.1425	µg/L	-5.1425	ppb	10:53:02
2	Ca 317.933Radial†	612.8	35.0	2.3868	µg/L	2.3868	ppb	10:53:02
2	Fe 238.204 Radial†	136.7	17.9	1.3400	µg/L	1.3400	ppb	10:53:02
2	K 766.490 Radial†	1645.6	134.9	53.442	µg/L	53.442	ppb	10:52:42
2	Mg 279.077 IEC†	180.9	6.6	3.0454	µg/L	3.0454	ppb	10:53:02
2	Na 589.592 Radial†	1113.1	149.1	23.066	µg/L	23.066	ppb	10:52:42
2	Sr 421.552†	-129.3	76.5	0.1805	µg/L	0.1805	ppb	10:52:42
2	Sc 361.383	1826504.8	1826504.8	101.24	%			10:53:52
2	Y 371.029	1070413.5	1070413.5	101.24	%			10:53:52
2	Ag 328.068†	4552.2	-68.7	-0.3004	µg/L	-0.3004	ppb	10:53:54
2	As 188.979†	-7.7	11.0	3.7209	µg/L	3.7209	ppb	10:54:15
2	B 249.677†	4155.1	39.1	0.6079	µg/L	0.6079	ppb	10:53:54
2	Ba 233.527†	-156.7	-10.3	-0.0451	µg/L	-0.0451	ppb	10:54:15
2	Be 313.107†	-768.8	332.3	0.0902	µg/L	0.0902	ppb	10:53:54
2	Cd 226.502†	-86.9	17.5	0.1182	µg/L	0.1182	ppb	10:54:15
2	Co 228.616†	-197.2	15.5	0.2048	µg/L	0.2048	ppb	10:54:15
2	Cr 267.716†	231.2	-4.9	-0.0259	µg/L	-0.0259	ppb	10:54:15
2	Cu 324.752†	2973.2	-99.3	-0.4315	µg/L	-0.4315	ppb	10:53:54
2	Mn 257.610†	229.2	41.6	0.0551	µg/L	0.0551	ppb	10:54:15
2	Mo 202.031†	-14.9	23.8	0.7802	µg/L	0.7802	ppb	10:54:15
2	Ni 231.604†	-87.6	9.4	0.1172	µg/L	0.1172	ppb	10:54:15
2	P 214.914†	-16.9	9.0	2.0871	µg/L	2.0871	ppb	10:54:15
2	Pb 220.353†	114.8	9.9	0.6284	µg/L	0.6284	ppb	10:54:15

2	S 181.975 Axial†	96.9	6.8	5.6986	µg/L	5.6986 ppb	10:54:15
2	Sb 206.836†	77.0	-13.6	-1.7438	µg/L	-1.7438 ppb	10:54:15
2	Se 196.026†	13.2	6.9	2.71	µg/L	2.71 ppb	10:54:15
2	SiO2†	1765.2	4.6	0.4503	µg/L	0.4503 ppb	10:54:15
2	Si 251.611†	950.8	172.1	2.6998	µg/L	2.6998 ppb	10:53:54
2	Sn 189.927†	11.4	9.3	0.6478	µg/L	0.6478 ppb	10:54:15
2	Ti 334.940†	883.6	49.7	0.0592	µg/L	0.0592 ppb	10:53:54
2	Tl 190.801†	-117.7	-2.0	-0.2677	µg/L	-0.2677 ppb	10:54:15
2	U 409.014†	-489.5	-320.1	-20.174	µg/L	-20.174 ppb	10:53:54
2	V 292.402†	523.4	93.7	0.4799	µg/L	0.4799 ppb	10:53:54
2	Zn 213.857†	565.4	55.5	0.3309	µg/L	0.3309 ppb	10:54:15
3	Sc RADIAL	142279.1	142279.1	102	%		10:53:04
3	Al 396.153Radial†	-36.3	42.8	8.9841	µg/L	8.9841 ppb	10:53:24
3	Ca 317.933Radial†	638.4	57.1	3.8913	µg/L	3.8913 ppb	10:53:24
3	Fe 238.204 Radial†	130.1	10.8	0.8067	µg/L	0.8067 ppb	10:53:24
3	K 766.490 Radial†	1672.4	152.9	60.565	µg/L	60.565 ppb	10:53:04
3	Mg 279.077 IEC†	179.9	4.6	2.1596	µg/L	2.1596 ppb	10:53:24
3	Na 589.592 Radial†	1204.2	233.2	36.090	µg/L	36.090 ppb	10:53:04
3	Sr 421.552†	-216.4	-8.6	-0.0204	µg/L	-0.0204 ppb	10:53:04
3	Sc 361.383	1821134.7	1821134.7	100.94	%		10:54:17
3	Y 371.029	1067416.4	1067416.4	100.96	%		10:54:17
3	Ag 328.068†	4428.0	-178.4	-0.7477	µg/L	-0.7477 ppb	10:54:19
3	As 188.979†	-0.3	18.3	6.1862	µg/L	6.1862 ppb	10:54:39
3	B 249.677†	4120.7	17.2	0.2651	µg/L	0.2651 ppb	10:54:19
3	Ba 233.527†	-140.1	5.7	0.0253	µg/L	0.0253 ppb	10:54:39
3	Be 313.107†	-1101.7	0.3	-0.0027	µg/L	-0.0027 ppb	10:54:19
3	Cd 226.502†	-64.2	39.8	0.2688	µg/L	0.2688 ppb	10:54:39
3	Co 228.616†	-170.5	41.4	0.5478	µg/L	0.5478 ppb	10:54:39
3	Cr 267.716†	246.8	11.3	0.1049	µg/L	0.1049 ppb	10:54:39
3	Cu 324.752†	2931.1	-132.4	-0.5609	µg/L	-0.5609 ppb	10:54:19
3	Mn 257.610†	235.1	48.2	0.0638	µg/L	0.0638 ppb	10:54:39
3	Mo 202.031†	-18.0	20.8	0.6798	µg/L	0.6798 ppb	10:54:39
3	Ni 231.604†	-78.9	17.7	0.2221	µg/L	0.2221 ppb	10:54:39
3	P 214.914†	-27.0	-1.1	-0.2442	µg/L	-0.2442 ppb	10:54:39
3	Pb 220.353†	129.6	25.0	1.5464	µg/L	1.5464 ppb	10:54:39
3	S 181.975 Axial†	87.4	-2.3	-1.9536	µg/L	-1.9536 ppb	10:54:39
3	Sb 206.836†	68.5	-21.9	-2.8119	µg/L	-2.8119 ppb	10:54:39
3	Se 196.026†	13.2	6.9	2.72	µg/L	2.72 ppb	10:54:39
3	SiO2†	1743.9	-11.4	-1.2328	µg/L	-1.2328 ppb	10:54:39
3	Si 251.611†	890.2	114.8	1.8008	µg/L	1.8008 ppb	10:54:19
3	Sn 189.927†	4.0	2.0	0.1418	µg/L	0.1418 ppb	10:54:39
3	Ti 334.940†	863.5	32.4	0.0370	µg/L	0.0370 ppb	10:54:19
3	Tl 190.801†	-91.1	24.0	3.2706	µg/L	3.2706 ppb	10:54:39
3	U 409.014†	-314.6	-148.3	-9.3884	µg/L	-9.3884 ppb	10:54:19
3	V 292.402†	334.9	-91.5	-0.4730	µg/L	-0.4730 ppb	10:54:19
3	Zn 213.857†	586.6	78.2	0.4657	µg/L	0.4657 ppb	10:54:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1820346.0	100.90	%	0.365				0.36%
Sc RADIAL	141833.1	101	%	0.3				0.28%
Y 371.029	1067363.1	100.95	%	0.291				0.29%
Ag 328.068†	-162.1	-0.6829	µg/L	0.35465	-0.6829	ppb	0.35465	51.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.8	0.9712	µg/L	7.25229	0.9712	ppb	7.25229	746.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.0	3.7097	µg/L	2.48209	3.7097	ppb	2.48209	66.91%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-5.4	-0.0855	µg/L	0.92028	-0.0855	ppb	0.92028	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.8	-0.0078	µg/L	0.03539	-0.0078	ppb	0.03539	454.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	173.2	0.0463	µg/L	0.04666	0.0463	ppb	0.04666	100.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	37.8	2.5734	µg/L	1.23526	2.5734	ppb	1.23526	48.00%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	31.8	0.2152	µg/L	0.08414	0.2152	ppb	0.08414	39.10%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	28.9	0.3825	µg/L	0.17184	0.3825	ppb	0.17184	44.93%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                4.7      0.0508 µg/L       0.06822      0.0508 ppb        0.06822 134.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -80.5     -0.3470 µg/L       0.26645     -0.3470 ppb        0.26645  76.80%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        15.8      1.1771 µg/L       0.32152      1.1771 ppb        0.32152  27.31%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        177.7      70.413 µg/L       23.4978      70.413 ppb        23.4978  33.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            7.0      3.2444 µg/L       1.19683      3.2444 ppb        1.19683  36.89%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               49.1      0.0650 µg/L       0.01060      0.0650 ppb        0.01060  16.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               23.0      0.7528 µg/L       0.06383      0.7528 ppb        0.06383   8.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       174.0      26.911 µg/L        7.9840      26.911 ppb         7.9840  29.67%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               21.7      0.2713 µg/L       0.18366      0.2713 ppb        0.18366  67.70%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                11.5      2.6583 µg/L       3.22633      2.6583 ppb        3.22633 121.37%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               10.0      0.6293 µg/L       0.91663      0.6293 ppb        0.91663 145.66%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.8      4.9143 µg/L       6.51134      4.9143 ppb        6.51134 132.50%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -16.8     -2.1533 µg/L       0.57596     -2.1533 ppb        0.57596  26.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               11.8        4.62 µg/L         3.307        4.62 ppb          3.307  71.52%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      3.5      0.3415 µg/L       1.52287      0.3415 ppb        1.52287 445.90%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              119.2      1.8656 µg/L       0.80375      1.8656 ppb        0.80375  43.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                9.4      0.6512 µg/L       0.51119      0.6512 ppb        0.51119  78.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               78.8      0.1859 µg/L       0.20905      0.1859 ppb        0.20905 112.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -2.7      0.0023 µg/L       0.08007      0.0023 ppb        0.08007 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.8      1.1990 µg/L       1.84510      1.1990 ppb        1.84510 153.88%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -204.7     -12.937 µg/L        6.2683     -12.937 ppb         6.2683  48.45%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -58.3     -0.3033 µg/L       0.71357     -0.3033 ppb        0.71357 235.30%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               70.0      0.4163 µg/L       0.07427      0.4163 ppb        0.07427  17.84%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 11:21:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141040.3	141040.3	101	%			11:22:09
1	Al 396.153Radial†	24409.0	24323.6	5097.8	µg/L	5097.8	ppb	11:22:09
1	Ca 317.933Radial†	76494.1	75408.8	5136.0	µg/L	5136.0	ppb	11:22:09
1	Fe 238.204 Radial†	68480.3	67903.0	5070.9	µg/L	5070.9	ppb	11:22:09
1	K 766.490 Radial†	14280.8	12691.1	5024.6	µg/L	5024.6	ppb	11:22:09
1	Mg 279.077 IEC†	11579.1	11328.8	5238.8	µg/L	5238.8	ppb	11:22:09
1	Na 589.592 Radial†	66009.6	64613.7	10011	µg/L	10011	ppb	11:22:09
1	Sr 421.552†	210495.4	209286.0	493.55	µg/L	493.55	ppb	11:22:07
1	Sc 361.383	1816427.9	1816427.9	100.68	%			11:22:22
1	Y 371.029	1053499.6	1053499.6	99.641	%			11:22:22
1	Ag 328.068†	126787.2	121365.2	503.06	µg/L	503.06	ppb	11:22:22
1	As 188.979†	1432.3	1441.2	494.75	µg/L	494.75	ppb	11:22:42
1	B 249.677†	36301.8	31991.4	495.75	µg/L	495.75	ppb	11:22:22
1	Ba 233.527†	113688.4	113064.7	502.97	µg/L	502.97	ppb	11:22:22
1	Be 313.107†	1728485.7	1717896.6	497.77	µg/L	497.77	ppb	11:22:22
1	Cd 226.502†	75741.0	75332.5	508.84	µg/L	508.84	ppb	11:22:22
1	Co 228.616†	38593.7	38543.2	510.16	µg/L	510.16	ppb	11:22:22
1	Cr 267.716†	58850.7	58219.8	503.55	µg/L	503.55	ppb	11:22:22
1	Cu 324.752†	123618.1	119746.6	502.41	µg/L	502.41	ppb	11:22:22
1	Mn 257.610†	382701.1	379930.1	503.77	µg/L	503.77	ppb	11:22:22
1	Mo 202.031†	15349.1	15283.9	500.31	µg/L	500.31	ppb	11:22:42
1	Ni 231.604†	40779.7	40600.1	507.96	µg/L	507.96	ppb	11:22:22
1	P 214.914†	10933.3	10885.1	2509.4	µg/L	2509.4	ppb	11:22:42
1	Pb 220.353†	8382.2	8222.1	507.55	µg/L	507.55	ppb	11:22:42
1	S 181.975 Axial†	1340.9	1242.9	1049.8	µg/L	1049.8	ppb	11:22:42
1	Sb 206.836†	3988.1	3871.5	500.30	µg/L	500.30	ppb	11:22:42
1	Se 196.026†	1298.4	1283.4	508	µg/L	508	ppb	11:22:42
1	SiO2†	52507.6	50413.7	5317.2	µg/L	5317.2	ppb	11:22:22
1	Si 251.611†	160362.8	158512.0	2489.6	µg/L	2489.6	ppb	11:22:22
1	Sn 189.927†	7264.7	7213.7	502.05	µg/L	502.05	ppb	11:22:42
1	Ti 334.940†	489360.0	485230.0	497.72	µg/L	497.72	ppb	11:22:22
1	Tl 190.801†	3577.9	3668.0	508.34	µg/L	508.34	ppb	11:22:42
1	U 409.014†	7028.1	7144.0	481.34	µg/L	481.34	ppb	11:22:22
1	V 292.402†	97527.7	96445.4	506.51	µg/L	506.51	ppb	11:22:22
1	Zn 213.857†	86086.0	85001.3	503.61	µg/L	503.61	ppb	11:22:22
2	Sc RADIAL	140362.8	140362.8	100	%			11:22:13
2	Al 396.153Radial†	23994.0	24026.5	5035.4	µg/L	5035.4	ppb	11:22:13
2	Ca 317.933Radial†	75703.7	74986.7	5107.3	µg/L	5107.3	ppb	11:22:13
2	Fe 238.204 Radial†	67887.7	67639.9	5051.3	µg/L	5051.3	ppb	11:22:13
2	K 766.490 Radial†	14188.6	12667.6	5015.4	µg/L	5015.4	ppb	11:22:13
2	Mg 279.077 IEC†	11412.1	11217.7	5187.4	µg/L	5187.4	ppb	11:22:13
2	Na 589.592 Radial†	65526.4	64447.9	9985.5	µg/L	9985.5	ppb	11:22:13
2	Sr 421.552†	212221.3	212017.8	500.00	µg/L	500.00	ppb	11:22:11
2	Sc 361.383	1822952.6	1822952.6	101.04	%			11:22:45
2	Y 371.029	1056667.8	1056667.8	99.940	%			11:22:45
2	Ag 328.068†	127363.5	121484.9	503.55	µg/L	503.55	ppb	11:22:45
2	As 188.979†	1413.7	1417.7	486.78	µg/L	486.78	ppb	11:23:05
2	B 249.677†	36625.3	32182.4	498.72	µg/L	498.72	ppb	11:22:45
2	Ba 233.527†	113738.1	112709.7	501.39	µg/L	501.39	ppb	11:22:45
2	Be 313.107†	1736282.8	1719468.5	498.22	µg/L	498.22	ppb	11:22:45
2	Cd 226.502†	75997.8	75317.4	508.74	µg/L	508.74	ppb	11:22:45
2	Co 228.616†	38755.6	38566.2	510.47	µg/L	510.47	ppb	11:22:45
2	Cr 267.716†	58889.6	58049.1	502.07	µg/L	502.07	ppb	11:22:45
2	Cu 324.752†	124191.5	119874.7	502.95	µg/L	502.95	ppb	11:22:45
2	Mn 257.610†	383492.8	379353.2	503.01	µg/L	503.01	ppb	11:22:45
2	Mo 202.031†	15289.1	15170.0	496.58	µg/L	496.58	ppb	11:23:05
2	Ni 231.604†	40792.4	40467.6	506.30	µg/L	506.30	ppb	11:22:45
2	P 214.914†	10865.3	10778.9	2484.8	µg/L	2484.8	ppb	11:23:05
2	Pb 220.353†	8356.5	8166.8	504.14	µg/L	504.14	ppb	11:23:05

2	S 181.975 Axial†	1317.5	1215.0	1026.3 µg/L	1026.3 ppb	11:23:05
2	Sb 206.836†	3989.8	3858.9	498.64 µg/L	498.64 ppb	11:23:05
2	Se 196.026†	1292.5	1273.0	504 µg/L	504 ppb	11:23:05
2	SiO2†	52617.3	50335.6	5309.1 µg/L	5309.1 ppb	11:22:45
2	Si 251.611†	161042.3	158614.5	2491.3 µg/L	2491.3 ppb	11:22:45
2	Sn 189.927†	7218.4	7142.0	497.08 µg/L	497.08 ppb	11:23:05
2	Ti 334.940†	491016.9	485130.1	497.62 µg/L	497.62 ppb	11:22:45
2	Tl 190.801†	3563.0	3640.5	504.59 µg/L	504.59 ppb	11:23:05
2	U 409.014†	7078.9	7169.2	482.92 µg/L	482.92 ppb	11:22:45
2	V 292.402†	97821.4	96389.4	506.18 µg/L	506.18 ppb	11:22:45
2	Zn 213.857†	86262.7	84870.1	502.83 µg/L	502.83 ppb	11:22:45
3	Sc RADIAL	143001.6	143001.6	102 %		11:22:17
3	Al 396.153Radial†	24644.0	24221.3	5076.1 µg/L	5076.1 ppb	11:22:17
3	Ca 317.933Radial†	78183.6	76021.9	5177.8 µg/L	5177.8 ppb	11:22:17
3	Fe 238.204 Radial†	69547.5	68015.6	5079.4 µg/L	5079.4 ppb	11:22:17
3	K 766.490 Radial†	14471.6	12683.5	5021.6 µg/L	5021.6 ppb	11:22:17
3	Mg 279.077 IEC†	11800.4	11388.0	5266.2 µg/L	5266.2 ppb	11:22:17
3	Na 589.592 Radial†	66551.9	64245.7	9954.1 µg/L	9954.1 ppb	11:22:17
3	Sr 421.552†	214170.2	210018.5	495.28 µg/L	495.28 ppb	11:22:15
3	Sc 361.383	1819175.6	1819175.6	100.83 %		11:23:08
3	Y 371.029	1054990.0	1054990.0	99.782 %		11:23:08
3	Ag 328.068†	126763.1	121151.2	502.18 µg/L	502.18 ppb	11:23:08
3	As 188.979†	1453.0	1459.5	500.95 µg/L	500.95 ppb	11:23:28
3	B 249.677†	36308.1	31943.1	495.01 µg/L	495.01 ppb	11:23:08
3	Ba 233.527†	113415.6	112623.6	501.00 µg/L	501.00 ppb	11:23:08
3	Be 313.107†	1728129.7	1714950.5	496.92 µg/L	496.92 ppb	11:23:08
3	Cd 226.502†	75536.4	75016.0	506.70 µg/L	506.70 ppb	11:23:08
3	Co 228.616†	38368.3	38261.8	506.44 µg/L	506.44 ppb	11:23:08
3	Cr 267.716†	58689.9	57972.0	501.40 µg/L	501.40 ppb	11:23:08
3	Cu 324.752†	123527.9	119471.7	501.27 µg/L	501.27 ppb	11:23:08
3	Mn 257.610†	381380.1	378046.0	501.27 µg/L	501.27 ppb	11:23:08
3	Mo 202.031†	15453.7	15364.7	502.95 µg/L	502.95 ppb	11:23:28
3	Ni 231.604†	40568.0	40328.9	504.56 µg/L	504.56 ppb	11:23:08
3	P 214.914†	10991.1	10926.0	2518.9 µg/L	2518.9 ppb	11:23:28
3	Pb 220.353†	8421.5	8248.5	509.18 µg/L	509.18 ppb	11:23:28
3	S 181.975 Axial†	1335.2	1235.2	1043.4 µg/L	1043.4 ppb	11:23:28
3	Sb 206.836†	3992.9	3870.3	500.21 µg/L	500.21 ppb	11:23:28
3	Se 196.026†	1303.1	1286.2	509 µg/L	509 ppb	11:23:28
3	SiO2†	52338.0	50166.7	5291.0 µg/L	5291.0 ppb	11:23:08
3	Si 251.611†	160206.1	158116.1	2483.3 µg/L	2483.3 ppb	11:23:08
3	Sn 189.927†	7300.5	7238.3	503.75 µg/L	503.75 ppb	11:23:28
3	Ti 334.940†	489632.7	484766.3	497.24 µg/L	497.24 ppb	11:23:08
3	Tl 190.801†	3611.4	3695.8	512.14 µg/L	512.14 ppb	11:23:28
3	U 409.014†	7124.9	7229.4	486.64 µg/L	486.64 ppb	11:23:08
3	V 292.402†	97408.0	96180.4	505.16 µg/L	505.16 ppb	11:23:08
3	Zn 213.857†	85808.4	84596.9	501.21 µg/L	501.21 ppb	11:23:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1819518.7	100.85	%	0.182				0.18%
Sc RADIAL	141468.2	101	%	1.0				0.97%
Y 371.029	1055052.4	99.788	%	0.1499				0.15%
Ag 328.068†	121333.8	502.93	µg/L	0.697	502.93	ppb	0.697	0.14%
QC value within limits for Ag 328.068 Recovery = 100.59%								
Al 396.153Radial†	24190.4	5069.8	µg/L	31.67	5069.8	ppb	31.67	0.62%
QC value within limits for Al 396.153Radial Recovery = 101.40%								
As 188.979†	1439.4	494.16	µg/L	7.101	494.16	ppb	7.101	1.44%
QC value within limits for As 188.979 Recovery = 98.83%								
B 249.677†	32039.0	496.50	µg/L	1.963	496.50	ppb	1.963	0.40%
QC value within limits for B 249.677 Recovery = 99.30%								
Ba 233.527†	112799.3	501.79	µg/L	1.040	501.79	ppb	1.040	0.21%
QC value within limits for Ba 233.527 Recovery = 100.36%								
Be 313.107†	1717438.5	497.64	µg/L	0.664	497.64	ppb	0.664	0.13%
QC value within limits for Be 313.107 Recovery = 99.53%								
Ca 317.933Radial†	75472.5	5140.4	µg/L	35.45	5140.4	ppb	35.45	0.69%
QC value within limits for Ca 317.933Radial Recovery = 102.81%								
Cd 226.502†	75222.0	508.09	µg/L	1.209	508.09	ppb	1.209	0.24%
QC value within limits for Cd 226.502 Recovery = 101.62%								
Co 228.616†	38457.0	509.02	µg/L	2.244	509.02	ppb	2.244	0.44%

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   QC value within limits for Co 228.616  Recovery = 101.80%
Cr 267.716†            58080.3      502.34 µg/L         1.099      502.34 ppb          1.099   0.22%
   QC value within limits for Cr 267.716  Recovery = 100.47%
Cu 324.752†           119697.7      502.21 µg/L         0.858      502.21 ppb          0.858   0.17%
   QC value within limits for Cu 324.752  Recovery = 100.44%
Fe 238.204 Radial†     67852.9      5067.2 µg/L         14.40      5067.2 ppb          14.40   0.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.34%
K 766.490 Radial†      12680.7      5020.5 µg/L          4.74      5020.5 ppb           4.74   0.09%
   QC value within limits for K 766.490 Radial  Recovery = 100.41%
Mg 279.077 IEC†        11311.5      5230.8 µg/L         39.99      5230.8 ppb          39.99   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.62%
Mn 257.610†           379109.8      502.69 µg/L         1.281      502.69 ppb          1.281   0.25%
   QC value within limits for Mn 257.610  Recovery = 100.54%
Mo 202.031†            15272.9      499.95 µg/L         3.200      499.95 ppb          3.200   0.64%
   QC value within limits for Mo 202.031  Recovery = 99.99%
Na 589.592 Radial†     64435.8      9983.6 µg/L         28.56      9983.6 ppb          28.56   0.29%
   QC value within limits for Na 589.592 Radial  Recovery = 99.84%
Ni 231.604†            40465.5      506.27 µg/L         1.697      506.27 ppb          1.697   0.34%
   QC value within limits for Ni 231.604  Recovery = 101.25%
P 214.914†             10863.3      2504.4 µg/L         17.56      2504.4 ppb          17.56   0.70%
   QC value within limits for P 214.914  Recovery = 100.17%
Pb 220.353†             8212.5      506.96 µg/L         2.574      506.96 ppb          2.574   0.51%
   QC value within limits for Pb 220.353  Recovery = 101.39%
S 181.975 Axial†        1231.0      1039.8 µg/L         12.13      1039.8 ppb          12.13   1.17%
   QC value within limits for S 181.975 Axial  Recovery = 103.98%
Sb 206.836†             3866.9      499.72 µg/L         0.933      499.72 ppb          0.933   0.19%
   QC value within limits for Sb 206.836  Recovery = 99.94%
Se 196.026†             1280.9         507 µg/L           2.7         507 ppb            2.7   0.54%
   QC value within limits for Se 196.026  Recovery = 101.36%
SiO2†                  50305.3      5305.8 µg/L         13.45      5305.8 ppb          13.45   0.25%
   QC value within limits for SiO2  Recovery = 99.22%
Si 251.611†           158414.2      2488.1 µg/L          4.21      2488.1 ppb           4.21   0.17%
   QC value within limits for Si 251.611  Recovery = 99.52%
Sn 189.927†             7198.0      500.96 µg/L         3.467      500.96 ppb          3.467   0.69%
   QC value within limits for Sn 189.927  Recovery = 100.19%
Sr 421.552†           210440.8      496.28 µg/L         3.335      496.28 ppb          3.335   0.67%
   QC value within limits for Sr 421.552  Recovery = 99.26%
Ti 334.940†           485042.1      497.53 µg/L         0.253      497.53 ppb          0.253   0.05%
   QC value within limits for Ti 334.940  Recovery = 99.51%
Tl 190.801†             3668.1      508.36 µg/L         3.777      508.36 ppb          3.777   0.74%
   QC value within limits for Tl 190.801  Recovery = 101.67%
U 409.014†              7180.9      483.63 µg/L         2.721      483.63 ppb          2.721   0.56%
   QC value within limits for U 409.014  Recovery = 96.73%
V 292.402†             96338.4      505.95 µg/L         0.705      505.95 ppb          0.705   0.14%
   QC value within limits for V 292.402  Recovery = 101.19%
Zn 213.857†            84822.7      502.55 µg/L         1.222      502.55 ppb          1.222   0.24%
   QC value within limits for Zn 213.857  Recovery = 100.51%
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 11:23:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141293.1	141293.1	101	%			11:24:06
1	Al 396.153Radial†	-45.2	33.8	7.0875	µg/L	7.0875	ppb	11:24:26
1	Ca 317.933Radial†	756.0	178.1	12.133	µg/L	12.133	ppb	11:24:26
1	Fe 238.204 Radial†	183.7	64.9	4.8434	µg/L	4.8434	ppb	11:24:26
1	K 766.490 Radial†	1708.7	200.4	79.382	µg/L	79.382	ppb	11:24:06
1	Mg 279.077 IEC†	206.5	32.3	14.933	µg/L	14.933	ppb	11:24:26
1	Na 589.592 Radial†	1047.2	85.8	13.224	µg/L	13.224	ppb	11:24:06
1	Sr 421.552†	-265.7	-59.0	-0.1392	µg/L	-0.1392	ppb	11:24:06
1	Sc 361.383	1793973.7	1793973.7	99.436	%			11:25:14
1	Y 371.029	1053310.8	1053310.8	99.623	%			11:25:14
1	Ag 328.068†	4289.1	-251.7	-1.0408	µg/L	-1.0408	ppb	11:25:16
1	As 188.979†	-4.9	13.7	4.6199	µg/L	4.6199	ppb	11:25:36
1	B 249.677†	4002.5	-40.0	-0.6228	µg/L	-0.6228	ppb	11:25:16
1	Ba 233.527†	-152.4	-8.7	-0.0386	µg/L	-0.0386	ppb	11:25:36
1	Be 313.107†	-860.3	226.6	0.0631	µg/L	0.0631	ppb	11:25:16
1	Cd 226.502†	-76.4	26.5	0.1788	µg/L	0.1788	ppb	11:25:36
1	Co 228.616†	-185.8	23.4	0.3095	µg/L	0.3095	ppb	11:25:36
1	Cr 267.716†	224.4	-7.5	-0.0584	µg/L	-0.0584	ppb	11:25:36
1	Cu 324.752†	3049.8	31.0	0.1242	µg/L	0.1242	ppb	11:25:16
1	Mn 257.610†	236.1	52.7	0.0693	µg/L	0.0693	ppb	11:25:36
1	Mo 202.031†	-24.7	13.8	0.4505	µg/L	0.4505	ppb	11:25:36
1	Ni 231.604†	-63.4	32.1	0.4021	µg/L	0.4021	ppb	11:25:36
1	P 214.914†	-13.8	11.8	2.7270	µg/L	2.7270	ppb	11:25:36
1	Pb 220.353†	76.5	-26.5	-1.6236	µg/L	-1.6236	ppb	11:25:36
1	S 181.975 Axial†	113.1	24.8	20.861	µg/L	20.861	ppb	11:25:36
1	Sb 206.836†	73.4	-15.9	-2.0389	µg/L	-2.0389	ppb	11:25:36
1	Se 196.026†	15.5	9.5	3.72	µg/L	3.72	ppb	11:25:36
1	SiO2†	1701.2	-28.2	-3.0134	µg/L	-3.0134	ppb	11:25:36
1	Si 251.611†	724.3	-38.6	-0.6193	µg/L	-0.6193	ppb	11:25:16
1	Sn 189.927†	12.5	10.7	0.7388	µg/L	0.7388	ppb	11:25:36
1	Ti 334.940†	700.7	-118.4	-0.1190	µg/L	-0.1190	ppb	11:25:16
1	Tl 190.801†	-117.6	-4.0	-0.5510	µg/L	-0.5510	ppb	11:25:36
1	U 409.014†	-293.2	-131.5	-8.2980	µg/L	-8.2980	ppb	11:25:16
1	V 292.402†	423.5	2.7	0.0124	µg/L	0.0124	ppb	11:25:16
1	Zn 213.857†	555.4	55.5	0.3283	µg/L	0.3283	ppb	11:25:36
2	Sc RADIAL	141208.0	141208.0	101	%			11:24:28
2	Al 396.153Radial†	-80.1	-1.0	-0.2395	µg/L	-0.2395	ppb	11:24:48
2	Ca 317.933Radial†	668.6	91.8	6.2554	µg/L	6.2554	ppb	11:24:48
2	Fe 238.204 Radial†	151.6	33.1	2.4698	µg/L	2.4698	ppb	11:24:48
2	K 766.490 Radial†	1653.5	146.6	58.099	µg/L	58.099	ppb	11:24:28
2	Mg 279.077 IEC†	171.1	-2.7	-1.2452	µg/L	-1.2452	ppb	11:24:48
2	Na 589.592 Radial†	1120.3	158.9	24.585	µg/L	24.585	ppb	11:24:28
2	Sr 421.552†	-172.5	33.3	0.0785	µg/L	0.0785	ppb	11:24:28
2	Sc 361.383	1798032.0	1798032.0	99.661	%			11:25:38
2	Y 371.029	1055630.4	1055630.4	99.842	%			11:25:38
2	Ag 328.068†	4410.8	-139.4	-0.5643	µg/L	-0.5643	ppb	11:25:40
2	As 188.979†	-0.7	17.8	6.0338	µg/L	6.0338	ppb	11:26:01
2	B 249.677†	4005.6	-45.9	-0.7141	µg/L	-0.7141	ppb	11:25:40
2	Ba 233.527†	-173.9	-30.0	-0.1330	µg/L	-0.1330	ppb	11:26:01
2	Be 313.107†	-589.5	500.2	0.1463	µg/L	0.1463	ppb	11:25:40
2	Cd 226.502†	-58.3	44.8	0.3028	µg/L	0.3028	ppb	11:26:01
2	Co 228.616†	-197.0	12.7	0.1672	µg/L	0.1672	ppb	11:26:01
2	Cr 267.716†	239.6	7.2	0.0584	µg/L	0.0584	ppb	11:26:01
2	Cu 324.752†	2931.5	-94.6	-0.3915	µg/L	-0.3915	ppb	11:25:40
2	Mn 257.610†	251.7	67.8	0.0900	µg/L	0.0900	ppb	11:26:01
2	Mo 202.031†	-15.2	23.3	0.7623	µg/L	0.7623	ppb	11:26:01
2	Ni 231.604†	-59.7	36.0	0.4499	µg/L	0.4499	ppb	11:26:01
2	P 214.914†	-4.0	21.7	5.0142	µg/L	5.0142	ppb	11:26:01
2	Pb 220.353†	87.7	-15.5	-0.9533	µg/L	-0.9533	ppb	11:26:01

2	S 181.975 Axial†	118.5	30.0	25.213 µg/L	25.213 ppb	11:26:01
2	Sb 206.836†	86.0	-3.4	-0.4255 µg/L	-0.4255 ppb	11:26:01
2	Se 196.026†	15.3	9.2	3.64 µg/L	3.64 ppb	11:26:01
2	SiO2†	1751.4	18.3	1.9044 µg/L	1.9044 ppb	11:26:01
2	Si 251.611†	779.4	15.0	0.2236 µg/L	0.2236 ppb	11:25:40
2	Sn 189.927†	9.4	7.6	0.5263 µg/L	0.5263 ppb	11:26:01
2	Ti 334.940†	648.1	-172.7	-0.1791 µg/L	-0.1791 ppb	11:25:40
2	Tl 190.801†	-110.6	3.3	0.4500 µg/L	0.4500 ppb	11:26:01
2	U 409.014†	-87.6	75.5	4.7647 µg/L	4.7647 ppb	11:25:40
2	V 292.402†	430.7	8.9	0.0575 µg/L	0.0575 ppb	11:25:40
2	Zn 213.857†	536.3	35.1	0.2068 µg/L	0.2068 ppb	11:26:01
3	Sc RADIAL	140558.5	140558.5	100 %		11:24:50
3	Al 396.153Radial†	-104.7	-25.8	-5.4846 µg/L	-5.4846 ppb	11:25:10
3	Ca 317.933Radial†	659.5	85.9	5.8477 µg/L	5.8477 ppb	11:25:10
3	Fe 238.204 Radial†	147.7	29.9	2.2317 µg/L	2.2317 ppb	11:25:10
3	K 766.490 Radial†	1800.1	300.4	119.02 µg/L	119.02 ppb	11:24:50
3	Mg 279.077 IEC†	183.8	10.7	4.9742 µg/L	4.9742 ppb	11:25:10
3	Na 589.592 Radial†	1201.3	244.8	37.847 µg/L	37.847 ppb	11:24:50
3	Sr 421.552†	-157.1	47.9	0.1129 µg/L	0.1129 ppb	11:24:50
3	Sc 361.383	1800005.3	1800005.3	99.770 %		11:26:03
3	Y 371.029	1056603.6	1056603.6	99.934 %		11:26:03
3	Ag 328.068†	4398.7	-156.4	-0.6614 µg/L	-0.6614 ppb	11:26:05
3	As 188.979†	-12.9	5.6	1.9114 µg/L	1.9114 ppb	11:26:25
3	B 249.677†	3886.0	-170.2	-2.6470 µg/L	-2.6470 ppb	11:26:05
3	Ba 233.527†	-172.1	-27.9	-0.1240 µg/L	-0.1240 ppb	11:26:25
3	Be 313.107†	-830.7	259.1	0.0711 µg/L	0.0711 ppb	11:26:05
3	Cd 226.502†	-92.8	10.4	0.0702 µg/L	0.0702 ppb	11:26:25
3	Co 228.616†	-192.2	17.7	0.2332 µg/L	0.2332 ppb	11:26:25
3	Cr 267.716†	225.4	-7.3	-0.0532 µg/L	-0.0532 ppb	11:26:25
3	Cu 324.752†	3072.5	43.5	0.1716 µg/L	0.1716 ppb	11:26:05
3	Mn 257.610†	219.6	35.4	0.0468 µg/L	0.0468 ppb	11:26:25
3	Mo 202.031†	-5.8	32.7	1.0701 µg/L	1.0701 ppb	11:26:25
3	Ni 231.604†	-59.0	36.7	0.4594 µg/L	0.4594 ppb	11:26:25
3	P 214.914†	-1.6	24.0	5.5473 µg/L	5.5473 ppb	11:26:25
3	Pb 220.353†	107.7	4.5	0.2875 µg/L	0.2875 ppb	11:26:25
3	S 181.975 Axial†	116.0	27.3	22.974 µg/L	22.974 ppb	11:26:25
3	Sb 206.836†	88.3	-1.2	-0.1451 µg/L	-0.1451 ppb	11:26:25
3	Se 196.026†	28.6	22.5	8.86 µg/L	8.86 ppb	11:26:25
3	SiO2†	1757.4	22.4	2.3373 µg/L	2.3373 ppb	11:26:25
3	Si 251.611†	758.0	-7.3	-0.1291 µg/L	-0.1291 ppb	11:26:05
3	Sn 189.927†	1.3	-0.6	-0.0409 µg/L	-0.0409 ppb	11:26:25
3	Ti 334.940†	605.0	-216.6	-0.2174 µg/L	-0.2174 ppb	11:26:05
3	Tl 190.801†	-112.0	2.0	0.2678 µg/L	0.2678 ppb	11:26:25
3	U 409.014†	-368.7	-206.1	-13.034 µg/L	-13.034 ppb	11:26:05
3	V 292.402†	338.2	-84.2	-0.4346 µg/L	-0.4346 ppb	11:26:05
3	Zn 213.857†	556.0	54.3	0.3205 µg/L	0.3205 ppb	11:26:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1797337.0	99.622	%	0.1705				0.17%
Sc RADIAL	141019.9	101	%	0.3				0.28%
Y 371.029	1055181.6	99.800	%	0.1600				0.16%
Ag 328.068†	-182.5	-0.7555	µg/L	0.25179	-0.7555	ppb	0.25179	33.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.3	0.4545	µg/L	6.31472	0.4545	ppb	6.31472	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	12.4	4.1884	µg/L	2.09482	4.1884	ppb	2.09482	50.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-85.3	-1.3280	µg/L	1.14326	-1.3280	ppb	1.14326	86.09%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-22.2	-0.0985	µg/L	0.05209	-0.0985	ppb	0.05209	52.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	328.6	0.0935	µg/L	0.04591	0.0935	ppb	0.04591	49.09%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	118.6	8.0786	µg/L	3.51690	8.0786	ppb	3.51690	43.53%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.2	0.1839	µg/L	0.11642	0.1839	ppb	0.11642	63.29%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.9	0.2366	µg/L	0.07122	0.2366	ppb	0.07122	30.10%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.5     -0.0177 µg/L       0.06601     -0.0177 ppb        0.06601 372.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -6.7     -0.0319 µg/L       0.31231     -0.0319 ppb        0.31231 979.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         42.6      3.1816 µg/L       1.44406      3.1816 ppb        1.44406  45.39%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         215.8      85.499 µg/L       30.9164      85.499 ppb        30.9164  36.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            13.4      6.2207 µg/L       8.16082      6.2207 ppb        8.16082 131.19%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                52.0      0.0687 µg/L       0.02163      0.0687 ppb        0.02163  31.49%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                23.3      0.7610 µg/L       0.30978      0.7610 ppb        0.30978  40.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        163.2      25.219 µg/L       12.3238      25.219 ppb        12.3238  48.87%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                34.9      0.4371 µg/L       0.03068      0.4371 ppb        0.03068   7.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 19.2      4.4295 µg/L       1.49832      4.4295 ppb        1.49832  33.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -12.5     -0.7631 µg/L       0.96966     -0.7631 ppb        0.96966 127.06%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           27.4      23.016 µg/L        2.1761      23.016 ppb         2.1761   9.45%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -6.8     -0.8698 µg/L       1.02211     -0.8698 ppb        1.02211 117.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                13.7        5.41 µg/L         2.992        5.41 ppb          2.992  55.36%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       4.1      0.4094 µg/L       2.97212      0.4094 ppb        2.97212 725.93%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -10.3     -0.1749 µg/L       0.42334     -0.1749 ppb        0.42334 242.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.9      0.4081 µg/L       0.40308      0.4081 ppb        0.40308  98.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 7.4      0.0174 µg/L       0.13673      0.0174 ppb        0.13673 785.52%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -169.2     -0.1718 µg/L       0.04956     -0.1718 ppb        0.04956  28.85%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.4      0.0556 µg/L       0.53317      0.0556 ppb        0.53317 959.22%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -87.4     -5.5223 µg/L       9.21810     -5.5223 ppb        9.21810 166.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -24.2     -0.1216 µg/L       0.27200     -0.1216 ppb        0.27200 223.77%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                48.3      0.2852 µg/L       0.06801      0.2852 ppb        0.06801  23.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 11:29:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136820.5	136820.5	97.7	%			11:30:02
1	Al 396.153Radial†	23381.9	24019.7	5033.7	µg/L	5033.7	ppb	11:30:02
1	Ca 317.933Radial†	73543.2	74730.7	5089.8	µg/L	5089.8	ppb	11:30:02
1	Fe 238.204 Radial†	65942.1	67402.0	5033.5	µg/L	5033.5	ppb	11:30:02
1	K 766.490 Radial†	13830.9	12667.9	5015.5	µg/L	5015.5	ppb	11:30:02
1	Mg 279.077 IEC†	10996.3	11086.9	5127.2	µg/L	5127.2	ppb	11:30:02
1	Na 589.592 Radial†	63933.4	64510.1	9995.1	µg/L	9995.1	ppb	11:30:02
1	Sr 421.552†	208111.8	213293.9	503.01	µg/L	503.01	ppb	11:30:00
1	Sc 361.383	1761858.7	1761858.7	97.656	%			11:30:29
1	Y 371.029	1023300.8	1023300.8	96.785	%			11:30:29
1	Ag 328.068†	123043.0	121431.6	503.36	µg/L	503.36	ppb	11:30:29
1	As 188.979†	1388.4	1440.3	494.45	µg/L	494.45	ppb	11:30:49
1	B 249.677†	34891.3	31663.7	490.67	µg/L	490.67	ppb	11:30:29
1	Ba 233.527†	109659.6	112436.6	500.17	µg/L	500.17	ppb	11:30:29
1	Be 313.107†	1663606.1	1704633.4	493.93	µg/L	493.93	ppb	11:30:29
1	Cd 226.502†	72443.0	74285.4	501.76	µg/L	501.76	ppb	11:30:29
1	Co 228.616†	37156.2	38258.5	506.40	µg/L	506.40	ppb	11:30:29
1	Cr 267.716†	56866.6	57998.5	501.62	µg/L	501.62	ppb	11:30:29
1	Cu 324.752†	119606.6	119441.7	501.14	µg/L	501.14	ppb	11:30:29
1	Mn 257.610†	369411.0	378094.1	501.34	µg/L	501.34	ppb	11:30:29
1	Mo 202.031†	14945.3	15342.7	502.23	µg/L	502.23	ppb	11:30:49
1	Ni 231.604†	39345.7	40386.1	505.28	µg/L	505.28	ppb	11:30:29
1	P 214.914†	10584.6	10864.3	2504.6	µg/L	2504.6	ppb	11:30:49
1	Pb 220.353†	8129.7	8221.4	507.50	µg/L	507.50	ppb	11:30:49
1	S 181.975 Axial†	1251.2	1192.3	1007.2	µg/L	1007.2	ppb	11:30:49
1	Sb 206.836†	3883.3	3886.8	502.34	µg/L	502.34	ppb	11:30:49
1	Se 196.026†	1258.6	1282.6	508	µg/L	508	ppb	11:30:49
1	SiO2†	50604.3	50080.0	5281.8	µg/L	5281.8	ppb	11:30:29
1	Si 251.611†	154407.4	157347.0	2471.2	µg/L	2471.2	ppb	11:30:29
1	Sn 189.927†	7042.6	7209.8	501.78	µg/L	501.78	ppb	11:30:49
1	Ti 334.940†	474109.2	484667.3	497.15	µg/L	497.15	ppb	11:30:29
1	Tl 190.801†	3462.4	3659.8	507.23	µg/L	507.23	ppb	11:30:49
1	U 409.014†	7134.3	7468.9	501.82	µg/L	501.82	ppb	11:30:29
1	V 292.402†	94537.5	96383.6	506.22	µg/L	506.22	ppb	11:30:29
1	Zn 213.857†	82762.2	84245.9	499.12	µg/L	499.12	ppb	11:30:29
2	Sc RADIAL	135237.7	135237.7	96.5	%			11:30:06
2	Al 396.153Radial†	23012.6	23917.3	5012.0	µg/L	5012.0	ppb	11:30:06
2	Ca 317.933Radial†	72368.9	74395.7	5067.0	µg/L	5067.0	ppb	11:30:06
2	Fe 238.204 Radial†	65011.4	67228.1	5020.5	µg/L	5020.5	ppb	11:30:06
2	K 766.490 Radial†	13826.8	12829.4	5079.5	µg/L	5079.5	ppb	11:30:06
2	Mg 279.077 IEC†	10869.4	11087.2	5127.4	µg/L	5127.4	ppb	11:30:06
2	Na 589.592 Radial†	63379.2	64702.1	10025	µg/L	10025	ppb	11:30:06
2	Sr 421.552†	206760.8	214388.3	505.59	µg/L	505.59	ppb	11:30:04
2	Sc 361.383	1755213.5	1755213.5	97.287	%			11:30:52
2	Y 371.029	1018804.5	1018804.5	96.359	%			11:30:52
2	Ag 328.068†	123276.3	122148.4	506.27	µg/L	506.27	ppb	11:30:52
2	As 188.979†	1380.0	1437.0	493.33	µg/L	493.33	ppb	11:31:12
2	B 249.677†	35110.1	32023.9	496.27	µg/L	496.27	ppb	11:30:52
2	Ba 233.527†	109680.5	112883.2	502.16	µg/L	502.16	ppb	11:30:52
2	Be 313.107†	1662352.6	1709794.5	495.42	µg/L	495.42	ppb	11:30:52
2	Cd 226.502†	72424.8	74547.5	503.54	µg/L	503.54	ppb	11:30:52
2	Co 228.616†	36976.6	38217.9	505.86	µg/L	505.86	ppb	11:30:52
2	Cr 267.716†	56640.8	57986.9	501.53	µg/L	501.53	ppb	11:30:52
2	Cu 324.752†	119400.5	119693.6	502.18	µg/L	502.18	ppb	11:30:52
2	Mn 257.610†	369192.4	379301.6	502.95	µg/L	502.95	ppb	11:30:52
2	Mo 202.031†	14979.7	15435.9	505.27	µg/L	505.27	ppb	11:31:12
2	Ni 231.604†	39164.5	40352.4	504.86	µg/L	504.86	ppb	11:30:52
2	P 214.914†	10589.4	10910.3	2515.2	µg/L	2515.2	ppb	11:31:12
2	Pb 220.353†	8151.8	8275.6	510.85	µg/L	510.85	ppb	11:31:12

2	S 181.975 Axial†	1255.2	1201.3	1014.9 µg/L	1014.9 ppb	11:31:12
2	Sb 206.836†	3899.6	3918.6	506.49 µg/L	506.49 ppb	11:31:12
2	Se 196.026†	1256.7	1285.6	509 µg/L	509 ppb	11:31:12
2	SiO2†	50502.9	50172.0	5291.5 µg/L	5291.5 ppb	11:30:52
2	Si 251.611†	154149.6	157680.6	2476.4 µg/L	2476.4 ppb	11:30:52
2	Sn 189.927†	7052.2	7247.0	504.36 µg/L	504.36 ppb	11:31:12
2	Ti 334.940†	473721.0	486106.4	498.63 µg/L	498.63 ppb	11:30:52
2	Tl 190.801†	3489.8	3701.4	512.92 µg/L	512.92 ppb	11:31:12
2	U 409.014†	6870.2	7225.1	486.41 µg/L	486.41 ppb	11:30:52
2	V 292.402†	94056.9	96256.2	505.58 µg/L	505.58 ppb	11:30:52
2	Zn 213.857†	82670.1	84472.1	500.47 µg/L	500.47 ppb	11:30:52
3	Sc RADIAL	136682.0	136682.0	97.6 %		11:30:10
3	Al 396.153Radial†	23255.0	23913.8	5011.8 µg/L	5011.8 ppb	11:30:10
3	Ca 317.933Radial†	72929.5	74178.0	5052.2 µg/L	5052.2 ppb	11:30:10
3	Fe 238.204 Radial†	65673.7	67195.3	5018.1 µg/L	5018.1 ppb	11:30:10
3	K 766.490 Radial†	13914.0	12767.5	5055.0 µg/L	5055.0 ppb	11:30:10
3	Mg 279.077 IEC†	10922.9	11023.0	5097.5 µg/L	5097.5 ppb	11:30:10
3	Na 589.592 Radial†	63890.3	64532.2	9998.5 µg/L	9998.5 ppb	11:30:10
3	Sr 421.552†	204882.1	210199.5	495.71 µg/L	495.71 ppb	11:30:08
3	Sc 361.383	1786609.6	1786609.6	99.028 %		11:31:15
3	Y 371.029	1036752.1	1036752.1	98.057 %		11:31:15
3	Ag 328.068†	125411.5	122077.8	506.02 µg/L	506.02 ppb	11:31:15
3	As 188.979†	1367.3	1399.2	480.54 µg/L	480.54 ppb	11:31:36
3	B 249.677†	35832.7	32119.5	497.75 µg/L	497.75 ppb	11:31:15
3	Ba 233.527†	111666.9	112908.0	502.27 µg/L	502.27 ppb	11:31:15
3	Be 313.107†	1695198.1	1712935.5	496.34 µg/L	496.34 ppb	11:31:15
3	Cd 226.502†	74018.8	74849.0	505.58 µg/L	505.58 ppb	11:31:15
3	Co 228.616†	37808.9	38390.5	508.15 µg/L	508.15 ppb	11:31:15
3	Cr 267.716†	57773.9	58108.0	502.57 µg/L	502.57 ppb	11:31:15
3	Cu 324.752†	121645.6	119804.0	502.66 µg/L	502.66 ppb	11:31:15
3	Mn 257.610†	375989.4	379496.6	503.20 µg/L	503.20 ppb	11:31:15
3	Mo 202.031†	14922.1	15107.2	494.52 µg/L	494.52 ppb	11:31:36
3	Ni 231.604†	40047.6	40536.7	507.16 µg/L	507.16 ppb	11:31:15
3	P 214.914†	10509.5	10638.3	2452.3 µg/L	2452.3 ppb	11:31:36
3	Pb 220.353†	8093.3	8069.3	498.12 µg/L	498.12 ppb	11:31:36
3	S 181.975 Axial†	1250.7	1174.0	991.82 µg/L	991.82 ppb	11:31:36
3	Sb 206.836†	3860.6	3808.8	492.14 µg/L	492.14 ppb	11:31:36
3	Se 196.026†	1237.7	1243.7	492 µg/L	492 ppb	11:31:36
3	SiO2†	51543.0	50310.1	5306.6 µg/L	5306.6 ppb	11:31:15
3	Si 251.611†	157269.9	158047.2	2482.4 µg/L	2482.4 ppb	11:31:15
3	Sn 189.927†	6987.1	7053.8	490.96 µg/L	490.96 ppb	11:31:36
3	Ti 334.940†	482315.1	486228.0	498.75 µg/L	498.75 ppb	11:31:15
3	Tl 190.801†	3458.2	3606.4	499.96 µg/L	499.96 ppb	11:31:36
3	U 409.014†	7182.1	7416.0	498.57 µg/L	498.57 ppb	11:31:15
3	V 292.402†	96118.6	96639.1	507.47 µg/L	507.47 ppb	11:31:15
3	Zn 213.857†	84371.3	84696.8	501.80 µg/L	501.80 ppb	11:31:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1767893.9	97.990	%	0.9171				0.94%
Sc RADIAL	136246.7	97.3	%	0.63				0.64%
Y 371.029	1026285.8	97.067	%	0.8833				0.91%
Ag 328.068†	121885.9	505.21	µg/L	1.611	505.21	ppb	1.611	0.32%
QC value within limits for Ag 328.068 Recovery = 101.04%								
Al 396.153Radial†	23950.3	5019.2	µg/L	12.60	5019.2	ppb	12.60	0.25%
QC value within limits for Al 396.153Radial Recovery = 100.38%								
As 188.979†	1425.5	489.44	µg/L	7.730	489.44	ppb	7.730	1.58%
QC value within limits for As 188.979 Recovery = 97.89%								
B 249.677†	31935.7	494.90	µg/L	3.736	494.90	ppb	3.736	0.75%
QC value within limits for B 249.677 Recovery = 98.98%								
Ba 233.527†	112742.6	501.53	µg/L	1.179	501.53	ppb	1.179	0.24%
QC value within limits for Ba 233.527 Recovery = 100.31%								
Be 313.107†	1709121.1	495.23	µg/L	1.213	495.23	ppb	1.213	0.25%
QC value within limits for Be 313.107 Recovery = 99.05%								
Ca 317.933Radial†	74434.8	5069.7	µg/L	18.96	5069.7	ppb	18.96	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.39%								
Cd 226.502†	74560.6	503.63	µg/L	1.907	503.63	ppb	1.907	0.38%
QC value within limits for Cd 226.502 Recovery = 100.73%								
Co 228.616†	38288.9	506.80	µg/L	1.195	506.80	ppb	1.195	0.24%

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   QC value within limits for Co 228.616  Recovery = 101.36%
Cr 267.716†            58031.1      501.91 µg/L         0.576      501.91 ppb          0.576   0.11%
   QC value within limits for Cr 267.716  Recovery = 100.38%
Cu 324.752†           119646.4      501.99 µg/L         0.773      501.99 ppb          0.773   0.15%
   QC value within limits for Cu 324.752  Recovery = 100.40%
Fe 238.204 Radial†     67275.1      5024.1 µg/L          8.30      5024.1 ppb           8.30   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.48%
K 766.490 Radial†      12754.9      5050.0 µg/L         32.29      5050.0 ppb          32.29   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 101.00%
Mg 279.077 IEC†        11065.7      5117.4 µg/L         17.20      5117.4 ppb          17.20   0.34%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.35%
Mn 257.610†           378964.1      502.50 µg/L         1.008      502.50 ppb          1.008   0.20%
   QC value within limits for Mn 257.610  Recovery = 100.50%
Mo 202.031†            15295.3      500.67 µg/L         5.540      500.67 ppb          5.540   1.11%
   QC value within limits for Mo 202.031  Recovery = 100.13%
Na 589.592 Radial†     64581.5       10006 µg/L          16.3       10006 ppb           16.3   0.16%
   QC value within limits for Na 589.592 Radial  Recovery = 100.06%
Ni 231.604†            40425.1      505.77 µg/L         1.228      505.77 ppb          1.228   0.24%
   QC value within limits for Ni 231.604  Recovery = 101.15%
P 214.914†             10804.3      2490.7 µg/L         33.68      2490.7 ppb          33.68   1.35%
   QC value within limits for P 214.914  Recovery = 99.63%
Pb 220.353†             8188.8      505.49 µg/L         6.598      505.49 ppb          6.598   1.31%
   QC value within limits for Pb 220.353  Recovery = 101.10%
S 181.975 Axial†        1189.2      1004.6 µg/L         11.74      1004.6 ppb          11.74   1.17%
   QC value within limits for S 181.975 Axial  Recovery = 100.46%
Sb 206.836†             3871.4      500.32 µg/L         7.384      500.32 ppb          7.384   1.48%
   QC value within limits for Sb 206.836  Recovery = 100.06%
Se 196.026†             1270.6         503 µg/L           9.2         503 ppb            9.2   1.83%
   QC value within limits for Se 196.026  Recovery = 100.56%
SiO2†                  50187.3      5293.3 µg/L         12.47      5293.3 ppb          12.47   0.24%
   QC value within limits for SiO2  Recovery = 98.99%
Si 251.611†           157691.6      2476.7 µg/L          5.61      2476.7 ppb           5.61   0.23%
   QC value within limits for Si 251.611  Recovery = 99.07%
Sn 189.927†             7170.2      499.03 µg/L         7.107      499.03 ppb          7.107   1.42%
   QC value within limits for Sn 189.927  Recovery = 99.81%
Sr 421.552†           212627.3      501.43 µg/L         5.124      501.43 ppb          5.124   1.02%
   QC value within limits for Sr 421.552  Recovery = 100.29%
Ti 334.940†           485667.3      498.17 µg/L         0.894      498.17 ppb          0.894   0.18%
   QC value within limits for Ti 334.940  Recovery = 99.63%
Tl 190.801†             3655.9      506.70 µg/L         6.497      506.70 ppb          6.497   1.28%
   QC value within limits for Tl 190.801  Recovery = 101.34%
U 409.014†              7370.0      495.60 µg/L         8.123      495.60 ppb          8.123   1.64%
   QC value within limits for U 409.014  Recovery = 99.12%
V 292.402†             96426.3      506.43 µg/L         0.959      506.43 ppb          0.959   0.19%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†            84471.6      500.46 µg/L         1.341      500.46 ppb          1.341   0.27%
   QC value within limits for Zn 213.857  Recovery = 100.09%
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 11:31:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138159.9	138159.9	98.6	%			11:32:12
1	Al 396.153Radial†	-61.5	16.2	3.3756	µg/L	3.3756	ppb	11:32:32
1	Ca 317.933Radial†	624.1	61.4	4.1810	µg/L	4.1810	ppb	11:32:32
1	Fe 238.204 Radial†	140.2	24.8	1.8552	µg/L	1.8552	ppb	11:32:32
1	K 766.490 Radial†	1534.9	62.6	24.798	µg/L	24.798	ppb	11:32:12
1	Mg 279.077 IEC†	179.7	9.7	4.5034	µg/L	4.5034	ppb	11:32:32
1	Na 589.592 Radial†	1043.8	105.9	16.389	µg/L	16.389	ppb	11:32:12
1	Sr 421.552†	-179.3	22.7	0.0534	µg/L	0.0534	ppb	11:32:12
1	Sc 361.383	1781153.8	1781153.8	98.725	%			11:33:20
1	Y 371.029	1046438.9	1046438.9	98.973	%			11:33:20
1	Ag 328.068†	4305.8	-203.7	-0.8261	µg/L	-0.8261	ppb	11:33:22
1	As 188.979†	-14.7	3.7	1.2615	µg/L	1.2615	ppb	11:33:42
1	B 249.677†	4014.2	0.9	0.0135	µg/L	0.0135	ppb	11:33:22
1	Ba 233.527†	-154.2	-11.6	-0.0515	µg/L	-0.0515	ppb	11:33:42
1	Be 313.107†	-880.1	200.2	0.0595	µg/L	0.0595	ppb	11:33:22
1	Cd 226.502†	-65.4	37.1	0.2509	µg/L	0.2509	ppb	11:33:42
1	Co 228.616†	-204.8	2.9	0.0380	µg/L	0.0380	ppb	11:33:42
1	Cr 267.716†	266.8	37.0	0.3162	µg/L	0.3162	ppb	11:33:42
1	Cu 324.752†	3004.2	6.9	0.0333	µg/L	0.0333	ppb	11:33:22
1	Mn 257.610†	246.8	65.3	0.0864	µg/L	0.0864	ppb	11:33:42
1	Mo 202.031†	-18.2	20.2	0.6594	µg/L	0.6594	ppb	11:33:42
1	Ni 231.604†	-84.6	10.2	0.1272	µg/L	0.1272	ppb	11:33:42
1	P 214.914†	15.3	41.2	9.5223	µg/L	9.5223	ppb	11:33:42
1	Pb 220.353†	128.5	26.7	1.6394	µg/L	1.6394	ppb	11:33:42
1	S 181.975 Axial†	105.9	18.3	15.402	µg/L	15.402	ppb	11:33:42
1	Sb 206.836†	71.8	-17.0	-2.1882	µg/L	-2.1882	ppb	11:33:42
1	Se 196.026†	18.2	12.3	4.86	µg/L	4.86	ppb	11:33:42
1	SiO2†	1722.8	6.0	0.6150	µg/L	0.6150	ppb	11:33:42
1	Si 251.611†	862.6	106.7	1.6733	µg/L	1.6733	ppb	11:33:22
1	Sn 189.927†	1.7	-0.1	-0.0097	µg/L	-0.0097	ppb	11:33:42
1	Ti 334.940†	863.4	51.5	0.0505	µg/L	0.0505	ppb	11:33:22
1	Tl 190.801†	-111.9	1.0	0.1319	µg/L	0.1319	ppb	11:33:42
1	U 409.014†	-82.1	80.2	5.0710	µg/L	5.0710	ppb	11:33:22
1	V 292.402†	445.9	28.4	0.1587	µg/L	0.1587	ppb	11:33:22
1	Zn 213.857†	555.3	59.4	0.3540	µg/L	0.3540	ppb	11:33:42
2	Sc RADIAL	139520.5	139520.5	99.6	%			11:32:34
2	Al 396.153Radial†	-62.2	16.1	3.3819	µg/L	3.3819	ppb	11:32:54
2	Ca 317.933Radial†	618.3	49.3	3.3610	µg/L	3.3610	ppb	11:32:54
2	Fe 238.204 Radial†	116.3	-0.6	-0.0425	µg/L	-0.0425	ppb	11:32:54
2	K 766.490 Radial†	1507.1	19.4	7.7040	µg/L	7.7040	ppb	11:32:34
2	Mg 279.077 IEC†	162.8	-9.0	-4.1536	µg/L	-4.1536	ppb	11:32:54
2	Na 589.592 Radial†	902.2	-46.6	-7.2284	µg/L	-7.2284	ppb	11:32:34
2	Sr 421.552†	-170.6	33.2	0.0783	µg/L	0.0783	ppb	11:32:34
2	Sc 361.383	1778496.6	1778496.6	98.578	%			11:33:44
2	Y 371.029	1044974.2	1044974.2	98.834	%			11:33:44
2	Ag 328.068†	4406.6	-95.0	-0.3921	µg/L	-0.3921	ppb	11:33:46
2	As 188.979†	-16.8	1.5	0.5201	µg/L	0.5201	ppb	11:34:07
2	B 249.677†	4054.0	47.4	0.7352	µg/L	0.7352	ppb	11:33:46
2	Ba 233.527†	-128.3	14.4	0.0638	µg/L	0.0638	ppb	11:34:07
2	Be 313.107†	-889.2	189.7	0.0561	µg/L	0.0561	ppb	11:33:46
2	Cd 226.502†	-87.2	14.9	0.1006	µg/L	0.1006	ppb	11:34:07
2	Co 228.616†	-169.3	38.5	0.5098	µg/L	0.5098	ppb	11:34:07
2	Cr 267.716†	240.7	10.9	0.0915	µg/L	0.0915	ppb	11:34:07
2	Cu 324.752†	2937.7	-56.0	-0.2311	µg/L	-0.2311	ppb	11:33:46
2	Mn 257.610†	253.5	72.4	0.0962	µg/L	0.0962	ppb	11:34:07
2	Mo 202.031†	-33.8	4.2	0.1384	µg/L	0.1384	ppb	11:34:07
2	Ni 231.604†	-90.7	3.9	0.0487	µg/L	0.0487	ppb	11:34:07
2	P 214.914†	-2.7	23.0	5.3134	µg/L	5.3134	ppb	11:34:07
2	Pb 220.353†	131.4	29.8	1.8340	µg/L	1.8340	ppb	11:34:07

2	S 181.975 Axial†	114.8	27.6	23.201 µg/L	23.201 ppb	11:34:07
2	Sb 206.836†	68.7	-20.1	-2.5886 µg/L	-2.5886 ppb	11:34:07
2	Se 196.026†	18.4	12.5	4.94 µg/L	4.94 ppb	11:34:07
2	SiO2†	1743.1	29.2	3.0894 µg/L	3.0894 ppb	11:34:07
2	Si 251.611†	796.1	40.6	0.6399 µg/L	0.6399 ppb	11:33:46
2	Sn 189.927†	-2.6	-4.5	-0.3128 µg/L	-0.3128 ppb	11:34:07
2	Ti 334.940†	844.0	33.2	0.0330 µg/L	0.0330 ppb	11:33:46
2	Tl 190.801†	-114.1	-1.5	-0.2079 µg/L	-0.2079 ppb	11:34:07
2	U 409.014†	-102.8	59.1	3.6912 µg/L	3.6912 ppb	11:33:46
2	V 292.402†	292.6	-126.4	-0.6508 µg/L	-0.6508 ppb	11:33:46
2	Zn 213.857†	543.9	48.8	0.2911 µg/L	0.2911 ppb	11:34:07
3	Sc RADIAL	137468.8	137468.8	98.1 %		11:32:56
3	Al 396.153Radial†	-87.5	-10.6	-2.2710 µg/L	-2.2710 ppb	11:33:16
3	Ca 317.933Radial†	616.0	56.3	3.8368 µg/L	3.8368 ppb	11:33:16
3	Fe 238.204 Radial†	143.0	28.5	2.1256 µg/L	2.1256 ppb	11:33:16
3	K 766.490 Radial†	1510.4	45.4	17.993 µg/L	17.993 ppb	11:32:56
3	Mg 279.077 IEC†	199.4	30.8	14.227 µg/L	14.227 ppb	11:33:16
3	Na 589.592 Radial†	1098.6	167.1	25.880 µg/L	25.880 ppb	11:32:56
3	Sr 421.552†	-193.6	7.2	0.0170 µg/L	0.0170 ppb	11:32:56
3	Sc 361.383	1779132.2	1779132.2	98.613 %		11:34:09
3	Y 371.029	1044870.8	1044870.8	98.825 %		11:34:09
3	Ag 328.068†	4229.2	-276.5	-1.1269 µg/L	-1.1269 ppb	11:34:11
3	As 188.979†	-17.5	0.8	0.2907 µg/L	0.2907 ppb	11:34:31
3	B 249.677†	3990.5	-18.6	-0.2896 µg/L	-0.2896 ppb	11:34:11
3	Ba 233.527†	-154.2	-11.8	-0.0516 µg/L	-0.0516 ppb	11:34:31
3	Be 313.107†	-593.1	490.3	0.1402 µg/L	0.1402 ppb	11:34:11
3	Cd 226.502†	-73.3	29.1	0.1961 µg/L	0.1961 ppb	11:34:31
3	Co 228.616†	-185.1	22.6	0.2982 µg/L	0.2982 ppb	11:34:31
3	Cr 267.716†	239.5	9.7	0.0891 µg/L	0.0891 ppb	11:34:31
3	Cu 324.752†	2819.0	-177.5	-0.7467 µg/L	-0.7467 ppb	11:34:11
3	Mn 257.610†	209.3	27.5	0.0359 µg/L	0.0359 ppb	11:34:31
3	Mo 202.031†	-14.5	23.9	0.7807 µg/L	0.7807 ppb	11:34:31
3	Ni 231.604†	-105.7	-11.3	-0.1412 µg/L	-0.1412 ppb	11:34:31
3	P 214.914†	-8.3	17.3	3.9969 µg/L	3.9969 ppb	11:34:31
3	Pb 220.353†	108.5	6.6	0.4124 µg/L	0.4124 ppb	11:34:31
3	S 181.975 Axial†	100.0	12.5	10.490 µg/L	10.490 ppb	11:34:31
3	Sb 206.836†	62.3	-26.5	-3.4066 µg/L	-3.4066 ppb	11:34:31
3	Se 196.026†	28.1	22.3	8.80 µg/L	8.80 ppb	11:34:31
3	SiO2†	1743.7	29.1	3.0701 µg/L	3.0701 ppb	11:34:31
3	Si 251.611†	764.4	8.1	0.1206 µg/L	0.1206 ppb	11:34:11
3	Sn 189.927†	-4.6	-6.6	-0.4567 µg/L	-0.4567 ppb	11:34:31
3	Ti 334.940†	707.4	-105.6	-0.1070 µg/L	-0.1070 ppb	11:34:11
3	Tl 190.801†	-118.5	-5.9	-0.8018 µg/L	-0.8018 ppb	11:34:31
3	U 409.014†	-257.2	-97.5	-6.0915 µg/L	-6.0915 ppb	11:34:11
3	V 292.402†	616.0	201.4	1.0480 µg/L	1.0480 ppb	11:34:11
3	Zn 213.857†	551.8	56.6	0.3393 µg/L	0.3393 ppb	11:34:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1779594.2	98.639	%	0.0769				0.08%
Sc RADIAL	138383.1	98.8	%	0.75				0.75%
Y 371.029	1045428.0	98.877	%	0.0829				0.08%
Ag 328.068†	-191.7	-0.7817	µg/L	0.36941	-0.7817	ppb	0.36941	47.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.2	1.4955	µg/L	3.26187	1.4955	ppb	3.26187	218.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.0	0.6908	µg/L	0.50742	0.6908	ppb	0.50742	73.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	9.9	0.1530	µg/L	0.52644	0.1530	ppb	0.52644	343.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.0	-0.0131	µg/L	0.06661	-0.0131	ppb	0.06661	508.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	293.4	0.0853	µg/L	0.04758	0.0853	ppb	0.04758	55.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	55.7	3.7930	µg/L	0.41176	3.7930	ppb	0.41176	10.86%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.0	0.1825	µg/L	0.07603	0.1825	ppb	0.07603	41.65%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	21.3	0.2820	µg/L	0.23633	0.2820	ppb	0.23633	83.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                19.2      0.1656 µg/L       0.13041      0.1656 ppb        0.13041  78.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -75.6     -0.3148 µg/L       0.39666     -0.3148 ppb        0.39666 125.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         17.6      1.3128 µg/L       1.18141      1.3128 ppb        1.18141  89.99%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          42.5      16.832 µg/L        8.6058      16.832 ppb         8.6058  51.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            10.5      4.8589 µg/L       9.19547      4.8589 ppb        9.19547 189.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                55.1      0.0729 µg/L       0.03238      0.0729 ppb        0.03238  44.45%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                16.1      0.5262 µg/L       0.34124      0.5262 ppb        0.34124  64.85%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         75.4      11.680 µg/L       17.0493      11.680 ppb        17.0493 145.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.9      0.0115 µg/L       0.13797      0.0115 ppb        0.13797 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 27.2      6.2776 µg/L       2.88612      6.2776 ppb        2.88612  45.98%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                21.0      1.2953 µg/L       0.77073      1.2953 ppb        0.77073  59.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           19.4      16.364 µg/L        6.4098      16.364 ppb         6.4098  39.17%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -21.2     -2.7278 µg/L       0.62103     -2.7278 ppb        0.62103  22.77%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                15.7        6.20 µg/L         2.250        6.20 ppb          2.250  36.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      21.4      2.2582 µg/L       1.42305      2.2582 ppb        1.42305  63.02%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                51.8      0.8113 µg/L       0.79039      0.8113 ppb        0.79039  97.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.7     -0.2597 µg/L       0.22815     -0.2597 ppb        0.22815  87.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                21.0      0.0496 µg/L       0.03085      0.0496 ppb        0.03085  62.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -7.0     -0.0079 µg/L       0.08634     -0.0079 ppb        0.08634 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.1     -0.2926 µg/L       0.47261     -0.2926 ppb        0.47261 161.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 13.9      0.8902 µg/L       6.08556      0.8902 ppb        6.08556 683.60%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 34.5      0.1853 µg/L       0.84970      0.1853 ppb        0.84970 458.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                54.9      0.3281 µg/L       0.03289      0.3281 ppb        0.03289  10.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 11:52:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136406.2	136406.2	97.4	%			11:52:57
1	Al 396.153Radial†	23313.8	24022.4	5034.4	µg/L	5034.4	ppb	11:52:57
1	Ca 317.933Radial†	72574.7	73964.8	5037.7	µg/L	5037.7	ppb	11:52:57
1	Fe 238.204 Radial†	65230.3	66876.0	4994.3	µg/L	4994.3	ppb	11:52:57
1	K 766.490 Radial†	13928.2	12810.9	5072.2	µg/L	5072.2	ppb	11:52:57
1	Mg 279.077 IEC†	10849.4	10970.1	5073.3	µg/L	5073.3	ppb	11:52:57
1	Na 589.592 Radial†	63560.6	64326.0	9966.5	µg/L	9966.5	ppb	11:52:57
1	Sr 421.552†	209457.2	215322.9	507.79	µg/L	507.79	ppb	11:52:55
1	Sc 361.383	1772450.0	1772450.0	98.243	%			11:53:10
1	Y 371.029	1029159.8	1029159.8	97.339	%			11:53:10
1	Ag 328.068†	123371.7	121013.3	501.63	µg/L	501.63	ppb	11:53:10
1	As 188.979†	1363.6	1406.6	482.99	µg/L	482.99	ppb	11:53:30
1	B 249.677†	35057.5	31619.4	490.00	µg/L	490.00	ppb	11:53:10
1	Ba 233.527†	109674.1	111780.3	497.26	µg/L	497.26	ppb	11:53:10
1	Be 313.107†	1662161.0	1692982.8	490.56	µg/L	490.56	ppb	11:53:10
1	Cd 226.502†	72458.7	73858.1	498.88	µg/L	498.88	ppb	11:53:10
1	Co 228.616†	37051.9	37924.9	501.98	µg/L	501.98	ppb	11:53:10
1	Cr 267.716†	56912.9	57697.7	499.01	µg/L	499.01	ppb	11:53:10
1	Cu 324.752†	119955.7	119065.2	499.57	µg/L	499.57	ppb	11:53:10
1	Mn 257.610†	369739.3	376167.9	498.79	µg/L	498.79	ppb	11:53:10
1	Mo 202.031†	14945.8	15251.7	499.25	µg/L	499.25	ppb	11:53:30
1	Ni 231.604†	39204.9	40002.1	500.48	µg/L	500.48	ppb	11:53:10
1	P 214.914†	10533.6	10747.7	2477.7	µg/L	2477.7	ppb	11:53:30
1	Pb 220.353†	8092.8	8134.1	502.11	µg/L	502.11	ppb	11:53:30
1	S 181.975 Axial†	1246.7	1180.1	996.97	µg/L	996.97	ppb	11:53:30
1	Sb 206.836†	3881.5	3861.2	499.01	µg/L	499.01	ppb	11:53:30
1	Se 196.026†	1261.7	1278.2	506	µg/L	506	ppb	11:53:30
1	SiO2†	50814.8	49984.6	5271.9	µg/L	5271.9	ppb	11:53:10
1	Si 251.611†	154915.3	156919.1	2464.5	µg/L	2464.5	ppb	11:53:10
1	Sn 189.927†	6999.7	7123.1	495.75	µg/L	495.75	ppb	11:53:30
1	Ti 334.940†	474357.0	482018.6	494.42	µg/L	494.42	ppb	11:53:10
1	Tl 190.801†	3467.1	3643.4	504.96	µg/L	504.96	ppb	11:53:30
1	U 409.014†	7358.8	7653.8	513.30	µg/L	513.30	ppb	11:53:10
1	V 292.402†	94510.7	95778.0	503.06	µg/L	503.06	ppb	11:53:10
1	Zn 213.857†	82854.1	83833.1	496.69	µg/L	496.69	ppb	11:53:10
2	Sc RADIAL	137493.5	137493.5	98.1	%			11:53:01
2	Al 396.153Radial†	23368.5	23888.8	5006.2	µg/L	5006.2	ppb	11:53:01
2	Ca 317.933Radial†	73166.7	73978.6	5038.6	µg/L	5038.6	ppb	11:53:01
2	Fe 238.204 Radial†	65779.5	66905.9	4996.5	µg/L	4996.5	ppb	11:53:01
2	K 766.490 Radial†	13916.8	12686.1	5022.7	µg/L	5022.7	ppb	11:53:01
2	Mg 279.077 IEC†	10945.0	10979.5	5077.6	µg/L	5077.6	ppb	11:53:01
2	Na 589.592 Radial†	64104.8	64364.3	9972.5	µg/L	9972.5	ppb	11:53:01
2	Sr 421.552†	208104.5	212243.5	500.53	µg/L	500.53	ppb	11:52:59
2	Sc 361.383	1762317.1	1762317.1	97.681	%			11:53:33
2	Y 371.029	1024172.1	1024172.1	96.867	%			11:53:33
2	Ag 328.068†	122813.7	121164.0	502.22	µg/L	502.22	ppb	11:53:33
2	As 188.979†	1372.1	1423.3	488.62	µg/L	488.62	ppb	11:53:53
2	B 249.677†	34852.8	31615.0	489.94	µg/L	489.94	ppb	11:53:33
2	Ba 233.527†	108849.1	111577.6	496.35	µg/L	496.35	ppb	11:53:33
2	Be 313.107†	1649149.0	1689389.9	489.51	µg/L	489.51	ppb	11:53:33
2	Cd 226.502†	71871.9	73681.4	497.68	µg/L	497.68	ppb	11:53:33
2	Co 228.616†	36650.3	37730.6	499.41	µg/L	499.41	ppb	11:53:33
2	Cr 267.716†	56379.7	57484.9	497.18	µg/L	497.18	ppb	11:53:33
2	Cu 324.752†	118788.7	118572.6	497.49	µg/L	497.49	ppb	11:53:33
2	Mn 257.610†	366667.7	375187.3	497.49	µg/L	497.49	ppb	11:53:33
2	Mo 202.031†	14922.5	15315.3	501.33	µg/L	501.33	ppb	11:53:53
2	Ni 231.604†	38942.5	39962.9	499.99	µg/L	499.99	ppb	11:53:33
2	P 214.914†	10533.2	10809.0	2491.8	µg/L	2491.8	ppb	11:53:53
2	Pb 220.353†	8076.9	8165.1	504.04	µg/L	504.04	ppb	11:53:53

2	S 181.975 Axial†	1255.9	1196.8	1011.1 µg/L	1011.1 ppb	11:53:53
2	Sb 206.836†	3856.9	3858.7	498.76 µg/L	498.76 ppb	11:53:53
2	Se 196.026†	1242.7	1266.0	501 µg/L	501 ppb	11:53:53
2	SiO2†	50210.7	49663.6	5237.8 µg/L	5237.8 ppb	11:53:33
2	Si 251.611†	153979.2	156867.5	2463.7 µg/L	2463.7 ppb	11:53:33
2	Sn 189.927†	6986.3	7150.3	497.63 µg/L	497.63 ppb	11:53:53
2	Ti 334.940†	470900.5	481256.2	493.65 µg/L	493.65 ppb	11:53:33
2	Tl 190.801†	3449.9	3646.1	505.33 µg/L	505.33 ppb	11:53:53
2	U 409.014†	6983.1	7312.3	491.76 µg/L	491.76 ppb	11:53:33
2	V 292.402†	94029.1	95838.0	503.37 µg/L	503.37 ppb	11:53:33
2	Zn 213.857†	82143.5	83590.5	495.24 µg/L	495.24 ppb	11:53:33
3	Sc RADIAL	138379.3	138379.3	98.8 %		11:53:05
3	Al 396.153Radial†	23410.6	23779.0	4983.1 µg/L	4983.1 ppb	11:53:05
3	Ca 317.933Radial†	73615.3	73955.5	5037.0 µg/L	5037.0 ppb	11:53:05
3	Fe 238.204 Radial†	66155.3	66857.2	4992.8 µg/L	4992.8 ppb	11:53:05
3	K 766.490 Radial†	14062.6	12742.9	5045.3 µg/L	5045.3 ppb	11:53:05
3	Mg 279.077 IEC†	10984.3	10947.9	5063.0 µg/L	5063.0 ppb	11:53:05
3	Na 589.592 Radial†	64456.7	64302.4	9962.9 µg/L	9962.9 ppb	11:53:05
3	Sr 421.552†	211075.5	213893.9	504.42 µg/L	504.42 ppb	11:53:03
3	Sc 361.383	1773926.9	1773926.9	98.325 %		11:53:56
3	Y 371.029	1030484.0	1030484.0	97.464 %		11:53:56
3	Ag 328.068†	123843.7	121388.7	503.13 µg/L	503.13 ppb	11:53:56
3	As 188.979†	1369.1	1411.0	484.48 µg/L	484.48 ppb	11:54:16
3	B 249.677†	35237.3	31772.6	492.38 µg/L	492.38 ppb	11:53:56
3	Ba 233.527†	110079.9	112100.1	498.68 µg/L	498.68 ppb	11:53:56
3	Be 313.107†	1667071.7	1696568.6	491.59 µg/L	491.59 ppb	11:53:56
3	Cd 226.502†	72710.6	74052.8	500.20 µg/L	500.20 ppb	11:53:56
3	Co 228.616†	37053.9	37895.5	501.60 µg/L	501.60 ppb	11:53:56
3	Cr 267.716†	56941.0	57678.0	498.86 µg/L	498.86 ppb	11:53:56
3	Cu 324.752†	119958.3	118966.2	499.13 µg/L	499.13 ppb	11:53:56
3	Mn 257.610†	370604.0	376734.0	499.54 µg/L	499.54 ppb	11:53:56
3	Mo 202.031†	15013.3	15307.7	501.08 µg/L	501.08 ppb	11:54:16
3	Ni 231.604†	39324.7	40090.7	501.58 µg/L	501.58 ppb	11:53:56
3	P 214.914†	10576.2	10782.1	2485.6 µg/L	2485.6 ppb	11:54:16
3	Pb 220.353†	8159.7	8195.3	505.90 µg/L	505.90 ppb	11:54:16
3	S 181.975 Axial†	1240.8	1173.0	991.06 µg/L	991.06 ppb	11:54:16
3	Sb 206.836†	3890.0	3866.5	499.73 µg/L	499.73 ppb	11:54:16
3	Se 196.026†	1246.9	1262.0	499 µg/L	499 ppb	11:54:16
3	SiO2†	51031.8	50162.2	5290.6 µg/L	5290.6 ppb	11:53:56
3	Si 251.611†	155506.1	157388.8	2471.9 µg/L	2471.9 ppb	11:53:56
3	Sn 189.927†	7037.4	7155.4	498.00 µg/L	498.00 ppb	11:54:16
3	Ti 334.940†	475812.6	483097.0	495.55 µg/L	495.55 ppb	11:53:56
3	Tl 190.801†	3486.4	3660.1	507.26 µg/L	507.26 ppb	11:54:16
3	U 409.014†	6861.5	7141.7	481.01 µg/L	481.01 ppb	11:53:56
3	V 292.402†	94660.9	95850.6	503.43 µg/L	503.43 ppb	11:53:56
3	Zn 213.857†	83073.1	83985.6	497.59 µg/L	497.59 ppb	11:53:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769564.7	98.083	%	0.3503				0.36%
Sc RADIAL	137426.3	98.1	%	0.71				0.72%
Y 371.029	1027938.6	97.223	%	0.3148				0.32%
Ag 328.068†	121188.7	502.32	µg/L	0.756	502.32	ppb	0.756	0.15%
QC value within limits for Ag 328.068 Recovery = 100.46%								
Al 396.153Radial†	23896.8	5007.9	µg/L	25.71	5007.9	ppb	25.71	0.51%
QC value within limits for Al 396.153Radial Recovery = 100.16%								
As 188.979†	1413.6	485.36	µg/L	2.918	485.36	ppb	2.918	0.60%
QC value within limits for As 188.979 Recovery = 97.07%								
B 249.677†	31669.0	490.77	µg/L	1.393	490.77	ppb	1.393	0.28%
QC value within limits for B 249.677 Recovery = 98.15%								
Ba 233.527†	111819.3	497.43	µg/L	1.171	497.43	ppb	1.171	0.24%
QC value within limits for Ba 233.527 Recovery = 99.49%								
Be 313.107†	1692980.5	490.55	µg/L	1.038	490.55	ppb	1.038	0.21%
QC value within limits for Be 313.107 Recovery = 98.11%								
Ca 317.933Radial†	73966.3	5037.8	µg/L	0.79	5037.8	ppb	0.79	0.02%
QC value within limits for Ca 317.933Radial Recovery = 100.76%								
Cd 226.502†	73864.1	498.92	µg/L	1.256	498.92	ppb	1.256	0.25%
QC value within limits for Cd 226.502 Recovery = 99.78%								
Co 228.616†	37850.3	501.00	µg/L	1.386	501.00	ppb	1.386	0.28%

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   QC value within limits for Co 228.616  Recovery = 100.20%
Cr 267.716†            57620.2      498.35 µg/L         1.014      498.35 ppb          1.014   0.20%
   QC value within limits for Cr 267.716  Recovery = 99.67%
Cu 324.752†           118868.0      498.73 µg/L         1.096      498.73 ppb          1.096   0.22%
   QC value within limits for Cu 324.752  Recovery = 99.75%
Fe 238.204 Radial†     66879.7      4994.5 µg/L          1.83      4994.5 ppb           1.83   0.04%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.89%
K 766.490 Radial†      12746.7      5046.7 µg/L         24.75      5046.7 ppb          24.75   0.49%
   QC value within limits for K 766.490 Radial  Recovery = 100.93%
Mg 279.077 IEC†        10965.8      5071.3 µg/L          7.49      5071.3 ppb           7.49   0.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.43%
Mn 257.610†           376029.8      498.61 µg/L         1.038      498.61 ppb          1.038   0.21%
   QC value within limits for Mn 257.610  Recovery = 99.72%
Mo 202.031†            15291.6      500.55 µg/L         1.135      500.55 ppb          1.135   0.23%
   QC value within limits for Mo 202.031  Recovery = 100.11%
Na 589.592 Radial†     64330.9      9967.3 µg/L          4.85      9967.3 ppb           4.85   0.05%
   QC value within limits for Na 589.592 Radial  Recovery = 99.67%
Ni 231.604†            40018.5      500.68 µg/L         0.819      500.68 ppb          0.819   0.16%
   QC value within limits for Ni 231.604  Recovery = 100.14%
P 214.914†             10779.6      2485.0 µg/L          7.11      2485.0 ppb           7.11   0.29%
   QC value within limits for P 214.914  Recovery = 99.40%
Pb 220.353†             8164.8      504.01 µg/L         1.894      504.01 ppb          1.894   0.38%
   QC value within limits for Pb 220.353  Recovery = 100.80%
S 181.975 Axial†        1183.3      999.69 µg/L        10.271      999.69 ppb         10.271   1.03%
   QC value within limits for S 181.975 Axial  Recovery = 99.97%
Sb 206.836†             3862.2      499.17 µg/L         0.507      499.17 ppb          0.507   0.10%
   QC value within limits for Sb 206.836  Recovery = 99.83%
Se 196.026†             1268.7         502 µg/L           3.3         502 ppb            3.3   0.66%
   QC value within limits for Se 196.026  Recovery = 100.40%
SiO2†                  49936.8      5266.8 µg/L         26.77      5266.8 ppb          26.77   0.51%
   QC value within limits for SiO2  Recovery = 98.49%
Si 251.611†           157058.5      2466.7 µg/L          4.52      2466.7 ppb           4.52   0.18%
   QC value within limits for Si 251.611  Recovery = 98.67%
Sn 189.927†             7142.9      497.13 µg/L         1.207      497.13 ppb          1.207   0.24%
   QC value within limits for Sn 189.927  Recovery = 99.43%
Sr 421.552†           213820.1      504.25 µg/L         3.634      504.25 ppb          3.634   0.72%
   QC value within limits for Sr 421.552  Recovery = 100.85%
Ti 334.940†           482123.9      494.54 µg/L         0.953      494.54 ppb          0.953   0.19%
   QC value within limits for Ti 334.940  Recovery = 98.91%
Tl 190.801†             3649.9      505.85 µg/L         1.234      505.85 ppb          1.234   0.24%
   QC value within limits for Tl 190.801  Recovery = 101.17%
U 409.014†              7369.3      495.36 µg/L        16.441      495.36 ppb         16.441   3.32%
   QC value within limits for U 409.014  Recovery = 99.07%
V 292.402†             95822.2      503.28 µg/L         0.199      503.28 ppb          0.199   0.04%
   QC value within limits for V 292.402  Recovery = 100.66%
Zn 213.857†            83803.0      496.51 µg/L         1.184      496.51 ppb          1.184   0.24%
   QC value within limits for Zn 213.857  Recovery = 99.30%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 11:54:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139389.9	139389.9	99.5	%			11:54:54
1	Al 396.153Radial†	-84.0	-5.9	-1.2593	µg/L	-1.2593	ppb	11:55:14
1	Ca 317.933Radial†	644.5	76.3	5.1950	µg/L	5.1950	ppb	11:55:14
1	Fe 238.204 Radial†	160.6	44.1	3.2902	µg/L	3.2902	ppb	11:55:14
1	K 766.490 Radial†	1607.6	121.9	48.305	µg/L	48.305	ppb	11:54:54
1	Mg 279.077 IEC†	175.1	3.6	1.6593	µg/L	1.6593	ppb	11:55:14
1	Na 589.592 Radial†	1147.4	200.7	31.068	µg/L	31.068	ppb	11:54:54
1	Sr 421.552†	-289.7	-86.7	-0.2046	µg/L	-0.2046	ppb	11:54:54
1	Sc 361.383	1803679.3	1803679.3	99.974	%			11:56:02
1	Y 371.029	1059662.4	1059662.4	100.22	%			11:56:02
1	Ag 328.068†	4030.2	-533.9	-2.1911	µg/L	-2.1911	ppb	11:56:04
1	As 188.979†	-11.4	7.1	2.4097	µg/L	2.4097	ppb	11:56:24
1	B 249.677†	4005.8	-58.3	-0.9066	µg/L	-0.9066	ppb	11:56:04
1	Ba 233.527†	-141.6	2.9	0.0132	µg/L	0.0132	ppb	11:56:24
1	Be 313.107†	-854.4	237.1	0.0672	µg/L	0.0672	ppb	11:56:04
1	Cd 226.502†	-87.6	15.7	0.1061	µg/L	0.1061	ppb	11:56:24
1	Co 228.616†	-200.7	9.6	0.1266	µg/L	0.1266	ppb	11:56:24
1	Cr 267.716†	259.2	26.0	0.2290	µg/L	0.2290	ppb	11:56:24
1	Cu 324.752†	2917.7	-117.6	-0.4953	µg/L	-0.4953	ppb	11:56:04
1	Mn 257.610†	254.2	69.5	0.0921	µg/L	0.0921	ppb	11:56:24
1	Mo 202.031†	-24.6	14.0	0.4572	µg/L	0.4572	ppb	11:56:24
1	Ni 231.604†	-52.1	43.7	0.5473	µg/L	0.5473	ppb	11:56:24
1	P 214.914†	3.0	28.7	6.6281	µg/L	6.6281	ppb	11:56:24
1	Pb 220.353†	103.6	0.2	0.0141	µg/L	0.0141	ppb	11:56:24
1	S 181.975 Axial†	87.0	-1.9	-1.6322	µg/L	-1.6322	ppb	11:56:24
1	Sb 206.836†	75.3	-14.4	-1.8542	µg/L	-1.8542	ppb	11:56:24
1	Se 196.026†	25.6	19.4	7.65	µg/L	7.65	ppb	11:56:24
1	SiO2†	1766.5	27.9	2.9396	µg/L	2.9396	ppb	11:56:24
1	Si 251.611†	936.0	169.2	2.6606	µg/L	2.6606	ppb	11:56:04
1	Sn 189.927†	4.7	2.8	0.1940	µg/L	0.1940	ppb	11:56:24
1	Ti 334.940†	790.9	-31.9	-0.0308	µg/L	-0.0308	ppb	11:56:04
1	Tl 190.801†	-109.3	4.9	0.6728	µg/L	0.6728	ppb	11:56:24
1	U 409.014†	-240.1	-76.8	-4.8425	µg/L	-4.8425	ppb	11:56:04
1	V 292.402†	433.4	10.3	0.0553	µg/L	0.0553	ppb	11:56:04
1	Zn 213.857†	610.2	107.4	0.6379	µg/L	0.6379	ppb	11:56:24
2	Sc RADIAL	139282.4	139282.4	99.4	%			11:55:16
2	Al 396.153Radial†	-42.2	36.1	7.5894	µg/L	7.5894	ppb	11:55:36
2	Ca 317.933Radial†	638.7	70.9	4.8316	µg/L	4.8316	ppb	11:55:36
2	Fe 238.204 Radial†	158.2	41.9	3.1259	µg/L	3.1259	ppb	11:55:36
2	K 766.490 Radial†	1707.0	223.2	88.420	µg/L	88.420	ppb	11:55:16
2	Mg 279.077 IEC†	177.7	6.3	2.9217	µg/L	2.9217	ppb	11:55:36
2	Na 589.592 Radial†	1039.6	93.2	14.364	µg/L	14.364	ppb	11:55:16
2	Sr 421.552†	-106.1	97.7	0.2305	µg/L	0.2305	ppb	11:55:16
2	Sc 361.383	1821566.7	1821566.7	100.97	%			11:56:26
2	Y 371.029	1068824.4	1068824.4	101.09	%			11:56:26
2	Ag 328.068†	4339.7	-267.0	-1.1089	µg/L	-1.1089	ppb	11:56:28
2	As 188.979†	-18.8	-0.1	-0.0164	µg/L	-0.0164	ppb	11:56:49
2	B 249.677†	4055.1	-48.8	-0.7607	µg/L	-0.7607	ppb	11:56:28
2	Ba 233.527†	-123.2	22.5	0.0996	µg/L	0.0996	ppb	11:56:49
2	Be 313.107†	-844.8	255.0	0.0729	µg/L	0.0729	ppb	11:56:28
2	Cd 226.502†	-65.9	38.1	0.2575	µg/L	0.2575	ppb	11:56:49
2	Co 228.616†	-177.6	34.4	0.4555	µg/L	0.4555	ppb	11:56:49
2	Cr 267.716†	273.2	37.4	0.3256	µg/L	0.3256	ppb	11:56:49
2	Cu 324.752†	3023.7	-41.3	-0.1746	µg/L	-0.1746	ppb	11:56:28
2	Mn 257.610†	559.5	369.5	0.4900	µg/L	0.4900	ppb	11:56:49
2	Mo 202.031†	-27.6	11.2	0.3677	µg/L	0.3677	ppb	11:56:49
2	Ni 231.604†	-57.5	39.0	0.4875	µg/L	0.4875	ppb	11:56:49
2	P 214.914†	21.5	47.0	10.874	µg/L	10.874	ppb	11:56:49
2	Pb 220.353†	83.8	-20.4	-1.2522	µg/L	-1.2522	ppb	11:56:49

2	S 181.975 Axial†	95.6	5.8	4.8821 µg/L	4.8821 ppb	11:56:49
2	Sb 206.836†	69.7	-20.7	-2.6649 µg/L	-2.6649 ppb	11:56:49
2	Se 196.026†	22.8	16.4	6.45 µg/L	6.45 ppb	11:56:49
2	SiO2†	1841.3	84.6	8.9537 µg/L	8.9537 ppb	11:56:49
2	Si 251.611†	927.3	151.4	2.3842 µg/L	2.3842 ppb	11:56:28
2	Sn 189.927†	-2.1	-4.0	-0.2757 µg/L	-0.2757 ppb	11:56:49
2	Ti 334.940†	628.9	-200.1	-0.2043 µg/L	-0.2043 ppb	11:56:28
2	Tl 190.801†	-115.8	-0.5	-0.0731 µg/L	-0.0731 ppb	11:56:49
2	U 409.014†	-218.4	-53.0	-3.3981 µg/L	-3.3981 ppb	11:56:28
2	V 292.402†	237.2	-188.3	-0.9729 µg/L	-0.9729 ppb	11:56:28
2	Zn 213.857†	635.0	125.9	0.7484 µg/L	0.7484 ppb	11:56:49
3	Sc RADIAL	139340.4	139340.4	99.5 %		11:55:38
3	Al 396.153Radial†	-77.3	0.8	0.1277 µg/L	0.1277 ppb	11:55:58
3	Ca 317.933Radial†	597.0	28.7	1.9576 µg/L	1.9576 ppb	11:55:58
3	Fe 238.204 Radial†	155.3	38.9	2.9027 µg/L	2.9027 ppb	11:55:58
3	K 766.490 Radial†	1502.8	17.1	6.7800 µg/L	6.7800 ppb	11:55:38
3	Mg 279.077 IEC†	194.6	23.2	10.746 µg/L	10.746 ppb	11:55:58
3	Na 589.592 Radial†	1106.6	160.1	24.810 µg/L	24.810 ppb	11:55:38
3	Sr 421.552†	-124.6	79.2	0.1869 µg/L	0.1869 ppb	11:55:38
3	Sc 361.383	1797247.0	1797247.0	99.617 %		11:56:51
3	Y 371.029	1055174.4	1055174.4	99.799 %		11:56:51
3	Ag 328.068†	4221.6	-327.3	-1.3518 µg/L	-1.3518 ppb	11:56:53
3	As 188.979†	-9.7	8.8	2.9796 µg/L	2.9796 ppb	11:57:13
3	B 249.677†	3829.7	-220.7	-3.4338 µg/L	-3.4338 ppb	11:56:53
3	Ba 233.527†	-151.6	-7.6	-0.0339 µg/L	-0.0339 ppb	11:57:13
3	Be 313.107†	-753.4	335.5	0.0958 µg/L	0.0958 ppb	11:56:53
3	Cd 226.502†	-87.6	15.5	0.1044 µg/L	0.1044 ppb	11:57:13
3	Co 228.616†	-191.7	17.9	0.2362 µg/L	0.2362 ppb	11:57:13
3	Cr 267.716†	227.7	-4.6	-0.0368 µg/L	-0.0368 ppb	11:57:13
3	Cu 324.752†	2886.9	-138.1	-0.5806 µg/L	-0.5806 ppb	11:56:53
3	Mn 257.610†	271.2	87.5	0.1156 µg/L	0.1156 ppb	11:57:13
3	Mo 202.031†	-6.1	32.4	1.0600 µg/L	1.0600 ppb	11:57:13
3	Ni 231.604†	-73.4	22.2	0.2780 µg/L	0.2780 ppb	11:57:13
3	P 214.914†	3.6	29.3	6.7857 µg/L	6.7857 ppb	11:57:13
3	Pb 220.353†	60.8	-42.4	-2.6054 µg/L	-2.6054 ppb	11:57:13
3	S 181.975 Axial†	106.0	17.5	14.706 µg/L	14.706 ppb	11:57:13
3	Sb 206.836†	79.7	-9.8	-1.2426 µg/L	-1.2426 ppb	11:57:13
3	Se 196.026†	15.7	9.6	3.78 µg/L	3.78 ppb	11:57:13
3	SiO2†	1829.5	97.4	10.277 µg/L	10.277 ppb	11:57:13
3	Si 251.611†	1111.0	348.3	5.4721 µg/L	5.4721 ppb	11:56:53
3	Sn 189.927†	13.7	11.9	0.8234 µg/L	0.8234 ppb	11:57:13
3	Ti 334.940†	717.7	-102.5	-0.1043 µg/L	-0.1043 ppb	11:56:53
3	Tl 190.801†	-119.4	-5.6	-0.7640 µg/L	-0.7640 ppb	11:57:13
3	U 409.014†	-232.3	-69.9	-4.4392 µg/L	-4.4392 ppb	11:56:53
3	V 292.402†	319.0	-103.0	-0.5260 µg/L	-0.5260 ppb	11:56:53
3	Zn 213.857†	589.3	88.6	0.5275 µg/L	0.5275 ppb	11:57:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807497.7	100.19	%	0.698				0.70%
Sc RADIAL	139337.6	99.5	%	0.04				0.04%
Y 371.029	1061220.4	100.37	%	0.658				0.66%
Ag 328.068†	-376.1	-1.5506	µg/L	0.56784	-1.5506	ppb	0.56784	36.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.4	2.1526	µg/L	4.75922	2.1526	ppb	4.75922	221.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.3	1.7910	µg/L	1.59094	1.7910	ppb	1.59094	88.83%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-109.3	-1.7004	µg/L	1.50298	-1.7004	ppb	1.50298	88.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.0	0.0263	µg/L	0.06770	0.0263	ppb	0.06770	257.26%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	275.9	0.0786	µg/L	0.01517	0.0786	ppb	0.01517	19.29%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	58.7	3.9947	µg/L	1.77355	3.9947	ppb	1.77355	44.40%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.1	0.1560	µg/L	0.08793	0.1560	ppb	0.08793	56.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.6	0.2728	µg/L	0.16746	0.2728	ppb	0.16746	61.39%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.6      0.1726 µg/L       0.18768      0.1726 ppb        0.18768 108.74%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -99.0     -0.4168 µg/L       0.21408     -0.4168 ppb        0.21408  51.36%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       41.6      3.1063 µg/L       0.19449      3.1063 ppb        0.19449   6.26%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       120.7      47.835 µg/L       40.8218      47.835 ppb        40.8218  85.34%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          11.0      5.1091 µg/L       4.92266      5.1091 ppb        4.92266  96.35%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             175.5      0.2326 µg/L       0.22323      0.2326 ppb        0.22323  95.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              19.2      0.6283 µg/L       0.37654      0.6283 ppb        0.37654  59.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      151.3      23.414 µg/L        8.4391      23.414 ppb         8.4391  36.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              35.0      0.4376 µg/L       0.14140      0.4376 ppb        0.14140  32.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               35.0      8.0960 µg/L       2.40728      8.0960 ppb        2.40728  29.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -20.9     -1.2812 µg/L       1.30999     -1.2812 ppb        1.30999 102.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          7.1      5.9853 µg/L       8.22482      5.9853 ppb        8.22482 137.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -14.9     -1.9206 µg/L       0.71350     -1.9206 ppb        0.71350  37.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              15.1        5.96 µg/L         1.979        5.96 ppb          1.979  33.19%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    70.0      7.3902 µg/L       3.91074      7.3902 ppb        3.91074  52.92%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             222.9      3.5056 µg/L       1.70860      3.5056 ppb        1.70860  48.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.6      0.2472 µg/L       0.55145      0.2472 ppb        0.55145 223.04%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              30.1      0.0709 µg/L       0.23957      0.0709 ppb        0.23957 337.83%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -111.5     -0.1132 µg/L       0.08709     -0.1132 ppb        0.08709  76.96%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.4     -0.0548 µg/L       0.71858     -0.0548 ppb        0.71858 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -66.5     -4.2266 µg/L       0.74532     -4.2266 ppb        0.74532  17.63%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -93.6     -0.4812 µg/L       0.51557     -0.4812 ppb        0.51557 107.15%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             107.3      0.6379 µg/L       0.11045      0.6379 ppb        0.11045  17.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 12:16:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138173.1	138173.1	98.6	%			12:17:08
1	Al 396.153Radial†	23436.3	23840.5	4995.9	µg/L	4995.9	ppb	12:17:08
1	Ca 317.933Radial†	73829.7	74284.1	5059.4	µg/L	5059.4	ppb	12:17:08
1	Fe 238.204 Radial†	66677.7	67486.8	5039.9	µg/L	5039.9	ppb	12:17:08
1	K 766.490 Radial†	14215.5	12919.2	5115.1	µg/L	5115.1	ppb	12:17:08
1	Mg 279.077 IEC†	11111.0	11092.9	5130.0	µg/L	5130.0	ppb	12:17:08
1	Na 589.592 Radial†	64510.7	64454.5	9986.4	µg/L	9986.4	ppb	12:17:08
1	Sr 421.552†	208276.3	211374.6	498.48	µg/L	498.48	ppb	12:17:05
1	Sc 361.383	1771153.0	1771153.0	98.171	%			12:17:34
1	Y 371.029	1029832.2	1029832.2	97.402	%			12:17:34
1	Ag 328.068†	123736.1	121476.4	503.55	µg/L	503.55	ppb	12:17:34
1	As 188.979†	1382.2	1426.5	489.79	µg/L	489.79	ppb	12:17:54
1	B 249.677†	35147.2	31736.9	491.81	µg/L	491.81	ppb	12:17:34
1	Ba 233.527†	110394.8	112596.2	500.88	µg/L	500.88	ppb	12:17:34
1	Be 313.107†	1668216.9	1700390.5	492.70	µg/L	492.70	ppb	12:17:34
1	Cd 226.502†	72697.5	74155.4	500.88	µg/L	500.88	ppb	12:17:34
1	Co 228.616†	37260.4	38164.9	505.16	µg/L	505.16	ppb	12:17:34
1	Cr 267.716†	57133.8	57965.1	501.33	µg/L	501.33	ppb	12:17:34
1	Cu 324.752†	120539.2	119749.0	502.44	µg/L	502.44	ppb	12:17:34
1	Mn 257.610†	371828.3	378571.5	501.98	µg/L	501.98	ppb	12:17:34
1	Mo 202.031†	15099.0	15418.9	504.72	µg/L	504.72	ppb	12:17:54
1	Ni 231.604†	39340.9	40169.8	502.57	µg/L	502.57	ppb	12:17:34
1	P 214.914†	10642.4	10866.4	2505.0	µg/L	2505.0	ppb	12:17:54
1	Pb 220.353†	8192.1	8241.3	508.72	µg/L	508.72	ppb	12:17:54
1	S 181.975 Axial†	1246.0	1180.3	997.22	µg/L	997.22	ppb	12:17:54
1	Sb 206.836†	3907.2	3890.3	502.82	µg/L	502.82	ppb	12:17:54
1	Se 196.026†	1267.0	1284.5	508	µg/L	508	ppb	12:17:54
1	SiO2†	51163.3	50377.5	5313.3	µg/L	5313.3	ppb	12:17:34
1	Si 251.611†	156323.1	158468.6	2488.8	µg/L	2488.8	ppb	12:17:34
1	Sn 189.927†	7092.0	7222.2	502.64	µg/L	502.64	ppb	12:17:54
1	Ti 334.940†	477558.9	485633.6	498.13	µg/L	498.13	ppb	12:17:34
1	Tl 190.801†	3523.3	3703.2	513.18	µg/L	513.18	ppb	12:17:54
1	U 409.014†	7278.5	7577.4	508.67	µg/L	508.67	ppb	12:17:34
1	V 292.402†	95032.0	96379.4	506.23	µg/L	506.23	ppb	12:17:34
1	Zn 213.857†	83125.8	84171.6	498.69	µg/L	498.69	ppb	12:17:34
2	Sc RADIAL	136709.1	136709.1	97.6	%			12:17:12
2	Al 396.153Radial†	23297.2	23952.4	5019.6	µg/L	5019.6	ppb	12:17:12
2	Ca 317.933Radial†	72959.0	74193.5	5053.2	µg/L	5053.2	ppb	12:17:12
2	Fe 238.204 Radial†	65851.7	67364.3	5030.7	µg/L	5030.7	ppb	12:17:12
2	K 766.490 Radial†	13849.6	12698.6	5027.7	µg/L	5027.7	ppb	12:17:12
2	Mg 279.077 IEC†	10906.9	11004.4	5089.1	µg/L	5089.1	ppb	12:17:12
2	Na 589.592 Radial†	64040.2	64672.9	10020	µg/L	10020	ppb	12:17:12
2	Sr 421.552†	208577.2	213944.5	504.54	µg/L	504.54	ppb	12:17:10
2	Sc 361.383	1790471.7	1790471.7	99.242	%			12:17:58
2	Y 371.029	1040499.0	1040499.0	98.411	%			12:17:58
2	Ag 328.068†	125354.8	121747.5	504.66	µg/L	504.66	ppb	12:17:58
2	As 188.979†	1362.5	1391.5	477.93	µg/L	477.93	ppb	12:18:18
2	B 249.677†	35724.9	31932.7	494.85	µg/L	494.85	ppb	12:17:58
2	Ba 233.527†	111665.0	112662.7	501.18	µg/L	501.18	ppb	12:17:58
2	Be 313.107†	1689440.1	1703440.9	493.59	µg/L	493.59	ppb	12:17:58
2	Cd 226.502†	73727.4	74394.1	502.50	µg/L	502.50	ppb	12:17:58
2	Co 228.616†	37877.1	38376.8	507.96	µg/L	507.96	ppb	12:17:58
2	Cr 267.716†	57789.1	57997.4	501.61	µg/L	501.61	ppb	12:17:58
2	Cu 324.752†	121820.0	119714.7	502.29	µg/L	502.29	ppb	12:17:58
2	Mn 257.610†	376181.4	378871.2	502.38	µg/L	502.38	ppb	12:17:58
2	Mo 202.031†	15140.8	15295.0	500.67	µg/L	500.67	ppb	12:18:18
2	Ni 231.604†	39919.1	40320.1	504.45	µg/L	504.45	ppb	12:17:58
2	P 214.914†	10675.0	10782.2	2485.6	µg/L	2485.6	ppb	12:18:18
2	Pb 220.353†	8199.1	8158.3	503.61	µg/L	503.61	ppb	12:18:18

2	S 181.975 Axial†	1250.2	1170.9	989.23 µg/L	989.23 ppb	12:18:18
2	Sb 206.836†	3900.5	3840.6	496.34 µg/L	496.34 ppb	12:18:18
2	Se 196.026†	1261.8	1265.3	501 µg/L	501 ppb	12:18:18
2	SiO2†	51903.6	50561.1	5332.9 µg/L	5332.9 ppb	12:17:58
2	Si 251.611†	158711.3	159157.0	2499.8 µg/L	2499.8 ppb	12:17:58
2	Sn 189.927†	7069.7	7121.8	495.68 µg/L	495.68 ppb	12:18:18
2	Ti 334.940†	483377.5	486248.0	498.77 µg/L	498.77 ppb	12:17:58
2	Tl 190.801†	3525.8	3667.0	508.23 µg/L	508.23 ppb	12:18:18
2	U 409.014†	7276.7	7495.6	503.52 µg/L	503.52 ppb	12:17:58
2	V 292.402†	96108.6	96419.7	506.39 µg/L	506.39 ppb	12:17:58
2	Zn 213.857†	84041.9	84181.0	498.73 µg/L	498.73 ppb	12:17:58
3	Sc RADIAL	137430.0	137430.0	98.1 %		12:17:16
3	Al 396.153Radial†	23488.3	24022.0	5034.0 µg/L	5034.0 ppb	12:17:16
3	Ca 317.933Radial†	73707.4	74564.2	5078.5 µg/L	5078.5 ppb	12:17:16
3	Fe 238.204 Radial†	66294.6	67461.9	5038.0 µg/L	5038.0 ppb	12:17:16
3	K 766.490 Radial†	13997.9	12775.3	5058.1 µg/L	5058.1 ppb	12:17:16
3	Mg 279.077 IEC†	10912.3	10951.3	5064.7 µg/L	5064.7 ppb	12:17:16
3	Na 589.592 Radial†	64249.5	64542.0	10000 µg/L	10000 ppb	12:17:16
3	Sr 421.552†	206570.3	210777.5	497.07 µg/L	497.07 ppb	12:17:14
3	Sc 361.383	1791956.4	1791956.4	99.324 %		12:18:21
3	Y 371.029	1040969.8	1040969.8	98.456 %		12:18:21
3	Ag 328.068†	125471.1	121760.0	504.71 µg/L	504.71 ppb	12:18:21
3	As 188.979†	1389.7	1417.7	486.83 µg/L	486.83 ppb	12:18:41
3	B 249.677†	35714.4	31892.3	494.22 µg/L	494.22 ppb	12:18:21
3	Ba 233.527†	112011.5	112918.4	502.32 µg/L	502.32 ppb	12:18:21
3	Be 313.107†	1691084.9	1703686.5	493.66 µg/L	493.66 ppb	12:18:21
3	Cd 226.502†	73961.0	74567.8	503.67 µg/L	503.67 ppb	12:18:21
3	Co 228.616†	37900.0	38368.2	507.85 µg/L	507.85 ppb	12:18:21
3	Cr 267.716†	57873.2	58033.9	501.93 µg/L	501.93 ppb	12:18:21
3	Cu 324.752†	121881.7	119675.2	502.12 µg/L	502.12 ppb	12:18:21
3	Mn 257.610†	376942.5	379323.3	502.98 µg/L	502.98 ppb	12:18:21
3	Mo 202.031†	15340.9	15483.8	506.84 µg/L	506.84 ppb	12:18:41
3	Ni 231.604†	40041.2	40409.6	505.57 µg/L	505.57 ppb	12:18:21
3	P 214.914†	10860.3	10960.0	2526.7 µg/L	2526.7 ppb	12:18:41
3	Pb 220.353†	8326.6	8279.8	511.10 µg/L	511.10 ppb	12:18:41
3	S 181.975 Axial†	1272.4	1192.1	1007.2 µg/L	1007.2 ppb	12:18:41
3	Sb 206.836†	3964.4	3901.7	504.31 µg/L	504.31 ppb	12:18:41
3	Se 196.026†	1279.4	1281.9	507 µg/L	507 ppb	12:18:41
3	SiO2†	52183.1	50799.2	5357.8 µg/L	5357.8 ppb	12:18:21
3	Si 251.611†	159232.7	159549.5	2505.8 µg/L	2505.8 ppb	12:18:21
3	Sn 189.927†	7190.1	7237.1	503.67 µg/L	503.67 ppb	12:18:41
3	Ti 334.940†	483431.3	485898.6	498.41 µg/L	498.41 ppb	12:18:21
3	Tl 190.801†	3579.1	3717.8	515.16 µg/L	515.16 ppb	12:18:41
3	U 409.014†	7290.1	7503.1	504.01 µg/L	504.01 ppb	12:18:21
3	V 292.402†	96227.3	96459.0	506.66 µg/L	506.66 ppb	12:18:21
3	Zn 213.857†	84398.4	84469.8	500.45 µg/L	500.45 ppb	12:18:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1784527.0	98.912	%	0.6433				0.65%
Sc RADIAL	137437.4	98.1	%	0.52				0.53%
Y 371.029	1037100.3	98.090	%	0.5957				0.61%
Ag 328.068†	121661.3	504.31	µg/L	0.654	504.31	ppb	0.654	0.13%
QC value within limits for Ag 328.068 Recovery = 100.86%								
Al 396.153Radial†	23938.3	5016.5	µg/L	19.24	5016.5	ppb	19.24	0.38%
QC value within limits for Al 396.153Radial Recovery = 100.33%								
As 188.979†	1411.9	484.85	µg/L	6.176	484.85	ppb	6.176	1.27%
QC value within limits for As 188.979 Recovery = 96.97%								
B 249.677†	31854.0	493.63	µg/L	1.602	493.63	ppb	1.602	0.32%
QC value within limits for B 249.677 Recovery = 98.73%								
Ba 233.527†	112725.8	501.46	µg/L	0.757	501.46	ppb	0.757	0.15%
QC value within limits for Ba 233.527 Recovery = 100.29%								
Be 313.107†	1702506.0	493.32	µg/L	0.531	493.32	ppb	0.531	0.11%
QC value within limits for Be 313.107 Recovery = 98.66%								
Ca 317.933Radial†	74347.3	5063.7	µg/L	13.16	5063.7	ppb	13.16	0.26%
QC value within limits for Ca 317.933Radial Recovery = 101.27%								
Cd 226.502†	74372.4	502.35	µg/L	1.400	502.35	ppb	1.400	0.28%
QC value within limits for Cd 226.502 Recovery = 100.47%								
Co 228.616†	38303.3	506.99	µg/L	1.587	506.99	ppb	1.587	0.31%

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   QC value within limits for Co 228.616  Recovery = 101.40%
Cr 267.716†            57998.8      501.62 µg/L         0.300      501.62 ppb          0.300   0.06%
   QC value within limits for Cr 267.716  Recovery = 100.32%
Cu 324.752†           119713.0      502.28 µg/L         0.157      502.28 ppb          0.157   0.03%
   QC value within limits for Cu 324.752  Recovery = 100.46%
Fe 238.204 Radial†     67437.7      5036.2 µg/L          4.83      5036.2 ppb           4.83   0.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.72%
K 766.490 Radial†      12797.7      5066.9 µg/L         44.38      5066.9 ppb          44.38   0.88%
   QC value within limits for K 766.490 Radial  Recovery = 101.34%
Mg 279.077 IEC†        11016.2      5094.6 µg/L         33.02      5094.6 ppb          33.02   0.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.89%
Mn 257.610†           378922.0      502.44 µg/L         0.503      502.44 ppb          0.503   0.10%
   QC value within limits for Mn 257.610  Recovery = 100.49%
Mo 202.031†            15399.3      504.08 µg/L         3.137      504.08 ppb          3.137   0.62%
   QC value within limits for Mo 202.031  Recovery = 100.82%
Na 589.592 Radial†     64556.5       10002 µg/L          17.1       10002 ppb           17.1   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 100.02%
Ni 231.604†            40299.8      504.20 µg/L         1.516      504.20 ppb          1.516   0.30%
   QC value within limits for Ni 231.604  Recovery = 100.84%
P 214.914†             10869.5      2505.8 µg/L         20.57      2505.8 ppb          20.57   0.82%
   QC value within limits for P 214.914  Recovery = 100.23%
Pb 220.353†             8226.4      507.81 µg/L         3.830      507.81 ppb          3.830   0.75%
   QC value within limits for Pb 220.353  Recovery = 101.56%
S 181.975 Axial†        1181.1      997.87 µg/L         8.980      997.87 ppb          8.980   0.90%
   QC value within limits for S 181.975 Axial  Recovery = 99.79%
Sb 206.836†             3877.5      501.16 µg/L         4.237      501.16 ppb          4.237   0.85%
   QC value within limits for Sb 206.836  Recovery = 100.23%
Se 196.026†             1277.2         505 µg/L           4.1        505 ppb            4.1   0.81%
   QC value within limits for Se 196.026  Recovery = 101.08%
SiO2†                  50579.3      5334.7 µg/L         22.34      5334.7 ppb          22.34   0.42%
   QC value within limits for SiO2  Recovery = 99.76%
Si 251.611†           159058.4      2498.2 µg/L          8.62      2498.2 ppb           8.62   0.35%
   QC value within limits for Si 251.611  Recovery = 99.93%
Sn 189.927†             7193.7      500.66 µg/L         4.348      500.66 ppb          4.348   0.87%
   QC value within limits for Sn 189.927  Recovery = 100.13%
Sr 421.552†           212032.2      500.03 µg/L         3.969      500.03 ppb          3.969   0.79%
   QC value within limits for Sr 421.552  Recovery = 100.01%
Ti 334.940†           485926.7      498.44 µg/L         0.319      498.44 ppb          0.319   0.06%
   QC value within limits for Ti 334.940  Recovery = 99.69%
Tl 190.801†             3696.0      512.19 µg/L         3.570      512.19 ppb          3.570   0.70%
   QC value within limits for Tl 190.801  Recovery = 102.44%
U 409.014†              7525.4      505.40 µg/L         2.841      505.40 ppb          2.841   0.56%
   QC value within limits for U 409.014  Recovery = 101.08%
V 292.402†             96419.4      506.43 µg/L         0.219      506.43 ppb          0.219   0.04%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†            84274.1      499.29 µg/L         1.005      499.29 ppb          1.005   0.20%
   QC value within limits for Zn 213.857  Recovery = 99.86%
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 12:18:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140761.4	140761.4	100	%			12:19:18
1	Al 396.153Radial†	-73.7	5.2	1.0818	µg/L	1.0818	ppb	12:19:38
1	Ca 317.933Radial†	682.8	108.1	7.3604	µg/L	7.3604	ppb	12:19:38
1	Fe 238.204 Radial†	164.0	45.9	3.4255	µg/L	3.4255	ppb	12:19:38
1	K 766.490 Radial†	1670.2	168.5	66.774	µg/L	66.774	ppb	12:19:18
1	Mg 279.077 IEC†	159.2	-14.0	-6.4612	µg/L	-6.4612	ppb	12:19:38
1	Na 589.592 Radial†	1062.0	104.4	16.125	µg/L	16.125	ppb	12:19:18
1	Sr 421.552†	-212.6	-7.1	-0.0169	µg/L	-0.0169	ppb	12:19:18
1	Sc 361.383	1793257.1	1793257.1	99.396	%			12:20:26
1	Y 371.029	1054149.0	1054149.0	99.702	%			12:20:26
1	Ag 328.068†	4339.0	-199.8	-0.8254	µg/L	-0.8254	ppb	12:20:28
1	As 188.979†	-4.3	14.2	4.8058	µg/L	4.8058	ppb	12:20:48
1	B 249.677†	3947.0	-94.2	-1.4648	µg/L	-1.4648	ppb	12:20:28
1	Ba 233.527†	-155.4	-11.8	-0.0523	µg/L	-0.0523	ppb	12:20:48
1	Be 313.107†	-700.9	386.5	0.1098	µg/L	0.1098	ppb	12:20:28
1	Cd 226.502†	-69.6	33.4	0.2252	µg/L	0.2252	ppb	12:20:48
1	Co 228.616†	-201.5	7.5	0.0994	µg/L	0.0994	ppb	12:20:48
1	Cr 267.716†	296.8	65.3	0.5712	µg/L	0.5712	ppb	12:20:48
1	Cu 324.752†	2928.5	-89.9	-0.3813	µg/L	-0.3813	ppb	12:20:28
1	Mn 257.610†	255.1	71.9	0.0956	µg/L	0.0956	ppb	12:20:48
1	Mo 202.031†	-35.2	3.1	0.1021	µg/L	0.1021	ppb	12:20:48
1	Ni 231.604†	-76.5	18.9	0.2366	µg/L	0.2366	ppb	12:20:48
1	P 214.914†	10.1	35.8	8.2902	µg/L	8.2902	ppb	12:20:48
1	Pb 220.353†	120.7	17.9	1.1096	µg/L	1.1096	ppb	12:20:48
1	S 181.975 Axial†	96.2	7.8	6.6016	µg/L	6.6016	ppb	12:20:48
1	Sb 206.836†	100.6	11.5	1.4806	µg/L	1.4806	ppb	12:20:48
1	Se 196.026†	21.5	15.5	6.09	µg/L	6.09	ppb	12:20:48
1	SiO2†	1959.7	232.5	24.621	µg/L	24.621	ppb	12:20:48
1	Si 251.611†	1212.9	453.2	7.1445	µg/L	7.1445	ppb	12:20:28
1	Sn 189.927†	3.8	2.0	0.1355	µg/L	0.1355	ppb	12:20:48
1	Ti 334.940†	610.5	-208.8	-0.2110	µg/L	-0.2110	ppb	12:20:28
1	Tl 190.801†	-105.3	8.3	1.1328	µg/L	1.1328	ppb	12:20:48
1	U 409.014†	-274.2	-112.5	-7.0945	µg/L	-7.0945	ppb	12:20:28
1	V 292.402†	440.1	19.6	0.1000	µg/L	0.1000	ppb	12:20:28
1	Zn 213.857†	567.3	67.7	0.4026	µg/L	0.4026	ppb	12:20:48
2	Sc RADIAL	140927.4	140927.4	101	%			12:19:40
2	Al 396.153Radial†	-17.8	60.9	12.799	µg/L	12.799	ppb	12:20:00
2	Ca 317.933Radial†	745.5	169.6	11.554	µg/L	11.554	ppb	12:20:00
2	Fe 238.204 Radial†	572.5	451.8	33.741	µg/L	33.741	ppb	12:20:00
2	K 766.490 Radial†	1510.5	7.7	3.0501	µg/L	3.0501	ppb	12:19:40
2	Mg 279.077 IEC†	179.6	6.1	2.8107	µg/L	2.8107	ppb	12:20:00
2	Na 589.592 Radial†	1290.2	330.1	51.159	µg/L	51.159	ppb	12:19:40
2	Sr 421.552†	-200.2	5.5	0.0129	µg/L	0.0129	ppb	12:19:40
2	Sc 361.383	1797905.6	1797905.6	99.654	%			12:20:50
2	Y 371.029	1055651.2	1055651.2	99.844	%			12:20:50
2	Ag 328.068†	4546.9	-2.4	-0.0256	µg/L	-0.0256	ppb	12:20:52
2	As 188.979†	-15.2	3.3	1.1095	µg/L	1.1095	ppb	12:21:13
2	B 249.677†	3898.7	-152.9	-2.3781	µg/L	-2.3781	ppb	12:20:52
2	Ba 233.527†	-169.3	-25.4	-0.1128	µg/L	-0.1128	ppb	12:21:13
2	Be 313.107†	-804.8	284.1	0.0779	µg/L	0.0779	ppb	12:20:52
2	Cd 226.502†	-97.2	5.8	0.0361	µg/L	0.0361	ppb	12:21:13
2	Co 228.616†	-205.9	3.6	0.0462	µg/L	0.0462	ppb	12:21:13
2	Cr 267.716†	221.4	-11.0	-0.0830	µg/L	-0.0830	ppb	12:21:13
2	Cu 324.752†	2993.4	-32.3	-0.1422	µg/L	-0.1422	ppb	12:20:52
2	Mn 257.610†	242.6	58.7	0.0777	µg/L	0.0777	ppb	12:21:13
2	Mo 202.031†	-24.5	14.0	0.4601	µg/L	0.4601	ppb	12:21:13
2	Ni 231.604†	-62.9	32.8	0.4103	µg/L	0.4103	ppb	12:21:13
2	P 214.914†	4.7	30.4	7.0168	µg/L	7.0168	ppb	12:21:13
2	Pb 220.353†	100.3	-2.8	-0.1609	µg/L	-0.1609	ppb	12:21:13

2	S 181.975 Axial†	95.9	7.3	6.1755 µg/L	6.1755 ppb	12:21:13
2	Sb 206.836†	81.0	-8.4	-1.0806 µg/L	-1.0806 ppb	12:21:13
2	Se 196.026†	18.0	11.9	4.69 µg/L	4.69 ppb	12:21:13
2	SiO2†	1920.7	188.3	19.928 µg/L	19.928 ppb	12:21:13
2	Si 251.611†	1349.5	587.2	9.2535 µg/L	9.2535 ppb	12:20:52
2	Sn 189.927†	0.7	-1.2	-0.0837 µg/L	-0.0837 ppb	12:21:13
2	Ti 334.940†	868.6	48.7	0.0560 µg/L	0.0560 ppb	12:20:52
2	Tl 190.801†	-93.1	20.9	2.8555 µg/L	2.8555 ppb	12:21:13
2	U 409.014†	-392.1	-230.1	-14.511 µg/L	-14.511 ppb	12:20:52
2	V 292.402†	466.3	44.7	0.2229 µg/L	0.2229 ppb	12:20:52
2	Zn 213.857†	578.9	77.9	0.4592 µg/L	0.4592 ppb	12:21:13
3	Sc RADIAL	137308.2	137308.2	98.0 %		12:20:02
3	Al 396.153Radial†	-65.9	11.3	2.3545 µg/L	2.3545 ppb	12:20:22
3	Ca 317.933Radial†	664.5	106.5	7.2566 µg/L	7.2566 ppb	12:20:22
3	Fe 238.204 Radial†	190.2	76.7	5.7301 µg/L	5.7301 ppb	12:20:22
3	K 766.490 Radial†	1567.9	105.9	41.946 µg/L	41.946 ppb	12:20:02
3	Mg 279.077 IEC†	188.8	20.2	9.3189 µg/L	9.3189 ppb	12:20:22
3	Na 589.592 Radial†	1125.3	195.6	30.288 µg/L	30.288 ppb	12:20:02
3	Sr 421.552†	68.6	274.5	0.6472 µg/L	0.6472 ppb	12:20:02
3	Sc 361.383	1810912.5	1810912.5	100.37 %		12:21:15
3	Y 371.029	1062136.4	1062136.4	100.46 %		12:21:15
3	Ag 328.068†	4349.1	-232.3	-0.9622 µg/L	-0.9622 ppb	12:21:17
3	As 188.979†	-10.5	8.1	2.7398 µg/L	2.7398 ppb	12:21:37
3	B 249.677†	4079.2	-1.2	-0.0184 µg/L	-0.0184 ppb	12:21:17
3	Ba 233.527†	-145.3	-0.2	-0.0009 µg/L	-0.0009 ppb	12:21:37
3	Be 313.107†	-583.7	510.2	0.1456 µg/L	0.1456 ppb	12:21:17
3	Cd 226.502†	-84.1	19.5	0.1318 µg/L	0.1318 ppb	12:21:37
3	Co 228.616†	-201.2	9.8	0.1294 µg/L	0.1294 ppb	12:21:37
3	Cr 267.716†	247.4	13.3	0.1205 µg/L	0.1205 ppb	12:21:37
3	Cu 324.752†	2887.9	-159.0	-0.6698 µg/L	-0.6698 ppb	12:21:17
3	Mn 257.610†	215.0	29.5	0.0387 µg/L	0.0387 ppb	12:21:37
3	Mo 202.031†	-24.6	14.1	0.4603 µg/L	0.4603 ppb	12:21:37
3	Ni 231.604†	-37.9	58.2	0.7276 µg/L	0.7276 ppb	12:21:37
3	P 214.914†	4.2	29.9	6.9204 µg/L	6.9204 ppb	12:21:37
3	Pb 220.353†	90.3	-13.5	-0.8254 µg/L	-0.8254 ppb	12:21:37
3	S 181.975 Axial†	92.5	3.2	2.7332 µg/L	2.7332 ppb	12:21:37
3	Sb 206.836†	86.8	-3.3	-0.4176 µg/L	-0.4176 ppb	12:21:37
3	Se 196.026†	17.2	11.0	4.34 µg/L	4.34 ppb	12:21:37
3	SiO2†	1924.5	178.2	18.853 µg/L	18.853 ppb	12:21:37
3	Si 251.611†	1376.2	604.0	9.5169 µg/L	9.5169 ppb	12:21:17
3	Sn 189.927†	4.7	2.8	0.1960 µg/L	0.1960 ppb	12:21:37
3	Ti 334.940†	625.3	-200.0	-0.2031 µg/L	-0.2031 ppb	12:21:17
3	Tl 190.801†	-137.8	-23.0	-3.1476 µg/L	-3.1476 ppb	12:21:37
3	U 409.014†	-276.3	-111.9	-7.0712 µg/L	-7.0712 ppb	12:21:17
3	V 292.402†	387.3	-37.4	-0.1938 µg/L	-0.1938 ppb	12:21:17
3	Zn 213.857†	557.3	52.2	0.3067 µg/L	0.3067 ppb	12:21:37

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1800691.8	99.808	%	0.5072				0.51%
Sc RADIAL	139665.7	99.7	%	1.46				1.46%
Y 371.029	1057312.2	100.00	%	0.401				0.40%
Ag 328.068†	-144.8	-0.6044	µg/L	0.50591	-0.6044	ppb	0.50591	83.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	25.8	5.4118	µg/L	6.42909	5.4118	ppb	6.42909	118.80%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.5	2.8851	µg/L	1.85242	2.8851	ppb	1.85242	64.21%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-82.7	-1.2871	µg/L	1.18982	-1.2871	ppb	1.18982	92.44%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-12.4	-0.0553	µg/L	0.05604	-0.0553	ppb	0.05604	101.26%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	393.6	0.1111	µg/L	0.03389	0.1111	ppb	0.03389	30.50%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	128.1	8.7237	µg/L	2.45179	8.7237	ppb	2.45179	28.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.6	0.1310	µg/L	0.09458	0.1310	ppb	0.09458	72.20%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.0	0.0917	µg/L	0.04215	0.0917	ppb	0.04215	45.98%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                22.5      0.2029 µg/L       0.33475      0.2029 ppb        0.33475 164.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -93.7     -0.3978 µg/L       0.26421     -0.3978 ppb        0.26421  66.42%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        191.5      14.299 µg/L       16.8767      14.299 ppb        16.8767 118.03%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          94.0      37.256 µg/L       32.1195      37.256 ppb        32.1195  86.21%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             4.1      1.8895 µg/L       7.93033      1.8895 ppb        7.93033 419.71%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                53.4      0.0707 µg/L       0.02908      0.0707 ppb        0.02908  41.15%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.4      0.3408 µg/L       0.20677      0.3408 ppb        0.20677  60.67%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        210.0      32.524 µg/L       17.6236      32.524 ppb        17.6236  54.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                36.6      0.4582 µg/L       0.24899      0.4582 ppb        0.24899  54.34%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 32.1      7.4091 µg/L       0.76452      7.4091 ppb        0.76452  10.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.5      0.0411 µg/L       0.98319      0.0411 ppb        0.98319 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            6.1      5.1701 µg/L       2.12113      5.1701 ppb        2.12113  41.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.1     -0.0059 µg/L       1.32934     -0.0059 ppb        1.32934 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                12.8        5.04 µg/L         0.925        5.04 ppb          0.925  18.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     199.7      21.134 µg/L        3.0669      21.134 ppb         3.0669  14.51%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               548.1      8.6383 µg/L       1.30031      8.6383 ppb        1.30031  15.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.2      0.0826 µg/L       0.14718      0.0826 ppb        0.14718 178.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                90.9      0.2144 µg/L       0.37513      0.2144 ppb        0.37513 174.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -120.0     -0.1194 µg/L       0.15194     -0.1194 ppb        0.15194 127.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.1      0.2803 µg/L       3.09104      0.2803 ppb        3.09104 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -151.5     -9.5590 µg/L       4.28885     -9.5590 ppb        4.28885  44.87%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  9.0      0.0430 µg/L       0.21409      0.0430 ppb        0.21409 497.46%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                65.9      0.3895 µg/L       0.07706      0.3895 ppb        0.07706  19.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 12:41:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138943.7	138943.7	99.2	%			12:41:37
1	Al 396.153Radial†	23385.0	23657.0	4957.1	µg/L	4957.1	ppb	12:41:37
1	Ca 317.933Radial†	74173.8	74215.8	5054.8	µg/L	5054.8	ppb	12:41:37
1	Fe 238.204 Radial†	66887.9	67323.8	5027.7	µg/L	5027.7	ppb	12:41:37
1	K 766.490 Radial†	14097.2	12720.0	5036.2	µg/L	5036.2	ppb	12:41:37
1	Mg 279.077 IEC†	11043.2	10962.1	5069.7	µg/L	5069.7	ppb	12:41:37
1	Na 589.592 Radial†	64657.0	64239.3	9953.1	µg/L	9953.1	ppb	12:41:37
1	Sr 421.552†	211693.9	213649.4	503.85	µg/L	503.85	ppb	12:41:35
1	Sc 361.383	1787262.5	1787262.5	99.064	%			12:42:04
1	Y 371.029	1038840.9	1038840.9	98.254	%			12:42:04
1	Ag 328.068†	124468.7	121079.8	501.88	µg/L	501.88	ppb	12:42:04
1	As 188.979†	1396.1	1427.8	490.22	µg/L	490.22	ppb	12:42:24
1	B 249.677†	35476.1	31746.2	491.96	µg/L	491.96	ppb	12:42:04
1	Ba 233.527†	110950.2	112143.2	498.87	µg/L	498.87	ppb	12:42:04
1	Be 313.107†	1677200.9	1694142.7	490.89	µg/L	490.89	ppb	12:42:04
1	Cd 226.502†	73260.7	74056.4	500.22	µg/L	500.22	ppb	12:42:04
1	Co 228.616†	37543.3	38108.4	504.41	µg/L	504.41	ppb	12:42:04
1	Cr 267.716†	57568.9	57879.7	500.60	µg/L	500.60	ppb	12:42:04
1	Cu 324.752†	121037.2	119144.9	499.89	µg/L	499.89	ppb	12:42:04
1	Mn 257.610†	373450.2	376794.7	499.62	µg/L	499.62	ppb	12:42:04
1	Mo 202.031†	15337.0	15520.5	508.04	µg/L	508.04	ppb	12:42:24
1	Ni 231.604†	39650.9	40121.5	501.97	µg/L	501.97	ppb	12:42:04
1	P 214.914†	10862.9	10991.3	2534.0	µg/L	2534.0	ppb	12:42:24
1	Pb 220.353†	8349.5	8324.9	513.88	µg/L	513.88	ppb	12:42:24
1	S 181.975 Axial†	1278.6	1201.7	1015.3	µg/L	1015.3	ppb	12:42:24
1	Sb 206.836†	3947.3	3894.9	503.47	µg/L	503.47	ppb	12:42:24
1	Se 196.026†	1287.7	1293.7	512	µg/L	512	ppb	12:42:24
1	SiO2†	51490.8	50238.3	5298.4	µg/L	5298.4	ppb	12:42:04
1	Si 251.611†	157278.3	157997.6	2481.3	µg/L	2481.3	ppb	12:42:04
1	Sn 189.927†	7193.9	7260.0	505.25	µg/L	505.25	ppb	12:42:24
1	Ti 334.940†	480256.1	483971.6	496.44	µg/L	496.44	ppb	12:42:04
1	Tl 190.801†	3552.9	3700.7	512.80	µg/L	512.80	ppb	12:42:24
1	U 409.014†	7139.5	7370.3	495.42	µg/L	495.42	ppb	12:42:04
1	V 292.402†	95339.2	95817.0	503.34	µg/L	503.34	ppb	12:42:04
1	Zn 213.857†	83855.8	84145.3	498.54	µg/L	498.54	ppb	12:42:04
2	Sc RADIAL	141291.3	141291.3	101	%			12:41:41
2	Al 396.153Radial†	23752.9	23630.0	4951.4	µg/L	4951.4	ppb	12:41:41
2	Ca 317.933Radial†	75646.8	74433.7	5069.6	µg/L	5069.6	ppb	12:41:41
2	Fe 238.204 Radial†	68330.6	67633.8	5050.8	µg/L	5050.8	ppb	12:41:41
2	K 766.490 Radial†	14268.2	12653.4	5009.8	µg/L	5009.8	ppb	12:41:41
2	Mg 279.077 IEC†	11450.1	11180.6	5170.6	µg/L	5170.6	ppb	12:41:41
2	Na 589.592 Radial†	65910.3	64398.8	9977.9	µg/L	9977.9	ppb	12:41:41
2	Sr 421.552†	211423.7	209835.0	494.85	µg/L	494.85	ppb	12:41:39
2	Sc 361.383	1793839.4	1793839.4	99.428	%			12:42:27
2	Y 371.029	1042511.0	1042511.0	98.602	%			12:42:27
2	Ag 328.068†	125087.0	121241.0	502.53	µg/L	502.53	ppb	12:42:27
2	As 188.979†	1395.9	1422.5	488.43	µg/L	488.43	ppb	12:42:47
2	B 249.677†	35898.2	32039.5	496.51	µg/L	496.51	ppb	12:42:27
2	Ba 233.527†	111421.2	112206.3	499.15	µg/L	499.15	ppb	12:42:27
2	Be 313.107†	1687036.9	1697828.0	491.95	µg/L	491.95	ppb	12:42:27
2	Cd 226.502†	74020.0	74548.9	503.54	µg/L	503.54	ppb	12:42:27
2	Co 228.616†	37859.8	38287.8	506.78	µg/L	506.78	ppb	12:42:27
2	Cr 267.716†	57911.5	58011.3	501.75	µg/L	501.75	ppb	12:42:27
2	Cu 324.752†	121562.8	119225.6	500.23	µg/L	500.23	ppb	12:42:27
2	Mn 257.610†	375840.4	377816.5	500.97	µg/L	500.97	ppb	12:42:27
2	Mo 202.031†	15373.5	15500.4	507.39	µg/L	507.39	ppb	12:42:47
2	Ni 231.604†	40030.6	40356.6	504.91	µg/L	504.91	ppb	12:42:27
2	P 214.914†	10881.6	10969.9	2529.0	µg/L	2529.0	ppb	12:42:47
2	Pb 220.353†	8348.9	8293.4	511.95	µg/L	511.95	ppb	12:42:47

2	S 181.975 Axial†	1279.7	1198.2	1012.3 µg/L	1012.3 ppb	12:42:47
2	Sb 206.836†	3977.5	3910.6	505.48 µg/L	505.48 ppb	12:42:47
2	Se 196.026†	1301.1	1302.4	515 µg/L	515 ppb	12:42:47
2	SiO2†	51742.6	50301.0	5305.0 µg/L	5305.0 ppb	12:42:27
2	Si 251.611†	158432.1	158575.9	2490.5 µg/L	2490.5 ppb	12:42:27
2	Sn 189.927†	7228.0	7267.6	505.78 µg/L	505.78 ppb	12:42:47
2	Ti 334.940†	481660.7	483606.9	496.06 µg/L	496.06 ppb	12:42:27
2	Tl 190.801†	3584.9	3719.8	515.40 µg/L	515.40 ppb	12:42:47
2	U 409.014†	6924.3	7127.5	480.13 µg/L	480.13 ppb	12:42:27
2	V 292.402†	95806.2	95933.8	503.93 µg/L	503.93 ppb	12:42:27
2	Zn 213.857†	84371.3	84353.4	499.76 µg/L	499.76 ppb	12:42:27
3	Sc RADIAL	140960.0	140960.0	101 %		12:41:45
3	Al 396.153Radial†	23658.9	23591.9	4943.6 µg/L	4943.6 ppb	12:41:45
3	Ca 317.933Radial†	75426.6	74391.2	5066.7 µg/L	5066.7 ppb	12:41:45
3	Fe 238.204 Radial†	67958.0	67422.7	5035.1 µg/L	5035.1 ppb	12:41:45
3	K 766.490 Radial†	14351.0	12768.9	5055.5 µg/L	5055.5 ppb	12:41:45
3	Mg 279.077 IEC†	11270.8	11029.0	5100.5 µg/L	5100.5 ppb	12:41:45
3	Na 589.592 Radial†	65596.5	64240.5	9953.3 µg/L	9953.3 ppb	12:41:45
3	Sr 421.552†	211471.7	210375.5	496.12 µg/L	496.12 ppb	12:41:43
3	Sc 361.383	1802636.7	1802636.7	99.916 %		12:42:50
3	Y 371.029	1046785.0	1046785.0	99.006 %		12:42:50
3	Ag 328.068†	125848.1	121388.8	503.18 µg/L	503.18 ppb	12:42:50
3	As 188.979†	1381.4	1401.1	481.20 µg/L	481.20 ppb	12:43:10
3	B 249.677†	36130.3	32095.6	497.38 µg/L	497.38 ppb	12:42:50
3	Ba 233.527†	112457.4	112696.5	501.33 µg/L	501.33 ppb	12:42:50
3	Be 313.107†	1700233.2	1702754.8	493.39 µg/L	493.39 ppb	12:42:50
3	Cd 226.502†	74872.6	75038.9	506.86 µg/L	506.86 ppb	12:42:50
3	Co 228.616†	38226.2	38468.7	509.18 µg/L	509.18 ppb	12:42:50
3	Cr 267.716†	58249.2	58065.0	502.20 µg/L	502.20 ppb	12:42:50
3	Cu 324.752†	122344.5	119411.3	501.02 µg/L	501.02 ppb	12:42:50
3	Mn 257.610†	378788.4	378922.2	502.44 µg/L	502.44 ppb	12:42:50
3	Mo 202.031†	15294.8	15346.2	502.34 µg/L	502.34 ppb	12:43:10
3	Ni 231.604†	40405.7	40535.6	507.15 µg/L	507.15 ppb	12:42:50
3	P 214.914†	10816.0	10850.7	2501.4 µg/L	2501.4 ppb	12:43:10
3	Pb 220.353†	8301.3	8204.9	506.47 µg/L	506.47 ppb	12:43:10
3	S 181.975 Axial†	1290.2	1202.4	1015.8 µg/L	1015.8 ppb	12:43:10
3	Sb 206.836†	3940.4	3854.0	498.09 µg/L	498.09 ppb	12:43:10
3	Se 196.026†	1295.0	1289.9	510 µg/L	510 ppb	12:43:10
3	SiO2†	52249.6	50554.4	5332.1 µg/L	5332.1 ppb	12:42:50
3	Si 251.611†	159808.9	159176.3	2500.1 µg/L	2500.1 ppb	12:42:50
3	Sn 189.927†	7164.9	7169.1	498.95 µg/L	498.95 ppb	12:43:10
3	Ti 334.940†	485644.3	485229.7	497.72 µg/L	497.72 ppb	12:42:50
3	Tl 190.801†	3544.7	3662.0	507.52 µg/L	507.52 ppb	12:43:10
3	U 409.014†	7287.7	7457.2	501.07 µg/L	501.07 ppb	12:42:50
3	V 292.402†	96696.3	96354.4	506.07 µg/L	506.07 ppb	12:42:50
3	Zn 213.857†	84912.9	84481.4	500.51 µg/L	500.51 ppb	12:42:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1794579.6	99.469	%	0.4276				0.43%
Sc RADIAL	140398.3	100	%	0.9				0.90%
Y 371.029	1042712.3	98.621	%	0.3760				0.38%
Ag 328.068†	121236.5	502.53	µg/L	0.652	502.53	ppb	0.652	0.13%
QC value within limits for Ag 328.068 Recovery = 100.51%								
Al 396.153Radial†	23626.3	4950.7	µg/L	6.75	4950.7	ppb	6.75	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.01%								
As 188.979†	1417.1	486.61	µg/L	4.777	486.61	ppb	4.777	0.98%
QC value within limits for As 188.979 Recovery = 97.32%								
B 249.677†	31960.4	495.28	µg/L	2.910	495.28	ppb	2.910	0.59%
QC value within limits for B 249.677 Recovery = 99.06%								
Ba 233.527†	112348.7	499.78	µg/L	1.346	499.78	ppb	1.346	0.27%
QC value within limits for Ba 233.527 Recovery = 99.96%								
Be 313.107†	1698241.9	492.08	µg/L	1.253	492.08	ppb	1.253	0.25%
QC value within limits for Be 313.107 Recovery = 98.42%								
Ca 317.933Radial†	74346.9	5063.7	µg/L	7.87	5063.7	ppb	7.87	0.16%
QC value within limits for Ca 317.933Radial Recovery = 101.27%								
Cd 226.502†	74548.0	503.54	µg/L	3.321	503.54	ppb	3.321	0.66%
QC value within limits for Cd 226.502 Recovery = 100.71%								
Co 228.616†	38288.3	506.79	µg/L	2.384	506.79	ppb	2.384	0.47%

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   QC value within limits for Co 228.616  Recovery = 101.36%
Cr 267.716†            57985.3      501.51 µg/L         0.825      501.51 ppb          0.825   0.16%
   QC value within limits for Cr 267.716  Recovery = 100.30%
Cu 324.752†           119260.6      500.38 µg/L         0.577      500.38 ppb          0.577   0.12%
   QC value within limits for Cu 324.752  Recovery = 100.08%
Fe 238.204 Radial†     67460.1      5037.9 µg/L         11.82      5037.9 ppb          11.82   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.76%
K 766.490 Radial†      12714.1      5033.8 µg/L         22.98      5033.8 ppb          22.98   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 100.68%
Mg 279.077 IEC†        11057.2      5113.6 µg/L         51.68      5113.6 ppb          51.68   1.01%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.27%
Mn 257.610†           377844.5      501.01 µg/L         1.411      501.01 ppb          1.411   0.28%
   QC value within limits for Mn 257.610  Recovery = 100.20%
Mo 202.031†            15455.7      505.92 µg/L         3.118      505.92 ppb          3.118   0.62%
   QC value within limits for Mo 202.031  Recovery = 101.18%
Na 589.592 Radial†     64292.9      9961.4 µg/L         14.24      9961.4 ppb          14.24   0.14%
   QC value within limits for Na 589.592 Radial  Recovery = 99.61%
Ni 231.604†            40337.9      504.68 µg/L         2.598      504.68 ppb          2.598   0.51%
   QC value within limits for Ni 231.604  Recovery = 100.94%
P 214.914†             10937.3      2521.5 µg/L         17.53      2521.5 ppb          17.53   0.70%
   QC value within limits for P 214.914  Recovery = 100.86%
Pb 220.353†             8274.4      510.77 µg/L         3.842      510.77 ppb          3.842   0.75%
   QC value within limits for Pb 220.353  Recovery = 102.15%
S 181.975 Axial†        1200.8      1014.4 µg/L          1.89      1014.4 ppb           1.89   0.19%
   QC value within limits for S 181.975 Axial  Recovery = 101.44%
Sb 206.836†             3886.5      502.35 µg/L         3.823      502.35 ppb          3.823   0.76%
   QC value within limits for Sb 206.836  Recovery = 100.47%
Se 196.026†             1295.4         513 µg/L           2.5         513 ppb            2.5   0.49%
   QC value within limits for Se 196.026  Recovery = 102.51%
SiO2†                  50364.6      5311.8 µg/L         17.87      5311.8 ppb          17.87   0.34%
   QC value within limits for SiO2  Recovery = 99.33%
Si 251.611†           158583.3      2490.6 µg/L          9.35      2490.6 ppb           9.35   0.38%
   QC value within limits for Si 251.611  Recovery = 99.62%
Sn 189.927†             7232.2      503.33 µg/L         3.801      503.33 ppb          3.801   0.76%
   QC value within limits for Sn 189.927  Recovery = 100.67%
Sr 421.552†           211286.6      498.27 µg/L         4.868      498.27 ppb          4.868   0.98%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           484269.4      496.74 µg/L         0.872      496.74 ppb          0.872   0.18%
   QC value within limits for Ti 334.940  Recovery = 99.35%
Tl 190.801†             3694.2      511.90 µg/L         4.014      511.90 ppb          4.014   0.78%
   QC value within limits for Tl 190.801  Recovery = 102.38%
U 409.014†              7318.3      492.21 µg/L        10.834      492.21 ppb         10.834   2.20%
   QC value within limits for U 409.014  Recovery = 98.44%
V 292.402†             96035.1      504.45 µg/L         1.439      504.45 ppb          1.439   0.29%
   QC value within limits for V 292.402  Recovery = 100.89%
Zn 213.857†            84326.7      499.60 µg/L         0.995      499.60 ppb          0.995   0.20%
   QC value within limits for Zn 213.857  Recovery = 99.92%
All analyte(s) passed QC.
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Sequence No.: 31
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 12:43:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139295.5	139295.5	99.4	%			12:43:47
1	Al 396.153Radial†	-24.0	54.4	11.413	µg/L	11.413	ppb	12:44:07
1	Ca 317.933Radial†	708.0	140.6	9.5778	µg/L	9.5778	ppb	12:44:07
1	Fe 238.204 Radial†	178.6	62.3	4.6540	µg/L	4.6540	ppb	12:44:07
1	K 766.490 Radial†	1724.7	240.8	95.403	µg/L	95.403	ppb	12:43:47
1	Mg 279.077 IEC†	154.2	-17.4	-8.0256	µg/L	-8.0256	ppb	12:44:07
1	Na 589.592 Radial†	1146.9	201.0	31.071	µg/L	31.071	ppb	12:43:47
1	Sr 421.552†	-159.3	44.3	0.1044	µg/L	0.1044	ppb	12:43:47
1	Sc 361.383	1814807.9	1814807.9	100.59	%			12:45:09
1	Y 371.029	1064526.0	1064526.0	100.68	%			12:45:09
1	Ag 328.068†	4340.5	-250.2	-1.0252	µg/L	-1.0252	ppb	12:45:11
1	As 188.979†	-4.6	14.0	4.7451	µg/L	4.7451	ppb	12:45:31
1	B 249.677†	3969.3	-119.1	-1.8538	µg/L	-1.8538	ppb	12:45:11
1	Ba 233.527†	-20.5	124.2	0.5521	µg/L	0.5521	ppb	12:45:31
1	Be 313.107†	-903.9	193.2	0.0555	µg/L	0.0555	ppb	12:45:11
1	Cd 226.502†	-45.4	58.2	0.3932	µg/L	0.3932	ppb	12:45:31
1	Co 228.616†	-189.8	21.6	0.2862	µg/L	0.2862	ppb	12:45:31
1	Cr 267.716†	288.0	53.1	0.4609	µg/L	0.4609	ppb	12:45:31
1	Cu 324.752†	2935.8	-117.5	-0.4923	µg/L	-0.4923	ppb	12:45:11
1	Mn 257.610†	640.2	451.7	0.5996	µg/L	0.5996	ppb	12:45:31
1	Mo 202.031†	-13.9	24.8	0.8103	µg/L	0.8103	ppb	12:45:31
1	Ni 231.604†	-64.1	32.2	0.4024	µg/L	0.4024	ppb	12:45:31
1	P 214.914†	7.0	32.7	7.5584	µg/L	7.5584	ppb	12:45:31
1	Pb 220.353†	106.9	2.9	0.1807	µg/L	0.1807	ppb	12:45:31
1	S 181.975 Axial†	96.9	7.4	6.2672	µg/L	6.2672	ppb	12:45:31
1	Sb 206.836†	87.7	-2.6	-0.3244	µg/L	-0.3244	ppb	12:45:31
1	Se 196.026†	26.1	19.8	7.80	µg/L	7.80	ppb	12:45:31
1	SiO2†	1980.3	229.6	24.283	µg/L	24.283	ppb	12:45:31
1	Si 251.611†	2172.1	1392.3	21.940	µg/L	21.940	ppb	12:45:11
1	Sn 189.927†	10.1	8.1	0.5652	µg/L	0.5652	ppb	12:45:31
1	Ti 334.940†	1494.6	662.8	0.6822	µg/L	0.6822	ppb	12:45:11
1	Tl 190.801†	-118.2	-3.2	-0.4323	µg/L	-0.4323	ppb	12:45:31
1	U 409.014†	-188.8	-24.3	-1.5258	µg/L	-1.5258	ppb	12:45:11
1	V 292.402†	442.4	16.6	0.0943	µg/L	0.0943	ppb	12:45:11
1	Zn 213.857†	614.8	108.2	0.6437	µg/L	0.6437	ppb	12:45:31
2	Sc RADIAL	138151.7	138151.7	98.6	%			12:44:09
2	Al 396.153Radial†	-28.6	49.5	10.400	µg/L	10.400	ppb	12:44:29
2	Ca 317.933Radial†	742.9	181.9	12.386	µg/L	12.386	ppb	12:44:29
2	Fe 238.204 Radial†	502.8	392.6	29.316	µg/L	29.316	ppb	12:44:29
2	K 766.490 Radial†	1718.3	248.6	98.510	µg/L	98.510	ppb	12:44:09
2	Mg 279.077 IEC†	166.2	-4.0	-1.8376	µg/L	-1.8376	ppb	12:44:29
2	Na 589.592 Radial†	1104.7	167.7	25.905	µg/L	25.905	ppb	12:44:09
2	Sr 421.552†	-237.6	-36.5	-0.0861	µg/L	-0.0861	ppb	12:44:09
2	Sc 361.383	1813927.3	1813927.3	100.54	%			12:45:33
2	Y 371.029	1065006.3	1065006.3	100.73	%			12:45:33
2	Ag 328.068†	4086.9	-500.2	-2.0568	µg/L	-2.0568	ppb	12:45:35
2	As 188.979†	-20.8	-2.2	-0.7245	µg/L	-0.7245	ppb	12:45:56
2	B 249.677†	4066.5	-20.5	-0.3191	µg/L	-0.3191	ppb	12:45:35
2	Ba 233.527†	-100.7	44.4	0.1967	µg/L	0.1967	ppb	12:45:56
2	Be 313.107†	-633.5	461.7	0.1333	µg/L	0.1333	ppb	12:45:35
2	Cd 226.502†	-83.8	20.0	0.1325	µg/L	0.1325	ppb	12:45:56
2	Co 228.616†	-218.2	-6.7	-0.0897	µg/L	-0.0897	ppb	12:45:56
2	Cr 267.716†	249.0	14.5	0.1273	µg/L	0.1273	ppb	12:45:56
2	Cu 324.752†	2868.6	-183.0	-0.7626	µg/L	-0.7626	ppb	12:45:35
2	Mn 257.610†	225.9	40.0	0.0530	µg/L	0.0530	ppb	12:45:56
2	Mo 202.031†	-20.8	17.9	0.5857	µg/L	0.5857	ppb	12:45:56
2	Ni 231.604†	-73.9	22.4	0.2807	µg/L	0.2807	ppb	12:45:56
2	P 214.914†	7.4	33.1	7.6380	µg/L	7.6380	ppb	12:45:56
2	Pb 220.353†	90.2	-13.8	-0.8438	µg/L	-0.8438	ppb	12:45:56

2	S 181.975 Axial†	103.9	14.4	12.116	µg/L	12.116 ppb	12:45:56
2	Sb 206.836†	79.0	-11.2	-1.4372	µg/L	-1.4372 ppb	12:45:56
2	Se 196.026†	14.3	8.1	3.20	µg/L	3.20 ppb	12:45:56
2	SiO2†	1902.6	153.3	16.209	µg/L	16.209 ppb	12:45:56
2	Si 251.611†	1085.1	312.2	4.9121	µg/L	4.9121 ppb	12:45:35
2	Sn 189.927†	8.1	6.2	0.4318	µg/L	0.4318 ppb	12:45:56
2	Ti 334.940†	966.6	138.4	0.1433	µg/L	0.1433 ppb	12:45:35
2	Tl 190.801†	-96.1	18.7	2.5507	µg/L	2.5507 ppb	12:45:56
2	U 409.014†	-189.8	-25.4	-1.6406	µg/L	-1.6406 ppb	12:45:35
2	V 292.402†	317.1	-107.8	-0.5566	µg/L	-0.5566 ppb	12:45:35
2	Zn 213.857†	578.6	72.5	0.4285	µg/L	0.4285 ppb	12:45:56
3	Sc RADIAL	141342.2	141342.2	101	%		12:44:31
3	Al 396.153Radial†	-59.8	19.3	4.0212	µg/L	4.0212 ppb	12:44:51
3	Ca 317.933Radial†	684.0	106.5	7.2532	µg/L	7.2532 ppb	12:44:51
3	Fe 238.204 Radial†	177.9	59.0	4.4051	µg/L	4.4051 ppb	12:44:51
3	K 766.490 Radial†	1655.6	147.2	58.309	µg/L	58.309 ppb	12:44:31
3	Mg 279.077 IEC†	175.6	1.6	0.7607	µg/L	0.7607 ppb	12:44:51
3	Na 589.592 Radial†	1005.0	43.6	6.7004	µg/L	6.7004 ppb	12:44:31
3	Sr 421.552†	-148.4	57.4	0.1354	µg/L	0.1354 ppb	12:44:31
3	Sc 361.383	1826132.7	1826132.7	101.22	%		12:45:58
3	Y 371.029	1071945.3	1071945.3	101.39	%		12:45:58
3	Ag 328.068†	4453.8	-164.9	-0.6788	µg/L	-0.6788 ppb	12:46:00
3	As 188.979†	-27.7	-8.8	-2.9706	µg/L	-2.9706 ppb	12:46:20
3	B 249.677†	4032.4	-81.3	-1.2660	µg/L	-1.2660 ppb	12:46:00
3	Ba 233.527†	-117.7	28.3	0.1260	µg/L	0.1260 ppb	12:46:20
3	Be 313.107†	-753.2	347.6	0.0996	µg/L	0.0996 ppb	12:46:00
3	Cd 226.502†	-68.5	35.7	0.2410	µg/L	0.2410 ppb	12:46:20
3	Co 228.616†	-184.1	28.5	0.3763	µg/L	0.3763 ppb	12:46:20
3	Cr 267.716†	261.7	25.3	0.2219	µg/L	0.2219 ppb	12:46:20
3	Cu 324.752†	2902.4	-168.6	-0.7073	µg/L	-0.7073 ppb	12:46:00
3	Mn 257.610†	415.2	225.4	0.2990	µg/L	0.2990 ppb	12:46:20
3	Mo 202.031†	-17.0	21.8	0.7128	µg/L	0.7128 ppb	12:46:20
3	Ni 231.604†	-77.7	19.2	0.2398	µg/L	0.2398 ppb	12:46:20
3	P 214.914†	9.4	34.9	8.0864	µg/L	8.0864 ppb	12:46:20
3	Pb 220.353†	110.2	5.4	0.3368	µg/L	0.3368 ppb	12:46:20
3	S 181.975 Axial†	89.8	-0.2	-0.1722	µg/L	-0.1722 ppb	12:46:20
3	Sb 206.836†	88.9	-1.9	-0.2318	µg/L	-0.2318 ppb	12:46:20
3	Se 196.026†	27.2	20.7	8.15	µg/L	8.15 ppb	12:46:20
3	SiO2†	1966.3	203.5	21.525	µg/L	21.525 ppb	12:46:20
3	Si 251.611†	1407.5	623.6	9.8201	µg/L	9.8201 ppb	12:46:00
3	Sn 189.927†	9.5	7.5	0.5164	µg/L	0.5164 ppb	12:46:20
3	Ti 334.940†	647.9	-182.9	-0.1863	µg/L	-0.1863 ppb	12:46:00
3	Tl 190.801†	-112.6	3.0	0.4095	µg/L	0.4095 ppb	12:46:20
3	U 409.014†	-222.9	-56.9	-3.5823	µg/L	-3.5823 ppb	12:46:00
3	V 292.402†	444.1	15.5	0.0861	µg/L	0.0861 ppb	12:46:00
3	Zn 213.857†	601.9	91.7	0.5458	µg/L	0.5458 ppb	12:46:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1818289.3	100.78	%	0.377				0.37%
Sc RADIAL	139596.5	99.6	%	1.15				1.16%
Y 371.029	1067159.2	100.93	%	0.393				0.39%
Ag 328.068†	-305.1	-1.2536	µg/L	0.71682	-1.2536	ppb	0.71682	57.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	41.1	8.6113	µg/L	4.00722	8.6113	ppb	4.00722	46.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.0	0.3500	µg/L	3.96848	0.3500	ppb	3.96848	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-73.7	-1.1463	µg/L	0.77432	-1.1463	ppb	0.77432	67.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	65.6	0.2916	µg/L	0.22839	0.2916	ppb	0.22839	78.32%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	334.1	0.0961	µg/L	0.03900	0.0961	ppb	0.03900	40.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	143.0	9.7391	µg/L	2.57028	9.7391	ppb	2.57028	26.39%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	38.0	0.2556	µg/L	0.13096	0.2556	ppb	0.13096	51.24%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	14.5	0.1909	µg/L	0.24721	0.1909	ppb	0.24721	129.48%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              31.0      0.2701 µg/L       0.17191      0.2701 ppb        0.17191  63.66%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -156.4     -0.6540 µg/L       0.14282     -0.6540 ppb        0.14282  21.84%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      171.3      12.792 µg/L       14.3110      12.792 ppb        14.3110 111.88%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       212.2      84.074 µg/L       22.3671      84.074 ppb        22.3671  26.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -6.6     -3.0342 µg/L       4.51367     -3.0342 ppb        4.51367 148.76%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             239.1      0.3172 µg/L       0.27371      0.3172 ppb        0.27371  86.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              21.5      0.7029 µg/L       0.11261      0.7029 ppb        0.11261  16.02%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      137.4      21.225 µg/L       12.8415      21.225 ppb        12.8415  60.50%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              24.6      0.3076 µg/L       0.08459      0.3076 ppb        0.08459  27.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               33.6      7.7609 µg/L       0.28464      7.7609 ppb        0.28464   3.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -1.8     -0.1088 µg/L       0.64132     -0.1088 ppb        0.64132 589.57%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          7.2      6.0705 µg/L       6.14666      6.0705 ppb        6.14666 101.25%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -5.2     -0.6645 µg/L       0.67080     -0.6645 ppb        0.67080 100.95%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              16.2        6.38 µg/L         2.765        6.38 ppb          2.765  43.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   195.5      20.672 µg/L        4.1037      20.672 ppb         4.1037  19.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             776.0      12.224 µg/L        8.7650      12.224 ppb         8.7650  71.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.3      0.5044 µg/L       0.06747      0.5044 ppb        0.06747  13.37%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              21.7      0.0512 µg/L       0.11992      0.0512 ppb        0.11992 234.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             206.1      0.2130 µg/L       0.43842      0.2130 ppb        0.43842 205.79%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               6.2      0.8426 µg/L       1.53797      0.8426 ppb        1.53797 182.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -35.5     -2.2496 µg/L       1.15564     -2.2496 ppb        1.15564  51.37%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -25.2     -0.1254 µg/L       0.37347     -0.1254 ppb        0.37347 297.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              90.8      0.5394 µg/L       0.10772      0.5394 ppb        0.10772  19.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 13:02:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	134951.4	134951.4	96.3	%			13:03:24
1	Al 396.153Radial†	23289.9	24255.8	5083.2	µg/L	5083.2	ppb	13:03:24
1	Ca 317.933Radial†	72439.3	74627.7	5082.8	µg/L	5082.8	ppb	13:03:24
1	Fe 238.204 Radial†	67478.3	69931.9	5222.5	µg/L	5222.5	ppb	13:03:24
1	K 766.490 Radial†	13543.3	12565.5	4974.9	µg/L	4974.9	ppb	13:03:24
1	Mg 279.077 IEC†	10775.3	11013.4	5093.2	µg/L	5093.2	ppb	13:03:24
1	Na 589.592 Radial†	62921.0	64365.7	9972.8	µg/L	9972.8	ppb	13:03:24
1	Sr 421.552†	205304.6	213331.0	503.09	µg/L	503.09	ppb	13:03:22
1	Sc 361.383	1747605.0	1747605.0	96.866	%			13:03:37
1	Y 371.029	1016171.2	1016171.2	96.110	%			13:03:37
1	Ag 328.068†	122620.9	122023.4	505.79	µg/L	505.79	ppb	13:03:37
1	As 188.979†	1327.3	1388.8	477.11	µg/L	477.11	ppb	13:03:57
1	B 249.677†	34851.3	31913.8	494.56	µg/L	494.56	ppb	13:03:37
1	Ba 233.527†	109210.3	112888.6	502.18	µg/L	502.18	ppb	13:03:37
1	Be 313.107†	1644176.8	1698469.7	492.15	µg/L	492.15	ppb	13:03:37
1	Cd 226.502†	72177.9	74616.7	503.98	µg/L	503.98	ppb	13:03:37
1	Co 228.616†	36906.9	38311.4	507.09	µg/L	507.09	ppb	13:03:37
1	Cr 267.716†	56644.2	58243.8	503.75	µg/L	503.75	ppb	13:03:37
1	Cu 324.752†	119066.1	119882.6	503.02	µg/L	503.02	ppb	13:03:37
1	Mn 257.610†	367985.1	379707.4	503.48	µg/L	503.48	ppb	13:03:37
1	Mo 202.031†	14958.8	15481.4	506.77	µg/L	506.77	ppb	13:03:57
1	Ni 231.604†	38996.7	40354.4	504.88	µg/L	504.88	ppb	13:03:37
1	P 214.914†	10523.6	10889.8	2510.3	µg/L	2510.3	ppb	13:03:57
1	Pb 220.353†	8084.3	8242.5	508.80	µg/L	508.80	ppb	13:03:57
1	S 181.975 Axial†	1239.5	1190.7	1005.9	µg/L	1005.9	ppb	13:03:57
1	Sb 206.836†	3857.3	3892.4	503.08	µg/L	503.08	ppb	13:03:57
1	Se 196.026†	1236.0	1269.9	503	µg/L	503	ppb	13:03:57
1	SiO2†	50367.9	50258.6	5300.7	µg/L	5300.7	ppb	13:03:37
1	Si 251.611†	154270.2	158495.0	2489.2	µg/L	2489.2	ppb	13:03:37
1	Sn 189.927†	6951.6	7174.6	499.34	µg/L	499.34	ppb	13:03:57
1	Ti 334.940†	472854.0	487331.3	499.88	µg/L	499.88	ppb	13:03:37
1	Tl 190.801†	3479.8	3706.7	513.66	µg/L	513.66	ppb	13:03:57
1	U 409.014†	7164.5	7559.7	507.55	µg/L	507.55	ppb	13:03:37
1	V 292.402†	93886.7	96501.4	506.87	µg/L	506.87	ppb	13:03:37
1	Zn 213.857†	82263.2	84422.0	500.15	µg/L	500.15	ppb	13:03:37
2	Sc RADIAL	136378.3	136378.3	97.3	%			13:03:28
2	Al 396.153Radial†	23164.1	23873.6	5003.0	µg/L	5003.0	ppb	13:03:28
2	Ca 317.933Radial†	73120.8	74541.0	5076.9	µg/L	5076.9	ppb	13:03:28
2	Fe 238.204 Radial†	66011.8	67692.5	5055.2	µg/L	5055.2	ppb	13:03:28
2	K 766.490 Radial†	13942.8	12828.8	5079.2	µg/L	5079.2	ppb	13:03:28
2	Mg 279.077 IEC†	10946.2	11071.9	5120.2	µg/L	5120.2	ppb	13:03:28
2	Na 589.592 Radial†	63956.9	64746.4	10032	µg/L	10032	ppb	13:03:28
2	Sr 421.552†	206101.6	211919.9	499.77	µg/L	499.77	ppb	13:03:26
2	Sc 361.383	1771467.8	1771467.8	98.188	%			13:04:00
2	Y 371.029	1029278.3	1029278.3	97.350	%			13:04:00
2	Ag 328.068†	124739.5	122475.9	507.68	µg/L	507.68	ppb	13:04:00
2	As 188.979†	1335.0	1378.2	473.48	µg/L	473.48	ppb	13:04:20
2	B 249.677†	35593.5	32185.1	498.77	µg/L	498.77	ppb	13:04:00
2	Ba 233.527†	110782.0	112970.6	502.55	µg/L	502.55	ppb	13:04:00
2	Be 313.107†	1676433.8	1708457.1	495.04	µg/L	495.04	ppb	13:04:00
2	Cd 226.502†	73710.5	75173.8	507.77	µg/L	507.77	ppb	13:04:00
2	Co 228.616†	37538.3	38441.2	508.82	µg/L	508.82	ppb	13:04:00
2	Cr 267.716†	57589.1	58418.4	505.25	µg/L	505.25	ppb	13:04:00
2	Cu 324.752†	121161.9	120361.3	505.01	µg/L	505.01	ppb	13:04:00
2	Mn 257.610†	374378.3	381101.1	505.33	µg/L	505.33	ppb	13:04:00
2	Mo 202.031†	14962.8	15277.5	500.10	µg/L	500.10	ppb	13:04:20
2	Ni 231.604†	39677.3	40505.3	506.77	µg/L	506.77	ppb	13:04:00
2	P 214.914†	10538.1	10758.2	2480.0	µg/L	2480.0	ppb	13:04:20
2	Pb 220.353†	8094.8	8140.7	502.52	µg/L	502.52	ppb	13:04:20

2	S 181.975 Axial†	1234.8	1168.6	987.34 µg/L	987.34 ppb	13:04:20
2	Sb 206.836†	3877.6	3859.4	498.71 µg/L	498.71 ppb	13:04:20
2	Se 196.026†	1247.8	1264.7	500 µg/L	500 ppb	13:04:20
2	SiO2†	51515.2	50726.6	5350.5 µg/L	5350.5 ppb	13:04:00
2	Si 251.611†	157474.7	159613.2	2507.0 µg/L	2507.0 ppb	13:04:00
2	Sn 189.927†	6980.0	7106.9	494.65 µg/L	494.65 ppb	13:04:20
2	Ti 334.940†	480399.5	488440.2	501.01 µg/L	501.01 ppb	13:04:00
2	Tl 190.801†	3461.6	3639.8	504.55 µg/L	504.55 ppb	13:04:20
2	U 409.014†	7360.0	7659.1	514.00 µg/L	514.00 ppb	13:04:00
2	V 292.402†	95569.5	96909.6	508.95 µg/L	508.95 ppb	13:04:00
2	Zn 213.857†	83892.2	84937.1	503.23 µg/L	503.23 ppb	13:04:00
3	Sc RADIAL	136580.0	136580.0	97.5 %		13:03:32
3	Al 396.153Radial†	23330.5	24009.1	5031.4 µg/L	5031.4 ppb	13:03:32
3	Ca 317.933Radial†	73424.8	74741.9	5090.6 µg/L	5090.6 ppb	13:03:32
3	Fe 238.204 Radial†	66275.6	67863.0	5068.0 µg/L	5068.0 ppb	13:03:32
3	K 766.490 Radial†	13976.3	12842.0	5084.5 µg/L	5084.5 ppb	13:03:32
3	Mg 279.077 IEC†	10895.7	11003.5	5088.7 µg/L	5088.7 ppb	13:03:32
3	Na 589.592 Radial†	64278.6	64979.3	10068 µg/L	10068 ppb	13:03:32
3	Sr 421.552†	204269.4	209727.8	494.60 µg/L	494.60 ppb	13:03:30
3	Sc 361.383	1762008.4	1762008.4	97.664 %		13:04:23
3	Y 371.029	1024064.8	1024064.8	96.857 %		13:04:23
3	Ag 328.068†	124016.1	122417.3	507.42 µg/L	507.42 ppb	13:04:23
3	As 188.979†	1344.0	1394.7	479.06 µg/L	479.06 ppb	13:04:43
3	B 249.677†	35445.3	32228.0	499.43 µg/L	499.43 ppb	13:04:23
3	Ba 233.527†	110194.8	112975.1	502.57 µg/L	502.57 ppb	13:04:23
3	Be 313.107†	1665423.2	1706349.1	494.43 µg/L	494.43 ppb	13:04:23
3	Cd 226.502†	73240.4	75095.6	507.24 µg/L	507.24 ppb	13:04:23
3	Co 228.616†	37379.4	38483.8	509.38 µg/L	509.38 ppb	13:04:23
3	Cr 267.716†	57383.5	58522.8	506.16 µg/L	506.16 ppb	13:04:23
3	Cu 324.752†	120292.6	120133.7	504.04 µg/L	504.04 ppb	13:04:23
3	Mn 257.610†	372242.5	380961.2	505.15 µg/L	505.15 ppb	13:04:23
3	Mo 202.031†	14975.1	15371.8	503.18 µg/L	503.18 ppb	13:04:43
3	Ni 231.604†	39454.9	40494.5	506.64 µg/L	506.64 ppb	13:04:23
3	P 214.914†	10535.7	10813.4	2492.7 µg/L	2492.7 ppb	13:04:43
3	Pb 220.353†	8095.0	8185.1	505.27 µg/L	505.27 ppb	13:04:43
3	S 181.975 Axial†	1246.4	1187.3	1003.0 µg/L	1003.0 ppb	13:04:43
3	Sb 206.836†	3832.0	3833.9	495.46 µg/L	495.46 ppb	13:04:43
3	Se 196.026†	1246.8	1270.5	503 µg/L	503 ppb	13:04:43
3	SiO2†	51309.1	50797.2	5357.8 µg/L	5357.8 ppb	13:04:23
3	Si 251.611†	156783.5	159766.5	2509.4 µg/L	2509.4 ppb	13:04:23
3	Sn 189.927†	6968.1	7132.9	496.45 µg/L	496.45 ppb	13:04:43
3	Ti 334.940†	477556.5	488155.9	500.73 µg/L	500.73 ppb	13:04:23
3	Tl 190.801†	3456.2	3653.1	506.37 µg/L	506.37 ppb	13:04:43
3	U 409.014†	7095.8	7428.9	499.46 µg/L	499.46 ppb	13:04:23
3	V 292.402†	95062.9	96913.4	508.99 µg/L	508.99 ppb	13:04:23
3	Zn 213.857†	83296.3	84785.6	502.33 µg/L	502.33 ppb	13:04:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1760360.4	97.573	%	0.6660				0.68%
Sc RADIAL	135969.9	97.1	%	0.63				0.65%
Y 371.029	1023171.4	96.772	%	0.6241				0.64%
Ag 328.068†	122305.5	506.97	µg/L	1.022	506.97	ppb	1.022	0.20%
QC value within limits for Ag 328.068 Recovery = 101.39%								
Al 396.153Radial†	24046.2	5039.2	µg/L	40.64	5039.2	ppb	40.64	0.81%
QC value within limits for Al 396.153Radial Recovery = 100.78%								
As 188.979†	1387.2	476.55	µg/L	2.835	476.55	ppb	2.835	0.59%
QC value within limits for As 188.979 Recovery = 95.31%								
B 249.677†	32109.0	497.59	µg/L	2.645	497.59	ppb	2.645	0.53%
QC value within limits for B 249.677 Recovery = 99.52%								
Ba 233.527†	112944.8	502.43	µg/L	0.217	502.43	ppb	0.217	0.04%
QC value within limits for Ba 233.527 Recovery = 100.49%								
Be 313.107†	1704425.3	493.87	µg/L	1.525	493.87	ppb	1.525	0.31%
QC value within limits for Be 313.107 Recovery = 98.77%								
Ca 317.933Radial†	74636.9	5083.4	µg/L	6.86	5083.4	ppb	6.86	0.14%
QC value within limits for Ca 317.933Radial Recovery = 101.67%								
Cd 226.502†	74962.0	506.33	µg/L	2.049	506.33	ppb	2.049	0.40%
QC value within limits for Cd 226.502 Recovery = 101.27%								
Co 228.616†	38412.1	508.43	µg/L	1.193	508.43	ppb	1.193	0.23%

```
   QC value within limits for Co 228.616  Recovery = 101.69%
Cr 267.716†            58395.0      505.05 µg/L         1.219      505.05 ppb          1.219   0.24%
   QC value within limits for Cr 267.716  Recovery = 101.01%
Cu 324.752†           120125.9      504.02 µg/L         0.993      504.02 ppb          0.993   0.20%
   QC value within limits for Cu 324.752  Recovery = 100.80%
Fe 238.204 Radial†     68495.8      5115.2 µg/L         93.09      5115.2 ppb          93.09   1.82%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.30%
K 766.490 Radial†      12745.4      5046.2 µg/L         61.80      5046.2 ppb          61.80   1.22%
   QC value within limits for K 766.490 Radial  Recovery = 100.92%
Mg 279.077 IEC†        11029.6      5100.7 µg/L         17.03      5100.7 ppb          17.03   0.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.01%
Mn 257.610†           380589.9      504.65 µg/L         1.018      504.65 ppb          1.018   0.20%
   QC value within limits for Mn 257.610  Recovery = 100.93%
Mo 202.031†            15376.9      503.35 µg/L         3.340      503.35 ppb          3.340   0.66%
   QC value within limits for Mo 202.031  Recovery = 100.67%
Na 589.592 Radial†     64697.1       10024 µg/L          48.0       10024 ppb           48.0   0.48%
   QC value within limits for Na 589.592 Radial  Recovery = 100.24%
Ni 231.604†            40451.4      506.10 µg/L         1.053      506.10 ppb          1.053   0.21%
   QC value within limits for Ni 231.604  Recovery = 101.22%
P 214.914†             10820.5      2494.3 µg/L         15.23      2494.3 ppb          15.23   0.61%
   QC value within limits for P 214.914  Recovery = 99.77%
Pb 220.353†             8189.4      505.53 µg/L         3.148      505.53 ppb          3.148   0.62%
   QC value within limits for Pb 220.353  Recovery = 101.11%
S 181.975 Axial†        1182.2      998.77 µg/L        10.007      998.77 ppb         10.007   1.00%
   QC value within limits for S 181.975 Axial  Recovery = 99.88%
Sb 206.836†             3861.9      499.08 µg/L         3.825      499.08 ppb          3.825   0.77%
   QC value within limits for Sb 206.836  Recovery = 99.82%
Se 196.026†             1268.4         502 µg/L           1.3         502 ppb            1.3   0.25%
   QC value within limits for Se 196.026  Recovery = 100.39%
SiO2†                  50594.1      5336.3 µg/L         31.11      5336.3 ppb          31.11   0.58%
   QC value within limits for SiO2  Recovery = 99.79%
Si 251.611†           159291.6      2501.9 µg/L         11.00      2501.9 ppb          11.00   0.44%
   QC value within limits for Si 251.611  Recovery = 100.07%
Sn 189.927†             7138.1      496.81 µg/L         2.368      496.81 ppb          2.368   0.48%
   QC value within limits for Sn 189.927  Recovery = 99.36%
Sr 421.552†           211659.6      499.15 µg/L         4.282      499.15 ppb          4.282   0.86%
   QC value within limits for Sr 421.552  Recovery = 99.83%
Ti 334.940†           487975.8      500.54 µg/L         0.590      500.54 ppb          0.590   0.12%
   QC value within limits for Ti 334.940  Recovery = 100.11%
Tl 190.801†             3666.5      508.19 µg/L         4.821      508.19 ppb          4.821   0.95%
   QC value within limits for Tl 190.801  Recovery = 101.64%
U 409.014†              7549.2      507.00 µg/L         7.282      507.00 ppb          7.282   1.44%
   QC value within limits for U 409.014  Recovery = 101.40%
V 292.402†             96774.8      508.27 µg/L         1.211      508.27 ppb          1.211   0.24%
   QC value within limits for V 292.402  Recovery = 101.65%
Zn 213.857†            84714.9      501.90 µg/L         1.582      501.90 ppb          1.582   0.32%
   QC value within limits for Zn 213.857  Recovery = 100.38%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 13:04:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136290.1	136290.1	97.3	%			13:05:20
1	Al 396.153Radial†	-69.6	7.0	1.4282	µg/L	1.4282	ppb	13:05:40
1	Ca 317.933Radial†	692.3	140.1	9.5452	µg/L	9.5452	ppb	13:05:40
1	Fe 238.204 Radial†	192.6	80.7	6.0268	µg/L	6.0268	ppb	13:05:40
1	K 766.490 Radial†	1641.5	193.5	76.683	µg/L	76.683	ppb	13:05:20
1	Mg 279.077 IEC†	175.0	7.4	3.4314	µg/L	3.4314	ppb	13:05:40
1	Na 589.592 Radial†	1048.0	124.7	19.264	µg/L	19.264	ppb	13:05:20
1	Sr 421.552†	-137.5	63.2	0.1489	µg/L	0.1489	ppb	13:05:20
1	Sc 361.383	1782656.2	1782656.2	98.808	%			13:06:42
1	Y 371.029	1047247.8	1047247.8	99.050	%			13:06:42
1	Ag 328.068†	4249.4	-264.5	-1.0842	µg/L	-1.0842	ppb	13:06:44
1	As 188.979†	-22.1	-3.8	-1.2845	µg/L	-1.2845	ppb	13:07:04
1	B 249.677†	4129.8	114.4	1.7792	µg/L	1.7792	ppb	13:06:44
1	Ba 233.527†	-153.9	-11.2	-0.0495	µg/L	-0.0495	ppb	13:07:04
1	Be 313.107†	-783.7	298.6	0.0863	µg/L	0.0863	ppb	13:06:44
1	Cd 226.502†	-60.9	41.7	0.2814	µg/L	0.2814	ppb	13:07:04
1	Co 228.616†	-197.9	10.1	0.1327	µg/L	0.1327	ppb	13:07:04
1	Cr 267.716†	268.3	38.3	0.3322	µg/L	0.3322	ppb	13:07:04
1	Cu 324.752†	2855.2	-146.5	-0.6124	µg/L	-0.6124	ppb	13:06:44
1	Mn 257.610†	251.5	69.8	0.0924	µg/L	0.0924	ppb	13:07:04
1	Mo 202.031†	-10.5	27.9	0.9129	µg/L	0.9129	ppb	13:07:04
1	Ni 231.604†	-80.3	14.7	0.1834	µg/L	0.1834	ppb	13:07:04
1	P 214.914†	8.1	33.9	7.8275	µg/L	7.8275	ppb	13:07:04
1	Pb 220.353†	78.1	-24.4	-1.4965	µg/L	-1.4965	ppb	13:07:04
1	S 181.975 Axial†	97.0	9.3	7.8229	µg/L	7.8229	ppb	13:07:04
1	Sb 206.836†	91.7	3.1	0.4072	µg/L	0.4072	ppb	13:07:04
1	Se 196.026†	28.3	22.5	8.88	µg/L	8.88	ppb	13:07:04
1	SiO2†	1885.5	169.1	17.875	µg/L	17.875	ppb	13:07:04
1	Si 251.611†	1309.0	557.8	8.7808	µg/L	8.7808	ppb	13:06:44
1	Sn 189.927†	7.5	5.7	0.3950	µg/L	0.3950	ppb	13:07:04
1	Ti 334.940†	1019.9	209.2	0.2150	µg/L	0.2150	ppb	13:06:44
1	Tl 190.801†	-114.7	-1.8	-0.2448	µg/L	-0.2448	ppb	13:07:04
1	U 409.014†	-171.8	-10.6	-0.6689	µg/L	-0.6689	ppb	13:06:44
1	V 292.402†	411.2	-7.0	-0.0268	µg/L	-0.0268	ppb	13:06:44
1	Zn 213.857†	594.7	98.9	0.5892	µg/L	0.5892	ppb	13:07:04
2	Sc RADIAL	136851.1	136851.1	97.7	%			13:05:42
2	Al 396.153Radial†	-103.9	-27.8	-5.8900	µg/L	-5.8900	ppb	13:06:02
2	Ca 317.933Radial†	675.5	120.0	8.1746	µg/L	8.1746	ppb	13:06:02
2	Fe 238.204 Radial†	167.9	54.5	4.0720	µg/L	4.0720	ppb	13:06:02
2	K 766.490 Radial†	1638.3	183.3	72.608	µg/L	72.608	ppb	13:05:42
2	Mg 279.077 IEC†	187.9	19.9	9.2236	µg/L	9.2236	ppb	13:06:02
2	Na 589.592 Radial†	1294.8	372.9	57.744	µg/L	57.744	ppb	13:05:42
2	Sr 421.552†	-154.5	46.3	0.1092	µg/L	0.1092	ppb	13:05:42
2	Sc 361.383	1800370.9	1800370.9	99.790	%			13:07:07
2	Y 371.029	1056939.0	1056939.0	99.966	%			13:07:07
2	Ag 328.068†	4328.8	-227.3	-0.9428	µg/L	-0.9428	ppb	13:07:09
2	As 188.979†	-8.8	9.7	3.2929	µg/L	3.2929	ppb	13:07:29
2	B 249.677†	4165.2	108.8	1.6915	µg/L	1.6915	ppb	13:07:09
2	Ba 233.527†	-134.5	9.7	0.0431	µg/L	0.0431	ppb	13:07:29
2	Be 313.107†	-900.8	189.1	0.0532	µg/L	0.0532	ppb	13:07:09
2	Cd 226.502†	-87.7	15.4	0.1042	µg/L	0.1042	ppb	13:07:29
2	Co 228.616†	-202.1	7.8	0.1025	µg/L	0.1025	ppb	13:07:29
2	Cr 267.716†	263.2	30.5	0.2678	µg/L	0.2678	ppb	13:07:29
2	Cu 324.752†	2938.4	-91.6	-0.3863	µg/L	-0.3863	ppb	13:07:09
2	Mn 257.610†	356.5	172.5	0.2285	µg/L	0.2285	ppb	13:07:29
2	Mo 202.031†	-17.0	21.6	0.7059	µg/L	0.7059	ppb	13:07:29
2	Ni 231.604†	-43.4	52.4	0.6558	µg/L	0.6558	ppb	13:07:29
2	P 214.914†	3.0	28.7	6.6395	µg/L	6.6395	ppb	13:07:29
2	Pb 220.353†	108.5	5.3	0.3325	µg/L	0.3325	ppb	13:07:29

2	S 181.975 Axial†	90.0	1.3	1.0862 µg/L	1.0862 ppb	13:07:29
2	Sb 206.836†	98.1	8.6	1.1191 µg/L	1.1191 ppb	13:07:29
2	Se 196.026†	25.4	19.3	7.59 µg/L	7.59 ppb	13:07:29
2	SiO2†	1870.0	134.8	14.250 µg/L	14.250 ppb	13:07:29
2	Si 251.611†	1273.5	509.1	8.0160 µg/L	8.0160 ppb	13:07:09
2	Sn 189.927†	8.7	6.8	0.4730 µg/L	0.4730 ppb	13:07:29
2	Ti 334.940†	814.0	-7.3	-0.0060 µg/L	-0.0060 ppb	13:07:09
2	Tl 190.801†	-113.8	0.2	0.0291 µg/L	0.0291 ppb	13:07:29
2	U 409.014†	-242.9	-80.0	-5.0782 µg/L	-5.0782 ppb	13:07:09
2	V 292.402†	326.1	-96.5	-0.4955 µg/L	-0.4955 ppb	13:07:09
2	Zn 213.857†	622.6	120.9	0.7175 µg/L	0.7175 ppb	13:07:29
3	Sc RADIAL	134763.0	134763.0	96.2 %		13:06:04
3	Al 396.153Radial†	-98.1	-23.5	-4.9608 µg/L	-4.9608 ppb	13:06:24
3	Ca 317.933Radial†	689.2	145.0	9.8746 µg/L	9.8746 ppb	13:06:24
3	Fe 238.204 Radial†	163.4	52.6	3.9274 µg/L	3.9274 ppb	13:06:24
3	K 766.490 Radial†	1713.1	287.0	113.73 µg/L	113.73 ppb	13:06:04
3	Mg 279.077 IEC†	185.0	19.8	9.1679 µg/L	9.1679 ppb	13:06:24
3	Na 589.592 Radial†	1061.3	150.7	23.261 µg/L	23.261 ppb	13:06:04
3	Sr 421.552†	-202.2	-5.7	-0.0136 µg/L	-0.0136 ppb	13:06:04
3	Sc 361.383	1779169.5	1779169.5	98.615 %		13:07:31
3	Y 371.029	1045675.5	1045675.5	98.901 %		13:07:31
3	Ag 328.068†	4167.3	-339.4	-1.3915 µg/L	-1.3915 ppb	13:07:33
3	As 188.979†	-16.5	1.8	0.6281 µg/L	0.6281 ppb	13:07:53
3	B 249.677†	4105.7	98.2	1.5263 µg/L	1.5263 ppb	13:07:33
3	Ba 233.527†	-156.0	-13.7	-0.0604 µg/L	-0.0604 ppb	13:07:53
3	Be 313.107†	-846.5	233.3	0.0659 µg/L	0.0659 ppb	13:07:33
3	Cd 226.502†	-55.4	47.2	0.3186 µg/L	0.3186 ppb	13:07:53
3	Co 228.616†	-190.5	17.1	0.2261 µg/L	0.2261 ppb	13:07:53
3	Cr 267.716†	277.0	47.7	0.4170 µg/L	0.4170 ppb	13:07:53
3	Cu 324.752†	2979.0	-15.3	-0.0678 µg/L	-0.0678 ppb	13:07:33
3	Mn 257.610†	253.7	72.5	0.0958 µg/L	0.0958 ppb	13:07:53
3	Mo 202.031†	-27.2	10.9	0.3585 µg/L	0.3585 ppb	13:07:53
3	Ni 231.604†	-64.3	30.7	0.3841 µg/L	0.3841 ppb	13:07:53
3	P 214.914†	-3.9	21.8	5.0264 µg/L	5.0264 ppb	13:07:53
3	Pb 220.353†	85.7	-16.5	-1.0125 µg/L	-1.0125 ppb	13:07:53
3	S 181.975 Axial†	96.0	8.5	7.1344 µg/L	7.1344 ppb	13:07:53
3	Sb 206.836†	89.9	1.4	0.1833 µg/L	0.1833 ppb	13:07:53
3	Se 196.026†	24.3	18.4	7.26 µg/L	7.26 ppb	13:07:53
3	SiO2†	1922.0	209.9	22.217 µg/L	22.217 ppb	13:07:53
3	Si 251.611†	1301.3	552.6	8.7095 µg/L	8.7095 ppb	13:07:33
3	Sn 189.927†	0.2	-1.7	-0.1193 µg/L	-0.1193 ppb	13:07:53
3	Ti 334.940†	753.7	-58.7	-0.0586 µg/L	-0.0586 ppb	13:07:33
3	Tl 190.801†	-106.1	6.7	0.9126 µg/L	0.9126 ppb	13:07:53
3	U 409.014†	-250.6	-90.7	-5.7025 µg/L	-5.7025 ppb	13:07:33
3	V 292.402†	497.3	81.0	0.4213 µg/L	0.4213 ppb	13:07:33
3	Zn 213.857†	570.3	75.3	0.4464 µg/L	0.4464 ppb	13:07:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787398.9	99.071	%	0.6301				0.64%
Sc RADIAL	135968.1	97.1	%	0.77				0.79%
Y 371.029	1049954.1	99.305	%	0.5769				0.58%
Ag 328.068†	-277.1	-1.1395	µg/L	0.22941	-1.1395	ppb	0.22941	20.13%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.8	-3.1409	µg/L	3.98409	-3.1409	ppb	3.98409	126.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.6	0.8788	µg/L	2.29896	0.8788	ppb	2.29896	261.60%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	107.1	1.6657	µg/L	0.12840	1.6657	ppb	0.12840	7.71%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.0	-0.0222	µg/L	0.05687	-0.0222	ppb	0.05687	255.61%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	240.3	0.0685	µg/L	0.01668	0.0685	ppb	0.01668	24.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	135.0	9.1981	µg/L	0.90158	9.1981	ppb	0.90158	9.80%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	34.8	0.2347	µg/L	0.11455	0.2347	ppb	0.11455	48.80%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.6	0.1538	µg/L	0.06444	0.1538	ppb	0.06444	41.91%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              38.8      0.3390 µg/L       0.07485      0.3390 ppb        0.07485  22.08%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -84.5     -0.3555 µg/L       0.27361     -0.3555 ppb        0.27361  76.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       62.6      4.6754 µg/L       1.17256      4.6754 ppb        1.17256  25.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       221.3      87.675 µg/L       22.6597      87.675 ppb        22.6597  25.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          15.7      7.2743 µg/L       3.32818      7.2743 ppb        3.32818  45.75%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             104.9      0.1389 µg/L       0.07760      0.1389 ppb        0.07760  55.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              20.1      0.6591 µg/L       0.28014      0.6591 ppb        0.28014  42.50%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      216.1      33.423 µg/L       21.1576      33.423 ppb        21.1576  63.30%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              32.6      0.4078 µg/L       0.23709      0.4078 ppb        0.23709  58.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               28.1      6.4978 µg/L       1.40594      6.4978 ppb        1.40594  21.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -11.9     -0.7255 µg/L       0.94768     -0.7255 ppb        0.94768 130.63%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.4      5.3479 µg/L       3.70673      5.3479 ppb        3.70673  69.31%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.4      0.5698 µg/L       0.48864      0.5698 ppb        0.48864  85.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              20.1        7.91 µg/L         0.855        7.91 ppb          0.855  10.80%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   171.3      18.114 µg/L        3.9889      18.114 ppb         3.9889  22.02%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             539.8      8.5021 µg/L       0.42246      8.5021 ppb        0.42246   4.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.6      0.2496 µg/L       0.32182      0.2496 ppb        0.32182 128.96%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              34.6      0.0815 µg/L       0.08471      0.0815 ppb        0.08471 103.94%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              47.7      0.0501 µg/L       0.14519      0.0501 ppb        0.14519 289.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.7      0.2323 µg/L       0.60486      0.2323 ppb        0.60486 260.40%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -60.4     -3.8165 µg/L       2.74372     -3.8165 ppb        2.74372  71.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -7.5     -0.0337 µg/L       0.45841     -0.0337 ppb        0.45841 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              98.4      0.5844 µg/L       0.13562      0.5844 ppb        0.13562  23.21%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 13:19:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137686.1	137686.1	98.3	%			13:19:48
1	Al 396.153Radial†	23316.9	23803.1	4987.8	µg/L	4987.8	ppb	13:19:48
1	Ca 317.933Radial†	74157.5	74882.4	5100.2	µg/L	5100.2	ppb	13:19:48
1	Fe 238.204 Radial†	66808.5	67859.0	5067.7	µg/L	5067.7	ppb	13:19:48
1	K 766.490 Radial†	14132.5	12885.8	5101.8	µg/L	5101.8	ppb	13:19:48
1	Mg 279.077 IEC†	11014.2	11034.3	5103.1	µg/L	5103.1	ppb	13:19:48
1	Na 589.592 Radial†	64546.9	64722.7	10028	µg/L	10028	ppb	13:19:48
1	Sr 421.552†	206906.3	210727.7	496.95	µg/L	496.95	ppb	13:19:46
1	Sc 361.383	1764151.9	1764151.9	97.783	%			13:20:15
1	Y 371.029	1025388.3	1025388.3	96.982	%			13:20:15
1	Ag 328.068†	124481.4	122738.8	508.77	µg/L	508.77	ppb	13:20:15
1	As 188.979†	1356.8	1406.2	482.95	µg/L	482.95	ppb	13:20:35
1	B 249.677†	35498.9	32238.7	499.59	µg/L	499.59	ppb	13:20:15
1	Ba 233.527†	110006.0	112644.9	501.10	µg/L	501.10	ppb	13:20:15
1	Be 313.107†	1665582.9	1704440.6	493.88	µg/L	493.88	ppb	13:20:15
1	Cd 226.502†	73149.4	74911.4	505.99	µg/L	505.99	ppb	13:20:15
1	Co 228.616†	37552.7	38614.5	511.11	µg/L	511.11	ppb	13:20:15
1	Cr 267.716†	57324.6	58391.2	505.01	µg/L	505.01	ppb	13:20:15
1	Cu 324.752†	120503.1	120199.3	504.34	µg/L	504.34	ppb	13:20:15
1	Mn 257.610†	372460.1	380720.6	504.83	µg/L	504.83	ppb	13:20:15
1	Mo 202.031†	15163.3	15545.7	508.87	µg/L	508.87	ppb	13:20:35
1	Ni 231.604†	39504.5	40496.1	506.66	µg/L	506.66	ppb	13:20:15
1	P 214.914†	10657.2	10924.5	2518.4	µg/L	2518.4	ppb	13:20:35
1	Pb 220.353†	8249.2	8332.7	514.35	µg/L	514.35	ppb	13:20:35
1	S 181.975 Axial†	1263.9	1203.6	1016.9	µg/L	1016.9	ppb	13:20:35
1	Sb 206.836†	3896.7	3895.3	503.47	µg/L	503.47	ppb	13:20:35
1	Se 196.026†	1255.4	1277.8	506	µg/L	506	ppb	13:20:35
1	SiO2†	51270.6	50694.0	5346.7	µg/L	5346.7	ppb	13:20:15
1	Si 251.611†	156815.2	159603.8	2506.7	µg/L	2506.7	ppb	13:20:15
1	Sn 189.927†	7047.2	7205.1	501.46	µg/L	501.46	ppb	13:20:35
1	Ti 334.940†	478947.9	488984.7	501.57	µg/L	501.57	ppb	13:20:15
1	Tl 190.801†	3509.9	3703.8	513.29	µg/L	513.29	ppb	13:20:35
1	U 409.014†	7443.5	7775.6	521.38	µg/L	521.38	ppb	13:20:15
1	V 292.402†	95292.2	97029.7	509.66	µg/L	509.66	ppb	13:20:15
1	Zn 213.857†	83586.8	84979.1	503.48	µg/L	503.48	ppb	13:20:15
2	Sc RADIAL	135969.5	135969.5	97.1	%			13:19:52
2	Al 396.153Radial†	23142.4	23922.8	5013.1	µg/L	5013.1	ppb	13:19:52
2	Ca 317.933Radial†	73314.9	74966.9	5105.9	µg/L	5105.9	ppb	13:19:52
2	Fe 238.204 Radial†	66100.3	67987.6	5077.3	µg/L	5077.3	ppb	13:19:52
2	K 766.490 Radial†	13867.7	12794.5	5065.6	µg/L	5065.6	ppb	13:19:52
2	Mg 279.077 IEC†	10929.6	11088.6	5128.1	µg/L	5128.1	ppb	13:19:52
2	Na 589.592 Radial†	63867.1	64851.5	10048	µg/L	10048	ppb	13:19:52
2	Sr 421.552†	206242.2	212701.3	501.61	µg/L	501.61	ppb	13:19:50
2	Sc 361.383	1752479.1	1752479.1	97.136	%			13:20:38
2	Y 371.029	1020334.9	1020334.9	96.504	%			13:20:38
2	Ag 328.068†	123684.4	122766.2	508.86	µg/L	508.86	ppb	13:20:38
2	As 188.979†	1330.5	1388.3	476.91	µg/L	476.91	ppb	13:20:58
2	B 249.677†	35109.4	32079.5	497.12	µg/L	497.12	ppb	13:20:38
2	Ba 233.527†	109687.7	113066.5	502.98	µg/L	502.98	ppb	13:20:38
2	Be 313.107†	1653797.6	1703653.3	493.65	µg/L	493.65	ppb	13:20:38
2	Cd 226.502†	72583.7	74827.3	505.42	µg/L	505.42	ppb	13:20:38
2	Co 228.616†	37169.0	38475.2	509.27	µg/L	509.27	ppb	13:20:38
2	Cr 267.716†	56900.5	58345.1	504.61	µg/L	504.61	ppb	13:20:38
2	Cu 324.752†	119629.2	120120.5	504.01	µg/L	504.01	ppb	13:20:38
2	Mn 257.610†	370314.3	381048.7	505.26	µg/L	505.26	ppb	13:20:38
2	Mo 202.031†	15009.0	15490.1	507.05	µg/L	507.05	ppb	13:20:58
2	Ni 231.604†	39199.8	40451.5	506.10	µg/L	506.10	ppb	13:20:38
2	P 214.914†	10555.4	10892.3	2511.0	µg/L	2511.0	ppb	13:20:58
2	Pb 220.353†	8124.2	8260.3	509.89	µg/L	509.89	ppb	13:20:58

2	S 181.975 Axial†	1239.3	1187.0	1002.8 µg/L	1002.8 ppb	13:20:58
2	Sb 206.836†	3878.5	3903.1	504.46 µg/L	504.46 ppb	13:20:58
2	Se 196.026†	1243.7	1274.2	504 µg/L	504 ppb	13:20:58
2	SiO2†	50994.2	50758.8	5353.6 µg/L	5353.6 ppb	13:20:38
2	Si 251.611†	156234.2	160073.9	2514.1 µg/L	2514.1 ppb	13:20:38
2	Sn 189.927†	6997.5	7202.0	501.25 µg/L	501.25 ppb	13:20:58
2	Ti 334.940†	475750.2	488955.2	501.54 µg/L	501.54 ppb	13:20:38
2	Tl 190.801†	3489.7	3706.8	513.71 µg/L	513.71 ppb	13:20:58
2	U 409.014†	7342.0	7721.8	517.90 µg/L	517.90 ppb	13:20:38
2	V 292.402†	94395.8	96755.9	508.22 µg/L	508.22 ppb	13:20:38
2	Zn 213.857†	82925.5	84867.6	502.82 µg/L	502.82 ppb	13:20:38
3	Sc RADIAL	135910.8	135910.8	97.0 %		13:19:56
3	Al 396.153Radial†	23011.1	23797.7	4986.6 µg/L	4986.6 ppb	13:19:56
3	Ca 317.933Radial†	73016.0	74691.3	5087.2 µg/L	5087.2 ppb	13:19:56
3	Fe 238.204 Radial†	65816.6	67724.5	5057.6 µg/L	5057.6 ppb	13:19:56
3	K 766.490 Radial†	14014.9	12952.4	5128.2 µg/L	5128.2 ppb	13:19:56
3	Mg 279.077 IEC†	10852.5	11014.0	5093.7 µg/L	5093.7 ppb	13:19:56
3	Na 589.592 Radial†	64017.8	65035.2	10076 µg/L	10076 ppb	13:19:56
3	Sr 421.552†	207445.1	214032.9	504.75 µg/L	504.75 ppb	13:19:54
3	Sc 361.383	1757185.4	1757185.4	97.397 %		13:21:01
3	Y 371.029	1021114.7	1021114.7	96.578 %		13:21:01
3	Ag 328.068†	123757.2	122499.9	507.77 µg/L	507.77 ppb	13:21:01
3	As 188.979†	1359.9	1414.8	485.88 µg/L	485.88 ppb	13:21:21
3	B 249.677†	35071.9	31944.2	495.02 µg/L	495.02 ppb	13:21:01
3	Ba 233.527†	109828.9	112909.1	502.28 µg/L	502.28 ppb	13:21:01
3	Be 313.107†	1657683.2	1703082.7	493.48 µg/L	493.48 ppb	13:21:01
3	Cd 226.502†	72559.6	74602.4	503.91 µg/L	503.91 ppb	13:21:01
3	Co 228.616†	37343.2	38551.6	510.28 µg/L	510.28 ppb	13:21:01
3	Cr 267.716†	57083.6	58376.2	504.88 µg/L	504.88 ppb	13:21:01
3	Cu 324.752†	120203.7	120380.4	505.08 µg/L	505.08 ppb	13:21:01
3	Mn 257.610†	371130.2	380865.4	505.02 µg/L	505.02 ppb	13:21:01
3	Mo 202.031†	15160.4	15604.2	510.78 µg/L	510.78 ppb	13:21:21
3	Ni 231.604†	39383.3	40531.9	507.10 µg/L	507.10 ppb	13:21:01
3	P 214.914†	10656.5	10967.1	2528.2 µg/L	2528.2 ppb	13:21:21
3	Pb 220.353†	8194.0	8309.5	512.94 µg/L	512.94 ppb	13:21:21
3	S 181.975 Axial†	1261.5	1206.3	1019.2 µg/L	1019.2 ppb	13:21:21
3	Sb 206.836†	3887.7	3901.9	504.35 µg/L	504.35 ppb	13:21:21
3	Se 196.026†	1265.5	1293.2	512 µg/L	512 ppb	13:21:21
3	SiO2†	51195.4	50824.7	5360.4 µg/L	5360.4 ppb	13:21:01
3	Si 251.611†	156725.4	160147.5	2515.2 µg/L	2515.2 ppb	13:21:01
3	Sn 189.927†	7043.2	7229.6	503.16 µg/L	503.16 ppb	13:21:21
3	Ti 334.940†	476862.5	488785.4	501.37 µg/L	501.37 ppb	13:21:01
3	Tl 190.801†	3501.8	3709.6	514.09 µg/L	514.09 ppb	13:21:21
3	U 409.014†	7209.4	7565.4	508.05 µg/L	508.05 ppb	13:21:01
3	V 292.402†	94694.8	96802.7	508.50 µg/L	508.50 ppb	13:21:01
3	Zn 213.857†	83190.2	84910.8	503.07 µg/L	503.07 ppb	13:21:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1757938.8	97.438	%	0.3255				0.33%
Sc RADIAL	136522.1	97.5	%	0.72				0.74%
Y 371.029	1022279.3	96.688	%	0.2573				0.27%
Ag 328.068†	122668.3	508.47	µg/L	0.610	508.47	ppb	0.610	0.12%
QC value within limits for Ag 328.068 Recovery = 101.69%								
Al 396.153Radial†	23841.2	4995.8	µg/L	14.96	4995.8	ppb	14.96	0.30%
QC value within limits for Al 396.153Radial Recovery = 99.92%								
As 188.979†	1403.1	481.91	µg/L	4.574	481.91	ppb	4.574	0.95%
QC value within limits for As 188.979 Recovery = 96.38%								
B 249.677†	32087.5	497.25	µg/L	2.291	497.25	ppb	2.291	0.46%
QC value within limits for B 249.677 Recovery = 99.45%								
Ba 233.527†	112873.5	502.12	µg/L	0.946	502.12	ppb	0.946	0.19%
QC value within limits for Ba 233.527 Recovery = 100.42%								
Be 313.107†	1703725.5	493.67	µg/L	0.199	493.67	ppb	0.199	0.04%
QC value within limits for Be 313.107 Recovery = 98.73%								
Ca 317.933Radial†	74846.9	5097.7	µg/L	9.62	5097.7	ppb	9.62	0.19%
QC value within limits for Ca 317.933Radial Recovery = 101.95%								
Cd 226.502†	74780.4	505.11	µg/L	1.079	505.11	ppb	1.079	0.21%
QC value within limits for Cd 226.502 Recovery = 101.02%								
Co 228.616†	38547.1	510.22	µg/L	0.922	510.22	ppb	0.922	0.18%

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   QC value within limits for Co 228.616  Recovery = 102.04%
Cr 267.716†            58370.8      504.83 µg/L         0.204      504.83 ppb          0.204   0.04%
   QC value within limits for Cr 267.716  Recovery = 100.97%
Cu 324.752†           120233.4      504.47 µg/L         0.551      504.47 ppb          0.551   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.89%
Fe 238.204 Radial†     67857.1      5067.5 µg/L          9.82      5067.5 ppb           9.82   0.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.35%
K 766.490 Radial†      12877.5      5098.6 µg/L         31.42      5098.6 ppb          31.42   0.62%
   QC value within limits for K 766.490 Radial  Recovery = 101.97%
Mg 279.077 IEC†        11045.6      5108.3 µg/L         17.77      5108.3 ppb          17.77   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.17%
Mn 257.610†           380878.2      505.04 µg/L         0.218      505.04 ppb          0.218   0.04%
   QC value within limits for Mn 257.610  Recovery = 101.01%
Mo 202.031†            15546.7      508.90 µg/L         1.865      508.90 ppb          1.865   0.37%
   QC value within limits for Mo 202.031  Recovery = 101.78%
Na 589.592 Radial†     64869.8       10051 µg/L          24.3       10051 ppb           24.3   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 100.51%
Ni 231.604†            40493.2      506.62 µg/L         0.504      506.62 ppb          0.504   0.10%
   QC value within limits for Ni 231.604  Recovery = 101.32%
P 214.914†             10928.0      2519.2 µg/L          8.66      2519.2 ppb           8.66   0.34%
   QC value within limits for P 214.914  Recovery = 100.77%
Pb 220.353†             8300.9      512.39 µg/L         2.280      512.39 ppb          2.280   0.44%
   QC value within limits for Pb 220.353  Recovery = 102.48%
S 181.975 Axial†        1199.0      1012.9 µg/L          8.84      1012.9 ppb           8.84   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 101.29%
Sb 206.836†             3900.1      504.09 µg/L         0.541      504.09 ppb          0.541   0.11%
   QC value within limits for Sb 206.836  Recovery = 100.82%
Se 196.026†             1281.7         507 µg/L           4.0         507 ppb            4.0   0.78%
   QC value within limits for Se 196.026  Recovery = 101.44%
SiO2†                  50759.2      5353.6 µg/L          6.88      5353.6 ppb           6.88   0.13%
   QC value within limits for SiO2  Recovery = 100.11%
Si 251.611†           159941.7      2512.0 µg/L          4.64      2512.0 ppb           4.64   0.18%
   QC value within limits for Si 251.611  Recovery = 100.48%
Sn 189.927†             7212.2      501.96 µg/L         1.049      501.96 ppb          1.049   0.21%
   QC value within limits for Sn 189.927  Recovery = 100.39%
Sr 421.552†           212487.3      501.10 µg/L         3.922      501.10 ppb          3.922   0.78%
   QC value within limits for Sr 421.552  Recovery = 100.22%
Ti 334.940†           488908.4      501.50 µg/L         0.107      501.50 ppb          0.107   0.02%
   QC value within limits for Ti 334.940  Recovery = 100.30%
Tl 190.801†             3706.8      513.69 µg/L         0.398      513.69 ppb          0.398   0.08%
   QC value within limits for Tl 190.801  Recovery = 102.74%
U 409.014†              7687.6      515.78 µg/L         6.915      515.78 ppb          6.915   1.34%
   QC value within limits for U 409.014  Recovery = 103.16%
V 292.402†             96862.8      508.79 µg/L         0.765      508.79 ppb          0.765   0.15%
   QC value within limits for V 292.402  Recovery = 101.76%
Zn 213.857†            84919.2      503.12 µg/L         0.334      503.12 ppb          0.334   0.07%
   QC value within limits for Zn 213.857  Recovery = 100.62%
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 13:21:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136365.9	136365.9	97.3	%			13:21:58
1	Al 396.153Radial†	-72.1	4.4	0.9330	µg/L	0.9330	ppb	13:22:18
1	Ca 317.933Radial†	710.4	158.4	10.786	µg/L	10.786	ppb	13:22:18
1	Fe 238.204 Radial†	185.7	73.4	5.4841	µg/L	5.4841	ppb	13:22:18
1	K 766.490 Radial†	1496.4	43.5	17.215	µg/L	17.215	ppb	13:21:58
1	Mg 279.077 IEC†	179.8	12.2	5.6498	µg/L	5.6498	ppb	13:22:18
1	Na 589.592 Radial†	1238.6	319.9	49.578	µg/L	49.578	ppb	13:21:58
1	Sr 421.552†	-142.4	58.2	0.1373	µg/L	0.1373	ppb	13:21:58
1	Sc 361.383	1782820.6	1782820.6	98.818	%			13:23:20
1	Y 371.029	1046910.4	1046910.4	99.018	%			13:23:20
1	Ag 328.068†	4406.6	-105.9	-0.4491	µg/L	-0.4491	ppb	13:23:22
1	As 188.979†	-21.0	-2.7	-0.9151	µg/L	-0.9151	ppb	13:23:42
1	B 249.677†	4073.3	56.8	0.8834	µg/L	0.8834	ppb	13:23:22
1	Ba 233.527†	-120.0	23.1	0.1023	µg/L	0.1023	ppb	13:23:42
1	Be 313.107†	-879.3	201.9	0.0560	µg/L	0.0560	ppb	13:23:22
1	Cd 226.502†	-86.3	16.0	0.1078	µg/L	0.1078	ppb	13:23:42
1	Co 228.616†	-193.5	14.5	0.1920	µg/L	0.1920	ppb	13:23:42
1	Cr 267.716†	232.1	1.6	0.0206	µg/L	0.0206	ppb	13:23:42
1	Cu 324.752†	2948.4	-52.4	-0.2248	µg/L	-0.2248	ppb	13:23:22
1	Mn 257.610†	249.3	67.6	0.0894	µg/L	0.0894	ppb	13:23:42
1	Mo 202.031†	-36.3	1.9	0.0612	µg/L	0.0612	ppb	13:23:42
1	Ni 231.604†	-71.5	23.5	0.2943	µg/L	0.2943	ppb	13:23:42
1	P 214.914†	2.4	28.1	6.5138	µg/L	6.5138	ppb	13:23:42
1	Pb 220.353†	104.5	2.3	0.1466	µg/L	0.1466	ppb	13:23:42
1	S 181.975 Axial†	101.8	14.1	11.895	µg/L	11.895	ppb	13:23:42
1	Sb 206.836†	82.9	-5.8	-0.7459	µg/L	-0.7459	ppb	13:23:42
1	Se 196.026†	22.2	16.4	6.44	µg/L	6.44	ppb	13:23:42
1	SiO2†	1856.7	139.8	14.797	µg/L	14.797	ppb	13:23:42
1	Si 251.611†	1252.8	500.7	7.8907	µg/L	7.8907	ppb	13:23:22
1	Sn 189.927†	11.8	10.1	0.6995	µg/L	0.6995	ppb	13:23:42
1	Ti 334.940†	676.1	-138.8	-0.1394	µg/L	-0.1394	ppb	13:23:22
1	Tl 190.801†	-128.9	-16.2	-2.2162	µg/L	-2.2162	ppb	13:23:42
1	U 409.014†	-290.7	-130.8	-8.2823	µg/L	-8.2823	ppb	13:23:22
1	V 292.402†	334.4	-84.8	-0.4449	µg/L	-0.4449	ppb	13:23:22
1	Zn 213.857†	588.1	92.2	0.5479	µg/L	0.5479	ppb	13:23:42
2	Sc RADIAL	136466.1	136466.1	97.4	%			13:22:20
2	Al 396.153Radial†	-51.5	25.6	5.3864	µg/L	5.3864	ppb	13:22:40
2	Ca 317.933Radial†	690.1	137.0	9.3304	µg/L	9.3304	ppb	13:22:40
2	Fe 238.204 Radial†	194.0	81.9	6.1145	µg/L	6.1145	ppb	13:22:40
2	K 766.490 Radial†	1714.5	266.3	105.52	µg/L	105.52	ppb	13:22:20
2	Mg 279.077 IEC†	156.6	-11.7	-5.4114	µg/L	-5.4114	ppb	13:22:40
2	Na 589.592 Radial†	1009.5	83.8	12.901	µg/L	12.901	ppb	13:22:20
2	Sr 421.552†	-151.7	48.8	0.1149	µg/L	0.1149	ppb	13:22:20
2	Sc 361.383	1782019.7	1782019.7	98.773	%			13:23:44
2	Y 371.029	1046998.5	1046998.5	99.026	%			13:23:44
2	Ag 328.068†	4298.3	-213.5	-0.8812	µg/L	-0.8812	ppb	13:23:47
2	As 188.979†	-7.3	11.2	3.7928	µg/L	3.7928	ppb	13:24:07
2	B 249.677†	4202.2	189.2	2.9424	µg/L	2.9424	ppb	13:23:47
2	Ba 233.527†	-153.9	-11.3	-0.0501	µg/L	-0.0501	ppb	13:24:07
2	Be 313.107†	-724.1	358.6	0.1019	µg/L	0.1019	ppb	13:23:47
2	Cd 226.502†	-57.2	45.5	0.3068	µg/L	0.3068	ppb	13:24:07
2	Co 228.616†	-193.9	14.0	0.1851	µg/L	0.1851	ppb	13:24:07
2	Cr 267.716†	283.6	53.9	0.4715	µg/L	0.4715	ppb	13:24:07
2	Cu 324.752†	2861.1	-139.5	-0.5881	µg/L	-0.5881	ppb	13:23:47
2	Mn 257.610†	304.8	123.9	0.1645	µg/L	0.1645	ppb	13:24:07
2	Mo 202.031†	-31.6	6.5	0.2141	µg/L	0.2141	ppb	13:24:07
2	Ni 231.604†	-54.3	41.0	0.5126	µg/L	0.5126	ppb	13:24:07
2	P 214.914†	3.2	28.9	6.6884	µg/L	6.6884	ppb	13:24:07
2	Pb 220.353†	117.1	15.1	0.9372	µg/L	0.9372	ppb	13:24:07

2	S 181.975 Axial†	101.7	14.1	11.829 µg/L	11.829 ppb	13:24:07
2	Sb 206.836†	78.2	-10.5	-1.3618 µg/L	-1.3618 ppb	13:24:07
2	Se 196.026†	18.6	12.6	4.97 µg/L	4.97 ppb	13:24:07
2	SiO2†	1894.3	178.7	18.911 µg/L	18.911 ppb	13:24:07
2	Si 251.611†	1331.3	580.8	9.1530 µg/L	9.1530 ppb	13:23:47
2	Sn 189.927†	8.7	6.9	0.4812 µg/L	0.4812 ppb	13:24:07
2	Ti 334.940†	731.4	-82.6	-0.0816 µg/L	-0.0816 ppb	13:23:47
2	Tl 190.801†	-109.0	4.0	0.5399 µg/L	0.5399 ppb	13:24:07
2	U 409.014†	-264.9	-104.9	-6.6122 µg/L	-6.6122 ppb	13:23:47
2	V 292.402†	436.0	18.2	0.0935 µg/L	0.0935 ppb	13:23:47
2	Zn 213.857†	590.3	94.6	0.5614 µg/L	0.5614 ppb	13:24:07
3	Sc RADIAL	137955.3	137955.3	98.5 %		13:22:42
3	Al 396.153Radial†	-70.3	7.2	1.4865 µg/L	1.4865 ppb	13:23:02
3	Ca 317.933Radial†	685.5	124.6	8.4893 µg/L	8.4893 ppb	13:23:02
3	Fe 238.204 Radial†	230.4	116.7	8.7157 µg/L	8.7157 ppb	13:23:02
3	K 766.490 Radial†	1451.8	-19.5	-7.7271 µg/L	-7.7271 ppb	13:22:42
3	Mg 279.077 IEC†	174.1	4.3	2.0013 µg/L	2.0013 ppb	13:23:02
3	Na 589.592 Radial†	1037.1	100.7	15.611 µg/L	15.611 ppb	13:22:42
3	Sr 421.552†	-254.5	-54.0	-0.1273 µg/L	-0.1273 ppb	13:22:42
3	Sc 361.383	1782300.1	1782300.1	98.789 %		13:24:09
3	Y 371.029	1047376.2	1047376.2	99.062 %		13:24:09
3	Ag 328.068†	4223.0	-290.4	-1.2135 µg/L	-1.2135 ppb	13:24:11
3	As 188.979†	-17.7	0.6	0.2088 µg/L	0.2088 ppb	13:24:31
3	B 249.677†	4033.8	18.1	0.2811 µg/L	0.2811 ppb	13:24:11
3	Ba 233.527†	-156.8	-14.2	-0.0638 µg/L	-0.0638 ppb	13:24:31
3	Be 313.107†	-613.6	470.6	0.1332 µg/L	0.1332 ppb	13:24:11
3	Cd 226.502†	-76.8	25.6	0.1726 µg/L	0.1726 ppb	13:24:31
3	Co 228.616†	-205.6	2.2	0.0282 µg/L	0.0282 ppb	13:24:31
3	Cr 267.716†	280.8	51.0	0.4490 µg/L	0.4490 ppb	13:24:31
3	Cu 324.752†	2839.1	-162.2	-0.6856 µg/L	-0.6856 ppb	13:24:11
3	Mn 257.610†	230.8	49.0	0.0648 µg/L	0.0648 ppb	13:24:31
3	Mo 202.031†	-22.6	15.7	0.5131 µg/L	0.5131 ppb	13:24:31
3	Ni 231.604†	-61.1	34.0	0.4255 µg/L	0.4255 ppb	13:24:31
3	P 214.914†	10.7	36.5	8.4493 µg/L	8.4493 ppb	13:24:31
3	Pb 220.353†	119.2	17.2	1.0651 µg/L	1.0651 ppb	13:24:31
3	S 181.975 Axial†	88.3	0.5	0.4233 µg/L	0.4233 ppb	13:24:31
3	Sb 206.836†	75.7	-13.1	-1.6875 µg/L	-1.6875 ppb	13:24:31
3	Se 196.026†	28.9	23.1	9.09 µg/L	9.09 ppb	13:24:31
3	SiO2†	1947.0	231.8	24.527 µg/L	24.527 ppb	13:24:31
3	Si 251.611†	1312.9	562.0	8.8525 µg/L	8.8525 ppb	13:24:11
3	Sn 189.927†	6.2	4.4	0.3051 µg/L	0.3051 ppb	13:24:31
3	Ti 334.940†	636.8	-178.4	-0.1791 µg/L	-0.1791 ppb	13:24:11
3	Tl 190.801†	-114.6	-1.7	-0.2417 µg/L	-0.2417 ppb	13:24:31
3	U 409.014†	-323.8	-164.4	-10.433 µg/L	-10.433 ppb	13:24:11
3	V 292.402†	230.1	-190.3	-0.9870 µg/L	-0.9870 ppb	13:24:11
3	Zn 213.857†	593.7	98.0	0.5817 µg/L	0.5817 ppb	13:24:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1782380.1	98.793	%	0.0225				0.02%
Sc RADIAL	136929.1	97.7	%	0.64				0.65%
Y 371.029	1047095.0	99.035	%	0.0234				0.02%
Ag 328.068†	-203.3	-0.8480	µg/L	0.38329	-0.8480	ppb	0.38329	45.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.4	2.6020	µg/L	2.42724	2.6020	ppb	2.42724	93.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.0288	µg/L	2.45877	1.0288	ppb	2.45877	238.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	88.1	1.3690	µg/L	1.39550	1.3690	ppb	1.39550	101.94%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.8	-0.0039	µg/L	0.09218	-0.0039	ppb	0.09218	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	343.7	0.0970	µg/L	0.03883	0.0970	ppb	0.03883	40.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	140.0	9.5354	µg/L	1.16212	9.5354	ppb	1.16212	12.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	29.0	0.1957	µg/L	0.10147	0.1957	ppb	0.10147	51.84%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.2	0.1351	µg/L	0.09266	0.1351	ppb	0.09266	68.56%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              35.5      0.3137 µg/L       0.25407      0.3137 ppb        0.25407  80.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -118.0     -0.4995 µg/L       0.24283     -0.4995 ppb        0.24283  48.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       90.7      6.7714 µg/L       1.71300      6.7714 ppb        1.71300  25.30%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        96.8     38.335 µg/L       59.5038     38.335 ppb        59.5038 155.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.6      0.7465 µg/L       5.63634      0.7465 ppb        5.63634 755.00%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              80.1      0.1062 µg/L       0.05193      0.1062 ppb        0.05193  48.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               8.0      0.2628 µg/L       0.22982      0.2628 ppb        0.22982  87.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      168.1     26.030 µg/L       20.4379     26.030 ppb        20.4379  78.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              32.8      0.4108 µg/L       0.10989      0.4108 ppb        0.10989  26.75%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               31.2      7.2172 µg/L       1.07061      7.2172 ppb        1.07061  14.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              11.5      0.7163 µg/L       0.49748      0.7163 ppb        0.49748  69.45%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          9.6      8.0489 µg/L       6.60400      8.0489 ppb        6.60400  82.05%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -9.8     -1.2650 µg/L       0.47821     -1.2650 ppb        0.47821  37.80%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              17.4        6.83 µg/L        2.087        6.83 ppb          2.087  30.55%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   183.4     19.412 µg/L        4.8846     19.412 ppb         4.8846  25.16%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             547.8      8.6321 µg/L       0.65940      8.6321 ppb        0.65940   7.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.1      0.4953 µg/L       0.19755      0.4953 ppb        0.19755  39.89%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              17.7      0.0416 µg/L       0.14674      0.0416 ppb        0.14674 352.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -133.3     -0.1333 µg/L       0.04905     -0.1333 ppb        0.04905  36.79%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -4.6     -0.6393 µg/L       1.42042     -0.6393 ppb        1.42042 222.17%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -133.4     -8.4424 µg/L       1.91529     -8.4424 ppb        1.91529  22.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -85.7     -0.4461 µg/L       0.54029     -0.4461 ppb        0.54029 121.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              94.9      0.5636 µg/L       0.01701      0.5636 ppb        0.01701   3.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 13:42:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138868.1	138868.1	99.1	%			13:42:40
1	Al 396.153Radial†	23487.6	23773.3	4981.5	µg/L	4981.5	ppb	13:42:40
1	Ca 317.933Radial†	75424.0	75517.8	5143.4	µg/L	5143.4	ppb	13:42:40
1	Fe 238.204 Radial†	67898.0	68379.6	5106.5	µg/L	5106.5	ppb	13:42:40
1	K 766.490 Radial†	14175.3	12806.5	5070.4	µg/L	5070.4	ppb	13:42:40
1	Mg 279.077 IEC†	11283.4	11210.5	5184.4	µg/L	5184.4	ppb	13:42:40
1	Na 589.592 Radial†	65456.3	65081.1	10084	µg/L	10084	ppb	13:42:40
1	Sr 421.552†	210429.2	212489.7	501.11	µg/L	501.11	ppb	13:42:38
1	Sc 361.383	1775893.4	1775893.4	98.434	%			13:42:53
1	Y 371.029	1031368.5	1031368.5	97.548	%			13:42:53
1	Ag 328.068†	125135.3	122561.4	508.05	µg/L	508.05	ppb	13:42:53
1	As 188.979†	1378.8	1419.3	487.41	µg/L	487.41	ppb	13:43:13
1	B 249.677†	35663.8	32166.2	498.47	µg/L	498.47	ppb	13:42:53
1	Ba 233.527†	111225.1	113139.5	503.30	µg/L	503.30	ppb	13:42:53
1	Be 313.107†	1681396.6	1709244.1	495.27	µg/L	495.27	ppb	13:42:53
1	Cd 226.502†	74013.1	75294.2	508.58	µg/L	508.58	ppb	13:42:53
1	Co 228.616†	37812.5	38624.5	511.24	µg/L	511.24	ppb	13:42:53
1	Cr 267.716†	57862.3	58549.8	506.38	µg/L	506.38	ppb	13:42:53
1	Cu 324.752†	121487.7	120384.8	505.12	µg/L	505.12	ppb	13:42:53
1	Mn 257.610†	375718.7	381512.7	505.88	µg/L	505.88	ppb	13:42:53
1	Mo 202.031†	15276.5	15558.2	509.28	µg/L	509.28	ppb	13:43:13
1	Ni 231.604†	40071.0	40804.5	510.52	µg/L	510.52	ppb	13:42:53
1	P 214.914†	10828.2	11026.2	2541.9	µg/L	2541.9	ppb	13:43:13
1	Pb 220.353†	8330.9	8360.0	516.03	µg/L	516.03	ppb	13:43:13
1	S 181.975 Axial†	1291.9	1223.5	1033.6	µg/L	1033.6	ppb	13:43:13
1	Sb 206.836†	3958.8	3932.1	508.21	µg/L	508.21	ppb	13:43:13
1	Se 196.026†	1291.6	1306.0	517	µg/L	517	ppb	13:43:13
1	SiO2†	51494.3	50574.7	5334.0	µg/L	5334.0	ppb	13:42:53
1	Si 251.611†	157845.4	159590.1	2506.4	µg/L	2506.4	ppb	13:42:53
1	Sn 189.927†	7135.5	7247.2	504.38	µg/L	504.38	ppb	13:43:13
1	Ti 334.940†	481989.7	488836.5	501.42	µg/L	501.42	ppb	13:42:53
1	Tl 190.801†	3553.5	3724.4	516.11	µg/L	516.11	ppb	13:43:13
1	U 409.014†	7425.5	7707.1	517.12	µg/L	517.12	ppb	13:42:53
1	V 292.402†	96145.0	97251.7	510.81	µg/L	510.81	ppb	13:42:53
1	Zn 213.857†	84509.4	85351.2	505.67	µg/L	505.67	ppb	13:42:53
2	Sc RADIAL	139612.3	139612.3	99.7	%			13:42:44
2	Al 396.153Radial†	23648.5	23808.4	4989.0	µg/L	4989.0	ppb	13:42:44
2	Ca 317.933Radial†	75832.6	75522.2	5143.7	µg/L	5143.7	ppb	13:42:44
2	Fe 238.204 Radial†	68267.1	68384.9	5106.9	µg/L	5106.9	ppb	13:42:44
2	K 766.490 Radial†	14437.4	12993.3	5144.4	µg/L	5144.4	ppb	13:42:44
2	Mg 279.077 IEC†	11292.1	11158.5	5160.3	µg/L	5160.3	ppb	13:42:44
2	Na 589.592 Radial†	66006.1	65280.9	10114	µg/L	10114	ppb	13:42:44
2	Sr 421.552†	211606.2	212539.3	501.23	µg/L	501.23	ppb	13:42:42
2	Sc 361.383	1781666.4	1781666.4	98.754	%			13:43:16
2	Y 371.029	1034665.0	1034665.0	97.859	%			13:43:16
2	Ag 328.068†	125593.0	122613.0	508.25	µg/L	508.25	ppb	13:43:16
2	As 188.979†	1355.4	1391.1	477.86	µg/L	477.86	ppb	13:43:36
2	B 249.677†	35931.1	32319.5	500.85	µg/L	500.85	ppb	13:43:16
2	Ba 233.527†	111616.5	113169.7	503.44	µg/L	503.44	ppb	13:43:16
2	Be 313.107†	1689593.4	1712009.4	496.07	µg/L	496.07	ppb	13:43:16
2	Cd 226.502†	74469.7	75512.9	510.06	µg/L	510.06	ppb	13:43:16
2	Co 228.616†	37976.5	38666.1	511.79	µg/L	511.79	ppb	13:43:16
2	Cr 267.716†	57992.2	58490.9	505.88	µg/L	505.88	ppb	13:43:16
2	Cu 324.752†	121899.7	120402.1	505.18	µg/L	505.18	ppb	13:43:16
2	Mn 257.610†	377710.0	382292.4	506.91	µg/L	506.91	ppb	13:43:16
2	Mo 202.031†	15274.2	15505.5	507.56	µg/L	507.56	ppb	13:43:36
2	Ni 231.604†	40181.7	40784.8	510.27	µg/L	510.27	ppb	13:43:16
2	P 214.914†	10770.6	10932.3	2520.2	µg/L	2520.2	ppb	13:43:36
2	Pb 220.353†	8298.0	8299.3	512.30	µg/L	512.30	ppb	13:43:36

2	S 181.975 Axial†	1286.7	1214.1	1025.6 µg/L	1025.6 ppb	13:43:36
2	Sb 206.836†	3944.3	3904.4	504.62 µg/L	504.62 ppb	13:43:36
2	Se 196.026†	1273.9	1283.8	508 µg/L	508 ppb	13:43:36
2	SiO2†	51901.4	50817.4	5359.8 µg/L	5359.8 ppb	13:43:16
2	Si 251.611†	158596.2	159830.8	2510.3 µg/L	2510.3 ppb	13:43:16
2	Sn 189.927†	7127.6	7215.7	502.20 µg/L	502.20 ppb	13:43:36
2	Ti 334.940†	484094.0	489380.7	501.98 µg/L	501.98 ppb	13:43:16
2	Tl 190.801†	3543.0	3702.0	513.05 µg/L	513.05 ppb	13:43:36
2	U 409.014†	7333.4	7589.3	509.66 µg/L	509.66 ppb	13:43:16
2	V 292.402†	96333.2	97125.7	510.14 µg/L	510.14 ppb	13:43:16
2	Zn 213.857†	85170.2	85742.2	508.01 µg/L	508.01 ppb	13:43:16
3	Sc RADIAL	136976.7	136976.7	97.8 %		13:42:48
3	Al 396.153Radial†	23312.1	23921.0	5012.7 µg/L	5012.7 ppb	13:42:48
3	Ca 317.933Radial†	74113.5	75228.2	5123.7 µg/L	5123.7 ppb	13:42:48
3	Fe 238.204 Radial†	66715.2	68115.7	5086.8 µg/L	5086.8 ppb	13:42:48
3	K 766.490 Radial†	13997.4	12822.0	5076.5 µg/L	5076.5 ppb	13:42:48
3	Mg 279.077 IEC†	11063.2	11142.5	5152.9 µg/L	5152.9 ppb	13:42:48
3	Na 589.592 Radial†	64548.4	65064.4	10081 µg/L	10081 ppb	13:42:48
3	Sr 421.552†	209597.9	214570.8	506.02 µg/L	506.02 ppb	13:42:46
3	Sc 361.383	1785664.6	1785664.6	98.975 %		13:43:39
3	Y 371.029	1036641.5	1036641.5	98.046 %		13:43:39
3	Ag 328.068†	125968.4	122707.5	508.62 µg/L	508.62 ppb	13:43:39
3	As 188.979†	1360.8	1393.5	478.69 µg/L	478.69 ppb	13:43:59
3	B 249.677†	36252.1	32562.3	504.62 µg/L	504.62 ppb	13:43:39
3	Ba 233.527†	111992.7	113296.8	504.00 µg/L	504.00 ppb	13:43:39
3	Be 313.107†	1692953.9	1711573.9	495.94 µg/L	495.94 ppb	13:43:39
3	Cd 226.502†	74912.6	75791.6	511.94 µg/L	511.94 ppb	13:43:39
3	Co 228.616†	38083.8	38688.4	512.09 µg/L	512.09 ppb	13:43:39
3	Cr 267.716†	58350.7	58721.7	507.89 µg/L	507.89 ppb	13:43:39
3	Cu 324.752†	122386.3	120617.3	506.06 µg/L	506.06 ppb	13:43:39
3	Mn 257.610†	378964.0	382703.0	507.46 µg/L	507.46 ppb	13:43:39
3	Mo 202.031†	15289.5	15486.4	506.93 µg/L	506.93 ppb	13:43:59
3	Ni 231.604†	40287.6	40800.6	510.47 µg/L	510.47 ppb	13:43:39
3	P 214.914†	10789.0	10926.4	2518.8 µg/L	2518.8 ppb	13:43:59
3	Pb 220.353†	8306.9	8289.4	511.70 µg/L	511.70 ppb	13:43:59
3	S 181.975 Axial†	1274.4	1198.7	1012.7 µg/L	1012.7 ppb	13:43:59
3	Sb 206.836†	3942.3	3893.4	503.16 µg/L	503.16 ppb	13:43:59
3	Se 196.026†	1281.3	1288.4	510 µg/L	510 ppb	13:43:59
3	SiO2†	52125.0	50925.6	5371.2 µg/L	5371.2 ppb	13:43:39
3	Si 251.611†	159485.5	160369.7	2518.8 µg/L	2518.8 ppb	13:43:39
3	Sn 189.927†	7145.8	7217.9	502.35 µg/L	502.35 ppb	13:43:59
3	Ti 334.940†	484735.9	488931.6	501.53 µg/L	501.53 ppb	13:43:39
3	Tl 190.801†	3526.0	3676.8	509.62 µg/L	509.62 ppb	13:43:59
3	U 409.014†	7048.5	7284.9	490.50 µg/L	490.50 ppb	13:43:39
3	V 292.402†	96713.4	97291.5	510.99 µg/L	510.99 ppb	13:43:39
3	Zn 213.857†	85201.1	85580.3	507.04 µg/L	507.04 ppb	13:43:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1781074.8	98.721	%	0.2723				0.28%
Sc RADIAL	138485.7	98.9	%	0.97				0.98%
Y 371.029	1034225.0	97.818	%	0.2520				0.26%
Ag 328.068†	122627.3	508.31	µg/L	0.289	508.31	ppb	0.289	0.06%
QC value within limits for Ag 328.068 Recovery = 101.66%								
Al 396.153Radial†	23834.3	4994.4	µg/L	16.29	4994.4	ppb	16.29	0.33%
QC value within limits for Al 396.153Radial Recovery = 99.89%								
As 188.979†	1401.3	481.32	µg/L	5.288	481.32	ppb	5.288	1.10%
QC value within limits for As 188.979 Recovery = 96.26%								
B 249.677†	32349.3	501.31	µg/L	3.105	501.31	ppb	3.105	0.62%
QC value within limits for B 249.677 Recovery = 100.26%								
Ba 233.527†	113202.0	503.58	µg/L	0.371	503.58	ppb	0.371	0.07%
QC value within limits for Ba 233.527 Recovery = 100.72%								
Be 313.107†	1710942.5	495.76	µg/L	0.428	495.76	ppb	0.428	0.09%
QC value within limits for Be 313.107 Recovery = 99.15%								
Ca 317.933Radial†	75422.7	5137.0	µg/L	11.48	5137.0	ppb	11.48	0.22%
QC value within limits for Ca 317.933Radial Recovery = 102.74%								
Cd 226.502†	75532.9	510.19	µg/L	1.686	510.19	ppb	1.686	0.33%
QC value within limits for Cd 226.502 Recovery = 102.04%								
Co 228.616†	38659.7	511.70	µg/L	0.430	511.70	ppb	0.430	0.08%

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   QC value within limits for Co 228.616  Recovery = 102.34%
Cr 267.716†            58587.5      506.72 µg/L         1.047      506.72 ppb          1.047   0.21%
   QC value within limits for Cr 267.716  Recovery = 101.34%
Cu 324.752†           120468.1      505.45 µg/L         0.529      505.45 ppb          0.529   0.10%
   QC value within limits for Cu 324.752  Recovery = 101.09%
Fe 238.204 Radial†     68293.4      5100.1 µg/L         11.50      5100.1 ppb          11.50   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.00%
K 766.490 Radial†      12874.0      5097.1 µg/L         41.07      5097.1 ppb          41.07   0.81%
   QC value within limits for K 766.490 Radial  Recovery = 101.94%
Mg 279.077 IEC†        11170.5      5165.9 µg/L         16.44      5165.9 ppb          16.44   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.32%
Mn 257.610†           382169.4      506.75 µg/L         0.803      506.75 ppb          0.803   0.16%
   QC value within limits for Mn 257.610  Recovery = 101.35%
Mo 202.031†            15516.7      507.92 µg/L         1.216      507.92 ppb          1.216   0.24%
   QC value within limits for Mo 202.031  Recovery = 101.58%
Na 589.592 Radial†     65142.1       10093 µg/L          18.6       10093 ppb           18.6   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 100.93%
Ni 231.604†            40796.6      510.42 µg/L         0.131      510.42 ppb          0.131   0.03%
   QC value within limits for Ni 231.604  Recovery = 102.08%
P 214.914†             10961.6      2527.0 µg/L         12.95      2527.0 ppb          12.95   0.51%
   QC value within limits for P 214.914  Recovery = 101.08%
Pb 220.353†             8316.2      513.34 µg/L         2.346      513.34 ppb          2.346   0.46%
   QC value within limits for Pb 220.353  Recovery = 102.67%
S 181.975 Axial†        1212.1      1024.0 µg/L         10.53      1024.0 ppb          10.53   1.03%
   QC value within limits for S 181.975 Axial  Recovery = 102.40%
Sb 206.836†             3910.0      505.33 µg/L         2.599      505.33 ppb          2.599   0.51%
   QC value within limits for Sb 206.836  Recovery = 101.07%
Se 196.026†             1292.7         512 µg/L           4.6         512 ppb            4.6   0.91%
   QC value within limits for Se 196.026  Recovery = 102.31%
SiO2†                  50772.5      5355.0 µg/L         19.08      5355.0 ppb          19.08   0.36%
   QC value within limits for SiO2  Recovery = 100.14%
Si 251.611†           159930.2      2511.8 µg/L          6.31      2511.8 ppb           6.31   0.25%
   QC value within limits for Si 251.611  Recovery = 100.47%
Sn 189.927†             7226.9      502.98 µg/L         1.219      502.98 ppb          1.219   0.24%
   QC value within limits for Sn 189.927  Recovery = 100.60%
Sr 421.552†           213199.9      502.78 µg/L         2.801      502.78 ppb          2.801   0.56%
   QC value within limits for Sr 421.552  Recovery = 100.56%
Ti 334.940†           489049.6      501.64 µg/L         0.299      501.64 ppb          0.299   0.06%
   QC value within limits for Ti 334.940  Recovery = 100.33%
Tl 190.801†             3701.1      512.93 µg/L         3.248      512.93 ppb          3.248   0.63%
   QC value within limits for Tl 190.801  Recovery = 102.59%
U 409.014†              7527.1      505.76 µg/L        13.731      505.76 ppb         13.731   2.71%
   QC value within limits for U 409.014  Recovery = 101.15%
V 292.402†             97223.0      510.65 µg/L         0.450      510.65 ppb          0.450   0.09%
   QC value within limits for V 292.402  Recovery = 102.13%
Zn 213.857†            85557.9      506.91 µg/L         1.174      506.91 ppb          1.174   0.23%
   QC value within limits for Zn 213.857  Recovery = 101.38%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 13:44:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139226.4	139226.4	99.4	%			13:44:36
1	Al 396.153Radial†	-51.0	27.3	5.7217	µg/L	5.7217	ppb	13:44:56
1	Ca 317.933Radial†	696.1	129.0	8.7832	µg/L	8.7832	ppb	13:44:56
1	Fe 238.204 Radial†	190.7	74.6	5.5725	µg/L	5.5725	ppb	13:44:56
1	K 766.490 Radial†	1559.2	75.1	29.754	µg/L	29.754	ppb	13:44:36
1	Mg 279.077 IEC†	174.5	3.2	1.4746	µg/L	1.4746	ppb	13:44:56
1	Na 589.592 Radial†	1053.6	107.6	16.657	µg/L	16.657	ppb	13:44:36
1	Sr 421.552†	-234.3	-31.3	-0.0738	µg/L	-0.0738	ppb	13:44:36
1	Sc 361.383	1819640.9	1819640.9	100.86	%			13:45:44
1	Y 371.029	1068349.2	1068349.2	101.05	%			13:45:44
1	Ag 328.068†	4263.6	-337.9	-1.3898	µg/L	-1.3898	ppb	13:45:46
1	As 188.979†	-12.2	6.4	2.1762	µg/L	2.1762	ppb	13:46:06
1	B 249.677†	4095.1	-4.9	-0.0766	µg/L	-0.0766	ppb	13:45:46
1	Ba 233.527†	-142.3	3.4	0.0151	µg/L	0.0151	ppb	13:46:06
1	Be 313.107†	-394.6	700.5	0.2020	µg/L	0.2020	ppb	13:45:46
1	Cd 226.502†	-62.4	41.5	0.2802	µg/L	0.2802	ppb	13:46:06
1	Co 228.616†	-196.0	15.9	0.2104	µg/L	0.2104	ppb	13:46:06
1	Cr 267.716†	280.0	44.4	0.3870	µg/L	0.3870	ppb	13:46:06
1	Cu 324.752†	2971.8	-89.6	-0.3764	µg/L	-0.3764	ppb	13:45:46
1	Mn 257.610†	366.6	178.8	0.2371	µg/L	0.2371	ppb	13:46:06
1	Mo 202.031†	-27.1	11.7	0.3815	µg/L	0.3815	ppb	13:46:06
1	Ni 231.604†	-82.9	13.7	0.1718	µg/L	0.1718	ppb	13:46:06
1	P 214.914†	3.4	29.1	6.7214	µg/L	6.7214	ppb	13:46:06
1	Pb 220.353†	138.4	33.8	2.0844	µg/L	2.0844	ppb	13:46:06
1	S 181.975 Axial†	94.0	4.3	3.5941	µg/L	3.5941	ppb	13:46:06
1	Sb 206.836†	85.1	-5.3	-0.6907	µg/L	-0.6907	ppb	13:46:06
1	Se 196.026†	32.1	25.7	10.1	µg/L	10.1	ppb	13:46:06
1	SiO2†	1842.8	88.0	9.3085	µg/L	9.3085	ppb	13:46:06
1	Si 251.611†	996.9	221.4	3.4871	µg/L	3.4871	ppb	13:45:46
1	Sn 189.927†	-1.5	-3.4	-0.2330	µg/L	-0.2330	ppb	13:46:06
1	Ti 334.940†	1034.4	202.6	0.2093	µg/L	0.2093	ppb	13:45:46
1	Tl 190.801†	-117.8	-2.5	-0.3444	µg/L	-0.3444	ppb	13:46:06
1	U 409.014†	-215.4	-50.2	-3.1830	µg/L	-3.1830	ppb	13:45:46
1	V 292.402†	385.2	-41.3	-0.2113	µg/L	-0.2113	ppb	13:45:46
1	Zn 213.857†	650.8	142.2	0.8481	µg/L	0.8481	ppb	13:46:06
2	Sc RADIAL	138385.9	138385.9	98.8	%			13:44:58
2	Al 396.153Radial†	-38.8	39.3	8.2507	µg/L	8.2507	ppb	13:45:18
2	Ca 317.933Radial†	696.7	133.8	9.1147	µg/L	9.1147	ppb	13:45:18
2	Fe 238.204 Radial†	164.2	49.0	3.6558	µg/L	3.6558	ppb	13:45:18
2	K 766.490 Radial†	1544.7	70.0	27.726	µg/L	27.726	ppb	13:44:58
2	Mg 279.077 IEC†	172.3	2.0	0.9360	µg/L	0.9360	ppb	13:45:18
2	Na 589.592 Radial†	1096.0	157.0	24.315	µg/L	24.315	ppb	13:44:58
2	Sr 421.552†	-154.1	48.4	0.1142	µg/L	0.1142	ppb	13:44:58
2	Sc 361.383	1771732.9	1771732.9	98.203	%			13:46:08
2	Y 371.029	1041172.2	1041172.2	98.475	%			13:46:08
2	Ag 328.068†	4132.7	-356.8	-1.4850	µg/L	-1.4850	ppb	13:46:11
2	As 188.979†	-12.4	5.9	1.9960	µg/L	1.9960	ppb	13:46:31
2	B 249.677†	4083.0	92.6	1.4401	µg/L	1.4401	ppb	13:46:11
2	Ba 233.527†	-132.8	9.3	0.0414	µg/L	0.0414	ppb	13:46:31
2	Be 313.107†	-720.5	358.1	0.0973	µg/L	0.0973	ppb	13:46:11
2	Cd 226.502†	-73.4	28.6	0.1936	µg/L	0.1936	ppb	13:46:31
2	Co 228.616†	-203.4	3.2	0.0419	µg/L	0.0419	ppb	13:46:31
2	Cr 267.716†	255.0	26.5	0.2460	µg/L	0.2460	ppb	13:46:31
2	Cu 324.752†	2857.4	-126.5	-0.5460	µg/L	-0.5460	ppb	13:46:11
2	Mn 257.610†	231.1	50.7	0.0671	µg/L	0.0671	ppb	13:46:31
2	Mo 202.031†	-27.9	10.2	0.3337	µg/L	0.3337	ppb	13:46:31
2	Ni 231.604†	-29.5	65.9	0.8242	µg/L	0.8242	ppb	13:46:31
2	P 214.914†	24.4	50.5	11.690	µg/L	11.690	ppb	13:46:31
2	Pb 220.353†	105.7	4.2	0.2732	µg/L	0.2732	ppb	13:46:31

2	S 181.975 Axial†	88.8	1.5	1.2436 µg/L	1.2436 ppb	13:46:31
2	Sb 206.836†	75.0	-13.3	-1.7160 µg/L	-1.7160 ppb	13:46:31
2	Se 196.026†	19.1	13.2	5.20 µg/L	5.20 ppb	13:46:31
2	SiO2†	1753.8	46.8	4.9409 µg/L	4.9409 ppb	13:46:31
2	Si 251.611†	1093.8	346.8	5.4607 µg/L	5.4607 ppb	13:46:11
2	Sn 189.927†	8.4	6.7	0.4611 µg/L	0.4611 ppb	13:46:31
2	Ti 334.940†	753.6	-55.6	-0.0483 µg/L	-0.0483 ppb	13:46:11
2	Tl 190.801†	-105.7	6.7	0.9108 µg/L	0.9108 ppb	13:46:31
2	U 409.014†	-492.0	-337.7	-21.300 µg/L	-21.300 ppb	13:46:11
2	V 292.402†	446.9	31.9	0.1551 µg/L	0.1551 ppb	13:46:11
2	Zn 213.857†	623.7	132.1	0.7836 µg/L	0.7836 ppb	13:46:31
3	Sc RADIAL	139322.9	139322.9	99.5 %		13:45:20
3	Al 396.153Radial†	-83.3	-5.2	-1.1167 µg/L	-1.1167 ppb	13:45:40
3	Ca 317.933Radial†	719.2	151.7	10.332 µg/L	10.332 ppb	13:45:40
3	Fe 238.204 Radial†	177.6	61.3	4.5744 µg/L	4.5744 ppb	13:45:40
3	K 766.490 Radial†	1647.6	162.9	64.558 µg/L	64.558 ppb	13:45:20
3	Mg 279.077 IEC†	171.1	-0.4	-0.1669 µg/L	-0.1669 ppb	13:45:40
3	Na 589.592 Radial†	1163.3	217.2	33.612 µg/L	33.612 ppb	13:45:20
3	Sr 421.552†	-240.9	-37.7	-0.0890 µg/L	-0.0890 ppb	13:45:20
3	Sc 361.383	1757944.0	1757944.0	97.439 %		13:46:33
3	Y 371.029	1032464.3	1032464.3	97.651 %		13:46:33
3	Ag 328.068†	4147.0	-309.1	-1.2649 µg/L	-1.2649 ppb	13:46:35
3	As 188.979†	-16.2	2.0	0.6713 µg/L	0.6713 ppb	13:46:55
3	B 249.677†	4056.4	97.9	1.5216 µg/L	1.5216 ppb	13:46:35
3	Ba 233.527†	-147.1	-6.4	-0.0283 µg/L	-0.0283 ppb	13:46:55
3	Be 313.107†	-852.9	216.4	0.0628 µg/L	0.0628 ppb	13:46:35
3	Cd 226.502†	-99.0	1.8	0.0118 µg/L	0.0118 ppb	13:46:55
3	Co 228.616†	-185.8	19.6	0.2591 µg/L	0.2591 ppb	13:46:55
3	Cr 267.716†	282.6	56.8	0.4914 µg/L	0.4914 ppb	13:46:55
3	Cu 324.752†	2854.6	-106.5	-0.4443 µg/L	-0.4443 ppb	13:46:35
3	Mn 257.610†	372.3	197.4	0.2618 µg/L	0.2618 ppb	13:46:55
3	Mo 202.031†	-26.7	11.1	0.3643 µg/L	0.3643 ppb	13:46:55
3	Ni 231.604†	-49.6	45.0	0.5632 µg/L	0.5632 ppb	13:46:55
3	P 214.914†	-3.8	21.8	5.0402 µg/L	5.0402 ppb	13:46:55
3	Pb 220.353†	94.5	-6.5	-0.3967 µg/L	-0.3967 ppb	13:46:55
3	S 181.975 Axial†	97.8	11.5	9.6540 µg/L	9.6540 ppb	13:46:55
3	Sb 206.836†	68.1	-19.8	-2.5588 µg/L	-2.5588 ppb	13:46:55
3	Se 196.026†	11.5	5.6	2.23 µg/L	2.23 ppb	13:46:55
3	SiO2†	1811.7	120.2	12.718 µg/L	12.718 ppb	13:46:55
3	Si 251.611†	1099.6	361.4	5.6949 µg/L	5.6949 ppb	13:46:35
3	Sn 189.927†	1.3	-0.5	-0.0360 µg/L	-0.0360 ppb	13:46:55
3	Ti 334.940†	685.2	-119.8	-0.1230 µg/L	-0.1230 ppb	13:46:35
3	Tl 190.801†	-115.2	-4.0	-0.5460 µg/L	-0.5460 ppb	13:46:55
3	U 409.014†	-153.1	6.3	0.3983 µg/L	0.3983 ppb	13:46:35
3	V 292.402†	417.2	5.0	0.0315 µg/L	0.0315 ppb	13:46:35
3	Zn 213.857†	604.9	117.8	0.6996 µg/L	0.6996 ppb	13:46:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783105.9	98.833	%	1.7949				1.82%
Sc RADIAL	138978.4	99.2	%	0.37				0.37%
Y 371.029	1047328.6	99.057	%	1.7703				1.79%
Ag 328.068†	-334.6	-1.3799	µg/L	0.11039	-1.3799	ppb	0.11039	8.00%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	20.4	4.2852	µg/L	4.84606	4.2852	ppb	4.84606	113.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.8	1.6145	µg/L	0.82177	1.6145	ppb	0.82177	50.90%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	61.9	0.9617	µg/L	0.90009	0.9617	ppb	0.90009	93.59%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0094	µg/L	0.03520	0.0094	ppb	0.03520	373.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	425.0	0.1207	µg/L	0.07247	0.1207	ppb	0.07247	60.05%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	138.2	9.4101	µg/L	0.81571	9.4101	ppb	0.81571	8.67%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	24.0	0.1619	µg/L	0.13702	0.1619	ppb	0.13702	84.65%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.9	0.1705	µg/L	0.11396	0.1705	ppb	0.11396	66.85%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              42.6      0.3748 µg/L       0.12315      0.3748 ppb        0.12315  32.85%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -107.5     -0.4556 µg/L       0.08535     -0.4556 ppb        0.08535  18.73%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       61.6      4.6009 µg/L       0.95865      4.6009 ppb        0.95865  20.84%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       102.7     40.679 µg/L       20.7044     40.679 ppb        20.7044  50.90%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.6      0.7479 µg/L       0.83677      0.7479 ppb        0.83677 111.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             142.3      0.1887 µg/L       0.10597      0.1887 ppb        0.10597  56.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              11.0      0.3598 µg/L       0.02420      0.3598 ppb        0.02420   6.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      160.6     24.861 µg/L        8.4908     24.861 ppb         8.4908  34.15%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              41.5      0.5197 µg/L       0.32839      0.5197 ppb        0.32839  63.18%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               33.8      7.8172 µg/L       3.45772      7.8172 ppb        3.45772  44.23%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              10.5      0.6536 µg/L       1.28355      0.6536 ppb        1.28355 196.38%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          5.7      4.8306 µg/L       4.33939      4.8306 ppb        4.33939  89.83%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -12.8     -1.6552 µg/L       0.93557     -1.6552 ppb        0.93557  56.52%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              14.9        5.85 µg/L         3.985        5.85 ppb          3.985  68.14%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    85.0      8.9890 µg/L       3.89816      8.9890 ppb        3.89816  43.37%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             309.9      4.8809 µg/L       1.21272      4.8809 ppb        1.21272  24.85%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.9      0.0640 µg/L       0.35771      0.0640 ppb        0.35771 558.65%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -6.8     -0.0162 µg/L       0.11318     -0.0162 ppb        0.11318 697.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               9.1      0.0127 µg/L       0.17437      0.0127 ppb        0.17437 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.1      0.0068 µg/L       0.78935      0.0068 ppb        0.78935 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -127.2     -8.0284 µg/L      11.63259     -8.0284 ppb       11.63259 144.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -1.5     -0.0082 µg/L       0.18638     -0.0082 ppb        0.18638 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             130.7      0.7771 µg/L       0.07446      0.7771 ppb        0.07446   9.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 13:57:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	133703.0	133703.0	95.4	%			13:57:50
1	Al 396.153Radial†	22554.6	23711.1	4968.7	µg/L	4968.7	ppb	13:57:50
1	Ca 317.933Radial†	71572.3	74421.4	5068.8	µg/L	5068.8	ppb	13:57:50
1	Fe 238.204 Radial†	64614.0	67584.7	5047.2	µg/L	5047.2	ppb	13:57:50
1	K 766.490 Radial†	13703.0	12864.1	5093.2	µg/L	5093.2	ppb	13:57:50
1	Mg 279.077 IEC†	10634.0	10969.7	5073.1	µg/L	5073.1	ppb	13:57:50
1	Na 589.592 Radial†	62647.9	64689.5	10023	µg/L	10023	ppb	13:57:50
1	Sr 421.552†	204020.9	213976.0	504.62	µg/L	504.62	ppb	13:57:48
1	Sc 361.383	1743773.2	1743773.2	96.653	%			13:58:17
1	Y 371.029	1014215.8	1014215.8	95.925	%			13:58:17
1	Ag 328.068†	122275.7	121944.4	505.47	µg/L	505.47	ppb	13:58:17
1	As 188.979†	1308.4	1372.3	471.47	µg/L	471.47	ppb	13:58:37
1	B 249.677†	34648.9	31783.5	492.54	µg/L	492.54	ppb	13:58:17
1	Ba 233.527†	108512.8	112414.7	500.08	µg/L	500.08	ppb	13:58:17
1	Be 313.107†	1636416.4	1694170.4	490.90	µg/L	490.90	ppb	13:58:17
1	Cd 226.502†	71960.3	74555.4	503.59	µg/L	503.59	ppb	13:58:17
1	Co 228.616†	36701.4	38182.5	505.39	µg/L	505.39	ppb	13:58:17
1	Cr 267.716†	56620.4	58347.8	504.64	µg/L	504.64	ppb	13:58:17
1	Cu 324.752†	118678.8	119752.1	502.44	µg/L	502.44	ppb	13:58:17
1	Mn 257.610†	367167.6	379696.4	503.47	µg/L	503.47	ppb	13:58:17
1	Mo 202.031†	14791.7	15342.4	502.22	µg/L	502.22	ppb	13:58:37
1	Ni 231.604†	38977.5	40423.0	505.74	µg/L	505.74	ppb	13:58:17
1	P 214.914†	10359.5	10743.9	2476.6	µg/L	2476.6	ppb	13:58:37
1	Pb 220.353†	8017.2	8191.4	505.65	µg/L	505.65	ppb	13:58:37
1	S 181.975 Axial†	1223.5	1176.9	994.31	µg/L	994.31	ppb	13:58:37
1	Sb 206.836†	3797.9	3839.7	496.20	µg/L	496.20	ppb	13:58:37
1	Se 196.026†	1214.1	1250.0	495	µg/L	495	ppb	13:58:37
1	SiO2†	50299.0	50301.5	5305.4	µg/L	5305.4	ppb	13:58:17
1	Si 251.611†	153908.1	158470.3	2489.0	µg/L	2489.0	ppb	13:58:17
1	Sn 189.927†	6857.6	7093.2	493.69	µg/L	493.69	ppb	13:58:37
1	Ti 334.940†	471073.5	486561.9	499.09	µg/L	499.09	ppb	13:58:17
1	Tl 190.801†	3403.7	3635.8	503.99	µg/L	503.99	ppb	13:58:37
1	U 409.014†	7073.3	7481.6	502.67	µg/L	502.67	ppb	13:58:17
1	V 292.402†	93723.2	96545.2	507.07	µg/L	507.07	ppb	13:58:17
1	Zn 213.857†	82234.4	84578.9	501.10	µg/L	501.10	ppb	13:58:17
2	Sc RADIAL	134691.7	134691.7	96.1	%			13:57:54
2	Al 396.153Radial†	22697.4	23686.1	4963.4	µg/L	4963.4	ppb	13:57:54
2	Ca 317.933Radial†	72303.2	74631.1	5083.1	µg/L	5083.1	ppb	13:57:54
2	Fe 238.204 Radial†	64992.9	67481.9	5039.5	µg/L	5039.5	ppb	13:57:54
2	K 766.490 Radial†	13716.0	12772.2	5056.8	µg/L	5056.8	ppb	13:57:54
2	Mg 279.077 IEC†	10804.5	11065.3	5117.3	µg/L	5117.3	ppb	13:57:54
2	Na 589.592 Radial†	63263.3	64847.7	10047	µg/L	10047	ppb	13:57:54
2	Sr 421.552†	205498.8	213944.0	504.54	µg/L	504.54	ppb	13:57:52
2	Sc 361.383	1742582.1	1742582.1	96.587	%			13:58:40
2	Y 371.029	1013221.8	1013221.8	95.831	%			13:58:40
2	Ag 328.068†	122181.0	121932.9	505.40	µg/L	505.40	ppb	13:58:40
2	As 188.979†	1304.8	1369.5	470.51	µg/L	470.51	ppb	13:59:00
2	B 249.677†	34677.7	31837.8	493.37	µg/L	493.37	ppb	13:58:40
2	Ba 233.527†	108297.8	112268.9	499.43	µg/L	499.43	ppb	13:58:40
2	Be 313.107†	1631868.9	1690619.5	489.87	µg/L	489.87	ppb	13:58:40
2	Cd 226.502†	71599.4	74232.6	501.41	µg/L	501.41	ppb	13:58:40
2	Co 228.616†	36792.9	38303.2	506.99	µg/L	506.99	ppb	13:58:40
2	Cr 267.716†	56370.9	58129.4	502.76	µg/L	502.76	ppb	13:58:40
2	Cu 324.752†	118433.6	119582.1	501.73	µg/L	501.73	ppb	13:58:40
2	Mn 257.610†	366224.2	378979.3	502.52	µg/L	502.52	ppb	13:58:40
2	Mo 202.031†	14820.1	15382.3	503.52	µg/L	503.52	ppb	13:59:00
2	Ni 231.604†	38620.7	40081.2	501.47	µg/L	501.47	ppb	13:58:40
2	P 214.914†	10398.5	10791.6	2487.7	µg/L	2487.7	ppb	13:59:00
2	Pb 220.353†	8036.1	8216.6	507.21	µg/L	507.21	ppb	13:59:00

2	S 181.975 Axial†	1226.7	1181.2	997.92 µg/L	997.92 ppb	13:59:00
2	Sb 206.836†	3831.6	3877.3	501.10 µg/L	501.10 ppb	13:59:00
2	Se 196.026†	1231.1	1268.4	502 µg/L	502 ppb	13:59:00
2	SiO2†	50287.5	50325.2	5307.9 µg/L	5307.9 ppb	13:58:40
2	Si 251.611†	153946.6	158619.0	2491.3 µg/L	2491.3 ppb	13:58:40
2	Sn 189.927†	6883.9	7125.2	495.91 µg/L	495.91 ppb	13:59:00
2	Ti 334.940†	470431.4	486230.2	498.75 µg/L	498.75 ppb	13:58:40
2	Tl 190.801†	3432.7	3668.3	508.41 µg/L	508.41 ppb	13:59:00
2	U 409.014†	6980.0	7390.0	496.82 µg/L	496.82 ppb	13:58:40
2	V 292.402†	93426.2	96304.0	505.82 µg/L	505.82 ppb	13:58:40
2	Zn 213.857†	82093.8	84491.5	500.61 µg/L	500.61 ppb	13:58:40
3	Sc RADIAL	134130.1	134130.1	95.7 %		13:57:58
3	Al 396.153Radial†	22622.6	23706.8	4967.6 µg/L	4967.6 ppb	13:57:58
3	Ca 317.933Radial†	71792.8	74412.9	5068.2 µg/L	5068.2 ppb	13:57:58
3	Fe 238.204 Radial†	64808.3	67572.1	5046.2 µg/L	5046.2 ppb	13:57:58
3	K 766.490 Radial†	13921.3	13046.4	5165.5 µg/L	5165.5 ppb	13:57:58
3	Mg 279.077 IEC†	10554.7	10851.5	5018.6 µg/L	5018.6 ppb	13:57:58
3	Na 589.592 Radial†	63075.6	64927.2	10060 µg/L	10060 ppb	13:57:58
3	Sr 421.552†	203189.3	212426.8	500.96 µg/L	500.96 ppb	13:57:56
3	Sc 361.383	1726061.4	1726061.4	95.672 %		13:59:03
3	Y 371.029	1004355.7	1004355.7	94.993 %		13:59:03
3	Ag 328.068†	121072.6	121985.1	505.65 µg/L	505.65 ppb	13:59:03
3	As 188.979†	1299.5	1376.9	473.03 µg/L	473.03 ppb	13:59:23
3	B 249.677†	34411.0	31902.7	494.39 µg/L	494.39 ppb	13:59:03
3	Ba 233.527†	107291.4	112290.1	499.53 µg/L	499.53 ppb	13:59:03
3	Be 313.107†	1615885.3	1690083.8	489.72 µg/L	489.72 ppb	13:59:03
3	Cd 226.502†	70983.9	74298.8	501.85 µg/L	501.85 ppb	13:59:03
3	Co 228.616†	36389.1	38245.7	506.23 µg/L	506.23 ppb	13:59:03
3	Cr 267.716†	55852.9	58146.6	502.90 µg/L	502.90 ppb	13:59:03
3	Cu 324.752†	117224.5	119492.0	501.36 µg/L	501.36 ppb	13:59:03
3	Mn 257.610†	363073.5	379315.1	502.97 µg/L	502.97 ppb	13:59:03
3	Mo 202.031†	14813.3	15522.1	508.09 µg/L	508.09 ppb	13:59:23
3	Ni 231.604†	38500.5	40338.3	504.68 µg/L	504.68 ppb	13:59:03
3	P 214.914†	10383.8	10879.3	2508.0 µg/L	2508.0 ppb	13:59:23
3	Pb 220.353†	8017.5	8276.8	510.91 µg/L	510.91 ppb	13:59:23
3	S 181.975 Axial†	1232.7	1199.5	1013.4 µg/L	1013.4 ppb	13:59:23
3	Sb 206.836†	3802.7	3885.1	502.17 µg/L	502.17 ppb	13:59:23
3	Se 196.026†	1246.7	1296.9	513 µg/L	513 ppb	13:59:23
3	SiO2†	49983.7	50506.0	5326.8 µg/L	5326.8 ppb	13:59:03
3	Si 251.611†	152449.4	158579.6	2490.6 µg/L	2490.6 ppb	13:59:03
3	Sn 189.927†	6882.3	7191.8	500.54 µg/L	500.54 ppb	13:59:23
3	Ti 334.940†	466767.2	487061.9	499.61 µg/L	499.61 ppb	13:59:03
3	Tl 190.801†	3420.4	3689.5	511.32 µg/L	511.32 ppb	13:59:23
3	U 409.014†	7122.8	7608.4	510.68 µg/L	510.68 ppb	13:59:03
3	V 292.402†	92778.6	96552.9	507.17 µg/L	507.17 ppb	13:59:03
3	Zn 213.857†	81238.2	84410.7	500.10 µg/L	500.10 ppb	13:59:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1737472.2	96.304	%	0.5487				0.57%
Sc RADIAL	134174.9	95.8	%	0.35				0.37%
Y 371.029	1010597.8	95.583	%	0.5134				0.54%
Ag 328.068†	121954.1	505.51	µg/L	0.127	505.51	ppb	0.127	0.03%
QC value within limits for Ag 328.068 Recovery = 101.10%								
Al 396.153Radial†	23701.3	4966.6	µg/L	2.80	4966.6	ppb	2.80	0.06%
QC value within limits for Al 396.153Radial Recovery = 99.33%								
As 188.979†	1372.9	471.67	µg/L	1.272	471.67	ppb	1.272	0.27%
QC value within limits for As 188.979 Recovery = 94.33%								
B 249.677†	31841.3	493.43	µg/L	0.927	493.43	ppb	0.927	0.19%
QC value within limits for B 249.677 Recovery = 98.69%								
Ba 233.527†	112324.5	499.68	µg/L	0.350	499.68	ppb	0.350	0.07%
QC value within limits for Ba 233.527 Recovery = 99.94%								
Be 313.107†	1691624.6	490.16	µg/L	0.643	490.16	ppb	0.643	0.13%
QC value within limits for Be 313.107 Recovery = 98.03%								
Ca 317.933Radial†	74488.5	5073.3	µg/L	8.42	5073.3	ppb	8.42	0.17%
QC value within limits for Ca 317.933Radial Recovery = 101.47%								
Cd 226.502†	74362.2	502.28	µg/L	1.153	502.28	ppb	1.153	0.23%
QC value within limits for Cd 226.502 Recovery = 100.46%								
Co 228.616†	38243.8	506.20	µg/L	0.798	506.20	ppb	0.798	0.16%

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   QC value within limits for Co 228.616  Recovery = 101.24%
Cr 267.716†            58207.9      503.43 µg/L         1.051      503.43 ppb          1.051   0.21%
   QC value within limits for Cr 267.716  Recovery = 100.69%
Cu 324.752†           119608.7      501.84 µg/L         0.550      501.84 ppb          0.550   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.37%
Fe 238.204 Radial†     67546.2      5044.3 µg/L          4.19      5044.3 ppb           4.19   0.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.89%
K 766.490 Radial†      12894.2      5105.2 µg/L         55.31      5105.2 ppb          55.31   1.08%
   QC value within limits for K 766.490 Radial  Recovery = 102.10%
Mg 279.077 IEC†        10962.2      5069.7 µg/L         49.41      5069.7 ppb          49.41   0.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.39%
Mn 257.610†           379330.3      502.99 µg/L         0.477      502.99 ppb          0.477   0.09%
   QC value within limits for Mn 257.610  Recovery = 100.60%
Mo 202.031†            15415.6      504.61 µg/L         3.085      504.61 ppb          3.085   0.61%
   QC value within limits for Mo 202.031  Recovery = 100.92%
Na 589.592 Radial†     64821.5       10043 µg/L          18.7       10043 ppb           18.7   0.19%
   QC value within limits for Na 589.592 Radial  Recovery = 100.43%
Ni 231.604†            40280.8      503.96 µg/L         2.227      503.96 ppb          2.227   0.44%
   QC value within limits for Ni 231.604  Recovery = 100.79%
P 214.914†             10804.9      2490.8 µg/L         15.89      2490.8 ppb          15.89   0.64%
   QC value within limits for P 214.914  Recovery = 99.63%
Pb 220.353†             8228.3      507.92 µg/L         2.705      507.92 ppb          2.705   0.53%
   QC value within limits for Pb 220.353  Recovery = 101.58%
S 181.975 Axial†        1185.9      1001.9 µg/L         10.13      1001.9 ppb          10.13   1.01%
   QC value within limits for S 181.975 Axial  Recovery = 100.19%
Sb 206.836†             3867.4      499.82 µg/L         3.181      499.82 ppb          3.181   0.64%
   QC value within limits for Sb 206.836  Recovery = 99.96%
Se 196.026†             1271.8         503 µg/L           9.3         503 ppb            9.3   1.85%
   QC value within limits for Se 196.026  Recovery = 100.65%
SiO2†                  50377.6      5313.4 µg/L         11.71      5313.4 ppb          11.71   0.22%
   QC value within limits for SiO2  Recovery = 99.36%
Si 251.611†           158556.3      2490.3 µg/L          1.18      2490.3 ppb           1.18   0.05%
   QC value within limits for Si 251.611  Recovery = 99.61%
Sn 189.927†             7136.7      496.71 µg/L         3.492      496.71 ppb          3.492   0.70%
   QC value within limits for Sn 189.927  Recovery = 99.34%
Sr 421.552†           213448.9      503.37 µg/L         2.088      503.37 ppb          2.088   0.41%
   QC value within limits for Sr 421.552  Recovery = 100.67%
Ti 334.940†           486618.0      499.15 µg/L         0.431      499.15 ppb          0.431   0.09%
   QC value within limits for Ti 334.940  Recovery = 99.83%
Tl 190.801†             3664.5      507.91 µg/L         3.689      507.91 ppb          3.689   0.73%
   QC value within limits for Tl 190.801  Recovery = 101.58%
U 409.014†              7493.3      503.39 µg/L         6.957      503.39 ppb          6.957   1.38%
   QC value within limits for U 409.014  Recovery = 100.68%
V 292.402†             96467.4      506.69 µg/L         0.750      506.69 ppb          0.750   0.15%
   QC value within limits for V 292.402  Recovery = 101.34%
Zn 213.857†            84493.7      500.60 µg/L         0.498      500.60 ppb          0.498   0.10%
   QC value within limits for Zn 213.857  Recovery = 100.12%
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 13:59:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135574.4	135574.4	96.8	%			14:00:01
1	Al 396.153Radial†	-83.0	-7.2	-1.5401	µg/L	-1.5401	ppb	14:00:21
1	Ca 317.933Radial†	693.2	144.8	9.8636	µg/L	9.8636	ppb	14:00:21
1	Fe 238.204 Radial†	191.5	80.5	6.0144	µg/L	6.0144	ppb	14:00:21
1	K 766.490 Radial†	1712.5	275.8	109.29	µg/L	109.29	ppb	14:00:01
1	Mg 279.077 IEC†	176.7	10.1	4.6838	µg/L	4.6838	ppb	14:00:21
1	Na 589.592 Radial†	1100.1	184.3	28.465	µg/L	28.465	ppb	14:00:01
1	Sr 421.552†	-293.1	-98.3	-0.2320	µg/L	-0.2320	ppb	14:00:01
1	Sc 361.383	1778855.6	1778855.6	98.598	%			14:01:23
1	Y 371.029	1046359.8	1046359.8	98.966	%			14:01:23
1	Ag 328.068†	4331.1	-172.4	-0.7139	µg/L	-0.7139	ppb	14:01:25
1	As 188.979†	-19.9	-1.6	-0.5291	µg/L	-0.5291	ppb	14:01:45
1	B 249.677†	3922.3	-87.0	-1.3536	µg/L	-1.3536	ppb	14:01:25
1	Ba 233.527†	-134.6	8.1	0.0356	µg/L	0.0356	ppb	14:01:45
1	Be 313.107†	-633.3	449.4	0.1295	µg/L	0.1295	ppb	14:01:25
1	Cd 226.502†	-59.4	43.1	0.2906	µg/L	0.2906	ppb	14:01:45
1	Co 228.616†	-203.4	4.0	0.0526	µg/L	0.0526	ppb	14:01:45
1	Cr 267.716†	258.7	29.1	0.2538	µg/L	0.2538	ppb	14:01:45
1	Cu 324.752†	2699.6	-298.1	-1.2476	µg/L	-1.2476	ppb	14:01:25
1	Mn 257.610†	271.8	91.0	0.1205	µg/L	0.1205	ppb	14:01:45
1	Mo 202.031†	-25.3	12.9	0.4230	µg/L	0.4230	ppb	14:01:45
1	Ni 231.604†	-93.9	0.7	0.0087	µg/L	0.0087	ppb	14:01:45
1	P 214.914†	7.0	32.7	7.5828	µg/L	7.5828	ppb	14:01:45
1	Pb 220.353†	99.2	-2.8	-0.1693	µg/L	-0.1693	ppb	14:01:45
1	S 181.975 Axial†	98.0	10.5	8.8174	µg/L	8.8174	ppb	14:01:45
1	Sb 206.836†	83.8	-4.8	-0.6110	µg/L	-0.6110	ppb	14:01:45
1	Se 196.026†	22.7	16.9	6.66	µg/L	6.66	ppb	14:01:45
1	SiO2†	1775.8	61.9	6.5413	µg/L	6.5413	ppb	14:01:45
1	Si 251.611†	1040.8	288.6	4.5426	µg/L	4.5426	ppb	14:01:25
1	Sn 189.927†	6.4	4.6	0.3199	µg/L	0.3199	ppb	14:01:45
1	Ti 334.940†	847.7	36.7	0.0384	µg/L	0.0384	ppb	14:01:25
1	Tl 190.801†	-125.5	-13.0	-1.7798	µg/L	-1.7798	ppb	14:01:45
1	U 409.014†	-196.5	-35.9	-2.2928	µg/L	-2.2928	ppb	14:01:25
1	V 292.402†	338.4	-80.0	-0.4112	µg/L	-0.4112	ppb	14:01:25
1	Zn 213.857†	625.1	131.0	0.7824	µg/L	0.7824	ppb	14:01:45
2	Sc RADIAL	134733.3	134733.3	96.2	%			14:00:23
2	Al 396.153Radial†	-39.5	37.5	7.8516	µg/L	7.8516	ppb	14:00:43
2	Ca 317.933Radial†	699.8	156.2	10.641	µg/L	10.641	ppb	14:00:43
2	Fe 238.204 Radial†	178.2	67.9	5.0736	µg/L	5.0736	ppb	14:00:43
2	K 766.490 Radial†	1635.0	206.3	81.721	µg/L	81.721	ppb	14:00:23
2	Mg 279.077 IEC†	158.8	-7.4	-3.3889	µg/L	-3.3889	ppb	14:00:43
2	Na 589.592 Radial†	1064.6	154.4	23.863	µg/L	23.863	ppb	14:00:23
2	Sr 421.552†	-61.3	140.7	0.3318	µg/L	0.3318	ppb	14:00:23
2	Sc 361.383	1765177.1	1765177.1	97.840	%			14:01:47
2	Y 371.029	1038019.8	1038019.8	98.177	%			14:01:47
2	Ag 328.068†	4020.3	-456.1	-1.8816	µg/L	-1.8816	ppb	14:01:50
2	As 188.979†	-9.6	8.7	2.9530	µg/L	2.9530	ppb	14:02:10
2	B 249.677†	3934.2	-44.0	-0.6867	µg/L	-0.6867	ppb	14:01:50
2	Ba 233.527†	-146.2	-4.9	-0.0216	µg/L	-0.0216	ppb	14:02:10
2	Be 313.107†	-594.6	484.0	0.1374	µg/L	0.1374	ppb	14:01:50
2	Cd 226.502†	-68.1	33.8	0.2280	µg/L	0.2280	ppb	14:02:10
2	Co 228.616†	-168.4	38.2	0.5051	µg/L	0.5051	ppb	14:02:10
2	Cr 267.716†	284.7	57.8	0.5076	µg/L	0.5076	ppb	14:02:10
2	Cu 324.752†	2657.2	-320.2	-1.3463	µg/L	-1.3463	ppb	14:01:50
2	Mn 257.610†	270.9	92.1	0.1223	µg/L	0.1223	ppb	14:02:10
2	Mo 202.031†	-8.2	30.2	0.9892	µg/L	0.9892	ppb	14:02:10
2	Ni 231.604†	-73.9	20.4	0.2550	µg/L	0.2550	ppb	14:02:10
2	P 214.914†	15.6	41.6	9.6345	µg/L	9.6345	ppb	14:02:10
2	Pb 220.353†	120.8	20.0	1.2428	µg/L	1.2428	ppb	14:02:10

2	S 181.975 Axial†	81.8	-5.3	-4.4667 µg/L	-4.4667 ppb		14:02:10
2	Sb 206.836†	75.8	-12.3	-1.5777 µg/L	-1.5777 ppb		14:02:10
2	Se 196.026†	23.0	17.3	6.81 µg/L	6.81 ppb		14:02:10
2	SiO2†	1765.5	65.4	6.8983 µg/L	6.8983 ppb		14:02:10
2	Si 251.611†	1101.1	358.4	5.6378 µg/L	5.6378 ppb		14:01:50
2	Sn 189.927†	3.8	2.0	0.1412 µg/L	0.1412 ppb		14:02:10
2	Ti 334.940†	600.5	-209.2	-0.2106 µg/L	-0.2106 ppb		14:01:50
2	Tl 190.801†	-126.0	-14.5	-1.9884 µg/L	-1.9884 ppb		14:02:10
2	U 409.014†	-306.0	-149.4	-9.4405 µg/L	-9.4405 ppb		14:01:50
2	V 292.402†	368.5	-46.5	-0.2355 µg/L	-0.2355 ppb		14:01:50
2	Zn 213.857†	600.0	110.3	0.6574 µg/L	0.6574 ppb		14:02:10
3	Sc RADIAL	135503.7	135503.7	96.7 %			14:00:45
3	Al 396.153Radial†	-71.1	5.1	1.0435 µg/L	1.0435 ppb		14:01:05
3	Ca 317.933Radial†	695.1	147.2	10.028 µg/L	10.028 ppb		14:01:05
3	Fe 238.204 Radial†	184.9	73.8	5.5125 µg/L	5.5125 ppb		14:01:05
3	K 766.490 Radial†	1534.8	93.0	36.858 µg/L	36.858 ppb		14:00:45
3	Mg 279.077 IEC†	167.5	0.7	0.3304 µg/L	0.3304 ppb		14:01:05
3	Na 589.592 Radial†	1026.3	108.5	16.792 µg/L	16.792 ppb		14:00:45
3	Sr 421.552†	-99.8	101.3	0.2388 µg/L	0.2388 ppb		14:00:45
3	Sc 361.383	1748350.3	1748350.3	96.907 %			14:02:12
3	Y 371.029	1028758.9	1028758.9	97.301 %			14:02:12
3	Ag 328.068†	4039.9	-396.3	-1.6452 µg/L	-1.6452 ppb		14:02:14
3	As 188.979†	-6.8	11.6	3.9115 µg/L	3.9115 ppb		14:02:34
3	B 249.677†	3953.8	14.9	0.2309 µg/L	0.2309 ppb		14:02:14
3	Ba 233.527†	-150.2	-10.4	-0.0464 µg/L	-0.0464 ppb		14:02:34
3	Be 313.107†	-784.6	282.0	0.0766 µg/L	0.0766 ppb		14:02:14
3	Cd 226.502†	-83.8	16.9	0.1139 µg/L	0.1139 ppb		14:02:34
3	Co 228.616†	-201.8	2.0	0.0264 µg/L	0.0264 ppb		14:02:34
3	Cr 267.716†	250.7	25.5	0.2339 µg/L	0.2339 ppb		14:02:34
3	Cu 324.752†	2785.9	-161.3	-0.6875 µg/L	-0.6875 ppb		14:02:14
3	Mn 257.610†	262.9	86.6	0.1148 µg/L	0.1148 ppb		14:02:34
3	Mo 202.031†	-19.7	18.2	0.5964 µg/L	0.5964 ppb		14:02:34
3	Ni 231.604†	-68.5	25.2	0.3159 µg/L	0.3159 ppb		14:02:34
3	P 214.914†	12.0	38.1	8.8026 µg/L	8.8026 ppb		14:02:34
3	Pb 220.353†	83.1	-17.7	-1.0777 µg/L	-1.0777 ppb		14:02:34
3	S 181.975 Axial†	85.6	-0.6	-0.5013 µg/L	-0.5013 ppb		14:02:34
3	Sb 206.836†	86.8	-0.1	-0.0101 µg/L	-0.0101 ppb		14:02:34
3	Se 196.026†	18.1	12.6	4.93 µg/L	4.93 ppb		14:02:34
3	SiO2†	1796.2	114.5	12.114 µg/L	12.114 ppb		14:02:34
3	Si 251.611†	1204.1	475.5	7.4943 µg/L	7.4943 ppb		14:02:14
3	Sn 189.927†	-6.4	-8.5	-0.5904 µg/L	-0.5904 ppb		14:02:34
3	Ti 334.940†	589.4	-214.8	-0.2136 µg/L	-0.2136 ppb		14:02:14
3	Tl 190.801†	-113.1	-2.4	-0.3297 µg/L	-0.3297 ppb		14:02:34
3	U 409.014†	-414.8	-264.7	-16.715 µg/L	-16.715 ppb		14:02:14
3	V 292.402†	375.0	-36.3	-0.1924 µg/L	-0.1924 ppb		14:02:14
3	Zn 213.857†	607.1	123.5	0.7350 µg/L	0.7350 ppb		14:02:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1764127.6	97.781	%	0.8469				0.87%
Sc RADIAL	135270.5	96.6	%	0.33				0.34%
Y 371.029	1037712.8	98.148	%	0.8327				0.85%
Ag 328.068†	-341.6	-1.4136	µg/L	0.61735	-1.4136	ppb	0.61735	43.67%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.8	2.4517	µg/L	4.85162	2.4517	ppb	4.85162	197.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	2.1118	µg/L	2.33677	2.1118	ppb	2.33677	110.65%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-38.7	-0.6031	µg/L	0.79553	-0.6031	ppb	0.79553	131.90%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.4	-0.0108	µg/L	0.04202	-0.0108	ppb	0.04202	389.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	405.2	0.1145	µg/L	0.03302	0.1145	ppb	0.03302	28.84%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	149.4	10.177	µg/L	0.4097	10.177	ppb	0.4097	4.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	31.3	0.2108	µg/L	0.08956	0.2108	ppb	0.08956	42.48%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	14.7	0.1947	µg/L	0.26912	0.1947	ppb	0.26912	138.22%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              37.5      0.3318 µg/L       0.15263      0.3318 ppb        0.15263  46.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -259.9     -1.0938 µg/L       0.35532     -1.0938 ppb        0.35532  32.48%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       74.1      5.5335 µg/L       0.47078      5.5335 ppb        0.47078   8.51%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       191.7      75.956 µg/L       36.5584      75.956 ppb        36.5584  48.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.1      0.5418 µg/L       4.04048      0.5418 ppb        4.04048 745.79%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              89.9      0.1192 µg/L       0.00391      0.1192 ppb        0.00391   3.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              20.5      0.6695 µg/L       0.29007      0.6695 ppb        0.29007  43.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      149.1      23.040 µg/L        5.8796      23.040 ppb         5.8796  25.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              15.4      0.1932 µg/L       0.16265      0.1932 ppb        0.16265  84.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               37.5      8.6733 µg/L       1.03191      8.6733 ppb        1.03191  11.90%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -0.2     -0.0014 µg/L       1.16932     -0.0014 ppb        1.16932 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.5      1.2831 µg/L       6.81944      1.2831 ppb        6.81944 531.47%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -5.7     -0.7329 µg/L       0.79089     -0.7329 ppb        0.79089 107.91%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              15.6        6.14 µg/L         1.045        6.14 ppb          1.045  17.02%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    80.6      8.5179 µg/L       3.11940      8.5179 ppb        3.11940  36.62%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             374.2      5.8915 µg/L       1.49212      5.8915 ppb        1.49212  25.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.6     -0.0431 µg/L       0.48231     -0.0431 ppb        0.48231 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              47.9      0.1129 µg/L       0.30228      0.1129 ppb        0.30228 267.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -129.1     -0.1286 µg/L       0.14465     -0.1286 ppb        0.14465 112.49%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -10.0     -1.3660 µg/L       0.90351     -1.3660 ppb        0.90351  66.14%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -150.0     -9.4826 µg/L       7.21097     -9.4826 ppb        7.21097  76.04%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -54.3     -0.2797 µg/L       0.11589     -0.2797 ppb        0.11589  41.43%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             121.6      0.7249 µg/L       0.06310      0.7249 ppb        0.06310   8.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/5/2010 14:22:34 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/5/2010 14:22:36**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	132885.5	132885.5	94.9	%			14:23:09
1	Al 396.153Radial†	22345.1	23635.6	4952.5	µg/L	4952.5	ppb	14:23:09
1	Ca 317.933Radial†	71734.4	75053.7	5111.8	µg/L	5111.8	ppb	14:23:09
1	Fe 238.204 Radial†	64315.0	67686.0	5054.7	µg/L	5054.7	ppb	14:23:09
1	K 766.490 Radial†	13587.6	12830.8	5080.0	µg/L	5080.0	ppb	14:23:09
1	Mg 279.077 IEC†	10677.1	11083.8	5125.9	µg/L	5125.9	ppb	14:23:09
1	Na 589.592 Radial†	62424.8	64858.1	10049	µg/L	10049	ppb	14:23:07
1	Sr 421.552†	200382.6	211455.5	498.67	µg/L	498.67	ppb	14:23:07
1	Sc 361.383	1732899.2	1732899.2	96.051	%			14:23:36
1	Y 371.029	1007757.7	1007757.7	95.315	%			14:23:36
1	Ag 328.068†	122317.7	122782.0	508.93	µg/L	508.93	ppb	14:23:36
1	As 188.979†	1306.2	1378.4	473.58	µg/L	473.58	ppb	14:23:56
1	B 249.677†	35029.8	32405.0	502.18	µg/L	502.18	ppb	14:23:36
1	Ba 233.527†	108164.4	112756.4	501.60	µg/L	501.60	ppb	14:23:36
1	Be 313.107†	1634035.3	1702315.5	493.26	µg/L	493.26	ppb	14:23:36
1	Cd 226.502†	72105.4	75173.6	507.77	µg/L	507.77	ppb	14:23:36
1	Co 228.616†	36829.0	38553.7	510.30	µg/L	510.30	ppb	14:23:36
1	Cr 267.716†	56320.8	58403.4	505.12	µg/L	505.12	ppb	14:23:36
1	Cu 324.752†	118186.3	120009.8	503.53	µg/L	503.53	ppb	14:23:36
1	Mn 257.610†	366868.1	381768.3	506.22	µg/L	506.22	ppb	14:23:36
1	Mo 202.031†	14911.6	15563.3	509.44	µg/L	509.44	ppb	14:23:56
1	Ni 231.604†	39011.3	40711.3	509.35	µg/L	509.35	ppb	14:23:36
1	P 214.914†	10569.3	11029.6	2542.7	µg/L	2542.7	ppb	14:23:56
1	Pb 220.353†	8158.2	8390.2	517.89	µg/L	517.89	ppb	14:23:56
1	S 181.975 Axial†	1253.8	1216.4	1027.6	µg/L	1027.6	ppb	14:23:56
1	Sb 206.836†	3842.2	3910.5	505.44	µg/L	505.44	ppb	14:23:56
1	Se 196.026†	1245.9	1290.9	511	µg/L	511	ppb	14:23:56
1	SiO2†	50314.2	50643.9	5341.3	µg/L	5341.3	ppb	14:23:36
1	Si 251.611†	153524.0	159069.6	2498.2	µg/L	2498.2	ppb	14:23:36
1	Sn 189.927†	6969.7	7254.4	504.88	µg/L	504.88	ppb	14:23:56
1	Ti 334.940†	469489.4	487971.0	500.54	µg/L	500.54	ppb	14:23:36
1	Tl 190.801†	3468.9	3725.9	516.30	µg/L	516.30	ppb	14:23:56
1	U 409.014†	7108.4	7564.0	508.04	µg/L	508.04	ppb	14:23:36
1	V 292.402†	93611.4	97037.3	509.70	µg/L	509.70	ppb	14:23:36
1	Zn 213.857†	82380.6	85264.9	505.17	µg/L	505.17	ppb	14:23:36
2	Sc RADIAL	132723.7	132723.7	94.7	%			14:23:13
2	Al 396.153Radial†	22193.8	23504.7	4925.0	µg/L	4925.0	ppb	14:23:13
2	Ca 317.933Radial†	71807.3	75222.9	5123.4	µg/L	5123.4	ppb	14:23:13
2	Fe 238.204 Radial†	64276.1	67727.6	5057.9	µg/L	5057.9	ppb	14:23:13
2	K 766.490 Radial†	13580.5	12840.7	5083.9	µg/L	5083.9	ppb	14:23:13
2	Mg 279.077 IEC†	10679.9	11100.5	5133.6	µg/L	5133.6	ppb	14:23:13
2	Na 589.592 Radial†	63559.4	66135.9	10247	µg/L	10247	ppb	14:23:11
2	Sr 421.552†	204236.7	215781.2	508.87	µg/L	508.87	ppb	14:23:11
2	Sc 361.383	1743351.0	1743351.0	96.630	%			14:23:59
2	Y 371.029	1013100.9	1013100.9	95.820	%			14:23:59
2	Ag 328.068†	122408.3	122112.3	506.18	µg/L	506.18	ppb	14:23:59
2	As 188.979†	1324.5	1389.2	477.20	µg/L	477.20	ppb	14:24:19

2	B 249.677†	34925.8	32078.7	497.12 µg/L	497.12 ppb	14:23:59
2	Ba 233.527†	108263.9	112184.3	499.06 µg/L	499.06 ppb	14:23:59
2	Be 313.107†	1636644.6	1694816.6	491.09 µg/L	491.09 ppb	14:23:59
2	Cd 226.502†	72358.7	74985.7	506.50 µg/L	506.50 ppb	14:23:59
2	Co 228.616†	36909.0	38406.6	508.35 µg/L	508.35 ppb	14:23:59
2	Cr 267.716†	56448.5	58184.0	503.22 µg/L	503.22 ppb	14:23:59
2	Cu 324.752†	118571.9	119671.1	502.12 µg/L	502.12 ppb	14:23:59
2	Mn 257.610†	367015.5	379630.9	503.38 µg/L	503.38 ppb	14:23:59
2	Mo 202.031†	14934.2	15493.6	507.16 µg/L	507.16 ppb	14:24:19
2	Ni 231.604†	39044.9	40502.5	506.74 µg/L	506.74 ppb	14:23:59
2	P 214.914†	10550.7	10944.3	2523.0 µg/L	2523.0 ppb	14:24:19
2	Pb 220.353†	8108.5	8287.8	511.58 µg/L	511.58 ppb	14:24:19
2	S 181.975 Axial†	1247.4	1202.0	1015.4 µg/L	1015.4 ppb	14:24:19
2	Sb 206.836†	3852.0	3896.6	503.65 µg/L	503.65 ppb	14:24:19
2	Se 196.026†	1254.8	1292.4	511 µg/L	511 ppb	14:24:19
2	SiO2†	50377.4	50395.3	5315.1 µg/L	5315.1 ppb	14:23:59
2	Si 251.611†	154329.9	158945.4	2496.3 µg/L	2496.3 ppb	14:23:59
2	Sn 189.927†	6977.3	7218.7	502.40 µg/L	502.40 ppb	14:24:19
2	Ti 334.940†	470782.7	486378.9	498.90 µg/L	498.90 ppb	14:23:59
2	Tl 190.801†	3454.7	3689.5	511.32 µg/L	511.32 ppb	14:24:19
2	U 409.014†	7170.7	7584.1	509.22 µg/L	509.22 ppb	14:23:59
2	V 292.402†	93945.7	96799.0	508.44 µg/L	508.44 ppb	14:23:59
2	Zn 213.857†	82685.3	85066.1	504.00 µg/L	504.00 ppb	14:23:59
3	Sc RADIAL	133874.8	133874.8	95.6 %		14:23:17
3	Al 396.153Radial†	22497.2	23620.7	4949.4 µg/L	4949.4 ppb	14:23:17
3	Ca 317.933Radial†	72573.3	75372.7	5133.6 µg/L	5133.6 ppb	14:23:17
3	Fe 238.204 Radial†	64987.0	67888.1	5069.8 µg/L	5069.8 ppb	14:23:17
3	K 766.490 Radial†	13538.8	12673.9	5017.9 µg/L	5017.9 ppb	14:23:17
3	Mg 279.077 IEC†	10834.9	11165.7	5163.7 µg/L	5163.7 ppb	14:23:17
3	Na 589.592 Radial†	62004.9	63932.4	9905.6 µg/L	9905.6 ppb	14:23:15
3	Sr 421.552†	199556.0	209029.3	492.95 µg/L	492.95 ppb	14:23:15
3	Sc 361.383	1743392.2	1743392.2	96.632 %		14:24:22
3	Y 371.029	1012903.8	1012903.8	95.801 %		14:24:22
3	Ag 328.068†	122593.1	122300.6	506.97 µg/L	506.97 ppb	14:24:22
3	As 188.979†	1318.0	1382.5	474.96 µg/L	474.96 ppb	14:24:42
3	B 249.677†	35176.1	32336.9	501.12 µg/L	501.12 ppb	14:24:22
3	Ba 233.527†	108700.3	112633.3	501.05 µg/L	501.05 ppb	14:24:22
3	Be 313.107†	1639906.3	1698152.0	492.06 µg/L	492.06 ppb	14:24:22
3	Cd 226.502†	72606.8	75240.7	508.22 µg/L	508.22 ppb	14:24:22
3	Co 228.616†	37099.9	38603.2	510.96 µg/L	510.96 ppb	14:24:22
3	Cr 267.716†	56650.1	58391.3	505.01 µg/L	505.01 ppb	14:24:22
3	Cu 324.752†	118799.2	119903.5	503.09 µg/L	503.09 ppb	14:24:22
3	Mn 257.610†	368215.6	380864.0	505.02 µg/L	505.02 ppb	14:24:22
3	Mo 202.031†	14981.9	15542.6	508.77 µg/L	508.77 ppb	14:24:42
3	Ni 231.604†	39132.6	40592.3	507.86 µg/L	507.86 ppb	14:24:22
3	P 214.914†	10579.0	10973.3	2529.7 µg/L	2529.7 ppb	14:24:42
3	Pb 220.353†	8134.6	8314.7	513.24 µg/L	513.24 ppb	14:24:42
3	S 181.975 Axial†	1248.5	1203.1	1016.4 µg/L	1016.4 ppb	14:24:42
3	Sb 206.836†	3867.5	3912.6	505.71 µg/L	505.71 ppb	14:24:42
3	Se 196.026†	1250.4	1287.8	510 µg/L	510 ppb	14:24:42
3	SiO2†	50529.4	50551.4	5331.5 µg/L	5331.5 ppb	14:24:22
3	Si 251.611†	154955.1	159588.5	2506.4 µg/L	2506.4 ppb	14:24:22
3	Sn 189.927†	6999.8	7241.9	504.01 µg/L	504.01 ppb	14:24:42
3	Ti 334.940†	472323.8	487962.2	500.52 µg/L	500.52 ppb	14:24:22
3	Tl 190.801†	3481.4	3717.0	515.09 µg/L	515.09 ppb	14:24:42
3	U 409.014†	7189.9	7603.8	510.58 µg/L	510.58 ppb	14:24:22
3	V 292.402†	94312.2	97175.9	510.41 µg/L	510.41 ppb	14:24:22
3	Zn 213.857†	82968.9	85357.6	505.73 µg/L	505.73 ppb	14:24:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1739880.8	96.438	%	0.3351				0.35%
Sc RADIAL	133161.3	95.1	%	0.44				0.47%
Y 371.029	1011254.1	95.645	%	0.2865				0.30%
Ag 328.068†	122398.3	507.36	µg/L	1.418	507.36	ppb	1.418	0.28%
QC value within limits for Ag 328.068 Recovery = 101.47%								
Al 396.153Radial†	23587.0	4942.3	µg/L	15.04	4942.3	ppb	15.04	0.30%
QC value within limits for Al 396.153Radial Recovery = 98.85%								
As 188.979†	1383.4	475.25	µg/L	1.831	475.25	ppb	1.831	0.39%

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   QC value within limits for As 188.979  Recovery = 95.05%
B 249.677†            32273.5      500.14 µg/L         2.673      500.14 ppb          2.673   0.53%
   QC value within limits for B 249.677  Recovery = 100.03%
Ba 233.527†          112524.7      500.57 µg/L         1.339      500.57 ppb          1.339   0.27%
   QC value within limits for Ba 233.527  Recovery = 100.11%
Be 313.107†         1698428.0      492.14 µg/L         1.088      492.14 ppb          1.088   0.22%
   QC value within limits for Be 313.107  Recovery = 98.43%
Ca 317.933Radial†      75216.4      5122.9 µg/L        10.87      5122.9 ppb         10.87   0.21%
   QC value within limits for Ca 317.933Radial  Recovery = 102.46%
Cd 226.502†            75133.3      507.49 µg/L         0.893      507.49 ppb          0.893   0.18%
   QC value within limits for Cd 226.502  Recovery = 101.50%
Co 228.616†            38521.1      509.87 µg/L         1.354      509.87 ppb          1.354   0.27%
   QC value within limits for Co 228.616  Recovery = 101.97%
Cr 267.716†            58326.2      504.45 µg/L         1.067      504.45 ppb          1.067   0.21%
   QC value within limits for Cr 267.716  Recovery = 100.89%
Cu 324.752†           119861.5      502.91 µg/L         0.725      502.91 ppb          0.725   0.14%
   QC value within limits for Cu 324.752  Recovery = 100.58%
Fe 238.204 Radial†     67767.3      5060.8 µg/L          7.97      5060.8 ppb           7.97   0.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.22%
K 766.490 Radial†      12781.8      5060.6 µg/L         37.06      5060.6 ppb         37.06   0.73%
   QC value within limits for K 766.490 Radial  Recovery = 101.21%
Mg 279.077 IEC†        11116.6      5141.1 µg/L         19.99      5141.1 ppb         19.99   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.82%
Mn 257.610†           380754.4      504.87 µg/L         1.423      504.87 ppb          1.423   0.28%
   QC value within limits for Mn 257.610  Recovery = 100.97%
Mo 202.031†            15533.2      508.46 µg/L         1.172      508.46 ppb          1.172   0.23%
   QC value within limits for Mo 202.031  Recovery = 101.69%
Na 589.592 Radial†     64975.5       10067 µg/L         171.5       10067 ppb         171.5   1.70%
   QC value within limits for Na 589.592 Radial  Recovery = 100.67%
Ni 231.604†            40602.0      507.98 µg/L         1.310      507.98 ppb          1.310   0.26%
   QC value within limits for Ni 231.604  Recovery = 101.60%
P 214.914†             10982.4      2531.8 µg/L         10.03      2531.8 ppb         10.03   0.40%
   QC value within limits for P 214.914  Recovery = 101.27%
Pb 220.353†             8330.9      514.24 µg/L         3.272      514.24 ppb          3.272   0.64%
   QC value within limits for Pb 220.353  Recovery = 102.85%
S 181.975 Axial†        1207.2      1019.8 µg/L          6.75      1019.8 ppb           6.75   0.66%
   QC value within limits for S 181.975 Axial  Recovery = 101.98%
Sb 206.836†             3906.6      504.93 µg/L         1.119      504.93 ppb          1.119   0.22%
   QC value within limits for Sb 206.836  Recovery = 100.99%
Se 196.026†             1290.4         511 µg/L           0.9         511 ppb            0.9   0.18%
   QC value within limits for Se 196.026  Recovery = 102.12%
SiO2†                  50530.2      5329.3 µg/L         13.26      5329.3 ppb         13.26   0.25%
   QC value within limits for SiO2  Recovery = 99.66%
Si 251.611†           159201.2      2500.3 µg/L          5.37      2500.3 ppb           5.37   0.21%
   QC value within limits for Si 251.611  Recovery = 100.01%
Sn 189.927†             7238.3      503.76 µg/L         1.258      503.76 ppb          1.258   0.25%
   QC value within limits for Sn 189.927  Recovery = 100.75%
Sr 421.552†           212088.7      500.16 µg/L         8.066      500.16 ppb          8.066   1.61%
   QC value within limits for Sr 421.552  Recovery = 100.03%
Ti 334.940†           487437.4      499.99 µg/L         0.941      499.99 ppb          0.941   0.19%
   QC value within limits for Ti 334.940  Recovery = 100.00%
Tl 190.801†             3710.8      514.24 µg/L         2.600      514.24 ppb          2.600   0.51%
   QC value within limits for Tl 190.801  Recovery = 102.85%
U 409.014†              7584.0      509.28 µg/L         1.272      509.28 ppb          1.272   0.25%
   QC value within limits for U 409.014  Recovery = 101.86%
V 292.402†             97004.1      509.52 µg/L         1.001      509.52 ppb          1.001   0.20%
   QC value within limits for V 292.402  Recovery = 101.90%
Zn 213.857†            85229.5      504.97 µg/L         0.884      504.97 ppb          0.884   0.17%
   QC value within limits for Zn 213.857  Recovery = 100.99%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 14:24:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135447.7	135447.7	96.7	%			14:25:19
1	Al 396.153Radial†	-86.0	-10.4	-2.2186	µg/L	-2.2186	ppb	14:25:39
1	Ca 317.933Radial†	697.8	150.3	10.238	µg/L	10.238	ppb	14:25:39
1	Fe 238.204 Radial†	150.9	38.8	2.8969	µg/L	2.8969	ppb	14:25:39
1	K 766.490 Radial†	1666.4	229.8	91.043	µg/L	91.043	ppb	14:25:19
1	Mg 279.077 IEC†	178.6	12.3	5.6989	µg/L	5.6989	ppb	14:25:39
1	Na 589.592 Radial†	1111.1	196.7	30.416	µg/L	30.416	ppb	14:25:19
1	Sr 421.552†	-133.5	66.4	0.1564	µg/L	0.1564	ppb	14:25:19
1	Sc 361.383	1746370.5	1746370.5	96.797	%			14:26:41
1	Y 371.029	1025464.1	1025464.1	96.989	%			14:26:41
1	Ag 328.068†	4108.8	-320.4	-1.3071	µg/L	-1.3071	ppb	14:26:43
1	As 188.979†	-11.0	7.2	2.4383	µg/L	2.4383	ppb	14:27:03
1	B 249.677†	4122.1	193.3	3.0053	µg/L	3.0053	ppb	14:26:43
1	Ba 233.527†	-136.3	3.7	0.0171	µg/L	0.0171	ppb	14:27:03
1	Be 313.107†	-700.1	368.5	0.1064	µg/L	0.1064	ppb	14:26:43
1	Cd 226.502†	-98.5	1.6	0.0105	µg/L	0.0105	ppb	14:27:03
1	Co 228.616†	-178.9	25.5	0.3373	µg/L	0.3373	ppb	14:27:03
1	Cr 267.716†	260.2	35.6	0.3095	µg/L	0.3095	ppb	14:27:03
1	Cu 324.752†	2891.1	-49.3	-0.2065	µg/L	-0.2065	ppb	14:26:43
1	Mn 257.610†	232.7	55.7	0.0737	µg/L	0.0737	ppb	14:27:03
1	Mo 202.031†	-23.8	14.0	0.4585	µg/L	0.4585	ppb	14:27:03
1	Ni 231.604†	-84.2	9.0	0.1121	µg/L	0.1121	ppb	14:27:03
1	P 214.914†	12.4	38.5	8.9081	µg/L	8.9081	ppb	14:27:03
1	Pb 220.353†	111.4	11.6	0.7176	µg/L	0.7176	ppb	14:27:03
1	S 181.975 Axial†	91.7	5.8	4.8840	µg/L	4.8840	ppb	14:27:03
1	Sb 206.836†	91.1	4.4	0.5760	µg/L	0.5760	ppb	14:27:03
1	Se 196.026†	6.3	0.3	0.135	µg/L	0.135	ppb	14:27:03
1	SiO2†	1745.3	64.0	6.7572	µg/L	6.7572	ppb	14:27:03
1	Si 251.611†	870.2	132.0	2.0741	µg/L	2.0741	ppb	14:26:43
1	Sn 189.927†	4.4	2.6	0.1830	µg/L	0.1830	ppb	14:27:03
1	Ti 334.940†	598.9	-204.3	-0.2097	µg/L	-0.2097	ppb	14:26:43
1	Tl 190.801†	-119.5	-9.2	-1.2529	µg/L	-1.2529	ppb	14:27:03
1	U 409.014†	-175.8	-18.2	-1.1220	µg/L	-1.1220	ppb	14:26:43
1	V 292.402†	505.0	98.5	0.5155	µg/L	0.5155	ppb	14:26:43
1	Zn 213.857†	566.2	82.0	0.4885	µg/L	0.4885	ppb	14:27:03
2	Sc RADIAL	135362.8	135362.8	96.6	%			14:25:41
2	Al 396.153Radial†	-79.6	-3.8	-0.8200	µg/L	-0.8200	ppb	14:26:01
2	Ca 317.933Radial†	682.5	134.9	9.1897	µg/L	9.1897	ppb	14:26:01
2	Fe 238.204 Radial†	140.7	28.3	2.1142	µg/L	2.1142	ppb	14:26:01
2	K 766.490 Radial†	1467.3	24.8	9.8302	µg/L	9.8302	ppb	14:25:41
2	Mg 279.077 IEC†	172.6	6.1	2.8455	µg/L	2.8455	ppb	14:26:01
2	Na 589.592 Radial†	1058.4	142.9	22.146	µg/L	22.146	ppb	14:25:41
2	Sr 421.552†	-110.7	89.9	0.2121	µg/L	0.2121	ppb	14:25:41
2	Sc 361.383	1750118.2	1750118.2	97.005	%			14:27:06
2	Y 371.029	1029214.6	1029214.6	97.344	%			14:27:06
2	Ag 328.068†	4286.1	-146.7	-0.5984	µg/L	-0.5984	ppb	14:27:08
2	As 188.979†	-22.6	-4.7	-1.5853	µg/L	-1.5853	ppb	14:27:28
2	B 249.677†	4094.3	155.6	2.4193	µg/L	2.4193	ppb	14:27:08
2	Ba 233.527†	-168.4	-29.0	-0.1289	µg/L	-0.1289	ppb	14:27:28
2	Be 313.107†	-818.0	248.5	0.0727	µg/L	0.0727	ppb	14:27:08
2	Cd 226.502†	-95.7	4.7	0.0316	µg/L	0.0316	ppb	14:27:28
2	Co 228.616†	-196.5	7.7	0.1020	µg/L	0.1020	ppb	14:27:28
2	Cr 267.716†	273.7	48.9	0.4212	µg/L	0.4212	ppb	14:27:28
2	Cu 324.752†	2717.0	-235.2	-0.9816	µg/L	-0.9816	ppb	14:27:08
2	Mn 257.610†	235.1	57.7	0.0764	µg/L	0.0764	ppb	14:27:28
2	Mo 202.031†	-24.3	13.5	0.4412	µg/L	0.4412	ppb	14:27:28
2	Ni 231.604†	-80.6	12.8	0.1604	µg/L	0.1604	ppb	14:27:28
2	P 214.914†	12.2	38.2	8.8553	µg/L	8.8553	ppb	14:27:28
2	Pb 220.353†	120.1	20.3	1.2507	µg/L	1.2507	ppb	14:27:28

2	S 181.975 Axial†	84.5	-1.8	-1.5350 µg/L	-1.5350 ppb	14:27:28
2	Sb 206.836†	83.0	-4.2	-0.5406 µg/L	-0.5406 ppb	14:27:28
2	Se 196.026†	18.6	13.0	5.14 µg/L	5.14 ppb	14:27:28
2	SiO2†	1753.8	68.9	7.2716 µg/L	7.2716 ppb	14:27:28
2	Si 251.611†	881.5	141.6	2.2224 µg/L	2.2224 ppb	14:27:08
2	Sn 189.927†	12.9	11.5	0.7951 µg/L	0.7951 ppb	14:27:28
2	Ti 334.940†	781.5	-17.3	-0.0189 µg/L	-0.0189 ppb	14:27:08
2	Tl 190.801†	-108.7	2.3	0.3096 µg/L	0.3096 ppb	14:27:28
2	U 409.014†	-122.8	36.8	2.3187 µg/L	2.3187 ppb	14:27:08
2	V 292.402†	402.5	-8.3	-0.0354 µg/L	-0.0354 ppb	14:27:08
2	Zn 213.857†	560.6	74.9	0.4470 µg/L	0.4470 ppb	14:27:28
3	Sc RADIAL	133768.8	133768.8	95.5 %		14:26:03
3	Al 396.153Radial†	-64.1	11.4	2.3747 µg/L	2.3747 ppb	14:26:23
3	Ca 317.933Radial†	697.6	159.1	10.838 µg/L	10.838 ppb	14:26:23
3	Fe 238.204 Radial†	145.6	35.2	2.6306 µg/L	2.6306 ppb	14:26:23
3	K 766.490 Radial†	1455.8	30.8	12.207 µg/L	12.207 ppb	14:26:03
3	Mg 279.077 IEC†	166.8	2.2	1.0226 µg/L	1.0226 ppb	14:26:23
3	Na 589.592 Radial†	973.9	67.5	10.449 µg/L	10.449 ppb	14:26:03
3	Sr 421.552†	-191.0	4.5	0.0105 µg/L	0.0105 ppb	14:26:03
3	Sc 361.383	1764370.3	1764370.3	97.795 %		14:27:30
3	Y 371.029	1036609.8	1036609.8	98.043 %		14:27:30
3	Ag 328.068†	4248.4	-220.9	-0.8990 µg/L	-0.8990 ppb	14:27:32
3	As 188.979†	-8.0	10.4	3.5165 µg/L	3.5165 ppb	14:27:52
3	B 249.677†	4008.5	33.8	0.5262 µg/L	0.5262 ppb	14:27:32
3	Ba 233.527†	-168.9	-28.1	-0.1244 µg/L	-0.1244 ppb	14:27:52
3	Be 313.107†	-576.0	502.7	0.1446 µg/L	0.1446 ppb	14:27:32
3	Cd 226.502†	-75.3	26.4	0.1782 µg/L	0.1782 ppb	14:27:52
3	Co 228.616†	-225.0	-19.7	-0.2613 µg/L	-0.2613 ppb	14:27:52
3	Cr 267.716†	253.5	26.0	0.2283 µg/L	0.2283 ppb	14:27:52
3	Cu 324.752†	2805.8	-167.0	-0.7011 µg/L	-0.7011 ppb	14:27:32
3	Mn 257.610†	227.4	47.8	0.0634 µg/L	0.0634 ppb	14:27:52
3	Mo 202.031†	-20.3	17.9	0.5842 µg/L	0.5842 ppb	14:27:52
3	Ni 231.604†	-74.8	19.4	0.2426 µg/L	0.2426 ppb	14:27:52
3	P 214.914†	4.8	30.6	7.0853 µg/L	7.0853 ppb	14:27:52
3	Pb 220.353†	93.9	-7.4	-0.4525 µg/L	-0.4525 ppb	14:27:52
3	S 181.975 Axial†	94.3	7.5	6.2792 µg/L	6.2792 ppb	14:27:52
3	Sb 206.836†	92.1	4.5	0.5874 µg/L	0.5874 ppb	14:27:52
3	Se 196.026†	21.9	16.2	6.39 µg/L	6.39 ppb	14:27:52
3	SiO2†	1713.4	13.0	1.3488 µg/L	1.3488 ppb	14:27:52
3	Si 251.611†	899.6	152.8	2.3986 µg/L	2.3986 ppb	14:27:32
3	Sn 189.927†	9.5	7.8	0.5426 µg/L	0.5426 ppb	14:27:52
3	Ti 334.940†	987.2	186.5	0.1930 µg/L	0.1930 ppb	14:27:32
3	Tl 190.801†	-107.4	4.5	0.6235 µg/L	0.6235 ppb	14:27:52
3	U 409.014†	-212.1	-53.6	-3.3326 µg/L	-3.3326 ppb	14:27:32
3	V 292.402†	569.1	158.7	0.8269 µg/L	0.8269 ppb	14:27:32
3	Zn 213.857†	576.3	86.3	0.5140 µg/L	0.5140 ppb	14:27:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1753619.7	97.199	%	0.5264				0.54%
Sc RADIAL	134859.7	96.3	%	0.68				0.70%
Y 371.029	1030429.5	97.459	%	0.5364				0.55%
Ag 328.068†	-229.3	-0.9348	µg/L	0.35573	-0.9348	ppb	0.35573	38.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.9	-0.2213	µg/L	2.35444	-0.2213	ppb	2.35444	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.3	1.4565	µg/L	2.68891	1.4565	ppb	2.68891	184.62%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	127.6	1.9836	µg/L	1.29571	1.9836	ppb	1.29571	65.32%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-17.8	-0.0787	µg/L	0.08302	-0.0787	ppb	0.08302	105.44%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	373.2	0.1079	µg/L	0.03599	0.1079	ppb	0.03599	33.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	148.1	10.088	µg/L	0.8340	10.088	ppb	0.8340	8.27%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.9	0.0734	µg/L	0.09136	0.0734	ppb	0.09136	124.41%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.5	0.0593	µg/L	0.30156	0.0593	ppb	0.30156	508.21%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                36.9      0.3197 µg/L       0.09683      0.3197 ppb        0.09683  30.29%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -150.5     -0.6297 µg/L       0.39241     -0.6297 ppb        0.39241  62.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         34.1      2.5473 µg/L       0.39795      2.5473 ppb        0.39795  15.62%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          95.1     37.693 µg/L       46.2173     37.693 ppb        46.2173 122.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             6.9      3.1890 µg/L       2.35700      3.1890 ppb        2.35700  73.91%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                53.7      0.0712 µg/L       0.00685      0.0712 ppb        0.00685   9.63%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                15.1      0.4947 µg/L       0.07807      0.4947 ppb        0.07807  15.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        135.7     21.004 µg/L       10.0325     21.004 ppb        10.0325  47.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                13.7      0.1717 µg/L       0.06598      0.1717 ppb        0.06598  38.43%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 35.8      8.2829 µg/L       1.03751      8.2829 ppb        1.03751  12.53%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 8.2      0.5053 µg/L       0.87123      0.5053 ppb        0.87123 172.42%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.8      3.2094 µg/L       4.16755      3.2094 ppb        4.16755 129.85%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.6      0.2076 µg/L       0.64799      0.2076 ppb        0.64799 312.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 9.9        3.89 µg/L         3.309        3.89 ppb          3.309  85.13%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      48.6      5.1259 µg/L       3.28116      5.1259 ppb        3.28116  64.01%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               142.2      2.2317 µg/L       0.16244      2.2317 ppb        0.16244   7.28%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.3      0.5069 µg/L       0.30758      0.5069 ppb        0.30758  60.68%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                53.6      0.1263 µg/L       0.10411      0.1263 ppb        0.10411  82.42%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -11.7     -0.0119 µg/L       0.20144     -0.0119 ppb        0.20144 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.8     -0.1066 µg/L       1.00508     -0.1066 ppb        1.00508 942.93%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -11.7     -0.7119 µg/L       2.84786     -0.7119 ppb        2.84786 400.01%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 83.0      0.4357 µg/L       0.43668      0.4357 ppb        0.43668 100.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                81.1      0.4832 µg/L       0.03385      0.4832 ppb        0.03385   7.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 14:55:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	133793.1	133793.1	95.5	%			14:56:26
1	Al 396.153Radial†	22430.5	23565.3	4938.2	µg/L	4938.2	ppb	14:56:26
1	Ca 317.933Radial†	71723.2	74529.0	5076.1	µg/L	5076.1	ppb	14:56:26
1	Fe 238.204 Radial†	64182.6	67087.5	5010.0	µg/L	5010.0	ppb	14:56:26
1	K 766.490 Radial†	13696.8	12847.9	5086.8	µg/L	5086.8	ppb	14:56:26
1	Mg 279.077 IEC†	10745.8	11079.3	5123.7	µg/L	5123.7	ppb	14:56:26
1	Na 589.592 Radial†	63173.0	65195.1	10101	µg/L	10101	ppb	14:56:26
1	Sr 421.552†	204308.8	214133.5	504.99	µg/L	504.99	ppb	14:56:24
1	Sc 361.383	1765298.2	1765298.2	97.846	%			14:56:53
1	Y 371.029	1026485.4	1026485.4	97.086	%			14:56:53
1	Ag 328.068†	123719.2	121877.1	505.18	µg/L	505.18	ppb	14:56:53
1	As 188.979†	1297.6	1344.7	462.11	µg/L	462.11	ppb	14:57:13
1	B 249.677†	35380.8	32094.4	497.36	µg/L	497.36	ppb	14:56:53
1	Ba 233.527†	109483.7	112038.0	498.40	µg/L	498.40	ppb	14:56:53
1	Be 313.107†	1649103.9	1686492.8	488.67	µg/L	488.67	ppb	14:56:53
1	Cd 226.502†	73021.2	74731.8	504.78	µg/L	504.78	ppb	14:56:53
1	Co 228.616†	37388.6	38421.9	508.56	µg/L	508.56	ppb	14:56:53
1	Cr 267.716†	57069.9	58092.8	502.44	µg/L	502.44	ppb	14:56:53
1	Cu 324.752†	119466.9	119060.3	499.54	µg/L	499.54	ppb	14:56:53
1	Mn 257.610†	370659.1	378632.7	502.06	µg/L	502.06	ppb	14:56:53
1	Mo 202.031†	14894.8	15261.2	499.56	µg/L	499.56	ppb	14:57:13
1	Ni 231.604†	39408.6	40371.9	505.10	µg/L	505.10	ppb	14:56:53
1	P 214.914†	10459.1	10715.0	2470.0	µg/L	2470.0	ppb	14:57:13
1	Pb 220.353†	8079.2	8153.6	503.32	µg/L	503.32	ppb	14:57:13
1	S 181.975 Axial†	1247.4	1185.9	1001.9	µg/L	1001.9	ppb	14:57:13
1	Sb 206.836†	3840.0	3834.8	495.57	µg/L	495.57	ppb	14:57:13
1	Se 196.026†	1235.1	1256.1	497	µg/L	497	ppb	14:57:13
1	SiO2†	50957.4	50339.9	5309.6	µg/L	5309.6	ppb	14:56:53
1	Si 251.611†	155746.2	158407.2	2488.0	µg/L	2488.0	ppb	14:56:53
1	Sn 189.927†	6926.8	7077.4	492.59	µg/L	492.59	ppb	14:57:13
1	Ti 334.940†	474909.6	484539.5	497.02	µg/L	497.02	ppb	14:56:53
1	Tl 190.801†	3448.7	3638.9	504.37	µg/L	504.37	ppb	14:57:13
1	U 409.014†	7035.9	7354.2	494.60	µg/L	494.60	ppb	14:56:53
1	V 292.402†	94772.7	96435.5	506.47	µg/L	506.47	ppb	14:56:53
1	Zn 213.857†	83357.2	84689.0	501.77	µg/L	501.77	ppb	14:56:53
2	Sc RADIAL	134689.6	134689.6	96.1	%			14:56:30
2	Al 396.153Radial†	22494.5	23475.5	4918.8	µg/L	4918.8	ppb	14:56:30
2	Ca 317.933Radial†	72003.2	74320.3	5061.9	µg/L	5061.9	ppb	14:56:30
2	Fe 238.204 Radial†	64454.1	66922.5	4997.7	µg/L	4997.7	ppb	14:56:30
2	K 766.490 Radial†	13841.1	12902.6	5108.5	µg/L	5108.5	ppb	14:56:30
2	Mg 279.077 IEC†	10637.6	10891.9	5037.4	µg/L	5037.4	ppb	14:56:30
2	Na 589.592 Radial†	63583.5	65181.8	10099	µg/L	10099	ppb	14:56:30
2	Sr 421.552†	201922.7	210227.8	495.78	µg/L	495.78	ppb	14:56:28
2	Sc 361.383	1742212.2	1742212.2	96.567	%			14:57:16
2	Y 371.029	1013451.2	1013451.2	95.853	%			14:57:16
2	Ag 328.068†	122012.2	121785.0	504.79	µg/L	504.79	ppb	14:57:16
2	As 188.979†	1301.9	1366.7	469.56	µg/L	469.56	ppb	14:57:36
2	B 249.677†	34882.6	32057.6	496.80	µg/L	496.80	ppb	14:57:16
2	Ba 233.527†	107987.6	111971.4	498.11	µg/L	498.11	ppb	14:57:16
2	Be 313.107†	1623811.8	1682634.6	487.56	µg/L	487.56	ppb	14:57:16
2	Cd 226.502†	71816.9	74473.5	503.04	µg/L	503.04	ppb	14:57:16
2	Co 228.616†	36674.6	38188.8	505.47	µg/L	505.47	ppb	14:57:16
2	Cr 267.716†	56259.4	58026.4	501.87	µg/L	501.87	ppb	14:57:16
2	Cu 324.752†	118255.4	119423.6	501.06	µg/L	501.06	ppb	14:57:16
2	Mn 257.610†	365228.0	378028.2	501.26	µg/L	501.26	ppb	14:57:16
2	Mo 202.031†	14968.1	15538.8	508.64	µg/L	508.64	ppb	14:57:36
2	Ni 231.604†	38749.7	40223.3	503.24	µg/L	503.24	ppb	14:57:16
2	P 214.914†	10553.1	10954.0	2525.3	µg/L	2525.3	ppb	14:57:36
2	Pb 220.353†	8113.4	8298.4	512.25	µg/L	512.25	ppb	14:57:36

2	S 181.975 Axial†	1253.0	1208.6	1021.1 µg/L	1021.1 ppb	14:57:36
2	Sb 206.836†	3873.5	3921.5	506.89 µg/L	506.89 ppb	14:57:36
2	Se 196.026†	1261.0	1299.7	514 µg/L	514 ppb	14:57:36
2	SiO2†	50246.3	50293.6	5304.3 µg/L	5304.3 ppb	14:57:16
2	Si 251.611†	153726.7	158425.0	2488.1 µg/L	2488.1 ppb	14:57:16
2	Sn 189.927†	6981.9	7228.2	503.06 µg/L	503.06 ppb	14:57:36
2	Ti 334.940†	469138.7	484995.0	497.49 µg/L	497.49 ppb	14:57:16
2	Tl 190.801†	3459.3	3696.6	512.26 µg/L	512.26 ppb	14:57:36
2	U 409.014†	6968.6	7379.7	496.17 µg/L	496.17 ppb	14:57:16
2	V 292.402†	93382.2	96278.9	505.75 µg/L	505.75 ppb	14:57:16
2	Zn 213.857†	82058.5	84472.9	500.49 µg/L	500.49 ppb	14:57:16
3	Sc RADIAL	134604.9	134604.9	96.1 %		14:56:34
3	Al 396.153Radial†	22526.5	23523.5	4929.2 µg/L	4929.2 ppb	14:56:34
3	Ca 317.933Radial†	71773.5	74128.4	5048.8 µg/L	5048.8 ppb	14:56:34
3	Fe 238.204 Radial†	64420.6	66929.9	4998.3 µg/L	4998.3 ppb	14:56:34
3	K 766.490 Radial†	13879.0	12951.1	5127.7 µg/L	5127.7 ppb	14:56:34
3	Mg 279.077 IEC†	10624.6	10885.3	5034.2 µg/L	5034.2 ppb	14:56:34
3	Na 589.592 Radial†	63279.0	64906.5	10056 µg/L	10056 ppb	14:56:34
3	Sr 421.552†	202743.9	211214.6	498.10 µg/L	498.10 ppb	14:56:32
3	Sc 361.383	1754637.8	1754637.8	97.255 %		14:57:39
3	Y 371.029	1020489.9	1020489.9	96.519 %		14:57:39
3	Ag 328.068†	122946.0	121850.3	505.07 µg/L	505.07 ppb	14:57:39
3	As 188.979†	1311.4	1367.0	469.65 µg/L	469.65 ppb	14:57:59
3	B 249.677†	35123.6	32049.6	496.67 µg/L	496.67 ppb	14:57:39
3	Ba 233.527†	108888.2	112105.5	498.70 µg/L	498.70 ppb	14:57:39
3	Be 313.107†	1634927.6	1682156.2	487.42 µg/L	487.42 ppb	14:57:39
3	Cd 226.502†	72497.9	74647.1	504.21 µg/L	504.21 ppb	14:57:39
3	Co 228.616†	37076.9	38333.5	507.39 µg/L	507.39 ppb	14:57:39
3	Cr 267.716†	56675.3	58041.5	501.99 µg/L	501.99 ppb	14:57:39
3	Cu 324.752†	118752.1	119067.1	499.57 µg/L	499.57 ppb	14:57:39
3	Mn 257.610†	368200.0	378405.7	501.76 µg/L	501.76 ppb	14:57:39
3	Mo 202.031†	14911.8	15371.1	503.15 µg/L	503.15 ppb	14:57:59
3	Ni 231.604†	39141.9	40342.3	504.73 µg/L	504.73 ppb	14:57:39
3	P 214.914†	10489.0	10810.7	2492.2 µg/L	2492.2 ppb	14:57:59
3	Pb 220.353†	8083.4	8208.0	506.67 µg/L	506.67 ppb	14:57:59
3	S 181.975 Axial†	1248.1	1194.4	1009.0 µg/L	1009.0 ppb	14:57:59
3	Sb 206.836†	3847.1	3866.0	499.64 µg/L	499.64 ppb	14:57:59
3	Se 196.026†	1224.2	1252.6	496 µg/L	496 ppb	14:57:59
3	SiO2†	50393.8	50076.8	5281.6 µg/L	5281.6 ppb	14:57:39
3	Si 251.611†	154946.9	158552.4	2490.2 µg/L	2490.2 ppb	14:57:39
3	Sn 189.927†	6921.6	7115.1	495.21 µg/L	495.21 ppb	14:57:59
3	Ti 334.940†	472850.0	485370.6	497.87 µg/L	497.87 ppb	14:57:39
3	Tl 190.801†	3453.2	3664.9	507.93 µg/L	507.93 ppb	14:57:59
3	U 409.014†	7151.4	7516.6	504.80 µg/L	504.80 ppb	14:57:39
3	V 292.402†	94044.3	96275.0	505.68 µg/L	505.68 ppb	14:57:39
3	Zn 213.857†	82782.7	84615.8	501.33 µg/L	501.33 ppb	14:57:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1754049.4	97.223	%	0.6404				0.66%
Sc RADIAL	134362.5	95.9	%	0.35				0.37%
Y 371.029	1020142.1	96.486	%	0.6170				0.64%
Ag 328.068†	121837.5	505.01	µg/L	0.198	505.01	ppb	0.198	0.04%
QC value within limits for Ag 328.068 Recovery = 101.00%								
Al 396.153Radial†	23521.4	4928.7	µg/L	9.67	4928.7	ppb	9.67	0.20%
QC value within limits for Al 396.153Radial Recovery = 98.57%								
As 188.979†	1359.5	467.11	µg/L	4.325	467.11	ppb	4.325	0.93%
QC value within limits for As 188.979 Recovery = 93.42%								
B 249.677†	32067.2	496.94	µg/L	0.368	496.94	ppb	0.368	0.07%
QC value within limits for B 249.677 Recovery = 99.39%								
Ba 233.527†	112038.3	498.41	µg/L	0.297	498.41	ppb	0.297	0.06%
QC value within limits for Ba 233.527 Recovery = 99.68%								
Be 313.107†	1683761.2	487.88	µg/L	0.688	487.88	ppb	0.688	0.14%
QC value within limits for Be 313.107 Recovery = 97.58%								
Ca 317.933Radial†	74325.9	5062.3	µg/L	13.65	5062.3	ppb	13.65	0.27%
QC value within limits for Ca 317.933Radial Recovery = 101.25%								
Cd 226.502†	74617.5	504.01	µg/L	0.890	504.01	ppb	0.890	0.18%
QC value within limits for Cd 226.502 Recovery = 100.80%								
Co 228.616†	38314.7	507.14	µg/L	1.556	507.14	ppb	1.556	0.31%

```
   QC value within limits for Co 228.616  Recovery = 101.43%
Cr 267.716†            58053.6      502.10 µg/L         0.303      502.10 ppb          0.303   0.06%
   QC value within limits for Cr 267.716  Recovery = 100.42%
Cu 324.752†           119183.7      500.06 µg/L         0.865      500.06 ppb          0.865   0.17%
   QC value within limits for Cu 324.752  Recovery = 100.01%
Fe 238.204 Radial†     66980.0      5002.0 µg/L          6.96      5002.0 ppb           6.96   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.04%
K 766.490 Radial†      12900.5      5107.7 µg/L         20.47      5107.7 ppb          20.47   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 102.15%
Mg 279.077 IEC†        10952.2      5065.1 µg/L         50.76      5065.1 ppb          50.76   1.00%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.30%
Mn 257.610†           378355.5      501.69 µg/L         0.404      501.69 ppb          0.404   0.08%
   QC value within limits for Mn 257.610  Recovery = 100.34%
Mo 202.031†            15390.4      503.78 µg/L         4.570      503.78 ppb          4.570   0.91%
   QC value within limits for Mo 202.031  Recovery = 100.76%
Na 589.592 Radial†     65094.5       10086 µg/L          25.3       10086 ppb           25.3   0.25%
   QC value within limits for Na 589.592 Radial  Recovery = 100.86%
Ni 231.604†            40312.5      504.36 µg/L         0.984      504.36 ppb          0.984   0.20%
   QC value within limits for Ni 231.604  Recovery = 100.87%
P 214.914†             10826.6      2495.8 µg/L         27.82      2495.8 ppb          27.82   1.11%
   QC value within limits for P 214.914  Recovery = 99.83%
Pb 220.353†             8220.0      507.41 µg/L         4.513      507.41 ppb          4.513   0.89%
   QC value within limits for Pb 220.353  Recovery = 101.48%
S 181.975 Axial†        1196.3      1010.7 µg/L          9.69      1010.7 ppb           9.69   0.96%
   QC value within limits for S 181.975 Axial  Recovery = 101.07%
Sb 206.836†             3874.1      500.70 µg/L         5.735      500.70 ppb          5.735   1.15%
   QC value within limits for Sb 206.836  Recovery = 100.14%
Se 196.026†             1269.5         502 µg/L          10.3         502 ppb           10.3   2.06%
   QC value within limits for Se 196.026  Recovery = 100.46%
SiO2†                  50236.8      5298.5 µg/L         14.88      5298.5 ppb          14.88   0.28%
   QC value within limits for SiO2  Recovery = 99.08%
Si 251.611†           158461.6      2488.8 µg/L          1.26      2488.8 ppb           1.26   0.05%
   QC value within limits for Si 251.611  Recovery = 99.55%
Sn 189.927†             7140.2      496.95 µg/L         5.446      496.95 ppb          5.446   1.10%
   QC value within limits for Sn 189.927  Recovery = 99.39%
Sr 421.552†           211858.6      499.62 µg/L         4.790      499.62 ppb          4.790   0.96%
   QC value within limits for Sr 421.552  Recovery = 99.92%
Ti 334.940†           484968.3      497.46 µg/L         0.429      497.46 ppb          0.429   0.09%
   QC value within limits for Ti 334.940  Recovery = 99.49%
Tl 190.801†             3666.8      508.19 µg/L         3.950      508.19 ppb          3.950   0.78%
   QC value within limits for Tl 190.801  Recovery = 101.64%
U 409.014†              7416.8      498.52 µg/L         5.494      498.52 ppb          5.494   1.10%
   QC value within limits for U 409.014  Recovery = 99.70%
V 292.402†             96329.8      505.96 µg/L         0.437      505.96 ppb          0.437   0.09%
   QC value within limits for V 292.402  Recovery = 101.19%
Zn 213.857†            84592.5      501.20 µg/L         0.650      501.20 ppb          0.650   0.13%
   QC value within limits for Zn 213.857  Recovery = 100.24%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 14:58:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138044.4	138044.4	98.5	%			14:58:36
1	Al 396.153Radial†	-84.8	-7.5	-1.6153	µg/L	-1.6153	ppb	14:58:56
1	Ca 317.933Radial†	705.7	144.7	9.8564	µg/L	9.8564	ppb	14:58:56
1	Fe 238.204 Radial†	143.9	28.7	2.1458	µg/L	2.1458	ppb	14:58:56
1	K 766.490 Radial†	1582.5	112.1	44.418	µg/L	44.418	ppb	14:58:36
1	Mg 279.077 IEC†	198.0	28.5	13.174	µg/L	13.174	ppb	14:58:56
1	Na 589.592 Radial†	1559.9	630.6	97.707	µg/L	97.707	ppb	14:58:36
1	Sr 421.552†	-218.7	-17.4	-0.0412	µg/L	-0.0412	ppb	14:58:36
1	Sc 361.383	1793195.2	1793195.2	99.393	%			14:59:58
1	Y 371.029	1053635.4	1053635.4	99.654	%			14:59:58
1	Ag 328.068†	4087.3	-452.9	-1.8646	µg/L	-1.8646	ppb	15:00:00
1	As 188.979†	-19.6	-1.1	-0.3729	µg/L	-0.3729	ppb	15:00:20
1	B 249.677†	4109.6	69.6	1.0828	µg/L	1.0828	ppb	15:00:00
1	Ba 233.527†	-142.8	0.9	0.0039	µg/L	0.0039	ppb	15:00:20
1	Be 313.107†	-872.0	214.4	0.0606	µg/L	0.0606	ppb	15:00:00
1	Cd 226.502†	-107.9	-5.2	-0.0353	µg/L	-0.0353	ppb	15:00:20
1	Co 228.616†	-211.6	-2.6	-0.0342	µg/L	-0.0342	ppb	15:00:20
1	Cr 267.716†	281.2	49.7	0.4336	µg/L	0.4336	ppb	15:00:20
1	Cu 324.752†	2771.3	-247.9	-1.0403	µg/L	-1.0403	ppb	15:00:00
1	Mn 257.610†	228.2	44.9	0.0591	µg/L	0.0591	ppb	15:00:20
1	Mo 202.031†	-17.8	20.6	0.6752	µg/L	0.6752	ppb	15:00:20
1	Ni 231.604†	-82.3	13.1	0.1639	µg/L	0.1639	ppb	15:00:20
1	P 214.914†	23.7	49.5	11.467	µg/L	11.467	ppb	15:00:20
1	Pb 220.353†	104.1	1.2	0.0815	µg/L	0.0815	ppb	15:00:20
1	S 181.975 Axial†	98.7	10.4	8.7743	µg/L	8.7743	ppb	15:00:20
1	Sb 206.836†	81.2	-8.0	-1.0248	µg/L	-1.0248	ppb	15:00:20
1	Se 196.026†	14.5	8.4	3.32	µg/L	3.32	ppb	15:00:20
1	SiO2†	1760.2	31.9	3.3405	µg/L	3.3405	ppb	15:00:20
1	Si 251.611†	867.4	105.7	1.6508	µg/L	1.6508	ppb	15:00:00
1	Sn 189.927†	15.5	13.7	0.9464	µg/L	0.9464	ppb	15:00:20
1	Ti 334.940†	430.4	-390.0	-0.3995	µg/L	-0.3995	ppb	15:00:00
1	Tl 190.801†	-112.9	0.6	0.0819	µg/L	0.0819	ppb	15:00:20
1	U 409.014†	-242.6	-80.8	-5.1166	µg/L	-5.1166	ppb	15:00:00
1	V 292.402†	351.7	-69.4	-0.3542	µg/L	-0.3542	ppb	15:00:00
1	Zn 213.857†	586.1	86.7	0.5172	µg/L	0.5172	ppb	15:00:20
2	Sc RADIAL	137381.4	137381.4	98.1	%			14:58:58
2	Al 396.153Radial†	-89.4	-12.6	-2.6886	µg/L	-2.6886	ppb	14:59:18
2	Ca 317.933Radial†	702.2	144.6	9.8473	µg/L	9.8473	ppb	14:59:18
2	Fe 238.204 Radial†	160.7	46.5	3.4759	µg/L	3.4759	ppb	14:59:18
2	K 766.490 Radial†	1753.9	294.7	116.77	µg/L	116.77	ppb	14:58:58
2	Mg 279.077 IEC†	160.0	-9.3	-4.2864	µg/L	-4.2864	ppb	14:59:18
2	Na 589.592 Radial†	1439.6	515.5	79.810	µg/L	79.810	ppb	14:58:58
2	Sr 421.552†	-276.7	-77.7	-0.1834	µg/L	-0.1834	ppb	14:58:58
2	Sc 361.383	1785321.1	1785321.1	98.956	%			15:00:22
2	Y 371.029	1049355.3	1049355.3	99.249	%			15:00:22
2	Ag 328.068†	4310.0	-209.7	-0.8687	µg/L	-0.8687	ppb	15:00:25
2	As 188.979†	-18.2	0.2	0.0627	µg/L	0.0627	ppb	15:00:45
2	B 249.677†	4111.2	89.4	1.3899	µg/L	1.3899	ppb	15:00:25
2	Ba 233.527†	-132.8	10.3	0.0462	µg/L	0.0462	ppb	15:00:45
2	Be 313.107†	-503.9	582.5	0.1658	µg/L	0.1658	ppb	15:00:25
2	Cd 226.502†	-82.6	19.9	0.1341	µg/L	0.1341	ppb	15:00:45
2	Co 228.616†	-204.4	3.7	0.0489	µg/L	0.0489	ppb	15:00:45
2	Cr 267.716†	276.4	46.1	0.4066	µg/L	0.4066	ppb	15:00:45
2	Cu 324.752†	2998.7	-5.8	-0.0318	µg/L	-0.0318	ppb	15:00:25
2	Mn 257.610†	273.1	91.3	0.1213	µg/L	0.1213	ppb	15:00:45
2	Mo 202.031†	-14.2	24.2	0.7908	µg/L	0.7908	ppb	15:00:45
2	Ni 231.604†	-72.5	22.6	0.2827	µg/L	0.2827	ppb	15:00:45
2	P 214.914†	21.9	47.8	11.054	µg/L	11.054	ppb	15:00:45
2	Pb 220.353†	100.4	-1.9	-0.1109	µg/L	-0.1109	ppb	15:00:45

2	S 181.975 Axial†	111.6	23.8	20.067 µg/L	20.067 ppb		15:00:45
2	Sb 206.836†	73.8	-15.1	-1.9429 µg/L	-1.9429 ppb		15:00:45
2	Se 196.026†	10.5	4.5	1.76 µg/L	1.76 ppb		15:00:45
2	SiO2†	1741.5	20.8	2.1669 µg/L	2.1669 ppb		15:00:45
2	Si 251.611†	859.0	101.0	1.5766 µg/L	1.5766 ppb		15:00:25
2	Sn 189.927†	14.7	13.0	0.8983 µg/L	0.8983 ppb		15:00:45
2	Ti 334.940†	757.5	-57.6	-0.0547 µg/L	-0.0547 ppb		15:00:25
2	Tl 190.801†	-123.5	-10.5	-1.4322 µg/L	-1.4322 ppb		15:00:45
2	U 409.014†	-313.5	-153.4	-9.6734 µg/L	-9.6734 ppb		15:00:25
2	V 292.402†	449.5	31.0	0.1636 µg/L	0.1636 ppb		15:00:25
2	Zn 213.857†	555.8	58.6	0.3478 µg/L	0.3478 ppb		15:00:45
3	Sc RADIAL	138455.0	138455.0	98.8 %			14:59:20
3	Al 396.153Radial†	-78.6	-1.0	-0.2452 µg/L	-0.2452 ppb		14:59:40
3	Ca 317.933Radial†	693.8	130.5	8.8893 µg/L	8.8893 ppb		14:59:40
3	Fe 238.204 Radial†	133.6	17.9	1.3380 µg/L	1.3380 ppb		14:59:40
3	K 766.490 Radial†	1590.3	115.3	45.676 µg/L	45.676 ppb		14:59:20
3	Mg 279.077 IEC†	171.8	1.4	0.6697 µg/L	0.6697 ppb		14:59:40
3	Na 589.592 Radial†	1454.2	518.9	80.388 µg/L	80.388 ppb		14:59:20
3	Sr 421.552†	-186.5	15.8	0.0372 µg/L	0.0372 ppb		14:59:20
3	Sc 361.383	1770801.1	1770801.1	98.151 %			15:00:47
3	Y 371.029	1040334.6	1040334.6	98.396 %			15:00:47
3	Ag 328.068†	4238.3	-247.0	-1.0326 µg/L	-1.0326 ppb		15:00:49
3	As 188.979†	-20.0	-1.8	-0.6162 µg/L	-0.6162 ppb		15:01:09
3	B 249.677†	4030.2	41.0	0.6367 µg/L	0.6367 ppb		15:00:49
3	Ba 233.527†	-163.4	-21.9	-0.0974 µg/L	-0.0974 ppb		15:01:09
3	Be 313.107†	-721.7	356.5	0.0990 µg/L	0.0990 ppb		15:00:49
3	Cd 226.502†	-80.1	21.8	0.1474 µg/L	0.1474 ppb		15:01:09
3	Co 228.616†	-191.4	15.3	0.2019 µg/L	0.2019 ppb		15:01:09
3	Cr 267.716†	256.4	28.0	0.2531 µg/L	0.2531 ppb		15:01:09
3	Cu 324.752†	2743.9	-240.5	-1.0173 µg/L	-1.0173 ppb		15:00:49
3	Mn 257.610†	241.2	61.0	0.0809 µg/L	0.0809 ppb		15:01:09
3	Mo 202.031†	-17.0	21.2	0.6937 µg/L	0.6937 ppb		15:01:09
3	Ni 231.604†	-55.4	39.4	0.4935 µg/L	0.4935 ppb		15:01:09
3	P 214.914†	15.1	41.0	9.5028 µg/L	9.5028 ppb		15:01:09
3	Pb 220.353†	103.8	2.3	0.1543 µg/L	0.1543 ppb		15:01:09
3	S 181.975 Axial†	106.9	20.0	16.821 µg/L	16.821 ppb		15:01:09
3	Sb 206.836†	86.5	-1.6	-0.2020 µg/L	-0.2020 ppb		15:01:09
3	Se 196.026†	31.1	25.6	10.1 µg/L	10.1 ppb		15:01:09
3	SiO2†	1757.4	51.4	5.4209 µg/L	5.4209 ppb		15:01:09
3	Si 251.611†	971.0	222.3	3.4932 µg/L	3.4932 ppb		15:00:49
3	Sn 189.927†	8.1	6.4	0.4416 µg/L	0.4416 ppb		15:01:09
3	Ti 334.940†	788.6	-19.5	-0.0142 µg/L	-0.0142 ppb		15:00:49
3	Tl 190.801†	-110.6	1.6	0.2188 µg/L	0.2188 ppb		15:01:09
3	U 409.014†	-381.1	-224.9	-14.214 µg/L	-14.214 ppb		15:00:49
3	V 292.402†	353.3	-63.3	-0.3296 µg/L	-0.3296 ppb		15:00:49
3	Zn 213.857†	578.7	86.6	0.5146 µg/L	0.5146 ppb		15:01:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783105.8	98.833	%	0.6297				0.64%
Sc RADIAL	137960.3	98.5	%	0.39				0.39%
Y 371.029	1047775.1	99.099	%	0.6422				0.65%
Ag 328.068†	-303.2	-1.2553	µg/L	0.53400	-1.2553	ppb	0.53400	42.54%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.0	-1.5163	µg/L	1.22467	-1.5163	ppb	1.22467	80.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.9	-0.3088	µg/L	0.34395	-0.3088	ppb	0.34395	111.38%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	66.7	1.0365	µg/L	0.37874	1.0365	ppb	0.37874	36.54%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.6	-0.0158	µg/L	0.07377	-0.0158	ppb	0.07377	467.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	384.5	0.1085	µg/L	0.05326	0.1085	ppb	0.05326	49.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	139.9	9.5310	µg/L	0.55577	9.5310	ppb	0.55577	5.83%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	12.2	0.0821	µg/L	0.10186	0.0821	ppb	0.10186	124.08%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.5	0.0722	µg/L	0.11975	0.0722	ppb	0.11975	165.92%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                41.3      0.3644 µg/L       0.09736      0.3644 ppb        0.09736  26.72%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -164.7     -0.6965 µg/L       0.57577     -0.6965 ppb        0.57577  82.67%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         31.1      2.3199 µg/L       1.07956      2.3199 ppb        1.07956  46.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         174.1      68.954 µg/L       41.4138      68.954 ppb        41.4138  60.06%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            6.9      3.1857 µg/L       8.99780      3.1857 ppb        8.99780 282.45%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                65.7      0.0871 µg/L       0.03156      0.0871 ppb        0.03156  36.25%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                22.0      0.7199 µg/L       0.06207      0.7199 ppb        0.06207   8.62%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        555.0      85.968 µg/L       10.1699      85.968 ppb        10.1699  11.83%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                25.0      0.3134 µg/L       0.16695      0.3134 ppb        0.16695  53.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 46.1      10.675 µg/L        1.0358      10.675 ppb         1.0358   9.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.5      0.0416 µg/L       0.13704      0.0416 ppb        0.13704 329.04%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           18.1      15.221 µg/L        5.8140      15.221 ppb         5.8140  38.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -8.2     -1.0566 µg/L       0.87088     -1.0566 ppb        0.87088  82.42%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                12.8        5.05 µg/L         4.410        5.05 ppb          4.410  87.41%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      34.7      3.6428 µg/L       1.64796      3.6428 ppb        1.64796  45.24%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               143.0      2.2402 µg/L       1.08575      2.2402 ppb        1.08575  48.47%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                11.0      0.7621 µg/L       0.27860      0.7621 ppb        0.27860  36.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -26.4     -0.0624 µg/L       0.11181     -0.0624 ppb        0.11181 179.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -155.7     -0.1561 µg/L       0.21173     -0.1561 ppb        0.21173 135.64%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.7     -0.3772 µg/L       0.91625     -0.3772 ppb        0.91625 242.92%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -153.0     -9.6679 µg/L       4.54859     -9.6679 ppb        4.54859  47.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -33.9     -0.1734 µg/L       0.29211     -0.1734 ppb        0.29211 168.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                77.3      0.4599 µg/L       0.09708      0.4599 ppb        0.09708  21.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 23
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 15:16:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135738.0	135738.0	96.9	%			15:17:24
1	Al 396.153Radial†	22857.7	23669.6	4959.7	µg/L	4959.7	ppb	15:17:24
1	Ca 317.933Radial†	73024.7	74796.2	5094.3	µg/L	5094.3	ppb	15:17:24
1	Fe 238.204 Radial†	65755.8	67748.2	5059.4	µg/L	5059.4	ppb	15:17:24
1	K 766.490 Radial†	13910.2	12862.7	5092.7	µg/L	5092.7	ppb	15:17:24
1	Mg 279.077 IEC†	10881.8	11058.4	5114.2	µg/L	5114.2	ppb	15:17:24
1	Na 589.592 Radial†	64038.5	65140.6	10093	µg/L	10093	ppb	15:17:24
1	Sr 421.552†	204354.1	211115.0	497.87	µg/L	497.87	ppb	15:17:22
1	Sc 361.383	1764164.6	1764164.6	97.784	%			15:17:51
1	Y 371.029	1024554.1	1024554.1	96.903	%			15:17:51
1	Ag 328.068†	124127.5	122375.9	507.24	µg/L	507.24	ppb	15:17:51
1	As 188.979†	1328.6	1377.3	473.19	µg/L	473.19	ppb	15:18:11
1	B 249.677†	35379.1	32115.9	497.68	µg/L	497.68	ppb	15:17:51
1	Ba 233.527†	109997.1	112635.0	501.06	µg/L	501.06	ppb	15:17:51
1	Be 313.107†	1659256.4	1697958.5	491.99	µg/L	491.99	ppb	15:17:51
1	Cd 226.502†	73538.6	75308.9	508.68	µg/L	508.68	ppb	15:17:51
1	Co 228.616†	37673.5	38737.7	512.74	µg/L	512.74	ppb	15:17:51
1	Cr 267.716†	57414.4	58482.6	505.82	µg/L	505.82	ppb	15:17:51
1	Cu 324.752†	120081.7	119767.5	502.50	µg/L	502.50	ppb	15:17:51
1	Mn 257.610†	372787.6	381052.9	505.27	µg/L	505.27	ppb	15:17:51
1	Mo 202.031†	15151.5	15533.5	508.47	µg/L	508.47	ppb	15:18:11
1	Ni 231.604†	39621.1	40615.1	508.15	µg/L	508.15	ppb	15:17:51
1	P 214.914†	10707.2	10975.6	2530.3	µg/L	2530.3	ppb	15:18:11
1	Pb 220.353†	8241.7	8325.1	513.90	µg/L	513.90	ppb	15:18:11
1	S 181.975 Axial†	1276.8	1216.9	1028.0	µg/L	1028.0	ppb	15:18:11
1	Sb 206.836†	3922.3	3921.5	506.84	µg/L	506.84	ppb	15:18:11
1	Se 196.026†	1272.0	1294.7	512	µg/L	512	ppb	15:18:11
1	SiO2†	51556.6	50986.1	5377.6	µg/L	5377.6	ppb	15:17:51
1	Si 251.611†	157393.6	160194.2	2516.0	µg/L	2516.0	ppb	15:17:51
1	Sn 189.927†	7104.1	7263.2	505.49	µg/L	505.49	ppb	15:18:11
1	Ti 334.940†	477258.2	487253.2	499.81	µg/L	499.81	ppb	15:17:51
1	Tl 190.801†	3518.1	3712.1	514.40	µg/L	514.40	ppb	15:18:11
1	U 409.014†	6935.8	7256.4	488.58	µg/L	488.58	ppb	15:17:51
1	V 292.402†	95164.5	96898.4	508.96	µg/L	508.96	ppb	15:17:51
1	Zn 213.857†	83929.3	85328.7	505.56	µg/L	505.56	ppb	15:17:51
2	Sc RADIAL	136755.4	136755.4	97.6	%			15:17:28
2	Al 396.153Radial†	22930.5	23568.7	4938.5	µg/L	4938.5	ppb	15:17:28
2	Ca 317.933Radial†	73393.2	74613.0	5081.8	µg/L	5081.8	ppb	15:17:28
2	Fe 238.204 Radial†	65970.8	67463.6	5038.1	µg/L	5038.1	ppb	15:17:28
2	K 766.490 Radial†	14093.0	12943.2	5124.6	µg/L	5124.6	ppb	15:17:28
2	Mg 279.077 IEC†	10944.3	11038.9	5105.2	µg/L	5105.2	ppb	15:17:28
2	Na 589.592 Radial†	64185.6	64799.6	10040	µg/L	10040	ppb	15:17:28
2	Sr 421.552†	206740.5	211990.6	499.93	µg/L	499.93	ppb	15:17:26
2	Sc 361.383	1774867.6	1774867.6	98.377	%			15:18:14
2	Y 371.029	1031433.6	1031433.6	97.554	%			15:18:14
2	Ag 328.068†	124636.9	122128.2	506.22	µg/L	506.22	ppb	15:18:14
2	As 188.979†	1336.2	1376.8	473.00	µg/L	473.00	ppb	15:18:34
2	B 249.677†	35558.4	32080.0	497.13	µg/L	497.13	ppb	15:18:14
2	Ba 233.527†	110530.9	112499.2	500.46	µg/L	500.46	ppb	15:18:14
2	Be 313.107†	1664802.3	1693363.2	490.67	µg/L	490.67	ppb	15:18:14
2	Cd 226.502†	73953.2	75276.8	508.46	µg/L	508.46	ppb	15:18:14
2	Co 228.616†	37610.7	38441.5	508.82	µg/L	508.82	ppb	15:18:14
2	Cr 267.716†	57561.2	58277.7	504.04	µg/L	504.04	ppb	15:18:14
2	Cu 324.752†	120902.2	119861.0	502.90	µg/L	502.90	ppb	15:18:14
2	Mn 257.610†	374196.7	380186.2	504.12	µg/L	504.12	ppb	15:18:14
2	Mo 202.031†	15216.3	15506.0	507.57	µg/L	507.57	ppb	15:18:34
2	Ni 231.604†	39686.6	40437.3	505.92	µg/L	505.92	ppb	15:18:14
2	P 214.914†	10736.2	10939.1	2521.8	µg/L	2521.8	ppb	15:18:34
2	Pb 220.353†	8296.7	8330.2	514.20	µg/L	514.20	ppb	15:18:34

2	S 181.975 Axial†	1278.8	1211.0	1023.0 µg/L	1023.0 ppb	15:18:34
2	Sb 206.836†	3909.8	3884.6	502.09 µg/L	502.09 ppb	15:18:34
2	Se 196.026†	1253.0	1267.6	502 µg/L	502 ppb	15:18:34
2	SiO2†	51693.6	50807.4	5358.7 µg/L	5358.7 ppb	15:18:14
2	Si 251.611†	158586.7	160436.4	2519.8 µg/L	2519.8 ppb	15:18:14
2	Sn 189.927†	7100.7	7216.0	502.21 µg/L	502.21 ppb	15:18:34
2	Ti 334.940†	479020.6	486101.4	498.62 µg/L	498.62 ppb	15:18:14
2	Tl 190.801†	3527.6	3700.1	512.76 µg/L	512.76 ppb	15:18:34
2	U 409.014†	7098.9	7379.4	496.29 µg/L	496.29 ppb	15:18:14
2	V 292.402†	95557.7	96711.2	507.98 µg/L	507.98 ppb	15:18:14
2	Zn 213.857†	84077.4	84961.6	503.38 µg/L	503.38 ppb	15:18:14
3	Sc RADIAL	136723.7	136723.7	97.6 %		15:17:32
3	Al 396.153Radial†	22938.4	23582.2	4941.3 µg/L	4941.3 ppb	15:17:32
3	Ca 317.933Radial†	73950.6	75201.5	5121.9 µg/L	5121.9 ppb	15:17:32
3	Fe 238.204 Radial†	66451.5	67971.7	5076.1 µg/L	5076.1 ppb	15:17:32
3	K 766.490 Radial†	14098.3	12951.9	5128.0 µg/L	5128.0 ppb	15:17:32
3	Mg 279.077 IEC†	11022.8	11122.0	5143.5 µg/L	5143.5 ppb	15:17:32
3	Na 589.592 Radial†	64677.6	65318.9	10120 µg/L	10120 ppb	15:17:32
3	Sr 421.552†	206850.5	212152.3	500.31 µg/L	500.31 ppb	15:17:30
3	Sc 361.383	1765397.6	1765397.6	97.852 %		15:18:37
3	Y 371.029	1025865.3	1025865.3	97.027 %		15:18:37
3	Ag 328.068†	124053.7	122211.8	506.60 µg/L	506.60 ppb	15:18:37
3	As 188.979†	1331.9	1379.7	473.98 µg/L	473.98 ppb	15:18:57
3	B 249.677†	35495.2	32209.3	499.13 µg/L	499.13 ppb	15:18:37
3	Ba 233.527†	109878.0	112434.6	500.17 µg/L	500.17 ppb	15:18:37
3	Be 313.107†	1658745.9	1696251.6	491.51 µg/L	491.51 ppb	15:18:37
3	Cd 226.502†	73397.9	75112.6	507.35 µg/L	507.35 ppb	15:18:37
3	Co 228.616†	37638.2	38674.7	511.90 µg/L	511.90 ppb	15:18:37
3	Cr 267.716†	57256.1	58279.9	504.05 µg/L	504.05 ppb	15:18:37
3	Cu 324.752†	120344.3	119950.0	503.29 µg/L	503.29 ppb	15:18:37
3	Mn 257.610†	372836.8	380836.8	504.98 µg/L	504.98 ppb	15:18:37
3	Mo 202.031†	15173.4	15545.1	508.85 µg/L	508.85 ppb	15:18:57
3	Ni 231.604†	39743.3	40711.6	509.35 µg/L	509.35 ppb	15:18:37
3	P 214.914†	10695.7	10956.2	2525.7 µg/L	2525.7 ppb	15:18:57
3	Pb 220.353†	8232.5	8309.8	512.94 µg/L	512.94 ppb	15:18:57
3	S 181.975 Axial†	1266.8	1205.7	1018.6 µg/L	1018.6 ppb	15:18:57
3	Sb 206.836†	3901.0	3896.9	503.70 µg/L	503.70 ppb	15:18:57
3	Se 196.026†	1273.5	1295.3	513 µg/L	513 ppb	15:18:57
3	SiO2†	51559.7	50952.5	5374.0 µg/L	5374.0 ppb	15:18:37
3	Si 251.611†	158048.5	160751.1	2524.8 µg/L	2524.8 ppb	15:18:37
3	Sn 189.927†	7093.6	7247.5	504.40 µg/L	504.40 ppb	15:18:57
3	Ti 334.940†	477721.3	487385.6	499.93 µg/L	499.93 ppb	15:18:37
3	Tl 190.801†	3505.9	3697.2	512.36 µg/L	512.36 ppb	15:18:57
3	U 409.014†	7303.2	7626.9	511.96 µg/L	511.96 ppb	15:18:37
3	V 292.402†	95235.5	96903.0	508.99 µg/L	508.99 ppb	15:18:37
3	Zn 213.857†	83904.9	85243.8	505.04 µg/L	505.04 ppb	15:18:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1768143.2	98.004	%	0.3246				0.33%
Sc RADIAL	136405.7	97.4	%	0.41				0.42%
Y 371.029	1027284.3	97.161	%	0.3455				0.36%
Ag 328.068†	122238.7	506.69	µg/L	0.514	506.69	ppb	0.514	0.10%
QC value within limits for Ag 328.068 Recovery = 101.34%								
Al 396.153Radial†	23606.8	4946.5	µg/L	11.52	4946.5	ppb	11.52	0.23%
QC value within limits for Al 396.153Radial Recovery = 98.93%								
As 188.979†	1377.9	473.39	µg/L	0.523	473.39	ppb	0.523	0.11%
QC value within limits for As 188.979 Recovery = 94.68%								
B 249.677†	32135.0	497.98	µg/L	1.034	497.98	ppb	1.034	0.21%
QC value within limits for B 249.677 Recovery = 99.60%								
Ba 233.527†	112522.9	500.56	µg/L	0.455	500.56	ppb	0.455	0.09%
QC value within limits for Ba 233.527 Recovery = 100.11%								
Be 313.107†	1695857.7	491.39	µg/L	0.672	491.39	ppb	0.672	0.14%
QC value within limits for Be 313.107 Recovery = 98.28%								
Ca 317.933Radial†	74870.2	5099.3	µg/L	20.51	5099.3	ppb	20.51	0.40%
QC value within limits for Ca 317.933Radial Recovery = 101.99%								
Cd 226.502†	75232.8	508.17	µg/L	0.713	508.17	ppb	0.713	0.14%
QC value within limits for Cd 226.502 Recovery = 101.63%								
Co 228.616†	38618.0	511.15	µg/L	2.063	511.15	ppb	2.063	0.40%

```
   QC value within limits for Co 228.616  Recovery = 102.23%
Cr 267.716†            58346.7      504.64 µg/L        1.025      504.64 ppb          1.025   0.20%
   QC value within limits for Cr 267.716  Recovery = 100.93%
Cu 324.752†           119859.5      502.90 µg/L        0.393      502.90 ppb          0.393   0.08%
   QC value within limits for Cu 324.752  Recovery = 100.58%
Fe 238.204 Radial†     67727.8      5057.9 µg/L        19.02      5057.9 ppb          19.02   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.16%
K 766.490 Radial†      12919.2      5115.1 µg/L        19.49      5115.1 ppb          19.49   0.38%
   QC value within limits for K 766.490 Radial  Recovery = 102.30%
Mg 279.077 IEC†        11073.1      5121.0 µg/L        20.05      5121.0 ppb          20.05   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.42%
Mn 257.610†           380692.0      504.79 µg/L        0.598      504.79 ppb          0.598   0.12%
   QC value within limits for Mn 257.610  Recovery = 100.96%
Mo 202.031†            15528.2      508.29 µg/L        0.658      508.29 ppb          0.658   0.13%
   QC value within limits for Mo 202.031  Recovery = 101.66%
Na 589.592 Radial†     65086.4       10084 µg/L         40.9       10084 ppb           40.9   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 100.84%
Ni 231.604†            40588.0      507.81 µg/L        1.741      507.81 ppb          1.741   0.34%
   QC value within limits for Ni 231.604  Recovery = 101.56%
P 214.914†             10957.0      2525.9 µg/L        4.24       2525.9 ppb          4.24   0.17%
   QC value within limits for P 214.914  Recovery = 101.04%
Pb 220.353†             8321.7      513.68 µg/L        0.658      513.68 ppb          0.658   0.13%
   QC value within limits for Pb 220.353  Recovery = 102.74%
S 181.975 Axial†        1211.2      1023.2 µg/L        4.70       1023.2 ppb          4.70   0.46%
   QC value within limits for S 181.975 Axial  Recovery = 102.32%
Sb 206.836†             3901.0      504.21 µg/L        2.415      504.21 ppb          2.415   0.48%
   QC value within limits for Sb 206.836  Recovery = 100.84%
Se 196.026†             1285.9         509 µg/L         6.3          509 ppb            6.3   1.23%
   QC value within limits for Se 196.026  Recovery = 101.76%
SiO2†                  50915.3      5370.1 µg/L        10.01      5370.1 ppb          10.01   0.19%
   QC value within limits for SiO2  Recovery = 100.42%
Si 251.611†           160460.6      2520.2 µg/L        4.40       2520.2 ppb          4.40   0.17%
   QC value within limits for Si 251.611  Recovery = 100.81%
Sn 189.927†             7242.2      504.03 µg/L        1.671      504.03 ppb          1.671   0.33%
   QC value within limits for Sn 189.927  Recovery = 100.81%
Sr 421.552†           211752.6      499.37 µg/L        1.316      499.37 ppb          1.316   0.26%
   QC value within limits for Sr 421.552  Recovery = 99.87%
Ti 334.940†           486913.4      499.45 µg/L        0.723      499.45 ppb          0.723   0.14%
   QC value within limits for Ti 334.940  Recovery = 99.89%
Tl 190.801†             3703.1      513.17 µg/L        1.080      513.17 ppb          1.080   0.21%
   QC value within limits for Tl 190.801  Recovery = 102.63%
U 409.014†              7420.9      498.94 µg/L       11.913      498.94 ppb         11.913   2.39%
   QC value within limits for U 409.014  Recovery = 99.79%
V 292.402†             96837.5      508.64 µg/L        0.575      508.64 ppb          0.575   0.11%
   QC value within limits for V 292.402  Recovery = 101.73%
Zn 213.857†            85178.1      504.66 µg/L        1.137      504.66 ppb          1.137   0.23%
   QC value within limits for Zn 213.857  Recovery = 100.93%
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 15:19:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135119.4	135119.4	96.4	%			15:19:35
1	Al 396.153Radial†	-39.9	37.2	7.8015	µg/L	7.8015	ppb	15:19:55
1	Ca 317.933Radial†	710.5	165.2	11.249	µg/L	11.249	ppb	15:19:55
1	Fe 238.204 Radial†	246.5	138.2	10.324	µg/L	10.324	ppb	15:19:55
1	K 766.490 Radial†	1659.9	227.2	90.021	µg/L	90.021	ppb	15:19:35
1	Mg 279.077 IEC†	172.3	6.2	2.8460	µg/L	2.8460	ppb	15:19:55
1	Na 589.592 Radial†	1152.5	242.4	37.496	µg/L	37.496	ppb	15:19:35
1	Sr 421.552†	-253.5	-58.4	-0.1378	µg/L	-0.1378	ppb	15:19:35
1	Sc 361.383	1794052.2	1794052.2	99.440	%			15:20:57
1	Y 371.029	1054102.8	1054102.8	99.698	%			15:20:57
1	Ag 328.068†	4163.6	-378.1	-1.5752	µg/L	-1.5752	ppb	15:20:59
1	As 188.979†	-10.7	7.8	2.6457	µg/L	2.6457	ppb	15:21:19
1	B 249.677†	3919.6	-123.5	-1.9206	µg/L	-1.9206	ppb	15:20:59
1	Ba 233.527†	-182.6	-39.1	-0.1741	µg/L	-0.1741	ppb	15:21:19
1	Be 313.107†	-511.9	576.9	0.1619	µg/L	0.1619	ppb	15:20:59
1	Cd 226.502†	-61.9	41.1	0.2767	µg/L	0.2767	ppb	15:21:19
1	Co 228.616†	-193.6	15.6	0.2054	µg/L	0.2054	ppb	15:21:19
1	Cr 267.716†	254.1	22.3	0.2065	µg/L	0.2065	ppb	15:21:19
1	Cu 324.752†	2907.9	-111.8	-0.4804	µg/L	-0.4804	ppb	15:20:59
1	Mn 257.610†	293.9	110.8	0.1469	µg/L	0.1469	ppb	15:21:19
1	Mo 202.031†	-23.4	15.1	0.4926	µg/L	0.4926	ppb	15:21:19
1	Ni 231.604†	-64.9	30.6	0.3833	µg/L	0.3833	ppb	15:21:19
1	P 214.914†	12.3	38.1	8.8112	µg/L	8.8112	ppb	15:21:19
1	Pb 220.353†	108.6	5.7	0.3659	µg/L	0.3659	ppb	15:21:19
1	S 181.975 Axial†	93.4	5.0	4.1776	µg/L	4.1776	ppb	15:21:19
1	Sb 206.836†	96.3	7.1	0.9249	µg/L	0.9249	ppb	15:21:19
1	Se 196.026†	21.3	15.2	5.99	µg/L	5.99	ppb	15:21:19
1	SiO2†	1898.8	170.4	18.018	µg/L	18.018	ppb	15:21:19
1	Si 251.611†	1381.8	622.6	9.8044	µg/L	9.8044	ppb	15:20:59
1	Sn 189.927†	15.2	13.4	0.9327	µg/L	0.9327	ppb	15:21:19
1	Ti 334.940†	915.7	97.9	0.1077	µg/L	0.1077	ppb	15:20:59
1	Tl 190.801†	-120.9	-7.3	-0.9998	µg/L	-0.9998	ppb	15:21:19
1	U 409.014†	-437.0	-276.1	-17.451	µg/L	-17.451	ppb	15:20:59
1	V 292.402†	331.2	-90.2	-0.4743	µg/L	-0.4743	ppb	15:20:59
1	Zn 213.857†	592.6	93.0	0.5520	µg/L	0.5520	ppb	15:21:19
2	Sc RADIAL	136298.4	136298.4	97.3	%			15:19:57
2	Al 396.153Radial†	-106.9	-31.4	-6.6496	µg/L	-6.6496	ppb	15:20:17
2	Ca 317.933Radial†	687.7	135.4	9.2247	µg/L	9.2247	ppb	15:20:17
2	Fe 238.204 Radial†	157.7	44.8	3.3427	µg/L	3.3427	ppb	15:20:17
2	K 766.490 Radial†	1659.5	211.9	83.944	µg/L	83.944	ppb	15:19:57
2	Mg 279.077 IEC†	160.6	-7.3	-3.3644	µg/L	-3.3644	ppb	15:20:17
2	Na 589.592 Radial†	1195.7	276.4	42.774	µg/L	42.774	ppb	15:19:57
2	Sr 421.552†	-260.7	-63.5	-0.1499	µg/L	-0.1499	ppb	15:19:57
2	Sc 361.383	1785056.6	1785056.6	98.942	%			15:21:21
2	Y 371.029	1047607.7	1047607.7	99.084	%			15:21:21
2	Ag 328.068†	3952.2	-570.7	-2.3566	µg/L	-2.3566	ppb	15:21:24
2	As 188.979†	-10.3	8.2	2.7758	µg/L	2.7758	ppb	15:21:44
2	B 249.677†	4199.2	178.9	2.7816	µg/L	2.7816	ppb	15:21:24
2	Ba 233.527†	-158.6	-15.7	-0.0699	µg/L	-0.0699	ppb	15:21:44
2	Be 313.107†	-584.0	501.5	0.1413	µg/L	0.1413	ppb	15:21:24
2	Cd 226.502†	-107.7	-5.4	-0.0370	µg/L	-0.0370	ppb	15:21:44
2	Co 228.616†	-184.0	24.3	0.3214	µg/L	0.3214	ppb	15:21:44
2	Cr 267.716†	264.9	34.5	0.3087	µg/L	0.3087	ppb	15:21:44
2	Cu 324.752†	2729.2	-277.7	-1.1720	µg/L	-1.1720	ppb	15:21:24
2	Mn 257.610†	261.9	80.0	0.1062	µg/L	0.1062	ppb	15:21:44
2	Mo 202.031†	-8.4	30.1	0.9852	µg/L	0.9852	ppb	15:21:44
2	Ni 231.604†	-65.2	30.0	0.3752	µg/L	0.3752	ppb	15:21:44
2	P 214.914†	30.4	56.4	13.039	µg/L	13.039	ppb	15:21:44
2	Pb 220.353†	108.4	6.1	0.3854	µg/L	0.3854	ppb	15:21:44

2	S 181.975 Axial†	97.8	10.0	8.3828 µg/L	8.3828 ppb	15:21:44
2	Sb 206.836†	89.2	0.5	0.0710 µg/L	0.0710 ppb	15:21:44
2	Se 196.026†	24.3	18.4	7.22 µg/L	7.22 ppb	15:21:44
2	SiO2†	1931.2	212.8	22.501 µg/L	22.501 ppb	15:21:44
2	Si 251.611†	1430.8	679.1	10.694 µg/L	10.694 ppb	15:21:24
2	Sn 189.927†	3.7	1.8	0.1285 µg/L	0.1285 ppb	15:21:44
2	Ti 334.940†	863.8	50.0	0.0572 µg/L	0.0572 ppb	15:21:24
2	Tl 190.801†	-116.8	-3.8	-0.5237 µg/L	-0.5237 ppb	15:21:44
2	U 409.014†	-368.5	-209.1	-13.214 µg/L	-13.214 ppb	15:21:24
2	V 292.402†	355.1	-64.3	-0.3312 µg/L	-0.3312 ppb	15:21:24
2	Zn 213.857†	579.9	83.2	0.4946 µg/L	0.4946 ppb	15:21:44
3	Sc RADIAL	137345.7	137345.7	98.0 %		15:20:19
3	Al 396.153Radial†	-66.9	10.3	2.1413 µg/L	2.1413 ppb	15:20:39
3	Ca 317.933Radial†	721.0	164.0	11.171 µg/L	11.171 ppb	15:20:39
3	Fe 238.204 Radial†	215.7	102.7	7.6670 µg/L	7.6670 ppb	15:20:39
3	K 766.490 Radial†	1670.5	210.1	83.228 µg/L	83.228 ppb	15:20:19
3	Mg 279.077 IEC†	160.4	-8.8	-4.0827 µg/L	-4.0827 ppb	15:20:39
3	Na 589.592 Radial†	1300.4	373.9	57.888 µg/L	57.888 ppb	15:20:19
3	Sr 421.552†	-278.7	-79.8	-0.1883 µg/L	-0.1883 ppb	15:20:19
3	Sc 361.383	1761364.4	1761364.4	97.628 %		15:21:46
3	Y 371.029	1034927.3	1034927.3	97.884 %		15:21:46
3	Ag 328.068†	4077.7	-388.4	-1.6055 µg/L	-1.6055 ppb	15:21:48
3	As 188.979†	-16.6	1.6	0.5344 µg/L	0.5344 ppb	15:22:08
3	B 249.677†	3885.5	-85.3	-1.3272 µg/L	-1.3272 ppb	15:21:48
3	Ba 233.527†	-157.0	-16.3	-0.0727 µg/L	-0.0727 ppb	15:22:08
3	Be 313.107†	-835.4	236.0	0.0659 µg/L	0.0659 ppb	15:21:48
3	Cd 226.502†	-87.4	13.8	0.0927 µg/L	0.0927 ppb	15:22:08
3	Co 228.616†	-189.1	16.6	0.2194 µg/L	0.2194 ppb	15:22:08
3	Cr 267.716†	236.1	8.6	0.0811 µg/L	0.0811 ppb	15:22:08
3	Cu 324.752†	2885.9	-80.1	-0.3407 µg/L	-0.3407 ppb	15:21:48
3	Mn 257.610†	248.1	69.4	0.0922 µg/L	0.0922 ppb	15:22:08
3	Mo 202.031†	-25.6	12.3	0.4036 µg/L	0.4036 ppb	15:22:08
3	Ni 231.604†	-76.0	18.1	0.2263 µg/L	0.2263 ppb	15:22:08
3	P 214.914†	18.0	44.2	10.223 µg/L	10.223 ppb	15:22:08
3	Pb 220.353†	114.5	13.8	0.8550 µg/L	0.8550 ppb	15:22:08
3	S 181.975 Axial†	89.8	3.1	2.5869 µg/L	2.5869 ppb	15:22:08
3	Sb 206.836†	52.6	-35.9	-4.6212 µg/L	-4.6212 ppb	15:22:08
3	Se 196.026†	10.6	4.7	1.84 µg/L	1.84 ppb	15:22:08
3	SiO2†	1960.1	268.6	28.419 µg/L	28.419 ppb	15:22:08
3	Si 251.611†	1543.3	813.7	12.819 µg/L	12.819 ppb	15:21:48
3	Sn 189.927†	17.6	16.1	1.1189 µg/L	1.1189 ppb	15:22:08
3	Ti 334.940†	775.0	-29.1	-0.0260 µg/L	-0.0260 ppb	15:21:48
3	Tl 190.801†	-118.8	-7.4	-1.0096 µg/L	-1.0096 ppb	15:22:08
3	U 409.014†	-284.9	-128.5	-8.1345 µg/L	-8.1345 ppb	15:21:48
3	V 292.402†	330.4	-84.8	-0.4413 µg/L	-0.4413 ppb	15:21:48
3	Zn 213.857†	563.4	74.1	0.4403 µg/L	0.4403 ppb	15:22:08

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1780157.7	98.670	%	0.9359				0.95%
Sc RADIAL	136254.5	97.3	%	0.80				0.82%
Y 371.029	1045546.0	98.889	%	0.9224				0.93%
Ag 328.068†	-445.8	-1.8458	µg/L	0.44262	-1.8458	ppb	0.44262	23.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.4	1.0978	µg/L	7.28185	1.0978	ppb	7.28185	663.34%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.9	1.9853	µg/L	1.25818	1.9853	ppb	1.25818	63.37%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-9.9	-0.1554	µg/L	2.56077	-0.1554	ppb	2.56077	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-23.7	-0.1056	µg/L	0.05933	-0.1056	ppb	0.05933	56.20%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	438.2	0.1230	µg/L	0.05051	0.1230	ppb	0.05051	41.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	154.9	10.548	µg/L	1.1467	10.548	ppb	1.1467	10.87%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.5	0.1108	µg/L	0.15765	0.1108	ppb	0.15765	142.28%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.8	0.2487	µg/L	0.06332	0.2487	ppb	0.06332	25.45%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              21.8      0.1988 µg/L       0.11401      0.1988 ppb        0.11401  57.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -156.6     -0.6644 µg/L       0.44514     -0.6644 ppb        0.44514  67.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       95.2      7.1113 µg/L       3.52365      7.1113 ppb        3.52365  49.55%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       216.4     85.731 µg/L        3.7322      85.731 ppb         3.7322   4.35%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -3.3     -1.5337 µg/L       3.80990     -1.5337 ppb        3.80990 248.41%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              86.7      0.1151 µg/L       0.02841      0.1151 ppb        0.02841  24.68%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              19.2      0.6271 µg/L       0.31330      0.6271 ppb        0.31330  49.96%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      297.6     46.053 µg/L       10.5836      46.053 ppb        10.5836  22.98%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              26.2      0.3283 µg/L       0.08842      0.3283 ppb        0.08842  26.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               46.2     10.691 µg/L        2.1524      10.691 ppb         2.1524  20.13%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               8.5      0.5355 µg/L       0.27689      0.5355 ppb        0.27689  51.71%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.0      5.0491 µg/L       2.99464      5.0491 ppb        2.99464  59.31%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -9.4     -1.2084 µg/L       2.98620     -1.2084 ppb        2.98620 247.11%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              12.8        5.02 µg/L        2.819        5.02 ppb          2.819  56.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   217.3     22.979 µg/L        5.2170      22.979 ppb         5.2170  22.70%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             705.1     11.106 µg/L        1.5488      11.106 ppb         1.5488  13.95%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              10.5      0.7267 µg/L       0.52636      0.7267 ppb        0.52636  72.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -67.2     -0.1586 µg/L       0.02639     -0.1586 ppb        0.02639  16.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              39.6      0.0463 µg/L       0.06750      0.0463 ppb        0.06750 145.85%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -6.2     -0.8444 µg/L       0.27775     -0.8444 ppb        0.27775  32.89%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -204.6    -12.933 µg/L        4.6646     -12.933 ppb         4.6646  36.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -79.8     -0.4156 µg/L       0.07494     -0.4156 ppb        0.07494  18.03%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              83.4      0.4956 µg/L       0.05584      0.4956 ppb        0.05584  11.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/5/2010 15:42:54 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 4/5/2010 15:42:57**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	133098.2	133098.2	95.0	%			15:43:30
1	Al 396.153Radial†	22310.8	23561.9	4937.2	µg/L	4937.2	ppb	15:43:30
1	Ca 317.933Radial†	71359.4	74538.2	5076.7	µg/L	5076.7	ppb	15:43:30
1	Fe 238.204 Radial†	64321.7	67584.7	5047.2	µg/L	5047.2	ppb	15:43:30
1	K 766.490 Radial†	13802.7	13034.3	5160.7	µg/L	5160.7	ppb	15:43:30
1	Mg 279.077 IEC†	10584.3	10968.1	5072.4	µg/L	5072.4	ppb	15:43:30
1	Na 589.592 Radial†	62503.8	64836.0	10046	µg/L	10046	ppb	15:43:30
1	Sr 421.552†	203729.3	214640.5	506.18	µg/L	506.18	ppb	15:43:28
1	Sc 361.383	1759748.6	1759748.6	97.539	%			15:43:57
1	Y 371.029	1022541.1	1022541.1	96.713	%			15:43:57
1	Ag 328.068†	123986.7	122550.1	507.93	µg/L	507.93	ppb	15:43:57
1	As 188.979†	1302.6	1354.0	465.30	µg/L	465.30	ppb	15:44:17
1	B 249.677†	35597.8	32430.9	502.58	µg/L	502.58	ppb	15:43:57
1	Ba 233.527†	109603.2	112513.4	500.52	µg/L	500.52	ppb	15:43:57
1	Be 313.107†	1653891.1	1696715.9	491.63	µg/L	491.63	ppb	15:43:57
1	Cd 226.502†	73821.0	75787.1	511.92	µg/L	511.92	ppb	15:43:57
1	Co 228.616†	37551.5	38709.3	512.36	µg/L	512.36	ppb	15:43:57
1	Cr 267.716†	57002.2	58207.4	503.45	µg/L	503.45	ppb	15:43:57
1	Cu 324.752†	119682.7	119666.6	502.07	µg/L	502.07	ppb	15:43:57
1	Mn 257.610†	371928.9	381129.1	505.37	µg/L	505.37	ppb	15:43:57
1	Mo 202.031†	15009.1	15426.4	504.96	µg/L	504.96	ppb	15:44:17
1	Ni 231.604†	39713.1	40811.1	510.60	µg/L	510.60	ppb	15:43:57
1	P 214.914†	10634.3	10928.3	2519.3	µg/L	2519.3	ppb	15:44:17
1	Pb 220.353†	8173.8	8276.6	510.91	µg/L	510.91	ppb	15:44:17
1	S 181.975 Axial†	1265.3	1208.3	1020.7	µg/L	1020.7	ppb	15:44:17
1	Sb 206.836†	3875.9	3883.9	501.98	µg/L	501.98	ppb	15:44:17
1	Se 196.026†	1254.0	1279.5	506	µg/L	506	ppb	15:44:17
1	SiO2†	51108.8	50659.4	5343.1	µg/L	5343.1	ppb	15:43:57
1	Si 251.611†	156396.8	159576.1	2506.3	µg/L	2506.3	ppb	15:43:57
1	Sn 189.927†	7025.5	7200.9	501.17	µg/L	501.17	ppb	15:44:17
1	Ti 334.940†	475896.4	487081.8	499.64	µg/L	499.64	ppb	15:43:57
1	Tl 190.801†	3474.4	3676.3	509.51	µg/L	509.51	ppb	15:44:17
1	U 409.014†	6737.3	7070.7	476.83	µg/L	476.83	ppb	15:43:57
1	V 292.402†	94824.6	96794.1	508.37	µg/L	508.37	ppb	15:43:57
1	Zn 213.857†	83913.0	85527.5	506.73	µg/L	506.73	ppb	15:43:57
2	Sc RADIAL	135909.6	135909.6	97.0	%			15:43:34
2	Al 396.153Radial†	22841.9	23623.5	4950.0	µg/L	4950.0	ppb	15:43:34
2	Ca 317.933Radial†	73611.7	75306.1	5129.0	µg/L	5129.0	ppb	15:43:34
2	Fe 238.204 Radial†	65897.2	67808.2	5063.9	µg/L	5063.9	ppb	15:43:34
2	K 766.490 Radial†	13984.3	12920.9	5115.7	µg/L	5115.7	ppb	15:43:34
2	Mg 279.077 IEC†	10995.0	11161.0	5161.6	µg/L	5161.6	ppb	15:43:34
2	Na 589.592 Radial†	64364.3	65393.0	10132	µg/L	10132	ppb	15:43:34
2	Sr 421.552†	203456.2	209923.1	495.06	µg/L	495.06	ppb	15:43:32
2	Sc 361.383	1751043.9	1751043.9	97.056	%			15:44:20
2	Y 371.029	1017854.7	1017854.7	96.269	%			15:44:20
2	Ag 328.068†	123125.9	122295.1	506.88	µg/L	506.88	ppb	15:44:20
2	As 188.979†	1326.5	1385.3	475.88	µg/L	475.88	ppb	15:44:40

2	B 249.677†	35241.1	32244.9	499.69 µg/L	499.69 ppb	15:44:20
2	Ba 233.527†	108697.6	112139.0	498.86 µg/L	498.86 ppb	15:44:20
2	Be 313.107†	1640185.8	1691024.1	489.98 µg/L	489.98 ppb	15:44:20
2	Cd 226.502†	72978.6	75295.4	508.59 µg/L	508.59 ppb	15:44:20
2	Co 228.616†	37280.3	38621.3	511.19 µg/L	511.19 ppb	15:44:20
2	Cr 267.716†	56788.5	58277.7	504.06 µg/L	504.06 ppb	15:44:20
2	Cu 324.752†	118955.9	119527.7	501.49 µg/L	501.49 ppb	15:44:20
2	Mn 257.610†	368785.8	379786.3	503.59 µg/L	503.59 ppb	15:44:20
2	Mo 202.031†	15070.2	15565.9	509.53 µg/L	509.53 ppb	15:44:40
2	Ni 231.604†	39249.9	40536.2	507.16 µg/L	507.16 ppb	15:44:20
2	P 214.914†	10673.2	11022.6	2541.1 µg/L	2541.1 ppb	15:44:40
2	Pb 220.353†	8193.4	8338.4	514.73 µg/L	514.73 ppb	15:44:40
2	S 181.975 Axial†	1261.3	1210.7	1022.8 µg/L	1022.8 ppb	15:44:40
2	Sb 206.836†	3892.0	3920.3	506.72 µg/L	506.72 ppb	15:44:40
2	Se 196.026†	1271.0	1303.4	516 µg/L	516 ppb	15:44:40
2	SiO2†	50633.7	50430.4	5318.7 µg/L	5318.7 ppb	15:44:20
2	Si 251.611†	155056.1	158991.9	2497.0 µg/L	2497.0 ppb	15:44:20
2	Sn 189.927†	7035.5	7246.9	504.36 µg/L	504.36 ppb	15:44:40
2	Ti 334.940†	472243.0	485743.1	498.26 µg/L	498.26 ppb	15:44:20
2	Tl 190.801†	3505.4	3726.0	516.27 µg/L	516.27 ppb	15:44:40
2	U 409.014†	6674.5	7040.3	474.90 µg/L	474.90 ppb	15:44:20
2	V 292.402†	94349.4	96787.8	508.38 µg/L	508.38 ppb	15:44:20
2	Zn 213.857†	83090.8	85108.0	504.25 µg/L	504.25 ppb	15:44:20
3	Sc RADIAL	133727.0	133727.0	95.5 %		15:43:38
3	Al 396.153Radial†	22511.9	23662.1	4958.0 µg/L	4958.0 ppb	15:43:38
3	Ca 317.933Radial†	72508.3	75388.6	5134.6 µg/L	5134.6 ppb	15:43:38
3	Fe 238.204 Radial†	65003.6	67980.7	5076.8 µg/L	5076.8 ppb	15:43:38
3	K 766.490 Radial†	13744.7	12905.2	5109.5 µg/L	5109.5 ppb	15:43:38
3	Mg 279.077 IEC†	10782.2	11123.1	5144.1 µg/L	5144.1 ppb	15:43:38
3	Na 589.592 Radial†	63336.6	65399.2	10133 µg/L	10133 ppb	15:43:38
3	Sr 421.552†	204462.4	214400.2	505.62 µg/L	505.62 ppb	15:43:36
3	Sc 361.383	1741792.1	1741792.1	96.543 %		15:44:43
3	Y 371.029	1012334.8	1012334.8	95.747 %		15:44:43
3	Ag 328.068†	122718.9	122547.4	507.96 µg/L	507.96 ppb	15:44:43
3	As 188.979†	1317.8	1383.5	475.30 µg/L	475.30 ppb	15:45:03
3	B 249.677†	35269.9	32467.5	503.15 µg/L	503.15 ppb	15:44:43
3	Ba 233.527†	108564.9	112596.4	500.89 µg/L	500.89 ppb	15:44:43
3	Be 313.107†	1636785.0	1696477.9	491.57 µg/L	491.57 ppb	15:44:43
3	Cd 226.502†	72741.5	75449.2	509.63 µg/L	509.63 ppb	15:44:43
3	Co 228.616†	37186.3	38728.0	512.61 µg/L	512.61 ppb	15:44:43
3	Cr 267.716†	56645.7	58440.5	505.45 µg/L	505.45 ppb	15:44:43
3	Cu 324.752†	118602.9	119813.1	502.70 µg/L	502.70 ppb	15:44:43
3	Mn 257.610†	368717.3	381733.6	506.17 µg/L	506.17 ppb	15:44:43
3	Mo 202.031†	15029.6	15606.3	510.85 µg/L	510.85 ppb	15:45:03
3	Ni 231.604†	39158.4	40656.3	508.66 µg/L	508.66 ppb	15:44:43
3	P 214.914†	10634.2	11040.6	2545.3 µg/L	2545.3 ppb	15:45:03
3	Pb 220.353†	8195.6	8385.5	517.62 µg/L	517.62 ppb	15:45:03
3	S 181.975 Axial†	1270.0	1226.5	1036.1 µg/L	1036.1 ppb	15:45:03
3	Sb 206.836†	3894.0	3943.7	509.75 µg/L	509.75 ppb	15:45:03
3	Se 196.026†	1257.1	1295.9	513 µg/L	513 ppb	15:45:03
3	SiO2†	50604.8	50677.5	5344.8 µg/L	5344.8 ppb	15:44:43
3	Si 251.611†	154855.5	159632.7	2507.1 µg/L	2507.1 ppb	15:44:43
3	Sn 189.927†	7013.8	7263.0	505.48 µg/L	505.48 ppb	15:45:03
3	Ti 334.940†	471508.6	487566.9	500.12 µg/L	500.12 ppb	15:44:43
3	Tl 190.801†	3476.1	3714.8	514.78 µg/L	514.78 ppb	15:45:03
3	U 409.014†	6981.4	7394.7	497.38 µg/L	497.38 ppb	15:44:43
3	V 292.402†	94174.0	97122.5	510.15 µg/L	510.15 ppb	15:44:43
3	Zn 213.857†	83052.8	85523.3	506.72 µg/L	506.72 ppb	15:44:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1750861.5	97.046	%	0.4977				0.51%
Sc RADIAL	134244.9	95.8	%	1.05				1.10%
Y 371.029	1017576.8	96.243	%	0.4832				0.50%
Ag 328.068†	122464.2	507.59	µg/L	0.614	507.59	ppb	0.614	0.12%
QC value within limits for Ag 328.068 Recovery = 101.52%								
Al 396.153Radial†	23615.8	4948.4	µg/L	10.51	4948.4	ppb	10.51	0.21%
QC value within limits for Al 396.153Radial Recovery = 98.97%								
As 188.979†	1374.3	472.16	µg/L	5.950	472.16	ppb	5.950	1.26%

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   QC value within limits for As 188.979  Recovery = 94.43%
B 249.677†            32381.1      501.81 µg/L         1.854      501.81 ppb          1.854   0.37%
   QC value within limits for B 249.677  Recovery = 100.36%
Ba 233.527†          112416.3      500.09 µg/L         1.083      500.09 ppb          1.083   0.22%
   QC value within limits for Ba 233.527  Recovery = 100.02%
Be 313.107†         1694739.3      491.06 µg/L         0.935      491.06 ppb          0.935   0.19%
   QC value within limits for Be 313.107  Recovery = 98.21%
Ca 317.933Radial†      75077.6      5113.5 µg/L         31.94      5113.5 ppb          31.94   0.62%
   QC value within limits for Ca 317.933Radial  Recovery = 102.27%
Cd 226.502†            75510.6      510.04 µg/L         1.702      510.04 ppb          1.702   0.33%
   QC value within limits for Cd 226.502  Recovery = 102.01%
Co 228.616†            38686.2      512.05 µg/L         0.755      512.05 ppb          0.755   0.15%
   QC value within limits for Co 228.616  Recovery = 102.41%
Cr 267.716†            58308.5      504.32 µg/L         1.026      504.32 ppb          1.026   0.20%
   QC value within limits for Cr 267.716  Recovery = 100.86%
Cu 324.752†           119669.1      502.09 µg/L         0.607      502.09 ppb          0.607   0.12%
   QC value within limits for Cu 324.752  Recovery = 100.42%
Fe 238.204 Radial†     67791.2      5062.6 µg/L         14.83      5062.6 ppb          14.83   0.29%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.25%
K 766.490 Radial†      12953.5      5128.6 µg/L         27.93      5128.6 ppb          27.93   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 102.57%
Mg 279.077 IEC†        11084.1      5126.0 µg/L         47.25      5126.0 ppb          47.25   0.92%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.52%
Mn 257.610†           380883.0      505.04 µg/L         1.323      505.04 ppb          1.323   0.26%
   QC value within limits for Mn 257.610  Recovery = 101.01%
Mo 202.031†            15532.8      508.45 µg/L         3.089      508.45 ppb          3.089   0.61%
   QC value within limits for Mo 202.031  Recovery = 101.69%
Na 589.592 Radial†     65209.4       10103 µg/L          50.1       10103 ppb           50.1   0.50%
   QC value within limits for Na 589.592 Radial  Recovery = 101.03%
Ni 231.604†            40667.9      508.81 µg/L         1.724      508.81 ppb          1.724   0.34%
   QC value within limits for Ni 231.604  Recovery = 101.76%
P 214.914†             10997.2      2535.2 µg/L         13.93      2535.2 ppb          13.93   0.55%
   QC value within limits for P 214.914  Recovery = 101.41%
Pb 220.353†             8333.5      514.42 µg/L         3.363      514.42 ppb          3.363   0.65%
   QC value within limits for Pb 220.353  Recovery = 102.88%
S 181.975 Axial†        1215.1      1026.5 µg/L          8.36      1026.5 ppb           8.36   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 102.65%
Sb 206.836†             3916.0      506.15 µg/L         3.917      506.15 ppb          3.917   0.77%
   QC value within limits for Sb 206.836  Recovery = 101.23%
Se 196.026†             1292.9         512 µg/L           4.8         512 ppb            4.8   0.94%
   QC value within limits for Se 196.026  Recovery = 102.31%
SiO2†                  50589.1      5335.5 µg/L         14.62      5335.5 ppb          14.62   0.27%
   QC value within limits for SiO2  Recovery = 99.78%
Si 251.611†           159400.2      2503.5 µg/L          5.61      2503.5 ppb           5.61   0.22%
   QC value within limits for Si 251.611  Recovery = 100.14%
Sn 189.927†             7237.0      503.67 µg/L         2.236      503.67 ppb          2.236   0.44%
   QC value within limits for Sn 189.927  Recovery = 100.73%
Sr 421.552†           212987.9      502.28 µg/L         6.266      502.28 ppb          6.266   1.25%
   QC value within limits for Sr 421.552  Recovery = 100.46%
Ti 334.940†           486797.3      499.34 µg/L         0.968      499.34 ppb          0.968   0.19%
   QC value within limits for Ti 334.940  Recovery = 99.87%
Tl 190.801†             3705.7      513.52 µg/L         3.555      513.52 ppb          3.555   0.69%
   QC value within limits for Tl 190.801  Recovery = 102.70%
U 409.014†              7168.6      483.04 µg/L        12.456      483.04 ppb         12.456   2.58%
   QC value within limits for U 409.014  Recovery = 96.61%
V 292.402†             96901.4      508.97 µg/L         1.024      508.97 ppb          1.024   0.20%
   QC value within limits for V 292.402  Recovery = 101.79%
Zn 213.857†            85386.2      505.90 µg/L         1.430      505.90 ppb          1.430   0.28%
   QC value within limits for Zn 213.857  Recovery = 101.18%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 15:45:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137482.7	137482.7	98.1	%			15:45:43
1	Al 396.153Radial†	-100.7	-24.1	-5.0958	µg/L	-5.0958	ppb	15:46:03
1	Ca 317.933Radial†	635.3	76.0	5.1731	µg/L	5.1731	ppb	15:46:03
1	Fe 238.204 Radial†	150.4	35.9	2.6831	µg/L	2.6831	ppb	15:46:03
1	K 766.490 Radial†	1592.5	129.0	51.094	µg/L	51.094	ppb	15:45:43
1	Mg 279.077 IEC†	152.3	-17.3	-7.9711	µg/L	-7.9711	ppb	15:46:03
1	Na 589.592 Radial†	1222.2	292.9	45.353	µg/L	45.353	ppb	15:45:43
1	Sr 421.552†	-150.5	51.1	0.1206	µg/L	0.1206	ppb	15:45:43
1	Sc 361.383	1772363.7	1772363.7	98.238	%			15:47:04
1	Y 371.029	1040302.4	1040302.4	98.393	%			15:47:04
1	Ag 328.068†	4076.6	-415.4	-1.7134	µg/L	-1.7134	ppb	15:47:07
1	As 188.979†	-19.8	-1.6	-0.5389	µg/L	-0.5389	ppb	15:47:27
1	B 249.677†	4006.5	13.2	0.2039	µg/L	0.2039	ppb	15:47:07
1	Ba 233.527†	-164.3	-22.7	-0.1008	µg/L	-0.1008	ppb	15:47:27
1	Be 313.107†	-716.7	362.2	0.1019	µg/L	0.1019	ppb	15:47:07
1	Cd 226.502†	-72.7	29.4	0.1984	µg/L	0.1984	ppb	15:47:27
1	Co 228.616†	-175.8	31.4	0.4147	µg/L	0.4147	ppb	15:47:27
1	Cr 267.716†	244.5	15.7	0.1438	µg/L	0.1438	ppb	15:47:27
1	Cu 324.752†	2811.8	-173.9	-0.7351	µg/L	-0.7351	ppb	15:47:07
1	Mn 257.610†	192.2	10.9	0.0148	µg/L	0.0148	ppb	15:47:27
1	Mo 202.031†	-24.6	13.5	0.4431	µg/L	0.4431	ppb	15:47:27
1	Ni 231.604†	-67.5	27.2	0.3401	µg/L	0.3401	ppb	15:47:27
1	P 214.914†	19.9	46.0	10.633	µg/L	10.633	ppb	15:47:27
1	Pb 220.353†	123.7	22.4	1.3877	µg/L	1.3877	ppb	15:47:27
1	S 181.975 Axial†	96.1	8.9	7.5101	µg/L	7.5101	ppb	15:47:27
1	Sb 206.836†	79.4	-8.8	-1.1363	µg/L	-1.1363	ppb	15:47:27
1	Se 196.026†	16.4	10.6	4.16	µg/L	4.16	ppb	15:47:27
1	SiO2†	1750.1	42.4	4.4782	µg/L	4.4782	ppb	15:47:27
1	Si 251.611†	784.8	31.9	0.4952	µg/L	0.4952	ppb	15:47:07
1	Sn 189.927†	4.6	2.8	0.1907	µg/L	0.1907	ppb	15:47:27
1	Ti 334.940†	774.1	-35.0	-0.0311	µg/L	-0.0311	ppb	15:47:07
1	Tl 190.801†	-119.8	-7.7	-1.0533	µg/L	-1.0533	ppb	15:47:27
1	U 409.014†	-316.6	-159.0	-10.034	µg/L	-10.034	ppb	15:47:07
1	V 292.402†	408.8	-7.1	-0.0385	µg/L	-0.0385	ppb	15:47:07
1	Zn 213.857†	552.3	59.2	0.3517	µg/L	0.3517	ppb	15:47:27
2	Sc RADIAL	137847.2	137847.2	98.4	%			15:46:05
2	Al 396.153Radial†	-81.9	-4.7	-1.0206	µg/L	-1.0206	ppb	15:46:25
2	Ca 317.933Radial†	627.0	65.8	4.4790	µg/L	4.4790	ppb	15:46:25
2	Fe 238.204 Radial†	143.1	28.1	2.1004	µg/L	2.1004	ppb	15:46:25
2	K 766.490 Radial†	1465.2	-4.7	-1.8903	µg/L	-1.8903	ppb	15:46:05
2	Mg 279.077 IEC†	173.0	3.3	1.5568	µg/L	1.5568	ppb	15:46:25
2	Na 589.592 Radial†	1236.5	304.1	47.146	µg/L	47.146	ppb	15:46:05
2	Sr 421.552†	-206.9	-5.8	-0.0136	µg/L	-0.0136	ppb	15:46:05
2	Sc 361.383	1766618.9	1766618.9	97.920	%			15:47:29
2	Y 371.029	1037725.2	1037725.2	98.149	%			15:47:29
2	Ag 328.068†	4183.1	-293.2	-1.2037	µg/L	-1.2037	ppb	15:47:31
2	As 188.979†	-21.3	-3.2	-1.0848	µg/L	-1.0848	ppb	15:47:51
2	B 249.677†	4133.4	156.0	2.4266	µg/L	2.4266	ppb	15:47:31
2	Ba 233.527†	-164.4	-23.3	-0.1038	µg/L	-0.1038	ppb	15:47:51
2	Be 313.107†	-575.1	504.4	0.1459	µg/L	0.1459	ppb	15:47:31
2	Cd 226.502†	-74.0	27.8	0.1880	µg/L	0.1880	ppb	15:47:51
2	Co 228.616†	-203.7	2.3	0.0303	µg/L	0.0303	ppb	15:47:51
2	Cr 267.716†	242.2	14.2	0.1230	µg/L	0.1230	ppb	15:47:51
2	Cu 324.752†	2826.5	-149.5	-0.6256	µg/L	-0.6256	ppb	15:47:31
2	Mn 257.610†	206.7	26.4	0.0349	µg/L	0.0349	ppb	15:47:51
2	Mo 202.031†	-22.5	15.6	0.5106	µg/L	0.5106	ppb	15:47:51
2	Ni 231.604†	-59.9	34.8	0.4349	µg/L	0.4349	ppb	15:47:51
2	P 214.914†	16.0	42.0	9.7148	µg/L	9.7148	ppb	15:47:51
2	Pb 220.353†	107.5	6.4	0.3937	µg/L	0.3937	ppb	15:47:51

2	S 181.975 Axial†	92.7	5.7	4.8364 µg/L	4.8364 ppb	15:47:51
2	Sb 206.836†	75.9	-12.2	-1.5651 µg/L	-1.5651 ppb	15:47:51
2	Se 196.026†	9.4	3.4	1.34 µg/L	1.34 ppb	15:47:51
2	SiO2†	1717.3	14.7	1.5425 µg/L	1.5425 ppb	15:47:51
2	Si 251.611†	958.9	212.2	3.3386 µg/L	3.3386 ppb	15:47:31
2	Sn 189.927†	3.7	1.9	0.1343 µg/L	0.1343 ppb	15:47:51
2	Ti 334.940†	689.3	-119.1	-0.1221 µg/L	-0.1221 ppb	15:47:31
2	Tl 190.801†	-113.8	-2.0	-0.2726 µg/L	-0.2726 ppb	15:47:51
2	U 409.014†	-170.0	-10.2	-0.6568 µg/L	-0.6568 ppb	15:47:31
2	V 292.402†	372.6	-42.7	-0.2160 µg/L	-0.2160 ppb	15:47:31
2	Zn 213.857†	529.8	38.1	0.2249 µg/L	0.2249 ppb	15:47:51
3	Sc RADIAL	135226.3	135226.3	96.5 %		15:46:27
3	Al 396.153Radial†	-80.7	-5.0	-1.0788 µg/L	-1.0788 ppb	15:46:47
3	Ca 317.933Radial†	635.8	87.3	5.9451 µg/L	5.9451 ppb	15:46:47
3	Fe 238.204 Radial†	138.2	25.9	1.9354 µg/L	1.9354 ppb	15:46:47
3	K 766.490 Radial†	1553.6	115.7	45.838 µg/L	45.838 ppb	15:46:27
3	Mg 279.077 IEC†	156.0	-10.8	-4.9889 µg/L	-4.9889 ppb	15:46:47
3	Na 589.592 Radial†	1091.9	178.7	27.664 µg/L	27.664 ppb	15:46:27
3	Sr 421.552†	-209.8	-12.8	-0.0303 µg/L	-0.0303 ppb	15:46:27
3	Sc 361.383	1780363.2	1780363.2	98.681 %		15:47:53
3	Y 371.029	1045882.5	1045882.5	98.920 %		15:47:53
3	Ag 328.068†	4206.0	-302.9	-1.2654 µg/L	-1.2654 ppb	15:47:55
3	As 188.979†	-13.8	4.6	1.5490 µg/L	1.5490 ppb	15:48:15
3	B 249.677†	4177.4	168.1	2.6137 µg/L	2.6137 ppb	15:47:55
3	Ba 233.527†	-192.0	-50.0	-0.2218 µg/L	-0.2218 ppb	15:48:15
3	Be 313.107†	-542.2	542.3	0.1495 µg/L	0.1495 ppb	15:47:55
3	Cd 226.502†	-89.5	12.7	0.0856 µg/L	0.0856 ppb	15:48:15
3	Co 228.616†	-188.0	19.8	0.2618 µg/L	0.2618 ppb	15:48:15
3	Cr 267.716†	266.3	36.7	0.3374 µg/L	0.3374 ppb	15:48:15
3	Cu 324.752†	2890.1	-107.4	-0.4697 µg/L	-0.4697 ppb	15:47:55
3	Mn 257.610†	241.7	60.2	0.0800 µg/L	0.0800 ppb	15:48:15
3	Mo 202.031†	-27.6	10.6	0.3472 µg/L	0.3472 ppb	15:48:15
3	Ni 231.604†	-75.2	19.7	0.2470 µg/L	0.2470 ppb	15:48:15
3	P 214.914†	24.9	50.9	11.780 µg/L	11.780 ppb	15:48:15
3	Pb 220.353†	118.9	17.1	1.0706 µg/L	1.0706 ppb	15:48:15
3	S 181.975 Axial†	93.7	6.0	5.0404 µg/L	5.0404 ppb	15:48:15
3	Sb 206.836†	72.2	-16.5	-2.1256 µg/L	-2.1256 ppb	15:48:15
3	Se 196.026†	0.8	-5.3	-2.13 µg/L	-2.13 ppb	15:48:15
3	SiO2†	1726.6	10.6	1.0944 µg/L	1.0944 ppb	15:48:15
3	Si 251.611†	890.9	135.8	2.1284 µg/L	2.1284 ppb	15:47:55
3	Sn 189.927†	18.8	17.2	1.1898 µg/L	1.1898 ppb	15:48:15
3	Ti 334.940†	831.1	19.2	0.0305 µg/L	0.0305 ppb	15:47:55
3	Tl 190.801†	-129.7	-17.2	-2.3405 µg/L	-2.3405 ppb	15:48:15
3	U 409.014†	-555.3	-399.3	-25.171 µg/L	-25.171 ppb	15:47:55
3	V 292.402†	510.9	94.5	0.4775 µg/L	0.4775 ppb	15:47:55
3	Zn 213.857†	554.3	58.7	0.3489 µg/L	0.3489 ppb	15:48:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1773115.3	98.280	%	0.3826				0.39%
Sc RADIAL	136852.1	97.7	%	1.01				1.04%
Y 371.029	1041303.4	98.487	%	0.3944				0.40%
Ag 328.068†	-337.2	-1.3942	µg/L	0.27817	-1.3942	ppb	0.27817	19.95%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-11.3	-2.3984	µg/L	2.33618	-2.3984	ppb	2.33618	97.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.0249	µg/L	1.39008	-0.0249	ppb	1.39008	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	112.5	1.7481	µg/L	1.34056	1.7481	ppb	1.34056	76.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-32.0	-0.1421	µg/L	0.06904	-0.1421	ppb	0.06904	48.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	469.6	0.1324	µg/L	0.02651	0.1324	ppb	0.02651	20.01%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	76.3	5.1991	µg/L	0.73339	5.1991	ppb	0.73339	14.11%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.3	0.1573	µg/L	0.06232	0.1573	ppb	0.06232	39.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.8	0.2356	µg/L	0.19354	0.2356	ppb	0.19354	82.13%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                22.2      0.2014 µg/L       0.11822      0.2014 ppb        0.11822  58.70%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -143.6     -0.6101 µg/L       0.13336     -0.6101 ppb        0.13336  21.86%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         30.0      2.2396 µg/L       0.39285      2.2396 ppb        0.39285  17.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          80.0      31.681 µg/L       29.1919      31.681 ppb        29.1919  92.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -8.3     -3.8011 µg/L       4.87373     -3.8011 ppb        4.87373 128.22%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                32.5      0.0433 µg/L       0.03339      0.0433 ppb        0.03339  77.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.3      0.4336 µg/L       0.08210      0.4336 ppb        0.08210  18.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        258.6      40.055 µg/L       10.7676      40.055 ppb        10.7676  26.88%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                27.2      0.3406 µg/L       0.09394      0.3406 ppb        0.09394  27.58%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 46.3      10.709 µg/L        1.0350      10.709 ppb         1.0350   9.66%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.3      0.9507 µg/L       0.50776      0.9507 ppb        0.50776  53.41%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            6.9      5.7956 µg/L       1.48827      5.7956 ppb        1.48827  25.68%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -12.5     -1.6090 µg/L       0.49608     -1.6090 ppb        0.49608  30.83%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.9        1.12 µg/L         3.148        1.12 ppb          3.148 280.27%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      22.6      2.3717 µg/L       1.83795      2.3717 ppb        1.83795  77.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               126.6      1.9874 µg/L       1.42694      1.9874 ppb        1.42694  71.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.3      0.5050 µg/L       0.59378      0.5050 ppb        0.59378 117.59%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                10.8      0.0255 µg/L       0.08273      0.0255 ppb        0.08273 323.94%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -45.0     -0.0409 µg/L       0.07673     -0.0409 ppb        0.07673 187.58%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -8.9     -1.2221 µg/L       1.04426     -1.2221 ppb        1.04426  85.44%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -189.5     -11.954 µg/L       12.3693     -11.954 ppb        12.3693 103.48%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 14.9      0.0743 µg/L       0.36030      0.0743 ppb        0.36030 484.73%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                52.0      0.3085 µg/L       0.07240      0.3085 ppb        0.07240  23.47%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 16:01:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137441.1	137441.1	98.1	%			16:02:25
1	Al 396.153Radial†	23126.1	23650.9	4956.1	µg/L	4956.1	ppb	16:02:25
1	Ca 317.933Radial†	74181.8	75041.7	5111.0	µg/L	5111.0	ppb	16:02:25
1	Fe 238.204 Radial†	66736.2	67906.6	5071.2	µg/L	5071.2	ppb	16:02:25
1	K 766.490 Radial†	14052.6	12829.9	5079.7	µg/L	5079.7	ppb	16:02:25
1	Mg 279.077 IEC†	11050.2	11091.0	5129.0	µg/L	5129.0	ppb	16:02:25
1	Na 589.592 Radial†	64869.6	65168.8	10097	µg/L	10097	ppb	16:02:25
1	Sr 421.552†	206264.5	210448.8	496.30	µg/L	496.30	ppb	16:02:23
1	Sc 361.383	1780080.9	1780080.9	98.666	%			16:02:38
1	Y 371.029	1034406.0	1034406.0	97.835	%			16:02:38
1	Ag 328.068†	125469.6	122601.1	508.16	µg/L	508.16	ppb	16:02:38
1	As 188.979†	1329.9	1366.4	469.48	µg/L	469.48	ppb	16:02:58
1	B 249.677†	35597.1	32013.3	496.09	µg/L	496.09	ppb	16:02:38
1	Ba 233.527†	110724.9	112366.8	499.87	µg/L	499.87	ppb	16:02:38
1	Be 313.107†	1670454.9	1694136.1	490.89	µg/L	490.89	ppb	16:02:38
1	Cd 226.502†	74260.9	75368.4	509.08	µg/L	509.08	ppb	16:02:38
1	Co 228.616†	37941.6	38664.9	511.77	µg/L	511.77	ppb	16:02:38
1	Cr 267.716†	57712.7	58259.9	503.89	µg/L	503.89	ppb	16:02:38
1	Cu 324.752†	120967.7	119567.4	501.67	µg/L	501.67	ppb	16:02:38
1	Mn 257.610†	375204.5	380093.6	504.00	µg/L	504.00	ppb	16:02:38
1	Mo 202.031†	15082.1	15324.6	501.64	µg/L	501.64	ppb	16:02:58
1	Ni 231.604†	39829.9	40464.4	506.26	µg/L	506.26	ppb	16:02:38
1	P 214.914†	10597.0	10766.0	2481.8	µg/L	2481.8	ppb	16:02:58
1	Pb 220.353†	8148.5	8155.2	503.42	µg/L	503.42	ppb	16:02:58
1	S 181.975 Axial†	1264.3	1192.4	1007.4	µg/L	1007.4	ppb	16:02:58
1	Sb 206.836†	3883.0	3845.8	497.00	µg/L	497.00	ppb	16:02:58
1	Se 196.026†	1257.4	1268.2	502	µg/L	502	ppb	16:02:58
1	SiO2†	51490.2	50447.4	5320.9	µg/L	5320.9	ppb	16:02:38
1	Si 251.611†	158107.4	159478.4	2504.8	µg/L	2504.8	ppb	16:02:38
1	Sn 189.927†	7030.7	7123.9	495.82	µg/L	495.82	ppb	16:02:58
1	Ti 334.940†	480453.7	486127.8	498.65	µg/L	498.65	ppb	16:02:38
1	Tl 190.801†	3466.3	3627.5	502.83	µg/L	502.83	ppb	16:02:58
1	U 409.014†	7072.1	7331.1	493.26	µg/L	493.26	ppb	16:02:38
1	V 292.402†	95963.2	96837.7	508.57	µg/L	508.57	ppb	16:02:38
1	Zn 213.857†	84574.9	85215.6	504.90	µg/L	504.90	ppb	16:02:38
2	Sc RADIAL	134965.6	134965.6	96.3	%			16:02:29
2	Al 396.153Radial†	22754.5	23697.5	4965.7	µg/L	4965.7	ppb	16:02:29
2	Ca 317.933Radial†	72687.3	74877.3	5099.8	µg/L	5099.8	ppb	16:02:29
2	Fe 238.204 Radial†	65298.6	67662.0	5052.9	µg/L	5052.9	ppb	16:02:29
2	K 766.490 Radial†	13754.4	12783.1	5061.1	µg/L	5061.1	ppb	16:02:29
2	Mg 279.077 IEC†	10815.0	11053.4	5111.8	µg/L	5111.8	ppb	16:02:29
2	Na 589.592 Radial†	63625.2	65089.8	10085	µg/L	10085	ppb	16:02:29
2	Sr 421.552†	206639.7	214694.4	506.31	µg/L	506.31	ppb	16:02:27
2	Sc 361.383	1758945.5	1758945.5	97.494	%			16:03:01
2	Y 371.029	1022598.2	1022598.2	96.718	%			16:03:01
2	Ag 328.068†	123736.9	122351.9	507.17	µg/L	507.17	ppb	16:03:01
2	As 188.979†	1321.2	1373.7	471.97	µg/L	471.97	ppb	16:03:21
2	B 249.677†	35279.4	32121.0	497.77	µg/L	497.77	ppb	16:03:01
2	Ba 233.527†	109636.5	112598.8	500.90	µg/L	500.90	ppb	16:03:01
2	Be 313.107†	1651699.1	1695241.7	491.21	µg/L	491.21	ppb	16:03:01
2	Cd 226.502†	73145.5	75128.8	507.46	µg/L	507.46	ppb	16:03:01
2	Co 228.616†	37353.2	38523.6	509.90	µg/L	509.90	ppb	16:03:01
2	Cr 267.716†	57231.1	58468.8	505.68	µg/L	505.68	ppb	16:03:01
2	Cu 324.752†	119889.7	119934.9	503.22	µg/L	503.22	ppb	16:03:01
2	Mn 257.610†	371557.8	380922.6	505.10	µg/L	505.10	ppb	16:03:01
2	Mo 202.031†	15021.1	15445.7	505.60	µg/L	505.60	ppb	16:03:21
2	Ni 231.604†	39481.4	40592.1	507.86	µg/L	507.86	ppb	16:03:01
2	P 214.914†	10590.2	10888.0	2510.0	µg/L	2510.0	ppb	16:03:21
2	Pb 220.353†	8140.1	8245.9	509.00	µg/L	509.00	ppb	16:03:21

2	S 181.975 Axial†	1241.5	1184.5	1000.7 µg/L	1000.7 ppb	16:03:21
2	Sb 206.836†	3875.1	3884.9	502.08 µg/L	502.08 ppb	16:03:21
2	Se 196.026†	1260.1	1286.3	509 µg/L	509 ppb	16:03:21
2	SiO2†	51107.0	50681.4	5345.4 µg/L	5345.4 ppb	16:03:01
2	Si 251.611†	156416.6	159669.7	2507.8 µg/L	2507.8 ppb	16:03:01
2	Sn 189.927†	7021.7	7200.3	501.13 µg/L	501.13 ppb	16:03:21
2	Ti 334.940†	475720.5	487124.2	499.66 µg/L	499.66 ppb	16:03:01
2	Tl 190.801†	3486.4	3690.3	511.43 µg/L	511.43 ppb	16:03:21
2	U 409.014†	7302.4	7653.4	513.61 µg/L	513.61 ppb	16:03:01
2	V 292.402†	94816.8	96830.5	508.60 µg/L	508.60 ppb	16:03:01
2	Zn 213.857†	83551.7	85196.1	504.77 µg/L	504.77 ppb	16:03:01
3	Sc RADIAL	135464.0	135464.0	96.7 %		16:02:33
3	Al 396.153Radial†	22756.1	23612.2	4947.9 µg/L	4947.9 ppb	16:02:33
3	Ca 317.933Radial†	73079.3	75005.1	5108.5 µg/L	5108.5 ppb	16:02:33
3	Fe 238.204 Radial†	65659.6	67786.0	5062.2 µg/L	5062.2 ppb	16:02:33
3	K 766.490 Radial†	13865.1	12845.1	5085.7 µg/L	5085.7 ppb	16:02:33
3	Mg 279.077 IEC†	10781.0	10977.0	5076.5 µg/L	5076.5 ppb	16:02:33
3	Na 589.592 Radial†	63870.7	65100.7	10087 µg/L	10087 ppb	16:02:33
3	Sr 421.552†	206746.3	214015.5	504.71 µg/L	504.71 ppb	16:02:31
3	Sc 361.383	1771677.5	1771677.5	98.200 %		16:03:24
3	Y 371.029	1029288.7	1029288.7	97.351 %		16:03:24
3	Ag 328.068†	124628.6	122347.9	507.15 µg/L	507.15 ppb	16:03:24
3	As 188.979†	1307.3	1349.9	463.90 µg/L	463.90 ppb	16:03:44
3	B 249.677†	35691.9	32281.0	500.25 µg/L	500.25 ppb	16:03:24
3	Ba 233.527†	110324.8	112491.6	500.42 µg/L	500.42 ppb	16:03:24
3	Be 313.107†	1664896.5	1696506.2	491.58 µg/L	491.58 ppb	16:03:24
3	Cd 226.502†	73762.1	75217.5	508.06 µg/L	508.06 ppb	16:03:24
3	Co 228.616†	37707.2	38608.7	511.03 µg/L	511.03 ppb	16:03:24
3	Cr 267.716†	57702.0	58526.5	506.18 µg/L	506.18 ppb	16:03:24
3	Cu 324.752†	120899.8	120079.8	503.82 µg/L	503.82 ppb	16:03:24
3	Mn 257.610†	374321.1	380997.8	505.20 µg/L	505.20 ppb	16:03:24
3	Mo 202.031†	15058.0	15372.6	503.21 µg/L	503.21 ppb	16:03:44
3	Ni 231.604†	39761.7	40586.5	507.79 µg/L	507.79 ppb	16:03:24
3	P 214.914†	10605.6	10825.7	2495.6 µg/L	2495.6 ppb	16:03:44
3	Pb 220.353†	8186.0	8232.6	508.18 µg/L	508.18 ppb	16:03:44
3	S 181.975 Axial†	1260.5	1194.7	1009.3 µg/L	1009.3 ppb	16:03:44
3	Sb 206.836†	3888.7	3870.2	500.14 µg/L	500.14 ppb	16:03:44
3	Se 196.026†	1265.5	1282.5	507 µg/L	507 ppb	16:03:44
3	SiO2†	51600.1	50806.9	5358.8 µg/L	5358.8 ppb	16:03:24
3	Si 251.611†	157675.1	159798.3	2509.9 µg/L	2509.9 ppb	16:03:24
3	Sn 189.927†	7027.2	7154.1	497.92 µg/L	497.92 ppb	16:03:44
3	Ti 334.940†	478799.9	486753.5	499.29 µg/L	499.29 ppb	16:03:24
3	Tl 190.801†	3497.8	3676.2	509.50 µg/L	509.50 ppb	16:03:44
3	U 409.014†	7275.0	7571.7	508.47 µg/L	508.47 ppb	16:03:24
3	V 292.402†	95572.1	96900.8	508.93 µg/L	508.93 ppb	16:03:24
3	Zn 213.857†	84120.5	85159.4	504.55 µg/L	504.55 ppb	16:03:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1770234.6	98.120	%	0.5898				0.60%
Sc RADIAL	135956.9	97.0	%	0.93				0.96%
Y 371.029	1028764.3	97.301	%	0.5600				0.58%
Ag 328.068†	122433.6	507.49	µg/L	0.580	507.49	ppb	0.580	0.11%
QC value within limits for Ag 328.068 Recovery = 101.50%								
Al 396.153Radial†	23653.5	4956.6	µg/L	8.93	4956.6	ppb	8.93	0.18%
QC value within limits for Al 396.153Radial Recovery = 99.13%								
As 188.979†	1363.3	468.45	µg/L	4.132	468.45	ppb	4.132	0.88%
QC value within limits for As 188.979 Recovery = 93.69%								
B 249.677†	32138.5	498.04	µg/L	2.095	498.04	ppb	2.095	0.42%
QC value within limits for B 249.677 Recovery = 99.61%								
Ba 233.527†	112485.7	500.39	µg/L	0.517	500.39	ppb	0.517	0.10%
QC value within limits for Ba 233.527 Recovery = 100.08%								
Be 313.107†	1695294.7	491.23	µg/L	0.346	491.23	ppb	0.346	0.07%
QC value within limits for Be 313.107 Recovery = 98.25%								
Ca 317.933Radial†	74974.7	5106.5	µg/L	5.88	5106.5	ppb	5.88	0.12%
QC value within limits for Ca 317.933Radial Recovery = 102.13%								
Cd 226.502†	75238.2	508.20	µg/L	0.818	508.20	ppb	0.818	0.16%
QC value within limits for Cd 226.502 Recovery = 101.64%								
Co 228.616†	38599.1	510.90	µg/L	0.940	510.90	ppb	0.940	0.18%

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   QC value within limits for Co 228.616  Recovery = 102.18%
Cr 267.716†            58418.4      505.25 µg/L         1.206      505.25 ppb          1.206   0.24%
   QC value within limits for Cr 267.716  Recovery = 101.05%
Cu 324.752†           119860.7      502.91 µg/L         1.110      502.91 ppb          1.110   0.22%
   QC value within limits for Cu 324.752  Recovery = 100.58%
Fe 238.204 Radial†     67784.8      5062.1 µg/L          9.13      5062.1 ppb           9.13   0.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.24%
K 766.490 Radial†      12819.4      5075.5 µg/L         12.81      5075.5 ppb          12.81   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 101.51%
Mg 279.077 IEC†        11040.4      5105.8 µg/L         26.80      5105.8 ppb          26.80   0.52%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.12%
Mn 257.610†           380671.3      504.76 µg/L         0.666      504.76 ppb          0.666   0.13%
   QC value within limits for Mn 257.610  Recovery = 100.95%
Mo 202.031†            15381.0      503.48 µg/L         1.994      503.48 ppb          1.994   0.40%
   QC value within limits for Mo 202.031  Recovery = 100.70%
Na 589.592 Radial†     65119.8       10090 µg/L           6.6       10090 ppb            6.6   0.07%
   QC value within limits for Na 589.592 Radial  Recovery = 100.90%
Ni 231.604†            40547.7      507.30 µg/L         0.902      507.30 ppb          0.902   0.18%
   QC value within limits for Ni 231.604  Recovery = 101.46%
P 214.914†             10826.6      2495.8 µg/L         14.12      2495.8 ppb          14.12   0.57%
   QC value within limits for P 214.914  Recovery = 99.83%
Pb 220.353†             8211.2      506.87 µg/L         3.010      506.87 ppb          3.010   0.59%
   QC value within limits for Pb 220.353  Recovery = 101.37%
S 181.975 Axial†        1190.5      1005.8 µg/L          4.51      1005.8 ppb           4.51   0.45%
   QC value within limits for S 181.975 Axial  Recovery = 100.58%
Sb 206.836†             3867.0      499.74 µg/L         2.565      499.74 ppb          2.565   0.51%
   QC value within limits for Sb 206.836  Recovery = 99.95%
Se 196.026†             1279.0         506 µg/L           3.8         506 ppb            3.8   0.75%
   QC value within limits for Se 196.026  Recovery = 101.22%
SiO2†                  50645.2      5341.7 µg/L         19.27      5341.7 ppb          19.27   0.36%
   QC value within limits for SiO2  Recovery = 99.89%
Si 251.611†           159648.8      2507.5 µg/L          2.52      2507.5 ppb           2.52   0.10%
   QC value within limits for Si 251.611  Recovery = 100.30%
Sn 189.927†             7159.5      498.29 µg/L         2.670      498.29 ppb          2.670   0.54%
   QC value within limits for Sn 189.927  Recovery = 99.66%
Sr 421.552†           213052.9      502.44 µg/L         5.379      502.44 ppb          5.379   1.07%
   QC value within limits for Sr 421.552  Recovery = 100.49%
Ti 334.940†           486668.5      499.20 µg/L         0.513      499.20 ppb          0.513   0.10%
   QC value within limits for Ti 334.940  Recovery = 99.84%
Tl 190.801†             3664.7      507.92 µg/L         4.515      507.92 ppb          4.515   0.89%
   QC value within limits for Tl 190.801  Recovery = 101.58%
U 409.014†              7518.7      505.12 µg/L        10.582      505.12 ppb         10.582   2.09%
   QC value within limits for U 409.014  Recovery = 101.02%
V 292.402†             96856.3      508.70 µg/L         0.203      508.70 ppb          0.203   0.04%
   QC value within limits for V 292.402  Recovery = 101.74%
Zn 213.857†            85190.4      504.74 µg/L         0.175      504.74 ppb          0.175   0.03%
   QC value within limits for Zn 213.857  Recovery = 100.95%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 16:03:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138669.5	138669.5	99.0	%			16:04:23
1	Al 396.153Radial†	-103.5	-26.0	-5.5000	µg/L	-5.5000	ppb	16:04:43
1	Ca 317.933Radial†	645.5	80.7	5.4983	µg/L	5.4983	ppb	16:04:43
1	Fe 238.204 Radial†	168.8	53.2	3.9737	µg/L	3.9737	ppb	16:04:43
1	K 766.490 Radial†	1571.9	94.2	37.333	µg/L	37.333	ppb	16:04:23
1	Mg 279.077 IEC†	184.4	13.9	6.4106	µg/L	6.4106	ppb	16:04:43
1	Na 589.592 Radial†	1228.0	288.1	44.623	µg/L	44.623	ppb	16:04:23
1	Sr 421.552†	-170.7	32.1	0.0756	µg/L	0.0756	ppb	16:04:23
1	Sc 361.383	1766148.8	1766148.8	97.894	%			16:05:30
1	Y 371.029	1037911.6	1037911.6	98.166	%			16:05:30
1	Ag 328.068†	4027.7	-450.8	-1.8544	µg/L	-1.8544	ppb	16:05:33
1	As 188.979†	-10.5	7.8	2.6473	µg/L	2.6473	ppb	16:05:53
1	B 249.677†	4122.5	146.0	2.2711	µg/L	2.2711	ppb	16:05:33
1	Ba 233.527†	-147.3	-6.0	-0.0264	µg/L	-0.0264	ppb	16:05:53
1	Be 313.107†	-668.8	408.6	0.1159	µg/L	0.1159	ppb	16:05:33
1	Cd 226.502†	-82.1	19.5	0.1319	µg/L	0.1319	ppb	16:05:53
1	Co 228.616†	-209.5	-3.7	-0.0494	µg/L	-0.0494	ppb	16:05:53
1	Cr 267.716†	267.6	40.2	0.3540	µg/L	0.3540	ppb	16:05:53
1	Cu 324.752†	2875.8	-98.5	-0.4178	µg/L	-0.4178	ppb	16:05:33
1	Mn 257.610†	251.2	71.9	0.0951	µg/L	0.0951	ppb	16:05:53
1	Mo 202.031†	-27.1	10.8	0.3551	µg/L	0.3551	ppb	16:05:53
1	Ni 231.604†	-36.0	59.1	0.7398	µg/L	0.7398	ppb	16:05:53
1	P 214.914†	4.1	29.9	6.9087	µg/L	6.9087	ppb	16:05:53
1	Pb 220.353†	110.7	9.6	0.5957	µg/L	0.5957	ppb	16:05:53
1	S 181.975 Axial†	92.6	5.7	4.7961	µg/L	4.7961	ppb	16:05:53
1	Sb 206.836†	79.3	-8.7	-1.1206	µg/L	-1.1206	ppb	16:05:53
1	Se 196.026†	7.7	1.8	0.688	µg/L	0.688	ppb	16:05:53
1	SiO2†	1754.6	53.2	5.6207	µg/L	5.6207	ppb	16:05:33
1	Si 251.611†	1245.9	505.6	7.9656	µg/L	7.9656	ppb	16:05:33
1	Sn 189.927†	8.5	6.8	0.4689	µg/L	0.4689	ppb	16:05:53
1	Ti 334.940†	599.9	-210.2	-0.2130	µg/L	-0.2130	ppb	16:05:33
1	Tl 190.801†	-115.4	-3.6	-0.4909	µg/L	-0.4909	ppb	16:05:53
1	U 409.014†	-286.7	-129.5	-8.1679	µg/L	-8.1679	ppb	16:05:33
1	V 292.402†	433.4	19.5	0.1005	µg/L	0.1005	ppb	16:05:33
1	Zn 213.857†	594.2	104.0	0.6157	µg/L	0.6157	ppb	16:05:53
2	Sc RADIAL	136792.5	136792.5	97.6	%			16:04:45
2	Al 396.153Radial†	-63.2	13.8	2.8629	µg/L	2.8629	ppb	16:05:05
2	Ca 317.933Radial†	639.2	83.2	5.6649	µg/L	5.6649	ppb	16:05:05
2	Fe 238.204 Radial†	130.1	15.9	1.1904	µg/L	1.1904	ppb	16:05:05
2	K 766.490 Radial†	1722.6	270.4	107.12	µg/L	107.12	ppb	16:04:45
2	Mg 279.077 IEC†	186.7	18.8	8.6918	µg/L	8.6918	ppb	16:05:05
2	Na 589.592 Radial†	1264.2	342.1	52.940	µg/L	52.940	ppb	16:04:45
2	Sr 421.552†	-266.4	-68.4	-0.1613	µg/L	-0.1613	ppb	16:04:45
2	Sc 361.383	1766912.1	1766912.1	97.936	%			16:05:55
2	Y 371.029	1038566.5	1038566.5	98.228	%			16:05:55
2	Ag 328.068†	4110.0	-368.6	-1.5328	µg/L	-1.5328	ppb	16:05:57
2	As 188.979†	-19.5	-1.4	-0.4633	µg/L	-0.4633	ppb	16:06:17
2	B 249.677†	4053.3	73.6	1.1446	µg/L	1.1446	ppb	16:05:57
2	Ba 233.527†	-168.8	-27.8	-0.1235	µg/L	-0.1235	ppb	16:06:17
2	Be 313.107†	-892.7	180.2	0.0470	µg/L	0.0470	ppb	16:05:57
2	Cd 226.502†	-84.5	17.1	0.1157	µg/L	0.1157	ppb	16:06:17
2	Co 228.616†	-194.7	11.5	0.1523	µg/L	0.1523	ppb	16:06:17
2	Cr 267.716†	276.5	49.2	0.4386	µg/L	0.4386	ppb	16:06:17
2	Cu 324.752†	2811.8	-165.0	-0.7040	µg/L	-0.7040	ppb	16:05:57
2	Mn 257.610†	223.0	42.9	0.0566	µg/L	0.0566	ppb	16:06:17
2	Mo 202.031†	-14.2	24.1	0.7879	µg/L	0.7879	ppb	16:06:17
2	Ni 231.604†	-50.9	43.9	0.5491	µg/L	0.5491	ppb	16:06:17
2	P 214.914†	31.6	57.9	13.409	µg/L	13.409	ppb	16:06:17
2	Pb 220.353†	118.9	17.9	1.1176	µg/L	1.1176	ppb	16:06:17

2	S 181.975 Axial†	97.0	10.2	8.5620 µg/L	8.5620 ppb	16:06:17
2	Sb 206.836†	76.1	-12.0	-1.5474 µg/L	-1.5474 ppb	16:06:17
2	Se 196.026†	17.1	11.3	4.43 µg/L	4.43 ppb	16:06:17
2	SiO2†	1896.7	197.6	20.894 µg/L	20.894 ppb	16:05:57
2	Si 251.611†	1284.2	544.3	8.5685 µg/L	8.5685 ppb	16:05:57
2	Sn 189.927†	8.9	7.2	0.4974 µg/L	0.4974 ppb	16:06:17
2	Ti 334.940†	629.3	-180.5	-0.1790 µg/L	-0.1790 ppb	16:05:57
2	Tl 190.801†	-109.6	2.4	0.3201 µg/L	0.3201 ppb	16:06:17
2	U 409.014†	-426.5	-272.2	-17.190 µg/L	-17.190 ppb	16:05:57
2	V 292.402†	368.9	-46.5	-0.2428 µg/L	-0.2428 ppb	16:05:57
2	Zn 213.857†	594.0	103.5	0.6150 µg/L	0.6150 ppb	16:06:17
3	Sc RADIAL	137687.6	137687.6	98.3 %		16:05:07
3	Al 396.153Radial†	-68.7	8.6	1.8049 µg/L	1.8049 ppb	16:05:27
3	Ca 317.933Radial†	610.6	49.8	3.3934 µg/L	3.3934 ppb	16:05:27
3	Fe 238.204 Radial†	138.9	24.1	1.7962 µg/L	1.7962 ppb	16:05:27
3	K 766.490 Radial†	1566.4	99.9	39.592 µg/L	39.592 ppb	16:05:07
3	Mg 279.077 IEC†	182.4	13.1	6.0767 µg/L	6.0767 ppb	16:05:27
3	Na 589.592 Radial†	1089.0	155.5	24.066 µg/L	24.066 ppb	16:05:07
3	Sr 421.552†	-228.5	-28.0	-0.0660 µg/L	-0.0660 ppb	16:05:07
3	Sc 361.383	1777266.9	1777266.9	98.510 %		16:06:19
3	Y 371.029	1044113.1	1044113.1	98.753 %		16:06:19
3	Ag 328.068†	4032.1	-472.1	-1.9340 µg/L	-1.9340 ppb	16:06:21
3	As 188.979†	-13.7	4.6	1.5704 µg/L	1.5704 ppb	16:06:41
3	B 249.677†	4267.3	266.7	4.1474 µg/L	4.1474 ppb	16:06:21
3	Ba 233.527†	-114.9	27.9	0.1244 µg/L	0.1244 ppb	16:06:41
3	Be 313.107†	-652.6	429.2	0.1231 µg/L	0.1231 ppb	16:06:21
3	Cd 226.502†	-64.0	38.4	0.2594 µg/L	0.2594 ppb	16:06:41
3	Co 228.616†	-202.7	4.5	0.0597 µg/L	0.0597 ppb	16:06:41
3	Cr 267.716†	247.2	17.7	0.1567 µg/L	0.1567 ppb	16:06:41
3	Cu 324.752†	2636.6	-359.6	-1.5068 µg/L	-1.5068 ppb	16:06:21
3	Mn 257.610†	219.2	37.8	0.0499 µg/L	0.0499 ppb	16:06:41
3	Mo 202.031†	-28.4	9.7	0.3182 µg/L	0.3182 ppb	16:06:41
3	Ni 231.604†	-62.6	32.4	0.4048 µg/L	0.4048 ppb	16:06:41
3	P 214.914†	1.4	27.1	6.2915 µg/L	6.2915 ppb	16:06:41
3	Pb 220.353†	123.5	21.9	1.3506 µg/L	1.3506 ppb	16:06:41
3	S 181.975 Axial†	89.9	2.3	1.9427 µg/L	1.9427 ppb	16:06:41
3	Sb 206.836†	84.9	-3.5	-0.4445 µg/L	-0.4445 ppb	16:06:41
3	Se 196.026†	21.6	15.7	6.20 µg/L	6.20 ppb	16:06:41
3	SiO2†	1839.5	128.3	13.559 µg/L	13.559 ppb	16:06:21
3	Si 251.611†	1443.3	698.1	10.997 µg/L	10.997 ppb	16:06:21
3	Sn 189.927†	17.1	15.5	1.0724 µg/L	1.0724 ppb	16:06:41
3	Ti 334.940†	832.9	22.5	0.0243 µg/L	0.0243 ppb	16:06:21
3	Tl 190.801†	-111.5	1.1	0.1536 µg/L	0.1536 ppb	16:06:41
3	U 409.014†	-224.1	-64.2	-4.0316 µg/L	-4.0316 ppb	16:06:21
3	V 292.402†	474.2	58.1	0.3023 µg/L	0.3023 ppb	16:06:21
3	Zn 213.857†	578.0	83.7	0.4985 µg/L	0.4985 ppb	16:06:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1770109.3	98.113	%	0.3442				0.35%
Sc RADIAL	137716.5	98.3	%	0.67				0.68%
Y 371.029	1040197.1	98.383	%	0.3223				0.33%
Ag 328.068†	-430.5	-1.7737	µg/L	0.21243	-1.7737	ppb	0.21243	11.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.2	-0.2774	µg/L	4.55371	-0.2774	ppb	4.55371	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.7	1.2515	µg/L	1.57964	1.2515	ppb	1.57964	126.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	162.1	2.5210	µg/L	1.51690	2.5210	ppb	1.51690	60.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.0	-0.0085	µg/L	0.12492	-0.0085	ppb	0.12492	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	339.3	0.0953	µg/L	0.04200	0.0953	ppb	0.04200	44.05%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	71.2	4.8522	µg/L	1.26614	4.8522	ppb	1.26614	26.09%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	25.0	0.1690	µg/L	0.07871	0.1690	ppb	0.07871	46.58%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.1	0.0542	µg/L	0.10096	0.0542	ppb	0.10096	186.36%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              35.7      0.3164 µg/L       0.14464      0.3164 ppb        0.14464  45.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -207.7     -0.8762 µg/L       0.56457     -0.8762 ppb        0.56457  64.43%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       31.1      2.3201 µg/L       1.46372      2.3201 ppb        1.46372  63.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       154.8     61.350 µg/L       39.6584     61.350 ppb        39.6584  64.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          15.3      7.0597 µg/L       1.42327      7.0597 ppb        1.42327  20.16%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              50.9      0.0672 µg/L       0.02437      0.0672 ppb        0.02437  36.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              14.9      0.4871 µg/L       0.26115      0.4871 ppb        0.26115  53.62%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      261.9     40.543 µg/L       14.8631     40.543 ppb        14.8631  36.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              45.1      0.5646 µg/L       0.16805      0.5646 ppb        0.16805  29.77%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               38.3      8.8697 µg/L       3.94313      8.8697 ppb        3.94313  44.46%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              16.5      1.0213 µg/L       0.38655      1.0213 ppb        0.38655  37.85%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.1      5.1003 µg/L       3.32013      5.1003 ppb        3.32013  65.10%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -8.1     -1.0375 µg/L       0.55609     -1.0375 ppb        0.55609  53.60%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               9.6        3.77 µg/L         2.814        3.77 ppb          2.814  74.60%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   126.4     13.358 µg/L        7.6387     13.358 ppb         7.6387  57.19%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             582.7      9.1772 µg/L       1.60491      9.1772 ppb        1.60491  17.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.8      0.6796 µg/L       0.34053      0.6796 ppb        0.34053  50.11%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -21.4     -0.0506 µg/L       0.11919     -0.0506 ppb        0.11919 235.59%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -122.7     -0.1226 µg/L       0.12835     -0.1226 ppb        0.12835 104.73%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.0     -0.0057 µg/L       0.42837     -0.0057 ppb        0.42837 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -155.3     -9.7965 µg/L       6.72862     -9.7965 ppb        6.72862  68.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               10.4      0.0533 µg/L       0.27557      0.0533 ppb        0.27557 516.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              97.1      0.5764 µg/L       0.06747      0.5764 ppb        0.06747  11.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 16:19:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137604.4	137604.4	98.2	%			16:19:33
1	Al 396.153Radial†	23265.4	23764.7	4979.8	µg/L	4979.8	ppb	16:19:33
1	Ca 317.933Radial†	73511.3	74269.3	5058.4	µg/L	5058.4	ppb	16:19:33
1	Fe 238.204 Radial†	66069.9	67147.4	5014.5	µg/L	5014.5	ppb	16:19:33
1	K 766.490 Radial†	14036.0	12796.0	5066.3	µg/L	5066.3	ppb	16:19:33
1	Mg 279.077 IEC†	10906.4	10931.2	5055.4	µg/L	5055.4	ppb	16:19:33
1	Na 589.592 Radial†	64505.4	64719.4	10028	µg/L	10028	ppb	16:19:33
1	Sr 421.552†	207110.0	211060.1	497.74	µg/L	497.74	ppb	16:19:31
1	Sc 361.383	1768540.2	1768540.2	98.026	%			16:20:00
1	Y 371.029	1028377.0	1028377.0	97.265	%			16:20:00
1	Ag 328.068†	123829.4	121757.8	504.71	µg/L	504.71	ppb	16:20:00
1	As 188.979†	1317.7	1362.8	468.24	µg/L	468.24	ppb	16:20:20
1	B 249.677†	35264.2	31909.1	494.48	µg/L	494.48	ppb	16:20:00
1	Ba 233.527†	109485.3	111834.5	497.50	µg/L	497.50	ppb	16:20:00
1	Be 313.107†	1653200.5	1687582.2	488.99	µg/L	488.99	ppb	16:20:00
1	Cd 226.502†	72662.3	74228.9	501.38	µg/L	501.38	ppb	16:20:00
1	Co 228.616†	37380.2	38343.2	507.52	µg/L	507.52	ppb	16:20:00
1	Cr 267.716†	57129.9	58047.1	502.04	µg/L	502.04	ppb	16:20:00
1	Cu 324.752†	120316.1	119702.8	502.24	µg/L	502.24	ppb	16:20:00
1	Mn 257.610†	371454.5	378749.6	502.22	µg/L	502.22	ppb	16:20:00
1	Mo 202.031†	15119.8	15462.8	506.15	µg/L	506.15	ppb	16:20:20
1	Ni 231.604†	39263.8	40150.3	502.33	µg/L	502.33	ppb	16:20:00
1	P 214.914†	10620.5	10860.0	2503.5	µg/L	2503.5	ppb	16:20:20
1	Pb 220.353†	8173.6	8234.7	508.32	µg/L	508.32	ppb	16:20:20
1	S 181.975 Axial†	1250.0	1186.2	1002.2	µg/L	1002.2	ppb	16:20:20
1	Sb 206.836†	3898.3	3887.0	502.40	µg/L	502.40	ppb	16:20:20
1	Se 196.026†	1268.6	1288.0	510	µg/L	510	ppb	16:20:20
1	SiO2†	50966.8	50254.0	5300.2	µg/L	5300.2	ppb	16:20:00
1	Si 251.611†	156067.0	158442.7	2488.4	µg/L	2488.4	ppb	16:20:00
1	Sn 189.927†	7007.5	7146.7	497.40	µg/L	497.40	ppb	16:20:20
1	Ti 334.940†	477326.7	486115.5	498.64	µg/L	498.64	ppb	16:20:00
1	Tl 190.801†	3498.3	3683.0	510.42	µg/L	510.42	ppb	16:20:20
1	U 409.014†	7242.2	7551.4	507.08	µg/L	507.08	ppb	16:20:00
1	V 292.402†	95032.7	96523.1	506.99	µg/L	506.99	ppb	16:20:00
1	Zn 213.857†	83237.5	84410.6	500.12	µg/L	500.12	ppb	16:20:00
2	Sc RADIAL	136557.4	136557.4	97.5	%			16:19:38
2	Al 396.153Radial†	23142.2	23820.0	4991.5	µg/L	4991.5	ppb	16:19:38
2	Ca 317.933Radial†	73311.9	74638.6	5083.6	µg/L	5083.6	ppb	16:19:38
2	Fe 238.204 Radial†	65802.5	67388.9	5032.6	µg/L	5032.6	ppb	16:19:38
2	K 766.490 Radial†	13986.7	12855.1	5089.7	µg/L	5089.7	ppb	16:19:38
2	Mg 279.077 IEC†	10870.2	10979.2	5077.5	µg/L	5077.5	ppb	16:19:38
2	Na 589.592 Radial†	64471.7	65188.4	10100	µg/L	10100	ppb	16:19:38
2	Sr 421.552†	207824.9	213410.1	503.28	µg/L	503.28	ppb	16:19:35
2	Sc 361.383	1770312.3	1770312.3	98.124	%			16:20:23
2	Y 371.029	1028774.0	1028774.0	97.302	%			16:20:23
2	Ag 328.068†	124018.0	121823.5	504.97	µg/L	504.97	ppb	16:20:23
2	As 188.979†	1309.7	1353.3	465.05	µg/L	465.05	ppb	16:20:44
2	B 249.677†	35386.0	31997.2	495.85	µg/L	495.85	ppb	16:20:23
2	Ba 233.527†	109903.8	112149.3	498.90	µg/L	498.90	ppb	16:20:23
2	Be 313.107†	1660911.2	1693752.2	490.78	µg/L	490.78	ppb	16:20:23
2	Cd 226.502†	73058.4	74558.3	503.61	µg/L	503.61	ppb	16:20:23
2	Co 228.616†	37412.7	38338.2	507.45	µg/L	507.45	ppb	16:20:23
2	Cr 267.716†	57285.7	58147.6	502.91	µg/L	502.91	ppb	16:20:23
2	Cu 324.752†	120681.1	119951.9	503.28	µg/L	503.28	ppb	16:20:23
2	Mn 257.610†	372727.2	379667.4	503.43	µg/L	503.43	ppb	16:20:23
2	Mo 202.031†	15100.6	15427.8	505.01	µg/L	505.01	ppb	16:20:44
2	Ni 231.604†	39607.6	40460.6	506.21	µg/L	506.21	ppb	16:20:23
2	P 214.914†	10592.3	10820.5	2494.4	µg/L	2494.4	ppb	16:20:44
2	Pb 220.353†	8161.3	8213.9	507.04	µg/L	507.04	ppb	16:20:44

2	S 181.975 Axial†	1250.6	1185.6	1001.6 µg/L	1001.6 ppb	16:20:44
2	Sb 206.836†	3870.4	3854.7	498.20 µg/L	498.20 ppb	16:20:44
2	Se 196.026†	1242.7	1260.3	499 µg/L	499 ppb	16:20:44
2	SiO2†	51359.5	50602.2	5337.1 µg/L	5337.1 ppb	16:20:23
2	Si 251.611†	157263.7	159502.8	2505.2 µg/L	2505.2 ppb	16:20:23
2	Sn 189.927†	7016.5	7148.7	497.55 µg/L	497.55 ppb	16:20:44
2	Ti 334.940†	478880.2	487211.3	499.76 µg/L	499.76 ppb	16:20:23
2	Tl 190.801†	3493.9	3675.0	509.33 µg/L	509.33 ppb	16:20:44
2	U 409.014†	7209.0	7510.2	504.45 µg/L	504.45 ppb	16:20:23
2	V 292.402†	95025.1	96418.4	506.44 µg/L	506.44 ppb	16:20:23
2	Zn 213.857†	83526.0	84619.7	501.34 µg/L	501.34 ppb	16:20:23
3	Sc RADIAL	137144.5	137144.5	97.9 %		16:19:42
3	Al 396.153Radial†	22973.1	23545.5	4933.7 µg/L	4933.7 ppb	16:19:42
3	Ca 317.933Radial†	73480.1	74488.4	5073.3 µg/L	5073.3 ppb	16:19:42
3	Fe 238.204 Radial†	65879.2	67178.2	5016.8 µg/L	5016.8 ppb	16:19:42
3	K 766.490 Radial†	14084.7	12893.7	5105.0 µg/L	5105.0 ppb	16:19:42
3	Mg 279.077 IEC†	10857.1	10918.0	5049.3 µg/L	5049.3 ppb	16:19:42
3	Na 589.592 Radial†	64306.1	64736.1	10030 µg/L	10030 ppb	16:19:42
3	Sr 421.552†	208207.9	212888.7	502.05 µg/L	502.05 ppb	16:19:40
3	Sc 361.383	1779849.1	1779849.1	98.653 %		16:20:47
3	Y 371.029	1034591.8	1034591.8	97.852 %		16:20:47
3	Ag 328.068†	124313.4	121445.7	503.44 µg/L	503.44 ppb	16:20:47
3	As 188.979†	1327.4	1364.1	468.69 µg/L	468.69 ppb	16:21:07
3	B 249.677†	35673.8	32095.8	497.38 µg/L	497.38 ppb	16:20:47
3	Ba 233.527†	110329.9	111980.9	498.15 µg/L	498.15 ppb	16:20:47
3	Be 313.107†	1665698.9	1689535.6	489.57 µg/L	489.57 ppb	16:20:47
3	Cd 226.502†	73406.5	74512.2	503.30 µg/L	503.30 ppb	16:20:47
3	Co 228.616†	37615.4	38339.3	507.46 µg/L	507.46 ppb	16:20:47
3	Cr 267.716†	57467.8	58019.3	501.78 µg/L	501.78 ppb	16:20:47
3	Cu 324.752†	121249.5	119869.1	502.95 µg/L	502.95 ppb	16:20:47
3	Mn 257.610†	374459.6	379388.1	503.06 µg/L	503.06 ppb	16:20:47
3	Mo 202.031†	15236.9	15483.5	506.83 µg/L	506.83 ppb	16:21:07
3	Ni 231.604†	39675.6	40313.2	504.37 µg/L	504.37 ppb	16:20:47
3	P 214.914†	10728.5	10900.7	2512.9 µg/L	2512.9 ppb	16:21:07
3	Pb 220.353†	8277.2	8286.8	511.51 µg/L	511.51 ppb	16:21:07
3	S 181.975 Axial†	1258.9	1187.2	1003.0 µg/L	1003.0 ppb	16:21:07
3	Sb 206.836†	3914.5	3878.2	501.28 µg/L	501.28 ppb	16:21:07
3	Se 196.026†	1277.8	1289.1	510 µg/L	510 ppb	16:21:07
3	SiO2†	51475.0	50438.7	5319.7 µg/L	5319.7 ppb	16:20:47
3	Si 251.611†	157709.2	159095.7	2498.7 µg/L	2498.7 ppb	16:20:47
3	Sn 189.927†	7070.0	7164.7	498.65 µg/L	498.65 ppb	16:21:07
3	Ti 334.940†	480948.0	486692.3	499.22 µg/L	499.22 ppb	16:20:47
3	Tl 190.801†	3530.2	3692.6	511.73 µg/L	511.73 ppb	16:21:07
3	U 409.014†	7575.9	7842.7	525.40 µg/L	525.40 ppb	16:20:47
3	V 292.402†	95409.2	96288.8	505.80 µg/L	505.80 ppb	16:20:47
3	Zn 213.857†	83974.9	84618.5	501.35 µg/L	501.35 ppb	16:20:47

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1772900.5	98.268	%	0.3371				0.34%
Sc RADIAL	137102.1	97.9	%	0.37				0.38%
Y 371.029	1030580.9	97.473	%	0.3291				0.34%
Ag 328.068†	121675.7	504.37	µg/L	0.818	504.37	ppb	0.818	0.16%
QC value within limits for Ag 328.068 Recovery = 100.87%								
Al 396.153Radial†	23710.1	4968.3	µg/L	30.60	4968.3	ppb	30.60	0.62%
QC value within limits for Al 396.153Radial Recovery = 99.37%								
As 188.979†	1360.1	467.33	µg/L	1.986	467.33	ppb	1.986	0.42%
QC value within limits for As 188.979 Recovery = 93.47%								
B 249.677†	32000.7	495.91	µg/L	1.452	495.91	ppb	1.452	0.29%
QC value within limits for B 249.677 Recovery = 99.18%								
Ba 233.527†	111988.3	498.18	µg/L	0.700	498.18	ppb	0.700	0.14%
QC value within limits for Ba 233.527 Recovery = 99.64%								
Be 313.107†	1690290.0	489.78	µg/L	0.912	489.78	ppb	0.912	0.19%
QC value within limits for Be 313.107 Recovery = 97.96%								
Ca 317.933Radial†	74465.4	5071.8	µg/L	12.65	5071.8	ppb	12.65	0.25%
QC value within limits for Ca 317.933Radial Recovery = 101.44%								
Cd 226.502†	74433.1	502.76	µg/L	1.206	502.76	ppb	1.206	0.24%
QC value within limits for Cd 226.502 Recovery = 100.55%								
Co 228.616†	38340.2	507.48	µg/L	0.035	507.48	ppb	0.035	0.01%

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   QC value within limits for Co 228.616  Recovery = 101.50%
Cr 267.716†            58071.4      502.24 µg/L         0.591      502.24 ppb          0.591   0.12%
   QC value within limits for Cr 267.716  Recovery = 100.45%
Cu 324.752†           119841.2      502.82 µg/L         0.533      502.82 ppb          0.533   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.56%
Fe 238.204 Radial†     67238.2      5021.3 µg/L          9.81      5021.3 ppb           9.81   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.43%
K 766.490 Radial†      12848.3      5087.0 µg/L         19.50      5087.0 ppb          19.50   0.38%
   QC value within limits for K 766.490 Radial  Recovery = 101.74%
Mg 279.077 IEC†        10942.8      5060.8 µg/L         14.84      5060.8 ppb          14.84   0.29%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.22%
Mn 257.610†           379268.4      502.90 µg/L         0.624      502.90 ppb          0.624   0.12%
   QC value within limits for Mn 257.610  Recovery = 100.58%
Mo 202.031†            15458.0      506.00 µg/L         0.921      506.00 ppb          0.921   0.18%
   QC value within limits for Mo 202.031  Recovery = 101.20%
Na 589.592 Radial†     64881.3       10053 µg/L          41.2       10053 ppb           41.2   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 100.53%
Ni 231.604†            40308.1      504.30 µg/L         1.942      504.30 ppb          1.942   0.39%
   QC value within limits for Ni 231.604  Recovery = 100.86%
P 214.914†             10860.4      2503.6 µg/L          9.27      2503.6 ppb           9.27   0.37%
   QC value within limits for P 214.914  Recovery = 100.14%
Pb 220.353†             8245.1      508.96 µg/L         2.303      508.96 ppb          2.303   0.45%
   QC value within limits for Pb 220.353  Recovery = 101.79%
S 181.975 Axial†        1186.3      1002.3 µg/L          0.67      1002.3 ppb           0.67   0.07%
   QC value within limits for S 181.975 Axial  Recovery = 100.23%
Sb 206.836†             3873.3      500.63 µg/L         2.176      500.63 ppb          2.176   0.43%
   QC value within limits for Sb 206.836  Recovery = 100.13%
Se 196.026†             1279.1         506 µg/L           6.4         506 ppb            6.4   1.27%
   QC value within limits for Se 196.026  Recovery = 101.23%
SiO2†                  50431.6      5319.0 µg/L         18.46      5319.0 ppb          18.46   0.35%
   QC value within limits for SiO2  Recovery = 99.47%
Si 251.611†           159013.7      2497.4 µg/L          8.44      2497.4 ppb           8.44   0.34%
   QC value within limits for Si 251.611  Recovery = 99.90%
Sn 189.927†             7153.4      497.87 µg/L         0.684      497.87 ppb          0.684   0.14%
   QC value within limits for Sn 189.927  Recovery = 99.57%
Sr 421.552†           212453.0      501.02 µg/L         2.911      501.02 ppb          2.911   0.58%
   QC value within limits for Sr 421.552  Recovery = 100.20%
Ti 334.940†           486673.0      499.21 µg/L         0.563      499.21 ppb          0.563   0.11%
   QC value within limits for Ti 334.940  Recovery = 99.84%
Tl 190.801†             3683.5      510.49 µg/L         1.204      510.49 ppb          1.204   0.24%
   QC value within limits for Tl 190.801  Recovery = 102.10%
U 409.014†              7634.8      512.31 µg/L        11.413      512.31 ppb         11.413   2.23%
   QC value within limits for U 409.014  Recovery = 102.46%
V 292.402†             96410.1      506.41 µg/L         0.599      506.41 ppb          0.599   0.12%
   QC value within limits for V 292.402  Recovery = 101.28%
Zn 213.857†            84549.6      500.94 µg/L         0.707      500.94 ppb          0.707   0.14%
   QC value within limits for Zn 213.857  Recovery = 100.19%
All analyte(s) passed QC.
```

Sequence No.: 19 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 4/5/2010 16:21:14**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138251.6	138251.6	98.7	%			16:21:45
1	Al 396.153Radial†	-76.1	1.4	0.2603	µg/L	0.2603	ppb	16:22:05
1	Ca 317.933Radial†	638.8	75.9	5.1685	µg/L	5.1685	ppb	16:22:05
1	Fe 238.204 Radial†	164.2	49.1	3.6651	µg/L	3.6651	ppb	16:22:05
1	K 766.490 Radial†	1623.8	151.6	60.082	µg/L	60.082	ppb	16:21:45
1	Mg 279.077 IEC†	151.8	-18.6	-8.5672	µg/L	-8.5672	ppb	16:22:05
1	Na 589.592 Radial†	1054.6	116.2	17.951	µg/L	17.951	ppb	16:21:45
1	Sr 421.552†	-259.4	-58.3	-0.1377	µg/L	-0.1377	ppb	16:21:45
1	Sc 361.383	1797116.6	1797116.6	99.610	%			16:23:07
1	Y 371.029	1055412.4	1055412.4	99.822	%			16:23:07
1	Ag 328.068†	4139.7	-409.3	-1.6708	µg/L	-1.6708	ppb	16:23:09
1	As 188.979†	-9.2	9.3	3.1606	µg/L	3.1606	ppb	16:23:29
1	B 249.677†	4020.4	-29.0	-0.4523	µg/L	-0.4523	ppb	16:23:09
1	Ba 233.527†	-161.3	-17.4	-0.0773	µg/L	-0.0773	ppb	16:23:29
1	Be 313.107†	-690.7	398.4	0.1178	µg/L	0.1178	ppb	16:23:09
1	Cd 226.502†	-75.1	27.9	0.1884	µg/L	0.1884	ppb	16:23:29
1	Co 228.616†	-196.0	13.5	0.1781	µg/L	0.1781	ppb	16:23:29
1	Cr 267.716†	221.7	-10.6	-0.0981	µg/L	-0.0981	ppb	16:23:29
1	Cu 324.752†	2959.3	-65.2	-0.2658	µg/L	-0.2658	ppb	16:23:09
1	Mn 257.610†	237.6	53.8	0.0717	µg/L	0.0717	ppb	16:23:29
1	Mo 202.031†	-13.6	24.9	0.8136	µg/L	0.8136	ppb	16:23:29
1	Ni 231.604†	-78.1	17.5	0.2187	µg/L	0.2187	ppb	16:23:29
1	P 214.914†	17.3	43.1	9.9565	µg/L	9.9565	ppb	16:23:29
1	Pb 220.353†	117.8	14.8	0.9054	µg/L	0.9054	ppb	16:23:29
1	S 181.975 Axial†	94.6	6.1	5.1324	µg/L	5.1324	ppb	16:23:29
1	Sb 206.836†	85.2	-4.2	-0.5338	µg/L	-0.5338	ppb	16:23:29
1	Se 196.026†	22.6	16.5	6.52	µg/L	6.52	ppb	16:23:29
1	SiO2†	1804.9	72.9	7.7028	µg/L	7.7028	ppb	16:23:29
1	Si 251.611†	1009.1	246.0	3.8706	µg/L	3.8706	ppb	16:23:09
1	Sn 189.927†	-3.7	-5.6	-0.3917	µg/L	-0.3917	ppb	16:23:29
1	Ti 334.940†	743.3	-76.8	-0.0813	µg/L	-0.0813	ppb	16:23:09
1	Tl 190.801†	-121.1	-7.3	-1.0070	µg/L	-1.0070	ppb	16:23:29
1	U 409.014†	-35.9	127.3	8.0078	µg/L	8.0078	ppb	16:23:09
1	V 292.402†	337.4	-84.5	-0.4247	µg/L	-0.4247	ppb	16:23:09
1	Zn 213.857†	592.1	91.4	0.5444	µg/L	0.5444	ppb	16:23:29
2	Sc RADIAL	136698.2	136698.2	97.6	%			16:22:07
2	Al 396.153Radial†	-58.6	18.5	3.8730	µg/L	3.8730	ppb	16:22:27
2	Ca 317.933Radial†	620.0	64.0	4.3571	µg/L	4.3571	ppb	16:22:27
2	Fe 238.204 Radial†	156.5	43.0	3.2137	µg/L	3.2137	ppb	16:22:27
2	K 766.490 Radial†	1517.1	61.0	24.162	µg/L	24.162	ppb	16:22:07
2	Mg 279.077 IEC†	168.9	0.6	0.2978	µg/L	0.2978	ppb	16:22:27
2	Na 589.592 Radial†	1201.3	278.6	43.163	µg/L	43.163	ppb	16:22:07
2	Sr 421.552†	-253.5	-55.3	-0.1306	µg/L	-0.1306	ppb	16:22:07
2	Sc 361.383	1792956.6	1792956.6	99.379	%			16:23:31
2	Y 371.029	1053819.1	1053819.1	99.671	%			16:23:31
2	Ag 328.068†	4119.4	-420.0	-1.7364	µg/L	-1.7364	ppb	16:23:33
2	As 188.979†	-5.8	12.7	4.2949	µg/L	4.2949	ppb	16:23:53
2	B 249.677†	4053.9	14.1	0.2183	µg/L	0.2183	ppb	16:23:33
2	Ba 233.527†	-173.8	-30.3	-0.1350	µg/L	-0.1350	ppb	16:23:53
2	Be 313.107†	-742.6	344.5	0.0976	µg/L	0.0976	ppb	16:23:33
2	Cd 226.502†	-68.1	34.9	0.2354	µg/L	0.2354	ppb	16:23:53
2	Co 228.616†	-201.0	8.0	0.1059	µg/L	0.1059	ppb	16:23:53
2	Cr 267.716†	253.1	21.5	0.1914	µg/L	0.1914	ppb	16:23:53
2	Cu 324.752†	2852.8	-165.5	-0.6976	µg/L	-0.6976	ppb	16:23:33
2	Mn 257.610†	232.7	49.4	0.0656	µg/L	0.0656	ppb	16:23:53
2	Mo 202.031†	-20.5	18.0	0.5873	µg/L	0.5873	ppb	16:23:53
2	Ni 231.604†	-69.7	25.8	0.3229	µg/L	0.3229	ppb	16:23:53
2	P 214.914†	26.1	52.0	12.017	µg/L	12.017	ppb	16:23:53
2	Pb 220.353†	115.7	12.9	0.8021	µg/L	0.8021	ppb	16:23:53

2	S 181.975 Axial†	87.6	-0.8	-0.6478	µg/L	-0.6478 ppb	16:23:53
2	Sb 206.836†	69.5	-19.8	-2.5479	µg/L	-2.5479 ppb	16:23:53
2	Se 196.026†	-0.7	-6.8	-2.70	µg/L	-2.70 ppb	16:23:53
2	SiO2†	1804.8	76.9	8.1330	µg/L	8.1330 ppb	16:23:53
2	Si 251.611†	1168.7	409.0	6.4425	µg/L	6.4425 ppb	16:23:33
2	Sn 189.927†	-0.4	-2.3	-0.1607	µg/L	-0.1607 ppb	16:23:53
2	Ti 334.940†	836.8	19.1	0.0225	µg/L	0.0225 ppb	16:23:33
2	Tl 190.801†	-123.7	-10.2	-1.3995	µg/L	-1.3995 ppb	16:23:53
2	U 409.014†	-275.2	-113.6	-7.2088	µg/L	-7.2088 ppb	16:23:33
2	V 292.402†	289.4	-132.0	-0.6823	µg/L	-0.6823 ppb	16:23:33
2	Zn 213.857†	580.1	80.7	0.4801	µg/L	0.4801 ppb	16:23:53
3	Sc RADIAL	135260.2	135260.2	96.6	%		16:22:29
3	Al 396.153Radial†	-92.4	-17.1	-3.6383	µg/L	-3.6383 ppb	16:22:49
3	Ca 317.933Radial†	627.0	78.0	5.3124	µg/L	5.3124 ppb	16:22:49
3	Fe 238.204 Radial†	161.8	50.3	3.7569	µg/L	3.7569 ppb	16:22:49
3	K 766.490 Radial†	1680.5	246.8	97.770	µg/L	97.770 ppb	16:22:29
3	Mg 279.077 IEC†	155.1	-11.9	-5.4573	µg/L	-5.4573 ppb	16:22:49
3	Na 589.592 Radial†	1122.8	210.4	32.526	µg/L	32.526 ppb	16:22:29
3	Sr 421.552†	-208.3	-11.2	-0.0265	µg/L	-0.0265 ppb	16:22:29
3	Sc 361.383	1800732.3	1800732.3	99.810	%		16:23:56
3	Y 371.029	1058680.1	1058680.1	100.13	%		16:23:56
3	Ag 328.068†	3878.2	-679.6	-2.7909	µg/L	-2.7909 ppb	16:23:58
3	As 188.979†	-18.1	0.4	0.1428	µg/L	0.1428 ppb	16:24:18
3	B 249.677†	3937.5	-120.2	-1.8691	µg/L	-1.8691 ppb	16:23:58
3	Ba 233.527†	-143.7	0.6	0.0026	µg/L	0.0026 ppb	16:24:18
3	Be 313.107†	-678.8	411.6	0.1182	µg/L	0.1182 ppb	16:23:58
3	Cd 226.502†	-84.4	18.8	0.1271	µg/L	0.1271 ppb	16:24:18
3	Co 228.616†	-207.7	2.2	0.0288	µg/L	0.0288 ppb	16:24:18
3	Cr 267.716†	248.8	16.0	0.1416	µg/L	0.1416 ppb	16:24:18
3	Cu 324.752†	2976.5	-54.0	-0.2282	µg/L	-0.2282 ppb	16:23:58
3	Mn 257.610†	227.4	43.1	0.0573	µg/L	0.0573 ppb	16:24:18
3	Mo 202.031†	-16.0	22.5	0.7372	µg/L	0.7372 ppb	16:24:18
3	Ni 231.604†	-61.6	34.2	0.4276	µg/L	0.4276 ppb	16:24:18
3	P 214.914†	15.7	41.5	9.5806	µg/L	9.5806 ppb	16:24:18
3	Pb 220.353†	92.3	-10.9	-0.6685	µg/L	-0.6685 ppb	16:24:18
3	S 181.975 Axial†	91.2	2.4	2.0512	µg/L	2.0512 ppb	16:24:18
3	Sb 206.836†	68.4	-21.2	-2.7306	µg/L	-2.7306 ppb	16:24:18
3	Se 196.026†	21.6	15.5	6.09	µg/L	6.09 ppb	16:24:18
3	SiO2†	1782.5	46.8	4.9392	µg/L	4.9392 ppb	16:24:18
3	Si 251.611†	1143.9	379.1	5.9689	µg/L	5.9689 ppb	16:23:58
3	Sn 189.927†	-0.8	-2.7	-0.1901	µg/L	-0.1901 ppb	16:24:18
3	Ti 334.940†	511.3	-310.7	-0.3171	µg/L	-0.3171 ppb	16:23:58
3	Tl 190.801†	-97.7	16.4	2.2354	µg/L	2.2354 ppb	16:24:18
3	U 409.014†	-218.9	-56.0	-3.5542	µg/L	-3.5542 ppb	16:23:58
3	V 292.402†	346.2	-76.4	-0.3900	µg/L	-0.3900 ppb	16:23:58
3	Zn 213.857†	583.5	81.6	0.4842	µg/L	0.4842 ppb	16:24:18

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1796935.2	99.600	%	0.2157				0.22%
Sc RADIAL	136736.7	97.6	%	1.07				1.09%
Y 371.029	1055970.5	99.875	%	0.2344				0.23%
Ag 328.068†	-502.9	-2.0660	µg/L	0.62861	-2.0660	ppb	0.62861	30.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.9	0.1650	µg/L	3.75658	0.1650	ppb	3.75658	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.5	2.5328	µg/L	2.14605	2.5328	ppb	2.14605	84.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-45.1	-0.7010	µg/L	1.06567	-0.7010	ppb	1.06567	152.02%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-15.7	-0.0699	µg/L	0.06910	-0.0699	ppb	0.06910	98.89%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	384.8	0.1112	µg/L	0.01176	0.1112	ppb	0.01176	10.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	72.6	4.9460	µg/L	0.51510	4.9460	ppb	0.51510	10.41%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.2	0.1837	µg/L	0.05431	0.1837	ppb	0.05431	29.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.9	0.1043	µg/L	0.07467	0.1043	ppb	0.07467	71.61%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.0      0.0783 µg/L       0.15482      0.0783 ppb        0.15482 197.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -94.9     -0.3972 µg/L       0.26085     -0.3972 ppb        0.26085  65.67%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         47.5      3.5452 µg/L       0.29075      3.5452 ppb        0.29075   8.20%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         153.1      60.671 µg/L       36.8077      60.671 ppb        36.8077  60.67%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -9.9     -4.5756 µg/L       4.49782     -4.5756 ppb        4.49782  98.30%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                48.8      0.0649 µg/L       0.00718      0.0649 ppb        0.00718  11.07%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                21.8      0.7127 µg/L       0.11510      0.7127 ppb        0.11510  16.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        201.7      31.213 µg/L       12.6571      31.213 ppb        12.6571  40.55%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                25.8      0.3231 µg/L       0.10444      0.3231 ppb        0.10444  32.33%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 45.5      10.518 µg/L        1.3118      10.518 ppb         1.3118  12.47%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 5.6      0.3463 µg/L       0.88039      0.3463 ppb        0.88039 254.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.6      2.1786 µg/L       2.89220      2.1786 ppb        2.89220 132.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -15.1     -1.9374 µg/L       1.21904     -1.9374 ppb        1.21904  62.92%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 8.4        3.30 µg/L         5.201        3.30 ppb          5.201 157.38%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      65.6      6.9250 µg/L       1.73317      6.9250 ppb        1.73317  25.03%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               344.7      5.4273 µg/L       1.36882      5.4273 ppb        1.36882  25.22%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.6     -0.2475 µg/L       0.12574     -0.2475 ppb        0.12574  50.80%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -41.6     -0.0982 µg/L       0.06221     -0.0982 ppb        0.06221  63.33%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -122.8     -0.1253 µg/L       0.17407     -0.1253 ppb        0.17407 138.93%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.4     -0.0570 µg/L       1.99496     -0.0570 ppb        1.99496 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -14.1     -0.9184 µg/L       7.94337     -0.9184 ppb        7.94337 864.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -97.6     -0.4990 µg/L       0.15971     -0.4990 ppb        0.15971  32.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                84.6      0.5029 µg/L       0.03599      0.5029 ppb        0.03599   7.16%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 16:37:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	134299.0	134299.0	95.9	%			16:37:48
1	Al 396.153Radial†	22539.9	23590.8	4943.4	µg/L	4943.4	ppb	16:37:48
1	Ca 317.933Radial†	71903.5	74434.2	5069.6	µg/L	5069.6	ppb	16:37:48
1	Fe 238.204 Radial†	64644.2	67315.8	5027.1	µg/L	5027.1	ppb	16:37:48
1	K 766.490 Radial†	13671.0	12767.0	5054.8	µg/L	5054.8	ppb	16:37:48
1	Mg 279.077 IEC†	10660.9	10948.4	5063.3	µg/L	5063.3	ppb	16:37:48
1	Na 589.592 Radial†	63306.0	65084.6	10084	µg/L	10084	ppb	16:37:48
1	Sr 421.552†	205476.3	214545.6	505.96	µg/L	505.96	ppb	16:37:46
1	Sc 361.383	1762859.8	1762859.8	97.711	%			16:38:15
1	Y 371.029	1025616.3	1025616.3	97.004	%			16:38:15
1	Ag 328.068†	123395.7	121721.0	504.56	µg/L	504.56	ppb	16:38:15
1	As 188.979†	1305.4	1354.6	465.43	µg/L	465.43	ppb	16:38:35
1	B 249.677†	35143.6	31901.6	494.37	µg/L	494.37	ppb	16:38:15
1	Ba 233.527†	109199.1	111901.6	497.80	µg/L	497.80	ppb	16:38:15
1	Be 313.107†	1647067.4	1686739.8	488.75	µg/L	488.75	ppb	16:38:15
1	Cd 226.502†	72599.6	74403.6	502.56	µg/L	502.56	ppb	16:38:15
1	Co 228.616†	37212.9	38294.9	506.88	µg/L	506.88	ppb	16:38:15
1	Cr 267.716†	56830.0	57927.9	501.01	µg/L	501.01	ppb	16:38:15
1	Cu 324.752†	119567.1	119331.7	500.69	µg/L	500.69	ppb	16:38:15
1	Mn 257.610†	369741.1	378217.2	501.51	µg/L	501.51	ppb	16:38:15
1	Mo 202.031†	14940.7	15329.3	501.79	µg/L	501.79	ppb	16:38:35
1	Ni 231.604†	39200.3	40214.4	503.13	µg/L	503.13	ppb	16:38:15
1	P 214.914†	10483.0	10754.2	2479.1	µg/L	2479.1	ppb	16:38:35
1	Pb 220.353†	8090.1	8176.1	504.70	µg/L	504.70	ppb	16:38:35
1	S 181.975 Axial†	1238.0	1178.1	995.28	µg/L	995.28	ppb	16:38:35
1	Sb 206.836†	3846.1	3846.5	497.12	µg/L	497.12	ppb	16:38:35
1	Se 196.026†	1250.7	1273.8	504	µg/L	504	ppb	16:38:35
1	SiO2†	50750.9	50200.6	5294.7	µg/L	5294.7	ppb	16:38:15
1	Si 251.611†	155479.4	158354.3	2487.1	µg/L	2487.1	ppb	16:38:15
1	Sn 189.927†	6943.7	7104.4	494.47	µg/L	494.47	ppb	16:38:35
1	Ti 334.940†	475046.0	485350.4	497.85	µg/L	497.85	ppb	16:38:15
1	Tl 190.801†	3445.5	3640.5	504.61	µg/L	504.61	ppb	16:38:35
1	U 409.014†	7234.1	7567.0	508.07	µg/L	508.07	ppb	16:38:15
1	V 292.402†	94774.3	96571.1	507.19	µg/L	507.19	ppb	16:38:15
1	Zn 213.857†	82846.3	84283.9	499.36	µg/L	499.36	ppb	16:38:15
2	Sc RADIAL	137458.8	137458.8	98.1	%			16:37:52
2	Al 396.153Radial†	23161.9	23684.3	4962.7	µg/L	4962.7	ppb	16:37:52
2	Ca 317.933Radial†	73735.6	74577.2	5079.4	µg/L	5079.4	ppb	16:37:52
2	Fe 238.204 Radial†	66292.7	67445.8	5036.8	µg/L	5036.8	ppb	16:37:52
2	K 766.490 Radial†	14026.1	12801.1	5068.3	µg/L	5068.3	ppb	16:37:52
2	Mg 279.077 IEC†	10894.8	10931.2	5055.5	µg/L	5055.5	ppb	16:37:52
2	Na 589.592 Radial†	64445.4	64727.8	10029	µg/L	10029	ppb	16:37:52
2	Sr 421.552†	205998.1	210150.1	495.59	µg/L	495.59	ppb	16:37:50
2	Sc 361.383	1741816.6	1741816.6	96.545	%			16:38:38
2	Y 371.029	1012847.4	1012847.4	95.796	%			16:38:38
2	Ag 328.068†	122256.6	122066.8	505.97	µg/L	505.97	ppb	16:38:38
2	As 188.979†	1323.8	1389.8	477.35	µg/L	477.35	ppb	16:38:58
2	B 249.677†	34721.3	31898.8	494.33	µg/L	494.33	ppb	16:38:38
2	Ba 233.527†	107587.0	111581.9	496.38	µg/L	496.38	ppb	16:38:38
2	Be 313.107†	1623113.4	1682293.1	487.47	µg/L	487.47	ppb	16:38:38
2	Cd 226.502†	71393.6	74052.0	500.18	µg/L	500.18	ppb	16:38:38
2	Co 228.616†	36629.0	38150.2	504.96	µg/L	504.96	ppb	16:38:38
2	Cr 267.716†	56033.9	57806.0	499.94	µg/L	499.94	ppb	16:38:38
2	Cu 324.752†	118002.7	119189.7	500.10	µg/L	500.10	ppb	16:38:38
2	Mn 257.610†	364470.7	377329.6	500.33	µg/L	500.33	ppb	16:38:38
2	Mo 202.031†	15046.1	15623.1	511.40	µg/L	511.40	ppb	16:38:58
2	Ni 231.604†	38541.8	40017.1	500.66	µg/L	500.66	ppb	16:38:38
2	P 214.914†	10569.3	10973.3	2529.7	µg/L	2529.7	ppb	16:38:58
2	Pb 220.353†	8110.9	8297.7	512.20	µg/L	512.20	ppb	16:38:58

2	S 181.975 Axial†	1245.8	1201.4	1015.0 µg/L	1015.0 ppb	16:38:58
2	Sb 206.836†	3885.7	3935.1	508.71 µg/L	508.71 ppb	16:38:58
2	Se 196.026†	1263.4	1302.5	515 µg/L	515 ppb	16:38:58
2	SiO2†	50053.9	50106.2	5284.3 µg/L	5284.3 ppb	16:38:38
2	Si 251.611†	153293.7	158012.8	2481.6 µg/L	2481.6 ppb	16:38:38
2	Sn 189.927†	6969.6	7217.2	502.29 µg/L	502.29 ppb	16:38:58
2	Ti 334.940†	468356.6	484295.1	496.76 µg/L	496.76 ppb	16:38:38
2	Tl 190.801†	3456.6	3694.6	511.97 µg/L	511.97 ppb	16:38:58
2	U 409.014†	7320.9	7746.2	519.25 µg/L	519.25 ppb	16:38:38
2	V 292.402†	93250.7	96164.7	505.19 µg/L	505.19 ppb	16:38:38
2	Zn 213.857†	81796.4	84220.7	499.00 µg/L	499.00 ppb	16:38:38
3	Sc RADIAL	135624.5	135624.5	96.8 %		16:37:56
3	Al 396.153Radial†	22686.3	23512.3	4926.9 µg/L	4926.9 ppb	16:37:56
3	Ca 317.933Radial†	72585.3	74405.4	5067.7 µg/L	5067.7 ppb	16:37:56
3	Fe 238.204 Radial†	65270.2	67303.3	5026.2 µg/L	5026.2 ppb	16:37:56
3	K 766.490 Radial†	13820.3	12781.9	5060.7 µg/L	5060.7 ppb	16:37:56
3	Mg 279.077 IEC†	10771.3	10953.7	5065.7 µg/L	5065.7 ppb	16:37:56
3	Na 589.592 Radial†	63778.2	64926.9	10060 µg/L	10060 ppb	16:37:56
3	Sr 421.552†	209035.9	216127.5	509.69 µg/L	509.69 ppb	16:37:54
3	Sc 361.383	1770882.7	1770882.7	98.156 %		16:39:01
3	Y 371.029	1029563.5	1029563.5	97.377 %		16:39:01
3	Ag 328.068†	124006.5	121771.1	504.76 µg/L	504.76 ppb	16:39:01
3	As 188.979†	1312.9	1356.2	465.98 µg/L	465.98 ppb	16:39:21
3	B 249.677†	35356.6	31955.7	495.21 µg/L	495.21 ppb	16:39:01
3	Ba 233.527†	109653.1	111857.8	497.60 µg/L	497.60 ppb	16:39:01
3	Be 313.107†	1656578.1	1688792.4	489.35 µg/L	489.35 ppb	16:39:01
3	Cd 226.502†	72927.7	74401.2	502.55 µg/L	502.55 ppb	16:39:01
3	Co 228.616†	37266.9	38177.3	505.32 µg/L	505.32 ppb	16:39:01
3	Cr 267.716†	57201.0	58042.4	501.99 µg/L	501.99 ppb	16:39:01
3	Cu 324.752†	119956.8	119174.4	500.03 µg/L	500.03 ppb	16:39:01
3	Mn 257.610†	371246.4	378036.4	501.27 µg/L	501.27 ppb	16:39:01
3	Mo 202.031†	15011.7	15332.3	501.88 µg/L	501.88 ppb	16:39:21
3	Ni 231.604†	39375.4	40211.0	503.09 µg/L	503.09 ppb	16:39:01
3	P 214.914†	10528.5	10751.9	2478.5 µg/L	2478.5 ppb	16:39:21
3	Pb 220.353†	8147.0	8196.6	505.96 µg/L	505.96 ppb	16:39:21
3	S 181.975 Axial†	1255.3	1190.0	1005.3 µg/L	1005.3 ppb	16:39:21
3	Sb 206.836†	3876.4	3859.5	498.78 µg/L	498.78 ppb	16:39:21
3	Se 196.026†	1249.1	1266.4	501 µg/L	501 ppb	16:39:21
3	SiO2†	51030.4	50250.0	5300.0 µg/L	5300.0 ppb	16:39:01
3	Si 251.611†	156527.4	158701.1	2492.6 µg/L	2492.6 ppb	16:39:01
3	Sn 189.927†	6968.3	7097.4	493.98 µg/L	493.98 ppb	16:39:21
3	Ti 334.940†	477306.2	485450.5	497.95 µg/L	497.95 ppb	16:39:01
3	Tl 190.801†	3451.0	3630.1	503.19 µg/L	503.19 ppb	16:39:21
3	U 409.014†	7309.5	7610.1	510.71 µg/L	510.71 ppb	16:39:01
3	V 292.402†	94957.8	96318.6	505.89 µg/L	505.89 ppb	16:39:01
3	Zn 213.857†	83187.1	84247.0	499.14 µg/L	499.14 ppb	16:39:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1758519.7	97.471	%	0.8320				0.85%
Sc RADIAL	135794.1	96.9	%	1.13				1.17%
Y 371.029	1022675.7	96.725	%	0.8264				0.85%
Ag 328.068†	121853.0	505.10	µg/L	0.761	505.10	ppb	0.761	0.15%
QC value within limits for Ag 328.068 Recovery = 101.02%								
Al 396.153Radial†	23595.8	4944.3	µg/L	17.91	4944.3	ppb	17.91	0.36%
QC value within limits for Al 396.153Radial Recovery = 98.89%								
As 188.979†	1366.8	469.59	µg/L	6.729	469.59	ppb	6.729	1.43%
QC value within limits for As 188.979 Recovery = 93.92%								
B 249.677†	31918.7	494.64	µg/L	0.500	494.64	ppb	0.500	0.10%
QC value within limits for B 249.677 Recovery = 98.93%								
Ba 233.527†	111780.4	497.26	µg/L	0.769	497.26	ppb	0.769	0.15%
QC value within limits for Ba 233.527 Recovery = 99.45%								
Be 313.107†	1685941.8	488.52	µg/L	0.961	488.52	ppb	0.961	0.20%
QC value within limits for Be 313.107 Recovery = 97.70%								
Ca 317.933Radial†	74472.2	5072.2	µg/L	6.27	5072.2	ppb	6.27	0.12%
QC value within limits for Ca 317.933Radial Recovery = 101.44%								
Cd 226.502†	74285.6	501.76	µg/L	1.369	501.76	ppb	1.369	0.27%
QC value within limits for Cd 226.502 Recovery = 100.35%								
Co 228.616†	38207.5	505.72	µg/L	1.018	505.72	ppb	1.018	0.20%

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   QC value within limits for Co 228.616  Recovery = 101.14%
Cr 267.716†            57925.4      500.98 µg/L         1.026      500.98 ppb          1.026   0.20%
   QC value within limits for Cr 267.716  Recovery = 100.20%
Cu 324.752†           119231.9      500.27 µg/L         0.360      500.27 ppb          0.360   0.07%
   QC value within limits for Cu 324.752  Recovery = 100.05%
Fe 238.204 Radial†     67355.0      5030.0 µg/L          5.89      5030.0 ppb           5.89   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.60%
K 766.490 Radial†      12783.3      5061.2 µg/L          6.79      5061.2 ppb           6.79   0.13%
   QC value within limits for K 766.490 Radial  Recovery = 101.22%
Mg 279.077 IEC†        10944.4      5061.5 µg/L          5.32      5061.5 ppb           5.32   0.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.23%
Mn 257.610†           377861.1      501.04 µg/L         0.622      501.04 ppb          0.622   0.12%
   QC value within limits for Mn 257.610  Recovery = 100.21%
Mo 202.031†            15428.2      505.02 µg/L         5.520      505.02 ppb          5.520   1.09%
   QC value within limits for Mo 202.031  Recovery = 101.00%
Na 589.592 Radial†     64913.1       10058 µg/L          27.7       10058 ppb           27.7   0.28%
   QC value within limits for Na 589.592 Radial  Recovery = 100.58%
Ni 231.604†            40147.5      502.30 µg/L         1.413      502.30 ppb          1.413   0.28%
   QC value within limits for Ni 231.604  Recovery = 100.46%
P 214.914†             10826.5      2495.8 µg/L         29.39      2495.8 ppb          29.39   1.18%
   QC value within limits for P 214.914  Recovery = 99.83%
Pb 220.353†             8223.5      507.62 µg/L         4.015      507.62 ppb          4.015   0.79%
   QC value within limits for Pb 220.353  Recovery = 101.52%
S 181.975 Axial†        1189.8      1005.2 µg/L          9.87      1005.2 ppb           9.87   0.98%
   QC value within limits for S 181.975 Axial  Recovery = 100.52%
Sb 206.836†             3880.3      501.54 µg/L         6.264      501.54 ppb          6.264   1.25%
   QC value within limits for Sb 206.836  Recovery = 100.31%
Se 196.026†             1280.9         507 µg/L           7.5         507 ppb            7.5   1.48%
   QC value within limits for Se 196.026  Recovery = 101.37%
SiO2†                  50185.6      5293.0 µg/L          7.95      5293.0 ppb           7.95   0.15%
   QC value within limits for SiO2  Recovery = 98.98%
Si 251.611†           158356.0      2487.1 µg/L          5.52      2487.1 ppb           5.52   0.22%
   QC value within limits for Si 251.611  Recovery = 99.48%
Sn 189.927†             7139.7      496.91 µg/L         4.661      496.91 ppb          4.661   0.94%
   QC value within limits for Sn 189.927  Recovery = 99.38%
Sr 421.552†           213607.7      503.75 µg/L         7.304      503.75 ppb          7.304   1.45%
   QC value within limits for Sr 421.552  Recovery = 100.75%
Ti 334.940†           485032.0      497.52 µg/L         0.659      497.52 ppb          0.659   0.13%
   QC value within limits for Ti 334.940  Recovery = 99.50%
Tl 190.801†             3655.1      506.59 µg/L         4.717      506.59 ppb          4.717   0.93%
   QC value within limits for Tl 190.801  Recovery = 101.32%
U 409.014†              7641.1      512.68 µg/L         5.844      512.68 ppb          5.844   1.14%
   QC value within limits for U 409.014  Recovery = 102.54%
V 292.402†             96351.5      506.09 µg/L         1.017      506.09 ppb          1.017   0.20%
   QC value within limits for V 292.402  Recovery = 101.22%
Zn 213.857†            84250.5      499.16 µg/L         0.182      499.16 ppb          0.182   0.04%
   QC value within limits for Zn 213.857  Recovery = 99.83%
All analyte(s) passed QC.
```

Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 16:39:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137942.2	137942.2	98.5	%			16:40:00
1	Al 396.153Radial†	-70.1	7.3	1.5274	µg/L	1.5274	ppb	16:40:20
1	Ca 317.933Radial†	599.6	37.5	2.5564	µg/L	2.5564	ppb	16:40:20
1	Fe 238.204 Radial†	134.7	19.5	1.4526	µg/L	1.4526	ppb	16:40:20
1	K 766.490 Radial†	1647.4	179.3	71.054	µg/L	71.054	ppb	16:40:00
1	Mg 279.077 IEC†	195.5	26.1	12.041	µg/L	12.041	ppb	16:40:20
1	Na 589.592 Radial†	1040.9	104.6	16.153	µg/L	16.153	ppb	16:40:00
1	Sr 421.552†	-212.6	-11.4	-0.0269	µg/L	-0.0269	ppb	16:40:00
1	Sc 361.383	1798118.0	1798118.0	99.666	%			16:41:21
1	Y 371.029	1057321.3	1057321.3	100.00	%			16:41:21
1	Ag 328.068†	3964.1	-587.8	-2.4126	µg/L	-2.4126	ppb	16:41:24
1	As 188.979†	-15.3	3.2	1.0699	µg/L	1.0699	ppb	16:41:44
1	B 249.677†	4000.1	-51.6	-0.8028	µg/L	-0.8028	ppb	16:41:24
1	Ba 233.527†	-134.6	9.4	0.0423	µg/L	0.0423	ppb	16:41:44
1	Be 313.107†	-535.2	554.7	0.1582	µg/L	0.1582	ppb	16:41:24
1	Cd 226.502†	-57.4	45.7	0.3090	µg/L	0.3090	ppb	16:41:44
1	Co 228.616†	-195.4	14.3	0.1890	µg/L	0.1890	ppb	16:41:44
1	Cr 267.716†	264.8	32.5	0.2878	µg/L	0.2878	ppb	16:41:44
1	Cu 324.752†	2812.6	-214.1	-0.9016	µg/L	-0.9016	ppb	16:41:24
1	Mn 257.610†	219.9	35.9	0.0471	µg/L	0.0471	ppb	16:41:44
1	Mo 202.031†	-29.7	8.8	0.2887	µg/L	0.2887	ppb	16:41:44
1	Ni 231.604†	-75.4	20.3	0.2539	µg/L	0.2539	ppb	16:41:44
1	P 214.914†	17.6	43.3	10.032	µg/L	10.032	ppb	16:41:44
1	Pb 220.353†	114.7	11.6	0.7236	µg/L	0.7236	ppb	16:41:44
1	S 181.975 Axial†	94.7	6.1	5.1206	µg/L	5.1206	ppb	16:41:44
1	Sb 206.836†	86.7	-2.7	-0.3466	µg/L	-0.3466	ppb	16:41:44
1	Se 196.026†	13.2	7.1	2.80	µg/L	2.80	ppb	16:41:44
1	SiO2†	1753.4	20.2	2.1268	µg/L	2.1268	ppb	16:41:44
1	Si 251.611†	1068.6	305.2	4.8084	µg/L	4.8084	ppb	16:41:24
1	Sn 189.927†	2.4	0.6	0.0398	µg/L	0.0398	ppb	16:41:44
1	Ti 334.940†	913.0	93.0	0.0979	µg/L	0.0979	ppb	16:41:24
1	Tl 190.801†	-106.5	7.5	1.0204	µg/L	1.0204	ppb	16:41:44
1	U 409.014†	-291.9	-129.5	-8.1577	µg/L	-8.1577	ppb	16:41:24
1	V 292.402†	480.1	58.4	0.3014	µg/L	0.3014	ppb	16:41:24
1	Zn 213.857†	595.7	94.7	0.5647	µg/L	0.5647	ppb	16:41:44
2	Sc RADIAL	135829.4	135829.4	97.0	%			16:40:22
2	Al 396.153Radial†	-81.3	-5.3	-1.1368	µg/L	-1.1368	ppb	16:40:42
2	Ca 317.933Radial†	621.2	69.3	4.7175	µg/L	4.7175	ppb	16:40:42
2	Fe 238.204 Radial†	157.1	44.8	3.3436	µg/L	3.3436	ppb	16:40:42
2	K 766.490 Radial†	1505.9	59.4	23.526	µg/L	23.526	ppb	16:40:22
2	Mg 279.077 IEC†	162.7	-4.6	-2.1319	µg/L	-2.1319	ppb	16:40:42
2	Na 589.592 Radial†	1108.8	191.1	29.596	µg/L	29.596	ppb	16:40:22
2	Sr 421.552†	-212.6	-14.8	-0.0349	µg/L	-0.0349	ppb	16:40:22
2	Sc 361.383	1790048.2	1790048.2	99.218	%			16:41:46
2	Y 371.029	1053046.8	1053046.8	99.598	%			16:41:46
2	Ag 328.068†	3895.9	-638.6	-2.6305	µg/L	-2.6305	ppb	16:41:48
2	As 188.979†	-15.3	3.1	1.0582	µg/L	1.0582	ppb	16:42:08
2	B 249.677†	3908.1	-126.3	-1.9638	µg/L	-1.9638	ppb	16:41:48
2	Ba 233.527†	-167.8	-24.6	-0.1094	µg/L	-0.1094	ppb	16:42:08
2	Be 313.107†	-639.8	446.9	0.1266	µg/L	0.1266	ppb	16:41:48
2	Cd 226.502†	-87.9	14.8	0.0997	µg/L	0.0997	ppb	16:42:08
2	Co 228.616†	-216.5	-7.9	-0.1050	µg/L	-0.1050	ppb	16:42:08
2	Cr 267.716†	233.6	2.2	0.0264	µg/L	0.0264	ppb	16:42:08
2	Cu 324.752†	2737.5	-277.1	-1.1663	µg/L	-1.1663	ppb	16:41:48
2	Mn 257.610†	246.1	63.3	0.0841	µg/L	0.0841	ppb	16:42:08
2	Mo 202.031†	-30.1	8.2	0.2692	µg/L	0.2692	ppb	16:42:08
2	Ni 231.604†	-68.8	26.6	0.3323	µg/L	0.3323	ppb	16:42:08
2	P 214.914†	23.9	49.8	11.533	µg/L	11.533	ppb	16:42:08
2	Pb 220.353†	118.7	16.2	1.0043	µg/L	1.0043	ppb	16:42:08

2	S 181.975 Axial†	93.8	5.6	4.7433 µg/L	4.7433 ppb		16:42:08
2	Sb 206.836†	85.9	-3.1	-0.3997 µg/L	-0.3997 ppb		16:42:08
2	Se 196.026†	14.2	8.1	3.20 µg/L	3.20 ppb		16:42:08
2	SiO2†	1805.8	81.0	8.5639 µg/L	8.5639 ppb		16:42:08
2	Si 251.611†	1082.0	323.5	5.0963 µg/L	5.0963 ppb		16:41:48
2	Sn 189.927†	4.0	2.1	0.1457 µg/L	0.1457 ppb		16:42:08
2	Ti 334.940†	649.2	-168.7	-0.1691 µg/L	-0.1691 ppb		16:41:48
2	Tl 190.801†	-112.0	1.4	0.1895 µg/L	0.1895 ppb		16:42:08
2	U 409.014†	-309.6	-148.7	-9.4054 µg/L	-9.4054 ppb		16:41:48
2	V 292.402†	339.9	-80.7	-0.4219 µg/L	-0.4219 ppb		16:41:48
2	Zn 213.857†	584.0	85.6	0.5096 µg/L	0.5096 ppb		16:42:08
3	Sc RADIAL	136159.2	136159.2	97.2 %			16:40:44
3	Al 396.153Radial†	-49.1	28.0	5.8522 µg/L	5.8522 ppb		16:41:04
3	Ca 317.933Radial†	630.3	77.1	5.2493 µg/L	5.2493 ppb		16:41:04
3	Fe 238.204 Radial†	158.5	45.8	3.4169 µg/L	3.4169 ppb		16:41:04
3	K 766.490 Radial†	1618.7	171.6	68.010 µg/L	68.010 ppb		16:40:44
3	Mg 279.077 IEC†	183.9	16.8	7.7589 µg/L	7.7589 ppb		16:41:04
3	Na 589.592 Radial†	982.5	58.3	8.9837 µg/L	8.9837 ppb		16:40:44
3	Sr 421.552†	-155.2	44.8	0.1056 µg/L	0.1056 ppb		16:40:44
3	Sc 361.383	1784965.0	1784965.0	98.936 %			16:42:10
3	Y 371.029	1049565.0	1049565.0	99.269 %			16:42:10
3	Ag 328.068†	4128.3	-392.5	-1.6080 µg/L	-1.6080 ppb		16:42:12
3	As 188.979†	-19.2	-0.9	-0.2935 µg/L	-0.2935 ppb		16:42:32
3	B 249.677†	4037.5	15.8	0.2442 µg/L	0.2442 ppb		16:42:12
3	Ba 233.527†	-169.4	-26.6	-0.1183 µg/L	-0.1183 ppb		16:42:32
3	Be 313.107†	-650.5	434.2	0.1261 µg/L	0.1261 ppb		16:42:12
3	Cd 226.502†	-44.5	58.4	0.3944 µg/L	0.3944 ppb		16:42:32
3	Co 228.616†	-180.7	27.7	0.3658 µg/L	0.3658 ppb		16:42:32
3	Cr 267.716†	228.4	-2.3	-0.0211 µg/L	-0.0211 ppb		16:42:32
3	Cu 324.752†	2905.1	-99.8	-0.4156 µg/L	-0.4156 ppb		16:42:12
3	Mn 257.610†	227.5	45.3	0.0597 µg/L	0.0597 ppb		16:42:32
3	Mo 202.031†	-9.6	28.8	0.9435 µg/L	0.9435 ppb		16:42:32
3	Ni 231.604†	-57.6	37.7	0.4718 µg/L	0.4718 ppb		16:42:32
3	P 214.914†	22.8	48.7	11.259 µg/L	11.259 ppb		16:42:32
3	Pb 220.353†	119.8	17.6	1.0864 µg/L	1.0864 ppb		16:42:32
3	S 181.975 Axial†	84.0	-4.0	-3.3925 µg/L	-3.3925 ppb		16:42:32
3	Sb 206.836†	89.3	0.6	0.0839 µg/L	0.0839 ppb		16:42:32
3	Se 196.026†	23.1	17.2	6.78 µg/L	6.78 ppb		16:42:32
3	SiO2†	1790.2	70.4	7.4259 µg/L	7.4259 ppb		16:42:32
3	Si 251.611†	1153.3	398.6	6.2742 µg/L	6.2742 ppb		16:42:12
3	Sn 189.927†	0.5	-1.4	-0.0955 µg/L	-0.0955 ppb		16:42:32
3	Ti 334.940†	676.4	-139.4	-0.1441 µg/L	-0.1441 ppb		16:42:12
3	Tl 190.801†	-115.1	-2.0	-0.2824 µg/L	-0.2824 ppb		16:42:32
3	U 409.014†	-143.9	18.0	1.1202 µg/L	1.1202 ppb		16:42:12
3	V 292.402†	377.5	-41.7	-0.2057 µg/L	-0.2057 ppb		16:42:12
3	Zn 213.857†	584.5	87.8	0.5213 µg/L	0.5213 ppb		16:42:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1791043.7	99.273	%	0.3676				0.37%
Sc RADIAL	136643.6	97.5	%	0.81				0.83%
Y 371.029	1053311.0	99.623	%	0.3674				0.37%
Ag 328.068†	-539.6	-2.2171	µg/L	0.53857	-2.2171	ppb	0.53857	24.29%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.0	2.0809	µg/L	3.52725	2.0809	ppb	3.52725	169.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.8	0.6116	µg/L	0.78382	0.6116	ppb	0.78382	128.17%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-54.0	-0.8408	µg/L	1.10448	-0.8408	ppb	1.10448	131.36%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-13.9	-0.0618	µg/L	0.09022	-0.0618	ppb	0.09022	146.01%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	478.6	0.1370	µg/L	0.01839	0.1370	ppb	0.01839	13.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	61.3	4.1744	µg/L	1.42623	4.1744	ppb	1.42623	34.17%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	39.6	0.2677	µg/L	0.15164	0.2677	ppb	0.15164	56.65%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.3	0.1499	µg/L	0.23781	0.1499	ppb	0.23781	158.65%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                10.8      0.0977 µg/L       0.16635      0.0977 ppb        0.16635 170.29%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -197.0     -0.8278 µg/L       0.38076     -0.8278 ppb        0.38076  46.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         36.7      2.7377 µg/L       1.11353      2.7377 ppb        1.11353  40.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         136.8      54.197 µg/L       26.6054      54.197 ppb        26.6054  49.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            12.7      5.8892 µg/L       7.26896      5.8892 ppb        7.26896 123.43%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                48.2      0.0637 µg/L       0.01878      0.0637 ppb        0.01878  29.51%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                15.3      0.5005 µg/L       0.38378      0.5005 ppb        0.38378  76.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        118.0      18.244 µg/L       10.4639      18.244 ppb        10.4639  57.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                28.2      0.3527 µg/L       0.11039      0.3527 ppb        0.11039  31.30%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 47.3      10.941 µg/L        0.7992      10.941 ppb         0.7992   7.30%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.2      0.9381 µg/L       0.19024      0.9381 ppb        0.19024  20.28%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.6      2.1571 µg/L       4.80982      2.1571 ppb        4.80982 222.98%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.8     -0.2208 µg/L       0.26524     -0.2208 ppb        0.26524 120.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                10.8        4.26 µg/L         2.187        4.26 ppb          2.187  51.32%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      57.2      6.0389 µg/L       3.43538      6.0389 ppb        3.43538  56.89%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               342.4      5.3930 µg/L       0.77662      5.3930 ppb        0.77662  14.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.4      0.0300 µg/L       0.12089      0.0300 ppb        0.12089 403.31%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 6.2      0.0146 µg/L       0.07893      0.0146 ppb        0.07893 539.76%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -71.7     -0.0718 µg/L       0.14746     -0.0718 ppb        0.14746 205.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.3      0.3091 µg/L       0.65961      0.3091 ppb        0.65961 213.37%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -86.8     -5.4810 µg/L       5.75076     -5.4810 ppb        5.75076 104.92%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -21.3     -0.1088 µg/L       0.37124     -0.1088 ppb        0.37124 341.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                89.4      0.5319 µg/L       0.02905      0.5319 ppb        0.02905   5.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 33
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 16:51:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137355.8	137355.8	98.0	%			16:51:36
1	Al 396.153Radial†	22880.1	23414.6	4906.0	µg/L	4906.0	ppb	16:51:36
1	Ca 317.933Radial†	73465.8	74358.3	5064.5	µg/L	5064.5	ppb	16:51:36
1	Fe 238.204 Radial†	66113.6	67313.8	5026.9	µg/L	5026.9	ppb	16:51:36
1	K 766.490 Radial†	13798.9	12580.1	4980.7	µg/L	4980.7	ppb	16:51:36
1	Mg 279.077 IEC†	10888.3	10932.8	5056.2	µg/L	5056.2	ppb	16:51:36
1	Na 589.592 Radial†	64470.3	64802.5	10040	µg/L	10040	ppb	16:51:36
1	Sr 421.552†	206244.2	210558.6	496.56	µg/L	496.56	ppb	16:51:34
1	Sc 361.383	1752111.7	1752111.7	97.115	%			16:52:03
1	Y 371.029	1019584.4	1019584.4	96.433	%			16:52:03
1	Ag 328.068†	122797.2	121879.4	505.19	µg/L	505.19	ppb	16:52:03
1	As 188.979†	1318.6	1376.3	472.82	µg/L	472.82	ppb	16:52:23
1	B 249.677†	34713.1	31679.0	490.91	µg/L	490.91	ppb	16:52:03
1	Ba 233.527†	108160.2	111517.3	496.09	µg/L	496.09	ppb	16:52:03
1	Be 313.107†	1631065.2	1680602.7	486.97	µg/L	486.97	ppb	16:52:03
1	Cd 226.502†	71875.3	74113.5	500.60	µg/L	500.60	ppb	16:52:03
1	Co 228.616†	36789.0	38092.0	504.19	µg/L	504.19	ppb	16:52:03
1	Cr 267.716†	56587.7	58035.2	501.93	µg/L	501.93	ppb	16:52:03
1	Cu 324.752†	118690.0	119179.2	500.05	µg/L	500.05	ppb	16:52:03
1	Mn 257.610†	367234.6	377957.5	501.16	µg/L	501.16	ppb	16:52:03
1	Mo 202.031†	15075.9	15562.2	509.40	µg/L	509.40	ppb	16:52:23
1	Ni 231.604†	38933.2	40185.5	502.77	µg/L	502.77	ppb	16:52:03
1	P 214.914†	10611.3	10952.1	2524.8	µg/L	2524.8	ppb	16:52:23
1	Pb 220.353†	8167.7	8306.9	512.76	µg/L	512.76	ppb	16:52:23
1	S 181.975 Axial†	1254.0	1202.4	1015.8	µg/L	1015.8	ppb	16:52:23
1	Sb 206.836†	3885.0	3910.7	505.50	µg/L	505.50	ppb	16:52:23
1	Se 196.026†	1249.6	1280.6	507	µg/L	507	ppb	16:52:23
1	SiO2†	50526.9	50288.5	5303.7	µg/L	5303.7	ppb	16:52:03
1	Si 251.611†	154417.4	158236.9	2485.1	µg/L	2485.1	ppb	16:52:03
1	Sn 189.927†	7000.5	7206.5	501.55	µg/L	501.55	ppb	16:52:23
1	Ti 334.940†	471932.7	485127.0	497.62	µg/L	497.62	ppb	16:52:03
1	Tl 190.801†	3478.0	3695.6	512.13	µg/L	512.13	ppb	16:52:23
1	U 409.014†	7202.5	7579.8	508.77	µg/L	508.77	ppb	16:52:03
1	V 292.402†	93876.8	96241.9	505.57	µg/L	505.57	ppb	16:52:03
1	Zn 213.857†	82228.6	84167.9	498.67	µg/L	498.67	ppb	16:52:03
2	Sc RADIAL	137852.9	137852.9	98.4	%			16:51:40
2	Al 396.153Radial†	23111.3	23565.4	4938.1	µg/L	4938.1	ppb	16:51:40
2	Ca 317.933Radial†	73767.6	74394.9	5067.0	µg/L	5067.0	ppb	16:51:40
2	Fe 238.204 Radial†	66317.2	67277.5	5024.2	µg/L	5024.2	ppb	16:51:40
2	K 766.490 Radial†	14151.3	12887.5	5102.5	µg/L	5102.5	ppb	16:51:40
2	Mg 279.077 IEC†	10935.5	10940.7	5059.7	µg/L	5059.7	ppb	16:51:40
2	Na 589.592 Radial†	64562.9	64659.5	10018	µg/L	10018	ppb	16:51:40
2	Sr 421.552†	206421.6	209980.3	495.19	µg/L	495.19	ppb	16:51:38
2	Sc 361.383	1776733.8	1776733.8	98.480	%			16:52:26
2	Y 371.029	1032902.3	1032902.3	97.693	%			16:52:26
2	Ag 328.068†	124434.0	121789.1	504.80	µg/L	504.80	ppb	16:52:26
2	As 188.979†	1315.4	1354.2	465.34	µg/L	465.34	ppb	16:52:46
2	B 249.677†	35510.4	31993.2	495.79	µg/L	495.79	ppb	16:52:26
2	Ba 233.527†	109739.6	111577.7	496.36	µg/L	496.36	ppb	16:52:26
2	Be 313.107†	1659332.8	1686031.8	488.54	µg/L	488.54	ppb	16:52:26
2	Cd 226.502†	73406.4	74642.6	504.18	µg/L	504.18	ppb	16:52:26
2	Co 228.616†	37458.3	38246.7	506.24	µg/L	506.24	ppb	16:52:26
2	Cr 267.716†	57445.4	58098.7	502.50	µg/L	502.50	ppb	16:52:26
2	Cu 324.752†	120511.7	119335.4	500.68	µg/L	500.68	ppb	16:52:26
2	Mn 257.610†	372819.3	378388.0	501.74	µg/L	501.74	ppb	16:52:26
2	Mo 202.031†	15067.4	15338.5	502.09	µg/L	502.09	ppb	16:52:46
2	Ni 231.604†	39645.5	40353.2	504.87	µg/L	504.87	ppb	16:52:26
2	P 214.914†	10601.0	10790.3	2487.4	µg/L	2487.4	ppb	16:52:46
2	Pb 220.353†	8159.4	8181.9	505.07	µg/L	505.07	ppb	16:52:46

2	S 181.975 Axial†	1265.7	1196.3	1010.7 µg/L	1010.7 ppb	16:52:46
2	Sb 206.836†	3871.1	3841.2	496.41 µg/L	496.41 ppb	16:52:46
2	Se 196.026†	1244.2	1257.3	498 µg/L	498 ppb	16:52:46
2	SiO2†	51226.3	50277.8	5302.9 µg/L	5302.9 ppb	16:52:26
2	Si 251.611†	157027.6	158683.8	2492.3 µg/L	2492.3 ppb	16:52:26
2	Sn 189.927†	6964.6	7070.2	492.10 µg/L	492.10 ppb	16:52:46
2	Ti 334.940†	478755.5	485320.8	497.83 µg/L	497.83 ppb	16:52:26
2	Tl 190.801†	3477.5	3645.5	505.28 µg/L	505.28 ppb	16:52:46
2	U 409.014†	6916.8	7186.9	484.01 µg/L	484.01 ppb	16:52:26
2	V 292.402†	95292.6	96340.0	505.99 µg/L	505.99 ppb	16:52:26
2	Zn 213.857†	83762.7	84552.4	500.95 µg/L	500.95 ppb	16:52:26
3	Sc RADIAL	137437.1	137437.1	98.1 %		16:51:44
3	Al 396.153Radial†	22956.7	23478.9	4920.1 µg/L	4920.1 ppb	16:51:44
3	Ca 317.933Radial†	73406.7	74253.8	5057.4 µg/L	5057.4 ppb	16:51:44
3	Fe 238.204 Radial†	66060.4	67219.7	5019.9 µg/L	5019.9 ppb	16:51:44
3	K 766.490 Radial†	13890.5	12665.1	5014.4 µg/L	5014.4 ppb	16:51:44
3	Mg 279.077 IEC†	10871.5	10909.1	5045.0 µg/L	5045.0 ppb	16:51:44
3	Na 589.592 Radial†	64580.1	64875.6	10052 µg/L	10052 ppb	16:51:44
3	Sr 421.552†	209193.1	213440.2	503.35 µg/L	503.35 ppb	16:51:42
3	Sc 361.383	1788229.0	1788229.0	99.117 %		16:52:50
3	Y 371.029	1039209.1	1039209.1	98.289 %		16:52:50
3	Ag 328.068†	124379.2	120921.6	501.23 µg/L	501.23 ppb	16:52:50
3	As 188.979†	1310.9	1341.1	460.85 µg/L	460.85 ppb	16:53:10
3	B 249.677†	35624.4	31876.5	493.99 µg/L	493.99 ppb	16:52:50
3	Ba 233.527†	110273.6	111400.1	495.56 µg/L	495.56 ppb	16:52:50
3	Be 313.107†	1658855.5	1674719.0	485.26 µg/L	485.26 ppb	16:52:50
3	Cd 226.502†	73433.7	74190.9	501.13 µg/L	501.13 ppb	16:52:50
3	Co 228.616†	37523.8	38068.2	503.88 µg/L	503.88 ppb	16:52:50
3	Cr 267.716†	57525.0	57804.0	499.95 µg/L	499.95 ppb	16:52:50
3	Cu 324.752†	120901.5	118942.0	499.04 µg/L	499.04 ppb	16:52:50
3	Mn 257.610†	373498.7	376639.9	499.42 µg/L	499.42 ppb	16:52:50
3	Mo 202.031†	15019.9	15192.2	497.30 µg/L	497.30 ppb	16:53:10
3	Ni 231.604†	39570.8	40019.1	500.69 µg/L	500.69 ppb	16:52:50
3	P 214.914†	10580.5	10700.4	2466.7 µg/L	2466.7 ppb	16:53:10
3	Pb 220.353†	8141.0	8110.0	500.63 µg/L	500.63 ppb	16:53:10
3	S 181.975 Axial†	1242.0	1164.1	983.54 µg/L	983.54 ppb	16:53:10
3	Sb 206.836†	3881.2	3826.0	494.43 µg/L	494.43 ppb	16:53:10
3	Se 196.026†	1251.9	1256.9	497 µg/L	497 ppb	16:53:10
3	SiO2†	51622.9	50343.5	5310.0 µg/L	5310.0 ppb	16:52:50
3	Si 251.611†	157506.8	158142.3	2483.9 µg/L	2483.9 ppb	16:52:50
3	Sn 189.927†	6998.1	7058.5	491.27 µg/L	491.27 ppb	16:53:10
3	Ti 334.940†	479185.6	482629.6	495.06 µg/L	495.06 ppb	16:52:50
3	Tl 190.801†	3467.5	3612.7	500.76 µg/L	500.76 ppb	16:53:10
3	U 409.014†	7087.9	7314.4	491.93 µg/L	491.93 ppb	16:52:50
3	V 292.402†	95535.1	95962.6	503.98 µg/L	503.98 ppb	16:52:50
3	Zn 213.857†	83766.7	84009.7	497.74 µg/L	497.74 ppb	16:52:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1772358.1	98.238	%	1.0227				1.04%
Sc RADIAL	137548.6	98.2	%	0.19				0.19%
Y 371.029	1030565.3	97.472	%	0.9476				0.97%
Ag 328.068†	121530.0	503.74	µg/L	2.180	503.74	ppb	2.180	0.43%
QC value within limits for Ag 328.068 Recovery = 100.75%								
Al 396.153Radial†	23486.3	4921.4	µg/L	16.09	4921.4	ppb	16.09	0.33%
QC value within limits for Al 396.153Radial Recovery = 98.43%								
As 188.979†	1357.2	466.34	µg/L	6.044	466.34	ppb	6.044	1.30%
QC value within limits for As 188.979 Recovery = 93.27%								
B 249.677†	31849.6	493.56	µg/L	2.467	493.56	ppb	2.467	0.50%
QC value within limits for B 249.677 Recovery = 98.71%								
Ba 233.527†	111498.4	496.00	µg/L	0.403	496.00	ppb	0.403	0.08%
QC value within limits for Ba 233.527 Recovery = 99.20%								
Be 313.107†	1680451.2	486.92	µg/L	1.638	486.92	ppb	1.638	0.34%
QC value within limits for Be 313.107 Recovery = 97.38%								
Ca 317.933Radial†	74335.7	5062.9	µg/L	4.99	5062.9	ppb	4.99	0.10%
QC value within limits for Ca 317.933Radial Recovery = 101.26%								
Cd 226.502†	74315.7	501.97	µg/L	1.932	501.97	ppb	1.932	0.38%
QC value within limits for Cd 226.502 Recovery = 100.39%								
Co 228.616†	38135.6	504.77	µg/L	1.282	504.77	ppb	1.282	0.25%

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   QC value within limits for Co 228.616  Recovery = 100.95%
Cr 267.716†            57979.3      501.46 µg/L        1.342      501.46 ppb          1.342   0.27%
   QC value within limits for Cr 267.716  Recovery = 100.29%
Cu 324.752†           119152.2      499.92 µg/L        0.828      499.92 ppb          0.828   0.17%
   QC value within limits for Cu 324.752  Recovery = 99.98%
Fe 238.204 Radial†     67270.3      5023.7 µg/L         3.54      5023.7 ppb           3.54   0.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.47%
K 766.490 Radial†      12710.9      5032.6 µg/L        62.89      5032.6 ppb          62.89   1.25%
   QC value within limits for K 766.490 Radial  Recovery = 100.65%
Mg 279.077 IEC†        10927.5      5053.6 µg/L         7.69      5053.6 ppb           7.69   0.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.07%
Mn 257.610†           377661.8      500.77 µg/L        1.208      500.77 ppb          1.208   0.24%
   QC value within limits for Mn 257.610  Recovery = 100.15%
Mo 202.031†            15364.3      502.93 µg/L        6.095      502.93 ppb          6.095   1.21%
   QC value within limits for Mo 202.031  Recovery = 100.59%
Na 589.592 Radial†     64779.2       10037 µg/L         17.1       10037 ppb           17.1   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 100.37%
Ni 231.604†            40185.9      502.78 µg/L        2.091      502.78 ppb          2.091   0.42%
   QC value within limits for Ni 231.604  Recovery = 100.56%
P 214.914†             10814.3      2493.0 µg/L        29.49      2493.0 ppb          29.49   1.18%
   QC value within limits for P 214.914  Recovery = 99.72%
Pb 220.353†             8199.6      506.16 µg/L        6.139      506.16 ppb          6.139   1.21%
   QC value within limits for Pb 220.353  Recovery = 101.23%
S 181.975 Axial†        1187.6      1003.3 µg/L        17.33      1003.3 ppb          17.33   1.73%
   QC value within limits for S 181.975 Axial  Recovery = 100.33%
Sb 206.836†             3859.3      498.78 µg/L        5.907      498.78 ppb          5.907   1.18%
   QC value within limits for Sb 206.836  Recovery = 99.76%
Se 196.026†             1264.9         501 µg/L          5.4        501 ppb            5.4   1.07%
   QC value within limits for Se 196.026  Recovery = 100.11%
SiO2†                  50303.3      5305.6 µg/L         3.89      5305.6 ppb           3.89   0.07%
   QC value within limits for SiO2  Recovery = 99.22%
Si 251.611†           158354.3      2487.1 µg/L         4.57      2487.1 ppb           4.57   0.18%
   QC value within limits for Si 251.611  Recovery = 99.48%
Sn 189.927†             7111.8      494.97 µg/L        5.710      494.97 ppb          5.710   1.15%
   QC value within limits for Sn 189.927  Recovery = 98.99%
Sr 421.552†           211326.4      498.37 µg/L        4.371      498.37 ppb          4.371   0.88%
   QC value within limits for Sr 421.552  Recovery = 99.67%
Ti 334.940†           484359.1      496.84 µg/L        1.540      496.84 ppb          1.540   0.31%
   QC value within limits for Ti 334.940  Recovery = 99.37%
Tl 190.801†             3651.2      506.06 µg/L        5.722      506.06 ppb          5.722   1.13%
   QC value within limits for Tl 190.801  Recovery = 101.21%
U 409.014†              7360.4      494.91 µg/L       12.645      494.91 ppb         12.645   2.55%
   QC value within limits for U 409.014  Recovery = 98.98%
V 292.402†             96181.5      505.18 µg/L        1.059      505.18 ppb          1.059   0.21%
   QC value within limits for V 292.402  Recovery = 101.04%
Zn 213.857†            84243.3      499.12 µg/L        1.653      499.12 ppb          1.653   0.33%
   QC value within limits for Zn 213.857  Recovery = 99.82%
All analyte(s) passed QC.
```

Sequence No.: 34 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 4/5/2010 16:53:18**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138223.2	138223.2	98.7	%			16:53:49
1	Al 396.153Radial†	-56.4	21.4	4.4752	µg/L	4.4752	ppb	16:54:09
1	Ca 317.933Radial†	654.1	91.5	6.2324	µg/L	6.2324	ppb	16:54:09
1	Fe 238.204 Radial†	167.3	52.3	3.9024	µg/L	3.9024	ppb	16:54:09
1	K 766.490 Radial†	1634.3	162.6	64.439	µg/L	64.439	ppb	16:53:49
1	Mg 279.077 IEC†	168.5	-1.7	-0.7631	µg/L	-0.7631	ppb	16:54:09
1	Na 589.592 Radial†	1154.6	217.7	33.695	µg/L	33.695	ppb	16:53:49
1	Sr 421.552†	-280.4	-79.7	-0.1881	µg/L	-0.1881	ppb	16:53:49
1	Sc 361.383	1785502.9	1785502.9	98.966	%			16:55:11
1	Y 371.029	1050032.6	1050032.6	99.313	%			16:55:11
1	Ag 328.068†	3973.5	-550.1	-2.2464	µg/L	-2.2464	ppb	16:55:13
1	As 188.979†	-12.8	5.7	1.9179	µg/L	1.9179	ppb	16:55:33
1	B 249.677†	4095.0	72.6	1.1281	µg/L	1.1281	ppb	16:55:13
1	Ba 233.527†	-162.8	-20.0	-0.0885	µg/L	-0.0885	ppb	16:55:33
1	Be 313.107†	-582.9	502.8	0.1461	µg/L	0.1461	ppb	16:55:13
1	Cd 226.502†	-68.9	33.7	0.2277	µg/L	0.2277	ppb	16:55:33
1	Co 228.616†	-186.1	22.3	0.2943	µg/L	0.2943	ppb	16:55:33
1	Cr 267.716†	247.7	17.1	0.1468	µg/L	0.1468	ppb	16:55:33
1	Cu 324.752†	2720.8	-286.8	-1.1978	µg/L	-1.1978	ppb	16:55:13
1	Mn 257.610†	260.5	78.5	0.1041	µg/L	0.1041	ppb	16:55:33
1	Mo 202.031†	-17.5	20.9	0.6845	µg/L	0.6845	ppb	16:55:33
1	Ni 231.604†	-74.1	21.1	0.2636	µg/L	0.2636	ppb	16:55:33
1	P 214.914†	20.4	46.3	10.715	µg/L	10.715	ppb	16:55:33
1	Pb 220.353†	85.2	-17.3	-1.0646	µg/L	-1.0646	ppb	16:55:33
1	S 181.975 Axial†	93.1	5.2	4.3508	µg/L	4.3508	ppb	16:55:33
1	Sb 206.836†	88.2	-0.6	-0.0640	µg/L	-0.0640	ppb	16:55:33
1	Se 196.026†	21.9	16.0	6.32	µg/L	6.32	ppb	16:55:33
1	SiO2†	1721.7	0.6	0.0275	µg/L	0.0275	ppb	16:55:33
1	Si 251.611†	967.3	210.4	3.3013	µg/L	3.3013	ppb	16:55:13
1	Sn 189.927†	18.2	16.5	1.1446	µg/L	1.1446	ppb	16:55:33
1	Ti 334.940†	610.2	-206.4	-0.2125	µg/L	-0.2125	ppb	16:55:13
1	Tl 190.801†	-118.9	-5.9	-0.8070	µg/L	-0.8070	ppb	16:55:33
1	U 409.014†	-138.9	23.1	1.4741	µg/L	1.4741	ppb	16:55:13
1	V 292.402†	482.6	64.4	0.3423	µg/L	0.3423	ppb	16:55:13
1	Zn 213.857†	570.4	73.4	0.4369	µg/L	0.4369	ppb	16:55:33
2	Sc RADIAL	136695.8	136695.8	97.6	%			16:54:11
2	Al 396.153Radial†	-86.0	-9.6	-2.0285	µg/L	-2.0285	ppb	16:54:31
2	Ca 317.933Radial†	634.0	78.3	5.3338	µg/L	5.3338	ppb	16:54:31
2	Fe 238.204 Radial†	156.7	43.2	3.2290	µg/L	3.2290	ppb	16:54:31
2	K 766.490 Radial†	1547.2	91.9	36.407	µg/L	36.407	ppb	16:54:11
2	Mg 279.077 IEC†	154.9	-13.7	-6.3271	µg/L	-6.3271	ppb	16:54:31
2	Na 589.592 Radial†	1159.9	236.2	36.576	µg/L	36.576	ppb	16:54:11
2	Sr 421.552†	-103.4	98.6	0.2324	µg/L	0.2324	ppb	16:54:11
2	Sc 361.383	1779341.5	1779341.5	98.625	%			16:55:35
2	Y 371.029	1046540.2	1046540.2	98.983	%			16:55:35
2	Ag 328.068†	4365.1	-139.2	-0.5853	µg/L	-0.5853	ppb	16:55:37
2	As 188.979†	-10.4	8.0	2.7126	µg/L	2.7126	ppb	16:55:57
2	B 249.677†	4120.1	112.4	1.7472	µg/L	1.7472	ppb	16:55:37
2	Ba 233.527†	-167.6	-25.3	-0.1130	µg/L	-0.1130	ppb	16:55:57
2	Be 313.107†	-454.4	631.0	0.1807	µg/L	0.1807	ppb	16:55:37
2	Cd 226.502†	-91.1	11.0	0.0739	µg/L	0.0739	ppb	16:55:57
2	Co 228.616†	-202.6	4.9	0.0642	µg/L	0.0642	ppb	16:55:57
2	Cr 267.716†	251.4	21.7	0.1928	µg/L	0.1928	ppb	16:55:57
2	Cu 324.752†	2876.7	-119.3	-0.5041	µg/L	-0.5041	ppb	16:55:37
2	Mn 257.610†	262.5	81.4	0.1083	µg/L	0.1083	ppb	16:55:57
2	Mo 202.031†	-28.1	10.1	0.3305	µg/L	0.3305	ppb	16:55:57
2	Ni 231.604†	-99.9	-5.4	-0.0674	µg/L	-0.0674	ppb	16:55:57
2	P 214.914†	13.5	39.4	9.1117	µg/L	9.1117	ppb	16:55:57
2	Pb 220.353†	127.1	25.4	1.5689	µg/L	1.5689	ppb	16:55:57

2	S 181.975 Axial†	86.2	-1.5	-1.2596 µg/L	-1.2596 ppb	16:55:57
2	Sb 206.836†	73.6	-15.1	-1.9428 µg/L	-1.9428 ppb	16:55:57
2	Se 196.026†	10.3	4.3	1.68 µg/L	1.68 ppb	16:55:57
2	SiO2†	1760.5	46.0	4.8496 µg/L	4.8496 ppb	16:55:57
2	Si 251.611†	887.6	132.9	2.0864 µg/L	2.0864 ppb	16:55:37
2	Sn 189.927†	12.7	11.0	0.7645 µg/L	0.7645 ppb	16:55:57
2	Ti 334.940†	611.7	-202.7	-0.2048 µg/L	-0.2048 ppb	16:55:37
2	Tl 190.801†	-111.8	0.9	0.1144 µg/L	0.1144 ppb	16:55:57
2	U 409.014†	-268.6	-108.9	-6.9078 µg/L	-6.9078 ppb	16:55:37
2	V 292.402†	309.4	-109.5	-0.5680 µg/L	-0.5680 ppb	16:55:37
2	Zn 213.857†	561.5	66.3	0.3964 µg/L	0.3964 ppb	16:55:57
3	Sc RADIAL	137343.0	137343.0	98.0 %		16:54:33
3	Al 396.153Radial†	-97.0	-20.4	-4.3347 µg/L	-4.3347 ppb	16:54:53
3	Ca 317.933Radial†	647.9	89.4	6.0917 µg/L	6.0917 ppb	16:54:53
3	Fe 238.204 Radial†	153.5	39.3	2.9351 µg/L	2.9351 ppb	16:54:53
3	K 766.490 Radial†	1513.7	50.2	19.876 µg/L	19.876 ppb	16:54:33
3	Mg 279.077 IEC†	171.0	2.0	0.9310 µg/L	0.9310 ppb	16:54:53
3	Na 589.592 Radial†	1203.0	274.6	42.545 µg/L	42.545 ppb	16:54:33
3	Sr 421.552†	-134.5	67.3	0.1587 µg/L	0.1587 ppb	16:54:33
3	Sc 361.383	1772750.2	1772750.2	98.259 %		16:55:59
3	Y 371.029	1041540.1	1041540.1	98.510 %		16:55:59
3	Ag 328.068†	4382.0	-105.5	-0.4464 µg/L	-0.4464 ppb	16:56:01
3	As 188.979†	-23.1	-5.0	-1.6861 µg/L	-1.6861 ppb	16:56:21
3	B 249.677†	4089.6	96.9	1.5067 µg/L	1.5067 ppb	16:56:01
3	Ba 233.527†	-194.8	-53.7	-0.2385 µg/L	-0.2385 ppb	16:56:21
3	Be 313.107†	-864.9	211.6	0.0588 µg/L	0.0588 ppb	16:56:01
3	Cd 226.502†	-63.6	38.6	0.2610 µg/L	0.2610 ppb	16:56:21
3	Co 228.616†	-193.9	13.0	0.1715 µg/L	0.1715 ppb	16:56:21
3	Cr 267.716†	253.2	24.5	0.2185 µg/L	0.2185 ppb	16:56:21
3	Cu 324.752†	2646.2	-343.0	-1.4411 µg/L	-1.4411 ppb	16:56:01
3	Mn 257.610†	261.4	81.3	0.1078 µg/L	0.1078 ppb	16:56:21
3	Mo 202.031†	-9.7	28.7	0.9397 µg/L	0.9397 ppb	16:56:21
3	Ni 231.604†	-77.8	16.7	0.2090 µg/L	0.2090 ppb	16:56:21
3	P 214.914†	17.1	43.1	9.9718 µg/L	9.9718 ppb	16:56:21
3	Pb 220.353†	116.7	15.3	0.9501 µg/L	0.9501 ppb	16:56:21
3	S 181.975 Axial†	75.2	-12.3	-10.379 µg/L	-10.379 ppb	16:56:21
3	Sb 206.836†	78.1	-10.2	-1.3088 µg/L	-1.3088 ppb	16:56:21
3	Se 196.026†	24.0	18.3	7.21 µg/L	7.21 ppb	16:56:21
3	SiO2†	1767.3	59.5	6.2698 µg/L	6.2698 ppb	16:56:21
3	Si 251.611†	971.0	221.2	3.4732 µg/L	3.4732 ppb	16:56:01
3	Sn 189.927†	6.5	4.8	0.3314 µg/L	0.3314 ppb	16:56:21
3	Ti 334.940†	907.8	100.9	0.1070 µg/L	0.1070 ppb	16:56:01
3	Tl 190.801†	-119.8	-7.7	-1.0512 µg/L	-1.0512 ppb	16:56:21
3	U 409.014†	-288.9	-130.6	-8.2628 µg/L	-8.2628 ppb	16:56:01
3	V 292.402†	348.5	-68.6	-0.3507 µg/L	-0.3507 ppb	16:56:01
3	Zn 213.857†	555.5	62.3	0.3716 µg/L	0.3716 ppb	16:56:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1779198.2	98.617	%	0.3535				0.36%
Sc RADIAL	137420.7	98.1	%	0.55				0.56%
Y 371.029	1046037.6	98.935	%	0.4037				0.41%
Ag 328.068†	-265.0	-1.0927	µg/L	1.00151	-1.0927	ppb	1.00151	91.65%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.8	-0.6293	µg/L	4.56854	-0.6293	ppb	4.56854	725.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.9	0.9814	µg/L	2.34409	0.9814	ppb	2.34409	238.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	94.0	1.4607	µg/L	0.31210	1.4607	ppb	0.31210	21.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-33.0	-0.1467	µg/L	0.08050	-0.1467	ppb	0.08050	54.89%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	448.4	0.1285	µg/L	0.06283	0.1285	ppb	0.06283	48.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	86.4	5.8860	µg/L	0.48335	5.8860	ppb	0.48335	8.21%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.8	0.1875	µg/L	0.09979	0.1875	ppb	0.09979	53.22%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	13.4	0.1767	µg/L	0.11514	0.1767	ppb	0.11514	65.18%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                21.1      0.1860 µg/L       0.03631      0.1860 ppb        0.03631  19.52%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -249.7     -1.0477 µg/L       0.48617     -1.0477 ppb        0.48617  46.40%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         44.9      3.3555 µg/L       0.49591      3.3555 ppb        0.49591  14.78%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         101.6      40.241 µg/L       22.5277      40.241 ppb        22.5277  55.98%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.5     -2.0531 µg/L       3.79712     -2.0531 ppb        3.79712 184.95%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                80.4      0.1068 µg/L       0.00227      0.1068 ppb        0.00227   2.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                19.9      0.6516 µg/L       0.30593      0.6516 ppb        0.30593  46.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        242.8      37.605 µg/L        4.5141      37.605 ppb         4.5141  12.00%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                10.8      0.1351 µg/L       0.17747      0.1351 ppb        0.17747 131.37%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 42.9      9.9327 µg/L       0.80224      9.9327 ppb        0.80224   8.08%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 7.8      0.4848 µg/L       1.37700      0.4848 ppb        1.37700 284.04%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.9     -2.4294 µg/L       7.43446     -2.4294 ppb        7.43446 306.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -8.6     -1.1052 µg/L       0.95582     -1.1052 ppb        0.95582  86.49%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                12.9        5.07 µg/L         2.971        5.07 ppb          2.971  58.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      35.4      3.7156 µg/L       3.27204      3.7156 ppb        3.27204  88.06%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               188.2      2.9536 µg/L       0.75596      2.9536 ppb        0.75596  25.59%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.8      0.7468 µg/L       0.40688      0.7468 ppb        0.40688  54.48%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                28.7      0.0676 µg/L       0.22453      0.0676 ppb        0.22453 331.91%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -102.8     -0.1034 µg/L       0.18229     -0.1034 ppb        0.18229 176.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -4.2     -0.5813 µg/L       0.61473     -0.5813 ppb        0.61473 105.75%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -72.2     -4.5655 µg/L       5.27416     -4.5655 ppb        5.27416 115.52%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -37.9     -0.1921 µg/L       0.47542     -0.1921 ppb        0.47542 247.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                67.3      0.4017 µg/L       0.03300      0.4017 ppb        0.03300   8.22%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 42
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 17:10:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137055.7	137055.7	97.8	%			17:10:43
1	Al 396.153Radial†	22620.0	23199.8	4861.3	µg/L	4861.3	ppb	17:10:43
1	Ca 317.933Radial†	73231.8	74283.3	5059.4	µg/L	5059.4	ppb	17:10:43
1	Fe 238.204 Radial†	65715.4	67054.4	5007.6	µg/L	5007.6	ppb	17:10:43
1	K 766.490 Radial†	13911.8	12726.3	5038.7	µg/L	5038.7	ppb	17:10:43
1	Mg 279.077 IEC†	10914.8	10984.2	5079.7	µg/L	5079.7	ppb	17:10:43
1	Na 589.592 Radial†	64048.5	64515.4	9995.9	µg/L	9995.9	ppb	17:10:43
1	Sr 421.552†	206888.5	211677.9	499.20	µg/L	499.20	ppb	17:10:41
1	Sc 361.383	1780631.5	1780631.5	98.696	%			17:11:10
1	Y 371.029	1034955.9	1034955.9	97.887	%			17:11:10
1	Ag 328.068†	124044.4	121117.8	502.05	µg/L	502.05	ppb	17:11:10
1	As 188.979†	1275.2	1310.6	450.55	µg/L	450.55	ppb	17:11:30
1	B 249.677†	35291.1	31692.2	491.12	µg/L	491.12	ppb	17:11:10
1	Ba 233.527†	109275.6	110863.6	493.18	µg/L	493.18	ppb	17:11:10
1	Be 313.107†	1648732.5	1671603.2	484.37	µg/L	484.37	ppb	17:11:10
1	Cd 226.502†	73212.0	74282.5	501.75	µg/L	501.75	ppb	17:11:10
1	Co 228.616†	37312.8	38016.0	503.18	µg/L	503.18	ppb	17:11:10
1	Cr 267.716†	57368.8	57893.4	500.71	µg/L	500.71	ppb	17:11:10
1	Cu 324.752†	120151.9	118702.9	498.05	µg/L	498.05	ppb	17:11:10
1	Mn 257.610†	371743.2	376469.0	499.19	µg/L	499.19	ppb	17:11:10
1	Mo 202.031†	14969.7	15206.0	497.75	µg/L	497.75	ppb	17:11:30
1	Ni 231.604†	39431.1	40047.9	501.05	µg/L	501.05	ppb	17:11:10
1	P 214.914†	10531.7	10696.5	2465.7	µg/L	2465.7	ppb	17:11:30
1	Pb 220.353†	8083.6	8086.9	499.19	µg/L	499.19	ppb	17:11:30
1	S 181.975 Axial†	1261.8	1189.6	1004.9	µg/L	1004.9	ppb	17:11:30
1	Sb 206.836†	3859.2	3820.5	493.71	µg/L	493.71	ppb	17:11:30
1	Se 196.026†	1267.3	1277.9	506	µg/L	506	ppb	17:11:30
1	SiO2†	51149.4	50086.0	5282.8	µg/L	5282.8	ppb	17:11:10
1	Si 251.611†	156453.9	157753.6	2477.7	µg/L	2477.7	ppb	17:11:10
1	Sn 189.927†	6948.7	7038.6	489.89	µg/L	489.89	ppb	17:11:30
1	Ti 334.940†	476133.7	481600.2	494.00	µg/L	494.00	ppb	17:11:10
1	Tl 190.801†	3446.6	3606.4	499.90	µg/L	499.90	ppb	17:11:30
1	U 409.014†	7294.1	7553.8	507.01	µg/L	507.01	ppb	17:11:10
1	V 292.402†	95018.5	95850.4	503.42	µg/L	503.42	ppb	17:11:10
1	Zn 213.857†	83456.0	84055.5	498.01	µg/L	498.01	ppb	17:11:10
2	Sc RADIAL	135408.6	135408.6	96.7	%			17:10:47
2	Al 396.153Radial†	22517.3	23374.9	4898.1	µg/L	4898.1	ppb	17:10:47
2	Ca 317.933Radial†	72313.8	74244.0	5056.7	µg/L	5056.7	ppb	17:10:47
2	Fe 238.204 Radial†	64838.0	66963.7	5000.8	µg/L	5000.8	ppb	17:10:47
2	K 766.490 Radial†	13819.4	12803.7	5069.3	µg/L	5069.3	ppb	17:10:47
2	Mg 279.077 IEC†	10682.9	10880.0	5031.6	µg/L	5031.6	ppb	17:10:47
2	Na 589.592 Radial†	63233.4	64468.4	9988.6	µg/L	9988.6	ppb	17:10:47
2	Sr 421.552†	205022.8	212320.0	500.71	µg/L	500.71	ppb	17:10:45
2	Sc 361.383	1773415.5	1773415.5	98.296	%			17:11:33
2	Y 371.029	1031141.7	1031141.7	97.526	%			17:11:33
2	Ag 328.068†	123480.7	121055.8	501.78	µg/L	501.78	ppb	17:11:33
2	As 188.979†	1277.7	1318.4	453.19	µg/L	453.19	ppb	17:11:53
2	B 249.677†	35100.4	31643.6	490.37	µg/L	490.37	ppb	17:11:33
2	Ba 233.527†	108533.0	110558.7	491.82	µg/L	491.82	ppb	17:11:33
2	Be 313.107†	1637326.4	1666796.7	482.97	µg/L	482.97	ppb	17:11:33
2	Cd 226.502†	72551.1	73911.9	499.24	µg/L	499.24	ppb	17:11:33
2	Co 228.616†	37155.6	38009.9	503.10	µg/L	503.10	ppb	17:11:33
2	Cr 267.716†	56945.8	57699.6	499.03	µg/L	499.03	ppb	17:11:33
2	Cu 324.752†	119557.0	118593.0	497.59	µg/L	497.59	ppb	17:11:33
2	Mn 257.610†	369699.1	375922.1	498.47	µg/L	498.47	ppb	17:11:33
2	Mo 202.031†	14961.3	15259.2	499.49	µg/L	499.49	ppb	17:11:53
2	Ni 231.604†	39207.3	39982.7	500.23	µg/L	500.23	ppb	17:11:33
2	P 214.914†	10496.3	10703.9	2467.5	µg/L	2467.5	ppb	17:11:53
2	Pb 220.353†	8111.8	8149.0	503.01	µg/L	503.01	ppb	17:11:53

2	S 181.975 Axial†	1254.9	1187.7	1003.4 µg/L	1003.4 ppb	17:11:53
2	Sb 206.836†	3864.5	3841.8	496.50 µg/L	496.50 ppb	17:11:53
2	Se 196.026†	1250.8	1266.3	501 µg/L	501 ppb	17:11:53
2	SiO2†	50934.6	50078.3	5281.9 µg/L	5281.9 ppb	17:11:33
2	Si 251.611†	156181.0	158120.9	2483.5 µg/L	2483.5 ppb	17:11:33
2	Sn 189.927†	6932.1	7050.4	490.71 µg/L	490.71 ppb	17:11:53
2	Ti 334.940†	473748.0	481136.1	493.52 µg/L	493.52 ppb	17:11:33
2	Tl 190.801†	3451.9	3626.0	502.55 µg/L	502.55 ppb	17:11:53
2	U 409.014†	7314.8	7604.9	510.15 µg/L	510.15 ppb	17:11:33
2	V 292.402†	94350.7	95562.7	501.94 µg/L	501.94 ppb	17:11:33
2	Zn 213.857†	83141.9	84080.0	498.16 µg/L	498.16 ppb	17:11:33
3	Sc RADIAL	136034.8	136034.8	97.1 %		17:10:51
3	Al 396.153Radial†	22623.7	23377.2	4898.3 µg/L	4898.3 ppb	17:10:51
3	Ca 317.933Radial†	72562.4	74155.6	5050.7 µg/L	5050.7 ppb	17:10:51
3	Fe 238.204 Radial†	65104.3	66929.1	4998.2 µg/L	4998.2 ppb	17:10:51
3	K 766.490 Radial†	13892.9	12813.5	5073.2 µg/L	5073.2 ppb	17:10:51
3	Mg 279.077 IEC†	10800.7	10950.5	5064.3 µg/L	5064.3 ppb	17:10:51
3	Na 589.592 Radial†	63633.4	64579.1	10006 µg/L	10006 ppb	17:10:51
3	Sr 421.552†	202879.3	209135.9	493.20 µg/L	493.20 ppb	17:10:49
3	Sc 361.383	1767543.4	1767543.4	97.971 %		17:11:56
3	Y 371.029	1027715.0	1027715.0	97.202 %		17:11:56
3	Ag 328.068†	123605.9	121600.9	504.02 µg/L	504.02 ppb	17:11:56
3	As 188.979†	1298.3	1343.8	461.78 µg/L	461.78 ppb	17:12:16
3	B 249.677†	35304.7	31970.8	495.45 µg/L	495.45 ppb	17:11:56
3	Ba 233.527†	108988.9	111390.8	495.53 µg/L	495.53 ppb	17:11:56
3	Be 313.107†	1634588.3	1669535.7	483.77 µg/L	483.77 ppb	17:11:56
3	Cd 226.502†	72862.0	74474.5	503.05 µg/L	503.05 ppb	17:11:56
3	Co 228.616†	37221.5	38202.8	505.66 µg/L	505.66 ppb	17:11:56
3	Cr 267.716†	56873.2	57818.0	500.05 µg/L	500.05 ppb	17:11:56
3	Cu 324.752†	119352.8	118788.8	498.41 µg/L	498.41 ppb	17:11:56
3	Mn 257.610†	370060.0	377540.0	500.61 µg/L	500.61 ppb	17:11:56
3	Mo 202.031†	15077.9	15428.7	505.04 µg/L	505.04 ppb	17:12:16
3	Ni 231.604†	39389.7	40301.4	504.22 µg/L	504.22 ppb	17:11:56
3	P 214.914†	10642.6	10888.8	2510.2 µg/L	2510.2 ppb	17:12:16
3	Pb 220.353†	8197.6	8264.0	510.11 µg/L	510.11 ppb	17:12:16
3	S 181.975 Axial†	1254.0	1191.1	1006.3 µg/L	1006.3 ppb	17:12:16
3	Sb 206.836†	3915.3	3906.7	504.95 µg/L	504.95 ppb	17:12:16
3	Se 196.026†	1258.0	1277.9	506 µg/L	506 ppb	17:12:16
3	SiO2†	51109.0	50428.5	5318.7 µg/L	5318.7 ppb	17:11:56
3	Si 251.611†	156522.7	158997.6	2497.2 µg/L	2497.2 ppb	17:11:56
3	Sn 189.927†	7013.8	7157.1	498.12 µg/L	498.12 ppb	17:12:16
3	Ti 334.940†	473724.5	482713.3	495.14 µg/L	495.14 ppb	17:11:56
3	Tl 190.801†	3493.7	3680.3	510.00 µg/L	510.00 ppb	17:12:16
3	U 409.014†	7206.6	7519.2	504.83 µg/L	504.83 ppb	17:11:56
3	V 292.402†	94298.6	95828.4	503.38 µg/L	503.38 ppb	17:11:56
3	Zn 213.857†	83272.4	84494.2	500.61 µg/L	500.61 ppb	17:11:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1773863.5	98.321	%	0.3634				0.37%
Sc RADIAL	136166.4	97.2	%	0.59				0.61%
Y 371.029	1031270.8	97.538	%	0.3426				0.35%
Ag 328.068†	121258.2	502.62	µg/L	1.224	502.62	ppb	1.224	0.24%
QC value within limits for Ag 328.068 Recovery = 100.52%								
Al 396.153Radial†	23317.3	4885.9	µg/L	21.30	4885.9	ppb	21.30	0.44%
QC value within limits for Al 396.153Radial Recovery = 97.72%								
As 188.979†	1324.3	455.17	µg/L	5.872	455.17	ppb	5.872	1.29%
QC value within limits for As 188.979 Recovery = 91.03%								
B 249.677†	31768.8	492.31	µg/L	2.741	492.31	ppb	2.741	0.56%
QC value within limits for B 249.677 Recovery = 98.46%								
Ba 233.527†	110937.7	493.51	µg/L	1.873	493.51	ppb	1.873	0.38%
QC value within limits for Ba 233.527 Recovery = 98.70%								
Be 313.107†	1669311.9	483.70	µg/L	0.698	483.70	ppb	0.698	0.14%
QC value within limits for Be 313.107 Recovery = 96.74%								
Ca 317.933Radial†	74227.6	5055.6	µg/L	4.46	5055.6	ppb	4.46	0.09%
QC value within limits for Ca 317.933Radial Recovery = 101.11%								
Cd 226.502†	74223.0	501.34	µg/L	1.934	501.34	ppb	1.934	0.39%
QC value within limits for Cd 226.502 Recovery = 100.27%								
Co 228.616†	38076.2	503.98	µg/L	1.452	503.98	ppb	1.452	0.29%

```
   QC value within limits for Co 228.616  Recovery = 100.80%
Cr 267.716†            57803.7      499.93 µg/L         0.847      499.93 ppb          0.847   0.17%
   QC value within limits for Cr 267.716  Recovery = 99.99%
Cu 324.752†           118694.9      498.02 µg/L         0.409      498.02 ppb          0.409   0.08%
   QC value within limits for Cu 324.752  Recovery = 99.60%
Fe 238.204 Radial†     66982.4      5002.2 µg/L          4.83      5002.2 ppb           4.83   0.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.04%
K 766.490 Radial†      12781.2      5060.4 µg/L         18.93      5060.4 ppb          18.93   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 101.21%
Mg 279.077 IEC†        10938.3      5058.6 µg/L         24.54      5058.6 ppb          24.54   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.17%
Mn 257.610†           376643.7      499.42 µg/L         1.091      499.42 ppb          1.091   0.22%
   QC value within limits for Mn 257.610  Recovery = 99.88%
Mo 202.031†            15298.0      500.76 µg/L         3.804      500.76 ppb          3.804   0.76%
   QC value within limits for Mo 202.031  Recovery = 100.15%
Na 589.592 Radial†     64521.0      9996.8 µg/L          8.61      9996.8 ppb           8.61   0.09%
   QC value within limits for Na 589.592 Radial  Recovery = 99.97%
Ni 231.604†            40110.7      501.83 µg/L         2.107      501.83 ppb          2.107   0.42%
   QC value within limits for Ni 231.604  Recovery = 100.37%
P 214.914†             10763.1      2481.1 µg/L         25.20      2481.1 ppb          25.20   1.02%
   QC value within limits for P 214.914  Recovery = 99.25%
Pb 220.353†             8166.6      504.10 µg/L         5.542      504.10 ppb          5.542   1.10%
   QC value within limits for Pb 220.353  Recovery = 100.82%
S 181.975 Axial†        1189.5      1004.9 µg/L          1.46      1004.9 ppb           1.46   0.15%
   QC value within limits for S 181.975 Axial  Recovery = 100.49%
Sb 206.836†             3856.3      498.39 µg/L         5.853      498.39 ppb          5.853   1.17%
   QC value within limits for Sb 206.836  Recovery = 99.68%
Se 196.026†             1274.0         504 µg/L           2.6         504 ppb            2.6   0.52%
   QC value within limits for Se 196.026  Recovery = 100.83%
SiO2†                  50197.6      5294.5 µg/L         21.01      5294.5 ppb          21.01   0.40%
   QC value within limits for SiO2  Recovery = 99.01%
Si 251.611†           158290.7      2486.1 µg/L         10.00      2486.1 ppb          10.00   0.40%
   QC value within limits for Si 251.611  Recovery = 99.45%
Sn 189.927†             7082.1      492.90 µg/L         4.531      492.90 ppb          4.531   0.92%
   QC value within limits for Sn 189.927  Recovery = 98.58%
Sr 421.552†           211044.6      497.70 µg/L         3.971      497.70 ppb          3.971   0.80%
   QC value within limits for Sr 421.552  Recovery = 99.54%
Ti 334.940†           481816.5      494.22 µg/L         0.832      494.22 ppb          0.832   0.17%
   QC value within limits for Ti 334.940  Recovery = 98.84%
Tl 190.801†             3637.6      504.15 µg/L         5.234      504.15 ppb          5.234   1.04%
   QC value within limits for Tl 190.801  Recovery = 100.83%
U 409.014†              7559.3      507.33 µg/L         2.674      507.33 ppb          2.674   0.53%
   QC value within limits for U 409.014  Recovery = 101.47%
V 292.402†             95747.2      502.91 µg/L         0.841      502.91 ppb          0.841   0.17%
   QC value within limits for V 292.402  Recovery = 100.58%
Zn 213.857†            84209.9      498.93 µg/L         1.460      498.93 ppb          1.460   0.29%
   QC value within limits for Zn 213.857  Recovery = 99.79%
All analyte(s) passed QC.
```

Sequence No.: 43
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 17:12:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135450.1	135450.1	96.7	%			17:12:56
1	Al 396.153Radial†	-81.3	-5.6	-1.1704	µg/L	-1.1704	ppb	17:13:16
1	Ca 317.933Radial†	651.0	101.9	6.9409	µg/L	6.9409	ppb	17:13:16
1	Fe 238.204 Radial†	154.7	42.7	3.1915	µg/L	3.1915	ppb	17:13:16
1	K 766.490 Radial†	1676.0	239.7	94.966	µg/L	94.966	ppb	17:12:56
1	Mg 279.077 IEC†	178.2	11.9	5.4792	µg/L	5.4792	ppb	17:13:16
1	Na 589.592 Radial†	1291.3	383.1	59.295	µg/L	59.295	ppb	17:12:56
1	Sr 421.552†	-290.3	-95.8	-0.2260	µg/L	-0.2260	ppb	17:12:56
1	Sc 361.383	1794956.0	1794956.0	99.490	%			17:14:17
1	Y 371.029	1055741.9	1055741.9	99.853	%			17:14:17
1	Ag 328.068†	4009.1	-535.5	-2.2145	µg/L	-2.2145	ppb	17:14:20
1	As 188.979†	-8.5	10.0	3.3980	µg/L	3.3980	ppb	17:14:40
1	B 249.677†	4081.5	37.3	0.5797	µg/L	0.5797	ppb	17:14:20
1	Ba 233.527†	-146.2	-2.4	-0.0105	µg/L	-0.0105	ppb	17:14:40
1	Be 313.107†	-734.1	353.9	0.0970	µg/L	0.0970	ppb	17:14:20
1	Cd 226.502†	-62.2	40.8	0.2757	µg/L	0.2757	ppb	17:14:40
1	Co 228.616†	-195.2	14.1	0.1868	µg/L	0.1868	ppb	17:14:40
1	Cr 267.716†	241.0	9.0	0.0924	µg/L	0.0924	ppb	17:14:40
1	Cu 324.752†	2546.0	-477.0	-2.0094	µg/L	-2.0094	ppb	17:14:20
1	Mn 257.610†	264.1	80.8	0.1069	µg/L	0.1069	ppb	17:14:40
1	Mo 202.031†	-41.4	-3.0	-0.0975	µg/L	-0.0975	ppb	17:14:40
1	Ni 231.604†	-56.6	39.0	0.4885	µg/L	0.4885	ppb	17:14:40
1	P 214.914†	32.5	58.4	13.522	µg/L	13.522	ppb	17:14:40
1	Pb 220.353†	113.5	10.6	0.6652	µg/L	0.6652	ppb	17:14:40
1	S 181.975 Axial†	101.3	12.9	10.885	µg/L	10.885	ppb	17:14:40
1	Sb 206.836†	84.4	-4.9	-0.6354	µg/L	-0.6354	ppb	17:14:40
1	Se 196.026†	24.6	18.5	7.29	µg/L	7.29	ppb	17:14:40
1	SiO2†	1814.0	84.2	8.9180	µg/L	8.9180	ppb	17:14:40
1	Si 251.611†	1086.7	325.3	5.1291	µg/L	5.1291	ppb	17:14:20
1	Sn 189.927†	5.2	3.4	0.2336	µg/L	0.2336	ppb	17:14:40
1	Ti 334.940†	616.5	-203.3	-0.2017	µg/L	-0.2017	ppb	17:14:20
1	Tl 190.801†	-115.3	-1.7	-0.2289	µg/L	-0.2289	ppb	17:14:40
1	U 409.014†	-447.5	-286.4	-18.072	µg/L	-18.072	ppb	17:14:20
1	V 292.402†	423.9	2.8	0.0017	µg/L	0.0017	ppb	17:14:20
1	Zn 213.857†	574.2	74.2	0.4407	µg/L	0.4407	ppb	17:14:40
2	Sc RADIAL	135362.7	135362.7	96.6	%			17:13:18
2	Al 396.153Radial†	-46.9	30.0	6.3205	µg/L	6.3205	ppb	17:13:38
2	Ca 317.933Radial†	654.8	106.2	7.2354	µg/L	7.2354	ppb	17:13:38
2	Fe 238.204 Radial†	151.1	39.1	2.9172	µg/L	2.9172	ppb	17:13:38
2	K 766.490 Radial†	1651.4	215.3	85.296	µg/L	85.296	ppb	17:13:18
2	Mg 279.077 IEC†	170.5	4.0	1.8339	µg/L	1.8339	ppb	17:13:38
2	Na 589.592 Radial†	1255.5	346.8	53.686	µg/L	53.686	ppb	17:13:18
2	Sr 421.552†	-150.8	48.4	0.1141	µg/L	0.1141	ppb	17:13:18
2	Sc 361.383	1774661.2	1774661.2	98.365	%			17:14:42
2	Y 371.029	1043754.1	1043754.1	98.719	%			17:14:42
2	Ag 328.068†	3896.3	-604.2	-2.4602	µg/L	-2.4602	ppb	17:14:44
2	As 188.979†	-4.0	14.4	4.8871	µg/L	4.8871	ppb	17:15:04
2	B 249.677†	4029.4	31.2	0.4860	µg/L	0.4860	ppb	17:14:44
2	Ba 233.527†	-177.5	-35.9	-0.1598	µg/L	-0.1598	ppb	17:15:04
2	Be 313.107†	-792.2	286.3	0.0869	µg/L	0.0869	ppb	17:14:44
2	Cd 226.502†	-77.2	24.9	0.1682	µg/L	0.1682	ppb	17:15:04
2	Co 228.616†	-211.6	-4.8	-0.0637	µg/L	-0.0637	ppb	17:15:04
2	Cr 267.716†	248.2	19.1	0.1546	µg/L	0.1546	ppb	17:15:04
2	Cu 324.752†	2897.7	-90.3	-0.3665	µg/L	-0.3665	ppb	17:14:44
2	Mn 257.610†	262.2	81.9	0.1085	µg/L	0.1085	ppb	17:15:04
2	Mo 202.031†	-39.9	-2.0	-0.0657	µg/L	-0.0657	ppb	17:15:04
2	Ni 231.604†	-57.8	37.2	0.4651	µg/L	0.4651	ppb	17:15:04
2	P 214.914†	59.1	85.8	19.849	µg/L	19.849	ppb	17:15:04
2	Pb 220.353†	102.6	0.9	0.0457	µg/L	0.0457	ppb	17:15:04

2	S 181.975 Axial†	96.4	9.1	7.6787 µg/L	7.6787 ppb		17:15:04
2	Sb 206.836†	91.0	2.8	0.3568 µg/L	0.3568 ppb		17:15:04
2	Se 196.026†	17.8	11.9	4.71 µg/L	4.71 ppb		17:15:04
2	SiO2†	1849.9	141.5	14.983 µg/L	14.983 ppb		17:15:04
2	Si 251.611†	1481.3	738.9	11.650 µg/L	11.650 ppb		17:14:44
2	Sn 189.927†	8.2	6.5	0.4504 µg/L	0.4504 ppb		17:15:04
2	Ti 334.940†	738.0	-72.7	-0.0800 µg/L	-0.0800 ppb		17:14:44
2	Tl 190.801†	-119.7	-7.4	-1.0189 µg/L	-1.0189 ppb		17:15:04
2	U 409.014†	41.9	206.0	12.984 µg/L	12.984 ppb		17:14:44
2	V 292.402†	369.3	-47.7	-0.2389 µg/L	-0.2389 ppb		17:14:44
2	Zn 213.857†	596.7	103.6	0.6157 µg/L	0.6157 ppb		17:15:04
3	Sc RADIAL	135515.0	135515.0	96.7 %			17:13:40
3	Al 396.153Radial†	-57.3	19.3	4.0176 µg/L	4.0176 ppb		17:14:00
3	Ca 317.933Radial†	669.5	120.6	8.2159 µg/L	8.2159 ppb		17:14:00
3	Fe 238.204 Radial†	201.1	90.6	6.7657 µg/L	6.7657 ppb		17:14:00
3	K 766.490 Radial†	1663.9	226.3	89.668 µg/L	89.668 ppb		17:13:40
3	Mg 279.077 IEC†	173.9	7.3	3.3985 µg/L	3.3985 ppb		17:14:00
3	Na 589.592 Radial†	1133.8	219.6	33.959 µg/L	33.959 ppb		17:13:40
3	Sr 421.552†	-187.3	10.8	0.0255 µg/L	0.0255 ppb		17:13:40
3	Sc 361.383	1777960.9	1777960.9	98.548 %			17:15:06
3	Y 371.029	1045750.5	1045750.5	98.908 %			17:15:06
3	Ag 328.068†	3929.1	-578.2	-2.3935 µg/L	-2.3935 ppb		17:15:08
3	As 188.979†	-0.9	17.6	5.9683 µg/L	5.9683 ppb		17:15:28
3	B 249.677†	3990.0	-16.4	-0.2556 µg/L	-0.2556 ppb		17:15:08
3	Ba 233.527†	-160.6	-18.4	-0.0818 µg/L	-0.0818 ppb		17:15:28
3	Be 313.107†	-481.6	603.1	0.1695 µg/L	0.1695 ppb		17:15:08
3	Cd 226.502†	-105.6	-3.8	-0.0264 µg/L	-0.0264 ppb		17:15:28
3	Co 228.616†	-199.0	8.3	0.1096 µg/L	0.1096 ppb		17:15:28
3	Cr 267.716†	245.7	16.1	0.1528 µg/L	0.1528 ppb		17:15:28
3	Cu 324.752†	2883.7	-109.9	-0.4727 µg/L	-0.4727 ppb		17:15:08
3	Mn 257.610†	296.9	116.6	0.1545 µg/L	0.1545 ppb		17:15:28
3	Mo 202.031†	-13.2	25.2	0.8237 µg/L	0.8237 ppb		17:15:28
3	Ni 231.604†	-69.5	25.4	0.3178 µg/L	0.3178 ppb		17:15:28
3	P 214.914†	25.3	51.4	11.884 µg/L	11.884 ppb		17:15:28
3	Pb 220.353†	98.0	-4.0	-0.2302 µg/L	-0.2302 ppb		17:15:28
3	S 181.975 Axial†	85.9	-1.7	-1.4411 µg/L	-1.4411 ppb		17:15:28
3	Sb 206.836†	109.7	21.6	2.7982 µg/L	2.7982 ppb		17:15:28
3	Se 196.026†	15.6	9.7	3.80 µg/L	3.80 ppb		17:15:28
3	SiO2†	1857.8	146.1	15.448 µg/L	15.448 ppb		17:15:28
3	Si 251.611†	1351.3	604.2	9.5170 µg/L	9.5170 ppb		17:15:08
3	Sn 189.927†	1.2	-0.7	-0.0491 µg/L	-0.0491 ppb		17:15:28
3	Ti 334.940†	765.8	-46.0	-0.0402 µg/L	-0.0402 ppb		17:15:08
3	Tl 190.801†	-118.5	-5.9	-0.8121 µg/L	-0.8121 ppb		17:15:28
3	U 409.014†	-430.2	-273.1	-17.262 µg/L	-17.262 ppb		17:15:08
3	V 292.402†	333.8	-84.5	-0.4409 µg/L	-0.4409 ppb		17:15:08
3	Zn 213.857†	555.7	60.9	0.3611 µg/L	0.3611 ppb		17:15:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1782526.0	98.801	%	0.6036				0.61%
Sc RADIAL	135442.6	96.7	%	0.05				0.06%
Y 371.029	1048415.5	99.160	%	0.6075				0.61%
Ag 328.068†	-572.6	-2.3561	µg/L	0.12707	-2.3561	ppb	0.12707	5.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.6	3.0559	µg/L	3.83691	3.0559	ppb	3.83691	125.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	14.0	4.7512	µg/L	1.29055	4.7512	ppb	1.29055	27.16%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	17.4	0.2700	µg/L	0.45762	0.2700	ppb	0.45762	169.48%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-18.9	-0.0841	µg/L	0.07468	-0.0841	ppb	0.07468	88.84%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	414.4	0.1178	µg/L	0.04505	0.1178	ppb	0.04505	38.24%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	109.6	7.4641	µg/L	0.66752	7.4641	ppb	0.66752	8.94%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	20.6	0.1392	µg/L	0.15308	0.1392	ppb	0.15308	110.00%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.9	0.0776	µg/L	0.12830	0.0776	ppb	0.12830	165.43%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.7      0.1333 µg/L       0.03539      0.1333 ppb        0.03539  26.55%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -225.7     -0.9496 µg/L       0.91940     -0.9496 ppb        0.91940  96.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       57.5      4.2915 µg/L       2.14715      4.2915 ppb        2.14715  50.03%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       227.1      89.976 µg/L        4.8423      89.976 ppb         4.8423   5.38%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           7.7      3.5705 µg/L       1.82871      3.5705 ppb        1.82871  51.22%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              93.1      0.1233 µg/L       0.02699      0.1233 ppb        0.02699  21.89%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.7      0.2201 µg/L       0.52291      0.2201 ppb        0.52291 237.53%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      316.5      48.980 µg/L       13.3077      48.980 ppb        13.3077  27.17%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              33.9      0.4238 µg/L       0.09251      0.4238 ppb        0.09251  21.83%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               65.2      15.085 µg/L        4.2062      15.085 ppb         4.2062  27.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               2.5      0.1602 µg/L       0.45859      0.1602 ppb        0.45859 286.20%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.8      5.7076 µg/L       6.39517      5.7076 ppb        6.39517 112.05%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.5      0.8399 µg/L       1.76706      0.8399 ppb        1.76706 210.40%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              13.4        5.27 µg/L         1.807        5.27 ppb          1.807  34.31%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   123.9      13.116 µg/L        3.6433      13.116 ppb         3.6433  27.78%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             556.1      8.7652 µg/L       3.32463      8.7652 ppb        3.32463  37.93%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.1      0.2116 µg/L       0.25047      0.2116 ppb        0.25047 118.34%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -12.2     -0.0288 µg/L       0.17643     -0.0288 ppb        0.17643 612.43%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -107.3     -0.1073 µg/L       0.08414     -0.1073 ppb        0.08414  78.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -5.0     -0.6867 µg/L       0.40968     -0.6867 ppb        0.40968  59.66%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -117.9     -7.4502 µg/L      17.70079     -7.4502 ppb       17.70079 237.59%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -43.1     -0.2260 µg/L       0.22162     -0.2260 ppb        0.22162  98.05%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              79.5      0.4725 µg/L       0.13026      0.4725 ppb        0.13026  27.57%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 49
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 17:26:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137434.3	137434.3	98.1	%			17:27:10
1	Al 396.153Radial†	22772.8	23291.9	4880.6	µg/L	4880.6	ppb	17:27:10
1	Ca 317.933Radial†	73231.0	74076.2	5045.3	µg/L	5045.3	ppb	17:27:10
1	Fe 238.204 Radial†	65904.4	67062.0	5008.1	µg/L	5008.1	ppb	17:27:10
1	K 766.490 Radial†	13974.2	12750.7	5048.4	µg/L	5048.4	ppb	17:27:10
1	Mg 279.077 IEC†	10781.8	10817.9	5003.0	µg/L	5003.0	ppb	17:27:10
1	Na 589.592 Radial†	64015.4	64301.3	9962.7	µg/L	9962.7	ppb	17:27:10
1	Sr 421.552†	207090.5	211301.2	498.31	µg/L	498.31	ppb	17:27:08
1	Sc 361.383	1777803.3	1777803.3	98.540	%			17:27:23
1	Y 371.029	1034308.9	1034308.9	97.826	%			17:27:23
1	Ag 328.068†	123670.6	120938.4	501.30	µg/L	501.30	ppb	17:27:23
1	As 188.979†	1291.6	1329.3	456.87	µg/L	456.87	ppb	17:27:43
1	B 249.677†	35035.7	31489.8	487.98	µg/L	487.98	ppb	17:27:23
1	Ba 233.527†	109181.4	110944.2	493.54	µg/L	493.54	ppb	17:27:23
1	Be 313.107†	1641903.4	1667330.5	483.13	µg/L	483.13	ppb	17:27:23
1	Cd 226.502†	73069.7	74256.1	501.57	µg/L	501.57	ppb	17:27:23
1	Co 228.616†	37211.2	37973.0	502.61	µg/L	502.61	ppb	17:27:23
1	Cr 267.716†	57003.3	57614.9	498.30	µg/L	498.30	ppb	17:27:23
1	Cu 324.752†	119862.9	118603.3	497.63	µg/L	497.63	ppb	17:27:23
1	Mn 257.610†	370970.9	376284.5	498.95	µg/L	498.95	ppb	17:27:23
1	Mo 202.031†	15014.2	15275.3	500.02	µg/L	500.02	ppb	17:27:43
1	Ni 231.604†	39450.5	40131.1	502.09	µg/L	502.09	ppb	17:27:23
1	P 214.914†	10581.6	10764.1	2481.4	µg/L	2481.4	ppb	17:27:43
1	Pb 220.353†	8139.9	8157.1	503.52	µg/L	503.52	ppb	17:27:43
1	S 181.975 Axial†	1253.0	1182.6	999.10	µg/L	999.10	ppb	17:27:43
1	Sb 206.836†	3864.9	3832.4	495.32	µg/L	495.32	ppb	17:27:43
1	Se 196.026†	1239.8	1252.0	495	µg/L	495	ppb	17:27:43
1	SiO2†	50899.7	49915.0	5264.6	µg/L	5264.6	ppb	17:27:23
1	Si 251.611†	155782.0	157323.9	2470.9	µg/L	2470.9	ppb	17:27:23
1	Sn 189.927†	6968.1	7069.5	492.03	µg/L	492.03	ppb	17:27:43
1	Ti 334.940†	475655.5	481882.4	494.29	µg/L	494.29	ppb	17:27:23
1	Tl 190.801†	3477.9	3643.7	504.99	µg/L	504.99	ppb	17:27:43
1	U 409.014†	7267.7	7538.7	506.00	µg/L	506.00	ppb	17:27:23
1	V 292.402†	94668.3	95648.2	502.38	µg/L	502.38	ppb	17:27:23
1	Zn 213.857†	83290.6	84022.1	497.80	µg/L	497.80	ppb	17:27:23
2	Sc RADIAL	135899.1	135899.1	97.0	%			17:27:14
2	Al 396.153Radial†	22671.5	23449.7	4913.8	µg/L	4913.8	ppb	17:27:14
2	Ca 317.933Radial†	72365.0	74026.8	5041.9	µg/L	5041.9	ppb	17:27:14
2	Fe 238.204 Radial†	64973.2	66861.0	4993.1	µg/L	4993.1	ppb	17:27:14
2	K 766.490 Radial†	13791.6	12723.4	5037.5	µg/L	5037.5	ppb	17:27:14
2	Mg 279.077 IEC†	10644.0	10800.0	4994.7	µg/L	4994.7	ppb	17:27:14
2	Na 589.592 Radial†	63599.7	64609.9	10011	µg/L	10011	ppb	17:27:14
2	Sr 421.552†	206365.8	212938.8	502.17	µg/L	502.17	ppb	17:27:12
2	Sc 361.383	1769945.6	1769945.6	98.104	%			17:27:46
2	Y 371.029	1028630.4	1028630.4	97.289	%			17:27:46
2	Ag 328.068†	123368.7	121187.8	502.34	µg/L	502.34	ppb	17:27:46
2	As 188.979†	1276.0	1319.3	453.44	µg/L	453.44	ppb	17:28:06
2	B 249.677†	35110.0	31723.4	491.61	µg/L	491.61	ppb	17:27:46
2	Ba 233.527†	108539.0	110781.2	492.81	µg/L	492.81	ppb	17:27:46
2	Be 313.107†	1634007.9	1666679.6	482.94	µg/L	482.94	ppb	17:27:46
2	Cd 226.502†	72771.3	74281.1	501.74	µg/L	501.74	ppb	17:27:46
2	Co 228.616†	37005.3	37930.8	502.06	µg/L	502.06	ppb	17:27:46
2	Cr 267.716†	56615.2	57476.1	497.09	µg/L	497.09	ppb	17:27:46
2	Cu 324.752†	119311.6	118581.4	497.54	µg/L	497.54	ppb	17:27:46
2	Mn 257.610†	369325.0	376278.1	498.94	µg/L	498.94	ppb	17:27:46
2	Mo 202.031†	14943.0	15270.4	499.86	µg/L	499.86	ppb	17:28:06
2	Ni 231.604†	39125.9	39978.0	500.17	µg/L	500.17	ppb	17:27:46
2	P 214.914†	10473.4	10701.5	2466.9	µg/L	2466.9	ppb	17:28:06
2	Pb 220.353†	8085.2	8138.0	502.34	µg/L	502.34	ppb	17:28:06

2	S 181.975 Axial†	1238.2	1173.2	991.18 µg/L	991.18 ppb	17:28:06
2	Sb 206.836†	3863.8	3848.8	497.44 µg/L	497.44 ppb	17:28:06
2	Se 196.026†	1248.9	1266.9	501 µg/L	501 ppb	17:28:06
2	SiO2†	50662.2	49902.2	5263.2 µg/L	5263.2 ppb	17:27:46
2	Si 251.611†	155351.7	157587.1	2475.1 µg/L	2475.1 ppb	17:27:46
2	Sn 189.927†	6938.2	7070.4	492.10 µg/L	492.10 ppb	17:28:06
2	Ti 334.940†	473081.6	481401.7	493.80 µg/L	493.80 ppb	17:27:46
2	Tl 190.801†	3441.2	3622.0	502.03 µg/L	502.03 ppb	17:28:06
2	U 409.014†	7297.5	7601.9	510.02 µg/L	510.02 ppb	17:27:46
2	V 292.402†	94364.8	95765.3	502.99 µg/L	502.99 ppb	17:27:46
2	Zn 213.857†	82843.8	83941.9	497.34 µg/L	497.34 ppb	17:27:46
3	Sc RADIAL	135069.6	135069.6	96.4 %		17:27:18
3	Al 396.153Radial†	22481.3	23396.0	4902.7 µg/L	4902.7 ppb	17:27:18
3	Ca 317.933Radial†	71663.4	73757.2	5023.5 µg/L	5023.5 ppb	17:27:18
3	Fe 238.204 Radial†	64687.6	66976.1	5001.7 µg/L	5001.7 ppb	17:27:18
3	K 766.490 Radial†	13719.9	12736.3	5042.6 µg/L	5042.6 ppb	17:27:18
3	Mg 279.077 IEC†	10677.4	10902.1	5041.7 µg/L	5041.7 ppb	17:27:18
3	Na 589.592 Radial†	63244.1	64643.7	10016 µg/L	10016 ppb	17:27:18
3	Sr 421.552†	206489.1	214373.2	505.55 µg/L	505.55 ppb	17:27:16
3	Sc 361.383	1783229.0	1783229.0	98.840 %		17:28:09
3	Y 371.029	1037035.2	1037035.2	98.084 %		17:28:09
3	Ag 328.068†	124208.4	121100.6	501.97 µg/L	501.97 ppb	17:28:09
3	As 188.979†	1280.9	1314.5	451.83 µg/L	451.83 ppb	17:28:29
3	B 249.677†	35431.2	31781.8	492.51 µg/L	492.51 ppb	17:28:09
3	Ba 233.527†	109270.0	110696.7	492.44 µg/L	492.44 ppb	17:28:09
3	Be 313.107†	1645065.2	1665459.6	482.59 µg/L	482.59 ppb	17:28:09
3	Cd 226.502†	73506.8	74472.6	503.03 µg/L	503.03 ppb	17:28:09
3	Co 228.616†	37551.2	38202.1	505.64 µg/L	505.64 ppb	17:28:09
3	Cr 267.716†	57216.9	57655.0	498.65 µg/L	498.65 ppb	17:28:09
3	Cu 324.752†	119984.9	118356.7	496.60 µg/L	496.60 ppb	17:28:09
3	Mn 257.610†	372270.3	376453.7	499.17 µg/L	499.17 ppb	17:28:09
3	Mo 202.031†	14891.8	15105.2	494.45 µg/L	494.45 ppb	17:28:29
3	Ni 231.604†	39512.2	40071.7	501.35 µg/L	501.35 ppb	17:28:09
3	P 214.914†	10467.4	10615.9	2447.1 µg/L	2447.1 ppb	17:28:29
3	Pb 220.353†	8066.7	8057.9	497.40 µg/L	497.40 ppb	17:28:29
3	S 181.975 Axial†	1232.7	1158.3	978.57 µg/L	978.57 ppb	17:28:29
3	Sb 206.836†	3820.2	3775.3	487.85 µg/L	487.85 ppb	17:28:29
3	Se 196.026†	1250.9	1259.4	498 µg/L	498 ppb	17:28:29
3	SiO2†	51152.6	50013.7	5275.3 µg/L	5275.3 ppb	17:28:09
3	Si 251.611†	156853.9	157927.3	2480.5 µg/L	2480.5 ppb	17:28:09
3	Sn 189.927†	6902.2	6981.3	485.92 µg/L	485.92 ppb	17:28:29
3	Ti 334.940†	477150.2	481926.0	494.33 µg/L	494.33 ppb	17:28:09
3	Tl 190.801†	3421.7	3576.1	495.75 µg/L	495.75 ppb	17:28:29
3	U 409.014†	7259.4	7507.9	504.07 µg/L	504.07 ppb	17:28:09
3	V 292.402†	95004.8	95696.4	502.58 µg/L	502.58 ppb	17:28:09
3	Zn 213.857†	83971.1	84453.4	500.39 µg/L	500.39 ppb	17:28:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1776992.6	98.495	%	0.3702				0.38%
Sc RADIAL	136134.3	97.2	%	0.86				0.88%
Y 371.029	1033324.8	97.733	%	0.4056				0.41%
Ag 328.068†	121075.6	501.87	µg/L	0.524	501.87	ppb	0.524	0.10%
QC value within limits for Ag 328.068 Recovery = 100.37%								
Al 396.153Radial†	23379.2	4899.0	µg/L	16.93	4899.0	ppb	16.93	0.35%
QC value within limits for Al 396.153Radial Recovery = 97.98%								
As 188.979†	1321.0	454.05	µg/L	2.573	454.05	ppb	2.573	0.57%
QC value within limits for As 188.979 Recovery = 90.81%								
B 249.677†	31665.0	490.70	µg/L	2.400	490.70	ppb	2.400	0.49%
QC value within limits for B 249.677 Recovery = 98.14%								
Ba 233.527†	110807.4	492.93	µg/L	0.560	492.93	ppb	0.560	0.11%
QC value within limits for Ba 233.527 Recovery = 98.59%								
Be 313.107†	1666489.9	482.88	µg/L	0.276	482.88	ppb	0.276	0.06%
QC value within limits for Be 313.107 Recovery = 96.58%								
Ca 317.933Radial†	73953.4	5036.9	µg/L	11.70	5036.9	ppb	11.70	0.23%
QC value within limits for Ca 317.933Radial Recovery = 100.74%								
Cd 226.502†	74336.6	502.11	µg/L	0.801	502.11	ppb	0.801	0.16%
QC value within limits for Cd 226.502 Recovery = 100.42%								
Co 228.616†	38035.3	503.44	µg/L	1.930	503.44	ppb	1.930	0.38%

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   QC value within limits for Co 228.616  Recovery = 100.69%
Cr 267.716†            57582.0      498.01 µg/L         0.814      498.01 ppb          0.814   0.16%
   QC value within limits for Cr 267.716  Recovery = 99.60%
Cu 324.752†           118513.8      497.26 µg/L         0.571      497.26 ppb          0.571   0.11%
   QC value within limits for Cu 324.752  Recovery = 99.45%
Fe 238.204 Radial†     66966.4      5001.0 µg/L          7.53      5001.0 ppb           7.53   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.02%
K 766.490 Radial†      12736.8      5042.8 µg/L          5.42      5042.8 ppb           5.42   0.11%
   QC value within limits for K 766.490 Radial  Recovery = 100.86%
Mg 279.077 IEC†        10840.0      5013.1 µg/L         25.08      5013.1 ppb          25.08   0.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.26%
Mn 257.610†           376338.8      499.02 µg/L         0.131      499.02 ppb          0.131   0.03%
   QC value within limits for Mn 257.610  Recovery = 99.80%
Mo 202.031†            15216.9      498.11 µg/L         3.167      498.11 ppb          3.167   0.64%
   QC value within limits for Mo 202.031  Recovery = 99.62%
Na 589.592 Radial†     64518.3      9996.4 µg/L         29.25      9996.4 ppb          29.25   0.29%
   QC value within limits for Na 589.592 Radial  Recovery = 99.96%
Ni 231.604†            40060.3      501.20 µg/L         0.966      501.20 ppb          0.966   0.19%
   QC value within limits for Ni 231.604  Recovery = 100.24%
P 214.914†             10693.9      2465.2 µg/L         17.20      2465.2 ppb          17.20   0.70%
   QC value within limits for P 214.914  Recovery = 98.61%
Pb 220.353†             8117.7      501.09 µg/L         3.244      501.09 ppb          3.244   0.65%
   QC value within limits for Pb 220.353  Recovery = 100.22%
S 181.975 Axial†        1171.4      989.62 µg/L        10.354      989.62 ppb         10.354   1.05%
   QC value within limits for S 181.975 Axial  Recovery = 98.96%
Sb 206.836†             3818.8      493.54 µg/L         5.034      493.54 ppb          5.034   1.02%
   QC value within limits for Sb 206.836  Recovery = 98.71%
Se 196.026†             1259.4         498 µg/L           2.9         498 ppb            2.9   0.59%
   QC value within limits for Se 196.026  Recovery = 99.68%
SiO2†                  49943.6      5267.7 µg/L          6.60      5267.7 ppb           6.60   0.13%
   QC value within limits for SiO2  Recovery = 98.51%
Si 251.611†           157612.8      2475.5 µg/L          4.83      2475.5 ppb           4.83   0.20%
   QC value within limits for Si 251.611  Recovery = 99.02%
Sn 189.927†             7040.4      490.02 µg/L         3.549      490.02 ppb          3.549   0.72%
   QC value within limits for Sn 189.927  Recovery = 98.00%
Sr 421.552†           212871.1      502.01 µg/L         3.625      502.01 ppb          3.625   0.72%
   QC value within limits for Sr 421.552  Recovery = 100.40%
Ti 334.940†           481736.7      494.14 µg/L         0.298      494.14 ppb          0.298   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.83%
Tl 190.801†             3614.0      500.92 µg/L         4.721      500.92 ppb          4.721   0.94%
   QC value within limits for Tl 190.801  Recovery = 100.18%
U 409.014†              7549.5      506.70 µg/L         3.037      506.70 ppb          3.037   0.60%
   QC value within limits for U 409.014  Recovery = 101.34%
V 292.402†             95703.3      502.65 µg/L         0.309      502.65 ppb          0.309   0.06%
   QC value within limits for V 292.402  Recovery = 100.53%
Zn 213.857†            84139.1      498.51 µg/L         1.641      498.51 ppb          1.641   0.33%
   QC value within limits for Zn 213.857  Recovery = 99.70%
All analyte(s) passed QC.
```

Sequence No.: 50
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 17:28:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136904.7	136904.7	97.7	%			17:29:09
1	Al 396.153Radial†	-106.0	-29.9	-6.3055	µg/L	-6.3055	ppb	17:29:29
1	Ca 317.933Radial†	640.7	84.1	5.7301	µg/L	5.7301	ppb	17:29:29
1	Fe 238.204 Radial†	166.6	53.2	3.9696	µg/L	3.9696	ppb	17:29:29
1	K 766.490 Radial†	1592.6	135.9	53.852	µg/L	53.852	ppb	17:29:09
1	Mg 279.077 IEC†	172.7	4.3	1.9741	µg/L	1.9741	ppb	17:29:29
1	Na 589.592 Radial†	1164.0	238.6	36.933	µg/L	36.933	ppb	17:29:09
1	Sr 421.552†	-155.5	45.3	0.1069	µg/L	0.1069	ppb	17:29:09
1	Sc 361.383	1790505.4	1790505.4	99.244	%			17:30:31
1	Y 371.029	1053608.0	1053608.0	99.651	%			17:30:31
1	Ag 328.068†	4173.1	-360.2	-1.4814	µg/L	-1.4814	ppb	17:30:33
1	As 188.979†	-12.0	6.5	2.2030	µg/L	2.2030	ppb	17:30:54
1	B 249.677†	3984.8	-49.9	-0.7780	µg/L	-0.7780	ppb	17:30:33
1	Ba 233.527†	-162.7	-19.4	-0.0861	µg/L	-0.0861	ppb	17:30:54
1	Be 313.107†	-601.3	485.9	0.1396	µg/L	0.1396	ppb	17:30:33
1	Cd 226.502†	-85.8	16.9	0.1143	µg/L	0.1143	ppb	17:30:54
1	Co 228.616†	-178.6	30.3	0.4007	µg/L	0.4007	ppb	17:30:54
1	Cr 267.716†	226.2	-5.3	-0.0424	µg/L	-0.0424	ppb	17:30:54
1	Cu 324.752†	2823.7	-190.9	-0.8008	µg/L	-0.8008	ppb	17:30:33
1	Mn 257.610†	288.4	105.9	0.1404	µg/L	0.1404	ppb	17:30:54
1	Mo 202.031†	-27.7	10.7	0.3505	µg/L	0.3505	ppb	17:30:54
1	Ni 231.604†	-63.4	32.0	0.4000	µg/L	0.4000	ppb	17:30:54
1	P 214.914†	43.4	69.4	16.046	µg/L	16.046	ppb	17:30:54
1	Pb 220.353†	89.8	-13.0	-0.7938	µg/L	-0.7938	ppb	17:30:54
1	S 181.975 Axial†	85.3	-3.0	-2.5004	µg/L	-2.5004	ppb	17:30:54
1	Sb 206.836†	64.3	-25.0	-3.2138	µg/L	-3.2138	ppb	17:30:54
1	Se 196.026†	20.4	14.4	5.66	µg/L	5.66	ppb	17:30:54
1	SiO2†	1717.6	-8.4	-0.8980	µg/L	-0.8980	ppb	17:30:54
1	Si 251.611†	1112.0	353.4	5.5708	µg/L	5.5708	ppb	17:30:33
1	Sn 189.927†	-2.6	-4.5	-0.3134	µg/L	-0.3134	ppb	17:30:54
1	Ti 334.940†	598.4	-220.0	-0.2244	µg/L	-0.2244	ppb	17:30:33
1	Tl 190.801†	-114.9	-1.5	-0.2054	µg/L	-0.2054	ppb	17:30:54
1	U 409.014†	-223.3	-61.7	-3.9000	µg/L	-3.9000	ppb	17:30:33
1	V 292.402†	392.0	-28.2	-0.1456	µg/L	-0.1456	ppb	17:30:33
1	Zn 213.857†	564.6	65.9	0.3909	µg/L	0.3909	ppb	17:30:54
2	Sc RADIAL	137422.4	137422.4	98.1	%			17:29:31
2	Al 396.153Radial†	-79.4	-2.4	-0.5235	µg/L	-0.5235	ppb	17:29:51
2	Ca 317.933Radial†	651.7	92.9	6.3264	µg/L	6.3264	ppb	17:29:51
2	Fe 238.204 Radial†	165.1	51.0	3.8070	µg/L	3.8070	ppb	17:29:51
2	K 766.490 Radial†	1641.3	179.4	71.092	µg/L	71.092	ppb	17:29:31
2	Mg 279.077 IEC†	174.3	5.2	2.4027	µg/L	2.4027	ppb	17:29:51
2	Na 589.592 Radial†	1206.1	277.1	42.885	µg/L	42.885	ppb	17:29:31
2	Sr 421.552†	-208.9	-8.5	-0.0200	µg/L	-0.0200	ppb	17:29:31
2	Sc 361.383	1783725.3	1783725.3	98.868	%			17:30:56
2	Y 371.029	1049520.1	1049520.1	99.264	%			17:30:56
2	Ag 328.068†	4139.0	-378.7	-1.5381	µg/L	-1.5381	ppb	17:30:58
2	As 188.979†	-8.4	10.0	3.3930	µg/L	3.3930	ppb	17:31:18
2	B 249.677†	3936.5	-83.6	-1.3008	µg/L	-1.3008	ppb	17:30:58
2	Ba 233.527†	-132.7	10.3	0.0460	µg/L	0.0460	ppb	17:31:18
2	Be 313.107†	-732.9	350.4	0.1040	µg/L	0.1040	ppb	17:30:58
2	Cd 226.502†	-64.2	38.4	0.2596	µg/L	0.2596	ppb	17:31:18
2	Co 228.616†	-188.2	19.9	0.2636	µg/L	0.2636	ppb	17:31:18
2	Cr 267.716†	215.9	-14.9	-0.1351	µg/L	-0.1351	ppb	17:31:18
2	Cu 324.752†	2700.5	-304.7	-1.2669	µg/L	-1.2669	ppb	17:30:58
2	Mn 257.610†	275.9	94.3	0.1250	µg/L	0.1250	ppb	17:31:18
2	Mo 202.031†	-23.5	14.8	0.4848	µg/L	0.4848	ppb	17:31:18
2	Ni 231.604†	-48.5	46.9	0.5865	µg/L	0.5865	ppb	17:31:18
2	P 214.914†	18.7	44.6	10.317	µg/L	10.317	ppb	17:31:18
2	Pb 220.353†	109.5	7.3	0.4435	µg/L	0.4435	ppb	17:31:18

2	S 181.975 Axial†	84.9	-3.0	-2.5608	µg/L	-2.5608	ppb	17:31:18
2	Sb 206.836†	75.0	-13.8	-1.7722	µg/L	-1.7722	ppb	17:31:18
2	Se 196.026†	28.7	22.9	9.04	µg/L	9.04	ppb	17:31:18
2	SiO2†	1786.0	67.4	7.1221	µg/L	7.1221	ppb	17:31:18
2	Si 251.611†	932.9	176.5	2.7782	µg/L	2.7782	ppb	17:30:58
2	Sn 189.927†	-0.3	-2.2	-0.1545	µg/L	-0.1545	ppb	17:31:18
2	Ti 334.940†	723.1	-91.6	-0.0974	µg/L	-0.0974	ppb	17:30:58
2	Tl 190.801†	-128.3	-15.5	-2.1132	µg/L	-2.1132	ppb	17:31:18
2	U 409.014†	-32.6	130.4	8.2400	µg/L	8.2400	ppb	17:30:58
2	V 292.402†	456.3	38.3	0.2080	µg/L	0.2080	ppb	17:30:58
2	Zn 213.857†	549.7	53.0	0.3132	µg/L	0.3132	ppb	17:31:18
3	Sc RADIAL	135539.0	135539.0	96.7	%			17:29:53
3	Al 396.153Radial†	-81.5	-5.7	-1.2163	µg/L	-1.2163	ppb	17:30:13
3	Ca 317.933Radial†	639.9	90.0	6.1294	µg/L	6.1294	ppb	17:30:13
3	Fe 238.204 Radial†	159.6	47.6	3.5551	µg/L	3.5551	ppb	17:30:13
3	K 766.490 Radial†	1483.7	39.8	15.747	µg/L	15.747	ppb	17:29:53
3	Mg 279.077 IEC†	178.1	11.6	5.3731	µg/L	5.3731	ppb	17:30:13
3	Na 589.592 Radial†	1194.0	281.6	43.643	µg/L	43.643	ppb	17:29:53
3	Sr 421.552†	-273.9	-78.6	-0.1854	µg/L	-0.1854	ppb	17:29:53
3	Sc 361.383	1786924.6	1786924.6	99.045	%			17:31:20
3	Y 371.029	1051272.3	1051272.3	99.430	%			17:31:20
3	Ag 328.068†	4162.9	-362.1	-1.4924	µg/L	-1.4924	ppb	17:31:22
3	As 188.979†	-14.1	4.3	1.4647	µg/L	1.4647	ppb	17:31:42
3	B 249.677†	4015.8	-10.6	-0.1649	µg/L	-0.1649	ppb	17:31:22
3	Ba 233.527†	-169.4	-26.5	-0.1179	µg/L	-0.1179	ppb	17:31:42
3	Be 313.107†	-502.7	584.1	0.1674	µg/L	0.1674	ppb	17:31:22
3	Cd 226.502†	-95.0	7.4	0.0501	µg/L	0.0501	ppb	17:31:42
3	Co 228.616†	-207.0	1.3	0.0164	µg/L	0.0164	ppb	17:31:42
3	Cr 267.716†	263.7	33.0	0.2898	µg/L	0.2898	ppb	17:31:42
3	Cu 324.752†	2641.2	-369.5	-1.5495	µg/L	-1.5495	ppb	17:31:22
3	Mn 257.610†	244.0	61.6	0.0816	µg/L	0.0816	ppb	17:31:42
3	Mo 202.031†	-30.3	8.0	0.2624	µg/L	0.2624	ppb	17:31:42
3	Ni 231.604†	-49.8	45.6	0.5709	µg/L	0.5709	ppb	17:31:42
3	P 214.914†	19.8	45.7	10.588	µg/L	10.588	ppb	17:31:42
3	Pb 220.353†	117.8	15.5	0.9562	µg/L	0.9562	ppb	17:31:42
3	S 181.975 Axial†	86.8	-1.3	-1.0977	µg/L	-1.0977	ppb	17:31:42
3	Sb 206.836†	93.4	4.6	0.5927	µg/L	0.5927	ppb	17:31:42
3	Se 196.026†	8.8	2.7	1.06	µg/L	1.06	ppb	17:31:42
3	SiO2†	1807.0	85.4	9.0215	µg/L	9.0215	ppb	17:31:42
3	Si 251.611†	1037.1	280.1	4.4084	µg/L	4.4084	ppb	17:31:22
3	Sn 189.927†	11.4	9.6	0.6633	µg/L	0.6633	ppb	17:31:42
3	Ti 334.940†	504.2	-314.0	-0.3205	µg/L	-0.3205	ppb	17:31:22
3	Tl 190.801†	-131.7	-18.7	-2.5537	µg/L	-2.5537	ppb	17:31:42
3	U 409.014†	-253.4	-92.5	-5.8483	µg/L	-5.8483	ppb	17:31:22
3	V 292.402†	376.5	-43.1	-0.2237	µg/L	-0.2237	ppb	17:31:22
3	Zn 213.857†	565.0	67.4	0.3996	µg/L	0.3996	ppb	17:31:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787051.8	99.052	%	0.1880				0.19%
Sc RADIAL	136622.0	97.5	%	0.69				0.71%
Y 371.029	1051466.8	99.449	%	0.1940				0.20%
Ag 328.068†	-367.0	-1.5039	µg/L	0.03006	-1.5039	ppb	0.03006	2.00%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-12.7	-2.6818	µg/L	3.15730	-2.6818	ppb	3.15730	117.73%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	2.3535	µg/L	0.97291	2.3535	ppb	0.97291	41.34%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-48.0	-0.7479	µg/L	0.56851	-0.7479	ppb	0.56851	76.02%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-11.9	-0.0527	µg/L	0.08692	-0.0527	ppb	0.08692	165.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	473.5	0.1370	µg/L	0.03181	0.1370	ppb	0.03181	23.22%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	89.0	6.0620	µg/L	0.30381	6.0620	ppb	0.30381	5.01%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	20.9	0.1413	µg/L	0.10736	0.1413	ppb	0.10736	75.97%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.2	0.2269	µg/L	0.19473	0.2269	ppb	0.19473	85.82%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                4.3      0.0374 µg/L       0.22343      0.0374 ppb        0.22343 596.95%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -288.4     -1.2057 µg/L       0.37809     -1.2057 ppb        0.37809  31.36%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        50.6      3.7772 µg/L       0.20888      3.7772 ppb        0.20888   5.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        118.4      46.897 µg/L       28.3205      46.897 ppb        28.3205  60.39%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            7.0      3.2500 µg/L       1.85113      3.2500 ppb        1.85113  56.96%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               87.3      0.1156 µg/L       0.03050      0.1156 ppb        0.03050  26.37%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               11.2      0.3659 µg/L       0.11200      0.3659 ppb        0.11200  30.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       265.8      41.154 µg/L        3.6745      41.154 ppb         3.6745   8.93%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               41.5      0.5191 µg/L       0.10346      0.5191 ppb        0.10346  19.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                53.2      12.317 µg/L        3.2325      12.317 ppb         3.2325  26.24%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                3.3      0.2019 µg/L       0.89967      0.2019 ppb        0.89967 445.49%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.4     -2.0530 µg/L       0.82787     -2.0530 ppb        0.82787  40.33%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -11.4     -1.4644 µg/L       1.92181     -1.4644 ppb        1.92181 131.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               13.3        5.25 µg/L         4.003        5.25 ppb          4.003  76.23%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     48.1      5.0819 µg/L       5.26504      5.0819 ppb        5.26504 103.60%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              270.0      4.2525 µg/L       1.40278      4.2525 ppb        1.40278  32.99%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                0.9      0.0651 µg/L       0.52410      0.0651 ppb        0.52410 804.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -13.9     -0.0328 µg/L       0.14659     -0.0328 ppb        0.14659 446.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -208.5     -0.2141 µg/L       0.11187     -0.2141 ppb        0.11187  52.26%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -11.9     -1.6241 µg/L       1.24822     -1.6241 ppb        1.24822  76.86%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -7.9     -0.5027 µg/L       7.63388     -0.5027 ppb        7.63388 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -11.0     -0.0538 µg/L       0.22999     -0.0538 ppb        0.22999 427.88%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               62.1      0.3679 µg/L       0.04758      0.3679 ppb        0.04758  12.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 58
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 17:45:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135394.1	135394.1	96.6	%			17:46:15
1	Al 396.153Radial†	22754.7	23622.9	4949.8	µg/L	4949.8	ppb	17:46:15
1	Ca 317.933Radial†	73027.1	74990.0	5107.5	µg/L	5107.5	ppb	17:46:15
1	Fe 238.204 Radial†	65777.0	67942.5	5073.9	µg/L	5073.9	ppb	17:46:15
1	K 766.490 Radial†	14016.3	13008.9	5150.6	µg/L	5150.6	ppb	17:46:15
1	Mg 279.077 IEC†	10886.1	11091.5	5129.5	µg/L	5129.5	ppb	17:46:15
1	Na 589.592 Radial†	64190.9	65466.2	10143	µg/L	10143	ppb	17:46:15
1	Sr 421.552†	207620.2	215030.2	507.10	µg/L	507.10	ppb	17:46:13
1	Sc 361.383	1746065.5	1746065.5	96.780	%			17:46:42
1	Y 371.029	1015185.6	1015185.6	96.017	%			17:46:42
1	Ag 328.068†	123023.5	122551.1	507.96	µg/L	507.96	ppb	17:46:42
1	As 188.979†	1292.6	1354.2	465.37	µg/L	465.37	ppb	17:47:02
1	B 249.677†	35003.4	32102.8	497.49	µg/L	497.49	ppb	17:46:42
1	Ba 233.527†	108384.9	112135.1	498.84	µg/L	498.84	ppb	17:46:42
1	Be 313.107†	1627800.6	1683045.3	487.68	µg/L	487.68	ppb	17:46:42
1	Cd 226.502†	72501.4	75016.7	506.70	µg/L	506.70	ppb	17:46:42
1	Co 228.616†	37013.1	38454.8	508.99	µg/L	508.99	ppb	17:46:42
1	Cr 267.716†	56686.3	58338.9	504.57	µg/L	504.57	ppb	17:46:42
1	Cu 324.752†	118955.4	119876.7	502.97	µg/L	502.97	ppb	17:46:42
1	Mn 257.610†	368714.7	380796.2	504.93	µg/L	504.93	ppb	17:46:42
1	Mo 202.031†	15048.9	15588.1	510.25	µg/L	510.25	ppb	17:47:02
1	Ni 231.604†	39006.5	40400.0	505.45	µg/L	505.45	ppb	17:46:42
1	P 214.914†	10571.0	10948.4	2523.9	µg/L	2523.9	ppb	17:47:02
1	Pb 220.353†	8134.0	8301.2	512.43	µg/L	512.43	ppb	17:47:02
1	S 181.975 Axial†	1260.9	1213.9	1025.5	µg/L	1025.5	ppb	17:47:02
1	Sb 206.836†	3891.8	3931.6	508.18	µg/L	508.18	ppb	17:47:02
1	Se 196.026†	1247.8	1283.2	508	µg/L	508	ppb	17:47:02
1	SiO2†	50498.0	50438.8	5319.6	µg/L	5319.6	ppb	17:46:42
1	Si 251.611†	154674.9	159053.6	2498.0	µg/L	2498.0	ppb	17:46:42
1	Sn 189.927†	6973.9	7204.0	501.38	µg/L	501.38	ppb	17:47:02
1	Ti 334.940†	472550.2	487447.8	500.00	µg/L	500.00	ppb	17:46:42
1	Tl 190.801†	3456.1	3685.3	510.76	µg/L	510.76	ppb	17:47:02
1	U 409.014†	6994.9	7391.0	497.02	µg/L	497.02	ppb	17:46:42
1	V 292.402†	94018.5	96723.1	508.07	µg/L	508.07	ppb	17:46:42
1	Zn 213.857†	82648.3	84894.9	502.98	µg/L	502.98	ppb	17:46:42
2	Sc RADIAL	133381.5	133381.5	95.2	%			17:46:19
2	Al 396.153Radial†	22428.5	23635.6	4952.6	µg/L	4952.6	ppb	17:46:19
2	Ca 317.933Radial†	71876.6	74921.9	5102.9	µg/L	5102.9	ppb	17:46:19
2	Fe 238.204 Radial†	64375.3	67497.2	5040.6	µg/L	5040.6	ppb	17:46:19
2	K 766.490 Radial†	13782.6	12982.3	5140.1	µg/L	5140.1	ppb	17:46:19
2	Mg 279.077 IEC†	10536.8	10894.5	5038.5	µg/L	5038.5	ppb	17:46:19
2	Na 589.592 Radial†	63032.4	65251.5	10110	µg/L	10110	ppb	17:46:19
2	Sr 421.552†	206647.5	217250.1	512.34	µg/L	512.34	ppb	17:46:17
2	Sc 361.383	1758704.9	1758704.9	97.481	%			17:47:05
2	Y 371.029	1022847.7	1022847.7	96.742	%			17:47:05
2	Ag 328.068†	123872.6	122508.5	507.81	µg/L	507.81	ppb	17:47:05
2	As 188.979†	1286.1	1337.9	459.86	µg/L	459.86	ppb	17:47:25
2	B 249.677†	35329.4	32177.3	498.65	µg/L	498.65	ppb	17:47:05
2	Ba 233.527†	109072.1	112035.3	498.39	µg/L	498.39	ppb	17:47:05
2	Be 313.107†	1642289.4	1685820.6	488.49	µg/L	488.49	ppb	17:47:05
2	Cd 226.502†	72981.1	74970.4	506.40	µg/L	506.40	ppb	17:47:05
2	Co 228.616†	37232.8	38405.2	508.34	µg/L	508.34	ppb	17:47:05
2	Cr 267.716†	57060.4	58301.7	504.23	µg/L	504.23	ppb	17:47:05
2	Cu 324.752†	119880.1	119941.8	503.25	µg/L	503.25	ppb	17:47:05
2	Mn 257.610†	371349.4	380761.0	504.88	µg/L	504.88	ppb	17:47:05
2	Mo 202.031†	15096.6	15525.3	508.20	µg/L	508.20	ppb	17:47:25
2	Ni 231.604†	39470.8	40586.7	507.79	µg/L	507.79	ppb	17:47:05
2	P 214.914†	10623.9	10924.1	2518.3	µg/L	2518.3	ppb	17:47:25
2	Pb 220.353†	8174.9	8282.7	511.27	µg/L	511.27	ppb	17:47:25

2	S 181.975 Axial†	1258.8	1202.4	1015.8 µg/L	1015.8 ppb	17:47:25
2	Sb 206.836†	3885.3	3895.9	503.56 µg/L	503.56 ppb	17:47:25
2	Se 196.026†	1267.2	1293.8	512 µg/L	512 ppb	17:47:25
2	SiO2†	50832.8	50407.3	5316.3 µg/L	5316.3 ppb	17:47:05
2	Si 251.611†	156255.4	159526.3	2505.5 µg/L	2505.5 ppb	17:47:05
2	Sn 189.927†	7014.2	7193.5	500.66 µg/L	500.66 ppb	17:47:25
2	Ti 334.940†	476984.1	488487.1	501.07 µg/L	501.07 ppb	17:47:05
2	Tl 190.801†	3469.3	3673.2	509.11 µg/L	509.11 ppb	17:47:25
2	U 409.014†	7384.5	7738.7	518.97 µg/L	518.97 ppb	17:47:05
2	V 292.402†	94703.9	96728.0	508.09 µg/L	508.09 ppb	17:47:05
2	Zn 213.857†	83417.8	85070.4	504.02 µg/L	504.02 ppb	17:47:05
3	Sc RADIAL	134858.9	134858.9	96.3 %		17:46:23
3	Al 396.153Radial†	22702.7	23662.3	4958.3 µg/L	4958.3 ppb	17:46:23
3	Ca 317.933Radial†	72635.6	74883.2	5100.2 µg/L	5100.2 ppb	17:46:23
3	Fe 238.204 Radial†	65418.0	67839.7	5066.2 µg/L	5066.2 ppb	17:46:23
3	K 766.490 Radial†	14001.9	13051.5	5167.5 µg/L	5167.5 ppb	17:46:23
3	Mg 279.077 IEC†	10836.2	11084.3	5126.1 µg/L	5126.1 ppb	17:46:23
3	Na 589.592 Radial†	63883.7	65410.6	10135 µg/L	10135 ppb	17:46:23
3	Sr 421.552†	205770.0	213960.7	504.58 µg/L	504.58 ppb	17:46:21
3	Sc 361.383	1741611.9	1741611.9	96.534 %		17:47:28
3	Y 371.029	1012899.9	1012899.9	95.801 %		17:47:28
3	Ag 328.068†	123309.2	123172.0	510.54 µg/L	510.54 ppb	17:47:28
3	As 188.979†	1265.3	1329.3	456.95 µg/L	456.95 ppb	17:47:48
3	B 249.677†	34978.6	32169.6	498.52 µg/L	498.52 ppb	17:47:28
3	Ba 233.527†	108349.9	112385.2	499.95 µg/L	499.95 ppb	17:47:28
3	Be 313.107†	1630394.3	1690033.1	489.71 µg/L	489.71 ppb	17:47:28
3	Cd 226.502†	72587.0	75297.0	508.60 µg/L	508.60 ppb	17:47:28
3	Co 228.616†	37152.9	38697.3	512.20 µg/L	512.20 ppb	17:47:28
3	Cr 267.716†	56616.8	58416.7	505.23 µg/L	505.23 ppb	17:47:28
3	Cu 324.752†	119079.5	120319.5	504.84 µg/L	504.84 ppb	17:47:28
3	Mn 257.610†	368402.6	381447.1	505.79 µg/L	505.79 ppb	17:47:28
3	Mo 202.031†	14874.4	15447.1	505.64 µg/L	505.64 ppb	17:47:48
3	Ni 231.604†	39207.3	40711.1	509.35 µg/L	509.35 ppb	17:47:28
3	P 214.914†	10411.4	10811.0	2492.1 µg/L	2492.1 ppb	17:47:48
3	Pb 220.353†	8070.7	8257.1	509.69 µg/L	509.69 ppb	17:47:48
3	S 181.975 Axial†	1238.5	1194.0	1008.8 µg/L	1008.8 ppb	17:47:48
3	Sb 206.836†	3838.9	3887.1	502.36 µg/L	502.36 ppb	17:47:48
3	Se 196.026†	1241.5	1279.9	506 µg/L	506 ppb	17:47:48
3	SiO2†	50575.2	50652.2	5342.4 µg/L	5342.4 ppb	17:47:28
3	Si 251.611†	155493.2	160309.9	2517.9 µg/L	2517.9 ppb	17:47:28
3	Sn 189.927†	6886.9	7132.3	496.42 µg/L	496.42 ppb	17:47:48
3	Ti 334.940†	473285.6	489458.2	502.06 µg/L	502.06 ppb	17:47:28
3	Tl 190.801†	3440.4	3678.3	509.81 µg/L	509.81 ppb	17:47:48
3	U 409.014†	7269.6	7694.0	516.24 µg/L	516.24 ppb	17:47:28
3	V 292.402†	94100.4	97056.3	509.76 µg/L	509.76 ppb	17:47:28
3	Zn 213.857†	82709.9	85177.0	504.64 µg/L	504.64 ppb	17:47:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1748794.1	96.932	%	0.4915				0.51%
Sc RADIAL	134544.8	96.0	%	0.74				0.77%
Y 371.029	1016977.7	96.187	%	0.4928				0.51%
Ag 328.068†	122743.9	508.77	µg/L	1.537	508.77	ppb	1.537	0.30%
QC value within limits for Ag 328.068 Recovery = 101.75%								
Al 396.153Radial†	23640.3	4953.6	µg/L	4.34	4953.6	ppb	4.34	0.09%
QC value within limits for Al 396.153Radial Recovery = 99.07%								
As 188.979†	1340.5	460.73	µg/L	4.277	460.73	ppb	4.277	0.93%
QC value within limits for As 188.979 Recovery = 92.15%								
B 249.677†	32149.9	498.22	µg/L	0.635	498.22	ppb	0.635	0.13%
QC value within limits for B 249.677 Recovery = 99.64%								
Ba 233.527†	112185.2	499.06	µg/L	0.801	499.06	ppb	0.801	0.16%
QC value within limits for Ba 233.527 Recovery = 99.81%								
Be 313.107†	1686299.6	488.62	µg/L	1.022	488.62	ppb	1.022	0.21%
QC value within limits for Be 313.107 Recovery = 97.72%								
Ca 317.933Radial†	74931.7	5103.5	µg/L	3.68	5103.5	ppb	3.68	0.07%
QC value within limits for Ca 317.933Radial Recovery = 102.07%								
Cd 226.502†	75094.7	507.23	µg/L	1.194	507.23	ppb	1.194	0.24%
QC value within limits for Cd 226.502 Recovery = 101.45%								
Co 228.616†	38519.1	509.84	µg/L	2.068	509.84	ppb	2.068	0.41%

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   QC value within limits for Co 228.616  Recovery = 101.97%
Cr 267.716†            58352.4      504.68 µg/L         0.507      504.68 ppb          0.507   0.10%
   QC value within limits for Cr 267.716  Recovery = 100.94%
Cu 324.752†           120046.0      503.68 µg/L         1.007      503.68 ppb          1.007   0.20%
   QC value within limits for Cu 324.752  Recovery = 100.74%
Fe 238.204 Radial†     67759.8      5060.3 µg/L         17.41      5060.3 ppb          17.41   0.34%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.21%
K 766.490 Radial†      13014.3      5152.7 µg/L         13.82      5152.7 ppb          13.82   0.27%
   QC value within limits for K 766.490 Radial  Recovery = 103.05%
Mg 279.077 IEC†        11023.4      5098.0 µg/L         51.56      5098.0 ppb          51.56   1.01%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.96%
Mn 257.610†           381001.4      505.20 µg/L         0.511      505.20 ppb          0.511   0.10%
   QC value within limits for Mn 257.610  Recovery = 101.04%
Mo 202.031†            15520.2      508.03 µg/L         2.310      508.03 ppb          2.310   0.45%
   QC value within limits for Mo 202.031  Recovery = 101.61%
Na 589.592 Radial†     65376.1       10129 µg/L          17.3       10129 ppb           17.3   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 101.29%
Ni 231.604†            40566.0      507.53 µg/L         1.959      507.53 ppb          1.959   0.39%
   QC value within limits for Ni 231.604  Recovery = 101.51%
P 214.914†             10894.5      2511.5 µg/L         16.98      2511.5 ppb          16.98   0.68%
   QC value within limits for P 214.914  Recovery = 100.46%
Pb 220.353†             8280.3      511.13 µg/L         1.374      511.13 ppb          1.374   0.27%
   QC value within limits for Pb 220.353  Recovery = 102.23%
S 181.975 Axial†        1203.5      1016.7 µg/L          8.40      1016.7 ppb           8.40   0.83%
   QC value within limits for S 181.975 Axial  Recovery = 101.67%
Sb 206.836†             3904.9      504.70 µg/L         3.073      504.70 ppb          3.073   0.61%
   QC value within limits for Sb 206.836  Recovery = 100.94%
Se 196.026†             1285.6         509 µg/L           2.9         509 ppb            2.9   0.56%
   QC value within limits for Se 196.026  Recovery = 101.75%
SiO2†                  50499.5      5326.1 µg/L         14.20      5326.1 ppb          14.20   0.27%
   QC value within limits for SiO2  Recovery = 99.60%
Si 251.611†           159629.9      2507.1 µg/L         10.05      2507.1 ppb          10.05   0.40%
   QC value within limits for Si 251.611  Recovery = 100.28%
Sn 189.927†             7176.6      499.49 µg/L         2.683      499.49 ppb          2.683   0.54%
   QC value within limits for Sn 189.927  Recovery = 99.90%
Sr 421.552†           215413.7      508.01 µg/L         3.957      508.01 ppb          3.957   0.78%
   QC value within limits for Sr 421.552  Recovery = 101.60%
Ti 334.940†           488464.4      501.04 µg/L         1.029      501.04 ppb          1.029   0.21%
   QC value within limits for Ti 334.940  Recovery = 100.21%
Tl 190.801†             3678.9      509.89 µg/L         0.825      509.89 ppb          0.825   0.16%
   QC value within limits for Tl 190.801  Recovery = 101.98%
U 409.014†              7607.9      510.74 µg/L        11.965      510.74 ppb         11.965   2.34%
   QC value within limits for U 409.014  Recovery = 102.15%
V 292.402†             96835.8      508.64 µg/L         0.972      508.64 ppb          0.972   0.19%
   QC value within limits for V 292.402  Recovery = 101.73%
Zn 213.857†            85047.4      503.88 µg/L         0.838      503.88 ppb          0.838   0.17%
   QC value within limits for Zn 213.857  Recovery = 100.78%
All analyte(s) passed QC.
```

Sequence No.: 59
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 17:47:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	134914.4	134914.4	96.3	%			17:48:28
1	Al 396.153Radial†	-93.1	-18.2	-3.8506	µg/L	-3.8506	ppb	17:48:48
1	Ca 317.933Radial†	638.7	91.8	6.2535	µg/L	6.2535	ppb	17:48:48
1	Fe 238.204 Radial†	172.2	61.5	4.5892	µg/L	4.5892	ppb	17:48:48
1	K 766.490 Radial†	1678.7	249.3	98.777	µg/L	98.777	ppb	17:48:28
1	Mg 279.077 IEC†	168.3	2.3	1.0702	µg/L	1.0702	ppb	17:48:48
1	Na 589.592 Radial†	1169.4	261.8	40.493	µg/L	40.493	ppb	17:48:28
1	Sr 421.552†	-205.3	-8.7	-0.0206	µg/L	-0.0206	ppb	17:48:28
1	Sc 361.383	1765267.3	1765267.3	97.845	%			17:49:35
1	Y 371.029	1038191.9	1038191.9	98.193	%			17:49:35
1	Ag 328.068†	4150.1	-323.6	-1.3180	µg/L	-1.3180	ppb	17:49:38
1	As 188.979†	-23.4	-5.3	-1.7900	µg/L	-1.7900	ppb	17:49:58
1	B 249.677†	4009.4	32.6	0.5050	µg/L	0.5050	ppb	17:49:38
1	Ba 233.527†	-150.0	-8.8	-0.0391	µg/L	-0.0391	ppb	17:49:58
1	Be 313.107†	-594.3	484.4	0.1426	µg/L	0.1426	ppb	17:49:38
1	Cd 226.502†	-63.1	38.9	0.2624	µg/L	0.2624	ppb	17:49:58
1	Co 228.616†	-177.5	28.9	0.3824	µg/L	0.3824	ppb	17:49:58
1	Cr 267.716†	282.6	55.6	0.4754	µg/L	0.4754	ppb	17:49:58
1	Cu 324.752†	2892.9	-79.5	-0.3255	µg/L	-0.3255	ppb	17:49:38
1	Mn 257.610†	287.7	109.3	0.1449	µg/L	0.1449	ppb	17:49:58
1	Mo 202.031†	-21.9	16.2	0.5289	µg/L	0.5289	ppb	17:49:58
1	Ni 231.604†	-65.2	29.2	0.3660	µg/L	0.3660	ppb	17:49:58
1	P 214.914†	30.1	56.4	13.049	µg/L	13.049	ppb	17:49:58
1	Pb 220.353†	99.5	-1.7	-0.1123	µg/L	-0.1123	ppb	17:49:58
1	S 181.975 Axial†	95.6	8.8	7.3838	µg/L	7.3838	ppb	17:49:58
1	Sb 206.836†	77.3	-10.7	-1.3849	µg/L	-1.3849	ppb	17:49:58
1	Se 196.026†	12.7	6.8	2.69	µg/L	2.69	ppb	17:49:58
1	SiO2†	1804.9	105.6	11.160	µg/L	11.160	ppb	17:49:58
1	Si 251.611†	930.5	184.0	2.8917	µg/L	2.8917	ppb	17:49:38
1	Sn 189.927†	6.3	4.5	0.3139	µg/L	0.3139	ppb	17:49:58
1	Ti 334.940†	612.2	-197.3	-0.2059	µg/L	-0.2059	ppb	17:49:38
1	Tl 190.801†	-119.5	-7.8	-1.0767	µg/L	-1.0767	ppb	17:49:58
1	U 409.014†	-42.8	119.6	7.5366	µg/L	7.5366	ppb	17:49:38
1	V 292.402†	377.5	-37.5	-0.1818	µg/L	-0.1818	ppb	17:49:38
1	Zn 213.857†	602.8	113.1	0.6728	µg/L	0.6728	ppb	17:49:58
2	Sc RADIAL	134277.4	134277.4	95.8	%			17:48:50
2	Al 396.153Radial†	-60.6	15.4	3.1949	µg/L	3.1949	ppb	17:49:10
2	Ca 317.933Radial†	631.6	87.5	5.9623	µg/L	5.9623	ppb	17:49:10
2	Fe 238.204 Radial†	161.0	50.7	3.7832	µg/L	3.7832	ppb	17:49:10
2	K 766.490 Radial†	1516.2	88.1	34.893	µg/L	34.893	ppb	17:48:50
2	Mg 279.077 IEC†	161.0	-4.5	-2.0397	µg/L	-2.0397	ppb	17:49:10
2	Na 589.592 Radial†	1155.1	252.6	39.129	µg/L	39.129	ppb	17:48:50
2	Sr 421.552†	-89.5	111.1	0.2619	µg/L	0.2619	ppb	17:48:50
2	Sc 361.383	1768478.6	1768478.6	98.023	%			17:50:00
2	Y 371.029	1040097.2	1040097.2	98.373	%			17:50:00
2	Ag 328.068†	4131.2	-350.6	-1.4248	µg/L	-1.4248	ppb	17:50:02
2	As 188.979†	-11.2	7.1	2.4058	µg/L	2.4058	ppb	17:50:22
2	B 249.677†	4094.4	111.8	1.7379	µg/L	1.7379	ppb	17:50:02
2	Ba 233.527†	-168.3	-27.2	-0.1204	µg/L	-0.1204	ppb	17:50:22
2	Be 313.107†	-500.8	580.8	0.1702	µg/L	0.1702	ppb	17:50:02
2	Cd 226.502†	-96.2	5.2	0.0350	µg/L	0.0350	ppb	17:50:22
2	Co 228.616†	-180.7	25.9	0.3426	µg/L	0.3426	ppb	17:50:22
2	Cr 267.716†	285.0	57.5	0.4925	µg/L	0.4925	ppb	17:50:22
2	Cu 324.752†	2816.1	-163.2	-0.6765	µg/L	-0.6765	ppb	17:50:02
2	Mn 257.610†	275.7	96.6	0.1282	µg/L	0.1282	ppb	17:50:22
2	Mo 202.031†	-13.5	24.8	0.8123	µg/L	0.8123	ppb	17:50:22
2	Ni 231.604†	-78.3	16.0	0.2002	µg/L	0.2002	ppb	17:50:22
2	P 214.914†	39.5	66.0	15.270	µg/L	15.270	ppb	17:50:22
2	Pb 220.353†	116.5	15.4	0.9465	µg/L	0.9465	ppb	17:50:22

2	S 181.975 Axial†	86.4	-0.7	-0.6062 µg/L	-0.6062 ppb	17:50:22
2	Sb 206.836†	87.4	-0.6	-0.0687 µg/L	-0.0687 ppb	17:50:22
2	Se 196.026†	16.6	10.8	4.26 µg/L	4.26 ppb	17:50:22
2	SiO2†	1814.9	112.4	11.873 µg/L	11.873 ppb	17:50:22
2	Si 251.611†	1032.3	286.1	4.4980 µg/L	4.4980 ppb	17:50:02
2	Sn 189.927†	6.2	4.4	0.3062 µg/L	0.3062 ppb	17:50:22
2	Ti 334.940†	804.1	-2.7	-0.0052 µg/L	-0.0052 ppb	17:50:02
2	Tl 190.801†	-115.1	-3.1	-0.4225 µg/L	-0.4225 ppb	17:50:22
2	U 409.014†	-59.3	102.9	6.5032 µg/L	6.5032 ppb	17:50:02
2	V 292.402†	456.5	42.5	0.2346 µg/L	0.2346 ppb	17:50:02
2	Zn 213.857†	583.1	91.9	0.5476 µg/L	0.5476 ppb	17:50:22
3	Sc RADIAL	134475.2	134475.2	96.0 %		17:49:12
3	Al 396.153Radial†	-68.3	7.3	1.5270 µg/L	1.5270 ppb	17:49:32
3	Ca 317.933Radial†	642.5	97.9	6.6673 µg/L	6.6673 ppb	17:49:32
3	Fe 238.204 Radial†	175.2	65.3	4.8735 µg/L	4.8735 ppb	17:49:32
3	K 766.490 Radial†	1551.6	122.6	48.587 µg/L	48.587 ppb	17:49:12
3	Mg 279.077 IEC†	158.7	-7.1	-3.2881 µg/L	-3.2881 ppb	17:49:32
3	Na 589.592 Radial†	1014.0	103.8	16.051 µg/L	16.051 ppb	17:49:12
3	Sr 421.552†	-294.5	-102.3	-0.2413 µg/L	-0.2413 ppb	17:49:12
3	Sc 361.383	1774563.2	1774563.2	98.360 %		17:50:24
3	Y 371.029	1042992.5	1042992.5	98.647 %		17:50:24
3	Ag 328.068†	3769.0	-733.3	-3.0060 µg/L	-3.0060 ppb	17:50:26
3	As 188.979†	-11.8	6.6	2.2249 µg/L	2.2249 ppb	17:50:46
3	B 249.677†	4115.4	118.9	1.8488 µg/L	1.8488 ppb	17:50:26
3	Ba 233.527†	-134.5	7.8	0.0347 µg/L	0.0347 ppb	17:50:46
3	Be 313.107†	-675.6	404.9	0.1157 µg/L	0.1157 ppb	17:50:26
3	Cd 226.502†	-86.6	15.3	0.1034 µg/L	0.1034 ppb	17:50:46
3	Co 228.616†	-202.5	4.4	0.0579 µg/L	0.0579 ppb	17:50:46
3	Cr 267.716†	259.1	30.2	0.2662 µg/L	0.2662 ppb	17:50:46
3	Cu 324.752†	2853.0	-135.5	-0.5705 µg/L	-0.5705 ppb	17:50:26
3	Mn 257.610†	256.1	75.7	0.1005 µg/L	0.1005 ppb	17:50:46
3	Mo 202.031†	-24.9	13.2	0.4334 µg/L	0.4334 ppb	17:50:46
3	Ni 231.604†	-46.6	48.5	0.6071 µg/L	0.6071 ppb	17:50:46
3	P 214.914†	16.2	42.1	9.7366 µg/L	9.7366 ppb	17:50:46
3	Pb 220.353†	117.8	16.3	1.0096 µg/L	1.0096 ppb	17:50:46
3	S 181.975 Axial†	84.0	-3.5	-2.9423 µg/L	-2.9423 ppb	17:50:46
3	Sb 206.836†	100.7	12.7	1.6366 µg/L	1.6366 ppb	17:50:46
3	Se 196.026†	11.8	5.9	2.32 µg/L	2.32 ppb	17:50:46
3	SiO2†	1850.0	141.8	15.005 µg/L	15.005 ppb	17:50:46
3	Si 251.611†	1180.4	433.1	6.8256 µg/L	6.8256 ppb	17:50:26
3	Sn 189.927†	-2.9	-4.8	-0.3325 µg/L	-0.3325 ppb	17:50:46
3	Ti 334.940†	701.5	-109.8	-0.1102 µg/L	-0.1102 ppb	17:50:26
3	Tl 190.801†	-115.2	-2.8	-0.3840 µg/L	-0.3840 ppb	17:50:46
3	U 409.014†	-244.8	-85.5	-5.3851 µg/L	-5.3851 ppb	17:50:26
3	V 292.402†	456.9	41.3	0.2158 µg/L	0.2158 ppb	17:50:26
3	Zn 213.857†	571.6	78.1	0.4623 µg/L	0.4623 ppb	17:50:46

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769436.4	98.076	%	0.2617				0.27%
Sc RADIAL	134555.7	96.0	%	0.23				0.24%
Y 371.029	1040427.2	98.404	%	0.2286				0.23%
Ag 328.068†	-469.2	-1.9163	µg/L	0.94527	-1.9163	ppb	0.94527	49.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.5	0.2904	µg/L	3.68191	0.2904	ppb	3.68191	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.8	0.9469	µg/L	2.37194	0.9469	ppb	2.37194	250.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	87.8	1.3639	µg/L	0.74593	1.3639	ppb	0.74593	54.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-9.4	-0.0416	µg/L	0.07758	-0.0416	ppb	0.07758	186.50%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	490.0	0.1428	µg/L	0.02728	0.1428	ppb	0.02728	19.10%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	92.4	6.2944	µg/L	0.35430	6.2944	ppb	0.35430	5.63%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.8	0.1336	µg/L	0.11666	0.1336	ppb	0.11666	87.31%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	19.7	0.2610	µg/L	0.17696	0.2610	ppb	0.17696	67.81%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                47.8      0.4114 µg/L       0.12600      0.4114 ppb        0.12600  30.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -126.1     -0.5242 µg/L       0.18007     -0.5242 ppb        0.18007  34.35%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         59.1      4.4153 µg/L       0.56560      4.4153 ppb        0.56560  12.81%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         153.3      60.752 µg/L       33.6347      60.752 ppb        33.6347  55.36%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -3.1     -1.4192 µg/L       2.24445     -1.4192 ppb        2.24445 158.15%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                93.8      0.1245 µg/L       0.02244      0.1245 ppb        0.02244  18.02%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                18.1      0.5915 µg/L       0.19708      0.5915 ppb        0.19708  33.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        206.1      31.891 µg/L       13.7347      31.891 ppb        13.7347  43.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                31.3      0.3911 µg/L       0.20463      0.3911 ppb        0.20463  52.33%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 54.8      12.685 µg/L        2.7847      12.685 ppb         2.7847  21.95%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                10.0      0.6146 µg/L       0.63031      0.6146 ppb        0.63031 102.56%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.5      1.2784 µg/L       5.41492      1.2784 ppb        5.41492 423.57%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.5      0.0610 µg/L       1.51489      0.0610 ppb        1.51489 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 7.8        3.09 µg/L         1.032        3.09 ppb          1.032  33.41%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     119.9      12.679 µg/L        2.0450      12.679 ppb         2.0450  16.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               301.0      4.7384 µg/L       1.97797      4.7384 ppb        1.97797  41.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.4      0.0959 µg/L       0.37096      0.0959 ppb        0.37096 386.92%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 0.0      0.0000 µg/L       0.25223      0.0000 ppb        0.25223 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -103.3     -0.1071 µg/L       0.10034     -0.1071 ppb        0.10034  93.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -4.6     -0.6277 µg/L       0.38926     -0.6277 ppb        0.38926  62.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 45.6      2.8849 µg/L       7.18065      2.8849 ppb        7.18065 248.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 15.4      0.0895 µg/L       0.23518      0.0895 ppb        0.23518 262.66%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                94.4      0.5609 µg/L       0.10584      0.5609 ppb        0.10584  18.87%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 67
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 18:06:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136394.1	136394.1	97.4	%			18:07:15
1	Al 396.153Radial†	22987.8	23689.8	4964.0	µg/L	4964.0	ppb	18:07:15
1	Ca 317.933Radial†	73268.5	74684.0	5086.7	µg/L	5086.7	ppb	18:07:15
1	Fe 238.204 Radial†	66125.0	67801.0	5063.3	µg/L	5063.3	ppb	18:07:15
1	K 766.490 Radial†	14054.6	12942.0	5124.1	µg/L	5124.1	ppb	18:07:15
1	Mg 279.077 IEC†	10793.9	10914.2	5047.6	µg/L	5047.6	ppb	18:07:15
1	Na 589.592 Radial†	64495.2	65291.7	10116	µg/L	10116	ppb	18:07:15
1	Sr 421.552†	206872.2	212686.8	501.57	µg/L	501.57	ppb	18:07:13
1	Sc 361.383	1766323.1	1766323.1	97.903	%			18:07:42
1	Y 371.029	1026973.5	1026973.5	97.132	%			18:07:42
1	Ag 328.068†	124270.6	122366.9	507.21	µg/L	507.21	ppb	18:07:42
1	As 188.979†	1316.8	1363.5	468.52	µg/L	468.52	ppb	18:08:02
1	B 249.677†	35468.3	32162.8	498.42	µg/L	498.42	ppb	18:07:42
1	Ba 233.527†	109987.7	112487.9	500.41	µg/L	500.41	ppb	18:07:42
1	Be 313.107†	1655374.0	1691919.3	490.25	µg/L	490.25	ppb	18:07:42
1	Cd 226.502†	72949.9	74615.7	503.99	µg/L	503.99	ppb	18:07:42
1	Co 228.616†	37482.4	38495.5	509.53	µg/L	509.53	ppb	18:07:42
1	Cr 267.716†	57279.8	58273.3	504.00	µg/L	504.00	ppb	18:07:42
1	Cu 324.752†	120286.3	119826.4	502.75	µg/L	502.75	ppb	18:07:42
1	Mn 257.610†	372603.3	380398.8	504.40	µg/L	504.40	ppb	18:07:42
1	Mo 202.031†	15143.9	15506.8	507.59	µg/L	507.59	ppb	18:08:02
1	Ni 231.604†	39556.1	40499.1	506.69	µg/L	506.69	ppb	18:07:42
1	P 214.914†	10644.4	10898.0	2512.3	µg/L	2512.3	ppb	18:08:02
1	Pb 220.353†	8182.2	8253.9	509.51	µg/L	509.51	ppb	18:08:02
1	S 181.975 Axial†	1266.8	1205.0	1018.0	µg/L	1018.0	ppb	18:08:02
1	Sb 206.836†	3900.1	3893.9	503.29	µg/L	503.29	ppb	18:08:02
1	Se 196.026†	1252.3	1273.0	504	µg/L	504	ppb	18:08:02
1	SiO2†	51188.8	50546.0	5331.0	µg/L	5331.0	ppb	18:07:42
1	Si 251.611†	156782.1	159372.9	2503.1	µg/L	2503.1	ppb	18:07:42
1	Sn 189.927†	7056.3	7205.6	501.49	µg/L	501.49	ppb	18:08:02
1	Ti 334.940†	478085.6	487501.9	500.06	µg/L	500.06	ppb	18:07:42
1	Tl 190.801†	3512.0	3701.5	512.96	µg/L	512.96	ppb	18:08:02
1	U 409.014†	7091.3	7406.5	498.04	µg/L	498.04	ppb	18:07:42
1	V 292.402†	95269.6	96886.8	508.89	µg/L	508.89	ppb	18:07:42
1	Zn 213.857†	83615.2	84903.0	503.03	µg/L	503.03	ppb	18:07:42
2	Sc RADIAL	135310.2	135310.2	96.6	%			18:07:19
2	Al 396.153Radial†	22795.2	23679.5	4962.0	µg/L	4962.0	ppb	18:07:19
2	Ca 317.933Radial†	72531.5	74523.8	5075.7	µg/L	5075.7	ppb	18:07:19
2	Fe 238.204 Radial†	65507.1	67705.2	5056.2	µg/L	5056.2	ppb	18:07:19
2	K 766.490 Radial†	13898.7	12896.2	5106.0	µg/L	5106.0	ppb	18:07:19
2	Mg 279.077 IEC†	10779.2	10987.8	5081.5	µg/L	5081.5	ppb	18:07:19
2	Na 589.592 Radial†	63981.6	65290.6	10116	µg/L	10116	ppb	18:07:19
2	Sr 421.552†	206018.3	213504.9	503.50	µg/L	503.50	ppb	18:07:17
2	Sc 361.383	1765801.1	1765801.1	97.874	%			18:08:05
2	Y 371.029	1026767.3	1026767.3	97.112	%			18:08:05
2	Ag 328.068†	124519.8	122659.1	508.43	µg/L	508.43	ppb	18:08:05
2	As 188.979†	1298.5	1345.2	462.34	µg/L	462.34	ppb	18:08:25
2	B 249.677†	35512.3	32218.5	499.28	µg/L	499.28	ppb	18:08:05
2	Ba 233.527†	110155.8	112692.8	501.32	µg/L	501.32	ppb	18:08:05
2	Be 313.107†	1658146.0	1695251.3	491.21	µg/L	491.21	ppb	18:08:05
2	Cd 226.502†	73670.7	75374.1	509.12	µg/L	509.12	ppb	18:08:05
2	Co 228.616†	37539.8	38565.4	510.46	µg/L	510.46	ppb	18:08:05
2	Cr 267.716†	57466.4	58481.3	505.81	µg/L	505.81	ppb	18:08:05
2	Cu 324.752†	120521.2	120102.8	503.91	µg/L	503.91	ppb	18:08:05
2	Mn 257.610†	373384.7	381309.6	505.61	µg/L	505.61	ppb	18:08:05
2	Mo 202.031†	15054.8	15420.4	504.77	µg/L	504.77	ppb	18:08:25
2	Ni 231.604†	39851.8	40813.2	510.62	µg/L	510.62	ppb	18:08:05
2	P 214.914†	10608.3	10864.4	2504.5	µg/L	2504.5	ppb	18:08:25
2	Pb 220.353†	8182.3	8256.5	509.67	µg/L	509.67	ppb	18:08:25

2	S 181.975 Axial†	1256.5	1194.9	1009.5	µg/L	1009.5 ppb	18:08:25
2	Sb 206.836†	3885.0	3879.6	501.38	µg/L	501.38 ppb	18:08:25
2	Se 196.026†	1259.6	1280.8	507	µg/L	507 ppb	18:08:25
2	SiO2†	51337.7	50713.6	5348.9	µg/L	5348.9 ppb	18:08:05
2	Si 251.611†	157322.7	159972.6	2512.6	µg/L	2512.6 ppb	18:08:05
2	Sn 189.927†	7018.8	7169.4	498.98	µg/L	498.98 ppb	18:08:25
2	Ti 334.940†	478419.7	487987.5	500.56	µg/L	500.56 ppb	18:08:05
2	Tl 190.801†	3492.0	3682.1	510.34	µg/L	510.34 ppb	18:08:25
2	U 409.014†	7000.1	7315.5	492.42	µg/L	492.42 ppb	18:08:05
2	V 292.402†	95613.8	97267.2	510.84	µg/L	510.84 ppb	18:08:05
2	Zn 213.857†	84056.6	85379.2	505.85	µg/L	505.85 ppb	18:08:05
3	Sc RADIAL	137160.1	137160.1	97.9	%		18:07:23
3	Al 396.153Radial†	23074.7	23646.6	4955.1	µg/L	4955.1 ppb	18:07:23
3	Ca 317.933Radial†	73931.0	74940.4	5104.1	µg/L	5104.1 ppb	18:07:23
3	Fe 238.204 Radial†	66368.9	67670.8	5053.6	µg/L	5053.6 ppb	18:07:23
3	K 766.490 Radial†	14090.7	12898.2	5106.8	µg/L	5106.8 ppb	18:07:23
3	Mg 279.077 IEC†	10843.7	10903.1	5042.3	µg/L	5042.3 ppb	18:07:23
3	Na 589.592 Radial†	64747.0	65179.0	10099	µg/L	10099 ppb	18:07:23
3	Sr 421.552†	205933.6	210541.5	496.51	µg/L	496.51 ppb	18:07:21
3	Sc 361.383	1778994.9	1778994.9	98.606	%		18:08:28
3	Y 371.029	1032929.3	1032929.3	97.695	%		18:08:28
3	Ag 328.068†	125382.7	122590.7	508.17	µg/L	508.17 ppb	18:08:28
3	As 188.979†	1309.2	1346.2	462.68	µg/L	462.68 ppb	18:08:48
3	B 249.677†	35810.2	32251.5	499.79	µg/L	499.79 ppb	18:08:28
3	Ba 233.527†	110717.4	112427.7	500.14	µg/L	500.14 ppb	18:08:28
3	Be 313.107†	1674694.5	1699469.2	492.44	µg/L	492.44 ppb	18:08:28
3	Cd 226.502†	74328.2	75482.7	509.86	µg/L	509.86 ppb	18:08:28
3	Co 228.616†	37914.5	38661.0	511.72	µg/L	511.72 ppb	18:08:28
3	Cr 267.716†	57971.4	58558.0	506.46	µg/L	506.46 ppb	18:08:28
3	Cu 324.752†	121682.2	120366.8	505.02	µg/L	505.02 ppb	18:08:28
3	Mn 257.610†	376442.8	381581.6	505.97	µg/L	505.97 ppb	18:08:28
3	Mo 202.031†	15114.3	15366.6	503.01	µg/L	503.01 ppb	18:08:48
3	Ni 231.604†	40077.7	40740.4	509.71	µg/L	509.71 ppb	18:08:28
3	P 214.914†	10666.8	10843.3	2499.6	µg/L	2499.6 ppb	18:08:48
3	Pb 220.353†	8212.7	8225.4	507.74	µg/L	507.74 ppb	18:08:48
3	S 181.975 Axial†	1271.4	1200.4	1014.1	µg/L	1014.1 ppb	18:08:48
3	Sb 206.836†	3893.9	3859.3	498.73	µg/L	498.73 ppb	18:08:48
3	Se 196.026†	1259.5	1271.2	503	µg/L	503 ppb	18:08:48
3	SiO2†	51917.2	50912.3	5370.0	µg/L	5370.0 ppb	18:08:28
3	Si 251.611†	158906.8	160387.0	2519.1	µg/L	2519.1 ppb	18:08:28
3	Sn 189.927†	7059.4	7157.3	498.15	µg/L	498.15 ppb	18:08:48
3	Ti 334.940†	482379.9	488378.5	500.96	µg/L	500.96 ppb	18:08:28
3	Tl 190.801†	3488.1	3651.7	506.19	µg/L	506.19 ppb	18:08:48
3	U 409.014†	7316.3	7583.2	509.35	µg/L	509.35 ppb	18:08:28
3	V 292.402†	96456.1	97396.9	511.50	µg/L	511.50 ppb	18:08:28
3	Zn 213.857†	84721.6	85416.7	506.07	µg/L	506.07 ppb	18:08:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1770373.0	98.128	%	0.4141				0.42%
Sc RADIAL	136288.1	97.3	%	0.66				0.68%
Y 371.029	1028890.0	97.313	%	0.3310				0.34%
Ag 328.068†	122538.9	507.94	µg/L	0.640	507.94	ppb	0.640	0.13%
QC value within limits for Ag 328.068 Recovery = 101.59%								
Al 396.153Radial†	23672.0	4960.4	µg/L	4.65	4960.4	ppb	4.65	0.09%
QC value within limits for Al 396.153Radial Recovery = 99.21%								
As 188.979†	1351.7	464.51	µg/L	3.477	464.51	ppb	3.477	0.75%
QC value within limits for As 188.979 Recovery = 92.90%								
B 249.677†	32210.9	499.16	µg/L	0.694	499.16	ppb	0.694	0.14%
QC value within limits for B 249.677 Recovery = 99.83%								
Ba 233.527†	112536.1	500.62	µg/L	0.618	500.62	ppb	0.618	0.12%
QC value within limits for Ba 233.527 Recovery = 100.12%								
Be 313.107†	1695546.6	491.30	µg/L	1.098	491.30	ppb	1.098	0.22%
QC value within limits for Be 313.107 Recovery = 98.26%								
Ca 317.933Radial†	74716.1	5088.8	µg/L	14.31	5088.8	ppb	14.31	0.28%
QC value within limits for Ca 317.933Radial Recovery = 101.78%								
Cd 226.502†	75157.5	507.66	µg/L	3.194	507.66	ppb	3.194	0.63%
QC value within limits for Cd 226.502 Recovery = 101.53%								
Co 228.616†	38573.9	510.57	µg/L	1.099	510.57	ppb	1.099	0.22%

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   QC value within limits for Co 228.616  Recovery = 102.11%
Cr 267.716†            58437.5      505.42 µg/L         1.272      505.42 ppb          1.272   0.25%
   QC value within limits for Cr 267.716  Recovery = 101.08%
Cu 324.752†           120098.7      503.89 µg/L         1.135      503.89 ppb          1.135   0.23%
   QC value within limits for Cu 324.752  Recovery = 100.78%
Fe 238.204 Radial†     67725.7      5057.7 µg/L          5.04      5057.7 ppb           5.04   0.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.15%
K 766.490 Radial†      12912.1      5112.3 µg/L         10.24      5112.3 ppb          10.24   0.20%
   QC value within limits for K 766.490 Radial  Recovery = 102.25%
Mg 279.077 IEC†        10935.0      5057.1 µg/L         21.25      5057.1 ppb          21.25   0.42%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.14%
Mn 257.610†           381096.7      505.33 µg/L         0.822      505.33 ppb          0.822   0.16%
   QC value within limits for Mn 257.610  Recovery = 101.07%
Mo 202.031†            15431.3      505.12 µg/L         2.313      505.12 ppb          2.313   0.46%
   QC value within limits for Mo 202.031  Recovery = 101.02%
Na 589.592 Radial†     65253.8       10110 µg/L          10.0       10110 ppb           10.0   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 101.10%
Ni 231.604†            40684.2      509.01 µg/L         2.057      509.01 ppb          2.057   0.40%
   QC value within limits for Ni 231.604  Recovery = 101.80%
P 214.914†             10868.6      2505.5 µg/L          6.38      2505.5 ppb           6.38   0.25%
   QC value within limits for P 214.914  Recovery = 100.22%
Pb 220.353†             8245.3      508.97 µg/L         1.074      508.97 ppb          1.074   0.21%
   QC value within limits for Pb 220.353  Recovery = 101.79%
S 181.975 Axial†        1200.1      1013.9 µg/L          4.26      1013.9 ppb           4.26   0.42%
   QC value within limits for S 181.975 Axial  Recovery = 101.39%
Sb 206.836†             3877.6      501.13 µg/L         2.293      501.13 ppb          2.293   0.46%
   QC value within limits for Sb 206.836  Recovery = 100.23%
Se 196.026†             1275.0         505 µg/L           2.0         505 ppb            2.0   0.40%
   QC value within limits for Se 196.026  Recovery = 100.90%
SiO2†                  50724.0      5350.0 µg/L         19.50      5350.0 ppb          19.50   0.36%
   QC value within limits for SiO2  Recovery = 100.05%
Si 251.611†           159910.8      2511.6 µg/L          8.08      2511.6 ppb           8.08   0.32%
   QC value within limits for Si 251.611  Recovery = 100.46%
Sn 189.927†             7177.4      499.54 µg/L         1.739      499.54 ppb          1.739   0.35%
   QC value within limits for Sn 189.927  Recovery = 99.91%
Sr 421.552†           212244.4      500.53 µg/L         3.610      500.53 ppb          3.610   0.72%
   QC value within limits for Sr 421.552  Recovery = 100.11%
Ti 334.940†           487956.0      500.53 µg/L         0.449      500.53 ppb          0.449   0.09%
   QC value within limits for Ti 334.940  Recovery = 100.11%
Tl 190.801†             3678.4      509.83 µg/L         3.415      509.83 ppb          3.415   0.67%
   QC value within limits for Tl 190.801  Recovery = 101.97%
U 409.014†              7435.1      499.94 µg/L         8.623      499.94 ppb          8.623   1.72%
   QC value within limits for U 409.014  Recovery = 99.99%
V 292.402†             97183.6      510.41 µg/L         1.359      510.41 ppb          1.359   0.27%
   QC value within limits for V 292.402  Recovery = 102.08%
Zn 213.857†            85233.0      504.98 µg/L         1.697      504.98 ppb          1.697   0.34%
   QC value within limits for Zn 213.857  Recovery = 101.00%
All analyte(s) passed QC.
```

Sequence No.: 68 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/5/2010 18:08:57**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	133722.8	133722.8	95.5	%			18:09:26
1	Al 396.153Radial†	-52.2	23.8	4.9924	µg/L	4.9924	ppb	18:09:46
1	Ca 317.933Radial†	744.0	208.0	14.169	µg/L	14.169	ppb	18:09:46
1	Fe 238.204 Radial†	288.3	184.7	13.793	µg/L	13.793	ppb	18:09:46
1	K 766.490 Radial†	1625.4	209.0	82.821	µg/L	82.821	ppb	18:09:26
1	Mg 279.077 IEC†	186.3	22.8	10.509	µg/L	10.509	ppb	18:09:46
1	Na 589.592 Radial†	1152.2	254.6	39.393	µg/L	39.393	ppb	18:09:26
1	Sr 421.552†	-128.5	69.8	0.1646	µg/L	0.1646	ppb	18:09:26
1	Sc 361.383	1778030.7	1778030.7	98.552	%			18:10:48
1	Y 371.029	1044738.8	1044738.8	98.812	%			18:10:48
1	Ag 328.068†	4052.1	-453.5	-1.8528	µg/L	-1.8528	ppb	18:10:50
1	As 188.979†	-12.0	6.4	2.1804	µg/L	2.1804	ppb	18:11:10
1	B 249.677†	4012.4	6.2	0.0966	µg/L	0.0966	ppb	18:10:50
1	Ba 233.527†	-152.7	-10.4	-0.0461	µg/L	-0.0461	ppb	18:11:10
1	Be 313.107†	-890.1	188.5	0.0560	µg/L	0.0560	ppb	18:10:50
1	Cd 226.502†	-58.3	44.2	0.2977	µg/L	0.2977	ppb	18:11:10
1	Co 228.616†	-205.4	1.8	0.0237	µg/L	0.0237	ppb	18:11:10
1	Cr 267.716†	279.9	50.8	0.4364	µg/L	0.4364	ppb	18:11:10
1	Cu 324.752†	2817.2	-177.5	-0.7364	µg/L	-0.7364	ppb	18:10:50
1	Mn 257.610†	377.9	198.7	0.2632	µg/L	0.2632	ppb	18:11:10
1	Mo 202.031†	-19.5	18.8	0.6151	µg/L	0.6151	ppb	18:11:10
1	Ni 231.604†	-44.8	50.4	0.6310	µg/L	0.6310	ppb	18:11:10
1	P 214.914†	32.9	59.1	13.675	µg/L	13.675	ppb	18:11:10
1	Pb 220.353†	83.1	-19.2	-1.1810	µg/L	-1.1810	ppb	18:11:10
1	S 181.975 Axial†	96.1	8.6	7.2279	µg/L	7.2279	ppb	18:11:10
1	Sb 206.836†	87.4	-1.1	-0.1363	µg/L	-0.1363	ppb	18:11:10
1	Se 196.026†	15.8	9.9	3.92	µg/L	3.92	ppb	18:11:10
1	SiO2†	1758.6	45.3	4.7759	µg/L	4.7759	ppb	18:11:10
1	Si 251.611†	1033.3	281.5	4.4266	µg/L	4.4266	ppb	18:10:50
1	Sn 189.927†	10.7	9.0	0.6207	µg/L	0.6207	ppb	18:11:10
1	Ti 334.940†	741.0	-71.1	-0.0755	µg/L	-0.0755	ppb	18:10:50
1	Tl 190.801†	-115.3	-2.7	-0.3740	µg/L	-0.3740	ppb	18:11:10
1	U 409.014†	-89.2	72.9	4.5906	µg/L	4.5906	ppb	18:10:50
1	V 292.402†	390.7	-26.8	-0.1288	µg/L	-0.1288	ppb	18:10:50
1	Zn 213.857†	601.3	107.1	0.6347	µg/L	0.6347	ppb	18:11:10
2	Sc RADIAL	136069.9	136069.9	97.1	%			18:09:48
2	Al 396.153Radial†	-56.4	20.4	4.2585	µg/L	4.2585	ppb	18:10:08
2	Ca 317.933Radial†	705.4	154.9	10.547	µg/L	10.547	ppb	18:10:08
2	Fe 238.204 Radial†	184.1	72.3	5.3957	µg/L	5.3957	ppb	18:10:08
2	K 766.490 Radial†	1642.3	197.0	78.060	µg/L	78.060	ppb	18:09:48
2	Mg 279.077 IEC†	182.4	15.4	7.1148	µg/L	7.1148	ppb	18:10:08
2	Na 589.592 Radial†	1092.5	172.3	26.644	µg/L	26.644	ppb	18:09:48
2	Sr 421.552†	-196.9	1.8	0.0041	µg/L	0.0041	ppb	18:09:48
2	Sc 361.383	1779206.7	1779206.7	98.617	%			18:11:12
2	Y 371.029	1045410.7	1045410.7	98.876	%			18:11:12
2	Ag 328.068†	4031.3	-477.3	-1.9627	µg/L	-1.9627	ppb	18:11:14
2	As 188.979†	-7.8	10.6	3.5919	µg/L	3.5919	ppb	18:11:35
2	B 249.677†	4069.5	61.4	0.9539	µg/L	0.9539	ppb	18:11:14
2	Ba 233.527†	-163.1	-20.8	-0.0922	µg/L	-0.0922	ppb	18:11:35
2	Be 313.107†	-743.1	338.2	0.0955	µg/L	0.0955	ppb	18:11:14
2	Cd 226.502†	-86.3	15.9	0.1072	µg/L	0.1072	ppb	18:11:35
2	Co 228.616†	-184.7	23.0	0.3037	µg/L	0.3037	ppb	18:11:35
2	Cr 267.716†	233.3	3.3	0.0353	µg/L	0.0353	ppb	18:11:35
2	Cu 324.752†	2907.8	-87.6	-0.3718	µg/L	-0.3718	ppb	18:11:14
2	Mn 257.610†	302.0	121.5	0.1609	µg/L	0.1609	ppb	18:11:35
2	Mo 202.031†	-9.7	28.8	0.9415	µg/L	0.9415	ppb	18:11:35
2	Ni 231.604†	-31.2	64.3	0.8043	µg/L	0.8043	ppb	18:11:35
2	P 214.914†	11.2	37.0	8.5575	µg/L	8.5575	ppb	18:11:35
2	Pb 220.353†	106.9	4.9	0.3127	µg/L	0.3127	ppb	18:11:35

2	S 181.975 Axial†	92.3	4.6	3.8973 µg/L	3.8973 ppb	18:11:35
2	Sb 206.836†	98.2	9.8	1.2831 µg/L	1.2831 ppb	18:11:35
2	Se 196.026†	21.2	15.4	6.04 µg/L	6.04 ppb	18:11:35
2	SiO2†	1751.2	36.6	3.8434 µg/L	3.8434 ppb	18:11:35
2	Si 251.611†	1032.8	280.3	4.4022 µg/L	4.4022 ppb	18:11:14
2	Sn 189.927†	11.5	9.8	0.6801 µg/L	0.6801 ppb	18:11:35
2	Ti 334.940†	612.8	-201.6	-0.2041 µg/L	-0.2041 ppb	18:11:14
2	Tl 190.801†	-106.9	5.9	0.8054 µg/L	0.8054 ppb	18:11:35
2	U 409.014†	-287.8	-128.5	-8.0994 µg/L	-8.0994 ppb	18:11:14
2	V 292.402†	439.1	22.0	0.1180 µg/L	0.1180 ppb	18:11:14
2	Zn 213.857†	569.4	74.4	0.4383 µg/L	0.4383 ppb	18:11:35
3	Sc RADIAL	134675.6	134675.6	96.1 %		18:10:10
3	Al 396.153Radial†	-89.5	-14.6	-3.1218 µg/L	-3.1218 ppb	18:10:30
3	Ca 317.933Radial†	696.8	153.4	10.450 µg/L	10.450 ppb	18:10:30
3	Fe 238.204 Radial†	169.0	58.5	4.3659 µg/L	4.3659 ppb	18:10:30
3	K 766.490 Radial†	1640.4	212.6	84.240 µg/L	84.240 ppb	18:10:10
3	Mg 279.077 IEC†	154.5	-11.8	-5.4065 µg/L	-5.4065 ppb	18:10:30
3	Na 589.592 Radial†	1155.2	249.2	38.546 µg/L	38.546 ppb	18:10:10
3	Sr 421.552†	-187.9	9.0	0.0211 µg/L	0.0211 ppb	18:10:10
3	Sc 361.383	1758106.9	1758106.9	97.448 %		18:11:37
3	Y 371.029	1032777.2	1032777.2	97.681 %		18:11:37
3	Ag 328.068†	4186.1	-269.4	-1.1172 µg/L	-1.1172 ppb	18:11:39
3	As 188.979†	-15.6	2.5	0.8706 µg/L	0.8706 ppb	18:11:59
3	B 249.677†	4047.9	88.8	1.3799 µg/L	1.3799 ppb	18:11:39
3	Ba 233.527†	-151.3	-10.7	-0.0481 µg/L	-0.0481 ppb	18:11:59
3	Be 313.107†	-672.1	402.1	0.1162 µg/L	0.1162 ppb	18:11:39
3	Cd 226.502†	-76.6	24.8	0.1670 µg/L	0.1670 ppb	18:11:59
3	Co 228.616†	-189.4	16.0	0.2112 µg/L	0.2112 ppb	18:11:59
3	Cr 267.716†	288.5	62.8	0.5439 µg/L	0.5439 ppb	18:11:59
3	Cu 324.752†	2906.5	-53.5	-0.2240 µg/L	-0.2240 ppb	18:11:39
3	Mn 257.610†	344.7	169.0	0.2244 µg/L	0.2244 ppb	18:11:59
3	Mo 202.031†	-4.7	33.7	1.1020 µg/L	1.1020 ppb	18:11:59
3	Ni 231.604†	-62.0	32.3	0.4038 µg/L	0.4038 ppb	18:11:59
3	P 214.914†	13.2	39.2	9.0657 µg/L	9.0657 ppb	18:11:59
3	Pb 220.353†	112.4	11.9	0.7373 µg/L	0.7373 ppb	18:11:59
3	S 181.975 Axial†	91.0	4.4	3.7425 µg/L	3.7425 ppb	18:11:59
3	Sb 206.836†	87.9	0.4	0.0630 µg/L	0.0630 ppb	18:11:59
3	Se 196.026†	3.5	-2.6	-1.02 µg/L	-1.02 ppb	18:11:59
3	SiO2†	1799.1	107.1	11.312 µg/L	11.312 ppb	18:11:59
3	Si 251.611†	1031.5	291.5	4.5807 µg/L	4.5807 ppb	18:11:39
3	Sn 189.927†	4.5	2.7	0.1895 µg/L	0.1895 ppb	18:11:59
3	Ti 334.940†	696.5	-108.3	-0.1103 µg/L	-0.1103 ppb	18:11:39
3	Tl 190.801†	-129.5	-18.6	-2.5506 µg/L	-2.5506 ppb	18:11:59
3	U 409.014†	-174.9	-16.2	-1.0824 µg/L	-1.0824 ppb	18:11:39
3	V 292.402†	207.6	-210.1	-1.0764 µg/L	-1.0764 ppb	18:11:39
3	Zn 213.857†	573.7	85.8	0.5090 µg/L	0.5090 ppb	18:11:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1771781.5	98.206	%	0.6572				0.67%
Sc RADIAL	134822.7	96.2	%	0.84				0.88%
Y 371.029	1040975.5	98.456	%	0.6723				0.68%
Ag 328.068†	-400.1	-1.6442	µg/L	0.45972	-1.6442	ppb	0.45972	27.96%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.9	2.0430	µg/L	4.48787	2.0430	ppb	4.48787	219.67%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.5	2.2143	µg/L	1.36095	2.2143	ppb	1.36095	61.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	52.1	0.8101	µg/L	0.65360	0.8101	ppb	0.65360	80.68%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-14.0	-0.0622	µg/L	0.02607	-0.0622	ppb	0.02607	41.94%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	309.6	0.0892	µg/L	0.03057	0.0892	ppb	0.03057	34.26%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	172.1	11.722	µg/L	2.1195	11.722	ppb	2.1195	18.08%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	28.3	0.1906	µg/L	0.09742	0.1906	ppb	0.09742	51.10%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	13.6	0.1795	µg/L	0.14266	0.1795	ppb	0.14266	79.46%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              39.0      0.3385 µg/L       0.26802      0.3385 ppb        0.26802  79.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -106.2     -0.4440 µg/L       0.26375     -0.4440 ppb        0.26375  59.40%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      105.1      7.8515 µg/L       5.17108      7.8515 ppb        5.17108  65.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       206.2      81.707 µg/L        3.2371      81.707 ppb         3.2371   3.96%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           8.8      4.0725 µg/L       8.38269      4.0725 ppb        8.38269 205.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             163.1      0.2162 µg/L       0.05162      0.2162 ppb        0.05162  23.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              27.1      0.8862 µg/L       0.24812      0.8862 ppb        0.24812  28.00%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      225.4      34.861 µg/L        7.1288      34.861 ppb         7.1288  20.45%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              49.0      0.6130 µg/L       0.20083      0.6130 ppb        0.20083  32.76%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               45.1      10.433 µg/L        2.8191      10.433 ppb         2.8191  27.02%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -0.8     -0.0436 µg/L       1.00762     -0.0436 ppb        1.00762 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          5.9      4.9559 µg/L       1.96912      4.9559 ppb        1.96912  39.73%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.1      0.4033 µg/L       0.76844      0.4033 ppb        0.76844 190.53%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               7.6        2.98 µg/L         3.624        2.98 ppb          3.624 121.57%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    63.0      6.6438 µg/L       4.06962      6.6438 ppb        4.06962  61.25%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             284.4      4.4699 µg/L       0.09678      4.4699 ppb        0.09678   2.17%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.2      0.4968 µg/L       0.26777      0.4968 ppb        0.26777  53.90%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              26.9      0.0633 µg/L       0.08813      0.0633 ppb        0.08813 139.29%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -127.0     -0.1300 µg/L       0.06648     -0.1300 ppb        0.06648  51.15%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -5.1     -0.7064 µg/L       1.70252     -0.7064 ppb        1.70252 241.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -23.9     -1.5304 µg/L       6.35683     -1.5304 ppb        6.35683 415.37%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -71.6     -0.3624 µg/L       0.63058     -0.3624 ppb        0.63058 174.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              89.1      0.5274 µg/L       0.09946      0.5274 ppb        0.09946  18.86%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 76
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 18:27:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136282.7	136282.7	97.3	%			18:27:41
1	Al 396.153Radial†	23227.3	23955.3	5019.7	µg/L	5019.7	ppb	18:27:41
1	Ca 317.933Radial†	73360.9	74840.5	5097.3	µg/L	5097.3	ppb	18:27:41
1	Fe 238.204 Radial†	66185.3	67918.5	5072.1	µg/L	5072.1	ppb	18:27:41
1	K 766.490 Radial†	14066.8	12966.3	5133.7	µg/L	5133.7	ppb	18:27:41
1	Mg 279.077 IEC†	10872.5	11004.0	5089.1	µg/L	5089.1	ppb	18:27:41
1	Na 589.592 Radial†	64606.2	65460.0	10142	µg/L	10142	ppb	18:27:41
1	Sr 421.552†	209191.2	215244.4	507.61	µg/L	507.61	ppb	18:27:39
1	Sc 361.383	1764512.2	1764512.2	97.803	%			18:28:08
1	Y 371.029	1025160.9	1025160.9	96.961	%			18:28:08
1	Ag 328.068†	124339.7	122567.9	508.06	µg/L	508.06	ppb	18:28:08
1	As 188.979†	1321.2	1369.4	470.52	µg/L	470.52	ppb	18:28:28
1	B 249.677†	35174.1	31899.2	494.32	µg/L	494.32	ppb	18:28:08
1	Ba 233.527†	109584.9	112191.3	499.09	µg/L	499.09	ppb	18:28:08
1	Be 313.107†	1656005.2	1694299.8	490.94	µg/L	490.94	ppb	18:28:08
1	Cd 226.502†	72678.3	74414.4	502.63	µg/L	502.63	ppb	18:28:08
1	Co 228.616†	37344.5	38393.8	508.18	µg/L	508.18	ppb	18:28:08
1	Cr 267.716†	57209.2	58261.2	503.88	µg/L	503.88	ppb	18:28:08
1	Cu 324.752†	120525.0	120196.5	504.32	µg/L	504.32	ppb	18:28:08
1	Mn 257.610†	372156.2	380332.2	504.31	µg/L	504.31	ppb	18:28:08
1	Mo 202.031†	15228.1	15608.8	510.93	µg/L	510.93	ppb	18:28:28
1	Ni 231.604†	39343.1	40322.8	504.49	µg/L	504.49	ppb	18:28:08
1	P 214.914†	10694.4	10960.4	2526.7	µg/L	2526.7	ppb	18:28:28
1	Pb 220.353†	8225.2	8306.5	512.75	µg/L	512.75	ppb	18:28:28
1	S 181.975 Axial†	1273.4	1213.1	1024.8	µg/L	1024.8	ppb	18:28:28
1	Sb 206.836†	3935.5	3934.2	508.53	µg/L	508.53	ppb	18:28:28
1	Se 196.026†	1276.7	1299.2	514	µg/L	514	ppb	18:28:28
1	SiO2†	50826.2	50228.9	5297.3	µg/L	5297.3	ppb	18:28:08
1	Si 251.611†	156645.3	159397.3	2503.4	µg/L	2503.4	ppb	18:28:08
1	Sn 189.927†	7066.2	7223.0	502.71	µg/L	502.71	ppb	18:28:28
1	Ti 334.940†	479114.5	489055.0	501.65	µg/L	501.65	ppb	18:28:08
1	Tl 190.801†	3526.7	3720.2	515.54	µg/L	515.54	ppb	18:28:28
1	U 409.014†	7387.8	7717.2	517.62	µg/L	517.62	ppb	18:28:08
1	V 292.402†	95105.7	96819.1	508.58	µg/L	508.58	ppb	18:28:08
1	Zn 213.857†	83166.1	84531.4	500.82	µg/L	500.82	ppb	18:28:08
2	Sc RADIAL	136082.5	136082.5	97.1	%			18:27:45
2	Al 396.153Radial†	23114.4	23874.2	5003.1	µg/L	5003.1	ppb	18:27:45
2	Ca 317.933Radial†	73168.7	74753.6	5091.4	µg/L	5091.4	ppb	18:27:45
2	Fe 238.204 Radial†	66111.5	67942.6	5073.9	µg/L	5073.9	ppb	18:27:45
2	K 766.490 Radial†	14174.6	13098.5	5186.1	µg/L	5186.1	ppb	18:27:45
2	Mg 279.077 IEC†	10888.1	11036.5	5103.9	µg/L	5103.9	ppb	18:27:45
2	Na 589.592 Radial†	64608.1	65559.6	10158	µg/L	10158	ppb	18:27:45
2	Sr 421.552†	209582.5	215963.5	509.30	µg/L	509.30	ppb	18:27:43
2	Sc 361.383	1776828.5	1776828.5	98.485	%			18:28:31
2	Y 371.029	1031941.7	1031941.7	97.602	%			18:28:31
2	Ag 328.068†	125135.1	122494.3	507.75	µg/L	507.75	ppb	18:28:31
2	As 188.979†	1294.9	1333.4	458.33	µg/L	458.33	ppb	18:28:51
2	B 249.677†	35720.5	32204.7	499.07	µg/L	499.07	ppb	18:28:31
2	Ba 233.527†	110544.6	112389.1	499.97	µg/L	499.97	ppb	18:28:31
2	Be 313.107†	1674070.9	1700906.7	492.85	µg/L	492.85	ppb	18:28:31
2	Cd 226.502†	73715.0	74952.0	506.27	µg/L	506.27	ppb	18:28:31
2	Co 228.616†	37739.7	38530.3	509.99	µg/L	509.99	ppb	18:28:31
2	Cr 267.716†	57791.4	58446.9	505.50	µg/L	505.50	ppb	18:28:31
2	Cu 324.752†	121475.8	120307.7	504.77	µg/L	504.77	ppb	18:28:31
2	Mn 257.610†	375998.4	381595.8	505.99	µg/L	505.99	ppb	18:28:31
2	Mo 202.031†	15048.4	15318.4	501.43	µg/L	501.43	ppb	18:28:51
2	Ni 231.604†	39907.1	40616.7	508.17	µg/L	508.17	ppb	18:28:31
2	P 214.914†	10582.5	10771.0	2482.9	µg/L	2482.9	ppb	18:28:51
2	Pb 220.353†	8157.9	8179.9	504.94	µg/L	504.94	ppb	18:28:51

2	S 181.975 Axial†	1263.7	1194.2	1008.8 µg/L	1008.8 ppb	18:28:51
2	Sb 206.836†	3876.3	3846.2	497.02 µg/L	497.02 ppb	18:28:51
2	Se 196.026†	1259.5	1272.7	504 µg/L	504 ppb	18:28:51
2	SiO2†	51777.5	50834.6	5361.9 µg/L	5361.9 ppb	18:28:31
2	Si 251.611†	158334.4	160002.2	2513.1 µg/L	2513.1 ppb	18:28:31
2	Sn 189.927†	6989.8	7095.4	493.86 µg/L	493.86 ppb	18:28:51
2	Ti 334.940†	482647.5	489246.7	501.85 µg/L	501.85 ppb	18:28:31
2	Tl 190.801†	3471.3	3639.0	504.46 µg/L	504.46 ppb	18:28:51
2	U 409.014†	7142.9	7416.1	498.74 µg/L	498.74 ppb	18:28:31
2	V 292.402†	96116.1	97171.0	510.30 µg/L	510.30 ppb	18:28:31
2	Zn 213.857†	84305.2	85098.7	504.18 µg/L	504.18 ppb	18:28:31
3	Sc RADIAL	137251.0	137251.0	98.0 %		18:27:49
3	Al 396.153Radial†	23296.1	23857.1	4999.2 µg/L	4999.2 ppb	18:27:49
3	Ca 317.933Radial†	74063.7	75025.9	5109.9 µg/L	5109.9 ppb	18:27:49
3	Fe 238.204 Radial†	66829.7	68096.2	5085.4 µg/L	5085.4 ppb	18:27:49
3	K 766.490 Radial†	14304.3	13106.7	5189.4 µg/L	5189.4 ppb	18:27:49
3	Mg 279.077 IEC†	11062.8	11119.4	5142.3 µg/L	5142.3 ppb	18:27:49
3	Na 589.592 Radial†	64928.0	65319.9	10120 µg/L	10120 ppb	18:27:49
3	Sr 421.552†	209203.9	213740.2	504.06 µg/L	504.06 ppb	18:27:47
3	Sc 361.383	1766461.2	1766461.2	97.911 %		18:28:54
3	Y 371.029	1025573.5	1025573.5	97.000 %		18:28:54
3	Ag 328.068†	124452.0	122542.3	507.96 µg/L	507.96 ppb	18:28:54
3	As 188.979†	1331.5	1378.5	473.61 µg/L	473.61 ppb	18:29:14
3	B 249.677†	35563.8	32257.5	499.89 µg/L	499.89 ppb	18:28:54
3	Ba 233.527†	110311.0	112809.3	501.83 µg/L	501.83 ppb	18:28:54
3	Be 313.107†	1665426.0	1702053.5	493.19 µg/L	493.19 ppb	18:28:54
3	Cd 226.502†	73402.2	75071.7	507.08 µg/L	507.08 ppb	18:28:54
3	Co 228.616†	37490.9	38501.2	509.61 µg/L	509.61 ppb	18:28:54
3	Cr 267.716†	57579.2	58574.6	506.60 µg/L	506.60 ppb	18:28:54
3	Cu 324.752†	120905.9	120449.6	505.38 µg/L	505.38 ppb	18:28:54
3	Mn 257.610†	374289.7	382091.3	506.65 µg/L	506.65 ppb	18:28:54
3	Mo 202.031†	15138.6	15500.2	507.38 µg/L	507.38 ppb	18:29:14
3	Ni 231.604†	39813.6	40759.0	509.95 µg/L	509.95 ppb	18:28:54
3	P 214.914†	10616.8	10869.0	2505.5 µg/L	2505.5 ppb	18:29:14
3	Pb 220.353†	8189.1	8260.4	509.90 µg/L	509.90 ppb	18:29:14
3	S 181.975 Axial†	1269.4	1207.5	1020.1 µg/L	1020.1 ppb	18:29:14
3	Sb 206.836†	3907.9	3901.6	504.24 µg/L	504.24 ppb	18:29:14
3	Se 196.026†	1266.0	1286.8	509 µg/L	509 ppb	18:29:14
3	SiO2†	51592.2	50954.0	5374.3 µg/L	5374.3 ppb	18:28:54
3	Si 251.611†	157787.9	160387.7	2519.1 µg/L	2519.1 ppb	18:28:54
3	Sn 189.927†	7019.5	7167.4	498.85 µg/L	498.85 ppb	18:29:14
3	Ti 334.940†	480250.0	489674.3	502.28 µg/L	502.28 ppb	18:28:54
3	Tl 190.801†	3511.3	3700.5	512.87 µg/L	512.87 ppb	18:29:14
3	U 409.014†	7289.0	7607.9	510.85 µg/L	510.85 ppb	18:28:54
3	V 292.402†	95573.1	97189.2	510.47 µg/L	510.47 ppb	18:28:54
3	Zn 213.857†	83890.0	85177.0	504.64 µg/L	504.64 ppb	18:28:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769267.3	98.066	%	0.3669				0.37%
Sc RADIAL	136538.7	97.5	%	0.45				0.46%
Y 371.029	1027558.7	97.187	%	0.3595				0.37%
Ag 328.068†	122534.8	507.92	µg/L	0.156	507.92	ppb	0.156	0.03%
QC value within limits for Ag 328.068 Recovery = 101.58%								
Al 396.153Radial†	23895.5	5007.4	µg/L	10.90	5007.4	ppb	10.90	0.22%
QC value within limits for Al 396.153Radial Recovery = 100.15%								
As 188.979†	1360.4	467.48	µg/L	8.081	467.48	ppb	8.081	1.73%
QC value within limits for As 188.979 Recovery = 93.50%								
B 249.677†	32120.4	497.76	µg/L	3.005	497.76	ppb	3.005	0.60%
QC value within limits for B 249.677 Recovery = 99.55%								
Ba 233.527†	112463.2	500.30	µg/L	1.403	500.30	ppb	1.403	0.28%
QC value within limits for Ba 233.527 Recovery = 100.06%								
Be 313.107†	1699086.7	492.33	µg/L	1.210	492.33	ppb	1.210	0.25%
QC value within limits for Be 313.107 Recovery = 98.47%								
Ca 317.933Radial†	74873.3	5099.5	µg/L	9.47	5099.5	ppb	9.47	0.19%
QC value within limits for Ca 317.933Radial Recovery = 101.99%								
Cd 226.502†	74812.7	505.32	µg/L	2.367	505.32	ppb	2.367	0.47%
QC value within limits for Cd 226.502 Recovery = 101.06%								
Co 228.616†	38475.1	509.26	µg/L	0.952	509.26	ppb	0.952	0.19%

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   QC value within limits for Co 228.616  Recovery = 101.85%
Cr 267.716†            58427.6      505.33 µg/L         1.367      505.33 ppb          1.367   0.27%
   QC value within limits for Cr 267.716  Recovery = 101.07%
Cu 324.752†           120317.9      504.82 µg/L         0.530      504.82 ppb          0.530   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.96%
Fe 238.204 Radial†     67985.7      5077.1 µg/L          7.20      5077.1 ppb           7.20   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.54%
K 766.490 Radial†      13057.2      5169.7 µg/L         31.23      5169.7 ppb          31.23   0.60%
   QC value within limits for K 766.490 Radial  Recovery = 103.39%
Mg 279.077 IEC†        11053.3      5111.8 µg/L         27.44      5111.8 ppb          27.44   0.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.24%
Mn 257.610†           381339.8      505.65 µg/L         1.202      505.65 ppb          1.202   0.24%
   QC value within limits for Mn 257.610  Recovery = 101.13%
Mo 202.031†            15475.8      506.58 µg/L         4.799      506.58 ppb          4.799   0.95%
   QC value within limits for Mo 202.031  Recovery = 101.32%
Na 589.592 Radial†     65446.5       10140 µg/L          18.7       10140 ppb           18.7   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 101.40%
Ni 231.604†            40566.2      507.53 µg/L         2.783      507.53 ppb          2.783   0.55%
   QC value within limits for Ni 231.604  Recovery = 101.51%
P 214.914†             10866.8      2505.0 µg/L         21.91      2505.0 ppb          21.91   0.87%
   QC value within limits for P 214.914  Recovery = 100.20%
Pb 220.353†             8248.9      509.20 µg/L         3.949      509.20 ppb          3.949   0.78%
   QC value within limits for Pb 220.353  Recovery = 101.84%
S 181.975 Axial†        1204.9      1017.9 µg/L          8.22      1017.9 ppb           8.22   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 101.79%
Sb 206.836†             3894.0      503.26 µg/L         5.816      503.26 ppb          5.816   1.16%
   QC value within limits for Sb 206.836  Recovery = 100.65%
Se 196.026†             1286.3         509 µg/L           5.2         509 ppb            5.2   1.03%
   QC value within limits for Se 196.026  Recovery = 101.79%
SiO2†                  50672.5      5344.5 µg/L         41.31      5344.5 ppb          41.31   0.77%
   QC value within limits for SiO2  Recovery = 99.94%
Si 251.611†           159929.1      2511.9 µg/L          7.92      2511.9 ppb           7.92   0.32%
   QC value within limits for Si 251.611  Recovery = 100.47%
Sn 189.927†             7162.0      498.47 µg/L         4.438      498.47 ppb          4.438   0.89%
   QC value within limits for Sn 189.927  Recovery = 99.69%
Sr 421.552†           214982.7      506.99 µg/L         2.676      506.99 ppb          2.676   0.53%
   QC value within limits for Sr 421.552  Recovery = 101.40%
Ti 334.940†           489325.3      501.93 µg/L         0.324      501.93 ppb          0.324   0.06%
   QC value within limits for Ti 334.940  Recovery = 100.39%
Tl 190.801†             3686.6      510.95 µg/L         5.783      510.95 ppb          5.783   1.13%
   QC value within limits for Tl 190.801  Recovery = 102.19%
U 409.014†              7580.4      509.07 µg/L         9.566      509.07 ppb          9.566   1.88%
   QC value within limits for U 409.014  Recovery = 101.81%
V 292.402†             97059.7      509.78 µg/L         1.044      509.78 ppb          1.044   0.20%
   QC value within limits for V 292.402  Recovery = 101.96%
Zn 213.857†            84935.7      503.22 µg/L         2.085      503.22 ppb          2.085   0.41%
   QC value within limits for Zn 213.857  Recovery = 100.64%
All analyte(s) passed QC.
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Sequence No.: 77 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/5/2010 18:29:22**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135092.3	135092.3	96.4	%			18:29:51
1	Al 396.153Radial†	-44.9	32.0	6.6899	µg/L	6.6899	ppb	18:30:11
1	Ca 317.933Radial†	732.5	188.2	12.815	µg/L	12.815	ppb	18:30:11
1	Fe 238.204 Radial†	190.2	79.9	5.9667	µg/L	5.9667	ppb	18:30:11
1	K 766.490 Radial†	1696.7	265.8	105.30	µg/L	105.30	ppb	18:29:51
1	Mg 279.077 IEC†	168.6	2.4	1.1026	µg/L	1.1026	ppb	18:30:11
1	Na 589.592 Radial†	1046.6	132.9	20.499	µg/L	20.499	ppb	18:29:51
1	Sr 421.552†	-151.7	47.2	0.1112	µg/L	0.1112	ppb	18:29:51
1	Sc 361.383	1787344.8	1787344.8	99.068	%			18:31:13
1	Y 371.029	1048797.5	1048797.5	99.196	%			18:31:13
1	Ag 328.068†	4061.6	-465.3	-1.9365	µg/L	-1.9365	ppb	18:31:15
1	As 188.979†	-16.7	1.7	0.5855	µg/L	0.5855	ppb	18:31:35
1	B 249.677†	3961.9	-66.0	-1.0258	µg/L	-1.0258	ppb	18:31:15
1	Ba 233.527†	-151.7	-8.6	-0.0380	µg/L	-0.0380	ppb	18:31:35
1	Be 313.107†	-352.2	736.3	0.2063	µg/L	0.2063	ppb	18:31:15
1	Cd 226.502†	-66.6	36.1	0.2435	µg/L	0.2435	ppb	18:31:35
1	Co 228.616†	-205.9	2.5	0.0324	µg/L	0.0324	ppb	18:31:35
1	Cr 267.716†	271.5	40.8	0.3714	µg/L	0.3714	ppb	18:31:35
1	Cu 324.752†	2844.7	-164.7	-0.7069	µg/L	-0.7069	ppb	18:31:15
1	Mn 257.610†	314.7	133.0	0.1764	µg/L	0.1764	ppb	18:31:35
1	Mo 202.031†	-14.0	24.4	0.7996	µg/L	0.7996	ppb	18:31:35
1	Ni 231.604†	-71.4	23.9	0.2987	µg/L	0.2987	ppb	18:31:35
1	P 214.914†	31.0	57.0	13.189	µg/L	13.189	ppb	18:31:35
1	Pb 220.353†	103.9	1.4	0.1074	µg/L	0.1074	ppb	18:31:35
1	S 181.975 Axial†	100.4	12.5	10.494	µg/L	10.494	ppb	18:31:35
1	Sb 206.836†	78.6	-10.4	-1.3332	µg/L	-1.3332	ppb	18:31:35
1	Se 196.026†	11.3	5.3	2.06	µg/L	2.06	ppb	18:31:35
1	SiO2†	1737.9	15.1	1.5770	µg/L	1.5770	ppb	18:31:35
1	Si 251.611†	898.6	140.0	2.1951	µg/L	2.1951	ppb	18:31:15
1	Sn 189.927†	5.7	3.9	0.2711	µg/L	0.2711	ppb	18:31:35
1	Ti 334.940†	1050.4	237.2	0.2532	µg/L	0.2532	ppb	18:31:15
1	Tl 190.801†	-118.1	-4.9	-0.6742	µg/L	-0.6742	ppb	18:31:35
1	U 409.014†	-521.8	-363.3	-22.944	µg/L	-22.944	ppb	18:31:15
1	V 292.402†	369.0	-50.7	-0.2693	µg/L	-0.2693	ppb	18:31:15
1	Zn 213.857†	555.2	57.4	0.3408	µg/L	0.3408	ppb	18:31:35
2	Sc RADIAL	136375.6	136375.6	97.3	%			18:30:13
2	Al 396.153Radial†	-51.4	25.7	5.3917	µg/L	5.3917	ppb	18:30:33
2	Ca 317.933Radial†	713.9	161.9	11.027	µg/L	11.027	ppb	18:30:33
2	Fe 238.204 Radial†	180.1	67.7	5.0561	µg/L	5.0561	ppb	18:30:33
2	K 766.490 Radial†	1698.5	251.0	99.446	µg/L	99.446	ppb	18:30:13
2	Mg 279.077 IEC†	161.4	-6.6	-3.0474	µg/L	-3.0474	ppb	18:30:33
2	Na 589.592 Radial†	1146.3	225.0	34.791	µg/L	34.791	ppb	18:30:13
2	Sr 421.552†	-56.9	146.0	0.3442	µg/L	0.3442	ppb	18:30:13
2	Sc 361.383	1776624.3	1776624.3	98.474	%			18:31:37
2	Y 371.029	1043156.8	1043156.8	98.663	%			18:31:37
2	Ag 328.068†	4138.6	-362.4	-1.4823	µg/L	-1.4823	ppb	18:31:39
2	As 188.979†	-12.1	6.3	2.1274	µg/L	2.1274	ppb	18:32:00
2	B 249.677†	4198.4	198.3	3.0839	µg/L	3.0839	ppb	18:31:39
2	Ba 233.527†	-138.5	3.9	0.0173	µg/L	0.0173	ppb	18:32:00
2	Be 313.107†	-702.4	378.5	0.1101	µg/L	0.1101	ppb	18:31:39
2	Cd 226.502†	-94.1	7.8	0.0524	µg/L	0.0524	ppb	18:32:00
2	Co 228.616†	-206.8	0.3	0.0037	µg/L	0.0037	ppb	18:32:00
2	Cr 267.716†	260.8	31.6	0.2728	µg/L	0.2728	ppb	18:32:00
2	Cu 324.752†	2953.1	-37.2	-0.1539	µg/L	-0.1539	ppb	18:31:39
2	Mn 257.610†	307.1	127.1	0.1687	µg/L	0.1687	ppb	18:32:00
2	Mo 202.031†	-19.0	19.3	0.6318	µg/L	0.6318	ppb	18:32:00
2	Ni 231.604†	-40.1	55.1	0.6900	µg/L	0.6900	ppb	18:32:00
2	P 214.914†	20.7	46.7	10.807	µg/L	10.807	ppb	18:32:00
2	Pb 220.353†	131.6	30.2	1.8563	µg/L	1.8563	ppb	18:32:00

2	S 181.975 Axial†	79.5	-8.2	-6.8975 µg/L	-6.8975 ppb	18:32:00
2	Sb 206.836†	81.6	-6.8	-0.8762 µg/L	-0.8762 ppb	18:32:00
2	Se 196.026†	8.6	2.6	1.04 µg/L	1.04 ppb	18:32:00
2	SiO2†	1746.0	33.9	3.5646 µg/L	3.5646 ppb	18:32:00
2	Si 251.611†	1038.0	287.0	4.5138 µg/L	4.5138 ppb	18:31:39
2	Sn 189.927†	10.5	8.7	0.6068 µg/L	0.6068 ppb	18:32:00
2	Ti 334.940†	874.5	65.0	0.0666 µg/L	0.0666 ppb	18:31:39
2	Tl 190.801†	-111.9	0.6	0.0856 µg/L	0.0856 ppb	18:32:00
2	U 409.014†	-137.8	23.4	1.4747 µg/L	1.4747 ppb	18:31:39
2	V 292.402†	412.4	-4.4	-0.0147 µg/L	-0.0147 ppb	18:31:39
2	Zn 213.857†	538.5	43.9	0.2570 µg/L	0.2570 ppb	18:32:00
3	Sc RADIAL	137159.4	137159.4	97.9 %		18:30:35
3	Al 396.153Radial†	-60.8	16.4	3.4349 µg/L	3.4349 ppb	18:30:55
3	Ca 317.933Radial†	732.6	176.8	12.043 µg/L	12.043 ppb	18:30:55
3	Fe 238.204 Radial†	179.0	65.5	4.8905 µg/L	4.8905 ppb	18:30:55
3	K 766.490 Radial†	1704.7	247.4	98.011 µg/L	98.011 ppb	18:30:35
3	Mg 279.077 IEC†	171.8	3.0	1.4151 µg/L	1.4151 ppb	18:30:55
3	Na 589.592 Radial†	1050.3	120.2	18.552 µg/L	18.552 ppb	18:30:35
3	Sr 421.552†	-146.0	55.4	0.1305 µg/L	0.1305 ppb	18:30:35
3	Sc 361.383	1780995.5	1780995.5	98.716 %		18:32:02
3	Y 371.029	1045438.8	1045438.8	98.878 %		18:32:02
3	Ag 328.068†	4197.3	-313.3	-1.2626 µg/L	-1.2626 ppb	18:32:04
3	As 188.979†	-14.6	3.8	1.2814 µg/L	1.2814 ppb	18:32:24
3	B 249.677†	4079.3	67.2	1.0449 µg/L	1.0449 ppb	18:32:04
3	Ba 233.527†	-157.0	-14.4	-0.0640 µg/L	-0.0640 ppb	18:32:24
3	Be 313.107†	-798.0	283.4	0.0864 µg/L	0.0864 ppb	18:32:04
3	Cd 226.502†	-67.1	35.4	0.2387 µg/L	0.2387 ppb	18:32:24
3	Co 228.616†	-190.7	17.2	0.2267 µg/L	0.2267 ppb	18:32:24
3	Cr 267.716†	283.9	54.3	0.4591 µg/L	0.4591 ppb	18:32:24
3	Cu 324.752†	2913.1	-85.2	-0.3436 µg/L	-0.3436 ppb	18:32:04
3	Mn 257.610†	314.9	134.3	0.1781 µg/L	0.1781 ppb	18:32:24
3	Mo 202.031†	-24.2	14.1	0.4610 µg/L	0.4610 ppb	18:32:24
3	Ni 231.604†	-68.4	26.6	0.3331 µg/L	0.3331 ppb	18:32:24
3	P 214.914†	15.7	41.6	9.6155 µg/L	9.6155 ppb	18:32:24
3	Pb 220.353†	121.4	19.5	1.1913 µg/L	1.1913 ppb	18:32:24
3	S 181.975 Axial†	97.1	9.5	7.9692 µg/L	7.9692 ppb	18:32:24
3	Sb 206.836†	94.9	6.4	0.8247 µg/L	0.8247 ppb	18:32:24
3	Se 196.026†	5.1	-1.0	-0.383 µg/L	-0.383 ppb	18:32:24
3	SiO2†	1784.6	68.7	7.2727 µg/L	7.2727 ppb	18:32:24
3	Si 251.611†	1060.0	306.7	4.8343 µg/L	4.8343 ppb	18:32:04
3	Sn 189.927†	-6.6	-8.6	-0.5975 µg/L	-0.5975 ppb	18:32:24
3	Ti 334.940†	631.1	-183.7	-0.1944 µg/L	-0.1944 ppb	18:32:04
3	Tl 190.801†	-114.4	-1.6	-0.2234 µg/L	-0.2234 ppb	18:32:24
3	U 409.014†	60.6	224.7	14.196 µg/L	14.196 ppb	18:32:04
3	V 292.402†	461.4	44.2	0.2450 µg/L	0.2450 ppb	18:32:04
3	Zn 213.857†	571.3	75.8	0.4500 µg/L	0.4500 ppb	18:32:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1781654.9	98.753	%	0.2988				0.30%
Sc RADIAL	136209.1	97.2	%	0.74				0.77%
Y 371.029	1045797.7	98.912	%	0.2684				0.27%
Ag 328.068†	-380.4	-1.5605	µg/L	0.34367	-1.5605	ppb	0.34367	22.02%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	24.7	5.1722	µg/L	1.63858	5.1722	ppb	1.63858	31.68%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.9	1.3314	µg/L	0.77213	1.3314	ppb	0.77213	57.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	66.5	1.0344	µg/L	2.05485	1.0344	ppb	2.05485	198.66%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.4	-0.0282	µg/L	0.04153	-0.0282	ppb	0.04153	147.17%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	466.0	0.1343	µg/L	0.06354	0.1343	ppb	0.06354	47.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	175.6	11.962	µg/L	0.8969	11.962	ppb	0.8969	7.50%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	26.4	0.1782	µg/L	0.10901	0.1782	ppb	0.10901	61.16%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.6	0.0876	µg/L	0.12135	0.0876	ppb	0.12135	138.52%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 42.3      0.3678 µg/L       0.09322      0.3678 ppb        0.09322  25.35%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -95.7     -0.4015 µg/L       0.28101     -0.4015 ppb        0.28101  69.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          71.0      5.3044 µg/L       0.57945      5.3044 ppb        0.57945  10.92%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          254.7      100.92 µg/L         3.861      100.92 ppb          3.861   3.83%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.4     -0.1766 µg/L       2.49109     -0.1766 ppb        2.49109 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                131.5      0.1744 µg/L       0.00496      0.1744 ppb        0.00496   2.85%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 19.3      0.6308 µg/L       0.16927      0.6308 ppb        0.16927  26.83%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         159.4      24.614 µg/L        8.8668      24.614 ppb         8.8668  36.02%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 35.2      0.4406 µg/L       0.21664      0.4406 ppb        0.21664  49.17%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  48.4      11.204 µg/L        1.8192      11.204 ppb         1.8192  16.24%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 17.0      1.0517 µg/L       0.88278      1.0517 ppb        0.88278  83.94%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†             4.6      3.8553 µg/L       9.39746      3.8553 ppb        9.39746 243.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 -3.6     -0.4616 µg/L       1.13712     -0.4616 ppb        1.13712 246.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                  2.3       0.906 µg/L        1.2290       0.906 ppb         1.2290 135.69%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       39.3      4.1381 µg/L       2.89080      4.1381 ppb        2.89080  69.86%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                244.6      3.8477 µg/L       1.44014      3.8477 ppb        1.44014  37.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                  1.3      0.0934 µg/L       0.62148      0.0934 ppb        0.62148 665.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 82.8      0.1953 µg/L       0.12932      0.1953 ppb        0.12932  66.22%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 39.5      0.0418 µg/L       0.22484      0.0418 ppb        0.22484 538.04%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 -2.0     -0.2706 µg/L       0.38207     -0.2706 ppb        0.38207 141.17%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -38.4     -2.4245 µg/L      18.87457     -2.4245 ppb       18.87457 778.48%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  -3.6     -0.0130 µg/L       0.25716     -0.0130 ppb        0.25716 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 59.0      0.3493 µg/L       0.09680      0.3493 ppb        0.09680  27.71%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 85
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution;

Autosampler Location: 7
Date Collected: 4/5/2010 18:46:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135848.7	135848.7	97.0	%			18:46:44
1	Al 396.153Radial†	23039.3	23837.7	4995.1	µg/L	4995.1	ppb	18:46:44
1	Ca 317.933Radial†	73202.6	74918.2	5102.6	µg/L	5102.6	ppb	18:46:44
1	Fe 238.204 Radial†	66062.6	68009.3	5078.9	µg/L	5078.9	ppb	18:46:44
1	K 766.490 Radial†	13978.1	12921.0	5115.8	µg/L	5115.8	ppb	18:46:44
1	Mg 279.077 IEC†	10772.3	10936.4	5057.8	µg/L	5057.8	ppb	18:46:44
1	Na 589.592 Radial†	64342.8	65400.5	10133	µg/L	10133	ppb	18:46:44
1	Sr 421.552†	211512.2	218324.9	514.87	µg/L	514.87	ppb	18:46:42
1	Sc 361.383	1768466.2	1768466.2	98.022	%			18:46:57
1	Y 371.029	1027264.6	1027264.6	97.159	%			18:46:57
1	Ag 328.068†	124610.6	122560.0	508.05	µg/L	508.05	ppb	18:46:57
1	As 188.979†	1334.8	1380.3	474.22	µg/L	474.22	ppb	18:47:17
1	B 249.677†	35415.4	32064.9	496.89	µg/L	496.89	ppb	18:46:57
1	Ba 233.527†	110137.8	112504.9	500.48	µg/L	500.48	ppb	18:46:57
1	Be 313.107†	1669411.8	1704191.3	493.81	µg/L	493.81	ppb	18:46:57
1	Cd 226.502†	73524.1	75111.1	507.34	µg/L	507.34	ppb	18:46:57
1	Co 228.616†	37759.3	38731.5	512.65	µg/L	512.65	ppb	18:46:57
1	Cr 267.716†	57672.3	58602.9	506.84	µg/L	506.84	ppb	18:46:57
1	Cu 324.752†	121047.9	120454.5	505.40	µg/L	505.40	ppb	18:46:57
1	Mn 257.610†	374840.9	382220.2	506.82	µg/L	506.82	ppb	18:46:57
1	Mo 202.031†	15217.5	15563.1	509.44	µg/L	509.44	ppb	18:47:17
1	Ni 231.604†	39600.4	40495.4	506.65	µg/L	506.65	ppb	18:46:57
1	P 214.914†	10699.9	10941.5	2522.3	µg/L	2522.3	ppb	18:47:17
1	Pb 220.353†	8239.2	8302.0	512.46	µg/L	512.46	ppb	18:47:17
1	S 181.975 Axial†	1269.2	1205.8	1018.7	µg/L	1018.7	ppb	18:47:17
1	Sb 206.836†	3915.5	3904.8	504.69	µg/L	504.69	ppb	18:47:17
1	Se 196.026†	1273.1	1292.6	511	µg/L	511	ppb	18:47:17
1	SiO2†	51287.8	50583.6	5334.9	µg/L	5334.9	ppb	18:46:57
1	Si 251.611†	157374.7	159783.4	2509.5	µg/L	2509.5	ppb	18:46:57
1	Sn 189.927†	7087.6	7228.8	503.11	µg/L	503.11	ppb	18:47:17
1	Ti 334.940†	481235.3	490123.4	502.75	µg/L	502.75	ppb	18:46:57
1	Tl 190.801†	3542.3	3728.1	516.62	µg/L	516.62	ppb	18:47:17
1	U 409.014†	7420.7	7733.8	518.79	µg/L	518.79	ppb	18:46:57
1	V 292.402†	95680.1	97187.6	510.49	µg/L	510.49	ppb	18:46:57
1	Zn 213.857†	83833.3	85022.0	503.74	µg/L	503.74	ppb	18:46:57
2	Sc RADIAL	136213.8	136213.8	97.2	%			18:46:48
2	Al 396.153Radial†	23258.8	23999.7	5029.2	µg/L	5029.2	ppb	18:46:48
2	Ca 317.933Radial†	73388.0	74906.5	5101.8	µg/L	5101.8	ppb	18:46:48
2	Fe 238.204 Radial†	66522.5	68299.7	5100.6	µg/L	5100.6	ppb	18:46:48
2	K 766.490 Radial†	14083.3	12990.6	5143.3	µg/L	5143.3	ppb	18:46:48
2	Mg 279.077 IEC†	10814.0	10949.5	5063.9	µg/L	5063.9	ppb	18:46:48
2	Na 589.592 Radial†	64586.2	65473.0	10144	µg/L	10144	ppb	18:46:48
2	Sr 421.552†	204142.5	210160.7	495.62	µg/L	495.62	ppb	18:46:46
2	Sc 361.383	1763162.4	1763162.4	97.728	%			18:47:20
2	Y 371.029	1024495.4	1024495.4	96.898	%			18:47:20
2	Ag 328.068†	124497.5	122826.7	509.15	µg/L	509.15	ppb	18:47:20
2	As 188.979†	1331.4	1380.9	474.44	µg/L	474.44	ppb	18:47:40
2	B 249.677†	35461.7	32221.0	499.32	µg/L	499.32	ppb	18:47:20
2	Ba 233.527†	110367.1	113077.5	503.03	µg/L	503.03	ppb	18:47:20
2	Be 313.107†	1667282.4	1707135.4	494.66	µg/L	494.66	ppb	18:47:20
2	Cd 226.502†	73322.7	75130.7	507.47	µg/L	507.47	ppb	18:47:20
2	Co 228.616†	37607.0	38691.6	512.13	µg/L	512.13	ppb	18:47:20
2	Cr 267.716†	57426.8	58528.7	506.20	µg/L	506.20	ppb	18:47:20
2	Cu 324.752†	120992.6	120769.4	506.72	µg/L	506.72	ppb	18:47:20
2	Mn 257.610†	373948.7	382457.6	507.13	µg/L	507.13	ppb	18:47:20
2	Mo 202.031†	15173.7	15565.0	509.50	µg/L	509.50	ppb	18:47:40
2	Ni 231.604†	39712.3	40731.5	509.60	µg/L	509.60	ppb	18:47:20
2	P 214.914†	10659.1	10932.6	2520.2	µg/L	2520.2	ppb	18:47:40
2	Pb 220.353†	8235.9	8323.9	513.82	µg/L	513.82	ppb	18:47:40

2	S 181.975 Axial†	1256.9	1197.2	1011.5 µg/L	1011.5 ppb	18:47:40
2	Sb 206.836†	3926.2	3927.7	507.65 µg/L	507.65 ppb	18:47:40
2	Se 196.026†	1261.7	1284.9	508 µg/L	508 ppb	18:47:40
2	SiO2†	51326.9	50781.1	5355.9 µg/L	5355.9 ppb	18:47:20
2	Si 251.611†	157424.5	160317.3	2517.9 µg/L	2517.9 ppb	18:47:20
2	Sn 189.927†	7062.3	7224.6	502.83 µg/L	502.83 ppb	18:47:40
2	Ti 334.940†	480438.8	490785.2	503.43 µg/L	503.43 ppb	18:47:20
2	Tl 190.801†	3523.4	3719.6	515.49 µg/L	515.49 ppb	18:47:40
2	U 409.014†	7330.3	7664.1	514.47 µg/L	514.47 ppb	18:47:20
2	V 292.402†	95646.3	97446.7	511.82 µg/L	511.82 ppb	18:47:20
2	Zn 213.857†	83872.4	85319.3	505.49 µg/L	505.49 ppb	18:47:20
3	Sc RADIAL	136274.4	136274.4	97.3 %		18:46:52
3	Al 396.153Radial†	23243.4	23973.2	5023.4 µg/L	5023.4 ppb	18:46:52
3	Ca 317.933Radial†	73653.1	75145.5	5118.1 µg/L	5118.1 ppb	18:46:52
3	Fe 238.204 Radial†	66230.4	67969.0	5075.9 µg/L	5075.9 ppb	18:46:52
3	K 766.490 Radial†	14011.7	12910.5	5111.6 µg/L	5111.6 ppb	18:46:52
3	Mg 279.077 IEC†	10884.8	11017.3	5095.3 µg/L	5095.3 ppb	18:46:52
3	Na 589.592 Radial†	64699.0	65559.5	10158 µg/L	10158 ppb	18:46:52
3	Sr 421.552†	206413.2	212401.7	500.90 µg/L	500.90 ppb	18:46:50
3	Sc 361.383	1756112.8	1756112.8	97.337 %		18:47:43
3	Y 371.029	1020814.2	1020814.2	96.549 %		18:47:43
3	Ag 328.068†	124208.5	123041.1	510.00 µg/L	510.00 ppb	18:47:43
3	As 188.979†	1333.2	1388.3	476.93 µg/L	476.93 ppb	18:48:03
3	B 249.677†	35395.9	32299.0	500.54 µg/L	500.54 ppb	18:47:43
3	Ba 233.527†	109680.9	112825.9	501.91 µg/L	501.91 ppb	18:47:43
3	Be 313.107†	1655330.0	1701704.7	493.08 µg/L	493.08 ppb	18:47:43
3	Cd 226.502†	73111.6	75215.0	508.04 µg/L	508.04 ppb	18:47:43
3	Co 228.616†	37325.4	38556.8	510.34 µg/L	510.34 ppb	18:47:43
3	Cr 267.716†	57252.3	58585.3	506.71 µg/L	506.71 ppb	18:47:43
3	Cu 324.752†	120315.4	120570.6	505.87 µg/L	505.87 ppb	18:47:43
3	Mn 257.610†	372118.3	382113.2	506.68 µg/L	506.68 ppb	18:47:43
3	Mo 202.031†	15250.9	15706.7	514.13 µg/L	514.13 ppb	18:48:03
3	Ni 231.604†	39498.8	40675.3	508.90 µg/L	508.90 ppb	18:47:43
3	P 214.914†	10779.1	11099.6	2558.9 µg/L	2558.9 ppb	18:48:03
3	Pb 220.353†	8283.1	8406.2	518.91 µg/L	518.91 ppb	18:48:03
3	S 181.975 Axial†	1274.5	1220.5	1031.1 µg/L	1031.1 ppb	18:48:03
3	Sb 206.836†	3959.8	3978.4	514.25 µg/L	514.25 ppb	18:48:03
3	Se 196.026†	1280.5	1309.3	518 µg/L	518 ppb	18:48:03
3	SiO2†	51167.7	50828.3	5360.7 µg/L	5360.7 ppb	18:47:43
3	Si 251.611†	156869.7	160394.0	2519.0 µg/L	2519.0 ppb	18:47:43
3	Sn 189.927†	7109.8	7302.4	508.22 µg/L	508.22 ppb	18:48:03
3	Ti 334.940†	478243.0	490502.7	503.14 µg/L	503.14 ppb	18:47:43
3	Tl 190.801†	3555.1	3766.7	521.92 µg/L	521.92 ppb	18:48:03
3	U 409.014†	6988.0	7342.5	494.16 µg/L	494.16 ppb	18:47:43
3	V 292.402†	95207.3	97388.5	511.56 µg/L	511.56 ppb	18:47:43
3	Zn 213.857†	83270.4	85045.3	503.86 µg/L	503.86 ppb	18:47:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1762580.5	97.696	%	0.3435				0.35%
Sc RADIAL	136112.3	97.2	%	0.16				0.17%
Y 371.029	1024191.4	96.869	%	0.3061				0.32%
Ag 328.068†	122809.3	509.06	µg/L	0.978	509.06	ppb	0.978	0.19%
QC value within limits for Ag 328.068 Recovery = 101.81%								
Al 396.153Radial†	23936.9	5015.9	µg/L	18.25	5015.9	ppb	18.25	0.36%
QC value within limits for Al 396.153Radial Recovery = 100.32%								
As 188.979†	1383.2	475.20	µg/L	1.508	475.20	ppb	1.508	0.32%
QC value within limits for As 188.979 Recovery = 95.04%								
B 249.677†	32195.0	498.91	µg/L	1.858	498.91	ppb	1.858	0.37%
QC value within limits for B 249.677 Recovery = 99.78%								
Ba 233.527†	112802.7	501.81	µg/L	1.276	501.81	ppb	1.276	0.25%
QC value within limits for Ba 233.527 Recovery = 100.36%								
Be 313.107†	1704343.8	493.85	µg/L	0.790	493.85	ppb	0.790	0.16%
QC value within limits for Be 313.107 Recovery = 98.77%								
Ca 317.933Radial†	74990.1	5107.5	µg/L	9.18	5107.5	ppb	9.18	0.18%
QC value within limits for Ca 317.933Radial Recovery = 102.15%								
Cd 226.502†	75152.2	507.62	µg/L	0.374	507.62	ppb	0.374	0.07%
QC value within limits for Cd 226.502 Recovery = 101.52%								
Co 228.616†	38660.0	511.71	µg/L	1.210	511.71	ppb	1.210	0.24%

```
   QC value within limits for Co 228.616  Recovery = 102.34%
Cr 267.716†            58572.3      506.58 µg/L         0.336      506.58 ppb          0.336   0.07%
   QC value within limits for Cr 267.716  Recovery = 101.32%
Cu 324.752†           120598.2      506.00 µg/L         0.668      506.00 ppb          0.668   0.13%
   QC value within limits for Cu 324.752  Recovery = 101.20%
Fe 238.204 Radial†     68092.6      5085.1 µg/L         13.48      5085.1 ppb          13.48   0.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.70%
K 766.490 Radial†      12940.7      5123.6 µg/L         17.24      5123.6 ppb          17.24   0.34%
   QC value within limits for K 766.490 Radial  Recovery = 102.47%
Mg 279.077 IEC†        10967.8      5072.4 µg/L         20.13      5072.4 ppb          20.13   0.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.45%
Mn 257.610†           382263.7      506.88 µg/L         0.234      506.88 ppb          0.234   0.05%
   QC value within limits for Mn 257.610  Recovery = 101.38%
Mo 202.031†            15611.6      511.02 µg/L         2.694      511.02 ppb          2.694   0.53%
   QC value within limits for Mo 202.031  Recovery = 102.20%
Na 589.592 Radial†     65477.7       10145 µg/L          12.3       10145 ppb           12.3   0.12%
   QC value within limits for Na 589.592 Radial  Recovery = 101.45%
Ni 231.604†            40634.1      508.38 µg/L         1.543      508.38 ppb          1.543   0.30%
   QC value within limits for Ni 231.604  Recovery = 101.68%
P 214.914†             10991.3      2533.8 µg/L         21.74      2533.8 ppb          21.74   0.86%
   QC value within limits for P 214.914  Recovery = 101.35%
Pb 220.353†             8344.0      515.06 µg/L         3.398      515.06 ppb          3.398   0.66%
   QC value within limits for Pb 220.353  Recovery = 103.01%
S 181.975 Axial†        1207.9      1020.4 µg/L          9.91      1020.4 ppb           9.91   0.97%
   QC value within limits for S 181.975 Axial  Recovery = 102.04%
Sb 206.836†             3937.0      508.86 µg/L         4.894      508.86 ppb          4.894   0.96%
   QC value within limits for Sb 206.836  Recovery = 101.77%
Se 196.026†             1295.6         513 µg/L           4.9         513 ppb            4.9   0.96%
   QC value within limits for Se 196.026  Recovery = 102.53%
SiO2†                  50731.0      5350.5 µg/L         13.67      5350.5 ppb          13.67   0.26%
   QC value within limits for SiO2  Recovery = 100.06%
Si 251.611†           160164.9      2515.5 µg/L          5.21      2515.5 ppb           5.21   0.21%
   QC value within limits for Si 251.611  Recovery = 100.62%
Sn 189.927†             7251.9      504.72 µg/L         3.035      504.72 ppb          3.035   0.60%
   QC value within limits for Sn 189.927  Recovery = 100.94%
Sr 421.552†           213629.1      503.80 µg/L         9.949      503.80 ppb          9.949   1.97%
   QC value within limits for Sr 421.552  Recovery = 100.76%
Ti 334.940†           490470.4      503.11 µg/L         0.342      503.11 ppb          0.342   0.07%
   QC value within limits for Ti 334.940  Recovery = 100.62%
Tl 190.801†             3738.1      518.01 µg/L         3.432      518.01 ppb          3.432   0.66%
   QC value within limits for Tl 190.801  Recovery = 103.60%
U 409.014†              7580.1      509.14 µg/L        13.152      509.14 ppb         13.152   2.58%
   QC value within limits for U 409.014  Recovery = 101.83%
V 292.402†             97340.9      511.29 µg/L         0.707      511.29 ppb          0.707   0.14%
   QC value within limits for V 292.402  Recovery = 102.26%
Zn 213.857†            85128.9      504.36 µg/L         0.978      504.36 ppb          0.978   0.19%
   QC value within limits for Zn 213.857  Recovery = 100.87%
All analyte(s) passed QC.
```

Sequence No.: 86
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 18:48:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137189.7	137189.7	97.9	%			18:48:41
1	Al 396.153Radial†	-58.5	18.8	3.9395	µg/L	3.9395	ppb	18:49:01
1	Ca 317.933Radial†	723.7	167.5	11.411	µg/L	11.411	ppb	18:49:01
1	Fe 238.204 Radial†	175.9	62.3	4.6541	µg/L	4.6541	ppb	18:49:01
1	K 766.490 Radial†	1750.9	294.1	116.53	µg/L	116.53	ppb	18:48:41
1	Mg 279.077 IEC†	158.4	-10.7	-4.9237	µg/L	-4.9237	ppb	18:49:01
1	Na 589.592 Radial†	1155.1	227.0	35.082	µg/L	35.082	ppb	18:48:41
1	Sr 421.552†	-77.4	125.4	0.2957	µg/L	0.2957	ppb	18:48:41
1	Sc 361.383	1797340.4	1797340.4	99.622	%			18:50:03
1	Y 371.029	1055087.8	1055087.8	99.791	%			18:50:03
1	Ag 328.068†	4039.3	-510.6	-2.0795	µg/L	-2.0795	ppb	18:50:05
1	As 188.979†	-13.7	4.8	1.6385	µg/L	1.6385	ppb	18:50:25
1	B 249.677†	4112.5	62.9	0.9779	µg/L	0.9779	ppb	18:50:05
1	Ba 233.527†	-136.1	8.0	0.0355	µg/L	0.0355	ppb	18:50:25
1	Be 313.107†	-528.4	561.4	0.1657	µg/L	0.1657	ppb	18:50:05
1	Cd 226.502†	-71.0	32.1	0.2167	µg/L	0.2167	ppb	18:50:25
1	Co 228.616†	-202.0	7.6	0.0999	µg/L	0.0999	ppb	18:50:25
1	Cr 267.716†	290.9	58.8	0.5004	µg/L	0.5004	ppb	18:50:25
1	Cu 324.752†	2772.2	-253.4	-1.0506	µg/L	-1.0506	ppb	18:50:05
1	Mn 257.610†	302.8	119.3	0.1584	µg/L	0.1584	ppb	18:50:25
1	Mo 202.031†	-20.3	18.2	0.5945	µg/L	0.5945	ppb	18:50:25
1	Ni 231.604†	-69.0	26.7	0.3338	µg/L	0.3338	ppb	18:50:25
1	P 214.914†	16.7	42.5	9.8287	µg/L	9.8287	ppb	18:50:25
1	Pb 220.353†	124.0	21.0	1.2857	µg/L	1.2857	ppb	18:50:25
1	S 181.975 Axial†	89.2	0.6	0.5332	µg/L	0.5332	ppb	18:50:25
1	Sb 206.836†	86.5	-2.9	-0.3713	µg/L	-0.3713	ppb	18:50:25
1	Se 196.026†	21.2	15.1	5.95	µg/L	5.95	ppb	18:50:25
1	SiO2†	1824.1	91.9	9.7145	µg/L	9.7145	ppb	18:50:25
1	Si 251.611†	1018.3	255.1	4.0124	µg/L	4.0124	ppb	18:50:05
1	Sn 189.927†	7.1	5.3	0.3657	µg/L	0.3657	ppb	18:50:25
1	Ti 334.940†	851.0	31.2	0.0283	µg/L	0.0283	ppb	18:50:05
1	Tl 190.801†	-123.3	-9.5	-1.2931	µg/L	-1.2931	ppb	18:50:25
1	U 409.014†	0.3	163.6	10.315	µg/L	10.315	ppb	18:50:05
1	V 292.402†	389.0	-32.7	-0.1549	µg/L	-0.1549	ppb	18:50:05
1	Zn 213.857†	595.8	95.1	0.5658	µg/L	0.5658	ppb	18:50:25
2	Sc RADIAL	136417.2	136417.2	97.4	%			18:49:03
2	Al 396.153Radial†	-74.8	1.8	0.3478	µg/L	0.3478	ppb	18:49:23
2	Ca 317.933Radial†	717.3	165.1	11.247	µg/L	11.247	ppb	18:49:23
2	Fe 238.204 Radial†	159.1	46.1	3.4409	µg/L	3.4409	ppb	18:49:23
2	K 766.490 Radial†	1643.3	193.8	76.762	µg/L	76.762	ppb	18:49:03
2	Mg 279.077 IEC†	168.9	1.0	0.4590	µg/L	0.4590	ppb	18:49:23
2	Na 589.592 Radial†	1235.6	316.4	48.976	µg/L	48.976	ppb	18:49:03
2	Sr 421.552†	-274.1	-77.0	-0.1817	µg/L	-0.1817	ppb	18:49:03
2	Sc 361.383	1780086.9	1780086.9	98.666	%			18:50:27
2	Y 371.029	1045705.9	1045705.9	98.904	%			18:50:27
2	Ag 328.068†	4162.3	-346.6	-1.4285	µg/L	-1.4285	ppb	18:50:29
2	As 188.979†	-15.5	2.9	0.9768	µg/L	0.9768	ppb	18:50:50
2	B 249.677†	4023.3	12.6	0.1960	µg/L	0.1960	ppb	18:50:29
2	Ba 233.527†	-162.9	-20.5	-0.0909	µg/L	-0.0909	ppb	18:50:50
2	Be 313.107†	-639.0	444.1	0.1252	µg/L	0.1252	ppb	18:50:29
2	Cd 226.502†	-48.4	54.3	0.3672	µg/L	0.3672	ppb	18:50:50
2	Co 228.616†	-217.9	-10.6	-0.1403	µg/L	-0.1403	ppb	18:50:50
2	Cr 267.716†	295.2	66.0	0.5801	µg/L	0.5801	ppb	18:50:50
2	Cu 324.752†	2954.5	-41.6	-0.1830	µg/L	-0.1830	ppb	18:50:29
2	Mn 257.610†	281.5	100.6	0.1334	µg/L	0.1334	ppb	18:50:50
2	Mo 202.031†	-22.4	15.9	0.5188	µg/L	0.5188	ppb	18:50:50
2	Ni 231.604†	-38.6	56.7	0.7099	µg/L	0.7099	ppb	18:50:50
2	P 214.914†	12.0	37.8	8.7509	µg/L	8.7509	ppb	18:50:50
2	Pb 220.353†	132.5	30.8	1.9064	µg/L	1.9064	ppb	18:50:50

2	S 181.975 Axial†	95.1	7.5	6.2758 µg/L	6.2758 ppb		18:50:50
2	Sb 206.836†	75.4	-13.3	-1.7114 µg/L	-1.7114 ppb		18:50:50
2	Se 196.026†	31.1	25.3	9.97 µg/L	9.97 ppb		18:50:50
2	SiO2†	1872.0	158.2	16.734 µg/L	16.734 ppb		18:50:50
2	Si 251.611†	994.5	240.9	3.7881 µg/L	3.7881 ppb		18:50:29
2	Sn 189.927†	9.6	7.8	0.5420 µg/L	0.5420 ppb		18:50:50
2	Ti 334.940†	651.2	-163.0	-0.1627 µg/L	-0.1627 ppb		18:50:29
2	Tl 190.801†	-121.6	-9.0	-1.2278 µg/L	-1.2278 ppb		18:50:50
2	U 409.014†	-338.0	-179.2	-11.285 µg/L	-11.285 ppb		18:50:29
2	V 292.402†	487.8	71.2	0.3691 µg/L	0.3691 ppb		18:50:29
2	Zn 213.857†	599.0	104.1	0.6166 µg/L	0.6166 ppb		18:50:50
3	Sc RADIAL	136070.5	136070.5	97.1 %			18:49:25
3	Al 396.153Radial†	-68.1	8.4	1.7567 µg/L	1.7567 ppb		18:49:45
3	Ca 317.933Radial†	708.7	158.2	10.776 µg/L	10.776 ppb		18:49:45
3	Fe 238.204 Radial†	160.3	47.7	3.5606 µg/L	3.5606 ppb		18:49:45
3	K 766.490 Radial†	1676.0	231.7	91.807 µg/L	91.807 ppb		18:49:25
3	Mg 279.077 IEC†	181.2	14.1	6.5031 µg/L	6.5031 ppb		18:49:45
3	Na 589.592 Radial†	1171.0	253.1	39.151 µg/L	39.151 ppb		18:49:25
3	Sr 421.552†	-216.8	-18.7	-0.0442 µg/L	-0.0442 ppb		18:49:25
3	Sc 361.383	1802317.2	1802317.2	99.898 %			18:50:52
3	Y 371.029	1057897.9	1057897.9	100.06 %			18:50:52
3	Ag 328.068†	4220.3	-340.5	-1.4317 µg/L	-1.4317 ppb		18:50:54
3	As 188.979†	-15.2	3.4	1.1469 µg/L	1.1469 ppb		18:51:14
3	B 249.677†	4147.1	86.2	1.3394 µg/L	1.3394 ppb		18:50:54
3	Ba 233.527†	-148.3	-3.9	-0.0177 µg/L	-0.0177 ppb		18:51:14
3	Be 313.107†	-694.5	396.5	0.1078 µg/L	0.1078 ppb		18:50:54
3	Cd 226.502†	-73.0	30.3	0.2046 µg/L	0.2046 ppb		18:51:14
3	Co 228.616†	-181.7	28.4	0.3754 µg/L	0.3754 ppb		18:51:14
3	Cr 267.716†	250.8	17.9	0.1728 µg/L	0.1728 ppb		18:51:14
3	Cu 324.752†	2858.4	-174.8	-0.7496 µg/L	-0.7496 ppb		18:50:54
3	Mn 257.610†	265.2	80.7	0.1068 µg/L	0.1068 ppb		18:51:14
3	Mo 202.031†	-30.5	8.1	0.2644 µg/L	0.2644 ppb		18:51:14
3	Ni 231.604†	-44.5	51.4	0.6428 µg/L	0.6428 ppb		18:51:14
3	P 214.914†	22.1	47.8	11.075 µg/L	11.075 ppb		18:51:14
3	Pb 220.353†	117.2	13.8	0.8696 µg/L	0.8696 ppb		18:51:14
3	S 181.975 Axial†	93.9	5.1	4.3139 µg/L	4.3139 ppb		18:51:14
3	Sb 206.836†	73.9	-15.7	-2.0300 µg/L	-2.0300 ppb		18:51:14
3	Se 196.026†	15.0	8.9	3.48 µg/L	3.48 ppb		18:51:14
3	SiO2†	1870.2	133.0	14.074 µg/L	14.074 ppb		18:51:14
3	Si 251.611†	1269.3	503.5	7.9341 µg/L	7.9341 ppb		18:50:54
3	Sn 189.927†	7.1	5.2	0.3633 µg/L	0.3633 ppb		18:51:14
3	Ti 334.940†	827.9	5.8	0.0152 µg/L	0.0152 ppb		18:50:54
3	Tl 190.801†	-119.8	-5.7	-0.7791 µg/L	-0.7791 ppb		18:51:14
3	U 409.014†	-533.4	-370.6	-23.429 µg/L	-23.429 ppb		18:50:54
3	V 292.402†	280.6	-142.3	-0.7504 µg/L	-0.7504 ppb		18:50:54
3	Zn 213.857†	582.5	80.1	0.4745 µg/L	0.4745 ppb		18:51:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1793248.1	99.396	%	0.6466				0.65%
Sc RADIAL	136559.1	97.5	%	0.41				0.42%
Y 371.029	1052897.2	99.584	%	0.6038				0.61%
Ag 328.068†	-399.2	-1.6466	µg/L	0.37495	-1.6466	ppb	0.37495	22.77%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.7	2.0146	µg/L	1.80972	2.0146	ppb	1.80972	89.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.7	1.2541	µg/L	0.34364	1.2541	ppb	0.34364	27.40%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	53.9	0.8378	µg/L	0.58446	0.8378	ppb	0.58446	69.76%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.5	-0.0244	µg/L	0.06345	-0.0244	ppb	0.06345	260.29%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	467.3	0.1329	µg/L	0.02973	0.1329	ppb	0.02973	22.37%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	163.6	11.145	µg/L	0.3295	11.145	ppb	0.3295	2.96%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	38.9	0.2628	µg/L	0.09058	0.2628	ppb	0.09058	34.46%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.5	0.1117	µg/L	0.25805	0.1117	ppb	0.25805	231.07%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              47.5      0.4177 µg/L       0.21587      0.4177 ppb        0.21587  51.67%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -156.6     -0.6611 µg/L       0.44052     -0.6611 ppb        0.44052  66.64%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       52.0      3.8852 µg/L       0.66858      3.8852 ppb        0.66858  17.21%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       239.9     95.034 µg/L       20.0804     95.034 ppb        20.0804  21.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.5      0.6794 µg/L       5.71658      0.6794 ppb        5.71658 841.36%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             100.2      0.1329 µg/L       0.02581      0.1329 ppb        0.02581  19.42%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              14.0      0.4592 µg/L       0.17291      0.4592 ppb        0.17291  37.65%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       265.5     41.069 µg/L        7.1429     41.069 ppb         7.1429  17.39%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              44.9      0.5622 µg/L       0.20061      0.5622 ppb        0.20061  35.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               42.7      9.8849 µg/L       1.16318      9.8849 ppb        1.16318  11.77%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              21.9      1.3539 µg/L       0.52177      1.3539 ppb        0.52177  38.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.4      3.7076 µg/L       2.91890      3.7076 ppb        2.91890  78.73%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -10.6     -1.3709 µg/L       0.88022     -1.3709 ppb        0.88022  64.21%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              16.4        6.46 µg/L         3.276        6.46 ppb          3.276  50.67%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   127.7     13.508 µg/L        3.5439     13.508 ppb         3.5439  26.24%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             333.2      5.2448 µg/L       2.33165      5.2448 ppb        2.33165  44.46%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.1      0.4237 µg/L       0.10252      0.4237 ppb        0.10252  24.20%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               9.9      0.0232 µg/L       0.24573      0.0232 ppb        0.24573 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -42.0     -0.0397 µg/L       0.10668     -0.0397 ppb        0.10668 268.57%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -8.0     -1.1000 µg/L       0.27983     -1.1000 ppb        0.27983  25.44%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -128.7     -8.1333 µg/L      17.09155     -8.1333 ppb       17.09155 210.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -34.6     -0.1787 µg/L       0.56012     -0.1787 ppb        0.56012 313.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              93.1      0.5523 µg/L       0.07204      0.5523 ppb        0.07204  13.04%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 92
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 19:02:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135345.8	135345.8	96.6	%			19:02:59
1	Al 396.153Radial†	23089.9	23978.3	5024.6	µg/L	5024.6	ppb	19:02:59
1	Ca 317.933Radial†	72828.8	74811.8	5095.4	µg/L	5095.4	ppb	19:02:59
1	Fe 238.204 Radial†	65814.3	68005.4	5078.6	µg/L	5078.6	ppb	19:02:59
1	K 766.490 Radial†	13964.3	12960.3	5131.3	µg/L	5131.3	ppb	19:02:59
1	Mg 279.077 IEC†	10773.2	10978.6	5077.4	µg/L	5077.4	ppb	19:02:59
1	Na 589.592 Radial†	64263.8	65565.3	10159	µg/L	10159	ppb	19:02:59
1	Sr 421.552†	210059.6	217631.8	513.24	µg/L	513.24	ppb	19:02:57
1	Sc 361.383	1771235.4	1771235.4	98.175	%			19:03:26
1	Y 371.029	1028869.9	1028869.9	97.311	%			19:03:26
1	Ag 328.068†	124756.2	122509.6	507.83	µg/L	507.83	ppb	19:03:26
1	As 188.979†	1332.7	1376.0	472.77	µg/L	472.77	ppb	19:03:46
1	B 249.677†	35469.5	32063.5	496.87	µg/L	496.87	ppb	19:03:26
1	Ba 233.527†	110565.8	112765.1	501.64	µg/L	501.64	ppb	19:03:26
1	Be 313.107†	1670083.7	1702213.0	493.23	µg/L	493.23	ppb	19:03:26
1	Cd 226.502†	73580.7	75051.5	506.94	µg/L	506.94	ppb	19:03:26
1	Co 228.616†	37652.0	38562.0	510.41	µg/L	510.41	ppb	19:03:26
1	Cr 267.716†	57722.5	58562.0	506.49	µg/L	506.49	ppb	19:03:26
1	Cu 324.752†	121142.7	120358.0	504.99	µg/L	504.99	ppb	19:03:26
1	Mn 257.610†	374994.6	381778.9	506.23	µg/L	506.23	ppb	19:03:26
1	Mo 202.031†	15249.3	15571.3	509.71	µg/L	509.71	ppb	19:03:46
1	Ni 231.604†	39658.1	40491.0	506.59	µg/L	506.59	ppb	19:03:26
1	P 214.914†	10707.4	10932.1	2520.1	µg/L	2520.1	ppb	19:03:46
1	Pb 220.353†	8274.0	8324.3	513.85	µg/L	513.85	ppb	19:03:46
1	S 181.975 Axial†	1280.1	1215.0	1026.4	µg/L	1026.4	ppb	19:03:46
1	Sb 206.836†	3940.3	3923.8	507.15	µg/L	507.15	ppb	19:03:46
1	Se 196.026†	1259.0	1276.2	505	µg/L	505	ppb	19:03:46
1	SiO2†	51503.4	50721.4	5349.5	µg/L	5349.5	ppb	19:03:26
1	Si 251.611†	157527.4	159687.9	2508.0	µg/L	2508.0	ppb	19:03:26
1	Sn 189.927†	7083.4	7213.2	502.03	µg/L	502.03	ppb	19:03:46
1	Ti 334.940†	481705.4	489834.6	502.45	µg/L	502.45	ppb	19:03:26
1	Tl 190.801†	3511.4	3691.0	511.57	µg/L	511.57	ppb	19:03:46
1	U 409.014†	7325.5	7625.0	511.93	µg/L	511.93	ppb	19:03:26
1	V 292.402†	95840.7	97198.7	510.54	µg/L	510.54	ppb	19:03:26
1	Zn 213.857†	84119.9	85180.3	504.68	µg/L	504.68	ppb	19:03:26
2	Sc RADIAL	137692.9	137692.9	98.3	%			19:03:03
2	Al 396.153Radial†	23514.1	24002.5	5029.8	µg/L	5029.8	ppb	19:03:03
2	Ca 317.933Radial†	74394.8	75120.1	5116.4	µg/L	5116.4	ppb	19:03:03
2	Fe 238.204 Radial†	66990.4	68040.8	5081.2	µg/L	5081.2	ppb	19:03:03
2	K 766.490 Radial†	14343.0	13099.2	5186.3	µg/L	5186.3	ppb	19:03:03
2	Mg 279.077 IEC†	11040.0	11060.0	5114.9	µg/L	5114.9	ppb	19:03:03
2	Na 589.592 Radial†	65689.4	65882.0	10208	µg/L	10208	ppb	19:03:03
2	Sr 421.552†	209519.7	213376.3	503.20	µg/L	503.20	ppb	19:03:01
2	Sc 361.383	1762967.5	1762967.5	97.717	%			19:03:49
2	Y 371.029	1023549.1	1023549.1	96.808	%			19:03:49
2	Ag 328.068†	125126.3	123484.3	511.84	µg/L	511.84	ppb	19:03:49
2	As 188.979†	1321.5	1370.9	471.07	µg/L	471.07	ppb	19:04:09
2	B 249.677†	35656.7	32424.5	502.48	µg/L	502.48	ppb	19:03:49
2	Ba 233.527†	110226.7	112946.3	502.45	µg/L	502.45	ppb	19:03:49
2	Be 313.107†	1670140.6	1710249.1	495.56	µg/L	495.56	ppb	19:03:49
2	Cd 226.502†	73471.2	75290.9	508.56	µg/L	508.56	ppb	19:03:49
2	Co 228.616†	37658.9	38749.0	512.89	µg/L	512.89	ppb	19:03:49
2	Cr 267.716†	57719.6	58834.8	508.86	µg/L	508.86	ppb	19:03:49
2	Cu 324.752†	121061.1	120853.1	507.06	µg/L	507.06	ppb	19:03:49
2	Mn 257.610†	374442.4	383005.2	507.86	µg/L	507.86	ppb	19:03:49
2	Mo 202.031†	15162.1	15554.9	509.17	µg/L	509.17	ppb	19:04:09
2	Ni 231.604†	39720.1	40744.0	509.76	µg/L	509.76	ppb	19:03:49
2	P 214.914†	10662.2	10937.0	2521.3	µg/L	2521.3	ppb	19:04:09
2	Pb 220.353†	8201.2	8289.4	511.71	µg/L	511.71	ppb	19:04:09

2	S 181.975 Axial†	1268.2	1208.9	1021.3 µg/L	1021.3 ppb	19:04:09
2	Sb 206.836†	3920.5	3922.4	506.92 µg/L	506.92 ppb	19:04:09
2	Se 196.026†	1262.5	1285.9	509 µg/L	509 ppb	19:04:09
2	SiO2†	51396.1	50857.7	5364.0 µg/L	5364.0 ppb	19:03:49
2	Si 251.611†	157570.1	160484.1	2520.6 µg/L	2520.6 ppb	19:03:49
2	Sn 189.927†	7043.5	7206.2	501.55 µg/L	501.55 ppb	19:04:09
2	Ti 334.940†	480702.6	491109.4	503.76 µg/L	503.76 ppb	19:03:49
2	Tl 190.801†	3495.8	3691.7	511.69 µg/L	511.69 ppb	19:04:09
2	U 409.014†	7074.0	7402.7	498.06 µg/L	498.06 ppb	19:03:49
2	V 292.402†	95880.1	97696.8	513.12 µg/L	513.12 ppb	19:03:49
2	Zn 213.857†	83969.9	85428.6	506.14 µg/L	506.14 ppb	19:03:49
3	Sc RADIAL	135773.5	135773.5	96.9 %		19:03:08
3	Al 396.153Radial†	23143.1	23957.9	5020.3 µg/L	5020.3 ppb	19:03:08
3	Ca 317.933Radial†	73300.6	75061.1	5112.3 µg/L	5112.3 ppb	19:03:08
3	Fe 238.204 Radial†	65974.6	67956.2	5074.9 µg/L	5074.9 ppb	19:03:08
3	K 766.490 Radial†	14024.3	12976.7	5137.8 µg/L	5137.8 ppb	19:03:08
3	Mg 279.077 IEC†	10810.3	10981.8	5078.8 µg/L	5078.8 ppb	19:03:08
3	Na 589.592 Radial†	64777.7	65885.9	10208 µg/L	10208 ppb	19:03:08
3	Sr 421.552†	214060.8	221075.3	521.36 µg/L	521.36 ppb	19:03:06
3	Sc 361.383	1755029.9	1755029.9	97.277 %		19:04:13
3	Y 371.029	1019203.8	1019203.8	96.397 %		19:04:13
3	Ag 328.068†	124449.8	123367.9	511.37 µg/L	511.37 ppb	19:04:13
3	As 188.979†	1332.2	1388.0	476.85 µg/L	476.85 ppb	19:04:33
3	B 249.677†	35486.4	32414.6	502.32 µg/L	502.32 ppb	19:04:13
3	Ba 233.527†	109908.6	113129.5	503.26 µg/L	503.26 ppb	19:04:13
3	Be 313.107†	1662735.4	1710366.8	495.59 µg/L	495.59 ppb	19:04:13
3	Cd 226.502†	73335.6	75491.6	509.92 µg/L	509.92 ppb	19:04:13
3	Co 228.616†	37659.2	38923.5	515.20 µg/L	515.20 ppb	19:04:13
3	Cr 267.716†	57372.2	58744.8	508.08 µg/L	508.08 ppb	19:04:13
3	Cu 324.752†	120846.8	121193.2	508.48 µg/L	508.48 ppb	19:04:13
3	Mn 257.610†	373612.3	383884.9	509.03 µg/L	509.03 ppb	19:04:13
3	Mo 202.031†	15166.0	15629.0	511.59 µg/L	511.59 ppb	19:04:33
3	Ni 231.604†	39679.7	40886.2	511.54 µg/L	511.54 ppb	19:04:13
3	P 214.914†	10656.9	10980.8	2531.4 µg/L	2531.4 ppb	19:04:33
3	Pb 220.353†	8224.0	8350.8	515.48 µg/L	515.48 ppb	19:04:33
3	S 181.975 Axial†	1262.5	1209.0	1021.4 µg/L	1021.4 ppb	19:04:33
3	Sb 206.836†	3897.8	3917.2	506.29 µg/L	506.29 ppb	19:04:33
3	Se 196.026†	1275.7	1305.2	516 µg/L	516 ppb	19:04:33
3	SiO2†	51287.4	50983.8	5377.2 µg/L	5377.2 ppb	19:04:13
3	Si 251.611†	157039.6	160668.1	2523.4 µg/L	2523.4 ppb	19:04:13
3	Sn 189.927†	7047.3	7242.7	504.08 µg/L	504.08 ppb	19:04:33
3	Ti 334.940†	479203.0	491792.8	504.46 µg/L	504.46 ppb	19:04:13
3	Tl 190.801†	3488.8	3700.8	512.92 µg/L	512.92 ppb	19:04:33
3	U 409.014†	7177.5	7541.7	506.84 µg/L	506.84 ppb	19:04:13
3	V 292.402†	95445.9	97694.2	513.13 µg/L	513.13 ppb	19:04:13
3	Zn 213.857†	83688.7	85528.2	506.73 µg/L	506.73 ppb	19:04:13

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1763077.6	97.723	%	0.4491				0.46%
Sc RADIAL	136270.7	97.3	%	0.89				0.92%
Y 371.029	1023874.3	96.839	%	0.4579				0.47%
Ag 328.068†	123120.6	510.35	µg/L	2.189	510.35	ppb	2.189	0.43%
QC value within limits for Ag 328.068 Recovery = 102.07%								
Al 396.153Radial†	23979.6	5024.9	µg/L	4.75	5024.9	ppb	4.75	0.09%
QC value within limits for Al 396.153Radial Recovery = 100.50%								
As 188.979†	1378.3	473.56	µg/L	2.968	473.56	ppb	2.968	0.63%
QC value within limits for As 188.979 Recovery = 94.71%								
B 249.677†	32300.9	500.56	µg/L	3.190	500.56	ppb	3.190	0.64%
QC value within limits for B 249.677 Recovery = 100.11%								
Ba 233.527†	112947.0	502.45	µg/L	0.811	502.45	ppb	0.811	0.16%
QC value within limits for Ba 233.527 Recovery = 100.49%								
Be 313.107†	1707609.6	494.80	µg/L	1.352	494.80	ppb	1.352	0.27%
QC value within limits for Be 313.107 Recovery = 98.96%								
Ca 317.933Radial†	74997.7	5108.0	µg/L	11.15	5108.0	ppb	11.15	0.22%
QC value within limits for Ca 317.933Radial Recovery = 102.16%								
Cd 226.502†	75278.0	508.47	µg/L	1.491	508.47	ppb	1.491	0.29%
QC value within limits for Cd 226.502 Recovery = 101.69%								
Co 228.616†	38744.8	512.83	µg/L	2.393	512.83	ppb	2.393	0.47%

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   QC value within limits for Co 228.616  Recovery = 102.57%
Cr 267.716†            58713.9      507.81 µg/L         1.208      507.81 ppb          1.208   0.24%
   QC value within limits for Cr 267.716  Recovery = 101.56%
Cu 324.752†           120801.4      506.84 µg/L         1.755      506.84 ppb          1.755   0.35%
   QC value within limits for Cu 324.752  Recovery = 101.37%
Fe 238.204 Radial†     68000.8      5078.3 µg/L          3.17      5078.3 ppb           3.17   0.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.57%
K 766.490 Radial†      13012.1      5151.8 µg/L         30.06      5151.8 ppb          30.06   0.58%
   QC value within limits for K 766.490 Radial  Recovery = 103.04%
Mg 279.077 IEC†        11006.8      5090.4 µg/L         21.26      5090.4 ppb          21.26   0.42%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.81%
Mn 257.610†           382889.7      507.71 µg/L         1.403      507.71 ppb          1.403   0.28%
   QC value within limits for Mn 257.610  Recovery = 101.54%
Mo 202.031†            15585.1      510.16 µg/L         1.273      510.16 ppb          1.273   0.25%
   QC value within limits for Mo 202.031  Recovery = 102.03%
Na 589.592 Radial†     65777.7       10191 µg/L          28.5       10191 ppb           28.5   0.28%
   QC value within limits for Na 589.592 Radial  Recovery = 101.91%
Ni 231.604†            40707.1      509.30 µg/L         2.504      509.30 ppb          2.504   0.49%
   QC value within limits for Ni 231.604  Recovery = 101.86%
P 214.914†             10950.0      2524.3 µg/L          6.19      2524.3 ppb           6.19   0.25%
   QC value within limits for P 214.914  Recovery = 100.97%
Pb 220.353†             8321.5      513.68 µg/L         1.894      513.68 ppb          1.894   0.37%
   QC value within limits for Pb 220.353  Recovery = 102.74%
S 181.975 Axial†        1210.9      1023.0 µg/L          2.92      1023.0 ppb           2.92   0.29%
   QC value within limits for S 181.975 Axial  Recovery = 102.30%
Sb 206.836†             3921.1      506.79 µg/L         0.440      506.79 ppb          0.440   0.09%
   QC value within limits for Sb 206.836  Recovery = 101.36%
Se 196.026†             1289.1         510 µg/L           5.8         510 ppb            5.8   1.14%
   QC value within limits for Se 196.026  Recovery = 102.02%
SiO2†                  50854.3      5363.6 µg/L         13.86      5363.6 ppb          13.86   0.26%
   QC value within limits for SiO2  Recovery = 100.30%
Si 251.611†           160280.0      2517.3 µg/L          8.20      2517.3 ppb           8.20   0.33%
   QC value within limits for Si 251.611  Recovery = 100.69%
Sn 189.927†             7220.7      502.55 µg/L         1.347      502.55 ppb          1.347   0.27%
   QC value within limits for Sn 189.927  Recovery = 100.51%
Sr 421.552†           217361.1      512.60 µg/L         9.096      512.60 ppb          9.096   1.77%
   QC value within limits for Sr 421.552  Recovery = 102.52%
Ti 334.940†           490912.3      503.56 µg/L         1.022      503.56 ppb          1.022   0.20%
   QC value within limits for Ti 334.940  Recovery = 100.71%
Tl 190.801†             3694.5      512.06 µg/L         0.749      512.06 ppb          0.749   0.15%
   QC value within limits for Tl 190.801  Recovery = 102.41%
U 409.014†              7523.1      505.61 µg/L         7.019      505.61 ppb          7.019   1.39%
   QC value within limits for U 409.014  Recovery = 101.12%
V 292.402†             97529.9      512.26 µg/L         1.491      512.26 ppb          1.491   0.29%
   QC value within limits for V 292.402  Recovery = 102.45%
Zn 213.857†            85379.0      505.85 µg/L         1.052      505.85 ppb          1.052   0.21%
   QC value within limits for Zn 213.857  Recovery = 101.17%
All analyte(s) passed QC.
```

Sequence No.: 93 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/5/2010 19:04:40**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135410.3	135410.3	96.7	%			19:05:09
1	Al 396.153Radial†	-78.8	-3.0	-0.6555	µg/L	-0.6555	ppb	19:05:29
1	Ca 317.933Radial†	712.3	165.5	11.271	µg/L	11.271	ppb	19:05:29
1	Fe 238.204 Radial†	182.6	71.6	5.3438	µg/L	5.3438	ppb	19:05:29
1	K 766.490 Radial†	1595.1	156.4	61.981	µg/L	61.981	ppb	19:05:09
1	Mg 279.077 IEC†	151.9	-15.3	-7.0536	µg/L	-7.0536	ppb	19:05:29
1	Na 589.592 Radial†	1194.5	283.3	43.865	µg/L	43.865	ppb	19:05:09
1	Sr 421.552†	-197.2	0.4	0.0009	µg/L	0.0009	ppb	19:05:09
1	Sc 361.383	1774981.9	1774981.9	98.383	%			19:06:17
1	Y 371.029	1042222.9	1042222.9	98.574	%			19:06:17
1	Ag 328.068†	4006.0	-493.3	-2.0325	µg/L	-2.0325	ppb	19:06:19
1	As 188.979†	-12.9	5.5	1.8626	µg/L	1.8626	ppb	19:06:39
1	B 249.677†	3961.2	-38.9	-0.6056	µg/L	-0.6056	ppb	19:06:19
1	Ba 233.527†	-151.9	-9.9	-0.0438	µg/L	-0.0438	ppb	19:06:39
1	Be 313.107†	-606.2	475.5	0.1346	µg/L	0.1346	ppb	19:06:19
1	Cd 226.502†	-50.8	51.7	0.3490	µg/L	0.3490	ppb	19:06:39
1	Co 228.616†	-184.9	22.3	0.2951	µg/L	0.2951	ppb	19:06:39
1	Cr 267.716†	271.2	42.5	0.3758	µg/L	0.3758	ppb	19:06:39
1	Cu 324.752†	2885.6	-103.1	-0.4392	µg/L	-0.4392	ppb	19:06:19
1	Mn 257.610†	284.9	104.8	0.1393	µg/L	0.1393	ppb	19:06:39
1	Mo 202.031†	-17.9	20.4	0.6682	µg/L	0.6682	ppb	19:06:39
1	Ni 231.604†	-84.1	10.4	0.1307	µg/L	0.1307	ppb	19:06:39
1	P 214.914†	25.0	51.1	11.811	µg/L	11.811	ppb	19:06:39
1	Pb 220.353†	145.1	44.0	2.7188	µg/L	2.7188	ppb	19:06:39
1	S 181.975 Axial†	87.7	0.3	0.2297	µg/L	0.2297	ppb	19:06:39
1	Sb 206.836†	82.2	-6.2	-0.7954	µg/L	-0.7954	ppb	19:06:39
1	Se 196.026†	22.7	17.0	6.67	µg/L	6.67	ppb	19:06:39
1	SiO2†	1753.5	43.2	4.5587	µg/L	4.5587	ppb	19:06:39
1	Si 251.611†	967.3	216.2	3.4013	µg/L	3.4013	ppb	19:06:19
1	Sn 189.927†	-0.8	-2.7	-0.1877	µg/L	-0.1877	ppb	19:06:39
1	Ti 334.940†	576.8	-236.7	-0.2381	µg/L	-0.2381	ppb	19:06:19
1	Tl 190.801†	-113.0	-0.5	-0.0763	µg/L	-0.0763	ppb	19:06:39
1	U 409.014†	-324.2	-166.2	-10.487	µg/L	-10.487	ppb	19:06:19
1	V 292.402†	415.8	-0.6	-0.0022	µg/L	-0.0022	ppb	19:06:19
1	Zn 213.857†	601.6	108.5	0.6465	µg/L	0.6465	ppb	19:06:39
2	Sc RADIAL	135996.6	135996.6	97.1	%			19:05:31
2	Al 396.153Radial†	-43.9	33.4	6.9736	µg/L	6.9736	ppb	19:05:51
2	Ca 317.933Radial†	729.9	180.4	12.289	µg/L	12.289	ppb	19:05:51
2	Fe 238.204 Radial†	169.8	57.6	4.3046	µg/L	4.3046	ppb	19:05:51
2	K 766.490 Radial†	1640.3	195.9	77.627	µg/L	77.627	ppb	19:05:31
2	Mg 279.077 IEC†	170.3	3.0	1.4191	µg/L	1.4191	ppb	19:05:51
2	Na 589.592 Radial†	1209.6	293.5	45.428	µg/L	45.428	ppb	19:05:31
2	Sr 421.552†	-150.1	49.9	0.1175	µg/L	0.1175	ppb	19:05:31
2	Sc 361.383	1783227.1	1783227.1	98.840	%			19:06:41
2	Y 371.029	1046615.8	1046615.8	98.990	%			19:06:41
2	Ag 328.068†	4365.9	-148.0	-0.6118	µg/L	-0.6118	ppb	19:06:43
2	As 188.979†	-10.1	8.3	2.8239	µg/L	2.8239	ppb	19:07:04
2	B 249.677†	4137.3	120.8	1.8777	µg/L	1.8777	ppb	19:06:43
2	Ba 233.527†	-170.0	-27.5	-0.1215	µg/L	-0.1215	ppb	19:07:04
2	Be 313.107†	-748.3	334.6	0.0943	µg/L	0.0943	ppb	19:06:43
2	Cd 226.502†	-72.3	30.2	0.2036	µg/L	0.2036	ppb	19:07:04
2	Co 228.616†	-202.6	5.3	0.0699	µg/L	0.0699	ppb	19:07:04
2	Cr 267.716†	277.5	47.5	0.4184	µg/L	0.4184	ppb	19:07:04
2	Cu 324.752†	2774.9	-228.7	-0.9631	µg/L	-0.9631	ppb	19:06:43
2	Mn 257.610†	285.5	104.1	0.1380	µg/L	0.1380	ppb	19:07:04
2	Mo 202.031†	-3.7	34.8	1.1400	µg/L	1.1400	ppb	19:07:04
2	Ni 231.604†	-81.5	13.4	0.1682	µg/L	0.1682	ppb	19:07:04
2	P 214.914†	26.1	52.1	12.057	µg/L	12.057	ppb	19:07:04
2	Pb 220.353†	96.6	-5.7	-0.3418	µg/L	-0.3418	ppb	19:07:04

2	S 181.975 Axial†	87.9	-0.0	-0.0075 µg/L	-0.0075 ppb	19:07:04
2	Sb 206.836†	84.1	-4.6	-0.5852 µg/L	-0.5852 ppb	19:07:04
2	Se 196.026†	26.5	20.6	8.12 µg/L	8.12 ppb	19:07:04
2	SiO2†	1760.4	42.0	4.4127 µg/L	4.4127 ppb	19:07:04
2	Si 251.611†	951.0	195.1	3.0617 µg/L	3.0617 ppb	19:06:43
2	Sn 189.927†	1.7	-0.2	-0.0150 µg/L	-0.0150 ppb	19:07:04
2	Ti 334.940†	688.0	-126.9	-0.1267 µg/L	-0.1267 ppb	19:06:43
2	Tl 190.801†	-120.6	-7.7	-1.0540 µg/L	-1.0540 ppb	19:07:04
2	U 409.014†	-298.6	-138.7	-8.7276 µg/L	-8.7276 ppb	19:06:43
2	V 292.402†	502.0	84.6	0.4459 µg/L	0.4459 ppb	19:06:43
2	Zn 213.857†	587.1	91.0	0.5424 µg/L	0.5424 ppb	19:07:04
3	Sc RADIAL	137628.9	137628.9	98.2 %		19:05:53
3	Al 396.153Radial†	-36.9	41.0	8.6030 µg/L	8.6030 ppb	19:06:13
3	Ca 317.933Radial†	721.8	163.3	11.120 µg/L	11.120 ppb	19:06:13
3	Fe 238.204 Radial†	179.5	65.4	4.8824 µg/L	4.8824 ppb	19:06:13
3	K 766.490 Radial†	1571.8	106.2	42.063 µg/L	42.063 ppb	19:05:53
3	Mg 279.077 IEC†	165.7	-3.8	-1.7374 µg/L	-1.7374 ppb	19:06:13
3	Na 589.592 Radial†	1024.3	90.1	13.930 µg/L	13.930 ppb	19:05:53
3	Sr 421.552†	-192.2	8.8	0.0207 µg/L	0.0207 ppb	19:05:53
3	Sc 361.383	1805488.2	1805488.2	100.07 %		19:07:06
3	Y 371.029	1059716.1	1059716.1	100.23 %		19:07:06
3	Ag 328.068†	4097.2	-471.0	-1.9433 µg/L	-1.9433 ppb	19:07:08
3	As 188.979†	-25.6	-7.1	-2.3863 µg/L	-2.3863 ppb	19:07:28
3	B 249.677†	3932.8	-135.2	-2.1040 µg/L	-2.1040 ppb	19:07:08
3	Ba 233.527†	-145.1	-0.5	-0.0025 µg/L	-0.0025 ppb	19:07:28
3	Be 313.107†	-666.7	425.5	0.1219 µg/L	0.1219 ppb	19:07:08
3	Cd 226.502†	-47.1	56.3	0.3802 µg/L	0.3802 ppb	19:07:28
3	Co 228.616†	-185.0	25.5	0.3367 µg/L	0.3367 ppb	19:07:28
3	Cr 267.716†	263.5	30.1	0.2634 µg/L	0.2634 ppb	19:07:28
3	Cu 324.752†	2844.7	-193.6	-0.8123 µg/L	-0.8123 ppb	19:07:08
3	Mn 257.610†	305.2	120.2	0.1596 µg/L	0.1596 ppb	19:07:28
3	Mo 202.031†	-15.6	23.0	0.7506 µg/L	0.7506 ppb	19:07:28
3	Ni 231.604†	-66.7	29.3	0.3664 µg/L	0.3664 ppb	19:07:28
3	P 214.914†	38.2	63.8	14.766 µg/L	14.766 ppb	19:07:28
3	Pb 220.353†	104.0	0.5	0.0365 µg/L	0.0365 ppb	19:07:28
3	S 181.975 Axial†	81.9	-7.0	-5.9085 µg/L	-5.9085 ppb	19:07:28
3	Sb 206.836†	69.9	-19.9	-2.5547 µg/L	-2.5547 ppb	19:07:28
3	Se 196.026†	9.2	3.0	1.18 µg/L	1.18 ppb	19:07:28
3	SiO2†	1784.3	43.9	4.6193 µg/L	4.6193 ppb	19:07:28
3	Si 251.611†	1005.7	237.9	3.7396 µg/L	3.7396 ppb	19:07:08
3	Sn 189.927†	6.9	5.1	0.3502 µg/L	0.3502 ppb	19:07:28
3	Ti 334.940†	719.5	-104.0	-0.1047 µg/L	-0.1047 ppb	19:07:08
3	Tl 190.801†	-118.1	-3.8	-0.5234 µg/L	-0.5234 ppb	19:07:28
3	U 409.014†	-232.6	-69.1	-4.4077 µg/L	-4.4077 ppb	19:07:08
3	V 292.402†	267.0	-156.4	-0.8053 µg/L	-0.8053 ppb	19:07:08
3	Zn 213.857†	576.2	72.8	0.4323 µg/L	0.4323 ppb	19:07:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787899.1	99.099	%	0.8747				0.88%
Sc RADIAL	136345.3	97.3	%	0.82				0.84%
Y 371.029	1049518.2	99.264	%	0.8607				0.87%
Ag 328.068†	-370.8	-1.5292	µg/L	0.79573	-1.5292	ppb	0.79573	52.04%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	23.8	4.9737	µg/L	4.94264	4.9737	ppb	4.94264	99.38%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.2	0.7668	µg/L	2.77258	0.7668	ppb	2.77258	361.60%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-17.8	-0.2773	µg/L	2.01105	-0.2773	ppb	2.01105	725.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-12.6	-0.0559	µg/L	0.06042	-0.0559	ppb	0.06042	108.03%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	411.9	0.1169	µg/L	0.02061	0.1169	ppb	0.02061	17.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	169.7	11.560	µg/L	0.6358	11.560	ppb	0.6358	5.50%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	46.1	0.3109	µg/L	0.09427	0.3109	ppb	0.09427	30.32%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.7	0.2339	µg/L	0.14357	0.2339	ppb	0.14357	61.38%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              40.0      0.3525 µg/L       0.08006      0.3525 ppb        0.08006  22.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -175.1     -0.7382 µg/L       0.26969     -0.7382 ppb        0.26969  36.54%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       64.9      4.8436 µg/L       0.52071      4.8436 ppb        0.52071  10.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       152.8      60.557 µg/L       17.8246      60.557 ppb        17.8246  29.43%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -5.4     -2.4573 µg/L       4.28198     -2.4573 ppb        4.28198 174.26%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             109.7      0.1456 µg/L       0.01208      0.1456 ppb        0.01208   8.30%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              26.1      0.8529 µg/L       0.25199      0.8529 ppb        0.25199  29.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      222.3      34.408 µg/L       17.7512      34.408 ppb        17.7512  51.59%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              17.7      0.2217 µg/L       0.12663      0.2217 ppb        0.12663  57.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               55.7      12.878 µg/L        1.6394      12.878 ppb         1.6394  12.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              12.9      0.8045 µg/L       1.66856      0.8045 ppb        1.66856 207.41%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.3     -1.8954 µg/L       3.47746     -1.8954 ppb        3.47746 183.47%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -10.2     -1.3118 µg/L       1.08153     -1.3118 ppb        1.08153  82.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              13.5        5.32 µg/L         3.658        5.32 ppb          3.658  68.69%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    43.0      4.5303 µg/L       0.10619      4.5303 ppb        0.10619   2.34%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             216.4      3.4008 µg/L       0.33894      3.4008 ppb        0.33894   9.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.7      0.0492 µg/L       0.27462      0.0492 ppb        0.27462 558.36%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              19.7      0.0464 µg/L       0.06237      0.0464 ppb        0.06237 134.51%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -155.9     -0.1565 µg/L       0.07153     -0.1565 ppb        0.07153  45.71%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -4.0     -0.5512 µg/L       0.48944     -0.5512 ppb        0.48944  88.79%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -124.7     -7.8739 µg/L       3.12805     -7.8739 ppb        3.12805  39.73%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -24.2     -0.1205 µg/L       0.63394     -0.1205 ppb        0.63394 526.05%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              90.7      0.5404 µg/L       0.10714      0.5404 ppb        0.10714  19.83%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 94
Sample ID: 1202072045|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 410
Date Collected: 4/5/2010 19:07:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072045|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136492.2	136492.2	97.4	%			19:08:09
1	Al 396.153Radial†	-65.4	11.5	2.4018	µg/L	2.4018	ppb	19:08:29
1	Ca 317.933Radial†	739.0	187.1	12.741	µg/L	12.741	ppb	19:08:29
1	Fe 238.204 Radial†	546.9	444.0	33.156	µg/L	33.156	ppb	19:08:29
1	K 766.490 Radial†	1499.3	45.0	17.826	µg/L	17.826	ppb	19:08:09
1	Mg 279.077 IEC†	153.5	-14.9	-6.9225	µg/L	-6.9225	ppb	19:08:29
1	Na 589.592 Radial†	1161.4	239.5	37.105	µg/L	37.105	ppb	19:08:09
1	Sr 421.552†	-178.3	21.4	0.0505	µg/L	0.0505	ppb	19:08:09
1	Sc 361.383	1769566.8	1769566.8	98.083	%			19:09:31
1	Y 371.029	1035721.4	1035721.4	97.959	%			19:09:31
1	Ag 328.068†	4368.9	-110.8	-0.4544	µg/L	-0.4544	ppb	19:09:33
1	As 188.979†	-10.8	7.5	2.5463	µg/L	2.5463	ppb	19:09:53
1	B 249.677†	4342.6	362.3	5.6357	µg/L	5.6357	ppb	19:09:33
1	Ba 233.527†	-146.2	-4.6	-0.0205	µg/L	-0.0205	ppb	19:09:53
1	Be 313.107†	-503.2	578.7	0.1672	µg/L	0.1672	ppb	19:09:33
1	Cd 226.502†	-66.1	36.0	0.2400	µg/L	0.2400	ppb	19:09:53
1	Co 228.616†	-227.6	-21.7	-0.2893	µg/L	-0.2893	ppb	19:09:53
1	Cr 267.716†	276.5	48.7	0.4234	µg/L	0.4234	ppb	19:09:53
1	Cu 324.752†	2765.2	-216.9	-0.9039	µg/L	-0.9039	ppb	19:09:33
1	Mn 257.610†	665.0	493.3	0.6545	µg/L	0.6545	ppb	19:09:53
1	Mo 202.031†	-29.4	8.6	0.2816	µg/L	0.2816	ppb	19:09:53
1	Ni 231.604†	-64.3	30.4	0.3799	µg/L	0.3799	ppb	19:09:53
1	P 214.914†	21.7	47.8	11.055	µg/L	11.055	ppb	19:09:53
1	Pb 220.353†	115.1	13.9	0.8552	µg/L	0.8552	ppb	19:09:53
1	S 181.975 Axial†	103.5	16.6	14.009	µg/L	14.009	ppb	19:09:53
1	Sb 206.836†	82.1	-6.0	-0.7781	µg/L	-0.7781	ppb	19:09:53
1	Se 196.026†	13.8	7.9	3.13	µg/L	3.13	ppb	19:09:53
1	SiO2†	2248.6	553.5	58.597	µg/L	58.597	ppb	19:09:33
1	Si 251.611†	2333.4	1612.0	25.413	µg/L	25.413	ppb	19:09:33
1	Sn 189.927†	7.7	6.0	0.4155	µg/L	0.4155	ppb	19:09:53
1	Ti 334.940†	949.2	144.7	0.1501	µg/L	0.1501	ppb	19:09:33
1	Tl 190.801†	-120.2	-8.3	-1.1283	µg/L	-1.1283	ppb	19:09:53
1	U 409.014†	-185.1	-25.4	-1.5958	µg/L	-1.5958	ppb	19:09:33
1	V 292.402†	444.8	30.3	0.1569	µg/L	0.1569	ppb	19:09:33
1	Zn 213.857†	749.5	261.2	1.5546	µg/L	1.5546	ppb	19:09:53
2	Sc RADIAL	135377.1	135377.1	96.6	%			19:08:31
2	Al 396.153Radial†	-79.6	-3.9	-0.7960	µg/L	-0.7960	ppb	19:08:51
2	Ca 317.933Radial†	740.5	194.8	13.270	µg/L	13.270	ppb	19:08:51
2	Fe 238.204 Radial†	522.2	423.1	31.598	µg/L	31.598	ppb	19:08:51
2	K 766.490 Radial†	1645.2	208.8	82.713	µg/L	82.713	ppb	19:08:31
2	Mg 279.077 IEC†	180.4	14.2	6.5237	µg/L	6.5237	ppb	19:08:51
2	Na 589.592 Radial†	1137.6	224.7	34.762	µg/L	34.762	ppb	19:08:31
2	Sr 421.552†	-75.8	126.0	0.2971	µg/L	0.2971	ppb	19:08:31
2	Sc 361.383	1780793.8	1780793.8	98.705	%			19:09:55
2	Y 371.029	1042757.6	1042757.6	98.625	%			19:09:55
2	Ag 328.068†	4508.4	2.4	0.0043	µg/L	0.0043	ppb	19:09:57
2	As 188.979†	-19.1	-0.8	-0.2743	µg/L	-0.2743	ppb	19:10:17
2	B 249.677†	4167.5	157.1	2.4412	µg/L	2.4412	ppb	19:09:57
2	Ba 233.527†	-139.9	2.8	0.0115	µg/L	0.0115	ppb	19:10:17
2	Be 313.107†	-789.6	291.7	0.0844	µg/L	0.0844	ppb	19:09:57
2	Cd 226.502†	-85.6	16.6	0.1095	µg/L	0.1095	ppb	19:10:17
2	Co 228.616†	-182.2	25.7	0.3379	µg/L	0.3379	ppb	19:10:17
2	Cr 267.716†	277.8	48.2	0.4180	µg/L	0.4180	ppb	19:10:17
2	Cu 324.752†	2845.6	-153.2	-0.6359	µg/L	-0.6359	ppb	19:09:57
2	Mn 257.610†	659.2	483.1	0.6406	µg/L	0.6406	ppb	19:10:17
2	Mo 202.031†	-50.9	-13.0	-0.4243	µg/L	-0.4243	ppb	19:10:17
2	Ni 231.604†	-43.8	51.6	0.6452	µg/L	0.6452	ppb	19:10:17
2	P 214.914†	21.9	47.9	11.082	µg/L	11.082	ppb	19:10:17
2	Pb 220.353†	156.0	54.5	3.3545	µg/L	3.3545	ppb	19:10:17

2	S 181.975 Axial†	95.8	8.2	6.8658 µg/L	6.8658 ppb	19:10:17
2	Sb 206.836†	94.8	6.3	0.7986 µg/L	0.7986 ppb	19:10:17
2	Se 196.026†	26.2	20.4	8.03 µg/L	8.03 ppb	19:10:17
2	SiO2†	2128.4	417.2	44.177 µg/L	44.177 ppb	19:09:57
2	Si 251.611†	2230.6	1492.8	23.539 µg/L	23.539 ppb	19:09:57
2	Sn 189.927†	15.7	14.0	0.9745 µg/L	0.9745 ppb	19:10:17
2	Ti 334.940†	913.5	102.5	0.1051 µg/L	0.1051 ppb	19:09:57
2	Tl 190.801†	-131.9	-19.4	-2.6445 µg/L	-2.6445 ppb	19:10:17
2	U 409.014†	-165.4	-4.2	-0.2873 µg/L	-0.2873 ppb	19:09:57
2	V 292.402†	346.6	-72.1	-0.3799 µg/L	-0.3799 ppb	19:09:57
2	Zn 213.857†	751.8	258.7	1.5378 µg/L	1.5378 ppb	19:10:17
3	Sc RADIAL	135286.0	135286.0	96.6 %		19:08:53
3	Al 396.153Radial†	-63.8	12.5	2.6169 µg/L	2.6169 ppb	19:09:13
3	Ca 317.933Radial†	723.1	177.3	12.077 µg/L	12.077 ppb	19:09:13
3	Fe 238.204 Radial†	550.0	452.2	33.771 µg/L	33.771 ppb	19:09:13
3	K 766.490 Radial†	1744.0	312.2	123.69 µg/L	123.69 ppb	19:08:53
3	Mg 279.077 IEC†	159.2	-7.6	-3.5117 µg/L	-3.5117 ppb	19:09:13
3	Na 589.592 Radial†	1179.0	268.3	41.485 µg/L	41.485 ppb	19:08:53
3	Sr 421.552†	-71.4	130.5	0.3077 µg/L	0.3077 ppb	19:08:53
3	Sc 361.383	1776832.8	1776832.8	98.486 %		19:10:20
3	Y 371.029	1040822.6	1040822.6	98.442 %		19:10:20
3	Ag 328.068†	3938.5	-566.1	-2.3158 µg/L	-2.3158 ppb	19:10:22
3	As 188.979†	-11.6	6.8	2.2945 µg/L	2.2945 ppb	19:10:42
3	B 249.677†	4269.6	270.1	4.1997 µg/L	4.1997 ppb	19:10:22
3	Ba 233.527†	-149.9	-7.7	-0.0350 µg/L	-0.0350 ppb	19:10:42
3	Be 313.107†	-832.1	246.9	0.0745 µg/L	0.0745 ppb	19:10:22
3	Cd 226.502†	-69.8	32.5	0.2162 µg/L	0.2162 ppb	19:10:42
3	Co 228.616†	-198.4	8.8	0.1152 µg/L	0.1152 ppb	19:10:42
3	Cr 267.716†	258.1	28.9	0.2427 µg/L	0.2427 ppb	19:10:42
3	Cu 324.752†	2929.4	-61.7	-0.2450 µg/L	-0.2450 ppb	19:10:22
3	Mn 257.610†	674.4	500.1	0.6634 µg/L	0.6634 ppb	19:10:42
3	Mo 202.031†	-31.0	7.1	0.2329 µg/L	0.2329 ppb	19:10:42
3	Ni 231.604†	-87.3	7.2	0.0907 µg/L	0.0907 ppb	19:10:42
3	P 214.914†	39.8	66.1	15.272 µg/L	15.272 ppb	19:10:42
3	Pb 220.353†	136.9	35.5	2.1778 µg/L	2.1778 ppb	19:10:42
3	S 181.975 Axial†	90.2	2.7	2.2620 µg/L	2.2620 ppb	19:10:42
3	Sb 206.836†	99.0	10.8	1.3963 µg/L	1.3963 ppb	19:10:42
3	Se 196.026†	9.9	3.9	1.57 µg/L	1.57 ppb	19:10:42
3	SiO2†	2282.7	578.7	61.268 µg/L	61.268 ppb	19:10:22
3	Si 251.611†	2400.4	1670.3	26.332 µg/L	26.332 ppb	19:10:22
3	Sn 189.927†	10.0	8.3	0.5760 µg/L	0.5760 ppb	19:10:42
3	Ti 334.940†	766.8	-44.4	-0.0491 µg/L	-0.0491 ppb	19:10:22
3	Tl 190.801†	-116.6	-4.1	-0.5688 µg/L	-0.5688 ppb	19:10:42
3	U 409.014†	-7.7	155.5	9.7620 µg/L	9.7620 ppb	19:10:22
3	V 292.402†	261.7	-157.5	-0.8098 µg/L	-0.8098 ppb	19:10:22
3	Zn 213.857†	760.8	269.5	1.6055 µg/L	1.6055 ppb	19:10:42

Mean Data: 1202072045|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1775731.1	98.425	%	0.3156				0.32%
Sc RADIAL	135718.5	96.9	%	0.48				0.49%
Y 371.029	1039767.2	98.342	%	0.3438				0.35%
Ag 328.068†	-224.9	-0.9220	µg/L	1.22867	-0.9220	ppb	1.22867	133.26%
Al 396.153Radial†	6.7	1.4076	µg/L	1.91137	1.4076	ppb	1.91137	135.79%
As 188.979†	4.5	1.5222	µg/L	1.56088	1.5222	ppb	1.56088	102.54%
B 249.677†	263.1	4.0922	µg/L	1.59995	4.0922	ppb	1.59995	39.10%
Ba 233.527†	-3.2	-0.0147	µg/L	0.02382	-0.0147	ppb	0.02382	162.54%
Be 313.107†	372.4	0.1087	µg/L	0.05088	0.1087	ppb	0.05088	46.81%
Ca 317.933Radial†	186.4	12.696	µg/L	0.5976	12.696	ppb	0.5976	4.71%
Cd 226.502†	28.4	0.1886	µg/L	0.06951	0.1886	ppb	0.06951	36.86%
Co 228.616†	4.3	0.0546	µg/L	0.31797	0.0546	ppb	0.31797	582.38%
Cr 267.716†	41.9	0.3613	µg/L	0.10282	0.3613	ppb	0.10282	28.46%
Cu 324.752†	-143.9	-0.5949	µg/L	0.33135	-0.5949	ppb	0.33135	55.70%
Fe 238.204 Radial†	439.8	32.842	µg/L	1.1201	32.842	ppb	1.1201	3.41%
K 766.490 Radial†	188.6	74.742	µg/L	53.3787	74.742	ppb	53.3787	71.42%
Mg 279.077 IEC†	-2.8	-1.3035	µg/L	6.98975	-1.3035	ppb	6.98975	536.24%
Mn 257.610†	492.2	0.6528	µg/L	0.01150	0.6528	ppb	0.01150	1.76%
Mo 202.031†	0.9	0.0301	µg/L	0.39423	0.0301	ppb	0.39423	>999.9%
Na 589.592 Radial†	244.2	37.784	µg/L	3.4126	37.784	ppb	3.4126	9.03%

Ni 231.604†	29.7	0.3719	µg/L	0.27735	0.3719	ppb	0.27735 74.57%
P 214.914†	53.9	12.470	µg/L	2.4273	12.470	ppb	2.4273 19.47%
Pb 220.353†	34.6	2.1292	µg/L	1.25034	2.1292	ppb	1.25034 58.72%
S 181.975 Axial†	9.2	7.7122	µg/L	5.91903	7.7122	ppb	5.91903 76.75%
Sb 206.836†	3.7	0.4723	µg/L	1.12336	0.4723	ppb	1.12336 237.86%
Se 196.026†	10.7	4.24	µg/L	3.371	4.24	ppb	3.371 79.44%
SiO2†	516.5	54.681	µg/L	9.1942	54.681	ppb	9.1942 16.81%
Si 251.611†	1591.7	25.094	µg/L	1.4234	25.094	ppb	1.4234 5.67%
Sn 189.927†	9.4	0.6553	µg/L	0.28778	0.6553	ppb	0.28778 43.91%
Sr 421.552†	92.7	0.2184	µg/L	0.14555	0.2184	ppb	0.14555 66.64%
Ti 334.940†	67.6	0.0687	µg/L	0.10444	0.0687	ppb	0.10444 152.09%
Tl 190.801†	-10.6	-1.4472	µg/L	1.07394	-1.4472	ppb	1.07394 74.21%
U 409.014†	42.0	2.6263	µg/L	6.21422	2.6263	ppb	6.21422 236.61%
V 292.402†	-66.4	-0.3443	µg/L	0.48433	-0.3443	ppb	0.48433 140.69%
Zn 213.857†	263.1	1.5660	µg/L	0.03525	1.5660	ppb	0.03525 2.25%

Sequence No.: 95
Sample ID: 1202072046|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 411
Date Collected: 4/5/2010 19:10:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072046|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138530.0	138530.0	98.9	%			19:11:22
1	Al 396.153Radial†	458590.2	463842.7	97626	µg/L	97626	ppb	19:11:22
1	Ca 317.933Radial†	1619014.1	1636709.0	111470	µg/L	111470	ppb	19:11:20
1	Fe 238.204 Radial†	2611261.7	2640605.6	197200	µg/L	197200	ppb	19:11:20
1	K 766.490 Radial†	112745.1	112523.4	44539	µg/L	44539	ppb	19:11:22
1	Mg 279.077 IEC†	87623.4	88439.5	40682	µg/L	40682	ppb	19:11:22
1	Na 589.592 Radial†	73029.1	72900.6	11261	µg/L	11261	ppb	19:11:22
1	Sr 421.552†	1099584.6	1112195.0	2622.2	µg/L	2622.2	ppb	19:11:20
1	Sc 361.383	1790613.2	1790613.2	99.250	%			19:11:36
1	Y 371.029	1119606.5	1119606.5	105.89	%			19:11:36
1	Ag 328.068†	83279.0	79343.5	335.27	µg/L	335.27	ppb	19:11:38
1	As 188.979†	3042.5	3084.1	1117.8	µg/L	1117.8	ppb	19:11:38
1	B 249.677†	117188.6	114009.6	1769.1	µg/L	1769.1	ppb	19:11:36
1	Ba 233.527†	439998.1	443469.7	1969.7	µg/L	1969.7	ppb	19:11:36
1	Be 313.107†	3059500.7	3083726.7	893.20	µg/L	893.20	ppb	19:11:36
1	Cd 226.502†	112079.5	113030.4	744.00	µg/L	744.00	ppb	19:11:38
1	Co 228.616†	84506.5	85355.8	1121.3	µg/L	1121.3	ppb	19:11:38
1	Cr 267.716†	346615.4	349003.1	3025.0	µg/L	3025.0	ppb	19:11:36
1	Cu 324.752†	511153.6	511982.5	2171.7	µg/L	2171.7	ppb	19:11:36
1	Mn 257.610†	4708442.9	4743860.9	6290.8	µg/L	6290.8	ppb	19:11:36
1	Mo 202.031†	19339.9	19524.7	647.54	µg/L	647.54	ppb	19:11:38
1	Ni 231.604†	137189.9	138323.1	1730.6	µg/L	1730.6	ppb	19:11:36
1	P 214.914†	39618.4	39943.6	9107.0	µg/L	9107.0	ppb	19:11:38
1	Pb 220.353†	13981.3	13983.6	869.53	µg/L	869.53	ppb	19:11:38
1	S 181.975 Axial†	5799.6	5754.6	4846.5	µg/L	4846.5	ppb	19:11:38
1	Sb 206.836†	16548.2	16583.6	2103.1	µg/L	2103.1	ppb	19:11:38
1	Se 196.026†	8281.5	8337.9	3350	µg/L	3350	ppb	19:11:38
1	SiO2†	247265.9	247396.5	26165	µg/L	26165	ppb	19:11:36
1	Si 251.611†	772693.9	777769.6	12249	µg/L	12249	ppb	19:11:36
1	Sn 189.927†	15292.4	15406.1	1089.6	µg/L	1089.6	ppb	19:11:38
1	Ti 334.940†	6018084.0	6062766.5	6225.6	µg/L	6225.6	ppb	19:11:36
1	Tl 190.801†	9081.5	9264.4	1348.4	µg/L	1348.4	ppb	19:11:38
1	U 409.014†	-4428.3	-4298.4	-194.73	µg/L	-194.73	ppb	19:11:36
1	V 292.402†	264349.8	265925.4	1371.1	µg/L	1371.1	ppb	19:11:36
1	Zn 213.857†	1150713.0	1158911.1	6890.9	µg/L	6890.9	ppb	19:11:36
2	Sc RADIAL	143458.6	143458.6	102	%			19:11:26
2	Al 396.153Radial†	474231.0	463183.8	97487	µg/L	97487	ppb	19:11:26
2	Ca 317.933Radial†	1629518.5	1590717.7	108340	µg/L	108340	ppb	19:11:24
2	Fe 238.204 Radial†	2629267.8	2567466.5	191740	µg/L	191740	ppb	19:11:24
2	K 766.490 Radial†	116920.3	112683.5	44603	µg/L	44603	ppb	19:11:26
2	Mg 279.077 IEC†	91311.2	88996.6	40944	µg/L	40944	ppb	19:11:26
2	Na 589.592 Radial†	75625.7	72899.0	11260	µg/L	11260	ppb	19:11:26
2	Sr 421.552†	1108878.4	1083068.0	2553.5	µg/L	2553.5	ppb	19:11:24
2	Sc 361.383	1774125.6	1774125.6	98.336	%			19:11:42
2	Y 371.029	1109438.5	1109438.5	104.93	%			19:11:42
2	Ag 328.068†	83585.4	80434.9	339.85	µg/L	339.85	ppb	19:11:44
2	As 188.979†	2976.9	3045.8	1103.6	µg/L	1103.6	ppb	19:11:44
2	B 249.677†	115856.1	113751.9	1765.1	µg/L	1765.1	ppb	19:11:42
2	Ba 233.527†	436233.2	443761.0	1971.1	µg/L	1971.1	ppb	19:11:42
2	Be 313.107†	3031355.6	3083753.3	893.20	µg/L	893.20	ppb	19:11:42
2	Cd 226.502†	112068.0	114068.2	751.59	µg/L	751.59	ppb	19:11:44
2	Co 228.616†	84583.9	86225.8	1133.1	µg/L	1133.1	ppb	19:11:44
2	Cr 267.716†	343498.6	349079.1	3025.5	µg/L	3025.5	ppb	19:11:42
2	Cu 324.752†	506681.5	512221.1	2171.9	µg/L	2171.9	ppb	19:11:42
2	Mn 257.610†	4667587.1	4746401.7	6294.2	µg/L	6294.2	ppb	19:11:42
2	Mo 202.031†	19392.6	19759.4	655.01	µg/L	655.01	ppb	19:11:44
2	Ni 231.604†	135738.2	138131.5	1728.2	µg/L	1728.2	ppb	19:11:42
2	P 214.914†	39709.2	40407.0	9217.9	µg/L	9217.9	ppb	19:11:44
2	Pb 220.353†	13935.4	14067.8	874.91	µg/L	874.91	ppb	19:11:44

2	S 181.975 Axial†	5856.5	5866.7	4940.9	µg/L	4940.9 ppb	19:11:44
2	Sb 206.836†	16589.9	16780.9	2128.8	µg/L	2128.8 ppb	19:11:44
2	Se 196.026†	8262.3	8396.0	3370	µg/L	3370 ppb	19:11:44
2	SiO2†	244652.6	247054.3	26128	µg/L	26128 ppb	19:11:42
2	Si 251.611†	764574.5	776748.0	12233	µg/L	12233 ppb	19:11:42
2	Sn 189.927†	15378.7	15637.1	1105.7	µg/L	1105.7 ppb	19:11:44
2	Ti 334.940†	5968148.7	6068337.1	6231.2	µg/L	6231.2 ppb	19:11:42
2	Tl 190.801†	9086.3	9354.4	1360.7	µg/L	1360.7 ppb	19:11:44
2	U 409.014†	-4348.9	-4259.1	-191.18	µg/L	-191.18 ppb	19:11:42
2	V 292.402†	261714.5	265720.9	1370.7	µg/L	1370.7 ppb	19:11:42
2	Zn 213.857†	1138992.7	1157767.2	6884.7	µg/L	6884.7 ppb	19:11:42
3	Sc RADIAL	137963.9	137963.9	98.5	%		19:11:31
3	Al 396.153Radial†	455025.2	462125.8	97265	µg/L	97265 ppb	19:11:31
3	Ca 317.933Radial†	1628691.5	1653254.6	112600	µg/L	112600 ppb	19:11:28
3	Fe 238.204 Radial†	2626743.9	2667163.4	199180	µg/L	199180 ppb	19:11:28
3	K 766.490 Radial†	112216.1	112454.1	44511	µg/L	44511 ppb	19:11:31
3	Mg 279.077 IEC†	86624.4	87788.8	40380	µg/L	40380 ppb	19:11:31
3	Na 589.592 Radial†	72662.7	72831.5	11250	µg/L	11250 ppb	19:11:31
3	Sr 421.552†	1107215.6	1124507.1	2651.2	µg/L	2651.2 ppb	19:11:28
3	Sc 361.383	1779403.8	1779403.8	98.628	%		19:11:48
3	Y 371.029	1111834.7	1111834.7	105.16	%		19:11:48
3	Ag 328.068†	81989.3	78564.5	332.05	µg/L	332.05 ppb	19:11:50
3	As 188.979†	2954.6	3014.3	1094.6	µg/L	1094.6 ppb	19:11:50
3	B 249.677†	116248.9	113800.6	1765.9	µg/L	1765.9 ppb	19:11:48
3	Ba 233.527†	437744.4	443977.4	1971.9	µg/L	1971.9 ppb	19:11:48
3	Be 313.107†	3041684.1	3085081.4	893.59	µg/L	893.59 ppb	19:11:48
3	Cd 226.502†	109511.7	111138.2	731.01	µg/L	731.01 ppb	19:11:50
3	Co 228.616†	82824.8	84187.1	1105.7	µg/L	1105.7 ppb	19:11:50
3	Cr 267.716†	344932.0	349496.3	3029.3	µg/L	3029.3 ppb	19:11:48
3	Cu 324.752†	508150.2	512181.8	2172.8	µg/L	2172.8 ppb	19:11:48
3	Mn 257.610†	4683012.5	4747962.0	6296.3	µg/L	6296.3 ppb	19:11:48
3	Mo 202.031†	18950.4	19252.5	638.72	µg/L	638.72 ppb	19:11:50
3	Ni 231.604†	136607.9	138603.9	1734.1	µg/L	1734.1 ppb	19:11:48
3	P 214.914†	38661.7	39225.1	8939.3	µg/L	8939.3 ppb	19:11:50
3	Pb 220.353†	13724.5	13812.0	858.86	µg/L	858.86 ppb	19:11:50
3	S 181.975 Axial†	5723.8	5714.5	4812.7	µg/L	4812.7 ppb	19:11:50
3	Sb 206.836†	16136.4	16271.1	2062.6	µg/L	2062.6 ppb	19:11:50
3	Se 196.026†	8065.4	8171.4	3290	µg/L	3290 ppb	19:11:50
3	SiO2†	245649.2	247326.7	26158	µg/L	26158 ppb	19:11:48
3	Si 251.611†	768084.1	778000.0	12253	µg/L	12253 ppb	19:11:48
3	Sn 189.927†	15043.7	15251.1	1078.9	µg/L	1078.9 ppb	19:11:50
3	Ti 334.940†	5979824.0	6062172.1	6225.1	µg/L	6225.1 ppb	19:11:48
3	Tl 190.801†	8890.8	9128.7	1330.0	µg/L	1330.0 ppb	19:11:50
3	U 409.014†	-4425.1	-4323.3	-196.63	µg/L	-196.63 ppb	19:11:48
3	V 292.402†	262812.2	266044.4	1371.4	µg/L	1371.4 ppb	19:11:48
3	Zn 213.857†	1143834.8	1159241.0	6892.6	µg/L	6892.6 ppb	19:11:48

Mean Data: 1202072046|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1781380.8	98.738	%	0.4667				0.47%
Sc RADIAL	139984.2	99.9	%	2.16				2.16%
Y 371.029	1113626.6	105.33	%	0.503				0.48%
Ag 328.068†	79447.6	335.72	µg/L	3.919	335.72	ppb	3.919	1.17%
Al 396.153Radial†	463050.8	97459	µg/L	182.1	97459	ppb	182.1	0.19%
As 188.979†	3048.1	1105.4	µg/L	11.67	1105.4	ppb	11.67	1.06%
B 249.677†	113854.0	1766.7	µg/L	2.13	1766.7	ppb	2.13	0.12%
Ba 233.527†	443736.0	1970.9	µg/L	1.12	1970.9	ppb	1.12	0.06%
Be 313.107†	3084187.1	893.33	µg/L	0.224	893.33	ppb	0.224	0.03%
Ca 317.933Radial†	1626893.8	110810	µg/L	2207.0	110810	ppb	2207.0	1.99%
Cd 226.502†	112745.6	742.20	µg/L	10.409	742.20	ppb	10.409	1.40%
Co 228.616†	85256.2	1120.0	µg/L	13.72	1120.0	ppb	13.72	1.22%
Cr 267.716†	349192.8	3026.6	µg/L	2.38	3026.6	ppb	2.38	0.08%
Cu 324.752†	512128.4	2172.1	µg/L	0.58	2172.1	ppb	0.58	0.03%
Fe 238.204 Radial†	2625078.5	196040	µg/L	3855.7	196040	ppb	3855.7	1.97%
K 766.490 Radial†	112553.7	44551	µg/L	47.0	44551	ppb	47.0	0.11%
Mg 279.077 IEC†	88408.3	40669	µg/L	282.5	40669	ppb	282.5	0.69%
Mn 257.610†	4746074.9	6293.8	µg/L	2.75	6293.8	ppb	2.75	0.04%
Mo 202.031†	19512.2	647.09	µg/L	8.155	647.09	ppb	8.155	1.26%
Na 589.592 Radial†	72877.0	11257	µg/L	6.1	11257	ppb	6.1	0.05%

Ni 231.604†	138352.8	1731.0	µg/L	2.97	1731.0	ppb	2.97	0.17%
P 214.914†	39858.6	9088.1	µg/L	140.25	9088.1	ppb	140.25	1.54%
Pb 220.353†	13954.4	867.77	µg/L	8.167	867.77	ppb	8.167	0.94%
S 181.975 Axial†	5778.6	4866.7	µg/L	66.44	4866.7	ppb	66.44	1.37%
Sb 206.836†	16545.2	2098.2	µg/L	33.36	2098.2	ppb	33.36	1.59%
Se 196.026†	8301.8	3340	µg/L	44.8	3340	ppb	44.8	1.34%
SiO2†	247259.2	26151	µg/L	19.5	26151	ppb	19.5	0.07%
Si 251.611†	777505.9	12245	µg/L	10.7	12245	ppb	10.7	0.09%
Sn 189.927†	15431.4	1091.4	µg/L	13.49	1091.4	ppb	13.49	1.24%
Sr 421.552†	1106590.0	2609.0	µg/L	50.17	2609.0	ppb	50.17	1.92%
Ti 334.940†	6064425.2	6227.3	µg/L	3.42	6227.3	ppb	3.42	0.05%
Tl 190.801†	9249.2	1346.4	µg/L	15.47	1346.4	ppb	15.47	1.15%
U 409.014†	-4293.6	-194.18	µg/L	2.766	-194.18	ppb	2.766	1.42%
Concentration less than lower limit for U 409.014.								
V 292.402†	265896.9	1371.1	µg/L	0.37	1371.1	ppb	0.37	0.03%
Zn 213.857†	1158639.8	6889.4	µg/L	4.17	6889.4	ppb	4.17	0.06%

Sequence No.: 97
Sample ID: 1202072047|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 413
Date Collected: 4/5/2010 19:14:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072047|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138683.1	138683.1	99.0	%			19:14:43
1	Al 396.153Radial†	183565.1	185509.7	39056	µg/L	39056	ppb	19:14:41
1	Ca 317.933Radial†	148731.4	149671.9	10194	µg/L	10194	ppb	19:14:43
1	Fe 238.204 Radial†	1268031.7	1280805.1	95650	µg/L	95650	ppb	19:14:41
1	K 766.490 Radial†	12818.0	11454.5	4527.5	µg/L	4527.5	ppb	19:14:43
1	Mg 279.077 IEC†	13941.8	13911.1	6341.6	µg/L	6341.6	ppb	19:14:43
1	Na 589.592 Radial†	9355.1	8497.7	1313.2	µg/L	1313.2	ppb	19:14:43
1	Sr 421.552†	40065.1	40676.8	95.855	µg/L	95.855	ppb	19:14:43
1	Sc 361.383	1799117.5	1799117.5	99.721	%			19:14:55
1	Y 371.029	1359626.5	1359626.5	128.59	%			19:14:55
1	Ag 328.068†	4060.2	-493.6	-3.0328	µg/L	-3.0328	ppb	19:14:55
1	As 188.979†	47.4	66.0	45.086	µg/L	45.086	ppb	19:15:15
1	B 249.677†	5190.8	1140.2	17.665	µg/L	17.665	ppb	19:14:55
1	Ba 233.527†	61877.5	62195.2	275.28	µg/L	275.28	ppb	19:14:55
1	Be 313.107†	29630.5	30805.2	8.7873	µg/L	8.7873	ppb	19:14:55
1	Cd 226.502†	1424.7	1532.0	0.3348	µg/L	0.3348	ppb	19:15:15
1	Co 228.616†	1260.8	1474.7	14.813	µg/L	14.813	ppb	19:15:15
1	Cr 267.716†	15393.3	15203.2	134.53	µg/L	134.53	ppb	19:15:15
1	Cu 324.752†	16020.2	13028.9	68.238	µg/L	68.238	ppb	19:14:55
1	Mn 257.610†	1886790.9	1891886.8	2509.2	µg/L	2509.2	ppb	19:14:55
1	Mo 202.031†	399.9	439.6	18.306	µg/L	18.306	ppb	19:15:15
1	Ni 231.604†	6357.0	6470.7	80.957	µg/L	80.957	ppb	19:15:15
1	P 214.914†	2372.0	2404.4	499.10	µg/L	499.10	ppb	19:15:15
1	Pb 220.353†	2336.6	2239.7	140.30	µg/L	140.30	ppb	19:15:15
1	S 181.975 Axial†	326.6	238.6	200.86	µg/L	200.86	ppb	19:15:15
1	Sb 206.836†	80.2	-9.3	-4.2784	µg/L	-4.2784	ppb	19:15:15
1	Se 196.026†	-53.2	-59.5	9.31	µg/L	9.31	ppb	19:15:15
1	SiO2†	352775.3	352023.5	37278	µg/L	37278	ppb	19:14:55
1	Si 251.611†	1104055.9	1106378.8	17446	µg/L	17446	ppb	19:14:55
1	Sn 189.927†	49.1	47.4	10.417	µg/L	10.417	ppb	19:15:15
1	Ti 334.940†	2053987.3	2058912.9	2114.5	µg/L	2114.5	ppb	19:14:55
1	Tl 190.801†	-372.7	-259.4	-7.1266	µg/L	-7.1266	ppb	19:15:15
1	U 409.014†	-7284.6	-7141.6	-450.54	µg/L	-450.54	ppb	19:14:55
1	V 292.402†	18237.2	17865.0	80.952	µg/L	80.952	ppb	19:14:55
1	Zn 213.857†	90553.1	90303.5	530.22	µg/L	530.22	ppb	19:14:55
2	Sc RADIAL	137739.7	137739.7	98.3	%			19:14:47
2	Al 396.153Radial†	184294.0	187521.2	39479	µg/L	39479	ppb	19:14:45
2	Ca 317.933Radial†	147886.3	149841.4	10206	µg/L	10206	ppb	19:14:47
2	Fe 238.204 Radial†	1267728.8	1289270.2	96282	µg/L	96282	ppb	19:14:45
2	K 766.490 Radial†	12921.8	11648.8	4604.4	µg/L	4604.4	ppb	19:14:47
2	Mg 279.077 IEC†	13768.8	13831.6	6304.3	µg/L	6304.3	ppb	19:14:47
2	Na 589.592 Radial†	9340.3	8547.3	1320.8	µg/L	1320.8	ppb	19:14:47
2	Sr 421.552†	39966.4	40853.7	96.272	µg/L	96.272	ppb	19:14:47
2	Sc 361.383	1793533.4	1793533.4	99.411	%			19:15:18
2	Y 371.029	1355359.4	1355359.4	128.19	%			19:15:18
2	Ag 328.068†	4244.7	-295.3	-2.2172	µg/L	-2.2172	ppb	19:15:18
2	As 188.979†	49.4	68.2	45.959	µg/L	45.959	ppb	19:15:38
2	B 249.677†	5057.8	1022.6	15.835	µg/L	15.835	ppb	19:15:18
2	Ba 233.527†	61597.0	62106.2	274.88	µg/L	274.88	ppb	19:15:18
2	Be 313.107†	29598.4	30865.4	8.8064	µg/L	8.8064	ppb	19:15:18
2	Cd 226.502†	1434.7	1546.6	0.3667	µg/L	0.3667	ppb	19:15:38
2	Co 228.616†	1265.6	1483.4	14.896	µg/L	14.896	ppb	19:15:38
2	Cr 267.716†	15410.3	15268.3	135.11	µg/L	135.11	ppb	19:15:38
2	Cu 324.752†	16173.4	13233.1	69.188	µg/L	69.188	ppb	19:15:18
2	Mn 257.610†	1884635.5	1895609.6	2514.1	µg/L	2514.1	ppb	19:15:18
2	Mo 202.031†	380.4	421.2	17.731	µg/L	17.731	ppb	19:15:38
2	Ni 231.604†	6363.2	6496.7	81.282	µg/L	81.282	ppb	19:15:38
2	P 214.914†	2375.6	2415.3	501.30	µg/L	501.30	ppb	19:15:38
2	Pb 220.353†	2341.0	2251.4	141.02	µg/L	141.02	ppb	19:15:38

2	S 181.975 Axial†	325.5	238.5	200.76	µg/L	200.76 ppb	19:15:38
2	Sb 206.836†	84.5	-4.7	-3.7102	µg/L	-3.7102 ppb	19:15:38
2	Se 196.026†	-54.5	-61.0	8.95	µg/L	8.95 ppb	19:15:38
2	SiO2†	352452.0	352799.8	37360	µg/L	37360 ppb	19:15:18
2	Si 251.611†	1102310.2	1108069.9	17473	µg/L	17473 ppb	19:15:18
2	Sn 189.927†	55.9	54.4	10.913	µg/L	10.913 ppb	19:15:38
2	Ti 334.940†	2050161.1	2061477.0	2117.2	µg/L	2117.2 ppb	19:15:18
2	Tl 190.801†	-368.8	-256.7	-6.7115	µg/L	-6.7115 ppb	19:15:38
2	U 409.014†	-7170.9	-7050.0	-444.86	µg/L	-444.86 ppb	19:15:18
2	V 292.402†	18220.9	17905.6	81.094	µg/L	81.094 ppb	19:15:18
2	Zn 213.857†	90270.0	90301.5	530.14	µg/L	530.14 ppb	19:15:18
3	Sc RADIAL	138871.5	138871.5	99.1	%		19:14:51
3	Al 396.153Radial†	185320.3	187028.9	39376	µg/L	39376 ppb	19:14:49
3	Ca 317.933Radial†	148765.7	149502.7	10182	µg/L	10182 ppb	19:14:51
3	Fe 238.204 Radial†	1278229.0	1289354.6	96288	µg/L	96288 ppb	19:14:49
3	K 766.490 Radial†	12876.3	11495.7	4543.7	µg/L	4543.7 ppb	19:14:51
3	Mg 279.077 IEC†	13934.4	13884.5	6328.8	µg/L	6328.8 ppb	19:14:51
3	Na 589.592 Radial†	9329.1	8458.6	1307.1	µg/L	1307.1 ppb	19:14:51
3	Sr 421.552†	40003.3	40559.6	95.579	µg/L	95.579 ppb	19:14:51
3	Sc 361.383	1797236.8	1797236.8	99.617	%		19:15:41
3	Y 371.029	1359206.5	1359206.5	128.55	%		19:15:41
3	Ag 328.068†	4208.4	-340.6	-2.4137	µg/L	-2.4137 ppb	19:15:41
3	As 188.979†	39.7	58.4	42.659	µg/L	42.659 ppb	19:16:01
3	B 249.677†	5170.6	1125.4	17.434	µg/L	17.434 ppb	19:15:41
3	Ba 233.527†	61812.0	62194.4	275.27	µg/L	275.27 ppb	19:15:41
3	Be 313.107†	29307.7	30512.2	8.7018	µg/L	8.7018 ppb	19:15:41
3	Cd 226.502†	1448.7	1557.7	0.4410	µg/L	0.4410 ppb	19:16:01
3	Co 228.616†	1254.0	1469.1	14.707	µg/L	14.707 ppb	19:16:01
3	Cr 267.716†	15461.9	15288.2	135.29	µg/L	135.29 ppb	19:16:01
3	Cu 324.752†	15925.7	12950.9	68.003	µg/L	68.003 ppb	19:15:41
3	Mn 257.610†	1887436.3	1894514.7	2512.7	µg/L	2512.7 ppb	19:15:41
3	Mo 202.031†	385.6	425.6	17.875	µg/L	17.875 ppb	19:16:01
3	Ni 231.604†	6368.4	6488.8	81.183	µg/L	81.183 ppb	19:16:01
3	P 214.914†	2377.0	2411.8	500.47	µg/L	500.47 ppb	19:16:01
3	Pb 220.353†	2376.9	2282.6	142.94	µg/L	142.94 ppb	19:16:01
3	S 181.975 Axial†	321.7	234.0	197.01	µg/L	197.01 ppb	19:16:01
3	Sb 206.836†	82.2	-7.2	-4.0275	µg/L	-4.0275 ppb	19:16:01
3	Se 196.026†	-62.1	-68.5	5.99	µg/L	5.99 ppb	19:16:01
3	SiO2†	353235.0	352855.2	37366	µg/L	37366 ppb	19:15:41
3	Si 251.611†	1103369.2	1106848.1	17454	µg/L	17454 ppb	19:15:41
3	Sn 189.927†	57.4	55.8	11.006	µg/L	11.006 ppb	19:16:01
3	Ti 334.940†	2053749.6	2060829.7	2116.5	µg/L	2116.5 ppb	19:15:41
3	Tl 190.801†	-362.8	-249.9	-5.8023	µg/L	-5.8023 ppb	19:16:01
3	U 409.014†	-7306.0	-7170.8	-452.51	µg/L	-452.51 ppb	19:15:41
3	V 292.402†	18212.8	17859.7	80.853	µg/L	80.853 ppb	19:15:41
3	Zn 213.857†	90578.3	90423.8	530.87	µg/L	530.87 ppb	19:15:41

Mean Data: 1202072047|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1796629.2	99.583	%	0.1575				0.16%
Sc RADIAL	138431.5	98.8	%	0.43				0.44%
Y 371.029	1358064.2	128.45	%	0.222				0.17%
Ag 328.068†	-376.5	-2.5546	µg/L	0.42565	-2.5546	ppb	0.42565	16.66%
Al 396.153Radial†	186686.6	39304	µg/L	220.8	39304	ppb	220.8	0.56%
As 188.979†	64.2	44.568	µg/L	1.7101	44.568	ppb	1.7101	3.84%
B 249.677†	1096.1	16.978	µg/L	0.9966	16.978	ppb	0.9966	5.87%
Ba 233.527†	62165.3	275.15	µg/L	0.230	275.15	ppb	0.230	0.08%
Be 313.107†	30727.6	8.7652	µg/L	0.05569	8.7652	ppb	0.05569	0.64%
Ca 317.933Radial†	149672.0	10194	µg/L	11.5	10194	ppb	11.5	0.11%
Cd 226.502†	1545.4	0.3808	µg/L	0.05447	0.3808	ppb	0.05447	14.30%
Co 228.616†	1475.7	14.805	µg/L	0.0946	14.805	ppb	0.0946	0.64%
Cr 267.716†	15253.2	134.98	µg/L	0.397	134.98	ppb	0.397	0.29%
Cu 324.752†	13071.0	68.476	µg/L	0.6274	68.476	ppb	0.6274	0.92%
Fe 238.204 Radial†	1286476.6	96073	µg/L	366.8	96073	ppb	366.8	0.38%
K 766.490 Radial†	11533.0	4558.5	µg/L	40.52	4558.5	ppb	40.52	0.89%
Mg 279.077 IEC†	13875.8	6324.9	µg/L	18.93	6324.9	ppb	18.93	0.30%
Mn 257.610†	1894003.7	2512.0	µg/L	2.54	2512.0	ppb	2.54	0.10%
Mo 202.031†	428.8	17.971	µg/L	0.2991	17.971	ppb	0.2991	1.66%
Na 589.592 Radial†	8501.2	1313.7	µg/L	6.86	1313.7	ppb	6.86	0.52%

Ni 231.604†	6485.4	81.141	µg/L	0.1667	81.141	ppb	0.1667	0.21%
P 214.914†	2410.5	500.29	µg/L	1.111	500.29	ppb	1.111	0.22%
Pb 220.353†	2257.9	141.42	µg/L	1.366	141.42	ppb	1.366	0.97%
S 181.975 Axial†	237.1	199.54	µg/L	2.199	199.54	ppb	2.199	1.10%
Sb 206.836†	-7.1	-4.0054	µg/L	0.28474	-4.0054	ppb	0.28474	7.11%
Se 196.026†	-63.0	8.08	µg/L	1.823	8.08	ppb	1.823	22.55%
SiO2†	352559.5	37335	µg/L	49.2	37335	ppb	49.2	0.13%
Si 251.611†	1107099.0	17457	µg/L	13.8	17457	ppb	13.8	0.08%
Sn 189.927†	52.5	10.779	µg/L	0.3165	10.779	ppb	0.3165	2.94%
Sr 421.552†	40696.7	95.902	µg/L	0.3491	95.902	ppb	0.3491	0.36%
Ti 334.940†	2060406.5	2116.1	µg/L	1.37	2116.1	ppb	1.37	0.06%
Tl 190.801†	-255.3	-6.5468	µg/L	0.67736	-6.5468	ppb	0.67736	10.35%
U 409.014†	-7120.8	-449.30	µg/L	3.971	-449.30	ppb	3.971	0.88%
Concentration less than lower limit for U 409.014.								
V 292.402†	17876.8	80.966	µg/L	0.1210	80.966	ppb	0.1210	0.15%
Zn 213.857†	90342.9	530.41	µg/L	0.402	530.41	ppb	0.402	0.08%

Sequence No.: 98
Sample ID: 1202072048|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 414
Date Collected: 4/5/2010 19:16:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072048|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139403.3	139403.3	99.5	%			19:16:42
1	Al 396.153Radial†	268887.2	270296.0	56884	µg/L	56884	ppb	19:16:40
1	Ca 317.933Radial†	188784.5	189147.0	12883	µg/L	12883	ppb	19:16:42
1	Fe 238.204 Radial†	1109916.0	1115289.7	83289	µg/L	83289	ppb	19:16:40
1	K 766.490 Radial†	28023.5	26668.4	10550	µg/L	10550	ppb	19:16:42
1	Mg 279.077 IEC†	26716.0	26675.7	12258	µg/L	12258	ppb	19:16:42
1	Na 589.592 Radial†	39660.0	38903.7	6021.0	µg/L	6021.0	ppb	19:16:42
1	Sr 421.552†	241351.1	242749.6	572.42	µg/L	572.42	ppb	19:16:40
1	Sc 361.383	1779391.2	1779391.2	98.628	%			19:16:55
1	Y 371.029	1309382.3	1309382.3	123.84	%			19:16:55
1	Ag 328.068†	126906.1	124106.9	513.69	µg/L	513.69	ppb	19:16:55
1	As 188.979†	1418.2	1456.5	518.50	µg/L	518.50	ppb	19:16:57
1	B 249.677†	37345.8	33800.3	523.86	µg/L	523.86	ppb	19:16:55
1	Ba 233.527†	163652.8	166074.7	737.64	µg/L	737.64	ppb	19:16:55
1	Be 313.107†	1732143.9	1757339.7	509.10	µg/L	509.10	ppb	19:16:55
1	Cd 226.502†	75824.1	76982.6	511.79	µg/L	511.79	ppb	19:16:55
1	Co 228.616†	38317.5	39061.1	513.19	µg/L	513.19	ppb	19:16:57
1	Cr 267.716†	69739.4	70476.7	612.06	µg/L	612.06	ppb	19:16:57
1	Cu 324.752†	137782.6	136663.9	584.51	µg/L	584.51	ppb	19:16:55
1	Mn 257.610†	1651250.2	1674043.9	2220.0	µg/L	2220.0	ppb	19:16:55
1	Mo 202.031†	15202.3	15452.4	509.07	µg/L	509.07	ppb	19:16:57
1	Ni 231.604†	44461.8	45176.5	565.21	µg/L	565.21	ppb	19:16:57
1	P 214.914†	3600.2	3676.0	799.07	µg/L	799.07	ppb	19:16:57
1	Pb 220.353†	9798.5	9831.4	610.11	µg/L	610.11	ppb	19:16:57
1	S 181.975 Axial†	6355.3	6354.8	5350.3	µg/L	5350.3	ppb	19:16:57
1	Sb 206.836†	3585.3	3545.5	455.53	µg/L	455.53	ppb	19:16:57
1	Se 196.026†	1231.5	1242.4	519	µg/L	519	ppb	19:16:57
1	SiO2†	411048.6	415029.5	43929	µg/L	43929	ppb	19:16:55
1	Si 251.611†	1286405.8	1303540.1	20545	µg/L	20545	ppb	19:16:55
1	Sn 189.927†	6960.6	7055.5	497.78	µg/L	497.78	ppb	19:16:57
1	Ti 334.940†	2388374.8	2420787.8	2485.4	µg/L	2485.4	ppb	19:16:55
1	Tl 190.801†	3250.8	3410.3	498.10	µg/L	498.10	ppb	19:16:57
1	U 409.014†	2158.6	2352.0	177.05	µg/L	177.05	ppb	19:16:55
1	V 292.402†	110600.5	111716.4	575.88	µg/L	575.88	ppb	19:16:55
1	Zn 213.857†	154818.6	156470.0	923.54	µg/L	923.54	ppb	19:16:55
2	Sc RADIAL	136830.7	136830.7	97.7	%			19:16:46
2	Al 396.153Radial†	267532.7	273989.7	57661	µg/L	57661	ppb	19:16:44
2	Ca 317.933Radial†	184796.7	188631.1	12847	µg/L	12847	ppb	19:16:46
2	Fe 238.204 Radial†	1104345.9	1130558.0	84429	µg/L	84429	ppb	19:16:44
2	K 766.490 Radial†	27388.0	26547.2	10502	µg/L	10502	ppb	19:16:46
2	Mg 279.077 IEC†	26244.7	26698.0	12267	µg/L	12267	ppb	19:16:46
2	Na 589.592 Radial†	38866.2	38840.4	6011.2	µg/L	6011.2	ppb	19:16:46
2	Sr 421.552†	240325.8	246260.0	580.70	µg/L	580.70	ppb	19:16:44
2	Sc 361.383	1768684.8	1768684.8	98.034	%			19:16:59
2	Y 371.029	1302333.2	1302333.2	123.18	%			19:16:59
2	Ag 328.068†	126329.4	124297.5	514.48	µg/L	514.48	ppb	19:16:59
2	As 188.979†	1380.6	1426.9	508.69	µg/L	508.69	ppb	19:17:01
2	B 249.677†	37055.3	33733.2	522.83	µg/L	522.83	ppb	19:16:59
2	Ba 233.527†	162391.5	165792.5	736.37	µg/L	736.37	ppb	19:16:59
2	Be 313.107†	1718479.1	1754031.9	508.15	µg/L	508.15	ppb	19:16:59
2	Cd 226.502†	75213.0	76824.6	510.60	µg/L	510.60	ppb	19:16:59
2	Co 228.616†	37791.5	38759.6	509.14	µg/L	509.14	ppb	19:17:01
2	Cr 267.716†	68788.0	69934.2	607.40	µg/L	607.40	ppb	19:17:01
2	Cu 324.752†	136946.8	136656.9	584.65	µg/L	584.65	ppb	19:16:59
2	Mn 257.610†	1638280.8	1670949.0	2215.9	µg/L	2215.9	ppb	19:16:59
2	Mo 202.031†	14988.7	15327.8	505.04	µg/L	505.04	ppb	19:17:01
2	Ni 231.604†	43930.3	44907.2	561.84	µg/L	561.84	ppb	19:17:01
2	P 214.914†	3772.4	3873.8	844.27	µg/L	844.27	ppb	19:17:01
2	Pb 220.353†	9741.4	9833.3	610.22	µg/L	610.22	ppb	19:17:01

2	S 181.975 Axial†	6242.2	6278.4	5286.0	µg/L	5286.0 ppb	19:17:01
2	Sb 206.836†	3557.8	3539.4	454.75	µg/L	454.75 ppb	19:17:01
2	Se 196.026†	1188.5	1206.1	505	µg/L	505 ppb	19:17:01
2	SiO2†	407971.8	414413.9	43864	µg/L	43864 ppb	19:16:59
2	Si 251.611†	1275255.5	1300061.5	20491	µg/L	20491 ppb	19:16:59
2	Sn 189.927†	6933.5	7070.7	498.82	µg/L	498.82 ppb	19:17:01
2	Ti 334.940†	2372009.8	2418753.4	2483.3	µg/L	2483.3 ppb	19:16:59
2	Tl 190.801†	3180.6	3358.7	491.04	µg/L	491.04 ppb	19:17:01
2	U 409.014†	2249.5	2457.9	183.50	µg/L	183.50 ppb	19:16:59
2	V 292.402†	110103.8	111888.5	576.59	µg/L	576.59 ppb	19:16:59
2	Zn 213.857†	153046.5	155612.6	918.33	µg/L	918.33 ppb	19:16:59
3	Sc RADIAL	138711.4	138711.4	99.0	%		19:16:50
3	Al 396.153Radial†	265074.6	267793.3	56357	µg/L	56357 ppb	19:16:48
3	Ca 317.933Radial†	187352.2	188646.8	12849	µg/L	12849 ppb	19:16:50
3	Fe 238.204 Radial†	1087288.1	1098000.0	81998	µg/L	81998 ppb	19:16:48
3	K 766.490 Radial†	27613.3	26394.5	10442	µg/L	10442 ppb	19:16:50
3	Mg 279.077 IEC†	26525.5	26617.2	12232	µg/L	12232 ppb	19:16:50
3	Na 589.592 Radial†	39511.3	38952.3	6028.6	µg/L	6028.6 ppb	19:16:50
3	Sr 421.552†	237919.9	240494.0	567.10	µg/L	567.10 ppb	19:16:48
3	Sc 361.383	1780015.4	1780015.4	98.662	%		19:17:04
3	Y 371.029	1310600.3	1310600.3	123.96	%		19:17:04
3	Ag 328.068†	127104.8	124263.2	514.35	µg/L	514.35 ppb	19:17:04
3	As 188.979†	1400.0	1437.6	511.81	µg/L	511.81 ppb	19:17:06
3	B 249.677†	37380.4	33822.2	524.21	µg/L	524.21 ppb	19:17:04
3	Ba 233.527†	163559.2	165921.6	736.97	µg/L	736.97 ppb	19:17:04
3	Be 313.107†	1732217.8	1756798.7	508.95	µg/L	508.95 ppb	19:17:04
3	Cd 226.502†	75971.5	77105.1	512.76	µg/L	512.76 ppb	19:17:04
3	Co 228.616†	38205.5	38933.9	511.57	µg/L	511.57 ppb	19:17:06
3	Cr 267.716†	69784.7	70497.8	612.20	µg/L	612.20 ppb	19:17:06
3	Cu 324.752†	137766.7	136598.7	584.05	µg/L	584.05 ppb	19:17:04
3	Mn 257.610†	1650744.0	1672943.7	2218.5	µg/L	2218.5 ppb	19:17:04
3	Mo 202.031†	15179.7	15424.1	508.09	µg/L	508.09 ppb	19:17:06
3	Ni 231.604†	44394.1	45092.0	564.16	µg/L	564.16 ppb	19:17:06
3	P 214.914†	3795.5	3872.6	845.32	µg/L	845.32 ppb	19:17:06
3	Pb 220.353†	9786.8	9816.1	609.17	µg/L	609.17 ppb	19:17:06
3	S 181.975 Axial†	6336.0	6333.0	5331.9	µg/L	5331.9 ppb	19:17:06
3	Sb 206.836†	3613.6	3572.8	459.06	µg/L	459.06 ppb	19:17:06
3	Se 196.026†	1169.2	1178.9	493	µg/L	493 ppb	19:17:06
3	SiO2†	410551.9	414380.0	43861	µg/L	43861 ppb	19:17:04
3	Si 251.611†	1284512.3	1301163.5	20508	µg/L	20508 ppb	19:17:04
3	Sn 189.927†	6963.1	7055.6	497.78	µg/L	497.78 ppb	19:17:06
3	Ti 334.940†	2387763.0	2419318.5	2483.9	µg/L	2483.9 ppb	19:17:04
3	Tl 190.801†	3229.8	3387.9	495.03	µg/L	495.03 ppb	19:17:06
3	U 409.014†	2151.8	2344.3	176.88	µg/L	176.88 ppb	19:17:04
3	V 292.402†	110747.2	111825.7	576.57	µg/L	576.57 ppb	19:17:04
3	Zn 213.857†	154728.7	156323.9	922.80	µg/L	922.80 ppb	19:17:04

Mean Data: 1202072048|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1776030.5	98.441	%	0.3530				0.36%
Sc RADIAL	138315.1	98.7	%	0.95				0.96%
Y 371.029	1307438.6	123.66	%	0.422				0.34%
Ag 328.068†	124222.5	514.17	µg/L	0.424	514.17	ppb	0.424	0.08%
Al 396.153Radial†	270693.0	56967	µg/L	656.4	56967	ppb	656.4	1.15%
As 188.979†	1440.3	513.00	µg/L	5.009	513.00	ppb	5.009	0.98%
B 249.677†	33785.2	523.63	µg/L	0.716	523.63	ppb	0.716	0.14%
Ba 233.527†	165929.6	736.99	µg/L	0.635	736.99	ppb	0.635	0.09%
Be 313.107†	1756056.8	508.73	µg/L	0.513	508.73	ppb	0.513	0.10%
Ca 317.933Radial†	188808.3	12860	µg/L	20.0	12860	ppb	20.0	0.16%
Cd 226.502†	76970.8	511.72	µg/L	1.078	511.72	ppb	1.078	0.21%
Co 228.616†	38918.2	511.30	µg/L	2.038	511.30	ppb	2.038	0.40%
Cr 267.716†	70302.9	610.55	µg/L	2.730	610.55	ppb	2.730	0.45%
Cu 324.752†	136639.8	584.40	µg/L	0.316	584.40	ppb	0.316	0.05%
Fe 238.204 Radial†	1114615.9	83239	µg/L	1216.5	83239	ppb	1216.5	1.46%
K 766.490 Radial†	26536.7	10498	µg/L	54.3	10498	ppb	54.3	0.52%
Mg 279.077 IEC†	26663.7	12253	µg/L	18.2	12253	ppb	18.2	0.15%
Mn 257.610†	1672645.5	2218.1	µg/L	2.08	2218.1	ppb	2.08	0.09%
Mo 202.031†	15401.5	507.40	µg/L	2.102	507.40	ppb	2.102	0.41%
Na 589.592 Radial†	38898.8	6020.3	µg/L	8.73	6020.3	ppb	8.73	0.14%

Ni 231.604†	45058.5	563.74	µg/L	1.723	563.74	ppb	1.723	0.31%
P 214.914†	3807.5	829.56	µg/L	26.402	829.56	ppb	26.402	3.18%
Pb 220.353†	9826.9	609.83	µg/L	0.576	609.83	ppb	0.576	0.09%
S 181.975 Axial†	6322.1	5322.8	µg/L	33.13	5322.8	ppb	33.13	0.62%
Sb 206.836†	3552.6	456.45	µg/L	2.299	456.45	ppb	2.299	0.50%
Se 196.026†	1209.1	505	µg/L	12.8	505	ppb	12.8	2.53%
SiO2†	414607.8	43885	µg/L	38.7	43885	ppb	38.7	0.09%
Si 251.611†	1301588.4	20515	µg/L	28.0	20515	ppb	28.0	0.14%
Sn 189.927†	7060.6	498.13	µg/L	0.602	498.13	ppb	0.602	0.12%
Sr 421.552†	243167.9	573.40	µg/L	6.853	573.40	ppb	6.853	1.20%
Ti 334.940†	2419619.9	2484.2	µg/L	1.08	2484.2	ppb	1.08	0.04%
Tl 190.801†	3385.6	494.72	µg/L	3.537	494.72	ppb	3.537	0.72%
U 409.014†	2384.8	179.14	µg/L	3.775	179.14	ppb	3.775	2.11%
V 292.402†	111810.2	576.35	µg/L	0.408	576.35	ppb	0.408	0.07%
Zn 213.857†	156135.5	921.56	µg/L	2.817	921.56	ppb	2.817	0.31%

Sequence No.: 99
Sample ID: 1202072050|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 415
Date Collected: 4/5/2010 19:17:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072050|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	140025.0	140025.0	100.0	%			19:17:47
1	Al 396.153Radial†	312893.5	313123.9	65901	µg/L	65901	ppb	19:17:45
1	Ca 317.933Radial†	213191.8	212723.7	14488	µg/L	14488	ppb	19:17:47
1	Fe 238.204 Radial†	1264774.5	1265270.8	94490	µg/L	94490	ppb	19:17:45
1	K 766.490 Radial†	30445.6	28966.6	11458	µg/L	11458	ppb	19:17:47
1	Mg 279.077 IEC†	29793.2	29635.2	13615	µg/L	13615	ppb	19:17:47
1	Na 589.592 Radial†	41044.2	40111.6	6207.4	µg/L	6207.4	ppb	19:17:47
1	Sr 421.552†	247266.6	247591.1	583.82	µg/L	583.82	ppb	19:17:45
1	Sc 361.383	1797379.8	1797379.8	99.625	%			19:18:14
1	Y 371.029	1376383.8	1376383.8	130.18	%			19:18:14
1	Ag 328.068†	128093.0	124010.5	513.27	µg/L	513.27	ppb	19:18:14
1	As 188.979†	1404.1	1427.9	511.17	µg/L	511.17	ppb	19:18:16
1	B 249.677†	37745.2	33822.3	524.24	µg/L	524.24	ppb	19:18:14
1	Ba 233.527†	170647.8	171435.4	761.33	µg/L	761.33	ppb	19:18:14
1	Be 313.107†	1750687.9	1758376.7	509.38	µg/L	509.38	ppb	19:18:14
1	Cd 226.502†	76419.4	76810.8	509.45	µg/L	509.45	ppb	19:18:14
1	Co 228.616†	37964.4	38317.8	502.79	µg/L	502.79	ppb	19:18:16
1	Cr 267.716†	68440.8	68465.5	595.04	µg/L	595.04	ppb	19:18:16
1	Cu 324.752†	141018.3	138513.6	593.86	µg/L	593.86	ppb	19:18:14
1	Mn 257.610†	1793382.2	1799955.5	2386.9	µg/L	2386.9	ppb	19:18:14
1	Mo 202.031†	15165.2	15260.9	503.28	µg/L	503.28	ppb	19:18:16
1	Ni 231.604†	44021.5	44283.3	554.04	µg/L	554.04	ppb	19:18:16
1	P 214.914†	3991.0	4031.7	875.66	µg/L	875.66	ppb	19:18:16
1	Pb 220.353†	9782.1	9715.5	603.53	µg/L	603.53	ppb	19:18:16
1	S 181.975 Axial†	6366.3	6301.4	5305.3	µg/L	5305.3	ppb	19:18:16
1	Sb 206.836†	3540.6	3464.2	445.03	µg/L	445.03	ppb	19:18:16
1	Se 196.026†	1215.2	1213.6	511	µg/L	511	ppb	19:18:16
1	SiO2†	460063.7	460058.3	48698	µg/L	48698	ppb	19:18:14
1	Si 251.611†	1438494.7	1443148.3	22747	µg/L	22747	ppb	19:18:14
1	Sn 189.927†	6921.4	6945.6	491.00	µg/L	491.00	ppb	19:18:16
1	Ti 334.940†	2653483.5	2662659.6	2733.8	µg/L	2733.8	ppb	19:18:14
1	Tl 190.801†	3261.4	3387.9	498.15	µg/L	498.15	ppb	19:18:16
1	U 409.014†	1238.8	1406.8	117.02	µg/L	117.02	ppb	19:18:14
1	V 292.402†	115023.9	115034.1	591.48	µg/L	591.48	ppb	19:18:14
1	Zn 213.857†	166717.8	166843.0	984.64	µg/L	984.64	ppb	19:18:14
2	Sc RADIAL	137852.2	137852.2	98.4	%			19:17:51
2	Al 396.153Radial†	314714.5	319908.6	67329	µg/L	67329	ppb	19:17:49
2	Ca 317.933Radial†	209635.7	212471.8	14471	µg/L	14471	ppb	19:17:51
2	Fe 238.204 Radial†	1268126.2	1288622.0	96233	µg/L	96233	ppb	19:17:49
2	K 766.490 Radial†	29767.8	28757.9	11375	µg/L	11375	ppb	19:17:51
2	Mg 279.077 IEC†	29070.9	29370.9	13492	µg/L	13492	ppb	19:17:51
2	Na 589.592 Radial†	40588.5	40295.7	6236.0	µg/L	6236.0	ppb	19:17:51
2	Sr 421.552†	248195.6	252434.5	595.24	µg/L	595.24	ppb	19:17:49
2	Sc 361.383	1772329.1	1772329.1	98.236	%			19:18:18
2	Y 371.029	1359201.3	1359201.3	128.55	%			19:18:18
2	Ag 328.068†	126682.6	124392.1	514.79	µg/L	514.79	ppb	19:18:18
2	As 188.979†	1386.4	1429.9	512.38	µg/L	512.38	ppb	19:18:21
2	B 249.677†	37319.2	33924.2	525.78	µg/L	525.78	ppb	19:18:18
2	Ba 233.527†	168075.7	171238.2	760.43	µg/L	760.43	ppb	19:18:18
2	Be 313.107†	1722268.4	1754284.9	508.19	µg/L	508.19	ppb	19:18:18
2	Cd 226.502†	75131.6	76584.0	507.74	µg/L	507.74	ppb	19:18:18
2	Co 228.616†	38287.0	39184.7	514.17	µg/L	514.17	ppb	19:18:21
2	Cr 267.716†	69041.6	70048.1	608.81	µg/L	608.81	ppb	19:18:21
2	Cu 324.752†	139046.3	138506.9	594.07	µg/L	594.07	ppb	19:18:18
2	Mn 257.610†	1769184.1	1800766.5	2388.0	µg/L	2388.0	ppb	19:18:18
2	Mo 202.031†	15272.6	15585.4	513.96	µg/L	513.96	ppb	19:18:21
2	Ni 231.604†	44516.4	45411.7	568.16	µg/L	568.16	ppb	19:18:21
2	P 214.914†	4098.0	4197.3	913.08	µg/L	913.08	ppb	19:18:21
2	Pb 220.353†	9807.9	9880.5	613.76	µg/L	613.76	ppb	19:18:21

2	S 181.975 Axial†	6381.8	6407.5	5394.7 µg/L	5394.7 ppb	19:18:21
2	Sb 206.836†	3625.4	3600.8	462.58 µg/L	462.58 ppb	19:18:21
2	Se 196.026†	1234.4	1250.4	526 µg/L	526 ppb	19:18:21
2	SiO2†	453328.4	459729.2	48663 µg/L	48663 ppb	19:18:18
2	Si 251.611†	1417909.5	1442602.2	22738 µg/L	22738 ppb	19:18:18
2	Sn 189.927†	7005.5	7129.4	503.75 µg/L	503.75 ppb	19:18:21
2	Ti 334.940†	2618727.9	2664926.3	2736.1 µg/L	2736.1 ppb	19:18:18
2	Tl 190.801†	3268.8	3441.8	505.46 µg/L	505.46 ppb	19:18:21
2	U 409.014†	921.9	1101.8	97.330 µg/L	97.330 ppb	19:18:18
2	V 292.402†	113301.0	114912.2	590.82 µg/L	590.82 ppb	19:18:18
2	Zn 213.857†	164583.2	167035.5	985.54 µg/L	985.54 ppb	19:18:18
3	Sc RADIAL	140727.4	140727.4	100 %		19:17:55
3	Al 396.153Radial†	317241.6	315889.9	66483 µg/L	66483 ppb	19:17:53
3	Ca 317.933Radial†	213153.4	211621.0	14413 µg/L	14413 ppb	19:17:55
3	Fe 238.204 Radial†	1274411.4	1268548.5	94734 µg/L	94734 ppb	19:17:53
3	K 766.490 Radial†	30361.6	28730.9	11365 µg/L	11365 ppb	19:17:55
3	Mg 279.077 IEC†	29592.6	29286.7	13454 µg/L	13454 ppb	19:17:55
3	Na 589.592 Radial†	41233.1	40094.7	6204.9 µg/L	6204.9 ppb	19:17:55
3	Sr 421.552†	249602.7	248681.9	586.39 µg/L	586.39 ppb	19:17:53
3	Sc 361.383	1795629.0	1795629.0	99.528 %		19:18:23
3	Y 371.029	1375316.2	1375316.2	130.08 %		19:18:23
3	Ag 328.068†	128609.0	124654.3	515.87 µg/L	515.87 ppb	19:18:23
3	As 188.979†	1390.2	1415.3	507.01 µg/L	507.01 ppb	19:18:25
3	B 249.677†	37904.1	34018.9	527.27 µg/L	527.27 ppb	19:18:23
3	Ba 233.527†	170890.8	171846.5	763.15 µg/L	763.15 ppb	19:18:23
3	Be 313.107†	1751959.9	1761368.2	510.24 µg/L	510.24 ppb	19:18:23
3	Cd 226.502†	76738.1	77205.7	512.09 µg/L	512.09 ppb	19:18:23
3	Co 228.616†	38383.5	38776.0	508.84 µg/L	508.84 ppb	19:18:25
3	Cr 267.716†	68724.0	68817.0	598.11 µg/L	598.11 ppb	19:18:25
3	Cu 324.752†	141179.7	138813.8	595.13 µg/L	595.13 ppb	19:18:23
3	Mn 257.610†	1797813.9	1806163.4	2395.2 µg/L	2395.2 ppb	19:18:23
3	Mo 202.031†	15299.0	15410.2	508.17 µg/L	508.17 ppb	19:18:25
3	Ni 231.604†	44404.3	44711.0	559.39 µg/L	559.39 ppb	19:18:25
3	P 214.914†	4068.9	4113.9	894.63 µg/L	894.63 ppb	19:18:25
3	Pb 220.353†	9940.5	9884.2	613.98 µg/L	613.98 ppb	19:18:25
3	S 181.975 Axial†	6329.0	6270.1	5279.1 µg/L	5279.1 ppb	19:18:25
3	Sb 206.836†	3509.7	3436.7	441.51 µg/L	441.51 ppb	19:18:25
3	Se 196.026†	1174.8	1174.2	496 µg/L	496 ppb	19:18:25
3	SiO2†	460740.7	461188.7	48817 µg/L	48817 ppb	19:18:23
3	Si 251.611†	1440842.0	1446914.6	22806 µg/L	22806 ppb	19:18:23
3	Sn 189.927†	7025.2	7056.7	498.72 µg/L	498.72 ppb	19:18:25
3	Ti 334.940†	2656393.4	2668180.3	2739.5 µg/L	2739.5 ppb	19:18:23
3	Tl 190.801†	3222.5	3352.1	493.30 µg/L	493.30 ppb	19:18:25
3	U 409.014†	830.4	997.7	91.192 µg/L	91.192 ppb	19:18:23
3	V 292.402†	114912.7	115035.0	591.50 µg/L	591.50 ppb	19:18:23
3	Zn 213.857†	166954.2	167243.8	986.99 µg/L	986.99 ppb	19:18:23

Mean Data: 1202072050|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1788446.0	99.129	%	0.7752				0.78%
Sc RADIAL	139534.9	99.6	%	1.07				1.07%
Y 371.029	1370300.4	129.60	%	0.911				0.70%
Ag 328.068†	124352.3	514.64	µg/L	1.307	514.64	ppb	1.307	0.25%
Al 396.153Radial†	316307.5	66571	µg/L	718.0	66571	ppb	718.0	1.08%
As 188.979†	1424.4	510.19	µg/L	2.819	510.19	ppb	2.819	0.55%
B 249.677†	33921.8	525.76	µg/L	1.518	525.76	ppb	1.518	0.29%
Ba 233.527†	171506.7	761.64	µg/L	1.387	761.64	ppb	1.387	0.18%
Be 313.107†	1758009.9	509.27	µg/L	1.029	509.27	ppb	1.029	0.20%
Ca 317.933Radial†	212272.2	14458	µg/L	39.4	14458	ppb	39.4	0.27%
Cd 226.502†	76866.8	509.76	µg/L	2.194	509.76	ppb	2.194	0.43%
Co 228.616†	38759.5	508.60	µg/L	5.693	508.60	ppb	5.693	1.12%
Cr 267.716†	69110.2	600.66	µg/L	7.228	600.66	ppb	7.228	1.20%
Cu 324.752†	138611.4	594.35	µg/L	0.680	594.35	ppb	0.680	0.11%
Fe 238.204 Radial†	1274147.1	95152	µg/L	944.1	95152	ppb	944.1	0.99%
K 766.490 Radial†	28818.5	11400	µg/L	51.2	11400	ppb	51.2	0.45%
Mg 279.077 IEC†	29431.0	13520	µg/L	84.2	13520	ppb	84.2	0.62%
Mn 257.610†	1802295.1	2390.0	µg/L	4.48	2390.0	ppb	4.48	0.19%
Mo 202.031†	15418.9	508.47	µg/L	5.345	508.47	ppb	5.345	1.05%
Na 589.592 Radial†	40167.3	6216.1	µg/L	17.30	6216.1	ppb	17.30	0.28%

Ni 231.604†	44802.0	560.53 µg/L	7.127	560.53 ppb	7.127	1.27%
P 214.914†	4114.3	894.46 µg/L	18.712	894.46 ppb	18.712	2.09%
Pb 220.353†	9826.8	610.42 µg/L	5.970	610.42 ppb	5.970	0.98%
S 181.975 Axial†	6326.3	5326.4 µg/L	60.61	5326.4 ppb	60.61	1.14%
Sb 206.836†	3500.6	449.71 µg/L	11.287	449.71 ppb	11.287	2.51%
Se 196.026†	1212.7	511 µg/L	15.3	511 ppb	15.3	2.99%
SiO2†	460325.4	48726 µg/L	81.1	48726 ppb	81.1	0.17%
Si 251.611†	1444221.7	22764 µg/L	37.0	22764 ppb	37.0	0.16%
Sn 189.927†	7043.9	497.82 µg/L	6.423	497.82 ppb	6.423	1.29%
Sr 421.552†	249569.2	588.49 µg/L	5.992	588.49 ppb	5.992	1.02%
Ti 334.940†	2665255.4	2736.5 µg/L	2.86	2736.5 ppb	2.86	0.10%
Tl 190.801†	3393.9	498.97 µg/L	6.120	498.97 ppb	6.120	1.23%
U 409.014†	1168.8	101.85 µg/L	13.492	101.85 ppb	13.492	13.25%
V 292.402†	114993.8	591.27 µg/L	0.388	591.27 ppb	0.388	0.07%
Zn 213.857†	167040.8	985.72 µg/L	1.183	985.72 ppb	1.183	0.12%

Sequence No.: 100
Sample ID: 1202072049|965624|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 416
Date Collected: 4/5/2010 19:18:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072049|965624|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138680.9	138680.9	99.0	%			19:19:02
1	Al 396.153Radial†	29596.8	29976.7	6311.1	µg/L	6311.1	ppb	19:19:02
1	Ca 317.933Radial†	24963.8	24646.6	1678.7	µg/L	1678.7	ppb	19:19:04
1	Fe 238.204 Radial†	198706.5	200612.5	14982	µg/L	14982	ppb	19:19:02
1	K 766.490 Radial†	3571.6	2114.2	835.90	µg/L	835.90	ppb	19:19:02
1	Mg 279.077 IEC†	2396.5	2248.4	1025.4	µg/L	1025.4	ppb	19:19:04
1	Na 589.592 Radial†	2284.9	1355.7	209.39	µg/L	209.39	ppb	19:19:04
1	Sr 421.552†	6660.4	6932.7	16.338	µg/L	16.338	ppb	19:19:04
1	Sc 361.383	1791457.3	1791457.3	99.296	%			19:19:31
1	Y 371.029	1098555.6	1098555.6	103.90	%			19:19:31
1	Ag 328.068†	3942.8	-594.4	-2.5884	µg/L	-2.5884	ppb	19:19:33
1	As 188.979†	-1.6	16.9	9.2703	µg/L	9.2703	ppb	19:19:53
1	B 249.677†	4369.0	334.8	5.1967	µg/L	5.1967	ppb	19:19:33
1	Ba 233.527†	9947.1	10162.1	44.987	µg/L	44.987	ppb	19:19:33
1	Be 313.107†	4332.7	5455.2	1.5589	µg/L	1.5589	ppb	19:19:33
1	Cd 226.502†	188.4	293.1	0.4111	µg/L	0.4111	ppb	19:19:53
1	Co 228.616†	24.5	235.0	2.3744	µg/L	2.3744	ppb	19:19:53
1	Cr 267.716†	2373.5	2157.1	19.135	µg/L	19.135	ppb	19:19:53
1	Cu 324.752†	4810.0	1808.0	9.7156	µg/L	9.7156	ppb	19:19:33
1	Mn 257.610†	287142.9	288993.1	383.28	µg/L	383.28	ppb	19:19:33
1	Mo 202.031†	39.2	78.1	3.1706	µg/L	3.1706	ppb	19:19:53
1	Ni 231.604†	847.2	949.1	11.874	µg/L	11.874	ppb	19:19:53
1	P 214.914†	353.2	381.4	79.344	µg/L	79.344	ppb	19:19:53
1	Pb 220.353†	454.3	354.1	22.171	µg/L	22.171	ppb	19:19:53
1	S 181.975 Axial†	130.4	42.4	35.679	µg/L	35.679	ppb	19:19:53
1	Sb 206.836†	92.0	3.0	-0.0652	µg/L	-0.0652	ppb	19:19:53
1	Se 196.026†	12.5	6.4	7.65	µg/L	7.65	ppb	19:19:53
1	SiO2†	50918.6	49540.3	5246.1	µg/L	5246.1	ppb	19:19:33
1	Si 251.611†	155054.9	155386.7	2450.2	µg/L	2450.2	ppb	19:19:33
1	Sn 189.927†	23.7	22.0	2.5940	µg/L	2.5940	ppb	19:19:53
1	Ti 334.940†	307967.1	309326.6	317.68	µg/L	317.68	ppb	19:19:33
1	Tl 190.801†	-151.9	-38.7	-1.0096	µg/L	-1.0096	ppb	19:19:53
1	U 409.014†	-1274.5	-1120.2	-70.711	µg/L	-70.711	ppb	19:19:33
1	V 292.402†	3243.9	2843.7	12.922	µg/L	12.922	ppb	19:19:33
1	Zn 213.857†	15297.7	14903.1	87.581	µg/L	87.581	ppb	19:19:33
2	Sc RADIAL	138063.9	138063.9	98.6	%			19:19:07
2	Al 396.153Radial†	29621.6	30135.5	6344.5	µg/L	6344.5	ppb	19:19:07
2	Ca 317.933Radial†	24919.9	24714.7	1683.3	µg/L	1683.3	ppb	19:19:09
2	Fe 238.204 Radial†	197644.8	200432.1	14968	µg/L	14968	ppb	19:19:07
2	K 766.490 Radial†	3542.9	2101.2	830.74	µg/L	830.74	ppb	19:19:07
2	Mg 279.077 IEC†	2379.0	2241.5	1022.2	µg/L	1022.2	ppb	19:19:09
2	Na 589.592 Radial†	2352.3	1434.3	221.59	µg/L	221.59	ppb	19:19:09
2	Sr 421.552†	6594.6	6896.0	16.251	µg/L	16.251	ppb	19:19:09
2	Sc 361.383	1762064.7	1762064.7	97.667	%			19:19:55
2	Y 371.029	1080785.7	1080785.7	102.22	%			19:19:55
2	Ag 328.068†	4243.4	-220.4	-1.0665	µg/L	-1.0665	ppb	19:19:57
2	As 188.979†	3.4	22.0	10.992	µg/L	10.992	ppb	19:20:17
2	B 249.677†	4350.2	389.0	6.0372	µg/L	6.0372	ppb	19:19:57
2	Ba 233.527†	9992.2	10375.5	45.935	µg/L	45.935	ppb	19:19:57
2	Be 313.107†	4460.9	5659.2	1.6168	µg/L	1.6168	ppb	19:19:57
2	Cd 226.502†	223.1	331.8	0.6744	µg/L	0.6744	ppb	19:20:17
2	Co 228.616†	59.2	270.9	2.8521	µg/L	2.8521	ppb	19:20:17
2	Cr 267.716†	2428.9	2253.7	19.971	µg/L	19.971	ppb	19:20:17
2	Cu 324.752†	4878.9	1959.3	10.343	µg/L	10.343	ppb	19:19:57
2	Mn 257.610†	287681.1	294367.8	390.41	µg/L	390.41	ppb	19:19:57
2	Mo 202.031†	43.0	82.6	3.3159	µg/L	3.3159	ppb	19:20:17
2	Ni 231.604†	880.1	997.0	12.474	µg/L	12.474	ppb	19:20:17
2	P 214.914†	364.8	399.2	83.458	µg/L	83.458	ppb	19:20:17
2	Pb 220.353†	426.9	333.6	20.926	µg/L	20.926	ppb	19:20:17

2	S 181.975 Axial†	135.7	50.0	42.103	µg/L	42.103	ppb	19:20:17
2	Sb 206.836†	77.6	-10.3	-1.7870	µg/L	-1.7870	ppb	19:20:17
2	Se 196.026†	-0.1	-6.3	2.65	µg/L	2.65	ppb	19:20:17
2	SiO2†	51052.4	50532.7	5351.2	µg/L	5351.2	ppb	19:19:57
2	Si 251.611†	155689.9	158641.7	2501.6	µg/L	2501.6	ppb	19:19:57
2	Sn 189.927†	12.0	10.4	1.8104	µg/L	1.8104	ppb	19:20:17
2	Ti 334.940†	308140.1	314677.3	323.18	µg/L	323.18	ppb	19:19:57
2	Tl 190.801†	-156.6	-46.1	-1.9528	µg/L	-1.9528	ppb	19:20:17
2	U 409.014†	-1314.8	-1182.8	-74.625	µg/L	-74.625	ppb	19:19:57
2	V 292.402†	3157.6	2809.8	12.746	µg/L	12.746	ppb	19:19:57
2	Zn 213.857†	15271.8	15133.6	88.958	µg/L	88.958	ppb	19:19:57
3	Sc RADIAL	139346.4	139346.4	99.5	%			19:19:11
3	Al 396.153Radial†	29836.4	30074.8	6331.7	µg/L	6331.7	ppb	19:19:11
3	Ca 317.933Radial†	24917.6	24479.7	1667.3	µg/L	1667.3	ppb	19:19:13
3	Fe 238.204 Radial†	199286.8	200237.3	14954	µg/L	14954	ppb	19:19:11
3	K 766.490 Radial†	3493.3	2018.3	797.88	µg/L	797.88	ppb	19:19:11
3	Mg 279.077 IEC†	2395.2	2235.6	1019.5	µg/L	1019.5	ppb	19:19:13
3	Na 589.592 Radial†	2438.1	1498.7	231.60	µg/L	231.60	ppb	19:19:13
3	Sr 421.552†	6465.8	6704.9	15.800	µg/L	15.800	ppb	19:19:13
3	Sc 361.383	1808346.0	1808346.0	100.23	%			19:20:19
3	Y 371.029	1107789.2	1107789.2	104.78	%			19:20:19
3	Ag 328.068†	4154.3	-420.5	-1.8847	µg/L	-1.8847	ppb	19:20:21
3	As 188.979†	-15.5	3.1	4.6003	µg/L	4.6003	ppb	19:20:41
3	B 249.677†	4405.8	330.4	5.1273	µg/L	5.1273	ppb	19:20:21
3	Ba 233.527†	9898.0	10019.6	44.354	µg/L	44.354	ppb	19:20:21
3	Be 313.107†	4376.5	5458.0	1.5571	µg/L	1.5571	ppb	19:20:21
3	Cd 226.502†	189.2	292.1	0.4075	µg/L	0.4075	ppb	19:20:41
3	Co 228.616†	38.4	248.6	2.5557	µg/L	2.5557	ppb	19:20:41
3	Cr 267.716†	2428.4	2189.5	19.422	µg/L	19.422	ppb	19:20:41
3	Cu 324.752†	4786.2	1739.0	9.4157	µg/L	9.4157	ppb	19:20:21
3	Mn 257.610†	286201.1	285352.7	378.45	µg/L	378.45	ppb	19:20:21
3	Mo 202.031†	36.5	75.0	3.0666	µg/L	3.0666	ppb	19:20:41
3	Ni 231.604†	858.8	952.7	11.919	µg/L	11.919	ppb	19:20:41
3	P 214.914†	347.9	372.8	77.373	µg/L	77.373	ppb	19:20:41
3	Pb 220.353†	468.0	363.4	22.749	µg/L	22.749	ppb	19:20:41
3	S 181.975 Axial†	135.3	46.1	38.804	µg/L	38.804	ppb	19:20:41
3	Sb 206.836†	91.7	1.7	-0.2328	µg/L	-0.2328	ppb	19:20:41
3	Se 196.026†	9.4	3.2	6.37	µg/L	6.37	ppb	19:20:41
3	SiO2†	50800.7	48943.9	5183.0	µg/L	5183.0	ppb	19:20:21
3	Si 251.611†	155187.3	154060.5	2429.3	µg/L	2429.3	ppb	19:20:21
3	Sn 189.927†	10.3	8.4	1.6390	µg/L	1.6390	ppb	19:20:41
3	Ti 334.940†	306806.3	305271.9	313.52	µg/L	313.52	ppb	19:20:21
3	Tl 190.801†	-159.0	-44.4	-1.8397	µg/L	-1.8397	ppb	19:20:41
3	U 409.014†	-1420.6	-1253.9	-79.174	µg/L	-79.174	ppb	19:20:21
3	V 292.402†	3282.9	2852.1	12.967	µg/L	12.967	ppb	19:20:21
3	Zn 213.857†	15202.7	14664.5	86.158	µg/L	86.158	ppb	19:20:21

Mean Data: 1202072049|965624|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787289.3	99.065	%	1.2981				1.31%
Sc RADIAL	138697.1	99.0	%	0.46				0.46%
Y 371.029	1095710.2	103.63	%	1.298				1.25%
Ag 328.068†	-411.8	-1.8465	µg/L	0.76167	-1.8465	ppb	0.76167	41.25%
Al 396.153Radial†	30062.3	6329.1	µg/L	16.87	6329.1	ppb	16.87	0.27%
As 188.979†	14.0	8.2877	µg/L	3.30739	8.2877	ppb	3.30739	39.91%
B 249.677†	351.4	5.4537	µg/L	0.50648	5.4537	ppb	0.50648	9.29%
Ba 233.527†	10185.7	45.092	µg/L	0.7959	45.092	ppb	0.7959	1.76%
Be 313.107†	5524.1	1.5776	µg/L	0.03394	1.5776	ppb	0.03394	2.15%
Ca 317.933Radial†	24613.6	1676.4	µg/L	8.24	1676.4	ppb	8.24	0.49%
Cd 226.502†	305.7	0.4977	µg/L	0.15306	0.4977	ppb	0.15306	30.76%
Co 228.616†	251.5	2.5941	µg/L	0.24116	2.5941	ppb	0.24116	9.30%
Cr 267.716†	2200.1	19.509	µg/L	0.4249	19.509	ppb	0.4249	2.18%
Cu 324.752†	1835.4	9.8249	µg/L	0.47340	9.8249	ppb	0.47340	4.82%
Fe 238.204 Radial†	200427.3	14968	µg/L	14.0	14968	ppb	14.0	0.09%
K 766.490 Radial†	2077.9	821.51	µg/L	20.623	821.51	ppb	20.623	2.51%
Mg 279.077 IEC†	2241.8	1022.4	µg/L	2.95	1022.4	ppb	2.95	0.29%
Mn 257.610†	289571.2	384.05	µg/L	6.016	384.05	ppb	6.016	1.57%
Mo 202.031†	78.5	3.1844	µg/L	0.12523	3.1844	ppb	0.12523	3.93%
Na 589.592 Radial†	1429.6	220.86	µg/L	11.120	220.86	ppb	11.120	5.03%

Ni 231.604†	966.2	12.089	µg/L	0.3340	12.089	ppb	0.3340	2.76%
P 214.914†	384.5	80.058	µg/L	3.1051	80.058	ppb	3.1051	3.88%
Pb 220.353†	350.4	21.949	µg/L	0.9318	21.949	ppb	0.9318	4.25%
S 181.975 Axial†	46.2	38.862	µg/L	3.2124	38.862	ppb	3.2124	8.27%
Sb 206.836†	-1.9	-0.6950	µg/L	0.94940	-0.6950	ppb	0.94940	136.61%
Se 196.026†	1.1	5.55	µg/L	2.599	5.55	ppb	2.599	46.79%
SiO2†	49672.3	5260.1	µg/L	84.99	5260.1	ppb	84.99	1.62%
Si 251.611†	156029.6	2460.4	µg/L	37.17	2460.4	ppb	37.17	1.51%
Sn 189.927†	13.6	2.0145	µg/L	0.50917	2.0145	ppb	0.50917	25.28%
Sr 421.552†	6844.5	16.129	µg/L	0.2884	16.129	ppb	0.2884	1.79%
Ti 334.940†	309758.6	318.13	µg/L	4.845	318.13	ppb	4.845	1.52%
Tl 190.801†	-43.0	-1.6007	µg/L	0.51504	-1.6007	ppb	0.51504	32.18%
U 409.014†	-1185.6	-74.837	µg/L	4.2354	-74.837	ppb	4.2354	5.66%
Concentration less than lower limit for U 409.014.								
V 292.402†	2835.2	12.879	µg/L	0.1172	12.879	ppb	0.1172	0.91%
Zn 213.857†	14900.4	87.566	µg/L	1.4002	87.566	ppb	1.4002	1.60%

Sequence No.: 103
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 19:24:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136521.1	136521.1	97.5	%			19:25:21
1	Al 396.153Radial†	23587.9	24283.6	5089.1	µg/L	5089.1	ppb	19:25:21
1	Ca 317.933Radial†	73815.2	75175.0	5120.1	µg/L	5120.1	ppb	19:25:21
1	Fe 238.204 Radial†	68552.7	70229.0	5244.7	µg/L	5244.7	ppb	19:25:21
1	K 766.490 Radial†	14027.7	12900.9	5107.8	µg/L	5107.8	ppb	19:25:21
1	Mg 279.077 IEC†	10897.0	11009.7	5091.4	µg/L	5091.4	ppb	19:25:21
1	Na 589.592 Radial†	64927.6	65673.9	10175	µg/L	10175	ppb	19:25:21
1	Sr 421.552†	213246.9	219030.7	516.54	µg/L	516.54	ppb	19:25:19
1	Sc 361.383	1785028.6	1785028.6	98.940	%			19:25:48
1	Y 371.029	1036837.5	1036837.5	98.065	%			19:25:48
1	Ag 328.068†	126278.3	123066.0	510.14	µg/L	510.14	ppb	19:25:48
1	As 188.979†	1348.4	1381.4	474.62	µg/L	474.62	ppb	19:26:08
1	B 249.677†	36066.4	32387.7	501.90	µg/L	501.90	ppb	19:25:48
1	Ba 233.527†	112036.2	113381.1	504.38	µg/L	504.38	ppb	19:25:48
1	Be 313.107†	1696395.5	1715661.9	497.13	µg/L	497.13	ppb	19:25:48
1	Cd 226.502†	74724.8	75628.7	510.82	µg/L	510.82	ppb	19:25:48
1	Co 228.616†	38208.2	38827.8	513.92	µg/L	513.92	ppb	19:25:48
1	Cr 267.716†	58401.2	58793.6	508.51	µg/L	508.51	ppb	19:25:48
1	Cu 324.752†	122726.4	121005.2	507.72	µg/L	507.72	ppb	19:25:48
1	Mn 257.610†	380187.9	384076.4	509.28	µg/L	509.28	ppb	19:25:48
1	Mo 202.031†	15218.7	15420.3	504.78	µg/L	504.78	ppb	19:26:08
1	Ni 231.604†	40317.6	40845.5	511.03	µg/L	511.03	ppb	19:25:48
1	P 214.914†	10718.0	10858.6	2503.0	µg/L	2503.0	ppb	19:26:08
1	Pb 220.353†	8208.8	8193.3	505.78	µg/L	505.78	ppb	19:26:08
1	S 181.975 Axial†	1267.6	1192.3	1007.3	µg/L	1007.3	ppb	19:26:08
1	Sb 206.836†	3931.0	3883.4	501.83	µg/L	501.83	ppb	19:26:08
1	Se 196.026†	1259.7	1267.1	501	µg/L	501	ppb	19:26:08
1	SiO2†	52219.3	51039.7	5383.5	µg/L	5383.5	ppb	19:25:48
1	Si 251.611†	159931.4	160877.9	2526.9	µg/L	2526.9	ppb	19:25:48
1	Sn 189.927†	7076.1	7150.0	497.65	µg/L	497.65	ppb	19:26:08
1	Ti 334.940†	487366.6	491765.1	504.44	µg/L	504.44	ppb	19:25:48
1	Tl 190.801†	3527.8	3679.9	510.08	µg/L	510.08	ppb	19:26:08
1	U 409.014†	7214.7	7455.3	501.41	µg/L	501.41	ppb	19:25:48
1	V 292.402†	97263.0	97881.8	514.01	µg/L	514.01	ppb	19:25:48
1	Zn 213.857†	85435.3	85847.6	508.62	µg/L	508.62	ppb	19:25:48
2	Sc RADIAL	137094.4	137094.4	97.9	%			19:25:25
2	Al 396.153Radial†	23424.0	24014.9	5032.5	µg/L	5032.5	ppb	19:25:25
2	Ca 317.933Radial†	74322.8	75376.9	5133.8	µg/L	5133.8	ppb	19:25:25
2	Fe 238.204 Radial†	67171.8	68523.6	5117.3	µg/L	5117.3	ppb	19:25:25
2	K 766.490 Radial†	14279.2	13097.8	5185.8	µg/L	5185.8	ppb	19:25:25
2	Mg 279.077 IEC†	11076.8	11146.7	5154.8	µg/L	5154.8	ppb	19:25:25
2	Na 589.592 Radial†	65167.5	65640.4	10170	µg/L	10170	ppb	19:25:25
2	Sr 421.552†	209465.0	214250.9	505.26	µg/L	505.26	ppb	19:25:23
2	Sc 361.383	1786971.9	1786971.9	99.048	%			19:26:11
2	Y 371.029	1036999.3	1036999.3	98.080	%			19:26:11
2	Ag 328.068†	126068.6	122715.5	508.71	µg/L	508.71	ppb	19:26:11
2	As 188.979†	1350.8	1382.3	474.93	µg/L	474.93	ppb	19:26:31
2	B 249.677†	35905.2	32185.3	498.76	µg/L	498.76	ppb	19:26:11
2	Ba 233.527†	111728.7	112947.4	502.45	µg/L	502.45	ppb	19:26:11
2	Be 313.107†	1693634.9	1711010.1	495.78	µg/L	495.78	ppb	19:26:11
2	Cd 226.502†	74712.9	75534.6	510.20	µg/L	510.20	ppb	19:26:11
2	Co 228.616†	38177.4	38754.8	512.96	µg/L	512.96	ppb	19:26:11
2	Cr 267.716†	58491.0	58820.1	508.72	µg/L	508.72	ppb	19:26:11
2	Cu 324.752†	122491.0	120632.6	506.16	µg/L	506.16	ppb	19:26:11
2	Mn 257.610†	379292.2	382754.2	507.52	µg/L	507.52	ppb	19:26:11
2	Mo 202.031†	15313.0	15498.8	507.34	µg/L	507.34	ppb	19:26:31
2	Ni 231.604†	40397.4	40881.7	511.48	µg/L	511.48	ppb	19:26:11
2	P 214.914†	10815.0	10944.7	2523.0	µg/L	2523.0	ppb	19:26:31
2	Pb 220.353†	8283.3	8259.5	509.84	µg/L	509.84	ppb	19:26:31

2	S 181.975 Axial†	1285.7	1209.2	1021.5 µg/L	1021.5 ppb		19:26:31
2	Sb 206.836†	3943.4	3891.6	502.93 µg/L	502.93 ppb		19:26:31
2	Se 196.026†	1283.8	1290.0	510 µg/L	510 ppb		19:26:31
2	SiO2†	52171.8	50934.3	5372.2 µg/L	5372.2 ppb		19:26:11
2	Si 251.611†	159707.8	160476.3	2520.5 µg/L	2520.5 ppb		19:26:11
2	Sn 189.927†	7124.0	7190.6	500.46 µg/L	500.46 ppb		19:26:31
2	Ti 334.940†	486042.2	489892.3	502.50 µg/L	502.50 ppb		19:26:11
2	Tl 190.801†	3535.1	3683.3	510.53 µg/L	510.53 ppb		19:26:31
2	U 409.014†	7502.0	7737.5	519.15 µg/L	519.15 ppb		19:26:11
2	V 292.402†	97106.3	97616.7	512.70 µg/L	512.70 ppb		19:26:11
2	Zn 213.857†	85218.7	85535.1	506.76 µg/L	506.76 ppb		19:26:11
3	Sc RADIAL	137874.2	137874.2	98.4 %			19:25:29
3	Al 396.153Radial†	23589.1	24047.3	5039.1 µg/L	5039.1 ppb		19:25:29
3	Ca 317.933Radial†	74961.1	75596.0	5148.8 µg/L	5148.8 ppb		19:25:29
3	Fe 238.204 Radial†	67823.4	68797.6	5137.8 µg/L	5137.8 ppb		19:25:29
3	K 766.490 Radial†	14366.5	13103.9	5188.2 µg/L	5188.2 ppb		19:25:29
3	Mg 279.077 IEC†	11197.0	11204.7	5181.7 µg/L	5181.7 ppb		19:25:29
3	Na 589.592 Radial†	65776.7	65882.7	10208 µg/L	10208 ppb		19:25:29
3	Sr 421.552†	212161.4	215780.1	508.87 µg/L	508.87 ppb		19:25:27
3	Sc 361.383	1778122.5	1778122.5	98.557 %			19:26:34
3	Y 371.029	1032990.8	1032990.8	97.701 %			19:26:34
3	Ag 328.068†	125744.9	123020.6	509.94 µg/L	509.94 ppb		19:26:34
3	As 188.979†	1344.1	1382.3	474.94 µg/L	474.94 ppb		19:26:55
3	B 249.677†	36086.7	32549.9	504.42 µg/L	504.42 ppb		19:26:34
3	Ba 233.527†	111477.2	113253.7	503.81 µg/L	503.81 ppb		19:26:34
3	Be 313.107†	1688919.0	1714735.2	496.86 µg/L	496.86 ppb		19:26:34
3	Cd 226.502†	74366.0	75558.0	510.36 µg/L	510.36 ppb		19:26:34
3	Co 228.616†	38121.1	38889.5	514.74 µg/L	514.74 ppb		19:26:34
3	Cr 267.716†	58136.3	58754.2	508.16 µg/L	508.16 ppb		19:26:34
3	Cu 324.752†	122208.1	120961.0	507.52 µg/L	507.52 ppb		19:26:34
3	Mn 257.610†	378251.3	383603.9	508.65 µg/L	508.65 ppb		19:26:34
3	Mo 202.031†	15335.2	15598.3	510.59 µg/L	510.59 ppb		19:26:55
3	Ni 231.604†	40219.7	40904.4	511.76 µg/L	511.76 ppb		19:26:34
3	P 214.914†	10818.9	11002.9	2536.5 µg/L	2536.5 ppb		19:26:55
3	Pb 220.353†	8297.7	8315.7	513.33 µg/L	513.33 ppb		19:26:55
3	S 181.975 Axial†	1279.7	1209.5	1021.8 µg/L	1021.8 ppb		19:26:55
3	Sb 206.836†	3968.3	3936.7	508.80 µg/L	508.80 ppb		19:26:55
3	Se 196.026†	1290.2	1303.0	516 µg/L	516 ppb		19:26:55
3	SiO2†	52053.3	51076.2	5387.1 µg/L	5387.1 ppb		19:26:34
3	Si 251.611†	159258.8	160823.2	2525.9 µg/L	2525.9 ppb		19:26:34
3	Sn 189.927†	7150.7	7253.5	504.83 µg/L	504.83 ppb		19:26:55
3	Ti 334.940†	484620.6	490892.1	503.53 µg/L	503.53 ppb		19:26:34
3	Tl 190.801†	3557.8	3724.1	516.11 µg/L	516.11 ppb		19:26:55
3	U 409.014†	7173.8	7442.2	500.55 µg/L	500.55 ppb		19:26:34
3	V 292.402†	96720.9	97713.6	513.21 µg/L	513.21 ppb		19:26:34
3	Zn 213.857†	84972.8	85713.8	507.83 µg/L	507.83 ppb		19:26:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783374.3	98.848	%	0.2578				0.26%
Sc RADIAL	137163.2	97.9	%	0.48				0.50%
Y 371.029	1035609.2	97.949	%	0.2146				0.22%
Ag 328.068†	122934.0	509.60	µg/L	0.774	509.60	ppb	0.774	0.15%
QC value within limits for Ag 328.068 Recovery = 101.92%								
Al 396.153Radial†	24115.3	5053.6	µg/L	30.98	5053.6	ppb	30.98	0.61%
QC value within limits for Al 396.153Radial Recovery = 101.07%								
As 188.979†	1382.0	474.83	µg/L	0.182	474.83	ppb	0.182	0.04%
QC value within limits for As 188.979 Recovery = 94.97%								
B 249.677†	32374.3	501.69	µg/L	2.838	501.69	ppb	2.838	0.57%
QC value within limits for B 249.677 Recovery = 100.34%								
Ba 233.527†	113194.1	503.55	µg/L	0.990	503.55	ppb	0.990	0.20%
QC value within limits for Ba 233.527 Recovery = 100.71%								
Be 313.107†	1713802.4	496.59	µg/L	0.710	496.59	ppb	0.710	0.14%
QC value within limits for Be 313.107 Recovery = 99.32%								
Ca 317.933Radial†	75382.6	5134.2	µg/L	14.34	5134.2	ppb	14.34	0.28%
QC value within limits for Ca 317.933Radial Recovery = 102.68%								
Cd 226.502†	75573.8	510.46	µg/L	0.324	510.46	ppb	0.324	0.06%
QC value within limits for Cd 226.502 Recovery = 102.09%								
Co 228.616†	38824.0	513.88	µg/L	0.892	513.88	ppb	0.892	0.17%

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   QC value within limits for Co 228.616  Recovery = 102.78%
Cr 267.716†            58789.3      508.46 µg/L         0.281      508.46 ppb          0.281   0.06%
   QC value within limits for Cr 267.716  Recovery = 101.69%
Cu 324.752†           120866.3      507.13 µg/L         0.850      507.13 ppb          0.850   0.17%
   QC value within limits for Cu 324.752  Recovery = 101.43%
Fe 238.204 Radial†     69183.4      5166.6 µg/L         68.39      5166.6 ppb          68.39   1.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.33%
K 766.490 Radial†      13034.2      5160.6 µg/L         45.75      5160.6 ppb          45.75   0.89%
   QC value within limits for K 766.490 Radial  Recovery = 103.21%
Mg 279.077 IEC†        11120.4      5142.7 µg/L         46.37      5142.7 ppb          46.37   0.90%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.85%
Mn 257.610†           383478.2      508.48 µg/L         0.890      508.48 ppb          0.890   0.17%
   QC value within limits for Mn 257.610  Recovery = 101.70%
Mo 202.031†            15505.8      507.57 µg/L         2.916      507.57 ppb          2.916   0.57%
   QC value within limits for Mo 202.031  Recovery = 101.51%
Na 589.592 Radial†     65732.3       10184 µg/L          20.3       10184 ppb           20.3   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 101.84%
Ni 231.604†            40877.2      511.42 µg/L         0.372      511.42 ppb          0.372   0.07%
   QC value within limits for Ni 231.604  Recovery = 102.28%
P 214.914†             10935.4      2520.8 µg/L         16.84      2520.8 ppb          16.84   0.67%
   QC value within limits for P 214.914  Recovery = 100.83%
Pb 220.353†             8256.2      509.65 µg/L         3.780      509.65 ppb          3.780   0.74%
   QC value within limits for Pb 220.353  Recovery = 101.93%
S 181.975 Axial†        1203.7      1016.9 µg/L          8.31      1016.9 ppb           8.31   0.82%
   QC value within limits for S 181.975 Axial  Recovery = 101.69%
Sb 206.836†             3903.9      504.52 µg/L         3.748      504.52 ppb          3.748   0.74%
   QC value within limits for Sb 206.836  Recovery = 100.90%
Se 196.026†             1286.7         509 µg/L           7.1         509 ppb            7.1   1.40%
   QC value within limits for Se 196.026  Recovery = 101.83%
SiO2†                  51016.7      5380.9 µg/L          7.76      5380.9 ppb          7.76   0.14%
   QC value within limits for SiO2  Recovery = 100.62%
Si 251.611†           160725.8      2524.4 µg/L          3.44      2524.4 ppb          3.44   0.14%
   QC value within limits for Si 251.611  Recovery = 100.98%
Sn 189.927†             7198.0      500.98 µg/L         3.616      500.98 ppb          3.616   0.72%
   QC value within limits for Sn 189.927  Recovery = 100.20%
Sr 421.552†           216353.9      510.22 µg/L         5.757      510.22 ppb          5.757   1.13%
   QC value within limits for Sr 421.552  Recovery = 102.04%
Ti 334.940†           490849.8      503.49 µg/L         0.969      503.49 ppb          0.969   0.19%
   QC value within limits for Ti 334.940  Recovery = 100.70%
Tl 190.801†             3695.8      512.24 µg/L         3.356      512.24 ppb          3.356   0.66%
   QC value within limits for Tl 190.801  Recovery = 102.45%
U 409.014†              7545.0      507.04 µg/L        10.500      507.04 ppb         10.500   2.07%
   QC value within limits for U 409.014  Recovery = 101.41%
V 292.402†             97737.4      513.31 µg/L         0.665      513.31 ppb          0.665   0.13%
   QC value within limits for V 292.402  Recovery = 102.66%
Zn 213.857†            85698.8      507.74 µg/L         0.932      507.74 ppb          0.932   0.18%
   QC value within limits for Zn 213.857  Recovery = 101.55%
All analyte(s) passed QC.
```

Sequence No.: 104 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/5/2010 19:27:02**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137538.0	137538.0	98.2	%			19:27:31
1	Al 396.153Radial†	-56.6	20.9	4.3459	µg/L	4.3459	ppb	19:27:51
1	Ca 317.933Radial†	719.8	161.7	11.016	µg/L	11.016	ppb	19:27:51
1	Fe 238.204 Radial†	177.9	63.9	4.7709	µg/L	4.7709	ppb	19:27:51
1	K 766.490 Radial†	1588.5	124.3	49.227	µg/L	49.227	ppb	19:27:31
1	Mg 279.077 IEC†	167.8	-1.6	-0.7105	µg/L	-0.7105	ppb	19:27:51
1	Na 589.592 Radial†	1161.9	231.0	35.761	µg/L	35.761	ppb	19:27:31
1	Sr 421.552†	-147.7	54.1	0.1274	µg/L	0.1274	ppb	19:27:31
1	Sc 361.383	1781074.8	1781074.8	98.721	%			19:28:53
1	Y 371.029	1046057.8	1046057.8	98.937	%			19:28:53
1	Ag 328.068†	3965.4	-548.4	-2.2712	µg/L	-2.2712	ppb	19:28:55
1	As 188.979†	-20.1	-1.8	-0.5998	µg/L	-0.5998	ppb	19:29:15
1	B 249.677†	4012.7	-0.4	-0.0070	µg/L	-0.0070	ppb	19:28:55
1	Ba 233.527†	-152.0	-9.4	-0.0422	µg/L	-0.0422	ppb	19:29:15
1	Be 313.107†	-581.3	502.8	0.1412	µg/L	0.1412	ppb	19:28:55
1	Cd 226.502†	-67.6	34.9	0.2354	µg/L	0.2354	ppb	19:29:15
1	Co 228.616†	-198.6	9.1	0.1201	µg/L	0.1201	ppb	19:29:15
1	Cr 267.716†	265.6	35.8	0.3213	µg/L	0.3213	ppb	19:29:15
1	Cu 324.752†	2803.6	-196.2	-0.8320	µg/L	-0.8320	ppb	19:28:55
1	Mn 257.610†	320.1	139.5	0.1851	µg/L	0.1851	ppb	19:29:15
1	Mo 202.031†	-8.7	29.7	0.9727	µg/L	0.9727	ppb	19:29:15
1	Ni 231.604†	-73.8	21.1	0.2640	µg/L	0.2640	ppb	19:29:15
1	P 214.914†	30.2	56.3	13.013	µg/L	13.013	ppb	19:29:15
1	Pb 220.353†	114.1	12.2	0.7624	µg/L	0.7624	ppb	19:29:15
1	S 181.975 Axial†	90.0	2.2	1.8805	µg/L	1.8805	ppb	19:29:15
1	Sb 206.836†	71.0	-17.8	-2.2895	µg/L	-2.2895	ppb	19:29:15
1	Se 196.026†	17.7	11.8	4.62	µg/L	4.62	ppb	19:29:15
1	SiO2†	1773.9	57.8	6.0928	µg/L	6.0928	ppb	19:29:15
1	Si 251.611†	831.2	74.9	1.1680	µg/L	1.1680	ppb	19:28:55
1	Sn 189.927†	3.0	1.1	0.0785	µg/L	0.0785	ppb	19:29:15
1	Ti 334.940†	691.3	-122.8	-0.1197	µg/L	-0.1197	ppb	19:28:55
1	Tl 190.801†	-123.7	-11.0	-1.5123	µg/L	-1.5123	ppb	19:29:15
1	U 409.014†	-394.1	-235.9	-14.923	µg/L	-14.923	ppb	19:28:55
1	V 292.402†	294.6	-124.8	-0.6461	µg/L	-0.6461	ppb	19:28:55
1	Zn 213.857†	611.5	116.4	0.6935	µg/L	0.6935	ppb	19:29:15
2	Sc RADIAL	135509.1	135509.1	96.7	%			19:27:53
2	Al 396.153Radial†	-68.0	8.3	1.6960	µg/L	1.6960	ppb	19:28:13
2	Ca 317.933Radial†	717.1	169.9	11.572	µg/L	11.572	ppb	19:28:13
2	Fe 238.204 Radial†	180.2	69.0	5.1534	µg/L	5.1534	ppb	19:28:13
2	K 766.490 Radial†	1647.3	209.3	82.916	µg/L	82.916	ppb	19:27:53
2	Mg 279.077 IEC†	162.7	-4.2	-1.9297	µg/L	-1.9297	ppb	19:28:13
2	Na 589.592 Radial†	1160.5	247.2	38.246	µg/L	38.246	ppb	19:27:53
2	Sr 421.552†	-205.6	-8.1	-0.0191	µg/L	-0.0191	ppb	19:27:53
2	Sc 361.383	1794413.8	1794413.8	99.460	%			19:29:17
2	Y 371.029	1053276.9	1053276.9	99.620	%			19:29:17
2	Ag 328.068†	4284.5	-257.5	-1.0692	µg/L	-1.0692	ppb	19:29:20
2	As 188.979†	-19.9	-1.5	-0.4985	µg/L	-0.4985	ppb	19:29:40
2	B 249.677†	4024.5	-18.8	-0.2925	µg/L	-0.2925	ppb	19:29:20
2	Ba 233.527†	-152.0	-8.3	-0.0360	µg/L	-0.0360	ppb	19:29:40
2	Be 313.107†	-579.1	509.5	0.1417	µg/L	0.1417	ppb	19:29:20
2	Cd 226.502†	-69.7	33.3	0.2247	µg/L	0.2247	ppb	19:29:40
2	Co 228.616†	-207.4	1.8	0.0232	µg/L	0.0232	ppb	19:29:40
2	Cr 267.716†	286.1	54.4	0.4865	µg/L	0.4865	ppb	19:29:40
2	Cu 324.752†	2856.4	-164.2	-0.7020	µg/L	-0.7020	ppb	19:29:20
2	Mn 257.610†	305.0	122.0	0.1619	µg/L	0.1619	ppb	19:29:40
2	Mo 202.031†	-9.8	28.7	0.9382	µg/L	0.9382	ppb	19:29:40
2	Ni 231.604†	-50.1	45.5	0.5696	µg/L	0.5696	ppb	19:29:40
2	P 214.914†	0.2	25.9	6.0006	µg/L	6.0006	ppb	19:29:40
2	Pb 220.353†	121.0	18.2	1.1351	µg/L	1.1351	ppb	19:29:40

2	S 181.975 Axial†	91.4	3.0	2.5491	µg/L	2.5491 ppb	19:29:40
2	Sb 206.836†	100.0	10.9	1.4088	µg/L	1.4088 ppb	19:29:40
2	Se 196.026†	9.5	3.4	1.32	µg/L	1.32 ppb	19:29:40
2	SiO2†	1806.8	77.5	8.1672	µg/L	8.1672 ppb	19:29:40
2	Si 251.611†	1044.1	282.8	4.4411	µg/L	4.4411 ppb	19:29:20
2	Sn 189.927†	12.8	11.0	0.7645	µg/L	0.7645 ppb	19:29:40
2	Ti 334.940†	830.7	12.2	0.0208	µg/L	0.0208 ppb	19:29:20
2	Tl 190.801†	-110.5	3.2	0.4432	µg/L	0.4432 ppb	19:29:40
2	U 409.014†	-467.8	-307.0	-19.331	µg/L	-19.331 ppb	19:29:20
2	V 292.402†	562.1	141.9	0.7336	µg/L	0.7336 ppb	19:29:20
2	Zn 213.857†	611.2	111.6	0.6626	µg/L	0.6626 ppb	19:29:40
3	Sc RADIAL	139524.3	139524.3	99.6	%		19:28:15
3	Al 396.153Radial†	-95.3	-17.1	-3.6292	µg/L	-3.6292 ppb	19:28:35
3	Ca 317.933Radial†	721.3	152.8	10.407	µg/L	10.407 ppb	19:28:35
3	Fe 238.204 Radial†	194.5	78.0	5.8243	µg/L	5.8243 ppb	19:28:35
3	K 766.490 Radial†	1638.3	151.2	59.920	µg/L	59.920 ppb	19:28:15
3	Mg 279.077 IEC†	175.9	4.2	1.9469	µg/L	1.9469 ppb	19:28:35
3	Na 589.592 Radial†	1097.1	149.0	23.048	µg/L	23.048 ppb	19:28:15
3	Sr 421.552†	-94.0	110.1	0.2596	µg/L	0.2596 ppb	19:28:15
3	Sc 361.383	1784487.6	1784487.6	98.910	%		19:29:42
3	Y 371.029	1047390.4	1047390.4	99.063	%		19:29:42
3	Ag 328.068†	4222.1	-296.5	-1.2368	µg/L	-1.2368 ppb	19:29:44
3	As 188.979†	-22.7	-4.4	-1.4829	µg/L	-1.4829 ppb	19:30:04
3	B 249.677†	3991.5	-29.7	-0.4618	µg/L	-0.4618 ppb	19:29:44
3	Ba 233.527†	-175.1	-32.5	-0.1446	µg/L	-0.1446 ppb	19:30:04
3	Be 313.107†	-417.2	670.0	0.1895	µg/L	0.1895 ppb	19:29:44
3	Cd 226.502†	-71.3	31.2	0.2107	µg/L	0.2107 ppb	19:30:04
3	Co 228.616†	-197.7	10.4	0.1375	µg/L	0.1375 ppb	19:30:04
3	Cr 267.716†	288.1	58.1	0.5143	µg/L	0.5143 ppb	19:30:04
3	Cu 324.752†	2903.2	-100.9	-0.4334	µg/L	-0.4334 ppb	19:29:44
3	Mn 257.610†	293.3	111.8	0.1483	µg/L	0.1483 ppb	19:30:04
3	Mo 202.031†	-19.1	19.2	0.6286	µg/L	0.6286 ppb	19:30:04
3	Ni 231.604†	-73.1	22.0	0.2750	µg/L	0.2750 ppb	19:30:04
3	P 214.914†	21.5	47.4	10.964	µg/L	10.964 ppb	19:30:04
3	Pb 220.353†	111.7	9.4	0.5932	µg/L	0.5932 ppb	19:30:04
3	S 181.975 Axial†	99.1	11.2	9.4517	µg/L	9.4517 ppb	19:30:04
3	Sb 206.836†	79.6	-9.2	-1.1853	µg/L	-1.1853 ppb	19:30:04
3	Se 196.026†	21.6	15.6	6.15	µg/L	6.15 ppb	19:30:04
3	SiO2†	1832.7	113.8	12.025	µg/L	12.025 ppb	19:30:04
3	Si 251.611†	1221.7	468.2	7.3685	µg/L	7.3685 ppb	19:29:44
3	Sn 189.927†	14.3	12.6	0.8713	µg/L	0.8713 ppb	19:30:04
3	Ti 334.940†	811.1	-2.9	0.0031	µg/L	0.0031 ppb	19:29:44
3	Tl 190.801†	-125.4	-12.5	-1.7091	µg/L	-1.7091 ppb	19:30:04
3	U 409.014†	-397.3	-238.4	-15.063	µg/L	-15.063 ppb	19:29:44
3	V 292.402†	350.0	-69.4	-0.3618	µg/L	-0.3618 ppb	19:29:44
3	Zn 213.857†	601.3	105.0	0.6246	µg/L	0.6246 ppb	19:30:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786658.7	99.030	%	0.3841				0.39%
Sc RADIAL	137523.8	98.2	%	1.43				1.46%
Y 371.029	1048908.4	99.207	%	0.3633				0.37%
Ag 328.068†	-367.5	-1.5258	µg/L	0.65103	-1.5258	ppb	0.65103	42.67%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.0	0.8042	µg/L	4.06162	0.8042	ppb	4.06162	505.04%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.6	-0.8604	µg/L	0.54146	-0.8604	ppb	0.54146	62.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-16.3	-0.2538	µg/L	0.22988	-0.2538	ppb	0.22988	90.59%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-16.7	-0.0742	µg/L	0.06099	-0.0742	ppb	0.06099	82.16%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	560.8	0.1575	µg/L	0.02776	0.1575	ppb	0.02776	17.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	161.5	10.998	µg/L	0.5828	10.998	ppb	0.5828	5.30%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	33.1	0.2236	µg/L	0.01242	0.2236	ppb	0.01242	5.55%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.1	0.0936	µg/L	0.06162	0.0936	ppb	0.06162	65.84%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                49.4      0.4407 µg/L       0.10432      0.4407 ppb        0.10432  23.67%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -153.7     -0.6558 µg/L       0.20328     -0.6558 ppb        0.20328  31.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         70.3      5.2495 µg/L       0.53322      5.2495 ppb        0.53322  10.16%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         161.6      64.021 µg/L       17.2148      64.021 ppb        17.2148  26.89%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.5     -0.2311 µg/L       1.98227     -0.2311 ppb        1.98227 857.66%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               124.4      0.1651 µg/L       0.01865      0.1651 ppb        0.01865  11.30%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                25.9      0.8465 µg/L       0.18948      0.8465 ppb        0.18948  22.38%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        209.1      32.352 µg/L        8.1524      32.352 ppb         8.1524  25.20%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                29.5      0.3696 µg/L       0.17333      0.3696 ppb        0.17333  46.90%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 43.2      9.9925 µg/L       3.60579      9.9925 ppb        3.60579  36.08%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                13.3      0.8302 µg/L       0.27727      0.8302 ppb        0.27727  33.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.5      4.6271 µg/L       4.19158      4.6271 ppb        4.19158  90.59%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -5.4     -0.6886 µg/L       1.89852     -0.6886 ppb        1.89852 275.69%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                10.3       4.03 µg/L         2.470        4.03 ppb          2.470  61.27%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      83.0      8.7615 µg/L       3.01019      8.7615 ppb        3.01019  34.36%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               275.3      4.3259 µg/L       3.10185      4.3259 ppb        3.10185  71.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.2      0.5714 µg/L       0.43023      0.5714 ppb        0.43023  75.29%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                52.0      0.1226 µg/L       0.13942      0.1226 ppb        0.13942 113.71%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -37.8     -0.0320 µg/L       0.07652     -0.0320 ppb        0.07652 239.36%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -6.8     -0.9261 µg/L       1.18991     -0.9261 ppb        1.18991 128.49%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -260.4     -16.439 µg/L        2.5059     -16.439 ppb         2.5059  15.24%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -17.5     -0.0914 µg/L       0.72848     -0.0914 ppb        0.72848 796.79%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               111.0      0.6602 µg/L       0.03449      0.6602 ppb        0.03449   5.22%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 107
Sample ID: 249330001|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 421
Date Collected: 4/5/2010 19:34:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330001|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138450.8	138450.8	98.8	%			19:34:56
1	Al 396.153Radial†	193523.1	195897.0	41243	µg/L	41243	ppb	19:34:54
1	Ca 317.933Radial†	158569.5	159878.8	10889	µg/L	10889	ppb	19:34:56
1	Fe 238.204 Radial†	1122243.7	1135437.0	84794	µg/L	84794	ppb	19:34:54
1	K 766.490 Radial†	14974.4	13658.2	5399.9	µg/L	5399.9	ppb	19:34:56
1	Mg 279.077 IEC†	16018.3	16035.8	7331.7	µg/L	7331.7	ppb	19:34:56
1	Na 589.592 Radial†	12328.4	11522.1	1781.2	µg/L	1781.2	ppb	19:34:56
1	Sr 421.552†	39846.8	40523.9	95.489	µg/L	95.489	ppb	19:34:56
1	Sc 361.383	1794739.1	1794739.1	99.478	%			19:35:08
1	Y 371.029	1213561.3	1213561.3	114.78	%			19:35:08
1	Ag 328.068†	4183.4	-359.9	-2.2512	µg/L	-2.2512	ppb	19:35:08
1	As 188.979†	29.9	48.6	35.791	µg/L	35.791	ppb	19:35:28
1	B 249.677†	5293.3	1255.9	19.483	µg/L	19.483	ppb	19:35:08
1	Ba 233.527†	67752.5	68252.4	302.34	µg/L	302.34	ppb	19:35:08
1	Be 313.107†	28997.6	30241.5	8.6321	µg/L	8.6321	ppb	19:35:08
1	Cd 226.502†	1203.9	1313.6	-0.0234	µg/L	-0.0234	ppb	19:35:28
1	Co 228.616†	832.3	1047.0	9.7311	µg/L	9.7311	ppb	19:35:28
1	Cr 267.716†	4183.0	3971.7	37.127	µg/L	37.127	ppb	19:35:28
1	Cu 324.752†	7424.6	4427.5	30.726	µg/L	30.726	ppb	19:35:08
1	Mn 257.610†	1367366.8	1374354.1	1822.6	µg/L	1822.6	ppb	19:35:08
1	Mo 202.031†	73.4	112.3	7.1922	µg/L	7.1922	ppb	19:35:28
1	Ni 231.604†	2510.6	2619.7	32.776	µg/L	32.776	ppb	19:35:28
1	P 214.914†	1772.4	1807.4	369.39	µg/L	369.39	ppb	19:35:28
1	Pb 220.353†	1899.8	1806.3	113.87	µg/L	113.87	ppb	19:35:28
1	S 181.975 Axial†	367.5	280.5	236.03	µg/L	236.03	ppb	19:35:28
1	Sb 206.836†	80.9	-8.4	-2.7347	µg/L	-2.7347	ppb	19:35:28
1	Se 196.026†	-46.0	-52.4	8.37	µg/L	8.37	ppb	19:35:28
1	SiO2†	401597.6	401964.9	42567	µg/L	42567	ppb	19:35:08
1	Si 251.611†	1255383.7	1261201.4	19888	µg/L	19888	ppb	19:35:08
1	Sn 189.927†	72.2	70.7	11.507	µg/L	11.507	ppb	19:35:28
1	Ti 334.940†	1896875.6	1906002.0	1957.5	µg/L	1957.5	ppb	19:35:08
1	Tl 190.801†	-350.7	-238.3	-7.5790	µg/L	-7.5790	ppb	19:35:28
1	U 409.014†	-6841.0	-6713.6	-425.53	µg/L	-425.53	ppb	19:35:08
1	V 292.402†	17623.6	17292.8	78.767	µg/L	78.767	ppb	19:35:28
1	Zn 213.857†	65674.9	65516.4	383.66	µg/L	383.66	ppb	19:35:08
2	Sc RADIAL	141618.8	141618.8	101	%			19:35:00
2	Al 396.153Radial†	194379.9	192364.1	40499	µg/L	40499	ppb	19:34:58
2	Ca 317.933Radial†	162254.4	159934.8	10893	µg/L	10893	ppb	19:35:00
2	Fe 238.204 Radial†	1127592.1	1115325.6	83292	µg/L	83292	ppb	19:34:58
2	K 766.490 Radial†	15370.9	13711.5	5421.2	µg/L	5421.2	ppb	19:35:00
2	Mg 279.077 IEC†	16469.9	16120.0	7371.9	µg/L	7371.9	ppb	19:35:00
2	Na 589.592 Radial†	12514.3	11426.9	1766.4	µg/L	1766.4	ppb	19:35:00
2	Sr 421.552†	40652.5	40418.9	95.241	µg/L	95.241	ppb	19:35:00
2	Sc 361.383	1799840.1	1799840.1	99.761	%			19:35:31
2	Y 371.029	1217226.0	1217226.0	115.13	%			19:35:31
2	Ag 328.068†	4005.6	-550.0	-3.0314	µg/L	-3.0314	ppb	19:35:31
2	As 188.979†	35.8	54.5	37.445	µg/L	37.445	ppb	19:35:51
2	B 249.677†	5311.1	1258.7	19.528	µg/L	19.528	ppb	19:35:31
2	Ba 233.527†	67605.4	67912.0	300.85	µg/L	300.85	ppb	19:35:31
2	Be 313.107†	29167.2	30328.8	8.6556	µg/L	8.6556	ppb	19:35:31
2	Cd 226.502†	1208.5	1314.8	0.1425	µg/L	0.1425	ppb	19:35:51
2	Co 228.616†	813.1	1025.4	9.5218	µg/L	9.5218	ppb	19:35:51
2	Cr 267.716†	4206.1	3983.0	37.178	µg/L	37.178	ppb	19:35:51
2	Cu 324.752†	7490.1	4472.0	30.689	µg/L	30.689	ppb	19:35:31
2	Mn 257.610†	1365838.6	1368926.6	1815.4	µg/L	1815.4	ppb	19:35:31
2	Mo 202.031†	69.6	108.3	7.0024	µg/L	7.0024	ppb	19:35:51
2	Ni 231.604†	2484.0	2585.8	32.352	µg/L	32.352	ppb	19:35:51
2	P 214.914†	1792.7	1822.7	373.78	µg/L	373.78	ppb	19:35:51
2	Pb 220.353†	1890.6	1791.7	112.97	µg/L	112.97	ppb	19:35:51

2	S 181.975 Axial†	355.2	267.1	224.73 µg/L	224.73 ppb	19:35:51
2	Sb 206.836†	61.8	-27.8	-5.2123 µg/L	-5.2123 ppb	19:35:51
2	Se 196.026†	-49.9	-56.2	6.35 µg/L	6.35 ppb	19:35:51
2	SiO2†	401521.8	400744.9	42438 µg/L	42438 ppb	19:35:31
2	Si 251.611†	1255512.7	1257754.1	19833 µg/L	19833 ppb	19:35:31
2	Sn 189.927†	68.7	67.0	11.227 µg/L	11.227 ppb	19:35:51
2	Ti 334.940†	1895725.9	1899445.4	1950.7 µg/L	1950.7 ppb	19:35:31
2	Tl 190.801†	-333.1	-219.6	-5.1206 µg/L	-5.1206 ppb	19:35:51
2	U 409.014†	-6953.7	-6807.0	-431.17 µg/L	-431.17 ppb	19:35:31
2	V 292.402†	17574.9	17193.8	78.414 µg/L	78.414 ppb	19:35:51
2	Zn 213.857†	65696.5	65351.0	382.82 µg/L	382.82 ppb	19:35:31
3	Sc RADIAL	138845.9	138845.9	99.1 %		19:35:04
3	Al 396.153Radial†	194417.4	196242.1	41316 µg/L	41316 ppb	19:35:02
3	Ca 317.933Radial†	158531.2	159383.6	10855 µg/L	10855 ppb	19:35:04
3	Fe 238.204 Radial†	1126732.2	1136734.8	84891 µg/L	84891 ppb	19:35:02
3	K 766.490 Radial†	14972.4	13613.1	5382.0 µg/L	5382.0 ppb	19:35:04
3	Mg 279.077 IEC†	16062.1	16033.9	7330.8 µg/L	7330.8 ppb	19:35:04
3	Na 589.592 Radial†	12424.8	11583.9	1790.8 µg/L	1790.8 ppb	19:35:04
3	Sr 421.552†	40034.2	40598.2	95.665 µg/L	95.665 ppb	19:35:04
3	Sc 361.383	1816025.5	1816025.5	100.66 %		19:35:54
3	Y 371.029	1227423.4	1227423.4	116.09 %		19:35:54
3	Ag 328.068†	4213.8	-378.9	-2.3249 µg/L	-2.3249 ppb	19:35:54
3	As 188.979†	36.1	54.4	37.781 µg/L	37.781 ppb	19:36:14
3	B 249.677†	5264.3	1164.7	18.066 µg/L	18.066 ppb	19:35:54
3	Ba 233.527†	68378.2	68075.7	301.55 µg/L	301.55 ppb	19:35:54
3	Be 313.107†	29276.1	30176.4	8.6168 µg/L	8.6168 ppb	19:35:54
3	Cd 226.502†	1193.4	1289.0	-0.1998 µg/L	-0.1998 ppb	19:36:14
3	Co 228.616†	820.2	1025.2	9.4366 µg/L	9.4366 ppb	19:36:14
3	Cr 267.716†	4246.4	3985.4	37.240 µg/L	37.240 ppb	19:36:14
3	Cu 324.752†	7520.2	4434.9	30.780 µg/L	30.780 ppb	19:35:54
3	Mn 257.610†	1379362.6	1370159.9	1817.1 µg/L	1817.1 ppb	19:35:54
3	Mo 202.031†	90.6	128.6	7.7288 µg/L	7.7288 ppb	19:36:14
3	Ni 231.604†	2542.1	2621.4	32.797 µg/L	32.797 ppb	19:36:14
3	P 214.914†	1775.7	1789.8	365.26 µg/L	365.26 ppb	19:36:14
3	Pb 220.353†	1912.8	1796.9	113.28 µg/L	113.28 ppb	19:36:14
3	S 181.975 Axial†	376.8	285.4	240.12 µg/L	240.12 ppb	19:36:14
3	Sb 206.836†	78.9	-11.3	-3.1035 µg/L	-3.1035 ppb	19:36:14
3	Se 196.026†	-53.8	-59.6	5.59 µg/L	5.59 ppb	19:36:14
3	SiO2†	405866.9	401474.3	42515 µg/L	42515 ppb	19:35:54
3	Si 251.611†	1268825.8	1259763.5	19865 µg/L	19865 ppb	19:35:54
3	Sn 189.927†	79.0	76.5	11.894 µg/L	11.894 ppb	19:36:14
3	Ti 334.940†	1914215.8	1900878.1	1952.2 µg/L	1952.2 ppb	19:35:54
3	Tl 190.801†	-322.8	-206.4	-3.3023 µg/L	-3.3023 ppb	19:36:14
3	U 409.014†	-6735.7	-6528.3	-413.96 µg/L	-413.96 ppb	19:35:54
3	V 292.402†	17642.0	17103.4	77.794 µg/L	77.794 ppb	19:36:14
3	Zn 213.857†	66602.4	65664.0	384.53 µg/L	384.53 ppb	19:35:54

Mean Data: 249330001|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1803534.9	99.966	%	0.6160				0.62%
Sc RADIAL	139638.5	99.7	%	1.23				1.24%
Y 371.029	1219403.6	115.33	%	0.679				0.59%
Ag 328.068†	-429.6	-2.5358	µg/L	0.43075	-2.5358	ppb	0.43075	16.99%
Al 396.153Radial†	194834.4	41019	µg/L	451.9	41019	ppb	451.9	1.10%
As 188.979†	52.5	37.006	µg/L	1.0650	37.006	ppb	1.0650	2.88%
B 249.677†	1226.4	19.026	µg/L	0.8313	19.026	ppb	0.8313	4.37%
Ba 233.527†	68080.0	301.58	µg/L	0.748	301.58	ppb	0.748	0.25%
Be 313.107†	30248.9	8.6349	µg/L	0.01955	8.6349	ppb	0.01955	0.23%
Ca 317.933Radial†	159732.4	10879	µg/L	20.7	10879	ppb	20.7	0.19%
Cd 226.502†	1305.8	-0.0269	µg/L	0.17117	-0.0269	ppb	0.17117	636.55%
Co 228.616†	1032.5	9.5632	µg/L	0.15156	9.5632	ppb	0.15156	1.58%
Cr 267.716†	3980.0	37.182	µg/L	0.0567	37.182	ppb	0.0567	0.15%
Cu 324.752†	4444.8	30.732	µg/L	0.0458	30.732	ppb	0.0458	0.15%
Fe 238.204 Radial†	1129165.8	84325	µg/L	896.4	84325	ppb	896.4	1.06%
K 766.490 Radial†	13661.0	5401.1	µg/L	19.61	5401.1	ppb	19.61	0.36%
Mg 279.077 IEC†	16063.3	7344.8	µg/L	23.47	7344.8	ppb	23.47	0.32%
Mn 257.610†	1371146.9	1818.4	µg/L	3.77	1818.4	ppb	3.77	0.21%
Mo 202.031†	116.4	7.3078	µg/L	0.37674	7.3078	ppb	0.37674	5.16%
Na 589.592 Radial†	11511.0	1779.5	µg/L	12.27	1779.5	ppb	12.27	0.69%

Ni 231.604†	2609.0	32.641	µg/L	0.2510	32.641	ppb	0.2510	0.77%
P 214.914†	1806.6	369.48	µg/L	4.263	369.48	ppb	4.263	1.15%
Pb 220.353†	1798.3	113.37	µg/L	0.456	113.37	ppb	0.456	0.40%
S 181.975 Axial†	277.7	233.63	µg/L	7.969	233.63	ppb	7.969	3.41%
Sb 206.836†	-15.8	-3.6835	µg/L	1.33673	-3.6835	ppb	1.33673	36.29%
Se 196.026†	-56.0	6.77	µg/L	1.439	6.77	ppb	1.439	21.26%
SiO2†	401394.7	42507	µg/L	65.0	42507	ppb	65.0	0.15%
Si 251.611†	1259573.0	19862	µg/L	27.3	19862	ppb	27.3	0.14%
Sn 189.927†	71.4	11.542	µg/L	0.3350	11.542	ppb	0.3350	2.90%
Sr 421.552†	40513.7	95.465	µg/L	0.2126	95.465	ppb	0.2126	0.22%
Ti 334.940†	1902108.5	1953.5	µg/L	3.54	1953.5	ppb	3.54	0.18%
Tl 190.801†	-221.4	-5.3340	µg/L	2.14634	-5.3340	ppb	2.14634	40.24%
U 409.014†	-6683.0	-423.55	µg/L	8.772	-423.55	ppb	8.772	2.07%
Concentration less than lower limit for U 409.014.								
V 292.402†	17196.7	78.325	µg/L	0.4925	78.325	ppb	0.4925	0.63%
Zn 213.857†	65510.4	383.67	µg/L	0.856	383.67	ppb	0.856	0.22%

Sequence No.: 108
Sample ID: 249330002|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 422
Date Collected: 4/5/2010 19:36:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330002|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138000.4	138000.4	98.5	%			19:36:55
1	Al 396.153Radial†	122625.1	124563.0	26225	µg/L	26225	ppb	19:36:55
1	Ca 317.933Radial†	302704.0	306722.5	20891	µg/L	20891	ppb	19:36:55
1	Fe 238.204 Radial†	1030294.3	1045799.7	78100	µg/L	78100	ppb	19:36:53
1	K 766.490 Radial†	13036.5	11740.3	4641.7	µg/L	4641.7	ppb	19:36:55
1	Mg 279.077 IEC†	12590.4	12608.9	5755.1	µg/L	5755.1	ppb	19:36:55
1	Na 589.592 Radial†	6216.6	5358.3	826.44	µg/L	826.44	ppb	19:36:55
1	Sr 421.552†	60990.3	62119.6	146.34	µg/L	146.34	ppb	19:36:55
1	Sc 361.383	1778093.4	1778093.4	98.556	%			19:37:08
1	Y 371.029	1213652.3	1213652.3	114.79	%			19:37:08
1	Ag 328.068†	4219.8	-283.5	-2.9047	µg/L	-2.9047	ppb	19:37:08
1	As 188.979†	35.0	54.0	36.013	µg/L	36.013	ppb	19:37:28
1	B 249.677†	5513.9	1529.5	23.724	µg/L	23.724	ppb	19:37:08
1	Ba 233.527†	61180.4	62221.6	275.60	µg/L	275.60	ppb	19:37:08
1	Be 313.107†	26967.1	28454.0	8.0908	µg/L	8.0908	ppb	19:37:08
1	Cd 226.502†	1077.0	1196.2	-0.1150	µg/L	-0.1150	ppb	19:37:28
1	Co 228.616†	1139.4	1366.4	14.276	µg/L	14.276	ppb	19:37:28
1	Cr 267.716†	2620.0	2425.2	23.297	µg/L	23.297	ppb	19:37:28
1	Cu 324.752†	5544.6	2589.7	21.960	µg/L	21.960	ppb	19:37:08
1	Mn 257.610†	2208228.4	2240407.1	2971.6	µg/L	2971.6	ppb	19:37:08
1	Mo 202.031†	125.5	165.9	8.6402	µg/L	8.6402	ppb	19:37:28
1	Ni 231.604†	2126.8	2253.8	28.198	µg/L	28.198	ppb	19:37:28
1	P 214.914†	1861.5	1914.4	395.55	µg/L	395.55	ppb	19:37:28
1	Pb 220.353†	4209.5	4167.7	258.58	µg/L	258.58	ppb	19:37:28
1	S 181.975 Axial†	504.5	423.0	355.91	µg/L	355.91	ppb	19:37:28
1	Sb 206.836†	69.6	-19.1	-3.7255	µg/L	-3.7255	ppb	19:37:28
1	Se 196.026†	-41.9	-48.7	7.44	µg/L	7.44	ppb	19:37:28
1	SiO2†	300082.8	302741.6	32059	µg/L	32059	ppb	19:37:08
1	Si 251.611†	937982.5	950962.4	14995	µg/L	14995	ppb	19:37:08
1	Sn 189.927†	247.9	249.6	24.097	µg/L	24.097	ppb	19:37:28
1	Ti 334.940†	1930885.0	1958360.7	2011.7	µg/L	2011.7	ppb	19:37:08
1	Tl 190.801†	-352.4	-243.3	-4.9915	µg/L	-4.9915	ppb	19:37:28
1	U 409.014†	-7992.3	-7946.1	-495.51	µg/L	-495.51	ppb	19:37:08
1	V 292.402†	12138.6	11893.3	51.347	µg/L	51.347	ppb	19:37:28
1	Zn 213.857†	76001.5	76612.4	450.28	µg/L	450.28	ppb	19:37:08
2	Sc RADIAL	137655.6	137655.6	98.3	%			19:36:59
2	Al 396.153Radial†	121492.1	123721.8	26048	µg/L	26048	ppb	19:36:59
2	Ca 317.933Radial†	300585.4	305336.2	20796	µg/L	20796	ppb	19:36:59
2	Fe 238.204 Radial†	1029246.8	1047353.7	78216	µg/L	78216	ppb	19:36:57
2	K 766.490 Radial†	13031.6	11768.5	4652.9	µg/L	4652.9	ppb	19:36:59
2	Mg 279.077 IEC†	12528.9	12578.3	5740.9	µg/L	5740.9	ppb	19:36:59
2	Na 589.592 Radial†	6326.5	5486.0	846.22	µg/L	846.22	ppb	19:36:59
2	Sr 421.552†	60787.3	62068.1	146.22	µg/L	146.22	ppb	19:36:59
2	Sc 361.383	1777228.9	1777228.9	98.508	%			19:37:30
2	Y 371.029	1213268.1	1213268.1	114.75	%			19:37:30
2	Ag 328.068†	4248.8	-252.0	-2.7759	µg/L	-2.7759	ppb	19:37:30
2	As 188.979†	35.8	54.9	36.340	µg/L	36.340	ppb	19:37:51
2	B 249.677†	5592.9	1612.5	25.016	µg/L	25.016	ppb	19:37:30
2	Ba 233.527†	61050.3	62119.8	275.15	µg/L	275.15	ppb	19:37:30
2	Be 313.107†	26887.5	28386.6	8.0721	µg/L	8.0721	ppb	19:37:30
2	Cd 226.502†	1065.2	1184.7	-0.2049	µg/L	-0.2049	ppb	19:37:51
2	Co 228.616†	1092.2	1319.1	13.644	µg/L	13.644	ppb	19:37:51
2	Cr 267.716†	2597.2	2403.3	23.110	µg/L	23.110	ppb	19:37:51
2	Cu 324.752†	5487.7	2534.8	21.748	µg/L	21.748	ppb	19:37:30
2	Mn 257.610†	2205298.6	2238522.7	2969.1	µg/L	2969.1	ppb	19:37:30
2	Mo 202.031†	99.3	139.3	7.7768	µg/L	7.7768	ppb	19:37:51
2	Ni 231.604†	2111.3	2239.2	28.015	µg/L	28.015	ppb	19:37:51
2	P 214.914†	1829.9	1883.3	388.22	µg/L	388.22	ppb	19:37:51
2	Pb 220.353†	4183.1	4143.0	257.04	µg/L	257.04	ppb	19:37:51

2	S 181.975 Axial†	502.9	421.6	354.72	µg/L	354.72 ppb	19:37:51
2	Sb 206.836†	70.3	-18.4	-3.6443	µg/L	-3.6443 ppb	19:37:51
2	Se 196.026†	-51.2	-58.1	3.75	µg/L	3.75 ppb	19:37:51
2	SiO2†	299575.5	302374.7	32020	µg/L	32020 ppb	19:37:30
2	Si 251.611†	936359.1	949777.3	14977	µg/L	14977 ppb	19:37:30
2	Sn 189.927†	233.0	234.7	23.061	µg/L	23.061 ppb	19:37:51
2	Ti 334.940†	1930270.1	1958689.4	2012.0	µg/L	2012.0 ppb	19:37:30
2	Tl 190.801†	-358.8	-250.0	-5.9083	µg/L	-5.9083 ppb	19:37:51
2	U 409.014†	-7944.9	-7901.9	-492.79	µg/L	-492.79 ppb	19:37:30
2	V 292.402†	12039.7	11798.8	50.836	µg/L	50.836 ppb	19:37:51
2	Zn 213.857†	75861.1	76507.3	449.64	µg/L	449.64 ppb	19:37:30
3	Sc RADIAL	137698.4	137698.4	98.3	%		19:37:03
3	Al 396.153Radial†	122296.9	124502.2	26212	µg/L	26212 ppb	19:37:03
3	Ca 317.933Radial†	301018.3	305681.6	20820	µg/L	20820 ppb	19:37:03
3	Fe 238.204 Radial†	1016864.5	1034430.5	77251	µg/L	77251 ppb	19:37:01
3	K 766.490 Radial†	12909.1	11639.8	4601.8	µg/L	4601.8 ppb	19:37:03
3	Mg 279.077 IEC†	12573.5	12619.7	5760.9	µg/L	5760.9 ppb	19:37:03
3	Na 589.592 Radial†	6188.6	5343.7	824.21	µg/L	824.21 ppb	19:37:03
3	Sr 421.552†	60806.7	62068.6	146.22	µg/L	146.22 ppb	19:37:03
3	Sc 361.383	1768782.2	1768782.2	98.039	%		19:37:53
3	Y 371.029	1207442.6	1207442.6	114.20	%		19:37:53
3	Ag 328.068†	4084.6	-398.9	-3.3845	µg/L	-3.3845 ppb	19:37:53
3	As 188.979†	31.7	50.9	34.764	µg/L	34.764 ppb	19:38:13
3	B 249.677†	5422.1	1465.4	22.728	µg/L	22.728 ppb	19:37:53
3	Ba 233.527†	60798.2	62158.6	275.33	µg/L	275.33 ppb	19:37:53
3	Be 313.107†	26991.9	28623.4	8.1373	µg/L	8.1373 ppb	19:37:53
3	Cd 226.502†	1072.1	1196.9	-0.0208	µg/L	-0.0208 ppb	19:38:13
3	Co 228.616†	1104.5	1336.9	13.930	µg/L	13.930 ppb	19:38:13
3	Cr 267.716†	2598.8	2417.6	23.208	µg/L	23.208 ppb	19:38:13
3	Cu 324.752†	5301.6	2371.5	20.916	µg/L	20.916 ppb	19:37:53
3	Mn 257.610†	2196027.8	2239757.4	2970.7	µg/L	2970.7 ppb	19:37:53
3	Mo 202.031†	127.2	168.3	8.6856	µg/L	8.6856 ppb	19:38:13
3	Ni 231.604†	2085.6	2223.2	27.815	µg/L	27.815 ppb	19:38:13
3	P 214.914†	1816.8	1878.8	387.88	µg/L	387.88 ppb	19:38:13
3	Pb 220.353†	4217.9	4198.8	260.53	µg/L	260.53 ppb	19:38:13
3	S 181.975 Axial†	496.8	417.9	351.57	µg/L	351.57 ppb	19:38:13
3	Sb 206.836†	54.0	-34.6	-5.7148	µg/L	-5.7148 ppb	19:38:13
3	Se 196.026†	-38.3	-45.2	8.51	µg/L	8.51 ppb	19:38:13
3	SiO2†	298547.0	302778.0	32063	µg/L	32063 ppb	19:37:53
3	Si 251.611†	932688.9	950573.0	14989	µg/L	14989 ppb	19:37:53
3	Sn 189.927†	246.4	249.5	24.093	µg/L	24.093 ppb	19:38:13
3	Ti 334.940†	1922421.6	1960041.5	2013.4	µg/L	2013.4 ppb	19:37:53
3	Tl 190.801†	-344.8	-237.4	-4.1661	µg/L	-4.1661 ppb	19:38:13
3	U 409.014†	-8086.4	-8084.7	-504.09	µg/L	-504.09 ppb	19:37:53
3	V 292.402†	12011.9	11828.8	51.095	µg/L	51.095 ppb	19:38:13
3	Zn 213.857†	75381.2	76385.6	449.02	µg/L	449.02 ppb	19:37:53

Mean Data: 249330002|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1774701.5	98.368	%	0.2851				0.29%
Sc RADIAL	137784.8	98.4	%	0.13				0.14%
Y 371.029	1211454.3	114.58	%	0.329				0.29%
Ag 328.068†	-311.5	-3.0217	µg/L	0.32069	-3.0217	ppb	0.32069	10.61%
Al 396.153Radial†	124262.3	26161	µg/L	98.7	26161	ppb	98.7	0.38%
As 188.979†	53.3	35.706	µg/L	0.8319	35.706	ppb	0.8319	2.33%
B 249.677†	1535.8	23.823	µg/L	1.1476	23.823	ppb	1.1476	4.82%
Ba 233.527†	62166.7	275.36	µg/L	0.229	275.36	ppb	0.229	0.08%
Be 313.107†	28488.0	8.1001	µg/L	0.03353	8.1001	ppb	0.03353	0.41%
Ca 317.933Radial†	305913.4	20835	µg/L	49.1	20835	ppb	49.1	0.24%
Cd 226.502†	1192.6	-0.1136	µg/L	0.09209	-0.1136	ppb	0.09209	81.09%
Co 228.616†	1340.8	13.950	µg/L	0.3165	13.950	ppb	0.3165	2.27%
Cr 267.716†	2415.4	23.205	µg/L	0.0934	23.205	ppb	0.0934	0.40%
Cu 324.752†	2498.7	21.541	µg/L	0.5518	21.541	ppb	0.5518	2.56%
Fe 238.204 Radial†	1042527.9	77855	µg/L	526.9	77855	ppb	526.9	0.68%
K 766.490 Radial†	11716.2	4632.1	µg/L	26.83	4632.1	ppb	26.83	0.58%
Mg 279.077 IEC†	12602.3	5752.3	µg/L	10.28	5752.3	ppb	10.28	0.18%
Mn 257.610†	2239562.4	2970.4	µg/L	1.27	2970.4	ppb	1.27	0.04%
Mo 202.031†	157.8	8.3675	µg/L	0.51206	8.3675	ppb	0.51206	6.12%
Na 589.592 Radial†	5396.0	832.29	µg/L	12.116	832.29	ppb	12.116	1.46%

Ni 231.604†	2238.8	28.010	µg/L	0.1916	28.010	ppb	0.1916	0.68%
P 214.914†	1892.2	390.55	µg/L	4.332	390.55	ppb	4.332	1.11%
Pb 220.353†	4169.8	258.72	µg/L	1.750	258.72	ppb	1.750	0.68%
S 181.975 Axial†	420.8	354.07	µg/L	2.244	354.07	ppb	2.244	0.63%
Sb 206.836†	-24.0	-4.3615	µg/L	1.17269	-4.3615	ppb	1.17269	26.89%
Se 196.026†	-50.7	6.57	µg/L	2.496	6.57	ppb	2.496	38.01%
SiO2†	302631.5	32048	µg/L	23.6	32048	ppb	23.6	0.07%
Si 251.611†	950437.6	14987	µg/L	9.5	14987	ppb	9.5	0.06%
Sn 189.927†	244.6	23.750	µg/L	0.5967	23.750	ppb	0.5967	2.51%
Sr 421.552†	62085.4	146.26	µg/L	0.069	146.26	ppb	0.069	0.05%
Ti 334.940†	1959030.6	2012.3	µg/L	0.92	2012.3	ppb	0.92	0.05%
Tl 190.801†	-243.6	-5.0220	µg/L	0.87151	-5.0220	ppb	0.87151	17.35%
U 409.014†	-7977.6	-497.46	µg/L	5.897	-497.46	ppb	5.897	1.19%
Concentration less than lower limit for U 409.014.								
V 292.402†	11840.3	51.093	µg/L	0.2551	51.093	ppb	0.2551	0.50%
Zn 213.857†	76501.8	449.65	µg/L	0.630	449.65	ppb	0.630	0.14%

Sequence No.: 109
Sample ID: 249330003|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 423
Date Collected: 4/5/2010 19:38:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330003|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136999.1	136999.1	97.8	%			19:38:53
1	Al 396.153Radial†	112752.0	115376.9	24291	µg/L	24291	ppb	19:38:53
1	Ca 317.933Radial†	159851.6	162890.1	11094	µg/L	11094	ppb	19:38:53
1	Fe 238.204 Radial†	963212.0	984847.2	73548	µg/L	73548	ppb	19:38:50
1	K 766.490 Radial†	15063.6	13910.0	5503.8	µg/L	5503.8	ppb	19:38:53
1	Mg 279.077 IEC†	10755.2	10825.6	4935.7	µg/L	4935.7	ppb	19:38:53
1	Na 589.592 Radial†	4612.1	3763.8	578.51	µg/L	578.51	ppb	19:38:53
1	Sr 421.552†	29486.9	30357.3	71.510	µg/L	71.510	ppb	19:38:53
1	Sc 361.383	1784291.6	1784291.6	98.899	%			19:39:05
1	Y 371.029	1154655.7	1154655.7	109.21	%			19:39:05
1	Ag 328.068†	3794.0	-728.9	-4.0939	µg/L	-4.0939	ppb	19:39:05
1	As 188.979†	20.8	39.6	30.161	µg/L	30.161	ppb	19:39:25
1	B 249.677†	5140.8	1132.9	17.570	µg/L	17.570	ppb	19:39:05
1	Ba 233.527†	53964.6	54709.9	242.28	µg/L	242.28	ppb	19:39:05
1	Be 313.107†	20944.6	22269.4	6.3341	µg/L	6.3341	ppb	19:39:05
1	Cd 226.502†	998.8	1113.3	-0.1993	µg/L	-0.1993	ppb	19:39:25
1	Co 228.616†	837.3	1056.9	10.387	µg/L	10.387	ppb	19:39:25
1	Cr 267.716†	3142.1	2943.8	27.709	µg/L	27.709	ppb	19:39:25
1	Cu 324.752†	7272.4	4317.2	28.593	µg/L	28.593	ppb	19:39:05
1	Mn 257.610†	1730508.1	1749586.0	2320.5	µg/L	2320.5	ppb	19:39:05
1	Mo 202.031†	175.3	215.8	10.079	µg/L	10.079	ppb	19:39:25
1	Ni 231.604†	1701.4	1816.3	22.724	µg/L	22.724	ppb	19:39:25
1	P 214.914†	2856.4	2913.9	629.35	µg/L	629.35	ppb	19:39:25
1	Pb 220.353†	3716.2	3654.1	226.54	µg/L	226.54	ppb	19:39:25
1	S 181.975 Axial†	580.4	497.9	418.93	µg/L	418.93	ppb	19:39:25
1	Sb 206.836†	94.8	6.1	-0.4408	µg/L	-0.4408	ppb	19:39:25
1	Se 196.026†	-44.9	-51.6	4.83	µg/L	4.83	ppb	19:39:25
1	SiO2†	209850.0	210446.8	22285	µg/L	22285	ppb	19:39:05
1	Si 251.611†	654087.4	660601.1	10417	µg/L	10417	ppb	19:39:05
1	Sn 189.927†	299.3	300.8	26.652	µg/L	26.652	ppb	19:39:25
1	Ti 334.940†	1653544.4	1671127.2	1716.4	µg/L	1716.4	ppb	19:39:05
1	Tl 190.801†	-313.9	-203.1	-4.1103	µg/L	-4.1103	ppb	19:39:25
1	U 409.014†	-6215.7	-6121.5	-383.84	µg/L	-383.84	ppb	19:39:05
1	V 292.402†	12659.4	12377.0	54.721	µg/L	54.721	ppb	19:39:25
1	Zn 213.857†	52453.7	52534.6	306.93	µg/L	306.93	ppb	19:39:05
2	Sc RADIAL	137726.6	137726.6	98.3	%			19:38:57
2	Al 396.153Radial†	112939.4	114958.5	24203	µg/L	24203	ppb	19:38:57
2	Ca 317.933Radial†	159919.8	162096.1	11040	µg/L	11040	ppb	19:38:57
2	Fe 238.204 Radial†	969361.4	985899.7	73626	µg/L	73626	ppb	19:38:55
2	K 766.490 Radial†	14988.0	13751.8	5441.1	µg/L	5441.1	ppb	19:38:57
2	Mg 279.077 IEC†	10713.1	10724.7	4889.0	µg/L	4889.0	ppb	19:38:57
2	Na 589.592 Radial†	4542.2	3667.7	563.68	µg/L	563.68	ppb	19:38:57
2	Sr 421.552†	29642.4	30356.2	71.508	µg/L	71.508	ppb	19:38:57
2	Sc 361.383	1787439.0	1787439.0	99.074	%			19:39:28
2	Y 371.029	1156397.3	1156397.3	109.37	%			19:39:28
2	Ag 328.068†	4122.6	-404.0	-2.7487	µg/L	-2.7487	ppb	19:39:28
2	As 188.979†	31.9	50.7	33.933	µg/L	33.933	ppb	19:39:48
2	B 249.677†	5224.4	1208.1	18.740	µg/L	18.740	ppb	19:39:28
2	Ba 233.527†	54004.3	54653.9	242.03	µg/L	242.03	ppb	19:39:28
2	Be 313.107†	20388.2	21670.6	6.1659	µg/L	6.1659	ppb	19:39:28
2	Cd 226.502†	1004.7	1117.4	-0.1796	µg/L	-0.1796	ppb	19:39:48
2	Co 228.616†	830.8	1048.9	10.277	µg/L	10.277	ppb	19:39:48
2	Cr 267.716†	3158.9	2955.2	27.797	µg/L	27.797	ppb	19:39:48
2	Cu 324.752†	7142.7	4173.4	28.016	µg/L	28.016	ppb	19:39:28
2	Mn 257.610†	1732736.3	1748753.9	2319.4	µg/L	2319.4	ppb	19:39:28
2	Mo 202.031†	184.8	225.1	10.384	µg/L	10.384	ppb	19:39:48
2	Ni 231.604†	1695.4	1807.2	22.610	µg/L	22.610	ppb	19:39:48
2	P 214.914†	2860.4	2912.8	629.04	µg/L	629.04	ppb	19:39:48
2	Pb 220.353†	3711.3	3642.6	225.80	µg/L	225.80	ppb	19:39:48

2	S 181.975 Axial†	556.2	472.5	397.56	µg/L	397.56 ppb	19:39:48
2	Sb 206.836†	87.2	-1.7	-1.4488	µg/L	-1.4488 ppb	19:39:48
2	Se 196.026†	-25.0	-31.4	12.8	µg/L	12.8 ppb	19:39:48
2	SiO2†	210040.8	210265.7	22266	µg/L	22266 ppb	19:39:28
2	Si 251.611†	655118.7	660477.5	10415	µg/L	10415 ppb	19:39:28
2	Sn 189.927†	301.2	302.2	26.736	µg/L	26.736 ppb	19:39:48
2	Ti 334.940†	1653539.2	1668177.9	1713.4	µg/L	1713.4 ppb	19:39:28
2	Tl 190.801†	-313.3	-201.9	-3.9797	µg/L	-3.9797 ppb	19:39:48
2	U 409.014†	-5954.8	-5847.1	-366.58	µg/L	-366.58 ppb	19:39:28
2	V 292.402†	12563.0	12257.2	54.110	µg/L	54.110 ppb	19:39:48
2	Zn 213.857†	52591.3	52580.1	307.19	µg/L	307.19 ppb	19:39:28
3	Sc RADIAL	138187.5	138187.5	98.6	%		19:39:01
3	Al 396.153Radial†	114265.1	115919.2	24405	µg/L	24405 ppb	19:39:01
3	Ca 317.933Radial†	161856.3	163516.7	11137	µg/L	11137 ppb	19:39:01
3	Fe 238.204 Radial†	956263.9	969332.2	72389	µg/L	72389 ppb	19:38:59
3	K 766.490 Radial†	15141.0	13856.0	5482.4	µg/L	5482.4 ppb	19:39:01
3	Mg 279.077 IEC†	10829.8	10806.7	4928.0	µg/L	4928.0 ppb	19:39:01
3	Na 589.592 Radial†	4823.7	3937.7	605.49	µg/L	605.49 ppb	19:39:01
3	Sr 421.552†	29978.1	30595.9	72.072	µg/L	72.072 ppb	19:39:01
3	Sc 361.383	1763432.5	1763432.5	97.743	%		19:39:51
3	Y 371.029	1142159.9	1142159.9	108.03	%		19:39:51
3	Ag 328.068†	4162.5	-306.5	-2.3490	µg/L	-2.3490 ppb	19:39:51
3	As 188.979†	16.9	35.9	28.636	µg/L	28.636 ppb	19:40:11
3	B 249.677†	5119.1	1172.2	18.182	µg/L	18.182 ppb	19:39:51
3	Ba 233.527†	53079.3	54449.5	241.13	µg/L	241.13 ppb	19:39:51
3	Be 313.107†	20320.7	21881.7	6.2246	µg/L	6.2246 ppb	19:39:51
3	Cd 226.502†	1004.8	1131.4	0.0448	µg/L	0.0448 ppb	19:40:11
3	Co 228.616†	812.5	1041.5	10.244	µg/L	10.244 ppb	19:40:11
3	Cr 267.716†	3122.3	2961.1	27.813	µg/L	27.813 ppb	19:40:11
3	Cu 324.752†	6960.7	4085.4	27.462	µg/L	27.462 ppb	19:39:51
3	Mn 257.610†	1704103.9	1743269.6	2312.1	µg/L	2312.1 ppb	19:39:51
3	Mo 202.031†	171.6	214.1	9.9767	µg/L	9.9767 ppb	19:40:11
3	Ni 231.604†	1692.6	1827.6	22.865	µg/L	22.865 ppb	19:40:11
3	P 214.914†	2832.9	2924.0	632.51	µg/L	632.51 ppb	19:40:11
3	Pb 220.353†	3704.1	3686.1	228.54	µg/L	228.54 ppb	19:40:11
3	S 181.975 Axial†	573.0	497.3	418.44	µg/L	418.44 ppb	19:40:11
3	Sb 206.836†	84.9	-2.8	-1.5833	µg/L	-1.5833 ppb	19:40:11
3	Se 196.026†	-35.9	-42.9	7.87	µg/L	7.87 ppb	19:40:11
3	SiO2†	206726.7	209761.3	22213	µg/L	22213 ppb	19:39:51
3	Si 251.611†	644650.0	658769.0	10388	µg/L	10388 ppb	19:39:51
3	Sn 189.927†	293.1	298.0	26.442	µg/L	26.442 ppb	19:40:11
3	Ti 334.940†	1630136.0	1666955.4	1712.1	µg/L	1712.1 ppb	19:39:51
3	Tl 190.801†	-318.6	-211.7	-5.3461	µg/L	-5.3461 ppb	19:40:11
3	U 409.014†	-5997.5	-5972.6	-374.25	µg/L	-374.25 ppb	19:39:51
3	V 292.402†	12441.5	12305.6	54.483	µg/L	54.483 ppb	19:40:11
3	Zn 213.857†	51661.1	52351.1	305.96	µg/L	305.96 ppb	19:39:51

Mean Data: 249330003|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1778387.7	98.572	%	0.7232				0.73%
Sc RADIAL	137637.7	98.2	%	0.43				0.44%
Y 371.029	1151071.0	108.87	%	0.735				0.67%
Ag 328.068†	-479.8	-3.0638	µg/L	0.91417	-3.0638	ppb	0.91417	29.84%
Al 396.153Radial†	115418.2	24299	µg/L	101.4	24299	ppb	101.4	0.42%
As 188.979†	42.1	30.910	µg/L	2.7267	30.910	ppb	2.7267	8.82%
B 249.677†	1171.1	18.164	µg/L	0.5850	18.164	ppb	0.5850	3.22%
Ba 233.527†	54604.4	241.81	µg/L	0.601	241.81	ppb	0.601	0.25%
Be 313.107†	21940.6	6.2416	µg/L	0.08538	6.2416	ppb	0.08538	1.37%
Ca 317.933Radial†	162834.3	11090	µg/L	48.5	11090	ppb	48.5	0.44%
Cd 226.502†	1120.7	-0.1114	µg/L	0.13560	-0.1114	ppb	0.13560	121.76%
Co 228.616†	1049.1	10.303	µg/L	0.0751	10.303	ppb	0.0751	0.73%
Cr 267.716†	2953.4	27.773	µg/L	0.0561	27.773	ppb	0.0561	0.20%
Cu 324.752†	4192.0	28.023	µg/L	0.5655	28.023	ppb	0.5655	2.02%
Fe 238.204 Radial†	980026.4	73188	µg/L	692.8	73188	ppb	692.8	0.95%
K 766.490 Radial†	13839.3	5475.8	µg/L	31.86	5475.8	ppb	31.86	0.58%
Mg 279.077 IEC†	10785.7	4917.6	µg/L	25.01	4917.6	ppb	25.01	0.51%
Mn 257.610†	1747203.1	2317.4	µg/L	4.55	2317.4	ppb	4.55	0.20%
Mo 202.031†	218.3	10.146	µg/L	0.2120	10.146	ppb	0.2120	2.09%
Na 589.592 Radial†	3789.7	582.56	µg/L	21.197	582.56	ppb	21.197	3.64%

Ni 231.604†	1817.0	22.733	µg/L	0.1279	22.733	ppb	0.1279	0.56%
P 214.914†	2916.9	630.30	µg/L	1.919	630.30	ppb	1.919	0.30%
Pb 220.353†	3661.0	226.96	µg/L	1.416	226.96	ppb	1.416	0.62%
S 181.975 Axial†	489.2	411.64	µg/L	12.198	411.64	ppb	12.198	2.96%
Sb 206.836†	0.5	-1.1577	µg/L	0.62443	-1.1577	ppb	0.62443	53.94%
Se 196.026†	-41.9	8.50	µg/L	4.032	8.50	ppb	4.032	47.41%
SiO2†	210157.9	22255	µg/L	37.6	22255	ppb	37.6	0.17%
Si 251.611†	659949.2	10406	µg/L	16.1	10406	ppb	16.1	0.16%
Sn 189.927†	300.3	26.610	µg/L	0.1515	26.610	ppb	0.1515	0.57%
Sr 421.552†	30436.5	71.697	µg/L	0.3254	71.697	ppb	0.3254	0.45%
Ti 334.940†	1668753.5	1714.0	µg/L	2.20	1714.0	ppb	2.20	0.13%
Tl 190.801†	-205.6	-4.4787	µg/L	0.75400	-4.4787	ppb	0.75400	16.84%
U 409.014†	-5980.4	-374.89	µg/L	8.645	-374.89	ppb	8.645	2.31%
Concentration less than lower limit for U 409.014.								
V 292.402†	12313.3	54.438	µg/L	0.3082	54.438	ppb	0.3082	0.57%
Zn 213.857†	52488.6	306.69	µg/L	0.651	306.69	ppb	0.651	0.21%

Sequence No.: 110
Sample ID: 249330004|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 424
Date Collected: 4/5/2010 19:40:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330004|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137168.7	137168.7	97.9	%			19:40:49
1	Al 396.153Radial†	55412.0	56671.9	11931	µg/L	11931	ppb	19:40:51
1	Ca 317.933Radial†	57231.3	57880.0	3942.1	µg/L	3942.1	ppb	19:40:51
1	Fe 238.204 Radial†	729398.0	744830.5	55623	µg/L	55623	ppb	19:40:49
1	K 766.490 Radial†	7016.6	5672.4	2244.0	µg/L	2244.0	ppb	19:40:51
1	Mg 279.077 IEC†	3319.9	3218.2	1438.5	µg/L	1438.5	ppb	19:40:51
1	Na 589.592 Radial†	7641.1	6851.5	1060.0	µg/L	1060.0	ppb	19:40:51
1	Sr 421.552†	11645.0	12097.8	28.501	µg/L	28.501	ppb	19:40:51
1	Sc 361.383	1764060.9	1764060.9	97.778	%			19:41:03
1	Y 371.029	1167524.5	1167524.5	110.43	%			19:41:03
1	Ag 328.068†	4463.7	-0.0	-0.9413	µg/L	-0.9413	ppb	19:41:05
1	As 188.979†	18.9	37.9	28.236	µg/L	28.236	ppb	19:41:25
1	B 249.677†	4253.0	284.5	4.3767	µg/L	4.3767	ppb	19:41:05
1	Ba 233.527†	26784.6	27537.9	121.72	µg/L	121.72	ppb	19:41:05
1	Be 313.107†	13121.4	14511.3	4.0863	µg/L	4.0863	ppb	19:41:05
1	Cd 226.502†	941.7	1066.5	1.4275	µg/L	1.4275	ppb	19:41:25
1	Co 228.616†	811.7	1040.5	11.038	µg/L	11.038	ppb	19:41:25
1	Cr 267.716†	34870.2	35429.5	308.17	µg/L	308.17	ppb	19:41:05
1	Cu 324.752†	27928.9	25527.5	114.60	µg/L	114.60	ppb	19:41:05
1	Mn 257.610†	1709407.8	1748072.8	2318.7	µg/L	2318.7	ppb	19:41:03
1	Mo 202.031†	252.6	296.9	11.955	µg/L	11.955	ppb	19:41:25
1	Ni 231.604†	11040.9	11387.7	142.47	µg/L	142.47	ppb	19:41:05
1	P 214.914†	1872.0	1940.3	412.54	µg/L	412.54	ppb	19:41:25
1	Pb 220.353†	2195.4	2141.9	132.46	µg/L	132.46	ppb	19:41:25
1	S 181.975 Axial†	231.7	148.0	124.62	µg/L	124.62	ppb	19:41:25
1	Sb 206.836†	111.3	24.1	-2.0127	µg/L	-2.0127	ppb	19:41:25
1	Se 196.026†	-16.3	-22.8	9.93	µg/L	9.93	ppb	19:41:25
1	SiO2†	190906.6	193506.3	20491	µg/L	20491	ppb	19:41:05
1	Si 251.611†	585295.9	597830.9	9426.9	µg/L	9426.9	ppb	19:41:03
1	Sn 189.927†	231.2	234.6	19.979	µg/L	19.979	ppb	19:41:25
1	Ti 334.940†	1046792.4	1069759.9	1098.8	µg/L	1098.8	ppb	19:41:03
1	Tl 190.801†	-271.9	-163.8	-5.0401	µg/L	-5.0401	ppb	19:41:25
1	U 409.014†	-6171.8	-6148.7	-382.84	µg/L	-382.84	ppb	19:41:03
1	V 292.402†	10180.2	9988.4	46.040	µg/L	46.040	ppb	19:41:05
1	Zn 213.857†	80197.7	81517.3	480.56	µg/L	480.56	ppb	19:41:05
2	Sc RADIAL	138279.4	138279.4	98.7	%			19:40:53
2	Al 396.153Radial†	55415.0	56220.3	11836	µg/L	11836	ppb	19:40:55
2	Ca 317.933Radial†	57367.9	57548.9	3919.6	µg/L	3919.6	ppb	19:40:55
2	Fe 238.204 Radial†	738317.6	747883.6	55851	µg/L	55851	ppb	19:40:53
2	K 766.490 Radial†	7036.6	5635.1	2229.2	µg/L	2229.2	ppb	19:40:55
2	Mg 279.077 IEC†	3388.0	3260.0	1457.6	µg/L	1457.6	ppb	19:40:55
2	Na 589.592 Radial†	7595.4	6742.6	1043.2	µg/L	1043.2	ppb	19:40:55
2	Sr 421.552†	11748.3	12106.9	28.523	µg/L	28.523	ppb	19:40:55
2	Sc 361.383	1780344.0	1780344.0	98.680	%			19:41:28
2	Y 371.029	1177466.5	1177466.5	111.37	%			19:41:28
2	Ag 328.068†	4425.1	-80.8	-1.2796	µg/L	-1.2796	ppb	19:41:30
2	As 188.979†	16.8	35.6	27.486	µg/L	27.486	ppb	19:41:50
2	B 249.677†	4307.9	300.4	4.6241	µg/L	4.6241	ppb	19:41:30
2	Ba 233.527†	26854.6	27358.3	120.92	µg/L	120.92	ppb	19:41:30
2	Be 313.107†	13007.9	14273.6	4.0196	µg/L	4.0196	ppb	19:41:30
2	Cd 226.502†	965.3	1081.6	1.5055	µg/L	1.5055	ppb	19:41:50
2	Co 228.616†	808.0	1029.1	10.875	µg/L	10.875	ppb	19:41:50
2	Cr 267.716†	35100.7	35336.9	307.37	µg/L	307.37	ppb	19:41:30
2	Cu 324.752†	28060.6	25399.7	114.11	µg/L	114.11	ppb	19:41:30
2	Mn 257.610†	1724442.8	1747319.3	2317.7	µg/L	2317.7	ppb	19:41:28
2	Mo 202.031†	247.2	289.1	11.708	µg/L	11.708	ppb	19:41:50
2	Ni 231.604†	11143.6	11388.5	142.48	µg/L	142.48	ppb	19:41:30
2	P 214.914†	1887.5	1938.5	411.95	µg/L	411.95	ppb	19:41:50
2	Pb 220.353†	2178.6	2104.3	130.13	µg/L	130.13	ppb	19:41:50

2	S 181.975 Axial†	240.2	154.5	130.09	µg/L	130.09 ppb	19:41:50
2	Sb 206.836†	92.6	4.1	-4.5945	µg/L	-4.5945 ppb	19:41:50
2	Se 196.026†	-41.0	-47.7	0.207	µg/L	0.207 ppb	19:41:50
2	SiO2†	192561.1	193397.2	20480	µg/L	20480 ppb	19:41:30
2	Si 251.611†	590947.3	598083.1	9430.9	µg/L	9430.9 ppb	19:41:28
2	Sn 189.927†	215.7	216.6	18.731	µg/L	18.731 ppb	19:41:50
2	Ti 334.940†	1055989.6	1069288.5	1098.3	µg/L	1098.3 ppb	19:41:28
2	Tl 190.801†	-272.5	-161.8	-4.7869	µg/L	-4.7869 ppb	19:41:50
2	U 409.014†	-6113.8	-6032.2	-375.63	µg/L	-375.63 ppb	19:41:28
2	V 292.402†	10021.5	9732.3	44.687	µg/L	44.687 ppb	19:41:30
2	Zn 213.857†	80791.8	81369.2	479.65	µg/L	479.65 ppb	19:41:30
3	Sc RADIAL	136383.0	136383.0	97.4	%		19:40:57
3	Al 396.153Radial†	55495.5	57083.7	12018	µg/L	12018 ppb	19:40:59
3	Ca 317.933Radial†	57165.1	58148.7	3960.4	µg/L	3960.4 ppb	19:40:59
3	Fe 238.204 Radial†	724627.1	744221.7	55578	µg/L	55578 ppb	19:40:57
3	K 766.490 Radial†	7065.7	5764.2	2280.3	µg/L	2280.3 ppb	19:40:59
3	Mg 279.077 IEC†	3445.1	3366.3	1506.9	µg/L	1506.9 ppb	19:40:59
3	Na 589.592 Radial†	7612.2	6866.8	1062.4	µg/L	1062.4 ppb	19:40:59
3	Sr 421.552†	11858.3	12385.4	29.179	µg/L	29.179 ppb	19:40:59
3	Sc 361.383	1783554.4	1783554.4	98.858	%		19:41:52
3	Y 371.029	1180044.9	1180044.9	111.61	%		19:41:52
3	Ag 328.068†	4192.0	-324.8	-2.2852	µg/L	-2.2852 ppb	19:41:54
3	As 188.979†	13.9	32.6	26.414	µg/L	26.414 ppb	19:42:14
3	B 249.677†	4300.7	285.2	4.3887	µg/L	4.3887 ppb	19:41:54
3	Ba 233.527†	26612.5	27064.4	119.62	µg/L	119.62 ppb	19:41:54
3	Be 313.107†	12898.5	14139.2	3.9807	µg/L	3.9807 ppb	19:41:54
3	Cd 226.502†	948.4	1062.7	1.4063	µg/L	1.4063 ppb	19:42:14
3	Co 228.616†	806.6	1026.2	10.850	µg/L	10.850 ppb	19:42:14
3	Cr 267.716†	34979.3	35150.1	305.75	µg/L	305.75 ppb	19:41:54
3	Cu 324.752†	27765.1	25049.7	112.60	µg/L	112.60 ppb	19:41:54
3	Mn 257.610†	1726437.8	1746191.8	2316.2	µg/L	2316.2 ppb	19:41:52
3	Mo 202.031†	251.3	292.8	11.818	µg/L	11.818 ppb	19:42:14
3	Ni 231.604†	11088.8	11312.8	141.54	µg/L	141.54 ppb	19:41:54
3	P 214.914†	1904.2	1951.8	415.28	µg/L	415.28 ppb	19:42:14
3	Pb 220.353†	2242.2	2164.6	133.86	µg/L	133.86 ppb	19:42:14
3	S 181.975 Axial†	248.0	161.9	136.28	µg/L	136.28 ppb	19:42:14
3	Sb 206.836†	106.3	17.8	-2.7985	µg/L	-2.7985 ppb	19:42:14
3	Se 196.026†	-35.2	-41.8	2.46	µg/L	2.46 ppb	19:42:14
3	SiO2†	190745.4	191209.3	20248	µg/L	20248 ppb	19:41:54
3	Si 251.611†	591618.3	597684.0	9424.6	µg/L	9424.6 ppb	19:41:52
3	Sn 189.927†	221.2	221.9	19.092	µg/L	19.092 ppb	19:42:14
3	Ti 334.940†	1057224.5	1068611.5	1097.6	µg/L	1097.6 ppb	19:41:52
3	Tl 190.801†	-269.2	-158.0	-4.2808	µg/L	-4.2808 ppb	19:42:14
3	U 409.014†	-6125.7	-6033.1	-375.66	µg/L	-375.66 ppb	19:41:52
3	V 292.402†	9912.9	9604.2	44.047	µg/L	44.047 ppb	19:41:54
3	Zn 213.857†	80136.5	80559.0	474.85	µg/L	474.85 ppb	19:41:54

Mean Data: 249330004|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1775986.4	98.439	%	0.5793				0.59%
Sc RADIAL	137277.0	98.0	%	0.68				0.69%
Y 371.029	1175011.9	111.13	%	0.625				0.56%
Ag 328.068†	-135.2	-1.5021	µg/L	0.69900	-1.5021	ppb	0.69900	46.54%
Al 396.153Radial†	56658.7	11928	µg/L	90.9	11928	ppb	90.9	0.76%
As 188.979†	35.4	27.379	µg/L	0.9154	27.379	ppb	0.9154	3.34%
B 249.677†	290.0	4.4632	µg/L	0.13951	4.4632	ppb	0.13951	3.13%
Ba 233.527†	27320.2	120.75	µg/L	1.062	120.75	ppb	1.062	0.88%
Be 313.107†	14308.0	4.0289	µg/L	0.05340	4.0289	ppb	0.05340	1.33%
Ca 317.933Radial†	57859.2	3940.7	µg/L	20.46	3940.7	ppb	20.46	0.52%
Cd 226.502†	1070.3	1.4464	µg/L	0.05225	1.4464	ppb	0.05225	3.61%
Co 228.616†	1031.9	10.921	µg/L	0.1025	10.921	ppb	0.1025	0.94%
Cr 267.716†	35305.5	307.10	µg/L	1.236	307.10	ppb	1.236	0.40%
Cu 324.752†	25325.6	113.77	µg/L	1.040	113.77	ppb	1.040	0.91%
Fe 238.204 Radial†	745645.3	55684	µg/L	146.5	55684	ppb	146.5	0.26%
K 766.490 Radial†	5690.5	2251.2	µg/L	26.30	2251.2	ppb	26.30	1.17%
Mg 279.077 IEC†	3281.5	1467.7	µg/L	35.31	1467.7	ppb	35.31	2.41%
Mn 257.610†	1747194.7	2317.5	µg/L	1.26	2317.5	ppb	1.26	0.05%
Mo 202.031†	292.9	11.827	µg/L	0.1237	11.827	ppb	0.1237	1.05%
Na 589.592 Radial†	6820.3	1055.2	µg/L	10.48	1055.2	ppb	10.48	0.99%

Ni 231.604†	11363.0	142.17	µg/L	0.544	142.17	ppb	0.544	0.38%
P 214.914†	1943.5	413.26	µg/L	1.780	413.26	ppb	1.780	0.43%
Pb 220.353†	2136.9	132.15	µg/L	1.885	132.15	ppb	1.885	1.43%
S 181.975 Axial†	154.8	130.33	µg/L	5.836	130.33	ppb	5.836	4.48%
Sb 206.836†	15.4	-3.1352	µg/L	1.32347	-3.1352	ppb	1.32347	42.21%
Se 196.026†	-37.4	4.20	µg/L	5.090	4.20	ppb	5.090	121.19%
SiO2†	192704.2	20406	µg/L	137.2	20406	ppb	137.2	0.67%
Si 251.611†	597866.0	9427.4	µg/L	3.19	9427.4	ppb	3.19	0.03%
Sn 189.927†	224.4	19.267	µg/L	0.6421	19.267	ppb	0.6421	3.33%
Sr 421.552†	12196.7	28.735	µg/L	0.3854	28.735	ppb	0.3854	1.34%
Ti 334.940†	1069220.0	1098.2	µg/L	0.60	1098.2	ppb	0.60	0.05%
Tl 190.801†	-161.2	-4.7026	µg/L	0.38658	-4.7026	ppb	0.38658	8.22%
U 409.014†	-6071.3	-378.04	µg/L	4.155	-378.04	ppb	4.155	1.10%
Concentration less than lower limit for U 409.014.								
V 292.402†	9774.9	44.925	µg/L	1.0172	44.925	ppb	1.0172	2.26%
Zn 213.857†	81148.5	478.36	µg/L	3.068	478.36	ppb	3.068	0.64%

Sequence No.: 111
Sample ID: 249330005|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 425
Date Collected: 4/5/2010 19:42:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330005|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138387.0	138387.0	98.8	%			19:42:52
1	Al 396.153Radial†	97920.1	99205.8	20885	µg/L	20885	ppb	19:42:52
1	Ca 317.933Radial†	102339.7	103029.8	7017.3	µg/L	7017.3	ppb	19:42:54
1	Fe 238.204 Radial†	843700.3	853983.8	63775	µg/L	63775	ppb	19:42:52
1	K 766.490 Radial†	8227.7	6835.3	2702.0	µg/L	2702.0	ppb	19:42:54
1	Mg 279.077 IEC†	8480.2	8412.3	3830.2	µg/L	3830.2	ppb	19:42:54
1	Na 589.592 Radial†	8397.0	7548.0	1167.6	µg/L	1167.6	ppb	19:42:54
1	Sr 421.552†	25961.8	26486.3	62.412	µg/L	62.412	ppb	19:42:54
1	Sc 361.383	1809669.0	1809669.0	100.31	%			19:43:21
1	Y 371.029	1186807.0	1186807.0	112.25	%			19:43:21
1	Ag 328.068†	4068.1	-509.4	-2.7122	µg/L	-2.7122	ppb	19:43:21
1	As 188.979†	43.3	61.8	35.852	µg/L	35.852	ppb	19:43:41
1	B 249.677†	4610.5	531.3	8.2229	µg/L	8.2229	ppb	19:43:21
1	Ba 233.527†	38343.2	38370.9	169.78	µg/L	169.78	ppb	19:43:21
1	Be 313.107†	19287.6	20320.5	5.7744	µg/L	5.7744	ppb	19:43:21
1	Cd 226.502†	912.3	1012.9	0.1542	µg/L	0.1542	ppb	19:43:41
1	Co 228.616†	656.9	865.2	8.2963	µg/L	8.2963	ppb	19:43:41
1	Cr 267.716†	7311.5	7056.0	63.195	µg/L	63.195	ppb	19:43:41
1	Cu 324.752†	9702.9	6637.2	36.855	µg/L	36.855	ppb	19:43:21
1	Mn 257.610†	1007267.6	1004012.6	1331.5	µg/L	1331.5	ppb	19:43:21
1	Mo 202.031†	811.8	847.9	30.344	µg/L	30.344	ppb	19:43:41
1	Ni 231.604†	2417.4	2506.0	31.353	µg/L	31.353	ppb	19:43:41
1	P 214.914†	1510.1	1531.2	314.92	µg/L	314.92	ppb	19:43:41
1	Pb 220.353†	1138.4	1031.5	65.285	µg/L	65.285	ppb	19:43:41
1	S 181.975 Axial†	325.5	235.6	198.45	µg/L	198.45	ppb	19:43:41
1	Sb 206.836†	72.3	-17.6	-3.6210	µg/L	-3.6210	ppb	19:43:41
1	Se 196.026†	-30.4	-36.4	7.42	µg/L	7.42	ppb	19:43:41
1	SiO2†	287799.9	285183.5	30199	µg/L	30199	ppb	19:43:21
1	Si 251.611†	899356.3	895847.9	14126	µg/L	14126	ppb	19:43:21
1	Sn 189.927†	68.9	66.8	10.326	µg/L	10.326	ppb	19:43:41
1	Ti 334.940†	1650077.1	1644224.3	1688.7	µg/L	1688.7	ppb	19:43:21
1	Tl 190.801†	-301.9	-186.7	-4.6781	µg/L	-4.6781	ppb	19:43:41
1	U 409.014†	-6049.1	-5867.3	-372.12	µg/L	-372.12	ppb	19:43:21
1	V 292.402†	13103.8	12640.6	57.522	µg/L	57.522	ppb	19:43:41
1	Zn 213.857†	62619.0	61925.1	364.02	µg/L	364.02	ppb	19:43:21
2	Sc RADIAL	138535.0	138535.0	98.9	%			19:42:56
2	Al 396.153Radial†	98244.2	99427.7	20932	µg/L	20932	ppb	19:42:56
2	Ca 317.933Radial†	102002.6	102578.3	6986.5	µg/L	6986.5	ppb	19:42:58
2	Fe 238.204 Radial†	845236.6	854625.1	63823	µg/L	63823	ppb	19:42:56
2	K 766.490 Radial†	8243.2	6842.1	2704.7	µg/L	2704.7	ppb	19:42:58
2	Mg 279.077 IEC†	8427.7	8350.0	3801.5	µg/L	3801.5	ppb	19:42:58
2	Na 589.592 Radial†	8417.2	7559.3	1169.3	µg/L	1169.3	ppb	19:42:58
2	Sr 421.552†	25922.6	26418.6	62.253	µg/L	62.253	ppb	19:42:58
2	Sc 361.383	1785274.6	1785274.6	98.954	%			19:43:43
2	Y 371.029	1170887.0	1170887.0	110.74	%			19:43:43
2	Ag 328.068†	3715.5	-810.4	-3.9298	µg/L	-3.9298	ppb	19:43:43
2	As 188.979†	30.0	48.9	31.520	µg/L	31.520	ppb	19:44:04
2	B 249.677†	4598.4	581.9	9.0104	µg/L	9.0104	ppb	19:43:43
2	Ba 233.527†	37726.8	38270.3	169.34	µg/L	169.34	ppb	19:43:43
2	Be 313.107†	18764.4	20054.6	5.6985	µg/L	5.6985	ppb	19:43:43
2	Cd 226.502†	929.9	1043.1	0.3536	µg/L	0.3536	ppb	19:44:04
2	Co 228.616†	619.1	835.9	7.9069	µg/L	7.9069	ppb	19:44:04
2	Cr 267.716†	7299.5	7143.5	63.952	µg/L	63.952	ppb	19:44:04
2	Cu 324.752†	9392.8	6456.0	36.106	µg/L	36.106	ppb	19:43:43
2	Mn 257.610†	990358.5	1000646.2	1327.1	µg/L	1327.1	ppb	19:43:43
2	Mo 202.031†	806.7	853.8	30.540	µg/L	30.540	ppb	19:44:04
2	Ni 231.604†	2418.5	2540.0	31.778	µg/L	31.778	ppb	19:44:04
2	P 214.914†	1525.8	1567.6	323.33	µg/L	323.33	ppb	19:44:04
2	Pb 220.353†	1127.2	1035.7	65.535	µg/L	65.535	ppb	19:44:04

2	S 181.975 Axial†	344.1	258.8	217.97	µg/L	217.97 ppb	19:44:04
2	Sb 206.836†	74.1	-14.9	-3.2797	µg/L	-3.2797 ppb	19:44:04
2	Se 196.026†	-24.9	-31.4	9.44	µg/L	9.44 ppb	19:44:04
2	SiO2†	281809.3	283050.1	29974	µg/L	29974 ppb	19:43:43
2	Si 251.611†	881111.6	889661.8	14029	µg/L	14029 ppb	19:43:43
2	Sn 189.927†	56.4	55.1	9.4936	µg/L	9.4936 ppb	19:44:04
2	Ti 334.940†	1621317.9	1637639.3	1682.0	µg/L	1682.0 ppb	19:43:43
2	Tl 190.801†	-320.5	-209.6	-7.8718	µg/L	-7.8718 ppb	19:44:04
2	U 409.014†	-5911.5	-5810.7	-368.55	µg/L	-368.55 ppb	19:43:43
2	V 292.402†	13058.0	12772.9	58.216	µg/L	58.216 ppb	19:44:04
2	Zn 213.857†	61503.7	61651.1	362.37	µg/L	362.37 ppb	19:43:43
3	Sc RADIAL	137084.3	137084.3	97.9	%		19:43:00
3	Al 396.153Radial†	97453.4	99670.8	20983	µg/L	20983 ppb	19:43:00
3	Ca 317.933Radial†	101003.5	102648.8	6991.3	µg/L	6991.3 ppb	19:43:02
3	Fe 238.204 Radial†	836573.0	854816.3	63837	µg/L	63837 ppb	19:43:00
3	K 766.490 Radial†	8246.4	6933.6	2740.9	µg/L	2740.9 ppb	19:43:02
3	Mg 279.077 IEC†	8267.7	8276.7	3767.6	µg/L	3767.6 ppb	19:43:02
3	Na 589.592 Radial†	8223.0	7450.9	1152.5	µg/L	1152.5 ppb	19:43:02
3	Sr 421.552†	25770.8	26540.8	62.541	µg/L	62.541 ppb	19:43:02
3	Sc 361.383	1798612.4	1798612.4	99.693	%		19:44:06
3	Y 371.029	1178726.0	1178726.0	111.48	%		19:44:06
3	Ag 328.068†	3913.3	-639.8	-3.2364	µg/L	-3.2364 ppb	19:44:06
3	As 188.979†	35.5	54.1	33.300	µg/L	33.300 ppb	19:44:26
3	B 249.677†	4624.9	574.0	8.8888	µg/L	8.8888 ppb	19:44:06
3	Ba 233.527†	37927.1	38188.4	168.97	µg/L	168.97 ppb	19:44:06
3	Be 313.107†	19214.2	20365.1	5.7879	µg/L	5.7879 ppb	19:44:06
3	Cd 226.502†	931.5	1037.8	0.3160	µg/L	0.3160 ppb	19:44:26
3	Co 228.616†	622.4	834.6	7.8882	µg/L	7.8882 ppb	19:44:26
3	Cr 267.716†	7329.2	7118.6	63.739	µg/L	63.739 ppb	19:44:26
3	Cu 324.752†	9545.0	6538.3	36.450	µg/L	36.450 ppb	19:44:06
3	Mn 257.610†	997606.0	1000494.3	1326.9	µg/L	1326.9 ppb	19:44:06
3	Mo 202.031†	815.3	856.4	30.625	µg/L	30.625 ppb	19:44:26
3	Ni 231.604†	2446.4	2549.9	31.902	µg/L	31.902 ppb	19:44:26
3	P 214.914†	1508.9	1539.3	316.78	µg/L	316.78 ppb	19:44:26
3	Pb 220.353†	1146.1	1046.2	66.190	µg/L	66.190 ppb	19:44:26
3	S 181.975 Axial†	331.8	243.9	205.45	µg/L	205.45 ppb	19:44:26
3	Sb 206.836†	80.1	-9.3	-2.5622	µg/L	-2.5622 ppb	19:44:26
3	Se 196.026†	-31.1	-37.4	7.07	µg/L	7.07 ppb	19:44:26
3	SiO2†	284963.1	284101.7	30085	µg/L	30085 ppb	19:44:06
3	Si 251.611†	890223.8	892199.0	14069	µg/L	14069 ppb	19:44:06
3	Sn 189.927†	74.2	72.6	10.717	µg/L	10.717 ppb	19:44:26
3	Ti 334.940†	1636972.4	1641191.9	1685.6	µg/L	1685.6 ppb	19:44:06
3	Tl 190.801†	-302.4	-189.0	-5.0282	µg/L	-5.0282 ppb	19:44:26
3	U 409.014†	-5981.2	-5836.3	-370.18	µg/L	-370.18 ppb	19:44:06
3	V 292.402†	13114.4	12731.6	57.996	µg/L	57.996 ppb	19:44:26
3	Zn 213.857†	62109.6	61798.0	363.25	µg/L	363.25 ppb	19:44:06

Mean Data: 249330005|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1797852.0	99.651	%	0.6770				0.68%
Sc RADIAL	138002.1	98.5	%	0.57				0.58%
Y 371.029	1178806.7	111.49	%	0.753				0.68%
Ag 328.068†	-653.2	-3.2928	µg/L	0.61075	-3.2928	ppb	0.61075	18.55%
Al 396.153Radial†	99434.7	20933	µg/L	49.0	20933	ppb	49.0	0.23%
As 188.979†	54.9	33.557	µg/L	2.1776	33.557	ppb	2.1776	6.49%
B 249.677†	562.4	8.7074	µg/L	0.42394	8.7074	ppb	0.42394	4.87%
Ba 233.527†	38276.5	169.37	µg/L	0.406	169.37	ppb	0.406	0.24%
Be 313.107†	20246.7	5.7536	µg/L	0.04823	5.7536	ppb	0.04823	0.84%
Ca 317.933Radial†	102752.3	6998.4	µg/L	16.54	6998.4	ppb	16.54	0.24%
Cd 226.502†	1031.3	0.2746	µg/L	0.10593	0.2746	ppb	0.10593	38.58%
Co 228.616†	845.2	8.0305	µg/L	0.23043	8.0305	ppb	0.23043	2.87%
Cr 267.716†	7106.0	63.629	µg/L	0.3907	63.629	ppb	0.3907	0.61%
Cu 324.752†	6543.8	36.470	µg/L	0.3748	36.470	ppb	0.3748	1.03%
Fe 238.204 Radial†	854475.1	63812	µg/L	32.6	63812	ppb	32.6	0.05%
K 766.490 Radial†	6870.3	2715.9	µg/L	21.74	2715.9	ppb	21.74	0.80%
Mg 279.077 IEC†	8346.3	3799.8	µg/L	31.37	3799.8	ppb	31.37	0.83%
Mn 257.610†	1001717.7	1328.5	µg/L	2.64	1328.5	ppb	2.64	0.20%
Mo 202.031†	852.7	30.503	µg/L	0.1440	30.503	ppb	0.1440	0.47%
Na 589.592 Radial†	7519.4	1163.1	µg/L	9.26	1163.1	ppb	9.26	0.80%

Ni 231.604†	2531.9	31.678	µg/L	0.2881	31.678	ppb	0.2881	0.91%
P 214.914†	1546.0	318.34	µg/L	4.417	318.34	ppb	4.417	1.39%
Pb 220.353†	1037.8	65.670	µg/L	0.4676	65.670	ppb	0.4676	0.71%
S 181.975 Axial†	246.1	207.29	µg/L	9.890	207.29	ppb	9.890	4.77%
Sb 206.836†	-13.9	-3.1543	µg/L	0.54045	-3.1543	ppb	0.54045	17.13%
Se 196.026†	-35.0	7.98	µg/L	1.276	7.98	ppb	1.276	15.99%
SiO2†	284111.8	30086	µg/L	113.0	30086	ppb	113.0	0.38%
Si 251.611†	892569.6	14074	µg/L	49.0	14074	ppb	49.0	0.35%
Sn 189.927†	64.8	10.179	µg/L	0.6250	10.179	ppb	0.6250	6.14%
Sr 421.552†	26481.9	62.402	µg/L	0.1444	62.402	ppb	0.1444	0.23%
Ti 334.940†	1641018.5	1685.5	µg/L	3.39	1685.5	ppb	3.39	0.20%
Tl 190.801†	-195.1	-5.8594	µg/L	1.75159	-5.8594	ppb	1.75159	29.89%
U 409.014†	-5838.1	-370.29	µg/L	1.787	-370.29	ppb	1.787	0.48%
Concentration less than lower limit for U 409.014.								
V 292.402†	12715.0	57.911	µg/L	0.3549	57.911	ppb	0.3549	0.61%
Zn 213.857†	61791.4	363.21	µg/L	0.824	363.21	ppb	0.824	0.23%

Sequence No.: 112
Sample ID: 249330006|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 426
Date Collected: 4/5/2010 19:44:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330006|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141016.7	141016.7	101	%			19:45:06
1	Al 396.153Radial†	141650.0	140800.7	29643	µg/L	29643	ppb	19:45:06
1	Ca 317.933Radial†	158719.9	157108.7	10701	µg/L	10701	ppb	19:45:06
1	Fe 238.204 Radial†	884362.2	878452.0	65602	µg/L	65602	ppb	19:45:04
1	K 766.490 Radial†	14778.6	13188.0	5216.5	µg/L	5216.5	ppb	19:45:06
1	Mg 279.077 IEC†	14195.2	13929.8	6375.8	µg/L	6375.8	ppb	19:45:06
1	Na 589.592 Radial†	4464.2	3482.5	535.17	µg/L	535.17	ppb	19:45:06
1	Sr 421.552†	34249.4	34229.5	80.645	µg/L	80.645	ppb	19:45:06
1	Sc 361.383	1823405.3	1823405.3	101.07	%			19:45:32
1	Y 371.029	1156436.1	1156436.1	109.38	%			19:45:32
1	Ag 328.068†	3955.9	-651.0	-3.5796	µg/L	-3.5796	ppb	19:45:32
1	As 188.979†	10.7	29.2	24.837	µg/L	24.837	ppb	19:45:52
1	B 249.677†	5351.1	1229.5	19.077	µg/L	19.077	ppb	19:45:32
1	Ba 233.527†	64589.6	64052.2	283.90	µg/L	283.90	ppb	19:45:32
1	Be 313.107†	21770.5	22632.3	6.4498	µg/L	6.4498	ppb	19:45:32
1	Cd 226.502†	950.3	1043.6	0.1660	µg/L	0.1660	ppb	19:45:52
1	Co 228.616†	737.5	940.0	9.2972	µg/L	9.2972	ppb	19:45:52
1	Cr 267.716†	3168.5	2901.8	27.175	µg/L	27.175	ppb	19:45:52
1	Cu 324.752†	6308.8	3206.1	22.855	µg/L	22.855	ppb	19:45:32
1	Mn 257.610†	1303949.5	1289997.0	1710.8	µg/L	1710.8	ppb	19:45:32
1	Mo 202.031†	120.3	157.6	7.8842	µg/L	7.8842	ppb	19:45:52
1	Ni 231.604†	1806.3	1883.1	23.560	µg/L	23.560	ppb	19:45:52
1	P 214.914†	2674.2	2671.7	579.83	µg/L	579.83	ppb	19:45:52
1	Pb 220.353†	2356.8	2228.5	139.21	µg/L	139.21	ppb	19:45:52
1	S 181.975 Axial†	547.9	453.2	381.32	µg/L	381.32	ppb	19:45:52
1	Sb 206.836†	80.7	-9.9	-2.5004	µg/L	-2.5004	ppb	19:45:52
1	Se 196.026†	-17.2	-23.2	13.3	µg/L	13.3	ppb	19:45:52
1	SiO2†	352146.8	346689.6	36713	µg/L	36713	ppb	19:45:32
1	Si 251.611†	1100114.0	1087731.4	17152	µg/L	17152	ppb	19:45:32
1	Sn 189.927†	50.3	47.9	8.6782	µg/L	8.6782	ppb	19:45:52
1	Ti 334.940†	1563509.8	1546178.4	1587.9	µg/L	1587.9	ppb	19:45:32
1	Tl 190.801†	-309.7	-192.1	-5.5095	µg/L	-5.5095	ppb	19:45:52
1	U 409.014†	-5794.9	-5570.3	-351.60	µg/L	-351.60	ppb	19:45:32
1	V 292.402†	11647.3	11101.1	49.067	µg/L	49.067	ppb	19:45:52
1	Zn 213.857†	52680.9	51621.7	302.38	µg/L	302.38	ppb	19:45:32
2	Sc RADIAL	142419.8	142419.8	102	%			19:45:10
2	Al 396.153Radial†	142495.7	140246.1	29527	µg/L	29527	ppb	19:45:10
2	Ca 317.933Radial†	159646.0	156466.3	10657	µg/L	10657	ppb	19:45:10
2	Fe 238.204 Radial†	884820.0	870246.5	64989	µg/L	64989	ppb	19:45:08
2	K 766.490 Radial†	14896.6	13159.4	5205.2	µg/L	5205.2	ppb	19:45:10
2	Mg 279.077 IEC†	14334.1	13927.4	6375.2	µg/L	6375.2	ppb	19:45:10
2	Na 589.592 Radial†	4526.5	3500.0	537.90	µg/L	537.90	ppb	19:45:10
2	Sr 421.552†	34590.6	34230.0	80.647	µg/L	80.647	ppb	19:45:10
2	Sc 361.383	1813478.5	1813478.5	100.52	%			19:45:55
2	Y 371.029	1151154.9	1151154.9	108.88	%			19:45:55
2	Ag 328.068†	4350.4	-237.1	-1.8827	µg/L	-1.8827	ppb	19:45:55
2	As 188.979†	31.4	49.8	31.692	µg/L	31.692	ppb	19:46:15
2	B 249.677†	5198.2	1106.3	17.162	µg/L	17.162	ppb	19:45:55
2	Ba 233.527†	63740.9	63557.7	281.71	µg/L	281.71	ppb	19:45:55
2	Be 313.107†	21124.8	22107.9	6.2955	µg/L	6.2955	ppb	19:45:55
2	Cd 226.502†	921.1	1019.7	0.0690	µg/L	0.0690	ppb	19:46:15
2	Co 228.616†	716.2	922.8	9.0993	µg/L	9.0993	ppb	19:46:15
2	Cr 267.716†	3170.1	2920.6	27.324	µg/L	27.324	ppb	19:46:15
2	Cu 324.752†	6321.6	3252.9	22.955	µg/L	22.955	ppb	19:45:55
2	Mn 257.610†	1290957.4	1284134.0	1703.0	µg/L	1703.0	ppb	19:45:55
2	Mo 202.031†	122.5	160.4	7.9526	µg/L	7.9526	ppb	19:46:15
2	Ni 231.604†	1817.6	1904.2	23.824	µg/L	23.824	ppb	19:46:15
2	P 214.914†	2675.0	2686.9	583.75	µg/L	583.75	ppb	19:46:15
2	Pb 220.353†	2361.1	2245.5	140.27	µg/L	140.27	ppb	19:46:15

2	S 181.975 Axial†	536.2	444.5	374.00	µg/L	374.00	ppb	19:46:15
2	Sb 206.836†	61.9	-28.2	-4.8503	µg/L	-4.8503	ppb	19:46:15
2	Se 196.026†	-34.1	-40.1	6.42	µg/L	6.42	ppb	19:46:15
2	SiO2†	348346.4	344816.0	36515	µg/L	36515	ppb	19:45:55
2	Si 251.611†	1089913.3	1083541.5	17086	µg/L	17086	ppb	19:45:55
2	Sn 189.927†	61.4	59.2	9.4495	µg/L	9.4495	ppb	19:46:15
2	Ti 334.940†	1551337.6	1542537.0	1584.2	µg/L	1584.2	ppb	19:45:55
2	Tl 190.801†	-293.7	-177.9	-3.6226	µg/L	-3.6226	ppb	19:46:15
2	U 409.014†	-5886.7	-5693.0	-359.23	µg/L	-359.23	ppb	19:45:55
2	V 292.402†	11667.8	11184.6	49.565	µg/L	49.565	ppb	19:46:15
2	Zn 213.857†	51997.3	51226.9	300.08	µg/L	300.08	ppb	19:45:55
3	Sc RADIAL	142296.3	142296.3	102	%			19:45:14
3	Al 396.153Radial†	142966.0	140830.8	29650	µg/L	29650	ppb	19:45:14
3	Ca 317.933Radial†	159727.3	156682.5	10671	µg/L	10671	ppb	19:45:14
3	Fe 238.204 Radial†	874610.5	860950.4	64295	µg/L	64295	ppb	19:45:12
3	K 766.490 Radial†	14814.5	13091.4	5178.2	µg/L	5178.2	ppb	19:45:14
3	Mg 279.077 IEC†	14387.7	13992.5	6405.8	µg/L	6405.8	ppb	19:45:14
3	Na 589.592 Radial†	4496.7	3474.6	533.97	µg/L	533.97	ppb	19:45:14
3	Sr 421.552†	34493.8	34164.2	80.491	µg/L	80.491	ppb	19:45:14
3	Sc 361.383	1787469.1	1787469.1	99.075	%			19:46:18
3	Y 371.029	1135089.6	1135089.6	107.36	%			19:46:18
3	Ag 328.068†	4156.9	-369.5	-2.3903	µg/L	-2.3903	ppb	19:46:18
3	As 188.979†	14.7	33.4	25.967	µg/L	25.967	ppb	19:46:38
3	B 249.677†	5323.5	1308.1	20.298	µg/L	20.298	ppb	19:46:18
3	Ba 233.527†	62933.6	63665.6	282.20	µg/L	282.20	ppb	19:46:18
3	Be 313.107†	21250.8	22540.9	6.4247	µg/L	6.4247	ppb	19:46:18
3	Cd 226.502†	918.4	1030.4	0.2142	µg/L	0.2142	ppb	19:46:38
3	Co 228.616†	748.1	965.4	9.6987	µg/L	9.6987	ppb	19:46:38
3	Cr 267.716†	3174.6	2971.0	27.726	µg/L	27.726	ppb	19:46:38
3	Cu 324.752†	6339.0	3362.1	23.322	µg/L	23.322	ppb	19:46:18
3	Mn 257.610†	1275257.9	1286976.0	1706.8	µg/L	1706.8	ppb	19:46:18
3	Mo 202.031†	101.5	141.0	7.2914	µg/L	7.2914	ppb	19:46:38
3	Ni 231.604†	1836.4	1949.4	24.390	µg/L	24.390	ppb	19:46:38
3	P 214.914†	2680.1	2730.8	594.39	µg/L	594.39	ppb	19:46:38
3	Pb 220.353†	2405.8	2324.8	145.17	µg/L	145.17	ppb	19:46:38
3	S 181.975 Axial†	544.0	460.1	387.14	µg/L	387.14	ppb	19:46:38
3	Sb 206.836†	77.2	-11.8	-2.7443	µg/L	-2.7443	ppb	19:46:38
3	Se 196.026†	-36.5	-43.0	5.03	µg/L	5.03	ppb	19:46:38
3	SiO2†	343729.1	345198.3	36556	µg/L	36556	ppb	19:46:18
3	Si 251.611†	1074485.4	1083747.3	17089	µg/L	17089	ppb	19:46:18
3	Sn 189.927†	59.1	57.7	9.3533	µg/L	9.3533	ppb	19:46:38
3	Ti 334.940†	1530450.2	1543911.9	1585.6	µg/L	1585.6	ppb	19:46:18
3	Tl 190.801†	-304.8	-193.4	-5.7024	µg/L	-5.7024	ppb	19:46:38
3	U 409.014†	-5606.8	-5495.8	-346.52	µg/L	-346.52	ppb	19:46:18
3	V 292.402†	11753.5	11439.9	50.964	µg/L	50.964	ppb	19:46:38
3	Zn 213.857†	51402.5	51379.3	301.06	µg/L	301.06	ppb	19:46:18

Mean Data: 249330006|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1808117.6	100.22	%	1.029				1.03%
Sc RADIAL	141911.0	101	%	0.6				0.55%
Y 371.029	1147560.2	108.54	%	1.052				0.97%
Ag 328.068†	-419.2	-2.6175	µg/L	0.87097	-2.6175	ppb	0.87097	33.27%
Al 396.153Radial†	140625.9	29607	µg/L	69.3	29607	ppb	69.3	0.23%
As 188.979†	37.5	27.499	µg/L	3.6750	27.499	ppb	3.6750	13.36%
B 249.677†	1214.6	18.846	µg/L	1.5806	18.846	ppb	1.5806	8.39%
Ba 233.527†	63758.5	282.60	µg/L	1.149	282.60	ppb	1.149	0.41%
Be 313.107†	22427.1	6.3900	µg/L	0.08277	6.3900	ppb	0.08277	1.30%
Ca 317.933Radial†	156752.5	10676	µg/L	22.3	10676	ppb	22.3	0.21%
Cd 226.502†	1031.2	0.1497	µg/L	0.07394	0.1497	ppb	0.07394	49.38%
Co 228.616†	942.7	9.3651	µg/L	0.30544	9.3651	ppb	0.30544	3.26%
Cr 267.716†	2931.2	27.408	µg/L	0.2849	27.408	ppb	0.2849	1.04%
Cu 324.752†	3273.7	23.044	µg/L	0.2459	23.044	ppb	0.2459	1.07%
Fe 238.204 Radial†	869882.9	64962	µg/L	653.9	64962	ppb	653.9	1.01%
K 766.490 Radial†	13146.2	5200.0	µg/L	19.67	5200.0	ppb	19.67	0.38%
Mg 279.077 IEC†	13949.9	6385.6	µg/L	17.52	6385.6	ppb	17.52	0.27%
Mn 257.610†	1287035.7	1706.9	µg/L	3.89	1706.9	ppb	3.89	0.23%
Mo 202.031†	153.0	7.7094	µg/L	0.36359	7.7094	ppb	0.36359	4.72%
Na 589.592 Radial†	3485.7	535.68	µg/L	2.011	535.68	ppb	2.011	0.38%

Ni 231.604†	1912.2	23.925	µg/L	0.4237	23.925	ppb	0.4237	1.77%
P 214.914†	2696.4	585.99	µg/L	7.536	585.99	ppb	7.536	1.29%
Pb 220.353†	2266.3	141.55	µg/L	3.182	141.55	ppb	3.182	2.25%
S 181.975 Axial†	452.6	380.82	µg/L	6.585	380.82	ppb	6.585	1.73%
Sb 206.836†	-16.6	-3.3650	µg/L	1.29211	-3.3650	ppb	1.29211	38.40%
Se 196.026†	-35.4	8.25	µg/L	4.429	8.25	ppb	4.429	53.70%
SiO2†	345567.9	36595	µg/L	104.8	36595	ppb	104.8	0.29%
Si 251.611†	1085006.7	17109	µg/L	37.2	17109	ppb	37.2	0.22%
Sn 189.927†	55.0	9.1603	µg/L	0.42029	9.1603	ppb	0.42029	4.59%
Sr 421.552†	34207.9	80.595	µg/L	0.0892	80.595	ppb	0.0892	0.11%
Ti 334.940†	1544209.1	1585.9	µg/L	1.89	1585.9	ppb	1.89	0.12%
Tl 190.801†	-187.8	-4.9448	µg/L	1.14917	-4.9448	ppb	1.14917	23.24%
U 409.014†	-5586.4	-352.45	µg/L	6.396	-352.45	ppb	6.396	1.81%
Concentration less than lower limit for U 409.014.								
V 292.402†	11241.9	49.865	µg/L	0.9833	49.865	ppb	0.9833	1.97%
Zn 213.857†	51409.3	301.17	µg/L	1.153	301.17	ppb	1.153	0.38%

Sequence No.: 113
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 19:46:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136033.3	136033.3	97.1	%			19:47:20
1	Al 396.153Radial†	23157.2	23926.9	5014.1	µg/L	5014.1	ppb	19:47:20
1	Ca 317.933Radial†	73468.0	75089.1	5114.2	µg/L	5114.2	ppb	19:47:20
1	Fe 238.204 Radial†	66165.6	68022.9	5079.9	µg/L	5079.9	ppb	19:47:20
1	K 766.490 Radial†	13938.6	12860.8	5091.9	µg/L	5091.9	ppb	19:47:20
1	Mg 279.077 IEC†	10950.4	11104.8	5135.5	µg/L	5135.5	ppb	19:47:20
1	Na 589.592 Radial†	64739.6	65719.2	10182	µg/L	10182	ppb	19:47:20
1	Sr 421.552†	208355.2	214777.6	506.51	µg/L	506.51	ppb	19:47:18
1	Sc 361.383	1783518.2	1783518.2	98.856	%			19:47:33
1	Y 371.029	1035854.5	1035854.5	97.972	%			19:47:33
1	Ag 328.068†	124709.6	121587.3	504.02	µg/L	504.02	ppb	19:47:33
1	As 188.979†	1319.6	1353.4	465.09	µg/L	465.09	ppb	19:47:53
1	B 249.677†	35576.7	31923.2	494.69	µg/L	494.69	ppb	19:47:33
1	Ba 233.527†	110702.6	112127.9	498.80	µg/L	498.80	ppb	19:47:33
1	Be 313.107†	1679740.8	1700266.4	492.66	µg/L	492.66	ppb	19:47:33
1	Cd 226.502†	73945.9	74904.8	505.95	µg/L	505.95	ppb	19:47:33
1	Co 228.616†	37811.3	38459.0	509.05	µg/L	509.05	ppb	19:47:33
1	Cr 267.716†	57870.9	58307.2	504.30	µg/L	504.30	ppb	19:47:33
1	Cu 324.752†	121446.5	119815.4	502.71	µg/L	502.71	ppb	19:47:33
1	Mn 257.610†	376862.6	381038.0	505.25	µg/L	505.25	ppb	19:47:33
1	Mo 202.031†	15182.6	15396.9	504.00	µg/L	504.00	ppb	19:47:53
1	Ni 231.604†	39872.9	40430.1	505.83	µg/L	505.83	ppb	19:47:33
1	P 214.914†	10667.7	10816.8	2493.5	µg/L	2493.5	ppb	19:47:53
1	Pb 220.353†	8235.6	8227.4	507.88	µg/L	507.88	ppb	19:47:53
1	S 181.975 Axial†	1258.9	1184.5	1000.8	µg/L	1000.8	ppb	19:47:53
1	Sb 206.836†	3908.6	3864.2	499.39	µg/L	499.39	ppb	19:47:53
1	Se 196.026†	1254.9	1263.3	500	µg/L	500	ppb	19:47:53
1	SiO2†	51759.4	50619.2	5339.0	µg/L	5339.0	ppb	19:47:33
1	Si 251.611†	158435.6	159501.6	2505.2	µg/L	2505.2	ppb	19:47:33
1	Sn 189.927†	7047.6	7127.3	496.06	µg/L	496.06	ppb	19:47:53
1	Ti 334.940†	483168.1	487935.1	500.50	µg/L	500.50	ppb	19:47:33
1	Tl 190.801†	3484.2	3638.8	504.42	µg/L	504.42	ppb	19:47:53
1	U 409.014†	7070.2	7315.4	492.32	µg/L	492.32	ppb	19:47:33
1	V 292.402†	96278.2	96968.9	509.27	µg/L	509.27	ppb	19:47:33
1	Zn 213.857†	84398.4	84871.9	502.85	µg/L	502.85	ppb	19:47:33
2	Sc RADIAL	138128.1	138128.1	98.6	%			19:47:24
2	Al 396.153Radial†	23418.6	23830.3	4993.6	µg/L	4993.6	ppb	19:47:24
2	Ca 317.933Radial†	74175.9	74659.6	5085.0	µg/L	5085.0	ppb	19:47:24
2	Fe 238.204 Radial†	67065.4	67902.1	5070.9	µg/L	5070.9	ppb	19:47:24
2	K 766.490 Radial†	14159.2	12866.8	5094.3	µg/L	5094.3	ppb	19:47:24
2	Mg 279.077 IEC†	11057.0	11041.8	5106.5	µg/L	5106.5	ppb	19:47:24
2	Na 589.592 Radial†	65417.6	65395.7	10132	µg/L	10132	ppb	19:47:24
2	Sr 421.552†	209457.4	212641.4	501.47	µg/L	501.47	ppb	19:47:22
2	Sc 361.383	1774259.1	1774259.1	98.343	%			19:47:56
2	Y 371.029	1030676.7	1030676.7	97.482	%			19:47:56
2	Ag 328.068†	124953.3	122493.4	507.75	µg/L	507.75	ppb	19:47:56
2	As 188.979†	1338.6	1379.7	474.01	µg/L	474.01	ppb	19:48:16
2	B 249.677†	35635.7	32171.0	498.54	µg/L	498.54	ppb	19:47:56
2	Ba 233.527†	110480.8	112486.8	500.40	µg/L	500.40	ppb	19:47:56
2	Be 313.107†	1671827.6	1701087.2	492.91	µg/L	492.91	ppb	19:47:56
2	Cd 226.502†	73565.9	74908.7	505.97	µg/L	505.97	ppb	19:47:56
2	Co 228.616†	37747.3	38593.6	510.83	µg/L	510.83	ppb	19:47:56
2	Cr 267.716†	57841.1	58582.4	506.67	µg/L	506.67	ppb	19:47:56
2	Cu 324.752†	121022.4	120025.3	503.60	µg/L	503.60	ppb	19:47:56
2	Mn 257.610†	374844.5	380975.3	505.17	µg/L	505.17	ppb	19:47:56
2	Mo 202.031†	15195.5	15490.1	507.05	µg/L	507.05	ppb	19:48:16
2	Ni 231.604†	39781.2	40547.4	507.30	µg/L	507.30	ppb	19:47:56
2	P 214.914†	10677.9	10883.5	2508.9	µg/L	2508.9	ppb	19:48:16
2	Pb 220.353†	8234.4	8269.7	510.47	µg/L	510.47	ppb	19:48:16

2	S 181.975 Axial†	1260.7	1193.0	1007.9 µg/L	1007.9 ppb	19:48:16
2	Sb 206.836†	3925.4	3901.9	504.26 µg/L	504.26 ppb	19:48:16
2	Se 196.026†	1256.0	1271.0	503 µg/L	503 ppb	19:48:16
2	SiO2†	51436.9	50564.4	5333.0 µg/L	5333.0 ppb	19:47:56
2	Si 251.611†	157806.2	159698.0	2508.2 µg/L	2508.2 ppb	19:47:56
2	Sn 189.927†	7059.1	7176.1	499.45 µg/L	499.45 ppb	19:48:16
2	Ti 334.940†	481129.0	488412.3	500.99 µg/L	500.99 ppb	19:47:56
2	Tl 190.801†	3534.3	3708.1	513.88 µg/L	513.88 ppb	19:48:16
2	U 409.014†	7314.1	7600.7	510.33 µg/L	510.33 ppb	19:47:56
2	V 292.402†	95824.1	97015.4	509.57 µg/L	509.57 ppb	19:47:56
2	Zn 213.857†	84121.7	85036.1	503.82 µg/L	503.82 ppb	19:47:56
3	Sc RADIAL	135902.0	135902.0	97.0 %		19:47:28
3	Al 396.153Radial†	23202.6	23996.7	5028.7 µg/L	5028.7 ppb	19:47:28
3	Ca 317.933Radial†	73095.5	74778.2	5093.1 µg/L	5093.1 ppb	19:47:28
3	Fe 238.204 Radial†	65894.1	67808.8	5063.9 µg/L	5063.9 ppb	19:47:28
3	K 766.490 Radial†	14081.9	13022.4	5155.9 µg/L	5155.9 ppb	19:47:28
3	Mg 279.077 IEC†	10738.2	10896.9	5039.6 µg/L	5039.6 ppb	19:47:28
3	Na 589.592 Radial†	64417.4	65451.4	10141 µg/L	10141 ppb	19:47:28
3	Sr 421.552†	211070.6	217784.1	513.60 µg/L	513.60 ppb	19:47:26
3	Sc 361.383	1773098.7	1773098.7	98.279 %		19:48:19
3	Y 371.029	1029704.6	1029704.6	97.390 %		19:48:19
3	Ag 328.068†	125246.3	122874.7	509.32 µg/L	509.32 ppb	19:48:19
3	As 188.979†	1344.1	1386.2	476.22 µg/L	476.22 ppb	19:48:39
3	B 249.677†	35775.7	32337.1	501.13 µg/L	501.13 ppb	19:48:19
3	Ba 233.527†	110829.4	112915.0	502.30 µg/L	502.30 ppb	19:48:19
3	Be 313.107†	1679033.4	1709531.7	495.35 µg/L	495.35 ppb	19:48:19
3	Cd 226.502†	73677.5	75071.3	507.07 µg/L	507.07 ppb	19:48:19
3	Co 228.616†	37744.6	38616.0	511.13 µg/L	511.13 ppb	19:48:19
3	Cr 267.716†	57800.6	58579.7	506.65 µg/L	506.65 ppb	19:48:19
3	Cu 324.752†	121568.3	120661.3	506.25 µg/L	506.25 ppb	19:48:19
3	Mn 257.610†	375808.4	382205.6	506.80 µg/L	506.80 ppb	19:48:19
3	Mo 202.031†	15170.5	15474.8	506.55 µg/L	506.55 ppb	19:48:39
3	Ni 231.604†	39871.6	40665.8	508.78 µg/L	508.78 ppb	19:48:19
3	P 214.914†	10698.7	10911.7	2515.4 µg/L	2515.4 ppb	19:48:39
3	Pb 220.353†	8193.1	8233.1	508.23 µg/L	508.23 ppb	19:48:39
3	S 181.975 Axial†	1269.1	1202.4	1015.8 µg/L	1015.8 ppb	19:48:39
3	Sb 206.836†	3923.7	3902.7	504.37 µg/L	504.37 ppb	19:48:39
3	Se 196.026†	1261.3	1277.3	505 µg/L	505 ppb	19:48:39
3	SiO2†	51453.1	50615.2	5338.4 µg/L	5338.4 ppb	19:48:19
3	Si 251.611†	158030.5	160031.2	2513.5 µg/L	2513.5 ppb	19:48:19
3	Sn 189.927†	7068.0	7189.9	500.41 µg/L	500.41 ppb	19:48:39
3	Ti 334.940†	482061.5	489681.3	502.30 µg/L	502.30 ppb	19:48:19
3	Tl 190.801†	3505.8	3681.5	510.27 µg/L	510.27 ppb	19:48:39
3	U 409.014†	7230.0	7520.0	505.32 µg/L	505.32 ppb	19:48:19
3	V 292.402†	95980.3	97238.1	510.71 µg/L	510.71 ppb	19:48:19
3	Zn 213.857†	84311.9	85285.6	505.30 µg/L	505.30 ppb	19:48:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1776958.7	98.493	%	0.3165				0.32%
Sc RADIAL	136687.8	97.6	%	0.89				0.91%
Y 371.029	1032078.6	97.615	%	0.3127				0.32%
Ag 328.068†	122318.5	507.03	µg/L	2.724	507.03	ppb	2.724	0.54%
QC value within limits for Ag 328.068 Recovery = 101.41%								
Al 396.153Radial†	23918.0	5012.1	µg/L	17.60	5012.1	ppb	17.60	0.35%
QC value within limits for Al 396.153Radial Recovery = 100.24%								
As 188.979†	1373.1	471.78	µg/L	5.893	471.78	ppb	5.893	1.25%
QC value within limits for As 188.979 Recovery = 94.36%								
B 249.677†	32143.8	498.12	µg/L	3.236	498.12	ppb	3.236	0.65%
QC value within limits for B 249.677 Recovery = 99.62%								
Ba 233.527†	112509.9	500.50	µg/L	1.752	500.50	ppb	1.752	0.35%
QC value within limits for Ba 233.527 Recovery = 100.10%								
Be 313.107†	1703628.4	493.64	µg/L	1.487	493.64	ppb	1.487	0.30%
QC value within limits for Be 313.107 Recovery = 98.73%								
Ca 317.933Radial†	74842.3	5097.4	µg/L	15.11	5097.4	ppb	15.11	0.30%
QC value within limits for Ca 317.933Radial Recovery = 101.95%								
Cd 226.502†	74961.6	506.33	µg/L	0.643	506.33	ppb	0.643	0.13%
QC value within limits for Cd 226.502 Recovery = 101.27%								
Co 228.616†	38556.2	510.33	µg/L	1.125	510.33	ppb	1.125	0.22%

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   QC value within limits for Co 228.616  Recovery = 102.07%
Cr 267.716†            58489.8      505.87 µg/L         1.361      505.87 ppb          1.361   0.27%
   QC value within limits for Cr 267.716  Recovery = 101.17%
Cu 324.752†           120167.4      504.19 µg/L         1.844      504.19 ppb          1.844   0.37%
   QC value within limits for Cu 324.752  Recovery = 100.84%
Fe 238.204 Radial†     67911.3      5071.6 µg/L          8.02      5071.6 ppb           8.02   0.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.43%
K 766.490 Radial†      12916.7      5114.0 µg/L         36.29      5114.0 ppb          36.29   0.71%
   QC value within limits for K 766.490 Radial  Recovery = 102.28%
Mg 279.077 IEC†        11014.5      5093.8 µg/L         49.18      5093.8 ppb          49.18   0.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.88%
Mn 257.610†           381406.3      505.74 µg/L         0.921      505.74 ppb          0.921   0.18%
   QC value within limits for Mn 257.610  Recovery = 101.15%
Mo 202.031†            15453.9      505.87 µg/L         1.634      505.87 ppb          1.634   0.32%
   QC value within limits for Mo 202.031  Recovery = 101.17%
Na 589.592 Radial†     65522.1       10152 µg/L          26.8       10152 ppb           26.8   0.26%
   QC value within limits for Na 589.592 Radial  Recovery = 101.52%
Ni 231.604†            40547.8      507.30 µg/L         1.474      507.30 ppb          1.474   0.29%
   QC value within limits for Ni 231.604  Recovery = 101.46%
P 214.914†             10870.7      2505.9 µg/L         11.27      2505.9 ppb          11.27   0.45%
   QC value within limits for P 214.914  Recovery = 100.24%
Pb 220.353†             8243.4      508.86 µg/L         1.407      508.86 ppb          1.407   0.28%
   QC value within limits for Pb 220.353  Recovery = 101.77%
S 181.975 Axial†        1193.3      1008.1 µg/L          7.53      1008.1 ppb           7.53   0.75%
   QC value within limits for S 181.975 Axial  Recovery = 100.81%
Sb 206.836†             3889.6      502.67 µg/L         2.846      502.67 ppb          2.846   0.57%
   QC value within limits for Sb 206.836  Recovery = 100.53%
Se 196.026†             1270.5         503 µg/L           2.8         503 ppb            2.8   0.55%
   QC value within limits for Se 196.026  Recovery = 100.55%
SiO2†                  50599.6      5336.8 µg/L          3.28      5336.8 ppb           3.28   0.06%
   QC value within limits for SiO2  Recovery = 99.80%
Si 251.611†           159743.6      2509.0 µg/L          4.19      2509.0 ppb           4.19   0.17%
   QC value within limits for Si 251.611  Recovery = 100.36%
Sn 189.927†             7164.4      498.64 µg/L         2.286      498.64 ppb          2.286   0.46%
   QC value within limits for Sn 189.927  Recovery = 99.73%
Sr 421.552†           215067.7      507.19 µg/L         6.093      507.19 ppb          6.093   1.20%
   QC value within limits for Sr 421.552  Recovery = 101.44%
Ti 334.940†           488676.3      501.26 µg/L         0.929      501.26 ppb          0.929   0.19%
   QC value within limits for Ti 334.940  Recovery = 100.25%
Tl 190.801†             3676.2      509.52 µg/L         4.776      509.52 ppb          4.776   0.94%
   QC value within limits for Tl 190.801  Recovery = 101.90%
U 409.014†              7478.7      502.66 µg/L         9.299      502.66 ppb          9.299   1.85%
   QC value within limits for U 409.014  Recovery = 100.53%
V 292.402†             97074.1      509.85 µg/L         0.761      509.85 ppb          0.761   0.15%
   QC value within limits for V 292.402  Recovery = 101.97%
Zn 213.857†            85064.5      503.99 µg/L         1.234      503.99 ppb          1.234   0.24%
   QC value within limits for Zn 213.857  Recovery = 100.80%
All analyte(s) passed QC.
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Sequence No.: 114 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/5/2010 19:48:48**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136771.0	136771.0	97.6	%			19:49:18
1	Al 396.153Radial†	-90.4	-14.1	-2.9750	µg/L	-2.9750	ppb	19:49:38
1	Ca 317.933Radial†	717.1	163.1	11.106	µg/L	11.106	ppb	19:49:38
1	Fe 238.204 Radial†	194.4	81.9	6.1133	µg/L	6.1133	ppb	19:49:38
1	K 766.490 Radial†	1798.1	348.0	137.87	µg/L	137.87	ppb	19:49:18
1	Mg 279.077 IEC†	165.1	-3.4	-1.5608	µg/L	-1.5608	ppb	19:49:38
1	Na 589.592 Radial†	1209.5	286.4	44.272	µg/L	44.272	ppb	19:49:18
1	Sr 421.552†	-197.8	1.9	0.0044	µg/L	0.0044	ppb	19:49:18
1	Sc 361.383	1778603.7	1778603.7	98.584	%			19:50:40
1	Y 371.029	1044272.6	1044272.6	98.768	%			19:50:40
1	Ag 328.068†	3775.6	-735.3	-2.9968	µg/L	-2.9968	ppb	19:50:42
1	As 188.979†	-9.6	8.8	2.9988	µg/L	2.9988	ppb	19:51:02
1	B 249.677†	3987.1	-20.8	-0.3244	µg/L	-0.3244	ppb	19:50:42
1	Ba 233.527†	-163.0	-20.8	-0.0924	µg/L	-0.0924	ppb	19:51:02
1	Be 313.107†	-519.8	564.5	0.1661	µg/L	0.1661	ppb	19:50:42
1	Cd 226.502†	-86.3	15.9	0.1067	µg/L	0.1067	ppb	19:51:02
1	Co 228.616†	-181.9	25.8	0.3413	µg/L	0.3413	ppb	19:51:02
1	Cr 267.716†	289.4	60.3	0.5151	µg/L	0.5151	ppb	19:51:02
1	Cu 324.752†	2593.2	-405.7	-1.6886	µg/L	-1.6886	ppb	19:50:42
1	Mn 257.610†	290.9	110.3	0.1464	µg/L	0.1464	ppb	19:51:02
1	Mo 202.031†	-28.2	10.0	0.3258	µg/L	0.3258	ppb	19:51:02
1	Ni 231.604†	-61.4	33.7	0.4210	µg/L	0.4210	ppb	19:51:02
1	P 214.914†	12.1	38.0	8.8034	µg/L	8.8034	ppb	19:51:02
1	Pb 220.353†	122.1	20.4	1.2526	µg/L	1.2526	ppb	19:51:02
1	S 181.975 Axial†	96.8	9.3	7.8104	µg/L	7.8104	ppb	19:51:02
1	Sb 206.836†	67.3	-21.4	-2.7655	µg/L	-2.7655	ppb	19:51:02
1	Se 196.026†	28.4	22.7	8.94	µg/L	8.94	ppb	19:51:02
1	SiO2†	1741.9	27.8	2.9309	µg/L	2.9309	ppb	19:51:02
1	Si 251.611†	941.0	187.5	2.9491	µg/L	2.9491	ppb	19:50:42
1	Sn 189.927†	10.0	8.3	0.5726	µg/L	0.5726	ppb	19:51:02
1	Ti 334.940†	894.0	83.9	0.0828	µg/L	0.0828	ppb	19:50:42
1	Tl 190.801†	-100.0	12.9	1.7577	µg/L	1.7577	ppb	19:51:02
1	U 409.014†	-25.6	137.4	8.6834	µg/L	8.6834	ppb	19:50:42
1	V 292.402†	458.6	42.0	0.2284	µg/L	0.2284	ppb	19:50:42
1	Zn 213.857†	590.3	95.8	0.5696	µg/L	0.5696	ppb	19:51:02
2	Sc RADIAL	135601.5	135601.5	96.8	%			19:49:40
2	Al 396.153Radial†	-94.0	-18.6	-3.9570	µg/L	-3.9570	ppb	19:50:00
2	Ca 317.933Radial†	732.7	185.6	12.639	µg/L	12.639	ppb	19:50:00
2	Fe 238.204 Radial†	180.5	69.2	5.1646	µg/L	5.1646	ppb	19:50:00
2	K 766.490 Radial†	1480.7	36.0	14.245	µg/L	14.245	ppb	19:49:40
2	Mg 279.077 IEC†	160.8	-6.3	-2.8777	µg/L	-2.8777	ppb	19:50:00
2	Na 589.592 Radial†	1003.6	84.3	13.060	µg/L	13.060	ppb	19:49:40
2	Sr 421.552†	-290.4	-95.6	-0.2255	µg/L	-0.2255	ppb	19:49:40
2	Sc 361.383	1765884.9	1765884.9	97.879	%			19:51:04
2	Y 371.029	1037088.9	1037088.9	98.089	%			19:51:04
2	Ag 328.068†	4190.5	-283.8	-1.2081	µg/L	-1.2081	ppb	19:51:06
2	As 188.979†	-8.1	10.3	3.4926	µg/L	3.4926	ppb	19:51:26
2	B 249.677†	4017.2	39.1	0.6071	µg/L	0.6071	ppb	19:51:06
2	Ba 233.527†	-176.2	-35.5	-0.1577	µg/L	-0.1577	ppb	19:51:26
2	Be 313.107†	-684.5	392.4	0.1041	µg/L	0.1041	ppb	19:51:06
2	Cd 226.502†	-77.4	24.3	0.1638	µg/L	0.1638	ppb	19:51:26
2	Co 228.616†	-179.0	27.4	0.3625	µg/L	0.3625	ppb	19:51:26
2	Cr 267.716†	264.0	36.5	0.3402	µg/L	0.3402	ppb	19:51:26
2	Cu 324.752†	2830.7	-144.1	-0.6278	µg/L	-0.6278	ppb	19:51:06
2	Mn 257.610†	254.6	75.4	0.1002	µg/L	0.1002	ppb	19:51:26
2	Mo 202.031†	-5.4	33.1	1.0813	µg/L	1.0813	ppb	19:51:26
2	Ni 231.604†	-67.3	27.1	0.3395	µg/L	0.3395	ppb	19:51:26
2	P 214.914†	22.3	48.4	11.190	µg/L	11.190	ppb	19:51:26
2	Pb 220.353†	120.5	19.6	1.2345	µg/L	1.2345	ppb	19:51:26

2	S 181.975 Axial†	87.8	0.8	0.6824	µg/L	0.6824 ppb	19:51:26
2	Sb 206.836†	88.4	0.6	0.0840	µg/L	0.0840 ppb	19:51:26
2	Se 196.026†	16.8	11.0	4.30	µg/L	4.30 ppb	19:51:26
2	SiO2†	1720.3	18.5	1.9319	µg/L	1.9319 ppb	19:51:26
2	Si 251.611†	891.7	143.9	2.2578	µg/L	2.2578 ppb	19:51:06
2	Sn 189.927†	-3.1	-5.1	-0.3527	µg/L	-0.3527 ppb	19:51:26
2	Ti 334.940†	743.3	-63.6	-0.0519	µg/L	-0.0519 ppb	19:51:06
2	Tl 190.801†	-116.8	-5.1	-0.6981	µg/L	-0.6981 ppb	19:51:26
2	U 409.014†	-649.6	-500.3	-31.606	µg/L	-31.606 ppb	19:51:06
2	V 292.402†	302.6	-114.1	-0.6005	µg/L	-0.6005 ppb	19:51:06
2	Zn 213.857†	618.3	128.7	0.7659	µg/L	0.7659 ppb	19:51:26
3	Sc RADIAL	136819.8	136819.8	97.7	%		19:50:02
3	Al 396.153Radial†	-62.6	14.4	3.0017	µg/L	3.0017 ppb	19:50:22
3	Ca 317.933Radial†	702.5	147.9	10.074	µg/L	10.074 ppb	19:50:22
3	Fe 238.204 Radial†	171.3	58.1	4.3410	µg/L	4.3410 ppb	19:50:22
3	K 766.490 Radial†	1628.7	173.8	68.870	µg/L	68.870 ppb	19:50:02
3	Mg 279.077 IEC†	168.0	-0.5	-0.2064	µg/L	-0.2064 ppb	19:50:22
3	Na 589.592 Radial†	1102.6	176.5	27.290	µg/L	27.290 ppb	19:50:02
3	Sr 421.552†	-53.3	149.9	0.3534	µg/L	0.3534 ppb	19:50:02
3	Sc 361.383	1772854.3	1772854.3	98.265	%		19:51:28
3	Y 371.029	1041187.5	1041187.5	98.476	%		19:51:28
3	Ag 328.068†	4220.6	-270.0	-1.1233	µg/L	-1.1233 ppb	19:51:30
3	As 188.979†	-9.5	8.8	2.9983	µg/L	2.9983 ppb	19:51:50
3	B 249.677†	3915.3	-80.8	-1.2569	µg/L	-1.2569 ppb	19:51:30
3	Ba 233.527†	-155.6	-13.8	-0.0614	µg/L	-0.0614 ppb	19:51:50
3	Be 313.107†	-85.0	1005.2	0.2881	µg/L	0.2881 ppb	19:51:30
3	Cd 226.502†	-43.9	58.7	0.3967	µg/L	0.3967 ppb	19:51:50
3	Co 228.616†	-184.0	23.1	0.3047	µg/L	0.3047 ppb	19:51:50
3	Cr 267.716†	294.5	66.5	0.5832	µg/L	0.5832 ppb	19:51:50
3	Cu 324.752†	2951.1	-33.0	-0.1456	µg/L	-0.1456 ppb	19:51:30
3	Mn 257.610†	365.9	187.7	0.2489	µg/L	0.2489 ppb	19:51:50
3	Mo 202.031†	-17.4	20.9	0.6830	µg/L	0.6830 ppb	19:51:50
3	Ni 231.604†	-57.2	37.7	0.4722	µg/L	0.4722 ppb	19:51:50
3	P 214.914†	7.3	33.1	7.6514	µg/L	7.6514 ppb	19:51:50
3	Pb 220.353†	118.0	16.6	1.0342	µg/L	1.0342 ppb	19:51:50
3	S 181.975 Axial†	90.0	2.7	2.2447	µg/L	2.2447 ppb	19:51:50
3	Sb 206.836†	88.5	0.3	0.0401	µg/L	0.0401 ppb	19:51:50
3	Se 196.026†	14.8	9.0	3.52	µg/L	3.52 ppb	19:51:50
3	SiO2†	1757.6	49.5	5.2117	µg/L	5.2117 ppb	19:51:50
3	Si 251.611†	968.7	218.7	3.4357	µg/L	3.4357 ppb	19:51:30
3	Sn 189.927†	11.5	9.9	0.6842	µg/L	0.6842 ppb	19:51:50
3	Ti 334.940†	905.2	98.1	0.1051	µg/L	0.1051 ppb	19:51:30
3	Tl 190.801†	-117.4	-5.2	-0.7127	µg/L	-0.7127 ppb	19:51:50
3	U 409.014†	-321.3	-163.7	-10.351	µg/L	-10.351 ppb	19:51:30
3	V 292.402†	337.8	-79.5	-0.4100	µg/L	-0.4100 ppb	19:51:30
3	Zn 213.857†	603.3	111.0	0.6593	µg/L	0.6593 ppb	19:51:50

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1772447.6	98.243	%	0.3530				0.36%
Sc RADIAL	136397.4	97.4	%	0.49				0.51%
Y 371.029	1040849.7	98.444	%	0.3408				0.35%
Ag 328.068†	-429.7	-1.7761	µg/L	1.05805	-1.7761	ppb	1.05805	59.57%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.1	-1.3101	µg/L	3.76627	-1.3101	ppb	3.76627	287.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.3	3.1633	µg/L	0.28526	3.1633	ppb	0.28526	9.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-20.8	-0.3247	µg/L	0.93203	-0.3247	ppb	0.93203	287.01%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-23.4	-0.1038	µg/L	0.04916	-0.1038	ppb	0.04916	47.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	654.0	0.1861	µg/L	0.09358	0.1861	ppb	0.09358	50.28%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	165.5	11.273	µg/L	1.2906	11.273	ppb	1.2906	11.45%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	33.0	0.2224	µg/L	0.15363	0.2224	ppb	0.15363	69.07%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	25.4	0.3362	µg/L	0.02925	0.3362	ppb	0.02925	8.70%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              54.4      0.4795 µg/L       0.12533      0.4795 ppb        0.12533  26.14%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -194.2     -0.8207 µg/L       0.78938     -0.8207 ppb        0.78938  96.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       69.7      5.2063 µg/L       0.88690      5.2063 ppb        0.88690  17.04%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       185.9      73.661 µg/L       61.9508      73.661 ppb        61.9508  84.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -3.4     -1.5483 µg/L       1.33570     -1.5483 ppb        1.33570  86.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             124.5      0.1652 µg/L       0.07613      0.1652 ppb        0.07613  46.10%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              21.3      0.6967 µg/L       0.37790      0.6967 ppb        0.37790  54.24%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      182.4      28.208 µg/L       15.6262      28.208 ppb        15.6262  55.40%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              32.8      0.4109 µg/L       0.06692      0.4109 ppb        0.06692  16.29%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               39.8      9.2151 µg/L       1.80508      9.2151 ppb        1.80508  19.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              18.9      1.1737 µg/L       0.12120      1.1737 ppb        0.12120  10.33%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.2      3.5791 µg/L       3.74670      3.5791 ppb        3.74670 104.68%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -6.8     -0.8805 µg/L       1.63263     -0.8805 ppb        1.63263 185.43%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              14.2        5.59 µg/L         2.929        5.59 ppb          2.929  52.44%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    31.9      3.3581 µg/L       1.68112      3.3581 ppb        1.68112  50.06%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             183.4      2.8808 µg/L       0.59191      2.8808 ppb        0.59191  20.55%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.3      0.3013 µg/L       0.56919      0.3013 ppb        0.56919 188.88%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              18.7      0.0441 µg/L       0.29149      0.0441 ppb        0.29149 660.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              39.5      0.0453 µg/L       0.08497      0.0453 ppb        0.08497 187.42%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.9      0.1156 µg/L       1.42209      0.1156 ppb        1.42209 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -175.5     -11.091 µg/L       20.1548     -11.091 ppb        20.1548 181.72%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -50.5     -0.2607 µg/L       0.43417     -0.2607 ppb        0.43417 166.54%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             111.8      0.6650 µg/L       0.09828      0.6650 ppb        0.09828  14.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 115
Sample ID: 249330007|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 427
Date Collected: 4/5/2010 19:51:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249330007|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137222.2	137222.2	98.0	%			19:52:32
1	Al 396.153Radial†	114119.6	116585.6	24545	µg/L	24545	ppb	19:52:32
1	Ca 317.933Radial†	209051.9	212853.9	14497	µg/L	14497	ppb	19:52:32
1	Fe 238.204 Radial†	963299.0	983334.6	73435	µg/L	73435	ppb	19:52:30
1	K 766.490 Radial†	15153.5	13976.7	5529.5	µg/L	5529.5	ppb	19:52:32
1	Mg 279.077 IEC†	11214.3	11276.4	5143.9	µg/L	5143.9	ppb	19:52:32
1	Na 589.592 Radial†	4944.7	4095.7	629.94	µg/L	629.94	ppb	19:52:32
1	Sr 421.552†	37483.9	38472.6	90.623	µg/L	90.623	ppb	19:52:32
1	Sc 361.383	1785602.8	1785602.8	98.972	%			19:52:45
1	Y 371.029	1166530.4	1166530.4	110.33	%			19:52:45
1	Ag 328.068†	4182.1	-339.6	-2.6374	µg/L	-2.6374	ppb	19:52:45
1	As 188.979†	20.1	38.9	29.868	µg/L	29.868	ppb	19:53:05
1	B 249.677†	5426.4	1417.6	21.998	µg/L	21.998	ppb	19:52:45
1	Ba 233.527†	58118.3	58866.6	260.75	µg/L	260.75	ppb	19:52:45
1	Be 313.107†	22155.3	23477.2	6.6790	µg/L	6.6790	ppb	19:52:45
1	Cd 226.502†	1008.3	1122.1	-0.1274	µg/L	-0.1274	ppb	19:53:05
1	Co 228.616†	820.4	1039.2	10.178	µg/L	10.178	ppb	19:53:05
1	Cr 267.716†	2966.5	2764.1	26.131	µg/L	26.131	ppb	19:53:05
1	Cu 324.752†	6555.0	3586.9	25.514	µg/L	25.514	ppb	19:52:45
1	Mn 257.610†	1819081.6	1837794.6	2437.5	µg/L	2437.5	ppb	19:52:45
1	Mo 202.031†	154.9	195.1	9.4015	µg/L	9.4015	ppb	19:53:05
1	Ni 231.604†	1736.8	1850.8	23.156	µg/L	23.156	ppb	19:53:05
1	P 214.914†	3123.9	3182.0	691.58	µg/L	691.58	ppb	19:53:05
1	Pb 220.353†	3702.8	3637.8	225.62	µg/L	225.62	ppb	19:53:05
1	S 181.975 Axial†	632.1	549.8	462.56	µg/L	462.56	ppb	19:53:05
1	Sb 206.836†	79.1	-9.7	-2.4664	µg/L	-2.4664	ppb	19:53:05
1	Se 196.026†	-38.8	-45.3	7.24	µg/L	7.24	ppb	19:53:05
1	SiO2†	309119.5	310591.8	32890	µg/L	32890	ppb	19:52:45
1	Si 251.611†	965678.7	974943.8	15374	µg/L	15374	ppb	19:52:45
1	Sn 189.927†	328.8	330.4	28.850	µg/L	28.850	ppb	19:53:05
1	Ti 334.940†	1696814.7	1713619.3	1760.1	µg/L	1760.1	ppb	19:52:45
1	Tl 190.801†	-326.5	-215.7	-5.0778	µg/L	-5.0778	ppb	19:53:05
1	U 409.014†	-6478.5	-6382.4	-399.35	µg/L	-399.35	ppb	19:52:45
1	V 292.402†	12708.8	12417.6	54.878	µg/L	54.878	ppb	19:53:05
1	Zn 213.857†	57888.2	57986.6	339.49	µg/L	339.49	ppb	19:52:45
2	Sc RADIAL	139968.5	139968.5	99.9	%			19:52:36
2	Al 396.153Radial†	115842.9	116024.4	24427	µg/L	24427	ppb	19:52:36
2	Ca 317.933Radial†	213333.2	212951.4	14504	µg/L	14504	ppb	19:52:36
2	Fe 238.204 Radial†	972183.9	972931.0	72658	µg/L	72658	ppb	19:52:34
2	K 766.490 Radial†	15379.8	13899.7	5499.0	µg/L	5499.0	ppb	19:52:36
2	Mg 279.077 IEC†	11473.4	11311.1	5160.6	µg/L	5160.6	ppb	19:52:36
2	Na 589.592 Radial†	5087.0	4139.0	636.69	µg/L	636.69	ppb	19:52:36
2	Sr 421.552†	37834.3	38072.5	89.679	µg/L	89.679	ppb	19:52:36
2	Sc 361.383	1784643.5	1784643.5	98.919	%			19:53:08
2	Y 371.029	1165980.1	1165980.1	110.28	%			19:53:08
2	Ag 328.068†	4067.1	-453.6	-3.0853	µg/L	-3.0853	ppb	19:53:08
2	As 188.979†	27.1	46.0	32.092	µg/L	32.092	ppb	19:53:28
2	B 249.677†	5471.7	1466.4	22.755	µg/L	22.755	ppb	19:53:08
2	Ba 233.527†	58365.7	59148.3	262.02	µg/L	262.02	ppb	19:53:08
2	Be 313.107†	22317.5	23653.2	6.7318	µg/L	6.7318	ppb	19:53:08
2	Cd 226.502†	1032.9	1147.5	0.1262	µg/L	0.1262	ppb	19:53:28
2	Co 228.616†	854.5	1074.1	10.681	µg/L	10.681	ppb	19:53:28
2	Cr 267.716†	2975.2	2774.5	26.190	µg/L	26.190	ppb	19:53:28
2	Cu 324.752†	6497.1	3532.0	25.177	µg/L	25.177	ppb	19:53:08
2	Mn 257.610†	1818511.9	1838206.7	2438.1	µg/L	2438.1	ppb	19:53:08
2	Mo 202.031†	160.0	200.3	9.5410	µg/L	9.5410	ppb	19:53:28
2	Ni 231.604†	1760.4	1875.6	23.466	µg/L	23.466	ppb	19:53:28
2	P 214.914†	3135.0	3194.9	695.07	µg/L	695.07	ppb	19:53:28
2	Pb 220.353†	3697.1	3634.1	225.41	µg/L	225.41	ppb	19:53:28

2	S 181.975 Axial†	625.4	543.3	457.10	µg/L	457.10 ppb	19:53:28
2	Sb 206.836†	84.7	-4.1	-1.7226	µg/L	-1.7226 ppb	19:53:28
2	Se 196.026†	-48.0	-54.7	3.29	µg/L	3.29 ppb	19:53:28
2	SiO2†	308821.5	310458.4	32876	µg/L	32876 ppb	19:53:08
2	Si 251.611†	965393.5	975180.0	15377	µg/L	15377 ppb	19:53:08
2	Sn 189.927†	336.8	338.5	29.421	µg/L	29.421 ppb	19:53:28
2	Ti 334.940†	1696746.3	1714471.7	1761.0	µg/L	1761.0 ppb	19:53:08
2	Tl 190.801†	-311.9	-201.1	-3.0739	µg/L	-3.0739 ppb	19:53:28
2	U 409.014†	-6381.5	-6287.9	-393.18	µg/L	-393.18 ppb	19:53:08
2	V 292.402†	12810.4	12527.2	55.533	µg/L	55.533 ppb	19:53:28
2	Zn 213.857†	57956.2	58086.8	340.17	µg/L	340.17 ppb	19:53:08
3	Sc RADIAL	136160.3	136160.3	97.2	%		19:52:40
3	Al 396.153Radial†	113094.3	116439.2	24514	µg/L	24514 ppb	19:52:40
3	Ca 317.933Radial†	206986.3	212393.1	14466	µg/L	14466 ppb	19:52:40
3	Fe 238.204 Radial†	964559.0	992300.4	74104	µg/L	74104 ppb	19:52:38
3	K 766.490 Radial†	15050.4	13991.3	5535.3	µg/L	5535.3 ppb	19:52:40
3	Mg 279.077 IEC†	11078.9	11226.4	5120.3	µg/L	5120.3 ppb	19:52:40
3	Na 589.592 Radial†	5010.9	4203.1	646.58	µg/L	646.58 ppb	19:52:40
3	Sr 421.552†	37063.2	38338.2	90.306	µg/L	90.306 ppb	19:52:40
3	Sc 361.383	1769047.6	1769047.6	98.054	%		19:53:30
3	Y 371.029	1155894.2	1155894.2	109.33	%		19:53:30
3	Ag 328.068†	3892.5	-595.5	-3.6587	µg/L	-3.6587 ppb	19:53:30
3	As 188.979†	30.4	49.6	33.644	µg/L	33.644 ppb	19:53:51
3	B 249.677†	5331.9	1372.6	21.297	µg/L	21.297 ppb	19:53:30
3	Ba 233.527†	57465.2	58750.1	260.23	µg/L	260.23 ppb	19:53:30
3	Be 313.107†	21322.7	22837.5	6.4963	µg/L	6.4963 ppb	19:53:30
3	Cd 226.502†	1045.5	1169.6	0.1237	µg/L	0.1237 ppb	19:53:51
3	Co 228.616†	842.2	1069.2	10.539	µg/L	10.539 ppb	19:53:51
3	Cr 267.716†	3009.1	2835.6	26.771	µg/L	26.771 ppb	19:53:51
3	Cu 324.752†	6541.0	3634.7	25.817	µg/L	25.817 ppb	19:53:30
3	Mn 257.610†	1793730.6	1829140.9	2426.0	µg/L	2426.0 ppb	19:53:30
3	Mo 202.031†	160.5	202.3	9.6634	µg/L	9.6634 ppb	19:53:51
3	Ni 231.604†	1777.4	1908.6	23.879	µg/L	23.879 ppb	19:53:51
3	P 214.914†	3162.9	3251.3	707.15	µg/L	707.15 ppb	19:53:51
3	Pb 220.353†	3713.8	3684.0	228.43	µg/L	228.43 ppb	19:53:51
3	S 181.975 Axial†	626.4	549.9	462.66	µg/L	462.66 ppb	19:53:51
3	Sb 206.836†	77.7	-10.4	-2.5674	µg/L	-2.5674 ppb	19:53:51
3	Se 196.026†	-38.6	-45.6	7.38	µg/L	7.38 ppb	19:53:51
3	SiO2†	305559.8	309884.3	32816	µg/L	32816 ppb	19:53:30
3	Si 251.611†	953749.5	971908.8	15326	µg/L	15326 ppb	19:53:30
3	Sn 189.927†	328.1	332.7	29.000	µg/L	29.000 ppb	19:53:51
3	Ti 334.940†	1677041.9	1709498.4	1755.9	µg/L	1755.9 ppb	19:53:30
3	Tl 190.801†	-320.3	-212.3	-4.6880	µg/L	-4.6880 ppb	19:53:51
3	U 409.014†	-6287.8	-6249.2	-391.10	µg/L	-391.10 ppb	19:53:30
3	V 292.402†	12839.4	12670.9	56.135	µg/L	56.135 ppb	19:53:51
3	Zn 213.857†	57066.5	57695.9	337.68	µg/L	337.68 ppb	19:53:30

Mean Data: 249330007|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1779764.6	98.648	%	0.5151				0.52%
Sc RADIAL	137783.7	98.4	%	1.40				1.43%
Y 371.029	1162801.6	109.98	%	0.566				0.51%
Ag 328.068†	-462.9	-3.1271	µg/L	0.51195	-3.1271	ppb	0.51195	16.37%
Al 396.153Radial†	116349.8	24495	µg/L	61.3	24495	ppb	61.3	0.25%
As 188.979†	44.8	31.868	µg/L	1.8982	31.868	ppb	1.8982	5.96%
B 249.677†	1418.8	22.017	µg/L	0.7294	22.017	ppb	0.7294	3.31%
Ba 233.527†	58921.7	261.00	µg/L	0.919	261.00	ppb	0.919	0.35%
Be 313.107†	23322.6	6.6357	µg/L	0.12359	6.6357	ppb	0.12359	1.86%
Ca 317.933Radial†	212732.8	14489	µg/L	20.3	14489	ppb	20.3	0.14%
Cd 226.502†	1146.4	0.0408	µg/L	0.14566	0.0408	ppb	0.14566	356.76%
Co 228.616†	1060.9	10.466	µg/L	0.2594	10.466	ppb	0.2594	2.48%
Cr 267.716†	2791.4	26.364	µg/L	0.3536	26.364	ppb	0.3536	1.34%
Cu 324.752†	3584.5	25.503	µg/L	0.3205	25.503	ppb	0.3205	1.26%
Fe 238.204 Radial†	982855.3	73399	µg/L	723.9	73399	ppb	723.9	0.99%
K 766.490 Radial†	13955.9	5521.3	µg/L	19.49	5521.3	ppb	19.49	0.35%
Mg 279.077 IEC†	11271.3	5141.6	µg/L	20.27	5141.6	ppb	20.27	0.39%
Mn 257.610†	1835047.4	2433.9	µg/L	6.79	2433.9	ppb	6.79	0.28%
Mo 202.031†	199.2	9.5353	µg/L	0.13103	9.5353	ppb	0.13103	1.37%
Na 589.592 Radial†	4145.9	637.74	µg/L	8.372	637.74	ppb	8.372	1.31%

Ni 231.604†	1878.3	23.500	µg/L	0.3628	23.500	ppb	0.3628	1.54%
P 214.914†	3209.4	697.93	µg/L	8.169	697.93	ppb	8.169	1.17%
Pb 220.353†	3652.0	226.48	µg/L	1.688	226.48	ppb	1.688	0.75%
S 181.975 Axial†	547.7	460.78	µg/L	3.181	460.78	ppb	3.181	0.69%
Sb 206.836†	-8.1	-2.2521	µg/L	0.46132	-2.2521	ppb	0.46132	20.48%
Se 196.026†	-48.5	5.97	µg/L	2.320	5.97	ppb	2.320	38.86%
SiO2†	310311.5	32861	µg/L	39.8	32861	ppb	39.8	0.12%
Si 251.611†	974010.8	15359	µg/L	28.8	15359	ppb	28.8	0.19%
Sn 189.927†	333.9	29.090	µg/L	0.2961	29.090	ppb	0.2961	1.02%
Sr 421.552†	38294.4	90.203	µg/L	0.4803	90.203	ppb	0.4803	0.53%
Ti 334.940†	1712529.8	1759.0	µg/L	2.73	1759.0	ppb	2.73	0.16%
Tl 190.801†	-209.7	-4.2799	µg/L	1.06242	-4.2799	ppb	1.06242	24.82%
U 409.014†	-6306.5	-394.54	µg/L	4.293	-394.54	ppb	4.293	1.09%
Concentration less than lower limit for U 409.014.								
V 292.402†	12538.6	55.515	µg/L	0.6287	55.515	ppb	0.6287	1.13%
Zn 213.857†	57923.1	339.11	µg/L	1.288	339.11	ppb	1.288	0.38%

Sequence No.: 119
Sample ID: 249333006|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 431
Date Collected: 4/5/2010 19:59:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249333006|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137815.8	137815.8	98.4	%			20:00:28
1	Al 396.153Radial†	79208.9	80596.2	16968	µg/L	16968	ppb	20:00:28
1	Ca 317.933Radial†	142508.1	144291.3	9827.5	µg/L	9827.5	ppb	20:00:30
1	Fe 238.204 Radial†	973948.6	989924.0	73927	µg/L	73927	ppb	20:00:28
1	K 766.490 Radial†	10259.7	8935.5	3534.6	µg/L	3534.6	ppb	20:00:30
1	Mg 279.077 IEC†	7692.6	7647.2	3467.8	µg/L	3467.8	ppb	20:00:30
1	Na 589.592 Radial†	5613.0	4753.3	733.65	µg/L	733.65	ppb	20:00:30
1	Sr 421.552†	29695.3	30390.4	71.598	µg/L	71.598	ppb	20:00:30
1	Sc 361.383	1775957.1	1775957.1	98.437	%			20:00:56
1	Y 371.029	1136245.7	1136245.7	107.47	%			20:00:56
1	Ag 328.068†	10515.2	6117.0	24.072	µg/L	24.072	ppb	20:00:56
1	As 188.979†	2.2	20.8	24.323	µg/L	24.323	ppb	20:01:16
1	B 249.677†	5670.5	1695.4	26.317	µg/L	26.317	ppb	20:00:56
1	Ba 233.527†	52250.0	53224.1	235.66	µg/L	235.66	ppb	20:00:56
1	Be 313.107†	13729.1	15038.8	4.2404	µg/L	4.2404	ppb	20:00:56
1	Cd 226.502†	2137.1	2274.4	7.6227	µg/L	7.6227	ppb	20:01:16
1	Co 228.616†	845.8	1069.5	10.536	µg/L	10.536	ppb	20:01:16
1	Cr 267.716†	8266.2	8164.2	73.051	µg/L	73.051	ppb	20:01:16
1	Cu 324.752†	83922.8	82219.0	354.44	µg/L	354.44	ppb	20:00:56
1	Mn 257.610†	1268808.6	1288767.9	1709.3	µg/L	1709.3	ppb	20:00:56
1	Mo 202.031†	164.1	205.3	9.7202	µg/L	9.7202	ppb	20:01:16
1	Ni 231.604†	4104.5	4265.6	53.368	µg/L	53.368	ppb	20:01:16
1	P 214.914†	2645.4	2713.1	577.56	µg/L	577.56	ppb	20:01:16
1	Pb 220.353†	4131.5	4093.7	252.22	µg/L	252.22	ppb	20:01:16
1	S 181.975 Axial†	1022.6	949.9	799.16	µg/L	799.16	ppb	20:01:16
1	Sb 206.836†	78.1	-10.4	-3.1914	µg/L	-3.1914	ppb	20:01:16
1	Se 196.026†	-44.4	-51.2	5.10	µg/L	5.10	ppb	20:01:16
1	SiO2†	239353.0	241414.0	25565	µg/L	25565	ppb	20:00:56
1	Si 251.611†	747438.8	758538.4	11961	µg/L	11961	ppb	20:00:56
1	Sn 189.927†	459.0	464.4	36.021	µg/L	36.021	ppb	20:01:16
1	Ti 334.940†	1083769.6	1100152.9	1130.0	µg/L	1130.0	ppb	20:00:56
1	Tl 190.801†	-263.0	-152.9	-4.7547	µg/L	-4.7547	ppb	20:01:16
1	U 409.014†	-6143.7	-6077.9	-385.56	µg/L	-385.56	ppb	20:00:56
1	V 292.402†	11565.8	11326.2	49.971	µg/L	49.971	ppb	20:01:16
1	Zn 213.857†	196548.3	199165.8	1181.8	µg/L	1181.8	ppb	20:00:56
2	Sc RADIAL	137561.2	137561.2	98.2	%			20:00:32
2	Al 396.153Radial†	79195.6	80731.7	16997	µg/L	16997	ppb	20:00:32
2	Ca 317.933Radial†	142482.5	144533.4	9844.0	µg/L	9844.0	ppb	20:00:34
2	Fe 238.204 Radial†	974223.7	992036.9	74085	µg/L	74085	ppb	20:00:32
2	K 766.490 Radial†	10214.6	8908.8	3524.0	µg/L	3524.0	ppb	20:00:34
2	Mg 279.077 IEC†	7683.1	7652.0	3469.9	µg/L	3469.9	ppb	20:00:34
2	Na 589.592 Radial†	5676.4	4828.4	745.30	µg/L	745.30	ppb	20:00:34
2	Sr 421.552†	29949.6	30705.3	72.340	µg/L	72.340	ppb	20:00:34
2	Sc 361.383	1766506.2	1766506.2	97.913	%			20:01:19
2	Y 371.029	1129649.0	1129649.0	106.84	%			20:01:19
2	Ag 328.068†	10474.2	6132.3	24.148	µg/L	24.148	ppb	20:01:19
2	As 188.979†	14.1	32.9	28.457	µg/L	28.457	ppb	20:01:39
2	B 249.677†	5679.6	1735.5	26.941	µg/L	26.941	ppb	20:01:19
2	Ba 233.527†	52020.3	53273.4	235.88	µg/L	235.88	ppb	20:01:19
2	Be 313.107†	13550.1	14930.6	4.2109	µg/L	4.2109	ppb	20:01:19
2	Cd 226.502†	2160.7	2310.1	7.8484	µg/L	7.8484	ppb	20:01:39
2	Co 228.616†	845.2	1073.5	10.582	µg/L	10.582	ppb	20:01:39
2	Cr 267.716†	8342.6	8287.2	74.116	µg/L	74.116	ppb	20:01:39
2	Cu 324.752†	83608.3	82354.0	355.04	µg/L	355.04	ppb	20:01:19
2	Mn 257.610†	1263633.4	1290378.4	1711.4	µg/L	1711.4	ppb	20:01:19
2	Mo 202.031†	176.5	218.8	10.170	µg/L	10.170	ppb	20:01:39
2	Ni 231.604†	4153.7	4338.1	54.275	µg/L	54.275	ppb	20:01:39
2	P 214.914†	2669.7	2752.3	586.53	µg/L	586.53	ppb	20:01:39
2	Pb 220.353†	4167.0	4152.3	255.83	µg/L	255.83	ppb	20:01:39

2	S 181.975 Axial†	1034.7	967.9	814.28 µg/L	814.28 ppb	20:01:39
2	Sb 206.836†	117.8	30.6	2.0840 µg/L	2.0840 ppb	20:01:39
2	Se 196.026†	-39.0	-46.0	7.21 µg/L	7.21 ppb	20:01:39
2	SiO2†	238304.1	241643.6	25589 µg/L	25589 ppb	20:01:19
2	Si 251.611†	743885.5	758971.7	11968 µg/L	11968 ppb	20:01:19
2	Sn 189.927†	467.4	475.4	36.796 µg/L	36.796 ppb	20:01:39
2	Ti 334.940†	1079881.7	1102072.5	1132.0 µg/L	1132.0 ppb	20:01:19
2	Tl 190.801†	-256.5	-147.7	-4.0132 µg/L	-4.0132 ppb	20:01:39
2	U 409.014†	-6019.5	-5984.4	-379.64 µg/L	-379.64 ppb	20:01:19
2	V 292.402†	11637.1	11461.8	50.669 µg/L	50.669 ppb	20:01:39
2	Zn 213.857†	195649.7	199316.3	1182.6 µg/L	1182.6 ppb	20:01:19
3	Sc RADIAL	136940.4	136940.4	97.7 %		20:00:36
3	Al 396.153Radial†	78810.6	80703.5	16991 µg/L	16991 ppb	20:00:36
3	Ca 317.933Radial†	141671.6	144361.7	9832.3 µg/L	9832.3 ppb	20:00:38
3	Fe 238.204 Radial†	967926.7	990092.8	73939 µg/L	73939 ppb	20:00:36
3	K 766.490 Radial†	10165.6	8905.9	3522.9 µg/L	3522.9 ppb	20:00:38
3	Mg 279.077 IEC†	7563.9	7565.6	3430.1 µg/L	3430.1 ppb	20:00:38
3	Na 589.592 Radial†	5671.5	4849.5	748.58 µg/L	748.58 ppb	20:00:38
3	Sr 421.552†	29738.5	30627.6	72.157 µg/L	72.157 ppb	20:00:38
3	Sc 361.383	1789721.4	1789721.4	99.200 %		20:01:42
3	Y 371.029	1145155.7	1145155.7	108.31 %		20:01:42
3	Ag 328.068†	10215.6	5732.8	22.520 µg/L	22.520 ppb	20:01:42
3	As 188.979†	13.5	32.2	28.167 µg/L	28.167 ppb	20:02:02
3	B 249.677†	5531.8	1511.3	23.455 µg/L	23.455 ppb	20:01:42
3	Ba 233.527†	52632.9	53201.8	235.56 µg/L	235.56 ppb	20:01:42
3	Be 313.107†	13476.0	14676.4	4.1405 µg/L	4.1405 ppb	20:01:42
3	Cd 226.502†	2154.8	2275.5	7.6292 µg/L	7.6292 ppb	20:02:02
3	Co 228.616†	840.7	1057.7	10.380 µg/L	10.380 ppb	20:02:02
3	Cr 267.716†	8336.2	8170.2	73.090 µg/L	73.090 ppb	20:02:02
3	Cu 324.752†	84728.2	82375.3	355.11 µg/L	355.11 ppb	20:01:42
3	Mn 257.610†	1278835.8	1288963.0	1709.5 µg/L	1709.5 ppb	20:01:42
3	Mo 202.031†	187.4	227.5	10.447 µg/L	10.447 ppb	20:02:02
3	Ni 231.604†	4119.2	4248.3	53.151 µg/L	53.151 ppb	20:02:02
3	P 214.914†	2691.9	2739.3	583.62 µg/L	583.62 ppb	20:02:02
3	Pb 220.353†	4161.0	4091.1	252.06 µg/L	252.06 ppb	20:02:02
3	S 181.975 Axial†	1034.2	953.6	802.32 µg/L	802.32 ppb	20:02:02
3	Sb 206.836†	87.6	-1.4	-2.0219 µg/L	-2.0219 ppb	20:02:02
3	Se 196.026†	-49.1	-55.6	3.39 µg/L	3.39 ppb	20:02:02
3	SiO2†	241519.2	241727.6	25598 µg/L	25598 ppb	20:01:42
3	Si 251.611†	754150.9	759465.0	11976 µg/L	11976 ppb	20:01:42
3	Sn 189.927†	464.4	466.2	36.154 µg/L	36.154 ppb	20:02:02
3	Ti 334.940†	1093575.4	1101570.5	1131.5 µg/L	1131.5 ppb	20:01:42
3	Tl 190.801†	-261.2	-149.1	-4.2188 µg/L	-4.2188 ppb	20:02:02
3	U 409.014†	-5927.9	-5812.3	-368.80 µg/L	-368.80 ppb	20:01:42
3	V 292.402†	11661.4	11332.3	50.019 µg/L	50.019 ppb	20:02:02
3	Zn 213.857†	198260.4	199356.1	1182.9 µg/L	1182.9 ppb	20:01:42

Mean Data: 249333006|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1777394.9	98.517	%	0.6471				0.66%
Sc RADIAL	137439.1	98.1	%	0.32				0.33%
Y 371.029	1137016.8	107.54	%	0.736				0.68%
Ag 328.068†	5994.0	23.580	µg/L	0.9188	23.580	ppb	0.9188	3.90%
Al 396.153Radial†	80677.1	16985	µg/L	15.0	16985	ppb	15.0	0.09%
As 188.979†	28.6	26.982	µg/L	2.3074	26.982	ppb	2.3074	8.55%
B 249.677†	1647.4	25.571	µg/L	1.8591	25.571	ppb	1.8591	7.27%
Ba 233.527†	53233.1	235.70	µg/L	0.162	235.70	ppb	0.162	0.07%
Be 313.107†	14881.9	4.1973	µg/L	0.05132	4.1973	ppb	0.05132	1.22%
Ca 317.933Radial†	144395.5	9834.6	µg/L	8.48	9834.6	ppb	8.48	0.09%
Cd 226.502†	2286.7	7.7001	µg/L	0.12844	7.7001	ppb	0.12844	1.67%
Co 228.616†	1066.9	10.499	µg/L	0.1060	10.499	ppb	0.1060	1.01%
Cr 267.716†	8207.2	73.419	µg/L	0.6036	73.419	ppb	0.6036	0.82%
Cu 324.752†	82316.1	354.86	µg/L	0.366	354.86	ppb	0.366	0.10%
Fe 238.204 Radial†	990684.6	73984	µg/L	87.7	73984	ppb	87.7	0.12%
K 766.490 Radial†	8916.7	3527.2	µg/L	6.46	3527.2	ppb	6.46	0.18%
Mg 279.077 IEC†	7621.6	3455.9	µg/L	22.38	3455.9	ppb	22.38	0.65%
Mn 257.610†	1289369.8	1710.1	µg/L	1.17	1710.1	ppb	1.17	0.07%
Mo 202.031†	217.2	10.112	µg/L	0.3667	10.112	ppb	0.3667	3.63%
Na 589.592 Radial†	4810.4	742.51	µg/L	7.847	742.51	ppb	7.847	1.06%

Ni 231.604†	4284.0	53.598	µg/L	0.5961	53.598	ppb	0.5961	1.11%
P 214.914†	2734.9	582.57	µg/L	4.576	582.57	ppb	4.576	0.79%
Pb 220.353†	4112.4	253.37	µg/L	2.130	253.37	ppb	2.130	0.84%
S 181.975 Axial†	957.1	805.25	µg/L	7.973	805.25	ppb	7.973	0.99%
Sb 206.836†	6.3	-1.0431	µg/L	2.77056	-1.0431	ppb	2.77056	265.61%
Se 196.026†	-51.0	5.23	µg/L	1.915	5.23	ppb	1.915	36.59%
SiO2†	241595.0	25584	µg/L	17.2	25584	ppb	17.2	0.07%
Si 251.611†	758991.7	11968	µg/L	7.3	11968	ppb	7.3	0.06%
Sn 189.927†	468.7	36.323	µg/L	0.4146	36.323	ppb	0.4146	1.14%
Sr 421.552†	30574.4	72.032	µg/L	0.3868	72.032	ppb	0.3868	0.54%
Ti 334.940†	1101265.3	1131.2	µg/L	1.02	1131.2	ppb	1.02	0.09%
Tl 190.801†	-149.9	-4.3289	µg/L	0.38283	-4.3289	ppb	0.38283	8.84%
U 409.014†	-5958.2	-378.00	µg/L	8.500	-378.00	ppb	8.500	2.25%
Concentration less than lower limit for U 409.014.								
V 292.402†	11373.4	50.220	µg/L	0.3897	50.220	ppb	0.3897	0.78%
Zn 213.857†	199279.4	1182.4	µg/L	0.60	1182.4	ppb	0.60	0.05%

Sequence No.: 123
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 20:08:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137080.3	137080.3	97.8	%			20:08:42
1	Al 396.153Radial†	23262.8	23852.7	4998.3	µg/L	4998.3	ppb	20:08:42
1	Ca 317.933Radial†	73645.0	74692.1	5087.2	µg/L	5087.2	ppb	20:08:42
1	Fe 238.204 Radial†	66492.7	67836.7	5066.0	µg/L	5066.0	ppb	20:08:42
1	K 766.490 Radial†	14013.5	12827.7	5078.8	µg/L	5078.8	ppb	20:08:42
1	Mg 279.077 IEC†	10957.4	11025.7	5099.0	µg/L	5099.0	ppb	20:08:42
1	Na 589.592 Radial†	64798.7	65270.3	10113	µg/L	10113	ppb	20:08:42
1	Sr 421.552†	213193.8	218083.8	514.30	µg/L	514.30	ppb	20:08:40
1	Sc 361.383	1762777.5	1762777.5	97.707	%			20:09:09
1	Y 371.029	1024107.7	1024107.7	96.861	%			20:09:09
1	Ag 328.068†	123768.6	122108.5	506.16	µg/L	506.16	ppb	20:09:09
1	As 188.979†	1319.4	1368.9	470.34	µg/L	470.34	ppb	20:09:29
1	B 249.677†	35156.3	31916.3	494.60	µg/L	494.60	ppb	20:09:09
1	Ba 233.527†	109398.3	112110.6	498.73	µg/L	498.73	ppb	20:09:09
1	Be 313.107†	1651980.0	1691846.3	490.23	µg/L	490.23	ppb	20:09:09
1	Cd 226.502†	72551.6	74357.9	502.25	µg/L	502.25	ppb	20:09:09
1	Co 228.616†	37206.1	38289.7	506.81	µg/L	506.81	ppb	20:09:09
1	Cr 267.716†	57161.4	58269.9	503.97	µg/L	503.97	ppb	20:09:09
1	Cu 324.752†	120015.3	119796.2	502.63	µg/L	502.63	ppb	20:09:09
1	Mn 257.610†	370897.4	379418.2	503.10	µg/L	503.10	ppb	20:09:09
1	Mo 202.031†	15104.1	15497.2	507.28	µg/L	507.28	ppb	20:09:29
1	Ni 231.604†	39276.4	40294.2	504.13	µg/L	504.13	ppb	20:09:09
1	P 214.914†	10582.0	10856.1	2502.6	µg/L	2502.6	ppb	20:09:29
1	Pb 220.353†	8162.1	8250.2	509.28	µg/L	509.28	ppb	20:09:29
1	S 181.975 Axial†	1259.8	1200.5	1014.2	µg/L	1014.2	ppb	20:09:29
1	Sb 206.836†	3895.9	3897.7	503.76	µg/L	503.76	ppb	20:09:29
1	Se 196.026†	1238.5	1261.4	499	µg/L	499	ppb	20:09:29
1	SiO2†	50956.6	50413.5	5317.1	µg/L	5317.1	ppb	20:09:09
1	Si 251.611†	155802.6	158692.5	2492.4	µg/L	2492.4	ppb	20:09:09
1	Sn 189.927†	6981.6	7143.5	497.19	µg/L	497.19	ppb	20:09:29
1	Ti 334.940†	477621.4	488008.9	500.58	µg/L	500.58	ppb	20:09:09
1	Tl 190.801†	3478.1	3674.0	509.23	µg/L	509.23	ppb	20:09:29
1	U 409.014†	7186.6	7518.6	505.08	µg/L	505.08	ppb	20:09:09
1	V 292.402†	94998.9	96805.4	508.47	µg/L	508.47	ppb	20:09:09
1	Zn 213.857†	83062.2	84508.8	500.69	µg/L	500.69	ppb	20:09:09
2	Sc RADIAL	135844.1	135844.1	97.0	%			20:08:46
2	Al 396.153Radial†	22967.5	23764.4	4979.9	µg/L	4979.9	ppb	20:08:46
2	Ca 317.933Radial†	72638.9	74339.3	5063.2	µg/L	5063.2	ppb	20:08:46
2	Fe 238.204 Radial†	65763.1	67702.6	5056.0	µg/L	5056.0	ppb	20:08:46
2	K 766.490 Radial†	13863.3	12803.1	5069.1	µg/L	5069.1	ppb	20:08:46
2	Mg 279.077 IEC†	10689.9	10851.8	5018.6	µg/L	5018.6	ppb	20:08:46
2	Na 589.592 Radial†	64218.1	65274.1	10113	µg/L	10113	ppb	20:08:46
2	Sr 421.552†	210134.3	216911.2	511.54	µg/L	511.54	ppb	20:08:44
2	Sc 361.383	1779954.1	1779954.1	98.659	%			20:09:32
2	Y 371.029	1034108.1	1034108.1	97.807	%			20:09:32
2	Ag 328.068†	125021.6	122156.2	506.37	µg/L	506.37	ppb	20:09:32
2	As 188.979†	1310.6	1347.0	462.92	µg/L	462.92	ppb	20:09:52
2	B 249.677†	35516.6	31934.4	494.87	µg/L	494.87	ppb	20:09:32
2	Ba 233.527†	110527.6	112174.8	499.01	µg/L	499.01	ppb	20:09:32
2	Be 313.107†	1668740.6	1692519.0	490.43	µg/L	490.43	ppb	20:09:32
2	Cd 226.502†	73554.1	74657.4	504.28	µg/L	504.28	ppb	20:09:32
2	Co 228.616†	37640.9	38362.9	507.78	µg/L	507.78	ppb	20:09:32
2	Cr 267.716†	57753.7	58305.6	504.27	µg/L	504.27	ppb	20:09:32
2	Cu 324.752†	121218.3	119830.2	502.78	µg/L	502.78	ppb	20:09:32
2	Mn 257.610†	375062.3	379976.6	503.84	µg/L	503.84	ppb	20:09:32
2	Mo 202.031†	15122.2	15366.4	503.00	µg/L	503.00	ppb	20:09:52
2	Ni 231.604†	39776.6	40413.3	505.62	µg/L	505.62	ppb	20:09:32
2	P 214.914†	10609.2	10779.1	2484.8	µg/L	2484.8	ppb	20:09:52
2	Pb 220.353†	8164.2	8171.8	504.44	µg/L	504.44	ppb	20:09:52

2	S 181.975 Axial†	1254.1	1182.2	998.77 µg/L	998.77 ppb	20:09:52
2	Sb 206.836†	3906.2	3869.6	500.07 µg/L	500.07 ppb	20:09:52
2	Se 196.026†	1246.2	1257.0	497 µg/L	497 ppb	20:09:52
2	SiO2†	51422.3	50382.2	5313.9 µg/L	5313.9 ppb	20:09:32
2	Si 251.611†	157752.6	159130.3	2499.3 µg/L	2499.3 ppb	20:09:32
2	Sn 189.927†	7009.2	7102.6	494.35 µg/L	494.35 ppb	20:09:52
2	Ti 334.940†	482087.9	487818.9	500.39 µg/L	500.39 ppb	20:09:32
2	Tl 190.801†	3492.2	3653.9	506.48 µg/L	506.48 ppb	20:09:52
2	U 409.014†	7349.1	7612.4	511.05 µg/L	511.05 ppb	20:09:32
2	V 292.402†	96088.3	96971.4	509.29 µg/L	509.29 ppb	20:09:32
2	Zn 213.857†	83968.1	84606.7	501.27 µg/L	501.27 ppb	20:09:32
3	Sc RADIAL	135657.2	135657.2	96.8 %		20:08:50
3	Al 396.153Radial†	23124.1	23958.8	5020.9 µg/L	5020.9 ppb	20:08:50
3	Ca 317.933Radial†	72697.2	74502.9	5074.3 µg/L	5074.3 ppb	20:08:50
3	Fe 238.204 Radial†	65607.7	67635.6	5051.0 µg/L	5051.0 ppb	20:08:50
3	K 766.490 Radial†	13834.3	12792.9	5065.0 µg/L	5065.0 ppb	20:08:50
3	Mg 279.077 IEC†	10629.1	10804.2	4996.7 µg/L	4996.7 ppb	20:08:50
3	Na 589.592 Radial†	64347.9	65499.5	10148 µg/L	10148 ppb	20:08:50
3	Sr 421.552†	208104.3	215113.5	507.30 µg/L	507.30 ppb	20:08:48
3	Sc 361.383	1775142.9	1775142.9	98.392 %		20:09:55
3	Y 371.029	1031583.7	1031583.7	97.568 %		20:09:55
3	Ag 328.068†	124514.6	121984.3	505.65 µg/L	505.65 ppb	20:09:55
3	As 188.979†	1309.5	1349.5	463.73 µg/L	463.73 ppb	20:10:15
3	B 249.677†	35315.6	31827.6	493.21 µg/L	493.21 ppb	20:09:55
3	Ba 233.527†	109914.7	111855.5	497.59 µg/L	497.59 ppb	20:09:55
3	Be 313.107†	1661539.3	1689784.5	489.63 µg/L	489.63 ppb	20:09:55
3	Cd 226.502†	73195.8	74495.4	503.18 µg/L	503.18 ppb	20:09:55
3	Co 228.616†	37492.3	38315.3	507.15 µg/L	507.15 ppb	20:09:55
3	Cr 267.716†	57418.2	58123.3	502.70 µg/L	502.70 ppb	20:09:55
3	Cu 324.752†	120969.9	119910.7	503.11 µg/L	503.11 ppb	20:09:55
3	Mn 257.610†	373849.0	379773.8	503.58 µg/L	503.58 ppb	20:09:55
3	Mo 202.031†	15053.4	15338.0	502.07 µg/L	502.07 ppb	20:10:15
3	Ni 231.604†	39619.4	40362.8	504.99 µg/L	504.99 ppb	20:09:55
3	P 214.914†	10574.4	10772.9	2483.3 µg/L	2483.3 ppb	20:10:15
3	Pb 220.353†	8145.9	8175.6	504.67 µg/L	504.67 ppb	20:10:15
3	S 181.975 Axial†	1260.5	1192.2	1007.2 µg/L	1007.2 ppb	20:10:15
3	Sb 206.836†	3869.9	3843.4	496.71 µg/L	496.71 ppb	20:10:15
3	Se 196.026†	1247.1	1261.4	499 µg/L	499 ppb	20:10:15
3	SiO2†	51416.3	50517.4	5328.3 µg/L	5328.3 ppb	20:09:55
3	Si 251.611†	157102.1	158902.4	2495.8 µg/L	2495.8 ppb	20:09:55
3	Sn 189.927†	6969.0	7081.0	492.85 µg/L	492.85 ppb	20:10:15
3	Ti 334.940†	480034.9	487056.8	499.61 µg/L	499.61 ppb	20:09:55
3	Tl 190.801†	3475.8	3646.9	505.50 µg/L	505.50 ppb	20:10:15
3	U 409.014†	7250.9	7532.7	505.97 µg/L	505.97 ppb	20:09:55
3	V 292.402†	95613.5	96752.9	508.14 µg/L	508.14 ppb	20:09:55
3	Zn 213.857†	83602.6	84465.9	500.43 µg/L	500.43 ppb	20:09:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1772624.8	98.252	%	0.4911				0.50%
Sc RADIAL	136193.9	97.2	%	0.55				0.57%
Y 371.029	1029933.2	97.412	%	0.4919				0.50%
Ag 328.068†	122083.0	506.06	µg/L	0.372	506.06	ppb	0.372	0.07%
QC value within limits for Ag 328.068 Recovery = 101.21%								
Al 396.153Radial†	23858.6	4999.7	µg/L	20.52	4999.7	ppb	20.52	0.41%
QC value within limits for Al 396.153Radial Recovery = 99.99%								
As 188.979†	1355.1	465.66	µg/L	4.073	465.66	ppb	4.073	0.87%
QC value within limits for As 188.979 Recovery = 93.13%								
B 249.677†	31892.8	494.23	µg/L	0.888	494.23	ppb	0.888	0.18%
QC value within limits for B 249.677 Recovery = 98.85%								
Ba 233.527†	112047.0	498.44	µg/L	0.751	498.44	ppb	0.751	0.15%
QC value within limits for Ba 233.527 Recovery = 99.69%								
Be 313.107†	1691383.3	490.10	µg/L	0.413	490.10	ppb	0.413	0.08%
QC value within limits for Be 313.107 Recovery = 98.02%								
Ca 317.933Radial†	74511.5	5074.9	µg/L	12.03	5074.9	ppb	12.03	0.24%
QC value within limits for Ca 317.933Radial Recovery = 101.50%								
Cd 226.502†	74503.5	503.24	µg/L	1.014	503.24	ppb	1.014	0.20%
QC value within limits for Cd 226.502 Recovery = 100.65%								
Co 228.616†	38322.6	507.24	µg/L	0.492	507.24	ppb	0.492	0.10%

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   QC value within limits for Co 228.616  Recovery = 101.45%
Cr 267.716†            58232.9      503.65 µg/L         0.834      503.65 ppb          0.834   0.17%
   QC value within limits for Cr 267.716  Recovery = 100.73%
Cu 324.752†           119845.7      502.84 µg/L         0.244      502.84 ppb          0.244   0.05%
   QC value within limits for Cu 324.752  Recovery = 100.57%
Fe 238.204 Radial†     67725.0      5057.7 µg/L          7.65      5057.7 ppb           7.65   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.15%
K 766.490 Radial†      12807.9      5071.0 µg/L          7.08      5071.0 ppb           7.08   0.14%
   QC value within limits for K 766.490 Radial  Recovery = 101.42%
Mg 279.077 IEC†        10893.9      5038.1 µg/L         53.90      5038.1 ppb          53.90   1.07%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.76%
Mn 257.610†           379722.9      503.51 µg/L         0.377      503.51 ppb          0.377   0.07%
   QC value within limits for Mn 257.610  Recovery = 100.70%
Mo 202.031†            15400.5      504.12 µg/L         2.778      504.12 ppb          2.778   0.55%
   QC value within limits for Mo 202.031  Recovery = 100.82%
Na 589.592 Radial†     65348.0       10125 µg/L          20.3       10125 ppb           20.3   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 101.25%
Ni 231.604†            40356.8      504.91 µg/L         0.748      504.91 ppb          0.748   0.15%
   QC value within limits for Ni 231.604  Recovery = 100.98%
P 214.914†             10802.7      2490.2 µg/L         10.71      2490.2 ppb          10.71   0.43%
   QC value within limits for P 214.914  Recovery = 99.61%
Pb 220.353†             8199.2      506.13 µg/L         2.730      506.13 ppb          2.730   0.54%
   QC value within limits for Pb 220.353  Recovery = 101.23%
S 181.975 Axial†        1191.6      1006.7 µg/L          7.71      1006.7 ppb           7.71   0.77%
   QC value within limits for S 181.975 Axial  Recovery = 100.67%
Sb 206.836†             3870.2      500.18 µg/L         3.528      500.18 ppb          3.528   0.71%
   QC value within limits for Sb 206.836  Recovery = 100.04%
Se 196.026†             1259.9         499 µg/L           1.0         499 ppb            1.0   0.20%
   QC value within limits for Se 196.026  Recovery = 99.72%
SiO2†                  50437.7      5319.8 µg/L          7.55      5319.8 ppb           7.55   0.14%
   QC value within limits for SiO2  Recovery = 99.48%
Si 251.611†           158908.4      2495.8 µg/L          3.49      2495.8 ppb           3.49   0.14%
   QC value within limits for Si 251.611  Recovery = 99.83%
Sn 189.927†             7109.1      494.80 µg/L         2.205      494.80 ppb          2.205   0.45%
   QC value within limits for Sn 189.927  Recovery = 98.96%
Sr 421.552†           216702.8      511.05 µg/L         3.528      511.05 ppb          3.528   0.69%
   QC value within limits for Sr 421.552  Recovery = 102.21%
Ti 334.940†           487628.2      500.19 µg/L         0.514      500.19 ppb          0.514   0.10%
   QC value within limits for Ti 334.940  Recovery = 100.04%
Tl 190.801†             3658.3      507.07 µg/L         1.930      507.07 ppb          1.930   0.38%
   QC value within limits for Tl 190.801  Recovery = 101.41%
U 409.014†              7554.6      507.37 µg/L         3.223      507.37 ppb          3.223   0.64%
   QC value within limits for U 409.014  Recovery = 101.47%
V 292.402†             96843.2      508.63 µg/L         0.593      508.63 ppb          0.593   0.12%
   QC value within limits for V 292.402  Recovery = 101.73%
Zn 213.857†            84527.2      500.80 µg/L         0.428      500.80 ppb          0.428   0.09%
   QC value within limits for Zn 213.857  Recovery = 100.16%
All analyte(s) passed QC.
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Sequence No.: 124
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 20:10:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138002.1	138002.1	98.5	%			20:10:53
1	Al 396.153Radial†	-51.9	25.9	5.4403	µg/L	5.4403	ppb	20:11:13
1	Ca 317.933Radial†	711.2	150.6	10.256	µg/L	10.256	ppb	20:11:13
1	Fe 238.204 Radial†	186.6	72.1	5.3838	µg/L	5.3838	ppb	20:11:13
1	K 766.490 Radial†	1608.5	139.1	55.099	µg/L	55.099	ppb	20:10:53
1	Mg 279.077 IEC†	169.1	-0.8	-0.3594	µg/L	-0.3594	ppb	20:11:13
1	Na 589.592 Radial†	1242.7	309.0	47.854	µg/L	47.854	ppb	20:10:53
1	Sr 421.552†	10.9	215.5	0.5082	µg/L	0.5082	ppb	20:10:53
1	Sc 361.383	1799445.9	1799445.9	99.739	%			20:12:15
1	Y 371.029	1057626.1	1057626.1	100.03	%			20:12:15
1	Ag 328.068†	3917.4	-637.5	-2.6138	µg/L	-2.6138	ppb	20:12:17
1	As 188.979†	-9.8	8.7	2.9555	µg/L	2.9555	ppb	20:12:37
1	B 249.677†	4134.8	80.5	1.2509	µg/L	1.2509	ppb	20:12:17
1	Ba 233.527†	-164.0	-19.9	-0.0887	µg/L	-0.0887	ppb	20:12:37
1	Be 313.107†	-376.1	714.6	0.2069	µg/L	0.2069	ppb	20:12:17
1	Cd 226.502†	-50.9	52.3	0.3527	µg/L	0.3527	ppb	20:12:37
1	Co 228.616†	-190.2	19.6	0.2587	µg/L	0.2587	ppb	20:12:37
1	Cr 267.716†	281.8	49.3	0.4272	µg/L	0.4272	ppb	20:12:37
1	Cu 324.752†	2811.9	-216.9	-0.9066	µg/L	-0.9066	ppb	20:12:17
1	Mn 257.610†	281.1	97.1	0.1288	µg/L	0.1288	ppb	20:12:37
1	Mo 202.031†	-31.5	7.0	0.2278	µg/L	0.2278	ppb	20:12:37
1	Ni 231.604†	-101.9	-6.2	-0.0782	µg/L	-0.0782	ppb	20:12:37
1	P 214.914†	24.6	50.4	11.665	µg/L	11.665	ppb	20:12:37
1	Pb 220.353†	111.5	8.3	0.5124	µg/L	0.5124	ppb	20:12:37
1	S 181.975 Axial†	99.4	10.8	9.0726	µg/L	9.0726	ppb	20:12:37
1	Sb 206.836†	75.2	-14.3	-1.8425	µg/L	-1.8425	ppb	20:12:37
1	Se 196.026†	16.5	10.4	4.09	µg/L	4.09	ppb	20:12:37
1	SiO2†	1787.2	52.8	5.5673	µg/L	5.5673	ppb	20:12:37
1	Si 251.611†	1109.6	345.5	5.4393	µg/L	5.4393	ppb	20:12:17
1	Sn 189.927†	15.3	13.5	0.9344	µg/L	0.9344	ppb	20:12:37
1	Ti 334.940†	601.5	-219.9	-0.2255	µg/L	-0.2255	ppb	20:12:17
1	Tl 190.801†	-125.9	-11.9	-1.6348	µg/L	-1.6348	ppb	20:12:37
1	U 409.014†	-171.3	-8.4	-0.5470	µg/L	-0.5470	ppb	20:12:17
1	V 292.402†	367.0	-55.3	-0.2830	µg/L	-0.2830	ppb	20:12:17
1	Zn 213.857†	619.9	118.5	0.7083	µg/L	0.7083	ppb	20:12:37
2	Sc RADIAL	136892.1	136892.1	97.7	%			20:11:15
2	Al 396.153Radial†	-67.4	9.6	1.9938	µg/L	1.9938	ppb	20:11:35
2	Ca 317.933Radial†	730.4	176.0	11.987	µg/L	11.987	ppb	20:11:35
2	Fe 238.204 Radial†	171.6	58.3	4.3552	µg/L	4.3552	ppb	20:11:35
2	K 766.490 Radial†	1733.3	280.0	110.94	µg/L	110.94	ppb	20:11:15
2	Mg 279.077 IEC†	166.6	-1.9	-0.8808	µg/L	-0.8808	ppb	20:11:35
2	Na 589.592 Radial†	1125.7	199.5	30.826	µg/L	30.826	ppb	20:11:15
2	Sr 421.552†	-208.8	-9.2	-0.0217	µg/L	-0.0217	ppb	20:11:15
2	Sc 361.383	1818124.6	1818124.6	100.77	%			20:12:39
2	Y 371.029	1066410.7	1066410.7	100.86	%			20:12:39
2	Ag 328.068†	4525.6	-74.3	-0.3294	µg/L	-0.3294	ppb	20:12:42
2	As 188.979†	-20.8	-2.1	-0.6934	µg/L	-0.6934	ppb	20:13:02
2	B 249.677†	3899.2	-195.9	-3.0492	µg/L	-3.0492	ppb	20:12:42
2	Ba 233.527†	-158.2	-12.5	-0.0550	µg/L	-0.0550	ppb	20:13:02
2	Be 313.107†	-524.0	571.8	0.1582	µg/L	0.1582	ppb	20:12:42
2	Cd 226.502†	-86.0	18.0	0.1212	µg/L	0.1212	ppb	20:13:02
2	Co 228.616†	-166.3	45.3	0.5991	µg/L	0.5991	ppb	20:13:02
2	Cr 267.716†	304.3	68.7	0.6142	µg/L	0.6142	ppb	20:13:02
2	Cu 324.752†	2933.9	-124.7	-0.5409	µg/L	-0.5409	ppb	20:12:42
2	Mn 257.610†	262.0	75.2	0.0998	µg/L	0.0998	ppb	20:13:02
2	Mo 202.031†	-18.7	20.0	0.6549	µg/L	0.6549	ppb	20:13:02
2	Ni 231.604†	-56.0	40.4	0.5052	µg/L	0.5052	ppb	20:13:02
2	P 214.914†	15.0	40.6	9.3888	µg/L	9.3888	ppb	20:13:02
2	Pb 220.353†	132.3	27.8	1.7338	µg/L	1.7338	ppb	20:13:02

2	S 181.975 Axial†	94.1	4.4	3.7263 µg/L	3.7263 ppb		20:13:02
2	Sb 206.836†	93.6	3.1	0.4065 µg/L	0.4065 ppb		20:13:02
2	Se 196.026†	9.2	3.0	1.17 µg/L	1.17 ppb		20:13:02
2	SiO2†	1750.0	-2.5	-0.2890 µg/L	-0.2890 ppb		20:13:02
2	Si 251.611†	976.4	201.9	3.1734 µg/L	3.1734 ppb		20:12:42
2	Sn 189.927†	3.9	2.0	0.1368 µg/L	0.1368 ppb		20:13:02
2	Ti 334.940†	982.4	151.9	0.1662 µg/L	0.1662 ppb		20:12:42
2	Tl 190.801†	-121.6	-6.4	-0.8709 µg/L	-0.8709 ppb		20:13:02
2	U 409.014†	-556.7	-389.1	-24.528 µg/L	-24.528 ppb		20:12:42
2	V 292.402†	512.8	85.6	0.4358 µg/L	0.4358 ppb		20:12:42
2	Zn 213.857†	631.4	123.5	0.7343 µg/L	0.7343 ppb		20:13:02
3	Sc RADIAL	136116.9	136116.9	97.2 %			20:11:37
3	Al 396.153Radial†	-93.2	-17.4	-3.6814 µg/L	-3.6814 ppb		20:11:57
3	Ca 317.933Radial†	699.4	148.3	10.103 µg/L	10.103 ppb		20:11:57
3	Fe 238.204 Radial†	183.1	71.1	5.3101 µg/L	5.3101 ppb		20:11:57
3	K 766.490 Radial†	1532.6	83.6	33.132 µg/L	33.132 ppb		20:11:37
3	Mg 279.077 IEC†	174.9	7.6	3.5129 µg/L	3.5129 ppb		20:11:57
3	Na 589.592 Radial†	946.0	21.2	3.2520 µg/L	3.2520 ppb		20:11:37
3	Sr 421.552†	-185.6	13.5	0.0317 µg/L	0.0317 ppb		20:11:37
3	Sc 361.383	1788059.6	1788059.6	99.108 %			20:13:04
3	Y 371.029	1050278.0	1050278.0	99.336 %			20:13:04
3	Ag 328.068†	4180.0	-347.6	-1.4411 µg/L	-1.4411 ppb		20:13:06
3	As 188.979†	-11.4	7.0	2.3844 µg/L	2.3844 ppb		20:13:26
3	B 249.677†	3902.3	-127.7	-1.9864 µg/L	-1.9864 ppb		20:13:06
3	Ba 233.527†	-134.0	9.4	0.0420 µg/L	0.0420 ppb		20:13:26
3	Be 313.107†	-749.6	335.4	0.0922 µg/L	0.0922 ppb		20:13:06
3	Cd 226.502†	-86.7	15.9	0.1071 µg/L	0.1071 ppb		20:13:26
3	Co 228.616†	-199.1	9.4	0.1238 µg/L	0.1238 ppb		20:13:26
3	Cr 267.716†	260.0	29.2	0.2652 µg/L	0.2652 ppb		20:13:26
3	Cu 324.752†	2833.5	-177.2	-0.7535 µg/L	-0.7535 ppb		20:13:06
3	Mn 257.610†	277.4	95.2	0.1261 µg/L	0.1261 ppb		20:13:26
3	Mo 202.031†	-21.6	16.7	0.5480 µg/L	0.5480 ppb		20:13:26
3	Ni 231.604†	-52.6	42.8	0.5358 µg/L	0.5358 ppb		20:13:26
3	P 214.914†	36.9	62.9	14.546 µg/L	14.546 ppb		20:13:26
3	Pb 220.353†	125.9	23.6	1.4660 µg/L	1.4660 ppb		20:13:26
3	S 181.975 Axial†	98.2	10.2	8.5611 µg/L	8.5611 ppb		20:13:26
3	Sb 206.836†	85.4	-3.6	-0.4591 µg/L	-0.4591 ppb		20:13:26
3	Se 196.026†	24.8	18.9	7.42 µg/L	7.42 ppb		20:13:26
3	SiO2†	1727.3	3.8	0.3814 µg/L	0.3814 ppb		20:13:26
3	Si 251.611†	1134.0	377.2	5.9378 µg/L	5.9378 ppb		20:13:06
3	Sn 189.927†	7.3	5.4	0.3762 µg/L	0.3762 ppb		20:13:26
3	Ti 334.940†	576.2	-241.7	-0.2416 µg/L	-0.2416 ppb		20:13:06
3	Tl 190.801†	-112.9	0.4	0.0509 µg/L	0.0509 ppb		20:13:26
3	U 409.014†	-418.1	-258.5	-16.306 µg/L	-16.306 ppb		20:13:06
3	V 292.402†	450.9	31.8	0.1601 µg/L	0.1601 ppb		20:13:06
3	Zn 213.857†	610.4	112.9	0.6706 µg/L	0.6706 ppb		20:13:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1801876.7	99.874	%	0.8413				0.84%
Sc RADIAL	137003.7	97.8	%	0.68				0.69%
Y 371.029	1058104.9	100.08	%	0.764				0.76%
Ag 328.068†	-353.1	-1.4615	µg/L	1.14234	-1.4615	ppb	1.14234	78.16%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.0	1.2509	µg/L	4.60601	1.2509	ppb	4.60601	368.22%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.6	1.5489	µg/L	1.96271	1.5489	ppb	1.96271	126.72%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-81.0	-1.2616	µg/L	2.23978	-1.2616	ppb	2.23978	177.54%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.7	-0.0339	µg/L	0.06783	-0.0339	ppb	0.06783	200.03%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	540.6	0.1524	µg/L	0.05753	0.1524	ppb	0.05753	37.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	158.3	10.782	µg/L	1.0465	10.782	ppb	1.0465	9.71%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	28.7	0.1937	µg/L	0.13792	0.1937	ppb	0.13792	71.21%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	24.8	0.3272	µg/L	0.24497	0.3272	ppb	0.24497	74.87%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                49.1      0.4355 µg/L       0.17465      0.4355 ppb        0.17465  40.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -172.9     -0.7337 µg/L       0.18366     -0.7337 ppb        0.18366  25.03%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         67.2      5.0164 µg/L       0.57374      5.0164 ppb        0.57374  11.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         167.6      66.389 µg/L       40.1130      66.389 ppb        40.1130  60.42%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.6      0.7576 µg/L       2.40042      0.7576 ppb        2.40042 316.86%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                89.2      0.1182 µg/L       0.01601      0.1182 ppb        0.01601  13.54%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                14.6      0.4769 µg/L       0.22227      0.4769 ppb        0.22227  46.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        176.6      27.311 µg/L       22.5081      27.311 ppb        22.5081  82.41%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                25.7      0.3209 µg/L       0.34598      0.3209 ppb        0.34598 107.81%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 51.3      11.867 µg/L        2.5846      11.867 ppb         2.5846  21.78%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                19.9      1.2374 µg/L       0.64196      1.2374 ppb        0.64196  51.88%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            8.5      7.1200 µg/L       2.95015      7.1200 ppb        2.95015  41.43%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.9     -0.6317 µg/L       1.13439     -0.6317 ppb        1.13439 179.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                10.8        4.23 µg/L         3.130        4.23 ppb          3.130  74.05%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      18.0      1.8866 µg/L       3.20520      1.8866 ppb        3.20520 169.89%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               308.2      4.8502 µg/L       1.47335      4.8502 ppb        1.47335  30.38%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.0      0.4825 µg/L       0.40930      0.4825 ppb        0.40930  84.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                73.3      0.1727 µg/L       0.29175      0.1727 ppb        0.29175 168.90%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -103.2     -0.1003 µg/L       0.23097     -0.1003 ppb        0.23097 230.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -6.0     -0.8183 µg/L       0.84410     -0.8183 ppb        0.84410 103.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -218.7     -13.794 µg/L       12.1863     -13.794 ppb        12.1863  88.35%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 20.7      0.1043 µg/L       0.36262      0.1043 ppb        0.36262 347.57%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               118.3      0.7044 µg/L       0.03202      0.7044 ppb        0.03202   4.55%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, April 24, 2010 13:45:26
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.733
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	946.0	946.031	11.684	1.2
	Mg	24.0	13551.4	13551.425	181.554	1.3
	Co	58.9	38148.5	38148.472	390.651	1.0
	Rh	102.9	72454.9	72454.893	797.005	1.1
	In	114.9	82227.8	82227.781	615.884	0.7
	Pb	208.0	31442.8	31442.771	491.146	1.6
⌈>	Ba	137.9	78637.3	78637.261	712.095	0.9
⌊	Ba++	69.0	1375.0	0.017	0.000	2.7
⌈>	Ce	139.9	93529.4	93529.381	576.203	0.6
⌊	CeO	155.9	1372.0	0.015	0.000	2.7
	Bkgd	220.0	9.7	9.700	1.151	11.9

Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
4.25	Lens Voltage
1000.00	ICP RF Power
-1750.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	5.5	929.7
Co	59	13	6.3	33699.0
In	115	13	7.0	78017.8

ICPMS #4 TUNING REPORT

File Name: 100424.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	606	2080	0.617
Be	9.0	9.0	2047	2080	0.599
Mg	24.0	24.0	5693	2100	0.586
Mg	25.0	25.0	5945	2100	0.560
Mg	26.0	25.9	6161	2120	0.579
Co	58.9	58.9	14185	2150	0.611
Rh	102.9	102.9	24868	2240	0.640
In	114.9	114.9	27781	2275	0.652
Ce	139.9	139.9	33854	2310	0.697
Pb	206.0	205.9	49920	2485	0.740
Pb	207.0	207.0	50113	2400	0.644
Pb	208.0	208.0	50472	2510	0.769
U	238.1	238.1	57706	2520	0.695

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, April 24, 2010 17:38:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\Blank.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		23	
	Be	9		ug/L		8	
	B	11		ug/L		113	
	Na	23		ug/L		113113	
	Mg	24		ug/L		333	
	Al	27		ug/L		2334	
	P	31		ug/L		2375	
	K	39		ug/L		433535	
	Ca	43		ug/L		347	
>	Sc	45		ug/L		500226	
	Ti	47		ug/L		205	
	V	51		ug/L		11109	
	Cr	52		ug/L		-13340	
	Cr	53		ug/L		133359	
	Mn	55		ug/L		719	
	Fe	57		ug/L		3835	
	Co	59		ug/L		117	
	Ni	60		ug/L		48	
	Cu	63		ug/L		507	
	Cu	65		ug/L		238	
	Zn	66		ug/L		163	
	Zn	67		ug/L		6884	
	Zn	68		ug/L		817	
>	Ge	74		ug/L		204314	
	As	75		ug/L		178	
	Se	77		ug/L		5325	
	Se	82		ug/L		-32	
	Kr	83		ug/L		83	
	Sr	88		ug/L		189	
	Y	89		ug/L		27	
	Zr	90		ug/L		215	
	Mo	98		ug/L		55	
	Ag	107		ug/L		79	
	Cd	111		ug/L		17	
	Cd	114		ug/L		44	
>	In	115		ug/L		110479	
	Sn	120		ug/L		296	
	Sb	121		ug/L		127	
	Sb	123		ug/L		117	
	Ba	135		ug/L		25	
	Ba	137		ug/L		35	
	Ho	165		ug/L		26	
>	Lu	175		ug/L		107605	
	Tl	205		ug/L		129	
	Pb	208		ug/L		1017	
	Th	232		ug/L		301	
	U	238		ug/L		146	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Simple Linear	
Ti	47	Simple Linear	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Simple Linear	
Cu	63	Simple Linear	
Cu	65	Simple Linear	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Linear Thru Zero	
As	75	Simple Linear	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Zr	90	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
Th	232	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, April 24, 2010 17:44:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\Standard 1.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	2.424	4203	0.008
	Be	9	10.000	ug/L	5.057	1023	0.002
	B	11	20.000	ug/L	2.223	2090	0.004
	Na	23	1000.000	ug/L	2.445	1723775	3.116
	Mg	24	1000.000	ug/L	10.379	1154824	2.238
	Al	27	1000.000	ug/L	16.949	1569677	3.041
	P	31	1000.000	ug/L	2.260	89782	0.169
	K	39	1000.000	ug/L	2.255	3146798	5.234
	Ca	43	1000.000	ug/L	3.622	6134	0.011
>	Sc	45		ug/L		515794	515793.737
	Ti	47	10.000	ug/L	4.201	3056	0.006
	V	51	10.000	ug/L	6.390	47672	0.070
	Cr	52	10.000	ug/L	4.447	16614	0.059
	Cr	53		ug/L		113071	-0.047
	Mn	55	10.000	ug/L	0.993	48156	0.092
	Fe	57	1000.000	ug/L	2.439	97022	0.180
	Co	59	10.000	ug/L	1.655	35195	0.068
	Ni	60	10.000	ug/L	1.323	7405	0.014
	Cu	63		ug/L		17624	0.033
	Cu	65	10.000	ug/L	1.072	8507	0.016
	Zn	66	10.000	ug/L	3.985	5076	0.024
	Zn	67		ug/L		6597	-0.002
	Zn	68		ug/L		4282	0.017
>	Ge	74		ug/L		205972	205971.661
	As	75	10.000	ug/L	1.816	5630	0.026
	Se	77		ug/L		4318	-0.005
	Se	82	10.000	ug/L	4.278	470	0.002
	Kr	83		ug/L		67	-0.000
	Sr	88	10.000	ug/L	2.024	73354	0.638
	Y	89		ug/L		30	0.000
	Zr	90	10.000	ug/L	5.780	39146	0.339
	Mo	98	10.000	ug/L	5.388	17218	0.150
	Ag	107	10.000	ug/L	2.265	28083	0.244
	Cd	111	10.000	ug/L	1.865	6295	0.055
	Cd	114		ug/L		14103	0.123
>	In	115		ug/L		114794	114794.169
	Sn	120	10.000	ug/L	3.785	27633	0.238
	Sb	121	10.000	ug/L	3.759	23607	0.205
	Sb	123		ug/L		18354	0.159
	Ba	135		ug/L		6799	0.062
	Ba	137	10.000	ug/L	0.945	11713	0.107
	Ho	165		ug/L		23	-0.000
>	Lu	175		ug/L		108654	108654.404
	Tl	205	10.000	ug/L	2.331	20583	0.188
	Pb	208	10.000	ug/L	0.405	60835	0.550
	Th	232	10.000	ug/L	4.723	62633	0.574
	U	238	10.000	ug/L	2.031	68651	0.631

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, April 24, 2010 17:50:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\Standard 2.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.968**	**ug/L**	1.307	40798	0.079
	Be	9	**99.975**	**ug/L**	1.117	9985	0.019
	B	11	**200.064**	**ug/L**	3.914	20647	0.040
	Na	23	**9997.050**	**ug/L**	3.108	15833117	30.259
	Mg	24	**9997.750**	**ug/L**	4.908	11367947	21.887
	Al	27	**9995.252**	**ug/L**	3.623	15077256	29.020
	P	31	**9999.859**	**ug/L**	0.120	880735	1.691
	K	39	**10000.250**	**ug/L**	5.192	27700059	52.475
	Ca	43	**9999.454**	**ug/L**	1.421	58214	0.111
>	Sc	45		**ug/L**		519376	519375.624
	Ti	47	**100.007**	**ug/L**	2.104	29066	0.056
	V	51	**100.012**	**ug/L**	1.739	381026	0.711
	Cr	52	**99.880**	**ug/L**	0.418	258970	0.525
	Cr	53		**ug/L**		137090	-0.003
	Mn	55	**99.966**	**ug/L**	1.946	462452	0.889
	Fe	57	**9997.114**	**ug/L**	1.905	914646	1.753
	Co	59	**99.961**	**ug/L**	1.239	340091	0.655
	Ni	60	**99.973**	**ug/L**	0.510	72155	0.139
	Cu	63		**ug/L**		164536	0.316
	Cu	65	**99.960**	**ug/L**	0.881	80176	0.154
	Zn	66	**99.952**	**ug/L**	1.945	47235	0.228
	Zn	67		**ug/L**		13408	0.031
	Zn	68		**ug/L**		34792	0.164
>	Ge	74		**ug/L**		206871	206870.841
	As	75	**100.000**	**ug/L**	0.584	54948	0.265
	Se	77		**ug/L**		7222	0.009
	Se	82	**100.006**	**ug/L**	2.146	5040	0.025
	Kr	83		**ug/L**		69	-0.000
	Sr	88	**100.031**	**ug/L**	0.814	738873	6.579
	Y	89		**ug/L**		85	0.001
	Zr	90	**100.042**	**ug/L**	0.425	398079	3.544
	Mo	98	**100.042**	**ug/L**	2.574	175557	1.563
	Ag	107	**99.990**	**ug/L**	0.719	271265	2.415
	Cd	111	**100.006**	**ug/L**	3.234	61805	0.550
	Cd	114		**ug/L**		138243	1.231
>	In	115		**ug/L**		112271	112270.677
	Sn	120	**100.011**	**ug/L**	2.302	270786	2.409
	Sb	121	**100.018**	**ug/L**	0.485	234109	2.084
	Sb	123		**ug/L**		180822	1.609
	Ba	135		**ug/L**		67023	0.622
	Ba	137	**100.005**	**ug/L**	2.768	116426	1.080
	Ho	165		**ug/L**		31	0.000
>	Lu	175		**ug/L**		107764	107764.063
	Tl	205	**100.001**	**ug/L**	3.154	203196	1.885
	Pb	208	**99.989**	**ug/L**	1.926	587436	5.443
	Th	232	**100.084**	**ug/L**	1.414	675583	6.267
	U	238	**100.017**	**ug/L**	2.402	691039	6.412

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, April 24, 2010 17:57:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 1.054

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.943**	**ug/L**	2.176	21024	0.040
	Be	9	**51.200**	**ug/L**	5.647	5171	0.010
	B	11	**98.472**	**ug/L**	2.167	10333	0.019
	Na	23	**5161.521**	**ug/L**	8.370	8316707	15.623
	Mg	24	**5038.420**	**ug/L**	5.688	5793451	11.030
	Al	27	**5274.984**	**ug/L**	6.334	8039314	15.315
	P	31	**5063.766**	**ug/L**	1.744	452002	0.856
	K	39	**5388.782**	**ug/L**	5.668	15294743	28.277
	Ca	43	**5070.585**	**ug/L**	1.765	30014	0.056
>	Sc	45		**ug/L**		524979	524978.728
	Ti	47	**50.631**	**ug/L**	3.051	14978	0.028
	V	51	**51.351**	**ug/L**	2.963	203378	0.365
	Cr	52	**53.383**	**ug/L**	1.906	133377	0.281
	Cr	53		**ug/L**		116892	-0.044
	Mn	55	**52.880**	**ug/L**	3.473	247589	0.470
	Fe	57	**5200.379**	**ug/L**	3.429	482755	0.912
	Co	59	**51.406**	**ug/L**	1.722	176827	0.337
	Ni	60	**53.182**	**ug/L**	1.661	38816	0.074
	Cu	63		**ug/L**		88741	0.168
	Cu	65	**52.706**	**ug/L**	2.883	42841	0.081
	Zn	66	**51.207**	**ug/L**	2.694	24929	0.117
	Zn	67		**ug/L**		9569	0.011
	Zn	68		**ug/L**		18361	0.082
>	Ge	74		**ug/L**		212466	212465.768
	As	75	**51.155**	**ug/L**	1.852	28956	0.135
	Se	77		**ug/L**		5291	-0.001
	Se	82	**52.846**	**ug/L**	5.994	2718	0.013
	Kr	83		**ug/L**		60	-0.000
	Sr	88	**50.887**	**ug/L**	1.865	383875	3.347
	Y	89		**ug/L**		40	0.000
	Zr	90	**49.549**	**ug/L**	0.736	201408	1.755
	Mo	98	**50.224**	**ug/L**	1.605	90013	0.785
	Ag	107	**51.779**	**ug/L**	2.118	143435	1.251
	Cd	111	**50.441**	**ug/L**	1.991	31832	0.278
	Cd	114		**ug/L**		71388	0.622
>	In	115		**ug/L**		114630	114629.915
	Sn	120	**50.573**	**ug/L**	1.384	139955	1.218
	Sb	121	**49.762**	**ug/L**	1.787	118977	1.037
	Sb	123		**ug/L**		91569	0.798
	Ba	135		**ug/L**		34410	0.314
	Ba	137	**50.803**	**ug/L**	1.364	60049	0.549
	Ho	165		**ug/L**		30	0.000
>	Lu	175		**ug/L**		109345	109345.310
	Tl	205	**49.446**	**ug/L**	1.409	102035	0.932
	Pb	208	**50.717**	**ug/L**	0.506	302896	2.761
	Th	232	**49.193**	**ug/L**	3.834	337145	3.080
	U	238	**51.054**	**ug/L**	2.017	358039	3.273

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.886				
	Be	9	102.400				
	B	11	98.472				
	Na	23	103.230				
	Mg	24	100.768				
	Al	27	104.455				
	P	31	101.275				
	K	39	107.776				
	Ca	43	101.412				
>	Sc	45			104.9		
	Ti	47	101.261				
	V	51	102.702				
	Cr	52	106.765				
	Cr	53					
	Mn	55	105.760				
	Fe	57	104.008				
	Co	59	102.812				
	Ni	60	106.364				
	Cu	63					
	Cu	65	105.413				
	Zn	66	102.413				
	Zn	67					
	Zn	68					
>	Ge	74			104.0		
	As	75	102.311				
	Se	77					
	Se	82	105.692				
	Kr	83					
	Sr	88	101.774				
	Y	89					
	Zr	90	99.098				
	Mo	98	100.448				
	Ag	107	103.557				
	Cd	111	100.882				
	Cd	114					
>	In	115			103.8		
	Sn	120	101.145				
	Sb	121	99.523				
	Sb	123					
	Ba	135					
	Ba	137	101.606				
	Ho	165					
>	Lu	175			101.6		
	Tl	205	98.892				
	Pb	208	101.434				
	Th	232	98.386				
	U	238	102.108				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, April 24, 2010 18:03:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 2.055

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.002**	**ug/L**	614.672	24	0.000
	Be	9	**-0.003**	**ug/L**	1112.078	8	-0.000
	B	11	**1.688**	**ug/L**	18.811	288	0.000
	Na	23	**-17.759**	**ug/L**	16.356	88607	-0.054
	Mg	24	**0.594**	**ug/L**	151.491	1000	0.001
	Al	27	**1.300**	**ug/L**	80.823	4334	0.004
	P	31	**-1.490**	**ug/L**	119.219	2311	-0.000
	K	39	**-6.461**	**ug/L**	231.157	428012	-0.034
	Ca	43	**5.315**	**ug/L**	117.221	387	0.000
>	Sc	45		**ug/L**		514346	514346.206
	Ti	47	**-0.022**	**ug/L**	228.654	204	-0.000
	V	51	**0.207**	**ug/L**	684.072	12195	0.001
	Cr	52	**0.825**	**ug/L**	50.000	-11475	0.004
	Cr	53		**ug/L**		113934	-0.045
	Mn	55	**-0.012**	**ug/L**	72.013	685	-0.000
	Fe	57	**-1.471**	**ug/L**	57.498	3811	-0.000
	Co	59	**0.013**	**ug/L**	37.211	164	0.000
	Ni	60	**0.019**	**ug/L**	55.433	63	0.000
	Cu	63		**ug/L**		487	-0.000
	Cu	65	**0.014**	**ug/L**	219.950	255	0.000
	Zn	66	**0.003**	**ug/L**	599.869	169	0.000
	Zn	67		**ug/L**		6178	-0.004
	Zn	68		**ug/L**		749	-0.000
>	Ge	74		**ug/L**		209950	209949.661
	As	75	**-0.163**	**ug/L**	235.023	94	-0.000
	Se	77		**ug/L**		3852	-0.008
	Se	82	**0.835**	**ug/L**	35.722	10	0.000
	Kr	83		**ug/L**		68	-0.000
	Sr	88	**0.004**	**ug/L**	52.337	230	0.000
	Y	89		**ug/L**		22	-0.000
	Zr	90	**0.279**	**ug/L**	18.257	1362	0.010
	Mo	98	**0.231**	**ug/L**	23.146	472	0.004
	Ag	107	**0.038**	**ug/L**	24.207	188	0.001
	Cd	111	**0.012**	**ug/L**	58.872	26	0.000
	Cd	114		**ug/L**		50	0.000
>	In	115		**ug/L**		115195	115195.199
	Sn	120	**0.167**	**ug/L**	14.346	772	0.004
	Sb	121	**0.253**	**ug/L**	13.785	740	0.005
	Sb	123		**ug/L**		554	0.004
	Ba	135		**ug/L**		27	0.000
	Ba	137	**0.003**	**ug/L**	73.005	38	0.000
	Ho	165		**ug/L**		26	0.000
>	Lu	175		**ug/L**		106993	106993.348
	Tl	205	**0.248**	**ug/L**	15.070	630	0.005
	Pb	208	**-0.003**	**ug/L**	42.649	992	-0.000
	Th	232	**0.483**	**ug/L**	14.029	3540	0.030
	U	238	**0.023**	**ug/L**	22.829	302	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			102.8		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			102.8		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			104.3		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			99.4		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, April 24, 2010 18:09:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 3.056

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**12.378**	**ug/L**	3.684	5039	0.010
	Be	9	**0.643**	**ug/L**	6.821	72	0.000
	B	11	**17.876**	**ug/L**	2.051	1940	0.004
	Na	23	**267.451**	**ug/L**	3.189	534486	0.810
	Mg	24	**17.440**	**ug/L**	42.539	20016	0.038
	Al	27	**38.710**	**ug/L**	8.537	60462	0.112
	P	31	**56.483**	**ug/L**	4.944	7377	0.010
	K	39	**358.496**	**ug/L**	6.054	1418133	1.881
	Ca	43	**254.732**	**ug/L**	3.775	1822	0.003
>	Sc	45		**ug/L**		516112	516111.948
	Ti	47	**9.931**	**ug/L**	2.330	3058	0.006
	V	51	**11.529**	**ug/L**	9.125	53749	0.082
	Cr	52	**13.369**	**ug/L**	2.798	22515	0.070
	Cr	53		**ug/L**		108132	-0.057
	Mn	55	**6.247**	**ug/L**	3.224	29406	0.056
	Fe	57	**121.668**	**ug/L**	1.140	14970	0.021
	Co	59	**1.211**	**ug/L**	2.176	4211	0.008
	Ni	60	**2.481**	**ug/L**	3.292	1827	0.003
	Cu	63		**ug/L**		2557	0.004
	Cu	65	**1.235**	**ug/L**	1.625	1227	0.002
	Zn	66	**12.347**	**ug/L**	2.197	6088	0.028
	Zn	67		**ug/L**		6598	-0.002
	Zn	68		**ug/L**		4885	0.019
>	Ge	74		**ug/L**		210619	210618.826
	As	75	**5.714**	**ug/L**	1.534	3370	0.015
	Se	77		**ug/L**		3488	-0.009
	Se	82	**6.307**	**ug/L**	4.569	293	0.002
	Kr	83		**ug/L**		71	-0.000
	Sr	88	**11.817**	**ug/L**	0.911	89588	0.777
	Y	89		**ug/L**		15	-0.000
	Zr	90	**2.037**	**ug/L**	5.207	8522	0.072
	Mo	98	**0.632**	**ug/L**	3.124	1194	0.010
	Ag	107	**1.056**	**ug/L**	0.967	3016	0.026
	Cd	111	**1.194**	**ug/L**	3.872	773	0.007
	Cd	114		**ug/L**		1720	0.015
>	In	115		**ug/L**		115016	115015.683
	Sn	120	**5.705**	**ug/L**	3.387	16114	0.137
	Sb	121	**2.474**	**ug/L**	7.898	6060	0.052
	Sb	123		**ug/L**		4726	0.040
	Ba	135		**ug/L**		1562	0.014
	Ba	137	**2.351**	**ug/L**	4.620	2791	0.025
	Ho	165		**ug/L**		26	-0.000
>	Lu	175		**ug/L**		108499	108498.880
	Tl	205	**1.180**	**ug/L**	4.400	2544	0.022
	Pb	208	**2.320**	**ug/L**	1.016	14726	0.126
	Th	232	**1.171**	**ug/L**	4.561	8259	0.073
	U	238	**0.279**	**ug/L**	2.606	2088	0.018

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	123.784				
	Be	9	128.592				
	B	11	119.170				
	Na	23	106.981				
	Mg	24	116.267				
	Al	27	129.034				
	P	31	112.966				
	K	39	119.499				
	Ca	43	127.366				
>	Sc	45			103.2		
	Ti	47	99.309				
	V	51	115.287				
	Cr	52	133.694				
	Cr	53					
	Mn	55	124.932				
	Fe	57	121.668				
	Co	59	121.059				
	Ni	60	124.042				
	Cu	63					
	Cu	65	123.538				
	Zn	66	123.472				
	Zn	67					
	Zn	68					
>	Ge	74			103.1		
	As	75	114.280				
	Se	77					
	Se	82	126.142				
	Kr	83					
	Sr	88	118.169				
	Y	89					
	Zr	90	101.851				
	Mo	98	126.471				
	Ag	107	105.580				
	Cd	111	119.353				
	Cd	114					
>	In	115			104.1		
	Sn	120	114.106				
	Sb	121	82.462				
	Sb	123					
	Ba	135					
	Ba	137	117.557				
	Ho	165					
>	Lu	175			100.8		
	Tl	205	118.016				
	Pb	208	115.995				
	Th	232	117.082				
	U	238	139.454				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 3	Cr	52CRDL is out of limits
QC Std 3	U	238CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, April 24, 2010 18:15:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 4.057

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.093**	ug/L	7.927	61	0.000
	Be	9	**0.108**	ug/L	74.523	19	0.000
	B	11	**1.452**	ug/L	8.348	262	0.000
	Na	23	**99891.538**	ug/L	1.884	154337666	302.347
	Mg	24	**93963.004**	ug/L	2.635	104909399	205.706
	Al	27	**95269.541**	ug/L	4.366	141073737	276.600
	P	31	**101201.909**	ug/L	1.343	8731377	17.114
	K	39	**101760.218**	ug/L	2.241	272772833	533.970
	Ca	43	**95739.141**	ug/L	2.009	544272	1.066
>	Sc	45		ug/L		510090	510090.480
	Ti	47	**1570.108**	ug/L	1.359	445126	0.872
	V	51	**0.742**	ug/L	94.755	14023	0.005
	Cr	52	**5.374**	ug/L	3.715	817	0.028
	Cr	53		ug/L		86430	-0.097
	Mn	55	**5.824**	ug/L	0.241	27153	0.052
	Fe	57	**102783.902**	ug/L	1.581	9200968	18.028
	Co	59	**0.188**	ug/L	7.932	746	0.001
	Ni	60	**2.937**	ug/L	4.505	2129	0.004
	Cu	63		ug/L		4447	0.008
	Cu	65	**2.897**	ug/L	1.907	2517	0.004
	Zn	66	**3.668**	ug/L	1.766	1864	0.008
	Zn	67		ug/L		5413	-0.007
	Zn	68		ug/L		932	0.001
>	Ge	74		ug/L		203771	203771.088
	As	75	**-0.109**	ug/L	138.401	118	-0.000
	Se	77		ug/L		3743	-0.008
	Se	82	**-0.423**	ug/L	58.835	-53	-0.000
	Kr	83		ug/L		118	0.000
	Sr	88	**2.857**	ug/L	1.265	20693	0.188
	Y	89		ug/L		210	0.002
	Zr	90	**0.861**	ug/L	44.718	3522	0.030
	Mo	98	**2103.543**	ug/L	2.469	3586862	32.870
	Ag	107	**0.089**	ug/L	12.848	312	0.002
	Cd	111	**0.239**	ug/L	42.990	161	0.001
	Cd	114		ug/L		3487	0.032
>	In	115		ug/L		109126	109125.580
	Sn	120	**0.460**	ug/L	11.268	1500	0.011
	Sb	121	**0.252**	ug/L	26.609	697	0.005
	Sb	123		ug/L		582	0.004
	Ba	135		ug/L		505	0.005
	Ba	137	**0.735**	ug/L	1.168	871	0.008
	Ho	165		ug/L		2526	0.024
>	Lu	175		ug/L		105537	105537.191
	Tl	205	**0.068**	ug/L	13.727	263	0.001
	Pb	208	**0.161**	ug/L	6.176	1922	0.009
	Th	232	**0.511**	ug/L	31.324	3682	0.032
	U	238	**-0.013**	ug/L	9.457	58	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23	99.892				
	Mg	24	93.963				
	Al	27	95.270				
	P	31	101.202				
	K	39	101.760				
	Ca	43	95.739				
>	Sc	45			102.0		
	Ti	47	78.505				
	V	51					
	Cr	52	162.838				
	Cr	53					
	Mn	55	100.410				
	Fe	57	102.784				
	Co	59	79.958				
	Ni	60	88.726				
	Cu	63					
	Cu	65	86.730				
	Zn	66	97.549				
	Zn	67					
	Zn	68					
>	Ge	74			99.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	96.534				
	Y	89					
	Zr	90					
	Mo	98	105.177				
	Ag	107					
	Cd	111	53.819				
	Cd	114					
>	In	115			98.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	92.047				
	Ho	165					
>	Lu	175			98.1		
	Tl	205					
	Pb	208	85.240				
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, April 24, 2010 18:21:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 5.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**19.257**	ug/L	1.587	7694	0.015
	Be	9	**19.125**	ug/L	1.044	1872	0.004
	B	11	**19.293**	ug/L	3.101	2048	0.004
	Na	23	**103806.811**	ug/L	4.122	159442550	314.197
	Mg	24	**97890.518**	ug/L	3.978	108696742	214.304
	Al	27	**104115.470**	ug/L	1.896	153367305	302.283
	P	31	**104253.974**	ug/L	2.329	8943684	17.630
	K	39	**101087.552**	ug/L	1.968	269478475	530.440
	Ca	43	**98208.753**	ug/L	0.938	555250	1.094
>	Sc	45		ug/L		507272	507271.869
	Ti	47	**1585.759**	ug/L	1.556	447027	0.881
	V	51	**21.316**	ug/L	1.776	88184	0.152
	Cr	52	**25.696**	ug/L	2.008	55023	0.135
	Cr	53		ug/L		98806	-0.072
	Mn	55	**26.193**	ug/L	0.705	118892	0.233
	Fe	57	**106135.148**	ug/L	0.216	9447127	18.616
	Co	59	**20.157**	ug/L	0.946	67071	0.132
	Ni	60	**22.813**	ug/L	1.939	16116	0.032
	Cu	63		ug/L		36950	0.072
	Cu	65	**22.532**	ug/L	1.082	17840	0.035
	Zn	66	**22.660**	ug/L	2.610	10809	0.052
	Zn	67		ug/L		6937	-0.000
	Zn	68		ug/L		7344	0.032
>	Ge	74		ug/L		206370	206370.496
	As	75	**21.084**	ug/L	2.950	11701	0.056
	Se	77		ug/L		5060	-0.002
	Se	82	**21.025**	ug/L	1.729	1031	0.005
	Kr	83		ug/L		116	0.000
	Sr	88	**23.635**	ug/L	1.385	171276	1.555
	Y	89		ug/L		195	0.002
	Zr	90	**20.970**	ug/L	1.370	81958	0.743
	Mo	98	**2148.182**	ug/L	2.836	3693451	33.567
	Ag	107	**19.581**	ug/L	2.097	52136	0.473
	Cd	111	**19.697**	ug/L	1.242	11945	0.108
	Cd	114		ug/L		29453	0.267
>	In	115		ug/L		110049	110048.818
	Sn	120	**20.195**	ug/L	0.595	53835	0.487
	Sb	121	**18.263**	ug/L	1.897	42011	0.381
	Sb	123		ug/L		32334	0.293
	Ba	135		ug/L		13537	0.130
	Ba	137	**20.870**	ug/L	0.655	23402	0.225
	Ho	165		ug/L		2487	0.024
>	Lu	175		ug/L		103656	103656.097
	Tl	205	**18.322**	ug/L	2.383	35917	0.345
	Pb	208	**19.001**	ug/L	1.045	108179	1.034
	Th	232	**19.289**	ug/L	1.611	125482	1.208
	U	238	**19.674**	ug/L	3.634	130854	1.261

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	96.286				
	Be	9	95.624				
	B	11	96.467				
	Na	23	103.807				
	Mg	24	97.891				
	Al	27	104.115				
	P	31	104.254				
	K	39	101.088				
	Ca	43	98.209				
>	Sc	45			101.4		
	Ti	47	79.288				
	V	51	106.581				
	Cr	52	110.282				
	Cr	53					
	Mn	55	101.522				
	Fe	57	106.135				
	Co	59	99.612				
	Ni	60	97.866				
	Cu	63					
	Cu	65	96.536				
	Zn	66	95.372				
	Zn	67					
	Zn	68					
>	Ge	74			101.0		
	As	75	105.420				
	Se	77					
	Se	82	105.123				
	Kr	83					
	Sr	88	102.939				
	Y	89					
	Zr	90	104.852				
	Mo	98	107.409				
	Ag	107	97.904				
	Cd	111	96.344				
	Cd	114					
>	In	115			99.6		
	Sn	120	100.974				
	Sb	121	91.315				
	Sb	123					
	Ba	135					
	Ba	137	100.345				
	Ho	165					
>	Lu	175			96.3		
	Tl	205	91.612				
	Pb	208	94.114				
	Th	232	96.446				
	U	238	98.368				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 5	Ti	47ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, April 24, 2010 18:27:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 6.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.246**	ug/L	2.260	20164	0.039
	Be	9	**51.816**	ug/L	2.737	5090	0.010
	B	11	**95.393**	ug/L	1.739	9736	0.019
	Na	23	**5286.822**	ug/L	3.371	8282143	16.002
	Mg	24	**5152.515**	ug/L	2.971	5757945	11.280
	Al	27	**5179.773**	ug/L	4.915	7677182	15.039
	P	31	**5128.377**	ug/L	2.154	445099	0.867
	K	39	**5141.016**	ug/L	1.937	14217213	26.977
	Ca	43	**5031.528**	ug/L	0.952	28966	0.056
>	Sc	45		ug/L		510521	510521.368
	Ti	47	**52.295**	ug/L	0.859	15039	0.029
	V	51	**52.535**	ug/L	2.027	202088	0.374
	Cr	52	**53.833**	ug/L	2.478	130894	0.283
	Cr	53		ug/L		107974	-0.055
	Mn	55	**53.444**	ug/L	2.247	243339	0.475
	Fe	57	**5334.574**	ug/L	0.805	481561	0.936
	Co	59	**52.539**	ug/L	1.971	175729	0.344
	Ni	60	**54.394**	ug/L	1.355	38606	0.076
	Cu	63		ug/L		89010	0.173
	Cu	65	**54.451**	ug/L	2.045	43036	0.084
	Zn	66	**51.664**	ug/L	0.924	25328	0.118
	Zn	67		ug/L		8790	0.007
	Zn	68		ug/L		18386	0.082
>	Ge	74		ug/L		213883	213882.884
	As	75	**51.841**	ug/L	2.928	29533	0.137
	Se	77		ug/L		5105	-0.002
	Se	82	**52.066**	ug/L	1.281	2697	0.013
	Kr	83		ug/L		54	-0.000
	Sr	88	**50.840**	ug/L	0.554	381238	3.344
	Y	89		ug/L		40	0.000
	Zr	90	**49.381**	ug/L	2.475	199511	1.749
	Mo	98	**51.788**	ug/L	2.419	92252	0.809
	Ag	107	**52.515**	ug/L	1.608	144621	1.269
	Cd	111	**51.027**	ug/L	1.274	32015	0.281
	Cd	114		ug/L		70502	0.618
>	In	115		ug/L		113954	113954.353
	Sn	120	**50.454**	ug/L	3.363	138772	1.216
	Sb	121	**49.153**	ug/L	2.153	116820	1.024
	Sb	123		ug/L		91445	0.802
	Ba	135		ug/L		33415	0.312
	Ba	137	**49.727**	ug/L	1.266	57581	0.537
	Ho	165		ug/L		26	0.000
>	Lu	175		ug/L		107133	107132.985
	Tl	205	**48.805**	ug/L	1.371	98669	0.920
	Pb	208	**48.716**	ug/L	1.802	285099	2.652
	Th	232	**47.735**	ug/L	2.010	320483	2.989
	U	238	**49.419**	ug/L	2.510	339530	3.168

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	100.492				
	Be	9	103.632				
	B	11	95.393				
	Na	23	105.736				
	Mg	24	103.050				
	Al	27	102.570				
	P	31	102.568				
	K	39	102.820				
	Ca	43	100.631				
>	Sc	45		102.1			
	Ti	47	104.590				
	V	51	105.069				
	Cr	52	107.667				
	Cr	53					
	Mn	55	106.887				
	Fe	57	106.691				
	Co	59	105.078				
	Ni	60	108.788				
	Cu	63					
	Cu	65	108.903				
	Zn	66	103.327				
	Zn	67					
	Zn	68					
>	Ge	74		104.7			
	As	75	103.682				
	Se	77					
	Se	82	104.132				
	Kr	83					
	Sr	88	101.681				
	Y	89					
	Zr	90	98.762				
	Mo	98	103.577				
	Ag	107	105.030				
	Cd	111	102.053				
	Cd	114					
>	In	115		103.1			
	Sn	120	100.908				
	Sb	121	98.306				
	Sb	123					
	Ba	135					
	Ba	137	99.455				
	Ho	165					
>	Lu	175		99.6			
	Tl	205	97.610				
	Pb	208	97.433				
	Th	232	95.470				
	U	238	98.838				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, April 24, 2010 18:33:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 7.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.031**	**ug/L**	78.779	35	0.000
	Be	9	**0.005**	**ug/L**	751.084	8	0.000
	B	11	**1.216**	**ug/L**	3.697	230	0.000
	Na	23	**-53.872**	**ug/L**	3.502	31034	-0.163
	Mg	24	**4.020**	**ug/L**	70.074	4668	0.009
	Al	27	**1.188**	**ug/L**	116.404	4001	0.003
	P	31	**-1.403**	**ug/L**	62.199	2219	-0.000
	K	39	**-15.160**	**ug/L**	3.876	387177	-0.080
	Ca	43	**19.024**	**ug/L**	69.803	445	0.000
>	Sc	45		**ug/L**		491876	491875.506
	Ti	47	**0.724**	**ug/L**	14.863	399	0.000
	V	51	**-0.459**	**ug/L**	290.191	9324	-0.003
	Cr	52	**0.987**	**ug/L**	11.695	-10565	0.005
	Cr	53		**ug/L**		101848	-0.060
	Mn	55	**-0.023**	**ug/L**	22.696	607	-0.000
	Fe	57	**3.109**	**ug/L**	37.885	4040	0.001
	Co	59	**0.012**	**ug/L**	44.076	152	0.000
	Ni	60	**0.021**	**ug/L**	60.700	62	0.000
	Cu	63		**ug/L**		482	-0.000
	Cu	65	**0.028**	**ug/L**	24.575	255	0.000
	Zn	66	**-0.012**	**ug/L**	289.102	159	-0.000
	Zn	67		**ug/L**		5389	-0.008
	Zn	68		**ug/L**		565	-0.001
>	Ge	74		**ug/L**		205893	205892.536
	As	75	**0.119**	**ug/L**	314.268	245	0.000
	Se	77		**ug/L**		3597	-0.009
	Se	82	**0.767**	**ug/L**	17.935	6	0.000
	Kr	83		**ug/L**		67	-0.000
	Sr	88	**0.003**	**ug/L**	114.577	206	0.000
	Y	89		**ug/L**		20	-0.000
	Zr	90	**0.200**	**ug/L**	23.253	985	0.007
	Mo	98	**0.354**	**ug/L**	17.249	657	0.006
	Ag	107	**0.028**	**ug/L**	13.575	153	0.001
	Cd	111	**-0.004**	**ug/L**	204.259	14	-0.000
	Cd	114		**ug/L**		57	0.000
>	In	115		**ug/L**		109067	109066.977
	Sn	120	**0.122**	**ug/L**	14.153	613	0.003
	Sb	121	**0.294**	**ug/L**	17.118	794	0.006
	Sb	123		**ug/L**		651	0.005
	Ba	135		**ug/L**		30	0.000
	Ba	137	**0.006**	**ug/L**	81.460	40	0.000
	Ho	165		**ug/L**		21	-0.000
>	Lu	175		**ug/L**		102891	102891.238
	Tl	205	**0.206**	**ug/L**	17.806	524	0.004
	Pb	208	**-0.016**	**ug/L**	20.895	883	-0.001
	Th	232	**0.299**	**ug/L**	15.580	2217	0.019
	U	238	**0.017**	**ug/L**	11.895	250	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			98.3		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			100.8		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			98.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			95.6		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Saturday, April 24, 2010 18:40:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 10.061

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**975.371**	ug/L	0.299	382668	0.766
	Be	9	**971.985**	ug/L	2.736	93275	0.187
	B	11	**0.441**	ug/L	49.777	157	0.000
	Na	23	**50330.500**	ug/L	4.367	76232938	152.338
	Mg	24	**48467.001**	ug/L	6.605	53022801	106.105
	Al	27	**49585.637**	ug/L	3.237	71947606	143.964
	P	31	**24362.961**	ug/L	5.683	2061370	4.120
	K	39	**49841.779**	ug/L	2.600	131115444	261.536
	Ca	43	**49403.454**	ug/L	1.080	275219	0.550
>	Sc	45		ug/L		499541	499540.519
	Ti	47	**31.735**	ug/L	3.069	9008	0.018
	V	51	**1048.436**	ug/L	0.338	3736705	7.458
	Cr	52	**1020.727**	ug/L	1.315	2668540	5.368
	Cr	53		ug/L		392259	0.519
	Mn	55	**1013.267**	ug/L	1.257	4502741	9.012
	Fe	57	**52774.658**	ug/L	1.198	4627434	9.257
	Co	59	**994.075**	ug/L	0.800	3251912	6.510
	Ni	60	**962.559**	ug/L	1.023	667744	1.337
	Cu	63		ug/L		1511365	3.024
	Cu	65	**960.440**	ug/L	0.899	738985	1.479
	Zn	66	**2342.117**	ug/L	0.769	1075814	5.332
	Zn	67		ug/L		171828	0.818
	Zn	68		ug/L		765643	3.791
>	Ge	74		ug/L		201766	201765.771
	As	75	**957.725**	ug/L	1.276	511646	2.535
	Se	77		ug/L		21367	0.080
	Se	82	**498.211**	ug/L	0.852	24616	0.122
	Kr	83		ug/L		75	-0.000
	Sr	88	**1023.657**	ug/L	1.101	7230766	67.329
	Y	89		ug/L		200	0.002
	Zr	90	**474.653**	ug/L	2.393	1805729	16.814
	Mo	98	**971.954**	ug/L	2.122	1630989	15.188
	Ag	107	**235.467**	ug/L	2.447	610892	5.688
	Cd	111	**972.598**	ug/L	2.646	574758	5.352
	Cd	114		ug/L		1278606	11.906
>	In	115		ug/L		107391	107390.918
	Sn	120	**1027.195**	ug/L	2.789	2657554	24.746
	Sb	121	**253.414**	ug/L	1.953	567154	5.280
	Sb	123		ug/L		437837	4.076
	Ba	135		ug/L		630548	5.985
	Ba	137	**959.501**	ug/L	2.006	1091966	10.365
	Ho	165		ug/L		67	0.000
>	Lu	175		ug/L		105349	105349.408
	Tl	205	**459.188**	ug/L	0.471	911925	8.655
	Pb	208	**4763.529**	ug/L	0.994	27316622	259.293
	Th	232	**2341.953**	ug/L	1.511	15450321	146.651
	U	238	**4993.178**	ug/L	1.666	33727142	320.131

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	97.537				
	Be	9	97.198				
	B	11					
	Na	23	100.661				
	Mg	24	96.934				
	Al	27	99.171				
	P	31	97.452				
	K	39	99.684				
	Ca	43	98.807				
>	Sc	45			99.9		
	Ti	47					
	V	51	104.844				
	Cr	52	102.073				
	Cr	53					
	Mn	55	101.327				
	Fe	57	105.549				
	Co	59	99.408				
	Ni	60	96.256				
	Cu	63					
	Cu	65	96.044				
	Zn	66	93.685				
	Zn	67					
	Zn	68					
>	Ge	74			98.8		
	As	75	95.773				
	Se	77					
	Se	82	99.642				
	Kr	83					
	Sr	88	102.366				
	Y	89					
	Zr	90	94.931				
	Mo	98	97.195				
	Ag	107	94.187				
	Cd	111	97.260				
	Cd	114					
>	In	115			97.2		
	Sn	120	102.719				
	Sb	121	101.366				
	Sb	123					
	Ba	135					
	Ba	137	95.950				
	Ho	165					
>	Lu	175			97.9		
	Tl	205	91.838				
	Pb	208	95.271				
	Th	232	93.678				
	U	238	99.864				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Saturday, April 24, 2010 18:46:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 11.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.619**	ug/L	0.316	19992	0.040
	Be	9	**52.167**	ug/L	0.909	5043	0.010
	B	11	**94.653**	ug/L	2.365	9506	0.019
	Na	23	**5393.679**	ug/L	4.173	8316707	16.325
	Mg	24	**5045.738**	ug/L	3.517	5547866	11.046
	Al	27	**5248.187**	ug/L	3.401	7658289	15.237
	P	31	**5038.173**	ug/L	1.250	430321	0.852
	K	39	**5257.329**	ug/L	5.232	14285846	27.587
	Ca	43	**4994.455**	ug/L	2.758	28290	0.056
>	Sc	45		ug/L		502315	502315.430
	Ti	47	**49.949**	ug/L	1.505	14142	0.028
	V	51	**52.977**	ug/L	4.185	200376	0.377
	Cr	52	**53.689**	ug/L	1.817	128417	0.282
	Cr	53		ug/L		102525	-0.062
	Mn	55	**52.956**	ug/L	2.647	237238	0.471
	Fe	57	**5242.794**	ug/L	3.762	465604	0.920
	Co	59	**51.492**	ug/L	1.552	169468	0.337
	Ni	60	**53.965**	ug/L	0.326	37690	0.075
	Cu	63		ug/L		87662	0.174
	Cu	65	**54.220**	ug/L	1.198	42168	0.083
	Zn	66	**52.210**	ug/L	0.613	24998	0.119
	Zn	67		ug/L		8557	0.007
	Zn	68		ug/L		18372	0.084
>	Ge	74		ug/L		208924	208924.394
	As	75	**51.850**	ug/L	2.014	28861	0.137
	Se	77		ug/L		4911	-0.003
	Se	82	**53.331**	ug/L	1.153	2699	0.013
	Kr	83		ug/L		62	-0.000
	Sr	88	**50.873**	ug/L	1.981	374406	3.346
	Y	89		ug/L		40	0.000
	Zr	90	**53.699**	ug/L	3.815	212972	1.902
	Mo	98	**51.910**	ug/L	2.158	90771	0.811
	Ag	107	**52.741**	ug/L	0.834	142596	1.274
	Cd	111	**51.314**	ug/L	1.088	31603	0.282
	Cd	114		ug/L		69705	0.623
>	In	115		ug/L		111860	111859.514
	Sn	120	**53.324**	ug/L	2.753	143984	1.285
	Sb	121	**50.042**	ug/L	2.279	116745	1.043
	Sb	123		ug/L		89706	0.801
	Ba	135		ug/L		32774	0.312
	Ba	137	**50.906**	ug/L	2.131	57670	0.550
	Ho	165		ug/L		24	-0.000
>	Lu	175		ug/L		104834	104833.723
	Tl	205	**50.761**	ug/L	2.161	100406	0.957
	Pb	208	**51.164**	ug/L	0.226	292952	2.785
	Th	232	**53.612**	ug/L	2.966	352132	3.357
	U	238	**51.341**	ug/L	0.991	345189	3.292

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.238				
	Be	9	104.335				
	B	11	94.653				
	Na	23	107.874				
	Mg	24	100.915				
	Al	27	103.925				
	P	31	100.763				
	K	39	105.147				
	Ca	43	99.889				
>	Sc	45			100.4		
	Ti	47	99.898				
	V	51	105.955				
	Cr	52	107.379				
	Cr	53					
	Mn	55	105.912				
	Fe	57	104.856				
	Co	59	102.983				
	Ni	60	107.930				
	Cu	63					
	Cu	65	108.439				
	Zn	66	104.419				
	Zn	67					
	Zn	68					
>	Ge	74			102.3		
	As	75	103.700				
	Se	77					
	Se	82	106.663				
	Kr	83					
	Sr	88	101.745				
	Y	89					
	Zr	90	107.397				
	Mo	98	103.821				
	Ag	107	105.483				
	Cd	111	102.628				
	Cd	114					
>	In	115			101.2		
	Sn	120	106.649				
	Sb	121	100.084				
	Sb	123					
	Ba	135					
	Ba	137	101.812				
	Ho	165					
>	Lu	175			97.4		
	Tl	205	101.523				
	Pb	208	102.329				
	Th	232	107.224				
	U	238	102.682				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Saturday, April 24, 2010 18:52:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 12.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.126**	ug/L	2.963	70	0.000
	Be	9	**0.003**	ug/L	687.529	8	0.000
	B	11	**1.271**	ug/L	21.981	230	0.000
	Na	23	**-44.507**	ug/L	2.482	44068	-0.135
	Mg	24	**3.484**	ug/L	26.760	4001	0.008
	Al	27	**0.295**	ug/L	501.297	2667	0.001
	P	31	**-3.070**	ug/L	50.103	2038	-0.001
	K	39	**-20.070**	ug/L	16.771	366988	-0.105
	Ca	43	**14.748**	ug/L	37.532	413	0.000
>	Sc	45		ug/L		482049	482048.900
	Ti	47	**0.192**	ug/L	20.915	249	0.000
	V	51	**1.588**	ug/L	124.265	16130	0.011
	Cr	52	**1.141**	ug/L	13.796	-9963	0.006
	Cr	53		ug/L		98707	-0.062
	Mn	55	**-0.012**	ug/L	17.524	643	-0.000
	Fe	57	**2.430**	ug/L	86.702	3902	0.000
	Co	59	**0.021**	ug/L	39.292	178	0.000
	Ni	60	**0.029**	ug/L	43.291	65	0.000
	Cu	63		ug/L		503	0.000
	Cu	65	**0.033**	ug/L	98.744	253	0.000
	Zn	66	**0.090**	ug/L	47.617	203	0.000
	Zn	67		ug/L		5253	-0.008
	Zn	68		ug/L		570	-0.001
>	Ge	74		ug/L		202251	202250.733
	As	75	**0.085**	ug/L	854.132	224	0.000
	Se	77		ug/L		3432	-0.009
	Se	82	**0.896**	ug/L	19.931	13	0.000
	Kr	83		ug/L		63	-0.000
	Sr	88	**0.016**	ug/L	30.615	303	0.001
	Y	89		ug/L		22	-0.000
	Zr	90	**0.862**	ug/L	1.992	3548	0.031
	Mo	98	**0.520**	ug/L	3.901	941	0.008
	Ag	107	**0.065**	ug/L	10.789	249	0.002
	Cd	111	**0.015**	ug/L	21.612	26	0.000
	Cd	114		ug/L		90	0.000
>	In	115		ug/L		109179	109178.773
	Sn	120	**1.095**	ug/L	8.283	3172	0.026
	Sb	121	**0.322**	ug/L	9.062	858	0.007
	Sb	123		ug/L		681	0.005
	Ba	135		ug/L		34	0.000
	Ba	137	**0.020**	ug/L	50.925	55	0.000
	Ho	165		ug/L		24	-0.000
>	Lu	175		ug/L		102365	102364.685
	Tl	205	**0.445**	ug/L	21.104	980	0.008
	Pb	208	**0.162**	ug/L	19.726	1869	0.009
	Th	232	**1.153**	ug/L	9.900	7668	0.072
	U	238	**0.174**	ug/L	21.106	1279	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			96.4		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			99.0		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			98.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			95.1		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 12	Mo	98	CCB is out of limits (+/- PQL)
QC Std 12	Th	232	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1202072001
Sample Date/Time: Saturday, April 24, 2010 18:58:28
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 965603|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\1202072001.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.286**	ug/L	15.824	118	0.000
	Be	9	**0.012**	ug/L	347.487	8	0.000
	B	11	**0.766**	ug/L	32.302	165	0.000
	Na	23	**-57.771**	ug/L	10.479	22352	-0.175
	Mg	24	**1.099**	ug/L	110.605	1333	0.002
	Al	27	**1.562**	ug/L	53.119	4001	0.005
	P	31	**-1.569**	ug/L	51.905	1953	-0.000
	K	39	**-18.982**	ug/L	62.802	334213	-0.100
	Ca	43	**64.668**	ug/L	23.586	615	0.001
>	Sc	45		ug/L		435782	435782.496
	Ti	47	**0.718**	ug/L	3.138	352	0.000
	V	51	**3.462**	ug/L	72.345	20438	0.025
	Cr	52	**-8.052**	ug/L	4.512	-30082	-0.042
	Cr	53		ug/L		266367	0.345
	Mn	55	**0.231**	ug/L	2.397	1523	0.002
	Fe	57	**16.789**	ug/L	15.452	4623	0.003
	Co	59	**0.005**	ug/L	84.298	115	0.000
	Ni	60	**0.068**	ug/L	22.449	83	0.000
	Cu	63		ug/L		1700	0.003
	Cu	65	**0.968**	ug/L	1.937	856	0.001
	Zn	66	**0.999**	ug/L	4.764	579	0.002
	Zn	67		ug/L		18004	0.062
	Zn	68		ug/L		1547	0.004
>	Ge	74		ug/L		188643	188643.101
	As	75	**0.106**	ug/L	686.837	217	0.000
	Se	77		ug/L		11227	0.033
	Se	82	**0.752**	ug/L	22.458	5	0.000
	Kr	83		ug/L		67	-0.000
	Sr	88	**0.010**	ug/L	8.620	242	0.001
	Y	89		ug/L		29	0.000
	Zr	90	**1.496**	ug/L	6.540	5540	0.053
	Mo	98	**0.304**	ug/L	7.160	529	0.005
	Ag	107	**0.053**	ug/L	8.868	202	0.001
	Cd	111	**0.025**	ug/L	20.755	30	0.000
	Cd	114		ug/L		40	-0.000
>	In	115		ug/L		100830	100829.782
	Sn	120	**1.937**	ug/L	6.857	4979	0.047
	Sb	121	**0.778**	ug/L	4.019	1750	0.016
	Sb	123		ug/L		1347	0.012
	Ba	135		ug/L		37	0.000
	Ba	137	**0.018**	ug/L	10.593	49	0.000
	Ho	165		ug/L		17	-0.000
>	Lu	175		ug/L		96030	96029.656
	Tl	205	**0.206**	ug/L	5.135	488	0.004
	Pb	208	**0.134**	ug/L	9.495	1606	0.007
	Th	232	**1.071**	ug/L	10.746	6712	0.067
	U	238	**0.061**	ug/L	12.895	509	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			87.1		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			92.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			91.3		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			89.2		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072002
Sample Date/Time: Saturday, April 24, 2010 19:04:35
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 965603|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\1202072002.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**57.745**	ug/L	2.426	19908	0.045
	Be	9	**62.308**	ug/L	3.735	5257	0.012
	B	11	**115.508**	ug/L	4.326	10106	0.023
	Na	23	**1875.094**	ug/L	5.761	2589665	5.675
	Mg	24	**1870.980**	ug/L	3.649	1796289	4.096
	Al	27	**2110.040**	ug/L	6.359	2689218	6.126
	P	31	**2086.418**	ug/L	2.345	156837	0.353
	K	39	**2115.397**	ug/L	5.142	5246951	11.100
	Ca	43	**2069.417**	ug/L	1.749	10414	0.023
>	Sc	45		ug/L		438611	438610.808
	Ti	47	**46.655**	ug/L	2.384	11545	0.026
	V	51	**53.656**	ug/L	2.700	177125	0.382
	Cr	52	**45.639**	ug/L	0.719	93579	0.240
	Cr	53		ug/L		287690	0.389
	Mn	55	**54.452**	ug/L	2.313	213000	0.484
	Fe	57	**2184.719**	ug/L	1.741	171414	0.383
	Co	59	**54.577**	ug/L	1.243	156844	0.357
	Ni	60	**56.522**	ug/L	1.923	34468	0.078
	Cu	63		ug/L		82310	0.187
	Cu	65	**58.584**	ug/L	1.979	39764	0.090
	Zn	66	**52.615**	ug/L	2.500	22919	0.120
	Zn	67		ug/L		22270	0.083
	Zn	68		ug/L		17811	0.090
>	Ge	74		ug/L		190105	190104.831
	As	75	**52.629**	ug/L	3.815	26651	0.139
	Se	77		ug/L		12638	0.040
	Se	82	**54.604**	ug/L	3.819	2515	0.013
	Kr	83		ug/L		67	-0.000
	Sr	88	**51.389**	ug/L	1.163	347331	3.380
	Y	89		ug/L		36	0.000
	Zr	90	**49.063**	ug/L	1.523	178695	1.738
	Mo	98	**48.936**	ug/L	2.224	78582	0.765
	Ag	107	**51.445**	ug/L	2.246	127700	1.243
	Cd	111	**52.399**	ug/L	2.406	29632	0.288
	Cd	114		ug/L		66162	0.644
>	In	115		ug/L		102716	102715.693
	Sn	120	**51.095**	ug/L	2.611	126688	1.231
	Sb	121	**49.896**	ug/L	1.362	106901	1.040
	Sb	123		ug/L		82182	0.799
	Ba	135		ug/L		30810	0.315
	Ba	137	**50.872**	ug/L	0.844	53733	0.550
	Ho	165		ug/L		23	-0.000
>	Lu	175		ug/L		97714	97714.412
	Tl	205	**50.095**	ug/L	4.117	92338	0.944
	Pb	208	**53.340**	ug/L	0.839	284608	2.903
	Th	232	**52.496**	ug/L	3.143	321377	3.287
	U	238	**55.166**	ug/L	3.383	345616	3.537

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			87.7		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			93.0		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			93.0		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			90.8		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, April 24, 2010 19:59:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 6.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**48.751**	ug/L	1.359	19157	0.038
	Be	9	**48.333**	ug/L	1.481	4649	0.009
	B	11	**95.438**	ug/L	0.326	9537	0.019
	Na	23	**5200.486**	ug/L	4.146	7979040	15.741
	Mg	24	**5005.856**	ug/L	1.118	5476853	10.959
	Al	27	**5151.146**	ug/L	5.629	7475648	14.956
	P	31	**4975.402**	ug/L	0.160	422834	0.841
	K	39	**5033.981**	ug/L	10.786	13633837	26.415
	Ca	43	**4893.849**	ug/L	1.489	27589	0.055
>	Sc	45		ug/L		499742	499741.650
	Ti	47	**48.096**	ug/L	2.138	13557	0.027
	V	51	**47.551**	ug/L	1.576	180134	0.338
	Cr	52	**50.305**	ug/L	1.029	118882	0.265
	Cr	53		ug/L		126568	-0.013
	Mn	55	**50.664**	ug/L	1.390	225890	0.451
	Fe	57	**4928.924**	ug/L	0.939	435867	0.865
	Co	59	**48.493**	ug/L	1.048	158810	0.318
	Ni	60	**50.549**	ug/L	1.447	35129	0.070
	Cu	63		ug/L		80598	0.160
	Cu	65	**49.911**	ug/L	1.657	38639	0.077
	Zn	66	**51.609**	ug/L	1.017	22812	0.117
	Zn	67		ug/L		8939	0.013
	Zn	68		ug/L		16819	0.083
>	Ge	74		ug/L		192860	192859.729
	As	75	**51.160**	ug/L	2.962	26287	0.135
	Se	77		ug/L		7304	0.012
	Se	82	**53.302**	ug/L	0.974	2490	0.013
	Kr	83		ug/L		52	-0.000
	Sr	88	**50.408**	ug/L	1.695	355822	3.315
	Y	89		ug/L		36	0.000
	Zr	90	**47.798**	ug/L	0.234	181859	1.693
	Mo	98	**49.402**	ug/L	2.865	82843	0.772
	Ag	107	**51.086**	ug/L	3.005	132417	1.234
	Cd	111	**50.730**	ug/L	2.559	29959	0.279
	Cd	114		ug/L		65955	0.614
>	In	115		ug/L		107283	107283.456
	Sn	120	**50.616**	ug/L	2.888	131059	1.219
	Sb	121	**49.156**	ug/L	3.642	109975	1.024
	Sb	123		ug/L		85031	0.792
	Ba	135		ug/L		32096	0.303
	Ba	137	**48.353**	ug/L	2.684	55241	0.522
	Ho	165		ug/L		28	0.000
>	Lu	175		ug/L		105714	105714.135
	Tl	205	**51.692**	ug/L	0.906	103119	0.974
	Pb	208	**50.471**	ug/L	1.756	291380	2.747
	Th	232	**49.204**	ug/L	1.935	326032	3.081
	U	238	**52.022**	ug/L	2.528	352655	3.335

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	97.503				
	Be	9	96.665				
	B	11	95.438				
	Na	23	104.010				
	Mg	24	100.117				
	Al	27	102.003				
	P	31	99.508				
	K	39	100.680				
	Ca	43	97.877				
>	Sc	45			99.9		
	Ti	47	96.192				
	V	51	95.102				
	Cr	52	100.609				
	Cr	53					
	Mn	55	101.328				
	Fe	57	98.578				
	Co	59	96.986				
	Ni	60	101.099				
	Cu	63					
	Cu	65	99.823				
	Zn	66	103.218				
	Zn	67					
	Zn	68					
>	Ge	74			94.4		
	As	75	102.319				
	Se	77					
	Se	82	106.604				
	Kr	83					
	Sr	88	100.815				
	Y	89					
	Zr	90	95.595				
	Mo	98	98.805				
	Ag	107	102.172				
	Cd	111	101.460				
	Cd	114					
>	In	115			97.1		
	Sn	120	101.232				
	Sb	121	98.311				
	Sb	123					
	Ba	135					
	Ba	137	96.706				
	Ho	165					
>	Lu	175			98.2		
	Tl	205	103.384				
	Pb	208	100.942				
	Th	232	98.407				
	U	238	104.044				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, April 24, 2010 20:05:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 7.075

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.046**	ug/L	47.541	40	0.000
	Be	9	**0.037**	ug/L	10.624	11	0.000
	B	11	**0.991**	ug/L	19.941	207	0.000
	Na	23	**-52.433**	ug/L	6.286	33039	-0.159
	Mg	24	**2.490**	ug/L	37.180	3000	0.005
	Al	27	**1.675**	ug/L	87.868	4668	0.005
	P	31	**-2.772**	ug/L	56.023	2097	-0.000
	K	39	**-21.211**	ug/L	13.485	370069	-0.111
	Ca	43	**15.663**	ug/L	22.350	425	0.000
>	Sc	45		ug/L		489821	489820.651
	Ti	47	**0.066**	ug/L	120.000	218	0.000
	V	51	**-0.884**	ug/L	295.365	7864	-0.006
	Cr	52	**0.756**	ug/L	27.517	-11108	0.004
	Cr	53		ug/L		119972	-0.022
	Mn	55	**0.020**	ug/L	64.137	790	0.000
	Fe	57	**-4.953**	ug/L	63.712	3326	-0.001
	Co	59	**0.016**	ug/L	36.556	165	0.000
	Ni	60	**0.014**	ug/L	54.398	57	0.000
	Cu	63		ug/L		377	-0.000
	Cu	65	**-0.029**	ug/L	22.484	211	-0.000
	Zn	66	**0.150**	ug/L	45.464	220	0.000
	Zn	67		ug/L		5705	-0.004
	Zn	68		ug/L		647	-0.001
>	Ge	74		ug/L		193404	193404.312
	As	75	**-0.309**	ug/L	158.539	10	-0.001
	Se	77		ug/L		5843	0.004
	Se	82	**0.693**	ug/L	13.396	3	0.000
	Kr	83		ug/L		57	-0.000
	Sr	88	**0.028**	ug/L	44.749	372	0.002
	Y	89		ug/L		23	-0.000
	Zr	90	**0.310**	ug/L	18.412	1354	0.011
	Mo	98	**0.191**	ug/L	23.202	365	0.003
	Ag	107	**0.032**	ug/L	29.997	157	0.001
	Cd	111	**0.011**	ug/L	62.314	23	0.000
	Cd	114		ug/L		67	0.000
>	In	115		ug/L		104839	104839.136
	Sn	120	**0.139**	ug/L	13.370	632	0.003
	Sb	121	**0.207**	ug/L	11.381	573	0.004
	Sb	123		ug/L		480	0.004
	Ba	135		ug/L		34	0.000
	Ba	137	**0.015**	ug/L	83.267	49	0.000
	Ho	165		ug/L		20	-0.000
>	Lu	175		ug/L		100864	100864.188
	Tl	205	**0.189**	ug/L	22.161	480	0.004
	Pb	208	**0.023**	ug/L	55.014	1078	0.001
	Th	232	**0.483**	ug/L	15.858	3330	0.030
	U	238	**0.047**	ug/L	10.268	443	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			97.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			94.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			94.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			93.7		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072003
Sample Date/Time: Saturday, April 24, 2010 20:12:09
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 965603|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\1202072003.076

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.815**	ug/L	0.823	8872	0.017
	Be	9	**-0.013**	ug/L	232.350	7	-0.000
	B	11	**17.069**	ug/L	4.061	1858	0.003
	Na	23	**12315.012**	ug/L	7.702	19358678	37.274
	Mg	24	**3663.466**	ug/L	5.385	4142406	8.020
	Al	27	**22.232**	ug/L	10.292	35711	0.065
	P	31	**19.493**	ug/L	2.852	4154	0.003
	K	39	**1468.741**	ug/L	7.413	4430225	7.707
	Ca	43	**10864.456**	ug/L	0.718	62857	0.121
>	Sc	45		ug/L		516448	516447.781
	Ti	47	**4.648**	ug/L	1.951	1545	0.003
	V	51	**2.365**	ug/L	140.505	20034	0.017
	Cr	52	**-3.280**	ug/L	14.905	-22669	-0.017
	Cr	53		ug/L		332533	0.377
	Mn	55	**3.371**	ug/L	0.603	16226	0.030
	Fe	57	**140.774**	ug/L	3.311	16709	0.025
	Co	59	**0.039**	ug/L	22.594	251	0.000
	Ni	60	**0.385**	ug/L	3.693	325	0.001
	Cu	63		ug/L		2286	0.003
	Cu	65	**0.861**	ug/L	6.913	930	0.001
	Zn	66	**3.978**	ug/L	5.061	1890	0.009
	Zn	67		ug/L		19901	0.070
	Zn	68		ug/L		3010	0.012
>	Ge	74		ug/L		191804	191803.608
	As	75	**1.290**	ug/L	81.667	821	0.003
	Se	77		ug/L		20397	0.080
	Se	82	**1.286**	ug/L	20.764	30	0.000
	Kr	83		ug/L		66	-0.000
	Sr	88	**58.196**	ug/L	1.187	391300	3.828
	Y	89		ug/L		1034	0.010
	Zr	90	**0.682**	ug/L	22.071	2670	0.024
	Mo	98	**1.689**	ug/L	4.027	2747	0.026
	Ag	107	**0.012**	ug/L	34.920	103	0.000
	Cd	111	**-0.000**	ug/L	3008.528	16	-0.000
	Cd	114		ug/L		31	-0.000
>	In	115		ug/L		102180	102180.218
	Sn	120	**0.443**	ug/L	1.012	1364	0.011
	Sb	121	**0.380**	ug/L	10.044	927	0.008
	Sb	123		ug/L		751	0.006
	Ba	135		ug/L		18806	0.191
	Ba	137	**30.921**	ug/L	3.009	32926	0.334
	Ho	165		ug/L		55	0.000
>	Lu	175		ug/L		98479	98478.587
	Tl	205	**0.068**	ug/L	8.745	244	0.001
	Pb	208	**0.191**	ug/L	8.348	1957	0.010
	Th	232	**0.605**	ug/L	16.660	4006	0.038
	U	238	**0.794**	ug/L	1.601	5145	0.051

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			103.2		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			93.9		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			92.5		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			91.5		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072004
Sample Date/Time: Saturday, April 24, 2010 20:18:19
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 965603|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\1202072004.077

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**65.000**	ug/L	2.487	27708	0.051
	Be	9	**48.970**	ug/L	0.581	5112	0.009
	B	11	**120.789**	ug/L	0.651	13065	0.024
	Na	23	**14854.253**	ug/L	5.638	24503444	44.960
	Mg	24	**5744.300**	ug/L	4.855	6820176	12.576
	Al	27	**1942.416**	ug/L	3.114	3060796	5.640
	P	31	**1956.731**	ug/L	1.027	182015	0.331
	K	39	**3294.970**	ug/L	9.311	9845326	17.290
	Ca	43	**12390.028**	ug/L	1.475	75222	0.138
>	Sc	45		ug/L		542297	542297.305
	Ti	47	**48.560**	ug/L	0.877	14852	0.027
	V	51	**50.207**	ug/L	7.432	205712	0.357
	Cr	52	**45.018**	ug/L	0.664	113930	0.237
	Cr	53		ug/L		359943	0.397
	Mn	55	**51.402**	ug/L	1.357	248696	0.457
	Fe	57	**2075.184**	ug/L	0.198	201547	0.364
	Co	59	**47.632**	ug/L	0.893	169278	0.312
	Ni	60	**48.697**	ug/L	1.001	36725	0.068
	Cu	63		ug/L		86675	0.159
	Cu	65	**48.976**	ug/L	2.057	41151	0.075
	Zn	66	**56.484**	ug/L	2.091	25205	0.129
	Zn	67		ug/L		24172	0.090
	Zn	68		ug/L		19912	0.098
>	Ge	74		ug/L		194812	194811.583
	As	75	**81.974**	ug/L	5.175	42451	0.217
	Se	77		ug/L		20794	0.081
	Se	82	**23.334**	ug/L	1.141	1084	0.006
	Kr	83		ug/L		76	-0.000
	Sr	88	**110.850**	ug/L	2.117	762892	7.291
	Y	89		ug/L		1116	0.010
	Zr	90	**54.195**	ug/L	0.445	201021	1.920
	Mo	98	**54.738**	ug/L	0.582	89521	0.855
	Ag	107	**54.554**	ug/L	2.458	137902	1.318
	Cd	111	**11.084**	ug/L	1.841	6397	0.061
	Cd	114		ug/L		13807	0.132
>	In	115		ug/L		104605	104605.314
	Sn	120	**54.168**	ug/L	1.188	136798	1.305
	Sb	121	**212.422**	ug/L	1.918	463086	4.426
	Sb	123		ug/L		357578	3.418
	Ba	135		ug/L		51859	0.519
	Ba	137	**83.973**	ug/L	1.350	90598	0.907
	Ho	165		ug/L		130	0.001
>	Lu	175		ug/L		99832	99831.940
	Tl	205	**105.661**	ug/L	0.601	198936	1.992
	Pb	208	**43.703**	ug/L	1.191	238430	2.379
	Th	232	**55.117**	ug/L	2.417	344853	3.451
	U	238	**58.234**	ug/L	2.270	372862	3.734

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			108.4		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			95.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			94.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			92.8		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072005
Sample Date/Time: Saturday, April 24, 2010 20:24:29
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 965603|5|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\1202072005.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**4.069**	ug/L	2.333	1636	0.003
	Be	9	**0.027**	ug/L	162.225	11	0.000
	B	11	**4.502**	ug/L	4.491	563	0.001
	Na	23	**2753.146**	ug/L	1.221	4320540	8.333
	Mg	24	**830.667**	ug/L	15.851	917628	1.819
	Al	27	**12.495**	ug/L	27.719	20682	0.036
	P	31	**1.347**	ug/L	92.104	2511	0.000
	K	39	**229.136**	ug/L	16.130	1043977	1.202
	Ca	43	**2172.529**	ug/L	3.558	12563	0.024
>	Sc	45		ug/L		504784	504784.332
	Ti	47	**1.002**	ug/L	6.448	487	0.001
	V	51	**-4.817**	ug/L	90.158	-6143	-0.034
	Cr	52	**-0.842**	ug/L	28.715	-15700	-0.004
	Cr	53		ug/L		179054	0.088
	Mn	55	**0.758**	ug/L	2.930	4127	0.007
	Fe	57	**22.200**	ug/L	5.349	5835	0.004
	Co	59	**0.039**	ug/L	35.507	247	0.000
	Ni	60	**0.119**	ug/L	27.369	132	0.000
	Cu	63		ug/L		609	0.000
	Cu	65	**0.064**	ug/L	47.424	289	0.000
	Zn	66	**1.250**	ug/L	3.160	704	0.003
	Zn	67		ug/L		8112	0.008
	Zn	68		ug/L		1230	0.002
>	Ge	74		ug/L		193105	193104.714
	As	75	**0.449**	ug/L	79.175	397	0.001
	Se	77		ug/L		10152	0.027
	Se	82	**0.793**	ug/L	4.247	7	0.000
	Kr	83		ug/L		51	-0.000
	Sr	88	**11.183**	ug/L	0.691	79585	0.736
	Y	89		ug/L		230	0.002
	Zr	90	**0.144**	ug/L	9.794	762	0.005
	Mo	98	**0.422**	ug/L	5.749	765	0.007
	Ag	107	**0.062**	ug/L	26.916	238	0.001
	Cd	111	**-0.004**	ug/L	468.077	15	-0.000
	Cd	114		ug/L		44	0.000
>	In	115		ug/L		107947	107947.324
	Sn	120	**0.142**	ug/L	13.879	658	0.003
	Sb	121	**0.275**	ug/L	17.732	742	0.006
	Sb	123		ug/L		590	0.004
	Ba	135		ug/L		3855	0.037
	Ba	137	**6.199**	ug/L	1.989	6950	0.067
	Ho	165		ug/L		39	0.000
>	Lu	175		ug/L		103282	103282.037
	Tl	205	**0.900**	ug/L	15.831	1877	0.017
	Pb	208	**0.041**	ug/L	24.038	1208	0.002
	Th	232	**0.442**	ug/L	12.006	3145	0.028
	U	238	**0.181**	ug/L	5.452	1339	0.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			100.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			94.5		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			97.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			96.0		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249330009
Sample Date/Time: Saturday, April 24, 2010 20:36:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965603|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\249330009.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.205**	ug/L	15.241	95	0.000
	Be	9	**-0.023**	ug/L	157.726	5	-0.000
	B	11	**2.825**	ug/L	16.470	360	0.001
	Na	23	**162764.896**	ug/L	83.509	227326875	492.648
	Mg	24	**1.356**	ug/L	42.827	1667	0.003
	Al	27	**3.420**	ug/L	126.536	6669	0.010
	P	31	**-2.260**	ug/L	75.510	2003	-0.000
	K	39	**101.217**	ug/L	6.932	641776	0.531
	Ca	43	**79.092**	ug/L	5.606	723	0.001
>	Sc	45		ug/L		459077	459076.842
	Ti	47	**0.678**	ug/L	5.410	361	0.000
	V	51	**0.942**	ug/L	786.634	13254	0.007
	Cr	52	**-7.770**	ug/L	2.471	-31005	-0.041
	Cr	53		ug/L		310421	0.410
	Mn	55	**0.342**	ug/L	3.331	2058	0.003
	Fe	57	**3.215**	ug/L	45.458	3778	0.001
	Co	59	**0.010**	ug/L	14.448	136	0.000
	Ni	60	**1.238**	ug/L	7.882	833	0.002
	Cu	63		ug/L		7520	0.015
	Cu	65	**0.027**	ug/L	116.873	237	0.000
	Zn	66	**1.621**	ug/L	2.401	743	0.004
	Zn	67		ug/L		17965	0.075
	Zn	68		ug/L		1728	0.006
>	Ge	74		ug/L		165500	165500.126
	As	75	**-1.559**	ug/L	76.787	-538	-0.004
	Se	77		ug/L		18788	0.087
	Se	82	**-0.746**	ug/L	78.654	-56	-0.000
	Kr	83		ug/L		112	0.000
	Sr	88	**0.322**	ug/L	3.037	2167	0.021
	Y	89		ug/L		29	0.000
	Zr	90	**0.053**	ug/L	16.348	364	0.002
	Mo	98	**0.072**	ug/L	8.249	154	0.001
	Ag	107	**0.000**	ug/L	1287.306	69	0.000
	Cd	111	**-0.274**	ug/L	20.921	-128	-0.002
	Cd	114		ug/L		31	-0.000
>	In	115		ug/L		94761	94761.250
	Sn	120	**0.329**	ug/L	1.451	1006	0.008
	Sb	121	**0.169**	ug/L	6.897	442	0.004
	Sb	123		ug/L		378	0.003
	Ba	135		ug/L		367	0.004
	Ba	137	**0.665**	ug/L	5.527	690	0.007
	Ho	165		ug/L		22	-0.000
>	Lu	175		ug/L		91859	91859.319
	Tl	205	**0.136**	ug/L	4.828	346	0.003
	Pb	208	**-0.025**	ug/L	22.740	742	-0.001
	Th	232	**0.106**	ug/L	9.130	866	0.007
	U	238	**-0.011**	ug/L	9.550	63	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			91.8		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			81.0		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			85.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			85.4		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Na 23 Upper, S, EEfNa		23	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 249330010
Sample Date/Time: Saturday, April 24, 2010 20:42:54
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965603|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\249330010.081

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.114**	ug/L	24.932	62	0.000
	Be	9	**0.015**	ug/L	223.662	9	0.000
	B	11	**2.516**	ug/L	4.853	333	0.000
	Na	23	**122823.217**	ug/L	49.609	171239619	371.755
	Mg	24	**5.671**	ug/L	47.413	6001	0.012
	Al	27	**29.401**	ug/L	8.861	41394	0.085
	P	31	**-2.425**	ug/L	61.724	1993	-0.000
	K	39	**113.156**	ug/L	9.508	671430	0.594
	Ca	43	**119.781**	ug/L	2.914	932	0.001
>	Sc	45		ug/L		459780	459779.595
	Ti	47	**1.165**	ug/L	5.046	486	0.001
	V	51	**-3.005**	ug/L	136.772	476	-0.021
	Cr	52	**-7.941**	ug/L	1.520	-31464	-0.042
	Cr	53		ug/L		316559	0.422
	Mn	55	**0.752**	ug/L	2.068	3736	0.007
	Fe	57	**11.186**	ug/L	2.614	4427	0.002
	Co	59	**0.012**	ug/L	36.002	142	0.000
	Ni	60	**1.302**	ug/L	0.867	875	0.002
	Cu	63		ug/L		7154	0.015
	Cu	65	**0.057**	ug/L	23.129	259	0.000
	Zn	66	**1.028**	ug/L	11.333	513	0.002
	Zn	67		ug/L		18728	0.081
	Zn	68		ug/L		1640	0.006
>	Ge	74		ug/L		163664	163664.294
	As	75	**0.055**	ug/L	4045.857	174	0.000
	Se	77		ug/L		19057	0.090
	Se	82	**-0.938**	ug/L	29.164	-63	-0.000
	Kr	83		ug/L		122	0.000
	Sr	88	**0.459**	ug/L	0.991	3049	0.030
	Y	89		ug/L		165	0.001
	Zr	90	**0.084**	ug/L	10.298	470	0.003
	Mo	98	**0.075**	ug/L	7.754	160	0.001
	Ag	107	**-0.005**	ug/L	82.602	57	-0.000
	Cd	111	**-0.333**	ug/L	38.846	-160	-0.002
	Cd	114		ug/L		26	-0.000
>	In	115		ug/L		95626	95625.526
	Sn	120	**0.304**	ug/L	2.129	957	0.007
	Sb	121	**0.190**	ug/L	5.476	489	0.004
	Sb	123		ug/L		377	0.003
	Ba	135		ug/L		483	0.005
	Ba	137	**0.806**	ug/L	1.580	834	0.009
	Ho	165		ug/L		31	0.000
>	Lu	175		ug/L		92379	92379.000
	Tl	205	**0.073**	ug/L	13.075	238	0.001
	Pb	208	**-0.003**	ug/L	247.255	860	-0.000
	Th	232	**0.058**	ug/L	13.287	595	0.004
	U	238	**-0.014**	ug/L	3.891	43	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			91.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			80.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			86.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			85.9		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Na 23 Upper, S, EEI	Na	23	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 249330011
Sample Date/Time: Saturday, April 24, 2010 20:49:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965603|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\249330011.082

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.151**	ug/L	18.266	75	0.000
	Be	9	**0.004**	ug/L	406.927	8	0.000
	B	11	**2.026**	ug/L	3.991	286	0.000
	Na	23	**228708.953**	ug/L	44.956	313883909	692.244
	Mg	24	**5.748**	ug/L	62.998	6002	0.013
	Al	27	**51.257**	ug/L	14.451	70175	0.149
	P	31	**-1.119**	ug/L	210.914	2078	-0.000
	K	39	**122.875**	ug/L	5.165	689951	0.645
	Ca	43	**118.108**	ug/L	7.957	916	0.001
>	Sc	45		ug/L		456397	456397.046
	Ti	47	**1.477**	ug/L	4.427	561	0.001
	V	51	**2.542**	ug/L	342.848	18001	0.018
	Cr	52	**-7.371**	ug/L	1.570	-29863	-0.039
	Cr	53		ug/L		308381	0.409
	Mn	55	**0.898**	ug/L	4.049	4297	0.008
	Fe	57	**30.486**	ug/L	6.578	5939	0.005
	Co	59	**0.018**	ug/L	7.905	159	0.000
	Ni	60	**1.499**	ug/L	0.707	994	0.002
	Cu	63		ug/L		6686	0.014
	Cu	65	**0.061**	ug/L	16.416	260	0.000
	Zn	66	**1.070**	ug/L	9.049	542	0.002
	Zn	67		ug/L		18815	0.078
	Zn	68		ug/L		1742	0.006
>	Ge	74		ug/L		167697	167697.338
	As	75	**1.063**	ug/L	123.651	614	0.003
	Se	77		ug/L		18551	0.085
	Se	82	**-1.112**	ug/L	29.318	-72	-0.000
	Kr	83		ug/L		141	0.000
	Sr	88	**0.513**	ug/L	2.388	3416	0.034
	Y	89		ug/L		189	0.002
	Zr	90	**0.107**	ug/L	4.409	551	0.004
	Mo	98	**0.084**	ug/L	18.486	174	0.001
	Ag	107	**-0.007**	ug/L	80.353	53	-0.000
	Cd	111	**-0.371**	ug/L	49.117	-182	-0.002
	Cd	114		ug/L		43	0.000
>	In	115		ug/L		96325	96324.534
	Sn	120	**0.372**	ug/L	3.664	1121	0.009
	Sb	121	**0.166**	ug/L	3.926	444	0.003
	Sb	123		ug/L		356	0.003
	Ba	135		ug/L		697	0.007
	Ba	137	**1.217**	ug/L	3.724	1245	0.013
	Ho	165		ug/L		29	0.000
>	Lu	175		ug/L		92438	92438.120
	Tl	205	**0.056**	ug/L	24.973	209	0.001
	Pb	208	**0.033**	ug/L	28.837	1041	0.002
	Th	232	**0.051**	ug/L	7.901	552	0.003
	U	238	**-0.013**	ug/L	10.184	48	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			91.2		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			82.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			87.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			85.9		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Na 23 Upper, S, EEI	Na	23	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 249330012
Sample Date/Time: Saturday, April 24, 2010 20:55:13
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965603|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\249330012.083

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.061**	ug/L	57.342	43	0.000
	Be	9	**-0.015**	ug/L	135.268	6	-0.000
	B	11	**2.365**	ug/L	5.692	316	0.000
	Na	23	**170675.290**	ug/L	55.647	235186270	516.591
	Mg	24	**0.366**	ug/L	317.305	667	0.001
	Al	27	**3.190**	ug/L	49.461	6335	0.009
	P	31	**-1.868**	ug/L	26.859	2016	-0.000
	K	39	**115.967**	ug/L	5.824	671072	0.609
	Ca	43	**86.593**	ug/L	13.214	754	0.001
>	Sc	45		ug/L		454915	454914.798
	Ti	47	**0.800**	ug/L	1.455	388	0.000
	V	51	**-1.709**	ug/L	108.782	4569	-0.012
	Cr	52	**-7.695**	ug/L	1.037	-30541	-0.040
	Cr	53		ug/L		309827	0.414
	Mn	55	**0.563**	ug/L	1.403	2931	0.005
	Fe	57	**100.832**	ug/L	1.046	11533	0.018
	Co	59	**0.012**	ug/L	8.755	143	0.000
	Ni	60	**1.755**	ug/L	8.313	1152	0.002
	Cu	63		ug/L		6898	0.014
	Cu	65	**0.006**	ug/L	227.382	220	0.000
	Zn	66	**1.261**	ug/L	6.981	600	0.003
	Zn	67		ug/L		19371	0.085
	Zn	68		ug/L		1819	0.007
>	Ge	74		ug/L		163617	163617.270
	As	75	**0.198**	ug/L	513.826	229	0.001
	Se	77		ug/L		18381	0.086
	Se	82	**-0.767**	ug/L	98.202	-56	-0.000
	Kr	83		ug/L		124	0.000
	Sr	88	**0.284**	ug/L	0.849	1989	0.019
	Y	89		ug/L		24	0.000
	Zr	90	**0.033**	ug/L	25.401	303	0.001
	Mo	98	**0.063**	ug/L	9.787	145	0.001
	Ag	107	**-0.009**	ug/L	33.114	50	-0.000
	Cd	111	**-0.357**	ug/L	48.398	-176	-0.002
	Cd	114		ug/L		17	-0.000
>	In	115		ug/L		97560	97559.965
	Sn	120	**0.410**	ug/L	4.102	1224	0.010
	Sb	121	**0.161**	ug/L	7.035	439	0.003
	Sb	123		ug/L		380	0.003
	Ba	135		ug/L		374	0.004
	Ba	137	**0.651**	ug/L	7.010	690	0.007
	Ho	165		ug/L		25	0.000
>	Lu	175		ug/L		93811	93811.295
	Tl	205	**0.030**	ug/L	19.946	166	0.001
	Pb	208	**-0.040**	ug/L	14.263	683	-0.002
	Th	232	**0.029**	ug/L	20.190	432	0.002
	U	238	**-0.015**	ug/L	10.015	35	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			90.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			80.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			88.3		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			87.2		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Na 23 Upper, S, EEI	Na	23	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, April 24, 2010 21:13:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 6.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**37.036**	**ug/L**	2.542	13498	0.029
	Be	9	**40.072**	**ug/L**	3.251	3575	0.008
	B	11	**84.449**	**ug/L**	1.255	7832	0.017
	Na	23	**5805.008**	**ug/L**	4.937	8247579	17.570
	Mg	24	**5307.931**	**ug/L**	7.383	5385128	11.620
	Al	27	**5671.676**	**ug/L**	7.710	7636246	16.467
	P	31	**5095.603**	**ug/L**	2.206	401232	0.862
	K	39	**5051.073**	**ug/L**	2.109	12676415	26.505
	Ca	43	**4757.986**	**ug/L**	3.348	24869	0.053
>	Sc	45		**ug/L**		463169	463169.063
	Ti	47	**47.460**	**ug/L**	1.160	12403	0.026
	V	51	**49.417**	**ug/L**	7.772	172971	0.352
	Cr	52	**48.294**	**ug/L**	2.337	105246	0.254
	Cr	53		**ug/L**		135159	0.025
	Mn	55	**48.355**	**ug/L**	0.901	199828	0.430
	Fe	57	**4806.646**	**ug/L**	2.432	393924	0.843
	Co	59	**47.222**	**ug/L**	3.078	143274	0.309
	Ni	60	**49.431**	**ug/L**	1.165	31832	0.069
	Cu	63		**ug/L**		74535	0.160
	Cu	65	**49.822**	**ug/L**	0.279	35747	0.077
	Zn	66	**50.852**	**ug/L**	2.358	20484	0.116
	Zn	67		**ug/L**		9658	0.021
	Zn	68		**ug/L**		15294	0.083
>	Ge	74		**ug/L**		175732	175732.074
	As	75	**51.167**	**ug/L**	1.106	23957	0.135
	Se	77		**ug/L**		6400	0.010
	Se	82	**51.849**	**ug/L**	2.666	2207	0.013
	Kr	83		**ug/L**		60	-0.000
	Sr	88	**46.643**	**ug/L**	1.196	318449	3.068
	Y	89		**ug/L**		42	0.000
	Zr	90	**44.495**	**ug/L**	2.320	163703	1.576
	Mo	98	**47.899**	**ug/L**	1.112	77704	0.748
	Ag	107	**50.434**	**ug/L**	2.357	126464	1.218
	Cd	111	**49.220**	**ug/L**	0.963	28119	0.271
	Cd	114		**ug/L**		63967	0.616
>	In	115		**ug/L**		103755	103755.122
	Sn	120	**49.651**	**ug/L**	1.395	124372	1.196
	Sb	121	**49.023**	**ug/L**	0.427	106100	1.021
	Sb	123		**ug/L**		81407	0.784
	Ba	135		**ug/L**		31812	0.314
	Ba	137	**51.145**	**ug/L**	2.395	55939	0.553
	Ho	165		**ug/L**		29	0.000
>	Lu	175		**ug/L**		101200	101200.217
	Tl	205	**51.266**	**ug/L**	2.053	97919	0.966
	Pb	208	**49.872**	**ug/L**	0.175	275680	2.715
	Th	232	**46.922**	**ug/L**	3.638	297700	2.938
	U	238	**50.170**	**ug/L**	1.160	325663	3.217

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	74.072				
	Be	9	80.144				
	B	11	84.449				
	Na	23	116.100				
	Mg	24	106.159				
	Al	27	112.310				
	P	31	101.912				
	K	39	101.021				
	Ca	43	95.160				
>	Sc	45			92.6		
	Ti	47	94.919				
	V	51	98.834				
	Cr	52	96.588				
	Cr	53					
	Mn	55	96.711				
	Fe	57	96.133				
	Co	59	94.445				
	Ni	60	98.861				
	Cu	63					
	Cu	65	99.644				
	Zn	66	101.704				
	Zn	67					
	Zn	68					
>	Ge	74			86.0		
	As	75	102.333				
	Se	77					
	Se	82	103.698				
	Kr	83					
	Sr	88	93.286				
	Y	89					
	Zr	90	88.989				
	Mo	98	95.798				
	Ag	107	100.869				
	Cd	111	98.441				
	Cd	114					
>	In	115			93.9		
	Sn	120	99.303				
	Sb	121	98.045				
	Sb	123					
	Ba	135					
	Ba	137	102.289				
	Ho	165					
>	Lu	175			94.0		
	Tl	205	102.531				
	Pb	208	99.743				
	Th	232	93.844				
	U	238	100.340				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Be	9	CCV is out of limits (+/- 10%)
QC Std 6	B	11	CCV is out of limits (+/- 10%)
QC Std 6	Na	23	CCV is out of limits (+/- 10%)
QC Std 6	Al	27	CCV is out of limits (+/- 10%)
QC Std 6	Zr	90	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, April 24, 2010 21:19:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100424\QC Std 7.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.010**	ug/L	226.177	24	0.000
	Be	9	**0.054**	ug/L	43.958	12	0.000
	B	11	**0.774**	ug/L	32.584	169	0.000
	Na	23	**131.726**	ug/L	18.512	278016	0.399
	Mg	24	**1.046**	ug/L	50.396	1333	0.002
	Al	27	**0.714**	ug/L	108.009	3000	0.002
	P	31	**-0.201**	ug/L	1759.305	2100	-0.000
	K	39	**3.154**	ug/L	181.720	394723	0.017
	Ca	43	**27.717**	ug/L	13.051	447	0.000
>	Sc	45		ug/L		447312	447312.152
	Ti	47	**0.354**	ug/L	34.452	270	0.000
	V	51	**2.526**	ug/L	82.648	18047	0.018
	Cr	52	**-0.159**	ug/L	244.164	-12264	-0.001
	Cr	53		ug/L		120915	0.005
	Mn	55	**0.028**	ug/L	39.527	754	0.000
	Fe	57	**-7.320**	ug/L	37.164	2846	-0.001
	Co	59	**0.009**	ug/L	60.821	131	0.000
	Ni	60	**0.023**	ug/L	64.854	57	0.000
	Cu	63		ug/L		270	-0.000
	Cu	65	**-0.120**	ug/L	10.002	129	-0.000
	Zn	66	**0.039**	ug/L	187.674	151	0.000
	Zn	67		ug/L		6212	0.003
	Zn	68		ug/L		696	0.000
>	Ge	74		ug/L		170161	170161.056
	As	75	**0.592**	ug/L	162.275	420	0.002
	Se	77		ug/L		4944	0.003
	Se	82	**0.864**	ug/L	41.855	10	0.000
	Kr	83		ug/L		49	-0.000
	Sr	88	**0.007**	ug/L	77.541	216	0.000
	Y	89		ug/L		26	0.000
	Zr	90	**0.331**	ug/L	15.586	1362	0.012
	Mo	98	**0.170**	ug/L	25.617	314	0.003
	Ag	107	**0.023**	ug/L	44.388	127	0.001
	Cd	111	**0.015**	ug/L	22.083	24	0.000
	Cd	114		ug/L		51	0.000
>	In	115		ug/L		99815	99814.656
	Sn	120	**0.111**	ug/L	26.473	535	0.003
	Sb	121	**0.201**	ug/L	16.396	532	0.004
	Sb	123		ug/L		427	0.003
	Ba	135		ug/L		33	0.000
	Ba	137	**0.007**	ug/L	57.161	38	0.000
	Ho	165		ug/L		28	0.000
>	Lu	175		ug/L		96290	96289.957
	Tl	205	**0.291**	ug/L	18.059	642	0.005
	Pb	208	**-0.012**	ug/L	101.480	844	-0.001
	Th	232	**0.482**	ug/L	19.127	3165	0.030
	U	238	**0.036**	ug/L	27.566	349	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			89.4		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			83.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			90.3		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			89.5		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, May 14, 2010 18:26:14
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.1007
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	899.8	899.828	38.378	4.3
	Mg	24.0	14455.1	14455.110	120.610	0.8
	Co	58.9	37450.2	37450.227	337.752	0.9
	Rh	102.9	66927.0	66927.028	870.702	1.3
	In	114.9	74446.1	74446.083	596.702	0.8
	Pb	208.0	26145.3	26145.308	396.036	1.5
⌈>	Ba	137.9	70318.9	70318.875	599.394	0.9
⌊	Ba++	69.0	1430.2	0.020	0.000	1.5
⌈>	Ce	139.9	82936.5	82936.487	1163.938	1.4
⌊	CeO	155.9	1161.0	0.014	0.001	3.7
	Bkgd	220.0	12.8	12.800	2.019	15.8

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
6.30	Lens Voltage
1000.00	ICP RF Power
-1800.00	Analog Stage Voltage
1200.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	5.5	832.7
Co	59	17	6.5	34373.6
In	115	17	7.5	72387.9

ICPMS #4 TUNING REPORT

File Name: 100514.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	601	2080	0.633
Be	9.0	9.0	2053	2080	0.638
Mg	24.0	24.0	5685	2100	0.637
Mg	25.0	25.0	5947	2100	0.675
Mg	26.0	26.0	6158	2120	0.704
Co	58.9	58.9	14166	2150	0.678
Rh	102.9	102.9	24864	2240	0.691
In	114.9	114.9	27767	2275	0.673
Ce	139.9	139.9	33850	2310	0.707
Pb	206.0	206.0	49914	2485	0.634
Pb	207.0	207.0	50125	2400	0.687
Pb	208.0	208.0	50400	2510	0.700
U	238.1	238.0	57686	2520	0.662

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, May 14, 2010 23:53:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\Blank.313

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		45	
	Be	9		ug/L		16	
	B	11		ug/L		96	
	Na	23		ug/L		15008	
	Mg	24		ug/L		9003	
	Al	27		ug/L		9337	
	P	31		ug/L		2205	
	K	39		ug/L		468562	
	Ca	43		ug/L		587	
>	Sc	45		ug/L		439768	
	Ti	47		ug/L		377	
	V	51		ug/L		25103	
	Cr	52		ug/L		-2114	
	Cr	53		ug/L		156025	
	Mn	55		ug/L		941	
	Fe	57		ug/L		5938	
	Co	59		ug/L		492	
	Ni	60		ug/L		94	
	Cu	63		ug/L		244	
	Cu	65		ug/L		146	
	Zn	66		ug/L		201	
	Zn	67		ug/L		5784	
	Zn	68		ug/L		498	
>	Ge	74		ug/L		197007	
	As	75		ug/L		622	
	Se	77		ug/L		7583	
	Se	82		ug/L		24	
	Kr	83		ug/L		74	
	Sr	88		ug/L		405	
	Y	89		ug/L		25	
	Zr	90		ug/L		336	
	Mo	98		ug/L		212	
	Ag	107		ug/L		153	
	Cd	111		ug/L		34	
	Cd	114		ug/L		71	
>	In	115		ug/L		95779	
	Sn	120		ug/L		305	
	Sb	121		ug/L		150	
	Sb	123		ug/L		158	
	Ba	135		ug/L		53	
	Ba	137		ug/L		79	
	Ho	165		ug/L		32	
>	Lu	175		ug/L		83889	
	Tl	205		ug/L		246	
	Pb	208		ug/L		1344	
	Th	232		ug/L		480	
	U	238		ug/L		636	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Linear Thru Zero	
Ti	47	Simple Linear	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Simple Linear	
Cu	65	Simple Linear	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Zr	90	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
Th	232	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, May 15, 2010 00:00:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\Standard 1.314

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.000**	**ug/L**	2.184	3662	0.008
	Be	9	**10.000**	**ug/L**	5.037	1008	0.002
	B	11	**20.000**	**ug/L**	6.202	1604	0.003
	Na	23	**1000.000**	**ug/L**	6.445	1410544	3.213
	Mg	24	**1000.000**	**ug/L**	4.165	979508	2.235
	Al	27	**1000.000**	**ug/L**	2.908	1380667	3.158
	P	31	**1000.000**	**ug/L**	1.108	85173	0.191
	K	39	**1000.000**	**ug/L**	12.710	3022201	5.895
	Ca	43	**1000.000**	**ug/L**	3.460	5851	0.012
>	Sc	45		**ug/L**		434327	434326.897
	Ti	47	**10.000**	**ug/L**	3.747	2838	0.006
	V	51	**10.000**	**ug/L**	9.624	50598	0.059
	Cr	52	**10.000**	**ug/L**	1.733	24794	0.062
	Cr	53		**ug/L**		157185	0.007
	Mn	55	**10.000**	**ug/L**	3.012	44696	0.101
	Fe	57	**1000.000**	**ug/L**	1.624	94685	0.205
	Co	59	**10.000**	**ug/L**	1.068	34733	0.079
	Ni	60	**10.000**	**ug/L**	1.217	7387	0.017
	Cu	63		**ug/L**		17676	0.040
	Cu	65	**10.000**	**ug/L**	1.314	8400	0.019
	Zn	66	**10.000**	**ug/L**	2.733	4830	0.023
	Zn	67		**ug/L**		6400	0.003
	Zn	68		**ug/L**		3822	0.017
>	Ge	74		**ug/L**		197434	197434.282
	As	75	**10.000**	**ug/L**	1.611	6100	0.028
	Se	77		**ug/L**		7688	0.000
	Se	82	**10.000**	**ug/L**	4.984	467	0.002
	Kr	83		**ug/L**		83	0.000
	Sr	88	**10.000**	**ug/L**	1.917	66819	0.684
	Y	89		**ug/L**		38	0.000
	Zr	90	**10.000**	**ug/L**	1.199	37182	0.379
	Mo	98	**10.000**	**ug/L**	2.484	16022	0.163
	Ag	107	**10.000**	**ug/L**	0.954	25025	0.256
	Cd	111	**10.000**	**ug/L**	3.247	5281	0.054
	Cd	114		**ug/L**		11688	0.120
>	In	115		**ug/L**		97144	97144.037
	Sn	120	**10.000**	**ug/L**	2.234	23902	0.243
	Sb	121	**10.000**	**ug/L**	4.018	21645	0.221
	Sb	123		**ug/L**		16583	0.169
	Ba	135		**ug/L**		5868	0.069
	Ba	137	**10.000**	**ug/L**	1.811	10308	0.122
	Ho	165		**ug/L**		32	0.000
>	Lu	175		**ug/L**		83916	83915.604
	Tl	205	**10.000**	**ug/L**	2.242	14252	0.167
	Pb	208	**10.000**	**ug/L**	1.359	49559	0.575
	Th	232	**10.000**	**ug/L**	1.754	54620	0.645
	U	238	**10.000**	**ug/L**	1.711	55814	0.658

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, May 15, 2010 00:06:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\Standard 2.315

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.971**	**ug/L**	3.600	36389	0.081
	Be	9	**99.972**	**ug/L**	1.813	9988	0.022
	B	11	**200.025**	**ug/L**	1.300	15905	0.035
	Na	23	**10001.703**	**ug/L**	2.604	14689706	32.692
	Mg	24	**10007.218**	**ug/L**	3.107	10825168	24.101
	Al	27	**10000.502**	**ug/L**	2.308	14261581	31.740
	P	31	**9997.257**	**ug/L**	2.350	837173	1.859
	K	39	**9995.200**	**ug/L**	7.072	25696360	56.224
	Ca	43	**9998.141**	**ug/L**	1.714	54084	0.119
>	Sc	45		**ug/L**		448948	448948.169
	Ti	47	**100.014**	**ug/L**	2.085	26226	0.058
	V	51	**100.067**	**ug/L**	3.481	311767	0.638
	Cr	52	**99.966**	**ug/L**	1.433	266466	0.598
	Cr	53		**ug/L**		175882	0.037
	Mn	55	**99.960**	**ug/L**	1.517	435598	0.968
	Fe	57	**9995.197**	**ug/L**	2.467	881406	1.950
	Co	59	**99.946**	**ug/L**	1.246	336203	0.748
	Ni	60	**99.949**	**ug/L**	0.977	71831	0.160
	Cu	63		**ug/L**		170008	0.378
	Cu	65	**99.934**	**ug/L**	0.059	80165	0.178
	Zn	66	**99.962**	**ug/L**	2.288	45328	0.226
	Zn	67		**ug/L**		12916	0.035
	Zn	68		**ug/L**		33241	0.164
>	Ge	74		**ug/L**		199853	199852.983
	As	75	**99.963**	**ug/L**	1.355	54079	0.267
	Se	77		**ug/L**		9150	0.007
	Se	82	**99.945**	**ug/L**	0.342	4277	0.021
	Kr	83		**ug/L**		81	0.000
	Sr	88	**99.996**	**ug/L**	0.308	655641	6.813
	Y	89		**ug/L**		97	0.001
	Zr	90	**100.020**	**ug/L**	2.027	372674	3.871
	Mo	98	**100.024**	**ug/L**	1.741	160626	1.668
	Ag	107	**100.007**	**ug/L**	1.502	248102	2.578
	Cd	111	**100.016**	**ug/L**	0.929	52836	0.549
	Cd	114		**ug/L**		117347	1.219
>	In	115		**ug/L**		96183	96183.203
	Sn	120	**100.007**	**ug/L**	2.287	235490	2.445
	Sb	121	**100.008**	**ug/L**	0.507	214774	2.231
	Sb	123		**ug/L**		165751	1.722
	Ba	135		**ug/L**		59471	0.693
	Ba	137	**99.996**	**ug/L**	3.228	104086	1.214
	Ho	165		**ug/L**		26	-0.000
>	Lu	175		**ug/L**		85711	85711.257
	Tl	205	**99.986**	**ug/L**	1.742	141333	1.646
	Pb	208	**99.989**	**ug/L**	1.595	488446	5.683
	Th	232	**99.993**	**ug/L**	0.644	549485	6.406
	U	238	**99.974**	**ug/L**	1.294	549930	6.409

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, May 15, 2010 00:12:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 1.316

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.346**	**ug/L**	0.666	18840	0.042
	Be	9	**51.738**	**ug/L**	1.770	5215	0.011
	B	11	**104.467**	**ug/L**	5.033	8408	0.018
	Na	23	**5388.247**	**ug/L**	9.889	7970296	17.612
	Mg	24	**5230.904**	**ug/L**	15.615	5714894	12.598
	Al	27	**5230.907**	**ug/L**	1.084	7514230	16.602
	P	31	**5191.463**	**ug/L**	2.350	438649	0.966
	K	39	**5028.378**	**ug/L**	3.238	13273799	28.285
	Ca	43	**5175.717**	**ug/L**	0.771	28477	0.062
>	Sc	45		**ug/L**		452087	452086.901
	Ti	47	**51.702**	**ug/L**	2.753	13843	0.030
	V	51	**51.407**	**ug/L**	1.889	173860	0.328
	Cr	52	**52.156**	**ug/L**	1.964	138930	0.312
	Cr	53		**ug/L**		156358	-0.009
	Mn	55	**53.607**	**ug/L**	2.741	235656	0.519
	Fe	57	**5326.344**	**ug/L**	3.273	475800	1.039
	Co	59	**51.480**	**ug/L**	3.098	174590	0.385
	Ni	60	**53.225**	**ug/L**	1.510	38562	0.085
	Cu	63		**ug/L**		91256	0.201
	Cu	65	**54.268**	**ug/L**	2.703	43891	0.097
	Zn	66	**53.708**	**ug/L**	2.359	24583	0.121
	Zn	67		**ug/L**		9317	0.017
	Zn	68		**ug/L**		17743	0.086
>	Ge	74		**ug/L**		200932	200932.430
	As	75	**53.171**	**ug/L**	2.791	29229	0.142
	Se	77		**ug/L**		7054	-0.003
	Se	82	**55.753**	**ug/L**	2.516	2410	0.012
	Kr	83		**ug/L**		73	-0.000
	Sr	88	**52.297**	**ug/L**	1.629	348285	3.563
	Y	89		**ug/L**		53	0.000
	Zr	90	**49.585**	**ug/L**	1.609	187708	1.919
	Mo	98	**51.126**	**ug/L**	2.353	83444	0.853
	Ag	107	**50.001**	**ug/L**	1.737	126013	1.289
	Cd	111	**52.806**	**ug/L**	3.618	28332	0.290
	Cd	114		**ug/L**		62509	0.639
>	In	115		**ug/L**		97661	97660.712
	Sn	120	**51.849**	**ug/L**	2.455	124076	1.268
	Sb	121	**52.295**	**ug/L**	3.409	114047	1.167
	Sb	123		**ug/L**		87114	0.891
	Ba	135		**ug/L**		30252	0.350
	Ba	137	**50.528**	**ug/L**	1.403	53046	0.613
	Ho	165		**ug/L**		29	-0.000
>	Lu	175		**ug/L**		86372	86372.271
	Tl	205	**49.872**	**ug/L**	2.478	71181	0.821
	Pb	208	**53.588**	**ug/L**	2.202	264385	3.046
	Th	232	**52.254**	**ug/L**	0.914	289587	3.347
	U	238	**54.808**	**ug/L**	2.980	304053	3.514

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	102.691				
	Be	9	103.476				
	B	11	104.467				
	Na	23	107.765				
	Mg	24	104.618				
	Al	27	103.582				
	P	31	103.829				
	K	39	100.568				
	Ca	43	103.514				
>	Sc	45			102.8		
	Ti	47	103.404				
	V	51	102.815				
	Cr	52	104.312				
	Cr	53					
	Mn	55	107.214				
	Fe	57	106.527				
	Co	59	102.960				
	Ni	60	106.450				
	Cu	63					
	Cu	65	108.536				
	Zn	66	107.416				
	Zn	67					
	Zn	68					
>	Ge	74			102.0		
	As	75	106.343				
	Se	77					
	Se	82	111.505				
	Kr	83					
	Sr	88	104.594				
	Y	89					
	Zr	90	99.171				
	Mo	98	102.252				
	Ag	107	100.002				
	Cd	111	105.613				
	Cd	114					
>	In	115			102.0		
	Sn	120	103.699				
	Sb	121	104.589				
	Sb	123					
	Ba	135					
	Ba	137	101.057				
	Ho	165					
>	Lu	175			103.0		
	Tl	205	99.745				
	Pb	208	107.176				
	Th	232	104.508				
	U	238	109.617				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 1	Se	82ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, May 15, 2010 00:18:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 2.317

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.019**	ug/L	86.413	51	0.000
	Be	9	**0.022**	ug/L	79.206	18	0.000
	B	11	**2.157**	ug/L	8.247	260	0.000
	Na	23	**7.354**	ug/L	12.555	25356	0.024
	Mg	24	**-3.088**	ug/L	66.029	5668	-0.007
	Al	27	**-1.387**	ug/L	59.568	7335	-0.004
	P	31	**0.286**	ug/L	312.718	2209	0.000
	K	39	**-4.931**	ug/L	327.105	452071	-0.028
	Ca	43	**-7.948**	ug/L	68.385	541	-0.000
>	Sc	45		ug/L		435821	435820.785
	Ti	47	**-0.058**	ug/L	184.006	359	-0.000
	V	51	**-0.794**	ug/L	47.672	22670	-0.005
	Cr	52	**0.016**	ug/L	229.796	-2055	0.000
	Cr	53		ug/L		141099	-0.031
	Mn	55	**0.001**	ug/L	426.916	936	0.000
	Fe	57	**-1.173**	ug/L	165.158	5784	-0.000
	Co	59	**-0.000**	ug/L	5385.935	487	-0.000
	Ni	60	**0.001**	ug/L	197.547	94	0.000
	Cu	63		ug/L		248	0.000
	Cu	65	**0.002**	ug/L	899.904	146	0.000
	Zn	66	**-0.014**	ug/L	89.847	194	-0.000
	Zn	67		ug/L		5457	-0.002
	Zn	68		ug/L		475	-0.000
>	Ge	74		ug/L		196321	196321.228
	As	75	**-0.034**	ug/L	958.426	601	-0.000
	Se	77		ug/L		5619	-0.010
	Se	82	**-0.110**	ug/L	218.056	19	-0.000
	Kr	83		ug/L		86	0.000
	Sr	88	**0.000**	ug/L	485.147	405	0.000
	Y	89		ug/L		37	0.000
	Zr	90	**0.139**	ug/L	19.961	844	0.005
	Mo	98	**0.090**	ug/L	18.195	354	0.002
	Ag	107	**0.027**	ug/L	5.484	219	0.001
	Cd	111	**0.001**	ug/L	1769.190	35	0.000
	Cd	114		ug/L		92	0.000
>	In	115		ug/L		95037	95036.932
	Sn	120	**0.044**	ug/L	34.203	404	0.001
	Sb	121	**0.031**	ug/L	28.570	214	0.001
	Sb	123		ug/L		203	0.000
	Ba	135		ug/L		55	0.000
	Ba	137	**-0.001**	ug/L	1883.520	77	-0.000
	Ho	165		ug/L		30	-0.000
>	Lu	175		ug/L		82820	82819.578
	Tl	205	**0.442**	ug/L	26.987	845	0.007
	Pb	208	**0.006**	ug/L	82.300	1354	0.000
	Th	232	**0.111**	ug/L	17.728	1062	0.007
	U	238	**0.008**	ug/L	80.359	673	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			99.1		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			99.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			99.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			98.7		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, May 15, 2010 00:24:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 3.318

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.176**	ug/L	1.747	3644	0.008
	Be	9	**0.410**	ug/L	25.292	56	0.000
	B	11	**15.117**	ug/L	4.426	1257	0.003
	Na	23	**246.138**	ug/L	7.551	366319	0.805
	Mg	24	**8.306**	ug/L	40.442	17678	0.020
	Al	27	**12.565**	ug/L	6.880	26692	0.040
	P	31	**44.720**	ug/L	0.617	5823	0.008
	K	39	**300.023**	ug/L	4.596	1202601	1.688
	Ca	43	**95.198**	ug/L	7.565	1079	0.001
>	Sc	45		ug/L		436798	436798.172
	Ti	47	**9.119**	ug/L	2.441	2667	0.005
	V	51	**10.273**	ug/L	11.931	53525	0.065
	Cr	52	**2.952**	ug/L	2.421	5619	0.018
	Cr	53		ug/L		133041	-0.050
	Mn	55	**5.053**	ug/L	0.814	22314	0.049
	Fe	57	**16.121**	ug/L	4.934	7272	0.003
	Co	59	**0.947**	ug/L	2.506	3583	0.007
	Ni	60	**2.225**	ug/L	0.490	1647	0.004
	Cu	63		ug/L		2100	0.004
	Cu	65	**1.115**	ug/L	3.498	1013	0.002
	Zn	66	**10.732**	ug/L	3.374	4836	0.024
	Zn	67		ug/L		5732	0.001
	Zn	68		ug/L		3753	0.017
>	Ge	74		ug/L		191455	191455.114
	As	75	**5.882**	ug/L	6.443	3620	0.016
	Se	77		ug/L		5365	-0.010
	Se	82	**5.492**	ug/L	8.113	247	0.001
	Kr	83		ug/L		68	-0.000
	Sr	88	**9.764**	ug/L	1.849	64094	0.665
	Y	89		ug/L		27	0.000
	Zr	90	**1.761**	ug/L	3.294	6861	0.068
	Mo	98	**0.431**	ug/L	2.004	901	0.007
	Ag	107	**0.996**	ug/L	2.831	2611	0.026
	Cd	111	**0.952**	ug/L	6.375	535	0.005
	Cd	114		ug/L		1204	0.012
>	In	115		ug/L		95761	95760.560
	Sn	120	**4.899**	ug/L	2.371	11773	0.120
	Sb	121	**2.649**	ug/L	11.434	5809	0.059
	Sb	123		ug/L		4528	0.046
	Ba	135		ug/L		1229	0.014
	Ba	137	**1.906**	ug/L	4.568	2006	0.023
	Ho	165		ug/L		30	-0.000
>	Lu	175		ug/L		83352	83352.352
	Tl	205	**1.089**	ug/L	2.333	1738	0.018
	Pb	208	**1.948**	ug/L	3.157	10561	0.111
	Th	232	**0.946**	ug/L	6.203	5531	0.061
	U	238	**0.135**	ug/L	4.317	1353	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.759				
	Be	9	81.977				
	B	11	100.778				
	Na	23	98.455				
	Mg	24	55.374				
	Al	27	41.884				
	P	31	89.440				
	K	39	100.008				
	Ca	43	47.599				
>	Sc	45			99.3		
	Ti	47	91.195				
	V	51	102.725				
	Cr	52	29.524				
	Cr	53					
	Mn	55	101.057				
	Fe	57	16.121				
	Co	59	94.667				
	Ni	60	111.252				
	Cu	63					
	Cu	65	111.464				
	Zn	66	107.320				
	Zn	67					
	Zn	68					
>	Ge	74			97.2		
	As	75	117.632				
	Se	77					
	Se	82	109.830				
	Kr	83					
	Sr	88	97.639				
	Y	89					
	Zr	90	88.050				
	Mo	98	86.258				
	Ag	107	99.584				
	Cd	111	95.172				
	Cd	114					
>	In	115			100.0		
	Sn	120	97.981				
	Sb	121	88.316				
	Sb	123					
	Ba	135					
	Ba	137	95.294				
	Ho	165					
>	Lu	175			99.4		
	Tl	205	108.869				
	Pb	208	97.400				
	Th	232	94.640				
	U	238	67.466				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Mg	24	CRDL is out of limits
QC Std 3	Al	27	CRDL is out of limits
QC Std 3	Ca	43	CRDL is out of limits
QC Std 3	Cr	52	CRDL is out of limits
QC Std 3	Fe	57	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, May 15, 2010 00:30:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 4.319

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.000**	ug/L	26875.069	46	-0.000
	Be	9	**0.046**	ug/L	106.319	21	0.000
	B	11	**1.297**	ug/L	11.706	201	0.000
	Na	23	**87239.325**	ug/L	1.495	128414257	285.156
	Mg	24	**84040.189**	ug/L	4.464	91173262	202.401
	Al	27	**91044.240**	ug/L	3.854	130119839	288.957
	P	31	**88134.428**	ug/L	0.685	7383248	16.392
	K	39	**88490.152**	ug/L	1.824	224579817	497.765
	Ca	43	**88042.675**	ug/L	1.013	472857	1.049
>	Sc	45		ug/L		450273	450272.684
	Ti	47	**1426.188**	ug/L	2.774	370114	0.821
	V	51	**-1.093**	ug/L	65.964	22560	-0.007
	Cr	52	**2.632**	ug/L	3.180	4927	0.016
	Cr	53		ug/L		129808	-0.066
	Mn	55	**5.390**	ug/L	1.929	24470	0.052
	Fe	57	**87627.030**	ug/L	0.896	7704822	17.099
	Co	59	**0.098**	ug/L	5.158	834	0.001
	Ni	60	**2.248**	ug/L	1.412	1714	0.004
	Cu	63		ug/L		4056	0.008
	Cu	65	**2.021**	ug/L	3.066	1772	0.004
	Zn	66	**3.452**	ug/L	1.653	1728	0.008
	Zn	67		ug/L		5951	0.001
	Zn	68		ug/L		1027	0.003
>	Ge	74		ug/L		195957	195957.301
	As	75	**-0.114**	ug/L	931.266	564	-0.000
	Se	77		ug/L		4560	-0.015
	Se	82	**0.001**	ug/L	27032.419	24	0.000
	Kr	83		ug/L		88	0.000
	Sr	88	**2.615**	ug/L	1.965	17232	0.178
	Y	89		ug/L		149	0.001
	Zr	90	**0.662**	ug/L	50.159	2732	0.026
	Mo	98	**1824.546**	ug/L	2.081	2874306	30.423
	Ag	107	**0.063**	ug/L	6.062	305	0.002
	Cd	111	**0.327**	ug/L	38.054	205	0.002
	Cd	114		ug/L		2136	0.022
>	In	115		ug/L		94505	94504.945
	Sn	120	**0.242**	ug/L	9.774	859	0.006
	Sb	121	**0.215**	ug/L	28.508	598	0.005
	Sb	123		ug/L		508	0.004
	Ba	135		ug/L		419	0.004
	Ba	137	**0.605**	ug/L	3.424	717	0.007
	Ho	165		ug/L		1921	0.022
>	Lu	175		ug/L		86589	86588.512
	Tl	205	**0.034**	ug/L	33.608	303	0.001
	Pb	208	**0.092**	ug/L	6.911	1840	0.005
	Th	232	**0.082**	ug/L	45.863	946	0.005
	U	238	**-0.097**	ug/L	2.202	116	-0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23	87.239				
	Mg	24	84.040				
	Al	27	91.044				
	P	31	88.134				
	K	39	88.490				
	Ca	43	88.043				
>	Sc	45			102.4		
	Ti	47	71.309				
	V	51					
	Cr	52	79.757				
	Cr	53					
	Mn	55	92.925				
	Fe	57	87.627				
	Co	59	41.716				
	Ni	60	67.920				
	Cu	63					
	Cu	65	60.498				
	Zn	66	91.821				
	Zn	67					
	Zn	68					
>	Ge	74			99.5		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	88.351				
	Y	89					
	Zr	90					
	Mo	98	91.227				
	Ag	107					
	Cd	111	73.747				
	Cd	114					
>	In	115			98.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	75.823				
	Ho	165					
>	Lu	175			103.2		
	Tl	205					
	Pb	208	48.662				
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, May 15, 2010 00:36:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 5.320

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**16.350**	ug/L	3.333	6046	0.013
	Be	9	**17.278**	ug/L	2.790	1757	0.004
	B	11	**17.304**	ug/L	3.165	1479	0.003
	Na	23	**94962.257**	ug/L	4.877	140705798	310.399
	Mg	24	**86620.889**	ug/L	7.242	94530417	208.616
	Al	27	**94286.257**	ug/L	1.578	135636616	299.246
	P	31	**90678.132**	ug/L	2.008	7645977	16.865
	K	39	**94451.604**	ug/L	5.095	241237134	531.299
	Ca	43	**90441.087**	ug/L	0.882	488917	1.077
>	Sc	45		ug/L		453235	453235.180
	Ti	47	**1472.854**	ug/L	2.165	384646	0.848
	V	51	**14.827**	ug/L	6.240	68686	0.094
	Cr	52	**19.923**	ug/L	2.077	51868	0.119
	Cr	53		ug/L		136594	-0.053
	Mn	55	**22.642**	ug/L	2.669	100366	0.219
	Fe	57	**90801.935**	ug/L	3.080	8035979	17.718
	Co	59	**16.509**	ug/L	2.301	56495	0.124
	Ni	60	**18.693**	ug/L	1.351	13642	0.030
	Cu	63		ug/L		31855	0.070
	Cu	65	**18.276**	ug/L	2.550	14921	0.033
	Zn	66	**19.859**	ug/L	2.926	9089	0.045
	Zn	67		ug/L		7155	0.007
	Zn	68		ug/L		6401	0.030
>	Ge	74		ug/L		198134	198133.503
	As	75	**18.233**	ug/L	5.399	10289	0.049
	Se	77		ug/L		5011	-0.013
	Se	82	**18.517**	ug/L	3.424	805	0.004
	Kr	83		ug/L		107	0.000
	Sr	88	**20.568**	ug/L	1.259	134395	1.401
	Y	89		ug/L		179	0.002
	Zr	90	**17.261**	ug/L	0.901	64217	0.668
	Mo	98	**1862.868**	ug/L	0.345	2970464	31.062
	Ag	107	**16.501**	ug/L	0.865	40828	0.425
	Cd	111	**17.332**	ug/L	2.223	9131	0.095
	Cd	114		ug/L		22099	0.230
>	In	115		ug/L		95624	95624.149
	Sn	120	**17.138**	ug/L	0.218	40375	0.419
	Sb	121	**16.277**	ug/L	0.904	34875	0.363
	Sb	123		ug/L		26676	0.277
	Ba	135		ug/L		10519	0.120
	Ba	137	**17.282**	ug/L	2.785	18322	0.210
	Ho	165		ug/L		2000	0.023
>	Lu	175		ug/L		86959	86958.774
	Tl	205	**15.460**	ug/L	3.145	22384	0.255
	Pb	208	**16.562**	ug/L	2.322	83238	0.941
	Th	232	**17.055**	ug/L	2.903	95476	1.093
	U	238	**17.303**	ug/L	3.527	97087	1.109

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	81.751				
	Be	9	86.392				
	B	11	86.519				
	Na	23	94.962				
	Mg	24	86.621				
	Al	27	94.286				
	P	31	90.678				
	K	39	94.452				
	Ca	43	90.441				
>	Sc	45		103.1			
	Ti	47	73.643				
	V	51	74.136				
	Cr	52	85.506				
	Cr	53					
	Mn	55	87.759				
	Fe	57	90.802				
	Co	59	81.585				
	Ni	60	80.193				
	Cu	63					
	Cu	65	78.302				
	Zn	66	83.582				
	Zn	67					
	Zn	68					
>	Ge	74		100.6			
	As	75	91.167				
	Se	77					
	Se	82	92.585				
	Kr	83					
	Sr	88	89.584				
	Y	89					
	Zr	90	86.306				
	Mo	98	93.143				
	Ag	107	82.504				
	Cd	111	84.778				
	Cd	114					
>	In	115		99.8			
	Sn	120	85.691				
	Sb	121	81.384				
	Sb	123					
	Ba	135					
	Ba	137	83.094				
	Ho	165					
>	Lu	175		103.7			
	Tl	205	77.301				
	Pb	208	82.035				
	Th	232	85.276				
	U	238	86.515				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Ti	47	ICSAB is out of limits
QC Std 5	V	51	ICSAB is out of limits
QC Std 5	Cu	65	ICSAB is out of limits
QC Std 5	Tl	205	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 15, 2010 00:42:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 6.321

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.566**	ug/L	2.860	18140	0.040
	Be	9	**50.184**	ug/L	1.282	5045	0.011
	B	11	**101.350**	ug/L	2.634	8140	0.018
	Na	23	**5528.967**	ug/L	4.662	8162351	18.072
	Mg	24	**5077.795**	ug/L	7.537	5521637	12.229
	Al	27	**5296.576**	ug/L	2.733	7588541	16.810
	P	31	**5241.084**	ug/L	2.802	441728	0.975
	K	39	**5529.902**	ug/L	5.505	14504726	31.106
	Ca	43	**5329.124**	ug/L	0.836	29228	0.063
>	Sc	45		ug/L		450913	450912.807
	Ti	47	**53.000**	ug/L	1.330	14143	0.031
	V	51	**48.959**	ug/L	1.675	166392	0.312
	Cr	52	**51.011**	ug/L	3.267	135484	0.305
	Cr	53		ug/L		148105	-0.026
	Mn	55	**53.066**	ug/L	0.323	232751	0.514
	Fe	57	**5406.480**	ug/L	0.567	481785	1.055
	Co	59	**50.645**	ug/L	1.177	171375	0.379
	Ni	60	**52.519**	ug/L	3.632	37948	0.084
	Cu	63		ug/L		89887	0.199
	Cu	65	**52.814**	ug/L	1.222	42622	0.094
	Zn	66	**52.572**	ug/L	2.985	24158	0.119
	Zn	67		ug/L		9094	0.016
	Zn	68		ug/L		17592	0.085
>	Ge	74		ug/L		201701	201701.477
	As	75	**52.641**	ug/L	2.441	29044	0.141
	Se	77		ug/L		5993	-0.009
	Se	82	**52.853**	ug/L	4.148	2293	0.011
	Kr	83		ug/L		84	0.000
	Sr	88	**52.074**	ug/L	2.325	347108	3.548
	Y	89		ug/L		84	0.001
	Zr	90	**49.523**	ug/L	1.969	187641	1.917
	Mo	98	**51.674**	ug/L	2.065	84420	0.862
	Ag	107	**49.810**	ug/L	1.166	125668	1.284
	Cd	111	**51.512**	ug/L	2.053	27667	0.283
	Cd	114		ug/L		62182	0.636
>	In	115		ug/L		97738	97738.488
	Sn	120	**51.885**	ug/L	1.767	124299	1.269
	Sb	121	**50.969**	ug/L	2.581	111276	1.137
	Sb	123		ug/L		86118	0.880
	Ba	135		ug/L		30276	0.349
	Ba	137	**49.744**	ug/L	0.685	52308	0.604
	Ho	165		ug/L		38	0.000
>	Lu	175		ug/L		86491	86491.257
	Tl	205	**50.176**	ug/L	0.392	71709	0.826
	Pb	208	**51.482**	ug/L	0.523	254470	2.926
	Th	232	**51.637**	ug/L	1.033	286610	3.308
	U	238	**53.742**	ug/L	1.759	298615	3.445

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	99.131				
	Be	9	100.368				
	B	11	101.350				
	Na	23	110.579				
	Mg	24	101.556				
	Al	27	104.883				
	P	31	104.822				
	K	39	110.598				
	Ca	43	106.582				
>	Sc	45			102.5		
	Ti	47	106.001				
	V	51	97.918				
	Cr	52	102.021				
	Cr	53					
	Mn	55	106.131				
	Fe	57	108.130				
	Co	59	101.290				
	Ni	60	105.039				
	Cu	63					
	Cu	65	105.628				
	Zn	66	105.144				
	Zn	67					
	Zn	68					
>	Ge	74			102.4		
	As	75	105.281				
	Se	77					
	Se	82	105.707				
	Kr	83					
	Sr	88	104.148				
	Y	89					
	Zr	90	99.046				
	Mo	98	103.349				
	Ag	107	99.620				
	Cd	111	103.024				
	Cd	114					
>	In	115			102.0		
	Sn	120	103.770				
	Sb	121	101.939				
	Sb	123					
	Ba	135					
	Ba	137	99.487				
	Ho	165					
>	Lu	175			103.1		
	Tl	205	100.353				
	Pb	208	102.964				
	Th	232	103.273				
	U	238	107.484				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Na	23CCV is out of limits (+/- 10%)
QC Std 6	K	39CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 15, 2010 00:49:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 7.322

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.032**	ug/L	16.652	56	0.000
	Be	9	**-0.020**	ug/L	133.723	14	-0.000
	B	11	**1.630**	ug/L	16.555	222	0.000
	Na	23	**8.640**	ug/L	8.716	27360	0.028
	Mg	24	**1.927**	ug/L	91.925	11004	0.005
	Al	27	**2.907**	ug/L	67.653	13340	0.009
	P	31	**-0.632**	ug/L	223.340	2150	-0.000
	K	39	**-7.641**	ug/L	78.754	448603	-0.043
	Ca	43	**6.283**	ug/L	180.312	619	0.000
>	Sc	45		ug/L		438888	438887.900
	Ti	47	**0.171**	ug/L	18.533	419	0.000
	V	51	**-1.291**	ug/L	87.990	21414	-0.008
	Cr	52	**-0.361**	ug/L	33.792	-3061	-0.002
	Cr	53		ug/L		138123	-0.040
	Mn	55	**0.001**	ug/L	632.951	944	0.000
	Fe	57	**-1.026**	ug/L	152.141	5837	-0.000
	Co	59	**-0.011**	ug/L	56.743	455	-0.000
	Ni	60	**0.001**	ug/L	1181.021	95	0.000
	Cu	63		ug/L		276	0.000
	Cu	65	**0.004**	ug/L	465.530	148	0.000
	Zn	66	**-0.005**	ug/L	617.718	197	-0.000
	Zn	67		ug/L		5440	-0.001
	Zn	68		ug/L		503	0.000
>	Ge	74		ug/L		195174	195174.252
	As	75	**0.450**	ug/L	97.887	852	0.001
	Se	77		ug/L		4779	-0.014
	Se	82	**-0.011**	ug/L	2708.768	23	-0.000
	Kr	83		ug/L		80	0.000
	Sr	88	**-0.001**	ug/L	630.903	402	-0.000
	Y	89		ug/L		28	0.000
	Zr	90	**0.119**	ug/L	14.849	778	0.005
	Mo	98	**0.180**	ug/L	5.302	502	0.003
	Ag	107	**0.023**	ug/L	27.642	210	0.001
	Cd	111	**-0.014**	ug/L	51.448	27	-0.000
	Cd	114		ug/L		79	0.000
>	In	115		ug/L		96103	96103.248
	Sn	120	**0.038**	ug/L	15.586	395	0.001
	Sb	121	**0.116**	ug/L	12.637	399	0.003
	Sb	123		ug/L		351	0.002
	Ba	135		ug/L		53	0.000
	Ba	137	**-0.002**	ug/L	367.565	76	-0.000
	Ho	165		ug/L		29	-0.000
>	Lu	175		ug/L		83444	83444.200
	Tl	205	**0.405**	ug/L	24.247	803	0.007
	Pb	208	**-0.029**	ug/L	14.306	1200	-0.002
	Th	232	**0.088**	ug/L	25.261	950	0.006
	U	238	**0.004**	ug/L	68.238	652	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.5			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Saturday, May 15, 2010 00:55:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 10.323

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**937.408**	ug/L	0.352	334351	0.759
	Be	9	**947.296**	ug/L	0.602	92738	0.210
	B	11	**0.769**	ug/L	19.677	155	0.000
	Na	23	**49757.660**	ug/L	3.199	71646746	162.641
	Mg	24	**44306.775**	ug/L	7.607	47000170	106.708
	Al	27	**51696.609**	ug/L	1.912	72288800	164.075
	P	31	**23116.180**	ug/L	3.012	1895592	4.299
	K	39	**56513.025**	ug/L	1.519	140509362	317.891
	Ca	43	**48253.542**	ug/L	2.412	253754	0.575
>	Sc	45		ug/L		440483	440482.904
	Ti	47	**24.494**	ug/L	2.112	6588	0.014
	V	51	**928.906**	ug/L	3.447	2631811	5.919
	Cr	52	**956.938**	ug/L	1.311	2520719	5.728
	Cr	53		ug/L		420899	0.601
	Mn	55	**954.323**	ug/L	1.286	4072703	9.245
	Fe	57	**48100.847**	ug/L	3.179	4139758	9.386
	Co	59	**898.571**	ug/L	1.763	2961854	6.724
	Ni	60	**896.869**	ug/L	1.905	631581	1.434
	Cu	63		ug/L		1472373	3.342
	Cu	65	**903.340**	ug/L	1.361	709852	1.611
	Zn	66	**2320.140**	ug/L	2.733	1009123	5.242
	Zn	67		ug/L		164399	0.825
	Zn	68		ug/L		719687	3.737
>	Ge	74		ug/L		192485	192485.400
	As	75	**947.645**	ug/L	0.597	488690	2.536
	Se	77		ug/L		18880	0.060
	Se	82	**491.324**	ug/L	1.503	20157	0.105
	Kr	83		ug/L		93	0.000
	Sr	88	**986.479**	ug/L	0.318	6155834	67.207
	Y	89		ug/L		226	0.002
	Zr	90	**497.154**	ug/L	2.411	1762360	19.240
	Mo	98	**970.467**	ug/L	1.308	1482223	16.182
	Ag	107	**246.967**	ug/L	0.542	583261	6.367
	Cd	111	**966.801**	ug/L	1.545	486064	5.307
	Cd	114		ug/L		1072357	11.708
>	In	115		ug/L		91589	91589.009
	Sn	120	**1021.457**	ug/L	2.438	2287563	24.975
	Sb	121	**255.844**	ug/L	1.503	522932	5.708
	Sb	123		ug/L		403137	4.400
	Ba	135		ug/L		539615	6.323
	Ba	137	**901.391**	ug/L	2.273	933660	10.942
	Ho	165		ug/L		67	0.000
>	Lu	175		ug/L		85332	85331.954
	Tl	205	**467.946**	ug/L	1.741	657671	7.705
	Pb	208	**4701.236**	ug/L	1.722	22801796	267.218
	Th	232	**2351.680**	ug/L	2.170	12855192	150.651
	U	238	**5055.055**	ug/L	2.990	27652518	324.082

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	93.741				
	Be	9	94.730				
	B	11					
	Na	23	99.515				
	Mg	24	88.614				
	Al	27	103.393				
	P	31	92.465				
	K	39	113.026				
	Ca	43	96.507				
>	Sc	45		100.2			
	Ti	47					
	V	51	92.891				
	Cr	52	95.694				
	Cr	53					
	Mn	55	95.432				
	Fe	57	96.202				
	Co	59	89.857				
	Ni	60	89.687				
	Cu	63					
	Cu	65	90.334				
	Zn	66	92.806				
	Zn	67					
	Zn	68					
>	Ge	74		97.7			
	As	75	94.764				
	Se	77					
	Se	82	98.265				
	Kr	83					
	Sr	88	98.648				
	Y	89					
	Zr	90	99.431				
	Mo	98	97.047				
	Ag	107	98.787				
	Cd	111	96.680				
	Cd	114					
>	In	115		95.6			
	Sn	120	102.146				
	Sb	121	102.338				
	Sb	123					
	Ba	135					
	Ba	137	90.139				
	Ho	165					
>	Lu	175		101.7			
	Tl	205	93.589				
	Pb	208	94.025				
	Th	232	94.067				
	U	238	101.101				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Mg	24	LRS is out of limits (+/- 10%)
QC Std 10	K	39	LRS is out of limits (+/- 10%)
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Saturday, May 15, 2010 01:01:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 11.324

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.785**	ug/L	0.466	18516	0.041
	Be	9	**50.551**	ug/L	4.805	5062	0.011
	B	11	**101.391**	ug/L	0.781	8113	0.018
	Na	23	**5541.119**	ug/L	4.108	8154770	18.112
	Mg	24	**5071.447**	ug/L	5.388	5494028	12.214
	Al	27	**5371.514**	ug/L	2.336	7665823	17.048
	P	31	**5103.916**	ug/L	1.438	428627	0.949
	K	39	**5126.844**	ug/L	4.523	13439147	28.839
	Ca	43	**5207.179**	ug/L	0.583	28467	0.062
>	Sc	45		ug/L		449208	449208.483
	Ti	47	**50.431**	ug/L	2.829	13423	0.029
	V	51	**50.400**	ug/L	1.757	169880	0.321
	Cr	52	**52.146**	ug/L	1.399	138028	0.312
	Cr	53		ug/L		146920	-0.028
	Mn	55	**53.605**	ug/L	2.161	234172	0.519
	Fe	57	**5277.368**	ug/L	2.891	468555	1.030
	Co	59	**50.230**	ug/L	1.446	169322	0.376
	Ni	60	**51.832**	ug/L	1.352	37316	0.083
	Cu	63		ug/L		88504	0.196
	Cu	65	**52.669**	ug/L	3.104	42332	0.094
	Zn	66	**53.919**	ug/L	1.560	24416	0.122
	Zn	67		ug/L		9266	0.017
	Zn	68		ug/L		17689	0.086
>	Ge	74		ug/L		198769	198769.388
	As	75	**53.329**	ug/L	3.359	28992	0.143
	Se	77		ug/L		5674	-0.010
	Se	82	**53.201**	ug/L	2.128	2276	0.011
	Kr	83		ug/L		76	0.000
	Sr	88	**52.798**	ug/L	1.103	350173	3.597
	Y	89		ug/L		50	0.000
	Zr	90	**51.427**	ug/L	3.456	193815	1.990
	Mo	98	**51.149**	ug/L	1.912	83138	0.853
	Ag	107	**49.192**	ug/L	0.975	123471	1.268
	Cd	111	**52.228**	ug/L	2.907	27912	0.287
	Cd	114		ug/L		61562	0.632
>	In	115		ug/L		97250	97249.643
	Sn	120	**52.504**	ug/L	1.201	125137	1.284
	Sb	121	**51.260**	ug/L	0.685	111373	1.144
	Sb	123		ug/L		85413	0.877
	Ba	135		ug/L		30594	0.359
	Ba	137	**51.401**	ug/L	1.541	53093	0.624
	Ho	165		ug/L		36	0.000
>	Lu	175		ug/L		84979	84979.239
	Tl	205	**52.977**	ug/L	3.073	74351	0.872
	Pb	208	**54.414**	ug/L	0.638	264201	3.093
	Th	232	**53.514**	ug/L	2.896	291722	3.428
	U	238	**55.934**	ug/L	4.060	305234	3.586

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.570				
	Be	9	101.101				
	B	11	101.391				
	Na	23	110.822				
	Mg	24	101.429				
	Al	27	106.367				
	P	31	102.078				
	K	39	102.537				
	Ca	43	104.144				
>	Sc	45			102.1		
	Ti	47	100.863				
	V	51	100.800				
	Cr	52	104.291				
	Cr	53					
	Mn	55	107.210				
	Fe	57	105.547				
	Co	59	100.460				
	Ni	60	103.665				
	Cu	63					
	Cu	65	105.338				
	Zn	66	107.839				
	Zn	67					
	Zn	68					
>	Ge	74			100.9		
	As	75	106.659				
	Se	77					
	Se	82	106.402				
	Kr	83					
	Sr	88	105.596				
	Y	89					
	Zr	90	102.855				
	Mo	98	102.298				
	Ag	107	98.385				
	Cd	111	104.455				
	Cd	114					
>	In	115			101.5		
	Sn	120	105.009				
	Sb	121	102.521				
	Sb	123					
	Ba	135					
	Ba	137	102.801				
	Ho	165					
>	Lu	175			101.3		
	Tl	205	105.954				
	Pb	208	108.829				
	Th	232	107.028				
	U	238	111.868				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Na	23	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Saturday, May 15, 2010 01:07:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 12.325

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.158**	ug/L	15.330	102	0.000
	Be	9	**0.000**	ug/L	19717.620	16	0.000
	B	11	**1.396**	ug/L	21.441	204	0.000
	Na	23	**12.875**	ug/L	6.685	33706	0.042
	Mg	24	**4.066**	ug/L	190.922	13341	0.010
	Al	27	**1.385**	ug/L	69.238	11338	0.004
	P	31	**-0.588**	ug/L	301.230	2165	-0.000
	K	39	**24.190**	ug/L	199.329	532454	0.136
	Ca	43	**-4.389**	ug/L	303.350	566	-0.000
>	Sc	45		ug/L		442026	442025.957
	Ti	47	**-0.152**	ug/L	37.608	340	-0.000
	V	51	**-1.135**	ug/L	127.044	21961	-0.007
	Cr	52	**-0.276**	ug/L	40.980	-2851	-0.002
	Cr	53		ug/L		138067	-0.042
	Mn	55	**0.009**	ug/L	196.329	985	0.000
	Fe	57	**-6.081**	ug/L	27.113	5442	-0.001
	Co	59	**0.002**	ug/L	923.925	500	0.000
	Ni	60	**0.003**	ug/L	267.727	97	0.000
	Cu	63		ug/L		347	0.000
	Cu	65	**0.057**	ug/L	41.756	191	0.000
	Zn	66	**0.252**	ug/L	27.504	305	0.001
	Zn	67		ug/L		5471	-0.001
	Zn	68		ug/L		581	0.000
>	Ge	74		ug/L		192890	192890.027
	As	75	**0.029**	ug/L	2131.690	620	0.000
	Se	77		ug/L		4597	-0.015
	Se	82	**-0.000**	ug/L	165836.795	23	-0.000
	Kr	83		ug/L		84	0.000
	Sr	88	**0.012**	ug/L	65.940	473	0.001
	Y	89		ug/L		30	0.000
	Zr	90	**0.236**	ug/L	15.824	1190	0.009
	Mo	98	**0.306**	ug/L	19.610	687	0.005
	Ag	107	**0.041**	ug/L	14.799	250	0.001
	Cd	111	**0.041**	ug/L	8.621	55	0.000
	Cd	114		ug/L		129	0.001
>	In	115		ug/L		94468	94468.386
	Sn	120	**0.264**	ug/L	11.960	908	0.006
	Sb	121	**0.074**	ug/L	24.808	303	0.002
	Sb	123		ug/L		287	0.001
	Ba	135		ug/L		62	0.000
	Ba	137	**0.010**	ug/L	188.749	89	0.000
	Ho	165		ug/L		22	-0.000
>	Lu	175		ug/L		83968	83967.800
	Tl	205	**0.831**	ug/L	19.437	1390	0.014
	Pb	208	**0.444**	ug/L	11.574	3457	0.025
	Th	232	**0.277**	ug/L	12.719	1968	0.018
	U	238	**0.081**	ug/L	34.385	1067	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			100.5		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			97.9		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			98.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			100.1		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 15, 2010 01:50:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 6.332

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.310**	ug/L	3.195	18013	0.042
	Be	9	**53.158**	ug/L	3.289	5027	0.012
	B	11	**105.326**	ug/L	4.579	7956	0.019
	Na	23	**5695.148**	ug/L	7.331	7909647	18.616
	Mg	24	**5060.600**	ug/L	4.848	5179295	12.188
	Al	27	**5184.590**	ug/L	5.055	6991088	16.455
	P	31	**5144.867**	ug/L	1.565	408099	0.957
	K	39	**5180.868**	ug/L	4.712	12814498	29.143
	Ca	43	**5270.562**	ug/L	1.589	27206	0.063
>	Sc	45		ug/L		424310	424310.359
	Ti	47	**50.929**	ug/L	0.705	12803	0.029
	V	51	**49.690**	ug/L	0.363	158554	0.317
	Cr	52	**50.817**	ug/L	1.542	127017	0.304
	Cr	53		ug/L		163324	0.030
	Mn	55	**52.143**	ug/L	1.980	215209	0.505
	Fe	57	**5227.854**	ug/L	2.994	438501	1.020
	Co	59	**48.877**	ug/L	2.622	155637	0.366
	Ni	60	**51.468**	ug/L	2.317	34999	0.082
	Cu	63		ug/L		82880	0.195
	Cu	65	**51.412**	ug/L	2.676	39040	0.092
	Zn	66	**52.482**	ug/L	3.232	22294	0.119
	Zn	67		ug/L		9115	0.020
	Zn	68		ug/L		16167	0.084
>	Ge	74		ug/L		186445	186445.051
	As	75	**51.769**	ug/L	1.858	26413	0.139
	Se	77		ug/L		7734	0.003
	Se	82	**53.188**	ug/L	3.377	2133	0.011
	Kr	83		ug/L		67	-0.000
	Sr	88	**51.612**	ug/L	1.039	325132	3.516
	Y	89		ug/L		81	0.001
	Zr	90	**48.675**	ug/L	1.421	174289	1.884
	Mo	98	**50.376**	ug/L	2.377	77772	0.840
	Ag	107	**49.178**	ug/L	0.777	117238	1.268
	Cd	111	**51.447**	ug/L	2.827	26111	0.282
	Cd	114		ug/L		58137	0.629
>	In	115		ug/L		92359	92359.488
	Sn	120	**51.820**	ug/L	3.085	117294	1.267
	Sb	121	**51.080**	ug/L	2.020	105390	1.140
	Sb	123		ug/L		81203	0.878
	Ba	135		ug/L		28346	0.342
	Ba	137	**49.659**	ug/L	1.789	49945	0.603
	Ho	165		ug/L		37	0.000
>	Lu	175		ug/L		82738	82737.756
	Tl	205	**51.300**	ug/L	0.492	70129	0.845
	Pb	208	**52.153**	ug/L	1.522	246557	2.964
	Th	232	**52.154**	ug/L	0.868	276884	3.341
	U	238	**54.326**	ug/L	1.073	288774	3.483

Calibration

Analyte	Mass	Curve Type	Correlation Ooefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	104.620				
	Be	9	106.317				
	B	11	105.326				
	Na	23	113.903				
	Mg	24	101.212				
	Al	27	102.665				
	P	31	102.897				
	K	39	103.617				
	Ca	43	105.411				
>	Sc	45			96.5		
	Ti	47	101.858				
	V	51	99.380				
	Cr	52	101.634				
	Cr	53					
	Mn	55	104.287				
	Fe	57	104.557				
	Co	59	97.754				
	Ni	60	102.937				
	Cu	63					
	Cu	65	102.824				
	Zn	66	104.964				
	Zn	67					
	Zn	68					
>	Ge	74			94.6		
	As	75	103.539				
	Se	77					
	Se	82	106.376				
	Kr	83					
	Sr	88	103.224				
	Y	89					
	Zr	90	97.350				
	Mo	98	100.752				
	Ag	107	98.357				
	Cd	111	102.894				
	Cd	114					
>	In	115			96.4		
	Sn	120	103.641				
	Sb	121	102.161				
	Sb	123					
	Ba	135					
	Ba	137	99.318				
	Ho	165					
>	Lu	175			98.6		
	Tl	205	102.599				
	Pb	208	104.305				
	Th	232	104.309				
	U	238	108.652				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Na	23CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 15, 2010 01:56:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 7.333

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.093**	ug/L	10.238	72	0.000
	Be	9	**0.018**	ug/L	152.659	17	0.000
	B	11	**1.482**	ug/L	28.034	194	0.000
	Na	23	**5.713**	ug/L	101.203	21350	0.019
	Mg	24	**-1.021**	ug/L	287.096	7335	-0.002
	Al	27	**2.360**	ug/L	97.377	11672	0.007
	P	31	**-0.126**	ug/L	953.622	2030	-0.000
	K	39	**-15.457**	ug/L	27.055	398142	-0.087
	Ca	43	**-4.868**	ug/L	29.285	520	-0.000
>	Sc	45		ug/L		406934	406933.718
	Ti	47	**0.059**	ug/L	85.862	363	0.000
	V	51	**-0.518**	ug/L	251.397	21898	-0.003
	Cr	52	**-0.069**	ug/L	196.585	-2118	-0.000
	Cr	53		ug/L		143615	-0.002
	Mn	55	**0.016**	ug/L	10.264	934	0.000
	Fe	57	**2.859**	ug/L	78.478	5718	0.001
	Co	59	**-0.015**	ug/L	26.412	410	-0.000
	Ni	60	**0.016**	ug/L	50.085	98	0.000
	Cu	63		ug/L		253	0.000
	Cu	65	**0.008**	ug/L	73.632	140	0.000
	Zn	66	**0.014**	ug/L	291.974	193	0.000
	Zn	67		ug/L		5250	-0.001
	Zn	68		ug/L		417	-0.000
>	Ge	74		ug/L		183836	183835.638
	As	75	**-0.022**	ug/L	5978.777	574	-0.000
	Se	77		ug/L		6362	-0.004
	Se	82	**0.028**	ug/L	2705.708	23	0.000
	Kr	83		ug/L		69	-0.000
	Sr	88	**0.009**	ug/L	25.277	434	0.001
	Y	89		ug/L		31	0.000
	Zr	90	**0.139**	ug/L	16.771	800	0.005
	Mo	98	**0.105**	ug/L	15.717	357	0.002
	Ag	107	**0.020**	ug/L	44.688	190	0.001
	Cd	111	**0.011**	ug/L	118.460	38	0.000
	Cd	114		ug/L		84	0.000
>	In	115		ug/L		90126	90125.619
	Sn	120	**0.045**	ug/L	21.358	386	0.001
	Sb	121	**0.097**	ug/L	3.579	336	0.002
	Sb	123		ug/L		306	0.002
	Ba	135		ug/L		49	-0.000
	Ba	137	**0.009**	ug/L	88.629	85	0.000
	Ho	165		ug/L		26	-0.000
>	Lu	175		ug/L		81005	81004.555
	Tl	205	**0.646**	ug/L	18.959	1098	0.011
	Pb	208	**0.053**	ug/L	25.530	1543	0.003
	Th	232	**0.142**	ug/L	12.510	1202	0.009
	U	238	**0.034**	ug/L	10.189	789	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			92.5		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			93.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			94.1		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			96.6		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 15, 2010 02:33:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 6.339

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.394**	ug/L	1.877	17803	0.038
	Be	9	**48.964**	ug/L	4.844	5157	0.011
	B	11	**103.099**	ug/L	4.496	8675	0.018
	Na	23	**5472.183**	ug/L	11.972	8455489	17.887
	Mg	24	**5298.104**	ug/L	6.824	6035149	12.760
	Al	27	**5387.992**	ug/L	2.867	8093849	17.100
	P	31	**5121.088**	ug/L	4.416	452296	0.952
	K	39	**5138.794**	ug/L	6.070	14158719	28.906
	Ca	43	**5292.035**	ug/L	3.774	30416	0.063
>	Sc	45		ug/L		472728	472728.122
	Ti	47	**50.231**	ug/L	2.908	14069	0.029
	V	51	**46.742**	ug/L	3.723	167693	0.298
	Cr	52	**48.530**	ug/L	3.123	134977	0.290
	Cr	53		ug/L		202563	0.074
	Mn	55	**52.057**	ug/L	2.862	239294	0.504
	Fe	57	**5082.286**	ug/L	3.127	474965	0.992
	Co	59	**47.185**	ug/L	2.649	167364	0.353
	Ni	60	**48.984**	ug/L	3.038	37102	0.078
	Cu	63		ug/L		87861	0.185
	Cu	65	**49.901**	ug/L	2.044	42217	0.089
	Zn	66	**53.403**	ug/L	2.697	24332	0.121
	Zn	67		ug/L		10934	0.025
	Zn	68		ug/L		17558	0.085
>	Ge	74		ug/L		200022	200021.789
	As	75	**53.120**	ug/L	4.538	29052	0.142
	Se	77		ug/L		9318	0.008
	Se	82	**54.183**	ug/L	2.882	2331	0.012
	Kr	83		ug/L		83	0.000
	Sr	88	**52.373**	ug/L	2.298	353669	3.568
	Y	89		ug/L		89	0.001
	Zr	90	**49.499**	ug/L	2.946	190025	1.916
	Mo	98	**50.013**	ug/L	2.598	82786	0.834
	Ag	107	**49.113**	ug/L	0.542	125530	1.266
	Cd	111	**51.237**	ug/L	2.061	27880	0.281
	Cd	114		ug/L		63160	0.637
>	In	115		ug/L		99024	99024.339
	Sn	120	**51.178**	ug/L	1.111	124212	1.251
	Sb	121	**50.448**	ug/L	1.383	111603	1.126
	Sb	123		ug/L		86624	0.873
	Ba	135		ug/L		30194	0.343
	Ba	137	**50.032**	ug/L	2.798	53384	0.607
	Ho	165		ug/L		34	0.000
>	Lu	175		ug/L		87765	87764.986
	Tl	205	**50.548**	ug/L	2.403	73312	0.832
	Pb	208	**50.904**	ug/L	0.959	255334	2.893
	Th	232	**51.296**	ug/L	0.552	288895	3.286
	U	238	**53.043**	ug/L	0.467	299123	3.401

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	92.788				
	Be	9	97.928				
	B	11	103.099				
	Na	23	109.444				
	Mg	24	105.962				
	Al	27	106.693				
	P	31	102.422				
	K	39	102.776				
	Ca	43	105.841				
>	Sc	45			107.5		
	Ti	47	100.462				
	V	51	93.485				
	Cr	52	97.061				
	Cr	53					
	Mn	55	104.113				
	Fe	57	101.646				
	Co	59	94.369				
	Ni	60	97.968				
	Cu	63					
	Cu	65	99.801				
	Zn	66	106.807				
	Zn	67					
	Zn	68					
>	Ge	74			101.5		
	As	75	106.241				
	Se	77					
	Se	82	108.366				
	Kr	83					
	Sr	88	104.746				
	Y	89					
	Zr	90	98.998				
	Mo	98	100.027				
	Ag	107	98.226				
	Cd	111	102.474				
	Cd	114					
>	In	115			103.4		
	Sn	120	102.355				
	Sb	121	100.897				
	Sb	123					
	Ba	135					
	Ba	137	100.063				
	Ho	165					
>	Lu	175			104.6		
	Tl	205	101.096				
	Pb	208	101.809				
	Th	232	102.591				
	U	238	106.086				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 15, 2010 02:39:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 7.340

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.044**	ug/L	65.305	62	0.000
	Be	9	**-0.031**	ug/L	24.179	14	-0.000
	B	11	**1.485**	ug/L	10.955	216	0.000
	Na	23	**3.157**	ug/L	61.703	20014	0.010
	Mg	24	**-4.505**	ug/L	12.685	4334	-0.011
	Al	27	**4.036**	ug/L	72.686	15342	0.013
	P	31	**-0.985**	ug/L	187.952	2177	-0.000
	K	39	**-30.024**	ug/L	65.442	404372	-0.169
	Ca	43	**4.177**	ug/L	263.132	624	0.000
>	Sc	45		ug/L		450777	450776.694
	Ti	47	**0.168**	ug/L	11.590	430	0.000
	V	51	**-1.773**	ug/L	98.743	20652	-0.011
	Cr	52	**-0.442**	ug/L	23.454	-3361	-0.003
	Cr	53		ug/L		172546	0.028
	Mn	55	**0.024**	ug/L	21.231	1068	0.000
	Fe	57	**-6.559**	ug/L	30.250	5509	-0.001
	Co	59	**-0.022**	ug/L	34.061	430	-0.000
	Ni	60	**-0.007**	ug/L	207.208	91	-0.000
	Cu	63		ug/L		247	-0.000
	Cu	65	**-0.007**	ug/L	204.126	143	-0.000
	Zn	66	**-0.044**	ug/L	48.045	179	-0.000
	Zn	67		ug/L		6349	0.003
	Zn	68		ug/L		478	-0.000
>	Ge	74		ug/L		195215	195215.087
	As	75	**-0.191**	ug/L	412.756	516	-0.001
	Se	77		ug/L		7454	-0.000
	Se	82	**-0.254**	ug/L	85.368	13	-0.000
	Kr	83		ug/L		81	0.000
	Sr	88	**0.005**	ug/L	20.253	446	0.000
	Y	89		ug/L		25	-0.000
	Zr	90	**0.133**	ug/L	22.862	838	0.005
	Mo	98	**0.085**	ug/L	22.419	353	0.001
	Ag	107	**0.013**	ug/L	22.794	187	0.000
	Cd	111	**0.005**	ug/L	426.881	37	0.000
	Cd	114		ug/L		93	0.000
>	In	115		ug/L		96970	96969.566
	Sn	120	**0.037**	ug/L	30.231	396	0.001
	Sb	121	**0.076**	ug/L	6.397	316	0.002
	Sb	123		ug/L		303	0.001
	Ba	135		ug/L		54	0.000
	Ba	137	**0.003**	ug/L	567.440	83	0.000
	Ho	165		ug/L		31	-0.000
>	Lu	175		ug/L		84084	84083.926
	Tl	205	**0.430**	ug/L	25.790	841	0.007
	Pb	208	**0.018**	ug/L	72.119	1430	0.001
	Th	232	**0.133**	ug/L	20.131	1196	0.009
	U	238	**0.019**	ug/L	28.510	743	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.2			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072001
Sample Date/Time: Saturday, May 15, 2010 02:46:01
Sample Type:
Sample Description: QC A 6020 MB
Number of Replicates: 3
Batch ID: 979730|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\1202072001.341

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.047**	ug/L	108.667	65	0.000
	Be	9	**-0.079**	ug/L	26.902	9	-0.000
	B	11	**0.581**	ug/L	41.539	147	0.000
	Na	23	**0.808**	ug/L	420.846	17011	0.003
	Mg	24	**-8.196**	ug/L	6.422	333	-0.020
	Al	27	**-3.942**	ug/L	18.665	4001	-0.013
	P	31	**-6.408**	ug/L	14.436	1759	-0.001
	K	39	**-19.453**	ug/L	102.994	439357	-0.109
	Ca	43	**66.027**	ug/L	4.722	977	0.001
>	Sc	45		ug/L		460551	460551.091
	Ti	47	**0.908**	ug/L	11.048	636	0.001
	V	51	**-0.714**	ug/L	232.441	24279	-0.005
	Cr	52	**-2.615**	ug/L	16.374	-9436	-0.016
	Cr	53		ug/L		520419	0.775
	Mn	55	**0.304**	ug/L	5.642	2344	0.003
	Fe	57	**0.711**	ug/L	317.037	6279	0.000
	Co	59	**-0.067**	ug/L	10.058	285	-0.000
	Ni	60	**0.008**	ug/L	154.593	104	0.000
	Cu	63		ug/L		329	0.000
	Cu	65	**0.049**	ug/L	25.746	193	0.000
	Zn	66	**0.779**	ug/L	5.557	570	0.002
	Zn	67		ug/L		20142	0.069
	Zn	68		ug/L		1430	0.004
>	Ge	74		ug/L		205141	205140.522
	As	75	**2.965**	ug/L	89.171	2263	0.008
	Se	77		ug/L		29761	0.107
	Se	82	**-0.789**	ug/L	39.910	-10	-0.000
	Kr	83		ug/L		87	0.000
	Sr	88	**-0.017**	ug/L	55.807	311	-0.001
	Y	89		ug/L		28	0.000
	Zr	90	**0.127**	ug/L	28.811	851	0.005
	Mo	98	**-0.059**	ug/L	1.087	125	-0.001
	Ag	107	**-0.018**	ug/L	11.820	116	-0.000
	Cd	111	**-0.029**	ug/L	47.433	20	-0.000
	Cd	114		ug/L		27	-0.000
>	In	115		ug/L		101292	101292.116
	Sn	120	**0.156**	ug/L	3.325	708	0.004
	Sb	121	**0.073**	ug/L	30.800	324	0.002
	Sb	123		ug/L		321	0.002
	Ba	135		ug/L		37	-0.000
	Ba	137	**-0.022**	ug/L	25.455	56	-0.000
	Ho	165		ug/L		25	-0.000
>	Lu	175		ug/L		84127	84127.489
	Tl	205	**0.098**	ug/L	12.250	383	0.002
	Pb	208	**-0.097**	ug/L	8.779	884	-0.006
	Th	232	**0.034**	ug/L	73.864	666	0.002
	U	238	**-0.106**	ug/L	1.908	66	-0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			104.7		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			104.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			105.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			100.3		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072002
Sample Date/Time: Saturday, May 15, 2010 02:52:10
Sample Type:
Sample Description: QC A 6020 LCS
Number of Replicates: 3
Batch ID: 979730|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\1202072002.342

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.120**	ug/L	1.282	17666	0.037
	Be	9	**48.257**	ug/L	1.396	5077	0.011
	B	11	**98.954**	ug/L	1.307	8319	0.017
	Na	23	**1976.661**	ug/L	7.399	3065304	6.461
	Mg	24	**1612.417**	ug/L	4.074	1841612	3.883
	Al	27	**1845.837**	ug/L	5.078	2773250	5.858
	P	31	**1873.349**	ug/L	1.549	166734	0.348
	K	39	**1952.955**	ug/L	2.574	5686146	10.986
	Ca	43	**2008.864**	ug/L	1.854	11920	0.024
>	Sc	45		ug/L		471790	471789.878
	Ti	47	**46.156**	ug/L	2.200	12941	0.027
	V	51	**47.631**	ug/L	6.525	170150	0.303
	Cr	52	**45.790**	ug/L	2.698	127021	0.274
	Cr	53		ug/L		542649	0.795
	Mn	55	**49.580**	ug/L	0.998	227607	0.480
	Fe	57	**1934.667**	ug/L	0.397	184475	0.378
	Co	59	**47.288**	ug/L	1.874	167456	0.354
	Ni	60	**48.234**	ug/L	3.208	36480	0.077
	Cu	63		ug/L		87618	0.185
	Cu	65	**49.379**	ug/L	1.509	41708	0.088
	Zn	66	**49.350**	ug/L	1.312	23775	0.112
	Zn	67		ug/L		25285	0.090
	Zn	68		ug/L		18190	0.084
>	Ge	74		ug/L		211282	211282.467
	As	75	**51.838**	ug/L	4.333	29971	0.139
	Se	77		ug/L		30567	0.106
	Se	82	**51.616**	ug/L	1.890	2348	0.011
	Kr	83		ug/L		83	0.000
	Sr	88	**50.326**	ug/L	0.881	353638	3.429
	Y	89		ug/L		45	0.000
	Zr	90	**47.719**	ug/L	2.795	190557	1.847
	Mo	98	**47.907**	ug/L	4.693	82480	0.799
	Ag	107	**49.249**	ug/L	0.231	130954	1.270
	Cd	111	**50.132**	ug/L	1.822	28380	0.275
	Cd	114		ug/L		62488	0.606
>	In	115		ug/L		103018	103017.721
	Sn	120	**49.048**	ug/L	2.334	123839	1.199
	Sb	121	**48.905**	ug/L	2.423	112541	1.091
	Sb	123		ug/L		87035	0.843
	Ba	135		ug/L		30039	0.355
	Ba	137	**50.368**	ug/L	1.086	51781	0.611
	Ho	165		ug/L		29	-0.000
>	Lu	175		ug/L		84568	84567.758
	Tl	205	**45.608**	ug/L	1.464	63758	0.751
	Pb	208	**49.500**	ug/L	0.215	239288	2.814
	Th	232	**49.458**	ug/L	2.815	268435	3.168
	U	238	**51.604**	ug/L	1.628	280410	3.308

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			107.3		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			107.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			107.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			100.8		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249330009
Sample Date/Time: Saturday, May 15, 2010 02:58:19
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 979730|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\249330009.343

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.050**	ug/L	62.897	66	0.000
	Be	9	**-0.058**	ug/L	18.537	11	-0.000
	B	11	**1.524**	ug/L	13.782	226	0.000
	Na	23	**1.826**	ug/L	112.240	18679	0.006
	Mg	24	**-7.624**	ug/L	19.915	1000	-0.018
	Al	27	**10.282**	ug/L	41.377	25023	0.033
	P	31	**-5.365**	ug/L	25.483	1868	-0.001
	K	39	**-39.622**	ug/L	6.941	392317	-0.223
	Ca	43	**83.977**	ug/L	21.627	1087	0.001
>	Sc	45		ug/L		465540	465539.548
	Ti	47	**0.941**	ug/L	1.909	651	0.001
	V	51	**0.424**	ug/L	295.820	27821	0.003
	Cr	52	**-2.829**	ug/L	10.326	-10127	-0.017
	Cr	53		ug/L		517465	0.757
	Mn	55	**0.395**	ug/L	5.010	2777	0.004
	Fe	57	**4.177**	ug/L	64.784	6663	0.001
	Co	59	**-0.061**	ug/L	6.401	308	-0.000
	Ni	60	**0.024**	ug/L	71.230	117	0.000
	Cu	63		ug/L		981	0.002
	Cu	65	**0.449**	ug/L	7.341	527	0.001
	Zn	66	**1.247**	ug/L	6.519	792	0.003
	Zn	67		ug/L		21297	0.074
	Zn	68		ug/L		1625	0.005
>	Ge	74		ug/L		206474	206474.185
	As	75	**3.025**	ug/L	26.423	2327	0.008
	Se	77		ug/L		28180	0.098
	Se	82	**-0.362**	ug/L	30.879	9	-0.000
	Kr	83		ug/L		78	0.000
	Sr	88	**-0.008**	ug/L	55.639	376	-0.001
	Y	89		ug/L		33	0.000
	Zr	90	**0.195**	ug/L	36.251	1117	0.008
	Mo	98	**-0.051**	ug/L	17.803	137	-0.001
	Ag	107	**-0.008**	ug/L	89.174	141	-0.000
	Cd	111	**-0.036**	ug/L	69.184	16	-0.000
	Cd	114		ug/L		33	-0.000
>	In	115		ug/L		101141	101140.865
	Sn	120	**0.208**	ug/L	6.976	835	0.005
	Sb	121	**0.053**	ug/L	31.143	277	0.001
	Sb	123		ug/L		285	0.001
	Ba	135		ug/L		89	0.000
	Ba	137	**0.051**	ug/L	46.986	130	0.001
	Ho	165		ug/L		26	-0.000
>	Lu	175		ug/L		83231	83231.271
	Tl	205	**0.522**	ug/L	17.577	959	0.009
	Pb	208	**-0.077**	ug/L	5.945	967	-0.004
	Th	232	**0.102**	ug/L	54.563	1016	0.007
	U	238	**-0.068**	ug/L	3.883	269	-0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			105.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			104.8		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			105.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			99.2		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249330010
Sample Date/Time: Saturday, May 15, 2010 03:04:29
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 979730|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\249330010.344

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.084**	ug/L	31.469	78	0.000
	Be	9	**-0.040**	ug/L	100.400	13	-0.000
	B	11	**0.521**	ug/L	17.772	142	0.000
	Na	23	**96.736**	ug/L	8.814	160905	0.316
	Mg	24	**-2.468**	ug/L	43.350	6668	-0.006
	Al	27	**24.215**	ug/L	9.772	45071	0.077
	P	31	**-5.475**	ug/L	8.809	1835	-0.001
	K	39	**-17.480**	ug/L	67.607	444154	-0.098
	Ca	43	**95.680**	ug/L	4.285	1137	0.001
>	Sc	45		ug/L		459303	459302.707
	Ti	47	**1.293**	ug/L	6.080	735	0.001
	V	51	**3.574**	ug/L	68.654	36693	0.023
	Cr	52	**-2.644**	ug/L	10.024	-9465	-0.016
	Cr	53		ug/L		515320	0.768
	Mn	55	**0.939**	ug/L	4.682	5157	0.009
	Fe	57	**19.112**	ug/L	25.605	7908	0.004
	Co	59	**-0.061**	ug/L	4.138	305	-0.000
	Ni	60	**0.117**	ug/L	21.499	184	0.000
	Cu	63		ug/L		867	0.001
	Cu	65	**0.376**	ug/L	8.406	460	0.001
	Zn	66	**1.068**	ug/L	9.487	691	0.002
	Zn	67		ug/L		20379	0.072
	Zn	68		ug/L		1500	0.005
>	Ge	74		ug/L		201217	201216.868
	As	75	**2.857**	ug/L	69.584	2178	0.008
	Se	77		ug/L		28667	0.104
	Se	82	**-0.716**	ug/L	16.565	-6	-0.000
	Kr	83		ug/L		89	0.000
	Sr	88	**0.125**	ug/L	4.505	1288	0.009
	Y	89		ug/L		232	0.002
	Zr	90	**0.077**	ug/L	17.569	655	0.003
	Mo	98	**-0.063**	ug/L	3.706	117	-0.001
	Ag	107	**-0.022**	ug/L	17.828	105	-0.001
	Cd	111	**-0.040**	ug/L	36.382	14	-0.000
	Cd	114		ug/L		31	-0.000
>	In	115		ug/L		100797	100797.026
	Sn	120	**0.135**	ug/L	14.954	655	0.003
	Sb	121	**0.016**	ug/L	39.618	193	0.000
	Sb	123		ug/L		211	0.000
	Ba	135		ug/L		230	0.002
	Ba	137	**0.282**	ug/L	9.445	363	0.003
	Ho	165		ug/L		33	0.000
>	Lu	175		ug/L		83116	83116.273
	Tl	205	**0.125**	ug/L	12.596	416	0.002
	Pb	208	**-0.037**	ug/L	75.727	1154	-0.002
	Th	232	**-0.017**	ug/L	18.157	387	-0.001
	U	238	**-0.096**	ug/L	3.768	117	-0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			104.4		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			102.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			105.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			99.1		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249330011
Sample Date/Time: Saturday, May 15, 2010 03:10:40
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 979730|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\249330011.345

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.028**	ug/L	9.989	57	0.000
	Be	9	**-0.054**	ug/L	61.354	11	-0.000
	B	11	**0.142**	ug/L	109.906	110	0.000
	Na	23	**33.635**	ug/L	14.829	65149	0.110
	Mg	24	**-4.223**	ug/L	81.658	4668	-0.010
	Al	27	**24.531**	ug/L	36.142	44740	0.078
	P	31	**-4.538**	ug/L	13.143	1886	-0.001
	K	39	**-14.974**	ug/L	31.509	443790	-0.084
	Ca	43	**90.503**	ug/L	15.719	1091	0.001
>	Sc	45		ug/L		452314	452313.512
	Ti	47	**1.440**	ug/L	12.693	763	0.001
	V	51	**4.956**	ug/L	39.461	40075	0.032
	Cr	52	**-2.674**	ug/L	13.925	-9421	-0.016
	Cr	53		ug/L		520822	0.797
	Mn	55	**0.837**	ug/L	2.582	4636	0.008
	Fe	57	**15.603**	ug/L	16.648	7485	0.003
	Co	59	**-0.053**	ug/L	4.105	327	-0.000
	Ni	60	**0.200**	ug/L	9.206	241	0.000
	Cu	63		ug/L		620	0.001
	Cu	65	**0.224**	ug/L	13.075	330	0.000
	Zn	66	**2.324**	ug/L	2.516	1277	0.005
	Zn	67		ug/L		20901	0.073
	Zn	68		ug/L		1904	0.007
>	Ge	74		ug/L		203792	203792.285
	As	75	**0.849**	ug/L	161.736	1113	0.002
	Se	77		ug/L		29603	0.107
	Se	82	**-0.787**	ug/L	49.885	-9	-0.000
	Kr	83		ug/L		88	0.000
	Sr	88	**0.118**	ug/L	3.368	1228	0.008
	Y	89		ug/L		154	0.001
	Zr	90	**0.050**	ug/L	24.636	546	0.002
	Mo	98	**-0.057**	ug/L	17.962	127	-0.001
	Ag	107	**-0.024**	ug/L	18.977	99	-0.001
	Cd	111	**-0.047**	ug/L	38.167	10	-0.000
	Cd	114		ug/L		25	-0.000
>	In	115		ug/L		100106	100105.774
	Sn	120	**0.119**	ug/L	5.115	610	0.003
	Sb	121	**0.019**	ug/L	34.485	199	0.000
	Sb	123		ug/L		207	0.000
	Ba	135		ug/L		273	0.003
	Ba	137	**0.417**	ug/L	6.308	492	0.005
	Ho	165		ug/L		30	-0.000
>	Lu	175		ug/L		81990	81990.170
	Tl	205	**0.040**	ug/L	17.781	295	0.001
	Pb	208	**-0.056**	ug/L	22.412	1053	-0.003
	Th	232	**-0.036**	ug/L	8.194	278	-0.002
	U	238	**-0.102**	ug/L	1.319	87	-0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			102.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			103.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			104.5		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			97.7		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249330012
Sample Date/Time: Saturday, May 15, 2010 03:16:51
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 979730|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\249330012.346

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.002**	ug/L	404.109	44	-0.000
	Be	9	**-0.055**	ug/L	33.073	11	-0.000
	B	11	**-0.001**	ug/L	15888.172	96	-0.000
	Na	23	**-0.153**	ug/L	4279.016	14676	-0.001
	Mg	24	**-6.628**	ug/L	13.622	2000	-0.016
	Al	27	**-3.607**	ug/L	63.313	4334	-0.011
	P	31	**-4.164**	ug/L	65.471	1869	-0.001
	K	39	**-29.235**	ug/L	15.191	398143	-0.164
	Ca	43	**67.010**	ug/L	7.304	943	0.001
>	Sc	45		ug/L		441952	441951.934
	Ti	47	**0.908**	ug/L	15.421	609	0.001
	V	51	**4.918**	ug/L	36.993	38974	0.031
	Cr	52	**-2.993**	ug/L	6.486	-10048	-0.018
	Cr	53		ug/L		528872	0.842
	Mn	55	**0.364**	ug/L	9.533	2504	0.004
	Fe	57	**6.416**	ug/L	1.265	6521	0.001
	Co	59	**-0.063**	ug/L	5.749	286	-0.000
	Ni	60	**-0.001**	ug/L	5368.617	94	-0.000
	Cu	63		ug/L		273	0.000
	Cu	65	**0.013**	ug/L	233.834	157	0.000
	Zn	66	**1.483**	ug/L	3.363	860	0.003
	Zn	67		ug/L		20948	0.077
	Zn	68		ug/L		1616	0.006
>	Ge	74		ug/L		196946	196945.551
	As	75	**1.947**	ug/L	173.490	1621	0.005
	Se	77		ug/L		30684	0.118
	Se	82	**-0.597**	ug/L	19.875	-1	-0.000
	Kr	83		ug/L		94	0.000
	Sr	88	**-0.015**	ug/L	19.585	311	-0.001
	Y	89		ug/L		28	0.000
	Zr	90	**-0.004**	ug/L	35.092	328	-0.000
	Mo	98	**-0.087**	ug/L	7.563	74	-0.001
	Ag	107	**-0.022**	ug/L	23.953	101	-0.001
	Cd	111	**-0.041**	ug/L	27.141	13	-0.000
	Cd	114		ug/L		26	-0.000
>	In	115		ug/L		97296	97296.299
	Sn	120	**0.139**	ug/L	6.754	641	0.003
	Sb	121	**0.067**	ug/L	3.229	297	0.001
	Sb	123		ug/L		295	0.001
	Ba	135		ug/L		141	0.001
	Ba	137	**0.156**	ug/L	12.179	231	0.002
	Ho	165		ug/L		30	-0.000
>	Lu	175		ug/L		81604	81603.624
	Tl	205	**0.018**	ug/L	79.144	264	0.000
	Pb	208	**-0.108**	ug/L	8.612	808	-0.006
	Th	232	**-0.050**	ug/L	4.896	207	-0.003
	U	238	**-0.101**	ug/L	3.132	92	-0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			100.5		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			100.0		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			101.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			97.3		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 15, 2010 03:29:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 6.348

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.105**	ug/L	1.084	18357	0.040
	Be	9	**48.798**	ug/L	2.164	5010	0.011
	B	11	**100.580**	ug/L	3.296	8251	0.018
	Na	23	**5314.492**	ug/L	1.230	8015783	17.371
	Mg	24	**5140.979**	ug/L	6.079	5709372	12.381
	Al	27	**5336.211**	ug/L	7.357	7805526	16.936
	P	31	**5034.243**	ug/L	2.418	433403	0.936
	K	39	**5113.980**	ug/L	1.329	13736162	28.767
	Ca	43	**5127.701**	ug/L	1.057	28742	0.061
>	Sc	45		ug/L		460496	460495.701
	Ti	47	**48.904**	ug/L	1.592	13357	0.028
	V	51	**48.094**	ug/L	5.088	167333	0.306
	Cr	52	**49.123**	ug/L	3.551	133162	0.294
	Cr	53		ug/L		201678	0.083
	Mn	55	**50.876**	ug/L	1.402	227904	0.493
	Fe	57	**5103.845**	ug/L	3.429	464694	0.996
	Co	59	**48.050**	ug/L	2.069	166056	0.360
	Ni	60	**49.550**	ug/L	1.249	36574	0.079
	Cu	63		ug/L		85294	0.185
	Cu	65	**49.147**	ug/L	1.879	40511	0.088
	Zn	66	**52.494**	ug/L	2.223	23582	0.119
	Zn	67		ug/L		10613	0.024
	Zn	68		ug/L		17368	0.086
>	Ge	74		ug/L		197174	197174.213
	As	75	**52.648**	ug/L	1.817	28394	0.141
	Se	77		ug/L		9642	0.010
	Se	82	**53.659**	ug/L	3.145	2276	0.011
	Kr	83		ug/L		85	0.000
	Sr	88	**52.927**	ug/L	1.808	345711	3.606
	Y	89		ug/L		93	0.001
	Zr	90	**49.916**	ug/L	4.392	185272	1.932
	Mo	98	**51.267**	ug/L	2.984	82065	0.855
	Ag	107	**49.985**	ug/L	1.271	123557	1.289
	Cd	111	**52.024**	ug/L	1.060	27384	0.286
	Cd	114		ug/L		60080	0.627
>	In	115		ug/L		95781	95781.168
	Sn	120	**51.608**	ug/L	2.932	121127	1.262
	Sb	121	**50.916**	ug/L	3.861	108915	1.136
	Sb	123		ug/L		83386	0.869
	Ba	135		ug/L		29860	0.359
	Ba	137	**50.990**	ug/L	2.781	51484	0.619
	Ho	165		ug/L		30	-0.000
>	Lu	175		ug/L		83076	83076.050
	Tl	205	**49.865**	ug/L	1.585	68446	0.821
	Pb	208	**51.500**	ug/L	0.530	244504	2.927
	Th	232	**51.676**	ug/L	1.367	275461	3.310
	U	238	**53.538**	ug/L	1.783	285731	3.432

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	98.211				
	Be	9	97.596				
	B	11	100.580				
	Na	23	106.290				
	Mg	24	102.820				
	Al	27	105.668				
	P	31	100.685				
	K	39	102.280				
	Ca	43	102.554				
s	Sc	45			104.7		
	Ti	47	97.807				
	V	51	96.188				
	Cr	52	98.246				
	Cr	53					
	Mn	55	101.752				
	Fe	57	102.077				
	Co	59	96.100				
	Ni	60	99.099				
	Cu	63					
	Cu	65	98.294				
	Zn	66	104.988				
	Zn	67					
	Zn	68					
>	Ge	74			100.1		
	As	75	105.296				
	Se	77					
	Se	82	107.319				
	Kr	83					
	Sr	88	105.853				
	Y	89					
	Zr	90	99.832				
	Mo	98	102.534				
	Ag	107	99.970				
	Cd	111	104.047				
	Cd	114					
>	In	115			100.0		
	Sn	120	103.215				
	Sb	121	101.831				
	Sb	123					
	Ba	135					
	Ba	137	101.980				
	Ho	165					
>	Lu	175			99.0		
	Tl	205	99.731				
	Pb	208	103.000				
	Th	232	103.352				
	U	238	107.077				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 15, 2010 03:35:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 7.349

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.047**	ug/L	18.752	61	0.000
	Be	9	**0.012**	ug/L	289.066	17	0.000
	B	11	**1.419**	ug/L	25.800	204	0.000
	Na	23	**1.770**	ug/L	157.433	17344	0.006
	Mg	24	**-2.190**	ug/L	242.575	6669	-0.005
	Al	27	**1.486**	ug/L	211.465	11338	0.005
	P	31	**-1.215**	ug/L	78.909	2085	-0.000
	K	39	**-23.342**	ug/L	15.001	406711	-0.131
	Ca	43	**-1.062**	ug/L	797.289	576	-0.000
>	Sc	45		ug/L		435342	435342.291
	Ti	47	**0.168**	ug/L	59.564	415	0.000
	V	51	**-1.484**	ug/L	84.498	20706	-0.009
	Cr	52	**-0.325**	ug/L	1.836	-2941	-0.002
	Cr	53		ug/L		163901	0.022
	Mn	55	**0.024**	ug/L	17.343	1031	0.000
	Fe	57	**-3.634**	ug/L	34.344	5570	-0.001
	Co	59	**-0.017**	ug/L	26.249	432	-0.000
	Ni	60	**-0.001**	ug/L	1224.982	92	-0.000
	Cu	63		ug/L		237	-0.000
	Cu	65	**-0.033**	ug/L	21.455	119	-0.000
	Zn	66	**-0.003**	ug/L	2266.078	192	-0.000
	Zn	67		ug/L		5957	0.002
	Zn	68		ug/L		525	0.000
>	Ge	74		ug/L		189365	189365.438
	As	75	**0.042**	ug/L	3206.541	629	0.000
	Se	77		ug/L		7032	-0.001
	Se	82	**-0.330**	ug/L	66.984	9	-0.000
	Kr	83		ug/L		69	-0.000
	Sr	88	**0.007**	ug/L	42.189	439	0.000
	Y	89		ug/L		30	0.000
	Zr	90	**0.140**	ug/L	22.170	838	0.005
	Mo	98	**0.081**	ug/L	15.377	334	0.001
	Ag	107	**0.018**	ug/L	11.058	193	0.000
	Cd	111	**0.012**	ug/L	41.195	40	0.000
	Cd	114		ug/L		100	0.000
>	In	115		ug/L		93802	93802.349
	Sn	120	**0.030**	ug/L	13.953	367	0.001
	Sb	121	**0.073**	ug/L	24.712	300	0.002
	Sb	123		ug/L		296	0.001
	Ba	135		ug/L		56	0.000
	Ba	137	**0.008**	ug/L	45.632	85	0.000
	Ho	165		ug/L		25	-0.000
>	Lu	175		ug/L		81310	81309.938
	Tl	205	**0.553**	ug/L	23.617	978	0.009
	Pb	208	**-0.012**	ug/L	112.788	1246	-0.001
	Th	232	**0.138**	ug/L	21.588	1182	0.009
	U	238	**0.018**	ug/L	34.277	708	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			99.0		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			96.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			97.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			96.9		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202106366
Sample Date/Time: Saturday, May 15, 2010 03:47:40
Sample Type:
Sample Description: QC A 6020 DUP
Number of Replicates: 3
Batch ID: 979730|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\1202106366.351

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.100**	ug/L	10.882	79	0.000
	Be	9	**-0.055**	ug/L	39.502	11	-0.000
	B	11	**0.255**	ug/L	48.545	113	0.000
	Na	23	**47.927**	ug/L	14.715	81903	0.157
	Mg	24	**5.670**	ug/L	50.333	14674	0.014
	Al	27	**87.839**	ug/L	3.739	128913	0.279
	P	31	**-2.514**	ug/L	62.877	1953	-0.000
	K	39	**13.483**	ug/L	65.896	490279	0.076
	Ca	43	**105.680**	ug/L	2.689	1115	0.001
>	Sc	45		ug/L		429650	429649.647
	Ti	47	**2.334**	ug/L	3.058	945	0.001
	V	51	**4.454**	ug/L	76.820	36654	0.028
	Cr	52	**-2.115**	ug/L	3.346	-7506	-0.013
	Cr	53		ug/L		471995	0.744
	Mn	55	**2.981**	ug/L	2.143	13323	0.029
	Fe	57	**57.393**	ug/L	4.163	10612	0.011
	Co	59	**-0.027**	ug/L	19.360	395	-0.000
	Ni	60	**0.396**	ug/L	5.888	364	0.001
	Cu	63		ug/L		802	0.001
	Cu	65	**0.360**	ug/L	11.280	419	0.001
	Zn	66	**1.732**	ug/L	6.081	955	0.004
	Zn	67		ug/L		19110	0.069
	Zn	68		ug/L		1623	0.006
>	Ge	74		ug/L		193678	193677.778
	As	75	**1.956**	ug/L	88.024	1633	0.005
	Se	77		ug/L		26026	0.096
	Se	82	**-0.485**	ug/L	42.481	3	-0.000
	Kr	83		ug/L		76	0.000
	Sr	88	**0.329**	ug/L	1.298	2540	0.022
	Y	89		ug/L		836	0.008
	Zr	90	**0.197**	ug/L	7.963	1061	0.008
	Mo	98	**-0.035**	ug/L	28.132	156	-0.001
	Ag	107	**-0.026**	ug/L	21.388	89	-0.001
	Cd	111	**-0.048**	ug/L	43.266	9	-0.000
	Cd	114		ug/L		29	-0.000
>	In	115		ug/L		95437	95437.132
	Sn	120	**0.102**	ug/L	4.708	542	0.002
	Sb	121	**0.022**	ug/L	31.565	197	0.000
	Sb	123		ug/L		210	0.001
	Ba	135		ug/L		490	0.005
	Ba	137	**0.821**	ug/L	8.323	878	0.010
	Ho	165		ug/L		56	0.000
>	Lu	175		ug/L		80542	80541.596
	Tl	205	**0.039**	ug/L	65.925	288	0.001
	Pb	208	**0.442**	ug/L	3.070	3313	0.025
	Th	232	**0.004**	ug/L	132.598	480	0.000
	U	238	**-0.092**	ug/L	5.657	134	-0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			97.7		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			98.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			99.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			96.0		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202106368
Sample Date/Time: Saturday, May 15, 2010 03:53:50
Sample Type:
Sample Description: QC A 6020 MS
Number of Replicates: 3
Batch ID: 979730|1|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\1202106368.352

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.664**	**ug/L**	2.645	17555	0.040
	Be	9	**49.940**	**ug/L**	0.506	4849	0.011
	B	11	**98.938**	**ug/L**	3.146	7676	0.017
	Na	23	**2082.746**	**ug/L**	3.592	2979385	6.808
	Mg	24	**1798.734**	**ug/L**	2.917	1895299	4.332
	Al	27	**1896.886**	**ug/L**	2.325	2630575	6.020
	P	31	**1825.985**	**ug/L**	0.404	150061	0.340
	K	39	**1957.483**	**ug/L**	10.217	5257465	11.011
	Ca	43	**2079.191**	**ug/L**	1.460	11368	0.025
>	Sc	45		**ug/L**		435448	435448.368
	Ti	47	**46.977**	**ug/L**	1.773	12149	0.027
	V	51	**52.634**	**ug/L**	1.642	170885	0.335
	Cr	52	**46.782**	**ug/L**	2.850	119826	0.280
	Cr	53		**ug/L**		479240	0.746
	Mn	55	**52.518**	**ug/L**	1.572	222457	0.509
	Fe	57	**2052.800**	**ug/L**	2.556	180287	0.401
	Co	59	**48.215**	**ug/L**	1.990	157574	0.361
	Ni	60	**49.112**	**ug/L**	0.749	34283	0.079
	Cu	63		**ug/L**		82692	0.189
	Cu	65	**50.645**	**ug/L**	1.325	39477	0.090
	Zn	66	**51.024**	**ug/L**	0.832	22461	0.115
	Zn	67		**ug/L**		22627	0.088
	Zn	68		**ug/L**		17080	0.086
>	Ge	74		**ug/L**		193125	193125.312
	As	75	**79.917**	**ug/L**	2.826	41900	0.214
	Se	77		**ug/L**		25025	0.091
	Se	82	**20.591**	**ug/L**	4.486	870	0.004
	Kr	83		**ug/L**		78	0.000
	Sr	88	**50.802**	**ug/L**	2.157	331634	3.461
	Y	89		**ug/L**		935	0.010
	Zr	90	**48.805**	**ug/L**	0.926	181122	1.889
	Mo	98	**47.820**	**ug/L**	2.260	76525	0.797
	Ag	107	**50.209**	**ug/L**	0.617	124054	1.294
	Cd	111	**10.186**	**ug/L**	4.344	5385	0.056
	Cd	114		**ug/L**		11653	0.121
>	In	115		**ug/L**		95720	95720.374
	Sn	120	**50.033**	**ug/L**	0.716	117396	1.223
	Sb	121	**196.240**	**ug/L**	1.525	419214	4.378
	Sb	123		**ug/L**		323254	3.376
	Ba	135		**ug/L**		28751	0.350
	Ba	137	**50.069**	**ug/L**	2.653	49895	0.608
	Ho	165		**ug/L**		91	0.001
>	Lu	175		**ug/L**		81973	81973.333
	Tl	205	**91.773**	**ug/L**	2.247	124104	1.511
	Pb	208	**40.436**	**ug/L**	2.220	189708	2.298
	Th	232	**49.893**	**ug/L**	1.199	262466	3.196
	U	238	**52.722**	**ug/L**	1.301	277692	3.380

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			99.0		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			98.0		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			99.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			97.7		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202106367
Sample Date/Time: Saturday, May 15, 2010 04:00:01
Sample Type:
Sample Description: QC A 6020 SDILT
Number of Replicates: 3
Batch ID: 979730|5|bcd1
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\1202106367.353

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.004**	ug/L	335.501	45	0.000
	Be	9	**-0.057**	ug/L	16.353	10	-0.000
	B	11	**1.138**	ug/L	31.133	177	0.000
	Na	23	**7.237**	ug/L	30.321	24354	0.024
	Mg	24	**-5.549**	ug/L	17.088	3000	-0.013
	Al	27	**18.240**	ug/L	15.829	33373	0.058
	P	31	**-5.003**	ug/L	22.993	1720	-0.001
	K	39	**-1.832**	ug/L	1141.629	445591	-0.010
	Ca	43	**20.819**	ug/L	23.563	667	0.000
>	Sc	45		ug/L		421588	421587.901
	Ti	47	**0.634**	ug/L	11.960	515	0.000
	V	51	**1.146**	ug/L	199.950	27201	0.007
	Cr	52	**-0.889**	ug/L	11.967	-4273	-0.005
	Cr	53		ug/L		231486	0.194
	Mn	55	**0.607**	ug/L	7.056	3376	0.006
	Fe	57	**5.772**	ug/L	26.746	6165	0.001
	Co	59	**-0.056**	ug/L	25.423	294	-0.000
	Ni	60	**0.072**	ug/L	23.379	138	0.000
	Cu	63		ug/L		299	0.000
	Cu	65	**0.026**	ug/L	36.544	160	0.000
	Zn	66	**0.234**	ug/L	16.781	285	0.001
	Zn	67		ug/L		8484	0.017
	Zn	68		ug/L		720	0.001
>	Ge	74		ug/L		183909	183909.438
	As	75	**0.435**	ug/L	417.711	782	0.001
	Se	77		ug/L		10904	0.021
	Se	82	**-0.587**	ug/L	20.382	-1	-0.000
	Kr	83		ug/L		71	0.000
	Sr	88	**0.045**	ug/L	8.869	661	0.003
	Y	89		ug/L		194	0.002
	Zr	90	**0.011**	ug/L	93.012	359	0.000
	Mo	98	**-0.046**	ug/L	34.696	132	-0.001
	Ag	107	**-0.011**	ug/L	84.919	120	-0.000
	Cd	111	**-0.042**	ug/L	19.643	12	-0.000
	Cd	114		ug/L		27	-0.000
>	In	115		ug/L		90706	90706.393
	Sn	120	**0.002**	ug/L	305.038	292	0.000
	Sb	121	**0.021**	ug/L	84.684	185	0.000
	Sb	123		ug/L		217	0.001
	Ba	135		ug/L		130	0.001
	Ba	137	**0.164**	ug/L	12.861	233	0.002
	Ho	165		ug/L		27	-0.000
>	Lu	175		ug/L		79605	79604.638
	Tl	205	**1.050**	ug/L	19.427	1609	0.017
	Pb	208	**-0.006**	ug/L	217.016	1249	-0.000
	Th	232	**0.026**	ug/L	64.367	590	0.002
	U	238	**-0.092**	ug/L	7.958	133	-0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			95.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			93.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			94.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			94.9		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 15, 2010 04:06:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 6.354

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.231**	ug/L	1.640	18137	0.041
	Be	9	**50.895**	ug/L	2.575	4948	0.011
	B	11	**100.230**	ug/L	2.262	7789	0.018
	Na	23	**5081.586**	ug/L	6.328	7265251	16.610
	Mg	24	**4765.675**	ug/L	2.539	5016407	11.478
	Al	27	**5406.917**	ug/L	8.053	7499368	17.161
	P	31	**5123.452**	ug/L	2.857	417741	0.953
	K	39	**5084.824**	ug/L	5.710	12933916	28.603
	Ca	43	**5078.009**	ug/L	0.810	26969	0.060
>	Sc	45		ug/L		436219	436219.020
	Ti	47	**49.836**	ug/L	1.059	12887	0.029
	V	51	**46.746**	ug/L	5.748	154741	0.298
	Cr	52	**49.751**	ug/L	1.871	127781	0.298
	Cr	53		ug/L		172240	0.040
	Mn	55	**51.102**	ug/L	3.144	216806	0.495
	Fe	57	**5014.078**	ug/L	2.658	432566	0.978
	Co	59	**47.510**	ug/L	1.550	155542	0.356
	Ni	60	**50.208**	ug/L	2.115	35099	0.080
	Cu	63		ug/L		82004	0.187
	Cu	65	**49.892**	ug/L	2.757	38951	0.089
	Zn	66	**52.100**	ug/L	1.202	22236	0.118
	Zn	67		ug/L		9338	0.021
	Zn	68		ug/L		16435	0.085
>	Ge	74		ug/L		187279	187278.827
	As	75	**51.059**	ug/L	4.932	26173	0.137
	Se	77		ug/L		8346	0.006
	Se	82	**52.948**	ug/L	2.838	2134	0.011
	Kr	83		ug/L		72	0.000
	Sr	88	**52.216**	ug/L	1.120	330471	3.557
	Y	89		ug/L		72	0.001
	Zr	90	**48.915**	ug/L	1.375	175966	1.893
	Mo	98	**51.001**	ug/L	1.747	79110	0.850
	Ag	107	**48.841**	ug/L	1.853	116959	1.259
	Cd	111	**51.633**	ug/L	2.173	26334	0.283
	Cd	114		ug/L		57805	0.622
>	In	115		ug/L		92793	92792.816
	Sn	120	**51.149**	ug/L	3.479	116302	1.251
	Sb	121	**51.020**	ug/L	2.427	105753	1.138
	Sb	123		ug/L		81711	0.879
	Ba	135		ug/L		28396	0.348
	Ba	137	**50.346**	ug/L	1.656	49891	0.611
	Ho	165		ug/L		33	0.000
>	Lu	175		ug/L		81521	81521.097
	Tl	205	**50.211**	ug/L	1.382	67640	0.827
	Pb	208	**51.360**	ug/L	1.152	239272	2.919
	Th	232	**51.976**	ug/L	1.297	271920	3.330
	U	238	**54.087**	ug/L	0.707	283306	3.468

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	102.462				
	Be	9	101.790				
	B	11	100.230				
	Na	23	101.632				
	Mg	24	95.313				
	Al	27	107.068				
	P	31	102.469				
	K	39	101.696				
	Ca	43	101.560				
>	Sc	45			99.2		
	Ti	47	99.671				
	V	51	93.491				
	Cr	52	99.502				
	Cr	53					
	Mn	55	102.204				
	Fe	57	100.282				
	Co	59	95.021				
	Ni	60	100.417				
	Cu	63					
	Cu	65	99.784				
	Zn	66	104.199				
	Zn	67					
	Zn	68					
>	Ge	74			95.1		
	As	75	102.118				
	Se	77					
	Se	82	105.896				
	Kr	83					
	Sr	88	104.432				
	Y	89					
	Zr	90	97.831				
	Mo	98	102.003				
	Ag	107	97.681				
	Cd	111	103.265				
	Cd	114					
>	In	115			96.9		
	Sn	120	102.297				
	Sb	121	102.039				
	Sb	123					
	Ba	135					
	Ba	137	100.692				
	Ho	165					
>	Lu	175			97.2		
	Tl	205	100.422				
	Pb	208	102.719				
	Th	232	103.952				
	U	238	108.173				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 15, 2010 04:12:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: c:\elandata\Dataset\100511\QC Std 7.355

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.046	ug/L	32.464	59	0.000
	Be	9	0.018	ug/L	307.623	17	0.000
	B	11	1.479	ug/L	17.993	202	0.000
	Na	23	3.081	ug/L	40.349	18679	0.010
	Mg	24	-1.607	ug/L	215.924	7002	-0.004
	Al	27	6.480	ug/L	46.481	17678	0.021
	P	31	-0.447	ug/L	79.860	2085	-0.000
	K	39	-19.070	ug/L	66.155	405362	-0.107
	Ca	43	-6.644	ug/L	130.834	531	-0.000
>	Sc	45		ug/L		422882	422881.659
	Ti	47	0.105	ug/L	26.411	388	0.000
	V	51	-2.039	ug/L	51.698	18662	-0.013
	Cr	52	-0.119	ug/L	69.666	-2333	-0.001
	Cr	53		ug/L		149688	-0.001
	Mn	55	0.012	ug/L	140.626	954	0.000
	Fe	57	-4.813	ug/L	13.698	5312	-0.001
	Co	59	-0.021	ug/L	16.472	407	-0.000
	Ni	60	-0.005	ug/L	353.063	87	-0.000
	Cu	63		ug/L		226	-0.000
	Cu	65	-0.014	ug/L	40.510	130	-0.000
	Zn	66	-0.007	ug/L	662.654	185	-0.000
	Zn	67		ug/L		5466	0.000
	Zn	68		ug/L		499	0.000
>	Ge	74		ug/L		184318	184317.967
	As	75	-0.571	ug/L	212.843	303	-0.002
	Se	77		ug/L		6374	-0.004
	Se	82	-0.325	ug/L	31.675	9	-0.000
	Kr	83		ug/L		69	0.000
	Sr	88	0.009	ug/L	73.291	438	0.001
	Y	89		ug/L		26	0.000
	Zr	90	0.155	ug/L	21.266	853	0.006
	Mo	98	0.090	ug/L	26.191	334	0.001
	Ag	107	0.022	ug/L	59.483	195	0.001
	Cd	111	0.003	ug/L	1348.136	34	0.000
	Cd	114		ug/L		85	0.000
>	In	115		ug/L		89965	89964.833
	Sn	120	0.045	ug/L	26.822	386	0.001
	Sb	121	0.082	ug/L	13.909	306	0.002
	Sb	123		ug/L		304	0.002
	Ba	135		ug/L		48	-0.000
	Ba	137	-0.002	ug/L	826.313	73	-0.000
	Ho	165		ug/L		27	-0.000
>	Lu	175		ug/L		79073	79073.138
	Tl	205	0.787	ug/L	19.678	1255	0.013
	Pb	208	-0.017	ug/L	39.169	1191	-0.001
	Th	232	0.142	ug/L	17.007	1168	0.009
	U	238	0.028	ug/L	20.427	741	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			96.2		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			93.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			93.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			94.3		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, May 15, 2010 19:25:27
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.1010
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	814.8	814.823	27.835	3.4
	Mg	24.0	13559.0	13559.040	557.699	4.1
	Co	58.9	35275.9	35275.900	91.490	0.3
	Rh	102.9	61879.5	61879.538	584.941	0.9
	In	114.9	68551.3	68551.291	602.423	0.9
	Pb	208.0	24345.1	24345.128	218.056	0.9
⌈>	Ba	137.9	64553.8	64553.796	396.893	0.6
⌊	Ba++	69.0	1220.4	0.019	0.000	1.6
⌈>	Ce	139.9	77055.3	77055.277	899.859	1.2
⌊	CeO	155.9	1037.3	0.013	0.000	3.1
	Bkgd	220.0	13.3	13.300	2.414	18.1

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
6.30	Lens Voltage
1000.00	ICP RF Power
-1800.00	Analog Stage Voltage
1200.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	5.8	1625.8
Co	59	17	6.8	62894.5
In	115	17	7.8	131884.3

ICPMS #4 TUNING REPORT

File Name: 100515.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	600	2080	0.663
Be	9.0	9.1	2068	2080	0.681
Mg	24.0	24.0	5663	2100	0.600
Mg	25.0	24.9	5948	2100	0.708
Mg	26.0	26.0	6126	2120	0.681
Co	58.9	58.9	14168	2150	0.687
Rh	102.9	102.9	24853	2240	0.695
In	114.9	114.9	27769	2275	0.682
Ce	139.9	139.9	33851	2310	0.718
Pb	206.0	205.9	49916	2485	0.739
Pb	207.0	207.0	50089	2400	0.701
Pb	208.0	208.0	50436	2510	0.706
U	238.1	238.1	57690	2520	0.683

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, May 16, 2010 07:09:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\Blank.181

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		10	
>	Sc	45		ug/L		345991	
	Ni	60		ug/L		72	
>	Ge	74		ug/L		151543	
	As	75		ug/L		549	
	Se	77		ug/L		3053	
	Se	82		ug/L		6	
	Kr	83		ug/L		55	
>	Lu	175		ug/L		73902	
	Tl	205		ug/L		210	
	U	238		ug/L		510	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, May 16, 2010 07:13:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\Standard 1.182

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.000**	**ug/L**	6.129	977	0.003
>	Sc	45		**ug/L**		351503	351503.371
	Ni	60	**10.000**	**ug/L**	1.291	5515	0.015
>	Ge	74		**ug/L**		152645	152645.399
	As	75	**10.000**	**ug/L**	8.009	4579	0.026
	Se	77		**ug/L**		3018	-0.000
	Se	82	**10.000**	**ug/L**	8.633	330	0.002
	Kr	83		**ug/L**		54	-0.000
>	Lu	175		**ug/L**		74594	74594.327
	Tl	205	**10.000**	**ug/L**	2.705	12259	0.161
	U	238	**10.000**	**ug/L**	1.732	51913	0.689

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, May 16, 2010 07:17:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\Standard 2.183

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**99.930**	**ug/L**	1.212	9498	0.026
|>	Sc	45		**ug/L**		369180	369180.418
⌊	Ni	60	**99.976**	**ug/L**	1.246	55863	0.151
⌈>	Ge	74		**ug/L**		160055	160054.972
|	As	75	**100.012**	**ug/L**	2.842	43295	0.267
|	Se	77		**ug/L**		6597	0.021
|	Se	82	**100.042**	**ug/L**	2.807	3553	0.022
⌊	Kr	83		**ug/L**		60	0.000
⌈>	Lu	175		**ug/L**		75953	75953.493
|	Tl	205	**100.018**	**ug/L**	2.171	125158	1.645
⌊	U	238	**99.965**	**ug/L**	1.071	505926	6.655

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45					
⌊	Ni	60					
⌈>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175					
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, May 16, 2010 07:21:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 1.184

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.655**	**ug/L**	2.546	4953	0.013
>	Sc	45		**ug/L**		372166	372166.417
	Ni	60	**52.401**	**ug/L**	0.096	29555	0.079
>	Ge	74		**ug/L**		163956	163955.534
	As	75	**51.580**	**ug/L**	1.683	23163	0.138
	Se	77		**ug/L**		6280	0.018
	Se	82	**51.777**	**ug/L**	2.676	1887	0.011
	Kr	83		**ug/L**		62	0.000
>	Lu	175		**ug/L**		74956	74955.542
	Tl	205	**50.802**	**ug/L**	0.672	62852	0.836
	U	238	**54.519**	**ug/L**	0.268	272556	3.629

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	103.309				
>	Sc	45		107.6			
	Ni	60	104.801				
>	Ge	74		108.2			
	As	75	103.159				
	Se	77					
	Se	82	103.555				
	Kr	83					
>	Lu	175		101.4			
	Tl	205	101.604				
	U	238	109.039				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, May 16, 2010 07:25:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 2.185

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.051**	**ug/L**	102.502	15	0.000
>	Sc	45		**ug/L**		365888	365888.150
	Ni	60	**0.009**	**ug/L**	445.019	81	0.000
>	Ge	74		**ug/L**		162471	162470.956
	As	75	**-0.712**	**ug/L**	104.110	281	-0.002
	Se	77		**ug/L**		3950	0.004
	Se	82	**-0.338**	**ug/L**	106.677	-6	-0.000
	Kr	83		**ug/L**		68	0.000
>	Lu	175		**ug/L**		74505	74504.538
	Tl	205	**0.466**	**ug/L**	2.703	782	0.008
	U	238	**0.007**	**ug/L**	107.926	550	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		105.8			
	Ni	60					
>	Ge	74		107.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, May 16, 2010 07:29:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 3.186

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.546**	**ug/L**	9.626	63	0.000
>	Sc	45		**ug/L**		372100	372100.174
	Ni	60	**2.350**	**ug/L**	1.394	1399	0.004
>	Ge	74		**ug/L**		162845	162845.185
	As	75	**5.867**	**ug/L**	10.094	3140	0.016
	Se	77		**ug/L**		3679	0.002
	Se	82	**6.087**	**ug/L**	3.273	226	0.001
	Kr	83		**ug/L**		56	-0.000
>	Lu	175		**ug/L**		75472	75471.601
	Tl	205	**1.243**	**ug/L**	2.281	1758	0.020
	U	238	**0.199**	**ug/L**	4.720	1522	0.013

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	109.203				
>	Sc	45		107.5			
	Ni	60	117.493				
>	Ge	74		107.5			
	As	75	117.342				
	Se	77					
	Se	82	121.738				
	Kr	83					
>	Lu	175		102.1			
	Tl	205	124.349				
	U	238	99.643				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, May 16, 2010 07:33:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 4.187

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.109**	**ug/L**	44.197	22	0.000
>	Sc	45		**ug/L**		391727	391727.408
	Ni	60	**2.473**	**ug/L**	1.637	1546	0.004
>	Ge	74		**ug/L**		168085	168084.748
	As	75	**-0.490**	**ug/L**	58.517	389	-0.001
	Se	77		**ug/L**		4559	0.007
	Se	82	**-0.572**	**ug/L**	24.742	-15	-0.000
	Kr	83		**ug/L**		96	0.000
>	Lu	175		**ug/L**		77420	77420.327
	Tl	205	**0.061**	**ug/L**	9.832	297	0.001
	U	238	**-0.088**	**ug/L**	2.178	80	-0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		113.2			
	Ni	60	74.716				
>	Ge	74		110.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, May 16, 2010 07:37:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 5.188

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**18.922**	**ug/L**	6.279	1890	0.005
>	Sc	45		**ug/L**		386058	386058.172
	Ni	60	**21.508**	**ug/L**	1.786	12630	0.033
>	Ge	74		**ug/L**		167185	167184.966
	As	75	**19.990**	**ug/L**	1.468	9526	0.053
	Se	77		**ug/L**		5230	0.011
	Se	82	**19.914**	**ug/L**	5.766	744	0.004
	Kr	83		**ug/L**		88	0.000
>	Lu	175		**ug/L**		75992	75992.368
	Tl	205	**17.936**	**ug/L**	0.779	22636	0.295
	U	238	**19.237**	**ug/L**	2.554	97816	1.281

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	94.612				
>	Sc	45		111.6			
	Ni	60	92.268				
>	Ge	74		110.3			
	As	75	99.949				
	Se	77					
	Se	82	99.572				
	Kr	83					
>	Lu	175		102.8			
	Tl	205	89.680				
	U	238	96.184				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, May 16, 2010 07:41:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 6.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**46.747**	ug/L	1.905	4855	0.012
>	Sc	45		ug/L		402866	402865.547
	Ni	60	**51.089**	ug/L	0.429	31194	0.077
>	Ge	74		ug/L		174895	174894.854
	As	75	**50.636**	ug/L	1.864	24273	0.135
	Se	77		ug/L		7407	0.022
	Se	82	**50.289**	ug/L	3.259	1955	0.011
	Kr	83		ug/L		69	0.000
>	Lu	175		ug/L		76963	76963.219
	Tl	205	**49.041**	ug/L	0.644	62305	0.807
	U	238	**51.094**	ug/L	1.068	262305	3.401

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	93.493				
>	Sc	45		116.4			
	Ni	60	102.178				
>	Ge	74		115.4			
	As	75	101.271				
	Se	77					
	Se	82	100.577				
	Kr	83					
>	Lu	175		104.1			
	Tl	205	98.083				
	U	238	102.189				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, May 16, 2010 07:46:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 7.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.038**	**ug/L**	80.951	15	0.000
>	Sc	45		**ug/L**		396213	396213.283
	Ni	60	**0.034**	**ug/L**	92.843	103	0.000
>	Ge	74		**ug/L**		173493	173492.965
	As	75	**-0.053**	**ug/L**	1017.630	606	-0.000
	Se	77		**ug/L**		5001	0.009
	Se	82	**0.105**	**ug/L**	197.546	10	0.000
	Kr	83		**ug/L**		69	0.000
>	Lu	175		**ug/L**		76927	76926.679
	Tl	205	**0.374**	**ug/L**	6.393	692	0.006
	U	238	**0.004**	**ug/L**	44.115	553	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		114.5			
	Ni	60					
>	Ge	74		114.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Sunday, May 16, 2010 07:50:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 10.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**918.871**	ug/L	0.842	91637	0.236
>	Sc	45		ug/L		387784	387784.090
	Ni	60	**914.483**	ug/L	0.584	536067	1.382
>	Ge	74		ug/L		167063	167062.922
	As	75	**957.753**	ug/L	1.531	427624	2.556
	Se	77		ug/L		17551	0.085
	Se	82	**486.774**	ug/L	0.823	18022	0.108
	Kr	83		ug/L		78	0.000
>	Lu	175		ug/L		76315	76314.725
	Tl	205	**455.677**	ug/L	1.397	572232	7.496
	U	238	**4623.616**	ug/L	0.841	23489190	307.794

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	91.887				
>	Sc	45		112.1			
	Ni	60	91.448				
>	Ge	74		110.2			
	As	75	95.775				
	Se	77					
	Se	82	97.355				
	Kr	83					
>	Lu	175		103.3			
	Tl	205	91.135				
	U	238	92.472				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Sunday, May 16, 2010 07:54:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 11.192

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.564**	**ug/L**	2.522	4776	0.012
>	Sc	45		**ug/L**		389636	389636.218
	Ni	60	**52.695**	**ug/L**	1.907	31110	0.080
>	Ge	74		**ug/L**		171787	171786.801
	As	75	**51.360**	**ug/L**	3.746	24167	0.137
	Se	77		**ug/L**		6840	0.020
	Se	82	**50.351**	**ug/L**	0.585	1923	0.011
	Kr	83		**ug/L**		68	0.000
>	Lu	175		**ug/L**		75810	75809.749
	Tl	205	**51.170**	**ug/L**	0.832	64027	0.842
	U	238	**53.010**	**ug/L**	0.679	268028	3.529

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	95.127				
>	Sc	45		112.6			
	Ni	60	105.389				
>	Ge	74		113.4			
	As	75	102.721				
	Se	77					
	Se	82	100.703				
	Kr	83					
>	Lu	175		102.6			
	Tl	205	102.339				
	U	238	106.021				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Sunday, May 16, 2010 07:58:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 12.193

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.043**	**ug/L**	16.798	16	0.000
>	Sc	45		**ug/L**		392980	392980.395
	Ni	60	**0.012**	**ug/L**	55.007	89	0.000
>	Ge	74		**ug/L**		173424	173424.422
	As	75	**-0.586**	**ug/L**	180.284	360	-0.002
	Se	77		**ug/L**		4787	0.007
	Se	82	**0.202**	**ug/L**	127.704	14	0.000
	Kr	83		**ug/L**		63	0.000
>	Lu	175		**ug/L**		75966	75966.229
	Tl	205	**0.813**	**ug/L**	1.931	1231	0.013
	U	238	**0.066**	**ug/L**	14.781	858	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		113.6			
	Ni	60					
>	Ge	74		114.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072051
Sample Date/Time: Sunday, May 16, 2010 08:02:34
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\1202072051.194

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.030**	**ug/L**	133.058	8	-0.000
|>	Sc	45		**ug/L**		393122	393121.609
⌊	Ni	60	**0.011**	**ug/L**	168.320	89	0.000
⌈>	Ge	74		**ug/L**		167895	167894.507
|	As	75	**-0.003**	**ug/L**	22539.295	608	-0.000
|	Se	77		**ug/L**		3595	0.001
|	Se	82	**0.053**	**ug/L**	412.315	8	0.000
⌊	Kr	83		**ug/L**		67	0.000
⌈>	Lu	175		**ug/L**		74672	74671.729
|	Tl	205	**0.416**	**ug/L**	2.656	723	0.007
⌊	U	238	**-0.062**	**ug/L**	5.447	205	-0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		113.6			
⌊	Ni	60					
⌈>	Ge	74		110.8			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		101.0			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072052
Sample Date/Time: Sunday, May 16, 2010 08:06:47
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3 40x Typo BCD 5-16-10
Batch ID: 965627|~~V~~|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\1202072052.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**16.180**	**ug/L**	0.538	1656	0.004
|>	Sc	45		**ug/L**		395351	395350.805
⌊	Ni	60	**32.452**	**ug/L**	1.773	19473	0.049
⌈>	Ge	74		**ug/L**		171884	171883.667
|	As	75	**23.838**	**ug/L**	3.842	11561	0.064
|	Se	77		**ug/L**		6488	0.018
|	Se	82	**63.372**	**ug/L**	0.832	2420	0.014
⌊	Kr	83		**ug/L**		75	0.000
⌈>	Lu	175		**ug/L**		76274	76273.541
|	Tl	205	**25.385**	**ug/L**	1.239	32063	0.418
⌊	U	238	**0.316**	**ug/L**	2.277	2131	0.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		114.3			
⌊	Ni	60					
⌈>	Ge	74		113.4			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		103.2			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249330001
Sample Date/Time: Sunday, May 16, 2010 08:27:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249330001.200

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.992**	**ug/L**	4.655	289	0.001
>	Sc	45		**ug/L**		361992	361992.198
	Ni	60	**16.004**	**ug/L**	1.925	8832	0.024
>	Ge	74		**ug/L**		145145	145144.811
	As	75	**7.515**	**ug/L**	3.604	3438	0.020
	Se	77		**ug/L**		2352	-0.004
	Se	82	**1.635**	**ug/L**	1.571	58	0.000
	Kr	83		**ug/L**		94	0.000
>	Lu	175		**ug/L**		77081	77080.830
	Tl	205	**0.316**	**ug/L**	5.561	620	0.005
	U	238	**4.052**	**ug/L**	1.907	21324	0.270

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		104.6			
	Ni	60					
>	Ge	74		95.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249330002
Sample Date/Time: Sunday, May 16, 2010 08:31:59
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249330002.201

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.842**	**ug/L**	6.671	180	0.000
>	Sc	45		**ug/L**		357415	357414.986
	Ni	60	**9.438**	**ug/L**	2.000	5173	0.014
>	Ge	74		**ug/L**		146182	146182.290
	As	75	**5.620**	**ug/L**	12.259	2722	0.015
	Se	77		**ug/L**		2296	-0.004
	Se	82	**1.134**	**ug/L**	31.861	42	0.000
	Kr	83		**ug/L**		74	0.000
>	Lu	175		**ug/L**		76485	76484.967
	Tl	205	**1.208**	**ug/L**	4.551	1737	0.020
	U	238	**2.047**	**ug/L**	0.765	10953	0.136

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		103.3			
	Ni	60					
>	Ge	74		96.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249330003
Sample Date/Time: Sunday, May 16, 2010 08:36:13
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249330003.202

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.059**	**ug/L**	4.554	199	0.001
>	Sc	45		**ug/L**		356437	356436.660
	Ni	60	**10.338**	**ug/L**	1.881	5643	0.016
>	Ge	74		**ug/L**		145193	145193.263
	As	75	**6.837**	**ug/L**	7.660	3175	0.018
	Se	77		**ug/L**		2227	-0.005
	Se	82	**0.547**	**ug/L**	45.016	23	0.000
	Kr	83		**ug/L**		84	0.000
>	Lu	175		**ug/L**		75490	75489.718
	Tl	205	**0.557**	**ug/L**	2.433	906	0.009
	U	238	**3.498**	**ug/L**	0.673	18097	0.233

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		103.0			
	Ni	60					
>	Ge	74		95.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249330004
Sample Date/Time: Sunday, May 16, 2010 08:40:25
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249330004.203

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.033**	**ug/L**	10.399	104	0.000
>	Sc	45		**ug/L**		353080	353079.846
	Ni	60	**10.613**	**ug/L**	3.628	5736	0.016
>	Ge	74		**ug/L**		145446	145446.444
	As	75	**5.866**	**ug/L**	8.345	2805	0.016
	Se	77		**ug/L**		2308	-0.004
	Se	82	**0.703**	**ug/L**	102.260	28	0.000
	Kr	83		**ug/L**		81	0.000
>	Lu	175		**ug/L**		76269	76268.504
	Tl	205	**0.160**	**ug/L**	7.080	418	0.003
	U	238	**3.661**	**ug/L**	2.183	19111	0.244

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		102.0			
	Ni	60					
>	Ge	74		96.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, May 16, 2010 08:44:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 6.204

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.788**	**ug/L**	1.794	4510	0.013
>	Sc	45		**ug/L**		344598	344598.324
	Ni	60	**50.450**	**ug/L**	1.687	26347	0.076
>	Ge	74		**ug/L**		148482	148482.002
	As	75	**50.190**	**ug/L**	1.601	20426	0.134
	Se	77		**ug/L**		4967	0.013
	Se	82	**49.360**	**ug/L**	1.799	1629	0.011
	Kr	83		**ug/L**		56	0.000
>	Lu	175		**ug/L**		72343	72342.809
	Tl	205	**48.014**	**ug/L**	3.604	57318	0.790
	U	238	**52.960**	**ug/L**	1.734	255492	3.526

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	101.575				
>	Sc	45		99.6			
	Ni	60	100.901				
>	Ge	74		98.0			
	As	75	100.381				
	Se	77					
	Se	82	98.720				
	Kr	83					
>	Lu	175		97.9			
	Tl	205	96.028				
	U	238	105.920				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, May 16, 2010 08:48:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 7.205

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.035**	**ug/L**	143.891	13	0.000
>	Sc	45		**ug/L**		343224	343224.346
	Ni	60	**0.006**	**ug/L**	202.112	75	0.000
>	Ge	74		**ug/L**		150691	150691.497
	As	75	**0.149**	**ug/L**	267.250	605	0.000
	Se	77		**ug/L**		3298	0.002
	Se	82	**-0.147**	**ug/L**	236.479	1	-0.000
	Kr	83		**ug/L**		56	0.000
>	Lu	175		**ug/L**		71369	71368.879
	Tl	205	**0.309**	**ug/L**	5.401	565	0.005
	U	238	**0.035**	**ug/L**	7.295	659	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		99.2			
	Ni	60					
>	Ge	74		99.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249330005
Sample Date/Time: Sunday, May 16, 2010 08:52:54
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249330005.206

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**1.950**	ug/L	5.918	190	0.001
|>	Sc	45		ug/L		358355	358355.230
⌊	Ni	60	**11.430**	ug/L	0.616	6266	0.017
⌈>	Ge	74		ug/L		145353	145353.463
|	As	75	**8.813**	ug/L	6.555	3950	0.024
|	Se	77		ug/L		2332	-0.004
|	Se	82	**1.838**	ug/L	25.430	65	0.000
⌊	Kr	83		ug/L		72	0.000
⌈>	Lu	175		ug/L		75219	75219.299
|	Tl	205	**0.249**	ug/L	4.481	521	0.004
⌊	U	238	**8.155**	ug/L	2.102	41349	0.543

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		103.6			
⌊	Ni	60					
⌈>	Ge	74		95.9			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		101.8			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249330006
Sample Date/Time: Sunday, May 16, 2010 08:57:06
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249330006.207

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.834**	**ug/L**	11.659	177	0.000
>	Sc	45		**ug/L**		353840	353839.739
	Ni	60	**10.643**	**ug/L**	0.274	5766	0.016
>	Ge	74		**ug/L**		140997	140997.228
	As	75	**4.830**	**ug/L**	11.624	2329	0.013
	Se	77		**ug/L**		2210	-0.004
	Se	82	**0.732**	**ug/L**	47.999	28	0.000
	Kr	83		**ug/L**		73	0.000
>	Lu	175		**ug/L**		73387	73387.096
	Tl	205	**0.306**	**ug/L**	5.334	577	0.005
	U	238	**2.522**	**ug/L**	2.570	12823	0.168

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		102.3			
	Ni	60					
>	Ge	74		93.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		99.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249330007
Sample Date/Time: Sunday, May 16, 2010 09:01:18
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249330007.208

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.618**	**ug/L**	7.438	153	0.000
>	Sc	45		**ug/L**		343114	343113.787
	Ni	60	**8.440**	**ug/L**	1.470	4449	0.013
>	Ge	74		**ug/L**		140324	140323.916
	As	75	**5.952**	**ug/L**	5.805	2739	0.016
	Se	77		**ug/L**		2160	-0.005
	Se	82	**0.811**	**ug/L**	26.977	30	0.000
	Kr	83		**ug/L**		73	0.000
>	Lu	175		**ug/L**		73547	73546.923
	Tl	205	**0.533**	**ug/L**	5.728	854	0.009
	U	238	**2.737**	**ug/L**	1.251	13909	0.182

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		99.2			
	Ni	60					
>	Ge	74		92.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		99.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249330008
Sample Date/Time: Sunday, May 16, 2010 09:05:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249330008.209

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.832**	**ug/L**	5.383	175	0.000
>	Sc	45		**ug/L**		349331	349331.227
	Ni	60	**9.785**	**ug/L**	1.405	5240	0.015
>	Ge	74		**ug/L**		140217	140216.831
	As	75	**4.261**	**ug/L**	10.232	2103	0.011
	Se	77		**ug/L**		2099	-0.005
	Se	82	**0.599**	**ug/L**	29.503	24	0.000
	Kr	83		**ug/L**		69	0.000
>	Lu	175		**ug/L**		73563	73562.988
	Tl	205	**0.230**	**ug/L**	10.955	487	0.004
	U	238	**2.980**	**ug/L**	0.630	15102	0.198

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		101.0			
	Ni	60					
>	Ge	74		92.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		99.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072053
Sample Date/Time: Sunday, May 16, 2010 09:13:59
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\1202072053.211

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.310**	**ug/L**	6.785	222	0.001
>	Sc	45		**ug/L**		355864	355864.403
	Ni	60	**15.899**	**ug/L**	2.536	8625	0.024
>	Ge	74		**ug/L**		142539	142538.839
	As	75	**7.832**	**ug/L**	3.654	3497	0.021
	Se	77		**ug/L**		2119	-0.005
	Se	82	**1.578**	**ug/L**	14.483	55	0.000
	Kr	83		**ug/L**		86	0.000
>	Lu	175		**ug/L**		77477	77477.311
	Tl	205	**0.130**	**ug/L**	18.291	385	0.002
	U	238	**3.761**	**ug/L**	1.728	19932	0.250

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		102.9			
	Ni	60					
>	Ge	74		94.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072054
Sample Date/Time: Sunday, May 16, 2010 09:18:09
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\1202072054.212

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**24.926**	**ug/L**	3.323	2279	0.006
>	Sc	45		**ug/L**		354027	354026.653
	Ni	60	**37.788**	**ug/L**	1.528	20295	0.057
>	Ge	74		**ug/L**		143225	143224.838
	As	75	**41.338**	**ug/L**	1.272	16321	0.110
	Se	77		**ug/L**		2295	-0.004
	Se	82	**9.439**	**ug/L**	8.622	305	0.002
	Kr	83		**ug/L**		100	0.000
>	Lu	175		**ug/L**		77155	77155.234
	Tl	205	**41.473**	**ug/L**	2.340	52850	0.682
	U	238	**26.223**	**ug/L**	2.560	135204	1.746

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		102.3			
	Ni	60					
>	Ge	74		94.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.4			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072056
Sample Date/Time: Sunday, May 16, 2010 09:22:15
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\1202072056.213

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**25.039**	**ug/L**	1.930	2309	0.006
>	Sc	45		**ug/L**		356987	356987.268
	Ni	60	**39.410**	**ug/L**	1.391	21340	0.060
>	Ge	74		**ug/L**		143410	143410.036
	As	75	**42.142**	**ug/L**	1.883	16649	0.112
	Se	77		**ug/L**		2250	-0.004
	Se	82	**9.777**	**ug/L**	4.544	316	0.002
	Kr	83		**ug/L**		93	0.000
>	Lu	175		**ug/L**		76226	76226.289
	Tl	205	**42.304**	**ug/L**	1.609	53253	0.696
	U	238	**26.978**	**ug/L**	1.377	137407	1.796

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		103.2			
	Ni	60					
>	Ge	74		94.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072055
Sample Date/Time: Sunday, May 16, 2010 09:26:21
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 965627|10|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\1202072055.214

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.653**	**ug/L**	12.234	67	0.000
>	Sc	45		**ug/L**		338967	338966.515
	Ni	60	**3.232**	**ug/L**	2.844	1727	0.005
>	Ge	74		**ug/L**		144833	144832.652
	As	75	**0.869**	**ug/L**	44.934	862	0.002
	Se	77		**ug/L**		2450	-0.003
	Se	82	**0.005**	**ug/L**	677.209	5	0.000
	Kr	83		**ug/L**		66	0.000
>	Lu	175		**ug/L**		72044	72044.300
	Tl	205	**0.099**	**ug/L**	10.131	322	0.002
	U	238	**0.761**	**ug/L**	1.598	4145	0.051

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		98.0			
	Ni	60					
>	Ge	74		95.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, May 16, 2010 09:30:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 6.215

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.203**	**ug/L**	1.689	4533	0.013
>	Sc	45		**ug/L**		343605	343604.551
	Ni	60	**51.004**	**ug/L**	0.516	26560	0.077
>	Ge	74		**ug/L**		149915	149915.449
	As	75	**50.181**	**ug/L**	2.312	20620	0.134
	Se	77		**ug/L**		4914	0.013
	Se	82	**49.826**	**ug/L**	1.534	1661	0.011
	Kr	83		**ug/L**		56	0.000
>	Lu	175		**ug/L**		72335	72334.739
	Tl	205	**48.699**	**ug/L**	1.225	58158	0.801
	U	238	**52.851**	**ug/L**	1.529	254966	3.518

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	102.406				
>	Sc	45		99.3			
	Ni	60	102.009				
>	Ge	74		98.9			
	As	75	100.362				
	Se	77					
	Se	82	99.652				
	Kr	83					
>	Lu	175		97.9			
	Tl	205	97.399				
	U	238	105.702				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, May 16, 2010 09:34:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 7.216

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.027**	**ug/L**	89.061	12	0.000
>	Sc	45		**ug/L**		344960	344959.626
	Ni	60	**-0.003**	**ug/L**	136.262	71	-0.000
>	Ge	74		**ug/L**		152722	152721.540
	As	75	**-0.296**	**ug/L**	186.358	432	-0.001
	Se	77		**ug/L**		3349	0.002
	Se	82	**0.564**	**ug/L**	103.597	25	0.000
	Kr	83		**ug/L**		49	-0.000
>	Lu	175		**ug/L**		70742	70742.435
	Tl	205	**0.320**	**ug/L**	3.817	573	0.005
	U	238	**0.033**	**ug/L**	9.338	644	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		99.7			
	Ni	60					
>	Ge	74		100.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #7 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, May 17, 2010 11:11:51
Sample Description:
Method File: C:\elandata\Method\daily2.mth
Dataset File: C:\elandata\Dataset\default\Sample.549
Tuning File: C:\elandata\Tuning\Default.tun
Optimization File: C:\elandata\Optimize\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 80
Current Dead Time (ns): 80

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1543.6	1543.591	19.519	1.3
	Mg	24.0	21761.4	21761.438	545.643	2.5
	Co	58.9	65762.6	65762.589	597.892	0.9
	Rh	102.9	104925.5	104925.512	1227.139	1.2
	In	114.9	122602.1	122602.055	730.862	0.6
	Pb	208.0	75108.0	75108.025	602.402	0.8
⌈>	Ba	137.9	111138.0	111138.003	804.294	0.7
⌊	Ba++	69.0	1939.1	0.017	0.000	1.6
⌈>	Ce	139.9	139600.9	139600.892	795.223	0.6
⌊	CeO	155.9	2565.3	0.018	0.001	3.2
	Bkgd	220.0	11.5	11.500	1.696	14.7

Current Optimization File Data

Current Value	Description
0.95	Nebulizer Gas Flow
5.75	Lens Voltage
1000.00	ICP RF Power
-1525.00	Analog Stage Voltage
750.00	Pulse Stage Voltage
14.00	Discriminator Threshold
-3.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	33	5.0	3910.2
Co	59	33	6.0	92923.7
In	115	33	7.0	151737.9

Instrument #7 Tuning Report

File Name: 100517.tun
File Path: C:\Elandata\Tuning\100517.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	566	2064	0.691
Be	9.0	9.0	2009	2060	0.660
Mg	24.0	24.0	5687	2080	0.640
Mg	25.0	25.0	5880	2070	0.560
Mg	26.0	26.0	6184	2070	0.601
Co	58.9	58.9	14157	2040	0.680
Rh	102.9	102.9	24855	2030	0.669
In	114.9	114.9	27787	2033	0.651
Ce	139.9	140.0	33870	2020	0.666
Pb	206.0	205.9	49930	1980	0.720
Pb	207.0	207.0	50179	2000	0.690
Pb	208.0	208.1	50458	1990	0.670
U	238.1	238.1	57747	1980	0.709

ICPMS#7 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, May 18, 2010 08:34:04
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\Blank.540

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9		ug/L		9	
Sc	45		ug/L		806595	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, May 18, 2010 08:34:45
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\Standard 1.541

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**10.000**	**ug/L**	4.239	1277	0.002
⌊>	Sc	45		**ug/L**		781754	781754.297

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, May 18, 2010 08:35:26
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\Standard 2.542

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	99.992	ug/L	5.099	12155	0.016
Sc	45		ug/L		755088	755088.406

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, May 18, 2010 08:36:06
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 1.543

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**50.828**	**ug/L**	1.776	6149	0.008
⌊>	Sc	45		**ug/L**		750102	750101.612

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	101.655				
⌊>	Sc	45		93.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, May 18, 2010 08:36:49
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 2.544

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.187	ug/L	48.564	30	0.000
⌊>	Sc	45		ug/L		747157	747157.479

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		92.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, May 18, 2010 08:37:30
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 3.545

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	**0.668**	**ug/L**	5.930	87	0.000
Sc	45		**ug/L**		737907	737907.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	133.650				
Sc	45		91.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Be	9	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, May 18, 2010 08:38:12
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 4.546

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.117	ug/L	18.902	22	0.000
⌊>	Sc	45		ug/L		755678	755677.566

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		93.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, May 18, 2010 08:38:53
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 5.547

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**20.941**	**ug/L**	1.846	2581	0.003
⌊>	Sc	45		**ug/L**		762812	762812.127

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	104.704				
⌊>	Sc	45		94.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 18, 2010 08:39:35
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.548

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	51.508	ug/L	3.104	6246	0.008
⌊>	Sc	45		ug/L		752120	752120.357

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	103.015				
⌊>	Sc	45			93.2		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 18, 2010 08:40:18
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.549

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.156	ug/L	19.744	26	0.000
Sc	45		ug/L		734735	734735.303

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		91.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202072051
Sample Date/Time: Tuesday, May 18, 2010 08:41:01
Sample Type: Sample
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\1202072051.550

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.051	ug/L	71.125	14	0.000
⌊>	Sc	45		ug/L		720894	720894.229

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		89.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202072052
Sample Date/Time: Tuesday, May 18, 2010 08:41:43
Sample Type: Sample
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 965627|40|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\1202072052.551

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	21.761	ug/L	3.338	2609	0.004
⌊>	Sc	45		ug/L		742356	742356.195

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		92.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249330001
Sample Date/Time: Tuesday, May 18, 2010 08:45:17
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249330001.556

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	2.930	ug/L	6.825	374	0.000
⌊>	Sc	45		ug/L		774281	774281.121

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		96.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249330002
Sample Date/Time: Tuesday, May 18, 2010 08:45:59
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249330002.557

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	1.802	ug/L	3.943	230	0.000
⌊>	Sc	45		ug/L		763016	763016.133

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		94.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249330003
Sample Date/Time: Tuesday, May 18, 2010 08:46:42
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249330003.558

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**1.782**	**ug/L**	4.594	230	0.000
⌊>	Sc	45		**ug/L**		770723	770722.698

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		95.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249330004
Sample Date/Time: Tuesday, May 18, 2010 08:47:25
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249330004.559

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	1.047	ug/L	12.606	137	0.000
⌊>	Sc	45		ug/L		764335	764334.779

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		94.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 18, 2010 08:48:07
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.560

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	**52.219**	**ug/L**	0.962	6108	0.008
Sc	45		**ug/L**		725143	725142.818

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	104.439				
Sc	45		89.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 18, 2010 08:48:50
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.561

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.226	ug/L	26.439	33	0.000
Sc	45		ug/L		705195	705195.141

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		87.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249330005
Sample Date/Time: Tuesday, May 18, 2010 08:49:32
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249330005.562

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	1.853	ug/L	3.450	235	0.000
⌊>	Sc	45		ug/L		761136	761136.087

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		94.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249330006
Sample Date/Time: Tuesday, May 18, 2010 08:50:15
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249330006.563

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**1.748**	**ug/L**	2.677	228	0.000
⌊>	Sc	45		**ug/L**		780990	**780989.511**

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		96.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249330007
Sample Date/Time: Tuesday, May 18, 2010 08:50:58
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249330007.564

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	1.554	ug/L	2.782	203	0.000
⌊>	Sc	45		ug/L		778869	778869.208

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		96.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249330008
Sample Date/Time: Tuesday, May 18, 2010 08:51:41
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249330008.565

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**1.778**	**ug/L**	11.517	229	0.000
⌊>	Sc	45		**ug/L**		771614	771614.486

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		95.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202072053
Sample Date/Time: Tuesday, May 18, 2010 08:53:07
Sample Type: Sample
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\1202072053.567

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.312	ug/L	8.375	306	0.000
Sc	45		ug/L		798334	798334.104

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45			99.0		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202072054
Sample Date/Time: Tuesday, May 18, 2010 08:53:50
Sample Type: Sample
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\1202072054.568

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**24.574**	**ug/L**	0.470	3155	0.004
⌊>	Sc	45		**ug/L**		794912	794912.138

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		98.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202072056
Sample Date/Time: Tuesday, May 18, 2010 08:54:33
Sample Type: Sample
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\1202072056.569

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	23.998	ug/L	0.959	3148	0.004
Sc	45		ug/L		812151	812151.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		100.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202072055
Sample Date/Time: Tuesday, May 18, 2010 08:55:14
Sample Type: Sample
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 965627|10|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\1202072055.570

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.603	ug/L	10.711	82	0.000
Sc	45		ug/L		763778	763778.214

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		94.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 18, 2010 08:55:56
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.571

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**49.093**	**ug/L**	3.344	6105	0.008
⌊>	Sc	45		**ug/L**		771299	771299.351

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	98.187				
⌊>	Sc	45		95.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 18, 2010 08:56:39
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.572

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.183**	**ug/L**	33.549	29	0.000
⌊>	Sc	45		**ug/L**		731167	731167.300

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		90.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\032210W1.SIF
Batch ID:
Results Data Set: 032210W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 2/8/2010 13:04:57**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/22/2010 09:12:25**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0004	0.0022	0.0004	09:13:27	Yes
2		[0.00]	0.0004	0.0031	0.0004	09:14:02	Yes
Mean:		[0.00]	0.0004				
SD:		0.00	0.0000				
%RSD:		0.00	5.42				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/22/2010 09:14:20**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0023	0.0139	0.0027	09:15:21	Yes
2		[0.2]	0.0021	0.0132	0.0026	09:15:56	Yes
Mean:		[0.2]	0.0022				
SD:		0.0	0.0001				
%RSD:		0.0	3.83				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01102 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/22/2010 09:16:15**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0055	0.0305	0.0059	09:17:16	Yes
2		[0.5]	0.0056	0.0316	0.0060	09:17:51	Yes
Mean:		[0.5]	0.0055				
SD:		0.0	0.0000				
%RSD:		0.0	0.81				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999997 Slope: 0.01109 Intercept: -0.00000

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/22/2010 09:18:11**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0235	0.1256	0.0239	09:19:12	Yes
2		[2.0]	0.0234	0.1254	0.0238	09:19:47	Yes
Mean:		[2.0]	0.0234				
SD:		0.0	0.0000				
%RSD:		0.0	0.11				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999909 Slope: 0.01177 Intercept: -0.00015

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/22/2010 09:20:07**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0589	0.3151	0.0593	09:21:09	Yes
2		[5.0]	0.0584	0.3122	0.0589	09:21:43	Yes
Mean:		[5.0]	0.0587				
SD:		0.0	0.0003				
%RSD:		0.0	0.53				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999987 Slope: 0.01176 Intercept: -0.00014

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/22/2010 09:22:04**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1157	0.6242	0.1161	09:23:04	Yes
2		[10.0]	0.1150	0.6182	0.1154	09:23:39	Yes
Mean:		[10.0]	0.1153				
SD:		0.0	0.0005				
%RSD:		0.0	0.45				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999955 Slope: 0.01157 Intercept: 0.00008

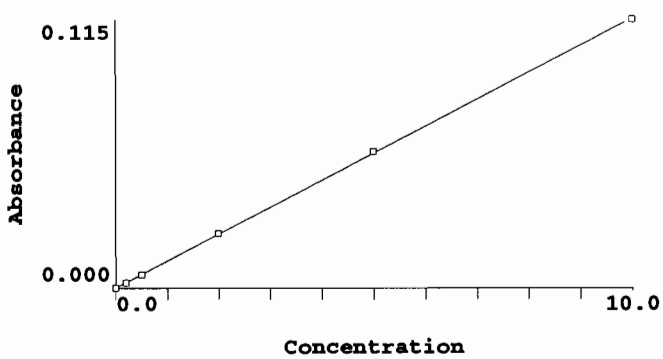

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.007	0.00	5.4
S0.2	0.0022	0.2	0.184	0.00	3.8
S0.5	0.0055	0.5	0.472	0.00	0.8
S2.0	0.0234	2.0	2.020	0.00	0.1

S5.0	0.0587	5.0	5.065	0.00	0.5
S10.0	0.1153	10.0	9.965	0.00	0.4

Correlation Coef.: 0.999955 Slope: 0.01157 Intercept: 0.00008

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/22/2010 09:23:58**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.100	5.100	0.0591	0.3168	0.0595	09:24:59	Yes
2	5.051	5.051	0.0585	0.3127	0.0589	09:25:34	Yes
Mean:	5.075	5.075	0.0588				
SD:	0.035	0.035	0.0004				
%RSD:	0.681	0.681	0.68				

QC value within limits for Hg 253.7 Recovery = 101.51%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/22/2010 09:25:54**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.031	-0.031	-0.0003	-0.0007	0.0002	09:26:55	Yes
2	-0.027	-0.027	-0.0002	-0.0005	0.0002	09:27:30	Yes
Mean:	-0.029	-0.029	-0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	8.712	8.712	11.31				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/22/2010 09:27:50**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.160	0.160	0.0019	0.0114	0.0024	09:28:51	Yes
2	0.159	0.159	0.0019	0.0110	0.0023	09:29:26	Yes
Mean:	0.159	0.159	0.0019				
SD:	0.001	0.001	0.0000				
%RSD:	0.629	0.629	0.60				

QC value within limits for Hg 253.7 Recovery = 79.70%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/22/2010 09:29:46**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.220	5.220	0.0604	0.3240	0.0609	09:30:46	Yes
2	5.196	5.196	0.0602	0.3213	0.0606	09:31:22	Yes
Mean:	5.208	5.208	0.0603				
SD:	0.017	0.017	0.0002				
%RSD:	0.318	0.318	0.32				

QC value within limits for Hg 253.7 Recovery = 104.16%
All analyte(s) passed QC.

==========

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/22/2010 09:31:41**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.029	-0.029	-0.0003	-0.0004	0.0002	09:32:42	Yes
2	-0.025	-0.025	-0.0002	0.0002	0.0002	09:33:17	Yes
Mean:	-0.027	-0.027	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	9.169	9.169	12.11				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202073693|966291|1 **Date Collected: 3/22/2010 09:33:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202073693|966291|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	-0.0001	0.0004	0.0003	09:34:38	Yes
2	-0.015	-0.015	-0.0001	0.0013	0.0003	09:35:13	Yes
Mean:	-0.016	-0.016	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	14.61	14.61	24.47				

==========

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202073694|966291|1 **Date Collected: 3/22/2010 09:35:33**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202073694|966291|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.014	2.014	0.0234	0.1267	0.0238	09:36:35	Yes
2	2.009	2.009	0.0233	0.1262	0.0237	09:37:09	Yes
Mean:	2.011	2.011	0.0233				
SD:	0.004	0.004	0.0000				
%RSD:	0.179	0.179	0.18				

==========

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 248548001|966291|1 **Date Collected: 3/22/2010 09:37:30**
Analyst: JXL **Data Type: Original**

Replicate Data: 248548001|966291|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	-0.0001	0.0013	0.0003	09:38:30	Yes
2	-0.010	-0.010	-0.0000	0.0016	0.0004	09:39:05	Yes
Mean:	-0.012	-0.012	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	23.10	23.10	52.47				

==========

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 248548002|966291|1 **Date Collected: 3/22/2010 09:39:24**
Analyst: JXL **Data Type: Original**

Replicate Data: 248548002|966291|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 248668001|966291|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.020	-0.020	-0.0002	0.0010	0.0003	09:49:58	Yes
2	-0.019	-0.019	-0.0001	0.0011	0.0003	09:50:33	Yes
Mean:	-0.019	-0.019	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	2.110	2.110	3.20				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 1202073695|966291|1 **Date Collected: 3/22/2010 09:50:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202073695|966291|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.015	-0.015	-0.0001	0.0014	0.0003	09:51:53	Yes
2	-0.018	-0.018	-0.0001	0.0012	0.0003	09:52:28	Yes
Mean:	-0.016	-0.016	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	12.08	12.08	20.35				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/22/2010 09:52:48**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.180	5.180	0.0600	0.3207	0.0604	09:53:48	Yes
2	5.134	5.134	0.0595	0.3169	0.0599	09:54:23	Yes
Mean:	5.157	5.157	0.0597				
SD:	0.033	0.033	0.0004				
%RSD:	0.638	0.638	0.64				

QC value within limits for Hg 253.7 Recovery = 103.14%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/22/2010 09:54:42**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.019	-0.019	-0.0001	0.0012	0.0003	09:55:43	Yes
2	-0.022	-0.022	-0.0002	0.0010	0.0003	09:56:18	Yes
Mean:	-0.020	-0.020	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	10.17	10.17	15.07				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 1202073696|966291|1 **Date Collected: 3/22/2010 09:56:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202073696|966291|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.052	2.052	0.0238	0.1293	0.0242	09:57:39	Yes
2	2.038	2.038	0.0236	0.1278	0.0241	09:58:14	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.583	0.583	0.0068	0.0377	0.0072	10:07:20	Yes
2	0.569	0.569	0.0067	0.0377	0.0071	10:07:55	Yes
Mean:	0.576	0.576	0.0067				
SD:	0.010	0.010	0.0001				
%RSD:	1.740	1.740	1.72				

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 1202073598|966259|1 **Date Collected: 3/22/2010 10:08:14**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202073598|966259|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.532	2.532	0.0294	0.1604	0.0298	10:09:15	Yes
2	2.503	2.503	0.0290	0.1581	0.0295	10:09:50	Yes
Mean:	2.518	2.518	0.0292				
SD:	0.021	0.021	0.0002				
%RSD:	0.814	0.814	0.81				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 1202073599|966259|5 **Date Collected: 3/22/2010 10:10:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202073599|966259|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.118	0.118	0.0014	0.0089	0.0019	10:11:09	Yes
2	0.118	0.118	0.0014	0.0094	0.0019	10:11:44	Yes
Mean:	0.118	0.118	0.0014				
SD:	0.000	0.000	0.0000				
%RSD:	0.344	0.344	0.33				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 249453002|966259|1 **Date Collected: 3/22/2010 10:12:03**
Analyst: JXL **Data Type: Original**

Replicate Data: 249453002|966259|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.351	1.351	0.0157	0.0856	0.0161	10:13:04	Yes
2	1.348	1.348	0.0157	0.0859	0.0161	10:13:39	Yes
Mean:	1.349	1.349	0.0157				
SD:	0.002	0.002	0.0000				
%RSD:	0.154	0.154	0.15				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 249453004|966259|1 **Date Collected: 3/22/2010 10:13:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 249453004|966259|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.027	1.027	0.0120	0.0662	0.0124	10:14:59	Yes
2	1.029	1.029	0.0120	0.0659	0.0124	10:15:34	Yes
Mean:	1.028	1.028	0.0120				
SD:	0.002	0.002	0.0000				
%RSD:	0.176	0.176	0.17				

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/22/2010 10:15:53**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.340	5.340	0.0618	0.3292	0.0623	10:16:54	Yes
2	5.312	5.312	0.0615	0.3269	0.0619	10:17:28	Yes
Mean:	5.326	5.326	0.0617				
SD:	0.019	0.019	0.0002				
%RSD:	0.366	0.366	0.37				

QC value within limits for Hg 253.7 Recovery = 106.52%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 3/22/2010 10:17:47
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0000	0.0019	0.0004	10:18:48	Yes
2	-0.012	-0.012	-0.0001	0.0017	0.0004	10:19:24	Yes
Mean:	-0.010	-0.010	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	34.03	34.03	102.11				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 1202075717|967148|1 Date Collected: 3/22/2010 10:19:43
Analyst: JXL Data Type: Original

Replicate Data: 1202075717|967148|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	-0.0001	0.0011	0.0003	10:20:44	Yes
2	-0.009	-0.009	-0.0000	0.0015	0.0004	10:21:19	Yes
Mean:	-0.012	-0.012	-0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	31.36	31.36	71.56				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 1202075718|967148|1 Date Collected: 3/22/2010 10:21:38
Analyst: JXL Data Type: Original

Replicate Data: 1202075718|967148|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.059	2.059	0.0239	0.1288	0.0243	10:22:39	Yes
2	2.044	2.044	0.0237	0.1270	0.0241	10:23:14	Yes
Mean:	2.052	2.052	0.0238				
SD:	0.011	0.011	0.0001				
%RSD:	0.518	0.518	0.52				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 249459001|967148|1 Date Collected: 3/22/2010 10:23:34
Analyst: JXL Data Type: Original

Replicate Data: 249459001|967148|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.143	0.143	0.0017	0.0113	0.0022	10:24:35	Yes

Replicate Data: 249556006|967148|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0002	0.0033	0.0006	10:34:16	Yes
2	0.013	0.013	0.0002	0.0035	0.0007	10:34:51	Yes
Mean:	0.011	0.011	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	17.87	17.87	11.25				

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 249564001|967148|1 **Date Collected: 3/22/2010 10:35:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 249564001|967148|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	0.0000	0.0019	0.0004	10:36:12	Yes
2	-0.004	-0.004	0.0000	0.0024	0.0005	10:36:46	Yes
Mean:	-0.004	-0.004	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	30.50	30.50	64.22				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 1202075719|967148|1 **Date Collected: 3/22/2010 10:37:06**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075719|967148|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	-0.0001	0.0020	0.0004	10:38:07	Yes
2	-0.013	-0.013	-0.0001	0.0019	0.0004	10:38:42	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.283	0.283	0.59				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/22/2010 10:39:01**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.155	5.155	0.0597	0.3162	0.0601	10:40:02	Yes
2	5.120	5.120	0.0593	0.3140	0.0597	10:40:36	Yes
Mean:	5.138	5.138	0.0595				
SD:	0.024	0.024	0.0003				
%RSD:	0.473	0.473	0.47				

QC value within limits for Hg 253.7 Recovery = 102.75%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/22/2010 10:40:55**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	-0.0000	0.0022	0.0004	10:41:56	Yes
2	-0.013	-0.013	-0.0001	0.0021	0.0004	10:42:31	Yes
Mean:	-0.011	-0.011	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	14.37	14.37	34.23				

QC value within limits for Hg 253.7 Recovery = Not calculated

---

Replicate Data: 1202075476|967042|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.021	-0.021	-0.0002	0.0014	0.0003	11:01:16	Yes
2	-0.017	-0.017	-0.0001	0.0015	0.0003	11:01:51	Yes
Mean:	-0.019	-0.019	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	11.97	11.97	18.39				

==========

Sequence No.: 58 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/22/2010 11:02:11**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.288	5.288	0.0612	0.3207	0.0617	11:03:11	Yes
2	5.270	5.270	0.0610	0.3183	0.0615	11:03:47	Yes
Mean:	5.279	5.279	0.0611				
SD:	0.013	0.013	0.0001				
%RSD:	0.246	0.246	0.25				

QC value within limits for Hg 253.7 Recovery = 105.58%
All analyte(s) passed QC.

==========

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/22/2010 11:04:06**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	-0.0001	0.0012	0.0003	11:05:07	Yes
2	-0.018	-0.018	-0.0001	0.0014	0.0003	11:05:41	Yes
Mean:	-0.018	-0.018	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.542	0.542	0.85				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 60 **Autosampler Location: 52**
Sample ID: 1202075645|967115|1 **Date Collected: 3/22/2010 11:06:01**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075645|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.017	-0.017	-0.0001	0.0016	0.0003	11:07:02	Yes
2	-0.015	-0.015	-0.0001	0.0018	0.0003	11:07:37	Yes
Mean:	-0.016	-0.016	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	9.984	9.984	16.85				

==========

Sequence No.: 61 **Autosampler Location: 53**
Sample ID: 1202075646|967115|1 **Date Collected: 3/22/2010 11:07:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075646|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.172	2.172	0.0252	0.1337	0.0256	11:08:57	Yes
2	2.152	2.152	0.0250	0.1320	0.0254	11:09:32	Yes
Mean:	2.162	2.162	0.0251				

SD:	0.014	0.014	0.0002
%RSD:	0.668	0.668	0.67

==========

Sequence No.: 62 **Autosampler Location: 54**
Sample ID: 248672001|967115|1 **Date Collected: 3/22/2010 11:09:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 248672001|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	-0.0001	0.0015	0.0003	11:10:53	Yes
2	-0.014	-0.014	-0.0001	0.0017	0.0003	11:11:28	Yes
Mean:	-0.015	-0.015	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	12.52	12.52	22.46				

==========

Sequence No.: 63 **Autosampler Location: 55**
Sample ID: 249057004|967115|1 **Date Collected: 3/22/2010 11:11:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 249057004|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	-0.0001	0.0018	0.0004	11:12:49	Yes
2	-0.012	-0.012	-0.0001	0.0021	0.0004	11:13:23	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	3.820	3.820	7.97				

==========

Sequence No.: 64 **Autosampler Location: 56**
Sample ID: 249064001|967115|1 **Date Collected: 3/22/2010 11:13:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 249064001|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.011	-0.011	-0.0001	0.0016	0.0004	11:14:44	Yes
2	-0.011	-0.011	-0.0000	0.0018	0.0004	11:15:19	Yes
Mean:	-0.011	-0.011	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.793	4.793	11.89				

==========

Sequence No.: 65 **Autosampler Location: 57**
Sample ID: 249072001|967115|1 **Date Collected: 3/22/2010 11:15:39**
Analyst: JXL **Data Type: Original**

Replicate Data: 249072001|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	-0.0001	0.0017	0.0003	11:16:40	Yes
2	-0.012	-0.012	-0.0001	0.0020	0.0004	11:17:16	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	9.844	9.844	19.70				

==========

Sequence No.: 66 **Autosampler Location: 58**
Sample ID: 249076001|967115|1 **Date Collected: 3/22/2010 11:17:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 249076001|967115|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.014	-0.014	-0.0001	0.0016	0.0003	11:18:37	Yes
2	-0.015	-0.015	-0.0001	0.0015	0.0003	11:19:12	Yes
Mean:	-0.014	-0.014	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.780	3.780	7.06				

==========

Sequence No.: 67 **Autosampler Location: 59**
Sample ID: 249076002|967115|1 **Date Collected: 3/22/2010 11:19:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 249076002|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	-0.0001	0.0017	0.0004	11:20:34	Yes
2	-0.013	-0.013	-0.0001	0.0016	0.0004	11:21:08	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.381	0.381	0.79				

==========

Sequence No.: 68 **Autosampler Location: 60**
Sample ID: 249097001|967115|1 **Date Collected: 3/22/2010 11:21:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 249097001|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.017	-0.017	-0.0001	0.0014	0.0003	11:22:30	Yes
2	-0.013	-0.013	-0.0001	0.0015	0.0003	11:23:05	Yes
Mean:	-0.015	-0.015	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	15.67	15.67	27.89				

==========

Sequence No.: 69 **Autosampler Location: 61**
Sample ID: 249102001|967115|1 **Date Collected: 3/22/2010 11:23:25**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102001|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.012	-0.012	-0.0001	0.0021	0.0004	11:24:27	Yes
2	-0.016	-0.016	-0.0001	0.0015	0.0003	11:25:02	Yes
Mean:	-0.014	-0.014	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	18.61	18.61	34.46				

==========

Sequence No.: 70 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/22/2010 11:25:22**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.377	5.377	0.0623	0.3263	0.0627	11:26:23	Yes
2	5.349	5.349	0.0619	0.3243	0.0624	11:26:57	Yes
Mean:	5.363	5.363	0.0621				
SD:	0.020	0.020	0.0002				
%RSD:	0.373	0.373	0.37				

QC value within limits for Hg 253.7 Recovery = 107.26%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**

Sample ID: CCB
Analyst:
Date Collected: 3/22/2010 11:27:16
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.017	-0.017	-0.0001	0.0014	0.0003	11:28:17	Yes
2	-0.017	-0.017	-0.0001	0.0015	0.0003	11:28:52	Yes
Mean:	-0.017	-0.017	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	1.806	1.806	2.95				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 72
Sample ID: 249248005|967115|1
Analyst: JXL
Autosampler Location: 62
Date Collected: 3/22/2010 11:29:11
Data Type: Original

Replicate Data: 249248005|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.019	-0.019	-0.0001	0.0011	0.0003	11:30:13	Yes
2	-0.014	-0.014	-0.0001	0.0016	0.0003	11:30:47	Yes
Mean:	-0.017	-0.017	-0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	24.11	24.11	40.12				

Sequence No.: 73
Sample ID: 249250002|967115|1
Analyst: JXL
Autosampler Location: 63
Date Collected: 3/22/2010 11:31:07
Data Type: Original

Replicate Data: 249250002|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	-0.0001	0.0019	0.0003	11:32:09	Yes
2	-0.017	-0.017	-0.0001	0.0011	0.0003	11:32:43	Yes
Mean:	-0.015	-0.015	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	15.06	15.06	26.89				

Sequence No.: 74
Sample ID: 249330009|967115|1
Analyst: JXL
Autosampler Location: 64
Date Collected: 3/22/2010 11:33:03
Data Type: Original

Replicate Data: 249330009|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.015	-0.015	-0.0001	0.0017	0.0003	11:34:05	Yes
2	-0.012	-0.012	-0.0001	0.0016	0.0004	11:34:39	Yes
Mean:	-0.014	-0.014	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	13.87	13.87	27.18				

Sequence No.: 75
Sample ID: 249330010|967115|1
Analyst: JXL
Autosampler Location: 65
Date Collected: 3/22/2010 11:34:59
Data Type: Original

Replicate Data: 249330010|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	-0.0001	0.0017	0.0003	11:36:01	Yes
2	-0.019	-0.019	-0.0001	0.0012	0.0003	11:36:36	Yes

Mean:	-0.017	-0.017	-0.0001
SD:	0.002	0.002	0.0000
%RSD:	13.30	13.30	21.58

==========

Sequence No.: 76 **Autosampler Location: 66**
Sample ID: 249330011|967115|1 **Date Collected: 3/22/2010 11:36:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 249330011|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0002	0.0031	0.0006	11:37:57	Yes
2	0.009	0.009	0.0002	0.0030	0.0006	11:38:32	Yes
Mean:	0.009	0.009	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.770	0.770	0.44				

==========

Sequence No.: 77 **Autosampler Location: 67**
Sample ID: 249330012|967115|1 **Date Collected: 3/22/2010 11:38:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 249330012|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.017	-0.017	-0.0001	0.0015	0.0003	11:39:53	Yes
2	-0.018	-0.018	-0.0001	0.0015	0.0003	11:40:28	Yes
Mean:	-0.017	-0.017	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	5.108	5.108	8.23				

==========

Sequence No.: 78 **Autosampler Location: 68**
Sample ID: 249333001|967115|1 **Date Collected: 3/22/2010 11:40:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 249333001|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.019	-0.019	-0.0001	0.0013	0.0003	11:41:49	Yes
2	-0.016	-0.016	-0.0001	0.0018	0.0003	11:42:24	Yes
Mean:	-0.017	-0.017	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	13.18	13.18	21.36				

==========

Sequence No.: 79 **Autosampler Location: 69**
Sample ID: 249333002|967115|1 **Date Collected: 3/22/2010 11:42:44**
Analyst: JXL **Data Type: Original**

Replicate Data: 249333002|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0004	0.0048	0.0008	11:43:45	Yes
2	0.026	0.026	0.0004	0.0044	0.0008	11:44:20	Yes
Mean:	0.028	0.028	0.0004				
SD:	0.002	0.002	0.0000				
%RSD:	8.600	8.600	6.94				

==========

Sequence No.: 80 **Autosampler Location: 70**
Sample ID: 249510003|967115|1 **Date Collected: 3/22/2010 11:44:40**
Analyst: JXL **Data Type: Original**

Replicate Data: 249510003|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.012	-0.012	-0.0001	0.0019	0.0004	11:45:42	Yes
2	-0.016	-0.016	-0.0001	0.0019	0.0003	11:46:17	Yes
Mean:	-0.014	-0.014	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	19.15	19.15	36.21				

==========

Sequence No.: 81 **Autosampler Location: 71**
Sample ID: 249510005|967115|1 **Date Collected: 3/22/2010 11:46:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 249510005|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	-0.0001	0.0020	0.0004	11:47:38	Yes
2	-0.016	-0.016	-0.0001	0.0018	0.0003	11:48:13	Yes
Mean:	-0.015	-0.015	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	12.95	12.95	23.76				

==========

Sequence No.: 82 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/22/2010 11:48:33**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.225	5.225	0.0605	0.3231	0.0609	11:49:33	Yes
2	5.240	5.240	0.0607	0.3218	0.0611	11:50:08	Yes
Mean:	5.232	5.232	0.0606				
SD:	0.011	0.011	0.0001				
%RSD:	0.201	0.201	0.20				

QC value within limits for Hg 253.7 Recovery = 104.64%
All analyte(s) passed QC.

==========

Sequence No.: 83 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/22/2010 11:50:27**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	-0.0001	0.0018	0.0004	11:51:28	Yes
2	-0.013	-0.013	-0.0001	0.0021	0.0003	11:52:02	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.226	4.226	8.61				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 84 **Autosampler Location: 72**
Sample ID: 249528001|967115|1 **Date Collected: 3/22/2010 11:52:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 249528001|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	-0.0001	0.0019	0.0003	11:53:23	Yes
2	-0.013	-0.013	-0.0001	0.0022	0.0003	11:53:58	Yes
Mean:	-0.015	-0.015	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	13.62	13.62	24.57				

Sequence No.: 85 **Autosampler Location: 73**
Sample ID: 1202075647|967115|1 **Date Collected: 3/22/2010 11:54:18**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075647|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.020	-0.020	-0.0002	0.0007	0.0003	11:55:20	Yes
2	-0.019	-0.019	-0.0001	0.0011	0.0003	11:55:55	Yes
Mean:	-0.020	-0.020	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	4.381	4.381	6.57				

Sequence No.: 86 **Autosampler Location: 74**
Sample ID: 1202075648|967115|1 **Date Collected: 3/22/2010 11:56:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075648|967115|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.177	2.177	0.0253	0.1374	0.0257	11:57:17	Yes
2	2.159	2.159	0.0250	0.1357	0.0255	11:57:52	Yes
Mean:	2.168	2.168	0.0251				
SD:	0.013	0.013	0.0001				
%RSD:	0.597	0.597	0.59				

Sequence No.: 87 **Autosampler Location: 75**
Sample ID: 1202075655|967115|5 **Date Collected: 3/22/2010 11:58:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075655|967115|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.012	-0.012	-0.0001	0.0017	0.0004	11:59:13	Yes
2	-0.013	-0.013	-0.0001	0.0017	0.0004	11:59:48	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	2.398	2.398	5.09				

Sequence No.: 88 **Autosampler Location: 76**
Sample ID: 1202075629|967105|1 **Date Collected: 3/22/2010 12:00:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075629|967105|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.017	-0.017	-0.0001	0.0015	0.0003	12:01:09	Yes
2	-0.015	-0.015	-0.0001	0.0016	0.0003	12:01:44	Yes
Mean:	-0.016	-0.016	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	7.909	7.909	13.68				

Sequence No.: 89 **Autosampler Location: 77**
Sample ID: 1202075631|967105|1 **Date Collected: 3/22/2010 12:02:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075631|967105|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.169	2.169	0.0252	0.1383	0.0256	12:03:06	Yes

2	2.158	2.158	0.0250	0.1365	0.0255	12:03:41	Yes
Mean:	2.164	2.164	0.0251				
SD:	0.008	0.008	0.0001				
%RSD:	0.378	0.378	0.38				

Sequence No.: 90 **Autosampler Location: 78**
Sample ID: 1202075632|967105|1 **Date Collected: 3/22/2010 12:04:01**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075632|967105|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.271	2.271	0.0263	0.1387	0.0268	12:05:02	Yes
2	2.239	2.239	0.0260	0.1358	0.0264	12:05:37	Yes
Mean:	2.255	2.255	0.0262				
SD:	0.022	0.022	0.0003				
%RSD:	0.985	0.985	0.98				

Sequence No.: 91 **Autosampler Location: 79**
Sample ID: 249559001|967105|1 **Date Collected: 3/22/2010 12:05:57**
Analyst: JXL **Data Type: Original**

Replicate Data: 249559001|967105|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.061	0.061	0.0008	0.0061	0.0012	12:06:59	Yes
2	0.063	0.063	0.0008	0.0062	0.0012	12:07:33	Yes
Mean:	0.062	0.062	0.0008				
SD:	0.002	0.002	0.0000				
%RSD:	2.616	2.616	2.36				

Sequence No.: 92 **Autosampler Location: 80**
Sample ID: 1202075630|967105|5 **Date Collected: 3/22/2010 12:07:53**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075630|967105|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0001	0.0023	0.0005	12:08:55	Yes
2	-0.001	-0.001	0.0001	0.0026	0.0005	12:09:30	Yes
Mean:	-0.001	-0.001	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	81.13	81.13	18.12				

Sequence No.: 93 **Autosampler Location: 81**
Sample ID: 249559002|967105|1 **Date Collected: 3/22/2010 12:09:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 249559002|967105|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0001	0.0026	0.0005	12:10:51	Yes
2	0.002	0.002	0.0001	0.0026	0.0005	12:11:26	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	10.11	10.11	2.27				

Sequence No.: 94 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/22/2010 12:11:46**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.131	5.131	0.0594	0.3083	0.0598	12:12:46	Yes
2	5.089	5.089	0.0589	0.3053	0.0594	12:13:22	Yes
Mean:	5.110	5.110	0.0592				
SD:	0.029	0.029	0.0003				
%RSD:	0.570	0.570	0.57				

QC value within limits for Hg 253.7 Recovery = 102.20%
All analyte(s) passed QC.

==========

Sequence No.: 95 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/22/2010 12:13:41**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.015	-0.015	-0.0001	0.0015	0.0003	12:14:41	Yes
2	-0.013	-0.013	-0.0001	0.0019	0.0004	12:15:16	Yes
Mean:	-0.014	-0.014	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	10.77	10.77	20.41				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 96 **Autosampler Location: 82**
Sample ID: 1202073925|967015|1 **Date Collected: 3/22/2010 12:15:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202073925|967015|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.019	-0.019	-0.0001	0.0012	0.0003	12:16:37	Yes
2	-0.018	-0.018	-0.0001	0.0013	0.0003	12:17:12	Yes
Mean:	-0.019	-0.019	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.529	4.529	6.98				

==========

Sequence No.: 97 **Autosampler Location: 83**
Sample ID: 1202075395|967015|1 **Date Collected: 3/22/2010 12:17:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075395|967015|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	-0.0001	0.0016	0.0003	12:18:33	Yes
2	-0.016	-0.016	-0.0001	0.0013	0.0003	12:19:08	Yes
Mean:	-0.016	-0.016	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	2.166	2.166	3.70				

==========

Sequence No.: 98 **Autosampler Location: 84**
Sample ID: 1202075396|967015|1 **Date Collected: 3/22/2010 12:19:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202075396|967015|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.151	2.151	0.0249	0.1318	0.0254	12:20:30	Yes
2	2.133	2.133	0.0247	0.1297	0.0252	12:21:05	Yes
Mean:	2.142	2.142	0.0248				
SD:	0.013	0.013	0.0001				

==========
Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 03/31/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 033110S1.SIF Results Data Set Name: 033110S1

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 03/31/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0038	0.0038	08:38:47	No
2			0.0037	0.0037	08:39:22	No
Mean:			0.0037			
SD :			0.0000			
%RSD:			1.2670			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 03/31/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0015	0.0052	08:40:44	No
2			0.0015	0.0052	08:41:18	No
Mean:			0.0015			
SD :			0.0000			
%RSD:			0.2319			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.00753
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 03/31/2010
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0042	0.0079	08:42:42	No
2			0.0041	0.0078	08:43:16	No
Mean:			0.0041			
SD :			0.0001			
%RSD:			1.6231			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99912 Slope: 0.00834
Intercept : -0.00006

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 03/31/2010
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0170	0.0207	08:44:41	No
2			0.0169	0.0206	08:45:16	No
Mean:			0.0169			
SD :			0.0000			
%RSD:			0.2231			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99994 Slope: 0.00852
Intercept : -0.00010

==========
Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 03/31/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0421	0.0459	08:46:41	No
2			0.0421	0.0459	08:47:16	No
Mean:			0.0421			
SD :			0.0000			
%RSD:						

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99999 Slope: 0.00845
Intercept : -0.00006

==========
Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 03/31/2010
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0829	0.0866	08:48:43	No
2			0.0826	0.0864	08:49:18	No
Mean:			0.0828			
SD :			0.0002			
%RSD:			0.2412			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99995 Slope: 0.00830
Intercept : 0.00011

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0037	---	----	----	----
S0.2	0.0015	0.200	0.169	0.0000	0.2
S0.5	0.0041	0.500	0.487	0.0001	1.6
S2.0	0.0169	2.000	2.030	0.0000	0.2
S5.0	0.0421	5.000	5.065	0.0000	----
S10	0.0828	10.000	9.963	0.0002	0.2

Correlation Coefficient: 0.99995 Slope: 0.00830 Intercept: 0.0001

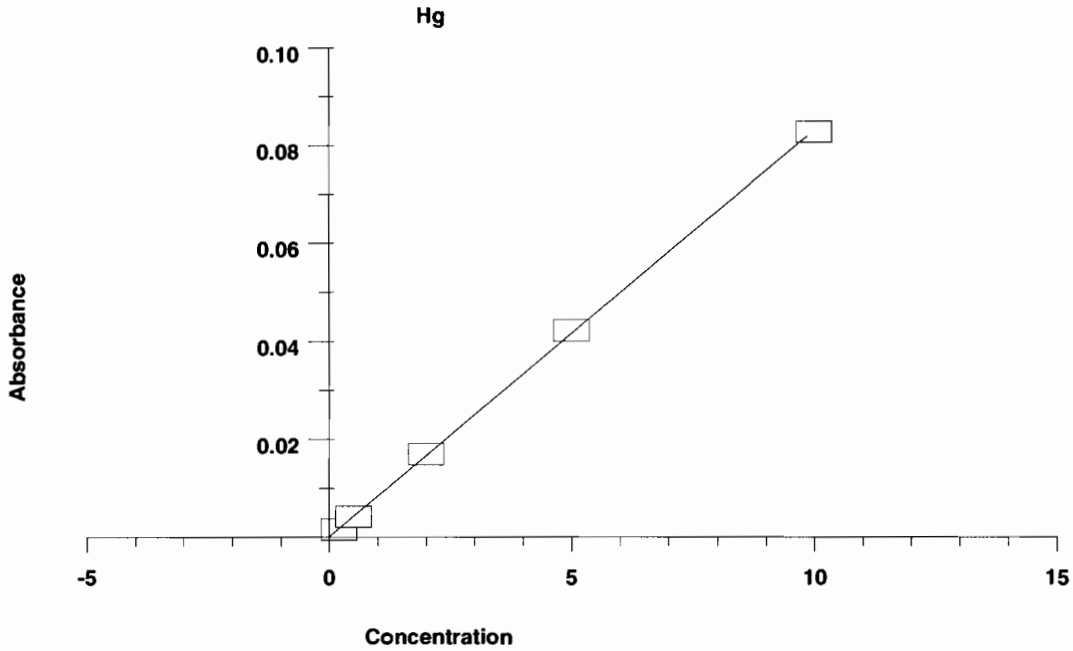

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 03/31/2010
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.187	5.187	0.0431	0.0469	08:50:47	No
2	5.163	5.163	0.0429	0.0467	08:51:23	No
Mean:	5.175	5.175	0.0430			
SD :	0.0170	0.0170	0.0001			
%RSD:	0.3	0.3	0.3275			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 03/31/2010
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.028	-0.028	-0.0001	0.0036	08:52:45	No
2	-0.046	-0.046	-0.0003	0.0035	08:53:20	No
Mean:	-0.037	-0.037	-0.0002			
SD :	0.0127	0.0127	0.0001			
%RSD:	34.4	34.4	53.2063			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 03/31/2010
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.235	0.235	0.0021	0.0058	08:54:43	No
2	0.216	0.216	0.0019	0.0056	08:55:17	No
Mean:	0.226	0.226	0.0020			
SD :	0.0132	0.0132	0.0001			
%RSD:	5.9	5.9	5.5497			

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 03/31/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.169	5.169	0.0430	0.0467	08:56:41	No
2	5.177	5.177	0.0431	0.0468	08:57:16	No
Mean:	5.173	5.173	0.0430			
SD :	0.0058	0.0058	0.0000			
%RSD:	0.1	0.1	0.1122			

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 03/31/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.024	-0.024	-0.0001	0.0036	08:58:44	No
2	-0.029	-0.029	-0.0001	0.0036	08:59:18	No
Mean:	-0.027	-0.027	-0.0001			
SD :	0.0034	0.0034	0.0000			
%RSD:	12.7	12.7	24.7998			

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 03/31/2010
Sample ID: 1202081090|i||969290|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.022	-0.022	-0.0001	0.0037	09:00:44	No
2	-0.035	-0.035	-0.0002	0.0035	09:01:19	No
Mean:	-0.029	-0.029	-0.0001			
SD :	0.0091	0.0091	0.0001			
%RSD:	31.8	31.8	58.2431			

==========

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 03/31/2010
Sample ID: 1202081091|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.697	3.697	0.0308	0.0345	09:02:43	No
2	3.713	3.713	0.0309	0.0346	09:03:18	No
Mean:	3.705	3.705	0.0308			
SD :	0.0115	0.0115	0.0001			
%RSD:	0.3	0.3	0.3105			

==========

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 03/31/2010
Sample ID: 249244001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.323	0.323	0.0028	0.0065	09:04:45	No
2	0.310	0.310	0.0027	0.0064	09:05:20	No
Mean:	0.316	0.316	0.0027			
SD :	0.0090	0.0090	0.0001			
%RSD:	2.8	2.8	2.7306			

==========

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 03/31/2010
Sample ID: 249244002|i|||

```
%RSD:        0.1         0.1    0.1252

==========================================================================================
Element: Hg    Seq. No.: 21       AS Loc.: 21   Date: 03/31/2010
Sample ID: 249329002|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        4.051     4.051    0.0337     0.0374   09:18:32  No
 2        4.060     4.060    0.0338     0.0375   09:19:07  No
Mean:     4.056     4.056    0.0338
SD  :    0.0068    0.0068    0.0001
%RSD:       0.2         0.2    0.1665

==========================================================================================
Element: Hg    Seq. No.: 22       AS Loc.: 7   Date: 03/31/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        5.472     5.472    0.0455     0.0492   09:20:32  No
 2        5.464     5.464    0.0454     0.0492   09:21:07  No
Mean:     5.468     5.468    0.0455
SD  :    0.0061    0.0061    0.0001
%RSD:       0.1         0.1    0.1114
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 23       AS Loc.: 8   Date: 03/31/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1       -0.020    -0.020   -0.0001     0.0037   09:22:35  No
 2       -0.022    -0.022   -0.0001     0.0036   09:23:10  No
Mean:    -0.021    -0.021   -0.0001
SD  :    0.0015    0.0015    0.0000
%RSD:       6.8         6.8   17.3510
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 24       AS Loc.: 22   Date: 03/31/2010
Sample ID: 249329003|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        7.730     7.730    0.0643     0.0680   09:24:35  No
 2        7.757     7.757    0.0645     0.0682   09:25:10  No
Mean:     7.744     7.744    0.0644
SD  :    0.0190    0.0190    0.0002
%RSD:       0.2         0.2    0.2450

==========================================================================================
Element: Hg    Seq. No.: 25       AS Loc.: 23   Date: 03/31/2010
Sample ID: 249329004|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        8.932     8.932    0.0742     0.0780   09:26:34  No
 2        8.932     8.932    0.0742     0.0780   09:27:09  No
Mean:     8.932     8.932    0.0742
SD  :    0.0000    0.0000    0.0000
%RSD:

==========================================================================================
Element: Hg    Seq. No.: 26       AS Loc.: 24   Date: 03/31/2010
Sample ID: 249330001|i|||
```

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.205	1.205	0.0101	0.0138	09:28:33	No
2	1.208	1.208	0.0101	0.0139	09:29:08	No
Mean:	1.206	1.206	0.0101			
SD :	0.0019	0.0019	0.0000			
%RSD:	0.2	0.2	0.1572			

Element: Hg Seq. No.: 27 AS Loc.: 25 Date: 03/31/2010
Sample ID: 1202081092|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.248	1.248	0.0105	0.0142	09:30:32	No
2	1.236	1.236	0.0104	0.0141	09:31:07	No
Mean:	1.242	1.242	0.0104			
SD :	0.0085	0.0085	0.0001			
%RSD:	0.7	0.7	0.6753			

Element: Hg Seq. No.: 28 AS Loc.: 26 Date: 03/31/2010
Sample ID: 1202081093|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.509	3.509	0.0292	0.0329	09:32:32	No
2	3.500	3.500	0.0292	0.0329	09:33:06	No
Mean:	3.505	3.505	0.0292			
SD :	0.0057	0.0057	0.0000			
%RSD:	0.2	0.2	0.1622			

Element: Hg Seq. No.: 29 AS Loc.: 27 Date: 03/31/2010
Sample ID: 1202081095|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.695	3.695	0.0308	0.0345	09:34:32	No
2	3.688	3.688	0.0307	0.0344	09:35:06	No
Mean:	3.692	3.692	0.0307			
SD :	0.0054	0.0054	0.0000			
%RSD:	0.1	0.1	0.1458			

Element: Hg Seq. No.: 30 AS Loc.: 28 Date: 03/31/2010
Sample ID: 1202081094|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.160	0.160	0.0014	0.0052	09:36:32	No
2	0.155	0.155	0.0014	0.0051	09:37:07	No
Mean:	0.157	0.157	0.0014			
SD :	0.0036	0.0036	0.0000			
%RSD:	2.3	2.3	2.1296			

Element: Hg Seq. No.: 31 AS Loc.: 29 Date: 03/31/2010
Sample ID: 249330002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.159	1.159	0.0097	0.0134	09:38:33	No
2	1.140	1.140	0.0096	0.0133	09:39:08	No
Mean:	1.149	1.149	0.0096			
SD :	0.0133	0.0133	0.0001			

```
%RSD:        1.2         1.2    1.1418

==========================================================================================
Element: Hg    Seq. No.: 32       AS Loc.: 30   Date: 03/31/2010
Sample ID: 249330003|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        30.55     30.55    0.2536     0.2573   09:40:35  No
Sample absorbance is greater than that of the highest standard.
 2        30.46     30.46    0.2528     0.2566   09:41:09  No
Sample absorbance is greater than that of the highest standard.
Mean:     30.50     30.50    0.2532
SD  :    0.0631    0.0631    0.0005
%RSD:       0.2        0.2    0.2067
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 33       AS Loc.: 31   Date: 03/31/2010
Sample ID: 249330004|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1       111.6    111.6    0.9260     0.9298   09:42:37  No
Sample absorbance is greater than that of the highest standard.
 2       110.6    110.6    0.9182     0.9219   09:43:12  No
Sample absorbance is greater than that of the highest standard.
Mean:    111.1    111.1    0.9221
SD  :   0.6703   0.6703    0.0056
%RSD:       0.6        0.6    0.6032
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 34       AS Loc.: 7    Date: 03/31/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        5.348     5.348    0.0445     0.0482   09:44:39  No
 2        5.346     5.346    0.0445     0.0482   09:45:14  No
Mean:     5.347     5.347    0.0445
SD  :    0.0016    0.0016    0.0000
%RSD:
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 35       AS Loc.: 8    Date: 03/31/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1       -0.050    -0.050   -0.0003     0.0034   09:46:42  No
 2       -0.051    -0.051   -0.0003     0.0034   09:47:17  No
Mean:    -0.051    -0.051   -0.0003
SD  :    0.0007    0.0007    0.0000
%RSD:       1.4        1.4    1.8244
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 36       AS Loc.: 32   Date: 03/31/2010
Sample ID: 249330005|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        20.49     20.49    0.1702     0.1739   09:48:41  No
Sample absorbance is greater than that of the highest standard.
 2        20.50     20.50    0.1702     0.1739   09:49:17  No
```

```
Sample absorbance is greater than that of the highest standard.
Mean:      20.50     20.50    0.1702
SD  :     0.0009    0.0009    0.0000
%RSD:
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 37       AS Loc.: 33   Date: 03/31/2010
Sample ID: 249330006|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        1.889     1.889    0.0158     0.0195   09:50:36  No
 2        1.880     1.880    0.0157     0.0194   09:51:11  No
Mean:     1.885     1.885    0.0157
SD  :    0.0061    0.0061    0.0001
%RSD:       0.3       0.3    0.3216

==========================================================================================
Element: Hg    Seq. No.: 38       AS Loc.: 34   Date: 03/31/2010
Sample ID: 249330007|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       32.61     32.61    0.2707     0.2744   09:52:31  No
Sample absorbance is greater than that of the highest standard.
 2       32.17     32.17    0.2670     0.2708   09:53:05  No
Sample absorbance is greater than that of the highest standard.
Mean:    32.39     32.39    0.2689
SD  :    0.3134    0.3134    0.0026
%RSD:       1.0       1.0    0.9673
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 39       AS Loc.: 35   Date: 03/31/2010
Sample ID: 249330008|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        1.749     1.749    0.0146     0.0183   09:54:26  No
 2        1.758     1.758    0.0147     0.0184   09:55:01  No
Mean:     1.754     1.754    0.0147
SD  :    0.0064    0.0064    0.0001
%RSD:       0.4       0.4    0.3619

==========================================================================================
Element: Hg    Seq. No.: 40       AS Loc.: 36   Date: 03/31/2010
Sample ID: 1202081106|i||969297|MB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1      -0.146    -0.146   -0.0011     0.0026   09:56:22  No
 2      -0.145    -0.145   -0.0011     0.0026   09:56:57  No
Mean:   -0.145    -0.145   -0.0011
SD  :    0.0006    0.0006    0.0000
%RSD:       0.4       0.4    0.4683

==========================================================================================
Element: Hg    Seq. No.: 41       AS Loc.: 37   Date: 03/31/2010
Sample ID: 1202081107|i|10||LCS
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        4.042     4.042    0.0336     0.0374   09:58:19  No
 2        4.029     4.029    0.0335     0.0373   09:58:54  No
Mean:     4.035     4.035    0.0336
SD  :    0.0095    0.0095    0.0001
```

```
%RSD:       0.2        0.2    0.2354

==========================================================================================
Element: Hg    Seq. No.: 42       AS Loc.: 38   Date: 03/31/2010
Sample ID: 249333003|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        34.63     34.63    0.2875     0.2912   10:00:16  No
Sample absorbance is greater than that of the highest standard.
 2        34.12     34.12    0.2832     0.2870   10:00:51  No
Sample absorbance is greater than that of the highest standard.
Mean:     34.38     34.38    0.2854
SD  :    0.3625    0.3625    0.0030
%RSD:       1.1        1.1    1.0540
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 43       AS Loc.: 39   Date: 03/31/2010
Sample ID: 249333004|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        29.43     29.43    0.2443     0.2480   10:02:14  No
Sample absorbance is greater than that of the highest standard.
 2        29.26     29.26    0.2429     0.2466   10:02:49  No
Sample absorbance is greater than that of the highest standard.
Mean:     29.34     29.34    0.2436
SD  :    0.1228    0.1228    0.0010
%RSD:       0.4        0.4    0.4183
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 44       AS Loc.: 40   Date: 03/31/2010
Sample ID: 249333005|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        203.6     203.6    1.6897  2  1.6934   10:04:12  No
Sample absorbance is greater than that of the highest standard.
 2        84.99     84.99    0.7053     0.7090   10:04:47  No
Sample absorbance is greater than that of the highest standard.
Mean:     144.3     144.3    1.1975
SD  :     83.89     83.89    0.6961
%RSD:      58.1      58.1   58.1272
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 45       AS Loc.: 7    Date: 03/31/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        4.603     4.603    0.0383     0.0420   10:17:20  No
 2        4.641     4.641    0.0386     0.0423   10:17:54  No
Mean:     4.622     4.622    0.0385
SD  :    0.0265    0.0265    0.0002
%RSD:       0.6        0.6    0.5725
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 46       AS Loc.: 8    Date: 03/31/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1       -0.086    -0.086   -0.0006     0.0031   10:19:22  No
```

2	-0.087	-0.087	-0.0006	0.0031	10:19:57	No
Mean:	-0.087	-0.087	-0.0006			
SD :	0.0002	0.0002	0.0000			
%RSD:	0.2	0.2	0.2764			

QC value within specified limits.

==========

Element: Hg Seq. No.: 47 AS Loc.: 30 Date: 03/31/2010
Sample ID: 249330003|i|10|969290|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.600	2.600	0.0217	0.0254	10:21:24	No
2	2.548	2.548	0.0212	0.0250	10:21:59	No
Mean:	2.574	2.574	0.0215			
SD :	0.0366	0.0366	0.0003			
%RSD:	1.4	1.4	1.4150			

==========

Element: Hg Seq. No.: 48 AS Loc.: 31 Date: 03/31/2010
Sample ID: 249330004|i|200||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.621	0.621	0.0053	0.0090	10:23:27	No
2	0.599	0.599	0.0051	0.0088	10:24:02	No
Mean:	0.610	0.610	0.0052			
SD :	0.0155	0.0155	0.0001			
%RSD:	2.5	2.5	2.4892			

==========

Element: Hg Seq. No.: 49 AS Loc.: 32 Date: 03/31/2010
Sample ID: 249330005|i|10||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.980	1.980	0.0165	0.0203	10:25:27	No
2	1.978	1.978	0.0165	0.0202	10:26:02	No
Mean:	1.979	1.979	0.0165			
SD :	0.0016	0.0016	0.0000			
%RSD:						

==========

Element: Hg Seq. No.: 50 AS Loc.: 34 Date: 03/31/2010
Sample ID: 249330007|i|10||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.310	3.310	0.0276	0.0313	10:27:22	No
2	3.355	3.355	0.0279	0.0317	10:27:57	No
Mean:	3.333	3.333	0.0278			
SD :	0.0318	0.0318	0.0003			
%RSD:	1.0	1.0	0.9519			

==========

Element: Hg Seq. No.: 51 AS Loc.: 38 Date: 03/31/2010
Sample ID: 249333003|i|10|969297|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.244	3.244	0.0270	0.0308	10:29:19	No
2	3.238	3.238	0.0270	0.0307	10:29:54	No
Mean:	3.241	3.241	0.0270			
SD :	0.0043	0.0043	0.0000			
%RSD:	0.1	0.1	0.1328			

==========

Element: Hg Seq. No.: 52 AS Loc.: 39 Date: 03/31/2010
Sample ID: 249333004|i|10||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.931	2.931	0.0244	0.0282	10:31:17	No
2	2.922	2.922	0.0244	0.0281	10:31:51	No
Mean:	2.926	2.926	0.0244			
SD :	0.0064	0.0064	0.0001			
%RSD:	0.2	0.2	0.2172			

Element: Hg Seq. No.: 53 AS Loc.: 40 Date: 03/31/2010
Sample ID: 249333005|i|200||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	12.17	12.17	0.1011	0.1049	10:33:15	No
Sample absorbance is greater than that of the highest standard.						
2	12.21	12.21	0.1014	0.1051	10:33:50	No
Sample absorbance is greater than that of the highest standard.						
Mean:	12.19	12.19	0.1013			
SD :	0.0225	0.0225	0.0002			
%RSD:	0.2	0.2	0.1843			
Sample absorbance is greater than that of the highest standard.						

Element: Hg Seq. No.: 54 AS Loc.: 41 Date: 03/31/2010
Sample ID: 249333006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	124.4	124.4	1.0325	1.0362	10:35:14	No
Sample absorbance is greater than that of the highest standard.						
2	124.3	124.3	1.0314	1.0351	10:35:49	No
Sample absorbance is greater than that of the highest standard.						
Mean:	124.4	124.4	1.0320			
SD :	0.0946	0.0946	0.0008			
%RSD:						
Sample absorbance is greater than that of the highest standard.						

Element: Hg Seq. No.: 55 AS Loc.: 7 Date: 03/31/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.126	5.126	0.0426	0.0464	10:40:31	No
2	5.035	5.035	0.0419	0.0456	10:41:06	No
Mean:	5.080	5.080	0.0423			
SD :	0.0644	0.0644	0.0005			
%RSD:	1.3	1.3	1.2637			
QC value within specified limits.						

Element: Hg Seq. No.: 56 AS Loc.: 8 Date: 03/31/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.066	-0.066	-0.0004	0.0033	10:42:33	No
2	-0.057	-0.057	-0.0004	0.0034	10:43:08	No
Mean:	-0.061	-0.061	-0.0004			
SD :	0.0066	0.0066	0.0001			
%RSD:	10.8	10.8	13.6861			
QC value within specified limits.						

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **965623.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202072046	Metals Soil LCS SRM ICP/Hg	UI062540-I	.524	g
MS	1202072048	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202072048	Metals Spike Mix II	UI1286774-06	.25	mL
MSD	1202072050	Metals Spike Mix I	UI1286772-01	.25	mL
MSD	1202072050	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202072045 MB	31-MAR-2010 09:30:00	Soil	0.513	50	97.46589	<2
1202072046 LCS	31-MAR-2010 09:30:00	Soil	0.524	50	95.41985	<2
249329001	31-MAR-2010 09:30:00	Soil	0.532	50	93.98496	<2
249329002	31-MAR-2010 09:30:00	Soil	0.5	50	100	<2
249329003	31-MAR-2010 09:30:00	Soil	0.529	50	94.51796	<2
249329004	31-MAR-2010 09:30:00	Soil	0.514	50	97.27626	<2
249330001	31-MAR-2010 09:30:00	Soil	0.501	50	99.8004	<2
249330002	31-MAR-2010 09:30:00	Soil	0.518	50	96.5251	<2
249330003	31-MAR-2010 09:30:00	Soil	0.536	50	93.28358	<2
249330004	31-MAR-2010 09:30:00	Soil	0.503	50	99.40358	<2
249330005	31-MAR-2010 09:30:00	Soil	0.523	50	95.60229	<2
249330006	31-MAR-2010 09:30:00	Soil	0.52	50	96.15385	<2
249330007	31-MAR-2010 09:30:00	Soil	0.502	50	99.60159	<2
249330008	31-MAR-2010 09:30:00	Soil	0.549	50	91.07468	<2
249333003	31-MAR-2010 09:30:00	Soil	0.509	50	98.23183	<2
1202072047 DUP (249333003)	31-MAR-2010 09:30:00	Soil	0.567	50	88.18342	<2
1202072048 MS (249333003)	31-MAR-2010 09:30:00	Soil	0.502	50	99.60159	<2
1202072050 MSD (249333003)	31-MAR-2010 09:30:00	Soil	0.53	50	94.33962	<2
1202072049 SDILT (249333003)	31-MAR-2010 09:30:00	Soil	0.509	50	98.23183	<2
249333004	31-MAR-2010 09:30:00	Soil	0.567	50	88.18342	<2
249333005	31-MAR-2010 09:30:00	Soil	0.502	50	99.60159	<2
249333006	31-MAR-2010 09:30:00	Soil	0.53	50	94.33962	<2
249333007	31-MAR-2010 09:30:00	Soil	0.509	50	98.23183	<2

Prep Logbook

Batch ID: **965623.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202072046	Metals Soil LCS SRM ICP/Hg	UI062540-I	.524	g
MS	1202072048	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202072048	Metals Spike Mix II	UI1286774-06	.25	mL
MSD	1202072050	Metals Spike Mix I	UI1286772-01	.25	mL
MSD	1202072050	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
249333008	31-MAR-2010 09:30:00	Soil	0.502	50	99.60159	<2
249333009	31-MAR-2010 09:30:00	Soil	0.5	50	100	<2

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL
1291278	Nitric Acid CONC.	1.25 mL

Comments:

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 965626.0 **Verified by:** _____

Analyst: Louis Hall

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: Sartorius Balance B-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202072051 MB	31-MAR-2010 09:30:00	0.518	50	96.5251	<2
1202072052 LCS	31-MAR-2010 09:30:00	0.5	50	100	<2
249329001	31-MAR-2010 09:30:00	0.532	50	93.98496	<2
249329002	31-MAR-2010 09:30:00	0.538	50	92.9368	<2
249329003	31-MAR-2010 09:30:00	0.505	50	99.0099	<2
249329004	31-MAR-2010 09:30:00	0.528	50	94.69697	<2
249330001	31-MAR-2010 09:30:00	0.522	50	95.78544	<2
249330002	31-MAR-2010 09:30:00	0.517	50	96.7118	<2
249330003	31-MAR-2010 09:30:00	0.502	50	99.60159	<2
249330004	31-MAR-2010 09:30:00	0.507	50	98.61933	<2
249330005	31-MAR-2010 09:30:00	0.551	50	90.7441	<2
249330006	31-MAR-2010 09:30:00	0.526	50	95.05703	<2
249330007	31-MAR-2010 09:30:00	0.505	50	99.0099	<2
249330008	31-MAR-2010 09:30:00	0.502	50	99.60159	<2
249333003	31-MAR-2010 09:30:00	0.511	50	97.84736	<2
1202072053 DUP (249333003)	31-MAR-2010 09:30:00	0.516	50	96.89922	<2
1202072054 MS (249333003)	31-MAR-2010 09:30:00	0.509	50	98.23183	<2
1202072056 MSD (249330003)	31-MAR-2010 09:30:00	0.502	50	99.60159	<2
1202072055 SDILT (249333003)	31-MAR-2010 09:30:00	0.511	50	97.84736	<2
249333004	31-MAR-2010 09:30:00	0.506	50	98.81423	<2
249333005	31-MAR-2010 09:30:00	0.514	50	97.27626	<2
249333006	31-MAR-2010 09:30:00	0.507	50	98.61933	<2
249333007	31-MAR-2010 09:30:00	0.501	50	99.8004	<2
249333008	31-MAR-2010 09:30:00	0.57	50	87.7193	<2
249333009	31-MAR-2010 09:30:00	0.52	50	96.15385	<2

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202072052	Metals Soil LCS SRM ICPMS	UI062540-MS	.5	g
MS	1202072054	ICP-MS Spike for soil products.	UI1286780-A	.5	mL
MS	1202072054	ICP-MS Spike for Soil Products	UI1286784-B	.5	mL
MSD	1202072056	ICP-MS Spike for soil products.	UI1286780-A	.5	mL
MSD	1202072056	ICP-MS Spike for Soil Products	UI1286784-B	.5	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1291278	5	mL

Comments:

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **973754.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202091940	Metals Soil LCS SRM ICP/Hg	UI062540-I	.504	g
MS	1202072048	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202072048	Metals Spike Mix II	UI1286774-06	.25	mL
MSD	1202072050	Metals Spike Mix I	UI1286772-01	.25	mL
MSD	1202072050	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202091939 MB	12-APR-2010 11:30:00	Soil	0.519	50	96.33911	
1202091940 LCS	12-APR-2010 11:30:00	Soil	0.504	50	99.20635	
249329001 - 2	12-APR-2010 11:30:00	Soil	0.501	50	99.8004	
249329002 - 2	12-APR-2010 11:30:00	Soil	0.502	50	99.60159	
249329003 - 2	12-APR-2010 11:30:00	Soil	0.516	50	96.89922	
249329004 - 2	12-APR-2010 11:30:00	Soil	0.507	50	98.61933	
249330001 - 2	12-APR-2010 11:30:00	Soil	0.541	50	92.42144	
249330002 - 2	12-APR-2010 11:30:00	Soil	0.535	50	93.45794	
249330003 - 2	12-APR-2010 11:30:00	Soil	0.502	50	99.60159	
249330004 - 2	12-APR-2010 11:30:00	Soil	0.523	50	95.60229	
249330005 - 2	12-APR-2010 11:30:00	Soil	0.528	50	94.69697	
249330006 - 2	12-APR-2010 11:30:00	Soil	0.559	50	89.44544	
249330007 - 2	12-APR-2010 11:30:00	Soil	0.564	50	88.65248	
249330008 - 2	12-APR-2010 11:30:00	Soil	0.553	50	90.41591	
249333003 - 2	12-APR-2010 11:30:00	Soil	0.513	50	97.46589	
1202072047 - 2 DUP (249333003)	12-APR-2010 11:30:00	Soil	0.511	50	97.84736	
1202072048 - 2 MS (249333003)	12-APR-2010 11:30:00	Soil	0.519	50	96.33911	
1202072050 - 2 MSD (249333003)	12-APR-2010 11:30:00	Soil	0.535	50	93.45794	
1202072049 - 2 SDILT (249333003)	12-APR-2010 11:30:00	Soil	0.513	50	97.46589	
249333004 - 2	12-APR-2010 11:30:00	Soil	0.502	50	99.60159	
249333005 - 2	12-APR-2010 11:30:00	Soil	0.553	50	90.41591	
249333006 - 2	12-APR-2010 11:30:00	Soil	0.5	50	100	
249333007 - 2	12-APR-2010 11:30:00	Soil	0.528	50	94.69697	

Prep Logbook

Batch ID: **973754.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202091940	Metals Soil LCS SRM ICP/Hg	UI062540-I	.504	g
MS	1202072048	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202072048	Metals Spike Mix II	UI1286774-06	.25	mL
MSD	1202072050	Metals Spike Mix I	UI1286772-01	.25	mL
MSD	1202072050	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
249333008 - 2	12-APR-2010 11:30:00	Soil	0.569	50	87.87346	
249333009 - 2	12-APR-2010 11:30:00	Soil	0.501	50	99.8004	

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL
1291278	Nitric Acid CONC.	1.25 mL

Comments:

Sample 249333003 consist of brown, medium soil.

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **969289.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202081091	Metals LCS Soil SRM	UI031809A	.206	g
MS	1202081093	Mercury soil working intermediate standard for MS	WHG100330-14	.3	mL
MSD	1202081095	Mercury soil working intermediate standard for MS	WHG100330-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202081090 MB	30-MAR-2010 13:15:00	Soil	0.506	30	59.28854	
1202081091 LCS	30-MAR-2010 13:15:00	Soil	0.206	30	145.63107	
249244001	30-MAR-2010 13:15:00	Soil	0.581	30	51.63511	
249244002	30-MAR-2010 13:15:00	Soil	0.55	30	54.54545	
249244003	30-MAR-2010 13:15:00	Soil	0.553	30	54.24955	
249244004	30-MAR-2010 13:15:00	Soil	0.553	30	54.24955	
249244005	30-MAR-2010 13:15:00	Soil	0.538	30	55.76208	
249244006	30-MAR-2010 13:15:00	Soil	0.526	30	57.03422	
249329001	30-MAR-2010 13:15:00	Soil	0.53	30	56.60377	
249329002	30-MAR-2010 13:15:00	Soil	0.556	30	53.95683	
249329003	30-MAR-2010 13:15:00	Soil	0.539	30	55.65863	
249329004	30-MAR-2010 13:15:00	Soil	0.571	30	52.5394	
249330001	30-MAR-2010 13:15:00	Soil	0.505	30	59.40594	
1202081092 DUP (249330001)	30-MAR-2010 13:15:00	Soil	0.5	30	60	
1202081093 MS (249330001)	30-MAR-2010 13:15:00	Soil	0.507	30	59.1716	
1202081095 MSD (249330001)	30-MAR-2010 13:15:00	Soil	0.536	30	55.97015	
1202081094 SDILT (249330001)	30-MAR-2010 13:15:00	Soil	0.505	30	59.40594	
249330002	30-MAR-2010 13:15:00	Soil	0.52	30	57.69231	
249330003	30-MAR-2010 13:15:00	Soil	0.524	30	57.25191	
249330004	30-MAR-2010 13:15:00	Soil	0.581	30	51.63511	
249330005	30-MAR-2010 13:15:00	Soil	0.503	30	59.64215	
249330006	30-MAR-2010 13:15:00	Soil	0.519	30	57.80347	
249330007	30-MAR-2010 13:15:00	Soil	0.586	30	51.19454	
249330008	30-MAR-2010 13:15:00	Soil	0.543	30	55.24862	

Reagent/Solvent Lot ID	Description	Amount

Comments:

Prep Logbook

Batch ID: **969289.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202081091	Metals LCS Soil SRM	UI031809A	.206	g
MS	1202081093	Mercury soil working intermediate standard for MS	WHG100330-14	.3	mL
MSD	1202081095	Mercury soil working intermediate standard for MS	WHG100330-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1

Reagent/Solvent Lot ID	Description	Amount
1255532-C	Hg reducing agent	2 mL
1274391-I	NITRIC ACID	.375 mL
1277235-A	Hydrochloric Acid Conc.	1.125 mL
1277238-C	5% KMnO4 solution	7.5 mL
WHG100330-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL
WHG100330-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL
WHG100330-09	Mercury Working 1st Source CAL S 2.0	300 uL
WHG100330-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL
WHG100330-11	Mercury Working 1st Source CAL S 10.0	1.5 mL
WHG100330-12	Mercury Working 2nd Source S 5.0/ICV	750 uL

Comments:

Sample 249330001 is a dry rocky brown soil.

Digestion Start Date: 30-MAR-10 13:15

Digestion End Date: 30-MAR-10 13:45

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **967111.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7470A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: No analytical instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202075646	Mercury working intermediate standard for LCS/MS	WHG100319-13	.2	mL
MS	1202075648	Mercury working intermediate standard for LCS/MS	WHG100319-13	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202075645 MB	19-MAR-2010 12:30:00	Water	20	20	1	<2
1202075646 LCS	19-MAR-2010 12:30:00	Water	20	20	1	<2
248672001	19-MAR-2010 12:30:00	Water	20	20	1	<2
249057004	19-MAR-2010 12:30:00	Water	20	20	1	<2
249064001	19-MAR-2010 12:30:00	Water	20	20	1	<2
249072001	19-MAR-2010 12:30:00	Water	20	20	1	<2
249076001	19-MAR-2010 12:30:00	Water	20	20	1	<2
249076002	19-MAR-2010 12:30:00	Water	20	20	1	<2
249097001	19-MAR-2010 12:30:00	Water	20	20	1	<2
249102001	19-MAR-2010 12:30:00	Water	20	20	1	<2
249248005	19-MAR-2010 12:30:00	Water	20	20	1	<2
249250002	19-MAR-2010 12:30:00	Water	20	20	1	<2
249330009	19-MAR-2010 12:30:00	Water	20	20	1	<2
249330010	19-MAR-2010 12:30:00	Water	20	20	1	<2
249330011	19-MAR-2010 12:30:00	Water	20	20	1	<2
249330012	19-MAR-2010 12:30:00	Water	20	20	1	<2
249333001	19-MAR-2010 12:30:00	Water	20	20	1	<2
249333002	19-MAR-2010 12:30:00	Water	20	20	1	<2
249510003	19-MAR-2010 12:30:00	Water	20	20	1	<2
249510005	19-MAR-2010 12:30:00	Water	20	20	1	<2
249528001	19-MAR-2010 12:30:00	Water	20	20	1	<2
1202075647 DUP (249528001)	19-MAR-2010 12:30:00	Water	20	20	1	<2
1202075648 MS (249528001)	19-MAR-2010 12:30:00	Water	20	20	1	<2
1202075655 SDILT (249528001)	19-MAR-2010 12:30:00	Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1176183	Sulfuric Acid, Concentrated	1 mL

Comments:

Digestion Start Date: 19-MAR-10 12:30

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **965602.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Metals Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202072002	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	UI1286776-A	.5	mL
LCS	1202072002	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).	UI1286778-B	.5	mL
MS	1202072004	ICP-MS DOE liquid Spike Solution A	UI090930-A	.5	mL
MS	1202072004	ICP-MS DOE Liquid Spike Solution B	UI090930-B	.5	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202072001 MB	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
1202072002 LCS	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
249124001	26-MAR-2010 10:00:00	Surface Water	50	50	1	<2
249172001	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
249172002	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
249172003	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
249172004	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
249178001	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
249178002	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
249243001	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
1202072003 DUP (249243001)	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
1202072004 MS (249243001)	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
1202072005 SDILT (249243001)	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
249243002	26-MAR-2010 10:00:00	Ground Water	50	50	1	<2
249330009	26-MAR-2010 10:00:00	Water	50	50	1	<2
249330010	26-MAR-2010 10:00:00	Water	50	50	1	<2
249330011	26-MAR-2010 10:00:00	Water	50	50	1	<2
249330012	26-MAR-2010 10:00:00	Water	50	50	1	<2
249333001	26-MAR-2010 10:00:00	Water	50	50	1	<2
249333002	26-MAR-2010 10:00:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	2.5 mL

Comments:

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **965618.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Metals Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202072039	Metals Spike Mix I	UI1286772-01	.25	mL
LCS	1202072039	Metals Spike Mix II	UI1286774-06	.25	mL
MS	1202072041	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202072041	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202072038 MB	31-MAR-2010 09:30:00	Water	50	50	1	<2
1202072039 LCS	31-MAR-2010 09:30:00	Water	50	50	1	<2
249178001	31-MAR-2010 09:30:00	Ground Water	50	50	1	<2
249178002	31-MAR-2010 09:30:00	Ground Water	50	50	1	<2
249243001	31-MAR-2010 09:30:00	Ground Water	50	50	1	<2
249243002	31-MAR-2010 09:30:00	Ground Water	50	50	1	<2
249330009	31-MAR-2010 09:30:00	Water	50	50	1	<2
249330010	31-MAR-2010 09:30:00	Water	50	50	1	<2
249330011	31-MAR-2010 09:30:00	Water	50	50	1	<2
249330012	31-MAR-2010 09:30:00	Water	50	50	1	<2
249333001	31-MAR-2010 09:30:00	Water	50	50	1	<2
1202072040 DUP (249333001)	31-MAR-2010 09:30:00	Water	50	50	1	<2
1202072041 MS (249333001)	31-MAR-2010 09:30:00	Water	50	50	1	<2
1202072042 SDILT (249333001)	31-MAR-2010 09:30:00	Water	50	50	1	<2
249333002	31-MAR-2010 09:30:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	2.5 mL
1291278	Nitric Acid CONC.	1 mL

Comments:

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **979729.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Metals Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202072002	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).	UI1303462-B	.5	mL
LCS	1202072002	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	UI1303464-A	.5	mL
MS	1202106368	ICP-MS DOE liquid Spike Solution A	UI1268752-A	.5	mL
MS	1202106368	ICP-MS DOE Liquid Spike Solution B	UI1268755-B	.5	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202072001 - 2 MB	30-APR-2010 08:45:00	Ground Water	50	50	1	<2
1202072002 - 2 LCS	30-APR-2010 08:45:00	Ground Water	50	50	1	<2
249330009 - 2	30-APR-2010 08:45:00	Water	50	50	1	<2
249330010 - 2	30-APR-2010 08:45:00	Water	50	50	1	<2
249330011 - 2	30-APR-2010 08:45:00	Water	50	50	1	<2
249330012 - 2	30-APR-2010 08:45:00	Water	50	50	1	<2
249333001 - 2	30-APR-2010 08:45:00	Water	50	50	1	<2
249333002 - 2	30-APR-2010 08:45:00	Water	50	50	1	<2
1202106366 - 2 DUP (249333002)	30-APR-2010 08:45:00	Water	50	50	1	<2
1202106367 - 2 SDILT (249333002)	30-APR-2010 08:45:00	Water	50	50	1	<2
1202106368 - 2 MS (249333002)	30-APR-2010 08:45:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1298333	HYDROCHLORIC ACID	2.5 mL
1302252	Nitric Acid CONC.	1 mL

Comments:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
09-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
965624	See Below		

Potentially affected work order(s)(SDG): 249329(10-2430),249330(10-2431),249333(10-2434)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202072048MS 2. Failed Recovery for MSD/PSD: QC 1202072050MSD	1. The matrix spike recovery failed outside of the control limits for magnesium,manganese and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The matrix spike duplicate recovery failed outside of the control limits for magnesium,manganese and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 09-APR-10

Data Validator/Group Leader:

Christopher Louviere 12-APR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
973755	See Below		

Potentially affected work order(s)(SDG): 249329(10-2430),249330(10-2431),249333(10-2434)

Application Issues:

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202072047DUP	1. The sample and sample duplicate % RPD failed outside the control limits for chromium and copper due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 16-APR-10

Data Validator/Group Leader:

Christopher Louviere 16-APR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
30-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3005/6020	Liquid	ESHL, LANL
Batch ID:	**Sample Numbers:**		
965603	See Below		

Potentially affected work order(s)(SDG): 249124(10-2380),249172(10-2393),249178(10-2402),249243(10-2409),249330(10-2431),249333(10-2434)

Application Issues:

Container scanning event for custody missed

Specification and Requirements Exception Description:	DER Disposition:
1. Container scanning event for custody missed: 249124 001 249172 001,002,003,004 249178 001,002 249243 001,002 249330 009,010,011,012 249333 001,002	The samples were in the custody of the analyst at the time of analysis. However, they were inadvertently not scanned in the Alpha LIMS system.

Originator's Name:

Bryan Davis 30-APR-10

Data Validator/Group Leader:

Kristen Parson 04-MAY-10

DER Report No.: 828155
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-MAY-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3005/6020	Liquid	LANL
Batch ID:	**Sample Numbers:**		
979730	See Below		

Potentially affected work order(s)(SDG): 249330(10-2431),249333(10-2434)

Application Issues:

Container scanning event for custody missed

Specification and Requirements Exception Description:	DER Disposition:
1. Container scanning event for custody missed: 249330 009,010,011,012 249333 001,002	1. The samples were in the custody of the ICPMS analyst at the time of analysis. However, the samples were inadvertently not scanned using the LIMS system.

Originator's Name:

Bryan Davis 17-MAY-10

Data Validator/Group Leader:

Jamie Johnson 17-MAY-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-MAY-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
965627	See Below		

Potentially affected work order(s)(SDG): 249329(10-2430),249330(10-2431),249333(10-2434)

Application Issues:

Container scanning event for custody missed

Failed Recovery for LCS/LCSD

Specification and Requirements Exception Description:	DER Disposition:
1. Container scanning event for custody missed: 249329 001,002,003,004 249330 001,002,003,004,005,006,007,008 249333 003,004,005,006,007,008,009	1. The samples were in the custody of the ICPMS analyst at the time of analysis. However, the samples were inadvertently not scanned using the LIMS system.

Originator's Name:

Bryan Davis 17-MAY-10

Data Validator/Group Leader:

Jamie Johnson 19-MAY-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Cesium	1.68 mg/kg	Chromium	236 mg/kg
Cobalt	91.2 mg/kg	Copper	174 mg/kg
Iron	18000 mg/kg	Lead	86 mg/kg
Lithium	10.6 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	755 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silver	30.1 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	1020 mg/kg	Strontium	227 mg/kg
Thallium	121 mg/kg	Thorium	9.84 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Uranium	2.13 mg/kg	Uranium-235	.0153 mg/kg
Uranium-238	2.11 mg/kg	Vanadium	92.4 mg/kg
Zinc	594 mg/kg	Zirconium	10.6 mg/kg

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 22-APR-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID:	UI090701-09	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #1	**Received:**	01-JUL-09	**Catalog Number :**	160044-09-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016477
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Master Soln #1				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	30 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	30 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	100 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID:	UI090701-10	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #2	**Received:**	01-JUL-09	**Catalog Number :**	160044-08-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016476
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Soln #2				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	3 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	5 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID:	UI090701-40	**Opened:**	01-JUL-09	**Amount :**	500 mL
Name:	TRACE ICP Stock PQL St	**Received:**	30-JUN-09	**Catalog Number :**	160543-01-03
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016475
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3+TrHF
Supplier:	02si				
Description:	TRACE ICP Stock PQL Standard				
Comments:	None				

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L

Analyte	Concentration	Analyte	Concentration
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI090930-A **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Standard Logbook

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Standard Logbook

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100310-49.14 **Opened:** 01-APR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 02-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L

Analyte	Concentration	Analyte	Concentration
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100310-49.16 **Opened:** 05-APR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 06-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100317-06 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-MAR-10 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019161
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Standard Logbook

Serial ID: UI100317-07 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-MAR-10 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019162
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI100317-08 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-MAR-10 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019163
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI100325-40 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L

Analyte	Concentration	Analyte	Concentration
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100325-41 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100329-40 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008325
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI100329-41 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008323
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI100329-42 **Opened:** 01-APR-10 **Amount :** 200 mL
Name: SILICON **Received:** 29-MAR-10 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 01-APR-11 **Lot Number :** 1004838
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100331-42 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 31-MAR-10 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 08-APR-11 **Lot Number :** 1019414
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100401-48 **Opened:** 02-APR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-APR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 16-APR-10 **Lot Number :** 1019463
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L

Analyte	Concentration	Analyte	Concentration
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100405-40 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100405-41 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100405-60 **Opened:** 05-APR-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 05-APR-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019464
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L

Analyte	Concentration	Analyte	Concentration
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI100405-61 **Opened:** 05-APR-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 05-APR-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019464
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI100415-11 **Opened:** 15-APR-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 15-APR-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 15-APR-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100509-11 **Opened:** 09-MAY-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 09-MAY-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 09-MAY-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L

Analyte	Concentration	Analyte	Concentration
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI1268752-A **Opened:** 11-FEB-10 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 11-FEB-10 **Lot Number :** 1017434
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI1268755-B **Opened:** 11-FEB-10 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 11-FEB-10 **Lot Number :** 1017434
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Standard Logbook

Serial ID: UI1286772-01 **Opened:** 16-MAR-10 **Lot Number :** 1019097
Name: METALSPIKE-1 **Received:** 16-MAR-10
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1286774-06 **Opened:** 16-MAR-10 **Lot Number :** 1018913
Name: METALSPIKE-2 **Received:** 16-MAR-10
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI1286776-A **Opened:** 16-MAR-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 16-MAR-10 **Lot Number :** 1018914
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI1286778-B **Opened:** 16-MAR-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 16-MAR-10 **Lot Number :** 1018914
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI1286780-A **Opened:** 16-MAR-10 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 16-MAR-10 **Lot Number :** 1017435
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L

Analyte	Concentration	Analyte	Concentration
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI1286784-B **Opened:** 16-MAR-10 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 16-MAR-10 **Lot Number :** 1017435
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI1303462-B **Opened:** 19-APR-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 19-APR-10 **Lot Number :** 1018914
Type: Source Material **Expires:** 19-APR-11
Employee: Bryan Davis
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI1303464-A **Opened:** 19-APR-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 19-APR-10 **Lot Number :** 1018914
Type: Source Material **Expires:** 19-APR-11
Employee: Bryan Davis
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100415-03 **Opened:** 15-APR-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100319-01 **Opened:** 19-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 19-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 20-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100319-02 **Opened:** 19-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 19-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 20-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100330-01 **Opened:** 30-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 30-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 31-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL

Standard Logbook

Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100330-02 **Opened:** 30-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 31-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100319-01a **Opened:** 19-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 19-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 26-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100319-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100319-02 **Opened:** 19-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 19-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 26-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100319-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100319-03 **Opened:** 19-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 19-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 26-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0

Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100319-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100319-04 **Opened:** 19-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 19-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 26-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100319-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100319-05 **Opened:** 19-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 19-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 26-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100319-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100319-06 **Opened:** 19-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 19-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 26-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100319-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100319-13 **Opened:** 19-MAR-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 19-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 26-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100330-07 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100330-08 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100330-09 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100330-10 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100330-11 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100330-12 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100330-14 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100401-42 **Opened:** 01-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100401-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100401-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100401-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100401-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100401-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100401-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100401-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100401-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100401-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100401-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100401-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100401-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100401-43 **Opened:** 01-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100401-44 **Opened:** 01-APR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1293083
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100401-45 **Opened:** 01-APR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Standard Logbook

Serial ID: WI100401-46 **Opened:** 01-APR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1293083
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Standard Logbook

Serial ID: WI100401-47 **Opened:** 01-APR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-APR-10 **Solvent :** 3%HCL &1%HNO3-1293083
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100405-42 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Helen Camello
Supplier: GEL

Standard Logbook

Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100405-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100405-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100405-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100405-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100405-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100405-43 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100405-44 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1296961
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100405-45 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Standard Logbook

Serial ID: WI100405-46 **Opened:** 05-APR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1296961
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Standard Logbook

Serial ID: WI100405-47 **Opened:** 05-APR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL &1%HNO3-1296961
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100415-42 **Opened:** 15-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 16-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1300128
Employee: Helen Camello
Supplier: GEL

Standard Logbook

Description: TRACE ICP 0.1 PPM CALIBRATION STD.

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100415-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100415-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100415-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100415-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100415-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100415-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100415-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100415-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100415-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100415-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100415-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100415-43 **Opened:** 15-APR-10 **Balance Id :** 216

Name: TRACE ICP 0.5/CCV STD. **Received:** 29-MAR-10 **Pipet Id :** 3581809

Type: Working **Expires:** 16-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1300128

Employee: Helen Camello

Supplier: GEL

Description: TRACE ICP O.5/CCV CALIBRATION STD.

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI100329-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100331-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L

Serial ID: WI100415-44 **Opened:** 15-APR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 16-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1300128
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI100329-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100331-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100415-45 **Opened:** 15-APR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 16-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1300128
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Standard Logbook

Serial ID: WI100415-46 **Opened:** 15-APR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 16-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1300128
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100329-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI100329-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Standard Logbook

Serial ID: WI100415-47 **Opened:** 15-APR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 16-APR-10 **Solvent :** 3%HCL &1%HNO3-1300128
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100424-04 **Opened:** 24-APR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 24-APR-10 **Balance Id :** 4025216
Type: Working **Expires:** 25-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1303289
Supplier: GEL

Standard Logbook

Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100424-04A **Opened:** 24-APR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 24-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 25-APR-10 **Solvent :** 2%HNO3/1%HCl - 1303289
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100424-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100424-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100424-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100424-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100424-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100424-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100424-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100424-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100424-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100424-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100424-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100424-05 **Opened:** 24-APR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 24-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 25-APR-10 **Solvent :** 2%HNO3/1%HCl - 1303289
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100424-06 **Opened:** 24-APR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 24-APR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 25-APR-10 **Solvent :** 2%HNO3/1%HCl - 1303289
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100424-07 **Opened:** 24-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 24-APR-10 **Lot Number :** 1010773
Type: Working **Expires:** 25-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1303289
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100424-08 **Opened:** 24-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 24-APR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 25-APR-10 **Solvent :** 2%HNO3/1%HCl - 1303289
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100424-70 **Opened:** 24-APR-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 24-APR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 25-APR-10 **Solvent :** 2%HNO3/1%HCl - 1303289
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100405-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100514-04 **Opened:** 14-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 14-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 15-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1336568
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100514-04A **Opened:** 14-MAY-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 14-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 15-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100514-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100514-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100514-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100514-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100514-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100514-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100514-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100514-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100514-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100514-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100514-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Serial ID: WMS100514-05 **Opened:** 14-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 14-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 15-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100514-06 **Opened:** 14-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 14-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 15-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100514-07 **Opened:** 14-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 14-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 15-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1336568
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100514-08 **Opened:** 14-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 14-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 15-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100514-70 **Opened:** 14-MAY-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 14-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 15-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100405-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100515-04 **Opened:** 15-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 15-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 16-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1336568
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100515-04A **Opened:** 15-MAY-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 15-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 16-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100515-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100515-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100515-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100515-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100515-05 **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 15-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 16-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100515-06 **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 15-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 16-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100515-07 **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 15-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 16-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1336568
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100515-08 **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 15-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 16-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100515-70 **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 15-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 16-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100405-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100517-04 **Opened:** 17-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 17-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 18-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1339608
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100517-04A **Opened:** 17-MAY-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 17-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100517-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100517-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100517-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100517-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100517-05 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 17-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100517-06 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 17-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	30 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	200 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100517-07 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 17-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 18-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1339608
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100517-08 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 17-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-08
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Standard Logbook

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1276435-C **Opened:** 28-FEB-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-FEB-10
Type: Reagent/Solvent **Expires:** 28-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1277235-A **Opened:** 01-MAR-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 01-MAR-11
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution

Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1282564 **Opened:** 09-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 09-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1282566 **Opened:** 09-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 09-MAR-10
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1291278 **Opened:** 25-MAR-10 **Lot Number :** J 08035 L
Name: I-HNO3 **Received:** 25-MAR-10
Type: Reagent/Solvent **Expires:** 25-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1293083 **Opened:** 29-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 29-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 04-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1296961 **Opened:** 05-APR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-APR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 11-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL

Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1298333 **Opened:** 07-APR-10 **Lot Number :** J07033
Name: I-HCL **Received:** 07-APR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 07-APR-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1300128 **Opened:** 12-APR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 02-APR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 18-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1302252 **Opened:** 15-APR-10 **Lot Number :** J 10027 L
Name: I-HNO3 **Received:** 15-APR-10
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1302255 **Opened:** 15-APR-10 **Lot Number :** J07033
Name: I-HCL **Received:** 15-APR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1303289 **Opened:** 19-APR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 19-APR-10
Type: Reagent/Solvent **Expires:** 26-APR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	9 l	N/A
1302255	I-HCL	36.5-38.0	80 mL	9 l	N/A

Serial ID: 1336568 **Opened:** 10-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 10-MAY-10
Type: Reagent/Solvent **Expires:** 17-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1302255	I-HCL	36.5-38.0	80 mL	8 l	N/A

Serial ID: 1338237 **Opened:** 13-MAY-10 **Lot Number :** J11034
Name: I-HCL **Received:** 13-MAY-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 13-MAY-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1339608 **Opened:** 17-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 17-MAY-10
Type: Reagent/Solvent **Expires:** 24-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1338237	I-HCL	36.5-38.0	80 mL	8 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2431

Method/Analysis Information

Product: pH

Analytical Batch: 965260 **Method:** SW9045C pH

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9045C/9045D:

Sample ID	Client ID
249330001	RE46-10-13219
249330002	RE46-10-13221
249330003	RE46-10-13220
249330004	RE46-10-13216
249330005	RE46-10-13217
249330006	RE46-10-13218
249330007	RE46-10-13234
249330008	RE46-10-14199
1202071054	249330001(RE46-10-13219) Sample Duplicate (DUP)
1202071055	249330002(RE46-10-13221) Sample Duplicate (DUP)
1202071056	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-008 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Electrode analysis was performed on a PerpHecT LogR pH/ISE.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 249330001 (RE46-10-13219) and 249330002 (RE46-10-13221).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
The following samples from this sample group were received by the lab outside of the method specified holding time: 1202071054 (RE46-10-13219), 1202071055 (RE46-10-13221), 249330001 (RE46-10-13219), 249330002 (RE46-10-13221), 249330003 (RE46-10-13220), 249330004 (RE46-10-13216), 249330005 (RE46-10-13217), 249330006 (RE46-10-13218), 249330007 (RE46-10-13234) and 249330008 (RE46-10-14199).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	966125	**Method:**	SW9012A Cyanide and Total
Prep Batch :	966123	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
249330009	RE46-10-13238
249330010	RE46-10-13239
249330011	RE46-10-14198
249330012	RE46-10-14201
1202073353	Method Blank (MB)
1202073354	249122003(CAPA-10-12853) Sample Duplicate (DUP)
1202073355	249248005(RE16-10-14125) Sample Duplicate (DUP)
1202073358	249122003(CAPA-10-12853) Matrix Spike (MS)
1202073359	249248005(RE16-10-14125) Matrix Spike (MS)
1202073362	249122003(CAPA-10-12853) Matrix Spike Duplicate (MSD)
1202073363	249248005(RE16-10-14125) Matrix Spike Duplicate (MSD)
1202073366	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 249122003 (CAPA-10-12853) and 249248005 (RE16-10-14125).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202073355 (RE16-10-14125).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 249330009 (RE46-10-13238). The following samples were re-analyzed due to LCS failure: 1202073353 (MB) and 1202073366 (LCS).

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	965135	**Method:**	SW9012A Cyanide and Total
Prep Batch :	965134	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
249330001	RE46-10-13219
249330002	RE46-10-13221
249330003	RE46-10-13220
249330004	RE46-10-13216
249330005	RE46-10-13217
249330006	RE46-10-13218
249330007	RE46-10-13234
249330008	RE46-10-14199
1202070679	Method Blank (MB)
1202070680	249255001(RE16-10-2979) Sample Duplicate (DUP)
1202070681	249259001(RE16-10-2903) Sample Duplicate (DUP)
1202070682	249255001(RE16-10-2979) Matrix Spike (MS)
1202070683	249259001(RE16-10-2903) Matrix Spike (MS)
1202070684	249255001(RE16-10-2979) Matrix Spike Duplicate (MSD)
1202070685	249259001(RE16-10-2903) Matrix Spike Duplicate (MSD)
1202070686	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 249255001 (RE16-10-2979) and 249259001 (RE16-10-2903).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202070686 (LCS).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Ion Chromatography**		
Analytical Batch:	970227	**Method:**	EPA 300.0 Nitrate in Soil
Prep Batch :	970225	**Method:**	EPA 300.0 PREP

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
249330001	RE46-10-13219
249330002	RE46-10-13221
249330003	RE46-10-13220
249330004	RE46-10-13216
249330005	RE46-10-13217
249330006	RE46-10-13218
249330007	RE46-10-13234
249330008	RE46-10-14199
1202083329	Method Blank (MB)
1202083330	249330001(RE46-10-13219) Sample Duplicate (DUP)
1202083331	249510011(RE16-10-14145) Sample Duplicate (DUP)
1202083332	249330001(RE46-10-13219) Matrix Spike (MS)
1202083333	249510011(RE16-10-14145) Matrix Spike (MS)
1202083334	249330001(RE46-10-13219) Matrix Spike Duplicate (MSD)
1202083335	249510011(RE16-10-14145) Matrix Spike Duplicate (MSD)
1202083336	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 249330001 (RE46-10-13219) and 249510011 (RE16-10-14145).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recoveries for Fluoride and Sulfate fall outside of the GEL acceptance limits but within the client specified limits. 1202083333 (RE16-10-14145).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recoveries for Fluoride and Sulfate fall outside of the GEL acceptance limits but within the client specified limits. 1202083335 (RE16-10-14145).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 812864 1202083333 (RE16-10-14145) and 1202083335 (RE16-10-14145).

Manual Integrations
The following samples from this sample group had to be manually integrated due to errors in the instrument software peak integration: 249330001 (RE46-10-13219) and 249330004 (RE46-10-13216).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: _____ **Date:** 09Apr10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2431 GEL Work Order: 249330

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-13219	Project:	LANL01004
Sample ID:	249330001	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	7.87%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis										
SW9045C pH "As Received"										
pH at Temp 19.2C	H	6.21	0.010	0.100	SU	1	EXF1 03/15/10	1114	965260	1
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	67.1	247	ug/kg	1	AXC2 03/22/10	1137	965135	2
Ion Chromatography										
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"										
Nitrate-N	U	ND	0.326	1.09	mg/kg	1	GXM 03/31/10 3	2054	970227	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/31/10	1527	970225
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/19/10	1525	965134

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-13221	Project:	LANL01004
Sample ID:	249330002	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	4.48%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis										
SW9045C pH "As Received"										
pH at Temp 21.5C	H	8.42	0.010	0.100	SU	1	EXF1 03/15/10	1119	965260	1
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	63.6	234	ug/kg	1	AXC2 03/22/10	1141	965135	2
Ion Chromatography										
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"										
Nitrate-N		1.26	0.314	1.05	mg/kg	1	GXM 03/31/10 3	2241	970227	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/31/10	1527	970225
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/19/10	1525	965134

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-13220	Project:	LANL01004
Sample ID:	249330003	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	11.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis										
SW9045C pH "As Received"										
pH at Temp 20.5C	H	7.40	0.010	0.100	SU	1	EXF1 03/15/10	1123	965260	1
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	71.1	262	ug/kg	1	AXC2 03/22/10	1142	965135	2
Ion Chromatography										
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"										
Nitrate-N		1.31	0.339	1.13	mg/kg	1	GXM 3 03/31/10	2308	970227	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/31/10	1527	970225
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/19/10	1525	965134

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-13216	Project:	LANL01004
Sample ID:	249330004	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	19%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis										
SW9045C pH "As Received"										
pH at Temp 21.5C	H	7.52	0.010	0.100	SU	1	EXF1 03/15/10	1126	965260	1
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.3	281	ug/kg	1	AXC2 03/22/10	1143	965135	2
Ion Chromatography										
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"										
Nitrate-N	U	ND	0.370	1.23	mg/kg	1	GXM 03/31/10 3	2335	970227	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/31/10	1527	970225
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/19/10	1525	965134

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-13217	Project:	LANL01004
Sample ID:	249330005	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	13.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis										
SW9045C pH "As Received"										
pH at Temp 21.1C	H	7.56	0.010	0.100	SU	1	EXF1 03/15/10	1129	965260	1
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	78.8	290	ug/kg	1	AXC2 03/22/10	1144	965135	2
Ion Chromatography										
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"										
Nitrate-N		1.33	0.348	1.16	mg/kg	1	GXM 04/01/10 3	0002	970227	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/31/10	1527	970225
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/19/10	1525	965134

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-13218	Project:	LANL01004
Sample ID:	249330006	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	28.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis										
SW9045C pH "As Received"										
pH at Temp 20.7C	H	6.32	0.010	0.100	SU	1	EXF1 03/15/10	1131	965260	1
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	94.7	348	ug/kg	1	AXC2 03/22/10	1145	965135	2
Ion Chromatography										
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"										
Nitrate-N	U	ND	0.418	1.39	mg/kg	1	GXM 04/01/10 3	0123	970227	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/31/10	1527	970225
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/19/10	1525	965134

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-13234	Project:	LANL01004
Sample ID:	249330007	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	12.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis										
SW9045C pH "As Received"										
pH at Temp 21.2C	H	7.62	0.010	0.100	SU	1	EXF1 03/15/10	1132	965260	1
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.1	269	ug/kg	1	AXC2 03/22/10	1146	965135	2
Ion Chromatography										
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"										
Nitrate-N		1.43	0.342	1.14	mg/kg	1	GXM 3 04/01/10	0150	970227	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/31/10	1527	970225
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/19/10	1525	965134

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-14199	Project:	LANL01004
Sample ID:	249330008	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	30%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Electrode Analysis										
SW9045C pH "As Received"										
pH at Temp 21.2C	H	6.31	0.010	0.100	SU	1	EXF1 03/15/10	1134	965260	1
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	287	97.1	357	ug/kg	1	AXC2 03/22/10	1146	965135	2
Ion Chromatography										
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"										
Nitrate-N	U	ND	0.429	1.43	mg/kg	1	GXM 3 04/01/10	0217	970227	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/31/10	1527	970225
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/19/10	1525	965134

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-13238	Project:	LANL01004
Sample ID:	249330009	Client ID:	LANL010
Matrix:	W		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/22/10	1526	966125	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1528	966123

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-13239	Project:	LANL01004
Sample ID:	249330010	Client ID:	LANL010
Matrix:	W		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/22/10	1210	966125	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1528	966123

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID:	RE46-10-14198	Project:	LANL01004
Sample ID:	249330011	Client ID:	LANL010
Matrix:	W		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/22/10	1211	966125	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1528	966123

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 7, 2010

Client SDG: 10-2431

Client Sample ID: RE46-10-14201
Sample ID: 249330012
Matrix: W
Collect Date: 11-MAR-10 12:00
Receive Date: 13-MAR-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/22/10	1212	966125	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/18/10	1528	966123

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: April 7, 2010

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 249330

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Electrode Analysis											
Batch 965260											
QC1202071054 249330001 DUP											
pH		H	6.21	H	6.21	SU	0.00		(0%-10%)	EXF1	03/15/10 11:16
QC1202071055 249330002 DUP											
pH		H	8.42	H	8.42	SU	0.00		(0%-10%)		03/15/10 11:21
QC1202071056 LCS											
pH	7.00				6.99	SU		99.9	(95%-105%)		03/15/10 10:57
Flow Injection Analysis											
Batch 965135											
QC1202070680 249255001 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			AXC2	03/22/10 11:24
QC1202070681 249259001 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A				03/22/10 11:31
QC1202070686 LCS											
Cyanide, Total	67900				65500	ug/kg		96.5	(32%-157%)		03/22/10 11:17
QC1202070679 MB											
Cyanide, Total				U	250	ug/kg					03/22/10 11:16
QC1202070682 249255001 MS											
Cyanide, Total	5560	U	ND		5840	ug/kg		105	(26%-158%)		03/22/10 11:29
QC1202070683 249259001 MS											
Cyanide, Total	5860	U	ND		6090	ug/kg		104	(26%-158%)		03/22/10 11:32
QC1202070684 249255001 MSD											
Cyanide, Total	6340	U	ND		6300	ug/kg	7.52	99.3	(0%-30%)		03/22/10 11:30
QC1202070685 249259001 MSD											
Cyanide, Total	5050	U	ND		5200	ug/kg	15.8	103	(0%-30%)		03/22/10 11:33
Batch 966125											
QC1202073354 249122003 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A			AXC2	03/22/10 11:56
QC1202073355 249248005 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A				03/22/10 12:01
QC1202073366 LCS											
Cyanide, Total	50.0				47.7	ug/L		95.4	(90%-110%)		03/22/10 11:54
QC1202073353 MB											
Cyanide, Total				U	5.00	ug/L					03/22/10 11:53
QC1202073358 249122003 MS											
Cyanide, Total	100	U	ND		107	ug/L		107	(60%-144%)		03/22/10 11:57
QC1202073359 249248005 MS											
Cyanide, Total	100	U	ND		104	ug/L		104	(60%-144%)		03/22/10 12:06
QC1202073362 249122003 MSD											
Cyanide, Total	100	U	ND		120	ug/L	11.5	120	(0%-20%)		03/22/10 11:58
QC1202073363 249248005 MSD											
Cyanide, Total	100	U	ND		107	ug/L	2.84	107	(0%-20%)		03/22/10 12:07
Ion Chromatography											
Batch 970227											

QC Summary

Workorder: 249330

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography											
Batch 970227											
QC1202083330 249330001 DUP											
Nitrate-N		U	ND	U	ND	mg/kg	N/A			GXM3	03/31/10 21:21
QC1202083331 249510011 DUP											
Nitrate-N		U	ND	U	ND	mg/kg	N/A				04/01/10 07:40
QC1202083336 LCS											
Nitrate-N	50.0				48.4	mg/kg		96.9	(90%-110%)		03/31/10 20:27
QC1202083329 MB											
Nitrate-N				U	1.00	mg/kg					03/31/10 20:00
QC1202083332 249330001 MS											
Nitrate-N	54.3	U	ND		54.3	mg/kg		100	(90%-110%)		03/31/10 21:48
QC1202083333 249510011 MS											
Nitrate-N	60.1	U	ND		56.0	mg/kg		93.2	(90%-110%)		04/01/10 08:06
QC1202083334 249330001 MSD											
Nitrate-N	54.3	U	ND		54.4	mg/kg	0.0779	100	(0%-20%)		03/31/10 22:14
QC1202083335 249510011 MSD											
Nitrate-N	60.1	U	ND		55.8	mg/kg	0.264	92.9	(0%-20%)		04/01/10 08:33

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification

QC Summary

Workorder: **249330**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 07-APR-2010 09:22

GEL Laboratories LLC
Contract: LANL01004
SDG #: 10-2431

Flow Injection Analysis
Method: SW846 9012A Concentration Units:ug/L
Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**22-MAR-2010 11:11:14**	**OM_3-22-2010_11-02-34**	**163**	**150**	**109**	**(90%-110%)**	**Yes**
CCV	22-MAR-2010 11:25:31	OM_3-22-2010_11-02-34	105	100	105	(90%-110%)	Yes
CCV	22-MAR-2010 11:37:57	OM_3-22-2010_11-02-34	106	100	106	(90%-110%)	Yes
CCV	22-MAR-2010 11:50:20	OM_3-22-2010_11-02-34	106	100	106	(90%-110%)	Yes
CCV	22-MAR-2010 12:02:49	OM_3-22-2010_11-02-34	103	100	103	(90%-110%)	Yes
CCV	22-MAR-2010 12:15:15	OM_3-22-2010_11-02-34	103	100	103	(90%-110%)	Yes
CCV	22-MAR-2010 15:18:50	OM_3-22-2010_14-52-22	104	100	104	(90%-110%)	Yes
CCV	22-MAR-2010 15:26:52	OM_3-22-2010_14-52-22	105	100	105	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**22-MAR-2010 11:13:04**	**OM_3-22-2010_11-02-34**	**-1.91**	**10**	**Yes**
CCB	22-MAR-2010 11:27:22	OM_3-22-2010_11-02-34	-1.81	10	Yes
CCB	22-MAR-2010 11:39:47	OM_3-22-2010_11-02-34	-1.91	10	Yes
CCB	22-MAR-2010 11:52:11	OM_3-22-2010_11-02-34	-1.82	10	Yes
CCB	22-MAR-2010 12:04:39	OM_3-22-2010_11-02-34	-1.75	10	Yes
CCB	22-MAR-2010 12:17:06	OM_3-22-2010_11-02-34	-2.03	10	Yes
CCB	22-MAR-2010 15:20:40	OM_3-22-2010_14-52-22	-1.76	10	Yes
CCB	22-MAR-2010 15:28:42	OM_3-22-2010_14-52-22	-1.99	10	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 07-APR-2010 09:22

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2431

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Nitrate-N

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**31-MAR-2010 19:06:00**	**100331**	**4.8778**	**5**	**97.6**	**(90%-110%)**	**Yes**
CCV	01-APR-2010 00:29:00	100331	7.5638	7.5	101	(90%-110%)	Yes
CCV	01-APR-2010 05:52:00	100331	4.8501	5	97	(90%-110%)	Yes
CCV	01-APR-2010 09:00:00	100331	7.5627	7.5	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**31-MAR-2010 19:33:00**	**100331**	**0**	**0.1**	**Yes**
CCB	01-APR-2010 00:56:00	100331	0	0.1	Yes
CCB	01-APR-2010 06:19:00	100331	0	0.1	Yes
CCB	01-APR-2010 09:27:00	100331	0	0.1	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **966123.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202073366	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202073358	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202073359	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202073360	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202073361	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073362	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073363	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073364	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073365	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202073353 MB	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
1202073366 LCS	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
249122003	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
1202073354 DUP (249122003)	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
1202073358 MS (249122003)	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
1202073362 MSD (249122003)	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
249172001	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
249172003	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
249248005	18-MAR-2010 15:28:00	Water	25	25	1	>12
1202073355 DUP (249248005)	18-MAR-2010 15:28:00	Water	25	25	1	>12
1202073359 MS (249248005)	18-MAR-2010 15:28:00	Water	25	25	1	>12
1202073363 MSD (249248005)	18-MAR-2010 15:28:00	Water	25	25	1	>12

Prep Logbook

Batch ID: **966123.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202073366	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202073358	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202073359	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202073360	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202073361	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073362	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073363	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073364	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073365	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
249328001	18-MAR-2010 15:28:00	Water	25	25	1	>12
249328002	18-MAR-2010 15:28:00	Water	25	25	1	>12
249330009	18-MAR-2010 15:28:00	Water	25	25	1	>12
249330010	18-MAR-2010 15:28:00	Water	25	25	1	>12
249330011	18-MAR-2010 15:28:00	Water	25	25	1	>12
249330012	18-MAR-2010 15:28:00	Water	25	25	1	>12
249333001	18-MAR-2010 15:28:00	Water	25	25	1	>12
249333002	18-MAR-2010 15:28:00	Water	25	25	1	>12
249378032	18-MAR-2010 15:28:00	Water	25	25	1	>12
1202073356 DUP (249378032)	18-MAR-2010 15:28:00	Water	25	25	1	>12
1202073360 MS (249378032)	18-MAR-2010 15:28:00	Water	25	25	1	>12
1202073364 MSD (249378032)	18-MAR-2010 15:28:00	Water	25	25	1	>12
249378037	18-MAR-2010 15:28:00	Water	25	25	1	>12
249378042	18-MAR-2010 15:28:00	Water	25	25	1	>12

Prep Logbook

Batch ID: **966123.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202073366	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202073358	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202073359	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202073360	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202073361	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073362	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073363	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073364	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202073365	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
249422001	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
1202073357 DUP (249422001)	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
1202073361 MS (249422001)	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
1202073365 MSD (249422001)	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
249422002	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
249422003	18-MAR-2010 15:28:00	Ground Water	25	25	1	>12
249436001	18-MAR-2010 15:28:00	Waste Water	25	25	1	>12
249436002	18-MAR-2010 15:28:00	Waste Water	25	25	1	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/22/2010 11:04:04	OM_3-22-2010_11-02-34
150 ppb		1	axc2	3/22/2010 11:04:56	OM_3-22-2010_11-02-34
100 ppb		1	axc2	3/22/2010 11:05:49	OM_3-22-2010_11-02-34
50 ppb		1	axc2	3/22/2010 11:06:42	OM_3-22-2010_11-02-34
10 ppb		1	axc2	3/22/2010 11:07:35	OM_3-22-2010_11-02-34
CRDL 5.0 ppb		1	axc2	3/22/2010 11:08:29	OM_3-22-2010_11-02-34
ICAL-00		1	axc2	3/22/2010 11:09:23	OM_3-22-2010_11-02-34
ICV		1	axc2	3/22/2010 11:11:14	OM_3-22-2010_11-02-34
ICB		1	axc2	3/22/2010 11:13:04	OM_3-22-2010_11-02-34
CRDL		1	axc2	3/22/2010 11:14:54	OM_3-22-2010_11-02-34
1202070679	965135	1	axc2	3/22/2010 11:16:44	OM_3-22-2010_11-02-34
1202070686	965135	25	axc2	3/22/2010 11:17:37	OM_3-22-2010_11-02-34
249011001	965135	1	axc2	3/22/2010 11:18:30	OM_3-22-2010_11-02-34
249011002	965135	1	axc2	3/22/2010 11:19:23	OM_3-22-2010_11-02-34
249011003	965135	1	axc2	3/22/2010 11:20:16	OM_3-22-2010_11-02-34
249011004	965135	1	axc2	3/22/2010 11:21:09	OM_3-22-2010_11-02-34
249011005	965135	1	axc2	3/22/2010 11:22:01	OM_3-22-2010_11-02-34
249011006	965135	1	axc2	3/22/2010 11:22:54	OM_3-22-2010_11-02-34
249255001	965135	1	axc2	3/22/2010 11:23:46	OM_3-22-2010_11-02-34
1202070680	965135	1	axc2	3/22/2010 11:24:39	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010 11:25:31	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010 11:27:22	OM_3-22-2010_11-02-34
1202070682	965135	1	axc2	3/22/2010 11:29:09	OM_3-22-2010_11-02-34
1202070684	965135	1	axc2	3/22/2010 11:30:01	OM_3-22-2010_11-02-34
249259001	965135	1	axc2	3/22/2010 11:30:53	OM_3-22-2010_11-02-34
1202070681	965135	1	axc2	3/22/2010 11:31:45	OM_3-22-2010_11-02-34
1202070683	965135	1	axc2	3/22/2010 11:32:37	OM_3-22-2010_11-02-34
1202070685	965135	1	axc2	3/22/2010 11:33:31	OM_3-22-2010_11-02-34
249259002	965135	1	axc2	3/22/2010 11:34:24	OM_3-22-2010_11-02-34
249320001	965135	1	axc2	3/22/2010 11:35:18	OM_3-22-2010_11-02-34
249320005	965135	1	axc2	3/22/2010 11:36:11	OM_3-22-2010_11-02-34
249330001	965135	1	axc2	3/22/2010 11:37:04	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010 11:37:57	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010 11:39:47	OM_3-22-2010_11-02-34
249330002	965135	1	axc2	3/22/2010 11:41:36	OM_3-22-2010_11-02-34
249330003	965135	1	axc2	3/22/2010 11:42:29	OM_3-22-2010_11-02-34
249330004	965135	1	axc2	3/22/2010 11:43:21	OM_3-22-2010_11-02-34
249330005	965135	1	axc2	3/22/2010 11:44:14	OM_3-22-2010_11-02-34
249330006	965135	1	axc2	3/22/2010 11:45:07	OM_3-22-2010_11-02-34
249330007	965135	1	axc2	3/22/2010 11:46:00	OM_3-22-2010_11-02-34
249330008	965135	1	axc2	3/22/2010 11:46:52	OM_3-22-2010_11-02-34
1202073353*	966125	1	axc2	3/22/2010 11:47:43	OM_3-22-2010_11-02-34
1202073366*	966125	1	axc2	3/22/2010 11:48:35	OM_3-22-2010_11-02-34
249122003*	966125	1	axc2	3/22/2010 11:49:27	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010 11:50:20	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010 11:52:11	OM_3-22-2010_11-02-34
1202073353	966125	1	axc2	3/22/2010 11:53:59	OM_3-22-2010_11-02-34
1202073366	966125	1	axc2	3/22/2010 11:54:50	OM_3-22-2010_11-02-34
249122003	966125	1	axc2	3/22/2010 11:55:43	OM_3-22-2010_11-02-34
1202073354	966125	1	axc2	3/22/2010 11:56:36	OM_3-22-2010_11-02-34
1202073358	966125	1	axc2	3/22/2010 11:57:30	OM_3-22-2010_11-02-34
1202073362	966125	1	axc2	3/22/2010 11:58:24	OM_3-22-2010_11-02-34
249172001	966125	1	axc2	3/22/2010 11:59:17	OM_3-22-2010_11-02-34
249172003	966125	1	axc2	3/22/2010 12:00:10	OM_3-22-2010_11-02-34
249248005	966125	1	axc2	3/22/2010 12:01:03	OM_3-22-2010_11-02-34
1202073355	966125	1	axc2	3/22/2010 12:01:56	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010 12:02:49	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010 12:04:39	OM_3-22-2010_11-02-34

1202073359	966125	1	axc2	3/22/2010	12:06:28	OM_3-22-2010_11-02-34
1202073363	966125	1	axc2	3/22/2010	12:07:21	OM_3-22-2010_11-02-34
249328001	966125	1	axc2	3/22/2010	12:08:13	OM_3-22-2010_11-02-34
249328002	966125	1	axc2	3/22/2010	12:09:06	OM_3-22-2010_11-02-34
249330009*	966125	1	axc2	3/22/2010	12:09:58	OM_3-22-2010_11-02-34
249330010	966125	1	axc2	3/22/2010	12:10:51	OM_3-22-2010_11-02-34
249330011	966125	1	axc2	3/22/2010	12:11:43	OM_3-22-2010_11-02-34
249330012	966125	1	axc2	3/22/2010	12:12:34	OM_3-22-2010_11-02-34
249333001	966125	1	axc2	3/22/2010	12:13:29	OM_3-22-2010_11-02-34
249333002	966125	1	axc2	3/22/2010	12:14:23	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010	12:15:15	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010	12:17:06	OM_3-22-2010_11-02-34
249378032	966125	1	axc2	3/22/2010	12:18:57	OM_3-22-2010_11-02-34
1202073356	966125	1	axc2	3/22/2010	12:19:50	OM_3-22-2010_11-02-34
1202073360	966125	1	axc2	3/22/2010	12:20:43	OM_3-22-2010_11-02-34
1202073364	966125	1	axc2	3/22/2010	12:21:37	OM_3-22-2010_11-02-34
249378037	966125	1	axc2	3/22/2010	12:22:30	OM_3-22-2010_11-02-34
249378042	966125	1	axc2	3/22/2010	12:23:23	OM_3-22-2010_11-02-34
249422001	966125	1	axc2	3/22/2010	12:24:16	OM_3-22-2010_11-02-34
1202073357	966125	1	axc2	3/22/2010	12:25:09	OM_3-22-2010_11-02-34
1202073361	966125	1	axc2	3/22/2010	12:26:01	OM_3-22-2010_11-02-34
1202073365	966125	1	axc2	3/22/2010	12:26:54	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010	12:27:46	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010	12:29:36	OM_3-22-2010_11-02-34
249422002	966125	1	axc2	3/22/2010	12:31:25	OM_3-22-2010_11-02-34
249422003	966125	1	axc2	3/22/2010	12:32:18	OM_3-22-2010_11-02-34
249436001	966125	1	axc2	3/22/2010	12:33:09	OM_3-22-2010_11-02-34
249436002	966125	1	axc2	3/22/2010	12:34:03	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010	12:34:56	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010	12:36:45	OM_3-22-2010_11-02-34

Author: axc2 Date : 3/22/2010

Original Run Filename: OM_3-22-2010_11-02-34.OMN created 3/22/2010 11:02:34
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-22-2010_11-02-34.OMN last modified 3/22/2010 12:37:51
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100322-01	1	S1	200	10.3	3/22/2010@11:04:04			200 ppb
WCN100322-02	1	S2	150	7.83	3/22/2010@11:04:56			150 ppb
WCN100322-03	1	S3	100	5.25	3/22/2010@11:05:49			100 ppb
WCN100322-04	1	S4	50.0	2.79	3/22/2010@11:06:42			50 ppb
WCN100322-05	1	S5	10.0	0.642	3/22/2010@11:07:35			10 ppb
WCN100322-06	1	S6	5.00	0.357	3/22/2010@11:08:29			CRDL 5.0 ppb
WCN100322-08	1	S7	0.00	0.0178	3/22/2010@11:09:23			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99982 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100322-07	1	S8	163	8.44	3/22/2010@11:11:14			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	8.5 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	8.5 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100322-08	1	S7	-1.91	0.0222	3/22/2010@11:13:04			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.91 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.91 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100322-06	1	S6	4.83	0.366	3/22/2010@11:14:54			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	4.83 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	4.83 > 2.50					
		Message	Pass					
		Action	None					
1202070679|965135|MB	1	1	-1.71	0.0323	3/22/2010@11:16:44			
1202070686||LCS	1	2	26.2	1.46	3/22/2010@11:17:37		25.00	
249011001	1	3	8.46	0.552	3/22/2010@11:18:30			
249011002	1	4	7.72	0.514	3/22/2010@11:19:23			
249011003	1	5	5.96	0.424	3/22/2010@11:20:16			
249011004	1	6	6.29	0.441	3/22/2010@11:21:09			
249011005	1	7	4.19	0.334	3/22/2010@11:22:01			
249011006	1	8	3.21	0.284	3/22/2010@11:22:54			
249255001	1	9	-1.48	0.0441	3/22/2010@11:23:46			
1202070680||DUP	1	10	-1.67	0.0344	3/22/2010@11:24:39			
WCN100322-03	1	S3	105	5.48	3/22/2010@11:25:31			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100322-08	1	S7	-1.81	0.0272	3/22/2010@11:27:22			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.81 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.81 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202070682||MS	1	11	105	5.48	3/22/2010@11:29:09			
1202070684||MSD	1	12	99.3	5.19	3/22/2010@11:30:01			
249259001	1	13	-1.78	0.0290	3/22/2010@11:30:53			
1202070681||DUP	1	14	-1.52	0.0422	3/22/2010@11:31:45			
1202070683||MS	1	15	104	5.44	3/22/2010@11:32:37			
1202070685||MSD	1	16	103	5.40	3/22/2010@11:33:31			
249259002	1	17	-1.01	0.0682	3/22/2010@11:34:24			
249320001	1	18	3.92	0.320	3/22/2010@11:35:18			
249320005	1	19	16.1	0.944	3/22/2010@11:36:11			
249330001	1	20	-0.331	0.103	3/22/2010@11:37:04			
WCN100322-03	1	S3	106	5.53	3/22/2010@11:37:57			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100322-08	1	S7	-1.91	0.0221	3/22/2010@11:39:47			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.91 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.91 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249330002	1	21	-1.25	0.0561	3/22/2010@11:41:36			
249330003	1	22	0.553	0.148	3/22/2010@11:42:29			
249330004	1	23	-1.62	0.0372	3/22/2010@11:43:21			
249330005	1	24	-1.44	0.0463	3/22/2010@11:44:14			
249330006	1	25	0.448	0.143	3/22/2010@11:45:07			
249330007	1	26	0.565	0.149	3/22/2010@11:46:00			
249330008	1	27	4.02	0.325	3/22/2010@11:46:52			
1202073353|966125|MB	1	28	-1.78	0.0288	3/22/2010@11:47:43			
1202073366||LCS	1	29	55.5	2.96	3/22/2010@11:48:35			
249122003	1	30	-1.41	0.0476	3/22/2010@11:49:27			
WCN100322-03	1	S3	106	5.55	3/22/2010@11:50:20			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100322-08	1	S7	-1.82	0.0268	3/22/2010@11:52:11			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
Result:			-1.82 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.82 > -5.00					
Message			CCB Passed					
Action			Continue					
1202073353|966125|MB	1	28	-1.77	0.0295	3/22/2010@11:53:59			
1202073366||LCS	1	29	47.7	2.56	3/22/2010@11:54:50			
249122003	1	30	-1.40	0.0484	3/22/2010@11:55:43			
1202073354||DUP	1	31	-1.68	0.0339	3/22/2010@11:56:36			
1202073358||MS	1	32	107	5.61	3/22/2010@11:57:30			
1202073362||MSD	1	33	120	6.26	3/22/2010@11:58:24			
249172001	1	34	-2.08	0.0134	3/22/2010@11:59:17			
249172003	1	35	-1.57	0.0395	3/22/2010@12:00:10			
249248005	1	36	-1.99	0.0182	3/22/2010@12:01:03			
1202073355||DUP	1	37	-1.37	0.0498	3/22/2010@12:01:56			
WCN100322-03	1	S3	103	5.41	3/22/2010@12:02:49			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			3.5 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			3.5 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100322-08	1	S7	-1.75	0.0304	3/22/2010@12:04:39			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.75 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.75 > -5.00					
Message			CCB Passed					
Action			Continue					
1202073359||MS	1	38	104	5.45	3/22/2010@12:06:28			
1202073363||MSD	1	39	107	5.56	3/22/2010@12:07:21			
249328001	1	40	0.375	0.139	3/22/2010@12:08:13			
249328002	1	41	0.530	0.147	3/22/2010@12:09:06			
249330009	1	42	-7.09	-0.242	3/22/2010@12:09:58			
249330010	1	43	-1.68	0.0341	3/22/2010@12:10:51			
249330011	1	44	-1.73	0.0313	3/22/2010@12:11:43			
249330012	1	45	-1.79	0.0281	3/22/2010@12:12:34			
249333001	1	46	-2.55	-0.0105	3/22/2010@12:13:29			
249333002	1	47	-1.63	0.0362	3/22/2010@12:14:23			
WCN100322-03	1	S3	103	5.39	3/22/2010@12:15:15			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			3.2 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			3.2 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100322-08	1	S7	-2.03	0.0158	3/22/2010@12:17:06			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-2.03 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-2.03 > -5.00					
Message			CCB Passed					
Action			Continue					

249378032	1	48	-1.51	0.0428	3/22/2010@12:18:57			
1202073356||DUP	1	49	-2.16	0.00953	3/22/2010@12:19:50			
1202073360||MS	1	50	89.3	4.68	3/22/2010@12:20:43			
1202073364||MSD	1	51	101	5.26	3/22/2010@12:21:37			
249378037	1	52	-0.00507	0.119	3/22/2010@12:22:30			
249378042	1	53	-1.84	0.0256	3/22/2010@12:23:23			
249422001	1	54	-1.84	0.0257	3/22/2010@12:24:16			
1202073357||DUP	1	55	-2.14	0.0106	3/22/2010@12:25:09			
1202073361||MS	1	56	102	5.32	3/22/2010@12:26:01			
1202073365||MSD	1	57	99.3	5.19	3/22/2010@12:26:54			
WCN100322-03	1	S3	104	5.41	3/22/2010@12:27:46			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		3.6 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		3.6 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100322-08	1	S7	-1.77	0.0291	3/22/2010@12:29:36			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.77 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.77 > -5.00					
	Message		CCB Passed					
	Action		Continue					
249422002	1	58	-2.34	1.67e-4	3/22/2010@12:31:25			
249422003	1	59	-1.80	0.0279	3/22/2010@12:32:18			
249436001	1	60	-0.434	0.0976	3/22/2010@12:33:09			
249436002	1	61	1.09	0.175	3/22/2010@12:34:03			
WCN100322-03	1	S3	104	5.41	3/22/2010@12:34:56			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		3.5 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		3.5 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100322-08	1	S7	-1.89	0.0234	3/22/2010@12:36:45			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.89 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.89 > -5.00					
	Message		CCB Passed					
	Action		Continue					

Analyte Properties Table for OM_3-22-2010_11-02-34.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar

Author: axc2

Date : 3/22/2010

Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

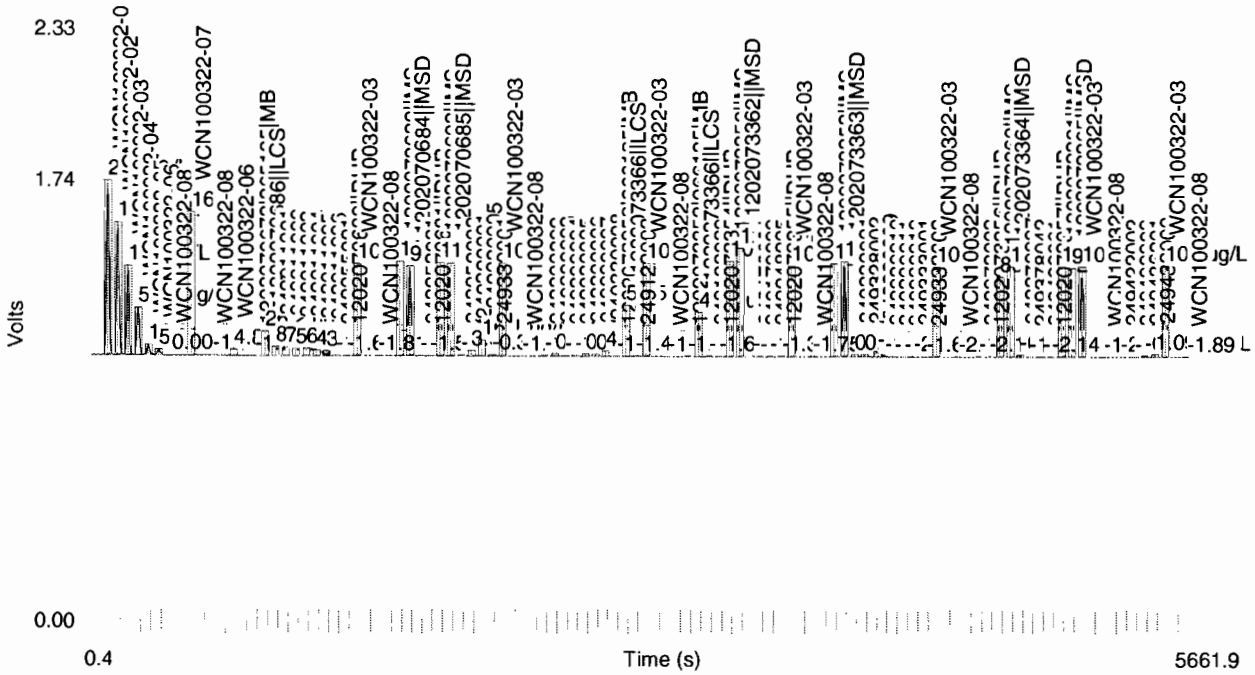

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.3	0.685	0.8	3/22/2010	11:05:07
2	150	1	7.83	0.521	-0.7	3/22/2010	11:05:59
3	100	1	5.25	0.350	-0.5	3/22/2010	11:06:52
4	50.0	1	2.79	0.187	-4.4	3/22/2010	11:07:45
5	10.0	1	0.642	0.0421	-1.7	3/22/2010	11:08:38
6	5.00	1	0.357	0.0235	5.3	3/22/2010	11:09:32
7	0.00	1	0.0178	0.00278		3/22/2010	11:10:26

Author: axc2 Date : 3/22/2010

Figure 1: TCYANIDE

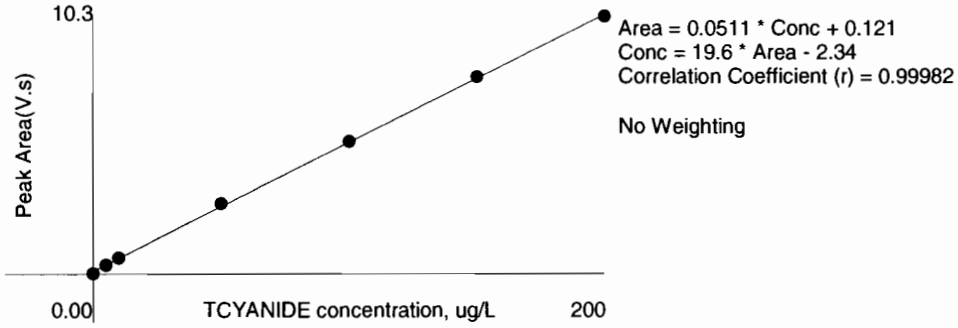

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	3/22/2010 14:53:56	OM_3-22-2010_14-52-22
CCB		1	axc2	3/22/2010 14:55:47	OM_3-22-2010_14-52-22
1202076950	967639	1	axc2	3/22/2010 14:57:37	OM_3-22-2010_14-52-22
1202076951	967639	25	axc2	3/22/2010 14:58:30	OM_3-22-2010_14-52-22
1202076954	967639	25	axc2	3/22/2010 14:59:23	OM_3-22-2010_14-52-22
249640001	967639	1	axc2	3/22/2010 15:00:16	OM_3-22-2010_14-52-22
249640002	967639	1	axc2	3/22/2010 15:01:09	OM_3-22-2010_14-52-22
249640003	967639	1	axc2	3/22/2010 15:02:01	OM_3-22-2010_14-52-22
249641001	967639	1	axc2	3/22/2010 15:02:54	OM_3-22-2010_14-52-22
249641002	967639	1	axc2	3/22/2010 15:03:47	OM_3-22-2010_14-52-22
249641003	967639	1	axc2	3/22/2010 15:04:39	OM_3-22-2010_14-52-22
249642001	967639	1	axc2	3/22/2010 15:05:32	OM_3-22-2010_14-52-22
CCV		1	axc2	3/22/2010 15:06:24	OM_3-22-2010_14-52-22
CCB		1	axc2	3/22/2010 15:08:14	OM_3-22-2010_14-52-22
249642002	967639	1	axc2	3/22/2010 15:10:02	OM_3-22-2010_14-52-22
1202076955	967642	1	axc2	3/22/2010 15:10:55	OM_3-22-2010_14-52-22
1202076956	967642	1	axc2	3/22/2010 15:11:46	OM_3-22-2010_14-52-22
249477001	967642	1	axc2	3/22/2010 15:12:38	OM_3-22-2010_14-52-22
1202076957	967642	1	axc2	3/22/2010 15:13:30	OM_3-22-2010_14-52-22
249500001	967642	1	axc2	3/22/2010 15:14:24	OM_3-22-2010_14-52-22
249640001	967642	1	axc2	3/22/2010 15:15:17	OM_3-22-2010_14-52-22
249640002	967642	1	axc2	3/22/2010 15:16:11	OM_3-22-2010_14-52-22
249640003	967642	1	axc2	3/22/2010 15:17:04	OM_3-22-2010_14-52-22
249641001	967642	1	axc2	3/22/2010 15:17:57	OM_3-22-2010_14-52-22
CCV		1	axc2	3/22/2010 15:18:50	OM_3-22-2010_14-52-22
CCB		1	axc2	3/22/2010 15:20:40	OM_3-22-2010_14-52-22
249641002	967642	1	axc2	3/22/2010 15:22:29	OM_3-22-2010_14-52-22
249641003	967642	1	axc2	3/22/2010 15:23:22	OM_3-22-2010_14-52-22
249642001	967642	1	axc2	3/22/2010 15:24:15	OM_3-22-2010_14-52-22
249642002	967642	1	axc2	3/22/2010 15:25:08	OM_3-22-2010_14-52-22
249330009	966125	1	axc2	3/22/2010 15:26:00	OM_3-22-2010_14-52-22
CCV		1	axc2	3/22/2010 15:26:52	OM_3-22-2010_14-52-22
CCB		1	axc2	3/22/2010 15:28:42	OM_3-22-2010_14-52-22

Author: axc2 Date : 3/22/2010

Original Run Filename: OM_3-22-2010_14-52-22.OMN created 3/22/2010 14:52:22
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-22-2010_14-52-22.OMN last modified 3/22/2010 15:29:49
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100322-03	1	S3	101	5.26	3/22/2010@14:53:56			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		0.7 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		0.7 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100322-08	1	S7	-1.93	0.0213	3/22/2010@14:55:47			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.93 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.93 > -5.00					
	Message		CCB Passed					
	Action		Continue					
	Calibration:		Table/Fig. 1					
1202076950|967639|MB	1	1	-1.96	0.0195	3/22/2010@14:57:37			
1202076951||LCS	1	2	22.8	1.28	3/22/2010@14:58:30		25.00	
1202076954||LCSD	1	3	21.5	1.22	3/22/2010@14:59:23		25.00	
249640001	1	4	-0.539	0.0922	3/22/2010@15:00:16			
249640002	1	5	-1.38	0.0494	3/22/2010@15:01:09			
249640003	1	6	-0.147	0.112	3/22/2010@15:02:01			
249641001	1	7	-1.55	0.0407	3/22/2010@15:02:54			
249641002	1	8	-0.587	0.0897	3/22/2010@15:03:47			
249641003	1	9	-0.761	0.0809	3/22/2010@15:04:39			
249642001	1	10	0.321	0.136	3/22/2010@15:05:32			
WCN100322-03	1	S3	101	5.29	3/22/2010@15:06:24			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		1.2 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		1.2 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100322-08	1	S7	-1.89	0.0234	3/22/2010@15:08:14			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.89 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.89 > -5.00					
	Message		CCB Passed					
	Action		Continue					
249642002	1	11	0.126	0.126	3/22/2010@15:10:02			
1202076955|967642|MB	1	12	-2.28	0.00317	3/22/2010@15:10:55			
1202076956||LCS	1	13	-2.26	0.00437	3/22/2010@15:11:46			
249477001	1	14	4.32	0.341	3/22/2010@15:12:38			
1202076957||DUP	1	15	5.05	0.378	3/22/2010@15:13:30			

249500001	1	16	6.65	0.460	3/22/2010@15:14:24			
249640001	1	17	10.7	0.669	3/22/2010@15:15:17			
249640002	1	18	9.16	0.588	3/22/2010@15:16:11			
249640003	1	19	18.9	1.08	3/22/2010@15:17:04			
249641001	1	20	10.0	0.632	3/22/2010@15:17:57			
WCN100322-03	1	S3	104	5.41	3/22/2010@15:18:50			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100322-08	1	S7	-1.76	0.0297	3/22/2010@15:20:40			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.76 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.76 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249641002	1	21	12.4	0.752	3/22/2010@15:22:29			
249641003	1	22	8.55	0.556	3/22/2010@15:23:22			
249642001	1	23	16.1	0.942	3/22/2010@15:24:15			
249642002	1	24	6.78	0.466	3/22/2010@15:25:08			
249330009|966125|	1	42	-2.05	0.0151	3/22/2010@15:26:00			
WCN100322-03	1	S3	105	5.46	3/22/2010@15:26:52			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100322-08	1	S7	-1.99	0.0179	3/22/2010@15:28:42			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.99 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.99 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_3-22-2010_14-52-22.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

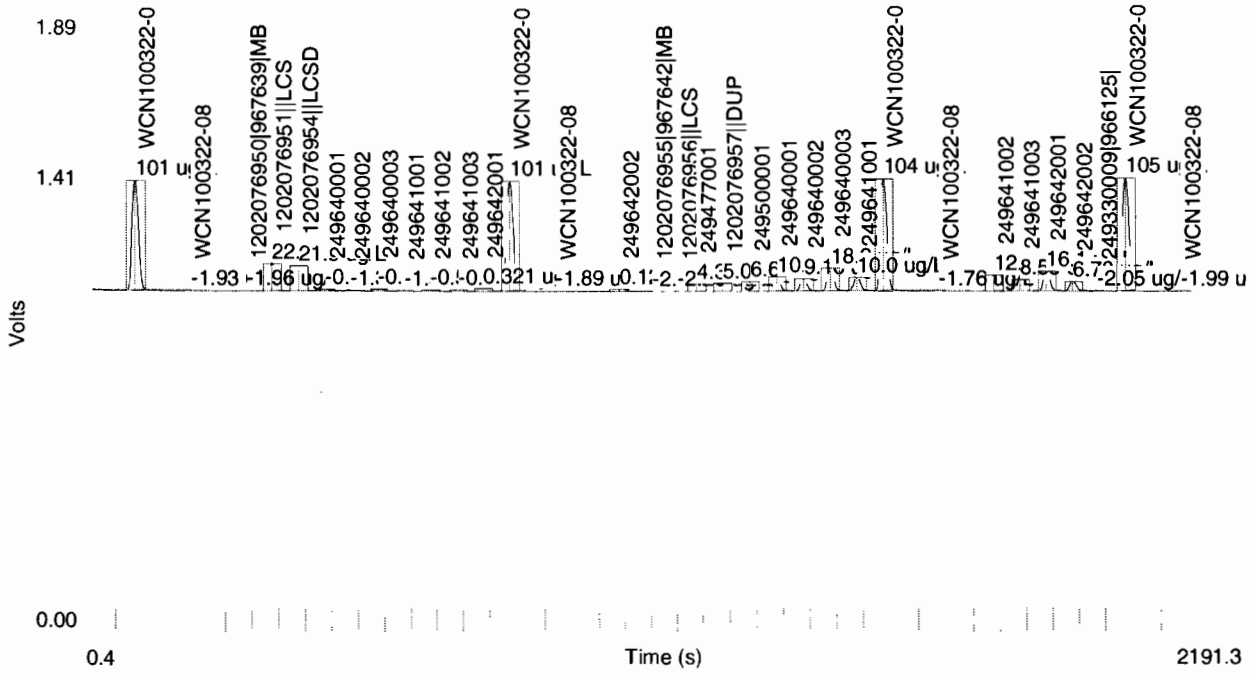

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.3	0.685	0.8	3/22/2010	11:05:07
2	150	1	7.83	0.521	-0.7	3/22/2010	11:05:59
3	100	1	5.25	0.350	-0.5	3/22/2010	11:06:52
4	50.0	1	2.79	0.187	-4.4	3/22/2010	11:07:45
5	10.0	1	0.642	0.0421	-1.7	3/22/2010	11:08:38
6	5.00	1	0.357	0.0235	5.3	3/22/2010	11:09:32
7	0.00	1	0.0178	0.00278		3/22/2010	11:10:26

Figure 1: TCYANIDE

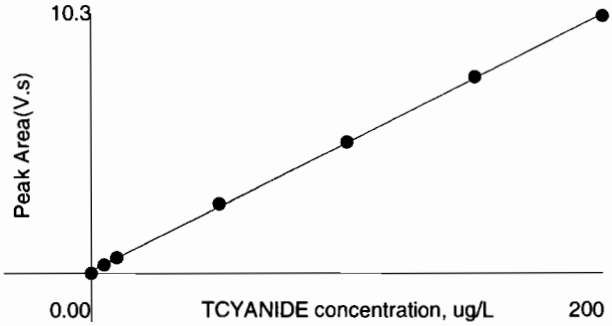

Area = 0.0511 * Conc + 0.121
Conc = 19.6 * Area - 2.34
Correlation Coefficient (r) = 0.99982

No Weighting

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **965134.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010C Distillation SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202070686	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202070682	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202070683	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202070684	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202070685	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202070679 MB	19-MAR-2010 15:25:00	Soil	0.5	25	50	>12
1202070686 LCS	19-MAR-2010 15:25:00	Soil	0.25	25	100	>12
249011001	19-MAR-2010 15:25:00	Solid	0.559	25	44.72272	>12
249011002	19-MAR-2010 15:25:00	Solid	0.56	25	44.64286	>12
249011003	19-MAR-2010 15:25:00	Solid	0.594	25	42.08754	>12
249011004	19-MAR-2010 15:25:00	Solid	0.549	25	45.53734	>12
249011005	19-MAR-2010 15:25:00	Solid	0.5	25	50	>12
249011006	19-MAR-2010 15:25:00	Solid	0.513	25	48.73294	>12
249255001	19-MAR-2010 15:25:00	Soil	0.53	25	47.16981	>12
1202070680 DUP (249255001)	19-MAR-2010 15:25:00	Soil	0.55	25	45.45455	>12
1202070682 MS (249255001)	19-MAR-2010 15:25:00	Soil	0.57	25	43.85965	>12
1202070684 MSD (249255001)	19-MAR-2010 15:25:00	Soil	0.5	25	50	>12
249259001	19-MAR-2010 15:25:00	Soil	0.54	25	46.2963	>12
1202070681 DUP (249259001)	19-MAR-2010 15:25:00	Soil	0.53	25	47.16981	>12
1202070683 MS (249259001)	19-MAR-2010 15:25:00	Soil	0.5	25	50	>12
1202070685 MSD (249259001)	19-MAR-2010 15:25:00	Soil	0.58	25	43.10345	>12
249259002	19-MAR-2010 15:25:00	Soil	0.54	25	46.2963	>12
249320001	19-MAR-2010 15:25:00	Solid	0.51	25	49.01961	>12
249320005	19-MAR-2010 15:25:00	Solid	0.52	25	48.07692	>12
249330001	19-MAR-2010 15:25:00	Soil	0.55	25	45.45455	>12
249330002	19-MAR-2010 15:25:00	Soil	0.56	25	44.64286	>12

Prep Logbook

Batch ID: **965134.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010C Distillation SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202070686	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202070682	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202070683	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202070684	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202070685	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
249330003	19-MAR-2010 15:25:00	Soil	0.54	25	46.2963	>12
249330004	19-MAR-2010 15:25:00	Soil	0.55	25	45.45455	>12
249330005	19-MAR-2010 15:25:00	Soil	0.5	25	50	>12
249330006	19-MAR-2010 15:25:00	Soil	0.5	25	50	>12
249330007	19-MAR-2010 15:25:00	Soil	0.53	25	47.16981	>12
249330008	19-MAR-2010 15:25:00	Soil	0.5	25	50	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100318-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/22/2010 11:04:04	OM_3-22-2010_11-02-34
150 ppb		1	axc2	3/22/2010 11:04:56	OM_3-22-2010_11-02-34
100 ppb		1	axc2	3/22/2010 11:05:49	OM_3-22-2010_11-02-34
50 ppb		1	axc2	3/22/2010 11:06:42	OM_3-22-2010_11-02-34
10 ppb		1	axc2	3/22/2010 11:07:35	OM_3-22-2010_11-02-34
CRDL 5.0 ppb		1	axc2	3/22/2010 11:08:29	OM_3-22-2010_11-02-34
ICAL-00		1	axc2	3/22/2010 11:09:23	OM_3-22-2010_11-02-34
ICV		1	axc2	3/22/2010 11:11:14	OM_3-22-2010_11-02-34
ICB		1	axc2	3/22/2010 11:13:04	OM_3-22-2010_11-02-34
CRDL		1	axc2	3/22/2010 11:14:54	OM_3-22-2010_11-02-34
1202070679	965135	1	axc2	3/22/2010 11:16:44	OM_3-22-2010_11-02-34
1202070686	965135	25	axc2	3/22/2010 11:17:37	OM_3-22-2010_11-02-34
249011001	965135	1	axc2	3/22/2010 11:18:30	OM_3-22-2010_11-02-34
249011002	965135	1	axc2	3/22/2010 11:19:23	OM_3-22-2010_11-02-34
249011003	965135	1	axc2	3/22/2010 11:20:16	OM_3-22-2010_11-02-34
249011004	965135	1	axc2	3/22/2010 11:21:09	OM_3-22-2010_11-02-34
249011005	965135	1	axc2	3/22/2010 11:22:01	OM_3-22-2010_11-02-34
249011006	965135	1	axc2	3/22/2010 11:22:54	OM_3-22-2010_11-02-34
249255001	965135	1	axc2	3/22/2010 11:23:46	OM_3-22-2010_11-02-34
1202070680	965135	1	axc2	3/22/2010 11:24:39	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010 11:25:31	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010 11:27:22	OM_3-22-2010_11-02-34
1202070682	965135	1	axc2	3/22/2010 11:29:09	OM_3-22-2010_11-02-34
1202070684	965135	1	axc2	3/22/2010 11:30:01	OM_3-22-2010_11-02-34
249259001	965135	1	axc2	3/22/2010 11:30:53	OM_3-22-2010_11-02-34
1202070681	965135	1	axc2	3/22/2010 11:31:45	OM_3-22-2010_11-02-34
1202070683	965135	1	axc2	3/22/2010 11:32:37	OM_3-22-2010_11-02-34
1202070685	965135	1	axc2	3/22/2010 11:33:31	OM_3-22-2010_11-02-34
249259002	965135	1	axc2	3/22/2010 11:34:24	OM_3-22-2010_11-02-34
249320001	965135	1	axc2	3/22/2010 11:35:18	OM_3-22-2010_11-02-34
249320005	965135	1	axc2	3/22/2010 11:36:11	OM_3-22-2010_11-02-34
249330001	965135	1	axc2	3/22/2010 11:37:04	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010 11:37:57	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010 11:39:47	OM_3-22-2010_11-02-34
249330002	965135	1	axc2	3/22/2010 11:41:36	OM_3-22-2010_11-02-34
249330003	965135	1	axc2	3/22/2010 11:42:29	OM_3-22-2010_11-02-34
249330004	965135	1	axc2	3/22/2010 11:43:21	OM_3-22-2010_11-02-34
249330005	965135	1	axc2	3/22/2010 11:44:14	OM_3-22-2010_11-02-34
249330006	965135	1	axc2	3/22/2010 11:45:07	OM_3-22-2010_11-02-34
249330007	965135	1	axc2	3/22/2010 11:46:00	OM_3-22-2010_11-02-34
249330008	965135	1	axc2	3/22/2010 11:46:52	OM_3-22-2010_11-02-34
1202073353*	966125	1	axc2	3/22/2010 11:47:43	OM_3-22-2010_11-02-34
1202073366*	966125	1	axc2	3/22/2010 11:48:35	OM_3-22-2010_11-02-34
249122003*	966125	1	axc2	3/22/2010 11:49:27	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010 11:50:20	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010 11:52:11	OM_3-22-2010_11-02-34
1202073353	966125	1	axc2	3/22/2010 11:53:59	OM_3-22-2010_11-02-34
1202073366	966125	1	axc2	3/22/2010 11:54:50	OM_3-22-2010_11-02-34
249122003	966125	1	axc2	3/22/2010 11:55:43	OM_3-22-2010_11-02-34
1202073354	966125	1	axc2	3/22/2010 11:56:36	OM_3-22-2010_11-02-34
1202073358	966125	1	axc2	3/22/2010 11:57:30	OM_3-22-2010_11-02-34
1202073362	966125	1	axc2	3/22/2010 11:58:24	OM_3-22-2010_11-02-34
249172001	966125	1	axc2	3/22/2010 11:59:17	OM_3-22-2010_11-02-34
249172003	966125	1	axc2	3/22/2010 12:00:10	OM_3-22-2010_11-02-34
249248005	966125	1	axc2	3/22/2010 12:01:03	OM_3-22-2010_11-02-34
1202073355	966125	1	axc2	3/22/2010 12:01:56	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010 12:02:49	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010 12:04:39	OM_3-22-2010_11-02-34

1202073359	966125	1	axc2	3/22/2010	12:06:28	OM_3-22-2010_11-02-34
1202073363	966125	1	axc2	3/22/2010	12:07:21	OM_3-22-2010_11-02-34
249328001	966125	1	axc2	3/22/2010	12:08:13	OM_3-22-2010_11-02-34
249328002	966125	1	axc2	3/22/2010	12:09:06	OM_3-22-2010_11-02-34
249330009*	966125	1	axc2	3/22/2010	12:09:58	OM_3-22-2010_11-02-34
249330010	966125	1	axc2	3/22/2010	12:10:51	OM_3-22-2010_11-02-34
249330011	966125	1	axc2	3/22/2010	12:11:43	OM_3-22-2010_11-02-34
249330012	966125	1	axc2	3/22/2010	12:12:34	OM_3-22-2010_11-02-34
249333001	966125	1	axc2	3/22/2010	12:13:29	OM_3-22-2010_11-02-34
249333002	966125	1	axc2	3/22/2010	12:14:23	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010	12:15:15	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010	12:17:06	OM_3-22-2010_11-02-34
249378032	966125	1	axc2	3/22/2010	12:18:57	OM_3-22-2010_11-02-34
1202073356	966125	1	axc2	3/22/2010	12:19:50	OM_3-22-2010_11-02-34
1202073360	966125	1	axc2	3/22/2010	12:20:43	OM_3-22-2010_11-02-34
1202073364	966125	1	axc2	3/22/2010	12:21:37	OM_3-22-2010_11-02-34
249378037	966125	1	axc2	3/22/2010	12:22:30	OM_3-22-2010_11-02-34
249378042	966125	1	axc2	3/22/2010	12:23:23	OM_3-22-2010_11-02-34
249422001	966125	1	axc2	3/22/2010	12:24:16	OM_3-22-2010_11-02-34
1202073357	966125	1	axc2	3/22/2010	12:25:09	OM_3-22-2010_11-02-34
1202073361	966125	1	axc2	3/22/2010	12:26:01	OM_3-22-2010_11-02-34
1202073365	966125	1	axc2	3/22/2010	12:26:54	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010	12:27:46	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010	12:29:36	OM_3-22-2010_11-02-34
249422002	966125	1	axc2	3/22/2010	12:31:25	OM_3-22-2010_11-02-34
249422003	966125	1	axc2	3/22/2010	12:32:18	OM_3-22-2010_11-02-34
249436001	966125	1	axc2	3/22/2010	12:33:09	OM_3-22-2010_11-02-34
249436002	966125	1	axc2	3/22/2010	12:34:03	OM_3-22-2010_11-02-34
CCV		1	axc2	3/22/2010	12:34:56	OM_3-22-2010_11-02-34
CCB		1	axc2	3/22/2010	12:36:45	OM_3-22-2010_11-02-34

Author: axc2 Date : 3/22/2010

Original Run Filename: OM_3-22-2010_11-02-34.OMN created 3/22/2010 11:02:34
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-22-2010_11-02-34.OMN last modified 3/22/2010 12:37:51
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100322-01	1	S1	200	10.3	3/22/2010@11:04:04			200 ppb
WCN100322-02	1	S2	150	7.83	3/22/2010@11:04:56			150 ppb
WCN100322-03	1	S3	100	5.25	3/22/2010@11:05:49			100 ppb
WCN100322-04	1	S4	50.0	2.79	3/22/2010@11:06:42			50 ppb
WCN100322-05	1	S5	10.0	0.642	3/22/2010@11:07:35			10 ppb
WCN100322-06	1	S6	5.00	0.357	3/22/2010@11:08:29			CRDL 5.0 ppb
WCN100322-08	1	S7	0.00	0.0178	3/22/2010@11:09:23			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99982 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100322-07	1	S8	163	8.44	3/22/2010@11:11:14			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	8.5 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	8.5 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100322-08	1	S7	-1.91	0.0222	3/22/2010@11:13:04			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.91 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.91 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100322-06	1	S6	4.83	0.366	3/22/2010@11:14:54			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	4.83 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	4.83 > 2.50					
		Message	Pass					
		Action	None					
1202070679|965135|MB	1	1	-1.71	0.0323	3/22/2010@11:16:44			
1202070686||LCS	1	2	26.2	1.46	3/22/2010@11:17:37		25.00	
249011001	1	3	8.46	0.552	3/22/2010@11:18:30			
249011002	1	4	7.72	0.514	3/22/2010@11:19:23			
249011003	1	5	5.96	0.424	3/22/2010@11:20:16			
249011004	1	6	6.29	0.441	3/22/2010@11:21:09			
249011005	1	7	4.19	0.334	3/22/2010@11:22:01			
249011006	1	8	3.21	0.284	3/22/2010@11:22:54			
249255001	1	9	-1.48	0.0441	3/22/2010@11:23:46			
1202070680||DUP	1	10	-1.67	0.0344	3/22/2010@11:24:39			
WCN100322-03	1	S3	105	5.48	3/22/2010@11:25:31			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100322-08	1	S7	-1.81	0.0272	3/22/2010@11:27:22			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.81 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.81 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202070682||MS	1	11	105	5.48	3/22/2010@11:29:09			
1202070684||MSD	1	12	99.3	5.19	3/22/2010@11:30:01			
249259001	1	13	-1.78	0.0290	3/22/2010@11:30:53			
1202070681||DUP	1	14	-1.52	0.0422	3/22/2010@11:31:45			
1202070683||MS	1	15	104	5.44	3/22/2010@11:32:37			
1202070685||MSD	1	16	103	5.40	3/22/2010@11:33:31			
249259002	1	17	-1.01	0.0682	3/22/2010@11:34:24			
249320001	1	18	3.92	0.320	3/22/2010@11:35:18			
249320005	1	19	16.1	0.944	3/22/2010@11:36:11			
249330001	1	20	-0.331	0.103	3/22/2010@11:37:04			
WCN100322-03	1	S3	106	5.53	3/22/2010@11:37:57			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100322-08	1	S7	-1.91	0.0221	3/22/2010@11:39:47			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.91 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.91 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249330002	1	21	-1.25	0.0561	3/22/2010@11:41:36			
249330003	1	22	0.553	0.148	3/22/2010@11:42:29			
249330004	1	23	-1.62	0.0372	3/22/2010@11:43:21			
249330005	1	24	-1.44	0.0463	3/22/2010@11:44:14			
249330006	1	25	0.448	0.143	3/22/2010@11:45:07			
249330007	1	26	0.565	0.149	3/22/2010@11:46:00			
249330008	1	27	4.02	0.325	3/22/2010@11:46:52			
1202073353|966125|MB	1	28	-1.78	0.0288	3/22/2010@11:47:43			
1202073366||LCS	1	29	55.5	2.96	3/22/2010@11:48:35			
249122003	1	30	-1.41	0.0476	3/22/2010@11:49:27			
WCN100322-03	1	S3	106	5.55	3/22/2010@11:50:20			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100322-08	1	S7	-1.82	0.0268	3/22/2010@11:52:11			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202073353|966125|MB	1	28	-1.77	0.0295	3/22/2010@11:53:59			
1202073366||LCS	1	29	47.7	2.56	3/22/2010@11:54:50			
249122003	1	30	-1.40	0.0484	3/22/2010@11:55:43			
1202073354||DUP	1	31	-1.68	0.0339	3/22/2010@11:56:36			
1202073358||MS	1	32	107	5.61	3/22/2010@11:57:30			
1202073362||MSD	1	33	120	6.26	3/22/2010@11:58:24			
249172001	1	34	-2.08	0.0134	3/22/2010@11:59:17			
249172003	1	35	-1.57	0.0395	3/22/2010@12:00:10			
249248005	1	36	-1.99	0.0182	3/22/2010@12:01:03			
1202073355||DUP	1	37	-1.37	0.0498	3/22/2010@12:01:56			
WCN100322-03	1	S3	103	5.41	3/22/2010@12:02:49			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100322-08	1	S7	-1.75	0.0304	3/22/2010@12:04:39			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.75 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.75 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202073359||MS	1	38	104	5.45	3/22/2010@12:06:28			
1202073363||MSD	1	39	107	5.56	3/22/2010@12:07:21			
249328001	1	40	0.375	0.139	3/22/2010@12:08:13			
249328002	1	41	0.530	0.147	3/22/2010@12:09:06			
249330009	1	42	-7.09	-0.242	3/22/2010@12:09:58			
249330010	1	43	-1.68	0.0341	3/22/2010@12:10:51			
249330011	1	44	-1.73	0.0313	3/22/2010@12:11:43			
249330012	1	45	-1.79	0.0281	3/22/2010@12:12:34			
249333001	1	46	-2.55	-0.0105	3/22/2010@12:13:29			
249333002	1	47	-1.63	0.0362	3/22/2010@12:14:23			
WCN100322-03	1	S3	103	5.39	3/22/2010@12:15:15			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100322-08	1	S7	-2.03	0.0158	3/22/2010@12:17:06			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.03 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.03 > -5.00					
		Message	CCB Passed					
		Action	Continue					

249378032	1	48	-1.51	0.0428	3/22/2010@12:18:57			
1202073356||DUP	1	49	-2.16	0.00953	3/22/2010@12:19:50			
1202073360||MS	1	50	89.3	4.68	3/22/2010@12:20:43			
1202073364||MSD	1	51	101	5.26	3/22/2010@12:21:37			
249378037	1	52	-0.00507	0.119	3/22/2010@12:22:30			
249378042	1	53	-1.84	0.0256	3/22/2010@12:23:23			
249422001	1	54	-1.84	0.0257	3/22/2010@12:24:16			
1202073357||DUP	1	55	-2.14	0.0106	3/22/2010@12:25:09			
1202073361||MS	1	56	102	5.32	3/22/2010@12:26:01			
1202073365||MSD	1	57	99.3	5.19	3/22/2010@12:26:54			
WCN100322-03	1	S3	104	5.41	3/22/2010@12:27:46			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		3.6 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		3.6 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100322-08	1	S7	-1.77	0.0291	3/22/2010@12:29:36			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.77 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.77 > -5.00					
	Message		CCB Passed					
	Action		Continue					
249422002	1	58	-2.34	1.67e-4	3/22/2010@12:31:25			
249422003	1	59	-1.80	0.0279	3/22/2010@12:32:18			
249436001	1	60	-0.434	0.0976	3/22/2010@12:33:09			
249436002	1	61	1.09	0.175	3/22/2010@12:34:03			
WCN100322-03	1	S3	104	5.41	3/22/2010@12:34:56			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		3.5 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		3.5 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100322-08	1	S7	-1.89	0.0234	3/22/2010@12:36:45			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.89 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.89 > -5.00					
	Message		CCB Passed					
	Action		Continue					

Analyte Properties Table for OM_3-22-2010_11-02-34.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar

Author: axc2 Date : 3/22/2010

Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

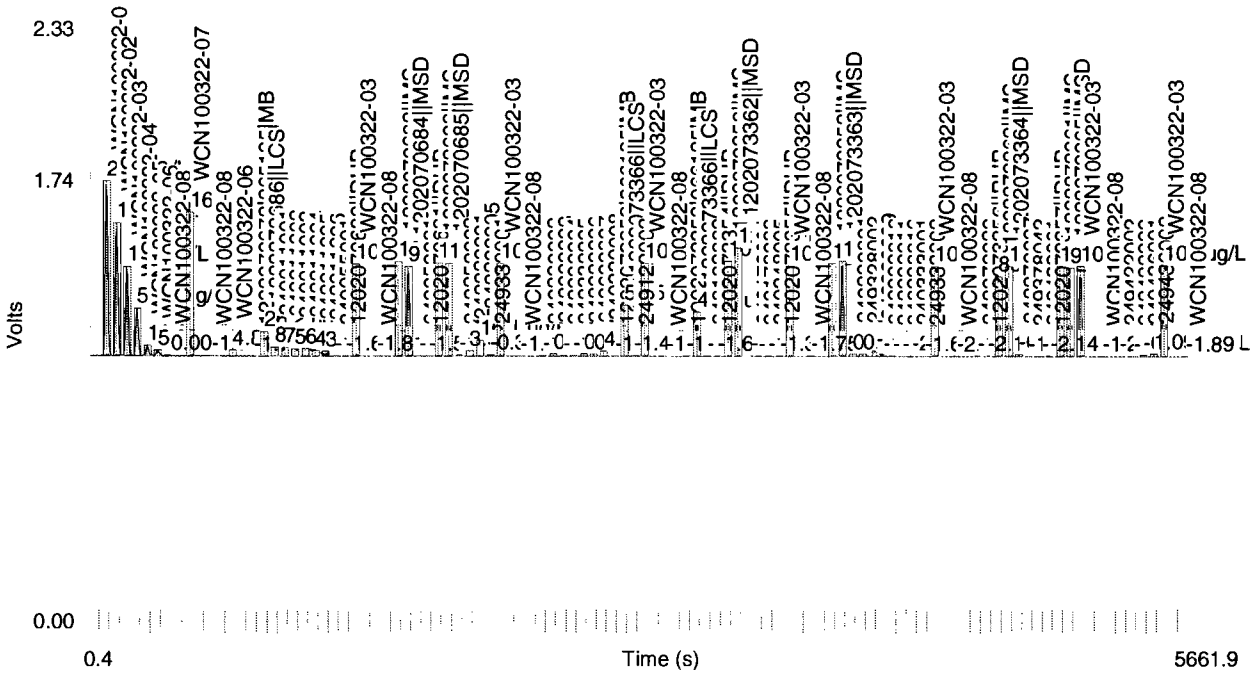

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.3	0.685	0.8	3/22/2010	11:05:07
2	150	1	7.83	0.521	-0.7	3/22/2010	11:05:59
3	100	1	5.25	0.350	-0.5	3/22/2010	11:06:52
4	50.0	1	2.79	0.187	-4.4	3/22/2010	11:07:45
5	10.0	1	0.642	0.0421	-1.7	3/22/2010	11:08:38
6	5.00	1	0.357	0.0235	5.3	3/22/2010	11:09:32
7	0.00	1	0.0178	0.00278		3/22/2010	11:10:26

Author: axc2

Date : 3/22/2010

Figure 1: TCYANIDE

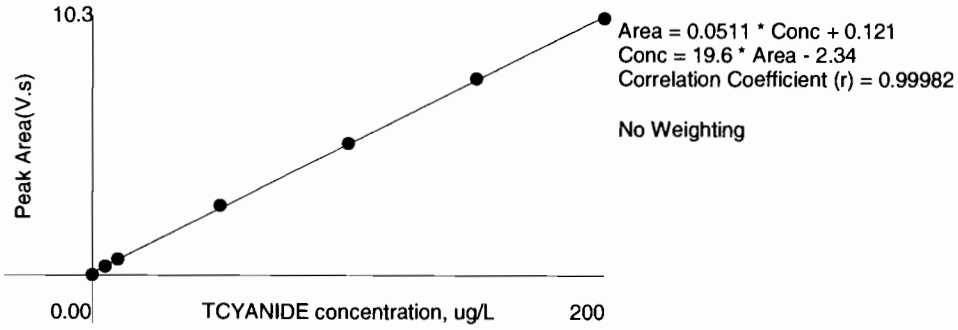

Ion Chromatography

Prep Logbook

Ion Chromatography (IC)

Batch ID: **970225.0** Verified by: _____

Analyst: Virginia Wininger

Method: EPA 300.0 PREP

Lab SOP: GL-GC-E-086 REV# 17

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202083336	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202083332	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202083333	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202083334	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202083335	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202083329 MB	31-MAR-2010 15:27:00	Soil	4	40	10	
1202083336 LCS	31-MAR-2010 15:27:00	Soil	4	40	10	
249330001	31-MAR-2010 15:27:00	Soil	4	40	10	
1202083330 DUP (249330001)	31-MAR-2010 15:27:00	Soil	4	40	10	
1202083332 MS (249330001)	31-MAR-2010 15:27:00	Soil	4	40	10	
1202083334 MSD (249330001)	31-MAR-2010 15:27:00	Soil	4	40	10	
249330002	31-MAR-2010 15:27:00	Soil	4	40	10	
249330003	31-MAR-2010 15:27:00	Soil	4	40	10	
249330004	31-MAR-2010 15:27:00	Soil	4	40	10	
249330005	31-MAR-2010 15:27:00	Soil	4	40	10	
249330006	31-MAR-2010 15:27:00	Soil	4	40	10	
249330007	31-MAR-2010 15:27:00	Soil	4	40	10	
249330008	31-MAR-2010 15:27:00	Soil	4	40	10	
249510001	31-MAR-2010 15:27:00	Soil	4	40	10	
249510002	31-MAR-2010 15:27:00	Soil	4	40	10	
249510004	31-MAR-2010 15:27:00	Soil	4	40	10	
249510006	31-MAR-2010 15:27:00	Soil	4	40	10	
249510007	31-MAR-2010 15:27:00	Soil	4	40	10	
249510008	31-MAR-2010 15:27:00	Soil	4	40	10	
249510009	31-MAR-2010 15:27:00	Soil	4	40	10	
249510010	31-MAR-2010 15:27:00	Soil	4	40	10	
249510011	31-MAR-2010 15:27:00	Soil	4	40	10	
1202083331 DUP (249510011)	31-MAR-2010 15:27:00	Soil	4	40	10	

Prep Logbook

Batch ID: **970225.0** Verified by: _____

Analyst: Virginia Wininger

Method: EPA 300.0 PREP

Lab SOP: GL-GC-E-086 REV# 17

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202083336	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202083332	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202083333	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202083334	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202083335	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202083333 MS (249510011)	31-MAR-2010 15:27:00	Soil	4	40	10	
1202083335 MSD (249510011)	31-MAR-2010 15:27:00	Soil	4	40	10	

Reagent/Solvent Lot ID	Description	Amount

Comments:

This is runlog for Sequence 100405.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	03/23/10 16:00		1	100405	MAR1
ICAL-06	03/23/10 16:27		1	100405	MAR1
ICAL-05	03/23/10 16:53		1	100405	MAR1
ICAL-04	03/23/10 17:20		1	100405	MAR1
ICAL-03	03/23/10 17:47		1	100405	MAR1
ICAL-02	03/23/10 18:14		1	100405	MAR1
ICAL-01	03/23/10 18:41		1	100405	MAR1

8 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	1.0
Vial Number:	46	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 16:00	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

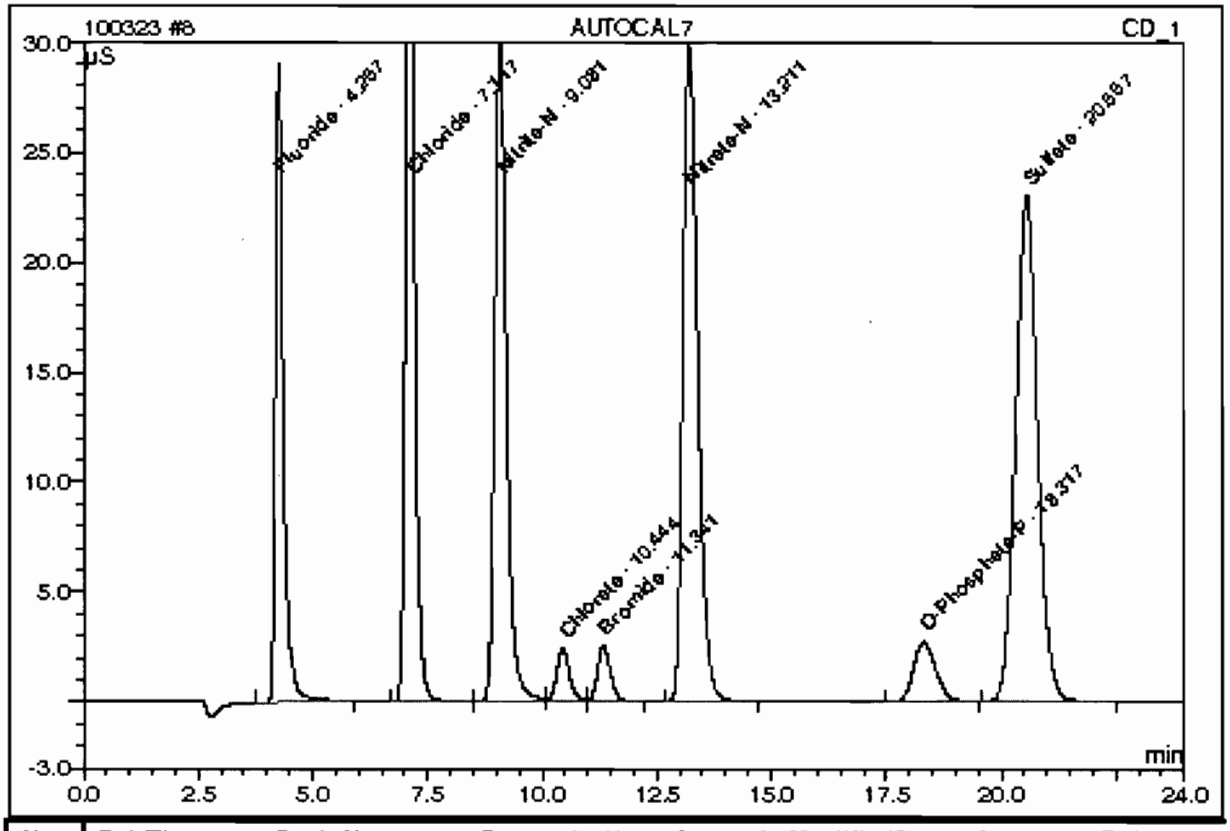

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	10.0000	10.0652		6.02041	11.75
2	7.12	Chloride	20.0000	20.3058		9.29780	18.14
3	9.08	Nitrite-N	10.0000	10.0773		8.89622	17.36
4	10.44	Chlorate	5.0000	5.0763		0.77530	1.51
5	11.34	Bromide	5.0000	5.0450		0.82220	1.60
6	13.21	Nitrate-N	10.0000	10.1395		11.02745	21.52
7	18.32	O-Phosphate-P	5.0000	5.1121		1.49471	2.92
8	20.56	Sulfate	40.0000	40.4690		12.91152	25.20
Total:				106.2901	0.000	51.246	100.00

9 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	1.0
Vial Number:	47	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 16:27	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC B086;300;9056

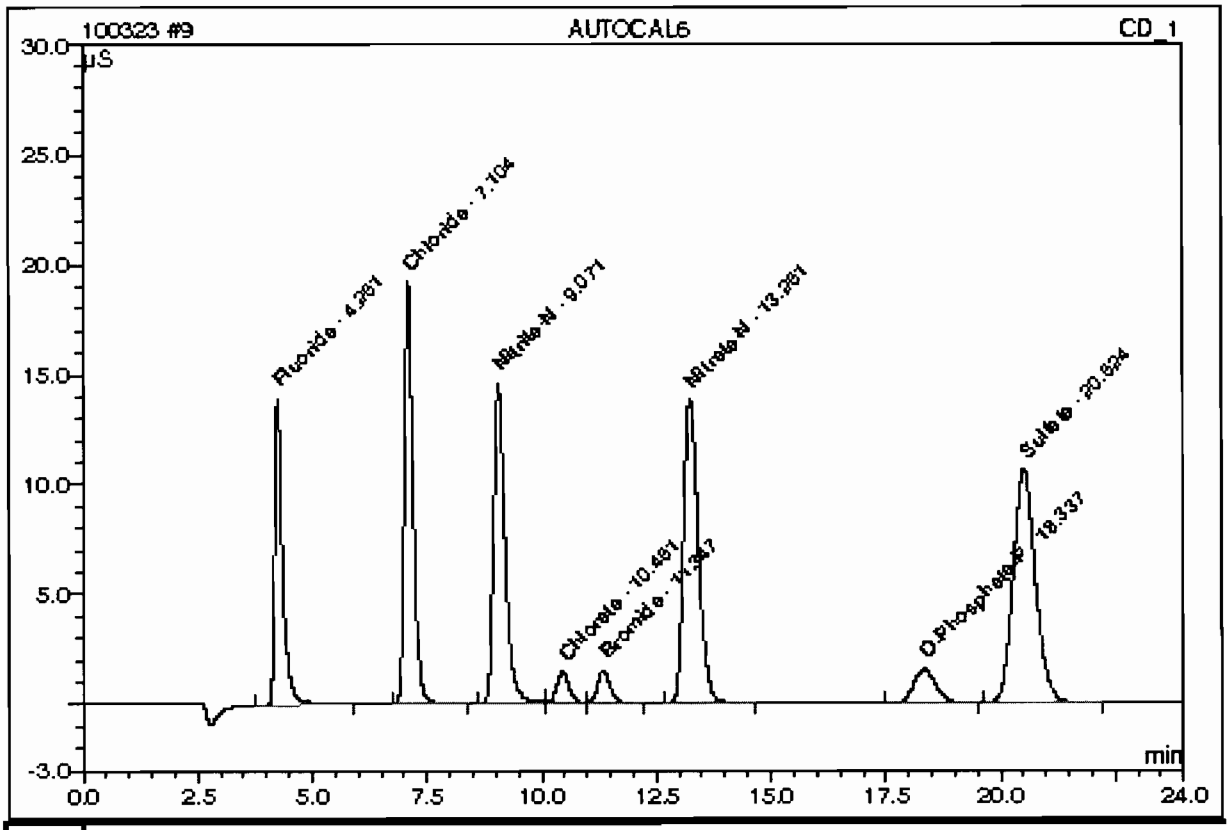

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	5.0000	4.8849		2.90201	11.92
2	7.10	Chloride	10.0000	9.4230		4.26930	17.53
3	9.07	Nitrite-N	5.0000	4.8599		4.25796	17.48
4	10.45	Chlorate	3.0000	2.9924		0.45332	1.86
5	11.35	Bromide	3.0000	3.0046		0.48728	2.00
6	13.25	Nitrate-N	5.0000	4.7372		5.09401	20.92
7	18.34	O-Phosphate-P	3.0000	2.9633		0.84358	3.46
8	20.52	Sulfate	20.0000	19.1180		6.04506	24.82
Total:				51.9833	0.000	24.353	100.00

10 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	1.0
Vial Number:	48	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 16:53	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

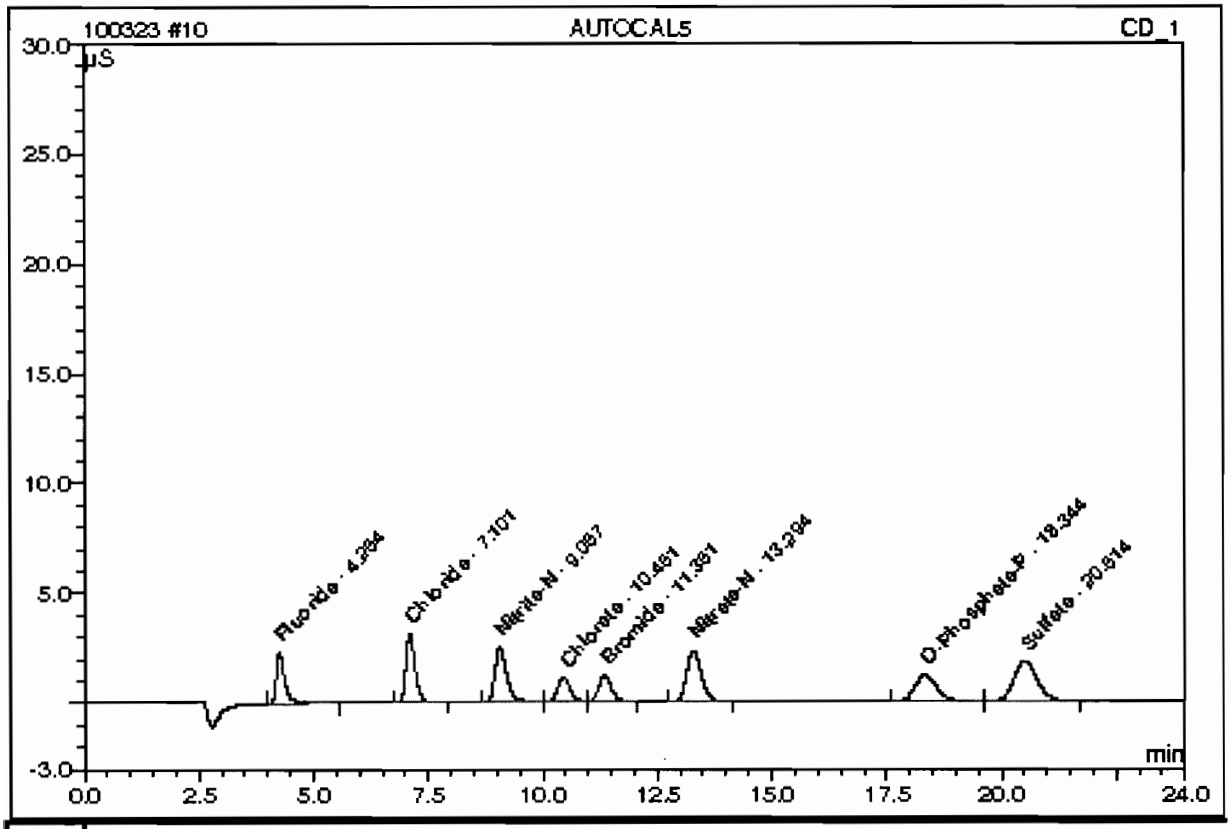

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	1.0000	0.9125		0.51078	9.53
2	7.10	Chloride	2.0000	1.7708		0.73350	13.68
3	9.07	Nitrite-N	1.0000	0.9189		0.75453	14.07
4	10.45	Chlorate	2.5000	2.3650		0.35638	6.65
5	11.35	Bromide	2.5000	2.4114		0.38991	7.27
6	13.29	Nitrate-N	1.0000	0.9005		0.88006	16.42
7	18.34	O-Phosphate-P	2.5000	2.3684		0.66331	12.37
8	20.51	Sulfate	4.0000	3.6570		1.07282	20.01
Total:				15.3047	0.000	5.361	100.00

11 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	1.0
Vial Number:	49	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 17:20	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

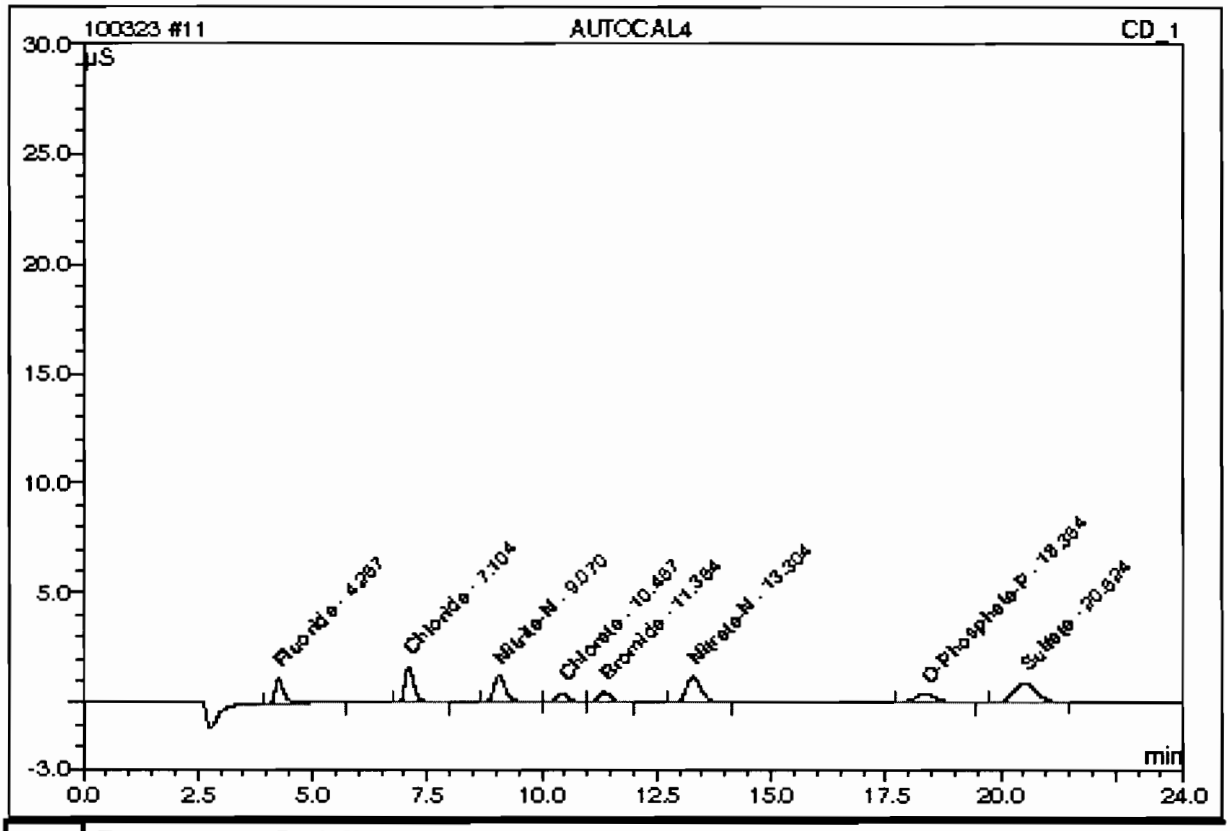

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.5000	0.5017		0.26350	10.50
2	7.10	Chloride	1.0000	1.0243		0.38857	15.49
3	9.07	Nitrite-N	0.5000	0.4901		0.37331	14.88
4	10.46	Chlorate	1.0000	0.9701		0.14085	5.61
5	11.35	Bromide	1.0000	0.9780		0.15461	6.16
6	13.30	Nitrate-N	0.5000	0.4967		0.43652	17.40
7	18.36	O-Phosphate-P	1.0000	0.8958		0.21705	8.65
8	20.52	Sulfate	2.0000	1.9836		0.53465	21.31
Total:				7.3402	0.000	2.509	100.00

12 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	1.0
Vial Number:	50	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 17:47	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

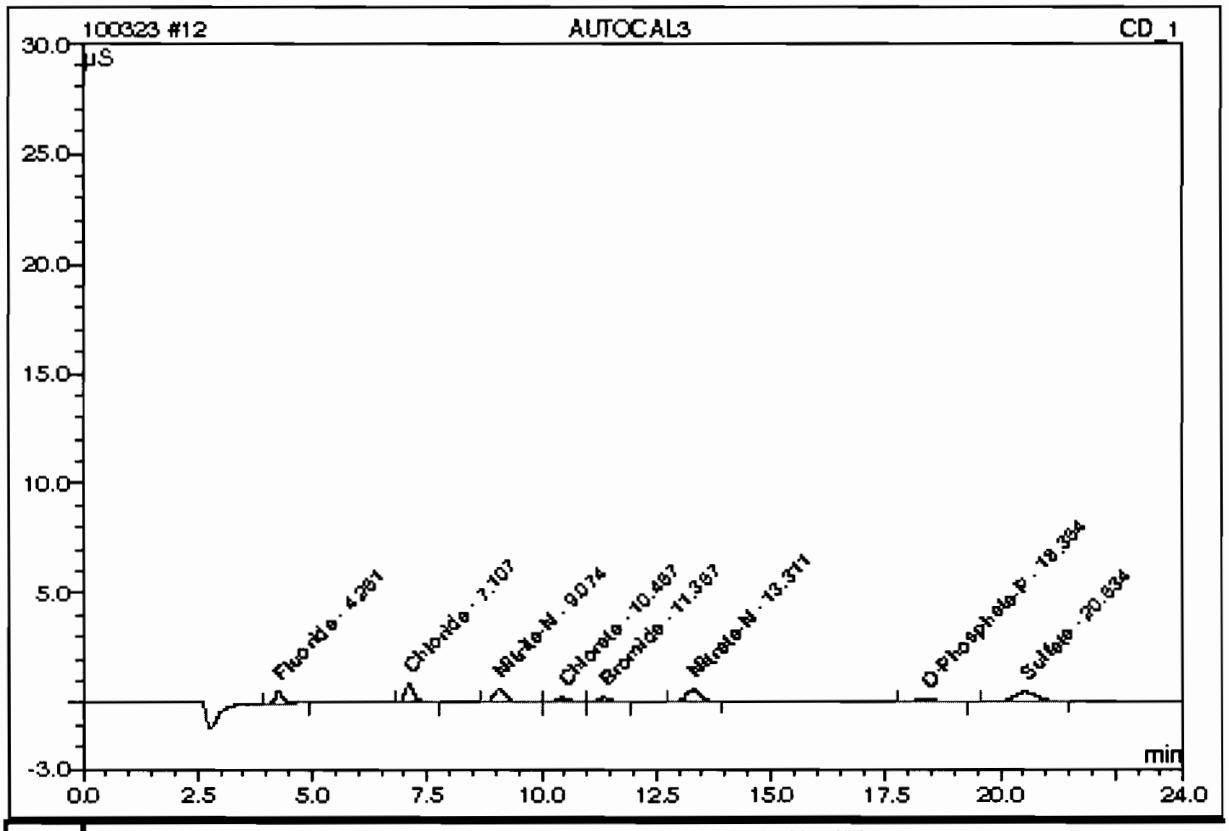

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.2500	0.2725		0.12551	10.22
2	7.11	Chloride	0.5000	0.8010		0.19297	15.72
3	9.07	Nitrite-N	0.2500	0.2827		0.18893	15.39
4	10.46	Chlorate	0.5000	0.5047		0.06895	5.62
5	11.36	Bromide	0.5000	0.4987		0.07594	6.19
6	13.31	Nitrate-N	0.2500	0.2965		0.21665	17.65
7	18.36	O-Phosphate-P	0.5000	0.4552		0.08354	6.81
8	20.53	Sulfate	1.0000	1.1764		0.27506	22.41
Total:				4.0878	0.000	1.228	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	1.0
Vial Number:	1	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:14	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

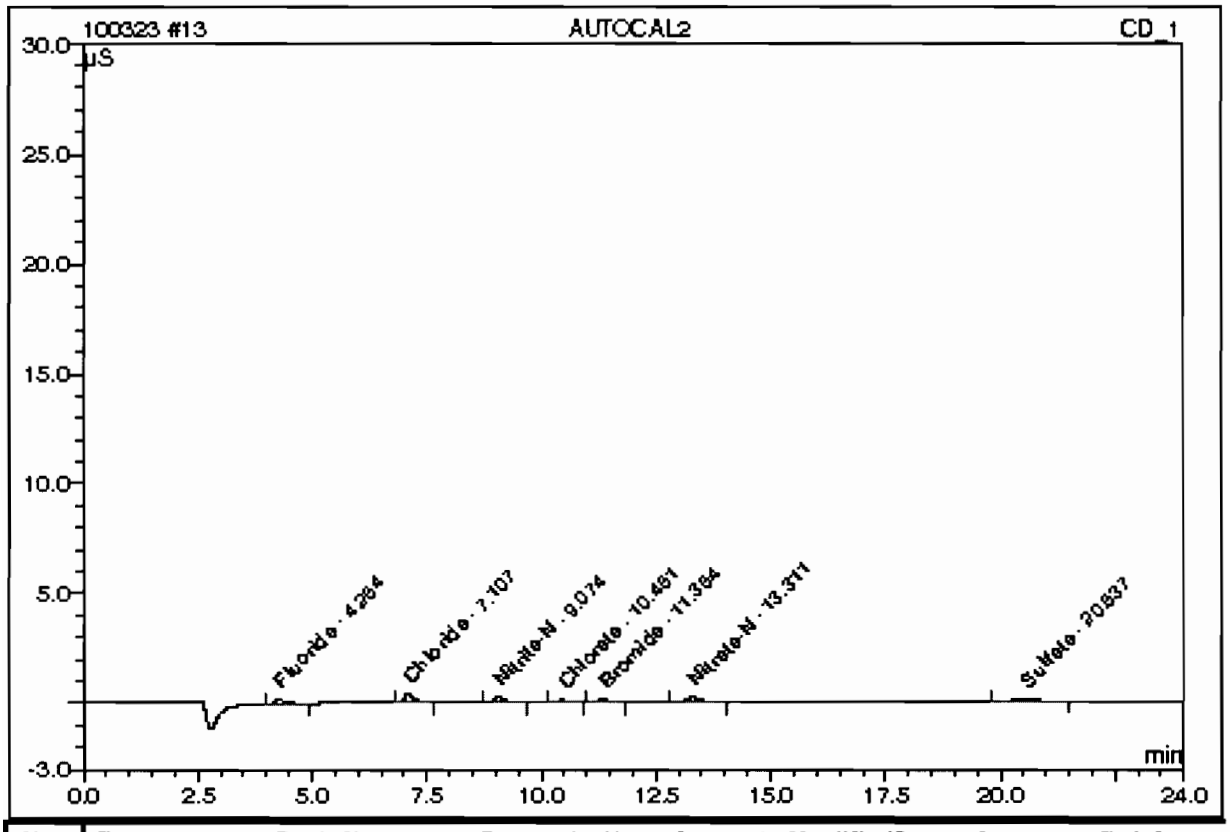

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.1000	0.1492		0.05126	10.67
2	7.11	Chloride	0.2000	0.3919		0.09636	20.06
3	9.07	Nitrite-N	0.1000	0.1509		0.07173	14.93
4	10.46	Chlorate	0.2000	0.2331		0.02698	5.62
5	11.35	Bromide	0.2000	0.2262		0.03122	6.50
6	13.31	Nitrate-N	0.1000	0.1803		0.08899	18.53
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	20.54	Sulfate	0.4000	0.6748		0.11374	23.68
Total:				2.0063	0.000	0.480	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	1.0
Vial Number:	1	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:14	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

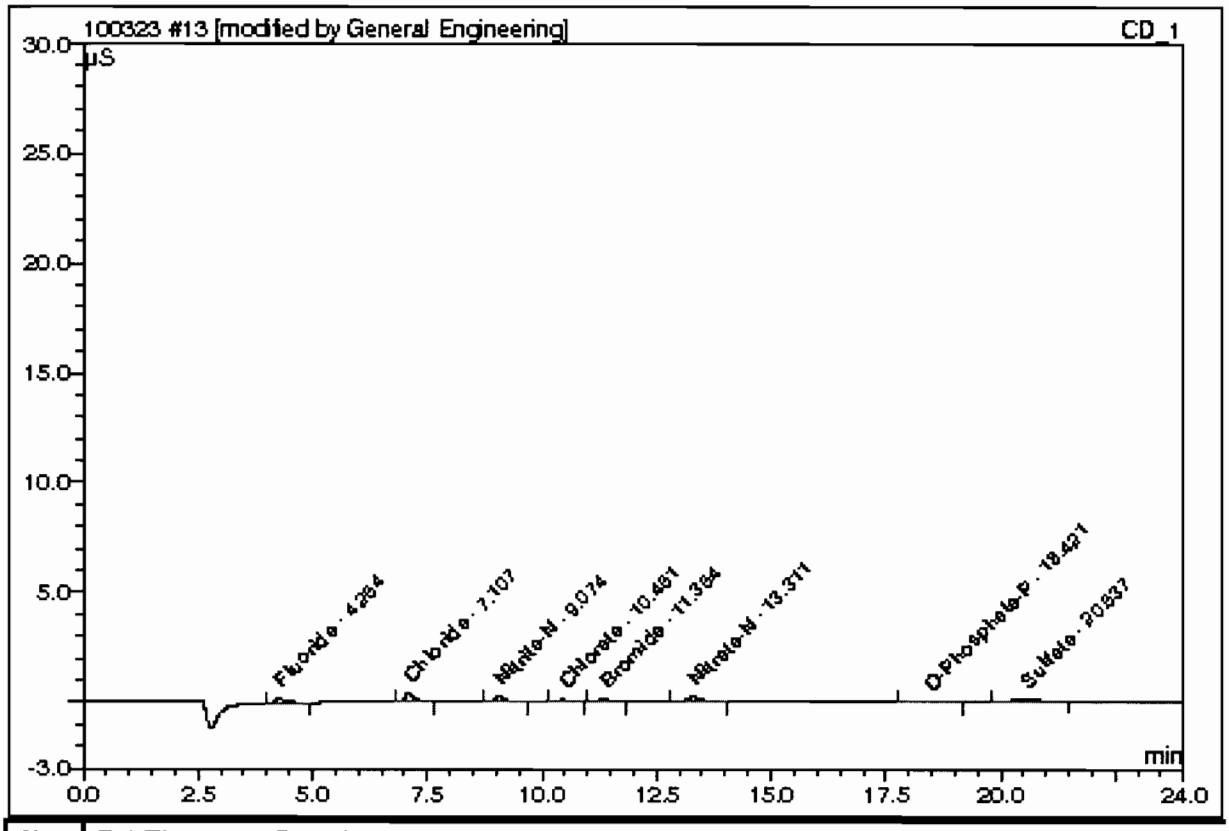

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.1000	0.1492		0.05126	10.37
2	7.11	Chloride	0.2000	0.3919		0.09636	19.50
3	9.07	Nitrite-N	0.1000	0.1509		0.07173	14.51
4	10.46	Chlorate	0.2000	0.2331		0.02698	5.46
5	11.35	Bromide	0.2000	0.2262		0.03122	6.32
6	13.31	Nitrate-N	0.1000	0.1803		0.08899	18.00
7	18.42	O-Phosphate-P	0.2000	0.2257		0.01399	2.83
8	20.54	Sulfate	0.4000	0.6748		0.11374	23.01
Total:				2.2320	0.000	0.494	100.00

14 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	1.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:41	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC B086;300;9056

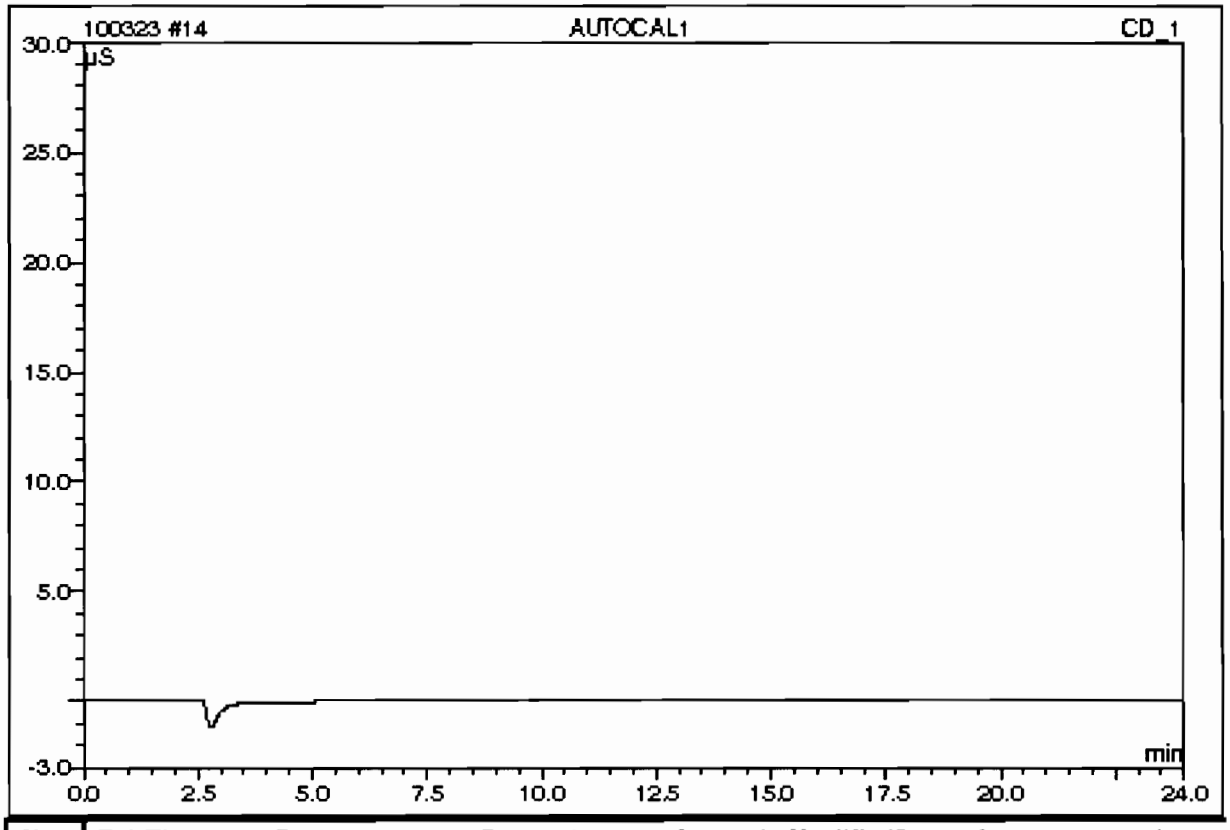

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

14 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	1.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:41	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-002712; GLGCE086;300;9056

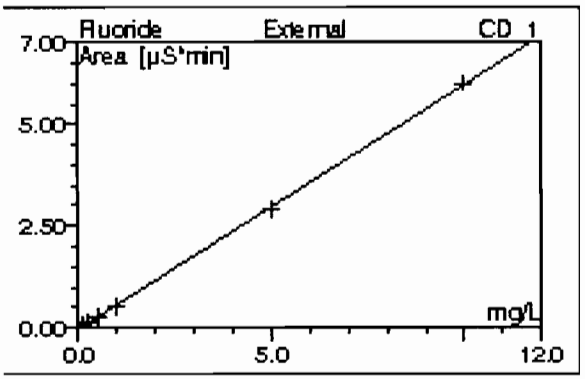

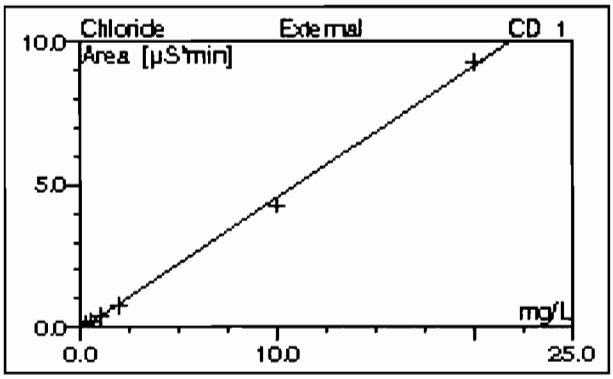

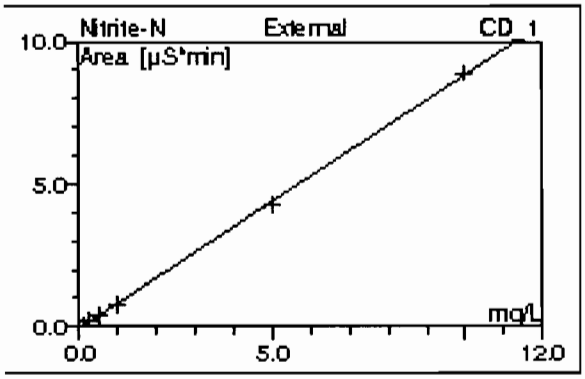

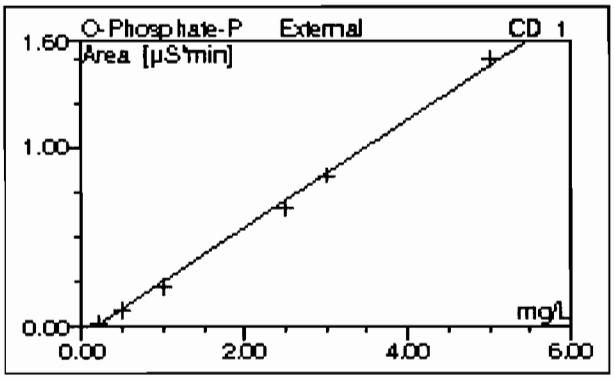

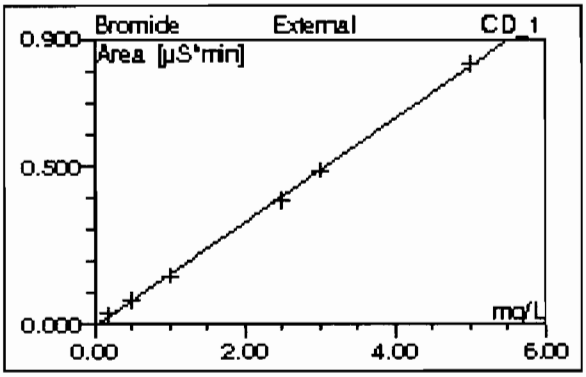

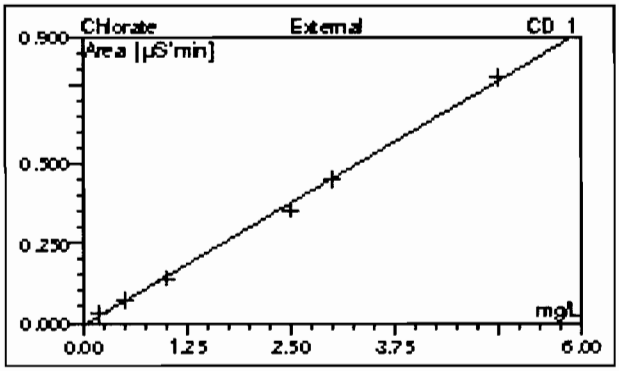

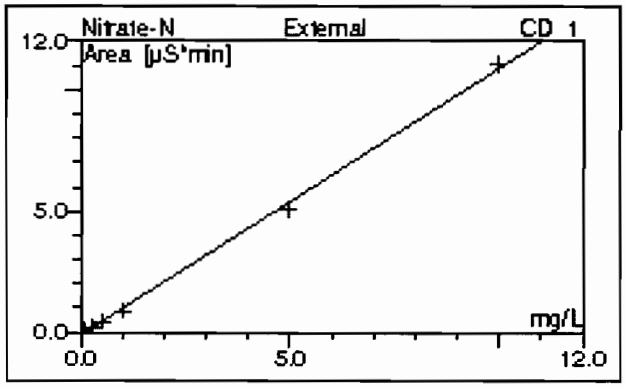

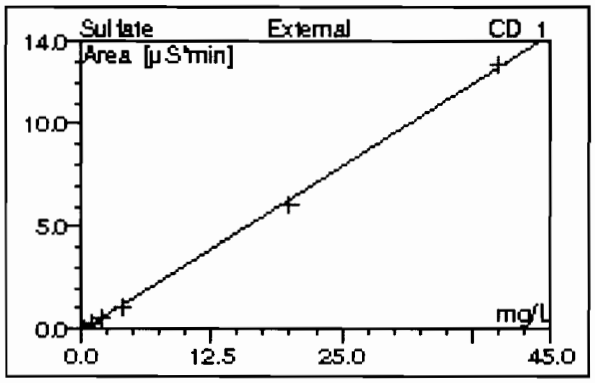

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	OLOff	99.9646	-0.0385	0.6020	0.0000
n.a.	n.a.	Chloride	OLOff	99.8347	-0.0847	0.4621	0.0000
n.a.	n.a.	Nitrite-N	OLOff	99.9547	-0.0624	0.8890	0.0000
n.a.	n.a.	Chlorate	OLOff	99.8463	-0.0090	0.1545	0.0000
n.a.	n.a.	Bromide	OLOff	99.9345	-0.0059	0.1641	0.0000
n.a.	n.a.	Nitrate-N	OLOff	99.8657	-0.1090	1.0983	0.0000
n.a.	n.a.	O-Phosphate-P	OLOff	99.7443	-0.0544	0.3030	0.0000
n.a.	n.a.	Sulfate	OLOff	99.9039	-0.1033	0.3216	0.0000
Average:				99.8811	-0.0584	0.4993	0.0000

This is runlog for Sequence 100323.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/23/10 15:33		1	100323	MAR1
ICAL-07	03/23/10 16:00		1	100323	MAR1
ICAL-06	03/23/10 16:27		1	100323	MAR1
ICAL-05	03/23/10 16:53		1	100323	MAR1
ICAL-04	03/23/10 17:20		1	100323	MAR1
ICAL-03	03/23/10 17:47		1	100323	MAR1
ICAL-02	03/23/10 18:14		1	100323	MAR1
ICAL-01	03/23/10 18:41		1	100323	MAR1
ICV	03/23/10 19:08		1	100323	MAR1
ICB	03/23/10 19:35		1	100323	MAR1
1202073661	03/23/10 20:02	966275	1	100323	MAR1
1202073665	03/23/10 20:29	966275	1	100323	MAR1
248534001	03/23/10 20:56	966275	1	100323	MAR1
1202073662	03/23/10 21:23	966275	1	100323	MAR1
1202073663	03/23/10 21:50	966275	1	100323	MAR1
1202073664	03/23/10 22:16	966275	1	100323	MAR1
248534002	03/23/10 22:43	966275	1	100323	MAR1
248534003	03/23/10 23:10	966275	1	100323	MAR1
248534004	03/23/10 23:37	966275	1	100323	MAR1

15 WIC100323-02ICV

Sample Name:	WIC100323-02ICV	*Injection Volume:*	1.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 19:08	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528;GLGCB086;300;9056

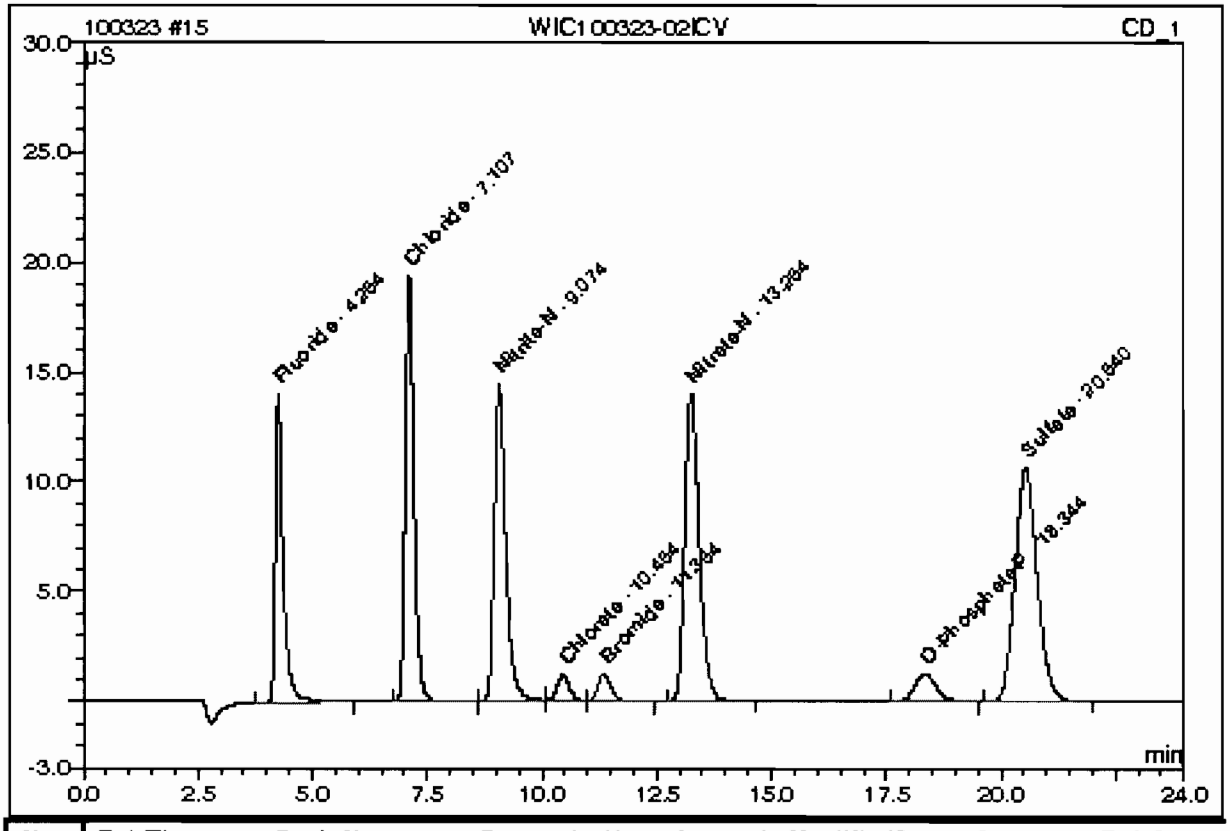

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.8960		2.90874	12.07
2	7.11	Chloride	n.a.	9.4929		4.30159	17.85
3	9.07	Nitrite-N	n.a.	4.8019		4.20641	17.46
4	10.45	Chlorate	n.a.	2.5622		0.38685	1.61
5	11.35	Bromide	n.a.	2.5972		0.42040	1.74
6	13.25	Nitrate-N	n.a.	4.7960		5.15850	21.41
7	18.34	O-Phosphate-P	n.a.	2.4576		0.69032	2.86
8	20.54	Sulfate	n.a.	19.0532		6.02422	25.00
Total:				50.6569	0.000	24.097	100.00

15 WIC100323-02ICV

Sample Name:	WIC100323-02ICV	*Injection Volume:*	1.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 19:08	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

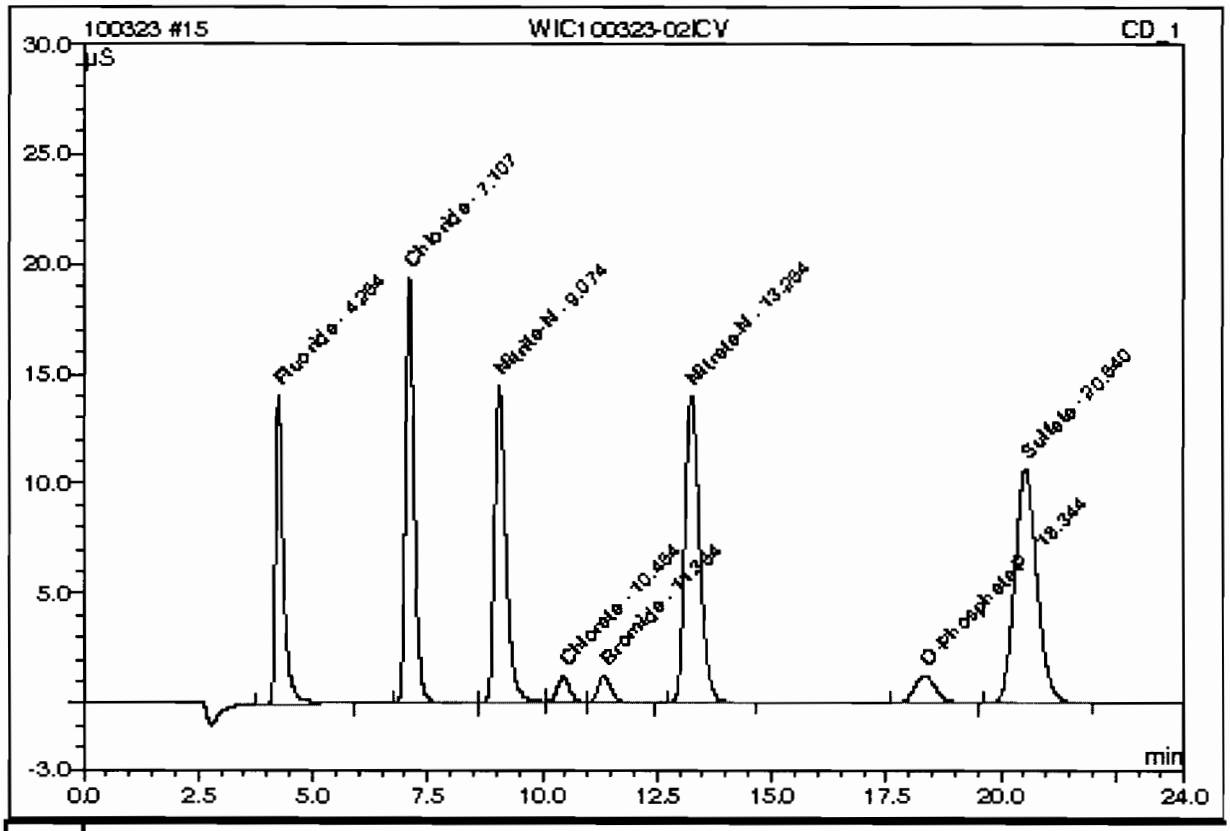

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.8960		2.90874	12.07
2	7.11	Chloride	n.a.	9.4929		4.30159	17.85
3	9.07	Nitrite-N	n.a.	4.8019		4.20641	17.46
4	10.45	Chlorate	n.a.	2.5622		0.38685	1.61
5	11.35	Bromide	n.a.	2.5972		0.42040	1.74
6	13.25	Nitrate-N	n.a.	4.7960		5.15850	21.41
7	18.34	O-Phosphate-P	n.a.	2.4576		0.69032	2.86
8	20.54	Sulfate	n.a.	19.0532		6.02422	25.00
Total:				50.6569	0.000	24.097	100.00

16 ICB

Sample Name:	ICB	*Injection Volume:*	1.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 19:35	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

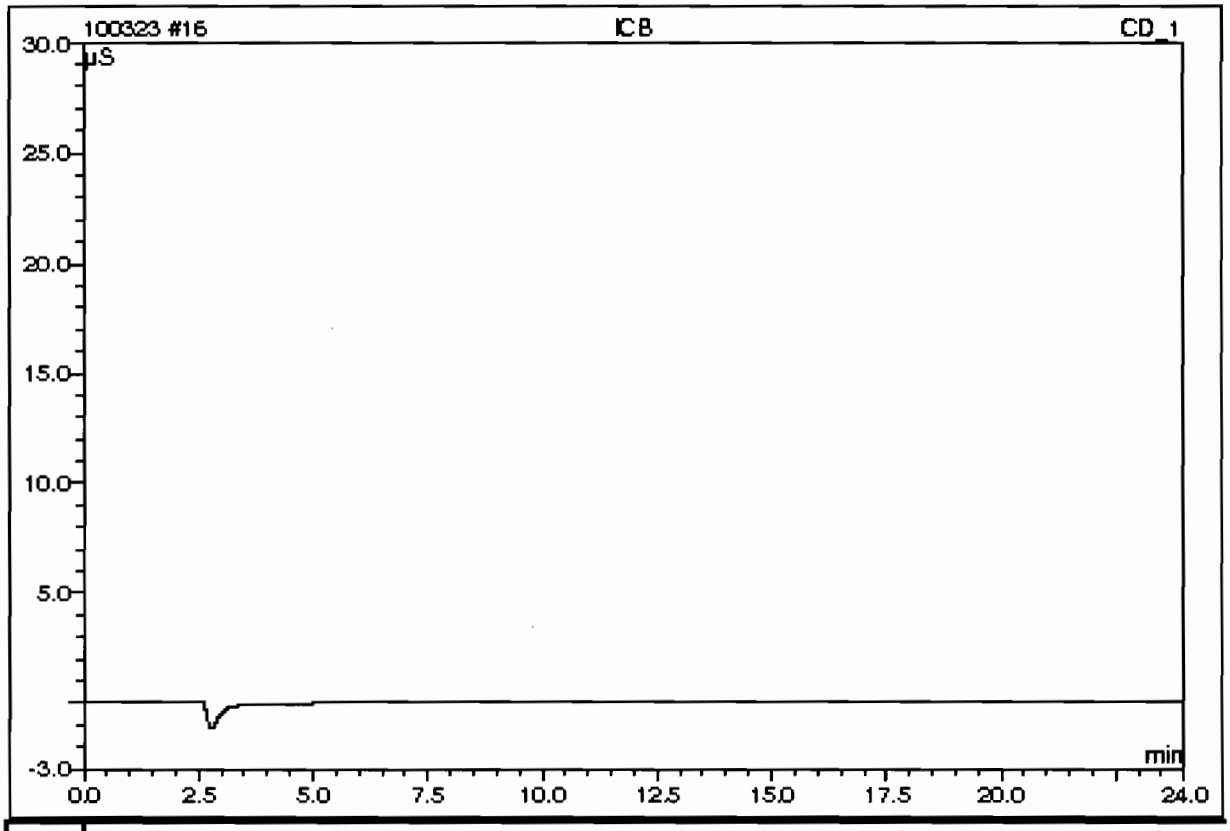

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100331.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/31/10 17:46		1	100331	GXM3
BLK	03/31/10 18:12		1	100331	GXM3
BLK	03/31/10 18:39		1	100331	GXM3
ICV	03/31/10 19:06		1	100331	GXM3
ICB	03/31/10 19:33		1	100331	GXM3
1202083329	03/31/10 20:00	970227	1	100331	GXM3
1202083336	03/31/10 20:27	970227	1	100331	GXM3
249330001	03/31/10 20:54	970227	1	100331	GXM3
1202083330	03/31/10 21:21	970227	1	100331	GXM3
1202083332	03/31/10 21:48	970227	1	100331	GXM3
1202083334	03/31/10 22:14	970227	1	100331	GXM3
249330002	03/31/10 22:41	970227	1	100331	GXM3
249330003	03/31/10 23:08	970227	1	100331	GXM3
249330004	03/31/10 23:35	970227	1	100331	GXM3

17 WIC100331-02ICV

Sample Name:	WIC100331-02ICV	*Injection Volume:*	1.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/31/2010 19:06	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056

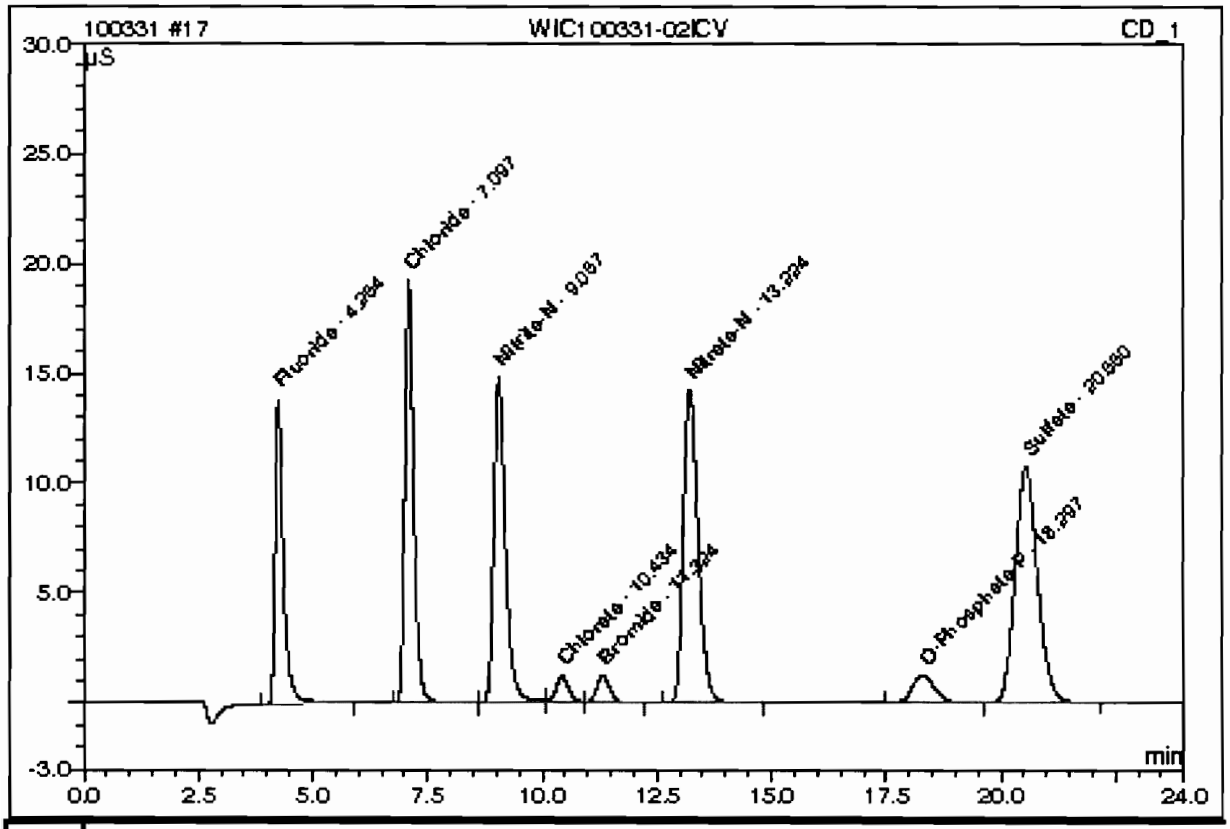

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.9469		2.93937	11.93
2	7.10	Chloride	n.a.	9.6053		4.35355	17.68
3	9.06	Nitrite-N	n.a.	4.9881		4.37195	17.75
4	10.43	Chlorate	n.a.	2.5980		0.39238	1.59
5	11.32	Bromide	n.a.	2.5818		0.41788	1.70
6	13.22	Nitrate-N	n.a.	4.8778		5.24839	21.31
7	18.30	O-Phosphate-P	n.a.	2.5454		0.71692	2.91
8	20.55	Sulfate	n.a.	19.5686		6.18996	25.13
Total:				51.7119	0.000	24.630	100.00

18 ICB

Sample Name:	ICB	*Injection Volume:*	1.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/31/2010 19:33	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

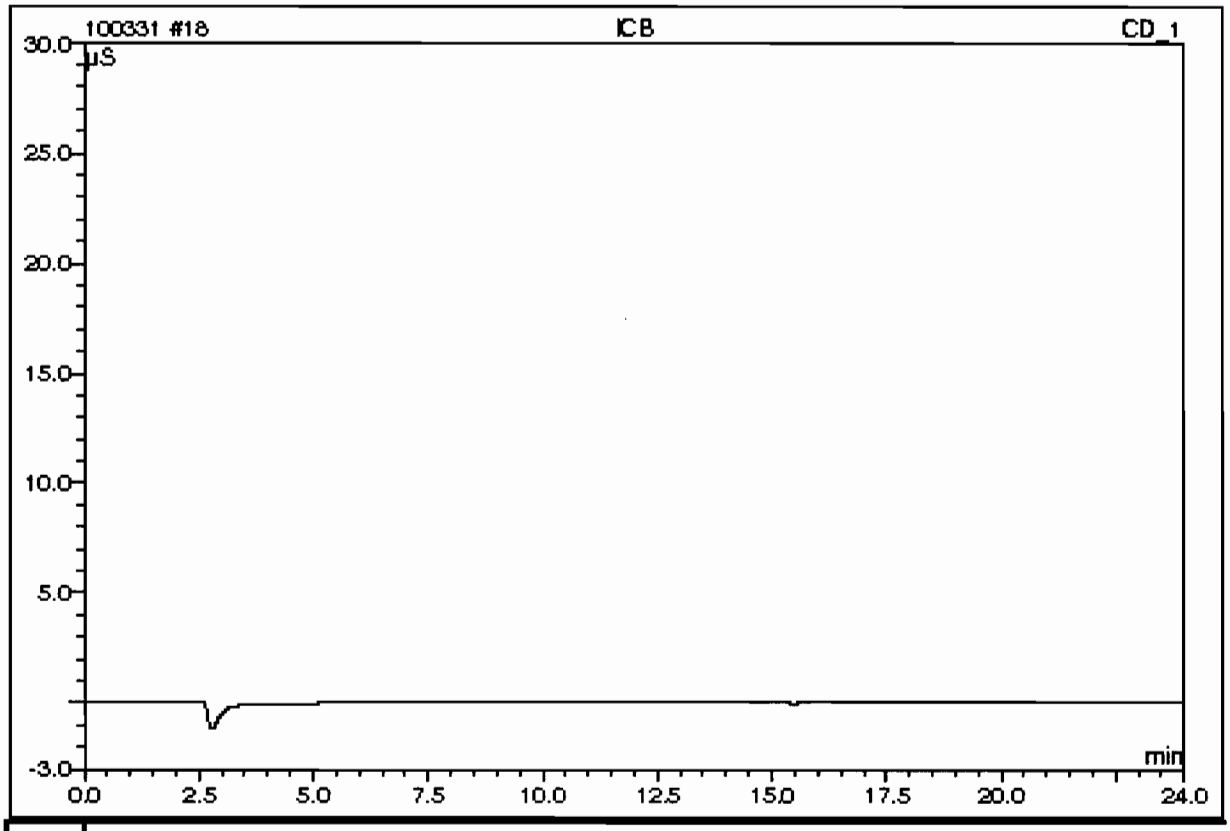

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

19 1202083329/970227/1/1/MB

Sample Name:	1202083329/970227/1/1/MB	*Injection Volume:*	1.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/31/2010 20:00	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

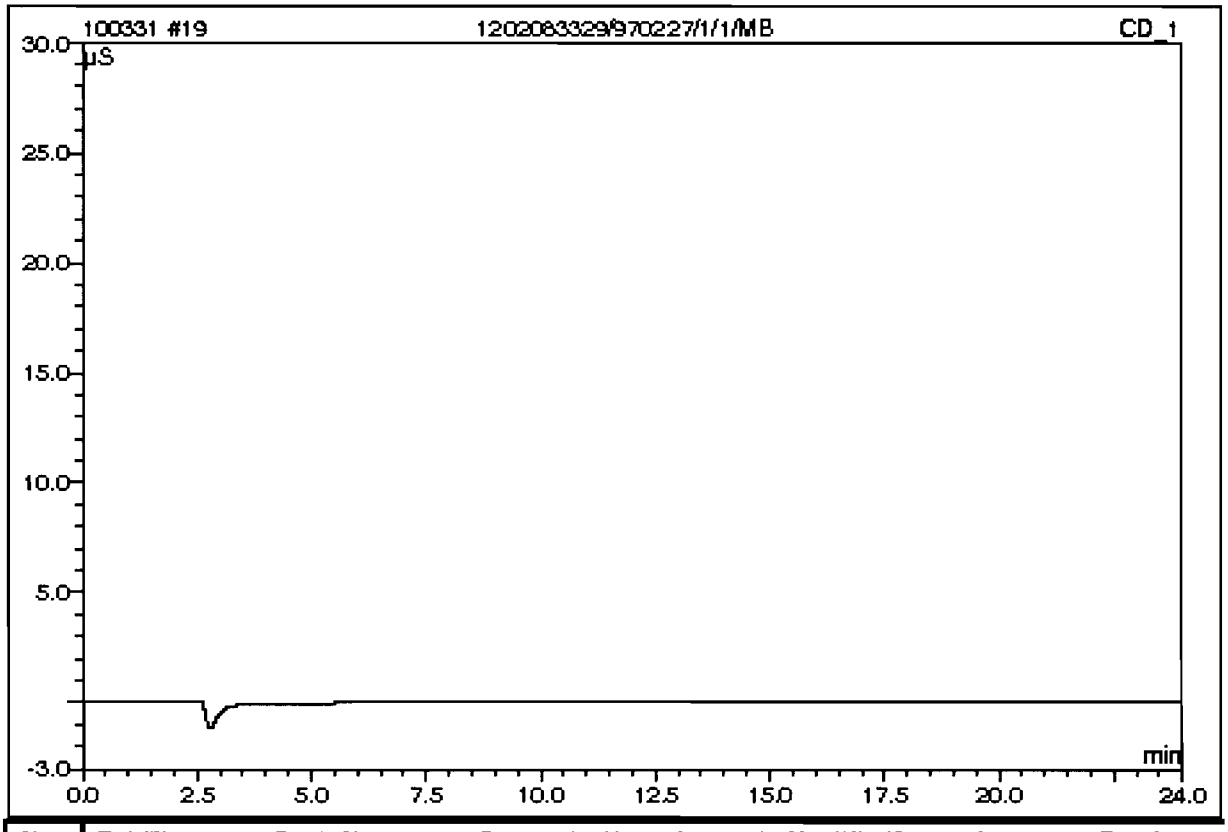

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

20 1202083336/970227/1/1/LCS

Sample Name:	1202083336/970227/1/1/LCS	*Injection Volume:*	1.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/31/2010 20:27	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

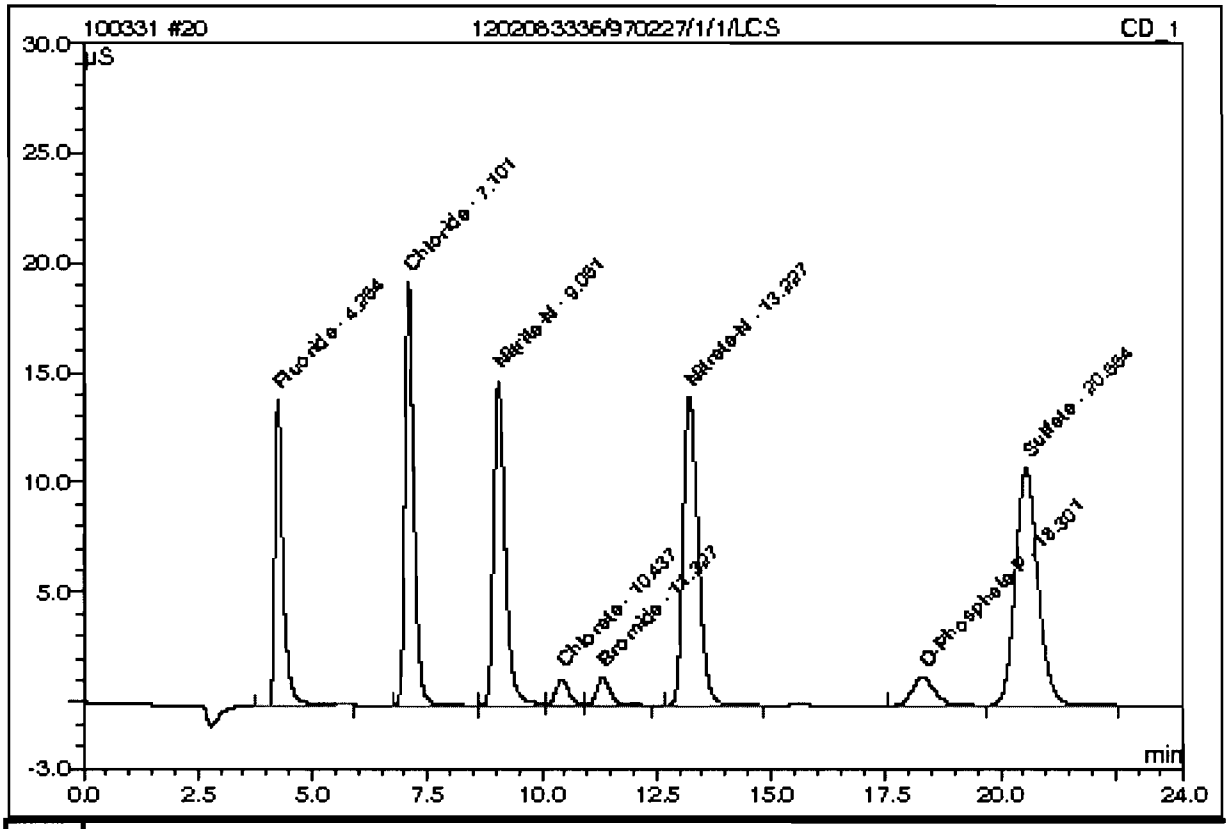

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.9687		2.95250	11.99
2	7.10	Chloride	n.a.	9.6485		4.37347	17.76
3	9.06	Nitrite-N	n.a.	4.9753		4.36057	17.70
4	10.44	Chlorate	n.a.	2.6092		0.39411	1.60
5	11.33	Bromide	n.a.	2.6127		0.42294	1.72
6	13.23	Nitrate-N	n.a.	4.8434		5.21062	21.16
7	18.30	O-Phosphate-P	n.a.	2.5490		0.71804	2.92
8	20.56	Sulfate	n.a.	19.5910		6.19717	25.16
Total:				51.7978	0.000	24.629	100.00

21 249330001/970227/1/1/

Sample Name:	249330001/970227/1/1/	*Injection Volume:*	1.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/31/2010 20:54	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

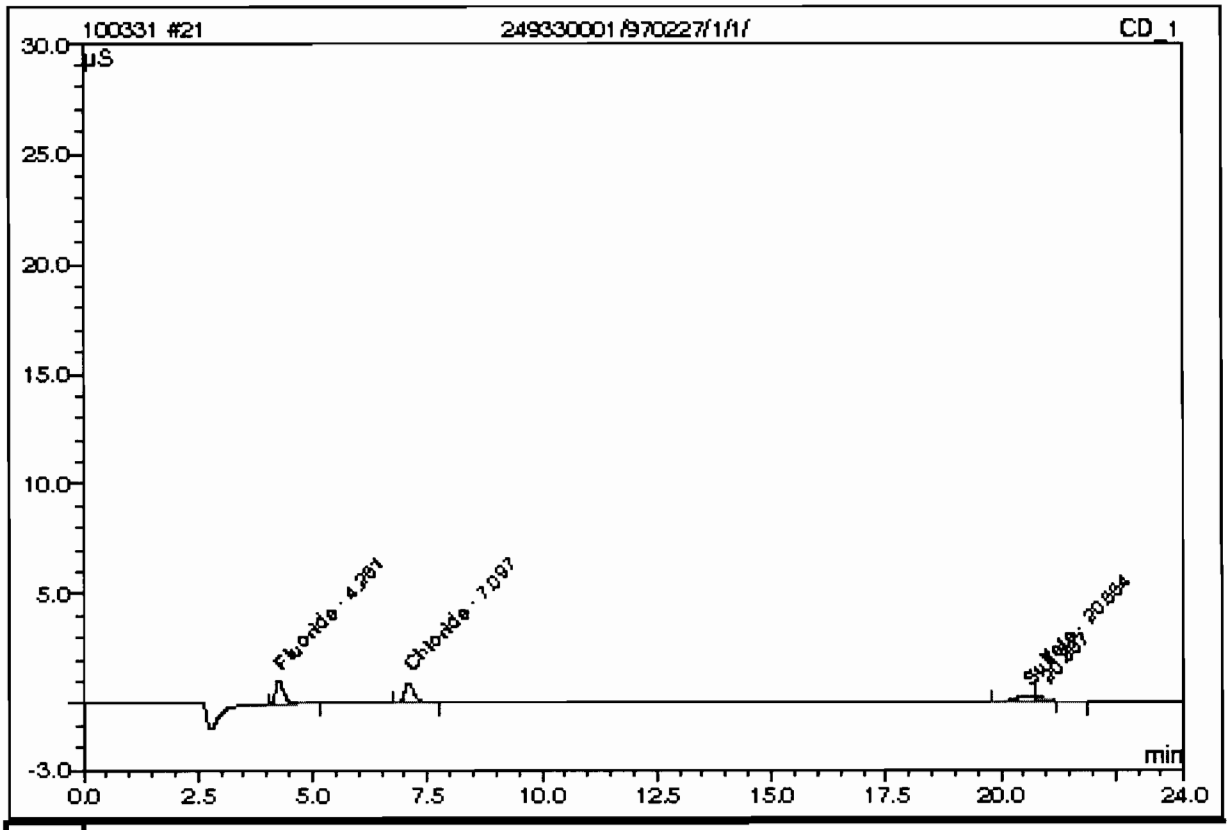

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.4654		0.24161	35.36
2	7.10	Chloride	n.a.	0.6663		0.22318	32.66
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.55	Sulfate	n.a.	0.9616		0.20597	30.14
Total:				2.0933	0.000	0.671	98.16

21 249330001/970227/1/1/

Sample Name:	249330001/970227/1/1/	*Injection Volume:*	1.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/31/2010 20:54	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

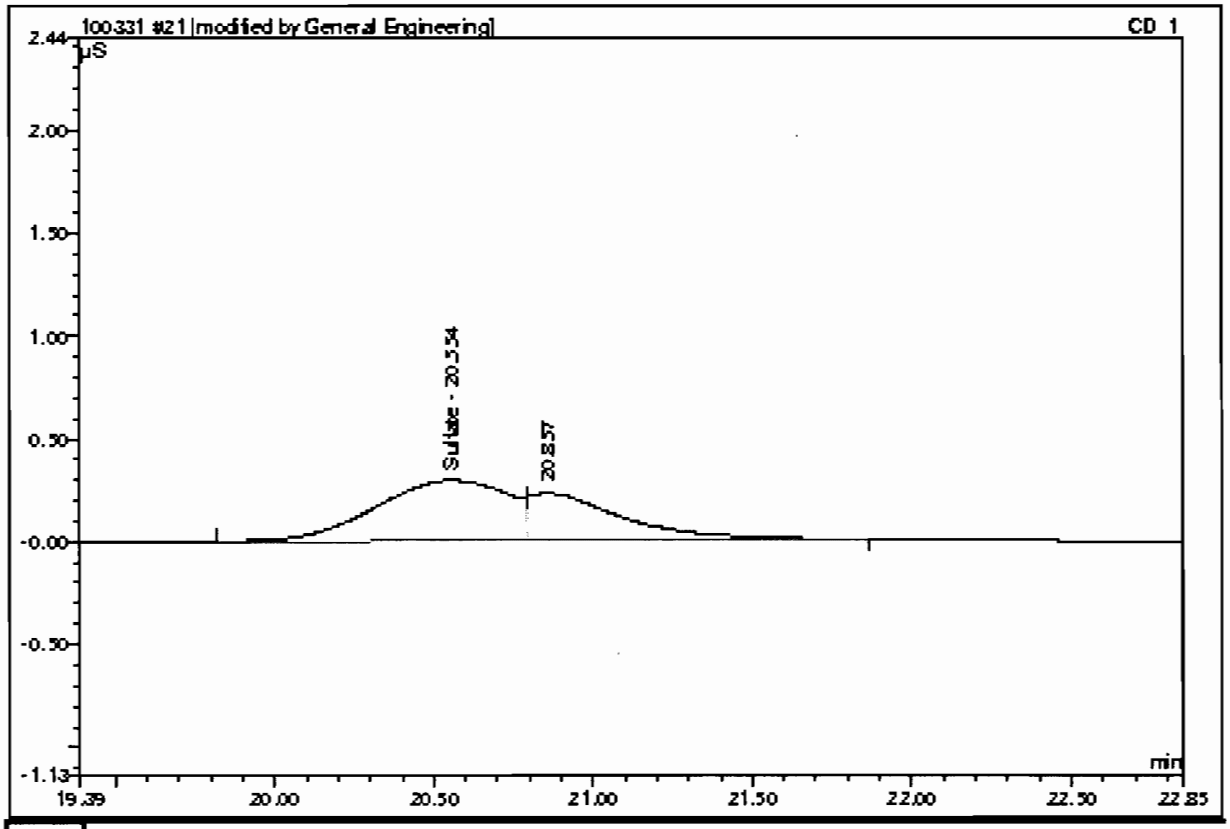

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.4654		0.24161	35.36
2	7.10	Chloride	n.a.	0.6663		0.22318	32.66
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.55	Sulfate	n.a.	0.7552		0.13959	20.43
Total:				1.8869	0.000	0.604	88.45

21 249330001/970227/1/1/

Sample Name:	249330001/970227/1/1/	*Injection Volume:*	1.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/31/2010 20:54	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056

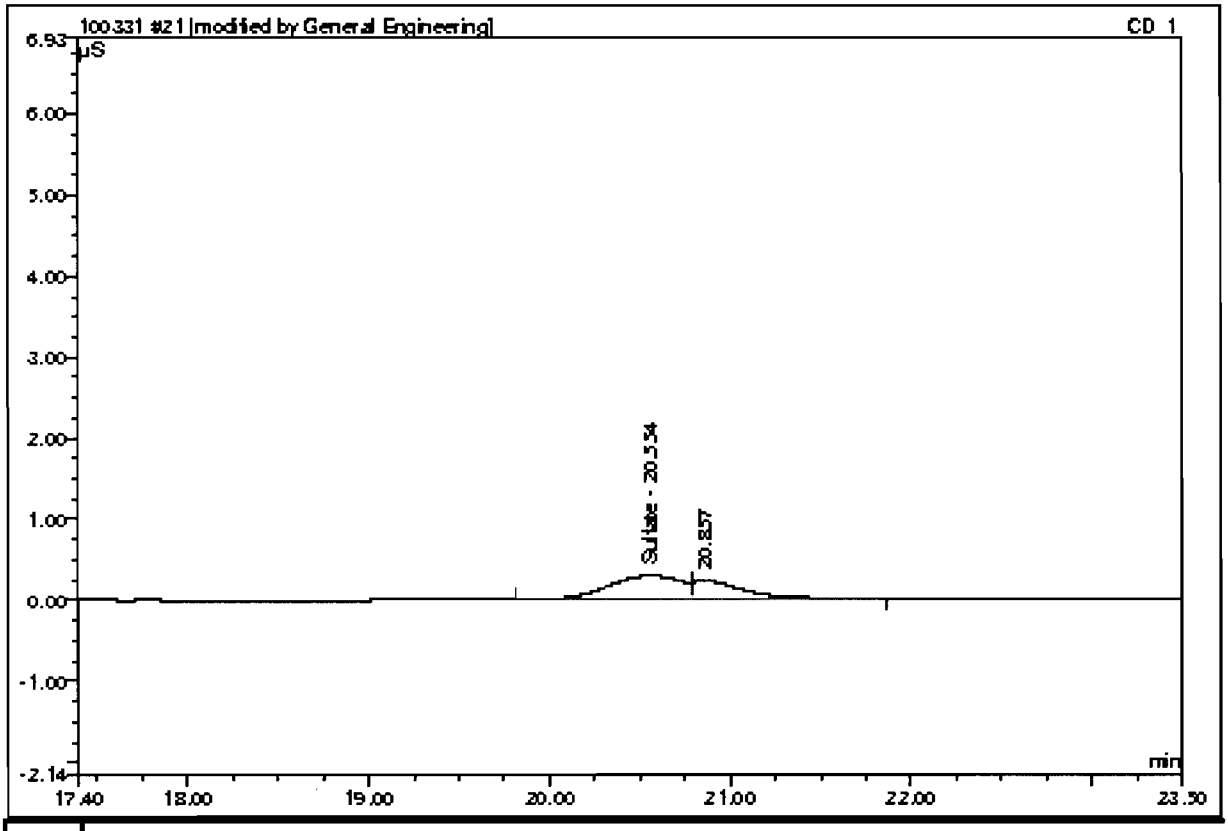

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.4654		0.24161	35.36
2	7.10	Chloride	n.a.	0.6663		0.22318	32.66
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.55	Sulfate	n.a.	0.7552		0.13959	20.43
Total:				1.8869	0.000	0.604	88.45

22 1202083330/970227/1/1/DUP

Sample Name:	1202083330/970227/1/1/DUP	*Injection Volume:*	1.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/31/2010 21:21	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

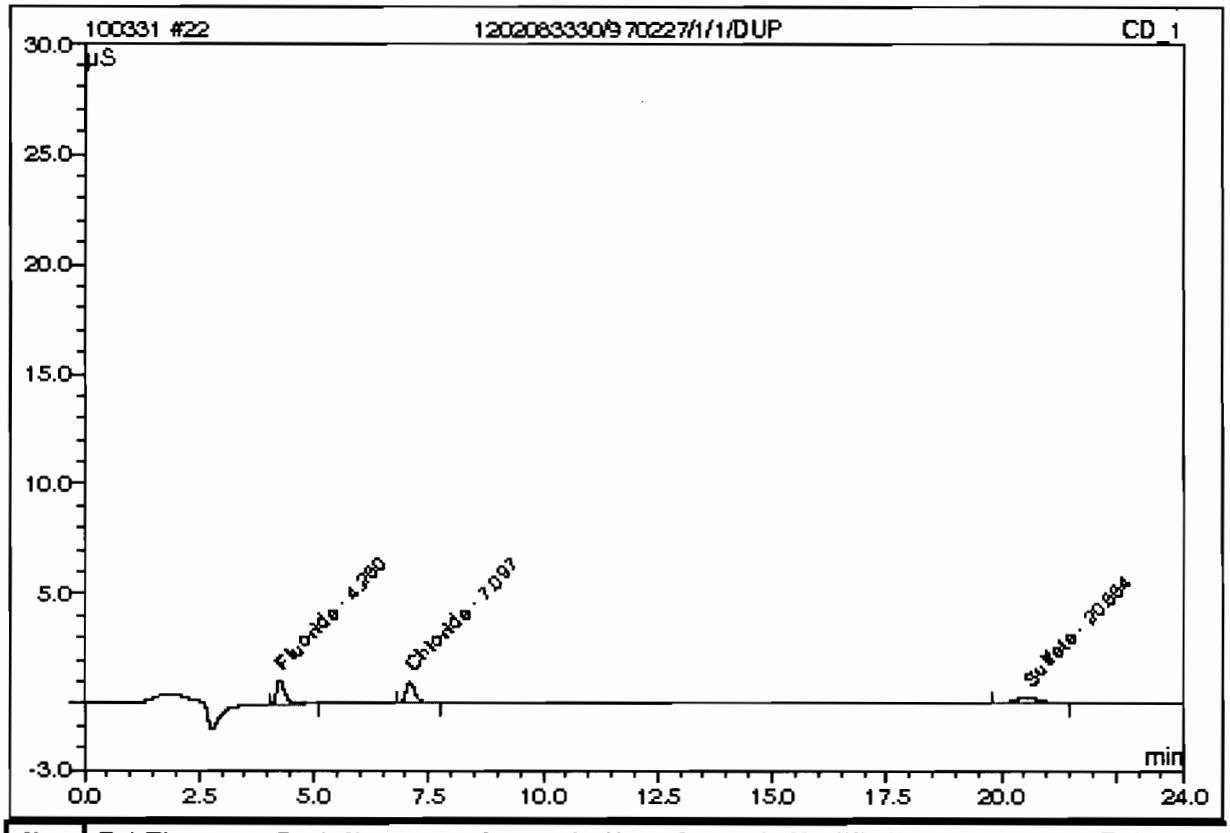

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.4697		0.24418	37.36
2	7.10	Chloride	n.a.	0.6738		0.22662	34.67
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.55	Sulfate	n.a.	0.8895		0.18277	27.96
Total:				2.0329	0.000	0.654	100.00

23 1202083332/970227/1/1/MS

Sample Name:	1202083332/970227/1/1/MS	*Injection Volume:*	1.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/31/2010 21:48	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

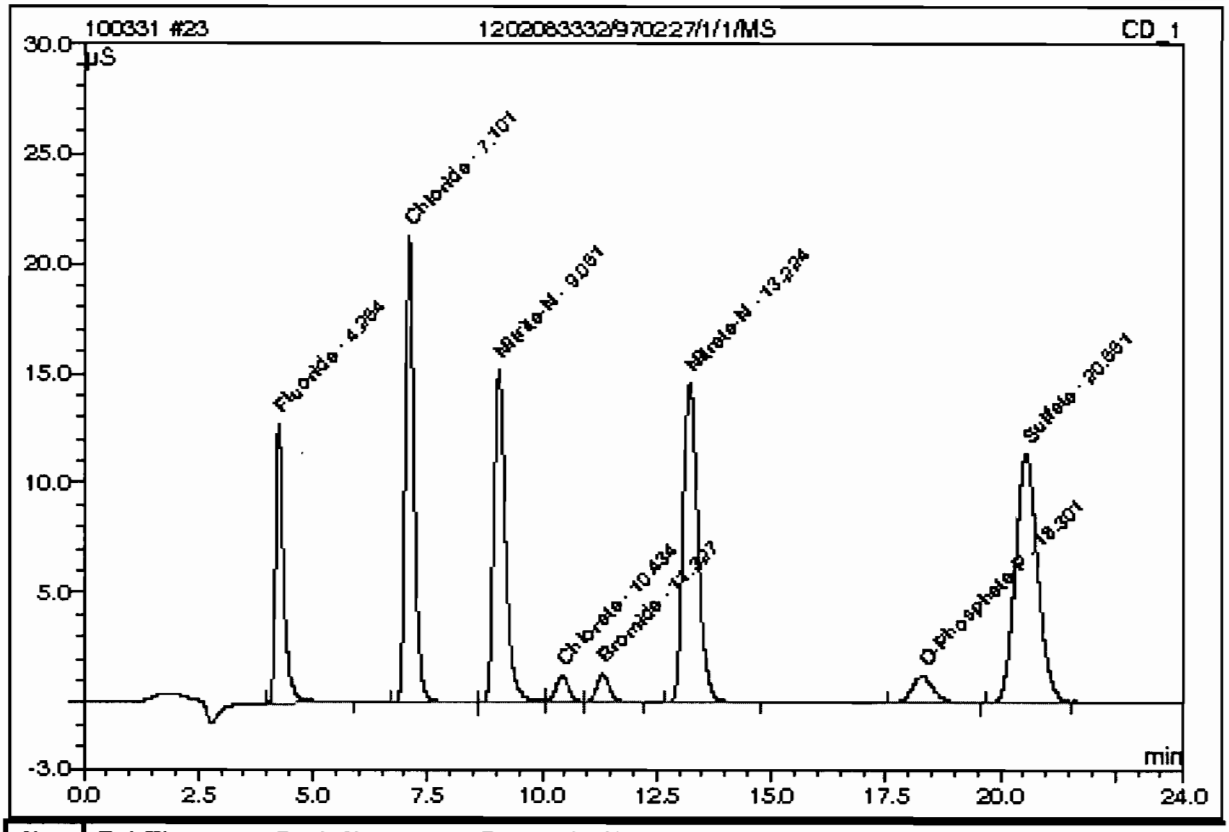

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.5884		2.72352	10.74
2	7.10	Chloride	n.a.	10.6091		4.81733	19.00
3	9.06	Nitrite-N	n.a.	5.1019		4.47314	17.65
4	10.43	Chlorate	n.a.	2.6706		0.40361	1.59
5	11.33	Bromide	n.a.	2.6814		0.43423	1.71
6	13.22	Nitrate-N	n.a.	5.0067		5.38994	21.26
7	18.30	O-Phosphate-P	n.a.	2.4231		0.67987	2.68
8	20.56	Sulfate	n.a.	20.3070		6.42744	25.36
Total:				53.3882	0.000	25.349	100.00

24 1202083334/970227/1/1/MSD

Sample Name:	1202083334/970227/1/1/MSD	*Injection Volume:*	1.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/31/2010 22:14	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

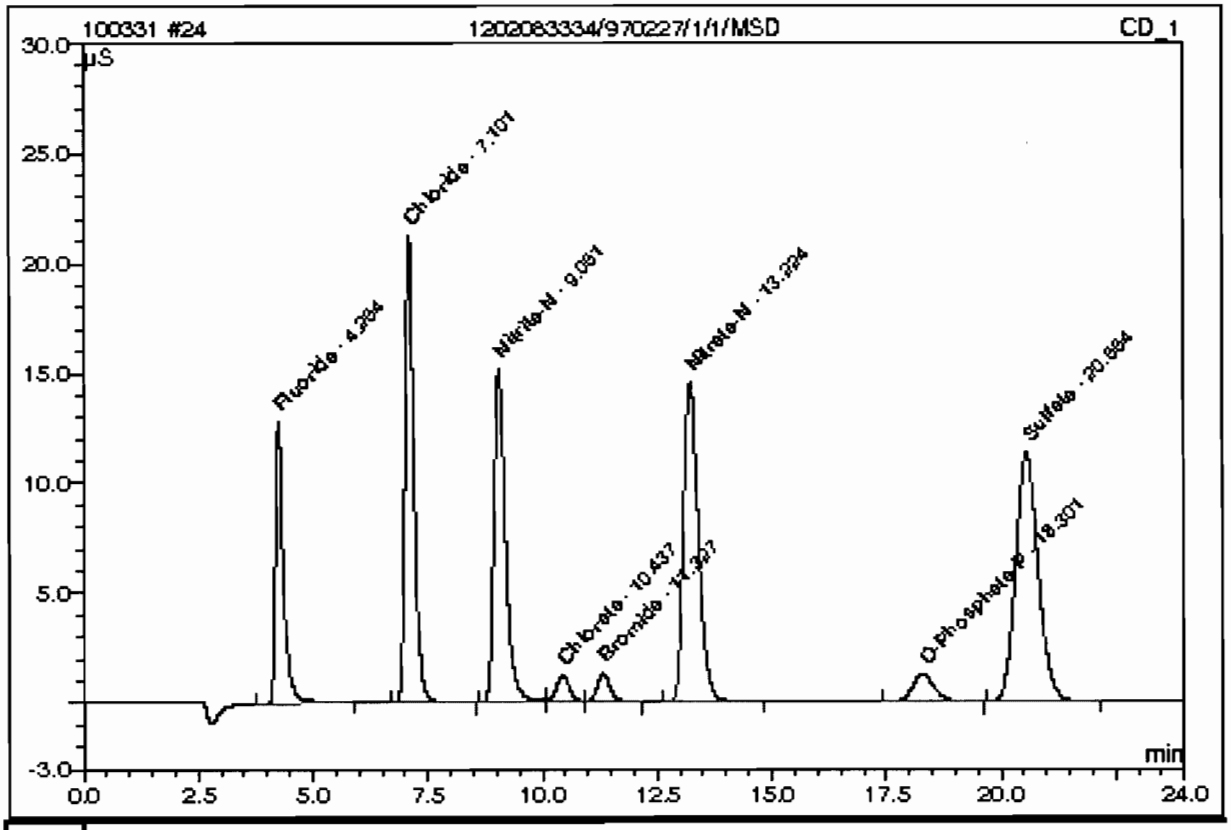

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.6080		2.73538	10.74
2	7.10	Chloride	n.a.	10.6032		4.81461	18.90
3	9.06	Nitrite-N	n.a.	5.1178		4.48729	17.61
4	10.44	Chlorate	n.a.	2.7080		0.40938	1.61
5	11.33	Bromide	n.a.	2.7038		0.43790	1.72
6	13.22	Nitrate-N	n.a.	5.0106		5.39426	21.17
7	18.30	O-Phosphate-P	n.a.	2.4384		0.68452	2.69
8	20.56	Sulfate	n.a.	20.5687		6.51159	25.56
Total:				53.7586	0.000	25.475	100.00

25 249330002/970227/1/1/

Sample Name:	249330002/970227/1/1/	*Injection Volume:*	1.0
Vial Number:	12	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/31/2010 22:41	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

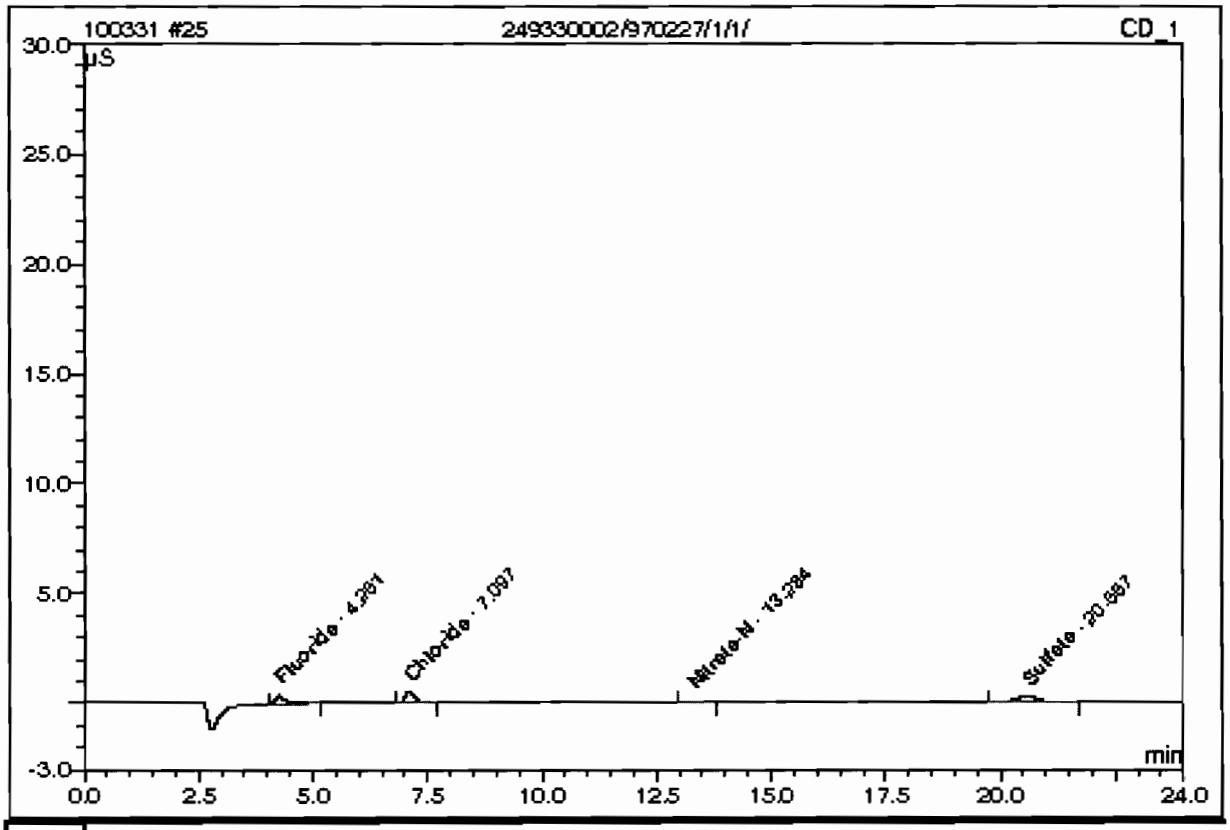

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.2167		0.09189	22.36
2	7.10	Chloride	n.a.	0.4453		0.12105	29.45
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.28	Nitrate-N	n.a.	0.1200		0.02282	5.55
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.57	Sulfate	n.a.	0.8659		0.17521	42.63
Total:				1.6479	0.000	0.411	100.00

26 249330003/970227/1/1/

Sample Name:	249330003/970227/1/1/	*Injection Volume:*	1.0
Vial Number:	13	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/31/2010 23:08	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

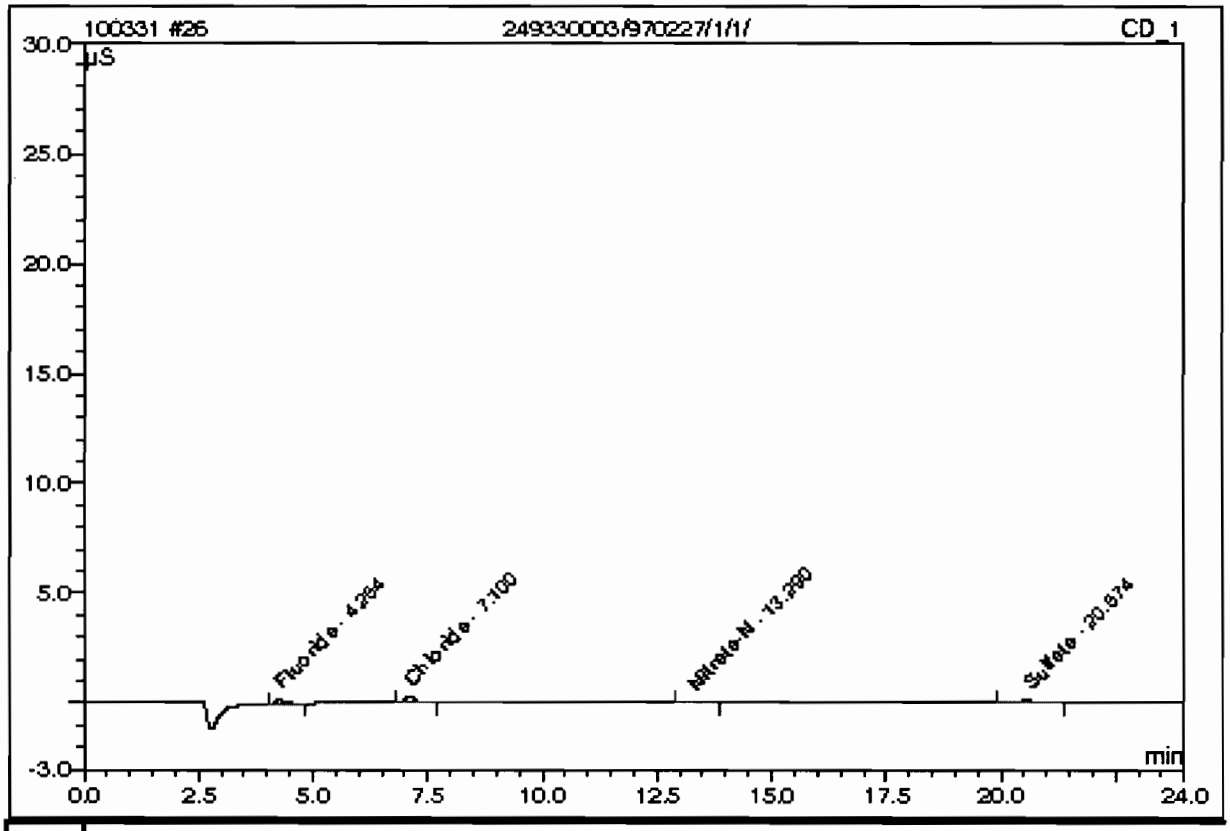

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1339		0.04209	21.89
2	7.10	Chloride	n.a.	0.3467		0.07546	39.25
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.29	Nitrate-N	n.a.	0.1159		0.01827	9.51
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.57	Sulfate	n.a.	0.4966		0.05643	29.35
Total:				1.0931	0.000	0.192	100.00

27 249330004/970227/1/1/

Sample Name:	249330004/970227/1/1/	*Injection Volume:*	1.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/31/2010 23:35	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

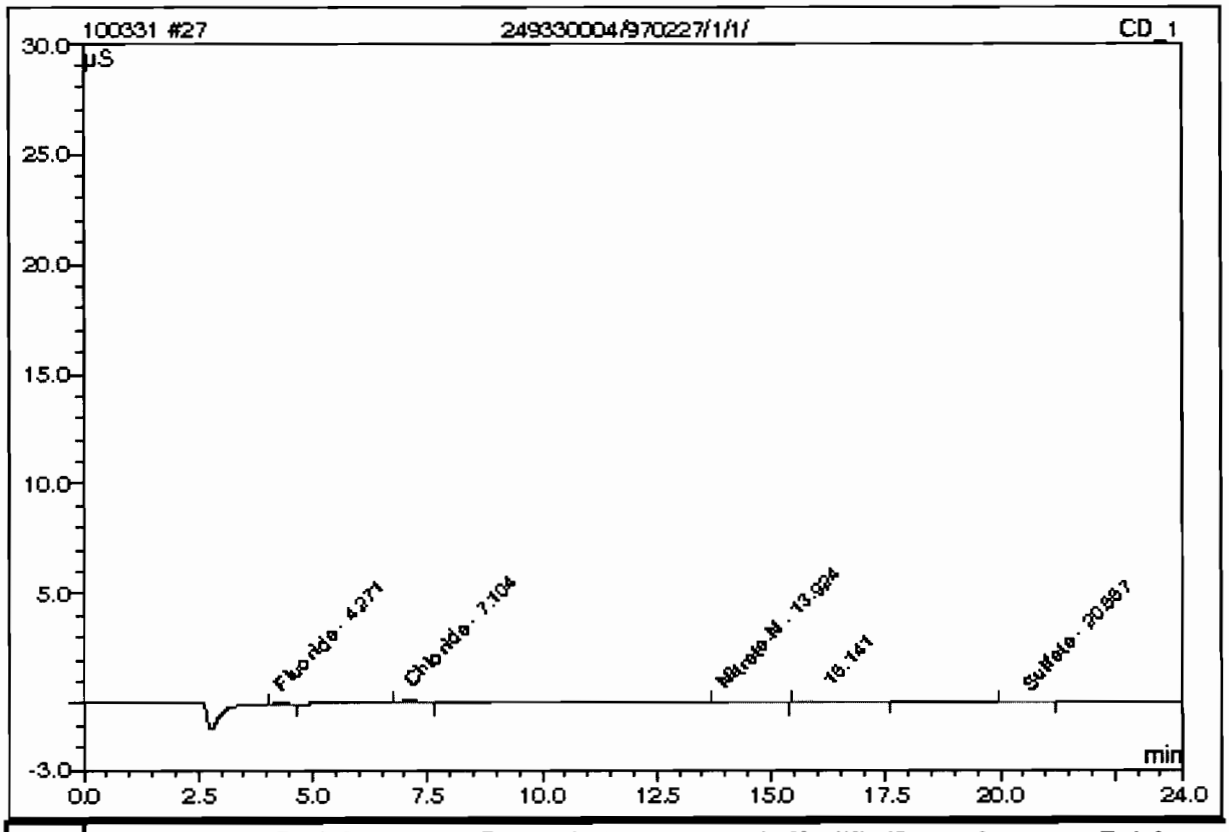

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.27	Fluoride	n.a.	0.0940		0.01805	8.66
2	7.10	Chloride	n.a.	0.2891		0.04887	23.44
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.92	Nitrate-N	n.a.	0.1522		0.05811	27.87
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	20.56	Sulfate	n.a.	0.3829		0.01986	9.53
Total:				0.9182	0.000	0.145	69.51

27 249330004/970227/1/1/

Sample Name:	249330004/970227/1/1/	*Injection Volume:*	1.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/31/2010 23:35	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

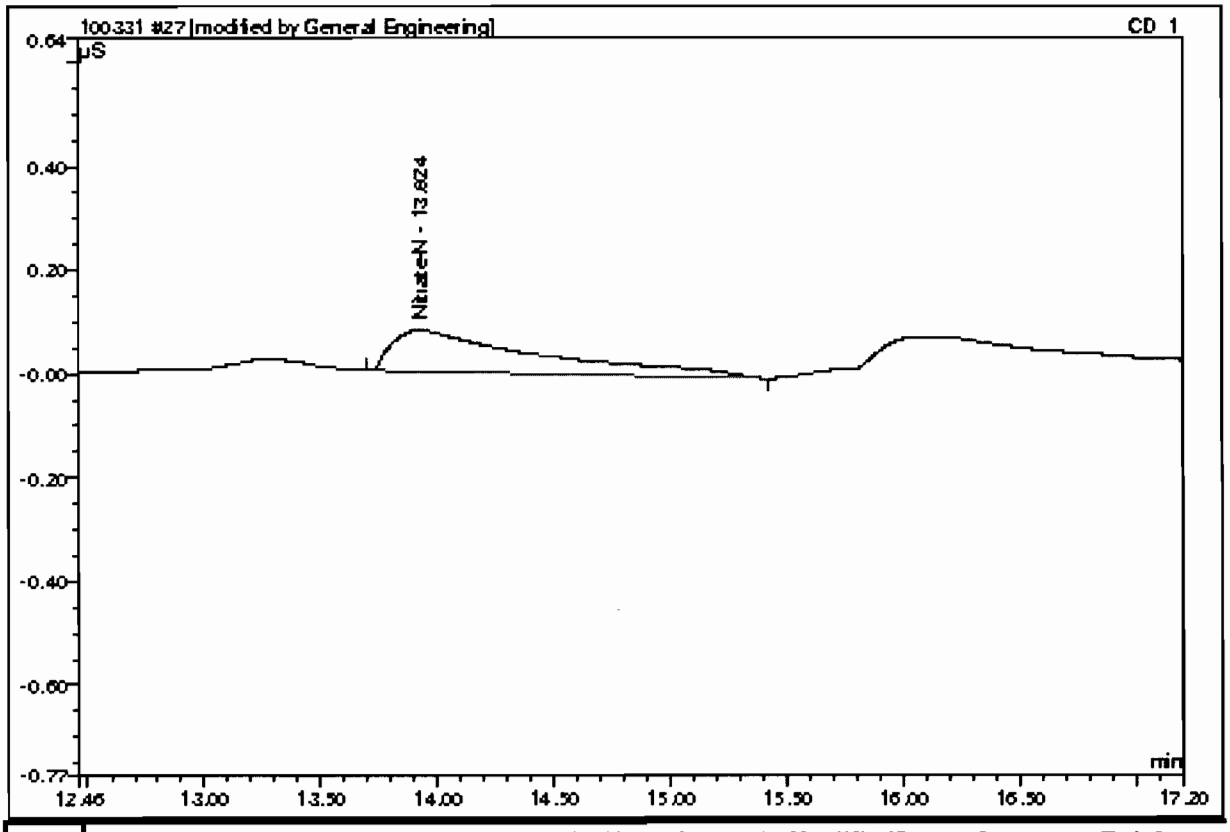

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.27	Fluoride	n.a.	0.0940		0.01805	12.46
2	7.10	Chloride	n.a.	0.2891		0.04887	33.73
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.92	Nitrate-N	n.a.	0.1522		0.05811	40.10
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.56	Sulfate	n.a.	0.3829		0.01986	13.71
Total:				0.9182	0.000	0.145	100.00

27 249330004/970227/1/1/

Sample Name:	249330004/970227/1/1/	*Injection Volume:*	1.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/31/2010 23:35	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

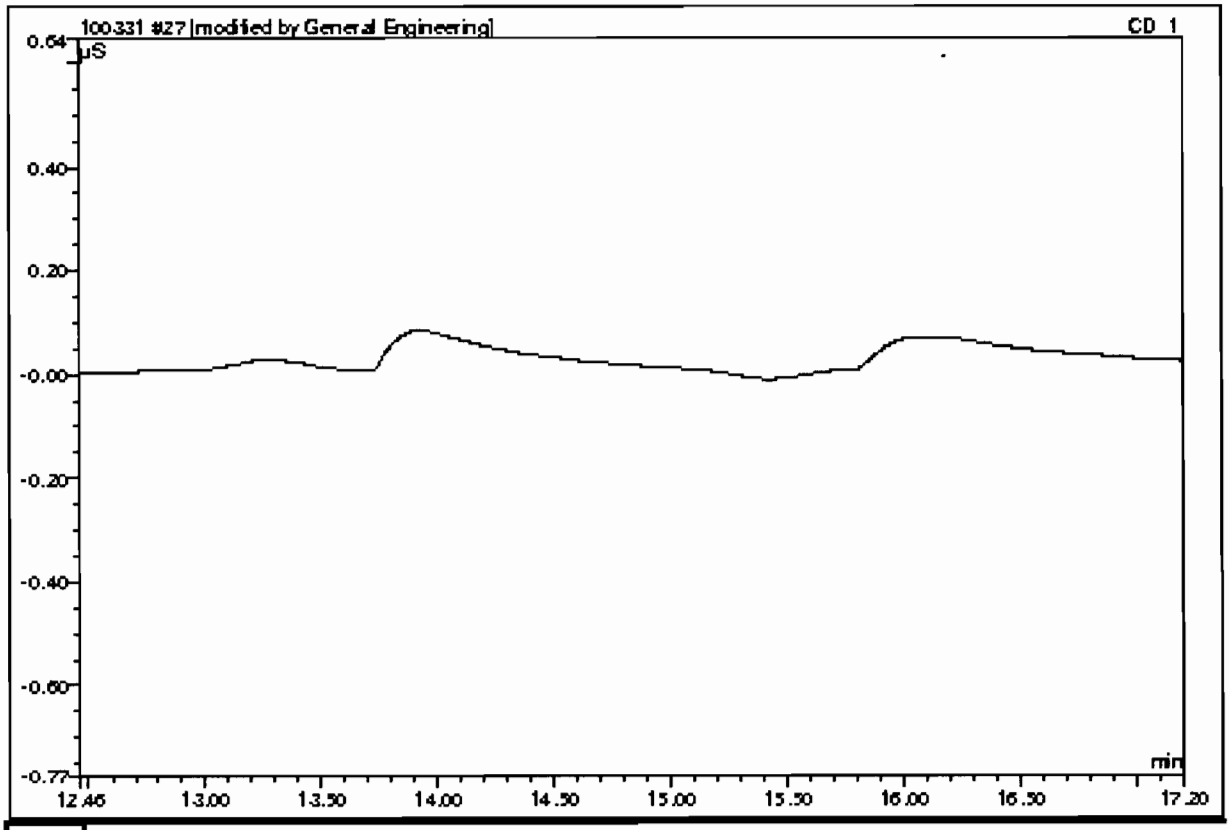

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.27	Fluoride	n.a.	0.0940		0.01805	20.80
2	7.10	Chloride	n.a.	0.2891		0.04887	56.31
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.56	Sulfate	n.a.	0.3829		0.01986	22.88
Total:				0.7660	0.000	0.087	100.00

This is runlog for Sequence 100331.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
249330005	04/01/10 00:02	970227	1	100331	GXM3
CVH	04/01/10 00:29		1	100331	GXM3
CCB	04/01/10 00:56		1	100331	GXM3
249330006	04/01/10 01:23	970227	1	100331	GXM3
249330007	04/01/10 01:50	970227	1	100331	GXM3
249330008	04/01/10 02:17	970227	1	100331	GXM3
249510001	04/01/10 02:44	970227	1	100331	GXM3
249510002	04/01/10 03:10	970227	1	100331	GXM3
249510004	04/01/10 03:37	970227	1	100331	GXM3
249510006	04/01/10 04:04	970227	1	100331	GXM3
249510007	04/01/10 04:31	970227	1	100331	GXM3
249510008	04/01/10 04:58	970227	1	100331	GXM3
249510009	04/01/10 05:25	970227	1	100331	GXM3
CCV	04/01/10 05:52		1	100331	GXM3
CCB	04/01/10 06:19		1	100331	GXM3
249510010	04/01/10 06:46	970227	1	100331	GXM3
249510011	04/01/10 07:13	970227	1	100331	GXM3
1202083331	04/01/10 07:40	970227	1	100331	GXM3
1202083333	04/01/10 08:06	970227	1	100331	GXM3
1202083335	04/01/10 08:33	970227	1	100331	GXM3
CVH	04/01/10 09:00		1	100331	GXM3
CCB	04/01/10 09:27		1	100331	GXM3
1202083199	04/01/10 09:54	970173	1	100331	GXM3
1202083207	04/01/10 10:21	970173	1	100331	GXM3
249102002	04/01/10 10:48	970173	1	100331	GXM3
1202083200	04/01/10 11:15	970173	1	100331	GXM3
1202083202	04/01/10 11:42	970173	1	100331	GXM3
1202083204	04/01/10 12:09	970173	1	100331	GXM3

249102003	04/01/10	12:36	970173	1	100331	GXM3
249102004	04/01/10	13:02	970173	1	100331	GXM3
249102005	04/01/10	13:29	970173	1	100331	GXM3
249102006	04/01/10	13:56	970173	1	100331	GXM3
CCV	04/01/10	14:23		1	100331	GXM3
CCB	04/01/10	14:50		1	100331	GXM3
249179001	04/01/10	15:17	970173	1	100331	GXM3
249179002	04/01/10	15:44	970173	1	100331	GXM3
249179003	04/01/10	16:33	970173	1	100331	GXM3
249179004	04/01/10	16:59	970173	1	100331	GXM3
249179005	04/01/10	17:26	970173	1	100331	GXM3
249179006	04/01/10	17:53	970173	1	100331	GXM3
249179007	04/01/10	18:20	970173	1	100331	GXM3
1202083201	04/01/10	18:47	970173	1	100331	GXM3
1202083203	04/01/10	19:14	970173	1	100331	GXM3
1202083205	04/01/10	19:41	970173	1	100331	GXM3
CVH	04/01/10	20:08		1	100331	GXM3
CCB	04/01/10	20:35		1	100331	GXM3
1202083560	04/01/10	21:02	970312	1	100331	GXM3
1202083564	04/01/10	21:29	970312	1	100331	GXM3
249701002	04/01/10	21:56	970312	1	100331	GXM3
1202083561	04/01/10	22:22	970312	1	100331	GXM3
1202083562	04/01/10	22:49	970312	1	100331	GXM3
1202083563	04/01/10	23:16	970312	1	100331	GXM3
249704002	04/01/10	23:43	970312	1	100331	GXM3

28 249330005/970227/1/1/

Sample Name:	249330005/970227/1/1/	*Injection Volume:*	1.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	4/1/2010 0:02	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

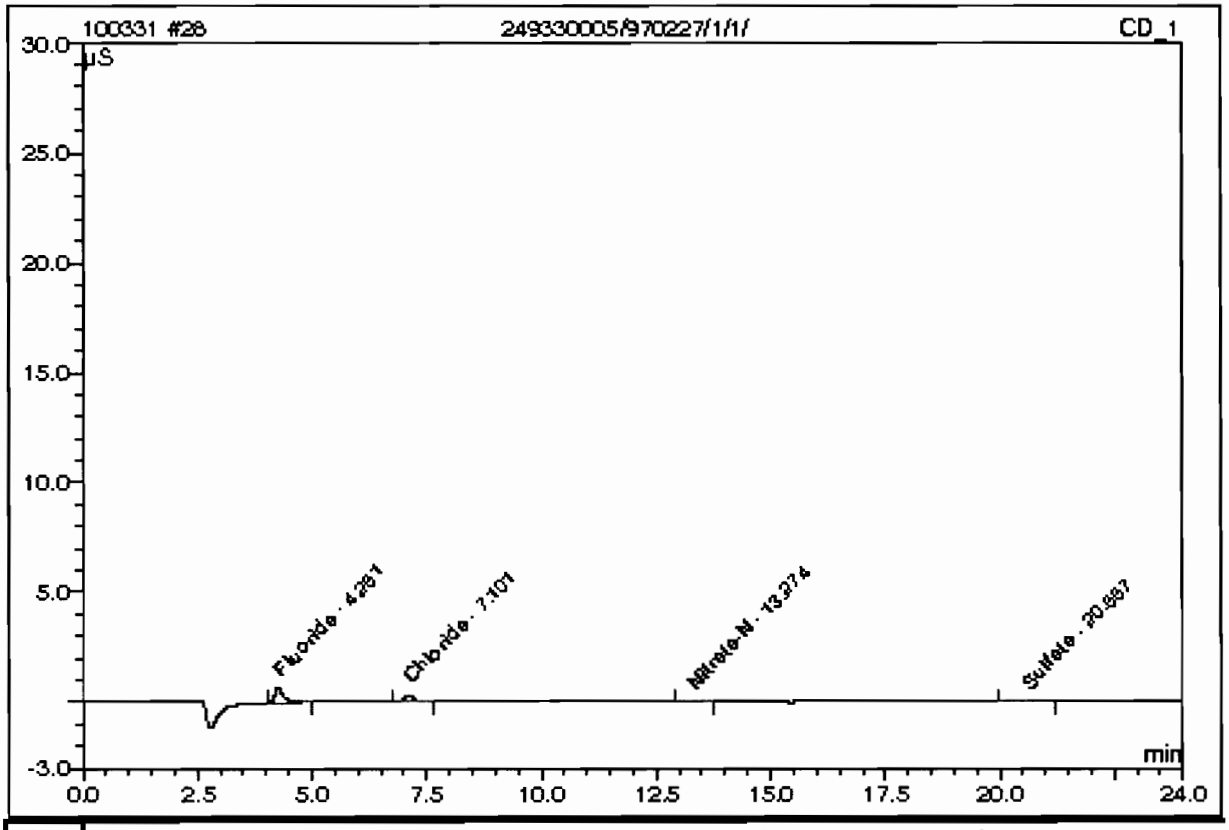

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.3286		0.15930	55.44
2	7.10	Chloride	n.a.	0.3498		0.07693	26.78
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.27	Nitrate-N	n.a.	0.1144		0.01668	5.81
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.57	Sulfate	n.a.	0.4281		0.03441	11.98
Total:				1.2211	0.000	0.287	100.00

29 WIC100331-02CVH

Sample Name:	WIC100331-02CVH	*Injection Volume:*	1.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	4/1/2010 0:29	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

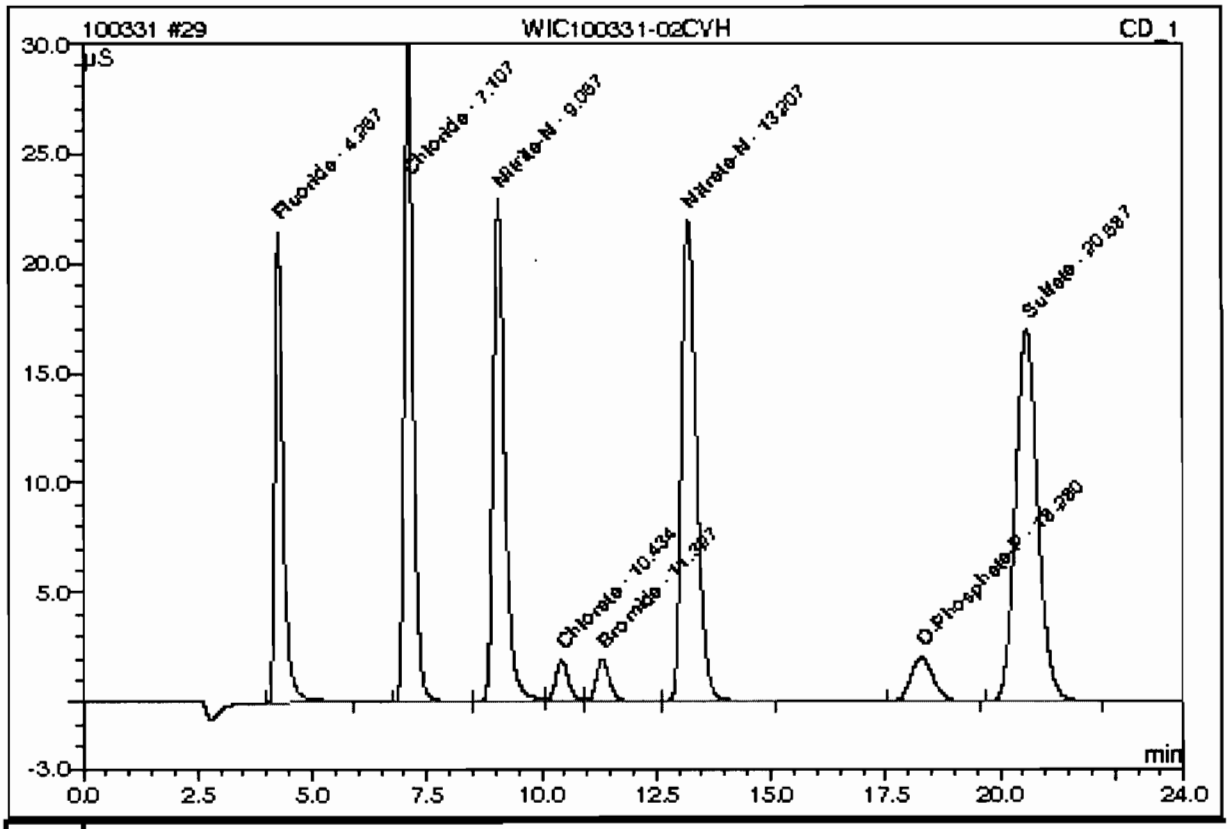

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	7.6065		4.54037	11.82
2	7.11	Chloride	n.a.	15.0673		6.87731	17.90
3	9.07	Nitrite-N	n.a.	7.6765		6.76190	17.60
4	10.43	Chlorate	n.a.	4.1592		0.63361	1.65
5	11.33	Bromide	n.a.	4.0471		0.65840	1.71
6	13.21	Nitrate-N	n.a.	7.5638		8.19848	21.34
7	18.28	O-Phosphate-P	n.a.	3.9238		1.13463	2.95
8	20.59	Sulfate	n.a.	30.2246		9.61694	25.03
Total:				80.2689	0.000	38.422	100.00

30 CCB

Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	17	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	4/1/2010 0:56	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

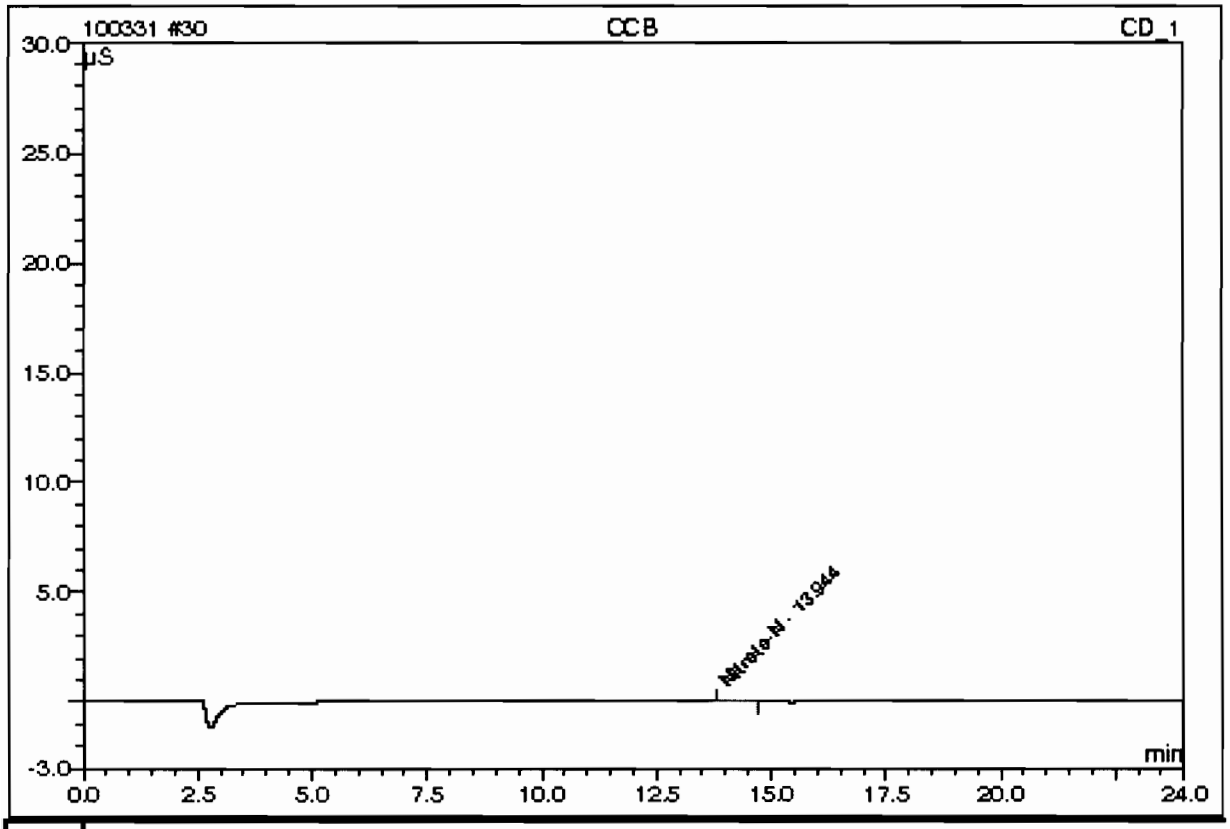

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
1	13.94	Nitrate-N	n.a.	0.1129		0.01501	100.00
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.1129	0.000	0.015	100.00

30 CCB

Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	17	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	4/1/2010 0:56	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

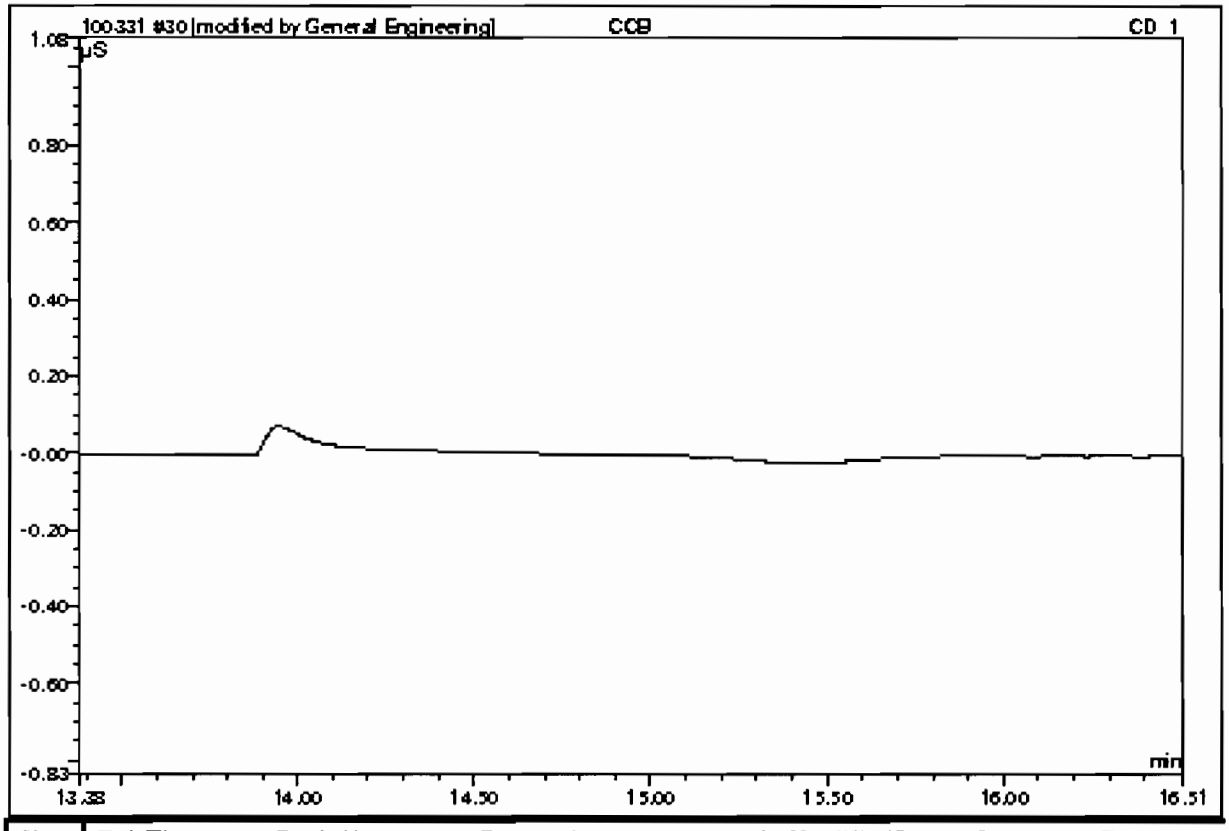

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

31 249330006/970227/1/1/

Sample Name:	249330006/970227/1/1/	*Injection Volume:*	1.0
Vial Number:	18	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	4/1/2010 1:23	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528;GLGCE086;300;9056

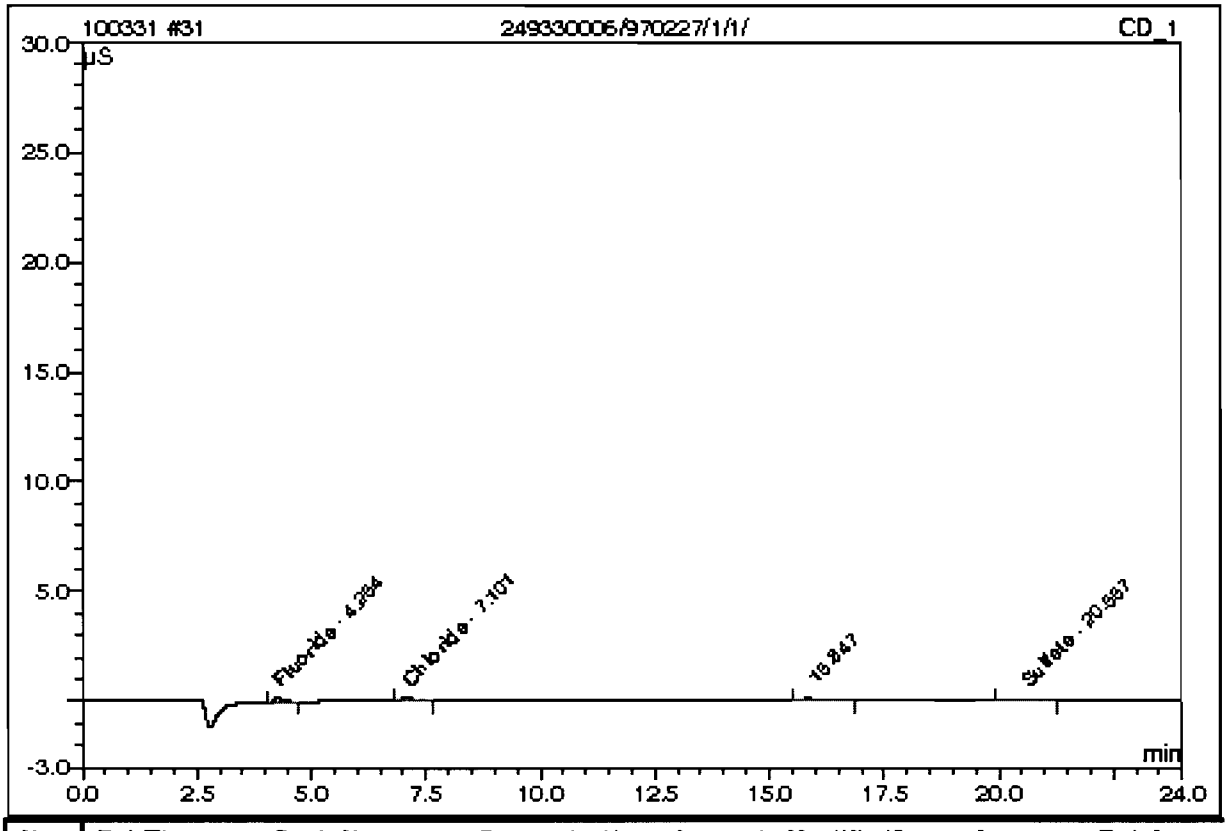

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1234		0.03572	20.82
2	7.10	Chloride	n.a.	0.2913		0.04990	29.08
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.57	Sulfate	n.a.	0.4700		0.04786	27.89
Total:				0.8846	0.000	0.133	77.80

32 249330007/970227/1/1/

Sample Name:	249330007/970227/1/1/	*Injection Volume:*	1.0
Vial Number:	19	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	4/1/2010 1:50	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

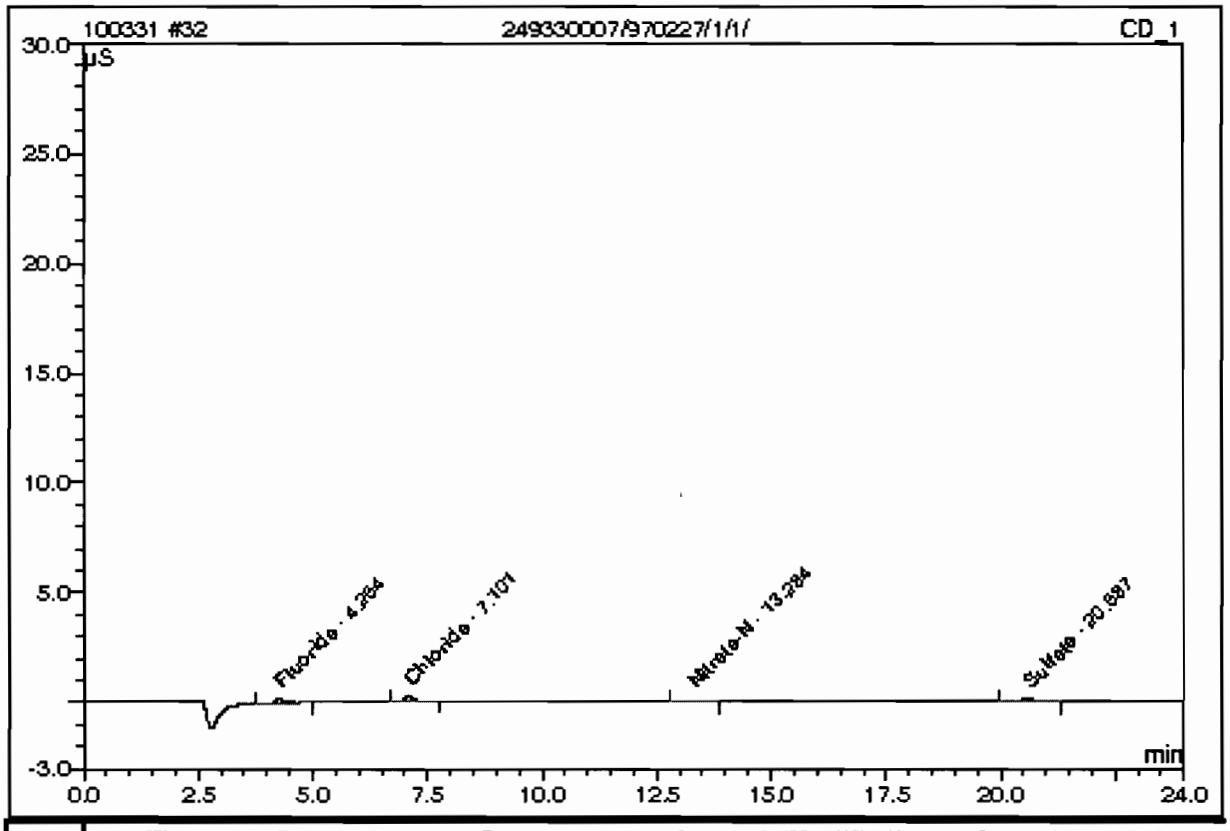

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1315		0.04065	20.81
2	7.10	Chloride	n.a.	0.3348		0.06996	35.81
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.28	Nitrate-N	n.a.	0.1257		0.02903	14.86
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.59	Sulfate	n.a.	0.4944		0.05572	28.52
Total:				1.0864	0.000	0.195	100.00

33 249330008/970227/1/1/

Sample Name:	249330008/970227/1/1/	*Injection Volume:*	1.0
Vial Number:	20	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	4/1/2010 2:17	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

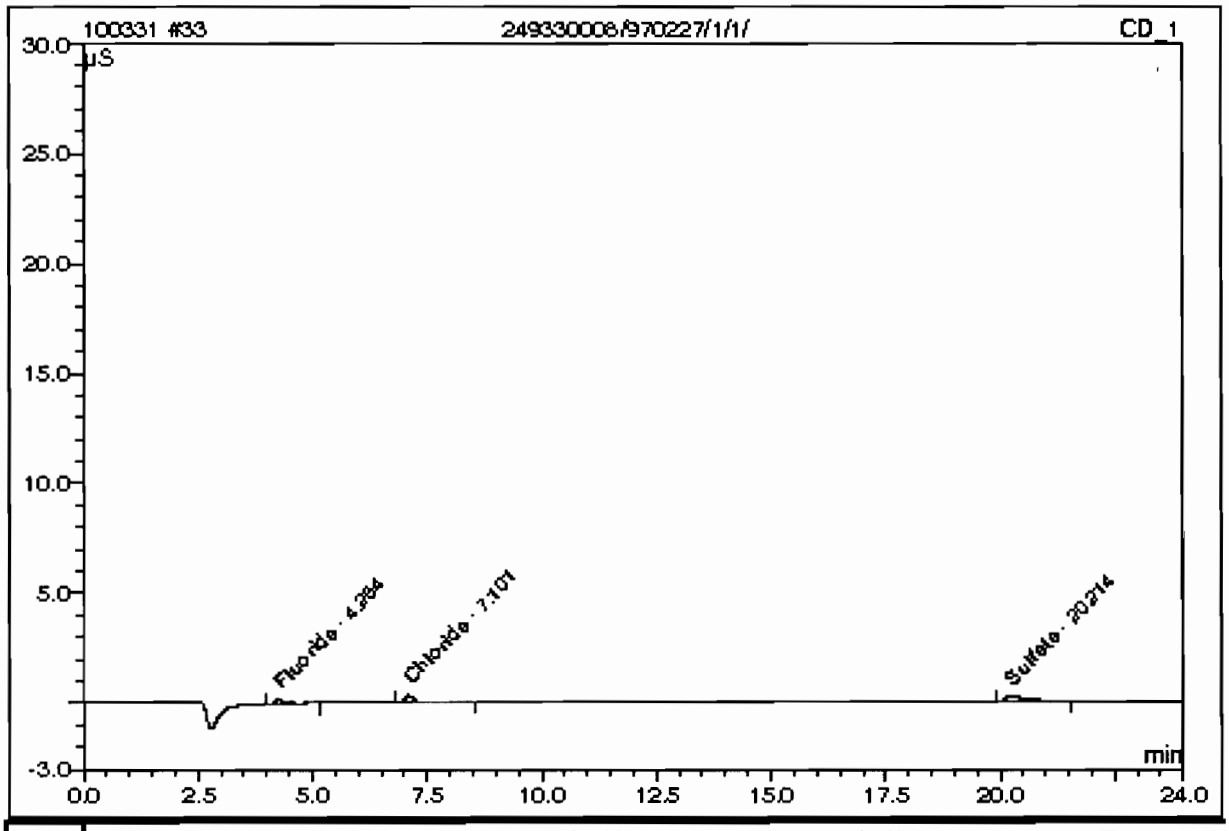

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1386		0.04492	13.53
2	7.10	Chloride	n.a.	0.4411		0.11908	35.86
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.21	Sulfate	n.a.	0.8437		0.16804	50.61
Total:				1.4234	0.000	0.332	100.00

41 WIC100331-02CCV

Sample Name:	WIC100331-02CCV	*Injection Volume:*	1.0
Vial Number:	28	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	4/1/2010 5:52	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

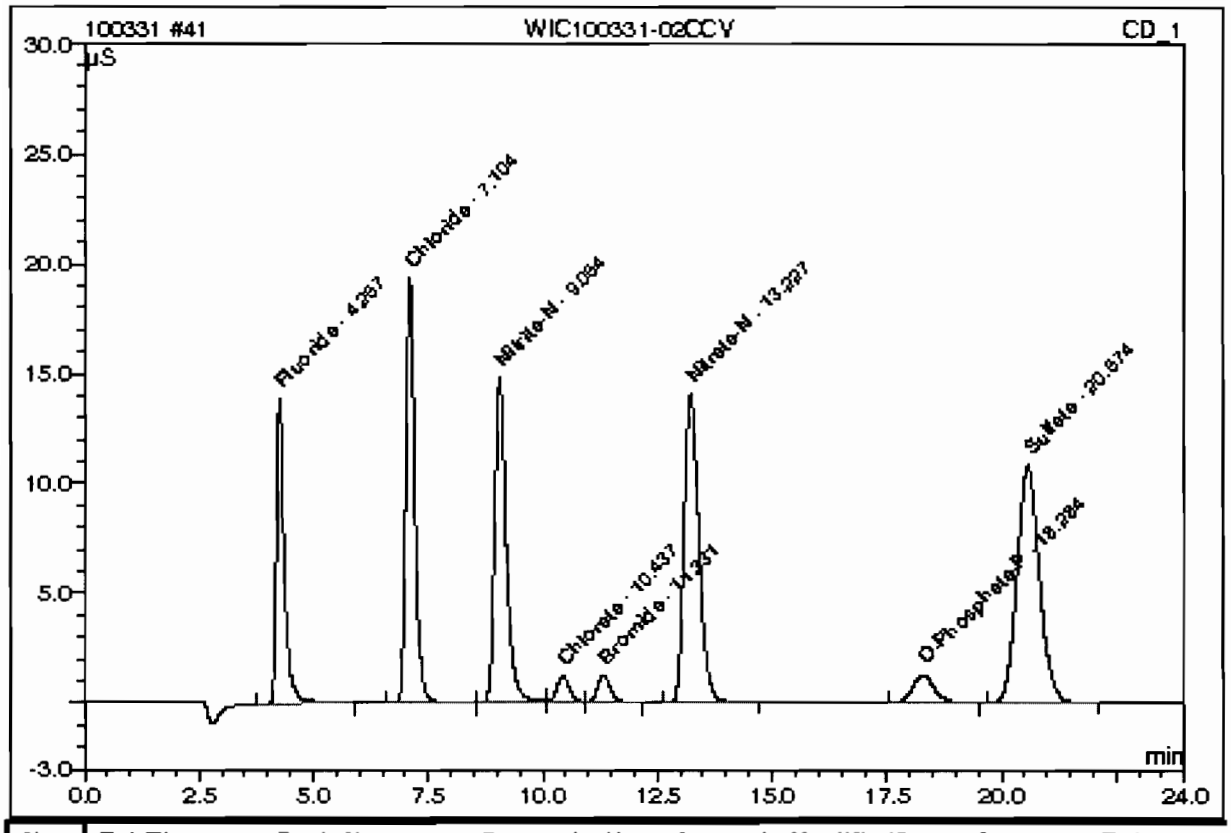

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	4.9772		2.95758	11.99
2	7.10	Chloride	n.a.	9.6964		4.39560	17.83
3	9.06	Nitrite-N	n.a.	4.9814		4.36601	17.71
4	10.44	Chlorate	n.a.	2.6153		0.39506	1.60
5	11.33	Bromide	n.a.	2.5803		0.41763	1.69
6	13.23	Nitrate-N	n.a.	4.8501		5.21799	21.16
7	18.28	O-Phosphate-P	n.a.	2.5572		0.72051	2.92
8	20.57	Sulfate	n.a.	19.5593		6.18698	25.09
Total:				51.8172	0.000	24.657	100.00

42 CCB

Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	29	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	4/1/2010 6:19	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

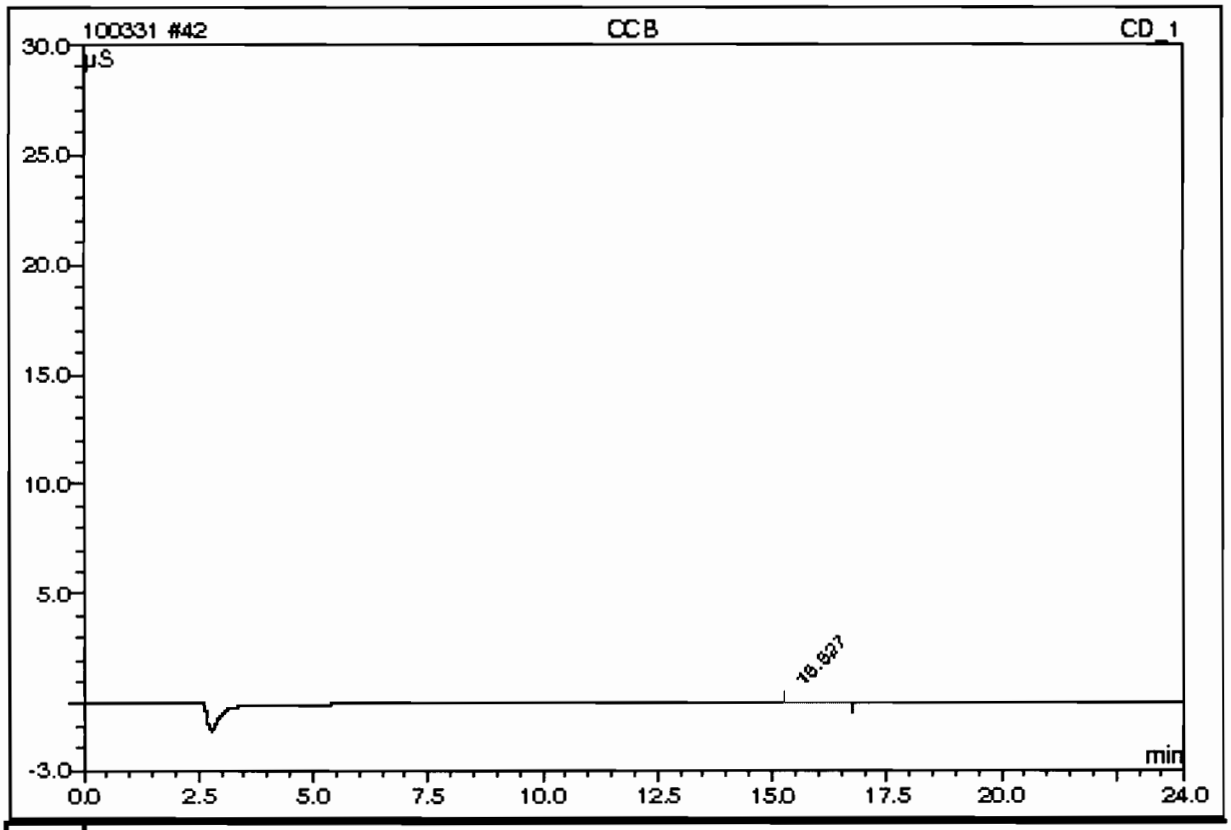

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

44 249510011/970227/1/1/

Sample Name:	249510011/970227/1/1/	*Injection Volume:*	1.0
Vial Number:	31	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	4/1/2010 7:13	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

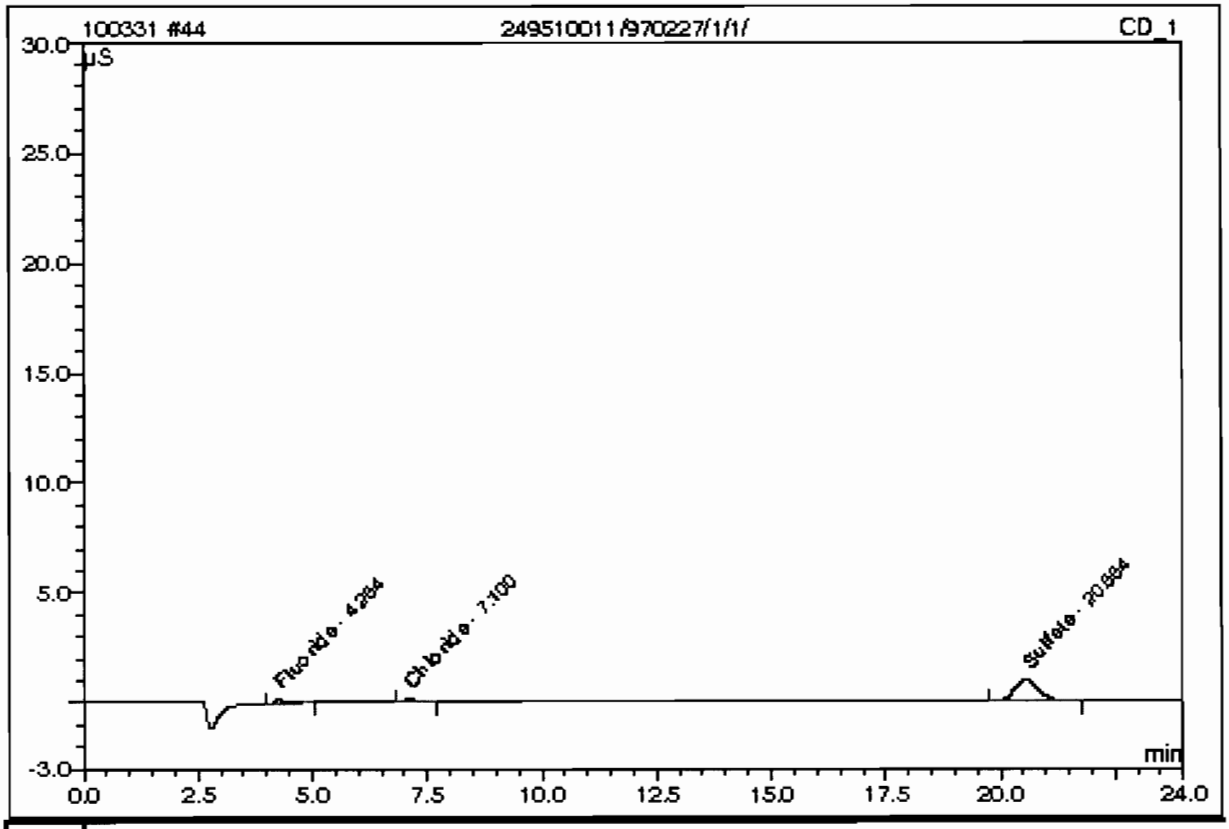

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1370		0.04396	6.38
2	7.10	Chloride	n.a.	0.2778		0.04367	6.34
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.55	Sulfate	n.a.	2.1913		0.60146	87.28
Total:				2.6062	0.000	0.689	100.00

45 1202083331/970227/1/1/DUP

Sample Name:	1202083331/970227/1/1/DUP	*Injection Volume:*	1.0
Vial Number:	32	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	4/1/2010 7:40	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528;GLGCB086;300;9056

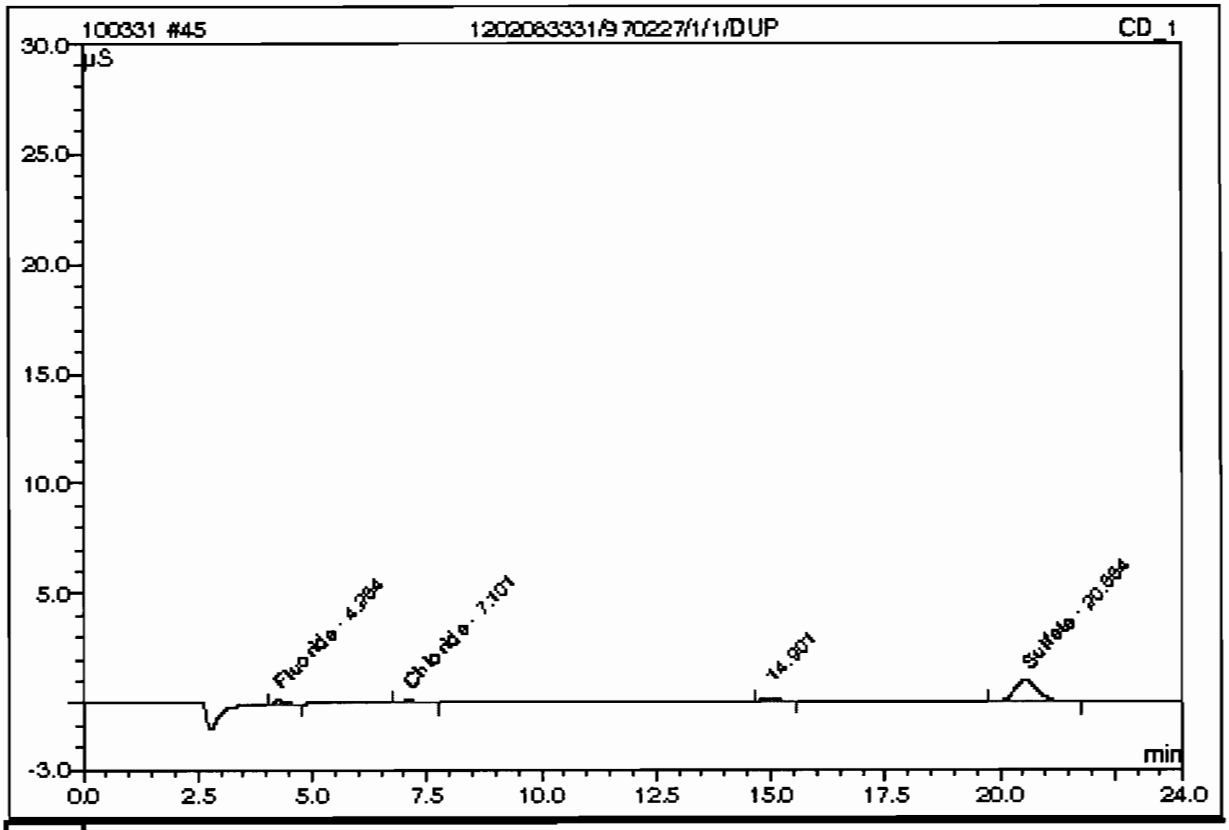

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1296		0.03951	5.34
2	7.10	Chloride	n.a.	0.2745		0.04212	5.69
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.55	Sulfate	n.a.	2.1364		0.58378	78.92
Total:				2.5405	0.000	0.665	89.95

46 1202083333/970227/1/1/MS

Sample Name:	1202083333/970227/1/1/MS	*Injection Volume:*	1.0
Vial Number:	33	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	4/1/2010 8:06	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

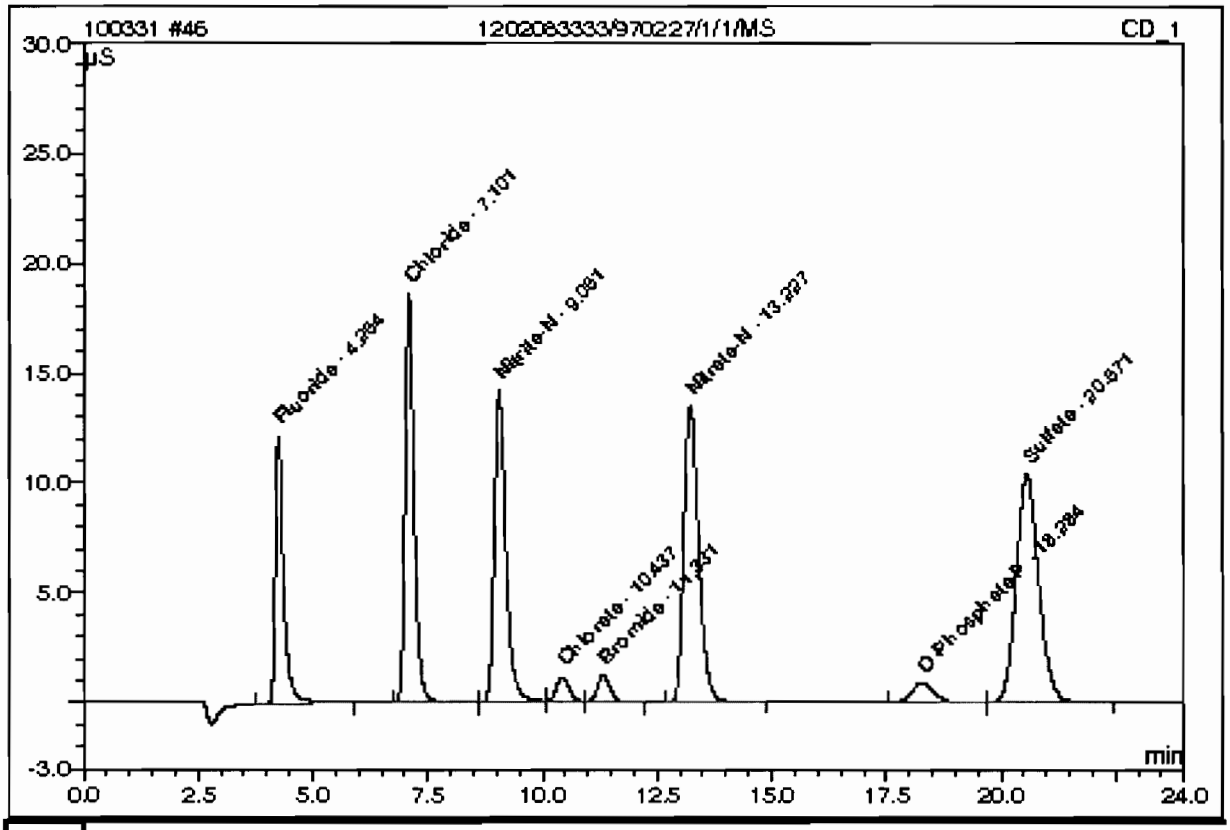

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.3879		2.60286	11.15
2	7.10	Chloride	n.a.	9.3646		4.24231	18.18
3	9.06	Nitrite-N	n.a.	4.7915		4.19721	17.98
4	10.44	Chlorate	n.a.	2.5452		0.38423	1.65
5	11.33	Bromide	n.a.	2.5222		0.40809	1.75
6	13.23	Nitrate-N	n.a.	4.6594		5.00846	21.46
7	18.28	O-Phosphate-P	n.a.	1.8753		0.51388	2.20
8	20.57	Sulfate	n.a.	18.9218		5.98197	25.63
Total:				49.0680	0.000	23.339	100.00

47 1202083335/970227/1/1/MSD

Sample Name:	1202083335/970227/1/1/MSD	*Injection Volume:*	1.0
Vial Number:	34	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	4/1/2010 8:33	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

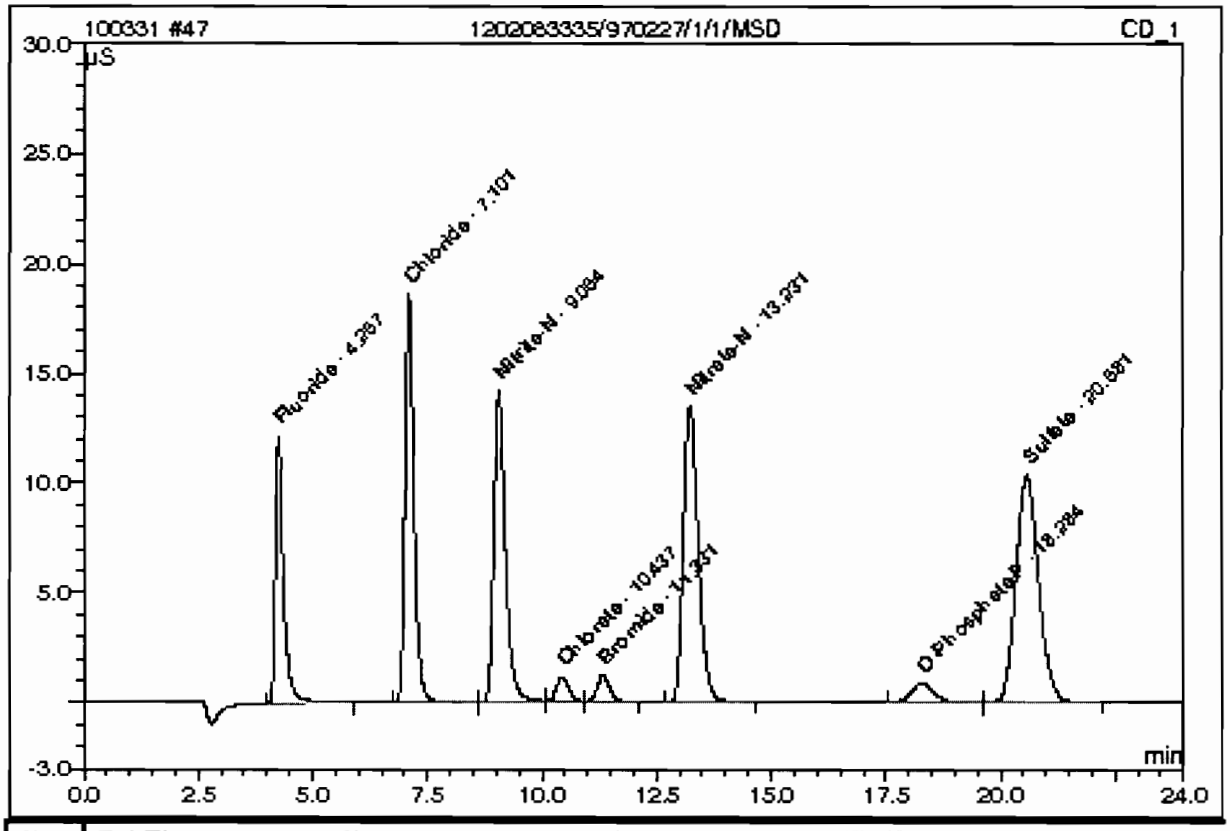

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	4.3846		2.60085	11.17
2	7.10	Chloride	n.a.	9.3517		4.23636	18.19
3	9.06	Nitrite-N	n.a.	4.7952		4.20048	18.04
4	10.44	Chlorate	n.a.	2.5016		0.37748	1.62
5	11.33	Bromide	n.a.	2.4913		0.40303	1.73
6	13.23	Nitrate-N	n.a.	4.6471		4.99500	21.45
7	18.28	O-Phosphate-P	n.a.	1.8435		0.50423	2.17
8	20.58	Sulfate	n.a.	18.8920		5.97237	25.64
Total:				48.9070	0.000	23.290	100.00

48 WIC100331-02CVH

Sample Name:	WIC100331-02CVH	*Injection Volume:*	1.0
Vial Number:	35	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	4/1/2010 9:00	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

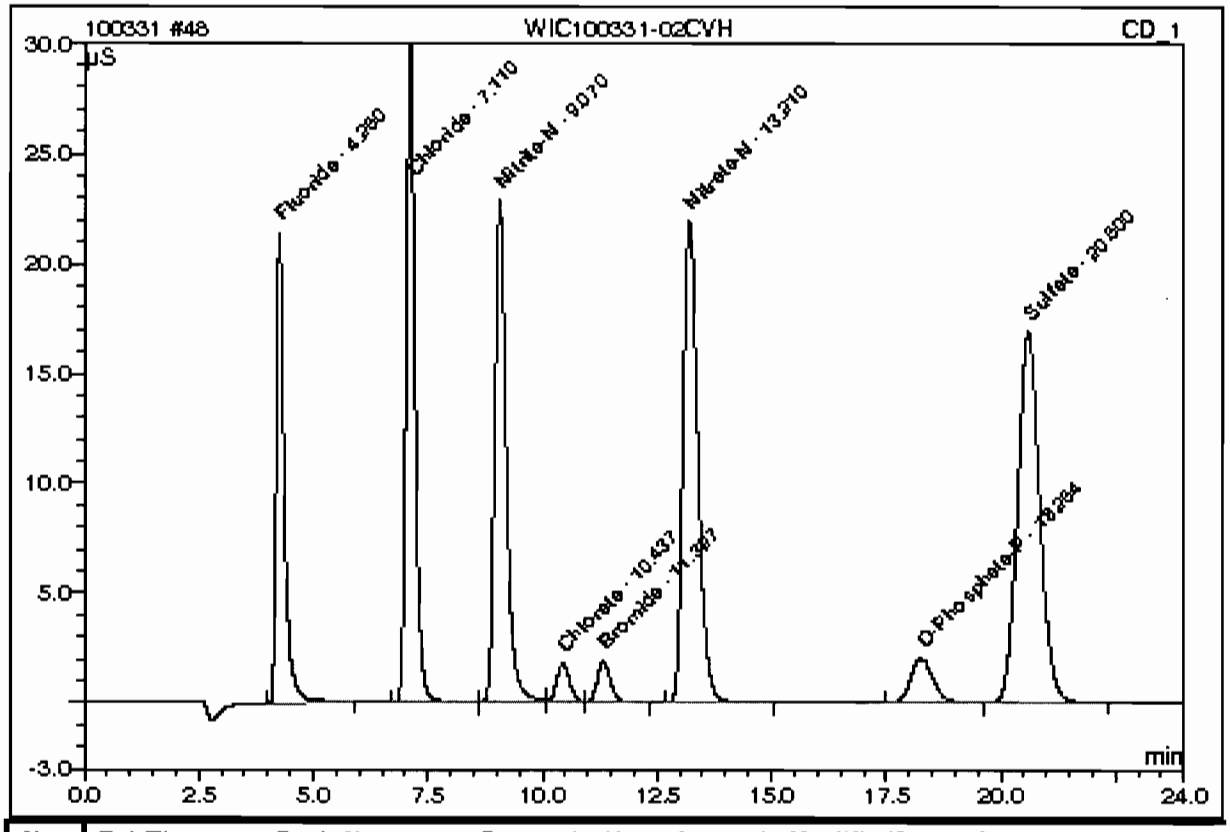

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	7.6244		4.55113	11.85
2	7.11	Chloride	n.a.	15.1095		6.89683	17.95
3	9.07	Nitrite-N	n.a.	7.6707		6.75673	17.59
4	10.44	Chlorate	n.a.	3.9437		0.60030	1.56
5	11.33	Bromide	n.a.	3.9263		0.63857	1.66
6	13.21	Nitrate-N	n.a.	7.5627		8.19731	21.34
7	18.26	O-Phosphate-P	n.a.	3.9774		1.15087	3.00
8	20.60	Sulfate	n.a.	30.2597		9.62823	25.06
Total:				80.0745	0.000	38.420	100.00

49 CCB

Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	36	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	4/1/2010 9:27	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

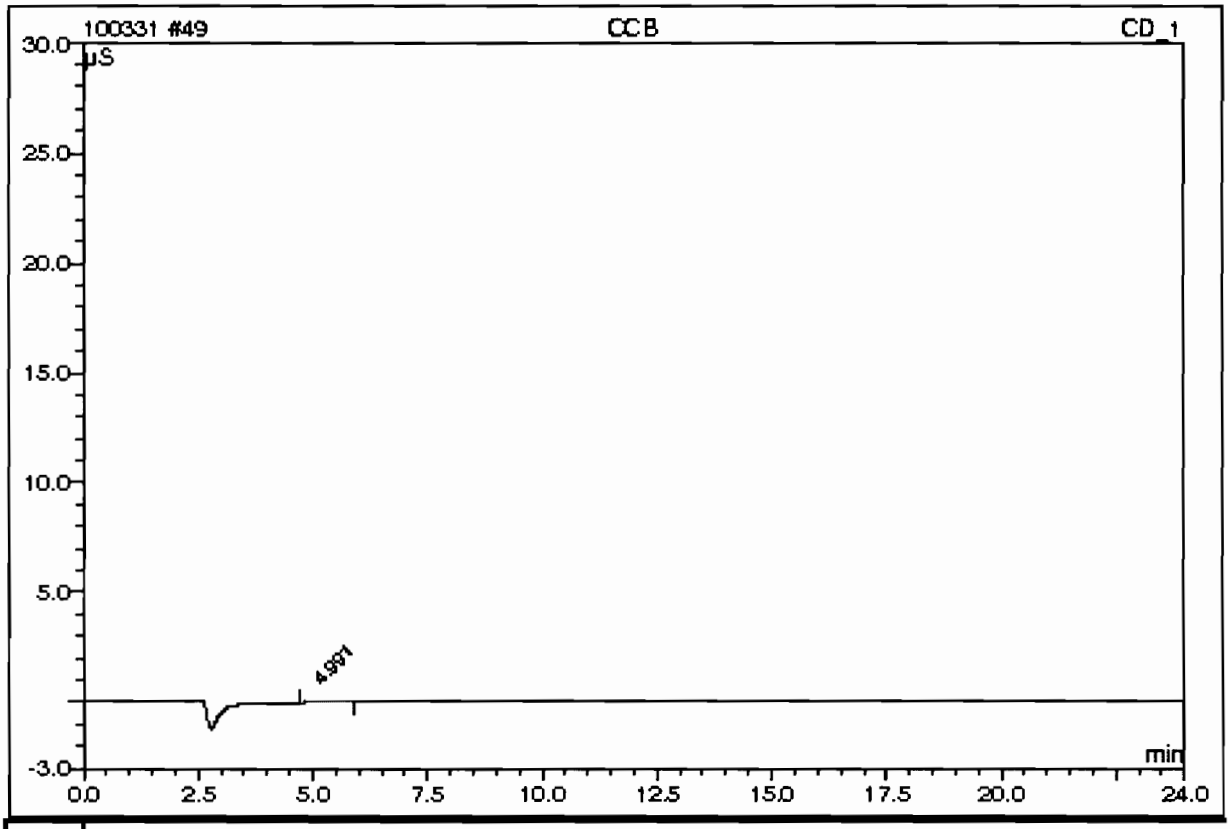

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

49 CCB

Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	36	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	4/1/2010 9:27	Analyst:	GXM3
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

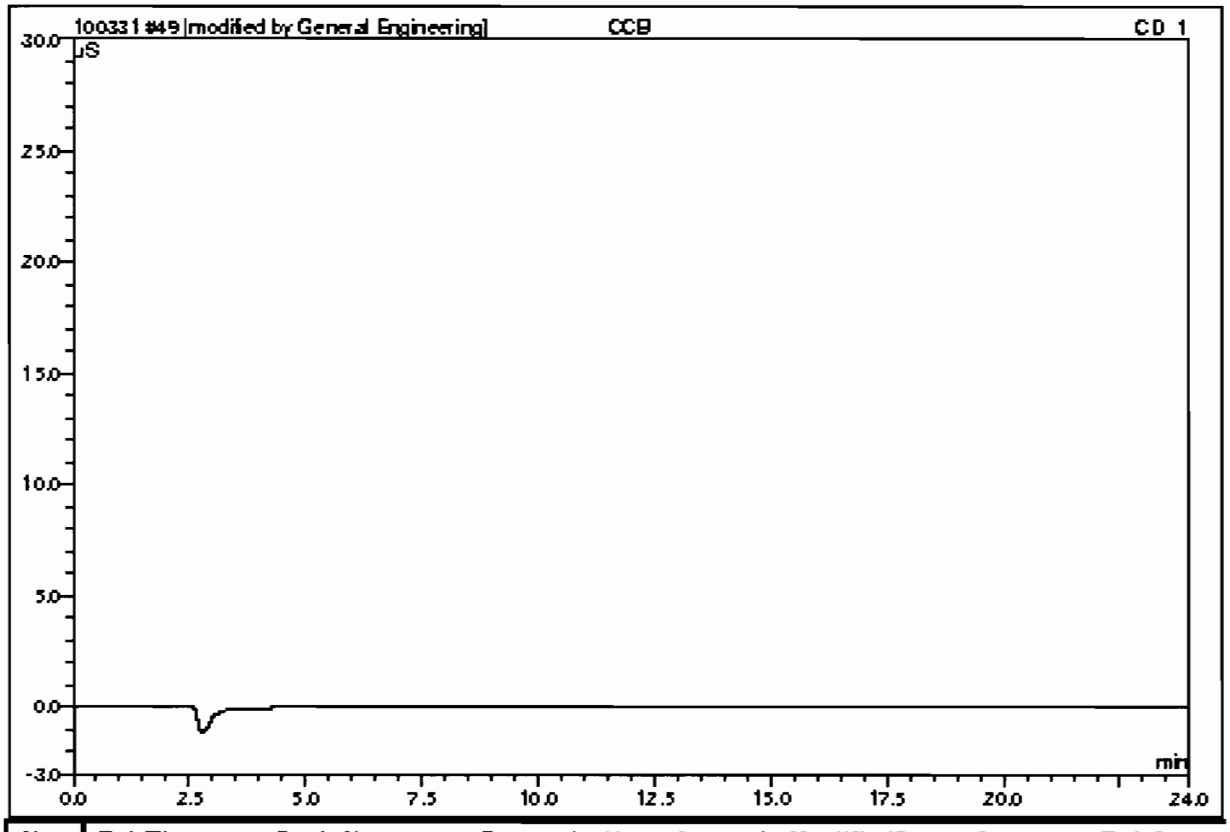

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

pH

pH / Corrosivity LogBook

Analyst: EXF1
Batch: 965260
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: SW846 9045C/9045D

Type	Sample Id	Serial Number	Description
CCV	240	1MM091029-PH	PH 7 BUFFER FOR PH
LCS	1202071056	1MM100209-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt(g)	Final Vol(mL)	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1202071056 LCS		Soil	10:35	10:40	15-MAR-10 10:57	pH	20	20	6.99	20.4'C	7	99.857	
1202071056 LCS		Soil	10:35	10:40	15-MAR-10 10:57	pH 2	20	20	6.99	20.4'C	7	99.857	
249068001		Misc Solid	10:35	10:40	15-MAR-10 11:07	pH	5	20	10.06	21.4'C			
249068001		Misc Solid	10:35	10:40	15-MAR-10 11:07	pH 2	5	20	10.06	21.5'C			
249068002		Misc Solid	10:35	10:40	15-MAR-10 11:10	pH	5	20	8.78	21.0'C			
249068002		Misc Solid	10:35	10:40	15-MAR-10 11:10	pH 2	5	20	8.78	20.9'C			
CCV			10:35	10:40	15-MAR-10 11:13	pH	20	20	7.02	20.5'C	7	100.286	
CCV			10:35	10:40	15-MAR-10 11:13	pH 2	20	20	7.01	20.5'C	7	100.143	
249330001		Soil	10:35	10:40	15-MAR-10 11:14	pH	20	20	6.21	19.2'C			
249330001		Soil	10:35	10:40	15-MAR-10 11:14	pH 2	20	20	6.17	20.3'C			
1202071054 DUP	249330001	Soil	10:35	10:40	15-MAR-10 11:16	pH	20	20	6.21	19.8'C			0
1202071054 DUP	249330001	Soil	10:35	10:40	15-MAR-10 11:16	pH 2	20	20	6.18	20.8'C			.162
249330002		Soil	10:35	10:40	15-MAR-10 11:19	pH	20	20	8.42	21.5'C			
249330002		Soil	10:35	10:40	15-MAR-10 11:19	pH 2	20	20	8.39	21.5'C			
1202071055 DUP	249330002	Soil	10:35	10:40	15-MAR-10 11:21	pH	20	20	8.42	19.0'C			0
1202071055 DUP	249330002	Soil	10:35	10:40	15-MAR-10 11:21	pH 2	20	20	8.4	19.8'C			.119
249330003		Soil	10:35	10:40	15-MAR-10 11:23	pH	20	20	7.4	20.5'C			
249330003		Soil	10:35	10:40	15-MAR-10 11:23	pH 2	20	20	7.41	20.6'C			
CCV			10:35	10:40	15-MAR-10 11:24	pH	20	20	7.01	20.7'C	7	100.143	
CCV			10:35	10:40	15-MAR-10 11:24	pH 2	20	20	7	20.7'C	7	100	
249330004		Soil	10:35	10:40	15-MAR-10 11:26	pH	20	20	7.52	21.5'C			
249330004		Soil	10:35	10:40	15-MAR-10 11:26	pH 2	20	20	7.55	21.5'C			
249330005		Soil	10:35	10:40	15-MAR-10 11:29	pH	20	20	7.56	21.1'C			
249330005		Soil	10:35	10:40	15-MAR-10 11:29	pH 2	20	20	7.6	21.2'C			
249330006		Soil	10:35	10:40	15-MAR-10 11:31	pH	20	20	6.32	20.7'C			
249330006		Soil	10:35	10:40	15-MAR-10 11:31	pH 2	20	20	6.32	20.7'C			
249330007		Soil	10:35	10:40	15-MAR-10 11:32	pH	20	20	7.62	21.2'C			
249330007		Soil	10:35	10:40	15-MAR-10 11:32	pH 2	20	20	7.63	21.2'C			

pH / Corrosivity LogBook

Analyst: EXF1
Batch: 965260
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: SW846 9045C/9045D

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202071056	IMM100209-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt(g)	Final Vol(mL)	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
249330008		Soil	10:35	10:40	15-MAR-10 11:34	pH	20	20	6.31	21.2'C			
249330008		Soil	10:35	10:40	15-MAR-10 11:34	pH 2	20	20	6.33	21.2'C			
CCV			10:35	10:40	15-MAR-10 11:37	pH	20	20	7	20.9'C	7	100	
CCV			10:35	10:40	15-MAR-10 11:37	pH 2	20	20	6.99	20.9'C	7	99.857	
249068003		Misc Solid	13:00	13:05	15-MAR-10 13:35	pH	5	20	10.3	23.7'C			
249068003		Misc Solid	13:00	13:05	15-MAR-10 13:35	pH 2	5	20	10.31	23.7'C			
249068004		Misc Solid	13:00	13:05	15-MAR-10 13:37	pH	5	20	12.26	23.5'C			
249068004		Misc Solid	13:00	13:05	15-MAR-10 13:37	pH 2	5	20	12.26	23.5'C			
CCV			13:00	13:05	15-MAR-10 13:38	pH	20	20	6.95	22.2'C	7	99.286	
CCV			13:00	13:05	15-MAR-10 13:38	pH 2	20	20	6.95	22.3'C	7	99.286	

Calibration Information:
Run Date: 15-MAR-10 10:48
Instrument: PHX742
Analyst: EXF1

	Standard	Observed	Theoretical		C	%Recovery
10:48	IMM100315-PH1	4	4	SU	19.8	100
10:48	IMM100315-PH2	7.03	7	SU	19.8	100.43
10:48	UPH100315-PH3	10.03	10	SU	19.8	100.3
10:48	UPH100315-PH4	2.02	2	SU	19.8	101
10:48	UPH100315-PH5	12.01	12	SU	19.8	100.08
10:48	IMM100315-PH6	7.02	7	SU	19.8	100.29

Comments:

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
01-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
IC	EPA 300.0	Solid	LANL
Batch ID:	**Sample Numbers:**		
970227	See Below		

Potentially affected work order(s)(SDG): 249330(10-2431),249510(10-2465)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/MSD: QC 1202083333MS, QC 202083335MSD	1. The MS recoveries for Fluoride and Sulfate fall outside of the established acceptance limits. The MSD verifies the recovery failures with passing RPDs; therefore, the failure is attributed to matrix interference.

Originator's Name:

Virginia Wininger 01-APR-10

Data Validator/Group Leader:

Julia Hamilton 06-APR-10

Friday, March 12, 2010

REQUEST NUMBER: 10-2430

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2430
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	HASL-300:AM-241	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	HASL-300:ISOPU	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2430

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOPU	1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	HASL-300:ISOTH	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	HASL-300:ISOU	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	SW-846:6010B	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	SW-846:8082	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	SW-846:8270C	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	SW-846:9012A	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2430

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2430C

REQUEST NUMBER: 10-2430

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13964	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13964	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13964	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13966	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13966	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13966	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13963	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13963	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13963	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13965	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13965	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13965	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	3/12/10	3:00			
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2638 **EVENT NAME:** SWMU 46-004(d2), 46-004(g), 46-004(h)

SAMPLE ID: RE46-10-13966 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		1150	SUB-MEDIA:	SOIL	OK
PRS ID:		46-004(h)	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611766	ok	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Silty sand + weathered tuff 5YR 6/2 Pinkish gray

SAMPLE COMMENTS: NA

LOCATION DESC: 4h-2

FIELD SCREENING/MEASUREMENT RESULTS:
PID: 9.5 ppm Background α 7 β 906 dpm Samples < MDA

COLLECTED BY (PRINT) M. Sherado REVIEWED BY (PRINT) Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature) [signature]	3/11/10 1650	(Printed Name) (Signature) [signature]	3/11/10 1650
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2638 **EVENT NAME:** SWMU 46-004(d2), 46-004(g), 46-004(h)

SAMPLE ID: RE46-10-13965 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1200	SUB-MEDIA:	SOIL	OK
PRS ID:		46-004(h)	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611766	OK	FIELD QC TYPE:	NA	—
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	—
TOP DEPTH:	0	1ft	SAMPLE USAGE:	INV	—
BOTTOM DEPTH:	0	2ft	SCREEN/PORT DESC:		—
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8270C+8082	250 ML AMBER GLASS	Ice		
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None		
1		Metals+ClO4+CN	500 ML POLY	Ice		

SAMPLE DESC: Dark reddish brown sediment + weathered tuff 5YR 3/3

SAMPLE COMMENTS: NA

LOCATION DESC: 4h-2

FIELD SCREENING/MEASUREMENT RESULTS:
PID 0.6ppm Background α β dpm Sample MDA

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** M. Ward

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Ward (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2638 **EVENT NAME:** SWMU 46-004(d2), 46-004(g), 46-004(h)

SAMPLE ID: RE46-10-13964 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1140	SUB-MEDIA:	SOIL	OK
PRS ID:		46-004(h)	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611765	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	1f	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Reddish brown weathered tuff + sediment. 5YR 4/3

SAMPLE COMMENTS:

LOCATION DESC: 4h-1

FIELD SCREENING/MEASUREMENT RESULTS:

PID: 0.5 ppm Background α: 7 β: 906 dpm Samples: < MDA

COLLECTED BY (PRINT) M. Maurer **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Maurer (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2638 **EVENT NAME:** SWMU 46-004(d2), 46-004(g), 46-004(h)

SAMPLE ID: RE46-10-13963 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1130	SUB-MEDIA:	SOIL	L
PRS ID:		46-004(~~h~~)(h)	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611765	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8270C+8082	250 ML AMBER GLASS	Ice		
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None		
1		Metals+ClO4+CN	500 ML POLY	Ice		

SAMPLE DESC: Reddish brown moist sandy sediment. 5YR 4/4

SAMPLE COMMENTS: NA

LOCATION DESC: 4h-1

FIELD SCREENING/MEASUREMENT RESULTS:

PID: 0.4ppm Background α: 7 β: 906 dpm Samples <MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2430 VALIDATION DATE: 06/08/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Joanne Compton ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV/CCVs %Ds were >20% for hexachlorocyclopentadiene and 2-methyl-4,6-dinitrophenol. The CCV %D was >20% for benzoic acid. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The MS/ MSD RPD were outside the laboratory acceptance limits for several analytes. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN, and the parent sample raw data were not included in the data package. MS/MSD analyses were not required for SVOCs and, thus, no sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/10/10

VALIDATOR'S SIGNATURE: Joanne Compton DATE: 06/08/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☐	☒	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☐	☒	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2430	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249329003	**Date Received:**	03/13/2010 09:30	**%Moisture:**	23.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13963	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/29/2010 16:45	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s1c2912.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	435	ug/kg	87.0	435	
108-95-2	Phenol	U	435	ug/kg	87.0	435	
95-57-8	2-Chlorophenol	U	435	ug/kg	87.0	435	
106-46-7	1,4-Dichlorobenzene	U	435	ug/kg	87.0	435	
621-64-7	N-Nitrosodipropylamine	U	435	ug/kg	87.0	435	
59-50-7	4-Chloro-3-methylphenol	U	435	ug/kg	87.0	435	
83-32-9	Acenaphthene	U	43.5	ug/kg	14.4	43.5	
121-14-2	2,4-Dinitrotoluene	U	435	ug/kg	43.5	435	
100-02-7	4-Nitrophenol	U	435	ug/kg	144	435	
87-86-5	Pentachlorophenol	U	435	ug/kg	109	435	
129-00-0	Pyrene	U	43.5	ug/kg	13.1	43.5	
110-86-1	Pyridine	U	435	ug/kg	87.0	435	
62-53-3	Aniline	U	435	ug/kg	131	435	
111-44-4	bis(2-Chloroethyl) ether	U	435	ug/kg	87.0	435	
541-73-1	1,3-Dichlorobenzene	U	435	ug/kg	87.0	435	
100-51-6	Benzyl alcohol	U	435	ug/kg	131	435	
95-50-1	1,2-Dichlorobenzene	U	435	ug/kg	87.0	435	
108-60-1	bis(2-Chloroisopropyl)ether	U	435	ug/kg	87.0	435	
95-48-7	o-Cresol	U	435	ug/kg	87.0	435	
65794-96-9	m,p-Cresols	U	435	ug/kg	131	435	
67-72-1	Hexachloroethane	U	435	ug/kg	87.0	435	
98-95-3	Nitrobenzene	U	435	ug/kg	87.0	435	
78-59-1	Isophorone	U	435	ug/kg	87.0	435	
88-75-5	2-Nitrophenol	U	435	ug/kg	87.0	435	
105-67-9	2,4-Dimethylphenol	U	435	ug/kg	152	435	
111-91-1	bis(2-Chloroethoxy)methane	U	435	ug/kg	87.0	435	
120-83-2	2,4-Dichlorophenol	U	435	ug/kg	87.0	435	
65-85-0	Benzoic acid	U	870	ug/kg	218	870	UJ,SV7c
91-20-3	Naphthalene	U	43.5	ug/kg	13.1	43.5	
106-47-8	4-Chloroaniline	U	435	ug/kg	87.0	435	
87-68-3	Hexachlorobutadiene	U	435	ug/kg	87.0	435	
91-57-6	2-Methylnaphthalene	U	43.5	ug/kg	8.70	43.5	
77-47-4	Hexachlorocyclopentadiene	U	435	ug/kg	87.0	435	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	435	ug/kg	87.0	435	
95-95-4	2,4,5-Trichlorophenol	U	435	ug/kg	87.0	435	
91-58-7	2-Chloronaphthalene	U	43.5	ug/kg	14.4	43.5	
88-74-4	2-Nitroaniline	U	435	ug/kg	87.0	435	
	o-Nitroaniline						
99-09-2	3-Nitroaniline	U	435	ug/kg	87.0	435	

JCC
06/08/1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2430	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249329003	**Date Received:**	03/13/2010 09:30	**%Moisture:**	23.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13963	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/29/2010 16:45	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s1c2912.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	435	ug/kg	87.0	435	
606-20-2	2,6-Dinitrotoluene	U	435	ug/kg	43.5	435	
208-96-8	Acenaphthylene	U	43.5	ug/kg	13.1	43.5	
51-28-5	2,4-Dinitrophenol	U	870	ug/kg	165	870	
132-64-9	Dibenzofuran	U	435	ug/kg	87.0	435	
84-66-2	Diethylphthalate	U	435	ug/kg	87.0	435	
86-73-7	Fluorene	U	43.5	ug/kg	13.1	43.5	
7005-72-3	4-Chlorophenylphenylether	U	435	ug/kg	87.0	435	
534-52-1	2-Methyl-4,6-dinitrophenol	U	435	ug/kg	87.0	435	UJ,SV7c
100-01-6	4-Nitroaniline	U	435	ug/kg	131	435	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	435	ug/kg	87.0	435	
122-66-7	Azobenzene	U	435	ug/kg	87.0	435	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	435	ug/kg	87.0	435	
118-74-1	Hexachlorobenzene	U	435	ug/kg	87.0	435	
85-01-8	Phenanthrene	U	43.5	ug/kg	13.1	43.5	
120-12-7	Anthracene	U	43.5	ug/kg	8.70	43.5	
84-74-2	Di-n-butylphthalate	U	435	ug/kg	87.0	435	
206-44-0	Fluoranthene	U	43.5	ug/kg	13.1	43.5	
85-68-7	Butylbenzylphthalate	U	435	ug/kg	87.0	435	
56-55-3	Benzo(a)anthracene	U	43.5	ug/kg	13.1	43.5	
91-94-1	3,3'-Dichlorobenzidine	U	435	ug/kg	131	435	
218-01-9	Chrysene	U	43.5	ug/kg	13.1	43.5	
117-81-7	bis(2-Ethylhexyl)phthalate	U	435	ug/kg	87.0	435	
117-84-0	Di-n-octylphthalate	U	435	ug/kg	87.0	435	
205-99-2	Benzo(b)fluoranthene	U	43.5	ug/kg	13.1	43.5	
207-08-9	Benzo(k)fluoranthene	U	43.5	ug/kg	13.1	43.5	
50-32-8	Benzo(a)pyrene	U	43.5	ug/kg	13.1	43.5	
193-39-5	Indeno(1,2,3-cd)pyrene	U	43.5	ug/kg	13.1	43.5	
53-70-3	Dibenzo(a,h)anthracene	U	43.5	ug/kg	13.1	43.5	
191-24-2	Benzo(ghi)perylene	U	43.5	ug/kg	13.1	43.5	
120-82-1	1,2,4-Trichlorobenzene	U	435	ug/kg	87.0	435	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	393	ug/kg		JA
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	7.8	814	ug/kg	97	NJ

JCC
06/08/1(

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2430	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249329001	**Date Received:**	03/13/2010 09:30	**%Moisture:**	10.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13964	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/29/2010 15:58	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	s1c2910.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	370	ug/kg	74.1	370	
108-95-2	Phenol	U	370	ug/kg	74.1	370	
95-57-8	2-Chlorophenol	U	370	ug/kg	74.1	370	
106-46-7	1,4-Dichlorobenzene	U	370	ug/kg	74.1	370	
621-64-7	N-Nitrosodipropylamine	U	370	ug/kg	74.1	370	
59-50-7	4-Chloro-3-methylphenol	U	370	ug/kg	74.1	370	
83-32-9	Acenaphthene	U	37.0	ug/kg	12.2	37.0	
121-14-2	2,4-Dinitrotoluene	U	370	ug/kg	37.0	370	
100-02-7	4-Nitrophenol	U	370	ug/kg	122	370	
87-86-5	Pentachlorophenol	U	370	ug/kg	92.6	370	
129-00-0	Pyrene	U	37.0	ug/kg	11.1	37.0	
110-86-1	Pyridine	U	370	ug/kg	74.1	370	
62-53-3	Aniline	U	370	ug/kg	111	370	
111-44-4	bis(2-Chloroethyl) ether	U	370	ug/kg	74.1	370	
541-73-1	1,3-Dichlorobenzene	U	370	ug/kg	74.1	370	
100-51-6	Benzyl alcohol	U	370	ug/kg	111	370	
95-50-1	1,2-Dichlorobenzene	U	370	ug/kg	74.1	370	
108-60-1	bis(2-Chloroisopropyl)ether	U	370	ug/kg	74.1	370	
95-48-7	o-Cresol	U	370	ug/kg	74.1	370	
65794-96-9	m,p-Cresols	U	370	ug/kg	111	370	
67-72-1	Hexachloroethane	U	370	ug/kg	74.1	370	
98-95-3	Nitrobenzene	U	370	ug/kg	74.1	370	
78-59-1	Isophorone	U	370	ug/kg	74.1	370	
88-75-5	2-Nitrophenol	U	370	ug/kg	74.1	370	
105-67-9	2,4-Dimethylphenol	U	370	ug/kg	130	370	
111-91-1	bis(2-Chloroethoxy)methane	U	370	ug/kg	74.1	370	
120-83-2	2,4-Dichlorophenol	U	370	ug/kg	74.1	370	
65-85-0	Benzoic acid	U	741	ug/kg	185	741	UJ,SV7c
91-20-3	Naphthalene	U	37.0	ug/kg	11.1	37.0	
106-47-8	4-Chloroaniline	U	370	ug/kg	74.1	370	
87-68-3	Hexachlorobutadiene	U	370	ug/kg	74.1	370	
91-57-6	2-Methylnaphthalene	U	37.0	ug/kg	7.41	37.0	
77-47-4	Hexachlorocyclopentadiene	U	370	ug/kg	74.1	370	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	370	ug/kg	74.1	370	
95-95-4	2,4,5-Trichlorophenol	U	370	ug/kg	74.1	370	
91-58-7	2-Chloronaphthalene	U	37.0	ug/kg	12.2	37.0	
88-74-4	2-Nitroaniline	U	370	ug/kg	74.1	370	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	370	ug/kg	74.1	370	

JCC
06/08/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2430	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249329001	**Date Received:**	03/13/2010 09:30	**%Moisture:**	10.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13964	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/29/2010 15:58	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	s1c2910.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	370	ug/kg	74.1	370	
606-20-2	2,6-Dinitrotoluene	U	370	ug/kg	37.0	370	
208-96-8	Acenaphthylene	U	37.0	ug/kg	11.1	37.0	
51-28-5	2,4-Dinitrophenol	U	741	ug/kg	141	741	
132-64-9	Dibenzofuran	U	370	ug/kg	74.1	370	
84-66-2	Diethylphthalate	U	370	ug/kg	74.1	370	
86-73-7	Fluorene	U	37.0	ug/kg	11.1	37.0	
7005-72-3	4-Chlorophenylphenylether	U	370	ug/kg	74.1	370	
534-52-1	2-Methyl-4,6-dinitrophenol	U	370	ug/kg	74.1	370	UJ,SV7c
100-01-6	4-Nitroaniline	U	370	ug/kg	111	370	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	370	ug/kg	74.1	370	
122-66-7	Azobenzene	U	370	ug/kg	74.1	370	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	370	ug/kg	74.1	370	
118-74-1	Hexachlorobenzene	U	370	ug/kg	74.1	370	
85-01-8	Phenanthrene	U	37.0	ug/kg	11.1	37.0	
120-12-7	Anthracene	U	37.0	ug/kg	7.41	37.0	
84-74-2	Di-n-butylphthalate	U	370	ug/kg	74.1	370	
206-44-0	Fluoranthene	U	37.0	ug/kg	11.1	37.0	
85-68-7	Butylbenzylphthalate	U	370	ug/kg	74.1	370	
56-55-3	Benzo(a)anthracene	U	37.0	ug/kg	11.1	37.0	
91-94-1	3,3'-Dichlorobenzidine	U	370	ug/kg	111	370	
218-01-9	Chrysene	U	37.0	ug/kg	11.1	37.0	
117-81-7	bis(2-Ethylhexyl)phthalate	U	370	ug/kg	74.1	370	
117-84-0	Di-n-octylphthalate	U	370	ug/kg	74.1	370	
205-99-2	Benzo(b)fluoranthene	U	37.0	ug/kg	11.1	37.0	
207-08-9	Benzo(k)fluoranthene	U	37.0	ug/kg	11.1	37.0	
50-32-8	Benzo(a)pyrene	U	37.0	ug/kg	11.1	37.0	
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.0	ug/kg	11.1	37.0	
53-70-3	Dibenzo(a,h)anthracene	U	37.0	ug/kg	11.1	37.0	
191-24-2	Benzo(ghi)perylene	U	37.0	ug/kg	11.1	37.0	
120-82-1	1,2,4-Trichlorobenzene	U	370	ug/kg	74.1	370	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	385	ug/kg		JA
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	7.8	256	ug/kg	96	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2430	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249329004	**Date Received:**	03/13/2010 09:30	**%Moisture:**	11
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13965	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/29/2010 17:09	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Allquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	s1c2913.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	374	ug/kg	74.8	374	
108-95-2	Phenol	U	374	ug/kg	74.8	374	
95-57-8	2-Chlorophenol	U	374	ug/kg	74.8	374	
106-46-7	1,4-Dichlorobenzene	U	374	ug/kg	74.8	374	
621-64-7	N-Nitrosodipropylamine	U	374	ug/kg	74.8	374	
59-50-7	4-Chloro-3-methylphenol	U	374	ug/kg	74.8	374	
83-32-9	Acenaphthene	U	37.4	ug/kg	12.3	37.4	
121-14-2	2,4-Dinitrotoluene	U	374	ug/kg	37.4	374	
100-02-7	4-Nitrophenol	U	374	ug/kg	123	374	
87-86-5	Pentachlorophenol	U	374	ug/kg	93.5	374	
129-00-0	Pyrene	U	37.4	ug/kg	11.2	37.4	
110-86-1	Pyridine	U	374	ug/kg	74.8	374	
62-53-3	Aniline	U	374	ug/kg	112	374	
111-44-4	bis(2-Chloroethyl) ether	U	374	ug/kg	74.8	374	
541-73-1	1,3-Dichlorobenzene	U	374	ug/kg	74.8	374	
100-51-6	Benzyl alcohol	U	374	ug/kg	112	374	
95-50-1	1,2-Dichlorobenzene	U	374	ug/kg	74.8	374	
108-60-1	bis(2-Chloroisopropyl)ether	U	374	ug/kg	74.8	374	
95-48-7	o-Cresol	U	374	ug/kg	74.8	374	
65794-96-9	m,p-Cresols	U	374	ug/kg	112	374	
67-72-1	Hexachloroethane	U	374	ug/kg	74.8	374	
98-95-3	Nitrobenzene	U	374	ug/kg	74.8	374	
78-59-1	Isophorone	U	374	ug/kg	74.8	374	
88-75-5	2-Nitrophenol	U	374	ug/kg	74.8	374	
105-67-9	2,4-Dimethylphenol	U	374	ug/kg	131	374	
111-91-1	bis(2-Chloroethoxy)methane	U	374	ug/kg	74.8	374	
120-83-2	2,4-Dichlorophenol	U	374	ug/kg	74.8	374	
65-85-0	Benzoic acid	U	748	ug/kg	187	748	UJ,SV7c
91-20-3	Naphthalene	U	37.4	ug/kg	11.2	37.4	
106-47-8	4-Chloroaniline	U	374	ug/kg	74.8	374	
87-68-3	Hexachlorobutadiene	U	374	ug/kg	74.8	374	
91-57-6	2-Methylnaphthalene	U	37.4	ug/kg	7.48	37.4	
77-47-4	Hexachlorocyclopentadiene	U	374	ug/kg	74.8	374	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	374	ug/kg	74.8	374	
95-95-4	2,4,5-Trichlorophenol	U	374	ug/kg	74.8	374	
91-58-7	2-Chloronaphthalene	U	37.4	ug/kg	12.3	37.4	
88-74-4	2-Nitroaniline	U	374	ug/kg	74.8	374	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	374	ug/kg	74.8	374	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2430	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249329004	**Date Received:**	03/13/2010 09:30	**%Moisture:**	11
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13965	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/29/2010 17:09	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	s1c2913.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	374	ug/kg	74.8	374	
606-20-2	2,6-Dinitrotoluene	U	374	ug/kg	37.4	374	
208-96-8	Acenaphthylene	U	37.4	ug/kg	11.2	37.4	
51-28-5	2,4-Dinitrophenol	U	748	ug/kg	142	748	
132-64-9	Dibenzofuran	U	374	ug/kg	74.8	374	
84-66-2	Diethylphthalate	U	374	ug/kg	74.8	374	
86-73-7	Fluorene	U	37.4	ug/kg	11.2	37.4	
7005-72-3	4-Chlorophenylphenylether	U	374	ug/kg	74.8	374	
534-52-1	2-Methyl-4,6-dinitrophenol	U	374	ug/kg	74.8	374	UJ,SV7c
100-01-6	4-Nitroaniline	U	374	ug/kg	112	374	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	374	ug/kg	74.8	374	
122-66-7	Azobenzene	U	374	ug/kg	74.8	374	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	374	ug/kg	74.8	374	
118-74-1	Hexachlorobenzene	U	374	ug/kg	74.8	374	
85-01-8	Phenanthrene	U	37.4	ug/kg	11.2	37.4	
120-12-7	Anthracene	U	37.4	ug/kg	7.48	37.4	
84-74-2	Di-n-butylphthalate	U	374	ug/kg	74.8	374	
206-44-0	Fluoranthene	U	37.4	ug/kg	11.2	37.4	
85-68-7	Butylbenzylphthalate	U	374	ug/kg	74.8	374	
56-55-3	Benzo(a)anthracene	U	37.4	ug/kg	11.2	37.4	
91-94-1	3,3'-Dichlorobenzidine	U	374	ug/kg	112	374	
218-01-9	Chrysene	U	37.4	ug/kg	11.2	37.4	
117-81-7	bis(2-Ethylhexyl)phthalate	U	374	ug/kg	74.8	374	
117-84-0	Di-n-octylphthalate	U	374	ug/kg	74.8	374	
205-99-2	Benzo(b)fluoranthene	U	37.4	ug/kg	11.2	37.4	
207-08-9	Benzo(k)fluoranthene	U	37.4	ug/kg	11.2	37.4	
50-32-8	Benzo(a)pyrene	U	37.4	ug/kg	11.2	37.4	
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.4	ug/kg	11.2	37.4	
53-70-3	Dibenzo(a,h)anthracene	U	37.4	ug/kg	11.2	37.4	
191-24-2	Benzo(ghi)perylene	U	37.4	ug/kg	11.2	37.4	
120-82-1	1,2,4-Trichlorobenzene	U	374	ug/kg	74.8	374	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	2.56	281	ug/kg		JA

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06/08/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2430	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249329002	**Date Received:**	03/13/2010 09:30	**%Moisture:**	16.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13966	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/29/2010 16:21	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	s1c2911.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	397	ug/kg	79.4	397	
108-95-2	Phenol	U	397	ug/kg	79.4	397	
95-57-8	2-Chlorophenol	U	397	ug/kg	79.4	397	
106-46-7	1,4-Dichlorobenzene	U	397	ug/kg	79.4	397	
621-64-7	N-Nitrosodipropylamine	U	397	ug/kg	79.4	397	
59-50-7	4-Chloro-3-methylphenol	U	397	ug/kg	79.4	397	
83-32-9	Acenaphthene	U	39.7	ug/kg	13.1	39.7	
121-14-2	2,4-Dinitrotoluene	U	397	ug/kg	39.7	397	
100-02-7	4-Nitrophenol	U	397	ug/kg	131	397	
87-86-5	Pentachlorophenol	U	397	ug/kg	99.2	397	
129-00-0	Pyrene	U	39.7	ug/kg	11.9	39.7	
110-86-1	Pyridine	U	397	ug/kg	79.4	397	
62-53-3	Aniline	U	397	ug/kg	119	397	
111-44-4	bis(2-Chloroethyl) ether	U	397	ug/kg	79.4	397	
541-73-1	1,3-Dichlorobenzene	U	397	ug/kg	79.4	397	
100-51-6	Benzyl alcohol	U	397	ug/kg	119	397	
95-50-1	1,2-Dichlorobenzene	U	397	ug/kg	79.4	397	
108-60-1	bis(2-Chloroisopropyl)ether	U	397	ug/kg	79.4	397	
95-48-7	o-Cresol	U	397	ug/kg	79.4	397	
65794-96-9	m,p-Cresols	U	397	ug/kg	119	397	
67-72-1	Hexachloroethane	U	397	ug/kg	79.4	397	
98-95-3	Nitrobenzene	U	397	ug/kg	79.4	397	
78-59-1	Isophorone	U	397	ug/kg	79.4	397	
88-75-5	2-Nitrophenol	U	397	ug/kg	79.4	397	
105-67-9	2,4-Dimethylphenol	U	397	ug/kg	139	397	
111-91-1	bis(2-Chloroethoxy)methane	U	397	ug/kg	79.4	397	
120-83-2	2,4-Dichlorophenol	U	397	ug/kg	79.4	397	
65-85-0	Benzoic acid	U	794	ug/kg	198	794	UJ,SV7c
91-20-3	Naphthalene	U	39.7	ug/kg	11.9	39.7	
106-47-8	4-Chloroaniline	U	397	ug/kg	79.4	397	
87-68-3	Hexachlorobutadiene	U	397	ug/kg	79.4	397	
91-57-6	2-Methylnaphthalene	U	39.7	ug/kg	7.94	39.7	
77-47-4	Hexachlorocyclopentadiene	U	397	ug/kg	79.4	397	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	397	ug/kg	79.4	397	
95-95-4	2,4,5-Trichlorophenol	U	397	ug/kg	79.4	397	
91-58-7	2-Chloronaphthalene	U	39.7	ug/kg	13.1	39.7	
88-74-4	2-Nitroaniline	U	397	ug/kg	79.4	397	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	397	ug/kg	79.4	397	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2430	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249329002	**Date Received:**	03/13/2010 09:30	**%Moisture:**	16.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13966	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/29/2010 16:21	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	s1c2911.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	397	ug/kg	79.4	397	
606-20-2	2,6-Dinitrotoluene	U	397	ug/kg	39.7	397	
208-96-8	Acenaphthylene	U	39.7	ug/kg	11.9	39.7	
51-28-5	2,4-Dinitrophenol	U	794	ug/kg	151	794	
132-64-9	Dibenzofuran	U	397	ug/kg	79.4	397	
84-66-2	Diethylphthalate	U	397	ug/kg	79.4	397	
86-73-7	Fluorene	U	39.7	ug/kg	11.9	39.7	
7005-72-3	4-Chlorophenylphenylether	U	397	ug/kg	79.4	397	
534-52-1	2-Methyl-4,6-dinitrophenol	U	397	ug/kg	79.4	397	UJ,SV7c
100-01-6	4-Nitroaniline	U	397	ug/kg	119	397	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	397	ug/kg	79.4	397	
122-66-7	Azobenzene	U	397	ug/kg	79.4	397	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	397	ug/kg	79.4	397	
118-74-1	Hexachlorobenzene	U	397	ug/kg	79.4	397	
85-01-8	Phenanthrene	U	39.7	ug/kg	11.9	39.7	
120-12-7	Anthracene	U	39.7	ug/kg	7.94	39.7	
84-74-2	Di-n-butylphthalate	U	397	ug/kg	79.4	397	
206-44-0	Fluoranthene	U	39.7	ug/kg	11.9	39.7	
85-68-7	Butylbenzylphthalate	U	397	ug/kg	79.4	397	
56-55-3	Benzo(a)anthracene	U	39.7	ug/kg	11.9	39.7	
91-94-1	3,3'-Dichlorobenzidine	U	397	ug/kg	119	397	
218-01-9	Chrysene	U	39.7	ug/kg	11.9	39.7	
117-81-7	bis(2-Ethylhexyl)phthalate	U	397	ug/kg	79.4	397	
117-84-0	Di-n-octylphthalate	U	397	ug/kg	79.4	397	
205-99-2	Benzo(b)fluoranthene	U	39.7	ug/kg	11.9	39.7	
207-08-9	Benzo(k)fluoranthene	U	39.7	ug/kg	11.9	39.7	
50-32-8	Benzo(a)pyrene	U	39.7	ug/kg	11.9	39.7	
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.7	ug/kg	11.9	39.7	
53-70-3	Dibenzo(a,h)anthracene	U	39.7	ug/kg	11.9	39.7	
191-24-2	Benzo(ghi)perylene	U	39.7	ug/kg	11.9	39.7	
120-82-1	1,2,4-Trichlorobenzene	U	397	ug/kg	79.4	397	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	343	ug/kg		JA

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06/08/1(

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2430 VALIDATION DATE: 06/08/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Joanne Compton ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS/MSD %R calculations were performed incorrectly. The parent sample result was < the MDL and, thus, a result of 0 ug/kg should have been used to calculate the %Rs. The laboratory subtracted the parent sample concentration. The %Rs were within the acceptance limits when calculated correctly. It should be noted that the parent sample for the MS/MSD was a LANL sample from another RN and that the raw data for the parent sample were not included in the data package. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/10/10

VALIDATOR'S SIGNATURE: Joanne Compton DATE: 06/08/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13964

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2430

GEL Sample ID: 249329001

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.557	2.23	0.709	ug/kg	J	1	30-MAR-10 21:03	per0330075a
	Perchlorate Isotope Ratio			3.3			1	30-MAR-10 21:03	per0330075a
14797-73-0	Perchlorate-101	.557	2.23	0.691	ug/kg	J	1	30-MAR-10 21:03	per0330075a
	Perchlorate-O(18)			5.43	ug/kg		1	30-MAR-10 21:03	per0330075a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

JCC
06/08/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13966

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2430

GEL Sample ID: 249329002

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.597	2.39	0.597	ug/kg	U	1	30-MAR-10 21:11	per0330076a
	Perchlorate Isotope Ratio						1	30-MAR-10 21:11	per0330076a
14797-73-0	Perchlorate-101	.597	2.39	0.597	ug/kg	U	1	30-MAR-10 21:11	per0330076a
	Perchlorate-O(18)			5.69	ug/kg		1	30-MAR-10 21:11	per0330076a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

JCC

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13963

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2430

GEL Sample ID: 249329003

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 77

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.653	2.61	0.661	ug/kg	J	1	30-MAR-10 21:19	per0330077a
	Perchlorate Isotope Ratio			3.01			1	30-MAR-10 21:19	per0330077a
14797-73-0	Perchlorate-101	.653	2.61	0.706	ug/kg	J	1	30-MAR-10 21:19	per0330077a
	Perchlorate-O(18)			6.15	ug/kg		1	30-MAR-10 21:19	per0330077a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

JCC

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46–10–13965

Date Received: 13–MAR–10

GEL Job No (SDG): 10–2430

GEL Sample ID: 249329004

Date Filtered: 22–MAR–10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.562	2.25	0.562	ug/kg	U	1	30–MAR–10 21:27	per0330078a
	Perchlorate Isotope Ratio						1	30–MAR–10 21:27	per0330078a
14797–73–0	Perchlorate–101	.562	2.25	0.562	ug/kg	U	1	30–MAR–10 21:27	per0330078a
	Perchlorate–O(18)			4.96	ug/kg		1	30–MAR–10 21:27	per0330078a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

JCC

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2403 VALIDATION DATE: 06/08/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Joanne Compton ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/10/10

VALIDATOR'S SIGNATURE: Joanne Compton DATE: 06/08/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2430	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249329003	**Date Received:**	03/13/2010 09:30	**%Moisture:**	23.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13963	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967824	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/23/2010 15:03	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 22:20	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	033f3301.d	**Column:**	1 CLP1	**Level:**	LOW
	033b3301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	21.7	ug/kg	7.23	21.7	1
11104-28-2	Aroclor-1221	U	21.7	ug/kg	7.23	21.7	1
11141-16-5	Aroclor-1232	U	21.7	ug/kg	7.23	21.7	1
53469-21-9	Aroclor-1242	U	21.7	ug/kg	7.23	21.7	1
12672-29-6	Aroclor-1248	U	21.7	ug/kg	7.23	21.7	1
11097-69-1	Aroclor-1254	U	21.7	ug/kg	7.23	21.7	1
11096-82-5	Aroclor-1260	U	21.7	ug/kg	7.23	21.7	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2430	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249329001	**Date Received:**	03/13/2010 09:30	**%Moisture:**	10.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13964	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967824	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/23/2010 14:05	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 22:20	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	029f2901.d	**Column:**	1 CLP1	**Level:**	LOW
	029b2901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	18.5	ug/kg	6.17	18.5	1
11104-28-2	Aroclor-1221	U	18.5	ug/kg	6.17	18.5	1
11141-16-5	Aroclor-1232	U	18.5	ug/kg	6.17	18.5	1
53469-21-9	Aroclor-1242	U	18.5	ug/kg	6.17	18.5	1
12672-29-6	Aroclor-1248	U	18.5	ug/kg	6.17	18.5	1
11097-69-1	Aroclor-1254	U	18.5	ug/kg	6.17	18.5	1
11096-82-5	Aroclor-1260	U	18.5	ug/kg	6.17	18.5	1

JCC
06/08/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2430	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249329004	**Date Received:**	03/13/2010 09:30	**%Moisture:**	11
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13965	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967824	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/23/2010 15:15	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 22:20	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	034f3401.d	**Column:**	1 CLP1	**Level:**	LOW
	034b3401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	18.6	ug/kg	6.20	18.6	1
11104-28-2	Aroclor-1221	U	18.6	ug/kg	6.20	18.6	1
11141-16-5	Aroclor-1232	U	18.6	ug/kg	6.20	18.6	1
53469-21-9	Aroclor-1242	U	18.6	ug/kg	6.20	18.6	1
12672-29-6	Aroclor-1248	U	18.6	ug/kg	6.20	18.6	1
11097-69-1	Aroclor-1254		23.2	ug/kg	6.20	18.6	2
11096-82-5	Aroclor-1260	U	18.6	ug/kg	6.20	18.6	1

JCC
06/08/

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249329002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**16.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13966**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 14:21**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**030f3001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	030b3001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	19.8	ug/kg	6.58	19.8	1
11104-28-2	Aroclor-1221	U	19.8	ug/kg	6.58	19.8	1
11141-16-5	Aroclor-1232	U	19.8	ug/kg	6.58	19.8	1
53469-21-9	Aroclor-1242	U	19.8	ug/kg	6.58	19.8	1
12672-29-6	Aroclor-1248	U	19.8	ug/kg	6.58	19.8	1
11097-69-1	Aroclor-1254	U	19.8	ug/kg	6.58	19.8	1
11096-82-5	Aroclor-1260	U	19.8	ug/kg	6.58	19.8	1

JCC
06/08/

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2430 VALIDATION DATE: 06/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Joanne Compton ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the MB, Cr, K, and Tl were detected. The Tl result for sample RE46-10-13965 was an ND and, thus, was not qualified. The Tl results for all samples except -13965 were detects ≤5X the MB concentration and, thus, were qualified U,I4. The Cr sample results were detects >5X but ≤50X the MB concentrations and, thus, were qualified J,I4a. The K sample results were detects >50X the MB concentration and, thus, were not qualified, based on professional judgment.
2. In the ICB/CCBs, Be, K, and Tl were detected. The Tl results for all samples except -13965 were detects ≤5X the greatest blank concentration and, thus, were qualified U,I4b. The remaining associated sample results were either detects >5X the greatest blank concentration or NDs and, thus, were not qualified.
3. The MS %R was < the laboratory LAL but ≥ 10% for Mn. The associated sample results were detects and, thus, were qualified J-,I6a. The MS %Rs were > the laboratory UALs for Mg and K. The associated sample results were detects and, thus, qualified J+,I6b. The MS %Rs were > the laboratory UALs for Al and Fe. However, the associated parent sample results were detects > than 4X the spike concentrations and, thus, no sample result was qualified based on professional judgment. It should be noted that the matrix QC for all analyses were performed on LANL samples from other RNs, and that the parent sample raw data for ICP-AES and ICP-MS were not included in the data package. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/10/10

DATA VALIDATION COVER SHEET

5118-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY

VALIDATOR'S SIGNATURE: Joanne Compton DATE: 06/09/10

Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY est. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 **Metals Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2430 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249329001 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13964 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	4010000	ug/kg		7110	20900	20900	1	P	HSC	04/05/10 19:20	040510-1	965624
7440-36-0	Antimony	1050	ug/kg	U	345	1050	1050	1	P	HSC	04/05/10 19:20	040510-1	965624
7440-38-2	Arsenic	1160	ug/kg		209	1050	1050	2	MS	BCD1	05/16/10 08:10	100515-4	965627
7440-39-3	Barium	47700	ug/kg		105	523	523	1	P	HSC	04/05/10 19:20	040510-1	965624
7440-41-7	Beryllium	519	ug/kg		20.9	105	105	2	MS	PRB	05/18/10 08:42	100517-5	965627
7440-43-9	Cadmium	523	ug/kg	U	105	523	523	1	P	HSC	04/05/10 19:20	040510-1	965624
7440-70-2	Calcium	1030000	ug/kg		8370	26200	26200	1	P	HSC	04/05/10 19:20	040510-1	965624
7440-47-3	Chromium J,I4a	3490	ug/kg		167	555	555	1	P	HSC	04/15/10 20:09	041510A-3	973755
7440-48-4	Cobalt	1500	ug/kg		157	523	523	1	P	HSC	04/05/10 19:20	040510-1	965624
7440-50-8	Copper	3870	ug/kg		333	1110	1110	1	P	HSC	04/15/10 20:09	041510A-3	973755
7439-89-6	Iron	7650000	ug/kg		8370	26200	26200	1	P	HSC	04/05/10 19:20	040510-1	965624
7439-92-1	Lead	5770	ug/kg		262	1050	1050	1	P	HSC	04/05/10 19:20	040510-1	965624
7439-95-4	Magnesium J+,I6b	781000	ug/kg		8890	31400	31400	1	P	HSC	04/05/10 19:20	040510-1	965624
7439-96-5	Manganese J-,I6a	235000	ug/kg		209	1050	1050	1	P	HSC	04/05/10 19:20	040510-1	965624
7439-97-6	Mercury	300	ug/kg		4.28	12.6	12.6	1	AV	JXL1	03/31/10 09:17	033110S1-6	969290
7440-02-0	Nickel	3620	ug/kg		105	418	418	2	MS	BCD1	05/16/10 08:10	100515-4	965627
7440-09-7	Potassium J+,I6b	681000	ug/kg		6700	26200	26200	1	P	HSC	04/05/10 19:20	040510-1	965624
7782-49-2	Selenium	1050	ug/kg	U	523	1050	1050	2	MS	BCD1	05/16/10 08:10	100515-4	965627
7440-22-4	Silver	523	ug/kg	U	105	523	523	1	P	HSC	04/05/10 19:20	040510-1	965624
7440-23-5	Sodium	134000	ug/kg		7320	26200	26200	1	P	HSC	04/05/10 19:20	040510-1	965624
7440-28-0	Thallium U,I4	136	ug/kg	J	62.8	209	209	2	MS	BCD1	05/16/10 08:10	100515-4	965627
7440-62-2	Vanadium	7750	ug/kg		105	523	523	1	P	HSC	04/05/10 19:20	040510-1	965624
7440-66-6	Zinc	28500	ug/kg		345	1050	1050	1	P	HSC	04/05/10 19:20	040510-1	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.532	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.532	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.53	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.501	g	50	mL	04/12/10	AXG2

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06/09/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2430 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249329002 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13966 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	3620000	ug/kg		8120	23900	23900	1	P	HSC	04/05/10 19:22	040510-1	965624
7440-36-0	Antimony	1190	ug/kg	U	394	1190	1190	1	P	HSC	04/05/10 19:22	040510-1	965624
7440-38-2	Arsenic	875	ug/kg	J	222	1110	1110	2	MS	BCD1	05/16/10 08:15	100515-4	965627
7440-39-3	Barium	38900	ug/kg		119	597	597	1	P	HSC	04/05/10 19:22	040510-1	965624
7440-41-7	Beryllium	432	ug/kg		22.2	111	111	2	MS	PRB	05/18/10 08:43	100517-5	965627
7440-43-9	Cadmium	597	ug/kg	U	119	597	597	1	P	HSC	04/05/10 19:22	040510-1	965624
7440-70-2	Calcium	1280000	ug/kg		9550	29800	29800	1	P	HSC	04/05/10 19:22	040510-1	965624
7440-47-3	Chromium J,I4a	2210	ug/kg		178	595	595	1	P	HSC	04/15/10 20:16	041510A-3	973755
7440-48-4	Cobalt	1150	ug/kg		179	597	597	1	P	HSC	04/05/10 19:22	040510-1	965624
7440-50-8	Copper	3230	ug/kg		357	1190	1190	1	P	HSC	04/15/10 20:16	041510A-3	973755
7439-89-6	Iron	7910000	ug/kg		9550	29800	29800	1	P	HSC	04/05/10 19:22	040510-1	965624
7439-92-1	Lead	8100	ug/kg		298	1190	1190	1	P	HSC	04/05/10 19:22	040510-1	965624
7439-95-4	Magnesium J+,I6b	724000	ug/kg		10100	35800	35800	1	P	HSC	04/05/10 19:22	040510-1	965624
7439-96-5	Manganese J-,I6a	302000	ug/kg		239	1190	1190	1	P	HSC	04/05/10 19:22	040510-1	965624
7439-97-6	Mercury	261	ug/kg		4.38	12.9	12.9	1	AV	JXL1	03/31/10 09:19	033110S1-6	969290
7440-02-0	Nickel	2940	ug/kg		111	444	444	2	MS	BCD1	05/16/10 08:15	100515-4	965627
7440-09-7	Potassium J+,I6b	659000	ug/kg		7640	29800	29800	1	P	HSC	04/05/10 19:22	040510-1	965624
7782-49-2	Selenium	1110	ug/kg	U	555	1110	1110	2	MS	BCD1	05/16/10 08:15	100515-4	965627
7440-22-4	Silver	597	ug/kg	U	119	597	597	1	P	HSC	04/05/10 19:22	040510-1	965624
7440-23-5	Sodium	55500	ug/kg		8360	29800	29800	1	P	HSC	04/05/10 19:22	040510-1	965624
7440-28-0	Thallium U,I4	91.2	ug/kg	J	66.6	222	222	2	MS	BCD1	05/16/10 08:15	100515-4	965627
7440-62-2	Vanadium	6130	ug/kg		119	597	597	1	P	HSC	04/05/10 19:22	040510-1	965624
7440-66-6	Zinc	32500	ug/kg		394	1190	1190	1	P	HSC	04/05/10 19:22	040510-1	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.5	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.538	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.556	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.502	g	50	mL	04/12/10	AXG2

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06/09/

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2430 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249329003 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13963 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 77

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	5320000	ug/kg		8390	24700	24700	1	P	HSC	04/05/10 19:30	040510-1	965624
7440-36-0	Antimony	1230	ug/kg	U	407	1230	1230	1	P	HSC	04/05/10 19:30	040510-1	965624
7440-38-2	Arsenic	1290	ug/kg		259	1290	1290	2	MS	BCD1	05/16/10 08:19	100515-4	965627
7440-39-3	Barium	54000	ug/kg		123	617	617	1	P	HSC	04/05/10 19:30	040510-1	965624
7440-41-7	Beryllium	517	ug/kg		25.9	129	129	2	MS	PRB	05/18/10 08:43	100517-5	965627
7440-43-9	Cadmium	617	ug/kg	U	123	617	617	1	P	HSC	04/05/10 19:30	040510-1	965624
7440-70-2	Calcium	1400000	ug/kg		9870	30800	30800	1	P	HSC	04/05/10 19:30	040510-1	965624
7440-47-3	Chromium J,I4a	3070	ug/kg		190	632	632	1	P	HSC	04/15/10 20:36	041510A-3	973755
7440-48-4	Cobalt	1960	ug/kg		185	617	617	1	P	HSC	04/05/10 19:30	040510-1	965624
7440-50-8	Copper	3720	ug/kg		379	1260	1260	1	P	HSC	04/15/10 20:36	041510A-3	973755
7439-89-6	Iron	8690000	ug/kg		9870	30800	30800	1	P	HSC	04/05/10 19:30	040510-1	965624
7439-92-1	Lead	7850	ug/kg		308	1230	1230	1	P	HSC	04/05/10 19:30	040510-1	965624
7439-95-4	Magnesium J+,I6b	937000	ug/kg		10500	37000	37000	1	P	HSC	04/05/10 19:30	040510-1	965624
7439-96-5	Manganese J-,I6a	245000	ug/kg		247	1230	1230	1	P	HSC	04/05/10 19:30	040510-1	965624
7439-97-6	Mercury	563	ug/kg		4.94	14.5	14.5	1	AV	JXLI	03/31/10 09:25	033110S1-6	969290
7440-02-0	Nickel	3590	ug/kg		129	517	517	2	MS	BCD1	05/16/10 08:19	100515-4	965627
7440-09-7	Potassium J+,I6b	977000	ug/kg		7900	30800	30800	1	P	HSC	04/05/10 19:30	040510-1	965624
7782-49-2	Selenium	1290	ug/kg	U	646	1290	1290	2	MS	BCD1	05/16/10 08:19	100515-4	965627
7440-22-4	Silver	617	ug/kg	U	123	617	617	1	P	HSC	04/05/10 19:30	040510-1	965624
7440-23-5	Sodium	62100	ug/kg		8640	30800	30800	1	P	HSC	04/05/10 19:30	040510-1	965624
7440-28-0	Thallium U,I4	104	ug/kg	J	77.6	259	259	2	MS	BCD1	05/16/10 08:19	100515-4	965627
7440-62-2	Vanadium	9780	ug/kg		123	617	617	1	P	HSC	04/05/10 19:30	040510-1	965624
7440-66-6	Zinc	32700	ug/kg		407	1230	1230	1	P	HSC	04/05/10 19:30	040510-1	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.529	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.505	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.539	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.516	g	50	mL	04/12/10	AXG2

JCC
06/09/

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2430 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249329004 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13965 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	2800000	ug/kg		7440	21900	21900	1	P	HSC	04/05/10 19:32	040510-1	965624
7440-36-0	Antimony	1090	ug/kg	U	361	1090	1090	1	P	HSC	04/05/10 19:32	040510-1	965624
7440-38-2	Arsenic	772	ug/kg	J	213	1060	1060	2	MS	BCD1	05/16/10 08:23	100515-4	965627
7440-39-3	Barium	29800	ug/kg		109	547	547	1	P	HSC	04/05/10 19:32	040510-1	965624
7440-41-7	Beryllium	384	ug/kg		21.3	106	106	2	MS	PRB	05/18/10 08:44	100517-5	965627
7440-43-9	Cadmium	547	ug/kg	U	109	547	547	1	P	HSC	04/05/10 19:32	040510-1	965624
7440-70-2	Calcium	916000	ug/kg		8750	27300	27300	1	P	HSC	04/05/10 19:32	040510-1	965624
7440-47-3	Chromium J,I4a	6250	ug/kg		166	554	554	1	P	HSC	04/15/10 20:43	041510A-3	973755
7440-48-4	Cobalt	1000	ug/kg		164	547	547	1	P	HSC	04/05/10 19:32	040510-1	965624
7440-50-8	Copper	4450	ug/kg		333	1110	1110	1	P	HSC	04/15/10 20:43	041510A-3	973755
7439-89-6	Iron	7030000	ug/kg		8750	27300	27300	1	P	HSC	04/05/10 19:32	040510-1	965624
7439-92-1	Lead	5470	ug/kg		273	1090	1090	1	P	HSC	04/05/10 19:32	040510-1	965624
7439-95-4	Magnesium J+,I6b	502000	ug/kg		9290	32800	32800	1	P	HSC	04/05/10 19:32	040510-1	965624
7439-96-5	Manganese J-,I6a	289000	ug/kg		219	1090	1090	1	P	HSC	04/05/10 19:32	040510-1	965624
7439-97-6	Mercury	528	ug/kg		4.02	11.8	11.8	1	AV	JXL1	03/31/10 09:27	033110S1-6	969290
7440-02-0	Nickel	2630	ug/kg		106	426	426	2	MS	BCD1	05/16/10 08:23	100515-4	965627
7440-09-7	Potassium J+,I6b	495000	ug/kg		7000	27300	27300	1	P	HSC	04/05/10 19:32	040510-1	965624
7782-49-2	Selenium	1060	ug/kg	U	532	1060	1060	2	MS	BCD1	05/16/10 08:23	100515-4	965627
7440-22-4	Silver	547	ug/kg	U	109	547	547	1	P	HSC	04/05/10 19:32	040510-1	965624
7440-23-5	Sodium	68400	ug/kg		7650	27300	27300	1	P	HSC	04/05/10 19:32	040510-1	965624
7440-28-0	Thallium	213	ug/kg	U	63.9	213	213	2	MS	BCD1	05/16/10 08:23	100515-4	965627
7440-62-2	Vanadium	4890	ug/kg		109	547	547	1	P	HSC	04/05/10 19:32	040510-1	965624
7440-66-6	Zinc	28500	ug/kg		361	1090	1090	1	P	HSC	04/05/10 19:32	040510-1	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.514	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.528	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.571	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.507	g	50	mL	04/12/10	AXG2

JCC
06/09/1

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2430 VALIDATION DATE: 06/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Joanne Compton ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Total CN Only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that all matrix QC analyses were performed on LANL samples from other RNs. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/10/10

VALIDATOR'S SIGNATURE: Joanne Compton DATE: 06/09/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2430

Client Sample ID:	RE46-10-13964	Project:	LANL01004
Sample ID:	249329001	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	10.2%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	74.2	273	ug/kg	1	AXC2 03/17/10	1312	965133	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

JCC
06/09/1

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2430

Client Sample ID:	RE46-10-13966	Project:	LANL01004
Sample ID:	249329002	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	16.2%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	70.0	257	ug/kg	1	AXC2 03/17/10	1313	965133	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

JCC
06/09/

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2430

Client Sample ID:	RE46-10-13963	Project:	LANL01004
Sample ID:	249329003	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	23.4%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	88.8	326	ug/kg	1	AXC2 03/17/10	1314	965133	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

JCC
06/09/1

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2430

Client Sample ID:	RE46-10-13965	Project:	LANL01004
Sample ID:	249329004	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	11%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	72.1	265	ug/kg	1	AXC2 03/17/10	1318	965133	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

JC(
06/09

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2430 VALIDATION DATE: 06/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Joanne Compton ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The gamma spec sample results that were rejected by the laboratory due to interference and low abundance were qualified R,R5a. In the duplicate sample, several results were also rejected by the laboratory. No sample data were qualified as a result.
2. It should be noted that all matrix QC analyses were performed on LANL samples from other RNs. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/10/10

VALIDATOR'S SIGNATURE: Joanne Compton DATE: 06/09/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☐	☒	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

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Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID:	RE46-10-13964	Project:	LANL01004
Sample ID:	249329001	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	10.2%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
.ericium-241	U	2.38E-05		0.0219	+/-0.00628	0.050	pCi/g		CXM2	03/27/10	1340	965502	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.00		0.0239	+/-0.0018	0.050	pCi/g		CXM2	03/26/10	1720	965503	3
tonium-239/240	U	0.00151		0.0202	+/-0.00384	0.050	pCi/g						
)TH "Dry Weight Corrected"													
›rium-228		2.11		0.200	+/-0.212	0.100	pCi/g		CXM2	04/05/10	1534	967216	4
›rium-230		1.33		0.251	+/-0.149	0.100	pCi/g						
›rium-232		1.64		0.107	+/-0.173	0.100	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		1.55		0.136	+/-0.144	0.100	pCi/g		CXM2	03/27/10	1253	965504	6
.nium-235/236		0.0891		0.0828	+/-0.0239	0.100	pCi/g						
.nium-238		1.01		0.0953	+/-0.103	0.100	pCi/g						
Gamma Spec Analysis													
(MMA SPEC "Dry Weight Corrected"													
.ericium-241	U	-0.278		0.304	+/-0.0931	0.200	pCi/g		MXR1	03/24/10	0856	965250	7
muth-211	UI	3.63	R,R5a	0.425	+/-0.300		pCi/g						
muth-214		1.21		0.132	+/-0.108	0.200	pCi/g						
lmium-109	UI	4.18	R,R5a	1.31	+/-0.690		pCi/g						
ium-139	U	-0.0107		0.054	+/-0.0166	0.050	pCi/g						
;ium-134	UI	0.134	R,R5a	0.102	+/-0.036	0.100	pCi/g						
;ium-137	U	0.00363		0.0777	+/-0.023	0.100	pCi/g						
›alt-60	U	0.00484		0.0752	+/-0.0225	0.100	pCi/g						
opium-152	U	-0.0736		0.181	+/-0.0583	0.200	pCi/g						
ıthanum-140	U	-0.0192		0.141	+/-0.0437		pCi/g						
.d-212		1.96		0.110	+/-0.121	0.100	pCi/g						
.d-214		1.32		0.142	+/-0.115	0.100	pCi/g						
rcury-203	U	0.0467		0.0772	+/-0.0242	0.100	pCi/g						
assium-40		32.6		0.597	+/-1.83	1.00	pCi/g						
lium-223	U	0.944		1.25	+/-0.393		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13964
Sample ID: 249329001

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
. Gamma Spec Analysis													
(MMA SPEC "Dry Weight Corrected"													
lium-224	UI	3.96	R,R5a	1.18	+/-0.669		pCi/g						
lium-226		1.21		0.132	+/-0.108		pCi/g						
lium-228		2.19		0.249	+/-0.229	0.500	pCi/g						
henium-106	U	-0.0968		0.569	+/-0.172	0.800	pCi/g						
lium-22	U	0.00343		0.0899	+/-0.0271	0.080	pCi/g						
ontium-85	U	0.0794		0.0797	+/-0.0235		pCi/g						
llium-208		0.631		0.0661	+/-0.0516	0.080	pCi/g						
orium-227	U	0.0314		0.482	+/-0.139		pCi/g						
orium-231	U	0.944		1.25	+/-0.393		pCi/g						
orium-234	U	2.32		2.95	+/-0.836	2.00	pCi/g						
-113	U	-0.0351		0.0784	+/-0.0249	0.100	pCi/g						
nium-235	U	0.108		0.385	+/-0.115	0.500	pCi/g						
rium-88	U	-0.0293		0.0389	+/-0.0158	0.100	pCi/g						

e following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	81.3	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	81.3	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	68.2	(50%-105%)
nium-232 Tracer	ISOU "Dry Weight Corrected"	67.8	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID:	RE46-10-13966	Project:	LANL01004
Sample ID:	249329002	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	16.2%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
.ericium-241	U	0.000963		0.0186	+/-0.00517	0.050	pCi/g		CXM2	03/27/10	1340	965502	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.00463		0.027	+/-0.00382	0.050	pCi/g		CXM2	03/26/10	1720	965503	3
tonium-239/240	U	0.0133		0.0228	+/-0.00616	0.050	pCi/g						
)TH "Dry Weight Corrected"													
›rium-228		1.95		0.185	+/-0.195	0.100	pCi/g		CXM2	04/05/10	1534	967216	4
›rium-230		1.13		0.232	+/-0.128	0.100	pCi/g						
›rium-232		1.49		0.0988	+/-0.156	0.100	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.971		0.134	+/-0.0988	0.100	pCi/g		CXM2	03/27/10	1253	965504	6
.nium-235/236	U	0.0176		0.0819	+/-0.0103	0.100	pCi/g						
.nium-238		0.956		0.0943	+/-0.0976	0.100	pCi/g						
Gamma Spec Analysis													
(MMA SPEC "Dry Weight Corrected"													
.ericium-241	U	-0.0665		0.192	+/-0.0569	0.200	pCi/g		MXR1	03/24/10	0857	965250	7
muth-211	UI	4.35	R,R5a	0.357	+/-0.326		pCi/g						
muth-214		1.25		0.131	+/-0.111	0.200	pCi/g						
lmium-109	UI	3.26	R,R5a	1.24	+/-0.544		pCi/g						
ium-139	U	0.00467		0.0553	+/-0.0169	0.050	pCi/g						
;ium-134	UI	0.120	R,R5a	0.111	+/-0.0481	0.100	pCi/g						
;ium-137		0.131		0.0763	+/-0.0316	0.100	pCi/g						
›alt-60	U	-0.0327		0.0684	+/-0.0227	0.100	pCi/g						
opium-152	U	0.00713		0.177	+/-0.0603	0.200	pCi/g						
ıthanum-140	U	-0.0567		0.125	+/-0.0494		pCi/g						
.d-212		2.05		0.107	+/-0.119	0.100	pCi/g						
.d-214		1.58		0.130	+/-0.126	0.100	pCi/g						
rcury-203	U	0.0262		0.0744	+/-0.0244	0.100	pCi/g						
assium-40		35.0		0.508	+/-1.84	1.00	pCi/g						
lium-223	U	-0.778		1.12	+/-0.419		pCi/g						
lium-224	UI	4.67	R,R5a	1.15	+/-0.706		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13966
Sample ID: 249329002

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
. Gamma Spec Analysis												
IMMA SPEC "Dry Weight Corrected"												
lium-226		1.25	0.131	+/-0.111		pCi/g						
lium-228		1.87	0.270	+/-0.222	0.500	pCi/g						
henium-106	U	0.145	0.641	+/-0.186	0.800	pCi/g						
lium-22	U	0.0148	0.0889	+/-0.0262	0.080	pCi/g						
›ntium-85	U	0.0694	0.0777	+/-0.0235		pCi/g						
ıllium-208		0.673	0.0686	+/-0.0555	0.080	pCi/g						
›rium-227	U	0.0914	0.449	+/-0.130		pCi/g						
›rium-231	U	-0.778	1.12	+/-0.419		pCi/g						
›rium-234	U	0.171	1.94	+/-0.562	2.00	pCi/g						
-113	U	-0.0457	0.0811	+/-0.0261	0.100	pCi/g						
.nium-235	U	0.104	0.367	+/-0.112	0.500	pCi/g						
rium-88	U	0.0111	0.0619	+/-0.0176	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
·ericium-243 Tracer	AM241 "Dry Weight Corrected"	86.4	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	77.6	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	77.4	(50%-105%)
·ium-232 Tracer	ISOU "Dry Weight Corrected"	74.7	(50%-105%)

tes:
?U is calculated at the 67% confidence level (1-sigma).
ıe Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID:	RE46-10-13963	Project:	LANL01004
Sample ID:	249329003	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	23.4%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
. Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
.ericium-241	U	0.010		0.0198	+/-0.00825	0.050	pCi/g		CXM2	03/27/10	1340	965502	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.0135		0.0338	+/-0.00656	0.050	pCi/g		CXM2	03/26/10	1720	965503	3
tonium-239/240	U	-0.00662		0.0286	+/-0.00483	0.050	pCi/g						
)TH "Dry Weight Corrected"													
›rium-228		1.59		0.187	+/-0.168	0.100	pCi/g		CXM2	04/05/10	1534	967216	4
›rium-230		1.20		0.234	+/-0.135	0.100	pCi/g						
›rium-232		1.79		0.0998	+/-0.180	0.100	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.866		0.134	+/-0.0912	0.100	pCi/g		CXM2	03/27/10	1253	965504	6
.nium-235/236	U	0.00587		0.0819	+/-0.00589	0.100	pCi/g						
.nium-238		0.813		0.0942	+/-0.0866	0.100	pCi/g						
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
.ericium-241	U	0.0544		0.292	+/-0.0962	0.200	pCi/g		MXR1	03/24/10	0857	965250	7
muth-211	UI	4.39	R,R5a	0.381	+/-0.282		pCi/g						
muth-214		1.43		0.120	+/-0.115	0.200	pCi/g						
lmium-109	UI	2.97	R,R5a	1.49	+/-0.566		pCi/g						
ium-139	U	-0.0235		0.0558	+/-0.0174	0.050	pCi/g						
ium-134	U	0.0705		0.100	+/-0.0283	0.100	pCi/g						
ium-137	U	0.0634		0.078	+/-0.0256	0.100	pCi/g						
›alt-60	U	0.0236		0.0765	+/-0.0219	0.100	pCi/g						
·opium-152	U	-0.0316		0.178	+/-0.0651	0.200	pCi/g						
ıthanum-140	U	-0.0337		0.136	+/-0.044		pCi/g						
.d-212		2.00		0.109	+/-0.0984	0.100	pCi/g						
.d-214		1.59		0.138	+/-0.111	0.100	pCi/g						
rcury-203	U	0.0576		0.0765	+/-0.0239	0.100	pCi/g						
assium-40		32.4		0.505	+/-1.54	1.00	pCi/g						
lium-223	U	0.472		1.21	+/-0.391		pCi/g						
lium-224	UI	5.42	R,R5a	1.17	+/-0.739		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13963
Sample ID: 249329003

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
lium-226		1.43		0.120	+/-0.115		pCi/g						
lium-228		2.39		0.284	+/-0.225	0.500	pCi/g						
henium-106	U	0.125		0.570	+/-0.168	0.800	pCi/g						
lium-22	U	-0.0236		0.0748	+/-0.0237	0.080	pCi/g						
ontium-85	UI	0.125	R,R5a	0.0805	+/-0.0228		pCi/g						
llium-208		0.558		0.0666	+/-0.0478	0.080	pCi/g						
orium-227	U	0.125		0.517	+/-0.156		pCi/g						
orium-231	U	0.472		1.21	+/-0.391		pCi/g						
orium-234		3.10		2.46	+/-1.28	2.00	pCi/g						
-113	U	-0.00418		0.082	+/-0.0244	0.100	pCi/g						
nium-235	U	0.103		0.398	+/-0.119	0.500	pCi/g						
rium-88	U	-0.00811		0.0445	+/-0.0147	0.100	pCi/g						

e following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	86.9	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	60.7	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	77.5	(50%-105%)
nium-232 Tracer	ISOU "Dry Weight Corrected"	73.1	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13965
Sample ID: 249329004
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 11%

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
. Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
.ericium-241	U	0.0102		0.0202	+/-0.00552	0.050	pCi/g		CXM2	03/27/10	1340	965502	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.000577		0.0273	+/-0.00254	0.050	pCi/g		CXM2	03/26/10	1720	965503	3
tonium-239/240	U	0.00585		0.0231	+/-0.00529	0.050	pCi/g						
)TH "Dry Weight Corrected"													
›rium-228		1.59		0.153	+/-0.157	0.100	pCi/g		CXM2	04/05/10	1534	967216	4
›rium-230		1.17		0.193	+/-0.123	0.100	pCi/g						
›rium-232		1.62		0.0821	+/-0.156	0.100	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		1.31		0.144	+/-0.127	0.100	pCi/g		CXM2	03/27/10	1253	965504	6
.nium-235/236	U	0.0632		0.0881	+/-0.0224	0.100	pCi/g						
.nium-238		0.742		0.101	+/-0.083	0.100	pCi/g						
Gamma Spec Analysis													
(MMA SPEC "Dry Weight Corrected"													
.ericium-241	U	-0.0604		0.231	+/-0.0683	0.200	pCi/g		MXR1	03/24/10	0858	965250	7
muth-211	UI	4.36	R,R5a	0.338	+/-0.326		pCi/g						
muth-214		1.50		0.113	+/-0.117	0.200	pCi/g						
lmium-109	UI	3.27	R,R5a	1.28	+/-0.543		pCi/g						
ium-139	U	-0.0297		0.0503	+/-0.0153	0.050	pCi/g						
:ium-134	UI	0.146	R,R5a	0.0915	+/-0.0413	0.100	pCi/g						
:ium-137	UI	0.0778	R,R5a	0.058	+/-0.0359	0.100	pCi/g						
›alt-60	U	-0.0286		0.0618	+/-0.020	0.100	pCi/g						
·opium-152	U	-0.0804		0.161	+/-0.0548	0.200	pCi/g						
ıthanum-140	U	-0.13		0.118	+/-0.0437		pCi/g						
.d-212		2.25		0.0999	+/-0.161	0.100	pCi/g						
.d-214		1.58		0.125	+/-0.126	0.100	pCi/g						
rcury-203	U	0.0468		0.0672	+/-0.020	0.100	pCi/g						
assium-40		38.1		0.469	+/-1.94	1.00	pCi/g						
lium-223	U	0.423		1.08	+/-0.356		pCi/g						
lium-224	UI	5.42	R,R5a	1.07	+/-0.738		pCi/g						

JCC
06/09/

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13965
Sample ID: 249329004

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
lium-226		1.50		0.113	+/-0.117		pCi/g						
lium-228		2.47		0.216	+/-0.219	0.500	pCi/g						
henium-106	U	-0.123		0.489	+/-0.151	0.800	pCi/g						
lium-22	U	-0.0132		0.0741	+/-0.0229	0.080	pCi/g						
ontium-85	UI	0.144	R,R5a	0.0776	+/-0.0244		pCi/g						
illium-208		0.658		0.0538	+/-0.0537	0.080	pCi/g						
orium-227	U	-0.197		0.429	+/-0.136		pCi/g						
orium-231	U	0.423		1.08	+/-0.356		pCi/g						
orium-234	U	0.806		2.33	+/-0.664	2.00	pCi/g						
-113	U	0.016		0.0712	+/-0.021	0.100	pCi/g						
nium-235	U	0.133		0.373	+/-0.109	0.500	pCi/g						
rium-88	U	0.010		0.0512	+/-0.015	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	82.7	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	77.5	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	92.3	(50%-105%)
nium-232 Tracer	ISOU "Dry Weight Corrected"	65.5	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported

JCC
06/09

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2430C

REQUEST NUMBER: 10-2430

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

249329%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13964	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13964	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13964	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13966	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13966	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13966	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13963	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13963	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13963	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13965	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13965	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13965	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/12/10	3:00	Greg Tyler	Greg Tyler	3-13-10	0930
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Friday, March 12, 2010

REQUEST NUMBER: 10-2430

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2430
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	HASL-300:AM-241	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	HASL-300:ISOPU	1	RE46-10-13963	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2430

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOPU	1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	HASL-300:ISOTH	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	HASL-300:ISOU	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	SW-846:6010B	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	SW-846:8082	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	SW-846:8270C	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	SW-846:9012A	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2430

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

March 19, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 249329
SDG: 10-2430

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 13, 2010, and analyzed for GC Semivolatile PCB, GC/MS Semivolatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2430
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 249329
SDG: 10-2430

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 249329
SDG # : 10-2430

March 19, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 13, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 12/13C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
249329001	RE46-10-13964
249329002	RE46-10-13966
249329003	RE46-10-13963
249329004	RE46-10-13965

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile PCB, GC/MS Semivolatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 19 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2430C

REQUEST NUMBER: 10-2430

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

249329%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13964	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13964	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13964	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-13966	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13966	1	POLY	AM241+GS+ISOPU/TH/U	None	S
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RE46-10-13965	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13965	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13965	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/12/10	3:00	Greg Tyler	Greg Tyler	3-13-10	0930
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Friday, March 12, 2010

REQUEST NUMBER: 10-2430

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2430
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	HASL-300:AM-241	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	HASL-300:ISOPU	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	

Hard Copy Required

Friday, March 12, 2010

REQUEST NUMBER: 10-2430

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOPU	1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	HASL-300:ISOTH	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
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		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	SW-846:6010B	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	SW-846:8082	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	SW-846:8270C	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	
	SW-846:9012A	1	RE46-10-13963	S	3/11/2010	
		1	RE46-10-13964	S	3/11/2010	
		1	RE46-10-13965	S	3/11/2010	
		1	RE46-10-13966	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2430

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2430**
Received By: Greg Tyler	**Date Received: 3/13/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **2,3,6C** **12,13C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:
7209 7850 4789 2C
7209 7850 4756 2C
7209 7850 4804 2C
7209 7850 4790 3C
7209 7850 4767 6C
7209 7850 4815 12C
7209 7850 4778 13C

PM (or PMA) review: Initials MS Date 3/15/10

N ID: SAFA (505) 665-9960
NE VALDEZ
LAMOS NATL LAB
BLDG 1237 DPU 03

LAMOS, NM 87545
D STATES US

SHIP DATE: 12MAR10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
) 556-8171
F: MR2A0515BY00

2°

FedEx Express

1 of 3
CH# 7209 7850 4789
MASTER ##

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

2940
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

2°

FedEx Express

1 of 3
TRK# 0201 7209 7850 4756
MASTER

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 41.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

2°

FedEx Express

3 of 3
S# 7209 7850 4804
trk# 7209 7850 4789 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

0 CHSA

29407
SC-US

ORIGIN ID: SAFA
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

3°

FedEx Express

2 of 3
MPS# 0203 7209 7850 4790
Mstr# 7209 7850 4789 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

6°

Fe

SATURDAY
PRIORITY OVERN

2 of 3
MPS# 0263 7209 7850 4767
Matr# 7209 7850 4756 0201

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X0 CHSA

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

12°

FedEx Express

SATURDAY ### A1
PRIORITY OVERNIGHT

1 of 2
TRK# 0201 7209 7850 4815
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Part # 156148-434 NRIT V3 04-09

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
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CHARLESTON SC 29407
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REF: MR2A0515BY00

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FedEx Express

SATURDAY ### A1
PRIORITY OVERNIGHT

3 of 3
MPS# 0263 7209 7850 4778
Matr# 7209 7850 4756 0201

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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2430

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	966766
Prep Batch Number:	966763

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
249329001	RE46-10-13964
249329002	RE46-10-13966
249329003	RE46-10-13963
249329004	RE46-10-13965
1202074807	Method Blank (MB)
1202074808	Laboratory Control Sample (LCS)
1202074809	249335002(RE46-10-12972) Matrix Spike (MS)
1202074810	249335002(RE46-10-12972) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various

calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
The non-SDG sample 249335002 (RE46-10-12972) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement

The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
Multiple MS/MSD RPD values exceeded their established acceptance limit. Please see the spike recovery report for the specific failures. Because all individual MS and MSD spike recoveries were within their established acceptance limits, the data were reported un-qualified for the RPD value failures.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for the samples reported with this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD1.I	HP 5973 Mass Spectrometer	HP6890/HP5973	ZB-5ms	25m x 0.2mm, 0.33um (5% Polysilarylene-95% Polydimethylsiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: [illegible] **Date:** 4-9-10

Roadmap for LANL 10-2430 SVOA

This roadmap was analyzed by amy01291 on 03-31-2010, 15:43.
This roadmap was packaged by CHA01131 on 04-05-2010, 17:50.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD1.i/s032910.b/s1c2910.d	249329001	29-MAR-2010	15:58	10-2430.sub	RE46-10-13964	1	966766	REPORT
☐	N	/chem/MSD1.i/s032910.b/s1c2911.d	249329002	29-MAR-2010	16:21	10-2430.sub	RE46-10-13966	1	966766	REPORT
☐	N	/chem/MSD1.i/s032910.b/s1c2912.d	249329003	29-MAR-2010	16:45	10-2430.sub	RE46-10-13963	1	966766	REPORT
☐	N	/chem/MSD1.i/s032910.b/s1c2913.d	249329004	29-MAR-2010	17:09	10-2430.sub	RE46-10-13965	1	966766	REPORT

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD1.i/s032910.b/s1c2908.d	1202074807	mb	29-MAR-2010	14:58	10-2430.sub	SBLK01	1	966766	REPORT
☐	N	/chem/MSD1.i/s032910.b/s1c2909.d	1202074808	lcs	29-MAR-2010	15:22	10-2430.sub	SBLK01LCS	1	966766	REPORT

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249329003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**23.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13963**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 16:45**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2912.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	435	ug/kg	87.0	435
108-95-2	Phenol	U	435	ug/kg	87.0	435
95-57-8	2-Chlorophenol	U	435	ug/kg	87.0	435
106-46-7	1,4-Dichlorobenzene	U	435	ug/kg	87.0	435
621-64-7	N-Nitrosodipropylamine	U	435	ug/kg	87.0	435
59-50-7	4-Chloro-3-methylphenol	U	435	ug/kg	87.0	435
83-32-9	Acenaphthene	U	43.5	ug/kg	14.4	43.5
121-14-2	2,4-Dinitrotoluene	U	435	ug/kg	43.5	435
100-02-7	4-Nitrophenol	U	435	ug/kg	144	435
87-86-5	Pentachlorophenol	U	435	ug/kg	109	435
129-00-0	Pyrene	U	43.5	ug/kg	13.1	43.5
110-86-1	Pyridine	U	435	ug/kg	87.0	435
62-53-3	Aniline	U	435	ug/kg	131	435
111-44-4	bis(2-Chloroethyl) ether	U	435	ug/kg	87.0	435
541-73-1	1,3-Dichlorobenzene	U	435	ug/kg	87.0	435
100-51-6	Benzyl alcohol	U	435	ug/kg	131	435
95-50-1	1,2-Dichlorobenzene	U	435	ug/kg	87.0	435
108-60-1	bis(2-Chloroisopropyl)ether	U	435	ug/kg	87.0	435
95-48-7	o-Cresol	U	435	ug/kg	87.0	435
65794-96-9	m,p-Cresols	U	435	ug/kg	131	435
67-72-1	Hexachloroethane	U	435	ug/kg	87.0	435
98-95-3	Nitrobenzene	U	435	ug/kg	87.0	435
78-59-1	Isophorone	U	435	ug/kg	87.0	435
88-75-5	2-Nitrophenol	U	435	ug/kg	87.0	435
105-67-9	2,4-Dimethylphenol	U	435	ug/kg	152	435
111-91-1	bis(2-Chloroethoxy)methane	U	435	ug/kg	87.0	435
120-83-2	2,4-Dichlorophenol	U	435	ug/kg	87.0	435
65-85-0	Benzoic acid	U	870	ug/kg	218	870
91-20-3	Naphthalene	U	43.5	ug/kg	13.1	43.5
106-47-8	4-Chloroaniline	U	435	ug/kg	87.0	435
87-68-3	Hexachlorobutadiene	U	435	ug/kg	87.0	435
91-57-6	2-Methylnaphthalene	U	43.5	ug/kg	8.70	43.5
77-47-4	Hexachlorocyclopentadiene	U	435	ug/kg	87.0	435
88-06-2	2,4,6-Trichlorophenol	U	435	ug/kg	87.0	435
95-95-4	2,4,5-Trichlorophenol	U	435	ug/kg	87.0	435
91-58-7	2-Chloronaphthalene	U	43.5	ug/kg	14.4	43.5
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	435	ug/kg	87.0	435
99-09-2	3-Nitroaniline	U	435	ug/kg	87.0	435

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249329003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**23.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13963**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 16:45**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2912.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	435	ug/kg	87.0	435
606-20-2	2,6-Dinitrotoluene	U	435	ug/kg	43.5	435
208-96-8	Acenaphthylene	U	43.5	ug/kg	13.1	43.5
51-28-5	2,4-Dinitrophenol	U	870	ug/kg	165	870
132-64-9	Dibenzofuran	U	435	ug/kg	87.0	435
84-66-2	Diethylphthalate	U	435	ug/kg	87.0	435
86-73-7	Fluorene	U	43.5	ug/kg	13.1	43.5
7005-72-3	4-Chlorophenylphenylether	U	435	ug/kg	87.0	435
534-52-1	2-Methyl-4,6-dinitrophenol	U	435	ug/kg	87.0	435
100-01-6	4-Nitroaniline	U	435	ug/kg	131	435
	p-Nitroaniline					
122-39-4	Diphenylamine	U	435	ug/kg	87.0	435
122-66-7	Azobenzene	U	435	ug/kg	87.0	435
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	435	ug/kg	87.0	435
118-74-1	Hexachlorobenzene	U	435	ug/kg	87.0	435
85-01-8	Phenanthrene	U	43.5	ug/kg	13.1	43.5
120-12-7	Anthracene	U	43.5	ug/kg	8.70	43.5
84-74-2	Di-n-butylphthalate	U	435	ug/kg	87.0	435
206-44-0	Fluoranthene	U	43.5	ug/kg	13.1	43.5
85-68-7	Butylbenzylphthalate	U	435	ug/kg	87.0	435
56-55-3	Benzo(a)anthracene	U	43.5	ug/kg	13.1	43.5
91-94-1	3,3'-Dichlorobenzidine	U	435	ug/kg	131	435
218-01-9	Chrysene	U	43.5	ug/kg	13.1	43.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	435	ug/kg	87.0	435
117-84-0	Di-n-octylphthalate	U	435	ug/kg	87.0	435
205-99-2	Benzo(b)fluoranthene	U	43.5	ug/kg	13.1	43.5
207-08-9	Benzo(k)fluoranthene	U	43.5	ug/kg	13.1	43.5
50-32-8	Benzo(a)pyrene	U	43.5	ug/kg	13.1	43.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	43.5	ug/kg	13.1	43.5
53-70-3	Dibenzo(a,h)anthracene	U	43.5	ug/kg	13.1	43.5
191-24-2	Benzo(ghi)perylene	U	43.5	ug/kg	13.1	43.5
120-82-1	1,2,4-Trichlorobenzene	U	435	ug/kg	87.0	435

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	393	ug/kg		JA
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	7.8	814	ug/kg	97	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249329001**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13964**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 15:58**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2910.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmuame	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	370	ug/kg	74.1	370
108-95-2	Phenol	U	370	ug/kg	74.1	370
95-57-8	2-Chlorophenol	U	370	ug/kg	74.1	370
106-46-7	1,4-Dichlorobenzene	U	370	ug/kg	74.1	370
621-64-7	N-Nitrosodipropylamine	U	370	ug/kg	74.1	370
59-50-7	4-Chloro-3-methylphenol	U	370	ug/kg	74.1	370
83-32-9	Acenaphthene	U	37.0	ug/kg	12.2	37.0
121-14-2	2,4-Dinitrotoluene	U	370	ug/kg	37.0	370
100-02-7	4-Nitrophenol	U	370	ug/kg	122	370
87-86-5	Pentachlorophenol	U	370	ug/kg	92.6	370
129-00-0	Pyrene	U	37.0	ug/kg	11.1	37.0
110-86-1	Pyridine	U	370	ug/kg	74.1	370
62-53-3	Aniline	U	370	ug/kg	111	370
111-44-4	bis(2-Chloroethyl) ether	U	370	ug/kg	74.1	370
541-73-1	1,3-Dichlorobenzene	U	370	ug/kg	74.1	370
100-51-6	Benzyl alcohol	U	370	ug/kg	111	370
95-50-1	1,2-Dichlorobenzene	U	370	ug/kg	74.1	370
108-60-1	bis(2-Chloroisopropyl)ether	U	370	ug/kg	74.1	370
95-48-7	o-Cresol	U	370	ug/kg	74.1	370
65794-96-9	m,p-Cresols	U	370	ug/kg	111	370
67-72-1	Hexachloroethane	U	370	ug/kg	74.1	370
98-95-3	Nitrobenzene	U	370	ug/kg	74.1	370
78-59-1	Isophorone	U	370	ug/kg	74.1	370
88-75-5	2-Nitrophenol	U	370	ug/kg	74.1	370
105-67-9	2,4-Dimethylphenol	U	370	ug/kg	130	370
111-91-1	bis(2-Chloroethoxy)methane	U	370	ug/kg	74.1	370
120-83-2	2,4-Dichlorophenol	U	370	ug/kg	74.1	370
65-85-0	Benzoic acid	U	741	ug/kg	185	741
91-20-3	Naphthalene	U	37.0	ug/kg	11.1	37.0
106-47-8	4-Chloroaniline	U	370	ug/kg	74.1	370
87-68-3	Hexachlorobutadiene	U	370	ug/kg	74.1	370
91-57-6	2-Methylnaphthalene	U	37.0	ug/kg	7.41	37.0
77-47-4	Hexachlorocyclopentadiene	U	370	ug/kg	74.1	370
88-06-2	2,4,6-Trichlorophenol	U	370	ug/kg	74.1	370
95-95-4	2,4,5-Trichlorophenol	U	370	ug/kg	74.1	370
91-58-7	2-Chloronaphthalene	U	37.0	ug/kg	12.2	37.0
88-74-4	2-Nitroaniline	U	370	ug/kg	74.1	370
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	370	ug/kg	74.1	370

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249329001**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13964**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 15:58**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2910.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	370	ug/kg	74.1	370
606-20-2	2,6-Dinitrotoluene	U	370	ug/kg	37.0	370
208-96-8	Acenaphthylene	U	37.0	ug/kg	11.1	37.0
51-28-5	2,4-Dinitrophenol	U	741	ug/kg	141	741
132-64-9	Dibenzofuran	U	370	ug/kg	74.1	370
84-66-2	Diethylphthalate	U	370	ug/kg	74.1	370
86-73-7	Fluorene	U	37.0	ug/kg	11.1	37.0
7005-72-3	4-Chlorophenylphenylether	U	370	ug/kg	74.1	370
534-52-1	2-Methyl-4,6-dinitrophenol	U	370	ug/kg	74.1	370
100-01-6	4-Nitroaniline	U	370	ug/kg	111	370
	p-Nitroaniline					
122-39-4	Diphenylamine	U	370	ug/kg	74.1	370
122-66-7	Azobenzene	U	370	ug/kg	74.1	370
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	370	ug/kg	74.1	370
118-74-1	Hexachlorobenzene	U	370	ug/kg	74.1	370
85-01-8	Phenanthrene	U	37.0	ug/kg	11.1	37.0
120-12-7	Anthracene	U	37.0	ug/kg	7.41	37.0
84-74-2	Di-n-butylphthalate	U	370	ug/kg	74.1	370
206-44-0	Fluoranthene	U	37.0	ug/kg	11.1	37.0
85-68-7	Butylbenzylphthalate	U	370	ug/kg	74.1	370
56-55-3	Benzo(a)anthracene	U	37.0	ug/kg	11.1	37.0
91-94-1	3,3'-Dichlorobenzidine	U	370	ug/kg	111	370
218-01-9	Chrysene	U	37.0	ug/kg	11.1	37.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	370	ug/kg	74.1	370
117-84-0	Di-n-octylphthalate	U	370	ug/kg	74.1	370
205-99-2	Benzo(b)fluoranthene	U	37.0	ug/kg	11.1	37.0
207-08-9	Benzo(k)fluoranthene	U	37.0	ug/kg	11.1	37.0
50-32-8	Benzo(a)pyrene	U	37.0	ug/kg	11.1	37.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.0	ug/kg	11.1	37.0
53-70-3	Dibenzo(a,h)anthracene	U	37.0	ug/kg	11.1	37.0
191-24-2	Benzo(ghi)perylene	U	37.0	ug/kg	11.1	37.0
120-82-1	1,2,4-Trichlorobenzene	U	370	ug/kg	74.1	370

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	385	ug/kg		JA
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	7.8	256	ug/kg	96	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2430	Date Collected:	03/11/2010 12:00	Matrix:	S
Lab Sample ID:	249329004	Date Received:	03/13/2010 09:30	%Moisture:	11
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13965	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966766	Inst:	MSD1.I	Dilution:	1
Run Date:	03/29/2010 17:09	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	03/19/2010 11:31	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	s1c2913.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	374	ug/kg	74.8	374
108-95-2	Phenol	U	374	ug/kg	74.8	374
95-57-8	2-Chlorophenol	U	374	ug/kg	74.8	374
106-46-7	1,4-Dichlorobenzene	U	374	ug/kg	74.8	374
621-64-7	N-Nitrosodipropylamine	U	374	ug/kg	74.8	374
59-50-7	4-Chloro-3-methylphenol	U	374	ug/kg	74.8	374
83-32-9	Acenaphthene	U	37.4	ug/kg	12.3	37.4
121-14-2	2,4-Dinitrotoluene	U	374	ug/kg	37.4	374
100-02-7	4-Nitrophenol	U	374	ug/kg	123	374
87-86-5	Pentachlorophenol	U	374	ug/kg	93.5	374
129-00-0	Pyrene	U	37.4	ug/kg	11.2	37.4
110-86-1	Pyridine	U	374	ug/kg	74.8	374
62-53-3	Aniline	U	374	ug/kg	112	374
111-44-4	bis(2-Chloroethyl) ether	U	374	ug/kg	74.8	374
541-73-1	1,3-Dichlorobenzene	U	374	ug/kg	74.8	374
100-51-6	Benzyl alcohol	U	374	ug/kg	112	374
95-50-1	1,2-Dichlorobenzene	U	374	ug/kg	74.8	374
108-60-1	bis(2-Chloroisopropyl)ether	U	374	ug/kg	74.8	374
95-48-7	o-Cresol	U	374	ug/kg	74.8	374
65794-96-9	m,p-Cresols	U	374	ug/kg	112	374
67-72-1	Hexachloroethane	U	374	ug/kg	74.8	374
98-95-3	Nitrobenzene	U	374	ug/kg	74.8	374
78-59-1	Isophorone	U	374	ug/kg	74.8	374
88-75-5	2-Nitrophenol	U	374	ug/kg	74.8	374
105-67-9	2,4-Dimethylphenol	U	374	ug/kg	131	374
111-91-1	bis(2-Chloroethoxy)methane	U	374	ug/kg	74.8	374
120-83-2	2,4-Dichlorophenol	U	374	ug/kg	74.8	374
65-85-0	Benzoic acid	U	748	ug/kg	187	748
91-20-3	Naphthalene	U	37.4	ug/kg	11.2	37.4
106-47-8	4-Chloroaniline	U	374	ug/kg	74.8	374
87-68-3	Hexachlorobutadiene	U	374	ug/kg	74.8	374
91-57-6	2-Methylnaphthalene	U	37.4	ug/kg	7.48	37.4
77-47-4	Hexachlorocyclopentadiene	U	374	ug/kg	74.8	374
88-06-2	2,4,6-Trichlorophenol	U	374	ug/kg	74.8	374
95-95-4	2,4,5-Trichlorophenol	U	374	ug/kg	74.8	374
91-58-7	2-Chloronaphthalene	U	37.4	ug/kg	12.3	37.4
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	374	ug/kg	74.8	374
99-09-2	3-Nitroaniline	U	374	ug/kg	74.8	374

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249329004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13965**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 17:09**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2913.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	374	ug/kg	74.8	374
606-20-2	2,6-Dinitrotoluene	U	374	ug/kg	37.4	374
208-96-8	Acenaphthylene	U	37.4	ug/kg	11.2	37.4
51-28-5	2,4-Dinitrophenol	U	748	ug/kg	142	748
132-64-9	Dibenzofuran	U	374	ug/kg	74.8	374
84-66-2	Diethylphthalate	U	374	ug/kg	74.8	374
86-73-7	Fluorene	U	37.4	ug/kg	11.2	37.4
7005-72-3	4-Chlorophenylphenylether	U	374	ug/kg	74.8	374
534-52-1	2-Methyl-4,6-dinitrophenol	U	374	ug/kg	74.8	374
100-01-6	4-Nitroaniline	U	374	ug/kg	112	374
	p-Nitroaniline					
122-39-4	Diphenylamine	U	374	ug/kg	74.8	374
122-66-7	Azobenzene	U	374	ug/kg	74.8	374
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	374	ug/kg	74.8	374
118-74-1	Hexachlorobenzene	U	374	ug/kg	74.8	374
85-01-8	Phenanthrene	U	37.4	ug/kg	11.2	37.4
120-12-7	Anthracene	U	37.4	ug/kg	7.48	37.4
84-74-2	Di-n-butylphthalate	U	374	ug/kg	74.8	374
206-44-0	Fluoranthene	U	37.4	ug/kg	11.2	37.4
85-68-7	Butylbenzylphthalate	U	374	ug/kg	74.8	374
56-55-3	Benzo(a)anthracene	U	37.4	ug/kg	11.2	37.4
91-94-1	3,3'-Dichlorobenzidine	U	374	ug/kg	112	374
218-01-9	Chrysene	U	37.4	ug/kg	11.2	37.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	374	ug/kg	74.8	374
117-84-0	Di-n-octylphthalate	U	374	ug/kg	74.8	374
205-99-2	Benzo(b)fluoranthene	U	37.4	ug/kg	11.2	37.4
207-08-9	Benzo(k)fluoranthene	U	37.4	ug/kg	11.2	37.4
50-32-8	Benzo(a)pyrene	U	37.4	ug/kg	11.2	37.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.4	ug/kg	11.2	37.4
53-70-3	Dibenzo(a,h)anthracene	U	37.4	ug/kg	11.2	37.4
191-24-2	Benzo(ghi)perylene	U	37.4	ug/kg	11.2	37.4
120-82-1	1,2,4-Trichlorobenzene	U	374	ug/kg	74.8	374

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	281	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2430	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249329002	**Date Received:**	03/13/2010 09:30	**%Moisture:**	16.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13966	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/29/2010 16:21	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	s1c2911.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	397	ug/kg	79.4	397
108-95-2	Phenol	U	397	ug/kg	79.4	397
95-57-8	2-Chlorophenol	U	397	ug/kg	79.4	397
106-46-7	1,4-Dichlorobenzene	U	397	ug/kg	79.4	397
621-64-7	N-Nitrosodipropylamine	U	397	ug/kg	79.4	397
59-50-7	4-Chloro-3-methylphenol	U	397	ug/kg	79.4	397
83-32-9	Acenaphthene	U	39.7	ug/kg	13.1	39.7
121-14-2	2,4-Dinitrotoluene	U	397	ug/kg	39.7	397
100-02-7	4-Nitrophenol	U	397	ug/kg	131	397
87-86-5	Pentachlorophenol	U	397	ug/kg	99.2	397
129-00-0	Pyrene	U	39.7	ug/kg	11.9	39.7
110-86-1	Pyridine	U	397	ug/kg	79.4	397
62-53-3	Aniline	U	397	ug/kg	119	397
111-44-4	bis(2-Chloroethyl) ether	U	397	ug/kg	79.4	397
541-73-1	1,3-Dichlorobenzene	U	397	ug/kg	79.4	397
100-51-6	Benzyl alcohol	U	397	ug/kg	119	397
95-50-1	1,2-Dichlorobenzene	U	397	ug/kg	79.4	397
108-60-1	bis(2-Chloroisopropyl)ether	U	397	ug/kg	79.4	397
95-48-7	o-Cresol	U	397	ug/kg	79.4	397
65794-96-9	m,p-Cresols	U	397	ug/kg	119	397
67-72-1	Hexachloroethane	U	397	ug/kg	79.4	397
98-95-3	Nitrobenzene	U	397	ug/kg	79.4	397
78-59-1	Isophorone	U	397	ug/kg	79.4	397
88-75-5	2-Nitrophenol	U	397	ug/kg	79.4	397
105-67-9	2,4-Dimethylphenol	U	397	ug/kg	139	397
111-91-1	bis(2-Chloroethoxy)methane	U	397	ug/kg	79.4	397
120-83-2	2,4-Dichlorophenol	U	397	ug/kg	79.4	397
65-85-0	Benzoic acid	U	794	ug/kg	198	794
91-20-3	Naphthalene	U	39.7	ug/kg	11.9	39.7
106-47-8	4-Chloroaniline	U	397	ug/kg	79.4	397
87-68-3	Hexachlorobutadiene	U	397	ug/kg	79.4	397
91-57-6	2-Methylnaphthalene	U	39.7	ug/kg	7.94	39.7
77-47-4	Hexachlorocyclopentadiene	U	397	ug/kg	79.4	397
88-06-2	2,4,6-Trichlorophenol	U	397	ug/kg	79.4	397
95-95-4	2,4,5-Trichlorophenol	U	397	ug/kg	79.4	397
91-58-7	2-Chloronaphthalene	U	39.7	ug/kg	13.1	39.7
88-74-4	2-Nitroaniline	U	397	ug/kg	79.4	397
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	397	ug/kg	79.4	397

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249329002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**16.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13966**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.1**	**Dilution:**	**1**
Run Date:	**03/29/2010 16:21**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2911.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	397	ug/kg	79.4	397
606-20-2	2,6-Dinitrotoluene	U	397	ug/kg	39.7	397
208-96-8	Acenaphthylene	U	39.7	ug/kg	11.9	39.7
51-28-5	2,4-Dinitrophenol	U	794	ug/kg	151	794
132-64-9	Dibenzofuran	U	397	ug/kg	79.4	397
84-66-2	Diethylphthalate	U	397	ug/kg	79.4	397
86-73-7	Fluorene	U	39.7	ug/kg	11.9	39.7
7005-72-3	4-Chlorophenylphenylether	U	397	ug/kg	79.4	397
534-52-1	2-Methyl-4,6-dinitrophenol	U	397	ug/kg	79.4	397
100-01-6	4-Nitroaniline	U	397	ug/kg	119	397
	p-Nitroaniline					
122-39-4	Diphenylamine	U	397	ug/kg	79.4	397
122-66-7	Azobenzene	U	397	ug/kg	79.4	397
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	397	ug/kg	79.4	397
118-74-1	Hexachlorobenzene	U	397	ug/kg	79.4	397
85-01-8	Phenanthrene	U	39.7	ug/kg	11.9	39.7
120-12-7	Anthracene	U	39.7	ug/kg	7.94	39.7
84-74-2	Di-n-butylphthalate	U	397	ug/kg	79.4	397
206-44-0	Fluoranthene	U	39.7	ug/kg	11.9	39.7
85-68-7	Butylbenzylphthalate	U	397	ug/kg	79.4	397
56-55-3	Benzo(a)anthracene	U	39.7	ug/kg	11.9	39.7
91-94-1	3,3'-Dichlorobenzidine	U	397	ug/kg	119	397
218-01-9	Chrysene	U	39.7	ug/kg	11.9	39.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	397	ug/kg	79.4	397
117-84-0	Di-n-octylphthalate	U	397	ug/kg	79.4	397
205-99-2	Benzo(b)fluoranthene	U	39.7	ug/kg	11.9	39.7
207-08-9	Benzo(k)fluoranthene	U	39.7	ug/kg	11.9	39.7
50-32-8	Benzo(a)pyrene	U	39.7	ug/kg	11.9	39.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.7	ug/kg	11.9	39.7
53-70-3	Dibenzo(a,h)anthracene	U	39.7	ug/kg	11.9	39.7
191-24-2	Benzo(ghi)perylene	U	39.7	ug/kg	11.9	39.7
120-82-1	1,2,4-Trichlorobenzene	U	397	ug/kg	79.4	397

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	343	ug/kg		JA

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-2430

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202074807	MB for batch 966763	75	69	83	77	65	88
1202074808	LCS for batch 966763	72	68	73	70	63	83
249329001	RE46-10-13964	66	64	67	64	60	70
249329002	RE46-10-13966	53	50	53	50	44	65
249329003	RE46-10-13963	55	58	56	50	51	68
249329004	RE46-10-13965	48	47	51	48	45	56

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(29%-99%)
PHL	=	Phenol-d5	(33%-98%)
NBZ	=	Nitrobenzene-d5	(31%-105%)
FBP	=	2-Fluorobiphenyl	(25%-109%)
TBP	=	2,4,6-Tribromophenol	(37%-106%)
TPH	=	p-Terphenyl-d14	(13%-150%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2430
Client ID: LCS for batch 966763
Lab Sample ID: 1202074808
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/29/2010 15:22
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	950	57	22-114
108-95-2	LCS	Phenol	1670	0.0	1160	70	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1230	74	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1040	63	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1310	79	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1330	80	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	1190	71	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1330	80	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	739	44	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	1140	69	27-116
129-00-0	LCS	Pyrene	1670	0.0	1260	75	42-113
110-86-1	LCS	Pyridine	1670	0.0	926	56	8-125
62-53-3	LCS	Aniline	1670	0.0	1060	64	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1130	68	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1040	62	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	852	51	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1070	64	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1300	78	28-117
95-48-7	LCS	o-Cresol	1670	0.0	1160	70	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1370	82	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	1060	64	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	1250	75	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2430
Client ID: LCS for batch 966763
Lab Sample ID: 1202074808
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/29/2010 15:22
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1270	76	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	1190	72	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1180	71	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1180	71	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1260	75	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	2870	86	22-138
91-20-3	LCS	Naphthalene	1670	0.0	1160	69	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	1080	65	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1130	68	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1250	75	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	980	59	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1130	68	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1250	75	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1180	71	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1300	78	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1280	77	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	1340	80	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1260	76	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	1300	78	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1170	70	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	1280	77	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	1390	83	51-126

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2430
Client ID: LCS for batch 966763
Lab Sample ID: 1202074808
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/29/2010 15:22
Dilution: 1
Prep Batch ID: 966763
Batch ID: 966766

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1270	76	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1320	79	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1320	79	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1430	86	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	1280	77	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1450	87	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1190	71	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1080	65	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	1260	75	46-107
120-12-7	LCS	Anthracene	1670	0.0	1280	77	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1460	87	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1380	83	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1580	95	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1330	80	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1200	72	36-103
218-01-9	LCS	Chrysene	1670	0.0	1320	79	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1690	101	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1500	90	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1200	72	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1310	79	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1330	80	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1430	86	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2430 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 966763 **Matrix:** SOIL

Lab Sample ID: 1202074808

Instrument: MSD1.I **Analysis Date:** 03/29/2010 15:22 **Dilution:** 1

Analyst: AMY **Prep Batch ID:** 966763

Inj. Vol: .5 uL **Batch ID:** 966766

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1370	82	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1420	85	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1120	67	32-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2430
Client ID: RE46-10-12972MS
Lab Sample ID: 1202074809
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:15
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1900	0.00	U	1120	59	27-98
108-95-2	MS	Phenol	1900	0.00	U	1200	63	33-94
95-57-8	MS	2-Chlorophenol	1900	0.00	U	1250	66	29-96
106-46-7	MS	1,4-Dichlorobenzene	1900	0.00	U	842	44	27-96
621-64-7	MS	N-Nitrosodipropylamine	1900	0.00	U	810	43	29-102
59-50-7	MS	4-Chloro-3-methylphenol	1900	0.00	U	1350	71	29-110
83-32-9	MS	Acenaphthene	1900	0.00	U	1150	60	17-109
121-14-2	MS	2,4-Dinitrotoluene	1900	0.00	U	1370	72	33-107
100-02-7	MS	4-Nitrophenol	1900	0.00	U	816	43	15-110
87-86-5	MS	Pentachlorophenol	1900	0.00	U	1080	57	23-110
129-00-0	MS	Pyrene	1900	0.00	U	1360	72	24-118
110-86-1	MS	Pyridine	1900	0.00	U	931	49	25-102
62-53-3	MS	Aniline	1900	0.00	U	1240	65	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	1900	0.00	U	1160	61	29-96
541-73-1	MS	1,3-Dichlorobenzene	1900	0.00	U	812	43	26-97
100-51-6	MS	Benzyl alcohol	1900	0.00	U	637	34	19-112
95-50-1	MS	1,2-Dichlorobenzene	1900	0.00	U	916	48	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	1900	0.00	U	1220	65	28-103
95-48-7	MS	o-Cresol	1900	0.00	U	875	46	32-107
65794-96-9	MS	m,p-Cresols	1900	0.00	U	1540	81	33-115
67-72-1	MS	Hexachloroethane	1900	0.00	U	785	41	25-100
98-95-3	MS	Nitrobenzene	1900	0.00	U	1240	66	27-106

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2430

Client ID: RE46-10-12972MS

Lab Sample ID: 1202074809

Instrument: MSD1.I

Analyst: AMY

Inj. Vol: .5 uL

Sample Type: Matrix Spike

Matrix: S

%Moisture: 12.3

Analysis Date: 03/30/2010 18:15

Dilution: 1

Prep Batch ID: 966763

Batch ID: 966766

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1900	0.00	U	1260	66	29-104
88-75-5	MS	2-Nitrophenol	1900	0.00	U	728	38	26-102
105-67-9	MS	2,4-Dimethylphenol	1900	0.00	U	1270	67	22-104
111-91-1	MS	bis(2-Chloroethoxy)methane	1900	0.00	U	694	37	27-101
120-83-2	MS	2,4-Dichlorophenol	1900	0.00	U	1060	56	26-103
65-85-0	MS	Benzoic acid	3790	0.00	U	2200	58	13-131
91-20-3	MS	Naphthalene	1900	0.00	U	817	43	23-103
106-47-8	MS	4-Chloroaniline	1900	0.00	U	1230	65	26-103
87-68-3	MS	Hexachlorobutadiene	1900	0.00	U	949	50	28-101
91-57-6	MS	2-Methylnaphthalene	1900	0.00	U	1230	65	27-106
77-47-4	MS	Hexachlorocyclopentadiene	1900	0.00	U	910	48	24-117
88-06-2	MS	2,4,6-Trichlorophenol	1900	0.00	U	1480	78	26-105
95-95-4	MS	2,4,5-Trichlorophenol	1900	0.00	U	1390	74	30-110
91-58-7	MS	2-Chloronaphthalene	1900	0.00	U	1120	59	28-102
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	1220	64	33-106
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	1470	77	33-116
131-11-3	MS	Dimethylphthalate	1900	0.00	U	1260	66	38-113
606-20-2	MS	2,6-Dinitrotoluene	1900	0.00	U	1210	64	29-107
208-96-8	MS	Acenaphthylene	1900	0.00	U	1250	66	25-108
51-28-5	MS	2,4-Dinitrophenol	1900	0.00	U	1150	61	14-102
132-64-9	MS	Dibenzofuran	1900	0.00	U	1280	68	35-112
84-66-2	MS	Diethylphthalate	1900	0.00	U	1390	73	36-122

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2430
Client ID: RE46-10-12972MS
Lab Sample ID: 1202074809
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:15
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1900	0.00	U	1350	71	33-105
7005-72-3	MS	4-Chlorophenylphenylether	1900	0.00	U	1360	71	30-110
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1900	0.00	U	1120	59	26-97
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	1620	85	28-135
122-39-4	MS	Diphenylamine	1900	0.00	U	1220	65	33-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1350	71	31-113
101-55-3	MS	4-Bromophenylphenylether	1900	0.00	U	1200	63	31-109
118-74-1	MS	Hexachlorobenzene	1900	0.00	U	1120	59	37-99
85-01-8	MS	Phenanthrene	1900	0.00	U	1370	72	29-109
120-12-7	MS	Anthracene	1900	0.00	U	1320	70	19-118
84-74-2	MS	Di-n-butylphthalate	1900	0.00	U	1470	78	39-123
206-44-0	MS	Fluoranthene	1900	0.00	U	1330	70	33-114
85-68-7	MS	Butylbenzylphthalate	1900	0.00	U	1630	86	35-131
56-55-3	MS	Benzo(a)anthracene	1900	0.00	U	1340	71	30-111
91-94-1	MS	3,3'-Dichlorobenzidine	1900	0.00	U	1110	58	30-124
218-01-9	MS	Chrysene	1900	0.00	U	1340	71	32-108
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1900	0.00	U	1700	89	37-129
117-84-0	MS	Di-n-octylphthalate	1900	0.00	U	1800	95	31-143
205-99-2	MS	Benzo(b)fluoranthene	1900	0.00	U	1350	71	29-118
207-08-9	MS	Benzo(k)fluoranthene	1900	0.00	U	1410	74	32-118
50-32-8	MS	Benzo(a)pyrene	1900	0.00	U	1340	70	33-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1900	0.00	U	1230	65	29-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2430
Client ID: RE46-10-12972MS
Lab Sample ID: 1202074809
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:15
Prep Batch ID: 966763
Batch ID: 966766

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1900	0.00	U	1180	62	27-119
191-24-2	MS	Benzo(ghi)perylene	1900	0.00	U	1130	60	28-112
120-82-1	MS	1,2,4-Trichlorobenzene	1900	0.00	U	1040	55	28-99

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2430
Client ID: RE46-10-12972MSD
Lab Sample ID: 1202074810
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:38
Dilution: 1
Prep Batch ID: 966763
Batch ID: 966766

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1900	0.00	U	981	52	27-98	13	0-30
108-95-2	MSD Phenol	1900	0.00	U	1130	60	33-94	6	0-30
95-57-8	MSD 2-Chlorophenol	1900	0.00	U	1200	63	29-96	4	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1900	0.00	U	780	41	27-96	8	0-30
621-64-7	MSD N-Nitrosodipropylamine	1900	0.00	U	1290	68	29-102	46 *	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1900	0.00	U	1280	68	29-110	5	0-30
83-32-9	MSD Acenaphthene	1900	0.00	U	1180	62	17-109	3	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1900	0.00	U	1290	68	33-107	6	0-30
100-02-7	MSD 4-Nitrophenol	1900	0.00	U	711	37	15-110	14	0-30
87-86-5	MSD Pentachlorophenol	1900	0.00	U	1090	57	23-110	1	0-30
129-00-0	MSD Pyrene	1900	0.00	U	1250	66	24-118	8	0-30
110-86-1	MSD Pyridine	1900	0.00	U	821	43	25-102	13	0-30
62-53-3	MSD Aniline	1900	0.00	U	1090	57	18-109	13	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1900	0.00	U	1070	57	29-96	8	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1900	0.00	U	746	39	26-97	8	0-30
100-51-6	MSD Benzyl alcohol	1900	0.00	U	571	30	19-112	11	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1900	0.00	U	848	45	30-97	8	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1900	0.00	U	1150	61	28-103	6	0-30
95-48-7	MSD o-Cresol	1900	0.00	U	1280	67	32-107	38 *	0-30
65794-96-9	MSD m,p-Cresols	1900	0.00	U	1230	65	33-115	22	0-30
67-72-1	MSD Hexachloroethane	1900	0.00	U	720	38	25-100	9	0-30
98-95-3	MSD Nitrobenzene	1900	0.00	U	1200	63	27-106	4	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2430
Client ID: RE46-10-12972MSD
Lab Sample ID: 1202074810
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:38
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD	Isophorone	1900	0.00	U	1190	63	29-104	6	0-30
88-75-5	MSD	2-Nitrophenol	1900	0.00	U	1200	63	26-102	49 *	0-30
105-67-9	MSD	2,4-Dimethylphenol	1900	0.00	U	1200	63	22-104	5	0-30
111-91-1	MSD	bis(2-Chloroethoxy)methane	1900	0.00	U	1140	60	27-101	49 *	0-30
120-83-2	MSD	2,4-Dichlorophenol	1900	0.00	U	1250	66	26-103	17	0-30
65-85-0	MSD	Benzoic acid	3800	0.00	U	2620	69	13-131	18	0-30
91-20-3	MSD	Naphthalene	1900	0.00	U	1070	56	23-103	27	0-30
106-47-8	MSD	4-Chloroaniline	1900	0.00	U	1110	58	26-103	10	0-30
87-68-3	MSD	Hexachlorobutadiene	1900	0.00	U	888	47	28-101	7	0-30
91-57-6	MSD	2-Methylnaphthalene	1900	0.00	U	1160	61	27-106	6	0-30
77-47-4	MSD	Hexachlorocyclopentadiene	1900	0.00	U	797	42	24-117	13	0-30
88-06-2	MSD	2,4,6-Trichlorophenol	1900	0.00	U	1220	64	26-105	19	0-30
95-95-4	MSD	2,4,5-Trichlorophenol	1900	0.00	U	1330	70	30-110	4	0-30
91-58-7	MSD	2-Chloronaphthalene	1900	0.00	U	1150	60	28-102	2	0-30
88-74-4	MSD	2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	1280	67	33-106	5	0-30
99-09-2	MSD	3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	1280	67	33-116	14	0-30
131-11-3	MSD	Dimethylphthalate	1900	0.00	U	1290	68	38-113	3	0-30
606-20-2	MSD	2,6-Dinitrotoluene	1900	0.00	U	1230	65	29-107	2	0-30
208-96-8	MSD	Acenaphthylene	1900	0.00	U	1270	67	25-108	2	0-30
51-28-5	MSD	2,4-Dinitrophenol	1900	0.00	U	1100	58	14-102	4	0-30
132-64-9	MSD	Dibenzofuran	1900	0.00	U	1250	66	35-112	2	0-30
84-66-2	MSD	Diethylphthalate	1900	0.00	U	1310	69	36-122	6	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2430
Client ID: RE46-10-12972MSD
Lab Sample ID: 1202074810
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:38
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1900	0.00	U	1240	65	33-105	9	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1900	0.00	U	1280	67	30-110	6	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1900	0.00	U	1080	57	26-97	4	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	1330	70	28-135	19	0-30
122-39-4	MSD	Diphenylamine	1900	0.00	U	1200	63	33-109	2	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1380	73	31-113	2	0-30
101-55-3	MSD	4-Bromophenylphenylether	1900	0.00	U	1160	61	31-109	4	0-30
118-74-1	MSD	Hexachlorobenzene	1900	0.00	U	1040	55	37-99	8	0-30
85-01-8	MSD	Phenanthrene	1900	0.00	U	1240	65	29-109	10	0-30
120-12-7	MSD	Anthracene	1900	0.00	U	1210	64	19-118	9	0-30
84-74-2	MSD	Di-n-butylphthalate	1900	0.00	U	1340	70	39-123	10	0-30
206-44-0	MSD	Fluoranthene	1900	0.00	U	1210	63	33-114	10	0-30
85-68-7	MSD	Butylbenzylphthalate	1900	0.00	U	1490	78	35-131	9	0-30
56-55-3	MSD	Benzo(a)anthracene	1900	0.00	U	1240	65	30-111	8	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1900	0.00	U	958	50	30-124	14	0-30
218-01-9	MSD	Chrysene	1900	0.00	U	1250	66	32-108	7	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1900	0.00	U	1530	80	37-129	11	0-30
117-84-0	MSD	Di-n-octylphthalate	1900	0.00	U	1640	87	31-143	9	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1900	0.00	U	1200	63	29-118	12	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1900	0.00	U	1290	68	32-118	9	0-30
50-32-8	MSD	Benzo(a)pyrene	1900	0.00	U	1240	65	33-115	8	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1900	0.00	U	1100	58	29-114	11	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2430
Client ID: RE46-10-12972MSD
Lab Sample ID: 1202074810
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:38
Dilution: 1
Prep Batch ID: 966763
Batch ID: 966766

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1900	0.00	U	1030	54	27-119	14	0-30
191-24-2	MSD Benzo(ghi)perylene	1900	0.00	U	1010	53	28-112	11	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1900	0.00	U	977	51	28-99	6	0-30

Method Blank Summary

SDG Number:	10-2430	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 966763	Instrument ID:	MSD1.I	Data File:	s1c2908-1.d
Lab Sample ID:	1202074807	Prep Date:	03/19/2010 11:31	Analyzed:	03/29/10 14:58
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 966763	1202074808	s1c2909-1.d	03/29/10	1522
02 RE46-10-13964	249329001	s1c2910.d	03/29/10	1558
03 RE46-10-13966	249329002	s1c2911.d	03/29/10	1621
04 RE46-10-13963	249329003	s1c2912.d	03/29/10	1645
05 RE46-10-13965	249329004	s1c2913.d	03/29/10	1709

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2430

Instrument ID: MSD1.I **Injection Date/Time:** 15-MAR-10 16:24

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s031510a.b/s1c1513.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.5
68	Less than 2% of mass 69	1.3
69	Mass 69 Relative Abundance	37.7
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	47.1
197	0 - 1% of mass 198	0.9
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	27.8
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	76.2
442	Greater than 40% of mass 198	94.4
443	17 - 23% of mass 442	19.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100309-08	s1c1515.d	15-MAR-10 17:03
MEGA040	WBN100309-05.1	s1c1516.d	15-MAR-10 17:31
MEGA010	WBN100309-07	s1c1517.d	15-MAR-10 17:59
MEGA020	WBN100309-06	s1c1518.d	15-MAR-10 18:28
MEGA050	WBN100309-04	s1c1519.d	15-MAR-10 18:57
MEGA080	WBN100309-03	s1c1520.d	15-MAR-10 19:26
MEGA100	WBN100309-02	s1c1521.d	15-MAR-10 19:55
MEGA120	WBN100309-01	s1c1522.d	15-MAR-10 20:24
AP010	WBN100312-01	s1c1523.d	15-MAR-10 20:53
AP020	WBN100312-02	s1c1524.d	15-MAR-10 21:17
AP040	WBN100312-03.1	s1c1525.d	15-MAR-10 21:40
AP050	WBN100312-04	s1c1526.d	15-MAR-10 22:04
AP080	WBN100312-05	s1c1527.d	15-MAR-10 22:27
AP100	WBN100312-06	s1c1528.d	15-MAR-10 22:50
AP120	WBN100312-07	s1c1529.d	15-MAR-10 23:14
MEGAICV	WBN100309-09.1	s1c1531-C.d	16-MAR-10 00:06

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2430

Instrument ID: MSD1.I **Injection Date/Time:** 15-MAR-10 16:24

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s031510a.b/s1c1513.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.5
68	Less than 2% of mass 69	1.3
69	Mass 69 Relative Abundance	37.7
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	47.1
197	0 - 1% of mass 198	0.9
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	27.8
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	76.2
442	Greater than 40% of mass 198	94.4
443	17 - 23% of mass 442	19.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
APICV	WBN100312-08.1	s1c1533-C.d	16-MAR-10 00:58

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2430

Instrument ID: MSD1.I **Injection Date/Time:** 29-MAR-10 10:02

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s032910.b/s1c2902.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	44.7
68	Less than 2% of mass 69	0.2
69	Mass 69 Relative Abundance	40.4
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	48
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.5
275	10 - 30% of mass 198	26.5
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	77.5
442	Greater than 40% of mass 198	82
443	17 - 23% of mass 442	19.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-05.4	s1c2903.d	29-MAR-10 10:17
APCVS	WBN100312-08.3	s1c2904.d	29-MAR-10 11:24
SBLK01	1202074807	s1c2908-1.d	29-MAR-10 14:58
SBLK01LCS	1202074808	s1c2909-1.d	29-MAR-10 15:22
RE46-10-13964	249329001	s1c2910.d	29-MAR-10 15:58
RE46-10-13966	249329002	s1c2911.d	29-MAR-10 16:21
RE46-10-13963	249329003	s1c2912.d	29-MAR-10 16:45
RE46-10-13965	249329004	s1c2913.d	29-MAR-10 17:09

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2430

Instrument: MSD1.I

STD Analysis Time: 29-MAR-10 10:17

GC Column: J&W DB-5MS

Data File: s1c2903.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	393267		3.5	1655594		4.35	825625		5.59	1464986		6.6	1271298		8.17	1100996		9.34
Upper Limit	786534		4	3311188		4.85	1651250		6.09	2929972		7.1	2542596		8.67	2201992		9.84
Lower Limit	196634		3	827797		3.85	412813		5.09	732493		6.1	635649		7.67	550498		8.84
Sample ID																		
BLK01	392001		3.5	1525914		4.35	782209		5.59	1384440		6.6	1166426		8.17	972235		9.34
BLK01LCS	373039		3.5	1576206		4.35	799705		5.59	1430652		6.6	1224060		8.17	1064475		9.35
RE46-10-13964	405947		3.5	1584255		4.35	800288		5.59	1436108		6.6	1285346		8.19	1066025		9.36
RE46-10-13966	361097		3.5	1393651		4.35	721718		5.59	1258501		6.6	1023198		8.17	846137		9.34
RE46-10-13963	419402		3.5	1652389		4.35	838973		5.59	1480362		6.6	1123622		8.17	886267		9.34
RE46-10-13965	395520		3.5	1550448		4.35	790329		5.59	1408204		6.6	1184571		8.17	967813		9.34

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249329003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**23.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13963**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 16:45**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2912.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	435	ug/kg	87.0	435
108-95-2	Phenol	U	435	ug/kg	87.0	435
95-57-8	2-Chlorophenol	U	435	ug/kg	87.0	435
106-46-7	1,4-Dichlorobenzene	U	435	ug/kg	87.0	435
621-64-7	N-Nitrosodipropylamine	U	435	ug/kg	87.0	435
59-50-7	4-Chloro-3-methylphenol	U	435	ug/kg	87.0	435
83-32-9	Acenaphthene	U	43.5	ug/kg	14.4	43.5
121-14-2	2,4-Dinitrotoluene	U	435	ug/kg	43.5	435
100-02-7	4-Nitrophenol	U	435	ug/kg	144	435
87-86-5	Pentachlorophenol	U	435	ug/kg	109	435
129-00-0	Pyrene	U	43.5	ug/kg	13.1	43.5
110-86-1	Pyridine	U	435	ug/kg	87.0	435
62-53-3	Aniline	U	435	ug/kg	131	435
111-44-4	bis(2-Chloroethyl) ether	U	435	ug/kg	87.0	435
541-73-1	1,3-Dichlorobenzene	U	435	ug/kg	87.0	435
100-51-6	Benzyl alcohol	U	435	ug/kg	131	435
95-50-1	1,2-Dichlorobenzene	U	435	ug/kg	87.0	435
108-60-1	bis(2-Chloroisopropyl)ether	U	435	ug/kg	87.0	435
95-48-7	o-Cresol	U	435	ug/kg	87.0	435
65794-96-9	m,p-Cresols	U	435	ug/kg	131	435
67-72-1	Hexachloroethane	U	435	ug/kg	87.0	435
98-95-3	Nitrobenzene	U	435	ug/kg	87.0	435
78-59-1	Isophorone	U	435	ug/kg	87.0	435
88-75-5	2-Nitrophenol	U	435	ug/kg	87.0	435
105-67-9	2,4-Dimethylphenol	U	435	ug/kg	152	435
111-91-1	bis(2-Chloroethoxy)methane	U	435	ug/kg	87.0	435
120-83-2	2,4-Dichlorophenol	U	435	ug/kg	87.0	435
65-85-0	Benzoic acid	U	870	ug/kg	218	870
91-20-3	Naphthalene	U	43.5	ug/kg	13.1	43.5
106-47-8	4-Chloroaniline	U	435	ug/kg	87.0	435
87-68-3	Hexachlorobutadiene	U	435	ug/kg	87.0	435
91-57-6	2-Methylnaphthalene	U	43.5	ug/kg	8.70	43.5
77-47-4	Hexachlorocyclopentadiene	U	435	ug/kg	87.0	435
88-06-2	2,4,6-Trichlorophenol	U	435	ug/kg	87.0	435
95-95-4	2,4,5-Trichlorophenol	U	435	ug/kg	87.0	435
91-58-7	2-Chloronaphthalene	U	43.5	ug/kg	14.4	43.5
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	435	ug/kg	87.0	435
99-09-2	3-Nitroaniline	U	435	ug/kg	87.0	435

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249329003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**23.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13963**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 16:45**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2912.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	435	ug/kg	87.0	435
606-20-2	2,6-Dinitrotoluene	U	435	ug/kg	43.5	435
208-96-8	Acenaphthylene	U	43.5	ug/kg	13.1	43.5
51-28-5	2,4-Dinitrophenol	U	870	ug/kg	165	870
132-64-9	Dibenzofuran	U	435	ug/kg	87.0	435
84-66-2	Diethylphthalate	U	435	ug/kg	87.0	435
86-73-7	Fluorene	U	43.5	ug/kg	13.1	43.5
7005-72-3	4-Chlorophenylphenylether	U	435	ug/kg	87.0	435
534-52-1	2-Methyl-4,6-dinitrophenol	U	435	ug/kg	87.0	435
100-01-6	4-Nitroaniline	U	435	ug/kg	131	435
	p-Nitroaniline					
122-39-4	Diphenylamine	U	435	ug/kg	87.0	435
122-66-7	Azobenzene	U	435	ug/kg	87.0	435
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	435	ug/kg	87.0	435
118-74-1	Hexachlorobenzene	U	435	ug/kg	87.0	435
85-01-8	Phenanthrene	U	43.5	ug/kg	13.1	43.5
120-12-7	Anthracene	U	43.5	ug/kg	8.70	43.5
84-74-2	Di-n-butylphthalate	U	435	ug/kg	87.0	435
206-44-0	Fluoranthene	U	43.5	ug/kg	13.1	43.5
85-68-7	Butylbenzylphthalate	U	435	ug/kg	87.0	435
56-55-3	Benzo(a)anthracene	U	43.5	ug/kg	13.1	43.5
91-94-1	3,3'-Dichlorobenzidine	U	435	ug/kg	131	435
218-01-9	Chrysene	U	43.5	ug/kg	13.1	43.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	435	ug/kg	87.0	435
117-84-0	Di-n-octylphthalate	U	435	ug/kg	87.0	435
205-99-2	Benzo(b)fluoranthene	U	43.5	ug/kg	13.1	43.5
207-08-9	Benzo(k)fluoranthene	U	43.5	ug/kg	13.1	43.5
50-32-8	Benzo(a)pyrene	U	43.5	ug/kg	13.1	43.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	43.5	ug/kg	13.1	43.5
53-70-3	Dibenzo(a,h)anthracene	U	43.5	ug/kg	13.1	43.5
191-24-2	Benzo(ghi)perylene	U	43.5	ug/kg	13.1	43.5
120-82-1	1,2,4-Trichlorobenzene	U	435	ug/kg	87.0	435

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	393	ug/kg		JA
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	7.8	814	ug/kg	97	NJ

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2912.d
Lab Smp Id: 249329003 Client Smp ID: RE46-10-13963
Inj Date : 29-MAR-2010 16:45
Operator : AMY Inst ID: MSD1.i
Smp Info : |249329003|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2430.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	23.39790	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.499	3.504	(1.000)	419402	40.0000	
* 29 Naphthalene-d8	136	4.346	4.351	(1.000)	1652389	40.0000	
* 46 Acenaphthene-d10	164	5.587	5.592	(1.000)	838973	40.0000	
* 67 Phenanthrene-d10	188	6.598	6.598	(1.000)	1480362	40.0000	
* 91 Chrysene-d12	240	8.175	8.175	(1.000)	1123622	40.0000	
* 98 Perylene-d12	264	9.339	9.339	(1.000)	886267	40.0000	
$ 3 2-Fluorophenol	112	2.728	2.716	(0.780)	598247	55.3946	2410
$ 5 Phenol-d5	99	3.240	3.240	(0.926)	756645	57.5282	2500
$ 20 Nitrobenzene-d5	82	3.857	3.863	(0.888)	282012	27.8266	1210
$ 39 2-Fluorobiphenyl	172	5.093	5.093	(0.912)	579294	25.0015	1090
$ 60 2,4,6-Tribromophenol	329	6.140	6.139	(1.099)	140446	51.0608	2220
$ 81 p-Terphenyl-d14	244	7.528	7.528	(0.921)	640755	34.2051	1490

ION RATIO REPORT

SV REPORT

Data file: s1c2912.d
Report Date: 03/30/2010 16:53
Lab. ID: 249329003 SampleType: SAMPLE
Injection Date: 29-MAR-2010 16:45
Operator: AMY Instrument: MSD1.i
Sample Info: |249329003|966766|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2430
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	34950	3.24	3.30	80-120	100	( )
93	704	3.18	3.30	196-256	2	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	39748	3.86	3.75	80-120	100	(T)
42	26250	3.85	3.75	47-107	66	(T)
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	27421	5.32	5.19	80-120	100	(T)
164	1443	5.32	5.19	2- 62	5	(T)
127	1937	5.32	5.19	10- 70	7	(QT)
42 o-Nitroaniline				CAS#: 88-74-4		
65	34324	5.32	5.26	80-120	100	( )
92	42242	5.32	5.26	33- 93	123	(QT)
138	2775	5.32	5.26	80-140	8	(QT)
41 m-Nitroaniline				CAS#: 99-09-2		
138	106	5.59	5.55	80-120	100	( )
92	4017	5.59	5.55	75-135	3781	(Q)
108	15995	5.59	5.55	0- 40	15054	(Q)
43 Dimethylphthalate				CAS#: 131-11-3		
163	152163	5.59	5.37	80-120	100	(T)
164	838973	5.59	5.37	0- 40	551	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	106915	5.59	5.43	80-120	100	(T)
63	2209	5.59	5.43	49-109	2	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	106915	5.59	5.72	80-120	100	(T)
89	1432	5.59	5.71	37- 97	1	(QT)
63	2209	5.59	5.71	20- 80	2	(QT)
53 Fluorene			CAS#: 86-73-7			
166	10530	6.14	5.97	80-120	100	(T)
165	10532	6.14	5.97	61-121	100	(T)
167	3421	6.14	5.97	0- 43	32	(T)
56 p-Nitroaniline			CAS#: 100-01-6			
138	126	6.07	5.99	80-120	100	(T)
108	3352	6.06	5.99	34- 94	2641	(QT)
92	822	6.07	5.99	12- 72	647	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2912.d
Lab Smp Id: 249329003 Client Smp ID: RE46-10-13963
Inj Date : 29-MAR-2010 16:45
Operator : AMY Inst ID: MSD1.i
Smp Info : |249329003|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2430.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	23.39790	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.499	2559337	40.000
* 91 Chrysene-d12	8.175	2897021	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.563	578362	9.03924306	393	0		0	10

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa				CAS #: 511-15-9			
7.798	1354120	18.6967239	814	97	NIST05.L	116238	91

Data File: /chem/MSD1.i/s032910.b/s1c2912.d
Date : 29-MAR-2010 16:45
Client ID: RE46-10-13963
Sample Info: |249329003|966766|1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

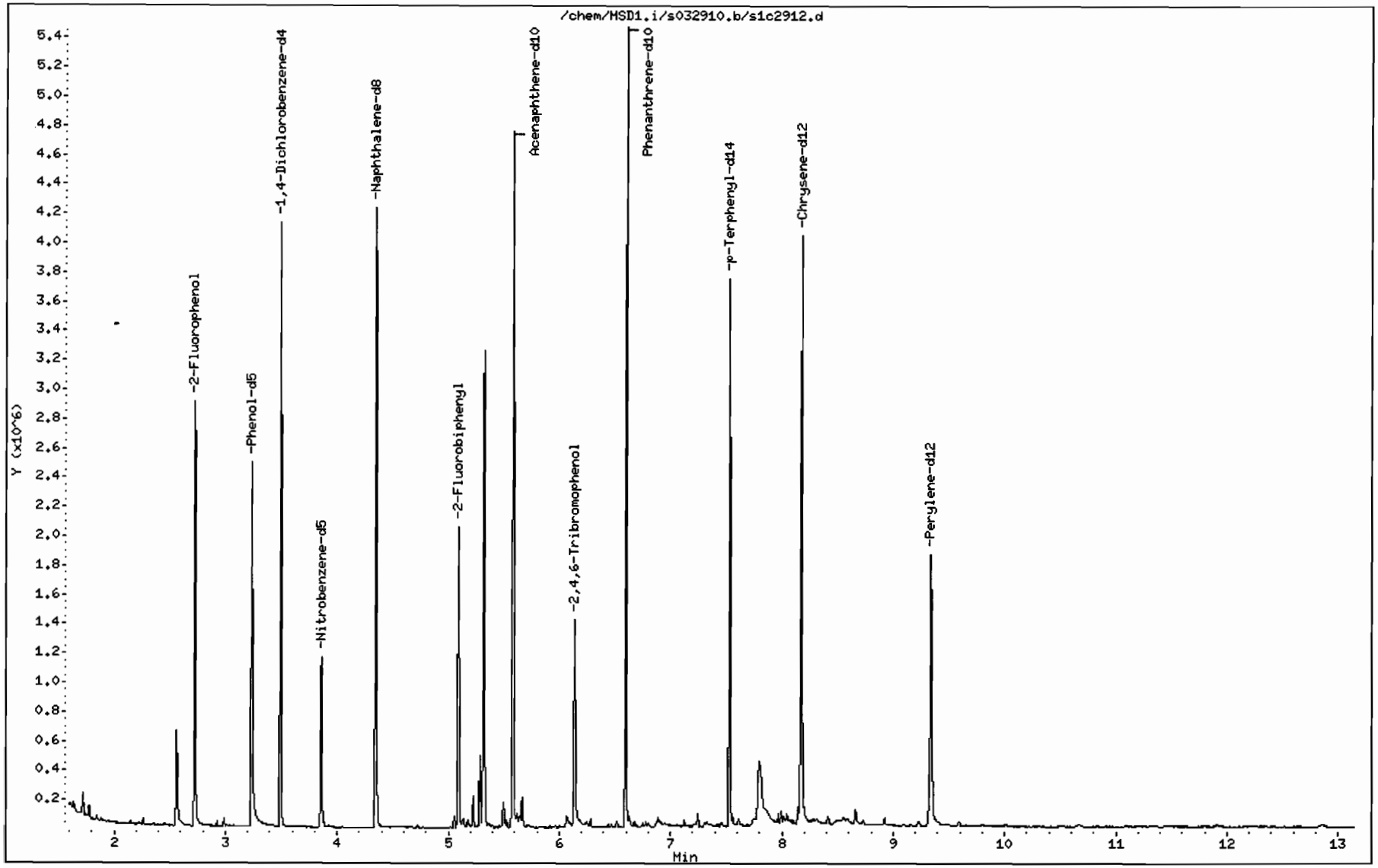

Data File: /chem/MSD1.i/s032910.b/s1c2912.d

Date : 29-MAR-2010 16:45

Client ID: RE46-10-13963

Instrument: MSD1.i

Sample Info: 1249329003|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	53	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
t-Butyl nitrite	540-80-7	NIST05.L	4426	39	C4H9NO2	103

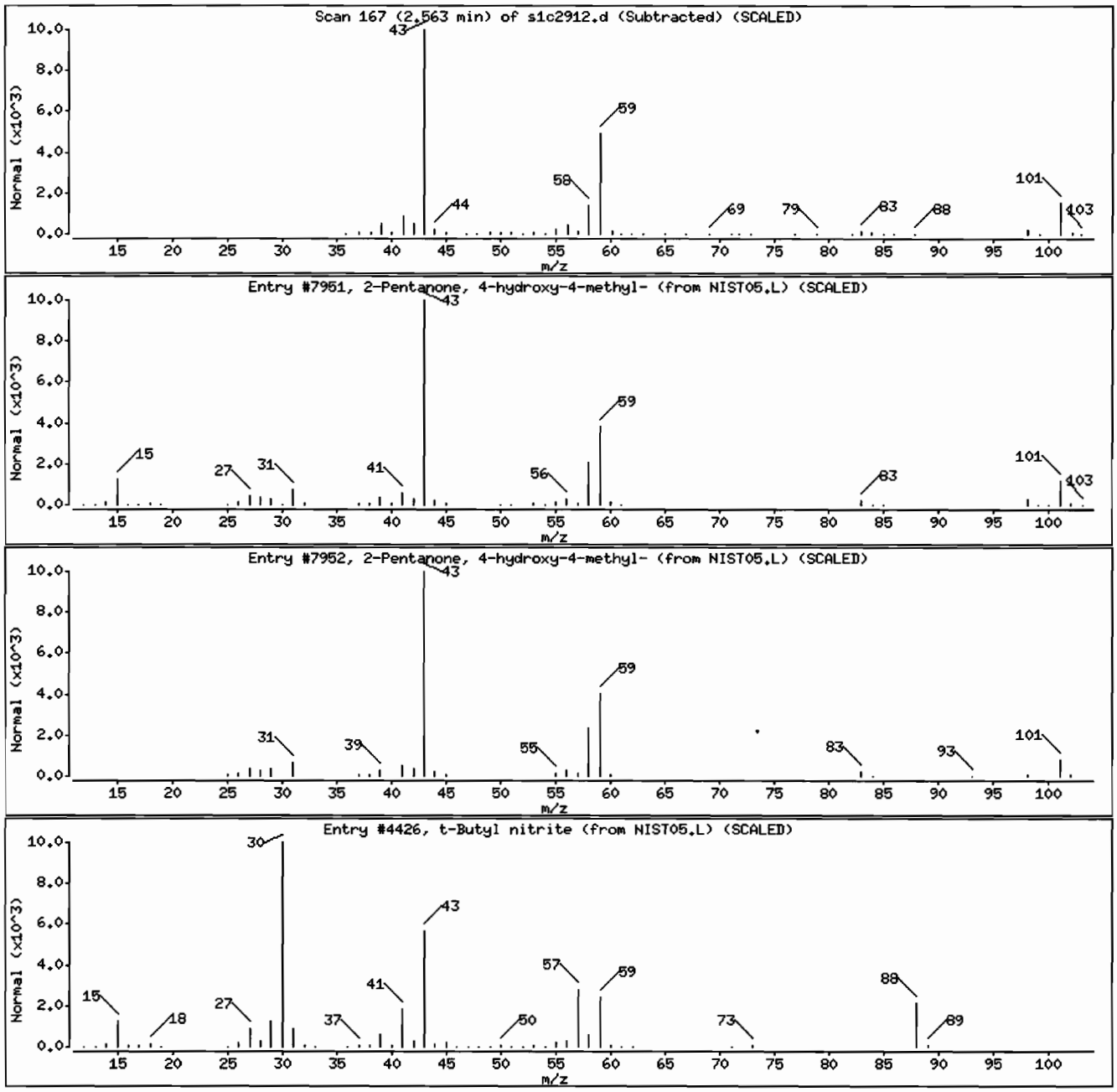

Data File: /chem/MSD1.i/s032910.b/s1c2912.d

Date : 29-MAR-2010 16:45

Client ID: RE46-10-13963

Instrument: MSD1.i

Sample Info: |2493290031966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116238	97	C20H30O	286
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116239	97	C20H30O	286
Naphthalene, 1,2,3,4-tetrahydro-1-isopro	29577-17-1	NIST05.L	88134	40	C18H28	244

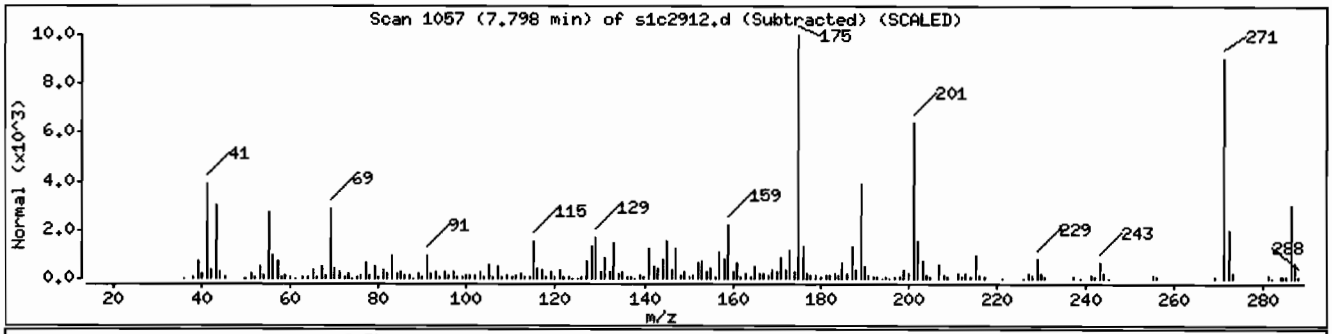

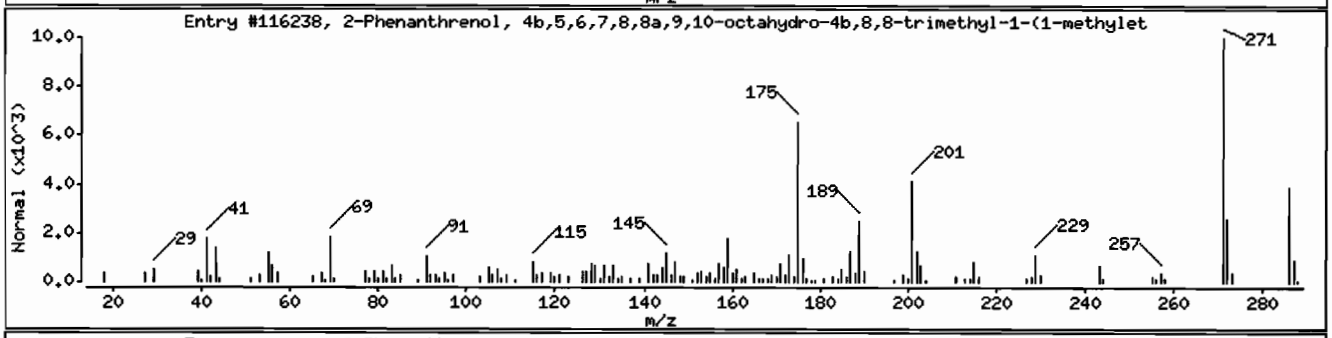

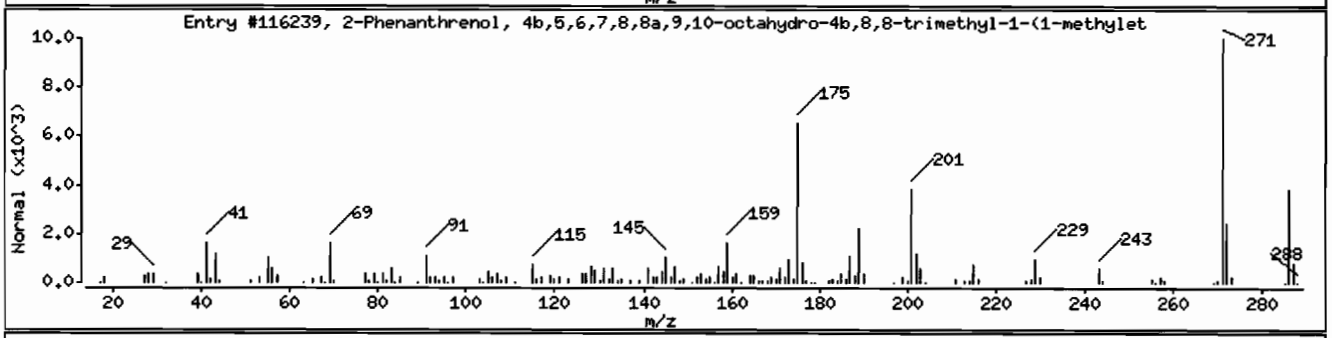

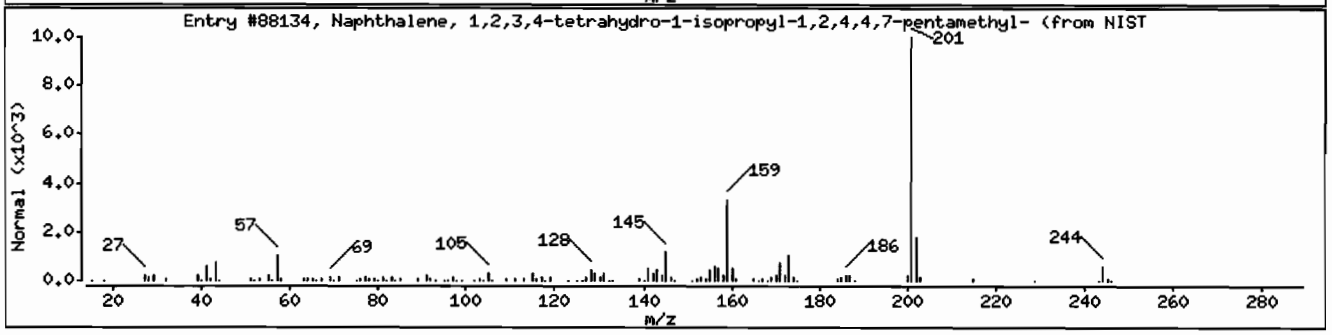

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249329001**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13964**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 15:58**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2910.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	370	ug/kg	74.1	370
108-95-2	Phenol	U	370	ug/kg	74.1	370
95-57-8	2-Chlorophenol	U	370	ug/kg	74.1	370
106-46-7	1,4-Dichlorobenzene	U	370	ug/kg	74.1	370
621-64-7	N-Nitrosodipropylamine	U	370	ug/kg	74.1	370
59-50-7	4-Chloro-3-methylphenol	U	370	ug/kg	74.1	370
83-32-9	Acenaphthene	U	37.0	ug/kg	12.2	37.0
121-14-2	2,4-Dinitrotoluene	U	370	ug/kg	37.0	370
100-02-7	4-Nitrophenol	U	370	ug/kg	122	370
87-86-5	Pentachlorophenol	U	370	ug/kg	92.6	370
129-00-0	Pyrene	U	37.0	ug/kg	11.1	37.0
110-86-1	Pyridine	U	370	ug/kg	74.1	370
62-53-3	Aniline	U	370	ug/kg	111	370
111-44-4	bis(2-Chloroethyl) ether	U	370	ug/kg	74.1	370
541-73-1	1,3-Dichlorobenzene	U	370	ug/kg	74.1	370
100-51-6	Benzyl alcohol	U	370	ug/kg	111	370
95-50-1	1,2-Dichlorobenzene	U	370	ug/kg	74.1	370
108-60-1	bis(2-Chloroisopropyl)ether	U	370	ug/kg	74.1	370
95-48-7	o-Cresol	U	370	ug/kg	74.1	370
65794-96-9	m,p-Cresols	U	370	ug/kg	111	370
67-72-1	Hexachloroethane	U	370	ug/kg	74.1	370
98-95-3	Nitrobenzene	U	370	ug/kg	74.1	370
78-59-1	Isophorone	U	370	ug/kg	74.1	370
88-75-5	2-Nitrophenol	U	370	ug/kg	74.1	370
105-67-9	2,4-Dimethylphenol	U	370	ug/kg	130	370
111-91-1	bis(2-Chloroethoxy)methane	U	370	ug/kg	74.1	370
120-83-2	2,4-Dichlorophenol	U	370	ug/kg	74.1	370
65-85-0	Benzoic acid	U	741	ug/kg	185	741
91-20-3	Naphthalene	U	37.0	ug/kg	11.1	37.0
106-47-8	4-Chloroaniline	U	370	ug/kg	74.1	370
87-68-3	Hexachlorobutadiene	U	370	ug/kg	74.1	370
91-57-6	2-Methylnaphthalene	U	37.0	ug/kg	7.41	37.0
77-47-4	Hexachlorocyclopentadiene	U	370	ug/kg	74.1	370
88-06-2	2,4,6-Trichlorophenol	U	370	ug/kg	74.1	370
95-95-4	2,4,5-Trichlorophenol	U	370	ug/kg	74.1	370
91-58-7	2-Chloronaphthalene	U	37.0	ug/kg	12.2	37.0
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	370	ug/kg	74.1	370
99-09-2	3-Nitroaniline	U	370	ug/kg	74.1	370

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249329001**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13964**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 15:58**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2910.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	370	ug/kg	74.1	370
606-20-2	2,6-Dinitrotoluene	U	370	ug/kg	37.0	370
208-96-8	Acenaphthylene	U	37.0	ug/kg	11.1	37.0
51-28-5	2,4-Dinitrophenol	U	741	ug/kg	141	741
132-64-9	Dibenzofuran	U	370	ug/kg	74.1	370
84-66-2	Diethylphthalate	U	370	ug/kg	74.1	370
86-73-7	Fluorene	U	37.0	ug/kg	11.1	37.0
7005-72-3	4-Chlorophenylphenylether	U	370	ug/kg	74.1	370
534-52-1	2-Methyl-4,6-dinitrophenol	U	370	ug/kg	74.1	370
100-01-6	4-Nitroaniline	U	370	ug/kg	111	370
	p-Nitroaniline					
122-39-4	Diphenylamine	U	370	ug/kg	74.1	370
122-66-7	Azobenzene	U	370	ug/kg	74.1	370
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	370	ug/kg	74.1	370
118-74-1	Hexachlorobenzene	U	370	ug/kg	74.1	370
85-01-8	Phenanthrene	U	37.0	ug/kg	11.1	37.0
120-12-7	Anthracene	U	37.0	ug/kg	7.41	37.0
84-74-2	Di-n-butylphthalate	U	370	ug/kg	74.1	370
206-44-0	Fluoranthene	U	37.0	ug/kg	11.1	37.0
85-68-7	Butylbenzylphthalate	U	370	ug/kg	74.1	370
56-55-3	Benzo(a)anthracene	U	37.0	ug/kg	11.1	37.0
91-94-1	3,3'-Dichlorobenzidine	U	370	ug/kg	111	370
218-01-9	Chrysene	U	37.0	ug/kg	11.1	37.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	370	ug/kg	74.1	370
117-84-0	Di-n-octylphthalate	U	370	ug/kg	74.1	370
205-99-2	Benzo(b)fluoranthene	U	37.0	ug/kg	11.1	37.0
207-08-9	Benzo(k)fluoranthene	U	37.0	ug/kg	11.1	37.0
50-32-8	Benzo(a)pyrene	U	37.0	ug/kg	11.1	37.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.0	ug/kg	11.1	37.0
53-70-3	Dibenzo(a,h)anthracene	U	37.0	ug/kg	11.1	37.0
191-24-2	Benzo(ghi)perylene	U	37.0	ug/kg	11.1	37.0
120-82-1	1,2,4-Trichlorobenzene	U	370	ug/kg	74.1	370

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	385	ug/kg		JA
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	7.8	256	ug/kg	96	NJ

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2910.d
Lab Smp Id: 249329001 Client Smp ID: RE46-10-13964
Inj Date : 29-MAR-2010 15:58
Operator : AMY Inst ID: MSD1.i
Smp Info : |249329001|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2430.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	10.16030	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.499	3.504	(1.000)	405947	40.0000	
* 29 Naphthalene-d8	136	4.351	4.351	(1.000)	1584255	40.0000	
* 46 Acenaphthene-d10	164	5.587	5.592	(1.000)	800288	40.0000	
* 67 Phenanthrene-d10	188	6.598	6.598	(1.000)	1436108	40.0000	
* 91 Chrysene-d12	240	8.187	8.175	(1.000)	1285346	40.0000	
* 98 Perylene-d12	264	9.357	9.339	(1.000)	1066025	40.0000	
$ 3 2-Fluorophenol	112	2.728	2.716	(0.780)	691347	66.1370	2450
$ 5 Phenol-d5	99	3.240	3.240	(0.926)	818979	64.3313	2380
$ 20 Nitrobenzene-d5	82	3.857	3.863	(0.886)	327173	33.6711	1250
$ 39 2-Fluorobiphenyl	172	5.093	5.093	(0.912)	701770	31.7514	1180
$ 60 2,4,6-Tribromophenol	329	6.140	6.139	(1.099)	158326	60.3438	2230
$ 81 p-Terphenyl-d14	244	7.534	7.528	(0.920)	751268	35.0585	1300

ION RATIO REPORT

SV REPORT

Data file: s1c2910.d
Report Date: 03/30/2010 16:52
Lab. ID: 249329001 SampleType: SAMPLE
Injection Date: 29-MAR-2010 15:58
Operator: AMY Instrument: MSD1.i
Sample Info: |249329001|966766|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2430
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	40326	3.24	3.30	80-120	100	( )
93	359	3.18	3.30	196-256	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	45068	3.86	3.75	80-120	100	(T)
42	30684	3.86	3.75	47-107	68	(T)
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	10934	5.32	5.19	80-120	100	(T)
164	615	5.32	5.19	2- 62	6	(T)
127	823	5.32	5.19	10- 70	8	(QT)
42 o-Nitroaniline				CAS#: 88-74-4		
65	14016	5.32	5.26	80-120	100	(T)
92	15721	5.32	5.26	33- 93	112	(QT)
138	994	5.32	5.26	80-140	7	(QT)
41 m-Nitroaniline				CAS#: 99-09-2		
138	994	5.32	5.55	80-120	100	(T)
92	15721	5.32	5.55	75-135	1580	(QT)
108	19781	5.32	5.55	0- 40	1989	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	143818	5.59	5.37	80-120	100	(T)
164	800288	5.59	5.37	0- 40	556	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	103810	5.59	5.43	80-120	100	(T)
63	2106	5.59	5.43	49-109	2	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	103810	5.59	5.72	80-120	100	(T)
89	1559	5.59	5.71	37- 97	2	(QT)
63	2106	5.59	5.71	20- 80	2	(QT)
53 Fluorene			CAS#: 86-73-7			
166	11633	6.14	5.97	80-120	100	(T)
165	11587	6.14	5.97	61-121	100	(T)
167	3931	6.14	5.97	0- 43	34	(T)
56 p-Nitroaniline			CAS#: 100-01-6			
138	115	5.90	5.99	80-120	100	(T)
108	371	5.97	5.99	34- 94	322	(Q)
92	163	5.94	5.99	12- 72	142	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2910.d
Lab Smp Id: 249329001 Client Smp ID: RE46-10-13964
Inj Date : 29-MAR-2010 15:58
Operator : AMY Inst ID: MSD1.i
Smp Info : |249329001|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2430.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	10.16030	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.499	2495456	40.000
* 91 Chrysene-d12	8.187	3401213	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.563	648902	10.4013402	385	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa					CAS #: 511-15-9		
7.804	588129	6.91670024	256	96	NIST05.L	116239	91

Data File: /chem/MSD1.i/s032910.b/s1c2910.d
Date : 29-MAR-2010 15:58
Client ID: RE46-10-13964
Sample Info: |2493290011966766|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

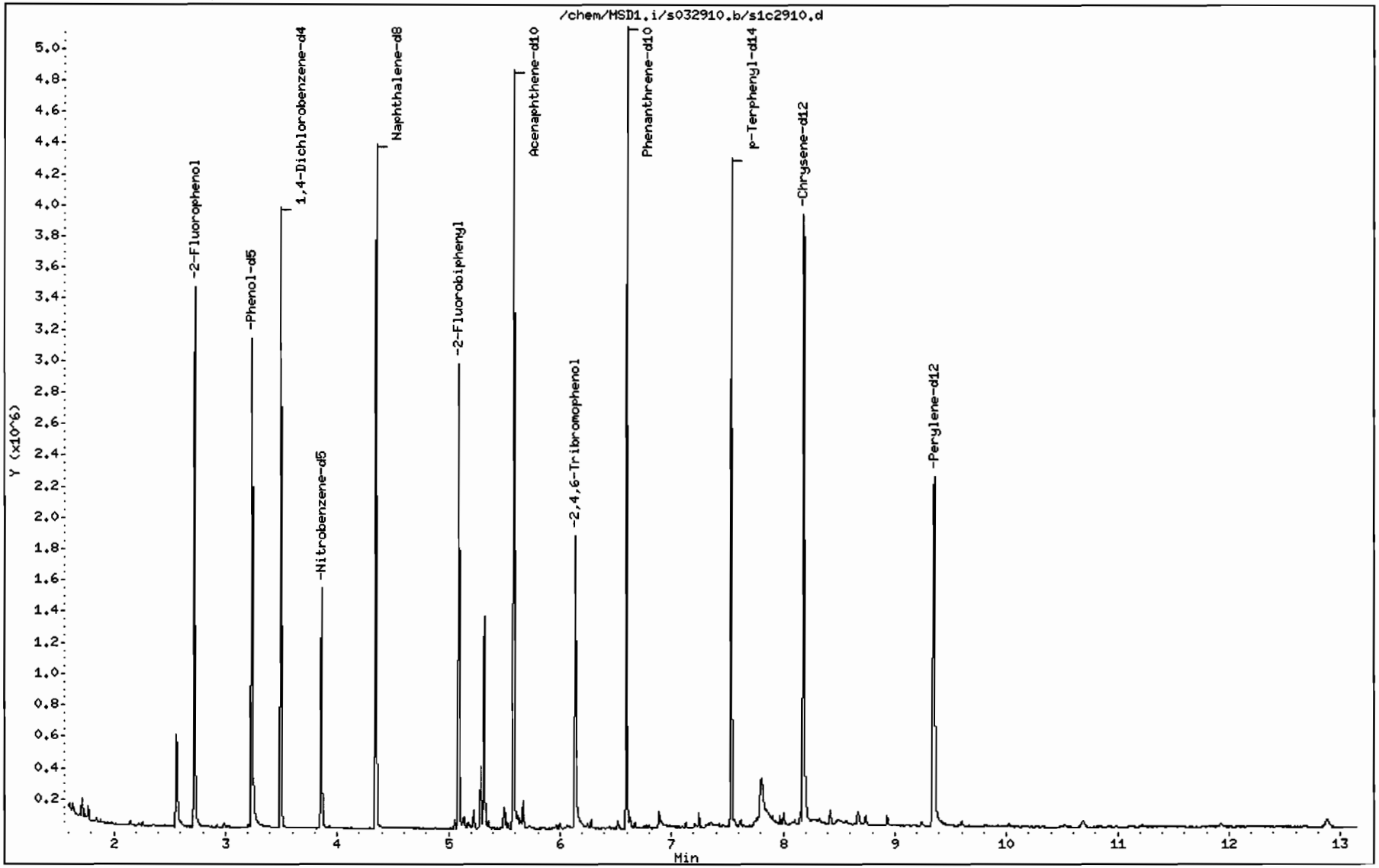

Data File: /chem/MSD1.i/s032910.b/s1c2910.d

Date : 29-MAR-2010 15:58

Client ID: RE46-10-13964

Instrument: MSD1.i

Sample Info: |249329001|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	38	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7950	25	C6H12O2	116

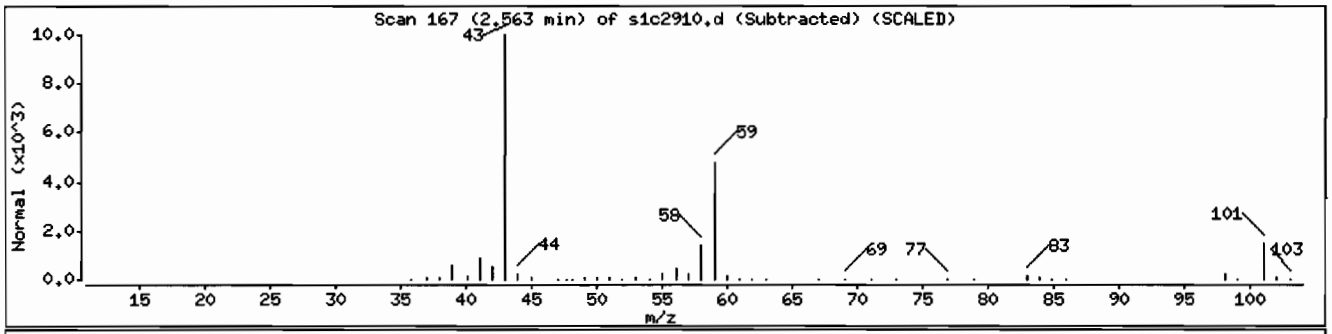

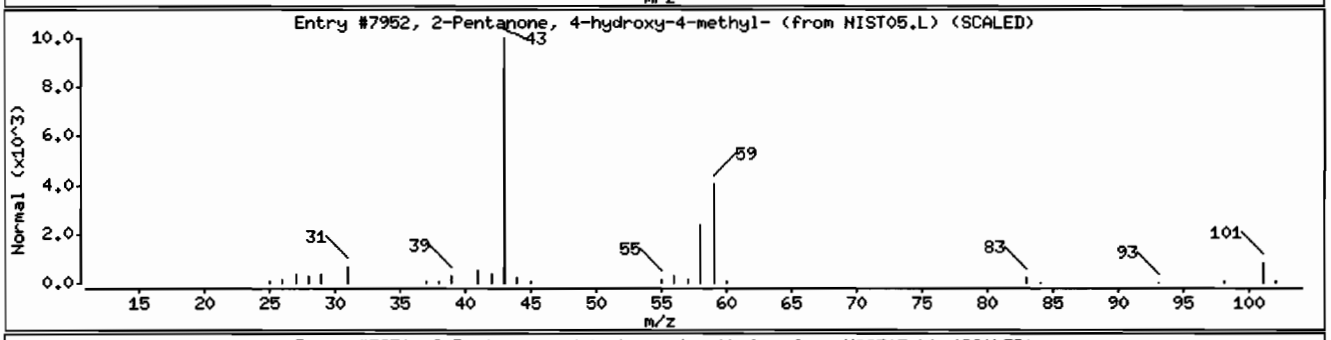

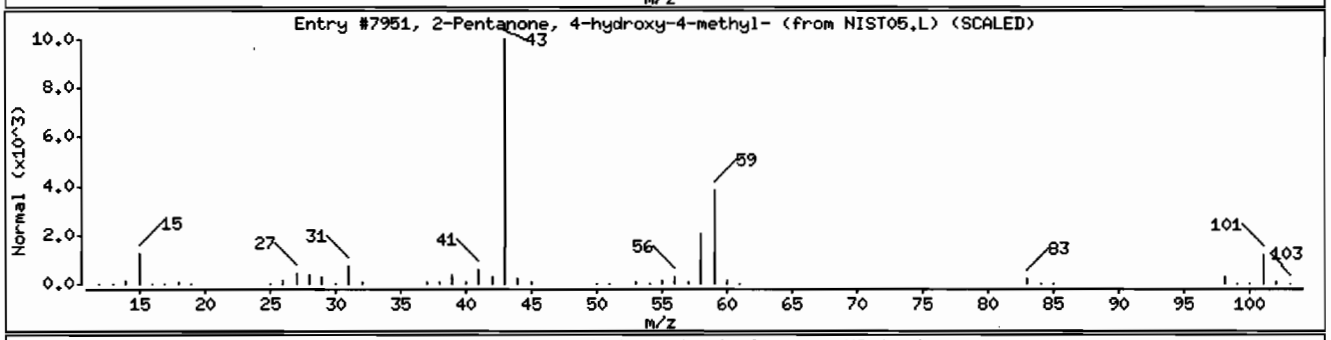

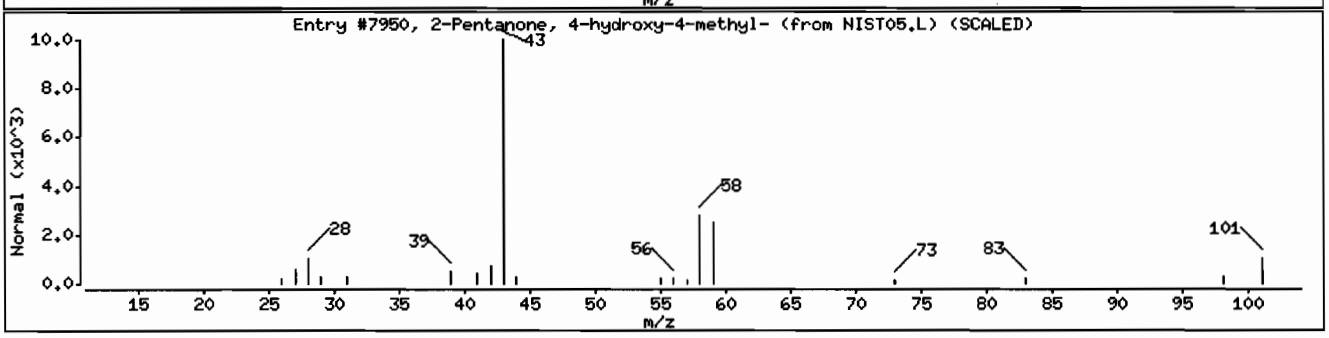

Data File: /chem/MSD1.i/s032910.b/s1c2910.d

Date : 29-MAR-2010 15:58

Client ID: RE46-10-13964

Instrument: MSD1.i

Sample Info: 1249329001196676611SVM11LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116239	96	C20H30O	286
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116238	96	C20H30O	286
Pyrrolidine, 1-[5-(1,3-benzodioxol-5-yl)	25924-78-1	NIST05.L	106209	42	C16H17NO3	271

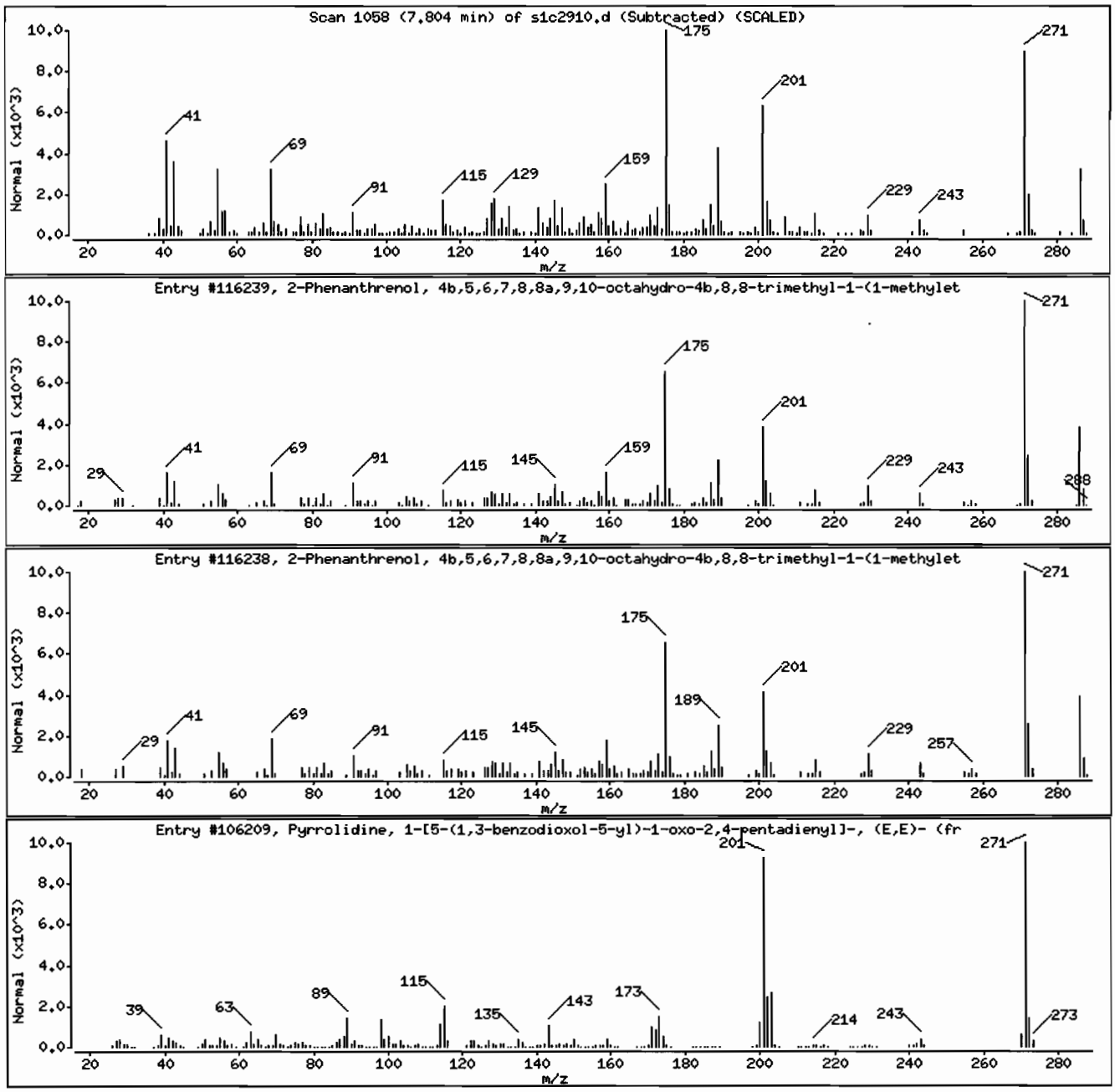

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249329004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13965**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 17:09**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2913.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	374	ug/kg	74.8	374
108-95-2	Phenol	U	374	ug/kg	74.8	374
95-57-8	2-Chlorophenol	U	374	ug/kg	74.8	374
106-46-7	1,4-Dichlorobenzene	U	374	ug/kg	74.8	374
621-64-7	N-Nitrosodipropylamine	U	374	ug/kg	74.8	374
59-50-7	4-Chloro-3-methylphenol	U	374	ug/kg	74.8	374
83-32-9	Acenaphthene	U	37.4	ug/kg	12.3	37.4
121-14-2	2,4-Dinitrotoluene	U	374	ug/kg	37.4	374
100-02-7	4-Nitrophenol	U	374	ug/kg	123	374
87-86-5	Pentachlorophenol	U	374	ug/kg	93.5	374
129-00-0	Pyrene	U	37.4	ug/kg	11.2	37.4
110-86-1	Pyridine	U	374	ug/kg	74.8	374
62-53-3	Aniline	U	374	ug/kg	112	374
111-44-4	bis(2-Chloroethyl) ether	U	374	ug/kg	74.8	374
541-73-1	1,3-Dichlorobenzene	U	374	ug/kg	74.8	374
100-51-6	Benzyl alcohol	U	374	ug/kg	112	374
95-50-1	1,2-Dichlorobenzene	U	374	ug/kg	74.8	374
108-60-1	bis(2-Chloroisopropyl)ether	U	374	ug/kg	74.8	374
95-48-7	o-Cresol	U	374	ug/kg	74.8	374
65794-96-9	m,p-Cresols	U	374	ug/kg	112	374
67-72-1	Hexachloroethane	U	374	ug/kg	74.8	374
98-95-3	Nitrobenzene	U	374	ug/kg	74.8	374
78-59-1	Isophorone	U	374	ug/kg	74.8	374
88-75-5	2-Nitrophenol	U	374	ug/kg	74.8	374
105-67-9	2,4-Dimethylphenol	U	374	ug/kg	131	374
111-91-1	bis(2-Chloroethoxy)methane	U	374	ug/kg	74.8	374
120-83-2	2,4-Dichlorophenol	U	374	ug/kg	74.8	374
65-85-0	Benzoic acid	U	748	ug/kg	187	748
91-20-3	Naphthalene	U	37.4	ug/kg	11.2	37.4
106-47-8	4-Chloroaniline	U	374	ug/kg	74.8	374
87-68-3	Hexachlorobutadiene	U	374	ug/kg	74.8	374
91-57-6	2-Methylnaphthalene	U	37.4	ug/kg	7.48	37.4
77-47-4	Hexachlorocyclopentadiene	U	374	ug/kg	74.8	374
88-06-2	2,4,6-Trichlorophenol	U	374	ug/kg	74.8	374
95-95-4	2,4,5-Trichlorophenol	U	374	ug/kg	74.8	374
91-58-7	2-Chloronaphthalene	U	37.4	ug/kg	12.3	37.4
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	374	ug/kg	74.8	374
99-09-2	3-Nitroaniline	U	374	ug/kg	74.8	374

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2430	Date Collected:	03/11/2010 12:00	Matrix:	S
Lab Sample ID:	249329004	Date Received:	03/13/2010 09:30	%Moisture:	11
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13965	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966766	Inst:	MSD1.I	Dilution:	1
Run Date:	03/29/2010 17:09	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	03/19/2010 11:31	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	s1c2913.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	374	ug/kg	74.8	374
606-20-2	2,6-Dinitrotoluene	U	374	ug/kg	37.4	374
208-96-8	Acenaphthylene	U	37.4	ug/kg	11.2	37.4
51-28-5	2,4-Dinitrophenol	U	748	ug/kg	142	748
132-64-9	Dibenzofuran	U	374	ug/kg	74.8	374
84-66-2	Diethylphthalate	U	374	ug/kg	74.8	374
86-73-7	Fluorene	U	37.4	ug/kg	11.2	37.4
7005-72-3	4-Chlorophenylphenylether	U	374	ug/kg	74.8	374
534-52-1	2-Methyl-4,6-dinitrophenol	U	374	ug/kg	74.8	374
100-01-6	4-Nitroaniline	U	374	ug/kg	112	374
	p-Nitroaniline					
122-39-4	Diphenylamine	U	374	ug/kg	74.8	374
122-66-7	Azobenzene	U	374	ug/kg	74.8	374
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	374	ug/kg	74.8	374
118-74-1	Hexachlorobenzene	U	374	ug/kg	74.8	374
85-01-8	Phenanthrene	U	37.4	ug/kg	11.2	37.4
120-12-7	Anthracene	U	37.4	ug/kg	7.48	37.4
84-74-2	Di-n-butylphthalate	U	374	ug/kg	74.8	374
206-44-0	Fluoranthene	U	37.4	ug/kg	11.2	37.4
85-68-7	Butylbenzylphthalate	U	374	ug/kg	74.8	374
56-55-3	Benzo(a)anthracene	U	37.4	ug/kg	11.2	37.4
91-94-1	3,3'-Dichlorobenzidine	U	374	ug/kg	112	374
218-01-9	Chrysene	U	37.4	ug/kg	11.2	37.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	374	ug/kg	74.8	374
117-84-0	Di-n-octylphthalate	U	374	ug/kg	74.8	374
205-99-2	Benzo(b)fluoranthene	U	37.4	ug/kg	11.2	37.4
207-08-9	Benzo(k)fluoranthene	U	37.4	ug/kg	11.2	37.4
50-32-8	Benzo(a)pyrene	U	37.4	ug/kg	11.2	37.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.4	ug/kg	11.2	37.4
53-70-3	Dibenzo(a,h)anthracene	U	37.4	ug/kg	11.2	37.4
191-24-2	Benzo(ghi)perylene	U	37.4	ug/kg	11.2	37.4
120-82-1	1,2,4-Trichlorobenzene	U	374	ug/kg	74.8	374

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	281	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2913.d
Lab Smp Id: 249329004 Client Smp ID: RE46-10-13965
Inj Date : 29-MAR-2010 17:09
Operator : AMY Inst ID: MSD1.i
Smp Info : |249329004|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2430.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	11.03770	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.498	3.504	(1.000)	395520	40.0000	
* 29 Naphthalene-d8	136	4.351	4.351	(1.000)	1550448	40.0000	
* 46 Acenaphthene-d10	164	5.586	5.592	(1.000)	790329	40.0000	
* 67 Phenanthrene-d10	188	6.598	6.598	(1.000)	1408204	40.0000	
* 91 Chrysene-d12	240	8.175	8.175	(1.000)	1184571	40.0000	
* 98 Perylene-d12	264	9.339	9.339	(1.000)	967813	40.0000	
$ 3 2-Fluorophenol	112	2.728	2.716	(0.780)	491467	48.2551	1800
$ 5 Phenol-d5	99	3.240	3.240	(0.926)	581707	46.8980	1750
$ 20 Nitrobenzene-d5	82	3.857	3.863	(0.886)	240683	25.3101	946
$ 39 2-Fluorobiphenyl	172	5.092	5.093	(0.912)	522382	23.9329	895
$ 60 2,4,6-Tribromophenol	329	6.139	6.139	(1.099)	115451	44.5570	1670
$ 81 p-Terphenyl-d14	244	7.528	7.528	(0.921)	554655	28.0854	1050

ION RATIO REPORT

SV REPORT

Data file: s1c2913.d
Report Date: 03/30/2010 16:54
Lab. ID: 249329004 SampleType: SAMPLE
Injection Date: 29-MAR-2010 17:09
Operator: AMY Instrument: MSD1.i
Sample Info: |249329004|966766|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2430
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	26859	3.24	3.30	80-120	100	( )
93	758	3.27	3.30	196-256	3	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	32529	3.86	3.75	80-120	100	(T)
42	22043	3.86	3.75	47-107	68	(T)
41 m-Nitroaniline			CAS#: 99-09-2			
138	106	5.59	5.55	80-120	100	( )
92	3548	5.59	5.55	75-135	3321	(Q)
108	14112	5.59	5.55	0- 40	13207	(Q)
43 Dimethylphthalate			CAS#: 131-11-3			
163	144940	5.59	5.37	80-120	100	(T)
164	790329	5.59	5.37	0- 40	545	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	101403	5.59	5.43	80-120	100	(T)
63	1663	5.59	5.43	49-109	2	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	101403	5.59	5.72	80-120	100	(T)
89	1347	5.59	5.71	37- 97	1	(QT)
63	1663	5.59	5.71	20- 80	2	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53	Fluorene		CAS#: 86-73-7			
166	7671	6.13	5.97	80-120	100	(T)
165	7753	6.13	5.97	61-121	101	(T)
167	2880	6.13	5.97	0- 43	38	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2913.d
Lab Smp Id: 249329004 Client Smp ID: RE46-10-13965
Inj Date : 29-MAR-2010 17:09
Operator : AMY Inst ID: MSD1.i
Smp Info : |249329004|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2430.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	11.03770	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.498	2402786	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.563	452154	7.52716251	281	0		0	10

Data File: /chem/MSD1.i/s032910.b/s1c2913.d

Date : 29-MAR-2010 17:09

Client ID: RE46-10-13965

Sample Info: |2493290041966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY

Column diameter: 0.20

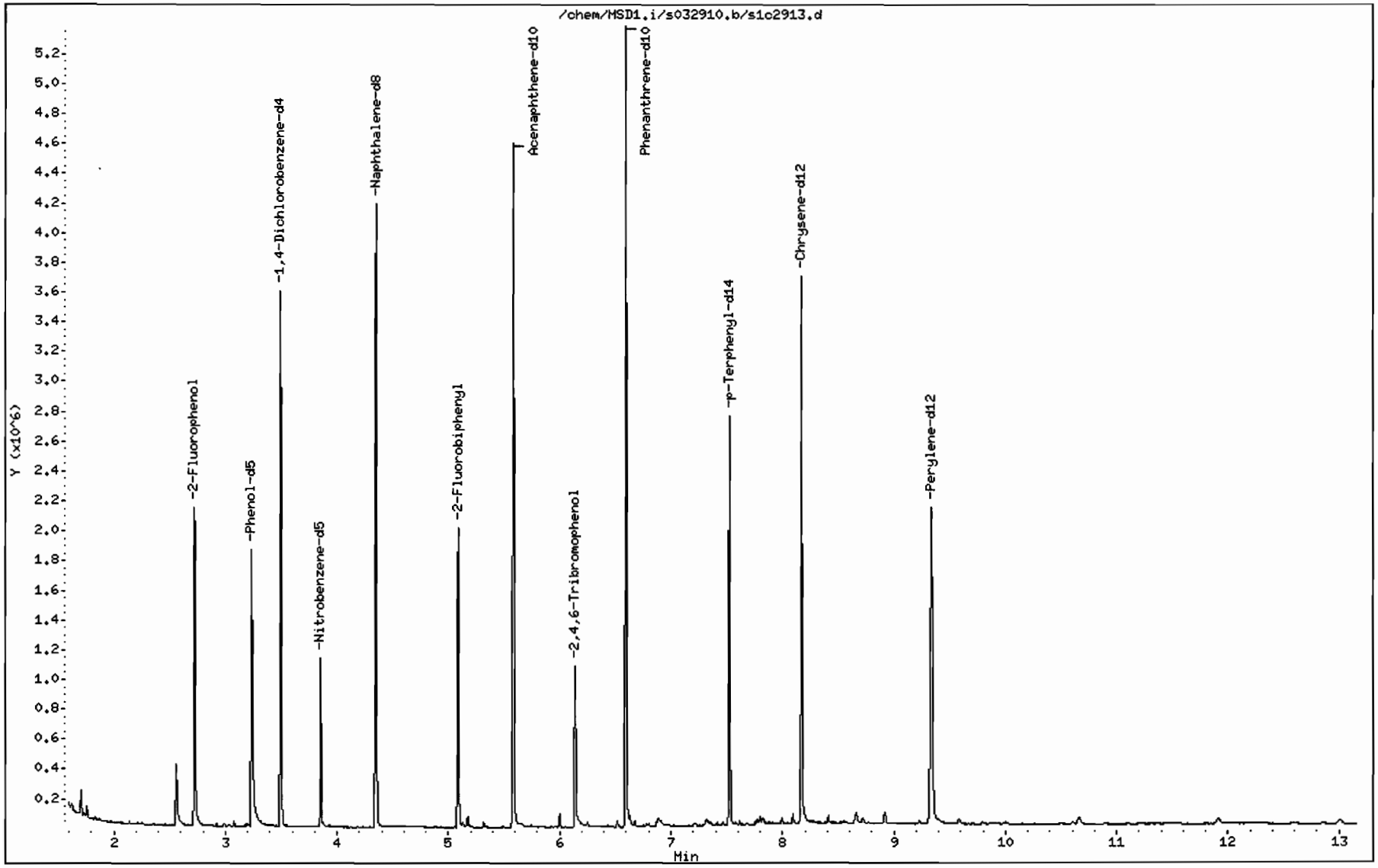

Data File: /chem/MSD1.i/s032910.b/s1c2913.d

Date : 29-MAR-2010 17:09

Client ID: RE46-10-13965

Instrument: MSD1.i

Sample Info: |249329004|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	38	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	27	C4H7NO2	101

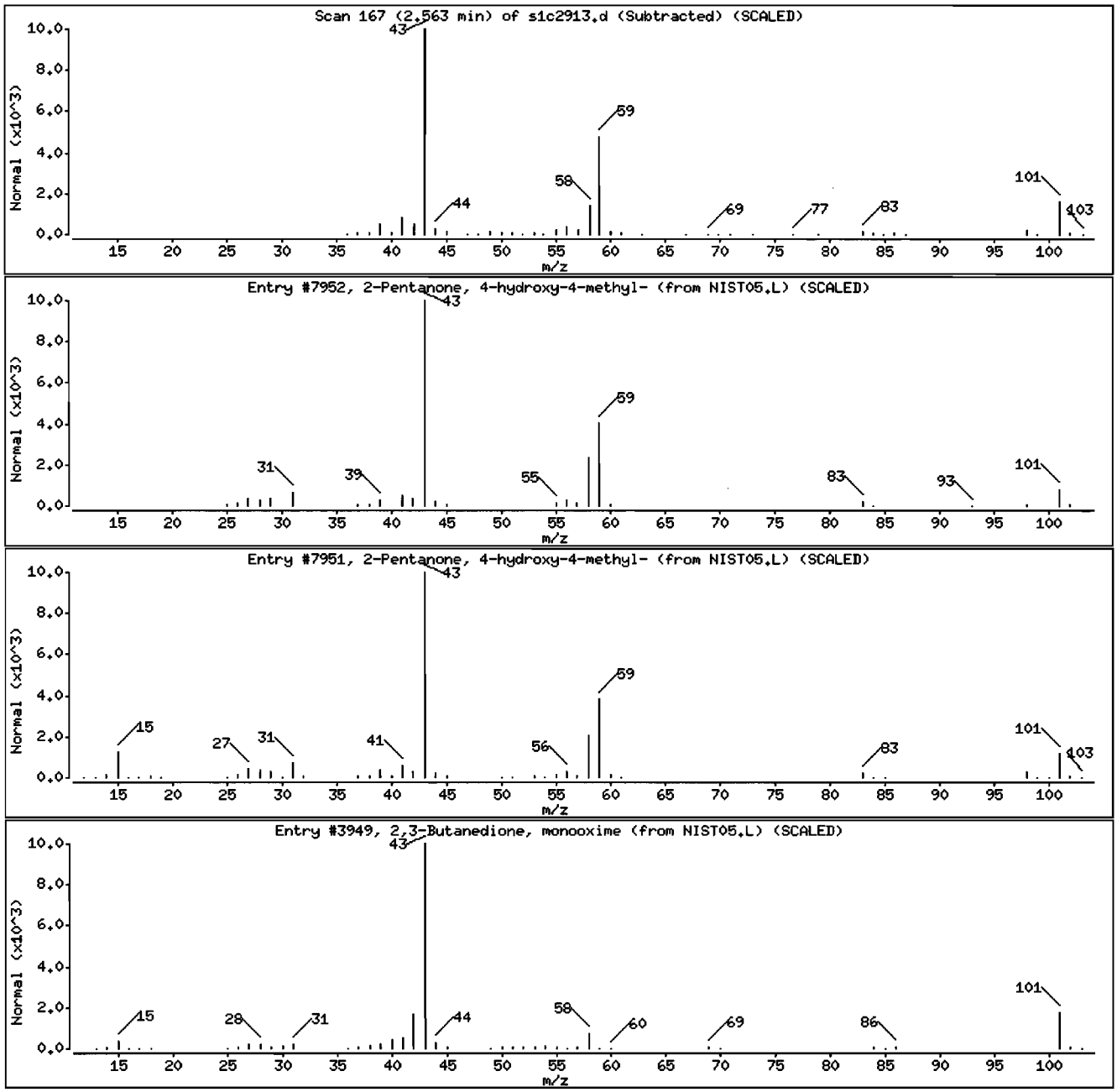

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249329002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**16.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13966**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 16:21**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2911.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	397	ug/kg	79.4	397
108-95-2	Phenol	U	397	ug/kg	79.4	397
95-57-8	2-Chlorophenol	U	397	ug/kg	79.4	397
106-46-7	1,4-Dichlorobenzene	U	397	ug/kg	79.4	397
621-64-7	N-Nitrosodipropylamine	U	397	ug/kg	79.4	397
59-50-7	4-Chloro-3-methylphenol	U	397	ug/kg	79.4	397
83-32-9	Acenaphthene	U	39.7	ug/kg	13.1	39.7
121-14-2	2,4-Dinitrotoluene	U	397	ug/kg	39.7	397
100-02-7	4-Nitrophenol	U	397	ug/kg	131	397
87-86-5	Pentachlorophenol	U	397	ug/kg	99.2	397
129-00-0	Pyrene	U	39.7	ug/kg	11.9	39.7
110-86-1	Pyridine	U	397	ug/kg	79.4	397
62-53-3	Aniline	U	397	ug/kg	119	397
111-44-4	bis(2-Chloroethyl) ether	U	397	ug/kg	79.4	397
541-73-1	1,3-Dichlorobenzene	U	397	ug/kg	79.4	397
100-51-6	Benzyl alcohol	U	397	ug/kg	119	397
95-50-1	1,2-Dichlorobenzene	U	397	ug/kg	79.4	397
108-60-1	bis(2-Chloroisopropyl)ether	U	397	ug/kg	79.4	397
95-48-7	o-Cresol	U	397	ug/kg	79.4	397
65794-96-9	m,p-Cresols	U	397	ug/kg	119	397
67-72-1	Hexachloroethane	U	397	ug/kg	79.4	397
98-95-3	Nitrobenzene	U	397	ug/kg	79.4	397
78-59-1	Isophorone	U	397	ug/kg	79.4	397
88-75-5	2-Nitrophenol	U	397	ug/kg	79.4	397
105-67-9	2,4-Dimethylphenol	U	397	ug/kg	139	397
111-91-1	bis(2-Chloroethoxy)methane	U	397	ug/kg	79.4	397
120-83-2	2,4-Dichlorophenol	U	397	ug/kg	79.4	397
65-85-0	Benzoic acid	U	794	ug/kg	198	794
91-20-3	Naphthalene	U	39.7	ug/kg	11.9	39.7
106-47-8	4-Chloroaniline	U	397	ug/kg	79.4	397
87-68-3	Hexachlorobutadiene	U	397	ug/kg	79.4	397
91-57-6	2-Methylnaphthalene	U	39.7	ug/kg	7.94	39.7
77-47-4	Hexachlorocyclopentadiene	U	397	ug/kg	79.4	397
88-06-2	2,4,6-Trichlorophenol	U	397	ug/kg	79.4	397
95-95-4	2,4,5-Trichlorophenol	U	397	ug/kg	79.4	397
91-58-7	2-Chloronaphthalene	U	39.7	ug/kg	13.1	39.7
88-74-4	2-Nitroaniline	U	397	ug/kg	79.4	397
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	397	ug/kg	79.4	397

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249329002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**16.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13966**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 16:21**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2911.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	397	ug/kg	79.4	397
606-20-2	2,6-Dinitrotoluene	U	397	ug/kg	39.7	397
208-96-8	Acenaphthylene	U	39.7	ug/kg	11.9	39.7
51-28-5	2,4-Dinitrophenol	U	794	ug/kg	151	794
132-64-9	Dibenzofuran	U	397	ug/kg	79.4	397
84-66-2	Diethylphthalate	U	397	ug/kg	79.4	397
86-73-7	Fluorene	U	39.7	ug/kg	11.9	39.7
7005-72-3	4-Chlorophenylphenylether	U	397	ug/kg	79.4	397
534-52-1	2-Methyl-4,6-dinitrophenol	U	397	ug/kg	79.4	397
100-01-6	4-Nitroaniline	U	397	ug/kg	119	397
	p-Nitroaniline					
122-39-4	Diphenylamine	U	397	ug/kg	79.4	397
122-66-7	Azobenzene	U	397	ug/kg	79.4	397
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	397	ug/kg	79.4	397
118-74-1	Hexachlorobenzene	U	397	ug/kg	79.4	397
85-01-8	Phenanthrene	U	39.7	ug/kg	11.9	39.7
120-12-7	Anthracene	U	39.7	ug/kg	7.94	39.7
84-74-2	Di-n-butylphthalate	U	397	ug/kg	79.4	397
206-44-0	Fluoranthene	U	39.7	ug/kg	11.9	39.7
85-68-7	Butylbenzylphthalate	U	397	ug/kg	79.4	397
56-55-3	Benzo(a)anthracene	U	39.7	ug/kg	11.9	39.7
91-94-1	3,3'-Dichlorobenzidine	U	397	ug/kg	119	397
218-01-9	Chrysene	U	39.7	ug/kg	11.9	39.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	397	ug/kg	79.4	397
117-84-0	Di-n-octylphthalate	U	397	ug/kg	79.4	397
205-99-2	Benzo(b)fluoranthene	U	39.7	ug/kg	11.9	39.7
207-08-9	Benzo(k)fluoranthene	U	39.7	ug/kg	11.9	39.7
50-32-8	Benzo(a)pyrene	U	39.7	ug/kg	11.9	39.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.7	ug/kg	11.9	39.7
53-70-3	Dibenzo(a,h)anthracene	U	39.7	ug/kg	11.9	39.7
191-24-2	Benzo(ghi)perylene	U	39.7	ug/kg	11.9	39.7
120-82-1	1,2,4-Trichlorobenzene	U	397	ug/kg	79.4	397

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	343	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2911.d
Lab Smp Id: 249329002 Client Smp ID: RE46-10-13966
Inj Date : 29-MAR-2010 16:21
Operator : AMY Inst ID: MSD1.i
Smp Info : |249329002|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2430.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	16.23620	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.498	3.504	(1.000)	361097	40.0000	
* 29 Naphthalene-d8	136	4.351	4.351	(1.000)	1393651	40.0000	
* 46 Acenaphthene-d10	164	5.587	5.592	(1.000)	721718	40.0000	
* 67 Phenanthrene-d10	188	6.598	6.598	(1.000)	1258501	40.0000	
* 91 Chrysene-d12	240	8.175	8.175	(1.000)	1023198	40.0000	
* 98 Perylene-d12	264	9.339	9.339	(1.000)	846137	40.0000	
$ 3 2-Fluorophenol	112	2.722	2.716	(0.778)	489328	52.6252	2090
$ 5 Phenol-d5	99	3.240	3.240	(0.926)	568927	50.2402	1990
$ 20 Nitrobenzene-d5	82	3.857	3.863	(0.886)	226715	26.5235	1050
$ 39 2-Fluorobiphenyl	172	5.093	5.093	(0.912)	493663	24.7672	983
$ 60 2,4,6-Tribromophenol	329	6.139	6.139	(1.099)	103672	43.8148	1740
$ 81 p-Terphenyl-d14	244	7.528	7.528	(0.921)	557197	32.6639	1300

ION RATIO REPORT

SV REPORT

Data file: s1c2911.d
Report Date: 03/30/2010 16:52
Lab. ID: 249329002 SampleType: SAMPLE
Injection Date: 29-MAR-2010 16:21
Operator: AMY Instrument: MSD1.i
Sample Info: |249329002|966766|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2430
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	24992	3.24	3.30	80-120	100	( )
93	190	3.27	3.30	196-256	1	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	31172	3.86	3.75	80-120	100	(T)
42	20119	3.86	3.75	47-107	65	(T)
41 m-Nitroaniline			CAS#: 99-09-2			
138	129	5.59	5.55	80-120	100	( )
92	3420	5.59	5.55	75-135	2633	(Q)
108	13288	5.59	5.55	0- 40	10229	(Q)
43 Dimethylphthalate			CAS#: 131-11-3			
163	132014	5.59	5.37	80-120	100	(T)
164	721718	5.59	5.37	0- 40	547	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	93043	5.59	5.43	80-120	100	(T)
63	1386	5.58	5.43	49-109	1	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	93043	5.59	5.72	80-120	100	(T)
89	1164	5.59	5.71	37- 97	1	(QT)
63	1386	5.58	5.71	20- 80	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	6685	6.13	5.97	80-120	100	(T)
165	7632	6.14	5.97	61-121	114	(T)
167	2484	6.13	5.97	0- 43	37	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2911.d
Lab Smp Id: 249329002 Client Smp ID: RE46-10-13966
Inj Date : 29-MAR-2010 16:21
Operator : AMY Inst ID: MSD1.i
Smp Info : |249329002|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2430.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	16.23620	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.498	2194491	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.557	474572	8.65024765	343	0		0	10

Data File: /chem/MSD1.i/s032910.b/s1c2911.d

Page 1

Date : 29-MAR-2010 16:21

Client ID: RE46-10-13966

Instrument: MSD1.i

Sample Info: |2493290021966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

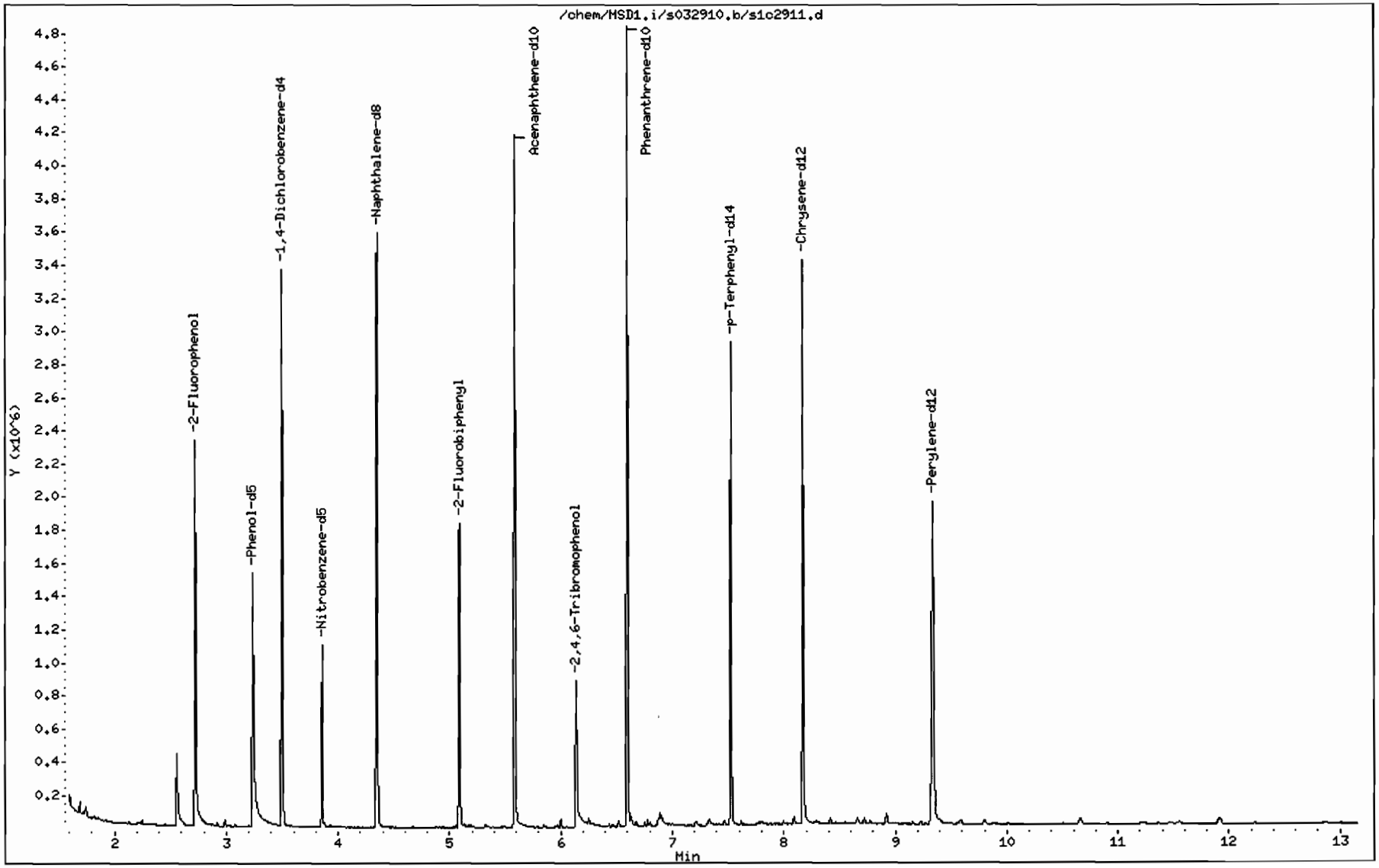

Data File: /chem/MSD1.i/s032910.b/s1c2911.d

Date : 29-MAR-2010 16:21

Client ID: RE46-10-13966

Instrument: MSD1.i

Sample Info: 1249329002|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7950	23	C6H12O2	116

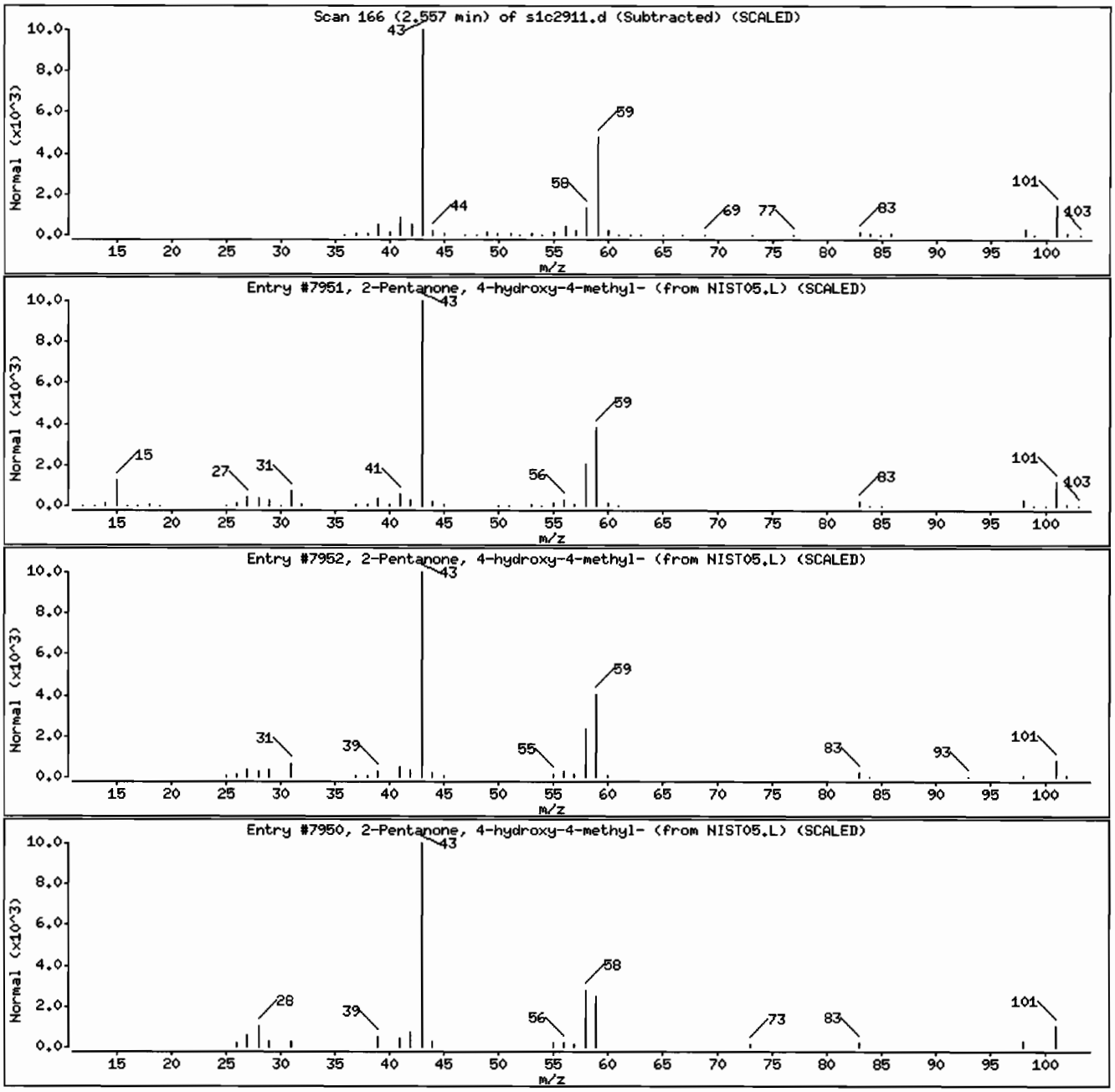

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 29-Mar-2010 17:03

Calibration History

Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Start Cal Date: 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
15-MAR-2010 17:03	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1515.d
Cal Level: 2 , Cal Amount: 10.00000		
17-MAR-2010 00:15	nev	/chem/MSD1.i/s031610.b/s1c1616.d
16-MAR-2010 21:51	hex	/chem/MSD1.i/s031610.b/s1c1610.d
16-MAR-2010 19:03	pest	/chem/MSD1.i/s031610.b/s1c1603.d
15-MAR-2010 20:53	ap12	/chem/MSD1.i/s031510a.b/s1c1523.d
15-MAR-2010 17:59	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1517.d
Cal Level: 3 , Cal Amount: 20.00000		
17-MAR-2010 00:39	nev	/chem/MSD1.i/s031610.b/s1c1617.d
16-MAR-2010 22:15	hex	/chem/MSD1.i/s031610.b/s1c1611.d
16-MAR-2010 19:28	pest	/chem/MSD1.i/s031610.b/s1c1604.d
15-MAR-2010 21:17	ap12	/chem/MSD1.i/s031510a.b/s1c1524.d
15-MAR-2010 18:28	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1518.d
Cal Level: 4 , Cal Amount: 40.00000		
17-MAR-2010 01:03	nev	/chem/MSD1.i/s031610.b/s1c1618.d
16-MAR-2010 22:40	hex	/chem/MSD1.i/s031610.b/s1c1612.d
16-MAR-2010 19:52	pest	/chem/MSD1.i/s031610.b/s1c1605.d
15-MAR-2010 21:40	ap12	/chem/MSD1.i/s031510a.b/s1c1525.d
15-MAR-2010 17:31	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1516.d
Cal Level: 5 , Cal Amount: 50.00000		
17-MAR-2010 01:27	nev	/chem/MSD1.i/s031610.b/s1c1619.d
16-MAR-2010 23:03	hex	/chem/MSD1.i/s031610.b/s1c1613.d
16-MAR-2010 20:16	pest	/chem/MSD1.i/s031610.b/s1c1606.d
15-MAR-2010 22:04	ap12	/chem/MSD1.i/s031510a.b/s1c1526.d
15-MAR-2010 18:57	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1519.d
Cal Level: 6 , Cal Amount: 80.00000		
17-MAR-2010 01:50	nev	/chem/MSD1.i/s031610.b/s1c1620.d
16-MAR-2010 23:27	hex	/chem/MSD1.i/s031610.b/s1c1614.d
16-MAR-2010 20:39	pest	/chem/MSD1.i/s031610.b/s1c1607.d
15-MAR-2010 22:27	ap12	/chem/MSD1.i/s031510a.b/s1c1527.d
15-MAR-2010 19:26	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1520.d
Cal Level: 7 , Cal Amount: 100.00000		

17-MAR-2010 02:13	nev	/chem/MSD1.i/s031610.b/s1c1621.d
16-MAR-2010 23:51	hex	/chem/MSD1.i/s031610.b/s1c1615.d
16-MAR-2010 21:03	pest	/chem/MSD1.i/s031610.b/s1c1608.d
15-MAR-2010 22:50	ap12	/chem/MSD1.i/s031510a.b/s1c1528.d
15-MAR-2010 19:55	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1521.d

Cal Level: 8 , Cal Amount: 120.00000		
17-MAR-2010 02:37	nev	/chem/MSD1.i/s031610.b/s1c1622.d
16-MAR-2010 21:28	pest	/chem/MSD1.i/s031610.b/s1c1609.d
15-MAR-2010 23:14	ap12	/chem/MSD1.i/s031510a.b/s1c1529.d
15-MAR-2010 20:24	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1522.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
29-MAR-2010 10:17	MEGAIICARE	/chem/MSD1.i/s032910.b/s1c2903.d
Ccal Level: 4 , Ccal Amount: 40.0		
29-MAR-2010 14:05	nev	/chem/MSD1.i/s032910.b/s1c2907.d
Ccal Level: 4 , Ccal Amount: 40.0		
29-MAR-2010 12:12	nev	/chem/MSD1.i/s032910.b/s1c2906.d
Ccal Level: 4 , Ccal Amount: 40.0		
29-MAR-2010 11:48	pest	/chem/MSD1.i/s032910.b/s1c2905.d
Ccal Level: 4 , Ccal Amount: 40.0		
29-MAR-2010 11:24	ap12	/chem/MSD1.i/s032910.b/s1c2904.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Calibration File Names:
Level 1: /chem/MSD1.i/s031510a.b/s1c1515.d
Level 2: /chem/MSD1.i/s031610.b/s1c1616.d
Level 3: /chem/MSD1.i/s031610.b/s1c1617.d
Level 4: /chem/MSD1.i/s031610.b/s1c1618.d
Level 5: /chem/MSD1.i/s031610.b/s1c1619.d
Level 6: /chem/MSD1.i/s031610.b/s1c1620.d
Level 7: /chem/MSD1.i/s031610.b/s1c1621.d
Level 8: /chem/MSD1.i/s031610.b/s1c1622.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.48131	0.55093	0.57608	0.58157	0.60481					
	0.64746	0.60610					AVRG		0.57832		9.04876
2 Pyridine	+++++	0.84632	0.93658	0.92242	0.81225	0.93849					
	0.82504	0.92570					AVRG		0.88669		6.33692
4 Aniline	+++++	0.54420	0.56799	0.56510	0.56874	0.56005					
	0.58635	0.57409					AVRG		0.56665		2.27765
209 Benzaldehyde	+++++	0.86759	0.87971	0.88058	0.86585	0.83648					
	0.83171	0.80849					AVRG		0.85292		3.23204
6 Phenol	+++++	1.29398	1.34703	1.35133	1.33620	1.30948					
	1.36336	1.30191					AVRG		1.32904		2.03692

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Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	+++++	0.86870	0.89762	0.93750	0.92566	0.91584					
	0.93301	0.90455					AVRG		0.91184		2.62192
8 2-Chlorophenol	+++++	1.10578	1.14390	1.14227	1.13239	1.10735					
	1.13818	1.09907					AVRG		1.12413		1.71559
203 n-Decane	+++++	1.51348	1.55612	1.50258	1.42479	1.38387					
	1.36005	1.29418					AVRG		1.43358		6.58986
9 1,3-Dichlorobenzene	+++++	1.27497	1.30790	1.28451	1.23875	1.22043					
	1.24970	1.19894					AVRG		1.25360		3.03485
11 1,4-Dichlorobenzene	+++++	1.28353	1.33282	1.29429	1.26258	1.24583					
	1.25252	1.18863					AVRG		1.26574		3.55650
12 Benzyl alcohol	+++++	0.52933	0.57579	0.60613	0.60166	0.58504					
	0.61392	0.58420					AVRG		0.58515		4.80559
13 1,2-Dichlorobenzene	+++++	1.20310	1.23454	1.20561	1.18595	1.15496					
	1.17196	1.12464					AVRG		1.18297		3.06630
14 bis(2-Chloroisopropyl)ether	+++++	2.00601	2.04332	2.00341	1.94439	1.86355					
	1.89800	1.81476					AVRG		1.93906		4.33321
15 o-Cresol	+++++	0.88156	0.87536	0.85555	0.84949	0.82834					
	0.85588	0.82207					AVRG		0.85261		2.58113

GEL Laboratories LLC

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Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
16 Acetophenone	+++++	1.18052	1.19161	1.20084	1.18098	1.16240					
	1.15538	1.12895					AVRG		1.17153		2.08764
17 N-Nitrosodipropylamine	0.62960	0.73420	0.75918	0.74992	0.75691	0.75710					
	0.65547	0.65162					AVRG		0.71175		7.84783
18 m,p-Cresols	+++++	1.06680	1.11671	1.10321	1.09614	1.08953					
	1.16869	1.09451					AVRG		1.10508		2.88155
19 Hexachloroethane	+++++	0.46679	0.49780	0.49841	0.48367	0.47761					
	0.48408	0.45898					AVRG		0.48105		3.06027
21 Nitrobenzene	+++++	0.28445	0.28425	0.27510	0.26249	0.25339					
	0.24370	0.23130					AVRG		0.26210		7.82293
22 Isophorone	+++++	0.51247	0.51789	0.51616	0.49095	0.47802					
	0.46663	0.44451					AVRG		0.48952		5.73271
23 2-Nitrophenol	+++++	0.13772	0.14310	0.14080	0.13759	0.13161					
	0.12885	0.12698					AVRG		0.13523		4.54421
24 2,4-Dimethylphenol	+++++	0.25370	0.26120	0.25278	0.24221	0.23144					
	0.22972	0.22058					AVRG		0.24166		6.18897
25 bis(2-Chloroethoxy)methane	+++++	0.32251	0.32278	0.31582	0.29812	0.28926					
	0.27986	0.26749					AVRG		0.29940		7.28569

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Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.21230	0.21517	0.21170	0.20284	0.19488					
	0.19174	0.18275					AVRG		0.20163		6.07289
27 Benzoic acid	+++++	+++++	0.10588	0.11678	0.12828	0.14941					
	0.15166	0.13535					AVRG		0.13123		13.73773
28 1,2,4-Trichlorobenzene	+++++	0.27425	0.27115	0.26365	0.24765	0.23306					
	0.22478	0.21188					AVRG		0.24663		9.82642
30 Naphthalene	0.93565	0.88535	0.87638	0.84378	0.79155	0.72952					
	0.70721	0.64855					AVRG		0.80225		12.46317
204 alpha-Terpineol	+++++	0.25055	0.24745	0.24511	0.22871	0.21434					
	0.20767	0.19325					AVRG		0.22672		9.82239
31 4-Chloroaniline	+++++	0.36850	0.39383	0.40557	0.28121	0.36732					
	0.35713	0.34387					AVRG		0.35963		11.25009
189 Caprolactam	+++++	0.07102	0.07266	0.06483	0.06266	0.06878					
	0.06299	0.06698					AVRG		0.06713		5.79727
32 Hexachlorobutadiene	+++++	0.15412	0.15407	0.14923	0.13864	0.13134					
	0.12715	0.11827					AVRG		0.13897		10.12939
33 4-Chloro-3-methylphenol	+++++	0.22047	0.22621	0.22536	0.20543	0.20769					
	0.19229	0.19532					AVRG		0.21040		6.61598

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Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.56372	0.55542	0.55121	0.53770	0.50774	0.46650					
	0.45984	0.43246					AVRG		0.50932		9.91095
35 1-Methylnaphthalene	0.56082	0.54281	0.54230	0.53093	0.49657	0.46597					
	0.44390	0.41799					AVRG		0.50016		10.50358
36 Hexachlorocyclopentadiene	+++++	0.22574	0.25617	0.26823	0.27221	0.25304					
	0.25610	0.23969					AVRG		0.25303		6.33373
208 1,1'-Biphenyl	+++++	1.26360	1.27978	1.23727	1.23785	1.17683					
	1.14450	1.11135					AVRG		1.20731		5.27488
205 2,3-Dichloroaniline	+++++	0.53876	0.54284	0.54261	0.52433	0.51018					
	0.51581	0.49471					AVRG		0.52418		3.51338
37 2,4,6-Trichlorophenol	+++++	0.29134	0.30885	0.30643	0.29867	0.28919					
	0.29712	0.28886					AVRG		0.29721		2.71658
38 2,4,5-Trichlorophenol	+++++	0.30519	0.33304	0.33769	0.33698	0.32356					
	0.30453	0.28641					AVRG		0.31820		6.21690
40 2-Chloronaphthalene	0.98550	0.99053	1.01566	0.98277	0.94552	0.92134					
	0.92529	0.89872					AVRG		0.95817		4.29147
42 o-Nitroaniline	+++++	0.24888	0.27748	0.27777	0.28022	0.27333					
	0.28650	0.28000					AVRG		0.27488		4.41359

GEL Laboratories LLC

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Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
41 m-Nitroaniline	+++++	28007	80600	219453	340348	512860					
	684808	821624					LINR	0.18134	0.26460		0.99898
43 Dimethylphthalate	+++++	1.14003	1.16194	1.14175	1.10205	1.07794					
	1.09725	1.07365					AVRG		1.11352		3.08852
44 2,6-Dinitrotoluene	+++++	0.25273	0.26441	0.26462	0.25689	0.25242					
	0.26499	0.25359					AVRG		0.25852		2.29604
45 Acenaphthylene	1.52722	1.57642	1.63607	1.60105	1.52856	1.47925					
	1.51676	1.43231					AVRG		1.53720		4.28288
47 Acenaphthene	1.01963	1.01169	1.02608	1.00468	0.96322	0.93979					
	0.94089	0.91056					AVRG		0.97707		4.49269
48 2,4-Dinitrophenol	+++++	+++++	46048	105894	168875	256090					
	381316	452254					LINR	0.28796	0.15040		0.99203
49 Dibenzofuran	+++++	1.35528	1.38752	1.35336	1.30876	1.26147					
	1.29890	1.22495					AVRG		1.31289		4.35277
50 2,4-Dinitrotoluene	+++++	0.30395	0.32720	0.32686	0.32764	0.31655					
	0.32953	0.32289					AVRG		0.32209		2.82172
51 Diethylphthalate	+++++	1.14920	1.17067	1.17703	1.10199	1.07083					
	1.10123	1.03953					AVRG		1.11578		4.64501

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Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
52 4-Nitrophenol	+++++	0.14092	0.17709	0.18373	0.18296	0.18282					
	0.19690	0.19984					AVRG		0.18061		10.70634
53 Fluorene	1.15179	1.13424	1.17552	1.11825	1.09833	1.04292					
	1.06955	1.01494					AVRG		1.10069		5.01271
54 4-Chlorophenylphenylether	+++++	0.56288	0.56955	0.56309	0.54739	0.51544					
	0.52901	0.48602					AVRG		0.53905		5.67579
55 2-Methyl-4,6-dinitrophenol	+++++	0.06579	0.08576	0.09355	0.09827	0.09719					
	0.10532	0.10450					AVRG		0.09291		14.72211
56 p-Nitroaniline	+++++	44466	85988	178203	291032	459551					
	638067	788664					LINR	0.20815	0.24971		0.99328
133 Diphenylamine	+++++	0.53589	0.52271	0.52892	0.50868	0.49430					
	0.49769	0.48739					AVRG		0.51080		3.65934
58 1,2-Diphenylhydrazine	+++++	0.59750	0.61143	0.61936	0.57900	0.56697					
	0.58709	0.55120					AVRG		0.58751		4.11062
59 Tributylphosphate	+++++	1.14754	1.07503	1.20023	1.18306	1.15601					
	1.12250	1.11183					AVRG		1.14231		3.76162
61 4-Bromophenylphenylether	+++++	0.18230	0.18729	0.19059	0.17585	0.17909					
	0.17658	0.17255					AVRG		0.18061		3.59651

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.20285	0.20502	0.20403	0.19105	0.19097					
	0.19090	0.18723					AVRG		0.19601		3.87134
207 Atrazine	+++++	0.04345	0.04700	0.04687	0.04368	0.04033					
	0.04026	0.03729					AVRG		0.04270		8.45596
65 Pentachlorophenol	+++++	0.07661	0.09366	0.10433	0.10380	0.10111					
	0.10411	0.10059					AVRG		0.09774		10.25964
206 n-Octadecane	+++++	0.51303	0.51675	0.49724	0.44977	0.43575					
	0.38801	0.36730					AVRG		0.45255		13.22743
68 Phenanthrene	0.92166	0.89396	0.90660	0.90959	0.85988	0.82303					
	0.81082	0.78870					AVRG		0.86428		5.91708
69 Anthracene	0.84086	0.86290	0.91101	0.89896	0.86184	0.80270					
	0.83086	0.78087					AVRG		0.84875		5.24647
72 Di-n-butylphthalate	+++++	1.10170	1.13117	1.12488	1.05162	1.02219					
	0.99566	0.89945					AVRG		1.04667		7.91560
76 Fluoranthene	0.88568	0.90229	0.95506	0.94219	0.89756	0.84861					
	0.85090	0.82377					AVRG		0.88826		5.17441
77 Benzidine	+++++	0.33087	0.31277	0.34623	0.35175	0.35654					
	0.40314	0.39753					AVRG		0.35698		9.25880

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.05629	1.17081	1.18814	1.25135	1.09633	1.11700					
	1.09129	1.10929					AVRG		1.13506		5.59485
85 Butylbenzylphthalate	+++++	0.48587	0.51180	0.53080	0.47419	0.47337					
	0.47670	0.44787					AVRG		0.48580		5.64477
89 Benzo(a)anthracene	0.97891	0.92957	0.96418	0.96061	0.94441	0.91041					
	0.91379	0.92003					AVRG		0.94024		2.73007
90 3,3'-Dichlorobenzidine	+++++	0.26285	0.29690	0.30231	0.30189	0.31146					
	0.30625	0.29460					AVRG		0.29661		5.36155
92 Chrysene	0.94574	0.88503	0.91743	0.93219	0.82886	0.83196					
	0.87236	0.81542					AVRG		0.87862		5.70854
93 bis(2-Ethylhexyl)phthalate	0.43832	0.70353	0.70263	0.74405	0.64952	0.65087					
	0.65480	0.59271					AVRG		0.64205		14.66900
94 Di-n-octylphthalate	+++++	1.18194	1.33938	1.46820	1.29055	1.30639					
	1.32377	1.28569					AVRG		1.31370		6.47148
95 Benzo(b)fluoranthene	0.91547	0.94451	1.14233	1.15275	1.04632	1.11553					
	1.23361	1.24988					AVRG		1.10005		11.19905
96 Benzo(k)fluoranthene	1.00488	1.15852	1.17217	1.12934	1.04724	0.97081					
	0.95533	0.94587					AVRG		1.04802		8.91358

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97 Benzo(a)pyrene	0.69158	0.84417	0.93465	0.93864	0.89785	0.90677					
	0.92192	0.91098					AVRG		0.88082		9.29852
99 Indeno(1,2,3-cd)pyrene	0.70465	0.75580	0.73925	0.77833	0.75258	0.75133					
	0.78102	0.72823					AVRG		0.74890		3.36430
100 Dibenzo(a,h)anthracene	0.58557	0.61665	0.60400	0.63131	0.62600	0.62695					
	0.65127	0.60885					AVRG		0.61883		3.20627
101 Benzo(ghi)perylene	0.61886	0.62652	0.58848	0.61465	0.60633	0.59957					
	0.62683	0.57810					AVRG		0.60742		2.92249
102 1,4-Dioxane	+++++	0.33625	0.33115	0.33317	0.33267	0.33159					
	0.32370	0.32223					AVRG		0.33011		1.56471
103 Methyl methacrylate	+++++	0.18737	0.19375	0.19519	0.19155	0.19092					
	0.18526	0.18670					AVRG		0.19011		1.97325
104 Ethyl methacrylate	+++++	0.72691	0.73265	0.73429	0.73093	0.73460					
	0.71086	0.71021					AVRG		0.72578		1.47783
105 2-Picoline	+++++	1.15993	1.22732	1.21134	1.16158	1.13996					
	1.13594	1.16959					AVRG		1.17224		2.95381
106 N-Nitrosomethylethylamine	+++++	0.41323	0.44270	0.45752	0.45916	0.45596					
	0.45176	0.45292					AVRG		0.44761		3.59465

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.44805	0.44742	0.44444	0.43792	0.42505					
	0.44332	0.42292					AVRG		0.43845		2.37974
108 N-Nitrosodiethylamine	+++++	0.47787	0.49716	0.50739	0.51401	0.49785					
	0.51154	0.48756					AVRG		0.49906		2.63168
109 Ethyl Methanesulfonate	+++++	0.57975	0.58758	0.60799	0.60114	0.60221					
	0.60154	0.60035					AVRG		0.59722		1.65050
110 Pentachloroethane	+++++	0.31441	0.32027	0.32096	0.31590	0.31481					
	0.30763	0.30109					AVRG		0.31358		2.24801
111 N-Nitrosopyrrolidine	+++++	0.48068	0.49876	0.52566	0.52798	0.51075					
	0.39954	0.41996					AVRG		0.48048		10.66752
113 N-Nitrosomorpholine	+++++	0.60745	0.63246	0.65190	0.63285	0.60689					
	0.62254	0.57938					AVRG		0.61907		3.79814
114 o-Toluidine	+++++	1.60737	1.61678	1.65653	1.61059	1.70102					
	1.72289	1.64344					AVRG		1.65123		2.76038
115 N-Nitrosopiperidine	+++++	0.12321	0.12601	0.12756	0.12596	0.12593					
	0.12740	0.12651					AVRG		0.12608		1.13874
116 a,a-Dimethylphenethylamine	+++++	0.64272	0.73019	0.76676	0.76896	0.78943					
	0.79287	0.78678					AVRG		0.75396		7.09670

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	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.11831	0.12383	0.12606	0.12645	0.12268					
	0.11843	0.11673					AVRG		0.12178		3.24920
118 2,6-Dichlorophenol	+++++	0.18896	0.19290	0.19690	0.19629	0.19933					
	0.20029	0.19683					AVRG		0.19593		1.97765
119 Hexachloropropene	+++++	0.10255	0.10472	0.10945	0.11027	0.11133					
	0.11188	0.10849					AVRG		0.10838		3.21898
120 p-Phenylenediamine	+++++	0.22040	0.24467	0.26814	0.26998	0.23102					
	0.25571	0.22843					AVRG		0.24548		8.05852
121 N-Nitrosodi-n-butylamine	+++++	0.16659	0.18185	0.18429	0.18241	0.17560					
	0.18083	0.17280					AVRG		0.17777		3.59114
122 Safrole	+++++	0.18915	0.18712	0.18535	0.18566	0.18346					
	0.18235	0.17774					AVRG		0.18440		2.00392
123 1,2,4,5-Tetrachlorobenzene	+++++	0.46078	0.47777	0.45645	0.46288	0.45329					
	0.43710	0.42145					AVRG		0.45282		4.06359
124 Isosafrole	+++++	0.33174	0.34080	0.33541	0.33569	0.33612					
	0.33099	0.31950					AVRG		0.33289		2.02044
125 1,4-Naphthoquinone	+++++	0.30653	0.34858	0.34119	0.33884	0.28393					
	0.30455	0.24989					AVRG		0.31050		11.48205

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	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.16428	0.17750	0.17641	0.17624	0.17562					
	0.17950	0.17318					AVRG		0.17468		2.84237
127 Pentachlorobenzene	+++++	0.41357	0.41820	0.41192	0.41463	0.39943					
	0.39426	0.38339					AVRG		0.40506		3.19014
128 1-Naphthylamine	+++++	0.85053	0.87290	0.94059	0.95535	0.93741					
	0.94760	0.90004					AVRG		0.91492		4.46223
129 2-Naphthylamine	+++++	0.90857	0.93595	0.97839	0.98163	0.98509					
	0.96685	0.90301					AVRG		0.95136		3.69912
130 2,3,4,6-Tetrachlorophenol	+++++	0.23414	0.25736	0.26969	0.27526	0.27561					
	0.29039	0.29434					AVRG		0.27097		7.54303
131 5-Nitro-o-toluidine	+++++	0.25629	0.26757	0.27295	0.28243	0.28781					
	0.29736	0.27843					AVRG		0.27755		4.86769
132 Thionazin	+++++	0.13222	0.14989	0.15624	0.16026	0.15739					
	0.15386	0.15436					AVRG		0.15203		6.12353
134 Sulfotepp	+++++	0.09507	0.10071	0.10217	0.10904	0.10687					
	0.10274	0.09988					AVRG		0.10235		4.49615
135 Phorate	+++++	0.34213	0.36781	0.38380	0.39924	0.37859					
	0.37281	0.36768					AVRG		0.37315		4.69895

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136 1,3,5-Trinitrobenzene	+++++	0.09191	0.09969	0.11986	0.12125	0.11182					
	0.11719	0.10511					AVRG		0.10955		10.10200
137 Phenacetin	+++++	0.23987	0.25244	0.26244	0.25618	0.26446					
	0.23277	0.23699					AVRG		0.24931		5.10991
138 Diallate	+++++	0.22190	0.24073	0.24088	0.23577	0.23011					
	0.21831	0.21589					AVRG		0.22908		4.58674
139 Dimethoate	+++++	0.17817	0.19912	0.22444	0.23150	0.22807					
	0.23409	0.22866					AVRG		0.21772		9.63460
140 4-Aminobiphenyl	+++++	0.56389	0.53953	0.53363	0.55119	0.57024					
	0.56079	0.52491					AVRG		0.54917		3.08530
141 Pentachloronitrobenzene	+++++	0.06618	0.07086	0.06822	0.06527	0.06285					
	0.05741	0.05649					AVRG		0.06390		8.38789
142 Pronamide	+++++	0.26010	0.27782	0.26926	0.26628	0.25163					
	0.24306	0.22688					AVRG		0.25643		6.76864
143 Dinoseb	+++++	42032	109896	241806	362268	554762					
	739915	883430					LINR	0.12360	0.15949		0.99973
144 Disulfoton	+++++	0.25987	0.27785	0.28849	0.30293	0.28767					
	0.28505	0.27845					AVRG		0.28290		4.64445

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	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.14617	0.16957	0.19340	0.20062	0.19984					
	0.19455	0.19503					AVRG		0.18560		10.93136
146 4-Nitroquinoline-1-oxide	+++++	0.02224	0.02139	0.02092	0.01927	0.01698					
	0.01685	0.01531					AVRG		0.01899		13.96783
147 Methapyrilene	+++++	0.45025	0.46844	0.46090	0.44622	0.41321					
	0.40110	0.38374					AVRG		0.43198		7.52216
148 Isodrin	+++++	0.09682	0.10352	0.10396	0.09979	0.09798					
	0.09275	0.08899					AVRG		0.09769		5.58440
149 Aramite	+++++	0.03608	0.03979	0.04171	0.04125	0.04126					
	0.03867	0.03683					AVRG		0.03937		5.73272
150 Kepone	+++++	0.06379	0.06458	0.07250	0.07099	0.06772					
	0.06995	0.06610					AVRG		0.06795		4.88605
151 p-(Dimethylamino)azobenzene	+++++	0.25785	0.29219	0.28221	0.28774	0.27254					
	0.25982	0.25644					AVRG		0.27269		5.49543
152 Chlorobenzilate	+++++	0.25234	0.30086	0.29966	0.29572	0.29175					
	0.28610	0.28032					AVRG		0.28668		5.86548
153 3,3'-Dimethylbenzidine	+++++	0.50686	0.54666	0.53977	0.51658	0.49689					
	0.51154	0.49896					AVRG		0.51675		3.75626

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	100 Level 7	120 Level 8										
154 Famphur	+++++	0.34377	0.36448	0.39007	0.42302	0.39437						
	0.37103	0.39016					AVRG		0.38241		6.62802	
155 2-Acetylaminofluorene	+++++	0.25217	0.29018	0.31083	0.31317	0.33589						
	0.32396	0.32656					AVRG		0.30754		9.24021	
157 7,12Dimethylbenz(a)anthracene	+++++	0.45815	0.51069	0.51242	0.51569	0.49445						
	0.48680	0.48614					AVRG		0.49490		4.10926	
158 3-Methylcholanthrene	+++++	0.36714	0.38058	0.40375	0.40579	0.42147						
	0.41872	0.38268					AVRG		0.39716		5.20030	
26 Phthalic anhydride	+++++	19730	43771	127253	187651	289719						
	416145	476347					LINR	0.13758	0.06980		0.99534	
173 Carbazole	0.75416	0.55973	0.50398	0.58851	0.63196	0.63155						
	0.67911	0.67915					AVRG		0.62852		12.43724	
174 Hexachlorophene	+++++	0.04471	0.06336	0.06157	0.05855	0.06373						
	0.06189	+++++					AVRG		0.05897		12.24318	<-
179 Dibenzo(a,e)pyrene	+++++	0.26190	0.22013	0.26336	0.28128	0.29331						
	0.30244	0.25461					AVRG		0.26815		10.25029	
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	0.02161	0.03352	0.04535	0.04376	0.07385					
	0.07767	0.08334					AVRG		0.05416		44.36257 <-
191 Parathion	+++++	0.04697	0.05833	0.06426	0.06627	0.06793					
	0.06844	0.06730					AVRG		0.06279		12.39061
192 Methoxychlor	+++++	0.57551	0.60730	0.63679	0.59916	0.58706					
	0.57902	0.56585					AVRG		0.59295		4.03471
210 m-Toluidine	+++++	1.30665	1.39228	1.19281	1.30686	1.27578					
	1.34890	1.29557					AVRG		1.30269		4.75731
211 p-Toluidine	+++++	1.00504	1.07656	1.17574	1.16519	1.18358					
	1.35310	1.42496					AVRG		1.19774		12.25762
212 Cis Diallate	+++++	0.20688	0.23600	0.23149	0.23015	0.22689					
	0.21828	0.21831					AVRG		0.22400		4.48057
213 Trans Diallate	+++++	0.26106	0.28321	0.28339	0.27738	0.27071					
	0.25683	0.25399					AVRG		0.26951		4.58674
214 1,4-Dinitrobenzene	+++++	0.13104	0.14815	0.15439	0.15456	0.15507					
	0.16251	0.16370					AVRG		0.15277		7.16324
215 2-Ethoxyethanol	+++++	0.53224	0.49495	0.60483	0.53175	0.58093					
	0.58845	0.58827					AVRG		0.56020		7.23512

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	0.10419	0.09605	0.09779	0.11898	0.12663					
	+++++	+++++					AVRG		0.10873		12.39591
229 2,2'-Dichlorobenzil	+++++	0.61480	0.59947	0.62746	0.69807	0.65332					
	+++++	0.62091					AVRG		0.63567		5.55608
230 4-Chlorothioanisole	+++++	0.20853	0.21619	0.22540	0.24716	0.23723					
	+++++	0.23418					AVRG		0.22812		6.24742
231 4-Chlorothiophenol	+++++	30234	112284	306425	365157	697489					
	+++++	1143337					LINR	0.21751	0.19835		0.99869
232 bis(p-Chlorophenyl)sulfone	+++++	0.35952	0.33795	0.34086	0.37344	0.34056					
	+++++	0.34284					AVRG		0.34920		4.06083
233 bis(p-Chlorophenyl)disulfide	+++++	0.14011	0.12134	0.11862	0.13869	0.11855					
	+++++	0.11699					AVRG		0.12572		8.51160
234 Diphenyl disulfide	+++++	0.20120	0.18976	0.19271	0.20800	0.19332					
	+++++	0.18695					AVRG		0.19532		4.01284
235 Diphenyl sulfide	+++++	0.74581	0.74229	0.73697	0.79603	0.72939					
	+++++	0.71533					AVRG		0.74430		3.70255
236 Phenyl sulfone	+++++	0.40759	0.40387	0.39936	0.42996	0.43270					
	+++++	0.41933					AVRG		0.41547		3.36680

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
237 Hydroxymethyl phthalimide	+++++	0.09912	0.07622	0.07991	0.08769	0.07293					
	+++++	+++++					AVRG		0.08317		12.59097
238 Phthalic acid	+++++	10449	28513	88919	143249	236309					
	+++++	402355					LINR	0.26238	0.07086		0.99477
239 Thiophenol	+++++	67713	188965	470443	614639	1033285					
	+++++	1654650					LINR	0.14815	1.09311		0.99958
240 bis(Chloromethyl)ether	+++++	0.71212	0.67839	0.70743	0.74887	0.72004					
	+++++	0.68326					AVRG		0.70835		3.63799
241 Octachlorostyrene	+++++	0.06765	0.06582	0.06626	0.07146	0.06797					
	+++++	0.06723					AVRG		0.06773		2.95458
M 225 Trichlorophenols	+++++	0.29826	0.32094	0.32206	0.31782	0.30637					
	0.30083	0.28764					AVRG		0.30770		4.24698
M 226 Tetrachlorophenols	+++++	0.23414	0.25736	0.26969	0.27526	0.27561					
	0.29039	0.29434					AVRG		0.27097		7.54303
M 227 Benzo(b,k)fluoranthene	0.96018	1.05151	1.15725	1.14105	1.04678	1.04317					
	1.09447	1.09787					AVRG		1.07403		5.84293
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	0.98916	1.04952	1.03866	1.01258	1.04909						
	1.05590	1.01518					AVRG		1.03001		2.40514	
$ 5 Phenol-d5	+++++	1.21023	1.26338	1.26104	1.25802	1.25196						
	1.28766	1.24863					AVRG		1.25441		1.85086	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.26549	0.26697	0.25893	0.24381	0.23345						
	0.23192	0.21675					AVRG		0.24533		7.80447	
$ 39 2-Fluorobiphenyl	+++++	1.15336	1.18485	1.15935	1.08955	1.07025						
	1.06825	1.00732					AVRG		1.10470		5.72577	
$ 60 2,4,6-Tribromophenol	+++++	0.11966	0.13450	0.13464	0.13078	0.13150						
	0.13448	0.13242					AVRG		0.13114		4.03837	
$ 81 p-Terphenyl-d14	+++++	0.67586	0.69797	0.72034	0.64106	0.66159						
	0.63852	0.63275					AVRG		0.66687		4.96192	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 16-MAR-2010 00:06
Lab File ID: s1c1531-C.d Init. Cal. Date(s): 15-MAR-2010 15-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 23:14
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.03001	1.02290	1.02290	0.000	-0.69041	60.00000	Averaged
$ 5 Phenol-d5	1.25441	1.20148	1.20148	0.000	-4.22017	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.24533	0.26385	0.26385	0.000	7.54898	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.10470	1.13321	1.13321	0.000	2.58082	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.13114	0.13446	0.13446	0.000	2.53458	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.66687	0.77179	0.77179	0.000	15.73336	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.57832	0.54586	0.54586	0.000	-5.61225	60.00000	Averaged
2 Pyridine	0.88669	0.70919	0.70919	0.000	-20.01842	60.00000	Averaged
4 Aniline	0.56665	0.52337	0.52337	0.000	-7.63644	60.00000	Averaged
6 Phenol	1.32904	1.32788	1.32788	0.001	-0.08757	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.91184	0.84454	0.84454	0.000	-7.38071	60.00000	Averaged
8 2-Chlorophenol	1.12413	1.13019	1.13019	0.000	0.53916	60.00000	Averaged
203 n-Decane	1.43358	1.46128	1.46128	0.000	1.93209	60.00000	Averaged
9 1,3-Dichlorobenzene	1.25360	1.26448	1.26448	0.000	0.86787	60.00000	Averaged
11 1,4-Dichlorobenzene	1.26574	1.25702	1.25702	0.001	-0.68916	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.18297	1.18332	1.18332	0.000	0.02990	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.93906	1.88849	1.88849	0.000	-2.60809	60.00000	Averaged
12 Benzyl alcohol	0.58515	0.58561	0.58561	0.000	0.07823	60.00000	Averaged
15 o-Cresol	0.85261	0.82283	0.82283	0.000	-3.49268	60.00000	Averaged
18 m,p-Cresols	1.10508	1.10323	1.10323	0.000	-0.16779	60.00000	Averaged
17 N-Nitrosodipropylamine	0.71175	0.74714	0.74714	0.050	4.97174	60.00000	Averaged spcc
19 Hexachloroethane	0.48105	0.47727	0.47727	0.000	-0.78517	60.00000	Averaged
21 Nitrobenzene	0.26210	0.25658	0.25658	0.000	-2.10249	60.00000	Averaged
22 Isophorone	0.48952	0.47890	0.47890	0.000	-2.16837	60.00000	Averaged
23 2-Nitrophenol	0.13523	0.14085	0.14085	0.001	4.15139	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.24166	0.25005	0.25005	0.000	3.47157	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29940	0.28107	0.28107	0.000	-6.12482	60.00000	Averaged
26 2,4-Dichlorophenol	0.20163	0.20625	0.20625	0.001	2.29407	20.00000	Averaged ccc
27 Benzoic acid	0.13123	0.12474	0.12474	0.000	-4.94543	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24663	0.24666	0.24666	0.000	0.01333	60.00000	Averaged
30 Naphthalene	0.80225	0.78052	0.78052	0.000	-2.70857	60.00000	Averaged
204 alpha-Terpineol	0.22672	0.21458	0.21458	0.000	-5.35543	60.00000	Averaged
31 4-Chloroaniline	0.35963	0.35869	0.35869	0.000	-0.26196	60.00000	Averaged
32 Hexachlorobutadiene	0.13897	0.14357	0.14357	0.001	3.31020	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21040	0.22374	0.22374	0.001	6.34099	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.50932	0.52245	0.52245	0.000	2.57656	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 16-MAR-2010 00:06
Lab File ID: s1c1531-C.d Init. Cal. Date(s): 15-MAR-2010 15-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 23:14
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.50016	0.49755	0.49755	0.000	-0.52273	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.25303	0.19467	0.19467	0.050	-23.06155	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.52418	0.50577	0.50577	0.000	-3.51182	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.29721	0.29539	0.29539	0.001	-0.61138	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.31820	0.33668	0.33668	0.000	5.80772	60.00000	Averaged
40 2-Chloronaphthalene	0.95817	0.94646	0.94646	0.000	-1.22152	60.00000	Averaged
42 o-Nitroaniline	0.27488	0.26452	0.26452	0.000	-3.76874	60.00000	Averaged
41 m-Nitroaniline	36.73213	40.00000	0.19500	0.000	-8.16968	60.00000	Linear
43 Dimethylphthalate	1.11352	1.08063	1.08063	0.000	-2.95321	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25852	0.24851	0.24851	0.000	-3.87225	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32209	0.31265	0.31265	0.000	-2.93147	60.00000	Averaged
45 Acenaphthylene	1.53720	1.54799	1.54799	0.000	0.70164	60.00000	Averaged
47 Acenaphthene	0.97707	0.91780	0.91780	0.001	-6.06569	20.00000	Averaged ccc
48 2,4-Dinitrophenol	37.48260	40.00000	0.09763	0.050	-6.29351	60.00000	Linear spcc
49 Dibenzofuran	1.31289	1.29719	1.29719	0.000	-1.19596	60.00000	Averaged
51 Diethylphthalate	1.11578	1.09491	1.09491	0.000	-1.87066	60.00000	Averaged
52 4-Nitrophenol	0.18061	0.17000	0.17000	0.050	-5.87640	60.00000	Averaged spcc
53 Fluorene	1.10069	1.04957	1.04957	0.000	-4.64491	60.00000	Averaged
54 4-Chlorophenylphenylether	0.53905	0.52393	0.52393	0.000	-2.80632	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	0.09291	0.11435	0.11435	0.000	23.07674	60.00000	Averaged
56 p-Nitroaniline	35.66289	40.00000	0.17066	0.000	-10.84276	60.00000	Linear
133 Diphenylamine	0.51080	0.50164	0.50164	0.001	-1.79347	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.58751	0.59618	0.59618	0.000	1.47601	60.00000	Averaged
61 4-Bromophenylphenylether	0.18061	0.17379	0.17379	0.000	-3.77567	60.00000	Averaged
63 Hexachlorobenzene	0.19601	0.19605	0.19605	0.000	0.02411	60.00000	Averaged
65 Pentachlorophenol	0.09774	0.10068	0.10068	0.001	3.00467	20.00000	Averaged ccc
206 n-Octadecane	0.45255	0.47916	0.47916	0.000	5.88003	60.00000	Averaged
68 Phenanthrene	0.86428	0.83654	0.83654	0.000	-3.20979	60.00000	Averaged
69 Anthracene	0.84875	0.81908	0.81908	0.000	-3.49615	60.00000	Averaged
72 Di-n-butylphthalate	1.04667	1.06104	1.06104	0.000	1.37316	60.00000	Averaged
76 Fluoranthene	0.88826	0.88004	0.88004	0.001	-0.92535	20.00000	Averaged ccc
79 Pyrene	1.13506	1.12192	1.12192	0.000	-1.15795	60.00000	Averaged
85 Butylbenzylphthalate	0.48580	0.52166	0.52166	0.000	7.38189	60.00000	Averaged
89 Benzo(a)anthracene	0.94024	0.87136	0.87136	0.000	-7.32597	60.00000	Averaged
92 Chrysene	0.87862	0.86034	0.86034	0.000	-2.08090	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.64205	0.71657	0.71657	0.000	11.60668	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 16-MAR-2010 00:06
Lab File ID: s1c1531-C.d Init. Cal. Date(s): 15-MAR-2010 15-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 23:14
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.31370	1.46537	1.46537	0.001	11.54482	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.10005	1.10472	1.10472	0.000	0.42452	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.04802	1.02616	1.02616	0.000	-2.08628	60.00000	Averaged	
	97 Benzo(a)pyrene	0.88082	0.86533	0.86533	0.001	-1.75848	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.74890	0.69774	0.69774	0.000	-6.83179	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.61883	0.56849	0.56849	0.000	-8.13353	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.60742	0.55469	0.55469	0.000	-8.67993	60.00000	Averaged	
	126 m-Dinitrobenzene	0.17468	0.16956	0.16956	0.000	-2.92632	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27097	0.24966	0.24966	0.000	-7.86483	60.00000	Averaged	
	143 Dinoseb	39.78917	40.00000	0.13894	0.000	-0.52707	60.00000	Linear	
	173 Carbazole	0.62852	0.63568	0.63568	0.000	1.13969	60.00000	Averaged	
	184 p-Benzoquinone	0.05416	0.05435	0.05435	0.000	0.36410	60.00000	Averaged	
	192 Methoxychlor	0.59295	0.60790	0.60790	0.000	2.52000	60.00000	Averaged	
	211 p-Toluidine	1.19774	1.00121	1.00121	0.000	-16.40798	60.00000	Averaged	
	210 m-Toluidine	1.30269	1.02040	1.02040	0.000	-21.66987	60.00000	Averaged	
	26 Phthalic anhydride	62.54000	40.00000	0.09952	0.000	56.35001	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	0.26815	0.15655	0.15655	0.000	-41.61909	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.15277	0.14752	0.14752	0.000	-3.44172	60.00000	Averaged	
	215 2-Ethoxyethanol	0.56020	0.56879	0.56879	0.000	1.53272	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.10873	0.12473	0.12473	0.000	14.71987	60.00000	Averaged	
M	225 Trichlorophenols	0.30770	0.31603	0.31603	0.000	2.70763	60.00000	Averaged	
M	226 Tetrachlorophenols	0.27097	0.24966	0.24966	0.000	-7.86483	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	1.07403	1.06544	1.06544	0.000	-0.80047	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD1.i/s031510a.b/s1c1531-C.d
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGAICV
Inj Date : 16-MAR-2010 00:06
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN100309-09.1|040 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m
Meth Date : 16-Mar-2010 18:32 amy01291 Quant Type: ISTD
Cal Date : 15-MAR-2010 23:14 Cal File: s1c1529.d
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.540	3.540	(1.000)	549504	40.0000	
* 29 Naphthalene-d8	136	4.398	4.398	(1.000)	2266874	40.0000	
* 46 Acenaphthene-d10	164	5.639	5.639	(1.000)	1149176	40.0000	
* 67 Phenanthrene-d10	188	6.645	6.645	(1.000)	1944808	40.0000	
* 91 Chrysene-d12	240	8.227	8.227	(1.000)	1527388	40.0000	
* 98 Perylene-d12	264	9.422	9.422	(1.000)	1037428	40.0000	
$ 3 2-Fluorophenol	112	2.751	2.751	(0.777)	562088	40.0000	39.7
$ 5 Phenol-d5	99	3.281	3.281	(0.927)	660216	40.0000	38.3
$ 20 Nitrobenzene-d5	82	3.904	3.904	(0.888)	598120	40.0000	43.0
$ 39 2-Fluorobiphenyl	172	5.139	5.139	(0.911)	1302262	40.0000	41.0
$ 60 2,4,6-Tribromophenol	329	6.186	6.186	(1.097)	154522	40.0000	41.0
$ 81 p-Terphenyl-d14	244	7.569	7.569	(0.920)	1178825	40.0000	46.3
1 N-Methyl-N-nitrosomethylamine	74	2.075	2.075	(0.586)	299955	40.0000	37.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.104	2.104	(0.595)	389700	40.0000	32.0
4 Aniline	66	3.334	3.334	(0.942)	287596	40.0000	36.9
6 Phenol	94	3.292	3.292	(0.930)	729674	40.0000	40.0
7 bis(2-Chloroethyl) ether	63	3.357	3.357	(0.948)	464078	40.0000	37.0
8 2-Chlorophenol	128	3.410	3.410	(0.963)	621046	40.0000	40.2
203 n-Decane	43	3.398	3.398	(0.960)	802979	40.0000	40.8
9 1,3-Dichlorobenzene	146	3.504	3.504	(0.990)	694836	40.0000	40.3
11 1,4-Dichlorobenzene	146	3.551	3.551	(1.003)	690738	40.0000	39.7
13 1,2-Dichlorobenzene	146	3.651	3.651	(1.032)	650239	40.0000	40.0
14 bis(2-Chloroisopropyl)ether	45	3.692	3.692	(1.043)	1037733	40.0000	39.0
12 Benzyl alcohol	108	3.622	3.622	(1.023)	321795	40.0000	40.0
15 o-Cresol	107	3.675	3.675	(1.038)	452147	40.0000	38.6
18 m,p-Cresols	107	3.781	3.781	(1.068)	606229	40.0000	39.9
17 N-Nitrosodipropylamine	70	3.792	3.792	(1.071)	410554	40.0000	42.0
19 Hexachloroethane	117	3.875	3.875	(1.095)	262262	40.0000	39.7
21 Nitrobenzene	77	3.916	3.916	(0.890)	581645	40.0000	39.2
22 Isophorone	82	4.075	4.075	(0.926)	1085614	40.0000	39.1
23 2-Nitrophenol	139	4.128	4.128	(0.938)	319284	40.0000	41.7
24 2,4-Dimethylphenol	122	4.134	4.134	(0.940)	566834	40.0000	41.4
25 bis(2-Chloroethoxy)methane	93	4.198	4.198	(0.955)	637142	40.0000	37.6
26 2,4-Dichlorophenol	162	4.292	4.292	(0.976)	467547	40.0000	40.9
27 Benzoic acid	105	4.210	4.210	(0.957)	282761	40.0000	38.0
28 1,2,4-Trichlorobenzene	180	4.351	4.351	(0.989)	559154	40.0000	40.0
30 Naphthalene	128	4.410	4.410	(1.003)	1769339	40.0000	38.9
204 alpha-Terpineol	59	4.398	4.398	(1.000)	486432	40.0000	37.8
31 4-Chloroaniline	127	4.434	4.434	(1.008)	813105	40.0000	39.9
32 Hexachlorobutadiene	225	4.481	4.481	(1.019)	325462	40.0000	41.3
33 4-Chloro-3-methylphenol	107	4.757	4.757	(1.082)	507185	40.0000	42.5
34 2-Methylnaphthalene	142	4.886	4.886	(1.111)	1184321	40.0000	41.0
35 1-Methylnaphthalene	142	4.963	4.963	(1.128)	1127876	40.0000	39.8
36 Hexachlorocyclopentadiene	237	4.992	4.992	(0.885)	223715	40.0000	30.8
205 2,3-Dichloroaniline	161	5.086	5.086	(0.902)	581217	40.0000	38.6
37 2,4,6-Trichlorophenol	196	5.081	5.081	(0.901)	339457	40.0000	39.8
38 2,4,5-Trichlorophenol	196	5.110	5.110	(0.906)	386902	40.0000	42.3
40 2-Chloronaphthalene	162	5.239	5.239	(0.929)	1087651	40.0000	39.5
42 o-Nitroaniline	65	5.304	5.304	(0.941)	303984	40.0000	38.5
41 m-Nitroaniline	138	5.598	5.598	(0.993)	224087	40.0000	36.7
43 Dimethylphthalate	163	5.422	5.422	(0.961)	1241836	40.0000	38.8
44 2,6-Dinitrotoluene	165	5.469	5.469	(0.970)	285584	40.0000	38.4
50 2,4-Dinitrotoluene	165	5.757	5.757	(1.021)	359286	40.0000	38.8
45 Acenaphthylene	152	5.539	5.539	(0.982)	1778911	40.0000	40.3
47 Acenaphthene	154	5.663	5.663	(1.004)	1054717	40.0000	37.6
48 2,4-Dinitrophenol	184	5.663	5.663	(1.004)	112191	40.0000	37.5(Q)
49 Dibenzofuran	168	5.781	5.781	(1.025)	1490699	40.0000	39.5
51 Diethylphthalate	149	5.910	5.910	(1.048)	1258244	40.0000	39.2
52 4-Nitrophenol	139	5.704	5.704	(1.011)	195355	40.0000	37.6
53 Fluorene	166	6.022	6.022	(1.068)	1206137	40.0000	38.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	6.004	6.004	(1.065)	602084	40.0000	38.9
55 2-Methyl-4,6-dinitrophenol	198	6.045	6.045	(0.910)	222389	40.0000	49.2
56 p-Nitroaniline	138	6.033	6.033	(1.070)	196118	40.0000	35.7
133 Diphenylamine	169	6.086	6.086	(0.916)	975585	40.0000	39.3
58 1,2-Diphenylhydrazine	77	6.116	6.116	(0.920)	1159455	40.0000	40.6
61 4-Bromophenylphenylether	248	6.339	6.339	(0.954)	337982	40.0000	38.5
63 Hexachlorobenzene	284	6.392	6.392	(0.962)	381287	40.0000	40.0
65 Pentachlorophenol	266	6.516	6.516	(0.981)	195806	40.0000	41.2
206 n-Octadecane	57	6.516	6.516	(0.981)	931872	40.0000	42.4
68 Phenanthrene	178	6.663	6.663	(1.003)	1626907	40.0000	38.7
69 Anthracene	178	6.692	6.692	(1.007)	1592952	40.0000	38.6
72 Di-n-butylphthalate	149	6.957	6.957	(1.047)	2063520	40.0000	40.5
76 Fluoranthene	202	7.375	7.375	(1.110)	1711505	40.0000	39.6
79 Pyrene	202	7.510	7.510	(0.913)	1713608	40.0000	39.5
85 Butylbenzylphthalate	149	7.822	7.822	(0.951)	796781	40.0000	43.0
89 Benzo(a)anthracene	228	8.216	8.216	(0.999)	1330902	40.0000	37.1
92 Chrysene	228	8.245	8.245	(1.002)	1314075	40.0000	39.2
93 bis(2-Ethylhexyl)phthalate	149	8.139	8.139	(0.989)	1094484	40.0000	44.6
94 Di-n-octylphthalate	149	8.580	8.580	(0.911)	1520212	40.0000	44.6
95 Benzo(b)fluoranthene	252	9.045	9.045	(0.960)	1146067	40.0000	40.2
96 Benzo(k)fluoranthene	252	9.069	9.069	(0.963)	1064562	40.0000	39.2
97 Benzo(a)pyrene	252	9.363	9.363	(0.994)	897717	40.0000	39.3
99 Indeno(1,2,3-cd)pyrene	276	10.710	10.710	(1.137)	723851	40.0000	37.3
100 Dibenzo(a,h)anthracene	278	10.710	10.710	(1.137)	589771	40.0000	36.7
101 Benzo(ghi)perylene	276	11.104	11.104	(1.179)	575456	40.0000	36.5
126 m-Dinitrobenzene	168	5.457	5.457	(0.968)	194860	40.0000	38.8
130 2,3,4,6-Tetrachlorophenol	232	5.863	5.863	(1.040)	286902	40.0000	36.8
143 Dinoseb	211	6.616	6.616	(0.996)	270206	40.0000	39.8
173 Carbazole	167	6.780	6.780	(1.020)	1236279	40.0000	40.4
184 p-Benzoquinone	54	3.040	3.040	(0.859)	29868	40.0000	40.1
192 Methoxychlor	227	8.122	8.122	(0.987)	928494	40.0000	41.0
211 p-Toluidine	106	3.822	3.822	(1.080)	550171	40.0000	33.4
210 m-Toluidine	106	3.845	3.845	(1.086)	560714	40.0000	31.3
26 Phthalic anhydride	104	4.928	4.928	(1.120)	225607	40.0000	62.5
179 Dibenzo(a,e)pyrene	302	14.127	14.127	(1.499)	162405	40.0000	23.4
214 1,4-Dinitrobenzene	168	5.398	5.398	(0.957)	169521	40.0000	38.6
215 2-Ethoxyethanol	59	1.928	1.928	(0.545)	312551	40.0000	40.6
216 Methylenebis(2-chloroaniline)	231	8.169	8.169	(0.993)	190517	40.0000	45.9(Q)
M 225 Trichlorophenols	196				726359	80.0000	82.2
M 226 Tetrachlorophenols	232				286902	40.0000	36.8
M 227 Benzo(b,k)fluoranthene	252				2210629	80.0000	79.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/HSD1.i/s031510a.b/s1c1531-C.d
Date : 16-MAR-2010 00:06
Client ID: MEGAICV
Sample Info: IWBN100309-09.1|040 PPM|1|SVHF|1|MEGAICV
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: HSD1.i
Operator: AMY
Column diameter: 0.20

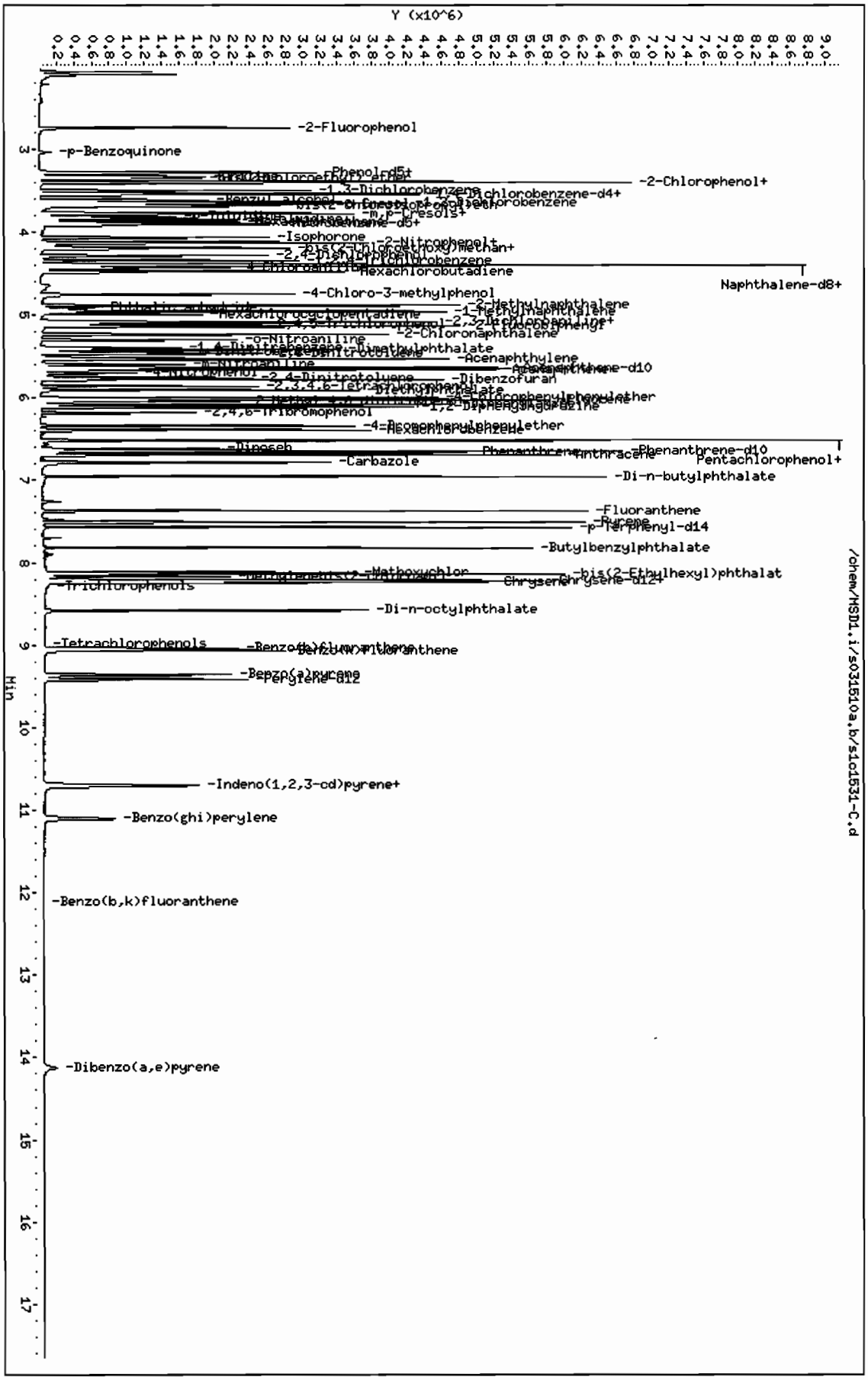

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 16-MAR-2010 00:58
Lab File ID: s1c1533-C.d Init. Cal. Date(s): 15-MAR-2010 15-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 23:14
Lab Sample ID: WBN100312-08.1 Quant Type: ISTD
Method: /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.85292	0.68008	0.68008	0.000	-20.26453	60.00000	Averaged
16 Acetophenone	1.17153	1.12950	1.12950	0.000	-3.58768	60.00000	Averaged
189 Caprolactam	0.06713	0.07865	0.07865	0.000	17.16278	60.00000	Averaged
208 1,1'-Biphenyl	1.20731	1.24253	1.24253	0.000	2.91691	60.00000	Averaged
207 Atrazine	0.04270	0.04582	0.04582	0.000	7.30954	60.00000	Averaged
77 Benzidine	0.35698	0.37062	0.37062	0.000	3.82346	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.29661	0.28340	0.28340	0.000	-4.45426	60.00000	Averaged
102 1,4-Dioxane	0.33011	0.39318	0.39318	0.000	19.10465	60.00000	Averaged
103 Methyl methacrylate	0.19011	0.22942	0.22942	0.000	20.67753	60.00000	Averaged
104 Ethyl methacrylate	0.72578	0.86096	0.86096	0.000	18.62534	60.00000	Averaged
105 2-Picoline	1.17224	1.10026	1.10026	0.000	-6.14016	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44761	0.42428	0.42428	0.000	-5.21062	60.00000	Averaged
107 Methyl methanesulfonate	0.43845	0.44831	0.44831	0.000	2.24962	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49906	0.45859	0.45859	0.000	-8.10798	60.00000	Averaged
109 Ethyl Methanesulfonate	0.59722	0.71040	0.71040	0.000	18.95004	60.00000	Averaged
110 Pentachloroethane	0.31358	0.42274	0.42274	0.000	34.81217	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.48048	0.46459	0.46459	0.000	-3.30543	60.00000	Averaged
113 N-Nitrosomorpholine	0.61907	0.62440	0.62440	0.000	0.86172	60.00000	Averaged
114 o-Toluidine	1.65123	1.50789	1.50789	0.000	-8.68062	60.00000	Averaged
115 N-Nitrosopiperidine	0.12608	0.12465	0.12465	0.000	-1.13856	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.75396	0.72190	0.72190	0.000	-4.25126	60.00000	Averaged
118 2,6-Dichlorophenol	0.19593	0.19899	0.19899	0.000	1.56009	60.00000	Averaged
119 Hexachloropropene	0.10838	0.16507	0.16507	0.000	52.30319	60.00000	Averaged
120 p-Phenylenediamine	0.24548	0.21979	0.21979	0.000	-10.46278	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.17777	0.17279	0.17279	0.000	-2.79909	60.00000	Averaged
122 Safrole	0.18440	0.21297	0.21297	0.000	15.49122	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.45282	0.48216	0.48216	0.000	6.48115	60.00000	Averaged
124 Isosafrole	0.33289	0.44131	0.44131	0.000	32.56803	60.00000	Averaged
125 1,4-Naphthoquinone	0.31050	0.31046	0.31046	0.000	-0.01416	60.00000	Averaged
127 Pentachlorobenzene	0.40506	0.41650	0.41650	0.000	2.82553	60.00000	Averaged
128 1-Naphthylamine	0.91492	0.89910	0.89910	0.000	-1.72848	60.00000	Averaged
129 2-Naphthylamine	0.95136	0.96361	0.96361	0.000	1.28847	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27755	0.27172	0.27172	0.000	-2.10010	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.10955	0.14168	0.14168	0.000	29.32993	60.00000	Averaged
137 Phenacetin	0.24931	0.27034	0.27034	0.000	8.43612	60.00000	Averaged
138 Diallate	0.22908	0.21844	0.21844	0.000	-4.64753	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 16-MAR-2010 00:58
Lab File ID: s1c1533-C.d Init. Cal. Date(s): 15-MAR-2010 15-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 23:14
Lab Sample ID: WBN100312-08.1 Quant Type: ISTD
Method: /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.22400	0.28393	0.28393	0.000	26.75242	60.00000	Averaged
213 Trans Diallate	0.26951	0.25699	0.25699	0.000	-4.64753	60.00000	Averaged
140 4-Aminobiphenyl	0.54917	0.57230	0.57230	0.000	4.21119	60.00000	Averaged
141 Pentachloronitrobenzene	0.06390	0.06712	0.06712	0.000	5.03569	60.00000	Averaged
142 Pronamide	0.25643	0.27212	0.27212	0.000	6.11647	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01899	0.02168	0.02168	0.000	14.16476	60.00000	Averaged
147 Methapyrilene	0.43198	0.39087	0.39087	0.000	-9.51560	60.00000	Averaged
148 Isodrin	0.09769	0.09221	0.09221	0.000	-5.60212	60.00000	Averaged
149 Aramite	0.03937	0.03962	0.03962	0.000	0.63434	60.00000	Averaged
150 Kepone	0.06795	0.06455	0.06455	0.000	-4.99143	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.27269	0.27283	0.27283	0.000	0.05211	60.00000	Averaged
152 Chlorobenzilate	0.28668	0.28881	0.28881	0.000	0.74438	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.51675	0.48602	0.48602	0.000	-5.94807	60.00000	Averaged
155 2-Acetylaminofluorene	0.30754	0.27548	0.27548	0.000	-10.42377	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.49490	0.49248	0.49248	0.000	-0.49024	60.00000	Averaged
158 3-Methylcholanthrene	0.39716	0.41605	0.41605	0.000	4.75488	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD1.i/s031510a.b/s1c1533-C.d
Lab Smp Id: WBN100312-08.1 Client Smp ID: APICV
Inj Date : 16-MAR-2010 00:58
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN100312-08.1|40 PPM|1|SVMF|1|APICV
Misc Info : |MSD8270||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m
Meth Date : 16-Mar-2010 18:25 amy01291 Quant Type: ISTD
Cal Date : 15-MAR-2010 23:14 Cal File: s1c1529.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.540	3.540	(1.000)	570333	40.0000	
* 29 Naphthalene-d8	136	4.392	4.392	(1.000)	2167474	40.0000	
* 46 Acenaphthene-d10	164	5.634	5.634	(1.000)	1148170	40.0000	
* 67 Phenanthrene-d10	188	6.645	6.645	(1.000)	2008546	40.0000	
* 91 Chrysene-d12	240	8.222	8.222	(1.000)	1752326	40.0000	
* 98 Perylene-d12	264	9.416	9.416	(1.000)	1218375	40.0000	
209 Benzaldehyde	77	3.269	3.269	(0.924)	387870	40.0000	31.9
16 Acetophenone	105	3.793	3.793	(1.071)	644189	40.0000	38.6
189 Caprolactam	113	4.687	4.687	(1.067)	170479	40.0000	46.9
208 1,1'-Biphenyl	154	5.216	5.216	(0.926)	1426632	40.0000	41.2
207 Atrazine	173	6.434	6.434	(0.968)	92029	40.0000	42.9
77 Benzidine	184	7.433	7.433	(0.904)	649454	40.0000	41.5
90 3,3'-Dichlorobenzidine	252	8.175	8.175	(0.994)	496602	40.0000	38.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
102 1,4-Dioxane	88	1.928	1.928	(0.545)	224241	40.0000	47.6
103 Methyl methacrylate	100	1.928	1.928	(0.545)	130843	40.0000	48.3
104 Ethyl methacrylate	69	2.281	2.281	(0.644)	491033	40.0000	47.4
105 2-Picoline	93	2.463	2.463	(0.696)	627514	40.0000	37.5
106 N-Nitrosomethylethylamine	88	2.510	2.510	(0.709)	241983	40.0000	37.9
107 Methyl methanesulfonate	80	2.663	2.663	(0.752)	255686	40.0000	40.9
108 N-Nitrosodiethylamine	102	2.887	2.887	(0.816)	261551	40.0000	36.8
109 Ethyl Methanesulfonate	79	3.051	3.051	(0.862)	405164	40.0000	47.6
110 Pentachloroethane	167	3.369	3.369	(0.952)	241105	40.0000	53.9
111 N-Nitrosopyrrolidine	100	3.787	3.787	(1.070)	264973	40.0000	38.7(Q)
113 N-Nitrosomorpholine	56	3.810	3.810	(1.076)	356118	40.0000	40.3
114 o-Toluidine	106	3.822	3.822	(1.080)	860002	40.0000	36.5
115 N-Nitrosopiperidine	114	4.016	4.016	(0.914)	270170	40.0000	39.5
116 a,a-Dimethylphenethylamine	58	4.257	4.257	(0.969)	1564710	40.0000	38.3
118 2,6-Dichlorophenol	162	4.445	4.445	(1.012)	431295	40.0000	40.6
119 Hexachloropropene	213	4.469	4.469	(1.017)	357787	40.0000	60.9
120 p-Phenylenediamine	108	4.687	4.687	(1.067)	476398	40.0000	35.8
121 N-Nitrosodi-n-butylamine	84	4.651	4.651	(1.059)	374522	40.0000	38.9(Q)
122 Safrole	162	4.810	4.810	(1.095)	461610	40.0000	46.2
123 1,2,4,5-Tetrachlorobenzene	216	5.004	5.004	(0.888)	553607	40.0000	42.6
124 Isosafrole	162	5.181	5.181	(0.920)	506697	40.0000	53.0
125 1,4-Naphthoquinone	158	5.357	5.357	(0.951)	356459	40.0000	40.0
127 Pentachlorobenzene	250	5.745	5.745	(1.020)	478217	40.0000	41.1
128 1-Naphthylamine	143	5.834	5.834	(1.035)	1032325	40.0000	39.3
129 2-Naphthylamine	143	5.892	5.892	(1.046)	1106392	40.0000	40.5
131 5-Nitro-o-toluidine	152	6.022	6.022	(1.069)	311981	40.0000	39.2
136 1,3,5-Trinitrobenzene	75	6.251	6.251	(0.941)	284563	40.0000	51.7
137 Phenacetin	108	6.292	6.292	(0.947)	542989	40.0000	43.4(Q)
138 Diallate	86	6.269	6.269	(0.943)	438742	40.0000	38.1
212 Cis Diallate	86	6.328	6.328	(0.952)	85542	6.00000	7.6
213 Trans Diallate	86	6.269	6.269	(0.943)	438742	34.0000	32.4
140 4-Aminobiphenyl	169	6.510	6.510	(0.980)	1149481	40.0000	41.7
141 Pentachloronitrobenzene	237	6.522	6.522	(0.981)	134805	40.0000	42.0(Q)
142 Pronamide	173	6.528	6.528	(0.982)	546564	40.0000	42.4
146 4-Nitroquinoline-1-oxide	101	7.122	7.122	(1.072)	43554	40.0000	45.7
147 Methapyrilene	58	7.145	7.145	(1.075)	785090	40.0000	36.2
148 Isodrin	193	7.286	7.286	(1.096)	185218	40.0000	37.8
149 Aramite	185	7.533	7.533	(1.134)	79580	40.0000	40.2
150 Kepone	272	7.898	7.898	(1.189)	129661	40.0000	38.0
151 p-(Dimethylamino)azobenzene	120	7.645	7.645	(0.930)	478086	40.0000	40.0
152 Chlorobenzilate	251	7.663	7.663	(0.932)	506091	40.0000	40.3
153 3,3'-Dimethylbenzidine	212	7.839	7.839	(0.953)	851659	40.0000	37.6
155 2-Acetylaminofluorene	181	7.992	7.992	(0.972)	482731	40.0000	35.8
157 7,12Dimethylbenz(a)anthracene	256	9.022	9.022	(0.958)	600023	40.0000	39.8
158 3-Methylcholanthrene	268	9.704	9.704	(1.031)	506900	40.0000	41.9(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s031510a.b/s1c1533-C.d
Date : 16-MAR-2010 00:58
Client ID: APICV
Sample Info: |WBN100312-08,1|40 PPM|1|SVMF|1|APICV
Volume Injected (ul): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

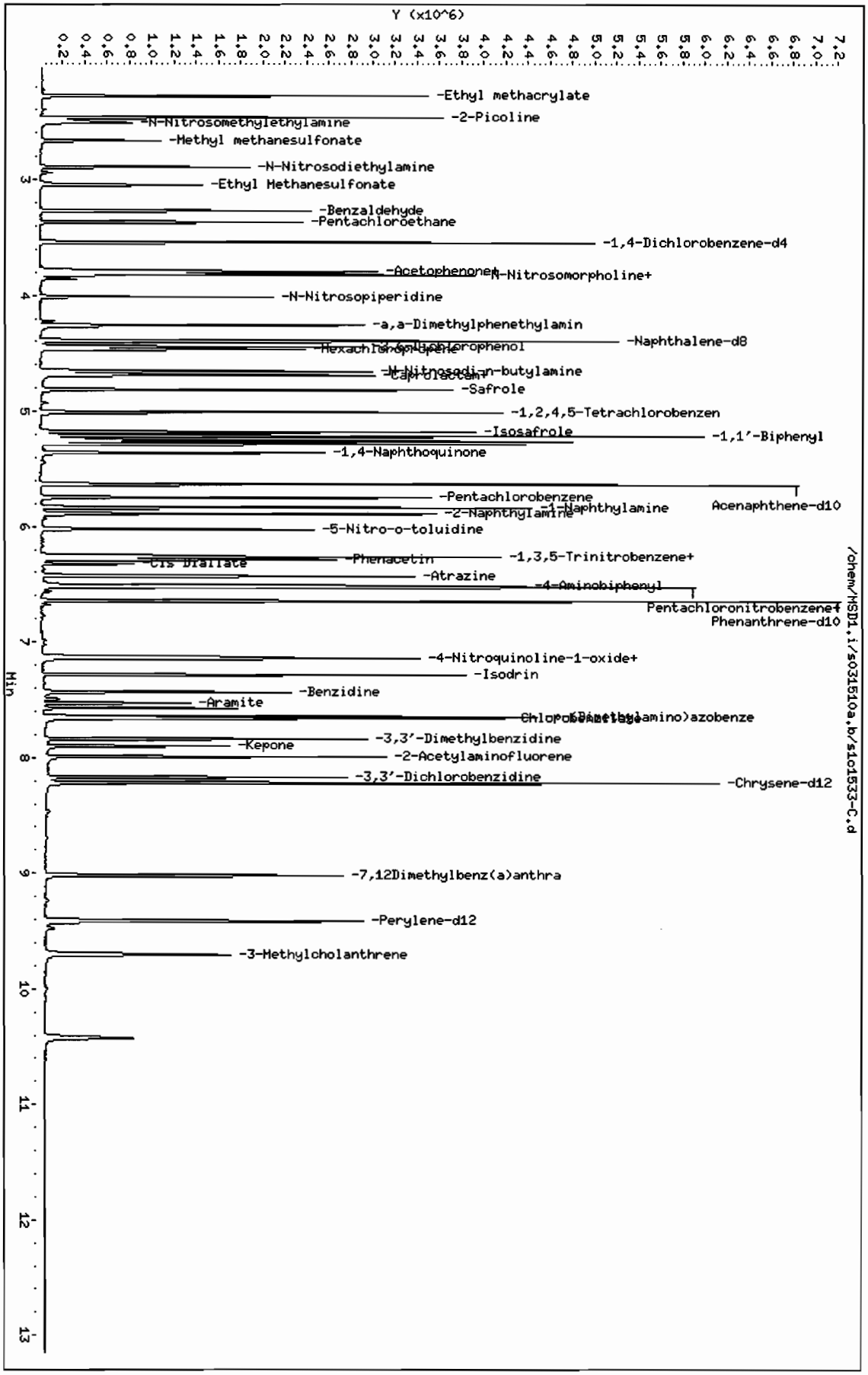

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 29-MAR-2010 10:17
Lab File ID: s1c2903.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100309-05.4 Quant Type: ISTD
Method: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.03001	0.96858	0.96858	0.000	-5.96433	60.00000	Averaged
$ 5 Phenol-d5	1.25441	1.18422	1.18422	0.000	-5.59553	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.24533	0.24019	0.24019	0.000	-2.09755	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.10470	1.07838	1.07838	0.000	-2.38268	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.13114	0.11820	0.11820	0.000	-9.86683	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.66687	0.63425	0.63425	0.000	-4.89082	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.57832	0.52486	0.52486	0.000	-9.24392	60.00000	Averaged
2 Pyridine	0.88669	0.88124	0.88124	0.000	-0.61402	60.00000	Averaged
4 Aniline	0.56665	0.55839	0.55839	0.000	-1.45615	60.00000	Averaged
6 Phenol	1.32904	1.27487	1.27487	0.001	-4.07584	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.91184	0.85850	0.85850	0.000	-5.85020	60.00000	Averaged
8 2-Chlorophenol	1.12413	1.09570	1.09570	0.000	-2.52901	60.00000	Averaged
203 n-Decane	1.43358	1.51809	1.51809	0.000	5.89515	60.00000	Averaged
9 1,3-Dichlorobenzene	1.25360	1.18779	1.18779	0.000	-5.24993	60.00000	Averaged
11 1,4-Dichlorobenzene	1.26574	1.20336	1.20336	0.001	-4.92899	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.18297	1.12993	1.12993	0.000	-4.48357	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.93906	2.00800	2.00800	0.000	3.55530	60.00000	Averaged
12 Benzyl alcohol	0.58515	0.62178	0.62178	0.000	6.25886	60.00000	Averaged
15 o-Cresol	0.85261	0.80438	0.80438	0.000	-5.65638	60.00000	Averaged
18 m,p-Cresols	1.10508	1.07002	1.07002	0.000	-3.17285	60.00000	Averaged
17 N-Nitrosodipropylamine	0.71175	0.76559	0.76559	0.050	7.56411	60.00000	Averaged spcc
19 Hexachloroethane	0.48105	0.47028	0.47028	0.000	-2.23866	60.00000	Averaged
21 Nitrobenzene	0.26210	0.25449	0.25449	0.000	-2.90354	60.00000	Averaged
22 Isophorone	0.48952	0.49940	0.49940	0.000	2.01924	60.00000	Averaged
23 2-Nitrophenol	0.13523	0.13024	0.13024	0.001	-3.69419	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.24166	0.23514	0.23514	0.000	-2.69670	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29940	0.29889	0.29889	0.000	-0.17329	60.00000	Averaged
26 2,4-Dichlorophenol	0.20163	0.19875	0.19875	0.001	-1.42551	20.00000	Averaged ccc
27 Benzoic acid	0.13123	0.09521	0.09521	0.000	-27.44938	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24663	0.23495	0.23495	0.000	-4.73488	60.00000	Averaged
30 Naphthalene	0.80225	0.78201	0.78201	0.000	-2.52314	60.00000	Averaged
204 alpha-Terpineol	0.22672	0.24185	0.24185	0.000	6.67239	60.00000	Averaged
31 4-Chloroaniline	0.35963	0.37866	0.37866	0.000	5.29124	60.00000	Averaged
32 Hexachlorobutadiene	0.13897	0.13488	0.13488	0.001	-2.94176	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21040	0.21712	0.21712	0.001	3.19581	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.50932	0.50121	0.50121	0.000	-1.59402	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 29-MAR-2010 10:17
Lab File ID: s1c2903.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100309-05.4 Quant Type: ISTD
Method: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.50016	0.48830	0.48830	0.000	-2.37217	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.25303	0.18326	0.18326	0.050	-27.57124	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.52418	0.51241	0.51241	0.000	-2.24444	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.29721	0.29360	0.29360	0.001	-1.21359	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.31820	0.28350	0.28350	0.000	-10.90472	60.00000	Averaged	
40 2-Chloronaphthalene	0.95817	0.92585	0.92585	0.000	-3.37317	60.00000	Averaged	
42 o-Nitroaniline	0.27488	0.27705	0.27705	0.000	0.78989	60.00000	Averaged	
41 m-Nitroaniline	36.80954	40.00000	0.19551	0.000	-7.97614	60.00000	Linear	
43 Dimethylphthalate	1.11352	1.09166	1.09166	0.000	-1.96311	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.25852	0.25217	0.25217	0.000	-2.45674	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.32209	0.31738	0.31738	0.000	-1.46221	60.00000	Averaged	
45 Acenaphthylene	1.53720	1.53511	1.53511	0.000	-0.13615	60.00000	Averaged	
47 Acenaphthene	0.97707	0.93988	0.93988	0.001	-3.80608	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	35.65502	40.00000	0.09076	0.050	-10.86246	60.00000	Linear	spcc
49 Dibenzofuran	1.31289	1.28522	1.28522	0.000	-2.10799	60.00000	Averaged	
51 Diethylphthalate	1.11578	1.11546	1.11546	0.000	-0.02852	60.00000	Averaged	
52 4-Nitrophenol	0.18061	0.15588	0.15588	0.050	-13.69365	60.00000	Averaged	spcc
53 Fluorene	1.10069	1.09331	1.09331	0.000	-0.67087	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.53905	0.53490	0.53490	0.000	-0.77107	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	0.09291	0.08787	0.08787	0.000	-5.42443	60.00000	Averaged	
56 p-Nitroaniline	35.27605	40.00000	0.16824	0.000	-11.80988	60.00000	Linear	
133 Diphenylamine	0.51080	0.49578	0.49578	0.001	-2.93901	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.58751	0.60059	0.60059	0.000	2.22705	60.00000	Averaged	
61 4-Bromophenylphenylether	0.18061	0.16634	0.16634	0.000	-7.90110	60.00000	Averaged	
63 Hexachlorobenzene	0.19601	0.16962	0.16962	0.000	-13.46100	60.00000	Averaged	
65 Pentachlorophenol	0.09774	0.09385	0.09385	0.001	-3.98782	20.00000	Averaged	ccc
206 n-Octadecane	0.45255	0.49308	0.49308	0.000	8.95720	60.00000	Averaged	
68 Phenanthrene	0.86428	0.84028	0.84028	0.000	-2.77686	60.00000	Averaged	
69 Anthracene	0.84875	0.82478	0.82478	0.000	-2.82426	60.00000	Averaged	
72 Di-n-butylphthalate	1.04667	1.09364	1.09364	0.000	4.48735	60.00000	Averaged	
76 Fluoranthene	0.88826	0.88938	0.88938	0.001	0.12689	20.00000	Averaged	ccc
79 Pyrene	1.13506	1.09136	1.09136	0.000	-3.85035	60.00000	Averaged	
85 Butylbenzylphthalate	0.48580	0.52223	0.52223	0.000	7.49872	60.00000	Averaged	
89 Benzo(a)anthracene	0.94024	0.95235	0.95235	0.000	1.28810	60.00000	Averaged	
92 Chrysene	0.87862	0.86342	0.86342	0.000	-1.73015	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.64205	0.75161	0.75161	0.000	17.06342	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s1c2903.d
Analysis Type: WATER
Lab Sample ID: WBN100309-05.4
Method: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m

Injection Date: 29-MAR-2010 10:17
Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Init. Cal. Times: 17:03 02:37
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.31370	1.36785	1.36785	0.001	4.12158	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.10005	1.02049	1.02049	0.000	-7.23215	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.04802	1.00781	1.00781	0.000	-3.83671	60.00000	Averaged	
	97 Benzo(a)pyrene	0.88082	0.85558	0.85558	0.001	-2.86515	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.74890	0.76587	0.76587	0.000	2.26634	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.61883	0.59755	0.59755	0.000	-3.43768	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.60742	0.64694	0.64694	0.000	6.50614	60.00000	Averaged	
	126 m-Dinitrobenzene	0.17468	0.16463	0.16463	0.000	-5.75405	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27097	0.25748	0.25748	0.000	-4.97802	60.00000	Averaged	
	143 Dinoseb	37.29094	40.00000	0.12898	0.000	-6.77264	60.00000	Linear	
	173 Carbazole	0.62852	0.71496	0.71496	0.000	13.75282	60.00000	Averaged	
	184 p-Benzoquinone	0.05416	0.06075	0.06075	0.000	12.16872	60.00000	Averaged	
	192 Methoxychlor	0.59295	0.61465	0.61465	0.000	3.65824	60.00000	Averaged	
	211 p-Toluidine	1.19774	1.06397	1.06397	0.000	-11.16869	60.00000	Averaged	
	210 m-Toluidine	1.30269	1.13169	1.13169	0.000	-13.12687	60.00000	Averaged	
	26 Phthalic anhydride	39.56802	40.00000	0.05944	0.000	-1.07995	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	0.26815	0.31082	0.31082	0.000	15.91379	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.15277	0.14327	0.14327	0.000	-6.21996	60.00000	Averaged	
	215 2-Ethoxyethanol	0.56020	0.45708	0.45708	0.000	-18.40856	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.10873	0.07362	0.07362	0.000	-32.29474	60.00000	Averaged	
M	225 Trichlorophenols	0.30770	0.28855	0.28855	0.000	-6.22442	60.00000	Averaged	
M	226 Tetrachlorophenols	0.27097	0.25748	0.25748	0.000	-4.97802	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	1.07403	1.01415	1.01415	0.000	-5.57556	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2903.d
Lab Smp Id: WBN100309-05.4 Client Smp ID: MEGACVS
Inj Date : 29-MAR-2010 10:17
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN100309-05.4|40 PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.504	3.504	(1.000)	393267	40.0000	
* 29 Naphthalene-d8	136	4.351	4.351	(1.000)	1655594	40.0000	
* 46 Acenaphthene-d10	164	5.592	5.592	(1.000)	825625	40.0000	
* 67 Phenanthrene-d10	188	6.598	6.598	(1.000)	1464986	40.0000	
* 91 Chrysene-d12	240	8.175	8.175	(1.000)	1271298	40.0000	
* 98 Perylene-d12	264	9.339	9.339	(1.000)	1100996	40.0000	
$ 3 2-Fluorophenol	112	2.716	2.716	(0.775)	380910	40.0000	37.6
$ 5 Phenol-d5	99	3.240	3.240	(0.924)	465716	40.0000	37.8
$ 20 Nitrobenzene-d5	82	3.863	3.863	(0.888)	397651	40.0000	39.2
$ 39 2-Fluorobiphenyl	172	5.093	5.093	(0.911)	890339	40.0000	39.0
$ 60 2,4,6-Tribromophenol	329	6.139	6.139	(1.098)	97589	40.0000	36.0
$ 81 p-Terphenyl-d14	244	7.528	7.528	(0.921)	806327	40.0000	38.0
1 N-Methyl-N-nitrosomethylamine	74	2.052	2.052	(0.585)	206411	40.0000	36.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.081	2.081	(0.594)	346563	40.0000	39.8
4 Aniline	66	3.299	3.299	(0.941)	219598	40.0000	39.4
6 Phenol	94	3.251	3.251	(0.928)	501365	40.0000	38.4
7 bis(2-Chloroethyl) ether	63	3.316	3.316	(0.946)	337618	40.0000	37.6
8 2-Chlorophenol	128	3.369	3.369	(0.961)	430904	40.0000	39.0
203 n-Decane	43	3.363	3.363	(0.960)	597016	40.0000	42.4
9 1,3-Dichlorobenzene	146	3.469	3.469	(0.990)	467117	40.0000	37.9
11 1,4-Dichlorobenzene	146	3.510	3.510	(1.002)	473240	40.0000	38.0
13 1,2-Dichlorobenzene	146	3.610	3.610	(1.030)	444363	40.0000	38.2
14 bis(2-Chloroisopropyl)ether	45	3.651	3.651	(1.042)	789681	40.0000	41.4
12 Benzyl alcohol	108	3.575	3.575	(1.020)	244524	40.0000	42.5
15 o-Cresol	107	3.634	3.634	(1.037)	316336	40.0000	37.7
18 m,p-Cresols	107	3.740	3.740	(1.067)	420804	40.0000	38.7
17 N-Nitrosodipropylamine	70	3.751	3.751	(1.070)	301080	40.0000	43.0
19 Hexachloroethane	117	3.834	3.834	(1.094)	184945	40.0000	39.1
21 Nitrobenzene	77	3.875	3.875	(0.890)	421324	40.0000	38.8
22 Isophorone	82	4.028	4.028	(0.926)	826808	40.0000	40.8
23 2-Nitrophenol	139	4.087	4.087	(0.939)	215621	40.0000	38.5
24 2,4-Dimethylphenol	122	4.093	4.093	(0.941)	389304	40.0000	38.9
25 bis(2-Chloroethoxy)methane	93	4.157	4.157	(0.955)	494833	40.0000	39.9
26 2,4-Dichlorophenol	162	4.245	4.245	(0.976)	329053	40.0000	39.4
27 Benzoic acid	105	4.163	4.163	(0.957)	157621	40.0000	29.0
28 1,2,4-Trichlorobenzene	180	4.304	4.304	(0.989)	388986	40.0000	38.1
30 Naphthalene	128	4.369	4.369	(1.004)	1294686	40.0000	39.0
204 alpha-Terpineol	59	4.351	4.351	(1.000)	400410	40.0000	42.7
31 4-Chloroaniline	127	4.393	4.393	(1.009)	626909	40.0000	42.1
32 Hexachlorobutadiene	225	4.440	4.440	(1.020)	223314	40.0000	38.8
33 4-Chloro-3-methylphenol	107	4.710	4.710	(1.082)	359463	40.0000	41.3
34 2-Methylnaphthalene	142	4.845	4.845	(1.114)	829792	40.0000	39.4
35 1-Methylnaphthalene	142	4.916	4.916	(1.130)	808421	40.0000	39.0
36 Hexachlorocyclopentadiene	237	4.945	4.945	(0.884)	151307	40.0000	29.0
205 2,3-Dichloroaniline	161	5.045	5.045	(0.902)	423060	40.0000	39.1
37 2,4,6-Trichlorophenol	196	5.040	5.040	(0.901)	242405	40.0000	39.5
38 2,4,5-Trichlorophenol	196	5.063	5.063	(0.905)	234064	40.0000	35.6
40 2-Chloronaphthalene	162	5.192	5.192	(0.928)	764401	40.0000	38.6
42 o-Nitroaniline	65	5.257	5.257	(0.940)	228743	40.0000	40.3
41 m-Nitroaniline	138	5.551	5.551	(0.993)	161418	40.0000	36.8
43 Dimethylphthalate	163	5.375	5.375	(0.961)	901299	40.0000	39.2
44 2,6-Dinitrotoluene	165	5.428	5.428	(0.971)	208199	40.0000	39.0
50 2,4-Dinitrotoluene	165	5.716	5.716	(1.022)	262036	40.0000	39.4
45 Acenaphthylene	152	5.492	5.492	(0.982)	1267425	40.0000	39.9
47 Acenaphthene	154	5.610	5.610	(1.003)	775989	40.0000	38.5
48 2,4-Dinitrophenol	184	5.622	5.622	(1.005)	74930	40.0000	35.6(Q)
49 Dibenzofuran	168	5.734	5.734	(1.025)	1061106	40.0000	39.2
51 Diethylphthalate	149	5.869	5.869	(1.049)	920955	40.0000	40.0
52 4-Nitrophenol	139	5.657	5.657	(1.012)	128696	40.0000	34.5
53 Fluorene	166	5.975	5.975	(1.068)	902663	40.0000	39.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	5.963	5.963	(1.066)	441625	40.0000	39.7
55 2-Methyl-4,6-dinitrophenol	198	6.004	6.004	(0.910)	128728	40.0000	37.8
56 p-Nitroaniline	138	5.987	5.987	(1.070)	138907	40.0000	35.3
133 Diphenylamine	169	6.045	6.045	(0.916)	726317	40.0000	38.8
58 1,2-Diphenylhydrazine	77	6.075	6.075	(0.921)	879859	40.0000	40.9
61 4-Bromophenylphenylether	248	6.292	6.292	(0.954)	243680	40.0000	36.8
63 Hexachlorobenzene	284	6.345	6.345	(0.962)	248494	40.0000	34.6
65 Pentachlorophenol	266	6.469	6.469	(0.980)	137484	40.0000	38.4
206 n-Octadecane	57	6.475	6.475	(0.981)	722362	40.0000	43.6
68 Phenanthrene	178	6.616	6.616	(1.003)	1230999	40.0000	38.9
69 Anthracene	178	6.645	6.645	(1.007)	1208294	40.0000	38.9
72 Di-n-butylphthalate	149	6.916	6.916	(1.048)	1602161	40.0000	41.8
76 Fluoranthene	202	7.328	7.328	(1.111)	1302936	40.0000	40.0
79 Pyrene	202	7.469	7.469	(0.914)	1387444	40.0000	38.4
85 Butylbenzylphthalate	149	7.781	7.781	(0.952)	663910	40.0000	43.0
89 Benzo(a)anthracene	228	8.163	8.163	(0.999)	1210722	40.0000	40.5
92 Chrysene	228	8.192	8.192	(1.002)	1097668	40.0000	39.3
93 bis(2-Ethylhexyl)phthalate	149	8.092	8.092	(0.990)	955517	40.0000	46.8
94 Di-n-octylphthalate	149	8.528	8.528	(0.913)	1505994	40.0000	41.6
95 Benzo(b)fluoranthene	252	8.975	8.975	(0.961)	1123558	40.0000	37.1
96 Benzo(k)fluoranthene	252	8.998	8.998	(0.963)	1109595	40.0000	38.5
97 Benzo(a)pyrene	252	9.286	9.286	(0.994)	941992	40.0000	38.8
99 Indeno(1,2,3-cd)pyrene	276	10.598	10.598	(1.135)	843222	40.0000	40.9
100 Dibenzo(a,h)anthracene	278	10.598	10.598	(1.135)	657903	40.0000	38.6
101 Benzo(ghi)perylene	276	10.986	10.986	(1.176)	712276	40.0000	42.6
126 m-Dinitrobenzene	168	5.410	5.410	(0.967)	135919	40.0000	37.7
130 2,3,4,6-Tetrachlorophenol	232	5.816	5.816	(1.040)	212583	40.0000	38.0
143 Dinoseb	211	6.569	6.569	(0.996)	188948	40.0000	37.3
173 Carbazole	167	6.739	6.739	(1.021)	1047403	40.0000	45.5
184 p-Benzoquinone	54	3.010	3.010	(0.859)	23890	40.0000	44.9
192 Methoxychlor	227	8.075	8.075	(0.988)	781398	40.0000	41.5
211 p-Toluidine	106	3.781	3.781	(1.079)	418423	40.0000	35.5
210 m-Toluidine	106	3.804	3.804	(1.086)	445056	40.0000	34.7
26 Phthalic anhydride	104	4.887	4.887	(1.123)	98408	40.0000	39.6
179 Dibenzo(a,e)pyrene	302	13.933	13.933	(1.492)	342209	40.0000	46.4
214 1,4-Dinitrobenzene	168	5.351	5.351	(0.957)	118288	40.0000	37.5
215 2-Ethoxyethanol	59	1.904	1.904	(0.543)	179753	40.0000	32.6
216 Methylenebis(2-chloroaniline)	231	8.122	8.122	(0.994)	93587	40.0000	27.1
M 225 Trichlorophenols	196				476469	80.0000	75.0
M 226 Tetrachlorophenols	232				212583	40.0000	38.0
M 227 Benzo(b,k)fluoranthene	252				2233153	80.0000	75.5

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s032910.b/s1c2903.d

Date : 29-MAR-2010 10:17

Client ID: MEGACVS

Sample Info: |WBN100309-05.4|40 PPM|1|SVMF|1|MEGACVS

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY

Column diameter: 0.20

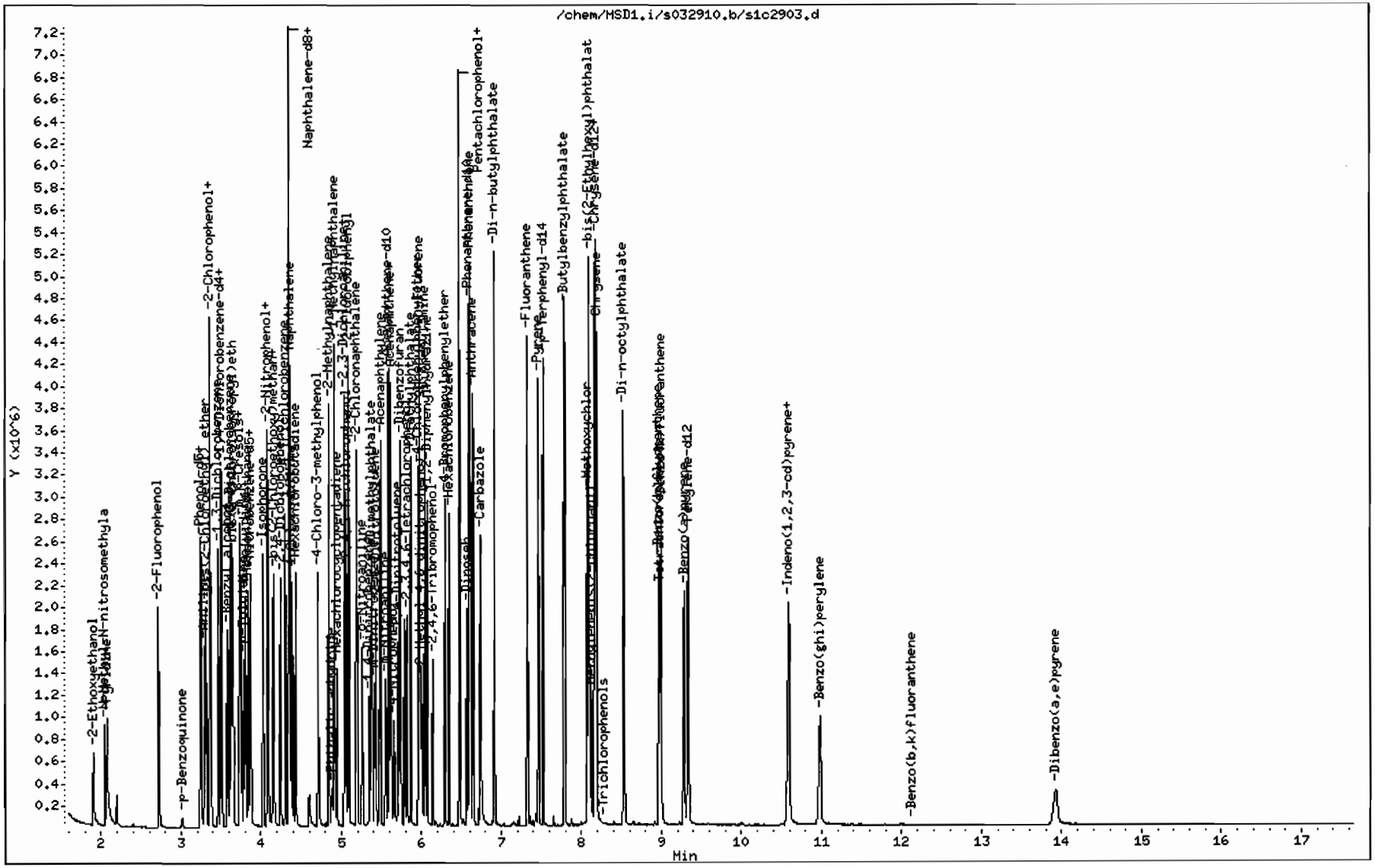

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 29-MAR-2010 11:24
Lab File ID: s1c2904.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100312-08.3 Quant Type: ISTD
Method: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.85292	0.72408	0.72408	0.000	-15.10490	60.00000	Averaged
16 Acetophenone	1.17153	1.13446	1.13446	0.000	-3.16369	60.00000	Averaged
189 Caprolactam	0.06713	0.07767	0.07767	0.000	15.70402	60.00000	Averaged
208 1,1'-Biphenyl	1.20731	1.22486	1.22486	0.000	1.45380	60.00000	Averaged
207 Atrazine	0.04270	0.04603	0.04603	0.000	7.80373	60.00000	Averaged
77 Benzidine	0.35698	0.23676	0.23676	0.000	-33.67535	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.29661	0.25584	0.25584	0.000	-13.74628	60.00000	Averaged
102 1,4-Dioxane	0.33011	0.39835	0.39835	0.000	20.67221	60.00000	Averaged
103 Methyl methacrylate	0.19011	0.23202	0.23202	0.000	22.04785	60.00000	Averaged
104 Ethyl methacrylate	0.72578	0.87117	0.87117	0.000	20.03181	60.00000	Averaged
105 2-Picoline	1.17224	1.11505	1.11505	0.000	-4.87834	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44761	0.43186	0.43186	0.000	-3.51797	60.00000	Averaged
107 Methyl methanesulfonate	0.43845	0.48961	0.48961	0.000	11.66863	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49906	0.46118	0.46118	0.000	-7.59065	60.00000	Averaged
109 Ethyl Methanesulfonate	0.59722	0.73802	0.73802	0.000	23.57492	60.00000	Averaged
110 Pentachloroethane	0.31358	0.43420	0.43420	0.000	38.46483	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.48048	0.46843	0.46843	0.000	-2.50629	60.00000	Averaged
113 N-Nitrosomorpholine	0.61907	0.65723	0.65723	0.000	6.16417	60.00000	Averaged
114 o-Toluidine	1.65123	1.56964	1.56964	0.000	-4.94140	60.00000	Averaged
115 N-Nitrosopiperidine	0.12608	0.12634	0.12634	0.000	0.20398	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.75396	0.71080	0.71080	0.000	-5.72462	60.00000	Averaged
118 2,6-Dichlorophenol	0.19593	0.20940	0.20940	0.000	6.87420	60.00000	Averaged
119 Hexachloropropene	0.10838	0.16096	0.16096	0.000	48.51215	60.00000	Averaged
120 p-Phenylenediamine	0.24548	0.20622	0.20622	0.000	-15.99085	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.17777	0.18288	0.18288	0.000	2.87732	60.00000	Averaged
122 Safrole	0.18440	0.21310	0.21310	0.000	15.56257	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.45282	0.48633	0.48633	0.000	7.40211	60.00000	Averaged
124 Isosafrole	0.33289	0.43475	0.43475	0.000	30.59762	60.00000	Averaged
125 1,4-Naphthoquinone	0.31050	0.31950	0.31950	0.000	2.89864	60.00000	Averaged
127 Pentachlorobenzene	0.40506	0.39486	0.39486	0.000	-2.51813	60.00000	Averaged
128 1-Naphthylamine	0.91492	0.83596	0.83596	0.000	-8.63013	60.00000	Averaged
129 2-Naphthylamine	0.95136	0.87495	0.87495	0.000	-8.03080	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27755	0.23849	0.23849	0.000	-14.07210	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.10955	0.14462	0.14462	0.000	32.01853	60.00000	Averaged
137 Phenacetin	0.24931	0.24277	0.24277	0.000	-2.62375	60.00000	Averaged
138 Diallate	0.22908	0.22213	0.22213	0.000	-3.03449	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 29-MAR-2010 11:24
Lab File ID: s1c2904.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100312-08.3 Quant Type: ISTD
Method: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.22400	0.29915	0.29915	0.000	33.55058	60.00000	Averaged
213 Trans Diallate	0.26951	0.26133	0.26133	0.000	-3.03449	60.00000	Averaged
140 4-Aminobiphenyl	0.54917	0.46271	0.46271	0.000	-15.74275	60.00000	Averaged
141 Pentachloronitrobenzene	0.06390	0.06942	0.06942	0.000	8.64095	60.00000	Averaged
142 Pronamide	0.25643	0.28204	0.28204	0.000	9.98355	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01899	0.01978	0.01978	0.000	4.14115	60.00000	Averaged
147 Methapyrilene	0.43198	0.41545	0.41545	0.000	-3.82670	60.00000	Averaged
148 Isodrin	0.09769	0.09587	0.09587	0.000	-1.85805	60.00000	Averaged
149 Aramite	0.03937	0.04011	0.04011	0.000	1.88160	60.00000	Averaged
150 Kepone	0.06795	0.06753	0.06753	0.000	-0.61927	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.27269	0.29239	0.29239	0.000	7.22626	60.00000	Averaged
152 Chlorobenzilate	0.28668	0.33141	0.33141	0.000	15.60332	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.51675	0.47334	0.47334	0.000	-8.40152	60.00000	Averaged
155 2-Acetylaminofluorene	0.30754	0.25043	0.25043	0.000	-18.56956	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.49490	0.46634	0.46634	0.000	-5.77164	60.00000	Averaged
158 3-Methylcholanthrene	0.39716	0.39879	0.39879	0.000	0.41001	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2904.d
Lab Smp Id: WBN100312-08.3 Client Smp ID: APCVS
Inj Date : 29-MAR-2010 11:24
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN100312-08.3|40 PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 13:45 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.498	3.498	(1.000)	398599	40.0000	
* 29 Naphthalene-d8	136	4.351	4.351	(1.000)	1517792	40.0000	
* 46 Acenaphthene-d10	164	5.586	5.586	(1.000)	815436	40.0000	
* 67 Phenanthrene-d10	188	6.598	6.598	(1.000)	1403354	40.0000	
* 91 Chrysene-d12	240	8.169	8.169	(1.000)	1075052	40.0000	
* 98 Perylene-d12	264	9.333	9.333	(1.000)	823178	40.0000	
209 Benzaldehyde	77	3.234	3.234	(0.924)	288619	40.0000	34.0
16 Acetophenone	105	3.751	3.751	(1.072)	452196	40.0000	38.7
189 Caprolactam	113	4.640	4.640	(1.066)	117893	40.0000	46.3
208 1,1'-Biphenyl	154	5.169	5.169	(0.925)	998797	40.0000	40.6
207 Atrazine	173	6.386	6.386	(0.968)	64596	40.0000	43.1
77 Benzidine	184	7.392	7.392	(0.905)	254532	40.0000	26.5
90 3,3'-Dichlorobenzidine	252	8.122	8.122	(0.994)	275036	40.0000	34.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
102 1,4-Dioxane	88	1.904	1.904	(0.544)	158782	40.0000	48.3
103 Methyl methacrylate	100	1.899	1.899	(0.543)	92483	40.0000	48.8
104 Ethyl methacrylate	69	2.251	2.251	(0.644)	347246	40.0000	48.0
105 2-Picoline	93	2.434	2.434	(0.696)	444458	40.0000	38.0
106 N-Nitrosomethylethylamine	88	2.481	2.481	(0.709)	172139	40.0000	38.6
107 Methyl methanesulfonate	80	2.634	2.634	(0.753)	195157	40.0000	44.7
108 N-Nitrosodiethylamine	102	2.851	2.851	(0.815)	183824	40.0000	37.0
109 Ethyl Methanesulfonate	79	3.016	3.016	(0.862)	294174	40.0000	49.4
110 Pentachloroethane	167	3.328	3.328	(0.951)	173071	40.0000	55.4
111 N-Nitrosopyrrolidine	100	3.745	3.745	(1.071)	186717	40.0000	39.0(Q)
113 N-Nitrosomorpholine	56	3.763	3.763	(1.076)	261971	40.0000	42.5
114 o-Toluidine	106	3.781	3.781	(1.081)	625656	40.0000	38.0
115 N-Nitrosopiperidine	114	3.975	3.975	(0.913)	191758	40.0000	40.1
116 a,a-Dimethylphenethylamine	58	4.216	4.216	(0.969)	1078841	40.0000	37.7
118 2,6-Dichlorophenol	162	4.398	4.398	(1.011)	317821	40.0000	42.7
119 Hexachloropropene	213	4.422	4.422	(1.016)	244307	40.0000	59.4
120 p-Phenylenediamine	108	4.645	4.645	(1.068)	313005	40.0000	33.6
121 N-Nitrosodi-n-butylamine	84	4.610	4.610	(1.059)	277578	40.0000	41.2(Q)
122 Safrole	162	4.769	4.769	(1.096)	323446	40.0000	46.2
123 1,2,4,5-Tetrachlorobenzene	216	4.957	4.957	(0.887)	396575	40.0000	43.0
124 Isosafrole	162	5.134	5.134	(0.919)	354510	40.0000	52.2
125 1,4-Naphthoquinone	158	5.316	5.316	(0.952)	260534	40.0000	41.2
127 Pentachlorobenzene	250	5.698	5.698	(1.020)	321982	40.0000	39.0
128 1-Naphthylamine	143	5.787	5.787	(1.036)	681672	40.0000	36.5
129 2-Naphthylamine	143	5.845	5.845	(1.046)	713469	40.0000	36.8
131 5-Nitro-o-toluidine	152	5.975	5.975	(1.069)	194475	40.0000	34.4
136 1,3,5-Trinitrobenzene	75	6.210	6.210	(0.941)	202955	40.0000	52.8
137 Phenacetin	108	6.245	6.245	(0.946)	340687	40.0000	39.0(Q)
138 Diallate	86	6.222	6.222	(0.943)	311731	40.0000	38.8
212 Cis Diallate	86	6.286	6.286	(0.953)	62973	6.00000	8.0
213 Trans Diallate	86	6.222	6.222	(0.943)	311731	34.0000	33.0
140 4-Aminobiphenyl	169	6.469	6.469	(0.980)	649352	40.0000	33.7
141 Pentachloronitrobenzene	237	6.475	6.475	(0.981)	97420	40.0000	43.4(Q)
142 Pronamide	173	6.486	6.486	(0.983)	395796	40.0000	44.0
146 4-Nitroquinoline-1-oxide	101	7.081	7.081	(1.073)	27759	40.0000	41.6
147 Methapyrilene	58	7.098	7.098	(1.076)	583023	40.0000	38.5
148 Isodrin	193	7.239	7.239	(I.097)	134543	40.0000	39.2
149 Aramite	185	7.492	7.492	(1.135)	56291	40.0000	40.8
150 Kepone	272	7.851	7.851	(1.190)	94762	40.0000	39.8
151 p-(Dimethylamino)azobenzene	120	7.604	7.604	(0.931)	314337	40.0000	42.9
152 Chlorobenzilate	251	7.622	7.622	(0.933)	356281	40.0000	46.2
153 3,3'-Dimethylbenzidine	212	7.798	7.798	(0.955)	508863	40.0000	36.6
155 2-Acetylaminofluorene	181	7.945	7.945	(0.973)	269224	40.0000	32.6
157 7,12Dimethylbenz(a)anthracene	256	8.951	8.951	(0.959)	383881	40.0000	37.7
158 3-Methylcholanthrene	268	9.610	9.610	(1.030)	328275	40.0000	40.2(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s032910.b/s1c2904.d

Date : 29-MAR-2010 11:24

Client ID: APCVS

Sample Info: IWBN100312-08,3|40 PPM|1|SVMF|1|APCVS

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY

Column diameter: 0.20

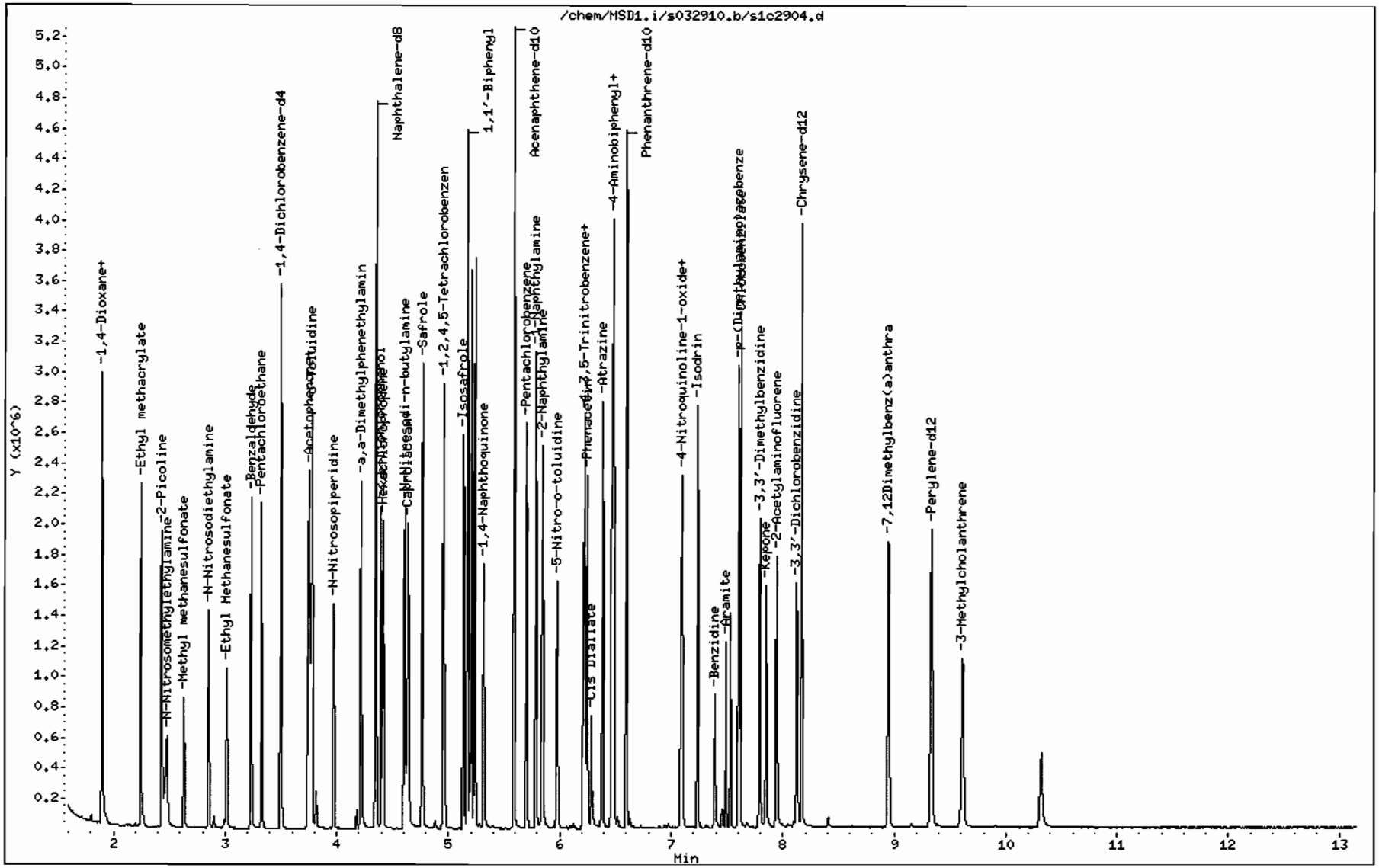

QC Data

Data File: /chem/MSD1.i/s031510a.b/s1c1513.d

Date : 15-MAR-2010 16:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

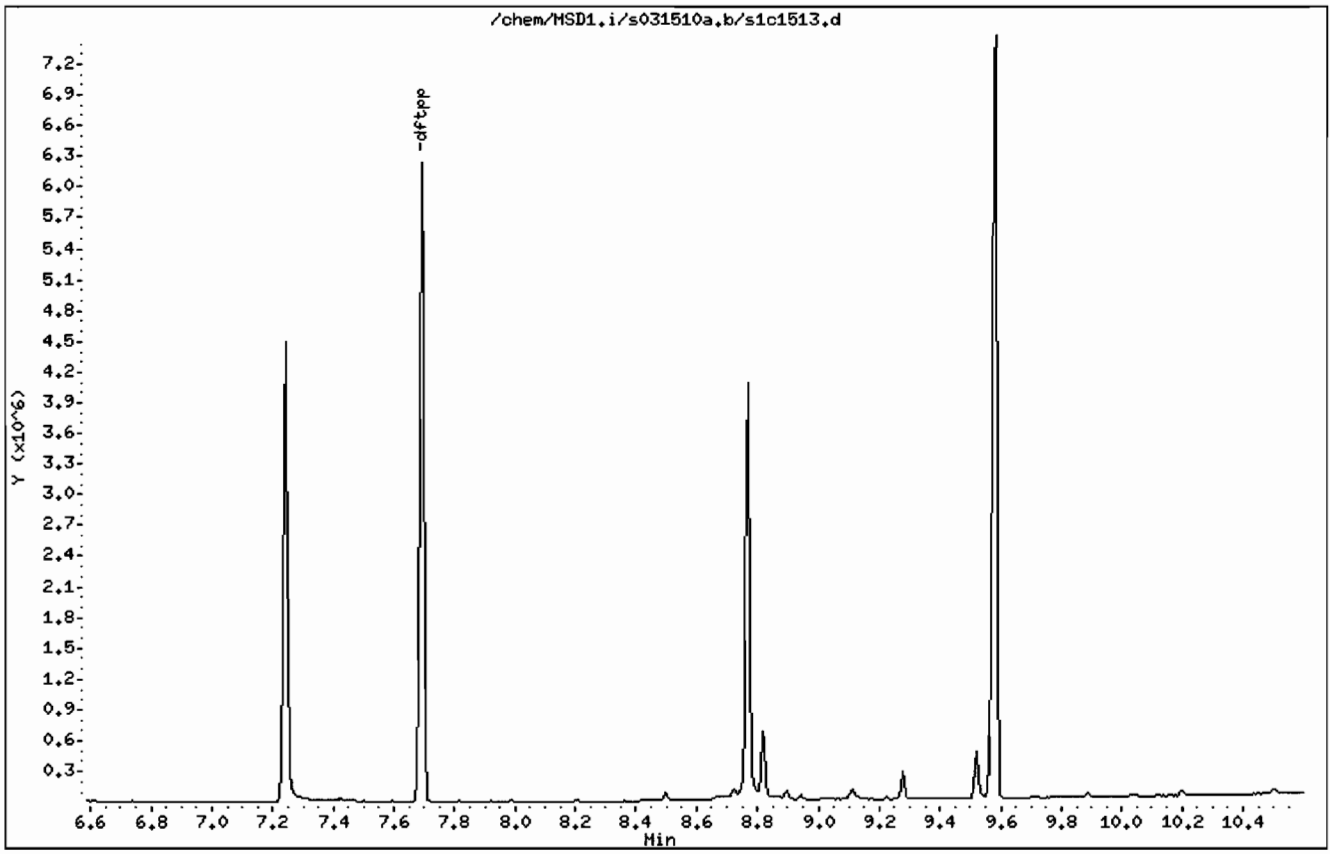

Data File: /chem/MSD1.i/s031510a.b/s1c1513.d

Date : 15-MAR-2010 16:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

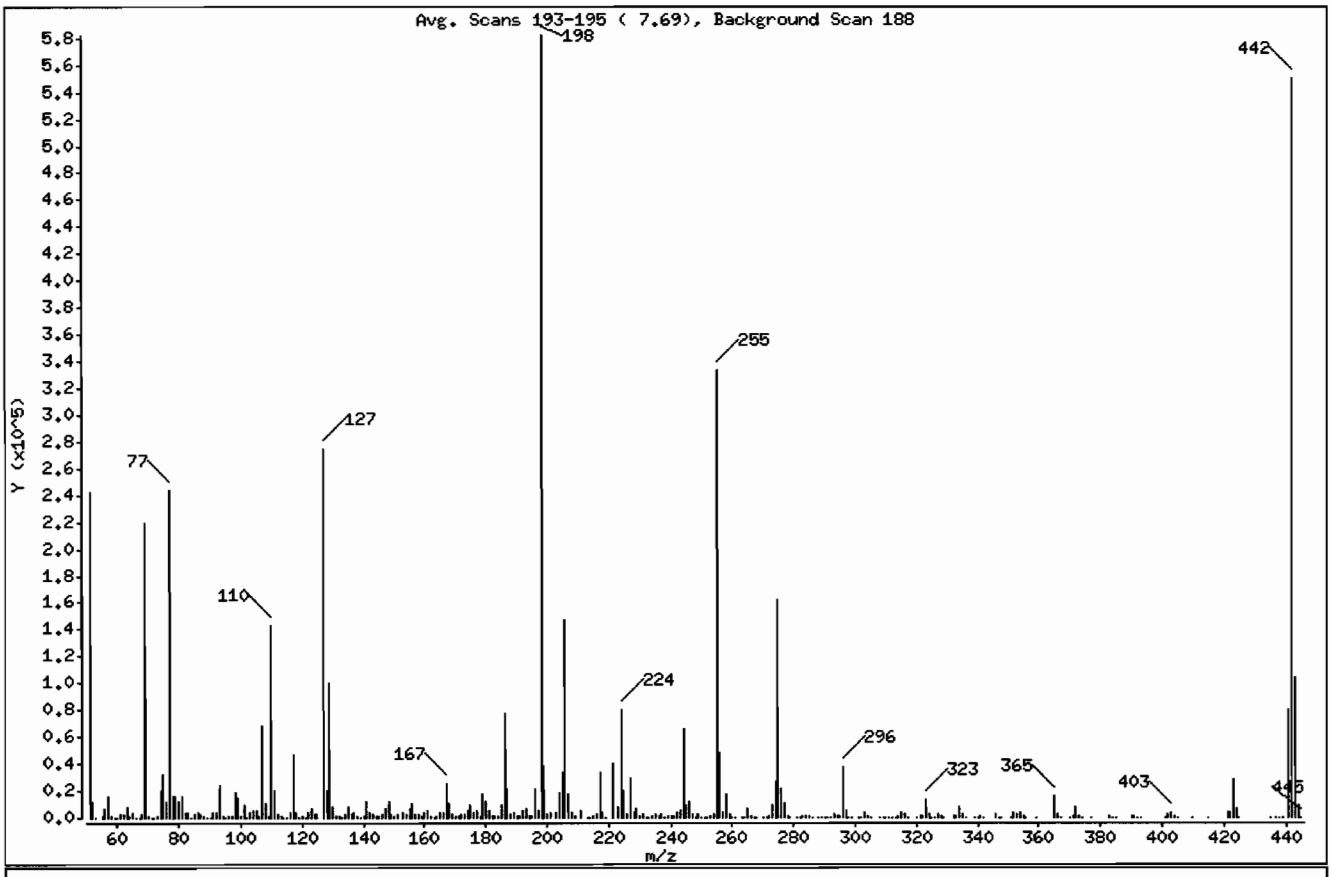

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.53
68	Less than 2.00% of mass 69	0.51 (1.35)
69	Mass 69 relative abundance	37.65
70	Less than 2.00% of mass 69	0.19 (0.50)
127	40.00 - 60.00% of mass 198	47.13
197	Less than 1.00% of mass 198	0.87
199	5.00 - 9.00% of mass 198	6.62
275	10.00 - 30.00% of mass 198	27.82
365	Greater than 1.00% of mass 198	2.87
441	Present, but less than mass 443	13.73
442	Greater than 40.00% of mass 198	94.43
443	17.00 - 23.00% of mass 442	18.01 (19.07)

Data File: /chem/MSD1.i/s031510a.b/s1c1513.d

Date : 15-MAR-2010 16:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01,2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c1513.d
Spectrum: Avg. Scans 193-195 (7.69), Background Scan 188
Location of Maximum: 198.00
Number of points: 318

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	241856	133.00	233	217.00	33440	304.00	1315
52.00	11973	134.00	2979	218.00	4340	305.00	229
53.00	550	135.00	7765	219.00	552	308.00	622
55.00	1434	136.00	3066	221.00	40216	309.00	430
56.00	7062	137.00	4020	223.00	8568	310.00	399
57.00	15923	138.00	768	224.00	79800	311.00	61
58.00	764	139.00	640	225.00	20032	312.00	64
59.00	319	140.00	1357	226.00	2076	313.00	424
60.00	272	141.00	12558	227.00	29024	314.00	1973
61.00	2874	142.00	4154	228.00	4167	315.00	3997
62.00	3241	143.00	2743	229.00	6393	316.00	2374
63.00	8658	144.00	712	230.00	992	317.00	382
64.00	1210	145.00	768	231.00	2774	320.00	195
65.00	4250	146.00	2531	232.00	580	321.00	1265
66.00	387	147.00	6077	233.00	575	322.00	771
67.00	409	148.00	12137	234.00	1864	323.00	13849
68.00	2960	149.00	2536	235.00	2265	324.00	2561
69.00	219264	150.00	832	236.00	1470	325.00	289
70.00	1093	151.00	2872	237.00	2709	326.00	323
71.00	133	153.00	3854	238.00	449	327.00	2325
72.00	179	154.00	3086	239.00	1254	328.00	1194
73.00	1688	155.00	6466	240.00	914	329.00	236
74.00	20248	156.00	10263	241.00	1755	332.00	829
75.00	32520	157.00	2602	242.00	4114	333.00	1241
76.00	11845	158.00	2440	243.00	4729	334.00	8459
77.00	243136	159.00	1768	244.00	66136	335.00	2502
78.00	16271	160.00	3741	245.00	8903	336.00	280
79.00	15405	161.00	5825	246.00	11386	339.00	198
80.00	11726	162.00	1644	247.00	2217	340.00	170
81.00	15993	163.00	523	248.00	520	341.00	1444
82.00	3893	164.00	805	249.00	2394	342.00	479
83.00	3871	165.00	4606	250.00	445	346.00	2761
84.00	493	166.00	3872	251.00	626	347.00	538
85.00	2923	167.00	24776	252.00	581	348.00	51
86.00	4314	168.00	11154	253.00	1303	351.00	197

Date : 15-MAR-2010 16:24

Client ID: DFTPP Instrument: MSD1.i

Sample Info: IWBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s1c1513.d
Spectrum: Avg. Scans 193-195 (7.69), Background Scan 188
Location of Maximum: 198.00
Number of points: 318

m/z	Y	m/z	Y	m/z	Y	m/z	Y
87.00	2188	169.00	2168	254.00	2657	352.00	3844
88.00	813	170.00	995	255.00	333376	353.00	2892
89.00	436	171.00	1257	256.00	48232	354.00	4664
90.00	120	172.00	2258	257.00	3755	355.00	903
91.00	3924	173.00	2862	258.00	16736	356.00	63
92.00	4234	174.00	5478	259.00	2653	359.00	420
93.00	23712	175.00	9699	260.00	525	365.00	16680
94.00	1838	176.00	3662	261.00	587	366.00	2565
95.00	558	177.00	5122	263.00	193	367.00	153
96.00	1017	178.00	1461	264.00	610	370.00	387
97.00	719	179.00	18056	265.00	6158	371.00	1044
98.00	18368	180.00	12432	266.00	1260	372.00	7396
99.00	14347	181.00	5882	267.00	85	373.00	1784
100.00	1400	182.00	1044	268.00	175	374.00	207
101.00	9027	183.00	874	270.00	318	377.00	138
102.00	579	184.00	1418	271.00	587	383.00	1767
103.00	3545	185.00	9135	272.00	849	384.00	549
104.00	5824	186.00	78248	273.00	9829	385.00	71
105.00	5163	187.00	21168	274.00	26920	390.00	1009
106.00	1408	188.00	2310	275.00	161984	391.00	772
107.00	67632	189.00	4285	276.00	20992	392.00	564
108.00	11058	190.00	733	277.00	11136	393.00	53
109.00	813	191.00	1865	278.00	1960	401.00	465
110.00	143296	192.00	5338	279.00	441	402.00	2965
111.00	19696	193.00	6535	281.00	109	403.00	4056
112.00	2414	194.00	1550	282.00	293	404.00	1650
113.00	688	195.00	1175	283.00	1412	405.00	243
114.00	227	196.00	20984	284.00	1001	410.00	158
115.00	194	197.00	5045	285.00	1940	415.00	186
116.00	4126	198.00	582336	286.00	378	421.00	3617
117.00	47152	199.00	38536	288.00	143	422.00	3691
118.00	3544	200.00	2810	289.00	457	423.00	27832
119.00	489	201.00	3621	290.00	408	424.00	6215
120.00	946	203.00	3872	291.00	293	425.00	667
121.00	449	204.00	18384	292.00	459	435.00	50

Date : 15-MAR-2010 16:24

Client ID: DFTPP Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s1c1513.d
Spectrum: Avg. Scans 193-195 (7.69), Background Scan 188
Location of Maximum: 198.00
Number of points: 318

m/z	Y	m/z	Y	m/z	Y	m/z	Y
122.00	4605	205.00	32968	293.00	2865	437.00	58
123.00	7129	206.00	147328	294.00	693	438.00	140
124.00	3149	207.00	17968	295.00	842	439.00	571
125.00	3000	208.00	4366	296.00	36816	441.00	79952
127.00	274432	209.00	1412	297.00	5113	442.00	549952
128.00	19888	211.00	5781	298.00	338	443.00	104896
129.00	100192	213.00	385	299.00	59	444.00	9485
130.00	8398	214.00	109	301.00	414	445.00	593
131.00	1681	215.00	1479	302.00	653		
132.00	1065	216.00	2829	303.00	4624		

Data File: /chem/MSD1.i/s032910.b/s1c2902.d

Page 1

Date : 29-MAR-2010 10:02

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

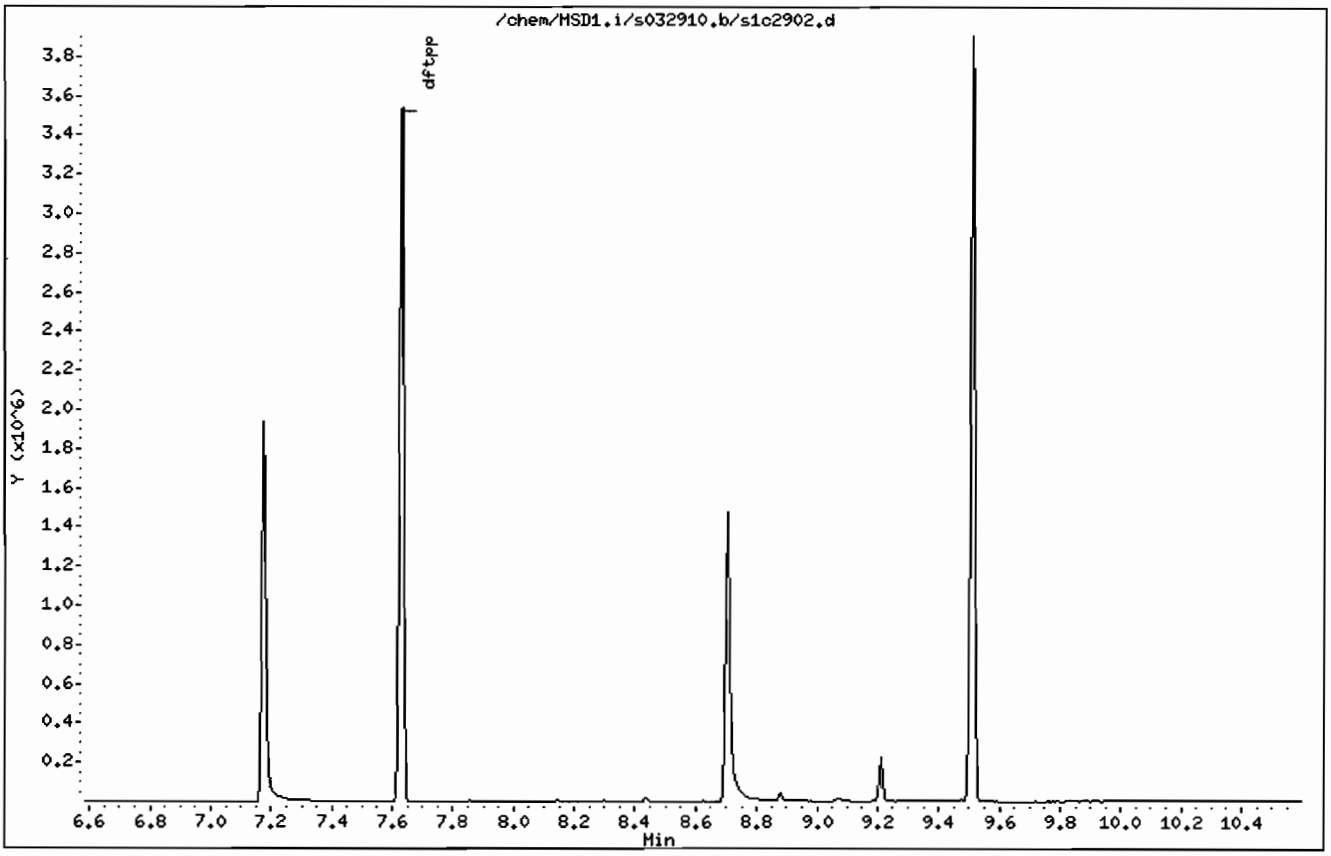

Data File: /chem/MSD1.i/s032910.b/s1c2902.d

Date : 29-MAR-2010 10:02

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

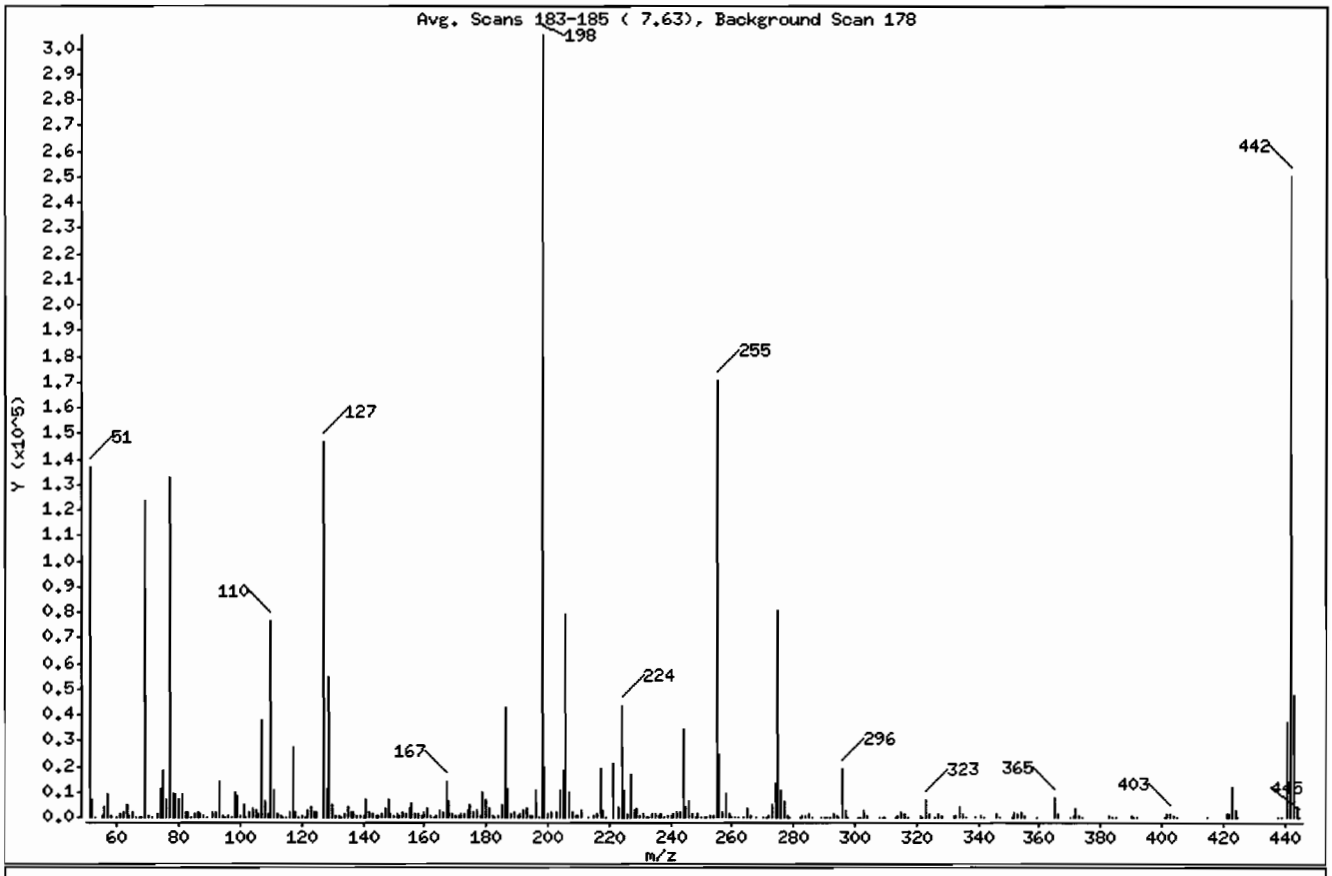

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	44.72
68	Less than 2.00% of mass 69	0.06 (0.16)
69	Mass 69 relative abundance	40.35
70	Less than 2.00% of mass 69	0.19 (0.46)
127	40.00 - 60.00% of mass 198	48.02
197	Less than 1.00% of mass 198	0.04
199	5.00 - 9.00% of mass 198	6.54
275	10.00 - 30.00% of mass 198	26.47
365	Greater than 1.00% of mass 198	2.64
441	Present, but less than mass 443	12.13
442	Greater than 40.00% of mass 198	81.96
443	17.00 - 23.00% of mass 442	15.65 (19.10)

Date : 29-MAR-2010 10:02

Client ID: DFTPP Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s1c2902.d
Spectrum: Avg. Scans 183-185 (7.63), Background Scan 178
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	136512	131.00	904	207.00	10091	293.00	1446
52.00	6799	132.00	466	208.00	2442	294.00	384
53.00	337	133.00	343	209.00	900	295.00	334
55.00	887	134.00	1530	210.00	757	296.00	18880
56.00	3960	135.00	4154	211.00	3067	297.00	2811
57.00	9162	136.00	1799	213.00	240	298.00	186
58.00	404	137.00	2053	215.00	821	301.00	254
60.00	203	138.00	439	216.00	1527	302.00	273
61.00	1537	139.00	358	217.00	18632	303.00	2474
62.00	1829	140.00	599	218.00	2610	304.00	681
63.00	4816	141.00	6720	219.00	221	308.00	294
64.00	695	142.00	2213	221.00	20744	309.00	155
65.00	2315	143.00	1492	223.00	4478	310.00	200
66.00	141	144.00	436	224.00	43480	313.00	143
67.00	125	145.00	390	225.00	10720	314.00	910
68.00	197	146.00	1391	226.00	1224	315.00	2088
69.00	123208	147.00	3552	227.00	16848	316.00	1217
70.00	571	148.00	7137	228.00	2533	317.00	208
71.00	136	149.00	1703	229.00	3396	321.00	717
73.00	1100	150.00	422	230.00	532	322.00	309
74.00	11515	151.00	1092	231.00	1549	323.00	6759
75.00	18240	152.00	608	232.00	349	324.00	1352
76.00	6877	153.00	2226	233.00	286	326.00	65
77.00	132416	154.00	1647	234.00	1084	327.00	1181
78.00	8970	155.00	3694	235.00	1182	328.00	620
79.00	9009	156.00	5789	236.00	752	332.00	431
80.00	6707	157.00	1408	237.00	1628	333.00	661
81.00	8947	158.00	1353	238.00	188	334.00	3987
82.00	2245	159.00	932	239.00	636	335.00	1099
83.00	2213	160.00	2085	240.00	572	336.00	142
84.00	100	161.00	3222	241.00	1054	339.00	53
85.00	1604	162.00	933	242.00	1948	341.00	764
86.00	2389	163.00	214	243.00	2279	342.00	206
87.00	1157	164.00	358	244.00	34216	346.00	1288
88.00	370	165.00	2636	245.00	4363	347.00	177

Date : 29-MAR-2010 10:02

Client ID: DFTPP Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s1c2902.d
Spectrum: Avg. Scans 183-185 (7.63), Background Scan 178
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
89.00	230	166.00	2240	246.00	6556	351.00	121
91.00	2098	167.00	14324	247.00	1283	352.00	1902
92.00	2342	168.00	6172	248.00	264	353.00	1353
93.00	13839	169.00	1301	249.00	1138	354.00	2147
94.00	997	170.00	494	250.00	200	355.00	414
95.00	331	171.00	628	251.00	338	359.00	117
96.00	744	172.00	1192	252.00	254	365.00	8047
97.00	241	173.00	1611	253.00	834	366.00	1232
98.00	10166	174.00	3008	254.00	939	370.00	149
99.00	8545	175.00	5217	255.00	170560	371.00	450
100.00	827	176.00	2030	256.00	24448	372.00	3335
101.00	4996	177.00	2760	257.00	1782	373.00	861
102.00	233	178.00	945	258.00	8961	374.00	70
103.00	2049	179.00	9933	259.00	1397	383.00	874
104.00	3267	180.00	7173	260.00	254	384.00	206
105.00	3022	181.00	3362	261.00	286	385.00	50
106.00	1142	182.00	507	262.00	73	390.00	452
107.00	38144	183.00	226	264.00	267	391.00	336
108.00	6219	184.00	819	265.00	3676	392.00	176
109.00	1754	185.00	4979	266.00	643	401.00	153
110.00	76280	186.00	42744	268.00	251	402.00	1320
111.00	10757	187.00	11446	270.00	202	403.00	1712
112.00	1456	188.00	1226	271.00	338	404.00	592
113.00	358	189.00	2390	272.00	359	405.00	53
114.00	144	190.00	352	273.00	5156	415.00	83
115.00	274	191.00	1149	274.00	13423	421.00	1585
116.00	2356	192.00	2927	275.00	80816	422.00	1623
117.00	27248	193.00	3617	276.00	10819	423.00	12242
118.00	2066	194.00	719	277.00	5998	424.00	2496
119.00	227	195.00	563	278.00	987	425.00	202
120.00	482	196.00	10529	279.00	207	438.00	186
121.00	277	197.00	129	282.00	221	439.00	331
122.00	2746	198.00	305280	283.00	744	441.00	37024
123.00	3951	199.00	19952	284.00	466	442.00	250240
124.00	1854	200.00	1684	285.00	1094	443.00	47792

Data File: /chem/MSD1.i/s032910.b/s1c2902.d

Date : 29-MAR-2010 10:02

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c2902.d
Spectrum: Avg. Scans 183-185 (7.63), Background Scan 178
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
125.00	1827	201.00	2064	286.00	181	444.00	4263
127.00	146560	203.00	1917	289.00	182	445.00	300
128.00	11073	204.00	10570	290.00	199		
129.00	54712	205.00	18288	291.00	56		
130.00	4581	206.00	79024	292.00	239		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074807**				
Client Sample:	**QC for batch 966763**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966763**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 14:58**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2908-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	333	ug/kg	66.7	333
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074807**				
Client Sample:	**QC for batch 966763**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966763**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 14:58**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2908-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.72	519	ug/kg		J
	Unknown Aldol Condensate	2.56	473	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2908.d
Lab Smp Id: 1202074807 Client Smp ID: SBLK01
Inj Date : 29-MAR-2010 14:58
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202074807|966766|1|SVM|1|SBLK01
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2430.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.499	3.504	(1.000)	392001	40.0000	
* 29 Naphthalene-d8	136	4.351	4.351	(1.000)	1525914	40.0000	
* 46 Acenaphthene-d10	164	5.587	5.592	(1.000)	782209	40.0000	
* 67 Phenanthrene-d10	188	6.598	6.598	(1.000)	1384440	40.0000	
* 91 Chrysene-d12	240	8.169	8.175	(1.000)	1166426	40.0000	
* 98 Perylene-d12	264	9.339	9.339	(1.000)	972235	40.0000	
$ 3 2-Fluorophenol	112	2.728	2.716	(0.780)	760122	75.3033	2510
$ 5 Phenol-d5	99	3.240	3.240	(0.926)	853018	69.3889	2310
$ 20 Nitrobenzene-d5	82	3.857	3.863	(0.886)	386255	41.2714	1380
$ 39 2-Fluorobiphenyl	172	5.093	5.093	(0.912)	829929	38.4178	1280
$ 60 2,4,6-Tribromophenol	329	6.140	6.139	(1.099)	167249	65.2180	2170
$ 81 p-Terphenyl-d14	244	7.528	7.528	(0.922)	853861	43.9085	1460

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2908.d
Lab Smp Id: 1202074807 Client Smp ID: SBLK01
Inj Date : 29-MAR-2010 14:58
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202074807|966766|1|SVM|1|SBLK01
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2430.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.499	2384903	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.716	928365	15.5706912	519	0		0	10
Unknown Aldol Condensate				CAS #:			
2.563	846078	14.1905638	473	0		0	10

Data File: /chem/MSD1.i/s032910.b/s1c2908.d
Date : 29-MAR-2010 14:58
Client ID: SBLK01
Sample Info: 1120207480719667661|1|SVMI1|SBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

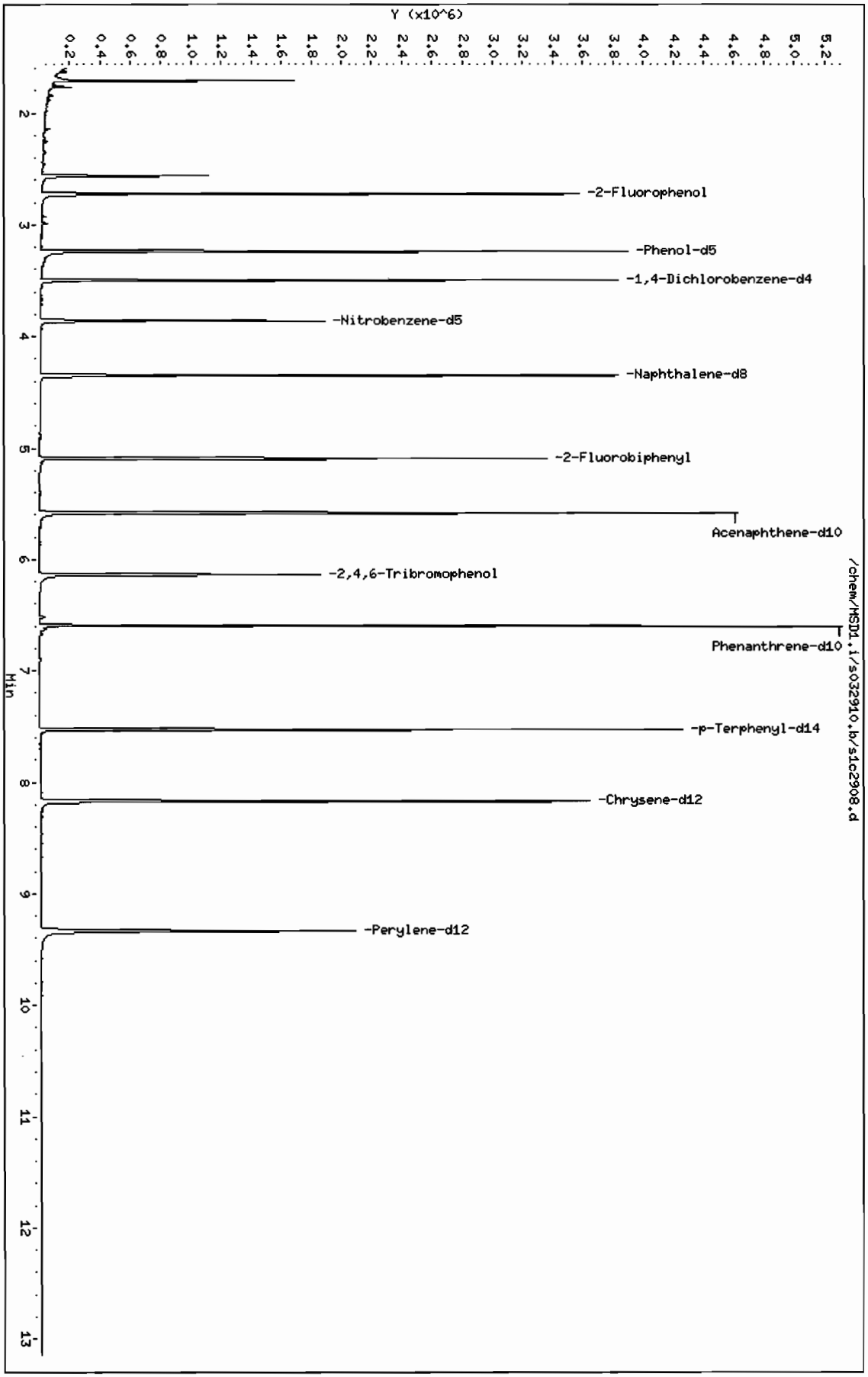

Data File: /chem/MSD1.i/s032910.b/s1c2908.d

Date : 29-MAR-2010 14:58

Client ID: SBLK01

Instrument: MSD1.i

Sample Info: 1120207480719667661|1|SVM|1|SBLK01

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	45	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	33	C5H12O2	104
Propanoic acid, 2-methyl-, propyl ester	644-49-5	NIST05.L	13119	25	C7H14O2	130

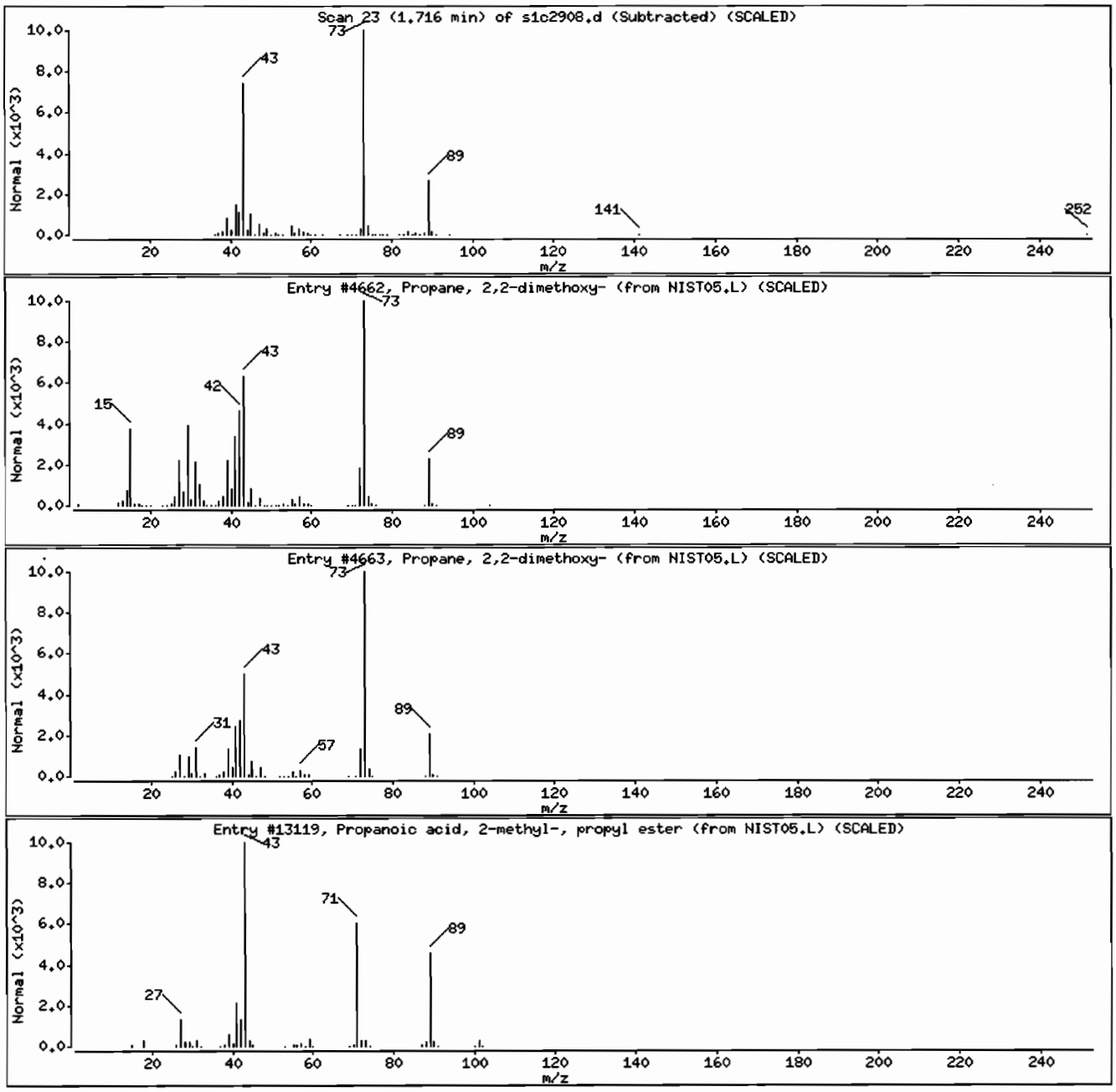

Data File: /chem/MSD1.i/s032910.b/s1c2908.d

Date : 29-MAR-2010 14:58

Client ID: SBLK01

Instrument: MSD1.i

Sample Info: |1202074807|966766|1|SVMI|1|SBLK01

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116

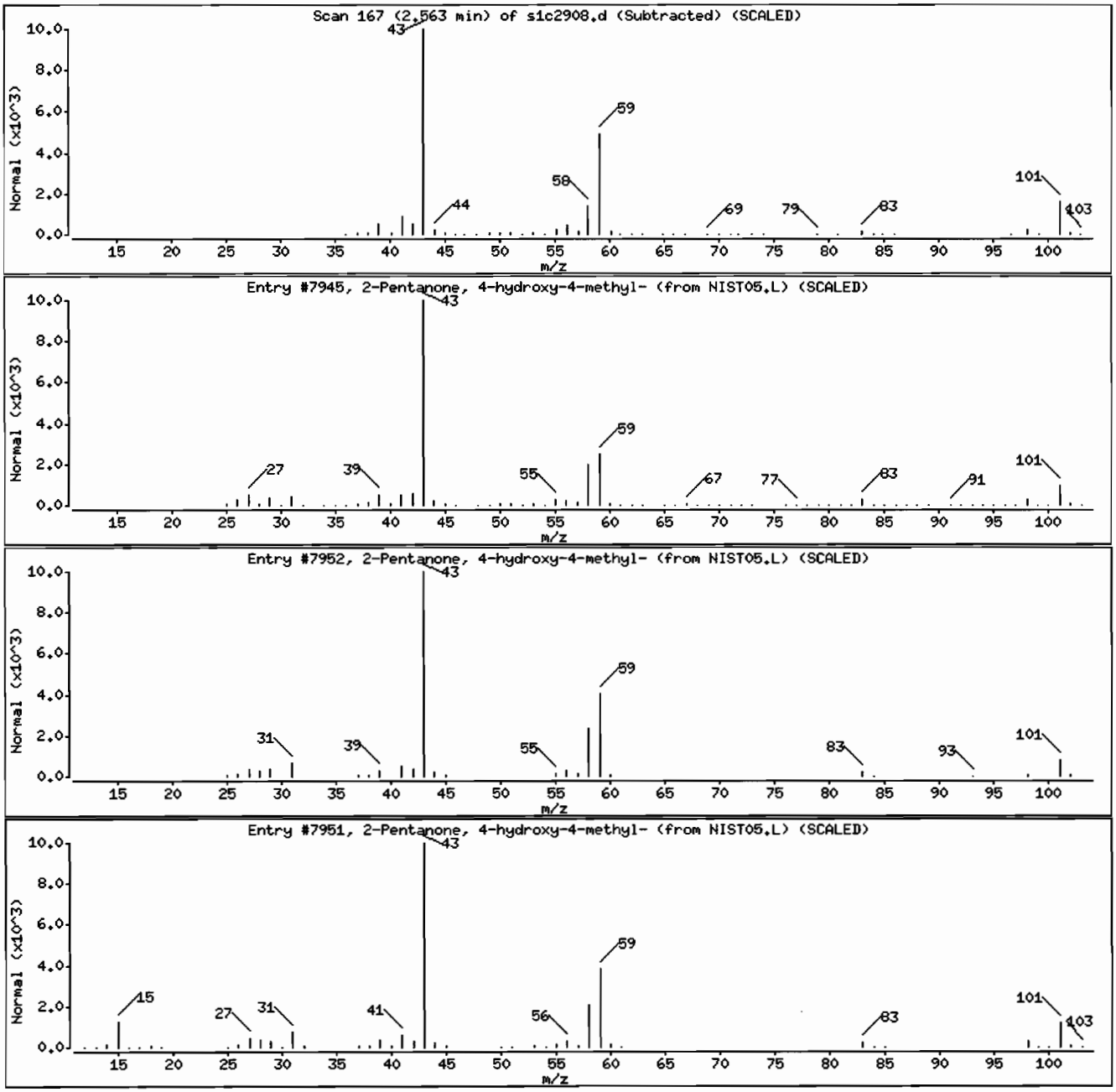

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074808**				
Client Sample:	**QC for batch 966763**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966763**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 15:22**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2909-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		950	ug/kg	66.7	333
108-95-2	Phenol		1160	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1230	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1040	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1310	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1330	ug/kg	66.7	333
83-32-9	Acenaphthene		1190	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1330	ug/kg	33.3	333
100-02-7	4-Nitrophenol		739	ug/kg	110	333
87-86-5	Pentachlorophenol		1140	ug/kg	83.3	333
129-00-0	Pyrene		1260	ug/kg	10.0	33.3
110-86-1	Pyridine		926	ug/kg	66.7	333
62-53-3	Aniline		1060	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1130	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1040	ug/kg	66.7	333
100-51-6	Benzyl alcohol		852	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1070	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1300	ug/kg	66.7	333
95-48-7	o-Cresol		1160	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1370	ug/kg	100	333
67-72-1	Hexachloroethane		1060	ug/kg	66.7	333
98-95-3	Nitrobenzene		1250	ug/kg	66.7	333
78-59-1	Isophorone		1270	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1190	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1180	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1180	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1260	ug/kg	66.7	333
65-85-0	Benzoic acid		2870	ug/kg	167	667
91-20-3	Naphthalene		1160	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1080	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1130	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1250	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		980	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1130	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1250	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1180	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1300	ug/kg	66.7	333
	o-Nitroaniline					
99-09-2	3-Nitroaniline		1280	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074808**				
Client Sample:	**QC for batch 966763**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966763**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 15:22**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2909-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1340	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1260	ug/kg	33.3	333
208-96-8	Acenaphthylene		1300	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1170	ug/kg	127	667
132-64-9	Dibenzofuran		1280	ug/kg	66.7	333
84-66-2	Diethylphthalate		1390	ug/kg	66.7	333
86-73-7	Fluorene		1270	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1320	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1320	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1430	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1280	ug/kg	66.7	333
122-66-7	Azobenzene		1450	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1190	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1080	ug/kg	66.7	333
85-01-8	Phenanthrene		1260	ug/kg	10.0	33.3
120-12-7	Anthracene		1280	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1460	ug/kg	66.7	333
206-44-0	Fluoranthene		1380	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1580	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1330	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1200	ug/kg	100	333
218-01-9	Chrysene		1320	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1690	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1500	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1200	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1310	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1330	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1430	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1370	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1420	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1120	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2909.d
Lab Smp Id: 1202074808 Client Smp ID: SBLK01LCS
Inj Date : 29-MAR-2010 15:22
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202074808|966766|1|SVM|1|SBLK01LCS
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2430.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.504	3.504	(1.000)	373039	40.0000	
* 29 Naphthalene-d8	136	4.351	4.351	(1.000)	1576206	40.0000	
* 46 Acenaphthene-d10	164	5.587	5.592	(1.000)	799705	40.0000	
* 67 Phenanthrene-d10	188	6.604	6.598	(1.000)	1430652	40.0000	
* 91 Chrysene-d12	240	8.175	8.175	(1.000)	1224060	40.0000	
* 98 Perylene-d12	264	9.345	9.339	(1.000)	1064475	40.0000	
$ 3 2-Fluorophenol	112	2.728	2.716	(0.778)	689088	71.7362	2390
$ 5 Phenol-d5	99	3.246	3.240	(0.926)	794756	67.9358	2260
$ 20 Nitrobenzene-d5	82	3.863	3.863	(0.888)	355070	36.7288	1220
$ 39 2-Fluorobiphenyl	172	5.092	5.093	(0.912)	773894	35.0402	1170
$ 60 2,4,6-Tribromophenol	329	6.145	6.139	(1.100)	164682	62.8120	2090
$ 81 p-Terphenyl-d14	244	7.528	7.528	(0.921)	851189	41.7102	1390

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.251	3.251	(0.928)	432204	34.8703	1160
8 2-Chlorophenol	128	3.375	3.369	(0.963)	385766	36.7970	1230
11 1,4-Dichlorobenzene	146	3.510	3.510	(1.002)	369265	31.2823	1040
17 N-Nitrosodipropylamine	70	3.745	3.751	(1.069)	261349	39.3731	1310(Q)
28 1,2,4-Trichlorobenzene	180	4.304	4.304	(0.989)	327171	33.6648	1120
33 4-Chloro-3-methylphenol	107	4.728	4.710	(1.087)	330308	39.8408	1330
47 Acenaphthene	154	5.610	5.610	(1.004)	696274	35.6439	1190
50 2,4-Dinitrotoluene	165	5.710	5.716	(1.022)	257168	39.9367	1330
52 4-Nitrophenol	139	5.669	5.657	(1.015)	80075	22.1762	739
65 Pentachlorophenol	266	6.475	6.469	(0.980)	120079	34.3479	1140
79 Pyrene	202	7.469	7.469	(0.914)	1310957	37.7420	1260
2 Pyridine	79	2.099	2.081	(0.599)	229784	27.7879	926
4 Aniline	66	3.293	3.299	(0.940)	168585	31.9017	1060
7 bis(2-Chloroethyl) ether	63	3.316	3.316	(0.946)	288918	33.9752	1130
9 1,3-Dichlorobenzene	146	3.469	3.469	(0.990)	363250	31.0708	1040
12 Benzyl alcohol	108	3.581	3.575	(1.022)	139433	25.5507	852
13 1,2-Dichlorobenzene	146	3.610	3.610	(1.030)	354901	32.1692	1070
14 bis(2-Chloroisopropyl)ether	45	3.651	3.651	(1.042)	706140	39.0485	1300
15 o-Cresol	107	3.640	3.634	(1.039)	277377	34.8841	1160
18 m,p-Cresols	107	3.734	3.740	(1.065)	425046	41.2426	1370(Q)
19 Hexachloroethane	117	3.834	3.834	(1.094)	142717	31.8122	1060
21 Nitrobenzene	77	3.875	3.875	(0.890)	387020	37.4733	1250
22 Isophorone	82	4.028	4.028	(0.926)	732923	37.9959	1270
23 2-Nitrophenol	139	4.081	4.087	(0.938)	190905	35.8245	1190
24 2,4-Dimethylphenol	122	4.093	4.093	(0.941)	336321	35.3178	1180
25 bis(2-Chloroethoxy)methane	93	4.151	4.157	(0.954)	418340	35.4583	1180
26 2,4-Dichlorophenol	162	4.251	4.245	(0.977)	299411	37.6849	1260
27 Benzoic acid	105	4.187	4.163	(0.962)	445149	86.0861	2870
30 Naphthalene	128	4.369	4.369	(1.004)	1095977	34.6688	1160
31 4-Chloroaniline	127	4.393	4.393	(1.009)	458169	32.3306	1080
32 Hexachlorobutadiene	225	4.434	4.440	(1.019)	185732	33.9160	1130
34 2-Methylnaphthalene	142	4.845	4.845	(1.114)	755577	37.6471	1250
36 Hexachlorocyclopentadiene	237	4.945	4.945	(0.885)	148671	29.3894	980
37 2,4,6-Trichlorophenol	196	5.040	5.040	(0.902)	200848	33.8015	1130
38 2,4,5-Trichlorophenol	196	5.069	5.063	(0.907)	237787	37.3784	1240
40 2-Chloronaphthalene	162	5.192	5.192	(0.929)	678501	35.4193	1180
42 o-Nitroaniline	65	5.257	5.257	(0.941)	213594	38.8661	1300
41 m-Nitroaniline	138	5.551	5.551	(0.994)	164337	38.3193	1280
43 Dimethylphthalate	163	5.375	5.375	(0.962)	892295	40.0813	1340
44 2,6-Dinitrotoluene	165	5.428	5.428	(0.972)	195428	37.8110	1260
45 Acenaphthylene	152	5.487	5.492	(0.982)	1197358	38.9604	1300
48 2,4-Dinitrophenol	184	5.622	5.622	(1.006)	71279	35.2231	1170
49 Dibenzofuran	168	5.734	5.734	(1.026)	1010545	38.4997	1280
51 Diethylphthalate	149	5.869	5.869	(1.051)	928291	41.6136	1390
53 Fluorene	166	5.975	5.975	(1.069)	837120	38.0410	1270
54 4-Chlorophenylphenylether	204	5.963	5.963	(1.067)	426322	39.5581	1320
55 2-Methyl-4,6-dinitrophenol	198	6.004	6.004	(0.909)	131288	39.5085	1320

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	5.992	5.987	(1.073)	172481	42.8745	1430
133 Diphenylamine	169	6.045	6.045	(0.915)	702138	38.4327	1280
58 1,2-Diphenylhydrazine	77	6.075	6.075	(0.920)	912034	43.4033	1450
61 4-Bromophenylphenylether	248	6.298	6.292	(0.954)	229917	35.5930	1190
63 Hexachlorobenzene	284	6.345	6.345	(0.961)	226145	32.2584	1080
68 Phenanthrene	178	6.616	6.616	(1.002)	1164972	37.6866	1260
69 Anthracene	178	6.651	6.645	(1.007)	1168311	38.4860	1280
72 Di-n-butylphthalate	149	6.916	6.916	(1.047)	1636635	43.7189	1460
76 Fluoranthene	202	7.333	7.328	(1.110)	1311570	41.2837	1380
85 Butylbenzylphthalate	149	7.781	7.781	(0.952)	705983	47.4890	1580
89 Benzo(a)anthracene	228	8.163	8.163	(0.999)	1152328	40.0493	1330
90 3,3'-Dichlorobenzidine	252	8.128	8.122	(0.994)	326543	35.9762	1200
92 Chrysene	228	8.192	8.192	(1.002)	1064659	39.5972	1320
93 bis(2-Ethylhexyl)phthalate	149	8.092	8.092	(0.990)	994334	50.6081	1690
94 Di-n-octylphthalate	149	8.528	8.528	(0.912)	1575360	45.0617	1500
95 Benzo(b)fluoranthene	252	8.975	8.975	(0.960)	1056813	36.1003	1200
96 Benzo(k)fluoranthene	252	8.998	8.998	(0.963)	1097279	39.3434	1310
97 Benzo(a)pyrene	252	9.286	9.286	(0.994)	938685	40.0459	1330
99 Indeno(1,2,3-cd)pyrene	276	10.598	10.598	(1.134)	857376	43.0202	1430
100 Dibenzo(a,h)anthracene	278	10.604	10.598	(1.135)	678459	41.1983	1370
101 Benzo(ghi)perylene	276	10.986	10.986	(I.176)	690211	42.6991	1420
1 N-Methyl-N-nitrosomethylamine	74	2.069	2.052	(0.590)	153685	28.4949	950

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s032910.b/s1c2909.d
Date : 29-MAR-2010 15:22
Client ID: SBLK01LCS
Sample Info: I120207480819667661|SVHI1|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

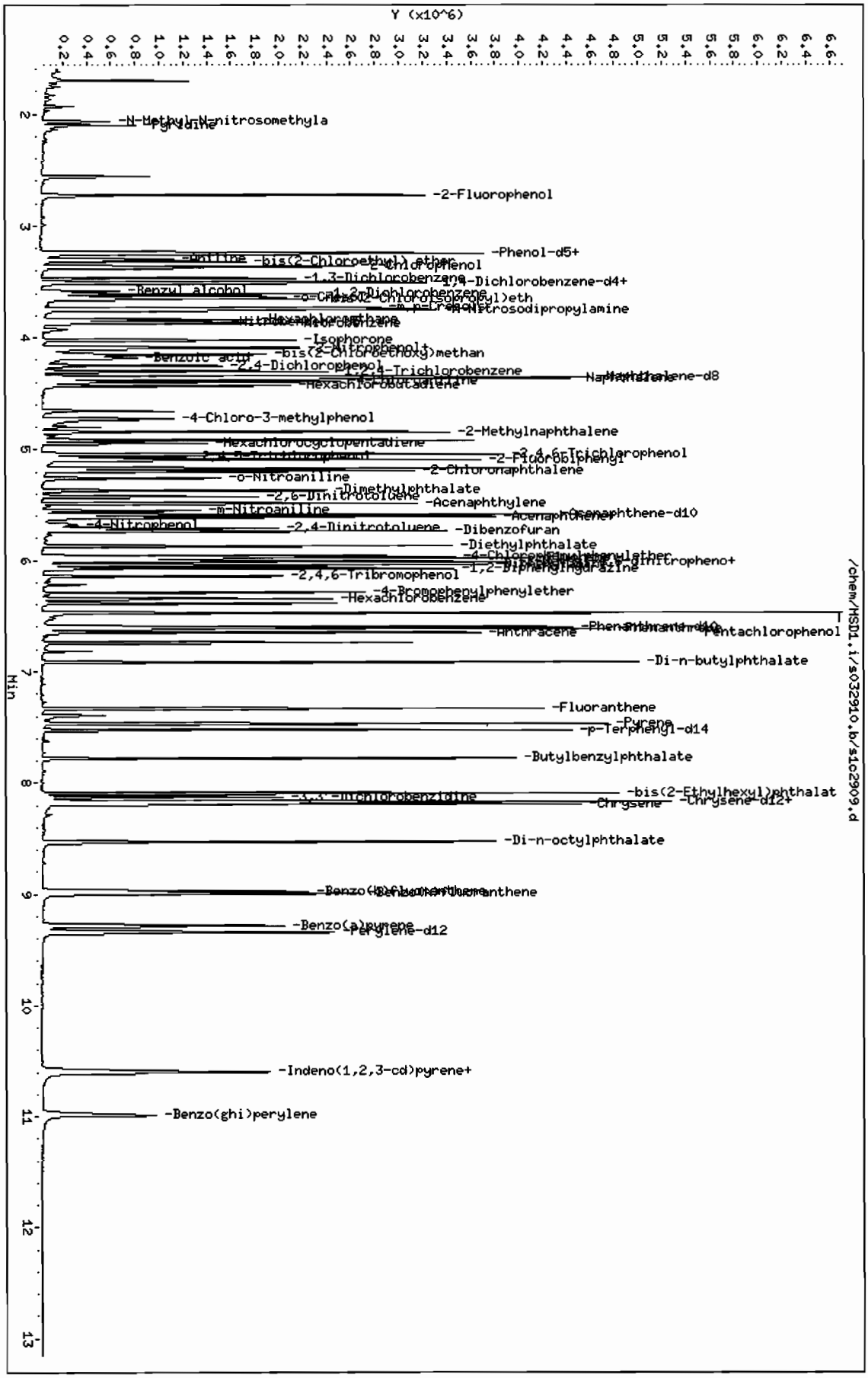

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 966763 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202074807 MB	19-MAR-2010 11:31:00	30	1	0.03333
1202074808 LCS	19-MAR-2010 11:31:00	30	1	0.03333
249329001	19-MAR-2010 11:31:00	30.06	1	0.03327
249329002	19-MAR-2010 11:31:00	30.08	1	0.03324
249329003	19-MAR-2010 11:31:00	30	1	0.03333
249329004	19-MAR-2010 11:31:00	30.06	1	0.03327
249332001	19-MAR-2010 11:31:00	30.09	1	0.03323
249332002	19-MAR-2010 11:31:00	30.02	1	0.03331
249332003	19-MAR-2010 11:31:00	30.01	1	0.03332
249332004	19-MAR-2010 11:31:00	30.02	1	0.03331
249332005	19-MAR-2010 11:31:00	30.06	1	0.03327
249332006	19-MAR-2010 11:31:00	30.02	1	0.03331
249332007	19-MAR-2010 11:31:00	30.03	1	0.0333
249332009	19-MAR-2010 11:31:00	30.09	1	0.03323
249335002	19-MAR-2010 11:31:00	30.02	1	0.03331
1202074809 MS (249335002)	19-MAR-2010 11:31:00	30.05	1	0.03328
1202074810 MSD (249335002)	19-MAR-2010 11:31:00	30.01	1	0.03332
249335003	19-MAR-2010 11:31:00	30.06	1	0.03327
249335004	19-MAR-2010 11:31:00	30	1	0.03333
249335005	19-MAR-2010 11:31:00	30.03	1	0.0333
249335006	19-MAR-2010 11:31:00	30	1	0.03333
249335007	19-MAR-2010 11:31:00	30.09	1	0.03323
249335008	19-MAR-2010 11:31:00	30.09	1	0.03323

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202074808	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
LCS	1202074808	BENZIDINE LCS	UE100310-23	1	mL
MS	1202074809	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MS	1202074809	BENZIDINE LCS	UE100310-23	1	mL
MSD	1202074810	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MSD	1202074810	BENZIDINE LCS	UE100310-23	1	mL
SURR	All	BNA for all Surrogate	UE100310-10	1	mL
REGNT	All	Acetone	1273739-B1	150	mL
REGNT	All	Methylene Chloride	1281955-D	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: RWH

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 03/15/2010 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1294 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN10306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD1.i/s031510a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s1c1513.d	WBN100306-01.2	AMY	15-MAR-2010 16:24	50 PPM	s031510a	1.0	DFTPP	PASSING
s1c1514.d	INSTBLK	AMY	15-MAR-2010 16:40		all	1.0		
s1c1515.d	WBN100309-08	AMY	15-MAR-2010 17:03	001 PPM	MEGAIICARE	1.0	MEGA001	ICAL LVL1-PASSING
s1c1516.d	WBN100309-05.1	AMY	15-MAR-2010 17:31	040 PPM	MEGAIICARE	1.0	MEGA040	ICAL LVL4-PASSING
s1c1517.d	WBN100309-07	AMY	15-MAR-2010 17:59	010 PPM	MEGAIICARE	1.0	MEGA010	ICAL LVL2-PASSING
s1c1518.d	WBN100309-06	AMY	15-MAR-2010 18:28	020 PPM	MEGAIICARE	1.0	MEGA020	ICAL LVL3-PASSING
s1c1519.d	WBN100309-04	AMY	15-MAR-2010 18:57	050 PPM	MEGAIICARE	1.0	MEGA050	ICAL LVL5-PASSING
s1c1520.d	WBN100309-03	AMY	15-MAR-2010 19:26	080 PPM	MEGAIICARE	1.0	MEGA080	ICAL LVL6-PASSING
s1c1521.d	WBN100309-02	AMY	15-MAR-2010 19:55	100 PPM	MEGAIICARE	1.0	MEGA100	ICAL LVL7-PASSING
s1c1522.d	WBN100309-01	AMY	15-MAR-2010 20:24	120 PPM	MEGAIICARE	1.0	MEGA120	ICAL LVL8-PASSING
s1c1523.d	WBN100312-01	AMY	15-MAR-2010 20:53	10 PPM	ap12	1.0	AP010	ICAL LVL2-PASSING
s1c1524.d	WBN100312-02	AMY	15-MAR-2010 21:17	20 PPM	ap12	1.0	AP020	ICAL LVL3-PASSING
s1c1525.d	WBN100312-03.1	AMY	15-MAR-2010 21:40	40 PPM	ap12	1.0	AP040	ICAL LVL4-PASSING
s1c1526.d	WBN100312-04	AMY	15-MAR-2010 22:04	50 PPM	ap12	1.0	AP050	ICAL LVL5-PASSING
s1c1527.d	WBN100312-05	AMY	15-MAR-2010 22:27	80 PPM	ap12	1.0	AP080	ICAL LVL6-PASSING
s1c1528.d	WBN100312-06	AMY	15-MAR-2010 22:50	100 PPM	ap12	1.0	AP100	ICAL LVL7-PASSING
s1c1529.d	WBN100312-07	AMY	15-MAR-2010 23:14	120 PPM	ap12	1.0	AP120	ICAL LVL8-PASSING
s1c1530.d	WBN100309-05.1	AMY	15-MAR-2010 23:37	040 PPM	MEGAIICARE	1.0	M625CVS	M625CVS-Restek
s1c1531.d	WBN100309-09.1	AMY	16-MAR-2010 00:06	040 PPM	MEGAIICARE	1.0	MEGA040	MEGAICV-O2Si

s1c1532.d	WBN100312-03.1	AMY	16-MAR-2010 00:34	40 PPM	s031510a	1.0	AP625CVS	AP625CVS-Restek
s1c1533.d	WBN100312-08.1	AMY	16-MAR-2010 00:58	40 PPM	ap12	1.0	APICV	APICV-O2Si
s1c1534.d	1202070109	AMY	16-MAR-2010 01:21	964896	249232	1.0	SBLK01	REPORT
s1c1535.d	1202070110	AMY	16-MAR-2010 01:44	964896	249232	1.0	SBLK01LCS	REPORT
s1c1536.d	1202068412	AMY	16-MAR-2010 02:07	964150	248963	1.0	SBLK01	REPORT
s1c1537.d	1202068413	AMY	16-MAR-2010 02:30	964150	248963	1.0	LCS	REPORT
s1c1538.d	249232003	AMY	16-MAR-2010 02:53	964896	249232	1.0	BJCO	REPORT
s1c1539.d	1202070111	AMY	16-MAR-2010 03:16	964896	249232	1.0	MS	REPORT
s1c1540.d	1202070112	AMY	16-MAR-2010 03:38	964896	249232	1.0	MSD	REPORT-narrate several spikes fail, not enough sample for RE
s1c1541.d	249232010	AMY	16-MAR-2010 04:01	964896	249232	1.0	BJCO	REPORT. RR s1c1552-fails. RE-s1c1832, confirms within hold.
s1c1542.d	248963001	AMY	16-MAR-2010 04:24	964150	248963	1.0	SWPC	REPORT
s1c1543.d	1202068414	AMY	16-MAR-2010 04:46	964150	248963	1.0	MS	REPORT
s1c1544.d	1202068415	AMY	16-MAR-2010 05:08	964150	248963	1.0	MSD	REPORT
s1c1545.d	249059001	AMY	16-MAR-2010 05:31	964150	249059	4.0	SONO	REPORT-several surrogates fail low due to 4X dilution.
s1c1546.d	249175001	AMY	16-MAR-2010 05:53	964150	249175	1.0	SWPC	REPORT
s1c1547.d	249175002	AMY	16-MAR-2010 06:16	964150	249175	1.0	SWPC	REPORT
s1c1548.d	1202071132	AMY	16-MAR-2010 14:37	965294	248719	1.0	SBLK01	DUSE-report original batch 963058, sample s1c1239
s1c1549.d	1202071133	AMY	16-MAR-2010 15:00	965294	248719	1.0	SBLK01LCS	DUSE-report original batch 963058, sample s1c1239
s1c1550.d	1202071134	AMY	16-MAR-2010 15:25	965294	248719	1.0	SBLK01LCSD	DUSE-report original batch 963058, sample s1c1239
s1c1551.d	248719002	AMY	16-MAR-2010 15:48	965294	248719	1.0	GEEL	DUSE-report s1c1239
s1c1552.d	249232010	AMY	16-MAR-2010 16:12	964896	249232	1.0	BJCO	DUSE-acid surrogate failures. Sent for RE (confirm failure)

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 03/29/2010 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1294 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN10306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD1.i/s032910.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s1c2902.d	WBN100306-01.2	AMY	29-MAR-2010 10:02	50 PPM	s032910	1.0	DFTPP	PASSING
s1c2903.d	WBN100309-05.4	AMY	29-MAR-2010 10:17	40 PPM	MEGAIICARE	1.0	MEGACVS	PASSING (393267)
s1c2904.d	WBN100312-08.3	AMY	29-MAR-2010 11:24	40 PPM	ap12	1.0	APCVS	PASSING
s1c2905.d	WBN100304-26.3	AMY	29-MAR-2010 11:48	40 PPM	pest	1.0	PESTCVS	PASSING
s1c2906.d	UBN100325-09.2	AMY	29-MAR-2010 12:12	40 PPM	nev	1.0	NCVS	DUSE-not needed
s1c2907.d	UBN100127-08.2	AMY	29-MAR-2010 14:05	40 PPM	nev	1.0	NCVS	DUSE-not needed
s1c2908-1.d	1202074807	AMY	29-MAR-2010 14:58	966766	10-2433	1.0	SBLK01	REPORT
s1c2908-2.d	1202074807	AMY	29-MAR-2010 14:58	966766	10-2436	1.0	SBLK01	REPORT
s1c2908.d	1202074807	AMY	29-MAR-2010 14:58	966766	10-2430	1.0	SBLK01	REPORT
s1c2909-1.d	1202074808	AMY	29-MAR-2010 15:22	966766	10-2433	1.0	SBLK01LCS	REPORT
s1c2909-2.d	1202074808	AMY	29-MAR-2010 15:22	966766	10-2436	1.0	SBLK01LCS	REPORT
s1c2909.d	1202074808	AMY	29-MAR-2010 15:22	966766	10-2430	1.0	SBLK01LCS	REPORT
s1c2910.d	249329001	AMY	29-MAR-2010 15:58	966766	10-2430	1.0	LANL	REPORT
s1c2911.d	249329002	AMY	29-MAR-2010 16:21	966766	10-2430	1.0	LANL	REPORT
s1c2912.d	249329003	AMY	29-MAR-2010 16:45	966766	10-2430	1.0	LANL	REPORT
s1c2913.d	249329004	AMY	29-MAR-2010 17:09	966766	10-2430	1.0	LANL	REPORT
s1c2914.d	249332001	AMY	29-MAR-2010 17:33	966766	10-2433	1.0	LANL	REPORT
s1c2915.d	249332002	AMY	29-MAR-2010 17:56	966766	10-2433	1.0	LANL	REPORT

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3022.d
Lab Smp Id: 1202074809 Client Smp ID: RE46-10-12972MS
Inj Date : 30-MAR-2010 18:15
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202074809|966766|1|SVM|1|LANLMS
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 19 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	12.26540	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.481	3.487	(1.000)	500002	40.0000	
* 29 Naphthalene-d8	136	4.334	4.339	(1.000)	2103003	40.0000	
* 46 Acenaphthene-d10	164	5.575	5.575	(1.000)	905835	40.0000	
* 67 Phenanthrene-d10	188	6.586	6.586	(1.000)	1742852	40.0000	
* 91 Chrysene-d12	240	8.157	8.157	(1.000)	1350294	40.0000	
* 98 Perylene-d12	264	9.316	9.310	(1.000)	924358	40.0000	
$ 3 2-Fluorophenol	112	2.710	2.704	(0.779)	819816	63.6740	2420
$ 5 Phenol-d5	99	3.234	3.228	(0.929)	1014320	64.6878	2450
$ 20 Nitrobenzene-d5	82	3.845	3.845	(0.887)	421246	32.6589	1240
$ 39 2-Fluorobiphenyl	172	5.081	5.075	(0.911)	667073	26.6648	1010
$ 60 2,4,6-Tribromophenol	329	6.128	6.128	(1.099)	179621	60.4832	2290
$ 81 p-Terphenyl-d14	244	7.516	7.510	(0.921)	923188	41.0091	1560

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.240	3.240	(0.931)	524585	31.5766	1200
8 2-Chlorophenol	128	3.351	3.357	(0.963)	464227	33.0370	1250
11 1,4-Dichlorobenzene	146	3.487	3.498	(1.002)	351405	22.2101	842
17 N-Nitrosodipropylamine	70	3.728	3.740	(1.071)	189981	21.3536	810(Q)
28 1,2,4-Trichlorobenzene	180	4.287	4.292	(0.989)	355706	27.4325	1040
33 4-Chloro-3-methylphenol	107	4.710	4.698	(1.087)	393989	35.6177	1350
47 Acenaphthene	154	5.598	5.598	(1.004)	668430	30.2094	1140
50 2,4-Dinitrotoluene	165	5.698	5.698	(1.022)	262703	36.0164	1370
52 4-Nitrophenol	139	5.657	5.639	(1.015)	88010	21.5181	816
65 Pentachlorophenol	266	6.463	6.457	(0.981)	120809	28.3665	1080
79 Pyrene	202	7.451	7.451	(0.913)	1375549	35.8994	1360
2 Pyridine	79	2.110	2.069	(0.606)	272068	24.5469	931
4 Aniline	66	3.275	3.281	(0.941)	231451	32.6765	1240
7 bis(2-Chloroethyl) ether	63	3.292	3.304	(0.946)	349910	30.6991	1160
9 1,3-Dichlorobenzene	146	3.445	3.451	(0.990)	335509	21.4108	812
12 Benzyl alcohol	108	3.569	3.563	(1.025)	122931	16.8066	637
13 1,2-Dichlorobenzene	146	3.587	3.598	(1.030)	357014	24.1436	916
14 bis(2-Chloroisopropyl)ether	45	3.628	3.640	(1.042)	782502	32.2836	1220
15 o-Cresol	107	3.622	3.622	(1.041)	245842	23.0672	875(Q)
18 m,p-Cresols	107	3.722	3.722	(1.069)	559197	40.4816	1540(Q)
19 Hexachloroethane	117	3.810	3.822	(1.095)	124486	20.7024	785
21 Nitrobenzene	77	3.857	3.863	(0.890)	451701	32.7802	1240
22 Isophorone	82	4.010	4.016	(0.925)	854213	33.1908	1260
23 2-Nitrophenol	139	4.069	4.069	(0.939)	136381	19.1818	728(Q)
24 2,4-Dimethylphenol	122	4.081	4.075	(0.942)	424834	33.4374	1270
25 bis(2-Chloroethoxy)methane	93	4.140	4.139	(0.955)	288059	18.2997	694
26 2,4-Dichlorophenol	162	4.234	4.234	(0.977)	295030	27.8316	1060
27 Benzoic acid	105	4.175	4.145	(0.963)	400070	57.9878	2200
30 Naphthalene	128	4.351	4.351	(1.004)	908332	21.5355	817
31 4-Chloroaniline	127	4.381	4.381	(1.011)	613511	32.4477	1230
32 Hexachlorobutadiene	225	4.422	4.422	(1.020)	182883	25.0302	949
34 2-Methylnaphthalene	142	4.828	4.828	(1.114)	865482	32.3210	1220
36 Hexachlorocyclopentadiene	237	4.934	4.934	(0.885)	137449	23.9876	910
37 2,4,6-Trichlorophenol	196	5.022	5.022	(0.901)	262710	39.0325	1480
38 2,4,5-Trichlorophenol	196	5.057	5.045	(0.907)	264934	36.7664	1390
40 2-Chloronaphthalene	162	5.175	5.175	(0.928)	641711	29.5740	1120
42 o-Nitroaniline	65	5.245	5.245	(0.941)	200348	32.1846	1220
41 m-Nitroaniline	138	5.539	5.539	(0.994)	188121	38.6488	1460
43 Dimethylphthalate	163	5.357	5.363	(0.961)	835340	33.1267	1260
44 2,6-Dinitrotoluene	165	5.410	5.410	(0.970)	186408	31.8403	1210
45 Acenaphthylene	152	5.475	5.475	(0.982)	1144444	32.8756	1250
48 2,4-Dinitrophenol	184	5.610	5.604	(1.006)	64060	30.3264	1150(Q)
49 Dibenzofuran	168	5.716	5.716	(1.025)	1004798	33.7957	1280
51 Diethylphthalate	149	5.851	5.851	(1.050)	925999	36.6473	1390
53 Fluorene	166	5.957	5.957	(1.069)	890121	35.7103	1350
54 4-Chlorophenylphenylether	204	5.945	5.945	(1.066)	436167	35.7299	1360
55 2-Methyl-4,6-dinitrophenol	198	5.986	5.986	(0.909)	119986	29.6394	1120

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	5.975	5.969	(1.072)	194218	42.6706	1620
133 Diphenylamine	169	6.028	6.028	(0.915)	717937	32.2580	1220
58 1,2-Diphenylhydrazine	77	6.057	6.057	(0.920)	911671	35.6143	1350
61 4-Bromophenylphenylether	248	6.281	6.281	(0.954)	249739	31.7361	1200
63 Hexachlorobenzene	284	6.333	6.333	(0.962)	253253	29.6540	1120
68 Phenanthrene	178	6.604	6.604	(1.003)	1358719	36.0807	1370
69 Anthracene	178	6.633	6.633	(1.007)	1288170	34.8330	1320
72 Di-n-butylphthalate	149	6.904	6.904	(1.048)	1770992	38.8336	1470
76 Fluoranthene	202	7.316	7.316	(1.111)	1356513	35.0497	1330
85 Butylbenzylphthalate	149	7.769	7.769	(0.952)	702662	42.8469	1620
89 Benzo(a)anthracene	228	8.145	8.145	(0.999)	1124710	35.4351	1340
90 3,3'-Dichlorobenzidine	252	8.110	8.110	(0.994)	292278	29.1908	1110
92 Chrysene	228	8.175	8.175	(1.002)	1050752	35.4265	1340
93 bis(2-Ethylhexyl)phthalate	149	8.080	8.080	(0.991)	969669	44.7389	1700
94 Di-n-octylphthalate	149	8.510	8.510	(0.913)	1439913	47.4307	1800
95 Benzo(b)fluoranthene	252	8.951	8.951	(0.961)	907819	35.7114	1350
96 Benzo(k)fluoranthene	252	8.974	8.974	(0.963)	898543	37.1013	1410
97 Benzo(a)pyrene	252	9.257	9.257	(0.994)	716669	35.2089	1340
99 Indeno(1,2,3-cd)pyrene	276	10.551	10.551	(1.133)	559624	32.3365	1230
100 Dibenzo(a,h)anthracene	278	10.557	10.557	(1.133)	444934	31.1134	1180
101 Benzo(ghi)perylene	276	10.933	10.933	(1.174)	418645	29.8248	1130
1 N-Methyl-N-nitrosomethylamine	74	2.087	2.040	(0.600)	213611	29.5490	1120

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s033010.b/s1c3022.d
Date : 30-MAR-2010 18:15
Client ID: RE46-10-12972MS
Sample Info: 1120207480919667661|1|SVMI1|LANLMS
Volume Injected (ul): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

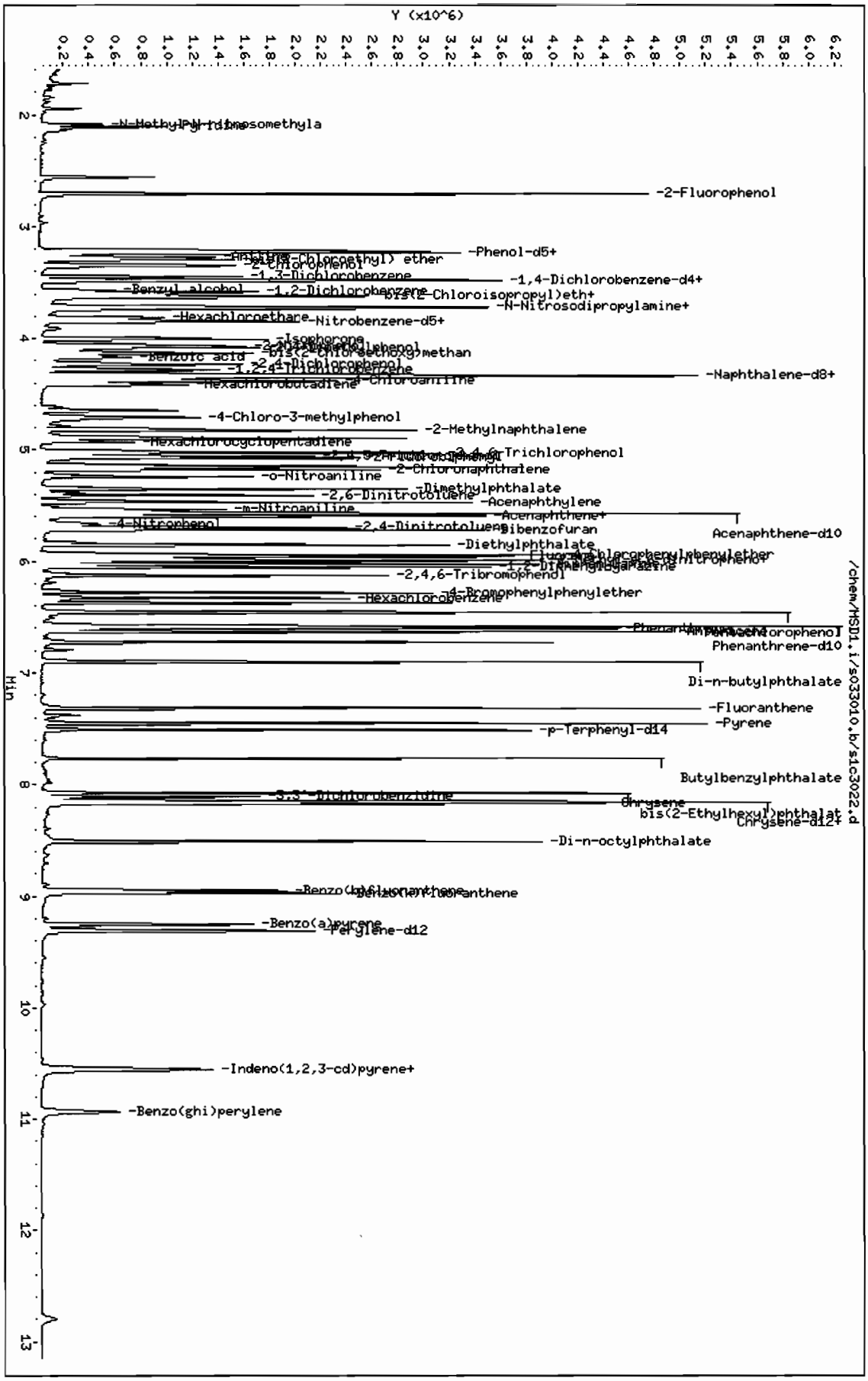

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3023.d
Lab Smp Id: 1202074810 Client Smp ID: RE46-10-12972MSD
Inj Date : 30-MAR-2010 18:38
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202074810|966766|1|SVM|1|LANLMSD
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 20 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	12.26540	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.487	3.487	(1.000)	559948	40.0000	
* 29 Naphthalene-d8	136	4.340	4.339	(1.000)	2338516	40.0000	
* 46 Acenaphthene-d10	164	5.575	5.575	(1.000)	1146122	40.0000	
* 67 Phenanthrene-d10	188	6.586	6.586	(1.000)	2055958	40.0000	
* 91 Chrysene-d12	240	8.157	8.157	(1.000)	1554812	40.0000	
* 98 Perylene-d12	264	9.310	9.310	(1.000)	1076826	40.0000	
$ 3 2-Fluorophenol	112	2.716	2.704	(0.779)	849193	58.8947	2240
$ 5 Phenol-d5	99	3.234	3.228	(0.927)	1045252	59.5240	2260
$ 20 Nitrobenzene-d5	82	3.845	3.845	(0.886)	437663	30.5144	1160
$ 39 2-Fluorobiphenyl	172	5.081	5.075	(0.911)	935229	29.5462	1120
$ 60 2,4,6-Tribromophenol	329	6.128	6.128	(1.099)	206815	55.0399	2090
$ 81 p-Terphenyl-d14	244	7.510	7.510	(0.921)	897139	34.6099	1310

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.240	3.240	(0.929)	554668	29.8131	1130
8 2-Chlorophenol	128	3.357	3.357	(0.963)	499151	31.7195	1200
11 1,4-Dichlorobenzene	146	3.493	3.498	(1.002)	363960	20.5409	780
17 N-Nitrosodipropylamine	70	3.734	3.740	(1.071)	337685	33.8920	1290(Q)
28 1,2,4-Trichlorobenzene	180	4.293	4.292	(0.989)	370924	25.7252	977
33 4-Chloro-3-methylphenol	107	4.710	4.698	(1.085)	415912	33.8129	1280
47 Acenaphthene	154	5.598	5.598	(1.004)	872618	31.1694	1180
50 2,4-Dinitrotoluene	165	5.698	5.698	(1.022)	313114	33.9278	1290
52 4-Nitrophenol	139	5.657	5.639	(1.015)	96924	18.7293	711
65 Pentachlorophenol	266	6.463	6.457	(0.981)	143966	28.6559	1090
79 Pyrene	202	7.451	7.451	(0.913)	1454996	32.9779	1250
2 Pyridine	79	2.110	2.069	(0.605)	268215	21.6086	821
4 Aniline	66	3.281	3.281	(0.941)	227487	28.6786	1090(Q)
7 bis(2-Chloroethyl) ether	63	3.298	3.304	(0.946)	360869	28.2711	1070
9 1,3-Dichlorobenzene	146	3.451	3.451	(0.990)	344719	19.6435	746
12 Benzyl alcohol	108	3.569	3.563	(1.024)	123119	15.0303	571
13 1,2-Dichlorobenzene	146	3.593	3.598	(1.030)	369565	22.3167	848
14 bis(2-Chloroisopropyl)ether	45	3.634	3.640	(1.042)	821611	30.2682	1150
15 o-Cresol	107	3.622	3.622	(1.039)	401770	33.6621	1280
18 m,p-Cresols	107	3.722	3.722	(1.067)	500136	32.3300	1230(Q)
19 Hexachloroethane	117	3.816	3.822	(1.094)	127691	18.9620	720
21 Nitrobenzene	77	3.857	3.863	(0.889)	482995	31.5212	1200
22 Isophorone	82	4.010	4.016	(0.924)	895860	31.3034	1190
23 2-Nitrophenol	139	4.069	4.069	(0.938)	250290	31.6576	1200
24 2,4-Dimethylphenol	122	4.081	4.075	(0.940)	447555	31.6781	1200
25 bis(2-Chloroethoxy)methane	93	4.140	4.139	(0.954)	526943	30.1041	1140
26 2,4-Dichlorophenol	162	4.234	4.234	(0.976)	386744	32.8092	1250
27 Benzoic acid	105	4.181	4.145	(0.963)	530201	69.1100	2620
30 Naphthalene	128	4.351	4.351	(1.003)	1316397	28.0671	1070
31 4-Chloroaniline	127	4.381	4.381	(1.009)	614801	29.2412	1110
32 Hexachlorobutadiene	225	4.422	4.422	(1.019)	189912	23.3745	888
34 2-Methylnaphthalene	142	4.828	4.828	(1.112)	906027	30.4275	1160
36 Hexachlorocyclopentadiene	237	4.934	4.934	(0.885)	152102	20.9797	797
37 2,4,6-Trichlorophenol	196	5.022	5.022	(0.901)	273184	32.0791	1220
38 2,4,5-Trichlorophenol	196	5.057	5.045	(0.907)	320244	35.1247	1330
40 2-Chloronaphthalene	162	5.175	5.175	(0.928)	827887	30.1550	1140
42 o-Nitroaniline	65	5.245	5.245	(0.941)	265161	33.6659	1280
41 m-Nitroaniline	138	5.540	5.539	(0.994)	199874	33.6170	1280
43 Dimethylphthalate	163	5.357	5.363	(0.961)	1085042	34.0078	1290
44 2,6-Dinitrotoluene	165	5.410	5.410	(0.970)	240571	32.4768	1230
45 Acenaphthylene	152	5.475	5.475	(0.982)	1472206	33.4246	1270
48 2,4-Dinitrophenol	184	5.610	5.604	(1.006)	75328	28.9979	1100(Q)
49 Dibenzofuran	168	5.716	5.716	(1.025)	1242869	33.0389	1250
51 Diethylphthalate	149	5.851	5.851	(1.050)	1100982	34.4374	1310
53 Fluorene	166	5.957	5.957	(1.069)	1028796	32.6206	1240
54 4-Chlorophenylphenylether	204	5.945	5.945	(1.066)	518708	33.5830	1280
55 2-Methyl-4,6-dinitrophenol	198	5.987	5.986	(0.909)	135414	28.3562	1080

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	5.975	5.969	(1.072)	191401	35.0765	1330
133 Diphenylamine	169	6.028	6.028	(0.915)	831280	31.6625	1200
58 1,2-Diphenylhydrazine	77	6.057	6.057	(0.920)	1096119	36.2986	1380
61 4-Bromophenylphenylether	248	6.281	6.281	(0.954)	282897	30.4749	1160
63 Hexachlorobenzene	284	6.334	6.333	(0.962)	276157	27.4114	1040
68 Phenanthrene	178	6.604	6.604	(1.003)	1449484	32.6291	1240
69 Anthracene	178	6.634	6.633	(1.007)	1385547	31.7604	1210
72 Di-n-butylphthalate	149	6.904	6.904	(1.048)	1895695	35.2375	1340
76 Fluoranthene	202	7.316	7.316	(1.111)	1449225	31.7426	1200
85 Butylbenzylphthalate	149	7.763	7.769	(0.952)	740733	39.2270	1490
89 Benzo(a)anthracene	228	8.145	8.145	(0.999)	1192280	32.6228	1240
90 3,3'-Dichlorobenzidine	252	8.110	8.110	(0.994)	290919	25.2332	958
92 Chrysene	228	8.175	8.175	(1.002)	1127212	33.0054	1250
93 bis(2-Ethylhexyl)phthalate	149	8.075	8.080	(0.990)	1002991	40.1892	1530
94 Di-n-octylphthalate	149	8.504	8.510	(0.913)	1531668	43.3094	1640
95 Benzo(b)fluoranthene	252	8.945	8.951	(0.961)	939475	31.7240	1200
96 Benzo(k)fluoranthene	252	8.969	8.974	(0.963)	956427	33.8998	1290
97 Benzo(a)pyrene	252	9.251	9.257	(0.994)	771443	32.5336	1240
99 Indeno(1,2,3-cd)pyrene	276	10.545	10.551	(1.133)	585700	29.0513	1100
100 Dibenzo(a,h)anthracene	278	10.551	10.557	(1.133)	450822	27.0615	1030
101 Benzo(ghi)perylene	276	10.927	10.933	(1.174)	435605	26.6391	1010
1 N-Methyl-N-nitrosomethylamine	74	2.075	2.040	(0.595)	209162	25.8360	981

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/HSD1.i/s033010.b/s1c3023.d
Date : 30-MAR-2010 18:38
Client ID: RE46-10-12972HSD
Sample Info: 1120207481019667611|SVH11|LANLHSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5HS

Instrument: HSD1.i
Operator: AHY
Column diameter: 0.20

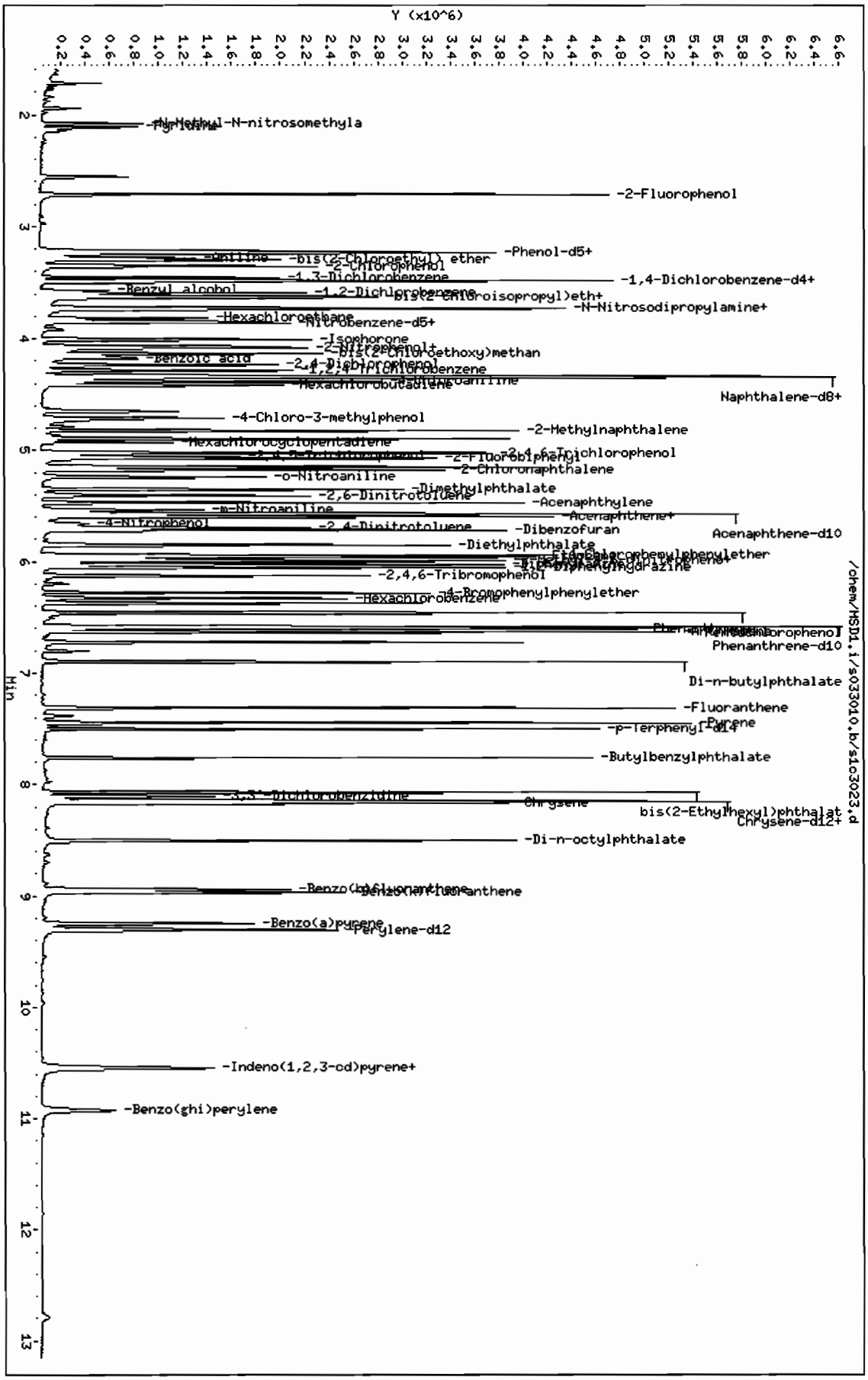

Page 1

LC/MS/MS PERCHLORATE ANALYSIS

Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2430

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	966578
Prep Batch Number:	966577

Sample Analysis

Sample ID	Client ID
249329001	RE46-10-13964
249329002	RE46-10-13966
249329003	RE46-10-13963
249329004	RE46-10-13965
1202074308	Interference Check Sample (ICS)
1202074304	Method Blank (MB)
1202074305	Laboratory Control Sample (LCS)
1202074306	249333003(RE46-10-12972) Matrix Spike (MS)
1202074307	249333003(RE46-10-12972) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 249333003 (RE46-10-12972) from SDG 10-2434 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M. Maier **Date:** 04/05/10

SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13964

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2430

GEL Sample ID: 249329001

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.557	2.23	0.709	ug/kg	J	1	30-MAR-10 21:03	per0330075a
	Perchlorate Isotope Ratio			3.3			1	30-MAR-10 21:03	per0330075a
14797-73-0	Perchlorate-101	.557	2.23	0.691	ug/kg	J	1	30-MAR-10 21:03	per0330075a
	Perchlorate-O(18)			5.43	ug/kg		1	30-MAR-10 21:03	per0330075a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13966

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2430

GEL Sample ID: 249329002

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.597	2.39	0.597	ug/kg	U	1	30-MAR-10 21:11	per0330076a
	Perchlorate Isotope Ratio						1	30-MAR-10 21:11	per0330076a
14797-73-0	Perchlorate-101	.597	2.39	0.597	ug/kg	U	1	30-MAR-10 21:11	per0330076a
	Perchlorate-O(18)			5.69	ug/kg		1	30-MAR-10 21:11	per0330076a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13963

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2430

GEL Sample ID: 249329003

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 77

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.653	2.61	0.661	ug/kg	J	1	30-MAR-10 21:19	per0330077a
	Perchlorate Isotope Ratio			3.01			1	30-MAR-10 21:19	per0330077a
14797-73-0	Perchlorate-101	.653	2.61	0.706	ug/kg	J	1	30-MAR-10 21:19	per0330077a
	Perchlorate-O(18)			6.15	ug/kg		1	30-MAR-10 21:19	per0330077a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13965

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2430

GEL Sample ID: 249329004

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.562	2.25	0.562	ug/kg	U	1	30-MAR-10 21:27	per0330078a
	Perchlorate Isotope Ratio						1	30-MAR-10 21:27	per0330078a
14797-73-0	Perchlorate-101	.562	2.25	0.562	ug/kg	U	1	30-MAR-10 21:27	per0330078a
	Perchlorate-O(18)			4.96	ug/kg		1	30-MAR-10 21:27	per0330078a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2430

Extract Batch Code: 966577

Date Filtered: 22–MAR–10

Matrix: SOIL

Sample ID: 1202074305

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.93	ug/kg	96.3		70 – 130
Perchlorate Isotope Ratio		3.1				–
Perchlorate–101	2.00	2	ug/kg	99.9		70 – 130
Perchlorate–O(18)		4.68	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2430

Extract Batch Code: 966577

Date Filtered: 22–MAR–10

Matrix: SOIL

Sample ID: 1202074308

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.99	ug/kg	99.6		70 – 130
Perchlorate Isotope Ratio		3.15				
Perchlorate–101	2.00	2.03	ug/kg	102		70 – 130
Perchlorate–O(18)		5.12	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330072a
Date: 30-Mar-2010
Time: 20:39:31
ID: 1202074308
Vial: 2:6,C

LCNL | 966578 | 50.20 | 2.65 | 1 |

CWO 04-01-10

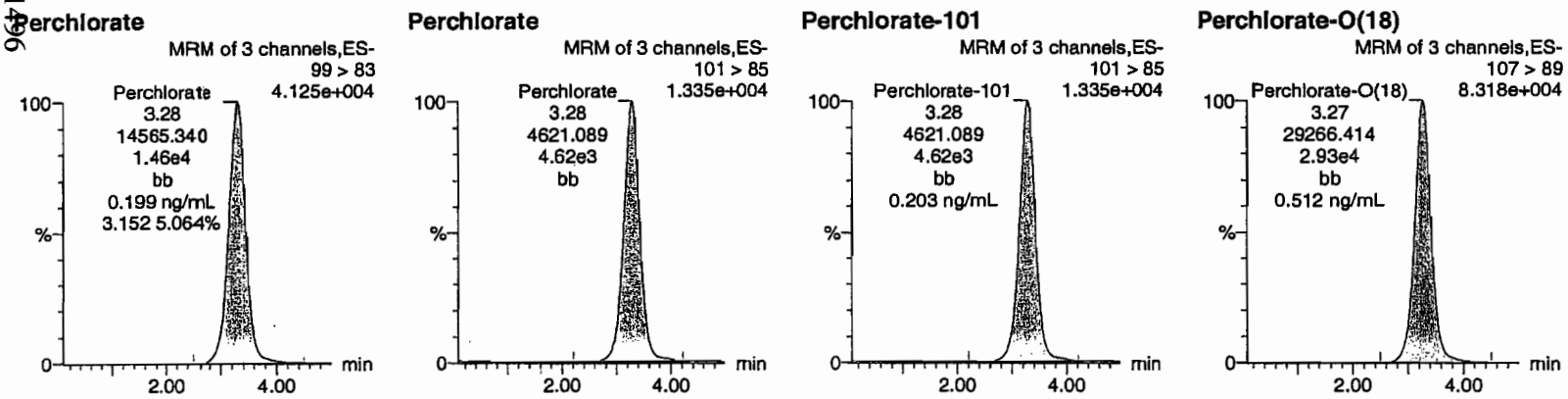

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	on	Ratio
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1202074308	Perchlorate-101	101 > 85	3.28	4621.089	4621.089	bb			0.2031	101.57	1.57	1877.7...		
1202074308	Perchlorate-O(18)	107 > 89	3.27	29266.414	29266.414	bb			0.5118	102.36	2.36	3030.9...		

MM 4/2/10

$$\frac{14565.340}{4621.089} = 3.1519$$

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–2430

Extract Batch Code: 966577

Date Extracted: 22–MAR–10

GEL MS/PS ID: 1202074306

Client ID: RE46–10–12972

GEL MSD/PSD ID: 1202074307

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.28	0.288	ug/kg	2.54	99	2.36	90.9	7.51	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.28		3.14		0		–
Perchlorate–101	2.28	0.299	ug/kg	2.49	96.3	2.41	92.8	3.28	30	75 – 125
Perchlorate–O(18)	0	5.59	ug/kg	5.71		5.33		6.97		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2430

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	30–MAR–10	per0330001a	IPB001
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330001a	IPB001
Perchlorate	0.00	0	NA	30–MAR–10	per0330002a	IPB001
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330002a	IPB001

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per033010a.mdb 31 Mar 2010 11:16:12
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per033010a.cdb 31 Mar 2010 11:16:25

Name: per0330001a
Date: 30-Mar-2010
Time: 11:06:29
ID: IPB001
Vial: 1:1,A

aw
04.01-10

Perchlorate

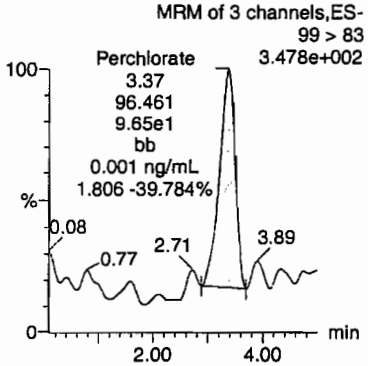

Perchlorate

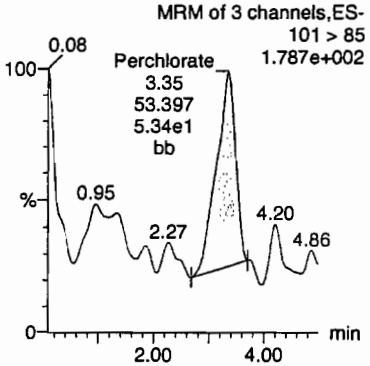

Perchlorate-101

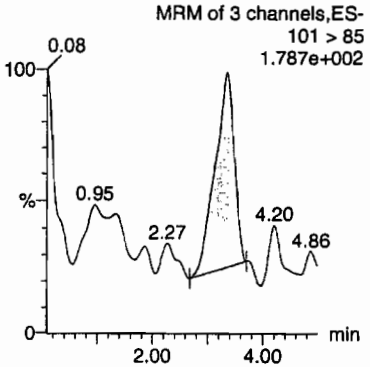

Perchlorate-O(18)

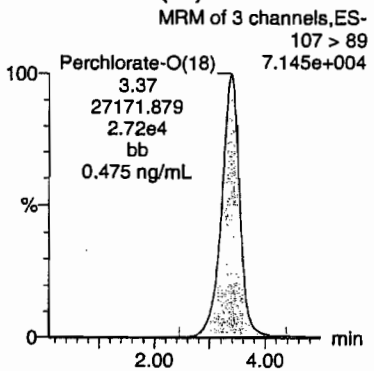

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	3.37	96.461	96.461	bb			0.0013			38.545	1.81
IPB001	Perchlorate-101	101 > 85	3.35	53.397	53.397	bb			0.0023			22.166	
IPB001	Perchlorate-O(18)	107 > 89	3.37	27171.879	27171.879	bb			0.4752	95.03	-4.97	1502.8...	

OKay
LD.0500
MM
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330002a
Date: 30-Mar-2010
Time: 11:14:43
ID: IPB001
Vial: 1:1,A

CWW 04-01-10

Perchlorate

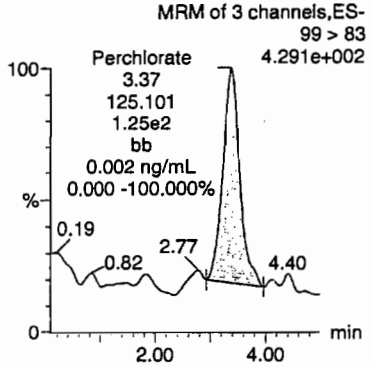

Perchlorate

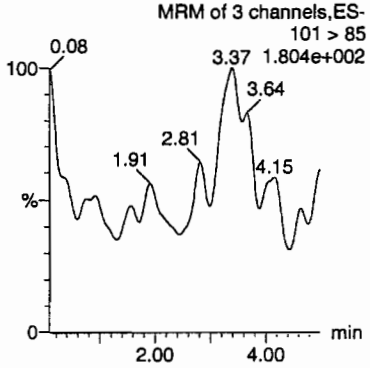

Perchlorate-101

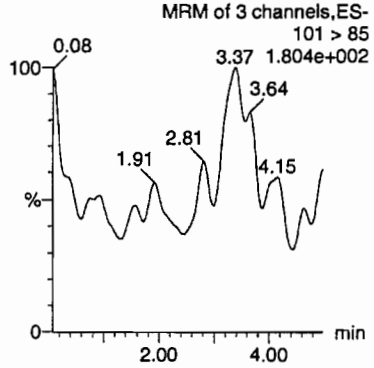

Perchlorate-O(18)

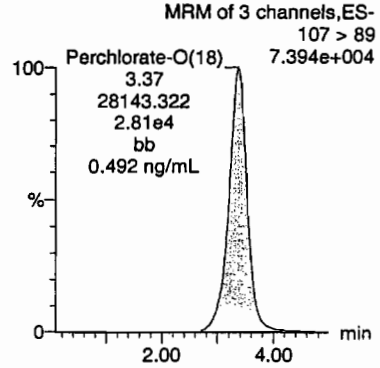

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	3.37	125.101	125.101	bb			0.0017			70.677	0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.37	28143.322	28143.322	bb			0.4922 ✓	98.43	-1.57	3185.4...	

MMP 4/2/10

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2430

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	30–MAR–10	per0330008a	IPB002
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330008a	IPB002
Perchlorate	0.00	0	NA	30–MAR–10	per0330010a	IPB003
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330010a	IPB003
Perchlorate	0.00	0	NA	30–MAR–10	per0330023a	IPB004
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330023a	IPB004
Perchlorate	0.00	0	NA	30–MAR–10	per0330034a	IPB005
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330034a	IPB005
Perchlorate	0.00	0	NA	30–MAR–10	per0330046a	IPB006
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330046a	IPB006
Perchlorate	0.00	0	NA	30–MAR–10	per0330057a	IPB007
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330057a	IPB007
Perchlorate	0.00	0	NA	30–MAR–10	per0330068a	IPB008

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2430

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330068a	IPB008
Perchlorate	0.00	0	NA	30–MAR–10	per0330080a	IPB009
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330080a	IPB009

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330008a
Date: 30-Mar-2010
Time: 12:02:52
ID: IPB002
Vial: 1:1,A

CWW
04-01-10

Perchlorate

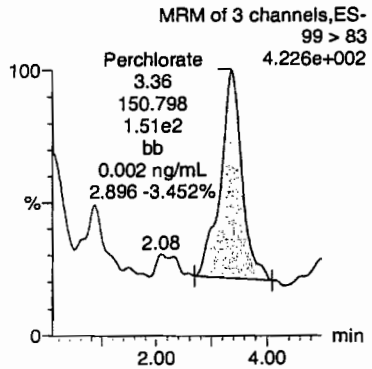

Perchlorate

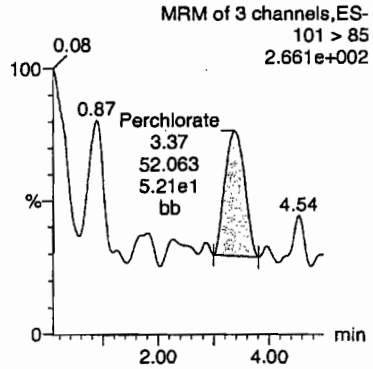

Perchlorate-101

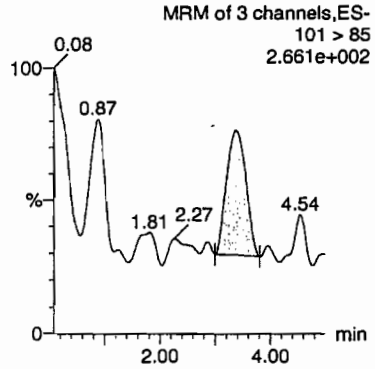

Perchlorate-O(18)

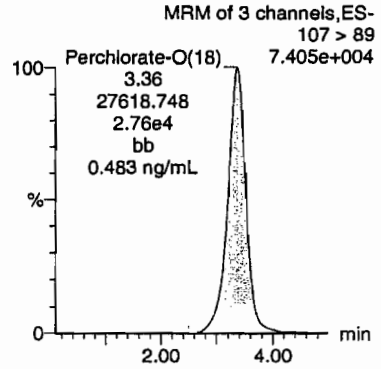

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83	3.36	150.798	150.798	bb			0.0021			39.764	2.90
IPB002	Perchlorate-101	101 > 85	3.37	52.063	52.063	bb			0.0023			10.293	
IPB002	Perchlorate-O(18)	107 > 89	3.36	27618.748	27618.748	bb			0.4830	96.60	-3.40	2123.7...	

MM
4/2/10

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330010a
Date: 30-Mar-2010
Time: 12:18:57
ID: IPB003
Vial: 1:1,A

04-01-10

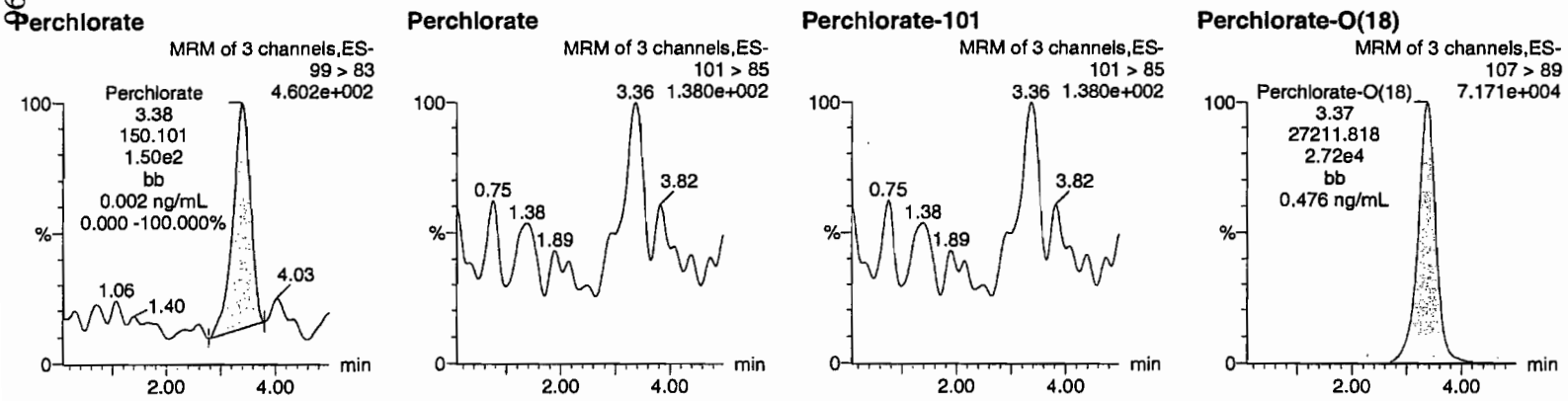

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83	3.38	150.101	150.101	bb			0.0021			59.909	0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	3.37	27211.818	27211.818	bb			0.4759	95.17	-4.83	7432.9...	

MM 4/2/10

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330023a
Date: 30-Mar-2010
Time: 14:03:30
ID: IPB004
Vial: 1:1,A

KWO 04-01-10

Perchlorate

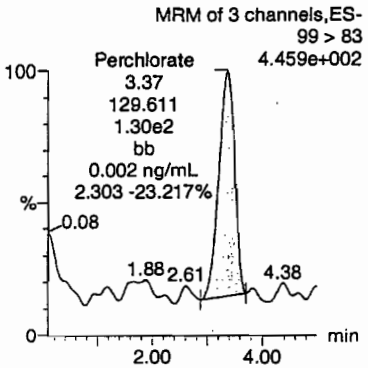

Perchlorate

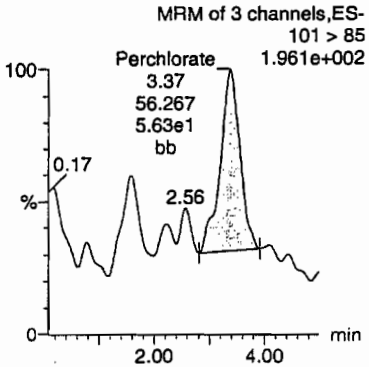

Perchlorate-101

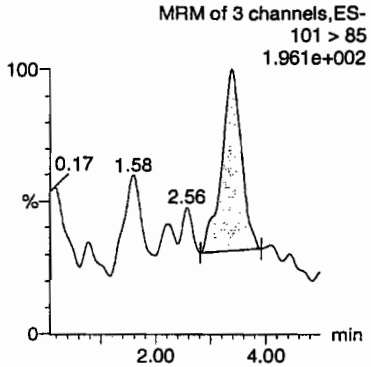

Perchlorate-O(18)

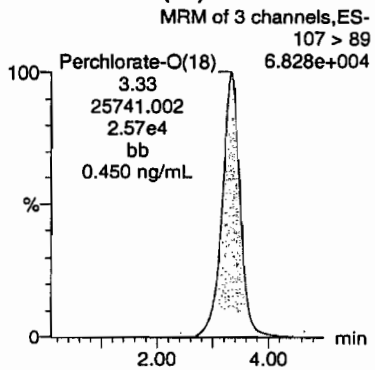

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83	3.37	129.611	129.611	bb			0.0018			20.032	2.30
IPB004	Perchlorate-101	101 > 85	3.37	56.267	56.267	bb			0.0025			3.267	
IPB004	Perchlorate-O(18)	107 > 89	3.33	25741.002	25741.002	bb			0.4501	90.03	-9.97	6511.3...	

DLY4
LCS0500
MMP
4/2/10

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330034a
Date: 30-Mar-2010
Time: 15:31:58
ID: IPB005
Vial: 1:1,A

CWW
04-01-10

Perchlorate

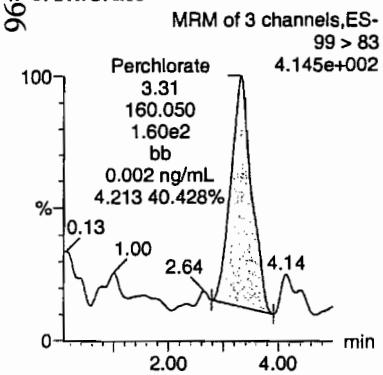

Perchlorate

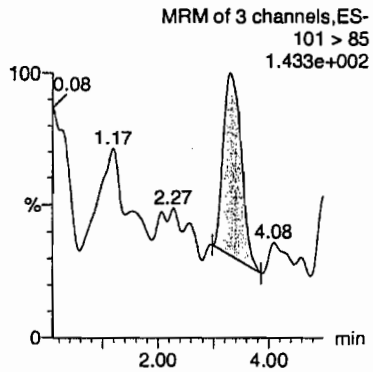

Perchlorate-101

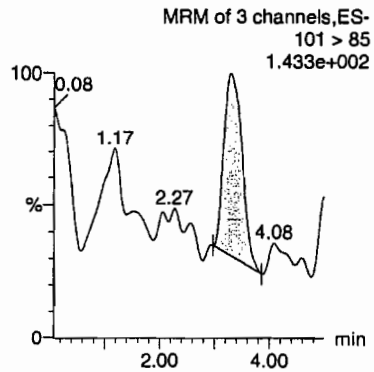

Perchlorate-O(18)

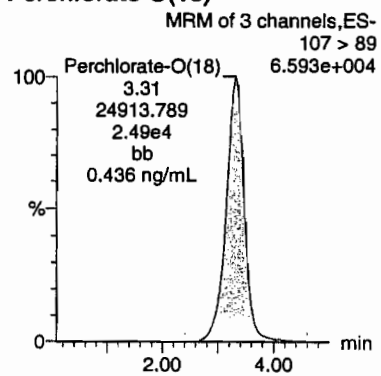

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83	3.31	160.050	160.050	bb			0.0022			18.437	4.21
IPB005	Perchlorate-101	101 > 85	3.28	37.991	37.991	bb			0.0017			22.239	
IPB005	Perchlorate-O(18)	107 > 89	3.31	24913.789	24913.789	bb			0.4357	87.14	-12.86	6308.3...	

CWW
CQ 0500
MM
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330046a
Date: 30-Mar-2010
Time: 17:08:48
ID: IPB006
Vial: 1:1,A

330
04-10-10

Perchlorate

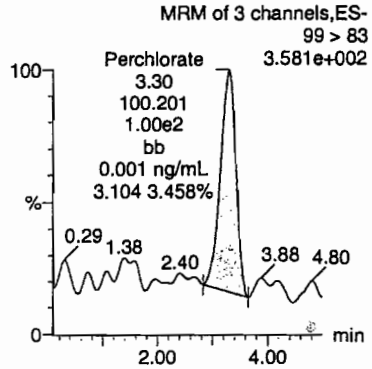

Perchlorate

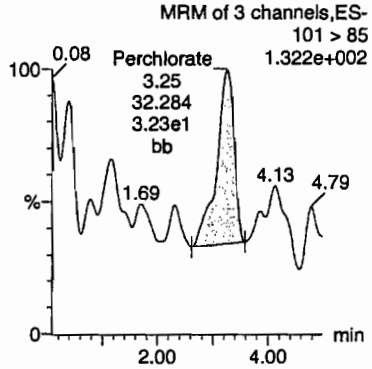

Perchlorate-101

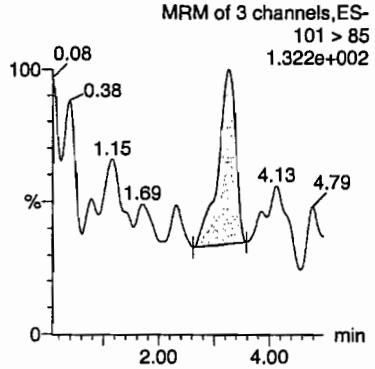

Perchlorate-O(18)

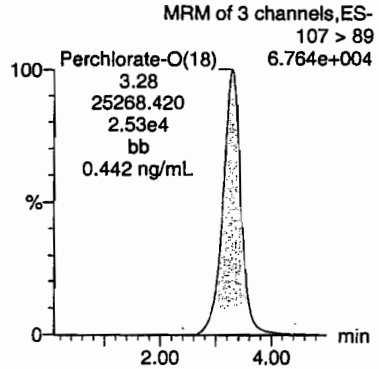

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83	3.30	100.201	100.201	bb			0.0014			17.429	3.10
IPB006	Perchlorate-101	101 > 85	3.25	32.284	32.284	bb			0.0014			9.503	
IPB006	Perchlorate-O(18)	107 > 89	3.28	25268.420	25268.420	bb			0.4419	88.38	-11.62	689.278	

MM 4/2/10

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330057a
Date: 30-Mar-2010
Time: 18:37:34
ID: IPB007
Vial: 1:1,A

04-01-10

Perchlorate

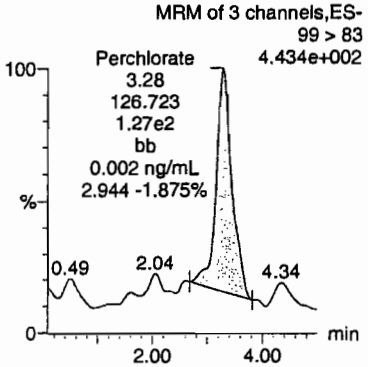

Perchlorate

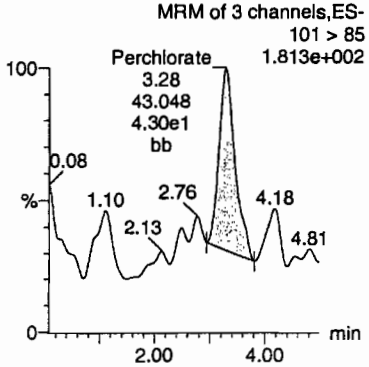

Perchlorate-101

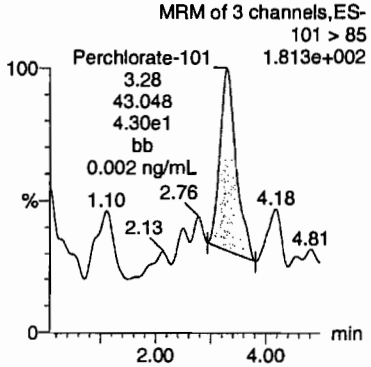

Perchlorate-O(18)

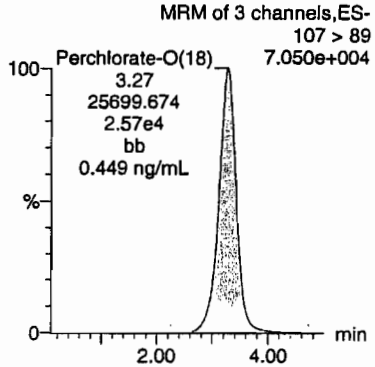

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83	3.28	126.723	126.723	bb			0.0017			43.130	2.94
IPB007	Perchlorate-101	101 > 85	3.28	43.048	43.048	bb			0.0019			14.116	
IPB007	Perchlorate-O(18)	107 > 89	3.27	25699.674	25699.674	bb			0.4494	89.88	-10.12	5871.6...	

MM 4/2/10

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330068a
Date: 30-Mar-2010
Time: 20:06:51
ID: IPB008
Vial: 1:1,A

04-01-10

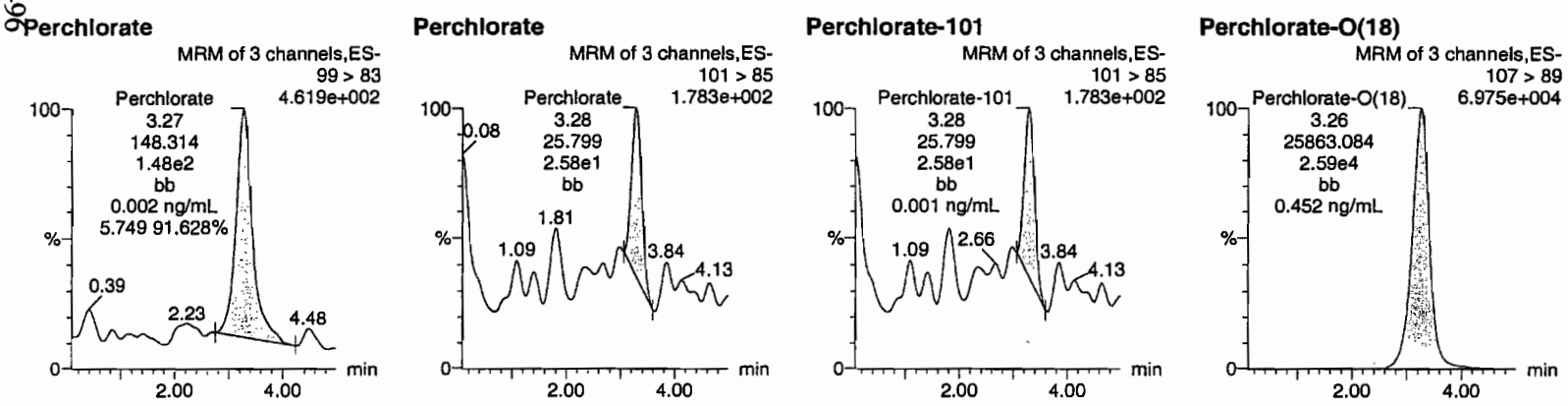

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83	3.27	148.314	148.314	bb			0.0020			6.794	5.75
IPB008	Perchlorate-101	101 > 85	3.28	25.799	25.799	bb			0.0011			2.324	
IPB008	Perchlorate-O(18)	107 > 89	3.26	25863.084	25863.084	bb			0.4523	90.46	-9.54	4379.0...	

OK94
<0.050
MAT
4/2/10

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330080a
Date: 30-Mar-2010
Time: 21:44:27
ID: IPB009
Vial: 1:1,A

04-01-10

Perchlorate

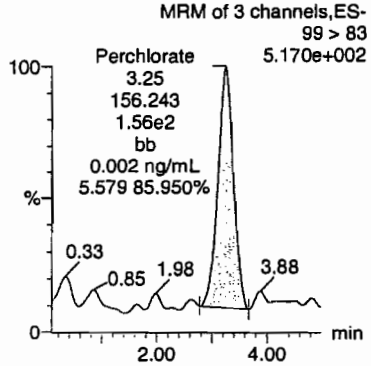

Perchlorate

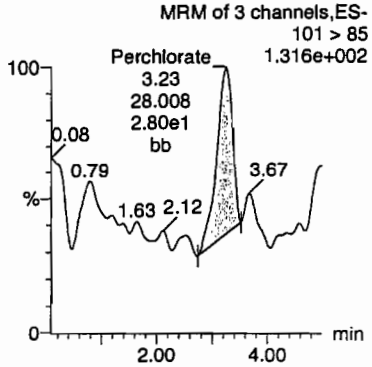

Perchlorate-101

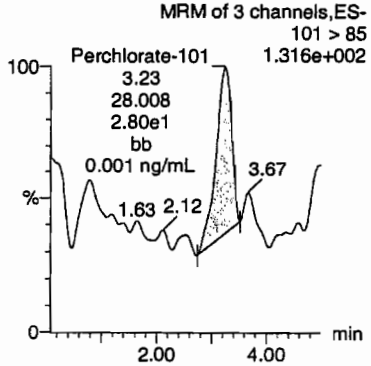

Perchlorate-O(18)

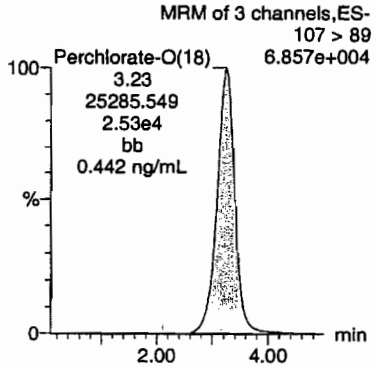

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83	3.25	156.243	156.243	bb			0.0021			43.590	5.58
IPB009	Perchlorate-101	101 > 85	3.23	28.008	28.008	bb			0.0012			27.434	
IPB009	Perchlorate-O(18)	107 > 89	3.23	25285.549	25285.549	bb			0.4422	88.44	-11.56	4055.8...	

QWH
20.0500
4/2/10

Nainb.rcf

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWJ 01-07-08

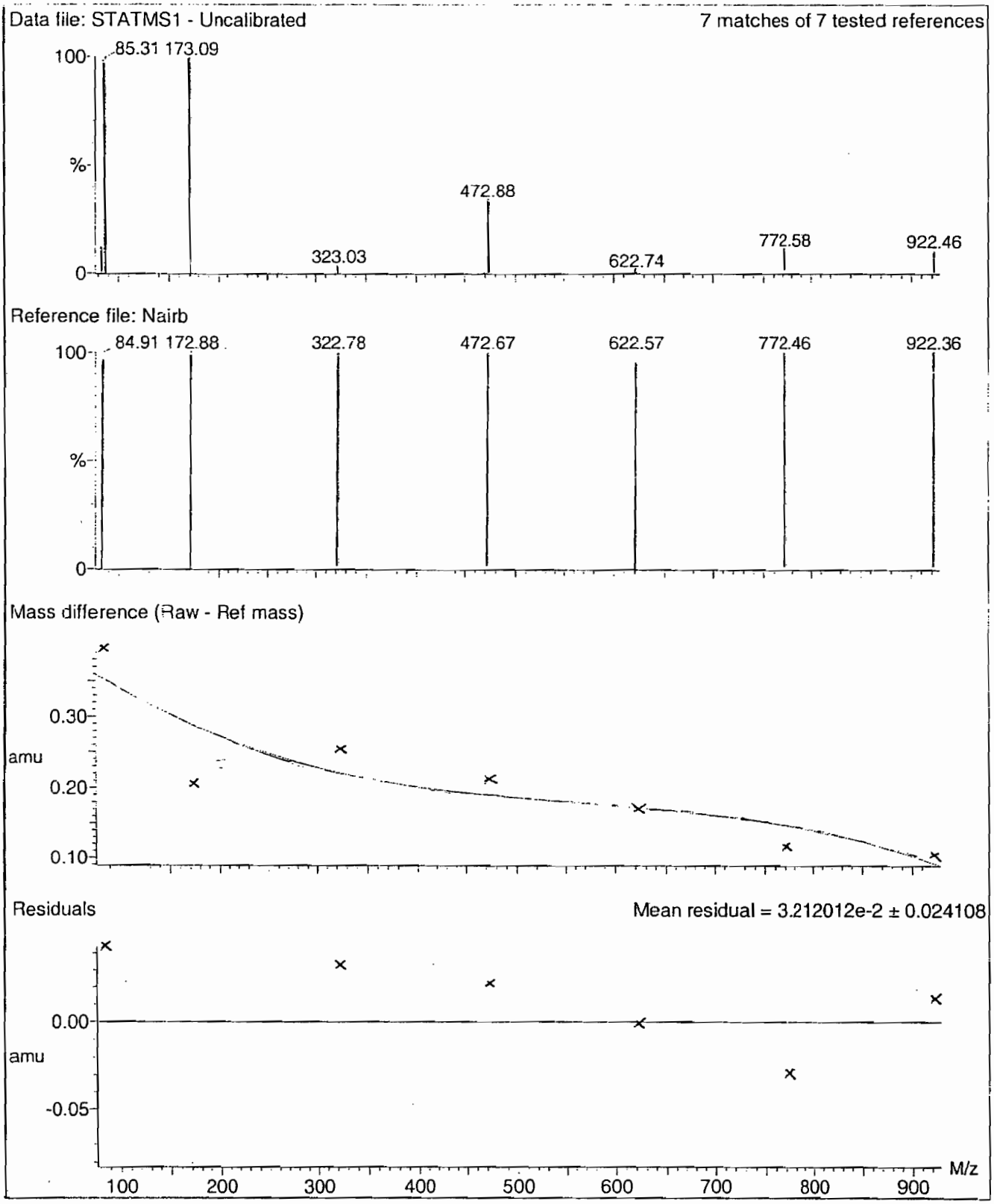

Printed: Tue Jan 08 12:20:09 2008

Data file: SCNMS1 - Uncalibrated 7 matches of 7 tested references

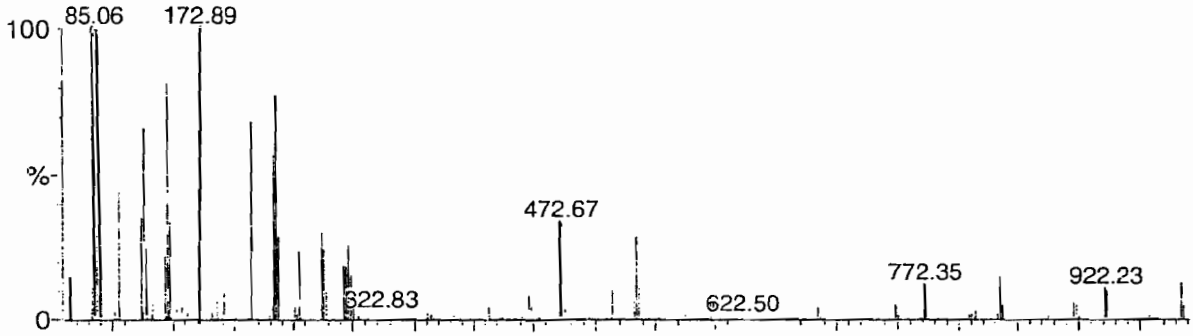

Reference file: Nairb

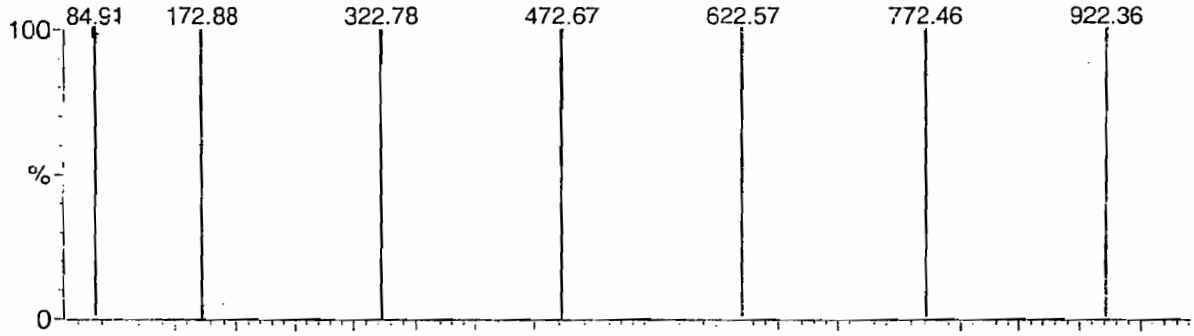

Mass difference (Raw - Ref mass)

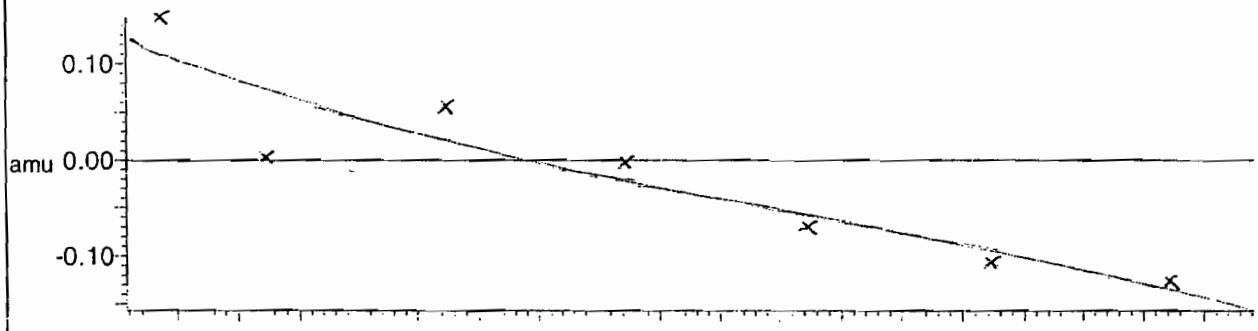

Residuals Mean residual = 2.732691e-2 ± 0.020653

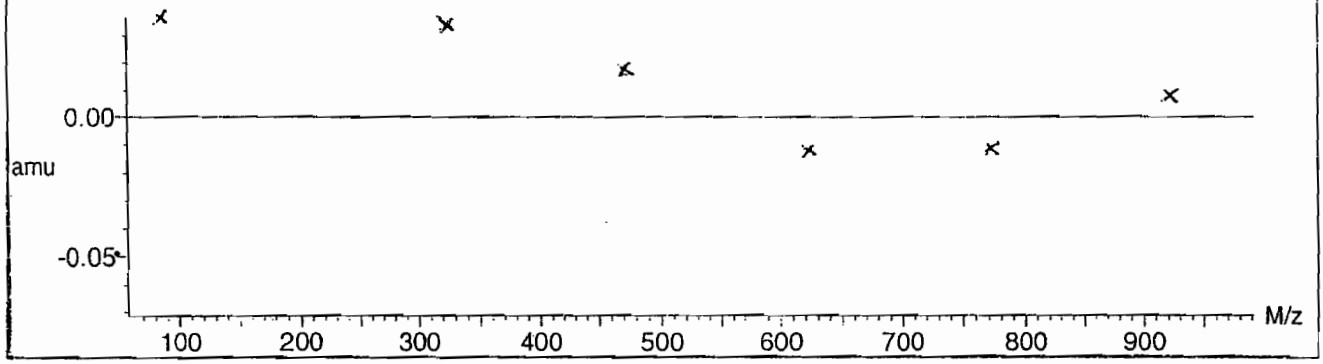

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

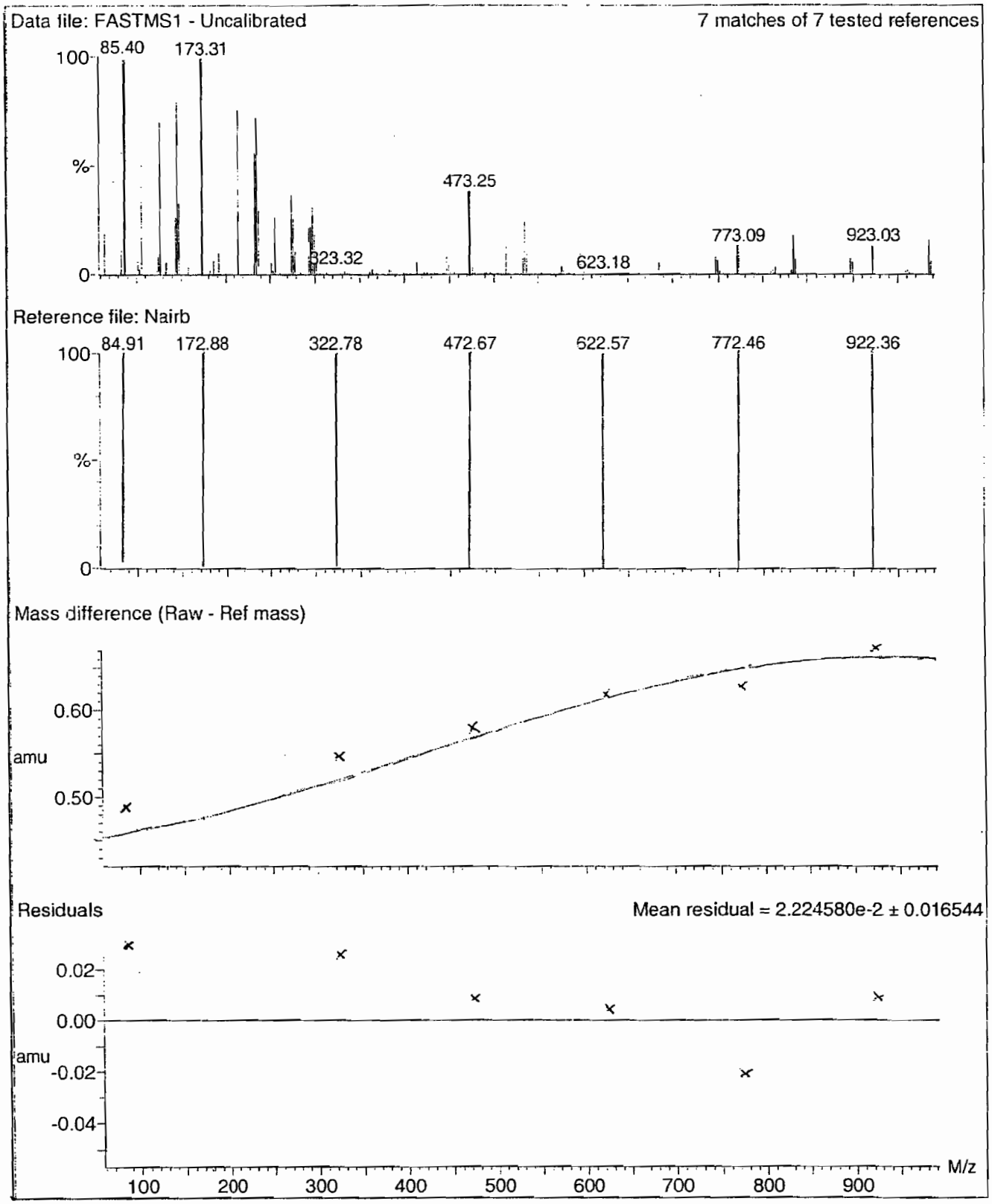

Printed: Tue Jan 08 12:23:51 2008

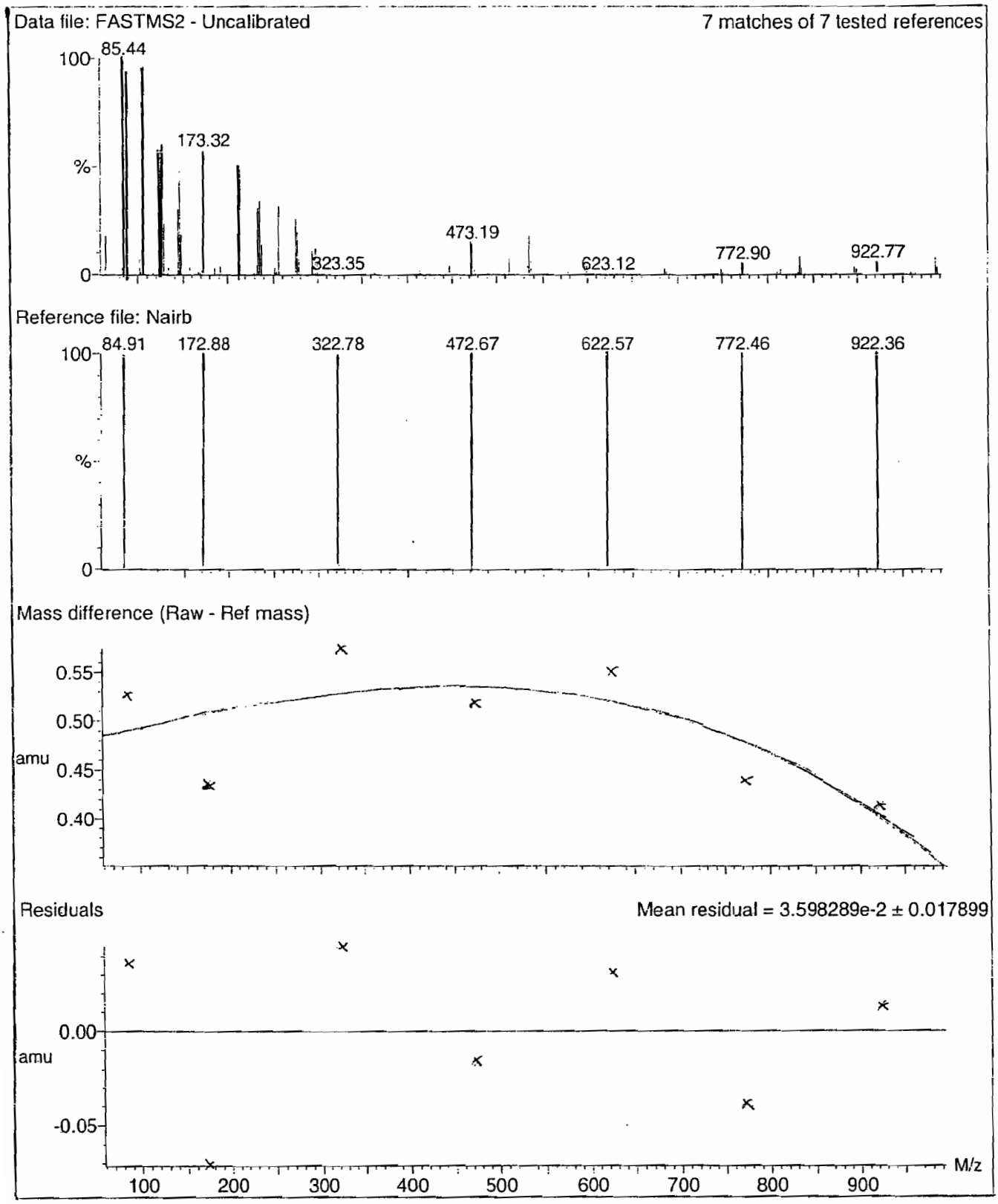

Printed: Tue Jan 08 12:22:56 2008

Data file: SCNMS2 - Uncalibrated 7 matches of 7 tested references

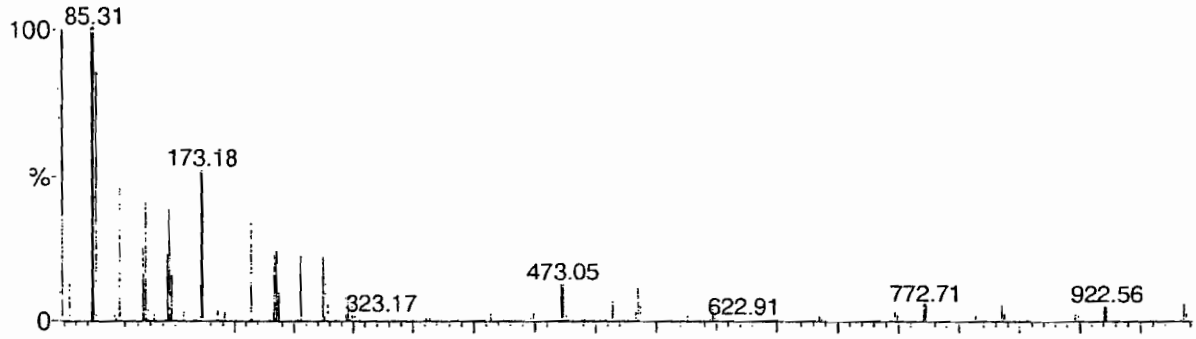

Reference file: Nairb

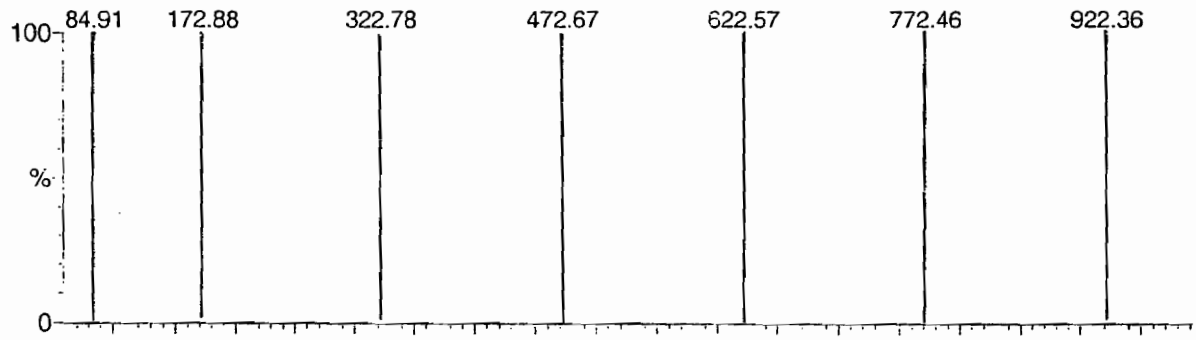

Mass difference (Raw - Ref mass)

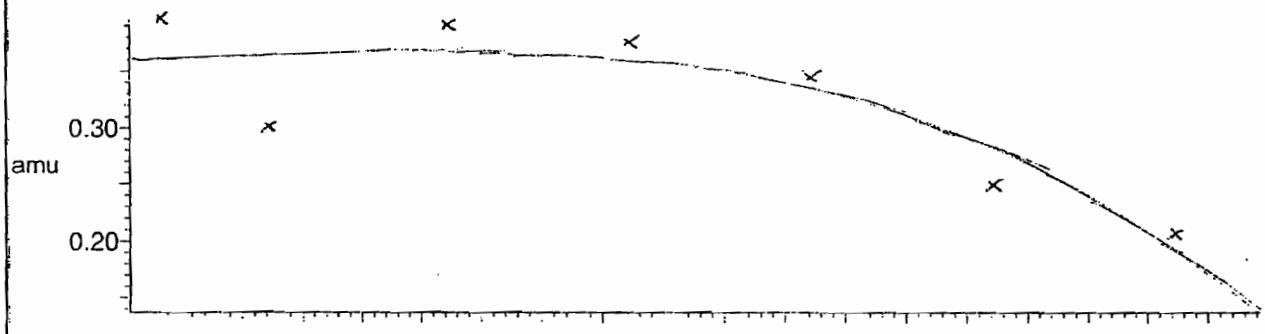

Residuals Mean residual = 2.782494e-2 ± 0.017442

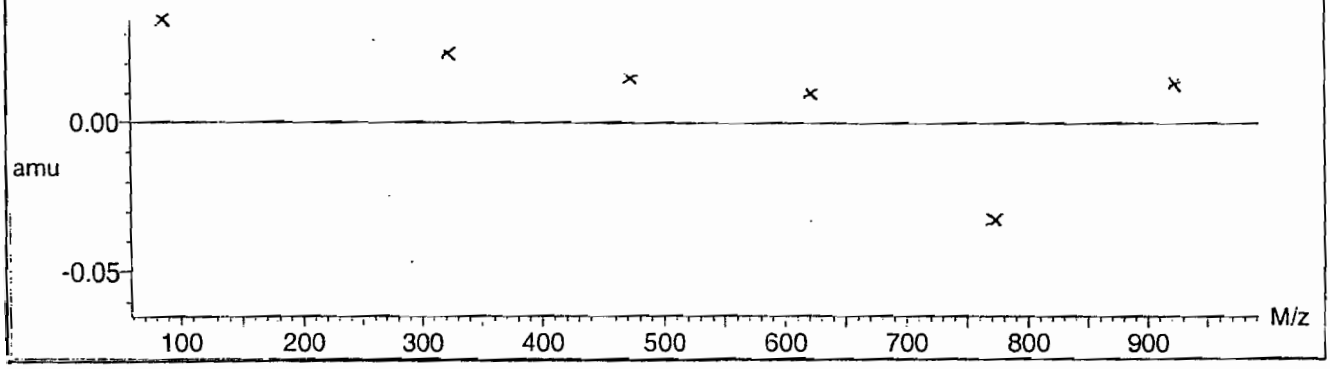

Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated 7 matches of 7 tested references

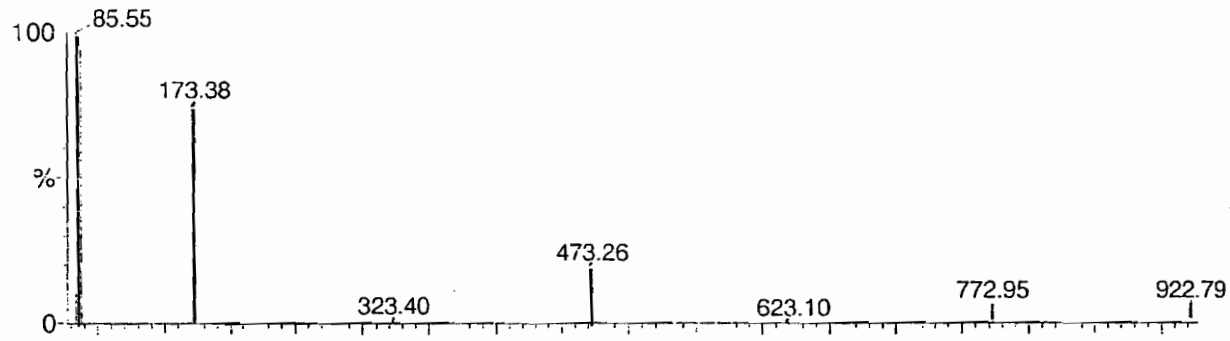

Reference file: Nairb

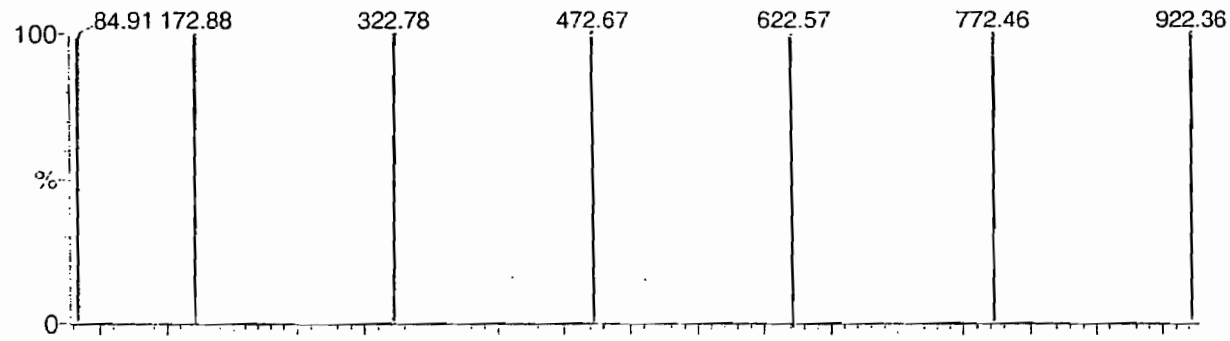

Mass difference (Raw - Ref mass)

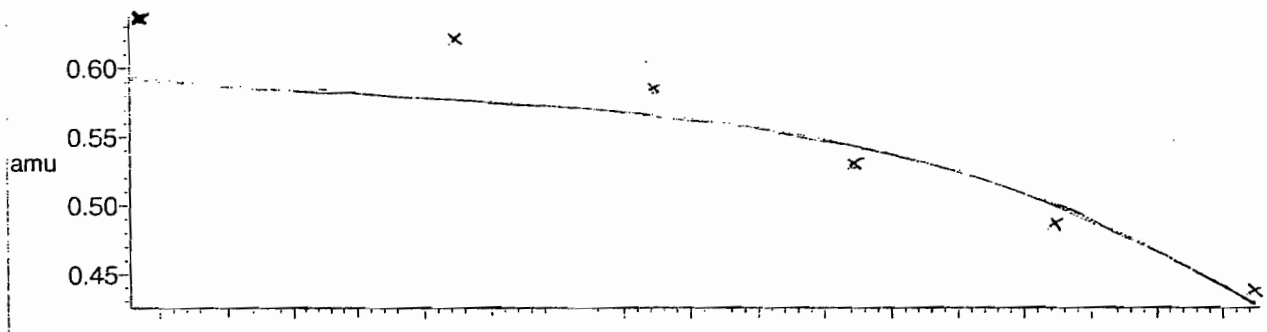

Residuals Mean residual = 3.295980e-2 ± 0.025603

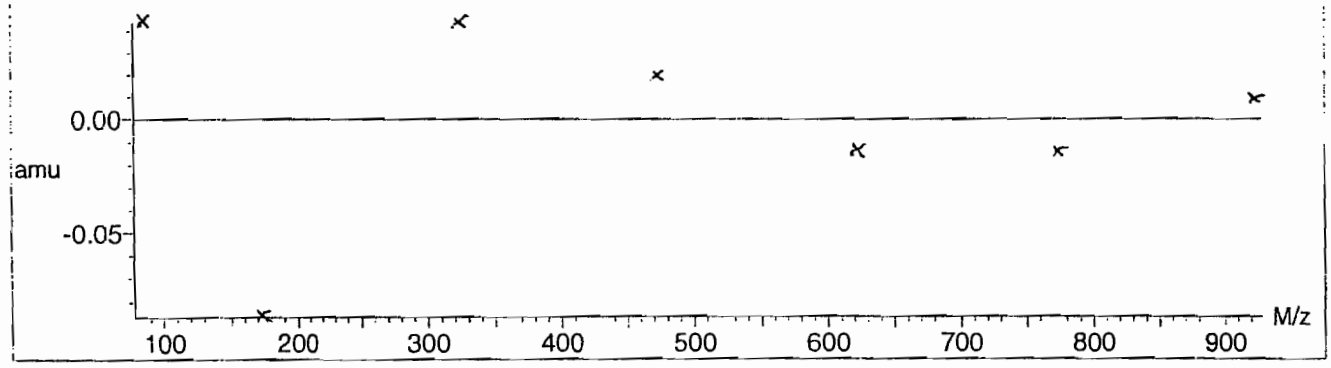

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Tuesday, March 30, 2010 08:55:18 Eastern Standard Time

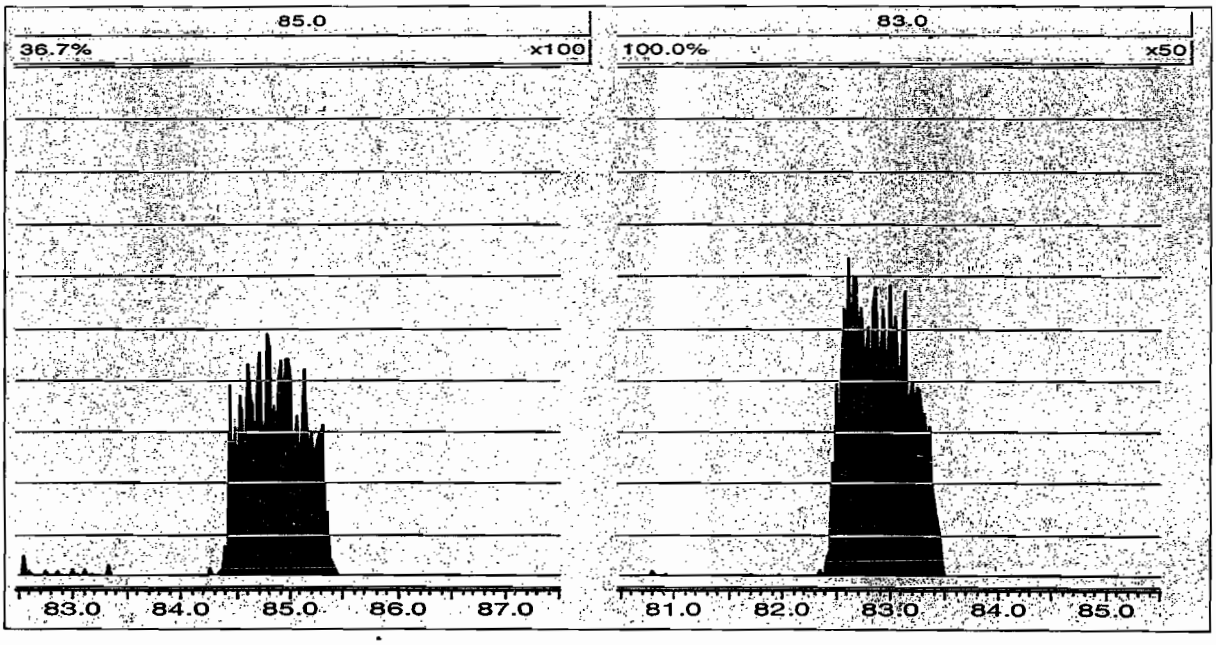

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2430

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0330006a**	**30–MAR–10**	**28137.8**				
Lower Area Limit			**14068.9**				
Upper Area Limit			**56275.6**				
1202074304	per0330070a	30–MAR–10 20:23	23756.8	3.25	3.27163	1.007	
1202074305	per0330071a	30–MAR–10 20:31	26753.7	3.26	3.27163	1.004	
1202074308	per0330072a	30–MAR–10 20:39	29266.4	3.27	3.28408	1.004	
249329001	per0330075a	30–MAR–10 21:03	27870.7	3.25	3.27163	1.007	
249329002	per0330076a	30–MAR–10 21:11	27238.3	3.25	3.25918	1.003	
249329003	per0330077a	30–MAR–10 21:19	26955.1	3.25	3.25918	1.003	
249329004	per0330078a	30–MAR–10 21:27	25240.2	3.25	3.25922	1.003	

SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13964

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2430

GEL Sample ID: 249329001

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.557	2.23	0.709	ug/kg	J	1	30-MAR-10 21:03	per0330075a
	Perchlorate Isotope Ratio			3.3			1	30-MAR-10 21:03	per0330075a
14797-73-0	Perchlorate-101	.557	2.23	0.691	ug/kg	J	1	30-MAR-10 21:03	per0330075a
	Perchlorate-O(18)			5.43	ug/kg		1	30-MAR-10 21:03	per0330075a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330075a
Date: 30-Mar-2010
Time: 21:03:39
ID: 249329001
Vial: 2:6,F

LANL | 966578 | 50120 | 1 |

WW 04-01-10

Perchlorate

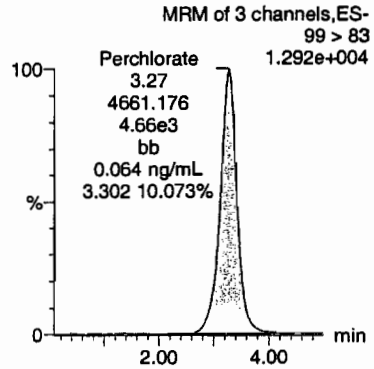

Perchlorate

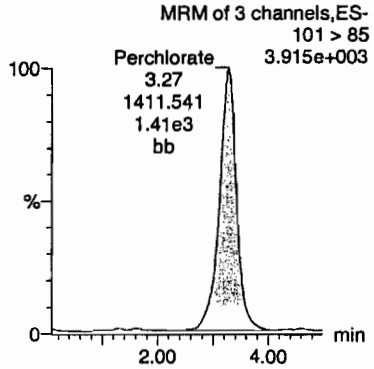

Perchlorate-101

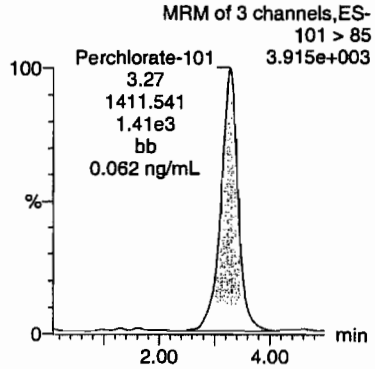

Perchlorate-O(18)

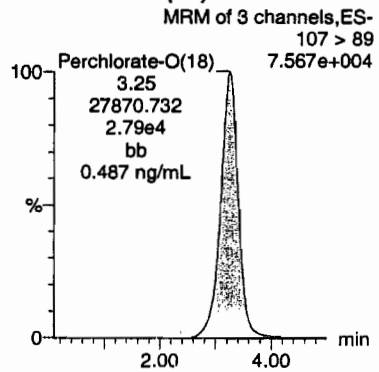

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
249329001	Perchlorate	99 > 83	3.27	4661.176	4661.176	bb			0.0637			354.654	3.30
249329001	Perchlorate-101	101 > 85	3.27	1411.541	1411.541	bb			0.0620			150.851	
249329001	Perchlorate-O(18)	107 > 89	3.25	27870.732	27870.732	bb			0.4874	97.48	-2.52	2769.2...	

MOH 4/2/10

$\frac{4661.176 \mid 10 \mid 100}{73132.7 \mid \mid 89.8} = 0.710$

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13966

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2430

GEL Sample ID: 249329002

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.597	2.39	0.597	ug/kg	U	1	30-MAR-10 21:11	per0330076a
	Perchlorate Isotope Ratio						1	30-MAR-10 21:11	per0330076a
14797-73-0	Perchlorate-101	.597	2.39	0.597	ug/kg	U	1	30-MAR-10 21:11	per0330076a
	Perchlorate-O(18)			5.69	ug/kg		1	30-MAR-10 21:11	per0330076a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330076a
Date: 30-Mar-2010
Time: 21:11:42
ID: 249329002
Vial: 2:7,A

|LANL|966578|5020|1|

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Perchlorate

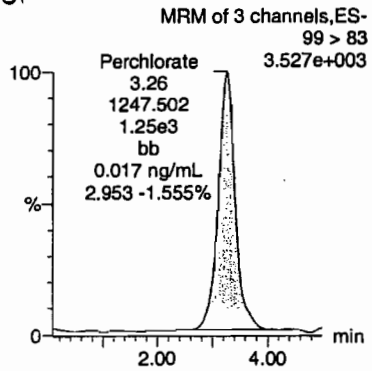

Perchlorate

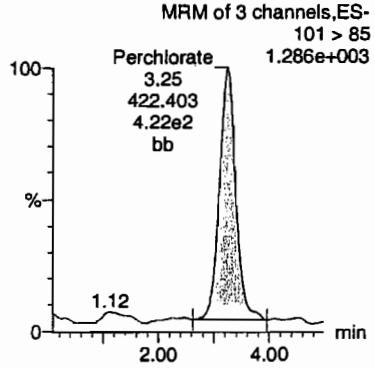

Perchlorate-101

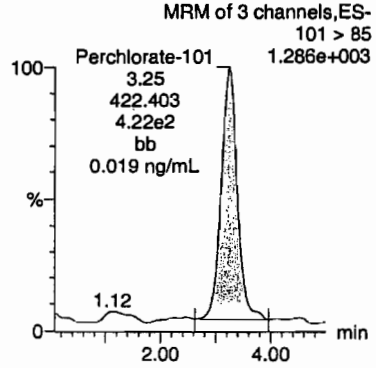

Perchlorate-O(18)

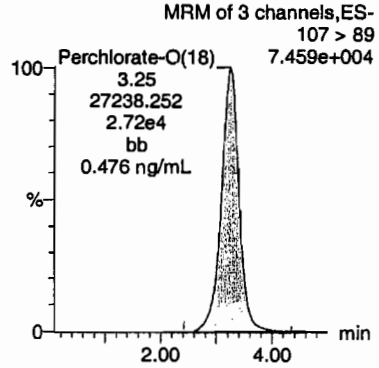

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
249329002	Perchlorate	99 > 83	3.26	1247.502	1247.502	bb			0.0171			220.624	2.95
249329002	Perchlorate-101	101 > 85	3.25	422.403	422.403	bb			0.0186			42.304	
249329002	Perchlorate-O(18)	107 > 89	3.25	27238.252	27238.252	bb			0.4763	95.26	-4.74	662.611	

MM 4/2/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13963

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2430

GEL Sample ID: 249329003

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 77

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.653	2.61	0.661	ug/kg	J	1	30-MAR-10 21:19	per0330077a
	Perchlorate Isotope Ratio			3.01			1	30-MAR-10 21:19	per0330077a
14797-73-0	Perchlorate-101	.653	2.61	0.706	ug/kg	J	1	30-MAR-10 21:19	per0330077a
	Perchlorate-O(18)			6.15	ug/kg		1	30-MAR-10 21:19	per0330077a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330077a
Date: 30-Mar-2010
Time: 21:19:46
ID: 249329003
Vial: 2:7,B

|LANL|966578|50420|1|

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04-01-10

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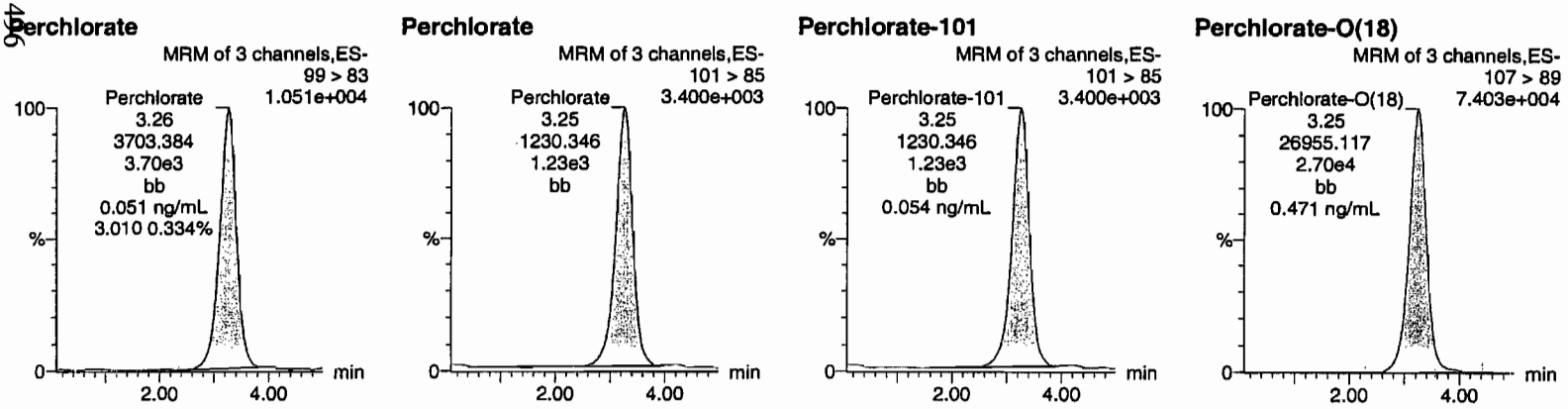

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
249329003	Perchlorate	99 > 83	3.26	3703.384	3703.384	bb			0.0506			229.954	3.01
249329003	Perchlorate-101	101 > 85	3.25	1230.346	1230.346	bb			0.0541			532.750	
249329003	Perchlorate-O(18)	107 > 89	3.25	26955.117	26955.117	bb			0.4714	94.27	-5.73	3238.9...	

MM 4/2/10

$$\frac{3703.384}{1230.346} = 3.0100$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13965

Date Received: 13-MAR-10

GEL Job No (SDG): 10-2430

GEL Sample ID: 249329004

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.562	2.25	0.562	ug/kg	U	1	30-MAR-10 21:27	per0330078a
	Perchlorate Isotope Ratio						1	30-MAR-10 21:27	per0330078a
14797-73-0	Perchlorate-101	.562	2.25	0.562	ug/kg	U	1	30-MAR-10 21:27	per0330078a
	Perchlorate-O(18)			4.96	ug/kg		1	30-MAR-10 21:27	per0330078a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330078a
Date: 30-Mar-2010
Time: 21:27:59
ID: 249329004
Vial: 2:7,C

LANL | 966578 | 50120 | 11

04-01-10

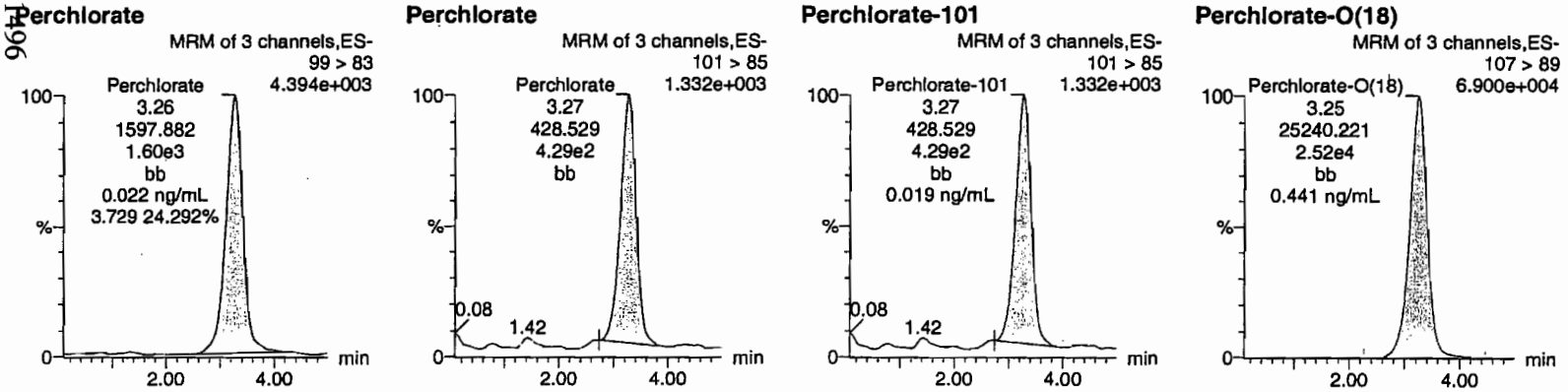

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
249329004	Perchlorate	99 > 83	3.26	1597.882	1597.882	bb			0.0218			690.149	3.73
249329004	Perchlorate-101	101 > 85	3.27	428.529	428.529	bb			0.0188			72.232	
249329004	Perchlorate-O(18)	107 > 89	3.25	25240.221	25240.221	bb			0.4414	88.28	-11.72	634.082	

MAT 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2430

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 30–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 73132.72

Response Type: External Standard

Curve Type: RF

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2430

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 30–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 22749.34

Response Type: External Standard

Curve Type: RF

Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per033010a.mdb 31 Mar 2010 11:16:12
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per033010a.cdb 31 Mar 2010 11:16:25

Compound name: Perchlorate
Response Factor: 73132.7
RRF SD: 1899.06, % Relative SD: 2.59673
Response type: External Std, Area
Curve type: RF

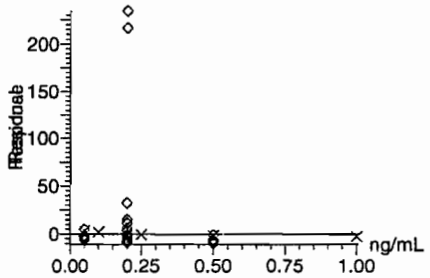

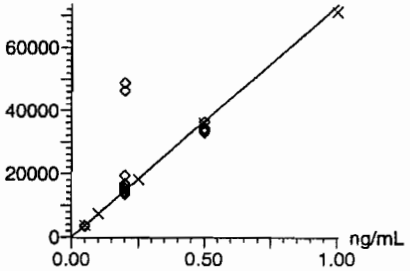

CMW
04-01-10

Compound name: Perchlorate-101
Response Factor: 22749.3
RRF SD: 893.276, % Relative SD: 3.9266
Response type: External Std, Area
Curve type: RF

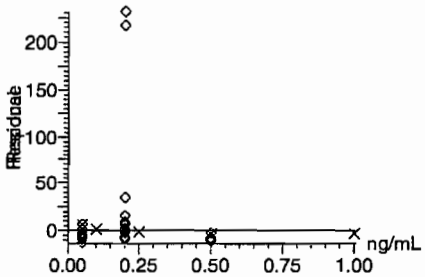

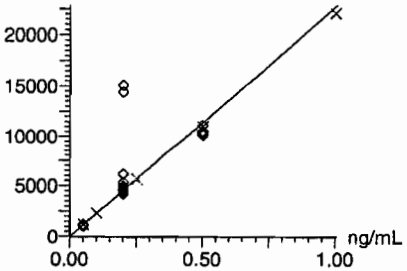

MM
4/2/10

Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 57184.3
RRF SD: 840.879, % Relative SD: 1.47047
Response type: External Std, Area
Curve type: RF

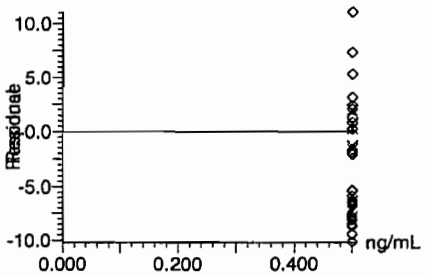

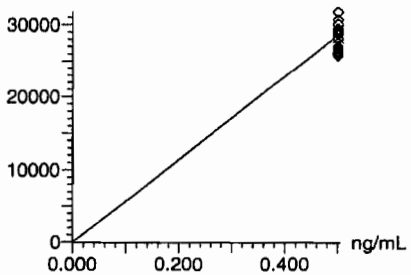

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2430

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.03	30–MAR–10 12:10	per0330009a
Perchlorate Isotope Ratio		3.26		30–MAR–10 12:10	per0330009a
Perchlorate–101	.5	.49	97.71	30–MAR–10 12:10	per0330009a

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330009a
Date: 30-Mar-2010
Time: 12:10:54
ID: WCL100326-06ICV
Vial: 1:2,A

Pass
aw
04-01-10

Perchlorate

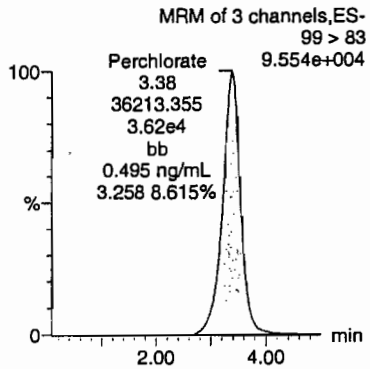

Perchlorate

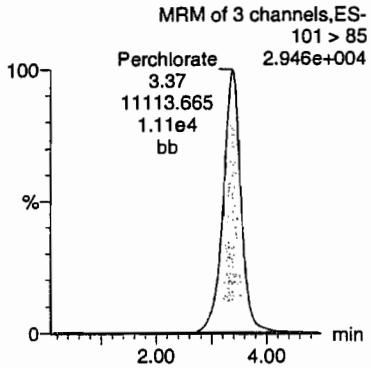

Perchlorate-101

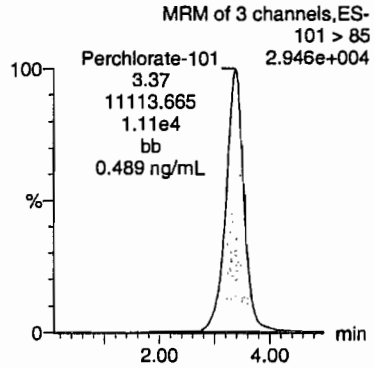

Perchlorate-O(18)

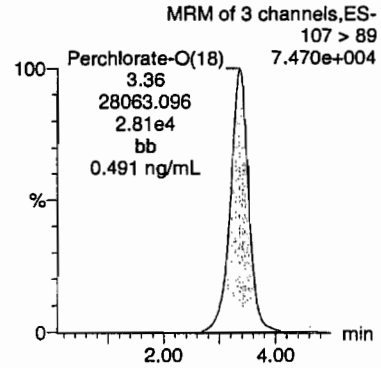

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06ICV	Perchlorate	99 > 83	3.38	36213.355	36213.355	bb			0.4952	99.03	-0.97	1892.9...	3.26
WCL100326-06ICV	Perchlorate-101	101 > 85	3.37	11113.665	11113.665	bb			0.4885	97.71	-2.29	653.159	
WCL100326-06ICV	Perchlorate-O(18)	107 > 89	3.36	28063.096	28063.096	bb			0.4907	98.15	-1.85	2260.4...	

MM
4/2/10

$\frac{36213.355}{73132.7} = 0.4952$

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2430

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.46	91.62	30–MAR–10 13:55	per0330022a
Perchlorate Isotope Ratio		3.22		30–MAR–10 13:55	per0330022a
Perchlorate–101	.5	.46	91.39	30–MAR–10 13:55	per0330022a
Perchlorate	.5	.46	92.43	30–MAR–10 15:23	per0330033a
Perchlorate Isotope Ratio		3.32		30–MAR–10 15:23	per0330033a
Perchlorate–101	.5	.45	89.54	30–MAR–10 15:23	per0330033a
Perchlorate	.5	.46	91.09	30–MAR–10 17:00	per0330045a
Perchlorate Isotope Ratio		3.24		30–MAR–10 17:00	per0330045a
Perchlorate–101	.5	.45	90.34	30–MAR–10 17:00	per0330045a
Perchlorate	.5	.46	91.6	30–MAR–10 18:29	per0330056a
Perchlorate Isotope Ratio		3.18		30–MAR–10 18:29	per0330056a
Perchlorate–101	.5	.46	92.66	30–MAR–10 18:29	per0330056a
Perchlorate	.5	.47	94.13	30–MAR–10 19:58	per0330067a

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2430

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.31		30–MAR–10 19:58	per0330067a
Perchlorate–101	.5	.46	91.39	30–MAR–10 19:58	per0330067a
Perchlorate	.5	.45	89.6	30–MAR–10 21:36	per0330079a
Perchlorate Isotope Ratio		3.25		30–MAR–10 21:36	per0330079a
Perchlorate–101	.5	.44	88.71	30–MAR–10 21:36	per0330079a

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330022a
Date: 30-Mar-2010
Time: 13:55:27
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
aw
04-01-10

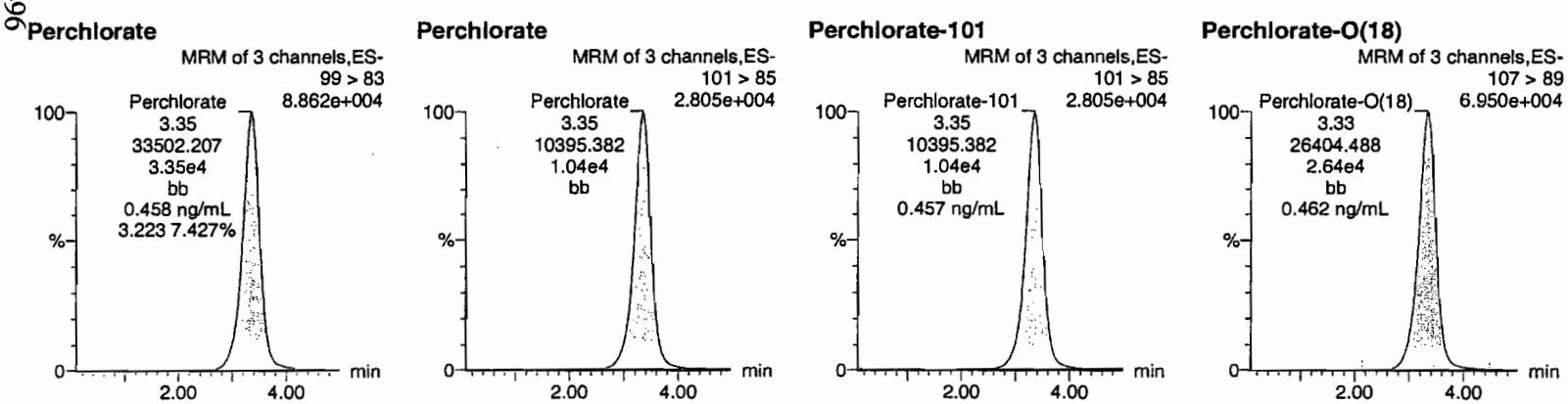

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.35	33502.207	33502.207	bb			0.4581	91.62	-8.38	6220.3...	3.22
WCL100326-06CCV	Perchlorate-101	101 > 85	3.35	10395.382	10395.382	bb			0.4570	91.39	-8.61	1075.9...	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.33	26404.488	26404.488	bb			0.4617	92.35	-7.65	5376.9...	

MMP
4/2/10

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330033a
Date: 30-Mar-2010
Time: 15:23:55
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
04-01-10

Perchlorate

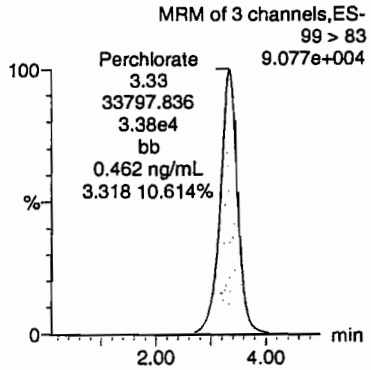

Perchlorate

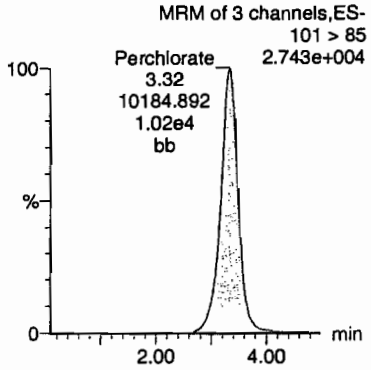

Perchlorate-101

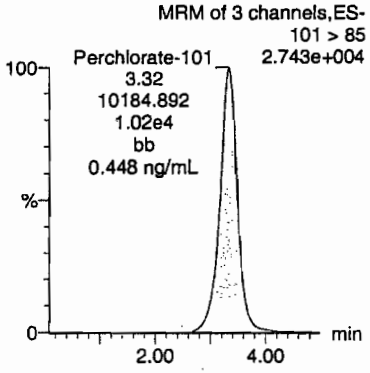

Perchlorate-O(18)

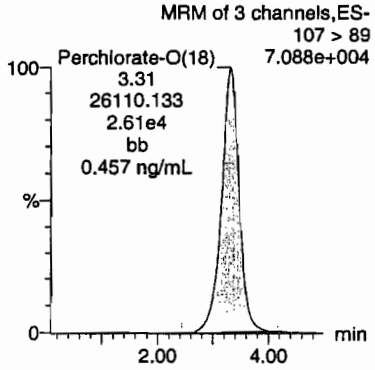

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.33	33797.836	33797.836	bb			0.4621	92.43	-7.57	1903.2...	3.32
WCL100326-06CCV	Perchlorate-101	101 > 85	3.32	10184.892	10184.892	bb			0.4477	89.54	-10.46	742.369	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.31	26110.133	26110.133	bb			0.4566	91.32	-8.68	3135.4...	

MAT
4/2/10

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330045a
Date: 30-Mar-2010
Time: 17:00:31
ID: WCL100326-06CCV
Vial: 1:2,A

CWJ 04-01-10

PWD CWJ 04-01-10

Perchlorate

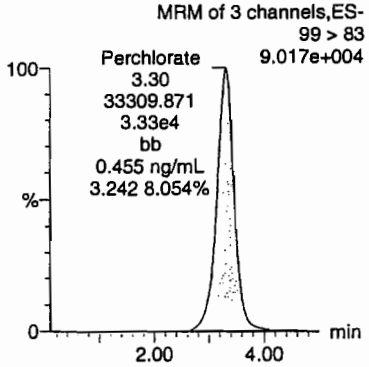

Perchlorate

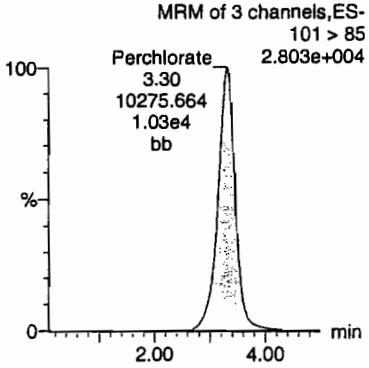

Perchlorate-101

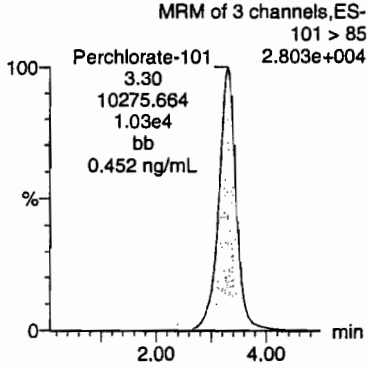

Perchlorate-O(18)

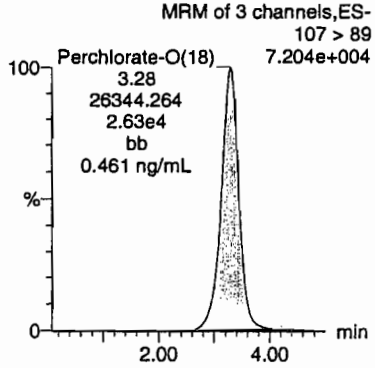

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.30	33309.871	33309.871	bb			0.4555	91.09	-8.91	4995.6...	3.24
WCL100326-06CCV	Perchlorate-101	101 > 85	3.30	10275.664	10275.664	bb			0.4517	90.34	-9.66	627.269	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.28	26344.264	26344.264	bb			0.4607	92.14	-7.86	2288.2...	

MAT 4/2/10

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330056a
Date: 30-Mar-2010
Time: 18:29:17
ID: WCL100326-06CCV
Vial: 1:2,A

Rev
aw
04-01-10

Perchlorate

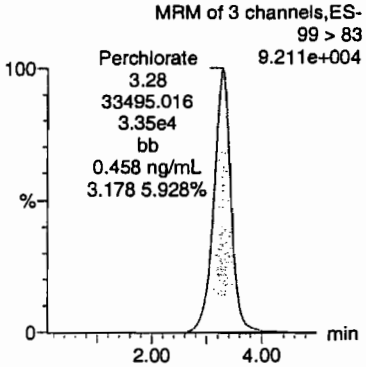

Perchlorate

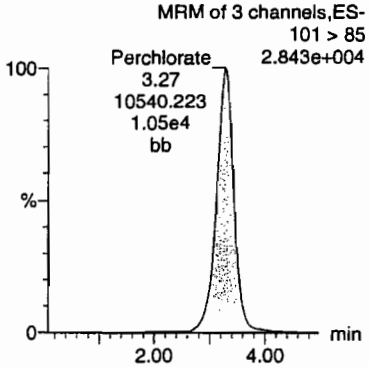

Perchlorate-101

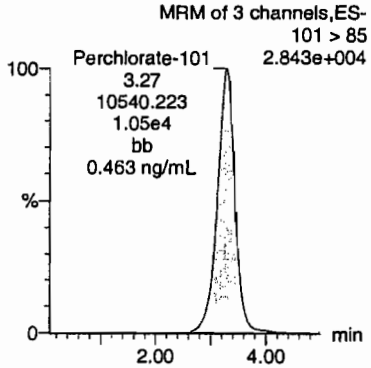

Perchlorate-O(18)

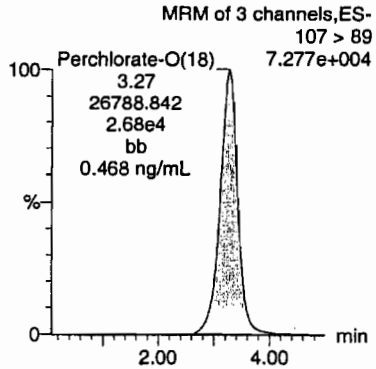

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.28	33495.016	33495.016	bb			0.4580	91.60	-8.40	4549.8...	3.18
WCL100326-06CCV	Perchlorate-101	101 > 85	3.27	10540.223	10540.223	bb			0.4633	92.66	-7.34	1068.2...	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.27	26788.842	26788.842	bb			0.4685	93.69	-6.31	9304.0...	

MMT
4/2/10

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330067a
Date: 30-Mar-2010
Time: 19:58:26
ID: WCL100326-06CCV
Vial: 1:2,A

PWD 04-01-10

Perchlorate

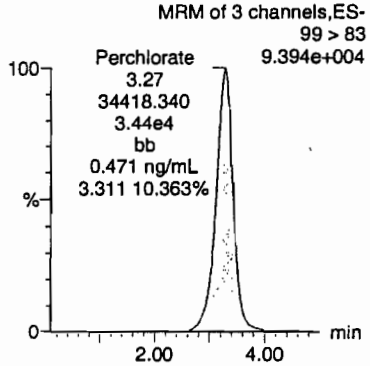

Perchlorate

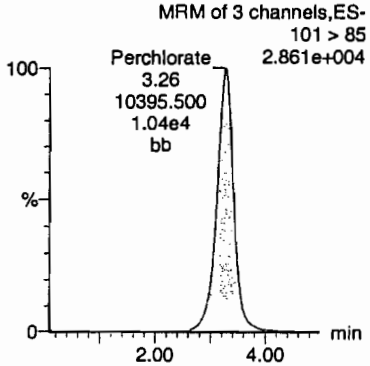

Perchlorate-101

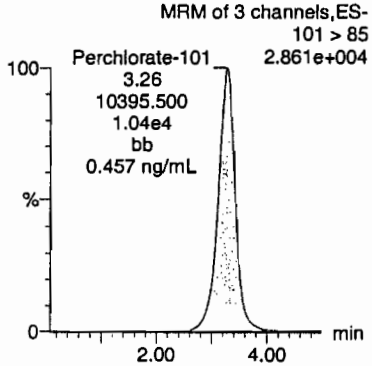

Perchlorate-O(18)

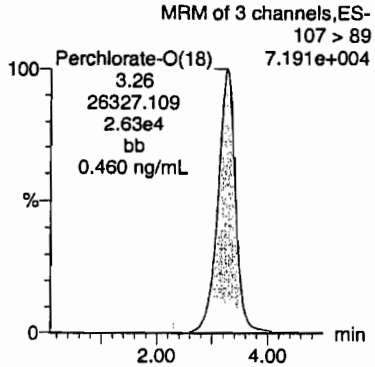

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.27	34418.340	34418.340	bb			0.4706	94.13	-5.87	1586.9...	3.31
WCL100326-06CCV	Perchlorate-101	101 > 85	3.26	10395.500	10395.500	bb			0.4570	91.39	-8.61	159.862	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.26	26327.109	26327.109	bb			0.4604	92.08	-7.92	4701.3...	

MAT 4/2/10

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330079a
Date: 30-Mar-2010
Time: 21:36:10
ID: WCL100326-06CCV
Vial: 1:2,A

Pwo
aw
04-01-10

Perchlorate

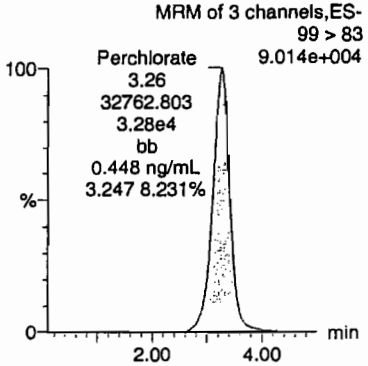

Perchlorate

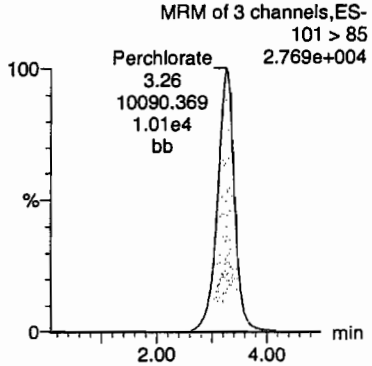

Perchlorate-101

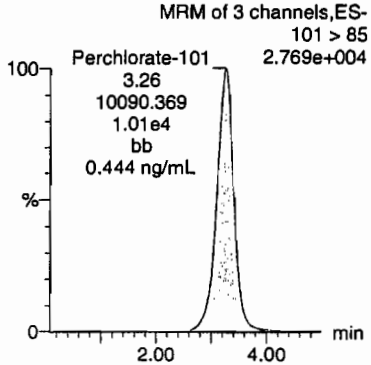

Perchlorate-O(18)

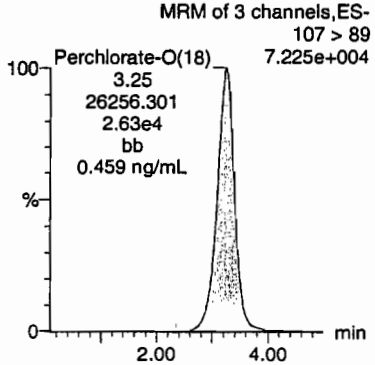

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.26	32762.803	32762.803	bb			0.4480	89.60	-10.40	8986.4...	3.25
WCL100326-06CCV	Perchlorate-101	101 > 85	3.26	10090.369	10090.369	bb			0.4435	88.71	-11.29	261.289	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.25	26256.301	26256.301	bb			0.4592	91.83	-8.17	4512.7...	

MM
4/2/10

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2430

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	105.07	30–MAR–10 12:26	per0330011a
Perchlorate Isotope Ratio		3.17		30–MAR–10 12:26	per0330011a
Perchlorate–101	.05	.05	106.69	30–MAR–10 12:26	per0330011a
Perchlorate	.05	.05	97.45	30–MAR–10 14:11	per0330024a
Perchlorate Isotope Ratio		3.6		30–MAR–10 14:11	per0330024a
Perchlorate–101	.05	.04	86.95	30–MAR–10 14:11	per0330024a
Perchlorate	.05	.05	94.96	30–MAR–10 15:40	per0330035a
Perchlorate Isotope Ratio		3.29		30–MAR–10 15:40	per0330035a
Perchlorate–101	.05	.05	92.9	30–MAR–10 15:40	per0330035a
Perchlorate	.05	.05	98.75	30–MAR–10 17:16	per0330047a
Perchlorate Isotope Ratio		3.34		30–MAR–10 17:16	per0330047a

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2430

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate–101	.05	.05	94.97	30–MAR–10 17:16	per0330047a
Perchlorate	.05	.05	92.98	30–MAR–10 18:45	per0330058a
Perchlorate Isotope Ratio		3.19		30–MAR–10 18:45	per0330058a
Perchlorate–101	.05	.05	93.62	30–MAR–10 18:45	per0330058a
Perchlorate	.05	.05	95.29	30–MAR–10 20:14	per0330069a
Perchlorate Isotope Ratio		3.15		30–MAR–10 20:14	per0330069a
Perchlorate–101	.05	.05	97.4	30–MAR–10 20:14	per0330069a
Perchlorate	.05	.05	97.82	30–MAR–10 21:52	per0330081a
Perchlorate Isotope Ratio		3.47		30–MAR–10 21:52	per0330081a
Perchlorate–101	.05	.05	90.63	30–MAR–10 21:52	per0330081a

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330011a
Date: 30-Mar-2010
Time: 12:26:59
ID: WCL100326-07CRI
Vial: 1:2,B

Pwm
04-01-10

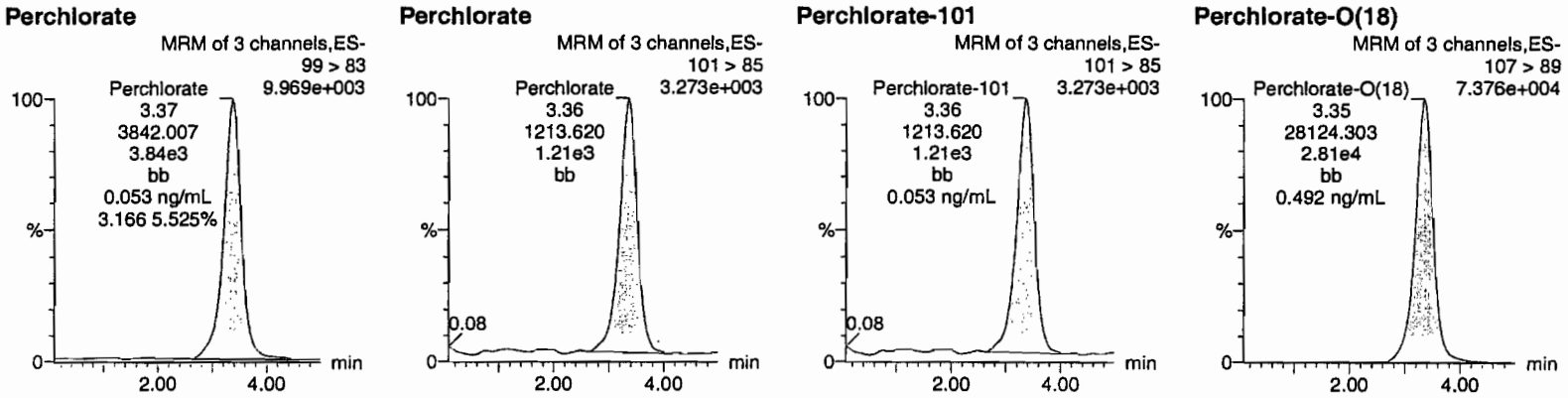

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.37	3842.007	3842.007	bb			0.0525	105.07	5.07	249.490	3.17
WCL100326-07CRI	Perchlorate-101	101 > 85	3.36	1213.620	1213.620	bb			0.0533	106.69	6.69	404.632	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.35	28124.303	28124.303	bb			0.4918	98.36	-1.64	751.713	

MMT 4/2/10

$\frac{3842.007}{1213.620} = 3.1657$

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330024a
Date: 30-Mar-2010
Time: 14:11:32
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
aw
04-01-10

Perchlorate

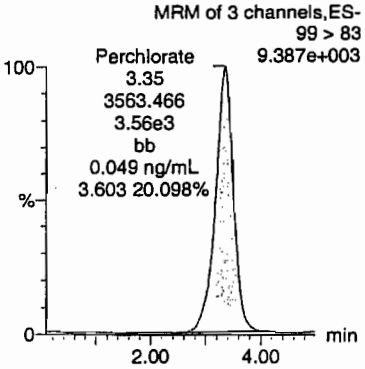

Perchlorate

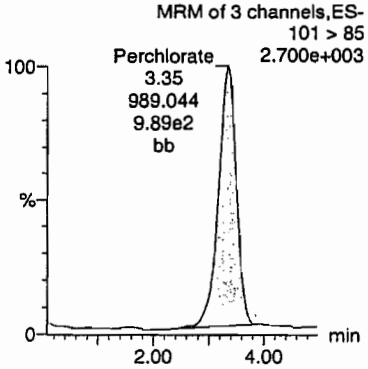

Perchlorate-101

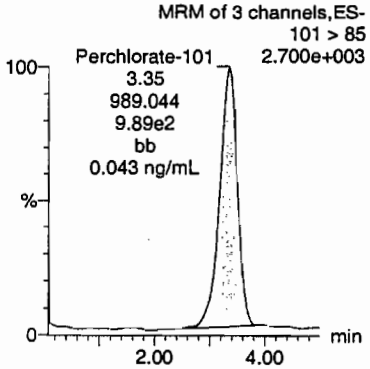

Perchlorate-O(18)

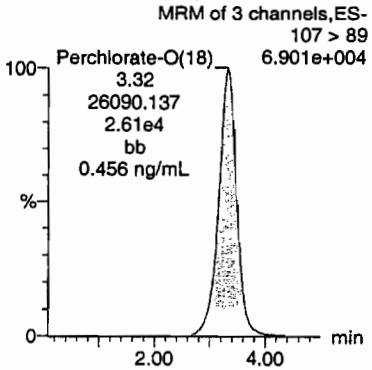

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.35	3563.466	3563.466	bb			0.0487	97.45	-2.55	205.660	3.60
WCL100326-07CRI	Perchlorate-101	101 > 85	3.35	989.044	989.044	bb			0.0435	86.95	-13.05	142.415	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.32	26090.137	26090.137	bb			0.4562	91.25	-8.75	21.093	

MM
4/2/10

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330035a
Date: 30-Mar-2010
Time: 15:40:00
ID: WCL100326-07CRI
Vial: 1:2,B

PWD 04-01-10

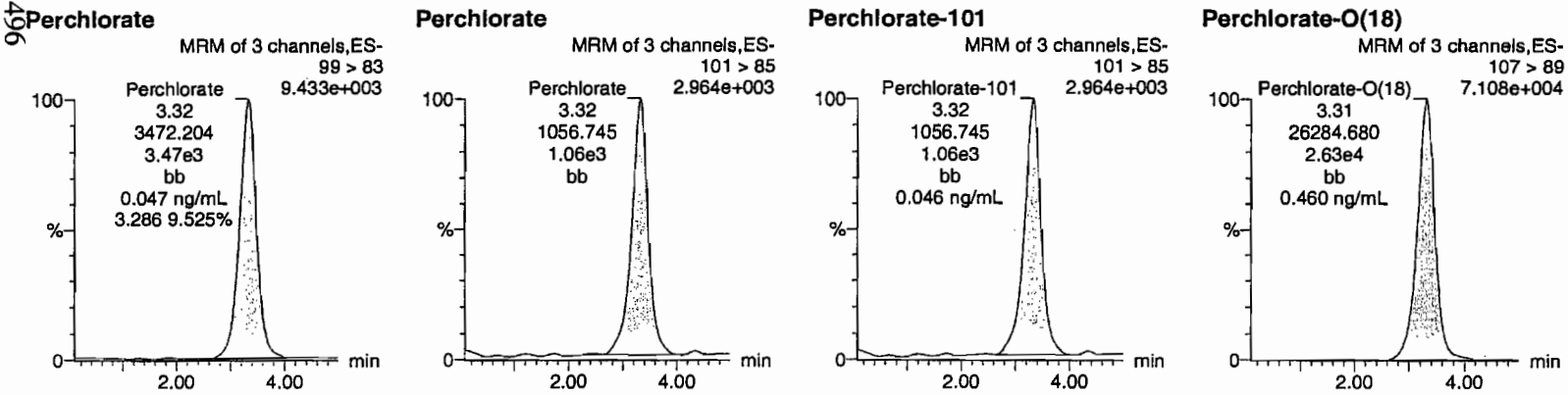

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.32	3472.204	3472.204	bb			0.0475	94.96	-5.04	309.760	3.29
WCL100326-07CRI	Perchlorate-101	101 > 85	3.32	1056.745	1056.745	bb			0.0465	92.90	-7.10	248.026	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.31	26284.680	26284.680	bb			0.4596	91.93	-8.07	3935.3...	

MMP 4/2/10

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330047a
Date: 30-Mar-2010
Time: 17:16:50
ID: WCL100326-07CRI
Vial: 1:2,B

Per
aw
04-01-10

Perchlorate

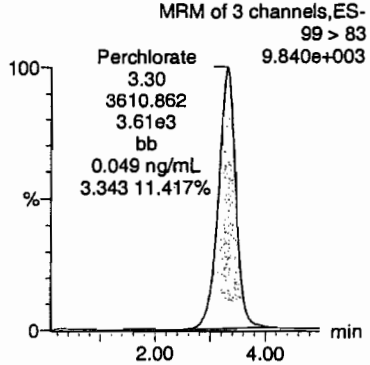

Perchlorate

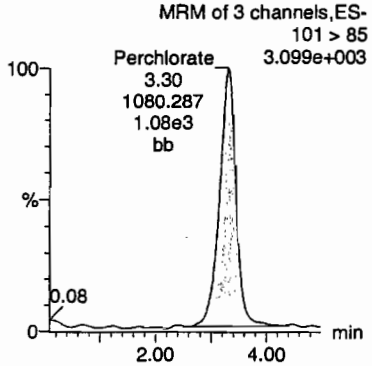

Perchlorate-101

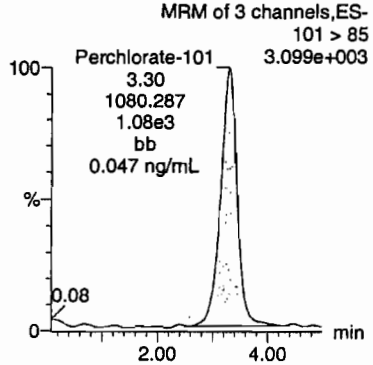

Perchlorate-O(18)

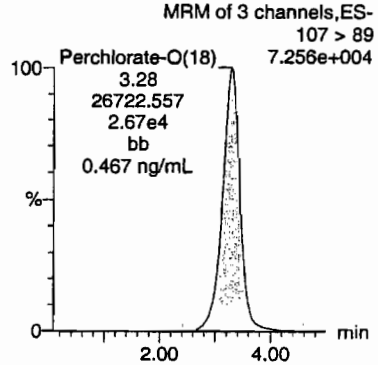

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.30	3610.862	3610.862	bb			0.0494	98.75	-1.25	1204.6...	3.34
WCL100326-07CRI	Perchlorate-101	101 > 85	3.30	1080.287	1080.287	bb			0.0475	94.97	-5.03	187.949	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.28	26722.557	26722.557	bb			0.4673	93.46	-6.54	963.961	

MAT
4/2/10

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330058a
Date: 30-Mar-2010
Time: 18:45:36
ID: WCL100326-07CRI
Vial: 1:2,B

Pero
04-01-10

Perchlorate

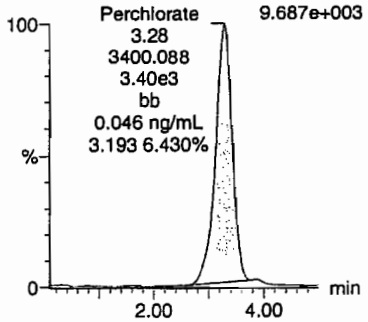

Perchlorate

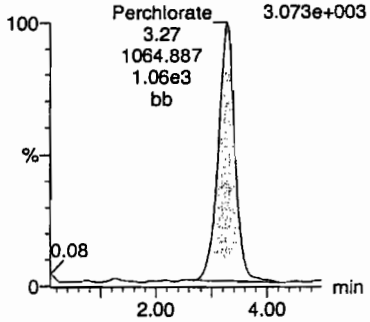

Perchlorate-101

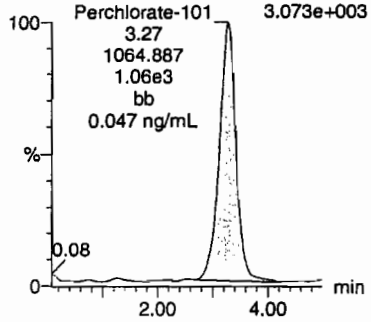

Perchlorate-O(18)

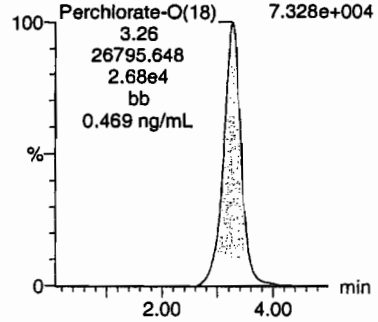

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.28	3400.088	3400.088	bb			0.0465	92.98	-7.02	393.557	3.19
WCL100326-07CRI	Perchlorate-101	101 > 85	3.27	1064.887	1064.887	bb			0.0468	93.62	-6.38	223.001	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.26	26795.648	26795.648	bb			0.4686	93.72	-6.28	3553.8...	

MAT
4/2/10

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330069a
Date: 30-Mar-2010
Time: 20:14:52
ID: WCL100326-07CRI
Vial: 1:2,B

Pend
and
04-01-10

Perchlorate

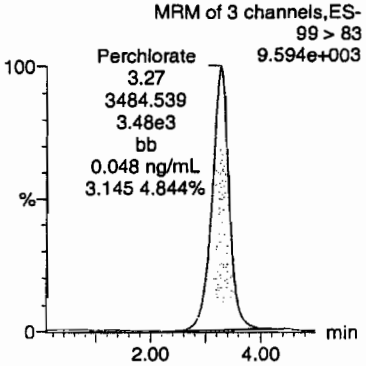

Perchlorate

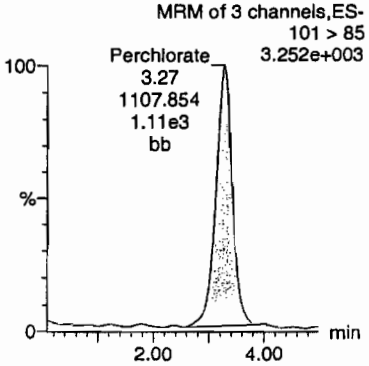

Perchlorate-101

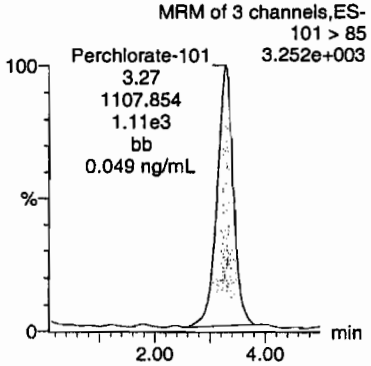

Perchlorate-O(18)

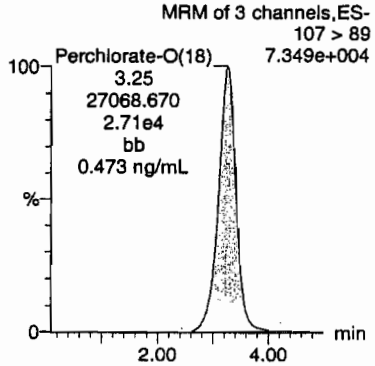

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.27	3484.539	3484.539	bb			0.0476	95.29	-4.71	517.464	3.15
WCL100326-07CRI	Perchlorate-101	101 > 85	3.27	1107.854	1107.854	bb			0.0487	97.40	-2.60	231.805	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.25	27068.670	27068.670	bb			0.4734	94.67	-5.33	2560.6...	

MAP
4/2/10

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330081a
Date: 30-Mar-2010
Time: 21:52:37
ID: WCL100326-07CRI
Vial: 1:2,B

Per
and
04-01-10

Perchlorate

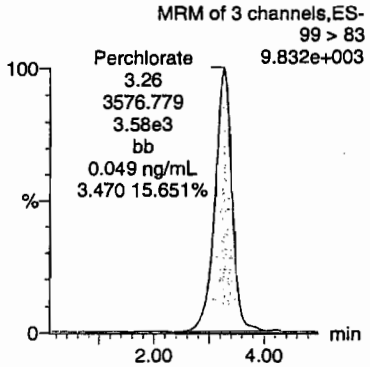

Perchlorate

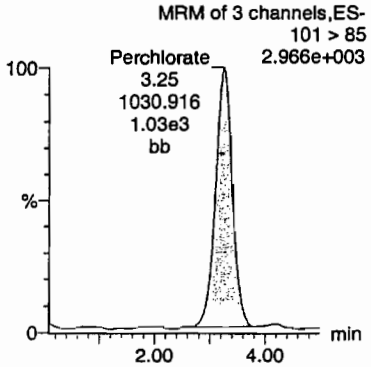

Perchlorate-101

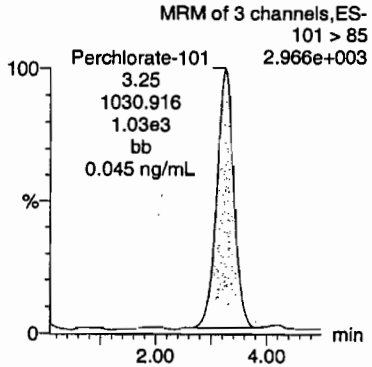

Perchlorate-O(18)

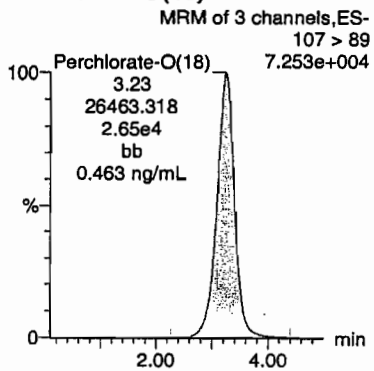

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.26	3576.779	3576.779	bb			0.0489	97.82	-2.18	640.475	3.47
WCL100326-07CRI	Perchlorate-101	101 > 85	3.25	1030.916	1030.916	bb			0.0453	90.63	-9.37	38.968	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.23	26463.318	26463.318	bb			0.4628	92.55	-7.45	2995.7...	

MAP
4/2/10

QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 22-MAR-10

GEL Job No (SDG): 10-2430

GEL Sample ID: 1202074304

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	30-MAR-10 20:23	per0330070a
	Perchlorate Isotope Ratio						1	30-MAR-10 20:23	per0330070a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	30-MAR-10 20:23	per0330070a
	Perchlorate-O(18)			4.15	ug/kg		1	30-MAR-10 20:23	per0330070a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330070a
Date: 30-Mar-2010
Time: 20:23:04
ID: 1202074304
Vial: 2:6,A

|LZNL|966578|20120|MB|1|

04-01-10

Perchlorate

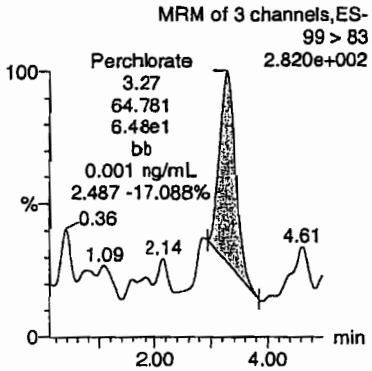

Perchlorate

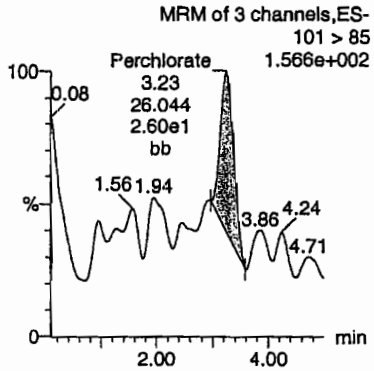

Perchlorate-101

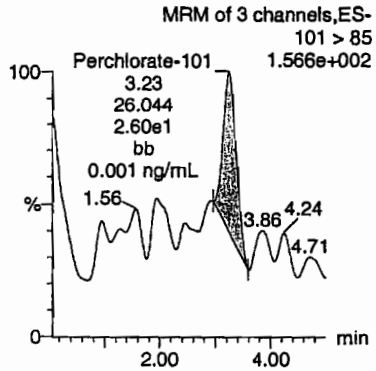

Perchlorate-O(18)

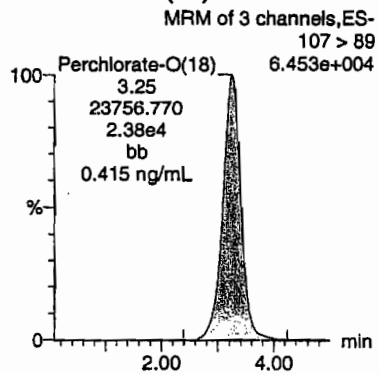

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202074304	Perchlorate	99 > 83	3.27	64.781	64.781	bb			0.0009			15.276	2.49
1202074304	Perchlorate-101	101 > 85	3.23	26.044	26.044	bb			0.0011			15.541	
1202074304	Perchlorate-O(18)	107 > 89	3.25	23756.770	23756.770	bb			0.4154	83.09	-16.91	4248.8...	

MM 4/2/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966577

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 22-MAR-10

GEL Job No (SDG): 10-2430

GEL Sample ID: 1202074305

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	1.93	ug/kg	J	1	30-MAR-10 20:31	per0330071a
	Perchlorate Isotope Ratio			3.1			1	30-MAR-10 20:31	per0330071a
14797-73-0	Perchlorate-101	.5	2	2.00	ug/kg	J	1	30-MAR-10 20:31	per0330071a
	Perchlorate-O(18)			4.68	ug/kg		1	30-MAR-10 20:31	per0330071a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330071a
Date: 30-Mar-2010
Time: 20:31:19
ID: 1202074305
Vial: 2:6,B

|LANL|966578|50120|LCS|1|

CWJ 04-01-10

Perchlorate

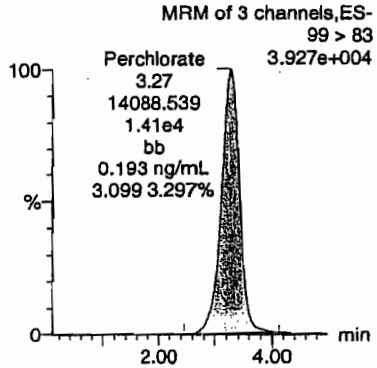

Perchlorate

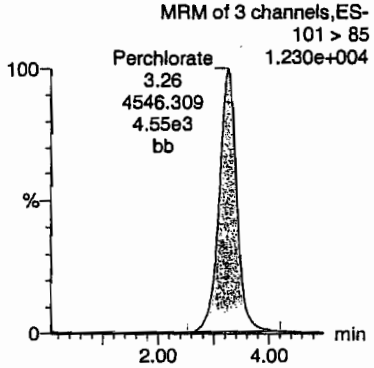

Perchlorate-101

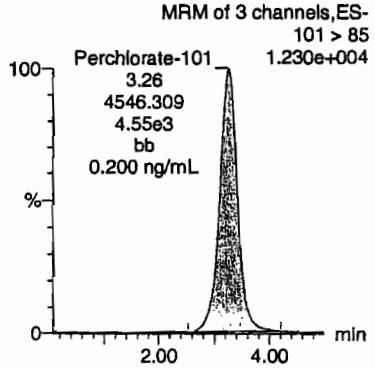

Perchlorate-O(18)

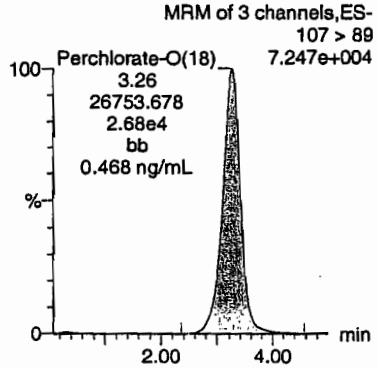

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202074305	Perchlorate	99 > 83	3.27	14088.539	14088.539	bb			0.1926	96.32	-3.68	5429.7...	3.10
1202074305	Perchlorate-101	101 > 85	3.26	4546.309	4546.309	bb			0.1998	99.92	-0.08	1196.6...	
1202074305	Perchlorate-O(18)	107 > 89	3.26	26753.678	26753.678	bb			0.4678	93.57	-6.43	3161.3...	

MAT 4/2/10

$$\frac{14088.539}{73132.7} = 0.1926$$

MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 966577 **Verified by:**
Analyst: Jareth Shirley
Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6
Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202074304 MB	22-MAR-2010 14:54:00	2	20	10
1202074305 LCS	22-MAR-2010 14:54:00	2	20	10
249259001	22-MAR-2010 14:54:00	2	20	10
249259002	22-MAR-2010 14:54:00	2	20	10
249329001	22-MAR-2010 14:54:00	2	20	10
249329002	22-MAR-2010 14:54:00	2	20	10
249329003	22-MAR-2010 14:54:00	2	20	10
249329004	22-MAR-2010 14:54:00	2	20	10
249333003	22-MAR-2010 14:54:00	2	20	10
1202074306 MS (249333003)	22-MAR-2010 14:54:00	2	20	10
1202074307 MSD (249333003)	22-MAR-2010 14:54:00	2	20	10
249333004	22-MAR-2010 14:54:00	2	20	10
249333005	22-MAR-2010 14:54:00	2	20	10
249333006	22-MAR-2010 14:54:00	2	20	10
249333007	22-MAR-2010 14:54:00	2	20	10
249333008	22-MAR-2010 14:54:00	2	20	10
249333009	22-MAR-2010 14:54:00	2	20	10
1202074308 ICS	22-MAR-2010 14:54:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
ICS	1202074308	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL	Desalting Cartridges used: 100224-1-Ba & 100223-1-H
LCS	1202074305	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL	
MS	1202074306	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL	
MSD	1202074307	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/30/10
Extr. Injection Volume: 20uL
Sequence Number: per033010a
Initial Calibration Date: 03/30/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1284736
Standard-Samp Reagent Lot#:: 1284736

Reviewed BY: [illegible]
Date: 4/2/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100326-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0330001a	IPB001	CWW	3/30/2010 11:06			1		USE	B
per0330002a	IPB001	CWW	3/30/2010 11:14			1		USE	B
per0330003a	WCLICAL-01	CWW	3/30/2010 11:22			1		USE	I
per0330004a	WCLICAL-02	CWW	3/30/2010 11:30			1		USE	I
per0330005a	WCLICAL-03	CWW	3/30/2010 11:38			1		USE	I
per0330006a	WCLICAL-04	CWW	3/30/2010 11:46			1		USE	I
per0330007a	WCLICAL-05	CWW	3/30/2010 11:54			1		USE	I
per0330008a	IPB002	CWW	3/30/2010 12:02			1		USE	B
per0330009a	WCLICV	CWW	3/30/2010 12:10			1		USE	C
per0330010a	IPB003	CWW	3/30/2010 12:18			1		USE	B
per0330011a	WCLCRI	CWW	3/30/2010 12:26			1		USE	C
per0330012a	1202074289	CWW	3/30/2010 12:35	966569	VARIOUS	1	LANL	USE	S
per0330013a	1202074290	CWW	3/30/2010 12:43	966569	VARIOUS	1	LANL	USE	S
per0330014a	1202074293	CWW	3/30/2010 12:51	966569	VARIOUS	1	LANL	USE	S
per0330015a	248964001	CWW	3/30/2010 12:59	966569	10-2336	1	LANL	USE	S
per0330016a	248964004	CWW	3/30/2010 13:07	966569	10-2336	1	LANL	USE	S
per0330017a	1202074291	CWW	3/30/2010 13:15	966569	10-2336	1	LANL	USE	S
per0330018a	1202074292	CWW	3/30/2010 13:23	966569	10-2336	1	LANL	USE	S
per0330019a	248964005	CWW	3/30/2010 13:31	966569	10-2336	1	LANL	USE	S
per0330020a	248966005	CWW	3/30/2010 13:39	966569	10-2347	1	LANL	USE	S
per0330021a	249094005	CWW	3/30/2010 13:47	966569	10-2365	1	LANL	USE	S
per0330022a	WCLCCV	CWW	3/30/2010 13:55			1		USE	C
per0330023a	IPB004	CWW	3/30/2010 14:03			1		USE	B
per0330024a	WCLCRI	CWW	3/30/2010 14:11			1		USE	C
per0330025a	249111001	CWW	3/30/2010 14:19	966569	10-2375	1	LANL	USE	S
per0330026a	249111003	CWW	3/30/2010 14:27	966569	10-2375	1	LANL	USE	S
per0330027a	249122001	CWW	3/30/2010 14:35	966569	10-2379	1	LANL	USE	S
per0330028a	249172002	CWW	3/30/2010 14:43	966569	10-2393	1	LANL	USE	S
per0330029a	249172004	CWW	3/30/2010 14:51	966569	10-2393	1	LANL	USE	S

per0330030a	249178002	CWW	3/30/2010 14:59	966569	10-2402	1	LANL	USE	S
per0330031a	249243002	CWW	3/30/2010 15:07	966569	10-2409	1	LANL	USE	S
per0330032a	249261003	CWW	3/30/2010 15:15	966569	10-2422	1	LANL	USE	S
per0330033a	WCLCCV	CWW	3/30/2010 15:23			1		USE	C
per0330034a	IPB005	CWW	3/30/2010 15:31			1		USE	B
per0330035a	WCLCRI	CWW	3/30/2010 15:40			1		USE	C
per0330036a	1202074299	CWW	3/30/2010 15:48	966575	VARIOUS	1	LANL	USE	S
per0330037a	1202074300	CWW	3/30/2010 15:56	966575	VARIOUS	1	LANL	USE	S
per0330038a	1202074303	CWW	3/30/2010 16:04	966575	VARIOUS	1	LANL	USE	S
per0330039a	249244001	CWW	3/30/2010 16:12	966575	10-2412	1	LANL	USE	S
per0330040a	1202074301	CWW	3/30/2010 16:20	966575	10-2412	1	LANL	USE	S
per0330041a	1202074302	CWW	3/30/2010 16:28	966575	10-2412	1	LANL	USE	S
per0330042a	249244002	CWW	3/30/2010 16:36	966575	10-2412	1	LANL	USE	S
per0330043a	249244003	CWW	3/30/2010 16:44	966575	10-2412	1	LANL	USE	S
per0330044a	249244004	CWW	3/30/2010 16:52	966575	10-2412	1	LANL	USE	S
per0330045a	WCLCCV	CWW	3/30/2010 17:00			1		USE	C
per0330046a	IPB006	CWW	3/30/2010 17:08			1		USE	B
per0330047a	WCLCRI	CWW	3/30/2010 17:16			1		USE	C
per0330048a	249244005	CWW	3/30/2010 17:24	966575	10-2412	1	LANL	USE	S
per0330049a	249244006	CWW	3/30/2010 17:33	966575	10-2412	1	LANL	USE	S
per0330050a	249245001	CWW	3/30/2010 17:41	966575	10-2415	1	LANL	USE	S
per0330051a	249245002	CWW	3/30/2010 17:49	966575	10-2415	1	LANL	USE	S
per0330052a	249247001	CWW	3/30/2010 17:57	966575	10-2416	1	LANL	USE	S
per0330053a	249247002	CWW	3/30/2010 18:05	966575	10-2416	1	LANL	USE	S
per0330054a	249247003	CWW	3/30/2010 18:13	966575	10-2416	1	LANL	USE	S
per0330055a	249248002	CWW	3/30/2010 18:21	966575	10-2417	1	LANL	USE	S
per0330056a	WCLCCV	CWW	3/30/2010 18:29			1		USE	C
per0330057a	IPB007	CWW	3/30/2010 18:37			1		USE	B
per0330058a	WCLCRI	CWW	3/30/2010 18:45			1		USE	C
per0330059a	249248003	CWW	3/30/2010 18:53	966575	10-2417	1	LANL	USE	S
per0330060a	249248004	CWW	3/30/2010 19:01	966575	10-2417	1	LANL	USE	S
per0330061a	249250003	CWW	3/30/2010 19:09	966575	10-2418	1	LANL	USE	S
per0330062a	249250004	CWW	3/30/2010 19:18	966575	10-2418	1	LANL	USE	S
per0330063a	249252001	CWW	3/30/2010 19:26	966575	10-2419	1	LANL	USE	S
per0330064a	249252002	CWW	3/30/2010 19:34	966575	10-2419	1	LANL	USE	S
per0330065a	249252003	CWW	3/30/2010 19:42	966575	10-2419	1	LANL	USE	S
per0330066a	249255001	CWW	3/30/2010 19:50	966575	10-2420	1	LANL	USE	S

per0330067a	WCLCCV	CWW	3/30/2010 19:58			1		USE	C
per0330068a	IPB008	CWW	3/30/2010 20:06			1		USE	B
per0330069a	WCLCRI	CWW	3/30/2010 20:14			1		USE	C
per0330070a	1202074304	CWW	3/30/2010 20:23	966578	VARIOUS	1	LANL	USE	S
per0330071a	1202074305	CWW	3/30/2010 20:31	966578	VARIOUS	1	LANL	USE	S
per0330072a	1202074308	CWW	3/30/2010 20:39	966578	VARIOUS	1	LANL	USE	S
per0330073a	249259001	CWW	3/30/2010 20:47	966578	10-2421	1	LANL	USE	S
per0330074a	249259002	CWW	3/30/2010 20:55	966578	10-2421	1	LANL	USE	S
per0330075a	249329001	CWW	3/30/2010 21:03	966578	10-2430	1	LANL	USE	S
per0330076a	249329002	CWW	3/30/2010 21:11	966578	10-2430	1	LANL	USE	S
per0330077a	249329003	CWW	3/30/2010 21:19	966578	10-2430	1	LANL	USE	S
per0330078a	249329004	CWW	3/30/2010 21:27	966578	10-2430	1	LANL	USE	S
per0330079a	WCLCCV	CWW	3/30/2010 21:36			1		USE	C
per0330080a	IPB009	CWW	3/30/2010 21:44			1		USE	B
per0330081a	WCLCRI	CWW	3/30/2010 21:52			1		USE	C
per0330082a	249333003	CWW	3/30/2010 22:00	966578	10-2434	1	LANL	USE	S
per0330083a	1202074306	CWW	3/30/2010 22:09	966578	10-2434	1	LANL	USE	S
per0330084a	1202074307	CWW	3/30/2010 22:17	966578	10-2434	1	LANL	USE	S
per0330085a	249333004	CWW	3/30/2010 22:25	966578	10-2434	1	LANL	USE	S
per0330086a	249333005	CWW	3/30/2010 22:33	966578	10-2434	1	LANL	USE	S
per0330087a	249333006	CWW	3/30/2010 22:41	966578	10-2434	1	LANL	USE	S
per0330088a	249333007	CWW	3/30/2010 22:49	966578	10-2434	1	LANL	USE	S
per0330089a	249333008	CWW	3/30/2010 22:57	966578	10-2434	1	LANL	USE	S
per0330090a	249333009	CWW	3/30/2010 23:05	966578	10-2434	1	LANL	USE	S
per0330091a	WCLCCV	CWW	3/30/2010 23:14			1		USE	C
per0330092a	IPB010	CWW	3/30/2010 23:22			1		USE	B
per0330093a	WCLCRI	CWW	3/30/2010 23:30			1		USE	C
per0330094a	1202078316	CWW	3/30/2010 23:38	968117	VARIOUS	1	LANL	DUSE-RE	S
per0330095a	1202078317	CWW	3/30/2010 23:46	968117	VARIOUS	1	LANL	DUSE-RE	S
per0330096a	1202078320	CWW	3/30/2010 23:55	968117	VARIOUS	1	LANL	DUSE-RE	S
per0330097a	249510003	CWW	3/31/2010 0:03	968117	10-2465	1	LANL	DUSE-RE	S
per0330098a	249510005	CWW	3/31/2010 0:11	968117	10-2465	1	LANL	DUSE-RE	S
per0330099a	1202078318	CWW	3/31/2010 0:19	968117	10-2465	1	LANL	DUSE-RE	S
per0330100a	1202078319	CWW	3/31/2010 0:27	968117	10-2465	1	LANL	DUSE-RE	S
per0330101a	249524006	CWW	3/31/2010 0:35	968117	10-2472	1	LANL	DUSE-RE	S
per0330102a	WCLCCV	CWW	3/31/2010 0:43			1		USE	C
per0330103a	IPB011	CWW	3/31/2010 0:51			1		USE	B

per0330104a	WCLCRI	CWW	3/31/2010 0:59			1		USE	C
per0330105a	249524007	CWW	3/31/2010 1:07	968117	10-2472	1	LANL	DUSE-RE	S
per0330106a	249528001	CWW	3/31/2010 1:15	968117	10-2468	1	LANL	DUSE-RE	S
per0330107a	249591001	CWW	3/31/2010 1:23	968117	10-2475	1	LANL	DUSE-RE	S
per0330108a	249591002	CWW	3/31/2010 1:31	968117	10-2475	1	LANL	DUSE-RE	S
per0330109a	249607003	CWW	3/31/2010 1:39	968117	10-2480	1	LANL	DUSE-RE	S
per0330110a	249608006	CWW	3/31/2010 1:47	968117	10-2490	1	LANL	DUSE-RE	S
per0330111a	249608007	CWW	3/31/2010 1:55	968117	10-2490	1	LANL	DUSE-RE	S
per0330112a	249610001	CWW	3/31/2010 2:03	968117	10-2482	1	LANL	DUSE-RE	S
per0330113a	WCLCCV	CWW	3/31/2010 2:11			1		USE	C
per0330114a	IPB012	CWW	3/31/2010 2:20			1		USE	B
per0330115a	WCLCRI	CWW	3/31/2010 2:28			1		USE	C
per0330116a	249610002	CWW	3/31/2010 2:36	968117	10-2482	1	LANL	DUSE-RE	S
per0330117a	249613001	CWW	3/31/2010 2:44	968117	10-2492	1	LANL	DUSE-RE	S
per0330118a	249704001	CWW	3/31/2010 2:52	968117	10-2498	1	LANL	DUSE-RE	S
per0330119a	249707001	CWW	3/31/2010 3:00	968117	10-2501	1	LANL	DUSE-RE	S
per0330120a	249707002	CWW	3/31/2010 3:08	968117	10-2501	1	LANL	DUSE-RE	S
per0330121a	249715008	CWW	3/31/2010 3:17	968117	10-2506	1	LANL	DUSE-RE	S
per0330122a	249715009	CWW	3/31/2010 3:25	968117	10-2506	1	LANL	DUSE-RE	S
per0330123a	WCLCCV	CWW	3/31/2010 3:33			1		USE	C
per0330124a	IPB013	CWW	3/31/2010 3:41			1		USE	B
per0330125a	WCLCRI	CWW	3/31/2010 3:49			1		USE	C

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330083a
Date: 30-Mar-2010
Time: 22:09:02
ID: 1202074306
Vial: 2:7,E

|LANL|966578|50120|MS|1|

04-01-10

Perchlorate

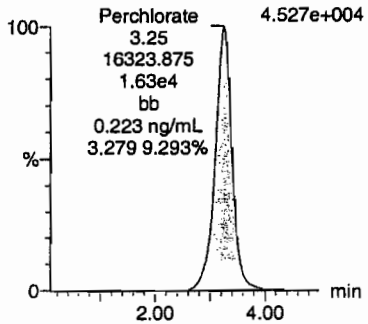

Perchlorate

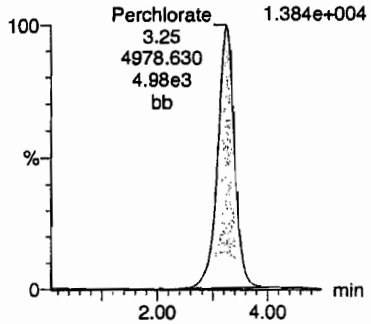

Perchlorate-101

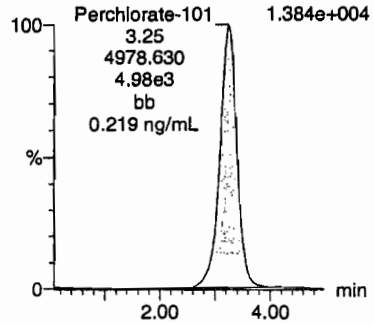

Perchlorate-O(18)

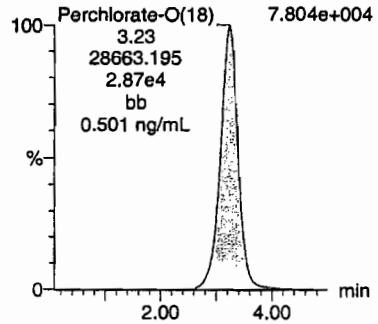

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202074306	Perchlorate	99 > 83	3.25	16323.875	16323.875	bb			0.2232	111.60	11.60	1502.6...	3.28
1202074306	Perchlorate-101	101 > 85	3.25	4978.630	4978.630	bb			0.2188	109.42	9.42	770.860	
1202074306	Perchlorate-O(18)	107 > 89	3.23	28663.195	28663.195	bb			0.5012	100.25	0.25	6835.6...	

MAT 4/2/10

$\frac{16323.875}{73132.7} = 0.2232$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330084a
Date: 30-Mar-2010
Time: 22:17:05
ID: 1202074307
Vial: 2:7,F

ILAINL | 966578 | 50620 | MSO | 1 |

04-01-10

Perchlorate

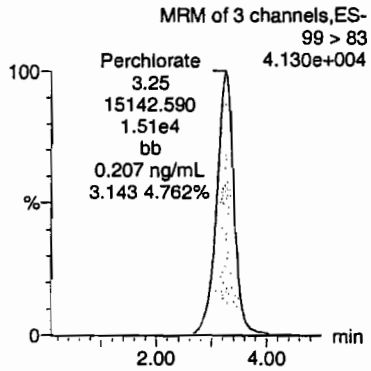

Perchlorate

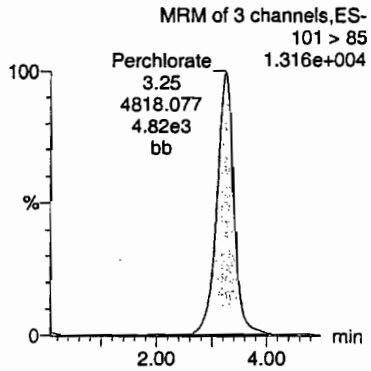

Perchlorate-101

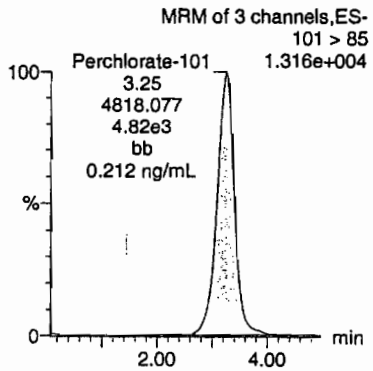

Perchlorate-O(18)

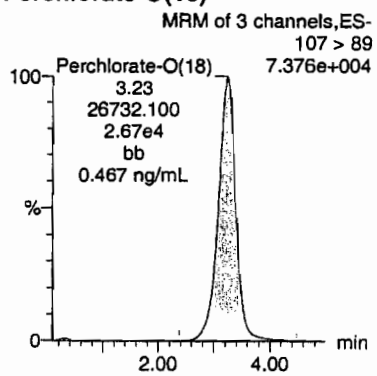

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202074307	Perchlorate	99 > 83	3.25	15142.590	15142.590	bb			0.2071	103.53	3.53	1803.9...	3.14
1202074307	Perchlorate-101	101 > 85	3.25	4818.077	4818.077	bb			0.2118	105.89	5.89	3758.4...	
1202074307	Perchlorate-O(18)	107 > 89	3.23	26732.100	26732.100	bb			0.4675	93.49	-6.51	1592.0...	

MAT 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2430

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	967824
Prep Batch Number:	967820

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
249329001	RE46-10-13964
249329002	RE46-10-13966
249329003	RE46-10-13963
249329004	RE46-10-13965
1202077524	Method Blank (MB)
1202077525	Laboratory Control Sample (LCS)
1202077526	249335002(RE46-10-12972) Matrix Spike (MS)
1202077527	249335002(RE46-10-12972) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

One of the five quantified peaks did not meet the acceptance criteria in one of the Aroclor-1260 standards analyzed for this SDG; however, the average concentration of the five quantitated peaks met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-2436) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina.

Sample Dilutions
Samples 249329001 (RE46-10-13964), 249329002 (RE46-10-13966), 249329003 (RE46-10-13963) and 249329004 (RE46-10-13965) were diluted at 1:5 due to the oily matrix of the extracts.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD8A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD8A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 4/9/10

Roadmap for LANL 10-2430 PCB

This roadmap was analyzed by jen01212 on 03-24-2010, 10:01.
This roadmap was packaged by yml on 04-08-2010, 18:42.
This roadmap was validated by jim01140 on 04-09-2010, 09:54.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032310.b/029f2901.d	249329001	sample	23-MAR-2010	14:05	10-2430.sub	RE46-10-13964	5.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/030f3001.d	249329002	sample	23-MAR-2010	14:21	10-2430.sub	RE46-10-13966	5.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/033f3301.d	249329003	sample	23-MAR-2010	15:03	10-2430.sub	RE46-10-13963	5.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/034f3401.d	249329004	sample	23-MAR-2010	15:15	10-2430.sub	RE46-10-13965	5.00000	967824	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032310.b/029b2901.d	249329001	sample	23-MAR-2010	14:05	10-2430.sub	RE46-10-13964	5.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/030b3001.d	249329002	sample	23-MAR-2010	14:21	10-2430.sub	RE46-10-13966	5.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/033b3301.d	249329003	sample	23-MAR-2010	15:03	10-2430.sub	RE46-10-13963	5.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/034b3401.d	249329004	sample	23-MAR-2010	15:15	10-2430.sub	RE46-10-13965	5.00000	967824	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032310.b/021f2101-1.d	1202077524	mb	23-MAR-2010	12:26	10-2430.sub	PBLK01	1.00000	967824	
☐	N	/chem/ecd8a.i/032310.b/022f2201-1.d	1202077525	lcs	23-MAR-2010	12:38	10-2430.sub	PBLK01LCS	1.00000	967824	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032310.b/021b2101-1.d	1202077524	mb	23-MAR-2010	12:26	10-2430.sub	PBLK01	1.00000	967824	
☐	N	/chem/ecd8a.i/032310.b/022b2201-1.d	1202077525	lcs	23-MAR-2010	12:38	10-2430.sub	PBLK01LCS	1.00000	967824	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2430	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249329003	**Date Received:**	03/13/2010 09:30	**%Moisture:**	23.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13963	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967824	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/23/2010 15:03	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 22:20	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	033f3301.d	**Column:**	1 CLP1	**Level:**	LOW
	033b3301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	21.7	ug/kg	7.23	21.7	1
11104–28–2	Aroclor–1221	U	21.7	ug/kg	7.23	21.7	1
11141–16–5	Aroclor–1232	U	21.7	ug/kg	7.23	21.7	1
53469–21–9	Aroclor–1242	U	21.7	ug/kg	7.23	21.7	1
12672–29–6	Aroclor–1248	U	21.7	ug/kg	7.23	21.7	1
11097–69–1	Aroclor–1254	U	21.7	ug/kg	7.23	21.7	1
11096–82–5	Aroclor–1260	U	21.7	ug/kg	7.23	21.7	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2430**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249329001**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13964**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 14:05**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**029f2901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	029b2901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.5	ug/kg	6.17	18.5	1
11104–28–2	Aroclor–1221	U	18.5	ug/kg	6.17	18.5	1
11141–16–5	Aroclor–1232	U	18.5	ug/kg	6.17	18.5	1
53469–21–9	Aroclor–1242	U	18.5	ug/kg	6.17	18.5	1
12672–29–6	Aroclor–1248	U	18.5	ug/kg	6.17	18.5	1
11097–69–1	Aroclor–1254	U	18.5	ug/kg	6.17	18.5	1
11096–82–5	Aroclor–1260	U	18.5	ug/kg	6.17	18.5	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249329004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13965**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 15:15**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**034f3401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	034b3401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	18.6	ug/kg	6.20	18.6	1
11104-28-2	Aroclor-1221	U	18.6	ug/kg	6.20	18.6	1
11141-16-5	Aroclor-1232	U	18.6	ug/kg	6.20	18.6	1
53469-21-9	Aroclor-1242	U	18.6	ug/kg	6.20	18.6	1
12672-29-6	Aroclor-1248	U	18.6	ug/kg	6.20	18.6	1
11097-69-1	Aroclor-1254		23.2	ug/kg	6.20	18.6	2
11096-82-5	Aroclor-1260	U	18.6	ug/kg	6.20	18.6	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249329002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**16.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13966**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 14:21**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**030f3001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	030b3001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	19.8	ug/kg	6.58	19.8	1
11104-28-2	Aroclor-1221	U	19.8	ug/kg	6.58	19.8	1
11141-16-5	Aroclor-1232	U	19.8	ug/kg	6.58	19.8	1
53469-21-9	Aroclor-1242	U	19.8	ug/kg	6.58	19.8	1
12672-29-6	Aroclor-1248	U	19.8	ug/kg	6.58	19.8	1
11097-69-1	Aroclor-1254	U	19.8	ug/kg	6.58	19.8	1
11096-82-5	Aroclor-1260	U	19.8	ug/kg	6.58	19.8	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–2430

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
1202077524	MB for batch 967820	85		91		96		98	
1202077525	LCS for batch 967820	89		95		97		105	
249329001	RE46–10–13964	74	D	73	D	83	D	85	D
249329002	RE46–10–13966	86	D	86	D	93	D	93	D
249329003	RE46–10–13963	100	D	99	D	112	D	114	D
249329004	RE46–10–13965	90	D	89	D	94	D	104	D

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%–120%)
DCB = Decachlorobiphenyl	(30%–116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2430
Client ID: LCS for batch 967820
Lab Sample ID: 1202077525
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 12:38
Dilution: 1
Prep Batch ID: 967820
Batch ID: 967824

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	28.8	86	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	32.8	98	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2436
Client ID: RE46–10–12972MS
Lab Sample ID: 1202077526
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.3
Analysis Date: 03/23/2010 15:40
Prep Batch ID: 967820
Batch ID: 967824
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674–11–2	MS	Aroclor–1016	38.0	0.00	U	28.5	75	23–119
11096–82–5	MS	Aroclor–1260	38.0	4.20		35.8	83	28–124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2436
Client ID: RE46–10–12972MSD
Lab Sample ID: 1202077527
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.3
Analysis Date: 03/23/2010 15:52
Prep Batch ID: 967820
Batch ID: 967824
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	37.9	0.00	U	27.8	73	23–119	2	0–28
11096–82–5	MSD Aroclor–1260	37.9	4.20		33.9	78	28–124	5	0–30

Method Blank Summary

SDG Number:	10-2430	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 967820	Instrument ID:	ECD8A.I_2 ECD8A.I_1	Data File:	021b2101-1.d 021f2101-1.d
Lab Sample ID:	1202077524				
Column:	CLP2 CLP1	Prep Date:	03/22/2010 22:20	Analyzed:	03/23/10 12:26
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 967820	1202077525	022f2201-1.d 022b2201-1.d	03/23/10	1238
02 RE46-10-13964	249329001	029f2901.d 029b2901.d	03/23/10	1405
03 RE46-10-13966	249329002	030f3001.d 030b3001.d	03/23/10	1421
04 RE46-10-13963	249329003	033f3301.d 033b3301.d	03/23/10	1503
05 RE46-10-13965	249329004	034f3401.d 034b3401.d	03/23/10	1515

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2430	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249329003	**Date Received:**	03/13/2010 09:30	**%Moisture:**	23.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13963	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967824	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/23/2010 15:03	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 22:20	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	033f3301.d	**Column:**	1 CLP1	**Level:**	LOW
	033b3301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	21.7	ug/kg	7.23	21.7	1
11104–28–2	Aroclor–1221	U	21.7	ug/kg	7.23	21.7	1
11141–16–5	Aroclor–1232	U	21.7	ug/kg	7.23	21.7	1
53469–21–9	Aroclor–1242	U	21.7	ug/kg	7.23	21.7	1
12672–29–6	Aroclor–1248	U	21.7	ug/kg	7.23	21.7	1
11097–69–1	Aroclor–1254	U	21.7	ug/kg	7.23	21.7	1
11096–82–5	Aroclor–1260	U	21.7	ug/kg	7.23	21.7	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/033f3301.d
Lab Smp Id: 249329003 Client Smp ID: RE46-10-13963
Inj Date : 23-MAR-2010 15:03
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249329003|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-13963|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 33
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2430.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	23.39790	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.248	0.001	5001800	40.0268	8.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	3683972	44.7350	9.7	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/033f3301.d

Page 1

Date : 23-MAR-2010 15:03

Client ID: RE46-10-13963

Instrument: ecd8a.i

Sample Info: 1249329003151

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

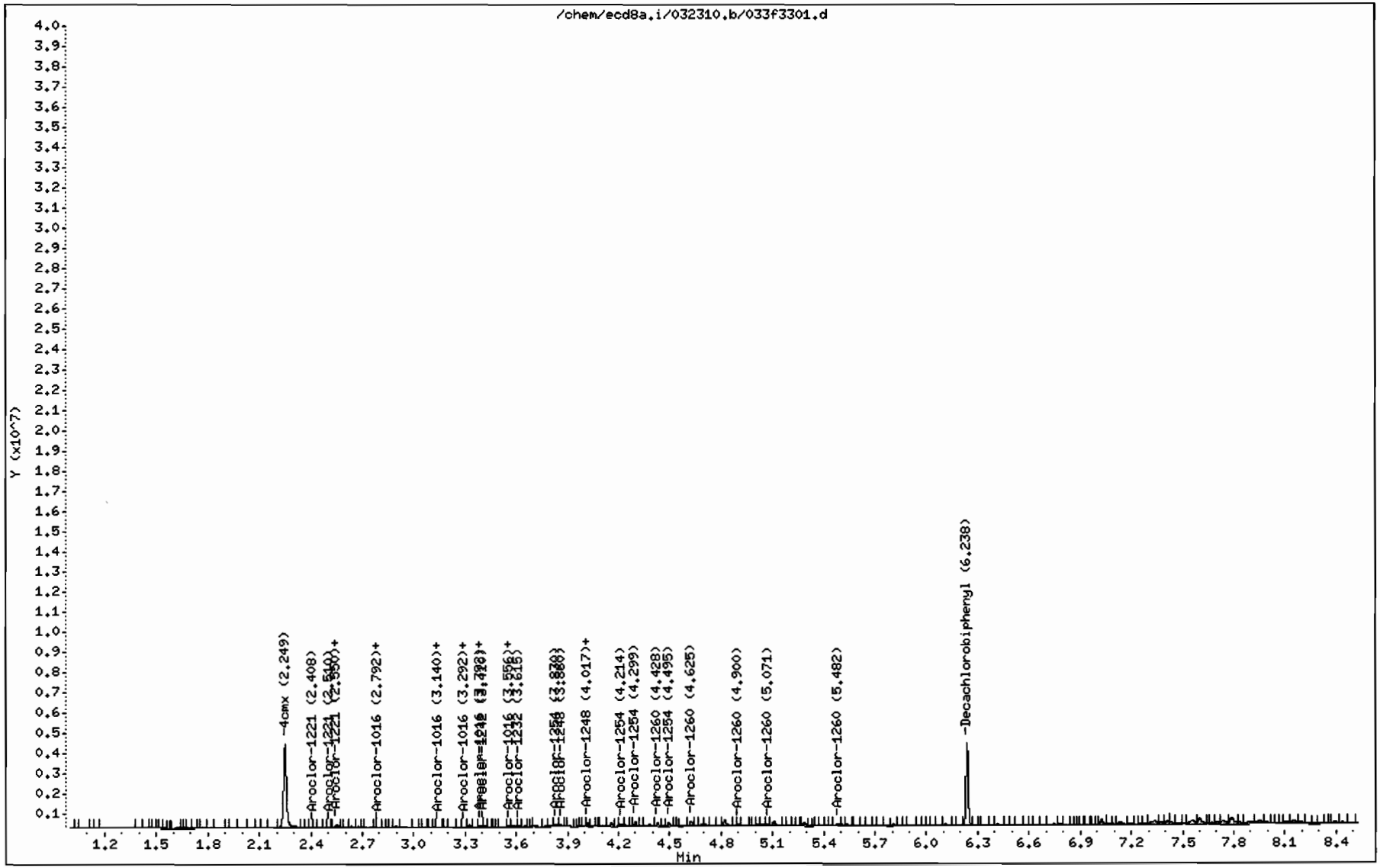

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/033b3301.d
Lab Smp Id: 249329003 Client Smp ID: RE46-10-13963
Inj Date : 23-MAR-2010 15:03
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249329003|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-13963|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 33
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2430.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	23.39790	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.476	0.000	3302179	39.5082	8.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	2709800	45.7331	9.9	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/033b3301.d

Date : 23-MAR-2010 15:03

Client ID: RE46-10-13963

Sample Info: |249329003|5|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

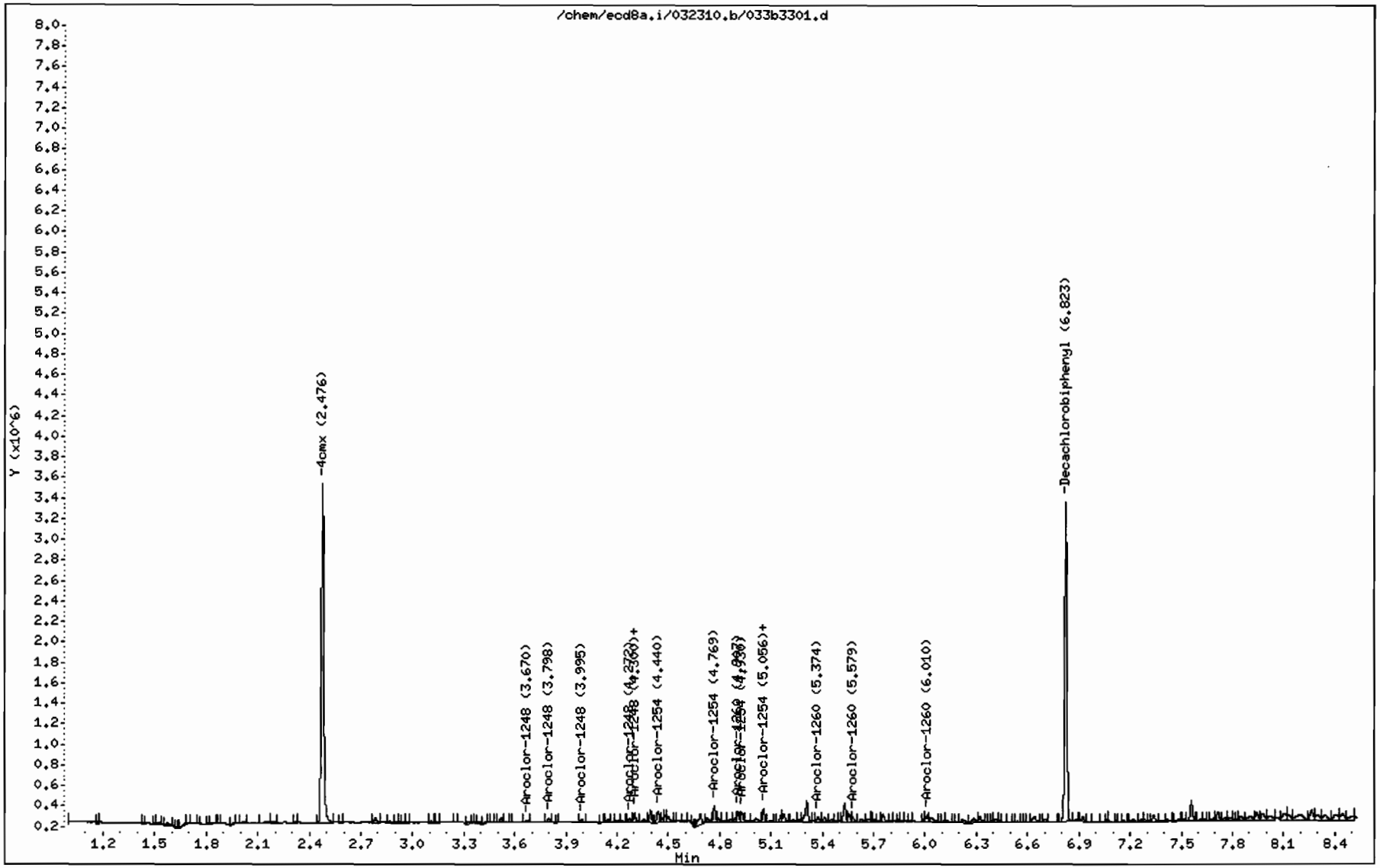

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2430**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249329001**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13964**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 14:05**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**029f2901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	029b2901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.5	ug/kg	6.17	18.5	1
11104–28–2	Aroclor–1221	U	18.5	ug/kg	6.17	18.5	1
11141–16–5	Aroclor–1232	U	18.5	ug/kg	6.17	18.5	1
53469–21–9	Aroclor–1242	U	18.5	ug/kg	6.17	18.5	1
12672–29–6	Aroclor–1248	U	18.5	ug/kg	6.17	18.5	1
11097–69–1	Aroclor–1254	U	18.5	ug/kg	6.17	18.5	1
11096–82–5	Aroclor–1260	U	18.5	ug/kg	6.17	18.5	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/029f2901.d
Lab Smp Id: 249329001 Client Smp ID: RE46-10-13964
Inj Date : 23-MAR-2010 14:05
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249329001|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-13964|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 29
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2430.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	10.16030	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.248	0.001	3705044	29.6495	5.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.240	-0.001	2723244	33.0687	6.1	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/029f2901.d

Page 1

Date : 23-MAR-2010 14:05

Client ID: RE46-10-13964

Instrument: ecd8a.i

Sample Info: |249329001|5|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

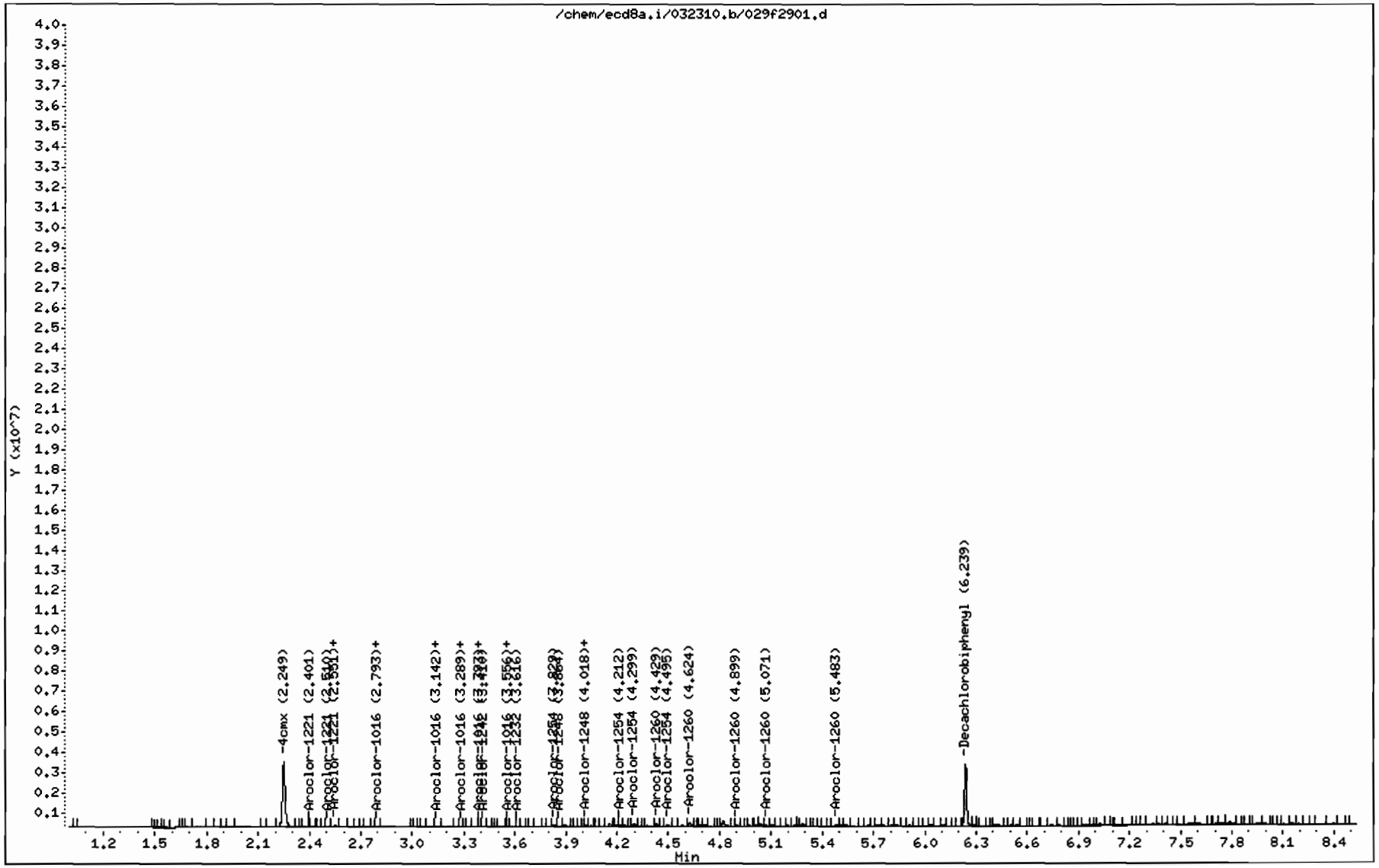

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/029b2901.d
Lab Smp Id: 249329001 Client Smp ID: RE46-10-13964
Inj Date : 23-MAR-2010 14:05
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249329001|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-13964|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 29
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2430.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	10.16030	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	2438377	29.1734	5.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.824	0.000	2010820	33.9365	6.3	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/029b2901.d

Page 1

Date : 23-MAR-2010 14:05

Client ID: RE46-10-13964

Instrument: ecd8a.i

Sample Info: 1249329001|5|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

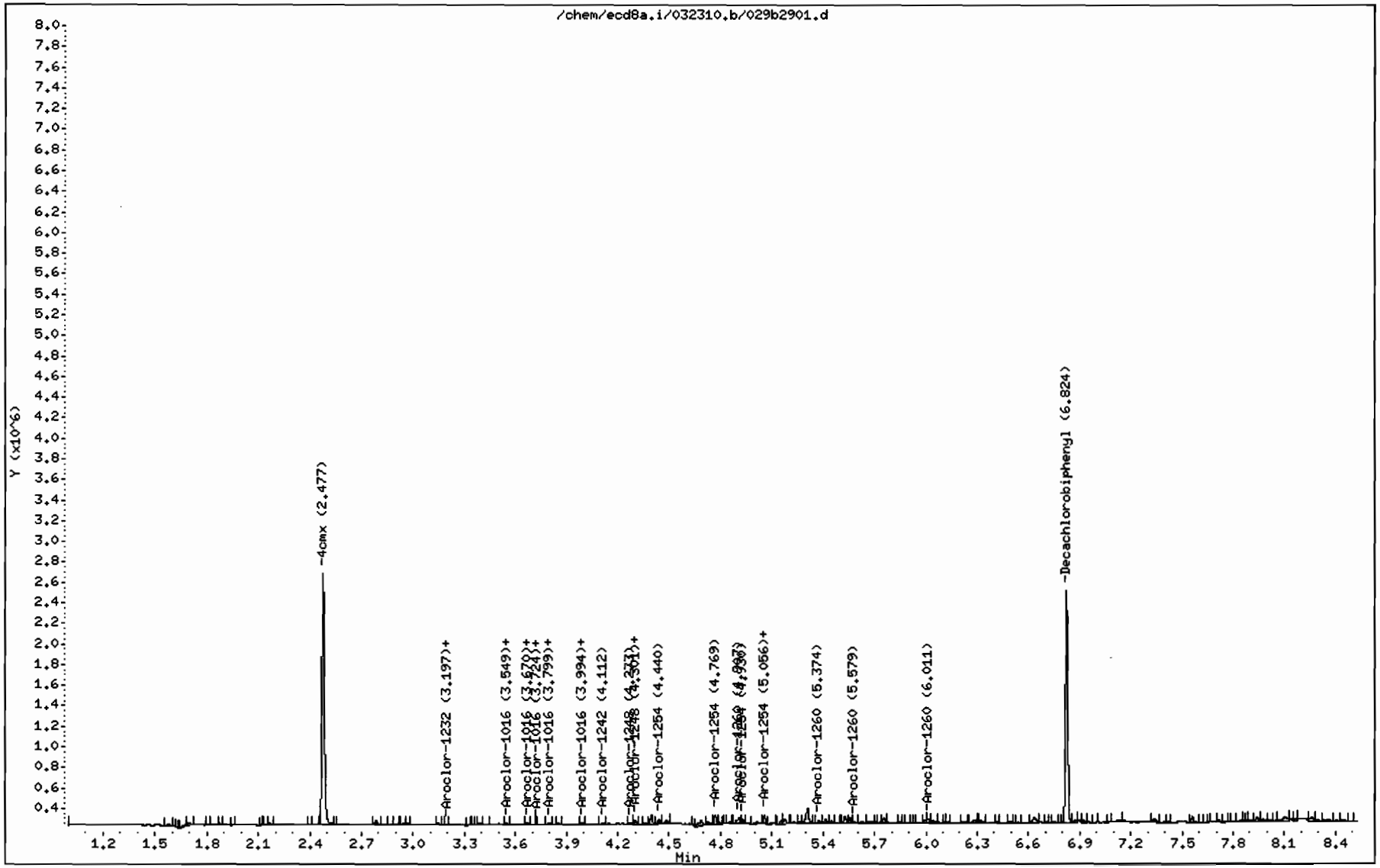

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2430	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249329004	**Date Received:**	03/13/2010 09:30	**%Moisture:**	11
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13965	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967824	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/23/2010 15:15	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 22:20	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	034f3401.d	**Column:**	1 CLP1	**Level:**	LOW
	034b3401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.6	ug/kg	6.20	18.6	1
11104–28–2	Aroclor–1221	U	18.6	ug/kg	6.20	18.6	1
11141–16–5	Aroclor–1232	U	18.6	ug/kg	6.20	18.6	1
53469–21–9	Aroclor–1242	U	18.6	ug/kg	6.20	18.6	1
12672–29–6	Aroclor–1248	U	18.6	ug/kg	6.20	18.6	1
11097–69–1	Aroclor–1254		23.2	ug/kg	6.20	18.6	2
11096–82–5	Aroclor–1260	U	18.6	ug/kg	6.20	18.6	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/034f3401.d
Lab Smp Id: 249329004 Client Smp ID: RE46-10-13965
Inj Date : 23-MAR-2010 15:15
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249329004|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-13965|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 34
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2430.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	11.03770	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.248	0.001	4481636	35.8642	6.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	3081143	37.4147	7.0	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.829	3.830	-0.001	503263	116.121	21.6	80.00- 120.00	100.00
4.017	4.017	0.000	698303	121.096	22.6	87.01- 127.01	138.75
4.213	4.213	0.000	529933	118.858	22.1	49.92- 89.92	105.30
4.299	4.300	-0.001	907297	120.627	22.5	31.87- 71.87	180.28
4.495	4.496	-0.001	603664	105.000	19.6	16.76- 56.76	119.95

Average of Peak Concentrations = 21.7

Data File: /chem/ecd8a.i/032310.b/034f3401.d

Date : 23-MAR-2010 15:15

Client ID: RE46-10-13965

Sample Info: |2493290041|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

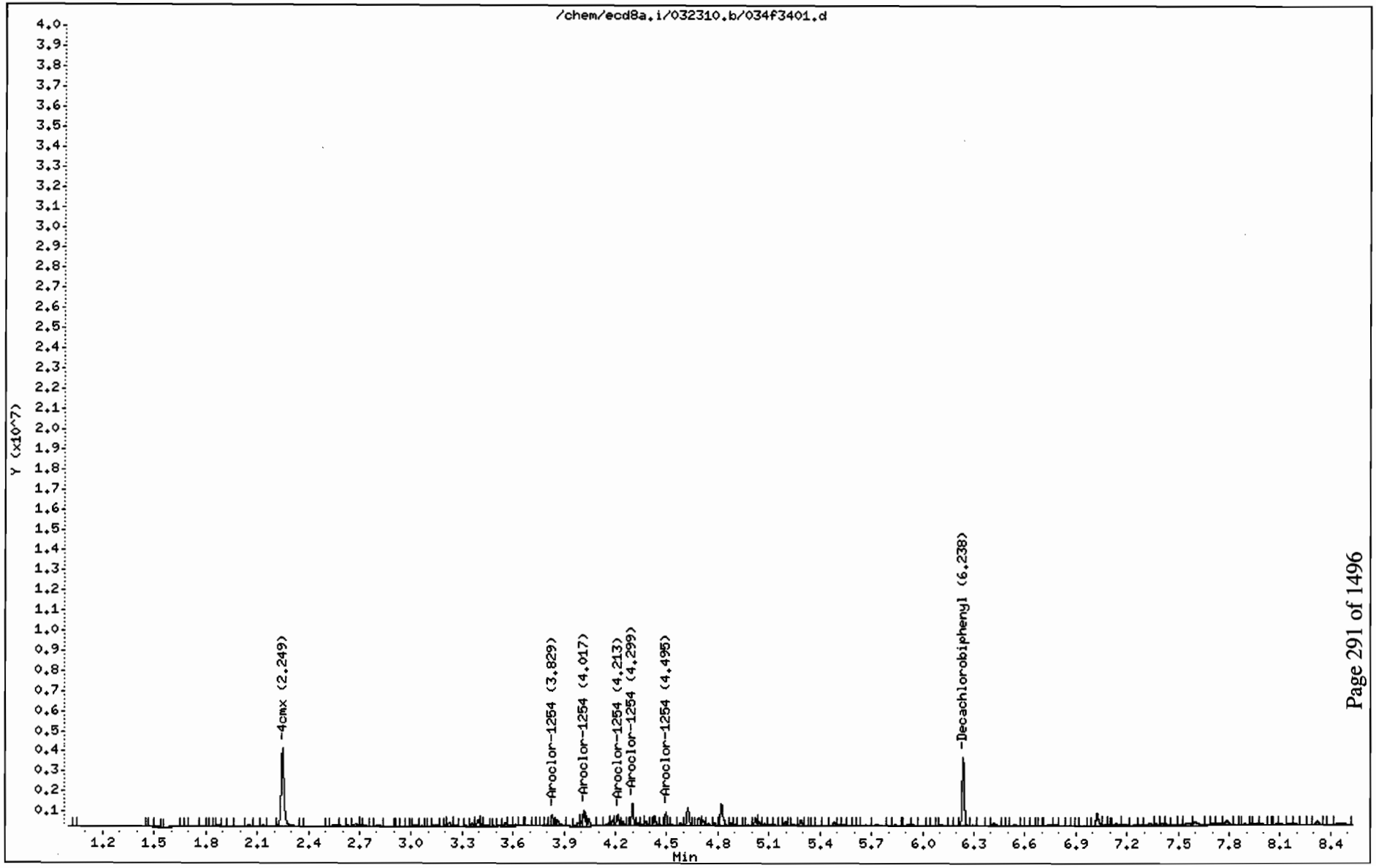

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/034b3401.d
Lab Smp Id: 249329004 Client Smp ID: RE46-10-13965
Inj Date : 23-MAR-2010 15:15
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249329004|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-13965|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 34
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2430.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	11.03770	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	2960715	35.4228	6.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.824	-0.002	2469192	41.6724	7.8	80.00- 120.00	100.00(M)
6 Aroclor-1254					CAS #: 11097-69-1		
4.300	4.301	-0.001	343326	110.158	20.5	80.00- 120.00	100.00(M)
4.439	4.440	-0.001	402498	115.722	21.6	91.97- 131.97	117.23
4.769	4.769	0.000	594820	123.099	22.9	138.62- 178.62	173.25
4.930	4.931	-0.001	385718	110.393	20.6	93.56- 133.56	112.35
5.056	5.057	-0.001	360715	163.835	30.5	51.06- 91.06	106.69

Average of Peak Concentrations = 23.2

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032310.b/034b3401.d

Page 1

Date : 23-MAR-2010 15:15

Client ID: RE46-10-13965

Instrument: ecd8a.i

Sample Info: 1249329004151

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

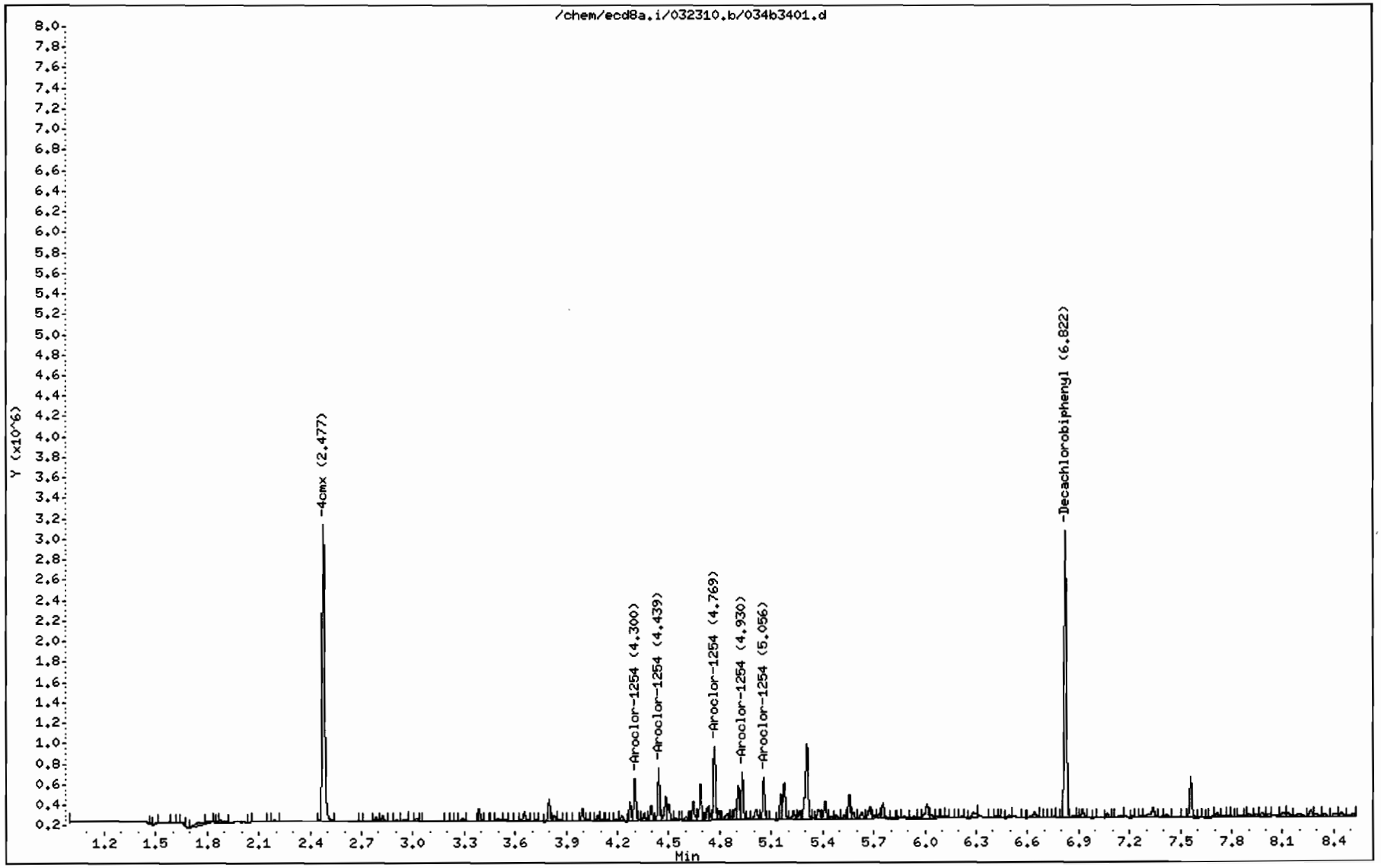

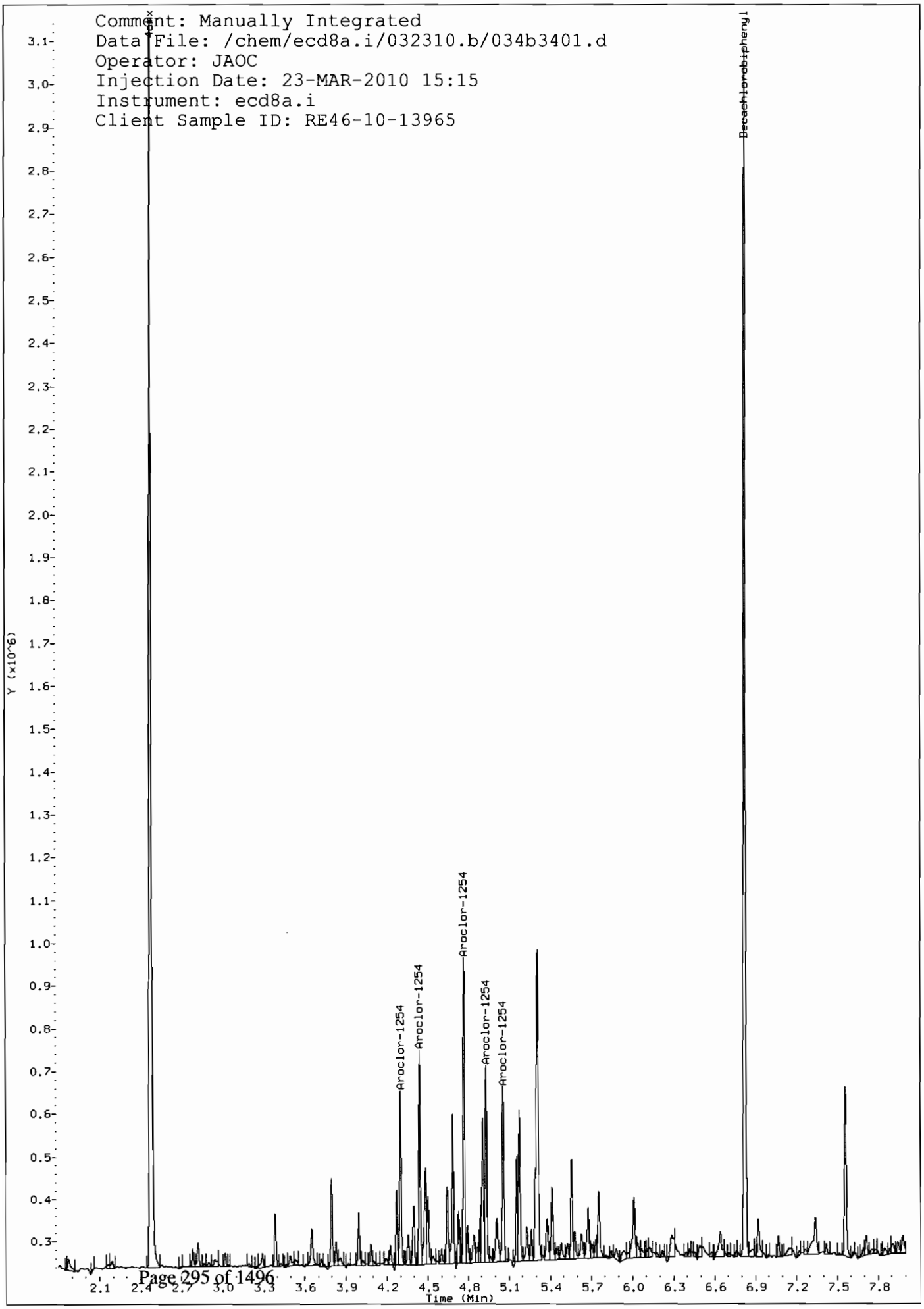
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032310.b/034b3401.d
Operator: JAOC
Injection Date: 23-MAR-2010 15:15
Instrument: ecd8a.i
Client Sample ID: RE46-10-13965
Decachlorobiphenyl
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Y (x10^6)
Time (Min)

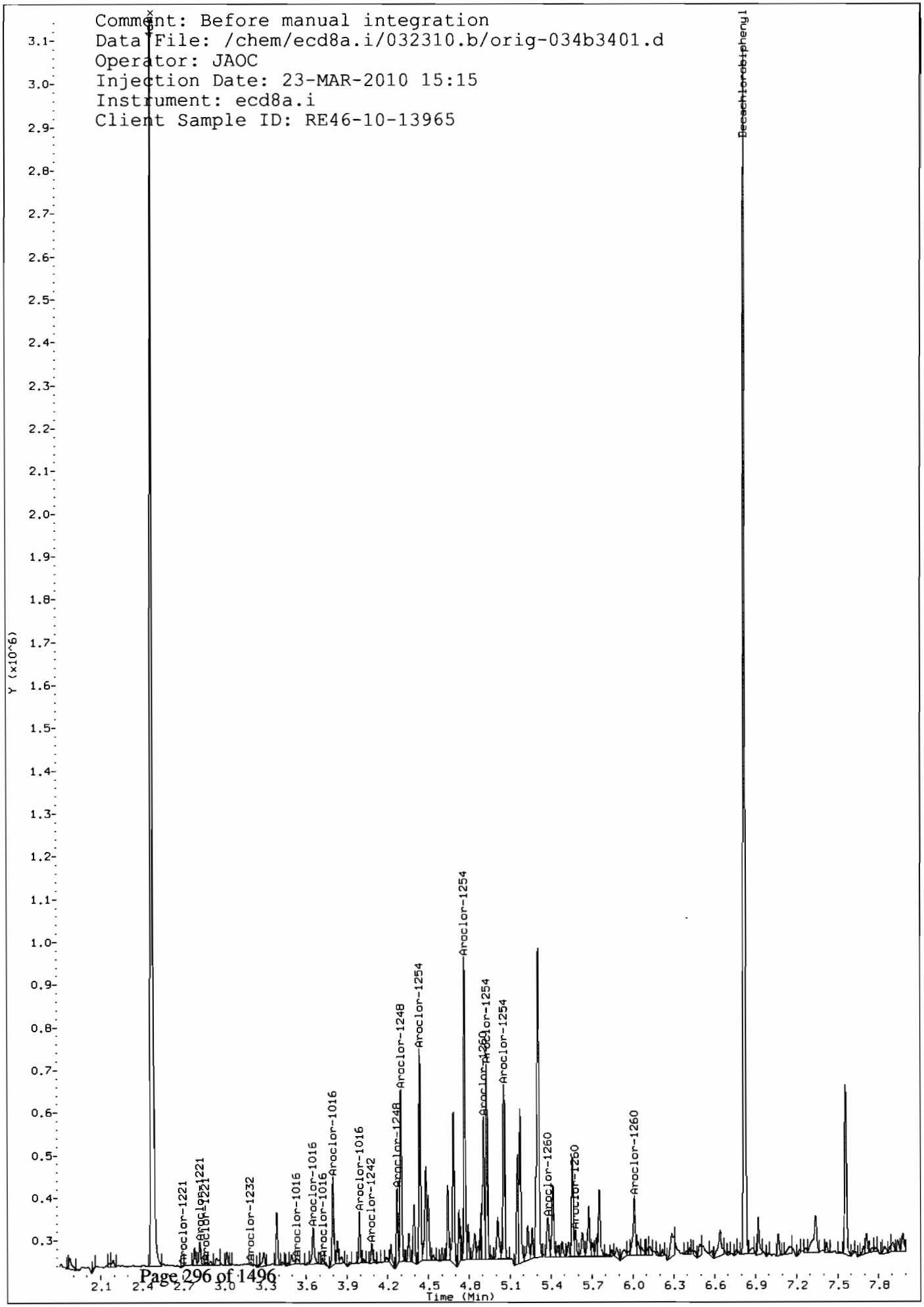
Comment: Before manual integration
Data File: /chem/ecd8a.i/032310.b/orig-034b3401.d
Operator: JAOC
Injection Date: 23-MAR-2010 15:15
Instrument: ecd8a.i
Client Sample ID: RE46-10-13965
Decachlorobiphenyl
Aroclor-1221
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^6)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2430	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249329002	**Date Received:**	03/13/2010 09:30	**%Moisture:**	16.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13966	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967824	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/23/2010 14:21	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 22:20	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	030f3001.d	**Column:**	1 CLP1	**Level:**	LOW
	030b3001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	19.8	ug/kg	6.58	19.8	1
11104-28-2	Aroclor-1221	U	19.8	ug/kg	6.58	19.8	1
11141-16-5	Aroclor-1232	U	19.8	ug/kg	6.58	19.8	1
53469-21-9	Aroclor-1242	U	19.8	ug/kg	6.58	19.8	1
12672-29-6	Aroclor-1248	U	19.8	ug/kg	6.58	19.8	1
11097-69-1	Aroclor-1254	U	19.8	ug/kg	6.58	19.8	1
11096-82-5	Aroclor-1260	U	19.8	ug/kg	6.58	19.8	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/030f3001.d
Lab Smp Id: 249329002 Client Smp ID: RE46-10-13966
Inj Date : 23-MAR-2010 14:21
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249329002|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-13966|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 30
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2430.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weight of sample extracted (g)
M	16.23620	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.247	2.248	-0.001	4289042	34.3229	6.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.237	6.240	-0.003	3062947	37.1938	7.4	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/030f3001.d

Page 1

Date : 23-MAR-2010 14:21

Client ID: RE46-10-13966

Instrument: ecd8a.i

Sample Info: |249329002|5|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

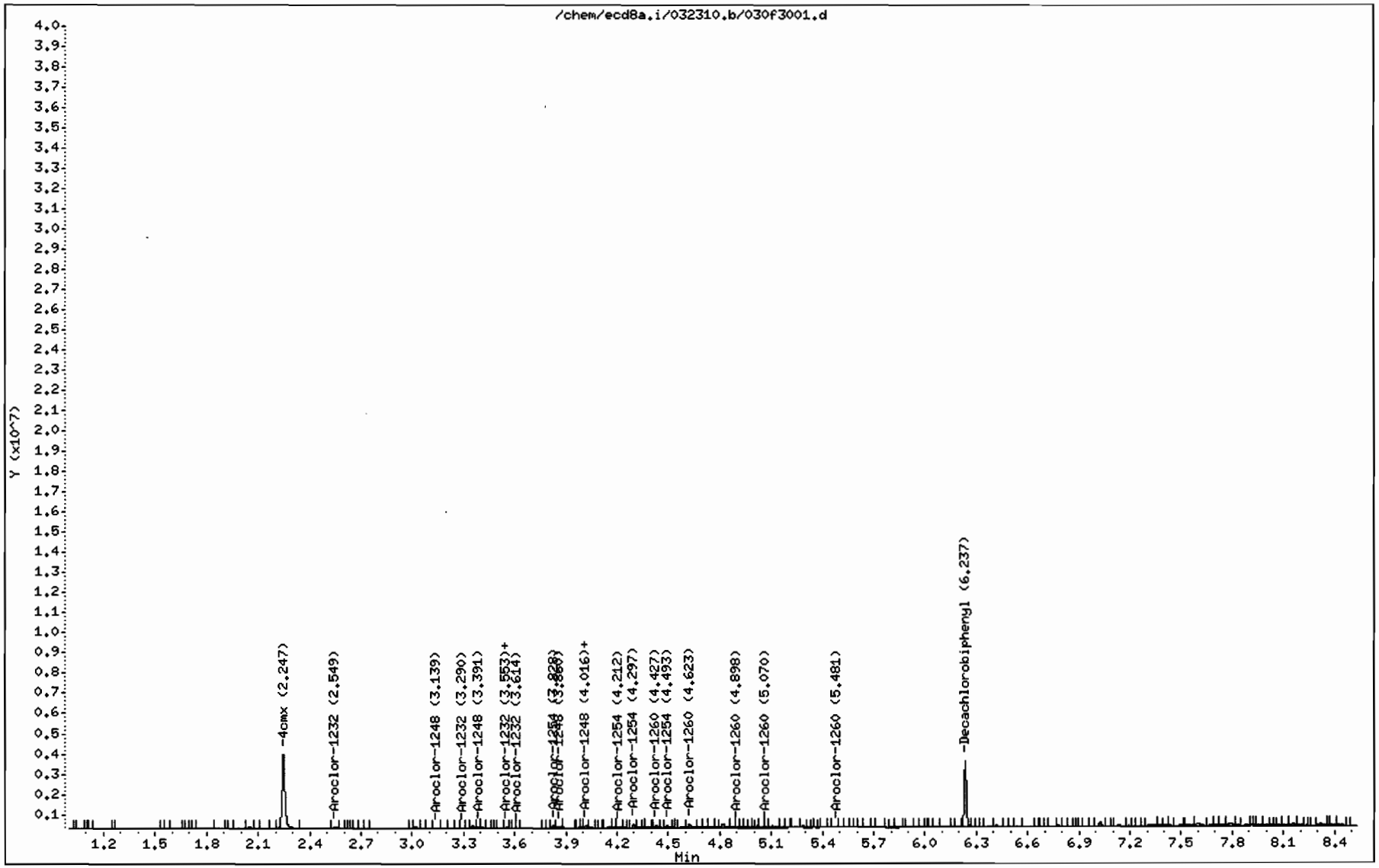

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/030b3001.d
Lab Smp Id: 249329002 Client Smp ID: RE46-10-13966
Inj Date : 23-MAR-2010 14:21
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249329002|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-13966|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 30
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2430.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weight of sample extracted (g)
M	16.23620	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.476	0.000	2869371	34.3300	6.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.824	-0.002	2214545	37.3747	7.4	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/030b3001.d

Date : 23-MAR-2010 14:21

Client ID: RE46-10-13966

Sample Info: |249329002|5|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

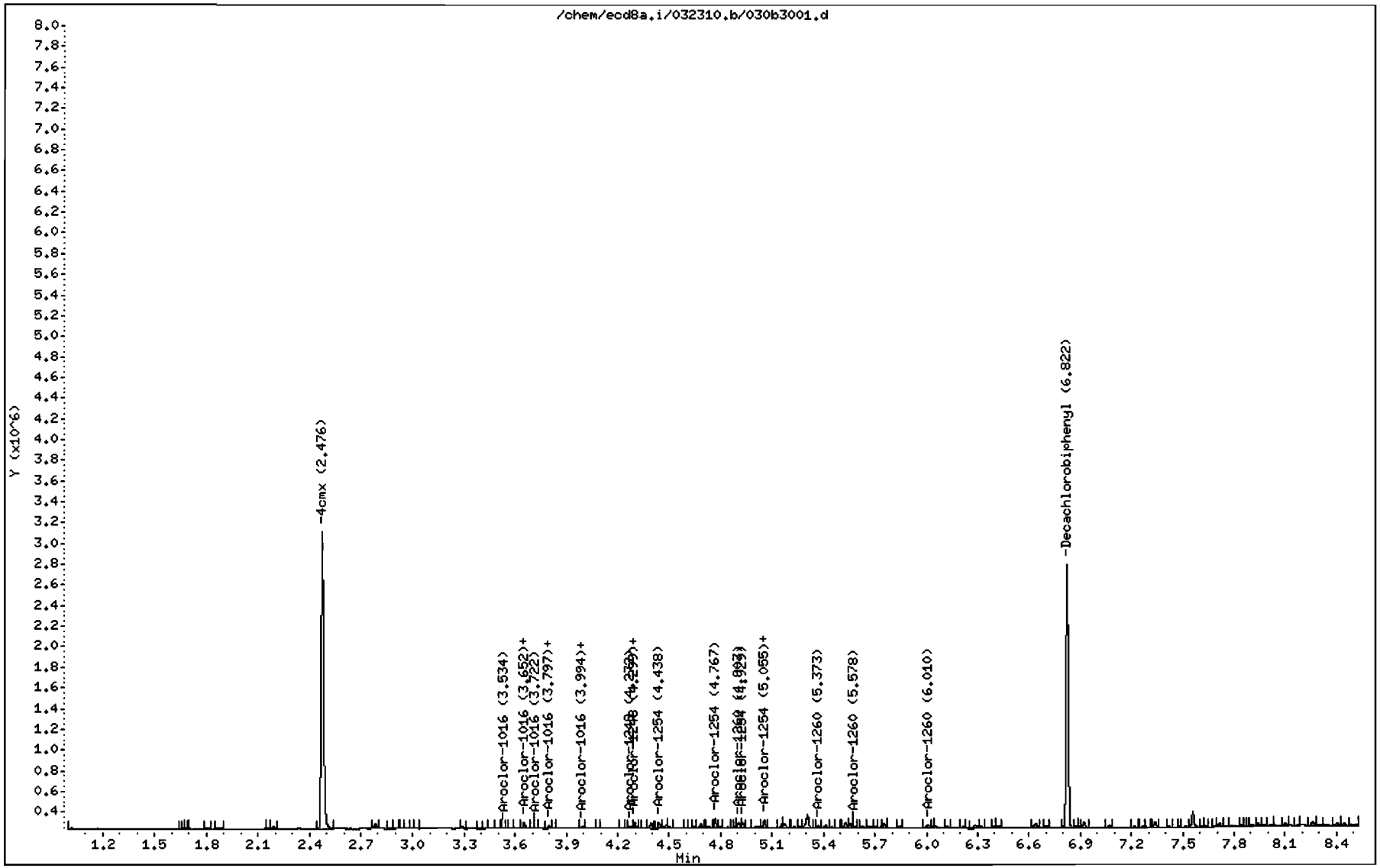

STANDARDS DATA

Report Date: 24-Mar-2010 09:23

Calibration History

Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
23-FEB-2010 10:43	AR1221	/chem/ecd8a.i/022310.b/013f1301.d
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028f2801.d
09-MAR-2010 10:41	AR1248	/chem/ecd8a.i/030910.b/013f1301.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014f1401.d
09-MAR-2010 09:27	AR1254	/chem/ecd8a.i/030910.b/007f0701.d
18-MAR-2010 06:25	AR1660	/chem/ecd8a.i/031810.b/002f0201.d
Cal Level: 2 , Cal Amount: 250.00000		
23-FEB-2010 10:55	AR1221	/chem/ecd8a.i/022310.b/014f1401.d
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029f2901.d
09-MAR-2010 10:53	AR1248	/chem/ecd8a.i/030910.b/014f1401.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015f1501.d
09-MAR-2010 09:39	AR1254	/chem/ecd8a.i/030910.b/008f0801.d
18-MAR-2010 06:38	AR1660	/chem/ecd8a.i/031810.b/003f0301.d
Cal Level: 3 , Cal Amount: 500.00000		
23-FEB-2010 11:07	AR1221	/chem/ecd8a.i/022310.b/015f1501.d
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030f3001.d
09-MAR-2010 11:05	AR1248	/chem/ecd8a.i/030910.b/015f1501.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016f1601.d
09-MAR-2010 09:51	AR1254	/chem/ecd8a.i/030910.b/009f0901.d
18-MAR-2010 06:50	AR1660	/chem/ecd8a.i/031810.b/004f0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036f3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034f3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031f3101.d
23-FEB-2010 11:20	AR1221	/chem/ecd8a.i/022310.b/016f1601.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026f2601.d
09-MAR-2010 11:18	AR1248	/chem/ecd8a.i/030910.b/016f1601.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017f1701.d
09-MAR-2010 10:04	AR1254	/chem/ecd8a.i/030910.b/010f1001.d
18-MAR-2010 07:02	AR1660	/chem/ecd8a.i/031810.b/005f0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
23-FEB-2010 11:32	AR1221	/chem/ecd8a.i/022310.b/017f1701.d
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032f3201.d
09-MAR-2010 11:30	AR1248	/chem/ecd8a.i/030910.b/017f1701.d

03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018f1801.d
09-MAR-2010 10:16	AR1254	/chem/ecd8a.i/030910.b/011f1101.d
18-MAR-2010 07:15	AR1660	/chem/ecd8a.i/031810.b/006f0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:56	AR1660	/chem/ecd8a.i/032310.b/046f4601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:15	AR1660	/chem/ecd8a.i/032310.b/043f4301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 14:38	AR1660	/chem/ecd8a.i/032310.b/031f3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:46	AR1242	/chem/ecd8a.i/032310.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 12:01	AR1660	/chem/ecd8a.i/032310.b/019f1901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:48	AR1268	/chem/ecd8a.i/032310.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:36	AR1262	/chem/ecd8a.i/032310.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:23	AR1221	/chem/ecd8a.i/032310.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:11	AR1232	/chem/ecd8a.i/032310.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:59	AR1248	/chem/ecd8a.i/032310.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:34	AR1254	/chem/ecd8a.i/032310.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:22	AR1660	/chem/ecd8a.i/032310.b/002f0201.d

Report Date: 24-Mar-2010 09:23

Calibration History

Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
23-FEB-2010 10:43	AR1221	/chem/ecd8a.i/022310.b/013b1301.d
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028b2801.d
09-MAR-2010 10:41	AR1248	/chem/ecd8a.i/030910.b/013b1301.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014b1401.d
09-MAR-2010 09:27	AR1254	/chem/ecd8a.i/030910.b/007b0701.d
18-MAR-2010 06:25	AR1660	/chem/ecd8a.i/031810.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
23-FEB-2010 10:55	AR1221	/chem/ecd8a.i/022310.b/014b1401.d
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029b2901.d
09-MAR-2010 10:53	AR1248	/chem/ecd8a.i/030910.b/014b1401.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015b1501.d
09-MAR-2010 09:39	AR1254	/chem/ecd8a.i/030910.b/008b0801.d
18-MAR-2010 06:38	AR1660	/chem/ecd8a.i/031810.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
23-FEB-2010 11:07	AR1221	/chem/ecd8a.i/022310.b/015b1501.d
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030b3001.d
09-MAR-2010 11:05	AR1248	/chem/ecd8a.i/030910.b/015b1501.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016b1601.d
09-MAR-2010 09:51	AR1254	/chem/ecd8a.i/030910.b/009b0901.d
18-MAR-2010 06:50	AR1660	/chem/ecd8a.i/031810.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036b3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034b3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031b3101.d
23-FEB-2010 11:20	AR1221	/chem/ecd8a.i/022310.b/016b1601.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026b2601.d
09-MAR-2010 11:18	AR1248	/chem/ecd8a.i/030910.b/016b1601.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017b1701.d
09-MAR-2010 10:04	AR1254	/chem/ecd8a.i/030910.b/010b1001.d
18-MAR-2010 07:02	AR1660	/chem/ecd8a.i/031810.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
23-FEB-2010 11:32	AR1221	/chem/ecd8a.i/022310.b/017b1701.d
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032b3201.d
09-MAR-2010 11:30	AR1248	/chem/ecd8a.i/030910.b/017b1701.d
03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018b1801.d
09-MAR-2010 10:16	AR1254	/chem/ecd8a.i/030910.b/011b1101.d
18-MAR-2010 07:15	AR1660	/chem/ecd8a.i/031810.b/006b0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:56	AR1660	/chem/ecd8a.i/032310.b/046b4601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:15	AR1660	/chem/ecd8a.i/032310.b/043b4301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 14:38	AR1660	/chem/ecd8a.i/032310.b/031b3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 12:01	AR1660	/chem/ecd8a.i/032310.b/019b1901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:48	AR1268	/chem/ecd8a.i/032310.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:36	AR1262	/chem/ecd8a.i/032310.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:23	AR1221	/chem/ecd8a.i/032310.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:11	AR1232	/chem/ecd8a.i/032310.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:59	AR1248	/chem/ecd8a.i/032310.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:46	AR1242	/chem/ecd8a.i/032310.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:34	AR1254	/chem/ecd8a.i/032310.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:22	AR1660	/chem/ecd8a.i/032310.b/002b0201.d

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COMPOUND LISTING

Method file : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Mar-2010 08:51 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	758.000000
Initial:End Threshold	379.000000
Initial:Area Threshold	734.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.500000
6.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.806	2.776-2.836	4.772e+03
	3.157	3.127-3.187	5.397e+03
	3.301	3.271-3.331	2.352e+03
	3.393	3.363-3.423	2.192e+03
	3.555	3.525-3.585	3.079e+03
2 Aroclor-1221	2.389	2.359-2.419	1.568e+03
	2.503	2.473-2.533	9.154e+02
	2.534	2.504-2.564	3.573e+03
3 Aroclor-1232	2.535	2.505-2.565	2.601e+03
	2.806	2.776-2.836	2.261e+03
	3.301	3.271-3.331	1.243e+03
	3.555	3.525-3.585	1.479e+03
	3.617	3.587-3.647	9.227e+02
4 Aroclor-1242	2.806	2.776-2.836	3.974e+03
	3.157	3.127-3.187	4.796e+03
	3.393	3.363-3.423	1.805e+03
	3.410	3.380-3.440	1.889e+03
	3.556	3.526-3.586	2.645e+03
5 Aroclor-1248	3.143	3.113-3.173	2.721e+03
	3.392	3.362-3.422	3.402e+03
	3.555	3.525-3.585	4.371e+03
	3.860	3.830-3.890	5.250e+03
	4.020	3.990-4.050	4.212e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.830	3.800-3.860	4.334e+03
		4.017	3.987-4.047	5.767e+03
		4.213	4.183-4.243	4.459e+03
		4.300	4.270-4.330	7.522e+03
		4.496	4.466-4.526	5.749e+03
	7 Aroclor-1260	4.429	4.399-4.459	5.890e+03
		4.625	4.595-4.655	8.495e+03
		4.900	4.870-4.930	5.066e+03
		5.072	5.042-5.102	5.329e+03
		5.483	5.453-5.513	5.641e+03
	8 Aroclor-1262	4.331	4.301-4.361	3.367e+03
		4.429	4.399-4.459	5.243e+03
		4.624	4.594-4.654	7.103e+03
		4.900	4.870-4.930	8.580e+03
		5.071	5.041-5.101	7.966e+03
	9 Aroclor-1268	5.507	5.477-5.537	1.632e+04
		5.534	5.504-5.564	1.572e+04
		5.668	5.638-5.698	1.207e+04
		5.913	5.883-5.943	6.023e+03
		6.110	6.080-6.140	3.601e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.248	2.218-2.278	1.250e+05
$	12 Decachlorobiphenyl	6.240	6.210-6.270	8.235e+04
	13 4,4'-DDT	4.852	4.832-4.872	2.393e+04
	14 4,4'-DDD	4.658	4.638-4.678	1.570e+05
	15 4,4'-DDE	4.234	4.214-4.254	1.340e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Mar-2010 08:39 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	733.000000
Initial:End Threshold	366.500000
Initial:Area Threshold	522.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	2.000000
9.000:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.548	3.518-3.578	3.678e+03
	3.647	3.617-3.677	2.551e+03
	3.723	3.693-3.753	1.492e+03
	3.799	3.769-3.829	1.478e+03
	3.995	3.965-4.025	2.025e+03
2 Aroclor-1221	2.717	2.687-2.747	9.481e+02
	2.829	2.799-2.859	5.911e+02
	2.877	2.847-2.907	2.179e+03
3 Aroclor-1232	3.195	3.165-3.225	1.515e+03
	3.548	3.518-3.578	1.744e+03
	3.648	3.618-3.678	1.176e+03
	3.723	3.693-3.753	7.101e+02
	3.798	3.768-3.828	6.182e+02
4 Aroclor-1242	3.196	3.166-3.226	2.677e+03
	3.548	3.518-3.578	3.126e+03
	3.648	3.618-3.678	2.127e+03
	3.995	3.965-4.025	1.703e+03
	4.084	4.054-4.114	1.567e+03
5 Aroclor-1248	3.646	3.616-3.676	1.329e+03
	3.798	3.768-3.828	2.249e+03
	3.994	3.964-4.024	2.790e+03
	4.272	4.242-4.302	3.273e+03
	4.305	4.275-4.335	3.592e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m

Compound	RT	RT Window	RF
6 Aroclor-1254	4.301	4.271-4.331	3.117e+03
	4.440	4.410-4.470	3.478e+03
	4.769	4.739-4.799	4.832e+03
	4.931	4.901-4.961	3.494e+03
	5.057	5.027-5.087	2.202e+03
7 Aroclor-1260	4.907	4.877-4.937	3.939e+03
	5.056	5.026-5.086	4.730e+03
	5.373	5.343-5.403	3.587e+03
	5.580	5.550-5.610	3.712e+03
	6.011	5.981-6.041	5.841e+03
8 Aroclor-1262	4.907	4.877-4.937	3.276e+03
	5.056	5.026-5.086	3.827e+03
	5.373	5.343-5.403	5.446e+03
	5.580	5.550-5.610	5.047e+03
	6.008	5.978-6.038	7.196e+03
9 Aroclor-1268	6.006	5.976-6.036	1.138e+04
	6.039	6.009-6.069	1.041e+04
	6.217	6.187-6.247	8.192e+03
	6.414	6.384-6.444	4.057e+03
	6.643	6.613-6.673	2.464e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.476	2.446-2.506	8.358e+04
$ 12 Decachlorobiphenyl	6.824	6.794-6.854	5.925e+04
13 4,4'-DDT	5.323	5.303-5.343	1.460e+04
14 4,4'-DDD	5.102	5.082-5.122	1.001e+05
15 4,4'-DDE	4.691	4.671-4.711	8.898e+04

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Cal Date : 24-Mar-2010 08:51 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/022310.b/013f1301.d
Level 2: /chem/ecd8a.i/022310.b/014f1401.d
Level 3: /chem/ecd8a.i/022310.b/015f1501.d
Level 4: /chem/ecd8a.i/020310a.b/036f3601.d
Level 5: /chem/ecd8a.i/022310.b/017f1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	___ RRF	% RSD
1 Aroclor-1016(1)	5919	5050	4827	4394	3671	4772	17.374
(2)	6305	5464	5600	5079	4539	5397	12.103
(3)	2780	2401	2389	2196	1992	2352	12.417
(4)	2749	2248	2191	2001	1769	2192	16.589
(5)	3808	3166	3086	2824	2511	3079	15.627
2 Aroclor-1221(1)	1843	1746	1580	1468	1203	1568	15.964
(2)	1118	1046	917	835	660	915	19.675
(3)	4334	3992	3544	3325	2672	3573	17.859
3 Aroclor-1232(1)	+++++	+++++	+++++	2601	+++++	2601	0.000
(2)	+++++	+++++	+++++	2261	+++++	2261	0.000
(3)	+++++	+++++	+++++	1243	+++++	1243	0.000
(4)	+++++	+++++	+++++	1479	+++++	1479	0.000
(5)	+++++	+++++	+++++	923	+++++	923	0.000
4 Aroclor-1242(1)	4726	4372	4070	3706	2998	3974	16.680
(2)	5172	5152	4949	4680	4027	4796	9.873
(3)	2139	1968	1820	1683	1417	1805	15.251
(4)	2229	2050	1908	1759	1500	1889	14.735
(5)	3065	2855	2678	2500	2127	2645	13.507
5 Aroclor-1248(1)	3009	2847	2875	2619	2254	2721	10.891
(2)	3979	3666	3503	3232	2633	3402	14.930
(3)	4974	4644	4593	4148	3497	4371	13.049
(4)	5772	5534	5553	5051	4341	5250	10.905
(5)	4772	4453	4399	4004	3430	4212	12.231
6 Aroclor-1254(1)	4848	4583	4256	4143	3840	4334	9.026
(2)	6355	6045	5692	5573	5168	5767	7.878
(3)	4755	4649	4399	4320	4170	4459	5.382
(4)	7994	7880	7432	7366	6934	7522	5.676
(5)	6153	6013	5632	5615	5334	5749	5.750

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Cal Date : 24-Mar-2010 08:51 jen01212
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	7147	5970	6060	5488	4785	5890	14.695
(2)	10103	8518	8810	7994	7052	8495	13.185
(3)	6142	5086	5206	4683	4213	5066	14.134
(4)	6261	5444	5587	4872	4481	5329	12.849
(5)	6525	5540	5787	5277	5076	5641	9.964
8 Aroclor-1262(1)	3851	3558	3311	3256	2859	3367	10.954
(2)	5935	5551	5239	5102	4386	5243	10.995
(3)	7996	7523	7022	6963	6012	7103	10.414
(4)	9555	9028	8567	8433	7318	8580	9.694
(5)	8875	8357	7946	7802	6850	7966	9.421
9 Aroclor-1268(1)	+++++	+++++	+++++	16324	+++++	16324	0.000
(2)	+++++	+++++	+++++	15723	+++++	15723	0.000
(3)	+++++	+++++	+++++	12075	+++++	12075	0.000
(4)	+++++	+++++	+++++	6023	+++++	6023	0.000
(5)	+++++	+++++	+++++	36012	+++++	36012	0.000
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4,4'-DDT	+++++	+++++	+++++	23929	+++++	23929	0.000
14 4,4'-DDD	+++++	+++++	+++++	157020	+++++	157020	0.000
15 4,4'-DDE	+++++	+++++	+++++	133975	+++++	133975	0.000
$ 11 4cmx	136153	126431	127871	122774	111579	124961	7.155
$ 12 Decachlorobiphenyl	95355	82633	85082	76716	71970	82351	10.796

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Cal Date : 24-Mar-2010 08:39 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/022310.b/013b1301.d
Level 2: /chem/ecd8a.i/022310.b/014b1401.d
Level 3: /chem/ecd8a.i/022310.b/015b1501.d
Level 4: /chem/ecd8a.i/020310a.b/036b3601.d
Level 5: /chem/ecd8a.i/022310.b/017b1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	3858	3610	3858	3627	3436	3678	4.905
(2)	2824	2559	2590	2465	2318	2551	7.270
(3)	1619	1461	1511	1446	1422	1492	5.243
(4)	1671	1484	1494	1405	1335	1478	8.500
(5)	2238	2022	2057	1951	1857	2025	6.982
2 Aroclor-1221(1)	1008	1017	964	925	826	948	8.179
(2)	642	644	604	571	494	591	10.518
(3)	2384	2349	2220	2116	1827	2179	10.256
3 Aroclor-1232(1)	+++++	+++++	+++++	1515	+++++	1515	0.000
(2)	+++++	+++++	+++++	1744	+++++	1744	0.000
(3)	+++++	+++++	+++++	1176	+++++	1176	0.000
(4)	+++++	+++++	+++++	710	+++++	710	0.000
(5)	+++++	+++++	+++++	618	+++++	618	0.000
4 Aroclor-1242(1)	2949	2857	2758	2609	2213	2677	10.779
(2)	3213	3196	3180	3232	2808	3126	5.721
(3)	2287	2232	2178	2099	1842	2127	8.178
(4)	1820	1782	1741	1678	1497	1703	7.463
(5)	1675	1595	1607	1522	1434	1567	5.872
5 Aroclor-1248(1)	1413	1408	1337	1299	1188	1329	6.944
(2)	2387	2358	2277	2198	2024	2249	6.480
(3)	2920	2903	2849	2753	2523	2790	5.825
(4)	3350	3368	3334	3259	3054	3273	3.955
(5)	3677	3689	3657	3584	3353	3592	3.894
6 Aroclor-1254(1)	3242	3137	3080	3079	3045	3117	2.483
(2)	3591	3494	3433	3454	3418	3478	1.994
(3)	4854	4823	4800	4853	4830	4832	0.471
(4)	3516	3466	3440	3510	3538	3494	1.145
(5)	2281	2214	2159	2166	2188	2202	2.240

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Cal Date : 24-Mar-2010 08:39 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	4310	3885	4025	3827	3646	3939	6.300
	(2)	5135	4638	4867	4591	4421	4730	5.847
	(3)	3916	3515	3674	3464	3365	3587	5.999
	(4)	4033	3615	3813	3590	3510	3712	5.689
	(5)	6224	5645	6036	5678	5624	5841	4.664
	8 Aroclor-1262(1)	3545	3367	3269	3249	2948	3276	6.635
	(2)	4038	3929	3844	3825	3498	3827	5.277
	(3)	5683	5613	5515	5463	4958	5446	5.255
	(4)	5266	5178	5090	5067	4633	5047	4.838
	(5)	7327	7356	7286	7270	6740	7196	3.572
	9 Aroclor-1268(1)	+++++	+++++	+++++	11384	+++++	11384	0.000
	(2)	+++++	+++++	+++++	10412	+++++	10412	0.000
	(3)	+++++	+++++	+++++	8192	+++++	8192	0.000
	(4)	+++++	+++++	+++++	4057	+++++	4057	0.000
	(5)	+++++	+++++	+++++	24640	+++++	24640	0.000
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	14596	+++++	14596	0.000
	14 4,4'-DDD	+++++	+++++	+++++	100145	+++++	100145	0.000
	15 4,4'-DDE	+++++	+++++	+++++	88982	+++++	88982	0.000
$	11 4cmx	83925	81585	84996	84651	82754	83582	1.685
$	12 Decachlorobiphenyl	64763	57453	61017	56769	56260	59252	6.076

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2430

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 0822

Lab File ID: 002F0201 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4356.912	0.01	-8.7	15.0
(2)	5397.398	5314.052	0.01	-1.5	15.0
(3)	2351.643	2244.950	0.01	-4.5	15.0
(4)	2191.567	2026.561	0.01	-7.5	15.0
(5)	3078.945	2883.384	0.01	-6.4	15.0
Aroclor-1260	5890.060	5924.060	0.01	0.6	15.0
(2)	8495.287	8697.557	0.01	2.4	15.0
(3)	5066.269	5099.908	0.01	0.7	15.0
(4)	5329.016	5481.293	0.01	2.8	15.0
(5)	5640.982	5903.839	0.01	4.6	15.0
4cmx	124961.40	128432.09	0.01	2.8	15.0
Decachlorobiphenyl	82351.042	86595.090	0.01	5.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2430

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 0822

Lab File ID: 002B0201 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3813.714	0.01	3.7	15.0
(2)	2551.186	2498.966	0.01	-2.0	15.0
(3)	1492.032	1490.552	0.01	-0.1	15.0
(4)	1477.704	1447.833	0.01	-2.0	15.0
(5)	2024.804	2010.893	0.01	-0.7	15.0
Aroclor-1260	3938.505	4265.170	0.01	8.3	15.0
(2)	4730.476	5176.085	0.01	9.4	15.0
(3)	3586.650	3889.009	0.01	8.4	15.0
(4)	3712.238	4037.036	0.01	8.7	15.0
(5)	5841.333	6431.111	0.01	10.1	15.0
4cmx	83582.102	90007.610	0.01	7.7	15.0
Decachlorobiphenyl	59252.492	64417.740	0.01	8.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2430

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 0834

Lab File ID: 003F0301 Init. Calib. Date(s): 03/09/10 03/09/10

Heated Purge: (Y/N) N Init. Calib. Times: 0927 1016

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	4333.962	4170.264	0.01	-3.8	15.0
(2)	5766.534	5614.913	0.01	-2.6	15.0
(3)	4458.524	4376.011	0.01	-1.8	15.0
(4)	7521.536	7372.606	0.01	-2.0	15.0
(5)	5749.206	5596.135	0.01	-2.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2430

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 0834

Lab File ID: 003B0301 Init. Calib. Date(s): 03/09/10 03/09/10

Heated Purge: (Y/N) N Init. Calib. Times: 0927 1016

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	3116.660	3312.879	0.01	6.3	15.0
(2)	3478.140	3709.562	0.01	6.6	15.0
(3)	4832.039	5255.007	0.01	8.8	15.0
(4)	3494.052	3762.160	0.01	7.7	15.0
(5)	2201.695	2353.978	0.01	6.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2430

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 1201

Lab File ID: 019F1901 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4188.230	0.01	-12.2	15.0
(2)	5397.398	5213.562	0.01	-3.4	15.0
(3)	2351.643	2188.215	0.01	-6.9	15.0
(4)	2191.567	1921.201	0.01	-12.3	15.0
(5)	3078.945	2770.682	0.01	-10.0	15.0
Aroclor-1260	5890.060	5694.698	0.01	-3.3	15.0
(2)	8495.287	8561.344	0.01	0.8	15.0
(3)	5066.269	5038.763	0.01	-0.5	15.0
(4)	5329.016	5300.445	0.01	-0.5	15.0
(5)	5640.982	5859.339	0.01	3.9	15.0
4cmx	124961.40	125576.24	0.01	0.5	15.0
Decachlorobiphenyl	82351.042	84887.520	0.01	3.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2430

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 1201

Lab File ID: 019B1901 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3750.070	0.01	2.0	15.0
(2)	2551.186	2478.563	0.01	-2.8	15.0
(3)	1492.032	1508.121	0.01	1.1	15.0
(4)	1477.704	1443.862	0.01	-2.3	15.0
(5)	2024.804	1995.748	0.01	-1.4	15.0
Aroclor-1260	3938.505	4152.360	0.01	5.4	15.0
(2)	4730.476	5056.096	0.01	6.9	15.0
(3)	3586.650	3778.164	0.01	5.3	15.0
(4)	3712.238	4002.290	0.01	7.8	15.0
(5)	5841.333	6250.416	0.01	7.0	15.0
4cmx	83582.102	89527.720	0.01	7.1	15.0
Decachlorobiphenyl	59252.492	61113.380	0.01	3.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2430

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 1438

Lab File ID: 031F3101 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4253.348	0.01	-10.9	15.0
(2)	5397.398	5344.393	0.01	-1.0	15.0
(3)	2351.643	2222.771	0.01	-5.5	15.0
(4)	2191.567	2002.583	0.01	-8.6	15.0
(5)	3078.945	2809.397	0.01	-8.8	15.0
Aroclor-1260	5890.060	5831.201	0.01	-1.0	15.0
(2)	8495.287	8623.550	0.01	1.5	15.0
(3)	5066.269	5100.014	0.01	0.7	15.0
(4)	5329.016	5507.514	0.01	3.3	15.0
(5)	5640.982	6022.391	0.01	6.8	15.0
4cmx	124961.40	127305.18	0.01	1.9	15.0
Decachlorobiphenyl	82351.042	89433.280	0.01	8.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2430

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 1438

Lab File ID: 031B3101 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3823.176	0.01	4.0	15.0
(2)	2551.186	2501.019	0.01	-2.0	15.0
(3)	1492.032	1515.874	0.01	1.6	15.0
(4)	1477.704	1456.490	0.01	-1.4	15.0
(5)	2024.804	1992.410	0.01	-1.6	15.0
Aroclor-1260	3938.505	4274.803	0.01	8.5	15.0
(2)	4730.476	5217.673	0.01	10.3	15.0
(3)	3586.650	3927.164	0.01	9.5	15.0
(4)	3712.238	4092.848	0.01	10.2	15.0
(5)	5841.333	6569.408	0.01	12.5	15.0
4cmx	83582.102	90223.040	0.01	7.9	15.0
Decachlorobiphenyl	59252.492	65888.720	0.01	11.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2430

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 1715

Lab File ID: 043F4301 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4387.961	0.01	-8.0	15.0
(2)	5397.398	5481.409	0.01	1.6	15.0
(3)	2351.643	2281.308	0.01	-3.0	15.0
(4)	2191.567	2015.891	0.01	-8.0	15.0
(5)	3078.945	2919.036	0.01	-5.2	15.0
Aroclor-1260	5890.060	5916.917	0.01	0.4	15.0
(2)	8495.287	8852.494	0.01	4.2	15.0
(3)	5066.269	5234.355	0.01	3.3	15.0
(4)	5329.016	5645.988	0.01	5.9	15.0
(5)	5640.982	6224.889	0.01	10.4	15.0
4cmx	124961.40	130794.92	0.01	4.7	15.0
Decachlorobiphenyl	82351.042	91379.690	0.01	11.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2430

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 1715

Lab File ID: 043B4301 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	3677.771	4067.387	0.01	10.6	15.0	
(2)	2551.186	2587.933	0.01	1.4	15.0	
(3)	1492.032	1572.937	0.01	5.4	15.0	
(4)	1477.704	1509.203	0.01	2.1	15.0	
(5)	2024.804	2071.776	0.01	2.3	15.0	
Aroclor-1260	3938.505	4442.130	0.01	12.8	15.0	
(2)	4730.476	5425.638	0.01	14.7	15.0	
(3)	3586.650	4075.254	0.01	13.6	15.0	
(4)	3712.238	4236.399	0.01	14.1	15.0	
(5)	5841.333	6803.558	0.01	16.5	15.0	<-
4cmx	83582.102	92219.980	0.01	10.3	15.0	
Decachlorobiphenyl	59252.492	67358.470	0.01	13.7	15.0	

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/002f0201.d
Lab Smp Id: WAR100224-60 01 Client Smp ID: AR166001
Inj Date : 23-MAR-2010 08:22
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.248	0.000	12843209	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.240	6.240	0.000	8659509	100.000	105	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.806	2.806	0.000	4356912	1000.00	913	80.00- 120.00	100.00(M)
3.157	3.157	0.000	5314052	1000.00	984	104.48- 144.48	121.97
3.301	3.301	0.000	2244950	1000.00	955	32.25- 72.25	51.53
3.393	3.393	0.000	2026561	1000.00	925	25.87- 65.87	46.51
3.555	3.555	0.000	2883384	1000.00	936	46.15- 86.15	66.18
Average of Peak Amounts =					943		
7 Aroclor-1260					CAS #: 11096-82-5		
4.429	4.429	0.000	5924060	1000.00	1000	80.00- 120.00	100.00(M)
4.625	4.625	0.000	8697557	1000.00	1020	130.34- 170.34	146.82
4.900	4.900	0.000	5099908	1000.00	1010	68.48- 108.48	86.09
5.072	5.072	0.000	5481293	1000.00	1030	73.08- 113.08	92.53
5.483	5.483	0.000	5903839	1000.00	1050	82.89- 122.89	99.66
Average of Peak Amounts =					1.02e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032310.b/002f0201.d

Page 1

Date : 23-MAR-2010 08:22

Client ID: AR166001

Instrument: ecd8a.i

Sample Info: IWAR100224-60 01

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

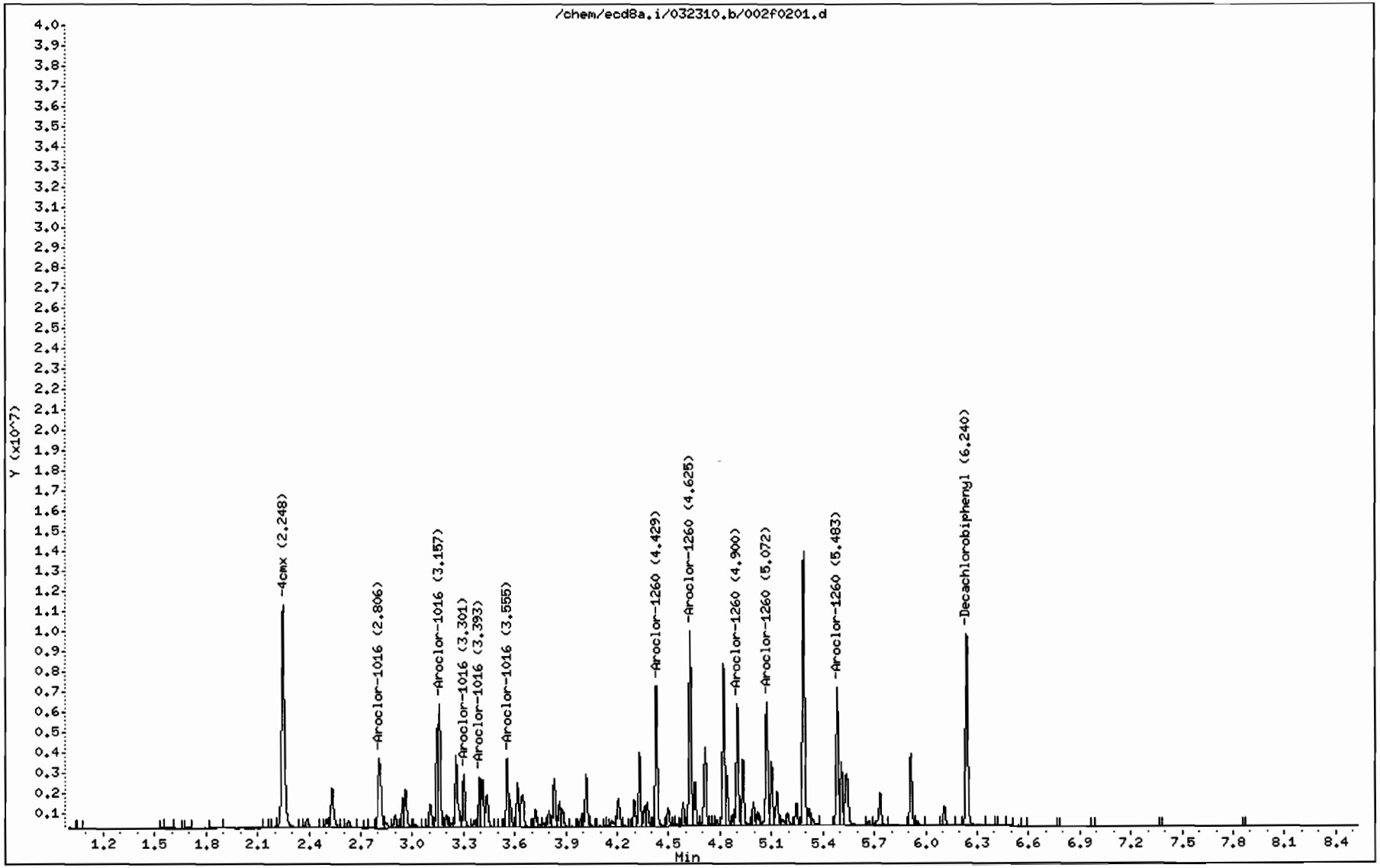

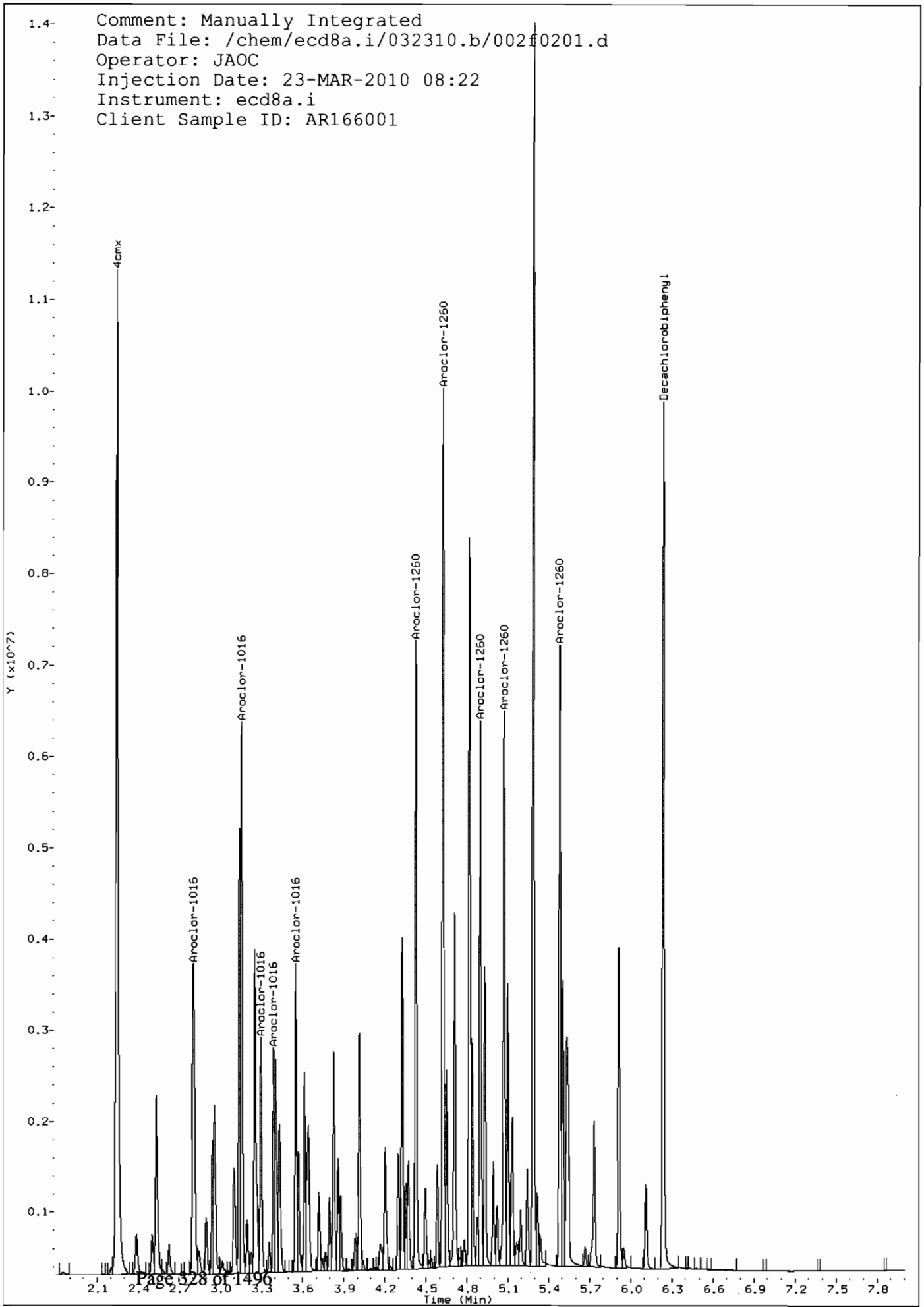
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Operator: JAOC
Injection Date: 23-MAR-2010 08:22
Instrument: ecd8a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

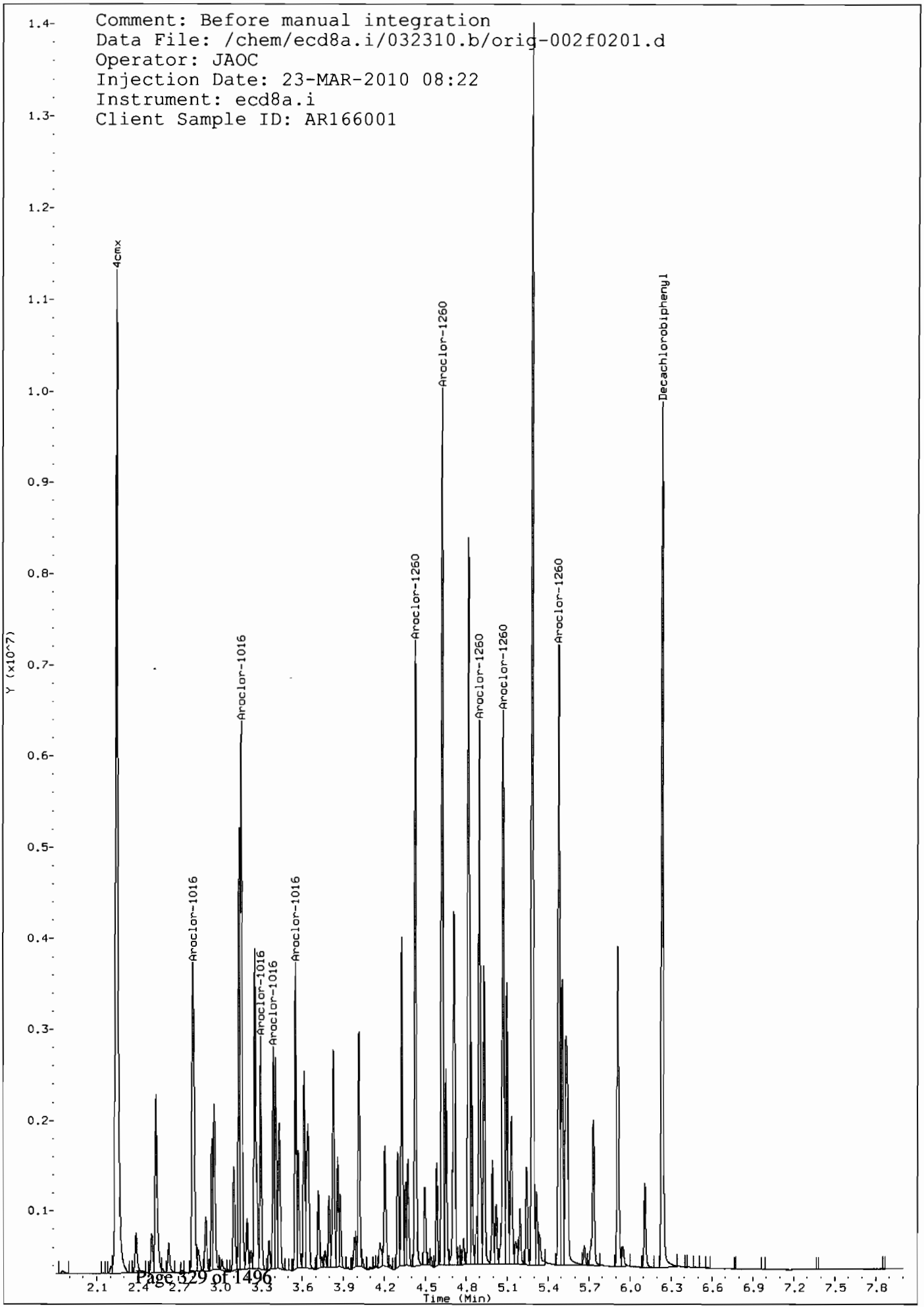
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Data File: /chem/ecd8a.i/032310.b/orig-002f0201.d
Operator: JAOC
Injection Date: 23-MAR-2010 08:22
Instrument: ecd8a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/002b0201.d
Lab Smp Id: WAR100224-60 01 Client Smp ID: AR166001
Inj Date : 23-MAR-2010 08:22
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.476	0.000	9000761	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.824	0.000	6441774	100.000	109	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.548	0.000	3813713	1000.00	1040	80.00- 120.00	100.00
3.647	3.647	0.000	2498965	1000.00	980	46.09- 86.09	65.53
3.723	3.723	0.000	1490551	1000.00	999	20.22- 60.22	39.08
3.799	3.799	0.000	1447833	1000.00	980	18.50- 58.50	37.96
3.995	3.995	0.000	2010893	1000.00	993	33.22- 73.22	52.73
Average of Peak Amounts =					998		
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.907	0.000	4265170	1000.00	1080	80.00- 120.00	100.00
5.056	5.056	0.000	5176085	1000.00	1090	101.76- 141.76	121.36
5.373	5.373	0.000	3889008	1000.00	1080	70.99- 110.99	91.18
5.580	5.580	0.000	4037036	1000.00	1090	76.39- 116.39	94.65
6.011	6.011	0.000	6431111	1000.00	1100	130.53- 170.53	150.78
Average of Peak Amounts =					1.09e+03		

Data File: /chem/ecd8a.i/032310.b/002b0201.d

Date : 23-MAR-2010 08:22

Client ID: AR166001

Sample Info: |WAR100224-60 01

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

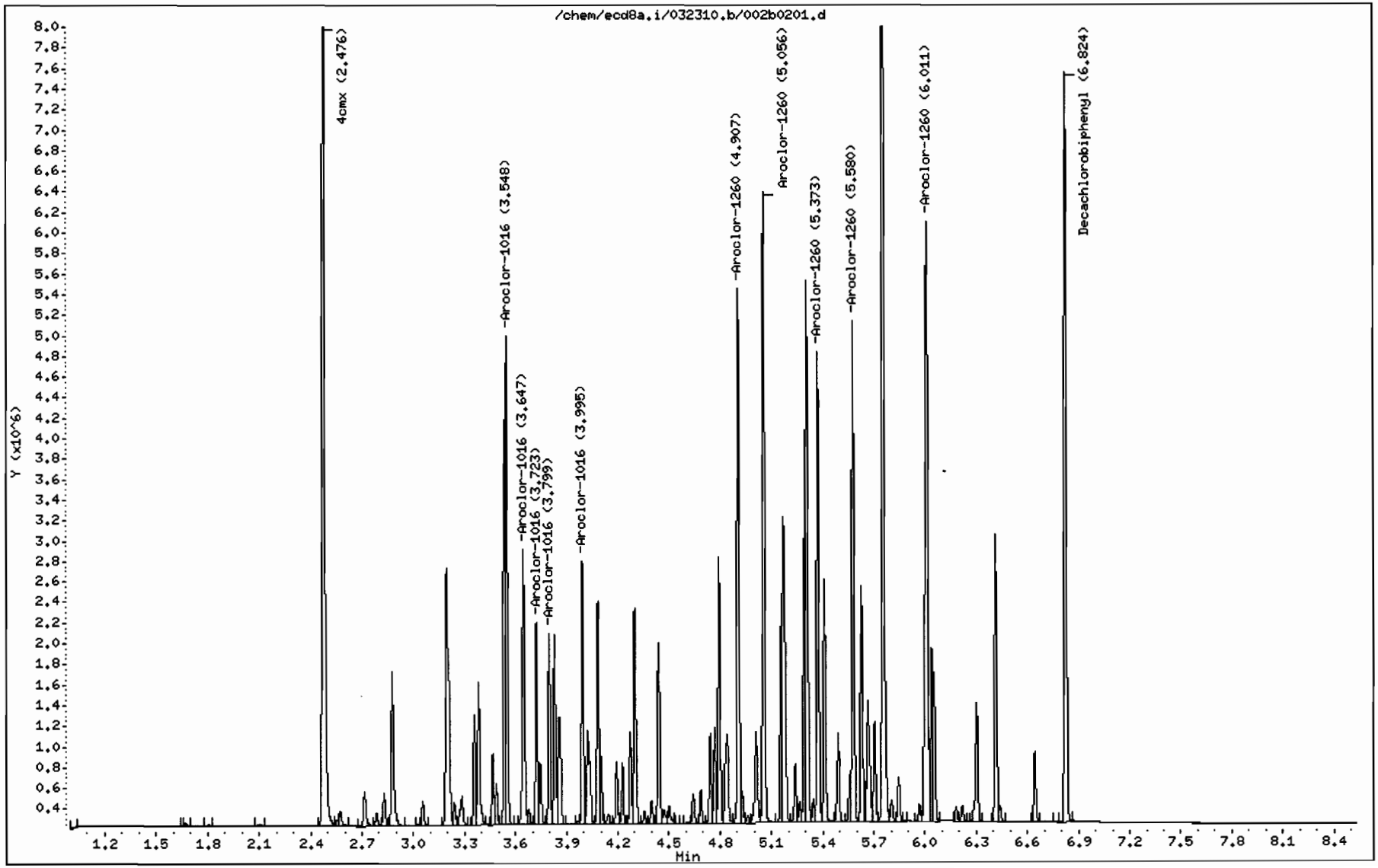

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 23-MAR-2010 08:34
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100219-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.830	3.830	0.000	4170263	1000.00	962	80.00- 120.00	100.00
4.017	4.017	0.000	5614912	1000.00	974	114.64- 154.64	134.64
4.213	4.213	0.000	4376010	1000.00	981	84.93- 124.93	104.93
4.300	4.300	0.000	7372606	1000.00	980	156.79- 196.79	176.79
4.496	4.496	0.000	5596134	1000.00	973	114.19- 154.19	134.19
Average of Peak Amounts =					974		

Data File: /chem/ecd8a.i/032310.b/003f0301.d
Date : 23-MAR-2010 08:34
Client ID: AR125401
Sample Info: !WAR100219-54

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

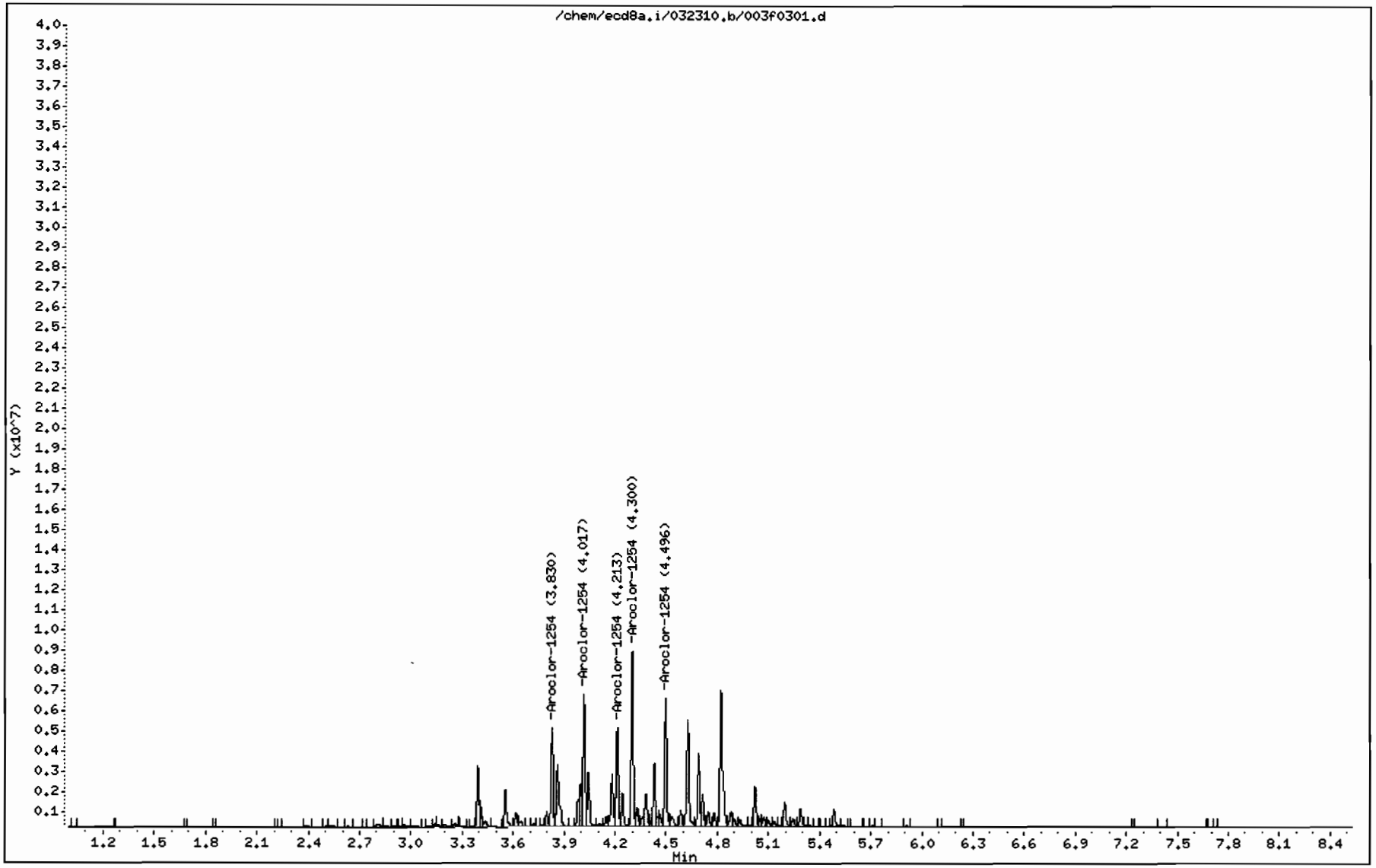

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 23-MAR-2010 08:34
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100219-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.301	4.301	0.000	3312879	1000.00	1060	80.00- 120.00	100.00
4.440	4.440	0.000	3709561	1000.00	1070	91.97- 131.97	111.97
4.769	4.769	0.000	5255007	1000.00	1090	138.62- 178.62	158.62
4.931	4.931	0.000	3762160	1000.00	1080	93.56- 133.56	113.56
5.057	5.057	0.000	2353978	1000.00	1070	51.06- 91.06	71.06

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd8a.i/032310.b/003b0301.d

Date : 23-MAR-2010 08:34

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

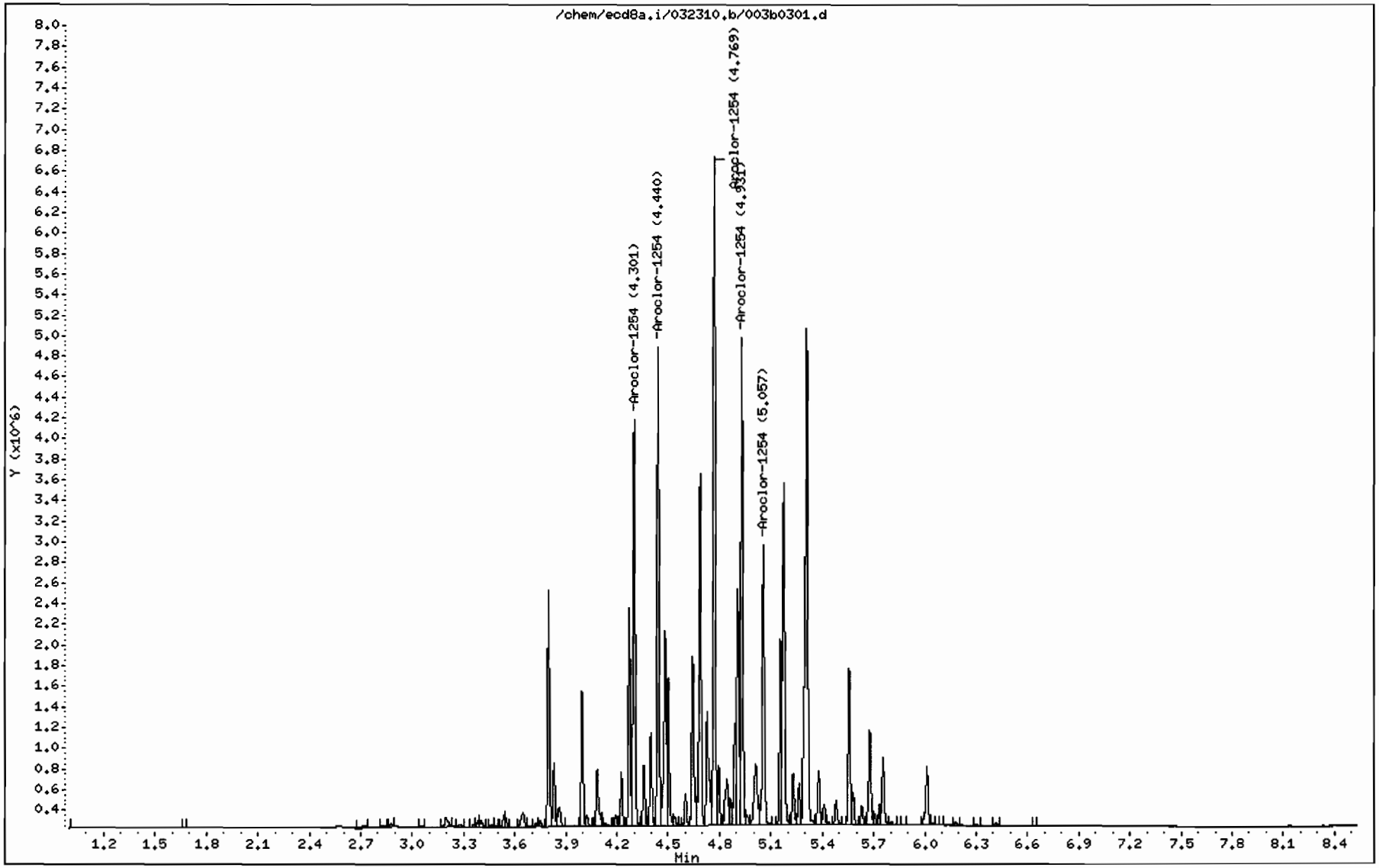

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 23-MAR-2010 08:46
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 14:46 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.806	2.806	0.000	3840147	1000.00	966	80.00- 120.00	100.00
3.157	3.157	0.000	4639711	1000.00	967	100.82- 140.82	120.82
3.393	3.393	0.000	1693716	1000.00	938	24.11- 64.11	44.11
3.410	3.410	0.000	1789282	1000.00	947	26.59- 66.59	46.59
3.556	3.556	0.000	2521270	1000.00	953	45.66- 85.66	65.66
		Average of Peak Amounts =			954		

Data File: /chem/ecd8a.i/032310.b/004f0401.d

Page 1

Date : 23-MAR-2010 08:46

Client ID: AR124201

Instrument: ecd8a.i

Sample Info: IWAR091217-42

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

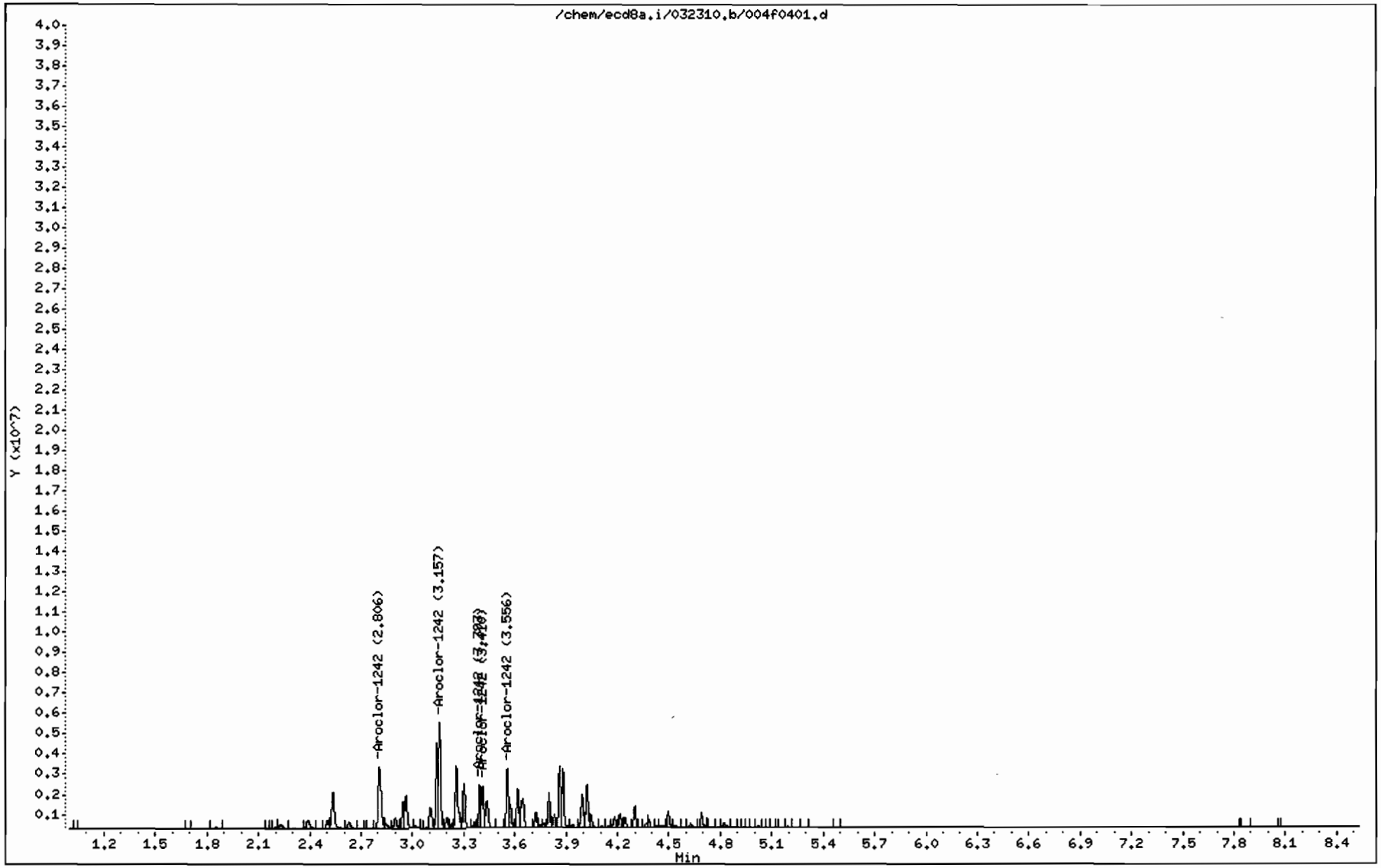

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 23-MAR-2010 08:46
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.196	3.196	0.000	2760376	1000.00	1030	80.00- 120.00	100.00
3.548	3.548	0.000	3278645	1000.00	1050	98.78- 138.78	118.78
3.648	3.648	0.000	2184772	1000.00	1030	59.15- 99.15	79.15
3.995	3.995	0.000	1734065	1000.00	1020	42.82- 82.82	62.82
4.084	4.084	0.000	1612745	1000.00	1030	38.42- 78.42	58.42

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd8a.i/032310.b/004b0401.d
Date : 23-MAR-2010 08:46
Client ID: AR124201
Sample Info: IWAR091217-42

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

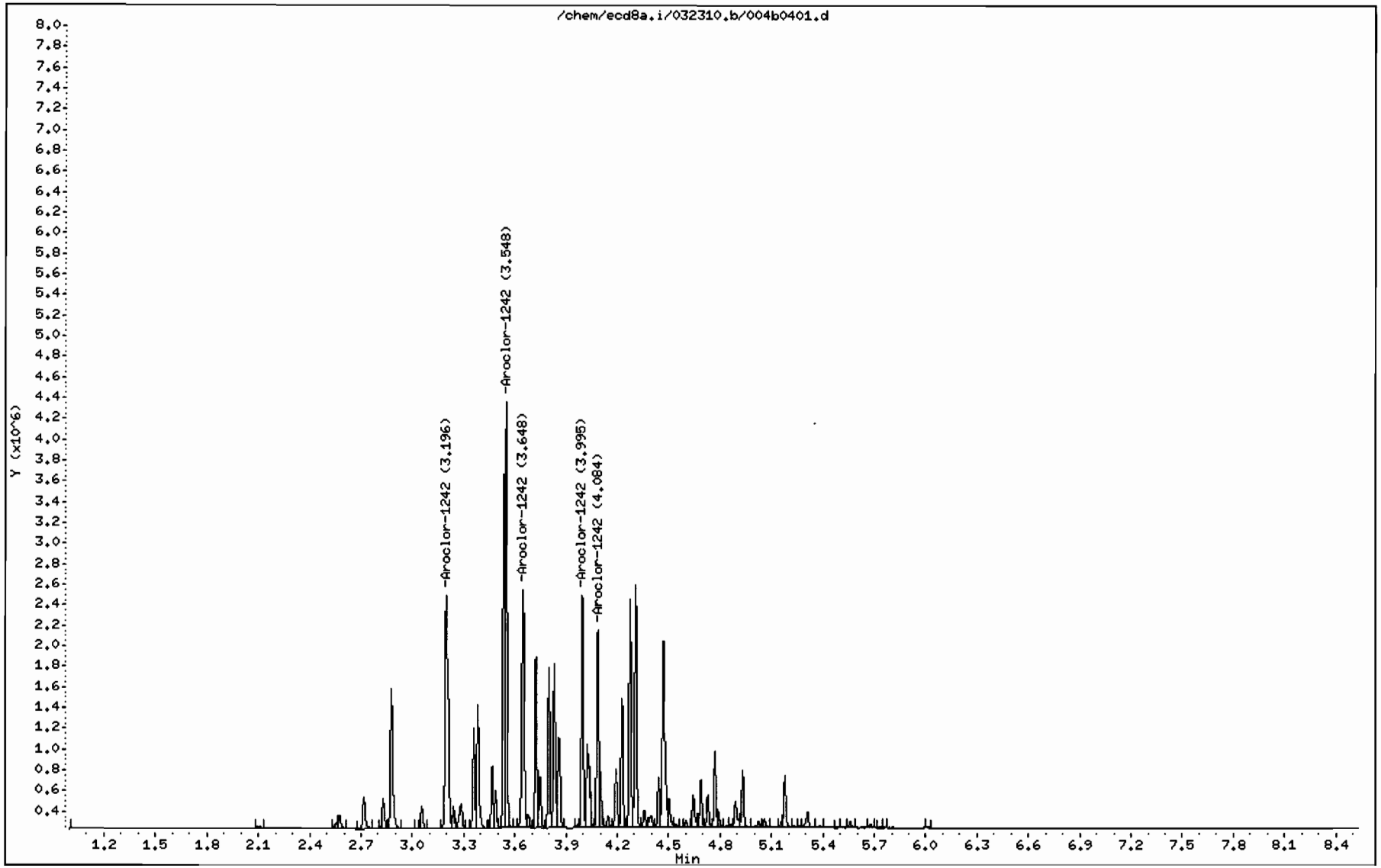

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 23-MAR-2010 08:59
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100223-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.143	3.143	0.000	2512808	1000.00	924	80.00- 120.00	100.00
3.392	3.392	0.000	3268730	1000.00	961	110.08- 150.08	130.08
3.555	3.555	0.000	4190216	1000.00	959	146.75- 186.75	166.75
3.860	3.860	0.000	5007690	1000.00	954	179.29- 219.29	199.29
4.020	4.020	0.000	3933750	1000.00	934	136.55- 176.55	156.55
Average of Peak Amounts =					946		

Data File: /chem/ecd8a.i/032310.b/005f0501.d

Date : 23-MAR-2010 08:59

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

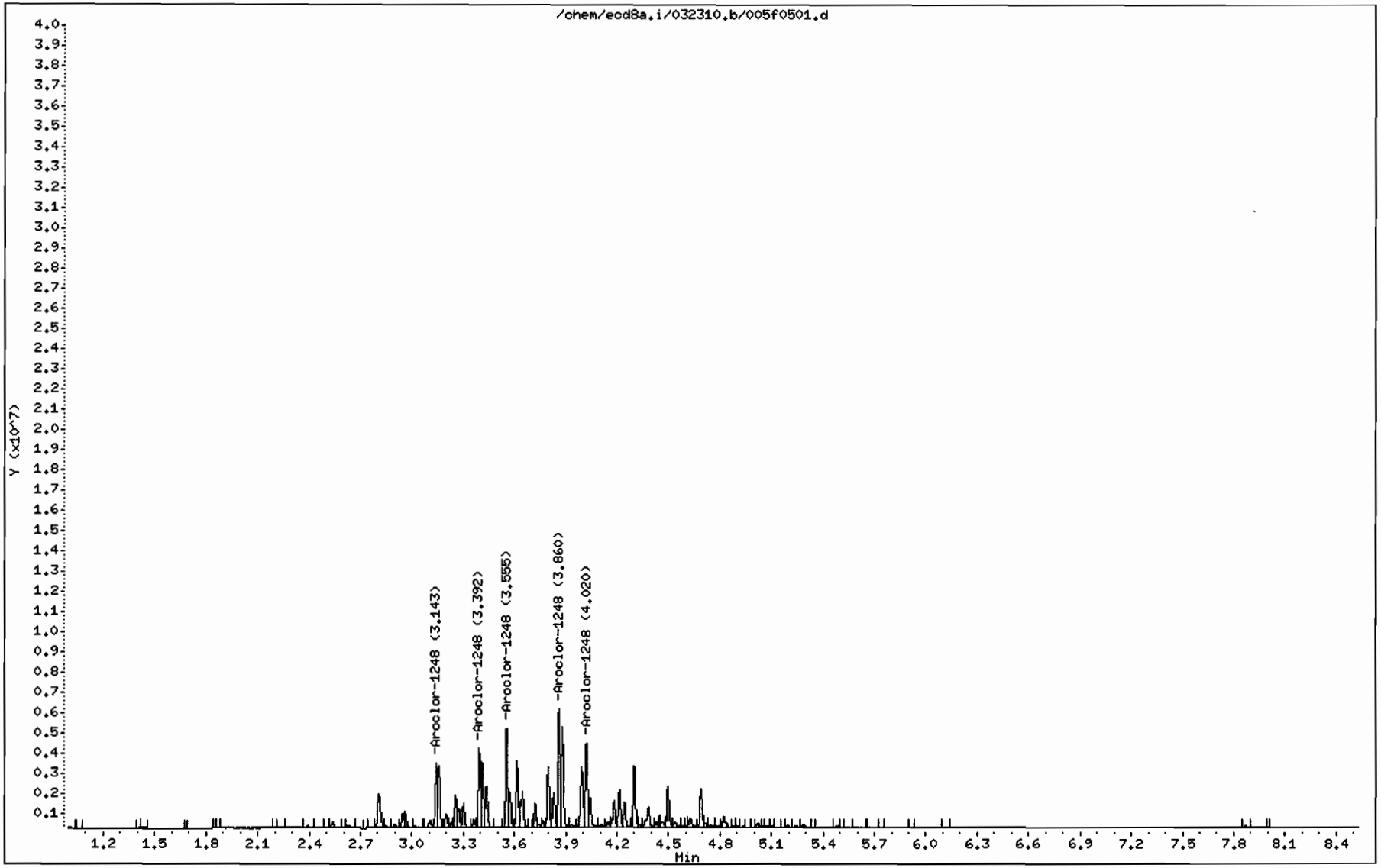

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 23-MAR-2010 08:59
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100223-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.646	3.646	0.000	1335703	1000.00	1000	80.00- 120.00	100.00
3.798	3.798	0.000	2421805	1000.00	1080	161.31- 201.31	181.31
3.994	3.994	0.000	3054451	1000.00	1090	208.68- 248.68	228.68
4.272	4.272	0.000	3538646	1000.00	1080	244.93- 284.93	264.93
4.305	4.305	0.000	3916908	1000.00	1090	273.25- 313.25	293.25

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd8a.i/032310.b/005b0501.d

Date : 23-MAR-2010 08:59

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

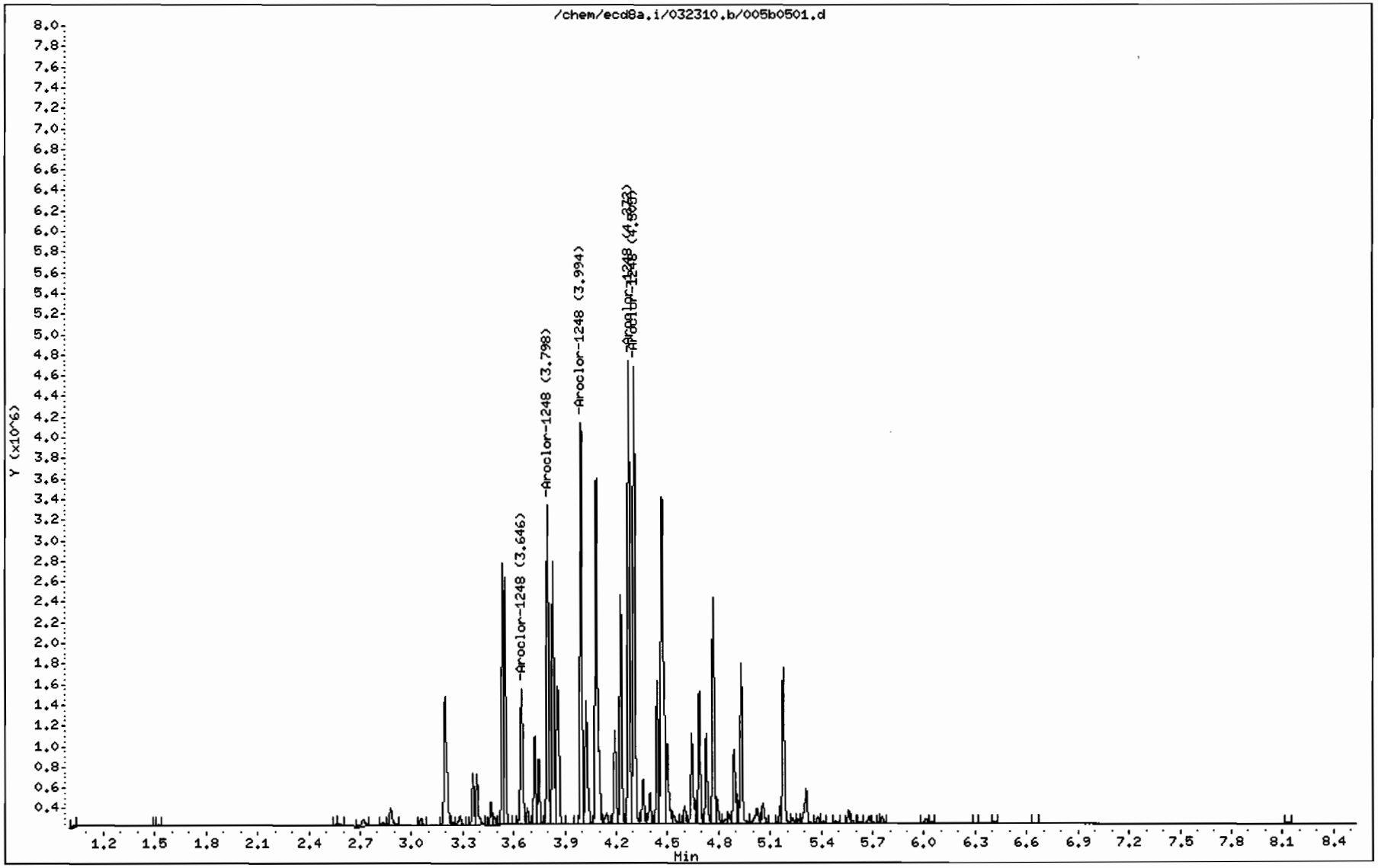

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 23-MAR-2010 09:11
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.535	2.535	0.000	2708474	1000.00	1040	80.00- 120.00	100.00
2.806	2.806	0.000	2297537	1000.00	1020	64.83- 104.83	84.83
3.301	3.301	0.000	1211921	1000.00	975	24.75- 64.75	44.75
3.555	3.555	0.000	1456816	1000.00	985	33.79- 73.79	53.79
3.617	3.617	0.000	882284	1000.00	956	12.57- 52.57	32.57
Average of Peak Amounts =					995		

Data File: /chem/ecd8a.i/032310.b/006f0601.d

Page 1

Date : 23-MAR-2010 09:11

Client ID: AR123201

Instrument: ecd8a.i

Sample Info: IWAR100104-32

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

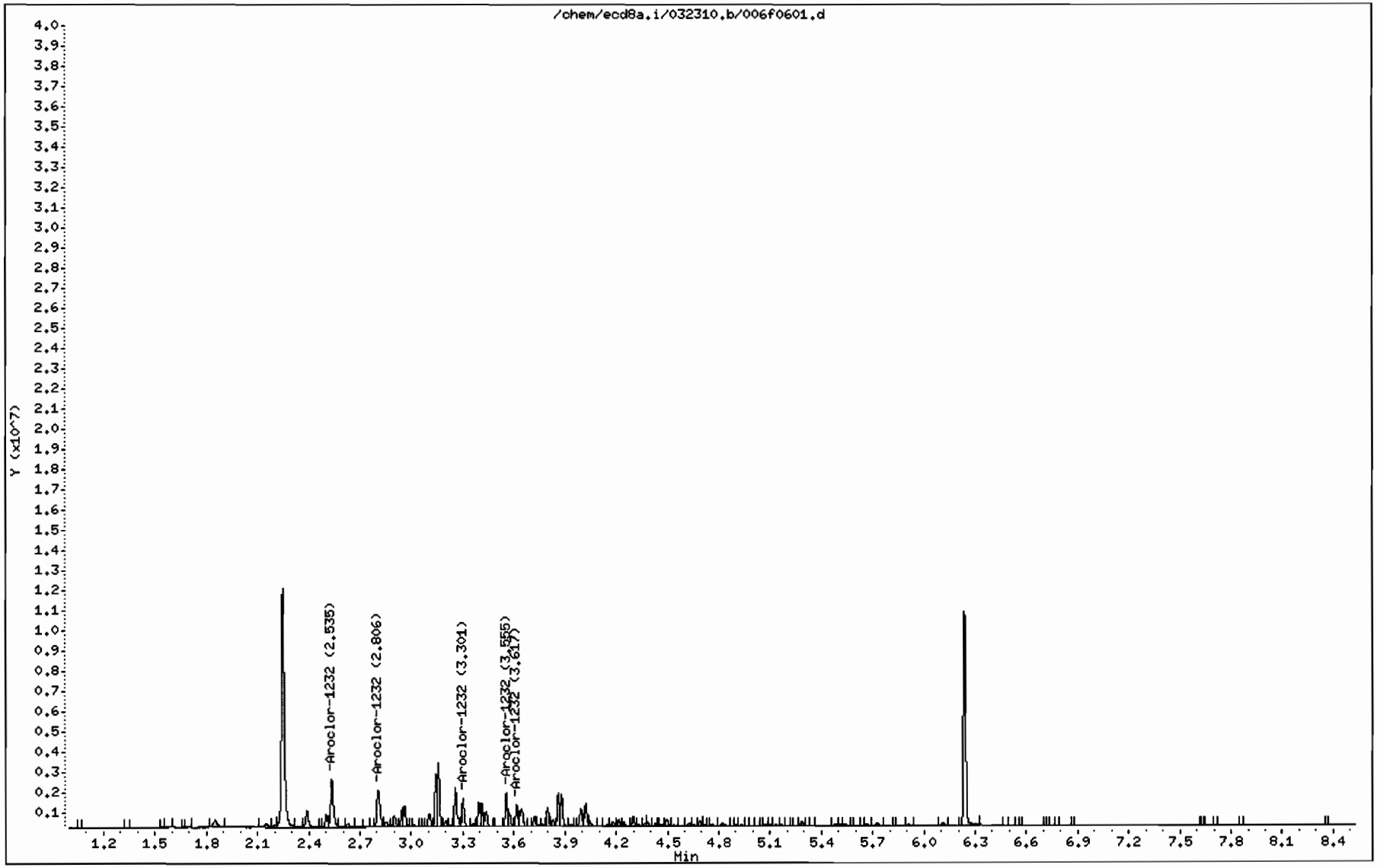

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 23-MAR-2010 09:11
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
3.195	3.195	0.000	1702408	1000.00	1120	80.00- 120.00	100.00
3.548	3.548	0.000	1923574	1000.00	1100	92.99- 132.99	112.99
3.648	3.648	0.000	1312323	1000.00	1120	57.09- 97.09	77.09
3.723	3.723	0.000	788615	1000.00	1110	26.32- 66.32	46.32
3.798	3.798	0.000	681169	1000.00	1100	20.01- 60.01	40.01

Average of Peak Amounts = 1.11e+03

Data File: /chem/ecd8a.i/032310.b/006b0601.d
Date : 23-MAR-2010 09:11
Client ID: AR123201
Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

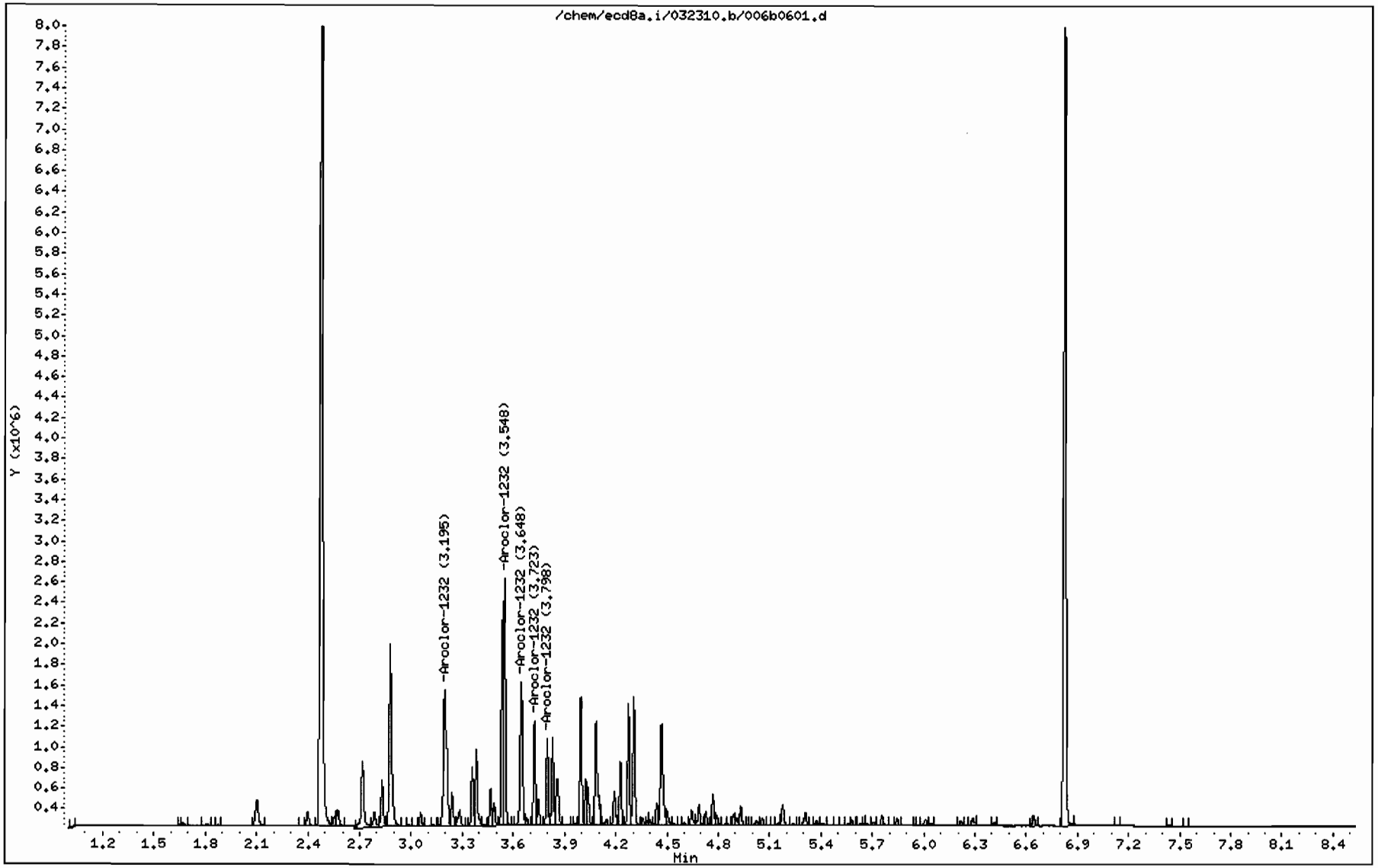

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 23-MAR-2010 09:23
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.389	2.389	0.000	1570477	1000.00	1000	80.00- 120.00	100.00
2.503	2.503	0.000	909439	1000.00	993	37.91- 77.91	57.91
2.534	2.534	0.000	3510933	1000.00	982	203.56- 243.56	223.56
Average of Peak Amounts =					993		

Data File: /chem/ecd8a.i/032310.b/007f0701.d

Date : 23-MAR-2010 09:23

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

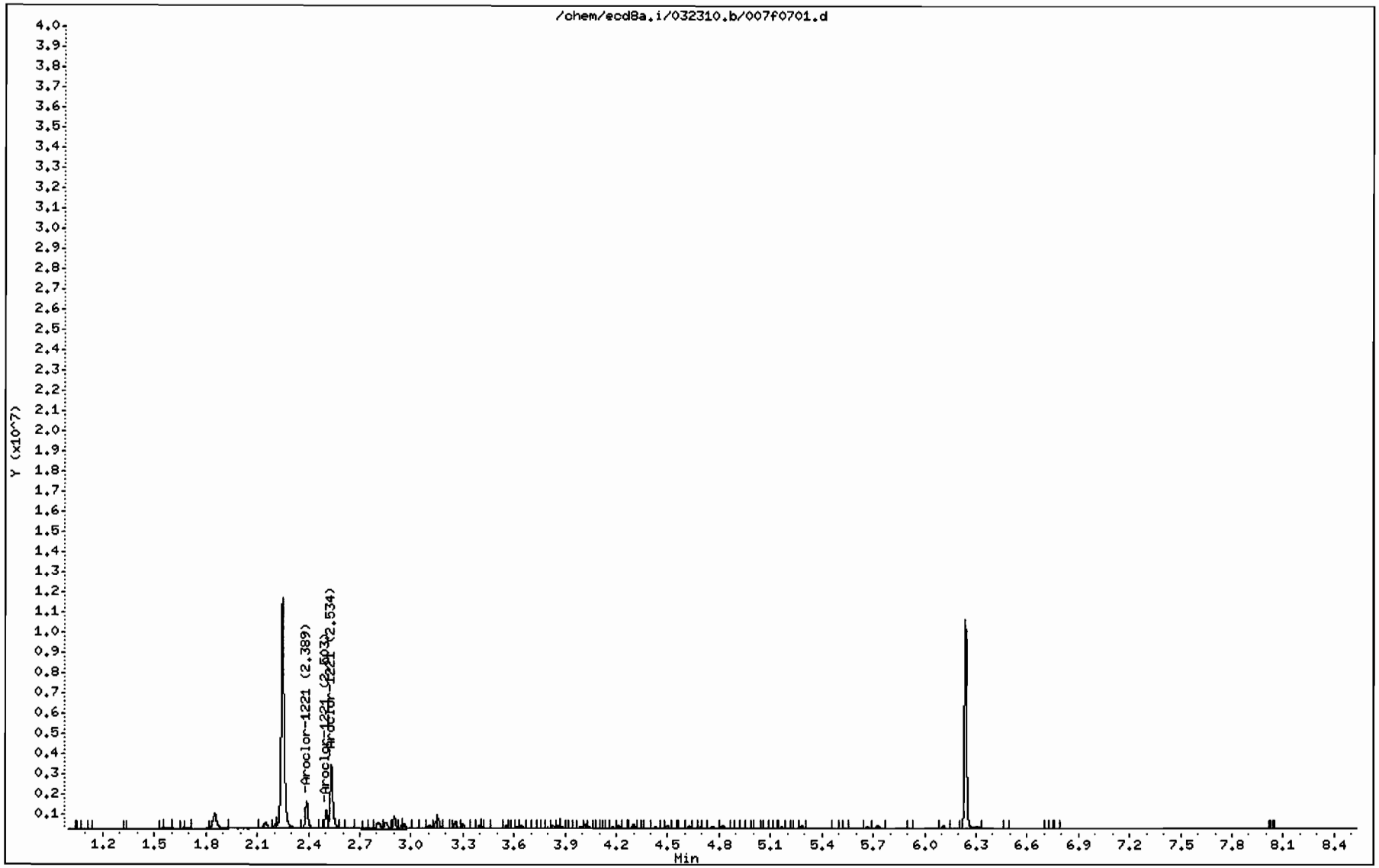

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 23-MAR-2010 09:23
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.717	2.717	0.000	1097982	1000.00	1160	80.00- 120.00	100.00
2.829	2.829	0.000	655989	1000.00	1110	39.74- 79.74	59.74
2.877	2.877	0.000	2379444	1000.00	1090	196.71- 236.71	216.71

Average of Peak Amounts = 1.12e+03

Data File: /chem/ecd8a.i/032310.b/007b0701.d
Date : 23-MAR-2010 09:23
Client ID: AR122101
Sample Info: IWAR100104-21

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

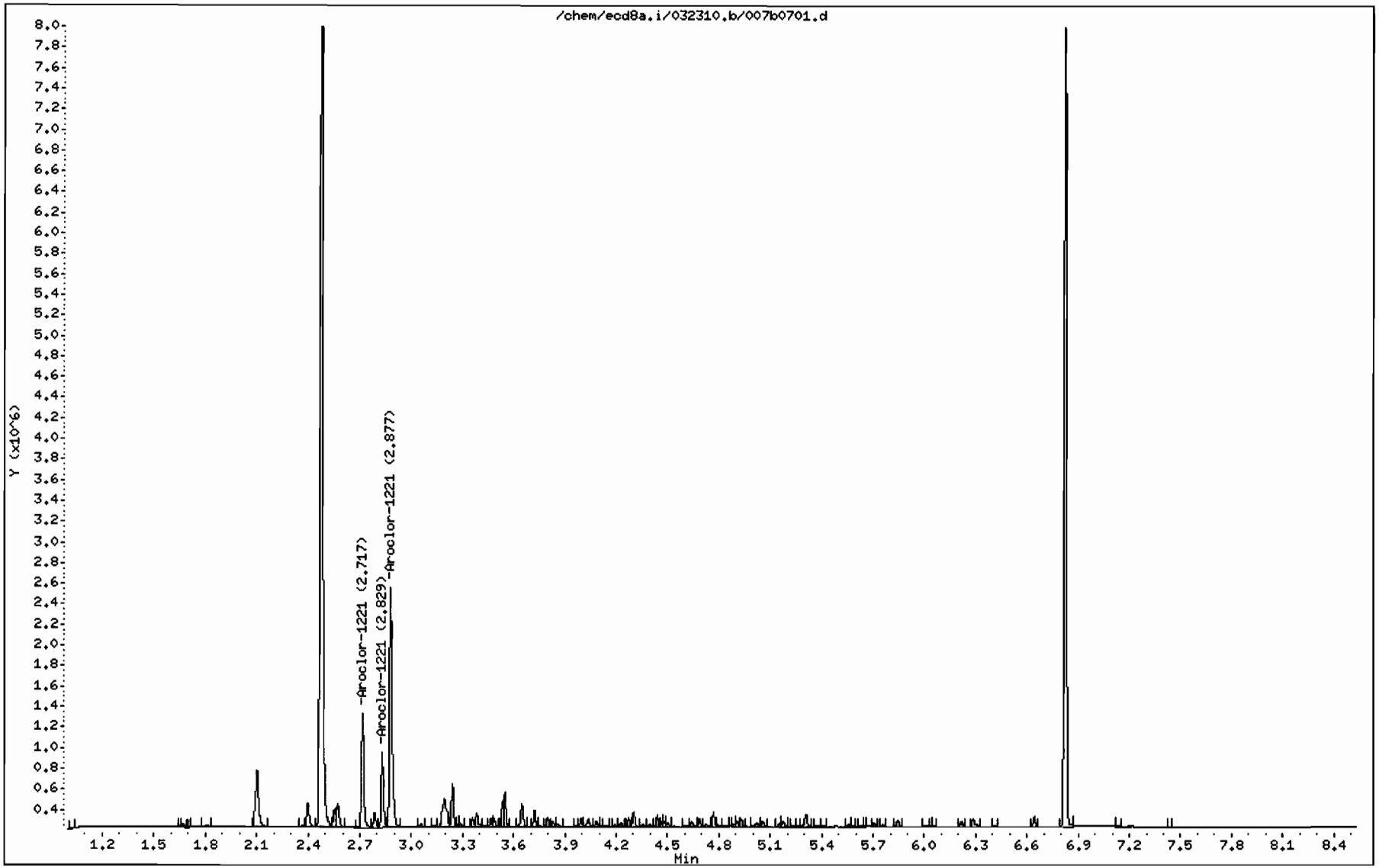

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/019f1901.d
Lab Smp Id: WAR100224-60 02 Client Smp ID: AR166002
Inj Date : 23-MAR-2010 12:01
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 02
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.250	2.248	0.002	12557624	100.000	100	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.240	6.240	0.000	8488752	100.000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.806	2.806	0.000	4188230	1000.00	878	80.00- 120.00	100.00
3.158	3.157	0.001	5213561	1000.00	966	104.48- 144.48	124.48
3.301	3.301	0.000	2188215	1000.00	930	32.25- 72.25	52.25
3.394	3.393	0.001	1921200	1000.00	877	25.87- 65.87	45.87
3.555	3.555	0.000	2770682	1000.00	900	46.15- 86.15	66.15
Average of Peak Amounts =					910		
7 Aroclor-1260					CAS #: 11096-82-5		
4.430	4.429	0.001	5694698	1000.00	967	80.00- 120.00	100.00
4.625	4.625	0.000	8561344	1000.00	1010	130.34- 170.34	150.34
4.901	4.900	0.001	5038762	1000.00	994	68.48- 108.48	88.48
5.073	5.072	0.001	5300444	1000.00	995	73.08- 113.08	93.08
5.485	5.483	0.002	5859338	1000.00	1040	82.89- 122.89	102.89
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd8a.i/032310.b/019f1901.d
Date : 23-MAR-2010 12:01
Client ID: AR166002
Sample Info: IWAR100224-60 02

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

Column phase: CLP1

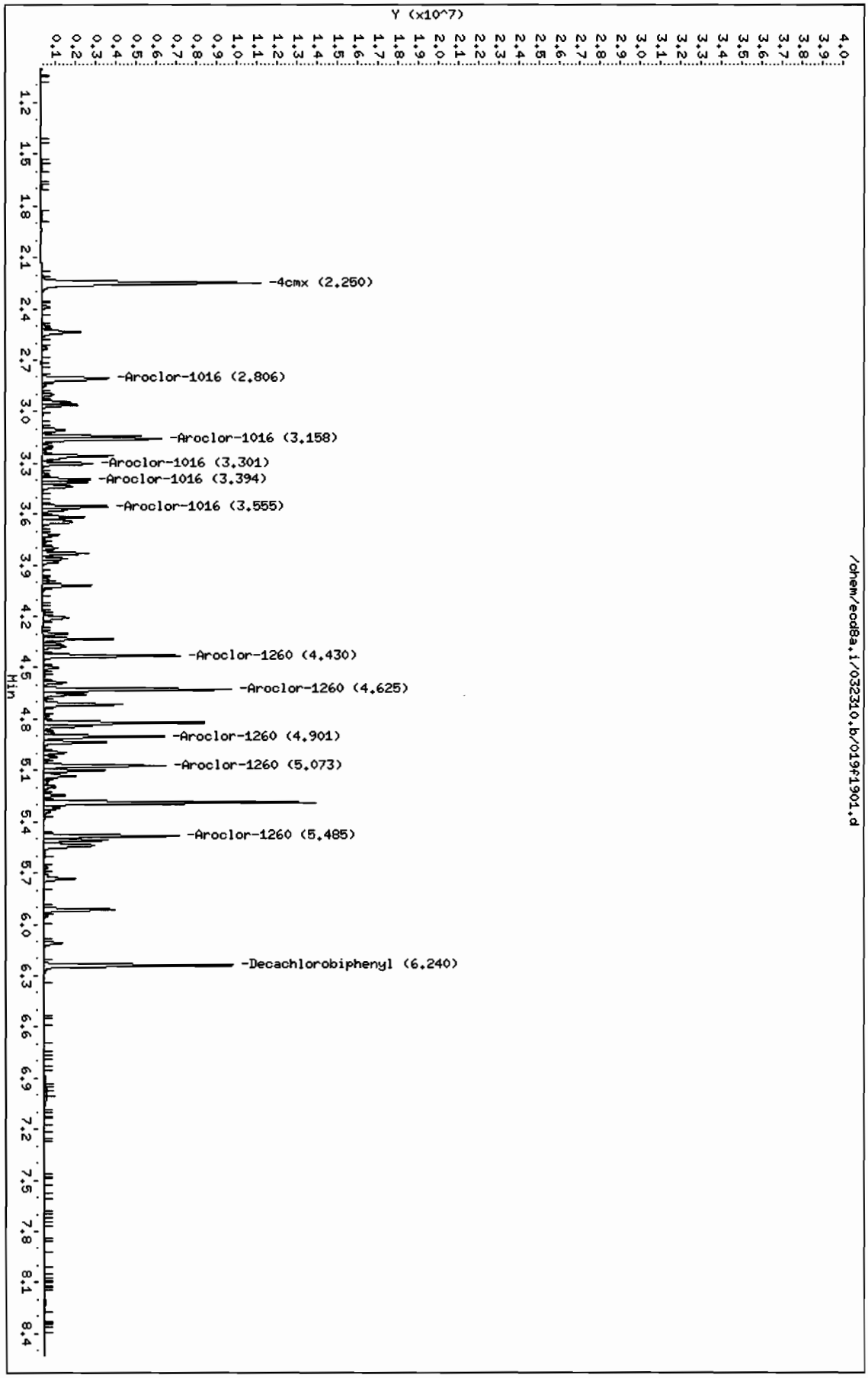

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/019b1901.d
Lab Smp Id: WAR100224-60 02 Client Smp ID: AR166002
Inj Date : 23-MAR-2010 12:01
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 02
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	8952772	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	6111338	100.000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.548	0.000	3750070	1000.00	1020	80.00- 120.00	100.00
3.647	3.647	0.000	2478563	1000.00	972	46.09- 86.09	66.09
3.724	3.723	0.001	1508121	1000.00	1010	20.22- 60.22	40.22
3.799	3.799	0.000	1443861	1000.00	977	18.50- 58.50	38.50
3.995	3.995	0.000	1995747	1000.00	986	33.22- 73.22	53.22
Average of Peak Amounts =					993		
7 Aroclor-1260					CAS #: 11096-82-5		
4.908	4.907	0.001	4152359	1000.00	1050	80.00- 120.00	100.00
5.057	5.056	0.001	5056096	1000.00	1070	101.76- 141.76	121.76
5.373	5.373	0.000	3778164	1000.00	1050	70.99- 110.99	90.99
5.580	5.580	0.000	4002289	1000.00	1080	76.39- 116.39	96.39
6.010	6.011	-0.001	6250415	1000.00	1070	130.53- 170.53	150.53
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd8a.i/032310.b/019b1901.d

Date : 23-MAR-2010 12:01

Client ID: AR166002

Sample Info: IWAR100224-60 02

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

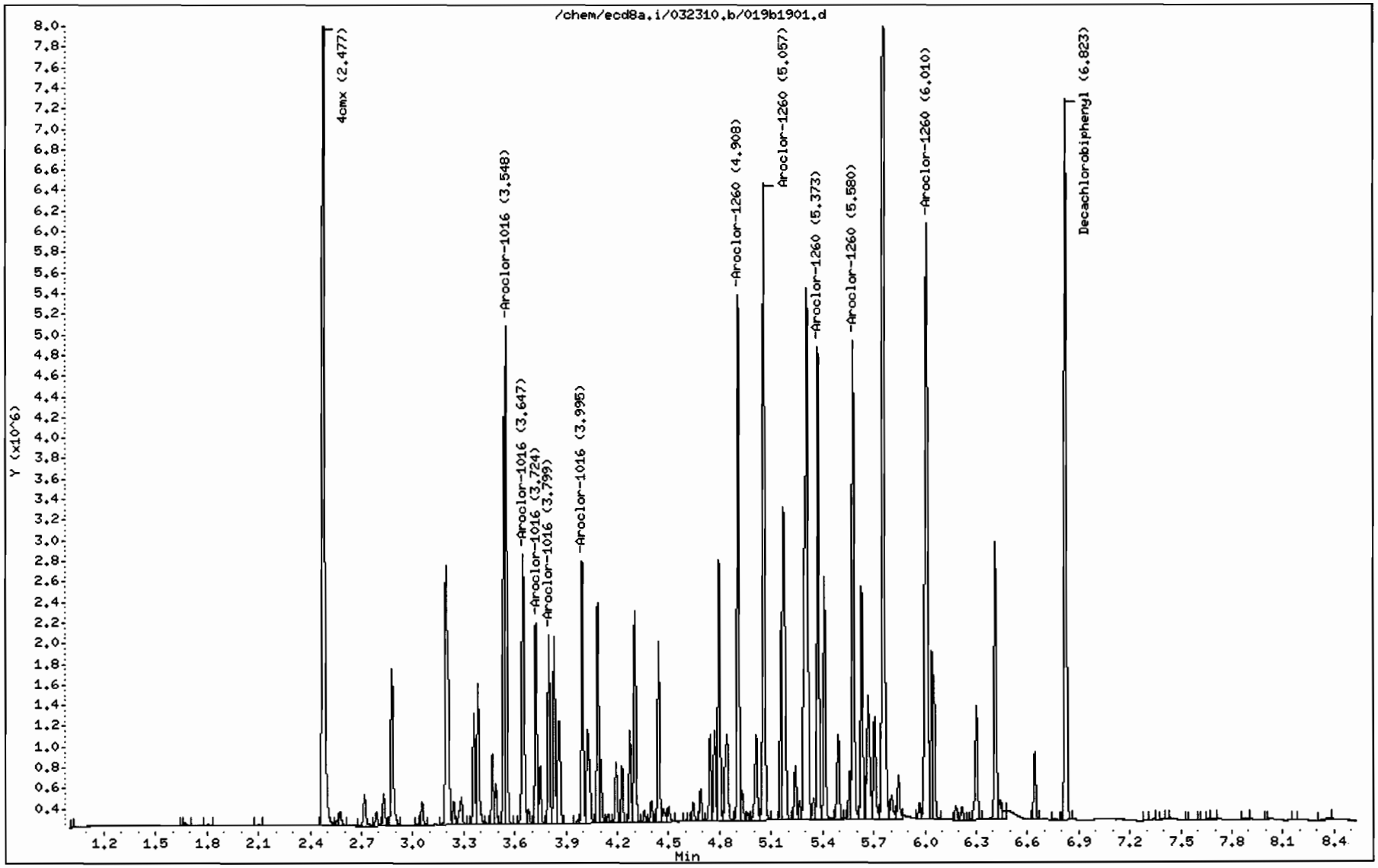

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/031f3101.d
Lab Smp Id: WAR100224-60 03 Client Smp ID: AR166003
Inj Date : 23-MAR-2010 14:38
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 03
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 14:48 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.247	2.248	-0.001	12730518	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.236	6.240	-0.004	8943328	100.000	109	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.803	2.806	-0.003	4253348	1000.00	891	80.00- 120.00	100.00
3.154	3.157	-0.003	5344393	1000.00	990	105.65- 145.65	125.65
3.298	3.301	-0.003	2222770	1000.00	945	32.26- 72.26	52.26
3.390	3.393	-0.003	2002583	1000.00	914	27.08- 67.08	47.08
3.552	3.555	-0.003	2809397	1000.00	912	46.05- 86.05	66.05
Average of Peak Amounts =					931		
7 Aroclor-1260					CAS #: 11096-82-5		
4.426	4.429	-0.003	5831201	1000.00	990	80.00- 120.00	100.00
4.622	4.625	-0.003	8623549	1000.00	1020	127.89- 167.89	147.89
4.897	4.900	-0.003	5100013	1000.00	1010	67.46- 107.46	87.46
5.069	5.072	-0.003	5507513	1000.00	1030	74.45- 114.45	94.45
5.480	5.483	-0.003	6022391	1000.00	1070	83.28- 123.28	103.28
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd8a.i/032310.b/031f3101.d
Date : 23-MAR-2010 14:38
Client ID: AR166003
Sample Info: IWAR100224-60 03

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

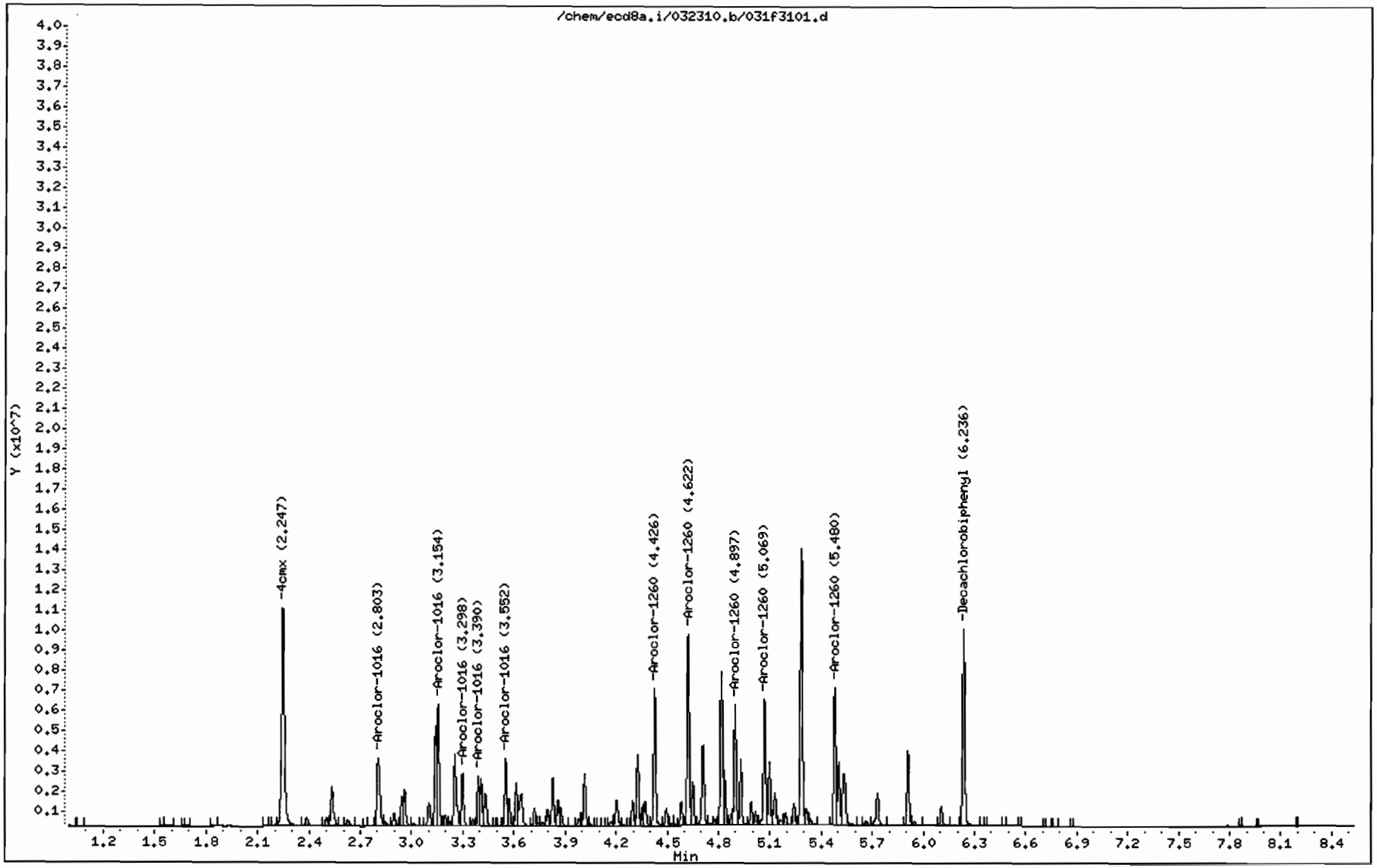

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/031b3101.d
Lab Smp Id: WAR100224-60 03 Client Smp ID: AR166003
Inj Date : 23-MAR-2010 14:38
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 03
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 14:47 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.475	2.476	-0.001	9022304	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.824	-0.002	6588872	100.000	111	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.546	3.548	-0.002	3823176	1000.00	1040	80.00- 120.00	100.00
3.645	3.647	-0.002	2501018	1000.00	980	45.42- 85.42	65.42
3.722	3.723	-0.001	1515874	1000.00	1020	19.65- 59.65	39.65
3.797	3.799	-0.002	1456489	1000.00	986	18.10- 58.10	38.10
3.993	3.995	-0.002	1992410	1000.00	984	32.11- 72.11	52.11
Average of Peak Amounts =					1e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.905	4.907	-0.002	4274803	1000.00	1080	80.00- 120.00	100.00
5.054	5.056	-0.002	5217673	1000.00	1100	102.06- 142.06	122.06
5.371	5.373	-0.002	3927164	1000.00	1090	71.87- 111.87	91.87
5.578	5.580	-0.002	4092848	1000.00	1100	75.74- 115.74	95.74
6.009	6.011	-0.002	6569408	1000.00	1120	133.68- 173.68	153.68
Average of Peak Amounts =					1.1e+03		

Data File: /chem/ecd8a.i/032310.b/031b3101.d

Date : 23-MAR-2010 14:38

Client ID: AR166003

Sample Info: IWAR100224-60 03

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

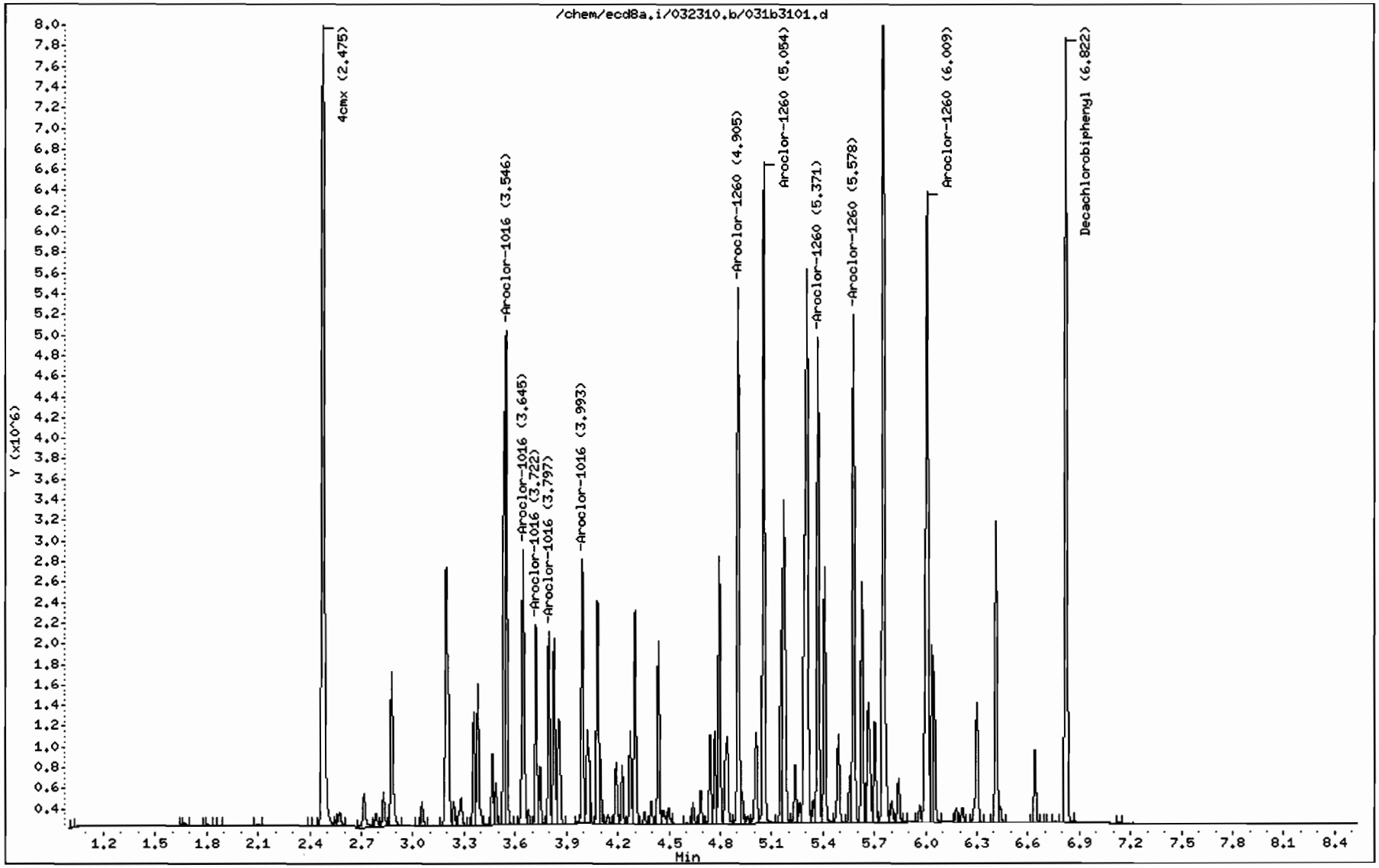

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/043f4301.d
Lab Smp Id: WAR100224-60 04 Client Smp ID: AR166004
Inj Date : 23-MAR-2010 17:15
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 04
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 43 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.247	2.248	-0.001	13079492	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.236	6.240	-0.004	9137969	100.000	111	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.804	2.806	-0.002	4387960	1000.00	919	80.00- 120.00	100.00
3.154	3.157	-0.003	5481408	1000.00	1020	106.71- 146.71	124.92
3.298	3.301	-0.003	2281308	1000.00	970	32.91- 72.91	51.99
3.390	3.393	-0.003	2015891	1000.00	920	26.61- 66.61	45.94
3.552	3.555	-0.003	2919035	1000.00	948	47.49- 87.49	66.52
Average of Peak Amounts =					955		
7 Aroclor-1260					CAS #: 11096-82-5		
4.425	4.429	-0.004	5916917	1000.00	1000	80.00- 120.00	100.00
4.622	4.625	-0.003	8852494	1000.00	1040	127.82- 167.82	149.61
4.897	4.900	-0.003	5234355	1000.00	1030	67.21- 107.21	88.46
5.069	5.072	-0.003	5645987	1000.00	1060	73.14- 113.14	95.42
5.480	5.483	-0.003	6224889	1000.00	1100	79.68- 119.68	105.20
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd8a.i/032310.b/043f4301.d

Page 1

Date : 23-MAR-2010 17:15

Client ID: AR166004

Instrument: ecd8a.i

Sample Info: IWAR100224-60 04

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

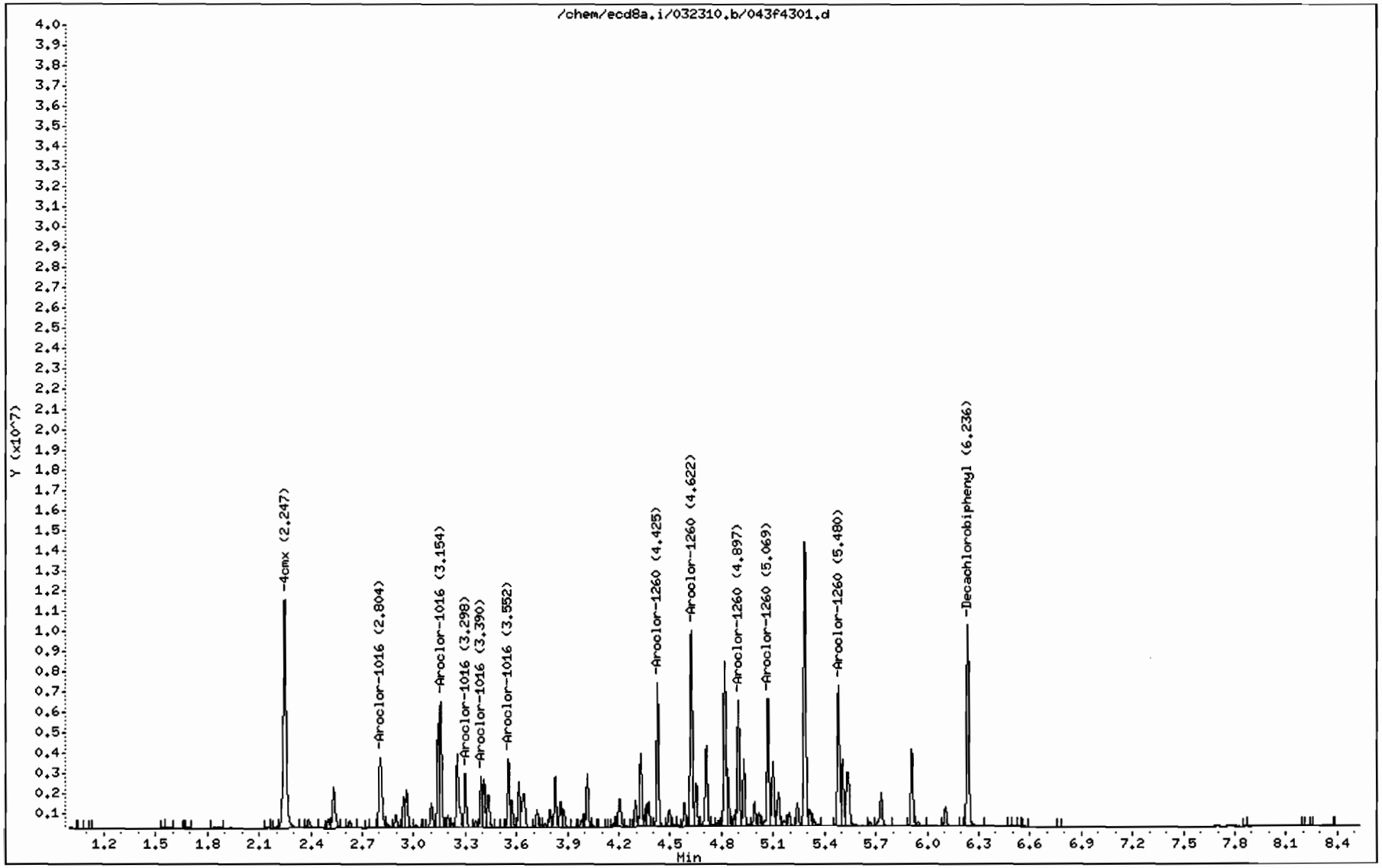

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/043b4301.d
Lab Smp Id: WAR100224-60 04 Client Smp ID: AR166004
Inj Date : 23-MAR-2010 17:15
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 04
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 43 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.476	0.000	9221998	100.000	110	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.821	6.824	-0.003	6735847	100.000	114	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.546	3.548	-0.002	4067387	1000.00	1100	80.00- 120.00	100.00
3.646	3.647	-0.001	2587933	1000.00	1010	44.17- 84.17	63.63
3.721	3.723	-0.002	1572936	1000.00	1050	19.13- 59.13	38.67
3.796	3.799	-0.003	1509202	1000.00	1020	17.45- 57.45	37.10
3.993	3.995	-0.002	2071776	1000.00	1020	31.97- 71.97	50.94
Average of Peak Amounts =					1.04e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.906	4.907	-0.001	4442130	1000.00	1130	80.00- 120.00	100.00
5.054	5.056	-0.002	5425637	1000.00	1150	102.64- 142.64	122.14
5.371	5.373	-0.002	4075253	1000.00	1140	72.26- 112.26	91.74
5.578	5.580	-0.002	4236399	1000.00	1140	76.20- 116.20	95.37
6.009	6.011	-0.002	6803558	1000.00	1160	134.50- 174.50	153.16
Average of Peak Amounts =					1.14e+03		

Data File: /chem/ecd8a.i/032310.b/043b4301.d
Date : 23-MAR-2010 17:15
Client ID: AR166004
Sample Info: IWAR100224-60 04

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

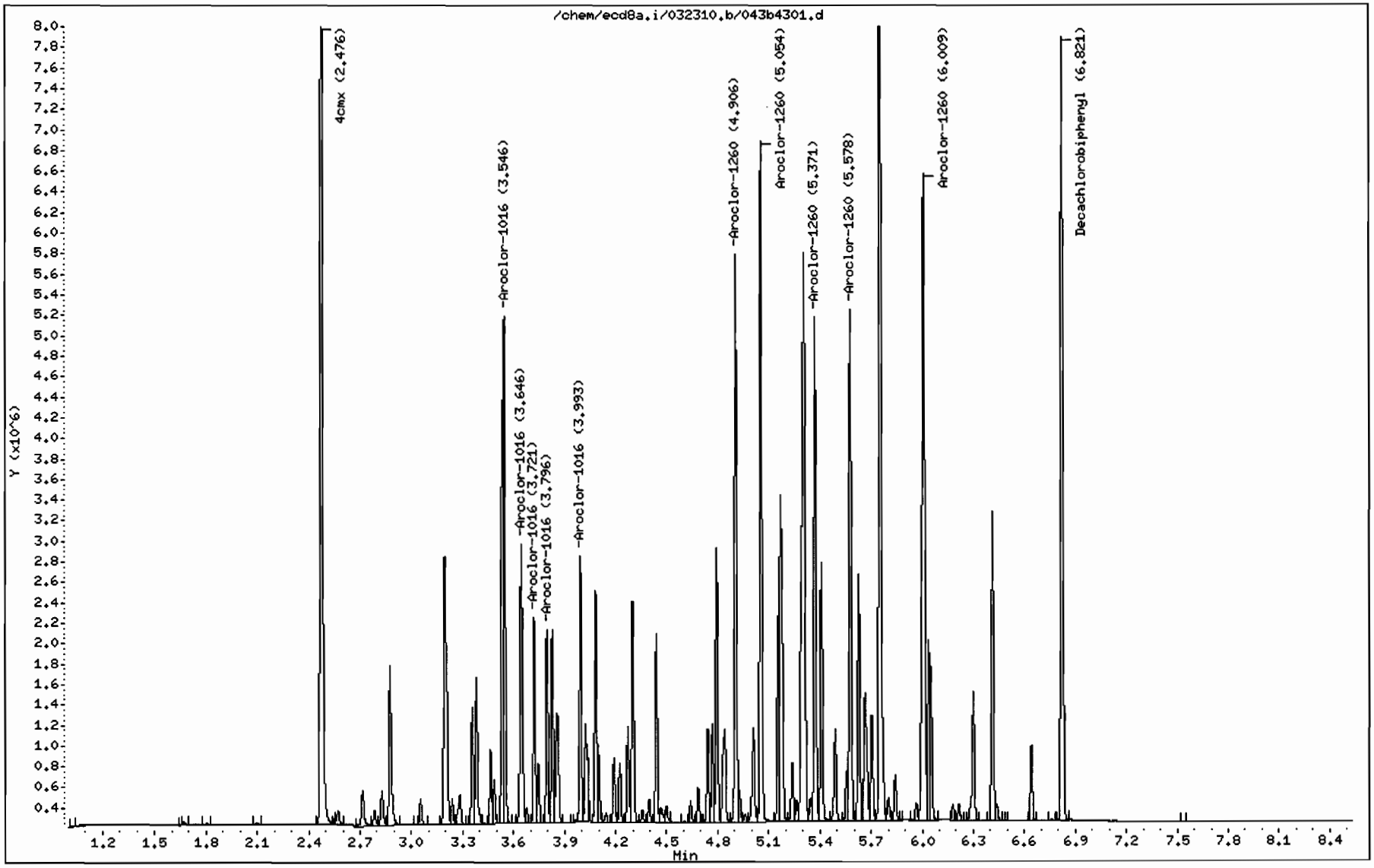

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2430

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/09/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/09/10	0759	2.25	6.24
02	ZZZZZ	ZZZZZ	03/09/10	0811	2.25	6.24
03	ZZZZZ	ZZZZZ	03/09/10	0824		
04	AR124201	WAR091217-42	03/09/10	0836		
05	ZZZZZ	ZZZZZ	03/09/10	0848		
06	AR166001	WAR100309-60	03/09/10	0908	2.25	6.24
07	AR125401	WAR100309-05	03/09/10	0927		
08	AR125402	WAR100309-06	03/09/10	0939		
09	AR125403	WAR100309-07	03/09/10	0951		
10	AR125404	WAR100309-08	03/09/10	1004		
11	AR125405	IAR100219-02	03/09/10	1016		
12	AR125401	WAR100201-54	03/09/10	1029		
13	AR124801	WAR100309-09	03/09/10	1041		
14	AR124802	WAR100309-10	03/09/10	1053		
15	AR124803	WAR100309-11	03/09/10	1105		
16	AR124804	WAR100309-12	03/09/10	1118		
17	AR124805	IAR100211-01	03/09/10	1130		
18	AR124801	WAR091217-48	03/09/10	1143		
19	AR123201	WAR100104-32	03/09/10	1155		
20	AR122101	WAR100104-21	03/09/10	1207		
21	AR126201	WAR100104-62	03/09/10	1220		
22	AR126801	WAR100107-68	03/09/10	1232		
23	DDTANALOGSTD	WAR091219-DD	03/09/10	1244		
24	PIBLK02	WAR100219-99	03/09/10	1257	2.25	6.24
25	ZZZZZ	ZZZZZ	03/09/10	1309	2.25	6.24
26	AR166002	WAR100309-60	03/09/10	1322	2.25	6.24
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2430

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/09/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/09/10	0759	2.48	6.83
02	ZZZZZ	ZZZZZ	03/09/10	0811	2.48	6.83
03	ZZZZZ	ZZZZZ	03/09/10	0824		
04	AR124201	WAR091217-42	03/09/10	0836		
05	ZZZZZ	ZZZZZ	03/09/10	0848		
06	AR166001	WAR100309-60	03/09/10	0908	2.48	6.83
07	AR125401	WAR100309-05	03/09/10	0927		
08	AR125402	WAR100309-06	03/09/10	0939		
09	AR125403	WAR100309-07	03/09/10	0951		
10	AR125404	WAR100309-08	03/09/10	1004		
11	AR125405	IAR100219-02	03/09/10	1016		
12	AR125401	WAR100201-54	03/09/10	1029		
13	AR124801	WAR100309-09	03/09/10	1041		
14	AR124802	WAR100309-10	03/09/10	1053		
15	AR124803	WAR100309-11	03/09/10	1105		
16	AR124804	WAR100309-12	03/09/10	1118		
17	AR124805	IAR100211-01	03/09/10	1130		
18	AR124801	WAR091217-48	03/09/10	1143		
19	AR123201	WAR100104-32	03/09/10	1155		
20	AR122101	WAR100104-21	03/09/10	1207		
21	AR126201	WAR100104-62	03/09/10	1220		
22	AR126801	WAR100107-68	03/09/10	1232		
23	DDTANALOGSTD	WAR091219-DD	03/09/10	1244		
24	PIBLK02	WAR100219-99	03/09/10	1257	2.48	6.83
25	ZZZZZ	ZZZZZ	03/09/10	1309	2.48	6.83
26	AR166002	WAR100309-60	03/09/10	1322	2.48	6.83
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2430

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/18/10	0613	2.25	6.24
02	AR166001	WAR100317-01	03/18/10	0625	2.25	6.24
03	AR166002	WAR100317-02	03/18/10	0638	2.25	6.24
04	AR166003	WAR100317-03	03/18/10	0650	2.25	6.24
05	AR166004	WAR100317-04	03/18/10	0702	2.25	6.24
06	AR166005	IAR100311-01	03/18/10	0715	2.25	6.24
07	AR166001	WAR100224-60	03/18/10	0727	2.25	6.24
08	AR125401	WAR100201-54	03/18/10	0739		
09	AR124201	WAR091217-42	03/18/10	0752		
10	AR124801	WAR091217-48	03/18/10	0804		
11	AR123201	WAR100104-32	03/18/10	0817		
12	AR122101	WAR100104-21	03/18/10	0829		
13	AR126201	WAR100104-62	03/18/10	0841		
14	AR126801	WAR100107-68	03/18/10	0854		
15	DDTANALOGSTD	WAR091219-DD	03/18/10	0906		
16	PIBLK02	WAR100219-99	03/18/10	0919	2.25	6.24
17	ZZZZZ	ZZZZZ	03/18/10	0931	2.25	6.24
18	ZZZZZ	ZZZZZ	03/18/10	0943	2.25	6.24
19	ZZZZZ	ZZZZZ	03/18/10	0955	2.25	6.24
20	ZZZZZ	ZZZZZ	03/18/10	1008	2.25	6.24
21	ZZZZZ	ZZZZZ	03/18/10	1020	2.25	6.24
22	ZZZZZ	ZZZZZ	03/18/10	1033	2.25	6.25
23	ZZZZZ	ZZZZZ	03/18/10	1045	2.25	6.24
24	ZZZZZ	ZZZZZ	03/18/10	1057	2.25	6.24
25	ZZZZZ	ZZZZZ	03/18/10	1110	2.25	6.24
26	ZZZZZ	ZZZZZ	03/18/10	1122	2.25	6.25
27	AR166002	WAR100224-60	03/18/10	1139	2.25	6.24
28	PIBLK03	WAR100219-99	03/18/10	1151	2.25	6.24
29	ZZZZZ	ZZZZZ	03/18/10	1203	2.25	6.24
30	ZZZZZ	ZZZZZ	03/18/10	1216	2.25	6.29*
31	ZZZZZ	ZZZZZ	03/18/10	1228	2.25	6.26
32	ZZZZZ	ZZZZZ	03/18/10	1240	2.25	6.24

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2430

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/18/10	0613	2.48	6.82
02	AR166001	WAR100317-01	03/18/10	0625	2.48	6.83
03	AR166002	WAR100317-02	03/18/10	0638	2.48	6.83
04	AR166003	WAR100317-03	03/18/10	0650	2.48	6.83
05	AR166004	WAR100317-04	03/18/10	0702	2.48	6.83
06	AR166005	IAR100311-01	03/18/10	0715	2.48	6.83
07	AR166001	WAR100224-60	03/18/10	0727	2.48	6.83
08	AR125401	WAR100201-54	03/18/10	0739		
09	AR124201	WAR091217-42	03/18/10	0752		
10	AR124801	WAR091217-48	03/18/10	0804		
11	AR123201	WAR100104-32	03/18/10	0817		
12	AR122101	WAR100104-21	03/18/10	0829		
13	AR126201	WAR100104-62	03/18/10	0841		
14	AR126801	WAR100107-68	03/18/10	0854		
15	DDTANALOGSTD	WAR091219-DD	03/18/10	0906		
16	PIBLK02	WAR100219-99	03/18/10	0919	2.48	6.83
17	ZZZZZ	ZZZZZ	03/18/10	0931	2.48	6.83
18	ZZZZZ	ZZZZZ	03/18/10	0943	2.48	6.82
19	ZZZZZ	ZZZZZ	03/18/10	0955	2.48	6.82
20	ZZZZZ	ZZZZZ	03/18/10	1008	2.48	6.83
21	ZZZZZ	ZZZZZ	03/18/10	1020	2.48	6.83
22	ZZZZZ	ZZZZZ	03/18/10	1033	2.48	6.83
23	ZZZZZ	ZZZZZ	03/18/10	1045	2.48	6.83
24	ZZZZZ	ZZZZZ	03/18/10	1057	2.48	6.83
25	ZZZZZ	ZZZZZ	03/18/10	1110	2.48	6.83
26	ZZZZZ	ZZZZZ	03/18/10	1122	2.48	6.83
27	AR166002	WAR100224-60	03/18/10	1139	2.48	6.82
28	PIBLK03	WAR100219-99	03/18/10	1151	2.48	6.83
29	ZZZZZ	ZZZZZ	03/18/10	1203	2.48	6.83
30	ZZZZZ	ZZZZZ	03/18/10	1216	2.48	6.86*
31	ZZZZZ	ZZZZZ	03/18/10	1228	2.48	6.84
32	ZZZZZ	ZZZZZ	03/18/10	1240	2.48	6.83

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2430

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/23/10	0809	2.25	6.24
02	AR166001	WAR100224-60	03/23/10	0822	2.25	6.24
03	AR125401	WAR100219-54	03/23/10	0834		
04	AR124201	WAR091217-42	03/23/10	0846		
05	AR124801	WAR100223-48	03/23/10	0859		
06	AR123201	WAR100104-32	03/23/10	0911		
07	AR122101	WAR100104-21	03/23/10	0923		
08	AR126201	WAR100104-62	03/23/10	0936		
09	AR126801	WAR100107-68	03/23/10	0948		
10	DDTANALOGSTD	WAR091219-DD	03/23/10	1000		
11	PIBLK02	WAR100219-99	03/23/10	1013	2.25	6.24
12	ZZZZZ	ZZZZZ	03/23/10	1025	2.25	6.24
13	ZZZZZ	ZZZZZ	03/23/10	1037	2.25	6.24
14	ZZZZZ	ZZZZZ	03/23/10	1050	2.25	6.24
15	ZZZZZ	ZZZZZ	03/23/10	1102	2.25	6.24
16	ZZZZZ	ZZZZZ	03/23/10	1114	2.25	6.24
17	ZZZZZ	ZZZZZ	03/23/10	1127	2.25	6.24
18	ZZZZZ	ZZZZZ	03/23/10	1143	2.25	6.24
19	AR166002	WAR100224-60	03/23/10	1201	2.25	6.24
20	PIBLK03	WAR100219-99	03/23/10	1214	2.25	6.24
21	PBLK01	1202077524	03/23/10	1226	2.25	6.24
22	PBLK01LCS	1202077525	03/23/10	1238	2.25	6.24
23	ZZZZZ	ZZZZZ	03/23/10	1251	2.25	6.24
24	ZZZZZ	ZZZZZ	03/23/10	1303	2.25	6.24
25	ZZZZZ	ZZZZZ	03/23/10	1315	2.25	6.24
26	ZZZZZ	ZZZZZ	03/23/10	1328	2.25	6.24
27	ZZZZZ	ZZZZZ	03/23/10	1340	2.25	6.24
28	ZZZZZ	ZZZZZ	03/23/10	1352	2.25	6.24
29	RE46-10-13964	249329001	03/23/10	1405	2.25	6.24
30	RE46-10-13966	249329002	03/23/10	1421	2.25	6.24
31	AR166003	WAR100224-60	03/23/10	1438	2.25	6.24
32	PIBLK04	WAR100219-99	03/23/10	1450	2.25	6.24

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2430

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	RE46-10-13963	249329003	03/23/10	1503	2.25	6.24
02	RE46-10-13965	249329004	03/23/10	1515	2.25	6.24
03	ZZZZZ	ZZZZZ	03/23/10	1527	2.25	6.24
04	ZZZZZ	ZZZZZ	03/23/10	1540	2.25	6.24
05	ZZZZZ	ZZZZZ	03/23/10	1552	2.25	6.24
06	ZZZZZ	ZZZZZ	03/23/10	1604	2.25	6.24
07	ZZZZZ	ZZZZZ	03/23/10	1617	2.25	6.24
08	ZZZZZ	ZZZZZ	03/23/10	1629	2.25	6.24
09	ZZZZZ	ZZZZZ	03/23/10	1642	2.25	6.24
10	ZZZZZ	ZZZZZ	03/23/10	1658	2.25	6.24
11	AR166004	WAR100224-60	03/23/10	1715	2.25	6.24
12	PIBLK05	WAR100219-99	03/23/10	1727	2.25	6.24
13	ZZZZZ	ZZZZZ	03/23/10	1739	2.25	6.24
14	AR166005	WAR100224-60	03/23/10	1756	2.25	6.24
15	PIBLK06	WAR100219-99	03/23/10	1808	2.25	6.24
16						
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21						
22						
23						
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26						
27						
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29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2430

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/23/10	0809	2.48	6.82
02	AR166001	WAR100224-60	03/23/10	0822	2.48	6.82
03	AR125401	WAR100219-54	03/23/10	0834		
04	AR124201	WAR091217-42	03/23/10	0846		
05	AR124801	WAR100223-48	03/23/10	0859		
06	AR123201	WAR100104-32	03/23/10	0911		
07	AR122101	WAR100104-21	03/23/10	0923		
08	AR126201	WAR100104-62	03/23/10	0936		
09	AR126801	WAR100107-68	03/23/10	0948		
10	DDTANALOGSTD	WAR091219-DD	03/23/10	1000		
11	PIBLK02	WAR100219-99	03/23/10	1013	2.48	6.82
12	ZZZZZ	ZZZZZ	03/23/10	1025	2.48	6.82
13	ZZZZZ	ZZZZZ	03/23/10	1037	2.48	6.82
14	ZZZZZ	ZZZZZ	03/23/10	1050	2.48	6.82
15	ZZZZZ	ZZZZZ	03/23/10	1102	2.48	6.82
16	ZZZZZ	ZZZZZ	03/23/10	1114	2.48	6.82
17	ZZZZZ	ZZZZZ	03/23/10	1127	2.48	6.82
18	ZZZZZ	ZZZZZ	03/23/10	1143	2.48	6.82
19	AR166002	WAR100224-60	03/23/10	1201	2.48	6.82
20	PIBLK03	WAR100219-99	03/23/10	1214	2.48	6.82
21	PBLK01	1202077524	03/23/10	1226	2.48	6.82
22	PBLK01LCS	1202077525	03/23/10	1238	2.48	6.82
23	ZZZZZ	ZZZZZ	03/23/10	1251	2.48	6.82
24	ZZZZZ	ZZZZZ	03/23/10	1303	2.48	6.82
25	ZZZZZ	ZZZZZ	03/23/10	1315	2.48	6.82
26	ZZZZZ	ZZZZZ	03/23/10	1328	2.48	6.82
27	ZZZZZ	ZZZZZ	03/23/10	1340	2.48	6.82
28	ZZZZZ	ZZZZZ	03/23/10	1352	2.48	6.82
29	RE46-10-13964	249329001	03/23/10	1405	2.48	6.82
30	RE46-10-13966	249329002	03/23/10	1421	2.48	6.82
31	AR166003	WAR100224-60	03/23/10	1438	2.48	6.82
32	PIBLK04	WAR100219-99	03/23/10	1450	2.48	6.82

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2430

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	RE46-10-13963	249329003	03/23/10	1503	2.48	6.82
02	RE46-10-13965	249329004	03/23/10	1515	2.48	6.82
03	ZZZZZ	ZZZZZ	03/23/10	1527	2.48	6.82
04	ZZZZZ	ZZZZZ	03/23/10	1540	2.48	6.82
05	ZZZZZ	ZZZZZ	03/23/10	1552	2.48	6.82
06	ZZZZZ	ZZZZZ	03/23/10	1604	2.48	6.82
07	ZZZZZ	ZZZZZ	03/23/10	1617	2.48	6.82
08	ZZZZZ	ZZZZZ	03/23/10	1629	2.48	6.82
09	ZZZZZ	ZZZZZ	03/23/10	1642	2.48	6.82
10	ZZZZZ	ZZZZZ	03/23/10	1658	2.48	6.82
11	AR166004	WAR100224-60	03/23/10	1715	2.48	6.82
12	PIBLK05	WAR100219-99	03/23/10	1727	2.48	6.82
13	ZZZZZ	ZZZZZ	03/23/10	1739	2.48	6.82
14	AR166005	WAR100224-60	03/23/10	1756	2.48	6.82
15	PIBLK06	WAR100219-99	03/23/10	1808	2.48	6.82
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10–2430 **Client ID:** LCS for batch 967820

Lab Sample ID: 1202077525

Data File:	022f2201.d	**Data File:**	022b2201.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 12:38	**Analyzed:**	23–MAR–10 12:38

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							6.16
Column 1	1	2.81	2.78 – 2.84	26		ug/kg	
	2	3.16	3.13 – 3.19	28.5		ug/kg	
	3	3.3	3.27 – 3.33	27.7		ug/kg	
	4	3.39	3.36 – 3.42	26.8		ug/kg	
	5	3.55	3.52 – 3.58	26.4		ug/kg	
					27.1		
Column 2	1	3.55	3.52 – 3.58	29.9		ug/kg	
	2	3.65	3.62 – 3.68	28		ug/kg	
	3	3.72	3.69 – 3.75	28.6		ug/kg	
	4	3.8	3.77 – 3.83	28.8		ug/kg	
	5	3.99	3.96 – 4.02	28.6		ug/kg	
					28.8		
Aroclor–1260							4.38
Column 1	1	4.43	4.4 – 4.46	31.1		ug/kg	
	2	4.62	4.59 – 4.65	32.2		ug/kg	
	3	4.9	4.87 – 4.93	32.2		ug/kg	
	4	5.07	5.04 – 5.1	31.4		ug/kg	
	5	5.48	5.45 – 5.51	30.4		ug/kg	
					31.4		
Column 2	1	4.91	4.88 – 4.94	32.1		ug/kg	
	2	5.06	5.03 – 5.09	32.7		ug/kg	
	3	5.37	5.34 – 5.4	33.4		ug/kg	
	4	5.58	5.55 – 5.61	31.1		ug/kg	
	5	6.01	5.98 – 6.04	34.8		ug/kg	
					32.9		

Identification Summary

SDG Number: 10–2430 **Client ID:** RE46–10–13965

Lab Sample ID: 249329004

Data File:	034f3401.d	**Data File:**	034b3401.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 15:15	**Analyzed:**	23–MAR–10 15:15

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							6.89
Column 1	1	3.83	3.8 – 3.86	21.6		ug/kg	
	2	4.02	3.99 – 4.05	22.5		ug/kg	
	3	4.21	4.18 – 4.24	22.1		ug/kg	
	4	4.3	4.27 – 4.33	22.5		ug/kg	
	5	4.5	4.47 – 4.53	19.6		ug/kg	
					21.7		
Column 2	1	4.3	4.27 – 4.33	20.5		ug/kg	
	2	4.44	4.41 – 4.47	21.5		ug/kg	
	3	4.77	4.74 – 4.8	22.9		ug/kg	
	4	4.93	4.9 – 4.96	20.6		ug/kg	
	5	5.06	5.03 – 5.09	30.5		ug/kg	
					23.2		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202077524**				
Client Sample:	**QC for batch 967820**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 967820**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:26**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**021f2101-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	021b2101-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/021f2101-1.d
Lab Smp Id: 1202077524 Client Smp ID: PBLK01
Inj Date : 23-MAR-2010 12:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077524|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 21 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2430.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.248	0.000	21275087	170.253	5.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	15848889	192.455	6.4	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/021f2101-1.d
Date : 23-MAR-2010 12:26
Client ID: PBLK01
Sample Info: 1120207752411
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

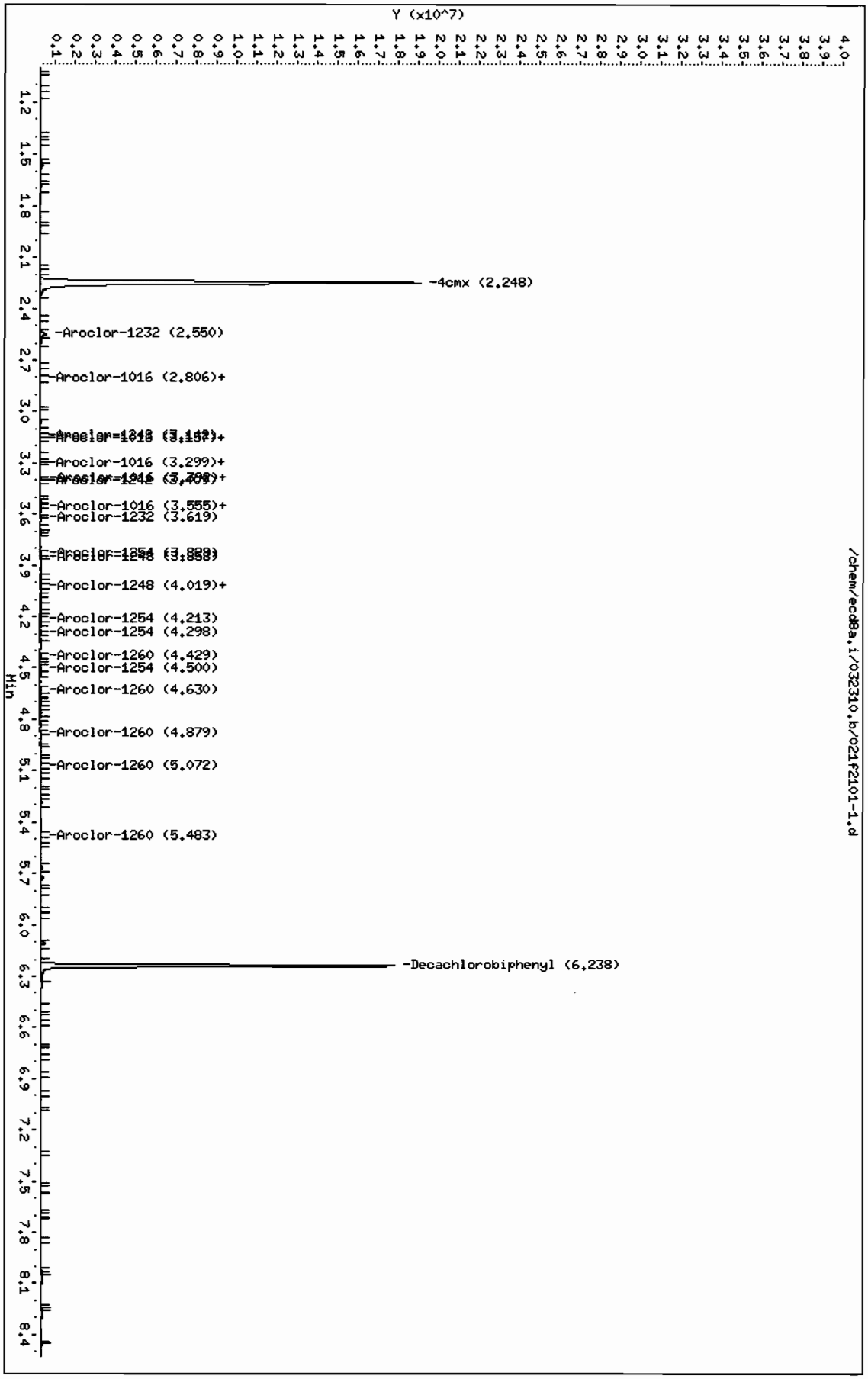

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/021b2101-1.d
Lab Smp Id: 1202077524 Client Smp ID: PBLK01
Inj Date : 23-MAR-2010 12:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077524|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 21 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2430.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	15146143	181.213	6.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	11669286	196.942	6.6	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/021b2101-1.d
Date : 23-MAR-2010 12:26
Client ID: PBLK01
Sample Info: |120207752411|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

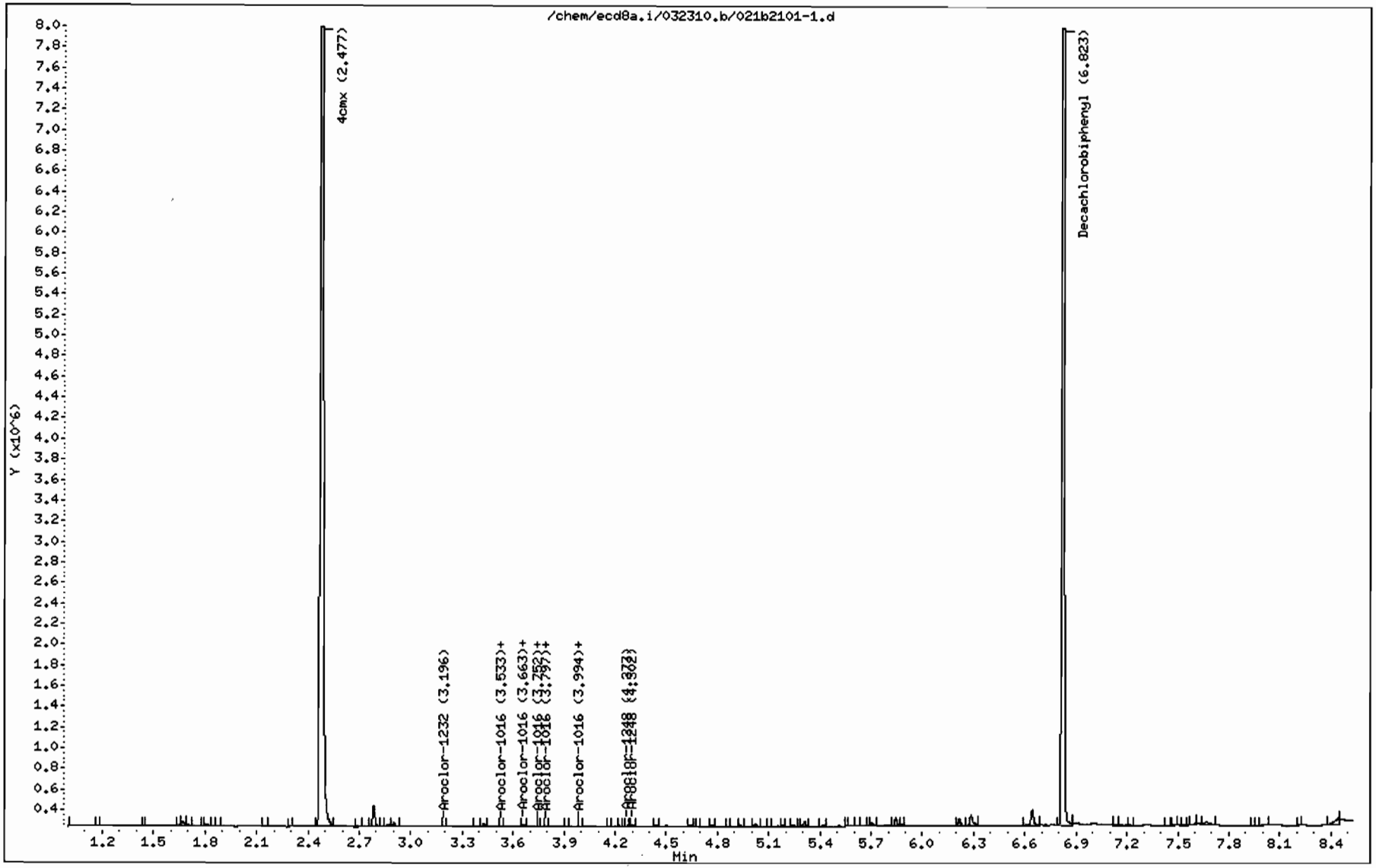

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2430**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202077525**				
Client Sample:	**QC for batch 967820**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967820**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:38**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**022f2201-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	022b2201-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		28.8	ug/kg	1.11	3.33	2
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		32.8	ug/kg	1.11	3.33	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/022f2201-1.d
Lab Smp Id: 1202077525 Client Smp ID: PBLK01LCS
Inj Date : 23-MAR-2010 12:38
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077525|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 22 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2430.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.248	0.001	22287691	178.357	5.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.240	-0.001	16008470	194.393	6.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.805	2.806	-0.001	3724861	780.522	26.0	80.00- 120.00	100.00
3.156	3.157	-0.001	4623049	856.533	28.6	106.71- 146.71	124.11
3.300	3.301	-0.001	1951962	830.042	27.7	32.91- 72.91	52.40
3.392	3.393	-0.001	1760013	803.084	26.8	26.61- 66.61	47.25

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.555	3.555	0.000	2436153	791.230	26.4	47.49- 87.49	65.40
Average of Peak Concentrations =					27.1		
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.429	-0.001	5500093	933.792	31.1	80.00- 120.00	100.00
4.624	4.625	-0.001	8201358	965.401	32.2	127.82- 167.82	149.11
4.900	4.900	0.000	4888449	964.901	32.2	67.21- 107.21	88.88
5.071	5.072	-0.001	5020047	942.021	31.4	73.14- 113.14	91.27
5.482	5.483	-0.001	5139009	911.013	30.4	79.68- 119.68	93.43
Average of Peak Concentrations =					31.5		

Data File: /chem/ecd8a.i/032310.b/022f2201-1.d

Page 1

Date : 23-MAR-2010 12:38

Client ID: PBLK01LCS

Instrument: ecd8a.i

Sample Info: |1202077525|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

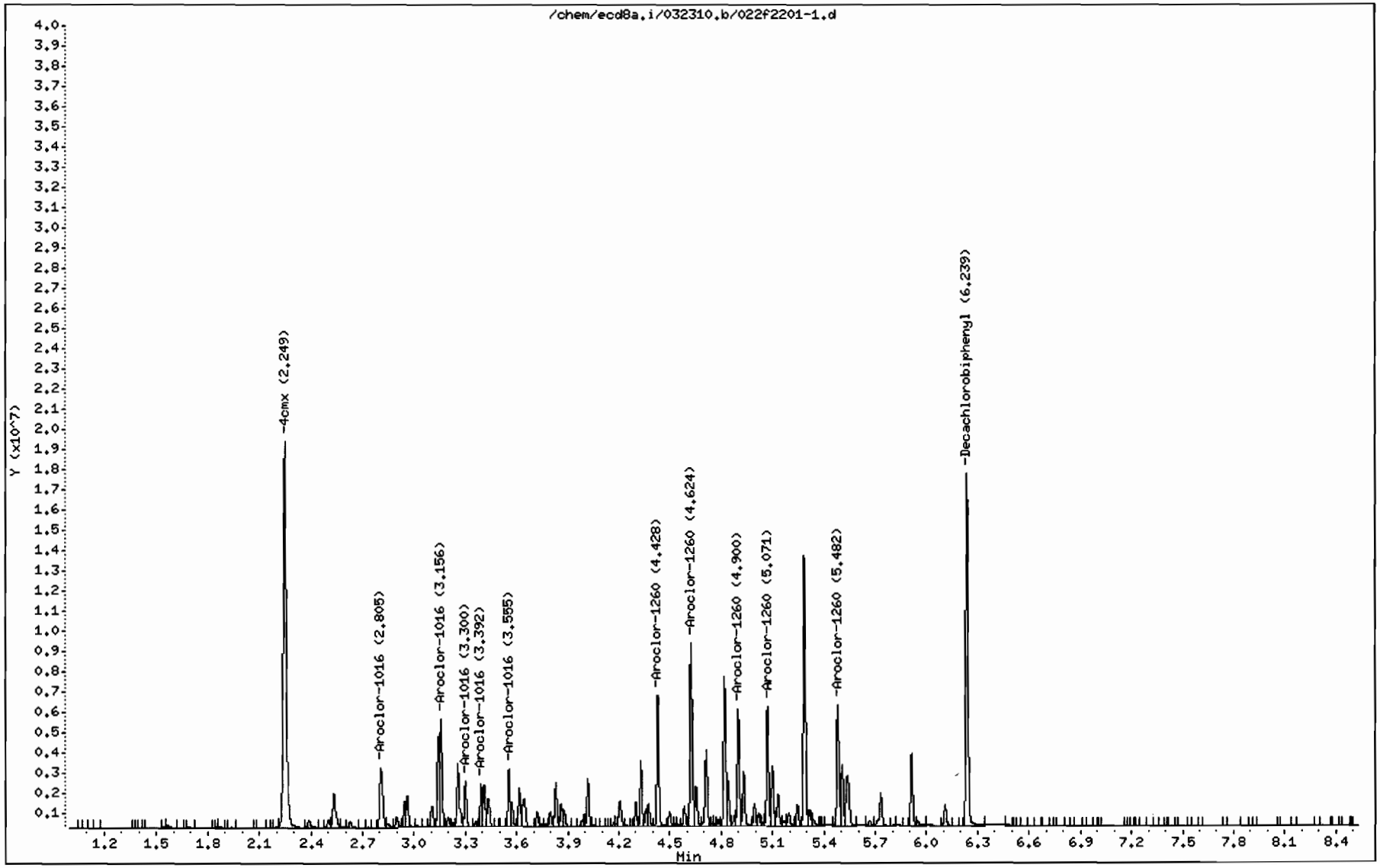

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/022b2201-1.d
Lab Smp Id: 1202077525 Client Smp ID: PBLK01LCS
Inj Date : 23-MAR-2010 12:38
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077525|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 22 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2430.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.476	0.000	15844573	189.569	6.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	12410533	209.452	7.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.548	0.000	3300626	897.453	29.9	80.00- 120.00	100.00
3.647	3.647	0.000	2139608	838.672	28.0	44.17- 84.17	64.82
3.723	3.723	0.000	1281937	859.189	28.6	19.13- 59.13	38.84
3.798	3.799	-0.001	1278154	864.960	28.8	17.45- 57.45	38.72

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.995	3.995	0.000	1739987	859.336	28.6	31.97- 71.97	52.72
Average of Peak Concentrations =					28.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.908	4.907	0.001	3797082	964.092	32.1	80.00- 120.00	100.00
5.056	5.056	0.000	4645285	981.991	32.7	102.64- 142.64	122.34
5.373	5.373	0.000	3597095	1002.91	33.4	72.26- 112.26	94.73
5.580	5.580	0.000	3467947	934.193	31.1	76.20- 116.20	91.33
6.010	6.011	-0.001	6104953	1045.13	34.8	134.50- 174.50	160.78
Average of Peak Concentrations =					32.8		

Data File: /chem/ecd8a.i/032310.b/022b2201-1.d
Date : 23-MAR-2010 12:38
Client ID: PBLK01LCS
Sample Info: |1202077525|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

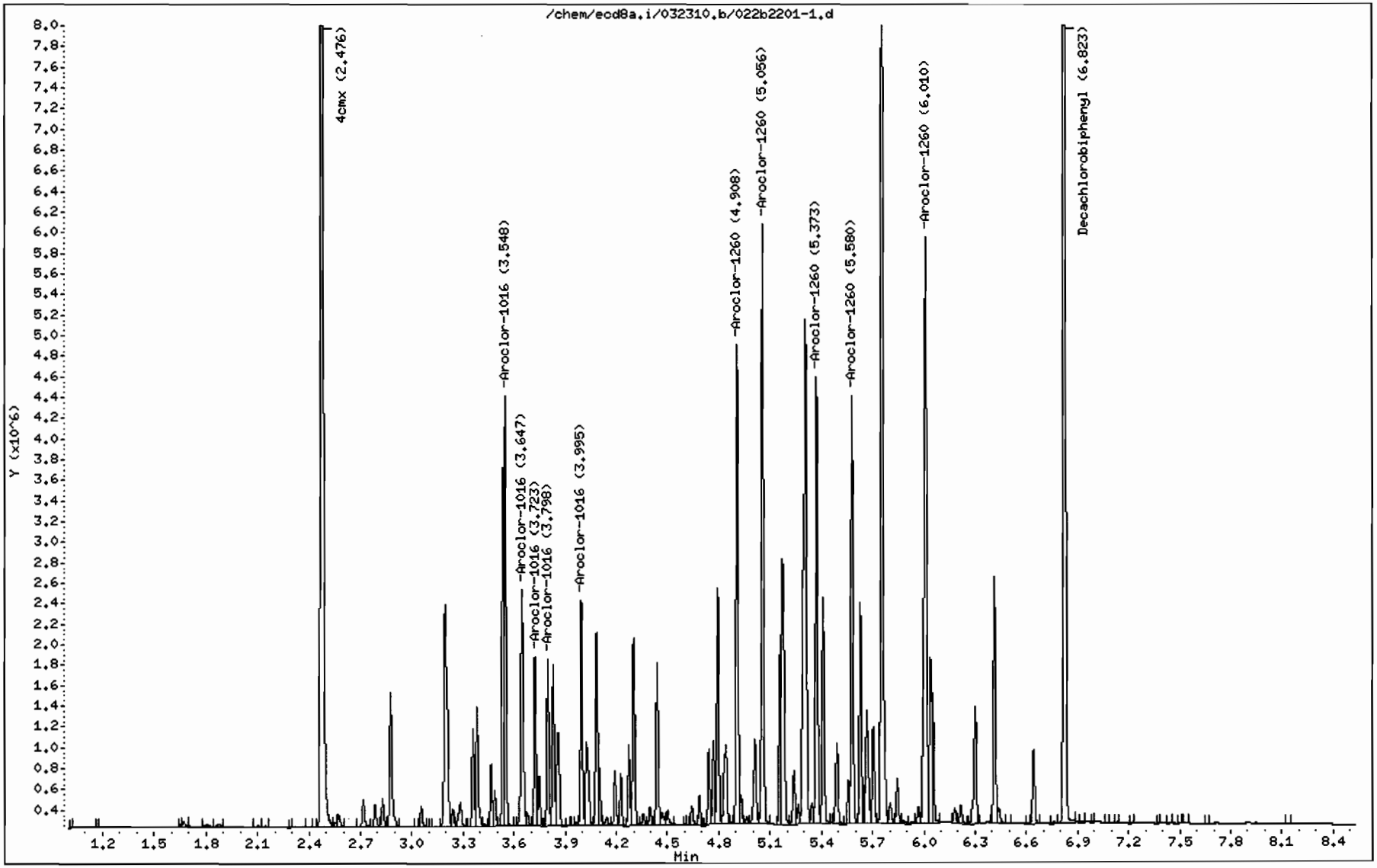

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 03/09/2010 METHOD: ECD8-F-8082-020310a.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/030910.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	JAOC	09-MAR-2010 07:59		030910	1.0		CLEAN
002f0201.d	WAR100225-60 01	JAOC	09-MAR-2010 08:11		030910	1.0		DUSE
003f0301.d	WAR100201-54	JAOC	09-MAR-2010 08:24		030910	1.0		DUSE
004f0401.d	WAR091217-42	JAOC	09-MAR-2010 08:36		030910	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091217-48	JAOC	09-MAR-2010 08:48		030910	1.0		DUSE
006f0601.d	WAR100309-60 01	JAOC	09-MAR-2010 09:08		030910	1.0		PASSES BOTH COLUMNS
007f0701.d	WAR100309-05 54	JAOC	09-MAR-2010 09:27		030910	1.0		1254 LEVEL 1
008f0801.d	WAR100309-06 54	JAOC	09-MAR-2010 09:39		030910	1.0		1254 LEVEL 2
009f0901.d	WAR100309-07 54	JAOC	09-MAR-2010 09:51		030910	1.0		1254 LEVEL 3
010f1001.d	WAR100309-08 54	JAOC	09-MAR-2010 10:04		030910	1.0		1254 LEVEL 4
011f1101.d	IAR100219-02 54	JAOC	09-MAR-2010 10:16		030910	1.0		1254 LEVEL 5
012f1201.d	WAR100201-54	JAOC	09-MAR-2010 10:29		030910	1.0		PASSES BOTH COLUMNS
013f1301.d	WAR100309-09 48	JAOC	09-MAR-2010 10:41		030910	1.0		1248 LEVEL 1
014f1401.d	WAR100309-10 48	JAOC	09-MAR-2010 10:53		030910	1.0		1248 LEVEL 2
015f1501.d	WAR100309-11 48	JAOC	09-MAR-2010 11:05		030910	1.0		1248 LEVEL 3

Instrument Batch: /chem/ecd8a.i/030910.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR100309-12 48	JAOC	09-MAR-2010 11:18		030910	1.0		1248 LEVEL 4
017f1701.d	IAR100211-01 48	JAOC	09-MAR-2010 11:30		030910	1.0		1248 LEVEL 5

018f1801.d	WAR091217-48	JAOC	09-MAR-2010 11:43			030910		1.0		PASSES BOTH COLUMNS
019f1901.d	WAR100104-32	JAOC	09-MAR-2010 11:55			030910		1.0		PATTERN ONLY
020f2001.d	WAR100104-21	JAOC	09-MAR-2010 12:07			030910		1.0		PATTERN ONLY
021f2101.d	WAR100104-62	JAOC	09-MAR-2010 12:20			030910		1.0		PATTERN ONLY
022f2201.d	WAR100107-68	JAOC	09-MAR-2010 12:32			030910		1.0		PATTERN ONLY
023f2301.d	WAR091219-DDT	JAOC	09-MAR-2010 12:44			030910		1.0		DDT
024f2401.d	WAR100219-99 02	JAOC	09-MAR-2010 12:57			030910		1.0		CLEAN
025f2501.d	248545006	JAOC	09-MAR-2010 13:09	961905	10-2213			1.0	LANL	UPLOAD BOTH, USE HIGHER
026f2601.d	WAR100309-60 02	JAOC	09-MAR-2010 13:22			030910		1.0		PASSES BOTH COLUMNS

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 03/19/2010 METHOD: ECD8-F-8082-031810.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/031810.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	JAOC	18-MAR-2010 06:13		031810	1.0		CLEAN
002f0201.d	WAR100318-01 60	JAOC	18-MAR-2010 06:25		031810	1.0		1660 LEVEL 1
003f0301.d	WAR100318-02 60	JAOC	18-MAR-2010 06:38		031810	1.0		1660 LEVEL 2
004f0401.d	WAR100318-03 60	JAOC	18-MAR-2010 06:50		031810	1.0		1660 LEVEL 3
005f0501.d	WAR100318-04 60	JAOC	18-MAR-2010 07:02		031810	1.0		1660 LEVEL 4
006f0601.d	IAR100311-01 60	JAOC	18-MAR-2010 07:15		031810	1.0		1660 LEVEL 5
007f0701.d	WAR100224-60 01	JAOC	18-MAR-2010 07:27		031810	1.0		PASSES BOTH COLUMNS
008f0801.d	WAR100201-54	JAOC	18-MAR-2010 07:39		031810	1.0		PASSES BOTH COLUMNS
009f0901.d	WAR091217-42	JAOC	18-MAR-2010 07:52		031810	1.0		PASSES BOTH COLUMNS
010f1001.d	WAR091217-48	JAOC	18-MAR-2010 08:04		031810	1.0		PASSES BOTH COLUMNS
011f1101.d	WAR100104-32	JAOC	18-MAR-2010 08:17		031810	1.0		PATTERN ONLY
012f1201.d	WAR100104-21	JAOC	18-MAR-2010 08:29		031810	1.0		PATTERN ONLY
013f1301.d	WAR100104-62	JAOC	18-MAR-2010 08:41		031810	1.0		PATTERN ONLY
014f1401.d	WAR100107-68	JAOC	18-MAR-2010 08:54		031810	1.0		PATTERN ONLY
015f1501.d	WAR091219-DDT	JAOC	18-MAR-2010 09:06		031810	1.0		DDT

Instrument Batch: /chem/ecd8a.i/031810.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR100219-99 02	JAOC	18-MAR-2010 09:19		031810	1.0		CLEAN
017f1701.d	1202073907	JAOC	18-MAR-2010 09:31	966402	10033	1.0	QC A	UPLOAD BOTH, USE HIGHER

018f1801.d	1202073908	JAOC	18-MAR-2010 09:43	966402	10033		1.0	QC A	UPLOAD BOTH, USE HIGHER
019f1901.d	1202073909	JAOC	18-MAR-2010 09:55	966402	10033		1.0	QC A	UPLOAD BOTH, USE HIGHER
020f2001.d	248554001	JAOC	18-MAR-2010 10:08	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
021f2101.d	248554002	JAOC	18-MAR-2010 10:20	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
022f2201.d	248554003	JAOC	18-MAR-2010 10:33	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
023f2301.d	248554004	JAOC	18-MAR-2010 10:45	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
024f2401.d	248554005	JAOC	18-MAR-2010 10:57	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
025f2501.d	248554006	JAOC	18-MAR-2010 11:10	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
026f2601.d	248554007	JAOC	18-MAR-2010 11:22	966402	10033		5.0	WSRS	UPLOAD BOTH, USE HIGHER
027f2701.d	WAR100224-60 02	JAOC	18-MAR-2010 11:39		031810		1.0		PASSES BOTH COLUMNS
028f2801.d	WAR100219-99 03	JAOC	18-MAR-2010 11:51		031810		1.0		CLEAN
029f2901.d	248554008	JAOC	18-MAR-2010 12:03	966402	10033		5.0	WSRS	UPLOAD BOTH, USE HIGHER
030f3001.d	248554009	JAOC	18-MAR-2010 12:16	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
031f3101.d	248554010	JAOC	18-MAR-2010 12:28	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
032f3201.d	248554011	JAOC	18-MAR-2010 12:40	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
033f3301.d	248554012	JAOC	18-MAR-2010 12:53	966402	10033		1.0	WSRS	DUSE, 5X RERUN END SEQUENCE
034f3401.d	248554013	JAOC	18-MAR-2010 13:05	966402	10033		1.0	WSRS	DUSE, AFTER OVERRANGE RERUN END SEQUENCE
035f3501.d	248554014	JAOC	18-MAR-2010 13:17	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	248554015	JAOC	18-MAR-2010 13:30	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
037f3701.d	248554016	JAOC	18-MAR-2010 13:42	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
038f3801.d	248554017	JAOC	18-MAR-2010 13:54	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
039f3901.d	WAR100224-60 03	JAOC	18-MAR-2010 14:11		031810		1.0		PASSES BOTH COLUMNS
040f4001.d	WAR100219-99 04	JAOC	18-MAR-2010 14:23		031810		1.0		CLEAN
041f4101.d	248554018	JAOC	18-MAR-2010 14:36	966402	10033		1.0	WSRS	DUSE, 5X RERUN 031910

042f4201.d	248554019	JAOC	18-MAR-2010 14:48	966402	10033		1.0	WSRS	DUSE, AFTER OVERRANGE RERUN 031910
043f4301.d	248554020	JAOC	18-MAR-2010 15:01	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
044f4401.d	248554012	JAOC	18-MAR-2010 15:13	966402	10033		5.0	WSRS	UPLOAD BOTH, USE HIGHER
045f4501.d	248554013	JAOC	18-MAR-2010 15:25	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
046f4601.d	WAR100224-60 04	JAOC	18-MAR-2010 15:38		031810		1.0		PASSES BOTH COLUMNS
047f4701.d	WAR100219-99 05	JAOC	18-MAR-2010 15:50		031810		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 03/24/2010 METHOD: ECD8-F-8082-031810.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/032310.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	JAOC	23-MAR-2010 08:09		032310	1.0		CLEAN
002f0201.d	WAR100224-60 01	JAOC	23-MAR-2010 08:22		032310	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR100219-54	JAOC	23-MAR-2010 08:34		032310	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091217-42	JAOC	23-MAR-2010 08:46		032310	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR100223-48	JAOC	23-MAR-2010 08:59		032310	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR100104-32	JAOC	23-MAR-2010 09:11		032310	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	JAOC	23-MAR-2010 09:23		032310	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	JAOC	23-MAR-2010 09:36		032310	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	JAOC	23-MAR-2010 09:48		032310	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	JAOC	23-MAR-2010 10:00		032310	1.0		DDT
011f1101.d	WAR100219-99 02	JAOC	23-MAR-2010 10:13		032310	1.0		CLEAN
012f1201.d	1202077508	JAOC	23-MAR-2010 10:25	967817	10-2168	1.0	QC A	UPLOAD BOTH, USE HIGHER
013f1301.d	1202077509	JAOC	23-MAR-2010 10:37	967817	10-2168	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	1202077510	JAOC	23-MAR-2010 10:50	967817	10-2168	1.0	QC A	UPLOAD BOTH, USE HIGHER
015f1501.d	248394006	JAOC	23-MAR-2010 11:02	967817	10-2168	1.0	LANL	UPLOAD BOTH, USE HIGHER: DOESN'T CONFIRM $FAILURE

Instrument Batch: /chem/ecd8a.i/032310.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	248514002	JAOC	23-MAR-2010 11:14	967817	10-2196	1.0	LANL	UPLOAD BOTH, USE HIGHER: DOESN'T CONFIRM $FAILURE
017f1701.d	248519002	JAOC	23-MAR-2010 11:27	967817	10-2199	1.0	LANL	UPLOAD BOTH, USE HIGHER: DOESN'T CONFIRM $FAILURE

018f1801.d	248519004	JAOC	23-MAR-2010 11:43	967817	10-2199		1.0	LANL	UPLOAD BOTH, USE HIGHER: DOESN'T CONFIRM $FAILURE
019f1901.d	WAR100224-60 02	JAOC	23-MAR-2010 12:01		032310		1.0		PASSES BOTH COLUMNS
020f2001.d	WAR100219-99 03	JAOC	23-MAR-2010 12:14		032310		1.0		CLEAN
021f2101.d	1202077524	JAOC	23-MAR-2010 12:26	967824	10-2412		1.0	QC A	UPLOAD BOTH, USE HIGHER
022f2201.d	1202077525	JAOC	23-MAR-2010 12:38	967824	10-2412		1.0	QC A	UPLOAD BOTH, USE HIGHER
023f2301.d	249244001	JAOC	23-MAR-2010 12:51	967824	10-2412		10.0	LANL	UPLOAD BOTH, USE HIGHER
024f2401.d	249244002	JAOC	23-MAR-2010 13:03	967824	10-2412		5.0	LANL	UPLOAD BOTH, USE HIGHER
025f2501.d	249244003	JAOC	23-MAR-2010 13:15	967824	10-2412		1.0	LANL	UPLOAD BOTH, USE HIGHER
026f2601.d	249244004	JAOC	23-MAR-2010 13:28	967824	10-2412		1.0	LANL	UPLOAD BOTH, USE HIGHER
027f2701.d	249244005	JAOC	23-MAR-2010 13:40	967824	10-2412		5.0	LANL	UPLOAD BOTH, USE HIGHER
028f2801.d	249244006	JAOC	23-MAR-2010 13:52	967824	10-2412		10.0	LANL	UPLOAD BOTH, USE HIGHER
029f2901.d	249329001	JAOC	23-MAR-2010 14:05	967824	10-2430		5.0	LANL	UPLOAD BOTH, USE HIGHER
030f3001.d	249329002	JAOC	23-MAR-2010 14:21	967824	10-2430		5.0	LANL	UPLOAD BOTH, USE HIGHER
031f3101.d	WAR100224-60 03	JAOC	23-MAR-2010 14:38		032310		1.0		PASSES BOTH COLUMNS
032f3201.d	WAR100219-99 04	JAOC	23-MAR-2010 14:50		032310		1.0		CLEAN
033f3301.d	249329003	JAOC	23-MAR-2010 15:03	967824	10-2430		5.0	LANL	UPLOAD BOTH, USE HIGHER
034f3401.d	249329004	JAOC	23-MAR-2010 15:15	967824	10-2430		5.0	LANL	UPLOAD BOTH, USE HIGHER
035f3501.d	249335002	JAOC	23-MAR-2010 15:27	967824	10-2436		1.0	LANL	UPLOAD BOTH, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202077526	JAOC	23-MAR-2010 15:40	967824	10-2436	1.0	QC A	UPLOAD BOTH, USE HIGHER
037f3701.d	1202077527	JAOC	23-MAR-2010 15:52	967824	10-2436	1.0	QC A	UPLOAD BOTH, USE HIGHER
038f3801.d	249335003	JAOC	23-MAR-2010 16:04	967824	10-2436	5.0	LANL	UPLOAD BOTH, USE HIGHER
039f3901.d	249335004	JAOC	23-MAR-2010 16:17	967824	10-2436	5.0	LANL	UPLOAD BOTH, USE HIGHER
040f4001.d	249335005	JAOC	23-MAR-2010 16:29	967824	10-2436	5.0	LANL	UPLOAD BOTH, USE HIGHER
041f4101.d	249335006	JAOC	23-MAR-2010 16:42	967824	10-2436	5.0	LANL	UPLOAD BOTH, USE HIGHER

042f4201.d	249335007	JAOC	23-MAR-2010 16:58	967824	10-2436		20.0	LANL	UPLOAD BOTH, USE HIGHER
043f4301.d	WAR100224-60 04	JAOC	23-MAR-2010 17:15		032310		1.0		FRONT PASSING ALL PEAKS, BACK PASSING AVG
044f4401.d	WAR100219-99 05	JAOC	23-MAR-2010 17:27		032310		1.0		CLEAN
045f4501.d	249335008	JAOC	23-MAR-2010 17:39	967824	10-2436		20.0	LANL	UPLOAD BOTH, USE HIGHER
046f4601.d	WAR100224-60 05	JAOC	23-MAR-2010 17:56		032310		1.0		BACK FAILS HIGH 1260 AND DCB, FRONT PASSING AVG
047f4701.d	WAR100219-99 06	JAOC	23-MAR-2010 18:08		032310		1.0		CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/036b3601.d
Lab Smp Id: 1202077526 Client Smp ID: RE46-10-12972MS
Inj Date : 23-MAR-2010 15:40
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077526|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	12.26540	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	15003680	179.508	6.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	11658273	196.756	7.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.548	0.000	3130184	851.109	32.3	80.00- 120.00	100.00
3.647	3.647	0.000	1996057	782.403	29.7	44.17- 84.17	63.77
3.723	3.723	0.000	1180716	791.348	30.0	19.13- 59.13	37.72
3.798	3.799	-0.001	1282086	867.621	32.9	17.45- 57.45	40.96
3.994	3.995	-0.001	1665260	822.430	31.2	31.97- 71.97	53.20

Average of Peak Concentrations = 31.2

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.301	4.301	0.000	1717399	551.038	20.9	80.00- 120.00	100.00
4.439	4.440	-0.001	1580069	454.286	17.2	91.97- 131.97	92.00
4.768	4.769	-0.001	1179584	244.117	9.3	138.62- 178.62	68.68
4.930	4.931	-0.001	538272	154.054	5.8	93.56- 133.56	31.34
5.056	5.057	-0.001	4956612	2251.27	85.4	51.06- 91.06	288.61
Average of Peak Concentrations =					27.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.907	0.000	4009379	1018.00	38.6	80.00- 120.00	100.00
5.056	5.056	0.000	4956612	1047.80	39.8	102.64- 142.64	123.63
5.373	5.373	0.000	3590248	1001.00	38.0	72.26- 112.26	89.55
5.578	5.580	-0.002	3518672	947.857	36.0	76.20- 116.20	87.76
6.010	6.011	-0.001	5865064	1004.06	38.1	134.50- 174.50	146.28
Average of Peak Concentrations =					38.1		

Data File: /chem/ecd8a.i/032310.b/036b3601.d

Date : 23-MAR-2010 15:40

Client ID: RE46-10-12972MS

Sample Info: |1202077526|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

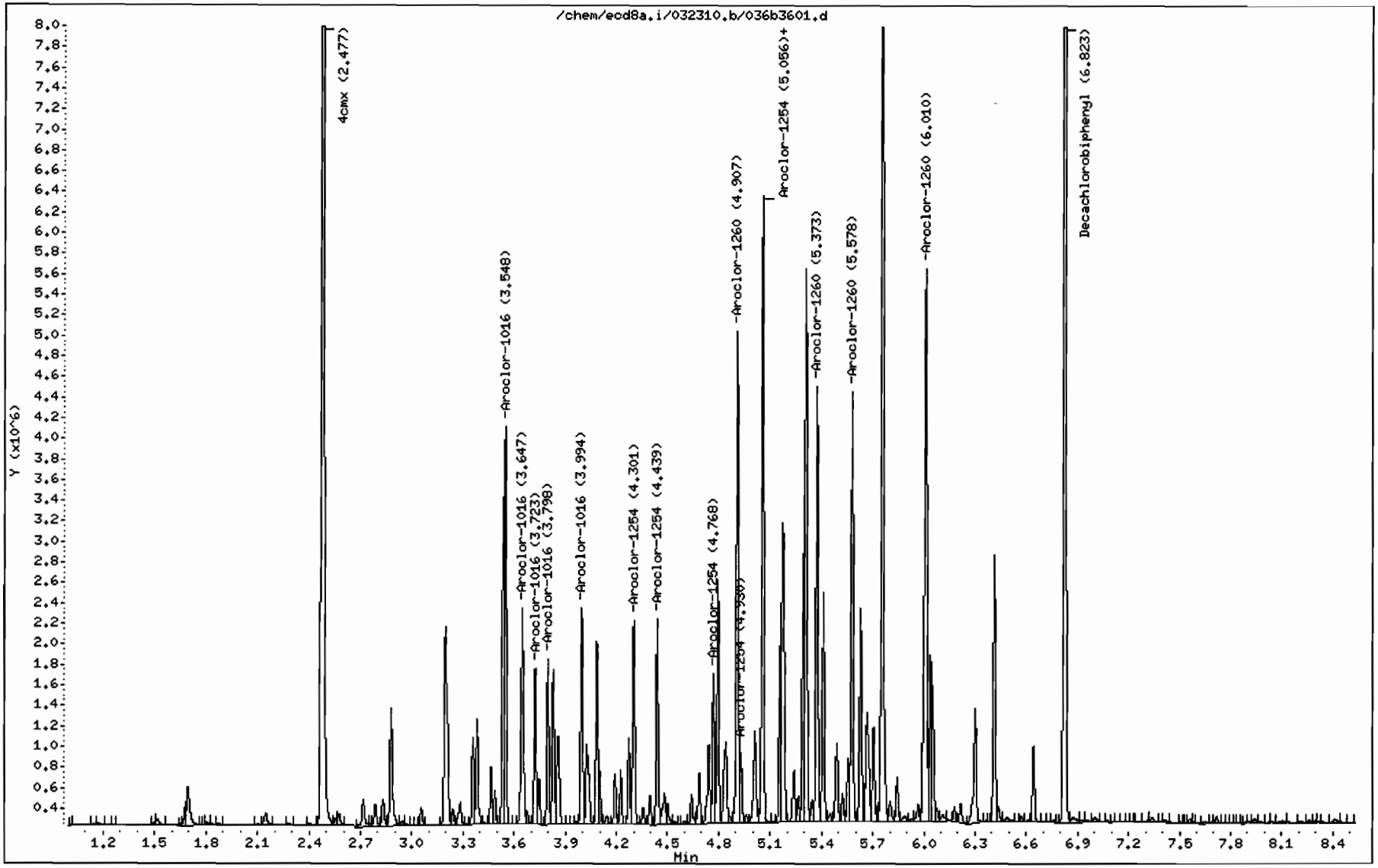

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/036f3601.d
Lab Smp Id: 1202077526 Client Smp ID: RE46-10-12972MS
Inj Date : 23-MAR-2010 15:40
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077526|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	12.26540	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.248	0.000	21217036	169.789	6.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	15454515	187.666	7.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.805	2.806	-0.001	3387328	709.794	26.9	80.00- 120.00	100.00
3.157	3.157	0.000	4322575	800.863	30.4	106.71- 146.71	127.61
3.300	3.301	-0.001	1685615	716.782	27.2	32.91- 72.91	49.76
3.392	3.393	-0.001	1737838	792.966	30.1	26.61- 66.61	51.30
3.554	3.555	-0.001	2281015	740.843	28.1	47.49- 87.49	67.34

Average of Peak Concentrations = 28.5

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.830	3.830	0.000	2006678	463.012	17.6	80.00- 120.00	100.00
4.017	4.017	0.000	2414490	418.707	15.9	87.01- 127.01	120.32
4.207	4.213	-0.006	1427332	320.136	12.2	49.92- 89.92	71.13
4.299	4.300	-0.001	1721394	228.862	8.7	31.87- 71.87	85.78
4.496	4.496	0.000	1314493	228.639	8.7	16.76- 56.76	65.51
Average of Peak Concentrations =					12.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.429	-0.001	5468453	928.421	35.2	80.00- 120.00	100.00
4.623	4.625	-0.002	8444446	994.015	37.7	127.82- 167.82	154.42
4.899	4.900	-0.001	4781267	943.745	35.8	67.21- 107.21	87.43
5.071	5.072	-0.001	4776254	896.273	34.0	73.14- 113.14	87.34
5.482	5.483	-0.001	5417471	960.377	36.4	79.68- 119.68	99.07
Average of Peak Concentrations =					35.8		

Data File: /chem/ecd8a.i/032310.b/036f3601.d

Date : 23-MAR-2010 15:40

Client ID: RE46-10-12972MS

Sample Info: |1202077526|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

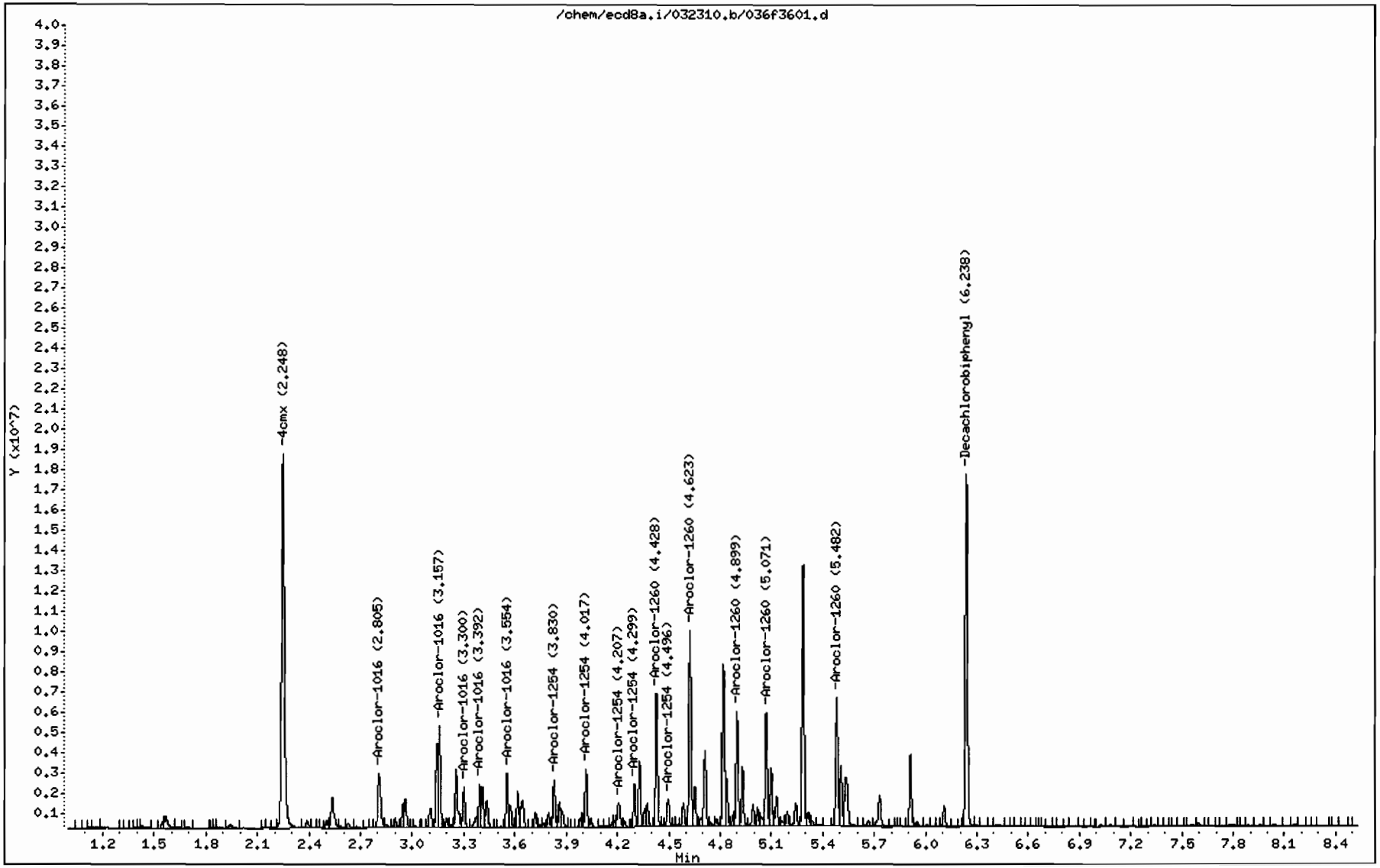

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/037b3701.d
Lab Smp Id: 1202077527 Client Smp ID: RE46-10-12972MSD
Inj Date : 23-MAR-2010 15:52
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077527|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	12.26540	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	14285646	170.918	6.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.824	-0.002	11236540	189.638	7.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.548	0.000	3033291	824.763	31.3	80.00- 120.00	100.00
3.647	3.647	0.000	2018867	791.344	30.0	44.17- 84.17	66.56
3.722	3.723	-0.001	1198144	803.028	30.4	19.13- 59.13	39.50
3.798	3.799	-0.001	1250346	846.141	32.1	17.45- 57.45	41.22
3.994	3.995	-0.001	1658928	819.303	31.1	31.97- 71.97	54.69

Average of Peak Concentrations = 31.0

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.301	4.301	0.000	1655857	531.292	20.1	80.00- 120.00	100.00
4.440	4.440	0.000	1425999	409.989	15.5	91.97- 131.97	86.12
4.768	4.769	-0.001	1002257	207.419	7.9	138.62- 178.62	60.53
4.930	4.931	-0.001	420840	120.445	4.6	93.56- 133.56	25.42
5.056	5.057	-0.001	4603623	2090.95	79.3	51.06- 91.06	278.02
Average of Peak Concentrations =					25.5		
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.907	0.000	3889804	987.635	37.4	80.00- 120.00	100.00
5.056	5.056	0.000	4603623	973.184	36.9	102.64- 142.64	118.35
5.372	5.373	-0.001	3519769	981.353	37.2	72.26- 112.26	90.49
5.579	5.580	-0.001	3161698	851.696	32.3	76.20- 116.20	81.28
6.010	6.011	-0.001	5588125	956.652	36.3	134.50- 174.50	143.66
Average of Peak Concentrations =					36.0		

Data File: /chem/ecd8a.i/032310.b/037b3701.d
Date : 23-MAR-2010 15:52
Client ID: RE46-10-12972MSD
Sample Info: 1120207752711I
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

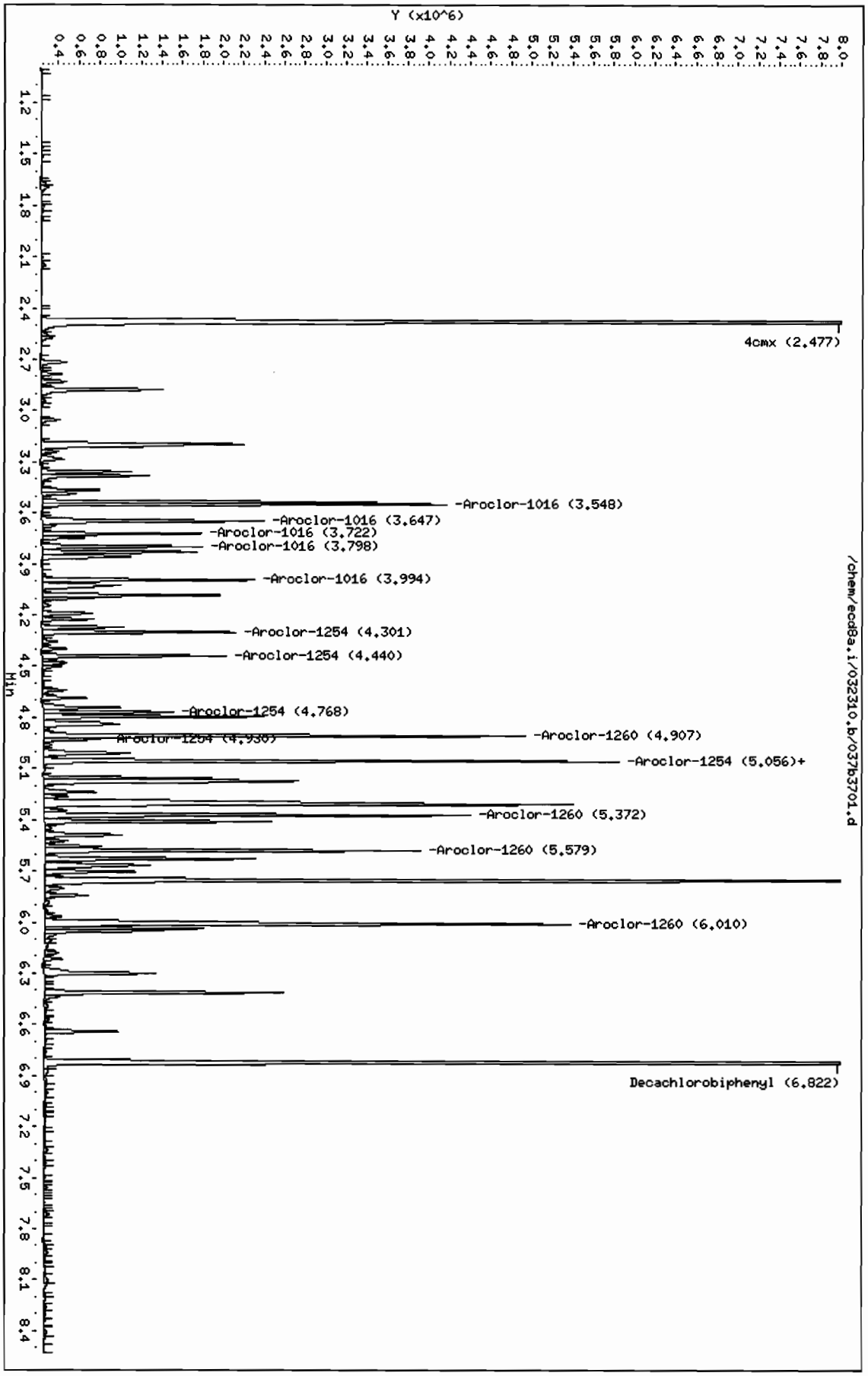

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/037f3701.d
Lab Smp Id: 1202077527 Client Smp ID: RE46-10-12972MSD
Inj Date : 23-MAR-2010 15:52
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077527|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	12.26540	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.248	0.001	20317373	162.589	6.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.237	6.240	-0.003	13401392	162.735	6.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.805	2.806	-0.001	3369255	706.007	26.8	80.00- 120.00	100.00
3.157	3.157	0.000	4313081	799.104	30.3	106.71- 146.71	128.01
3.300	3.301	-0.001	1665314	708.149	26.8	32.91- 72.91	49.43
3.392	3.393	-0.001	1589172	725.130	27.5	26.61- 66.61	47.17
3.555	3.555	0.000	2257740	733.284	27.8	47.49- 87.49	67.01

Average of Peak Concentrations = 27.8

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.830	3.830	0.000	1912091	441.188	16.7	80.00- 120.00	100.00
4.017	4.017	0.000	2208522	382.990	14.5	87.01- 127.01	115.50
4.205	4.213	-0.008	1307858	293.339	11.1	49.92- 89.92	68.40
4.299	4.300	-0.001	1450422	192.836	7.3	31.87- 71.87	75.86
4.496	4.496	0.000	1071036	186.293	7.1	16.76- 56.76	56.01
Average of Peak Concentrations =					11.3		
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.429	-0.001	5310347	901.578	34.2	80.00- 120.00	100.00
4.623	4.625	-0.002	7748015	912.037	34.6	127.82- 167.82	145.90
4.899	4.900	-0.001	4680631	923.881	35.0	67.21- 107.21	88.14
5.071	5.072	-0.001	4650542	872.683	33.1	73.14- 113.14	87.58
5.482	5.483	-0.001	4848204	859.461	32.6	79.68- 119.68	91.30
Average of Peak Concentrations =					33.9		

Data File: /chem/ecd8a.i/032310.b/037f3701.d
Date : 23-MAR-2010 15:52
Client ID: RE46-10-12972MSD
Sample Info: |120207752711|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

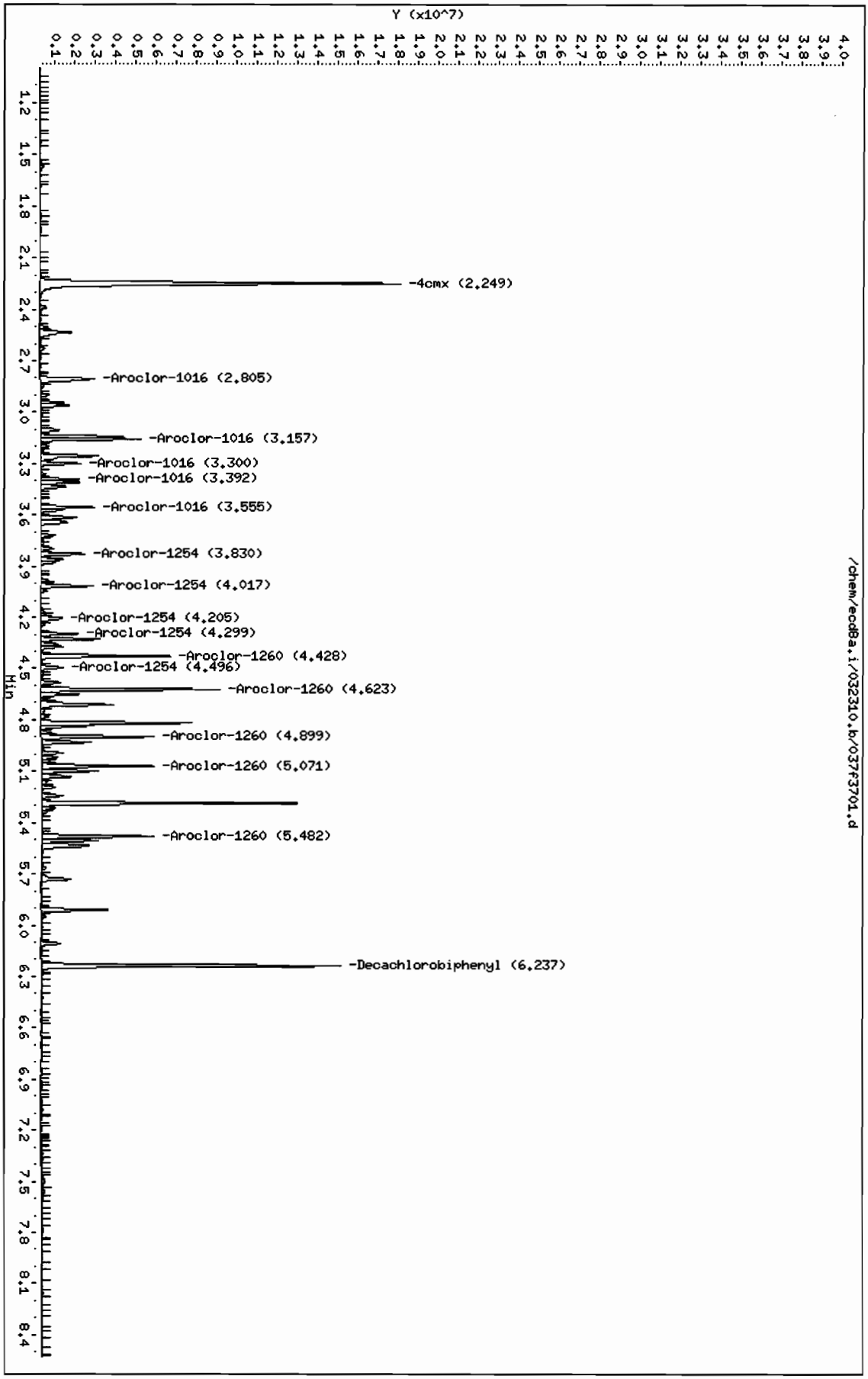

Page 1

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 967820 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202077524 MB	22-MAR-2010 22:20:00	30	H2SO4/KMl2		2	9	1	0.03333
1202077525 LCS	22-MAR-2010 22:20:00	30	H2SO4/KMl2		2	9	1	0.03333
249244001	22-MAR-2010 22:20:00	30.02	H2SO4/KMl2		2	9	1	0.03331
249244002	22-MAR-2010 22:20:00	30.18	H2SO4/KMl2		2	9	1	0.03313
249244003	22-MAR-2010 22:20:00	30.09	H2SO4/KMl2		2	9	1	0.03323
249244004	22-MAR-2010 22:20:00	30.08	H2SO4/KMl2		2	9	1	0.03324
249244005	22-MAR-2010 22:20:00	30.05	H2SO4/KMl2		2	9	1	0.03328
249244006	22-MAR-2010 22:20:00	30.02	H2SO4/KMl2		2	9	1	0.03331
249329001	22-MAR-2010 22:20:00	30.02	H2SO4/KMl2		2	9	1	0.03331
249329002	22-MAR-2010 22:20:00	30.19	H2SO4/KMl2		2	9	1	0.03312
249329003	22-MAR-2010 22:20:00	30.05	H2SO4/KMl2		2	9	1	0.03328
249329004	22-MAR-2010 22:20:00	30.18	H2SO4/KMl2		2	9	1	0.03313
249335002	22-MAR-2010 22:20:00	30.17	H2SO4/KMl2		2	9	1	0.03315
1202077526 MS (249335002)	22-MAR-2010 22:20:00	30.03	H2SO4/KMl2		2	9	1	0.0333
1202077527 MSD (249335002)	22-MAR-2010 22:20:00	30.06	H2SO4/KMl2		2	9	1	0.03327
249335003	22-MAR-2010 22:20:00	30.07	H2SO4/KMl2		2	9	1	0.03326
249335004	22-MAR-2010 22:20:00	30.05	H2SO4/KMl2		2	9	1	0.03328
249335005	22-MAR-2010 22:20:00	30.11	H2SO4/KMl2		2	9	1	0.03321
249335006	22-MAR-2010 22:20:00	30.11	H2SO4/KMl2		2	9	1	0.03321
249335007	22-MAR-2010 22:20:00	30.01	H2SO4/KMl2		2	9	1	0.03332
249335008	22-MAR-2010 22:20:00	30.09	H2SO4/KMl2		2	9	1	0.03323

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202077525	PCB Laboratory Control	WE100311-07	1	mL
MS	1202077526	PCB Laboratory Control	WE100311-07	1	mL
MSD	1202077527	PCB Laboratory Control	WE100311-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100310-16	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1289815-B1	150	mL
REGNT	All	Hexane	1289823-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 22-MAR-2010

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2430

Sample Analysis

Sample ID	Client ID
249329001	RE46-10-13964
249329002	RE46-10-13966
249329003	RE46-10-13963
249329004	RE46-10-13965
1202072045	Method Blank (MB) **ICP**
1202091939	Method Blank (MB) **ICP**
1202072046	Laboratory Control Sample (LCS)
1202091940	Laboratory Control Sample (LCS)
1202072049	249333003(RE46-10-12972L) Serial Dilution (SD)
1202072047	249333003(RE46-10-12972D) Sample Duplicate (DUP)
1202072048	249333003(RE46-10-12972S) Matrix Spike (MS)
1202072050	249333003(RE46-10-12972SD) Matrix Spike Duplicate (MSD)
1202072051	Method Blank (MB) **ICP-MS**
1202072052	Laboratory Control Sample (LCS)
1202072055	249333003(RE46-10-12972L) Serial Dilution (SD)
1202072053	249333003(RE46-10-12972D) Sample Duplicate (DUP)
1202072054	249333003(RE46-10-12972S) Matrix Spike (MS)
1202072056	249330003(RE46-10-13220SD) Matrix Spike Duplicate (MSD)
1202081090	Method Blank (MB) **CVAA**
1202081091	Laboratory Control Sample (LCS)
1202081094	249330001(RE46-10-13219L) Serial Dilution (SD)
1202081092	249330001(RE46-10-13219D) Sample Duplicate (DUP)
1202081093	249330001(RE46-10-13219S) Matrix Spike (MS)
1202081095	249330001(RE46-10-13219SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	965624, 973755, 965627 and 969290
Prep Batch :	965623, 973754, 965626 and 969289
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 20, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis-ICP was performed on a P E 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85

L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 249333003 (RE46-10-12972)-ICP and ICP-MS, 249330003 (RE46-10-13220)-ICP-MS and 249330001 (RE46-10-13219)-CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes, with the exception of magnesium, manganese, and potassium, as

indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes, with the exception of magnesium and potassium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of RL is used to evaluate the DUP results. All applicable analytes met these requirements, with the exception of chromium and copper, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 815763, 817948, 828156. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer:_____ **Date:** 5/20/10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2430 GEL Work Order: 249329

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

N Metals--The Matrix spike sample recovery is not within specified control limits

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____ 5/20/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2430 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249329001 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13964 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4010000	ug/kg		7110	20900	20900	1	P	HSC	04/05/10 19:20	040510-1	965624
7440-36-0	Antimony	1050	ug/kg	U	345	1050	1050	1	P	HSC	04/05/10 19:20	040510-1	965624
7440-38-2	Arsenic	1160	ug/kg		209	1050	1050	2	MS	BCD1	05/16/10 08:10	100515-4	965627
7440-39-3	Barium	47700	ug/kg		105	523	523	1	P	HSC	04/05/10 19:20	040510-1	965624
7440-41-7	Beryllium	519	ug/kg		20.9	105	105	2	MS	PRB	05/18/10 08:42	100517-5	965627
7440-43-9	Cadmium	523	ug/kg	U	105	523	523	1	P	HSC	04/05/10 19:20	040510-1	965624
7440-70-2	Calcium	1030000	ug/kg		8370	26200	26200	1	P	HSC	04/05/10 19:20	040510-1	965624
7440-47-3	Chromium	3490	ug/kg		167	555	555	1	P	HSC	04/15/10 20:09	041510A-3	973755
7440-48-4	Cobalt	1500	ug/kg		157	523	523	1	P	HSC	04/05/10 19:20	040510-1	965624
7440-50-8	Copper	3870	ug/kg		333	1110	1110	1	P	HSC	04/15/10 20:09	041510A-3	973755
7439-89-6	Iron	7650000	ug/kg		8370	26200	26200	1	P	HSC	04/05/10 19:20	040510-1	965624
7439-92-1	Lead	5770	ug/kg		262	1050	1050	1	P	HSC	04/05/10 19:20	040510-1	965624
7439-95-4	Magnesium	781000	ug/kg		8890	31400	31400	1	P	HSC	04/05/10 19:20	040510-1	965624
7439-96-5	Manganese	235000	ug/kg		209	1050	1050	1	P	HSC	04/05/10 19:20	040510-1	965624
7439-97-6	Mercury	300	ug/kg		4.28	12.6	12.6	1	AV	JXL1	03/31/10 09:17	033110S1-6	969290
7440-02-0	Nickel	3620	ug/kg		105	418	418	2	MS	BCD1	05/16/10 08:10	100515-4	965627
7440-09-7	Potassium	681000	ug/kg		6700	26200	26200	1	P	HSC	04/05/10 19:20	040510-1	965624
7782-49-2	Selenium	1050	ug/kg	U	523	1050	1050	2	MS	BCD1	05/16/10 08:10	100515-4	965627
7440-22-4	Silver	523	ug/kg	U	105	523	523	1	P	HSC	04/05/10 19:20	040510-1	965624
7440-23-5	Sodium	134000	ug/kg		7320	26200	26200	1	P	HSC	04/05/10 19:20	040510-1	965624
7440-28-0	Thallium	136	ug/kg	J	62.8	209	209	2	MS	BCD1	05/16/10 08:10	100515-4	965627
7440-62-2	Vanadium	7750	ug/kg		105	523	523	1	P	HSC	04/05/10 19:20	040510-1	965624
7440-66-6	Zinc	28500	ug/kg		345	1050	1050	1	P	HSC	04/05/10 19:20	040510-1	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.532	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.532	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.53	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.501	g	50	mL	04/12/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2430 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249329002 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13966 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3620000	ug/kg		8120	23900	23900	1	P	HSC	04/05/10 19:22	040510-1	965624
7440-36-0	Antimony	1190	ug/kg	U	394	1190	1190	1	P	HSC	04/05/10 19:22	040510-1	965624
7440-38-2	Arsenic	875	ug/kg	J	222	1110	1110	2	MS	BCD1	05/16/10 08:15	100515-4	965627
7440-39-3	Barium	38900	ug/kg		119	597	597	1	P	HSC	04/05/10 19:22	040510-1	965624
7440-41-7	Beryllium	432	ug/kg		22.2	111	111	2	MS	PRB	05/18/10 08:43	100517-5	965627
7440-43-9	Cadmium	597	ug/kg	U	119	597	597	1	P	HSC	04/05/10 19:22	040510-1	965624
7440-70-2	Calcium	1280000	ug/kg		9550	29800	29800	1	P	HSC	04/05/10 19:22	040510-1	965624
7440-47-3	Chromium	2210	ug/kg		178	595	595	1	P	HSC	04/15/10 20:16	041510A-3	973755
7440-48-4	Cobalt	1150	ug/kg		179	597	597	1	P	HSC	04/05/10 19:22	040510-1	965624
7440-50-8	Copper	3230	ug/kg		357	1190	1190	1	P	HSC	04/15/10 20:16	041510A-3	973755
7439-89-6	Iron	7910000	ug/kg		9550	29800	29800	1	P	HSC	04/05/10 19:22	040510-1	965624
7439-92-1	Lead	8100	ug/kg		298	1190	1190	1	P	HSC	04/05/10 19:22	040510-1	965624
7439-95-4	Magnesium	724000	ug/kg		10100	35800	35800	1	P	HSC	04/05/10 19:22	040510-1	965624
7439-96-5	Manganese	302000	ug/kg		239	1190	1190	1	P	HSC	04/05/10 19:22	040510-1	965624
7439-97-6	Mercury	261	ug/kg		4.38	12.9	12.9	1	AV	JXL1	03/31/10 09:19	033110S1-6	969290
7440-02-0	Nickel	2940	ug/kg		111	444	444	2	MS	BCD1	05/16/10 08:15	100515-4	965627
7440-09-7	Potassium	659000	ug/kg		7640	29800	29800	1	P	HSC	04/05/10 19:22	040510-1	965624
7782-49-2	Selenium	1110	ug/kg	U	555	1110	1110	2	MS	BCD1	05/16/10 08:15	100515-4	965627
7440-22-4	Silver	597	ug/kg	U	119	597	597	1	P	HSC	04/05/10 19:22	040510-1	965624
7440-23-5	Sodium	55500	ug/kg		8360	29800	29800	1	P	HSC	04/05/10 19:22	040510-1	965624
7440-28-0	Thallium	91.2	ug/kg	J	66.6	222	222	2	MS	BCD1	05/16/10 08:15	100515-4	965627
7440-62-2	Vanadium	6130	ug/kg		119	597	597	1	P	HSC	04/05/10 19:22	040510-1	965624
7440-66-6	Zinc	32500	ug/kg		394	1190	1190	1	P	HSC	04/05/10 19:22	040510-1	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.5	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.538	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.556	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.502	g	50	mL	04/12/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2430 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249329003 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13963 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 77

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5320000	ug/kg		8390	24700	24700	1	P	HSC	04/05/10 19:30	040510-1	965624
7440-36-0	Antimony	1230	ug/kg	U	407	1230	1230	1	P	HSC	04/05/10 19:30	040510-1	965624
7440-38-2	Arsenic	1290	ug/kg		259	1290	1290	2	MS	BCD1	05/16/10 08:19	100515-4	965627
7440-39-3	Barium	54000	ug/kg		123	617	617	1	P	HSC	04/05/10 19:30	040510-1	965624
7440-41-7	Beryllium	517	ug/kg		25.9	129	129	2	MS	PRB	05/18/10 08:43	100517-5	965627
7440-43-9	Cadmium	617	ug/kg	U	123	617	617	1	P	HSC	04/05/10 19:30	040510-1	965624
7440-70-2	Calcium	1400000	ug/kg		9870	30800	30800	1	P	HSC	04/05/10 19:30	040510-1	965624
7440-47-3	Chromium	3070	ug/kg		190	632	632	1	P	HSC	04/15/10 20:36	041510A-3	973755
7440-48-4	Cobalt	1960	ug/kg		185	617	617	1	P	HSC	04/05/10 19:30	040510-1	965624
7440-50-8	Copper	3720	ug/kg		379	1260	1260	1	P	HSC	04/15/10 20:36	041510A-3	973755
7439-89-6	Iron	8690000	ug/kg		9870	30800	30800	1	P	HSC	04/05/10 19:30	040510-1	965624
7439-92-1	Lead	7850	ug/kg		308	1230	1230	1	P	HSC	04/05/10 19:30	040510-1	965624
7439-95-4	Magnesium	937000	ug/kg		10500	37000	37000	1	P	HSC	04/05/10 19:30	040510-1	965624
7439-96-5	Manganese	245000	ug/kg		247	1230	1230	1	P	HSC	04/05/10 19:30	040510-1	965624
7439-97-6	Mercury	563	ug/kg		4.94	14.5	14.5	1	AV	JXL1	03/31/10 09:25	033110S1-6	969290
7440-02-0	Nickel	3590	ug/kg		129	517	517	2	MS	BCD1	05/16/10 08:19	100515-4	965627
7440-09-7	Potassium	977000	ug/kg		7900	30800	30800	1	P	HSC	04/05/10 19:30	040510-1	965624
7782-49-2	Selenium	1290	ug/kg	U	646	1290	1290	2	MS	BCD1	05/16/10 08:19	100515-4	965627
7440-22-4	Silver	617	ug/kg	U	123	617	617	1	P	HSC	04/05/10 19:30	040510-1	965624
7440-23-5	Sodium	62100	ug/kg		8640	30800	30800	1	P	HSC	04/05/10 19:30	040510-1	965624
7440-28-0	Thallium	104	ug/kg	J	77.6	259	259	2	MS	BCD1	05/16/10 08:19	100515-4	965627
7440-62-2	Vanadium	9780	ug/kg		123	617	617	1	P	HSC	04/05/10 19:30	040510-1	965624
7440-66-6	Zinc	32700	ug/kg		407	1230	1230	1	P	HSC	04/05/10 19:30	040510-1	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.529	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.505	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.539	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.516	g	50	mL	04/12/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2430 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249329004 **BASIS:** Dry Weight **DATE COLLECTED** 11-MAR-10

CLIENT ID: RE46-10-13965 **LEVEL:** Low **DATE RECEIVED** 13-MAR-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2800000	ug/kg		7440	21900	21900	1	P	HSC	04/05/10 19:32	040510-1	965624
7440-36-0	Antimony	1090	ug/kg	U	361	1090	1090	1	P	HSC	04/05/10 19:32	040510-1	965624
7440-38-2	Arsenic	772	ug/kg	J	213	1060	1060	2	MS	BCD1	05/16/10 08:23	100515-4	965627
7440-39-3	Barium	29800	ug/kg		109	547	547	1	P	HSC	04/05/10 19:32	040510-1	965624
7440-41-7	Beryllium	384	ug/kg		21.3	106	106	2	MS	PRB	05/18/10 08:44	100517-5	965627
7440-43-9	Cadmium	547	ug/kg	U	109	547	547	1	P	HSC	04/05/10 19:32	040510-1	965624
7440-70-2	Calcium	916000	ug/kg		8750	27300	27300	1	P	HSC	04/05/10 19:32	040510-1	965624
7440-47-3	Chromium	6250	ug/kg		166	554	554	1	P	HSC	04/15/10 20:43	041510A-3	973755
7440-48-4	Cobalt	1000	ug/kg		164	547	547	1	P	HSC	04/05/10 19:32	040510-1	965624
7440-50-8	Copper	4450	ug/kg		333	1110	1110	1	P	HSC	04/15/10 20:43	041510A-3	973755
7439-89-6	Iron	7030000	ug/kg		8750	27300	27300	1	P	HSC	04/05/10 19:32	040510-1	965624
7439-92-1	Lead	5470	ug/kg		273	1090	1090	1	P	HSC	04/05/10 19:32	040510-1	965624
7439-95-4	Magnesium	502000	ug/kg		9290	32800	32800	1	P	HSC	04/05/10 19:32	040510-1	965624
7439-96-5	Manganese	289000	ug/kg		219	1090	1090	1	P	HSC	04/05/10 19:32	040510-1	965624
7439-97-6	Mercury	528	ug/kg		4.02	11.8	11.8	1	AV	JXL1	03/31/10 09:27	033110S1-6	969290
7440-02-0	Nickel	2630	ug/kg		106	426	426	2	MS	BCD1	05/16/10 08:23	100515-4	965627
7440-09-7	Potassium	495000	ug/kg		7000	27300	27300	1	P	HSC	04/05/10 19:32	040510-1	965624
7782-49-2	Selenium	1060	ug/kg	U	532	1060	1060	2	MS	BCD1	05/16/10 08:23	100515-4	965627
7440-22-4	Silver	547	ug/kg	U	109	547	547	1	P	HSC	04/05/10 19:32	040510-1	965624
7440-23-5	Sodium	68400	ug/kg		7650	27300	27300	1	P	HSC	04/05/10 19:32	040510-1	965624
7440-28-0	Thallium	213	ug/kg	U	63.9	213	213	2	MS	BCD1	05/16/10 08:23	100515-4	965627
7440-62-2	Vanadium	4890	ug/kg		109	547	547	1	P	HSC	04/05/10 19:32	040510-1	965624
7440-66-6	Zinc	28500	ug/kg		361	1090	1090	1	P	HSC	04/05/10 19:32	040510-1	965624

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965624	965623	SW846 3050B	0.514	g	50	mL	03/31/10	LYH1
965627	965626	SW846 3050B	0.528	g	50	mL	03/31/10	LYH1
969290	969289	SW846 7471A Prep	0.571	g	30	mL	03/30/10	TXB3
973755	973754	SW846 3050B	0.507	g	50	mL	04/12/10	AXG2

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.17	ug/L	5	ug/L	103.5	90.0 – 110.0	AV	31–MAR–10 08:51	033110S1–6
	Aluminum	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Antimony	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Barium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Calcium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Cobalt	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Iron	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Magnesium	5270	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Manganese	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Potassium	2540	ug/L	2500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Silver	259	ug/L	250	ug/L	103.6	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Sodium	2530	ug/L	2500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Zinc	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Chromium	470	ug/L	500	ug/L	94	90.0 – 110.0	P	15–APR–10 16:46	041510A–3
	Copper	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	15–APR–10 16:46	041510A–3
	Arsenic	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	16–MAY–10 07:21	100515–4
	Nickel	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	16–MAY–10 07:21	100515–4
	Selenium	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	16–MAY–10 07:21	100515–4
	Thallium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	16–MAY–10 07:21	100515–4
	Beryllium	50.8	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	18–MAY–10 08:36	100517–5
CCV01										
	Mercury	5.17	ug/L	5	ug/L	103.5	80.0 – 120.0	AV	31–MAR–10 08:57	033110S1–6
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Antimony	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Barium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Cadmium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Calcium	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 10:36	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Lead	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Magnesium	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Potassium	5650	ug/L	5000	ug/L	113	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Silver	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Sodium	10100	ug/L	10000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Vanadium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Zinc	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Chromium	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	15–APR–10 17:33	041510A–3
	Copper	469	ug/L	500	ug/L	93.9	90.0 – 110.0	P	15–APR–10 17:33	041510A–3
	Arsenic	50.6	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	16–MAY–10 07:41	100515–4
	Nickel	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	16–MAY–10 07:41	100515–4
	Selenium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	16–MAY–10 07:41	100515–4
	Thallium	49	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	16–MAY–10 07:41	100515–4
	Beryllium	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	18–MAY–10 08:39	100517–5
CCV02										
	Mercury	5.47	ug/L	5	ug/L	109.4	80.0 – 120.0	AV	31–MAR–10 09:21	033110S1–6
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Antimony	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Lead	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Magnesium	5180	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Potassium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 10:49	040510–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silver	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Sodium	9950	ug/L	10000	ug/L	99.5	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Vanadium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Zinc	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Chromium	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	15–APR–10 17:59	041510A–3
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	15–APR–10 17:59	041510A–3
	Arsenic	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	16–MAY–10 07:54	100515–4
	Nickel	52.7	ug/L	50	ug/L	105.4	90.0 – 110.0	MS	16–MAY–10 07:54	100515–4
	Selenium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	16–MAY–10 07:54	100515–4
	Thallium	51.2	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	16–MAY–10 07:54	100515–4
	Beryllium	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	18–MAY–10 08:48	100517–5
CCV03										
	Mercury	5.35	ug/L	5	ug/L	106.9	80.0 – 120.0	AV	31–MAR–10 09:45	033110S1–6
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Antimony	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Cadmium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Calcium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Iron	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Magnesium	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Manganese	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Potassium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Silver	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Sodium	9980	ug/L	10000	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Zinc	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Chromium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	15–APR–10 19:08	041510A–3
	Copper	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	15–APR–10 19:08	041510A–3

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	16–MAY–10 08:44	100515–4
	Nickel	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	16–MAY–10 08:44	100515–4
	Selenium	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	16–MAY–10 08:44	100515–4
	Thallium	48	ug/L	50	ug/L	96	90.0 – 110.0	MS	16–MAY–10 08:44	100515–4
	Beryllium	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	18–MAY–10 08:55	100517–5
CCV04										
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Antimony	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Barium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Cadmium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Lead	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Manganese	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Potassium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Sodium	10000	ug/L	10000	ug/L	100.1	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Zinc	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Chromium	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	15–APR–10 20:23	041510A–3
	Copper	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	15–APR–10 20:23	041510A–3
	Arsenic	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	16–MAY–10 09:30	100515–4
	Nickel	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	16–MAY–10 09:30	100515–4
	Selenium	49.8	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	16–MAY–10 09:30	100515–4
	Thallium	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	16–MAY–10 09:30	100515–4
CCV05										
	Aluminum	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Cadmium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Calcium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Iron	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Manganese	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Silver	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Zinc	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Chromium	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	15–APR–10 21:31	041510A–3
	Copper	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	15–APR–10 21:31	041510A–3
CCV06										
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Antimony	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Barium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Cadmium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Iron	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Lead	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Magnesium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Manganese	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Potassium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Silver	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 12:16	040510–1
CCV07										
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Antimony	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Cadmium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Lead	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Magnesium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Potassium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Silver	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Sodium	9960	ug/L	10000	ug/L	99.6	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Vanadium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Zinc	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 12:41	040510–1
CCV08										
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Barium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Cadmium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Calcium	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Cobalt	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Iron	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Lead	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Manganese	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Silver	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 13:02	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	10000	ug/L	10000	ug/L	100.2	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Vanadium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Zinc	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 13:02	040510–1
CCV09										
	Aluminum	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Antimony	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Cadmium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Lead	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Potassium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Silver	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Sodium	10100	ug/L	10000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Vanadium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 13:19	040510–1
CCV10										
	Aluminum	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Antimony	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Barium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Cadmium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Calcium	5140	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Cobalt	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Iron	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Lead	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Magnesium	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Manganese	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 13:42	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Silver	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Vanadium	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Zinc	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 13:42	040510–1
CCV11										
	Aluminum	4970	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Antimony	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Barium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Cadmium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Calcium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Iron	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Lead	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Potassium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Silver	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Vanadium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Zinc	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 13:57	040510–1
CCV12										
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Antimony	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Cadmium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Calcium	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Lead	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	05–APR–10 14:22	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Silver	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Zinc	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 14:22	040510–1
CCV13										
	Aluminum	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Antimony	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Barium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	05–APR–10 14:55	040510–I
	Lead	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Magnesium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Manganese	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Potassium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Zinc	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 14:55	040510–1
CCV14										
	Aluminum	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Antimony	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Cadmium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	05–APR–10 15:16	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Lead	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Potassium	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Silver	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Sodium	10100	ug/L	10000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Zinc	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 15:16	040510–1
CCV15										
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Antimony	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Cadmium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Calcium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Cobalt	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Iron	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Lead	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Magnesium	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Potassium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Silver	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Sodium	10100	ug/L	10000	ug/L	101	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Vanadium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 15:42	040510–1
CCV16										
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Antimony	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Cadmium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 16:01	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Magnesium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Potassium	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Silver	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Zinc	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 16:01	040510–1
CCV17										
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Antimony	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Cadmium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Cobalt	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Iron	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Lead	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Potassium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Silver	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Sodium	10100	ug/L	10000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Zinc	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 16:19	040510–1
CCV18										
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Antimony	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 16:37	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Cobalt	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Lead	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Sodium	10100	ug/L	10000	ug/L	100.6	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 16:37	040510–1
CCV19										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Barium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Cobalt	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Lead	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Magnesium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Potassium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Silver	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Vanadium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 16:51	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV20										
	Aluminum	4890	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Antimony	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Barium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Cadmium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Calcium	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Cobalt	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Manganese	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Silver	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Vanadium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 17:10	040510–1
CCV21										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Antimony	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Barium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Cobalt	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Lead	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Magnesium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Manganese	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Potassium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Silver	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Vanadium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 17:26	040510–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 17:26	040510–1
CCV22										
	Aluminum	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	05–APR–10 17:45	040510–1
	Antimony	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 17:45	040510–1
	Barium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 17:45	040510–1
	Cadmium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 17:45	040510–1
	Calcium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	05–APR–10 17:45	040510–1
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 17:45	040510–1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 17:45	040510–1
	Lead	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	05–APR–10 17:45	040510–1
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 17:45	040510–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 17:45	040510–1
	Potassium	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	05–APR–10 17:45	040510–1
	Silver	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 17:45	040510–1
	Sodium	10100	ug/L	10000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 17:45	040510–1
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 17:45	040510–1
	Zinc	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 17:45	040510–1
CCV23										
	Aluminum	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	05–APR–10 18:06	040510–1
	Antimony	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 18:06	040510–1
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 18:06	040510–1
	Cadmium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 18:06	040510–1
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	05–APR–10 18:06	040510–1
	Cobalt	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 18:06	040510–1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 18:06	040510–1
	Lead	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 18:06	040510–1
	Magnesium	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05–APR–10 18:06	040510–1
	Manganese	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 18:06	040510–1
	Potassium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 18:06	040510–1
	Silver	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 18:06	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	10100	ug/L	10000	ug/L	101.1	90.0 – 110.0	P	05–APR–10 18:06	040510–1
	Vanadium	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 18:06	040510–1
	Zinc	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 18:06	040510–1
CCV24										
	Aluminum	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	05–APR–10 18:27	040510–1
	Antimony	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 18:27	040510–1
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 18:27	040510–1
	Cadmium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 18:27	040510–1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 18:27	040510–1
	Cobalt	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05–APR–10 18:27	040510–1
	Iron	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 18:27	040510–1
	Lead	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 18:27	040510–1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	05–APR–10 18:27	040510–1
	Manganese	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 18:27	040510–1
	Potassium	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	05–APR–10 18:27	040510–1
	Silver	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 18:27	040510–1
	Sodium	10100	ug/L	10000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 18:27	040510–1
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 18:27	040510–1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 18:27	040510–1
CCV25										
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	05–APR–10 18:46	040510–1
	Antimony	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 18:46	040510–1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 18:46	040510–1
	Cadmium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 18:46	040510–1
	Calcium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	05–APR–10 18:46	040510–1
	Cobalt	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	05–APR–10 18:46	040510–1
	Iron	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	05–APR–10 18:46	040510–1
	Lead	515	ug/L	500	ug/L	103	90.0 – 110.0	P	05–APR–10 18:46	040510–1
	Magnesium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 18:46	040510–1
	Manganese	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 18:46	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	05–APR–10 18:46	040510–1
	Silver	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 18:46	040510–1
	Sodium	10100	ug/L	10000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 18:46	040510–1
	Vanadium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	05–APR–10 18:46	040510–1
	Zinc	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 18:46	040510–1
CCV26										
	Aluminum	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 19:02	040510–1
	Antimony	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 19:02	040510–1
	Barium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 19:02	040510–1
	Cadmium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 19:02	040510–1
	Calcium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	05–APR–10 19:02	040510–1
	Cobalt	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	05–APR–10 19:02	040510–1
	Iron	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	05–APR–10 19:02	040510–1
	Lead	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05–APR–10 19:02	040510–1
	Magnesium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	05–APR–10 19:02	040510–1
	Manganese	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 19:02	040510–1
	Potassium	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	05–APR–10 19:02	040510–1
	Silver	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 19:02	040510–1
	Sodium	10200	ug/L	10000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 19:02	040510–1
	Vanadium	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	05–APR–10 19:02	040510–1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 19:02	040510–1
CCV27										
	Aluminum	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05–APR–10 19:24	040510–1
	Antimony	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 19:24	040510–1
	Barium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 19:24	040510–1
	Cadmium	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 19:24	040510–1
	Calcium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	05–APR–10 19:24	040510–1
	Cobalt	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	05–APR–10 19:24	040510–1
	Iron	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	05–APR–10 19:24	040510–1
	Lead	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05–APR–10 19:24	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	05–APR–10 19:24	040510–1
	Manganese	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 19:24	040510–1
	Potassium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	05–APR–10 19:24	040510–1
	Silver	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05–APR–10 19:24	040510–1
	Sodium	10200	ug/L	10000	ug/L	101.8	90.0 – 110.0	P	05–APR–10 19:24	040510–1
	Vanadium	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05–APR–10 19:24	040510–1
	Zinc	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 19:24	040510–1
CCV28										
	Aluminum	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	05–APR–10 19:46	040510–1
	Antimony	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 19:46	040510–1
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 19:46	040510–1
	Cadmium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 19:46	040510–1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 19:46	040510–1
	Cobalt	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 19:46	040510–1
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 19:46	040510–1
	Lead	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 19:46	040510–1
	Magnesium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 19:46	040510–1
	Manganese	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 19:46	040510–1
	Potassium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 19:46	040510–1
	Silver	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 19:46	040510–1
	Sodium	10200	ug/L	10000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 19:46	040510–1
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 19:46	040510–1
	Zinc	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 19:46	040510–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS4,ICPMS7,MER536,OPTIMA3,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.226	ug/L	.2	ug/L	112.9	70.0 – 130.0	AV	31–MAR–10 08:55	033110S1–6
	Nickel	2.35	ug/L	2	ug/L	117.5	70.0 – 130.0	MS	16–MAY–10 07:29	100515–4
	Thallium	1.24	ug/L	1	ug/L	124.3	70.0 – 130.0	MS	16–MAY–10 07:29	100515–4
	Selenium	6.09	ug/L	5	ug/L	121.7	70.0 – 130.0	MS	16–MAY–10 07:29	100515–4
	Arsenic	5.87	ug/L	5	ug/L	117.3	70.0 – 130.0	MS	16–MAY–10 07:29	100515–4
	Beryllium	.668	ug/L	.5	ug/L	133.6	70.0 – 130.0	MS	18–MAY–10 08:37	100517–5
PQL01										
	Aluminum	206	ug/L	200	ug/L	103	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Iron	104	ug/L	100	ug/L	103.9	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Lead	9.5	ug/L	10	ug/L	95	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Manganese	10.5	ug/L	10	ug/L	104.5	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Silver	4.82	ug/L	5	ug/L	96.4	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Antimony	7.08	ug/L	10	ug/L	70.8	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Cadmium	5.13	ug/L	5	ug/L	102.6	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Vanadium	5.27	ug/L	5	ug/L	105.5	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Calcium	206	ug/L	200	ug/L	103.1	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Zinc	10.5	ug/L	10	ug/L	104.5	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Cobalt	5.33	ug/L	5	ug/L	106.7	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Barium	5.09	ug/L	5	ug/L	101.8	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Sodium	277	ug/L	300	ug/L	92.3	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Potassium	150	ug/L	150	ug/L	100.3	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Magnesium	329	ug/L	300	ug/L	109.5	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Chromium	4.9	ug/L	5	ug/L	98.1	70.0 – 130.0	P	15–APR–10 16:59	041510A–3
	Copper	9.27	ug/L	10	ug/L	92.7	70.0 – 130.0	P	15–APR–10 16:59	041510A–3

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2430

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	31–MAR–10 08:53	033110S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 10:25	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:25	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:25	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:25	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:25	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 10:25	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 10:25	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 10:25	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 10:25	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 10:25	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:25	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–APR–10 16:53	041510A–3
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–APR–10 16:53	041510A–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 07:25	100515–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 07:25	100515–4
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 07:25	100515–4
	Thallium	0.466	+/–1	J	0.3	1.0	SOL	MS	16–MAY–10 07:25	100515–4
	Beryllium	0.187	+/–.5	J	0.1	0.5	SOL	MS	18–MAY–10 08:36	100517–5
CCB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	31–MAR–10 08:59	033110S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 10:38	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:38	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:38	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:38	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2430

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:38	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 10:38	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 10:38	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 10:38	040510–1
	Potassium	236.18	+/–250	J	64.0	250	SOL	P	05–APR–10 10:38	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–1
	Sodium	98.65	+/–250	J	70.0	250	SOL	P	05–APR–10 10:38	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:38	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–APR–10 17:40	041510A–3
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–APR–10 17:40	041510A–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 07:46	100515–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 07:46	100515–4
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 07:46	100515–4
	Thallium	0.374	+/–1	J	0.3	1.0	SOL	MS	16–MAY–10 07:46	100515–4
	Beryllium	0.156	+/–.5	J	0.1	0.5	SOL	MS	18–MAY–10 08:40	100517–5
CCB02										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	31–MAR–10 09:23	033110S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 10:51	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:51	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:51	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:51	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:51	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 10:51	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 10:51	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 10:51	040510–1
	Potassium	70.41	+/–250	J	64.0	250	SOL	P	05–APR–10 10:51	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 10:51	040510–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2430

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:51	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–APR–10 18:06	041510A–3
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–APR–10 18:06	041510A–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 07:58	100515–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 07:58	100515–4
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 07:58	100515–4
	Thallium	0.813	+/–1	J	0.3	1.0	SOL	MS	16–MAY–10 07:58	100515–4
	Beryllium	0.226	+/–.5	J	0.1	0.5	SOL	MS	18–MAY–10 08:48	100517–5
CCB03										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	31–MAR–10 09:47	033110S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 11:23	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:23	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:23	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:23	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:23	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 11:23	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 11:23	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 11:23	040510–1
	Potassium	85.5	+/–250	J	64.0	250	SOL	P	05–APR–10 11:23	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 11:23	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:23	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–APR–10 19:15	041510A–3
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–APR–10 19:15	041510A–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 08:48	100515–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 08:48	100515–4
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 08:48	100515–4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2430

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Thallium	0.309	+/–1	J	0.3	1.0	SOL	MS	16–MAY–10 08:48	100515–4
	Beryllium	0.183	+/–.5	J	0.1	0.5	SOL	MS	18–MAY–10 08:56	100517–5
CCB04										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 11:31	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:31	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:31	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:31	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:31	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 11:31	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 11:31	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 11:31	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 11:31	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 11:31	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:31	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–APR–10 20:30	041510A–3
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–APR–10 20:30	041510A–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 09:34	100515–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 09:34	100515–4
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 09:34	100515–4
	Thallium	0.32	+/–1	J	0.3	1.0	SOL	MS	16–MAY–10 09:34	100515–4
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 11:54	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:54	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:54	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:54	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:54	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:54	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2430

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:54	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 11:54	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 11:54	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 11:54	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 11:54	040510–1
	Silver	–1.55	+/–5	J	1.0	5.0	SOL	P	05–APR–10 11:54	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 11:54	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:54	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:54	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	15–APR–10 21:38	041510A–3
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	15–APR–10 21:38	041510A–3
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 12:18	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 12:18	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:18	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 12:18	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:18	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 12:18	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 12:18	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 12:18	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 12:18	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 12:18	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 12:18	040510–1
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 12:43	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 12:43	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:43	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2430

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:43	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:43	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 12:43	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:43	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 12:43	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 12:43	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 12:43	040510–1
	Potassium	84.07	+/–250	J	64.0	250	SOL	P	05–APR–10 12:43	040510–1
	Silver	–1.25	+/–5	J	1.0	5.0	SOL	P	05–APR–10 12:43	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 12:43	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:43	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 12:43	040510–1
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 13:04	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:04	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:04	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:04	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:04	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:04	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:04	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:04	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:04	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:04	040510–1
	Potassium	87.68	+/–250	J	64.0	250	SOL	P	05–APR–10 13:04	040510–1
	Silver	–1.14	+/–5	J	1.0	5.0	SOL	P	05–APR–10 13:04	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 13:04	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:04	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:04	040510–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 13:21	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:21	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2430

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:21	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:21	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:21	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:21	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:21	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:21	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 13:21	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 13:21	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:21	040510–1
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 13:44	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:44	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:44	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:44	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:44	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:44	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:44	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:44	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:44	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:44	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 13:44	040510–1
	Silver	–1.38	+/–5	J	1.0	5.0	SOL	P	05–APR–10 13:44	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 13:44	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:44	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:44	040510–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 13:59	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2430

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:59	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:59	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:59	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:59	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:59	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:59	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:59	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:59	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:59	040510–1
	Potassium	75.96	+/–250	J	64.0	250	SOL	P	05–APR–10 13:59	040510–1
	Silver	–1.41	+/–5	J	1.0	5.0	SOL	P	05–APR–10 13:59	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 13:59	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:59	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:59	040510–1
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 14:24	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 14:24	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:24	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:24	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 14:24	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 14:24	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 14:24	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 14:24	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 14:24	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 14:24	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 14:24	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:24	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 14:24	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:24	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 14:24	040510–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2430

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB13										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 14:58	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 14:58	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:58	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:58	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 14:58	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 14:58	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 14:58	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 14:58	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 14:58	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 14:58	040510–1
	Potassium	68.95	+/–250	J	64.0	250	SOL	P	05–APR–10 14:58	040510–1
	Silver	–1.26	+/–5	J	1.0	5.0	SOL	P	05–APR–10 14:58	040510–1
	Sodium	85.97	+/–250	J	70.0	250	SOL	P	05–APR–10 14:58	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:58	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 14:58	040510–1
CCB14										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 15:19	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 15:19	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:19	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:19	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 15:19	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 15:19	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 15:19	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 15:19	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 15:19	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 15:19	040510–1
	Potassium	85.73	+/–250	J	64.0	250	SOL	P	05–APR–10 15:19	040510–1
	Silver	–1.85	+/–5	J	1.0	5.0	SOL	P	05–APR–10 15:19	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 15:19	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:19	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 15:19	040510–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2430

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB15										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 15:45	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 15:45	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:45	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:45	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 15:45	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 15:45	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 15:45	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 15:45	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 15:45	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 15:45	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 15:45	040510–1
	Silver	–1.39	+/–5	J	1.0	5.0	SOL	P	05–APR–10 15:45	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 15:45	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:45	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 15:45	040510–1
CCB16										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 16:03	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:03	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:03	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:03	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:03	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:03	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:03	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 16:03	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 16:03	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 16:03	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 16:03	040510–1
	Silver	–1.77	+/–5	J	1.0	5.0	SOL	P	05–APR–10 16:03	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 16:03	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:03	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:03	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2430

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB17										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 16:21	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:21	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:21	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:21	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:21	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:21	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:21	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 16:21	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 16:21	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 16:21	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 16:21	040510–1
	Silver	–2.07	+/–5	J	1.0	5.0	SOL	P	05–APR–10 16:21	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 16:21	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:21	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:21	040510–1
CCB18										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 16:39	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:39	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:39	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:39	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:39	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:39	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:39	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 16:39	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 16:39	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 16:39	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 16:39	040510–1
	Silver	–2.22	+/–5	J	1.0	5.0	SOL	P	05–APR–10 16:39	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 16:39	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:39	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:39	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2430

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB19										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 16:53	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:53	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:53	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:53	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:53	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:53	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:53	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 16:53	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 16:53	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 16:53	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 16:53	040510–1
	Silver	–1.09	+/–5	J	1.0	5.0	SOL	P	05–APR–10 16:53	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 16:53	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:53	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:53	040510–1
CCB20										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 17:12	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:12	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:12	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:12	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:12	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 17:12	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:12	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 17:12	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 17:12	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 17:12	040510–1
	Potassium	89.98	+/–250	J	64.0	250	SOL	P	05–APR–10 17:12	040510–1
	Silver	–2.36	+/–5	J	1.0	5.0	SOL	P	05–APR–10 17:12	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 17:12	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:12	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:12	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2430

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB21										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 17:28	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:28	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:28	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:28	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:28	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 17:28	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:28	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 17:28	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 17:28	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 17:28	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 17:28	040510–1
	Silver	–1.5	+/–5	J	1.0	5.0	SOL	P	05–APR–10 17:28	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 17:28	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:28	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:28	040510–1
CCB22										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 17:47	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:47	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:47	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:47	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:47	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 17:47	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:47	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 17:47	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 17:47	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 17:47	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 17:47	040510–1
	Silver	–1.92	+/–5	J	1.0	5.0	SOL	P	05–APR–10 17:47	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 17:47	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:47	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:47	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2430

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB23										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 18:08	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 18:08	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:08	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:08	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 18:08	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 18:08	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 18:08	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 18:08	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 18:08	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 18:08	040510–1
	Potassium	81.71	+/–250	J	64.0	250	SOL	P	05–APR–10 18:08	040510–1
	Silver	–1.64	+/–5	J	1.0	5.0	SOL	P	05–APR–10 18:08	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 18:08	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:08	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 18:08	040510–1
CCB24										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 18:29	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 18:29	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:29	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:29	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 18:29	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 18:29	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 18:29	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 18:29	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 18:29	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 18:29	040510–1
	Potassium	100.92	+/–250	J	64.0	250	SOL	P	05–APR–10 18:29	040510–1
	Silver	–1.56	+/–5	J	1.0	5.0	SOL	P	05–APR–10 18:29	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 18:29	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:29	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 18:29	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2430

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB25										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 18:48	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 18:48	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:48	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:48	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 18:48	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 18:48	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 18:48	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 18:48	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 18:48	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 18:48	040510–1
	Potassium	95.03	+/–250	J	64.0	250	SOL	P	05–APR–10 18:48	040510–1
	Silver	–1.65	+/–5	J	1.0	5.0	SOL	P	05–APR–10 18:48	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 18:48	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 18:48	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 18:48	040510–1
CCB26										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 19:04	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 19:04	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:04	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:04	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 19:04	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 19:04	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 19:04	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 19:04	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 19:04	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 19:04	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 19:04	040510–1
	Silver	–1.53	+/–5	J	1.0	5.0	SOL	P	05–APR–10 19:04	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 19:04	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:04	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 19:04	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2430

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB27										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 19:27	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 19:27	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:27	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:27	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 19:27	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 19:27	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 19:27	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 19:27	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 19:27	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 19:27	040510–1
	Potassium	64.02	+/–250	J	64.0	250	SOL	P	05–APR–10 19:27	040510–1
	Silver	–1.53	+/–5	J	1.0	5.0	SOL	P	05–APR–10 19:27	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 19:27	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:27	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 19:27	040510–1
CCB28										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 19:48	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 19:48	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:48	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:48	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 19:48	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 19:48	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 19:48	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 19:48	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 19:48	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 19:48	040510–1
	Potassium	73.66	+/–250	J	64.0	250	SOL	P	05–APR–10 19:48	040510–1
	Silver	–1.78	+/–5	J	1.0	5.0	SOL	P	05–APR–10 19:48	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 19:48	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 19:48	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 19:48	040510–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2430

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202072045								
	Aluminum	6630	ug/kg	+/–19500	U	P	6630	19500
	Antimony	322	ug/kg	+/–975	U	P	322	975
	Cadmium	97.5	ug/kg	+/–487	U	P	97.5	487
	Barium	97.5	ug/kg	+/–487	U	P	97.5	487
	Calcium	7800	ug/kg	+/–24400	U	P	7800	24400
	Iron	7800	ug/kg	+/–24400	U	P	7800	24400
	Magnesium	8280	ug/kg	+/–29200	U	P	8280	29200
	Potassium	7280	ug/kg	+/–24400	J	P	6240	24400
	Sodium	6820	ug/kg	+/–24400	U	P	6820	24400
	Zinc	322	ug/kg	+/–975	U	P	322	975
	Vanadium	97.5	ug/kg	+/–487	U	P	97.5	487
	Silver	97.5	ug/kg	+/–487	U	P	97.5	487
	Manganese	195	ug/kg	+/–975	U	P	195	975
	Lead	244	ug/kg	+/–975	U	P	244	975
	Cobalt	146	ug/kg	+/–487	U	P	146	487
1202072051								
	Arsenic	193	ug/kg	+/–965	U	MS	193	965
	Thallium	80.3	ug/kg	+/–193	J	MS	57.9	193
	Beryllium	19.3	ug/kg	+/–96.5	U	MS	19.3	96.5
	Selenium	483	ug/kg	+/–965	U	MS	483	965
	Nickel	96.5	ug/kg	+/–386	U	MS	96.5	386
1202081090								
	Mercury	4.03	ug/kg	+/–11.9	U	AV	4.03	11.9
1202091939								
	Chromium	353	ug/kg	+/–482	J	P	145	482
	Copper	289	ug/kg	+/–963	U	P	289	963

METALS
–4–
Interference Check Sample

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	507000	ug/L	500000	ug/L	101	80.0 – 120.0	05–APR–10 10:30	040510–1
	Antimony	2.46	ug/L					05–APR–10 10:30	040510–1
	Barium	0.214	ug/L					05–APR–10 10:30	040510–1
	Cadmium	–1.98	ug/L					05–APR–10 10:30	040510–1
	Calcium	489000	ug/L	500000	ug/L	97.8	80.0 – 120.0	05–APR–10 10:30	040510–1
	Cobalt	–6.2	ug/L					05–APR–10 10:30	040510–1
	Iron	192000	ug/L	200000	ug/L	95.9	80.0 – 120.0	05–APR–10 10:30	040510–1
	Lead	–2.28	ug/L					05–APR–10 10:30	040510–1
	Magnesium	488000	ug/L	500000	ug/L	97.6	80.0 – 120.0	05–APR–10 10:30	040510–1
	Manganese	2.95	ug/L					05–APR–10 10:30	040510–1
	Potassium	–150.0	ug/L					05–APR–10 10:30	040510–1
	Silver	–1.56	ug/L					05–APR–10 10:30	040510–1
	Sodium	72.8	ug/L					05–APR–10 10:30	040510–1
	Vanadium	1.44	ug/L					05–APR–10 10:30	040510–1
	Zinc	8.71	ug/L					05–APR–10 10:30	040510–1
ICSAB01									
	Aluminum	510000	ug/L	500000	ug/L	102	80.0 – 120.0	05–APR–10 10:32	040510–1
	Antimony	518	ug/L	500	ug/L	104	80.0 – 120.0	05–APR–10 10:32	040510–1
	Barium	505	ug/L	500	ug/L	101	80.0 – 120.0	05–APR–10 10:32	040510–1
	Cadmium	483	ug/L	500	ug/L	96.6	80.0 – 120.0	05–APR–10 10:32	040510–1
	Calcium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	05–APR–10 10:32	040510–1
	Cobalt	452	ug/L	500	ug/L	90.4	80.0 – 120.0	05–APR–10 10:32	040510–1
	Iron	193000	ug/L	200000	ug/L	96.5	80.0 – 120.0	05–APR–10 10:32	040510–1
	Lead	472	ug/L	500	ug/L	94.4	80.0 – 120.0	05–APR–10 10:32	040510–1
	Magnesium	491000	ug/L	500000	ug/L	98.2	80.0 – 120.0	05–APR–10 10:32	040510–1
	Manganese	486	ug/L	500	ug/L	97.3	80.0 – 120.0	05–APR–10 10:32	040510–1
	Potassium	5510	ug/L	5000	ug/L	110	80.0 – 120.0	05–APR–10 10:32	040510–1
	Silver	271	ug/L	250	ug/L	108	80.0 – 120.0	05–APR–10 10:32	040510–1
	Sodium	5380	ug/L	5000	ug/L	108	80.0 – 120.0	05–APR–10 10:32	040510–1

METALS
–4–
Interference Check Sample

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Vanadium	520	ug/L	500	ug/L	104	80.0 – 120.0	05–APR–10 10:32	040510–1
	Zinc	500	ug/L	500	ug/L	100	80.0 – 120.0	05–APR–10 10:32	040510–1

METALS
–4–
Interference Check Sample

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Chromium	2.86	ug/L					15–APR–10 17:06	041510A–3
	Copper	6.71	ug/L					15–APR–10 17:06	041510A–3
ICSAB01									
	Chromium	477	ug/L	500	ug/L	95.5	80.0 – 120.0	15–APR–10 17:13	041510A–3
	Copper	560	ug/L	500	ug/L	112	80.0 – 120.0	15–APR–10 17:13	041510A–3

METALS
–4–
Interference Check Sample

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.49	ug/L					16–MAY–10 07:33	100515–4
	Nickel	2.47	ug/L					16–MAY–10 07:33	100515–4
	Selenium	–0.572	ug/L					16–MAY–10 07:33	100515–4
	Thallium	0.061	ug/L					16–MAY–10 07:33	100515–4
ICSAB01									
	Arsenic	20.0	ug/L	20	ug/L	100	80.0 – 120.0	16–MAY–10 07:37	100515–4
	Nickel	21.5	ug/L	23.31	ug/L	92.3	80.0 – 120.0	16–MAY–10 07:37	100515–4
	Selenium	19.9	ug/L	20	ug/L	99.6	80.0 – 120.0	16–MAY–10 07:37	100515–4
	Thallium	17.9	ug/L	20	ug/L	89.7	80.0 – 120.0	16–MAY–10 07:37	100515–4

METALS
–4–
Interference Check Sample

SDG No: 10–2430

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS7

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.117	ug/L					18–MAY–10 08:38	100517–5
ICSAB01									
	Beryllium	20.9	ug/L	20	ug/L	105	80.0 – 120.0	18–MAY–10 08:38	100517–5

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2430 **Client ID** RE46–10–12972S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 249333003 **Spike ID:** 1202072048

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Sodium	ug/kg	75–125	683000		128000		568000	97.9		P
Vanadium	ug/kg	75–125	65400		7110		56800	103		P
Zinc	ug/kg	75–125	105000		46500		56800	102		P
Aluminum	ug/kg		6470000		3510000		568000	520	N/A	P
Antimony	ug/kg	75–125	51800		369	U	56800	91.3		P
Barium	ug/kg	75–125	83700		25200		56800	103		P
Cadmium	ug/kg	75–125	58100		112	U	56800	102		P
Calcium	ug/kg	75–125	1460000		942000		568000	91.2		P
Chromium	ug/kg	75–125	65700		11600		54900	98.5		P
Cobalt	ug/kg	75–125	58000		1290		56800	100		P
Copper	ug/kg	75–125	60700		5400		54900	101		P
Iron	ug/kg		9450000		8360000		568000	192	N/A	P
Lead	ug/kg	75–125	69200		12100		56800	101		P
Magnesium	ug/kg	75–125	1390000		576000		568000	144	N	P
Manganese	ug/kg	75–125	252000		213000		56800	69	N	P
Potassium	ug/kg	75–125	1190000		419000		568000	136	N	P
Silver	ug/kg	75–125	58400		112	U	56800	103		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2430 **Client ID** RE46–10–12972SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 249333003 **Spike ID:** 1202072050

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		7160000		3510000		538000	678	N/A	P
Antimony	ug/kg	75–125	48400		369	U	53800	89.9		P
Barium	ug/kg	75–125	81900		25200		53800	106		P
Cadmium	ug/kg	75–125	54800		112	U	53800	102		P
Calcium	ug/kg	75–125	1550000		942000		538000	114		P
Chromium	ug/kg	75–125	60400		11600		53300	91.7		P
Cobalt	ug/kg	75–125	54700		1290		53800	99.3		P
Copper	ug/kg	75–125	58900		5400		53300	100		P
Iron	ug/kg		10200000		8360000		538000	348	N/A	P
Lead	ug/kg	75–125	65600		12100		53800	99.5		P
Magnesium	ug/kg	75–125	1450000		576000		538000	163	N	P
Manganese	ug/kg	75–125	257000		213000		53800	82.5		P
Potassium	ug/kg	75–125	1230000		419000		538000	150	N	P
Silver	ug/kg	75–125	55300		112	U	53800	103		P
Sodium	ug/kg	75–125	668000		128000		538000	101		P
Vanadium	ug/kg	75–125	63600		7110		53800	105		P
Zinc	ug/kg	75–125	106000		46500		53800	111		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2430 **Client ID** RE46–10–12972S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 249333003 **Spike ID:** 1202072054

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	9260		1570		8960	85.8		MS
Beryllium	ug/kg	75–125	5500		585		5600	87.8		MS
Nickel	ug/kg	75–125	8460		3500		5600	88.7		MS
Selenium	ug/kg	75–125	2110		558	U	2240	79.3		MS
Thallium	ug/kg	75–125	9290		66.9	U	11200	82.6		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2430 **Client ID** RE46–10–13220SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 249330003 **Spike ID:** 1202072056

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	9490		1540		9000	88.3		MS
Beryllium	ug/kg	75–125	5400		401		5630	88.9		MS
Nickel	ug/kg	75–125	8870		2330		5630	116		MS
Selenium	ug/kg	75–125	2200		563	U	2250	92.3		MS
Thallium	ug/kg	75–125	9520		125	J	11300	83.5		MS

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-2430 **Client ID** RE46-10-13219S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.1

Sample ID: 249330001 **Spike ID:** 1202081093

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	225		77.8		128	115		AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO.	10–2430	**Client ID**	RE46–10–13219SD
Contract:	LANL01004	**Level:**	Low
Matrix:	SOIL	**% Solids:**	92.1
Sample ID:	249330001	**Spike ID:**	1202081095

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	224		77.8		122	121		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12972D

Sample ID: 249333003 **Duplicate ID:** 1202072047 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	3510000		3950000		11.7		P
Antimony	ug/kg		369	U	332	U			P
Barium	ug/kg	+/–20%	25200		27700		9.4		P
Cadmium	ug/kg		112	U	101	U			P
Calcium	ug/kg	+/–20%	942000		1020000		8.4		P
Chromium	ug/kg	+/–20%	11600		14600		23.2	*	P
Cobalt	ug/kg	+/–503	1290		1490		14.1		P
Copper	ug/kg	+/–1120	5400		6600		20	*	P
Iron	ug/kg	+/–20%	8360000		9660000		14.4		P
Lead	ug/kg	+/–20%	12100		14200		15.9		P
Magnesium	ug/kg	+/–20%	576000		636000		9.9		P
Manganese	ug/kg	+/–20%	213000		252000		17.1		P
Potassium	ug/kg	+/–20%	419000		458000		8.87		P
Silver	ug/kg		112	U	101	U			P
Sodium	ug/kg	+/–20%	128000		132000		3.16		P
Vanadium	ug/kg	+/–20%	7110		8140		13.5		P
Zinc	ug/kg	+/–20%	46500		53300		13.7		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12972SD

Sample ID: 1202072048 **Duplicate ID:** 1202072050 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	6470000		7160000		10.1		P
Antimony	ug/kg	+/–20	51800		48400		6.91		P
Barium	ug/kg	+/–20	83700		81900		2.14		P
Cadmium	ug/kg	+/–20	58100		54800		5.81		P
Calcium	ug/kg	+/–20	1460000		1550000		6.28		P
Chromium	ug/kg	+/–20	65700		60400		8.36		P
Cobalt	ug/kg	+/–20	58000		54700		5.96		P
Copper	ug/kg	+/–20	60700		58900		3.03		P
Iron	ug/kg	+/–20	9450000		10200000		7.94		P
Lead	ug/kg	+/–20	69200		65600		5.33		P
Magnesium	ug/kg	+/–20	1390000		1450000		4.41		P
Manganese	ug/kg	+/–20	252000		257000		2.04		P
Potassium	ug/kg	+/–20	1190000		1230000		2.81		P
Silver	ug/kg	+/–20	58400		55300		5.34		P
Sodium	ug/kg	+/–20	683000		668000		2.23		P
Vanadium	ug/kg	+/–20	65400		63600		2.87		P
Zinc	ug/kg	+/–20	105000		106000		1.3		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12972D

Sample ID: 249333003 **Duplicate ID:** 1202072053 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–1100	1570		1730		9.78		MS
Beryllium	ug/kg	+/–110	585		511		13.5		MS
Nickel	ug/kg	+/–20%	3500		3510		.452		MS
Selenium	ug/kg		558	U	552	U			MS
Thallium	ug/kg		66.9	U	66.3	U			MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13220SD

Sample ID: 1202072054 **Duplicate ID:** 1202072056 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	9260		9490		2.45		MS
Beryllium	ug/kg	+/–20	5500		5400		1.85		MS
Nickel	ug/kg	+/–20	8460		8870		4.72		MS
Selenium	ug/kg	+/–20	2110		2200		4.04		MS
Thallium	ug/kg	+/–20	9290		9520		2.51		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13219D

Sample ID: 249330001 **Duplicate ID:** 1202081092 **Percent Solids for Dup:** 92.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20%	77.8		80.9		3.95		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2430

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13219SD

Sample ID: 1202081093 **Duplicate ID:** 1202081095 **Percent Solids for Dup:** 92.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	225		224		.36		AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2430

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202072046								
	Aluminum	ug/kg	10500000	9300000		88.6	56-144	P
	Antimony	ug/kg	173000	200000		116	71-130	P
	Barium	ug/kg	198000	188000		95	80-120	P
	Cadmium	ug/kg	60700	70800		117	81-120	P
	Calcium	ug/kg	9870000	10600000		107	83-117	P
	Cobalt	ug/kg	91200	107000		117	81-120	P
	Iron	ug/kg	18000000	18700000		104	51-149	P
	Lead	ug/kg	86000	82800		96.3	79-121	P
	Magnesium	ug/kg	4000000	3880000		97	79-122	P
	Manganese	ug/kg	558000	601000		108	81-119	P
	Silver	ug/kg	30100	32000		106	66-134	P
	Sodium	ug/kg	1020000	1070000		105	74-127	P
	Vanadium	ug/kg	115000	131000		114	79-121	P
	Zinc	ug/kg	594000	657000		111	80-121	P
	Potassium	ug/kg	4300000	4250000		98.9	74-127	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2430

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202072052								
	Arsenic	ug/kg	104000	95400		91.7	78–123	MS
	Beryllium	ug/kg	77600	87000		112	84–116	MS
	Nickel	ug/kg	134000	130000		96.9	78–123	MS
	Selenium	ug/kg	286000	253000		88.6	77–123	MS
	Thallium	ug/kg	121000	102000		83.9	78–122	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2430

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202081091								
	Mercury	ug/kg	5150	5400		105	71.6–128.3	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2430

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202091940								
	Chromium	ug/kg	236000	239000		101	80–120	P
	Copper	ug/kg	174000	194000		111	81–118	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2430 **Client ID** RE46-10-12972L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 249333003 **Serial Dilution ID:** 1202072049

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	31400		31700		.796		10	P
Antimony	3.3	U	16.5	U				P
Barium	225		226		.222		10	P
Cadmium	1	U	5	U				P
Calcium	8410		8400		.119		10	P
Chromium	104		110		5.29		10	P
Cobalt	11.5		13	J	12.6			P
Copper	48.6		38.3	J	21.2			P
Iron	74700		75000		.402		10	P
Lead	108		110		1.39			P
Magnesium	5140		5100		.778		10	P
Manganese	1900		1920		1.05		10	P
Potassium	3740		4110		9.89		10	P
Silver	1	U	5	U				P
Sodium	1140		1110	J	3.07			P
Vanadium	63.5		64.5		1.57		10	P
Zinc	415		438		5.54		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2430 **Client ID** RE46–10–12972L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 249333003 **Serial Dilution ID:** 1202072055

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	7.03		5	U	100			MS
Beryllium	2.62		3.02		15.1			MS
Nickel	15.7		16.2		2.87			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.3	U	1.5	U				MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2430 **Client ID** RE46–10–13219L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 249330001 **Serial Dilution ID:** 1202081094

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	1.21		.785	J	35.1			AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2430 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 965623							
1202072045	MB for batch 965623	MB	S	31–MAR–10	.513g	50mL	
1202072046	LCS for batch 965623	LCS	S	31–MAR–10	.524g	50mL	
1202072048	RE46–10–12972S	MS	S	31–MAR–10	.502g	50mL	
1202072050	RE46–10–12972SD	MSD	S	31–MAR–10	.53g	50mL	
1202072047	RE46–10–12972D	DUP	S	31–MAR–10	.567g	50mL	
249329001	RE46–10–13964	SAMPLE	S	31–MAR–10	.532g	50mL	
249329002	RE46–10–13966	SAMPLE	S	31–MAR–10	.5g	50mL	
249329003	RE46–10–13963	SAMPLE	S	31–MAR–10	.529g	50mL	
249329004	RE46–10–13965	SAMPLE	S	31–MAR–10	.514g	50mL	
Batch Number 973754							
1202091939	MB for batch 973754	MB	S	12–APR–10	.519g	50mL	
1202091940	LCS for batch 973754	LCS	S	12–APR–10	.504g	50mL	
1202072048	RE46–10–12972S	MS	S	12–APR–10	.519g	50mL	
1202072050	RE46–10–12972SD	MSD	S	12–APR–10	.535g	50mL	
1202072047	RE46–10–12972D	DUP	S	12–APR–10	.511g	50mL	
249329001	RE46–10–13964	SAMPLE	S	12–APR–10	.501g	50mL	
249329002	RE46–10–13966	SAMPLE	S	12–APR–10	.502g	50mL	
249329003	RE46–10–13963	SAMPLE	S	12–APR–10	.516g	50mL	
249329004	RE46–10–13965	SAMPLE	S	12–APR–10	.507g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2430 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 965626							
1202072051	MB for batch 965626	MB	S	31–MAR–10	.518g	50mL	
1202072052	LCS for batch 965626	LCS	S	31–MAR–10	.5g	50mL	
1202072054	RE46–10–12972S	MS	S	31–MAR–10	.509g	50mL	
1202072056	RE46–10–13220SD	MSD	S	31–MAR–10	.502g	50mL	
1202072053	RE46–10–12972D	DUP	S	31–MAR–10	.516g	50mL	
249329001	RE46–10–13964	SAMPLE	S	31–MAR–10	.532g	50mL	
249329002	RE46–10–13966	SAMPLE	S	31–MAR–10	.538g	50mL	
249329003	RE46–10–13963	SAMPLE	S	31–MAR–10	.505g	50mL	
249329004	RE46–10–13965	SAMPLE	S	31–MAR–10	.528g	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10–2430 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 969289							
1202081090	MB for batch 969289	MB	S	30–MAR–10	.506g	30mL	
1202081091	LCS for batch 969289	LCS	S	30–MAR–10	.206g	30mL	
1202081093	RE46–10–13219S	MS	S	30–MAR–10	.507g	30mL	
1202081095	RE46–10–13219SD	MSD	S	30–MAR–10	.536g	30mL	
1202081092	RE46–10–13219D	DUP	S	30–MAR–10	.5g	30mL	
249329001	RE46–10–13964	SAMPLE	S	30–MAR–10	.53g	30mL	
249329002	RE46–10–13966	SAMPLE	S	30–MAR–10	.556g	30mL	
249329003	RE46–10–13963	SAMPLE	S	30–MAR–10	.539g	30mL	
249329004	RE46–10–13965	SAMPLE	S	30–MAR–10	.571g	30mL	

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 15–APR–10 **End Date:** 15–APR–10

Client Sdg: 10–2430
Method P
Data File: 041510A–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	16:13:00								X		X													
S0.1	1	16:19:00								X		X													
S0.5	1	16:26:00								X		X													
SCAL	1	16:33:00								X		X													
S10	1	16:40:00																							
ICV01	1	16:46:00								X		X													
ICB01	1	16:53:00								X		X													
PQL01	1	16:59:00								X		X													
ICSA01	1	17:06:00								X		X													
ICSAB01	1	17:13:00								X		X													
LR01	1	17:20:00								X		X													
LR02	1	17:27:00								X		X													
CCV01	1	17:33:00								X		X													
CCB01	1	17:40:00								X		X													
LR03	1	17:53:00								X		X													
CCV02	1	17:59:00								X		X													
CCB02	1	18:06:00								X		X													
ZZZZZZ	1	18:13:00																							
ZZZZZZ	1	18:20:00																							
ZZZZZZ	1	18:27:00																							
ZZZZZZ	1	18:34:00																							
ZZZZZZ	1	18:41:00																							
ZZZZZZ	5	18:48:00																							
ZZZZZZ	1	18:55:00																							
ZZZZZZ	1	19:02:00																							
CCV03	1	19:08:00								X		X													
CCB03	1	19:15:00								X		X													
1202091939	1	19:22:00								X		X													
1202091940	1	19:29:00								X		X													
ZZZZZZ	1	19:35:00																							
1202072047	1	19:42:00								X		X													
1202072048	1	19:49:00								X		X													
1202072050	1	19:55:00								X		X													
1202072049	5	20:02:00								X		X													
249329001	1	20:09:00								X		X													
249329002	1	20:16:00								X		X													
CCV04	1	20:23:00								X		X													
CCB04	1	20:30:00								X		X													
249329003	1	20:36:00								X		X													
249329004	1	20:43:00								X		X													

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	20:50:00																							
ZZZZZZ	1	20:57:00																							
ZZZZZZ	1	21:04:00																							
ZZZZZZ	1	21:11:00																							
ZZZZZZ	1	21:18:00																							
ZZZZZZ	1	21:25:00																							
CCV05	1	21:31:00							X		X														
CCB05	1	21:38:00							X		X														

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 05–APR–10 **End Date:** 05–APR–10

Client Sdg: 10–2430
Method P
Data File: 040510–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	10:13:47	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
S0.1	1	10:16:46		X		X		X			X			X		X			X		X			X	X
S0.5	1	10:18:43	X	X		X		X	X		X			X	X	X			X		X			X	X
SCAL	1	10:20:41	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
S10	1	10:22:45	X						X				X		X							X			
ICV01	1	10:23:35	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ICB01	1	10:25:34	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
PQL01	1	10:28:44	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ICSA01	1	10:30:46	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ICSAB01	1	10:32:47	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
LR01	1	10:33:52	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
LR02	1	10:34:56	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCV01	1	10:36:23	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB01	1	10:38:38	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCV02	1	10:49:38	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB02	1	10:51:51	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	10:59:53																							
ZZZZZZ	1	11:02:52																							
ZZZZZZ	1	11:04:51																							
ZZZZZZ	1	11:06:48																							
ZZZZZZ	1	11:09:00																							
ZZZZZZ	5	11:11:00																							
ZZZZZZ	1	11:14:06																							
ZZZZZZ	1	11:16:04																							
ZZZZZZ	1	11:18:02																							
ZZZZZZ	1	11:20:17																							
CCV03	1	11:21:36	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB03	1	11:23:37	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	50	11:26:32																							
CCV04	1	11:29:29	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB04	1	11:31:43	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	11:39:33																							
ZZZZZZ	1	11:42:30																							
ZZZZZZ	1	11:43:52																							
ZZZZZZ	1	11:45:56																							
ZZZZZZ	1	11:48:00																							
ZZZZZZ	1	11:49:08																							
ZZZZZZ	5	11:50:20																							
CCV05	1	11:52:23	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB05	1	11:54:25	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	11:57:21																							
ZZZZZZ	1	11:59:22																							
ZZZZZZ	1	12:01:21																							
ZZZZZZ	1	12:03:34																							
ZZZZZZ	1	12:05:52																							
ZZZZZZ	1	12:08:09																							
ZZZZZZ	1	12:10:08																							
ZZZZZZ	1	12:12:12																							
ZZZZZZ	1	12:14:30																							
CCV06	1	12:16:34	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB06	1	12:18:49	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	12:21:45																							
ZZZZZZ	1	12:23:45																							
ZZZZZZ	1	12:26:05																							
ZZZZZZ	1	12:28:05																							
ZZZZZZ	1	12:30:03																							
ZZZZZZ	1	12:32:23																							
ZZZZZZ	1	12:34:21																							
ZZZZZZ	1	12:36:40																							
ZZZZZZ	1	12:38:52																							
CCV07	1	12:41:04	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB07	1	12:43:18	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	12:47:04																							
ZZZZZZ	1	12:50:02																							
ZZZZZZ	1	12:52:06																							
ZZZZZZ	1	12:54:12																							
ZZZZZZ	1	12:56:30																							
ZZZZZZ	1	12:58:28																							
ZZZZZZ	5	13:00:34																							
CCV08	1	13:02:50	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB08	1	13:04:51	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	13:08:02																							
ZZZZZZ	1	13:10:18																							
ZZZZZZ	1	13:12:31																							
ZZZZZZ	1	13:14:44																							
ZZZZZZ	1	13:16:57																							
CCV09	1	13:19:15	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB09	1	13:21:29	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	13:29:13																							
ZZZZZZ	1	13:32:11																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	13:33:39																							
ZZZZZZ	1	13:35:42																							
ZZZZZZ	1	13:37:41																							
ZZZZZZ	1	13:38:45																							
ZZZZZZ	5	13:39:49																							
CCV10	1	13:42:06	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB10	1	13:44:07	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	13:47:03																							
ZZZZZZ	1	13:49:23																							
ZZZZZZ	1	13:51:22																							
ZZZZZZ	1	13:53:20																							
ZZZZZZ	1	13:55:19																							
CCV11	1	13:57:17	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB11	1	13:59:32	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCV12	1	14:22:36	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB12	1	14:24:50	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	14:28:01																							
ZZZZZZ	1	14:31:00																							
ZZZZZZ	1	14:33:13																							
ZZZZZZ	1	14:36:20																							
ZZZZZZ	1	14:39:27																							
ZZZZZZ	5	14:41:41																							
ZZZZZZ	1	14:44:33																							
ZZZZZZ	1	14:47:40																							
ZZZZZZ	1	14:49:53																							
ZZZZZZ	1	14:52:46																							
CCV13	1	14:55:52	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB13	1	14:58:07	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	15:01:18																							
ZZZZZZ	1	15:04:31																							
ZZZZZZ	1	15:05:54																							
ZZZZZZ	1	15:08:07																							
ZZZZZZ	1	15:10:20																							
ZZZZZZ	1	15:11:26																							
ZZZZZZ	5	15:12:34																							
ZZZZZZ	1	15:14:38																							
CCV14	1	15:16:50	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB14	1	15:19:06	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCV15	1	15:42:57	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB15	1	15:45:12	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	15:48:24																							
ZZZZZZ	1	15:51:37																							
ZZZZZZ	1	15:53:00																							
ZZZZZZ	1	15:54:59																							
ZZZZZZ	1	15:57:11																							
ZZZZZZ	1	15:58:16																							
ZZZZZZ	5	15:59:35																							
CCV16	1	16:01:51	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB16	1	16:03:52	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	16:06:49																							
ZZZZZZ	1	16:08:49																							
ZZZZZZ	1	16:10:53																							
ZZZZZZ	1	16:12:51																							
ZZZZZZ	1	16:15:04																							
ZZZZZZ	1	16:17:02																							
CCV17	1	16:19:00	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB17	1	16:21:14	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	16:24:26																							
ZZZZZZ	1	16:27:25																							
ZZZZZZ	1	16:28:35																							
ZZZZZZ	1	16:30:48																							
ZZZZZZ	1	16:32:47																							
ZZZZZZ	1	16:33:52																							
ZZZZZZ	5	16:34:58																							
CCV18	1	16:37:14	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB18	1	16:39:29	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	16:42:40																							
ZZZZZZ	1	16:44:54																							
ZZZZZZ	1	16:47:06																							
ZZZZZZ	1	16:49:05																							
CCV19	1	16:51:03	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB19	1	16:53:18	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	16:56:30																							
ZZZZZZ	1	16:59:42																							
ZZZZZZ	1	17:00:51																							
ZZZZZZ	1	17:03:04																							
ZZZZZZ	1	17:05:25																							
ZZZZZZ	1	17:06:45																							
ZZZZZZ	5	17:08:06																							
CCV20	1	17:10:09	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
CCB20	1	17:12:25	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	17:15:37																							
ZZZZZZ	1	17:17:53																							
ZZZZZZ	1	17:20:07																							
ZZZZZZ	1	17:22:06																							
ZZZZZZ	1	17:24:24																							
CCV21	1	17:26:37	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB21	1	17:28:38	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	17:31:51																							
ZZZZZZ	1	17:34:49																							
ZZZZZZ	1	17:36:11																							
ZZZZZZ	1	17:38:24																							
ZZZZZZ	1	17:40:38																							
ZZZZZZ	1	17:42:01																							
ZZZZZZ	5	17:43:23																							
CCV22	1	17:45:41	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB22	1	17:47:57	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	17:50:55																							
ZZZZZZ	1	17:53:15																							
ZZZZZZ	1	17:55:36																							
ZZZZZZ	1	17:57:55																							
ZZZZZZ	1	18:00:14																							
ZZZZZZ	1	18:02:32																							
ZZZZZZ	1	18:04:45																							
CCV23	1	18:06:43	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB23	1	18:08:57	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	18:12:07																							
ZZZZZZ	1	18:14:21																							
ZZZZZZ	1	18:16:21																							
ZZZZZZ	1	18:18:13																							
ZZZZZZ	1	18:20:26																							
ZZZZZZ	1	18:22:33																							
ZZZZZZ	1	18:24:53																							
CCV24	1	18:27:07	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB24	1	18:29:22	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	18:32:32																							
ZZZZZZ	1	18:35:46																							
ZZZZZZ	1	18:36:55																							
ZZZZZZ	1	18:39:14																							
ZZZZZZ	1	18:41:27																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	18:42:47																							
ZZZZZZ	5	18:43:54																							
CCV25	1	18:46:10	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB25	1	18:48:12	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	18:51:22																							
ZZZZZZ	1	18:53:43																							
ZZZZZZ	1	18:55:46																							
ZZZZZZ	1	18:58:03																							
ZZZZZZ	1	19:00:22																							
CCV26	1	19:02:25	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB26	1	19:04:40	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
1202072045	1	19:07:36	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
1202072046	1	19:10:50	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:11:58																							
1202072047	1	19:14:11	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
1202072048	1	19:16:10	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
1202072050	1	19:17:15	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
1202072049	5	19:18:33	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
249329001	1	19:20:50	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
249329002	1	19:22:49	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCV27	1	19:24:47	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB27	1	19:27:02	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
249329003	1	19:30:12	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
249329004	1	19:32:12	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:34:24																							
ZZZZZZ	1	19:36:23																							
ZZZZZZ	1	19:38:21																							
ZZZZZZ	1	19:40:19																							
ZZZZZZ	1	19:42:22																							
ZZZZZZ	1	19:44:34																							
CCV28	1	19:46:46	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X
CCB28	1	19:48:48	X	X		X		X	X		X		X	X	X	X			X		X	X		X	X

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS7
Start Date: 18–MAY–10 **End Date:** 18–MAY–10

Client Sdg: 10–2430
Method MS
Data File: 100517–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	08:34:04					X																		
S10	1	08:34:45					X																		
S100	1	08:35:26					X																		
ICV01	1	08:36:06					X																		
ICB01	1	08:36:49					X																		
CRDL01	1	08:37:30					X																		
ICSA01	1	08:38:12					X																		
ICSAB01	1	08:38:53					X																		
CCV01	1	08:39:35					X																		
CCB01	1	08:40:18					X																		
1202072051	2	08:41:01					X																		
1202072052	40	08:41:43					X																		
249329001	2	08:42:26					X																		
249329002	2	08:43:08					X																		
249329003	2	08:43:51					X																		
249329004	2	08:44:34					X																		
ZZZZZZ	2	08:45:17																							
ZZZZZZ	2	08:45:59																							
ZZZZZZ	2	08:46:42																							
ZZZZZZ	2	08:47:25																							
CCV02	1	08:48:07					X																		
CCB02	1	08:48:50					X																		
ZZZZZZ	2	08:49:32																							
ZZZZZZ	2	08:50:15																							
ZZZZZZ	2	08:50:58																							
ZZZZZZ	2	08:51:41																							
ZZZZZZ	2	08:52:24																							
1202072053	2	08:53:07					X																		
1202072054	2	08:53:50					X																		
1202072056	2	08:54:33					X																		
1202072055	10	08:55:14					X																		
CCV03	1	08:55:56					X																		
CCB03	1	08:56:39					X																		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 31–MAR–10 **End Date:** 31–MAR–10

Client Sdg: 10–2430
Method AV
Data File: 033110S1–6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	08:39:00															X								
S0.2	1	08:41:00															X								
S0.5	1	08:43:00															X								
S2.0	1	08:45:00															X								
S5.0	1	08:47:00															X								
S10	1	08:49:00															X								
ICV01	1	08:51:00															X								
ICB01	1	08:53:00															X								
CRDL01	1	08:55:00															X								
CCV01	1	08:57:00															X								
CCB01	1	08:59:00															X								
1202081090	1	09:01:00															X								
1202081091	10	09:03:00															X								
ZZZZZZ	1	09:05:00																							
ZZZZZZ	1	09:07:00																							
ZZZZZZ	1	09:09:00																							
ZZZZZZ	1	09:11:00																							
ZZZZZZ	1	09:13:00																							
ZZZZZZ	1	09:15:00																							
249329001	1	09:17:00															X								
249329002	1	09:19:00															X								
CCV02	1	09:21:00															X								
CCB02	1	09:23:00															X								
249329003	1	09:25:00															X								
249329004	1	09:27:00															X								
ZZZZZZ	1	09:29:00																							
1202081092	1	09:31:00															X								
1202081093	1	09:33:00															X								
1202081095	1	09:35:00															X								
1202081094	5	09:37:00															X								
ZZZZZZ	1	09:39:00																							
ZZZZZZ	1	09:41:00																							
ZZZZZZ	1	09:43:00																							
CCV03	1	09:45:00															X								
CCB03	1	09:47:00															X								

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 16-MAY-10 **End Date:** 16-MAY-10

Client Sdg: 10-2430
Method MS
Data File: 100515-4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	07:09:00			X													X		X			X		
S10	1	07:13:00			X													X		X			X		
S100	1	07:17:00			X													X		X			X		
ICV01	1	07:21:00			X													X		X			X		
ICB01	1	07:25:00			X													X		X			X		
CRDL01	1	07:29:00			X													X		X			X		
ICSA01	1	07:33:00			X													X		X			X		
ICSAB01	1	07:37:00			X													X		X			X		
CCV01	1	07:41:00			X													X		X			X		
CCB01	1	07:46:00			X													X		X			X		
LR01	1	07:50:00			X													X		X			X		
CCV02	1	07:54:00			X													X		X			X		
CCB02	1	07:58:00			X													X		X			X		
1202072051	2	08:02:00			X													X		X			X		
1202072052	Z40	08:06:00			X													X		X			X		
249329001 5/24/10	2	08:10:00			X													X		X			X		
249329002	2	08:15:00			X													X		X			X		
249329003	2	08:19:00			X													X		X			X		
249329004	2	08:23:00			X													X		X			X		
ZZZZZZ	2	08:27:00																							
ZZZZZZ	2	08:31:00																							
ZZZZZZ	2	08:36:00																							
ZZZZZZ	2	08:40:00																							
CCV03	1	08:44:00			X													X		X			X		
CCB03	1	08:48:00			X													X		X			X		
ZZZZZZ	2	08:52:00																							
ZZZZZZ	2	08:57:00																							
ZZZZZZ	2	09:01:00																							
ZZZZZZ	2	09:05:00																							
ZZZZZZ	2	09:09:00																							
1202072053	2	09:13:00			X													X		X			X		
1202072054	2	09:18:00			X													X		X			X		
1202072056	2	09:22:00			X													X		X			X		
1202072055	10	09:26:00			X													X		X			X		
CCV04	1	09:30:00			X													X		X			X		
CCB04	1	09:34:00			X													X		X			X		

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2430

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2430

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2430

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2430
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00474	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.23816	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.24933	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.22655	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.11304	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	213.857	0.00000	0.00000	0.00000	0.00000	0.00000
	292.402	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2430
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.95244
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	236.11
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.58971	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	213.857	0.00000	0.00000	0.00000	0.00000	1.39578
	292.402	0.00000	0.00000	0.36818	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2430
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02751	0.00000	0.00000	0.00000	-19.1800
Arsenic	188.979	-0.13126	0.00000	0.00000	0.00000	1.35094
Barium	233.527	-0.05648	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.10489	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.08978	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01565	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.06697	0.00000	0.00000	0.00000	0.52273
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.10233	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	0.59882	0.00000	0.00000	0.00000	-9.53389
Manganese	257.61	-0.10168	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.06900	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.00094	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.42453	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-2.29024	0.00000	0.00000	0.00000	-3.07287
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.30508	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-6.66097	0.00000
Tin	189.927	-0.01649	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07515	0.00000	0.00000
Uranium	409.014	0.26861	0.00000	0.00000	0.00000	0.00000
Vanadium	213.857	0.13501	0.00000	0.00000	0.00000	0.00000
	292.402	0.14665	0.00000	-0.01931	0.00000	-14.4408

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2430
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silica
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	213.857	6.37026	0.00000	0.00000	0.00000	0.00000
	292.402	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2430
Effective Dates: 01-FEB-10

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	213.857	0.00000	0.00000	0.00000	0.00000	0.00000
	292.402	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2430
Effective Dates: 01-FEB-10

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-16.9980	3.16782	0.00000	-2.17579	0.00000
Arsenic	188.979	0.00000	-7.87903	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.43351	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.06265	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-9.76181	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	213.857	0.00000	0.00000	0.00000	0.00000	0.00000
	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2430
Effective Dates: 22-MAR-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2430
Effective Dates: 22-MAR-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2430
Effective Dates: 22-MAR-10

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2430
Contract: LANL01004
Instrument: OPTIMA4
Effective Dates: 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2430
Effective Dates: 22-MAR-10

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2430
Effective Dates: 22-MAR-10

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–2430

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2430

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2430

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS7

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2430

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS4

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 052010

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

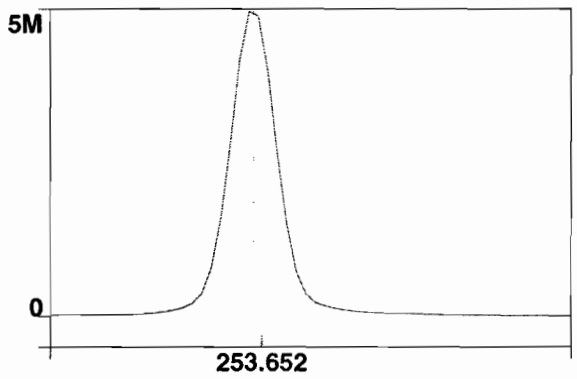

Intensity: 5021818.9 cps
Conc:

1

==========

Analysis Begun

Start Time: 4/15/2010 16:13:07 **Plasma On Time: 4/15/2010 06:47:48**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\041510.sif
Batch ID:
Results Data Set: 041510A
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 4/15/2010 16:10:37**
IEC File: 040610.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 4/15/2010 16:13:09**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3244.4	3244.4	100	%	16:15:21
1	Y RADIAL	3654.6	3654.6	100.3	%	16:15:01
1	Al 396.153Radial†	-123.4	-123.4	[0.00]	ug/L	16:15:01

1	Ca 317.933Radial†	8.6	8.6	[0.00]	ug/L	16:15:21
1	Fe 238.204 Radial†	3.1	3.1	[0.00]	ug/L	16:15:21
1	K 766.490 Radial†	3204.8	3203.7	[0.00]	ug/L	16:15:01
1	Mg 279.077 IEC†	-0.3	-0.3	[0.00]	ug/L	16:15:21
1	Na 589.592 Radial†	-1207.8	-1207.4	[0.00]	ug/L	16:15:01
1	Sr 421.552†	26.9	26.8	[0.00]	ug/L	16:15:01
1	Sc 361.383	554722.4	554722.4	99.588	%	16:16:18
1	Y 371.029	515295.5	515295.5	99.590	%	16:16:18
1	Ag 328.068†	3.9	3.9	[0.00]	ug/L	16:16:18
1	As 188.979†	-46.7	-46.9	[0.00]	ug/L	16:16:38
1	B 249.677†	-680.7	-683.5	[0.00]	ug/L	16:16:18
1	Ba 233.527†	-7.6	-7.6	[0.00]	ug/L	16:16:38
1	Be 313.107†	-9535.9	-9575.3	[0.00]	ug/L	16:16:18
1	Cd 226.502†	-313.1	-314.4	[0.00]	ug/L	16:16:38
1	Co 228.616†	-98.9	-99.3	[0.00]	ug/L	16:16:38
1	Cr 267.716†	114.3	114.8	[0.00]	ug/L	16:16:18
1	Cu 324.752†	6367.8	6394.1	[0.00]	ug/L	16:16:18
1	Mn 257.610†	616.7	619.3	[0.00]	ug/L	16:16:18
1	Mo 202.031†	21.8	21.9	[0.00]	ug/L	16:16:38
1	Ni 231.604†	111.6	112.1	[0.00]	ug/L	16:16:38
1	P 214.914†	306.8	308.0	[0.00]	ug/L	16:16:38
1	Pb 220.353†	-91.6	-92.0	[0.00]	ug/L	16:16:38
1	S 181.975 Axial†	67.2	67.5	[0.00]	ug/L	16:16:38
1	Sb 206.836†	54.8	55.0	[0.00]	ug/L	16:16:38
1	Se 196.026†	-32.7	-32.9	[0.00]	ug/L	16:16:38
1	Si 251.611†	581.9	584.3	[0.00]	ug/L	16:16:38
1	Sn 189.927†	16.7	16.8	[0.00]	ug/L	16:16:38
1	Ti 334.940†	-1957.0	-1965.1	[0.00]	ug/L	16:16:18
1	Tl 190.801†	-68.4	-68.7	[0.00]	ug/L	16:16:38
1	U 409.014†	-1825.4	-1833.0	[0.00]	ug/L	16:16:18
1	V 292.402†	-1962.7	-1970.8	[0.00]	ug/L	16:16:18
1	Zn 213.857†	934.5	938.3	[0.00]	ug/L	16:16:38
1	SiO2†	590.9	593.4	[0.00]	ug/L	16:17:35
2	Sc Radial	3253.2	3253.2	100	%	16:15:46
2	Y RADIAL	3625.1	3625.1	99.45	%	16:15:26
2	Al 396.153Radial†	-113.5	-113.1	[0.00]	ug/L	16:15:26
2	Ca 317.933Radial†	15.2	15.2	[0.00]	ug/L	16:15:46
2	Fe 238.204 Radial†	5.2	5.2	[0.00]	ug/L	16:15:46
2	K 766.490 Radial†	3183.9	3174.2	[0.00]	ug/L	16:15:26
2	Mg 279.077 IEC†	0.3	0.3	[0.00]	ug/L	16:15:46
2	Na 589.592 Radial†	-1192.4	-1188.8	[0.00]	ug/L	16:15:26
2	Sr 421.552†	34.5	34.3	[0.00]	ug/L	16:15:26
2	Sc 361.383	562141.1	562141.1	100.92	%	16:16:44
2	Y 371.029	521733.6	521733.6	100.83	%	16:16:44
2	Ag 328.068†	43.2	42.8	[0.00]	ug/L	16:16:44
2	As 188.979†	-45.7	-45.3	[0.00]	ug/L	16:17:04
2	B 249.677†	-638.8	-633.0	[0.00]	ug/L	16:16:44
2	Ba 233.527†	-1.0	-1.0	[0.00]	ug/L	16:17:04
2	Be 313.107†	-9563.7	-9476.5	[0.00]	ug/L	16:16:44
2	Cd 226.502†	-297.1	-294.4	[0.00]	ug/L	16:17:04
2	Co 228.616†	-73.7	-73.0	[0.00]	ug/L	16:17:04
2	Cr 267.716†	88.7	87.9	[0.00]	ug/L	16:16:44
2	Cu 324.752†	6471.4	6412.5	[0.00]	ug/L	16:16:44
2	Mn 257.610†	623.8	618.1	[0.00]	ug/L	16:16:44
2	Mo 202.031†	21.9	21.7	[0.00]	ug/L	16:17:04
2	Ni 231.604†	117.6	116.6	[0.00]	ug/L	16:17:04
2	P 214.914†	316.7	313.8	[0.00]	ug/L	16:17:04
2	Pb 220.353†	-98.4	-97.5	[0.00]	ug/L	16:17:04
2	S 181.975 Axial†	67.3	66.7	[0.00]	ug/L	16:17:04
2	Sb 206.836†	54.1	53.6	[0.00]	ug/L	16:17:04
2	Se 196.026†	-31.5	-31.2	[0.00]	ug/L	16:17:04
2	Si 251.611†	557.1	552.0	[0.00]	ug/L	16:17:04
2	Sn 189.927†	9.0	8.9	[0.00]	ug/L	16:17:04
2	Ti 334.940†	-2006.2	-1988.0	[0.00]	ug/L	16:16:44
2	Tl 190.801†	-43.6	-43.2	[0.00]	ug/L	16:17:04
2	U 409.014†	-1866.0	-1849.0	[0.00]	ug/L	16:16:44
2	V 292.402†	-2030.9	-2012.4	[0.00]	ug/L	16:16:44
2	Zn 213.857†	940.1	931.5	[0.00]	ug/L	16:17:04
2	SiO2†	628.6	622.8	[0.00]	ug/L	16:17:40
3	Sc Radial	3232.2	3232.2	99.7	%	16:16:11
3	Y RADIAL	3655.3	3655.3	100.3	%	16:15:51

3	Al 396.153Radial†	-108.8	-109.1	[0.00] ug/L	16:15:51
3	Ca 317.933Radial†	10.3	10.3	[0.00] ug/L	16:16:11
3	Fe 238.204 Radial†	6.4	6.4	[0.00] ug/L	16:16:11
3	K 766.490 Radial†	3140.7	3151.4	[0.00] ug/L	16:15:51
3	Mg 279.077 IEC†	0.5	0.6	[0.00] ug/L	16:16:11
3	Na 589.592 Radial†	-1182.9	-1186.9	[0.00] ug/L	16:15:51
3	Sr 421.552†	34.7	34.8	[0.00] ug/L	16:15:51
3	Sc 361.383	554188.4	554188.4	99.492 %	16:17:09
3	Y 371.029	515217.9	515217.9	99.575 %	16:17:09
3	Ag 328.068†	110.6	111.2	[0.00] ug/L	16:17:09
3	As 188.979†	-41.3	-41.5	[0.00] ug/L	16:17:29
3	B 249.677†	-645.2	-648.5	[0.00] ug/L	16:17:09
3	Ba 233.527†	-0.8	-0.8	[0.00] ug/L	16:17:29
3	Be 313.107†	-9552.7	-9601.5	[0.00] ug/L	16:17:09
3	Cd 226.502†	-312.1	-313.7	[0.00] ug/L	16:17:29
3	Co 228.616†	-99.0	-99.5	[0.00] ug/L	16:17:29
3	Cr 267.716†	117.1	117.7	[0.00] ug/L	16:17:09
3	Cu 324.752†	6306.4	6338.6	[0.00] ug/L	16:17:09
3	Mn 257.610†	632.4	635.7	[0.00] ug/L	16:17:09
3	Mo 202.031†	4.3	4.4	[0.00] ug/L	16:17:29
3	Ni 231.604†	124.0	124.7	[0.00] ug/L	16:17:29
3	P 214.914†	310.5	312.1	[0.00] ug/L	16:17:29
3	Pb 220.353†	-96.7	-97.2	[0.00] ug/L	16:17:29
3	S 181.975 Axial†	72.4	72.8	[0.00] ug/L	16:17:29
3	Sb 206.836†	63.8	64.1	[0.00] ug/L	16:17:29
3	Se 196.026†	-34.7	-34.9	[0.00] ug/L	16:17:29
3	Si 251.611†	563.6	566.5	[0.00] ug/L	16:17:29
3	Sn 189.927†	9.9	9.9	[0.00] ug/L	16:17:29
3	Ti 334.940†	-1972.6	-1982.7	[0.00] ug/L	16:17:09
3	Tl 190.801†	-64.4	-64.7	[0.00] ug/L	16:17:29
3	U 409.014†	-1710.8	-1719.5	[0.00] ug/L	16:17:09
3	V 292.402†	-1922.6	-1932.4	[0.00] ug/L	16:17:09
3	Zn 213.857†	951.6	956.5	[0.00] ug/L	16:17:29
3	SiO2†	593.9	597.0	[0.00] ug/L	16:17:45

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	557017.3	4445.36	0.80%	100.00	%
Sc Radial	3243.3	10.53	0.32%	100	%
Y 371.029	517415.7	3739.64	0.72%	100.00	%
Y RADIAL	3645.0	17.22	0.47%	100.0	%
Ag 328.068†	52.6	54.33	103.22%	[0.00]	ug/L
Al 396.153Radial†	-115.2	7.35	6.38%	[0.00]	ug/L
As 188.979†	-44.6	2.77	6.22%	[0.00]	ug/L
B 249.677†	-655.0	25.92	3.96%	[0.00]	ug/L
Ba 233.527†	-3.1	3.84	122.33%	[0.00]	ug/L
Be 313.107†	-9551.1	65.90	0.69%	[0.00]	ug/L
Ca 317.933Radial†	11.4	3.43	30.18%	[0.00]	ug/L
Cd 226.502†	-307.5	11.33	3.69%	[0.00]	ug/L
Co 228.616†	-90.6	15.24	16.82%	[0.00]	ug/L
Cr 267.716†	106.8	16.42	15.38%	[0.00]	ug/L
Cu 324.752†	6381.7	38.48	0.60%	[0.00]	ug/L
Fe 238.204 Radial†	4.9	1.68	34.38%	[0.00]	ug/L
K 766.490 Radial†	3176.4	26.23	0.83%	[0.00]	ug/L
Mg 279.077 IEC†	0.2	0.44	241.31%	[0.00]	ug/L
Mn 257.610†	624.4	9.82	1.57%	[0.00]	ug/L
Mo 202.031†	16.0	10.08	62.97%	[0.00]	ug/L
Na 589.592 Radial†	-1194.4	11.31	0.95%	[0.00]	ug/L
Ni 231.604†	117.8	6.39	5.43%	[0.00]	ug/L
P 214.914†	311.3	2.98	0.96%	[0.00]	ug/L
Pb 220.353†	-95.6	3.08	3.22%	[0.00]	ug/L
S 181.975 Axial†	69.0	3.28	4.75%	[0.00]	ug/L
Sb 206.836†	57.6	5.66	9.84%	[0.00]	ug/L
Se 196.026†	-33.0	1.83	5.54%	[0.00]	ug/L
Si 251.611†	567.6	16.20	2.85%	[0.00]	ug/L
Sn 189.927†	11.9	4.28	36.05%	[0.00]	ug/L
Sr 421.552†	32.0	4.47	13.96%	[0.00]	ug/L
Ti 334.940†	-1978.6	11.94	0.60%	[0.00]	ug/L
Tl 190.801†	-58.8	13.72	23.32%	[0.00]	ug/L

U 409.014†	-1800.5	70.59	3.92%	[0.00] ug/L
V 292.402†	-1971.9	39.98	2.03%	[0.00] ug/L
Zn 213.857†	942.1	12.92	1.37%	[0.00] ug/L
SiO2†	604.4	16.08	2.66%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 4/15/2010 16:19:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3399.7	3399.7	105	%	16:22:08
1	Y RADIAL	3720.1	3720.1	102.1	%	16:22:08
1	K 766.490 Radial†	7464.7	3944.8	[1000]	ug/L	16:21:48
1	Sr 421.552†	9778.9	9297.0	[100]	ug/L	16:22:08
1	Sc 361.383	595892.9	595892.9	106.98	%	16:23:05
1	Y 371.029	552018.5	552018.5	106.69	%	16:23:05
1	Ag 328.068†	17332.1	16148.7	[100]	ug/L	16:23:05
1	As 188.979†	191.0	223.1	[100]	ug/L	16:23:25
1	B 249.677†	3605.7	4025.4	[100]	ug/L	16:23:05
1	Ba 233.527†	6738.2	6301.7	[100]	ug/L	16:23:25
1	Be 313.107†	228240.3	222901.2	[100]	ug/L	16:23:05
1	Cd 226.502†	7052.5	6899.9	[100]	ug/L	16:23:25
1	Co 228.616†	2739.5	2651.4	[100]	ug/L	16:23:25
1	Cr 267.716†	6788.5	6238.8	[100]	ug/L	16:23:25
1	Cu 324.752†	27829.8	19632.5	[100]	ug/L	16:23:05
1	Mn 257.610†	55184.9	50960.3	[100]	ug/L	16:23:05
1	Mo 202.031†	992.6	911.8	[100]	ug/L	16:23:25
1	Ni 231.604†	3235.4	2906.6	[100]	ug/L	16:23:25
1	P 214.914†	1275.7	881.2	[500]	ug/L	16:23:25
1	Pb 220.353†	466.8	532.0	[100]	ug/L	16:23:25
1	S 181.975 Axial†	229.5	145.5	[200]	ug/L	16:23:25
1	Sb 206.836†	280.0	204.2	[100]	ug/L	16:23:25
1	Se 196.026†	134.1	158.3	[100]	ug/L	16:23:25
1	Si 251.611†	12858.2	11451.8	[500]	ug/L	16:23:05
1	Sn 189.927†	424.9	385.3	[100]	ug/L	16:23:25
1	Ti 334.940†	37251.7	36800.1	[100]	ug/L	16:23:05
1	Tl 190.801†	111.3	162.9	[100]	ug/L	16:23:25
1	U 409.014†	279.3	2061.6	[100]	ug/L	16:23:05
1	V 292.402†	9506.1	10857.8	[100]	ug/L	16:23:05
1	Zn 213.857†	9940.2	8349.6	[100]	ug/L	16:23:25
1	SiO2†	12330.8	10921.9	[1069.5]	ug/L	16:24:21
2	Sc Radial	3394.3	3394.3	105	%	16:22:33
2	Y RADIAL	3719.2	3719.2	102.0	%	16:22:33
2	K 766.490 Radial†	7410.6	3904.5	[1000]	ug/L	16:22:13
2	Sr 421.552†	9723.3	9258.7	[100]	ug/L	16:22:33
2	Sc 361.383	577499.4	577499.4	103.68	%	16:23:30
2	Y 371.029	534935.6	534935.6	103.39	%	16:23:30
2	Ag 328.068†	16772.7	16125.1	[100]	ug/L	16:23:30
2	As 188.979†	194.3	232.0	[100]	ug/L	16:23:50
2	B 249.677†	3468.0	4000.0	[100]	ug/L	16:23:30
2	Ba 233.527†	6606.3	6375.1	[100]	ug/L	16:23:50
2	Be 313.107†	221292.2	222994.7	[100]	ug/L	16:23:30
2	Cd 226.502†	6853.9	6918.3	[100]	ug/L	16:23:50
2	Co 228.616†	2691.8	2687.0	[100]	ug/L	16:23:50
2	Cr 267.716†	6633.7	6291.7	[100]	ug/L	16:23:50
2	Cu 324.752†	27009.5	19669.8	[100]	ug/L	16:23:30
2	Mn 257.610†	53569.9	51045.6	[100]	ug/L	16:23:30
2	Mo 202.031†	978.2	927.5	[100]	ug/L	16:23:50
2	Ni 231.604†	3159.2	2929.4	[100]	ug/L	16:23:50
2	P 214.914†	1251.8	896.1	[500]	ug/L	16:23:50
2	Pb 220.353†	479.6	558.1	[100]	ug/L	16:23:50
2	S 181.975 Axial†	222.5	145.6	[200]	ug/L	16:23:50
2	Sb 206.836†	292.4	224.4	[100]	ug/L	16:23:50
2	Se 196.026†	122.9	151.5	[100]	ug/L	16:23:50
2	Si 251.611†	12501.9	11490.9	[500]	ug/L	16:23:30
2	Sn 189.927†	411.7	385.2	[100]	ug/L	16:23:50
2	Ti 334.940†	36054.3	36754.2	[100]	ug/L	16:23:30
2	Tl 190.801†	116.6	171.3	[100]	ug/L	16:23:50
2	U 409.014†	106.8	1903.5	[100]	ug/L	16:23:30

2	V 292.402†	9173.5	10820.0	[100]	ug/L	16:23:30
2	Zn 213.857†	9762.5	8474.2	[100]	ug/L	16:23:50
2	SiO2†	12183.3	11146.8	[1069.5]	ug/L	16:24:26
3	Sc Radial	3488.3	3488.3	108	%	16:22:58
3	Y RADIAL	3811.4	3811.4	104.6	%	16:22:58
3	K 766.490 Radial†	7592.6	3882.8	[1000]	ug/L	16:22:38
3	Sr 421.552†	10010.7	9275.4	[100]	ug/L	16:22:58
3	Sc 361.383	582506.3	582506.3	104.58	%	16:23:56
3	Y 371.029	539888.4	539888.4	104.34	%	16:23:56
3	Ag 328.068†	16964.8	16169.8	[100]	ug/L	16:23:56
3	As 188.979†	194.9	231.0	[100]	ug/L	16:24:16
3	B 249.677†	3502.3	4004.1	[100]	ug/L	16:23:56
3	Ba 233.527†	6597.1	6311.6	[100]	ug/L	16:24:16
3	Be 313.107†	222369.3	222190.1	[100]	ug/L	16:23:56
3	Cd 226.502†	6862.2	6869.4	[100]	ug/L	16:24:16
3	Co 228.616†	2695.8	2668.5	[100]	ug/L	16:24:16
3	Cr 267.716†	6604.8	6209.0	[100]	ug/L	16:24:16
3	Cu 324.752†	27230.7	19657.4	[100]	ug/L	16:23:56
3	Mn 257.610†	53780.9	50803.2	[100]	ug/L	16:23:56
3	Mo 202.031†	971.0	912.5	[100]	ug/L	16:24:16
3	Ni 231.604†	3123.9	2869.5	[100]	ug/L	16:24:16
3	P 214.914†	1245.4	879.6	[500]	ug/L	16:24:16
3	Pb 220.353†	460.8	536.2	[100]	ug/L	16:24:16
3	S 181.975 Axial†	216.7	138.2	[200]	ug/L	16:24:16
3	Sb 206.836†	270.4	201.0	[100]	ug/L	16:24:16
3	Se 196.026†	120.1	147.8	[100]	ug/L	16:24:16
3	Si 251.611†	12581.6	11463.4	[500]	ug/L	16:23:56
3	Sn 189.927†	413.6	383.6	[100]	ug/L	16:24:16
3	Ti 334.940†	36267.0	36658.6	[100]	ug/L	16:23:56
3	Tl 190.801†	123.5	176.9	[100]	ug/L	16:24:16
3	U 409.014†	120.6	1915.8	[100]	ug/L	16:23:56
3	V 292.402†	9257.9	10824.7	[100]	ug/L	16:23:56
3	Zn 213.857†	9712.1	8345.0	[100]	ug/L	16:24:16
3	SiO2†	12137.0	11001.6	[1069.5]	ug/L	16:24:31

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	585299.5	9509.57	1.62%	105.08	%
Sc Radial	3427.4	52.81	1.54%	106	%
Y 371.029	542280.9	8789.15	1.62%	104.81	%
Y RADIAL	3750.2	52.96	1.41%	102.9	%
Ag 328.068†	16147.9	22.34	0.14%	[100]	ug/L
As 188.979†	228.7	4.84	2.12%	[100]	ug/L
B 249.677†	4009.8	13.64	0.34%	[100]	ug/L
Ba 233.527†	6329.5	39.83	0.63%	[100]	ug/L
Be 313.107†	222695.3	440.04	0.20%	[100]	ug/L
Cd 226.502†	6895.9	24.71	0.36%	[100]	ug/L
Co 228.616†	2669.0	17.78	0.67%	[100]	ug/L
Cr 267.716†	6246.5	41.85	0.67%	[100]	ug/L
Cu 324.752†	19653.3	18.99	0.10%	[100]	ug/L
K 766.490 Radial†	3910.7	31.49	0.81%	[1000]	ug/L
Mn 257.610†	50936.4	122.94	0.24%	[100]	ug/L
Mo 202.031†	917.3	8.86	0.97%	[100]	ug/L
Ni 231.604†	2901.8	30.23	1.04%	[100]	ug/L
P 214.914†	885.6	9.10	1.03%	[500]	ug/L
Pb 220.353†	542.1	14.05	2.59%	[100]	ug/L
S 181.975 Axial†	143.1	4.24	2.96%	[200]	ug/L
Sb 206.836†	209.9	12.70	6.05%	[100]	ug/L
Se 196.026†	152.5	5.35	3.50%	[100]	ug/L
Si 251.611†	11468.7	20.08	0.18%	[500]	ug/L
Sn 189.927†	384.7	0.94	0.24%	[100]	ug/L
Sr 421.552†	9277.0	19.21	0.21%	[100]	ug/L
Ti 334.940†	36737.6	72.17	0.20%	[100]	ug/L
Tl 190.801†	170.4	7.06	4.14%	[100]	ug/L
U 409.014†	1960.3	87.93	4.49%	[100]	ug/L
V 292.402†	10834.2	20.61	0.19%	[100]	ug/L
Zn 213.857†	8389.6	73.29	0.87%	[100]	ug/L
SiO2†	11023.4	114.02	1.03%	[1069.5]	ug/L

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Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 4/15/2010 16:26:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3256.7	3256.7	100	%	16:28:55
1	Y RADIAL	3671.2	3671.2	100.7	%	16:28:34
1	Al 396.153Radial†	4338.6	4435.9	[5000]	ug/L	16:28:34
1	Ca 317.933Radial†	2299.3	2278.4	[5000]	ug/L	16:28:55
1	K 766.490 Radial†	24312.2	21035.3	[5000]	ug/L	16:28:34
1	Mg 279.077 IEC†	115.1	114.4	[5000]	ug/L	16:28:55
1	Sr 421.552†	47076.6	46850.1	[500]	ug/L	16:28:34
1	Sc 361.383	493934.9	493934.9	88.675	%	16:29:57
1	Y 371.029	537503.2	537503.2	103.88	%	16:29:51
1	Ag 328.068†	83963.8	94634.6	[500]	ug/L	16:29:57
1	As 188.979†	1112.7	1299.5	[500]	ug/L	16:30:17
1	B 249.677†	20102.9	23325.3	[500]	ug/L	16:29:57
1	Ba 233.527†	33753.4	38067.3	[500]	ug/L	16:29:57
1	Be 313.107†	1144113.9	1299784.6	[500]	ug/L	16:29:51
1	Cd 226.502†	35960.1	40860.3	[500]	ug/L	16:29:57
1	Co 228.616†	13600.1	15427.6	[500]	ug/L	16:30:17
1	Cr 267.716†	33654.8	37846.3	[500]	ug/L	16:29:57
1	Cu 324.752†	109796.6	117437.5	[500]	ug/L	16:29:57
1	Mn 257.610†	259980.9	292559.8	[500]	ug/L	16:29:57
1	Mo 202.031†	4793.8	5390.0	[500]	ug/L	16:30:17
1	Ni 231.604†	15325.1	17164.6	[500]	ug/L	16:29:57
1	P 214.914†	5030.2	5361.3	[2500]	ug/L	16:30:17
1	Pb 220.353†	2761.8	3210.1	[500]	ug/L	16:30:17
1	S 181.975 Axial†	850.6	890.3	[1000]	ug/L	16:30:17
1	Sb 206.836†	1165.9	1257.2	[500]	ug/L	16:30:17
1	Se 196.026†	769.5	900.8	[500]	ug/L	16:30:17
1	Si 251.611†	60091.6	67198.5	[2500]	ug/L	16:29:57
1	Sn 189.927†	2018.1	2264.0	[500]	ug/L	16:30:17
1	Ti 334.940†	184824.4	210407.6	[500]	ug/L	16:29:57
1	Tl 190.801†	790.6	950.5	[500]	ug/L	16:30:17
1	U 409.014†	8203.5	11051.8	[500]	ug/L	16:29:57
1	V 292.402†	54129.9	63015.0	[500]	ug/L	16:29:57
1	Zn 213.857†	45943.2	50868.7	[500]	ug/L	16:29:57
1	SiO2†	58975.1	65902.6	[5347.5]	ug/L	16:31:24
2	Sc Radial	3287.9	3287.9	101	%	16:29:20
2	Y RADIAL	3696.4	3696.4	101.4	%	16:29:00
2	Al 396.153Radial†	4380.3	4436.1	[5000]	ug/L	16:29:00
2	Ca 317.933Radial†	2321.1	2278.2	[5000]	ug/L	16:29:20
2	K 766.490 Radial†	24657.5	21146.6	[5000]	ug/L	16:29:00
2	Mg 279.077 IEC†	122.1	120.3	[5000]	ug/L	16:29:20
2	Sr 421.552†	47735.1	47055.6	[500]	ug/L	16:29:00
2	Sc 361.383	496023.8	496023.8	89.050	%	16:30:27
2	Y 371.029	546127.6	546127.6	105.55	%	16:30:22
2	Ag 328.068†	84741.6	95109.2	[500]	ug/L	16:30:27
2	As 188.979†	1117.3	1299.3	[500]	ug/L	16:30:47
2	B 249.677†	20317.5	23470.9	[500]	ug/L	16:30:27
2	Ba 233.527†	34152.4	38355.1	[500]	ug/L	16:30:27
2	Be 313.107†	1160469.5	1312717.6	[500]	ug/L	16:30:22
2	Cd 226.502†	36315.5	41088.5	[500]	ug/L	16:30:27
2	Co 228.616†	13687.5	15461.2	[500]	ug/L	16:30:47
2	Cr 267.716†	33800.6	37850.1	[500]	ug/L	16:30:27
2	Cu 324.752†	110774.1	118013.7	[500]	ug/L	16:30:27
2	Mn 257.610†	262433.2	294078.9	[500]	ug/L	16:30:27
2	Mo 202.031†	4801.9	5376.4	[500]	ug/L	16:30:47
2	Ni 231.604†	15429.7	17209.2	[500]	ug/L	16:30:27
2	P 214.914†	5062.0	5373.1	[2500]	ug/L	16:30:47
2	Pb 220.353†	2773.4	3210.0	[500]	ug/L	16:30:47
2	S 181.975 Axial†	858.0	894.5	[1000]	ug/L	16:30:47
2	Sb 206.836†	1191.0	1279.8	[500]	ug/L	16:30:47

2	Se 196.026†	765.8	892.9	[500]	ug/L	16:30:47
2	Si 251.611†	60723.5	67622.8	[2500]	ug/L	16:30:27
2	Sn 189.927†	2028.8	2266.4	[500]	ug/L	16:30:47
2	Ti 334.940†	186706.6	211643.6	[500]	ug/L	16:30:27
2	Tl 190.801†	790.7	946.7	[500]	ug/L	16:30:47
2	U 409.014†	8479.3	11322.5	[500]	ug/L	16:30:27
2	V 292.402†	54420.0	63083.6	[500]	ug/L	16:30:27
2	Zn 213.857†	46196.4	50934.8	[500]	ug/L	16:30:27
2	SiO2†	58545.1	65139.6	[5347.5]	ug/L	16:31:29
3	Sc Radial	3322.4	3322.4	102	%	16:29:45
3	Y RADIAL	3720.7	3720.7	102.1	%	16:29:25
3	Al 396.153Radial†	4410.2	4420.4	[5000]	ug/L	16:29:25
3	Ca 317.933Radial†	2343.9	2276.8	[5000]	ug/L	16:29:45
3	K 766.490 Radial†	24773.2	21007.0	[5000]	ug/L	16:29:25
3	Mg 279.077 IEC†	119.9	116.9	[5000]	ug/L	16:29:45
3	Sr 421.552†	48071.6	46895.2	[500]	ug/L	16:29:25
3	Sc 361.383	492288.9	492288.9	88.379	%	16:30:58
3	Y 371.029	536114.5	536114.5	103.61	%	16:30:53
3	Ag 328.068†	83092.7	93965.5	[500]	ug/L	16:30:58
3	As 188.979†	1079.0	1265.5	[500]	ug/L	16:31:18
3	B 249.677†	19905.6	23177.9	[500]	ug/L	16:30:58
3	Ba 233.527†	33321.7	37706.1	[500]	ug/L	16:30:58
3	Be 313.107†	1138292.1	1297511.1	[500]	ug/L	16:30:53
3	Cd 226.502†	35553.4	40535.6	[500]	ug/L	16:30:58
3	Co 228.616†	13333.3	15177.1	[500]	ug/L	16:31:18
3	Cr 267.716†	33103.8	37349.6	[500]	ug/L	16:30:58
3	Cu 324.752†	108431.1	116306.4	[500]	ug/L	16:30:58
3	Mn 257.610†	256558.1	289667.2	[500]	ug/L	16:30:58
3	Mo 202.031†	4691.4	5292.2	[500]	ug/L	16:31:18
3	Ni 231.604†	15096.5	16963.6	[500]	ug/L	16:30:58
3	P 214.914†	4958.4	5299.0	[2500]	ug/L	16:31:18
3	Pb 220.353†	2728.1	3182.4	[500]	ug/L	16:31:18
3	S 181.975 Axial†	820.4	859.3	[1000]	ug/L	16:31:18
3	Sb 206.836†	1165.3	1260.9	[500]	ug/L	16:31:18
3	Se 196.026†	750.6	882.2	[500]	ug/L	16:31:18
3	Si 251.611†	59352.7	66589.1	[2500]	ug/L	16:30:58
3	Sn 189.927†	1990.7	2240.5	[500]	ug/L	16:31:18
3	Ti 334.940†	182818.6	208835.0	[500]	ug/L	16:30:58
3	Tl 190.801†	790.6	953.4	[500]	ug/L	16:31:18
3	U 409.014†	7924.0	10766.3	[500]	ug/L	16:30:58
3	V 292.402†	53393.0	62385.2	[500]	ug/L	16:30:58
3	Zn 213.857†	45310.6	50326.1	[500]	ug/L	16:30:58
3	SiO2†	58744.8	65864.5	[5347.5]	ug/L	16:31:34

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	494082.5	1871.81	0.38%	88.701	%
Sc Radial	3289.0	32.83	1.00%	101	%
Y 371.029	539915.1	5424.80	1.00%	104.35	%
Y RADIAL	3696.1	24.79	0.67%	101.4	%
Ag 328.068†	94569.7	574.63	0.61%	[500]	ug/L
Al 396.153Radial†	4430.8	8.99	0.20%	[5000]	ug/L
As 188.979†	1288.1	19.56	1.52%	[500]	ug/L
B 249.677†	23324.7	146.50	0.63%	[500]	ug/L
Ba 233.527†	38042.8	325.15	0.85%	[500]	ug/L
Be 313.107†	1303337.7	8202.36	0.63%	[500]	ug/L
Ca 317.933Radial†	2277.8	0.89	0.04%	[5000]	ug/L
Cd 226.502†	40828.1	277.84	0.68%	[500]	ug/L
Co 228.616†	15355.3	155.23	1.01%	[500]	ug/L
Cr 267.716†	37682.0	287.84	0.76%	[500]	ug/L
Cu 324.752†	117252.5	868.54	0.74%	[500]	ug/L
K 766.490 Radial†	21063.0	73.80	0.35%	[5000]	ug/L
Mg 279.077 IEC†	117.2	2.94	2.51%	[5000]	ug/L
Mn 257.610†	292102.0	2241.21	0.77%	[500]	ug/L
Mo 202.031†	5352.8	52.95	0.99%	[500]	ug/L
Ni 231.604†	17112.5	130.82	0.76%	[500]	ug/L
P 214.914†	5344.5	39.81	0.74%	[2500]	ug/L
Pb 220.353†	3200.8	15.97	0.50%	[500]	ug/L
S 181.975 Axial†	881.4	19.24	2.18%	[1000]	ug/L

Sb 206.836†	1266.0	12.12	0.96%	[500]	ug/L
Se 196.026†	892.0	9.30	1.04%	[500]	ug/L
Si 251.611†	67136.8	519.62	0.77%	[2500]	ug/L
Sn 189.927†	2257.0	14.27	0.63%	[500]	ug/L
Sr 421.552†	46933.6	107.99	0.23%	[500]	ug/L
Ti 334.940†	210295.4	1407.62	0.67%	[500]	ug/L
Tl 190.801†	950.2	3.35	0.35%	[500]	ug/L
U 409.014†	11046.9	278.10	2.52%	[500]	ug/L
V 292.402†	62827.9	384.95	0.61%	[500]	ug/L
Zn 213.857†	50709.9	333.97	0.66%	[500]	ug/L
SiO2†	65635.6	429.91	0.65%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 4/15/2010 16:33:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3275.5	3275.5	101	%	16:35:57
1	Y RADIAL	3752.8	3752.8	103.0	%	16:35:37
1	Al 396.153Radial†	9090.0	9115.8	[10000]	ug/L	16:35:37
1	Ca 317.933Radial†	4849.7	4790.6	[10000]	ug/L	16:35:37
1	Fe 238.204 Radial†	772.6	760.1	[10000]	ug/L	16:35:57
1	K 766.490 Radial†	47266.8	43625.1	[10000]	ug/L	16:35:37
1	Mg 279.077 IEC†	232.5	230.0	[10000]	ug/L	16:35:57
1	Na 589.592 Radial†	19901.8	20900.2	[10000]	ug/L	16:35:37
1	Sr 421.552†	98659.9	97656.7	[1000]	ug/L	16:35:37
1	Sc 361.383	563115.3	563115.3	101.09	%	16:36:57
1	Y 371.029	518768.7	518768.7	100.26	%	16:36:57
1	Ag 328.068†	164197.5	162366.8	[1000]	ug/L	16:36:57
1	As 188.979†	2159.8	2181.0	[1000]	ug/L	16:37:17
1	B 249.677†	39630.9	39856.7	[1000]	ug/L	16:36:57
1	Ba 233.527†	65649.7	64941.9	[1000]	ug/L	16:36:57
1	Be 313.107†	2215746.3	2201303.0	[1000]	ug/L	16:36:57
1	Cd 226.502†	69965.5	69515.3	[1000]	ug/L	16:36:57
1	Co 228.616†	26528.2	26331.5	[1000]	ug/L	16:37:17
1	Cr 267.716†	65034.9	64223.8	[1000]	ug/L	16:36:57
1	Cu 324.752†	208088.8	199453.7	[1000]	ug/L	16:36:57
1	Mn 257.610†	510208.8	504059.4	[1000]	ug/L	16:36:57
1	Mo 202.031†	9232.5	9116.5	[1000]	ug/L	16:37:17
1	Ni 231.604†	28935.5	28504.4	[1000]	ug/L	16:37:17
1	P 214.914†	9422.5	9009.1	[5000]	ug/L	16:37:17
1	Pb 220.353†	5431.1	5467.9	[1000]	ug/L	16:37:17
1	S 181.975 Axial†	1571.3	1485.3	[2000]	ug/L	16:37:17
1	Sb 206.836†	2214.9	2133.4	[1000]	ug/L	16:37:17
1	Se 196.026†	1485.6	1502.4	[1000]	ug/L	16:37:17
1	Si 251.611†	116006.7	114182.8	[5000]	ug/L	16:36:57
1	Sn 189.927†	3899.0	3844.9	[1000]	ug/L	16:37:17
1	Ti 334.940†	367723.3	365719.8	[1000]	ug/L	16:36:57
1	Tl 190.801†	1589.2	1630.8	[1000]	ug/L	16:37:17
1	U 409.014†	17477.9	19089.2	[1000]	ug/L	16:36:57
1	V 292.402†	107126.7	107938.5	[1000]	ug/L	16:36:57
1	Zn 213.857†	87793.9	85901.0	[1000]	ug/L	16:36:57
1	SiO2†	116901.0	115030.7	[10695]	ug/L	16:38:17
2	Sc Radial	3262.5	3262.5	101	%	16:36:23
2	Y RADIAL	3623.5	3623.5	99.41	%	16:36:02
2	Al 396.153Radial†	8736.5	8800.1	[10000]	ug/L	16:36:02
2	Ca 317.933Radial†	4653.0	4614.1	[10000]	ug/L	16:36:02
2	Fe 238.204 Radial†	761.7	752.3	[10000]	ug/L	16:36:23
2	K 766.490 Radial†	45561.3	42115.5	[10000]	ug/L	16:36:02
2	Mg 279.077 IEC†	231.5	230.0	[10000]	ug/L	16:36:23
2	Na 589.592 Radial†	18922.5	20005.0	[10000]	ug/L	16:36:02
2	Sr 421.552†	94945.5	94352.4	[1000]	ug/L	16:36:02
2	Sc 361.383	571091.8	571091.8	102.53	%	16:37:24
2	Y 371.029	524879.2	524879.2	101.44	%	16:37:24
2	Ag 328.068†	166575.3	162417.4	[1000]	ug/L	16:37:24
2	As 188.979†	2178.8	2169.7	[1000]	ug/L	16:37:44
2	B 249.677†	40563.0	40218.3	[1000]	ug/L	16:37:24
2	Ba 233.527†	66581.6	64943.8	[1000]	ug/L	16:37:24
2	Be 313.107†	2243516.5	2197776.7	[1000]	ug/L	16:37:24
2	Cd 226.502†	71031.5	69588.4	[1000]	ug/L	16:37:24
2	Co 228.616†	26795.8	26226.0	[1000]	ug/L	16:37:44
2	Cr 267.716†	65908.3	64177.3	[1000]	ug/L	16:37:24
2	Cu 324.752†	211537.1	199942.1	[1000]	ug/L	16:37:24
2	Mn 257.610†	517776.4	504391.5	[1000]	ug/L	16:37:24
2	Mo 202.031†	9310.7	9065.3	[1000]	ug/L	16:37:44
2	Ni 231.604†	29201.0	28363.6	[1000]	ug/L	16:37:44

2	P 214.914†	9505.4	8959.9	[5000]	ug/L	16:37:44
2	Pb 220.353†	5482.3	5442.8	[1000]	ug/L	16:37:44
2	S 181.975 Axial†	1584.8	1476.8	[2000]	ug/L	16:37:44
2	Sb 206.836†	2246.6	2133.7	[1000]	ug/L	16:37:44
2	Se 196.026†	1504.9	1500.8	[1000]	ug/L	16:37:44
2	Si 251.611†	117913.2	114439.6	[5000]	ug/L	16:37:24
2	Sn 189.927†	3930.2	3821.5	[1000]	ug/L	16:37:44
2	Ti 334.940†	373215.0	365995.8	[1000]	ug/L	16:37:24
2	Tl 190.801†	1601.4	1620.8	[1000]	ug/L	16:37:44
2	U 409.014†	17831.6	19192.7	[1000]	ug/L	16:37:24
2	V 292.402†	108519.0	107816.5	[1000]	ug/L	16:37:24
2	Zn 213.857†	89177.4	86037.5	[1000]	ug/L	16:37:24
2	SiO2†	118677.0	115147.8	[10695]	ug/L	16:38:22
3	Sc Radial	3233.1	3233.1	99.7	%	16:36:48
3	Y RADIAL	3686.2	3686.2	101.1	%	16:36:28
3	Al 396.153Radial†	8901.8	9045.1	[10000]	ug/L	16:36:28
3	Ca 317.933Radial†	4754.2	4757.8	[10000]	ug/L	16:36:28
3	Fe 238.204 Radial†	761.2	758.7	[10000]	ug/L	16:36:48
3	K 766.490 Radial†	46429.1	43399.1	[10000]	ug/L	16:36:28
3	Mg 279.077 IEC†	231.7	232.2	[10000]	ug/L	16:36:48
3	Na 589.592 Radial†	19227.7	20482.8	[10000]	ug/L	16:36:28
3	Sr 421.552†	96497.0	96769.5	[1000]	ug/L	16:36:28
3	Sc 361.383	566443.0	566443.0	101.69	%	16:37:52
3	Y 371.029	521556.3	521556.3	100.80	%	16:37:52
3	Ag 328.068†	165117.8	162317.6	[1000]	ug/L	16:37:52
3	As 188.979†	2207.9	2215.7	[1000]	ug/L	16:38:12
3	B 249.677†	40004.5	39993.8	[1000]	ug/L	16:37:52
3	Ba 233.527†	65727.2	64636.6	[1000]	ug/L	16:37:52
3	Be 313.107†	2226177.7	2198684.9	[1000]	ug/L	16:37:52
3	Cd 226.502†	70077.9	69219.3	[1000]	ug/L	16:37:52
3	Co 228.616†	26974.8	26616.6	[1000]	ug/L	16:38:12
3	Cr 267.716†	65282.2	64089.1	[1000]	ug/L	16:37:52
3	Cu 324.752†	209476.5	199609.0	[1000]	ug/L	16:37:52
3	Mn 257.610†	511878.6	502736.5	[1000]	ug/L	16:37:52
3	Mo 202.031†	9366.2	9194.4	[1000]	ug/L	16:38:12
3	Ni 231.604†	29370.8	28764.3	[1000]	ug/L	16:38:12
3	P 214.914†	9600.9	9129.8	[5000]	ug/L	16:38:12
3	Pb 220.353†	5523.7	5527.4	[1000]	ug/L	16:38:12
3	S 181.975 Axial†	1590.1	1494.6	[2000]	ug/L	16:38:12
3	Sb 206.836†	2251.1	2156.1	[1000]	ug/L	16:38:12
3	Se 196.026†	1521.7	1529.4	[1000]	ug/L	16:38:12
3	Si 251.611†	116541.9	114035.0	[5000]	ug/L	16:37:52
3	Sn 189.927†	3981.2	3903.1	[1000]	ug/L	16:38:12
3	Ti 334.940†	369447.0	365278.0	[1000]	ug/L	16:37:52
3	Tl 190.801†	1619.4	1651.3	[1000]	ug/L	16:38:12
3	U 409.014†	17607.2	19114.7	[1000]	ug/L	16:37:52
3	V 292.402†	107536.3	107718.7	[1000]	ug/L	16:37:52
3	Zn 213.857†	88238.3	85827.9	[1000]	ug/L	16:37:52
3	SiO2†	117243.7	114688.3	[10695]	ug/L	16:38:27

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	566883.4	4006.41	0.71%	101.77	%
Sc Radial	3257.0	21.75	0.67%	100	%
Y 371.029	521734.7	3059.14	0.59%	100.83	%
Y RADIAL	3687.5	64.70	1.75%	101.2	%
Ag 328.068†	162367.3	49.91	0.03%	[1000]	ug/L
Al 396.153Radial†	8987.0	165.66	1.84%	[10000]	ug/L
As 188.979†	2188.8	23.98	1.10%	[1000]	ug/L
B 249.677†	40022.9	182.54	0.46%	[1000]	ug/L
Ba 233.527†	64840.8	176.81	0.27%	[1000]	ug/L
Be 313.107†	2199254.9	1830.93	0.08%	[1000]	ug/L
Ca 317.933Radial†	4720.8	93.88	1.99%	[10000]	ug/L
Cd 226.502†	69441.0	195.46	0.28%	[1000]	ug/L
Co 228.616†	26391.4	202.04	0.77%	[1000]	ug/L
Cr 267.716†	64163.4	68.43	0.11%	[1000]	ug/L
Cu 324.752†	199668.3	249.54	0.12%	[1000]	ug/L
Fe 238.204 Radial†	757.0	4.17	0.55%	[10000]	ug/L
K 766.490 Radial†	43046.6	814.18	1.89%	[10000]	ug/L

Mg 279.077 IEC†	230.8	1.29	0.56%	[10000]	ug/L
Mn 257.610†	503729.1	875.55	0.17%	[1000]	ug/L
Mo 202.031†	9125.4	65.02	0.71%	[1000]	ug/L
Na 589.592 Radial†	20462.7	447.95	2.19%	[10000]	ug/L
Ni 231.604†	28544.1	203.29	0.71%	[1000]	ug/L
P 214.914†	9032.9	87.44	0.97%	[5000]	ug/L
Pb 220.353†	5479.3	43.46	0.79%	[1000]	ug/L
S 181.975 Axial†	1485.6	8.94	0.60%	[2000]	ug/L
Sb 206.836†	2141.0	13.03	0.61%	[1000]	ug/L
Se 196.026†	1510.9	16.04	1.06%	[1000]	ug/L
Si 251.611†	114219.1	204.74	0.18%	[5000]	ug/L
Sn 189.927†	3856.5	42.04	1.09%	[1000]	ug/L
Sr 421.552†	96259.5	1710.16	1.78%	[1000]	ug/L
Ti 334.940†	365664.5	362.11	0.10%	[1000]	ug/L
Tl 190.801†	1634.3	15.55	0.95%	[1000]	ug/L
U 409.014†	19132.2	53.91	0.28%	[1000]	ug/L
V 292.402†	107824.5	110.11	0.10%	[1000]	ug/L
Zn 213.857†	85922.1	106.41	0.12%	[1000]	ug/L
SiO2†	114955.6	238.77	0.21%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 4/15/2010 16:40:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3340.3	3340.3	103	%	16:42:52
1	Y RADIAL	3621.6	3621.6	99.36	%	16:42:52
1	Al 396.153Radial†	44718.5	43534.3	[50000]	ug/L	16:42:32
1	Ca 317.933Radial†	23356.6	22666.6	[50000]	ug/L	16:42:32
1	Fe 238.204 Radial†	1532.4	1483.0	[20000]	ug/L	16:42:52
1	Mg 279.077 IEC†	1130.5	1097.5	[50000]	ug/L	16:42:52
1	Na 589.592 Radial†	42282.3	42248.1	[20000]	ug/L	16:42:32
1	Sc 361.383	565011.6	565011.6	101.44	%	16:43:49
1	Y 371.029	518798.4	518798.4	100.27	%	16:43:49
2	Sc Radial	3245.6	3245.6	100	%	16:43:17
2	Y RADIAL	3530.5	3530.5	96.86	%	16:43:17
2	Al 396.153Radial†	42634.2	42718.6	[50000]	ug/L	16:42:57
2	Ca 317.933Radial†	22271.4	22244.0	[50000]	ug/L	16:42:57
2	Fe 238.204 Radial†	1486.5	1480.6	[20000]	ug/L	16:43:17
2	Mg 279.077 IEC†	1092.6	1091.6	[50000]	ug/L	16:43:17
2	Na 589.592 Radial†	39822.9	40988.5	[20000]	ug/L	16:42:57
2	Sc 361.383	567918.5	567918.5	101.96	%	16:43:55
2	Y 371.029	520737.3	520737.3	100.64	%	16:43:55
3	Sc Radial	3356.5	3356.5	103	%	16:43:42
3	Y RADIAL	3654.5	3654.5	100.3	%	16:43:42
3	Al 396.153Radial†	42625.7	41302.8	[50000]	ug/L	16:43:22
3	Ca 317.933Radial†	22264.4	21501.9	[50000]	ug/L	16:43:22
3	Fe 238.204 Radial†	1542.4	1485.5	[20000]	ug/L	16:43:42
3	Mg 279.077 IEC†	1145.9	1107.0	[50000]	ug/L	16:43:42
3	Na 589.592 Radial†	39705.4	39560.2	[20000]	ug/L	16:43:22
3	Sc 361.383	558282.9	558282.9	100.23	%	16:44:00
3	Y 371.029	512131.7	512131.7	98.979	%	16:44:00

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	563737.7	4942.50	0.88%	101.21	%
Sc Radial	3314.1	59.90	1.81%	102	%
Y 371.029	517222.5	4514.08	0.87%	99.963	%
Y RADIAL	3602.2	64.25	1.78%	98.83	%
Al 396.153Radial†	42518.6	1129.15	2.66%	[50000]	ug/L
Ca 317.933Radial†	22137.5	589.58	2.66%	[50000]	ug/L
Fe 238.204 Radial†	1483.0	2.46	0.17%	[20000]	ug/L
Mg 279.077 IEC†	1098.7	7.78	0.71%	[50000]	ug/L
Na 589.592 Radial†	40932.3	1344.82	3.29%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	167.7	0.00000	0.997977	
Al 396.153Radial	3	Lin Thru 0	0.0	0.8526	0.00000	0.999934	
As 188.979	3	Lin Thru 0	0.0	2.266	0.00000	0.997690	
B 249.677	3	Lin Thru 0	0.0	41.34	0.00000	0.997963	
Ba 233.527	3	Lin Thru 0	0.0	67.06	0.00000	0.997763	
Be 313.107	3	Lin Thru 0	0.0	2280	0.00000	0.997474	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.4440	0.00000	0.999917	
Cd 226.502	3	Lin Thru 0	0.0	71.86	0.00000	0.997708	
Co 228.616	3	Lin Thru 0	0.0	27.25	0.00000	0.998010	
Cr 267.716	3	Lin Thru 0	0.0	66.37	0.00000	0.997734	
Cu 324.752	3	Lin Thru 0	0.0	206.6	0.00000	0.997741	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0745	0.00000	0.999965	
K 766.490 Radial	3	Lin Thru 0	0.0	4.283	0.00000	0.999933	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0220	0.00000	0.999935
Mn 257.610	3	Lin Thru 0	0.0	519.7	0.00000	0.998101
Mo 202.031	3	Lin Thru 0	0.0	9.439	0.00000	0.997780
Na 589.592 Radia	2	Lin Thru 0	0.0	2.047	0.00000	1.000000
Ni 231.604	3	Lin Thru 0	0.0	29.68	0.00000	0.997102
P 214.914	3	Lin Thru 0	0.0	1.872	0.00000	0.997513
Pb 220.353	3	Lin Thru 0	0.0	5.662	0.00000	0.997893
S 181.975 Axial	3	Lin Thru 0	0.0	0.7701	0.00000	0.997420
Sb 206.836	3	Lin Thru 0	0.0	2.218	0.00000	0.997532
Se 196.026	3	Lin Thru 0	0.0	1.565	0.00000	0.997590
Si 251.611	3	Lin Thru 0	0.0	23.64	0.00000	0.997720
Sn 189.927	3	Lin Thru 0	0.0	3.987	0.00000	0.997844
Sr 421.552	3	Lin Thru 0	0.0	95.76	0.00000	0.999947
Ti 334.940	3	Lin Thru 0	0.0	376.6	0.00000	0.998313
Tl 190.801	3	Lin Thru 0	0.0	1.688	0.00000	0.998033
U 409.014	3	Lin Thru 0	0.0	19.72	0.00000	0.998215
V 292.402	3	Lin Thru 0	0.0	111.4	0.00000	0.997969
Zn 213.857	3	Lin Thru 0	0.0	88.98	0.00000	0.997588
SiO2	3	Lin Thru 0	0.0	11.05	0.00000	0.998472

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 4/15/2010 16:46:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3387.0	3387.0	104	%			16:48:24
1	Y RADIAL	3772.9	3772.9	103.5	%			16:48:04
1	Al 396.153Radial†	4485.0	4409.8	5147.3	ug/L	5147.3	ppb	16:48:04
1	Ca 317.933Radial†	2388.1	2275.3	5124.7	ug/L	5124.7	ppb	16:48:24
1	Fe 238.204 Radial†	396.9	375.2	5053.5	ug/L	5053.5	ppb	16:48:24
1	K 766.490 Radial†	13993.0	10222.6	2384.3	ug/L	2384.3	ppb	16:48:04
1	Mg 279.077 IEC†	123.8	118.3	5372.5	ug/L	5372.5	ppb	16:48:24
1	Na 589.592 Radial†	4026.1	5049.5	2467.3	ug/L	2467.3	ppb	16:48:04
1	Sr 421.552†	52197.3	49949.6	521.59	ug/L	521.59	ppb	16:48:04
1	Sc 361.383	580606.2	580606.2	104.23	%			16:49:22
1	Y 371.029	536472.1	536472.1	103.68	%			16:49:22
1	Ag 328.068†	42978.6	41179.9	248.56	ug/L	248.56	ppb	16:49:22
1	As 188.979†	1017.2	1020.5	453.96	ug/L	453.96	ppb	16:49:42
1	B 249.677†	21012.2	20813.5	501.54	ug/L	501.54	ppb	16:49:22
1	Ba 233.527†	33773.8	32404.8	484.67	ug/L	484.67	ppb	16:49:22
1	Be 313.107†	578346.6	564400.7	248.59	ug/L	248.59	ppb	16:49:22
1	Cd 226.502†	34895.5	33785.3	470.10	ug/L	470.10	ppb	16:49:42
1	Co 228.616†	14053.7	13573.4	498.26	ug/L	498.26	ppb	16:49:42
1	Cr 267.716†	32644.9	31211.9	470.81	ug/L	470.81	ppb	16:49:22
1	Cu 324.752†	110182.4	99324.2	480.65	ug/L	480.65	ppb	16:49:22
1	Mn 257.610†	262427.2	251141.0	483.53	ug/L	483.53	ppb	16:49:22
1	Mo 202.031†	5126.2	4901.9	519.73	ug/L	519.73	ppb	16:49:42
1	Ni 231.604†	14880.3	14157.9	476.80	ug/L	476.80	ppb	16:49:42
1	P 214.914†	4989.7	4475.7	2281.2	ug/L	2281.2	ppb	16:49:42
1	Pb 220.353†	2732.2	2716.8	481.67	ug/L	481.67	ppb	16:49:42
1	S 181.975 Axial†	1987.7	1837.9	2386.2	ug/L	2386.2	ppb	16:49:42
1	Sb 206.836†	1135.2	1031.5	483.64	ug/L	483.64	ppb	16:49:42
1	Se 196.026†	3908.7	3782.8	2427.7	ug/L	2427.7	ppb	16:49:42
1	Si 251.611†	112206.7	107080.4	4523.2	ug/L	4523.2	ppb	16:49:22
1	Sn 189.927†	2115.1	2017.3	506.99	ug/L	506.99	ppb	16:49:42
1	Ti 334.940†	184076.1	178576.1	473.93	ug/L	473.93	ppb	16:49:22
1	Tl 190.801†	829.9	855.0	509.45	ug/L	509.45	ppb	16:49:42
1	U 409.014†	8382.1	9842.1	496.60	ug/L	496.60	ppb	16:49:22
1	V 292.402†	53625.9	53419.1	486.87	ug/L	486.87	ppb	16:49:22
1	Zn 213.857†	46508.2	43676.6	487.62	ug/L	487.62	ppb	16:49:22
1	SiO2†	111415.2	106284.2	9606.3	ug/L	9606.3	ppb	16:50:39
2	Sc Radial	3382.7	3382.7	104	%			16:48:49
2	Y RADIAL	3753.5	3753.5	103.0	%			16:48:29
2	Al 396.153Radial†	4494.2	4424.1	5164.0	ug/L	5164.0	ppb	16:48:29
2	Ca 317.933Radial†	2397.4	2287.2	5151.6	ug/L	5151.6	ppb	16:48:49
2	Fe 238.204 Radial†	396.2	375.0	5050.4	ug/L	5050.4	ppb	16:48:49
2	K 766.490 Radial†	13995.9	10242.4	2388.9	ug/L	2388.9	ppb	16:48:29
2	Mg 279.077 IEC†	121.6	116.4	5284.4	ug/L	5284.4	ppb	16:48:49
2	Na 589.592 Radial†	4056.2	5083.4	2483.9	ug/L	2483.9	ppb	16:48:29
2	Sr 421.552†	52168.0	49985.3	521.96	ug/L	521.96	ppb	16:48:29
2	Sc 361.383	586589.9	586589.9	105.31	%			16:49:48
2	Y 371.029	540812.7	540812.7	104.52	%			16:49:48
2	Ag 328.068†	43494.3	41248.9	248.98	ug/L	248.98	ppb	16:49:48
2	As 188.979†	1015.4	1008.8	448.81	ug/L	448.81	ppb	16:50:08
2	B 249.677†	21285.5	20867.4	502.85	ug/L	502.85	ppb	16:49:48
2	Ba 233.527†	34132.9	32415.2	484.83	ug/L	484.83	ppb	16:49:48
2	Be 313.107†	583869.1	563984.9	248.41	ug/L	248.41	ppb	16:49:48
2	Cd 226.502†	35226.0	33757.6	469.71	ug/L	469.71	ppb	16:50:08
2	Co 228.616†	14182.6	13558.2	497.71	ug/L	497.71	ppb	16:50:08
2	Cr 267.716†	32919.2	31152.8	469.93	ug/L	469.93	ppb	16:49:48
2	Cu 324.752†	111528.4	99524.0	481.62	ug/L	481.62	ppb	16:49:48
2	Mn 257.610†	265341.8	251340.4	483.91	ug/L	483.91	ppb	16:49:48
2	Mo 202.031†	5190.9	4913.2	520.92	ug/L	520.92	ppb	16:50:08
2	Ni 231.604†	15030.5	14155.0	476.70	ug/L	476.70	ppb	16:50:08

2	P 214.914†	5037.3	4472.0	2279.0 ug/L	2279.0 ppb	16:50:08
2	Pb 220.353†	2733.5	2691.3	477.18 ug/L	477.18 ppb	16:50:08
2	S 181.975 Axial†	2001.8	1831.8	2378.2 ug/L	2378.2 ppb	16:50:08
2	Sb 206.836†	1164.1	1047.8	490.90 ug/L	490.90 ppb	16:50:08
2	Se 196.026†	3968.8	3801.7	2439.7 ug/L	2439.7 ppb	16:50:08
2	Si 251.611†	113725.8	107424.8	4537.7 ug/L	4537.7 ppb	16:49:48
2	Sn 189.927†	2116.1	1997.5	502.03 ug/L	502.03 ppb	16:50:08
2	Ti 334.940†	186413.8	178994.5	475.05 ug/L	475.05 ppb	16:49:48
2	Tl 190.801†	831.7	848.6	505.67 ug/L	505.67 ppb	16:50:08
2	U 409.014†	8339.0	9719.1	490.36 ug/L	490.36 ppb	16:49:48
2	V 292.402†	54220.9	53459.3	487.24 ug/L	487.24 ppb	16:49:48
2	Zn 213.857†	47107.5	43790.5	488.90 ug/L	488.90 ppb	16:49:48
2	SiO2†	108860.3	102767.8	9288.0 ug/L	9288.0 ppb	16:50:44
3	Sc Radial	3331.7	3331.7	103 %		16:49:14
3	Y RADIAL	3849.6	3849.6	105.6 %		16:48:54
3	Al 396.153Radial†	4527.5	4522.6	5279.9 ug/L	5279.9 ppb	16:48:54
3	Ca 317.933Radial†	2365.0	2290.9	5159.8 ug/L	5159.8 ppb	16:49:14
3	Fe 238.204 Radial†	391.8	376.5	5071.1 ug/L	5071.1 ppb	16:49:14
3	K 766.490 Radial†	14171.2	10618.7	2476.7 ug/L	2476.7 ppb	16:48:54
3	Mg 279.077 IEC†	117.9	114.6	5204.9 ug/L	5204.9 ppb	16:49:14
3	Na 589.592 Radial†	4067.7	5154.1	2518.4 ug/L	2518.4 ppb	16:48:54
3	Sr 421.552†	52823.6	51390.0	536.63 ug/L	536.63 ppb	16:48:54
3	Sc 361.383	583940.3	583940.3	104.83 %		16:50:14
3	Y 371.029	540015.8	540015.8	104.37 %		16:50:14
3	Ag 328.068†	43339.4	41288.6	249.22 ug/L	249.22 ppb	16:50:14
3	As 188.979†	1007.2	1005.3	447.28 ug/L	447.28 ppb	16:50:34
3	B 249.677†	21223.5	20900.0	503.65 ug/L	503.65 ppb	16:50:14
3	Ba 233.527†	33924.2	32363.2	484.06 ug/L	484.06 ppb	16:50:14
3	Be 313.107†	582356.6	565057.8	248.88 ug/L	248.88 ppb	16:50:14
3	Cd 226.502†	34522.5	33238.3	462.48 ug/L	462.48 ppb	16:50:34
3	Co 228.616†	13895.1	13345.1	489.87 ug/L	489.87 ppb	16:50:34
3	Cr 267.716†	32749.6	31132.9	469.63 ug/L	469.63 ppb	16:50:14
3	Cu 324.752†	110830.4	99338.8	480.73 ug/L	480.73 ppb	16:50:14
3	Mn 257.610†	263511.1	250737.4	482.76 ug/L	482.76 ppb	16:50:14
3	Mo 202.031†	5092.7	4841.9	513.37 ug/L	513.37 ppb	16:50:34
3	Ni 231.604†	14764.8	13966.3	470.35 ug/L	470.35 ppb	16:50:34
3	P 214.914†	4938.1	4399.1	2240.2 ug/L	2240.2 ppb	16:50:34
3	Pb 220.353†	2692.6	2664.0	472.37 ug/L	472.37 ppb	16:50:34
3	S 181.975 Axial†	1971.9	1812.0	2352.4 ug/L	2352.4 ppb	16:50:34
3	Sb 206.836†	1146.4	1035.9	485.37 ug/L	485.37 ppb	16:50:34
3	Se 196.026†	3868.0	3722.7	2389.2 ug/L	2389.2 ppb	16:50:34
3	Si 251.611†	112791.5	107023.5	4520.8 ug/L	4520.8 ppb	16:50:14
3	Sn 189.927†	2096.7	1988.2	499.69 ug/L	499.69 ppb	16:50:34
3	Ti 334.940†	185261.9	178698.9	474.27 ug/L	474.27 ppb	16:50:14
3	Tl 190.801†	818.6	839.6	500.40 ug/L	500.40 ppb	16:50:34
3	U 409.014†	8363.4	9778.3	493.36 ug/L	493.36 ppb	16:50:14
3	V 292.402†	54041.1	53521.4	487.69 ug/L	487.69 ppb	16:50:14
3	Zn 213.857†	46715.1	43619.1	487.02 ug/L	487.02 ppb	16:50:14
3	SiO2†	111820.3	106060.3	9586.2 ug/L	9586.2 ppb	16:50:49

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	583712.1	104.79	%	0.538				0.51%
Sc Radial	3367.1	104	%	0.9				0.91%
Y 371.029	539100.2	104.19	%	0.447				0.43%
Y RADIAL	3792.0	104.0	%	1.39				1.34%
Ag 328.068†	41239.1	248.92	ug/L	0.334	248.92	ppb	0.334	0.13%
QC value within limits for Ag 328.068 Recovery = 99.57%								
Al 396.153Radial†	4452.2	5197.1	ug/L	72.20	5197.1	ppb	72.20	1.39%
QC value within limits for Al 396.153Radial Recovery = 103.94%								
As 188.979†	1011.6	450.02	ug/L	3.500	450.02	ppb	3.500	0.78%
QC value within limits for As 188.979 Recovery = 90.00%								
B 249.677†	20860.3	502.68	ug/L	1.066	502.68	ppb	1.066	0.21%
QC value within limits for B 249.677 Recovery = 100.54%								
Ba 233.527†	32394.4	484.52	ug/L	0.409	484.52	ppb	0.409	0.08%
QC value within limits for Ba 233.527 Recovery = 96.90%								
Be 313.107†	564481.1	248.62	ug/L	0.236	248.62	ppb	0.236	0.10%
QC value within limits for Be 313.107 Recovery = 99.45%								
Ca 317.933Radial†	2284.5	5145.4	ug/L	18.34	5145.4	ppb	18.34	0.36%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.91%
Cd 226.502†            33593.7      467.43 ug/L         4.291      467.43 ppb          4.291   0.92%
   QC value within limits for Cd 226.502  Recovery = 93.49%
Co 228.616†            13492.2      495.28 ug/L         4.693      495.28 ppb          4.693   0.95%
   QC value within limits for Co 228.616  Recovery = 99.06%
Cr 267.716†            31165.9      470.12 ug/L         0.617      470.12 ppb          0.617   0.13%
   QC value within limits for Cr 267.716  Recovery = 94.02%
Cu 324.752†            99395.6      481.00 ug/L         0.539      481.00 ppb          0.539   0.11%
   QC value within limits for Cu 324.752  Recovery = 96.20%
Fe 238.204 Radial†       375.5      5058.3 ug/L        11.16      5058.3 ppb          11.16   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.17%
K 766.490 Radial†      10361.2      2416.6 ug/L        52.10      2416.6 ppb          52.10   2.16%
   QC value within limits for K 766.490 Radial  Recovery = 96.67%
Mg 279.077 IEC†          116.4      5287.3 ug/L        83.85      5287.3 ppb          83.85   1.59%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.75%
Mn 257.610†           251072.9      483.40 ug/L         0.588      483.40 ppb          0.588   0.12%
   QC value within limits for Mn 257.610  Recovery = 96.68%
Mo 202.031†             4885.6      518.01 ug/L         4.059      518.01 ppb          4.059   0.78%
   QC value within limits for Mo 202.031  Recovery = 103.60%
Na 589.592 Radial†      5095.7      2489.9 ug/L        26.07      2489.9 ppb          26.07   1.05%
   QC value within limits for Na 589.592 Radial  Recovery = 99.60%
Ni 231.604†            14093.1      474.62 ug/L         3.698      474.62 ppb          3.698   0.78%
   QC value within limits for Ni 231.604  Recovery = 94.92%
P 214.914†              4448.9      2266.8 ug/L        23.05      2266.8 ppb          23.05   1.02%
   QC value within limits for P 214.914  Recovery = 90.67%
Pb 220.353†             2690.7      477.07 ug/L         4.652      477.07 ppb          4.652   0.98%
   QC value within limits for Pb 220.353  Recovery = 95.41%
S 181.975 Axial†        1827.3      2372.3 ug/L        17.65      2372.3 ppb          17.65   0.74%
   QC value within limits for S 181.975 Axial  Recovery = 94.89%
Sb 206.836†             1038.4      486.63 ug/L         3.794      486.63 ppb          3.794   0.78%
   QC value within limits for Sb 206.836  Recovery = 97.33%
Se 196.026†             3769.1      2418.9 ug/L        26.35      2418.9 ppb          26.35   1.09%
   QC value within limits for Se 196.026  Recovery = 96.75%
Si 251.611†           107176.2      4527.2 ug/L         9.15      4527.2 ppb           9.15   0.20%
   QC value within limits for Si 251.611  Recovery = 90.54%
Sn 189.927†             2001.0      502.91 ug/L         3.728      502.91 ppb          3.728   0.74%
   QC value within limits for Sn 189.927  Recovery = 100.58%
Sr 421.552†            50441.6      526.73 ug/L         8.579      526.73 ppb          8.579   1.63%
   QC value within limits for Sr 421.552  Recovery = 105.35%
Ti 334.940†           178756.5      474.42 ug/L         0.576      474.42 ppb          0.576   0.12%
   QC value within limits for Ti 334.940  Recovery = 94.88%
Tl 190.801†              847.7      505.17 ug/L         4.547      505.17 ppb          4.547   0.90%
   QC value within limits for Tl 190.801  Recovery = 101.03%
U 409.014†              9779.8      493.44 ug/L         3.117      493.44 ppb          3.117   0.63%
   QC value within limits for U 409.014  Recovery = 98.69%
V 292.402†             53466.6      487.27 ug/L         0.408      487.27 ppb          0.408   0.08%
   QC value within limits for V 292.402  Recovery = 97.45%
Zn 213.857†            43695.4      487.84 ug/L         0.961      487.84 ppb          0.961   0.20%
   QC value within limits for Zn 213.857  Recovery = 97.57%
SiO2†                 105037.4      9493.5 ug/L       178.27      9493.5 ppb         178.27   1.88%
   QC value less than the lower limit for SiO2  Recovery = 88.77%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 4/15/2010 16:53:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3289.4	3289.4	101	%			16:55:13
1	Y RADIAL	3676.4	3676.4	100.9	%			16:54:53
1	Al 396.153Radial†	-117.2	-0.4	-0.4857	ug/L	-0.4857	ppb	16:54:53
1	Ca 317.933Radial†	9.0	-2.5	-5.6228	ug/L	-5.6228	ppb	16:55:13
1	Fe 238.204 Radial†	6.2	1.2	16.418	ug/L	16.418	ppb	16:55:13
1	K 766.490 Radial†	3026.9	-192.0	-44.821	ug/L	-44.821	ppb	16:54:53
1	Mg 279.077 IEC†	3.2	3.0	133.98	ug/L	133.98	ppb	16:55:13
1	Na 589.592 Radial†	-1222.7	-11.1	-5.4442	ug/L	-5.4442	ppb	16:54:53
1	Sr 421.552†	57.8	25.0	0.2611	ug/L	0.2611	ppb	16:54:53
1	Sc 361.383	574195.2	574195.2	103.08	%			16:56:10
1	Y 371.029	533988.6	533988.6	103.20	%			16:56:10
1	Ag 328.068†	105.8	50.0	0.3001	ug/L	0.3001	ppb	16:56:10
1	As 188.979†	-37.1	8.6	3.7863	ug/L	3.7863	ppb	16:56:30
1	B 249.677†	-342.5	322.7	7.8053	ug/L	7.8053	ppb	16:56:10
1	Ba 233.527†	-16.4	-12.7	-0.1900	ug/L	-0.1900	ppb	16:56:30
1	Be 313.107†	-9687.1	153.8	0.0677	ug/L	0.0677	ppb	16:56:10
1	Cd 226.502†	-305.9	10.8	0.1486	ug/L	0.1486	ppb	16:56:30
1	Co 228.616†	-96.1	-2.6	-0.0947	ug/L	-0.0947	ppb	16:56:30
1	Cr 267.716†	145.3	34.1	0.5134	ug/L	0.5134	ppb	16:56:10
1	Cu 324.752†	6641.6	61.1	0.2961	ug/L	0.2961	ppb	16:56:10
1	Mn 257.610†	645.8	2.1	0.0004	ug/L	0.0004	ppb	16:56:10
1	Mo 202.031†	26.1	9.3	0.9832	ug/L	0.9832	ppb	16:56:30
1	Ni 231.604†	135.5	13.7	0.4628	ug/L	0.4628	ppb	16:56:30
1	P 214.914†	319.0	-1.8	-1.0271	ug/L	-1.0271	ppb	16:56:30
1	Pb 220.353†	-100.5	-1.9	-0.3317	ug/L	-0.3317	ppb	16:56:30
1	S 181.975 Axial†	68.3	-2.8	-3.5938	ug/L	-3.5938	ppb	16:56:30
1	Sb 206.836†	50.4	-8.7	-3.8809	ug/L	-3.8809	ppb	16:56:30
1	Se 196.026†	-25.2	8.5	5.4644	ug/L	5.4644	ppb	16:56:30
1	Si 251.611†	582.9	-2.1	-0.1030	ug/L	-0.1030	ppb	16:56:30
1	Sn 189.927†	22.5	10.0	2.5050	ug/L	2.5050	ppb	16:56:30
1	Ti 334.940†	-2005.6	33.0	0.0763	ug/L	0.0763	ppb	16:56:10
1	Tl 190.801†	-52.7	7.7	4.5541	ug/L	4.5541	ppb	16:56:30
1	U 409.014†	-1838.6	17.0	0.8539	ug/L	0.8539	ppb	16:56:10
1	V 292.402†	-2091.6	-57.2	-0.4976	ug/L	-0.4976	ppb	16:56:10
1	Zn 213.857†	942.6	-27.7	-0.3130	ug/L	-0.3130	ppb	16:56:30
1	SiO2†	595.0	-27.2	-2.4878	ug/L	-2.4878	ppb	16:57:26
2	Sc Radial	3277.6	3277.6	101	%			16:55:38
2	Y RADIAL	3692.8	3692.8	101.3	%			16:55:18
2	Al 396.153Radial†	-117.9	-1.5	-1.8393	ug/L	-1.8393	ppb	16:55:18
2	Ca 317.933Radial†	9.3	-2.2	-4.8709	ug/L	-4.8709	ppb	16:55:38
2	Fe 238.204 Radial†	5.2	0.2	3.2532	ug/L	3.2532	ppb	16:55:38
2	K 766.490 Radial†	3172.7	-37.0	-8.6262	ug/L	-8.6262	ppb	16:55:18
2	Mg 279.077 IEC†	3.0	2.8	125.65	ug/L	125.65	ppb	16:55:38
2	Na 589.592 Radial†	-1221.3	-14.1	-6.8970	ug/L	-6.8970	ppb	16:55:18
2	Sr 421.552†	53.1	20.5	0.2146	ug/L	0.2146	ppb	16:55:18
2	Sc 361.383	550149.9	550149.9	98.767	%			16:56:36
2	Y 371.029	510982.5	510982.5	98.757	%			16:56:36
2	Ag 328.068†	-17.3	-70.1	-0.4198	ug/L	-0.4198	ppb	16:56:36
2	As 188.979†	-38.9	5.2	2.2946	ug/L	2.2946	ppb	16:56:56
2	B 249.677†	-340.7	310.1	7.5004	ug/L	7.5004	ppb	16:56:36
2	Ba 233.527†	1.9	5.0	0.0730	ug/L	0.0730	ppb	16:56:56
2	Be 313.107†	-9458.1	-25.1	-0.0111	ug/L	-0.0111	ppb	16:56:36
2	Cd 226.502†	-310.8	-7.2	-0.0998	ug/L	-0.0998	ppb	16:56:56
2	Co 228.616†	-90.8	-1.3	-0.0426	ug/L	-0.0426	ppb	16:56:56
2	Cr 267.716†	121.3	16.0	0.2402	ug/L	0.2402	ppb	16:56:36
2	Cu 324.752†	6336.0	33.4	0.1615	ug/L	0.1615	ppb	16:56:36
2	Mn 257.610†	592.2	-24.7	-0.0524	ug/L	-0.0524	ppb	16:56:36
2	Mo 202.031†	31.3	15.6	1.6577	ug/L	1.6577	ppb	16:56:56
2	Ni 231.604†	148.9	33.0	1.1116	ug/L	1.1116	ppb	16:56:56

2	P 214.914†	315.8	8.5	4.4861 ug/L	4.4861 ppb	16:56:56
2	Pb 220.353†	-93.6	0.8	0.1417 ug/L	0.1417 ppb	16:56:56
2	S 181.975 Axial†	65.9	-2.3	-2.9238 ug/L	-2.9238 ppb	16:56:56
2	Sb 206.836†	57.2	0.3	0.1810 ug/L	0.1810 ppb	16:56:56
2	Se 196.026†	-23.7	8.9	5.7263 ug/L	5.7263 ppb	16:56:56
2	Si 251.611†	590.5	30.2	1.2581 ug/L	1.2581 ppb	16:56:56
2	Sn 189.927†	10.6	-1.2	-0.2976 ug/L	-0.2976 ppb	16:56:56
2	Ti 334.940†	-1973.4	-19.5	-0.0612 ug/L	-0.0612 ppb	16:56:36
2	Tl 190.801†	-50.9	7.3	4.3023 ug/L	4.3023 ppb	16:56:56
2	U 409.014†	-1799.8	-21.7	-1.1041 ug/L	-1.1041 ppb	16:56:36
2	V 292.402†	-2047.2	-100.9	-0.8819 ug/L	-0.8819 ppb	16:56:36
2	Zn 213.857†	949.4	19.1	0.2077 ug/L	0.2077 ppb	16:56:56
2	SiO2†	576.6	-20.6	-1.9074 ug/L	-1.9074 ppb	16:57:31
3	Sc Radial	3251.9	3251.9	100 %		16:56:03
3	Y RADIAL	3614.6	3614.6	99.17 %		16:55:43
3	Al 396.153Radial†	-110.7	4.8	5.6074 ug/L	5.6074 ppb	16:55:43
3	Ca 317.933Radial†	11.8	0.4	0.9324 ug/L	0.9324 ppb	16:56:03
3	Fe 238.204 Radial†	5.0	0.1	1.4672 ug/L	1.4672 ppb	16:56:03
3	K 766.490 Radial†	3147.3	-37.5	-8.7639 ug/L	-8.7639 ppb	16:55:43
3	Mg 279.077 IEC†	4.5	4.3	194.99 ug/L	194.99 ppb	16:56:03
3	Na 589.592 Radial†	-1207.0	-9.5	-4.6201 ug/L	-4.6201 ppb	16:55:43
3	Sr 421.552†	16.7	-15.3	-0.1603 ug/L	-0.1603 ppb	16:55:43
3	Sc 361.383	561863.1	561863.1	100.87 %		16:57:01
3	Y 371.029	521687.5	521687.5	100.83 %		16:57:01
3	Ag 328.068†	217.5	163.0	0.9776 ug/L	0.9776 ppb	16:57:01
3	As 188.979†	-37.0	7.9	3.4795 ug/L	3.4795 ppb	16:57:21
3	B 249.677†	-350.4	307.6	7.4412 ug/L	7.4412 ppb	16:57:01
3	Ba 233.527†	-3.1	0.0	0.0027 ug/L	0.0027 ppb	16:57:21
3	Be 313.107†	-9669.6	-35.1	-0.0148 ug/L	-0.0148 ppb	16:57:01
3	Cd 226.502†	-304.4	5.7	0.0797 ug/L	0.0797 ppb	16:57:21
3	Co 228.616†	-99.8	-8.3	-0.3007 ug/L	-0.3007 ppb	16:57:21
3	Cr 267.716†	140.6	32.6	0.4925 ug/L	0.4925 ppb	16:57:01
3	Cu 324.752†	6389.8	-47.1	-0.2274 ug/L	-0.2274 ppb	16:57:01
3	Mn 257.610†	606.4	-23.2	-0.0525 ug/L	-0.0525 ppb	16:57:01
3	Mo 202.031†	29.9	13.6	1.4440 ug/L	1.4440 ppb	16:57:21
3	Ni 231.604†	136.3	17.4	0.5866 ug/L	0.5866 ppb	16:57:21
3	P 214.914†	325.1	11.0	5.9495 ug/L	5.9495 ppb	16:57:21
3	Pb 220.353†	-106.3	-9.8	-1.7270 ug/L	-1.7270 ppb	16:57:21
3	S 181.975 Axial†	67.7	-1.9	-2.4978 ug/L	-2.4978 ppb	16:57:21
3	Sb 206.836†	57.1	-1.0	-0.3920 ug/L	-0.3920 ppb	16:57:21
3	Se 196.026†	-35.4	-2.1	-1.3636 ug/L	-1.3636 ppb	16:57:21
3	Si 251.611†	563.0	-9.5	-0.4197 ug/L	-0.4197 ppb	16:57:21
3	Sn 189.927†	15.8	3.8	0.9605 ug/L	0.9605 ppb	16:57:21
3	Ti 334.940†	-1901.5	93.5	0.2344 ug/L	0.2344 ppb	16:57:01
3	Tl 190.801†	-60.1	-0.7	-0.4414 ug/L	-0.4414 ppb	16:57:21
3	U 409.014†	-1857.4	-40.9	-2.0761 ug/L	-2.0761 ppb	16:57:01
3	V 292.402†	-1896.0	92.2	0.8483 ug/L	0.8483 ppb	16:57:01
3	Zn 213.857†	949.3	-1.0	-0.0148 ug/L	-0.0148 ppb	16:57:21
3	SiO2†	625.9	16.1	1.4187 ug/L	1.4187 ppb	16:57:36

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	562069.4	100.91	%	2.159				2.14%
Sc Radial	3273.0	101	%	0.6				0.59%
Y 371.029	522219.5	100.93	%	2.225				2.20%
Y RADIAL	3661.3	100.4	%	1.13				1.13%
Ag 328.068†	47.6	0.2860	ug/L	0.69884	0.2860	ppb	0.69884	244.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.0	1.0941	ug/L	3.96679	1.0941	ppb	3.96679	362.55%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.2	3.1868	ug/L	0.78778	3.1868	ppb	0.78778	24.72%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	313.5	7.5823	ug/L	0.19537	7.5823	ppb	0.19537	2.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.5	-0.0381	ug/L	0.13616	-0.0381	ppb	0.13616	357.47%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	31.2	0.0139	ug/L	0.04659	0.0139	ppb	0.04659	335.25%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.4	-3.1871	ug/L	3.58736	-3.1871	ppb	3.58736	112.56%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                3.1      0.0428 ug/L       0.12827      0.0428 ppb        0.12827 299.42%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -4.1     -0.1460 ug/L       0.13646     -0.1460 ppb        0.13646  93.48%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               27.6      0.4154 ug/L       0.15205      0.4154 ppb        0.15205  36.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               15.8      0.0767 ug/L       0.27188      0.0767 ppb        0.27188 354.26%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.5      7.0461 ug/L       8.16523      7.0461 ppb        8.16523 115.88%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -88.8     -20.737 ug/L       20.8577     -20.737 ppb        20.8577 100.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            3.3      151.54 ug/L        37.858      151.54 ppb         37.858  24.98%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -15.3     -0.0348 ug/L       0.03052     -0.0348 ppb        0.03052  87.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               12.8      1.3616 ug/L       0.34471      1.3616 ppb        0.34471  25.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -11.6     -5.6538 ug/L       1.15283     -5.6538 ppb        1.15283  20.39%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               21.4      0.7203 ug/L       0.34447      0.7203 ppb        0.34447  47.82%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 5.9      3.1362 ug/L       3.67897      3.1362 ppb        3.67897 117.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -3.6     -0.6390 ug/L       0.97152     -0.6390 ppb        0.97152 152.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.3     -3.0051 ug/L       0.55251     -3.0051 ppb        0.55251  18.39%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -3.1     -1.3640 ug/L       2.19847     -1.3640 ppb        2.19847 161.18%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.1      3.2757 ug/L       4.01989      3.2757 ppb        4.01989 122.72%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                6.2      0.2451 ug/L       0.89144      0.2451 ppb        0.89144 363.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                4.2      1.0560 ug/L       1.40373      1.0560 ppb        1.40373 132.93%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               10.1      0.1052 ug/L       0.23105      0.1052 ppb        0.23105 219.72%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               35.7      0.0832 ug/L       0.14792      0.0832 ppb        0.14792 177.84%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.7      2.8050 ug/L       2.81428      2.8050 ppb        2.81428 100.33%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -15.2     -0.7755 ug/L       1.49242     -0.7755 ppb        1.49242 192.46%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -21.9     -0.1771 ug/L       0.90854     -0.1771 ppb        0.90854 513.08%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -3.2     -0.0401 ug/L       0.26127     -0.0401 ppb        0.26127 652.28%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -10.6     -0.9922 ug/L       2.10795     -0.9922 ppb        2.10795 212.46%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 4/15/2010 16:59:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3289.4	3289.4	101	%			17:02:01
1	Y RADIAL	3643.2	3643.2	99.95	%			17:01:41
1	Al 396.153Radial†	55.7	170.1	198.99	ug/L	198.99	ppb	17:01:41
1	Ca 317.933Radial†	103.7	90.8	204.60	ug/L	204.60	ppb	17:02:01
1	Fe 238.204 Radial†	12.6	7.6	101.54	ug/L	101.54	ppb	17:02:01
1	K 766.490 Radial†	3849.2	618.7	144.29	ug/L	144.29	ppb	17:01:41
1	Mg 279.077 IEC†	10.7	10.3	469.56	ug/L	469.56	ppb	17:02:01
1	Na 589.592 Radial†	-659.8	543.8	265.73	ug/L	265.73	ppb	17:01:41
1	Sr 421.552†	507.1	468.0	4.8859	ug/L	4.8859	ppb	17:01:41
1	Sc 361.383	563033.4	563033.4	101.08	%			17:02:58
1	Y 371.029	523720.2	523720.2	101.22	%			17:02:58
1	Ag 328.068†	905.0	842.7	5.0225	ug/L	5.0225	ppb	17:02:58
1	As 188.979†	26.7	71.0	31.354	ug/L	31.354	ppb	17:03:18
1	B 249.677†	1429.3	2069.0	50.027	ug/L	50.027	ppb	17:02:58
1	Ba 233.527†	317.8	317.6	4.7517	ug/L	4.7517	ppb	17:03:18
1	Be 313.107†	1423.8	10959.7	4.8178	ug/L	4.8178	ppb	17:02:58
1	Cd 226.502†	29.7	336.9	4.6931	ug/L	4.6931	ppb	17:03:18
1	Co 228.616†	25.5	115.9	4.2641	ug/L	4.2641	ppb	17:03:18
1	Cr 267.716†	424.9	313.6	4.7090	ug/L	4.7090	ppb	17:02:58
1	Cu 324.752†	8401.3	1929.8	9.3117	ug/L	9.3117	ppb	17:02:58
1	Mn 257.610†	5796.1	5109.9	9.8232	ug/L	9.8232	ppb	17:02:58
1	Mo 202.031†	115.7	98.5	10.442	ug/L	10.442	ppb	17:03:18
1	Ni 231.604†	267.7	147.1	4.9534	ug/L	4.9534	ppb	17:03:18
1	P 214.914†	589.9	272.3	143.34	ug/L	143.34	ppb	17:03:18
1	Pb 220.353†	-44.6	51.4	9.1415	ug/L	9.1415	ppb	17:03:18
1	S 181.975 Axial†	139.9	69.4	90.077	ug/L	90.077	ppb	17:03:18
1	Sb 206.836†	80.6	22.2	10.343	ug/L	10.343	ppb	17:03:18
1	Se 196.026†	17.2	50.0	32.139	ug/L	32.139	ppb	17:03:18
1	Si 251.611†	2865.5	2267.3	95.779	ug/L	95.779	ppb	17:02:58
1	Sn 189.927†	47.4	35.0	8.8128	ug/L	8.8128	ppb	17:03:18
1	Ti 334.940†	-48.8	1930.3	5.0837	ug/L	5.0837	ppb	17:02:58
1	Tl 190.801†	-30.0	29.2	17.336	ug/L	17.336	ppb	17:03:18
1	U 409.014†	-651.6	1155.9	58.567	ug/L	58.567	ppb	17:02:58
1	V 292.402†	-1529.3	458.9	4.3717	ug/L	4.3717	ppb	17:02:58
1	Zn 213.857†	1979.9	1016.6	11.390	ug/L	11.390	ppb	17:03:18
1	SiO2†	2893.0	2257.7	204.07	ug/L	204.07	ppb	17:04:14
2	Sc Radial	3237.2	3237.2	99.8	%			17:02:26
2	Y RADIAL	3704.1	3704.1	101.6	%			17:02:06
2	Al 396.153Radial†	50.6	165.9	194.12	ug/L	194.12	ppb	17:02:06
2	Ca 317.933Radial†	114.1	103.0	231.96	ug/L	231.96	ppb	17:02:26
2	Fe 238.204 Radial†	11.2	6.3	85.036	ug/L	85.036	ppb	17:02:26
2	K 766.490 Radial†	3827.3	658.0	153.46	ug/L	153.46	ppb	17:02:06
2	Mg 279.077 IEC†	10.9	10.7	485.72	ug/L	485.72	ppb	17:02:26
2	Na 589.592 Radial†	-582.7	610.6	298.34	ug/L	298.34	ppb	17:02:06
2	Sr 421.552†	492.9	461.9	4.8216	ug/L	4.8216	ppb	17:02:06
2	Sc 361.383	555746.4	555746.4	99.772	%			17:03:23
2	Y 371.029	516419.3	516419.3	99.807	%			17:03:23
2	Ag 328.068†	789.7	738.8	4.4113	ug/L	4.4113	ppb	17:03:23
2	As 188.979†	19.3	63.9	28.246	ug/L	28.246	ppb	17:03:43
2	B 249.677†	1412.1	2070.3	50.062	ug/L	50.062	ppb	17:03:23
2	Ba 233.527†	311.8	315.7	4.7221	ug/L	4.7221	ppb	17:03:43
2	Be 313.107†	1444.7	10999.1	4.8344	ug/L	4.8344	ppb	17:03:23
2	Cd 226.502†	37.5	345.1	4.8058	ug/L	4.8058	ppb	17:03:43
2	Co 228.616†	25.8	116.4	4.2828	ug/L	4.2828	ppb	17:03:43
2	Cr 267.716†	466.6	360.9	5.4276	ug/L	5.4276	ppb	17:03:23
2	Cu 324.752†	8309.2	1946.5	9.4018	ug/L	9.4018	ppb	17:03:23
2	Mn 257.610†	5698.3	5087.0	9.7769	ug/L	9.7769	ppb	17:03:23
2	Mo 202.031†	101.0	85.3	9.0412	ug/L	9.0412	ppb	17:03:43
2	Ni 231.604†	269.4	152.3	5.1287	ug/L	5.1287	ppb	17:03:43

2	P 214.914†	580.8	270.9	142.55 ug/L	142.55 ppb	17:03:43
2	Pb 220.353†	-40.1	55.4	9.8393 ug/L	9.8393 ppb	17:03:43
2	S 181.975 Axial†	140.7	72.0	93.463 ug/L	93.463 ppb	17:03:43
2	Sb 206.836†	61.2	3.7	1.9861 ug/L	1.9861 ppb	17:03:43
2	Se 196.026†	10.3	43.3	27.823 ug/L	27.823 ppb	17:03:43
2	Si 251.611†	2826.4	2265.2	95.709 ug/L	95.709 ppb	17:03:23
2	Sn 189.927†	45.7	33.9	8.5540 ug/L	8.5540 ppb	17:03:43
2	Ti 334.940†	-178.3	1799.9	4.7461 ug/L	4.7461 ppb	17:03:23
2	Tl 190.801†	-21.0	37.7	22.419 ug/L	22.419 ppb	17:03:43
2	U 409.014†	-986.4	811.8	41.124 ug/L	41.124 ppb	17:03:23
2	V 292.402†	-1531.0	437.3	4.1270 ug/L	4.1270 ppb	17:03:23
2	Zn 213.857†	1968.0	1030.3	11.542 ug/L	11.542 ppb	17:03:43
2	SiO2†	2926.0	2328.3	210.50 ug/L	210.50 ppb	17:04:19
3	Sc Radial	3232.6	3232.6	99.7 %		17:02:51
3	Y RADIAL	3618.3	3618.3	99.27 %		17:02:31
3	Al 396.153Radial†	53.2	168.6	197.27 ug/L	197.27 ppb	17:02:31
3	Ca 317.933Radial†	105.2	94.2	212.19 ug/L	212.19 ppb	17:02:51
3	Fe 238.204 Radial†	14.5	9.6	129.62 ug/L	129.62 ppb	17:02:51
3	K 766.490 Radial†	3736.4	572.3	133.46 ug/L	133.46 ppb	17:02:31
3	Mg 279.077 IEC†	6.9	6.7	306.39 ug/L	306.39 ppb	17:02:51
3	Na 589.592 Radial†	-611.8	580.5	283.67 ug/L	283.67 ppb	17:02:31
3	Sr 421.552†	535.3	505.1	5.2731 ug/L	5.2731 ppb	17:02:31
3	Sc 361.383	558387.4	558387.4	100.25 %		17:03:49
3	Y 371.029	518232.4	518232.4	100.16 %		17:03:49
3	Ag 328.068†	900.7	845.9	5.0585 ug/L	5.0585 ppb	17:03:49
3	As 188.979†	20.0	64.5	28.504 ug/L	28.504 ppb	17:04:09
3	B 249.677†	1529.5	2180.8	52.729 ug/L	52.729 ppb	17:03:49
3	Ba 233.527†	300.5	302.9	4.5336 ug/L	4.5336 ppb	17:04:09
3	Be 313.107†	1413.6	10961.2	4.8180 ug/L	4.8180 ppb	17:03:49
3	Cd 226.502†	23.4	330.8	4.6044 ug/L	4.6044 ppb	17:04:09
3	Co 228.616†	17.8	108.4	3.9885 ug/L	3.9885 ppb	17:04:09
3	Cr 267.716†	412.1	304.3	4.5740 ug/L	4.5740 ppb	17:03:49
3	Cu 324.752†	8287.8	1885.7	9.1069 ug/L	9.1069 ppb	17:03:49
3	Mn 257.610†	5733.1	5094.7	9.8038 ug/L	9.8038 ppb	17:03:49
3	Mo 202.031†	114.2	97.9	10.388 ug/L	10.388 ppb	17:04:09
3	Ni 231.604†	275.0	156.5	5.2729 ug/L	5.2729 ppb	17:04:09
3	P 214.914†	563.0	250.4	131.67 ug/L	131.67 ppb	17:04:09
3	Pb 220.353†	-43.3	52.4	9.3103 ug/L	9.3103 ppb	17:04:09
3	S 181.975 Axial†	141.2	71.9	93.309 ug/L	93.309 ppb	17:04:09
3	Sb 206.836†	79.7	21.9	10.266 ug/L	10.266 ppb	17:04:09
3	Se 196.026†	11.8	44.8	28.871 ug/L	28.871 ppb	17:04:09
3	Si 251.611†	2863.2	2288.6	96.680 ug/L	96.680 ppb	17:03:49
3	Sn 189.927†	52.8	40.8	10.265 ug/L	10.265 ppb	17:04:09
3	Ti 334.940†	-140.5	1838.4	4.8581 ug/L	4.8581 ppb	17:03:49
3	Tl 190.801†	-18.1	40.8	24.243 ug/L	24.243 ppb	17:04:09
3	U 409.014†	-888.7	914.0	46.295 ug/L	46.295 ppb	17:03:49
3	V 292.402†	-1540.0	435.7	4.1323 ug/L	4.1323 ppb	17:03:49
3	Zn 213.857†	1976.5	1029.5	11.536 ug/L	11.536 ppb	17:04:09
3	SiO2†	2835.6	2224.2	201.05 ug/L	201.05 ppb	17:04:24

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	559055.7	100.37	%	0.662				0.66%
Sc Radial	3253.1	100	%	1.0				0.97%
Y 371.029	519457.3	100.39	%	0.735				0.73%
Y RADIAL	3655.2	100.3	%	1.21				1.21%
Ag 328.068†	809.1	4.8308	ug/L	0.36371	4.8308	ppb	0.36371	7.53%
QC value within limits for Ag 328.068 Recovery = 96.62%								
Al 396.153Radial†	168.2	196.80	ug/L	2.468	196.80	ppb	2.468	1.25%
QC value within limits for Al 396.153Radial Recovery = 98.40%								
As 188.979†	66.5	29.368	ug/L	1.7247	29.368	ppb	1.7247	5.87%
QC value within limits for As 188.979 Recovery = 97.89%								
B 249.677†	2106.7	50.939	ug/L	1.5503	50.939	ppb	1.5503	3.04%
QC value within limits for B 249.677 Recovery = 101.88%								
Ba 233.527†	312.1	4.6691	ug/L	0.11826	4.6691	ppb	0.11826	2.53%
QC value within limits for Ba 233.527 Recovery = 93.38%								
Be 313.107†	10973.3	4.8234	ug/L	0.00950	4.8234	ppb	0.00950	0.20%
QC value within limits for Be 313.107 Recovery = 96.47%								
Ca 317.933Radial†	96.0	216.25	ug/L	14.122	216.25	ppb	14.122	6.53%

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   QC value within limits for Ca 317.933Radial  Recovery = 108.13%
Cd 226.502†              337.6      4.7011 ug/L       0.10095      4.7011 ppb        0.10095   2.15%
   QC value within limits for Cd 226.502  Recovery = 94.02%
Co 228.616†              113.6      4.1785 ug/L       0.16478      4.1785 ppb        0.16478   3.94%
   QC value within limits for Co 228.616  Recovery = 83.57%
Cr 267.716†              326.3      4.9035 ug/L       0.45883      4.9035 ppb        0.45883   9.36%
   QC value within limits for Cr 267.716  Recovery = 98.07%
Cu 324.752†             1920.7      9.2735 ug/L       0.15112      9.2735 ppb        0.15112   1.63%
   QC value within limits for Cu 324.752  Recovery = 92.73%
Fe 238.204 Radial†         7.8      105.40 ug/L        22.544      105.40 ppb         22.544  21.39%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.40%
K 766.490 Radial†        616.3      143.74 ug/L        10.016      143.74 ppb         10.016   6.97%
   QC value within limits for K 766.490 Radial  Recovery = 95.82%
Mg 279.077 IEC†            9.3      420.56 ug/L        99.198      420.56 ppb         99.198  23.59%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 140.19%
Mn 257.610†             5097.2      9.8013 ug/L       0.02328      9.8013 ppb        0.02328   0.24%
   QC value within limits for Mn 257.610  Recovery = 98.01%
Mo 202.031†               93.9      9.9573 ug/L       0.79378      9.9573 ppb        0.79378   7.97%
   QC value within limits for Mo 202.031  Recovery = 99.57%
Na 589.592 Radial†       578.3      282.58 ug/L        16.331      282.58 ppb         16.331   5.78%
   QC value within limits for Na 589.592 Radial  Recovery = 94.19%
Ni 231.604†              152.0      5.1184 ug/L       0.16000      5.1184 ppb        0.16000   3.13%
   QC value within limits for Ni 231.604  Recovery = 102.37%
P 214.914†               264.5      139.19 ug/L         6.524      139.19 ppb          6.524   4.69%
   QC value within limits for P 214.914  Recovery = 92.79%
Pb 220.353†               53.0      9.4304 ug/L       0.36404      9.4304 ppb        0.36404   3.86%
   QC value within limits for Pb 220.353  Recovery = 94.30%
S 181.975 Axial†          71.1      92.283 ug/L        1.9119      92.283 ppb         1.9119   2.07%
   QC value within limits for S 181.975 Axial  Recovery = 92.28%
Sb 206.836†               15.9      7.5318 ug/L       4.80286      7.5318 ppb        4.80286  63.77%
   QC value within limits for Sb 206.836  Recovery = 75.32%
Se 196.026†               46.0      29.611 ug/L        2.2513      29.611 ppb         2.2513   7.60%
   QC value within limits for Se 196.026  Recovery = 98.70%
Si 251.611†             2273.7      96.056 ug/L        0.5414      96.056 ppb         0.5414   0.56%
   QC value within limits for Si 251.611  Recovery = 96.06%
Sn 189.927†               36.6      9.2107 ug/L       0.92238      9.2107 ppb        0.92238  10.01%
   QC value within limits for Sn 189.927  Recovery = 92.11%
Sr 421.552†              478.3      4.9935 ug/L       0.24424      4.9935 ppb        0.24424   4.89%
   QC value within limits for Sr 421.552  Recovery = 99.87%
Ti 334.940†             1856.2      4.8960 ug/L       0.17192      4.8960 ppb        0.17192   3.51%
   QC value within limits for Ti 334.940  Recovery = 97.92%
Tl 190.801†               35.9      21.333 ug/L        3.5793      21.333 ppb         3.5793  16.78%
   QC value within limits for Tl 190.801  Recovery = 106.66%
U 409.014†               960.6      48.662 ug/L        8.9588      48.662 ppb         8.9588  18.41%
   QC value within limits for U 409.014  Recovery = 97.32%
V 292.402†               444.0      4.2103 ug/L       0.13975      4.2103 ppb        0.13975   3.32%
   QC value within limits for V 292.402  Recovery = 84.21%
Zn 213.857†             1025.5      11.489 ug/L        0.0861      11.489 ppb         0.0861   0.75%
   QC value within limits for Zn 213.857  Recovery = 114.89%
SiO2†                   2270.0      205.21 ug/L         4.828      205.21 ppb          4.828   2.35%
   QC value within limits for SiO2  Recovery = 96.34%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 4/15/2010 17:06:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3076.9	3076.9	94.9	%			17:08:50
1	Y RADIAL	3356.0	3356.0	92.07	%			17:08:50
1	Al 396.153Radial†	423120.2	446104.8	523260	ug/L	523260	ppb	17:08:30
1	Ca 317.933Radial†	206343.8	217485.2	489840	ug/L	489840	ppb	17:08:30
1	Fe 238.204 Radial†	12920.1	13613.6	182830	ug/L	182830	ppb	17:08:50
1	K 766.490 Radial†	2774.0	-252.5	-106.43	ug/L	-106.43	ppb	17:08:30
1	Mg 279.077 IEC†	10167.6	10717.0	486360	ug/L	486360	ppb	17:08:50
1	Na 589.592 Radial†	-982.1	159.2	77.775	ug/L	77.775	ppb	17:08:50
1	Sr 421.552†	1107.5	1135.3	8.1987	ug/L	8.1987	ppb	17:08:50
1	Sc 361.383	441191.3	441191.3	79.206	%			17:09:47
1	Y 371.029	428828.9	428828.9	82.879	%			17:09:47
1	Ag 328.068†	-7396.3	-9390.7	-7.4506	ug/L	-7.4506	ppb	17:09:47
1	As 188.979†	-85.0	-62.7	-3.7548	ug/L	-3.7548	ppb	17:10:07
1	B 249.677†	276.6	1004.2	5.1123	ug/L	5.1123	ppb	17:09:47
1	Ba 233.527†	-561.4	-705.7	-0.1610	ug/L	-0.1610	ppb	17:10:07
1	Be 313.107†	-8875.8	-1654.9	-0.7639	ug/L	-0.7639	ppb	17:09:47
1	Cd 226.502†	832.5	1358.6	2.4987	ug/L	2.4987	ppb	17:10:07
1	Co 228.616†	-52.9	23.8	-1.7950	ug/L	-1.7950	ppb	17:10:07
1	Cr 267.716†	86.5	2.4	2.9110	ug/L	2.9110	ppb	17:10:07
1	Cu 324.752†	4112.6	-1189.4	6.4868	ug/L	6.4868	ppb	17:09:47
1	Mn 257.610†	151.1	-433.6	-1.0986	ug/L	-1.0986	ppb	17:09:47
1	Mo 202.031†	-176.7	-239.2	-5.7497	ug/L	-5.7497	ppb	17:10:07
1	Ni 231.604†	183.4	113.8	4.0066	ug/L	4.0066	ppb	17:10:07
1	P 214.914†	305.6	74.5	93.066	ug/L	93.066	ppb	17:10:07
1	Pb 220.353†	-698.7	-786.6	-11.346	ug/L	-11.346	ppb	17:10:07
1	S 181.975 Axial†	65.6	13.9	-41.153	ug/L	-41.153	ppb	17:10:07
1	Sb 206.836†	68.0	28.3	13.177	ug/L	13.177	ppb	17:10:07
1	Se 196.026†	-544.1	-653.9	-81.155	ug/L	-81.155	ppb	17:10:07
1	Si 251.611†	735.8	361.4	15.599	ug/L	15.599	ppb	17:10:07
1	Sn 189.927†	-313.0	-407.1	-11.126	ug/L	-11.126	ppb	17:10:07
1	Ti 334.940†	-6583.7	-6333.6	-4.6551	ug/L	-4.6551	ppb	17:09:47
1	Tl 190.801†	-94.8	-60.9	-36.234	ug/L	-36.234	ppb	17:10:07
1	U 409.014†	-1093.3	420.2	-27.806	ug/L	-27.806	ppb	17:09:47
1	V 292.402†	-225.4	1687.2	-0.3197	ug/L	-0.3197	ppb	17:10:07
1	Zn 213.857†	2750.3	2530.2	45.698	ug/L	45.698	ppb	17:10:07
1	SiO2†	714.6	297.8	27.647	ug/L	27.647	ppb	17:11:03
2	Sc Radial	3002.7	3002.7	92.6	%			17:09:15
2	Y RADIAL	3310.5	3310.5	90.82	%			17:09:15
2	Al 396.153Radial†	408726.8	441579.5	517950	ug/L	517950	ppb	17:08:55
2	Ca 317.933Radial†	199168.3	215109.6	484490	ug/L	484490	ppb	17:08:55
2	Fe 238.204 Radial†	12665.9	13675.5	183660	ug/L	183660	ppb	17:09:15
2	K 766.490 Radial†	2819.8	-130.7	-77.485	ug/L	-77.485	ppb	17:08:55
2	Mg 279.077 IEC†	9933.5	10728.9	486900	ug/L	486900	ppb	17:09:15
2	Na 589.592 Radial†	-965.8	151.2	73.890	ug/L	73.890	ppb	17:09:15
2	Sr 421.552†	1099.3	1155.3	8.4476	ug/L	8.4476	ppb	17:09:15
2	Sc 361.383	451348.6	451348.6	81.030	%			17:10:12
2	Y 371.029	445830.5	445830.5	86.165	%			17:10:12
2	Ag 328.068†	-7915.4	-9821.2	-9.7225	ug/L	-9.7225	ppb	17:10:12
2	As 188.979†	-90.8	-67.4	-5.7312	ug/L	-5.7312	ppb	17:10:32
2	B 249.677†	270.5	988.8	4.6492	ug/L	4.6492	ppb	17:10:12
2	Ba 233.527†	-592.7	-728.4	-0.4473	ug/L	-0.4473	ppb	17:10:32
2	Be 313.107†	-9250.1	-1864.6	-0.8577	ug/L	-0.8577	ppb	17:10:12
2	Cd 226.502†	871.3	1382.8	2.7623	ug/L	2.7623	ppb	17:10:32
2	Co 228.616†	-35.9	46.3	-0.9860	ug/L	-0.9860	ppb	17:10:32
2	Cr 267.716†	104.1	21.7	3.2122	ug/L	3.2122	ppb	17:10:32
2	Cu 324.752†	4286.8	-1091.4	7.0114	ug/L	7.0114	ppb	17:10:12
2	Mn 257.610†	148.2	-441.4	-1.0465	ug/L	-1.0465	ppb	17:10:12
2	Mo 202.031†	-195.8	-257.6	-7.7247	ug/L	-7.7247	ppb	17:10:32
2	Ni 231.604†	144.8	61.0	2.2258	ug/L	2.2258	ppb	17:10:32

2	P 214.914†	291.3	48.2	77.205 ug/L	77.205 ppb	17:10:32
2	Pb 220.353†	-759.8	-842.1	-22.692 ug/L	-22.692 ppb	17:10:32
2	S 181.975 Axial†	74.5	23.0	-28.713 ug/L	-28.713 ppb	17:10:32
2	Sb 206.836†	75.8	35.9	16.635 ug/L	16.635 ppb	17:10:32
2	Se 196.026†	-571.3	-672.1	-91.319 ug/L	-91.319 ppb	17:10:32
2	Si 251.611†	756.4	365.9	15.812 ug/L	15.812 ppb	17:10:32
2	Sn 189.927†	-317.1	-403.2	-11.087 ug/L	-11.087 ppb	17:10:32
2	Ti 334.940†	-6986.6	-6643.7	-6.0574 ug/L	-6.0574 ppb	17:10:12
2	Tl 190.801†	-80.2	-40.2	-23.983 ug/L	-23.983 ppb	17:10:32
2	U 409.014†	-920.8	664.1	-15.662 ug/L	-15.662 ppb	17:10:12
2	V 292.402†	-60.6	1897.1	1.4599 ug/L	1.4599 ppb	17:10:32
2	Zn 213.857†	2830.5	2551.0	46.021 ug/L	46.021 ppb	17:10:32
2	SiO2†	713.0	275.6	25.688 ug/L	25.688 ppb	17:11:08
3	Sc Radial	2966.3	2966.3	91.5 %		17:09:40
3	Y RADIAL	3258.5	3258.5	89.40 %		17:09:40
3	Al 396.153Radial†	412464.8	451092.5	529110 ug/L	529110 ppb	17:09:20
3	Ca 317.933Radial†	200871.6	219616.0	494640 ug/L	494640 ppb	17:09:20
3	Fe 238.204 Radial†	12461.7	13620.4	182920 ug/L	182920 ppb	17:09:40
3	K 766.490 Radial†	2995.6	98.8	-24.869 ug/L	-24.869 ppb	17:09:20
3	Mg 279.077 IEC†	9772.1	10684.3	484880 ug/L	484880 ppb	17:09:40
3	Na 589.592 Radial†	-954.5	150.8	73.673 ug/L	73.673 ppb	17:09:40
3	Sr 421.552†	1074.0	1142.3	8.2353 ug/L	8.2353 ppb	17:09:40
3	Sc 361.383	451161.1	451161.1	80.996 %		17:10:38
3	Y 371.029	445109.4	445109.4	86.025 %		17:10:38
3	Ag 328.068†	-7960.2	-9880.5	-10.399 ug/L	-10.399 ppb	17:10:38
3	As 188.979†	-79.0	-53.0	0.5274 ug/L	0.5274 ppb	17:10:58
3	B 249.677†	340.6	1075.4	6.8257 ug/L	6.8257 ppb	17:10:38
3	Ba 233.527†	-594.6	-730.9	-0.5288 ug/L	-0.5288 ppb	17:10:58
3	Be 313.107†	-9301.5	-1932.8	-0.8881 ug/L	-0.8881 ppb	17:10:38
3	Cd 226.502†	858.6	1367.5	2.6167 ug/L	2.6167 ppb	17:10:58
3	Co 228.616†	-51.3	27.3	-1.6664 ug/L	-1.6664 ppb	17:10:58
3	Cr 267.716†	64.1	-27.7	2.4555 ug/L	2.4555 ppb	17:10:58
3	Cu 324.752†	4228.3	-1161.3	6.6220 ug/L	6.6220 ppb	17:10:38
3	Mn 257.610†	152.4	-436.1	-1.0330 ug/L	-1.0330 ppb	17:10:38
3	Mo 202.031†	-182.8	-241.7	-5.9426 ug/L	-5.9426 ppb	17:10:58
3	Ni 231.604†	172.1	94.7	3.3640 ug/L	3.3640 ppb	17:10:58
3	P 214.914†	316.6	79.6	97.221 ug/L	97.221 ppb	17:10:58
3	Pb 220.353†	-730.1	-805.8	-13.172 ug/L	-13.172 ppb	17:10:58
3	S 181.975 Axial†	80.8	30.8	-19.860 ug/L	-19.860 ppb	17:10:58
3	Sb 206.836†	48.1	1.8	1.3119 ug/L	1.3119 ppb	17:10:58
3	Se 196.026†	-566.4	-666.4	-88.886 ug/L	-88.886 ppb	17:10:58
3	Si 251.611†	808.7	430.9	18.541 ug/L	18.541 ppb	17:10:58
3	Sn 189.927†	-300.6	-383.1	-4.2349 ug/L	-4.2349 ppb	17:10:58
3	Ti 334.940†	-7048.7	-6723.9	-5.1082 ug/L	-5.1082 ppb	17:10:38
3	Tl 190.801†	-98.0	-62.1	-36.985 ug/L	-36.985 ppb	17:10:58
3	U 409.014†	-916.0	669.6	-15.184 ug/L	-15.184 ppb	17:10:38
3	V 292.402†	-113.7	1831.5	0.9560 ug/L	0.9560 ppb	17:10:58
3	Zn 213.857†	2751.9	2455.5	44.871 ug/L	44.871 ppb	17:10:58
3	SiO2†	760.4	334.5	30.971 ug/L	30.971 ppb	17:11:13

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	447900.4	80.410	%	1.0432				1.30%
Sc Radial	3015.3	93.0	%	1.74				1.87%
Y 371.029	439922.9	85.023	%	1.8582				2.19%
Y RADIAL	3308.3	90.76	%	1.338				1.47%
Ag 328.068†	-9697.5	-9.1908	ug/L	1.54451	-9.1908	ppb	1.54451	16.81%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	446258.9	523440	ug/L	5581.3	523440	ppb	5581.3	1.07%
QC value within limits for Al 396.153Radial Recovery = 104.69%								
As 188.979†	-61.0	-2.9862	ug/L	3.19930	-2.9862	ppb	3.19930	107.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1022.8	5.5291	ug/L	1.14654	5.5291	ppb	1.14654	20.74%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-721.7	-0.3790	ug/L	0.19318	-0.3790	ppb	0.19318	50.97%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1817.4	-0.8366	ug/L	0.06474	-0.8366	ppb	0.06474	7.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	217403.6	489660	ug/L	5077.4	489660	ppb	5077.4	1.04%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.93%
Cd 226.502†            1369.6      2.6259 ug/L       0.13203      2.6259 ppb        0.13203   5.03%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              32.5     -1.4825 ug/L       0.43471     -1.4825 ppb        0.43471  29.32%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -1.2      2.8596 ug/L       0.38095      2.8596 ppb        0.38095  13.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -1147.4      6.7067 ug/L       0.27238      6.7067 ppb        0.27238   4.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    13636.5      183140 ug/L         455.8      183140 ppb          455.8   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 91.57%
K 766.490 Radial†       -94.8     -69.593 ug/L       41.3470     -69.593 ppb        41.3470  59.41%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       10710.1      486050 ug/L        1047.9      486050 ppb         1047.9   0.22%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.21%
Mn 257.610†            -437.1     -1.0594 ug/L       0.03463     -1.0594 ppb        0.03463   3.27%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -246.2     -6.4723 ug/L       1.08886     -6.4723 ppb        1.08886  16.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      153.7      75.113 ug/L        2.3078      75.113 ppb         2.3078   3.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              89.8      3.1988 ug/L       0.90185      3.1988 ppb        0.90185  28.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               67.4      89.164 ug/L       10.5633      89.164 ppb        10.5633  11.85%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -811.5     -15.737 ug/L        6.0925     -15.737 ppb         6.0925  38.72%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         22.5     -29.908 ug/L       10.6968     -29.908 ppb        10.6968  35.77%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              22.0      10.374 ug/L        8.0366      10.374 ppb         8.0366  77.47%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -664.1     -87.120 ug/L        5.3072     -87.120 ppb         5.3072   6.09%
   QC value less than the lower limit for Se 196.026  Recovery = Not calculated
Si 251.611†             386.0      16.650 ug/L        1.6405      16.650 ppb         1.6405   9.85%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -397.8     -8.8158 ug/L       3.96726     -8.8158 ppb        3.96726  45.00%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            1144.3      8.2939 ug/L       0.13442      8.2939 ppb        0.13442   1.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -6567.1     -5.2736 ug/L       0.71562     -5.2736 ppb        0.71562  13.57%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -54.4     -32.401 ug/L        7.2993     -32.401 ppb         7.2993  22.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               584.6     -19.551 ug/L        7.1531     -19.551 ppb         7.1531  36.59%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             1805.3      0.6987 ug/L       0.91728      0.6987 ppb        0.91728 131.28%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2512.2      45.530 ug/L        0.5933      45.530 ppb         0.5933   1.30%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
SiO2†                   302.6      28.102 ug/L        2.6709      28.102 ppb         2.6709   9.50%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 4/15/2010 17:13:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3146.3	3146.3	97.0	%			17:15:38
1	Y RADIAL	3443.5	3443.5	94.47	%			17:15:38
1	Al 396.153Radial†	439212.1	452858.7	531160	ug/L	531160	ppb	17:15:17
1	Ca 317.933Radial†	212822.2	219367.6	494080	ug/L	494080	ppb	17:15:17
1	Fe 238.204 Radial†	13511.2	13922.6	186990	ug/L	186990	ppb	17:15:38
1	K 766.490 Radial†	25349.7	22954.2	5308.1	ug/L	5308.1	ppb	17:15:17
1	Mg 279.077 IEC†	10525.6	10849.7	492390	ug/L	492390	ppb	17:15:38
1	Na 589.592 Radial†	9579.9	11069.4	5408.8	ug/L	5408.8	ppb	17:15:38
1	Sr 421.552†	47750.6	49189.7	510.00	ug/L	510.00	ppb	17:15:17
1	Sc 361.383	528275.9	528275.9	94.840	%			17:16:35
1	Y 371.029	481952.3	481952.3	93.146	%			17:16:35
1	Ag 328.068†	34806.9	36648.0	269.79	ug/L	269.79	ppb	17:16:35
1	As 188.979†	954.9	1051.5	491.67	ug/L	491.67	ppb	17:16:55
1	B 249.677†	19757.9	21487.9	498.82	ug/L	498.82	ppb	17:16:35
1	Ba 233.527†	30650.0	32320.7	493.75	ug/L	493.75	ppb	17:16:35
1	Be 313.107†	502220.2	539095.2	237.52	ug/L	237.52	ppb	17:16:35
1	Cd 226.502†	31768.0	33803.9	454.03	ug/L	454.03	ppb	17:16:55
1	Co 228.616†	12332.1	13093.7	477.88	ug/L	477.88	ppb	17:16:55
1	Cr 267.716†	29914.3	31435.1	477.01	ug/L	477.01	ppb	17:16:35
1	Cu 324.752†	113524.8	113319.6	560.55	ug/L	560.55	ppb	17:16:35
1	Mn 257.610†	241548.4	254065.8	488.77	ug/L	488.77	ppb	17:16:35
1	Mo 202.031†	4199.0	4411.5	487.29	ug/L	487.29	ppb	17:16:55
1	Ni 231.604†	13050.5	13642.8	459.63	ug/L	459.63	ppb	17:16:55
1	P 214.914†	4667.2	4609.8	2389.8	ug/L	2389.8	ppb	17:16:55
1	Pb 220.353†	1857.3	2053.9	492.79	ug/L	492.79	ppb	17:16:55
1	S 181.975 Axial†	1930.0	1966.0	2493.0	ug/L	2493.0	ppb	17:16:55
1	Sb 206.836†	1170.2	1176.3	548.74	ug/L	548.74	ppb	17:16:55
1	Se 196.026†	3180.9	3386.9	2509.7	ug/L	2509.7	ppb	17:16:55
1	Si 251.611†	113642.6	119257.9	5038.9	ug/L	5038.9	ppb	17:16:35
1	Sn 189.927†	1555.7	1628.4	500.26	ug/L	500.26	ppb	17:16:55
1	Ti 334.940†	172071.2	183411.6	498.75	ug/L	498.75	ppb	17:16:35
1	Tl 190.801†	703.9	801.0	477.65	ug/L	477.65	ppb	17:16:55
1	U 409.014†	9729.1	12058.9	560.11	ug/L	560.11	ppb	17:16:35
1	V 292.402†	50980.4	55725.9	492.01	ug/L	492.01	ppb	17:16:35
1	Zn 213.857†	44260.3	45726.2	527.87	ug/L	527.87	ppb	17:16:35
1	SiO2†	110394.0	115795.7	10469	ug/L	10469	ppb	17:17:53
2	Sc Radial	3148.5	3148.5	97.1	%			17:16:03
2	Y RADIAL	3453.7	3453.7	94.75	%			17:16:03
2	Al 396.153Radial†	433625.4	446791.3	524040	ug/L	524040	ppb	17:15:43
2	Ca 317.933Radial†	210149.9	216463.4	487540	ug/L	487540	ppb	17:15:43
2	Fe 238.204 Radial†	13520.9	13922.9	187000	ug/L	187000	ppb	17:16:03
2	K 766.490 Radial†	24899.6	22472.6	5196.3	ug/L	5196.3	ppb	17:15:43
2	Mg 279.077 IEC†	10557.4	10875.0	493540	ug/L	493540	ppb	17:16:03
2	Na 589.592 Radial†	9607.7	11091.2	5419.5	ug/L	5419.5	ppb	17:16:03
2	Sr 421.552†	47011.5	48394.4	501.75	ug/L	501.75	ppb	17:15:43
2	Sc 361.383	528513.1	528513.1	94.883	%			17:17:01
2	Y 371.029	482224.0	482224.0	93.199	%			17:17:01
2	Ag 328.068†	34794.8	36618.8	269.68	ug/L	269.68	ppb	17:17:01
2	As 188.979†	937.0	1032.2	483.16	ug/L	483.16	ppb	17:17:21
2	B 249.677†	19579.7	21290.7	494.06	ug/L	494.06	ppb	17:17:01
2	Ba 233.527†	30670.5	32327.8	493.85	ug/L	493.85	ppb	17:17:01
2	Be 313.107†	503799.6	540522.1	238.14	ug/L	238.14	ppb	17:17:01
2	Cd 226.502†	31627.7	33640.9	451.76	ug/L	451.76	ppb	17:17:21
2	Co 228.616†	12257.6	13009.3	474.78	ug/L	474.78	ppb	17:17:21
2	Cr 267.716†	29919.9	31426.8	476.88	ug/L	476.88	ppb	17:17:01
2	Cu 324.752†	113479.2	113217.7	560.06	ug/L	560.06	ppb	17:17:01
2	Mn 257.610†	240929.1	253298.8	487.24	ug/L	487.24	ppb	17:17:01
2	Mo 202.031†	4168.2	4377.0	483.54	ug/L	483.54	ppb	17:17:21
2	Ni 231.604†	13003.4	13587.0	457.75	ug/L	457.75	ppb	17:17:21

2	P 214.914†	4636.7	4575.5	2369.8 ug/L	2369.8 ppb	17:17:21
2	Pb 220.353†	1843.2	2038.2	488.07 ug/L	488.07 ppb	17:17:21
2	S 181.975 Axial†	1907.7	1941.6	2462.1 ug/L	2462.1 ppb	17:17:21
2	Sb 206.836†	1145.3	1149.5	536.56 ug/L	536.56 ppb	17:17:21
2	Se 196.026†	3162.5	3366.1	2496.3 ug/L	2496.3 ppb	17:17:21
2	Si 251.611†	113373.9	118920.9	5024.7 ug/L	5024.7 ppb	17:17:01
2	Sn 189.927†	1544.2	1615.6	495.87 ug/L	495.87 ppb	17:17:21
2	Ti 334.940†	171730.0	182970.5	496.84 ug/L	496.84 ppb	17:17:01
2	Tl 190.801†	698.7	795.2	474.20 ug/L	474.20 ppb	17:17:21
2	U 409.014†	9738.7	12064.4	560.39 ug/L	560.39 ppb	17:17:01
2	V 292.402†	51020.1	55743.6	492.14 ug/L	492.14 ppb	17:17:01
2	Zn 213.857†	44326.6	45775.1	528.43 ug/L	528.43 ppb	17:17:01
2	SiO2†	112127.0	117570.0	10629 ug/L	10629 ppb	17:17:58
3	Sc Radial	3139.2	3139.2	96.8 %		17:16:28
3	Y RADIAL	3445.3	3445.3	94.52 %		17:16:28
3	Al 396.153Radial†	434935.6	449471.5	527180 ug/L	527180 ppb	17:16:08
3	Ca 317.933Radial†	210569.5	217539.7	489970 ug/L	489970 ppb	17:16:08
3	Fe 238.204 Radial†	13509.6	13952.6	187390 ug/L	187390 ppb	17:16:28
3	K 766.490 Radial†	24961.1	22612.3	5228.7 ug/L	5228.7 ppb	17:16:08
3	Mg 279.077 IEC†	10530.3	10879.2	493730 ug/L	493730 ppb	17:16:28
3	Na 589.592 Radial†	9601.8	11114.5	5430.8 ug/L	5430.8 ppb	17:16:28
3	Sr 421.552†	47188.8	48721.4	505.14 ug/L	505.14 ppb	17:16:08
3	Sc 361.383	524768.0	524768.0	94.210 %		17:17:27
3	Y 371.029	479501.5	479501.5	92.672 %		17:17:27
3	Ag 328.068†	34496.6	36563.9	269.45 ug/L	269.45 ppb	17:17:27
3	As 188.979†	938.5	1040.8	487.01 ug/L	487.01 ppb	17:17:47
3	B 249.677†	19584.3	21442.8	497.70 ug/L	497.70 ppb	17:17:27
3	Ba 233.527†	30580.3	32462.7	495.89 ug/L	495.89 ppb	17:17:27
3	Be 313.107†	500464.6	540771.5	238.25 ug/L	238.25 ppb	17:17:27
3	Cd 226.502†	31202.7	33427.7	448.76 ug/L	448.76 ppb	17:17:47
3	Co 228.616†	12107.6	12942.3	472.31 ug/L	472.31 ppb	17:17:47
3	Cr 267.716†	29781.0	31504.4	478.06 ug/L	478.06 ppb	17:17:27
3	Cu 324.752†	112349.7	112872.4	558.42 ug/L	558.42 ppb	17:17:27
3	Mn 257.610†	239269.3	253349.1	487.38 ug/L	487.38 ppb	17:17:27
3	Mo 202.031†	4119.4	4356.5	481.43 ug/L	481.43 ppb	17:17:47
3	Ni 231.604†	12806.2	13475.4	453.99 ug/L	453.99 ppb	17:17:47
3	P 214.914†	4603.3	4574.9	2370.5 ug/L	2370.5 ppb	17:17:47
3	Pb 220.353†	1781.0	1986.0	479.66 ug/L	479.66 ppb	17:17:47
3	S 181.975 Axial†	1894.2	1941.6	2461.7 ug/L	2461.7 ppb	17:17:47
3	Sb 206.836†	1136.0	1148.2	535.84 ug/L	535.84 ppb	17:17:47
3	Se 196.026†	3105.9	3329.7	2473.8 ug/L	2473.8 ppb	17:17:47
3	Si 251.611†	112502.3	118848.4	5021.7 ug/L	5021.7 ppb	17:17:27
3	Sn 189.927†	1514.0	1595.2	491.19 ug/L	491.19 ppb	17:17:47
3	Ti 334.940†	170757.8	183230.3	497.76 ug/L	497.76 ppb	17:17:27
3	Tl 190.801†	691.0	792.3	472.49 ug/L	472.49 ppb	17:17:47
3	U 409.014†	9648.1	12041.5	559.12 ug/L	559.12 ppb	17:17:27
3	V 292.402†	50663.9	55749.3	492.10 ug/L	492.10 ppb	17:17:27
3	Zn 213.857†	43964.5	45724.2	527.92 ug/L	527.92 ppb	17:17:27
3	SiO2†	114140.4	120550.5	10899 ug/L	10899 ppb	17:18:03

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	527185.6	94.644	%	0.3765				0.40%
Sc Radial	3144.7	97.0	%	0.15				0.16%
Y 371.029	481225.9	93.006	%	0.2898				0.31%
Y RADIAL	3447.5	94.58	%	0.148				0.16%
Ag 328.068†	36610.2	269.64	ug/L	0.174	269.64	ppb	0.174	0.06%
QC value within limits for Ag 328.068 Recovery = 107.85%								
Al 396.153Radial†	449707.2	527460	ug/L	3566.3	527460	ppb	3566.3	0.68%
QC value within limits for Al 396.153Radial Recovery = 105.49%								
As 188.979†	1041.5	487.28	ug/L	4.262	487.28	ppb	4.262	0.87%
QC value within limits for As 188.979 Recovery = 97.46%								
B 249.677†	21407.1	496.86	ug/L	2.491	496.86	ppb	2.491	0.50%
QC value within limits for B 249.677 Recovery = 99.37%								
Ba 233.527†	32370.4	494.50	ug/L	1.206	494.50	ppb	1.206	0.24%
QC value within limits for Ba 233.527 Recovery = 98.90%								
Be 313.107†	540129.6	237.97	ug/L	0.396	237.97	ppb	0.396	0.17%
QC value within limits for Be 313.107 Recovery = 95.19%								
Ca 317.933Radial†	217790.2	490530	ug/L	3306.9	490530	ppb	3306.9	0.67%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.11%
Cd 226.502†            33624.2      451.52 ug/L         2.646      451.52 ppb          2.646   0.59%
   QC value within limits for Cd 226.502  Recovery = 90.30%
Co 228.616†            13015.1      474.99 ug/L         2.793      474.99 ppb          2.793   0.59%
   QC value within limits for Co 228.616  Recovery = 95.00%
Cr 267.716†            31455.4      477.32 ug/L         0.646      477.32 ppb          0.646   0.14%
   QC value within limits for Cr 267.716  Recovery = 95.46%
Cu 324.752†           113136.6      559.68 ug/L         1.118      559.68 ppb          1.118   0.20%
   QC value within limits for Cu 324.752  Recovery = 111.94%
Fe 238.204 Radial†     13932.7      187130 ug/L         231.4      187130 ppb          231.4   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.56%
K 766.490 Radial†      22679.7      5244.3 ug/L         57.53      5244.3 ppb          57.53   1.10%
   QC value within limits for K 766.490 Radial  Recovery = 104.89%
Mg 279.077 IEC†        10868.0      493220 ug/L         726.0      493220 ppb          726.0   0.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.64%
Mn 257.610†           253571.2      487.80 ug/L         0.843      487.80 ppb          0.843   0.17%
   QC value within limits for Mn 257.610  Recovery = 97.56%
Mo 202.031†             4381.7      484.08 ug/L         2.965      484.08 ppb          2.965   0.61%
   QC value within limits for Mo 202.031  Recovery = 96.82%
Na 589.592 Radial†     11091.7      5419.7 ug/L         11.02      5419.7 ppb          11.02   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 108.39%
Ni 231.604†            13568.4      457.12 ug/L         2.870      457.12 ppb          2.870   0.63%
   QC value within limits for Ni 231.604  Recovery = 91.42%
P 214.914†              4586.7      2376.7 ug/L         11.38      2376.7 ppb          11.38   0.48%
   QC value within limits for P 214.914  Recovery = 95.07%
Pb 220.353†             2026.0      486.84 ug/L         6.653      486.84 ppb          6.653   1.37%
   QC value within limits for Pb 220.353  Recovery = 97.37%
S 181.975 Axial†        1949.7      2472.3 ug/L         17.95      2472.3 ppb          17.95   0.73%
   QC value within limits for S 181.975 Axial  Recovery = 98.89%
Sb 206.836†             1158.0      540.38 ug/L         7.251      540.38 ppb          7.251   1.34%
   QC value within limits for Sb 206.836  Recovery = 108.08%
Se 196.026†             3360.9      2493.3 ug/L         18.12      2493.3 ppb          18.12   0.73%
   QC value within limits for Se 196.026  Recovery = 99.73%
Si 251.611†           119009.1      5028.4 ug/L          9.21      5028.4 ppb           9.21   0.18%
   QC value within limits for Si 251.611  Recovery = 100.57%
Sn 189.927†             1613.1      495.78 ug/L         4.539      495.78 ppb          4.539   0.92%
   QC value within limits for Sn 189.927  Recovery = 99.16%
Sr 421.552†            48768.5      505.63 ug/L         4.150      505.63 ppb          4.150   0.82%
   QC value within limits for Sr 421.552  Recovery = 101.13%
Ti 334.940†           183204.1      497.79 ug/L         0.955      497.79 ppb          0.955   0.19%
   QC value within limits for Ti 334.940  Recovery = 99.56%
Tl 190.801†              796.2      474.78 ug/L         2.629      474.78 ppb          2.629   0.55%
   QC value within limits for Tl 190.801  Recovery = 94.96%
U 409.014†             12054.9      559.87 ug/L         0.669      559.87 ppb          0.669   0.12%
   QC value within limits for U 409.014  Recovery = 111.97%
V 292.402†             55739.6      492.08 ug/L         0.067      492.08 ppb          0.067   0.01%
   QC value within limits for V 292.402  Recovery = 98.42%
Zn 213.857†            45741.8      528.07 ug/L         0.310      528.07 ppb          0.310   0.06%
   QC value within limits for Zn 213.857  Recovery = 105.61%
SiO2†                 117972.0       10666 ug/L         217.6       10666 ppb          217.6   2.04%
   QC value within limits for SiO2  Recovery = 99.73%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 4/15/2010 17:20:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3128.0	3128.0	96.4	%			17:22:26
1	Y RADIAL	3429.4	3429.4	94.09	%			17:22:26
1	Al 396.153Radial†	412430.6	427747.3	501730	ug/L	501730	ppb	17:22:06
1	Ca 317.933Radial†	201620.2	209040.3	470820	ug/L	470820	ppb	17:22:06
1	Fe 238.204 Radial†	30538.5	31659.3	425180	ug/L	425180	ppb	17:22:26
1	K 766.490 Radial†	3602.8	559.1	-123.88	ug/L	-123.88	ppb	17:22:06
1	Mg 279.077 IEC†	10077.1	10448.4	474020	ug/L	474020	ppb	17:22:26
1	Na 589.592 Radial†	961295.4	997921.7	487610	ug/L	487610	ppb	17:22:06
1	Sr 421.552†	1132.2	1141.9	8.4091	ug/L	8.4091	ppb	17:22:26
1	Sc 361.383	516164.8	516164.8	92.666	%			17:23:24
1	Y 371.029	471440.1	471440.1	91.114	%			17:23:24
1	Ag 328.068†	-18299.8	-19800.8	-11.621	ug/L	-11.621	ppb	17:23:24
1	As 188.979†	-154.0	-121.6	2.1335	ug/L	2.1335	ppb	17:23:45
1	B 249.677†	1283.3	2039.8	4.7278	ug/L	4.7278	ppb	17:23:24
1	Ba 233.527†	-1405.2	-1513.3	1.5191	ug/L	1.5191	ppb	17:23:45
1	Be 313.107†	-14042.6	-5602.9	-2.4790	ug/L	-2.4790	ppb	17:23:24
1	Cd 226.502†	2529.1	3036.7	7.2623	ug/L	7.2623	ppb	17:23:45
1	Co 228.616†	77.3	174.0	0.1560	ug/L	0.1560	ppb	17:23:45
1	Cr 267.716†	164.8	71.1	1.3096	ug/L	1.3096	ppb	17:23:45
1	Cu 324.752†	2171.9	-4037.9	-0.0717	ug/L	-0.0717	ppb	17:23:24
1	Mn 257.610†	-13672.2	-15378.7	-3.3392	ug/L	-3.3392	ppb	17:23:24
1	Mo 202.031†	-351.7	-395.6	-5.8708	ug/L	-5.8708	ppb	17:23:45
1	Ni 231.604†	236.6	137.6	5.0308	ug/L	5.0308	ppb	17:23:45
1	P 214.914†	540.8	272.3	93.782	ug/L	93.782	ppb	17:23:45
1	Pb 220.353†	-566.7	-516.0	10.496	ug/L	10.496	ppb	17:23:45
1	S 181.975 Axial†	110.3	50.0	8.2729	ug/L	8.2729	ppb	17:23:45
1	Sb 206.836†	67.0	14.7	13.597	ug/L	13.597	ppb	17:23:45
1	Se 196.026†	-1376.1	-1452.0	-151.12	ug/L	-151.12	ppb	17:23:45
1	Si 251.611†	88.1	-472.5	-19.471	ug/L	-19.471	ppb	17:23:45
1	Sn 189.927†	-343.8	-382.9	-4.4794	ug/L	-4.4794	ppb	17:23:45
1	Ti 334.940†	-5200.6	-3633.7	-5.6062	ug/L	-5.6062	ppb	17:23:24
1	Tl 190.801†	-94.1	-42.7	-25.606	ug/L	-25.606	ppb	17:23:45
1	U 409.014†	296069.7	321303.0	16176	ug/L	16176	ppb	17:23:24
1	V 292.402†	1250.3	3321.1	12.451	ug/L	12.451	ppb	17:23:45
1	Zn 213.857†	4626.6	4050.7	85.705	ug/L	85.705	ppb	17:23:45
1	SiO2†	149.7	-442.9	-38.947	ug/L	-38.947	ppb	17:24:41
2	Sc Radial	3137.9	3137.9	96.8	%			17:22:52
2	Y RADIAL	3447.4	3447.4	94.58	%			17:22:52
2	Al 396.153Radial†	414969.1	429012.5	503210	ug/L	503210	ppb	17:22:32
2	Ca 317.933Radial†	202345.9	209126.2	471020	ug/L	471020	ppb	17:22:32
2	Fe 238.204 Radial†	30685.8	31710.9	425870	ug/L	425870	ppb	17:22:52
2	K 766.490 Radial†	3808.2	759.6	-75.815	ug/L	-75.815	ppb	17:22:32
2	Mg 279.077 IEC†	10144.1	10484.4	475660	ug/L	475660	ppb	17:22:52
2	Na 589.592 Radial†	958444.9	991809.1	484630	ug/L	484630	ppb	17:22:32
2	Sr 421.552†	1135.0	1141.1	8.3993	ug/L	8.3993	ppb	17:22:52
2	Sc 361.383	533568.5	533568.5	95.790	%			17:23:50
2	Y 371.029	487327.8	487327.8	94.185	%			17:23:50
2	Ag 328.068†	-18903.2	-19786.6	-11.361	ug/L	-11.361	ppb	17:23:50
2	As 188.979†	-159.0	-121.4	2.3260	ug/L	2.3260	ppb	17:24:10
2	B 249.677†	1181.5	1888.4	0.9904	ug/L	0.9904	ppb	17:23:50
2	Ba 233.527†	-1453.1	-1513.8	1.5482	ug/L	1.5482	ppb	17:24:10
2	Be 313.107†	-14509.2	-5595.8	-2.4757	ug/L	-2.4757	ppb	17:23:50
2	Cd 226.502†	2538.5	2957.6	6.1034	ug/L	6.1034	ppb	17:24:10
2	Co 228.616†	101.7	196.8	0.9741	ug/L	0.9741	ppb	17:24:10
2	Cr 267.716†	221.2	124.1	2.1075	ug/L	2.1075	ppb	17:24:10
2	Cu 324.752†	2098.2	-4191.4	-0.7812	ug/L	-0.7812	ppb	17:23:50
2	Mn 257.610†	-14556.3	-15820.3	-4.1814	ug/L	-4.1814	ppb	17:23:50
2	Mo 202.031†	-393.5	-426.8	-9.1243	ug/L	-9.1243	ppb	17:24:10
2	Ni 231.604†	217.2	109.0	4.0677	ug/L	4.0677	ppb	17:24:10

2	P 214.914†	528.1	240.0	76.821 ug/L	76.821 ppb	17:24:10
2	Pb 220.353†	-575.0	-504.7	12.807 ug/L	12.807 ppb	17:24:10
2	S 181.975 Axial†	90.1	25.1	-24.299 ug/L	-24.299 ppb	17:24:10
2	Sb 206.836†	45.4	-10.2	2.4182 ug/L	2.4182 ppb	17:24:10
2	Se 196.026†	-1407.0	-1435.9	-139.54 ug/L	-139.54 ppb	17:24:10
2	Si 251.611†	120.3	-442.0	-18.142 ug/L	-18.142 ppb	17:24:10
2	Sn 189.927†	-331.0	-357.4	1.9640 ug/L	1.9640 ppb	17:24:10
2	Ti 334.940†	-5356.7	-3613.6	-5.6687 ug/L	-5.6687 ppb	17:23:50
2	Tl 190.801†	-107.4	-53.3	-31.881 ug/L	-31.881 ppb	17:24:10
2	U 409.014†	306558.0	321830.9	16203 ug/L	16203 ppb	17:23:50
2	V 292.402†	1206.2	3231.1	11.584 ug/L	11.584 ppb	17:24:10
2	Zn 213.857†	4682.8	3946.5	84.607 ug/L	84.607 ppb	17:24:10
2	SiO2†	78.3	-522.7	-46.081 ug/L	-46.081 ppb	17:24:46
3	Sc Radial	3100.6	3100.6	95.6 %		17:23:17
3	Y RADIAL	3409.5	3409.5	93.54 %		17:23:17
3	Al 396.153Radial†	412037.5	431103.8	505660 ug/L	505660 ppb	17:22:57
3	Ca 317.933Radial†	200912.6	210141.9	473300 ug/L	473300 ppb	17:22:57
3	Fe 238.204 Radial†	30416.7	31810.8	427210 ug/L	427210 ppb	17:23:17
3	K 766.490 Radial†	3831.2	830.9	-62.215 ug/L	-62.215 ppb	17:22:57
3	Mg 279.077 IEC†	10020.3	10480.9	475500 ug/L	475500 ppb	17:23:17
3	Na 589.592 Radial†	959995.6	1005343.6	491240 ug/L	491240 ppb	17:22:57
3	Sr 421.552†	1124.8	1144.5	8.4181 ug/L	8.4181 ppb	17:23:17
3	Sc 361.383	538133.2	538133.2	96.610 %		17:24:16
3	Y 371.029	491779.6	491779.6	95.045 %		17:24:16
3	Ag 328.068†	-19144.6	-19869.0	-11.475 ug/L	-11.475 ppb	17:24:16
3	As 188.979†	-161.9	-122.9	1.8160 ug/L	1.8160 ppb	17:24:36
3	B 249.677†	1192.9	1889.7	0.8810 ug/L	0.8810 ppb	17:24:16
3	Ba 233.527†	-1429.6	-1476.6	2.1803 ug/L	2.1803 ppb	17:24:36
3	Be 313.107†	-14518.6	-5476.9	-2.4246 ug/L	-2.4246 ppb	17:24:16
3	Cd 226.502†	2528.6	2924.9	5.5260 ug/L	5.5260 ppb	17:24:36
3	Co 228.616†	98.6	192.7	0.8075 ug/L	0.8075 ppb	17:24:36
3	Cr 267.716†	205.1	105.5	1.8518 ug/L	1.8518 ppb	17:24:36
3	Cu 324.752†	2071.5	-4237.6	-0.9111 ug/L	-0.9111 ppb	17:24:16
3	Mn 257.610†	-14549.0	-15683.9	-3.7684 ug/L	-3.7684 ppb	17:24:16
3	Mo 202.031†	-386.5	-416.1	-7.8697 ug/L	-7.8697 ppb	17:24:36
3	Ni 231.604†	231.2	121.5	4.4912 ug/L	4.4912 ppb	17:24:36
3	P 214.914†	529.1	236.4	75.021 ug/L	75.021 ppb	17:24:36
3	Pb 220.353†	-548.4	-472.1	19.130 ug/L	19.130 ppb	17:24:36
3	S 181.975 Axial†	91.9	26.2	-23.183 ug/L	-23.183 ppb	17:24:36
3	Sb 206.836†	64.3	9.0	11.175 ug/L	11.175 ppb	17:24:36
3	Se 196.026†	-1378.5	-1393.9	-110.22 ug/L	-110.22 ppb	17:24:36
3	Si 251.611†	104.8	-459.1	-18.879 ug/L	-18.879 ppb	17:24:36
3	Sn 189.927†	-326.2	-349.6	4.3639 ug/L	4.3639 ppb	17:24:36
3	Ti 334.940†	-5555.7	-3772.1	-5.8465 ug/L	-5.8465 ppb	17:24:16
3	Tl 190.801†	-96.0	-40.5	-24.317 ug/L	-24.317 ppb	17:24:36
3	U 409.014†	309023.9	321668.6	16194 ug/L	16194 ppb	17:24:16
3	V 292.402†	1263.2	3279.4	11.836 ug/L	11.836 ppb	17:24:36
3	Zn 213.857†	4668.6	3890.3	84.100 ug/L	84.100 ppb	17:24:36
3	SiO2†	193.0	-404.6	-35.423 ug/L	-35.423 ppb	17:24:52

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	529288.8	95.022	%	2.0812				2.19%
Sc Radial	3122.2	96.3	%	0.60				0.62%
Y 371.029	483515.8	93.448	%	2.0665				2.21%
Y RADIAL	3428.8	94.07	%	0.521				0.55%
Ag 328.068†	-19818.8	-11.486	ug/L	0.1306	-11.486	ppb	0.1306	1.14%
Al 396.153Radial†	429287.9	503530	ug/L	1988.3	503530	ppb	1988.3	0.39%
QC value within limits for Al 396.153Radial Recovery = 100.71%								
As 188.979†	-122.0	2.0918	ug/L	0.25753	2.0918	ppb	0.25753	12.31%
B 249.677†	1939.3	2.1998	ug/L	2.19005	2.1998	ppb	2.19005	99.56%
Ba 233.527†	-1501.2	1.7492	ug/L	0.37365	1.7492	ppb	0.37365	21.36%
Be 313.107†	-5558.5	-2.4598	ug/L	0.03052	-2.4598	ppb	0.03052	1.24%
Ca 317.933Radial†	209436.1	471710	ug/L	1380.1	471710	ppb	1380.1	0.29%
QC value within limits for Ca 317.933Radial Recovery = 94.34%								
Cd 226.502†	2973.1	6.2972	ug/L	0.88420	6.2972	ppb	0.88420	14.04%
Co 228.616†	187.8	0.6459	ug/L	0.43237	0.6459	ppb	0.43237	66.94%
Cr 267.716†	100.2	1.7563	ug/L	0.40746	1.7563	ppb	0.40746	23.20%
Cu 324.752†	-4155.6	-0.5880	ug/L	0.45179	-0.5880	ppb	0.45179	76.83%

Fe 238.204 Radial†	31727.0	426090 ug/L	1034.6	426090 ppb	1034.6	0.24%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 85.22%						
K 766.490 Radial†	716.5	-87.304 ug/L	32.3990	-87.304 ppb	32.3990	37.11%
Mg 279.077 IEC†	10471.2	475060 ug/L	902.6	475060 ppb	902.6	0.19%
QC value within limits for Mg 279.077 IEC Recovery = 95.01%						
Mn 257.610†	-15627.6	-3.7630 ug/L	0.42117	-3.7630 ppb	0.42117	11.19%
Mo 202.031†	-412.8	-7.6216 ug/L	1.64088	-7.6216 ppb	1.64088	21.53%
Na 589.592 Radial†	998358.1	487830 ug/L	3311.8	487830 ppb	3311.8	0.68%
QC value within limits for Na 589.592 Radial Recovery = 97.57%						
Ni 231.604†	122.7	4.5299 ug/L	0.48274	4.5299 ppb	0.48274	10.66%
P 214.914†	249.6	81.874 ug/L	10.3515	81.874 ppb	10.3515	12.64%
Pb 220.353†	-497.6	14.144 ug/L	4.4696	14.144 ppb	4.4696	31.60%
S 181.975 Axial†	33.8	-13.070 ug/L	18.4917	-13.070 ppb	18.4917	141.48%
Sb 206.836†	4.5	9.0633 ug/L	5.88079	9.0633 ppb	5.88079	64.89%
Se 196.026†	-1427.3	-133.63 ug/L	21.077	-133.63 ppb	21.077	15.77%
Si 251.611†	-457.9	-18.831 ug/L	0.6656	-18.831 ppb	0.6656	3.53%
Sn 189.927†	-363.3	0.6162 ug/L	4.57309	0.6162 ppb	4.57309	742.19%
Sr 421.552†	1142.5	8.4088 ug/L	0.00940	8.4088 ppb	0.00940	0.11%
Ti 334.940†	-3673.1	-5.7071 ug/L	0.12466	-5.7071 ppb	0.12466	2.18%
Tl 190.801†	-45.5	-27.268 ug/L	4.0469	-27.268 ppb	4.0469	14.84%
U 409.014†	321600.8	16191 ug/L	13.6	16191 ppb	13.6	0.08%
QC value within limits for U 409.014 Recovery = 107.94%						
V 292.402†	3277.2	11.957 ug/L	0.4459	11.957 ppb	0.4459	3.73%
Zn 213.857†	3962.5	84.804 ug/L	0.8205	84.804 ppb	0.8205	0.97%
SiO2†	-456.7	-40.151 ug/L	5.4302	-40.151 ppb	5.4302	13.52%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 4/15/2010 17:27:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3185.3	3185.3	98.2	%			17:29:20
1	Y RADIAL	3445.0	3445.0	94.51	%			17:29:20
1	Al 396.153Radial†	301.8	422.5	-44.531	ug/L	-44.531	ppb	17:29:00
1	Ca 317.933Radial†	20.9	9.9	22.396	ug/L	22.396	ppb	17:29:20
1	Fe 238.204 Radial†	-14.2	-19.4	77.052	ug/L	77.052	ppb	17:29:20
1	K 766.490 Radial†	1173604.8	1191764.1	278220	ug/L	278220	ppb	17:28:55
1	Mg 279.077 IEC†	-5.5	-5.8	-157.99	ug/L	-157.99	ppb	17:29:20
1	Na 589.592 Radial†	-824.0	355.4	173.67	ug/L	173.67	ppb	17:29:00
1	Sr 421.552†	866715.9	882440.5	9215.4	ug/L	9215.4	ppb	17:28:55
1	Sc 361.383	489264.1	489264.1	87.836	%			17:30:42
1	Y 371.029	517434.2	517434.2	100.00	%			17:30:37
1	Ag 328.068†	-6020.7	-6907.1	3.6839	ug/L	3.6839	ppb	17:30:42
1	As 188.979†	21739.3	24794.4	11013	ug/L	11013	ppb	17:30:42
1	B 249.677†	198657.0	226821.9	5454.8	ug/L	5454.8	ppb	17:30:37
1	Ba 233.527†	978398.0	1113889.6	16637	ug/L	16637	ppb	17:30:37
1	Be 313.107†	6490990.1	7399412.9	3270.5	ug/L	3270.5	ppb	17:30:31
1	Cd 226.502†	689355.2	785124.5	10933	ug/L	10933	ppb	17:30:37
1	Co 228.616†	269640.4	307070.8	11267	ug/L	11267	ppb	17:30:42
1	Cr 267.716†	1574091.1	1791964.3	27014	ug/L	27014	ppb	17:30:37
1	Cu 324.752†	4294176.0	4882451.4	23632	ug/L	23632	ppb	17:30:31
1	Mn 257.610†	5057536.3	5757279.1	11077	ug/L	11077	ppb	17:30:31
1	Mo 202.031†	92354.2	105127.4	11137	ug/L	11137	ppb	17:30:42
1	Ni 231.604†	288500.9	328334.7	11058	ug/L	11058	ppb	17:30:42
1	P 214.914†	31574.0	35635.1	13563	ug/L	13563	ppb	17:30:42
1	Pb 220.353†	139195.0	158566.3	28011	ug/L	28011	ppb	17:30:42
1	S 181.975 Axial†	38439.8	43693.9	56741	ug/L	56741	ppb	17:30:42
1	Sb 206.836†	23079.3	26217.7	12227	ug/L	12227	ppb	17:30:42
1	Se 196.026†	15397.3	17562.5	11255	ug/L	11255	ppb	17:30:42
1	Si 251.611†	1060601.8	1206906.2	50916	ug/L	50916	ppb	17:30:37
1	Sn 189.927†	40428.2	46014.8	11542	ug/L	11542	ppb	17:30:42
1	Ti 334.940†	3728088.9	4246332.9	11266	ug/L	11266	ppb	17:30:31
1	Tl 190.801†	16982.2	19392.7	11560	ug/L	11560	ppb	17:30:42
1	U 409.014†	-944.7	725.0	-23.591	ug/L	-23.591	ppb	17:30:42
1	V 292.402†	1081401.0	1233125.2	11212	ug/L	11212	ppb	17:30:37
1	Zn 213.857†	1240621.8	1411480.8	15759	ug/L	15759	ppb	17:30:37
1	SiO2†	1079354.0	1228218.5	110870	ug/L	110870	ppb	17:31:28
2	Sc Radial	3191.3	3191.3	98.4	%			17:29:50
2	Y RADIAL	3460.8	3460.8	94.95	%			17:29:50
2	Al 396.153Radial†	292.9	412.9	-58.957	ug/L	-58.957	ppb	17:29:30
2	Ca 317.933Radial†	20.9	9.9	22.262	ug/L	22.262	ppb	17:29:50
2	Fe 238.204 Radial†	-15.4	-20.5	62.842	ug/L	62.842	ppb	17:29:50
2	K 766.490 Radial†	1218714.3	1235376.4	288400	ug/L	288400	ppb	17:29:25
2	Mg 279.077 IEC†	-5.2	-5.5	-142.00	ug/L	-142.00	ppb	17:29:50
2	Na 589.592 Radial†	-882.6	297.4	145.30	ug/L	145.30	ppb	17:29:30
2	Sr 421.552†	897406.0	911982.2	9523.9	ug/L	9523.9	ppb	17:29:25
2	Sc 361.383	490148.4	490148.4	87.995	%			17:31:02
2	Y 371.029	526519.0	526519.0	101.76	%			17:30:56
2	Ag 328.068†	-5986.0	-6855.3	4.6403	ug/L	4.6403	ppb	17:31:02
2	As 188.979†	21918.8	24953.7	11084	ug/L	11084	ppb	17:31:02
2	B 249.677†	202584.6	230877.3	5552.8	ug/L	5552.8	ppb	17:30:56
2	Ba 233.527†	991837.5	1127152.9	16836	ug/L	16836	ppb	17:30:56
2	Be 313.107†	6546647.9	7449330.7	3292.5	ug/L	3292.5	ppb	17:30:50
2	Cd 226.502†	699492.0	795228.3	11073	ug/L	11073	ppb	17:30:56
2	Co 228.616†	271424.0	308543.8	11321	ug/L	11321	ppb	17:31:02
2	Cr 267.716†	1597928.1	1815820.0	27374	ug/L	27374	ppb	17:30:56
2	Cu 324.752†	4334744.8	4919734.1	23812	ug/L	23812	ppb	17:30:50
2	Mn 257.610†	5087620.1	5781078.4	11123	ug/L	11123	ppb	17:30:50
2	Mo 202.031†	93067.9	105748.8	11203	ug/L	11203	ppb	17:31:02
2	Ni 231.604†	290991.2	330572.1	11133	ug/L	11133	ppb	17:31:02

2	P 214.914†	31767.7	35790.3	13604	ug/L	13604 ppb	17:31:02
2	Pb 220.353†	140245.2	159473.8	28172	ug/L	28172 ppb	17:31:02
2	S 181.975 Axial†	38645.7	43849.0	56942	ug/L	56942 ppb	17:31:02
2	Sb 206.836†	23215.7	26325.4	12277	ug/L	12277 ppb	17:31:02
2	Se 196.026†	15526.5	17677.7	11328	ug/L	11328 ppb	17:31:02
2	Si 251.611†	1078702.7	1225297.9	51693	ug/L	51693 ppb	17:30:56
2	Sn 189.927†	40697.8	46238.2	11598	ug/L	11598 ppb	17:31:02
2	Ti 334.940†	3754820.9	4269053.9	11327	ug/L	11327 ppb	17:30:50
2	Tl 190.801†	17100.9	19492.7	11619	ug/L	11619 ppb	17:31:02
2	U 409.014†	-806.8	883.7	-16.346	ug/L	-16.346 ppb	17:31:02
2	V 292.402†	1099245.2	1251182.5	11375	ug/L	11375 ppb	17:30:56
2	Zn 213.857†	1258009.1	1428691.8	15952	ug/L	15952 ppb	17:30:56
2	SiO2†	1080186.5	1226947.4	110750	ug/L	110750 ppb	17:31:34
3	Sc Radial	3231.3	3231.3	99.6	%		17:30:21
3	Y RADIAL	3478.5	3478.5	95.43	%		17:30:21
3	Al 396.153Radial†	316.3	432.7	-40.118	ug/L	-40.118 ppb	17:30:01
3	Ca 317.933Radial†	22.7	11.5	25.830	ug/L	25.830 ppb	17:30:21
3	Fe 238.204 Radial†	-15.0	-19.9	74.271	ug/L	74.271 ppb	17:30:21
3	K 766.490 Radial†	1258250.1	1259714.0	294080	ug/L	294080 ppb	17:29:56
3	Mg 279.077 IEC†	-2.8	-3.0	-29.162	ug/L	-29.162 ppb	17:30:21
3	Na 589.592 Radial†	-852.1	339.1	165.68	ug/L	165.68 ppb	17:30:01
3	Sr 421.552†	927397.7	930785.9	9720.3	ug/L	9720.3 ppb	17:29:56
3	Sc 361.383	492357.1	492357.1	88.392	%		17:31:21
3	Y 371.029	523591.1	523591.1	101.19	%		17:31:16
3	Ag 328.068†	-6050.8	-6898.0	3.8935	ug/L	3.8935 ppb	17:31:21
3	As 188.979†	22228.6	25192.4	11189	ug/L	11189 ppb	17:31:21
3	B 249.677†	201138.2	228208.2	5487.9	ug/L	5487.9 ppb	17:31:16
3	Ba 233.527†	984877.8	1114222.9	16642	ug/L	16642 ppb	17:31:16
3	Be 313.107†	6546147.3	7415390.6	3277.5	ug/L	3277.5 ppb	17:31:10
3	Cd 226.502†	694729.6	786274.5	10949	ug/L	10949 ppb	17:31:16
3	Co 228.616†	274765.3	310940.3	11409	ug/L	11409 ppb	17:31:21
3	Cr 267.716†	1586859.9	1795152.2	27062	ug/L	27062 ppb	17:31:16
3	Cu 324.752†	4317078.2	4877649.6	23608	ug/L	23608 ppb	17:31:10
3	Mn 257.610†	5078358.0	5744664.0	11053	ug/L	11053 ppb	17:31:10
3	Mo 202.031†	94243.3	106604.0	11294	ug/L	11294 ppb	17:31:21
3	Ni 231.604†	294170.5	332685.6	11204	ug/L	11204 ppb	17:31:21
3	P 214.914†	32042.0	35938.7	13732	ug/L	13732 ppb	17:31:21
3	Pb 220.353†	141783.3	160499.0	28353	ug/L	28353 ppb	17:31:21
3	S 181.975 Axial†	39261.8	44349.0	57591	ug/L	57591 ppb	17:31:21
3	Sb 206.836†	23510.1	26540.1	12378	ug/L	12378 ppb	17:31:21
3	Se 196.026†	15739.2	17839.1	11432	ug/L	11432 ppb	17:31:21
3	Si 251.611†	1068004.6	1207695.8	50947	ug/L	50947 ppb	17:31:16
3	Sn 189.927†	41203.2	46602.5	11689	ug/L	11689 ppb	17:31:21
3	Ti 334.940†	3746408.6	4240395.5	11251	ug/L	11251 ppb	17:31:10
3	Tl 190.801†	17328.1	19662.6	11719	ug/L	11719 ppb	17:31:21
3	U 409.014†	-738.3	965.3	-11.515	ug/L	-11.515 ppb	17:31:21
3	V 292.402†	1092295.6	1237716.5	11255	ug/L	11255 ppb	17:31:16
3	Zn 213.857†	1249463.8	1412611.3	15771	ug/L	15771 ppb	17:31:16
3	SiO2†	1071000.5	1211048.4	109310	ug/L	109310 ppb	17:31:39

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	490589.9	88.074	%	0.2860				0.32%
Sc Radial	3202.7	98.7	%	0.77				0.78%
Y 371.029	522514.8	100.99	%	0.896				0.89%
Y RADIAL	3461.4	94.96	%	0.459				0.48%
Ag 328.068†	-6886.8	4.0726	ug/L	0.50268	4.0726	ppb	0.50268	12.34%
Al 396.153Radial†	422.7	-47.869	ug/L	9.8528	-47.869	ppb	9.8528	20.58%
As 188.979†	24980.2	11095	ug/L	88.2	11095	ppb	88.2	0.79%
QC value greater than the upper limit for As 188.979 Recovery = 110.95%								
B 249.677†	228635.8	5498.5	ug/L	49.82	5498.5	ppb	49.82	0.91%
QC value within limits for B 249.677 Recovery = 109.97%								
Ba 233.527†	1118421.8	16705	ug/L	113.0	16705	ppb	113.0	0.68%
QC value greater than the upper limit for Ba 233.527 Recovery = 111.37%								
Be 313.107†	7421378.1	3280.2	ug/L	11.26	3280.2	ppb	11.26	0.34%
QC value within limits for Be 313.107 Recovery = 109.34%								
Ca 317.933Radial†	10.4	23.496	ug/L	2.0227	23.496	ppb	2.0227	8.61%
Cd 226.502†	788875.8	10985	ug/L	77.0	10985	ppb	77.0	0.70%
QC value within limits for Cd 226.502 Recovery = 109.85%								

```
Co 228.616†          308851.6       11332 ug/L          71.9       11332 ppb          71.9   0.63%
   QC value greater than the upper limit for Co 228.616  Recovery = 113.32%
Cr 267.716†         1800978.8       27150 ug/L         195.2       27150 ppb         195.2   0.72%
   QC value within limits for Cr 267.716  Recovery = 108.60%
Cu 324.752†         4893278.4       23684 ug/L         111.5       23684 ppb         111.5   0.47%
   QC value greater than the upper limit for Cu 324.752  Recovery = 118.42%
Fe 238.204 Radial†       -19.9      71.389 ug/L        7.5308      71.389 ppb        7.5308  10.55%
K 766.490 Radial†    1228951.5      286900 ug/L        8037.6      286900 ppb        8037.6   2.80%
   QC value within limits for K 766.490 Radial  Recovery = 95.63%
Mg 279.077 IEC†           -4.8     -109.72 ug/L        70.218     -109.72 ppb        70.218  64.00%
Mn 257.610†          5761007.2       11084 ug/L          35.6       11084 ppb          35.6   0.32%
   QC value greater than the upper limit for Mn 257.610  Recovery = 110.84%
Mo 202.031†           105826.7       11211 ug/L          78.5       11211 ppb          78.5   0.70%
   QC value greater than the upper limit for Mo 202.031  Recovery = 112.11%
Na 589.592 Radial†       330.6      161.55 ug/L        14.628      161.55 ppb        14.628   9.05%
Ni 231.604†           330530.8       11132 ug/L          73.3       11132 ppb          73.3   0.66%
   QC value greater than the upper limit for Ni 231.604  Recovery = 111.32%
P 214.914†             35788.0       13633 ug/L          88.2       13633 ppb          88.2   0.65%
   QC value within limits for P 214.914  Recovery = 90.89%
Pb 220.353†           159513.0       28179 ug/L         171.0       28179 ppb         171.0   0.61%
   QC value greater than the upper limit for Pb 220.353  Recovery = 112.71%
S 181.975 Axial†       43964.0       57091 ug/L         444.5       57091 ppb         444.5   0.78%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = 114.18%
Sb 206.836†            26361.0       12294 ug/L          76.9       12294 ppb          76.9   0.63%
   QC value greater than the upper limit for Sb 206.836  Recovery = 122.94%
Se 196.026†            17693.1       11338 ug/L          89.0       11338 ppb          89.0   0.78%
   QC value greater than the upper limit for Se 196.026  Recovery = 113.38%
Si 251.611†          1213300.0       51185 ug/L         439.9       51185 ppb         439.9   0.86%
   QC value within limits for Si 251.611  Recovery = 102.37%
Sn 189.927†            46285.1       11609 ug/L          74.4       11609 ppb          74.4   0.64%
   QC value greater than the upper limit for Sn 189.927  Recovery = 116.09%
Sr 421.552†           908402.8      9486.5 ug/L        254.50      9486.5 ppb        254.50   2.68%
   QC value within limits for Sr 421.552  Recovery = 94.87%
Ti 334.940†          4251927.4       11281 ug/L          40.1       11281 ppb          40.1   0.36%
   QC value greater than the upper limit for Ti 334.940  Recovery = 112.81%
Tl 190.801†            19516.0       11632 ug/L          80.3       11632 ppb          80.3   0.69%
   QC value greater than the upper limit for Tl 190.801  Recovery = 116.32%
U 409.014†               858.0     -17.151 ug/L        6.0785     -17.151 ppb        6.0785  35.44%
V 292.402†           1240674.7       11281 ug/L          84.4       11281 ppb          84.4   0.75%
   QC value greater than the upper limit for V 292.402  Recovery = 112.81%
Zn 213.857†          1417594.6       15827 ug/L         108.0       15827 ppb         108.0   0.68%
   QC value within limits for Zn 213.857  Recovery = 105.52%
SiO2†                1222071.4      110310 ug/L         868.0      110310 ppb         868.0   0.79%
   QC value within limits for SiO2  Recovery = 103.10%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/15/2010 17:33:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3283.8	3283.8	101	%			17:36:02
1	Y RADIAL	3643.1	3643.1	99.95	%			17:35:42
1	Al 396.153Radial†	4252.7	4315.4	5039.2	ug/L	5039.2	ppb	17:35:42
1	Ca 317.933Radial†	2249.6	2210.5	4978.6	ug/L	4978.6	ppb	17:36:02
1	Fe 238.204 Radial†	375.8	366.3	4932.9	ug/L	4932.9	ppb	17:36:02
1	K 766.490 Radial†	24384.8	20907.6	4875.9	ug/L	4875.9	ppb	17:35:42
1	Mg 279.077 IEC†	115.3	113.7	5161.8	ug/L	5161.8	ppb	17:36:02
1	Na 589.592 Radial†	18891.3	19852.6	9700.6	ug/L	9700.6	ppb	17:35:42
1	Sr 421.552†	47188.7	46574.6	486.35	ug/L	486.35	ppb	17:35:42
1	Sc 361.383	595021.8	595021.8	106.82	%			17:37:00
1	Y 371.029	549124.1	549124.1	106.13	%			17:37:00
1	Ag 328.068†	84180.2	78750.9	472.60	ug/L	472.60	ppb	17:37:00
1	As 188.979†	1080.5	1056.1	469.70	ug/L	469.70	ppb	17:37:20
1	B 249.677†	21982.1	21233.1	511.78	ug/L	511.78	ppb	17:37:00
1	Ba 233.527†	33897.2	31735.3	474.67	ug/L	474.67	ppb	17:37:00
1	Be 313.107†	1147211.9	1083489.7	476.22	ug/L	476.22	ppb	17:37:00
1	Cd 226.502†	34851.3	32932.8	458.23	ug/L	458.23	ppb	17:37:20
1	Co 228.616†	13600.5	12822.5	470.58	ug/L	470.58	ppb	17:37:20
1	Cr 267.716†	33643.4	31387.8	473.47	ug/L	473.47	ppb	17:37:00
1	Cu 324.752†	110440.8	97005.1	469.46	ug/L	469.46	ppb	17:37:00
1	Mn 257.610†	263679.2	246213.5	474.04	ug/L	474.04	ppb	17:37:00
1	Mo 202.031†	4706.6	4390.0	465.49	ug/L	465.49	ppb	17:37:20
1	Ni 231.604†	15018.4	13941.4	469.52	ug/L	469.52	ppb	17:37:20
1	P 214.914†	4946.2	4319.0	2199.8	ug/L	2199.8	ppb	17:37:20
1	Pb 220.353†	2740.4	2660.9	471.66	ug/L	471.66	ppb	17:37:20
1	S 181.975 Axial†	826.5	704.8	914.62	ug/L	914.62	ppb	17:37:20
1	Sb 206.836†	1148.2	1017.3	475.49	ug/L	475.49	ppb	17:37:20
1	Se 196.026†	743.7	729.1	476.25	ug/L	476.25	ppb	17:37:20
1	Si 251.611†	60393.0	55968.0	2361.8	ug/L	2361.8	ppb	17:37:00
1	Sn 189.927†	2001.0	1861.3	467.84	ug/L	467.84	ppb	17:37:20
1	Ti 334.940†	188321.7	178272.0	473.13	ug/L	473.13	ppb	17:37:00
1	Tl 190.801†	782.4	791.2	471.76	ug/L	471.76	ppb	17:37:20
1	U 409.014†	7919.2	9213.9	464.77	ug/L	464.77	ppb	17:37:00
1	V 292.402†	54123.3	52638.3	479.03	ug/L	479.03	ppb	17:37:00
1	Zn 213.857†	45980.8	42101.8	469.97	ug/L	469.97	ppb	17:37:00
1	SiO2†	59050.7	54674.7	4936.3	ug/L	4936.3	ppb	17:38:20
2	Sc Radial	3319.3	3319.3	102	%			17:36:27
2	Y RADIAL	3763.2	3763.2	103.2	%			17:36:07
2	Al 396.153Radial†	4436.4	4449.9	5196.7	ug/L	5196.7	ppb	17:36:07
2	Ca 317.933Radial†	2279.4	2215.8	4990.6	ug/L	4990.6	ppb	17:36:27
2	Fe 238.204 Radial†	380.1	366.5	4936.6	ug/L	4936.6	ppb	17:36:27
2	K 766.490 Radial†	25019.9	21269.9	4960.4	ug/L	4960.4	ppb	17:36:07
2	Mg 279.077 IEC†	116.1	113.2	5141.1	ug/L	5141.1	ppb	17:36:27
2	Na 589.592 Radial†	19334.6	20085.7	9814.5	ug/L	9814.5	ppb	17:36:07
2	Sr 421.552†	48530.8	47386.3	494.82	ug/L	494.82	ppb	17:36:07
2	Sc 361.383	572711.5	572711.5	102.82	%			17:37:28
2	Y 371.029	528498.5	528498.5	102.14	%			17:37:28
2	Ag 328.068†	81289.1	79008.9	474.14	ug/L	474.14	ppb	17:37:28
2	As 188.979†	1055.8	1071.4	476.48	ug/L	476.48	ppb	17:37:48
2	B 249.677†	21038.1	21116.5	508.95	ug/L	508.95	ppb	17:37:28
2	Ba 233.527†	32641.3	31750.0	474.89	ug/L	474.89	ppb	17:37:28
2	Be 313.107†	1102253.0	1081598.7	475.40	ug/L	475.40	ppb	17:37:28
2	Cd 226.502†	33869.9	33249.2	462.64	ug/L	462.64	ppb	17:37:48
2	Co 228.616†	13235.7	12963.7	475.77	ug/L	475.77	ppb	17:37:48
2	Cr 267.716†	32367.5	31373.8	473.25	ug/L	473.25	ppb	17:37:28
2	Cu 324.752†	106315.2	97020.1	469.53	ug/L	469.53	ppb	17:37:28
2	Mn 257.610†	253591.6	246018.0	473.67	ug/L	473.67	ppb	17:37:28
2	Mo 202.031†	4573.0	4431.7	469.91	ug/L	469.91	ppb	17:37:48
2	Ni 231.604†	14640.2	14121.3	475.58	ug/L	475.58	ppb	17:37:48

2	P 214.914†	4794.3	4351.6	2217.3 ug/L	2217.3 ppb	17:37:48
2	Pb 220.353†	2632.8	2656.2	470.88 ug/L	470.88 ppb	17:37:48
2	S 181.975 Axial†	804.2	713.1	925.50 ug/L	925.50 ppb	17:37:48
2	Sb 206.836†	1115.0	1026.8	479.94 ug/L	479.94 ppb	17:37:48
2	Se 196.026†	707.1	720.7	470.88 ug/L	470.88 ppb	17:37:48
2	Si 251.611†	57986.2	55829.6	2355.8 ug/L	2355.8 ppb	17:37:28
2	Sn 189.927†	1938.9	1873.9	470.99 ug/L	470.99 ppb	17:37:48
2	Ti 334.940†	181398.3	178406.0	473.49 ug/L	473.49 ppb	17:37:28
2	Tl 190.801†	768.3	806.1	480.52 ug/L	480.52 ppb	17:37:48
2	U 409.014†	7663.5	9254.0	466.81 ug/L	466.81 ppb	17:37:28
2	V 292.402†	52136.9	52680.1	479.47 ug/L	479.47 ppb	17:37:28
2	Zn 213.857†	44306.6	42150.3	470.48 ug/L	470.48 ppb	17:37:28
2	SiO2†	59683.8	57443.9	5186.8 ug/L	5186.8 ppb	17:38:25
3	Sc Radial	3396.8	3396.8	105 %		17:36:52
3	Y RADIAL	3769.9	3769.9	103.4 %		17:36:32
3	Al 396.153Radial†	4394.7	4311.2	5033.9 ug/L	5033.9 ppb	17:36:32
3	Ca 317.933Radial†	2322.3	2205.9	4968.5 ug/L	4968.5 ppb	17:36:52
3	Fe 238.204 Radial†	387.2	364.8	4913.6 ug/L	4913.6 ppb	17:36:52
3	K 766.490 Radial†	24924.4	20621.0	4809.0 ug/L	4809.0 ppb	17:36:32
3	Mg 279.077 IEC†	116.3	110.8	5033.2 ug/L	5033.2 ppb	17:36:52
3	Na 589.592 Radial†	19149.9	19478.4	9517.7 ug/L	9517.7 ppb	17:36:32
3	Sr 421.552†	48428.6	46206.9	482.51 ug/L	482.51 ppb	17:36:32
3	Sc 361.383	571041.9	571041.9	102.52 %		17:37:55
3	Y 371.029	526732.8	526732.8	101.80 %		17:37:55
3	Ag 328.068†	80865.7	78827.0	473.05 ug/L	473.05 ppb	17:37:55
3	As 188.979†	1059.6	1078.2	479.47 ug/L	479.47 ppb	17:38:15
3	B 249.677†	20843.5	20986.6	505.79 ug/L	505.79 ppb	17:37:55
3	Ba 233.527†	32501.3	31706.2	474.23 ug/L	474.23 ppb	17:37:55
3	Be 313.107†	1099869.4	1082408.1	475.75 ug/L	475.75 ppb	17:37:55
3	Cd 226.502†	34058.7	33529.7	466.55 ug/L	466.55 ppb	17:38:15
3	Co 228.616†	13319.2	13082.8	480.14 ug/L	480.14 ppb	17:38:15
3	Cr 267.716†	32312.1	31411.8	473.83 ug/L	473.83 ppb	17:37:55
3	Cu 324.752†	105857.6	96876.1	468.83 ug/L	468.83 ppb	17:37:55
3	Mn 257.610†	253079.8	246239.9	474.09 ug/L	474.09 ppb	17:37:55
3	Mo 202.031†	4593.6	4464.7	473.40 ug/L	473.40 ppb	17:38:15
3	Ni 231.604†	14686.3	14207.8	478.50 ug/L	478.50 ppb	17:38:15
3	P 214.914†	4833.7	4403.6	2245.2 ug/L	2245.2 ppb	17:38:15
3	Pb 220.353†	2673.5	2703.5	479.19 ug/L	479.19 ppb	17:38:15
3	S 181.975 Axial†	808.4	719.6	933.89 ug/L	933.89 ppb	17:38:15
3	Sb 206.836†	1109.9	1025.0	479.27 ug/L	479.27 ppb	17:38:15
3	Se 196.026†	721.1	736.4	480.88 ug/L	480.88 ppb	17:38:15
3	Si 251.611†	57785.5	55798.7	2354.5 ug/L	2354.5 ppb	17:37:55
3	Sn 189.927†	1954.6	1894.7	476.22 ug/L	476.22 ppb	17:38:15
3	Ti 334.940†	181078.5	178609.8	474.04 ug/L	474.04 ppb	17:37:55
3	Tl 190.801†	768.0	808.0	481.65 ug/L	481.65 ppb	17:38:15
3	U 409.014†	7521.0	9136.7	460.87 ug/L	460.87 ppb	17:37:55
3	V 292.402†	51873.7	52571.5	478.54 ug/L	478.54 ppb	17:37:55
3	Zn 213.857†	44156.0	42129.4	470.22 ug/L	470.22 ppb	17:37:55
3	SiO2†	59695.6	57625.1	5203.1 ug/L	5203.1 ppb	17:38:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	579591.7	104.05	%	2.404				2.31%
Sc Radial	3333.3	103	%	1.8				1.73%
Y 371.029	534785.1	103.36	%	2.406				2.33%
Y RADIAL	3725.4	102.2	%	1.96				1.91%
Ag 328.068†	78862.3	473.26	ug/L	0.792	473.26	ppb	0.792	0.17%
QC value within limits for Ag 328.068 Recovery = 94.65%								
Al 396.153Radial†	4358.8	5089.9	ug/L	92.50	5089.9	ppb	92.50	1.82%
QC value within limits for Al 396.153Radial Recovery = 101.80%								
As 188.979†	1068.6	475.22	ug/L	5.008	475.22	ppb	5.008	1.05%
QC value within limits for As 188.979 Recovery = 95.04%								
B 249.677†	21112.1	508.84	ug/L	2.996	508.84	ppb	2.996	0.59%
QC value within limits for B 249.677 Recovery = 101.77%								
Ba 233.527†	31730.5	474.60	ug/L	0.334	474.60	ppb	0.334	0.07%
QC value within limits for Ba 233.527 Recovery = 94.92%								
Be 313.107†	1082498.9	475.79	ug/L	0.416	475.79	ppb	0.416	0.09%
QC value within limits for Be 313.107 Recovery = 95.16%								
Ca 317.933Radial†	2210.7	4979.2	ug/L	11.10	4979.2	ppb	11.10	0.22%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.58%
Cd 226.502†            33237.3      462.47 ug/L         4.159      462.47 ppb          4.159   0.90%
   QC value within limits for Cd 226.502  Recovery = 92.49%
Co 228.616†            12956.3      475.50 ug/L         4.789      475.50 ppb          4.789   1.01%
   QC value within limits for Co 228.616  Recovery = 95.10%
Cr 267.716†            31391.1      473.51 ug/L         0.290      473.51 ppb          0.290   0.06%
   QC value within limits for Cr 267.716  Recovery = 94.70%
Cu 324.752†            96967.1      469.27 ug/L         0.384      469.27 ppb          0.384   0.08%
   QC value within limits for Cu 324.752  Recovery = 93.85%
Fe 238.204 Radial†       365.9      4927.7 ug/L         12.37      4927.7 ppb          12.37   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.55%
K 766.490 Radial†      20932.9      4881.8 ug/L         75.86      4881.8 ppb          75.86   1.55%
   QC value within limits for K 766.490 Radial  Recovery = 97.64%
Mg 279.077 IEC†          112.6      5112.0 ug/L         69.05      5112.0 ppb          69.05   1.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.24%
Mn 257.610†           246157.1      473.93 ug/L         0.234      473.93 ppb          0.234   0.05%
   QC value within limits for Mn 257.610  Recovery = 94.79%
Mo 202.031†             4428.8      469.60 ug/L         3.966      469.60 ppb          3.966   0.84%
   QC value within limits for Mo 202.031  Recovery = 93.92%
Na 589.592 Radial†     19805.6      9677.6 ug/L        149.70      9677.6 ppb         149.70   1.55%
   QC value within limits for Na 589.592 Radial  Recovery = 96.78%
Ni 231.604†            14090.2      474.53 ug/L         4.577      474.53 ppb          4.577   0.96%
   QC value within limits for Ni 231.604  Recovery = 94.91%
P 214.914†              4358.1      2220.8 ug/L         22.92      2220.8 ppb          22.92   1.03%
   QC value less than the lower limit for P 214.914  Recovery = 88.83%
Pb 220.353†             2673.5      473.91 ug/L         4.591      473.91 ppb          4.591   0.97%
   QC value within limits for Pb 220.353  Recovery = 94.78%
S 181.975 Axial†         712.5      924.67 ug/L         9.660      924.67 ppb          9.660   1.04%
   QC value within limits for S 181.975 Axial  Recovery = 92.47%
Sb 206.836†             1023.1      478.23 ug/L         2.398      478.23 ppb          2.398   0.50%
   QC value within limits for Sb 206.836  Recovery = 95.65%
Se 196.026†              728.7      476.01 ug/L         5.003      476.01 ppb          5.003   1.05%
   QC value within limits for Se 196.026  Recovery = 95.20%
Si 251.611†            55865.5      2357.4 ug/L          3.86      2357.4 ppb           3.86   0.16%
   QC value within limits for Si 251.611  Recovery = 94.29%
Sn 189.927†             1876.6      471.68 ug/L         4.232      471.68 ppb          4.232   0.90%
   QC value within limits for Sn 189.927  Recovery = 94.34%
Sr 421.552†            46722.6      487.89 ug/L         6.302      487.89 ppb          6.302   1.29%
   QC value within limits for Sr 421.552  Recovery = 97.58%
Ti 334.940†           178429.3      473.56 ug/L         0.457      473.56 ppb          0.457   0.10%
   QC value within limits for Ti 334.940  Recovery = 94.71%
Tl 190.801†              801.8      477.98 ug/L         5.416      477.98 ppb          5.416   1.13%
   QC value within limits for Tl 190.801  Recovery = 95.60%
U 409.014†              9201.6      464.15 ug/L         3.019      464.15 ppb          3.019   0.65%
   QC value within limits for U 409.014  Recovery = 92.83%
V 292.402†             52630.0      479.01 ug/L         0.468      479.01 ppb          0.468   0.10%
   QC value within limits for V 292.402  Recovery = 95.80%
Zn 213.857†            42127.2      470.22 ug/L         0.254      470.22 ppb          0.254   0.05%
   QC value within limits for Zn 213.857  Recovery = 94.04%
SiO2†                  56581.2      5108.7 ug/L        149.58      5108.7 ppb         149.58   2.93%
   QC value within limits for SiO2  Recovery = 95.54%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/15/2010 17:40:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3368.7	3368.7	104	%			17:42:53
1	Y RADIAL	3757.8	3757.8	103.1	%			17:42:33
1	Al 396.153Radial†	-119.9	-0.2	-0.2393	ug/L	-0.2393	ppb	17:42:33
1	Ca 317.933Radial†	18.4	6.4	14.337	ug/L	14.337	ppb	17:42:53
1	Fe 238.204 Radial†	6.4	1.3	17.066	ug/L	17.066	ppb	17:42:53
1	K 766.490 Radial†	3420.9	117.1	27.318	ug/L	27.318	ppb	17:42:33
1	Mg 279.077 IEC†	3.8	3.5	156.83	ug/L	156.83	ppb	17:42:53
1	Na 589.592 Radial†	-1159.0	78.6	38.383	ug/L	38.383	ppb	17:42:33
1	Sr 421.552†	21.0	-11.8	-0.1235	ug/L	-0.1235	ppb	17:42:33
1	Sc 361.383	561447.6	561447.6	100.80	%			17:43:50
1	Y 371.029	522349.8	522349.8	100.95	%			17:43:50
1	Ag 328.068†	55.8	2.8	0.0163	ug/L	0.0163	ppb	17:43:50
1	As 188.979†	-44.8	0.2	0.0917	ug/L	0.0917	ppb	17:44:10
1	B 249.677†	469.8	1121.1	27.121	ug/L	27.121	ppb	17:43:50
1	Ba 233.527†	-1.9	1.3	0.0190	ug/L	0.0190	ppb	17:44:10
1	Be 313.107†	-9563.5	63.1	0.0280	ug/L	0.0280	ppb	17:43:50
1	Cd 226.502†	-277.0	32.7	0.4546	ug/L	0.4546	ppb	17:44:10
1	Co 228.616†	-108.5	-17.0	-0.6224	ug/L	-0.6224	ppb	17:44:10
1	Cr 267.716†	116.0	8.3	0.1229	ug/L	0.1229	ppb	17:43:50
1	Cu 324.752†	6478.2	45.4	0.2187	ug/L	0.2187	ppb	17:43:50
1	Mn 257.610†	620.0	-9.2	-0.0224	ug/L	-0.0224	ppb	17:43:50
1	Mo 202.031†	22.2	6.0	0.6402	ug/L	0.6402	ppb	17:44:10
1	Ni 231.604†	140.9	22.1	0.7439	ug/L	0.7439	ppb	17:44:10
1	P 214.914†	324.0	10.2	5.3907	ug/L	5.3907	ppb	17:44:10
1	Pb 220.353†	-90.9	5.4	0.9455	ug/L	0.9455	ppb	17:44:10
1	S 181.975 Axial†	67.3	-2.3	-2.9483	ug/L	-2.9483	ppb	17:44:10
1	Sb 206.836†	51.8	-6.2	-2.7462	ug/L	-2.7462	ppb	17:44:10
1	Se 196.026†	-21.2	11.9	7.6552	ug/L	7.6552	ppb	17:44:10
1	Si 251.611†	602.2	29.9	1.2559	ug/L	1.2559	ppb	17:44:10
1	Sn 189.927†	22.9	10.9	2.7262	ug/L	2.7262	ppb	17:44:10
1	Ti 334.940†	-1943.5	50.4	0.1220	ug/L	0.1220	ppb	17:43:50
1	Tl 190.801†	-46.2	13.0	7.7120	ug/L	7.7120	ppb	17:44:10
1	U 409.014†	-1746.7	67.6	3.4209	ug/L	3.4209	ppb	17:43:50
1	V 292.402†	-2048.0	-59.9	-0.5219	ug/L	-0.5219	ppb	17:43:50
1	Zn 213.857†	1044.9	94.5	1.0590	ug/L	1.0590	ppb	17:44:10
1	SiO2†	637.3	27.9	2.5054	ug/L	2.5054	ppb	17:45:06
2	Sc Radial	3353.6	3353.6	103	%			17:43:18
2	Y RADIAL	3671.1	3671.1	100.7	%			17:42:58
2	Al 396.153Radial†	-116.8	2.2	2.5575	ug/L	2.5575	ppb	17:42:58
2	Ca 317.933Radial†	17.2	5.3	11.879	ug/L	11.879	ppb	17:43:18
2	Fe 238.204 Radial†	4.7	-0.3	-4.0496	ug/L	-4.0496	ppb	17:43:18
2	K 766.490 Radial†	3560.6	267.0	62.321	ug/L	62.321	ppb	17:42:58
2	Mg 279.077 IEC†	4.4	4.1	184.50	ug/L	184.50	ppb	17:43:18
2	Na 589.592 Radial†	-1145.9	86.1	42.084	ug/L	42.084	ppb	17:42:58
2	Sr 421.552†	34.6	1.4	0.0147	ug/L	0.0147	ppb	17:42:58
2	Sc 361.383	587316.6	587316.6	105.44	%			17:44:15
2	Y 371.029	545518.3	545518.3	105.43	%			17:44:15
2	Ag 328.068†	115.6	57.0	0.3336	ug/L	0.3336	ppb	17:44:15
2	As 188.979†	-40.0	6.7	2.9598	ug/L	2.9598	ppb	17:44:35
2	B 249.677†	412.5	1046.2	25.310	ug/L	25.310	ppb	17:44:15
2	Ba 233.527†	-8.3	-4.7	-0.0711	ug/L	-0.0711	ppb	17:44:35
2	Be 313.107†	-9844.4	214.5	0.0953	ug/L	0.0953	ppb	17:44:15
2	Cd 226.502†	-278.0	43.8	0.6109	ug/L	0.6109	ppb	17:44:35
2	Co 228.616†	-99.5	-3.7	-0.1331	ug/L	-0.1331	ppb	17:44:35
2	Cr 267.716†	139.2	25.2	0.3776	ug/L	0.3776	ppb	17:44:15
2	Cu 324.752†	6777.2	45.9	0.2186	ug/L	0.2186	ppb	17:44:15
2	Mn 257.610†	547.1	-105.5	-0.2109	ug/L	-0.2109	ppb	17:44:15
2	Mo 202.031†	33.1	15.4	1.6280	ug/L	1.6280	ppb	17:44:35
2	Ni 231.604†	138.0	13.1	0.4421	ug/L	0.4421	ppb	17:44:35

2	P 214.914†	309.5	-17.7	-9.4777 ug/L	-9.4777 ppb	17:44:35
2	Pb 220.353†	-101.3	-0.5	-0.0833 ug/L	-0.0833 ppb	17:44:35
2	S 181.975 Axial†	60.4	-11.7	-15.242 ug/L	-15.242 ppb	17:44:35
2	Sb 206.836†	47.9	-12.1	-5.3416 ug/L	-5.3416 ppb	17:44:35
2	Se 196.026†	-26.6	7.7	4.9262 ug/L	4.9262 ppb	17:44:35
2	Si 251.611†	608.0	9.1	0.3628 ug/L	0.3628 ppb	17:44:35
2	Sn 189.927†	35.1	21.4	5.3808 ug/L	5.3808 ppb	17:44:35
2	Ti 334.940†	-1870.9	204.2	0.5275 ug/L	0.5275 ppb	17:44:15
2	Tl 190.801†	-55.3	6.4	3.7841 ug/L	3.7841 ppb	17:44:35
2	U 409.014†	-1808.5	85.3	4.3252 ug/L	4.3252 ppb	17:44:15
2	V 292.402†	-2126.1	-44.6	-0.3652 ug/L	-0.3652 ppb	17:44:15
2	Zn 213.857†	1046.4	50.3	0.5619 ug/L	0.5619 ppb	17:44:35
2	SiO2†	702.3	61.7	5.5404 ug/L	5.5404 ppb	17:45:11
3	Sc Radial	3358.3	3358.3	104 %		17:43:43
3	Y RADIAL	3754.0	3754.0	103.0 %		17:43:23
3	Al 396.153Radial†	-103.3	15.5	18.052 ug/L	18.052 ppb	17:43:23
3	Ca 317.933Radial†	14.1	2.2	5.0447 ug/L	5.0447 ppb	17:43:43
3	Fe 238.204 Radial†	5.0	-0.0	-0.5489 ug/L	-0.5489 ppb	17:43:43
3	K 766.490 Radial†	3324.7	34.3	8.0003 ug/L	8.0003 ppb	17:43:23
3	Mg 279.077 IEC†	3.4	3.1	139.35 ug/L	139.35 ppb	17:43:43
3	Na 589.592 Radial†	-1187.9	47.1	23.039 ug/L	23.039 ppb	17:43:23
3	Sr 421.552†	47.7	14.1	0.1468 ug/L	0.1468 ppb	17:43:23
3	Sc 361.383	576478.2	576478.2	103.49 %		17:44:41
3	Y 371.029	535291.9	535291.9	103.45 %		17:44:41
3	Ag 328.068†	32.5	-21.3	-0.1220 ug/L	-0.1220 ppb	17:44:41
3	As 188.979†	-25.3	20.2	8.8938 ug/L	8.8938 ppb	17:45:01
3	B 249.677†	409.6	1050.8	25.418 ug/L	25.418 ppb	17:44:41
3	Ba 233.527†	8.6	11.4	0.1717 ug/L	0.1717 ppb	17:45:01
3	Be 313.107†	-9844.9	38.6	0.0179 ug/L	0.0179 ppb	17:44:41
3	Cd 226.502†	-276.8	40.1	0.5571 ug/L	0.5571 ppb	17:45:01
3	Co 228.616†	-80.2	13.2	0.4861 ug/L	0.4861 ppb	17:45:01
3	Cr 267.716†	151.8	39.9	0.6028 ug/L	0.6028 ppb	17:44:41
3	Cu 324.752†	6538.5	-64.0	-0.3088 ug/L	-0.3088 ppb	17:44:41
3	Mn 257.610†	585.3	-58.8	-0.1188 ug/L	-0.1188 ppb	17:44:41
3	Mo 202.031†	33.2	16.0	1.6984 ug/L	1.6984 ppb	17:45:01
3	Ni 231.604†	137.3	14.9	0.5028 ug/L	0.5028 ppb	17:45:01
3	P 214.914†	316.1	-5.9	-3.0348 ug/L	-3.0348 ppb	17:45:01
3	Pb 220.353†	-97.9	1.0	0.1877 ug/L	0.1877 ppb	17:45:01
3	S 181.975 Axial†	71.9	0.4	0.5783 ug/L	0.5783 ppb	17:45:01
3	Sb 206.836†	50.0	-9.3	-4.0869 ug/L	-4.0869 ppb	17:45:01
3	Se 196.026†	-21.6	12.1	7.7430 ug/L	7.7430 ppb	17:45:01
3	Si 251.611†	626.8	38.0	1.5871 ug/L	1.5871 ppb	17:45:01
3	Sn 189.927†	24.7	12.0	3.0152 ug/L	3.0152 ppb	17:45:01
3	Ti 334.940†	-1879.0	163.0	0.4242 ug/L	0.4242 ppb	17:44:41
3	Tl 190.801†	-57.4	3.4	2.0141 ug/L	2.0141 ppb	17:45:01
3	U 409.014†	-1929.9	-64.3	-3.2593 ug/L	-3.2593 ppb	17:44:41
3	V 292.402†	-1974.1	64.4	0.5988 ug/L	0.5988 ppb	17:44:41
3	Zn 213.857†	1044.4	67.0	0.7505 ug/L	0.7505 ppb	17:45:01
3	SiO2†	617.3	-7.9	-0.7614 ug/L	-0.7614 ppb	17:45:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	575080.8	103.24	%	2.332				2.26%
Sc Radial	3360.2	104	%	0.2				0.23%
Y 371.029	534386.7	103.28	%	2.244				2.17%
Y RADIAL	3727.6	102.3	%	1.34				1.32%
Ag 328.068†	12.8	0.0760	ug/L	0.23361	0.0760	ppb	0.23361	307.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.8	6.7901	ug/L	9.85287	6.7901	ppb	9.85287	145.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.0	3.9817	ug/L	4.48916	3.9817	ppb	4.48916	112.74%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1072.7	25.949	ug/L	1.0156	25.949	ppb	1.0156	3.91%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.7	0.0398	ug/L	0.12273	0.0398	ppb	0.12273	308.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	105.4	0.0471	ug/L	0.04209	0.0471	ppb	0.04209	89.45%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.6	10.420	ug/L	4.8151	10.420	ppb	4.8151	46.21%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                38.8      0.5409 ug/L       0.07941      0.5409 ppb        0.07941  14.68%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -2.5     -0.0898 ug/L       0.55548     -0.0898 ppb        0.55548 618.56%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                24.5      0.3678 ug/L       0.24013      0.3678 ppb        0.24013  65.29%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 9.1      0.0428 ug/L       0.30454      0.0428 ppb        0.30454 710.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.3      4.1557 ug/L      11.31648      4.1557 ppb       11.31648 272.31%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         139.5      32.547 ug/L       27.5351      32.547 ppb        27.5351  84.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.5      160.22 ug/L        22.766      160.22 ppb         22.766  14.21%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -57.8     -0.1174 ug/L       0.09429     -0.1174 ppb        0.09429  80.33%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.5      1.3222 ug/L       0.59168      1.3222 ppb        0.59168  44.75%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         70.6      34.502 ug/L       10.0984      34.502 ppb        10.0984  29.27%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                16.7      0.5629 ug/L       0.15965      0.5629 ppb        0.15965  28.36%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.5     -2.3739 ug/L       7.45617     -2.3739 ppb        7.45617 314.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.0      0.3500 ug/L       0.53327      0.3500 ppb        0.53327 152.37%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.5     -5.8707 ug/L       8.30526     -5.8707 ppb        8.30526 141.47%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -9.2     -4.0582 ug/L       1.29796     -4.0582 ppb        1.29796  31.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                10.6      6.7748 ug/L       1.60154      6.7748 ppb        1.60154  23.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                25.6      1.0686 ug/L       0.63328      1.0686 ppb        0.63328  59.26%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                14.8      3.7074 ug/L       1.45641      3.7074 ppb        1.45641  39.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 1.2      0.0127 ug/L       0.13513      0.0127 ppb        0.13513 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               139.2      0.3579 ug/L       0.21077      0.3579 ppb        0.21077  58.89%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 7.6      4.5034 ug/L       2.91622      4.5034 ppb        2.91622  64.76%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 29.5      1.4956 ug/L       4.14260      1.4956 ppb        4.14260 276.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -13.4     -0.0961 ug/L       0.60685     -0.0961 ppb        0.60685 631.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                70.6      0.7904 ug/L       0.25094      0.7904 ppb        0.25094  31.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      27.2      2.4282 ug/L       3.15158      2.4282 ppb        3.15158 129.79%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

==========

Analysis Begun

Start Time: 4/15/2010 17:53:06 **Plasma On Time: 4/15/2010 06:47:48**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\041510.sif
Batch ID:
Results Data Set: 041510A
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 4/15/2010 16:17:46**
IEC File: 040610.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 37**
Sample ID: LR1 **Date Collected: 4/15/2010 17:53:07**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3388.0	3388.0	104	%			17:55:21
1	Y RADIAL	3894.6	3894.6	106.8	%			17:55:01
1	Al 396.153Radial†	-130.8	-10.0	-10.646	ug/L	-10.646	ppb	17:55:01

1	Ca 317.933Radial†	7.3	-4.4	-9.8008 ug/L	-9.8008 ppb	17:55:21
1	Fe 238.204 Radial†	30633.6	29319.6	393760 ug/L	393760 ppb	17:55:01
1	K 766.490 Radial†	3088.2	-220.2	-51.365 ug/L	-51.365 ppb	17:55:01
1	Mg 279.077 IEC†	9.8	9.2	182.94 ug/L	182.94 ppb	17:55:21
1	Na 589.592 Radial†	-1222.0	24.6	12.006 ug/L	12.006 ppb	17:55:01
1	Sr 421.552†	44.1	10.3	0.1072 ug/L	0.1072 ppb	17:55:01
1	Sc 361.383	588599.4	588599.4	105.67 %		17:56:18
1	Y 371.029	545453.9	545453.9	105.42 %		17:56:18
1	Ag 328.068†	-19704.0	-18699.4	3.8694 ug/L	3.8694 ppb	17:56:18
1	As 188.979†	-153.7	-100.8	7.2350 ug/L	7.2350 ppb	17:56:38
1	B 249.677†	1695.3	2259.4	13.336 ug/L	13.336 ppb	17:56:18
1	Ba 233.527†	-1569.7	-1482.3	0.2663 ug/L	0.2663 ppb	17:56:18
1	Be 313.107†	-9599.3	466.8	0.2056 ug/L	0.2056 ppb	17:56:18
1	Cd 226.502†	2216.9	2405.5	-1.8552 ug/L	-1.8552 ppb	17:56:18
1	Co 228.616†	76.0	162.5	0.2136 ug/L	0.2136 ppb	17:56:38
1	Cr 267.716†	-236.7	-330.8	1.2114 ug/L	1.2114 ppb	17:56:18
1	Cu 324.752†	1660.4	-4810.4	3.0308 ug/L	3.0308 ppb	17:56:18
1	Mn 257.610†	-20798.7	-20307.1	3.1802 ug/L	3.1802 ppb	17:56:18
1	Mo 202.031†	-217.0	-221.3	3.7189 ug/L	3.7189 ppb	17:56:18
1	Ni 231.604†	107.2	-16.3	-0.1822 ug/L	-0.1822 ppb	17:56:38
1	P 214.914†	614.7	270.4	-17.254 ug/L	-17.254 ppb	17:56:38
1	Pb 220.353†	78.2	169.5	-2.6974 ug/L	-2.6974 ppb	17:56:38
1	S 181.975 Axial†	80.2	6.9	8.9620 ug/L	8.9620 ppb	17:56:38
1	Sb 206.836†	32.4	-26.9	-1.7180 ug/L	-1.7180 ppb	17:56:38
1	Se 196.026†	-1079.8	-988.9	83.322 ug/L	83.322 ppb	17:56:38
1	Si 251.611†	41.6	-528.3	-22.058 ug/L	-22.058 ppb	17:56:18
1	Sn 189.927†	-12.2	-23.4	0.6232 ug/L	0.6232 ppb	17:56:38
1	Ti 334.940†	-1933.8	148.6	0.3145 ug/L	0.3145 ppb	17:56:18
1	Tl 190.801†	-65.4	-3.1	-2.1234 ug/L	-2.1234 ppb	17:56:38
1	U 409.014†	439.9	2216.8	6.6380 ug/L	6.6380 ppb	17:56:18
1	V 292.402†	4326.6	6066.4	1.4674 ug/L	1.4674 ppb	17:56:18
1	Zn 213.857†	3496.8	2367.0	63.852 ug/L	63.852 ppb	17:56:38
1	SiO2†	-21.5	-624.7	-55.909 ug/L	-55.909 ppb	17:57:36
2	Sc Radial	3419.1	3419.1	105 %		17:55:46
2	Y RADIAL	3852.8	3852.8	105.7 %		17:55:26
2	Al 396.153Radial†	-127.4	-5.7	-5.2001 ug/L	-5.2001 ppb	17:55:26
2	Ca 317.933Radial†	11.2	-0.7	-1.6256 ug/L	-1.6256 ppb	17:55:46
2	Fe 238.204 Radial†	30173.3	28616.6	384310 ug/L	384310 ppb	17:55:26
2	K 766.490 Radial†	3174.0	-165.7	-38.644 ug/L	-38.644 ppb	17:55:26
2	Mg 279.077 IEC†	11.4	10.6	252.39 ug/L	252.39 ppb	17:55:46
2	Na 589.592 Radial†	-1181.4	73.7	36.002 ug/L	36.002 ppb	17:55:26
2	Sr 421.552†	78.3	42.3	0.4417 ug/L	0.4417 ppb	17:55:26
2	Sc 361.383	585608.0	585608.0	105.13 %		17:56:44
2	Y 371.029	542625.8	542625.8	104.87 %		17:56:44
2	Ag 328.068†	-19585.3	-18681.8	1.2105 ug/L	1.2105 ppb	17:56:44
2	As 188.979†	-169.6	-116.7	-1.0005 ug/L	-1.0005 ppb	17:57:04
2	B 249.677†	1638.1	2213.1	13.212 ug/L	13.212 ppb	17:56:44
2	Ba 233.527†	-1423.7	-1351.1	1.6894 ug/L	1.6894 ppb	17:56:44
2	Be 313.107†	-9671.1	352.2	0.1536 ug/L	0.1536 ppb	17:56:44
2	Cd 226.502†	2235.4	2433.8	-0.6128 ug/L	-0.6128 ppb	17:56:44
2	Co 228.616†	34.2	123.1	-1.1086 ug/L	-1.1086 ppb	17:57:04
2	Cr 267.716†	-223.0	-318.9	1.2429 ug/L	1.2429 ppb	17:56:44
2	Cu 324.752†	1668.1	-4795.1	2.4767 ug/L	2.4767 ppb	17:56:44
2	Mn 257.610†	-20626.9	-20244.2	2.2849 ug/L	2.2849 ppb	17:56:44
2	Mo 202.031†	-281.5	-283.8	-3.5498 ug/L	-3.5498 ppb	17:56:44
2	Ni 231.604†	159.1	33.5	1.4884 ug/L	1.4884 ppb	17:57:04
2	P 214.914†	613.0	271.7	-12.585 ug/L	-12.585 ppb	17:57:04
2	Pb 220.353†	82.8	174.3	-1.0899 ug/L	-1.0899 ppb	17:57:04
2	S 181.975 Axial†	83.9	10.8	14.009 ug/L	14.009 ppb	17:57:04
2	Sb 206.836†	38.7	-20.8	0.6127 ug/L	0.6127 ppb	17:57:04
2	Se 196.026†	-1101.3	-1014.5	49.787 ug/L	49.787 ppb	17:57:04
2	Si 251.611†	58.8	-511.7	-21.276 ug/L	-21.276 ppb	17:56:44
2	Sn 189.927†	-19.8	-30.7	-1.3634 ug/L	-1.3634 ppb	17:57:04
2	Ti 334.940†	-2235.8	-148.0	-0.4766 ug/L	-0.4766 ppb	17:56:44
2	Tl 190.801†	-57.6	4.1	2.1058 ug/L	2.1058 ppb	17:57:04
2	U 409.014†	410.6	2191.1	7.8711 ug/L	7.8711 ppb	17:56:44
2	V 292.402†	4272.3	6035.6	2.3635 ug/L	2.3635 ppb	17:56:44
2	Zn 213.857†	3490.6	2378.1	63.073 ug/L	63.073 ppb	17:57:04
2	SiO2†	37.0	-569.2	-50.702 ug/L	-50.702 ppb	17:57:41
3	Sc Radial	3431.0	3431.0	106 %		17:56:11
3	Y RADIAL	3857.9	3857.9	105.8 %		17:55:51

3	Al 396.153Radial†	-125.4	-3.4	-2.5936 ug/L	-2.5936 ppb	17:55:51
3	Ca 317.933Radial†	15.4	3.2	7.2696 ug/L	7.2696 ppb	17:56:11
3	Fe 238.204 Radial†	30232.0	28573.0	383730 ug/L	383730 ppb	17:55:51
3	K 766.490 Radial†	2977.7	-361.7	-84.398 ug/L	-84.398 ppb	17:55:51
3	Mg 279.077 IEC†	10.8	10.1	226.33 ug/L	226.33 ppb	17:56:11
3	Na 589.592 Radial†	-1238.1	24.0	11.706 ug/L	11.706 ppb	17:55:51
3	Sr 421.552†	81.8	45.3	0.4735 ug/L	0.4735 ppb	17:55:51
3	Sc 361.383	598202.6	598202.6	107.39 %		17:57:10
3	Y 371.029	553900.6	553900.6	107.05 %		17:57:10
3	Ag 328.068†	-19958.1	-18636.7	1.3053 ug/L	1.3053 ppb	17:57:10
3	As 188.979†	-167.4	-111.3	1.3147 ug/L	1.3147 ppb	17:57:30
3	B 249.677†	1645.1	2186.8	12.634 ug/L	12.634 ppb	17:57:10
3	Ba 233.527†	-1518.2	-1410.5	0.7693 ug/L	0.7693 ppb	17:57:10
3	Be 313.107†	-9831.3	396.6	0.1748 ug/L	0.1748 ppb	17:57:10
3	Cd 226.502†	2244.9	2397.9	-1.0601 ug/L	-1.0601 ppb	17:57:10
3	Co 228.616†	60.1	146.5	-0.2373 ug/L	-0.2373 ppb	17:57:30
3	Cr 267.716†	-294.6	-381.1	0.2951 ug/L	0.2951 ppb	17:57:10
3	Cu 324.752†	1743.7	-4758.0	2.6149 ug/L	2.6149 ppb	17:57:10
3	Mn 257.610†	-21173.0	-20339.6	2.0395 ug/L	2.0395 ppb	17:57:10
3	Mo 202.031†	-263.0	-260.9	-1.1630 ug/L	-1.1630 ppb	17:57:10
3	Ni 231.604†	135.1	8.0	0.6277 ug/L	0.6277 ppb	17:57:30
3	P 214.914†	631.2	276.5	-9.8460 ug/L	-9.8460 ppb	17:57:30
3	Pb 220.353†	99.3	188.0	1.3865 ug/L	1.3865 ppb	17:57:30
3	S 181.975 Axial†	76.1	1.8	2.3721 ug/L	2.3721 ppb	17:57:30
3	Sb 206.836†	32.0	-27.8	-2.5071 ug/L	-2.5071 ppb	17:57:30
3	Se 196.026†	-1109.8	-1000.5	57.730 ug/L	57.730 ppb	17:57:30
3	Si 251.611†	-117.0	-676.6	-28.280 ug/L	-28.280 ppb	17:57:10
3	Sn 189.927†	-14.0	-24.9	0.0888 ug/L	0.0888 ppb	17:57:30
3	Ti 334.940†	-1965.2	148.7	0.3141 ug/L	0.3141 ppb	17:57:10
3	Tl 190.801†	-68.4	-4.8	-3.1735 ug/L	-3.1735 ppb	17:57:30
3	U 409.014†	449.8	2219.3	9.4619 ug/L	9.4619 ppb	17:57:10
3	V 292.402†	4326.2	6000.2	2.1614 ug/L	2.1614 ppb	17:57:10
3	Zn 213.857†	3504.6	2321.2	62.383 ug/L	62.383 ppb	17:57:30
3	SiO2†	-15.1	-618.5	-55.228 ug/L	-55.228 ppb	17:57:46

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	590803.3	106.07	%	1.181				1.11%
Sc Radial	3412.7	105	%	0.7				0.65%
Y 371.029	547326.8	105.78	%	1.134				1.07%
Y RADIAL	3868.5	106.1	%	0.63				0.59%
Ag 328.068†	-18672.6	2.1284	ug/L	1.50852	2.1284	ppb	1.50852	70.88%
Al 396.153Radial†	-6.4	-6.1465	ug/L	4.10866	-6.1465	ppb	4.10866	66.85%
As 188.979†	-109.6	2.5164	ug/L	4.24722	2.5164	ppb	4.24722	168.78%
B 249.677†	2219.8	13.061	ug/L	0.3743	13.061	ppb	0.3743	2.87%
Ba 233.527†	-1414.6	0.9083	ug/L	0.72167	0.9083	ppb	0.72167	79.45%
Be 313.107†	405.2	0.1780	ug/L	0.02617	0.1780	ppb	0.02617	14.70%
Ca 317.933Radial†	-0.6	-1.3856	ug/L	8.53774	-1.3856	ppb	8.53774	616.19%
Cd 226.502†	2412.4	-1.1760	ug/L	0.62927	-1.1760	ppb	0.62927	53.51%
Co 228.616†	144.1	-0.3774	ug/L	0.67218	-0.3774	ppb	0.67218	178.09%
Cr 267.716†	-343.6	0.9165	ug/L	0.53837	0.9165	ppb	0.53837	58.74%
Cu 324.752†	-4787.8	2.7075	ug/L	0.28842	2.7075	ppb	0.28842	10.65%
Fe 238.204 Radial†	28836.4	387270	ug/L	5628.1	387270	ppb	5628.1	1.45%
K 766.490 Radial†	-249.2	-58.136	ug/L	23.6163	-58.136	ppb	23.6163	40.62%
Mg 279.077 IEC†	10.0	220.56	ug/L	35.083	220.56	ppb	35.083	15.91%
Mn 257.610†	-20297.0	2.5015	ug/L	0.60039	2.5015	ppb	0.60039	24.00%
Mo 202.031†	-255.3	-0.3313	ug/L	3.70503	-0.3313	ppb	3.70503	>999.9%
Na 589.592 Radial†	40.7	19.905	ug/L	13.9416	19.905	ppb	13.9416	70.04%
Ni 231.604†	8.4	0.6446	ug/L	0.83543	0.6446	ppb	0.83543	129.60%
P 214.914†	272.9	-13.228	ug/L	3.7454	-13.228	ppb	3.7454	28.31%
Pb 220.353†	177.3	-0.8002	ug/L	2.05729	-0.8002	ppb	2.05729	257.09%
S 181.975 Axial†	6.5	8.4478	ug/L	5.83563	8.4478	ppb	5.83563	69.08%
Sb 206.836†	-25.2	-1.2041	ug/L	1.62209	-1.2041	ppb	1.62209	134.71%
Se 196.026†	-1001.3	63.613	ug/L	17.5246	63.613	ppb	17.5246	27.55%
Si 251.611†	-572.2	-23.871	ug/L	3.8380	-23.871	ppb	3.8380	16.08%
Sn 189.927†	-26.3	-0.2171	ug/L	1.02803	-0.2171	ppb	1.02803	473.49%
Sr 421.552†	32.6	0.3408	ug/L	0.20293	0.3408	ppb	0.20293	59.54%
Ti 334.940†	49.8	0.0506	ug/L	0.45662	0.0506	ppb	0.45662	901.71%
Tl 190.801†	-1.3	-1.0637	ug/L	2.79465	-1.0637	ppb	2.79465	262.73%

U 409.014†	2209.1	7.9903	ug/L	1.41569	7.9903	ppb	1.41569	17.72%
V 292.402†	6034.1	1.9974	ug/L	0.47004	1.9974	ppb	0.47004	23.53%
Zn 213.857†	2355.4	63.103	ug/L	0.7349	63.103	ppb	0.7349	1.16%
SiO2†	-604.1	-53.946	ug/L	2.8304	-53.946	ppb	2.8304	5.25%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/15/2010 17:59:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3376.8	3376.8	104	%			18:02:10
1	Y RADIAL	3666.6	3666.6	100.6	%			18:01:50
1	Al 396.153Radial†	4380.1	4322.0	5046.0	ug/L	5046.0	ppb	18:01:50
1	Ca 317.933Radial†	2374.3	2269.0	5110.5	ug/L	5110.5	ppb	18:02:10
1	Fe 238.204 Radial†	400.3	379.6	5112.3	ug/L	5112.3	ppb	18:02:10
1	K 766.490 Radial†	24697.5	20544.2	4791.0	ug/L	4791.0	ppb	18:01:50
1	Mg 279.077 IEC†	119.2	114.3	5191.3	ug/L	5191.3	ppb	18:02:10
1	Na 589.592 Radial†	19570.4	19990.7	9768.1	ug/L	9768.1	ppb	18:01:50
1	Sr 421.552†	48596.7	46642.6	487.05	ug/L	487.05	ppb	18:01:50
1	Sc 361.383	571286.5	571286.5	102.56	%			18:03:09
1	Y 371.029	527408.8	527408.8	101.93	%			18:03:09
1	Ag 328.068†	81762.9	79668.1	478.15	ug/L	478.15	ppb	18:03:09
1	As 188.979†	1068.3	1086.2	483.05	ug/L	483.05	ppb	18:03:29
1	B 249.677†	20031.7	20186.4	486.39	ug/L	486.39	ppb	18:03:09
1	Ba 233.527†	33035.9	32213.9	481.83	ug/L	481.83	ppb	18:03:09
1	Be 313.107†	1121067.5	1102617.4	484.63	ug/L	484.63	ppb	18:03:09
1	Cd 226.502†	34834.1	34271.6	476.86	ug/L	476.86	ppb	18:03:29
1	Co 228.616†	13621.4	13371.8	490.76	ug/L	490.76	ppb	18:03:29
1	Cr 267.716†	32853.3	31926.0	481.59	ug/L	481.59	ppb	18:03:09
1	Cu 324.752†	107300.3	98238.5	475.44	ug/L	475.44	ppb	18:03:09
1	Mn 257.610†	257340.3	250288.3	481.90	ug/L	481.90	ppb	18:03:09
1	Mo 202.031†	4709.5	4575.8	485.19	ug/L	485.19	ppb	18:03:29
1	Ni 231.604†	15058.2	14564.3	490.50	ug/L	490.50	ppb	18:03:29
1	P 214.914†	4947.5	4512.6	2301.9	ug/L	2301.9	ppb	18:03:29
1	Pb 220.353†	2714.7	2742.5	486.10	ug/L	486.10	ppb	18:03:29
1	S 181.975 Axial†	830.5	740.7	961.33	ug/L	961.33	ppb	18:03:29
1	Sb 206.836†	1144.4	1058.2	494.60	ug/L	494.60	ppb	18:03:29
1	Se 196.026†	739.2	753.7	492.34	ug/L	492.34	ppb	18:03:29
1	Si 251.611†	58643.3	56610.9	2388.7	ug/L	2388.7	ppb	18:03:09
1	Sn 189.927†	1988.5	1927.0	484.33	ug/L	484.33	ppb	18:03:29
1	Ti 334.940†	183478.0	180873.8	480.05	ug/L	480.05	ppb	18:03:09
1	Tl 190.801†	782.8	822.1	490.02	ug/L	490.02	ppb	18:03:29
1	U 409.014†	7499.1	9112.3	459.56	ug/L	459.56	ppb	18:03:09
1	V 292.402†	52723.8	53378.8	485.92	ug/L	485.92	ppb	18:03:09
1	Zn 213.857†	44786.5	42725.7	476.86	ug/L	476.86	ppb	18:03:09
1	SiO2†	59611.0	57517.7	5193.1	ug/L	5193.1	ppb	18:04:29
2	Sc Radial	3485.0	3485.0	107	%			18:02:35
2	Y RADIAL	3846.9	3846.9	105.5	%			18:02:15
2	Al 396.153Radial†	4559.6	4358.6	5088.8	ug/L	5088.8	ppb	18:02:15
2	Ca 317.933Radial†	2458.0	2276.2	5126.7	ug/L	5126.7	ppb	18:02:35
2	Fe 238.204 Radial†	408.8	375.6	5059.1	ug/L	5059.1	ppb	18:02:35
2	K 766.490 Radial†	25584.9	20634.0	4811.9	ug/L	4811.9	ppb	18:02:15
2	Mg 279.077 IEC†	126.0	117.1	5317.5	ug/L	5317.5	ppb	18:02:35
2	Na 589.592 Radial†	20339.3	20123.0	9832.7	ug/L	9832.7	ppb	18:02:15
2	Sr 421.552†	50755.5	47203.3	492.91	ug/L	492.91	ppb	18:02:15
2	Sc 361.383	572910.7	572910.7	102.85	%			18:03:36
2	Y 371.029	528307.6	528307.6	102.11	%			18:03:36
2	Ag 328.068†	82794.4	80444.9	482.77	ug/L	482.77	ppb	18:03:36
2	As 188.979†	1080.6	1095.2	487.03	ug/L	487.03	ppb	18:03:56
2	B 249.677†	20384.2	20473.7	493.34	ug/L	493.34	ppb	18:03:36
2	Ba 233.527†	33410.2	32486.5	485.90	ug/L	485.90	ppb	18:03:36
2	Be 313.107†	1130507.3	1108696.5	487.30	ug/L	487.30	ppb	18:03:36
2	Cd 226.502†	35017.8	34353.8	478.01	ug/L	478.01	ppb	18:03:56
2	Co 228.616†	13698.0	13408.6	492.11	ug/L	492.11	ppb	18:03:56
2	Cr 267.716†	33106.5	32081.3	483.92	ug/L	483.92	ppb	18:03:36
2	Cu 324.752†	108445.6	99055.5	479.38	ug/L	479.38	ppb	18:03:36
2	Mn 257.610†	260081.2	252241.8	485.65	ug/L	485.65	ppb	18:03:36
2	Mo 202.031†	4749.6	4601.8	487.94	ug/L	487.94	ppb	18:03:56
2	Ni 231.604†	15129.0	14591.6	491.42	ug/L	491.42	ppb	18:03:56

2	P 214.914†	4975.1	4525.8	2308.0 ug/L	2308.0 ppb	18:03:56
2	Pb 220.353†	2740.1	2759.7	489.15 ug/L	489.15 ppb	18:03:56
2	S 181.975 Axial†	829.8	737.8	957.50 ug/L	957.50 ppb	18:03:56
2	Sb 206.836†	1158.1	1068.4	499.26 ug/L	499.26 ppb	18:03:56
2	Se 196.026†	739.8	752.2	491.32 ug/L	491.32 ppb	18:03:56
2	Si 251.611†	59291.8	57079.4	2408.5 ug/L	2408.5 ppb	18:03:36
2	Sn 189.927†	1996.5	1929.2	484.89 ug/L	484.89 ppb	18:03:56
2	Ti 334.940†	185752.5	182578.1	484.56 ug/L	484.56 ppb	18:03:36
2	Tl 190.801†	789.3	826.3	492.54 ug/L	492.54 ppb	18:03:56
2	U 409.014†	7839.9	9422.9	475.31 ug/L	475.31 ppb	18:03:36
2	V 292.402†	53256.7	53751.1	489.34 ug/L	489.34 ppb	18:03:36
2	Zn 213.857†	45341.5	43141.6	481.52 ug/L	481.52 ppb	18:03:36
2	SiO2†	59502.1	57247.1	5168.5 ug/L	5168.5 ppb	18:04:34
3	Sc Radial	3419.0	3419.0	105 %		18:03:00
3	Y RADIAL	3857.0	3857.0	105.8 %		18:02:40
3	Al 396.153Radial†	4526.6	4409.1	5147.9 ug/L	5147.9 ppb	18:02:40
3	Ca 317.933Radial†	2378.0	2244.4	5055.1 ug/L	5055.1 ppb	18:03:00
3	Fe 238.204 Radial†	397.3	372.0	5010.0 ug/L	5010.0 ppb	18:03:00
3	K 766.490 Radial†	25493.2	21006.1	4898.7 ug/L	4898.7 ppb	18:02:40
3	Mg 279.077 IEC†	126.1	119.4	5421.7 ug/L	5421.7 ppb	18:03:00
3	Na 589.592 Radial†	20083.2	20245.0	9892.3 ug/L	9892.3 ppb	18:02:40
3	Sr 421.552†	50494.5	47866.5	499.84 ug/L	499.84 ppb	18:02:40
3	Sc 361.383	573382.0	573382.0	102.94 %		18:04:03
3	Y 371.029	528556.0	528556.0	102.15 %		18:04:03
3	Ag 328.068†	82708.1	80295.0	481.86 ug/L	481.86 ppb	18:04:03
3	As 188.979†	1079.0	1092.8	485.96 ug/L	485.96 ppb	18:04:24
3	B 249.677†	20433.8	20505.6	494.11 ug/L	494.11 ppb	18:04:03
3	Ba 233.527†	33335.6	32387.3	484.42 ug/L	484.42 ppb	18:04:03
3	Be 313.107†	1128542.3	1105884.1	486.07 ug/L	486.07 ppb	18:04:03
3	Cd 226.502†	35033.8	34341.4	477.84 ug/L	477.84 ppb	18:04:24
3	Co 228.616†	13726.0	13424.9	492.71 ug/L	492.71 ppb	18:04:24
3	Cr 267.716†	33166.3	32113.0	484.40 ug/L	484.40 ppb	18:04:03
3	Cu 324.752†	108535.6	99056.2	479.38 ug/L	479.38 ppb	18:04:03
3	Mn 257.610†	259934.9	251891.8	484.96 ug/L	484.96 ppb	18:04:03
3	Mo 202.031†	4757.9	4606.1	488.39 ug/L	488.39 ppb	18:04:24
3	Ni 231.604†	15158.8	14608.4	491.99 ug/L	491.99 ppb	18:04:24
3	P 214.914†	4991.3	4537.6	2314.4 ug/L	2314.4 ppb	18:04:24
3	Pb 220.353†	2715.1	2733.2	484.49 ug/L	484.49 ppb	18:04:24
3	S 181.975 Axial†	838.7	745.8	967.91 ug/L	967.91 ppb	18:04:24
3	Sb 206.836†	1163.7	1072.9	501.27 ug/L	501.27 ppb	18:04:24
3	Se 196.026†	737.1	749.0	489.18 ug/L	489.18 ppb	18:04:24
3	Si 251.611†	59279.8	57020.3	2406.0 ug/L	2406.0 ppb	18:04:03
3	Sn 189.927†	1994.0	1925.2	483.87 ug/L	483.87 ppb	18:04:24
3	Ti 334.940†	185434.6	182120.8	483.33 ug/L	483.33 ppb	18:04:03
3	Tl 190.801†	791.7	828.0	493.54 ug/L	493.54 ppb	18:04:24
3	U 409.014†	7876.0	9451.7	476.78 ug/L	476.78 ppb	18:04:03
3	V 292.402†	53359.0	53807.9	489.87 ug/L	489.87 ppb	18:04:03
3	Zn 213.857†	45237.9	43004.6	479.97 ug/L	479.97 ppb	18:04:03
3	SiO2†	60562.7	58229.8	5257.5 ug/L	5257.5 ppb	18:04:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	572526.4	102.78	%	0.197				0.19%
Sc Radial	3426.9	106	%	1.7				1.59%
Y 371.029	528090.8	102.06	%	0.117				0.11%
Y RADIAL	3790.2	104.0	%	2.94				2.83%
Ag 328.068†	80136.0	480.93	ug/L	2.447	480.93	ppb	2.447	0.51%
QC value within limits for Ag 328.068 Recovery = 96.19%								
Al 396.153Radial†	4363.2	5094.2	ug/L	51.18	5094.2	ppb	51.18	1.00%
QC value within limits for Al 396.153Radial Recovery = 101.88%								
As 188.979†	1091.4	485.35	ug/L	2.065	485.35	ppb	2.065	0.43%
QC value within limits for As 188.979 Recovery = 97.07%								
B 249.677†	20388.6	491.28	ug/L	4.255	491.28	ppb	4.255	0.87%
QC value within limits for B 249.677 Recovery = 98.26%								
Ba 233.527†	32362.5	484.05	ug/L	2.060	484.05	ppb	2.060	0.43%
QC value within limits for Ba 233.527 Recovery = 96.81%								
Be 313.107†	1105732.7	486.00	ug/L	1.339	486.00	ppb	1.339	0.28%
QC value within limits for Be 313.107 Recovery = 97.20%								
Ca 317.933Radial†	2263.2	5097.4	ug/L	37.54	5097.4	ppb	37.54	0.74%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.95%
Cd 226.502†            34322.3      477.57 ug/L         0.623      477.57 ppb          0.623   0.13%
   QC value within limits for Cd 226.502  Recovery = 95.51%
Co 228.616†            13401.8      491.86 ug/L         0.999      491.86 ppb          0.999   0.20%
   QC value within limits for Co 228.616  Recovery = 98.37%
Cr 267.716†            32040.1      483.30 ug/L         1.506      483.30 ppb          1.506   0.31%
   QC value within limits for Cr 267.716  Recovery = 96.66%
Cu 324.752†            98783.4      478.06 ug/L         2.275      478.06 ppb          2.275   0.48%
   QC value within limits for Cu 324.752  Recovery = 95.61%
Fe 238.204 Radial†       375.7      5060.5 ug/L        51.13      5060.5 ppb         51.13   1.01%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.21%
K 766.490 Radial†      20728.1      4833.9 ug/L        57.15      4833.9 ppb         57.15   1.18%
   QC value within limits for K 766.490 Radial  Recovery = 96.68%
Mg 279.077 IEC†          116.9      5310.2 ug/L       115.35      5310.2 ppb        115.35   2.17%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.20%
Mn 257.610†           251474.0      484.17 ug/L         1.996      484.17 ppb          1.996   0.41%
   QC value within limits for Mn 257.610  Recovery = 96.83%
Mo 202.031†             4594.6      487.17 ug/L         1.733      487.17 ppb          1.733   0.36%
   QC value within limits for Mo 202.031  Recovery = 97.43%
Na 589.592 Radial†     20119.6      9831.0 ug/L        62.14      9831.0 ppb         62.14   0.63%
   QC value within limits for Na 589.592 Radial  Recovery = 98.31%
Ni 231.604†            14588.1      491.30 ug/L         0.750      491.30 ppb          0.750   0.15%
   QC value within limits for Ni 231.604  Recovery = 98.26%
P 214.914†              4525.3      2308.1 ug/L         6.23      2308.1 ppb          6.23   0.27%
   QC value within limits for P 214.914  Recovery = 92.32%
Pb 220.353†             2745.1      486.58 ug/L         2.366      486.58 ppb          2.366   0.49%
   QC value within limits for Pb 220.353  Recovery = 97.32%
S 181.975 Axial†         741.4      962.25 ug/L         5.262      962.25 ppb          5.262   0.55%
   QC value within limits for S 181.975 Axial  Recovery = 96.22%
Sb 206.836†             1066.5      498.38 ug/L         3.425      498.38 ppb          3.425   0.69%
   QC value within limits for Sb 206.836  Recovery = 99.68%
Se 196.026†              751.7      490.94 ug/L         1.611      490.94 ppb          1.611   0.33%
   QC value within limits for Se 196.026  Recovery = 98.19%
Si 251.611†            56903.5      2401.1 ug/L        10.77      2401.1 ppb         10.77   0.45%
   QC value within limits for Si 251.611  Recovery = 96.04%
Sn 189.927†             1927.1      484.36 ug/L         0.508      484.36 ppb          0.508   0.10%
   QC value within limits for Sn 189.927  Recovery = 96.87%
Sr 421.552†            47237.5      493.27 ug/L         6.398      493.27 ppb          6.398   1.30%
   QC value within limits for Sr 421.552  Recovery = 98.65%
Ti 334.940†           181857.5      482.65 ug/L         2.331      482.65 ppb          2.331   0.48%
   QC value within limits for Ti 334.940  Recovery = 96.53%
Tl 190.801†              825.4      492.03 ug/L         1.816      492.03 ppb          1.816   0.37%
   QC value within limits for Tl 190.801  Recovery = 98.41%
U 409.014†              9329.0      470.55 ug/L         9.551      470.55 ppb          9.551   2.03%
   QC value within limits for U 409.014  Recovery = 94.11%
V 292.402†             53646.0      488.38 ug/L         2.142      488.38 ppb          2.142   0.44%
   QC value within limits for V 292.402  Recovery = 97.68%
Zn 213.857†            42957.3      479.45 ug/L         2.372      479.45 ppb          2.372   0.49%
   QC value within limits for Zn 213.857  Recovery = 95.89%
SiO2†                  57664.8      5206.4 ug/L        45.93      5206.4 ppb         45.93   0.88%
   QC value within limits for SiO2  Recovery = 97.36%
All analyte(s) passed QC.
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Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/15/2010 18:06:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3342.2	3342.2	103	%			18:09:01
1	Y RADIAL	3793.6	3793.6	104.1	%			18:08:41
1	Al 396.153Radial†	-100.5	17.7	20.664	ug/L	20.664	ppb	18:08:41
1	Ca 317.933Radial†	14.0	2.2	4.9730	ug/L	4.9730	ppb	18:09:01
1	Fe 238.204 Radial†	5.1	0.1	1.6350	ug/L	1.6350	ppb	18:09:01
1	K 766.490 Radial†	3258.8	-14.1	-3.3070	ug/L	-3.3070	ppb	18:08:41
1	Mg 279.077 IEC†	0.7	0.5	22.110	ug/L	22.110	ppb	18:09:01
1	Na 589.592 Radial†	-1190.6	39.0	19.062	ug/L	19.062	ppb	18:08:41
1	Sr 421.552†	22.1	-10.5	-0.1101	ug/L	-0.1101	ppb	18:08:41
1	Sc 361.383	567029.8	567029.8	101.80	%			18:09:58
1	Y 371.029	527463.4	527463.4	101.94	%			18:09:58
1	Ag 328.068†	-3.7	-56.3	-0.3371	ug/L	-0.3371	ppb	18:09:58
1	As 188.979†	-36.3	8.9	3.9405	ug/L	3.9405	ppb	18:10:18
1	B 249.677†	68.1	721.9	17.464	ug/L	17.464	ppb	18:09:58
1	Ba 233.527†	-0.6	2.6	0.0376	ug/L	0.0376	ppb	18:10:18
1	Be 313.107†	-9599.6	121.0	0.0531	ug/L	0.0531	ppb	18:09:58
1	Cd 226.502†	-296.0	16.7	0.2323	ug/L	0.2323	ppb	18:10:18
1	Co 228.616†	-99.5	-7.1	-0.2593	ug/L	-0.2593	ppb	18:10:18
1	Cr 267.716†	162.3	52.7	0.7934	ug/L	0.7934	ppb	18:09:58
1	Cu 324.752†	6480.1	-16.1	-0.0783	ug/L	-0.0783	ppb	18:09:58
1	Mn 257.610†	626.3	-9.2	-0.0183	ug/L	-0.0183	ppb	18:09:58
1	Mo 202.031†	27.2	10.7	1.1333	ug/L	1.1333	ppb	18:10:18
1	Ni 231.604†	140.5	20.3	0.6842	ug/L	0.6842	ppb	18:10:18
1	P 214.914†	314.4	-2.5	-1.2730	ug/L	-1.2730	ppb	18:10:18
1	Pb 220.353†	-72.3	24.5	4.3377	ug/L	4.3377	ppb	18:10:18
1	S 181.975 Axial†	64.3	-5.8	-7.5655	ug/L	-7.5655	ppb	18:10:18
1	Sb 206.836†	61.9	3.2	1.5299	ug/L	1.5299	ppb	18:10:18
1	Se 196.026†	-32.6	1.0	0.6360	ug/L	0.6360	ppb	18:10:18
1	Si 251.611†	583.8	5.9	0.2361	ug/L	0.2361	ppb	18:10:18
1	Sn 189.927†	23.2	10.9	2.7365	ug/L	2.7365	ppb	18:10:18
1	Ti 334.940†	-2002.4	11.6	0.0294	ug/L	0.0294	ppb	18:09:58
1	Tl 190.801†	-57.6	2.3	1.3628	ug/L	1.3628	ppb	18:10:18
1	U 409.014†	-1835.7	-2.7	-0.1413	ug/L	-0.1413	ppb	18:09:58
1	V 292.402†	-2061.8	-53.5	-0.4648	ug/L	-0.4648	ppb	18:09:58
1	Zn 213.857†	1004.8	45.0	0.5012	ug/L	0.5012	ppb	18:10:18
1	SiO2†	631.8	16.3	1.4426	ug/L	1.4426	ppb	18:11:14
2	Sc Radial	3371.2	3371.2	104	%			18:09:26
2	Y RADIAL	3707.6	3707.6	101.7	%			18:09:06
2	Al 396.153Radial†	-109.1	10.2	11.932	ug/L	11.932	ppb	18:09:06
2	Ca 317.933Radial†	13.7	1.8	4.0847	ug/L	4.0847	ppb	18:09:26
2	Fe 238.204 Radial†	5.6	0.5	6.9095	ug/L	6.9095	ppb	18:09:26
2	K 766.490 Radial†	3243.6	-55.9	-13.068	ug/L	-13.068	ppb	18:09:06
2	Mg 279.077 IEC†	2.2	2.0	89.511	ug/L	89.511	ppb	18:09:26
2	Na 589.592 Radial†	-1184.7	54.6	26.657	ug/L	26.657	ppb	18:09:06
2	Sr 421.552†	74.3	39.4	0.4118	ug/L	0.4118	ppb	18:09:06
2	Sc 361.383	578293.1	578293.1	103.82	%			18:10:24
2	Y 371.029	537695.1	537695.1	103.92	%			18:10:24
2	Ag 328.068†	39.2	-14.8	-0.0854	ug/L	-0.0854	ppb	18:10:24
2	As 188.979†	-39.5	6.6	2.9036	ug/L	2.9036	ppb	18:10:44
2	B 249.677†	-2.1	653.0	15.796	ug/L	15.796	ppb	18:10:24
2	Ba 233.527†	-4.9	-1.6	-0.0229	ug/L	-0.0229	ppb	18:10:44
2	Be 313.107†	-9530.9	370.8	0.1631	ug/L	0.1631	ppb	18:10:24
2	Cd 226.502†	-312.1	6.9	0.0955	ug/L	0.0955	ppb	18:10:44
2	Co 228.616†	-98.2	-3.9	-0.1426	ug/L	-0.1426	ppb	18:10:44
2	Cr 267.716†	165.1	52.2	0.7876	ug/L	0.7876	ppb	18:10:24
2	Cu 324.752†	6531.2	-90.8	-0.4393	ug/L	-0.4393	ppb	18:10:24
2	Mn 257.610†	539.7	-104.5	-0.2040	ug/L	-0.2040	ppb	18:10:24
2	Mo 202.031†	26.9	9.9	1.0447	ug/L	1.0447	ppb	18:10:44
2	Ni 231.604†	133.4	10.7	0.3615	ug/L	0.3615	ppb	18:10:44

2	P 214.914†	302.8	-19.6	-10.369	ug/L	-10.369 ppb	18:10:44
2	Pb 220.353†	-96.4	2.7	0.4811	ug/L	0.4811 ppb	18:10:44
2	S 181.975 Axial†	58.8	-12.3	-16.014	ug/L	-16.014 ppb	18:10:44
2	Sb 206.836†	59.6	-0.2	-0.0368	ug/L	-0.0368 ppb	18:10:44
2	Se 196.026†	-27.3	6.7	4.2757	ug/L	4.2757 ppb	18:10:44
2	Si 251.611†	580.2	-8.8	-0.3835	ug/L	-0.3835 ppb	18:10:44
2	Sn 189.927†	19.5	6.9	1.7237	ug/L	1.7237 ppb	18:10:44
2	Ti 334.940†	-1968.0	83.0	0.2140	ug/L	0.2140 ppb	18:10:24
2	Tl 190.801†	-53.5	7.3	4.3097	ug/L	4.3097 ppb	18:10:44
2	U 409.014†	-1884.2	-14.4	-0.7314	ug/L	-0.7314 ppb	18:10:24
2	V 292.402†	-2030.0	16.6	0.1626	ug/L	0.1626 ppb	18:10:24
2	Zn 213.857†	976.8	-1.3	-0.0152	ug/L	-0.0152 ppb	18:10:44
2	SiO2†	625.9	-1.6	-0.1705	ug/L	-0.1705 ppb	18:11:19
3	Sc Radial	3338.8	3338.8	103	%		18:09:51
3	Y RADIAL	3764.7	3764.7	103.3	%		18:09:31
3	Al 396.153Radial†	-118.8	-0.2	-0.3359	ug/L	-0.3359 ppb	18:09:31
3	Ca 317.933Radial†	15.2	3.4	7.5770	ug/L	7.5770 ppb	18:09:51
3	Fe 238.204 Radial†	2.3	-2.6	-35.310	ug/L	-35.310 ppb	18:09:51
3	K 766.490 Radial†	3265.9	-4.0	-0.9483	ug/L	-0.9483 ppb	18:09:31
3	Mg 279.077 IEC†	5.1	4.8	217.45	ug/L	217.45 ppb	18:09:51
3	Na 589.592 Radial†	-1220.4	8.9	4.3351	ug/L	4.3351 ppb	18:09:31
3	Sr 421.552†	4.7	-27.5	-0.2869	ug/L	-0.2869 ppb	18:09:31
3	Sc 361.383	558745.4	558745.4	100.31	%		18:10:49
3	Y 371.029	519331.1	519331.1	100.37	%		18:10:49
3	Ag 328.068†	71.2	18.4	0.0958	ug/L	0.0958 ppb	18:10:49
3	As 188.979†	-43.1	1.6	0.6904	ug/L	0.6904 ppb	18:11:09
3	B 249.677†	77.3	732.1	17.713	ug/L	17.713 ppb	18:10:49
3	Ba 233.527†	-14.9	-11.7	-0.1775	ug/L	-0.1775 ppb	18:11:09
3	Be 313.107†	-9448.3	132.1	0.0573	ug/L	0.0573 ppb	18:10:49
3	Cd 226.502†	-295.4	13.0	0.1850	ug/L	0.1850 ppb	18:11:09
3	Co 228.616†	-90.6	0.3	0.0143	ug/L	0.0143 ppb	18:11:09
3	Cr 267.716†	200.2	92.8	1.3962	ug/L	1.3962 ppb	18:10:49
3	Cu 324.752†	6411.6	10.1	0.0444	ug/L	0.0444 ppb	18:10:49
3	Mn 257.610†	605.2	-21.0	-0.0531	ug/L	-0.0531 ppb	18:10:49
3	Mo 202.031†	32.0	15.9	1.6821	ug/L	1.6821 ppb	18:11:09
3	Ni 231.604†	130.0	11.9	0.4003	ug/L	0.4003 ppb	18:11:09
3	P 214.914†	322.7	10.4	5.5582	ug/L	5.5582 ppb	18:11:09
3	Pb 220.353†	-81.8	14.0	2.4778	ug/L	2.4778 ppb	18:11:09
3	S 181.975 Axial†	65.8	-3.4	-4.4260	ug/L	-4.4260 ppb	18:11:09
3	Sb 206.836†	53.8	-4.0	-1.7486	ug/L	-1.7486 ppb	18:11:09
3	Se 196.026†	-30.0	3.0	1.8726	ug/L	1.8726 ppb	18:11:09
3	Si 251.611†	574.8	5.5	0.2101	ug/L	0.2101 ppb	18:11:09
3	Sn 189.927†	12.9	1.0	0.2540	ug/L	0.2540 ppb	18:11:09
3	Ti 334.940†	-2083.1	-98.1	-0.2774	ug/L	-0.2774 ppb	18:10:49
3	Tl 190.801†	-58.9	0.1	0.0445	ug/L	0.0445 ppb	18:11:09
3	U 409.014†	-1764.6	41.4	2.1046	ug/L	2.1046 ppb	18:10:49
3	V 292.402†	-2024.9	-46.8	-0.3831	ug/L	-0.3831 ppb	18:10:49
3	Zn 213.857†	963.1	18.0	0.1963	ug/L	0.1963 ppb	18:11:09
3	SiO2†	605.1	-1.2	-0.1523	ug/L	-0.1523 ppb	18:11:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	568022.8	101.98	%	1.761				1.73%
Sc Radial	3350.7	103	%	0.5				0.53%
Y 371.029	528163.2	102.08	%	1.778				1.74%
Y RADIAL	3755.3	103.0	%	1.20				1.17%
Ag 328.068†	-17.6	-0.1089	ug/L	0.21737	-0.1089	ppb	0.21737	199.65%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.2	10.753	ug/L	10.5495	10.753	ppb	10.5495	98.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.7	2.5115	ug/L	1.66013	2.5115	ppb	1.66013	66.10%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	702.3	16.991	ug/L	1.0424	16.991	ppb	1.0424	6.13%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.6	-0.0543	ug/L	0.11096	-0.0543	ppb	0.11096	204.40%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	208.0	0.0912	ug/L	0.06233	0.0912	ppb	0.06233	68.35%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.5	5.5449	ug/L	1.81501	5.5449	ppb	1.81501	32.73%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              12.2      0.1710 ug/L       0.06947      0.1710 ppb        0.06947  40.64%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -3.6     -0.1292 ug/L       0.13733     -0.1292 ppb        0.13733 106.28%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              65.9      0.9924 ug/L       0.34974      0.9924 ppb        0.34974  35.24%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -32.3     -0.1577 ug/L       0.25147     -0.1577 ppb        0.25147 159.42%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.7     -8.9218 ug/L      23.00448     -8.9218 ppb       23.00448 257.84%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -24.7     -5.7744 ug/L       6.42565     -5.7744 ppb        6.42565 111.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.4      109.69 ug/L        99.222      109.69 ppb         99.222  90.46%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -44.9     -0.0918 ug/L       0.09873     -0.0918 ppb        0.09873 107.52%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              12.2      1.2867 ug/L       0.34529      1.2867 ppb        0.34529  26.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       34.1      16.685 ug/L       11.3493      16.685 ppb        11.3493  68.02%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              14.3      0.4820 ug/L       0.17617      0.4820 ppb        0.17617  36.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -3.9     -2.0280 ug/L       7.99048     -2.0280 ppb        7.99048 394.01%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              13.7      2.4322 ug/L       1.92874      2.4322 ppb        1.92874  79.30%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -7.2     -9.3350 ug/L       5.99304     -9.3350 ppb        5.99304  64.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.3     -0.0852 ug/L       1.63979     -0.0852 ppb        1.63979 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.6      2.2614 ug/L       1.85072      2.2614 ppb        1.85072  81.84%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               0.9      0.0209 ug/L       0.35049      0.0209 ppb        0.35049 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.3      1.5714 ug/L       1.24824      1.5714 ppb        1.24824  79.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               0.5      0.0049 ug/L       0.36329      0.0049 ppb        0.36329 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -1.2     -0.0113 ug/L       0.24825     -0.0113 ppb        0.24825 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.2      1.9057 ug/L       2.18380      1.9057 ppb        2.18380 114.60%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                8.1      0.4107 ug/L       1.49640      0.4107 ppb        1.49640 364.39%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -27.9     -0.2284 ug/L       0.34111     -0.2284 ppb        0.34111 149.32%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              20.6      0.2274 ug/L       0.25959      0.2274 ppb        0.25959 114.14%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     4.5      0.3733 ug/L       0.92613      0.3733 ppb        0.92613 248.10%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/15/2010 19:08:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3354.0	3354.0	103	%			19:11:04
1	Y RADIAL	3789.0	3789.0	104.0	%			19:10:44
1	Al 396.153Radial†	4434.7	4403.6	5141.7	ug/L	5141.7	ppb	19:10:44
1	Ca 317.933Radial†	2302.3	2214.9	4988.7	ug/L	4988.7	ppb	19:11:04
1	Fe 238.204 Radial†	388.9	371.2	4999.7	ug/L	4999.7	ppb	19:11:04
1	K 766.490 Radial†	25098.7	21093.8	4919.1	ug/L	4919.1	ppb	19:10:44
1	Mg 279.077 IEC†	114.0	110.1	4999.0	ug/L	4999.0	ppb	19:11:04
1	Na 589.592 Radial†	20293.2	20817.7	10172	ug/L	10172	ppb	19:10:44
1	Sr 421.552†	49543.2	47875.9	499.93	ug/L	499.93	ppb	19:10:44
1	Sc 361.383	577117.3	577117.3	103.61	%			19:12:02
1	Y 371.029	532490.0	532490.0	102.91	%			19:12:02
1	Ag 328.068†	82213.9	79297.9	475.90	ug/L	475.90	ppb	19:12:02
1	As 188.979†	1087.0	1093.8	486.35	ug/L	486.35	ppb	19:12:23
1	B 249.677†	19697.0	19666.0	473.81	ug/L	473.81	ppb	19:12:02
1	Ba 233.527†	33197.8	32044.7	479.30	ug/L	479.30	ppb	19:12:02
1	Be 313.107†	1125267.6	1095627.6	481.56	ug/L	481.56	ppb	19:12:02
1	Cd 226.502†	35122.4	34206.6	475.97	ug/L	475.97	ppb	19:12:23
1	Co 228.616†	13706.3	13319.6	488.85	ug/L	488.85	ppb	19:12:23
1	Cr 267.716†	33066.8	31808.3	479.81	ug/L	479.81	ppb	19:12:02
1	Cu 324.752†	107539.3	97412.2	471.42	ug/L	471.42	ppb	19:12:02
1	Mn 257.610†	258206.8	248589.5	478.63	ug/L	478.63	ppb	19:12:02
1	Mo 202.031†	4741.4	4560.3	483.53	ug/L	483.53	ppb	19:12:23
1	Ni 231.604†	15149.6	14504.2	488.48	ug/L	488.48	ppb	19:12:23
1	P 214.914†	4966.9	4482.6	2286.8	ug/L	2286.8	ppb	19:12:23
1	Pb 220.353†	2741.4	2741.5	485.95	ug/L	485.95	ppb	19:12:23
1	S 181.975 Axial†	861.7	762.7	989.90	ug/L	989.90	ppb	19:12:23
1	Sb 206.836†	1147.9	1050.3	490.92	ug/L	490.92	ppb	19:12:23
1	Se 196.026†	756.8	763.4	498.32	ug/L	498.32	ppb	19:12:23
1	Si 251.611†	59131.7	56504.6	2384.2	ug/L	2384.2	ppb	19:12:02
1	Sn 189.927†	1982.6	1901.6	477.95	ug/L	477.95	ppb	19:12:23
1	Ti 334.940†	184129.4	179695.1	476.92	ug/L	476.92	ppb	19:12:02
1	Tl 190.801†	784.8	816.3	486.60	ug/L	486.60	ppb	19:12:23
1	U 409.014†	7761.4	9291.5	468.68	ug/L	468.68	ppb	19:12:02
1	V 292.402†	53150.2	53270.9	484.96	ug/L	484.96	ppb	19:12:02
1	Zn 213.857†	45081.7	42569.4	475.11	ug/L	475.11	ppb	19:12:02
1	SiO2†	63006.0	60207.2	5436.6	ug/L	5436.6	ppb	19:13:23
2	Sc Radial	3342.3	3342.3	103	%			19:11:29
2	Y RADIAL	3778.0	3778.0	103.6	%			19:11:09
2	Al 396.153Radial†	4426.9	4410.9	5150.2	ug/L	5150.2	ppb	19:11:09
2	Ca 317.933Radial†	2304.9	2225.3	5012.0	ug/L	5012.0	ppb	19:11:29
2	Fe 238.204 Radial†	392.7	376.2	5067.2	ug/L	5067.2	ppb	19:11:29
2	K 766.490 Radial†	25127.9	21206.7	4945.4	ug/L	4945.4	ppb	19:11:09
2	Mg 279.077 IEC†	116.7	113.0	5133.1	ug/L	5133.1	ppb	19:11:29
2	Na 589.592 Radial†	20310.6	20903.0	10214	ug/L	10214	ppb	19:11:09
2	Sr 421.552†	49811.7	48303.4	504.40	ug/L	504.40	ppb	19:11:09
2	Sc 361.383	575125.9	575125.9	103.25	%			19:12:30
2	Y 371.029	529876.3	529876.3	102.41	%			19:12:30
2	Ag 328.068†	81901.1	79269.7	475.75	ug/L	475.75	ppb	19:12:30
2	As 188.979†	1075.8	1086.5	483.15	ug/L	483.15	ppb	19:12:50
2	B 249.677†	19557.1	19596.3	472.11	ug/L	472.11	ppb	19:12:30
2	Ba 233.527†	33173.7	32132.3	480.61	ug/L	480.61	ppb	19:12:30
2	Be 313.107†	1120371.8	1094646.6	481.13	ug/L	481.13	ppb	19:12:30
2	Cd 226.502†	35185.2	34384.8	478.44	ug/L	478.44	ppb	19:12:50
2	Co 228.616†	13734.2	13392.4	491.52	ug/L	491.52	ppb	19:12:50
2	Cr 267.716†	33058.3	31910.7	481.35	ug/L	481.35	ppb	19:12:30
2	Cu 324.752†	107221.4	97463.7	471.68	ug/L	471.68	ppb	19:12:30
2	Mn 257.610†	257950.4	249204.1	479.81	ug/L	479.81	ppb	19:12:30
2	Mo 202.031†	4748.3	4582.8	485.92	ug/L	485.92	ppb	19:12:50
2	Ni 231.604†	15165.1	14569.8	490.69	ug/L	490.69	ppb	19:12:50

2	P 214.914†	5007.4	4538.4	2316.6 ug/L	2316.6 ppb	19:12:50
2	Pb 220.353†	2746.6	2755.7	488.47 ug/L	488.47 ppb	19:12:50
2	S 181.975 Axial†	854.9	758.9	984.97 ug/L	984.97 ppb	19:12:50
2	Sb 206.836†	1162.2	1068.1	499.10 ug/L	499.10 ppb	19:12:50
2	Se 196.026†	738.2	747.9	488.56 ug/L	488.56 ppb	19:12:50
2	Si 251.611†	58874.7	56453.3	2382.0 ug/L	2382.0 ppb	19:12:30
2	Sn 189.927†	2009.5	1934.4	486.18 ug/L	486.18 ppb	19:12:50
2	Ti 334.940†	183751.7	179944.6	477.58 ug/L	477.58 ppb	19:12:30
2	Tl 190.801†	791.7	825.7	492.12 ug/L	492.12 ppb	19:12:50
2	U 409.014†	7609.1	9170.1	462.50 ug/L	462.50 ppb	19:12:30
2	V 292.402†	52857.8	53165.4	484.03 ug/L	484.03 ppb	19:12:30
2	Zn 213.857†	45059.8	42698.9	476.56 ug/L	476.56 ppb	19:12:30
2	SiO2†	61481.1	58940.9	5321.9 ug/L	5321.9 ppb	19:13:28
3	Sc Radial	3353.9	3353.9	103 %		19:11:54
3	Y RADIAL	3722.0	3722.0	102.1 %		19:11:34
3	Al 396.153Radial†	4333.3	4305.5	5026.8 ug/L	5026.8 ppb	19:11:34
3	Ca 317.933Radial†	2313.1	2225.5	5012.4 ug/L	5012.4 ppb	19:11:54
3	Fe 238.204 Radial†	391.0	373.3	5027.5 ug/L	5027.5 ppb	19:11:54
3	K 766.490 Radial†	24656.9	20667.1	4819.6 ug/L	4819.6 ppb	19:11:34
3	Mg 279.077 IEC†	115.9	111.9	5082.3 ug/L	5082.3 ppb	19:11:54
3	Na 589.592 Radial†	19643.6	20189.9	9865.4 ug/L	9865.4 ppb	19:11:34
3	Sr 421.552†	48604.9	46969.6	490.47 ug/L	490.47 ppb	19:11:34
3	Sc 361.383	602186.5	602186.5	108.11 %		19:12:57
3	Y 371.029	554661.2	554661.2	107.20 %		19:12:57
3	Ag 328.068†	85861.4	79368.4	476.33 ug/L	476.33 ppb	19:12:57
3	As 188.979†	1127.1	1087.2	483.47 ug/L	483.47 ppb	19:13:17
3	B 249.677†	20744.8	19843.8	478.12 ug/L	478.12 ppb	19:12:57
3	Ba 233.527†	34744.6	32141.6	480.74 ug/L	480.74 ppb	19:12:57
3	Be 313.107†	1172690.4	1094279.6	480.97 ug/L	480.97 ppb	19:12:57
3	Cd 226.502†	36412.4	33988.7	472.93 ug/L	472.93 ppb	19:13:17
3	Co 228.616†	14268.3	13288.7	487.71 ug/L	487.71 ppb	19:13:17
3	Cr 267.716†	34375.2	31690.0	478.02 ug/L	478.02 ppb	19:12:57
3	Cu 324.752†	112888.0	98038.7	474.46 ug/L	474.46 ppb	19:12:57
3	Mn 257.610†	270273.1	249375.9	480.14 ug/L	480.14 ppb	19:12:57
3	Mo 202.031†	4928.7	4543.0	481.70 ug/L	481.70 ppb	19:13:17
3	Ni 231.604†	15754.0	14454.5	486.80 ug/L	486.80 ppb	19:13:17
3	P 214.914†	5174.3	4474.9	2282.0 ug/L	2282.0 ppb	19:13:17
3	Pb 220.353†	2867.9	2748.4	487.13 ug/L	487.13 ppb	19:13:17
3	S 181.975 Axial†	887.5	752.0	975.93 ug/L	975.93 ppb	19:13:17
3	Sb 206.836†	1200.4	1052.7	492.02 ug/L	492.02 ppb	19:13:17
3	Se 196.026†	788.3	762.1	497.54 ug/L	497.54 ppb	19:13:17
3	Si 251.611†	61803.7	56600.3	2388.3 ug/L	2388.3 ppb	19:12:57
3	Sn 189.927†	2083.6	1915.4	481.41 ug/L	481.41 ppb	19:13:17
3	Ti 334.940†	192793.6	180311.0	478.55 ug/L	478.55 ppb	19:12:57
3	Tl 190.801†	828.4	825.1	491.79 ug/L	491.79 ppb	19:13:17
3	U 409.014†	8123.8	9314.9	469.86 ug/L	469.86 ppb	19:12:57
3	V 292.402†	55370.2	53188.8	484.20 ug/L	484.20 ppb	19:12:57
3	Zn 213.857†	47025.5	42556.1	474.97 ug/L	474.97 ppb	19:12:57
3	SiO2†	61271.8	56071.5	5062.3 ug/L	5062.3 ppb	19:13:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	584809.9	104.99	%	2.708				2.58%
Sc Radial	3350.1	103	%	0.2				0.20%
Y 371.029	539009.2	104.17	%	2.632				2.53%
Y RADIAL	3763.0	103.2	%	0.99				0.96%
Ag 328.068†	79312.0	475.99	ug/L	0.297	475.99	ppb	0.297	0.06%
QC value within limits for Ag 328.068 Recovery = 95.20%								
Al 396.153Radial†	4373.3	5106.3	ug/L	68.92	5106.3	ppb	68.92	1.35%
QC value within limits for Al 396.153Radial Recovery = 102.13%								
As 188.979†	1089.1	484.32	ug/L	1.760	484.32	ppb	1.760	0.36%
QC value within limits for As 188.979 Recovery = 96.86%								
B 249.677†	19702.0	474.68	ug/L	3.093	474.68	ppb	3.093	0.65%
QC value within limits for B 249.677 Recovery = 94.94%								
Ba 233.527†	32106.2	480.22	ug/L	0.797	480.22	ppb	0.797	0.17%
QC value within limits for Ba 233.527 Recovery = 96.04%								
Be 313.107†	1094851.2	481.22	ug/L	0.304	481.22	ppb	0.304	0.06%
QC value within limits for Be 313.107 Recovery = 96.24%								
Ca 317.933Radial†	2221.9	5004.4	ug/L	13.53	5004.4	ppb	13.53	0.27%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.09%
Cd 226.502†            34193.4      475.78 ug/L         2.760      475.78 ppb          2.760   0.58%
   QC value within limits for Cd 226.502  Recovery = 95.16%
Co 228.616†            13333.5      489.36 ug/L         1.958      489.36 ppb          1.958   0.40%
   QC value within limits for Co 228.616  Recovery = 97.87%
Cr 267.716†            31803.0      479.73 ug/L         1.666      479.73 ppb          1.666   0.35%
   QC value within limits for Cr 267.716  Recovery = 95.95%
Cu 324.752†            97638.2      472.52 ug/L         1.683      472.52 ppb          1.683   0.36%
   QC value within limits for Cu 324.752  Recovery = 94.50%
Fe 238.204 Radial†       373.6      5031.5 ug/L        33.92      5031.5 ppb         33.92   0.67%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.63%
K 766.490 Radial†      20989.2      4894.7 ug/L        66.36      4894.7 ppb         66.36   1.36%
   QC value within limits for K 766.490 Radial  Recovery = 97.89%
Mg 279.077 IEC†          111.7      5071.5 ug/L        67.67      5071.5 ppb         67.67   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.43%
Mn 257.610†           249056.5      479.52 ug/L         0.796      479.52 ppb          0.796   0.17%
   QC value within limits for Mn 257.610  Recovery = 95.90%
Mo 202.031†             4562.0      483.72 ug/L         2.116      483.72 ppb          2.116   0.44%
   QC value within limits for Mo 202.031  Recovery = 96.74%
Na 589.592 Radial†     20636.9       10084 ug/L       190.3        10084 ppb        190.3   1.89%
   QC value within limits for Na 589.592 Radial  Recovery = 100.84%
Ni 231.604†            14509.5      488.66 ug/L         1.948      488.66 ppb          1.948   0.40%
   QC value within limits for Ni 231.604  Recovery = 97.73%
P 214.914†              4498.7      2295.2 ug/L        18.76      2295.2 ppb         18.76   0.82%
   QC value within limits for P 214.914  Recovery = 91.81%
Pb 220.353†             2748.5      487.18 ug/L         1.260      487.18 ppb          1.260   0.26%
   QC value within limits for Pb 220.353  Recovery = 97.44%
S 181.975 Axial†         757.9      983.60 ug/L         7.087      983.60 ppb          7.087   0.72%
   QC value within limits for S 181.975 Axial  Recovery = 98.36%
Sb 206.836†             1057.0      494.01 ug/L         4.439      494.01 ppb          4.439   0.90%
   QC value within limits for Sb 206.836  Recovery = 98.80%
Se 196.026†              757.8      494.81 ug/L         5.424      494.81 ppb          5.424   1.10%
   QC value within limits for Se 196.026  Recovery = 98.96%
Si 251.611†            56519.4      2384.9 ug/L         3.18      2384.9 ppb           3.18   0.13%
   QC value within limits for Si 251.611  Recovery = 95.39%
Sn 189.927†             1917.1      481.85 ug/L         4.128      481.85 ppb          4.128   0.86%
   QC value within limits for Sn 189.927  Recovery = 96.37%
Sr 421.552†            47716.3      498.27 ug/L         7.113      498.27 ppb          7.113   1.43%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           179983.6      477.68 ug/L         0.821      477.68 ppb          0.821   0.17%
   QC value within limits for Ti 334.940  Recovery = 95.54%
Tl 190.801†              822.3      490.17 ug/L         3.094      490.17 ppb          3.094   0.63%
   QC value within limits for Tl 190.801  Recovery = 98.03%
U 409.014†              9258.8      467.01 ug/L         3.954      467.01 ppb          3.954   0.85%
   QC value within limits for U 409.014  Recovery = 93.40%
V 292.402†             53208.4      484.40 ug/L         0.497      484.40 ppb          0.497   0.10%
   QC value within limits for V 292.402  Recovery = 96.88%
Zn 213.857†            42608.1      475.55 ug/L         0.879      475.55 ppb          0.879   0.18%
   QC value within limits for Zn 213.857  Recovery = 95.11%
SiO2†                  58406.6      5273.6 ug/L       191.77      5273.6 ppb        191.77   3.64%
   QC value within limits for SiO2  Recovery = 98.62%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/15/2010 19:15:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3619.0	3619.0	112	%			19:17:54
1	Y RADIAL	3669.0	3669.0	100.7	%			19:17:34
1	Al 396.153Radial†	-84.6	39.4	46.137	ug/L	46.137	ppb	19:17:34
1	Ca 317.933Radial†	12.7	0.0	0.1089	ug/L	0.1089	ppb	19:17:54
1	Fe 238.204 Radial†	6.8	1.2	16.460	ug/L	16.460	ppb	19:17:54
1	K 766.490 Radial†	3288.9	-229.0	-53.507	ug/L	-53.507	ppb	19:17:34
1	Mg 279.077 IEC†	2.4	1.9	88.299	ug/L	88.299	ppb	19:17:54
1	Na 589.592 Radial†	-1173.7	142.5	69.619	ug/L	69.619	ppb	19:17:34
1	Sr 421.552†	42.9	6.4	0.0671	ug/L	0.0671	ppb	19:17:34
1	Sc 361.383	572940.5	572940.5	102.86	%			19:18:51
1	Y 371.029	532965.5	532965.5	103.01	%			19:18:51
1	Ag 328.068†	103.8	48.3	0.2957	ug/L	0.2957	ppb	19:18:51
1	As 188.979†	-43.0	2.8	1.2412	ug/L	1.2412	ppb	19:19:11
1	B 249.677†	-393.5	272.5	6.5883	ug/L	6.5883	ppb	19:18:51
1	Ba 233.527†	-6.9	-3.6	-0.0522	ug/L	-0.0522	ppb	19:19:11
1	Be 313.107†	-9574.9	242.3	0.1070	ug/L	0.1070	ppb	19:18:51
1	Cd 226.502†	-288.6	26.9	0.3725	ug/L	0.3725	ppb	19:19:11
1	Co 228.616†	-84.5	8.5	0.3144	ug/L	0.3144	ppb	19:19:11
1	Cr 267.716†	185.8	73.9	1.1150	ug/L	1.1150	ppb	19:18:51
1	Cu 324.752†	6489.3	-72.8	-0.3506	ug/L	-0.3506	ppb	19:18:51
1	Mn 257.610†	614.2	-27.3	-0.0543	ug/L	-0.0543	ppb	19:18:51
1	Mo 202.031†	36.5	19.5	2.0625	ug/L	2.0625	ppb	19:19:11
1	Ni 231.604†	143.1	21.3	0.7186	ug/L	0.7186	ppb	19:19:11
1	P 214.914†	314.7	-5.3	-2.7463	ug/L	-2.7463	ppb	19:19:11
1	Pb 220.353†	-93.4	4.7	0.8523	ug/L	0.8523	ppb	19:19:11
1	S 181.975 Axial†	74.0	3.0	3.8716	ug/L	3.8716	ppb	19:19:11
1	Sb 206.836†	45.2	-13.7	-6.1162	ug/L	-6.1162	ppb	19:19:11
1	Se 196.026†	-20.9	12.6	8.1043	ug/L	8.1043	ppb	19:19:11
1	Si 251.611†	606.7	22.3	0.9161	ug/L	0.9161	ppb	19:19:11
1	Sn 189.927†	14.8	2.5	0.6256	ug/L	0.6256	ppb	19:19:11
1	Ti 334.940†	-1901.8	129.6	0.3385	ug/L	0.3385	ppb	19:18:51
1	Tl 190.801†	-78.8	-17.8	-10.547	ug/L	-10.547	ppb	19:19:11
1	U 409.014†	-1912.8	-59.2	-3.0062	ug/L	-3.0062	ppb	19:18:51
1	V 292.402†	-2011.3	16.5	0.1710	ug/L	0.1710	ppb	19:18:51
1	Zn 213.857†	970.8	1.7	0.0163	ug/L	0.0163	ppb	19:19:11
1	SiO2†	638.6	16.4	1.4321	ug/L	1.4321	ppb	19:20:07
2	Sc Radial	3353.5	3353.5	103	%			19:18:19
2	Y RADIAL	3857.8	3857.8	105.8	%			19:17:59
2	Al 396.153Radial†	-109.2	9.6	11.271	ug/L	11.271	ppb	19:17:59
2	Ca 317.933Radial†	10.7	-1.0	-2.3024	ug/L	-2.3024	ppb	19:18:19
2	Fe 238.204 Radial†	6.7	1.6	21.265	ug/L	21.265	ppb	19:18:19
2	K 766.490 Radial†	3227.1	-55.4	-12.954	ug/L	-12.954	ppb	19:17:59
2	Mg 279.077 IEC†	1.4	1.1	51.068	ug/L	51.068	ppb	19:18:19
2	Na 589.592 Radial†	-1161.6	70.9	34.647	ug/L	34.647	ppb	19:17:59
2	Sr 421.552†	11.1	-21.3	-0.2221	ug/L	-0.2221	ppb	19:17:59
2	Sc 361.383	573341.3	573341.3	102.93	%			19:19:17
2	Y 371.029	532963.8	532963.8	103.00	%			19:19:17
2	Ag 328.068†	139.5	82.9	0.4972	ug/L	0.4972	ppb	19:19:17
2	As 188.979†	-37.6	8.1	3.5766	ug/L	3.5766	ppb	19:19:37
2	B 249.677†	-316.0	348.0	8.4176	ug/L	8.4176	ppb	19:19:17
2	Ba 233.527†	-13.9	-10.4	-0.1553	ug/L	-0.1553	ppb	19:19:37
2	Be 313.107†	-9522.5	299.8	0.1312	ug/L	0.1312	ppb	19:19:17
2	Cd 226.502†	-293.2	22.6	0.3130	ug/L	0.3130	ppb	19:19:37
2	Co 228.616†	-102.9	-9.3	-0.3402	ug/L	-0.3402	ppb	19:19:37
2	Cr 267.716†	162.8	51.4	0.7733	ug/L	0.7733	ppb	19:19:17
2	Cu 324.752†	6460.9	-104.8	-0.5065	ug/L	-0.5065	ppb	19:19:17
2	Mn 257.610†	631.5	-10.8	-0.0207	ug/L	-0.0207	ppb	19:19:17
2	Mo 202.031†	23.8	7.1	0.7503	ug/L	0.7503	ppb	19:19:37
2	Ni 231.604†	142.2	20.4	0.6863	ug/L	0.6863	ppb	19:19:37

2	P 214.914†	332.6	11.8	6.4321 ug/L	6.4321 ppb	19:19:37
2	Pb 220.353†	-107.6	-9.0	-1.5866 ug/L	-1.5866 ppb	19:19:37
2	S 181.975 Axial†	81.9	10.5	13.679 ug/L	13.679 ppb	19:19:37
2	Sb 206.836†	48.3	-10.6	-4.7817 ug/L	-4.7817 ppb	19:19:37
2	Se 196.026†	-25.8	7.9	5.1042 ug/L	5.1042 ppb	19:19:37
2	Si 251.611†	623.4	38.0	1.5982 ug/L	1.5982 ppb	19:19:37
2	Sn 189.927†	12.8	0.6	0.1442 ug/L	0.1442 ppb	19:19:37
2	Ti 334.940†	-2074.8	-37.1	-0.1029 ug/L	-0.1029 ppb	19:19:17
2	Tl 190.801†	-53.1	7.3	4.3144 ug/L	4.3144 ppb	19:19:37
2	U 409.014†	-1851.2	2.0	0.0940 ug/L	0.0940 ppb	19:19:17
2	V 292.402†	-2121.1	-88.8	-0.7887 ug/L	-0.7887 ppb	19:19:17
2	Zn 213.857†	970.6	0.8	0.0073 ug/L	0.0073 ppb	19:19:37
2	SiO2†	675.3	51.7	4.6573 ug/L	4.6573 ppb	19:20:12
3	Sc Radial	3347.3	3347.3	103 %		19:18:44
3	Y RADIAL	3713.3	3713.3	101.9 %		19:18:24
3	Al 396.153Radial†	-97.8	20.4	23.913 ug/L	23.913 ppb	19:18:24
3	Ca 317.933Radial†	12.5	0.7	1.6439 ug/L	1.6439 ppb	19:18:44
3	Fe 238.204 Radial†	5.5	0.4	5.8323 ug/L	5.8323 ppb	19:18:44
3	K 766.490 Radial†	3138.1	-135.9	-31.745 ug/L	-31.745 ppb	19:18:24
3	Mg 279.077 IEC†	2.2	1.9	87.836 ug/L	87.836 ppb	19:18:44
3	Na 589.592 Radial†	-1116.0	113.0	55.237 ug/L	55.237 ppb	19:18:24
3	Sr 421.552†	9.4	-22.9	-0.2391 ug/L	-0.2391 ppb	19:18:24
3	Sc 361.383	572899.4	572899.4	102.85 %		19:19:42
3	Y 371.029	532276.1	532276.1	102.87 %		19:19:42
3	Ag 328.068†	41.6	-12.2	-0.0733 ug/L	-0.0733 ppb	19:19:42
3	As 188.979†	-35.5	10.1	4.4401 ug/L	4.4401 ppb	19:20:02
3	B 249.677†	-378.1	287.4	6.9491 ug/L	6.9491 ppb	19:19:42
3	Ba 233.527†	-0.0	3.1	0.0471 ug/L	0.0471 ppb	19:20:02
3	Be 313.107†	-9649.8	168.8	0.0746 ug/L	0.0746 ppb	19:19:42
3	Cd 226.502†	-310.4	5.7	0.0792 ug/L	0.0792 ppb	19:20:02
3	Co 228.616†	-71.5	21.1	0.7762 ug/L	0.7762 ppb	19:20:02
3	Cr 267.716†	118.7	8.6	0.1290 ug/L	0.1290 ppb	19:19:42
3	Cu 324.752†	6485.9	-75.6	-0.3678 ug/L	-0.3678 ppb	19:19:42
3	Mn 257.610†	646.2	4.0	0.0047 ug/L	0.0047 ppb	19:19:42
3	Mo 202.031†	23.4	6.7	0.7120 ug/L	0.7120 ppb	19:20:02
3	Ni 231.604†	122.1	0.9	0.0302 ug/L	0.0302 ppb	19:20:02
3	P 214.914†	307.1	-12.7	-6.6880 ug/L	-6.6880 ppb	19:20:02
3	Pb 220.353†	-90.4	7.7	1.3656 ug/L	1.3656 ppb	19:20:02
3	S 181.975 Axial†	74.9	3.8	4.9847 ug/L	4.9847 ppb	19:20:02
3	Sb 206.836†	41.8	-17.0	-7.6402 ug/L	-7.6402 ppb	19:20:02
3	Se 196.026†	-17.8	15.6	10.009 ug/L	10.009 ppb	19:20:02
3	Si 251.611†	644.3	58.8	2.4781 ug/L	2.4781 ppb	19:20:02
3	Sn 189.927†	12.9	0.7	0.1751 ug/L	0.1751 ppb	19:20:02
3	Ti 334.940†	-1943.5	89.0	0.2283 ug/L	0.2283 ppb	19:19:42
3	Tl 190.801†	-53.5	6.8	4.0484 ug/L	4.0484 ppb	19:20:02
3	U 409.014†	-1783.0	66.9	3.3924 ug/L	3.3924 ppb	19:19:42
3	V 292.402†	-2015.9	11.9	0.1242 ug/L	0.1242 ppb	19:19:42
3	Zn 213.857†	972.2	3.2	0.0363 ug/L	0.0363 ppb	19:20:02
3	SiO2†	647.3	25.0	2.2405 ug/L	2.2405 ppb	19:20:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	573060.4	102.88	%	0.044				0.04%
Sc Radial	3439.9	106	%	4.8				4.51%
Y 371.029	532735.2	102.96	%	0.077				0.07%
Y RADIAL	3746.7	102.8	%	2.71				2.64%
Ag 328.068†	39.7	0.2399	ug/L	0.28933	0.2399	ppb	0.28933	120.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	23.2	27.107	ug/L	17.6510	27.107	ppb	17.6510	65.12%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	3.0860	ug/L	1.65494	3.0860	ppb	1.65494	53.63%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	302.6	7.3184	ug/L	0.96893	7.3184	ppb	0.96893	13.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.6	-0.0534	ug/L	0.10122	-0.0534	ppb	0.10122	189.39%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	237.0	0.1043	ug/L	0.02844	0.1043	ppb	0.02844	27.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.1	-0.1832	ug/L	1.98930	-0.1832	ppb	1.98930	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                18.4      0.2549 ug/L       0.15507      0.2549 ppb        0.15507  60.84%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.8      0.2501 ug/L       0.56095      0.2501 ppb        0.56095 224.29%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                44.6      0.6725 ug/L       0.50071      0.6725 ppb        0.50071  74.46%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -84.4     -0.4083 ug/L       0.08544     -0.4083 ppb        0.08544  20.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.1      14.519 ug/L        7.8975      14.519 ppb         7.8975  54.39%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -140.1     -32.735 ug/L       20.2944     -32.735 ppb        20.2944  62.00%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.7      75.734 ug/L       21.3627      75.734 ppb        21.3627  28.21%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -11.4     -0.0234 ug/L       0.02958     -0.0234 ppb        0.02958 126.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                11.1      1.1750 ug/L       0.76891      1.1750 ppb        0.76891  65.44%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        108.8      53.168 ug/L       17.5777      53.168 ppb        17.5777  33.06%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                14.2      0.4784 ug/L       0.38843      0.4784 ppb        0.38843  81.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.1     -1.0008 ug/L       6.73196     -1.0008 ppb        6.73196 672.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 1.1      0.2104 ug/L       1.57732      0.2104 ppb        1.57732 749.63%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.8      7.5118 ug/L       5.36994      7.5118 ppb        5.36994  71.49%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -13.8     -6.1794 ug/L       1.43028     -6.1794 ppb        1.43028  23.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                12.1      7.7392 ug/L       2.47285      7.7392 ppb        2.47285  31.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                39.7      1.6642 ug/L       0.78307      1.6642 ppb        0.78307  47.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.3      0.3150 ug/L       0.26944      0.3150 ppb        0.26944  85.54%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -12.6     -0.1313 ug/L       0.17210     -0.1313 ppb        0.17210 131.02%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                60.5      0.1546 ug/L       0.22976      0.1546 ppb        0.22976 148.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.2     -0.7280 ug/L       8.50437     -0.7280 ppb        8.50437 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  3.3      0.1601 ug/L       3.19980      0.1601 ppb        3.19980 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -20.1     -0.1645 ug/L       0.54109     -0.1645 ppb        0.54109 328.91%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 1.9      0.0200 ug/L       0.01485      0.0200 ppb        0.01485  74.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      31.0      2.7766 ug/L       1.67808      2.7766 ppb        1.67808  60.44%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: 1202091939|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 44
Date Collected: 4/15/2010 19:22:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202091939|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3464.9	3464.9	107	%			19:24:40
1	Y RADIAL	3839.8	3839.8	105.3	%			19:24:20
1	Al 396.153Radial†	-84.3	36.3	42.536	ug/L	42.536	ppb	19:24:20
1	Ca 317.933Radial†	22.1	9.3	21.040	ug/L	21.040	ppb	19:24:40
1	Fe 238.204 Radial†	8.1	2.7	36.506	ug/L	36.506	ppb	19:24:40
1	K 766.490 Radial†	3125.7	-250.7	-58.581	ug/L	-58.581	ppb	19:24:20
1	Mg 279.077 IEC†	-0.3	-0.5	-21.886	ug/L	-21.886	ppb	19:24:40
1	Na 589.592 Radial†	-1026.1	233.9	114.29	ug/L	114.29	ppb	19:24:20
1	Sr 421.552†	87.9	50.3	0.5249	ug/L	0.5249	ppb	19:24:20
1	Sc 361.383	571833.0	571833.0	102.66	%			19:25:37
1	Y 371.029	530880.2	530880.2	102.60	%			19:25:37
1	Ag 328.068†	69.5	15.0	0.0945	ug/L	0.0945	ppb	19:25:37
1	As 188.979†	-35.2	10.3	4.5654	ug/L	4.5654	ppb	19:25:57
1	B 249.677†	-408.0	257.5	6.2254	ug/L	6.2254	ppb	19:25:37
1	Ba 233.527†	-1.3	1.8	0.0287	ug/L	0.0287	ppb	19:25:57
1	Be 313.107†	-9321.7	471.0	0.2084	ug/L	0.2084	ppb	19:25:37
1	Cd 226.502†	-308.5	7.0	0.0962	ug/L	0.0962	ppb	19:25:57
1	Co 228.616†	-84.0	8.8	0.3201	ug/L	0.3201	ppb	19:25:57
1	Cr 267.716†	370.1	253.7	3.8206	ug/L	3.8206	ppb	19:25:37
1	Cu 324.752†	6247.7	-295.9	-1.4333	ug/L	-1.4333	ppb	19:25:37
1	Mn 257.610†	911.6	263.7	0.5121	ug/L	0.5121	ppb	19:25:37
1	Mo 202.031†	23.3	6.7	0.7083	ug/L	0.7083	ppb	19:25:57
1	Ni 231.604†	181.8	59.3	1.9993	ug/L	1.9993	ppb	19:25:57
1	P 214.914†	310.0	-9.3	-4.6429	ug/L	-4.6429	ppb	19:25:57
1	Pb 220.353†	-121.2	-22.4	-3.9536	ug/L	-3.9536	ppb	19:25:57
1	S 181.975 Axial†	87.4	16.1	20.902	ug/L	20.902	ppb	19:25:57
1	Sb 206.836†	45.9	-12.9	-5.7551	ug/L	-5.7551	ppb	19:25:57
1	Se 196.026†	-34.3	-0.4	-0.1932	ug/L	-0.1932	ppb	19:25:57
1	Si 251.611†	1191.7	593.2	25.083	ug/L	25.083	ppb	19:25:57
1	Sn 189.927†	18.4	6.1	1.5224	ug/L	1.5224	ppb	19:25:57
1	Ti 334.940†	-1714.7	308.3	0.8187	ug/L	0.8187	ppb	19:25:37
1	Tl 190.801†	-46.5	13.5	8.0269	ug/L	8.0269	ppb	19:25:57
1	U 409.014†	-1744.8	100.9	5.0962	ug/L	5.0962	ppb	19:25:37
1	V 292.402†	-2063.6	-38.3	-0.3316	ug/L	-0.3316	ppb	19:25:37
1	Zn 213.857†	1116.6	145.6	1.6289	ug/L	1.6289	ppb	19:25:57
1	SiO2†	1279.7	642.1	58.101	ug/L	58.101	ppb	19:26:53
2	Sc Radial	3383.6	3383.6	104	%			19:25:05
2	Y RADIAL	3894.0	3894.0	106.8	%			19:24:45
2	Al 396.153Radial†	-88.3	30.6	35.830	ug/L	35.830	ppb	19:24:45
2	Ca 317.933Radial†	24.5	12.2	27.378	ug/L	27.378	ppb	19:25:05
2	Fe 238.204 Radial†	9.6	4.4	58.601	ug/L	58.601	ppb	19:25:05
2	K 766.490 Radial†	3228.3	-82.1	-19.215	ug/L	-19.215	ppb	19:24:45
2	Mg 279.077 IEC†	2.5	2.2	98.435	ug/L	98.435	ppb	19:25:05
2	Na 589.592 Radial†	-1008.7	227.5	111.16	ug/L	111.16	ppb	19:24:45
2	Sr 421.552†	35.0	1.6	0.0161	ug/L	0.0161	ppb	19:24:45
2	Sc 361.383	576774.4	576774.4	103.55	%			19:26:02
2	Y 371.029	535227.2	535227.2	103.44	%			19:26:02
2	Ag 328.068†	33.0	-20.8	-0.1047	ug/L	-0.1047	ppb	19:26:02
2	As 188.979†	-43.1	3.0	1.3389	ug/L	1.3389	ppb	19:26:22
2	B 249.677†	-400.3	268.4	6.4850	ug/L	6.4850	ppb	19:26:02
2	Ba 233.527†	-25.8	-21.7	-0.3191	ug/L	-0.3191	ppb	19:26:22
2	Be 313.107†	-9414.4	459.2	0.2029	ug/L	0.2029	ppb	19:26:02
2	Cd 226.502†	-308.4	9.7	0.1313	ug/L	0.1313	ppb	19:26:22
2	Co 228.616†	-80.8	12.6	0.4582	ug/L	0.4582	ppb	19:26:22
2	Cr 267.716†	365.5	246.2	3.7109	ug/L	3.7109	ppb	19:26:02
2	Cu 324.752†	6452.6	-150.2	-0.7238	ug/L	-0.7238	ppb	19:26:02
2	Mn 257.610†	950.8	293.9	0.5677	ug/L	0.5677	ppb	19:26:02
2	Mo 202.031†	21.2	4.5	0.4797	ug/L	0.4797	ppb	19:26:22
2	Ni 231.604†	189.9	65.6	2.2110	ug/L	2.2110	ppb	19:26:22

2	P 214.914†	336.1	13.3	7.2306	ug/L	7.2306 ppb	19:26:22
2	Pb 220.353†	-93.5	5.2	0.9296	ug/L	0.9296 ppb	19:26:22
2	S 181.975 Axial†	75.5	3.9	5.0856	ug/L	5.0856 ppb	19:26:22
2	Sb 206.836†	55.0	-4.4	-2.0248	ug/L	-2.0248 ppb	19:26:22
2	Se 196.026†	-32.9	1.2	0.8882	ug/L	0.8882 ppb	19:26:22
2	Si 251.611†	1199.1	590.4	24.970	ug/L	24.970 ppb	19:26:22
2	Sn 189.927†	4.6	-7.5	-1.8639	ug/L	-1.8639 ppb	19:26:22
2	Ti 334.940†	-1779.4	260.1	0.6845	ug/L	0.6845 ppb	19:26:02
2	Tl 190.801†	-49.3	11.2	6.6299	ug/L	6.6299 ppb	19:26:22
2	U 409.014†	-1851.1	12.8	0.6254	ug/L	0.6254 ppb	19:26:02
2	V 292.402†	-1956.8	82.1	0.7371	ug/L	0.7371 ppb	19:26:02
2	Zn 213.857†	1140.4	159.2	1.7814	ug/L	1.7814 ppb	19:26:22
2	SiO2†	1287.4	638.9	57.815	ug/L	57.815 ppb	19:26:58
3	Sc Radial	3337.8	3337.8	103	%		19:25:30
3	Y RADIAL	3759.8	3759.8	103.1	%		19:25:10
3	Al 396.153Radial†	-94.7	23.2	27.207	ug/L	27.207 ppb	19:25:10
3	Ca 317.933Radial†	24.9	12.8	28.924	ug/L	28.924 ppb	19:25:30
3	Fe 238.204 Radial†	8.1	3.0	40.217	ug/L	40.217 ppb	19:25:30
3	K 766.490 Radial†	3124.7	-140.3	-32.808	ug/L	-32.808 ppb	19:25:10
3	Mg 279.077 IEC†	0.4	0.2	10.902	ug/L	10.902 ppb	19:25:30
3	Na 589.592 Radial†	-1017.3	205.9	100.61	ug/L	100.61 ppb	19:25:10
3	Sr 421.552†	21.6	-11.0	-0.1148	ug/L	-0.1148 ppb	19:25:10
3	Sc 361.383	584173.6	584173.6	104.88	%		19:26:28
3	Y 371.029	542126.9	542126.9	104.78	%		19:26:28
3	Ag 328.068†	61.7	6.2	0.0476	ug/L	0.0476 ppb	19:26:28
3	As 188.979†	-39.5	7.0	3.0900	ug/L	3.0900 ppb	19:26:48
3	B 249.677†	-528.0	151.5	3.6608	ug/L	3.6608 ppb	19:26:28
3	Ba 233.527†	-5.5	-2.1	-0.0297	ug/L	-0.0297 ppb	19:26:48
3	Be 313.107†	-9658.3	341.8	0.1518	ug/L	0.1518 ppb	19:26:28
3	Cd 226.502†	-298.3	23.0	0.3183	ug/L	0.3183 ppb	19:26:48
3	Co 228.616†	-88.8	5.9	0.2152	ug/L	0.2152 ppb	19:26:48
3	Cr 267.716†	353.5	230.3	3.4697	ug/L	3.4697 ppb	19:26:28
3	Cu 324.752†	6538.3	-147.4	-0.7117	ug/L	-0.7117 ppb	19:26:28
3	Mn 257.610†	880.9	215.6	0.4186	ug/L	0.4186 ppb	19:26:28
3	Mo 202.031†	21.4	4.3	0.4638	ug/L	0.4638 ppb	19:26:48
3	Ni 231.604†	185.4	59.0	1.9895	ug/L	1.9895 ppb	19:26:48
3	P 214.914†	310.9	-14.9	-7.7896	ug/L	-7.7896 ppb	19:26:48
3	Pb 220.353†	-113.9	-13.0	-2.2930	ug/L	-2.2930 ppb	19:26:48
3	S 181.975 Axial†	86.0	13.0	16.934	ug/L	16.934 ppb	19:26:48
3	Sb 206.836†	54.1	-6.0	-2.6883	ug/L	-2.6883 ppb	19:26:48
3	Se 196.026†	-18.9	14.9	9.6010	ug/L	9.6010 ppb	19:26:48
3	Si 251.611†	1227.0	602.3	25.473	ug/L	25.473 ppb	19:26:48
3	Sn 189.927†	18.2	5.5	1.3736	ug/L	1.3736 ppb	19:26:48
3	Ti 334.940†	-1743.8	315.9	0.8392	ug/L	0.8392 ppb	19:26:28
3	Tl 190.801†	-55.4	6.0	3.5818	ug/L	3.5818 ppb	19:26:48
3	U 409.014†	-1865.0	22.2	1.1085	ug/L	1.1085 ppb	19:26:28
3	V 292.402†	-2065.9	2.0	0.0194	ug/L	0.0194 ppb	19:26:28
3	Zn 213.857†	1143.9	148.6	1.6624	ug/L	1.6624 ppb	19:26:48
3	SiO2†	1240.1	578.0	52.307	ug/L	52.307 ppb	19:27:03

Mean Data: 1202091939|973755|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	577593.7	103.69	%	1.115				1.08%
Sc Radial	3395.5	105	%	2.0				1.90%
Y 371.029	536078.1	103.61	%	1.096				1.06%
Y RADIAL	3831.2	105.1	%	1.85				1.76%
Ag 328.068†	0.1	0.0125	ug/L	0.10414	0.0125	ppb	0.10414	834.04%
Al 396.153Radial†	30.0	35.191	ug/L	7.6840	35.191	ppb	7.6840	21.84%
As 188.979†	6.8	2.9981	ug/L	1.61518	2.9981	ppb	1.61518	53.87%
B 249.677†	225.8	5.4571	ug/L	1.56100	5.4571	ppb	1.56100	28.61%
Ba 233.527†	-7.3	-0.1067	ug/L	0.18623	-0.1067	ppb	0.18623	174.54%
Be 313.107†	424.0	0.1877	ug/L	0.03123	0.1877	ppb	0.03123	16.64%
Ca 317.933Radial†	11.4	25.781	ug/L	4.1777	25.781	ppb	4.1777	16.20%
Cd 226.502†	13.2	0.1819	ug/L	0.11939	0.1819	ppb	0.11939	65.63%
Co 228.616†	9.1	0.3312	ug/L	0.12190	0.3312	ppb	0.12190	36.81%
Cr 267.716†	243.4	3.6671	ug/L	0.17954	3.6671	ppb	0.17954	4.90%
Cu 324.752†	-197.8	-0.9563	ug/L	0.41317	-0.9563	ppb	0.41317	43.21%
Fe 238.204 Radial†	3.4	45.108	ug/L	11.8315	45.108	ppb	11.8315	26.23%
K 766.490 Radial†	-157.7	-36.868	ug/L	19.9949	-36.868	ppb	19.9949	54.23%

Mg 279.077 IEC†	0.6	29.150	ug/L	62.2016	29.150	ppb	62.2016 213.38%
Mn 257.610†	257.7	0.4995	ug/L	0.07534	0.4995	ppb	0.07534 15.08%
Mo 202.031†	5.2	0.5506	ug/L	0.13680	0.5506	ppb	0.13680 24.85%
Na 589.592 Radial†	222.4	108.69	ug/L	7.166	108.69	ppb	7.166 6.59%
Ni 231.604†	61.3	2.0666	ug/L	0.12514	2.0666	ppb	0.12514 6.06%
P 214.914†	-3.7	-1.7340	ug/L	7.92135	-1.7340	ppb	7.92135 456.84%
Pb 220.353†	-10.1	-1.7724	ug/L	2.48287	-1.7724	ppb	2.48287 140.09%
S 181.975 Axial†	11.0	14.307	ug/L	8.2291	14.307	ppb	8.2291 57.52%
Sb 206.836†	-7.8	-3.4894	ug/L	1.98997	-3.4894	ppb	1.98997 57.03%
Se 196.026†	5.2	3.4320	ug/L	5.36981	3.4320	ppb	5.36981 156.46%
Si 251.611†	595.3	25.175	ug/L	0.2641	25.175	ppb	0.2641 1.05%
Sn 189.927†	1.4	0.3440	ug/L	1.91356	0.3440	ppb	1.91356 556.19%
Sr 421.552†	13.6	0.1421	ug/L	0.33795	0.1421	ppb	0.33795 237.89%
Ti 334.940†	294.8	0.7808	ug/L	0.08404	0.7808	ppb	0.08404 10.76%
Tl 190.801†	10.2	6.0795	ug/L	2.27306	6.0795	ppb	2.27306 37.39%
U 409.014†	45.3	2.2767	ug/L	2.45366	2.2767	ppb	2.45366 107.77%
V 292.402†	15.3	0.1416	ug/L	0.54472	0.1416	ppb	0.54472 384.59%
Zn 213.857†	151.1	1.6909	ug/L	0.08011	1.6909	ppb	0.08011 4.74%
SiO2†	619.7	56.074	ug/L	3.2661	56.074	ppb	3.2661 5.82%

Sequence No.: 15
Sample ID: 1202091940|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 45
Date Collected: 4/15/2010 19:29:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202091940|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4130.6	4130.6	127	%			19:31:27
1	Y RADIAL	4969.3	4969.3	136.3	%			19:31:27
1	Al 396.153Radial†	95875.2	75394.4	88409	ug/L	88409	ppb	19:31:07
1	Ca 317.933Radial†	56662.3	44478.7	100180	ug/L	100180	ppb	19:31:07
1	Fe 238.204 Radial†	16947.1	13301.6	178670	ug/L	178670	ppb	19:31:07
1	K 766.490 Radial†	224838.3	173361.9	40457	ug/L	40457	ppb	19:31:07
1	Mg 279.077 IEC†	1058.0	830.6	37599	ug/L	37599	ppb	19:31:27
1	Na 589.592 Radial†	25505.0	21220.3	10369	ug/L	10369	ppb	19:31:07
1	Sr 421.552†	286178.9	224669.6	2345.5	ug/L	2345.5	ppb	19:31:07
1	Sc 361.383	661911.4	661911.4	118.83	%			19:32:26
1	Y 371.029	670458.2	670458.2	129.58	%			19:32:26
1	Ag 328.068†	53070.7	44607.9	322.41	ug/L	322.41	ppb	19:32:26
1	As 188.979†	2658.1	2281.5	1072.1	ug/L	1072.1	ppb	19:32:31
1	B 249.677†	72729.0	61858.5	1474.8	ug/L	1474.8	ppb	19:32:26
1	Ba 233.527†	150652.7	126781.7	1903.6	ug/L	1903.6	ppb	19:32:26
1	Be 313.107†	2083277.0	1762688.2	785.30	ug/L	785.30	ppb	19:32:26
1	Cd 226.502†	51956.3	44030.2	597.53	ug/L	597.53	ppb	19:32:31
1	Co 228.616†	32172.1	27164.4	983.91	ug/L	983.91	ppb	19:32:31
1	Cr 267.716†	190112.8	159878.6	2413.4	ug/L	2413.4	ppb	19:32:26
1	Cu 324.752†	484805.0	401595.5	1956.0	ug/L	1956.0	ppb	19:32:26
1	Mn 257.610†	3311916.1	2786447.6	5378.9	ug/L	5378.9	ppb	19:32:26
1	Mo 202.031†	5669.0	4754.6	517.46	ug/L	517.46	ppb	19:32:31
1	Ni 231.604†	48984.8	41104.3	1384.7	ug/L	1384.7	ppb	19:32:31
1	P 214.914†	17051.8	14038.2	6995.8	ug/L	6995.8	ppb	19:32:31
1	Pb 220.353†	6103.3	5231.6	933.10	ug/L	933.10	ppb	19:32:31
1	S 181.975 Axial†	3664.2	3014.5	3904.6	ug/L	3904.6	ppb	19:32:31
1	Sb 206.836†	4038.6	3341.0	1524.4	ug/L	1524.4	ppb	19:32:31
1	Se 196.026†	4951.8	4200.0	3010.2	ug/L	3010.2	ppb	19:32:31
1	Si 251.611†	657441.0	552687.8	23373	ug/L	23373	ppb	19:32:26
1	Sn 189.927†	4890.1	4103.3	1050.1	ug/L	1050.1	ppb	19:32:31
1	Ti 334.940†	2422359.6	2040463.4	5424.8	ug/L	5424.8	ppb	19:32:26
1	Tl 190.801†	2338.0	2026.3	1260.9	ug/L	1260.9	ppb	19:32:31
1	U 409.014†	-5853.4	-3125.3	-211.83	ug/L	-211.83	ppb	19:32:26
1	V 292.402†	159544.7	136233.3	1200.4	ug/L	1200.4	ppb	19:32:26
1	Zn 213.857†	627623.1	527220.6	5930.4	ug/L	5930.4	ppb	19:32:26
1	SiO2†	665308.1	559271.3	50610	ug/L	50610	ppb	19:33:02
2	Sc Radial	4126.7	4126.7	127	%			19:31:52
2	Y RADIAL	4934.2	4934.2	135.4	%			19:31:52
2	Al 396.153Radial†	94095.2	74065.8	86851	ug/L	86851	ppb	19:31:32
2	Ca 317.933Radial†	55730.7	43788.1	98624	ug/L	98624	ppb	19:31:32
2	Fe 238.204 Radial†	16711.1	13128.6	176340	ug/L	176340	ppb	19:31:32
2	K 766.490 Radial†	220913.0	170441.9	39776	ug/L	39776	ppb	19:31:32
2	Mg 279.077 IEC†	1049.5	824.6	37332	ug/L	37332	ppb	19:31:52
2	Na 589.592 Radial†	24990.6	20834.8	10180	ug/L	10180	ppb	19:31:32
2	Sr 421.552†	280359.7	220306.3	2299.9	ug/L	2299.9	ppb	19:31:32
2	Sc 361.383	661988.3	661988.3	118.85	%			19:32:38
2	Y 371.029	670734.3	670734.3	129.63	%			19:32:38
2	Ag 328.068†	53079.5	44610.1	321.75	ug/L	321.75	ppb	19:32:38
2	As 188.979†	2720.5	2333.7	1094.7	ug/L	1094.7	ppb	19:32:44
2	B 249.677†	72634.2	61771.6	1472.9	ug/L	1472.9	ppb	19:32:38
2	Ba 233.527†	150418.7	126570.1	1900.4	ug/L	1900.4	ppb	19:32:38
2	Be 313.107†	2083153.7	1762380.6	785.15	ug/L	785.15	ppb	19:32:38
2	Cd 226.502†	52501.8	44484.1	604.06	ug/L	604.06	ppb	19:32:44
2	Co 228.616†	32550.0	27479.2	995.54	ug/L	995.54	ppb	19:32:44
2	Cr 267.716†	189875.1	159660.0	2410.1	ug/L	2410.1	ppb	19:32:38
2	Cu 324.752†	483447.5	400405.8	1950.1	ug/L	1950.1	ppb	19:32:38
2	Mn 257.610†	3306325.6	2781419.6	5368.9	ug/L	5368.9	ppb	19:32:38
2	Mo 202.031†	5753.1	4824.9	524.72	ug/L	524.72	ppb	19:32:44
2	Ni 231.604†	49527.1	41555.8	1399.9	ug/L	1399.9	ppb	19:32:44

2	P 214.914†	17275.0	14224.4	7097.3	ug/L	7097.3	ppb	19:32:44
2	Pb 220.353†	6183.2	5298.3	944.67	ug/L	944.67	ppb	19:32:44
2	S 181.975 Axial†	3723.8	3064.3	3969.5	ug/L	3969.5	ppb	19:32:44
2	Sb 206.836†	4075.8	3371.9	1538.8	ug/L	1538.8	ppb	19:32:44
2	Se 196.026†	5033.8	4268.6	3049.8	ug/L	3049.8	ppb	19:32:44
2	Si 251.611†	655399.7	550905.9	23297	ug/L	23297	ppb	19:32:38
2	Sn 189.927†	4975.8	4175.0	1067.8	ug/L	1067.8	ppb	19:32:44
2	Ti 334.940†	2417871.8	2036450.2	5414.0	ug/L	5414.0	ppb	19:32:38
2	Tl 190.801†	2343.6	2030.8	1263.5	ug/L	1263.5	ppb	19:32:44
2	U 409.014†	-5844.9	-3117.6	-210.81	ug/L	-210.81	ppb	19:32:38
2	V 292.402†	159320.3	136028.9	1199.0	ug/L	1199.0	ppb	19:32:38
2	Zn 213.857†	626683.2	526368.3	5920.6	ug/L	5920.6	ppb	19:32:38
2	SiO2†	647747.8	544430.5	49266	ug/L	49266	ppb	19:33:07
3	Sc Radial	4040.3	4040.3	125	%			19:32:17
3	Y RADIAL	4853.2	4853.2	133.1	%			19:32:17
3	Al 396.153Radial†	95071.6	76432.2	89626	ug/L	89626	ppb	19:31:57
3	Ca 317.933Radial†	56190.0	45094.1	101570	ug/L	101570	ppb	19:31:57
3	Fe 238.204 Radial†	16773.1	13459.4	180790	ug/L	180790	ppb	19:31:57
3	K 766.490 Radial†	223171.1	175970.0	41066	ug/L	41066	ppb	19:31:57
3	Mg 279.077 IEC†	1033.7	829.6	37554	ug/L	37554	ppb	19:32:17
3	Na 589.592 Radial†	25202.6	21425.3	10469	ug/L	10469	ppb	19:31:57
3	Sr 421.552†	283118.8	227236.3	2372.3	ug/L	2372.3	ppb	19:31:57
3	Sc 361.383	667243.9	667243.9	119.79	%			19:32:51
3	Y 371.029	675928.2	675928.2	130.64	%			19:32:51
3	Ag 328.068†	53326.0	44464.1	322.16	ug/L	322.16	ppb	19:32:51
3	As 188.979†	2709.2	2306.2	1083.2	ug/L	1083.2	ppb	19:32:56
3	B 249.677†	73486.7	62001.9	1478.1	ug/L	1478.1	ppb	19:32:51
3	Ba 233.527†	151814.4	126738.3	1903.1	ug/L	1903.1	ppb	19:32:51
3	Be 313.107†	2101238.6	1763671.7	785.72	ug/L	785.72	ppb	19:32:51
3	Cd 226.502†	52429.3	44075.6	597.97	ug/L	597.97	ppb	19:32:56
3	Co 228.616†	32494.9	27217.4	985.85	ug/L	985.85	ppb	19:32:56
3	Cr 267.716†	191567.7	159814.5	2412.5	ug/L	2412.5	ppb	19:32:51
3	Cu 324.752†	487833.8	400863.5	1952.6	ug/L	1952.6	ppb	19:32:51
3	Mn 257.610†	3336594.9	2784775.5	5375.9	ug/L	5375.9	ppb	19:32:51
3	Mo 202.031†	5741.5	4777.0	520.00	ug/L	520.00	ppb	19:32:56
3	Ni 231.604†	49494.1	41200.1	1387.9	ug/L	1387.9	ppb	19:32:56
3	P 214.914†	17243.3	14083.4	7020.2	ug/L	7020.2	ppb	19:32:56
3	Pb 220.353†	6196.8	5268.7	939.81	ug/L	939.81	ppb	19:32:56
3	S 181.975 Axial†	3743.0	3055.7	3958.0	ug/L	3958.0	ppb	19:32:56
3	Sb 206.836†	4068.2	3338.6	1523.5	ug/L	1523.5	ppb	19:32:56
3	Se 196.026†	5008.7	4214.3	3023.2	ug/L	3023.2	ppb	19:32:56
3	Si 251.611†	662018.9	552087.9	23347	ug/L	23347	ppb	19:32:51
3	Sn 189.927†	4950.9	4121.1	1054.9	ug/L	1054.9	ppb	19:32:56
3	Ti 334.940†	2439246.7	2038269.4	5419.1	ug/L	5419.1	ppb	19:32:51
3	Tl 190.801†	2369.2	2036.7	1267.0	ug/L	1267.0	ppb	19:32:56
3	U 409.014†	-5911.5	-3134.4	-212.86	ug/L	-212.86	ppb	19:32:51
3	V 292.402†	160853.5	136252.9	1200.3	ug/L	1200.3	ppb	19:32:51
3	Zn 213.857†	632351.6	526947.0	5927.5	ug/L	5927.5	ppb	19:32:51
3	SiO2†	649128.5	541290.1	48982	ug/L	48982	ppb	19:33:13

Mean Data: 1202091940|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	663714.6	119.16	%	0.549				0.46%
Sc Radial	4099.2	126	%	1.6				1.25%
Y 371.029	672373.6	129.95	%	0.596				0.46%
Y RADIAL	4918.9	134.9	%	1.63				1.21%
Ag 328.068†	44560.7	322.11	ug/L	0.333	322.11	ppb	0.333	0.10%
Al 396.153Radial†	75297.5	88295	ug/L	1391.4	88295	ppb	1391.4	1.58%
As 188.979†	2307.1	1083.3	ug/L	11.32	1083.3	ppb	11.32	1.05%
B 249.677†	61877.4	1475.3	ug/L	2.60	1475.3	ppb	2.60	0.18%
Ba 233.527†	126696.7	1902.4	ug/L	1.77	1902.4	ppb	1.77	0.09%
Be 313.107†	1762913.5	785.39	ug/L	0.298	785.39	ppb	0.298	0.04%
Ca 317.933Radial†	44453.6	100120	ug/L	1471.5	100120	ppb	1471.5	1.47%
Cd 226.502†	44196.7	599.85	ug/L	3.651	599.85	ppb	3.651	0.61%
Co 228.616†	27287.0	988.43	ug/L	6.229	988.43	ppb	6.229	0.63%
Cr 267.716†	159784.3	2412.0	ug/L	1.72	2412.0	ppb	1.72	0.07%
Cu 324.752†	400954.9	1952.9	ug/L	2.97	1952.9	ppb	2.97	0.15%
Fe 238.204 Radial†	13296.6	178600	ug/L	2222.0	178600	ppb	2222.0	1.24%
K 766.490 Radial†	173257.9	40433	ug/L	645.4	40433	ppb	645.4	1.60%

Mg 279.077 IEC†	828.3	37495	ug/L	143.0	37495	ppb	143.0	0.38%
Mn 257.610†	2784214.2	5374.6	ug/L	5.08	5374.6	ppb	5.08	0.09%
Mo 202.031†	4785.5	520.72	ug/L	3.684	520.72	ppb	3.684	0.71%
Na 589.592 Radial†	21160.1	10339	ug/L	146.5	10339	ppb	146.5	1.42%
Ni 231.604†	41286.7	1390.9	ug/L	8.01	1390.9	ppb	8.01	0.58%
P 214.914†	14115.4	7037.8	ug/L	53.02	7037.8	ppb	53.02	0.75%
Pb 220.353†	5266.2	939.19	ug/L	5.809	939.19	ppb	5.809	0.62%
S 181.975 Axial†	3044.8	3944.0	ug/L	34.60	3944.0	ppb	34.60	0.88%
Sb 206.836†	3350.5	1528.9	ug/L	8.57	1528.9	ppb	8.57	0.56%
Se 196.026†	4227.6	3027.7	ug/L	20.18	3027.7	ppb	20.18	0.67%
Si 251.611†	551893.8	23339	ug/L	38.4	23339	ppb	38.4	0.16%
Sn 189.927†	4133.1	1057.6	ug/L	9.13	1057.6	ppb	9.13	0.86%
Sr 421.552†	224070.8	2339.2	ug/L	36.58	2339.2	ppb	36.58	1.56%
Ti 334.940†	2038394.3	5419.3	ug/L	5.40	5419.3	ppb	5.40	0.10%
Tl 190.801†	2031.3	1263.8	ug/L	3.05	1263.8	ppb	3.05	0.24%
U 409.014†	-3125.8	-211.83	ug/L	1.026	-211.83	ppb	1.026	0.48%
V 292.402†	136171.7	1199.9	ug/L	0.79	1199.9	ppb	0.79	0.07%
Zn 213.857†	526845.3	5926.2	ug/L	5.08	5926.2	ppb	5.08	0.09%
SiO2†	548330.7	49619	ug/L	869.4	49619	ppb	869.4	1.75%

Sequence No.: 17
Sample ID: 1202072047|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 47
Date Collected: 4/15/2010 19:42:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072047|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3900.6	3900.6	120	%			19:44:26
1	Y RADIAL	4970.2	4970.2	136.4	%			19:44:06
1	Al 396.153Radial†	32478.8	27120.6	31810	ug/L	31810	ppb	19:44:06
1	Ca 317.933Radial†	5046.4	4184.6	9425.1	ug/L	9425.1	ppb	19:44:06
1	Fe 238.204 Radial†	6440.5	5350.3	71854	ug/L	71854	ppb	19:44:06
1	K 766.490 Radial†	22093.7	15194.0	3545.1	ug/L	3545.1	ppb	19:44:06
1	Mg 279.077 IEC†	138.0	114.6	5157.0	ug/L	5157.0	ppb	19:44:26
1	Na 589.592 Radial†	1438.3	2390.3	1167.9	ug/L	1167.9	ppb	19:44:06
1	Sr 421.552†	9957.1	8247.1	86.055	ug/L	86.055	ppb	19:44:06
1	Sc 361.383	666204.3	666204.3	119.60	%			19:45:24
1	Y 371.029	774774.4	774774.4	149.74	%			19:45:24
1	Ag 328.068†	-4093.6	-3475.3	0.6775	ug/L	0.6775	ppb	19:45:24
1	As 188.979†	-27.9	21.3	31.388	ug/L	31.388	ppb	19:45:44
1	B 249.677†	583.9	1143.2	20.078	ug/L	20.078	ppb	19:45:24
1	Ba 233.527†	18294.3	15299.2	232.38	ug/L	232.38	ppb	19:45:24
1	Be 313.107†	-8089.1	2787.8	4.8474	ug/L	4.8474	ppb	19:45:24
1	Cd 226.502†	301.0	559.1	1.3333	ug/L	1.3333	ppb	19:45:44
1	Co 228.616†	341.7	376.3	9.5033	ug/L	9.5033	ppb	19:45:44
1	Cr 267.716†	10505.0	8676.5	132.03	ug/L	132.03	ppb	19:45:24
1	Cu 324.752†	21114.7	11272.4	59.492	ug/L	59.492	ppb	19:45:24
1	Mn 257.610†	1136921.0	949961.9	1835.3	ug/L	1835.3	ppb	19:45:24
1	Mo 202.031†	144.6	104.9	16.208	ug/L	16.208	ppb	19:45:44
1	Ni 231.604†	2549.5	2013.9	67.923	ug/L	67.923	ppb	19:45:44
1	P 214.914†	1156.8	655.9	314.84	ug/L	314.84	ppb	19:45:44
1	Pb 220.353†	670.0	655.8	118.13	ug/L	118.13	ppb	19:45:44
1	S 181.975 Axial†	275.2	161.1	205.62	ug/L	205.62	ppb	19:45:44
1	Sb 206.836†	63.7	-4.3	-4.8584	ug/L	-4.8584	ppb	19:45:44
1	Se 196.026†	-255.3	-180.5	15.525	ug/L	15.525	ppb	19:45:44
1	Si 251.611†	451052.9	376560.3	15929	ug/L	15929	ppb	19:45:24
1	Sn 189.927†	-13.4	-23.1	-2.9040	ug/L	-2.9040	ppb	19:45:44
1	Ti 334.940†	716768.5	601272.9	1597.3	ug/L	1597.3	ppb	19:45:24
1	Tl 190.801†	-102.2	-26.6	4.9635	ug/L	4.9635	ppb	19:45:44
1	U 409.014†	-6957.8	-4016.9	-223.25	ug/L	-223.25	ppb	19:45:24
1	V 292.402†	7505.8	8247.5	62.537	ug/L	62.537	ppb	19:45:24
1	Zn 213.857†	46082.3	37587.6	428.71	ug/L	428.71	ppb	19:45:24
1	SiO2†	438235.6	365807.0	33111	ug/L	33111	ppb	19:46:42
2	Sc Radial	3726.6	3726.6	115	%			19:44:52
2	Y RADIAL	5413.1	5413.1	148.5	%			19:44:31
2	Al 396.153Radial†	31289.7	27346.5	32075	ug/L	32075	ppb	19:44:31
2	Ca 317.933Radial†	4920.3	4270.7	9619.0	ug/L	9619.0	ppb	19:44:31
2	Fe 238.204 Radial†	6197.3	5388.6	72368	ug/L	72368	ppb	19:44:31
2	K 766.490 Radial†	21731.5	15736.3	3671.7	ug/L	3671.7	ppb	19:44:31
2	Mg 279.077 IEC†	141.9	123.3	5555.3	ug/L	5555.3	ppb	19:44:52
2	Na 589.592 Radial†	1428.4	2437.5	1191.0	ug/L	1191.0	ppb	19:44:31
2	Sr 421.552†	9628.0	8347.2	87.099	ug/L	87.099	ppb	19:44:31
2	Sc 361.383	651543.9	651543.9	116.97	%			19:45:50
2	Y 371.029	756574.4	756574.4	146.22	%			19:45:50
2	Ag 328.068†	-3976.0	-3451.8	0.9653	ug/L	0.9653	ppb	19:45:50
2	As 188.979†	-17.0	30.1	35.258	ug/L	35.258	ppb	19:46:10
2	B 249.677†	625.4	1189.7	21.146	ug/L	21.146	ppb	19:45:50
2	Ba 233.527†	17841.2	15255.9	231.76	ug/L	231.76	ppb	19:45:50
2	Be 313.107†	-7753.6	2922.4	4.8805	ug/L	4.8805	ppb	19:45:50
2	Cd 226.502†	302.1	565.7	1.3797	ug/L	1.3797	ppb	19:46:10
2	Co 228.616†	364.2	402.0	10.463	ug/L	10.463	ppb	19:46:10
2	Cr 267.716†	10195.8	8609.8	131.04	ug/L	131.04	ppb	19:45:50
2	Cu 324.752†	20480.1	11127.1	58.823	ug/L	58.823	ppb	19:45:50
2	Mn 257.610†	1104736.0	943835.5	1823.5	ug/L	1823.5	ppb	19:45:50
2	Mo 202.031†	135.8	100.1	15.731	ug/L	15.731	ppb	19:46:10
2	Ni 231.604†	2519.2	2036.0	68.668	ug/L	68.668	ppb	19:46:10

2	P 214.914†	1136.6	660.4	317.28 ug/L	317.28 ppb	19:46:10
2	Pb 220.353†	664.7	663.8	119.57 ug/L	119.57 ppb	19:46:10
2	S 181.975 Axial†	268.0	160.1	204.34 ug/L	204.34 ppb	19:46:10
2	Sb 206.836†	67.8	0.3	-2.7145 ug/L	-2.7145 ppb	19:46:10
2	Se 196.026†	-259.7	-189.0	10.989 ug/L	10.989 ppb	19:46:10
2	Si 251.611†	437364.4	373343.5	15792 ug/L	15792 ppb	19:45:50
2	Sn 189.927†	-15.3	-25.0	-3.3473 ug/L	-3.3473 ppb	19:46:10
2	Ti 334.940†	695948.7	596958.4	1585.8 ug/L	1585.8 ppb	19:45:50
2	Tl 190.801†	-114.7	-39.2	-2.6627 ug/L	-2.6627 ppb	19:46:10
2	U 409.014†	-6783.3	-3998.7	-222.47 ug/L	-222.47 ppb	19:45:50
2	V 292.402†	7328.2	8236.9	62.387 ug/L	62.387 ppb	19:45:50
2	Zn 213.857†	44895.6	37440.0	427.09 ug/L	427.09 ppb	19:45:50
2	SiO2†	438487.7	374267.1	33877 ug/L	33877 ppb	19:46:47
3	Sc Radial	3680.9	3680.9	113 %		19:45:17
3	Y RADIAL	5111.4	5111.4	140.2 %		19:44:57
3	Al 396.153Radial†	32117.5	28414.1	33328 ug/L	33328 ppb	19:44:57
3	Ca 317.933Radial†	5020.7	4412.4	9938.1 ug/L	9938.1 ppb	19:44:57
3	Fe 238.204 Radial†	6329.7	5572.2	74835 ug/L	74835 ppb	19:44:57
3	K 766.490 Radial†	21910.1	16128.6	3763.3 ug/L	3763.3 ppb	19:44:57
3	Mg 279.077 IEC†	142.4	125.3	5642.7 ug/L	5642.7 ppb	19:45:17
3	Na 589.592 Radial†	1447.1	2469.4	1206.6 ug/L	1206.6 ppb	19:44:57
3	Sr 421.552†	9831.0	8630.2	90.051 ug/L	90.051 ppb	19:44:57
3	Sc 361.383	650968.1	650968.1	116.87 %		19:46:16
3	Y 371.029	756260.6	756260.6	146.16 %		19:46:16
3	Ag 328.068†	-3971.8	-3451.2	1.6841 ug/L	1.6841 ppb	19:46:16
3	As 188.979†	-30.6	18.4	30.392 ug/L	30.392 ppb	19:46:36
3	B 249.677†	557.2	1131.7	19.486 ug/L	19.486 ppb	19:46:16
3	Ba 233.527†	17718.1	15164.1	230.53 ug/L	230.53 ppb	19:46:16
3	Be 313.107†	-7846.6	2837.0	4.8323 ug/L	4.8323 ppb	19:46:16
3	Cd 226.502†	292.2	557.6	1.0437 ug/L	1.0437 ppb	19:46:36
3	Co 228.616†	362.5	400.8	10.397 ug/L	10.397 ppb	19:46:36
3	Cr 267.716†	10110.0	8544.1	130.09 ug/L	130.09 ppb	19:46:16
3	Cu 324.752†	20528.9	11184.4	59.265 ug/L	59.265 ppb	19:46:16
3	Mn 257.610†	1097572.6	938541.4	1813.6 ug/L	1813.6 ppb	19:46:16
3	Mo 202.031†	160.4	121.2	18.150 ug/L	18.150 ppb	19:46:36
3	Ni 231.604†	2482.0	2006.1	67.662 ug/L	67.662 ppb	19:46:36
3	P 214.914†	1133.5	658.6	315.55 ug/L	315.55 ppb	19:46:36
3	Pb 220.353†	663.2	663.1	119.57 ug/L	119.57 ppb	19:46:36
3	S 181.975 Axial†	255.8	149.9	190.89 ug/L	190.89 ppb	19:46:36
3	Sb 206.836†	64.1	-2.7	-3.9410 ug/L	-3.9410 ppb	19:46:36
3	Se 196.026†	-258.0	-187.8	16.294 ug/L	16.294 ppb	19:46:36
3	Si 251.611†	435984.1	372493.2	15756 ug/L	15756 ppb	19:46:16
3	Sn 189.927†	-6.3	-17.2	-1.3030 ug/L	-1.3030 ppb	19:46:36
3	Ti 334.940†	693267.2	595190.2	1581.1 ug/L	1581.1 ppb	19:46:16
3	Tl 190.801†	-118.6	-42.6	-4.7598 ug/L	-4.7598 ppb	19:46:36
3	U 409.014†	-6811.3	-4027.8	-224.60 ug/L	-224.60 ppb	19:46:16
3	V 292.402†	7181.0	8116.5	61.011 ug/L	61.011 ppb	19:46:16
3	Zn 213.857†	44580.5	37204.3	424.68 ug/L	424.68 ppb	19:46:16
3	SiO2†	434521.5	371204.9	33600 ug/L	33600 ppb	19:46:53

Mean Data: 1202072047|973755|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	656238.8	117.81	%	1.550				1.32%
Sc Radial	3769.4	116	%	3.6				3.08%
Y 371.029	762536.5	147.37	%	2.049				1.39%
Y RADIAL	5164.9	141.7	%	6.21				4.38%
Ag 328.068†	-3459.4	1.1090	ug/L	0.51846	1.1090	ppb	0.51846	46.75%
Al 396.153Radial†	27627.0	32405	ug/L	810.3	32405	ppb	810.3	2.50%
As 188.979†	23.3	32.346	ug/L	2.5709	32.346	ppb	2.5709	7.95%
B 249.677†	1154.9	20.236	ug/L	0.8413	20.236	ppb	0.8413	4.16%
Ba 233.527†	15239.7	231.56	ug/L	0.941	231.56	ppb	0.941	0.41%
Be 313.107†	2849.1	4.8534	ug/L	0.02462	4.8534	ppb	0.02462	0.51%
Ca 317.933Radial†	4289.3	9660.7	ug/L	259.02	9660.7	ppb	259.02	2.68%
Cd 226.502†	560.8	1.2522	ug/L	0.18209	1.2522	ppb	0.18209	14.54%
Co 228.616†	393.0	10.121	ug/L	0.5361	10.121	ppb	0.5361	5.30%
Cr 267.716†	8610.1	131.05	ug/L	0.975	131.05	ppb	0.975	0.74%
Cu 324.752†	11194.6	59.193	ug/L	0.3404	59.193	ppb	0.3404	0.58%
Fe 238.204 Radial†	5437.0	73019	ug/L	1593.3	73019	ppb	1593.3	2.18%
K 766.490 Radial†	15686.3	3660.1	ug/L	109.55	3660.1	ppb	109.55	2.99%

Mg 279.077 IEC†	121.1	5451.7	ug/L	258.86	5451.7	ppb	258.86	4.75%
Mn 257.610†	944113.0	1824.1	ug/L	10.85	1824.1	ppb	10.85	0.59%
Mo 202.031†	108.7	16.696	ug/L	1.2811	16.696	ppb	1.2811	7.67%
Na 589.592 Radial†	2432.4	1188.5	ug/L	19.46	1188.5	ppb	19.46	1.64%
Ni 231.604†	2018.6	68.085	ug/L	0.5222	68.085	ppb	0.5222	0.77%
P 214.914†	658.3	315.89	ug/L	1.254	315.89	ppb	1.254	0.40%
Pb 220.353†	660.9	119.09	ug/L	0.833	119.09	ppb	0.833	0.70%
S 181.975 Axial†	157.1	200.28	ug/L	8.160	200.28	ppb	8.160	4.07%
Sb 206.836†	-2.2	-3.8380	ug/L	1.07568	-3.8380	ppb	1.07568	28.03%
Se 196.026†	-185.8	14.270	ug/L	2.8667	14.270	ppb	2.8667	20.09%
Si 251.611†	374132.4	15826	ug/L	90.8	15826	ppb	90.8	0.57%
Sn 189.927†	-21.8	-2.5181	ug/L	1.07540	-2.5181	ppb	1.07540	42.71%
Sr 421.552†	8408.2	87.735	ug/L	2.0728	87.735	ppb	2.0728	2.36%
Ti 334.940†	597807.2	1588.1	ug/L	8.30	1588.1	ppb	8.30	0.52%
Tl 190.801†	-36.1	-0.8197	ug/L	5.11697	-0.8197	ppb	5.11697	624.28%
U 409.014†	-4014.5	-223.44	ug/L	1.080	-223.44	ppb	1.080	0.48%
V 292.402†	8200.3	61.979	ug/L	0.8412	61.979	ppb	0.8412	1.36%
Zn 213.857†	37410.6	426.83	ug/L	2.025	426.83	ppb	2.025	0.47%
SiO2†	370426.3	33529	ug/L	387.7	33529	ppb	387.7	1.16%

Sequence No.: 18
Sample ID: 1202072048|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 48
Date Collected: 4/15/2010 19:49:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072048|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3914.7	3914.7	121	%			19:51:17
1	Y RADIAL	5583.0	5583.0	153.2	%			19:51:17
1	Al 396.153Radial†	55923.3	46446.1	54456	ug/L	54456	ppb	19:50:57
1	Ca 317.933Radial†	6765.3	5593.5	12598	ug/L	12598	ppb	19:51:17
1	Fe 238.204 Radial†	6919.7	5727.9	76939	ug/L	76939	ppb	19:51:17
1	K 766.490 Radial†	49971.9	38223.9	8919.0	ug/L	8919.0	ppb	19:50:57
1	Mg 279.077 IEC†	304.4	252.0	11399	ug/L	11399	ppb	19:51:17
1	Na 589.592 Radial†	12335.9	11414.3	5577.4	ug/L	5577.4	ppb	19:50:57
1	Sr 421.552†	62545.7	51785.5	540.71	ug/L	540.71	ppb	19:50:57
1	Sc 361.383	654638.4	654638.4	117.53	%			19:52:16
1	Y 371.029	796472.3	796472.3	153.93	%			19:52:16
1	Ag 328.068†	87474.0	74377.1	467.96	ug/L	467.96	ppb	19:52:16
1	As 188.979†	1209.1	1073.4	500.91	ug/L	500.91	ppb	19:52:36
1	B 249.677†	22345.6	19668.4	466.33	ug/L	466.33	ppb	19:52:16
1	Ba 233.527†	54783.7	46617.3	700.80	ug/L	700.80	ppb	19:52:16
1	Be 313.107†	1249773.3	1072955.5	475.67	ug/L	475.67	ppb	19:52:16
1	Cd 226.502†	38445.9	33020.3	452.98	ug/L	452.98	ppb	19:52:36
1	Co 228.616†	15455.9	13241.7	481.22	ug/L	481.22	ppb	19:52:36
1	Cr 267.716†	46722.3	39648.2	599.23	ug/L	599.23	ppb	19:52:16
1	Cu 324.752†	140534.2	113195.7	552.80	ug/L	552.80	ppb	19:52:16
1	Mn 257.610†	1390931.1	1182888.1	2283.7	ug/L	2283.7	ppb	19:52:16
1	Mo 202.031†	5199.2	4407.9	472.46	ug/L	472.46	ppb	19:52:36
1	Ni 231.604†	18795.7	15875.1	534.74	ug/L	534.74	ppb	19:52:36
1	P 214.914†	2166.6	1532.2	674.25	ug/L	674.25	ppb	19:52:36
1	Pb 220.353†	3833.7	3357.6	601.38	ug/L	601.38	ppb	19:52:36
1	S 181.975 Axial†	4573.6	3822.6	4957.8	ug/L	4957.8	ppb	19:52:36
1	Sb 206.836†	1231.8	990.5	459.52	ug/L	459.52	ppb	19:52:36
1	Se 196.026†	604.2	547.1	491.19	ug/L	491.19	ppb	19:52:36
1	Si 251.611†	413770.5	351500.6	14863	ug/L	14863	ppb	19:52:16
1	Sn 189.927†	2144.8	1813.1	458.30	ug/L	458.30	ppb	19:52:36
1	Ti 334.940†	1000155.3	852988.7	2265.2	ug/L	2265.2	ppb	19:52:16
1	Tl 190.801†	817.8	754.7	472.21	ug/L	472.21	ppb	19:52:36
1	U 409.014†	2967.3	4325.3	197.30	ug/L	197.30	ppb	19:52:16
1	V 292.402†	67388.0	59310.8	527.00	ug/L	527.00	ppb	19:52:16
1	Zn 213.857†	91982.6	77323.9	872.09	ug/L	872.09	ppb	19:52:16
1	SiO2†	409838.5	348118.1	31498	ug/L	31498	ppb	19:53:36
2	Sc Radial	3881.6	3881.6	120	%			19:51:42
2	Y RADIAL	5564.8	5564.8	152.7	%			19:51:42
2	Al 396.153Radial†	57197.2	47906.4	56170	ug/L	56170	ppb	19:51:22
2	Ca 317.933Radial†	6709.0	5594.4	12600	ug/L	12600	ppb	19:51:42
2	Fe 238.204 Radial†	6849.5	5718.2	76809	ug/L	76809	ppb	19:51:42
2	K 766.490 Radial†	50860.3	39319.9	9174.8	ug/L	9174.8	ppb	19:51:22
2	Mg 279.077 IEC†	308.2	257.4	11640	ug/L	11640	ppb	19:51:42
2	Na 589.592 Radial†	12491.2	11631.4	5683.4	ug/L	5683.4	ppb	19:51:22
2	Sr 421.552†	63691.5	53185.5	555.33	ug/L	555.33	ppb	19:51:22
2	Sc 361.383	647780.8	647780.8	116.29	%			19:52:43
2	Y 371.029	789288.0	789288.0	152.54	%			19:52:43
2	Ag 328.068†	86459.4	74292.5	467.42	ug/L	467.42	ppb	19:52:43
2	As 188.979†	1166.7	1047.8	489.61	ug/L	489.61	ppb	19:53:03
2	B 249.677†	21999.2	19571.8	464.05	ug/L	464.05	ppb	19:52:43
2	Ba 233.527†	54154.2	46569.6	700.08	ug/L	700.08	ppb	19:52:43
2	Be 313.107†	1230195.4	1067378.4	473.22	ug/L	473.22	ppb	19:52:43
2	Cd 226.502†	37005.6	32128.1	440.57	ug/L	440.57	ppb	19:53:03
2	Co 228.616†	14846.0	12856.5	467.06	ug/L	467.06	ppb	19:53:03
2	Cr 267.716†	46124.9	39555.4	597.83	ug/L	597.83	ppb	19:52:43
2	Cu 324.752†	139084.1	113214.7	552.89	ug/L	552.89	ppb	19:52:43
2	Mn 257.610†	1374687.7	1181449.7	2280.9	ug/L	2280.9	ppb	19:52:43
2	Mo 202.031†	5012.0	4293.8	460.36	ug/L	460.36	ppb	19:53:03
2	Ni 231.604†	18138.5	15479.3	521.41	ug/L	521.41	ppb	19:53:03

2	P 214.914†	2082.5	1479.4	646.38 ug/L	646.38 ppb	19:53:03
2	Pb 220.353†	3670.6	3251.8	583.12 ug/L	583.12 ppb	19:53:03
2	S 181.975 Axial†	4371.1	3689.7	4785.1 ug/L	4785.1 ppb	19:53:03
2	Sb 206.836†	1176.9	954.4	442.76 ug/L	442.76 ppb	19:53:03
2	Se 196.026†	564.5	518.4	472.59 ug/L	472.59 ppb	19:53:03
2	Si 251.611†	408822.1	350972.6	14841 ug/L	14841 ppb	19:52:43
2	Sn 189.927†	2057.7	1757.5	444.36 ug/L	444.36 ppb	19:53:03
2	Ti 334.940†	989022.9	852425.1	2263.7 ug/L	2263.7 ppb	19:52:43
2	Tl 190.801†	766.7	718.1	450.56 ug/L	450.56 ppb	19:53:03
2	U 409.014†	2957.8	4343.8	198.27 ug/L	198.27 ppb	19:52:43
2	V 292.402†	66702.8	59328.7	527.02 ug/L	527.02 ppb	19:52:43
2	Zn 213.857†	90697.2	77047.1	869.05 ug/L	869.05 ppb	19:52:43
2	SiO2†	412413.3	354023.8	32033 ug/L	32033 ppb	19:53:42
3	Sc Radial	3912.4	3912.4	121 %		19:52:07
3	Y RADIAL	5612.8	5612.8	154.0 %		19:52:07
3	Al 396.153Radial†	56521.0	46968.7	55069 ug/L	55069 ppb	19:51:47
3	Ca 317.933Radial†	6783.5	5611.9	12640 ug/L	12640 ppb	19:52:07
3	Fe 238.204 Radial†	6903.0	5717.4	76798 ug/L	76798 ppb	19:52:07
3	K 766.490 Radial†	50349.9	38561.5	8997.8 ug/L	8997.8 ppb	19:51:47
3	Mg 279.077 IEC†	306.8	254.1	11495 ug/L	11495 ppb	19:52:07
3	Na 589.592 Radial†	12344.9	11427.7	5583.9 ug/L	5583.9 ppb	19:51:47
3	Sr 421.552†	62940.6	52143.1	544.44 ug/L	544.44 ppb	19:51:47
3	Sc 361.383	632602.4	632602.4	113.57 %		19:53:11
3	Y 371.029	771074.4	771074.4	149.02 %		19:53:11
3	Ag 328.068†	84525.0	74373.1	467.90 ug/L	467.90 ppb	19:53:11
3	As 188.979†	1156.5	1062.9	496.25 ug/L	496.25 ppb	19:53:31
3	B 249.677†	21475.1	19564.2	463.83 ug/L	463.83 ppb	19:53:11
3	Ba 233.527†	52806.5	46500.2	699.05 ug/L	699.05 ppb	19:53:11
3	Be 313.107†	1202451.5	1068330.4	473.64 ug/L	473.64 ppb	19:53:11
3	Cd 226.502†	37038.7	32920.8	451.61 ug/L	451.61 ppb	19:53:31
3	Co 228.616†	14895.5	13206.3	479.93 ug/L	479.93 ppb	19:53:31
3	Cr 267.716†	44996.3	39513.3	597.20 ug/L	597.20 ppb	19:53:11
3	Cu 324.752†	135680.0	113086.9	552.27 ug/L	552.27 ppb	19:53:11
3	Mn 257.610†	1339653.8	1178964.0	2276.1 ug/L	2276.1 ppb	19:53:11
3	Mo 202.031†	5016.7	4401.3	471.75 ug/L	471.75 ppb	19:53:31
3	Ni 231.604†	18127.6	15843.9	533.69 ug/L	533.69 ppb	19:53:31
3	P 214.914†	2095.6	1533.9	675.47 ug/L	675.47 ppb	19:53:31
3	Pb 220.353†	3678.3	3334.4	597.46 ug/L	597.46 ppb	19:53:31
3	S 181.975 Axial†	4393.4	3799.5	4927.7 ug/L	4927.7 ppb	19:53:31
3	Sb 206.836†	1193.2	993.1	460.54 ug/L	460.54 ppb	19:53:31
3	Se 196.026†	580.9	544.5	489.24 ug/L	489.24 ppb	19:53:31
3	Si 251.611†	398462.8	350285.8	14812 ug/L	14812 ppb	19:53:11
3	Sn 189.927†	2044.7	1788.5	452.14 ug/L	452.14 ppb	19:53:31
3	Ti 334.940†	964842.0	851538.6	2261.3 ug/L	2261.3 ppb	19:53:11
3	Tl 190.801†	771.7	738.3	462.44 ug/L	462.44 ppb	19:53:31
3	U 409.014†	2770.4	4239.9	193.01 ug/L	193.01 ppb	19:53:11
3	V 292.402†	65084.2	59279.6	526.73 ug/L	526.73 ppb	19:53:11
3	Zn 213.857†	88501.7	76985.1	868.28 ug/L	868.28 ppb	19:53:11
3	SiO2†	405423.3	356377.8	32245 ug/L	32245 ppb	19:53:47

Mean Data: 1202072048|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	645007.2	115.80	%	2.024				1.75%
Sc Radial	3902.9	120	%	0.6				0.47%
Y 371.029	785611.6	151.83	%	2.530				1.67%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 151.8%								
Y RADIAL	5586.9	153.3	%	0.67				0.43%
Ag 328.068†	74347.6	467.76	ug/L	0.297	467.76	ppb	0.297	0.06%
Al 396.153Radial†	47107.1	55232	ug/L	868.2	55232	ppb	868.2	1.57%
As 188.979†	1061.4	495.59	ug/L	5.675	495.59	ppb	5.675	1.15%
B 249.677†	19601.5	464.74	ug/L	1.386	464.74	ppb	1.386	0.30%
Ba 233.527†	46562.4	699.98	ug/L	0.883	699.98	ppb	0.883	0.13%
Be 313.107†	1069554.8	474.18	ug/L	1.311	474.18	ppb	1.311	0.28%
Ca 317.933Radial†	5599.9	12613	ug/L	23.3	12613	ppb	23.3	0.19%
Cd 226.502†	32689.7	448.38	ug/L	6.805	448.38	ppb	6.805	1.52%
Co 228.616†	13101.5	476.07	ug/L	7.828	476.07	ppb	7.828	1.64%
Cr 267.716†	39572.3	598.09	ug/L	1.041	598.09	ppb	1.041	0.17%
Cu 324.752†	113165.8	552.65	ug/L	0.337	552.65	ppb	0.337	0.06%
Fe 238.204 Radial†	5721.2	76849	ug/L	78.5	76849	ppb	78.5	0.10%

K 766.490 Radial†	38701.8	9030.5 ug/L	131.02	9030.5 ppb	131.02	1.45%
Mg 279.077 IEC†	254.5	11511 ug/L	121.5	11511 ppb	121.5	1.06%
Mn 257.610†	1181100.6	2280.3 ug/L	3.83	2280.3 ppb	3.83	0.17%
Mo 202.031†	4367.7	468.19 ug/L	6.791	468.19 ppb	6.791	1.45%
Na 589.592 Radial†	11491.1	5614.9 ug/L	59.44	5614.9 ppb	59.44	1.06%
Ni 231.604†	15732.7	529.95 ug/L	7.410	529.95 ppb	7.410	1.40%
P 214.914†	1515.2	665.37 ug/L	16.454	665.37 ppb	16.454	2.47%
Pb 220.353†	3314.6	593.99 ug/L	9.612	593.99 ppb	9.612	1.62%
S 181.975 Axial†	3770.6	4890.2 ug/L	92.29	4890.2 ppb	92.29	1.89%
Sb 206.836†	979.3	454.27 ug/L	9.982	454.27 ppb	9.982	2.20%
Se 196.026†	536.6	484.34 ug/L	10.224	484.34 ppb	10.224	2.11%
Si 251.611†	350919.6	14838 ug/L	25.8	14838 ppb	25.8	0.17%
Sn 189.927†	1786.4	451.60 ug/L	6.986	451.60 ppb	6.986	1.55%
Sr 421.552†	52371.3	546.82 ug/L	7.596	546.82 ppb	7.596	1.39%
Ti 334.940†	852317.5	2263.4 ug/L	1.94	2263.4 ppb	1.94	0.09%
Tl 190.801†	737.0	461.74 ug/L	10.842	461.74 ppb	10.842	2.35%
U 409.014†	4303.0	196.19 ug/L	2.802	196.19 ppb	2.802	1.43%
V 292.402†	59306.4	526.92 ug/L	0.161	526.92 ppb	0.161	0.03%
Zn 213.857†	77118.7	869.81 ug/L	2.015	869.81 ppb	2.015	0.23%
SiO2†	352839.9	31925 ug/L	385.2	31925 ppb	385.2	1.21%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 19
Sample ID: 1202072050|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 49
Date Collected: 4/15/2010 19:55:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072050|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3746.1	3746.1	116	%			19:58:13
1	Y RADIAL	5763.3	5763.3	158.1	%			19:57:53
1	Al 396.153Radial†	59957.5	52024.6	60999	ug/L	60999	ppb	19:57:53
1	Ca 317.933Radial†	7213.9	6234.2	14041	ug/L	14041	ppb	19:57:53
1	Fe 238.204 Radial†	7525.8	6510.7	87453	ug/L	87453	ppb	19:57:53
1	K 766.490 Radial†	53248.9	42924.8	10016	ug/L	10016	ppb	19:57:53
1	Mg 279.077 IEC†	325.2	281.3	12723	ug/L	12723	ppb	19:58:13
1	Na 589.592 Radial†	12160.8	11722.8	5728.1	ug/L	5728.1	ppb	19:57:53
1	Sr 421.552†	63137.0	54630.0	570.40	ug/L	570.40	ppb	19:57:53
1	Sc 361.383	641582.0	641582.0	115.18	%			19:59:12
1	Y 371.029	795479.9	795479.9	153.74	%			19:59:12
1	Ag 328.068†	86084.2	74685.1	472.90	ug/L	472.90	ppb	19:59:12
1	As 188.979†	1221.1	1104.7	517.85	ug/L	517.85	ppb	19:59:32
1	B 249.677†	22181.0	19912.4	471.11	ug/L	471.11	ppb	19:59:12
1	Ba 233.527†	53949.8	46842.0	704.76	ug/L	704.76	ppb	19:59:12
1	Be 313.107†	1230774.1	1078101.2	478.43	ug/L	478.43	ppb	19:59:12
1	Cd 226.502†	38318.1	33575.0	459.75	ug/L	459.75	ppb	19:59:32
1	Co 228.616†	15414.3	13473.2	489.13	ug/L	489.13	ppb	19:59:32
1	Cr 267.716†	43387.7	37562.2	567.98	ug/L	567.98	ppb	19:59:12
1	Cu 324.752†	137599.9	113081.7	552.96	ug/L	552.96	ppb	19:59:12
1	Mn 257.610†	1373812.5	1192110.8	2302.5	ug/L	2302.5	ppb	19:59:12
1	Mo 202.031†	5122.7	4431.5	475.71	ug/L	475.71	ppb	19:59:32
1	Ni 231.604†	18208.7	15690.9	528.54	ug/L	528.54	ppb	19:59:32
1	P 214.914†	2408.1	1779.4	803.64	ug/L	803.64	ppb	19:59:32
1	Pb 220.353†	3715.7	3321.5	595.84	ug/L	595.84	ppb	19:59:32
1	S 181.975 Axial†	4553.9	3884.7	5037.8	ug/L	5037.8	ppb	19:59:32
1	Sb 206.836†	1190.9	976.3	452.75	ug/L	452.75	ppb	19:59:32
1	Se 196.026†	558.3	517.7	491.54	ug/L	491.54	ppb	19:59:32
1	Si 251.611†	527572.0	457467.0	19345	ug/L	19345	ppb	19:59:12
1	Sn 189.927†	2110.1	1820.1	460.50	ug/L	460.50	ppb	19:59:32
1	Ti 334.940†	1075646.6	935848.0	2485.3	ug/L	2485.3	ppb	19:59:12
1	Tl 190.801†	800.8	754.1	473.55	ug/L	473.55	ppb	19:59:32
1	U 409.014†	2510.0	3979.7	177.02	ug/L	177.02	ppb	19:59:12
1	V 292.402†	66918.5	60070.1	532.22	ug/L	532.22	ppb	19:59:12
1	Zn 213.857†	93653.2	80367.0	907.32	ug/L	907.32	ppb	19:59:12
1	SiO2†	525483.5	455617.0	41228	ug/L	41228	ppb	20:00:32
2	Sc Radial	3772.8	3772.8	116	%			19:58:38
2	Y RADIAL	5688.2	5688.2	156.1	%			19:58:18
2	Al 396.153Radial†	59291.2	51084.1	59896	ug/L	59896	ppb	19:58:18
2	Ca 317.933Radial†	7095.0	6087.7	13711	ug/L	13711	ppb	19:58:18
2	Fe 238.204 Radial†	7418.6	6372.4	85595	ug/L	85595	ppb	19:58:18
2	K 766.490 Radial†	52645.3	42079.5	9819.0	ug/L	9819.0	ppb	19:58:18
2	Mg 279.077 IEC†	323.9	278.3	12584	ug/L	12584	ppb	19:58:38
2	Na 589.592 Radial†	11995.7	11506.3	5622.3	ug/L	5622.3	ppb	19:58:18
2	Sr 421.552†	62382.5	53594.4	559.59	ug/L	559.59	ppb	19:58:18
2	Sc 361.383	649750.9	649750.9	116.65	%			19:59:39
2	Y 371.029	805133.3	805133.3	155.61	%			19:59:39
2	Ag 328.068†	87391.4	74866.1	473.43	ug/L	473.43	ppb	19:59:39
2	As 188.979†	1220.4	1090.8	511.48	ug/L	511.48	ppb	19:59:59
2	B 249.677†	22609.6	20037.7	474.34	ug/L	474.34	ppb	19:59:39
2	Ba 233.527†	54651.0	46854.3	704.84	ug/L	704.84	ppb	19:59:39
2	Be 313.107†	1248129.9	1079545.7	479.07	ug/L	479.07	ppb	19:59:39
2	Cd 226.502†	38822.0	33588.8	460.11	ug/L	460.11	ppb	19:59:59
2	Co 228.616†	15586.3	13452.4	488.39	ug/L	488.39	ppb	19:59:59
2	Cr 267.716†	43901.5	37529.0	567.45	ug/L	567.45	ppb	19:59:39
2	Cu 324.752†	139415.2	113135.9	553.09	ug/L	553.09	ppb	19:59:39
2	Mn 257.610†	1393410.2	1193915.9	2305.8	ug/L	2305.8	ppb	19:59:39
2	Mo 202.031†	5210.9	4451.2	477.66	ug/L	477.66	ppb	19:59:59
2	Ni 231.604†	18412.8	15667.1	527.74	ug/L	527.74	ppb	19:59:59

2	P 214.914†	2461.7	1799.0	814.57 ug/L	814.57 ppb	19:59:59
2	Pb 220.353†	3775.8	3332.5	597.66 ug/L	597.66 ppb	19:59:59
2	S 181.975 Axial†	4603.6	3877.6	5028.7 ug/L	5028.7 ppb	19:59:59
2	Sb 206.836†	1225.5	993.0	460.25 ug/L	460.25 ppb	19:59:59
2	Se 196.026†	590.7	539.4	502.06 ug/L	502.06 ppb	19:59:59
2	Si 251.611†	535530.3	458530.9	19390 ug/L	19390 ppb	19:59:39
2	Sn 189.927†	2133.3	1816.9	459.60 ug/L	459.60 ppb	19:59:59
2	Ti 334.940†	1090554.8	936887.5	2488.0 ug/L	2488.0 ppb	19:59:39
2	Tl 190.801†	807.3	750.9	471.71 ug/L	471.71 ppb	19:59:59
2	U 409.014†	2756.8	4163.9	186.86 ug/L	186.86 ppb	19:59:39
2	V 292.402†	67796.0	60091.9	532.70 ug/L	532.70 ppb	19:59:39
2	Zn 213.857†	95100.2	80585.2	909.61 ug/L	909.61 ppb	19:59:39
2	SiO2†	524866.4	449352.1	40661 ug/L	40661 ppb	20:00:38
3	Sc Radial	3769.6	3769.6	116 %		19:59:03
3	Y RADIAL	5697.7	5697.7	156.3 %		19:58:43
3	Al 396.153Radial†	58818.6	50721.0	59471 ug/L	59471 ppb	19:58:43
3	Ca 317.933Radial†	7059.1	6062.1	13654 ug/L	13654 ppb	19:58:43
3	Fe 238.204 Radial†	7333.4	6304.6	84684 ug/L	84684 ppb	19:58:43
3	K 766.490 Radial†	52140.0	41683.3	9726.5 ug/L	9726.5 ppb	19:58:43
3	Mg 279.077 IEC†	321.3	276.3	12494 ug/L	12494 ppb	19:59:03
3	Na 589.592 Radial†	11799.1	11345.9	5543.9 ug/L	5543.9 ppb	19:58:43
3	Sr 421.552†	61736.2	53084.0	554.26 ug/L	554.26 ppb	19:58:43
3	Sc 361.383	643800.7	643800.7	115.58 %		20:00:06
3	Y 371.029	799112.0	799112.0	154.44 %		20:00:06
3	Ag 328.068†	86407.9	74707.6	472.22 ug/L	472.22 ppb	20:00:06
3	As 188.979†	1189.2	1073.5	503.68 ug/L	503.68 ppb	20:00:26
3	B 249.677†	22276.5	19928.7	471.82 ug/L	471.82 ppb	20:00:06
3	Ba 233.527†	54129.5	46836.1	704.52 ug/L	704.52 ppb	20:00:06
3	Be 313.107†	1233519.4	1076794.0	477.85 ug/L	477.85 ppb	20:00:06
3	Cd 226.502†	37752.5	32971.1	451.59 ug/L	451.59 ppb	20:00:26
3	Co 228.616†	15147.7	13196.4	479.00 ug/L	479.00 ppb	20:00:26
3	Cr 267.716†	43369.4	37416.5	565.74 ug/L	565.74 ppb	20:00:06
3	Cu 324.752†	137896.3	112926.4	552.03 ug/L	552.03 ppb	20:00:06
3	Mn 257.610†	1375349.8	1189330.4	2296.9 ug/L	2296.9 ppb	20:00:06
3	Mo 202.031†	5039.3	4344.0	466.24 ug/L	466.24 ppb	20:00:26
3	Ni 231.604†	17898.2	15367.8	517.66 ug/L	517.66 ppb	20:00:26
3	P 214.914†	2359.6	1730.2	778.26 ug/L	778.26 ppb	20:00:26
3	Pb 220.353†	3673.3	3273.7	587.20 ug/L	587.20 ppb	20:00:26
3	S 181.975 Axial†	4442.7	3774.9	4895.3 ug/L	4895.3 ppb	20:00:26
3	Sb 206.836†	1188.3	970.5	449.76 ug/L	449.76 ppb	20:00:26
3	Se 196.026†	568.9	525.2	491.28 ug/L	491.28 ppb	20:00:26
3	Si 251.611†	528619.8	456795.1	19317 ug/L	19317 ppb	20:00:06
3	Sn 189.927†	2079.8	1787.5	452.20 ug/L	452.20 ppb	20:00:26
3	Ti 334.940†	1077482.8	934218.4	2480.9 ug/L	2480.9 ppb	20:00:06
3	Tl 190.801†	776.5	730.6	459.66 ug/L	459.66 ppb	20:00:26
3	U 409.014†	2660.9	4102.7	184.01 ug/L	184.01 ppb	20:00:06
3	V 292.402†	67052.3	59985.6	531.71 ug/L	531.71 ppb	20:00:06
3	Zn 213.857†	93857.2	80263.3	905.97 ug/L	905.97 ppb	20:00:06
3	SiO2†	527069.2	455416.7	41210 ug/L	41210 ppb	20:00:43

Mean Data: 1202072050|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	645044.5	115.80	%	0.758				0.65%
Sc Radial	3762.8	116	%	0.4				0.39%
Y 371.029	799908.4	154.60	%	0.942				0.61%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 154.6%								
Y RADIAL	5716.4	156.8	%	1.12				0.71%
Ag 328.068†	74753.0	472.85	ug/L	0.608	472.85	ppb	0.608	0.13%
Al 396.153Radial†	51276.6	60122	ug/L	789.0	60122	ppb	789.0	1.31%
As 188.979†	1089.7	511.00	ug/L	7.096	511.00	ppb	7.096	1.39%
B 249.677†	19959.6	472.42	ug/L	1.696	472.42	ppb	1.696	0.36%
Ba 233.527†	46844.1	704.71	ug/L	0.170	704.71	ppb	0.170	0.02%
Be 313.107†	1078147.0	478.45	ug/L	0.612	478.45	ppb	0.612	0.13%
Ca 317.933Radial†	6128.0	13802	ug/L	209.2	13802	ppb	209.2	1.52%
Cd 226.502†	33378.3	457.15	ug/L	4.819	457.15	ppb	4.819	1.05%
Co 228.616†	13374.0	485.51	ug/L	5.647	485.51	ppb	5.647	1.16%
Cr 267.716†	37502.5	567.06	ug/L	1.171	567.06	ppb	1.171	0.21%
Cu 324.752†	113048.0	552.69	ug/L	0.582	552.69	ppb	0.582	0.11%
Fe 238.204 Radial†	6395.9	85911	ug/L	1411.0	85911	ppb	1411.0	1.64%

K 766.490 Radial†	42229.2	9853.9	ug/L	147.99	9853.9	ppb	147.99	1.50%
Mg 279.077 IEC†	278.6	12600	ug/L	115.3	12600	ppb	115.3	0.92%
Mn 257.610†	1191785.7	2301.7	ug/L	4.51	2301.7	ppb	4.51	0.20%
Mo 202.031†	4408.9	473.20	ug/L	6.108	473.20	ppb	6.108	1.29%
Na 589.592 Radial†	11525.0	5631.5	ug/L	92.42	5631.5	ppb	92.42	1.64%
Ni 231.604†	15575.3	524.65	ug/L	6.067	524.65	ppb	6.067	1.16%
P 214.914†	1769.6	798.83	ug/L	18.629	798.83	ppb	18.629	2.33%
Pb 220.353†	3309.2	593.57	ug/L	5.584	593.57	ppb	5.584	0.94%
S 181.975 Axial†	3845.7	4987.2	ug/L	79.75	4987.2	ppb	79.75	1.60%
Sb 206.836†	979.9	454.25	ug/L	5.407	454.25	ppb	5.407	1.19%
Se 196.026†	527.4	494.96	ug/L	6.148	494.96	ppb	6.148	1.24%
Si 251.611†	457597.7	19351	ug/L	37.0	19351	ppb	37.0	0.19%
Sn 189.927†	1808.2	457.43	ug/L	4.552	457.43	ppb	4.552	1.00%
Sr 421.552†	53769.5	561.42	ug/L	8.225	561.42	ppb	8.225	1.47%
Ti 334.940†	935651.3	2484.8	ug/L	3.57	2484.8	ppb	3.57	0.14%
Tl 190.801†	745.2	468.31	ug/L	7.547	468.31	ppb	7.547	1.61%
U 409.014†	4082.1	182.63	ug/L	5.062	182.63	ppb	5.062	2.77%
V 292.402†	60049.2	532.21	ug/L	0.498	532.21	ppb	0.498	0.09%
Zn 213.857†	80405.2	907.63	ug/L	1.839	907.63	ppb	1.839	0.20%
SiO2†	453461.9	41033	ug/L	322.4	41033	ppb	322.4	0.79%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 20
Sample ID: 1202072049|973755|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 50
Date Collected: 4/15/2010 20:02:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072049|973755|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3657.3	3657.3	113	%			20:05:08
1	Y RADIAL	4320.4	4320.4	118.5	%			20:04:48
1	Al 396.153Radial†	4995.6	4545.3	5331.3	ug/L	5331.3	ppb	20:04:48
1	Ca 317.933Radial†	766.5	668.4	1505.5	ug/L	1505.5	ppb	20:05:08
1	Fe 238.204 Radial†	1105.3	975.3	13098	ug/L	13098	ppb	20:05:08
1	K 766.490 Radial†	5868.8	2028.0	473.09	ug/L	473.09	ppb	20:04:48
1	Mg 279.077 IEC†	22.6	19.8	891.85	ug/L	891.85	ppb	20:05:08
1	Na 589.592 Radial†	-746.0	532.8	260.33	ug/L	260.33	ppb	20:04:48
1	Sr 421.552†	1532.5	1327.0	13.847	ug/L	13.847	ppb	20:04:48
1	Sc 361.383	608079.6	608079.6	109.17	%			20:06:05
1	Y 371.029	591199.2	591199.2	114.26	%			20:06:05
1	Ag 328.068†	-580.3	-584.2	0.4158	ug/L	0.4158	ppb	20:06:05
1	As 188.979†	-29.8	17.3	11.685	ug/L	11.685	ppb	20:06:25
1	B 249.677†	-282.2	396.5	8.2110	ug/L	8.2110	ppb	20:06:05
1	Ba 233.527†	2916.7	2674.9	40.659	ug/L	40.659	ppb	20:06:25
1	Be 313.107†	-9589.9	766.5	1.0058	ug/L	1.0058	ppb	20:06:05
1	Cd 226.502†	-200.5	123.8	0.5474	ug/L	0.5474	ppb	20:06:25
1	Co 228.616†	-27.5	65.4	1.6073	ug/L	1.6073	ppb	20:06:25
1	Cr 267.716†	1730.5	1478.4	22.512	ug/L	22.512	ppb	20:06:05
1	Cu 324.752†	8620.1	1514.5	8.2286	ug/L	8.2286	ppb	20:06:05
1	Mn 257.610†	171037.4	156050.5	301.62	ug/L	301.62	ppb	20:06:05
1	Mo 202.031†	34.8	15.8	2.6019	ug/L	2.6019	ppb	20:06:25
1	Ni 231.604†	489.6	330.7	11.155	ug/L	11.155	ppb	20:06:25
1	P 214.914†	448.4	99.5	47.162	ug/L	47.162	ppb	20:06:25
1	Pb 220.353†	16.4	110.6	19.833	ug/L	19.833	ppb	20:06:25
1	S 181.975 Axial†	101.8	24.2	30.845	ug/L	30.845	ppb	20:06:25
1	Sb 206.836†	61.3	-1.4	-1.1860	ug/L	-1.1860	ppb	20:06:25
1	Se 196.026†	-66.0	-27.5	6.2941	ug/L	6.2941	ppb	20:06:25
1	Si 251.611†	71589.1	65009.9	2749.9	ug/L	2749.9	ppb	20:06:05
1	Sn 189.927†	12.1	-0.8	0.2855	ug/L	0.2855	ppb	20:06:25
1	Ti 334.940†	119099.6	111077.0	295.06	ug/L	295.06	ppb	20:06:05
1	Tl 190.801†	-61.7	2.4	5.0478	ug/L	5.0478	ppb	20:06:25
1	U 409.014†	-2749.5	-718.1	-39.979	ug/L	-39.979	ppb	20:06:05
1	V 292.402†	-607.3	1415.6	10.603	ug/L	10.603	ppb	20:06:05
1	Zn 213.857†	7921.2	6313.9	72.115	ug/L	72.115	ppb	20:06:05
1	SiO2†	73349.1	66585.4	6027.0	ug/L	6027.0	ppb	20:07:22
2	Sc Radial	3572.5	3572.5	110	%			20:05:33
2	Y RADIAL	4275.9	4275.9	117.3	%			20:05:13
2	Al 396.153Radial†	4910.8	4573.4	5364.3	ug/L	5364.3	ppb	20:05:13
2	Ca 317.933Radial†	744.0	664.1	1495.7	ug/L	1495.7	ppb	20:05:33
2	Fe 238.204 Radial†	1066.5	963.4	12938	ug/L	12938	ppb	20:05:33
2	K 766.490 Radial†	5857.4	2141.1	499.51	ug/L	499.51	ppb	20:05:13
2	Mg 279.077 IEC†	23.9	21.5	968.58	ug/L	968.58	ppb	20:05:33
2	Na 589.592 Radial†	-780.8	485.5	237.23	ug/L	237.23	ppb	20:05:13
2	Sr 421.552†	1511.6	1340.3	13.985	ug/L	13.985	ppb	20:05:13
2	Sc 361.383	621319.5	621319.5	111.54	%			20:06:31
2	Y 371.029	603510.6	603510.6	116.64	%			20:06:31
2	Ag 328.068†	-656.1	-640.8	0.0356	ug/L	0.0356	ppb	20:06:31
2	As 188.979†	-48.1	1.5	4.6655	ug/L	4.6655	ppb	20:06:51
2	B 249.677†	-282.7	401.5	8.3512	ug/L	8.3512	ppb	20:06:31
2	Ba 233.527†	2901.0	2603.9	39.594	ug/L	39.594	ppb	20:06:51
2	Be 313.107†	-9750.7	809.5	1.0228	ug/L	1.0228	ppb	20:06:31
2	Cd 226.502†	-194.5	133.1	0.6911	ug/L	0.6911	ppb	20:06:51
2	Co 228.616†	-43.8	51.4	1.0982	ug/L	1.0982	ppb	20:06:51
2	Cr 267.716†	1673.6	1393.6	21.234	ug/L	21.234	ppb	20:06:31
2	Cu 324.752†	8606.7	1334.2	7.3449	ug/L	7.3449	ppb	20:06:31
2	Mn 257.610†	174211.5	155557.5	300.65	ug/L	300.65	ppb	20:06:31
2	Mo 202.031†	45.3	24.6	3.5234	ug/L	3.5234	ppb	20:06:51
2	Ni 231.604†	495.3	326.3	11.007	ug/L	11.007	ppb	20:06:51

2	P 214.914†	465.6	106.1	50.990	ug/L	50.990 ppb	20:06:51
2	Pb 220.353†	25.1	118.1	21.178	ug/L	21.178 ppb	20:06:51
2	S 181.975 Axial†	100.2	20.8	26.443	ug/L	26.443 ppb	20:06:51
2	Sb 206.836†	64.8	0.5	-0.3002	ug/L	-0.3002 ppb	20:06:51
2	Se 196.026†	-54.7	-16.1	13.270	ug/L	13.270 ppb	20:06:51
2	Si 251.611†	72964.0	64845.1	2742.9	ug/L	2742.9 ppb	20:06:31
2	Sn 189.927†	6.4	-6.1	-1.0525	ug/L	-1.0525 ppb	20:06:51
2	Ti 334.940†	121359.6	110778.3	294.26	ug/L	294.26 ppb	20:06:31
2	Tl 190.801†	-70.6	-4.4	1.0117	ug/L	1.0117 ppb	20:06:51
2	U 409.014†	-2818.5	-726.3	-40.344	ug/L	-40.344 ppb	20:06:31
2	V 292.402†	-500.0	1523.6	11.610	ug/L	11.610 ppb	20:06:31
2	Zn 213.857†	8055.2	6279.4	71.714	ug/L	71.714 ppb	20:06:31
2	SiO2†	72431.8	64331.2	5823.0	ug/L	5823.0 ppb	20:07:27
3	Sc Radial	3599.4	3599.4	111	%		20:05:58
3	Y RADIAL	4247.3	4247.3	116.5	%		20:05:38
3	Al 396.153Radial†	4879.4	4511.8	5292.0	ug/L	5292.0 ppb	20:05:38
3	Ca 317.933Radial†	748.2	662.8	1492.8	ug/L	1492.8 ppb	20:05:58
3	Fe 238.204 Radial†	1074.5	963.3	12937	ug/L	12937 ppb	20:05:58
3	K 766.490 Radial†	5719.1	1976.8	461.16	ug/L	461.16 ppb	20:05:38
3	Mg 279.077 IEC†	22.6	20.2	907.31	ug/L	907.31 ppb	20:05:58
3	Na 589.592 Radial†	-825.2	450.8	220.28	ug/L	220.28 ppb	20:05:38
3	Sr 421.552†	1510.6	1329.1	13.869	ug/L	13.869 ppb	20:05:38
3	Sc 361.383	617265.8	617265.8	110.82	%		20:06:56
3	Y 371.029	598730.6	598730.6	115.72	%		20:06:56
3	Ag 328.068†	-592.6	-587.4	0.3472	ug/L	0.3472 ppb	20:06:56
3	As 188.979†	-52.9	-3.1	2.6209	ug/L	2.6209 ppb	20:07:16
3	B 249.677†	-234.8	443.1	9.3553	ug/L	9.3553 ppb	20:06:56
3	Ba 233.527†	2897.1	2617.5	39.795	ug/L	39.795 ppb	20:07:16
3	Be 313.107†	-9826.6	683.7	0.9660	ug/L	0.9660 ppb	20:06:56
3	Cd 226.502†	-217.3	111.4	0.3906	ug/L	0.3906 ppb	20:07:16
3	Co 228.616†	-35.6	58.5	1.3602	ug/L	1.3602 ppb	20:07:16
3	Cr 267.716†	1708.5	1435.0	21.853	ug/L	21.853 ppb	20:06:56
3	Cu 324.752†	8567.0	1349.1	7.4125	ug/L	7.4125 ppb	20:06:56
3	Mn 257.610†	172596.2	155125.5	299.82	ug/L	299.82 ppb	20:06:56
3	Mo 202.031†	46.0	25.5	3.6166	ug/L	3.6166 ppb	20:07:16
3	Ni 231.604†	492.4	326.6	11.016	ug/L	11.016 ppb	20:07:16
3	P 214.914†	445.2	90.5	42.598	ug/L	42.598 ppb	20:07:16
3	Pb 220.353†	7.2	102.1	18.329	ug/L	18.329 ppb	20:07:16
3	S 181.975 Axial†	104.5	25.3	32.251	ug/L	32.251 ppb	20:07:16
3	Sb 206.836†	48.0	-14.3	-6.9727	ug/L	-6.9727 ppb	20:07:16
3	Se 196.026†	-79.2	-38.5	-1.0553	ug/L	-1.0553 ppb	20:07:16
3	Si 251.611†	72501.6	64857.4	2743.5	ug/L	2743.5 ppb	20:06:56
3	Sn 189.927†	6.7	-5.9	-0.9901	ug/L	-0.9901 ppb	20:07:16
3	Ti 334.940†	120256.5	110497.4	293.51	ug/L	293.51 ppb	20:06:56
3	Tl 190.801†	-80.1	-13.4	-4.3107	ug/L	-4.3107 ppb	20:07:16
3	U 409.014†	-2638.2	-580.1	-32.937	ug/L	-32.937 ppb	20:06:56
3	V 292.402†	-529.9	1493.7	11.357	ug/L	11.357 ppb	20:06:56
3	Zn 213.857†	7952.0	6233.7	71.200	ug/L	71.200 ppb	20:06:56
3	SiO2†	73355.2	65591.0	5937.0	ug/L	5937.0 ppb	20:07:32

Mean Data: 1202072049|973755|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	615555.0	110.51	%	1.218				1.10%
Sc Radial	3609.7	111	%	1.3				1.20%
Y 371.029	597813.5	115.54	%	1.200				1.04%
Y RADIAL	4281.2	117.5	%	1.01				0.86%
Ag 328.068†	-604.1	0.2662	ug/L	0.20265	0.2662	ppb	0.20265	76.13%
Al 396.153Radial†	4543.5	5329.2	ug/L	36.20	5329.2	ppb	36.20	0.68%
As 188.979†	5.2	6.3237	ug/L	4.75396	6.3237	ppb	4.75396	75.18%
B 249.677†	413.7	8.6392	ug/L	0.62416	8.6392	ppb	0.62416	7.22%
Ba 233.527†	2632.1	40.016	ug/L	0.5661	40.016	ppb	0.5661	1.41%
Be 313.107†	753.2	0.9982	ug/L	0.02918	0.9982	ppb	0.02918	2.92%
Ca 317.933Radial†	665.1	1498.0	ug/L	6.64	1498.0	ppb	6.64	0.44%
Cd 226.502†	122.8	0.5430	ug/L	0.15032	0.5430	ppb	0.15032	27.68%
Co 228.616†	58.4	1.3552	ug/L	0.25457	1.3552	ppb	0.25457	18.78%
Cr 267.716†	1435.7	21.866	ug/L	0.6393	21.866	ppb	0.6393	2.92%
Cu 324.752†	1399.3	7.6620	ug/L	0.49182	7.6620	ppb	0.49182	6.42%
Fe 238.204 Radial†	967.3	12991	ug/L	93.0	12991	ppb	93.0	0.72%
K 766.490 Radial†	2048.6	477.92	ug/L	19.626	477.92	ppb	19.626	4.11%

Mg 279.077 IEC†	20.5	922.58	ug/L	40.580	922.58	ppb	40.580	4.40%
Mn 257.610†	155577.8	300.69	ug/L	0.900	300.69	ppb	0.900	0.30%
Mo 202.031†	22.0	3.2473	ug/L	0.56086	3.2473	ppb	0.56086	17.27%
Na 589.592 Radial†	489.7	239.28	ug/L	20.106	239.28	ppb	20.106	8.40%
Ni 231.604†	327.9	11.059	ug/L	0.0827	11.059	ppb	0.0827	0.75%
P 214.914†	98.7	46.917	ug/L	4.2011	46.917	ppb	4.2011	8.95%
Pb 220.353†	110.2	19.780	ug/L	1.4252	19.780	ppb	1.4252	7.21%
S 181.975 Axial†	23.4	29.846	ug/L	3.0301	29.846	ppb	3.0301	10.15%
Sb 206.836†	-5.1	-2.8196	ug/L	3.62383	-2.8196	ppb	3.62383	128.52%
Se 196.026†	-27.4	6.1696	ug/L	7.16349	6.1696	ppb	7.16349	116.11%
Si 251.611†	64904.1	2745.4	ug/L	3.89	2745.4	ppb	3.89	0.14%
Sn 189.927†	-4.3	-0.5857	ug/L	0.75512	-0.5857	ppb	0.75512	128.93%
Sr 421.552†	1332.1	13.900	ug/L	0.0744	13.900	ppb	0.0744	0.54%
Ti 334.940†	110784.2	294.27	ug/L	0.772	294.27	ppb	0.772	0.26%
Tl 190.801†	-5.2	0.5829	ug/L	4.69399	0.5829	ppb	4.69399	805.26%
U 409.014†	-674.9	-37.753	ug/L	4.1750	-37.753	ppb	4.1750	11.06%
V 292.402†	1477.7	11.190	ug/L	0.5238	11.190	ppb	0.5238	4.68%
Zn 213.857†	6275.7	71.676	ug/L	0.4584	71.676	ppb	0.4584	0.64%
SiO2†	65502.5	5929.0	ug/L	102.27	5929.0	ppb	102.27	1.72%

Sequence No.: 21
Sample ID: 249329001|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 51
Date Collected: 4/15/2010 20:09:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249329001|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3770.4	3770.4	116	%			20:11:56
1	Y RADIAL	4879.8	4879.8	133.9	%			20:11:36
1	Al 396.153Radial†	33515.6	28944.7	33950	ug/L	33950	ppb	20:11:36
1	Ca 317.933Radial†	5291.1	4539.9	10225	ug/L	10225	ppb	20:11:36
1	Fe 238.204 Radial†	5680.7	4881.6	65559	ug/L	65559	ppb	20:11:36
1	K 766.490 Radial†	31706.2	24096.6	5623.4	ug/L	5623.4	ppb	20:11:36
1	Mg 279.077 IEC†	191.4	164.5	7427.1	ug/L	7427.1	ppb	20:11:56
1	Na 589.592 Radial†	1784.9	2729.7	1333.8	ug/L	1333.8	ppb	20:11:36
1	Sr 421.552†	7582.2	6490.1	67.700	ug/L	67.700	ppb	20:11:36
1	Sc 361.383	639325.0	639325.0	114.78	%			20:12:54
1	Y 371.029	686648.3	686648.3	132.71	%			20:12:54
1	Ag 328.068†	-3403.6	-3018.0	1.5226	ug/L	1.5226	ppb	20:12:54
1	As 188.979†	-21.1	26.2	30.555	ug/L	30.555	ppb	20:13:14
1	B 249.677†	435.4	1034.4	18.099	ug/L	18.099	ppb	20:12:54
1	Ba 233.527†	35105.3	30589.0	460.04	ug/L	460.04	ppb	20:12:54
1	Be 313.107†	-7042.1	3415.6	4.4932	ug/L	4.4932	ppb	20:12:54
1	Cd 226.502†	187.3	470.7	0.6542	ug/L	0.6542	ppb	20:13:14
1	Co 228.616†	405.6	444.0	12.800	ug/L	12.800	ppb	20:13:14
1	Cr 267.716†	2406.8	1990.2	31.178	ug/L	31.178	ppb	20:13:14
1	Cu 324.752†	14499.1	6250.7	34.725	ug/L	34.725	ppb	20:12:54
1	Mn 257.610†	1148527.8	1000040.2	1930.8	ug/L	1930.8	ppb	20:12:54
1	Mo 202.031†	78.9	52.8	10.259	ug/L	10.259	ppb	20:13:14
1	Ni 231.604†	1020.8	771.6	26.053	ug/L	26.053	ppb	20:13:14
1	P 214.914†	1272.2	797.1	399.28	ug/L	399.28	ppb	20:13:14
1	Pb 220.353†	294.4	352.1	65.574	ug/L	65.574	ppb	20:13:14
1	S 181.975 Axial†	298.2	190.8	243.96	ug/L	243.96	ppb	20:13:14
1	Sb 206.836†	66.8	0.6	-2.0208	ug/L	-2.0208	ppb	20:13:14
1	Se 196.026†	-220.9	-159.5	17.505	ug/L	17.505	ppb	20:13:14
1	Si 251.611†	475280.6	413524.6	17492	ug/L	17492	ppb	20:12:54
1	Sn 189.927†	0.0	-11.9	-0.0589	ug/L	-0.0589	ppb	20:13:14
1	Ti 334.940†	567984.2	496839.6	1319.9	ug/L	1319.9	ppb	20:12:54
1	Tl 190.801†	-114.6	-41.0	-5.2415	ug/L	-5.2415	ppb	20:13:14
1	U 409.014†	-5172.0	-2705.7	-154.86	ug/L	-154.86	ppb	20:12:54
1	V 292.402†	7928.9	8880.0	69.484	ug/L	69.484	ppb	20:12:54
1	Zn 213.857†	25736.4	21480.9	247.40	ug/L	247.40	ppb	20:12:54
1	SiO2†	469828.1	408737.3	36997	ug/L	36997	ppb	20:14:11
2	Sc Radial	3775.3	3775.3	116	%			20:12:21
2	Y RADIAL	4931.2	4931.2	135.3	%			20:12:01
2	Al 396.153Radial†	33648.3	29021.7	34041	ug/L	34041	ppb	20:12:01
2	Ca 317.933Radial†	5284.8	4528.7	10200	ug/L	10200	ppb	20:12:01
2	Fe 238.204 Radial†	5640.7	4840.9	65013	ug/L	65013	ppb	20:12:01
2	K 766.490 Radial†	31669.4	24030.0	5607.9	ug/L	5607.9	ppb	20:12:01
2	Mg 279.077 IEC†	186.6	160.2	7231.1	ug/L	7231.1	ppb	20:12:21
2	Na 589.592 Radial†	1800.8	2741.3	1339.5	ug/L	1339.5	ppb	20:12:01
2	Sr 421.552†	7610.4	6505.9	67.866	ug/L	67.866	ppb	20:12:01
2	Sc 361.383	630950.9	630950.9	113.27	%			20:13:20
2	Y 371.029	677292.1	677292.1	130.90	%			20:13:20
2	Ag 328.068†	-3369.0	-3026.8	1.3196	ug/L	1.3196	ppb	20:13:20
2	As 188.979†	-39.9	9.4	23.042	ug/L	23.042	ppb	20:13:40
2	B 249.677†	315.3	933.3	15.712	ug/L	15.712	ppb	20:13:20
2	Ba 233.527†	34640.6	30584.6	459.95	ug/L	459.95	ppb	20:13:20
2	Be 313.107†	-7050.2	3327.0	4.4490	ug/L	4.4490	ppb	20:13:20
2	Cd 226.502†	220.2	501.9	1.1361	ug/L	1.1361	ppb	20:13:40
2	Co 228.616†	388.6	433.7	12.435	ug/L	12.435	ppb	20:13:40
2	Cr 267.716†	2435.5	2043.3	31.975	ug/L	31.975	ppb	20:13:40
2	Cu 324.752†	14296.3	6239.4	34.641	ug/L	34.641	ppb	20:13:20
2	Mn 257.610†	1133068.0	999673.0	1930.1	ug/L	1930.1	ppb	20:13:20
2	Mo 202.031†	66.5	42.7	9.1567	ug/L	9.1567	ppb	20:13:40
2	Ni 231.604†	1044.8	804.6	27.164	ug/L	27.164	ppb	20:13:40

2	P 214.914†	1263.9	804.5	403.48	ug/L	403.48 ppb	20:13:40
2	Pb 220.353†	289.3	350.9	65.436	ug/L	65.436 ppb	20:13:40
2	S 181.975 Axial†	301.4	197.1	252.05	ug/L	252.05 ppb	20:13:40
2	Sb 206.836†	59.3	-5.3	-4.6921	ug/L	-4.6921 ppb	20:13:40
2	Se 196.026†	-214.9	-156.8	18.238	ug/L	18.238 ppb	20:13:40
2	Si 251.611†	468925.6	413410.2	17487	ug/L	17487 ppb	20:13:20
2	Sn 189.927†	-1.5	-13.2	-0.4003	ug/L	-0.4003 ppb	20:13:40
2	Ti 334.940†	559542.1	495954.6	1317.5	ug/L	1317.5 ppb	20:13:20
2	Tl 190.801†	-117.4	-44.8	-7.5293	ug/L	-7.5293 ppb	20:13:40
2	U 409.014†	-5364.0	-2934.9	-166.34	ug/L	-166.34 ppb	20:13:20
2	V 292.402†	7809.8	8866.5	69.397	ug/L	69.397 ppb	20:13:20
2	Zn 213.857†	25377.0	21461.3	247.12	ug/L	247.12 ppb	20:13:20
2	SiO2†	477238.3	420712.0	38081	ug/L	38081 ppb	20:14:17
3	Sc Radial	3769.4	3769.4	116	%		20:12:47
3	Y RADIAL	4979.6	4979.6	136.6	%		20:12:26
3	Al 396.153Radial†	34178.7	29523.5	34629	ug/L	34629 ppb	20:12:26
3	Ca 317.933Radial†	5359.2	4599.8	10360	ug/L	10360 ppb	20:12:26
3	Fe 238.204 Radial†	5759.1	4950.4	66484	ug/L	66484 ppb	20:12:26
3	K 766.490 Radial†	32166.0	24500.0	5717.6	ug/L	5717.6 ppb	20:12:26
3	Mg 279.077 IEC†	187.5	161.1	7273.6	ug/L	7273.6 ppb	20:12:47
3	Na 589.592 Radial†	1792.9	2737.0	1337.4	ug/L	1337.4 ppb	20:12:26
3	Sr 421.552†	7711.2	6602.9	68.877	ug/L	68.877 ppb	20:12:26
3	Sc 361.383	646620.5	646620.5	116.09	%		20:13:46
3	Y 371.029	694131.2	694131.2	134.15	%		20:13:46
3	Ag 328.068†	-3402.9	-2984.0	1.9981	ug/L	1.9981 ppb	20:13:46
3	As 188.979†	-37.3	12.5	24.604	ug/L	24.604 ppb	20:14:06
3	B 249.677†	435.3	1030.0	17.896	ug/L	17.896 ppb	20:13:46
3	Ba 233.527†	35481.6	30568.0	459.78	ug/L	459.78 ppb	20:13:46
3	Be 313.107†	-7230.1	3322.9	4.4498	ug/L	4.4498 ppb	20:13:46
3	Cd 226.502†	207.2	485.9	0.7825	ug/L	0.7825 ppb	20:14:06
3	Co 228.616†	411.6	445.2	12.831	ug/L	12.831 ppb	20:14:06
3	Cr 267.716†	2435.6	1991.3	31.211	ug/L	31.211 ppb	20:14:06
3	Cu 324.752†	14738.2	6314.2	35.096	ug/L	35.096 ppb	20:13:46
3	Mn 257.610†	1161255.4	999714.1	1930.3	ug/L	1930.3 ppb	20:13:46
3	Mo 202.031†	68.4	42.9	9.2844	ug/L	9.2844 ppb	20:14:06
3	Ni 231.604†	1010.6	752.8	25.420	ug/L	25.420 ppb	20:14:06
3	P 214.914†	1274.8	786.8	393.42	ug/L	393.42 ppb	20:14:06
3	Pb 220.353†	294.7	349.5	65.207	ug/L	65.207 ppb	20:14:06
3	S 181.975 Axial†	309.9	197.9	253.12	ug/L	253.12 ppb	20:14:06
3	Sb 206.836†	59.2	-6.6	-5.3283	ug/L	-5.3283 ppb	20:14:06
3	Se 196.026†	-212.7	-150.3	25.061	ug/L	25.061 ppb	20:14:06
3	Si 251.611†	481594.8	414291.9	17525	ug/L	17525 ppb	20:13:46
3	Sn 189.927†	-19.0	-28.2	-4.1240	ug/L	-4.1240 ppb	20:14:06
3	Ti 334.940†	573948.3	496394.0	1318.7	ug/L	1318.7 ppb	20:13:46
3	Tl 190.801†	-112.3	-37.9	-3.4268	ug/L	-3.4268 ppb	20:14:06
3	U 409.014†	-5293.9	-2759.8	-157.85	ug/L	-157.85 ppb	20:13:46
3	V 292.402†	8039.5	8897.3	69.493	ug/L	69.493 ppb	20:13:46
3	Zn 213.857†	25958.3	21419.1	246.79	ug/L	246.79 ppb	20:13:46
3	SiO2†	473196.6	407020.7	36842	ug/L	36842 ppb	20:14:22

Mean Data: 249329001|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	638965.5	114.71	%	1.408				1.23%
Sc Radial	3771.7	116	%	0.1				0.08%
Y 371.029	686023.9	132.59	%	1.631				1.23%
Y RADIAL	4930.2	135.3	%	1.37				1.01%
Ag 328.068†	-3009.6	1.6134	ug/L	0.34824	1.6134	ppb	0.34824	21.58%
Al 396.153Radial†	29163.3	34207	ug/L	368.7	34207	ppb	368.7	1.08%
As 188.979†	16.0	26.067	ug/L	3.9643	26.067	ppb	3.9643	15.21%
B 249.677†	999.2	17.236	ug/L	1.3230	17.236	ppb	1.3230	7.68%
Ba 233.527†	30580.5	459.92	ug/L	0.132	459.92	ppb	0.132	0.03%
Be 313.107†	3355.2	4.4640	ug/L	0.02527	4.4640	ppb	0.02527	0.57%
Ca 317.933Radial†	4556.2	10262	ug/L	86.1	10262	ppb	86.1	0.84%
Cd 226.502†	486.2	0.8576	ug/L	0.24956	0.8576	ppb	0.24956	29.10%
Co 228.616†	441.0	12.689	ug/L	0.2205	12.689	ppb	0.2205	1.74%
Cr 267.716†	2008.3	31.455	ug/L	0.4509	31.455	ppb	0.4509	1.43%
Cu 324.752†	6268.1	34.821	ug/L	0.2425	34.821	ppb	0.2425	0.70%
Fe 238.204 Radial†	4891.0	65685	ug/L	743.5	65685	ppb	743.5	1.13%
K 766.490 Radial†	24208.9	5649.6	ug/L	59.36	5649.6	ppb	59.36	1.05%

Mg 279.077 IEC†	161.9	7310.6	ug/L	103.13	7310.6	ppb	103.13	1.41%
Mn 257.610†	999809.1	1930.4	ug/L	0.39	1930.4	ppb	0.39	0.02%
Mo 202.031†	46.1	9.5668	ug/L	0.60320	9.5668	ppb	0.60320	6.31%
Na 589.592 Radial†	2736.0	1336.9	ug/L	2.89	1336.9	ppb	2.89	0.22%
Ni 231.604†	776.3	26.212	ug/L	0.8832	26.212	ppb	0.8832	3.37%
P 214.914†	796.2	398.73	ug/L	5.052	398.73	ppb	5.052	1.27%
Pb 220.353†	350.8	65.406	ug/L	0.1850	65.406	ppb	0.1850	0.28%
S 181.975 Axial†	195.3	249.71	ug/L	5.011	249.71	ppb	5.011	2.01%
Sb 206.836†	-3.8	-4.0137	ug/L	1.75500	-4.0137	ppb	1.75500	43.73%
Se 196.026†	-155.5	20.268	ug/L	4.1669	20.268	ppb	4.1669	20.56%
Si 251.611†	413742.2	17501	ug/L	20.3	17501	ppb	20.3	0.12%
Sn 189.927†	-17.8	-1.5278	ug/L	2.25490	-1.5278	ppb	2.25490	147.60%
Sr 421.552†	6533.0	68.148	ug/L	0.6371	68.148	ppb	0.6371	0.93%
Ti 334.940†	496396.1	1318.7	ug/L	1.17	1318.7	ppb	1.17	0.09%
Tl 190.801†	-41.2	-5.3992	ug/L	2.05581	-5.3992	ppb	2.05581	38.08%
U 409.014†	-2800.1	-159.68	ug/L	5.954	-159.68	ppb	5.954	3.73%
V 292.402†	8881.3	69.458	ug/L	0.0529	69.458	ppb	0.0529	0.08%
Zn 213.857†	21453.8	247.10	ug/L	0.302	247.10	ppb	0.302	0.12%
SiO2†	412156.7	37307	ug/L	675.1	37307	ppb	675.1	1.81%

Sequence No.: 22
Sample ID: 249329002|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 52
Date Collected: 4/15/2010 20:16:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249329002|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3761.3	3761.3	116	%			20:18:46
1	Y RADIAL	5121.5	5121.5	140.5	%			20:18:26
1	Al 396.153Radial†	25127.7	21782.2	25549	ug/L	25549	ppb	20:18:26
1	Ca 317.933Radial†	4181.4	3594.1	8095.1	ug/L	8095.1	ppb	20:18:26
1	Fe 238.204 Radial†	4839.9	4168.4	55982	ug/L	55982	ppb	20:18:26
1	K 766.490 Radial†	26397.5	19585.5	4570.9	ug/L	4570.9	ppb	20:18:26
1	Mg 279.077 IEC†	128.3	110.4	4978.6	ug/L	4978.6	ppb	20:18:46
1	Na 589.592 Radial†	-356.5	887.0	433.40	ug/L	433.40	ppb	20:18:26
1	Sr 421.552†	5993.8	5136.3	53.579	ug/L	53.579	ppb	20:18:26
1	Sc 361.383	638906.6	638906.6	114.70	%			20:19:43
1	Y 371.029	694866.4	694866.4	134.30	%			20:19:43
1	Ag 328.068†	-2726.3	-2429.5	2.1329	ug/L	2.1329	ppb	20:19:43
1	As 188.979†	-30.3	18.1	23.631	ug/L	23.631	ppb	20:20:03
1	B 249.677†	9.1	663.0	10.133	ug/L	10.133	ppb	20:19:43
1	Ba 233.527†	20904.6	18228.4	275.11	ug/L	275.11	ppb	20:19:43
1	Be 313.107†	-8013.1	2565.1	3.5108	ug/L	3.5108	ppb	20:19:43
1	Cd 226.502†	147.1	435.7	1.0257	ug/L	1.0257	ppb	20:20:03
1	Co 228.616†	244.8	304.0	8.2778	ug/L	8.2778	ppb	20:20:03
1	Cr 267.716†	1451.5	1158.7	18.459	ug/L	18.459	ppb	20:20:03
1	Cu 324.752†	12844.6	4816.5	27.137	ug/L	27.137	ppb	20:19:43
1	Mn 257.610†	1117403.2	973560.2	1879.0	ug/L	1879.0	ppb	20:19:43
1	Mo 202.031†	59.1	35.5	7.7358	ug/L	7.7358	ppb	20:20:03
1	Ni 231.604†	849.5	622.8	21.035	ug/L	21.035	ppb	20:20:03
1	P 214.914†	1298.5	820.8	415.50	ug/L	415.50	ppb	20:20:03
1	Pb 220.353†	272.1	332.8	60.789	ug/L	60.789	ppb	20:20:03
1	S 181.975 Axial†	250.6	149.5	191.26	ug/L	191.26	ppb	20:20:03
1	Sb 206.836†	55.5	-9.2	-5.9173	ug/L	-5.9173	ppb	20:20:03
1	Se 196.026†	-180.7	-124.6	22.335	ug/L	22.335	ppb	20:20:03
1	Si 251.611†	382963.9	333311.4	14099	ug/L	14099	ppb	20:19:43
1	Sn 189.927†	-7.5	-18.4	-2.2351	ug/L	-2.2351	ppb	20:20:03
1	Ti 334.940†	451670.7	395758.2	1051.4	ug/L	1051.4	ppb	20:19:43
1	Tl 190.801†	-99.7	-28.1	0.1636	ug/L	0.1636	ppb	20:20:03
1	U 409.014†	-4983.4	-2544.2	-144.07	ug/L	-144.07	ppb	20:19:43
1	V 292.402†	4422.4	5827.5	43.592	ug/L	43.592	ppb	20:19:43
1	Zn 213.857†	21786.7	18052.1	208.00	ug/L	208.00	ppb	20:19:43
1	SiO2†	367799.0	320053.5	28970	ug/L	28970	ppb	20:21:01
2	Sc Radial	3737.3	3737.3	115	%			20:19:11
2	Y RADIAL	5044.5	5044.5	138.4	%			20:18:51
2	Al 396.153Radial†	24651.5	21507.9	25227	ug/L	25227	ppb	20:18:51
2	Ca 317.933Radial†	4106.8	3552.5	8001.4	ug/L	8001.4	ppb	20:18:51
2	Fe 238.204 Radial†	4770.4	4134.9	55531	ug/L	55531	ppb	20:18:51
2	K 766.490 Radial†	26187.0	19548.8	4562.3	ug/L	4562.3	ppb	20:18:51
2	Mg 279.077 IEC†	123.1	106.7	4808.3	ug/L	4808.3	ppb	20:19:11
2	Na 589.592 Radial†	-297.6	936.1	457.39	ug/L	457.39	ppb	20:18:51
2	Sr 421.552†	5926.8	5111.3	53.318	ug/L	53.318	ppb	20:18:51
2	Sc 361.383	631504.1	631504.1	113.37	%			20:20:09
2	Y 371.029	686494.8	686494.8	132.68	%			20:20:09
2	Ag 328.068†	-2699.0	-2433.3	1.9812	ug/L	1.9812	ppb	20:20:09
2	As 188.979†	-45.8	4.2	17.425	ug/L	17.425	ppb	20:20:29
2	B 249.677†	-81.9	582.7	8.2426	ug/L	8.2426	ppb	20:20:09
2	Ba 233.527†	20603.5	18176.5	274.31	ug/L	274.31	ppb	20:20:09
2	Be 313.107†	-7838.4	2637.3	3.5466	ug/L	3.5466	ppb	20:20:09
2	Cd 226.502†	141.8	432.5	1.0208	ug/L	1.0208	ppb	20:20:29
2	Co 228.616†	214.7	280.0	7.3990	ug/L	7.3990	ppb	20:20:29
2	Cr 267.716†	1426.5	1151.5	18.344	ug/L	18.344	ppb	20:20:29
2	Cu 324.752†	12672.7	4796.2	27.011	ug/L	27.011	ppb	20:20:09
2	Mn 257.610†	1104969.8	974012.7	1879.8	ug/L	1879.8	ppb	20:20:09
2	Mo 202.031†	55.4	32.9	7.4266	ug/L	7.4266	ppb	20:20:29
2	Ni 231.604†	836.6	620.1	20.944	ug/L	20.944	ppb	20:20:29

2	P 214.914†	1276.5	814.6	412.34 ug/L	412.34 ppb	20:20:29
2	Pb 220.353†	254.2	319.8	58.445 ug/L	58.445 ppb	20:20:29
2	S 181.975 Axial†	250.8	152.2	194.78 ug/L	194.78 ppb	20:20:29
2	Sb 206.836†	45.7	-17.3	-9.6047 ug/L	-9.6047 ppb	20:20:29
2	Se 196.026†	-181.7	-127.3	19.770 ug/L	19.770 ppb	20:20:29
2	Si 251.611†	378472.0	333263.1	14097 ug/L	14097 ppb	20:20:09
2	Sn 189.927†	-5.0	-16.3	-1.7368 ug/L	-1.7368 ppb	20:20:29
2	Ti 334.940†	447221.3	396449.5	1053.3 ug/L	1053.3 ppb	20:20:09
2	Tl 190.801†	-108.6	-36.9	-5.0403 ug/L	-5.0403 ppb	20:20:29
2	U 409.014†	-5029.4	-2635.7	-148.59 ug/L	-148.59 ppb	20:20:09
2	V 292.402†	4319.4	5781.8	43.224 ug/L	43.224 ppb	20:20:09
2	Zn 213.857†	21579.0	18091.6	208.40 ug/L	208.40 ppb	20:20:09
2	SiO2†	373872.7	329169.5	29795 ug/L	29795 ppb	20:21:06
3	Sc Radial	3741.4	3741.4	115 %		20:19:36
3	Y RADIAL	4931.5	4931.5	135.3 %		20:19:16
3	Al 396.153Radial†	24102.1	21008.4	24642 ug/L	24642 ppb	20:19:16
3	Ca 317.933Radial†	3992.0	3449.1	7768.5 ug/L	7768.5 ppb	20:19:16
3	Fe 238.204 Radial†	4643.0	4020.0	53988 ug/L	53988 ppb	20:19:16
3	K 766.490 Radial†	25492.7	18922.2	4416.0 ug/L	4416.0 ppb	20:19:16
3	Mg 279.077 IEC†	123.0	106.4	4798.3 ug/L	4798.3 ppb	20:19:36
3	Na 589.592 Radial†	-325.0	912.6	445.93 ug/L	445.93 ppb	20:19:16
3	Sr 421.552†	5727.9	4933.3	51.461 ug/L	51.461 ppb	20:19:16
3	Sc 361.383	627621.2	627621.2	112.68 %		20:20:35
3	Y 371.029	681903.9	681903.9	131.79 %		20:20:35
3	Ag 328.068†	-2729.2	-2474.8	1.2923 ug/L	1.2923 ppb	20:20:35
3	As 188.979†	-39.4	9.6	19.612 ug/L	19.612 ppb	20:20:55
3	B 249.677†	-100.3	565.9	7.9966 ug/L	7.9966 ppb	20:20:35
3	Ba 233.527†	20498.7	18195.8	274.51 ug/L	274.51 ppb	20:20:35
3	Be 313.107†	-7897.3	2542.2	3.5014 ug/L	3.5014 ppb	20:20:35
3	Cd 226.502†	132.1	424.8	1.0502 ug/L	1.0502 ppb	20:20:55
3	Co 228.616†	231.6	296.2	8.0160 ug/L	8.0160 ppb	20:20:55
3	Cr 267.716†	1457.7	1186.9	18.858 ug/L	18.858 ppb	20:20:55
3	Cu 324.752†	12685.4	4876.7	27.302 ug/L	27.302 ppb	20:20:35
3	Mn 257.610†	1098879.9	974637.7	1880.8 ug/L	1880.8 ppb	20:20:35
3	Mo 202.031†	52.3	30.4	7.0580 ug/L	7.0580 ppb	20:20:55
3	Ni 231.604†	844.7	631.9	21.339 ug/L	21.339 ppb	20:20:55
3	P 214.914†	1312.3	853.4	433.48 ug/L	433.48 ppb	20:20:55
3	Pb 220.353†	270.4	335.5	61.197 ug/L	61.197 ppb	20:20:55
3	S 181.975 Axial†	250.2	153.1	195.97 ug/L	195.97 ppb	20:20:55
3	Sb 206.836†	64.8	-0.1	-1.8565 ug/L	-1.8565 ppb	20:20:55
3	Se 196.026†	-191.0	-136.5	11.052 ug/L	11.052 ppb	20:20:55
3	Si 251.611†	375807.8	332963.9	14085 ug/L	14085 ppb	20:20:35
3	Sn 189.927†	3.9	-8.4	0.1834 ug/L	0.1834 ppb	20:20:55
3	Ti 334.940†	443811.3	395863.6	1051.7 ug/L	1051.7 ppb	20:20:35
3	Tl 190.801†	-105.8	-35.1	-3.9563 ug/L	-3.9563 ppb	20:20:55
3	U 409.014†	-5176.5	-2793.7	-156.18 ug/L	-156.18 ppb	20:20:35
3	V 292.402†	4335.0	5819.2	43.749 ug/L	43.749 ppb	20:20:35
3	Zn 213.857†	21389.7	18041.3	207.69 ug/L	207.69 ppb	20:20:35
3	SiO2†	372141.6	329673.4	29841 ug/L	29841 ppb	20:21:11

Mean Data: 249329002|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	632677.3	113.58	%	1.029				0.91%
Sc Radial	3746.7	116	%	0.4				0.34%
Y 371.029	687755.0	132.92	%	1.270				0.96%
Y RADIAL	5032.5	138.1	%	2.62				1.90%
Ag 328.068†	-2445.9	1.8021	ug/L	0.44801	1.8021	ppb	0.44801	24.86%
Al 396.153Radial†	21432.8	25139	ug/L	460.2	25139	ppb	460.2	1.83%
As 188.979†	10.7	20.222	ug/L	3.1477	20.222	ppb	3.1477	15.57%
B 249.677†	603.9	8.7909	ug/L	1.16914	8.7909	ppb	1.16914	13.30%
Ba 233.527†	18200.2	274.65	ug/L	0.416	274.65	ppb	0.416	0.15%
Be 313.107†	2581.5	3.5196	ug/L	0.02387	3.5196	ppb	0.02387	0.68%
Ca 317.933Radial†	3531.9	7955.0	ug/L	168.19	7955.0	ppb	168.19	2.11%
Cd 226.502†	431.0	1.0323	ug/L	0.01574	1.0323	ppb	0.01574	1.52%
Co 228.616†	293.4	7.8976	ug/L	0.45120	7.8976	ppb	0.45120	5.71%
Cr 267.716†	1165.7	18.554	ug/L	0.2697	18.554	ppb	0.2697	1.45%
Cu 324.752†	4829.8	27.150	ug/L	0.1458	27.150	ppb	0.1458	0.54%
Fe 238.204 Radial†	4107.8	55167	ug/L	1045.7	55167	ppb	1045.7	1.90%
K 766.490 Radial†	19352.2	4516.4	ug/L	87.02	4516.4	ppb	87.02	1.93%

Mg 279.077 IEC†	107.8	4861.8	ug/L	101.36	4861.8	ppb	101.36	2.08%
Mn 257.610†	974070.2	1879.9	ug/L	0.94	1879.9	ppb	0.94	0.05%
Mo 202.031†	32.9	7.4068	ug/L	0.33934	7.4068	ppb	0.33934	4.58%
Na 589.592 Radial†	911.9	445.57	ug/L	11.998	445.57	ppb	11.998	2.69%
Ni 231.604†	625.0	21.106	ug/L	0.2066	21.106	ppb	0.2066	0.98%
P 214.914†	829.6	420.44	ug/L	11.401	420.44	ppb	11.401	2.71%
Pb 220.353†	329.4	60.143	ug/L	1.4850	60.143	ppb	1.4850	2.47%
S 181.975 Axial†	151.6	194.01	ug/L	2.452	194.01	ppb	2.452	1.26%
Sb 206.836†	-8.9	-5.7929	ug/L	3.87559	-5.7929	ppb	3.87559	66.90%
Se 196.026†	-129.5	17.719	ug/L	5.9145	17.719	ppb	5.9145	33.38%
Si 251.611†	333179.5	14094	ug/L	8.0	14094	ppb	8.0	0.06%
Sn 189.927†	-14.4	-1.2628	ug/L	1.27701	-1.2628	ppb	1.27701	101.12%
Sr 421.552†	5060.3	52.786	ug/L	1.1550	52.786	ppb	1.1550	2.19%
Ti 334.940†	396023.8	1052.1	ug/L	1.00	1052.1	ppb	1.00	0.09%
Tl 190.801†	-33.4	-2.9443	ug/L	2.74555	-2.9443	ppb	2.74555	93.25%
U 409.014†	-2657.9	-149.61	ug/L	6.122	-149.61	ppb	6.122	4.09%
V 292.402†	5809.5	43.522	ug/L	0.2694	43.522	ppb	0.2694	0.62%
Zn 213.857†	18061.7	208.03	ug/L	0.358	208.03	ppb	0.358	0.17%
SiO2†	326298.8	29535	ug/L	490.1	29535	ppb	490.1	1.66%

Sequence No.: 23
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/15/2010 20:23:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3715.0	3715.0	115	%			20:25:34
1	Y RADIAL	4153.7	4153.7	114.0	%			20:25:14
1	Al 396.153Radial†	4866.0	4363.3	5094.7	ug/L	5094.7	ppb	20:25:14
1	Ca 317.933Radial†	2538.6	2204.9	4966.1	ug/L	4966.1	ppb	20:25:34
1	Fe 238.204 Radial†	428.7	369.4	4975.3	ug/L	4975.3	ppb	20:25:34
1	K 766.490 Radial†	27129.0	20507.6	4782.4	ug/L	4782.4	ppb	20:25:14
1	Mg 279.077 IEC†	128.8	112.2	5096.8	ug/L	5096.8	ppb	20:25:34
1	Na 589.592 Radial†	21895.6	20309.6	9923.8	ug/L	9923.8	ppb	20:25:14
1	Sr 421.552†	54428.1	47484.6	495.85	ug/L	495.85	ppb	20:25:14
1	Sc 361.383	648804.6	648804.6	116.48	%			20:26:33
1	Y 371.029	597518.4	597518.4	115.48	%			20:26:33
1	Ag 328.068†	93094.1	79871.3	479.30	ug/L	479.30	ppb	20:26:33
1	As 188.979†	1218.9	1091.0	485.18	ug/L	485.18	ppb	20:26:53
1	B 249.677†	22001.5	19543.9	470.87	ug/L	470.87	ppb	20:26:33
1	Ba 233.527†	37542.5	32234.4	482.13	ug/L	482.13	ppb	20:26:33
1	Be 313.107†	1260979.4	1092138.1	480.04	ug/L	480.04	ppb	20:26:33
1	Cd 226.502†	39089.6	33867.0	471.24	ug/L	471.24	ppb	20:26:53
1	Co 228.616†	15360.4	13278.0	487.31	ug/L	487.31	ppb	20:26:53
1	Cr 267.716†	36956.9	31621.8	476.99	ug/L	476.99	ppb	20:26:33
1	Cu 324.752†	122827.5	99069.2	479.43	ug/L	479.43	ppb	20:26:33
1	Mn 257.610†	291818.3	249910.0	481.16	ug/L	481.16	ppb	20:26:33
1	Mo 202.031†	5290.1	4525.7	479.86	ug/L	479.86	ppb	20:26:53
1	Ni 231.604†	16866.0	14362.1	483.69	ug/L	483.69	ppb	20:26:53
1	P 214.914†	5597.2	4494.0	2291.0	ug/L	2291.0	ppb	20:26:53
1	Pb 220.353†	3053.5	2717.1	481.61	ug/L	481.61	ppb	20:26:53
1	S 181.975 Axial†	951.0	747.5	970.07	ug/L	970.07	ppb	20:26:53
1	Sb 206.836†	1292.8	1052.3	491.73	ug/L	491.73	ppb	20:26:53
1	Se 196.026†	846.9	760.1	496.13	ug/L	496.13	ppb	20:26:53
1	Si 251.611†	67082.3	57024.4	2406.3	ug/L	2406.3	ppb	20:26:33
1	Sn 189.927†	2229.0	1901.8	477.98	ug/L	477.98	ppb	20:26:53
1	Ti 334.940†	208995.1	181406.9	481.45	ug/L	481.45	ppb	20:26:33
1	Tl 190.801†	901.9	833.1	496.59	ug/L	496.59	ppb	20:26:53
1	U 409.014†	9191.4	9691.6	488.97	ug/L	488.97	ppb	20:26:33
1	V 292.402†	59916.0	53411.5	486.21	ug/L	486.21	ppb	20:26:33
1	Zn 213.857†	50606.6	42505.1	474.40	ug/L	474.40	ppb	20:26:33
1	SiO2†	64694.3	54937.5	4959.7	ug/L	4959.7	ppb	20:27:53
2	Sc Radial	3656.1	3656.1	113	%			20:25:59
2	Y RADIAL	4180.3	4180.3	114.7	%			20:25:39
2	Al 396.153Radial†	4938.0	4495.6	5250.2	ug/L	5250.2	ppb	20:25:39
2	Ca 317.933Radial†	2517.8	2222.2	5005.0	ug/L	5005.0	ppb	20:25:59
2	Fe 238.204 Radial†	426.3	373.3	5028.1	ug/L	5028.1	ppb	20:25:59
2	K 766.490 Radial†	27215.1	20965.3	4889.1	ug/L	4889.1	ppb	20:25:39
2	Mg 279.077 IEC†	128.3	113.7	5160.8	ug/L	5160.8	ppb	20:25:59
2	Na 589.592 Radial†	22021.0	20728.6	10129	ug/L	10129	ppb	20:25:39
2	Sr 421.552†	54922.6	48688.3	508.42	ug/L	508.42	ppb	20:25:39
2	Sc 361.383	633621.4	633621.4	113.75	%			20:27:00
2	Y 371.029	583471.1	583471.1	112.77	%			20:27:00
2	Ag 328.068†	90996.3	79942.3	479.75	ug/L	479.75	ppb	20:27:00
2	As 188.979†	1180.1	1082.0	481.22	ug/L	481.22	ppb	20:27:20
2	B 249.677†	21399.6	19467.4	469.02	ug/L	469.02	ppb	20:27:00
2	Ba 233.527†	36737.6	32299.2	483.10	ug/L	483.10	ppb	20:27:00
2	Be 313.107†	1236536.4	1096591.8	481.99	ug/L	481.99	ppb	20:27:00
2	Cd 226.502†	37800.5	33538.0	466.66	ug/L	466.66	ppb	20:27:20
2	Co 228.616†	14855.7	13150.3	482.61	ug/L	482.61	ppb	20:27:20
2	Cr 267.716†	36346.5	31845.5	480.36	ug/L	480.36	ppb	20:27:00
2	Cu 324.752†	119955.4	99071.2	479.45	ug/L	479.45	ppb	20:27:00
2	Mn 257.610†	286323.2	251082.7	483.42	ug/L	483.42	ppb	20:27:00
2	Mo 202.031†	5100.4	4467.7	473.73	ug/L	473.73	ppb	20:27:20
2	Ni 231.604†	16315.0	14224.8	479.07	ug/L	479.07	ppb	20:27:20

2	P 214.914†	5407.4	4442.4	2263.4 ug/L	2263.4 ppb	20:27:20
2	Pb 220.353†	2949.2	2688.2	476.54 ug/L	476.54 ppb	20:27:20
2	S 181.975 Axial†	929.6	748.2	971.07 ug/L	971.07 ppb	20:27:20
2	Sb 206.836†	1272.5	1061.0	495.46 ug/L	495.46 ppb	20:27:20
2	Se 196.026†	817.5	751.6	490.83 ug/L	490.83 ppb	20:27:20
2	Si 251.611†	65705.7	57194.3	2413.5 ug/L	2413.5 ppb	20:27:00
2	Sn 189.927†	2155.0	1882.6	473.19 ug/L	473.19 ppb	20:27:20
2	Ti 334.940†	204337.2	181611.7	481.99 ug/L	481.99 ppb	20:27:00
2	Tl 190.801†	859.5	814.5	485.57 ug/L	485.57 ppb	20:27:20
2	U 409.014†	8959.9	9677.2	488.22 ug/L	488.22 ppb	20:27:00
2	V 292.402†	58710.8	53584.6	487.67 ug/L	487.67 ppb	20:27:00
2	Zn 213.857†	49634.2	42691.4	476.53 ug/L	476.53 ppb	20:27:00
2	SiO2†	64609.9	56194.2	5073.6 ug/L	5073.6 ppb	20:27:58
3	Sc Radial	3707.4	3707.4	114 %		20:26:24
3	Y RADIAL	4187.2	4187.2	114.9 %		20:26:04
3	Al 396.153Radial†	4912.8	4412.9	5153.0 ug/L	5153.0 ppb	20:26:04
3	Ca 317.933Radial†	2540.2	2210.8	4979.4 ug/L	4979.4 ppb	20:26:24
3	Fe 238.204 Radial†	426.4	368.1	4958.6 ug/L	4958.6 ppb	20:26:24
3	K 766.490 Radial†	27293.6	20700.1	4827.3 ug/L	4827.3 ppb	20:26:04
3	Mg 279.077 IEC†	130.5	114.0	5175.9 ug/L	5175.9 ppb	20:26:24
3	Na 589.592 Radial†	22078.3	20508.5	10021 ug/L	10021 ppb	20:26:04
3	Sr 421.552†	54951.8	48040.1	501.65 ug/L	501.65 ppb	20:26:04
3	Sc 361.383	630411.0	630411.0	113.18 %		20:27:27
3	Y 371.029	580891.2	580891.2	112.27 %		20:27:27
3	Ag 328.068†	90721.3	80106.8	480.71 ug/L	480.71 ppb	20:27:27
3	As 188.979†	1186.4	1092.9	485.99 ug/L	485.99 ppb	20:27:48
3	B 249.677†	21429.9	19590.0	471.99 ug/L	471.99 ppb	20:27:27
3	Ba 233.527†	36548.3	32296.4	483.06 ug/L	483.06 ppb	20:27:27
3	Be 313.107†	1230114.9	1096453.7	481.93 ug/L	481.93 ppb	20:27:27
3	Cd 226.502†	37825.6	33729.4	469.33 ug/L	469.33 ppb	20:27:48
3	Co 228.616†	14839.1	13202.1	484.52 ug/L	484.52 ppb	20:27:48
3	Cr 267.716†	36162.1	31845.2	480.36 ug/L	480.36 ppb	20:27:27
3	Cu 324.752†	119243.8	98979.5	479.00 ug/L	479.00 ppb	20:27:27
3	Mn 257.610†	284399.6	250664.9	482.61 ug/L	482.61 ppb	20:27:27
3	Mo 202.031†	5122.3	4509.9	478.19 ug/L	478.19 ppb	20:27:48
3	Ni 231.604†	16340.9	14320.7	482.30 ug/L	482.30 ppb	20:27:48
3	P 214.914†	5378.6	4441.1	2262.8 ug/L	2262.8 ppb	20:27:48
3	Pb 220.353†	2966.5	2716.7	481.56 ug/L	481.56 ppb	20:27:48
3	S 181.975 Axial†	919.4	743.3	964.71 ug/L	964.71 ppb	20:27:48
3	Sb 206.836†	1250.0	1046.8	489.16 ug/L	489.16 ppb	20:27:48
3	Se 196.026†	821.2	758.5	495.12 ug/L	495.12 ppb	20:27:48
3	Si 251.611†	65212.2	57052.4	2407.5 ug/L	2407.5 ppb	20:27:27
3	Sn 189.927†	2146.5	1884.7	473.70 ug/L	473.70 ppb	20:27:48
3	Ti 334.940†	203408.7	181706.1	482.24 ug/L	482.24 ppb	20:27:27
3	Tl 190.801†	866.3	824.3	491.39 ug/L	491.39 ppb	20:27:48
3	U 409.014†	8870.1	9638.0	486.25 ug/L	486.25 ppb	20:27:27
3	V 292.402†	58407.3	53579.3	487.69 ug/L	487.69 ppb	20:27:27
3	Zn 213.857†	49408.6	42714.2	476.76 ug/L	476.76 ppb	20:27:27
3	SiO2†	65873.7	57600.2	5200.7 ug/L	5200.7 ppb	20:28:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	637612.3	114.47	%	1.764				1.54%
Sc Radial	3692.8	114	%	1.0				0.87%
Y 371.029	587293.6	113.51	%	1.729				1.52%
Y RADIAL	4173.7	114.5	%	0.49				0.42%
Ag 328.068†	79973.5	479.92	ug/L	0.719	479.92	ppb	0.719	0.15%
QC value within limits for Ag 328.068 Recovery = 95.98%								
Al 396.153Radial†	4423.9	5165.9	ug/L	78.54	5165.9	ppb	78.54	1.52%
QC value within limits for Al 396.153Radial Recovery = 103.32%								
As 188.979†	1088.6	484.13	ug/L	2.553	484.13	ppb	2.553	0.53%
QC value within limits for As 188.979 Recovery = 96.83%								
B 249.677†	19533.8	470.63	ug/L	1.499	470.63	ppb	1.499	0.32%
QC value within limits for B 249.677 Recovery = 94.13%								
Ba 233.527†	32276.7	482.76	ug/L	0.549	482.76	ppb	0.549	0.11%
QC value within limits for Ba 233.527 Recovery = 96.55%								
Be 313.107†	1095061.2	481.32	ug/L	1.111	481.32	ppb	1.111	0.23%
QC value within limits for Be 313.107 Recovery = 96.26%								
Ca 317.933Radial†	2212.6	4983.5	ug/L	19.75	4983.5	ppb	19.75	0.40%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.67%
Cd 226.502†            33711.5      469.08 ug/L         2.304      469.08 ppb          2.304   0.49%
   QC value within limits for Cd 226.502  Recovery = 93.82%
Co 228.616†            13210.1      484.81 ug/L         2.365      484.81 ppb          2.365   0.49%
   QC value within limits for Co 228.616  Recovery = 96.96%
Cr 267.716†            31770.8      479.24 ug/L         1.946      479.24 ppb          1.946   0.41%
   QC value within limits for Cr 267.716  Recovery = 95.85%
Cu 324.752†            99040.0      479.30 ug/L         0.255      479.30 ppb          0.255   0.05%
   QC value within limits for Cu 324.752  Recovery = 95.86%
Fe 238.204 Radial†       370.3      4987.3 ug/L         36.30      4987.3 ppb          36.30   0.73%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.75%
K 766.490 Radial†      20724.3      4832.9 ug/L         53.61      4832.9 ppb          53.61   1.11%
   QC value within limits for K 766.490 Radial  Recovery = 96.66%
Mg 279.077 IEC†          113.3      5144.5 ug/L         42.01      5144.5 ppb          42.01   0.82%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.89%
Mn 257.610†           250552.6      482.40 ug/L         1.144      482.40 ppb          1.144   0.24%
   QC value within limits for Mn 257.610  Recovery = 96.48%
Mo 202.031†             4501.1      477.26 ug/L         3.170      477.26 ppb          3.170   0.66%
   QC value within limits for Mo 202.031  Recovery = 95.45%
Na 589.592 Radial†     20515.6       10024 ug/L         102.4       10024 ppb          102.4   1.02%
   QC value within limits for Na 589.592 Radial  Recovery = 100.24%
Ni 231.604†            14302.6      481.69 ug/L         2.372      481.69 ppb          2.372   0.49%
   QC value within limits for Ni 231.604  Recovery = 96.34%
P 214.914†              4459.1      2272.4 ug/L         16.12      2272.4 ppb          16.12   0.71%
   QC value within limits for P 214.914  Recovery = 90.90%
Pb 220.353†             2707.3      479.90 ug/L         2.917      479.90 ppb          2.917   0.61%
   QC value within limits for Pb 220.353  Recovery = 95.98%
S 181.975 Axial†         746.3      968.62 ug/L         3.420      968.62 ppb          3.420   0.35%
   QC value within limits for S 181.975 Axial  Recovery = 96.86%
Sb 206.836†             1053.4      492.12 ug/L         3.169      492.12 ppb          3.169   0.64%
   QC value within limits for Sb 206.836  Recovery = 98.42%
Se 196.026†              756.7      494.03 ug/L         2.816      494.03 ppb          2.816   0.57%
   QC value within limits for Se 196.026  Recovery = 98.81%
Si 251.611†            57090.4      2409.1 ug/L          3.89      2409.1 ppb           3.89   0.16%
   QC value within limits for Si 251.611  Recovery = 96.36%
Sn 189.927†             1889.7      474.96 ug/L         2.634      474.96 ppb          2.634   0.55%
   QC value within limits for Sn 189.927  Recovery = 94.99%
Sr 421.552†            48071.0      501.97 ug/L         6.291      501.97 ppb          6.291   1.25%
   QC value within limits for Sr 421.552  Recovery = 100.39%
Ti 334.940†           181574.9      481.89 ug/L         0.404      481.89 ppb          0.404   0.08%
   QC value within limits for Ti 334.940  Recovery = 96.38%
Tl 190.801†              824.0      491.18 ug/L         5.514      491.18 ppb          5.514   1.12%
   QC value within limits for Tl 190.801  Recovery = 98.24%
U 409.014†              9668.9      487.82 ug/L         1.406      487.82 ppb          1.406   0.29%
   QC value within limits for U 409.014  Recovery = 97.56%
V 292.402†             53525.1      487.19 ug/L         0.848      487.19 ppb          0.848   0.17%
   QC value within limits for V 292.402  Recovery = 97.44%
Zn 213.857†            42636.9      475.90 ug/L         1.300      475.90 ppb          1.300   0.27%
   QC value within limits for Zn 213.857  Recovery = 95.18%
SiO2†                  56244.0      5078.0 ug/L        120.59      5078.0 ppb         120.59   2.37%
   QC value within limits for SiO2  Recovery = 94.96%
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/15/2010 20:30:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3725.6	3725.6	115	%			20:32:25
1	Y RADIAL	4103.1	4103.1	112.6	%			20:32:05
1	Al 396.153Radial†	-108.8	20.5	24.053	ug/L	24.053	ppb	20:32:05
1	Ca 317.933Radial†	16.7	3.2	7.2394	ug/L	7.2394	ppb	20:32:25
1	Fe 238.204 Radial†	4.1	-1.3	-17.218	ug/L	-17.218	ppb	20:32:25
1	K 766.490 Radial†	3018.4	-548.8	-128.15	ug/L	-128.15	ppb	20:32:05
1	Mg 279.077 IEC†	1.3	0.9	42.690	ug/L	42.690	ppb	20:32:25
1	Na 589.592 Radial†	-1227.6	125.7	61.429	ug/L	61.429	ppb	20:32:05
1	Sr 421.552†	64.6	24.3	0.2535	ug/L	0.2535	ppb	20:32:05
1	Sc 361.383	598431.8	598431.8	107.44	%			20:33:22
1	Y 371.029	554818.8	554818.8	107.23	%			20:33:22
1	Ag 328.068†	22.4	-31.8	-0.1962	ug/L	-0.1962	ppb	20:33:22
1	As 188.979†	-41.9	5.6	2.4777	ug/L	2.4777	ppb	20:33:42
1	B 249.677†	-487.1	201.6	4.8789	ug/L	4.8789	ppb	20:33:22
1	Ba 233.527†	13.5	15.7	0.2353	ug/L	0.2353	ppb	20:33:42
1	Be 313.107†	-10066.9	180.9	0.0803	ug/L	0.0803	ppb	20:33:22
1	Cd 226.502†	-299.5	28.7	0.4029	ug/L	0.4029	ppb	20:33:42
1	Co 228.616†	-92.3	4.7	0.1720	ug/L	0.1720	ppb	20:33:42
1	Cr 267.716†	216.9	95.1	1.4310	ug/L	1.4310	ppb	20:33:22
1	Cu 324.752†	6596.8	-241.5	-1.1743	ug/L	-1.1743	ppb	20:33:22
1	Mn 257.610†	576.2	-88.0	-0.1729	ug/L	-0.1729	ppb	20:33:22
1	Mo 202.031†	22.8	5.2	0.5526	ug/L	0.5526	ppb	20:33:42
1	Ni 231.604†	126.5	0.0	0.0003	ug/L	0.0003	ppb	20:33:42
1	P 214.914†	327.2	-6.8	-3.3017	ug/L	-3.3017	ppb	20:33:42
1	Pb 220.353†	-101.8	0.9	0.1620	ug/L	0.1620	ppb	20:33:42
1	S 181.975 Axial†	73.0	-1.1	-1.3948	ug/L	-1.3948	ppb	20:33:42
1	Sb 206.836†	54.9	-6.5	-2.8640	ug/L	-2.8640	ppb	20:33:42
1	Se 196.026†	-34.0	1.4	0.8376	ug/L	0.8376	ppb	20:33:42
1	Si 251.611†	581.6	-26.2	-1.1162	ug/L	-1.1162	ppb	20:33:42
1	Sn 189.927†	22.3	8.8	2.2208	ug/L	2.2208	ppb	20:33:42
1	Ti 334.940†	-1957.0	157.1	0.4111	ug/L	0.4111	ppb	20:33:22
1	Tl 190.801†	-50.0	12.3	7.2678	ug/L	7.2678	ppb	20:33:42
1	U 409.014†	-1792.7	131.8	6.6860	ug/L	6.6860	ppb	20:33:22
1	V 292.402†	-2008.5	102.4	0.9420	ug/L	0.9420	ppb	20:33:22
1	Zn 213.857†	968.6	-40.5	-0.4557	ug/L	-0.4557	ppb	20:33:42
1	SiO2†	654.9	5.2	0.4563	ug/L	0.4563	ppb	20:34:38
2	Sc Radial	3646.9	3646.9	112	%			20:32:50
2	Y RADIAL	4147.2	4147.2	113.8	%			20:32:30
2	Al 396.153Radial†	-111.2	16.3	19.101	ug/L	19.101	ppb	20:32:30
2	Ca 317.933Radial†	11.4	-1.3	-2.8189	ug/L	-2.8189	ppb	20:32:50
2	Fe 238.204 Radial†	4.0	-1.3	-17.069	ug/L	-17.069	ppb	20:32:50
2	K 766.490 Radial†	2969.4	-535.7	-125.08	ug/L	-125.08	ppb	20:32:30
2	Mg 279.077 IEC†	3.5	3.0	134.59	ug/L	134.59	ppb	20:32:50
2	Na 589.592 Radial†	-1256.7	76.7	37.497	ug/L	37.497	ppb	20:32:30
2	Sr 421.552†	35.2	-0.7	-0.0068	ug/L	-0.0068	ppb	20:32:30
2	Sc 361.383	630163.9	630163.9	113.13	%			20:33:48
2	Y 371.029	585388.2	585388.2	113.14	%			20:33:48
2	Ag 328.068†	91.3	28.1	0.1609	ug/L	0.1609	ppb	20:33:48
2	As 188.979†	-36.9	12.0	5.2806	ug/L	5.2806	ppb	20:34:08
2	B 249.677†	-460.1	248.3	6.0101	ug/L	6.0101	ppb	20:33:48
2	Ba 233.527†	-16.9	-11.8	-0.1747	ug/L	-0.1747	ppb	20:34:08
2	Be 313.107†	-10177.5	555.0	0.2448	ug/L	0.2448	ppb	20:33:48
2	Cd 226.502†	-325.8	19.5	0.2742	ug/L	0.2742	ppb	20:34:08
2	Co 228.616†	-112.4	-8.8	-0.3224	ug/L	-0.3224	ppb	20:34:08
2	Cr 267.716†	176.9	49.6	0.7461	ug/L	0.7461	ppb	20:33:48
2	Cu 324.752†	6753.3	-412.3	-2.0013	ug/L	-2.0013	ppb	20:33:48
2	Mn 257.610†	662.0	-39.2	-0.0828	ug/L	-0.0828	ppb	20:33:48
2	Mo 202.031†	21.3	2.8	0.2967	ug/L	0.2967	ppb	20:34:08
2	Ni 231.604†	123.2	-8.9	-0.2983	ug/L	-0.2983	ppb	20:34:08

2	P 214.914†	316.2	-31.8	-16.515 ug/L	-16.515 ppb	20:34:08
2	Pb 220.353†	-121.9	-12.2	-2.1493 ug/L	-2.1493 ppb	20:34:08
2	S 181.975 Axial†	75.9	-1.9	-2.4371 ug/L	-2.4371 ppb	20:34:08
2	Sb 206.836†	44.5	-18.3	-8.2061 ug/L	-8.2061 ppb	20:34:08
2	Se 196.026†	-40.7	-3.0	-1.9332 ug/L	-1.9332 ppb	20:34:08
2	Si 251.611†	602.9	-34.7	-1.4725 ug/L	-1.4725 ppb	20:34:08
2	Sn 189.927†	18.6	4.5	1.1355 ug/L	1.1355 ppb	20:34:08
2	Ti 334.940†	-1962.6	243.8	0.6339 ug/L	0.6339 ppb	20:33:48
2	Tl 190.801†	-63.3	2.9	1.7126 ug/L	1.7126 ppb	20:34:08
2	U 409.014†	-1885.7	133.7	6.7798 ug/L	6.7798 ppb	20:33:48
2	V 292.402†	-2105.0	111.3	1.0202 ug/L	1.0202 ppb	20:33:48
2	Zn 213.857†	963.5	-90.5	-1.0139 ug/L	-1.0139 ppb	20:34:08
2	SiO2†	597.8	-76.0	-6.8888 ug/L	-6.8888 ppb	20:34:43
3	Sc Radial	3581.9	3581.9	110 %		20:33:15
3	Y RADIAL	4015.8	4015.8	110.2 %		20:32:55
3	Al 396.153Radial†	-108.3	17.2	20.047 ug/L	20.047 ppb	20:32:55
3	Ca 317.933Radial†	8.3	-3.8	-8.6334 ug/L	-8.6334 ppb	20:33:15
3	Fe 238.204 Radial†	4.1	-1.2	-15.960 ug/L	-15.960 ppb	20:33:15
3	K 766.490 Radial†	3123.1	-348.7	-81.427 ug/L	-81.427 ppb	20:32:55
3	Mg 279.077 IEC†	4.2	3.6	165.04 ug/L	165.04 ppb	20:33:15
3	Na 589.592 Radial†	-1205.7	102.7	50.173 ug/L	50.173 ppb	20:32:55
3	Sr 421.552†	29.0	-5.8	-0.0600 ug/L	-0.0600 ppb	20:32:55
3	Sc 361.383	612366.7	612366.7	109.94 %		20:34:13
3	Y 371.029	568414.3	568414.3	109.86 %		20:34:13
3	Ag 328.068†	74.7	15.3	0.0912 ug/L	0.0912 ppb	20:34:13
3	As 188.979†	-43.6	4.9	2.1844 ug/L	2.1844 ppb	20:34:33
3	B 249.677†	-515.5	186.0	4.5015 ug/L	4.5015 ppb	20:34:13
3	Ba 233.527†	-30.6	-24.7	-0.3664 ug/L	-0.3664 ppb	20:34:33
3	Be 313.107†	-10090.3	372.9	0.1650 ug/L	0.1650 ppb	20:34:13
3	Cd 226.502†	-313.7	22.2	0.3102 ug/L	0.3102 ppb	20:34:33
3	Co 228.616†	-92.8	6.2	0.2307 ug/L	0.2307 ppb	20:34:33
3	Cr 267.716†	159.0	37.9	0.5718 ug/L	0.5718 ppb	20:34:13
3	Cu 324.752†	6658.1	-325.5	-1.5780 ug/L	-1.5780 ppb	20:34:13
3	Mn 257.610†	674.9	-10.4	-0.0285 ug/L	-0.0285 ppb	20:34:13
3	Mo 202.031†	34.9	15.8	1.6697 ug/L	1.6697 ppb	20:34:33
3	Ni 231.604†	126.0	-3.1	-0.1062 ug/L	-0.1062 ppb	20:34:33
3	P 214.914†	322.3	-18.1	-9.2691 ug/L	-9.2691 ppb	20:34:33
3	Pb 220.353†	-101.7	3.1	0.5602 ug/L	0.5602 ppb	20:34:33
3	S 181.975 Axial†	70.7	-4.7	-6.0743 ug/L	-6.0743 ppb	20:34:33
3	Sb 206.836†	51.7	-10.5	-4.6547 ug/L	-4.6547 ppb	20:34:33
3	Se 196.026†	-23.4	11.7	7.4414 ug/L	7.4414 ppb	20:34:33
3	Si 251.611†	571.7	-47.6	-2.0336 ug/L	-2.0336 ppb	20:34:33
3	Sn 189.927†	27.2	12.9	3.2321 ug/L	3.2321 ppb	20:34:33
3	Ti 334.940†	-1895.3	254.6	0.6624 ug/L	0.6624 ppb	20:34:13
3	Tl 190.801†	-51.4	12.1	7.1796 ug/L	7.1796 ppb	20:34:33
3	U 409.014†	-1965.4	12.8	0.6502 ug/L	0.6502 ppb	20:34:13
3	V 292.402†	-2016.8	137.3	1.2630 ug/L	1.2630 ppb	20:34:13
3	Zn 213.857†	956.8	-71.8	-0.8056 ug/L	-0.8056 ppb	20:34:33
3	SiO2†	621.8	-38.8	-3.5584 ug/L	-3.5584 ppb	20:34:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	613654.1	110.17	%	2.855				2.59%
Sc Radial	3651.5	113	%	2.2				1.97%
Y 371.029	569540.4	110.07	%	2.960				2.69%
Y RADIAL	4088.7	112.2	%	1.83				1.64%
Ag 328.068†	3.9	0.0186	ug/L	0.18932	0.0186	ppb	0.18932	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	18.0	21.067	ug/L	2.6288	21.067	ppb	2.6288	12.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.5	3.3142	ug/L	1.70920	3.3142	ppb	1.70920	51.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	212.0	5.1302	ug/L	0.78509	5.1302	ppb	0.78509	15.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.9	-0.1020	ug/L	0.30736	-0.1020	ppb	0.30736	301.45%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	369.6	0.1634	ug/L	0.08230	0.1634	ppb	0.08230	50.37%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.6	-1.4043	ug/L	8.03037	-1.4043	ppb	8.03037	571.84%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              23.5      0.3291 ug/L       0.06642      0.3291 ppb        0.06642  20.18%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               0.7      0.0268 ug/L       0.30380      0.0268 ppb        0.30380 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              60.9      0.9163 ug/L       0.45416      0.9163 ppb        0.45416  49.57%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -326.4     -1.5845 ug/L       0.41353     -1.5845 ppb        0.41353  26.10%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.2     -16.749 ug/L        0.6876     -16.749 ppb         0.6876   4.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -477.7     -111.55 ug/L        26.134     -111.55 ppb         26.134  23.43%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.5      114.11 ug/L        63.697      114.11 ppb         63.697  55.82%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -45.9     -0.0947 ug/L       0.07294     -0.0947 ppb        0.07294  76.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               7.9      0.8397 ug/L       0.73015      0.8397 ppb        0.73015  86.96%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      101.7      49.700 ug/L       11.9729      49.700 ppb        11.9729  24.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.0     -0.1347 ug/L       0.15137     -0.1347 ppb        0.15137 112.36%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -18.9     -9.6952 ug/L       6.61675     -9.6952 ppb        6.61675  68.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -2.8     -0.4757 ug/L       1.46301     -0.4757 ppb        1.46301 307.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.5     -3.3021 ug/L       2.45674     -3.3021 ppb        2.45674  74.40%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -11.7     -5.2416 ug/L       2.71900     -5.2416 ppb        2.71900  51.87%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.4      2.1153 ug/L       4.81615      2.1153 ppb        4.81615 227.69%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -36.2     -1.5408 ug/L       0.46249     -1.5408 ppb        0.46249  30.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.8      2.1961 ug/L       1.04851      2.1961 ppb        1.04851  47.74%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               6.0      0.0622 ug/L       0.16779      0.0622 ppb        0.16779 269.66%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             218.5      0.5691 ug/L       0.13758      0.5691 ppb        0.13758  24.17%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               9.1      5.3866 ug/L       3.18215      5.3866 ppb        3.18215  59.07%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               92.8      4.7053 ug/L       3.51215      4.7053 ppb        3.51215  74.64%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              117.0      1.0750 ug/L       0.16737      1.0750 ppb        0.16737  15.57%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -67.6     -0.7584 ug/L       0.28208     -0.7584 ppb        0.28208  37.19%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -36.5     -3.3303 ug/L       3.67783     -3.3303 ppb        3.67783 110.44%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: 249329003|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 53
Date Collected: 4/15/2010 20:36:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249329003|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3828.7	3828.7	118	%			20:39:11
1	Y RADIAL	4843.6	4843.6	132.9	%			20:38:51
1	Al 396.153Radial†	29984.4	25514.7	29927	ug/L	29927	ppb	20:38:51
1	Ca 317.933Radial†	5487.8	4637.3	10445	ug/L	10445	ppb	20:38:51
1	Fe 238.204 Radial†	4769.1	4035.0	54189	ug/L	54189	ppb	20:38:51
1	K 766.490 Radial†	31690.3	23668.2	5523.8	ug/L	5523.8	ppb	20:38:51
1	Mg 279.077 IEC†	158.6	134.1	6056.4	ug/L	6056.4	ppb	20:39:11
1	Na 589.592 Radial†	-166.8	1053.0	514.54	ug/L	514.54	ppb	20:38:51
1	Sr 421.552†	8461.1	7135.3	74.437	ug/L	74.437	ppb	20:38:51
1	Sc 361.383	635548.2	635548.2	114.10	%			20:40:09
1	Y 371.029	671969.2	671969.2	129.87	%			20:40:09
1	Ag 328.068†	-2815.2	-2519.9	1.1154	ug/L	1.1154	ppb	20:40:09
1	As 188.979†	-35.7	13.3	22.243	ug/L	22.243	ppb	20:40:29
1	B 249.677†	215.8	844.2	14.695	ug/L	14.695	ppb	20:40:09
1	Ba 233.527†	30700.9	26910.5	404.52	ug/L	404.52	ppb	20:40:09
1	Be 313.107†	-8511.8	2091.1	3.5893	ug/L	3.5893	ppb	20:40:09
1	Cd 226.502†	139.8	430.0	1.1071	ug/L	1.1071	ppb	20:40:29
1	Co 228.616†	342.9	391.2	11.305	ug/L	11.305	ppb	20:40:29
1	Cr 267.716†	1894.1	1553.3	24.402	ug/L	24.402	ppb	20:40:29
1	Cu 324.752†	13350.1	5318.8	29.453	ug/L	29.453	ppb	20:40:09
1	Mn 257.610†	1084318.1	949711.1	1832.8	ug/L	1832.8	ppb	20:40:09
1	Mo 202.031†	90.9	63.7	10.632	ug/L	10.632	ppb	20:40:29
1	Ni 231.604†	957.7	721.6	24.358	ug/L	24.358	ppb	20:40:29
1	P 214.914†	1202.4	742.5	374.97	ug/L	374.97	ppb	20:40:29
1	Pb 220.353†	252.7	317.0	59.313	ug/L	59.313	ppb	20:40:29
1	S 181.975 Axial†	365.8	251.6	323.33	ug/L	323.33	ppb	20:40:29
1	Sb 206.836†	56.3	-8.2	-5.8610	ug/L	-5.8610	ppb	20:40:29
1	Se 196.026†	-187.2	-131.1	14.961	ug/L	14.961	ppb	20:40:29
1	Si 251.611†	456768.0	399760.3	16910	ug/L	16910	ppb	20:40:09
1	Sn 189.927†	-6.2	-17.3	-1.5681	ug/L	-1.5681	ppb	20:40:29
1	Ti 334.940†	503498.9	443263.2	1177.7	ug/L	1177.7	ppb	20:40:09
1	Tl 190.801†	-112.3	-39.6	-5.9514	ug/L	-5.9514	ppb	20:40:29
1	U 409.014†	-5206.8	-2762.9	-154.69	ug/L	-154.69	ppb	20:40:09
1	V 292.402†	6327.7	7517.7	58.917	ug/L	58.917	ppb	20:40:09
1	Zn 213.857†	20012.4	16597.5	191.46	ug/L	191.46	ppb	20:40:09
1	SiO2†	454967.3	398145.3	36039	ug/L	36039	ppb	20:41:27
2	Sc Radial	3962.5	3962.5	122	%			20:39:37
2	Y RADIAL	4990.3	4990.3	136.9	%			20:39:16
2	Al 396.153Radial†	30886.5	25395.2	29787	ug/L	29787	ppb	20:39:16
2	Ca 317.933Radial†	5633.2	4599.3	10359	ug/L	10359	ppb	20:39:16
2	Fe 238.204 Radial†	4905.1	4009.9	53852	ug/L	53852	ppb	20:39:16
2	K 766.490 Radial†	32542.8	23459.3	5475.0	ug/L	5475.0	ppb	20:39:16
2	Mg 279.077 IEC†	162.4	132.7	5992.8	ug/L	5992.8	ppb	20:39:37
2	Na 589.592 Radial†	-137.1	1082.1	528.75	ug/L	528.75	ppb	20:39:16
2	Sr 421.552†	8715.2	7101.3	74.082	ug/L	74.082	ppb	20:39:16
2	Sc 361.383	634993.5	634993.5	114.00	%			20:40:35
2	Y 371.029	672221.0	672221.0	129.92	%			20:40:35
2	Ag 328.068†	-2831.0	-2536.0	0.9175	ug/L	0.9175	ppb	20:40:35
2	As 188.979†	-40.5	9.1	20.327	ug/L	20.327	ppb	20:40:55
2	B 249.677†	277.1	898.0	16.034	ug/L	16.034	ppb	20:40:35
2	Ba 233.527†	30620.5	26863.5	403.80	ug/L	403.80	ppb	20:40:35
2	Be 313.107†	-8403.3	2179.7	3.6248	ug/L	3.6248	ppb	20:40:35
2	Cd 226.502†	125.0	417.2	0.9597	ug/L	0.9597	ppb	20:40:55
2	Co 228.616†	346.1	394.2	11.419	ug/L	11.419	ppb	20:40:55
2	Cr 267.716†	1862.5	1527.0	23.998	ug/L	23.998	ppb	20:40:55
2	Cu 324.752†	13316.4	5299.5	29.336	ug/L	29.336	ppb	20:40:35
2	Mn 257.610†	1080815.2	947468.6	1828.5	ug/L	1828.5	ppb	20:40:35
2	Mo 202.031†	62.7	39.0	7.9937	ug/L	7.9937	ppb	20:40:55
2	Ni 231.604†	959.1	723.6	24.425	ug/L	24.425	ppb	20:40:55

2	P 214.914†	1193.3	735.4	371.33	ug/L	371.33 ppb	20:40:55
2	Pb 220.353†	230.7	298.0	55.930	ug/L	55.930 ppb	20:40:55
2	S 181.975 Axial†	346.0	234.5	301.21	ug/L	301.21 ppb	20:40:55
2	Sb 206.836†	58.1	-6.6	-5.1955	ug/L	-5.1955 ppb	20:40:55
2	Se 196.026†	-195.3	-138.4	9.6981	ug/L	9.6981 ppb	20:40:55
2	Si 251.611†	455367.4	398881.5	16873	ug/L	16873 ppb	20:40:35
2	Sn 189.927†	-4.9	-16.2	-1.3105	ug/L	-1.3105 ppb	20:40:55
2	Ti 334.940†	502416.3	442699.0	1176.2	ug/L	1176.2 ppb	20:40:35
2	Tl 190.801†	-106.0	-34.1	-2.7365	ug/L	-2.7365 ppb	20:40:55
2	U 409.014†	-5125.4	-2695.5	-151.18	ug/L	-151.18 ppb	20:40:35
2	V 292.402†	6265.3	7467.8	58.483	ug/L	58.483 ppb	20:40:35
2	Zn 213.857†	19919.0	16530.9	190.68	ug/L	190.68 ppb	20:40:35
2	SiO2†	456806.0	400106.6	36216	ug/L	36216 ppb	20:41:32
3	Sc Radial	3840.5	3840.5	118	%		20:40:02
3	Y RADIAL	5099.7	5099.7	139.9	%		20:39:42
3	Al 396.153Radial†	31635.3	26831.0	31471	ug/L	31471 ppb	20:39:42
3	Ca 317.933Radial†	5785.7	4874.7	10979	ug/L	10979 ppb	20:39:42
3	Fe 238.204 Radial†	5020.2	4234.7	56872	ug/L	56872 ppb	20:39:42
3	K 766.490 Radial†	33459.3	25079.8	5853.3	ug/L	5853.3 ppb	20:39:42
3	Mg 279.077 IEC†	157.7	133.0	6003.1	ug/L	6003.1 ppb	20:40:02
3	Na 589.592 Radial†	-75.5	1130.6	552.46	ug/L	552.46 ppb	20:39:42
3	Sr 421.552†	8960.5	7535.1	78.607	ug/L	78.607 ppb	20:39:42
3	Sc 361.383	633238.5	633238.5	113.68	%		20:41:01
3	Y 371.029	670581.2	670581.2	129.60	%		20:41:01
3	Ag 328.068†	-2782.3	-2500.0	2.0127	ug/L	2.0127 ppb	20:41:01
3	As 188.979†	-36.1	12.9	22.390	ug/L	22.390 ppb	20:41:21
3	B 249.677†	204.7	835.0	14.192	ug/L	14.192 ppb	20:41:01
3	Ba 233.527†	30486.4	26820.0	403.32	ug/L	403.32 ppb	20:41:01
3	Be 313.107†	-8427.9	2137.7	3.6041	ug/L	3.6041 ppb	20:41:01
3	Cd 226.502†	140.4	431.0	0.8801	ug/L	0.8801 ppb	20:41:21
3	Co 228.616†	357.8	405.4	11.785	ug/L	11.785 ppb	20:41:21
3	Cr 267.716†	1889.1	1554.9	24.468	ug/L	24.468 ppb	20:41:21
3	Cu 324.752†	13236.0	5261.1	29.355	ug/L	29.355 ppb	20:41:01
3	Mn 257.610†	1077113.1	946839.7	1827.6	ug/L	1827.6 ppb	20:41:01
3	Mo 202.031†	64.4	40.7	8.3888	ug/L	8.3888 ppb	20:41:21
3	Ni 231.604†	973.6	738.7	24.936	ug/L	24.936 ppb	20:41:21
3	P 214.914†	1185.7	731.7	368.53	ug/L	368.53 ppb	20:41:21
3	Pb 220.353†	243.8	310.0	58.250	ug/L	58.250 ppb	20:41:21
3	S 181.975 Axial†	352.5	241.0	309.45	ug/L	309.45 ppb	20:41:21
3	Sb 206.836†	54.6	-9.5	-6.4080	ug/L	-6.4080 ppb	20:41:21
3	Se 196.026†	-194.2	-137.9	15.500	ug/L	15.500 ppb	20:41:21
3	Si 251.611†	453849.3	398653.1	16863	ug/L	16863 ppb	20:41:01
3	Sn 189.927†	-0.5	-12.3	-0.1858	ug/L	-0.1858 ppb	20:41:21
3	Ti 334.940†	500597.0	442320.1	1175.3	ug/L	1175.3 ppb	20:41:01
3	Tl 190.801†	-113.5	-41.0	-6.8123	ug/L	-6.8123 ppb	20:41:21
3	U 409.014†	-5202.9	-2776.1	-156.08	ug/L	-156.08 ppb	20:41:01
3	V 292.402†	6250.1	7469.7	58.090	ug/L	58.090 ppb	20:41:01
3	Zn 213.857†	19912.5	16573.6	191.44	ug/L	191.44 ppb	20:41:01
3	SiO2†	458300.5	402531.8	36436	ug/L	36436 ppb	20:41:38

Mean Data: 249329003|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	634593.4	113.93	%	0.216				0.19%
Sc Radial	3877.2	120	%	2.3				1.91%
Y 371.029	671590.5	129.80	%	0.171				0.13%
Y RADIAL	4977.9	136.6	%	3.53				2.58%
Ag 328.068†	-2518.6	1.3485	ug/L	0.58359	1.3485	ppb	0.58359	43.28%
Al 396.153Radial†	25913.7	30395	ug/L	934.5	30395	ppb	934.5	3.07%
As 188.979†	11.7	21.653	ug/L	1.1511	21.653	ppb	1.1511	5.32%
B 249.677†	859.1	14.974	ug/L	0.9522	14.974	ppb	0.9522	6.36%
Ba 233.527†	26864.7	403.88	ug/L	0.604	403.88	ppb	0.604	0.15%
Be 313.107†	2136.2	3.6061	ug/L	0.01782	3.6061	ppb	0.01782	0.49%
Ca 317.933Radial†	4703.8	10594	ug/L	336.1	10594	ppb	336.1	3.17%
Cd 226.502†	426.1	0.9823	ug/L	0.11517	0.9823	ppb	0.11517	11.72%
Co 228.616†	396.9	11.503	ug/L	0.2509	11.503	ppb	0.2509	2.18%
Cr 267.716†	1545.1	24.289	ug/L	0.2541	24.289	ppb	0.2541	1.05%
Cu 324.752†	5293.1	29.381	ug/L	0.0626	29.381	ppb	0.0626	0.21%
Fe 238.204 Radial†	4093.2	54971	ug/L	1654.5	54971	ppb	1654.5	3.01%
K 766.490 Radial†	24069.1	5617.3	ug/L	205.76	5617.3	ppb	205.76	3.66%

Mg 279.077 IEC†	133.3	6017.5	ug/L	34.13	6017.5	ppb	34.13	0.57%
Mn 257.610†	948006.4	1829.7	ug/L	2.80	1829.7	ppb	2.80	0.15%
Mo 202.031†	47.8	9.0048	ug/L	1.42297	9.0048	ppb	1.42297	15.80%
Na 589.592 Radial†	1088.6	531.92	ug/L	19.154	531.92	ppb	19.154	3.60%
Ni 231.604†	727.9	24.573	ug/L	0.3161	24.573	ppb	0.3161	1.29%
P 214.914†	736.6	371.61	ug/L	3.231	371.61	ppb	3.231	0.87%
Pb 220.353†	308.3	57.831	ug/L	1.7304	57.831	ppb	1.7304	2.99%
S 181.975 Axial†	242.4	311.33	ug/L	11.179	311.33	ppb	11.179	3.59%
Sb 206.836†	-8.1	-5.8215	ug/L	0.60723	-5.8215	ppb	0.60723	10.43%
Se 196.026†	-135.8	13.386	ug/L	3.2053	13.386	ppb	3.2053	23.94%
Si 251.611†	399098.3	16882	ug/L	24.7	16882	ppb	24.7	0.15%
Sn 189.927†	-15.3	-1.0215	ug/L	0.73506	-1.0215	ppb	0.73506	71.96%
Sr 421.552†	7257.2	75.709	ug/L	2.5167	75.709	ppb	2.5167	3.32%
Ti 334.940†	442760.8	1176.4	ug/L	1.23	1176.4	ppb	1.23	0.10%
Tl 190.801†	-38.2	-5.1667	ug/L	2.14819	-5.1667	ppb	2.14819	41.58%
U 409.014†	-2744.9	-153.98	ug/L	2.524	-153.98	ppb	2.524	1.64%
V 292.402†	7485.1	58.497	ug/L	0.4134	58.497	ppb	0.4134	0.71%
Zn 213.857†	16567.3	191.19	ug/L	0.446	191.19	ppb	0.446	0.23%
SiO2†	400261.2	36230	ug/L	198.9	36230	ppb	198.9	0.55%

Sequence No.: 26
Sample ID: 249329004|973755|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 54
Date Collected: 4/15/2010 20:43:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249329004|973755|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3770.3	3770.3	116	%			20:46:01
1	Y RADIAL	4854.6	4854.6	133.2	%			20:45:41
1	Al 396.153Radial†	18526.0	16051.5	18827	ug/L	18827	ppb	20:45:41
1	Ca 317.933Radial†	4309.2	3695.5	8323.4	ug/L	8323.4	ppb	20:45:41
1	Fe 238.204 Radial†	4866.8	4181.7	56159	ug/L	56159	ppb	20:45:41
1	K 766.490 Radial†	20599.6	14543.6	3393.6	ug/L	3393.6	ppb	20:45:41
1	Mg 279.077 IEC†	98.3	84.3	3794.9	ug/L	3794.9	ppb	20:46:01
1	Na 589.592 Radial†	22.5	1213.7	593.07	ug/L	593.07	ppb	20:45:41
1	Sr 421.552†	5913.9	5055.2	52.730	ug/L	52.730	ppb	20:45:41
1	Sc 361.383	651553.9	651553.9	116.97	%			20:46:58
1	Y 371.029	720248.8	720248.8	139.20	%			20:46:58
1	Ag 328.068†	-2280.9	-2002.5	4.7328	ug/L	4.7328	ppb	20:46:58
1	As 188.979†	-31.5	17.7	23.383	ug/L	23.383	ppb	20:47:18
1	B 249.677†	-122.6	550.2	7.3916	ug/L	7.3916	ppb	20:46:58
1	Ba 233.527†	17265.6	14763.6	223.44	ug/L	223.44	ppb	20:46:58
1	Be 313.107†	-9210.8	1676.8	3.1008	ug/L	3.1008	ppb	20:46:58
1	Cd 226.502†	156.0	440.9	1.0870	ug/L	1.0870	ppb	20:47:18
1	Co 228.616†	192.3	255.1	6.4590	ug/L	6.4590	ppb	20:47:18
1	Cr 267.716†	4432.5	3682.6	56.493	ug/L	56.493	ppb	20:47:18
1	Cu 324.752†	16228.9	7492.4	40.117	ug/L	40.117	ppb	20:46:58
1	Mn 257.610†	1219538.7	1041966.6	2010.7	ug/L	2010.7	ppb	20:46:58
1	Mo 202.031†	76.2	49.2	9.2015	ug/L	9.2015	ppb	20:47:18
1	Ni 231.604†	1448.7	1120.8	37.815	ug/L	37.815	ppb	20:47:18
1	P 214.914†	1406.7	891.3	448.38	ug/L	448.38	ppb	20:47:18
1	Pb 220.353†	226.5	289.2	51.352	ug/L	51.352	ppb	20:47:18
1	S 181.975 Axial†	238.8	135.2	173.42	ug/L	173.42	ppb	20:47:18
1	Sb 206.836†	66.6	-0.6	-1.9009	ug/L	-1.9009	ppb	20:47:18
1	Se 196.026†	-187.9	-127.7	20.631	ug/L	20.631	ppb	20:47:18
1	Si 251.611†	359468.5	306744.2	12975	ug/L	12975	ppb	20:46:58
1	Sn 189.927†	11.1	-2.4	1.8229	ug/L	1.8229	ppb	20:47:18
1	Ti 334.940†	456638.7	392361.8	1042.5	ug/L	1042.5	ppb	20:46:58
1	Tl 190.801†	-113.9	-38.5	-5.4277	ug/L	-5.4277	ppb	20:47:18
1	U 409.014†	-5690.1	-3064.0	-170.55	ug/L	-170.55	ppb	20:46:58
1	V 292.402†	3949.5	5348.4	39.209	ug/L	39.209	ppb	20:46:58
1	Zn 213.857†	25630.3	20969.3	240.68	ug/L	240.68	ppb	20:46:58
1	SiO2†	365741.9	312070.6	28247	ug/L	28247	ppb	20:48:16
2	Sc Radial	3758.9	3758.9	116	%			20:46:26
2	Y RADIAL	5163.5	5163.5	141.7	%			20:46:06
2	Al 396.153Radial†	18336.0	15935.9	18692	ug/L	18692	ppb	20:46:06
2	Ca 317.933Radial†	4254.8	3659.7	8242.9	ug/L	8242.9	ppb	20:46:06
2	Fe 238.204 Radial†	4780.8	4120.1	55333	ug/L	55333	ppb	20:46:06
2	K 766.490 Radial†	20549.3	14553.9	3396.0	ug/L	3396.0	ppb	20:46:06
2	Mg 279.077 IEC†	97.5	83.9	3776.3	ug/L	3776.3	ppb	20:46:26
2	Na 589.592 Radial†	-32.7	1166.1	569.80	ug/L	569.80	ppb	20:46:06
2	Sr 421.552†	5826.9	4995.6	52.108	ug/L	52.108	ppb	20:46:06
2	Sc 361.383	646905.6	646905.6	116.14	%			20:47:24
2	Y 371.029	714573.3	714573.3	138.10	%			20:47:24
2	Ag 328.068†	-2130.1	-1886.7	5.1837	ug/L	5.1837	ppb	20:47:24
2	As 188.979†	-36.0	13.6	21.457	ug/L	21.457	ppb	20:47:44
2	B 249.677†	-98.2	570.4	7.9682	ug/L	7.9682	ppb	20:47:24
2	Ba 233.527†	16993.4	14635.3	221.48	ug/L	221.48	ppb	20:47:24
2	Be 313.107†	-9276.3	1563.8	3.0478	ug/L	3.0478	ppb	20:47:24
2	Cd 226.502†	139.1	427.3	0.9713	ug/L	0.9713	ppb	20:47:44
2	Co 228.616†	192.6	256.5	6.5236	ug/L	6.5236	ppb	20:47:44
2	Cr 267.716†	4359.0	3646.6	55.937	ug/L	55.937	ppb	20:47:44
2	Cu 324.752†	16172.4	7543.5	40.311	ug/L	40.311	ppb	20:47:24
2	Mn 257.610†	1207519.2	1039108.7	2005.1	ug/L	2005.1	ppb	20:47:24
2	Mo 202.031†	64.8	39.8	8.1532	ug/L	8.1532	ppb	20:47:44
2	Ni 231.604†	1404.8	1091.8	36.838	ug/L	36.838	ppb	20:47:44

2	P 214.914†	1382.8	879.4	442.30	ug/L	442.30 ppb	20:47:44
2	Pb 220.353†	249.9	310.7	55.189	ug/L	55.189 ppb	20:47:44
2	S 181.975 Axial†	231.8	130.6	167.43	ug/L	167.43 ppb	20:47:44
2	Sb 206.836†	57.2	-8.3	-5.4122	ug/L	-5.4122 ppb	20:47:44
2	Se 196.026†	-177.0	-119.5	24.365	ug/L	24.365 ppb	20:47:44
2	Si 251.611†	355824.9	305815.0	12936	ug/L	12936 ppb	20:47:24
2	Sn 189.927†	9.7	-3.5	1.5140	ug/L	1.5140 ppb	20:47:44
2	Ti 334.940†	452720.5	391793.1	1041.0	ug/L	1041.0 ppb	20:47:24
2	Tl 190.801†	-96.4	-24.2	3.0491	ug/L	3.0491 ppb	20:47:44
2	U 409.014†	-5713.8	-3119.4	-173.14	ug/L	-173.14 ppb	20:47:24
2	V 292.402†	3886.8	5318.6	39.034	ug/L	39.034 ppb	20:47:24
2	Zn 213.857†	25358.6	20892.9	239.75	ug/L	239.75 ppb	20:47:24
2	SiO2†	363787.6	312634.5	28298	ug/L	28298 ppb	20:48:21
3	Sc Radial	3771.5	3771.5	116	%		20:46:51
3	Y RADIAL	5113.7	5113.7	140.3	%		20:46:31
3	Al 396.153Radial†	18118.3	15695.9	18410	ug/L	18410 ppb	20:46:31
3	Ca 317.933Radial†	4212.7	3611.4	8133.9	ug/L	8133.9 ppb	20:46:31
3	Fe 238.204 Radial†	4726.5	4059.6	54520	ug/L	54520 ppb	20:46:31
3	K 766.490 Radial†	20319.3	14297.0	3336.0	ug/L	3336.0 ppb	20:46:31
3	Mg 279.077 IEC†	99.7	85.6	3851.6	ug/L	3851.6 ppb	20:46:51
3	Na 589.592 Radial†	-62.0	1141.0	557.53	ug/L	557.53 ppb	20:46:31
3	Sr 421.552†	5767.0	4927.3	51.396	ug/L	51.396 ppb	20:46:31
3	Sc 361.383	644706.0	644706.0	115.74	%		20:47:50
3	Y 371.029	713471.7	713471.7	137.89	%		20:47:50
3	Ag 328.068†	-2283.6	-2025.6	4.1194	ug/L	4.1194 ppb	20:47:50
3	As 188.979†	-49.4	2.0	16.221	ug/L	16.221 ppb	20:48:10
3	B 249.677†	-152.2	523.5	6.9187	ug/L	6.9187 ppb	20:47:50
3	Ba 233.527†	17048.6	14732.9	222.90	ug/L	222.90 ppb	20:47:50
3	Be 313.107†	-9122.0	1669.8	3.0979	ug/L	3.0979 ppb	20:47:50
3	Cd 226.502†	147.8	435.2	1.1556	ug/L	1.1556 ppb	20:48:10
3	Co 228.616†	190.5	255.2	6.4914	ug/L	6.4914 ppb	20:48:10
3	Cr 267.716†	4403.7	3697.9	56.698	ug/L	56.698 ppb	20:48:10
3	Cu 324.752†	16066.6	7499.6	40.041	ug/L	40.041 ppb	20:47:50
3	Mn 257.610†	1204733.5	1040249.1	2007.2	ug/L	2007.2 ppb	20:47:50
3	Mo 202.031†	87.9	59.9	10.226	ug/L	10.226 ppb	20:48:10
3	Ni 231.604†	1431.8	1119.3	37.764	ug/L	37.764 ppb	20:48:10
3	P 214.914†	1391.1	890.6	448.60	ug/L	448.60 ppb	20:48:10
3	Pb 220.353†	245.8	307.9	54.696	ug/L	54.696 ppb	20:48:10
3	S 181.975 Axial†	237.6	136.3	174.91	ug/L	174.91 ppb	20:48:10
3	Sb 206.836†	70.4	3.2	-0.1954	ug/L	-0.1954 ppb	20:48:10
3	Se 196.026†	-192.5	-133.4	14.012	ug/L	14.012 ppb	20:48:10
3	Si 251.611†	354845.3	306013.9	12944	ug/L	12944 ppb	20:47:50
3	Sn 189.927†	8.6	-4.4	1.2474	ug/L	1.2474 ppb	20:48:10
3	Ti 334.940†	451871.9	392389.8	1042.6	ug/L	1042.6 ppb	20:47:50
3	Tl 190.801†	-110.3	-36.5	-4.2290	ug/L	-4.2290 ppb	20:48:10
3	U 409.014†	-5590.7	-3029.8	-168.38	ug/L	-168.38 ppb	20:47:50
3	V 292.402†	4018.2	5443.5	40.304	ug/L	40.304 ppb	20:47:50
3	Zn 213.857†	25320.2	20934.2	240.13	ug/L	240.13 ppb	20:47:50
3	SiO2†	361392.7	311634.0	28208	ug/L	28208 ppb	20:48:26

Mean Data: 249329004|973755|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	647721.8	116.28	%	0.628				0.54%
Sc Radial	3766.9	116	%	0.2				0.18%
Y 371.029	716097.9	138.40	%	0.703				0.51%
Y RADIAL	5043.9	138.4	%	4.55				3.29%
Ag 328.068†	-1971.6	4.6786	ug/L	0.53422	4.6786	ppb	0.53422	11.42%
Al 396.153Radial†	15894.5	18643	ug/L	212.8	18643	ppb	212.8	1.14%
As 188.979†	11.1	20.354	ug/L	3.7062	20.354	ppb	3.7062	18.21%
B 249.677†	548.0	7.4262	ug/L	0.52564	7.4262	ppb	0.52564	7.08%
Ba 233.527†	14710.6	222.61	ug/L	1.011	222.61	ppb	1.011	0.45%
Be 313.107†	1636.8	3.0821	ug/L	0.02979	3.0821	ppb	0.02979	0.97%
Ca 317.933Radial†	3655.5	8233.4	ug/L	95.10	8233.4	ppb	95.10	1.16%
Cd 226.502†	434.5	1.0713	ug/L	0.09315	1.0713	ppb	0.09315	8.70%
Co 228.616†	255.6	6.4914	ug/L	0.03229	6.4914	ppb	0.03229	0.50%
Cr 267.716†	3675.7	56.376	ug/L	0.3937	56.376	ppb	0.3937	0.70%
Cu 324.752†	7511.9	40.157	ug/L	0.1394	40.157	ppb	0.1394	0.35%
Fe 238.204 Radial†	4120.5	55337	ug/L	819.5	55337	ppb	819.5	1.48%
K 766.490 Radial†	14464.8	3375.2	ug/L	33.95	3375.2	ppb	33.95	1.01%

Mg 279.077 IEC†	84.6	3807.6	ug/L	39.25	3807.6	ppb	39.25	1.03%
Mn 257.610†	1040441.4	2007.6	ug/L	2.82	2007.6	ppb	2.82	0.14%
Mo 202.031†	49.6	9.1934	ug/L	1.03624	9.1934	ppb	1.03624	11.27%
Na 589.592 Radial†	1173.6	573.47	ug/L	18.049	573.47	ppb	18.049	3.15%
Ni 231.604†	1110.6	37.472	ug/L	0.5497	37.472	ppb	0.5497	1.47%
P 214.914†	887.1	446.42	ug/L	3.576	446.42	ppb	3.576	0.80%
Pb 220.353†	302.6	53.746	ug/L	2.0874	53.746	ppb	2.0874	3.88%
S 181.975 Axial†	134.0	171.92	ug/L	3.956	171.92	ppb	3.956	2.30%
Sb 206.836†	-1.9	-2.5029	ug/L	2.65999	-2.5029	ppb	2.65999	106.28%
Se 196.026†	-126.8	19.669	ug/L	5.2427	19.669	ppb	5.2427	26.65%
Si 251.611†	306191.0	12952	ug/L	20.7	12952	ppb	20.7	0.16%
Sn 189.927†	-3.4	1.5281	ug/L	0.28800	1.5281	ppb	0.28800	18.85%
Sr 421.552†	4992.7	52.078	ug/L	0.6677	52.078	ppb	0.6677	1.28%
Ti 334.940†	392181.6	1042.0	ug/L	0.89	1042.0	ppb	0.89	0.09%
Tl 190.801†	-33.0	-2.2025	ug/L	4.58733	-2.2025	ppb	4.58733	208.27%
U 409.014†	-3071.0	-170.69	ug/L	2.383	-170.69	ppb	2.383	1.40%
V 292.402†	5370.2	39.516	ug/L	0.6885	39.516	ppb	0.6885	1.74%
Zn 213.857†	20932.1	240.18	ug/L	0.468	240.18	ppb	0.468	0.20%
SiO2†	312113.0	28251	ug/L	45.4	28251	ppb	45.4	0.16%

Sequence No.: 33
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/15/2010 21:31:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3586.6	3586.6	111	%			21:34:02
1	Y RADIAL	4019.0	4019.0	110.3	%			21:33:42
1	Al 396.153Radial†	4803.8	4459.1	5207.1	ug/L	5207.1	ppb	21:33:42
1	Ca 317.933Radial†	2455.6	2209.1	4975.6	ug/L	4975.6	ppb	21:34:02
1	Fe 238.204 Radial†	407.8	363.9	4901.1	ug/L	4901.1	ppb	21:34:02
1	K 766.490 Radial†	26429.9	20723.1	4832.8	ug/L	4832.8	ppb	21:33:42
1	Mg 279.077 IEC†	124.7	112.5	5110.1	ug/L	5110.1	ppb	21:34:02
1	Na 589.592 Radial†	20502.1	19733.6	9642.4	ug/L	9642.4	ppb	21:33:42
1	Sr 421.552†	52399.3	47350.7	494.45	ug/L	494.45	ppb	21:33:42
1	Sc 361.383	625463.3	625463.3	112.29	%			21:35:00
1	Y 371.029	576591.4	576591.4	111.44	%			21:35:00
1	Ag 328.068†	89152.0	79343.2	476.13	ug/L	476.13	ppb	21:35:00
1	As 188.979†	1177.4	1093.2	486.08	ug/L	486.08	ppb	21:35:21
1	B 249.677†	20715.0	19103.1	460.22	ug/L	460.22	ppb	21:35:00
1	Ba 233.527†	35889.2	31964.9	478.10	ug/L	478.10	ppb	21:35:00
1	Be 313.107†	1209239.2	1086460.3	477.54	ug/L	477.54	ppb	21:35:00
1	Cd 226.502†	37473.0	33679.7	468.64	ug/L	468.64	ppb	21:35:21
1	Co 228.616†	14732.4	13210.8	484.85	ug/L	484.85	ppb	21:35:21
1	Cr 267.716†	35434.9	31450.3	474.41	ug/L	474.41	ppb	21:35:00
1	Cu 324.752†	117044.6	97854.4	473.56	ug/L	473.56	ppb	21:35:00
1	Mn 257.610†	278830.1	247692.7	476.89	ug/L	476.89	ppb	21:35:00
1	Mo 202.031†	5087.9	4515.1	478.74	ug/L	478.74	ppb	21:35:21
1	Ni 231.604†	16199.1	14308.7	481.89	ug/L	481.89	ppb	21:35:21
1	P 214.914†	5357.3	4459.7	2274.1	ug/L	2274.1	ppb	21:35:21
1	Pb 220.353†	2936.9	2711.1	480.60	ug/L	480.60	ppb	21:35:21
1	S 181.975 Axial†	893.6	726.8	943.20	ug/L	943.20	ppb	21:35:21
1	Sb 206.836†	1249.0	1054.7	492.73	ug/L	492.73	ppb	21:35:21
1	Se 196.026†	808.3	752.8	491.37	ug/L	491.37	ppb	21:35:21
1	Si 251.611†	63962.1	56395.0	2379.6	ug/L	2379.6	ppb	21:35:00
1	Sn 189.927†	2130.0	1885.1	473.79	ug/L	473.79	ppb	21:35:21
1	Ti 334.940†	199815.4	179927.7	477.53	ug/L	477.53	ppb	21:35:00
1	Tl 190.801†	853.7	819.1	488.27	ug/L	488.27	ppb	21:35:21
1	U 409.014†	8596.8	9456.5	477.08	ug/L	477.08	ppb	21:35:00
1	V 292.402†	57349.2	53045.2	482.90	ug/L	482.90	ppb	21:35:00
1	Zn 213.857†	48502.1	42252.3	471.58	ug/L	471.58	ppb	21:35:00
1	SiO2†	62229.7	54815.3	4948.7	ug/L	4948.7	ppb	21:36:21
2	Sc Radial	3585.6	3585.6	111	%			21:34:27
2	Y RADIAL	4050.8	4050.8	111.1	%			21:34:07
2	Al 396.153Radial†	4825.7	4480.1	5231.7	ug/L	5231.7	ppb	21:34:07
2	Ca 317.933Radial†	2452.0	2206.5	4969.8	ug/L	4969.8	ppb	21:34:27
2	Fe 238.204 Radial†	405.1	361.5	4869.8	ug/L	4869.8	ppb	21:34:27
2	K 766.490 Radial†	26584.6	20869.8	4867.0	ug/L	4867.0	ppb	21:34:07
2	Mg 279.077 IEC†	125.6	113.4	5150.5	ug/L	5150.5	ppb	21:34:27
2	Na 589.592 Radial†	20421.0	19665.5	9609.1	ug/L	9609.1	ppb	21:34:07
2	Sr 421.552†	52494.0	47449.7	495.48	ug/L	495.48	ppb	21:34:07
2	Sc 361.383	620937.1	620937.1	111.48	%			21:35:28
2	Y 371.029	572235.4	572235.4	110.59	%			21:35:28
2	Ag 328.068†	88652.4	79473.8	476.90	ug/L	476.90	ppb	21:35:28
2	As 188.979†	1167.9	1092.3	485.71	ug/L	485.71	ppb	21:35:48
2	B 249.677†	20733.7	19254.4	463.88	ug/L	463.88	ppb	21:35:28
2	Ba 233.527†	35664.4	31996.2	478.57	ug/L	478.57	ppb	21:35:28
2	Be 313.107†	1203335.6	1089014.3	478.66	ug/L	478.66	ppb	21:35:28
2	Cd 226.502†	37216.1	33692.6	468.82	ug/L	468.82	ppb	21:35:48
2	Co 228.616†	14590.9	13179.6	483.70	ug/L	483.70	ppb	21:35:48
2	Cr 267.716†	35355.2	31608.9	476.79	ug/L	476.79	ppb	21:35:28
2	Cu 324.752†	116597.7	98213.3	475.29	ug/L	475.29	ppb	21:35:28
2	Mn 257.610†	277120.1	247968.7	477.41	ug/L	477.41	ppb	21:35:28
2	Mo 202.031†	5049.6	4513.7	478.59	ug/L	478.59	ppb	21:35:48
2	Ni 231.604†	16098.7	14323.7	482.40	ug/L	482.40	ppb	21:35:48

2	P 214.914†	5318.4	4459.6	2273.6 ug/L	2273.6 ppb	21:35:48
2	Pb 220.353†	2936.2	2729.5	483.85 ug/L	483.85 ppb	21:35:48
2	S 181.975 Axial†	900.0	738.4	958.25 ug/L	958.25 ppb	21:35:48
2	Sb 206.836†	1243.7	1058.1	494.17 ug/L	494.17 ppb	21:35:48
2	Se 196.026†	796.6	747.6	487.99 ug/L	487.99 ppb	21:35:48
2	Si 251.611†	63629.6	56511.9	2384.6 ug/L	2384.6 ppb	21:35:28
2	Sn 189.927†	2100.0	1872.0	470.51 ug/L	470.51 ppb	21:35:48
2	Ti 334.940†	198616.9	180149.7	478.11 ug/L	478.11 ppb	21:35:28
2	Tl 190.801†	834.8	807.7	481.50 ug/L	481.50 ppb	21:35:48
2	U 409.014†	8708.4	9612.4	484.99 ug/L	484.99 ppb	21:35:28
2	V 292.402†	57102.2	53195.9	484.27 ug/L	484.27 ppb	21:35:28
2	Zn 213.857†	48281.9	42369.6	472.88 ug/L	472.88 ppb	21:35:28
2	SiO2†	62173.4	55168.8	4980.7 ug/L	4980.7 ppb	21:36:26
3	Sc Radial	3600.5	3600.5	111 %		21:34:52
3	Y RADIAL	4065.3	4065.3	111.5 %		21:34:32
3	Al 396.153Radial†	4785.5	4425.8	5168.2 ug/L	5168.2 ppb	21:34:32
3	Ca 317.933Radial†	2447.2	2193.0	4939.3 ug/L	4939.3 ppb	21:34:52
3	Fe 238.204 Radial†	401.8	357.1	4810.0 ug/L	4810.0 ppb	21:34:52
3	K 766.490 Radial†	26399.6	20603.5	4804.9 ug/L	4804.9 ppb	21:34:32
3	Mg 279.077 IEC†	122.9	110.6	5020.0 ug/L	5020.0 ppb	21:34:52
3	Na 589.592 Radial†	20288.8	19469.9	9513.5 ug/L	9513.5 ppb	21:34:32
3	Sr 421.552†	52100.1	46898.1	489.72 ug/L	489.72 ppb	21:34:32
3	Sc 361.383	615384.8	615384.8	110.48 %		21:35:55
3	Y 371.029	567901.8	567901.8	109.76 %		21:35:55
3	Ag 328.068†	87955.3	79560.4	477.39 ug/L	477.39 ppb	21:35:55
3	As 188.979†	1144.0	1080.1	480.30 ug/L	480.30 ppb	21:36:15
3	B 249.677†	20498.4	19209.1	462.81 ug/L	462.81 ppb	21:35:55
3	Ba 233.527†	35225.8	31887.9	476.94 ug/L	476.94 ppb	21:35:55
3	Be 313.107†	1194509.3	1090764.7	479.43 ug/L	479.43 ppb	21:35:55
3	Cd 226.502†	36571.9	33410.6	464.90 ug/L	464.90 ppb	21:36:15
3	Co 228.616†	14351.1	13080.6	480.06 ug/L	480.06 ppb	21:36:15
3	Cr 267.716†	34928.6	31509.0	475.29 ug/L	475.29 ppb	21:35:55
3	Cu 324.752†	115280.2	97964.5	474.08 ug/L	474.08 ppb	21:35:55
3	Mn 257.610†	274513.0	247851.9	477.19 ug/L	477.19 ppb	21:35:55
3	Mo 202.031†	4973.1	4485.4	475.58 ug/L	475.58 ppb	21:36:15
3	Ni 231.604†	15844.7	14224.2	479.05 ug/L	479.05 ppb	21:36:15
3	P 214.914†	5225.7	4418.7	2252.1 ug/L	2252.1 ppb	21:36:15
3	Pb 220.353†	2847.5	2673.0	473.85 ug/L	473.85 ppb	21:36:15
3	S 181.975 Axial†	886.0	733.0	951.25 ug/L	951.25 ppb	21:36:15
3	Sb 206.836†	1209.1	1036.8	484.50 ug/L	484.50 ppb	21:36:15
3	Se 196.026†	799.2	756.3	493.44 ug/L	493.44 ppb	21:36:15
3	Si 251.611†	62949.5	56411.4	2380.4 ug/L	2380.4 ppb	21:35:55
3	Sn 189.927†	2074.5	1865.9	468.97 ug/L	468.97 ppb	21:36:15
3	Ti 334.940†	196640.1	179968.0	477.64 ug/L	477.64 ppb	21:35:55
3	Tl 190.801†	814.9	796.4	474.85 ug/L	474.85 ppb	21:36:15
3	U 409.014†	8515.0	9507.8	479.71 ug/L	479.71 ppb	21:35:55
3	V 292.402†	56343.5	52971.4	482.21 ug/L	482.21 ppb	21:35:55
3	Zn 213.857†	47885.6	42401.7	473.26 ug/L	473.26 ppb	21:35:55
3	SiO2†	62327.9	55811.9	5038.9 ug/L	5038.9 ppb	21:36:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	620595.1	111.41	%	0.906				0.81%
Sc Radial	3590.9	111	%	0.3				0.23%
Y 371.029	572242.9	110.60	%	0.840				0.76%
Y RADIAL	4045.0	111.0	%	0.65				0.59%
Ag 328.068†	79459.1	476.81	ug/L	0.637	476.81	ppb	0.637	0.13%
QC value within limits for Ag 328.068 Recovery = 95.36%								
Al 396.153Radial†	4455.0	5202.4	ug/L	32.01	5202.4	ppb	32.01	0.62%
QC value within limits for Al 396.153Radial Recovery = 104.05%								
As 188.979†	1088.5	484.03	ug/L	3.233	484.03	ppb	3.233	0.67%
QC value within limits for As 188.979 Recovery = 96.81%								
B 249.677†	19188.9	462.30	ug/L	1.884	462.30	ppb	1.884	0.41%
QC value within limits for B 249.677 Recovery = 92.46%								
Ba 233.527†	31949.7	477.87	ug/L	0.836	477.87	ppb	0.836	0.17%
QC value within limits for Ba 233.527 Recovery = 95.57%								
Be 313.107†	1088746.5	478.54	ug/L	0.949	478.54	ppb	0.949	0.20%
QC value within limits for Be 313.107 Recovery = 95.71%								
Ca 317.933Radial†	2202.9	4961.5	ug/L	19.49	4961.5	ppb	19.49	0.39%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.23%
Cd 226.502†            33594.3      467.46 ug/L         2.213      467.46 ppb          2.213   0.47%
   QC value within limits for Cd 226.502  Recovery = 93.49%
Co 228.616†            13157.0      482.87 ug/L         2.498      482.87 ppb          2.498   0.52%
   QC value within limits for Co 228.616  Recovery = 96.57%
Cr 267.716†            31522.7      475.50 ug/L         1.207      475.50 ppb          1.207   0.25%
   QC value within limits for Cr 267.716  Recovery = 95.10%
Cu 324.752†            98010.7      474.31 ug/L         0.887      474.31 ppb          0.887   0.19%
   QC value within limits for Cu 324.752  Recovery = 94.86%
Fe 238.204 Radial†       360.8      4860.3 ug/L         46.31      4860.3 ppb          46.31   0.95%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.21%
K 766.490 Radial†      20732.1      4834.9 ug/L         31.12      4834.9 ppb          31.12   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 96.70%
Mg 279.077 IEC†          112.2      5093.5 ug/L         66.81      5093.5 ppb          66.81   1.31%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.87%
Mn 257.610†           247837.8      477.16 ug/L         0.264      477.16 ppb          0.264   0.06%
   QC value within limits for Mn 257.610  Recovery = 95.43%
Mo 202.031†             4504.7      477.64 ug/L         1.783      477.64 ppb          1.783   0.37%
   QC value within limits for Mo 202.031  Recovery = 95.53%
Na 589.592 Radial†     19623.0      9588.4 ug/L         66.88      9588.4 ppb          66.88   0.70%
   QC value within limits for Na 589.592 Radial  Recovery = 95.88%
Ni 231.604†            14285.5      481.11 ug/L         1.807      481.11 ppb          1.807   0.38%
   QC value within limits for Ni 231.604  Recovery = 96.22%
P 214.914†              4446.0      2266.6 ug/L         12.59      2266.6 ppb          12.59   0.56%
   QC value within limits for P 214.914  Recovery = 90.66%
Pb 220.353†             2704.5      479.43 ug/L         5.100      479.43 ppb          5.100   1.06%
   QC value within limits for Pb 220.353  Recovery = 95.89%
S 181.975 Axial†         732.7      950.90 ug/L         7.530      950.90 ppb          7.530   0.79%
   QC value within limits for S 181.975 Axial  Recovery = 95.09%
Sb 206.836†             1049.9      490.47 ug/L         5.218      490.47 ppb          5.218   1.06%
   QC value within limits for Sb 206.836  Recovery = 98.09%
Se 196.026†              752.3      490.93 ug/L         2.753      490.93 ppb          2.753   0.56%
   QC value within limits for Se 196.026  Recovery = 98.19%
Si 251.611†            56439.4      2381.5 ug/L          2.67      2381.5 ppb           2.67   0.11%
   QC value within limits for Si 251.611  Recovery = 95.26%
Sn 189.927†             1874.3      471.09 ug/L         2.463      471.09 ppb          2.463   0.52%
   QC value within limits for Sn 189.927  Recovery = 94.22%
Sr 421.552†            47232.8      493.22 ug/L         3.071      493.22 ppb          3.071   0.62%
   QC value within limits for Sr 421.552  Recovery = 98.64%
Ti 334.940†           180015.1      477.76 ug/L         0.309      477.76 ppb          0.309   0.06%
   QC value within limits for Ti 334.940  Recovery = 95.55%
Tl 190.801†              807.8      481.54 ug/L         6.711      481.54 ppb          6.711   1.39%
   QC value within limits for Tl 190.801  Recovery = 96.31%
U 409.014†              9525.6      480.59 ug/L         4.028      480.59 ppb          4.028   0.84%
   QC value within limits for U 409.014  Recovery = 96.12%
V 292.402†             53070.8      483.12 ug/L         1.050      483.12 ppb          1.050   0.22%
   QC value within limits for V 292.402  Recovery = 96.62%
Zn 213.857†            42341.2      472.57 ug/L         0.886      472.57 ppb          0.886   0.19%
   QC value within limits for Zn 213.857  Recovery = 94.51%
SiO2†                  55265.3      4989.4 ug/L         45.78      4989.4 ppb          45.78   0.92%
   QC value within limits for SiO2  Recovery = 93.30%
All analyte(s) passed QC.
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Sequence No.: 34
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/15/2010 21:38:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3713.3	3713.3	114	%			21:40:52
1	Y RADIAL	3985.6	3985.6	109.3	%			21:40:32
1	Al 396.153Radial†	-105.4	23.1	27.068	ug/L	27.068	ppb	21:40:32
1	Ca 317.933Radial†	18.7	5.0	11.300	ug/L	11.300	ppb	21:40:52
1	Fe 238.204 Radial†	4.8	-0.7	-9.5853	ug/L	-9.5853	ppb	21:40:52
1	K 766.490 Radial†	3015.1	-543.0	-126.80	ug/L	-126.80	ppb	21:40:32
1	Mg 279.077 IEC†	-1.3	-1.3	-58.831	ug/L	-58.831	ppb	21:40:52
1	Na 589.592 Radial†	-1240.7	110.7	54.115	ug/L	54.115	ppb	21:40:32
1	Sr 421.552†	46.6	8.7	0.0911	ug/L	0.0911	ppb	21:40:32
1	Sc 361.383	630172.6	630172.6	113.13	%			21:41:49
1	Y 371.029	584409.0	584409.0	112.95	%			21:41:49
1	Ag 328.068†	126.8	59.4	0.3467	ug/L	0.3467	ppb	21:41:49
1	As 188.979†	-49.6	0.8	0.3374	ug/L	0.3374	ppb	21:42:09
1	B 249.677†	-628.7	99.2	2.3998	ug/L	2.3998	ppb	21:41:49
1	Ba 233.527†	-15.1	-10.2	-0.1518	ug/L	-0.1518	ppb	21:42:09
1	Be 313.107†	-10088.4	633.8	0.2794	ug/L	0.2794	ppb	21:41:49
1	Cd 226.502†	-303.0	39.7	0.5545	ug/L	0.5545	ppb	21:42:09
1	Co 228.616†	-83.9	16.5	0.6082	ug/L	0.6082	ppb	21:42:09
1	Cr 267.716†	169.8	43.3	0.6492	ug/L	0.6492	ppb	21:41:49
1	Cu 324.752†	6705.1	-455.0	-2.2093	ug/L	-2.2093	ppb	21:41:49
1	Mn 257.610†	631.0	-66.6	-0.1267	ug/L	-0.1267	ppb	21:41:49
1	Mo 202.031†	36.6	16.3	1.7296	ug/L	1.7296	ppb	21:42:09
1	Ni 231.604†	131.9	-1.1	-0.0387	ug/L	-0.0387	ppb	21:42:09
1	P 214.914†	317.0	-31.1	-16.085	ug/L	-16.085	ppb	21:42:09
1	Pb 220.353†	-106.7	1.3	0.2418	ug/L	0.2418	ppb	21:42:09
1	S 181.975 Axial†	74.4	-3.2	-4.1850	ug/L	-4.1850	ppb	21:42:09
1	Sb 206.836†	40.8	-21.5	-9.6811	ug/L	-9.6811	ppb	21:42:09
1	Se 196.026†	-32.0	4.7	2.9668	ug/L	2.9668	ppb	21:42:09
1	Si 251.611†	561.0	-71.7	-3.0545	ug/L	-3.0545	ppb	21:42:09
1	Sn 189.927†	10.9	-2.2	-0.5597	ug/L	-0.5597	ppb	21:42:09
1	Ti 334.940†	-1965.2	241.5	0.6427	ug/L	0.6427	ppb	21:41:49
1	Tl 190.801†	-46.6	17.6	10.439	ug/L	10.439	ppb	21:42:09
1	U 409.014†	-1839.8	174.3	8.8393	ug/L	8.8393	ppb	21:41:49
1	V 292.402†	-2157.4	64.9	0.6242	ug/L	0.6242	ppb	21:41:49
1	Zn 213.857†	966.3	-88.0	-0.9869	ug/L	-0.9869	ppb	21:42:09
1	SiO2†	585.6	-86.8	-7.9061	ug/L	-7.9061	ppb	21:43:06
2	Sc Radial	3696.6	3696.6	114	%			21:41:17
2	Y RADIAL	4237.3	4237.3	116.2	%			21:40:57
2	Al 396.153Radial†	-129.5	1.6	1.8355	ug/L	1.8355	ppb	21:40:57
2	Ca 317.933Radial†	21.0	7.0	15.864	ug/L	15.864	ppb	21:41:17
2	Fe 238.204 Radial†	3.6	-1.7	-23.327	ug/L	-23.327	ppb	21:41:17
2	K 766.490 Radial†	3215.1	-355.7	-83.069	ug/L	-83.069	ppb	21:40:57
2	Mg 279.077 IEC†	4.0	3.3	149.81	ug/L	149.81	ppb	21:41:17
2	Na 589.592 Radial†	-1198.7	142.7	69.733	ug/L	69.733	ppb	21:40:57
2	Sr 421.552†	-1.9	-33.7	-0.3520	ug/L	-0.3520	ppb	21:40:57
2	Sc 361.383	611688.1	611688.1	109.81	%			21:42:15
2	Y 371.029	568336.4	568336.4	109.84	%			21:42:15
2	Ag 328.068†	116.4	53.3	0.3095	ug/L	0.3095	ppb	21:42:15
2	As 188.979†	-46.5	2.3	1.0122	ug/L	1.0122	ppb	21:42:35
2	B 249.677†	-700.1	17.5	0.4229	ug/L	0.4229	ppb	21:42:15
2	Ba 233.527†	-3.8	-0.3	-0.0034	ug/L	-0.0034	ppb	21:42:35
2	Be 313.107†	-9896.6	539.1	0.2378	ug/L	0.2378	ppb	21:42:15
2	Cd 226.502†	-291.7	41.9	0.5871	ug/L	0.5871	ppb	21:42:35
2	Co 228.616†	-77.8	19.8	0.7282	ug/L	0.7282	ppb	21:42:35
2	Cr 267.716†	118.4	1.0	0.0136	ug/L	0.0136	ppb	21:42:15
2	Cu 324.752†	6603.8	-368.1	-1.7880	ug/L	-1.7880	ppb	21:42:15
2	Mn 257.610†	649.9	-32.6	-0.0713	ug/L	-0.0713	ppb	21:42:15
2	Mo 202.031†	26.9	8.5	0.8968	ug/L	0.8968	ppb	21:42:35
2	Ni 231.604†	160.4	28.3	0.9530	ug/L	0.9530	ppb	21:42:35

2	P 214.914†	334.3	-6.9	-3.2692 ug/L	-3.2692 ppb	21:42:35
2	Pb 220.353†	-131.8	-24.5	-4.3155 ug/L	-4.3155 ppb	21:42:35
2	S 181.975 Axial†	65.3	-9.5	-12.359 ug/L	-12.359 ppb	21:42:35
2	Sb 206.836†	48.8	-13.1	-5.9253 ug/L	-5.9253 ppb	21:42:35
2	Se 196.026†	-37.6	-1.3	-0.8639 ug/L	-0.8639 ppb	21:42:35
2	Si 251.611†	569.9	-48.6	-2.0677 ug/L	-2.0677 ppb	21:42:35
2	Sn 189.927†	7.5	-5.0	-1.2602 ug/L	-1.2602 ppb	21:42:35
2	Ti 334.940†	-1925.7	225.0	0.5848 ug/L	0.5848 ppb	21:42:15
2	Tl 190.801†	-56.0	7.8	4.6266 ug/L	4.6266 ppb	21:42:35
2	U 409.014†	-1829.9	134.1	6.8068 ug/L	6.8068 ppb	21:42:15
2	V 292.402†	-2047.6	107.3	0.9948 ug/L	0.9948 ppb	21:42:15
2	Zn 213.857†	955.1	-72.4	-0.8194 ug/L	-0.8194 ppb	21:42:35
2	SiO2†	596.7	-61.1	-5.5526 ug/L	-5.5526 ppb	21:43:11
3	Sc Radial	3672.7	3672.7	113 %		21:41:43
3	Y RADIAL	4133.3	4133.3	113.4 %		21:41:22
3	Al 396.153Radial†	95.6	199.6	234.03 ug/L	234.03 ppb	21:41:22
3	Ca 317.933Radial†	23.4	9.3	21.022 ug/L	21.022 ppb	21:41:43
3	Fe 238.204 Radial†	6.1	0.5	6.8177 ug/L	6.8177 ppb	21:41:43
3	K 766.490 Radial†	3028.0	-502.5	-117.34 ug/L	-117.34 ppb	21:41:22
3	Mg 279.077 IEC†	2.1	1.7	76.893 ug/L	76.893 ppb	21:41:43
3	Na 589.592 Radial†	-1270.7	72.2	35.288 ug/L	35.288 ppb	21:41:22
3	Sr 421.552†	30.2	-5.4	-0.0563 ug/L	-0.0563 ppb	21:41:22
3	Sc 361.383	609157.3	609157.3	109.36 %		21:42:40
3	Y 371.029	566661.1	566661.1	109.52 %		21:42:40
3	Ag 328.068†	130.1	66.3	0.4033 ug/L	0.4033 ppb	21:42:40
3	As 188.979†	-41.7	6.5	2.8536 ug/L	2.8536 ppb	21:43:00
3	B 249.677†	-683.2	30.3	0.7317 ug/L	0.7317 ppb	21:42:40
3	Ba 233.527†	8.1	10.5	0.1605 ug/L	0.1605 ppb	21:43:00
3	Be 313.107†	-9798.1	591.6	0.2614 ug/L	0.2614 ppb	21:42:40
3	Cd 226.502†	-299.8	33.4	0.4634 ug/L	0.4634 ppb	21:43:00
3	Co 228.616†	-93.4	5.2	0.1931 ug/L	0.1931 ppb	21:43:00
3	Cr 267.716†	147.5	28.1	0.4258 ug/L	0.4258 ppb	21:42:40
3	Cu 324.752†	6560.3	-383.0	-1.8544 ug/L	-1.8544 ppb	21:42:40
3	Mn 257.610†	569.5	-103.6	-0.2018 ug/L	-0.2018 ppb	21:42:40
3	Mo 202.031†	36.1	17.0	1.8060 ug/L	1.8060 ppb	21:43:00
3	Ni 231.604†	123.3	-5.0	-0.1687 ug/L	-0.1687 ppb	21:43:00
3	P 214.914†	326.7	-12.5	-6.1942 ug/L	-6.1942 ppb	21:43:00
3	Pb 220.353†	-90.5	12.8	2.3326 ug/L	2.3326 ppb	21:43:00
3	S 181.975 Axial†	75.2	-0.3	-0.3621 ug/L	-0.3621 ppb	21:43:00
3	Sb 206.836†	59.6	-3.1	-1.3325 ug/L	-1.3325 ppb	21:43:00
3	Se 196.026†	-31.8	3.9	2.5325 ug/L	2.5325 ppb	21:43:00
3	Si 251.611†	563.8	-52.1	-2.2242 ug/L	-2.2242 ppb	21:43:00
3	Sn 189.927†	19.2	5.7	1.4362 ug/L	1.4362 ppb	21:43:00
3	Ti 334.940†	-1819.6	314.8	0.8322 ug/L	0.8322 ppb	21:42:40
3	Tl 190.801†	-70.4	-5.5	-3.2687 ug/L	-3.2687 ppb	21:43:00
3	U 409.014†	-1973.7	-4.3	-0.2184 ug/L	-0.2184 ppb	21:42:40
3	V 292.402†	-1987.0	155.0	1.4166 ug/L	1.4166 ppb	21:42:40
3	Zn 213.857†	979.7	-46.3	-0.5158 ug/L	-0.5158 ppb	21:43:00
3	SiO2†	587.5	-67.2	-6.1328 ug/L	-6.1328 ppb	21:43:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	617006.0	110.77	%	2.060				1.86%
Sc Radial	3694.2	114	%	0.6				0.55%
Y 371.029	573135.5	110.77	%	1.894				1.71%
Y RADIAL	4118.7	113.0	%	3.47				3.07%
Ag 328.068†	59.7	0.3531	ug/L	0.04724	0.3531	ppb	0.04724	13.38%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	74.8	87.645	ug/L	127.4012	87.645	ppb	127.4012	145.36%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.2	1.4011	ug/L	1.30240	1.4011	ppb	1.30240	92.96%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	49.0	1.1848	ug/L	1.06347	1.1848	ppb	1.06347	89.76%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.0	0.0018	ug/L	0.15623	0.0018	ppb	0.15623	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	588.2	0.2595	ug/L	0.02089	0.2595	ppb	0.02089	8.05%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.1	16.062	ug/L	4.8642	16.062	ppb	4.8642	30.28%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              38.3      0.5350 ug/L       0.06412      0.5350 ppb        0.06412  11.98%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              13.8      0.5098 ug/L       0.28078      0.5098 ppb        0.28078  55.07%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              24.1      0.3629 ug/L       0.32245      0.3629 ppb        0.32245  88.86%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -402.0     -1.9506 ug/L       0.22650     -1.9506 ppb        0.22650  11.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.6     -8.6982 ug/L      15.09193     -8.6982 ppb       15.09193 173.51%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -467.1     -109.07 ug/L        23.008     -109.07 ppb         23.008  21.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.2      55.958 ug/L      105.8859      55.958 ppb       105.8859 189.22%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -67.6     -0.1333 ug/L       0.06549     -0.1333 ppb        0.06549  49.14%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              13.9      1.4775 ug/L       0.50431      1.4775 ppb        0.50431  34.13%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      108.6      53.045 ug/L       17.2473      53.045 ppb        17.2473  32.51%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               7.4      0.2485 ug/L       0.61354      0.2485 ppb        0.61354 246.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -16.8     -8.5160 ug/L       6.71588     -8.5160 ppb        6.71588  78.86%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -3.4     -0.5804 ug/L       3.39946     -0.5804 ppb        3.39946 585.74%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -4.3     -5.6353 ug/L       6.12854     -5.6353 ppb        6.12854 108.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -12.6     -5.6463 ug/L       4.18127     -5.6463 ppb        4.18127  74.05%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.4      1.5451 ug/L       2.09752      1.5451 ppb        2.09752 135.75%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -57.5     -2.4488 ug/L       0.53038     -2.4488 ppb        0.53038  21.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.5     -0.1279 ug/L       1.39909     -0.1279 ppb        1.39909 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -10.1     -0.1057 ug/L       0.22567     -0.1057 ppb        0.22567 213.40%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             260.4      0.6866 ug/L       0.12938      0.6866 ppb        0.12938  18.84%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               6.6      3.9323 ug/L       6.88017      3.9323 ppb        6.88017 174.97%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              101.4      5.1426 ug/L       4.75263      5.1426 ppb        4.75263  92.42%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              109.1      1.0119 ug/L       0.39647      1.0119 ppb        0.39647  39.18%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -68.9     -0.7740 ug/L       0.23877     -0.7740 ppb        0.23877  30.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -71.7     -6.5305 ug/L       1.22611     -6.5305 ppb        1.22611  18.78%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Method: Hg_ReAlign
Result: 052010

Sample ID: Hg_ReAlign

Hg 253.652 **Rep: 1**

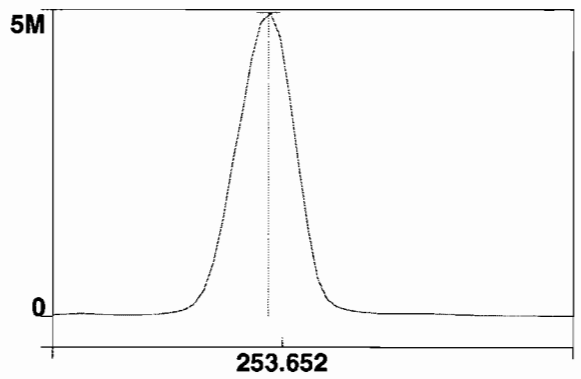

Intensity: 4449065.0 cps
Conc:

1

==========

Analysis Begun

Start Time: 4/5/2010 10:13:47 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 4/5/2010 10:13:47**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	141345.5	141345.5	101	%	10:14:20
1	Al 396.153Radial†	-71.7	-71.1	[0.00]	µg/L	10:14:40
1	Ca 317.933Radial†	562.0	557.0	[0.00]	µg/L	10:14:40
1	Fe 238.204 Radial†	133.2	132.1	[0.00]	µg/L	10:14:40
1	K 766.490 Radial†	1511.3	1497.9	[0.00]	µg/L	10:14:20
1	Mg 279.077 IEC†	180.5	178.9	[0.00]	µg/L	10:14:40
1	Na 589.592 Radial†	981.7	973.0	[0.00]	µg/L	10:14:20
1	Sr 421.552†	-166.0	-164.6	[0.00]	µg/L	10:14:20
1	Sc 361.383	1809917.0	1809917.0	100.32	%	10:15:28
1	Y 371.029	1061056.9	1061056.9	100.36	%	10:15:28
1	Ag 328.068†	4631.5	4616.7	[0.00]	µg/L	10:15:30
1	As 188.979†	-28.2	-28.1	[0.00]	µg/L	10:15:50
1	B 249.677†	4081.8	4068.8	[0.00]	µg/L	10:15:30
1	Ba 233.527†	-140.2	-139.8	[0.00]	µg/L	10:15:50
1	Be 313.107†	-1250.1	-1246.2	[0.00]	µg/L	10:15:30
1	Cd 226.502†	-99.6	-99.3	[0.00]	µg/L	10:15:50
1	Co 228.616†	-189.2	-188.6	[0.00]	µg/L	10:15:50
1	Cr 267.716†	232.1	231.3	[0.00]	µg/L	10:15:50
1	Cu 324.752†	3023.5	3013.9	[0.00]	µg/L	10:15:30
1	Mn 257.610†	175.2	174.7	[0.00]	µg/L	10:15:50
1	Mo 202.031†	-46.7	-46.6	[0.00]	µg/L	10:15:50
1	Ni 231.604†	-85.5	-85.2	[0.00]	µg/L	10:15:50
1	P 214.914†	-41.4	-41.3	[0.00]	µg/L	10:15:50
1	Pb 220.353†	103.1	102.8	[0.00]	µg/L	10:15:50
1	S 181.975 Axial†	82.1	81.8	[0.00]	µg/L	10:15:50
1	Sb 206.836†	104.3	104.0	[0.00]	µg/L	10:15:50
1	Se 196.026†	2.3	2.3	[0.00]	µg/L	10:15:50
1	SiO2†	1729.4	1723.9	[0.00]	µg/L	10:15:50
1	Si 251.611†	902.0	899.1	[0.00]	µg/L	10:15:30
1	Sn 189.927†	-6.6	-6.6	[0.00]	µg/L	10:15:50
1	Ti 334.940†	626.5	624.5	[0.00]	µg/L	10:15:30
1	Tl 190.801†	-120.7	-120.3	[0.00]	µg/L	10:15:50
1	U 409.014†	-208.2	-207.6	[0.00]	µg/L	10:15:30
1	V 292.402†	491.5	490.0	[0.00]	µg/L	10:15:30
1	Zn 213.857†	493.7	492.1	[0.00]	µg/L	10:15:50
2	Sc RADIAL	138787.4	138787.4	99.1	%	10:14:42
2	Al 396.153Radial†	-93.8	-94.7	[0.00]	µg/L	10:15:02
2	Ca 317.933Radial†	579.9	585.4	[0.00]	µg/L	10:15:02
2	Fe 238.204 Radial†	118.7	119.8	[0.00]	µg/L	10:15:02
2	K 766.490 Radial†	1516.0	1530.3	[0.00]	µg/L	10:14:42
2	Mg 279.077 IEC†	160.6	162.1	[0.00]	µg/L	10:15:02
2	Na 589.592 Radial†	883.5	891.9	[0.00]	µg/L	10:14:42
2	Sr 421.552†	-276.7	-279.3	[0.00]	µg/L	10:14:42
2	Sc 361.383	1802726.4	1802726.4	99.921	%	10:15:52
2	Y 371.029	1056514.6	1056514.6	99.926	%	10:15:52
2	Ag 328.068†	4445.4	4448.9	[0.00]	µg/L	10:15:54
2	As 188.979†	-17.6	-17.6	[0.00]	µg/L	10:16:14

2	B 249.677†	4098.2	4101.4	[0.00]	µg/L	10:15:54
2	Ba 233.527†	-137.4	-137.5	[0.00]	µg/L	10:16:14
2	Be 313.107†	-919.9	-920.6	[0.00]	µg/L	10:15:54
2	Cd 226.502†	-97.2	-97.3	[0.00]	µg/L	10:16:14
2	Co 228.616†	-212.6	-212.8	[0.00]	µg/L	10:16:14
2	Cr 267.716†	221.8	222.0	[0.00]	µg/L	10:16:14
2	Cu 324.752†	3087.1	3089.6	[0.00]	µg/L	10:15:54
2	Mn 257.610†	185.6	185.7	[0.00]	µg/L	10:16:14
2	Mo 202.031†	-31.7	-31.7	[0.00]	µg/L	10:16:14
2	Ni 231.604†	-105.8	-105.9	[0.00]	µg/L	10:16:14
2	P 214.914†	-25.3	-25.4	[0.00]	µg/L	10:16:14
2	Pb 220.353†	104.3	104.3	[0.00]	µg/L	10:16:14
2	S 181.975 Axial†	94.0	94.1	[0.00]	µg/L	10:16:14
2	Sb 206.836†	82.5	82.6	[0.00]	µg/L	10:16:14
2	Se 196.026†	-0.8	-0.8	[0.00]	µg/L	10:16:14
2	SiO2†	1742.2	1743.6	[0.00]	µg/L	10:16:14
2	Si 251.611†	730.3	730.9	[0.00]	µg/L	10:15:54
2	Sn 189.927†	-6.8	-6.8	[0.00]	µg/L	10:16:14
2	Ti 334.940†	782.7	783.4	[0.00]	µg/L	10:15:54
2	Tl 190.801†	-114.4	-114.5	[0.00]	µg/L	10:16:14
2	U 409.014†	-209.5	-209.7	[0.00]	µg/L	10:15:54
2	V 292.402†	334.7	335.0	[0.00]	µg/L	10:15:54
2	Zn 213.857†	495.4	495.8	[0.00]	µg/L	10:16:14
3	Sc RADIAL	140146.0	140146.0	100	%	10:15:04
3	Al 396.153Radial†	-69.9	-69.8	[0.00]	µg/L	10:15:24
3	Ca 317.933Radial†	572.2	572.0	[0.00]	µg/L	10:15:24
3	Fe 238.204 Radial†	100.1	100.0	[0.00]	µg/L	10:15:24
3	K 766.490 Radial†	1453.7	1453.2	[0.00]	µg/L	10:15:04
3	Mg 279.077 IEC†	176.4	176.3	[0.00]	µg/L	10:15:24
3	Na 589.592 Radial†	993.1	992.7	[0.00]	µg/L	10:15:04
3	Sr 421.552†	-169.7	-169.6	[0.00]	µg/L	10:15:04
3	Sc 361.383	1799815.0	1799815.0	99.760	%	10:16:16
3	Y 371.029	1054320.2	1054320.2	99.718	%	10:16:16
3	Ag 328.068†	4618.7	4629.8	[0.00]	µg/L	10:16:19
3	As 188.979†	-10.0	-10.0	[0.00]	µg/L	10:16:39
3	B 249.677†	4015.5	4025.2	[0.00]	µg/L	10:16:19
3	Ba 233.527†	-155.9	-156.3	[0.00]	µg/L	10:16:39
3	Be 313.107†	-1105.7	-1108.4	[0.00]	µg/L	10:16:19
3	Cd 226.502†	-113.2	-113.5	[0.00]	µg/L	10:16:39
3	Co 228.616†	-229.0	-229.5	[0.00]	µg/L	10:16:39
3	Cr 267.716†	245.8	246.4	[0.00]	µg/L	10:16:39
3	Cu 324.752†	2997.6	3004.8	[0.00]	µg/L	10:16:19
3	Mn 257.610†	193.3	193.8	[0.00]	µg/L	10:16:39
3	Mo 202.031†	-37.4	-37.5	[0.00]	µg/L	10:16:39
3	Ni 231.604†	-96.4	-96.6	[0.00]	µg/L	10:16:39
3	P 214.914†	-10.4	-10.4	[0.00]	µg/L	10:16:39
3	Pb 220.353†	103.0	103.3	[0.00]	µg/L	10:16:39
3	S 181.975 Axial†	90.6	90.9	[0.00]	µg/L	10:16:39
3	Sb 206.836†	82.4	82.6	[0.00]	µg/L	10:16:39
3	Se 196.026†	16.9	16.9	[0.00]	µg/L	10:16:39
3	SiO2†	1745.6	1749.8	[0.00]	µg/L	10:16:39
3	Si 251.611†	669.5	671.1	[0.00]	µg/L	10:16:19
3	Sn 189.927†	19.0	19.1	[0.00]	µg/L	10:16:39
3	Ti 334.940†	1058.6	1061.1	[0.00]	µg/L	10:16:19
3	Tl 190.801†	-107.8	-108.0	[0.00]	µg/L	10:16:39
3	U 409.014†	-72.6	-72.8	[0.00]	µg/L	10:16:19
3	V 292.402†	443.7	444.7	[0.00]	µg/L	10:16:19
3	Zn 213.857†	519.8	521.1	[0.00]	µg/L	10:16:39

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1804152.8	5199.83	0.29%	100.00	%
Sc RADIAL	140093.0	1279.85	0.91%	100.0	%
Y 371.029	1057297.2	3435.88	0.32%	100.00	%
Ag 328.068†	4565.2	100.87	2.21%	[0.00]	µg/L
Al 396.153Radial†	-78.5	14.00	17.83%	[0.00]	µg/L
As 188.979†	-18.6	9.07	48.89%	[0.00]	µg/L
B 249.677†	4065.1	38.25	0.94%	[0.00]	µg/L
Ba 233.527†	-144.5	10.26	7.10%	[0.00]	µg/L

Be 313.107†	-1091.7	163.40	14.97%	[0.00]	µg/L
Ca 317.933Radial†	571.4	14.18	2.48%	[0.00]	µg/L
Cd 226.502†	-103.4	8.84	8.55%	[0.00]	µg/L
Co 228.616†	-210.3	20.61	9.80%	[0.00]	µg/L
Cr 267.716†	233.2	12.30	5.28%	[0.00]	µg/L
Cu 324.752†	3036.1	46.52	1.53%	[0.00]	µg/L
Fe 238.204 Radial†	117.3	16.16	13.77%	[0.00]	µg/L
K 766.490 Radial†	1493.8	38.73	2.59%	[0.00]	µg/L
Mg 279.077 IEC†	172.5	9.01	5.22%	[0.00]	µg/L
Mn 257.610†	184.7	9.58	5.18%	[0.00]	µg/L
Mo 202.031†	-38.6	7.49	19.42%	[0.00]	µg/L
Na 589.592 Radial†	952.5	53.45	5.61%	[0.00]	µg/L
Ni 231.604†	-95.9	10.38	10.83%	[0.00]	µg/L
P 214.914†	-25.7	15.43	60.06%	[0.00]	µg/L
Pb 220.353†	103.5	0.81	0.78%	[0.00]	µg/L
S 181.975 Axial†	88.9	6.36	7.15%	[0.00]	µg/L
Sb 206.836†	89.7	12.37	13.78%	[0.00]	µg/L
Se 196.026†	6.2	9.46	153.73%	[0.00]	µg/L
SiO2†	1739.1	13.54	0.78%	[0.00]	µg/L
Si 251.611†	767.0	118.25	15.42%	[0.00]	µg/L
Sn 189.927†	1.9	14.90	789.79%	[0.00]	µg/L
Sr 421.552†	-204.5	64.82	31.70%	[0.00]	µg/L
Ti 334.940†	823.0	220.99	26.85%	[0.00]	µg/L
Tl 190.801†	-114.3	6.14	5.38%	[0.00]	µg/L
U 409.014†	-163.4	78.42	48.00%	[0.00]	µg/L
V 292.402†	423.2	79.68	18.83%	[0.00]	µg/L
Zn 213.857†	503.0	15.77	3.14%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 4/5/2010 10:16:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139125.6	139125.6	99.3	%	10:17:17
1	K 766.490 Radial†	4201.0	2736.4	[1000]	µg/L	10:17:17
1	Sr 421.552†	43301.9	43807.5	[100]	µg/L	10:17:17
1	Sc 361.383	1787922.4	1787922.4	99.100	%	10:17:25
1	Y 371.029	1045378.7	1045378.7	98.873	%	10:17:25
1	Ag 328.068†	29278.8	24979.4	[100]	µg/L	10:17:27
1	As 188.979†	269.9	290.9	[100]	µg/L	10:17:47
1	B 249.677†	10470.2	6500.1	[100]	µg/L	10:17:27
1	Ba 233.527†	22677.6	23028.0	[100]	µg/L	10:17:27
1	Be 313.107†	339780.2	343956.4	[100]	µg/L	10:17:25
1	Cd 226.502†	14950.1	15189.2	[100]	µg/L	10:17:27
1	Co 228.616†	7586.0	7865.2	[100]	µg/L	10:17:47
1	Cr 267.716†	11980.0	11855.6	[100]	µg/L	10:17:27
1	Cu 324.752†	27030.3	24239.6	[100]	µg/L	10:17:27
1	Mn 257.610†	77870.5	78392.6	[100]	µg/L	10:17:27
1	Mo 202.031†	3044.8	3111.0	[100]	µg/L	10:17:47
1	Ni 231.604†	8145.6	8315.5	[100]	µg/L	10:17:27
1	P 214.914†	2132.7	2177.8	[500]	µg/L	10:17:47
1	Pb 220.353†	1754.2	1666.6	[100]	µg/L	10:17:47
1	S 181.975 Axial†	320.2	234.2	[200]	µg/L	10:17:47
1	Sb 206.836†	856.2	774.3	[100]	µg/L	10:17:47
1	Se 196.026†	271.1	267.4	[100]	µg/L	10:17:47
1	SiO2†	11802.6	10170.7	[1069.5]	µg/L	10:17:27
1	Si 251.611†	32208.0	31733.4	[500]	µg/L	10:17:27
1	Sn 189.927†	1460.8	1472.2	[100]	µg/L	10:17:47
1	Ti 334.940†	97532.1	97594.5	[100]	µg/L	10:17:27
1	Tl 190.801†	651.1	771.2	[100]	µg/L	10:17:47
1	U 409.014†	1450.2	1626.7	[100]	µg/L	10:17:27
1	V 292.402†	19578.5	19333.0	[100]	µg/L	10:17:27
1	Zn 213.857†	17573.4	17230.0	[100]	µg/L	10:17:27
2	Sc RADIAL	139393.7	139393.7	99.5	%	10:17:19
2	K 766.490 Radial†	4071.1	2597.8	[1000]	µg/L	10:17:19
2	Sr 421.552†	43490.4	43913.0	[100]	µg/L	10:17:19
2	Sc 361.383	1810051.8	1810051.8	100.33	%	10:17:49
2	Y 371.029	1057261.6	1057261.6	99.997	%	10:17:49
2	Ag 328.068†	29153.6	24493.4	[100]	µg/L	10:17:51
2	As 188.979†	282.4	300.0	[100]	µg/L	10:18:11
2	B 249.677†	10334.4	6235.5	[100]	µg/L	10:17:51
2	Ba 233.527†	22670.7	22741.4	[100]	µg/L	10:17:51
2	Be 313.107†	345851.8	345816.4	[100]	µg/L	10:17:49
2	Cd 226.502†	14777.3	14832.5	[100]	µg/L	10:17:51
2	Co 228.616†	7580.5	7766.1	[100]	µg/L	10:18:11
2	Cr 267.716†	11835.9	11564.1	[100]	µg/L	10:17:51
2	Cu 324.752†	26968.9	23844.9	[100]	µg/L	10:17:51
2	Mn 257.610†	77589.5	77151.9	[100]	µg/L	10:17:51
2	Mo 202.031†	3039.5	3068.1	[100]	µg/L	10:18:11
2	Ni 231.604†	8167.1	8236.4	[100]	µg/L	10:17:51
2	P 214.914†	2136.5	2155.2	[500]	µg/L	10:18:11
2	Pb 220.353†	1760.7	1651.5	[100]	µg/L	10:18:11
2	S 181.975 Axial†	328.5	238.5	[200]	µg/L	10:18:11
2	Sb 206.836†	849.0	756.5	[100]	µg/L	10:18:11
2	Se 196.026†	270.8	263.7	[100]	µg/L	10:18:11
2	SiO2†	11845.9	10068.2	[1069.5]	µg/L	10:17:51
2	Si 251.611†	32133.9	31262.1	[500]	µg/L	10:17:51
2	Sn 189.927†	1448.7	1442.0	[100]	µg/L	10:18:11
2	Ti 334.940†	97204.0	96064.2	[100]	µg/L	10:17:51
2	Tl 190.801†	624.5	736.7	[100]	µg/L	10:18:11
2	U 409.014†	1369.3	1528.2	[100]	µg/L	10:17:51
2	V 292.402†	19503.3	19016.5	[100]	µg/L	10:17:51

2	Zn 213.857†	17334.5	16775.0	[100]	µg/L	10:17:51
3	Sc RADIAL	139506.2	139506.2	99.6	%	10:17:21
3	K 766.490 Radial†	4050.2	2573.4	[1000]	µg/L	10:17:21
3	Sr 421.552†	43526.0	43913.6	[100]	µg/L	10:17:21
3	Sc 361.383	1784413.8	1784413.8	98.906	%	10:18:13
3	Y 371.029	1042010.1	1042010.1	98.554	%	10:18:13
3	Ag 328.068†	29725.5	25489.2	[100]	µg/L	10:18:15
3	As 188.979†	279.2	300.8	[100]	µg/L	10:18:35
3	B 249.677†	10468.9	6519.6	[100]	µg/L	10:18:15
3	Ba 233.527†	23077.9	23477.7	[100]	µg/L	10:18:15
3	Be 313.107†	340163.6	345018.2	[100]	µg/L	10:18:13
3	Cd 226.502†	15190.7	15462.1	[100]	µg/L	10:18:15
3	Co 228.616†	7560.7	7854.6	[100]	µg/L	10:18:35
3	Cr 267.716†	12082.6	11983.0	[100]	µg/L	10:18:15
3	Cu 324.752†	27791.7	25063.0	[100]	µg/L	10:18:15
3	Mn 257.610†	79356.0	80049.1	[100]	µg/L	10:18:15
3	Mo 202.031†	3030.9	3103.0	[100]	µg/L	10:18:35
3	Ni 231.604†	8277.7	8465.2	[100]	µg/L	10:18:15
3	P 214.914†	2104.3	2153.2	[500]	µg/L	10:18:35
3	Pb 220.353†	1742.8	1658.6	[100]	µg/L	10:18:35
3	S 181.975 Axial†	334.2	248.9	[200]	µg/L	10:18:35
3	Sb 206.836†	850.6	770.3	[100]	µg/L	10:18:35
3	Se 196.026†	268.2	265.0	[100]	µg/L	10:18:35
3	SiO2†	12111.5	10506.4	[1069.5]	µg/L	10:18:15
3	Si 251.611†	32912.6	32509.7	[500]	µg/L	10:18:15
3	Sn 189.927†	1471.6	1486.0	[100]	µg/L	10:18:35
3	Ti 334.940†	99214.9	99489.4	[100]	µg/L	10:18:15
3	Tl 190.801†	647.7	769.1	[100]	µg/L	10:18:35
3	U 409.014†	1258.3	1435.6	[100]	µg/L	10:18:15
3	V 292.402†	19749.3	19544.6	[100]	µg/L	10:18:15
3	Zn 213.857†	17875.8	17570.6	[100]	µg/L	10:18:15

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1794129.3	13900.45	0.77%	99.444	%
Sc RADIAL	139341.9	195.52	0.14%	99.5	%
Y 371.029	1048216.8	8012.07	0.76%	99.141	%
Ag 328.068†	24987.3	497.93	1.99%	[100]	µg/L
As 188.979†	297.3	5.50	1.85%	[100]	µg/L
B 249.677†	6418.4	158.67	2.47%	[100]	µg/L
Ba 233.527†	23082.4	371.18	1.61%	[100]	µg/L
Be 313.107†	344930.4	933.09	0.27%	[100]	µg/L
Cd 226.502†	15161.2	315.73	2.08%	[100]	µg/L
Co 228.616†	7828.6	54.43	0.70%	[100]	µg/L
Cr 267.716†	11800.9	214.74	1.82%	[100]	µg/L
Cu 324.752†	24382.5	621.49	2.55%	[100]	µg/L
K 766.490 Radial†	2635.9	87.91	3.34%	[1000]	µg/L
Mn 257.610†	78531.2	1453.57	1.85%	[100]	µg/L
Mo 202.031†	3094.1	22.79	0.74%	[100]	µg/L
Ni 231.604†	8339.0	116.20	1.39%	[100]	µg/L
P 214.914†	2162.1	13.62	0.63%	[500]	µg/L
Pb 220.353†	1658.9	7.56	0.46%	[100]	µg/L
S 181.975 Axial†	240.6	7.56	3.14%	[200]	µg/L
Sb 206.836†	767.0	9.36	1.22%	[100]	µg/L
Se 196.026†	265.4	1.87	0.71%	[100]	µg/L
SiO2†	10248.4	229.21	2.24%	[1069.5]	µg/L
Si 251.611†	31835.1	629.94	1.98%	[500]	µg/L
Sn 189.927†	1466.7	22.48	1.53%	[100]	µg/L
Sr 421.552†	43878.0	61.08	0.14%	[100]	µg/L
Ti 334.940†	97716.0	1715.86	1.76%	[100]	µg/L
Tl 190.801†	759.0	19.35	2.55%	[100]	µg/L
U 409.014†	1530.2	95.58	6.25%	[100]	µg/L
V 292.402†	19298.0	265.76	1.38%	[100]	µg/L
Zn 213.857†	17191.8	399.18	2.32%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 4/5/2010 10:18:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	140889.5	140889.5	101	%	10:19:14
1	Al 396.153Radial†	24220.4	24162.1	[5000]	µg/L	10:19:14
1	Ca 317.933Radial†	76005.1	75004.0	[5000]	µg/L	10:19:14
1	K 766.490 Radial†	14239.3	12665.0	[5000]	µg/L	10:19:14
1	Mg 279.077 IEC†	11509.4	11271.9	[5000]	µg/L	10:19:14
1	Sr 421.552†	210637.5	209651.1	[500]	µg/L	10:19:12
1	Sc 361.383	1784374.4	1784374.4	98.904	%	10:19:27
1	Y 371.029	1033889.2	1033889.2	97.786	%	10:19:27
1	Ag 328.068†	125108.2	121929.8	[500]	µg/L	10:19:27
1	As 188.979†	1453.4	1488.1	[500]	µg/L	10:19:47
1	B 249.677†	35710.1	32040.8	[500]	µg/L	10:19:27
1	Ba 233.527†	112243.1	113631.8	[500]	µg/L	10:19:27
1	Be 313.107†	1716024.7	1736137.2	[500]	µg/L	10:19:27
1	Cd 226.502†	74131.2	75056.2	[500]	µg/L	10:19:27
1	Co 228.616†	37990.1	38621.5	[500]	µg/L	10:19:27
1	Cr 267.716†	57961.7	58371.0	[500]	µg/L	10:19:27
1	Cu 324.752†	121855.7	120170.2	[500]	µg/L	10:19:27
1	Mn 257.610†	376432.9	380420.6	[500]	µg/L	10:19:27
1	Mo 202.031†	15177.4	15384.2	[500]	µg/L	10:19:47
1	Ni 231.604†	39962.4	40501.3	[500]	µg/L	10:19:27
1	P 214.914†	10759.6	10904.6	[2500]	µg/L	10:19:47
1	Pb 220.353†	8251.5	8239.5	[500]	µg/L	10:19:47
1	S 181.975 Axial†	1269.7	1194.8	[1000]	µg/L	10:19:47
1	Sb 206.836†	3940.0	3893.9	[500]	µg/L	10:19:47
1	Se 196.026†	1265.4	1273.2	[500]	µg/L	10:19:47
1	SiO2†	51424.7	50255.6	[5347.5]	µg/L	10:19:27
1	Si 251.611†	157621.6	158601.7	[2500]	µg/L	10:19:27
1	Sn 189.927†	7160.0	7237.4	[500]	µg/L	10:19:47
1	Ti 334.940†	483114.1	487646.0	[500]	µg/L	10:19:27
1	Tl 190.801†	3546.4	3700.0	[500]	µg/L	10:19:47
1	U 409.014†	7287.7	7531.8	[500]	µg/L	10:19:27
1	V 292.402†	96138.3	96780.7	[500]	µg/L	10:19:27
1	Zn 213.857†	84347.2	84779.1	[500]	µg/L	10:19:27
2	Sc RADIAL	138468.7	138468.7	98.8	%	10:19:18
2	Al 396.153Radial†	23978.5	24338.3	[5000]	µg/L	10:19:18
2	Ca 317.933Radial†	74778.0	75083.7	[5000]	µg/L	10:19:18
2	K 766.490 Radial†	14166.1	12838.5	[5000]	µg/L	10:19:18
2	Mg 279.077 IEC†	11391.8	11353.0	[5000]	µg/L	10:19:18
2	Sr 421.552†	211261.0	213943.6	[500]	µg/L	10:19:16
2	Sc 361.383	1766889.2	1766889.2	97.935	%	10:19:50
2	Y 371.029	1024585.0	1024585.0	96.906	%	10:19:50
2	Ag 328.068†	123756.3	121801.2	[500]	µg/L	10:19:50
2	As 188.979†	1438.9	1487.8	[500]	µg/L	10:20:10
2	B 249.677†	35488.1	32171.4	[500]	µg/L	10:19:50
2	Ba 233.527†	111071.8	113558.9	[500]	µg/L	10:19:50
2	Be 313.107†	1696070.7	1732932.4	[500]	µg/L	10:19:50
2	Cd 226.502†	73034.6	74678.2	[500]	µg/L	10:19:50
2	Co 228.616†	37302.4	38299.4	[500]	µg/L	10:19:50
2	Cr 267.716†	57219.6	58193.2	[500]	µg/L	10:19:50
2	Cu 324.752†	120326.7	119828.2	[500]	µg/L	10:19:50
2	Mn 257.610†	372256.6	379922.7	[500]	µg/L	10:19:50
2	Mo 202.031†	15119.8	15477.2	[500]	µg/L	10:20:10
2	Ni 231.604†	39549.3	40479.3	[500]	µg/L	10:19:50
2	P 214.914†	10712.4	10964.0	[2500]	µg/L	10:20:10
2	Pb 220.353†	8202.8	8272.3	[500]	µg/L	10:20:10
2	S 181.975 Axial†	1257.6	1195.2	[1000]	µg/L	10:20:10
2	Sb 206.836†	3905.6	3898.3	[500]	µg/L	10:20:10
2	Se 196.026†	1247.8	1267.9	[500]	µg/L	10:20:10
2	SiO2†	50930.2	50265.3	[5347.5]	µg/L	10:19:50

2	Si 251.611†	155571.9	158085.9	[2500]	µg/L	10:19:50
2	Sn 189.927†	7125.7	7274.1	[500]	µg/L	10:20:10
2	Ti 334.940†	478384.9	487651.0	[500]	µg/L	10:19:50
2	Tl 190.801†	3514.3	3702.7	[500]	µg/L	10:20:10
2	U 409.014†	6992.6	7303.4	[500]	µg/L	10:19:50
2	V 292.402†	95133.6	96716.8	[500]	µg/L	10:19:50
2	Zn 213.857†	83229.4	84481.7	[500]	µg/L	10:19:50
3	Sc RADIAL	140766.3	140766.3	100	%	10:19:22
3	Al 396.153Radial†	24151.9	24114.9	[5000]	µg/L	10:19:22
3	Ca 317.933Radial†	75881.7	74947.3	[5000]	µg/L	10:19:22
3	K 766.490 Radial†	14167.2	12605.6	[5000]	µg/L	10:19:22
3	Mg 279.077 IEC†	11441.7	11214.6	[5000]	µg/L	10:19:22
3	Sr 421.552†	210189.9	209388.9	[500]	µg/L	10:19:20
3	Sc 361.383	1763888.5	1763888.5	97.768	%	10:20:13
3	Y 371.029	1022018.7	1022018.7	96.663	%	10:20:13
3	Ag 328.068†	123587.5	121843.4	[500]	µg/L	10:20:13
3	As 188.979†	1445.8	1497.3	[500]	µg/L	10:20:33
3	B 249.677†	35619.8	32367.8	[500]	µg/L	10:20:13
3	Ba 233.527†	110853.9	113528.9	[500]	µg/L	10:20:13
3	Be 313.107†	1698086.3	1737940.2	[500]	µg/L	10:20:13
3	Cd 226.502†	72949.0	74717.6	[500]	µg/L	10:20:13
3	Co 228.616†	37273.2	38334.3	[500]	µg/L	10:20:13
3	Cr 267.716†	57178.4	58250.4	[500]	µg/L	10:20:13
3	Cu 324.752†	120255.8	119964.8	[500]	µg/L	10:20:13
3	Mn 257.610†	371797.5	380099.8	[500]	µg/L	10:20:13
3	Mo 202.031†	15118.6	15502.3	[500]	µg/L	10:20:33
3	Ni 231.604†	39356.5	40350.8	[500]	µg/L	10:20:13
3	P 214.914†	10731.2	11001.8	[2500]	µg/L	10:20:33
3	Pb 220.353†	8211.7	8295.7	[500]	µg/L	10:20:33
3	S 181.975 Axial†	1263.9	1203.8	[1000]	µg/L	10:20:33
3	Sb 206.836†	3912.4	3912.0	[500]	µg/L	10:20:33
3	Se 196.026†	1265.8	1288.6	[500]	µg/L	10:20:33
3	SiO2†	51139.1	50567.4	[5347.5]	µg/L	10:20:13
3	Si 251.611†	155385.6	158165.5	[2500]	µg/L	10:20:13
3	Sn 189.927†	7157.9	7319.4	[500]	µg/L	10:20:33
3	Ti 334.940†	478003.2	488091.5	[500]	µg/L	10:20:13
3	Tl 190.801†	3508.4	3702.8	[500]	µg/L	10:20:33
3	U 409.014†	7057.3	7381.7	[500]	µg/L	10:20:13
3	V 292.402†	94875.9	96618.4	[500]	µg/L	10:20:13
3	Zn 213.857†	83345.0	84744.5	[500]	µg/L	10:20:13

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1771717.4	11063.51	0.62%	98.202	%
Sc RADIAL	140041.5	1363.47	0.97%	100.0	%
Y 371.029	1026831.0	6245.79	0.61%	97.118	%
Ag 328.068†	121858.1	65.55	0.05%	[500]	µg/L
Al 396.153Radial†	24205.1	117.77	0.49%	[5000]	µg/L
As 188.979†	1491.1	5.44	0.36%	[500]	µg/L
B 249.677†	32193.3	164.59	0.51%	[500]	µg/L
Ba 233.527†	113573.2	52.90	0.05%	[500]	µg/L
Be 313.107†	1735670.0	2536.38	0.15%	[500]	µg/L
Ca 317.933Radial†	75011.7	68.50	0.09%	[5000]	µg/L
Cd 226.502†	74817.4	207.79	0.28%	[500]	µg/L
Co 228.616†	38418.4	176.73	0.46%	[500]	µg/L
Cr 267.716†	58271.5	90.76	0.16%	[500]	µg/L
Cu 324.752†	119987.7	172.15	0.14%	[500]	µg/L
K 766.490 Radial†	12703.1	121.01	0.95%	[5000]	µg/L
Mg 279.077 IEC†	11279.8	69.56	0.62%	[5000]	µg/L
Mn 257.610†	380147.7	252.39	0.07%	[500]	µg/L
Mo 202.031†	15454.6	62.19	0.40%	[500]	µg/L
Ni 231.604†	40443.8	81.27	0.20%	[500]	µg/L
P 214.914†	10956.8	49.03	0.45%	[2500]	µg/L
Pb 220.353†	8269.2	28.26	0.34%	[500]	µg/L
S 181.975 Axial†	1198.0	5.06	0.42%	[1000]	µg/L
Sb 206.836†	3901.4	9.46	0.24%	[500]	µg/L
Se 196.026†	1276.6	10.73	0.84%	[500]	µg/L
SiO2†	50362.7	177.29	0.35%	[5347.5]	µg/L
Si 251.611†	158284.4	277.66	0.18%	[2500]	µg/L

Sn 189.927†	7277.0	41.07	0.56%	[500] µg/L
Sr 421.552†	210994.5	2557.30	1.21%	[500] µg/L
Ti 334.940†	487796.2	255.79	0.05%	[500] µg/L
Tl 190.801†	3701.8	1.60	0.04%	[500] µg/L
U 409.014†	7405.7	116.08	1.57%	[500] µg/L
V 292.402†	96705.3	81.74	0.08%	[500] µg/L
Zn 213.857†	84668.5	162.65	0.19%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 4/5/2010 10:20:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	138521.2	138521.2	98.9	%	10:21:12
1	Al 396.153Radial†	47739.4	48359.6	[10000]	µg/L	10:21:12
1	Ca 317.933Radial†	147603.9	148707.2	[10000]	µg/L	10:21:12
1	Fe 238.204 Radial†	132955.6	134346.9	[10000]	µg/L	10:21:12
1	K 766.490 Radial†	26494.7	25301.6	[10000]	µg/L	10:21:12
1	Mg 279.077 IEC†	22115.4	22193.9	[10000]	µg/L	10:21:12
1	Na 589.592 Radial†	64423.3	64201.8	[10000]	µg/L	10:21:12
1	Sr 421.552†	421705.7	426695.0	[1000]	µg/L	10:21:10
1	Sc 361.383	1787517.3	1787517.3	99.078	%	10:21:25
1	Y 371.029	1030588.8	1030588.8	97.474	%	10:21:25
1	Ag 328.068†	247472.6	245210.6	[1000]	µg/L	10:21:27
1	As 188.979†	2895.1	2940.6	[1000]	µg/L	10:21:47
1	B 249.677†	67826.5	64392.6	[1000]	µg/L	10:21:27
1	Ba 233.527†	223075.2	225295.8	[1000]	µg/L	10:21:27
1	Be 313.107†	3410791.6	3443625.8	[1000]	µg/L	10:21:25
1	Cd 226.502†	146771.7	148241.0	[1000]	µg/L	10:21:27
1	Co 228.616†	74870.3	75777.4	[1000]	µg/L	10:21:27
1	Cr 267.716†	114942.2	115778.7	[1000]	µg/L	10:21:27
1	Cu 324.752†	240746.6	239950.9	[1000]	µg/L	10:21:27
1	Mn 257.610†	744414.1	751157.3	[1000]	µg/L	10:21:25
1	Mo 202.031†	30103.8	30422.6	[1000]	µg/L	10:21:47
1	Ni 231.604†	79132.1	79964.5	[1000]	µg/L	10:21:27
1	P 214.914†	21254.4	21477.9	[5000]	µg/L	10:21:47
1	Pb 220.353†	16098.9	16145.3	[1000]	µg/L	10:21:47
1	S 181.975 Axial†	2437.0	2370.8	[2000]	µg/L	10:21:47
1	Sb 206.836†	7748.6	7731.0	[1000]	µg/L	10:21:47
1	Se 196.026†	2500.5	2517.6	[1000]	µg/L	10:21:47
1	SiO2†	102325.7	101538.9	[10695]	µg/L	10:21:27
1	Si 251.611†	316394.8	318572.3	[5000]	µg/L	10:21:27
1	Sn 189.927†	14188.1	14318.3	[1000]	µg/L	10:21:47
1	Ti 334.940†	964390.5	972542.5	[1000]	µg/L	10:21:25
1	Tl 190.801†	7109.4	7289.9	[1000]	µg/L	10:21:47
1	U 409.014†	15951.4	16263.2	[1000]	µg/L	10:21:27
1	V 292.402†	192075.9	193440.2	[1000]	µg/L	10:21:27
1	Zn 213.857†	166493.8	167540.3	[1000]	µg/L	10:21:27
2	Sc RADIAL	137587.7	137587.7	98.2	%	10:21:16
2	Al 396.153Radial†	47286.5	48226.0	[10000]	µg/L	10:21:16
2	Ca 317.933Radial†	146236.4	148327.7	[10000]	µg/L	10:21:16
2	Fe 238.204 Radial†	132132.0	134420.6	[10000]	µg/L	10:21:16
2	K 766.490 Radial†	26206.6	25190.0	[10000]	µg/L	10:21:16
2	Mg 279.077 IEC†	21947.0	22174.2	[10000]	µg/L	10:21:16
2	Na 589.592 Radial†	64079.1	64293.4	[10000]	µg/L	10:21:16
2	Sr 421.552†	418133.3	425951.3	[1000]	µg/L	10:21:14
2	Sc 361.383	1788077.8	1788077.8	99.109	%	10:21:50
2	Y 371.029	1031083.9	1031083.9	97.521	%	10:21:50
2	Ag 328.068†	245852.5	243497.5	[1000]	µg/L	10:21:52
2	As 188.979†	2920.6	2965.4	[1000]	µg/L	10:22:12
2	B 249.677†	67486.4	64027.9	[1000]	µg/L	10:21:52
2	Ba 233.527†	221407.1	223542.1	[1000]	µg/L	10:21:52
2	Be 313.107†	3418889.0	3450717.0	[1000]	µg/L	10:21:50
2	Cd 226.502†	145207.6	146616.4	[1000]	µg/L	10:21:52
2	Co 228.616†	73965.8	74841.1	[1000]	µg/L	10:21:52
2	Cr 267.716†	114087.3	114879.7	[1000]	µg/L	10:21:52
2	Cu 324.752†	238734.9	237845.0	[1000]	µg/L	10:21:52
2	Mn 257.610†	745639.7	752158.3	[1000]	µg/L	10:21:50
2	Mo 202.031†	30297.9	30608.8	[1000]	µg/L	10:22:12
2	Ni 231.604†	78509.5	79311.2	[1000]	µg/L	10:21:52
2	P 214.914†	21418.7	21637.0	[5000]	µg/L	10:22:12
2	Pb 220.353†	16212.2	16254.5	[1000]	µg/L	10:22:12

2	S 181.975 Axial†	2451.4	2384.5	[2000]	µg/L	10:22:12
2	Sb 206.836†	7810.0	7790.5	[1000]	µg/L	10:22:12
2	Se 196.026†	2535.5	2552.1	[1000]	µg/L	10:22:12
2	SiO2†	101458.8	100631.9	[10695]	µg/L	10:21:52
2	Si 251.611†	313775.9	315829.7	[5000]	µg/L	10:21:52
2	Sn 189.927†	14324.6	14451.5	[1000]	µg/L	10:22:12
2	Ti 334.940†	965317.9	973173.2	[1000]	µg/L	10:21:50
2	Tl 190.801†	7148.1	7326.6	[1000]	µg/L	10:22:12
2	U 409.014†	15724.4	16029.1	[1000]	µg/L	10:21:52
2	V 292.402†	190884.5	192177.3	[1000]	µg/L	10:21:52
2	Zn 213.857†	165290.1	166273.1	[1000]	µg/L	10:21:52
3	Sc RADIAL	139275.7	139275.7	99.4	%	10:21:20
3	Al 396.153Radial†	47754.7	48113.5	[10000]	µg/L	10:21:20
3	Ca 317.933Radial†	148116.2	148413.8	[10000]	µg/L	10:21:20
3	Fe 238.204 Radial†	133471.4	134137.3	[10000]	µg/L	10:21:20
3	K 766.490 Radial†	26397.5	25058.6	[10000]	µg/L	10:21:20
3	Mg 279.077 IEC†	22321.0	22279.5	[10000]	µg/L	10:21:20
3	Na 589.592 Radial†	64773.3	64200.9	[10000]	µg/L	10:21:20
3	Sr 421.552†	417779.7	420435.7	[1000]	µg/L	10:21:18
3	Sc 361.383	1807535.5	1807535.5	100.19	%	10:22:15
3	Y 371.029	1042236.8	1042236.8	98.576	%	10:22:15
3	Ag 328.068†	249483.7	244451.6	[1000]	µg/L	10:22:17
3	As 188.979†	2931.8	2944.9	[1000]	µg/L	10:22:37
3	B 249.677†	68615.7	64422.1	[1000]	µg/L	10:22:17
3	Ba 233.527†	224580.6	224304.8	[1000]	µg/L	10:22:17
3	Be 313.107†	3453157.0	3447786.3	[1000]	µg/L	10:22:15
3	Cd 226.502†	147846.5	147673.2	[1000]	µg/L	10:22:17
3	Co 228.616†	75097.4	75167.1	[1000]	µg/L	10:22:17
3	Cr 267.716†	115767.2	115317.3	[1000]	µg/L	10:22:17
3	Cu 324.752†	242135.7	238646.5	[1000]	µg/L	10:22:17
3	Mn 257.610†	754003.5	752407.7	[1000]	µg/L	10:22:15
3	Mo 202.031†	30459.8	30441.4	[1000]	µg/L	10:22:37
3	Ni 231.604†	79738.5	79685.1	[1000]	µg/L	10:22:17
3	P 214.914†	21516.4	21501.8	[5000]	µg/L	10:22:37
3	Pb 220.353†	16270.1	16136.2	[1000]	µg/L	10:22:37
3	S 181.975 Axial†	2455.6	2362.1	[2000]	µg/L	10:22:37
3	Sb 206.836†	7815.0	7710.7	[1000]	µg/L	10:22:37
3	Se 196.026†	2541.3	2530.4	[1000]	µg/L	10:22:37
3	SiO2†	102897.8	100966.2	[10695]	µg/L	10:22:17
3	Si 251.611†	318548.9	317185.7	[5000]	µg/L	10:22:17
3	Sn 189.927†	14399.1	14370.3	[1000]	µg/L	10:22:37
3	Ti 334.940†	976267.5	973617.4	[1000]	µg/L	10:22:15
3	Tl 190.801†	7181.7	7282.5	[1000]	µg/L	10:22:37
3	U 409.014†	15907.0	16040.6	[1000]	µg/L	10:22:17
3	V 292.402†	193637.0	192851.4	[1000]	µg/L	10:22:17
3	Zn 213.857†	167762.6	166945.7	[1000]	µg/L	10:22:17

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1794376.9	11399.19	0.64%	99.458	%
Sc RADIAL	138461.6	845.59	0.61%	98.8	%
Y 371.029	1034636.5	6586.69	0.64%	97.857	%
Ag 328.068†	244386.6	858.36	0.35%	[1000]	µg/L
Al 396.153Radial†	48233.0	123.22	0.26%	[10000]	µg/L
As 188.979†	2950.3	13.27	0.45%	[1000]	µg/L
B 249.677†	64280.9	219.57	0.34%	[1000]	µg/L
Ba 233.527†	224380.9	879.34	0.39%	[1000]	µg/L
Be 313.107†	3447376.3	3563.34	0.10%	[1000]	µg/L
Ca 317.933Radial†	148482.9	198.99	0.13%	[10000]	µg/L
Cd 226.502†	147510.2	824.46	0.56%	[1000]	µg/L
Co 228.616†	75261.9	475.26	0.63%	[1000]	µg/L
Cr 267.716†	115325.3	449.55	0.39%	[1000]	µg/L
Cu 324.752†	238814.2	1062.92	0.45%	[1000]	µg/L
Fe 238.204 Radial†	134301.6	146.99	0.11%	[10000]	µg/L
K 766.490 Radial†	25183.4	121.63	0.48%	[10000]	µg/L
Mg 279.077 IEC†	22215.9	56.02	0.25%	[10000]	µg/L
Mn 257.610†	751907.8	661.81	0.09%	[1000]	µg/L
Mo 202.031†	30490.9	102.54	0.34%	[1000]	µg/L
Na 589.592 Radial†	64232.0	53.14	0.08%	[10000]	µg/L

Ni 231.604†	79653.6	327.78	0.41%	[1000]	µg/L
P 214.914†	21538.9	85.80	0.40%	[5000]	µg/L
Pb 220.353†	16178.7	65.80	0.41%	[1000]	µg/L
S 181.975 Axial†	2372.5	11.31	0.48%	[2000]	µg/L
Sb 206.836†	7744.1	41.45	0.54%	[1000]	µg/L
Se 196.026†	2533.4	17.42	0.69%	[1000]	µg/L
SiO2†	101045.6	458.71	0.45%	[10695]	µg/L
Si 251.611†	317195.9	1371.33	0.43%	[5000]	µg/L
Sn 189.927†	14380.0	67.17	0.47%	[1000]	µg/L
Sr 421.552†	424360.7	3419.43	0.81%	[1000]	µg/L
Ti 334.940†	973111.1	540.12	0.06%	[1000]	µg/L
Tl 190.801†	7299.7	23.64	0.32%	[1000]	µg/L
U 409.014†	16111.0	131.96	0.82%	[1000]	µg/L
V 292.402†	192823.0	631.90	0.33%	[1000]	µg/L
Zn 213.857†	166919.7	633.98	0.38%	[1000]	µg/L

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Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 4/5/2010 10:22:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	137102.1	137102.1	97.9	%	10:23:14
1	Al 396.153Radial†	232459.5	237609.2	[50000]	µg/L	10:23:14
1	Ca 317.933Radial†	719831.0	734962.7	[50000]	µg/L	10:23:14
1	Fe 238.204 Radial†	262262.3	267866.3	[20000]	µg/L	10:23:14
1	Mg 279.077 IEC†	106118.0	108260.5	[50000]	µg/L	10:23:14
1	Na 589.592 Radial†	127559.4	129389.6	[20000]	µg/L	10:23:14
1	Sc 361.383	1750599.2	1750599.2	97.032	%	10:23:22
1	Y 371.029	1010808.0	1010808.0	95.603	%	10:23:22
2	Sc RADIAL	136704.4	136704.4	97.6	%	10:23:16
2	Al 396.153Radial†	231023.6	236828.7	[50000]	µg/L	10:23:16
2	Ca 317.933Radial†	713826.0	730948.6	[50000]	µg/L	10:23:16
2	Fe 238.204 Radial†	260455.2	266793.9	[20000]	µg/L	10:23:16
2	Mg 279.077 IEC†	105162.9	107597.2	[50000]	µg/L	10:23:16
2	Na 589.592 Radial†	126553.4	128737.8	[20000]	µg/L	10:23:16
2	Sc 361.383	1767118.9	1767118.9	97.947	%	10:23:25
2	Y 371.029	1019622.9	1019622.9	96.437	%	10:23:25
3	Sc RADIAL	137409.9	137409.9	98.1	%	10:23:18
3	Al 396.153Radial†	232827.3	237451.9	[50000]	µg/L	10:23:18
3	Ca 317.933Radial†	721449.1	734964.4	[50000]	µg/L	10:23:18
3	Fe 238.204 Radial†	263160.9	268182.0	[20000]	µg/L	10:23:18
3	Mg 279.077 IEC†	106621.9	108531.3	[50000]	µg/L	10:23:18
3	Na 589.592 Radial†	127827.4	129370.8	[20000]	µg/L	10:23:18
3	Sc 361.383	1753846.2	1753846.2	97.212	%	10:23:28
3	Y 371.029	1011915.1	1011915.1	95.708	%	10:23:28

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1757188.1	8752.21	0.50%	97.397	%
Sc RADIAL	137072.1	353.73	0.26%	97.8	%
Y 371.029	1014115.3	4801.69	0.47%	95.916	%
Al 396.153Radial†	237296.6	412.77	0.17%	[50000]	µg/L
Ca 317.933Radial†	733625.3	2318.04	0.32%	[50000]	µg/L
Fe 238.204 Radial†	267614.1	727.59	0.27%	[20000]	µg/L
Mg 279.077 IEC†	108129.7	480.63	0.44%	[50000]	µg/L
Na 589.592 Radial†	129166.1	371.00	0.29%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	244.3	0.00000	0.999997	
Al 396.153Radial	3	Lin Thru 0	0.0	4.750	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	2.957	0.00000	0.999991	
B 249.677	3	Lin Thru 0	0.0	64.30	0.00000	1.000000	
Ba 233.527	3	Lin Thru 0	0.0	225.0	0.00000	0.999985	
Be 313.107	3	Lin Thru 0	0.0	3452	0.00000	0.999996	
Ca 317.933Radial	3	Lin Thru 0	0.0	14.68	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	148.0	0.00000	0.999981	
Co 228.616	3	Lin Thru 0	0.0	75.60	0.00000	0.999960	
Cr 267.716	3	Lin Thru 0	0.0	115.6	0.00000	0.999989	
Cu 324.752	3	Lin Thru 0	0.0	239.1	0.00000	0.999997	
Fe 238.204 Radia	2	Lin Thru 0	0.0	13.39	0.00000	0.999999	
K 766.490 Radial	3	Lin Thru 0	0.0	2.524	0.00000	0.999986	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.166	0.00000	0.999978	
Mn 257.610	3	Lin Thru 0	0.0	753.8	0.00000	0.999983	
Mo 202.031	3	Lin Thru 0	0.0	30.58	0.00000	0.999985	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.451	0.00000	0.999998	

Ni 231.604	3	Lin Thru 0	0.0	79.93	0.00000	0.999974
P 214.914	3	Lin Thru 0	0.0	4.323	0.00000	0.999976
Pb 220.353	3	Lin Thru 0	0.0	16.25	0.00000	0.999959
S 181.975 Axial	3	Lin Thru 0	0.0	1.189	0.00000	0.999992
Sb 206.836	3	Lin Thru 0	0.0	7.755	0.00000	0.999995
Se 196.026	3	Lin Thru 0	0.0	2.538	0.00000	0.999987
SiO2	3	Lin Thru 0	0.0	9.443	0.00000	0.999998
Si 251.611	3	Lin Thru 0	0.0	63.42	0.00000	1.000000
Sn 189.927	3	Lin Thru 0	0.0	14.42	0.00000	0.999987
Sr 421.552	3	Lin Thru 0	0.0	424.0	0.00000	0.999993
Ti 334.940	3	Lin Thru 0	0.0	973.6	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	7.323	0.00000	0.999979
U 409.014	3	Lin Thru 0	0.0	15.85	0.00000	0.999462
V 292.402	3	Lin Thru 0	0.0	192.9	0.00000	0.999999
Zn 213.857	3	Lin Thru 0	0.0	167.4	0.00000	0.999981

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 4/5/2010 10:23:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140523.3	140523.3	100	%			10:24:07
1	Al 396.153Radial†	24438.5	24442.2	5121.2	µg/L	5121.2	ppb	10:24:07
1	Ca 317.933Radial†	74783.5	73983.1	5038.9	µg/L	5038.9	ppb	10:24:07
1	Fe 238.204 Radial†	68030.6	67704.9	5056.2	µg/L	5056.2	ppb	10:24:07
1	K 766.490 Radial†	8010.1	6491.7	2569.4	µg/L	2569.4	ppb	10:24:07
1	Mg 279.077 IEC†	11573.0	11365.1	5256.4	µg/L	5256.4	ppb	10:24:07
1	Na 589.592 Radial†	17343.2	16337.6	2530.2	µg/L	2530.2	ppb	10:24:07
1	Sr 421.552†	225106.1	224621.2	529.72	µg/L	529.72	ppb	10:24:05
1	Sc 361.383	1811067.9	1811067.9	100.38	%			10:24:20
1	Y 371.029	1053070.2	1053070.2	99.600	%			10:24:20
1	Ag 328.068†	66564.0	61744.7	259.05	µg/L	259.05	ppb	10:24:20
1	As 188.979†	1394.2	1407.4	483.32	µg/L	483.32	ppb	10:24:40
1	B 249.677†	37900.4	33690.5	522.17	µg/L	522.17	ppb	10:24:20
1	Ba 233.527†	115320.6	115024.8	511.69	µg/L	511.69	ppb	10:24:20
1	Be 313.107†	892073.7	889759.3	257.88	µg/L	257.88	ppb	10:24:20
1	Cd 226.502†	74846.1	74663.7	504.32	µg/L	504.32	ppb	10:24:20
1	Co 228.616†	38714.5	38776.9	513.26	µg/L	513.26	ppb	10:24:20
1	Cr 267.716†	57458.5	57005.9	493.05	µg/L	493.05	ppb	10:24:20
1	Cu 324.752†	125966.4	122449.3	513.72	µg/L	513.72	ppb	10:24:20
1	Mn 257.610†	386772.5	385111.0	510.65	µg/L	510.65	ppb	10:24:20
1	Mo 202.031†	16355.4	16331.5	534.57	µg/L	534.57	ppb	10:24:40
1	Ni 231.604†	39957.0	39900.4	499.20	µg/L	499.20	ppb	10:24:20
1	P 214.914†	10952.7	10936.6	2521.1	µg/L	2521.1	ppb	10:24:40
1	Pb 220.353†	8370.6	8235.2	508.44	µg/L	508.44	ppb	10:24:40
1	S 181.975 Axial†	3038.8	2938.3	2476.4	µg/L	2476.4	ppb	10:24:40
1	Sb 206.836†	3984.8	3879.9	502.09	µg/L	502.09	ppb	10:24:40
1	Se 196.026†	6435.0	6404.3	2530	µg/L	2530	ppb	10:24:40
1	SiO2†	100095.5	97974.2	10352	µg/L	10352	ppb	10:24:20
1	Si 251.611†	309334.8	307386.6	4836.5	µg/L	4836.5	ppb	10:24:20
1	Sn 189.927†	7699.8	7668.5	533.57	µg/L	533.57	ppb	10:24:40
1	Ti 334.940†	481280.6	478620.0	490.93	µg/L	490.93	ppb	10:24:20
1	Tl 190.801†	3769.5	3869.4	535.81	µg/L	535.81	ppb	10:24:40
1	U 409.014†	7018.0	7154.6	482.25	µg/L	482.25	ppb	10:24:20
1	V 292.402†	97850.1	97053.2	509.98	µg/L	509.98	ppb	10:24:20
1	Zn 213.857†	86050.7	85219.1	504.95	µg/L	504.95	ppb	10:24:20
2	Sc RADIAL	141521.6	141521.6	101	%			10:24:11
2	Al 396.153Radial†	24648.2	24477.9	5128.8	µg/L	5128.8	ppb	10:24:11
2	Ca 317.933Radial†	75579.4	74245.0	5056.8	µg/L	5056.8	ppb	10:24:11
2	Fe 238.204 Radial†	68747.0	67935.7	5073.4	µg/L	5073.4	ppb	10:24:11
2	K 766.490 Radial†	8086.3	6510.9	2577.0	µg/L	2577.0	ppb	10:24:11
2	Mg 279.077 IEC†	11660.2	11370.0	5258.6	µg/L	5258.6	ppb	10:24:11
2	Na 589.592 Radial†	17495.8	16366.7	2534.7	µg/L	2534.7	ppb	10:24:11
2	Sr 421.552†	225995.0	223918.1	528.06	µg/L	528.06	ppb	10:24:09
2	Sc 361.383	1803387.2	1803387.2	99.958	%			10:24:43
2	Y 371.029	1048161.1	1048161.1	99.136	%			10:24:43
2	Ag 328.068†	66375.0	61838.0	259.41	µg/L	259.41	ppb	10:24:43
2	As 188.979†	1372.6	1391.8	478.02	µg/L	478.02	ppb	10:25:03
2	B 249.677†	37478.9	33429.7	518.10	µg/L	518.10	ppb	10:24:43
2	Ba 233.527†	114759.5	114952.8	511.37	µg/L	511.37	ppb	10:24:43
2	Be 313.107†	886689.4	888157.6	257.41	µg/L	257.41	ppb	10:24:43
2	Cd 226.502†	74557.3	74692.3	504.51	µg/L	504.51	ppb	10:24:43
2	Co 228.616†	38671.9	38898.6	514.87	µg/L	514.87	ppb	10:24:43
2	Cr 267.716†	57014.3	56805.3	491.33	µg/L	491.33	ppb	10:24:43
2	Cu 324.752†	124971.6	121988.6	511.78	µg/L	511.78	ppb	10:24:43
2	Mn 257.610†	384842.3	384821.0	510.26	µg/L	510.26	ppb	10:24:43
2	Mo 202.031†	16218.2	16263.6	532.35	µg/L	532.35	ppb	10:25:03
2	Ni 231.604†	39961.4	40074.3	501.38	µg/L	501.38	ppb	10:24:43
2	P 214.914†	10845.8	10876.1	2507.2	µg/L	2507.2	ppb	10:25:03
2	Pb 220.353†	8298.4	8198.4	506.19	µg/L	506.19	ppb	10:25:03

2	S 181.975 Axial†	2999.7	2912.0	2454.3 µg/L	2454.3 ppb	10:25:03
2	Sb 206.836†	3927.6	3839.5	496.87 µg/L	496.87 ppb	10:25:03
2	Se 196.026†	6386.0	6382.6	2520 µg/L	2520 ppb	10:25:03
2	SiO2†	99482.5	97785.7	10332 µg/L	10332 ppb	10:24:43
2	Si 251.611†	307517.6	306881.1	4828.6 µg/L	4828.6 ppb	10:24:43
2	Sn 189.927†	7645.8	7647.2	532.09 µg/L	532.09 ppb	10:25:03
2	Ti 334.940†	478739.3	478119.5	490.43 µg/L	490.43 ppb	10:24:43
2	Tl 190.801†	3725.8	3841.6	532.00 µg/L	532.00 ppb	10:25:03
2	U 409.014†	6667.8	6834.0	462.00 µg/L	462.00 ppb	10:24:43
2	V 292.402†	97411.1	97029.3	509.81 µg/L	509.81 ppb	10:24:43
2	Zn 213.857†	85869.6	85403.1	506.04 µg/L	506.04 ppb	10:24:43
3	Sc RADIAL	140619.3	140619.3	100 %		10:24:15
3	Al 396.153Radial†	24689.2	24675.4	5170.3 µg/L	5170.3 ppb	10:24:15
3	Ca 317.933Radial†	75209.3	74356.3	5064.3 µg/L	5064.3 ppb	10:24:15
3	Fe 238.204 Radial†	68498.2	68124.5	5087.5 µg/L	5087.5 ppb	10:24:15
3	K 766.490 Radial†	7806.5	6283.5	2486.9 µg/L	2486.9 ppb	10:24:15
3	Mg 279.077 IEC†	11680.4	11464.3	5302.2 µg/L	5302.2 ppb	10:24:15
3	Na 589.592 Radial†	17364.6	16347.1	2531.7 µg/L	2531.7 ppb	10:24:15
3	Sr 421.552†	224592.5	223956.3	528.15 µg/L	528.15 ppb	10:24:13
3	Sc 361.383	1807264.5	1807264.5	100.17 %		10:25:06
3	Y 371.029	1050693.9	1050693.9	99.375 %		10:25:06
3	Ag 328.068†	66243.0	61563.8	258.30 µg/L	258.30 ppb	10:25:06
3	As 188.979†	1388.9	1405.1	482.54 µg/L	482.54 ppb	10:25:26
3	B 249.677†	37737.0	33606.9	520.86 µg/L	520.86 ppb	10:25:06
3	Ba 233.527†	115014.8	114961.3	511.41 µg/L	511.41 ppb	10:25:06
3	Be 313.107†	890592.0	890150.3	257.99 µg/L	257.99 ppb	10:25:06
3	Cd 226.502†	74469.1	74444.2	502.83 µg/L	502.83 ppb	10:25:06
3	Co 228.616†	38759.6	38903.2	514.93 µg/L	514.93 ppb	10:25:06
3	Cr 267.716†	57275.1	56943.2	492.52 µg/L	492.52 ppb	10:25:06
3	Cu 324.752†	125282.2	122030.3	511.96 µg/L	511.96 ppb	10:25:06
3	Mn 257.610†	385605.2	384756.6	510.17 µg/L	510.17 ppb	10:25:06
3	Mo 202.031†	16300.9	16311.4	533.91 µg/L	533.91 ppb	10:25:26
3	Ni 231.604†	39880.4	39907.6	499.29 µg/L	499.29 ppb	10:25:06
3	P 214.914†	10929.8	10936.7	2521.2 µg/L	2521.2 ppb	10:25:26
3	Pb 220.353†	8313.7	8195.9	506.04 µg/L	506.04 ppb	10:25:26
3	S 181.975 Axial†	3024.1	2930.0	2469.4 µg/L	2469.4 ppb	10:25:26
3	Sb 206.836†	3985.2	3888.6	503.21 µg/L	503.21 ppb	10:25:26
3	Se 196.026†	6418.8	6401.6	2520 µg/L	2520 ppb	10:25:26
3	SiO2†	99707.6	97796.8	10334 µg/L	10334 ppb	10:25:06
3	Si 251.611†	308174.3	306876.6	4828.4 µg/L	4828.4 ppb	10:25:06
3	Sn 189.927†	7722.0	7706.8	536.23 µg/L	536.23 ppb	10:25:26
3	Ti 334.940†	480594.4	478943.9	491.27 µg/L	491.27 ppb	10:25:06
3	Tl 190.801†	3769.9	3877.6	536.93 µg/L	536.93 ppb	10:25:26
3	U 409.014†	6753.8	6905.5	466.53 µg/L	466.53 ppb	10:25:06
3	V 292.402†	97691.0	97099.6	510.20 µg/L	510.20 ppb	10:25:06
3	Zn 213.857†	85980.5	85329.5	505.61 µg/L	505.61 ppb	10:25:06

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807239.8	100.17	%	0.213				0.21%
Sc RADIAL	140888.1	101	%	0.4				0.39%
Y 371.029	1050641.7	99.371	%	0.2322				0.23%
Ag 328.068†	61715.5	258.92	µg/L	0.568	258.92	ppb	0.568	0.22%
QC value within limits for Ag 328.068 Recovery = 103.57%								
Al 396.153Radial†	24531.8	5140.1	µg/L	26.43	5140.1	ppb	26.43	0.51%
QC value within limits for Al 396.153Radial Recovery = 102.80%								
As 188.979†	1401.4	481.30	µg/L	2.864	481.30	ppb	2.864	0.60%
QC value within limits for As 188.979 Recovery = 96.26%								
B 249.677†	33575.7	520.38	µg/L	2.073	520.38	ppb	2.073	0.40%
QC value within limits for B 249.677 Recovery = 104.08%								
Ba 233.527†	114979.6	511.49	µg/L	0.175	511.49	ppb	0.175	0.03%
QC value within limits for Ba 233.527 Recovery = 102.30%								
Be 313.107†	889355.7	257.76	µg/L	0.308	257.76	ppb	0.308	0.12%
QC value within limits for Be 313.107 Recovery = 103.10%								
Ca 317.933Radial†	74194.8	5053.3	µg/L	13.05	5053.3	ppb	13.05	0.26%
QC value within limits for Ca 317.933Radial Recovery = 101.07%								
Cd 226.502†	74600.1	503.88	µg/L	0.919	503.88	ppb	0.919	0.18%
QC value within limits for Cd 226.502 Recovery = 100.78%								
Co 228.616†	38859.6	514.36	µg/L	0.946	514.36	ppb	0.946	0.18%

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   QC value within limits for Co 228.616  Recovery = 102.87%
Cr 267.716†            56918.2      492.30 µg/L        0.880      492.30 ppb          0.880   0.18%
   QC value within limits for Cr 267.716  Recovery = 98.46%
Cu 324.752†           122156.1      512.49 µg/L        1.072      512.49 ppb          1.072   0.21%
   QC value within limits for Cu 324.752  Recovery = 102.50%
Fe 238.204 Radial†     67921.7      5072.3 µg/L        15.69      5072.3 ppb          15.69   0.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.45%
K 766.490 Radial†       6428.7      2544.4 µg/L        49.99      2544.4 ppb          49.99   1.96%
   QC value within limits for K 766.490 Radial  Recovery = 101.78%
Mg 279.077 IEC†        11399.8      5272.4 µg/L        25.80      5272.4 ppb          25.80   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.45%
Mn 257.610†           384896.2      510.36 µg/L        0.251      510.36 ppb          0.251   0.05%
   QC value within limits for Mn 257.610  Recovery = 102.07%
Mo 202.031†            16302.2      533.61 µg/L        1.140      533.61 ppb          1.140   0.21%
   QC value within limits for Mo 202.031  Recovery = 106.72%
Na 589.592 Radial†     16350.4      2532.2 µg/L         2.29      2532.2 ppb           2.29   0.09%
   QC value within limits for Na 589.592 Radial  Recovery = 101.29%
Ni 231.604†            39960.8      499.96 µg/L        1.231      499.96 ppb          1.231   0.25%
   QC value within limits for Ni 231.604  Recovery = 99.99%
P 214.914†             10916.5      2516.5 µg/L         8.09      2516.5 ppb           8.09   0.32%
   QC value within limits for P 214.914  Recovery = 100.66%
Pb 220.353†             8209.8      506.89 µg/L        1.346      506.89 ppb          1.346   0.27%
   QC value within limits for Pb 220.353  Recovery = 101.38%
S 181.975 Axial†        2926.8      2466.7 µg/L        11.31      2466.7 ppb          11.31   0.46%
   QC value within limits for S 181.975 Axial  Recovery = 98.67%
Sb 206.836†             3869.3      500.72 µg/L        3.381      500.72 ppb          3.381   0.68%
   QC value within limits for Sb 206.836  Recovery = 100.14%
Se 196.026†             6396.1        2520 µg/L          4.7        2520 ppb            4.7   0.19%
   QC value within limits for Se 196.026  Recovery = 100.88%
SiO2†                  97852.2       10339 µg/L         11.2       10339 ppb           11.2   0.11%
   QC value within limits for SiO2  Recovery = 96.68%
Si 251.611†           307048.1      4831.2 µg/L         4.61      4831.2 ppb           4.61   0.10%
   QC value within limits for Si 251.611  Recovery = 96.62%
Sn 189.927†             7674.1      533.96 µg/L        2.097      533.96 ppb          2.097   0.39%
   QC value within limits for Sn 189.927  Recovery = 106.79%
Sr 421.552†           224165.2      528.65 µg/L        0.933      528.65 ppb          0.933   0.18%
   QC value within limits for Sr 421.552  Recovery = 105.73%
Ti 334.940†           478561.1      490.88 µg/L        0.423      490.88 ppb          0.423   0.09%
   QC value within limits for Ti 334.940  Recovery = 98.18%
Tl 190.801†             3862.9      534.91 µg/L        2.585      534.91 ppb          2.585   0.48%
   QC value within limits for Tl 190.801  Recovery = 106.98%
U 409.014†              6964.7      470.26 µg/L       10.624      470.26 ppb         10.624   2.26%
   QC value within limits for U 409.014  Recovery = 94.05%
V 292.402†             97060.7      510.00 µg/L        0.194      510.00 ppb          0.194   0.04%
   QC value within limits for V 292.402  Recovery = 102.00%
Zn 213.857†            85317.2      505.54 µg/L        0.546      505.54 ppb          0.546   0.11%
   QC value within limits for Zn 213.857  Recovery = 101.11%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 4/5/2010 10:25:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139162.3	139162.3	99.3	%			10:26:03
1	Al 396.153Radial†	-53.9	24.2	5.0642	µg/L	5.0642	ppb	10:26:23
1	Ca 317.933Radial†	571.7	4.0	0.2745	µg/L	0.2745	ppb	10:26:23
1	Fe 238.204 Radial†	117.8	1.3	0.0992	µg/L	0.0992	ppb	10:26:23
1	K 766.490 Radial†	1466.1	-17.9	-7.0792	µg/L	-7.0792	ppb	10:26:03
1	Mg 279.077 IEC†	183.5	12.3	5.6777	µg/L	5.6777	ppb	10:26:23
1	Na 589.592 Radial†	1119.8	174.8	27.100	µg/L	27.100	ppb	10:26:03
1	Sr 421.552†	-218.0	-14.9	-0.0352	µg/L	-0.0352	ppb	10:26:03
1	Sc 361.383	1806325.2	1806325.2	100.12	%			10:27:25
1	Y 371.029	1059354.7	1059354.7	100.19	%			10:27:25
1	Ag 328.068†	4398.9	-171.5	-0.7202	µg/L	-0.7202	ppb	10:27:27
1	As 188.979†	-12.8	5.7	1.9434	µg/L	1.9434	ppb	10:27:47
1	B 249.677†	4126.0	55.9	0.8673	µg/L	0.8673	ppb	10:27:27
1	Ba 233.527†	-124.3	20.4	0.0910	µg/L	0.0910	ppb	10:27:47
1	Be 313.107†	-698.4	394.1	0.1093	µg/L	0.1093	ppb	10:27:27
1	Cd 226.502†	-64.2	39.2	0.2652	µg/L	0.2652	ppb	10:27:47
1	Co 228.616†	-177.9	32.6	0.4308	µg/L	0.4308	ppb	10:27:47
1	Cr 267.716†	212.7	-20.7	-0.1666	µg/L	-0.1666	ppb	10:27:47
1	Cu 324.752†	2961.2	-78.4	-0.3410	µg/L	-0.3410	ppb	10:27:27
1	Mn 257.610†	244.5	59.5	0.0787	µg/L	0.0787	ppb	10:27:47
1	Mo 202.031†	-12.2	26.4	0.8620	µg/L	0.8620	ppb	10:27:47
1	Ni 231.604†	-79.6	16.4	0.2058	µg/L	0.2058	ppb	10:27:47
1	P 214.914†	-21.4	4.3	0.9939	µg/L	0.9939	ppb	10:27:47
1	Pb 220.353†	93.3	-10.3	-0.6182	µg/L	-0.6182	ppb	10:27:47
1	S 181.975 Axial†	95.5	6.5	5.4827	µg/L	5.4827	ppb	10:27:47
1	Sb 206.836†	70.6	-19.2	-2.4625	µg/L	-2.4625	ppb	10:27:47
1	Se 196.026†	27.2	21.0	8.26	µg/L	8.26	ppb	10:27:47
1	SiO2†	1772.8	31.6	3.3130	µg/L	3.3130	ppb	10:27:47
1	Si 251.611†	695.9	-72.0	-1.1503	µg/L	-1.1503	ppb	10:27:27
1	Sn 189.927†	9.8	7.9	0.5516	µg/L	0.5516	ppb	10:27:47
1	Ti 334.940†	991.0	166.8	0.1776	µg/L	0.1776	ppb	10:27:27
1	Tl 190.801†	-103.3	11.1	1.5149	µg/L	1.5149	ppb	10:27:47
1	U 409.014†	-420.2	-256.4	-16.169	µg/L	-16.169	ppb	10:27:27
1	V 292.402†	453.0	29.2	0.1483	µg/L	0.1483	ppb	10:27:27
1	Zn 213.857†	541.6	38.0	0.2259	µg/L	0.2259	ppb	10:27:47
2	Sc RADIAL	142818.3	142818.3	102	%			10:26:25
2	Al 396.153Radial†	-102.5	-22.0	-4.6648	µg/L	-4.6648	ppb	10:26:45
2	Ca 317.933Radial†	573.3	-9.1	-0.6188	µg/L	-0.6188	ppb	10:26:45
2	Fe 238.204 Radial†	110.9	-8.5	-0.6347	µg/L	-0.6347	ppb	10:26:45
2	K 766.490 Radial†	1687.2	161.2	63.862	µg/L	63.862	ppb	10:26:25
2	Mg 279.077 IEC†	188.6	12.6	5.8246	µg/L	5.8246	ppb	10:26:45
2	Na 589.592 Radial†	1002.2	30.6	4.6847	µg/L	4.6847	ppb	10:26:25
2	Sr 421.552†	-146.6	60.6	0.1430	µg/L	0.1430	ppb	10:26:25
2	Sc 361.383	1814818.2	1814818.2	100.59	%			10:27:49
2	Y 371.029	1063959.1	1063959.1	100.63	%			10:27:49
2	Ag 328.068†	4390.0	-201.0	-0.8229	µg/L	-0.8229	ppb	10:27:52
2	As 188.979†	-4.3	14.3	4.8359	µg/L	4.8359	ppb	10:28:12
2	B 249.677†	4308.2	217.8	3.3850	µg/L	3.3850	ppb	10:27:52
2	Ba 233.527†	-108.5	36.7	0.1631	µg/L	0.1631	ppb	10:28:12
2	Be 313.107†	-1008.5	89.1	0.0263	µg/L	0.0263	ppb	10:27:52
2	Cd 226.502†	-90.1	13.8	0.0933	µg/L	0.0933	ppb	10:28:12
2	Co 228.616†	-172.6	38.7	0.5117	µg/L	0.5117	ppb	10:28:12
2	Cr 267.716†	241.1	6.5	0.0544	µg/L	0.0544	ppb	10:28:12
2	Cu 324.752†	3110.8	56.4	0.2376	µg/L	0.2376	ppb	10:27:52
2	Mn 257.610†	185.1	-0.7	-0.0012	µg/L	-0.0012	ppb	10:28:12
2	Mo 202.031†	-16.1	22.5	0.7373	µg/L	0.7373	ppb	10:28:12
2	Ni 231.604†	-83.2	13.2	0.1649	µg/L	0.1649	ppb	10:28:12
2	P 214.914†	-11.2	14.6	3.3643	µg/L	3.3643	ppb	10:28:12
2	Pb 220.353†	102.7	-1.3	-0.0807	µg/L	-0.0807	ppb	10:28:12

2	S 181.975 Axial†	103.8	14.2	11.975 µg/L	11.975 ppb	10:28:12
2	Sb 206.836†	96.2	5.9	0.7677 µg/L	0.7677 ppb	10:28:12
2	Se 196.026†	20.8	14.5	5.71 µg/L	5.71 ppb	10:28:12
2	SiO2†	1717.4	-31.8	-3.3984 µg/L	-3.3984 ppb	10:28:12
2	Si 251.611†	740.6	-30.8	-0.4998 µg/L	-0.4998 ppb	10:27:52
2	Sn 189.927†	13.1	11.2	0.7737 µg/L	0.7737 ppb	10:28:12
2	Ti 334.940†	875.6	47.5	0.0476 µg/L	0.0476 ppb	10:27:52
2	Tl 190.801†	-113.0	1.9	0.2561 µg/L	0.2561 ppb	10:28:12
2	U 409.014†	-138.0	26.2	1.6406 µg/L	1.6406 ppb	10:27:52
2	V 292.402†	389.3	-36.2	-0.1786 µg/L	-0.1786 ppb	10:27:52
2	Zn 213.857†	534.3	28.2	0.1669 µg/L	0.1669 ppb	10:28:12
3	Sc RADIAL	140073.3	140073.3	100.0 %		10:26:47
3	Al 396.153Radial†	-42.9	35.6	7.4623 µg/L	7.4623 ppb	10:27:07
3	Ca 317.933Radial†	561.5	-9.9	-0.6724 µg/L	-0.6724 ppb	10:27:07
3	Fe 238.204 Radial†	131.4	14.1	1.0507 µg/L	1.0507 ppb	10:27:07
3	K 766.490 Radial†	1577.5	83.9	33.259 µg/L	33.259 ppb	10:26:47
3	Mg 279.077 IEC†	160.6	-11.8	-5.4397 µg/L	-5.4397 ppb	10:27:07
3	Na 589.592 Radial†	1138.5	186.1	28.821 µg/L	28.821 ppb	10:26:47
3	Sr 421.552†	-238.5	-34.1	-0.0803 µg/L	-0.0803 ppb	10:26:47
3	Sc 361.383	1801432.9	1801432.9	99.849 %		10:28:14
3	Y 371.029	1056501.4	1056501.4	99.925 %		10:28:14
3	Ag 328.068†	4278.5	-280.2	-1.1531 µg/L	-1.1531 ppb	10:28:16
3	As 188.979†	-13.5	5.0	1.6981 µg/L	1.6981 ppb	10:28:36
3	B 249.677†	4216.2	157.5	2.4477 µg/L	2.4477 ppb	10:28:16
3	Ba 233.527†	-133.7	10.6	0.0474 µg/L	0.0474 ppb	10:28:36
3	Be 313.107†	-1028.1	62.1	0.0170 µg/L	0.0170 ppb	10:28:16
3	Cd 226.502†	-90.6	12.6	0.0850 µg/L	0.0850 ppb	10:28:36
3	Co 228.616†	-185.7	24.3	0.3210 µg/L	0.3210 ppb	10:28:36
3	Cr 267.716†	246.4	13.6	0.1197 µg/L	0.1197 ppb	10:28:36
3	Cu 324.752†	2983.7	-48.0	-0.2030 µg/L	-0.2030 ppb	10:28:16
3	Mn 257.610†	209.1	24.6	0.0329 µg/L	0.0329 ppb	10:28:36
3	Mo 202.031†	-14.8	23.7	0.7753 µg/L	0.7753 ppb	10:28:36
3	Ni 231.604†	-104.2	-8.4	-0.1054 µg/L	-0.1054 ppb	10:28:36
3	P 214.914†	-1.5	24.2	5.6067 µg/L	5.6067 ppb	10:28:36
3	Pb 220.353†	90.7	-12.6	-0.7708 µg/L	-0.7708 ppb	10:28:36
3	S 181.975 Axial†	101.2	12.4	10.478 µg/L	10.478 ppb	10:28:36
3	Sb 206.836†	86.9	-2.7	-0.3424 µg/L	-0.3424 ppb	10:28:36
3	Se 196.026†	17.0	10.8	4.26 µg/L	4.26 ppb	10:28:36
3	SiO2†	1768.5	32.1	3.3679 µg/L	3.3679 ppb	10:28:36
3	Si 251.611†	1260.7	495.6	7.8002 µg/L	7.8002 ppb	10:28:16
3	Sn 189.927†	11.5	9.6	0.6680 µg/L	0.6680 ppb	10:28:36
3	Ti 334.940†	917.1	95.5	0.0997 µg/L	0.0997 ppb	10:28:16
3	Tl 190.801†	-97.8	16.4	2.2310 µg/L	2.2310 ppb	10:28:36
3	U 409.014†	-212.8	-49.8	-3.1540 µg/L	-3.1540 ppb	10:28:16
3	V 292.402†	387.5	-35.2	-0.1760 µg/L	-0.1760 ppb	10:28:16
3	Zn 213.857†	530.2	28.0	0.1681 µg/L	0.1681 ppb	10:28:36

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807525.4	100.19	%	0.375				0.37%
Sc RADIAL	140684.7	100	%	1.4				1.35%
Y 371.029	1059938.4	100.25	%	0.356				0.36%
Ag 328.068†	-217.6	-0.8988	µg/L	0.22619	-0.8988	ppb	0.22619	25.17%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.6	2.6206	µg/L	6.42222	2.6206	ppb	6.42222	245.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.3	2.8258	µg/L	1.74509	2.8258	ppb	1.74509	61.76%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	143.7	2.2333	µg/L	1.27245	2.2333	ppb	1.27245	56.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	22.6	0.1005	µg/L	0.05843	0.1005	ppb	0.05843	58.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	181.8	0.0509	µg/L	0.05080	0.0509	ppb	0.05080	99.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-5.0	-0.3389	µg/L	0.53188	-0.3389	ppb	0.53188	156.95%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	21.9	0.1479	µg/L	0.10171	0.1479	ppb	0.10171	68.79%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	31.8	0.4212	µg/L	0.09568	0.4212	ppb	0.09568	22.72%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -0.2      0.0025 µg/L       0.15007      0.0025 ppb        0.15007 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -23.3     -0.1021 µg/L       0.30215     -0.1021 ppb        0.30215 295.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       2.3      0.1717 µg/L       0.84503      0.1717 ppb        0.84503 492.06%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       75.8      30.014 µg/L       35.5819      30.014 ppb        35.5819 118.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          4.3      2.0209 µg/L       6.46146      2.0209 ppb        6.46146 319.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             27.8      0.0368 µg/L       0.04010      0.0368 ppb        0.04010 108.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             24.2      0.7916 µg/L       0.06391      0.7916 ppb        0.06391   8.07%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     130.5      20.202 µg/L       13.4657      20.202 ppb        13.4657  66.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              7.1      0.0884 µg/L       0.16910      0.0884 ppb        0.16910 191.25%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              14.4      3.3216 µg/L       2.30669      3.3216 ppb        2.30669  69.44%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -8.1     -0.4899 µg/L       0.36249     -0.4899 ppb        0.36249  73.99%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        11.1      9.3117 µg/L       3.39955      9.3117 ppb        3.39955  36.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -5.4     -0.6791 µg/L       1.64121     -0.6791 ppb        1.64121 241.69%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             15.4        6.08 µg/L         2.027        6.08 ppb          2.027  33.35%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   10.6      1.0942 µg/L       3.89080      1.0942 ppb        3.89080 355.59%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            131.0      2.0500 µg/L       4.99041      2.0500 ppb        4.99041 243.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              9.6      0.6644 µg/L       0.11114      0.6644 ppb        0.11114  16.73%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              3.9      0.0092 µg/L       0.11809      0.0092 ppb        0.11809 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            103.3      0.1083 µg/L       0.06541      0.1083 ppb        0.06541  60.41%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              9.8      1.3340 µg/L       0.99980      1.3340 ppb        0.99980  74.95%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -93.3     -5.8942 µg/L       9.21571     -5.8942 ppb        9.21571 156.35%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -14.1     -0.0688 µg/L       0.18804     -0.0688 ppb        0.18804 273.40%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              31.4      0.1870 µg/L       0.03374      0.1870 ppb        0.03374  18.04%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8 **Autosampler Location: 101**
Sample ID: PQL **Date Collected: 4/5/2010 10:28:44**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141650.4	141650.4	101	%			10:29:14
1	Al 396.153Radial†	1036.5	1103.7	231.88	µg/L	231.88	ppb	10:29:16
1	Ca 317.933Radial†	3603.3	2992.2	203.80	µg/L	203.80	ppb	10:29:16
1	Fe 238.204 Radial†	1560.7	1426.2	106.51	µg/L	106.51	ppb	10:29:16
1	K 766.490 Radial†	1826.1	312.3	123.57	µg/L	123.57	ppb	10:29:14
1	Mg 279.077 IEC†	874.5	692.5	319.90	µg/L	319.90	ppb	10:29:16
1	Na 589.592 Radial†	2732.4	1749.8	271.13	µg/L	271.13	ppb	10:29:16
1	Sr 421.552†	2186.1	2366.5	5.5797	µg/L	5.5797	ppb	10:29:16
1	Sc 361.383	1814341.7	1814341.7	100.56	%			10:29:28
1	Y 371.029	1064064.3	1064064.3	100.64	%			10:29:28
1	Ag 328.068†	5622.7	1026.0	4.3223	µg/L	4.3223	ppb	10:29:30
1	As 188.979†	87.6	105.7	35.836	µg/L	35.836	ppb	10:29:50
1	B 249.677†	7343.1	3236.7	50.319	µg/L	50.319	ppb	10:29:30
1	Ba 233.527†	999.3	1138.3	5.0652	µg/L	5.0652	ppb	10:29:50
1	Be 313.107†	16066.6	17068.1	4.9590	µg/L	4.9590	ppb	10:29:30
1	Cd 226.502†	646.2	745.9	5.0326	µg/L	5.0326	ppb	10:29:50
1	Co 228.616†	185.3	394.5	5.2190	µg/L	5.2190	ppb	10:29:50
1	Cr 267.716†	839.1	601.2	5.1628	µg/L	5.1628	ppb	10:29:50
1	Cu 324.752†	5479.5	2412.6	10.159	µg/L	10.159	ppb	10:29:30
1	Mn 257.610†	8022.8	7793.0	10.325	µg/L	10.325	ppb	10:29:30
1	Mo 202.031†	281.7	318.7	10.434	µg/L	10.434	ppb	10:29:50
1	Ni 231.604†	303.7	397.9	4.9784	µg/L	4.9784	ppb	10:29:50
1	P 214.914†	630.3	652.4	150.78	µg/L	150.78	ppb	10:29:50
1	Pb 220.353†	271.2	166.2	10.231	µg/L	10.231	ppb	10:29:50
1	S 181.975 Axial†	205.7	115.7	97.385	µg/L	97.385	ppb	10:29:50
1	Sb 206.836†	154.6	64.1	8.3550	µg/L	8.3550	ppb	10:29:50
1	Se 196.026†	110.2	103.4	40.8	µg/L	40.8	ppb	10:29:50
1	SiO2†	3822.7	2062.2	217.92	µg/L	217.92	ppb	10:29:30
1	Si 251.611†	7510.5	6701.3	105.46	µg/L	105.46	ppb	10:29:30
1	Sn 189.927†	160.1	157.3	10.927	µg/L	10.927	ppb	10:29:50
1	Ti 334.940†	5734.4	4879.2	4.9689	µg/L	4.9689	ppb	10:29:30
1	Tl 190.801†	38.0	152.0	20.859	µg/L	20.859	ppb	10:29:50
1	U 409.014†	615.0	774.9	49.286	µg/L	49.286	ppb	10:29:30
1	V 292.402†	1571.6	1139.6	6.0534	µg/L	6.0534	ppb	10:29:30
1	Zn 213.857†	2274.8	1759.0	10.457	µg/L	10.457	ppb	10:29:50
2	Sc RADIAL	141759.5	141759.5	101	%			10:29:18
2	Al 396.153Radial†	796.2	865.4	181.72	µg/L	181.72	ppb	10:29:20
2	Ca 317.933Radial†	3683.3	3068.5	209.00	µg/L	209.00	ppb	10:29:20
2	Fe 238.204 Radial†	1485.2	1350.5	100.85	µg/L	100.85	ppb	10:29:20
2	K 766.490 Radial†	1933.5	417.0	165.07	µg/L	165.07	ppb	10:29:18
2	Mg 279.077 IEC†	921.2	737.9	340.89	µg/L	340.89	ppb	10:29:20
2	Na 589.592 Radial†	2783.2	1797.9	278.55	µg/L	278.55	ppb	10:29:20
2	Sr 421.552†	2129.2	2308.6	5.4432	µg/L	5.4432	ppb	10:29:20
2	Sc 361.383	1776563.5	1776563.5	98.471	%			10:29:52
2	Y 371.029	1041330.5	1041330.5	98.490	%			10:29:52
2	Ag 328.068†	5648.1	1170.6	4.9166	µg/L	4.9166	ppb	10:29:54
2	As 188.979†	73.8	93.5	31.726	µg/L	31.726	ppb	10:30:14
2	B 249.677†	7226.4	3273.5	50.889	µg/L	50.889	ppb	10:29:54
2	Ba 233.527†	1019.4	1179.8	5.2489	µg/L	5.2489	ppb	10:30:14
2	Be 313.107†	16021.3	17361.8	5.0486	µg/L	5.0486	ppb	10:29:54
2	Cd 226.502†	661.1	774.7	5.2281	µg/L	5.2281	ppb	10:30:14
2	Co 228.616†	198.3	411.7	5.4466	µg/L	5.4466	ppb	10:30:14
2	Cr 267.716†	776.3	555.1	4.7513	µg/L	4.7513	ppb	10:30:14
2	Cu 324.752†	5385.0	2432.5	10.254	µg/L	10.254	ppb	10:29:54
2	Mn 257.610†	8036.2	7976.3	10.567	µg/L	10.567	ppb	10:29:54
2	Mo 202.031†	269.0	311.7	10.207	µg/L	10.207	ppb	10:30:14
2	Ni 231.604†	339.1	440.3	5.5085	µg/L	5.5085	ppb	10:30:14
2	P 214.914†	631.8	667.3	154.21	µg/L	154.21	ppb	10:30:14
2	Pb 220.353†	260.3	160.9	9.8917	µg/L	9.8917	ppb	10:30:14

2	S 181.975 Axial†	213.7	128.1	107.82 µg/L	107.82 ppb	10:30:14
2	Sb 206.836†	134.3	46.7	6.1115 µg/L	6.1115 ppb	10:30:14
2	Se 196.026†	85.8	81.0	32.0 µg/L	32.0 ppb	10:30:14
2	SiO2†	3765.3	2084.6	220.32 µg/L	220.32 ppb	10:29:54
2	Si 251.611†	7495.9	6845.3	107.74 µg/L	107.74 ppb	10:29:54
2	Sn 189.927†	145.1	145.5	10.110 µg/L	10.110 ppb	10:30:14
2	Ti 334.940†	5701.4	4966.9	5.0513 µg/L	5.0513 ppb	10:29:54
2	Tl 190.801†	42.7	157.6	21.607 µg/L	21.607 ppb	10:30:14
2	U 409.014†	837.2	1013.6	64.273 µg/L	64.273 ppb	10:29:54
2	V 292.402†	1281.9	878.6	4.7076 µg/L	4.7076 ppb	10:29:54
2	Zn 213.857†	2244.8	1776.7	10.559 µg/L	10.559 ppb	10:30:14
3	Sc RADIAL	141499.9	141499.9	101 %		10:29:22
3	Al 396.153Radial†	902.8	972.4	204.30 µg/L	204.30 ppb	10:29:24
3	Ca 317.933Radial†	3625.9	3018.4	205.58 µg/L	205.58 ppb	10:29:24
3	Fe 238.204 Radial†	1528.3	1395.8	104.24 µg/L	104.24 ppb	10:29:24
3	K 766.490 Radial†	1924.1	411.1	162.76 µg/L	162.76 ppb	10:29:22
3	Mg 279.077 IEC†	884.8	703.6	325.00 µg/L	325.00 ppb	10:29:24
3	Na 589.592 Radial†	2796.7	1816.3	281.40 µg/L	281.40 ppb	10:29:24
3	Sr 421.552†	2078.5	2262.3	5.3339 µg/L	5.3339 ppb	10:29:24
3	Sc 361.383	1809314.5	1809314.5	100.29 %		10:30:16
3	Y 371.029	1060913.4	1060913.4	100.34 %		10:30:16
3	Ag 328.068†	5830.0	1248.2	5.2210 µg/L	5.2210 ppb	10:30:18
3	As 188.979†	82.3	100.6	34.129 µg/L	34.129 ppb	10:30:38
3	B 249.677†	7300.8	3214.9	49.979 µg/L	49.979 ppb	10:30:18
3	Ba 233.527†	972.1	1113.9	4.9559 µg/L	4.9559 ppb	10:30:38
3	Be 313.107†	16413.7	17458.6	5.0723 µg/L	5.0723 ppb	10:30:18
3	Cd 226.502†	657.5	759.0	5.1213 µg/L	5.1213 ppb	10:30:38
3	Co 228.616†	193.3	403.1	5.3320 µg/L	5.3320 ppb	10:30:38
3	Cr 267.716†	830.2	594.7	5.1050 µg/L	5.1050 ppb	10:30:38
3	Cu 324.752†	5532.4	2480.5	10.443 µg/L	10.443 ppb	10:30:18
3	Mn 257.610†	8096.9	7889.1	10.452 µg/L	10.452 ppb	10:30:18
3	Mo 202.031†	245.6	283.5	9.2820 µg/L	9.2820 ppb	10:30:38
3	Ni 231.604†	321.4	416.4	5.2097 µg/L	5.2097 ppb	10:30:38
3	P 214.914†	632.2	656.1	151.62 µg/L	151.62 ppb	10:30:38
3	Pb 220.353†	240.3	136.1	8.3755 µg/L	8.3755 ppb	10:30:38
3	S 181.975 Axial†	210.4	120.9	101.79 µg/L	101.79 ppb	10:30:38
3	Sb 206.836†	142.1	52.0	6.7786 µg/L	6.7786 ppb	10:30:38
3	Se 196.026†	92.7	86.3	34.1 µg/L	34.1 ppb	10:30:38
3	SiO2†	3995.7	2245.2	237.35 µg/L	237.35 ppb	10:30:18
3	Si 251.611†	7591.6	6803.0	107.09 µg/L	107.09 ppb	10:30:18
3	Sn 189.927†	145.0	142.7	9.9131 µg/L	9.9131 ppb	10:30:38
3	Ti 334.940†	5766.5	4927.0	5.0173 µg/L	5.0173 ppb	10:30:18
3	Tl 190.801†	41.5	155.7	21.346 µg/L	21.346 ppb	10:30:38
3	U 409.014†	624.1	785.7	49.910 µg/L	49.910 ppb	10:30:18
3	V 292.402†	1376.7	949.5	5.0570 µg/L	5.0570 ppb	10:30:18
3	Zn 213.857†	2245.7	1736.3	10.320 µg/L	10.320 ppb	10:30:38

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1800073.2	99.774	%	1.1371				1.14%
Sc RADIAL	141636.6	101	%	0.1				0.09%
Y 371.029	1055436.1	99.824	%	1.1649				1.17%
Ag 328.068†	1148.3	4.8200	µg/L	0.45709	4.8200	ppb	0.45709	9.48%
QC value within limits for Ag 328.068 Recovery = 96.40%								
Al 396.153Radial†	980.5	205.96	µg/L	25.124	205.96	ppb	25.124	12.20%
QC value within limits for Al 396.153Radial Recovery = 102.98%								
As 188.979†	99.9	33.897	µg/L	2.0651	33.897	ppb	2.0651	6.09%
QC value within limits for As 188.979 Recovery = 112.99%								
B 249.677†	3241.7	50.396	µg/L	0.4603	50.396	ppb	0.4603	0.91%
QC value within limits for B 249.677 Recovery = 100.79%								
Ba 233.527†	1144.0	5.0900	µg/L	0.14810	5.0900	ppb	0.14810	2.91%
QC value within limits for Ba 233.527 Recovery = 101.80%								
Be 313.107†	17296.2	5.0266	µg/L	0.05978	5.0266	ppb	0.05978	1.19%
QC value within limits for Be 313.107 Recovery = 100.53%								
Ca 317.933Radial†	3026.4	206.12	µg/L	2.642	206.12	ppb	2.642	1.28%
QC value within limits for Ca 317.933Radial Recovery = 103.06%								
Cd 226.502†	759.9	5.1273	µg/L	0.09792	5.1273	ppb	0.09792	1.91%
QC value within limits for Cd 226.502 Recovery = 102.55%								
Co 228.616†	403.1	5.3325	µg/L	0.11382	5.3325	ppb	0.11382	2.13%

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   QC value within limits for Co 228.616  Recovery = 106.65%
Cr 267.716†              583.7      5.0064 µg/L       0.22276      5.0064 ppb        0.22276   4.45%
   QC value within limits for Cr 267.716  Recovery = 100.13%
Cu 324.752†             2441.9      10.285 µg/L        0.1448      10.285 ppb         0.1448   1.41%
   QC value within limits for Cu 324.752  Recovery = 102.85%
Fe 238.204 Radial†      1390.8      103.87 µg/L         2.845      103.87 ppb          2.845   2.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.87%
K 766.490 Radial†        380.1      150.47 µg/L        23.319      150.47 ppb         23.319  15.50%
   QC value within limits for K 766.490 Radial  Recovery = 100.31%
Mg 279.077 IEC†          711.3      328.59 µg/L        10.947      328.59 ppb         10.947   3.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.53%
Mn 257.610†             7886.1      10.448 µg/L        0.1212      10.448 ppb         0.1212   1.16%
   QC value within limits for Mn 257.610  Recovery = 104.48%
Mo 202.031†              304.6      9.9743 µg/L       0.61026      9.9743 ppb        0.61026   6.12%
   QC value within limits for Mo 202.031  Recovery = 99.74%
Na 589.592 Radial†      1788.0      277.03 µg/L         5.304      277.03 ppb          5.304   1.91%
   QC value within limits for Na 589.592 Radial  Recovery = 92.34%
Ni 231.604†              418.2      5.2322 µg/L       0.26577      5.2322 ppb        0.26577   5.08%
   QC value within limits for Ni 231.604  Recovery = 104.64%
P 214.914†               658.6      152.20 µg/L         1.789      152.20 ppb          1.789   1.18%
   QC value within limits for P 214.914  Recovery = 101.47%
Pb 220.353†              154.4      9.4994 µg/L       0.98805      9.4994 ppb        0.98805  10.40%
   QC value within limits for Pb 220.353  Recovery = 94.99%
S 181.975 Axial†         121.5      102.33 µg/L         5.237      102.33 ppb          5.237   5.12%
   QC value within limits for S 181.975 Axial  Recovery = 102.33%
Sb 206.836†               54.2      7.0817 µg/L       1.15204      7.0817 ppb        1.15204  16.27%
   QC value within limits for Sb 206.836  Recovery = 70.82%
Se 196.026†               90.2        35.6 µg/L          4.62        35.6 ppb           4.62  12.96%
   QC value within limits for Se 196.026  Recovery = 118.81%
SiO2†                   2130.7      225.20 µg/L        10.592      225.20 ppb         10.592   4.70%
   QC value within limits for SiO2  Recovery = 105.73%
Si 251.611†             6783.2      106.76 µg/L         1.174      106.76 ppb          1.174   1.10%
   QC value within limits for Si 251.611  Recovery = 106.76%
Sn 189.927†              148.5      10.317 µg/L        0.5376      10.317 ppb         0.5376   5.21%
   QC value within limits for Sn 189.927  Recovery = 103.17%
Sr 421.552†             2312.5      5.4523 µg/L       0.12318      5.4523 ppb        0.12318   2.26%
   QC value within limits for Sr 421.552  Recovery = 109.05%
Ti 334.940†             4924.4      5.0125 µg/L       0.04145      5.0125 ppb        0.04145   0.83%
   QC value within limits for Ti 334.940  Recovery = 100.25%
Tl 190.801†              155.1      21.271 µg/L        0.3801      21.271 ppb         0.3801   1.79%
   QC value within limits for Tl 190.801  Recovery = 106.35%
U 409.014†               858.1      54.490 µg/L        8.4787      54.490 ppb         8.4787  15.56%
   QC value within limits for U 409.014  Recovery = 108.98%
V 292.402†               989.2      5.2727 µg/L       0.69837      5.2727 ppb        0.69837  13.25%
   QC value within limits for V 292.402  Recovery = 105.45%
Zn 213.857†             1757.4      10.445 µg/L        0.1201      10.445 ppb         0.1201   1.15%
   QC value within limits for Zn 213.857  Recovery = 104.45%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 4/5/2010 10:30:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128118.6	128118.6	91.5	%			10:31:19
1	Al 396.153Radial†	2213795.6	2420782.5	509660	µg/L	509660	ppb	10:31:17
1	Ca 317.933Radial†	6606069.4	7222922.0	491950	µg/L	491950	ppb	10:31:17
1	Fe 238.204 Radial†	2362080.3	2582730.5	192880	µg/L	192880	ppb	10:31:17
1	K 766.490 Radial†	1496.6	142.7	-187.26	µg/L	-187.26	ppb	10:31:19
1	Mg 279.077 IEC†	972171.2	1062860.9	490600	µg/L	490600	ppb	10:31:17
1	Na 589.592 Radial†	1170.1	326.9	50.623	µg/L	50.623	ppb	10:31:19
1	Sr 421.552†	4658.8	5298.7	8.6462	µg/L	8.6462	ppb	10:31:19
1	Sc 361.383	1581772.1	1581772.1	87.674	%			10:31:32
1	Y 371.029	913048.3	913048.3	86.357	%			10:31:32
1	Ag 328.068†	6751.4	3135.4	-0.7645	µg/L	-0.7645	ppb	10:31:32
1	As 188.979†	-94.1	-88.8	13.191	µg/L	13.191	ppb	10:31:52
1	B 249.677†	4066.1	572.6	8.8918	µg/L	8.8918	ppb	10:31:32
1	Ba 233.527†	383.0	581.4	0.1203	µg/L	0.1203	ppb	10:31:52
1	Be 313.107†	-291.7	759.0	0.2135	µg/L	0.2135	ppb	10:31:32
1	Cd 226.502†	2322.1	2751.9	-1.6829	µg/L	-1.6829	ppb	10:31:52
1	Co 228.616†	65.4	284.9	-6.2907	µg/L	-6.2907	ppb	10:31:52
1	Cr 267.716†	227.8	26.6	0.9599	µg/L	0.9599	ppb	10:31:52
1	Cu 324.752†	-5602.2	-9426.0	1.9087	µg/L	1.9087	ppb	10:31:32
1	Mn 257.610†	15226.9	17182.9	2.8255	µg/L	2.8255	ppb	10:31:32
1	Mo 202.031†	-533.4	-569.8	-2.0372	µg/L	-2.0372	ppb	10:31:52
1	Ni 231.604†	109.0	220.2	2.7550	µg/L	2.7550	ppb	10:31:52
1	P 214.914†	152.0	199.0	28.356	µg/L	28.356	ppb	10:31:52
1	Pb 220.353†	-270.6	-412.1	0.0388	µg/L	0.0388	ppb	10:31:52
1	S 181.975 Axial†	175.6	111.3	93.501	µg/L	93.501	ppb	10:31:52
1	Sb 206.836†	130.3	58.9	1.5033	µg/L	1.5033	ppb	10:31:52
1	Se 196.026†	-137.9	-163.4	2.51	µg/L	2.51	ppb	10:31:52
1	SiO2†	1649.9	142.7	15.602	µg/L	15.602	ppb	10:31:52
1	Si 251.611†	499.7	-197.1	-2.8776	µg/L	-2.8776	ppb	10:31:52
1	Sn 189.927†	36.3	39.5	2.8247	µg/L	2.8247	ppb	10:31:52
1	Ti 334.940†	21726.4	23957.9	-2.5303	µg/L	-2.5303	ppb	10:31:32
1	Tl 190.801†	-162.0	-70.5	-9.1790	µg/L	-9.1790	ppb	10:31:52
1	U 409.014†	-433.0	-330.5	-42.174	µg/L	-42.174	ppb	10:31:32
1	V 292.402†	4095.4	4247.9	1.4397	µg/L	1.4397	ppb	10:31:32
1	Zn 213.857†	4191.7	4278.1	8.9566	µg/L	8.9566	ppb	10:31:52
2	Sc RADIAL	127837.7	127837.7	91.3	%			10:31:24
2	Al 396.153Radial†	2210404.0	2422384.5	510000	µg/L	510000	ppb	10:31:22
2	Ca 317.933Radial†	6599761.5	7231881.1	492560	µg/L	492560	ppb	10:31:22
2	Fe 238.204 Radial†	2358861.0	2584877.7	193040	µg/L	193040	ppb	10:31:22
2	K 766.490 Radial†	1627.9	290.2	-129.07	µg/L	-129.07	ppb	10:31:24
2	Mg 279.077 IEC†	971105.4	1064028.7	491140	µg/L	491140	ppb	10:31:22
2	Na 589.592 Radial†	1340.9	516.9	80.019	µg/L	80.019	ppb	10:31:24
2	Sr 421.552†	4691.9	5346.2	8.7534	µg/L	8.7534	ppb	10:31:24
2	Sc 361.383	1601726.0	1601726.0	88.780	%			10:31:55
2	Y 371.029	924331.0	924331.0	87.424	%			10:31:55
2	Ag 328.068†	6732.2	3017.9	-1.2361	µg/L	-1.2361	ppb	10:31:55
2	As 188.979†	-100.4	-94.5	11.292	µg/L	11.292	ppb	10:32:15
2	B 249.677†	4142.1	600.4	9.3234	µg/L	9.3234	ppb	10:31:55
2	Ba 233.527†	415.6	612.7	0.2573	µg/L	0.2573	ppb	10:32:15
2	Be 313.107†	-658.4	350.1	0.1024	µg/L	0.1024	ppb	10:31:55
2	Cd 226.502†	2287.7	2680.2	-2.1849	µg/L	-2.1849	ppb	10:32:15
2	Co 228.616†	80.1	300.6	-6.0911	µg/L	-6.0911	ppb	10:32:15
2	Cr 267.716†	216.7	10.9	0.8039	µg/L	0.8039	ppb	10:32:15
2	Cu 324.752†	-5526.1	-9260.6	2.6582	µg/L	2.6582	ppb	10:31:55
2	Mn 257.610†	15435.0	17201.0	2.8276	µg/L	2.8276	ppb	10:31:55
2	Mo 202.031†	-532.0	-560.7	-1.7223	µg/L	-1.7223	ppb	10:32:15
2	Ni 231.604†	77.9	183.6	2.2975	µg/L	2.2975	ppb	10:32:15
2	P 214.914†	142.5	186.2	25.349	µg/L	25.349	ppb	10:32:15
2	Pb 220.353†	-320.0	-463.9	-3.1465	µg/L	-3.1465	ppb	10:32:15

2	S 181.975 Axial†	177.0	110.4	92.750 µg/L	92.750 ppb	10:32:15
2	Sb 206.836†	126.2	52.5	0.6818 µg/L	0.6818 ppb	10:32:15
2	Se 196.026†	-144.5	-168.9	0.419 µg/L	0.419 ppb	10:32:15
2	SiO2†	1619.4	85.0	9.4740 µg/L	9.4740 ppb	10:32:15
2	Si 251.611†	519.4	-182.0	-2.6482 µg/L	-2.6482 ppb	10:32:15
2	Sn 189.927†	45.3	49.1	3.4897 µg/L	3.4897 ppb	10:32:15
2	Ti 334.940†	22275.7	24268.0	-2.2496 µg/L	-2.2496 ppb	10:31:55
2	Tl 190.801†	-159.0	-64.8	-8.4026 µg/L	-8.4026 ppb	10:32:15
2	U 409.014†	-99.2	51.7	-18.085 µg/L	-18.085 ppb	10:31:55
2	V 292.402†	4098.2	4192.9	1.1561 µg/L	1.1561 ppb	10:31:55
2	Zn 213.857†	4180.5	4205.9	8.5109 µg/L	8.5109 ppb	10:32:15
3	Sc RADIAL	129703.1	129703.1	92.6 %		10:31:28
3	Al 396.153Radial†	2204567.2	2381242.2	501340 µg/L	501340 ppb	10:31:26
3	Ca 317.933Radial†	6568361.1	7093946.8	483160 µg/L	483160 ppb	10:31:26
3	Fe 238.204 Radial†	2348182.8	2536166.2	189400 µg/L	189400 ppb	10:31:26
3	K 766.490 Radial†	1631.7	268.7	-133.18 µg/L	-133.18 ppb	10:31:28
3	Mg 279.077 IEC†	966514.2	1043764.2	481780 µg/L	481780 ppb	10:31:26
3	Na 589.592 Radial†	1406.4	566.5	87.719 µg/L	87.719 ppb	10:31:28
3	Sr 421.552†	4640.9	5217.1	8.5226 µg/L	8.5226 ppb	10:31:28
3	Sc 361.383	1627878.3	1627878.3	90.230 %		10:32:18
3	Y 371.029	938743.5	938743.5	88.787 %		10:32:18
3	Ag 328.068†	6471.5	2607.1	-2.6885 µg/L	-2.6885 ppb	10:32:18
3	As 188.979†	-94.2	-85.8	13.417 µg/L	13.417 ppb	10:32:38
3	B 249.677†	4197.3	586.7	9.1112 µg/L	9.1112 ppb	10:32:18
3	Ba 233.527†	414.2	603.6	0.2637 µg/L	0.2637 ppb	10:32:38
3	Be 313.107†	-313.0	744.8	0.2077 µg/L	0.2077 ppb	10:32:18
3	Cd 226.502†	2287.7	2638.8	-2.0823 µg/L	-2.0823 ppb	10:32:38
3	Co 228.616†	59.7	276.5	-6.2204 µg/L	-6.2204 ppb	10:32:38
3	Cr 267.716†	209.3	-1.3	0.7104 µg/L	0.7104 ppb	10:32:38
3	Cu 324.752†	-5671.6	-9321.9	1.5944 µg/L	1.5944 ppb	10:32:18
3	Mn 257.610†	15670.2	17182.3	3.1834 µg/L	3.1834 ppb	10:32:18
3	Mo 202.031†	-504.6	-520.7	-0.7299 µg/L	-0.7299 ppb	10:32:38
3	Ni 231.604†	88.9	194.5	2.4329 µg/L	2.4329 ppb	10:32:38
3	P 214.914†	123.4	162.4	20.381 µg/L	20.381 ppb	10:32:38
3	Pb 220.353†	-328.2	-467.2	-3.7410 µg/L	-3.7410 ppb	10:32:38
3	S 181.975 Axial†	164.9	93.8	78.776 µg/L	78.776 ppb	10:32:38
3	Sb 206.836†	159.1	86.7	5.2093 µg/L	5.2093 ppb	10:32:38
3	Se 196.026†	-150.6	-173.0	-2.48 µg/L	-2.48 ppb	10:32:38
3	SiO2†	1645.7	84.8	9.4396 µg/L	9.4396 ppb	10:32:38
3	Si 251.611†	506.5	-205.7	-3.0292 µg/L	-3.0292 ppb	10:32:38
3	Sn 189.927†	26.5	27.5	1.9892 µg/L	1.9892 ppb	10:32:38
3	Ti 334.940†	22768.4	24410.9	-1.5733 µg/L	-1.5733 ppb	10:32:18
3	Tl 190.801†	-138.4	-39.1	-4.8829 µg/L	-4.8829 ppb	10:32:38
3	U 409.014†	-530.1	-424.2	-47.679 µg/L	-47.679 ppb	10:32:18
3	V 292.402†	4198.6	4230.0	1.7250 µg/L	1.7250 ppb	10:32:18
3	Zn 213.857†	4221.9	4176.0	8.6627 µg/L	8.6627 ppb	10:32:38

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1603792.1	88.894	%	1.2816				1.44%
Sc RADIAL	128553.1	91.8	%	0.72				0.78%
Y 371.029	925374.3	87.523	%	1.2181				1.39%
Ag 328.068†	2920.1	-1.5630	µg/L	1.00280	-1.5630	ppb	1.00280	64.16%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2408136.4	507000	µg/L	4906.5	507000	ppb	4906.5	0.97%
QC value within limits for Al 396.153Radial Recovery = 101.40%								
As 188.979†	-89.7	12.634	µg/L	1.1672	12.634	ppb	1.1672	9.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	586.6	9.1088	µg/L	0.21580	9.1088	ppb	0.21580	2.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	599.2	0.2138	µg/L	0.08101	0.2138	ppb	0.08101	37.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	618.0	0.1745	µg/L	0.06254	0.1745	ppb	0.06254	35.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7182916.7	489220	µg/L	5256.7	489220	ppb	5256.7	1.07%
QC value within limits for Ca 317.933Radial Recovery = 97.84%								
Cd 226.502†	2690.3	-1.9834	µg/L	0.26521	-1.9834	ppb	0.26521	13.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	287.3	-6.2008	µg/L	0.10120	-6.2008	ppb	0.10120	1.63%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              12.1      0.8247 µg/L       0.12605      0.8247 ppb        0.12605  15.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -9336.2      2.0538 µg/L       0.54654      2.0538 ppb.       0.54654  26.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2567924.8      191770 µg/L        2055.5      191770 ppb         2055.5   1.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.89%
K 766.490 Radial†        233.8     -149.84 µg/L        32.478     -149.84 ppb         32.478  21.68%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1056884.6      487840 µg/L        5251.7      487840 ppb         5251.7   1.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.57%
Mn 257.610†           17188.8      2.9455 µg/L       0.20606      2.9455 ppb        0.20606   7.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -550.4     -1.4964 µg/L       0.68228     -1.4964 ppb        0.68228  45.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       470.1      72.787 µg/L       19.5769      72.787 ppb        19.5769  26.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              199.4      2.4952 µg/L       0.23503      2.4952 ppb        0.23503   9.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               182.6      24.695 µg/L        4.0272      24.695 ppb         4.0272  16.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -447.7     -2.2829 µg/L       2.03252     -2.2829 ppb        2.03252  89.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         105.2      88.342 µg/L        8.2929      88.342 ppb         8.2929   9.39%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               66.0      2.4648 µg/L       2.41204      2.4648 ppb        2.41204  97.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -168.5       0.151 µg/L        2.5033       0.151 ppb         2.5033 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    104.2      11.505 µg/L        3.5481      11.505 ppb         3.5481  30.84%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            -195.0     -2.8517 µg/L       0.19180     -2.8517 ppb        0.19180   6.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               38.7      2.7679 µg/L       0.75190      2.7679 ppb        0.75190  27.17%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            5287.3      8.6407 µg/L       0.11552      8.6407 ppb        0.11552   1.34%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           24212.2     -2.1177 µg/L       0.49194     -2.1177 ppb        0.49194  23.23%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -58.1     -7.4882 µg/L       2.28939     -7.4882 ppb        2.28939  30.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -234.3     -35.979 µg/L       15.7394     -35.979 ppb        15.7394  43.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             4223.6      1.4403 µg/L       0.28444      1.4403 ppb        0.28444  19.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            4220.0      8.7101 µg/L       0.22657      8.7101 ppb        0.22657   2.60%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 4/5/2010 10:32:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128019.8	128019.8	91.4	%			10:33:20
1	Al 396.153Radial†	2214899.0	2423858.2	510290	µg/L	510290	ppb	10:33:18
1	Ca 317.933Radial†	6539945.8	7156137.6	487400	µg/L	487400	ppb	10:33:18
1	Fe 238.204 Radial†	2362815.2	2585528.2	193090	µg/L	193090	ppb	10:33:18
1	K 766.490 Radial†	14647.9	14535.5	5515.6	µg/L	5515.6	ppb	10:33:20
1	Mg 279.077 IEC†	974260.6	1065967.9	492040	µg/L	492040	ppb	10:33:20
1	Na 589.592 Radial†	32736.9	34871.7	5400.3	µg/L	5400.3	ppb	10:33:20
1	Sr 421.552†	200734.4	219869.6	514.74	µg/L	514.74	ppb	10:33:20
1	Sc 361.383	1596681.5	1596681.5	88.500	%			10:33:33
1	Y 371.029	922181.2	922181.2	87.221	%			10:33:33
1	Ag 328.068†	64143.4	67913.0	271.20	µg/L	271.20	ppb	10:33:33
1	As 188.979†	1228.9	1407.2	525.28	µg/L	525.28	ppb	10:33:35
1	B 249.677†	33489.8	33776.3	523.69	µg/L	523.69	ppb	10:33:33
1	Ba 233.527†	100868.2	114119.4	505.26	µg/L	505.26	ppb	10:33:33
1	Be 313.107†	749032.7	847453.0	245.64	µg/L	245.64	ppb	10:33:33
1	Cd 226.502†	65812.0	74466.9	483.20	µg/L	483.20	ppb	10:33:33
1	Co 228.616†	30517.4	34693.1	449.43	µg/L	449.43	ppb	10:33:35
1	Cr 267.716†	50564.5	56901.6	492.70	µg/L	492.70	ppb	10:33:35
1	Cu 324.752†	108957.7	120079.4	544.37	µg/L	544.37	ppb	10:33:33
1	Mn 257.610†	338390.3	382175.7	486.95	µg/L	486.95	ppb	10:33:33
1	Mo 202.031†	12995.7	14722.9	498.30	µg/L	498.30	ppb	10:33:35
1	Ni 231.604†	32630.8	36966.7	462.50	µg/L	462.50	ppb	10:33:35
1	P 214.914†	10002.4	11327.8	2595.9	µg/L	2595.9	ppb	10:33:35
1	Pb 220.353†	6487.9	7227.4	471.57	µg/L	471.57	ppb	10:33:35
1	S 181.975 Axial†	2976.8	3274.7	2758.9	µg/L	2758.9	ppb	10:33:35
1	Sb 206.836†	3581.5	3957.2	505.52	µg/L	505.52	ppb	10:33:35
1	Se 196.026†	5381.4	6074.5	2460	µg/L	2460	ppb	10:33:35
1	SiO2†	95028.9	105637.8	11166	µg/L	11166	ppb	10:33:33
1	Si 251.611†	294883.1	332432.9	5232.5	µg/L	5232.5	ppb	10:33:33
1	Sn 189.927†	6210.9	7016.0	488.46	µg/L	488.46	ppb	10:33:35
1	Ti 334.940†	461750.7	520927.2	507.28	µg/L	507.28	ppb	10:33:33
1	Tl 190.801†	2890.5	3380.4	469.95	µg/L	469.95	ppb	10:33:35
1	U 409.014†	7089.3	8173.8	526.30	µg/L	526.30	ppb	10:33:33
1	V 292.402†	91601.8	103081.2	520.84	µg/L	520.84	ppb	10:33:33
1	Zn 213.857†	77574.0	87150.9	500.68	µg/L	500.68	ppb	10:33:33
2	Sc RADIAL	126403.7	126403.7	90.2	%			10:33:24
2	Al 396.153Radial†	2203106.6	2441777.1	514060	µg/L	514060	ppb	10:33:22
2	Ca 317.933Radial†	6488979.1	7191150.9	489780	µg/L	489780	ppb	10:33:22
2	Fe 238.204 Radial†	2345597.7	2599503.8	194130	µg/L	194130	ppb	10:33:22
2	K 766.490 Radial†	14463.1	14535.7	5514.5	µg/L	5514.5	ppb	10:33:24
2	Mg 279.077 IEC†	957123.1	1060605.1	489570	µg/L	489570	ppb	10:33:24
2	Na 589.592 Radial†	32172.3	34703.9	5374.3	µg/L	5374.3	ppb	10:33:24
2	Sr 421.552†	197937.5	219578.3	514.03	µg/L	514.03	ppb	10:33:24
2	Sc 361.383	1581820.4	1581820.4	87.677	%			10:33:38
2	Y 371.029	914057.4	914057.4	86.452	%			10:33:38
2	Ag 328.068†	63616.7	67993.2	271.43	µg/L	271.43	ppb	10:33:38
2	As 188.979†	1284.1	1483.2	551.30	µg/L	551.30	ppb	10:33:40
2	B 249.677†	33289.7	33903.6	525.64	µg/L	525.64	ppb	10:33:38
2	Ba 233.527†	99713.8	113873.6	504.16	µg/L	504.16	ppb	10:33:38
2	Be 313.107†	739555.2	844594.9	244.81	µg/L	244.81	ppb	10:33:38
2	Cd 226.502†	64961.3	74195.3	481.25	µg/L	481.25	ppb	10:33:38
2	Co 228.616†	30729.7	35259.2	456.87	µg/L	456.87	ppb	10:33:40
2	Cr 267.716†	50663.4	57551.2	498.39	µg/L	498.39	ppb	10:33:40
2	Cu 324.752†	107715.1	119818.9	543.36	µg/L	543.36	ppb	10:33:38
2	Mn 257.610†	334418.8	381238.2	485.80	µg/L	485.80	ppb	10:33:38
2	Mo 202.031†	13147.6	15034.1	508.47	µg/L	508.47	ppb	10:33:40
2	Ni 231.604†	32935.7	37660.8	471.18	µg/L	471.18	ppb	10:33:40
2	P 214.914†	10097.2	11542.1	2645.6	µg/L	2645.6	ppb	10:33:40
2	Pb 220.353†	6531.5	7346.1	479.11	µg/L	479.11	ppb	10:33:40

2	S 181.975 Axial†	2995.8	3327.9	2803.8	µg/L	2803.8 ppb	10:33:40
2	Sb 206.836†	3745.1	4181.8	534.53	µg/L	534.53 ppb	10:33:40
2	Se 196.026†	5400.3	6153.2	2490	µg/L	2490 ppb	10:33:40
2	SiO2†	93970.9	105439.9	11145	µg/L	11145 ppb	10:33:38
2	Si 251.611†	291728.5	331965.3	5224.9	µg/L	5224.9 ppb	10:33:38
2	Sn 189.927†	6321.6	7208.2	501.79	µg/L	501.79 ppb	10:33:40
2	Ti 334.940†	457210.2	520650.3	507.26	µg/L	507.26 ppb	10:33:38
2	Tl 190.801†	2885.4	3405.2	473.28	µg/L	473.28 ppb	10:33:40
2	U 409.014†	6901.3	8034.6	517.25	µg/L	517.25 ppb	10:33:38
2	V 292.402†	90427.2	102714.0	518.95	µg/L	518.95 ppb	10:33:38
2	Zn 213.857†	76624.2	86891.1	499.00	µg/L	499.00 ppb	10:33:38
3	Sc RADIAL	128673.7	128673.7	91.8	%		10:33:28
3	Al 396.153Radial†	2211074.6	2407376.9	506820	µg/L	506820 ppb	10:33:26
3	Ca 317.933Radial†	6514056.0	7091580.2	483000	µg/L	483000 ppb	10:33:26
3	Fe 238.204 Radial†	2355764.0	2564711.1	191530	µg/L	191530 ppb	10:33:26
3	K 766.490 Radial†	14678.7	14487.6	5498.2	µg/L	5498.2 ppb	10:33:28
3	Mg 279.077 IEC†	977848.9	1064456.5	491350	µg/L	491350 ppb	10:33:28
3	Na 589.592 Radial†	32762.8	34717.8	5376.4	µg/L	5376.4 ppb	10:33:28
3	Sr 421.552†	201341.9	219414.6	513.70	µg/L	513.70 ppb	10:33:28
3	Sc 361.383	1602537.7	1602537.7	88.825	%		10:33:43
3	Y 371.029	925694.1	925694.1	87.553	%		10:33:43
3	Ag 328.068†	64236.0	67752.3	270.66	µg/L	270.66 ppb	10:33:43
3	As 188.979†	1257.5	1434.3	534.05	µg/L	534.05 ppb	10:33:45
3	B 249.677†	33647.4	33815.4	524.30	µg/L	524.30 ppb	10:33:43
3	Ba 233.527†	101063.2	113922.5	504.40	µg/L	504.40 ppb	10:33:43
3	Be 313.107†	751090.5	846676.9	245.41	µg/L	245.41 ppb	10:33:43
3	Cd 226.502†	66103.1	74522.9	483.74	µg/L	483.74 ppb	10:33:43
3	Co 228.616†	30595.5	34655.1	449.01	µg/L	449.01 ppb	10:33:45
3	Cr 267.716†	50288.4	56382.0	488.16	µg/L	488.16 ppb	10:33:45
3	Cu 324.752†	109381.3	120106.5	544.23	µg/L	544.23 ppb	10:33:43
3	Mn 257.610†	339181.7	381669.4	486.31	µg/L	486.31 ppb	10:33:43
3	Mo 202.031†	13013.7	14689.5	497.13	µg/L	497.13 ppb	10:33:45
3	Ni 231.604†	32496.9	36681.3	458.93	µg/L	458.93 ppb	10:33:45
3	P 214.914†	10072.5	11365.5	2604.9	µg/L	2604.9 ppb	10:33:45
3	Pb 220.353†	6417.3	7121.2	464.87	µg/L	464.87 ppb	10:33:45
3	S 181.975 Axial†	3006.9	3296.3	2777.1	µg/L	2777.1 ppb	10:33:45
3	Sb 206.836†	3648.9	4018.3	513.51	µg/L	513.51 ppb	10:33:45
3	Se 196.026†	5398.0	6071.0	2460	µg/L	2460 ppb	10:33:45
3	SiO2†	95329.6	105583.9	11160	µg/L	11160 ppb	10:33:43
3	Si 251.611†	295739.0	332178.9	5228.4	µg/L	5228.4 ppb	10:33:43
3	Sn 189.927†	6344.0	7140.3	497.08	µg/L	497.08 ppb	10:33:45
3	Ti 334.940†	463293.2	520757.1	507.05	µg/L	507.05 ppb	10:33:43
3	Tl 190.801†	2903.4	3383.0	470.31	µg/L	470.31 ppb	10:33:45
3	U 409.014†	7023.4	8070.4	519.96	µg/L	519.96 ppb	10:33:43
3	V 292.402†	92013.4	103166.3	521.41	µg/L	521.41 ppb	10:33:43
3	Zn 213.857†	77780.4	87063.0	500.33	µg/L	500.33 ppb	10:33:43

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1593679.9	88.334	%	0.5920				0.67%
Sc RADIAL	127699.1	91.2	%	0.83				0.92%
Y 371.029	920644.2	87.075	%	0.5645				0.65%
Ag 328.068†	67886.2	271.10	µg/L	0.393	271.10	ppb	0.393	0.15%
QC value within limits for Ag 328.068 Recovery = 108.44%								
Al 396.153Radial†	2424337.4	510390	µg/L	3622.0	510390	ppb	3622.0	0.71%
QC value within limits for Al 396.153Radial Recovery = 102.08%								
As 188.979†	1441.5	536.88	µg/L	13.237	536.88	ppb	13.237	2.47%
QC value within limits for As 188.979 Recovery = 107.38%								
B 249.677†	33831.8	524.54	µg/L	1.000	524.54	ppb	1.000	0.19%
QC value within limits for B 249.677 Recovery = 104.91%								
Ba 233.527†	113971.8	504.61	µg/L	0.579	504.61	ppb	0.579	0.11%
QC value within limits for Ba 233.527 Recovery = 100.92%								
Be 313.107†	846241.6	245.29	µg/L	0.429	245.29	ppb	0.429	0.18%
QC value within limits for Be 313.107 Recovery = 98.12%								
Ca 317.933Radial†	7146289.6	486730	µg/L	3440.2	486730	ppb	3440.2	0.71%
QC value within limits for Ca 317.933Radial Recovery = 97.35%								
Cd 226.502†	74395.1	482.73	µg/L	1.305	482.73	ppb	1.305	0.27%
QC value within limits for Cd 226.502 Recovery = 96.55%								
Co 228.616†	34869.1	451.77	µg/L	4.420	451.77	ppb	4.420	0.98%

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   QC value within limits for Co 228.616  Recovery = 90.35%
Cr 267.716†            56944.9      493.08 µg/L         5.125      493.08 ppb          5.125   1.04%
   QC value within limits for Cr 267.716  Recovery = 98.62%
Cu 324.752†           120001.6      543.99 µg/L         0.546      543.99 ppb          0.546   0.10%
   QC value within limits for Cu 324.752  Recovery = 108.80%
Fe 238.204 Radial†   2583247.7      192920 µg/L        1307.5      192920 ppb         1307.5   0.68%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.46%
K 766.490 Radial†      14519.6      5509.4 µg/L          9.72      5509.4 ppb           9.72   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 110.19%
Mg 279.077 IEC†      1063676.5      490990 µg/L        1277.3      490990 ppb         1277.3   0.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.20%
Mn 257.610†           381694.4      486.35 µg/L         0.575      486.35 ppb          0.575   0.12%
   QC value within limits for Mn 257.610  Recovery = 97.27%
Mo 202.031†            14815.5      501.30 µg/L         6.238      501.30 ppb          6.238   1.24%
   QC value within limits for Mo 202.031  Recovery = 100.26%
Na 589.592 Radial†     34764.5      5383.7 µg/L         14.43      5383.7 ppb          14.43   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 107.67%
Ni 231.604†            37102.9      464.20 µg/L         6.303      464.20 ppb          6.303   1.36%
   QC value within limits for Ni 231.604  Recovery = 92.84%
P 214.914†             11411.8      2615.5 µg/L         26.48      2615.5 ppb          26.48   1.01%
   QC value within limits for P 214.914  Recovery = 104.62%
Pb 220.353†             7231.6      471.85 µg/L         7.120      471.85 ppb          7.120   1.51%
   QC value within limits for Pb 220.353  Recovery = 94.37%
S 181.975 Axial†        3299.6      2779.9 µg/L         22.57      2779.9 ppb          22.57   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 111.20%
Sb 206.836†             4052.4      517.86 µg/L        14.982      517.86 ppb         14.982   2.89%
   QC value within limits for Sb 206.836  Recovery = 103.57%
Se 196.026†             6099.5        2470 µg/L          18.7        2470 ppb           18.7   0.76%
   QC value within limits for Se 196.026  Recovery = 98.82%
SiO2†                 105553.8       11157 µg/L          11.1       11157 ppb           11.1   0.10%
   QC value within limits for SiO2  Recovery = 104.32%
Si 251.611†           332192.4      5228.6 µg/L         3.80      5228.6 ppb           3.80   0.07%
   QC value within limits for Si 251.611  Recovery = 104.57%
Sn 189.927†             7121.5      495.78 µg/L         6.759      495.78 ppb          6.759   1.36%
   QC value within limits for Sn 189.927  Recovery = 99.16%
Sr 421.552†           219620.8      514.16 µg/L         0.530      514.16 ppb          0.530   0.10%
   QC value within limits for Sr 421.552  Recovery = 102.83%
Ti 334.940†           520778.2      507.19 µg/L         0.127      507.19 ppb          0.127   0.02%
   QC value within limits for Ti 334.940  Recovery = 101.44%
Tl 190.801†             3389.5      471.18 µg/L         1.829      471.18 ppb          1.829   0.39%
   QC value within limits for Tl 190.801  Recovery = 94.24%
U 409.014†              8093.0      521.17 µg/L         4.641      521.17 ppb          4.641   0.89%
   QC value within limits for U 409.014  Recovery = 104.23%
V 292.402†            102987.2      520.40 µg/L         1.288      520.40 ppb          1.288   0.25%
   QC value within limits for V 292.402  Recovery = 104.08%
Zn 213.857†            87035.0      500.01 µg/L         0.885      500.01 ppb          0.885   0.18%
   QC value within limits for Zn 213.857  Recovery = 100.00%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 4/5/2010 10:33:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	126559.3	126559.3	90.3	%			10:34:25
1	Al 396.153Radial†	2128657.4	2356365.3	496100	µg/L	496100	ppb	10:34:22
1	Ca 317.933Radial†	6314300.7	6988953.2	476010	µg/L	476010	ppb	10:34:22
1	Fe 238.204 Radial†	5465694.5	6050054.8	451810	µg/L	451810	ppb	10:34:22
1	K 766.490 Radial†	1793.1	491.1	-123.38	µg/L	-123.38	ppb	10:34:25
1	Mg 279.077 IEC†	925975.9	1024823.3	472810	µg/L	472810	ppb	10:34:22
1	Na 589.592 Radial†	2921252.7	3232686.2	501090	µg/L	501090	ppb	10:34:22
1	Sr 421.552†	4654.3	5356.4	8.9072	µg/L	8.9072	ppb	10:34:25
1	Sc 361.383	1546919.1	1546919.1	85.742	%			10:34:38
1	Y 371.029	889839.0	889839.0	84.162	%			10:34:38
1	Ag 328.068†	3005.5	-1059.9	1.4083	µg/L	1.4083	ppb	10:34:38
1	As 188.979†	-255.7	-279.7	6.6904	µg/L	6.6904	ppb	10:34:40
1	B 249.677†	4737.5	1460.2	22.664	µg/L	22.664	ppb	10:34:38
1	Ba 233.527†	794.9	1071.6	-1.0098	µg/L	-1.0098	ppb	10:34:40
1	Be 313.107†	-14682.0	-16031.7	0.3428	µg/L	0.3428	ppb	10:34:38
1	Cd 226.502†	5844.0	6919.2	-0.7482	µg/L	-0.7482	ppb	10:34:40
1	Co 228.616†	652.2	971.0	-10.720	µg/L	-10.720	ppb	10:34:40
1	Cr 267.716†	351.0	176.1	-1.5441	µg/L	-1.5441	ppb	10:34:40
1	Cu 324.752†	-15692.1	-21337.7	2.9748	µg/L	2.9748	ppb	10:34:40
1	Mn 257.610†	17073.7	19728.1	6.2222	µg/L	6.2222	ppb	10:34:38
1	Mo 202.031†	-894.4	-1004.5	-6.3291	µg/L	-6.3291	ppb	10:34:40
1	Ni 231.604†	193.6	321.7	4.0242	µg/L	4.0242	ppb	10:34:40
1	P 214.914†	900.7	1076.2	52.946	µg/L	52.946	ppb	10:34:40
1	Pb 220.353†	11.4	-90.1	-1.6997	µg/L	-1.6997	ppb	10:34:40
1	S 181.975 Axial†	192.8	136.0	114.13	µg/L	114.13	ppb	10:34:40
1	Sb 206.836†	124.5	55.5	-2.2629	µg/L	-2.2629	ppb	10:34:40
1	Se 196.026†	-394.4	-466.1	-11.0	µg/L	-11.0	ppb	10:34:40
1	SiO2†	1859.0	429.1	46.249	µg/L	46.249	ppb	10:34:40
1	Si 251.611†	-1930.6	-3018.7	-47.219	µg/L	-47.219	ppb	10:34:40
1	Sn 189.927†	106.6	122.4	8.5822	µg/L	8.5822	ppb	10:34:40
1	Ti 334.940†	23243.8	26285.9	-5.8854	µg/L	-5.8854	ppb	10:34:38
1	Tl 190.801†	-201.7	-121.0	-15.915	µg/L	-15.915	ppb	10:34:40
1	U 409.014†	224009.3	261422.7	16417	µg/L	16417	ppb	10:34:38
1	V 292.402†	7774.1	8643.6	7.8652	µg/L	7.8652	ppb	10:34:40
1	Zn 213.857†	8281.3	9155.3	10.683	µg/L	10.683	ppb	10:34:40
2	Sc RADIAL	125637.5	125637.5	89.7	%			10:34:29
2	Al 396.153Radial†	2139692.1	2385957.6	502330	µg/L	502330	ppb	10:34:27
2	Ca 317.933Radial†	6354290.4	7084825.6	482540	µg/L	482540	ppb	10:34:27
2	Fe 238.204 Radial†	5498978.2	6131557.8	457900	µg/L	457900	ppb	10:34:27
2	K 766.490 Radial†	1725.0	429.7	-152.02	µg/L	-152.02	ppb	10:34:29
2	Mg 279.077 IEC†	932671.5	1039809.6	479730	µg/L	479730	ppb	10:34:27
2	Na 589.592 Radial†	2940679.8	3278073.6	508130	µg/L	508130	ppb	10:34:27
2	Sr 421.552†	4574.3	5305.0	8.7348	µg/L	8.7348	ppb	10:34:29
2	Sc 361.383	1550512.3	1550512.3	85.941	%			10:34:42
2	Y 371.029	892357.6	892357.6	84.400	%			10:34:42
2	Ag 328.068†	3032.7	-1036.3	1.2903	µg/L	1.2903	ppb	10:34:42
2	As 188.979†	-211.5	-227.5	25.707	µg/L	25.707	ppb	10:34:44
2	B 249.677†	4893.9	1629.4	25.298	µg/L	25.298	ppb	10:34:42
2	Ba 233.527†	603.9	847.2	-2.0851	µg/L	-2.0851	ppb	10:34:44
2	Be 313.107†	-14522.2	-15806.1	0.4095	µg/L	0.4095	ppb	10:34:42
2	Cd 226.502†	5739.3	6781.5	-2.3191	µg/L	-2.3191	ppb	10:34:44
2	Co 228.616†	595.5	903.2	-11.935	µg/L	-11.935	ppb	10:34:44
2	Cr 267.716†	342.7	165.6	-1.5126	µg/L	-1.5126	ppb	10:34:44
2	Cu 324.752†	-15930.4	-21572.5	3.0692	µg/L	3.0692	ppb	10:34:44
2	Mn 257.610†	17146.9	19767.1	5.9836	µg/L	5.9836	ppb	10:34:42
2	Mo 202.031†	-828.5	-925.5	-3.3760	µg/L	-3.3760	ppb	10:34:44
2	Ni 231.604†	188.2	314.8	3.9390	µg/L	3.9390	ppb	10:34:44
2	P 214.914†	1023.7	1216.9	82.738	µg/L	82.738	ppb	10:34:44
2	Pb 220.353†	73.4	-18.1	2.9268	µg/L	2.9268	ppb	10:34:44

2	S 181.975 Axial†	158.3	95.2	79.867 µg/L	79.867 ppb	10:34:44
2	Sb 206.836†	173.2	111.9	4.9301 µg/L	4.9301 ppb	10:34:44
2	Se 196.026†	-374.2	-441.6	0.817 µg/L	0.817 ppb	10:34:44
2	SiO2†	1834.7	395.7	42.620 µg/L	42.620 ppb	10:34:44
2	Si 251.611†	-1956.2	-3043.3	-47.651 µg/L	-47.651 ppb	10:34:44
2	Sn 189.927†	124.7	143.2	10.027 µg/L	10.027 ppb	10:34:44
2	Ti 334.940†	23738.1	26798.3	-5.7543 µg/L	-5.7543 ppb	10:34:42
2	Tl 190.801†	-179.8	-95.0	-12.363 µg/L	-12.363 ppb	10:34:44
2	U 409.014†	224589.1	261491.9	16421 µg/L	16421 ppb	10:34:42
2	V 292.402†	7601.7	8422.0	6.1036 µg/L	6.1036 ppb	10:34:44
2	Zn 213.857†	8434.0	9310.7	11.011 µg/L	11.011 ppb	10:34:44
3	Sc RADIAL	125009.8	125009.8	89.2 %		10:34:33
3	Al 396.153Radial†	2147785.3	2407007.4	506760 µg/L	506760 ppb	10:34:31
3	Ca 317.933Radial†	6365764.1	7133261.2	485840 µg/L	485840 ppb	10:34:31
3	Fe 238.204 Radial†	5518715.6	6184465.3	461850 µg/L	461850 ppb	10:34:31
3	K 766.490 Radial†	1705.0	416.9	-159.53 µg/L	-159.53 ppb	10:34:33
3	Mg 279.077 IEC†	935614.4	1048329.5	483660 µg/L	483660 ppb	10:34:31
3	Na 589.592 Radial†	2945186.3	3299588.6	511460 µg/L	511460 ppb	10:34:31
3	Sr 421.552†	4533.1	5284.5	8.6605 µg/L	8.6605 ppb	10:34:33
3	Sc 361.383	1555977.3	1555977.3	86.244 %		10:34:47
3	Y 371.029	894540.6	894540.6	84.606 %		10:34:47
3	Ag 328.068†	3170.4	-889.1	1.7502 µg/L	1.7502 ppb	10:34:47
3	As 188.979†	-206.6	-220.9	28.849 µg/L	28.849 ppb	10:34:49
3	B 249.677†	4646.7	1322.7	20.528 µg/L	20.528 ppb	10:34:47
3	Ba 233.527†	637.3	883.5	-1.9741 µg/L	-1.9741 ppb	10:34:49
3	Be 313.107†	-14782.6	-16048.7	0.3304 µg/L	0.3304 ppb	10:34:47
3	Cd 226.502†	5726.3	6743.0	-2.9943 µg/L	-2.9943 ppb	10:34:49
3	Co 228.616†	615.1	923.5	-11.872 µg/L	-11.872 ppb	10:34:49
3	Cr 267.716†	615.1	480.0	1.3198 µg/L	1.3198 ppb	10:34:49
3	Cu 324.752†	-15376.1	-20864.6	6.6877 µg/L	6.6877 ppb	10:34:49
3	Mn 257.610†	17099.2	19641.7	5.6509 µg/L	5.6509 ppb	10:34:47
3	Mo 202.031†	-820.9	-913.3	-2.7493 µg/L	-2.7493 ppb	10:34:49
3	Ni 231.604†	272.9	412.4	5.1591 µg/L	5.1591 ppb	10:34:49
3	P 214.914†	953.1	1130.8	61.063 µg/L	61.063 ppb	10:34:49
3	Pb 220.353†	-35.1	-144.1	-4.6591 µg/L	-4.6591 ppb	10:34:49
3	S 181.975 Axial†	122.3	52.9	44.250 µg/L	44.250 ppb	10:34:49
3	Sb 206.836†	70.4	-8.1	-10.659 µg/L	-10.659 ppb	10:34:49
3	Se 196.026†	-357.0	-420.1	10.6 µg/L	10.6 ppb	10:34:49
3	SiO2†	2030.3	615.0	65.880 µg/L	65.880 ppb	10:34:49
3	Si 251.611†	-2018.3	-3107.2	-48.643 µg/L	-48.643 ppb	10:34:49
3	Sn 189.927†	86.3	98.2	6.9028 µg/L	6.9028 ppb	10:34:49
3	Ti 334.940†	23731.5	26693.7	-6.0852 µg/L	-6.0852 ppb	10:34:47
3	Tl 190.801†	-184.9	-100.1	-13.064 µg/L	-13.064 ppb	10:34:49
3	U 409.014†	224984.1	261032.0	16391 µg/L	16391 ppb	10:34:47
3	V 292.402†	7659.0	8457.3	5.8662 µg/L	5.8662 ppb	10:34:49
3	Zn 213.857†	8212.2	9019.0	8.8832 µg/L	8.8832 ppb	10:34:49

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1551136.2	85.976	%	0.2528				0.29%
Sc RADIAL	125735.5	89.8	%	0.56				0.62%
Y 371.029	892245.7	84.389	%	0.2225				0.26%
Ag 328.068†	-995.1	1.4829	µg/L	0.23886	1.4829	ppb	0.23886	16.11%
Al 396.153Radial†	2383110.1	501730	µg/L	5356.1	501730	ppb	5356.1	1.07%
QC value within limits for Al 396.153Radial Recovery = 100.35%								
As 188.979†	-242.7	20.416	µg/L	11.9898	20.416	ppb	11.9898	58.73%
B 249.677†	1470.8	22.830	µg/L	2.3893	22.830	ppb	2.3893	10.47%
Ba 233.527†	934.1	-1.6897	µg/L	0.59142	-1.6897	ppb	0.59142	35.00%
Be 313.107†	-15962.2	0.3609	µg/L	0.04251	0.3609	ppb	0.04251	11.78%
Ca 317.933Radial†	7069013.4	481460	µg/L	5002.1	481460	ppb	5002.1	1.04%
QC value within limits for Ca 317.933Radial Recovery = 96.29%								
Cd 226.502†	6814.5	-2.0205	µg/L	1.15241	-2.0205	ppb	1.15241	57.03%
Co 228.616†	932.6	-11.509	µg/L	0.6841	-11.509	ppb	0.6841	5.94%
Cr 267.716†	273.9	-0.5790	µg/L	1.64446	-0.5790	ppb	1.64446	284.03%
Cu 324.752†	-21258.2	4.2439	µg/L	2.11693	4.2439	ppb	2.11693	49.88%
Fe 238.204 Radial†	6122026.0	457190	µg/L	5056.6	457190	ppb	5056.6	1.11%
QC value within limits for Fe 238.204 Radial Recovery = 91.44%								
K 766.490 Radial†	445.9	-144.98	µg/L	19.077	-144.98	ppb	19.077	13.16%
Mg 279.077 IEC†	1037654.1	478730	µg/L	5490.6	478730	ppb	5490.6	1.15%

QC value within limits for Mg 279.077 IEC Recovery = 95.75%

Mn 257.610†	19712.3	5.9522	µg/L	0.28693	5.9522	ppb	0.28693	4.82%
Mo 202.031†	-947.8	-4.1515	µg/L	1.91175	-4.1515	ppb	1.91175	46.05%
Na 589.592 Radial†	3270116.1	506890	µg/L	5294.1	506890	ppb	5294.1	1.04%

QC value within limits for Na 589.592 Radial Recovery = 101.38%

Ni 231.604†	349.6	4.3741	µg/L	0.68113	4.3741	ppb	0.68113	15.57%
P 214.914†	1141.3	65.582	µg/L	15.4013	65.582	ppb	15.4013	23.48%
Pb 220.353†	-84.1	-1.1440	µg/L	3.82337	-1.1440	ppb	3.82337	334.21%
S 181.975 Axial†	94.7	79.414	µg/L	34.9395	79.414	ppb	34.9395	44.00%
Sb 206.836†	53.1	-2.6640	µg/L	7.80248	-2.6640	ppb	7.80248	292.88%
Se 196.026†	-442.6	0.161	µg/L	10.8059	0.161	ppb	10.8059	>999.9%
SiO2†	479.9	51.583	µg/L	12.5135	51.583	ppb	12.5135	24.26%
Si 251.611†	-3056.4	-47.838	µg/L	0.7304	-47.838	ppb	0.7304	1.53%
Sn 189.927†	121.3	8.5039	µg/L	1.56348	8.5039	ppb	1.56348	18.39%
Sr 421.552†	5315.3	8.7675	µg/L	0.12654	8.7675	ppb	0.12654	1.44%
Ti 334.940†	26592.6	-5.9083	µg/L	0.16664	-5.9083	ppb	0.16664	2.82%
Tl 190.801†	-105.3	-13.781	µg/L	1.8816	-13.781	ppb	1.8816	13.65%
U 409.014†	261315.5	16410	µg/L	16.3	16410	ppb	16.3	0.10%

QC value within limits for U 409.014 Recovery = 109.40%

V 292.402†	8507.6	6.6117	µg/L	1.09206	6.6117	ppb	1.09206	16.52%
Zn 213.857†	9161.7	10.192	µg/L	1.1457	10.192	ppb	1.1457	11.24%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 4/5/2010 10:34:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137041.1	137041.1	97.8	%			10:35:30
1	Al 396.153Radial†	2091.5	2216.6	10.244	µg/L	10.244	ppb	10:35:32
1	Ca 317.933Radial†	1536.0	998.8	68.025	µg/L	68.025	ppb	10:35:32
1	Fe 238.204 Radial†	-466.5	-594.2	-44.377	µg/L	-44.377	ppb	10:35:32
1	K 766.490 Radial†	729152.1	743896.6	294770	µg/L	294770	ppb	10:35:30
1	Mg 279.077 IEC†	-410.3	-591.9	-32.847	µg/L	-32.847	ppb	10:35:32
1	Na 589.592 Radial†	3206.4	2325.3	98.292	µg/L	98.292	ppb	10:35:32
1	Sr 421.552†	3999711.8	4088990.0	9643.7	µg/L	9643.7	ppb	10:35:28
1	Sc 361.383	1745097.4	1745097.4	96.727	%			10:35:54
1	Y 371.029	997842.0	997842.0	94.377	%			10:35:54
1	Ag 328.068†	-24011.8	-29389.6	-1.6157	µg/L	-1.6157	ppb	10:35:56
1	As 188.979†	28702.2	29692.0	10298	µg/L	10298	ppb	10:35:56
1	B 249.677†	314525.9	321104.5	4960.9	µg/L	4960.9	ppb	10:35:54
1	Ba 233.527†	3126133.6	3232068.9	14376	µg/L	14376	ppb	10:35:54
1	Be 313.107†	9652994.7	9980751.1	2891.0	µg/L	2891.0	ppb	10:35:50
1	Cd 226.502†	1393887.8	1441161.4	9744.7	µg/L	9744.7	ppb	10:35:54
1	Co 228.616†	690506.6	714084.2	9464.3	µg/L	9464.3	ppb	10:35:54
1	Cr 267.716†	2688558.7	2779308.4	24048	µg/L	24048	ppb	10:35:54
1	Cu 324.752†	4655201.0	4809700.5	20122	µg/L	20122	ppb	10:35:54
1	Mn 257.610†	6823928.3	7054670.5	9358.4	µg/L	9358.4	ppb	10:35:54
1	Mo 202.031†	290630.9	300504.6	9831.1	µg/L	9831.1	ppb	10:35:56
1	Ni 231.604†	756062.1	781743.7	9780.6	µg/L	9780.6	ppb	10:35:54
1	P 214.914†	64200.1	66398.4	15124	µg/L	15124	ppb	10:35:56
1	Pb 220.353†	374053.0	386607.7	23821	µg/L	23821	ppb	10:35:54
1	S 181.975 Axial†	60131.3	62077.3	52306	µg/L	52306	ppb	10:35:56
1	Sb 206.836†	76342.9	78836.7	9977.5	µg/L	9977.5	ppb	10:35:56
1	Se 196.026†	24244.9	25059.2	9870	µg/L	9870	ppb	10:35:56
1	SiO2†	922460.8	951938.4	100380	µg/L	100380	ppb	10:35:54
1	Si 251.611†	2889117.4	2986120.3	46891	µg/L	46891	ppb	10:35:54
1	Sn 189.927†	139315.0	144027.6	10024	µg/L	10024	ppb	10:35:56
1	Ti 334.940†	9511207.1	9832250.5	10091	µg/L	10091	ppb	10:35:50
1	Tl 190.801†	67486.0	69884.1	9695.8	µg/L	9695.8	ppb	10:35:56
1	U 409.014†	-9077.0	-9220.8	28.768	µg/L	28.768	ppb	10:35:56
1	V 292.402†	1875279.5	1938317.1	10241	µg/L	10241	ppb	10:35:54
1	Zn 213.857†	2352726.7	2431841.8	14447	µg/L	14447	ppb	10:35:54
2	Sc RADIAL	136238.0	136238.0	97.2	%			10:35:36
2	Al 396.153Radial†	2330.1	2474.6	66.653	µg/L	66.653	ppb	10:35:38
2	Ca 317.933Radial†	1811.3	1291.1	87.936	µg/L	87.936	ppb	10:35:38
2	Fe 238.204 Radial†	-254.9	-379.5	-28.338	µg/L	-28.338	ppb	10:35:38
2	K 766.490 Radial†	723379.4	742354.0	294150	µg/L	294150	ppb	10:35:36
2	Mg 279.077 IEC†	-266.5	-446.5	33.185	µg/L	33.185	ppb	10:35:38
2	Na 589.592 Radial†	3288.8	2429.3	114.95	µg/L	114.95	ppb	10:35:38
2	Sr 421.552†	4058247.0	4173281.4	9842.5	µg/L	9842.5	ppb	10:35:34
2	Sc 361.383	1743215.3	1743215.3	96.622	%			10:36:04
2	Y 371.029	995676.7	995676.7	94.172	%			10:36:04
2	Ag 328.068†	-23853.7	-29252.8	-0.9419	µg/L	-0.9419	ppb	10:36:06
2	As 188.979†	28504.8	29519.8	10240	µg/L	10240	ppb	10:36:06
2	B 249.677†	314697.3	321633.0	4969.1	µg/L	4969.1	ppb	10:36:04
2	Ba 233.527†	3124556.7	3233926.1	14384	µg/L	14384	ppb	10:36:04
2	Be 313.107†	9596946.2	9933517.7	2877.3	µg/L	2877.3	ppb	10:36:00
2	Cd 226.502†	1394309.9	1443154.1	9758.1	µg/L	9758.1	ppb	10:36:04
2	Co 228.616†	690666.8	715020.7	9476.7	µg/L	9476.7	ppb	10:36:04
2	Cr 267.716†	2690044.7	2783847.2	24087	µg/L	24087	ppb	10:36:04
2	Cu 324.752†	4658450.0	4818259.0	20158	µg/L	20158	ppb	10:36:04
2	Mn 257.610†	6824028.9	7062391.3	9368.6	µg/L	9368.6	ppb	10:36:04
2	Mo 202.031†	288983.5	299124.1	9785.9	µg/L	9785.9	ppb	10:36:06
2	Ni 231.604†	755753.2	782267.9	9787.1	µg/L	9787.1	ppb	10:36:04
2	P 214.914†	63999.8	66262.8	15093	µg/L	15093	ppb	10:36:06
2	Pb 220.353†	374105.8	387079.9	23849	µg/L	23849	ppb	10:36:04

2	S 181.975 Axial†	59808.2	61810.0	52081	µg/L	52081 ppb	10:36:06
2	Sb 206.836†	75810.5	78370.9	9916.1	µg/L	9916.1 ppb	10:36:06
2	Se 196.026†	24043.8	24878.2	9800	µg/L	9800 ppb	10:36:06
2	SiO2†	925226.3	955830.3	100800	µg/L	100800 ppb	10:36:04
2	Si 251.611†	2896126.6	2996599.3	47057	µg/L	47057 ppb	10:36:04
2	Sn 189.927†	138237.6	143068.1	9957.6	µg/L	9957.6 ppb	10:36:06
2	Ti 334.940†	9462409.3	9792363.1	10050	µg/L	10050 ppb	10:36:00
2	Tl 190.801†	67159.9	69621.9	9659.6	µg/L	9659.6 ppb	10:36:06
2	U 409.014†	-9085.7	-9240.0	28.141	µg/L	28.141 ppb	10:36:06
2	V 292.402†	1875085.9	1940209.9	10251	µg/L	10251 ppb	10:36:04
2	Zn 213.857†	2353882.7	2435664.2	14470	µg/L	14470 ppb	10:36:04
3	Sc RADIAL	137851.9	137851.9	98.4	%		10:35:43
3	Al 396.153Radial†	2181.4	2295.5	27.169	µg/L	27.169 ppb	10:35:45
3	Ca 317.933Radial†	1189.0	636.9	43.378	µg/L	43.378 ppb	10:35:45
3	Fe 238.204 Radial†	-552.2	-678.5	-50.673	µg/L	-50.673 ppb	10:35:45
3	K 766.490 Radial†	736719.2	747202.5	296080	µg/L	296080 ppb	10:35:43
3	Mg 279.077 IEC†	-281.6	-458.6	28.539	µg/L	28.539 ppb	10:35:45
3	Na 589.592 Radial†	3006.3	2102.7	62.614	µg/L	62.614 ppb	10:35:45
3	Sr 421.552†	4060800.1	4127022.4	9733.4	µg/L	9733.4 ppb	10:35:41
3	Sc 361.383	1752934.8	1752934.8	97.161	%		10:36:13
3	Y 371.029	1001396.2	1001396.2	94.713	%		10:36:13
3	Ag 328.068†	-24151.3	-29422.1	-1.6137	µg/L	-1.6137 ppb	10:36:15
3	As 188.979†	28800.2	29660.2	10288	µg/L	10288 ppb	10:36:15
3	B 249.677†	317129.0	322329.8	4979.9	µg/L	4979.9 ppb	10:36:13
3	Ba 233.527†	3143064.1	3235044.1	14389	µg/L	14389 ppb	10:36:13
3	Be 313.107†	9593258.2	9874649.9	2860.3	µg/L	2860.3 ppb	10:36:10
3	Cd 226.502†	1403189.2	1444291.5	9765.8	µg/L	9765.8 ppb	10:36:13
3	Co 228.616†	695082.1	715601.6	9484.4	µg/L	9484.4 ppb	10:36:13
3	Cr 267.716†	2703738.1	2782503.9	24075	µg/L	24075 ppb	10:36:13
3	Cu 324.752†	4685820.8	4819697.1	20164	µg/L	20164 ppb	10:36:13
3	Mn 257.610†	6866217.2	7066652.6	9374.3	µg/L	9374.3 ppb	10:36:13
3	Mo 202.031†	291726.8	300289.2	9824.0	µg/L	9824.0 ppb	10:36:15
3	Ni 231.604†	761256.4	783595.0	9803.7	µg/L	9803.7 ppb	10:36:13
3	P 214.914†	64499.6	66409.8	15127	µg/L	15127 ppb	10:36:15
3	Pb 220.353†	376414.3	387309.1	23863	µg/L	23863 ppb	10:36:13
3	S 181.975 Axial†	60499.1	62177.8	52391	µg/L	52391 ppb	10:36:15
3	Sb 206.836†	76694.5	78845.7	9978.2	µg/L	9978.2 ppb	10:36:15
3	Se 196.026†	24393.5	25100.1	9890	µg/L	9890 ppb	10:36:15
3	SiO2†	931438.5	956914.6	100910	µg/L	100910 ppb	10:36:13
3	Si 251.611†	2916872.0	3001331.5	47131	µg/L	47131 ppb	10:36:13
3	Sn 189.927†	139983.2	144071.4	10027	µg/L	10027 ppb	10:36:15
3	Ti 334.940†	9456296.8	9731772.1	9987.4	µg/L	9987.4 ppb	10:36:10
3	Tl 190.801†	68171.4	70277.5	9748.5	µg/L	9748.5 ppb	10:36:15
3	U 409.014†	-8744.7	-8836.8	53.587	µg/L	53.587 ppb	10:36:15
3	V 292.402†	1885383.9	1940048.7	10251	µg/L	10251 ppb	10:36:13
3	Zn 213.857†	2368680.6	2437386.7	14480	µg/L	14480 ppb	10:36:13

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1747082.5	96.837	%	0.2857				0.30%
Sc RADIAL	137043.7	97.8	%	0.58				0.59%
Y 371.029	998304.9	94.420	%	0.2731				0.29%
Ag 328.068†	-29354.8	-1.3904	µg/L	0.38842	-1.3904	ppb	0.38842	27.94%
Al 396.153Radial†	2328.9	34.689	µg/L	28.9466	34.689	ppb	28.9466	83.45%
As 188.979†	29624.0	10276	µg/L	30.9	10276	ppb	30.9	0.30%
QC value within limits for As 188.979 Recovery = 102.76%								
B 249.677†	321689.1	4970.0	µg/L	9.52	4970.0	ppb	9.52	0.19%
QC value within limits for B 249.677 Recovery = 99.40%								
Ba 233.527†	3233679.7	14383	µg/L	6.7	14383	ppb	6.7	0.05%
QC value within limits for Ba 233.527 Recovery = 95.88%								
Be 313.107†	9929639.6	2876.2	µg/L	15.39	2876.2	ppb	15.39	0.54%
QC value within limits for Be 313.107 Recovery = 95.87%								
Ca 317.933Radial†	975.6	66.446	µg/L	22.3211	66.446	ppb	22.3211	33.59%
Cd 226.502†	1442869.0	9756.2	µg/L	10.71	9756.2	ppb	10.71	0.11%
QC value within limits for Cd 226.502 Recovery = 97.56%								
Co 228.616†	714902.2	9475.1	µg/L	10.14	9475.1	ppb	10.14	0.11%
QC value within limits for Co 228.616 Recovery = 94.75%								
Cr 267.716†	2781886.5	24070	µg/L	20.2	24070	ppb	20.2	0.08%
QC value within limits for Cr 267.716 Recovery = 96.28%								

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Cu 324.752†          4815885.5       20148 µg/L          22.6       20148 ppb          22.6   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.74%
Fe 238.204 Radial†      -550.7     -41.129 µg/L       11.5159     -41.129 ppb       11.5159  28.00%
K 766.490 Radial†     744484.4      295000 µg/L         981.6      295000 ppb         981.6   0.33%
   QC value within limits for K 766.490 Radial  Recovery = 98.33%
Mg 279.077 IEC†         -499.0      9.6261 µg/L      36.85576      9.6261 ppb      36.85576 382.87%
Mn 257.610†          7061238.1      9367.1 µg/L         8.06      9367.1 ppb          8.06   0.09%
   QC value within limits for Mn 257.610  Recovery = 93.67%
Mo 202.031†           299972.6      9813.7 µg/L        24.29      9813.7 ppb         24.29   0.25%
   QC value within limits for Mo 202.031  Recovery = 98.14%
Na 589.592 Radial†      2285.8      91.953 µg/L       26.7387      91.953 ppb       26.7387  29.08%
Ni 231.604†           782535.6      9790.5 µg/L        11.94      9790.5 ppb         11.94   0.12%
   QC value within limits for Ni 231.604  Recovery = 97.90%
P 214.914†             66357.0       15115 µg/L         19.1       15115 ppb         19.1   0.13%
   QC value within limits for P 214.914  Recovery = 100.76%
Pb 220.353†           386998.9       23844 µg/L         21.9       23844 ppb         21.9   0.09%
   QC value within limits for Pb 220.353  Recovery = 95.38%
S 181.975 Axial†       62021.7       52259 µg/L        160.1       52259 ppb        160.1   0.31%
   QC value within limits for S 181.975 Axial  Recovery = 104.52%
Sb 206.836†            78684.4      9957.3 µg/L        35.64      9957.3 ppb        35.64   0.36%
   QC value within limits for Sb 206.836  Recovery = 99.57%
Se 196.026†            25012.5        9850 µg/L         46.5        9850 ppb         46.5   0.47%
   QC value within limits for Se 196.026  Recovery = 98.54%
SiO2†                 954894.4      100700 µg/L        277.6      100700 ppb        277.6   0.28%
   QC value within limits for SiO2  Recovery = 94.11%
Si 251.611†          2994683.7       47026 µg/L        122.9       47026 ppb        122.9   0.26%
   QC value within limits for Si 251.611  Recovery = 94.05%
Sn 189.927†           143722.4       10003 µg/L         39.3       10003 ppb         39.3   0.39%
   QC value within limits for Sn 189.927  Recovery = 100.03%
Sr 421.552†          4129764.6      9739.9 µg/L        99.56      9739.9 ppb        99.56   1.02%
   QC value within limits for Sr 421.552  Recovery = 97.40%
Ti 334.940†          9785461.9       10043 µg/L         52.0       10043 ppb         52.0   0.52%
   QC value within limits for Ti 334.940  Recovery = 100.43%
Tl 190.801†            69927.8      9701.3 µg/L        44.70      9701.3 ppb        44.70   0.46%
   QC value within limits for Tl 190.801  Recovery = 97.01%
U 409.014†             -9099.2      36.832 µg/L      14.5139      36.832 ppb       14.5139  39.41%
V 292.402†           1939525.2       10248 µg/L          5.4       10248 ppb          5.4   0.05%
   QC value within limits for V 292.402  Recovery = 102.48%
Zn 213.857†          2434964.2       14466 µg/L         16.8       14466 ppb         16.8   0.12%
   QC value within limits for Zn 213.857  Recovery = 96.44%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 10:36:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139383.4	139383.4	99.5	%			10:36:57
1	Al 396.153Radial†	23983.0	24183.6	5067.9	µg/L	5067.9	ppb	10:36:57
1	Ca 317.933Radial†	74884.5	74694.3	5087.4	µg/L	5087.4	ppb	10:36:57
1	Fe 238.204 Radial†	67324.3	67549.7	5044.6	µg/L	5044.6	ppb	10:36:57
1	K 766.490 Radial†	15793.3	14379.9	5693.8	µg/L	5693.8	ppb	10:36:57
1	Mg 279.077 IEC†	11375.8	11261.3	5207.8	µg/L	5207.8	ppb	10:36:57
1	Na 589.592 Radial†	66012.0	65395.6	10132	µg/L	10132	ppb	10:36:57
1	Sr 421.552†	209942.4	211215.7	498.11	µg/L	498.11	ppb	10:36:54
1	Sc 361.383	1775532.0	1775532.0	98.414	%			10:37:23
1	Y 371.029	1029238.8	1029238.8	97.346	%			10:37:23
1	Ag 328.068†	123713.3	121142.4	502.16	µg/L	502.16	ppb	10:37:23
1	As 188.979†	1429.2	1470.7	504.76	µg/L	504.76	ppb	10:37:43
1	B 249.677†	36189.7	32707.9	506.91	µg/L	506.91	ppb	10:37:23
1	Ba 233.527†	111189.9	113126.7	503.24	µg/L	503.24	ppb	10:37:23
1	Be 313.107†	1690082.4	1718417.5	497.92	µg/L	497.92	ppb	10:37:23
1	Cd 226.502†	73455.3	74742.7	504.85	µg/L	504.85	ppb	10:37:23
1	Co 228.616†	37411.0	38224.4	505.95	µg/L	505.95	ppb	10:37:23
1	Cr 267.716†	57380.8	58072.6	502.27	µg/L	502.27	ppb	10:37:23
1	Cu 324.752†	120937.5	119850.9	502.85	µg/L	502.85	ppb	10:37:23
1	Mn 257.610†	372256.9	378072.8	501.31	µg/L	501.31	ppb	10:37:23
1	Mo 202.031†	15240.8	15525.1	508.19	µg/L	508.19	ppb	10:37:43
1	Ni 231.604†	39405.2	40136.3	502.16	µg/L	502.16	ppb	10:37:23
1	P 214.914†	10778.6	10978.0	2530.9	µg/L	2530.9	ppb	10:37:43
1	Pb 220.353†	8349.3	8380.4	517.30	µg/L	517.30	ppb	10:37:43
1	S 181.975 Axial†	1311.1	1243.3	1050.2	µg/L	1050.2	ppb	10:37:43
1	Sb 206.836†	3923.4	3896.9	503.72	µg/L	503.72	ppb	10:37:43
1	Se 196.026†	1279.8	1294.3	512	µg/L	512	ppb	10:37:43
1	SiO2†	51119.4	50204.3	5294.7	µg/L	5294.7	ppb	10:37:23
1	Si 251.611†	156377.4	158131.1	2483.4	µg/L	2483.4	ppb	10:37:23
1	Sn 189.927†	7206.6	7320.9	509.48	µg/L	509.48	ppb	10:37:43
1	Ti 334.940†	478294.1	485181.0	497.67	µg/L	497.67	ppb	10:37:23
1	Tl 190.801†	3555.2	3726.8	516.38	µg/L	516.38	ppb	10:37:43
1	U 409.014†	7075.5	7352.9	494.46	µg/L	494.46	ppb	10:37:23
1	V 292.402†	95137.0	96247.3	505.57	µg/L	505.57	ppb	10:37:23
1	Zn 213.857†	83877.0	84726.1	502.00	µg/L	502.00	ppb	10:37:23
2	Sc RADIAL	141237.6	141237.6	101	%			10:37:01
2	Al 396.153Radial†	24351.7	24232.9	5078.4	µg/L	5078.4	ppb	10:37:01
2	Ca 317.933Radial†	76105.1	74916.9	5102.5	µg/L	5102.5	ppb	10:37:01
2	Fe 238.204 Radial†	68422.0	67750.2	5059.5	µg/L	5059.5	ppb	10:37:01
2	K 766.490 Radial†	15816.9	14194.9	5620.5	µg/L	5620.5	ppb	10:37:01
2	Mg 279.077 IEC†	11511.1	11245.3	5200.4	µg/L	5200.4	ppb	10:37:01
2	Na 589.592 Radial†	66852.4	65358.1	10126	µg/L	10126	ppb	10:37:01
2	Sr 421.552†	212339.4	210823.0	497.18	µg/L	497.18	ppb	10:36:59
2	Sc 361.383	1787375.4	1787375.4	99.070	%			10:37:47
2	Y 371.029	1037117.1	1037117.1	98.091	%			10:37:47
2	Ag 328.068†	124828.0	121434.6	503.37	µg/L	503.37	ppb	10:37:47
2	As 188.979†	1441.0	1473.1	505.57	µg/L	505.57	ppb	10:38:07
2	B 249.677†	36397.3	32673.8	506.38	µg/L	506.38	ppb	10:37:47
2	Ba 233.527†	111984.0	113179.7	503.48	µg/L	503.48	ppb	10:37:47
2	Be 313.107†	1706153.7	1723260.5	499.32	µg/L	499.32	ppb	10:37:47
2	Cd 226.502†	74191.2	74991.0	506.53	µg/L	506.53	ppb	10:37:47
2	Co 228.616†	37736.8	38301.3	506.97	µg/L	506.97	ppb	10:37:47
2	Cr 267.716†	57858.9	58168.8	503.11	µg/L	503.11	ppb	10:37:47
2	Cu 324.752†	122047.6	120157.1	504.13	µg/L	504.13	ppb	10:37:47
2	Mn 257.610†	375557.0	378897.5	502.41	µg/L	502.41	ppb	10:37:47
2	Mo 202.031†	15314.4	15496.7	507.27	µg/L	507.27	ppb	10:38:07
2	Ni 231.604†	39844.4	40314.3	504.38	µg/L	504.38	ppb	10:37:47
2	P 214.914†	10818.6	10945.8	2523.4	µg/L	2523.4	ppb	10:38:07
2	Pb 220.353†	8374.4	8349.6	515.41	µg/L	515.41	ppb	10:38:07

2	S 181.975 Axial†	1316.2	1239.6	1047.1	µg/L	1047.1 ppb	10:38:07
2	Sb 206.836†	3951.4	3898.7	503.93	µg/L	503.93 ppb	10:38:07
2	Se 196.026†	1293.2	1299.1	514	µg/L	514 ppb	10:38:07
2	SiO2†	51601.8	50347.1	5309.9	µg/L	5309.9 ppb	10:37:47
2	Si 251.611†	157616.5	158329.0	2486.6	µg/L	2486.6 ppb	10:37:47
2	Sn 189.927†	7228.2	7294.2	507.63	µg/L	507.63 ppb	10:38:07
2	Ti 334.940†	482143.4	485846.0	498.36	µg/L	498.36 ppb	10:37:47
2	Tl 190.801†	3577.4	3725.3	516.20	µg/L	516.20 ppb	10:38:07
2	U 409.014†	6994.8	7223.9	486.47	µg/L	486.47 ppb	10:37:47
2	V 292.402†	96271.3	96751.8	508.18	µg/L	508.18 ppb	10:37:47
2	Zn 213.857†	84512.0	84802.3	502.44	µg/L	502.44 ppb	10:37:47
3	Sc RADIAL	139619.7	139619.7	99.7	%		10:37:05
3	Al 396.153Radial†	23966.5	24126.3	5056.2	µg/L	5056.2 ppb	10:37:05
3	Ca 317.933Radial†	75181.7	74865.1	5099.0	µg/L	5099.0 ppb	10:37:05
3	Fe 238.204 Radial†	67379.8	67490.9	5040.2	µg/L	5040.2 ppb	10:37:05
3	K 766.490 Radial†	15656.1	14215.4	5628.6	µg/L	5628.6 ppb	10:37:05
3	Mg 279.077 IEC†	11320.1	11186.0	5172.9	µg/L	5172.9 ppb	10:37:05
3	Na 589.592 Radial†	66307.8	65580.0	10160	µg/L	10160 ppb	10:37:05
3	Sr 421.552†	212426.4	213350.9	503.14	µg/L	503.14 ppb	10:37:03
3	Sc 361.383	1796359.2	1796359.2	99.568	%		10:38:10
3	Y 371.029	1041972.3	1041972.3	98.551	%		10:38:10
3	Ag 328.068†	125764.0	121744.4	504.65	µg/L	504.65 ppb	10:38:10
3	As 188.979†	1434.8	1459.5	500.98	µg/L	500.98 ppb	10:38:30
3	B 249.677†	36503.8	32597.0	505.17	µg/L	505.17 ppb	10:38:10
3	Ba 233.527†	113116.0	113751.3	506.02	µg/L	506.02 ppb	10:38:10
3	Be 313.107†	1721963.8	1730526.4	501.43	µg/L	501.43 ppb	10:38:10
3	Cd 226.502†	75117.4	75546.7	510.29	µg/L	510.29 ppb	10:38:10
3	Co 228.616†	38112.7	38488.4	509.44	µg/L	509.44 ppb	10:38:10
3	Cr 267.716†	58452.0	58472.4	505.73	µg/L	505.73 ppb	10:38:10
3	Cu 324.752†	122851.6	120348.5	504.93	µg/L	504.93 ppb	10:38:10
3	Mn 257.610†	379092.5	380552.5	504.60	µg/L	504.60 ppb	10:38:10
3	Mo 202.031†	15195.9	15300.4	500.85	µg/L	500.85 ppb	10:38:30
3	Ni 231.604†	40229.0	40499.4	506.70	µg/L	506.70 ppb	10:38:10
3	P 214.914†	10704.5	10776.6	2484.3	µg/L	2484.3 ppb	10:38:30
3	Pb 220.353†	8282.2	8214.7	507.09	µg/L	507.09 ppb	10:38:30
3	S 181.975 Axial†	1291.3	1208.0	1020.5	µg/L	1020.5 ppb	10:38:30
3	Sb 206.836†	3926.1	3853.4	497.95	µg/L	497.95 ppb	10:38:30
3	Se 196.026†	1271.1	1270.5	503	µg/L	503 ppb	10:38:30
3	SiO2†	51964.0	50450.4	5321.1	µg/L	5321.1 ppb	10:38:10
3	Si 251.611†	159117.7	159041.0	2497.9	µg/L	2497.9 ppb	10:38:10
3	Sn 189.927†	7158.9	7188.1	500.28	µg/L	500.28 ppb	10:38:30
3	Ti 334.940†	486018.7	487304.3	499.85	µg/L	499.85 ppb	10:38:10
3	Tl 190.801†	3533.3	3662.9	507.69	µg/L	507.69 ppb	10:38:30
3	U 409.014†	7097.1	7291.2	490.73	µg/L	490.73 ppb	10:38:10
3	V 292.402†	96745.9	96742.4	508.08	µg/L	508.08 ppb	10:38:10
3	Zn 213.857†	85472.9	85340.8	505.64	µg/L	505.64 ppb	10:38:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786422.2	99.017	%	0.5790				0.58%
Sc RADIAL	140080.2	100.0	%	0.72				0.72%
Y 371.029	1036109.4	97.996	%	0.6078				0.62%
Ag 328.068†	121440.5	503.39	µg/L	1.245	503.39	ppb	1.245	0.25%
QC value within limits for Ag 328.068 Recovery = 100.68%								
Al 396.153Radial†	24180.9	5067.5	µg/L	11.08	5067.5	ppb	11.08	0.22%
QC value within limits for Al 396.153Radial Recovery = 101.35%								
As 188.979†	1467.8	503.77	µg/L	2.452	503.77	ppb	2.452	0.49%
QC value within limits for As 188.979 Recovery = 100.75%								
B 249.677†	32659.6	506.15	µg/L	0.889	506.15	ppb	0.889	0.18%
QC value within limits for B 249.677 Recovery = 101.23%								
Ba 233.527†	113352.6	504.25	µg/L	1.539	504.25	ppb	1.539	0.31%
QC value within limits for Ba 233.527 Recovery = 100.85%								
Be 313.107†	1724068.1	499.56	µg/L	1.765	499.56	ppb	1.765	0.35%
QC value within limits for Be 313.107 Recovery = 99.91%								
Ca 317.933Radial†	74825.4	5096.3	µg/L	7.93	5096.3	ppb	7.93	0.16%
QC value within limits for Ca 317.933Radial Recovery = 101.93%								
Cd 226.502†	75093.5	507.22	µg/L	2.784	507.22	ppb	2.784	0.55%
QC value within limits for Cd 226.502 Recovery = 101.44%								
Co 228.616†	38338.0	507.45	µg/L	1.798	507.45	ppb	1.798	0.35%

```
   QC value within limits for Co 228.616  Recovery = 101.49%
Cr 267.716†            58237.9      503.70 µg/L         1.806      503.70 ppb          1.806   0.36%
   QC value within limits for Cr 267.716  Recovery = 100.74%
Cu 324.752†           120118.8      503.97 µg/L         1.048      503.97 ppb          1.048   0.21%
   QC value within limits for Cu 324.752  Recovery = 100.79%
Fe 238.204 Radial†     67596.9      5048.1 µg/L         10.15      5048.1 ppb          10.15   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.96%
K 766.490 Radial†      14263.4      5647.7 µg/L         40.19      5647.7 ppb          40.19   0.71%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 112.95%
Mg 279.077 IEC†        11230.9      5193.7 µg/L         18.41      5193.7 ppb          18.41   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.87%
Mn 257.610†           379174.3      502.77 µg/L         1.676      502.77 ppb          1.676   0.33%
   QC value within limits for Mn 257.610  Recovery = 100.55%
Mo 202.031†            15440.7      505.43 µg/L         4.001      505.43 ppb          4.001   0.79%
   QC value within limits for Mo 202.031  Recovery = 101.09%
Na 589.592 Radial†     65444.6       10139 µg/L          18.4       10139 ppb           18.4   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 101.39%
Ni 231.604†            40316.7      504.41 µg/L         2.272      504.41 ppb          2.272   0.45%
   QC value within limits for Ni 231.604  Recovery = 100.88%
P 214.914†             10900.2      2512.9 µg/L         25.04      2512.9 ppb          25.04   1.00%
   QC value within limits for P 214.914  Recovery = 100.51%
Pb 220.353†             8314.9      513.27 µg/L         5.432      513.27 ppb          5.432   1.06%
   QC value within limits for Pb 220.353  Recovery = 102.65%
S 181.975 Axial†        1230.3      1039.3 µg/L         16.35      1039.3 ppb          16.35   1.57%
   QC value within limits for S 181.975 Axial  Recovery = 103.93%
Sb 206.836†             3883.0      501.87 µg/L         3.396      501.87 ppb          3.396   0.68%
   QC value within limits for Sb 206.836  Recovery = 100.37%
Se 196.026†             1288.0         510 µg/L           6.0         510 ppb            6.0   1.19%
   QC value within limits for Se 196.026  Recovery = 101.93%
SiO2†                  50333.9      5308.6 µg/L         13.25      5308.6 ppb          13.25   0.25%
   QC value within limits for SiO2  Recovery = 99.27%
Si 251.611†           158500.4      2489.3 µg/L          7.63      2489.3 ppb           7.63   0.31%
   QC value within limits for Si 251.611  Recovery = 99.57%
Sn 189.927†             7267.7      505.80 µg/L         4.871      505.80 ppb          4.871   0.96%
   QC value within limits for Sn 189.927  Recovery = 101.16%
Sr 421.552†           211796.5      499.47 µg/L         3.208      499.47 ppb          3.208   0.64%
   QC value within limits for Sr 421.552  Recovery = 99.89%
Ti 334.940†           486110.4      498.63 µg/L         1.117      498.63 ppb          1.117   0.22%
   QC value within limits for Ti 334.940  Recovery = 99.73%
Tl 190.801†             3705.0      513.42 µg/L         4.965      513.42 ppb          4.965   0.97%
   QC value within limits for Tl 190.801  Recovery = 102.68%
U 409.014†              7289.3      490.55 µg/L         3.999      490.55 ppb          3.999   0.82%
   QC value within limits for U 409.014  Recovery = 98.11%
V 292.402†             96580.5      507.28 µg/L         1.474      507.28 ppb          1.474   0.29%
   QC value within limits for V 292.402  Recovery = 101.46%
Zn 213.857†            84956.4      503.36 µg/L         1.987      503.36 ppb          1.987   0.39%
   QC value within limits for Zn 213.857  Recovery = 100.67%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 10:38:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139909.9	139909.9	99.9	%			10:39:07
1	Al 396.153Radial†	-55.8	22.7	4.7099	µg/L	4.7099	ppb	10:39:27
1	Ca 317.933Radial†	668.4	97.8	6.6613	µg/L	6.6613	ppb	10:39:27
1	Fe 238.204 Radial†	168.4	51.3	3.8306	µg/L	3.8306	ppb	10:39:27
1	K 766.490 Radial†	2181.0	690.0	273.40	µg/L	273.40	ppb	10:39:07
1	Mg 279.077 IEC†	195.0	22.8	10.561	µg/L	10.561	ppb	10:39:27
1	Na 589.592 Radial†	1624.4	674.0	104.23	µg/L	104.23	ppb	10:39:07
1	Sr 421.552†	-97.8	106.5	0.2512	µg/L	0.2512	ppb	10:39:07
1	Sc 361.383	1822724.3	1822724.3	101.03	%			10:40:15
1	Y 371.029	1067929.9	1067929.9	101.01	%			10:40:15
1	Ag 328.068†	4558.5	-53.1	-0.2451	µg/L	-0.2451	ppb	10:40:17
1	As 188.979†	-17.1	1.6	0.5599	µg/L	0.5599	ppb	10:40:37
1	B 249.677†	4426.7	316.4	4.9210	µg/L	4.9210	ppb	10:40:17
1	Ba 233.527†	-125.1	20.7	0.0922	µg/L	0.0922	ppb	10:40:37
1	Be 313.107†	-581.3	516.4	0.1437	µg/L	0.1437	ppb	10:40:17
1	Cd 226.502†	-17.4	86.1	0.5819	µg/L	0.5819	ppb	10:40:37
1	Co 228.616†	-210.1	2.3	0.0304	µg/L	0.0304	ppb	10:40:37
1	Cr 267.716†	230.3	-5.3	-0.0307	µg/L	-0.0307	ppb	10:40:37
1	Cu 324.752†	3295.4	225.7	0.9289	µg/L	0.9289	ppb	10:40:17
1	Mn 257.610†	310.3	122.4	0.1620	µg/L	0.1620	ppb	10:40:37
1	Mo 202.031†	6.0	44.5	1.4552	µg/L	1.4552	ppb	10:40:37
1	Ni 231.604†	-50.2	46.2	0.5783	µg/L	0.5783	ppb	10:40:37
1	P 214.914†	-9.3	16.5	3.7864	µg/L	3.7864	ppb	10:40:37
1	Pb 220.353†	119.1	14.4	0.9040	µg/L	0.9040	ppb	10:40:37
1	S 181.975 Axial†	105.7	15.7	13.183	µg/L	13.183	ppb	10:40:37
1	Sb 206.836†	87.7	-2.9	-0.3534	µg/L	-0.3534	ppb	10:40:37
1	Se 196.026†	26.3	19.9	7.82	µg/L	7.82	ppb	10:40:37
1	SiO2†	1818.1	60.4	6.3488	µg/L	6.3488	ppb	10:40:37
1	Si 251.611†	861.5	85.7	1.3276	µg/L	1.3276	ppb	10:40:17
1	Sn 189.927†	11.7	9.7	0.6739	µg/L	0.6739	ppb	10:40:37
1	Ti 334.940†	1159.3	324.5	0.3406	µg/L	0.3406	ppb	10:40:17
1	Tl 190.801†	-101.6	13.7	1.8777	µg/L	1.8777	ppb	10:40:37
1	U 409.014†	-475.4	-307.2	-19.402	µg/L	-19.402	ppb	10:40:17
1	V 292.402†	369.8	-57.2	-0.2953	µg/L	-0.2953	ppb	10:40:17
1	Zn 213.857†	703.4	193.2	1.1494	µg/L	1.1494	ppb	10:40:37
2	Sc RADIAL	139104.0	139104.0	99.3	%			10:39:29
2	Al 396.153Radial†	-55.3	22.9	4.7868	µg/L	4.7868	ppb	10:39:49
2	Ca 317.933Radial†	656.3	89.5	6.0970	µg/L	6.0970	ppb	10:39:49
2	Fe 238.204 Radial†	153.3	37.1	2.7712	µg/L	2.7712	ppb	10:39:49
2	K 766.490 Radial†	2053.7	574.5	227.64	µg/L	227.64	ppb	10:39:29
2	Mg 279.077 IEC†	181.1	9.9	4.5998	µg/L	4.5998	ppb	10:39:49
2	Na 589.592 Radial†	1651.7	711.0	110.00	µg/L	110.00	ppb	10:39:29
2	Sr 421.552†	-28.2	176.1	0.4153	µg/L	0.4153	ppb	10:39:29
2	Sc 361.383	1814086.1	1814086.1	100.55	%			10:40:39
2	Y 371.029	1063810.2	1063810.2	100.62	%			10:40:39
2	Ag 328.068†	4519.4	-70.5	-0.3026	µg/L	-0.3026	ppb	10:40:41
2	As 188.979†	-16.7	1.9	0.6543	µg/L	0.6543	ppb	10:41:02
2	B 249.677†	4194.0	105.9	1.6449	µg/L	1.6449	ppb	10:40:41
2	Ba 233.527†	36.7	181.1	0.8048	µg/L	0.8048	ppb	10:41:02
2	Be 313.107†	-830.7	265.6	0.0742	µg/L	0.0742	ppb	10:40:41
2	Cd 226.502†	-39.0	64.5	0.4361	µg/L	0.4361	ppb	10:41:02
2	Co 228.616†	-158.3	52.9	0.7000	µg/L	0.7000	ppb	10:41:02
2	Cr 267.716†	280.5	45.7	0.4025	µg/L	0.4025	ppb	10:41:02
2	Cu 324.752†	3051.0	-1.8	-0.0141	µg/L	-0.0141	ppb	10:40:41
2	Mn 257.610†	250.3	64.2	0.0850	µg/L	0.0850	ppb	10:41:02
2	Mo 202.031†	-19.1	19.6	0.6409	µg/L	0.6409	ppb	10:41:02
2	Ni 231.604†	-77.8	18.5	0.2318	µg/L	0.2318	ppb	10:41:02
2	P 214.914†	-30.8	-4.9	-1.1366	µg/L	-1.1366	ppb	10:41:02
2	Pb 220.353†	140.7	36.5	2.2529	µg/L	2.2529	ppb	10:41:02

2	S 181.975 Axial†	114.2	24.6	20.708 µg/L	20.708 ppb	10:41:02
2	Sb 206.836†	82.1	-8.1	-1.0413 µg/L	-1.0413 ppb	10:41:02
2	Se 196.026†	31.3	24.9	9.81 µg/L	9.81 ppb	10:41:02
2	SiO2†	1765.7	17.0	1.7661 µg/L	1.7661 ppb	10:41:02
2	Si 251.611†	858.7	87.0	1.3574 µg/L	1.3574 ppb	10:40:41
2	Sn 189.927†	15.3	13.3	0.9228 µg/L	0.9228 ppb	10:41:02
2	Ti 334.940†	912.5	84.5	0.0902 µg/L	0.0902 ppb	10:40:41
2	Tl 190.801†	-111.6	3.3	0.4502 µg/L	0.4502 ppb	10:41:02
2	U 409.014†	-310.7	-145.6	-9.2038 µg/L	-9.2038 ppb	10:40:41
2	V 292.402†	384.0	-41.3	-0.2124 µg/L	-0.2124 ppb	10:40:41
2	Zn 213.857†	665.6	159.0	0.9477 µg/L	0.9477 ppb	10:41:02
3	Sc RADIAL	140352.9	140352.9	100 %		10:39:51
3	Al 396.153Radial†	-12.8	65.8	13.824 µg/L	13.824 ppb	10:40:11
3	Ca 317.933Radial†	842.6	269.6	18.359 µg/L	18.359 ppb	10:40:11
3	Fe 238.204 Radial†	290.3	172.4	12.876 µg/L	12.876 ppb	10:40:11
3	K 766.490 Radial†	2021.3	523.7	207.51 µg/L	207.51 ppb	10:39:51
3	Mg 279.077 IEC†	235.2	62.3	28.777 µg/L	28.777 ppb	10:40:11
3	Na 589.592 Radial†	1483.6	528.4	81.714 µg/L	81.714 ppb	10:39:51
3	Sr 421.552†	-224.6	-19.7	-0.0465 µg/L	-0.0465 ppb	10:39:51
3	Sc 361.383	1797177.6	1797177.6	99.613 %		10:41:04
3	Y 371.029	1054450.3	1054450.3	99.731 %		10:41:04
3	Ag 328.068†	4482.2	-65.5	-0.2803 µg/L	-0.2803 ppb	10:41:06
3	As 188.979†	-10.0	8.5	2.8805 µg/L	2.8805 ppb	10:41:26
3	B 249.677†	4185.2	136.3	2.1188 µg/L	2.1188 ppb	10:41:06
3	Ba 233.527†	-139.1	4.9	0.0218 µg/L	0.0218 ppb	10:41:26
3	Be 313.107†	-828.9	259.6	0.0717 µg/L	0.0717 ppb	10:41:06
3	Cd 226.502†	-11.5	91.8	0.6190 µg/L	0.6190 ppb	10:41:26
3	Co 228.616†	-203.6	5.9	0.0772 µg/L	0.0772 ppb	10:41:26
3	Cr 267.716†	250.1	17.9	0.1638 µg/L	0.1638 ppb	10:41:26
3	Cu 324.752†	3091.9	67.8	0.2766 µg/L	0.2766 ppb	10:41:06
3	Mn 257.610†	263.6	79.9	0.1048 µg/L	0.1048 ppb	10:41:26
3	Mo 202.031†	-21.8	16.7	0.5458 µg/L	0.5458 ppb	10:41:26
3	Ni 231.604†	-72.9	22.7	0.2843 µg/L	0.2843 ppb	10:41:26
3	P 214.914†	-18.9	6.8	1.5610 µg/L	1.5610 ppb	10:41:26
3	Pb 220.353†	128.4	25.5	1.5787 µg/L	1.5787 ppb	10:41:26
3	S 181.975 Axial†	101.9	13.4	11.251 µg/L	11.251 ppb	10:41:26
3	Sb 206.836†	70.7	-18.7	-2.4055 µg/L	-2.4055 ppb	10:41:26
3	Se 196.026†	9.9	3.8	1.49 µg/L	1.49 ppb	10:41:26
3	SiO2†	1766.7	34.5	3.6151 µg/L	3.6151 ppb	10:41:26
3	Si 251.611†	977.5	214.2	3.3608 µg/L	3.3608 ppb	10:41:06
3	Sn 189.927†	23.7	21.9	1.5170 µg/L	1.5170 ppb	10:41:26
3	Ti 334.940†	715.0	-105.2	-0.1052 µg/L	-0.1052 ppb	10:41:06
3	Tl 190.801†	-104.0	9.9	1.3480 µg/L	1.3480 ppb	10:41:26
3	U 409.014†	-346.8	-184.8	-11.650 µg/L	-11.650 ppb	10:41:06
3	V 292.402†	466.6	45.2	0.2316 µg/L	0.2316 ppb	10:41:06
3	Zn 213.857†	652.7	152.2	0.9057 µg/L	0.9057 ppb	10:41:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1811329.4	100.40	%	0.720				0.72%
Sc RADIAL	139788.9	99.8	%	0.45				0.45%
Y 371.029	1062063.4	100.45	%	0.653				0.65%
Ag 328.068†	-63.1	-0.2760	µg/L	0.02898	-0.2760	ppb	0.02898	10.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	37.1	7.7736	µg/L	5.23994	7.7736	ppb	5.23994	67.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.0	1.3649	µg/L	1.31341	1.3649	ppb	1.31341	96.23%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	186.2	2.8949	µg/L	1.77056	2.8949	ppb	1.77056	61.16%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	68.9	0.3062	µg/L	0.43321	0.3062	ppb	0.43321	141.46%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	347.2	0.0965	µg/L	0.04090	0.0965	ppb	0.04090	42.38%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	152.3	10.373	µg/L	6.9226	10.373	ppb	6.9226	66.74%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	80.8	0.5457	µg/L	0.09672	0.5457	ppb	0.09672	17.73%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.4	0.2692	µg/L	0.37385	0.2692	ppb	0.37385	138.88%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.4      0.1785 µg/L       0.21700      0.1785 ppb        0.21700 121.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              97.2      0.3971 µg/L       0.48288      0.3971 ppb        0.48288 121.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       86.9      6.4926 µg/L       5.55342      6.4926 ppb        5.55342  85.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       596.1      236.18 µg/L        33.767      236.18 ppb         33.767  14.30%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          31.7      14.646 µg/L       12.5959      14.646 ppb        12.5959  86.00%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              88.9      0.1173 µg/L       0.03997      0.1173 ppb        0.03997  34.08%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              26.9      0.8806 µg/L       0.49988      0.8806 ppb        0.49988  56.76%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      637.8      98.649 µg/L       14.9470      98.649 ppb        14.9470  15.15%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              29.2      0.3648 µg/L       0.18676      0.3648 ppb        0.18676  51.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                6.1      1.4036 µg/L       2.46530      1.4036 ppb        2.46530 175.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              25.4      1.5785 µg/L       0.67449      1.5785 ppb        0.67449  42.73%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         17.9      15.047 µg/L        4.9964      15.047 ppb         4.9964  33.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -9.9     -1.2667 µg/L       1.04446     -1.2667 ppb        1.04446  82.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              16.2        6.37 µg/L         4.348        6.37 ppb          4.348  68.22%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    37.3      3.9100 µg/L       2.30555      3.9100 ppb        2.30555  58.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             129.0      2.0153 µg/L       1.16537      2.0153 ppb        1.16537  57.83%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              15.0      1.0379 µg/L       0.43318      1.0379 ppb        0.43318  41.74%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              87.7      0.2067 µg/L       0.23409      0.2067 ppb        0.23409 113.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             101.2      0.1085 µg/L       0.22346      0.1085 ppb        0.22346 205.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               9.0      1.2253 µg/L       0.72161      1.2253 ppb        0.72161  58.89%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -212.6     -13.419 µg/L        5.3243     -13.419 ppb         5.3243  39.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -17.8     -0.0920 µg/L       0.28332     -0.0920 ppb        0.28332 307.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             168.2      1.0009 µg/L       0.13030      1.0009 ppb        0.13030  13.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

==========

Analysis Begun

Start Time: 4/5/2010 10:49:36 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 4/5/2010 9:54:36**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/5/2010 10:49:38**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139913.8	139913.8	99.9	%			10:50:08
1	Al 396.153Radial†	24335.8	24445.5	5123.4	µg/L	5123.4	ppb	10:50:10
1	Ca 317.933Radial†	76124.3	75650.4	5152.5	µg/L	5152.5	ppb	10:50:10
1	Fe 238.204 Radial†	68091.5	68061.4	5082.8	µg/L	5082.8	ppb	10:50:10

1	K 766.490 Radial†	14510.4	13035.1	5161.0 µg/L	5161.0 ppb	10:50:10
1	Mg 279.077 IEC†	11429.7	11271.9	5212.6 µg/L	5212.6 ppb	10:50:10
1	Na 589.592 Radial†	64869.2	63999.8	9915.9 µg/L	9915.9 ppb	10:50:08
1	Sr 421.552†	210128.9	210602.6	496.66 µg/L	496.66 ppb	10:50:08
1	Sc 361.383	1793135.3	1793135.3	99.389 %		10:50:37
1	Y 371.029	1039795.9	1039795.9	98.345 %		10:50:37
1	Ag 328.068†	125023.0	121226.0	502.50 µg/L	502.50 ppb	10:50:37
1	As 188.979†	1415.1	1442.4	495.14 µg/L	495.14 ppb	10:50:57
1	B 249.677†	35686.1	31840.2	493.41 µg/L	493.41 ppb	10:50:37
1	Ba 233.527†	111774.5	112605.9	500.92 µg/L	500.92 ppb	10:50:37
1	Be 313.107†	1706398.9	1717975.2	497.80 µg/L	497.80 ppb	10:50:37
1	Cd 226.502†	74086.4	74645.0	504.19 µg/L	504.19 ppb	10:50:37
1	Co 228.616†	37804.3	38246.8	506.24 µg/L	506.24 ppb	10:50:37
1	Cr 267.716†	57747.6	57869.2	500.50 µg/L	500.50 ppb	10:50:37
1	Cu 324.752†	121662.9	119374.4	500.87 µg/L	500.87 ppb	10:50:37
1	Mn 257.610†	376107.2	378233.4	501.52 µg/L	501.52 ppb	10:50:37
1	Mo 202.031†	15189.8	15321.7	501.54 µg/L	501.54 ppb	10:50:57
1	Ni 231.604†	39897.8	40238.8	503.44 µg/L	503.44 ppb	10:50:37
1	P 214.914†	10795.7	10887.8	2510.0 µg/L	2510.0 ppb	10:50:57
1	Pb 220.353†	8262.9	8210.2	506.81 µg/L	506.81 ppb	10:50:57
1	S 181.975 Axial†	1275.8	1194.7	1009.3 µg/L	1009.3 ppb	10:50:57
1	Sb 206.836†	3955.2	3889.8	502.71 µg/L	502.71 ppb	10:50:57
1	Se 196.026†	1278.3	1280.0	507 µg/L	507 ppb	10:50:57
1	SiO2†	51569.1	50146.9	5288.9 µg/L	5288.9 ppb	10:50:37
1	Si 251.611†	157499.0	157699.7	2476.8 µg/L	2476.8 ppb	10:50:37
1	Sn 189.927†	7167.7	7209.8	501.78 µg/L	501.78 ppb	10:50:57
1	Ti 334.940†	482524.4	484666.2	497.14 µg/L	497.14 ppb	10:50:37
1	Tl 190.801†	3542.3	3678.3	509.75 µg/L	509.75 ppb	10:50:57
1	U 409.014†	7309.8	7518.1	504.80 µg/L	504.80 ppb	10:50:37
1	V 292.402†	95824.9	95990.5	504.17 µg/L	504.17 ppb	10:50:37
1	Zn 213.857†	84530.8	84547.2	500.92 µg/L	500.92 ppb	10:50:37
2	Sc RADIAL	140341.7	140341.7	100 %		10:50:12
2	Al 396.153Radial†	23928.8	23965.0	5022.0 µg/L	5022.0 ppb	10:50:14
2	Ca 317.933Radial†	74480.6	73777.1	5024.9 µg/L	5024.9 ppb	10:50:14
2	Fe 238.204 Radial†	66810.1	66574.4	4971.7 µg/L	4971.7 ppb	10:50:14
2	K 766.490 Radial†	14217.3	12698.3	5027.6 µg/L	5027.6 ppb	10:50:14
2	Mg 279.077 IEC†	11311.0	11118.6	5141.9 µg/L	5141.9 ppb	10:50:14
2	Na 589.592 Radial†	65359.5	64291.2	9961.2 µg/L	9961.2 ppb	10:50:12
2	Sr 421.552†	211237.8	211067.9	497.76 µg/L	497.76 ppb	10:50:12
2	Sc 361.383	1774369.1	1774369.1	98.349 %		10:51:01
2	Y 371.029	1029276.4	1029276.4	97.350 %		10:51:01
2	Ag 328.068†	123578.9	121088.1	501.92 µg/L	501.92 ppb	10:51:01
2	As 188.979†	1412.6	1454.9	499.35 µg/L	499.35 ppb	10:51:21
2	B 249.677†	35412.9	31942.2	495.00 µg/L	495.00 ppb	10:51:01
2	Ba 233.527†	110497.4	112496.7	500.44 µg/L	500.44 ppb	10:51:01
2	Be 313.107†	1682989.4	1712331.0	496.16 µg/L	496.16 ppb	10:51:01
2	Cd 226.502†	73151.3	74482.6	503.10 µg/L	503.10 ppb	10:51:01
2	Co 228.616†	37344.3	38181.4	505.38 µg/L	505.38 ppb	10:51:01
2	Cr 267.716†	57138.9	57864.8	500.47 µg/L	500.47 ppb	10:51:01
2	Cu 324.752†	120116.3	119096.4	499.68 µg/L	499.68 ppb	10:51:01
2	Mn 257.610†	370927.0	376968.5	499.85 µg/L	499.85 ppb	10:51:01
2	Mo 202.031†	15145.9	15438.7	505.36 µg/L	505.36 ppb	10:51:21
2	Ni 231.604†	39443.9	40201.8	502.98 µg/L	502.98 ppb	10:51:01
2	P 214.914†	10729.6	10935.4	2521.1 µg/L	2521.1 ppb	10:51:21
2	Pb 220.353†	8260.4	8295.6	512.08 µg/L	512.08 ppb	10:51:21
2	S 181.975 Axial†	1287.9	1220.6	1031.1 µg/L	1031.1 ppb	10:51:21
2	Sb 206.836†	3928.5	3904.8	504.71 µg/L	504.71 ppb	10:51:21
2	Se 196.026†	1280.0	1295.4	512 µg/L	512 ppb	10:51:21
2	SiO2†	50796.5	49910.0	5263.7 µg/L	5263.7 ppb	10:51:01
2	Si 251.611†	155366.4	157207.3	2468.9 µg/L	2468.9 ppb	10:51:01
2	Sn 189.927†	7141.4	7259.3	505.21 µg/L	505.21 ppb	10:51:21
2	Ti 334.940†	476326.0	483498.4	495.95 µg/L	495.95 ppb	10:51:01
2	Tl 190.801†	3543.4	3717.2	515.05 µg/L	515.05 ppb	10:51:21
2	U 409.014†	6925.4	7205.0	485.08 µg/L	485.08 ppb	10:51:01
2	V 292.402†	94927.6	96097.8	504.77 µg/L	504.77 ppb	10:51:01
2	Zn 213.857†	83208.3	84102.0	498.28 µg/L	498.28 ppb	10:51:01
3	Sc RADIAL	137926.0	137926.0	98.5 %		10:50:16
3	Al 396.153Radial†	23743.5	24195.1	5070.7 µg/L	5070.7 ppb	10:50:18
3	Ca 317.933Radial†	74096.5	74689.2	5087.0 µg/L	5087.0 ppb	10:50:18
3	Fe 238.204 Radial†	66279.1	67203.1	5018.7 µg/L	5018.7 ppb	10:50:18
3	K 766.490 Radial†	14171.0	12899.8	5107.4 µg/L	5107.4 ppb	10:50:18

3	Mg 279.077 IEC†	11189.8	11193.2	5176.3 µg/L	5176.3 ppb	10:50:18
3	Na 589.592 Radial†	64370.5	64429.3	9982.5 µg/L	9982.5 ppb	10:50:16
3	Sr 421.552†	208116.7	211590.8	498.99 µg/L	498.99 ppb	10:50:16
3	Sc 361.383	1790832.9	1790832.9	99.262 %		10:51:24
3	Y 371.029	1039510.2	1039510.2	98.318 %		10:51:24
3	Ag 328.068†	124982.2	121346.7	502.99 µg/L	502.99 ppb	10:51:24
3	As 188.979†	1432.6	1461.8	501.68 µg/L	501.68 ppb	10:51:44
3	B 249.677†	35516.0	31715.1	491.47 µg/L	491.47 ppb	10:51:24
3	Ba 233.527†	111713.2	112688.6	501.29 µg/L	501.29 ppb	10:51:24
3	Be 313.107†	1700513.3	1714253.1	496.72 µg/L	496.72 ppb	10:51:24
3	Cd 226.502†	73950.4	74603.7	503.92 µg/L	503.92 ppb	10:51:24
3	Co 228.616†	37761.3	38252.5	506.32 µg/L	506.32 ppb	10:51:24
3	Cr 267.716†	57636.2	57831.7	500.18 µg/L	500.18 ppb	10:51:24
3	Cu 324.752†	121402.4	119269.2	500.42 µg/L	500.42 ppb	10:51:24
3	Mn 257.610†	375337.1	377944.0	501.14 µg/L	501.14 ppb	10:51:24
3	Mo 202.031†	15165.8	15317.2	501.39 µg/L	501.39 ppb	10:51:44
3	Ni 231.604†	39837.7	40229.9	503.33 µg/L	503.33 ppb	10:51:24
3	P 214.914†	10769.4	10875.2	2507.2 µg/L	2507.2 ppb	10:51:44
3	Pb 220.353†	8292.5	8250.7	509.30 µg/L	509.30 ppb	10:51:44
3	S 181.975 Axial†	1280.9	1201.5	1015.0 µg/L	1015.0 ppb	10:51:44
3	Sb 206.836†	3936.5	3876.1	500.96 µg/L	500.96 ppb	10:51:44
3	Se 196.026†	1299.1	1302.6	515 µg/L	515 ppb	10:51:44
3	SiO2†	51317.0	49959.6	5269.1 µg/L	5269.1 ppb	10:51:24
3	Si 251.611†	156975.7	157376.2	2471.7 µg/L	2471.7 ppb	10:51:24
3	Sn 189.927†	7161.2	7212.6	501.97 µg/L	501.97 ppb	10:51:44
3	Ti 334.940†	481658.8	484418.3	496.89 µg/L	496.89 ppb	10:51:24
3	Tl 190.801†	3540.4	3681.0	510.11 µg/L	510.11 ppb	10:51:44
3	U 409.014†	7215.7	7432.8	499.47 µg/L	499.47 ppb	10:51:24
3	V 292.402†	95838.7	96128.3	504.89 µg/L	504.89 ppb	10:51:24
3	Zn 213.857†	84238.2	84361.7	499.82 µg/L	499.82 ppb	10:51:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786112.4	99.000	%	0.5673				0.57%
Sc RADIAL	139393.8	99.5	%	0.92				0.92%
Y 371.029	1036194.2	98.004	%	0.5668				0.58%
Ag 328.068†	121220.3	502.47	µg/L	0.538	502.47	ppb	0.538	0.11%
QC value within limits for Ag 328.068 Recovery = 100.49%								
Al 396.153Radial†	24201.9	5072.0	µg/L	50.69	5072.0	ppb	50.69	1.00%
QC value within limits for Al 396.153Radial Recovery = 101.44%								
As 188.979†	1453.0	498.73	µg/L	3.315	498.73	ppb	3.315	0.66%
QC value within limits for As 188.979 Recovery = 99.75%								
B 249.677†	31832.5	493.29	µg/L	1.771	493.29	ppb	1.771	0.36%
QC value within limits for B 249.677 Recovery = 98.66%								
Ba 233.527†	112597.1	500.89	µg/L	0.427	500.89	ppb	0.427	0.09%
QC value within limits for Ba 233.527 Recovery = 100.18%								
Be 313.107†	1714853.1	496.89	µg/L	0.834	496.89	ppb	0.834	0.17%
QC value within limits for Be 313.107 Recovery = 99.38%								
Ca 317.933Radial†	74705.6	5088.1	µg/L	63.80	5088.1	ppb	63.80	1.25%
QC value within limits for Ca 317.933Radial Recovery = 101.76%								
Cd 226.502†	74577.1	503.74	µg/L	0.565	503.74	ppb	0.565	0.11%
QC value within limits for Cd 226.502 Recovery = 100.75%								
Co 228.616†	38226.9	505.98	µg/L	0.521	505.98	ppb	0.521	0.10%
QC value within limits for Co 228.616 Recovery = 101.20%								
Cr 267.716†	57855.2	500.38	µg/L	0.179	500.38	ppb	0.179	0.04%
QC value within limits for Cr 267.716 Recovery = 100.08%								
Cu 324.752†	119246.7	500.32	µg/L	0.605	500.32	ppb	0.605	0.12%
QC value within limits for Cu 324.752 Recovery = 100.06%								
Fe 238.204 Radial†	67279.6	5024.4	µg/L	55.74	5024.4	ppb	55.74	1.11%
QC value within limits for Fe 238.204 Radial Recovery = 100.49%								
K 766.490 Radial†	12877.8	5098.6	µg/L	67.14	5098.6	ppb	67.14	1.32%
QC value within limits for K 766.490 Radial Recovery = 101.97%								
Mg 279.077 IEC†	11194.5	5176.9	µg/L	35.31	5176.9	ppb	35.31	0.68%
QC value within limits for Mg 279.077 IEC Recovery = 103.54%								
Mn 257.610†	377715.3	500.84	µg/L	0.878	500.84	ppb	0.878	0.18%
QC value within limits for Mn 257.610 Recovery = 100.17%								
Mo 202.031†	15359.2	502.77	µg/L	2.250	502.77	ppb	2.250	0.45%
QC value within limits for Mo 202.031 Recovery = 100.55%								
Na 589.592 Radial†	64240.1	9953.2	µg/L	34.02	9953.2	ppb	34.02	0.34%

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   QC value within limits for Na 589.592 Radial  Recovery = 99.53%
Ni 231.604†            40223.5      503.25 µg/L         0.242      503.25 ppb          0.242   0.05%
   QC value within limits for Ni 231.604  Recovery = 100.65%
P 214.914†             10899.5      2512.8 µg/L          7.37      2512.8 ppb           7.37   0.29%
   QC value within limits for P 214.914  Recovery = 100.51%
Pb 220.353†             8252.2      509.40 µg/L         2.637      509.40 ppb          2.637   0.52%
   QC value within limits for Pb 220.353  Recovery = 101.88%
S 181.975 Axial†        1205.6      1018.5 µg/L         11.31      1018.5 ppb          11.31   1.11%
   QC value within limits for S 181.975 Axial  Recovery = 101.85%
Sb 206.836†             3890.2      502.79 µg/L         1.880      502.79 ppb          1.880   0.37%
   QC value within limits for Sb 206.836  Recovery = 100.56%
Se 196.026†             1292.7         511 µg/L           4.5         511 ppb            4.5   0.89%
   QC value within limits for Se 196.026  Recovery = 102.29%
SiO2†                  50005.5      5273.9 µg/L         13.29      5273.9 ppb          13.29   0.25%
   QC value within limits for SiO2  Recovery = 98.62%
Si 251.611†           157427.7      2472.4 µg/L          3.98      2472.4 ppb           3.98   0.16%
   QC value within limits for Si 251.611  Recovery = 98.90%
Sn 189.927†             7227.3      502.98 µg/L         1.927      502.98 ppb          1.927   0.38%
   QC value within limits for Sn 189.927  Recovery = 100.60%
Sr 421.552†           211087.1      497.80 µg/L         1.166      497.80 ppb          1.166   0.23%
   QC value within limits for Sr 421.552  Recovery = 99.56%
Ti 334.940†           484194.3      496.66 µg/L         0.627      496.66 ppb          0.627   0.13%
   QC value within limits for Ti 334.940  Recovery = 99.33%
Tl 190.801†             3692.2      511.63 µg/L         2.962      511.63 ppb          2.962   0.58%
   QC value within limits for Tl 190.801  Recovery = 102.33%
U 409.014†              7385.3      496.45 µg/L        10.200      496.45 ppb         10.200   2.05%
   QC value within limits for U 409.014  Recovery = 99.29%
V 292.402†             96072.2      504.61 µg/L         0.383      504.61 ppb          0.383   0.08%
   QC value within limits for V 292.402  Recovery = 100.92%
Zn 213.857†            84337.0      499.68 µg/L         1.328      499.68 ppb          1.328   0.27%
   QC value within limits for Zn 213.857  Recovery = 99.94%
All analyte(s) passed QC.
```

Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/5/2010 10:51:51**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141670.1	141670.1	101	%			10:52:20
1	Al 396.153Radial†	-83.7	-4.2	-0.9279	µg/L	-0.9279	ppb	10:52:40
1	Ca 317.933Radial†	599.3	21.2	1.4420	µg/L	1.4420	ppb	10:52:40
1	Fe 238.204 Radial†	137.4	18.5	1.3846	µg/L	1.3846	ppb	10:52:40
1	K 766.490 Radial†	1758.8	245.4	97.233	µg/L	97.233	ppb	10:52:20
1	Mg 279.077 IEC†	184.3	9.8	4.5283	µg/L	4.5283	ppb	10:52:40
1	Na 589.592 Radial†	1104.6	139.8	21.576	µg/L	21.576	ppb	10:52:20
1	Sr 421.552†	-36.3	168.6	0.3976	µg/L	0.3976	ppb	10:52:20
1	Sc 361.383	1813398.6	1813398.6	100.51	%			10:53:28
1	Y 371.029	1064259.3	1064259.3	100.66	%			10:53:28
1	Ag 328.068†	4348.3	-239.0	-1.0007	µg/L	-1.0007	ppb	10:53:30
1	As 188.979†	-15.0	3.6	1.2220	µg/L	1.2220	ppb	10:53:50
1	B 249.677†	4013.1	-72.5	-1.1296	µg/L	-1.1296	ppb	10:53:30
1	Ba 233.527†	-146.0	-0.7	-0.0036	µg/L	-0.0036	ppb	10:53:50
1	Be 313.107†	-909.5	186.9	0.0514	µg/L	0.0514	ppb	10:53:30
1	Cd 226.502†	-65.4	38.2	0.2586	µg/L	0.2586	ppb	10:53:50
1	Co 228.616†	-181.4	29.8	0.3948	µg/L	0.3948	ppb	10:53:50
1	Cr 267.716†	242.1	7.7	0.0733	µg/L	0.0733	ppb	10:53:50
1	Cu 324.752†	3041.7	-9.9	-0.0485	µg/L	-0.0485	ppb	10:53:30
1	Mn 257.610†	243.5	57.6	0.0762	µg/L	0.0762	ppb	10:53:50
1	Mo 202.031†	-14.2	24.4	0.7983	µg/L	0.7983	ppb	10:53:50
1	Ni 231.604†	-58.3	37.9	0.4745	µg/L	0.4745	ppb	10:53:50
1	P 214.914†	0.8	26.5	6.1321	µg/L	6.1321	ppb	10:53:50
1	Pb 220.353†	99.2	-4.8	-0.2869	µg/L	-0.2869	ppb	10:53:50
1	S 181.975 Axial†	102.5	13.1	10.998	µg/L	10.998	ppb	10:53:50
1	Sb 206.836†	75.3	-14.9	-1.9041	µg/L	-1.9041	ppb	10:53:50
1	Se 196.026†	27.7	21.5	8.44	µg/L	8.44	ppb	10:53:50
1	SiO2†	1765.5	17.4	1.8071	µg/L	1.8071	ppb	10:53:50
1	Si 251.611†	842.0	70.7	1.0963	µg/L	1.0963	ppb	10:53:30
1	Sn 189.927†	18.8	16.8	1.1641	µg/L	1.1641	ppb	10:53:50
1	Ti 334.940†	736.5	-90.2	-0.0892	µg/L	-0.0892	ppb	10:53:30
1	Tl 190.801†	-110.4	4.4	0.5942	µg/L	0.5942	ppb	10:53:50
1	U 409.014†	-310.6	-145.7	-9.2474	µg/L	-9.2474	ppb	10:53:30
1	V 292.402†	247.2	-177.3	-0.9167	µg/L	-0.9167	ppb	10:53:30
1	Zn 213.857†	582.2	76.3	0.4523	µg/L	0.4523	ppb	10:53:50
2	Sc RADIAL	141550.1	141550.1	101	%			10:52:42
2	Al 396.153Radial†	-103.9	-24.3	-5.1425	µg/L	-5.1425	ppb	10:53:02
2	Ca 317.933Radial†	612.8	35.0	2.3868	µg/L	2.3868	ppb	10:53:02
2	Fe 238.204 Radial†	136.7	17.9	1.3400	µg/L	1.3400	ppb	10:53:02
2	K 766.490 Radial†	1645.6	134.9	53.442	µg/L	53.442	ppb	10:52:42
2	Mg 279.077 IEC†	180.9	6.6	3.0454	µg/L	3.0454	ppb	10:53:02
2	Na 589.592 Radial†	1113.1	149.1	23.066	µg/L	23.066	ppb	10:52:42
2	Sr 421.552†	-129.3	76.5	0.1805	µg/L	0.1805	ppb	10:52:42
2	Sc 361.383	1826504.8	1826504.8	101.24	%			10:53:52
2	Y 371.029	1070413.5	1070413.5	101.24	%			10:53:52
2	Ag 328.068†	4552.2	-68.7	-0.3004	µg/L	-0.3004	ppb	10:53:54
2	As 188.979†	-7.7	11.0	3.7209	µg/L	3.7209	ppb	10:54:15
2	B 249.677†	4155.1	39.1	0.6079	µg/L	0.6079	ppb	10:53:54
2	Ba 233.527†	-156.7	-10.3	-0.0451	µg/L	-0.0451	ppb	10:54:15
2	Be 313.107†	-768.8	332.3	0.0902	µg/L	0.0902	ppb	10:53:54
2	Cd 226.502†	-86.9	17.5	0.1182	µg/L	0.1182	ppb	10:54:15
2	Co 228.616†	-197.2	15.5	0.2048	µg/L	0.2048	ppb	10:54:15
2	Cr 267.716†	231.2	-4.9	-0.0259	µg/L	-0.0259	ppb	10:54:15
2	Cu 324.752†	2973.2	-99.3	-0.4315	µg/L	-0.4315	ppb	10:53:54
2	Mn 257.610†	229.2	41.6	0.0551	µg/L	0.0551	ppb	10:54:15
2	Mo 202.031†	-14.9	23.8	0.7802	µg/L	0.7802	ppb	10:54:15
2	Ni 231.604†	-87.6	9.4	0.1172	µg/L	0.1172	ppb	10:54:15
2	P 214.914†	-16.9	9.0	2.0871	µg/L	2.0871	ppb	10:54:15
2	Pb 220.353†	114.8	9.9	0.6284	µg/L	0.6284	ppb	10:54:15

2	S 181.975 Axial†	96.9	6.8	5.6986 µg/L	5.6986 ppb	10:54:15
2	Sb 206.836†	77.0	-13.6	-1.7438 µg/L	-1.7438 ppb	10:54:15
2	Se 196.026†	13.2	6.9	2.71 µg/L	2.71 ppb	10:54:15
2	SiO2†	1765.2	4.6	0.4503 µg/L	0.4503 ppb	10:54:15
2	Si 251.611†	950.8	172.1	2.6998 µg/L	2.6998 ppb	10:53:54
2	Sn 189.927†	11.4	9.3	0.6478 µg/L	0.6478 ppb	10:54:15
2	Ti 334.940†	883.6	49.7	0.0592 µg/L	0.0592 ppb	10:53:54
2	Tl 190.801†	-117.7	-2.0	-0.2677 µg/L	-0.2677 ppb	10:54:15
2	U 409.014†	-489.5	-320.1	-20.174 µg/L	-20.174 ppb	10:53:54
2	V 292.402†	523.4	93.7	0.4799 µg/L	0.4799 ppb	10:53:54
2	Zn 213.857†	565.4	55.5	0.3309 µg/L	0.3309 ppb	10:54:15
3	Sc RADIAL	142279.1	142279.1	102 %		10:53:04
3	Al 396.153Radial†	-36.3	42.8	8.9841 µg/L	8.9841 ppb	10:53:24
3	Ca 317.933Radial†	638.4	57.1	3.8913 µg/L	3.8913 ppb	10:53:24
3	Fe 238.204 Radial†	130.1	10.8	0.8067 µg/L	0.8067 ppb	10:53:24
3	K 766.490 Radial†	1672.4	152.9	60.565 µg/L	60.565 ppb	10:53:04
3	Mg 279.077 IEC†	179.9	4.6	2.1596 µg/L	2.1596 ppb	10:53:24
3	Na 589.592 Radial†	1204.2	233.2	36.090 µg/L	36.090 ppb	10:53:04
3	Sr 421.552†	-216.4	-8.6	-0.0204 µg/L	-0.0204 ppb	10:53:04
3	Sc 361.383	1821134.7	1821134.7	100.94 %		10:54:17
3	Y 371.029	1067416.4	1067416.4	100.96 %		10:54:17
3	Ag 328.068†	4428.0	-178.4	-0.7477 µg/L	-0.7477 ppb	10:54:19
3	As 188.979†	-0.3	18.3	6.1862 µg/L	6.1862 ppb	10:54:39
3	B 249.677†	4120.7	17.2	0.2651 µg/L	0.2651 ppb	10:54:19
3	Ba 233.527†	-140.1	5.7	0.0253 µg/L	0.0253 ppb	10:54:39
3	Be 313.107†	-1101.7	0.3	-0.0027 µg/L	-0.0027 ppb	10:54:19
3	Cd 226.502†	-64.2	39.8	0.2688 µg/L	0.2688 ppb	10:54:39
3	Co 228.616†	-170.5	41.4	0.5478 µg/L	0.5478 ppb	10:54:39
3	Cr 267.716†	246.8	11.3	0.1049 µg/L	0.1049 ppb	10:54:39
3	Cu 324.752†	2931.1	-132.4	-0.5609 µg/L	-0.5609 ppb	10:54:19
3	Mn 257.610†	235.1	48.2	0.0638 µg/L	0.0638 ppb	10:54:39
3	Mo 202.031†	-18.0	20.8	0.6798 µg/L	0.6798 ppb	10:54:39
3	Ni 231.604†	-78.9	17.7	0.2221 µg/L	0.2221 ppb	10:54:39
3	P 214.914†	-27.0	-1.1	-0.2442 µg/L	-0.2442 ppb	10:54:39
3	Pb 220.353†	129.6	25.0	1.5464 µg/L	1.5464 ppb	10:54:39
3	S 181.975 Axial†	87.4	-2.3	-1.9536 µg/L	-1.9536 ppb	10:54:39
3	Sb 206.836†	68.5	-21.9	-2.8119 µg/L	-2.8119 ppb	10:54:39
3	Se 196.026†	13.2	6.9	2.72 µg/L	2.72 ppb	10:54:39
3	SiO2†	1743.9	-11.4	-1.2328 µg/L	-1.2328 ppb	10:54:39
3	Si 251.611†	890.2	114.8	1.8008 µg/L	1.8008 ppb	10:54:19
3	Sn 189.927†	4.0	2.0	0.1418 µg/L	0.1418 ppb	10:54:39
3	Ti 334.940†	863.5	32.4	0.0370 µg/L	0.0370 ppb	10:54:19
3	Tl 190.801†	-91.1	24.0	3.2706 µg/L	3.2706 ppb	10:54:39
3	U 409.014†	-314.6	-148.3	-9.3884 µg/L	-9.3884 ppb	10:54:19
3	V 292.402†	334.9	-91.5	-0.4730 µg/L	-0.4730 ppb	10:54:19
3	Zn 213.857†	586.6	78.2	0.4657 µg/L	0.4657 ppb	10:54:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1820346.0	100.90	%	0.365				0.36%
Sc RADIAL	141833.1	101	%	0.3				0.28%
Y 371.029	1067363.1	100.95	%	0.291				0.29%
Ag 328.068†	-162.1	-0.6829	µg/L	0.35465	-0.6829	ppb	0.35465	51.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.8	0.9712	µg/L	7.25229	0.9712	ppb	7.25229	746.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.0	3.7097	µg/L	2.48209	3.7097	ppb	2.48209	66.91%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-5.4	-0.0855	µg/L	0.92028	-0.0855	ppb	0.92028	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.8	-0.0078	µg/L	0.03539	-0.0078	ppb	0.03539	454.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	173.2	0.0463	µg/L	0.04666	0.0463	ppb	0.04666	100.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	37.8	2.5734	µg/L	1.23526	2.5734	ppb	1.23526	48.00%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	31.8	0.2152	µg/L	0.08414	0.2152	ppb	0.08414	39.10%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	28.9	0.3825	µg/L	0.17184	0.3825	ppb	0.17184	44.93%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.7      0.0508 µg/L       0.06822      0.0508 ppb        0.06822 134.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -80.5     -0.3470 µg/L       0.26645     -0.3470 ppb        0.26645  76.80%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         15.8      1.1771 µg/L       0.32152      1.1771 ppb        0.32152  27.31%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         177.7      70.413 µg/L       23.4978      70.413 ppb        23.4978  33.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             7.0      3.2444 µg/L       1.19683      3.2444 ppb        1.19683  36.89%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                49.1      0.0650 µg/L       0.01060      0.0650 ppb        0.01060  16.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                23.0      0.7528 µg/L       0.06383      0.7528 ppb        0.06383   8.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        174.0      26.911 µg/L        7.9840      26.911 ppb         7.9840  29.67%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                21.7      0.2713 µg/L       0.18366      0.2713 ppb        0.18366  67.70%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 11.5      2.6583 µg/L       3.22633      2.6583 ppb        3.22633 121.37%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                10.0      0.6293 µg/L       0.91663      0.6293 ppb        0.91663 145.66%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.8      4.9143 µg/L       6.51134      4.9143 ppb        6.51134 132.50%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -16.8     -2.1533 µg/L       0.57596     -2.1533 ppb        0.57596  26.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                11.8        4.62 µg/L         3.307        4.62 ppb          3.307  71.52%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       3.5      0.3415 µg/L       1.52287      0.3415 ppb        1.52287 445.90%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               119.2      1.8656 µg/L       0.80375      1.8656 ppb        0.80375  43.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 9.4      0.6512 µg/L       0.51119      0.6512 ppb        0.51119  78.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                78.8      0.1859 µg/L       0.20905      0.1859 ppb        0.20905 112.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -2.7      0.0023 µg/L       0.08007      0.0023 ppb        0.08007 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 8.8      1.1990 µg/L       1.84510      1.1990 ppb        1.84510 153.88%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -204.7     -12.937 µg/L        6.2683     -12.937 ppb         6.2683  48.45%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -58.3     -0.3033 µg/L       0.71357     -0.3033 ppb        0.71357 235.30%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                70.0      0.4163 µg/L       0.07427      0.4163 ppb        0.07427  17.84%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 11:21:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141040.3	141040.3	101	%			11:22:09
1	Al 396.153Radial†	24409.0	24323.6	5097.8	µg/L	5097.8	ppb	11:22:09
1	Ca 317.933Radial†	76494.1	75408.8	5136.0	µg/L	5136.0	ppb	11:22:09
1	Fe 238.204 Radial†	68480.3	67903.0	5070.9	µg/L	5070.9	ppb	11:22:09
1	K 766.490 Radial†	14280.8	12691.1	5024.6	µg/L	5024.6	ppb	11:22:09
1	Mg 279.077 IEC†	11579.1	11328.8	5238.8	µg/L	5238.8	ppb	11:22:09
1	Na 589.592 Radial†	66009.6	64613.7	10011	µg/L	10011	ppb	11:22:09
1	Sr 421.552†	210495.4	209286.0	493.55	µg/L	493.55	ppb	11:22:07
1	Sc 361.383	1816427.9	1816427.9	100.68	%			11:22:22
1	Y 371.029	1053499.6	1053499.6	99.641	%			11:22:22
1	Ag 328.068†	126787.2	121365.2	503.06	µg/L	503.06	ppb	11:22:22
1	As 188.979†	1432.3	1441.2	494.75	µg/L	494.75	ppb	11:22:42
1	B 249.677†	36301.8	31991.4	495.75	µg/L	495.75	ppb	11:22:22
1	Ba 233.527†	113688.4	113064.7	502.97	µg/L	502.97	ppb	11:22:22
1	Be 313.107†	1728485.7	1717896.6	497.77	µg/L	497.77	ppb	11:22:22
1	Cd 226.502†	75741.0	75332.5	508.84	µg/L	508.84	ppb	11:22:22
1	Co 228.616†	38593.7	38543.2	510.16	µg/L	510.16	ppb	11:22:22
1	Cr 267.716†	58850.7	58219.8	503.55	µg/L	503.55	ppb	11:22:22
1	Cu 324.752†	123618.1	119746.6	502.41	µg/L	502.41	ppb	11:22:22
1	Mn 257.610†	382701.1	379930.1	503.77	µg/L	503.77	ppb	11:22:22
1	Mo 202.031†	15349.1	15283.9	500.31	µg/L	500.31	ppb	11:22:42
1	Ni 231.604†	40779.7	40600.1	507.96	µg/L	507.96	ppb	11:22:22
1	P 214.914†	10933.3	10885.1	2509.4	µg/L	2509.4	ppb	11:22:42
1	Pb 220.353†	8382.2	8222.1	507.55	µg/L	507.55	ppb	11:22:42
1	S 181.975 Axial†	1340.9	1242.9	1049.8	µg/L	1049.8	ppb	11:22:42
1	Sb 206.836†	3988.1	3871.5	500.30	µg/L	500.30	ppb	11:22:42
1	Se 196.026†	1298.4	1283.4	508	µg/L	508	ppb	11:22:42
1	SiO2†	52507.6	50413.7	5317.2	µg/L	5317.2	ppb	11:22:22
1	Si 251.611†	160362.8	158512.0	2489.6	µg/L	2489.6	ppb	11:22:22
1	Sn 189.927†	7264.7	7213.7	502.05	µg/L	502.05	ppb	11:22:42
1	Ti 334.940†	489360.0	485230.0	497.72	µg/L	497.72	ppb	11:22:22
1	Tl 190.801†	3577.9	3668.0	508.34	µg/L	508.34	ppb	11:22:42
1	U 409.014†	7028.1	7144.0	481.34	µg/L	481.34	ppb	11:22:22
1	V 292.402†	97527.7	96445.4	506.51	µg/L	506.51	ppb	11:22:22
1	Zn 213.857†	86086.0	85001.3	503.61	µg/L	503.61	ppb	11:22:22
2	Sc RADIAL	140362.8	140362.8	100	%			11:22:13
2	Al 396.153Radial†	23994.0	24026.5	5035.4	µg/L	5035.4	ppb	11:22:13
2	Ca 317.933Radial†	75703.7	74986.7	5107.3	µg/L	5107.3	ppb	11:22:13
2	Fe 238.204 Radial†	67887.7	67639.9	5051.3	µg/L	5051.3	ppb	11:22:13
2	K 766.490 Radial†	14188.6	12667.6	5015.4	µg/L	5015.4	ppb	11:22:13
2	Mg 279.077 IEC†	11412.1	11217.7	5187.4	µg/L	5187.4	ppb	11:22:13
2	Na 589.592 Radial†	65526.4	64447.9	9985.5	µg/L	9985.5	ppb	11:22:13
2	Sr 421.552†	212221.3	212017.8	500.00	µg/L	500.00	ppb	11:22:11
2	Sc 361.383	1822952.6	1822952.6	101.04	%			11:22:45
2	Y 371.029	1056667.8	1056667.8	99.940	%			11:22:45
2	Ag 328.068†	127363.5	121484.9	503.55	µg/L	503.55	ppb	11:22:45
2	As 188.979†	1413.7	1417.7	486.78	µg/L	486.78	ppb	11:23:05
2	B 249.677†	36625.3	32182.4	498.72	µg/L	498.72	ppb	11:22:45
2	Ba 233.527†	113738.1	112709.7	501.39	µg/L	501.39	ppb	11:22:45
2	Be 313.107†	1736282.8	1719468.5	498.22	µg/L	498.22	ppb	11:22:45
2	Cd 226.502†	75997.8	75317.4	508.74	µg/L	508.74	ppb	11:22:45
2	Co 228.616†	38755.6	38566.2	510.47	µg/L	510.47	ppb	11:22:45
2	Cr 267.716†	58889.6	58049.1	502.07	µg/L	502.07	ppb	11:22:45
2	Cu 324.752†	124191.5	119874.7	502.95	µg/L	502.95	ppb	11:22:45
2	Mn 257.610†	383492.8	379353.2	503.01	µg/L	503.01	ppb	11:22:45
2	Mo 202.031†	15289.1	15170.0	496.58	µg/L	496.58	ppb	11:23:05
2	Ni 231.604†	40792.4	40467.6	506.30	µg/L	506.30	ppb	11:22:45
2	P 214.914†	10865.3	10778.9	2484.8	µg/L	2484.8	ppb	11:23:05
2	Pb 220.353†	8356.5	8166.8	504.14	µg/L	504.14	ppb	11:23:05

2	S 181.975 Axial†	1317.5	1215.0	1026.3 µg/L	1026.3 ppb	11:23:05
2	Sb 206.836†	3989.8	3858.9	498.64 µg/L	498.64 ppb	11:23:05
2	Se 196.026†	1292.5	1273.0	504 µg/L	504 ppb	11:23:05
2	SiO2†	52617.3	50335.6	5309.1 µg/L	5309.1 ppb	11:22:45
2	Si 251.611†	161042.3	158614.5	2491.3 µg/L	2491.3 ppb	11:22:45
2	Sn 189.927†	7218.4	7142.0	497.08 µg/L	497.08 ppb	11:23:05
2	Ti 334.940†	491016.9	485130.1	497.62 µg/L	497.62 ppb	11:22:45
2	Tl 190.801†	3563.0	3640.5	504.59 µg/L	504.59 ppb	11:23:05
2	U 409.014†	7078.9	7169.2	482.92 µg/L	482.92 ppb	11:22:45
2	V 292.402†	97821.4	96389.4	506.18 µg/L	506.18 ppb	11:22:45
2	Zn 213.857†	86262.7	84870.1	502.83 µg/L	502.83 ppb	11:22:45
3	Sc RADIAL	143001.6	143001.6	102 %		11:22:17
3	Al 396.153Radial†	24644.0	24221.3	5076.1 µg/L	5076.1 ppb	11:22:17
3	Ca 317.933Radial†	78183.6	76021.9	5177.8 µg/L	5177.8 ppb	11:22:17
3	Fe 238.204 Radial†	69547.5	68015.6	5079.4 µg/L	5079.4 ppb	11:22:17
3	K 766.490 Radial†	14471.6	12683.5	5021.6 µg/L	5021.6 ppb	11:22:17
3	Mg 279.077 IEC†	11800.4	11388.0	5266.2 µg/L	5266.2 ppb	11:22:17
3	Na 589.592 Radial†	66551.9	64245.7	9954.1 µg/L	9954.1 ppb	11:22:17
3	Sr 421.552†	214170.2	210018.5	495.28 µg/L	495.28 ppb	11:22:15
3	Sc 361.383	1819175.6	1819175.6	100.83 %		11:23:08
3	Y 371.029	1054990.0	1054990.0	99.782 %		11:23:08
3	Ag 328.068†	126763.1	121151.2	502.18 µg/L	502.18 ppb	11:23:08
3	As 188.979†	1453.0	1459.5	500.95 µg/L	500.95 ppb	11:23:28
3	B 249.677†	36308.1	31943.1	495.01 µg/L	495.01 ppb	11:23:08
3	Ba 233.527†	113415.6	112623.6	501.00 µg/L	501.00 ppb	11:23:08
3	Be 313.107†	1728129.7	1714950.5	496.92 µg/L	496.92 ppb	11:23:08
3	Cd 226.502†	75536.4	75016.0	506.70 µg/L	506.70 ppb	11:23:08
3	Co 228.616†	38368.3	38261.8	506.44 µg/L	506.44 ppb	11:23:08
3	Cr 267.716†	58689.9	57972.0	501.40 µg/L	501.40 ppb	11:23:08
3	Cu 324.752†	123527.9	119471.7	501.27 µg/L	501.27 ppb	11:23:08
3	Mn 257.610†	381380.1	378046.0	501.27 µg/L	501.27 ppb	11:23:08
3	Mo 202.031†	15453.7	15364.7	502.95 µg/L	502.95 ppb	11:23:28
3	Ni 231.604†	40568.0	40328.9	504.56 µg/L	504.56 ppb	11:23:08
3	P 214.914†	10991.1	10926.0	2518.9 µg/L	2518.9 ppb	11:23:28
3	Pb 220.353†	8421.5	8248.5	509.18 µg/L	509.18 ppb	11:23:28
3	S 181.975 Axial†	1335.2	1235.2	1043.4 µg/L	1043.4 ppb	11:23:28
3	Sb 206.836†	3992.9	3870.3	500.21 µg/L	500.21 ppb	11:23:28
3	Se 196.026†	1303.1	1286.2	509 µg/L	509 ppb	11:23:28
3	SiO2†	52338.0	50166.7	5291.0 µg/L	5291.0 ppb	11:23:08
3	Si 251.611†	160206.1	158116.1	2483.3 µg/L	2483.3 ppb	11:23:08
3	Sn 189.927†	7300.5	7238.3	503.75 µg/L	503.75 ppb	11:23:28
3	Ti 334.940†	489632.7	484766.3	497.24 µg/L	497.24 ppb	11:23:08
3	Tl 190.801†	3611.4	3695.8	512.14 µg/L	512.14 ppb	11:23:28
3	U 409.014†	7124.9	7229.4	486.64 µg/L	486.64 ppb	11:23:08
3	V 292.402†	97408.0	96180.4	505.16 µg/L	505.16 ppb	11:23:08
3	Zn 213.857†	85808.4	84596.9	501.21 µg/L	501.21 ppb	11:23:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1819518.7	100.85	%	0.182				0.18%
Sc RADIAL	141468.2	101	%	1.0				0.97%
Y 371.029	1055052.4	99.788	%	0.1499				0.15%
Ag 328.068†	121333.8	502.93	µg/L	0.697	502.93	ppb	0.697	0.14%
QC value within limits for Ag 328.068 Recovery = 100.59%								
Al 396.153Radial†	24190.4	5069.8	µg/L	31.67	5069.8	ppb	31.67	0.62%
QC value within limits for Al 396.153Radial Recovery = 101.40%								
As 188.979†	1439.4	494.16	µg/L	7.101	494.16	ppb	7.101	1.44%
QC value within limits for As 188.979 Recovery = 98.83%								
B 249.677†	32039.0	496.50	µg/L	1.963	496.50	ppb	1.963	0.40%
QC value within limits for B 249.677 Recovery = 99.30%								
Ba 233.527†	112799.3	501.79	µg/L	1.040	501.79	ppb	1.040	0.21%
QC value within limits for Ba 233.527 Recovery = 100.36%								
Be 313.107†	1717438.5	497.64	µg/L	0.664	497.64	ppb	0.664	0.13%
QC value within limits for Be 313.107 Recovery = 99.53%								
Ca 317.933Radial†	75472.5	5140.4	µg/L	35.45	5140.4	ppb	35.45	0.69%
QC value within limits for Ca 317.933Radial Recovery = 102.81%								
Cd 226.502†	75222.0	508.09	µg/L	1.209	508.09	ppb	1.209	0.24%
QC value within limits for Cd 226.502 Recovery = 101.62%								
Co 228.616†	38457.0	509.02	µg/L	2.244	509.02	ppb	2.244	0.44%

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   QC value within limits for Co 228.616  Recovery = 101.80%
Cr 267.716†            58080.3      502.34 µg/L         1.099      502.34 ppb          1.099   0.22%
   QC value within limits for Cr 267.716  Recovery = 100.47%
Cu 324.752†           119697.7      502.21 µg/L         0.858      502.21 ppb          0.858   0.17%
   QC value within limits for Cu 324.752  Recovery = 100.44%
Fe 238.204 Radial†     67852.9      5067.2 µg/L         14.40      5067.2 ppb          14.40   0.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.34%
K 766.490 Radial†      12680.7      5020.5 µg/L          4.74      5020.5 ppb           4.74   0.09%
   QC value within limits for K 766.490 Radial  Recovery = 100.41%
Mg 279.077 IEC†        11311.5      5230.8 µg/L         39.99      5230.8 ppb          39.99   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.62%
Mn 257.610†           379109.8      502.69 µg/L         1.281      502.69 ppb          1.281   0.25%
   QC value within limits for Mn 257.610  Recovery = 100.54%
Mo 202.031†            15272.9      499.95 µg/L         3.200      499.95 ppb          3.200   0.64%
   QC value within limits for Mo 202.031  Recovery = 99.99%
Na 589.592 Radial†     64435.8      9983.6 µg/L         28.56      9983.6 ppb          28.56   0.29%
   QC value within limits for Na 589.592 Radial  Recovery = 99.84%
Ni 231.604†            40465.5      506.27 µg/L         1.697      506.27 ppb          1.697   0.34%
   QC value within limits for Ni 231.604  Recovery = 101.25%
P 214.914†             10863.3      2504.4 µg/L         17.56      2504.4 ppb          17.56   0.70%
   QC value within limits for P 214.914  Recovery = 100.17%
Pb 220.353†             8212.5      506.96 µg/L         2.574      506.96 ppb          2.574   0.51%
   QC value within limits for Pb 220.353  Recovery = 101.39%
S 181.975 Axial†        1231.0      1039.8 µg/L         12.13      1039.8 ppb          12.13   1.17%
   QC value within limits for S 181.975 Axial  Recovery = 103.98%
Sb 206.836†             3866.9      499.72 µg/L         0.933      499.72 ppb          0.933   0.19%
   QC value within limits for Sb 206.836  Recovery = 99.94%
Se 196.026†             1280.9         507 µg/L           2.7         507 ppb            2.7   0.54%
   QC value within limits for Se 196.026  Recovery = 101.36%
SiO2†                  50305.3      5305.8 µg/L         13.45      5305.8 ppb          13.45   0.25%
   QC value within limits for SiO2  Recovery = 99.22%
Si 251.611†           158414.2      2488.1 µg/L          4.21      2488.1 ppb           4.21   0.17%
   QC value within limits for Si 251.611  Recovery = 99.52%
Sn 189.927†             7198.0      500.96 µg/L         3.467      500.96 ppb          3.467   0.69%
   QC value within limits for Sn 189.927  Recovery = 100.19%
Sr 421.552†           210440.8      496.28 µg/L         3.335      496.28 ppb          3.335   0.67%
   QC value within limits for Sr 421.552  Recovery = 99.26%
Ti 334.940†           485042.1      497.53 µg/L         0.253      497.53 ppb          0.253   0.05%
   QC value within limits for Ti 334.940  Recovery = 99.51%
Tl 190.801†             3668.1      508.36 µg/L         3.777      508.36 ppb          3.777   0.74%
   QC value within limits for Tl 190.801  Recovery = 101.67%
U 409.014†              7180.9      483.63 µg/L         2.721      483.63 ppb          2.721   0.56%
   QC value within limits for U 409.014  Recovery = 96.73%
V 292.402†             96338.4      505.95 µg/L         0.705      505.95 ppb          0.705   0.14%
   QC value within limits for V 292.402  Recovery = 101.19%
Zn 213.857†            84822.7      502.55 µg/L         1.222      502.55 ppb          1.222   0.24%
   QC value within limits for Zn 213.857  Recovery = 100.51%
All analyte(s) passed QC.
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Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 11:23:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141293.1	141293.1	101	%			11:24:06
1	Al 396.153Radial†	-45.2	33.8	7.0875	µg/L	7.0875	ppb	11:24:26
1	Ca 317.933Radial†	756.0	178.1	12.133	µg/L	12.133	ppb	11:24:26
1	Fe 238.204 Radial†	183.7	64.9	4.8434	µg/L	4.8434	ppb	11:24:26
1	K 766.490 Radial†	1708.7	200.4	79.382	µg/L	79.382	ppb	11:24:06
1	Mg 279.077 IEC†	206.5	32.3	14.933	µg/L	14.933	ppb	11:24:26
1	Na 589.592 Radial†	1047.2	85.8	13.224	µg/L	13.224	ppb	11:24:06
1	Sr 421.552†	-265.7	-59.0	-0.1392	µg/L	-0.1392	ppb	11:24:06
1	Sc 361.383	1793973.7	1793973.7	99.436	%			11:25:14
1	Y 371.029	1053310.8	1053310.8	99.623	%			11:25:14
1	Ag 328.068†	4289.1	-251.7	-1.0408	µg/L	-1.0408	ppb	11:25:16
1	As 188.979†	-4.9	13.7	4.6199	µg/L	4.6199	ppb	11:25:36
1	B 249.677†	4002.5	-40.0	-0.6228	µg/L	-0.6228	ppb	11:25:16
1	Ba 233.527†	-152.4	-8.7	-0.0386	µg/L	-0.0386	ppb	11:25:36
1	Be 313.107†	-860.3	226.6	0.0631	µg/L	0.0631	ppb	11:25:16
1	Cd 226.502†	-76.4	26.5	0.1788	µg/L	0.1788	ppb	11:25:36
1	Co 228.616†	-185.8	23.4	0.3095	µg/L	0.3095	ppb	11:25:36
1	Cr 267.716†	224.4	-7.5	-0.0584	µg/L	-0.0584	ppb	11:25:36
1	Cu 324.752†	3049.8	31.0	0.1242	µg/L	0.1242	ppb	11:25:16
1	Mn 257.610†	236.1	52.7	0.0693	µg/L	0.0693	ppb	11:25:36
1	Mo 202.031†	-24.7	13.8	0.4505	µg/L	0.4505	ppb	11:25:36
1	Ni 231.604†	-63.4	32.1	0.4021	µg/L	0.4021	ppb	11:25:36
1	P 214.914†	-13.8	11.8	2.7270	µg/L	2.7270	ppb	11:25:36
1	Pb 220.353†	76.5	-26.5	-1.6236	µg/L	-1.6236	ppb	11:25:36
1	S 181.975 Axial†	113.1	24.8	20.861	µg/L	20.861	ppb	11:25:36
1	Sb 206.836†	73.4	-15.9	-2.0389	µg/L	-2.0389	ppb	11:25:36
1	Se 196.026†	15.5	9.5	3.72	µg/L	3.72	ppb	11:25:36
1	SiO2†	1701.2	-28.2	-3.0134	µg/L	-3.0134	ppb	11:25:36
1	Si 251.611†	724.3	-38.6	-0.6193	µg/L	-0.6193	ppb	11:25:16
1	Sn 189.927†	12.5	10.7	0.7388	µg/L	0.7388	ppb	11:25:36
1	Ti 334.940†	700.7	-118.4	-0.1190	µg/L	-0.1190	ppb	11:25:16
1	Tl 190.801†	-117.6	-4.0	-0.5510	µg/L	-0.5510	ppb	11:25:36
1	U 409.014†	-293.2	-131.5	-8.2980	µg/L	-8.2980	ppb	11:25:16
1	V 292.402†	423.5	2.7	0.0124	µg/L	0.0124	ppb	11:25:16
1	Zn 213.857†	555.4	55.5	0.3283	µg/L	0.3283	ppb	11:25:36
2	Sc RADIAL	141208.0	141208.0	101	%			11:24:28
2	Al 396.153Radial†	-80.1	-1.0	-0.2395	µg/L	-0.2395	ppb	11:24:48
2	Ca 317.933Radial†	668.6	91.8	6.2554	µg/L	6.2554	ppb	11:24:48
2	Fe 238.204 Radial†	151.6	33.1	2.4698	µg/L	2.4698	ppb	11:24:48
2	K 766.490 Radial†	1653.5	146.6	58.099	µg/L	58.099	ppb	11:24:28
2	Mg 279.077 IEC†	171.1	-2.7	-1.2452	µg/L	-1.2452	ppb	11:24:48
2	Na 589.592 Radial†	1120.3	158.9	24.585	µg/L	24.585	ppb	11:24:28
2	Sr 421.552†	-172.5	33.3	0.0785	µg/L	0.0785	ppb	11:24:28
2	Sc 361.383	1798032.0	1798032.0	99.661	%			11:25:38
2	Y 371.029	1055630.4	1055630.4	99.842	%			11:25:38
2	Ag 328.068†	4410.8	-139.4	-0.5643	µg/L	-0.5643	ppb	11:25:40
2	As 188.979†	-0.7	17.8	6.0338	µg/L	6.0338	ppb	11:26:01
2	B 249.677†	4005.6	-45.9	-0.7141	µg/L	-0.7141	ppb	11:25:40
2	Ba 233.527†	-173.9	-30.0	-0.1330	µg/L	-0.1330	ppb	11:26:01
2	Be 313.107†	-589.5	500.2	0.1463	µg/L	0.1463	ppb	11:25:40
2	Cd 226.502†	-58.3	44.8	0.3028	µg/L	0.3028	ppb	11:26:01
2	Co 228.616†	-197.0	12.7	0.1672	µg/L	0.1672	ppb	11:26:01
2	Cr 267.716†	239.6	7.2	0.0584	µg/L	0.0584	ppb	11:26:01
2	Cu 324.752†	2931.5	-94.6	-0.3915	µg/L	-0.3915	ppb	11:25:40
2	Mn 257.610†	251.7	67.8	0.0900	µg/L	0.0900	ppb	11:26:01
2	Mo 202.031†	-15.2	23.3	0.7623	µg/L	0.7623	ppb	11:26:01
2	Ni 231.604†	-59.7	36.0	0.4499	µg/L	0.4499	ppb	11:26:01
2	P 214.914†	-4.0	21.7	5.0142	µg/L	5.0142	ppb	11:26:01
2	Pb 220.353†	87.7	-15.5	-0.9533	µg/L	-0.9533	ppb	11:26:01

2	S 181.975 Axial†	118.5	30.0	25.213 µg/L	25.213 ppb	11:26:01
2	Sb 206.836†	86.0	-3.4	-0.4255 µg/L	-0.4255 ppb	11:26:01
2	Se 196.026†	15.3	9.2	3.64 µg/L	3.64 ppb	11:26:01
2	SiO2†	1751.4	18.3	1.9044 µg/L	1.9044 ppb	11:26:01
2	Si 251.611†	779.4	15.0	0.2236 µg/L	0.2236 ppb	11:25:40
2	Sn 189.927†	9.4	7.6	0.5263 µg/L	0.5263 ppb	11:26:01
2	Ti 334.940†	648.1	-172.7	-0.1791 µg/L	-0.1791 ppb	11:25:40
2	Tl 190.801†	-110.6	3.3	0.4500 µg/L	0.4500 ppb	11:26:01
2	U 409.014†	-87.6	75.5	4.7647 µg/L	4.7647 ppb	11:25:40
2	V 292.402†	430.7	8.9	0.0575 µg/L	0.0575 ppb	11:25:40
2	Zn 213.857†	536.3	35.1	0.2068 µg/L	0.2068 ppb	11:26:01
3	Sc RADIAL	140558.5	140558.5	100 %		11:24:50
3	Al 396.153Radial†	-104.7	-25.8	-5.4846 µg/L	-5.4846 ppb	11:25:10
3	Ca 317.933Radial†	659.5	85.9	5.8477 µg/L	5.8477 ppb	11:25:10
3	Fe 238.204 Radial†	147.7	29.9	2.2317 µg/L	2.2317 ppb	11:25:10
3	K 766.490 Radial†	1800.1	300.4	119.02 µg/L	119.02 ppb	11:24:50
3	Mg 279.077 IEC†	183.8	10.7	4.9742 µg/L	4.9742 ppb	11:25:10
3	Na 589.592 Radial†	1201.3	244.8	37.847 µg/L	37.847 ppb	11:24:50
3	Sr 421.552†	-157.1	47.9	0.1129 µg/L	0.1129 ppb	11:24:50
3	Sc 361.383	1800005.3	1800005.3	99.770 %		11:26:03
3	Y 371.029	1056603.6	1056603.6	99.934 %		11:26:03
3	Ag 328.068†	4398.7	-156.4	-0.6614 µg/L	-0.6614 ppb	11:26:05
3	As 188.979†	-12.9	5.6	1.9114 µg/L	1.9114 ppb	11:26:25
3	B 249.677†	3886.0	-170.2	-2.6470 µg/L	-2.6470 ppb	11:26:05
3	Ba 233.527†	-172.1	-27.9	-0.1240 µg/L	-0.1240 ppb	11:26:25
3	Be 313.107†	-830.7	259.1	0.0711 µg/L	0.0711 ppb	11:26:05
3	Cd 226.502†	-92.8	10.4	0.0702 µg/L	0.0702 ppb	11:26:25
3	Co 228.616†	-192.2	17.7	0.2332 µg/L	0.2332 ppb	11:26:25
3	Cr 267.716†	225.4	-7.3	-0.0532 µg/L	-0.0532 ppb	11:26:25
3	Cu 324.752†	3072.5	43.5	0.1716 µg/L	0.1716 ppb	11:26:05
3	Mn 257.610†	219.6	35.4	0.0468 µg/L	0.0468 ppb	11:26:25
3	Mo 202.031†	-5.8	32.7	1.0701 µg/L	1.0701 ppb	11:26:25
3	Ni 231.604†	-59.0	36.7	0.4594 µg/L	0.4594 ppb	11:26:25
3	P 214.914†	-1.6	24.0	5.5473 µg/L	5.5473 ppb	11:26:25
3	Pb 220.353†	107.7	4.5	0.2875 µg/L	0.2875 ppb	11:26:25
3	S 181.975 Axial†	116.0	27.3	22.974 µg/L	22.974 ppb	11:26:25
3	Sb 206.836†	88.3	-1.2	-0.1451 µg/L	-0.1451 ppb	11:26:25
3	Se 196.026†	28.6	22.5	8.86 µg/L	8.86 ppb	11:26:25
3	SiO2†	1757.4	22.4	2.3373 µg/L	2.3373 ppb	11:26:25
3	Si 251.611†	758.0	-7.3	-0.1291 µg/L	-0.1291 ppb	11:26:05
3	Sn 189.927†	1.3	-0.6	-0.0409 µg/L	-0.0409 ppb	11:26:25
3	Ti 334.940†	605.0	-216.6	-0.2174 µg/L	-0.2174 ppb	11:26:05
3	Tl 190.801†	-112.0	2.0	0.2678 µg/L	0.2678 ppb	11:26:25
3	U 409.014†	-368.7	-206.1	-13.034 µg/L	-13.034 ppb	11:26:05
3	V 292.402†	338.2	-84.2	-0.4346 µg/L	-0.4346 ppb	11:26:05
3	Zn 213.857†	556.0	54.3	0.3205 µg/L	0.3205 ppb	11:26:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1797337.0	99.622	%	0.1705				0.17%
Sc RADIAL	141019.9	101	%	0.3				0.28%
Y 371.029	1055181.6	99.800	%	0.1600				0.16%
Ag 328.068†	-182.5	-0.7555	µg/L	0.25179	-0.7555	ppb	0.25179	33.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.3	0.4545	µg/L	6.31472	0.4545	ppb	6.31472	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	12.4	4.1884	µg/L	2.09482	4.1884	ppb	2.09482	50.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-85.3	-1.3280	µg/L	1.14326	-1.3280	ppb	1.14326	86.09%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-22.2	-0.0985	µg/L	0.05209	-0.0985	ppb	0.05209	52.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	328.6	0.0935	µg/L	0.04591	0.0935	ppb	0.04591	49.09%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	118.6	8.0786	µg/L	3.51690	8.0786	ppb	3.51690	43.53%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.2	0.1839	µg/L	0.11642	0.1839	ppb	0.11642	63.29%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.9	0.2366	µg/L	0.07122	0.2366	ppb	0.07122	30.10%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.5     -0.0177 µg/L       0.06601     -0.0177 ppb        0.06601 372.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -6.7     -0.0319 µg/L       0.31231     -0.0319 ppb        0.31231 979.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       42.6      3.1816 µg/L       1.44406      3.1816 ppb        1.44406  45.39%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       215.8     85.499 µg/L       30.9164     85.499 ppb        30.9164  36.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          13.4      6.2207 µg/L       8.16082      6.2207 ppb        8.16082 131.19%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              52.0      0.0687 µg/L       0.02163      0.0687 ppb        0.02163  31.49%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              23.3      0.7610 µg/L       0.30978      0.7610 ppb        0.30978  40.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      163.2     25.219 µg/L       12.3238     25.219 ppb        12.3238  48.87%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              34.9      0.4371 µg/L       0.03068      0.4371 ppb        0.03068   7.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               19.2      4.4295 µg/L       1.49832      4.4295 ppb        1.49832  33.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -12.5     -0.7631 µg/L       0.96966     -0.7631 ppb        0.96966 127.06%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         27.4     23.016 µg/L        2.1761     23.016 ppb         2.1761   9.45%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -6.8     -0.8698 µg/L       1.02211     -0.8698 ppb        1.02211 117.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              13.7       5.41 µg/L         2.992        5.41 ppb          2.992  55.36%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     4.1      0.4094 µg/L       2.97212      0.4094 ppb        2.97212 725.93%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -10.3     -0.1749 µg/L       0.42334     -0.1749 ppb        0.42334 242.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               5.9      0.4081 µg/L       0.40308      0.4081 ppb        0.40308  98.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               7.4      0.0174 µg/L       0.13673      0.0174 ppb        0.13673 785.52%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -169.2     -0.1718 µg/L       0.04956     -0.1718 ppb        0.04956  28.85%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.4      0.0556 µg/L       0.53317      0.0556 ppb        0.53317 959.22%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -87.4     -5.5223 µg/L       9.21810     -5.5223 ppb        9.21810 166.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -24.2     -0.1216 µg/L       0.27200     -0.1216 ppb        0.27200 223.77%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              48.3      0.2852 µg/L       0.06801      0.2852 ppb        0.06801  23.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 11:29:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136820.5	136820.5	97.7	%			11:30:02
1	Al 396.153Radial†	23381.9	24019.7	5033.7	µg/L	5033.7	ppb	11:30:02
1	Ca 317.933Radial†	73543.2	74730.7	5089.8	µg/L	5089.8	ppb	11:30:02
1	Fe 238.204 Radial†	65942.1	67402.0	5033.5	µg/L	5033.5	ppb	11:30:02
1	K 766.490 Radial†	13830.9	12667.9	5015.5	µg/L	5015.5	ppb	11:30:02
1	Mg 279.077 IEC†	10996.3	11086.9	5127.2	µg/L	5127.2	ppb	11:30:02
1	Na 589.592 Radial†	63933.4	64510.1	9995.1	µg/L	9995.1	ppb	11:30:02
1	Sr 421.552†	208111.8	213293.9	503.01	µg/L	503.01	ppb	11:30:00
1	Sc 361.383	1761858.7	1761858.7	97.656	%			11:30:29
1	Y 371.029	1023300.8	1023300.8	96.785	%			11:30:29
1	Ag 328.068†	123043.0	121431.6	503.36	µg/L	503.36	ppb	11:30:29
1	As 188.979†	1388.4	1440.3	494.45	µg/L	494.45	ppb	11:30:49
1	B 249.677†	34891.3	31663.7	490.67	µg/L	490.67	ppb	11:30:29
1	Ba 233.527†	109659.6	112436.6	500.17	µg/L	500.17	ppb	11:30:29
1	Be 313.107†	1663606.1	1704633.4	493.93	µg/L	493.93	ppb	11:30:29
1	Cd 226.502†	72443.0	74285.4	501.76	µg/L	501.76	ppb	11:30:29
1	Co 228.616†	37156.2	38258.5	506.40	µg/L	506.40	ppb	11:30:29
1	Cr 267.716†	56866.6	57998.5	501.62	µg/L	501.62	ppb	11:30:29
1	Cu 324.752†	119606.6	119441.7	501.14	µg/L	501.14	ppb	11:30:29
1	Mn 257.610†	369411.0	378094.1	501.34	µg/L	501.34	ppb	11:30:29
1	Mo 202.031†	14945.3	15342.7	502.23	µg/L	502.23	ppb	11:30:49
1	Ni 231.604†	39345.7	40386.1	505.28	µg/L	505.28	ppb	11:30:29
1	P 214.914†	10584.6	10864.3	2504.6	µg/L	2504.6	ppb	11:30:49
1	Pb 220.353†	8129.7	8221.4	507.50	µg/L	507.50	ppb	11:30:49
1	S 181.975 Axial†	1251.2	1192.3	1007.2	µg/L	1007.2	ppb	11:30:49
1	Sb 206.836†	3883.3	3886.8	502.34	µg/L	502.34	ppb	11:30:49
1	Se 196.026†	1258.6	1282.6	508	µg/L	508	ppb	11:30:49
1	SiO2†	50604.3	50080.0	5281.8	µg/L	5281.8	ppb	11:30:29
1	Si 251.611†	154407.4	157347.0	2471.2	µg/L	2471.2	ppb	11:30:29
1	Sn 189.927†	7042.6	7209.8	501.78	µg/L	501.78	ppb	11:30:49
1	Ti 334.940†	474109.2	484667.3	497.15	µg/L	497.15	ppb	11:30:29
1	Tl 190.801†	3462.4	3659.8	507.23	µg/L	507.23	ppb	11:30:49
1	U 409.014†	7134.3	7468.9	501.82	µg/L	501.82	ppb	11:30:29
1	V 292.402†	94537.5	96383.6	506.22	µg/L	506.22	ppb	11:30:29
1	Zn 213.857†	82762.2	84245.9	499.12	µg/L	499.12	ppb	11:30:29
2	Sc RADIAL	135237.7	135237.7	96.5	%			11:30:06
2	Al 396.153Radial†	23012.6	23917.3	5012.0	µg/L	5012.0	ppb	11:30:06
2	Ca 317.933Radial†	72368.9	74395.7	5067.0	µg/L	5067.0	ppb	11:30:06
2	Fe 238.204 Radial†	65011.4	67228.1	5020.5	µg/L	5020.5	ppb	11:30:06
2	K 766.490 Radial†	13826.8	12829.4	5079.5	µg/L	5079.5	ppb	11:30:06
2	Mg 279.077 IEC†	10869.4	11087.2	5127.4	µg/L	5127.4	ppb	11:30:06
2	Na 589.592 Radial†	63379.2	64702.1	10025	µg/L	10025	ppb	11:30:06
2	Sr 421.552†	206760.8	214388.3	505.59	µg/L	505.59	ppb	11:30:04
2	Sc 361.383	1755213.5	1755213.5	97.287	%			11:30:52
2	Y 371.029	1018804.5	1018804.5	96.359	%			11:30:52
2	Ag 328.068†	123276.3	122148.4	506.27	µg/L	506.27	ppb	11:30:52
2	As 188.979†	1380.0	1437.0	493.33	µg/L	493.33	ppb	11:31:12
2	B 249.677†	35110.1	32023.9	496.27	µg/L	496.27	ppb	11:30:52
2	Ba 233.527†	109680.5	112883.2	502.16	µg/L	502.16	ppb	11:30:52
2	Be 313.107†	1662352.6	1709794.5	495.42	µg/L	495.42	ppb	11:30:52
2	Cd 226.502†	72424.8	74547.5	503.54	µg/L	503.54	ppb	11:30:52
2	Co 228.616†	36976.6	38217.9	505.86	µg/L	505.86	ppb	11:30:52
2	Cr 267.716†	56640.8	57986.9	501.53	µg/L	501.53	ppb	11:30:52
2	Cu 324.752†	119400.5	119693.6	502.18	µg/L	502.18	ppb	11:30:52
2	Mn 257.610†	369192.4	379301.6	502.95	µg/L	502.95	ppb	11:30:52
2	Mo 202.031†	14979.7	15435.9	505.27	µg/L	505.27	ppb	11:31:12
2	Ni 231.604†	39164.5	40352.4	504.86	µg/L	504.86	ppb	11:30:52
2	P 214.914†	10589.4	10910.3	2515.2	µg/L	2515.2	ppb	11:31:12
2	Pb 220.353†	8151.8	8275.6	510.85	µg/L	510.85	ppb	11:31:12

2	S 181.975 Axial†	1255.2	1201.3	1014.9 µg/L	1014.9 ppb		11:31:12
2	Sb 206.836†	3899.6	3918.6	506.49 µg/L	506.49 ppb		11:31:12
2	Se 196.026†	1256.7	1285.6	509 µg/L	509 ppb		11:31:12
2	SiO2†	50502.9	50172.0	5291.5 µg/L	5291.5 ppb		11:30:52
2	Si 251.611†	154149.6	157680.6	2476.4 µg/L	2476.4 ppb		11:30:52
2	Sn 189.927†	7052.2	7247.0	504.36 µg/L	504.36 ppb		11:31:12
2	Ti 334.940†	473721.0	486106.4	498.63 µg/L	498.63 ppb		11:30:52
2	Tl 190.801†	3489.8	3701.4	512.92 µg/L	512.92 ppb		11:31:12
2	U 409.014†	6870.2	7225.1	486.41 µg/L	486.41 ppb		11:30:52
2	V 292.402†	94056.9	96256.2	505.58 µg/L	505.58 ppb		11:30:52
2	Zn 213.857†	82670.1	84472.1	500.47 µg/L	500.47 ppb		11:30:52
3	Sc RADIAL	136682.0	136682.0	97.6 %			11:30:10
3	Al 396.153Radial†	23255.0	23913.8	5011.8 µg/L	5011.8 ppb		11:30:10
3	Ca 317.933Radial†	72929.5	74178.0	5052.2 µg/L	5052.2 ppb		11:30:10
3	Fe 238.204 Radial†	65673.7	67195.3	5018.1 µg/L	5018.1 ppb		11:30:10
3	K 766.490 Radial†	13914.0	12767.5	5055.0 µg/L	5055.0 ppb		11:30:10
3	Mg 279.077 IEC†	10922.9	11023.0	5097.5 µg/L	5097.5 ppb		11:30:10
3	Na 589.592 Radial†	63890.3	64532.2	9998.5 µg/L	9998.5 ppb		11:30:10
3	Sr 421.552†	204882.1	210199.5	495.71 µg/L	495.71 ppb		11:30:08
3	Sc 361.383	1786609.6	1786609.6	99.028 %			11:31:15
3	Y 371.029	1036752.1	1036752.1	98.057 %			11:31:15
3	Ag 328.068†	125411.5	122077.8	506.02 µg/L	506.02 ppb		11:31:15
3	As 188.979†	1367.3	1399.2	480.54 µg/L	480.54 ppb		11:31:36
3	B 249.677†	35832.7	32119.5	497.75 µg/L	497.75 ppb		11:31:15
3	Ba 233.527†	111666.9	112908.0	502.27 µg/L	502.27 ppb		11:31:15
3	Be 313.107†	1695198.1	1712935.5	496.34 µg/L	496.34 ppb		11:31:15
3	Cd 226.502†	74018.8	74849.0	505.58 µg/L	505.58 ppb		11:31:15
3	Co 228.616†	37808.9	38390.5	508.15 µg/L	508.15 ppb		11:31:15
3	Cr 267.716†	57773.9	58108.0	502.57 µg/L	502.57 ppb		11:31:15
3	Cu 324.752†	121645.6	119804.0	502.66 µg/L	502.66 ppb		11:31:15
3	Mn 257.610†	375989.4	379496.6	503.20 µg/L	503.20 ppb		11:31:15
3	Mo 202.031†	14922.1	15107.2	494.52 µg/L	494.52 ppb		11:31:36
3	Ni 231.604†	40047.6	40536.7	507.16 µg/L	507.16 ppb		11:31:15
3	P 214.914†	10509.5	10638.3	2452.3 µg/L	2452.3 ppb		11:31:36
3	Pb 220.353†	8093.3	8069.3	498.12 µg/L	498.12 ppb		11:31:36
3	S 181.975 Axial†	1250.7	1174.0	991.82 µg/L	991.82 ppb		11:31:36
3	Sb 206.836†	3860.6	3808.8	492.14 µg/L	492.14 ppb		11:31:36
3	Se 196.026†	1237.7	1243.7	492 µg/L	492 ppb		11:31:36
3	SiO2†	51543.0	50310.1	5306.6 µg/L	5306.6 ppb		11:31:15
3	Si 251.611†	157269.9	158047.2	2482.4 µg/L	2482.4 ppb		11:31:15
3	Sn 189.927†	6987.1	7053.8	490.96 µg/L	490.96 ppb		11:31:36
3	Ti 334.940†	482315.1	486228.0	498.75 µg/L	498.75 ppb		11:31:15
3	Tl 190.801†	3458.2	3606.4	499.96 µg/L	499.96 ppb		11:31:36
3	U 409.014†	7182.1	7416.0	498.57 µg/L	498.57 ppb		11:31:15
3	V 292.402†	96118.6	96639.1	507.47 µg/L	507.47 ppb		11:31:15
3	Zn 213.857†	84371.3	84696.8	501.80 µg/L	501.80 ppb		11:31:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1767893.9	97.990	%	0.9171				0.94%
Sc RADIAL	136246.7	97.3	%	0.63				0.64%
Y 371.029	1026285.8	97.067	%	0.8833				0.91%
Ag 328.068†	121885.9	505.21	µg/L	1.611	505.21	ppb	1.611	0.32%
QC value within limits for Ag 328.068 Recovery = 101.04%								
Al 396.153Radial†	23950.3	5019.2	µg/L	12.60	5019.2	ppb	12.60	0.25%
QC value within limits for Al 396.153Radial Recovery = 100.38%								
As 188.979†	1425.5	489.44	µg/L	7.730	489.44	ppb	7.730	1.58%
QC value within limits for As 188.979 Recovery = 97.89%								
B 249.677†	31935.7	494.90	µg/L	3.736	494.90	ppb	3.736	0.75%
QC value within limits for B 249.677 Recovery = 98.98%								
Ba 233.527†	112742.6	501.53	µg/L	1.179	501.53	ppb	1.179	0.24%
QC value within limits for Ba 233.527 Recovery = 100.31%								
Be 313.107†	1709121.1	495.23	µg/L	1.213	495.23	ppb	1.213	0.25%
QC value within limits for Be 313.107 Recovery = 99.05%								
Ca 317.933Radial†	74434.8	5069.7	µg/L	18.96	5069.7	ppb	18.96	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.39%								
Cd 226.502†	74560.6	503.63	µg/L	1.907	503.63	ppb	1.907	0.38%
QC value within limits for Cd 226.502 Recovery = 100.73%								
Co 228.616†	38288.9	506.80	µg/L	1.195	506.80	ppb	1.195	0.24%

```
   QC value within limits for Co 228.616  Recovery = 101.36%
Cr 267.716†            58031.1      501.91 µg/L         0.576      501.91 ppb          0.576   0.11%
   QC value within limits for Cr 267.716  Recovery = 100.38%
Cu 324.752†           119646.4      501.99 µg/L         0.773      501.99 ppb          0.773   0.15%
   QC value within limits for Cu 324.752  Recovery = 100.40%
Fe 238.204 Radial†     67275.1      5024.1 µg/L          8.30      5024.1 ppb           8.30   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.48%
K 766.490 Radial†      12754.9      5050.0 µg/L         32.29      5050.0 ppb          32.29   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 101.00%
Mg 279.077 IEC†        11065.7      5117.4 µg/L         17.20      5117.4 ppb          17.20   0.34%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.35%
Mn 257.610†           378964.1      502.50 µg/L         1.008      502.50 ppb          1.008   0.20%
   QC value within limits for Mn 257.610  Recovery = 100.50%
Mo 202.031†            15295.3      500.67 µg/L         5.540      500.67 ppb          5.540   1.11%
   QC value within limits for Mo 202.031  Recovery = 100.13%
Na 589.592 Radial†     64581.5       10006 µg/L          16.3       10006 ppb           16.3   0.16%
   QC value within limits for Na 589.592 Radial  Recovery = 100.06%
Ni 231.604†            40425.1      505.77 µg/L         1.228      505.77 ppb          1.228   0.24%
   QC value within limits for Ni 231.604  Recovery = 101.15%
P 214.914†             10804.3      2490.7 µg/L         33.68      2490.7 ppb          33.68   1.35%
   QC value within limits for P 214.914  Recovery = 99.63%
Pb 220.353†             8188.8      505.49 µg/L         6.598      505.49 ppb          6.598   1.31%
   QC value within limits for Pb 220.353  Recovery = 101.10%
S 181.975 Axial†        1189.2      1004.6 µg/L         11.74      1004.6 ppb          11.74   1.17%
   QC value within limits for S 181.975 Axial  Recovery = 100.46%
Sb 206.836†             3871.4      500.32 µg/L         7.384      500.32 ppb          7.384   1.48%
   QC value within limits for Sb 206.836  Recovery = 100.06%
Se 196.026†             1270.6         503 µg/L           9.2         503 ppb            9.2   1.83%
   QC value within limits for Se 196.026  Recovery = 100.56%
SiO2†                  50187.3      5293.3 µg/L         12.47      5293.3 ppb          12.47   0.24%
   QC value within limits for SiO2  Recovery = 98.99%
Si 251.611†           157691.6      2476.7 µg/L          5.61      2476.7 ppb           5.61   0.23%
   QC value within limits for Si 251.611  Recovery = 99.07%
Sn 189.927†             7170.2      499.03 µg/L         7.107      499.03 ppb          7.107   1.42%
   QC value within limits for Sn 189.927  Recovery = 99.81%
Sr 421.552†           212627.3      501.43 µg/L         5.124      501.43 ppb          5.124   1.02%
   QC value within limits for Sr 421.552  Recovery = 100.29%
Ti 334.940†           485667.3      498.17 µg/L         0.894      498.17 ppb          0.894   0.18%
   QC value within limits for Ti 334.940  Recovery = 99.63%
Tl 190.801†             3655.9      506.70 µg/L         6.497      506.70 ppb          6.497   1.28%
   QC value within limits for Tl 190.801  Recovery = 101.34%
U 409.014†              7370.0      495.60 µg/L         8.123      495.60 ppb          8.123   1.64%
   QC value within limits for U 409.014  Recovery = 99.12%
V 292.402†             96426.3      506.43 µg/L         0.959      506.43 ppb          0.959   0.19%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†            84471.6      500.46 µg/L         1.341      500.46 ppb          1.341   0.27%
   QC value within limits for Zn 213.857  Recovery = 100.09%
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 11:31:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138159.9	138159.9	98.6	%			11:32:12
1	Al 396.153Radial†	-61.5	16.2	3.3756	µg/L	3.3756	ppb	11:32:32
1	Ca 317.933Radial†	624.1	61.4	4.1810	µg/L	4.1810	ppb	11:32:32
1	Fe 238.204 Radial†	140.2	24.8	1.8552	µg/L	1.8552	ppb	11:32:32
1	K 766.490 Radial†	1534.9	62.6	24.798	µg/L	24.798	ppb	11:32:12
1	Mg 279.077 IEC†	179.7	9.7	4.5034	µg/L	4.5034	ppb	11:32:32
1	Na 589.592 Radial†	1043.8	105.9	16.389	µg/L	16.389	ppb	11:32:12
1	Sr 421.552†	-179.3	22.7	0.0534	µg/L	0.0534	ppb	11:32:12
1	Sc 361.383	1781153.8	1781153.8	98.725	%			11:33:20
1	Y 371.029	1046438.9	1046438.9	98.973	%			11:33:20
1	Ag 328.068†	4305.8	-203.7	-0.8261	µg/L	-0.8261	ppb	11:33:22
1	As 188.979†	-14.7	3.7	1.2615	µg/L	1.2615	ppb	11:33:42
1	B 249.677†	4014.2	0.9	0.0135	µg/L	0.0135	ppb	11:33:22
1	Ba 233.527†	-154.2	-11.6	-0.0515	µg/L	-0.0515	ppb	11:33:42
1	Be 313.107†	-880.1	200.2	0.0595	µg/L	0.0595	ppb	11:33:22
1	Cd 226.502†	-65.4	37.1	0.2509	µg/L	0.2509	ppb	11:33:42
1	Co 228.616†	-204.8	2.9	0.0380	µg/L	0.0380	ppb	11:33:42
1	Cr 267.716†	266.8	37.0	0.3162	µg/L	0.3162	ppb	11:33:42
1	Cu 324.752†	3004.2	6.9	0.0333	µg/L	0.0333	ppb	11:33:22
1	Mn 257.610†	246.8	65.3	0.0864	µg/L	0.0864	ppb	11:33:42
1	Mo 202.031†	-18.2	20.2	0.6594	µg/L	0.6594	ppb	11:33:42
1	Ni 231.604†	-84.6	10.2	0.1272	µg/L	0.1272	ppb	11:33:42
1	P 214.914†	15.3	41.2	9.5223	µg/L	9.5223	ppb	11:33:42
1	Pb 220.353†	128.5	26.7	1.6394	µg/L	1.6394	ppb	11:33:42
1	S 181.975 Axial†	105.9	18.3	15.402	µg/L	15.402	ppb	11:33:42
1	Sb 206.836†	71.8	-17.0	-2.1882	µg/L	-2.1882	ppb	11:33:42
1	Se 196.026†	18.2	12.3	4.86	µg/L	4.86	ppb	11:33:42
1	SiO2†	1722.8	6.0	0.6150	µg/L	0.6150	ppb	11:33:42
1	Si 251.611†	862.6	106.7	1.6733	µg/L	1.6733	ppb	11:33:22
1	Sn 189.927†	1.7	-0.1	-0.0097	µg/L	-0.0097	ppb	11:33:42
1	Ti 334.940†	863.4	51.5	0.0505	µg/L	0.0505	ppb	11:33:22
1	Tl 190.801†	-111.9	1.0	0.1319	µg/L	0.1319	ppb	11:33:42
1	U 409.014†	-82.1	80.2	5.0710	µg/L	5.0710	ppb	11:33:22
1	V 292.402†	445.9	28.4	0.1587	µg/L	0.1587	ppb	11:33:22
1	Zn 213.857†	555.3	59.4	0.3540	µg/L	0.3540	ppb	11:33:42
2	Sc RADIAL	139520.5	139520.5	99.6	%			11:32:34
2	Al 396.153Radial†	-62.2	16.1	3.3819	µg/L	3.3819	ppb	11:32:54
2	Ca 317.933Radial†	618.3	49.3	3.3610	µg/L	3.3610	ppb	11:32:54
2	Fe 238.204 Radial†	116.3	-0.6	-0.0425	µg/L	-0.0425	ppb	11:32:54
2	K 766.490 Radial†	1507.1	19.4	7.7040	µg/L	7.7040	ppb	11:32:34
2	Mg 279.077 IEC†	162.8	-9.0	-4.1536	µg/L	-4.1536	ppb	11:32:54
2	Na 589.592 Radial†	902.2	-46.6	-7.2284	µg/L	-7.2284	ppb	11:32:34
2	Sr 421.552†	-170.6	33.2	0.0783	µg/L	0.0783	ppb	11:32:34
2	Sc 361.383	1778496.6	1778496.6	98.578	%			11:33:44
2	Y 371.029	1044974.2	1044974.2	98.834	%			11:33:44
2	Ag 328.068†	4406.6	-95.0	-0.3921	µg/L	-0.3921	ppb	11:33:46
2	As 188.979†	-16.8	1.5	0.5201	µg/L	0.5201	ppb	11:34:07
2	B 249.677†	4054.0	47.4	0.7352	µg/L	0.7352	ppb	11:33:46
2	Ba 233.527†	-128.3	14.4	0.0638	µg/L	0.0638	ppb	11:34:07
2	Be 313.107†	-889.2	189.7	0.0561	µg/L	0.0561	ppb	11:33:46
2	Cd 226.502†	-87.2	14.9	0.1006	µg/L	0.1006	ppb	11:34:07
2	Co 228.616†	-169.3	38.5	0.5098	µg/L	0.5098	ppb	11:34:07
2	Cr 267.716†	240.7	10.9	0.0915	µg/L	0.0915	ppb	11:34:07
2	Cu 324.752†	2937.7	-56.0	-0.2311	µg/L	-0.2311	ppb	11:33:46
2	Mn 257.610†	253.5	72.4	0.0962	µg/L	0.0962	ppb	11:34:07
2	Mo 202.031†	-33.8	4.2	0.1384	µg/L	0.1384	ppb	11:34:07
2	Ni 231.604†	-90.7	3.9	0.0487	µg/L	0.0487	ppb	11:34:07
2	P 214.914†	-2.7	23.0	5.3134	µg/L	5.3134	ppb	11:34:07
2	Pb 220.353†	131.4	29.8	1.8340	µg/L	1.8340	ppb	11:34:07

2	S 181.975 Axial†	114.8	27.6	23.201	µg/L	23.201 ppb	11:34:07
2	Sb 206.836†	68.7	-20.1	-2.5886	µg/L	-2.5886 ppb	11:34:07
2	Se 196.026†	18.4	12.5	4.94	µg/L	4.94 ppb	11:34:07
2	SiO2†	1743.1	29.2	3.0894	µg/L	3.0894 ppb	11:34:07
2	Si 251.611†	796.1	40.6	0.6399	µg/L	0.6399 ppb	11:33:46
2	Sn 189.927†	-2.6	-4.5	-0.3128	µg/L	-0.3128 ppb	11:34:07
2	Ti 334.940†	844.0	33.2	0.0330	µg/L	0.0330 ppb	11:33:46
2	Tl 190.801†	-114.1	-1.5	-0.2079	µg/L	-0.2079 ppb	11:34:07
2	U 409.014†	-102.8	59.1	3.6912	µg/L	3.6912 ppb	11:33:46
2	V 292.402†	292.6	-126.4	-0.6508	µg/L	-0.6508 ppb	11:33:46
2	Zn 213.857†	543.9	48.8	0.2911	µg/L	0.2911 ppb	11:34:07
3	Sc RADIAL	137468.8	137468.8	98.1	%		11:32:56
3	Al 396.153Radial†	-87.5	-10.6	-2.2710	µg/L	-2.2710 ppb	11:33:16
3	Ca 317.933Radial†	616.0	56.3	3.8368	µg/L	3.8368 ppb	11:33:16
3	Fe 238.204 Radial†	143.0	28.5	2.1256	µg/L	2.1256 ppb	11:33:16
3	K 766.490 Radial†	1510.4	45.4	17.993	µg/L	17.993 ppb	11:32:56
3	Mg 279.077 IEC†	199.4	30.8	14.227	µg/L	14.227 ppb	11:33:16
3	Na 589.592 Radial†	1098.6	167.1	25.880	µg/L	25.880 ppb	11:32:56
3	Sr 421.552†	-193.6	7.2	0.0170	µg/L	0.0170 ppb	11:32:56
3	Sc 361.383	1779132.2	1779132.2	98.613	%		11:34:09
3	Y 371.029	1044870.8	1044870.8	98.825	%		11:34:09
3	Ag 328.068†	4229.2	-276.5	-1.1269	µg/L	-1.1269 ppb	11:34:11
3	As 188.979†	-17.5	0.8	0.2907	µg/L	0.2907 ppb	11:34:31
3	B 249.677†	3990.5	-18.6	-0.2896	µg/L	-0.2896 ppb	11:34:11
3	Ba 233.527†	-154.2	-11.8	-0.0516	µg/L	-0.0516 ppb	11:34:31
3	Be 313.107†	-593.1	490.3	0.1402	µg/L	0.1402 ppb	11:34:11
3	Cd 226.502†	-73.3	29.1	0.1961	µg/L	0.1961 ppb	11:34:31
3	Co 228.616†	-185.1	22.6	0.2982	µg/L	0.2982 ppb	11:34:31
3	Cr 267.716†	239.5	9.7	0.0891	µg/L	0.0891 ppb	11:34:31
3	Cu 324.752†	2819.0	-177.5	-0.7467	µg/L	-0.7467 ppb	11:34:11
3	Mn 257.610†	209.3	27.5	0.0359	µg/L	0.0359 ppb	11:34:31
3	Mo 202.031†	-14.5	23.9	0.7807	µg/L	0.7807 ppb	11:34:31
3	Ni 231.604†	-105.7	-11.3	-0.1412	µg/L	-0.1412 ppb	11:34:31
3	P 214.914†	-8.3	17.3	3.9969	µg/L	3.9969 ppb	11:34:31
3	Pb 220.353†	108.5	6.6	0.4124	µg/L	0.4124 ppb	11:34:31
3	S 181.975 Axial†	100.0	12.5	10.490	µg/L	10.490 ppb	11:34:31
3	Sb 206.836†	62.3	-26.5	-3.4066	µg/L	-3.4066 ppb	11:34:31
3	Se 196.026†	28.1	22.3	8.80	µg/L	8.80 ppb	11:34:31
3	SiO2†	1743.7	29.1	3.0701	µg/L	3.0701 ppb	11:34:31
3	Si 251.611†	764.4	8.1	0.1206	µg/L	0.1206 ppb	11:34:11
3	Sn 189.927†	-4.6	-6.6	-0.4567	µg/L	-0.4567 ppb	11:34:31
3	Ti 334.940†	707.4	-105.6	-0.1070	µg/L	-0.1070 ppb	11:34:11
3	Tl 190.801†	-118.5	-5.9	-0.8018	µg/L	-0.8018 ppb	11:34:31
3	U 409.014†	-257.2	-97.5	-6.0915	µg/L	-6.0915 ppb	11:34:11
3	V 292.402†	616.0	201.4	1.0480	µg/L	1.0480 ppb	11:34:11
3	Zn 213.857†	551.8	56.6	0.3393	µg/L	0.3393 ppb	11:34:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1779594.2	98.639	%	0.0769				0.08%
Sc RADIAL	138383.1	98.8	%	0.75				0.75%
Y 371.029	1045428.0	98.877	%	0.0829				0.08%
Ag 328.068†	-191.7	-0.7817	µg/L	0.36941	-0.7817	ppb	0.36941	47.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.2	1.4955	µg/L	3.26187	1.4955	ppb	3.26187	218.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.0	0.6908	µg/L	0.50742	0.6908	ppb	0.50742	73.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	9.9	0.1530	µg/L	0.52644	0.1530	ppb	0.52644	343.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.0	-0.0131	µg/L	0.06661	-0.0131	ppb	0.06661	508.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	293.4	0.0853	µg/L	0.04758	0.0853	ppb	0.04758	55.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	55.7	3.7930	µg/L	0.41176	3.7930	ppb	0.41176	10.86%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.0	0.1825	µg/L	0.07603	0.1825	ppb	0.07603	41.65%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	21.3	0.2820	µg/L	0.23633	0.2820	ppb	0.23633	83.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.2      0.1656 µg/L       0.13041      0.1656 ppb        0.13041  78.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -75.6     -0.3148 µg/L       0.39666     -0.3148 ppb        0.39666 125.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       17.6      1.3128 µg/L       1.18141      1.3128 ppb        1.18141  89.99%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        42.5      16.832 µg/L        8.6058      16.832 ppb         8.6058  51.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          10.5      4.8589 µg/L       9.19547      4.8589 ppb        9.19547 189.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              55.1      0.0729 µg/L       0.03238      0.0729 ppb        0.03238  44.45%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              16.1      0.5262 µg/L       0.34124      0.5262 ppb        0.34124  64.85%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       75.4      11.680 µg/L       17.0493      11.680 ppb        17.0493 145.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.9      0.0115 µg/L       0.13797      0.0115 ppb        0.13797 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               27.2      6.2776 µg/L       2.88612      6.2776 ppb        2.88612  45.98%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              21.0      1.2953 µg/L       0.77073      1.2953 ppb        0.77073  59.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         19.4      16.364 µg/L        6.4098      16.364 ppb         6.4098  39.17%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -21.2     -2.7278 µg/L       0.62103     -2.7278 ppb        0.62103  22.77%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              15.7        6.20 µg/L         2.250        6.20 ppb          2.250  36.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    21.4      2.2582 µg/L       1.42305      2.2582 ppb        1.42305  63.02%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              51.8      0.8113 µg/L       0.79039      0.8113 ppb        0.79039  97.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -3.7     -0.2597 µg/L       0.22815     -0.2597 ppb        0.22815  87.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              21.0      0.0496 µg/L       0.03085      0.0496 ppb        0.03085  62.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -7.0     -0.0079 µg/L       0.08634     -0.0079 ppb        0.08634 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.1     -0.2926 µg/L       0.47261     -0.2926 ppb        0.47261 161.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               13.9      0.8902 µg/L       6.08556      0.8902 ppb        6.08556 683.60%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               34.5      0.1853 µg/L       0.84970      0.1853 ppb        0.84970 458.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              54.9      0.3281 µg/L       0.03289      0.3281 ppb        0.03289  10.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 11:52:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136406.2	136406.2	97.4	%			11:52:57
1	Al 396.153Radial†	23313.8	24022.4	5034.4	µg/L	5034.4	ppb	11:52:57
1	Ca 317.933Radial†	72574.7	73964.8	5037.7	µg/L	5037.7	ppb	11:52:57
1	Fe 238.204 Radial†	65230.3	66876.0	4994.3	µg/L	4994.3	ppb	11:52:57
1	K 766.490 Radial†	13928.2	12810.9	5072.2	µg/L	5072.2	ppb	11:52:57
1	Mg 279.077 IEC†	10849.4	10970.1	5073.3	µg/L	5073.3	ppb	11:52:57
1	Na 589.592 Radial†	63560.6	64326.0	9966.5	µg/L	9966.5	ppb	11:52:57
1	Sr 421.552†	209457.2	215322.9	507.79	µg/L	507.79	ppb	11:52:55
1	Sc 361.383	1772450.0	1772450.0	98.243	%			11:53:10
1	Y 371.029	1029159.8	1029159.8	97.339	%			11:53:10
1	Ag 328.068†	123371.7	121013.3	501.63	µg/L	501.63	ppb	11:53:10
1	As 188.979†	1363.6	1406.6	482.99	µg/L	482.99	ppb	11:53:30
1	B 249.677†	35057.5	31619.4	490.00	µg/L	490.00	ppb	11:53:10
1	Ba 233.527†	109674.1	111780.3	497.26	µg/L	497.26	ppb	11:53:10
1	Be 313.107†	1662161.0	1692982.8	490.56	µg/L	490.56	ppb	11:53:10
1	Cd 226.502†	72458.7	73858.1	498.88	µg/L	498.88	ppb	11:53:10
1	Co 228.616†	37051.9	37924.9	501.98	µg/L	501.98	ppb	11:53:10
1	Cr 267.716†	56912.9	57697.7	499.01	µg/L	499.01	ppb	11:53:10
1	Cu 324.752†	119955.7	119065.2	499.57	µg/L	499.57	ppb	11:53:10
1	Mn 257.610†	369739.3	376167.9	498.79	µg/L	498.79	ppb	11:53:10
1	Mo 202.031†	14945.8	15251.7	499.25	µg/L	499.25	ppb	11:53:30
1	Ni 231.604†	39204.9	40002.1	500.48	µg/L	500.48	ppb	11:53:10
1	P 214.914†	10533.6	10747.7	2477.7	µg/L	2477.7	ppb	11:53:30
1	Pb 220.353†	8092.8	8134.1	502.11	µg/L	502.11	ppb	11:53:30
1	S 181.975 Axial†	1246.7	1180.1	996.97	µg/L	996.97	ppb	11:53:30
1	Sb 206.836†	3881.5	3861.2	499.01	µg/L	499.01	ppb	11:53:30
1	Se 196.026†	1261.7	1278.2	506	µg/L	506	ppb	11:53:30
1	SiO2†	50814.8	49984.6	5271.9	µg/L	5271.9	ppb	11:53:10
1	Si 251.611†	154915.3	156919.1	2464.5	µg/L	2464.5	ppb	11:53:10
1	Sn 189.927†	6999.7	7123.1	495.75	µg/L	495.75	ppb	11:53:30
1	Ti 334.940†	474357.0	482018.6	494.42	µg/L	494.42	ppb	11:53:10
1	Tl 190.801†	3467.1	3643.4	504.96	µg/L	504.96	ppb	11:53:30
1	U 409.014†	7358.8	7653.8	513.30	µg/L	513.30	ppb	11:53:10
1	V 292.402†	94510.7	95778.0	503.06	µg/L	503.06	ppb	11:53:10
1	Zn 213.857†	82854.1	83833.1	496.69	µg/L	496.69	ppb	11:53:10
2	Sc RADIAL	137493.5	137493.5	98.1	%			11:53:01
2	Al 396.153Radial†	23368.5	23888.8	5006.2	µg/L	5006.2	ppb	11:53:01
2	Ca 317.933Radial†	73166.7	73978.6	5038.6	µg/L	5038.6	ppb	11:53:01
2	Fe 238.204 Radial†	65779.5	66905.9	4996.5	µg/L	4996.5	ppb	11:53:01
2	K 766.490 Radial†	13916.8	12686.1	5022.7	µg/L	5022.7	ppb	11:53:01
2	Mg 279.077 IEC†	10945.0	10979.5	5077.6	µg/L	5077.6	ppb	11:53:01
2	Na 589.592 Radial†	64104.8	64364.3	9972.5	µg/L	9972.5	ppb	11:53:01
2	Sr 421.552†	208104.5	212243.5	500.53	µg/L	500.53	ppb	11:52:59
2	Sc 361.383	1762317.1	1762317.1	97.681	%			11:53:33
2	Y 371.029	1024172.1	1024172.1	96.867	%			11:53:33
2	Ag 328.068†	122813.7	121164.0	502.22	µg/L	502.22	ppb	11:53:33
2	As 188.979†	1372.1	1423.3	488.62	µg/L	488.62	ppb	11:53:53
2	B 249.677†	34852.8	31615.0	489.94	µg/L	489.94	ppb	11:53:33
2	Ba 233.527†	108849.1	111577.6	496.35	µg/L	496.35	ppb	11:53:33
2	Be 313.107†	1649149.0	1689389.9	489.51	µg/L	489.51	ppb	11:53:33
2	Cd 226.502†	71871.9	73681.4	497.68	µg/L	497.68	ppb	11:53:33
2	Co 228.616†	36650.3	37730.6	499.41	µg/L	499.41	ppb	11:53:33
2	Cr 267.716†	56379.7	57484.9	497.18	µg/L	497.18	ppb	11:53:33
2	Cu 324.752†	118788.7	118572.6	497.49	µg/L	497.49	ppb	11:53:33
2	Mn 257.610†	366667.7	375187.3	497.49	µg/L	497.49	ppb	11:53:33
2	Mo 202.031†	14922.5	15315.3	501.33	µg/L	501.33	ppb	11:53:53
2	Ni 231.604†	38942.5	39962.9	499.99	µg/L	499.99	ppb	11:53:33
2	P 214.914†	10533.2	10809.0	2491.8	µg/L	2491.8	ppb	11:53:53
2	Pb 220.353†	8076.9	8165.1	504.04	µg/L	504.04	ppb	11:53:53

2	S 181.975 Axial†	1255.9	1196.8	1011.1 µg/L	1011.1 ppb	11:53:53
2	Sb 206.836†	3856.9	3858.7	498.76 µg/L	498.76 ppb	11:53:53
2	Se 196.026†	1242.7	1266.0	501 µg/L	501 ppb	11:53:53
2	SiO2†	50210.7	49663.6	5237.8 µg/L	5237.8 ppb	11:53:33
2	Si 251.611†	153979.2	156867.5	2463.7 µg/L	2463.7 ppb	11:53:33
2	Sn 189.927†	6986.3	7150.3	497.63 µg/L	497.63 ppb	11:53:53
2	Ti 334.940†	470900.5	481256.2	493.65 µg/L	493.65 ppb	11:53:33
2	Tl 190.801†	3449.9	3646.1	505.33 µg/L	505.33 ppb	11:53:53
2	U 409.014†	6983.1	7312.3	491.76 µg/L	491.76 ppb	11:53:33
2	V 292.402†	94029.1	95838.0	503.37 µg/L	503.37 ppb	11:53:33
2	Zn 213.857†	82143.5	83590.5	495.24 µg/L	495.24 ppb	11:53:33
3	Sc RADIAL	138379.3	138379.3	98.8 %		11:53:05
3	Al 396.153Radial†	23410.6	23779.0	4983.1 µg/L	4983.1 ppb	11:53:05
3	Ca 317.933Radial†	73615.3	73955.5	5037.0 µg/L	5037.0 ppb	11:53:05
3	Fe 238.204 Radial†	66155.3	66857.2	4992.8 µg/L	4992.8 ppb	11:53:05
3	K 766.490 Radial†	14062.6	12742.9	5045.3 µg/L	5045.3 ppb	11:53:05
3	Mg 279.077 IEC†	10984.3	10947.9	5063.0 µg/L	5063.0 ppb	11:53:05
3	Na 589.592 Radial†	64456.7	64302.4	9962.9 µg/L	9962.9 ppb	11:53:05
3	Sr 421.552†	211075.5	213893.9	504.42 µg/L	504.42 ppb	11:53:03
3	Sc 361.383	1773926.9	1773926.9	98.325 %		11:53:56
3	Y 371.029	1030484.0	1030484.0	97.464 %		11:53:56
3	Ag 328.068†	123843.7	121388.7	503.13 µg/L	503.13 ppb	11:53:56
3	As 188.979†	1369.1	1411.0	484.48 µg/L	484.48 ppb	11:54:16
3	B 249.677†	35237.3	31772.6	492.38 µg/L	492.38 ppb	11:53:56
3	Ba 233.527†	110079.9	112100.1	498.68 µg/L	498.68 ppb	11:53:56
3	Be 313.107†	1667071.7	1696568.6	491.59 µg/L	491.59 ppb	11:53:56
3	Cd 226.502†	72710.6	74052.8	500.20 µg/L	500.20 ppb	11:53:56
3	Co 228.616†	37053.9	37895.5	501.60 µg/L	501.60 ppb	11:53:56
3	Cr 267.716†	56941.0	57678.0	498.86 µg/L	498.86 ppb	11:53:56
3	Cu 324.752†	119958.3	118966.2	499.13 µg/L	499.13 ppb	11:53:56
3	Mn 257.610†	370604.0	376734.0	499.54 µg/L	499.54 ppb	11:53:56
3	Mo 202.031†	15013.3	15307.7	501.08 µg/L	501.08 ppb	11:54:16
3	Ni 231.604†	39324.7	40090.7	501.58 µg/L	501.58 ppb	11:53:56
3	P 214.914†	10576.2	10782.1	2485.6 µg/L	2485.6 ppb	11:54:16
3	Pb 220.353†	8159.7	8195.3	505.90 µg/L	505.90 ppb	11:54:16
3	S 181.975 Axial†	1240.8	1173.0	991.06 µg/L	991.06 ppb	11:54:16
3	Sb 206.836†	3890.0	3866.5	499.73 µg/L	499.73 ppb	11:54:16
3	Se 196.026†	1246.9	1262.0	499 µg/L	499 ppb	11:54:16
3	SiO2†	51031.8	50162.2	5290.6 µg/L	5290.6 ppb	11:53:56
3	Si 251.611†	155506.1	157388.8	2471.9 µg/L	2471.9 ppb	11:53:56
3	Sn 189.927†	7037.4	7155.4	498.00 µg/L	498.00 ppb	11:54:16
3	Ti 334.940†	475812.6	483097.0	495.55 µg/L	495.55 ppb	11:53:56
3	Tl 190.801†	3486.4	3660.1	507.26 µg/L	507.26 ppb	11:54:16
3	U 409.014†	6861.5	7141.7	481.01 µg/L	481.01 ppb	11:53:56
3	V 292.402†	94660.9	95850.6	503.43 µg/L	503.43 ppb	11:53:56
3	Zn 213.857†	83073.1	83985.6	497.59 µg/L	497.59 ppb	11:53:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769564.7	98.083	%	0.3503				0.36%
Sc RADIAL	137426.3	98.1	%	0.71				0.72%
Y 371.029	1027938.6	97.223	%	0.3148				0.32%
Ag 328.068†	121188.7	502.32	µg/L	0.756	502.32	ppb	0.756	0.15%
QC value within limits for Ag 328.068 Recovery = 100.46%								
Al 396.153Radial†	23896.8	5007.9	µg/L	25.71	5007.9	ppb	25.71	0.51%
QC value within limits for Al 396.153Radial Recovery = 100.16%								
As 188.979†	1413.6	485.36	µg/L	2.918	485.36	ppb	2.918	0.60%
QC value within limits for As 188.979 Recovery = 97.07%								
B 249.677†	31669.0	490.77	µg/L	1.393	490.77	ppb	1.393	0.28%
QC value within limits for B 249.677 Recovery = 98.15%								
Ba 233.527†	111819.3	497.43	µg/L	1.171	497.43	ppb	1.171	0.24%
QC value within limits for Ba 233.527 Recovery = 99.49%								
Be 313.107†	1692980.5	490.55	µg/L	1.038	490.55	ppb	1.038	0.21%
QC value within limits for Be 313.107 Recovery = 98.11%								
Ca 317.933Radial†	73966.3	5037.8	µg/L	0.79	5037.8	ppb	0.79	0.02%
QC value within limits for Ca 317.933Radial Recovery = 100.76%								
Cd 226.502†	73864.1	498.92	µg/L	1.256	498.92	ppb	1.256	0.25%
QC value within limits for Cd 226.502 Recovery = 99.78%								
Co 228.616†	37850.3	501.00	µg/L	1.386	501.00	ppb	1.386	0.28%

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   QC value within limits for Co 228.616  Recovery = 100.20%
Cr 267.716†            57620.2      498.35 µg/L        1.014      498.35 ppb          1.014   0.20%
   QC value within limits for Cr 267.716  Recovery = 99.67%
Cu 324.752†           118868.0      498.73 µg/L        1.096      498.73 ppb          1.096   0.22%
   QC value within limits for Cu 324.752  Recovery = 99.75%
Fe 238.204 Radial†     66879.7      4994.5 µg/L         1.83      4994.5 ppb           1.83   0.04%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.89%
K 766.490 Radial†      12746.7      5046.7 µg/L        24.75      5046.7 ppb          24.75   0.49%
   QC value within limits for K 766.490 Radial  Recovery = 100.93%
Mg 279.077 IEC†        10965.8      5071.3 µg/L         7.49      5071.3 ppb           7.49   0.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.43%
Mn 257.610†           376029.8      498.61 µg/L        1.038      498.61 ppb          1.038   0.21%
   QC value within limits for Mn 257.610  Recovery = 99.72%
Mo 202.031†            15291.6      500.55 µg/L        1.135      500.55 ppb          1.135   0.23%
   QC value within limits for Mo 202.031  Recovery = 100.11%
Na 589.592 Radial†     64330.9      9967.3 µg/L         4.85      9967.3 ppb           4.85   0.05%
   QC value within limits for Na 589.592 Radial  Recovery = 99.67%
Ni 231.604†            40018.5      500.68 µg/L        0.819      500.68 ppb          0.819   0.16%
   QC value within limits for Ni 231.604  Recovery = 100.14%
P 214.914†             10779.6      2485.0 µg/L         7.11      2485.0 ppb           7.11   0.29%
   QC value within limits for P 214.914  Recovery = 99.40%
Pb 220.353†             8164.8      504.01 µg/L        1.894      504.01 ppb          1.894   0.38%
   QC value within limits for Pb 220.353  Recovery = 100.80%
S 181.975 Axial†        1183.3      999.69 µg/L       10.271      999.69 ppb         10.271   1.03%
   QC value within limits for S 181.975 Axial  Recovery = 99.97%
Sb 206.836†             3862.2      499.17 µg/L        0.507      499.17 ppb          0.507   0.10%
   QC value within limits for Sb 206.836  Recovery = 99.83%
Se 196.026†             1268.7         502 µg/L          3.3         502 ppb            3.3   0.66%
   QC value within limits for Se 196.026  Recovery = 100.40%
SiO2†                  49936.8      5266.8 µg/L        26.77      5266.8 ppb          26.77   0.51%
   QC value within limits for SiO2  Recovery = 98.49%
Si 251.611†           157058.5      2466.7 µg/L         4.52      2466.7 ppb           4.52   0.18%
   QC value within limits for Si 251.611  Recovery = 98.67%
Sn 189.927†             7142.9      497.13 µg/L        1.207      497.13 ppb          1.207   0.24%
   QC value within limits for Sn 189.927  Recovery = 99.43%
Sr 421.552†           213820.1      504.25 µg/L        3.634      504.25 ppb          3.634   0.72%
   QC value within limits for Sr 421.552  Recovery = 100.85%
Ti 334.940†           482123.9      494.54 µg/L        0.953      494.54 ppb          0.953   0.19%
   QC value within limits for Ti 334.940  Recovery = 98.91%
Tl 190.801†             3649.9      505.85 µg/L        1.234      505.85 ppb          1.234   0.24%
   QC value within limits for Tl 190.801  Recovery = 101.17%
U 409.014†              7369.3      495.36 µg/L       16.441      495.36 ppb         16.441   3.32%
   QC value within limits for U 409.014  Recovery = 99.07%
V 292.402†             95822.2      503.28 µg/L        0.199      503.28 ppb          0.199   0.04%
   QC value within limits for V 292.402  Recovery = 100.66%
Zn 213.857†            83803.0      496.51 µg/L        1.184      496.51 ppb          1.184   0.24%
   QC value within limits for Zn 213.857  Recovery = 99.30%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 11:54:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139389.9	139389.9	99.5	%			11:54:54
1	Al 396.153Radial†	-84.0	-5.9	-1.2593	µg/L	-1.2593	ppb	11:55:14
1	Ca 317.933Radial†	644.5	76.3	5.1950	µg/L	5.1950	ppb	11:55:14
1	Fe 238.204 Radial†	160.6	44.1	3.2902	µg/L	3.2902	ppb	11:55:14
1	K 766.490 Radial†	1607.6	121.9	48.305	µg/L	48.305	ppb	11:54:54
1	Mg 279.077 IEC†	175.1	3.6	1.6593	µg/L	1.6593	ppb	11:55:14
1	Na 589.592 Radial†	1147.4	200.7	31.068	µg/L	31.068	ppb	11:54:54
1	Sr 421.552†	-289.7	-86.7	-0.2046	µg/L	-0.2046	ppb	11:54:54
1	Sc 361.383	1803679.3	1803679.3	99.974	%			11:56:02
1	Y 371.029	1059662.4	1059662.4	100.22	%			11:56:02
1	Ag 328.068†	4030.2	-533.9	-2.1911	µg/L	-2.1911	ppb	11:56:04
1	As 188.979†	-11.4	7.1	2.4097	µg/L	2.4097	ppb	11:56:24
1	B 249.677†	4005.8	-58.3	-0.9066	µg/L	-0.9066	ppb	11:56:04
1	Ba 233.527†	-141.6	2.9	0.0132	µg/L	0.0132	ppb	11:56:24
1	Be 313.107†	-854.4	237.1	0.0672	µg/L	0.0672	ppb	11:56:04
1	Cd 226.502†	-87.6	15.7	0.1061	µg/L	0.1061	ppb	11:56:24
1	Co 228.616†	-200.7	9.6	0.1266	µg/L	0.1266	ppb	11:56:24
1	Cr 267.716†	259.2	26.0	0.2290	µg/L	0.2290	ppb	11:56:24
1	Cu 324.752†	2917.7	-117.6	-0.4953	µg/L	-0.4953	ppb	11:56:04
1	Mn 257.610†	254.2	69.5	0.0921	µg/L	0.0921	ppb	11:56:24
1	Mo 202.031†	-24.6	14.0	0.4572	µg/L	0.4572	ppb	11:56:24
1	Ni 231.604†	-52.1	43.7	0.5473	µg/L	0.5473	ppb	11:56:24
1	P 214.914†	3.0	28.7	6.6281	µg/L	6.6281	ppb	11:56:24
1	Pb 220.353†	103.6	0.2	0.0141	µg/L	0.0141	ppb	11:56:24
1	S 181.975 Axial†	87.0	-1.9	-1.6322	µg/L	-1.6322	ppb	11:56:24
1	Sb 206.836†	75.3	-14.4	-1.8542	µg/L	-1.8542	ppb	11:56:24
1	Se 196.026†	25.6	19.4	7.65	µg/L	7.65	ppb	11:56:24
1	SiO2†	1766.5	27.9	2.9396	µg/L	2.9396	ppb	11:56:24
1	Si 251.611†	936.0	169.2	2.6606	µg/L	2.6606	ppb	11:56:04
1	Sn 189.927†	4.7	2.8	0.1940	µg/L	0.1940	ppb	11:56:24
1	Ti 334.940†	790.9	-31.9	-0.0308	µg/L	-0.0308	ppb	11:56:04
1	Tl 190.801†	-109.3	4.9	0.6728	µg/L	0.6728	ppb	11:56:24
1	U 409.014†	-240.1	-76.8	-4.8425	µg/L	-4.8425	ppb	11:56:04
1	V 292.402†	433.4	10.3	0.0553	µg/L	0.0553	ppb	11:56:04
1	Zn 213.857†	610.2	107.4	0.6379	µg/L	0.6379	ppb	11:56:24
2	Sc RADIAL	139282.4	139282.4	99.4	%			11:55:16
2	Al 396.153Radial†	-42.2	36.1	7.5894	µg/L	7.5894	ppb	11:55:36
2	Ca 317.933Radial†	638.7	70.9	4.8316	µg/L	4.8316	ppb	11:55:36
2	Fe 238.204 Radial†	158.2	41.9	3.1259	µg/L	3.1259	ppb	11:55:36
2	K 766.490 Radial†	1707.0	223.2	88.420	µg/L	88.420	ppb	11:55:16
2	Mg 279.077 IEC†	177.7	6.3	2.9217	µg/L	2.9217	ppb	11:55:36
2	Na 589.592 Radial†	1039.6	93.2	14.364	µg/L	14.364	ppb	11:55:16
2	Sr 421.552†	-106.1	97.7	0.2305	µg/L	0.2305	ppb	11:55:16
2	Sc 361.383	1821566.7	1821566.7	100.97	%			11:56:26
2	Y 371.029	1068824.4	1068824.4	101.09	%			11:56:26
2	Ag 328.068†	4339.7	-267.0	-1.1089	µg/L	-1.1089	ppb	11:56:28
2	As 188.979†	-18.8	-0.1	-0.0164	µg/L	-0.0164	ppb	11:56:49
2	B 249.677†	4055.1	-48.8	-0.7607	µg/L	-0.7607	ppb	11:56:28
2	Ba 233.527†	-123.2	22.5	0.0996	µg/L	0.0996	ppb	11:56:49
2	Be 313.107†	-844.8	255.0	0.0729	µg/L	0.0729	ppb	11:56:28
2	Cd 226.502†	-65.9	38.1	0.2575	µg/L	0.2575	ppb	11:56:49
2	Co 228.616†	-177.6	34.4	0.4555	µg/L	0.4555	ppb	11:56:49
2	Cr 267.716†	273.2	37.4	0.3256	µg/L	0.3256	ppb	11:56:49
2	Cu 324.752†	3023.7	-41.3	-0.1746	µg/L	-0.1746	ppb	11:56:28
2	Mn 257.610†	559.5	369.5	0.4900	µg/L	0.4900	ppb	11:56:49
2	Mo 202.031†	-27.6	11.2	0.3677	µg/L	0.3677	ppb	11:56:49
2	Ni 231.604†	-57.5	39.0	0.4875	µg/L	0.4875	ppb	11:56:49
2	P 214.914†	21.5	47.0	10.874	µg/L	10.874	ppb	11:56:49
2	Pb 220.353†	83.8	-20.4	-1.2522	µg/L	-1.2522	ppb	11:56:49

2	S 181.975 Axial†	95.6	5.8	4.8821 µg/L	4.8821 ppb	11:56:49
2	Sb 206.836†	69.7	-20.7	-2.6649 µg/L	-2.6649 ppb	11:56:49
2	Se 196.026†	22.8	16.4	6.45 µg/L	6.45 ppb	11:56:49
2	SiO2†	1841.3	84.6	8.9537 µg/L	8.9537 ppb	11:56:49
2	Si 251.611†	927.3	151.4	2.3842 µg/L	2.3842 ppb	11:56:28
2	Sn 189.927†	-2.1	-4.0	-0.2757 µg/L	-0.2757 ppb	11:56:49
2	Ti 334.940†	628.9	-200.1	-0.2043 µg/L	-0.2043 ppb	11:56:28
2	Tl 190.801†	-115.8	-0.5	-0.0731 µg/L	-0.0731 ppb	11:56:49
2	U 409.014†	-218.4	-53.0	-3.3981 µg/L	-3.3981 ppb	11:56:28
2	V 292.402†	237.2	-188.3	-0.9729 µg/L	-0.9729 ppb	11:56:28
2	Zn 213.857†	635.0	125.9	0.7484 µg/L	0.7484 ppb	11:56:49
3	Sc RADIAL	139340.4	139340.4	99.5 %		11:55:38
3	Al 396.153Radial†	-77.3	0.8	0.1277 µg/L	0.1277 ppb	11:55:58
3	Ca 317.933Radial†	597.0	28.7	1.9576 µg/L	1.9576 ppb	11:55:58
3	Fe 238.204 Radial†	155.3	38.9	2.9027 µg/L	2.9027 ppb	11:55:58
3	K 766.490 Radial†	1502.8	17.1	6.7800 µg/L	6.7800 ppb	11:55:38
3	Mg 279.077 IEC†	194.6	23.2	10.746 µg/L	10.746 ppb	11:55:58
3	Na 589.592 Radial†	1106.6	160.1	24.810 µg/L	24.810 ppb	11:55:38
3	Sr 421.552†	-124.6	79.2	0.1869 µg/L	0.1869 ppb	11:55:38
3	Sc 361.383	1797247.0	1797247.0	99.617 %		11:56:51
3	Y 371.029	1055174.4	1055174.4	99.799 %		11:56:51
3	Ag 328.068†	4221.6	-327.3	-1.3518 µg/L	-1.3518 ppb	11:56:53
3	As 188.979†	-9.7	8.8	2.9796 µg/L	2.9796 ppb	11:57:13
3	B 249.677†	3829.7	-220.7	-3.4338 µg/L	-3.4338 ppb	11:56:53
3	Ba 233.527†	-151.6	-7.6	-0.0339 µg/L	-0.0339 ppb	11:57:13
3	Be 313.107†	-753.4	335.5	0.0958 µg/L	0.0958 ppb	11:56:53
3	Cd 226.502†	-87.6	15.5	0.1044 µg/L	0.1044 ppb	11:57:13
3	Co 228.616†	-191.7	17.9	0.2362 µg/L	0.2362 ppb	11:57:13
3	Cr 267.716†	227.7	-4.6	-0.0368 µg/L	-0.0368 ppb	11:57:13
3	Cu 324.752†	2886.9	-138.1	-0.5806 µg/L	-0.5806 ppb	11:56:53
3	Mn 257.610†	271.2	87.5	0.1156 µg/L	0.1156 ppb	11:57:13
3	Mo 202.031†	-6.1	32.4	1.0600 µg/L	1.0600 ppb	11:57:13
3	Ni 231.604†	-73.4	22.2	0.2780 µg/L	0.2780 ppb	11:57:13
3	P 214.914†	3.6	29.3	6.7857 µg/L	6.7857 ppb	11:57:13
3	Pb 220.353†	60.8	-42.4	-2.6054 µg/L	-2.6054 ppb	11:57:13
3	S 181.975 Axial†	106.0	17.5	14.706 µg/L	14.706 ppb	11:57:13
3	Sb 206.836†	79.7	-9.8	-1.2426 µg/L	-1.2426 ppb	11:57:13
3	Se 196.026†	15.7	9.6	3.78 µg/L	3.78 ppb	11:57:13
3	SiO2†	1829.5	97.4	10.277 µg/L	10.277 ppb	11:57:13
3	Si 251.611†	1111.0	348.3	5.4721 µg/L	5.4721 ppb	11:56:53
3	Sn 189.927†	13.7	11.9	0.8234 µg/L	0.8234 ppb	11:57:13
3	Ti 334.940†	717.7	-102.5	-0.1043 µg/L	-0.1043 ppb	11:56:53
3	Tl 190.801†	-119.4	-5.6	-0.7640 µg/L	-0.7640 ppb	11:57:13
3	U 409.014†	-232.3	-69.9	-4.4392 µg/L	-4.4392 ppb	11:56:53
3	V 292.402†	319.0	-103.0	-0.5260 µg/L	-0.5260 ppb	11:56:53
3	Zn 213.857†	589.3	88.6	0.5275 µg/L	0.5275 ppb	11:57:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807497.7	100.19	%	0.698				0.70%
Sc RADIAL	139337.6	99.5	%	0.04				0.04%
Y 371.029	1061220.4	100.37	%	0.658				0.66%
Ag 328.068†	-376.1	-1.5506	µg/L	0.56784	-1.5506	ppb	0.56784	36.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.4	2.1526	µg/L	4.75922	2.1526	ppb	4.75922	221.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.3	1.7910	µg/L	1.59094	1.7910	ppb	1.59094	88.83%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-109.3	-1.7004	µg/L	1.50298	-1.7004	ppb	1.50298	88.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.0	0.0263	µg/L	0.06770	0.0263	ppb	0.06770	257.26%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	275.9	0.0786	µg/L	0.01517	0.0786	ppb	0.01517	19.29%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	58.7	3.9947	µg/L	1.77355	3.9947	ppb	1.77355	44.40%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.1	0.1560	µg/L	0.08793	0.1560	ppb	0.08793	56.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.6	0.2728	µg/L	0.16746	0.2728	ppb	0.16746	61.39%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.6      0.1726 µg/L       0.18768      0.1726 ppb        0.18768 108.74%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -99.0     -0.4168 µg/L       0.21408     -0.4168 ppb        0.21408  51.36%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       41.6      3.1063 µg/L       0.19449      3.1063 ppb        0.19449   6.26%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       120.7     47.835 µg/L       40.8218     47.835 ppb        40.8218  85.34%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          11.0      5.1091 µg/L       4.92266      5.1091 ppb        4.92266  96.35%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             175.5      0.2326 µg/L       0.22323      0.2326 ppb        0.22323  95.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              19.2      0.6283 µg/L       0.37654      0.6283 ppb        0.37654  59.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      151.3     23.414 µg/L        8.4391     23.414 ppb         8.4391  36.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              35.0      0.4376 µg/L       0.14140      0.4376 ppb        0.14140  32.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               35.0      8.0960 µg/L       2.40728      8.0960 ppb        2.40728  29.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -20.9     -1.2812 µg/L       1.30999     -1.2812 ppb        1.30999 102.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          7.1      5.9853 µg/L       8.22482      5.9853 ppb        8.22482 137.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -14.9     -1.9206 µg/L       0.71350     -1.9206 ppb        0.71350  37.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              15.1        5.96 µg/L         1.979        5.96 ppb          1.979  33.19%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    70.0      7.3902 µg/L       3.91074      7.3902 ppb        3.91074  52.92%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             222.9      3.5056 µg/L       1.70860      3.5056 ppb        1.70860  48.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.6      0.2472 µg/L       0.55145      0.2472 ppb        0.55145 223.04%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              30.1      0.0709 µg/L       0.23957      0.0709 ppb        0.23957 337.83%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -111.5     -0.1132 µg/L       0.08709     -0.1132 ppb        0.08709  76.96%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.4     -0.0548 µg/L       0.71858     -0.0548 ppb        0.71858 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -66.5     -4.2266 µg/L       0.74532     -4.2266 ppb        0.74532  17.63%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -93.6     -0.4812 µg/L       0.51557     -0.4812 ppb        0.51557 107.15%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             107.3      0.6379 µg/L       0.11045      0.6379 ppb        0.11045  17.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 12:16:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138173.1	138173.1	98.6	%			12:17:08
1	Al 396.153Radial†	23436.3	23840.5	4995.9	µg/L	4995.9	ppb	12:17:08
1	Ca 317.933Radial†	73829.7	74284.1	5059.4	µg/L	5059.4	ppb	12:17:08
1	Fe 238.204 Radial†	66677.7	67486.8	5039.9	µg/L	5039.9	ppb	12:17:08
1	K 766.490 Radial†	14215.5	12919.2	5115.1	µg/L	5115.1	ppb	12:17:08
1	Mg 279.077 IEC†	11111.0	11092.9	5130.0	µg/L	5130.0	ppb	12:17:08
1	Na 589.592 Radial†	64510.7	64454.5	9986.4	µg/L	9986.4	ppb	12:17:08
1	Sr 421.552†	208276.3	211374.6	498.48	µg/L	498.48	ppb	12:17:05
1	Sc 361.383	1771153.0	1771153.0	98.171	%			12:17:34
1	Y 371.029	1029832.2	1029832.2	97.402	%			12:17:34
1	Ag 328.068†	123736.1	121476.4	503.55	µg/L	503.55	ppb	12:17:34
1	As 188.979†	1382.2	1426.5	489.79	µg/L	489.79	ppb	12:17:54
1	B 249.677†	35147.2	31736.9	491.81	µg/L	491.81	ppb	12:17:34
1	Ba 233.527†	110394.8	112596.2	500.88	µg/L	500.88	ppb	12:17:34
1	Be 313.107†	1668216.9	1700390.5	492.70	µg/L	492.70	ppb	12:17:34
1	Cd 226.502†	72697.5	74155.4	500.88	µg/L	500.88	ppb	12:17:34
1	Co 228.616†	37260.4	38164.9	505.16	µg/L	505.16	ppb	12:17:34
1	Cr 267.716†	57133.8	57965.1	501.33	µg/L	501.33	ppb	12:17:34
1	Cu 324.752†	120539.2	119749.0	502.44	µg/L	502.44	ppb	12:17:34
1	Mn 257.610†	371828.3	378571.5	501.98	µg/L	501.98	ppb	12:17:34
1	Mo 202.031†	15099.0	15418.9	504.72	µg/L	504.72	ppb	12:17:54
1	Ni 231.604†	39340.9	40169.8	502.57	µg/L	502.57	ppb	12:17:34
1	P 214.914†	10642.4	10866.4	2505.0	µg/L	2505.0	ppb	12:17:54
1	Pb 220.353†	8192.1	8241.3	508.72	µg/L	508.72	ppb	12:17:54
1	S 181.975 Axial†	1246.0	1180.3	997.22	µg/L	997.22	ppb	12:17:54
1	Sb 206.836†	3907.2	3890.3	502.82	µg/L	502.82	ppb	12:17:54
1	Se 196.026†	1267.0	1284.5	508	µg/L	508	ppb	12:17:54
1	SiO2†	51163.3	50377.5	5313.3	µg/L	5313.3	ppb	12:17:34
1	Si 251.611†	156323.1	158468.6	2488.8	µg/L	2488.8	ppb	12:17:34
1	Sn 189.927†	7092.0	7222.2	502.64	µg/L	502.64	ppb	12:17:54
1	Ti 334.940†	477558.9	485633.6	498.13	µg/L	498.13	ppb	12:17:34
1	Tl 190.801†	3523.3	3703.2	513.18	µg/L	513.18	ppb	12:17:54
1	U 409.014†	7278.5	7577.4	508.67	µg/L	508.67	ppb	12:17:34
1	V 292.402†	95032.0	96379.4	506.23	µg/L	506.23	ppb	12:17:34
1	Zn 213.857†	83125.8	84171.6	498.69	µg/L	498.69	ppb	12:17:34
2	Sc RADIAL	136709.1	136709.1	97.6	%			12:17:12
2	Al 396.153Radial†	23297.2	23952.4	5019.6	µg/L	5019.6	ppb	12:17:12
2	Ca 317.933Radial†	72959.0	74193.5	5053.2	µg/L	5053.2	ppb	12:17:12
2	Fe 238.204 Radial†	65851.7	67364.3	5030.7	µg/L	5030.7	ppb	12:17:12
2	K 766.490 Radial†	13849.6	12698.6	5027.7	µg/L	5027.7	ppb	12:17:12
2	Mg 279.077 IEC†	10906.9	11004.4	5089.1	µg/L	5089.1	ppb	12:17:12
2	Na 589.592 Radial†	64040.2	64672.9	10020	µg/L	10020	ppb	12:17:12
2	Sr 421.552†	208577.2	213944.5	504.54	µg/L	504.54	ppb	12:17:10
2	Sc 361.383	1790471.7	1790471.7	99.242	%			12:17:58
2	Y 371.029	1040499.0	1040499.0	98.411	%			12:17:58
2	Ag 328.068†	125354.8	121747.5	504.66	µg/L	504.66	ppb	12:17:58
2	As 188.979†	1362.5	1391.5	477.93	µg/L	477.93	ppb	12:18:18
2	B 249.677†	35724.9	31932.7	494.85	µg/L	494.85	ppb	12:17:58
2	Ba 233.527†	111665.0	112662.7	501.18	µg/L	501.18	ppb	12:17:58
2	Be 313.107†	1689440.1	1703440.9	493.59	µg/L	493.59	ppb	12:17:58
2	Cd 226.502†	73727.4	74394.1	502.50	µg/L	502.50	ppb	12:17:58
2	Co 228.616†	37877.1	38376.8	507.96	µg/L	507.96	ppb	12:17:58
2	Cr 267.716†	57789.1	57997.4	501.61	µg/L	501.61	ppb	12:17:58
2	Cu 324.752†	121820.0	119714.7	502.29	µg/L	502.29	ppb	12:17:58
2	Mn 257.610†	376181.4	378871.2	502.38	µg/L	502.38	ppb	12:17:58
2	Mo 202.031†	15140.8	15295.0	500.67	µg/L	500.67	ppb	12:18:18
2	Ni 231.604†	39919.1	40320.1	504.45	µg/L	504.45	ppb	12:17:58
2	P 214.914†	10675.0	10782.2	2485.6	µg/L	2485.6	ppb	12:18:18
2	Pb 220.353†	8199.1	8158.3	503.61	µg/L	503.61	ppb	12:18:18

2	S 181.975 Axial†	1250.2	1170.9	989.23 µg/L	989.23 ppb	12:18:18
2	Sb 206.836†	3900.5	3840.6	496.34 µg/L	496.34 ppb	12:18:18
2	Se 196.026†	1261.8	1265.3	501 µg/L	501 ppb	12:18:18
2	SiO2†	51903.6	50561.1	5332.9 µg/L	5332.9 ppb	12:17:58
2	Si 251.611†	158711.3	159157.0	2499.8 µg/L	2499.8 ppb	12:17:58
2	Sn 189.927†	7069.7	7121.8	495.68 µg/L	495.68 ppb	12:18:18
2	Ti 334.940†	483377.5	486248.0	498.77 µg/L	498.77 ppb	12:17:58
2	Tl 190.801†	3525.8	3667.0	508.23 µg/L	508.23 ppb	12:18:18
2	U 409.014†	7276.7	7495.6	503.52 µg/L	503.52 ppb	12:17:58
2	V 292.402†	96108.6	96419.7	506.39 µg/L	506.39 ppb	12:17:58
2	Zn 213.857†	84041.9	84181.0	498.73 µg/L	498.73 ppb	12:17:58
3	Sc RADIAL	137430.0	137430.0	98.1 %		12:17:16
3	Al 396.153Radial†	23488.3	24022.0	5034.0 µg/L	5034.0 ppb	12:17:16
3	Ca 317.933Radial†	73707.4	74564.2	5078.5 µg/L	5078.5 ppb	12:17:16
3	Fe 238.204 Radial†	66294.6	67461.9	5038.0 µg/L	5038.0 ppb	12:17:16
3	K 766.490 Radial†	13997.9	12775.3	5058.1 µg/L	5058.1 ppb	12:17:16
3	Mg 279.077 IEC†	10912.3	10951.3	5064.7 µg/L	5064.7 ppb	12:17:16
3	Na 589.592 Radial†	64249.5	64542.0	10000 µg/L	10000 ppb	12:17:16
3	Sr 421.552†	206570.3	210777.5	497.07 µg/L	497.07 ppb	12:17:14
3	Sc 361.383	1791956.4	1791956.4	99.324 %		12:18:21
3	Y 371.029	1040969.8	1040969.8	98.456 %		12:18:21
3	Ag 328.068†	125471.1	121760.0	504.71 µg/L	504.71 ppb	12:18:21
3	As 188.979†	1389.7	1417.7	486.83 µg/L	486.83 ppb	12:18:41
3	B 249.677†	35714.4	31892.3	494.22 µg/L	494.22 ppb	12:18:21
3	Ba 233.527†	112011.5	112918.4	502.32 µg/L	502.32 ppb	12:18:21
3	Be 313.107†	1691084.9	1703686.5	493.66 µg/L	493.66 ppb	12:18:21
3	Cd 226.502†	73961.0	74567.8	503.67 µg/L	503.67 ppb	12:18:21
3	Co 228.616†	37900.0	38368.2	507.85 µg/L	507.85 ppb	12:18:21
3	Cr 267.716†	57873.2	58033.9	501.93 µg/L	501.93 ppb	12:18:21
3	Cu 324.752†	121881.7	119675.2	502.12 µg/L	502.12 ppb	12:18:21
3	Mn 257.610†	376942.5	379323.3	502.98 µg/L	502.98 ppb	12:18:21
3	Mo 202.031†	15340.9	15483.8	506.84 µg/L	506.84 ppb	12:18:41
3	Ni 231.604†	40041.2	40409.6	505.57 µg/L	505.57 ppb	12:18:21
3	P 214.914†	10860.3	10960.0	2526.7 µg/L	2526.7 ppb	12:18:41
3	Pb 220.353†	8326.6	8279.8	511.10 µg/L	511.10 ppb	12:18:41
3	S 181.975 Axial†	1272.4	1192.1	1007.2 µg/L	1007.2 ppb	12:18:41
3	Sb 206.836†	3964.4	3901.7	504.31 µg/L	504.31 ppb	12:18:41
3	Se 196.026†	1279.4	1281.9	507 µg/L	507 ppb	12:18:41
3	SiO2†	52183.1	50799.2	5357.8 µg/L	5357.8 ppb	12:18:21
3	Si 251.611†	159232.7	159549.5	2505.8 µg/L	2505.8 ppb	12:18:21
3	Sn 189.927†	7190.1	7237.1	503.67 µg/L	503.67 ppb	12:18:41
3	Ti 334.940†	483431.3	485898.6	498.41 µg/L	498.41 ppb	12:18:21
3	Tl 190.801†	3579.1	3717.8	515.16 µg/L	515.16 ppb	12:18:41
3	U 409.014†	7290.1	7503.1	504.01 µg/L	504.01 ppb	12:18:21
3	V 292.402†	96227.3	96459.0	506.66 µg/L	506.66 ppb	12:18:21
3	Zn 213.857†	84398.4	84469.8	500.45 µg/L	500.45 ppb	12:18:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1784527.0	98.912	%	0.6433				0.65%
Sc RADIAL	137437.4	98.1	%	0.52				0.53%
Y 371.029	1037100.3	98.090	%	0.5957				0.61%
Ag 328.068†	121661.3	504.31	µg/L	0.654	504.31	ppb	0.654	0.13%
QC value within limits for Ag 328.068 Recovery = 100.86%								
Al 396.153Radial†	23938.3	5016.5	µg/L	19.24	5016.5	ppb	19.24	0.38%
QC value within limits for Al 396.153Radial Recovery = 100.33%								
As 188.979†	1411.9	484.85	µg/L	6.176	484.85	ppb	6.176	1.27%
QC value within limits for As 188.979 Recovery = 96.97%								
B 249.677†	31854.0	493.63	µg/L	1.602	493.63	ppb	1.602	0.32%
QC value within limits for B 249.677 Recovery = 98.73%								
Ba 233.527†	112725.8	501.46	µg/L	0.757	501.46	ppb	0.757	0.15%
QC value within limits for Ba 233.527 Recovery = 100.29%								
Be 313.107†	1702506.0	493.32	µg/L	0.531	493.32	ppb	0.531	0.11%
QC value within limits for Be 313.107 Recovery = 98.66%								
Ca 317.933Radial†	74347.3	5063.7	µg/L	13.16	5063.7	ppb	13.16	0.26%
QC value within limits for Ca 317.933Radial Recovery = 101.27%								
Cd 226.502†	74372.4	502.35	µg/L	1.400	502.35	ppb	1.400	0.28%
QC value within limits for Cd 226.502 Recovery = 100.47%								
Co 228.616†	38303.3	506.99	µg/L	1.587	506.99	ppb	1.587	0.31%

```
   QC value within limits for Co 228.616  Recovery = 101.40%
Cr 267.716†            57998.8      501.62 µg/L         0.300      501.62 ppb          0.300   0.06%
   QC value within limits for Cr 267.716  Recovery = 100.32%
Cu 324.752†           119713.0      502.28 µg/L         0.157      502.28 ppb          0.157   0.03%
   QC value within limits for Cu 324.752  Recovery = 100.46%
Fe 238.204 Radial†     67437.7      5036.2 µg/L          4.83      5036.2 ppb           4.83   0.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.72%
K 766.490 Radial†      12797.7      5066.9 µg/L         44.38      5066.9 ppb          44.38   0.88%
   QC value within limits for K 766.490 Radial  Recovery = 101.34%
Mg 279.077 IEC†        11016.2      5094.6 µg/L         33.02      5094.6 ppb          33.02   0.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.89%
Mn 257.610†           378922.0      502.44 µg/L         0.503      502.44 ppb          0.503   0.10%
   QC value within limits for Mn 257.610  Recovery = 100.49%
Mo 202.031†            15399.3      504.08 µg/L         3.137      504.08 ppb          3.137   0.62%
   QC value within limits for Mo 202.031  Recovery = 100.82%
Na 589.592 Radial†     64556.5       10002 µg/L          17.1       10002 ppb           17.1   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 100.02%
Ni 231.604†            40299.8      504.20 µg/L         1.516      504.20 ppb          1.516   0.30%
   QC value within limits for Ni 231.604  Recovery = 100.84%
P 214.914†             10869.5      2505.8 µg/L         20.57      2505.8 ppb          20.57   0.82%
   QC value within limits for P 214.914  Recovery = 100.23%
Pb 220.353†             8226.4      507.81 µg/L         3.830      507.81 ppb          3.830   0.75%
   QC value within limits for Pb 220.353  Recovery = 101.56%
S 181.975 Axial†        1181.1      997.87 µg/L         8.980      997.87 ppb          8.980   0.90%
   QC value within limits for S 181.975 Axial  Recovery = 99.79%
Sb 206.836†             3877.5      501.16 µg/L         4.237      501.16 ppb          4.237   0.85%
   QC value within limits for Sb 206.836  Recovery = 100.23%
Se 196.026†             1277.2         505 µg/L           4.1        505 ppb            4.1   0.81%
   QC value within limits for Se 196.026  Recovery = 101.08%
SiO2†                  50579.3      5334.7 µg/L         22.34      5334.7 ppb          22.34   0.42%
   QC value within limits for SiO2  Recovery = 99.76%
Si 251.611†           159058.4      2498.2 µg/L          8.62      2498.2 ppb           8.62   0.35%
   QC value within limits for Si 251.611  Recovery = 99.93%
Sn 189.927†             7193.7      500.66 µg/L         4.348      500.66 ppb          4.348   0.87%
   QC value within limits for Sn 189.927  Recovery = 100.13%
Sr 421.552†           212032.2      500.03 µg/L         3.969      500.03 ppb          3.969   0.79%
   QC value within limits for Sr 421.552  Recovery = 100.01%
Ti 334.940†           485926.7      498.44 µg/L         0.319      498.44 ppb          0.319   0.06%
   QC value within limits for Ti 334.940  Recovery = 99.69%
Tl 190.801†             3696.0      512.19 µg/L         3.570      512.19 ppb          3.570   0.70%
   QC value within limits for Tl 190.801  Recovery = 102.44%
U 409.014†              7525.4      505.40 µg/L         2.841      505.40 ppb          2.841   0.56%
   QC value within limits for U 409.014  Recovery = 101.08%
V 292.402†             96419.4      506.43 µg/L         0.219      506.43 ppb          0.219   0.04%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†            84274.1      499.29 µg/L         1.005      499.29 ppb          1.005   0.20%
   QC value within limits for Zn 213.857  Recovery = 99.86%
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 12:18:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140761.4	140761.4	100	%			12:19:18
1	Al 396.153Radial†	-73.7	5.2	1.0818	µg/L	1.0818	ppb	12:19:38
1	Ca 317.933Radial†	682.8	108.1	7.3604	µg/L	7.3604	ppb	12:19:38
1	Fe 238.204 Radial†	164.0	45.9	3.4255	µg/L	3.4255	ppb	12:19:38
1	K 766.490 Radial†	1670.2	168.5	66.774	µg/L	66.774	ppb	12:19:18
1	Mg 279.077 IEC†	159.2	-14.0	-6.4612	µg/L	-6.4612	ppb	12:19:38
1	Na 589.592 Radial†	1062.0	104.4	16.125	µg/L	16.125	ppb	12:19:18
1	Sr 421.552†	-212.6	-7.1	-0.0169	µg/L	-0.0169	ppb	12:19:18
1	Sc 361.383	1793257.1	1793257.1	99.396	%			12:20:26
1	Y 371.029	1054149.0	1054149.0	99.702	%			12:20:26
1	Ag 328.068†	4339.0	-199.8	-0.8254	µg/L	-0.8254	ppb	12:20:28
1	As 188.979†	-4.3	14.2	4.8058	µg/L	4.8058	ppb	12:20:48
1	B 249.677†	3947.0	-94.2	-1.4648	µg/L	-1.4648	ppb	12:20:28
1	Ba 233.527†	-155.4	-11.8	-0.0523	µg/L	-0.0523	ppb	12:20:48
1	Be 313.107†	-700.9	386.5	0.1098	µg/L	0.1098	ppb	12:20:28
1	Cd 226.502†	-69.6	33.4	0.2252	µg/L	0.2252	ppb	12:20:48
1	Co 228.616†	-201.5	7.5	0.0994	µg/L	0.0994	ppb	12:20:48
1	Cr 267.716†	296.8	65.3	0.5712	µg/L	0.5712	ppb	12:20:48
1	Cu 324.752†	2928.5	-89.9	-0.3813	µg/L	-0.3813	ppb	12:20:28
1	Mn 257.610†	255.1	71.9	0.0956	µg/L	0.0956	ppb	12:20:48
1	Mo 202.031†	-35.2	3.1	0.1021	µg/L	0.1021	ppb	12:20:48
1	Ni 231.604†	-76.5	18.9	0.2366	µg/L	0.2366	ppb	12:20:48
1	P 214.914†	10.1	35.8	8.2902	µg/L	8.2902	ppb	12:20:48
1	Pb 220.353†	120.7	17.9	1.1096	µg/L	1.1096	ppb	12:20:48
1	S 181.975 Axial†	96.2	7.8	6.6016	µg/L	6.6016	ppb	12:20:48
1	Sb 206.836†	100.6	11.5	1.4806	µg/L	1.4806	ppb	12:20:48
1	Se 196.026†	21.5	15.5	6.09	µg/L	6.09	ppb	12:20:48
1	SiO2†	1959.7	232.5	24.621	µg/L	24.621	ppb	12:20:48
1	Si 251.611†	1212.9	453.2	7.1445	µg/L	7.1445	ppb	12:20:28
1	Sn 189.927†	3.8	2.0	0.1355	µg/L	0.1355	ppb	12:20:48
1	Ti 334.940†	610.5	-208.8	-0.2110	µg/L	-0.2110	ppb	12:20:28
1	Tl 190.801†	-105.3	8.3	1.1328	µg/L	1.1328	ppb	12:20:48
1	U 409.014†	-274.2	-112.5	-7.0945	µg/L	-7.0945	ppb	12:20:28
1	V 292.402†	440.1	19.6	0.1000	µg/L	0.1000	ppb	12:20:28
1	Zn 213.857†	567.3	67.7	0.4026	µg/L	0.4026	ppb	12:20:48
2	Sc RADIAL	140927.4	140927.4	101	%			12:19:40
2	Al 396.153Radial†	-17.8	60.9	12.799	µg/L	12.799	ppb	12:20:00
2	Ca 317.933Radial†	745.5	169.6	11.554	µg/L	11.554	ppb	12:20:00
2	Fe 238.204 Radial†	572.5	451.8	33.741	µg/L	33.741	ppb	12:20:00
2	K 766.490 Radial†	1510.5	7.7	3.0501	µg/L	3.0501	ppb	12:19:40
2	Mg 279.077 IEC†	179.6	6.1	2.8107	µg/L	2.8107	ppb	12:20:00
2	Na 589.592 Radial†	1290.2	330.1	51.159	µg/L	51.159	ppb	12:19:40
2	Sr 421.552†	-200.2	5.5	0.0129	µg/L	0.0129	ppb	12:19:40
2	Sc 361.383	1797905.6	1797905.6	99.654	%			12:20:50
2	Y 371.029	1055651.2	1055651.2	99.844	%			12:20:50
2	Ag 328.068†	4546.9	-2.4	-0.0256	µg/L	-0.0256	ppb	12:20:52
2	As 188.979†	-15.2	3.3	1.1095	µg/L	1.1095	ppb	12:21:13
2	B 249.677†	3898.7	-152.9	-2.3781	µg/L	-2.3781	ppb	12:20:52
2	Ba 233.527†	-169.3	-25.4	-0.1128	µg/L	-0.1128	ppb	12:21:13
2	Be 313.107†	-804.8	284.1	0.0779	µg/L	0.0779	ppb	12:20:52
2	Cd 226.502†	-97.2	5.8	0.0361	µg/L	0.0361	ppb	12:21:13
2	Co 228.616†	-205.9	3.6	0.0462	µg/L	0.0462	ppb	12:21:13
2	Cr 267.716†	221.4	-11.0	-0.0830	µg/L	-0.0830	ppb	12:21:13
2	Cu 324.752†	2993.4	-32.3	-0.1422	µg/L	-0.1422	ppb	12:20:52
2	Mn 257.610†	242.6	58.7	0.0777	µg/L	0.0777	ppb	12:21:13
2	Mo 202.031†	-24.5	14.0	0.4601	µg/L	0.4601	ppb	12:21:13
2	Ni 231.604†	-62.9	32.8	0.4103	µg/L	0.4103	ppb	12:21:13
2	P 214.914†	4.7	30.4	7.0168	µg/L	7.0168	ppb	12:21:13
2	Pb 220.353†	100.3	-2.8	-0.1609	µg/L	-0.1609	ppb	12:21:13

2	S 181.975 Axial†	95.9	7.3	6.1755 µg/L	6.1755 ppb	12:21:13
2	Sb 206.836†	81.0	-8.4	-1.0806 µg/L	-1.0806 ppb	12:21:13
2	Se 196.026†	18.0	11.9	4.69 µg/L	4.69 ppb	12:21:13
2	SiO2†	1920.7	188.3	19.928 µg/L	19.928 ppb	12:21:13
2	Si 251.611†	1349.5	587.2	9.2535 µg/L	9.2535 ppb	12:20:52
2	Sn 189.927†	0.7	-1.2	-0.0837 µg/L	-0.0837 ppb	12:21:13
2	Ti 334.940†	868.6	48.7	0.0560 µg/L	0.0560 ppb	12:20:52
2	Tl 190.801†	-93.1	20.9	2.8555 µg/L	2.8555 ppb	12:21:13
2	U 409.014†	-392.1	-230.1	-14.511 µg/L	-14.511 ppb	12:20:52
2	V 292.402†	466.3	44.7	0.2229 µg/L	0.2229 ppb	12:20:52
2	Zn 213.857†	578.9	77.9	0.4592 µg/L	0.4592 ppb	12:21:13
3	Sc RADIAL	137308.2	137308.2	98.0 %		12:20:02
3	Al 396.153Radial†	-65.9	11.3	2.3545 µg/L	2.3545 ppb	12:20:22
3	Ca 317.933Radial†	664.5	106.5	7.2566 µg/L	7.2566 ppb	12:20:22
3	Fe 238.204 Radial†	190.2	76.7	5.7301 µg/L	5.7301 ppb	12:20:22
3	K 766.490 Radial†	1567.9	105.9	41.946 µg/L	41.946 ppb	12:20:02
3	Mg 279.077 IEC†	188.8	20.2	9.3189 µg/L	9.3189 ppb	12:20:22
3	Na 589.592 Radial†	1125.3	195.6	30.288 µg/L	30.288 ppb	12:20:02
3	Sr 421.552†	68.6	274.5	0.6472 µg/L	0.6472 ppb	12:20:02
3	Sc 361.383	1810912.5	1810912.5	100.37 %		12:21:15
3	Y 371.029	1062136.4	1062136.4	100.46 %		12:21:15
3	Ag 328.068†	4349.1	-232.3	-0.9622 µg/L	-0.9622 ppb	12:21:17
3	As 188.979†	-10.5	8.1	2.7398 µg/L	2.7398 ppb	12:21:37
3	B 249.677†	4079.2	-1.2	-0.0184 µg/L	-0.0184 ppb	12:21:17
3	Ba 233.527†	-145.3	-0.2	-0.0009 µg/L	-0.0009 ppb	12:21:37
3	Be 313.107†	-583.7	510.2	0.1456 µg/L	0.1456 ppb	12:21:17
3	Cd 226.502†	-84.1	19.5	0.1318 µg/L	0.1318 ppb	12:21:37
3	Co 228.616†	-201.2	9.8	0.1294 µg/L	0.1294 ppb	12:21:37
3	Cr 267.716†	247.4	13.3	0.1205 µg/L	0.1205 ppb	12:21:37
3	Cu 324.752†	2887.9	-159.0	-0.6698 µg/L	-0.6698 ppb	12:21:17
3	Mn 257.610†	215.0	29.5	0.0387 µg/L	0.0387 ppb	12:21:37
3	Mo 202.031†	-24.6	14.1	0.4603 µg/L	0.4603 ppb	12:21:37
3	Ni 231.604†	-37.9	58.2	0.7276 µg/L	0.7276 ppb	12:21:37
3	P 214.914†	4.2	29.9	6.9204 µg/L	6.9204 ppb	12:21:37
3	Pb 220.353†	90.3	-13.5	-0.8254 µg/L	-0.8254 ppb	12:21:37
3	S 181.975 Axial†	92.5	3.2	2.7332 µg/L	2.7332 ppb	12:21:37
3	Sb 206.836†	86.8	-3.3	-0.4176 µg/L	-0.4176 ppb	12:21:37
3	Se 196.026†	17.2	11.0	4.34 µg/L	4.34 ppb	12:21:37
3	SiO2†	1924.5	178.2	18.853 µg/L	18.853 ppb	12:21:37
3	Si 251.611†	1376.2	604.0	9.5169 µg/L	9.5169 ppb	12:21:17
3	Sn 189.927†	4.7	2.8	0.1960 µg/L	0.1960 ppb	12:21:37
3	Ti 334.940†	625.3	-200.0	-0.2031 µg/L	-0.2031 ppb	12:21:17
3	Tl 190.801†	-137.8	-23.0	-3.1476 µg/L	-3.1476 ppb	12:21:37
3	U 409.014†	-276.3	-111.9	-7.0712 µg/L	-7.0712 ppb	12:21:17
3	V 292.402†	387.3	-37.4	-0.1938 µg/L	-0.1938 ppb	12:21:17
3	Zn 213.857†	557.3	52.2	0.3067 µg/L	0.3067 ppb	12:21:37

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1800691.8	99.808	%	0.5072				0.51%
Sc RADIAL	139665.7	99.7	%	1.46				1.46%
Y 371.029	1057312.2	100.00	%	0.401				0.40%
Ag 328.068†	-144.8	-0.6044	µg/L	0.50591	-0.6044	ppb	0.50591	83.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	25.8	5.4118	µg/L	6.42909	5.4118	ppb	6.42909	118.80%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.5	2.8851	µg/L	1.85242	2.8851	ppb	1.85242	64.21%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-82.7	-1.2871	µg/L	1.18982	-1.2871	ppb	1.18982	92.44%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-12.4	-0.0553	µg/L	0.05604	-0.0553	ppb	0.05604	101.26%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	393.6	0.1111	µg/L	0.03389	0.1111	ppb	0.03389	30.50%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	128.1	8.7237	µg/L	2.45179	8.7237	ppb	2.45179	28.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.6	0.1310	µg/L	0.09458	0.1310	ppb	0.09458	72.20%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.0	0.0917	µg/L	0.04215	0.0917	ppb	0.04215	45.98%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              22.5      0.2029 µg/L       0.33475      0.2029 ppb        0.33475 164.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -93.7     -0.3978 µg/L       0.26421     -0.3978 ppb        0.26421  66.42%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      191.5      14.299 µg/L       16.8767      14.299 ppb        16.8767 118.03%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        94.0      37.256 µg/L       32.1195      37.256 ppb        32.1195  86.21%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           4.1      1.8895 µg/L       7.93033      1.8895 ppb        7.93033 419.71%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              53.4      0.0707 µg/L       0.02908      0.0707 ppb        0.02908  41.15%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.4      0.3408 µg/L       0.20677      0.3408 ppb        0.20677  60.67%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      210.0      32.524 µg/L       17.6236      32.524 ppb        17.6236  54.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              36.6      0.4582 µg/L       0.24899      0.4582 ppb        0.24899  54.34%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               32.1      7.4091 µg/L       0.76452      7.4091 ppb        0.76452  10.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.5      0.0411 µg/L       0.98319      0.0411 ppb        0.98319 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.1      5.1701 µg/L       2.12113      5.1701 ppb        2.12113  41.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.1     -0.0059 µg/L       1.32934     -0.0059 ppb        1.32934 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              12.8        5.04 µg/L         0.925        5.04 ppb          0.925  18.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   199.7      21.134 µg/L        3.0669      21.134 ppb         3.0669  14.51%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             548.1      8.6383 µg/L       1.30031      8.6383 ppb        1.30031  15.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.2      0.0826 µg/L       0.14718      0.0826 ppb        0.14718 178.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              90.9      0.2144 µg/L       0.37513      0.2144 ppb        0.37513 174.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -120.0     -0.1194 µg/L       0.15194     -0.1194 ppb        0.15194 127.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.1      0.2803 µg/L       3.09104      0.2803 ppb        3.09104 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -151.5     -9.5590 µg/L       4.28885     -9.5590 ppb        4.28885  44.87%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                9.0      0.0430 µg/L       0.21409      0.0430 ppb        0.21409 497.46%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              65.9      0.3895 µg/L       0.07706      0.3895 ppb        0.07706  19.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 12:41:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138943.7	138943.7	99.2	%			12:41:37
1	Al 396.153Radial†	23385.0	23657.0	4957.1	µg/L	4957.1	ppb	12:41:37
1	Ca 317.933Radial†	74173.8	74215.8	5054.8	µg/L	5054.8	ppb	12:41:37
1	Fe 238.204 Radial†	66887.9	67323.8	5027.7	µg/L	5027.7	ppb	12:41:37
1	K 766.490 Radial†	14097.2	12720.0	5036.2	µg/L	5036.2	ppb	12:41:37
1	Mg 279.077 IEC†	11043.2	10962.1	5069.7	µg/L	5069.7	ppb	12:41:37
1	Na 589.592 Radial†	64657.0	64239.3	9953.1	µg/L	9953.1	ppb	12:41:37
1	Sr 421.552†	211693.9	213649.4	503.85	µg/L	503.85	ppb	12:41:35
1	Sc 361.383	1787262.5	1787262.5	99.064	%			12:42:04
1	Y 371.029	1038840.9	1038840.9	98.254	%			12:42:04
1	Ag 328.068†	124468.7	121079.8	501.88	µg/L	501.88	ppb	12:42:04
1	As 188.979†	1396.1	1427.8	490.22	µg/L	490.22	ppb	12:42:24
1	B 249.677†	35476.1	31746.2	491.96	µg/L	491.96	ppb	12:42:04
1	Ba 233.527†	110950.2	112143.2	498.87	µg/L	498.87	ppb	12:42:04
1	Be 313.107†	1677200.9	1694142.7	490.89	µg/L	490.89	ppb	12:42:04
1	Cd 226.502†	73260.7	74056.4	500.22	µg/L	500.22	ppb	12:42:04
1	Co 228.616†	37543.3	38108.4	504.41	µg/L	504.41	ppb	12:42:04
1	Cr 267.716†	57568.9	57879.7	500.60	µg/L	500.60	ppb	12:42:04
1	Cu 324.752†	121037.2	119144.9	499.89	µg/L	499.89	ppb	12:42:04
1	Mn 257.610†	373450.2	376794.7	499.62	µg/L	499.62	ppb	12:42:04
1	Mo 202.031†	15337.0	15520.5	508.04	µg/L	508.04	ppb	12:42:24
1	Ni 231.604†	39650.9	40121.5	501.97	µg/L	501.97	ppb	12:42:04
1	P 214.914†	10862.9	10991.3	2534.0	µg/L	2534.0	ppb	12:42:24
1	Pb 220.353†	8349.5	8324.9	513.88	µg/L	513.88	ppb	12:42:24
1	S 181.975 Axial†	1278.6	1201.7	1015.3	µg/L	1015.3	ppb	12:42:24
1	Sb 206.836†	3947.3	3894.9	503.47	µg/L	503.47	ppb	12:42:24
1	Se 196.026†	1287.7	1293.7	512	µg/L	512	ppb	12:42:24
1	SiO2†	51490.8	50238.3	5298.4	µg/L	5298.4	ppb	12:42:04
1	Si 251.611†	157278.3	157997.6	2481.3	µg/L	2481.3	ppb	12:42:04
1	Sn 189.927†	7193.9	7260.0	505.25	µg/L	505.25	ppb	12:42:24
1	Ti 334.940†	480256.1	483971.6	496.44	µg/L	496.44	ppb	12:42:04
1	Tl 190.801†	3552.9	3700.7	512.80	µg/L	512.80	ppb	12:42:24
1	U 409.014†	7139.5	7370.3	495.42	µg/L	495.42	ppb	12:42:04
1	V 292.402†	95339.2	95817.0	503.34	µg/L	503.34	ppb	12:42:04
1	Zn 213.857†	83855.8	84145.3	498.54	µg/L	498.54	ppb	12:42:04
2	Sc RADIAL	141291.3	141291.3	101	%			12:41:41
2	Al 396.153Radial†	23752.9	23630.0	4951.4	µg/L	4951.4	ppb	12:41:41
2	Ca 317.933Radial†	75646.8	74433.7	5069.6	µg/L	5069.6	ppb	12:41:41
2	Fe 238.204 Radial†	68330.6	67633.8	5050.8	µg/L	5050.8	ppb	12:41:41
2	K 766.490 Radial†	14268.2	12653.4	5009.8	µg/L	5009.8	ppb	12:41:41
2	Mg 279.077 IEC†	11450.1	11180.6	5170.6	µg/L	5170.6	ppb	12:41:41
2	Na 589.592 Radial†	65910.3	64398.8	9977.9	µg/L	9977.9	ppb	12:41:41
2	Sr 421.552†	211423.7	209835.0	494.85	µg/L	494.85	ppb	12:41:39
2	Sc 361.383	1793839.4	1793839.4	99.428	%			12:42:27
2	Y 371.029	1042511.0	1042511.0	98.602	%			12:42:27
2	Ag 328.068†	125087.0	121241.0	502.53	µg/L	502.53	ppb	12:42:27
2	As 188.979†	1395.9	1422.5	488.43	µg/L	488.43	ppb	12:42:47
2	B 249.677†	35898.2	32039.5	496.51	µg/L	496.51	ppb	12:42:27
2	Ba 233.527†	111421.2	112206.3	499.15	µg/L	499.15	ppb	12:42:27
2	Be 313.107†	1687036.9	1697828.0	491.95	µg/L	491.95	ppb	12:42:27
2	Cd 226.502†	74020.0	74548.9	503.54	µg/L	503.54	ppb	12:42:27
2	Co 228.616†	37859.8	38287.8	506.78	µg/L	506.78	ppb	12:42:27
2	Cr 267.716†	57911.5	58011.3	501.75	µg/L	501.75	ppb	12:42:27
2	Cu 324.752†	121562.8	119225.6	500.23	µg/L	500.23	ppb	12:42:27
2	Mn 257.610†	375840.4	377816.5	500.97	µg/L	500.97	ppb	12:42:27
2	Mo 202.031†	15373.5	15500.4	507.39	µg/L	507.39	ppb	12:42:47
2	Ni 231.604†	40030.6	40356.6	504.91	µg/L	504.91	ppb	12:42:27
2	P 214.914†	10881.6	10969.9	2529.0	µg/L	2529.0	ppb	12:42:47
2	Pb 220.353†	8348.9	8293.4	511.95	µg/L	511.95	ppb	12:42:47

2	S 181.975 Axial†	1279.7	1198.2	1012.3 µg/L	1012.3 ppb	12:42:47
2	Sb 206.836†	3977.5	3910.6	505.48 µg/L	505.48 ppb	12:42:47
2	Se 196.026†	1301.1	1302.4	515 µg/L	515 ppb	12:42:47
2	SiO2†	51742.6	50301.0	5305.0 µg/L	5305.0 ppb	12:42:27
2	Si 251.611†	158432.1	158575.9	2490.5 µg/L	2490.5 ppb	12:42:27
2	Sn 189.927†	7228.0	7267.6	505.78 µg/L	505.78 ppb	12:42:47
2	Ti 334.940†	481660.7	483606.9	496.06 µg/L	496.06 ppb	12:42:27
2	Tl 190.801†	3584.9	3719.8	515.40 µg/L	515.40 ppb	12:42:47
2	U 409.014†	6924.3	7127.5	480.13 µg/L	480.13 ppb	12:42:27
2	V 292.402†	95806.2	95933.8	503.93 µg/L	503.93 ppb	12:42:27
2	Zn 213.857†	84371.3	84353.4	499.76 µg/L	499.76 ppb	12:42:27
3	Sc RADIAL	140960.0	140960.0	101 %		12:41:45
3	Al 396.153Radial†	23658.9	23591.9	4943.6 µg/L	4943.6 ppb	12:41:45
3	Ca 317.933Radial†	75426.6	74391.2	5066.7 µg/L	5066.7 ppb	12:41:45
3	Fe 238.204 Radial†	67958.0	67422.7	5035.1 µg/L	5035.1 ppb	12:41:45
3	K 766.490 Radial†	14351.0	12768.9	5055.5 µg/L	5055.5 ppb	12:41:45
3	Mg 279.077 IEC†	11270.8	11029.0	5100.5 µg/L	5100.5 ppb	12:41:45
3	Na 589.592 Radial†	65596.5	64240.5	9953.3 µg/L	9953.3 ppb	12:41:45
3	Sr 421.552†	211471.7	210375.5	496.12 µg/L	496.12 ppb	12:41:43
3	Sc 361.383	1802636.7	1802636.7	99.916 %		12:42:50
3	Y 371.029	1046785.0	1046785.0	99.006 %		12:42:50
3	Ag 328.068†	125848.1	121388.8	503.18 µg/L	503.18 ppb	12:42:50
3	As 188.979†	1381.4	1401.1	481.20 µg/L	481.20 ppb	12:43:10
3	B 249.677†	36130.3	32095.6	497.38 µg/L	497.38 ppb	12:42:50
3	Ba 233.527†	112457.4	112696.5	501.33 µg/L	501.33 ppb	12:42:50
3	Be 313.107†	1700233.2	1702754.8	493.39 µg/L	493.39 ppb	12:42:50
3	Cd 226.502†	74872.6	75038.9	506.86 µg/L	506.86 ppb	12:42:50
3	Co 228.616†	38226.2	38468.7	509.18 µg/L	509.18 ppb	12:42:50
3	Cr 267.716†	58249.2	58065.0	502.20 µg/L	502.20 ppb	12:42:50
3	Cu 324.752†	122344.5	119411.3	501.02 µg/L	501.02 ppb	12:42:50
3	Mn 257.610†	378788.4	378922.2	502.44 µg/L	502.44 ppb	12:42:50
3	Mo 202.031†	15294.8	15346.2	502.34 µg/L	502.34 ppb	12:43:10
3	Ni 231.604†	40405.7	40535.6	507.15 µg/L	507.15 ppb	12:42:50
3	P 214.914†	10816.0	10850.7	2501.4 µg/L	2501.4 ppb	12:43:10
3	Pb 220.353†	8301.3	8204.9	506.47 µg/L	506.47 ppb	12:43:10
3	S 181.975 Axial†	1290.2	1202.4	1015.8 µg/L	1015.8 ppb	12:43:10
3	Sb 206.836†	3940.4	3854.0	498.09 µg/L	498.09 ppb	12:43:10
3	Se 196.026†	1295.0	1289.9	510 µg/L	510 ppb	12:43:10
3	SiO2†	52249.6	50554.4	5332.1 µg/L	5332.1 ppb	12:42:50
3	Si 251.611†	159808.9	159176.3	2500.1 µg/L	2500.1 ppb	12:42:50
3	Sn 189.927†	7164.9	7169.1	498.95 µg/L	498.95 ppb	12:43:10
3	Ti 334.940†	485644.3	485229.7	497.72 µg/L	497.72 ppb	12:42:50
3	Tl 190.801†	3544.7	3662.0	507.52 µg/L	507.52 ppb	12:43:10
3	U 409.014†	7287.7	7457.2	501.07 µg/L	501.07 ppb	12:42:50
3	V 292.402†	96696.3	96354.4	506.07 µg/L	506.07 ppb	12:42:50
3	Zn 213.857†	84912.9	84481.4	500.51 µg/L	500.51 ppb	12:42:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1794579.6	99.469	%	0.4276				0.43%
Sc RADIAL	140398.3	100	%	0.9				0.90%
Y 371.029	1042712.3	98.621	%	0.3760				0.38%
Ag 328.068†	121236.5	502.53	µg/L	0.652	502.53	ppb	0.652	0.13%
QC value within limits for Ag 328.068 Recovery = 100.51%								
Al 396.153Radial†	23626.3	4950.7	µg/L	6.75	4950.7	ppb	6.75	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.01%								
As 188.979†	1417.1	486.61	µg/L	4.777	486.61	ppb	4.777	0.98%
QC value within limits for As 188.979 Recovery = 97.32%								
B 249.677†	31960.4	495.28	µg/L	2.910	495.28	ppb	2.910	0.59%
QC value within limits for B 249.677 Recovery = 99.06%								
Ba 233.527†	112348.7	499.78	µg/L	1.346	499.78	ppb	1.346	0.27%
QC value within limits for Ba 233.527 Recovery = 99.96%								
Be 313.107†	1698241.9	492.08	µg/L	1.253	492.08	ppb	1.253	0.25%
QC value within limits for Be 313.107 Recovery = 98.42%								
Ca 317.933Radial†	74346.9	5063.7	µg/L	7.87	5063.7	ppb	7.87	0.16%
QC value within limits for Ca 317.933Radial Recovery = 101.27%								
Cd 226.502†	74548.0	503.54	µg/L	3.321	503.54	ppb	3.321	0.66%
QC value within limits for Cd 226.502 Recovery = 100.71%								
Co 228.616†	38288.3	506.79	µg/L	2.384	506.79	ppb	2.384	0.47%

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   QC value within limits for Co 228.616  Recovery = 101.36%
Cr 267.716†            57985.3      501.51 µg/L         0.825      501.51 ppb          0.825   0.16%
   QC value within limits for Cr 267.716  Recovery = 100.30%
Cu 324.752†           119260.6      500.38 µg/L         0.577      500.38 ppb          0.577   0.12%
   QC value within limits for Cu 324.752  Recovery = 100.08%
Fe 238.204 Radial†     67460.1      5037.9 µg/L         11.82      5037.9 ppb          11.82   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.76%
K 766.490 Radial†      12714.1      5033.8 µg/L         22.98      5033.8 ppb          22.98   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 100.68%
Mg 279.077 IEC†        11057.2      5113.6 µg/L         51.68      5113.6 ppb          51.68   1.01%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.27%
Mn 257.610†           377844.5      501.01 µg/L         1.411      501.01 ppb          1.411   0.28%
   QC value within limits for Mn 257.610  Recovery = 100.20%
Mo 202.031†            15455.7      505.92 µg/L         3.118      505.92 ppb          3.118   0.62%
   QC value within limits for Mo 202.031  Recovery = 101.18%
Na 589.592 Radial†     64292.9      9961.4 µg/L         14.24      9961.4 ppb          14.24   0.14%
   QC value within limits for Na 589.592 Radial  Recovery = 99.61%
Ni 231.604†            40337.9      504.68 µg/L         2.598      504.68 ppb          2.598   0.51%
   QC value within limits for Ni 231.604  Recovery = 100.94%
P 214.914†             10937.3      2521.5 µg/L         17.53      2521.5 ppb          17.53   0.70%
   QC value within limits for P 214.914  Recovery = 100.86%
Pb 220.353†             8274.4      510.77 µg/L         3.842      510.77 ppb          3.842   0.75%
   QC value within limits for Pb 220.353  Recovery = 102.15%
S 181.975 Axial†        1200.8      1014.4 µg/L          1.89      1014.4 ppb           1.89   0.19%
   QC value within limits for S 181.975 Axial  Recovery = 101.44%
Sb 206.836†             3886.5      502.35 µg/L         3.823      502.35 ppb          3.823   0.76%
   QC value within limits for Sb 206.836  Recovery = 100.47%
Se 196.026†             1295.4         513 µg/L           2.5         513 ppb            2.5   0.49%
   QC value within limits for Se 196.026  Recovery = 102.51%
SiO2†                  50364.6      5311.8 µg/L         17.87      5311.8 ppb          17.87   0.34%
   QC value within limits for SiO2  Recovery = 99.33%
Si 251.611†           158583.3      2490.6 µg/L          9.35      2490.6 ppb           9.35   0.38%
   QC value within limits for Si 251.611  Recovery = 99.62%
Sn 189.927†             7232.2      503.33 µg/L         3.801      503.33 ppb          3.801   0.76%
   QC value within limits for Sn 189.927  Recovery = 100.67%
Sr 421.552†           211286.6      498.27 µg/L         4.868      498.27 ppb          4.868   0.98%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           484269.4      496.74 µg/L         0.872      496.74 ppb          0.872   0.18%
   QC value within limits for Ti 334.940  Recovery = 99.35%
Tl 190.801†             3694.2      511.90 µg/L         4.014      511.90 ppb          4.014   0.78%
   QC value within limits for Tl 190.801  Recovery = 102.38%
U 409.014†              7318.3      492.21 µg/L        10.834      492.21 ppb         10.834   2.20%
   QC value within limits for U 409.014  Recovery = 98.44%
V 292.402†             96035.1      504.45 µg/L         1.439      504.45 ppb          1.439   0.29%
   QC value within limits for V 292.402  Recovery = 100.89%
Zn 213.857†            84326.7      499.60 µg/L         0.995      499.60 ppb          0.995   0.20%
   QC value within limits for Zn 213.857  Recovery = 99.92%
All analyte(s) passed QC.
```

Sequence No.: 31
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 12:43:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139295.5	139295.5	99.4	%			12:43:47
1	Al 396.153Radial†	-24.0	54.4	11.413	µg/L	11.413	ppb	12:44:07
1	Ca 317.933Radial†	708.0	140.6	9.5778	µg/L	9.5778	ppb	12:44:07
1	Fe 238.204 Radial†	178.6	62.3	4.6540	µg/L	4.6540	ppb	12:44:07
1	K 766.490 Radial†	1724.7	240.8	95.403	µg/L	95.403	ppb	12:43:47
1	Mg 279.077 IEC†	154.2	-17.4	-8.0256	µg/L	-8.0256	ppb	12:44:07
1	Na 589.592 Radial†	1146.9	201.0	31.071	µg/L	31.071	ppb	12:43:47
1	Sr 421.552†	-159.3	44.3	0.1044	µg/L	0.1044	ppb	12:43:47
1	Sc 361.383	1814807.9	1814807.9	100.59	%			12:45:09
1	Y 371.029	1064526.0	1064526.0	100.68	%			12:45:09
1	Ag 328.068†	4340.5	-250.2	-1.0252	µg/L	-1.0252	ppb	12:45:11
1	As 188.979†	-4.6	14.0	4.7451	µg/L	4.7451	ppb	12:45:31
1	B 249.677†	3969.3	-119.1	-1.8538	µg/L	-1.8538	ppb	12:45:11
1	Ba 233.527†	-20.5	124.2	0.5521	µg/L	0.5521	ppb	12:45:31
1	Be 313.107†	-903.9	193.2	0.0555	µg/L	0.0555	ppb	12:45:11
1	Cd 226.502†	-45.4	58.2	0.3932	µg/L	0.3932	ppb	12:45:31
1	Co 228.616†	-189.8	21.6	0.2862	µg/L	0.2862	ppb	12:45:31
1	Cr 267.716†	288.0	53.1	0.4609	µg/L	0.4609	ppb	12:45:31
1	Cu 324.752†	2935.8	-117.5	-0.4923	µg/L	-0.4923	ppb	12:45:11
1	Mn 257.610†	640.2	451.7	0.5996	µg/L	0.5996	ppb	12:45:31
1	Mo 202.031†	-13.9	24.8	0.8103	µg/L	0.8103	ppb	12:45:31
1	Ni 231.604†	-64.1	32.2	0.4024	µg/L	0.4024	ppb	12:45:31
1	P 214.914†	7.0	32.7	7.5584	µg/L	7.5584	ppb	12:45:31
1	Pb 220.353†	106.9	2.9	0.1807	µg/L	0.1807	ppb	12:45:31
1	S 181.975 Axial†	96.9	7.4	6.2672	µg/L	6.2672	ppb	12:45:31
1	Sb 206.836†	87.7	-2.6	-0.3244	µg/L	-0.3244	ppb	12:45:31
1	Se 196.026†	26.1	19.8	7.80	µg/L	7.80	ppb	12:45:31
1	SiO2†	1980.3	229.6	24.283	µg/L	24.283	ppb	12:45:31
1	Si 251.611†	2172.1	1392.3	21.940	µg/L	21.940	ppb	12:45:11
1	Sn 189.927†	10.1	8.1	0.5652	µg/L	0.5652	ppb	12:45:31
1	Ti 334.940†	1494.6	662.8	0.6822	µg/L	0.6822	ppb	12:45:11
1	Tl 190.801†	-118.2	-3.2	-0.4323	µg/L	-0.4323	ppb	12:45:31
1	U 409.014†	-188.8	-24.3	-1.5258	µg/L	-1.5258	ppb	12:45:11
1	V 292.402†	442.4	16.6	0.0943	µg/L	0.0943	ppb	12:45:11
1	Zn 213.857†	614.8	108.2	0.6437	µg/L	0.6437	ppb	12:45:31
2	Sc RADIAL	138151.7	138151.7	98.6	%			12:44:09
2	Al 396.153Radial†	-28.6	49.5	10.400	µg/L	10.400	ppb	12:44:29
2	Ca 317.933Radial†	742.9	181.9	12.386	µg/L	12.386	ppb	12:44:29
2	Fe 238.204 Radial†	502.8	392.6	29.316	µg/L	29.316	ppb	12:44:29
2	K 766.490 Radial†	1718.3	248.6	98.510	µg/L	98.510	ppb	12:44:09
2	Mg 279.077 IEC†	166.2	-4.0	-1.8376	µg/L	-1.8376	ppb	12:44:29
2	Na 589.592 Radial†	1104.7	167.7	25.905	µg/L	25.905	ppb	12:44:09
2	Sr 421.552†	-237.6	-36.5	-0.0861	µg/L	-0.0861	ppb	12:44:09
2	Sc 361.383	1813927.3	1813927.3	100.54	%			12:45:33
2	Y 371.029	1065006.3	1065006.3	100.73	%			12:45:33
2	Ag 328.068†	4086.9	-500.2	-2.0568	µg/L	-2.0568	ppb	12:45:35
2	As 188.979†	-20.8	-2.2	-0.7245	µg/L	-0.7245	ppb	12:45:56
2	B 249.677†	4066.5	-20.5	-0.3191	µg/L	-0.3191	ppb	12:45:35
2	Ba 233.527†	-100.7	44.4	0.1967	µg/L	0.1967	ppb	12:45:56
2	Be 313.107†	-633.5	461.7	0.1333	µg/L	0.1333	ppb	12:45:35
2	Cd 226.502†	-83.8	20.0	0.1325	µg/L	0.1325	ppb	12:45:56
2	Co 228.616†	-218.2	-6.7	-0.0897	µg/L	-0.0897	ppb	12:45:56
2	Cr 267.716†	249.0	14.5	0.1273	µg/L	0.1273	ppb	12:45:56
2	Cu 324.752†	2868.6	-183.0	-0.7626	µg/L	-0.7626	ppb	12:45:35
2	Mn 257.610†	225.9	40.0	0.0530	µg/L	0.0530	ppb	12:45:56
2	Mo 202.031†	-20.8	17.9	0.5857	µg/L	0.5857	ppb	12:45:56
2	Ni 231.604†	-73.9	22.4	0.2807	µg/L	0.2807	ppb	12:45:56
2	P 214.914†	7.4	33.1	7.6380	µg/L	7.6380	ppb	12:45:56
2	Pb 220.353†	90.2	-13.8	-0.8438	µg/L	-0.8438	ppb	12:45:56

2	S 181.975 Axial†	103.9	14.4	12.116 µg/L	12.116 ppb	12:45:56
2	Sb 206.836†	79.0	-11.2	-1.4372 µg/L	-1.4372 ppb	12:45:56
2	Se 196.026†	14.3	8.1	3.20 µg/L	3.20 ppb	12:45:56
2	SiO2†	1902.6	153.3	16.209 µg/L	16.209 ppb	12:45:56
2	Si 251.611†	1085.1	312.2	4.9121 µg/L	4.9121 ppb	12:45:35
2	Sn 189.927†	8.1	6.2	0.4318 µg/L	0.4318 ppb	12:45:56
2	Ti 334.940†	966.6	138.4	0.1433 µg/L	0.1433 ppb	12:45:35
2	Tl 190.801†	-96.1	18.7	2.5507 µg/L	2.5507 ppb	12:45:56
2	U 409.014†	-189.8	-25.4	-1.6406 µg/L	-1.6406 ppb	12:45:35
2	V 292.402†	317.1	-107.8	-0.5566 µg/L	-0.5566 ppb	12:45:35
2	Zn 213.857†	578.6	72.5	0.4285 µg/L	0.4285 ppb	12:45:56
3	Sc RADIAL	141342.2	141342.2	101 %		12:44:31
3	Al 396.153Radial†	-59.8	19.3	4.0212 µg/L	4.0212 ppb	12:44:51
3	Ca 317.933Radial†	684.0	106.5	7.2532 µg/L	7.2532 ppb	12:44:51
3	Fe 238.204 Radial†	177.9	59.0	4.4051 µg/L	4.4051 ppb	12:44:51
3	K 766.490 Radial†	1655.6	147.2	58.309 µg/L	58.309 ppb	12:44:31
3	Mg 279.077 IEC†	175.6	1.6	0.7607 µg/L	0.7607 ppb	12:44:51
3	Na 589.592 Radial†	1005.0	43.6	6.7004 µg/L	6.7004 ppb	12:44:31
3	Sr 421.552†	-148.4	57.4	0.1354 µg/L	0.1354 ppb	12:44:31
3	Sc 361.383	1826132.7	1826132.7	101.22 %		12:45:58
3	Y 371.029	1071945.3	1071945.3	101.39 %		12:45:58
3	Ag 328.068†	4453.8	-164.9	-0.6788 µg/L	-0.6788 ppb	12:46:00
3	As 188.979†	-27.7	-8.8	-2.9706 µg/L	-2.9706 ppb	12:46:20
3	B 249.677†	4032.4	-81.3	-1.2660 µg/L	-1.2660 ppb	12:46:00
3	Ba 233.527†	-117.7	28.3	0.1260 µg/L	0.1260 ppb	12:46:20
3	Be 313.107†	-753.2	347.6	0.0996 µg/L	0.0996 ppb	12:46:00
3	Cd 226.502†	-68.5	35.7	0.2410 µg/L	0.2410 ppb	12:46:20
3	Co 228.616†	-184.1	28.5	0.3763 µg/L	0.3763 ppb	12:46:20
3	Cr 267.716†	261.7	25.3	0.2219 µg/L	0.2219 ppb	12:46:20
3	Cu 324.752†	2902.4	-168.6	-0.7073 µg/L	-0.7073 ppb	12:46:00
3	Mn 257.610†	415.2	225.4	0.2990 µg/L	0.2990 ppb	12:46:20
3	Mo 202.031†	-17.0	21.8	0.7128 µg/L	0.7128 ppb	12:46:20
3	Ni 231.604†	-77.7	19.2	0.2398 µg/L	0.2398 ppb	12:46:20
3	P 214.914†	9.4	34.9	8.0864 µg/L	8.0864 ppb	12:46:20
3	Pb 220.353†	110.2	5.4	0.3368 µg/L	0.3368 ppb	12:46:20
3	S 181.975 Axial†	89.8	-0.2	-0.1722 µg/L	-0.1722 ppb	12:46:20
3	Sb 206.836†	88.9	-1.9	-0.2318 µg/L	-0.2318 ppb	12:46:20
3	Se 196.026†	27.2	20.7	8.15 µg/L	8.15 ppb	12:46:20
3	SiO2†	1966.3	203.5	21.525 µg/L	21.525 ppb	12:46:20
3	Si 251.611†	1407.5	623.6	9.8201 µg/L	9.8201 ppb	12:46:00
3	Sn 189.927†	9.5	7.5	0.5164 µg/L	0.5164 ppb	12:46:20
3	Ti 334.940†	647.9	-182.9	-0.1863 µg/L	-0.1863 ppb	12:46:00
3	Tl 190.801†	-112.6	3.0	0.4095 µg/L	0.4095 ppb	12:46:20
3	U 409.014†	-222.9	-56.9	-3.5823 µg/L	-3.5823 ppb	12:46:00
3	V 292.402†	444.1	15.5	0.0861 µg/L	0.0861 ppb	12:46:00
3	Zn 213.857†	601.9	91.7	0.5458 µg/L	0.5458 ppb	12:46:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1818289.3	100.78	%	0.377				0.37%
Sc RADIAL	139596.5	99.6	%	1.15				1.16%
Y 371.029	1067159.2	100.93	%	0.393				0.39%
Ag 328.068†	-305.1	-1.2536	µg/L	0.71682	-1.2536	ppb	0.71682	57.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	41.1	8.6113	µg/L	4.00722	8.6113	ppb	4.00722	46.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.0	0.3500	µg/L	3.96848	0.3500	ppb	3.96848	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-73.7	-1.1463	µg/L	0.77432	-1.1463	ppb	0.77432	67.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	65.6	0.2916	µg/L	0.22839	0.2916	ppb	0.22839	78.32%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	334.1	0.0961	µg/L	0.03900	0.0961	ppb	0.03900	40.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	143.0	9.7391	µg/L	2.57028	9.7391	ppb	2.57028	26.39%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	38.0	0.2556	µg/L	0.13096	0.2556	ppb	0.13096	51.24%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	14.5	0.1909	µg/L	0.24721	0.1909	ppb	0.24721	129.48%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              31.0      0.2701 µg/L       0.17191      0.2701 ppb        0.17191  63.66%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -156.4     -0.6540 µg/L       0.14282     -0.6540 ppb        0.14282  21.84%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       171.3      12.792 µg/L       14.3110      12.792 ppb        14.3110 111.88%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        212.2      84.074 µg/L       22.3671      84.074 ppb        22.3671  26.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -6.6     -3.0342 µg/L       4.51367     -3.0342 ppb        4.51367 148.76%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              239.1      0.3172 µg/L       0.27371      0.3172 ppb        0.27371  86.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               21.5      0.7029 µg/L       0.11261      0.7029 ppb        0.11261  16.02%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       137.4      21.225 µg/L       12.8415      21.225 ppb        12.8415  60.50%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               24.6      0.3076 µg/L       0.08459      0.3076 ppb        0.08459  27.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                33.6      7.7609 µg/L       0.28464      7.7609 ppb        0.28464   3.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -1.8     -0.1088 µg/L       0.64132     -0.1088 ppb        0.64132 589.57%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           7.2      6.0705 µg/L       6.14666      6.0705 ppb        6.14666 101.25%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -5.2     -0.6645 µg/L       0.67080     -0.6645 ppb        0.67080 100.95%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               16.2        6.38 µg/L         2.765        6.38 ppb          2.765  43.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    195.5      20.672 µg/L        4.1037      20.672 ppb         4.1037  19.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              776.0      12.224 µg/L        8.7650      12.224 ppb         8.7650  71.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                7.3      0.5044 µg/L       0.06747      0.5044 ppb        0.06747  13.37%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               21.7      0.0512 µg/L       0.11992      0.0512 ppb        0.11992 234.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              206.1      0.2130 µg/L       0.43842      0.2130 ppb        0.43842 205.79%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.2      0.8426 µg/L       1.53797      0.8426 ppb        1.53797 182.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -35.5     -2.2496 µg/L       1.15564     -2.2496 ppb        1.15564  51.37%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -25.2     -0.1254 µg/L       0.37347     -0.1254 ppb        0.37347 297.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               90.8      0.5394 µg/L       0.10772      0.5394 ppb        0.10772  19.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 13:02:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	134951.4	134951.4	96.3	%			13:03:24
1	Al 396.153Radial†	23289.9	24255.8	5083.2	µg/L	5083.2	ppb	13:03:24
1	Ca 317.933Radial†	72439.3	74627.7	5082.8	µg/L	5082.8	ppb	13:03:24
1	Fe 238.204 Radial†	67478.3	69931.9	5222.5	µg/L	5222.5	ppb	13:03:24
1	K 766.490 Radial†	13543.3	12565.5	4974.9	µg/L	4974.9	ppb	13:03:24
1	Mg 279.077 IEC†	10775.3	11013.4	5093.2	µg/L	5093.2	ppb	13:03:24
1	Na 589.592 Radial†	62921.0	64365.7	9972.8	µg/L	9972.8	ppb	13:03:24
1	Sr 421.552†	205304.6	213331.0	503.09	µg/L	503.09	ppb	13:03:22
1	Sc 361.383	1747605.0	1747605.0	96.866	%			13:03:37
1	Y 371.029	1016171.2	1016171.2	96.110	%			13:03:37
1	Ag 328.068†	122620.9	122023.4	505.79	µg/L	505.79	ppb	13:03:37
1	As 188.979†	1327.3	1388.8	477.11	µg/L	477.11	ppb	13:03:57
1	B 249.677†	34851.3	31913.8	494.56	µg/L	494.56	ppb	13:03:37
1	Ba 233.527†	109210.3	112888.6	502.18	µg/L	502.18	ppb	13:03:37
1	Be 313.107†	1644176.8	1698469.7	492.15	µg/L	492.15	ppb	13:03:37
1	Cd 226.502†	72177.9	74616.7	503.98	µg/L	503.98	ppb	13:03:37
1	Co 228.616†	36906.9	38311.4	507.09	µg/L	507.09	ppb	13:03:37
1	Cr 267.716†	56644.2	58243.8	503.75	µg/L	503.75	ppb	13:03:37
1	Cu 324.752†	119066.1	119882.6	503.02	µg/L	503.02	ppb	13:03:37
1	Mn 257.610†	367985.1	379707.4	503.48	µg/L	503.48	ppb	13:03:37
1	Mo 202.031†	14958.8	15481.4	506.77	µg/L	506.77	ppb	13:03:57
1	Ni 231.604†	38996.7	40354.4	504.88	µg/L	504.88	ppb	13:03:37
1	P 214.914†	10523.6	10889.8	2510.3	µg/L	2510.3	ppb	13:03:57
1	Pb 220.353†	8084.3	8242.5	508.80	µg/L	508.80	ppb	13:03:57
1	S 181.975 Axial†	1239.5	1190.7	1005.9	µg/L	1005.9	ppb	13:03:57
1	Sb 206.836†	3857.3	3892.4	503.08	µg/L	503.08	ppb	13:03:57
1	Se 196.026†	1236.0	1269.9	503	µg/L	503	ppb	13:03:57
1	SiO2†	50367.9	50258.6	5300.7	µg/L	5300.7	ppb	13:03:37
1	Si 251.611†	154270.2	158495.0	2489.2	µg/L	2489.2	ppb	13:03:37
1	Sn 189.927†	6951.6	7174.6	499.34	µg/L	499.34	ppb	13:03:57
1	Ti 334.940†	472854.0	487331.3	499.88	µg/L	499.88	ppb	13:03:37
1	Tl 190.801†	3479.8	3706.7	513.66	µg/L	513.66	ppb	13:03:57
1	U 409.014†	7164.5	7559.7	507.55	µg/L	507.55	ppb	13:03:37
1	V 292.402†	93886.7	96501.4	506.87	µg/L	506.87	ppb	13:03:37
1	Zn 213.857†	82263.2	84422.0	500.15	µg/L	500.15	ppb	13:03:37
2	Sc RADIAL	136378.3	136378.3	97.3	%			13:03:28
2	Al 396.153Radial†	23164.1	23873.6	5003.0	µg/L	5003.0	ppb	13:03:28
2	Ca 317.933Radial†	73120.8	74541.0	5076.9	µg/L	5076.9	ppb	13:03:28
2	Fe 238.204 Radial†	66011.8	67692.5	5055.2	µg/L	5055.2	ppb	13:03:28
2	K 766.490 Radial†	13942.8	12828.8	5079.2	µg/L	5079.2	ppb	13:03:28
2	Mg 279.077 IEC†	10946.2	11071.9	5120.2	µg/L	5120.2	ppb	13:03:28
2	Na 589.592 Radial†	63956.9	64746.4	10032	µg/L	10032	ppb	13:03:28
2	Sr 421.552†	206101.6	211919.9	499.77	µg/L	499.77	ppb	13:03:26
2	Sc 361.383	1771467.8	1771467.8	98.188	%			13:04:00
2	Y 371.029	1029278.3	1029278.3	97.350	%			13:04:00
2	Ag 328.068†	124739.5	122475.9	507.68	µg/L	507.68	ppb	13:04:00
2	As 188.979†	1335.0	1378.2	473.48	µg/L	473.48	ppb	13:04:20
2	B 249.677†	35593.5	32185.1	498.77	µg/L	498.77	ppb	13:04:00
2	Ba 233.527†	110782.0	112970.6	502.55	µg/L	502.55	ppb	13:04:00
2	Be 313.107†	1676433.8	1708457.1	495.04	µg/L	495.04	ppb	13:04:00
2	Cd 226.502†	73710.5	75173.8	507.77	µg/L	507.77	ppb	13:04:00
2	Co 228.616†	37538.3	38441.2	508.82	µg/L	508.82	ppb	13:04:00
2	Cr 267.716†	57589.1	58418.4	505.25	µg/L	505.25	ppb	13:04:00
2	Cu 324.752†	121161.9	120361.3	505.01	µg/L	505.01	ppb	13:04:00
2	Mn 257.610†	374378.3	381101.1	505.33	µg/L	505.33	ppb	13:04:00
2	Mo 202.031†	14962.8	15277.5	500.10	µg/L	500.10	ppb	13:04:20
2	Ni 231.604†	39677.3	40505.3	506.77	µg/L	506.77	ppb	13:04:00
2	P 214.914†	10538.1	10758.2	2480.0	µg/L	2480.0	ppb	13:04:20
2	Pb 220.353†	8094.8	8140.7	502.52	µg/L	502.52	ppb	13:04:20

2	S 181.975 Axial†	1234.8	1168.6	987.34 µg/L	987.34 ppb	13:04:20
2	Sb 206.836†	3877.6	3859.4	498.71 µg/L	498.71 ppb	13:04:20
2	Se 196.026†	1247.8	1264.7	500 µg/L	500 ppb	13:04:20
2	SiO2†	51515.2	50726.6	5350.5 µg/L	5350.5 ppb	13:04:00
2	Si 251.611†	157474.7	159613.2	2507.0 µg/L	2507.0 ppb	13:04:00
2	Sn 189.927†	6980.0	7106.9	494.65 µg/L	494.65 ppb	13:04:20
2	Ti 334.940†	480399.5	488440.2	501.01 µg/L	501.01 ppb	13:04:00
2	Tl 190.801†	3461.6	3639.8	504.55 µg/L	504.55 ppb	13:04:20
2	U 409.014†	7360.0	7659.1	514.00 µg/L	514.00 ppb	13:04:00
2	V 292.402†	95569.5	96909.6	508.95 µg/L	508.95 ppb	13:04:00
2	Zn 213.857†	83892.2	84937.1	503.23 µg/L	503.23 ppb	13:04:00
3	Sc RADIAL	136580.0	136580.0	97.5 %		13:03:32
3	Al 396.153Radial†	23330.5	24009.1	5031.4 µg/L	5031.4 ppb	13:03:32
3	Ca 317.933Radial†	73424.8	74741.9	5090.6 µg/L	5090.6 ppb	13:03:32
3	Fe 238.204 Radial†	66275.6	67863.0	5068.0 µg/L	5068.0 ppb	13:03:32
3	K 766.490 Radial†	13976.3	12842.0	5084.5 µg/L	5084.5 ppb	13:03:32
3	Mg 279.077 IEC†	10895.7	11003.5	5088.7 µg/L	5088.7 ppb	13:03:32
3	Na 589.592 Radial†	64278.6	64979.3	10068 µg/L	10068 ppb	13:03:32
3	Sr 421.552†	204269.4	209727.8	494.60 µg/L	494.60 ppb	13:03:30
3	Sc 361.383	1762008.4	1762008.4	97.664 %		13:04:23
3	Y 371.029	1024064.8	1024064.8	96.857 %		13:04:23
3	Ag 328.068†	124016.1	122417.3	507.42 µg/L	507.42 ppb	13:04:23
3	As 188.979†	1344.0	1394.7	479.06 µg/L	479.06 ppb	13:04:43
3	B 249.677†	35445.3	32228.0	499.43 µg/L	499.43 ppb	13:04:23
3	Ba 233.527†	110194.8	112975.1	502.57 µg/L	502.57 ppb	13:04:23
3	Be 313.107†	1665423.2	1706349.1	494.43 µg/L	494.43 ppb	13:04:23
3	Cd 226.502†	73240.4	75095.6	507.24 µg/L	507.24 ppb	13:04:23
3	Co 228.616†	37379.4	38483.8	509.38 µg/L	509.38 ppb	13:04:23
3	Cr 267.716†	57383.5	58522.8	506.16 µg/L	506.16 ppb	13:04:23
3	Cu 324.752†	120292.6	120133.7	504.04 µg/L	504.04 ppb	13:04:23
3	Mn 257.610†	372242.5	380961.2	505.15 µg/L	505.15 ppb	13:04:23
3	Mo 202.031†	14975.1	15371.8	503.18 µg/L	503.18 ppb	13:04:43
3	Ni 231.604†	39454.9	40494.5	506.64 µg/L	506.64 ppb	13:04:23
3	P 214.914†	10535.7	10813.4	2492.7 µg/L	2492.7 ppb	13:04:43
3	Pb 220.353†	8095.0	8185.1	505.27 µg/L	505.27 ppb	13:04:43
3	S 181.975 Axial†	1246.4	1187.3	1003.0 µg/L	1003.0 ppb	13:04:43
3	Sb 206.836†	3832.0	3833.9	495:46 µg/L	495.46 ppb	13:04:43
3	Se 196.026†	1246.8	1270.5	503 µg/L	503 ppb	13:04:43
3	SiO2†	51309.1	50797.2	5357.8 µg/L	5357.8 ppb	13:04:23
3	Si 251.611†	156783.5	159766.5	2509.4 µg/L	2509.4 ppb	13:04:23
3	Sn 189.927†	6968.1	7132.9	496.45 µg/L	496.45 ppb	13:04:43
3	Ti 334.940†	477556.5	488155.9	500.73 µg/L	500.73 ppb	13:04:23
3	Tl 190.801†	3456.2	3653.1	506.37 µg/L	506.37 ppb	13:04:43
3	U 409.014†	7095.8	7428.9	499.46 µg/L	499.46 ppb	13:04:23
3	V 292.402†	95062.9	96913.4	508.99 µg/L	508.99 ppb	13:04:23
3	Zn 213.857†	83296.3	84785.6	502.33 µg/L	502.33 ppb	13:04:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1760360.4	97.573	%	0.6660				0.68%
Sc RADIAL	135969.9	97.1	%	0.63				0.65%
Y 371.029	1023171.4	96.772	%	0.6241				0.64%
Ag 328.068†	122305.5	506.97	µg/L	1.022	506.97	ppb	1.022	0.20%
QC value within limits for Ag 328.068 Recovery = 101.39%								
Al 396.153Radial†	24046.2	5039.2	µg/L	40.64	5039.2	ppb	40.64	0.81%
QC value within limits for Al 396.153Radial Recovery = 100.78%								
As 188.979†	1387.2	476.55	µg/L	2.835	476.55	ppb	2.835	0.59%
QC value within limits for As 188.979 Recovery = 95.31%								
B 249.677†	32109.0	497.59	µg/L	2.645	497.59	ppb	2.645	0.53%
QC value within limits for B 249.677 Recovery = 99.52%								
Ba 233.527†	112944.8	502.43	µg/L	0.217	502.43	ppb	0.217	0.04%
QC value within limits for Ba 233.527 Recovery = 100.49%								
Be 313.107†	1704425.3	493.87	µg/L	1.525	493.87	ppb	1.525	0.31%
QC value within limits for Be 313.107 Recovery = 98.77%								
Ca 317.933Radial†	74636.9	5083.4	µg/L	6.86	5083.4	ppb	6.86	0.14%
QC value within limits for Ca 317.933Radial Recovery = 101.67%								
Cd 226.502†	74962.0	506.33	µg/L	2.049	506.33	ppb	2.049	0.40%
QC value within limits for Cd 226.502 Recovery = 101.27%								
Co 228.616†	38412.1	508.43	µg/L	1.193	508.43	ppb	1.193	0.23%

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   QC value within limits for Co 228.616  Recovery = 101.69%
Cr 267.716†            58395.0      505.05 µg/L         1.219      505.05 ppb          1.219   0.24%
   QC value within limits for Cr 267.716  Recovery = 101.01%
Cu 324.752†           120125.9      504.02 µg/L         0.993      504.02 ppb          0.993   0.20%
   QC value within limits for Cu 324.752  Recovery = 100.80%
Fe 238.204 Radial†     68495.8      5115.2 µg/L         93.09      5115.2 ppb          93.09   1.82%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.30%
K 766.490 Radial†      12745.4      5046.2 µg/L         61.80      5046.2 ppb          61.80   1.22%
   QC value within limits for K 766.490 Radial  Recovery = 100.92%
Mg 279.077 IEC†        11029.6      5100.7 µg/L         17.03      5100.7 ppb          17.03   0.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.01%
Mn 257.610†           380589.9      504.65 µg/L         1.018      504.65 ppb          1.018   0.20%
   QC value within limits for Mn 257.610  Recovery = 100.93%
Mo 202.031†            15376.9      503.35 µg/L         3.340      503.35 ppb          3.340   0.66%
   QC value within limits for Mo 202.031  Recovery = 100.67%
Na 589.592 Radial†     64697.1       10024 µg/L          48.0       10024 ppb           48.0   0.48%
   QC value within limits for Na 589.592 Radial  Recovery = 100.24%
Ni 231.604†            40451.4      506.10 µg/L         1.053      506.10 ppb          1.053   0.21%
   QC value within limits for Ni 231.604  Recovery = 101.22%
P 214.914†             10820.5      2494.3 µg/L         15.23      2494.3 ppb          15.23   0.61%
   QC value within limits for P 214.914  Recovery = 99.77%
Pb 220.353†             8189.4      505.53 µg/L         3.148      505.53 ppb          3.148   0.62%
   QC value within limits for Pb 220.353  Recovery = 101.11%
S 181.975 Axial†        1182.2      998.77 µg/L        10.007      998.77 ppb         10.007   1.00%
   QC value within limits for S 181.975 Axial  Recovery = 99.88%
Sb 206.836†             3861.9      499.08 µg/L         3.825      499.08 ppb          3.825   0.77%
   QC value within limits for Sb 206.836  Recovery = 99.82%
Se 196.026†             1268.4         502 µg/L           1.3         502 ppb            1.3   0.25%
   QC value within limits for Se 196.026  Recovery = 100.39%
SiO2†                  50594.1      5336.3 µg/L         31.11      5336.3 ppb          31.11   0.58%
   QC value within limits for SiO2  Recovery = 99.79%
Si 251.611†           159291.6      2501.9 µg/L         11.00      2501.9 ppb          11.00   0.44%
   QC value within limits for Si 251.611  Recovery = 100.07%
Sn 189.927†             7138.1      496.81 µg/L         2.368      496.81 ppb          2.368   0.48%
   QC value within limits for Sn 189.927  Recovery = 99.36%
Sr 421.552†           211659.6      499.15 µg/L         4.282      499.15 ppb          4.282   0.86%
   QC value within limits for Sr 421.552  Recovery = 99.83%
Ti 334.940†           487975.8      500.54 µg/L         0.590      500.54 ppb          0.590   0.12%
   QC value within limits for Ti 334.940  Recovery = 100.11%
Tl 190.801†             3666.5      508.19 µg/L         4.821      508.19 ppb          4.821   0.95%
   QC value within limits for Tl 190.801  Recovery = 101.64%
U 409.014†              7549.2      507.00 µg/L         7.282      507.00 ppb          7.282   1.44%
   QC value within limits for U 409.014  Recovery = 101.40%
V 292.402†             96774.8      508.27 µg/L         1.211      508.27 ppb          1.211   0.24%
   QC value within limits for V 292.402  Recovery = 101.65%
Zn 213.857†            84714.9      501.90 µg/L         1.582      501.90 ppb          1.582   0.32%
   QC value within limits for Zn 213.857  Recovery = 100.38%
All analyte(s) passed QC.
```

Sequence No.: 9 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/5/2010 13:04:51**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136290.1	136290.1	97.3	%			13:05:20
1	Al 396.153Radial†	-69.6	7.0	1.4282	µg/L	1.4282	ppb	13:05:40
1	Ca 317.933Radial†	692.3	140.1	9.5452	µg/L	9.5452	ppb	13:05:40
1	Fe 238.204 Radial†	192.6	80.7	6.0268	µg/L	6.0268	ppb	13:05:40
1	K 766.490 Radial†	1641.5	193.5	76.683	µg/L	76.683	ppb	13:05:20
1	Mg 279.077 IEC†	175.0	7.4	3.4314	µg/L	3.4314	ppb	13:05:40
1	Na 589.592 Radial†	1048.0	124.7	19.264	µg/L	19.264	ppb	13:05:20
1	Sr 421.552†	-137.5	63.2	0.1489	µg/L	0.1489	ppb	13:05:20
1	Sc 361.383	1782656.2	1782656.2	98.808	%			13:06:42
1	Y 371.029	1047247.8	1047247.8	99.050	%			13:06:42
1	Ag 328.068†	4249.4	-264.5	-1.0842	µg/L	-1.0842	ppb	13:06:44
1	As 188.979†	-22.1	-3.8	-1.2845	µg/L	-1.2845	ppb	13:07:04
1	B 249.677†	4129.8	114.4	1.7792	µg/L	1.7792	ppb	13:06:44
1	Ba 233.527†	-153.9	-11.2	-0.0495	µg/L	-0.0495	ppb	13:07:04
1	Be 313.107†	-783.7	298.6	0.0863	µg/L	0.0863	ppb	13:06:44
1	Cd 226.502†	-60.9	41.7	0.2814	µg/L	0.2814	ppb	13:07:04
1	Co 228.616†	-197.9	10.1	0.1327	µg/L	0.1327	ppb	13:07:04
1	Cr 267.716†	268.3	38.3	0.3322	µg/L	0.3322	ppb	13:07:04
1	Cu 324.752†	2855.2	-146.5	-0.6124	µg/L	-0.6124	ppb	13:06:44
1	Mn 257.610†	251.5	69.8	0.0924	µg/L	0.0924	ppb	13:07:04
1	Mo 202.031†	-10.5	27.9	0.9129	µg/L	0.9129	ppb	13:07:04
1	Ni 231.604†	-80.3	14.7	0.1834	µg/L	0.1834	ppb	13:07:04
1	P 214.914†	8.1	33.9	7.8275	µg/L	7.8275	ppb	13:07:04
1	Pb 220.353†	78.1	-24.4	-1.4965	µg/L	-1.4965	ppb	13:07:04
1	S 181.975 Axial†	97.0	9.3	7.8229	µg/L	7.8229	ppb	13:07:04
1	Sb 206.836†	91.7	3.1	0.4072	µg/L	0.4072	ppb	13:07:04
1	Se 196.026†	28.3	22.5	8.88	µg/L	8.88	ppb	13:07:04
1	SiO2†	1885.5	169.1	17.875	µg/L	17.875	ppb	13:07:04
1	Si 251.611†	1309.0	557.8	8.7808	µg/L	8.7808	ppb	13:06:44
1	Sn 189.927†	7.5	5.7	0.3950	µg/L	0.3950	ppb	13:07:04
1	Ti 334.940†	1019.9	209.2	0.2150	µg/L	0.2150	ppb	13:06:44
1	Tl 190.801†	-114.7	-1.8	-0.2448	µg/L	-0.2448	ppb	13:07:04
1	U 409.014†	-171.8	-10.6	-0.6689	µg/L	-0.6689	ppb	13:06:44
1	V 292.402†	411.2	-7.0	-0.0268	µg/L	-0.0268	ppb	13:06:44
1	Zn 213.857†	594.7	98.9	0.5892	µg/L	0.5892	ppb	13:07:04
2	Sc RADIAL	136851.1	136851.1	97.7	%			13:05:42
2	Al 396.153Radial†	-103.9	-27.8	-5.8900	µg/L	-5.8900	ppb	13:06:02
2	Ca 317.933Radial†	675.5	120.0	8.1746	µg/L	8.1746	ppb	13:06:02
2	Fe 238.204 Radial†	167.9	54.5	4.0720	µg/L	4.0720	ppb	13:06:02
2	K 766.490 Radial†	1638.3	183.3	72.608	µg/L	72.608	ppb	13:05:42
2	Mg 279.077 IEC†	187.9	19.9	9.2236	µg/L	9.2236	ppb	13:06:02
2	Na 589.592 Radial†	1294.8	372.9	57.744	µg/L	57.744	ppb	13:05:42
2	Sr 421.552†	-154.5	46.3	0.1092	µg/L	0.1092	ppb	13:05:42
2	Sc 361.383	1800370.9	1800370.9	99.790	%			13:07:07
2	Y 371.029	1056939.0	1056939.0	99.966	%			13:07:07
2	Ag 328.068†	4328.8	-227.3	-0.9428	µg/L	-0.9428	ppb	13:07:09
2	As 188.979†	-8.8	9.7	3.2929	µg/L	3.2929	ppb	13:07:29
2	B 249.677†	4165.2	108.8	1.6915	µg/L	1.6915	ppb	13:07:09
2	Ba 233.527†	-134.5	9.7	0.0431	µg/L	0.0431	ppb	13:07:29
2	Be 313.107†	-900.8	189.1	0.0532	µg/L	0.0532	ppb	13:07:09
2	Cd 226.502†	-87.7	15.4	0.1042	µg/L	0.1042	ppb	13:07:29
2	Co 228.616†	-202.1	7.8	0.1025	µg/L	0.1025	ppb	13:07:29
2	Cr 267.716†	263.2	30.5	0.2678	µg/L	0.2678	ppb	13:07:29
2	Cu 324.752†	2938.4	-91.6	-0.3863	µg/L	-0.3863	ppb	13:07:09
2	Mn 257.610†	356.5	172.5	0.2285	µg/L	0.2285	ppb	13:07:29
2	Mo 202.031†	-17.0	21.6	0.7059	µg/L	0.7059	ppb	13:07:29
2	Ni 231.604†	-43.4	52.4	0.6558	µg/L	0.6558	ppb	13:07:29
2	P 214.914†	3.0	28.7	6.6395	µg/L	6.6395	ppb	13:07:29
2	Pb 220.353†	108.5	5.3	0.3325	µg/L	0.3325	ppb	13:07:29

2	S 181.975 Axial†	90.0	1.3	1.0862 µg/L	1.0862 ppb	13:07:29
2	Sb 206.836†	98.1	8.6	1.1191 µg/L	1.1191 ppb	13:07:29
2	Se 196.026†	25.4	19.3	7.59 µg/L	7.59 ppb	13:07:29
2	SiO2†	1870.0	134.8	14.250 µg/L	14.250 ppb	13:07:29
2	Si 251.611†	1273.5	509.1	8.0160 µg/L	8.0160 ppb	13:07:09
2	Sn 189.927†	8.7	6.8	0.4730 µg/L	0.4730 ppb	13:07:29
2	Ti 334.940†	814.0	-7.3	-0.0060 µg/L	-0.0060 ppb	13:07:09
2	Tl 190.801†	-113.8	0.2	0.0291 µg/L	0.0291 ppb	13:07:29
2	U 409.014†	-242.9	-80.0	-5.0782 µg/L	-5.0782 ppb	13:07:09
2	V 292.402†	326.1	-96.5	-0.4955 µg/L	-0.4955 ppb	13:07:09
2	Zn 213.857†	622.6	120.9	0.7175 µg/L	0.7175 ppb	13:07:29
3	Sc RADIAL	134763.0	134763.0	96.2 %		13:06:04
3	Al 396.153Radial†	-98.1	-23.5	-4.9608 µg/L	-4.9608 ppb	13:06:24
3	Ca 317.933Radial†	689.2	145.0	9.8746 µg/L	9.8746 ppb	13:06:24
3	Fe 238.204 Radial†	163.4	52.6	3.9274 µg/L	3.9274 ppb	13:06:24
3	K 766.490 Radial†	1713.1	287.0	113.73 µg/L	113.73 ppb	13:06:04
3	Mg 279.077 IEC†	185.0	19.8	9.1679 µg/L	9.1679 ppb	13:06:24
3	Na 589.592 Radial†	1061.3	150.7	23.261 µg/L	23.261 ppb	13:06:04
3	Sr 421.552†	-202.2	-5.7	-0.0136 µg/L	-0.0136 ppb	13:06:04
3	Sc 361.383	1779169.5	1779169.5	98.615 %		13:07:31
3	Y 371.029	1045675.5	1045675.5	98.901 %		13:07:31
3	Ag 328.068†	4167.3	-339.4	-1.3915 µg/L	-1.3915 ppb	13:07:33
3	As 188.979†	-16.5	1.8	0.6281 µg/L	0.6281 ppb	13:07:53
3	B 249.677†	4105.7	98.2	1.5263 µg/L	1.5263 ppb	13:07:33
3	Ba 233.527†	-156.0	-13.7	-0.0604 µg/L	-0.0604 ppb	13:07:53
3	Be 313.107†	-846.5	233.3	0.0659 µg/L	0.0659 ppb	13:07:33
3	Cd 226.502†	-55.4	47.2	0.3186 µg/L	0.3186 ppb	13:07:53
3	Co 228.616†	-190.5	17.1	0.2261 µg/L	0.2261 ppb	13:07:53
3	Cr 267.716†	277.0	47.7	0.4170 µg/L	0.4170 ppb	13:07:53
3	Cu 324.752†	2979.0	-15.3	-0.0678 µg/L	-0.0678 ppb	13:07:33
3	Mn 257.610†	253.7	72.5	0.0958 µg/L	0.0958 ppb	13:07:53
3	Mo 202.031†	-27.2	10.9	0.3585 µg/L	0.3585 ppb	13:07:53
3	Ni 231.604†	-64.3	30.7	0.3841 µg/L	0.3841 ppb	13:07:53
3	P 214.914†	-3.9	21.8	5.0264 µg/L	5.0264 ppb	13:07:53
3	Pb 220.353†	85.7	-16.5	-1.0125 µg/L	-1.0125 ppb	13:07:53
3	S 181.975 Axial†	96.0	8.5	7.1344 µg/L	7.1344 ppb	13:07:53
3	Sb 206.836†	89.9	1.4	0.1833 µg/L	0.1833 ppb	13:07:53
3	Se 196.026†	24.3	18.4	7.26 µg/L	7.26 ppb	13:07:53
3	SiO2†	1922.0	209.9	22.217 µg/L	22.217 ppb	13:07:53
3	Si 251.611†	1301.3	552.6	8.7095 µg/L	8.7095 ppb	13:07:33
3	Sn 189.927†	0.2	-1.7	-0.1193 µg/L	-0.1193 ppb	13:07:53
3	Ti 334.940†	753.7	-58.7	-0.0586 µg/L	-0.0586 ppb	13:07:33
3	Tl 190.801†	-106.1	6.7	0.9126 µg/L	0.9126 ppb	13:07:53
3	U 409.014†	-250.6	-90.7	-5.7025 µg/L	-5.7025 ppb	13:07:33
3	V 292.402†	497.3	81.0	0.4213 µg/L	0.4213 ppb	13:07:33
3	Zn 213.857†	570.3	75.3	0.4464 µg/L	0.4464 ppb	13:07:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787398.9	99.071	%	0.6301				0.64%
Sc RADIAL	135968.1	97.1	%	0.77				0.79%
Y 371.029	1049954.1	99.305	%	0.5769				0.58%
Ag 328.068†	-277.1	-1.1395	µg/L	0.22941	-1.1395	ppb	0.22941	20.13%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.8	-3.1409	µg/L	3.98409	-3.1409	ppb	3.98409	126.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.6	0.8788	µg/L	2.29896	0.8788	ppb	2.29896	261.60%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	107.1	1.6657	µg/L	0.12840	1.6657	ppb	0.12840	7.71%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.0	-0.0222	µg/L	0.05687	-0.0222	ppb	0.05687	255.61%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	240.3	0.0685	µg/L	0.01668	0.0685	ppb	0.01668	24.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	135.0	9.1981	µg/L	0.90158	9.1981	ppb	0.90158	9.80%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	34.8	0.2347	µg/L	0.11455	0.2347	ppb	0.11455	48.80%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.6	0.1538	µg/L	0.06444	0.1538	ppb	0.06444	41.91%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              38.8      0.3390 µg/L       0.07485      0.3390 ppb        0.07485  22.08%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -84.5     -0.3555 µg/L       0.27361     -0.3555 ppb        0.27361  76.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       62.6      4.6754 µg/L       1.17256      4.6754 ppb        1.17256  25.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       221.3      87.675 µg/L       22.6597      87.675 ppb        22.6597  25.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          15.7      7.2743 µg/L       3.32818      7.2743 ppb        3.32818  45.75%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             104.9      0.1389 µg/L       0.07760      0.1389 ppb        0.07760  55.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              20.1      0.6591 µg/L       0.28014      0.6591 ppb        0.28014  42.50%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      216.1      33.423 µg/L       21.1576      33.423 ppb        21.1576  63.30%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              32.6      0.4078 µg/L       0.23709      0.4078 ppb        0.23709  58.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               28.1      6.4978 µg/L       1.40594      6.4978 ppb        1.40594  21.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -11.9     -0.7255 µg/L       0.94768     -0.7255 ppb        0.94768 130.63%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.4      5.3479 µg/L       3.70673      5.3479 ppb        3.70673  69.31%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.4      0.5698 µg/L       0.48864      0.5698 ppb        0.48864  85.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              20.1        7.91 µg/L         0.855        7.91 ppb          0.855  10.80%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   171.3      18.114 µg/L        3.9889      18.114 ppb         3.9889  22.02%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             539.8      8.5021 µg/L       0.42246      8.5021 ppb        0.42246   4.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.6      0.2496 µg/L       0.32182      0.2496 ppb        0.32182 128.96%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              34.6      0.0815 µg/L       0.08471      0.0815 ppb        0.08471 103.94%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              47.7      0.0501 µg/L       0.14519      0.0501 ppb        0.14519 289.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.7      0.2323 µg/L       0.60486      0.2323 ppb        0.60486 260.40%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -60.4     -3.8165 µg/L       2.74372     -3.8165 ppb        2.74372  71.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -7.5     -0.0337 µg/L       0.45841     -0.0337 ppb        0.45841 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              98.4      0.5844 µg/L       0.13562      0.5844 ppb        0.13562  23.21%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 15 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/5/2010 13:19:15**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137686.1	137686.1	98.3	%			13:19:48
1	Al 396.153Radial†	23316.9	23803.1	4987.8	µg/L	4987.8	ppb	13:19:48
1	Ca 317.933Radial†	74157.5	74882.4	5100.2	µg/L	5100.2	ppb	13:19:48
1	Fe 238.204 Radial†	66808.5	67859.0	5067.7	µg/L	5067.7	ppb	13:19:48
1	K 766.490 Radial†	14132.5	12885.8	5101.8	µg/L	5101.8	ppb	13:19:48
1	Mg 279.077 IEC†	11014.2	11034.3	5103.1	µg/L	5103.1	ppb	13:19:48
1	Na 589.592 Radial†	64546.9	64722.7	10028	µg/L	10028	ppb	13:19:48
1	Sr 421.552†	206906.3	210727.7	496.95	µg/L	496.95	ppb	13:19:46
1	Sc 361.383	1764151.9	1764151.9	97.783	%			13:20:15
1	Y 371.029	1025388.3	1025388.3	96.982	%			13:20:15
1	Ag 328.068†	124481.4	122738.8	508.77	µg/L	508.77	ppb	13:20:15
1	As 188.979†	1356.8	1406.2	482.95	µg/L	482.95	ppb	13:20:35
1	B 249.677†	35498.9	32238.7	499.59	µg/L	499.59	ppb	13:20:15
1	Ba 233.527†	110006.0	112644.9	501.10	µg/L	501.10	ppb	13:20:15
1	Be 313.107†	1665582.9	1704440.6	493.88	µg/L	493.88	ppb	13:20:15
1	Cd 226.502†	73149.4	74911.4	505.99	µg/L	505.99	ppb	13:20:15
1	Co 228.616†	37552.7	38614.5	511.11	µg/L	511.11	ppb	13:20:15
1	Cr 267.716†	57324.6	58391.2	505.01	µg/L	505.01	ppb	13:20:15
1	Cu 324.752†	120503.1	120199.3	504.34	µg/L	504.34	ppb	13:20:15
1	Mn 257.610†	372460.1	380720.6	504.83	µg/L	504.83	ppb	13:20:15
1	Mo 202.031†	15163.3	15545.7	508.87	µg/L	508.87	ppb	13:20:35
1	Ni 231.604†	39504.5	40496.1	506.66	µg/L	506.66	ppb	13:20:15
1	P 214.914†	10657.2	10924.5	2518.4	µg/L	2518.4	ppb	13:20:35
1	Pb 220.353†	8249.2	8332.7	514.35	µg/L	514.35	ppb	13:20:35
1	S 181.975 Axial†	1263.9	1203.6	1016.9	µg/L	1016.9	ppb	13:20:35
1	Sb 206.836†	3896.7	3895.3	503.47	µg/L	503.47	ppb	13:20:35
1	Se 196.026†	1255.4	1277.8	506	µg/L	506	ppb	13:20:35
1	SiO2†	51270.6	50694.0	5346.7	µg/L	5346.7	ppb	13:20:15
1	Si 251.611†	156815.2	159603.8	2506.7	µg/L	2506.7	ppb	13:20:15
1	Sn 189.927†	7047.2	7205.1	501.46	µg/L	501.46	ppb	13:20:35
1	Ti 334.940†	478947.9	488984.7	501.57	µg/L	501.57	ppb	13:20:15
1	Tl 190.801†	3509.9	3703.8	513.29	µg/L	513.29	ppb	13:20:35
1	U 409.014†	7443.5	7775.6	521.38	µg/L	521.38	ppb	13:20:15
1	V 292.402†	95292.2	97029.7	509.66	µg/L	509.66	ppb	13:20:15
1	Zn 213.857†	83586.8	84979.1	503.48	µg/L	503.48	ppb	13:20:15
2	Sc RADIAL	135969.5	135969.5	97.1	%			13:19:52
2	Al 396.153Radial†	23142.4	23922.8	5013.1	µg/L	5013.1	ppb	13:19:52
2	Ca 317.933Radial†	73314.9	74966.9	5105.9	µg/L	5105.9	ppb	13:19:52
2	Fe 238.204 Radial†	66100.3	67987.6	5077.3	µg/L	5077.3	ppb	13:19:52
2	K 766.490 Radial†	13867.7	12794.5	5065.6	µg/L	5065.6	ppb	13:19:52
2	Mg 279.077 IEC†	10929.6	11088.6	5128.1	µg/L	5128.1	ppb	13:19:52
2	Na 589.592 Radial†	63867.1	64851.5	10048	µg/L	10048	ppb	13:19:52
2	Sr 421.552†	206242.2	212701.3	501.61	µg/L	501.61	ppb	13:19:50
2	Sc 361.383	1752479.1	1752479.1	97.136	%			13:20:38
2	Y 371.029	1020334.9	1020334.9	96.504	%			13:20:38
2	Ag 328.068†	123684.4	122766.2	508.86	µg/L	508.86	ppb	13:20:38
2	As 188.979†	1330.5	1388.3	476.91	µg/L	476.91	ppb	13:20:58
2	B 249.677†	35109.4	32079.5	497.12	µg/L	497.12	ppb	13:20:38
2	Ba 233.527†	109687.7	113066.5	502.98	µg/L	502.98	ppb	13:20:38
2	Be 313.107†	1653797.6	1703653.3	493.65	µg/L	493.65	ppb	13:20:38
2	Cd 226.502†	72583.7	74827.3	505.42	µg/L	505.42	ppb	13:20:38
2	Co 228.616†	37169.0	38475.2	509.27	µg/L	509.27	ppb	13:20:38
2	Cr 267.716†	56900.5	58345.1	504.61	µg/L	504.61	ppb	13:20:38
2	Cu 324.752†	119629.2	120120.5	504.01	µg/L	504.01	ppb	13:20:38
2	Mn 257.610†	370314.3	381048.7	505.26	µg/L	505.26	ppb	13:20:38
2	Mo 202.031†	15009.0	15490.1	507.05	µg/L	507.05	ppb	13:20:58
2	Ni 231.604†	39199.8	40451.5	506.10	µg/L	506.10	ppb	13:20:38
2	P 214.914†	10555.4	10892.3	2511.0	µg/L	2511.0	ppb	13:20:58
2	Pb 220.353†	8124.2	8260.3	509.89	µg/L	509.89	ppb	13:20:58

2	S 181.975 Axial†	1239.3	1187.0	1002.8 µg/L	1002.8 ppb	13:20:58
2	Sb 206.836†	3878.5	3903.1	504.46 µg/L	504.46 ppb	13:20:58
2	Se 196.026†	1243.7	1274.2	504 µg/L	504 ppb	13:20:58
2	SiO2†	50994.2	50758.8	5353.6 µg/L	5353.6 ppb	13:20:38
2	Si 251.611†	156234.2	160073.9	2514.1 µg/L	2514.1 ppb	13:20:38
2	Sn 189.927†	6997.5	7202.0	501.25 µg/L	501.25 ppb	13:20:58
2	Ti 334.940†	475750.2	488955.2	501.54 µg/L	501.54 ppb	13:20:38
2	Tl 190.801†	3489.7	3706.8	513.71 µg/L	513.71 ppb	13:20:58
2	U 409.014†	7342.0	7721.8	517.90 µg/L	517.90 ppb	13:20:38
2	V 292.402†	94395.8	96755.9	508.22 µg/L	508.22 ppb	13:20:38
2	Zn 213.857†	82925.5	84867.6	502.82 µg/L	502.82 ppb	13:20:38
3	Sc RADIAL	135910.8	135910.8	97.0 %		13:19:56
3	Al 396.153Radial†	23011.1	23797.7	4986.6 µg/L	4986.6 ppb	13:19:56
3	Ca 317.933Radial†	73016.0	74691.3	5087.2 µg/L	5087.2 ppb	13:19:56
3	Fe 238.204 Radial†	65816.6	67724.5	5057.6 µg/L	5057.6 ppb	13:19:56
3	K 766.490 Radial†	14014.9	12952.4	5128.2 µg/L	5128.2 ppb	13:19:56
3	Mg 279.077 IEC†	10852.5	11014.0	5093.7 µg/L	5093.7 ppb	13:19:56
3	Na 589.592 Radial†	64017.8	65035.2	10076 µg/L	10076 ppb	13:19:56
3	Sr 421.552†	207445.1	214032.9	504.75 µg/L	504.75 ppb	13:19:54
3	Sc 361.383	1757185.4	1757185.4	97.397 %		13:21:01
3	Y 371.029	1021114.7	1021114.7	96.578 %		13:21:01
3	Ag 328.068†	123757.2	122499.9	507.77 µg/L	507.77 ppb	13:21:01
3	As 188.979†	1359.9	1414.8	485.88 µg/L	485.88 ppb	13:21:21
3	B 249.677†	35071.9	31944.2	495.02 µg/L	495.02 ppb	13:21:01
3	Ba 233.527†	109828.9	112909.1	502.28 µg/L	502.28 ppb	13:21:01
3	Be 313.107†	1657683.2	1703082.7	493.48 µg/L	493.48 ppb	13:21:01
3	Cd 226.502†	72559.6	74602.4	503.91 µg/L	503.91 ppb	13:21:01
3	Co 228.616†	37343.2	38551.6	510.28 µg/L	510.28 ppb	13:21:01
3	Cr 267.716†	57083.6	58376.2	504.88 µg/L	504.88 ppb	13:21:01
3	Cu 324.752†	120203.7	120380.4	505.08 µg/L	505.08 ppb	13:21:01
3	Mn 257.610†	371130.2	380865.4	505.02 µg/L	505.02 ppb	13:21:01
3	Mo 202.031†	15160.4	15604.2	510.78 µg/L	510.78 ppb	13:21:21
3	Ni 231.604†	39383.3	40531.9	507.10 µg/L	507.10 ppb	13:21:01
3	P 214.914†	10656.5	10967.1	2528.2 µg/L	2528.2 ppb	13:21:21
3	Pb 220.353†	8194.0	8309.5	512.94 µg/L	512.94 ppb	13:21:21
3	S 181.975 Axial†	1261.5	1206.3	1019.2 µg/L	1019.2 ppb	13:21:21
3	Sb 206.836†	3887.7	3901.9	504.35 µg/L	504.35 ppb	13:21:21
3	Se 196.026†	1265.5	1293.2	512 µg/L	512 ppb	13:21:21
3	SiO2†	51195.4	50824.7	5360.4 µg/L	5360.4 ppb	13:21:01
3	Si 251.611†	156725.4	160147.5	2515.2 µg/L	2515.2 ppb	13:21:01
3	Sn 189.927†	7043.2	7229.6	503.16 µg/L	503.16 ppb	13:21:21
3	Ti 334.940†	476862.5	488785.4	501.37 µg/L	501.37 ppb	13:21:01
3	Tl 190.801†	3501.8	3709.6	514.09 µg/L	514.09 ppb	13:21:21
3	U 409.014†	7209.4	7565.4	508.05 µg/L	508.05 ppb	13:21:01
3	V 292.402†	94694.8	96802.7	508.50 µg/L	508.50 ppb	13:21:01
3	Zn 213.857†	83190.2	84910.8	503.07 µg/L	503.07 ppb	13:21:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1757938.8	97.438	%	0.3255				0.33%
Sc RADIAL	136522.1	97.5	%	0.72				0.74%
Y 371.029	1022279.3	96.688	%	0.2573				0.27%
Ag 328.068†	122668.3	508.47	µg/L	0.610	508.47	ppb	0.610	0.12%
QC value within limits for Ag 328.068 Recovery = 101.69%								
Al 396.153Radial†	23841.2	4995.8	µg/L	14.96	4995.8	ppb	14.96	0.30%
QC value within limits for Al 396.153Radial Recovery = 99.92%								
As 188.979†	1403.1	481.91	µg/L	4.574	481.91	ppb	4.574	0.95%
QC value within limits for As 188.979 Recovery = 96.38%								
B 249.677†	32087.5	497.25	µg/L	2.291	497.25	ppb	2.291	0.46%
QC value within limits for B 249.677 Recovery = 99.45%								
Ba 233.527†	112873.5	502.12	µg/L	0.946	502.12	ppb	0.946	0.19%
QC value within limits for Ba 233.527 Recovery = 100.42%								
Be 313.107†	1703725.5	493.67	µg/L	0.199	493.67	ppb	0.199	0.04%
QC value within limits for Be 313.107 Recovery = 98.73%								
Ca 317.933Radial†	74846.9	5097.7	µg/L	9.62	5097.7	ppb	9.62	0.19%
QC value within limits for Ca 317.933Radial Recovery = 101.95%								
Cd 226.502†	74780.4	505.11	µg/L	1.079	505.11	ppb	1.079	0.21%
QC value within limits for Cd 226.502 Recovery = 101.02%								
Co 228.616†	38547.1	510.22	µg/L	0.922	510.22	ppb	0.922	0.18%

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   QC value within limits for Co 228.616  Recovery = 102.04%
Cr 267.716†            58370.8      504.83 µg/L         0.204      504.83 ppb          0.204   0.04%
   QC value within limits for Cr 267.716  Recovery = 100.97%
Cu 324.752†           120233.4      504.47 µg/L         0.551      504.47 ppb          0.551   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.89%
Fe 238.204 Radial†     67857.1      5067.5 µg/L          9.82      5067.5 ppb           9.82   0.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.35%
K 766.490 Radial†      12877.5      5098.6 µg/L         31.42      5098.6 ppb          31.42   0.62%
   QC value within limits for K 766.490 Radial  Recovery = 101.97%
Mg 279.077 IEC†        11045.6      5108.3 µg/L         17.77      5108.3 ppb          17.77   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.17%
Mn 257.610†           380878.2      505.04 µg/L         0.218      505.04 ppb          0.218   0.04%
   QC value within limits for Mn 257.610  Recovery = 101.01%
Mo 202.031†            15546.7      508.90 µg/L         1.865      508.90 ppb          1.865   0.37%
   QC value within limits for Mo 202.031  Recovery = 101.78%
Na 589.592 Radial†     64869.8       10051 µg/L          24.3       10051 ppb           24.3   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 100.51%
Ni 231.604†            40493.2      506.62 µg/L         0.504      506.62 ppb          0.504   0.10%
   QC value within limits for Ni 231.604  Recovery = 101.32%
P 214.914†             10928.0      2519.2 µg/L          8.66      2519.2 ppb           8.66   0.34%
   QC value within limits for P 214.914  Recovery = 100.77%
Pb 220.353†             8300.9      512.39 µg/L         2.280      512.39 ppb          2.280   0.44%
   QC value within limits for Pb 220.353  Recovery = 102.48%
S 181.975 Axial†        1199.0      1012.9 µg/L          8.84      1012.9 ppb           8.84   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 101.29%
Sb 206.836†             3900.1      504.09 µg/L         0.541      504.09 ppb          0.541   0.11%
   QC value within limits for Sb 206.836  Recovery = 100.82%
Se 196.026†             1281.7         507 µg/L           4.0         507 ppb            4.0   0.78%
   QC value within limits for Se 196.026  Recovery = 101.44%
SiO2†                  50759.2      5353.6 µg/L          6.88      5353.6 ppb           6.88   0.13%
   QC value within limits for SiO2  Recovery = 100.11%
Si 251.611†           159941.7      2512.0 µg/L          4.64      2512.0 ppb           4.64   0.18%
   QC value within limits for Si 251.611  Recovery = 100.48%
Sn 189.927†             7212.2      501.96 µg/L         1.049      501.96 ppb          1.049   0.21%
   QC value within limits for Sn 189.927  Recovery = 100.39%
Sr 421.552†           212487.3      501.10 µg/L         3.922      501.10 ppb          3.922   0.78%
   QC value within limits for Sr 421.552  Recovery = 100.22%
Ti 334.940†           488908.4      501.50 µg/L         0.107      501.50 ppb          0.107   0.02%
   QC value within limits for Ti 334.940  Recovery = 100.30%
Tl 190.801†             3706.8      513.69 µg/L         0.398      513.69 ppb          0.398   0.08%
   QC value within limits for Tl 190.801  Recovery = 102.74%
U 409.014†              7687.6      515.78 µg/L         6.915      515.78 ppb          6.915   1.34%
   QC value within limits for U 409.014  Recovery = 103.16%
V 292.402†             96862.8      508.79 µg/L         0.765      508.79 ppb          0.765   0.15%
   QC value within limits for V 292.402  Recovery = 101.76%
Zn 213.857†            84919.2      503.12 µg/L         0.334      503.12 ppb          0.334   0.07%
   QC value within limits for Zn 213.857  Recovery = 100.62%
All analyte(s) passed QC.
```

Sequence No.: 16 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/5/2010 13:21:29**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136365.9	136365.9	97.3	%			13:21:58
1	Al 396.153Radial†	-72.1	4.4	0.9330	µg/L	0.9330	ppb	13:22:18
1	Ca 317.933Radial†	710.4	158.4	10.786	µg/L	10.786	ppb	13:22:18
1	Fe 238.204 Radial†	185.7	73.4	5.4841	µg/L	5.4841	ppb	13:22:18
1	K 766.490 Radial†	1496.4	43.5	17.215	µg/L	17.215	ppb	13:21:58
1	Mg 279.077 IEC†	179.8	12.2	5.6498	µg/L	5.6498	ppb	13:22:18
1	Na 589.592 Radial†	1238.6	319.9	49.578	µg/L	49.578	ppb	13:21:58
1	Sr 421.552†	-142.4	58.2	0.1373	µg/L	0.1373	ppb	13:21:58
1	Sc 361.383	1782820.6	1782820.6	98.818	%			13:23:20
1	Y 371.029	1046910.4	1046910.4	99.018	%			13:23:20
1	Ag 328.068†	4406.6	-105.9	-0.4491	µg/L	-0.4491	ppb	13:23:22
1	As 188.979†	-21.0	-2.7	-0.9151	µg/L	-0.9151	ppb	13:23:42
1	B 249.677†	4073.3	56.8	0.8834	µg/L	0.8834	ppb	13:23:22
1	Ba 233.527†	-120.0	23.1	0.1023	µg/L	0.1023	ppb	13:23:42
1	Be 313.107†	-879.3	201.9	0.0560	µg/L	0.0560	ppb	13:23:22
1	Cd 226.502†	-86.3	16.0	0.1078	µg/L	0.1078	ppb	13:23:42
1	Co 228.616†	-193.5	14.5	0.1920	µg/L	0.1920	ppb	13:23:42
1	Cr 267.716†	232.1	1.6	0.0206	µg/L	0.0206	ppb	13:23:42
1	Cu 324.752†	2948.4	-52.4	-0.2248	µg/L	-0.2248	ppb	13:23:22
1	Mn 257.610†	249.3	67.6	0.0894	µg/L	0.0894	ppb	13:23:42
1	Mo 202.031†	-36.3	1.9	0.0612	µg/L	0.0612	ppb	13:23:42
1	Ni 231.604†	-71.5	23.5	0.2943	µg/L	0.2943	ppb	13:23:42
1	P 214.914†	2.4	28.1	6.5138	µg/L	6.5138	ppb	13:23:42
1	Pb 220.353†	104.5	2.3	0.1466	µg/L	0.1466	ppb	13:23:42
1	S 181.975 Axial†	101.8	14.1	11.895	µg/L	11.895	ppb	13:23:42
1	Sb 206.836†	82.9	-5.8	-0.7459	µg/L	-0.7459	ppb	13:23:42
1	Se 196.026†	22.2	16.4	6.44	µg/L	6.44	ppb	13:23:42
1	SiO2†	1856.7	139.8	14.797	µg/L	14.797	ppb	13:23:42
1	Si 251.611†	1252.8	500.7	7.8907	µg/L	7.8907	ppb	13:23:22
1	Sn 189.927†	11.8	10.1	0.6995	µg/L	0.6995	ppb	13:23:42
1	Ti 334.940†	676.1	-138.8	-0.1394	µg/L	-0.1394	ppb	13:23:22
1	Tl 190.801†	-128.9	-16.2	-2.2162	µg/L	-2.2162	ppb	13:23:42
1	U 409.014†	-290.7	-130.8	-8.2823	µg/L	-8.2823	ppb	13:23:22
1	V 292.402†	334.4	-84.8	-0.4449	µg/L	-0.4449	ppb	13:23:22
1	Zn 213.857†	588.1	92.2	0.5479	µg/L	0.5479	ppb	13:23:42
2	Sc RADIAL	136466.1	136466.1	97.4	%			13:22:20
2	Al 396.153Radial†	-51.5	25.6	5.3864	µg/L	5.3864	ppb	13:22:40
2	Ca 317.933Radial†	690.1	137.0	9.3304	µg/L	9.3304	ppb	13:22:40
2	Fe 238.204 Radial†	194.0	81.9	6.1145	µg/L	6.1145	ppb	13:22:40
2	K 766.490 Radial†	1714.5	266.3	105.52	µg/L	105.52	ppb	13:22:20
2	Mg 279.077 IEC†	156.6	-11.7	-5.4114	µg/L	-5.4114	ppb	13:22:40
2	Na 589.592 Radial†	1009.5	83.8	12.901	µg/L	12.901	ppb	13:22:20
2	Sr 421.552†	-151.7	48.8	0.1149	µg/L	0.1149	ppb	13:22:20
2	Sc 361.383	1782019.7	1782019.7	98.773	%			13:23:44
2	Y 371.029	1046998.5	1046998.5	99.026	%			13:23:44
2	Ag 328.068†	4298.3	-213.5	-0.8812	µg/L	-0.8812	ppb	13:23:47
2	As 188.979†	-7.3	11.2	3.7928	µg/L	3.7928	ppb	13:24:07
2	B 249.677†	4202.2	189.2	2.9424	µg/L	2.9424	ppb	13:23:47
2	Ba 233.527†	-153.9	-11.3	-0.0501	µg/L	-0.0501	ppb	13:24:07
2	Be 313.107†	-724.1	358.6	0.1019	µg/L	0.1019	ppb	13:23:47
2	Cd 226.502†	-57.2	45.5	0.3068	µg/L	0.3068	ppb	13:24:07
2	Co 228.616†	-193.9	14.0	0.1851	µg/L	0.1851	ppb	13:24:07
2	Cr 267.716†	283.6	53.9	0.4715	µg/L	0.4715	ppb	13:24:07
2	Cu 324.752†	2861.1	-139.5	-0.5881	µg/L	-0.5881	ppb	13:23:47
2	Mn 257.610†	304.8	123.9	0.1645	µg/L	0.1645	ppb	13:24:07
2	Mo 202.031†	-31.6	6.5	0.2141	µg/L	0.2141	ppb	13:24:07
2	Ni 231.604†	-54.3	41.0	0.5126	µg/L	0.5126	ppb	13:24:07
2	P 214.914†	3.2	28.9	6.6884	µg/L	6.6884	ppb	13:24:07
2	Pb 220.353†	117.1	15.1	0.9372	µg/L	0.9372	ppb	13:24:07

2	S 181.975 Axial†	101.7	14.1	11.829 µg/L	11.829 ppb	13:24:07
2	Sb 206.836†	78.2	-10.5	-1.3618 µg/L	-1.3618 ppb	13:24:07
2	Se 196.026†	18.6	12.6	4.97 µg/L	4.97 ppb	13:24:07
2	SiO2†	1894.3	178.7	18.911 µg/L	18.911 ppb	13:24:07
2	Si 251.611†	1331.3	580.8	9.1530 µg/L	9.1530 ppb	13:23:47
2	Sn 189.927†	8.7	6.9	0.4812 µg/L	0.4812 ppb	13:24:07
2	Ti 334.940†	731.4	-82.6	-0.0816 µg/L	-0.0816 ppb	13:23:47
2	Tl 190.801†	-109.0	4.0	0.5399 µg/L	0.5399 ppb	13:24:07
2	U 409.014†	-264.9	-104.9	-6.6122 µg/L	-6.6122 ppb	13:23:47
2	V 292.402†	436.0	18.2	0.0935 µg/L	0.0935 ppb	13:23:47
2	Zn 213.857†	590.3	94.6	0.5614 µg/L	0.5614 ppb	13:24:07
3	Sc RADIAL	137955.3	137955.3	98.5 %		13:22:42
3	Al 396.153Radial†	-70.3	7.2	1.4865 µg/L	1.4865 ppb	13:23:02
3	Ca 317.933Radial†	685.5	124.6	8.4893 µg/L	8.4893 ppb	13:23:02
3	Fe 238.204 Radial†	230.4	116.7	8.7157 µg/L	8.7157 ppb	13:23:02
3	K 766.490 Radial†	1451.8	-19.5	-7.7271 µg/L	-7.7271 ppb	13:22:42
3	Mg 279.077 IEC†	174.1	4.3	2.0013 µg/L	2.0013 ppb	13:23:02
3	Na 589.592 Radial†	1037.1	100.7	15.611 µg/L	15.611 ppb	13:22:42
3	Sr 421.552†	-254.5	-54.0	-0.1273 µg/L	-0.1273 ppb	13:22:42
3	Sc 361.383	1782300.1	1782300.1	98.789 %		13:24:09
3	Y 371.029	1047376.2	1047376.2	99.062 %		13:24:09
3	Ag 328.068†	4223.0	-290.4	-1.2135 µg/L	-1.2135 ppb	13:24:11
3	As 188.979†	-17.7	0.6	0.2088 µg/L	0.2088 ppb	13:24:31
3	B 249.677†	4033.8	18.1	0.2811 µg/L	0.2811 ppb	13:24:11
3	Ba 233.527†	-156.8	-14.2	-0.0638 µg/L	-0.0638 ppb	13:24:31
3	Be 313.107†	-613.6	470.6	0.1332 µg/L	0.1332 ppb	13:24:11
3	Cd 226.502†	-76.8	25.6	0.1726 µg/L	0.1726 ppb	13:24:31
3	Co 228.616†	-205.6	2.2	0.0282 µg/L	0.0282 ppb	13:24:31
3	Cr 267.716†	280.8	51.0	0.4490 µg/L	0.4490 ppb	13:24:31
3	Cu 324.752†	2839.1	-162.2	-0.6856 µg/L	-0.6856 ppb	13:24:11
3	Mn 257.610†	230.8	49.0	0.0648 µg/L	0.0648 ppb	13:24:31
3	Mo 202.031†	-22.6	15.7	0.5131 µg/L	0.5131 ppb	13:24:31
3	Ni 231.604†	-61.1	34.0	0.4255 µg/L	0.4255 ppb	13:24:31
3	P 214.914†	10.7	36.5	8.4493 µg/L	8.4493 ppb	13:24:31
3	Pb 220.353†	119.2	17.2	1.0651 µg/L	1.0651 ppb	13:24:31
3	S 181.975 Axial†	88.3	0.5	0.4233 µg/L	0.4233 ppb	13:24:31
3	Sb 206.836†	75.7	-13.1	-1.6875 µg/L	-1.6875 ppb	13:24:31
3	Se 196.026†	28.9	23.1	9.09 µg/L	9.09 ppb	13:24:31
3	SiO2†	1947.0	231.8	24.527 µg/L	24.527 ppb	13:24:31
3	Si 251.611†	1312.9	562.0	8.8525 µg/L	8.8525 ppb	13:24:11
3	Sn 189.927†	6.2	4.4	0.3051 µg/L	0.3051 ppb	13:24:31
3	Ti 334.940†	636.8	-178.4	-0.1791 µg/L	-0.1791 ppb	13:24:11
3	Tl 190.801†	-114.6	-1.7	-0.2417 µg/L	-0.2417 ppb	13:24:31
3	U 409.014†	-323.8	-164.4	-10.433 µg/L	-10.433 ppb	13:24:11
3	V 292.402†	230.1	-190.3	-0.9870 µg/L	-0.9870 ppb	13:24:11
3	Zn 213.857†	593.7	98.0	0.5817 µg/L	0.5817 ppb	13:24:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1782380.1	98.793	%	0.0225				0.02%
Sc RADIAL	136929.1	97.7	%	0.64				0.65%
Y 371.029	1047095.0	99.035	%	0.0234				0.02%
Ag 328.068†	-203.3	-0.8480	µg/L	0.38329	-0.8480	ppb	0.38329	45.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.4	2.6020	µg/L	2.42724	2.6020	ppb	2.42724	93.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.0288	µg/L	2.45877	1.0288	ppb	2.45877	238.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	88.1	1.3690	µg/L	1.39550	1.3690	ppb	1.39550	101.94%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.8	-0.0039	µg/L	0.09218	-0.0039	ppb	0.09218	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	343.7	0.0970	µg/L	0.03883	0.0970	ppb	0.03883	40.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	140.0	9.5354	µg/L	1.16212	9.5354	ppb	1.16212	12.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	29.0	0.1957	µg/L	0.10147	0.1957	ppb	0.10147	51.84%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.2	0.1351	µg/L	0.09266	0.1351	ppb	0.09266	68.56%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              35.5      0.3137 µg/L       0.25407      0.3137 ppb        0.25407  80.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -118.0     -0.4995 µg/L       0.24283     -0.4995 ppb        0.24283  48.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       90.7      6.7714 µg/L       1.71300      6.7714 ppb        1.71300  25.30%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        96.8     38.335 µg/L       59.5038     38.335 ppb        59.5038 155.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.6      0.7465 µg/L       5.63634      0.7465 ppb        5.63634 755.00%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              80.1      0.1062 µg/L       0.05193      0.1062 ppb        0.05193  48.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               8.0      0.2628 µg/L       0.22982      0.2628 ppb        0.22982  87.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      168.1     26.030 µg/L       20.4379     26.030 ppb        20.4379  78.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              32.8      0.4108 µg/L       0.10989      0.4108 ppb        0.10989  26.75%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               31.2      7.2172 µg/L       1.07061      7.2172 ppb        1.07061  14.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              11.5      0.7163 µg/L       0.49748      0.7163 ppb        0.49748  69.45%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          9.6      8.0489 µg/L       6.60400      8.0489 ppb        6.60400  82.05%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -9.8     -1.2650 µg/L       0.47821     -1.2650 ppb        0.47821  37.80%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              17.4        6.83 µg/L         2.087        6.83 ppb          2.087  30.55%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   183.4     19.412 µg/L        4.8846     19.412 ppb         4.8846  25.16%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             547.8      8.6321 µg/L       0.65940      8.6321 ppb        0.65940   7.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.1      0.4953 µg/L       0.19755      0.4953 ppb        0.19755  39.89%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              17.7      0.0416 µg/L       0.14674      0.0416 ppb        0.14674 352.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -133.3     -0.1333 µg/L       0.04905     -0.1333 ppb        0.04905  36.79%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -4.6     -0.6393 µg/L       1.42042     -0.6393 ppb        1.42042 222.17%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -133.4     -8.4424 µg/L       1.91529     -8.4424 ppb        1.91529  22.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -85.7     -0.4461 µg/L       0.54029     -0.4461 ppb        0.54029 121.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              94.9      0.5636 µg/L       0.01701      0.5636 ppb        0.01701   3.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 13:42:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138868.1	138868.1	99.1	%			13:42:40
1	Al 396.153Radial†	23487.6	23773.3	4981.5	µg/L	4981.5	ppb	13:42:40
1	Ca 317.933Radial†	75424.0	75517.8	5143.4	µg/L	5143.4	ppb	13:42:40
1	Fe 238.204 Radial†	67898.0	68379.6	5106.5	µg/L	5106.5	ppb	13:42:40
1	K 766.490 Radial†	14175.3	12806.5	5070.4	µg/L	5070.4	ppb	13:42:40
1	Mg 279.077 IEC†	11283.4	11210.5	5184.4	µg/L	5184.4	ppb	13:42:40
1	Na 589.592 Radial†	65456.3	65081.1	10084	µg/L	10084	ppb	13:42:40
1	Sr 421.552†	210429.2	212489.7	501.11	µg/L	501.11	ppb	13:42:38
1	Sc 361.383	1775893.4	1775893.4	98.434	%			13:42:53
1	Y 371.029	1031368.5	1031368.5	97.548	%			13:42:53
1	Ag 328.068†	125135.3	122561.4	508.05	µg/L	508.05	ppb	13:42:53
1	As 188.979†	1378.8	1419.3	487.41	µg/L	487.41	ppb	13:43:13
1	B 249.677†	35663.8	32166.2	498.47	µg/L	498.47	ppb	13:42:53
1	Ba 233.527†	111225.1	113139.5	503.30	µg/L	503.30	ppb	13:42:53
1	Be 313.107†	1681396.6	1709244.1	495.27	µg/L	495.27	ppb	13:42:53
1	Cd 226.502†	74013.1	75294.2	508.58	µg/L	508.58	ppb	13:42:53
1	Co 228.616†	37812.5	38624.5	511.24	µg/L	511.24	ppb	13:42:53
1	Cr 267.716†	57862.3	58549.8	506.38	µg/L	506.38	ppb	13:42:53
1	Cu 324.752†	121487.7	120384.8	505.12	µg/L	505.12	ppb	13:42:53
1	Mn 257.610†	375718.7	381512.7	505.88	µg/L	505.88	ppb	13:42:53
1	Mo 202.031†	15276.5	15558.2	509.28	µg/L	509.28	ppb	13:43:13
1	Ni 231.604†	40071.0	40804.5	510.52	µg/L	510.52	ppb	13:42:53
1	P 214.914†	10828.2	11026.2	2541.9	µg/L	2541.9	ppb	13:43:13
1	Pb 220.353†	8330.9	8360.0	516.03	µg/L	516.03	ppb	13:43:13
1	S 181.975 Axial†	1291.9	1223.5	1033.6	µg/L	1033.6	ppb	13:43:13
1	Sb 206.836†	3958.8	3932.1	508.21	µg/L	508.21	ppb	13:43:13
1	Se 196.026†	1291.6	1306.0	517	µg/L	517	ppb	13:43:13
1	SiO2†	51494.3	50574.7	5334.0	µg/L	5334.0	ppb	13:42:53
1	Si 251.611†	157845.4	159590.1	2506.4	µg/L	2506.4	ppb	13:42:53
1	Sn 189.927†	7135.5	7247.2	504.38	µg/L	504.38	ppb	13:43:13
1	Ti 334.940†	481989.7	488836.5	501.42	µg/L	501.42	ppb	13:42:53
1	Tl 190.801†	3553.5	3724.4	516.11	µg/L	516.11	ppb	13:43:13
1	U 409.014†	7425.5	7707.1	517.12	µg/L	517.12	ppb	13:42:53
1	V 292.402†	96145.0	97251.7	510.81	µg/L	510.81	ppb	13:42:53
1	Zn 213.857†	84509.4	85351.2	505.67	µg/L	505.67	ppb	13:42:53
2	Sc RADIAL	139612.3	139612.3	99.7	%			13:42:44
2	Al 396.153Radial†	23648.5	23808.4	4989.0	µg/L	4989.0	ppb	13:42:44
2	Ca 317.933Radial†	75832.6	75522.2	5143.7	µg/L	5143.7	ppb	13:42:44
2	Fe 238.204 Radial†	68267.1	68384.9	5106.9	µg/L	5106.9	ppb	13:42:44
2	K 766.490 Radial†	14437.4	12993.3	5144.4	µg/L	5144.4	ppb	13:42:44
2	Mg 279.077 IEC†	11292.1	11158.5	5160.3	µg/L	5160.3	ppb	13:42:44
2	Na 589.592 Radial†	66006.1	65280.9	10114	µg/L	10114	ppb	13:42:44
2	Sr 421.552†	211606.2	212539.3	501.23	µg/L	501.23	ppb	13:42:42
2	Sc 361.383	1781666.4	1781666.4	98.754	%			13:43:16
2	Y 371.029	1034665.0	1034665.0	97.859	%			13:43:16
2	Ag 328.068†	125593.0	122613.0	508.25	µg/L	508.25	ppb	13:43:16
2	As 188.979†	1355.4	1391.1	477.86	µg/L	477.86	ppb	13:43:36
2	B 249.677†	35931.1	32319.5	500.85	µg/L	500.85	ppb	13:43:16
2	Ba 233.527†	111616.5	113169.7	503.44	µg/L	503.44	ppb	13:43:16
2	Be 313.107†	1689593.4	1712009.4	496.07	µg/L	496.07	ppb	13:43:16
2	Cd 226.502†	74469.7	75512.9	510.06	µg/L	510.06	ppb	13:43:16
2	Co 228.616†	37976.5	38666.1	511.79	µg/L	511.79	ppb	13:43:16
2	Cr 267.716†	57992.2	58490.9	505.88	µg/L	505.88	ppb	13:43:16
2	Cu 324.752†	121899.7	120402.1	505.18	µg/L	505.18	ppb	13:43:16
2	Mn 257.610†	377710.0	382292.4	506.91	µg/L	506.91	ppb	13:43:16
2	Mo 202.031†	15274.2	15505.5	507.56	µg/L	507.56	ppb	13:43:36
2	Ni 231.604†	40181.7	40784.8	510.27	µg/L	510.27	ppb	13:43:16
2	P 214.914†	10770.6	10932.3	2520.2	µg/L	2520.2	ppb	13:43:36
2	Pb 220.353†	8298.0	8299.3	512.30	µg/L	512.30	ppb	13:43:36

2	S 181.975 Axial†	1286.7	1214.1	1025.6 µg/L	1025.6 ppb	13:43:36
2	Sb 206.836†	3944.3	3904.4	504.62 µg/L	504.62 ppb	13:43:36
2	Se 196.026†	1273.9	1283.8	508 µg/L	508 ppb	13:43:36
2	SiO2†	51901.4	50817.4	5359.8 µg/L	5359.8 ppb	13:43:16
2	Si 251.611†	158596.2	159830.8	2510.3 µg/L	2510.3 ppb	13:43:16
2	Sn 189.927†	7127.6	7215.7	502.20 µg/L	502.20 ppb	13:43:36
2	Ti 334.940†	484094.0	489380.7	501.98 µg/L	501.98 ppb	13:43:16
2	Tl 190.801†	3543.0	3702.0	513.05 µg/L	513.05 ppb	13:43:36
2	U 409.014†	7333.4	7589.3	509.66 µg/L	509.66 ppb	13:43:16
2	V 292.402†	96333.2	97125.7	510.14 µg/L	510.14 ppb	13:43:16
2	Zn 213.857†	85170.2	85742.2	508.01 µg/L	508.01 ppb	13:43:16
3	Sc RADIAL	136976.7	136976.7	97.8 %		13:42:48
3	Al 396.153Radial†	23312.1	23921.0	5012.7 µg/L	5012.7 ppb	13:42:48
3	Ca 317.933Radial†	74113.5	75228.2	5123.7 µg/L	5123.7 ppb	13:42:48
3	Fe 238.204 Radial†	66715.2	68115.7	5086.8 µg/L	5086.8 ppb	13:42:48
3	K 766.490 Radial†	13997.4	12822.0	5076.5 µg/L	5076.5 ppb	13:42:48
3	Mg 279.077 IEC†	11063.2	11142.5	5152.9 µg/L	5152.9 ppb	13:42:48
3	Na 589.592 Radial†	64548.4	65064.4	10081 µg/L	10081 ppb	13:42:48
3	Sr 421.552†	209597.9	214570.8	506.02 µg/L	506.02 ppb	13:42:46
3	Sc 361.383	1785664.6	1785664.6	98.975 %		13:43:39
3	Y 371.029	1036641.5	1036641.5	98.046 %		13:43:39
3	Ag 328.068†	125968.4	122707.5	508.62 µg/L	508.62 ppb	13:43:39
3	As 188.979†	1360.8	1393.5	478.69 µg/L	478.69 ppb	13:43:59
3	B 249.677†	36252.1	32562.3	504.62 µg/L	504.62 ppb	13:43:39
3	Ba 233.527†	111992.7	113296.8	504.00 µg/L	504.00 ppb	13:43:39
3	Be 313.107†	1692953.9	1711573.9	495.94 µg/L	495.94 ppb	13:43:39
3	Cd 226.502†	74912.6	75791.6	511.94 µg/L	511.94 ppb	13:43:39
3	Co 228.616†	38083.8	38688.4	512.09 µg/L	512.09 ppb	13:43:39
3	Cr 267.716†	58350.7	58721.7	507.89 µg/L	507.89 ppb	13:43:39
3	Cu 324.752†	122386.3	120617.3	506.06 µg/L	506.06 ppb	13:43:39
3	Mn 257.610†	378964.0	382703.0	507.46 µg/L	507.46 ppb	13:43:39
3	Mo 202.031†	15289.5	15486.4	506.93 µg/L	506.93 ppb	13:43:59
3	Ni 231.604†	40287.6	40800.6	510.47 µg/L	510.47 ppb	13:43:39
3	P 214.914†	10789.0	10926.4	2518.8 µg/L	2518.8 ppb	13:43:59
3	Pb 220.353†	8306.9	8289.4	511.70 µg/L	511.70 ppb	13:43:59
3	S 181.975 Axial†	1274.4	1198.7	1012.7 µg/L	1012.7 ppb	13:43:59
3	Sb 206.836†	3942.3	3893.4	503.16 µg/L	503.16 ppb	13:43:59
3	Se 196.026†	1281.3	1288.4	510 µg/L	510 ppb	13:43:59
3	SiO2†	52125.0	50925.6	5371.2 µg/L	5371.2 ppb	13:43:39
3	Si 251.611†	159485.5	160369.7	2518.8 µg/L	2518.8 ppb	13:43:39
3	Sn 189.927†	7145.8	7217.9	502.35 µg/L	502.35 ppb	13:43:59
3	Ti 334.940†	484735.9	488931.6	501.53 µg/L	501.53 ppb	13:43:39
3	Tl 190.801†	3526.0	3676.8	509.62 µg/L	509.62 ppb	13:43:59
3	U 409.014†	7048.5	7284.9	490.50 µg/L	490.50 ppb	13:43:39
3	V 292.402†	96713.4	97291.5	510.99 µg/L	510.99 ppb	13:43:39
3	Zn 213.857†	85201.1	85580.3	507.04 µg/L	507.04 ppb	13:43:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1781074.8	98.721	%	0.2723				0.28%
Sc RADIAL	138485.7	98.9	%	0.97				0.98%
Y 371.029	1034225.0	97.818	%	0.2520				0.26%
Ag 328.068†	122627.3	508.31	µg/L	0.289	508.31	ppb	0.289	0.06%
QC value within limits for Ag 328.068 Recovery = 101.66%								
Al 396.153Radial†	23834.3	4994.4	µg/L	16.29	4994.4	ppb	16.29	0.33%
QC value within limits for Al 396.153Radial Recovery = 99.89%								
As 188.979†	1401.3	481.32	µg/L	5.288	481.32	ppb	5.288	1.10%
QC value within limits for As 188.979 Recovery = 96.26%								
B 249.677†	32349.3	501.31	µg/L	3.105	501.31	ppb	3.105	0.62%
QC value within limits for B 249.677 Recovery = 100.26%								
Ba 233.527†	113202.0	503.58	µg/L	0.371	503.58	ppb	0.371	0.07%
QC value within limits for Ba 233.527 Recovery = 100.72%								
Be 313.107†	1710942.5	495.76	µg/L	0.428	495.76	ppb	0.428	0.09%
QC value within limits for Be 313.107 Recovery = 99.15%								
Ca 317.933Radial†	75422.7	5137.0	µg/L	11.48	5137.0	ppb	11.48	0.22%
QC value within limits for Ca 317.933Radial Recovery = 102.74%								
Cd 226.502†	75532.9	510.19	µg/L	1.686	510.19	ppb	1.686	0.33%
QC value within limits for Cd 226.502 Recovery = 102.04%								
Co 228.616†	38659.7	511.70	µg/L	0.430	511.70	ppb	0.430	0.08%

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   QC value within limits for Co 228.616  Recovery = 102.34%
Cr 267.716†            58587.5      506.72 µg/L         1.047      506.72 ppb          1.047   0.21%
   QC value within limits for Cr 267.716  Recovery = 101.34%
Cu 324.752†           120468.1      505.45 µg/L         0.529      505.45 ppb          0.529   0.10%
   QC value within limits for Cu 324.752  Recovery = 101.09%
Fe 238.204 Radial†     68293.4      5100.1 µg/L         11.50      5100.1 ppb          11.50   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.00%
K 766.490 Radial†      12874.0      5097.1 µg/L         41.07      5097.1 ppb          41.07   0.81%
   QC value within limits for K 766.490 Radial  Recovery = 101.94%
Mg 279.077 IEC†        11170.5      5165.9 µg/L         16.44      5165.9 ppb          16.44   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.32%
Mn 257.610†           382169.4      506.75 µg/L         0.803      506.75 ppb          0.803   0.16%
   QC value within limits for Mn 257.610  Recovery = 101.35%
Mo 202.031†            15516.7      507.92 µg/L         1.216      507.92 ppb          1.216   0.24%
   QC value within limits for Mo 202.031  Recovery = 101.58%
Na 589.592 Radial†     65142.1       10093 µg/L          18.6       10093 ppb           18.6   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 100.93%
Ni 231.604†            40796.6      510.42 µg/L         0.131      510.42 ppb          0.131   0.03%
   QC value within limits for Ni 231.604  Recovery = 102.08%
P 214.914†             10961.6      2527.0 µg/L         12.95      2527.0 ppb          12.95   0.51%
   QC value within limits for P 214.914  Recovery = 101.08%
Pb 220.353†             8316.2      513.34 µg/L         2.346      513.34 ppb          2.346   0.46%
   QC value within limits for Pb 220.353  Recovery = 102.67%
S 181.975 Axial†        1212.1      1024.0 µg/L         10.53      1024.0 ppb          10.53   1.03%
   QC value within limits for S 181.975 Axial  Recovery = 102.40%
Sb 206.836†             3910.0      505.33 µg/L         2.599      505.33 ppb          2.599   0.51%
   QC value within limits for Sb 206.836  Recovery = 101.07%
Se 196.026†             1292.7         512 µg/L           4.6         512 ppb            4.6   0.91%
   QC value within limits for Se 196.026  Recovery = 102.31%
SiO2†                  50772.5      5355.0 µg/L         19.08      5355.0 ppb          19.08   0.36%
   QC value within limits for SiO2  Recovery = 100.14%
Si 251.611†           159930.2      2511.8 µg/L          6.31      2511.8 ppb           6.31   0.25%
   QC value within limits for Si 251.611  Recovery = 100.47%
Sn 189.927†             7226.9      502.98 µg/L         1.219      502.98 ppb          1.219   0.24%
   QC value within limits for Sn 189.927  Recovery = 100.60%
Sr 421.552†           213199.9      502.78 µg/L         2.801      502.78 ppb          2.801   0.56%
   QC value within limits for Sr 421.552  Recovery = 100.56%
Ti 334.940†           489049.6      501.64 µg/L         0.299      501.64 ppb          0.299   0.06%
   QC value within limits for Ti 334.940  Recovery = 100.33%
Tl 190.801†             3701.1      512.93 µg/L         3.248      512.93 ppb          3.248   0.63%
   QC value within limits for Tl 190.801  Recovery = 102.59%
U 409.014†              7527.1      505.76 µg/L        13.731      505.76 ppb         13.731   2.71%
   QC value within limits for U 409.014  Recovery = 101.15%
V 292.402†             97223.0      510.65 µg/L         0.450      510.65 ppb          0.450   0.09%
   QC value within limits for V 292.402  Recovery = 102.13%
Zn 213.857†            85557.9      506.91 µg/L         1.174      506.91 ppb          1.174   0.23%
   QC value within limits for Zn 213.857  Recovery = 101.38%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 13:44:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139226.4	139226.4	99.4	%			13:44:36
1	Al 396.153Radial†	-51.0	27.3	5.7217	µg/L	5.7217	ppb	13:44:56
1	Ca 317.933Radial†	696.1	129.0	8.7832	µg/L	8.7832	ppb	13:44:56
1	Fe 238.204 Radial†	190.7	74.6	5.5725	µg/L	5.5725	ppb	13:44:56
1	K 766.490 Radial†	1559.2	75.1	29.754	µg/L	29.754	ppb	13:44:36
1	Mg 279.077 IEC†	174.5	3.2	1.4746	µg/L	1.4746	ppb	13:44:56
1	Na 589.592 Radial†	1053.6	107.6	16.657	µg/L	16.657	ppb	13:44:36
1	Sr 421.552†	-234.3	-31.3	-0.0738	µg/L	-0.0738	ppb	13:44:36
1	Sc 361.383	1819640.9	1819640.9	100.86	%			13:45:44
1	Y 371.029	1068349.2	1068349.2	101.05	%			13:45:44
1	Ag 328.068†	4263.6	-337.9	-1.3898	µg/L	-1.3898	ppb	13:45:46
1	As 188.979†	-12.2	6.4	2.1762	µg/L	2.1762	ppb	13:46:06
1	B 249.677†	4095.1	-4.9	-0.0766	µg/L	-0.0766	ppb	13:45:46
1	Ba 233.527†	-142.3	3.4	0.0151	µg/L	0.0151	ppb	13:46:06
1	Be 313.107†	-394.6	700.5	0.2020	µg/L	0.2020	ppb	13:45:46
1	Cd 226.502†	-62.4	41.5	0.2802	µg/L	0.2802	ppb	13:46:06
1	Co 228.616†	-196.0	15.9	0.2104	µg/L	0.2104	ppb	13:46:06
1	Cr 267.716†	280.0	44.4	0.3870	µg/L	0.3870	ppb	13:46:06
1	Cu 324.752†	2971.8	-89.6	-0.3764	µg/L	-0.3764	ppb	13:45:46
1	Mn 257.610†	366.6	178.8	0.2371	µg/L	0.2371	ppb	13:46:06
1	Mo 202.031†	-27.1	11.7	0.3815	µg/L	0.3815	ppb	13:46:06
1	Ni 231.604†	-82.9	13.7	0.1718	µg/L	0.1718	ppb	13:46:06
1	P 214.914†	3.4	29.1	6.7214	µg/L	6.7214	ppb	13:46:06
1	Pb 220.353†	138.4	33.8	2.0844	µg/L	2.0844	ppb	13:46:06
1	S 181.975 Axial†	94.0	4.3	3.5941	µg/L	3.5941	ppb	13:46:06
1	Sb 206.836†	85.1	-5.3	-0.6907	µg/L	-0.6907	ppb	13:46:06
1	Se 196.026†	32.1	25.7	10.1	µg/L	10.1	ppb	13:46:06
1	SiO2†	1842.8	88.0	9.3085	µg/L	9.3085	ppb	13:46:06
1	Si 251.611†	996.9	221.4	3.4871	µg/L	3.4871	ppb	13:45:46
1	Sn 189.927†	-1.5	-3.4	-0.2330	µg/L	-0.2330	ppb	13:46:06
1	Ti 334.940†	1034.4	202.6	0.2093	µg/L	0.2093	ppb	13:45:46
1	Tl 190.801†	-117.8	-2.5	-0.3444	µg/L	-0.3444	ppb	13:46:06
1	U 409.014†	-215.4	-50.2	-3.1830	µg/L	-3.1830	ppb	13:45:46
1	V 292.402†	385.2	-41.3	-0.2113	µg/L	-0.2113	ppb	13:45:46
1	Zn 213.857†	650.8	142.2	0.8481	µg/L	0.8481	ppb	13:46:06
2	Sc RADIAL	138385.9	138385.9	98.8	%			13:44:58
2	Al 396.153Radial†	-38.8	39.3	8.2507	µg/L	8.2507	ppb	13:45:18
2	Ca 317.933Radial†	696.7	133.8	9.1147	µg/L	9.1147	ppb	13:45:18
2	Fe 238.204 Radial†	164.2	49.0	3.6558	µg/L	3.6558	ppb	13:45:18
2	K 766.490 Radial†	1544.7	70.0	27.726	µg/L	27.726	ppb	13:44:58
2	Mg 279.077 IEC†	172.3	2.0	0.9360	µg/L	0.9360	ppb	13:45:18
2	Na 589.592 Radial†	1096.0	157.0	24.315	µg/L	24.315	ppb	13:44:58
2	Sr 421.552†	-154.1	48.4	0.1142	µg/L	0.1142	ppb	13:44:58
2	Sc 361.383	1771732.9	1771732.9	98.203	%			13:46:08
2	Y 371.029	1041172.2	1041172.2	98.475	%			13:46:08
2	Ag 328.068†	4132.7	-356.8	-1.4850	µg/L	-1.4850	ppb	13:46:11
2	As 188.979†	-12.4	5.9	1.9960	µg/L	1.9960	ppb	13:46:31
2	B 249.677†	4083.0	92.6	1.4401	µg/L	1.4401	ppb	13:46:11
2	Ba 233.527†	-132.8	9.3	0.0414	µg/L	0.0414	ppb	13:46:31
2	Be 313.107†	-720.5	358.1	0.0973	µg/L	0.0973	ppb	13:46:11
2	Cd 226.502†	-73.4	28.6	0.1936	µg/L	0.1936	ppb	13:46:31
2	Co 228.616†	-203.4	3.2	0.0419	µg/L	0.0419	ppb	13:46:31
2	Cr 267.716†	255.0	26.5	0.2460	µg/L	0.2460	ppb	13:46:31
2	Cu 324.752†	2857.4	-126.5	-0.5460	µg/L	-0.5460	ppb	13:46:11
2	Mn 257.610†	231.1	50.7	0.0671	µg/L	0.0671	ppb	13:46:31
2	Mo 202.031†	-27.9	10.2	0.3337	µg/L	0.3337	ppb	13:46:31
2	Ni 231.604†	-29.5	65.9	0.8242	µg/L	0.8242	ppb	13:46:31
2	P 214.914†	24.4	50.5	11.690	µg/L	11.690	ppb	13:46:31
2	Pb 220.353†	105.7	4.2	0.2732	µg/L	0.2732	ppb	13:46:31

2	S 181.975 Axial†	88.8	1.5	1.2436 µg/L	1.2436 ppb	13:46:31
2	Sb 206.836†	75.0	-13.3	-1.7160 µg/L	-1.7160 ppb	13:46:31
2	Se 196.026†	19.1	13.2	5.20 µg/L	5.20 ppb	13:46:31
2	SiO2†	1753.8	46.8	4.9409 µg/L	4.9409 ppb	13:46:31
2	Si 251.611†	1093.8	346.8	5.4607 µg/L	5.4607 ppb	13:46:11
2	Sn 189.927†	8.4	6.7	0.4611 µg/L	0.4611 ppb	13:46:31
2	Ti 334.940†	753.6	-55.6	-0.0483 µg/L	-0.0483 ppb	13:46:11
2	Tl 190.801†	-105.7	6.7	0.9108 µg/L	0.9108 ppb	13:46:31
2	U 409.014†	-492.0	-337.7	-21.300 µg/L	-21.300 ppb	13:46:11
2	V 292.402†	446.9	31.9	0.1551 µg/L	0.1551 ppb	13:46:11
2	Zn 213.857†	623.7	132.1	0.7836 µg/L	0.7836 ppb	13:46:31
3	Sc RADIAL	139322.9	139322.9	99.5 %		13:45:20
3	Al 396.153Radial†	-83.3	-5.2	-1.1167 µg/L	-1.1167 ppb	13:45:40
3	Ca 317.933Radial†	719.2	151.7	10.332 µg/L	10.332 ppb	13:45:40
3	Fe 238.204 Radial†	177.6	61.3	4.5744 µg/L	4.5744 ppb	13:45:40
3	K 766.490 Radial†	1647.6	162.9	64.558 µg/L	64.558 ppb	13:45:20
3	Mg 279.077 IEC†	171.1	-0.4	-0.1669 µg/L	-0.1669 ppb	13:45:40
3	Na 589.592 Radial†	1163.3	217.2	33.612 µg/L	33.612 ppb	13:45:20
3	Sr 421.552†	-240.9	-37.7	-0.0890 µg/L	-0.0890 ppb	13:45:20
3	Sc 361.383	1757944.0	1757944.0	97.439 %		13:46:33
3	Y 371.029	1032464.3	1032464.3	97.651 %		13:46:33
3	Ag 328.068†	4147.0	-309.1	-1.2649 µg/L	-1.2649 ppb	13:46:35
3	As 188.979†	-16.2	2.0	0.6713 µg/L	0.6713 ppb	13:46:55
3	B 249.677†	4056.4	97.9	1.5216 µg/L	1.5216 ppb	13:46:35
3	Ba 233.527†	-147.1	-6.4	-0.0283 µg/L	-0.0283 ppb	13:46:55
3	Be 313.107†	-852.9	216.4	0.0628 µg/L	0.0628 ppb	13:46:35
3	Cd 226.502†	-99.0	1.8	0.0118 µg/L	0.0118 ppb	13:46:55
3	Co 228.616†	-185.8	19.6	0.2591 µg/L	0.2591 ppb	13:46:55
3	Cr 267.716†	282.6	56.8	0.4914 µg/L	0.4914 ppb	13:46:55
3	Cu 324.752†	2854.6	-106.5	-0.4443 µg/L	-0.4443 ppb	13:46:35
3	Mn 257.610†	372.3	197.4	0.2618 µg/L	0.2618 ppb	13:46:55
3	Mo 202.031†	-26.7	11.1	0.3643 µg/L	0.3643 ppb	13:46:55
3	Ni 231.604†	-49.6	45.0	0.5632 µg/L	0.5632 ppb	13:46:55
3	P 214.914†	-3.8	21.8	5.0402 µg/L	5.0402 ppb	13:46:55
3	Pb 220.353†	94.5	-6.5	-0.3967 µg/L	-0.3967 ppb	13:46:55
3	S 181.975 Axial†	97.8	11.5	9.6540 µg/L	9.6540 ppb	13:46:55
3	Sb 206.836†	68.1	-19.8	-2.5588 µg/L	-2.5588 ppb	13:46:55
3	Se 196.026†	11.5	5.6	2.23 µg/L	2.23 ppb	13:46:55
3	SiO2†	1811.7	120.2	12.718 µg/L	12.718 ppb	13:46:55
3	Si 251.611†	1099.6	361.4	5.6949 µg/L	5.6949 ppb	13:46:35
3	Sn 189.927†	1.3	-0.5	-0.0360 µg/L	-0.0360 ppb	13:46:55
3	Ti 334.940†	685.2	-119.8	-0.1230 µg/L	-0.1230 ppb	13:46:35
3	Tl 190.801†	-115.2	-4.0	-0.5460 µg/L	-0.5460 ppb	13:46:55
3	U 409.014†	-153.1	6.3	0.3983 µg/L	0.3983 ppb	13:46:35
3	V 292.402†	417.2	5.0	0.0315 µg/L	0.0315 ppb	13:46:35
3	Zn 213.857†	604.9	117.8	0.6996 µg/L	0.6996 ppb	13:46:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783105.9	98.833	%	1.7949				1.82%
Sc RADIAL	138978.4	99.2	%	0.37				0.37%
Y 371.029	1047328.6	99.057	%	1.7703				1.79%
Ag 328.068†	-334.6	-1.3799	µg/L	0.11039	-1.3799	ppb	0.11039	8.00%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	20.4	4.2852	µg/L	4.84606	4.2852	ppb	4.84606	113.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.8	1.6145	µg/L	0.82177	1.6145	ppb	0.82177	50.90%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	61.9	0.9617	µg/L	0.90009	0.9617	ppb	0.90009	93.59%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0094	µg/L	0.03520	0.0094	ppb	0.03520	373.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	425.0	0.1207	µg/L	0.07247	0.1207	ppb	0.07247	60.05%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	138.2	9.4101	µg/L	0.81571	9.4101	ppb	0.81571	8.67%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	24.0	0.1619	µg/L	0.13702	0.1619	ppb	0.13702	84.65%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.9	0.1705	µg/L	0.11396	0.1705	ppb	0.11396	66.85%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              42.6      0.3748 µg/L       0.12315      0.3748 ppb        0.12315  32.85%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -107.5     -0.4556 µg/L       0.08535     -0.4556 ppb        0.08535  18.73%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       61.6      4.6009 µg/L       0.95865      4.6009 ppb        0.95865  20.84%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       102.7      40.679 µg/L       20.7044      40.679 ppb        20.7044  50.90%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.6      0.7479 µg/L       0.83677      0.7479 ppb        0.83677 111.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             142.3      0.1887 µg/L       0.10597      0.1887 ppb        0.10597  56.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              11.0      0.3598 µg/L       0.02420      0.3598 ppb        0.02420   6.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       160.6      24.861 µg/L        8.4908      24.861 ppb         8.4908  34.15%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              41.5      0.5197 µg/L       0.32839      0.5197 ppb        0.32839  63.18%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               33.8      7.8172 µg/L       3.45772      7.8172 ppb        3.45772  44.23%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              10.5      0.6536 µg/L       1.28355      0.6536 ppb        1.28355 196.38%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          5.7      4.8306 µg/L       4.33939      4.8306 ppb        4.33939  89.83%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -12.8     -1.6552 µg/L       0.93557     -1.6552 ppb        0.93557  56.52%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              14.9        5.85 µg/L         3.985        5.85 ppb          3.985  68.14%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    85.0      8.9890 µg/L       3.89816      8.9890 ppb        3.89816  43.37%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             309.9      4.8809 µg/L       1.21272      4.8809 ppb        1.21272  24.85%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.9      0.0640 µg/L       0.35771      0.0640 ppb        0.35771 558.65%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -6.8     -0.0162 µg/L       0.11318     -0.0162 ppb        0.11318 697.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               9.1      0.0127 µg/L       0.17437      0.0127 ppb        0.17437 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.1      0.0068 µg/L       0.78935      0.0068 ppb        0.78935 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†            -127.2     -8.0284 µg/L      11.63259     -8.0284 ppb       11.63259 144.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -1.5     -0.0082 µg/L       0.18638     -0.0082 ppb        0.18638 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             130.7      0.7771 µg/L       0.07446      0.7771 ppb        0.07446   9.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 13:57:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	133703.0	133703.0	95.4	%			13:57:50
1	Al 396.153Radial†	22554.6	23711.1	4968.7	µg/L	4968.7	ppb	13:57:50
1	Ca 317.933Radial†	71572.3	74421.4	5068.8	µg/L	5068.8	ppb	13:57:50
1	Fe 238.204 Radial†	64614.0	67584.7	5047.2	µg/L	5047.2	ppb	13:57:50
1	K 766.490 Radial†	13703.0	12864.1	5093.2	µg/L	5093.2	ppb	13:57:50
1	Mg 279.077 IEC†	10634.0	10969.7	5073.1	µg/L	5073.1	ppb	13:57:50
1	Na 589.592 Radial†	62647.9	64689.5	10023	µg/L	10023	ppb	13:57:50
1	Sr 421.552†	204020.9	213976.0	504.62	µg/L	504.62	ppb	13:57:48
1	Sc 361.383	1743773.2	1743773.2	96.653	%			13:58:17
1	Y 371.029	1014215.8	1014215.8	95.925	%			13:58:17
1	Ag 328.068†	122275.7	121944.4	505.47	µg/L	505.47	ppb	13:58:17
1	As 188.979†	1308.4	1372.3	471.47	µg/L	471.47	ppb	13:58:37
1	B 249.677†	34648.9	31783.5	492.54	µg/L	492.54	ppb	13:58:17
1	Ba 233.527†	108512.8	112414.7	500.08	µg/L	500.08	ppb	13:58:17
1	Be 313.107†	1636416.4	1694170.4	490.90	µg/L	490.90	ppb	13:58:17
1	Cd 226.502†	71960.3	74555.4	503.59	µg/L	503.59	ppb	13:58:17
1	Co 228.616†	36701.4	38182.5	505.39	µg/L	505.39	ppb	13:58:17
1	Cr 267.716†	56620.4	58347.8	504.64	µg/L	504.64	ppb	13:58:17
1	Cu 324.752†	118678.8	119752.1	502.44	µg/L	502.44	ppb	13:58:17
1	Mn 257.610†	367167.6	379696.4	503.47	µg/L	503.47	ppb	13:58:17
1	Mo 202.031†	14791.7	15342.4	502.22	µg/L	502.22	ppb	13:58:37
1	Ni 231.604†	38977.5	40423.0	505.74	µg/L	505.74	ppb	13:58:17
1	P 214.914†	10359.5	10743.9	2476.6	µg/L	2476.6	ppb	13:58:37
1	Pb 220.353†	8017.2	8191.4	505.65	µg/L	505.65	ppb	13:58:37
1	S 181.975 Axial†	1223.5	1176.9	994.31	µg/L	994.31	ppb	13:58:37
1	Sb 206.836†	3797.9	3839.7	496.20	µg/L	496.20	ppb	13:58:37
1	Se 196.026†	1214.1	1250.0	495	µg/L	495	ppb	13:58:37
1	SiO2†	50299.0	50301.5	5305.4	µg/L	5305.4	ppb	13:58:17
1	Si 251.611†	153908.1	158470.3	2489.0	µg/L	2489.0	ppb	13:58:17
1	Sn 189.927†	6857.6	7093.2	493.69	µg/L	493.69	ppb	13:58:37
1	Ti 334.940†	471073.5	486561.9	499.09	µg/L	499.09	ppb	13:58:17
1	Tl 190.801†	3403.7	3635.8	503.99	µg/L	503.99	ppb	13:58:37
1	U 409.014†	7073.3	7481.6	502.67	µg/L	502.67	ppb	13:58:17
1	V 292.402†	93723.2	96545.2	507.07	µg/L	507.07	ppb	13:58:17
1	Zn 213.857†	82234.4	84578.9	501.10	µg/L	501.10	ppb	13:58:17
2	Sc RADIAL	134691.7	134691.7	96.1	%			13:57:54
2	Al 396.153Radial†	22697.4	23686.1	4963.4	µg/L	4963.4	ppb	13:57:54
2	Ca 317.933Radial†	72303.2	74631.1	5083.1	µg/L	5083.1	ppb	13:57:54
2	Fe 238.204 Radial†	64992.9	67481.9	5039.5	µg/L	5039.5	ppb	13:57:54
2	K 766.490 Radial†	13716.0	12772.2	5056.8	µg/L	5056.8	ppb	13:57:54
2	Mg 279.077 IEC†	10804.5	11065.3	5117.3	µg/L	5117.3	ppb	13:57:54
2	Na 589.592 Radial†	63263.3	64847.7	10047	µg/L	10047	ppb	13:57:54
2	Sr 421.552†	205498.8	213944.0	504.54	µg/L	504.54	ppb	13:57:52
2	Sc 361.383	1742582.1	1742582.1	96.587	%			13:58:40
2	Y 371.029	1013221.8	1013221.8	95.831	%			13:58:40
2	Ag 328.068†	122181.0	121932.9	505.40	µg/L	505.40	ppb	13:58:40
2	As 188.979†	1304.8	1369.5	470.51	µg/L	470.51	ppb	13:59:00
2	B 249.677†	34677.7	31837.8	493.37	µg/L	493.37	ppb	13:58:40
2	Ba 233.527†	108297.8	112268.9	499.43	µg/L	499.43	ppb	13:58:40
2	Be 313.107†	1631868.9	1690619.5	489.87	µg/L	489.87	ppb	13:58:40
2	Cd 226.502†	71599.4	74232.6	501.41	µg/L	501.41	ppb	13:58:40
2	Co 228.616†	36792.9	38303.2	506.99	µg/L	506.99	ppb	13:58:40
2	Cr 267.716†	56370.9	58129.4	502.76	µg/L	502.76	ppb	13:58:40
2	Cu 324.752†	118433.6	119582.1	501.73	µg/L	501.73	ppb	13:58:40
2	Mn 257.610†	366224.2	378979.3	502.52	µg/L	502.52	ppb	13:58:40
2	Mo 202.031†	14820.1	15382.3	503.52	µg/L	503.52	ppb	13:59:00
2	Ni 231.604†	38620.7	40081.2	501.47	µg/L	501.47	ppb	13:58:40
2	P 214.914†	10398.5	10791.6	2487.7	µg/L	2487.7	ppb	13:59:00
2	Pb 220.353†	8036.1	8216.6	507.21	µg/L	507.21	ppb	13:59:00

2	S 181.975 Axial†	1226.7	1181.2	997.92 µg/L	997.92 ppb	13:59:00
2	Sb 206.836†	3831.6	3877.3	501.10 µg/L	501.10 ppb	13:59:00
2	Se 196.026†	1231.1	1268.4	502 µg/L	502 ppb	13:59:00
2	SiO2†	50287.5	50325.2	5307.9 µg/L	5307.9 ppb	13:58:40
2	Si 251.611†	153946.6	158619.0	2491.3 µg/L	2491.3 ppb	13:58:40
2	Sn 189.927†	6883.9	7125.2	495.91 µg/L	495.91 ppb	13:59:00
2	Ti 334.940†	470431.4	486230.2	498.75 µg/L	498.75 ppb	13:58:40
2	Tl 190.801†	3432.7	3668.3	508.41 µg/L	508.41 ppb	13:59:00
2	U 409.014†	6980.0	7390.0	496.82 µg/L	496.82 ppb	13:58:40
2	V 292.402†	93426.2	96304.0	505.82 µg/L	505.82 ppb	13:58:40
2	Zn 213.857†	82093.8	84491.5	500.61 µg/L	500.61 ppb	13:58:40
3	Sc RADIAL	134130.1	134130.1	95.7 %		13:57:58
3	Al 396.153Radial†	22622.6	23706.8	4967.6 µg/L	4967.6 ppb	13:57:58
3	Ca 317.933Radial†	71792.8	74412.9	5068.2 µg/L	5068.2 ppb	13:57:58
3	Fe 238.204 Radial†	64808.3	67572.1	5046.2 µg/L	5046.2 ppb	13:57:58
3	K 766.490 Radial†	13921.3	13046.4	5165.5 µg/L	5165.5 ppb	13:57:58
3	Mg 279.077 IEC†	10554.7	10851.5	5018.6 µg/L	5018.6 ppb	13:57:58
3	Na 589.592 Radial†	63075.6	64927.2	10060 µg/L	10060 ppb	13:57:58
3	Sr 421.552†	203189.3	212426.8	500.96 µg/L	500.96 ppb	13:57:56
3	Sc 361.383	1726061.4	1726061.4	95.672 %		13:59:03
3	Y 371.029	1004355.7	1004355.7	94.993 %		13:59:03
3	Ag 328.068†	121072.6	121985.1	505.65 µg/L	505.65 ppb	13:59:03
3	As 188.979†	1299.5	1376.9	473.03 µg/L	473.03 ppb	13:59:23
3	B 249.677†	34411.0	31902.7	494.39 µg/L	494.39 ppb	13:59:03
3	Ba 233.527†	107291.4	112290.1	499.53 µg/L	499.53 ppb	13:59:03
3	Be 313.107†	1615885.3	1690083.8	489.72 µg/L	489.72 ppb	13:59:03
3	Cd 226.502†	70983.9	74298.8	501.85 µg/L	501.85 ppb	13:59:03
3	Co 228.616†	36389.1	38245.7	506.23 µg/L	506.23 ppb	13:59:03
3	Cr 267.716†	55852.9	58146.6	502.90 µg/L	502.90 ppb	13:59:03
3	Cu 324.752†	117224.5	119492.0	501.36 µg/L	501.36 ppb	13:59:03
3	Mn 257.610†	363073.5	379315.1	502.97 µg/L	502.97 ppb	13:59:03
3	Mo 202.031†	14813.3	15522.1	508.09 µg/L	508.09 ppb	13:59:23
3	Ni 231.604†	38500.5	40338.3	504.68 µg/L	504.68 ppb	13:59:03
3	P 214.914†	10383.8	10879.3	2508.0 µg/L	2508.0 ppb	13:59:23
3	Pb 220.353†	8017.5	8276.8	510.91 µg/L	510.91 ppb	13:59:23
3	S 181.975 Axial†	1232.7	1199.5	1013.4 µg/L	1013.4 ppb	13:59:23
3	Sb 206.836†	3802.7	3885.1	502.17 µg/L	502.17 ppb	13:59:23
3	Se 196.026†	1246.7	1296.9	513 µg/L	513 ppb	13:59:23
3	SiO2†	49983.7	50506.0	5326.8 µg/L	5326.8 ppb	13:59:03
3	Si 251.611†	152449.4	158579.6	2490.6 µg/L	2490.6 ppb	13:59:03
3	Sn 189.927†	6882.3	7191.8	500.54 µg/L	500.54 ppb	13:59:23
3	Ti 334.940†	466767.2	487061.9	499.61 µg/L	499.61 ppb	13:59:03
3	Tl 190.801†	3420.4	3689.5	511.32 µg/L	511.32 ppb	13:59:23
3	U 409.014†	7122.8	7608.4	510.68 µg/L	510.68 ppb	13:59:03
3	V 292.402†	92778.6	96552.9	507.17 µg/L	507.17 ppb	13:59:03
3	Zn 213.857†	81238.2	84410.7	500.10 µg/L	500.10 ppb	13:59:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1737472.2	96.304	%	0.5487				0.57%
Sc RADIAL	134174.9	95.8	%	0.35				0.37%
Y 371.029	1010597.8	95.583	%	0.5134				0.54%
Ag 328.068†	121954.1	505.51	µg/L	0.127	505.51	ppb	0.127	0.03%
QC value within limits for Ag 328.068 Recovery = 101.10%								
Al 396.153Radial†	23701.3	4966.6	µg/L	2.80	4966.6	ppb	2.80	0.06%
QC value within limits for Al 396.153Radial Recovery = 99.33%								
As 188.979†	1372.9	471.67	µg/L	1.272	471.67	ppb	1.272	0.27%
QC value within limits for As 188.979 Recovery = 94.33%								
B 249.677†	31841.3	493.43	µg/L	0.927	493.43	ppb	0.927	0.19%
QC value within limits for B 249.677 Recovery = 98.69%								
Ba 233.527†	112324.5	499.68	µg/L	0.350	499.68	ppb	0.350	0.07%
QC value within limits for Ba 233.527 Recovery = 99.94%								
Be 313.107†	1691624.6	490.16	µg/L	0.643	490.16	ppb	0.643	0.13%
QC value within limits for Be 313.107 Recovery = 98.03%								
Ca 317.933Radial†	74488.5	5073.3	µg/L	8.42	5073.3	ppb	8.42	0.17%
QC value within limits for Ca 317.933Radial Recovery = 101.47%								
Cd 226.502†	74362.2	502.28	µg/L	1.153	502.28	ppb	1.153	0.23%
QC value within limits for Cd 226.502 Recovery = 100.46%								
Co 228.616†	38243.8	506.20	µg/L	0.798	506.20	ppb	0.798	0.16%

```
   QC value within limits for Co 228.616  Recovery = 101.24%
Cr 267.716†            58207.9      503.43 µg/L        1.051      503.43 ppb          1.051   0.21%
   QC value within limits for Cr 267.716  Recovery = 100.69%
Cu 324.752†           119608.7      501.84 µg/L        0.550      501.84 ppb          0.550   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.37%
Fe 238.204 Radial†     67546.2      5044.3 µg/L         4.19      5044.3 ppb           4.19   0.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.89%
K 766.490 Radial†      12894.2      5105.2 µg/L        55.31      5105.2 ppb          55.31   1.08%
   QC value within limits for K 766.490 Radial  Recovery = 102.10%
Mg 279.077 IEC†        10962.2      5069.7 µg/L        49.41      5069.7 ppb          49.41   0.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.39%
Mn 257.610†           379330.3      502.99 µg/L        0.477      502.99 ppb          0.477   0.09%
   QC value within limits for Mn 257.610  Recovery = 100.60%
Mo 202.031†            15415.6      504.61 µg/L        3.085      504.61 ppb          3.085   0.61%
   QC value within limits for Mo 202.031  Recovery = 100.92%
Na 589.592 Radial†     64821.5       10043 µg/L         18.7       10043 ppb           18.7   0.19%
   QC value within limits for Na 589.592 Radial  Recovery = 100.43%
Ni 231.604†            40280.8      503.96 µg/L        2.227      503.96 ppb          2.227   0.44%
   QC value within limits for Ni 231.604  Recovery = 100.79%
P 214.914†             10804.9      2490.8 µg/L        15.89      2490.8 ppb          15.89   0.64%
   QC value within limits for P 214.914  Recovery = 99.63%
Pb 220.353†             8228.3      507.92 µg/L        2.705      507.92 ppb          2.705   0.53%
   QC value within limits for Pb 220.353  Recovery = 101.58%
S 181.975 Axial†        1185.9      1001.9 µg/L        10.13      1001.9 ppb          10.13   1.01%
   QC value within limits for S 181.975 Axial  Recovery = 100.19%
Sb 206.836†             3867.4      499.82 µg/L        3.181      499.82 ppb          3.181   0.64%
   QC value within limits for Sb 206.836  Recovery = 99.96%
Se 196.026†             1271.8         503 µg/L          9.3         503 ppb            9.3   1.85%
   QC value within limits for Se 196.026  Recovery = 100.65%
SiO2†                  50377.6      5313.4 µg/L        11.71      5313.4 ppb          11.71   0.22%
   QC value within limits for SiO2  Recovery = 99.36%
Si 251.611†           158556.3      2490.3 µg/L         1.18      2490.3 ppb           1.18   0.05%
   QC value within limits for Si 251.611  Recovery = 99.61%
Sn 189.927†             7136.7      496.71 µg/L        3.492      496.71 ppb          3.492   0.70%
   QC value within limits for Sn 189.927  Recovery = 99.34%
Sr 421.552†           213448.9      503.37 µg/L        2.088      503.37 ppb          2.088   0.41%
   QC value within limits for Sr 421.552  Recovery = 100.67%
Ti 334.940†           486618.0      499.15 µg/L        0.431      499.15 ppb          0.431   0.09%
   QC value within limits for Ti 334.940  Recovery = 99.83%
Tl 190.801†             3664.5      507.91 µg/L        3.689      507.91 ppb          3.689   0.73%
   QC value within limits for Tl 190.801  Recovery = 101.58%
U 409.014†              7493.3      503.39 µg/L        6.957      503.39 ppb          6.957   1.38%
   QC value within limits for U 409.014  Recovery = 100.68%
V 292.402†             96467.4      506.69 µg/L        0.750      506.69 ppb          0.750   0.15%
   QC value within limits for V 292.402  Recovery = 101.34%
Zn 213.857†            84493.7      500.60 µg/L        0.498      500.60 ppb          0.498   0.10%
   QC value within limits for Zn 213.857  Recovery = 100.12%
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 13:59:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135574.4	135574.4	96.8	%			14:00:01
1	Al 396.153Radial†	-83.0	-7.2	-1.5401	µg/L	-1.5401	ppb	14:00:21
1	Ca 317.933Radial†	693.2	144.8	9.8636	µg/L	9.8636	ppb	14:00:21
1	Fe 238.204 Radial†	191.5	80.5	6.0144	µg/L	6.0144	ppb	14:00:21
1	K 766.490 Radial†	1712.5	275.8	109.29	µg/L	109.29	ppb	14:00:01
1	Mg 279.077 IEC†	176.7	10.1	4.6838	µg/L	4.6838	ppb	14:00:21
1	Na 589.592 Radial†	1100.1	184.3	28.465	µg/L	28.465	ppb	14:00:01
1	Sr 421.552†	-293.1	-98.3	-0.2320	µg/L	-0.2320	ppb	14:00:01
1	Sc 361.383	1778855.6	1778855.6	98.598	%			14:01:23
1	Y 371.029	1046359.8	1046359.8	98.966	%			14:01:23
1	Ag 328.068†	4331.1	-172.4	-0.7139	µg/L	-0.7139	ppb	14:01:25
1	As 188.979†	-19.9	-1.6	-0.5291	µg/L	-0.5291	ppb	14:01:45
1	B 249.677†	3922.3	-87.0	-1.3536	µg/L	-1.3536	ppb	14:01:25
1	Ba 233.527†	-134.6	8.1	0.0356	µg/L	0.0356	ppb	14:01:45
1	Be 313.107†	-633.3	449.4	0.1295	µg/L	0.1295	ppb	14:01:25
1	Cd 226.502†	-59.4	43.1	0.2906	µg/L	0.2906	ppb	14:01:45
1	Co 228.616†	-203.4	4.0	0.0526	µg/L	0.0526	ppb	14:01:45
1	Cr 267.716†	258.7	29.1	0.2538	µg/L	0.2538	ppb	14:01:45
1	Cu 324.752†	2699.6	-298.1	-1.2476	µg/L	-1.2476	ppb	14:01:25
1	Mn 257.610†	271.8	91.0	0.1205	µg/L	0.1205	ppb	14:01:45
1	Mo 202.031†	-25.3	12.9	0.4230	µg/L	0.4230	ppb	14:01:45
1	Ni 231.604†	-93.9	0.7	0.0087	µg/L	0.0087	ppb	14:01:45
1	P 214.914†	7.0	32.7	7.5828	µg/L	7.5828	ppb	14:01:45
1	Pb 220.353†	99.2	-2.8	-0.1693	µg/L	-0.1693	ppb	14:01:45
1	S 181.975 Axial†	98.0	10.5	8.8174	µg/L	8.8174	ppb	14:01:45
1	Sb 206.836†	83.8	-4.8	-0.6110	µg/L	-0.6110	ppb	14:01:45
1	Se 196.026†	22.7	16.9	6.66	µg/L	6.66	ppb	14:01:45
1	SiO2†	1775.8	61.9	6.5413	µg/L	6.5413	ppb	14:01:45
1	Si 251.611†	1040.8	288.6	4.5426	µg/L	4.5426	ppb	14:01:25
1	Sn 189.927†	6.4	4.6	0.3199	µg/L	0.3199	ppb	14:01:45
1	Ti 334.940†	847.7	36.7	0.0384	µg/L	0.0384	ppb	14:01:25
1	Tl 190.801†	-125.5	-13.0	-1.7798	µg/L	-1.7798	ppb	14:01:45
1	U 409.014†	-196.5	-35.9	-2.2928	µg/L	-2.2928	ppb	14:01:25
1	V 292.402†	338.4	-80.0	-0.4112	µg/L	-0.4112	ppb	14:01:25
1	Zn 213.857†	625.1	131.0	0.7824	µg/L	0.7824	ppb	14:01:45
2	Sc RADIAL	134733.3	134733.3	96.2	%			14:00:23
2	Al 396.153Radial†	-39.5	37.5	7.8516	µg/L	7.8516	ppb	14:00:43
2	Ca 317.933Radial†	699.8	156.2	10.641	µg/L	10.641	ppb	14:00:43
2	Fe 238.204 Radial†	178.2	67.9	5.0736	µg/L	5.0736	ppb	14:00:43
2	K 766.490 Radial†	1635.0	206.3	81.721	µg/L	81.721	ppb	14:00:23
2	Mg 279.077 IEC†	158.8	-7.4	-3.3889	µg/L	-3.3889	ppb	14:00:43
2	Na 589.592 Radial†	1064.6	154.4	23.863	µg/L	23.863	ppb	14:00:23
2	Sr 421.552†	-61.3	140.7	0.3318	µg/L	0.3318	ppb	14:00:23
2	Sc 361.383	1765177.1	1765177.1	97.840	%			14:01:47
2	Y 371.029	1038019.8	1038019.8	98.177	%			14:01:47
2	Ag 328.068†	4020.3	-456.1	-1.8816	µg/L	-1.8816	ppb	14:01:50
2	As 188.979†	-9.6	8.7	2.9530	µg/L	2.9530	ppb	14:02:10
2	B 249.677†	3934.2	-44.0	-0.6867	µg/L	-0.6867	ppb	14:01:50
2	Ba 233.527†	-146.2	-4.9	-0.0216	µg/L	-0.0216	ppb	14:02:10
2	Be 313.107†	-594.6	484.0	0.1374	µg/L	0.1374	ppb	14:01:50
2	Cd 226.502†	-68.1	33.8	0.2280	µg/L	0.2280	ppb	14:02:10
2	Co 228.616†	-168.4	38.2	0.5051	µg/L	0.5051	ppb	14:02:10
2	Cr 267.716†	284.7	57.8	0.5076	µg/L	0.5076	ppb	14:02:10
2	Cu 324.752†	2657.2	-320.2	-1.3463	µg/L	-1.3463	ppb	14:01:50
2	Mn 257.610†	270.9	92.1	0.1223	µg/L	0.1223	ppb	14:02:10
2	Mo 202.031†	-8.2	30.2	0.9892	µg/L	0.9892	ppb	14:02:10
2	Ni 231.604†	-73.9	20.4	0.2550	µg/L	0.2550	ppb	14:02:10
2	P 214.914†	15.6	41.6	9.6345	µg/L	9.6345	ppb	14:02:10
2	Pb 220.353†	120.8	20.0	1.2428	µg/L	1.2428	ppb	14:02:10

2	S 181.975 Axial†	81.8	-5.3	-4.4667 µg/L	-4.4667 ppb	14:02:10
2	Sb 206.836†	75.8	-12.3	-1.5777 µg/L	-1.5777 ppb	14:02:10
2	Se 196.026†	23.0	17.3	6.81 µg/L	6.81 ppb	14:02:10
2	SiO2†	1765.5	65.4	6.8983 µg/L	6.8983 ppb	14:02:10
2	Si 251.611†	1101.1	358.4	5.6378 µg/L	5.6378 ppb	14:01:50
2	Sn 189.927†	3.8	2.0	0.1412 µg/L	0.1412 ppb	14:02:10
2	Ti 334.940†	600.5	-209.2	-0.2106 µg/L	-0.2106 ppb	14:01:50
2	Tl 190.801†	-126.0	-14.5	-1.9884 µg/L	-1.9884 ppb	14:02:10
2	U 409.014†	-306.0	-149.4	-9.4405 µg/L	-9.4405 ppb	14:01:50
2	V 292.402†	368.5	-46.5	-0.2355 µg/L	-0.2355 ppb	14:01:50
2	Zn 213.857†	600.0	110.3	0.6574 µg/L	0.6574 ppb	14:02:10
3	Sc RADIAL	135503.7	135503.7	96.7 %		14:00:45
3	Al 396.153Radial†	-71.1	5.1	1.0435 µg/L	1.0435 ppb	14:01:05
3	Ca 317.933Radial†	695.1	147.2	10.028 µg/L	10.028 ppb	14:01:05
3	Fe 238.204 Radial†	184.9	73.8	5.5125 µg/L	5.5125 ppb	14:01:05
3	K 766.490 Radial†	1534.8	93.0	36.858 µg/L	36.858 ppb	14:00:45
3	Mg 279.077 IEC†	167.5	0.7	0.3304 µg/L	0.3304 ppb	14:01:05
3	Na 589.592 Radial†	1026.3	108.5	16.792 µg/L	16.792 ppb	14:00:45
3	Sr 421.552†	-99.8	101.3	0.2388 µg/L	0.2388 ppb	14:00:45
3	Sc 361.383	1748350.3	1748350.3	96.907 %		14:02:12
3	Y 371.029	1028758.9	1028758.9	97.301 %		14:02:12
3	Ag 328.068†	4039.9	-396.3	-1.6452 µg/L	-1.6452 ppb	14:02:14
3	As 188.979†	-6.8	11.6	3.9115 µg/L	3.9115 ppb	14:02:34
3	B 249.677†	3953.8	14.9	0.2309 µg/L	0.2309 ppb	14:02:14
3	Ba 233.527†	-150.2	-10.4	-0.0464 µg/L	-0.0464 ppb	14:02:34
3	Be 313.107†	-784.6	282.0	0.0766 µg/L	0.0766 ppb	14:02:14
3	Cd 226.502†	-83.8	16.9	0.1139 µg/L	0.1139 ppb	14:02:34
3	Co 228.616†	-201.8	2.0	0.0264 µg/L	0.0264 ppb	14:02:34
3	Cr 267.716†	250.7	25.5	0.2339 µg/L	0.2339 ppb	14:02:34
3	Cu 324.752†	2785.9	-161.3	-0.6875 µg/L	-0.6875 ppb	14:02:14
3	Mn 257.610†	262.9	86.6	0.1148 µg/L	0.1148 ppb	14:02:34
3	Mo 202.031†	-19.7	18.2	0.5964 µg/L	0.5964 ppb	14:02:34
3	Ni 231.604†	-68.5	25.2	0.3159 µg/L	0.3159 ppb	14:02:34
3	P 214.914†	12.0	38.1	8.8026 µg/L	8.8026 ppb	14:02:34
3	Pb 220.353†	83.1	-17.7	-1.0777 µg/L	-1.0777 ppb	14:02:34
3	S 181.975 Axial†	85.6	-0.6	-0.5013 µg/L	-0.5013 ppb	14:02:34
3	Sb 206.836†	86.8	-0.1	-0.0101 µg/L	-0.0101 ppb	14:02:34
3	Se 196.026†	18.1	12.6	4.93 µg/L	4.93 ppb	14:02:34
3	SiO2†	1796.2	114.5	12.114 µg/L	12.114 ppb	14:02:34
3	Si 251.611†	1204.1	475.5	7.4943 µg/L	7.4943 ppb	14:02:14
3	Sn 189.927†	-6.4	-8.5	-0.5904 µg/L	-0.5904 ppb	14:02:34
3	Ti 334.940†	589.4	-214.8	-0.2136 µg/L	-0.2136 ppb	14:02:14
3	Tl 190.801†	-113.1	-2.4	-0.3297 µg/L	-0.3297 ppb	14:02:34
3	U 409.014†	-414.8	-264.7	-16.715 µg/L	-16.715 ppb	14:02:14
3	V 292.402†	375.0	-36.3	-0.1924 µg/L	-0.1924 ppb	14:02:14
3	Zn 213.857†	607.1	123.5	0.7350 µg/L	0.7350 ppb	14:02:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1764127.6	97.781	%	0.8469				0.87%
Sc RADIAL	135270.5	96.6	%	0.33				0.34%
Y 371.029	1037712.8	98.148	%	0.8327				0.85%
Ag 328.068†	-341.6	-1.4136	µg/L	0.61735	-1.4136	ppb	0.61735	43.67%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.8	2.4517	µg/L	4.85162	2.4517	ppb	4.85162	197.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	2.1118	µg/L	2.33677	2.1118	ppb	2.33677	110.65%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-38.7	-0.6031	µg/L	0.79553	-0.6031	ppb	0.79553	131.90%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.4	-0.0108	µg/L	0.04202	-0.0108	ppb	0.04202	389.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	405.2	0.1145	µg/L	0.03302	0.1145	ppb	0.03302	28.84%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	149.4	10.177	µg/L	0.4097	10.177	ppb	0.4097	4.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	31.3	0.2108	µg/L	0.08956	0.2108	ppb	0.08956	42.48%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	14.7	0.1947	µg/L	0.26912	0.1947	ppb	0.26912	138.22%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                37.5      0.3318 µg/L       0.15263      0.3318 ppb        0.15263  46.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -259.9     -1.0938 µg/L       0.35532     -1.0938 ppb        0.35532  32.48%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         74.1      5.5335 µg/L       0.47078      5.5335 ppb        0.47078   8.51%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         191.7      75.956 µg/L       36.5584      75.956 ppb        36.5584  48.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.1      0.5418 µg/L       4.04048      0.5418 ppb        4.04048 745.79%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                89.9      0.1192 µg/L       0.00391      0.1192 ppb        0.00391   3.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                20.5      0.6695 µg/L       0.29007      0.6695 ppb        0.29007  43.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        149.1      23.040 µg/L        5.8796      23.040 ppb         5.8796  25.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                15.4      0.1932 µg/L       0.16265      0.1932 ppb        0.16265  84.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 37.5      8.6733 µg/L       1.03191      8.6733 ppb        1.03191  11.90%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -0.2     -0.0014 µg/L       1.16932     -0.0014 ppb        1.16932 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.5      1.2831 µg/L       6.81944      1.2831 ppb        6.81944 531.47%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -5.7     -0.7329 µg/L       0.79089     -0.7329 ppb        0.79089 107.91%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                15.6        6.14 µg/L         1.045        6.14 ppb          1.045  17.02%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      80.6      8.5179 µg/L       3.11940      8.5179 ppb        3.11940  36.62%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               374.2      5.8915 µg/L       1.49212      5.8915 ppb        1.49212  25.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.6     -0.0431 µg/L       0.48231     -0.0431 ppb        0.48231 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                47.9      0.1129 µg/L       0.30228      0.1129 ppb        0.30228 267.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -129.1     -0.1286 µg/L       0.14465     -0.1286 ppb        0.14465 112.49%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -10.0     -1.3660 µg/L       0.90351     -1.3660 ppb        0.90351  66.14%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -150.0     -9.4826 µg/L       7.21097     -9.4826 ppb        7.21097  76.04%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -54.3     -0.2797 µg/L       0.11589     -0.2797 ppb        0.11589  41.43%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               121.6      0.7249 µg/L       0.06310      0.7249 ppb        0.06310   8.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 4/5/2010 14:22:34 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/5/2010 14:22:36**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	132885.5	132885.5	94.9	%			14:23:09
1	Al 396.153Radial†	22345.1	23635.6	4952.5	µg/L	4952.5	ppb	14:23:09
1	Ca 317.933Radial†	71734.4	75053.7	5111.8	µg/L	5111.8	ppb	14:23:09
1	Fe 238.204 Radial†	64315.0	67686.0	5054.7	µg/L	5054.7	ppb	14:23:09
1	K 766.490 Radial†	13587.6	12830.8	5080.0	µg/L	5080.0	ppb	14:23:09
1	Mg 279.077 IEC†	10677.1	11083.8	5125.9	µg/L	5125.9	ppb	14:23:09
1	Na 589.592 Radial†	62424.8	64858.1	10049	µg/L	10049	ppb	14:23:07
1	Sr 421.552†	200382.6	211455.5	498.67	µg/L	498.67	ppb	14:23:07
1	Sc 361.383	1732899.2	1732899.2	96.051	%			14:23:36
1	Y 371.029	1007757.7	1007757.7	95.315	%			14:23:36
1	Ag 328.068†	122317.7	122782.0	508.93	µg/L	508.93	ppb	14:23:36
1	As 188.979†	1306.2	1378.4	473.58	µg/L	473.58	ppb	14:23:56
1	B 249.677†	35029.8	32405.0	502.18	µg/L	502.18	ppb	14:23:36
1	Ba 233.527†	108164.4	112756.4	501.60	µg/L	501.60	ppb	14:23:36
1	Be 313.107†	1634035.3	1702315.5	493.26	µg/L	493.26	ppb	14:23:36
1	Cd 226.502†	72105.4	75173.6	507.77	µg/L	507.77	ppb	14:23:36
1	Co 228.616†	36829.0	38553.7	510.30	µg/L	510.30	ppb	14:23:36
1	Cr 267.716†	56320.8	58403.4	505.12	µg/L	505.12	ppb	14:23:36
1	Cu 324.752†	118186.3	120009.8	503.53	µg/L	503.53	ppb	14:23:36
1	Mn 257.610†	366868.1	381768.3	506.22	µg/L	506.22	ppb	14:23:36
1	Mo 202.031†	14911.6	15563.3	509.44	µg/L	509.44	ppb	14:23:56
1	Ni 231.604†	39011.3	40711.3	509.35	µg/L	509.35	ppb	14:23:36
1	P 214.914†	10569.3	11029.6	2542.7	µg/L	2542.7	ppb	14:23:56
1	Pb 220.353†	8158.2	8390.2	517.89	µg/L	517.89	ppb	14:23:56
1	S 181.975 Axial†	1253.8	1216.4	1027.6	µg/L	1027.6	ppb	14:23:56
1	Sb 206.836†	3842.2	3910.5	505.44	µg/L	505.44	ppb	14:23:56
1	Se 196.026†	1245.9	1290.9	511	µg/L	511	ppb	14:23:56
1	SiO2†	50314.2	50643.9	5341.3	µg/L	5341.3	ppb	14:23:36
1	Si 251.611†	153524.0	159069.6	2498.2	µg/L	2498.2	ppb	14:23:36
1	Sn 189.927†	6969.7	7254.4	504.88	µg/L	504.88	ppb	14:23:56
1	Ti 334.940†	469489.4	487971.0	500.54	µg/L	500.54	ppb	14:23:36
1	Tl 190.801†	3468.9	3725.9	516.30	µg/L	516.30	ppb	14:23:56
1	U 409.014†	7108.4	7564.0	508.04	µg/L	508.04	ppb	14:23:36
1	V 292.402†	93611.4	97037.3	509.70	µg/L	509.70	ppb	14:23:36
1	Zn 213.857†	82380.6	85264.9	505.17	µg/L	505.17	ppb	14:23:36
2	Sc RADIAL	132723.7	132723.7	94.7	%			14:23:13
2	Al 396.153Radial†	22193.8	23504.7	4925.0	µg/L	4925.0	ppb	14:23:13
2	Ca 317.933Radial†	71807.3	75222.9	5123.4	µg/L	5123.4	ppb	14:23:13
2	Fe 238.204 Radial†	64276.1	67727.6	5057.9	µg/L	5057.9	ppb	14:23:13
2	K 766.490 Radial†	13580.5	12840.7	5083.9	µg/L	5083.9	ppb	14:23:13
2	Mg 279.077 IEC†	10679.9	11100.5	5133.6	µg/L	5133.6	ppb	14:23:13
2	Na 589.592 Radial†	63559.4	66135.9	10247	µg/L	10247	ppb	14:23:11
2	Sr 421.552†	204236.7	215781.2	508.87	µg/L	508.87	ppb	14:23:11
2	Sc 361.383	1743351.0	1743351.0	96.630	%			14:23:59
2	Y 371.029	1013100.9	1013100.9	95.820	%			14:23:59
2	Ag 328.068†	122408.3	122112.3	506.18	µg/L	506.18	ppb	14:23:59
2	As 188.979†	1324.5	1389.2	477.20	µg/L	477.20	ppb	14:24:19

2	B 249.677†	34925.8	32078.7	497.12 µg/L	497.12 ppb	14:23:59
2	Ba 233.527†	108263.9	112184.3	499.06 µg/L	499.06 ppb	14:23:59
2	Be 313.107†	1636644.6	1694816.6	491.09 µg/L	491.09 ppb	14:23:59
2	Cd 226.502†	72358.7	74985.7	506.50 µg/L	506.50 ppb	14:23:59
2	Co 228.616†	36909.0	38406.6	508.35 µg/L	508.35 ppb	14:23:59
2	Cr 267.716†	56448.5	58184.0	503.22 µg/L	503.22 ppb	14:23:59
2	Cu 324.752†	118571.9	119671.1	502.12 µg/L	502.12 ppb	14:23:59
2	Mn 257.610†	367015.5	379630.9	503.38 µg/L	503.38 ppb	14:23:59
2	Mo 202.031†	14934.2	15493.6	507.16 µg/L	507.16 ppb	14:24:19
2	Ni 231.604†	39044.9	40502.5	506.74 µg/L	506.74 ppb	14:23:59
2	P 214.914†	10550.7	10944.3	2523.0 µg/L	2523.0 ppb	14:24:19
2	Pb 220.353†	8108.5	8287.8	511.58 µg/L	511.58 ppb	14:24:19
2	S 181.975 Axial†	1247.4	1202.0	1015.4 µg/L	1015.4 ppb	14:24:19
2	Sb 206.836†	3852.0	3896.6	503.65 µg/L	503.65 ppb	14:24:19
2	Se 196.026†	1254.8	1292.4	511 µg/L	511 ppb	14:24:19
2	SiO2†	50377.4	50395.3	5315.1 µg/L	5315.1 ppb	14:23:59
2	Si 251.611†	154329.9	158945.4	2496.3 µg/L	2496.3 ppb	14:23:59
2	Sn 189.927†	6977.3	7218.7	502.40 µg/L	502.40 ppb	14:24:19
2	Ti 334.940†	470782.7	486378.9	498.90 µg/L	498.90 ppb	14:23:59
2	Tl 190.801†	3454.7	3689.5	511.32 µg/L	511.32 ppb	14:24:19
2	U 409.014†	7170.7	7584.1	509.22 µg/L	509.22 ppb	14:23:59
2	V 292.402†	93945.7	96799.0	508.44 µg/L	508.44 ppb	14:23:59
2	Zn 213.857†	82685.3	85066.1	504.00 µg/L	504.00 ppb	14:23:59
3	Sc RADIAL	133874.8	133874.8	95.6 %		14:23:17
3	Al 396.153Radial†	22497.2	23620.7	4949.4 µg/L	4949.4 ppb	14:23:17
3	Ca 317.933Radial†	72573.3	75372.7	5133.6 µg/L	5133.6 ppb	14:23:17
3	Fe 238.204 Radial†	64987.0	67888.1	5069.8 µg/L	5069.8 ppb	14:23:17
3	K 766.490 Radial†	13538.8	12673.9	5017.9 µg/L	5017.9 ppb	14:23:17
3	Mg 279.077 IEC†	10834.9	11165.7	5163.7 µg/L	5163.7 ppb	14:23:17
3	Na 589.592 Radial†	62004.9	63932.4	9905.6 µg/L	9905.6 ppb	14:23:15
3	Sr 421.552†	199556.0	209029.3	492.95 µg/L	492.95 ppb	14:23:15
3	Sc 361.383	1743392.2	1743392.2	96.632 %		14:24:22
3	Y 371.029	1012903.8	1012903.8	95.801 %		14:24:22
3	Ag 328.068†	122593.1	122300.6	506.97 µg/L	506.97 ppb	14:24:22
3	As 188.979†	1318.0	1382.5	474.96 µg/L	474.96 ppb	14:24:42
3	B 249.677†	35176.1	32336.9	501.12 µg/L	501.12 ppb	14:24:22
3	Ba 233.527†	108700.3	112633.3	501.05 µg/L	501.05 ppb	14:24:22
3	Be 313.107†	1639906.3	1698152.0	492.06 µg/L	492.06 ppb	14:24:22
3	Cd 226.502†	72606.8	75240.7	508.22 µg/L	508.22 ppb	14:24:22
3	Co 228.616†	37099.9	38603.2	510.96 µg/L	510.96 ppb	14:24:22
3	Cr 267.716†	56650.1	58391.3	505.01 µg/L	505.01 ppb	14:24:22
3	Cu 324.752†	118799.2	119903.5	503.09 µg/L	503.09 ppb	14:24:22
3	Mn 257.610†	368215.6	380864.0	505.02 µg/L	505.02 ppb	14:24:22
3	Mo 202.031†	14981.9	15542.6	508.77 µg/L	508.77 ppb	14:24:42
3	Ni 231.604†	39132.6	40592.3	507.86 µg/L	507.86 ppb	14:24:22
3	P 214.914†	10579.0	10973.3	2529.7 µg/L	2529.7 ppb	14:24:42
3	Pb 220.353†	8134.6	8314.7	513.24 µg/L	513.24 ppb	14:24:42
3	S 181.975 Axial†	1248.5	1203.1	1016.4 µg/L	1016.4 ppb	14:24:42
3	Sb 206.836†	3867.5	3912.6	505.71 µg/L	505.71 ppb	14:24:42
3	Se 196.026†	1250.4	1287.8	510 µg/L	510 ppb	14:24:42
3	SiO2†	50529.4	50551.4	5331.5 µg/L	5331.5 ppb	14:24:22
3	Si 251.611†	154955.1	159588.5	2506.4 µg/L	2506.4 ppb	14:24:22
3	Sn 189.927†	6999.8	7241.9	504.01 µg/L	504.01 ppb	14:24:42
3	Ti 334.940†	472323.8	487962.2	500.52 µg/L	500.52 ppb	14:24:22
3	Tl 190.801†	3481.4	3717.0	515.09 µg/L	515.09 ppb	14:24:42
3	U 409.014†	7189.9	7603.8	510.58 µg/L	510.58 ppb	14:24:22
3	V 292.402†	94312.2	97175.9	510.41 µg/L	510.41 ppb	14:24:22
3	Zn 213.857†	82968.9	85357.6	505.73 µg/L	505.73 ppb	14:24:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1739880.8	96.438	%	0.3351				0.35%
Sc RADIAL	133161.3	95.1	%	0.44				0.47%
Y 371.029	1011254.1	95.645	%	0.2865				0.30%
Ag 328.068†	122398.3	507.36	µg/L	1.418	507.36	ppb	1.418	0.28%
QC value within limits for Ag 328.068 Recovery = 101.47%								
Al 396.153Radial†	23587.0	4942.3	µg/L	15.04	4942.3	ppb	15.04	0.30%
QC value within limits for Al 396.153Radial Recovery = 98.85%								
As 188.979†	1383.4	475.25	µg/L	1.831	475.25	ppb	1.831	0.39%

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   QC value within limits for As 188.979  Recovery = 95.05%
B 249.677†            32273.5      500.14 µg/L        2.673      500.14 ppb          2.673   0.53%
   QC value within limits for B 249.677  Recovery = 100.03%
Ba 233.527†          112524.7      500.57 µg/L        1.339      500.57 ppb          1.339   0.27%
   QC value within limits for Ba 233.527  Recovery = 100.11%
Be 313.107†         1698428.0      492.14 µg/L        1.088      492.14 ppb          1.088   0.22%
   QC value within limits for Be 313.107  Recovery = 98.43%
Ca 317.933Radial†     75216.4      5122.9 µg/L        10.87      5122.9 ppb          10.87   0.21%
   QC value within limits for Ca 317.933Radial  Recovery = 102.46%
Cd 226.502†           75133.3      507.49 µg/L        0.893      507.49 ppb          0.893   0.18%
   QC value within limits for Cd 226.502  Recovery = 101.50%
Co 228.616†           38521.1      509.87 µg/L        1.354      509.87 ppb          1.354   0.27%
   QC value within limits for Co 228.616  Recovery = 101.97%
Cr 267.716†           58326.2      504.45 µg/L        1.067      504.45 ppb          1.067   0.21%
   QC value within limits for Cr 267.716  Recovery = 100.89%
Cu 324.752†          119861.5      502.91 µg/L        0.725      502.91 ppb          0.725   0.14%
   QC value within limits for Cu 324.752  Recovery = 100.58%
Fe 238.204 Radial†    67767.3      5060.8 µg/L         7.97      5060.8 ppb           7.97   0.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.22%
K 766.490 Radial†     12781.8      5060.6 µg/L        37.06      5060.6 ppb          37.06   0.73%
   QC value within limits for K 766.490 Radial  Recovery = 101.21%
Mg 279.077 IEC†       11116.6      5141.1 µg/L        19.99      5141.1 ppb          19.99   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.82%
Mn 257.610†          380754.4      504.87 µg/L        1.423      504.87 ppb          1.423   0.28%
   QC value within limits for Mn 257.610  Recovery = 100.97%
Mo 202.031†           15533.2      508.46 µg/L        1.172      508.46 ppb          1.172   0.23%
   QC value within limits for Mo 202.031  Recovery = 101.69%
Na 589.592 Radial†    64975.5       10067 µg/L        171.5       10067 ppb          171.5   1.70%
   QC value within limits for Na 589.592 Radial  Recovery = 100.67%
Ni 231.604†           40602.0      507.98 µg/L        1.310      507.98 ppb          1.310   0.26%
   QC value within limits for Ni 231.604  Recovery = 101.60%
P 214.914†            10982.4      2531.8 µg/L        10.03      2531.8 ppb          10.03   0.40%
   QC value within limits for P 214.914  Recovery = 101.27%
Pb 220.353†            8330.9      514.24 µg/L        3.272      514.24 ppb          3.272   0.64%
   QC value within limits for Pb 220.353  Recovery = 102.85%
S 181.975 Axial†       1207.2      1019.8 µg/L         6.75      1019.8 ppb           6.75   0.66%
   QC value within limits for S 181.975 Axial  Recovery = 101.98%
Sb 206.836†            3906.6      504.93 µg/L        1.119      504.93 ppb          1.119   0.22%
   QC value within limits for Sb 206.836  Recovery = 100.99%
Se 196.026†            1290.4         511 µg/L          0.9         511 ppb            0.9   0.18%
   QC value within limits for Se 196.026  Recovery = 102.12%
SiO2†                 50530.2      5329.3 µg/L        13.26      5329.3 ppb          13.26   0.25%
   QC value within limits for SiO2  Recovery = 99.66%
Si 251.611†          159201.2      2500.3 µg/L         5.37      2500.3 ppb           5.37   0.21%
   QC value within limits for Si 251.611  Recovery = 100.01%
Sn 189.927†            7238.3      503.76 µg/L        1.258      503.76 ppb          1.258   0.25%
   QC value within limits for Sn 189.927  Recovery = 100.75%
Sr 421.552†          212088.7      500.16 µg/L        8.066      500.16 ppb          8.066   1.61%
   QC value within limits for Sr 421.552  Recovery = 100.03%
Ti 334.940†          487437.4      499.99 µg/L        0.941      499.99 ppb          0.941   0.19%
   QC value within limits for Ti 334.940  Recovery = 100.00%
Tl 190.801†            3710.8      514.24 µg/L        2.600      514.24 ppb          2.600   0.51%
   QC value within limits for Tl 190.801  Recovery = 102.85%
U 409.014†             7584.0      509.28 µg/L        1.272      509.28 ppb          1.272   0.25%
   QC value within limits for U 409.014  Recovery = 101.86%
V 292.402†            97004.1      509.52 µg/L        1.001      509.52 ppb          1.001   0.20%
   QC value within limits for V 292.402  Recovery = 101.90%
Zn 213.857†           85229.5      504.97 µg/L        0.884      504.97 ppb          0.884   0.17%
   QC value within limits for Zn 213.857  Recovery = 100.99%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 14:24:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135447.7	135447.7	96.7	%			14:25:19
1	Al 396.153Radial†	-86.0	-10.4	-2.2186	µg/L	-2.2186	ppb	14:25:39
1	Ca 317.933Radial†	697.8	150.3	10.238	µg/L	10.238	ppb	14:25:39
1	Fe 238.204 Radial†	150.9	38.8	2.8969	µg/L	2.8969	ppb	14:25:39
1	K 766.490 Radial†	1666.4	229.8	91.043	µg/L	91.043	ppb	14:25:19
1	Mg 279.077 IEC†	178.6	12.3	5.6989	µg/L	5.6989	ppb	14:25:39
1	Na 589.592 Radial†	1111.1	196.7	30.416	µg/L	30.416	ppb	14:25:19
1	Sr 421.552†	-133.5	66.4	0.1564	µg/L	0.1564	ppb	14:25:19
1	Sc 361.383	1746370.5	1746370.5	96.797	%			14:26:41
1	Y 371.029	1025464.1	1025464.1	96.989	%			14:26:41
1	Ag 328.068†	4108.8	-320.4	-1.3071	µg/L	-1.3071	ppb	14:26:43
1	As 188.979†	-11.0	7.2	2.4383	µg/L	2.4383	ppb	14:27:03
1	B 249.677†	4122.1	193.3	3.0053	µg/L	3.0053	ppb	14:26:43
1	Ba 233.527†	-136.3	3.7	0.0171	µg/L	0.0171	ppb	14:27:03
1	Be 313.107†	-700.1	368.5	0.1064	µg/L	0.1064	ppb	14:26:43
1	Cd 226.502†	-98.5	1.6	0.0105	µg/L	0.0105	ppb	14:27:03
1	Co 228.616†	-178.9	25.5	0.3373	µg/L	0.3373	ppb	14:27:03
1	Cr 267.716†	260.2	35.6	0.3095	µg/L	0.3095	ppb	14:27:03
1	Cu 324.752†	2891.1	-49.3	-0.2065	µg/L	-0.2065	ppb	14:26:43
1	Mn 257.610†	232.7	55.7	0.0737	µg/L	0.0737	ppb	14:27:03
1	Mo 202.031†	-23.8	14.0	0.4585	µg/L	0.4585	ppb	14:27:03
1	Ni 231.604†	-84.2	9.0	0.1121	µg/L	0.1121	ppb	14:27:03
1	P 214.914†	12.4	38.5	8.9081	µg/L	8.9081	ppb	14:27:03
1	Pb 220.353†	111.4	11.6	0.7176	µg/L	0.7176	ppb	14:27:03
1	S 181.975 Axial†	91.7	5.8	4.8840	µg/L	4.8840	ppb	14:27:03
1	Sb 206.836†	91.1	4.4	0.5760	µg/L	0.5760	ppb	14:27:03
1	Se 196.026†	6.3	0.3	0.135	µg/L	0.135	ppb	14:27:03
1	SiO2†	1745.3	64.0	6.7572	µg/L	6.7572	ppb	14:27:03
1	Si 251.611†	870.2	132.0	2.0741	µg/L	2.0741	ppb	14:26:43
1	Sn 189.927†	4.4	2.6	0.1830	µg/L	0.1830	ppb	14:27:03
1	Ti 334.940†	598.9	-204.3	-0.2097	µg/L	-0.2097	ppb	14:26:43
1	Tl 190.801†	-119.5	-9.2	-1.2529	µg/L	-1.2529	ppb	14:27:03
1	U 409.014†	-175.8	-18.2	-1.1220	µg/L	-1.1220	ppb	14:26:43
1	V 292.402†	505.0	98.5	0.5155	µg/L	0.5155	ppb	14:26:43
1	Zn 213.857†	566.2	82.0	0.4885	µg/L	0.4885	ppb	14:27:03
2	Sc RADIAL	135362.8	135362.8	96.6	%			14:25:41
2	Al 396.153Radial†	-79.6	-3.8	-0.8200	µg/L	-0.8200	ppb	14:26:01
2	Ca 317.933Radial†	682.5	134.9	9.1897	µg/L	9.1897	ppb	14:26:01
2	Fe 238.204 Radial†	140.7	28.3	2.1142	µg/L	2.1142	ppb	14:26:01
2	K 766.490 Radial†	1467.3	24.8	9.8302	µg/L	9.8302	ppb	14:25:41
2	Mg 279.077 IEC†	172.6	6.1	2.8455	µg/L	2.8455	ppb	14:26:01
2	Na 589.592 Radial†	1058.4	142.9	22.146	µg/L	22.146	ppb	14:25:41
2	Sr 421.552†	-110.7	89.9	0.2121	µg/L	0.2121	ppb	14:25:41
2	Sc 361.383	1750118.2	1750118.2	97.005	%			14:27:06
2	Y 371.029	1029214.6	1029214.6	97.344	%			14:27:06
2	Ag 328.068†	4286.1	-146.7	-0.5984	µg/L	-0.5984	ppb	14:27:08
2	As 188.979†	-22.6	-4.7	-1.5853	µg/L	-1.5853	ppb	14:27:28
2	B 249.677†	4094.3	155.6	2.4193	µg/L	2.4193	ppb	14:27:08
2	Ba 233.527†	-168.4	-29.0	-0.1289	µg/L	-0.1289	ppb	14:27:28
2	Be 313.107†	-818.0	248.5	0.0727	µg/L	0.0727	ppb	14:27:08
2	Cd 226.502†	-95.7	4.7	0.0316	µg/L	0.0316	ppb	14:27:28
2	Co 228.616†	-196.5	7.7	0.1020	µg/L	0.1020	ppb	14:27:28
2	Cr 267.716†	273.7	48.9	0.4212	µg/L	0.4212	ppb	14:27:28
2	Cu 324.752†	2717.0	-235.2	-0.9816	µg/L	-0.9816	ppb	14:27:08
2	Mn 257.610†	235.1	57.7	0.0764	µg/L	0.0764	ppb	14:27:28
2	Mo 202.031†	-24.3	13.5	0.4412	µg/L	0.4412	ppb	14:27:28
2	Ni 231.604†	-80.6	12.8	0.1604	µg/L	0.1604	ppb	14:27:28
2	P 214.914†	12.2	38.2	8.8553	µg/L	8.8553	ppb	14:27:28
2	Pb 220.353†	120.1	20.3	1.2507	µg/L	1.2507	ppb	14:27:28

2	S 181.975 Axial†	84.5	-1.8	-1.5350 µg/L	-1.5350 ppb	14:27:28
2	Sb 206.836†	83.0	-4.2	-0.5406 µg/L	-0.5406 ppb	14:27:28
2	Se 196.026†	18.6	13.0	5.14 µg/L	5.14 ppb	14:27:28
2	SiO2†	1753.8	68.9	7.2716 µg/L	7.2716 ppb	14:27:28
2	Si 251.611†	881.5	141.6	2.2224 µg/L	2.2224 ppb	14:27:08
2	Sn 189.927†	12.9	11.5	0.7951 µg/L	0.7951 ppb	14:27:28
2	Ti 334.940†	781.5	-17.3	-0.0189 µg/L	-0.0189 ppb	14:27:08
2	Tl 190.801†	-108.7	2.3	0.3096 µg/L	0.3096 ppb	14:27:28
2	U 409.014†	-122.8	36.8	2.3187 µg/L	2.3187 ppb	14:27:08
2	V 292.402†	402.5	-8.3	-0.0354 µg/L	-0.0354 ppb	14:27:08
2	Zn 213.857†	560.6	74.9	0.4470 µg/L	0.4470 ppb	14:27:28
3	Sc RADIAL	133768.8	133768.8	95.5 %		14:26:03
3	Al 396.153Radial†	-64.1	11.4	2.3747 µg/L	2.3747 ppb	14:26:23
3	Ca 317.933Radial†	697.6	159.1	10.838 µg/L	10.838 ppb	14:26:23
3	Fe 238.204 Radial†	145.6	35.2	2.6306 µg/L	2.6306 ppb	14:26:23
3	K 766.490 Radial†	1455.8	30.8	12.207 µg/L	12.207 ppb	14:26:03
3	Mg 279.077 IEC†	166.8	2.2	1.0226 µg/L	1.0226 ppb	14:26:23
3	Na 589.592 Radial†	973.9	67.5	10.449 µg/L	10.449 ppb	14:26:03
3	Sr 421.552†	-191.0	4.5	0.0105 µg/L	0.0105 ppb	14:26:03
3	Sc 361.383	1764370.3	1764370.3	97.795 %		14:27:30
3	Y 371.029	1036609.8	1036609.8	98.043 %		14:27:30
3	Ag 328.068†	4248.4	-220.9	-0.8990 µg/L	-0.8990 ppb	14:27:32
3	As 188.979†	-8.0	10.4	3.5165 µg/L	3.5165 ppb	14:27:52
3	B 249.677†	4008.5	33.8	0.5262 µg/L	0.5262 ppb	14:27:32
3	Ba 233.527†	-168.9	-28.1	-0.1244 µg/L	-0.1244 ppb	14:27:52
3	Be 313.107†	-576.0	502.7	0.1446 µg/L	0.1446 ppb	14:27:32
3	Cd 226.502†	-75.3	26.4	0.1782 µg/L	0.1782 ppb	14:27:52
3	Co 228.616†	-225.0	-19.7	-0.2613 µg/L	-0.2613 ppb	14:27:52
3	Cr 267.716†	253.5	26.0	0.2283 µg/L	0.2283 ppb	14:27:52
3	Cu 324.752†	2805.8	-167.0	-0.7011 µg/L	-0.7011 ppb	14:27:32
3	Mn 257.610†	227.4	47.8	0.0634 µg/L	0.0634 ppb	14:27:52
3	Mo 202.031†	-20.3	17.9	0.5842 µg/L	0.5842 ppb	14:27:52
3	Ni 231.604†	-74.8	19.4	0.2426 µg/L	0.2426 ppb	14:27:52
3	P 214.914†	4.8	30.6	7.0853 µg/L	7.0853 ppb	14:27:52
3	Pb 220.353†	93.9	-7.4	-0.4525 µg/L	-0.4525 ppb	14:27:52
3	S 181.975 Axial†	94.3	7.5	6.2792 µg/L	6.2792 ppb	14:27:52
3	Sb 206.836†	92.1	4.5	0.5874 µg/L	0.5874 ppb	14:27:52
3	Se 196.026†	21.9	16.2	6.39 µg/L	6.39 ppb	14:27:52
3	SiO2†	1713.4	13.0	1.3488 µg/L	1.3488 ppb	14:27:52
3	Si 251.611†	899.6	152.8	2.3986 µg/L	2.3986 ppb	14:27:32
3	Sn 189.927†	9.5	7.8	0.5426 µg/L	0.5426 ppb	14:27:52
3	Ti 334.940†	987.2	186.5	0.1930 µg/L	0.1930 ppb	14:27:32
3	Tl 190.801†	-107.4	4.5	0.6235 µg/L	0.6235 ppb	14:27:52
3	U 409.014†	-212.1	-53.6	-3.3326 µg/L	-3.3326 ppb	14:27:32
3	V 292.402†	569.1	158.7	0.8269 µg/L	0.8269 ppb	14:27:32
3	Zn 213.857†	576.3	86.3	0.5140 µg/L	0.5140 ppb	14:27:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1753619.7	97.199	%	0.5264				0.54%
Sc RADIAL	134859.7	96.3	%	0.68				0.70%
Y 371.029	1030429.5	97.459	%	0.5364				0.55%
Ag 328.068†	-229.3	-0.9348	µg/L	0.35573	-0.9348	ppb	0.35573	38.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.9	-0.2213	µg/L	2.35444	-0.2213	ppb	2.35444	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.3	1.4565	µg/L	2.68891	1.4565	ppb	2.68891	184.62%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	127.6	1.9836	µg/L	1.29571	1.9836	ppb	1.29571	65.32%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-17.8	-0.0787	µg/L	0.08302	-0.0787	ppb	0.08302	105.44%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	373.2	0.1079	µg/L	0.03599	0.1079	ppb	0.03599	33.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	148.1	10.088	µg/L	0.8340	10.088	ppb	0.8340	8.27%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.9	0.0734	µg/L	0.09136	0.0734	ppb	0.09136	124.41%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.5	0.0593	µg/L	0.30156	0.0593	ppb	0.30156	508.21%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                36.9      0.3197 µg/L       0.09683      0.3197 ppb        0.09683  30.29%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -150.5     -0.6297 µg/L       0.39241     -0.6297 ppb        0.39241  62.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         34.1      2.5473 µg/L       0.39795      2.5473 ppb        0.39795  15.62%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          95.1      37.693 µg/L       46.2173      37.693 ppb        46.2173 122.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             6.9      3.1890 µg/L       2.35700      3.1890 ppb        2.35700  73.91%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                53.7      0.0712 µg/L       0.00685      0.0712 ppb        0.00685   9.63%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                15.1      0.4947 µg/L       0.07807      0.4947 ppb        0.07807  15.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        135.7      21.004 µg/L       10.0325      21.004 ppb        10.0325  47.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                13.7      0.1717 µg/L       0.06598      0.1717 ppb        0.06598  38.43%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 35.8      8.2829 µg/L       1.03751      8.2829 ppb        1.03751  12.53%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 8.2      0.5053 µg/L       0.87123      0.5053 ppb        0.87123 172.42%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.8      3.2094 µg/L       4.16755      3.2094 ppb        4.16755 129.85%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.6      0.2076 µg/L       0.64799      0.2076 ppb        0.64799 312.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 9.9        3.89 µg/L         3.309        3.89 ppb          3.309  85.13%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      48.6      5.1259 µg/L       3.28116      5.1259 ppb        3.28116  64.01%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               142.2      2.2317 µg/L       0.16244      2.2317 ppb        0.16244   7.28%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.3      0.5069 µg/L       0.30758      0.5069 ppb        0.30758  60.68%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                53.6      0.1263 µg/L       0.10411      0.1263 ppb        0.10411  82.42%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -11.7     -0.0119 µg/L       0.20144     -0.0119 ppb        0.20144 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.8     -0.1066 µg/L       1.00508     -0.1066 ppb        1.00508 942.93%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -11.7     -0.7119 µg/L       2.84786     -0.7119 ppb        2.84786 400.01%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 83.0      0.4357 µg/L       0.43668      0.4357 ppb        0.43668 100.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                81.1      0.4832 µg/L       0.03385      0.4832 ppb        0.03385   7.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 14:55:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	133793.1	133793.1	95.5	%			14:56:26
1	Al 396.153Radial†	22430.5	23565.3	4938.2	µg/L	4938.2	ppb	14:56:26
1	Ca 317.933Radial†	71723.2	74529.0	5076.1	µg/L	5076.1	ppb	14:56:26
1	Fe 238.204 Radial†	64182.6	67087.5	5010.0	µg/L	5010.0	ppb	14:56:26
1	K 766.490 Radial†	13696.8	12847.9	5086.8	µg/L	5086.8	ppb	14:56:26
1	Mg 279.077 IEC†	10745.8	11079.3	5123.7	µg/L	5123.7	ppb	14:56:26
1	Na 589.592 Radial†	63173.0	65195.1	10101	µg/L	10101	ppb	14:56:26
1	Sr 421.552†	204308.8	214133.5	504.99	µg/L	504.99	ppb	14:56:24
1	Sc 361.383	1765298.2	1765298.2	97.846	%			14:56:53
1	Y 371.029	1026485.4	1026485.4	97.086	%			14:56:53
1	Ag 328.068†	123719.2	121877.1	505.18	µg/L	505.18	ppb	14:56:53
1	As 188.979†	1297.6	1344.7	462.11	µg/L	462.11	ppb	14:57:13
1	B 249.677†	35380.8	32094.4	497.36	µg/L	497.36	ppb	14:56:53
1	Ba 233.527†	109483.7	112038.0	498.40	µg/L	498.40	ppb	14:56:53
1	Be 313.107†	1649103.9	1686492.8	488.67	µg/L	488.67	ppb	14:56:53
1	Cd 226.502†	73021.2	74731.8	504.78	µg/L	504.78	ppb	14:56:53
1	Co 228.616†	37388.6	38421.9	508.56	µg/L	508.56	ppb	14:56:53
1	Cr 267.716†	57069.9	58092.8	502.44	µg/L	502.44	ppb	14:56:53
1	Cu 324.752†	119466.9	119060.3	499.54	µg/L	499.54	ppb	14:56:53
1	Mn 257.610†	370659.1	378632.7	502.06	µg/L	502.06	ppb	14:56:53
1	Mo 202.031†	14894.8	15261.2	499.56	µg/L	499.56	ppb	14:57:13
1	Ni 231.604†	39408.6	40371.9	505.10	µg/L	505.10	ppb	14:56:53
1	P 214.914†	10459.1	10715.0	2470.0	µg/L	2470.0	ppb	14:57:13
1	Pb 220.353†	8079.2	8153.6	503.32	µg/L	503.32	ppb	14:57:13
1	S 181.975 Axial†	1247.4	1185.9	1001.9	µg/L	1001.9	ppb	14:57:13
1	Sb 206.836†	3840.0	3834.8	495.57	µg/L	495.57	ppb	14:57:13
1	Se 196.026†	1235.1	1256.1	497	µg/L	497	ppb	14:57:13
1	SiO2†	50957.4	50339.9	5309.6	µg/L	5309.6	ppb	14:56:53
1	Si 251.611†	155746.2	158407.2	2488.0	µg/L	2488.0	ppb	14:56:53
1	Sn 189.927†	6926.8	7077.4	492.59	µg/L	492.59	ppb	14:57:13
1	Ti 334.940†	474909.6	484539.5	497.02	µg/L	497.02	ppb	14:56:53
1	Tl 190.801†	3448.7	3638.9	504.37	µg/L	504.37	ppb	14:57:13
1	U 409.014†	7035.9	7354.2	494.60	µg/L	494.60	ppb	14:56:53
1	V 292.402†	94772.7	96435.5	506.47	µg/L	506.47	ppb	14:56:53
1	Zn 213.857†	83357.2	84689.0	501.77	µg/L	501.77	ppb	14:56:53
2	Sc RADIAL	134689.6	134689.6	96.1	%			14:56:30
2	Al 396.153Radial†	22494.5	23475.5	4918.8	µg/L	4918.8	ppb	14:56:30
2	Ca 317.933Radial†	72003.2	74320.3	5061.9	µg/L	5061.9	ppb	14:56:30
2	Fe 238.204 Radial†	64454.1	66922.5	4997.7	µg/L	4997.7	ppb	14:56:30
2	K 766.490 Radial†	13841.1	12902.6	5108.5	µg/L	5108.5	ppb	14:56:30
2	Mg 279.077 IEC†	10637.6	10891.9	5037.4	µg/L	5037.4	ppb	14:56:30
2	Na 589.592 Radial†	63583.5	65181.8	10099	µg/L	10099	ppb	14:56:30
2	Sr 421.552†	201922.7	210227.8	495.78	µg/L	495.78	ppb	14:56:28
2	Sc 361.383	1742212.2	1742212.2	96.567	%			14:57:16
2	Y 371.029	1013451.2	1013451.2	95.853	%			14:57:16
2	Ag 328.068†	122012.2	121785.0	504.79	µg/L	504.79	ppb	14:57:16
2	As 188.979†	1301.9	1366.7	469.56	µg/L	469.56	ppb	14:57:36
2	B 249.677†	34882.6	32057.6	496.80	µg/L	496.80	ppb	14:57:16
2	Ba 233.527†	107987.6	111971.4	498.11	µg/L	498.11	ppb	14:57:16
2	Be 313.107†	1623811.8	1682634.6	487.56	µg/L	487.56	ppb	14:57:16
2	Cd 226.502†	71816.9	74473.5	503.04	µg/L	503.04	ppb	14:57:16
2	Co 228.616†	36674.6	38188.8	505.47	µg/L	505.47	ppb	14:57:16
2	Cr 267.716†	56259.4	58026.4	501.87	µg/L	501.87	ppb	14:57:16
2	Cu 324.752†	118255.4	119423.6	501.06	µg/L	501.06	ppb	14:57:16
2	Mn 257.610†	365228.0	378028.2	501.26	µg/L	501.26	ppb	14:57:16
2	Mo 202.031†	14968.1	15538.8	508.64	µg/L	508.64	ppb	14:57:36
2	Ni 231.604†	38749.7	40223.3	503.24	µg/L	503.24	ppb	14:57:16
2	P 214.914†	10553.1	10954.0	2525.3	µg/L	2525.3	ppb	14:57:36
2	Pb 220.353†	8113.4	8298.4	512.25	µg/L	512.25	ppb	14:57:36

2	S 181.975 Axial†	1253.0	1208.6	1021.1 µg/L	1021.1 ppb	14:57:36
2	Sb 206.836†	3873.5	3921.5	506.89 µg/L	506.89 ppb	14:57:36
2	Se 196.026†	1261.0	1299.7	514 µg/L	514 ppb	14:57:36
2	SiO2†	50246.3	50293.6	5304.3 µg/L	5304.3 ppb	14:57:16
2	Si 251.611†	153726.7	158425.0	2488.1 µg/L	2488.1 ppb	14:57:16
2	Sn 189.927†	6981.9	7228.2	503.06 µg/L	503.06 ppb	14:57:36
2	Ti 334.940†	469138.7	484995.0	497.49 µg/L	497.49 ppb	14:57:16
2	Tl 190.801†	3459.3	3696.6	512.26 µg/L	512.26 ppb	14:57:36
2	U 409.014†	6968.6	7379.7	496.17 µg/L	496.17 ppb	14:57:16
2	V 292.402†	93382.2	96278.9	505.75 µg/L	505.75 ppb	14:57:16
2	Zn 213.857†	82058.5	84472.9	500.49 µg/L	500.49 ppb	14:57:16
3	Sc RADIAL	134604.9	134604.9	96.1 %		14:56:34
3	Al 396.153Radial†	22526.5	23523.5	4929.2 µg/L	4929.2 ppb	14:56:34
3	Ca 317.933Radial†	71773.5	74128.4	5048.8 µg/L	5048.8 ppb	14:56:34
3	Fe 238.204 Radial†	64420.6	66929.9	4998.3 µg/L	4998.3 ppb	14:56:34
3	K 766.490 Radial†	13879.0	12951.1	5127.7 µg/L	5127.7 ppb	14:56:34
3	Mg 279.077 IEC†	10624.6	10885.3	5034.2 µg/L	5034.2 ppb	14:56:34
3	Na 589.592 Radial†	63279.0	64906.5	10056 µg/L	10056 ppb	14:56:34
3	Sr 421.552†	202743.9	211214.6	498.10 µg/L	498.10 ppb	14:56:32
3	Sc 361.383	1754637.8	1754637.8	97.255 %		14:57:39
3	Y 371.029	1020489.9	1020489.9	96.519 %		14:57:39
3	Ag 328.068†	122946.0	121850.3	505.07 µg/L	505.07 ppb	14:57:39
3	As 188.979†	1311.4	1367.0	469.65 µg/L	469.65 ppb	14:57:59
3	B 249.677†	35123.6	32049.6	496.67 µg/L	496.67 ppb	14:57:39
3	Ba 233.527†	108888.2	112105.5	498.70 µg/L	498.70 ppb	14:57:39
3	Be 313.107†	1634927.6	1682156.2	487.42 µg/L	487.42 ppb	14:57:39
3	Cd 226.502†	72497.9	74647.1	504.21 µg/L	504.21 ppb	14:57:39
3	Co 228.616†	37076.9	38333.5	507.39 µg/L	507.39 ppb	14:57:39
3	Cr 267.716†	56675.3	58041.5	501.99 µg/L	501.99 ppb	14:57:39
3	Cu 324.752†	118752.1	119067.1	499.57 µg/L	499.57 ppb	14:57:39
3	Mn 257.610†	368200.0	378405.7	501.76 µg/L	501.76 ppb	14:57:39
3	Mo 202.031†	14911.8	15371.1	503.15 µg/L	503.15 ppb	14:57:59
3	Ni 231.604†	39141.9	40342.3	504.73 µg/L	504.73 ppb	14:57:39
3	P 214.914†	10489.0	10810.7	2492.2 µg/L	2492.2 ppb	14:57:59
3	Pb 220.353†	8083.4	8208.0	506.67 µg/L	506.67 ppb	14:57:59
3	S 181.975 Axial†	1248.1	1194.4	1009.0 µg/L	1009.0 ppb	14:57:59
3	Sb 206.836†	3847.1	3866.0	499.64 µg/L	499.64 ppb	14:57:59
3	Se 196.026†	1224.2	1252.6	496 µg/L	496 ppb	14:57:59
3	SiO2†	50393.8	50076.8	5281.6 µg/L	5281.6 ppb	14:57:39
3	Si 251.611†	154946.9	158552.4	2490.2 µg/L	2490.2 ppb	14:57:39
3	Sn 189.927†	6921.6	7115.1	495.21 µg/L	495.21 ppb	14:57:59
3	Ti 334.940†	472850.0	485370.6	497.87 µg/L	497.87 ppb	14:57:39
3	Tl 190.801†	3453.2	3664.9	507.93 µg/L	507.93 ppb	14:57:59
3	U 409.014†	7151.4	7516.6	504.80 µg/L	504.80 ppb	14:57:39
3	V 292.402†	94044.3	96275.0	505.68 µg/L	505.68 ppb	14:57:39
3	Zn 213.857†	82782.7	84615.8	501.33 µg/L	501.33 ppb	14:57:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1754049.4	97.223	%	0.6404				0.66%
Sc RADIAL	134362.5	95.9	%	0.35				0.37%
Y 371.029	1020142.1	96.486	%	0.6170				0.64%
Ag 328.068†	121837.5	505.01	µg/L	0.198	505.01	ppb	0.198	0.04%
QC value within limits for Ag 328.068 Recovery = 101.00%								
Al 396.153Radial†	23521.4	4928.7	µg/L	9.67	4928.7	ppb	9.67	0.20%
QC value within limits for Al 396.153Radial Recovery = 98.57%								
As 188.979†	1359.5	467.11	µg/L	4.325	467.11	ppb	4.325	0.93%
QC value within limits for As 188.979 Recovery = 93.42%								
B 249.677†	32067.2	496.94	µg/L	0.368	496.94	ppb	0.368	0.07%
QC value within limits for B 249.677 Recovery = 99.39%								
Ba 233.527†	112038.3	498.41	µg/L	0.297	498.41	ppb	0.297	0.06%
QC value within limits for Ba 233.527 Recovery = 99.68%								
Be 313.107†	1683761.2	487.88	µg/L	0.688	487.88	ppb	0.688	0.14%
QC value within limits for Be 313.107 Recovery = 97.58%								
Ca 317.933Radial†	74325.9	5062.3	µg/L	13.65	5062.3	ppb	13.65	0.27%
QC value within limits for Ca 317.933Radial Recovery = 101.25%								
Cd 226.502†	74617.5	504.01	µg/L	0.890	504.01	ppb	0.890	0.18%
QC value within limits for Cd 226.502 Recovery = 100.80%								
Co 228.616†	38314.7	507.14	µg/L	1.556	507.14	ppb	1.556	0.31%

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   QC value within limits for Co 228.616  Recovery = 101.43%
Cr 267.716†            58053.6      502.10 µg/L        0.303      502.10 ppb          0.303   0.06%
   QC value within limits for Cr 267.716  Recovery = 100.42%
Cu 324.752†           119183.7      500.06 µg/L        0.865      500.06 ppb          0.865   0.17%
   QC value within limits for Cu 324.752  Recovery = 100.01%
Fe 238.204 Radial†     66980.0      5002.0 µg/L         6.96      5002.0 ppb           6.96   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.04%
K 766.490 Radial†      12900.5      5107.7 µg/L        20.47      5107.7 ppb          20.47   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 102.15%
Mg 279.077 IEC†        10952.2      5065.1 µg/L        50.76      5065.1 ppb          50.76   1.00%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.30%
Mn 257.610†           378355.5      501.69 µg/L        0.404      501.69 ppb          0.404   0.08%
   QC value within limits for Mn 257.610  Recovery = 100.34%
Mo 202.031†            15390.4      503.78 µg/L        4.570      503.78 ppb          4.570   0.91%
   QC value within limits for Mo 202.031  Recovery = 100.76%
Na 589.592 Radial†     65094.5       10086 µg/L         25.3       10086 ppb           25.3   0.25%
   QC value within limits for Na 589.592 Radial  Recovery = 100.86%
Ni 231.604†            40312.5      504.36 µg/L        0.984      504.36 ppb          0.984   0.20%
   QC value within limits for Ni 231.604  Recovery = 100.87%
P 214.914†             10826.6      2495.8 µg/L        27.82      2495.8 ppb          27.82   1.11%
   QC value within limits for P 214.914  Recovery = 99.83%
Pb 220.353†             8220.0      507.41 µg/L        4.513      507.41 ppb          4.513   0.89%
   QC value within limits for Pb 220.353  Recovery = 101.48%
S 181.975 Axial†        1196.3      1010.7 µg/L         9.69      1010.7 ppb           9.69   0.96%
   QC value within limits for S 181.975 Axial  Recovery = 101.07%
Sb 206.836†             3874.1      500.70 µg/L        5.735      500.70 ppb          5.735   1.15%
   QC value within limits for Sb 206.836  Recovery = 100.14%
Se 196.026†             1269.5         502 µg/L         10.3         502 ppb           10.3   2.06%
   QC value within limits for Se 196.026  Recovery = 100.46%
SiO2†                  50236.8      5298.5 µg/L        14.88      5298.5 ppb          14.88   0.28%
   QC value within limits for SiO2  Recovery = 99.08%
Si 251.611†           158461.6      2488.8 µg/L         1.26      2488.8 ppb           1.26   0.05%
   QC value within limits for Si 251.611  Recovery = 99.55%
Sn 189.927†             7140.2      496.95 µg/L        5.446      496.95 ppb          5.446   1.10%
   QC value within limits for Sn 189.927  Recovery = 99.39%
Sr 421.552†           211858.6      499.62 µg/L        4.790      499.62 ppb          4.790   0.96%
   QC value within limits for Sr 421.552  Recovery = 99.92%
Ti 334.940†           484968.3      497.46 µg/L        0.429      497.46 ppb          0.429   0.09%
   QC value within limits for Ti 334.940  Recovery = 99.49%
Tl 190.801†             3666.8      508.19 µg/L        3.950      508.19 ppb          3.950   0.78%
   QC value within limits for Tl 190.801  Recovery = 101.64%
U 409.014†              7416.8      498.52 µg/L        5.494      498.52 ppb          5.494   1.10%
   QC value within limits for U 409.014  Recovery = 99.70%
V 292.402†             96329.8      505.96 µg/L        0.437      505.96 ppb          0.437   0.09%
   QC value within limits for V 292.402  Recovery = 101.19%
Zn 213.857†            84592.5      501.20 µg/L        0.650      501.20 ppb          0.650   0.13%
   QC value within limits for Zn 213.857  Recovery = 100.24%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 14:58:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138044.4	138044.4	98.5	%			14:58:36
1	Al 396.153Radial†	-84.8	-7.5	-1.6153	µg/L	-1.6153	ppb	14:58:56
1	Ca 317.933Radial†	705.7	144.7	9.8564	µg/L	9.8564	ppb	14:58:56
1	Fe 238.204 Radial†	143.9	28.7	2.1458	µg/L	2.1458	ppb	14:58:56
1	K 766.490 Radial†	1582.5	112.1	44.418	µg/L	44.418	ppb	14:58:36
1	Mg 279.077 IEC†	198.0	28.5	13.174	µg/L	13.174	ppb	14:58:56
1	Na 589.592 Radial†	1559.9	630.6	97.707	µg/L	97.707	ppb	14:58:36
1	Sr 421.552†	-218.7	-17.4	-0.0412	µg/L	-0.0412	ppb	14:58:36
1	Sc 361.383	1793195.2	1793195.2	99.393	%			14:59:58
1	Y 371.029	1053635.4	1053635.4	99.654	%			14:59:58
1	Ag 328.068†	4087.3	-452.9	-1.8646	µg/L	-1.8646	ppb	15:00:00
1	As 188.979†	-19.6	-1.1	-0.3729	µg/L	-0.3729	ppb	15:00:20
1	B 249.677†	4109.6	69.6	1.0828	µg/L	1.0828	ppb	15:00:00
1	Ba 233.527†	-142.8	0.9	0.0039	µg/L	0.0039	ppb	15:00:20
1	Be 313.107†	-872.0	214.4	0.0606	µg/L	0.0606	ppb	15:00:00
1	Cd 226.502†	-107.9	-5.2	-0.0353	µg/L	-0.0353	ppb	15:00:20
1	Co 228.616†	-211.6	-2.6	-0.0342	µg/L	-0.0342	ppb	15:00:20
1	Cr 267.716†	281.2	49.7	0.4336	µg/L	0.4336	ppb	15:00:20
1	Cu 324.752†	2771.3	-247.9	-1.0403	µg/L	-1.0403	ppb	15:00:00
1	Mn 257.610†	228.2	44.9	0.0591	µg/L	0.0591	ppb	15:00:20
1	Mo 202.031†	-17.8	20.6	0.6752	µg/L	0.6752	ppb	15:00:20
1	Ni 231.604†	-82.3	13.1	0.1639	µg/L	0.1639	ppb	15:00:20
1	P 214.914†	23.7	49.5	11.467	µg/L	11.467	ppb	15:00:20
1	Pb 220.353†	104.1	1.2	0.0815	µg/L	0.0815	ppb	15:00:20
1	S 181.975 Axial†	98.7	10.4	8.7743	µg/L	8.7743	ppb	15:00:20
1	Sb 206.836†	81.2	-8.0	-1.0248	µg/L	-1.0248	ppb	15:00:20
1	Se 196.026†	14.5	8.4	3.32	µg/L	3.32	ppb	15:00:20
1	SiO2†	1760.2	31.9	3.3405	µg/L	3.3405	ppb	15:00:20
1	Si 251.611†	867.4	105.7	1.6508	µg/L	1.6508	ppb	15:00:00
1	Sn 189.927†	15.5	13.7	0.9464	µg/L	0.9464	ppb	15:00:20
1	Ti 334.940†	430.4	-390.0	-0.3995	µg/L	-0.3995	ppb	15:00:00
1	Tl 190.801†	-112.9	0.6	0.0819	µg/L	0.0819	ppb	15:00:20
1	U 409.014†	-242.6	-80.8	-5.1166	µg/L	-5.1166	ppb	15:00:00
1	V 292.402†	351.7	-69.4	-0.3542	µg/L	-0.3542	ppb	15:00:00
1	Zn 213.857†	586.1	86.7	0.5172	µg/L	0.5172	ppb	15:00:20
2	Sc RADIAL	137381.4	137381.4	98.1	%			14:58:58
2	Al 396.153Radial†	-89.4	-12.6	-2.6886	µg/L	-2.6886	ppb	14:59:18
2	Ca 317.933Radial†	702.2	144.6	9.8473	µg/L	9.8473	ppb	14:59:18
2	Fe 238.204 Radial†	160.7	46.5	3.4759	µg/L	3.4759	ppb	14:59:18
2	K 766.490 Radial†	1753.9	294.7	116.77	µg/L	116.77	ppb	14:58:58
2	Mg 279.077 IEC†	160.0	-9.3	-4.2864	µg/L	-4.2864	ppb	14:59:18
2	Na 589.592 Radial†	1439.6	515.5	79.810	µg/L	79.810	ppb	14:58:58
2	Sr 421.552†	-276.7	-77.7	-0.1834	µg/L	-0.1834	ppb	14:58:58
2	Sc 361.383	1785321.1	1785321.1	98.956	%			15:00:22
2	Y 371.029	1049355.3	1049355.3	99.249	%			15:00:22
2	Ag 328.068†	4310.0	-209.7	-0.8687	µg/L	-0.8687	ppb	15:00:25
2	As 188.979†	-18.2	0.2	0.0627	µg/L	0.0627	ppb	15:00:45
2	B 249.677†	4111.2	89.4	1.3899	µg/L	1.3899	ppb	15:00:25
2	Ba 233.527†	-132.8	10.3	0.0462	µg/L	0.0462	ppb	15:00:45
2	Be 313.107†	-503.9	582.5	0.1658	µg/L	0.1658	ppb	15:00:25
2	Cd 226.502†	-82.6	19.9	0.1341	µg/L	0.1341	ppb	15:00:45
2	Co 228.616†	-204.4	3.7	0.0489	µg/L	0.0489	ppb	15:00:45
2	Cr 267.716†	276.4	46.1	0.4066	µg/L	0.4066	ppb	15:00:45
2	Cu 324.752†	2998.7	-5.8	-0.0318	µg/L	-0.0318	ppb	15:00:25
2	Mn 257.610†	273.1	91.3	0.1213	µg/L	0.1213	ppb	15:00:45
2	Mo 202.031†	-14.2	24.2	0.7908	µg/L	0.7908	ppb	15:00:45
2	Ni 231.604†	-72.5	22.6	0.2827	µg/L	0.2827	ppb	15:00:45
2	P 214.914†	21.9	47.8	11.054	µg/L	11.054	ppb	15:00:45
2	Pb 220.353†	100.4	-1.9	-0.1109	µg/L	-0.1109	ppb	15:00:45

2	S 181.975 Axial†	111.6	23.8	20.067 µg/L	20.067 ppb	15:00:45
2	Sb 206.836†	73.8	-15.1	-1.9429 µg/L	-1.9429 ppb	15:00:45
2	Se 196.026†	10.5	4.5	1.76 µg/L	1.76 ppb	15:00:45
2	SiO2†	1741.5	20.8	2.1669 µg/L	2.1669 ppb	15:00:45
2	Si 251.611†	859.0	101.0	1.5766 µg/L	1.5766 ppb	15:00:25
2	Sn 189.927†	14.7	13.0	0.8983 µg/L	0.8983 ppb	15:00:45
2	Ti 334.940†	757.5	-57.6	-0.0547 µg/L	-0.0547 ppb	15:00:25
2	Tl 190.801†	-123.5	-10.5	-1.4322 µg/L	-1.4322 ppb	15:00:45
2	U 409.014†	-313.5	-153.4	-9.6734 µg/L	-9.6734 ppb	15:00:25
2	V 292.402†	449.5	31.0	0.1636 µg/L	0.1636 ppb	15:00:25
2	Zn 213.857†	555.8	58.6	0.3478 µg/L	0.3478 ppb	15:00:45
3	Sc RADIAL	138455.0	138455.0	98.8 %		14:59:20
3	Al 396.153Radial†	-78.6	-1.0	-0.2452 µg/L	-0.2452 ppb	14:59:40
3	Ca 317.933Radial†	693.8	130.5	8.8893 µg/L	8.8893 ppb	14:59:40
3	Fe 238.204 Radial†	133.6	17.9	1.3380 µg/L	1.3380 ppb	14:59:40
3	K 766.490 Radial†	1590.3	115.3	45.676 µg/L	45.676 ppb	14:59:20
3	Mg 279.077 IEC†	171.8	1.4	0.6697 µg/L	0.6697 ppb	14:59:40
3	Na 589.592 Radial†	1454.2	518.9	80.388 µg/L	80.388 ppb	14:59:20
3	Sr 421.552†	-186.5	15.8	0.0372 µg/L	0.0372 ppb	14:59:20
3	Sc 361.383	1770801.1	1770801.1	98.151 %		15:00:47
3	Y 371.029	1040334.6	1040334.6	98.396 %		15:00:47
3	Ag 328.068†	4238.3	-247.0	-1.0326 µg/L	-1.0326 ppb	15:00:49
3	As 188.979†	-20.0	-1.8	-0.6162 µg/L	-0.6162 ppb	15:01:09
3	B 249.677†	4030.2	41.0	0.6367 µg/L	0.6367 ppb	15:00:49
3	Ba 233.527†	-163.4	-21.9	-0.0974 µg/L	-0.0974 ppb	15:01:09
3	Be 313.107†	-721.7	356.5	0.0990 µg/L	0.0990 ppb	15:00:49
3	Cd 226.502†	-80.1	21.8	0.1474 µg/L	0.1474 ppb	15:01:09
3	Co 228.616†	-191.4	15.3	0.2019 µg/L	0.2019 ppb	15:01:09
3	Cr 267.716†	256.4	28.0	0.2531 µg/L	0.2531 ppb	15:01:09
3	Cu 324.752†	2743.9	-240.5	-1.0173 µg/L	-1.0173 ppb	15:00:49
3	Mn 257.610†	241.2	61.0	0.0809 µg/L	0.0809 ppb	15:01:09
3	Mo 202.031†	-17.0	21.2	0.6937 µg/L	0.6937 ppb	15:01:09
3	Ni 231.604†	-55.4	39.4	0.4935 µg/L	0.4935 ppb	15:01:09
3	P 214.914†	15.1	41.0	9.5028 µg/L	9.5028 ppb	15:01:09
3	Pb 220.353†	103.8	2.3	0.1543 µg/L	0.1543 ppb	15:01:09
3	S 181.975 Axial†	106.9	20.0	16.821 µg/L	16.821 ppb	15:01:09
3	Sb 206.836†	86.5	-1.6	-0.2020 µg/L	-0.2020 ppb	15:01:09
3	Se 196.026†	31.1	25.6	10.1 µg/L	10.1 ppb	15:01:09
3	SiO2†	1757.4	51.4	5.4209 µg/L	5.4209 ppb	15:01:09
3	Si 251.611†	971.0	222.3	3.4932 µg/L	3.4932 ppb	15:00:49
3	Sn 189.927†	8.1	6.4	0.4416 µg/L	0.4416 ppb	15:01:09
3	Ti 334.940†	788.6	-19.5	-0.0142 µg/L	-0.0142 ppb	15:00:49
3	Tl 190.801†	-110.6	1.6	0.2188 µg/L	0.2188 ppb	15:01:09
3	U 409.014†	-381.1	-224.9	-14.214 µg/L	-14.214 ppb	15:00:49
3	V 292.402†	353.3	-63.3	-0.3296 µg/L	-0.3296 ppb	15:00:49
3	Zn 213.857†	578.7	86.6	0.5146 µg/L	0.5146 ppb	15:01:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783105.8	98.833	%	0.6297				0.64%
Sc RADIAL	137960.3	98.5	%	0.39				0.39%
Y 371.029	1047775.1	99.099	%	0.6422				0.65%
Ag 328.068†	-303.2	-1.2553	µg/L	0.53400	-1.2553	ppb	0.53400	42.54%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.0	-1.5163	µg/L	1.22467	-1.5163	ppb	1.22467	80.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.9	-0.3088	µg/L	0.34395	-0.3088	ppb	0.34395	111.38%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	66.7	1.0365	µg/L	0.37874	1.0365	ppb	0.37874	36.54%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.6	-0.0158	µg/L	0.07377	-0.0158	ppb	0.07377	467.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	384.5	0.1085	µg/L	0.05326	0.1085	ppb	0.05326	49.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	139.9	9.5310	µg/L	0.55577	9.5310	ppb	0.55577	5.83%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	12.2	0.0821	µg/L	0.10186	0.0821	ppb	0.10186	124.08%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.5	0.0722	µg/L	0.11975	0.0722	ppb	0.11975	165.92%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              41.3      0.3644 µg/L       0.09736      0.3644 ppb        0.09736  26.72%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -164.7     -0.6965 µg/L       0.57577     -0.6965 ppb        0.57577  82.67%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       31.1      2.3199 µg/L       1.07956      2.3199 ppb        1.07956  46.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       174.1      68.954 µg/L       41.4138      68.954 ppb        41.4138  60.06%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           6.9      3.1857 µg/L       8.99780      3.1857 ppb        8.99780 282.45%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              65.7      0.0871 µg/L       0.03156      0.0871 ppb        0.03156  36.25%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              22.0      0.7199 µg/L       0.06207      0.7199 ppb        0.06207   8.62%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      555.0      85.968 µg/L       10.1699      85.968 ppb        10.1699  11.83%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              25.0      0.3134 µg/L       0.16695      0.3134 ppb        0.16695  53.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               46.1      10.675 µg/L        1.0358      10.675 ppb         1.0358   9.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.5      0.0416 µg/L       0.13704      0.0416 ppb        0.13704 329.04%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         18.1      15.221 µg/L        5.8140      15.221 ppb         5.8140  38.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -8.2     -1.0566 µg/L       0.87088     -1.0566 ppb        0.87088  82.42%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              12.8        5.05 µg/L         4.410        5.05 ppb          4.410  87.41%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    34.7      3.6428 µg/L       1.64796      3.6428 ppb        1.64796  45.24%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             143.0      2.2402 µg/L       1.08575      2.2402 ppb        1.08575  48.47%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              11.0      0.7621 µg/L       0.27860      0.7621 ppb        0.27860  36.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -26.4     -0.0624 µg/L       0.11181     -0.0624 ppb        0.11181 179.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -155.7     -0.1561 µg/L       0.21173     -0.1561 ppb        0.21173 135.64%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.7     -0.3772 µg/L       0.91625     -0.3772 ppb        0.91625 242.92%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -153.0     -9.6679 µg/L       4.54859     -9.6679 ppb        4.54859  47.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -33.9     -0.1734 µg/L       0.29211     -0.1734 ppb        0.29211 168.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              77.3      0.4599 µg/L       0.09708      0.4599 ppb        0.09708  21.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 23
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 15:16:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135738.0	135738.0	96.9	%			15:17:24
1	Al 396.153Radial†	22857.7	23669.6	4959.7	µg/L	4959.7	ppb	15:17:24
1	Ca 317.933Radial†	73024.7	74796.2	5094.3	µg/L	5094.3	ppb	15:17:24
1	Fe 238.204 Radial†	65755.8	67748.2	5059.4	µg/L	5059.4	ppb	15:17:24
1	K 766.490 Radial†	13910.2	12862.7	5092.7	µg/L	5092.7	ppb	15:17:24
1	Mg 279.077 IEC†	10881.8	11058.4	5114.2	µg/L	5114.2	ppb	15:17:24
1	Na 589.592 Radial†	64038.5	65140.6	10093	µg/L	10093	ppb	15:17:24
1	Sr 421.552†	204354.1	211115.0	497.87	µg/L	497.87	ppb	15:17:22
1	Sc 361.383	1764164.6	1764164.6	97.784	%			15:17:51
1	Y 371.029	1024554.1	1024554.1	96.903	%			15:17:51
1	Ag 328.068†	124127.5	122375.9	507.24	µg/L	507.24	ppb	15:17:51
1	As 188.979†	1328.6	1377.3	473.19	µg/L	473.19	ppb	15:18:11
1	B 249.677†	35379.1	32115.9	497.68	µg/L	497.68	ppb	15:17:51
1	Ba 233.527†	109997.1	112635.0	501.06	µg/L	501.06	ppb	15:17:51
1	Be 313.107†	1659256.4	1697958.5	491.99	µg/L	491.99	ppb	15:17:51
1	Cd 226.502†	73538.6	75308.9	508.68	µg/L	508.68	ppb	15:17:51
1	Co 228.616†	37673.5	38737.7	512.74	µg/L	512.74	ppb	15:17:51
1	Cr 267.716†	57414.4	58482.6	505.82	µg/L	505.82	ppb	15:17:51
1	Cu 324.752†	120081.7	119767.5	502.50	µg/L	502.50	ppb	15:17:51
1	Mn 257.610†	372787.6	381052.9	505.27	µg/L	505.27	ppb	15:17:51
1	Mo 202.031†	15151.5	15533.5	508.47	µg/L	508.47	ppb	15:18:11
1	Ni 231.604†	39621.1	40615.1	508.15	µg/L	508.15	ppb	15:17:51
1	P 214.914†	10707.2	10975.6	2530.3	µg/L	2530.3	ppb	15:18:11
1	Pb 220.353†	8241.7	8325.1	513.90	µg/L	513.90	ppb	15:18:11
1	S 181.975 Axial†	1276.8	1216.9	1028.0	µg/L	1028.0	ppb	15:18:11
1	Sb 206.836†	3922.3	3921.5	506.84	µg/L	506.84	ppb	15:18:11
1	Se 196.026†	1272.0	1294.7	512	µg/L	512	ppb	15:18:11
1	SiO2†	51556.6	50986.1	5377.6	µg/L	5377.6	ppb	15:17:51
1	Si 251.611†	157393.6	160194.2	2516.0	µg/L	2516.0	ppb	15:17:51
1	Sn 189.927†	7104.1	7263.2	505.49	µg/L	505.49	ppb	15:18:11
1	Ti 334.940†	477258.2	487253.2	499.81	µg/L	499.81	ppb	15:17:51
1	Tl 190.801†	3518.1	3712.1	514.40	µg/L	514.40	ppb	15:18:11
1	U 409.014†	6935.8	7256.4	488.58	µg/L	488.58	ppb	15:17:51
1	V 292.402†	95164.5	96898.4	508.96	µg/L	508.96	ppb	15:17:51
1	Zn 213.857†	83929.3	85328.7	505.56	µg/L	505.56	ppb	15:17:51
2	Sc RADIAL	136755.4	136755.4	97.6	%			15:17:28
2	Al 396.153Radial†	22930.5	23568.7	4938.5	µg/L	4938.5	ppb	15:17:28
2	Ca 317.933Radial†	73393.2	74613.0	5081.8	µg/L	5081.8	ppb	15:17:28
2	Fe 238.204 Radial†	65970.8	67463.6	5038.1	µg/L	5038.1	ppb	15:17:28
2	K 766.490 Radial†	14093.0	12943.2	5124.6	µg/L	5124.6	ppb	15:17:28
2	Mg 279.077 IEC†	10944.3	11038.9	5105.2	µg/L	5105.2	ppb	15:17:28
2	Na 589.592 Radial†	64185.6	64799.6	10040	µg/L	10040	ppb	15:17:28
2	Sr 421.552†	206740.5	211990.6	499.93	µg/L	499.93	ppb	15:17:26
2	Sc 361.383	1774867.6	1774867.6	98.377	%			15:18:14
2	Y 371.029	1031433.6	1031433.6	97.554	%			15:18:14
2	Ag 328.068†	124636.9	122128.2	506.22	µg/L	506.22	ppb	15:18:14
2	As 188.979†	1336.2	1376.8	473.00	µg/L	473.00	ppb	15:18:34
2	B 249.677†	35558.4	32080.0	497.13	µg/L	497.13	ppb	15:18:14
2	Ba 233.527†	110530.9	112499.2	500.46	µg/L	500.46	ppb	15:18:14
2	Be 313.107†	1664802.3	1693363.2	490.67	µg/L	490.67	ppb	15:18:14
2	Cd 226.502†	73953.2	75276.8	508.46	µg/L	508.46	ppb	15:18:14
2	Co 228.616†	37610.7	38441.5	508.82	µg/L	508.82	ppb	15:18:14
2	Cr 267.716†	57561.2	58277.7	504.04	µg/L	504.04	ppb	15:18:14
2	Cu 324.752†	120902.2	119861.0	502.90	µg/L	502.90	ppb	15:18:14
2	Mn 257.610†	374196.7	380186.2	504.12	µg/L	504.12	ppb	15:18:14
2	Mo 202.031†	15216.3	15506.0	507.57	µg/L	507.57	ppb	15:18:34
2	Ni 231.604†	39686.6	40437.3	505.92	µg/L	505.92	ppb	15:18:14
2	P 214.914†	10736.2	10939.1	2521.8	µg/L	2521.8	ppb	15:18:34
2	Pb 220.353†	8296.7	8330.2	514.20	µg/L	514.20	ppb	15:18:34

2	S 181.975 Axial†	1278.8	1211.0	1023.0 µg/L	1023.0 ppb	15:18:34
2	Sb 206.836†	3909.8	3884.6	502.09 µg/L	502.09 ppb	15:18:34
2	Se 196.026†	1253.0	1267.6	502 µg/L	502 ppb	15:18:34
2	SiO2†	51693.6	50807.4	5358.7 µg/L	5358.7 ppb	15:18:14
2	Si 251.611†	158586.7	160436.4	2519.8 µg/L	2519.8 ppb	15:18:14
2	Sn 189.927†	7100.7	7216.0	502.21 µg/L	502.21 ppb	15:18:34
2	Ti 334.940†	479020.6	486101.4	498.62 µg/L	498.62 ppb	15:18:14
2	Tl 190.801†	3527.6	3700.1	512.76 µg/L	512.76 ppb	15:18:34
2	U 409.014†	7098.9	7379.4	496.29 µg/L	496.29 ppb	15:18:14
2	V 292.402†	95557.7	96711.2	507.98 µg/L	507.98 ppb	15:18:14
2	Zn 213.857†	84077.4	84961.6	503.38 µg/L	503.38 ppb	15:18:14
3	Sc RADIAL	136723.7	136723.7	97.6 %		15:17:32
3	Al 396.153Radial†	22938.4	23582.2	4941.3 µg/L	4941.3 ppb	15:17:32
3	Ca 317.933Radial†	73950.6	75201.5	5121.9 µg/L	5121.9 ppb	15:17:32
3	Fe 238.204 Radial†	66451.5	67971.7	5076.1 µg/L	5076.1 ppb	15:17:32
3	K 766.490 Radial†	14098.3	12951.9	5128.0 µg/L	5128.0 ppb	15:17:32
3	Mg 279.077 IEC†	11022.8	11122.0	5143.5 µg/L	5143.5 ppb	15:17:32
3	Na 589.592 Radial†	64677.6	65318.9	10120 µg/L	10120 ppb	15:17:32
3	Sr 421.552†	206850.5	212152.3	500.31 µg/L	500.31 ppb	15:17:30
3	Sc 361.383	1765397.6	1765397.6	97.852 %		15:18:37
3	Y 371.029	1025865.3	1025865.3	97.027 %		15:18:37
3	Ag 328.068†	124053.7	122211.8	506.60 µg/L	506.60 ppb	15:18:37
3	As 188.979†	1331.9	1379.7	473.98 µg/L	473.98 ppb	15:18:57
3	B 249.677†	35495.2	32209.3	499.13 µg/L	499.13 ppb	15:18:37
3	Ba 233.527†	109878.0	112434.6	500.17 µg/L	500.17 ppb	15:18:37
3	Be 313.107†	1658745.9	1696251.6	491.51 µg/L	491.51 ppb	15:18:37
3	Cd 226.502†	73397.9	75112.6	507.35 µg/L	507.35 ppb	15:18:37
3	Co 228.616†	37638.2	38674.7	511.90 µg/L	511.90 ppb	15:18:37
3	Cr 267.716†	57256.1	58279.9	504.05 µg/L	504.05 ppb	15:18:37
3	Cu 324.752†	120344.3	119950.0	503.29 µg/L	503.29 ppb	15:18:37
3	Mn 257.610†	372836.8	380836.8	504.98 µg/L	504.98 ppb	15:18:37
3	Mo 202.031†	15173.4	15545.1	508.85 µg/L	508.85 ppb	15:18:57
3	Ni 231.604†	39743.3	40711.6	509.35 µg/L	509.35 ppb	15:18:37
3	P 214.914†	10695.7	10956.2	2525.7 µg/L	2525.7 ppb	15:18:57
3	Pb 220.353†	8232.5	8309.8	512.94 µg/L	512.94 ppb	15:18:57
3	S 181.975 Axial†	1266.8	1205.7	1018.6 µg/L	1018.6 ppb	15:18:57
3	Sb 206.836†	3901.0	3896.9	503.70 µg/L	503.70 ppb	15:18:57
3	Se 196.026†	1273.5	1295.3	513 µg/L	513 ppb	15:18:57
3	SiO2†	51559.7	50952.5	5374.0 µg/L	5374.0 ppb	15:18:37
3	Si 251.611†	158048.5	160751.1	2524.8 µg/L	2524.8 ppb	15:18:37
3	Sn 189.927†	7093.6	7247.5	504.40 µg/L	504.40 ppb	15:18:57
3	Ti 334.940†	477721.3	487385.6	499.93 µg/L	499.93 ppb	15:18:37
3	Tl 190.801†	3505.9	3697.2	512.36 µg/L	512.36 ppb	15:18:57
3	U 409.014†	7303.2	7626.9	511.96 µg/L	511.96 ppb	15:18:37
3	V 292.402†	95235.5	96903.0	508.99 µg/L	508.99 ppb	15:18:37
3	Zn 213.857†	83904.9	85243.8	505.04 µg/L	505.04 ppb	15:18:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1768143.2	98.004	%	0.3246				0.33%
Sc RADIAL	136405.7	97.4	%	0.41				0.42%
Y 371.029	1027284.3	97.161	%	0.3455				0.36%
Ag 328.068†	122238.7	506.69	µg/L	0.514	506.69	ppb	0.514	0.10%
QC value within limits for Ag 328.068 Recovery = 101.34%								
Al 396.153Radial†	23606.8	4946.5	µg/L	11.52	4946.5	ppb	11.52	0.23%
QC value within limits for Al 396.153Radial Recovery = 98.93%								
As 188.979†	1377.9	473.39	µg/L	0.523	473.39	ppb	0.523	0.11%
QC value within limits for As 188.979 Recovery = 94.68%								
B 249.677†	32135.0	497.98	µg/L	1.034	497.98	ppb	1.034	0.21%
QC value within limits for B 249.677 Recovery = 99.60%								
Ba 233.527†	112522.9	500.56	µg/L	0.455	500.56	ppb	0.455	0.09%
QC value within limits for Ba 233.527 Recovery = 100.11%								
Be 313.107†	1695857.7	491.39	µg/L	0.672	491.39	ppb	0.672	0.14%
QC value within limits for Be 313.107 Recovery = 98.28%								
Ca 317.933Radial†	74870.2	5099.3	µg/L	20.51	5099.3	ppb	20.51	0.40%
QC value within limits for Ca 317.933Radial Recovery = 101.99%								
Cd 226.502†	75232.8	508.17	µg/L	0.713	508.17	ppb	0.713	0.14%
QC value within limits for Cd 226.502 Recovery = 101.63%								
Co 228.616†	38618.0	511.15	µg/L	2.063	511.15	ppb	2.063	0.40%

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   QC value within limits for Co 228.616  Recovery = 102.23%
Cr 267.716†            58346.7      504.64 µg/L         1.025      504.64 ppb          1.025   0.20%
   QC value within limits for Cr 267.716  Recovery = 100.93%
Cu 324.752†           119859.5      502.90 µg/L         0.393      502.90 ppb          0.393   0.08%
   QC value within limits for Cu 324.752  Recovery = 100.58%
Fe 238.204 Radial†     67727.8      5057.9 µg/L         19.02      5057.9 ppb          19.02   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.16%
K 766.490 Radial†      12919.2      5115.1 µg/L         19.49      5115.1 ppb          19.49   0.38%
   QC value within limits for K 766.490 Radial  Recovery = 102.30%
Mg 279.077 IEC†        11073.1      5121.0 µg/L         20.05      5121.0 ppb          20.05   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.42%
Mn 257.610†           380692.0      504.79 µg/L         0.598      504.79 ppb          0.598   0.12%
   QC value within limits for Mn 257.610  Recovery = 100.96%
Mo 202.031†            15528.2      508.29 µg/L         0.658      508.29 ppb          0.658   0.13%
   QC value within limits for Mo 202.031  Recovery = 101.66%
Na 589.592 Radial†     65086.4       10084 µg/L          40.9       10084 ppb           40.9   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 100.84%
Ni 231.604†            40588.0      507.81 µg/L         1.741      507.81 ppb          1.741   0.34%
   QC value within limits for Ni 231.604  Recovery = 101.56%
P 214.914†             10957.0      2525.9 µg/L          4.24      2525.9 ppb           4.24   0.17%
   QC value within limits for P 214.914  Recovery = 101.04%
Pb 220.353†             8321.7      513.68 µg/L         0.658      513.68 ppb          0.658   0.13%
   QC value within limits for Pb 220.353  Recovery = 102.74%
S 181.975 Axial†        1211.2      1023.2 µg/L          4.70      1023.2 ppb           4.70   0.46%
   QC value within limits for S 181.975 Axial  Recovery = 102.32%
Sb 206.836†             3901.0      504.21 µg/L         2.415      504.21 ppb          2.415   0.48%
   QC value within limits for Sb 206.836  Recovery = 100.84%
Se 196.026†             1285.9         509 µg/L           6.3         509 ppb            6.3   1.23%
   QC value within limits for Se 196.026  Recovery = 101.76%
SiO2†                  50915.3      5370.1 µg/L         10.01      5370.1 ppb          10.01   0.19%
   QC value within limits for SiO2  Recovery = 100.42%
Si 251.611†           160460.6      2520.2 µg/L          4.40      2520.2 ppb           4.40   0.17%
   QC value within limits for Si 251.611  Recovery = 100.81%
Sn 189.927†             7242.2      504.03 µg/L         1.671      504.03 ppb          1.671   0.33%
   QC value within limits for Sn 189.927  Recovery = 100.81%
Sr 421.552†           211752.6      499.37 µg/L         1.316      499.37 ppb          1.316   0.26%
   QC value within limits for Sr 421.552  Recovery = 99.87%
Ti 334.940†           486913.4      499.45 µg/L         0.723      499.45 ppb          0.723   0.14%
   QC value within limits for Ti 334.940  Recovery = 99.89%
Tl 190.801†             3703.1      513.17 µg/L         1.080      513.17 ppb          1.080   0.21%
   QC value within limits for Tl 190.801  Recovery = 102.63%
U 409.014†              7420.9      498.94 µg/L        11.913      498.94 ppb         11.913   2.39%
   QC value within limits for U 409.014  Recovery = 99.79%
V 292.402†             96837.5      508.64 µg/L         0.575      508.64 ppb          0.575   0.11%
   QC value within limits for V 292.402  Recovery = 101.73%
Zn 213.857†            85178.1      504.66 µg/L         1.137      504.66 ppb          1.137   0.23%
   QC value within limits for Zn 213.857  Recovery = 100.93%
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 15:19:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135119.4	135119.4	96.4	%			15:19:35
1	Al 396.153Radial†	-39.9	37.2	7.8015	µg/L	7.8015	ppb	15:19:55
1	Ca 317.933Radial†	710.5	165.2	11.249	µg/L	11.249	ppb	15:19:55
1	Fe 238.204 Radial†	246.5	138.2	10.324	µg/L	10.324	ppb	15:19:55
1	K 766.490 Radial†	1659.9	227.2	90.021	µg/L	90.021	ppb	15:19:35
1	Mg 279.077 IEC†	172.3	6.2	2.8460	µg/L	2.8460	ppb	15:19:55
1	Na 589.592 Radial†	1152.5	242.4	37.496	µg/L	37.496	ppb	15:19:35
1	Sr 421.552†	-253.5	-58.4	-0.1378	µg/L	-0.1378	ppb	15:19:35
1	Sc 361.383	1794052.2	1794052.2	99.440	%			15:20:57
1	Y 371.029	1054102.8	1054102.8	99.698	%			15:20:57
1	Ag 328.068†	4163.6	-378.1	-1.5752	µg/L	-1.5752	ppb	15:20:59
1	As 188.979†	-10.7	7.8	2.6457	µg/L	2.6457	ppb	15:21:19
1	B 249.677†	3919.6	-123.5	-1.9206	µg/L	-1.9206	ppb	15:20:59
1	Ba 233.527†	-182.6	-39.1	-0.1741	µg/L	-0.1741	ppb	15:21:19
1	Be 313.107†	-511.9	576.9	0.1619	µg/L	0.1619	ppb	15:20:59
1	Cd 226.502†	-61.9	41.1	0.2767	µg/L	0.2767	ppb	15:21:19
1	Co 228.616†	-193.6	15.6	0.2054	µg/L	0.2054	ppb	15:21:19
1	Cr 267.716†	254.1	22.3	0.2065	µg/L	0.2065	ppb	15:21:19
1	Cu 324.752†	2907.9	-111.8	-0.4804	µg/L	-0.4804	ppb	15:20:59
1	Mn 257.610†	293.9	110.8	0.1469	µg/L	0.1469	ppb	15:21:19
1	Mo 202.031†	-23.4	15.1	0.4926	µg/L	0.4926	ppb	15:21:19
1	Ni 231.604†	-64.9	30.6	0.3833	µg/L	0.3833	ppb	15:21:19
1	P 214.914†	12.3	38.1	8.8112	µg/L	8.8112	ppb	15:21:19
1	Pb 220.353†	108.6	5.7	0.3659	µg/L	0.3659	ppb	15:21:19
1	S 181.975 Axial†	93.4	5.0	4.1776	µg/L	4.1776	ppb	15:21:19
1	Sb 206.836†	96.3	7.1	0.9249	µg/L	0.9249	ppb	15:21:19
1	Se 196.026†	21.3	15.2	5.99	µg/L	5.99	ppb	15:21:19
1	SiO2†	1898.8	170.4	18.018	µg/L	18.018	ppb	15:21:19
1	Si 251.611†	1381.8	622.6	9.8044	µg/L	9.8044	ppb	15:20:59
1	Sn 189.927†	15.2	13.4	0.9327	µg/L	0.9327	ppb	15:21:19
1	Ti 334.940†	915.7	97.9	0.1077	µg/L	0.1077	ppb	15:20:59
1	Tl 190.801†	-120.9	-7.3	-0.9998	µg/L	-0.9998	ppb	15:21:19
1	U 409.014†	-437.0	-276.1	-17.451	µg/L	-17.451	ppb	15:20:59
1	V 292.402†	331.2	-90.2	-0.4743	µg/L	-0.4743	ppb	15:20:59
1	Zn 213.857†	592.6	93.0	0.5520	µg/L	0.5520	ppb	15:21:19
2	Sc RADIAL	136298.4	136298.4	97.3	%			15:19:57
2	Al 396.153Radial†	-106.9	-31.4	-6.6496	µg/L	-6.6496	ppb	15:20:17
2	Ca 317.933Radial†	687.7	135.4	9.2247	µg/L	9.2247	ppb	15:20:17
2	Fe 238.204 Radial†	157.7	44.8	3.3427	µg/L	3.3427	ppb	15:20:17
2	K 766.490 Radial†	1659.5	211.9	83.944	µg/L	83.944	ppb	15:19:57
2	Mg 279.077 IEC†	160.6	-7.3	-3.3644	µg/L	-3.3644	ppb	15:20:17
2	Na 589.592 Radial†	1195.7	276.4	42.774	µg/L	42.774	ppb	15:19:57
2	Sr 421.552†	-260.7	-63.5	-0.1499	µg/L	-0.1499	ppb	15:19:57
2	Sc 361.383	1785056.6	1785056.6	98.942	%			15:21:21
2	Y 371.029	1047607.7	1047607.7	99.084	%			15:21:21
2	Ag 328.068†	3952.2	-570.7	-2.3566	µg/L	-2.3566	ppb	15:21:24
2	As 188.979†	-10.3	8.2	2.7758	µg/L	2.7758	ppb	15:21:44
2	B 249.677†	4199.2	178.9	2.7816	µg/L	2.7816	ppb	15:21:24
2	Ba 233.527†	-158.6	-15.7	-0.0699	µg/L	-0.0699	ppb	15:21:44
2	Be 313.107†	-584.0	501.5	0.1413	µg/L	0.1413	ppb	15:21:24
2	Cd 226.502†	-107.7	-5.4	-0.0370	µg/L	-0.0370	ppb	15:21:44
2	Co 228.616†	-184.0	24.3	0.3214	µg/L	0.3214	ppb	15:21:44
2	Cr 267.716†	264.9	34.5	0.3087	µg/L	0.3087	ppb	15:21:44
2	Cu 324.752†	2729.2	-277.7	-1.1720	µg/L	-1.1720	ppb	15:21:24
2	Mn 257.610†	261.9	80.0	0.1062	µg/L	0.1062	ppb	15:21:44
2	Mo 202.031†	-8.4	30.1	0.9852	µg/L	0.9852	ppb	15:21:44
2	Ni 231.604†	-65.2	30.0	0.3752	µg/L	0.3752	ppb	15:21:44
2	P 214.914†	30.4	56.4	13.039	µg/L	13.039	ppb	15:21:44
2	Pb 220.353†	108.4	6.1	0.3854	µg/L	0.3854	ppb	15:21:44

2	S 181.975 Axial†	97.8	10.0	8.3828 µg/L	8.3828 ppb		15:21:44
2	Sb 206.836†	89.2	0.5	0.0710 µg/L	0.0710 ppb		15:21:44
2	Se 196.026†	24.3	18.4	7.22 µg/L	7.22 ppb		15:21:44
2	SiO2†	1931.2	212.8	22.501 µg/L	22.501 ppb		15:21:44
2	Si 251.611†	1430.8	679.1	10.694 µg/L	10.694 ppb		15:21:24
2	Sn 189.927†	3.7	1.8	0.1285 µg/L	0.1285 ppb		15:21:44
2	Ti 334.940†	863.8	50.0	0.0572 µg/L	0.0572 ppb		15:21:24
2	Tl 190.801†	-116.8	-3.8	-0.5237 µg/L	-0.5237 ppb		15:21:44
2	U 409.014†	-368.5	-209.1	-13.214 µg/L	-13.214 ppb		15:21:24
2	V 292.402†	355.1	-64.3	-0.3312 µg/L	-0.3312 ppb		15:21:24
2	Zn 213.857†	579.9	83.2	0.4946 µg/L	0.4946 ppb		15:21:44
3	Sc RADIAL	137345.7	137345.7	98.0 %			15:20:19
3	Al 396.153Radial†	-66.9	10.3	2.1413 µg/L	2.1413 ppb		15:20:39
3	Ca 317.933Radial†	721.0	164.0	11.171 µg/L	11.171 ppb		15:20:39
3	Fe 238.204 Radial†	215.7	102.7	7.6670 µg/L	7.6670 ppb		15:20:39
3	K 766.490 Radial†	1670.5	210.1	83.228 µg/L	83.228 ppb		15:20:19
3	Mg 279.077 IEC†	160.4	-8.8	-4.0827 µg/L	-4.0827 ppb		15:20:39
3	Na 589.592 Radial†	1300.4	373.9	57.888 µg/L	57.888 ppb		15:20:19
3	Sr 421.552†	-278.7	-79.8	-0.1883 µg/L	-0.1883 ppb		15:20:19
3	Sc 361.383	1761364.4	1761364.4	97.628 %			15:21:46
3	Y 371.029	1034927.3	1034927.3	97.884 %			15:21:46
3	Ag 328.068†	4077.7	-388.4	-1.6055 µg/L	-1.6055 ppb		15:21:48
3	As 188.979†	-16.6	1.6	0.5344 µg/L	0.5344 ppb		15:22:08
3	B 249.677†	3885.5	-85.3	-1.3272 µg/L	-1.3272 ppb		15:21:48
3	Ba 233.527†	-157.0	-16.3	-0.0727 µg/L	-0.0727 ppb		15:22:08
3	Be 313.107†	-835.4	236.0	0.0659 µg/L	0.0659 ppb		15:21:48
3	Cd 226.502†	-87.4	13.8	0.0927 µg/L	0.0927 ppb		15:22:08
3	Co 228.616†	-189.1	16.6	0.2194 µg/L	0.2194 ppb		15:22:08
3	Cr 267.716†	236.1	8.6	0.0811 µg/L	0.0811 ppb		15:22:08
3	Cu 324.752†	2885.9	-80.1	-0.3407 µg/L	-0.3407 ppb		15:21:48
3	Mn 257.610†	248.1	69.4	0.0922 µg/L	0.0922 ppb		15:22:08
3	Mo 202.031†	-25.6	12.3	0.4036 µg/L	0.4036 ppb		15:22:08
3	Ni 231.604†	-76.0	18.1	0.2263 µg/L	0.2263 ppb		15:22:08
3	P 214.914†	18.0	44.2	10.223 µg/L	10.223 ppb		15:22:08
3	Pb 220.353†	114.5	13.8	0.8550 µg/L	0.8550 ppb		15:22:08
3	S 181.975 Axial†	89.8	3.1	2.5869 µg/L	2.5869 ppb		15:22:08
3	Sb 206.836†	52.6	-35.9	-4.6212 µg/L	-4.6212 ppb		15:22:08
3	Se 196.026†	10.6	4.7	1.84 µg/L	1.84 ppb		15:22:08
3	SiO2†	1960.1	268.6	28.419 µg/L	28.419 ppb		15:22:08
3	Si 251.611†	1543.3	813.7	12.819 µg/L	12.819 ppb		15:21:48
3	Sn 189.927†	17.6	16.1	1.1189 µg/L	1.1189 ppb		15:22:08
3	Ti 334.940†	775.0	-29.1	-0.0260 µg/L	-0.0260 ppb		15:21:48
3	Tl 190.801†	-118.8	-7.4	-1.0096 µg/L	-1.0096 ppb		15:22:08
3	U 409.014†	-284.9	-128.5	-8.1345 µg/L	-8.1345 ppb		15:21:48
3	V 292.402†	330.4	-84.8	-0.4413 µg/L	-0.4413 ppb		15:21:48
3	Zn 213.857†	563.4	74.1	0.4403 µg/L	0.4403 ppb		15:22:08

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1780157.7	98.670	%	0.9359				0.95%
Sc RADIAL	136254.5	97.3	%	0.80				0.82%
Y 371.029	1045546.0	98.889	%	0.9224				0.93%
Ag 328.068†	-445.8	-1.8458	µg/L	0.44262	-1.8458	ppb	0.44262	23.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.4	1.0978	µg/L	7.28185	1.0978	ppb	7.28185	663.34%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.9	1.9853	µg/L	1.25818	1.9853	ppb	1.25818	63.37%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-9.9	-0.1554	µg/L	2.56077	-0.1554	ppb	2.56077	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-23.7	-0.1056	µg/L	0.05933	-0.1056	ppb	0.05933	56.20%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	438.2	0.1230	µg/L	0.05051	0.1230	ppb	0.05051	41.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	154.9	10.548	µg/L	1.1467	10.548	ppb	1.1467	10.87%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.5	0.1108	µg/L	0.15765	0.1108	ppb	0.15765	142.28%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.8	0.2487	µg/L	0.06332	0.2487	ppb	0.06332	25.45%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              21.8      0.1988 µg/L       0.11401      0.1988 ppb        0.11401  57.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -156.6     -0.6644 µg/L       0.44514     -0.6644 ppb        0.44514  67.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       95.2      7.1113 µg/L       3.52365      7.1113 ppb        3.52365  49.55%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       216.4      85.731 µg/L        3.7322      85.731 ppb         3.7322   4.35%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -3.3     -1.5337 µg/L       3.80990     -1.5337 ppb        3.80990 248.41%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              86.7      0.1151 µg/L       0.02841      0.1151 ppb        0.02841  24.68%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              19.2      0.6271 µg/L       0.31330      0.6271 ppb        0.31330  49.96%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      297.6      46.053 µg/L       10.5836      46.053 ppb        10.5836  22.98%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              26.2      0.3283 µg/L       0.08842      0.3283 ppb        0.08842  26.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               46.2      10.691 µg/L        2.1524      10.691 ppb         2.1524  20.13%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               8.5      0.5355 µg/L       0.27689      0.5355 ppb        0.27689  51.71%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.0      5.0491 µg/L       2.99464      5.0491 ppb        2.99464  59.31%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -9.4     -1.2084 µg/L       2.98620     -1.2084 ppb        2.98620 247.11%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              12.8        5.02 µg/L         2.819        5.02 ppb          2.819  56.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   217.3      22.979 µg/L        5.2170      22.979 ppb         5.2170  22.70%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             705.1      11.106 µg/L        1.5488      11.106 ppb         1.5488  13.95%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              10.5      0.7267 µg/L       0.52636      0.7267 ppb        0.52636  72.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -67.2     -0.1586 µg/L       0.02639     -0.1586 ppb        0.02639  16.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              39.6      0.0463 µg/L       0.06750      0.0463 ppb        0.06750 145.85%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -6.2     -0.8444 µg/L       0.27775     -0.8444 ppb        0.27775  32.89%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -204.6     -12.933 µg/L        4.6646     -12.933 ppb         4.6646  36.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -79.8     -0.4156 µg/L       0.07494     -0.4156 ppb        0.07494  18.03%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              83.4      0.4956 µg/L       0.05584      0.4956 ppb        0.05584  11.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/5/2010 15:42:54 **Plasma On Time:** 3/29/2010 18:07:58
Logged In Analyst: optima4 **Technique:** ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 077C0022701 **Autosampler Model:** AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location:** 1
Sample ID: CCV **Date Collected:** 4/5/2010 15:42:57
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	133098.2	133098.2	95.0	%			15:43:30
1	Al 396.153Radial†	22310.8	23561.9	4937.2	µg/L	4937.2	ppb	15:43:30
1	Ca 317.933Radial†	71359.4	74538.2	5076.7	µg/L	5076.7	ppb	15:43:30
1	Fe 238.204 Radial†	64321.7	67584.7	5047.2	µg/L	5047.2	ppb	15:43:30
1	K 766.490 Radial†	13802.7	13034.3	5160.7	µg/L	5160.7	ppb	15:43:30
1	Mg 279.077 IEC†	10584.3	10968.1	5072.4	µg/L	5072.4	ppb	15:43:30
1	Na 589.592 Radial†	62503.8	64836.0	10046	µg/L	10046	ppb	15:43:30
1	Sr 421.552†	203729.3	214640.5	506.18	µg/L	506.18	ppb	15:43:28
1	Sc 361.383	1759748.6	1759748.6	97.539	%			15:43:57
1	Y 371.029	1022541.1	1022541.1	96.713	%			15:43:57
1	Ag 328.068†	123986.7	122550.1	507.93	µg/L	507.93	ppb	15:43:57
1	As 188.979†	1302.6	1354.0	465.30	µg/L	465.30	ppb	15:44:17
1	B 249.677†	35597.8	32430.9	502.58	µg/L	502.58	ppb	15:43:57
1	Ba 233.527†	109603.2	112513.4	500.52	µg/L	500.52	ppb	15:43:57
1	Be 313.107†	1653891.1	1696715.9	491.63	µg/L	491.63	ppb	15:43:57
1	Cd 226.502†	73821.0	75787.1	511.92	µg/L	511.92	ppb	15:43:57
1	Co 228.616†	37551.5	38709.3	512.36	µg/L	512.36	ppb	15:43:57
1	Cr 267.716†	57002.2	58207.4	503.45	µg/L	503.45	ppb	15:43:57
1	Cu 324.752†	119682.7	119666.6	502.07	µg/L	502.07	ppb	15:43:57
1	Mn 257.610†	371928.9	381129.1	505.37	µg/L	505.37	ppb	15:43:57
1	Mo 202.031†	15009.1	15426.4	504.96	µg/L	504.96	ppb	15:44:17
1	Ni 231.604†	39713.1	40811.1	510.60	µg/L	510.60	ppb	15:43:57
1	P 214.914†	10634.3	10928.3	2519.3	µg/L	2519.3	ppb	15:44:17
1	Pb 220.353†	8173.8	8276.6	510.91	µg/L	510.91	ppb	15:44:17
1	S 181.975 Axial†	1265.3	1208.3	1020.7	µg/L	1020.7	ppb	15:44:17
1	Sb 206.836†	3875.9	3883.9	501.98	µg/L	501.98	ppb	15:44:17
1	Se 196.026†	1254.0	1279.5	506	µg/L	506	ppb	15:44:17
1	SiO2†	51108.8	50659.4	5343.1	µg/L	5343.1	ppb	15:43:57
1	Si 251.611†	156396.8	159576.1	2506.3	µg/L	2506.3	ppb	15:43:57
1	Sn 189.927†	7025.5	7200.9	501.17	µg/L	501.17	ppb	15:44:17
1	Ti 334.940†	475896.4	487081.8	499.64	µg/L	499.64	ppb	15:43:57
1	Tl 190.801†	3474.4	3676.3	509.51	µg/L	509.51	ppb	15:44:17
1	U 409.014†	6737.3	7070.7	476.83	µg/L	476.83	ppb	15:43:57
1	V 292.402†	94824.6	96794.1	508.37	µg/L	508.37	ppb	15:43:57
1	Zn 213.857†	83913.0	85527.5	506.73	µg/L	506.73	ppb	15:43:57
2	Sc RADIAL	135909.6	135909.6	97.0	%			15:43:34
2	Al 396.153Radial†	22841.9	23623.5	4950.0	µg/L	4950.0	ppb	15:43:34
2	Ca 317.933Radial†	73611.7	75306.1	5129.0	µg/L	5129.0	ppb	15:43:34
2	Fe 238.204 Radial†	65897.2	67808.2	5063.9	µg/L	5063.9	ppb	15:43:34
2	K 766.490 Radial†	13984.3	12920.9	5115.7	µg/L	5115.7	ppb	15:43:34
2	Mg 279.077 IEC†	10995.0	11161.0	5161.6	µg/L	5161.6	ppb	15:43:34
2	Na 589.592 Radial†	64364.3	65393.0	10132	µg/L	10132	ppb	15:43:34
2	Sr 421.552†	203456.2	209923.1	495.06	µg/L	495.06	ppb	15:43:32
2	Sc 361.383	1751043.9	1751043.9	97.056	%			15:44:20
2	Y 371.029	1017854.7	1017854.7	96.269	%			15:44:20
2	Ag 328.068†	123125.9	122295.1	506.88	µg/L	506.88	ppb	15:44:20
2	As 188.979†	1326.5	1385.3	475.88	µg/L	475.88	ppb	15:44:40

2	B 249.677†	35241.1	32244.9	499.69 µg/L	499.69 ppb	15:44:20
2	Ba 233.527†	108697.6	112139.0	498.86 µg/L	498.86 ppb	15:44:20
2	Be 313.107†	1640185.8	1691024.1	489.98 µg/L	489.98 ppb	15:44:20
2	Cd 226.502†	72978.6	75295.4	508.59 µg/L	508.59 ppb	15:44:20
2	Co 228.616†	37280.3	38621.3	511.19 µg/L	511.19 ppb	15:44:20
2	Cr 267.716†	56788.5	58277.7	504.06 µg/L	504.06 ppb	15:44:20
2	Cu 324.752†	118955.9	119527.7	501.49 µg/L	501.49 ppb	15:44:20
2	Mn 257.610†	368785.8	379786.3	503.59 µg/L	503.59 ppb	15:44:20
2	Mo 202.031†	15070.2	15565.9	509.53 µg/L	509.53 ppb	15:44:40
2	Ni 231.604†	39249.9	40536.2	507.16 µg/L	507.16 ppb	15:44:20
2	P 214.914†	10673.2	11022.6	2541.1 µg/L	2541.1 ppb	15:44:40
2	Pb 220.353†	8193.4	8338.4	514.73 µg/L	514.73 ppb	15:44:40
2	S 181.975 Axial†	1261.3	1210.7	1022.8 µg/L	1022.8 ppb	15:44:40
2	Sb 206.836†	3892.0	3920.3	506.72 µg/L	506.72 ppb	15:44:40
2	Se 196.026†	1271.0	1303.4	516 µg/L	516 ppb	15:44:40
2	SiO2†	50633.7	50430.4	5318.7 µg/L	5318.7 ppb	15:44:20
2	Si 251.611†	155056.1	158991.9	2497.0 µg/L	2497.0 ppb	15:44:20
2	Sn 189.927†	7035.5	7246.9	504.36 µg/L	504.36 ppb	15:44:40
2	Ti 334.940†	472243.0	485743.1	498.26 µg/L	498.26 ppb	15:44:20
2	Tl 190.801†	3505.4	3726.0	516.27 µg/L	516.27 ppb	15:44:40
2	U 409.014†	6674.5	7040.3	474.90 µg/L	474.90 ppb	15:44:20
2	V 292.402†	94349.4	96787.8	508.38 µg/L	508.38 ppb	15:44:20
2	Zn 213.857†	83090.8	85108.0	504.25 µg/L	504.25 ppb	15:44:20
3	Sc RADIAL	133727.0	133727.0	95.5 %		15:43:38
3	Al 396.153Radial†	22511.9	23662.1	4958.0 µg/L	4958.0 ppb	15:43:38
3	Ca 317.933Radial†	72508.3	75388.6	5134.6 µg/L	5134.6 ppb	15:43:38
3	Fe 238.204 Radial†	65003.6	67980.7	5076.8 µg/L	5076.8 ppb	15:43:38
3	K 766.490 Radial†	13744.7	12905.2	5109.5 µg/L	5109.5 ppb	15:43:38
3	Mg 279.077 IEC†	10782.2	11123.1	5144.1 µg/L	5144.1 ppb	15:43:38
3	Na 589.592 Radial†	63336.6	65399.2	10133 µg/L	10133 ppb	15:43:38
3	Sr 421.552†	204462.4	214400.2	505.62 µg/L	505.62 ppb	15:43:36
3	Sc 361.383	1741792.1	1741792.1	96.543 %		15:44:43
3	Y 371.029	1012334.8	1012334.8	95.747 %		15:44:43
3	Ag 328.068†	122718.9	122547.4	507.96 µg/L	507.96 ppb	15:44:43
3	As 188.979†	1317.8	1383.5	475.30 µg/L	475.30 ppb	15:45:03
3	B 249.677†	35269.9	32467.5	503.15 µg/L	503.15 ppb	15:44:43
3	Ba 233.527†	108564.9	112596.4	500.89 µg/L	500.89 ppb	15:44:43
3	Be 313.107†	1636785.0	1696477.9	491.57 µg/L	491.57 ppb	15:44:43
3	Cd 226.502†	72741.5	75449.2	509.63 µg/L	509.63 ppb	15:44:43
3	Co 228.616†	37186.3	38728.0	512.61 µg/L	512.61 ppb	15:44:43
3	Cr 267.716†	56645.7	58440.5	505.45 µg/L	505.45 ppb	15:44:43
3	Cu 324.752†	118602.9	119813.1	502.70 µg/L	502.70 ppb	15:44:43
3	Mn 257.610†	368717.3	381733.6	506.17 µg/L	506.17 ppb	15:44:43
3	Mo 202.031†	15029.6	15606.3	510.85 µg/L	510.85 ppb	15:45:03
3	Ni 231.604†	39158.4	40656.3	508.66 µg/L	508.66 ppb	15:44:43
3	P 214.914†	10634.2	11040.6	2545.3 µg/L	2545.3 ppb	15:45:03
3	Pb 220.353†	8195.6	8385.5	517.62 µg/L	517.62 ppb	15:45:03
3	S 181.975 Axial†	1270.0	1226.5	1036.1 µg/L	1036.1 ppb	15:45:03
3	Sb 206.836†	3894.0	3943.7	509.75 µg/L	509.75 ppb	15:45:03
3	Se 196.026†	1257.1	1295.9	513 µg/L	513 ppb	15:45:03
3	SiO2†	50604.8	50677.5	5344.8 µg/L	5344.8 ppb	15:44:43
3	Si 251.611†	154855.5	159632.7	2507.1 µg/L	2507.1 ppb	15:44:43
3	Sn 189.927†	7013.8	7263.0	505.48 µg/L	505.48 ppb	15:45:03
3	Ti 334.940†	471508.6	487566.9	500.12 µg/L	500.12 ppb	15:44:43
3	Tl 190.801†	3476.1	3714.8	514.78 µg/L	514.78 ppb	15:45:03
3	U 409.014†	6981.4	7394.7	497.38 µg/L	497.38 ppb	15:44:43
3	V 292.402†	94174.0	97122.5	510.15 µg/L	510.15 ppb	15:44:43
3	Zn 213.857†	83052.8	85523.3	506.72 µg/L	506.72 ppb	15:44:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1750861.5	97.046	%	0.4977				0.51%
Sc RADIAL	134244.9	95.8	%	1.05				1.10%
Y 371.029	1017576.8	96.243	%	0.4832				0.50%
Ag 328.068†	122464.2	507.59	µg/L	0.614	507.59	ppb	0.614	0.12%
QC value within limits for Ag 328.068 Recovery = 101.52%								
Al 396.153Radial†	23615.8	4948.4	µg/L	10.51	4948.4	ppb	10.51	0.21%
QC value within limits for Al 396.153Radial Recovery = 98.97%								
As 188.979†	1374.3	472.16	µg/L	5.950	472.16	ppb	5.950	1.26%

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   QC value within limits for As 188.979  Recovery = 94.43%
B 249.677†            32381.1      501.81 µg/L        1.854      501.81 ppb         1.854   0.37%
   QC value within limits for B 249.677  Recovery = 100.36%
Ba 233.527†          112416.3      500.09 µg/L        1.083      500.09 ppb         1.083   0.22%
   QC value within limits for Ba 233.527  Recovery = 100.02%
Be 313.107†         1694739.3      491.06 µg/L        0.935      491.06 ppb         0.935   0.19%
   QC value within limits for Be 313.107  Recovery = 98.21%
Ca 317.933Radial†      75077.6      5113.5 µg/L        31.94      5113.5 ppb         31.94   0.62%
   QC value within limits for Ca 317.933Radial  Recovery = 102.27%
Cd 226.502†            75510.6      510.04 µg/L        1.702      510.04 ppb         1.702   0.33%
   QC value within limits for Cd 226.502  Recovery = 102.01%
Co 228.616†            38686.2      512.05 µg/L        0.755      512.05 ppb         0.755   0.15%
   QC value within limits for Co 228.616  Recovery = 102.41%
Cr 267.716†            58308.5      504.32 µg/L        1.026      504.32 ppb         1.026   0.20%
   QC value within limits for Cr 267.716  Recovery = 100.86%
Cu 324.752†           119669.1      502.09 µg/L        0.607      502.09 ppb         0.607   0.12%
   QC value within limits for Cu 324.752  Recovery = 100.42%
Fe 238.204 Radial†     67791.2      5062.6 µg/L        14.83      5062.6 ppb         14.83   0.29%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.25%
K 766.490 Radial†      12953.5      5128.6 µg/L        27.93      5128.6 ppb         27.93   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 102.57%
Mg 279.077 IEC†        11084.1      5126.0 µg/L        47.25      5126.0 ppb         47.25   0.92%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.52%
Mn 257.610†           380883.0      505.04 µg/L        1.323      505.04 ppb         1.323   0.26%
   QC value within limits for Mn 257.610  Recovery = 101.01%
Mo 202.031†            15532.8      508.45 µg/L        3.089      508.45 ppb         3.089   0.61%
   QC value within limits for Mo 202.031  Recovery = 101.69%
Na 589.592 Radial†     65209.4       10103 µg/L         50.1       10103 ppb          50.1   0.50%
   QC value within limits for Na 589.592 Radial  Recovery = 101.03%
Ni 231.604†            40667.9      508.81 µg/L        1.724      508.81 ppb         1.724   0.34%
   QC value within limits for Ni 231.604  Recovery = 101.76%
P 214.914†             10997.2      2535.2 µg/L        13.93      2535.2 ppb         13.93   0.55%
   QC value within limits for P 214.914  Recovery = 101.41%
Pb 220.353†             8333.5      514.42 µg/L        3.363      514.42 ppb         3.363   0.65%
   QC value within limits for Pb 220.353  Recovery = 102.88%
S 181.975 Axial†        1215.1      1026.5 µg/L         8.36      1026.5 ppb          8.36   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 102.65%
Sb 206.836†             3916.0      506.15 µg/L        3.917      506.15 ppb         3.917   0.77%
   QC value within limits for Sb 206.836  Recovery = 101.23%
Se 196.026†             1292.9         512 µg/L          4.8         512 ppb           4.8   0.94%
   QC value within limits for Se 196.026  Recovery = 102.31%
SiO2†                  50589.1      5335.5 µg/L        14.62      5335.5 ppb         14.62   0.27%
   QC value within limits for SiO2  Recovery = 99.78%
Si 251.611†           159400.2      2503.5 µg/L         5.61      2503.5 ppb          5.61   0.22%
   QC value within limits for Si 251.611  Recovery = 100.14%
Sn 189.927†             7237.0      503.67 µg/L        2.236      503.67 ppb         2.236   0.44%
   QC value within limits for Sn 189.927  Recovery = 100.73%
Sr 421.552†           212987.9      502.28 µg/L        6.266      502.28 ppb         6.266   1.25%
   QC value within limits for Sr 421.552  Recovery = 100.46%
Ti 334.940†           486797.3      499.34 µg/L        0.968      499.34 ppb         0.968   0.19%
   QC value within limits for Ti 334.940  Recovery = 99.87%
Tl 190.801†             3705.7      513.52 µg/L        3.555      513.52 ppb         3.555   0.69%
   QC value within limits for Tl 190.801  Recovery = 102.70%
U 409.014†              7168.6      483.04 µg/L       12.456      483.04 ppb        12.456   2.58%
   QC value within limits for U 409.014  Recovery = 96.61%
V 292.402†             96901.4      508.97 µg/L        1.024      508.97 ppb         1.024   0.20%
   QC value within limits for V 292.402  Recovery = 101.79%
Zn 213.857†            85386.2      505.90 µg/L        1.430      505.90 ppb         1.430   0.28%
   QC value within limits for Zn 213.857  Recovery = 101.18%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 15:45:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137482.7	137482.7	98.1	%			15:45:43
1	Al 396.153Radial†	-100.7	-24.1	-5.0958	µg/L	-5.0958	ppb	15:46:03
1	Ca 317.933Radial†	635.3	76.0	5.1731	µg/L	5.1731	ppb	15:46:03
1	Fe 238.204 Radial†	150.4	35.9	2.6831	µg/L	2.6831	ppb	15:46:03
1	K 766.490 Radial†	1592.5	129.0	51.094	µg/L	51.094	ppb	15:45:43
1	Mg 279.077 IEC†	152.3	-17.3	-7.9711	µg/L	-7.9711	ppb	15:46:03
1	Na 589.592 Radial†	1222.2	292.9	45.353	µg/L	45.353	ppb	15:45:43
1	Sr 421.552†	-150.5	51.1	0.1206	µg/L	0.1206	ppb	15:45:43
1	Sc 361.383	1772363.7	1772363.7	98.238	%			15:47:04
1	Y 371.029	1040302.4	1040302.4	98.393	%			15:47:04
1	Ag 328.068†	4076.6	-415.4	-1.7134	µg/L	-1.7134	ppb	15:47:07
1	As 188.979†	-19.8	-1.6	-0.5389	µg/L	-0.5389	ppb	15:47:27
1	B 249.677†	4006.5	13.2	0.2039	µg/L	0.2039	ppb	15:47:07
1	Ba 233.527†	-164.3	-22.7	-0.1008	µg/L	-0.1008	ppb	15:47:27
1	Be 313.107†	-716.7	362.2	0.1019	µg/L	0.1019	ppb	15:47:07
1	Cd 226.502†	-72.7	29.4	0.1984	µg/L	0.1984	ppb	15:47:27
1	Co 228.616†	-175.8	31.4	0.4147	µg/L	0.4147	ppb	15:47:27
1	Cr 267.716†	244.5	15.7	0.1438	µg/L	0.1438	ppb	15:47:27
1	Cu 324.752†	2811.8	-173.9	-0.7351	µg/L	-0.7351	ppb	15:47:07
1	Mn 257.610†	192.2	10.9	0.0148	µg/L	0.0148	ppb	15:47:27
1	Mo 202.031†	-24.6	13.5	0.4431	µg/L	0.4431	ppb	15:47:27
1	Ni 231.604†	-67.5	27.2	0.3401	µg/L	0.3401	ppb	15:47:27
1	P 214.914†	19.9	46.0	10.633	µg/L	10.633	ppb	15:47:27
1	Pb 220.353†	123.7	22.4	1.3877	µg/L	1.3877	ppb	15:47:27
1	S 181.975 Axial†	96.1	8.9	7.5101	µg/L	7.5101	ppb	15:47:27
1	Sb 206.836†	79.4	-8.8	-1.1363	µg/L	-1.1363	ppb	15:47:27
1	Se 196.026†	16.4	10.6	4.16	µg/L	4.16	ppb	15:47:27
1	SiO2†	1750.1	42.4	4.4782	µg/L	4.4782	ppb	15:47:27
1	Si 251.611†	784.8	31.9	0.4952	µg/L	0.4952	ppb	15:47:07
1	Sn 189.927†	4.6	2.8	0.1907	µg/L	0.1907	ppb	15:47:27
1	Ti 334.940†	774.1	-35.0	-0.0311	µg/L	-0.0311	ppb	15:47:07
1	Tl 190.801†	-119.8	-7.7	-1.0533	µg/L	-1.0533	ppb	15:47:27
1	U 409.014†	-316.6	-159.0	-10.034	µg/L	-10.034	ppb	15:47:07
1	V 292.402†	408.8	-7.1	-0.0385	µg/L	-0.0385	ppb	15:47:07
1	Zn 213.857†	552.3	59.2	0.3517	µg/L	0.3517	ppb	15:47:27
2	Sc RADIAL	137847.2	137847.2	98.4	%			15:46:05
2	Al 396.153Radial†	-81.9	-4.7	-1.0206	µg/L	-1.0206	ppb	15:46:25
2	Ca 317.933Radial†	627.0	65.8	4.4790	µg/L	4.4790	ppb	15:46:25
2	Fe 238.204 Radial†	143.1	28.1	2.1004	µg/L	2.1004	ppb	15:46:25
2	K 766.490 Radial†	1465.2	-4.7	-1.8903	µg/L	-1.8903	ppb	15:46:05
2	Mg 279.077 IEC†	173.0	3.3	1.5568	µg/L	1.5568	ppb	15:46:25
2	Na 589.592 Radial†	1236.5	304.1	47.146	µg/L	47.146	ppb	15:46:05
2	Sr 421.552†	-206.9	-5.8	-0.0136	µg/L	-0.0136	ppb	15:46:05
2	Sc 361.383	1766618.9	1766618.9	97.920	%			15:47:29
2	Y 371.029	1037725.2	1037725.2	98.149	%			15:47:29
2	Ag 328.068†	4183.1	-293.2	-1.2037	µg/L	-1.2037	ppb	15:47:31
2	As 188.979†	-21.3	-3.2	-1.0848	µg/L	-1.0848	ppb	15:47:51
2	B 249.677†	4133.4	156.0	2.4266	µg/L	2.4266	ppb	15:47:31
2	Ba 233.527†	-164.4	-23.3	-0.1038	µg/L	-0.1038	ppb	15:47:51
2	Be 313.107†	-575.1	504.4	0.1459	µg/L	0.1459	ppb	15:47:31
2	Cd 226.502†	-74.0	27.8	0.1880	µg/L	0.1880	ppb	15:47:51
2	Co 228.616†	-203.7	2.3	0.0303	µg/L	0.0303	ppb	15:47:51
2	Cr 267.716†	242.2	14.2	0.1230	µg/L	0.1230	ppb	15:47:51
2	Cu 324.752†	2826.5	-149.5	-0.6256	µg/L	-0.6256	ppb	15:47:31
2	Mn 257.610†	206.7	26.4	0.0349	µg/L	0.0349	ppb	15:47:51
2	Mo 202.031†	-22.5	15.6	0.5106	µg/L	0.5106	ppb	15:47:51
2	Ni 231.604†	-59.9	34.8	0.4349	µg/L	0.4349	ppb	15:47:51
2	P 214.914†	16.0	42.0	9.7148	µg/L	9.7148	ppb	15:47:51
2	Pb 220.353†	107.5	6.4	0.3937	µg/L	0.3937	ppb	15:47:51

2	S 181.975 Axial†	92.7	5.7	4.8364 µg/L	4.8364 ppb	15:47:51
2	Sb 206.836†	75.9	-12.2	-1.5651 µg/L	-1.5651 ppb	15:47:51
2	Se 196.026†	9.4	3.4	1.34 µg/L	1.34 ppb	15:47:51
2	SiO2†	1717.3	14.7	1.5425 µg/L	1.5425 ppb	15:47:51
2	Si 251.611†	958.9	212.2	3.3386 µg/L	3.3386 ppb	15:47:31
2	Sn 189.927†	3.7	1.9	0.1343 µg/L	0.1343 ppb	15:47:51
2	Ti 334.940†	689.3	-119.1	-0.1221 µg/L	-0.1221 ppb	15:47:31
2	Tl 190.801†	-113.8	-2.0	-0.2726 µg/L	-0.2726 ppb	15:47:51
2	U 409.014†	-170.0	-10.2	-0.6568 µg/L	-0.6568 ppb	15:47:31
2	V 292.402†	372.6	-42.7	-0.2160 µg/L	-0.2160 ppb	15:47:31
2	Zn 213.857†	529.8	38.1	0.2249 µg/L	0.2249 ppb	15:47:51
3	Sc RADIAL	135226.3	135226.3	96.5 %		15:46:27
3	Al 396.153Radial†	-80.7	-5.0	-1.0788 µg/L	-1.0788 ppb	15:46:47
3	Ca 317.933Radial†	635.8	87.3	5.9451 µg/L	5.9451 ppb	15:46:47
3	Fe 238.204 Radial†	138.2	25.9	1.9354 µg/L	1.9354 ppb	15:46:47
3	K 766.490 Radial†	1553.6	115.7	45.838 µg/L	45.838 ppb	15:46:27
3	Mg 279.077 IEC†	156.0	-10.8	-4.9889 µg/L	-4.9889 ppb	15:46:47
3	Na 589.592 Radial†	1091.9	178.7	27.664 µg/L	27.664 ppb	15:46:27
3	Sr 421.552†	-209.8	-12.8	-0.0303 µg/L	-0.0303 ppb	15:46:27
3	Sc 361.383	1780363.2	1780363.2	98.681 %		15:47:53
3	Y 371.029	1045882.5	1045882.5	98.920 %		15:47:53
3	Ag 328.068†	4206.0	-302.9	-1.2654 µg/L	-1.2654 ppb	15:47:55
3	As 188.979†	-13.8	4.6	1.5490 µg/L	1.5490 ppb	15:48:15
3	B 249.677†	4177.4	168.1	2.6137 µg/L	2.6137 ppb	15:47:55
3	Ba 233.527†	-192.0	-50.0	-0.2218 µg/L	-0.2218 ppb	15:48:15
3	Be 313.107†	-542.2	542.3	0.1495 µg/L	0.1495 ppb	15:47:55
3	Cd 226.502†	-89.5	12.7	0.0856 µg/L	0.0856 ppb	15:48:15
3	Co 228.616†	-188.0	19.8	0.2618 µg/L	0.2618 ppb	15:48:15
3	Cr 267.716†	266.3	36.7	0.3374 µg/L	0.3374 ppb	15:48:15
3	Cu 324.752†	2890.1	-107.4	-0.4697 µg/L	-0.4697 ppb	15:47:55
3	Mn 257.610†	241.7	60.2	0.0800 µg/L	0.0800 ppb	15:48:15
3	Mo 202.031†	-27.6	10.6	0.3472 µg/L	0.3472 ppb	15:48:15
3	Ni 231.604†	-75.2	19.7	0.2470 µg/L	0.2470 ppb	15:48:15
3	P 214.914†	24.9	50.9	11.780 µg/L	11.780 ppb	15:48:15
3	Pb 220.353†	118.9	17.1	1.0706 µg/L	1.0706 ppb	15:48:15
3	S 181.975 Axial†	93.7	6.0	5.0404 µg/L	5.0404 ppb	15:48:15
3	Sb 206.836†	72.2	-16.5	-2.1256 µg/L	-2.1256 ppb	15:48:15
3	Se 196.026†	0.8	-5.3	-2.13 µg/L	-2.13 ppb	15:48:15
3	SiO2†	1726.6	10.6	1.0944 µg/L	1.0944 ppb	15:48:15
3	Si 251.611†	890.9	135.8	2.1284 µg/L	2.1284 ppb	15:47:55
3	Sn 189.927†	18.8	17.2	1.1898 µg/L	1.1898 ppb	15:48:15
3	Ti 334.940†	831.1	19.2	0.0305 µg/L	0.0305 ppb	15:47:55
3	Tl 190.801†	-129.7	-17.2	-2.3405 µg/L	-2.3405 ppb	15:48:15
3	U 409.014†	-555.3	-399.3	-25.171 µg/L	-25.171 ppb	15:47:55
3	V 292.402†	510.9	94.5	0.4775 µg/L	0.4775 ppb	15:47:55
3	Zn 213.857†	554.3	58.7	0.3489 µg/L	0.3489 ppb	15:48:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1773115.3	98.280	%	0.3826				0.39%
Sc RADIAL	136852.1	97.7	%	1.01				1.04%
Y 371.029	1041303.4	98.487	%	0.3944				0.40%
Ag 328.068†	-337.2	-1.3942	µg/L	0.27817	-1.3942	ppb	0.27817	19.95%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-11.3	-2.3984	µg/L	2.33618	-2.3984	ppb	2.33618	97.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.0249	µg/L	1.39008	-0.0249	ppb	1.39008	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	112.5	1.7481	µg/L	1.34056	1.7481	ppb	1.34056	76.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-32.0	-0.1421	µg/L	0.06904	-0.1421	ppb	0.06904	48.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	469.6	0.1324	µg/L	0.02651	0.1324	ppb	0.02651	20.01%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	76.3	5.1991	µg/L	0.73339	5.1991	ppb	0.73339	14.11%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.3	0.1573	µg/L	0.06232	0.1573	ppb	0.06232	39.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.8	0.2356	µg/L	0.19354	0.2356	ppb	0.19354	82.13%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              22.2      0.2014 µg/L       0.11822      0.2014 ppb        0.11822  58.70%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -143.6     -0.6101 µg/L       0.13336     -0.6101 ppb        0.13336  21.86%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       30.0      2.2396 µg/L       0.39285      2.2396 ppb        0.39285  17.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        80.0      31.681 µg/L       29.1919      31.681 ppb        29.1919  92.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -8.3     -3.8011 µg/L       4.87373     -3.8011 ppb        4.87373 128.22%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              32.5      0.0433 µg/L       0.03339      0.0433 ppb        0.03339  77.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              13.3      0.4336 µg/L       0.08210      0.4336 ppb        0.08210  18.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      258.6      40.055 µg/L       10.7676      40.055 ppb        10.7676  26.88%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              27.2      0.3406 µg/L       0.09394      0.3406 ppb        0.09394  27.58%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               46.3      10.709 µg/L        1.0350      10.709 ppb         1.0350   9.66%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              15.3      0.9507 µg/L       0.50776      0.9507 ppb        0.50776  53.41%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.9      5.7956 µg/L       1.48827      5.7956 ppb        1.48827  25.68%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -12.5     -1.6090 µg/L       0.49608     -1.6090 ppb        0.49608  30.83%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.9        1.12 µg/L         3.148        1.12 ppb          3.148 280.27%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    22.6      2.3717 µg/L       1.83795      2.3717 ppb        1.83795  77.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             126.6      1.9874 µg/L       1.42694      1.9874 ppb        1.42694  71.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.3      0.5050 µg/L       0.59378      0.5050 ppb        0.59378 117.59%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              10.8      0.0255 µg/L       0.08273      0.0255 ppb        0.08273 323.94%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -45.0     -0.0409 µg/L       0.07673     -0.0409 ppb        0.07673 187.58%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -8.9     -1.2221 µg/L       1.04426     -1.2221 ppb        1.04426  85.44%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -189.5     -11.954 µg/L       12.3693     -11.954 ppb        12.3693 103.48%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               14.9      0.0743 µg/L       0.36030      0.0743 ppb        0.36030 484.73%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              52.0      0.3085 µg/L       0.07240      0.3085 ppb        0.07240  23.47%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 16:01:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137441.1	137441.1	98.1	%			16:02:25
1	Al 396.153Radial†	23126.1	23650.9	4956.1	µg/L	4956.1	ppb	16:02:25
1	Ca 317.933Radial†	74181.8	75041.7	5111.0	µg/L	5111.0	ppb	16:02:25
1	Fe 238.204 Radial†	66736.2	67906.6	5071.2	µg/L	5071.2	ppb	16:02:25
1	K 766.490 Radial†	14052.6	12829.9	5079.7	µg/L	5079.7	ppb	16:02:25
1	Mg 279.077 IEC†	11050.2	11091.0	5129.0	µg/L	5129.0	ppb	16:02:25
1	Na 589.592 Radial†	64869.6	65168.8	10097	µg/L	10097	ppb	16:02:25
1	Sr 421.552†	206264.5	210448.8	496.30	µg/L	496.30	ppb	16:02:23
1	Sc 361.383	1780080.9	1780080.9	98.666	%			16:02:38
1	Y 371.029	1034406.0	1034406.0	97.835	%			16:02:38
1	Ag 328.068†	125469.6	122601.1	508.16	µg/L	508.16	ppb	16:02:38
1	As 188.979†	1329.9	1366.4	469.48	µg/L	469.48	ppb	16:02:58
1	B 249.677†	35597.1	32013.3	496.09	µg/L	496.09	ppb	16:02:38
1	Ba 233.527†	110724.9	112366.8	499.87	µg/L	499.87	ppb	16:02:38
1	Be 313.107†	1670454.9	1694136.1	490.89	µg/L	490.89	ppb	16:02:38
1	Cd 226.502†	74260.9	75368.4	509.08	µg/L	509.08	ppb	16:02:38
1	Co 228.616†	37941.6	38664.9	511.77	µg/L	511.77	ppb	16:02:38
1	Cr 267.716†	57712.7	58259.9	503.89	µg/L	503.89	ppb	16:02:38
1	Cu 324.752†	120967.7	119567.4	501.67	µg/L	501.67	ppb	16:02:38
1	Mn 257.610†	375204.5	380093.6	504.00	µg/L	504.00	ppb	16:02:38
1	Mo 202.031†	15082.1	15324.6	501.64	µg/L	501.64	ppb	16:02:58
1	Ni 231.604†	39829.9	40464.4	506.26	µg/L	506.26	ppb	16:02:38
1	P 214.914†	10597.0	10766.0	2481.8	µg/L	2481.8	ppb	16:02:58
1	Pb 220.353†	8148.5	8155.2	503.42	µg/L	503.42	ppb	16:02:58
1	S 181.975 Axial†	1264.3	1192.4	1007.4	µg/L	1007.4	ppb	16:02:58
1	Sb 206.836†	3883.0	3845.8	497.00	µg/L	497.00	ppb	16:02:58
1	Se 196.026†	1257.4	1268.2	502	µg/L	502	ppb	16:02:58
1	SiO2†	51490.2	50447.4	5320.9	µg/L	5320.9	ppb	16:02:38
1	Si 251.611†	158107.4	159478.4	2504.8	µg/L	2504.8	ppb	16:02:38
1	Sn 189.927†	7030.7	7123.9	495.82	µg/L	495.82	ppb	16:02:58
1	Ti 334.940†	480453.7	486127.8	498.65	µg/L	498.65	ppb	16:02:38
1	Tl 190.801†	3466.3	3627.5	502.83	µg/L	502.83	ppb	16:02:58
1	U 409.014†	7072.1	7331.1	493.26	µg/L	493.26	ppb	16:02:38
1	V 292.402†	95963.2	96837.7	508.57	µg/L	508.57	ppb	16:02:38
1	Zn 213.857†	84574.9	85215.6	504.90	µg/L	504.90	ppb	16:02:38
2	Sc RADIAL	134965.6	134965.6	96.3	%			16:02:29
2	Al 396.153Radial†	22754.5	23697.5	4965.7	µg/L	4965.7	ppb	16:02:29
2	Ca 317.933Radial†	72687.3	74877.3	5099.8	µg/L	5099.8	ppb	16:02:29
2	Fe 238.204 Radial†	65298.6	67662.0	5052.9	µg/L	5052.9	ppb	16:02:29
2	K 766.490 Radial†	13754.4	12783.1	5061.1	µg/L	5061.1	ppb	16:02:29
2	Mg 279.077 IEC†	10815.0	11053.4	5111.8	µg/L	5111.8	ppb	16:02:29
2	Na 589.592 Radial†	63625.2	65089.8	10085	µg/L	10085	ppb	16:02:29
2	Sr 421.552†	206639.7	214694.4	506.31	µg/L	506.31	ppb	16:02:27
2	Sc 361.383	1758945.5	1758945.5	97.494	%			16:03:01
2	Y 371.029	1022598.2	1022598.2	96.718	%			16:03:01
2	Ag 328.068†	123736.9	122351.9	507.17	µg/L	507.17	ppb	16:03:01
2	As 188.979†	1321.2	1373.7	471.97	µg/L	471.97	ppb	16:03:21
2	B 249.677†	35279.4	32121.0	497.77	µg/L	497.77	ppb	16:03:01
2	Ba 233.527†	109636.5	112598.8	500.90	µg/L	500.90	ppb	16:03:01
2	Be 313.107†	1651699.1	1695241.7	491.21	µg/L	491.21	ppb	16:03:01
2	Cd 226.502†	73145.5	75128.8	507.46	µg/L	507.46	ppb	16:03:01
2	Co 228.616†	37353.2	38523.6	509.90	µg/L	509.90	ppb	16:03:01
2	Cr 267.716†	57231.1	58468.8	505.68	µg/L	505.68	ppb	16:03:01
2	Cu 324.752†	119889.7	119934.9	503.22	µg/L	503.22	ppb	16:03:01
2	Mn 257.610†	371557.8	380922.6	505.10	µg/L	505.10	ppb	16:03:01
2	Mo 202.031†	15021.1	15445.7	505.60	µg/L	505.60	ppb	16:03:21
2	Ni 231.604†	39481.4	40592.1	507.86	µg/L	507.86	ppb	16:03:01
2	P 214.914†	10590.2	10888.0	2510.0	µg/L	2510.0	ppb	16:03:21
2	Pb 220.353†	8140.1	8245.9	509.00	µg/L	509.00	ppb	16:03:21

2	S 181.975 Axial†	1241.5	1184.5	1000.7 µg/L	1000.7 ppb	16:03:21
2	Sb 206.836†	3875.1	3884.9	502.08 µg/L	502.08 ppb	16:03:21
2	Se 196.026†	1260.1	1286.3	509 µg/L	509 ppb	16:03:21
2	SiO2†	51107.0	50681.4	5345.4 µg/L	5345.4 ppb	16:03:01
2	Si 251.611†	156416.6	159669.7	2507.8 µg/L	2507.8 ppb	16:03:01
2	Sn 189.927†	7021.7	7200.3	501.13 µg/L	501.13 ppb	16:03:21
2	Ti 334.940†	475720.5	487124.2	499.66 µg/L	499.66 ppb	16:03:01
2	Tl 190.801†	3486.4	3690.3	511.43 µg/L	511.43 ppb	16:03:21
2	U 409.014†	7302.4	7653.4	513.61 µg/L	513.61 ppb	16:03:01
2	V 292.402†	94816.8	96830.5	508.60 µg/L	508.60 ppb	16:03:01
2	Zn 213.857†	83551.7	85196.1	504.77 µg/L	504.77 ppb	16:03:01
3	Sc RADIAL	135464.0	135464.0	96.7 %		16:02:33
3	Al 396.153Radial†	22756.1	23612.2	4947.9 µg/L	4947.9 ppb	16:02:33
3	Ca 317.933Radial†	73079.3	75005.1	5108.5 µg/L	5108.5 ppb	16:02:33
3	Fe 238.204 Radial†	65659.6	67786.0	5062.2 µg/L	5062.2 ppb	16:02:33
3	K 766.490 Radial†	13865.1	12845.1	5085.7 µg/L	5085.7 ppb	16:02:33
3	Mg 279.077 IEC†	10781.0	10977.0	5076.5 µg/L	5076.5 ppb	16:02:33
3	Na 589.592 Radial†	63870.7	65100.7	10087 µg/L	10087 ppb	16:02:33
3	Sr 421.552†	206746.3	214015.5	504.71 µg/L	504.71 ppb	16:02:31
3	Sc 361.383	1771677.5	1771677.5	98.200 %		16:03:24
3	Y 371.029	1029288.7	1029288.7	97.351 %		16:03:24
3	Ag 328.068†	124628.6	122347.9	507.15 µg/L	507.15 ppb	16:03:24
3	As 188.979†	1307.3	1349.9	463.90 µg/L	463.90 ppb	16:03:44
3	B 249.677†	35691.9	32281.0	500.25 µg/L	500.25 ppb	16:03:24
3	Ba 233.527†	110324.8	112491.6	500.42 µg/L	500.42 ppb	16:03:24
3	Be 313.107†	1664896.5	1696506.2	491.58 µg/L	491.58 ppb	16:03:24
3	Cd 226.502†	73762.1	75217.5	508.06 µg/L	508.06 ppb	16:03:24
3	Co 228.616†	37707.2	38608.7	511.03 µg/L	511.03 ppb	16:03:24
3	Cr 267.716†	57702.0	58526.5	506.18 µg/L	506.18 ppb	16:03:24
3	Cu 324.752†	120899.8	120079.8	503.82 µg/L	503.82 ppb	16:03:24
3	Mn 257.610†	374321.1	380997.8	505.20 µg/L	505.20 ppb	16:03:24
3	Mo 202.031†	15058.0	15372.6	503.21 µg/L	503.21 ppb	16:03:44
3	Ni 231.604†	39761.7	40586.5	507.79 µg/L	507.79 ppb	16:03:24
3	P 214.914†	10605.6	10825.7	2495.6 µg/L	2495.6 ppb	16:03:44
3	Pb 220.353†	8186.0	8232.6	508.18 µg/L	508.18 ppb	16:03:44
3	S 181.975 Axial†	1260.5	1194.7	1009.3 µg/L	1009.3 ppb	16:03:44
3	Sb 206.836†	3888.7	3870.2	500.14 µg/L	500.14 ppb	16:03:44
3	Se 196.026†	1265.5	1282.5	507 µg/L	507 ppb	16:03:44
3	SiO2†	51600.1	50806.9	5358.8 µg/L	5358.8 ppb	16:03:24
3	Si 251.611†	157675.1	159798.3	2509.9 µg/L	2509.9 ppb	16:03:24
3	Sn 189.927†	7027.2	7154.1	497.92 µg/L	497.92 ppb	16:03:44
3	Ti 334.940†	478799.9	486753.5	499.29 µg/L	499.29 ppb	16:03:24
3	Tl 190.801†	3497.8	3676.2	509.50 µg/L	509.50 ppb	16:03:44
3	U 409.014†	7275.0	7571.7	508.47 µg/L	508.47 ppb	16:03:24
3	V 292.402†	95572.1	96900.8	508.93 µg/L	508.93 ppb	16:03:24
3	Zn 213.857†	84120.5	85159.4	504.55 µg/L	504.55 ppb	16:03:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1770234.6	98.120	%	0.5898				0.60%
Sc RADIAL	135956.9	97.0	%	0.93				0.96%
Y 371.029	1028764.3	97.301	%	0.5600				0.58%
Ag 328.068†	122433.6	507.49	µg/L	0.580	507.49	ppb	0.580	0.11%
QC value within limits for Ag 328.068 Recovery = 101.50%								
Al 396.153Radial†	23653.5	4956.6	µg/L	8.93	4956.6	ppb	8.93	0.18%
QC value within limits for Al 396.153Radial Recovery = 99.13%								
As 188.979†	1363.3	468.45	µg/L	4.132	468.45	ppb	4.132	0.88%
QC value within limits for As 188.979 Recovery = 93.69%								
B 249.677†	32138.5	498.04	µg/L	2.095	498.04	ppb	2.095	0.42%
QC value within limits for B 249.677 Recovery = 99.61%								
Ba 233.527†	112485.7	500.39	µg/L	0.517	500.39	ppb	0.517	0.10%
QC value within limits for Ba 233.527 Recovery = 100.08%								
Be 313.107†	1695294.7	491.23	µg/L	0.346	491.23	ppb	0.346	0.07%
QC value within limits for Be 313.107 Recovery = 98.25%								
Ca 317.933Radial†	74974.7	5106.5	µg/L	5.88	5106.5	ppb	5.88	0.12%
QC value within limits for Ca 317.933Radial Recovery = 102.13%								
Cd 226.502†	75238.2	508.20	µg/L	0.818	508.20	ppb	0.818	0.16%
QC value within limits for Cd 226.502 Recovery = 101.64%								
Co 228.616†	38599.1	510.90	µg/L	0.940	510.90	ppb	0.940	0.18%

```
   QC value within limits for Co 228.616  Recovery = 102.18%
Cr 267.716†            58418.4      505.25 µg/L        1.206      505.25 ppb          1.206   0.24%
   QC value within limits for Cr 267.716  Recovery = 101.05%
Cu 324.752†           119860.7      502.91 µg/L        1.110      502.91 ppb          1.110   0.22%
   QC value within limits for Cu 324.752  Recovery = 100.58%
Fe 238.204 Radial†     67784.8      5062.1 µg/L         9.13      5062.1 ppb           9.13   0.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.24%
K 766.490 Radial†      12819.4      5075.5 µg/L        12.81      5075.5 ppb          12.81   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 101.51%
Mg 279.077 IEC†        11040.4      5105.8 µg/L        26.80      5105.8 ppb          26.80   0.52%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.12%
Mn 257.610†           380671.3      504.76 µg/L        0.666      504.76 ppb          0.666   0.13%
   QC value within limits for Mn 257.610  Recovery = 100.95%
Mo 202.031†            15381.0      503.48 µg/L        1.994      503.48 ppb          1.994   0.40%
   QC value within limits for Mo 202.031  Recovery = 100.70%
Na 589.592 Radial†     65119.8       10090 µg/L          6.6       10090 ppb            6.6   0.07%
   QC value within limits for Na 589.592 Radial  Recovery = 100.90%
Ni 231.604†            40547.7      507.30 µg/L        0.902      507.30 ppb          0.902   0.18%
   QC value within limits for Ni 231.604  Recovery = 101.46%
P 214.914†             10826.6      2495.8 µg/L        14.12      2495.8 ppb          14.12   0.57%
   QC value within limits for P 214.914  Recovery = 99.83%
Pb 220.353†             8211.2      506.87 µg/L        3.010      506.87 ppb          3.010   0.59%
   QC value within limits for Pb 220.353  Recovery = 101.37%
S 181.975 Axial†        1190.5      1005.8 µg/L         4.51      1005.8 ppb           4.51   0.45%
   QC value within limits for S 181.975 Axial  Recovery = 100.58%
Sb 206.836†             3867.0      499.74 µg/L        2.565      499.74 ppb          2.565   0.51%
   QC value within limits for Sb 206.836  Recovery = 99.95%
Se 196.026†             1279.0         506 µg/L          3.8         506 ppb            3.8   0.75%
   QC value within limits for Se 196.026  Recovery = 101.22%
SiO2†                  50645.2      5341.7 µg/L        19.27      5341.7 ppb          19.27   0.36%
   QC value within limits for SiO2  Recovery = 99.89%
Si 251.611†           159648.8      2507.5 µg/L         2.52      2507.5 ppb           2.52   0.10%
   QC value within limits for Si 251.611  Recovery = 100.30%
Sn 189.927†             7159.5      498.29 µg/L        2.670      498.29 ppb          2.670   0.54%
   QC value within limits for Sn 189.927  Recovery = 99.66%
Sr 421.552†           213052.9      502.44 µg/L        5.379      502.44 ppb          5.379   1.07%
   QC value within limits for Sr 421.552  Recovery = 100.49%
Ti 334.940†           486668.5      499.20 µg/L        0.513      499.20 ppb          0.513   0.10%
   QC value within limits for Ti 334.940  Recovery = 99.84%
Tl 190.801†             3664.7      507.92 µg/L        4.515      507.92 ppb          4.515   0.89%
   QC value within limits for Tl 190.801  Recovery = 101.58%
U 409.014†              7518.7      505.12 µg/L       10.582      505.12 ppb         10.582   2.09%
   QC value within limits for U 409.014  Recovery = 101.02%
V 292.402†             96856.3      508.70 µg/L        0.203      508.70 ppb          0.203   0.04%
   QC value within limits for V 292.402  Recovery = 101.74%
Zn 213.857†            85190.4      504.74 µg/L        0.175      504.74 ppb          0.175   0.03%
   QC value within limits for Zn 213.857  Recovery = 100.95%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 16:03:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138669.5	138669.5	99.0	%			16:04:23
1	Al 396.153Radial†	-103.5	-26.0	-5.5000	µg/L	-5.5000	ppb	16:04:43
1	Ca 317.933Radial†	645.5	80.7	5.4983	µg/L	5.4983	ppb	16:04:43
1	Fe 238.204 Radial†	168.8	53.2	3.9737	µg/L	3.9737	ppb	16:04:43
1	K 766.490 Radial†	1571.9	94.2	37.333	µg/L	37.333	ppb	16:04:23
1	Mg 279.077 IEC†	184.4	13.9	6.4106	µg/L	6.4106	ppb	16:04:43
1	Na 589.592 Radial†	1228.0	288.1	44.623	µg/L	44.623	ppb	16:04:23
1	Sr 421.552†	-170.7	32.1	0.0756	µg/L	0.0756	ppb	16:04:23
1	Sc 361.383	1766148.8	1766148.8	97.894	%			16:05:30
1	Y 371.029	1037911.6	1037911.6	98.166	%			16:05:30
1	Ag 328.068†	4027.7	-450.8	-1.8544	µg/L	-1.8544	ppb	16:05:33
1	As 188.979†	-10.5	7.8	2.6473	µg/L	2.6473	ppb	16:05:53
1	B 249.677†	4122.5	146.0	2.2711	µg/L	2.2711	ppb	16:05:33
1	Ba 233.527†	-147.3	-6.0	-0.0264	µg/L	-0.0264	ppb	16:05:53
1	Be 313.107†	-668.8	408.6	0.1159	µg/L	0.1159	ppb	16:05:33
1	Cd 226.502†	-82.1	19.5	0.1319	µg/L	0.1319	ppb	16:05:53
1	Co 228.616†	-209.5	-3.7	-0.0494	µg/L	-0.0494	ppb	16:05:53
1	Cr 267.716†	267.6	40.2	0.3540	µg/L	0.3540	ppb	16:05:53
1	Cu 324.752†	2875.8	-98.5	-0.4178	µg/L	-0.4178	ppb	16:05:33
1	Mn 257.610†	251.2	71.9	0.0951	µg/L	0.0951	ppb	16:05:53
1	Mo 202.031†	-27.1	10.8	0.3551	µg/L	0.3551	ppb	16:05:53
1	Ni 231.604†	-36.0	59.1	0.7398	µg/L	0.7398	ppb	16:05:53
1	P 214.914†	4.1	29.9	6.9087	µg/L	6.9087	ppb	16:05:53
1	Pb 220.353†	110.7	9.6	0.5957	µg/L	0.5957	ppb	16:05:53
1	S 181.975 Axial†	92.6	5.7	4.7961	µg/L	4.7961	ppb	16:05:53
1	Sb 206.836†	79.3	-8.7	-1.1206	µg/L	-1.1206	ppb	16:05:53
1	Se 196.026†	7.7	1.8	0.688	µg/L	0.688	ppb	16:05:53
1	SiO2†	1754.6	53.2	5.6207	µg/L	5.6207	ppb	16:05:33
1	Si 251.611†	1245.9	505.6	7.9656	µg/L	7.9656	ppb	16:05:33
1	Sn 189.927†	8.5	6.8	0.4689	µg/L	0.4689	ppb	16:05:53
1	Ti 334.940†	599.9	-210.2	-0.2130	µg/L	-0.2130	ppb	16:05:33
1	Tl 190.801†	-115.4	-3.6	-0.4909	µg/L	-0.4909	ppb	16:05:53
1	U 409.014†	-286.7	-129.5	-8.1679	µg/L	-8.1679	ppb	16:05:33
1	V 292.402†	433.4	19.5	0.1005	µg/L	0.1005	ppb	16:05:33
1	Zn 213.857†	594.2	104.0	0.6157	µg/L	0.6157	ppb	16:05:53
2	Sc RADIAL	136792.5	136792.5	97.6	%			16:04:45
2	Al 396.153Radial†	-63.2	13.8	2.8629	µg/L	2.8629	ppb	16:05:05
2	Ca 317.933Radial†	639.2	83.2	5.6649	µg/L	5.6649	ppb	16:05:05
2	Fe 238.204 Radial†	130.1	15.9	1.1904	µg/L	1.1904	ppb	16:05:05
2	K 766.490 Radial†	1722.6	270.4	107.12	µg/L	107.12	ppb	16:04:45
2	Mg 279.077 IEC†	186.7	18.8	8.6918	µg/L	8.6918	ppb	16:05:05
2	Na 589.592 Radial†	1264.2	342.1	52.940	µg/L	52.940	ppb	16:04:45
2	Sr 421.552†	-266.4	-68.4	-0.1613	µg/L	-0.1613	ppb	16:04:45
2	Sc 361.383	1766912.1	1766912.1	97.936	%			16:05:55
2	Y 371.029	1038566.5	1038566.5	98.228	%			16:05:55
2	Ag 328.068†	4110.0	-368.6	-1.5328	µg/L	-1.5328	ppb	16:05:57
2	As 188.979†	-19.5	-1.4	-0.4633	µg/L	-0.4633	ppb	16:06:17
2	B 249.677†	4053.3	73.6	1.1446	µg/L	1.1446	ppb	16:05:57
2	Ba 233.527†	-168.8	-27.8	-0.1235	µg/L	-0.1235	ppb	16:06:17
2	Be 313.107†	-892.7	180.2	0.0470	µg/L	0.0470	ppb	16:05:57
2	Cd 226.502†	-84.5	17.1	0.1157	µg/L	0.1157	ppb	16:06:17
2	Co 228.616†	-194.7	11.5	0.1523	µg/L	0.1523	ppb	16:06:17
2	Cr 267.716†	276.5	49.2	0.4386	µg/L	0.4386	ppb	16:06:17
2	Cu 324.752†	2811.8	-165.0	-0.7040	µg/L	-0.7040	ppb	16:05:57
2	Mn 257.610†	223.0	42.9	0.0566	µg/L	0.0566	ppb	16:06:17
2	Mo 202.031†	-14.2	24.1	0.7879	µg/L	0.7879	ppb	16:06:17
2	Ni 231.604†	-50.9	43.9	0.5491	µg/L	0.5491	ppb	16:06:17
2	P 214.914†	31.6	57.9	13.409	µg/L	13.409	ppb	16:06:17
2	Pb 220.353†	118.9	17.9	1.1176	µg/L	1.1176	ppb	16:06:17

2	S 181.975 Axial†	97.0	10.2	8.5620 µg/L	8.5620 ppb	16:06:17
2	Sb 206.836†	76.1	-12.0	-1.5474 µg/L	-1.5474 ppb	16:06:17
2	Se 196.026†	17.1	11.3	4.43 µg/L	4.43 ppb	16:06:17
2	SiO2†	1896.7	197.6	20.894 µg/L	20.894 ppb	16:05:57
2	Si 251.611†	1284.2	544.3	8.5685 µg/L	8.5685 ppb	16:05:57
2	Sn 189.927†	8.9	7.2	0.4974 µg/L	0.4974 ppb	16:06:17
2	Ti 334.940†	629.3	-180.5	-0.1790 µg/L	-0.1790 ppb	16:05:57
2	Tl 190.801†	-109.6	2.4	0.3201 µg/L	0.3201 ppb	16:06:17
2	U 409.014†	-426.5	-272.2	-17.190 µg/L	-17.190 ppb	16:05:57
2	V 292.402†	368.9	-46.5	-0.2428 µg/L	-0.2428 ppb	16:05:57
2	Zn 213.857†	594.0	103.5	0.6150 µg/L	0.6150 ppb	16:06:17
3	Sc RADIAL	137687.6	137687.6	98.3 %		16:05:07
3	Al 396.153Radial†	-68.7	8.6	1.8049 µg/L	1.8049 ppb	16:05:27
3	Ca 317.933Radial†	610.6	49.8	3.3934 µg/L	3.3934 ppb	16:05:27
3	Fe 238.204 Radial†	138.9	24.1	1.7962 µg/L	1.7962 ppb	16:05:27
3	K 766.490 Radial†	1566.4	99.9	39.592 µg/L	39.592 ppb	16:05:07
3	Mg 279.077 IEC†	182.4	13.1	6.0767 µg/L	6.0767 ppb	16:05:27
3	Na 589.592 Radial†	1089.0	155.5	24.066 µg/L	24.066 ppb	16:05:07
3	Sr 421.552†	-228.5	-28.0	-0.0660 µg/L	-0.0660 ppb	16:05:07
3	Sc 361.383	1777266.9	1777266.9	98.510 %		16:06:19
3	Y 371.029	1044113.1	1044113.1	98.753 %		16:06:19
3	Ag 328.068†	4032.1	-472.1	-1.9340 µg/L	-1.9340 ppb	16:06:21
3	As 188.979†	-13.7	4.6	1.5704 µg/L	1.5704 ppb	16:06:41
3	B 249.677†	4267.3	266.7	4.1474 µg/L	4.1474 ppb	16:06:21
3	Ba 233.527†	-114.9	27.9	0.1244 µg/L	0.1244 ppb	16:06:41
3	Be 313.107†	-652.6	429.2	0.1231 µg/L	0.1231 ppb	16:06:21
3	Cd 226.502†	-64.0	38.4	0.2594 µg/L	0.2594 ppb	16:06:41
3	Co 228.616†	-202.7	4.5	0.0597 µg/L	0.0597 ppb	16:06:41
3	Cr 267.716†	247.2	17.7	0.1567 µg/L	0.1567 ppb	16:06:41
3	Cu 324.752†	2636.6	-359.6	-1.5068 µg/L	-1.5068 ppb	16:06:21
3	Mn 257.610†	219.2	37.8	0.0499 µg/L	0.0499 ppb	16:06:41
3	Mo 202.031†	-28.4	9.7	0.3182 µg/L	0.3182 ppb	16:06:41
3	Ni 231.604†	-62.6	32.4	0.4048 µg/L	0.4048 ppb	16:06:41
3	P 214.914†	1.4	27.1	6.2915 µg/L	6.2915 ppb	16:06:41
3	Pb 220.353†	123.5	21.9	1.3506 µg/L	1.3506 ppb	16:06:41
3	S 181.975 Axial†	89.9	2.3	1.9427 µg/L	1.9427 ppb	16:06:41
3	Sb 206.836†	84.9	-3.5	-0.4445 µg/L	-0.4445 ppb	16:06:41
3	Se 196.026†	21.6	15.7	6.20 µg/L	6.20 ppb	16:06:41
3	SiO2†	1839.5	128.3	13.559 µg/L	13.559 ppb	16:06:21
3	Si 251.611†	1443.3	698.1	10.997 µg/L	10.997 ppb	16:06:21
3	Sn 189.927†	17.1	15.5	1.0724 µg/L	1.0724 ppb	16:06:41
3	Ti 334.940†	832.9	22.5	0.0243 µg/L	0.0243 ppb	16:06:21
3	Tl 190.801†	-111.5	1.1	0.1536 µg/L	0.1536 ppb	16:06:41
3	U 409.014†	-224.1	-64.2	-4.0316 µg/L	-4.0316 ppb	16:06:21
3	V 292.402†	474.2	58.1	0.3023 µg/L	0.3023 ppb	16:06:21
3	Zn 213.857†	578.0	83.7	0.4985 µg/L	0.4985 ppb	16:06:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1770109.3	98.113	%	0.3442				0.35%
Sc RADIAL	137716.5	98.3	%	0.67				0.68%
Y 371.029	1040197.1	98.383	%	0.3223				0.33%
Ag 328.068†	-430.5	-1.7737	µg/L	0.21243	-1.7737	ppb	0.21243	11.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.2	-0.2774	µg/L	4.55371	-0.2774	ppb	4.55371	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.7	1.2515	µg/L	1.57964	1.2515	ppb	1.57964	126.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	162.1	2.5210	µg/L	1.51690	2.5210	ppb	1.51690	60.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.0	-0.0085	µg/L	0.12492	-0.0085	ppb	0.12492	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	339.3	0.0953	µg/L	0.04200	0.0953	ppb	0.04200	44.05%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	71.2	4.8522	µg/L	1.26614	4.8522	ppb	1.26614	26.09%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	25.0	0.1690	µg/L	0.07871	0.1690	ppb	0.07871	46.58%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.1	0.0542	µg/L	0.10096	0.0542	ppb	0.10096	186.36%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              35.7      0.3164 µg/L       0.14464      0.3164 ppb        0.14464  45.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -207.7     -0.8762 µg/L       0.56457     -0.8762 ppb        0.56457  64.43%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       31.1      2.3201 µg/L       1.46372      2.3201 ppb        1.46372  63.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       154.8     61.350 µg/L       39.6584     61.350 ppb        39.6584  64.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          15.3      7.0597 µg/L       1.42327      7.0597 ppb        1.42327  20.16%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              50.9      0.0672 µg/L       0.02437      0.0672 ppb        0.02437  36.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              14.9      0.4871 µg/L       0.26115      0.4871 ppb        0.26115  53.62%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      261.9     40.543 µg/L       14.8631     40.543 ppb        14.8631  36.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              45.1      0.5646 µg/L       0.16805      0.5646 ppb        0.16805  29.77%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               38.3      8.8697 µg/L       3.94313      8.8697 ppb        3.94313  44.46%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              16.5      1.0213 µg/L       0.38655      1.0213 ppb        0.38655  37.85%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.1      5.1003 µg/L       3.32013      5.1003 ppb        3.32013  65.10%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -8.1     -1.0375 µg/L       0.55609     -1.0375 ppb        0.55609  53.60%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               9.6        3.77 µg/L         2.814        3.77 ppb          2.814  74.60%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   126.4     13.358 µg/L        7.6387     13.358 ppb         7.6387  57.19%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             582.7      9.1772 µg/L       1.60491      9.1772 ppb        1.60491  17.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.8      0.6796 µg/L       0.34053      0.6796 ppb        0.34053  50.11%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -21.4     -0.0506 µg/L       0.11919     -0.0506 ppb        0.11919 235.59%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -122.7     -0.1226 µg/L       0.12835     -0.1226 ppb        0.12835 104.73%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.0     -0.0057 µg/L       0.42837     -0.0057 ppb        0.42837 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -155.3     -9.7965 µg/L       6.72862     -9.7965 ppb        6.72862  68.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               10.4      0.0533 µg/L       0.27557      0.0533 ppb        0.27557 516.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              97.1      0.5764 µg/L       0.06747      0.5764 ppb        0.06747  11.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 16:19:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137604.4	137604.4	98.2	%			16:19:33
1	Al 396.153Radial†	23265.4	23764.7	4979.8	µg/L	4979.8	ppb	16:19:33
1	Ca 317.933Radial†	73511.3	74269.3	5058.4	µg/L	5058.4	ppb	16:19:33
1	Fe 238.204 Radial†	66069.9	67147.4	5014.5	µg/L	5014.5	ppb	16:19:33
1	K 766.490 Radial†	14036.0	12796.0	5066.3	µg/L	5066.3	ppb	16:19:33
1	Mg 279.077 IEC†	10906.4	10931.2	5055.4	µg/L	5055.4	ppb	16:19:33
1	Na 589.592 Radial†	64505.4	64719.4	10028	µg/L	10028	ppb	16:19:33
1	Sr 421.552†	207110.0	211060.1	497.74	µg/L	497.74	ppb	16:19:31
1	Sc 361.383	1768540.2	1768540.2	98.026	%			16:20:00
1	Y 371.029	1028377.0	1028377.0	97.265	%			16:20:00
1	Ag 328.068†	123829.4	121757.8	504.71	µg/L	504.71	ppb	16:20:00
1	As 188.979†	1317.7	1362.8	468.24	µg/L	468.24	ppb	16:20:20
1	B 249.677†	35264.2	31909.1	494.48	µg/L	494.48	ppb	16:20:00
1	Ba 233.527†	109485.3	111834.5	497.50	µg/L	497.50	ppb	16:20:00
1	Be 313.107†	1653200.5	1687582.2	488.99	µg/L	488.99	ppb	16:20:00
1	Cd 226.502†	72662.3	74228.9	501.38	µg/L	501.38	ppb	16:20:00
1	Co 228.616†	37380.2	38343.2	507.52	µg/L	507.52	ppb	16:20:00
1	Cr 267.716†	57129.9	58047.1	502.04	µg/L	502.04	ppb	16:20:00
1	Cu 324.752†	120316.1	119702.8	502.24	µg/L	502.24	ppb	16:20:00
1	Mn 257.610†	371454.5	378749.6	502.22	µg/L	502.22	ppb	16:20:00
1	Mo 202.031†	15119.8	15462.8	506.15	µg/L	506.15	ppb	16:20:20
1	Ni 231.604†	39263.8	40150.3	502.33	µg/L	502.33	ppb	16:20:00
1	P 214.914†	10620.5	10860.0	2503.5	µg/L	2503.5	ppb	16:20:20
1	Pb 220.353†	8173.6	8234.7	508.32	µg/L	508.32	ppb	16:20:20
1	S 181.975 Axial†	1250.0	1186.2	1002.2	µg/L	1002.2	ppb	16:20:20
1	Sb 206.836†	3898.3	3887.0	502.40	µg/L	502.40	ppb	16:20:20
1	Se 196.026†	1268.6	1288.0	510	µg/L	510	ppb	16:20:20
1	SiO2†	50966.8	50254.0	5300.2	µg/L	5300.2	ppb	16:20:00
1	Si 251.611†	156067.0	158442.7	2488.4	µg/L	2488.4	ppb	16:20:00
1	Sn 189.927†	7007.5	7146.7	497.40	µg/L	497.40	ppb	16:20:20
1	Ti 334.940†	477326.7	486115.5	498.64	µg/L	498.64	ppb	16:20:00
1	Tl 190.801†	3498.3	3683.0	510.42	µg/L	510.42	ppb	16:20:20
1	U 409.014†	7242.2	7551.4	507.08	µg/L	507.08	ppb	16:20:00
1	V 292.402†	95032.7	96523.1	506.99	µg/L	506.99	ppb	16:20:00
1	Zn 213.857†	83237.5	84410.6	500.12	µg/L	500.12	ppb	16:20:00
2	Sc RADIAL	136557.4	136557.4	97.5	%			16:19:38
2	Al 396.153Radial†	23142.2	23820.0	4991.5	µg/L	4991.5	ppb	16:19:38
2	Ca 317.933Radial†	73311.9	74638.6	5083.6	µg/L	5083.6	ppb	16:19:38
2	Fe 238.204 Radial†	65802.5	67388.9	5032.6	µg/L	5032.6	ppb	16:19:38
2	K 766.490 Radial†	13986.7	12855.1	5089.7	µg/L	5089.7	ppb	16:19:38
2	Mg 279.077 IEC†	10870.2	10979.2	5077.5	µg/L	5077.5	ppb	16:19:38
2	Na 589.592 Radial†	64471.7	65188.4	10100	µg/L	10100	ppb	16:19:38
2	Sr 421.552†	207824.9	213410.1	503.28	µg/L	503.28	ppb	16:19:35
2	Sc 361.383	1770312.3	1770312.3	98.124	%			16:20:23
2	Y 371.029	1028774.0	1028774.0	97.302	%			16:20:23
2	Ag 328.068†	124018.0	121823.5	504.97	µg/L	504.97	ppb	16:20:23
2	As 188.979†	1309.7	1353.3	465.05	µg/L	465.05	ppb	16:20:44
2	B 249.677†	35386.0	31997.2	495.85	µg/L	495.85	ppb	16:20:23
2	Ba 233.527†	109903.8	112149.3	498.90	µg/L	498.90	ppb	16:20:23
2	Be 313.107†	1660911.2	1693752.2	490.78	µg/L	490.78	ppb	16:20:23
2	Cd 226.502†	73058.4	74558.3	503.61	µg/L	503.61	ppb	16:20:23
2	Co 228.616†	37412.7	38338.2	507.45	µg/L	507.45	ppb	16:20:23
2	Cr 267.716†	57285.7	58147.6	502.91	µg/L	502.91	ppb	16:20:23
2	Cu 324.752†	120681.1	119951.9	503.28	µg/L	503.28	ppb	16:20:23
2	Mn 257.610†	372727.2	379667.4	503.43	µg/L	503.43	ppb	16:20:23
2	Mo 202.031†	15100.6	15427.8	505.01	µg/L	505.01	ppb	16:20:44
2	Ni 231.604†	39607.6	40460.6	506.21	µg/L	506.21	ppb	16:20:23
2	P 214.914†	10592.3	10820.5	2494.4	µg/L	2494.4	ppb	16:20:44
2	Pb 220.353†	8161.3	8213.9	507.04	µg/L	507.04	ppb	16:20:44

2	S 181.975 Axial†	1250.6	1185.6	1001.6 µg/L	1001.6 ppb	16:20:44
2	Sb 206.836†	3870.4	3854.7	498.20 µg/L	498.20 ppb	16:20:44
2	Se 196.026†	1242.7	1260.3	499 µg/L	499 ppb	16:20:44
2	SiO2†	51359.5	50602.2	5337.1 µg/L	5337.1 ppb	16:20:23
2	Si 251.611†	157263.7	159502.8	2505.2 µg/L	2505.2 ppb	16:20:23
2	Sn 189.927†	7016.5	7148.7	497.55 µg/L	497.55 ppb	16:20:44
2	Ti 334.940†	478880.2	487211.3	499.76 µg/L	499.76 ppb	16:20:23
2	Tl 190.801†	3493.9	3675.0	509.33 µg/L	509.33 ppb	16:20:44
2	U 409.014†	7209.0	7510.2	504.45 µg/L	504.45 ppb	16:20:23
2	V 292.402†	95025.1	96418.4	506.44 µg/L	506.44 ppb	16:20:23
2	Zn 213.857†	83526.0	84619.7	501.34 µg/L	501.34 ppb	16:20:23
3	Sc RADIAL	137144.5	137144.5	97.9 %		16:19:42
3	Al 396.153Radial†	22973.1	23545.5	4933.7 µg/L	4933.7 ppb	16:19:42
3	Ca 317.933Radial†	73480.1	74488.4	5073.3 µg/L	5073.3 ppb	16:19:42
3	Fe 238.204 Radial†	65879.2	67178.2	5016.8 µg/L	5016.8 ppb	16:19:42
3	K 766.490 Radial†	14084.7	12893.7	5105.0 µg/L	5105.0 ppb	16:19:42
3	Mg 279.077 IEC†	10857.1	10918.0	5049.3 µg/L	5049.3 ppb	16:19:42
3	Na 589.592 Radial†	64306.1	64736.1	10030 µg/L	10030 ppb	16:19:42
3	Sr 421.552†	208207.9	212888.7	502.05 µg/L	502.05 ppb	16:19:40
3	Sc 361.383	1779849.1	1779849.1	98.653 %		16:20:47
3	Y 371.029	1034591.8	1034591.8	97.852 %		16:20:47
3	Ag 328.068†	124313.4	121445.7	503.44 µg/L	503.44 ppb	16:20:47
3	As 188.979†	1327.4	1364.1	468.69 µg/L	468.69 ppb	16:21:07
3	B 249.677†	35673.8	32095.8	497.38 µg/L	497.38 ppb	16:20:47
3	Ba 233.527†	110329.9	111980.9	498.15 µg/L	498.15 ppb	16:20:47
3	Be 313.107†	1665698.9	1689535.6	489.57 µg/L	489.57 ppb	16:20:47
3	Cd 226.502†	73406.5	74512.2	503.30 µg/L	503.30 ppb	16:20:47
3	Co 228.616†	37615.4	38339.3	507.46 µg/L	507.46 ppb	16:20:47
3	Cr 267.716†	57467.8	58019.3	501.78 µg/L	501.78 ppb	16:20:47
3	Cu 324.752†	121249.5	119869.1	502.95 µg/L	502.95 ppb	16:20:47
3	Mn 257.610†	374459.6	379388.1	503.06 µg/L	503.06 ppb	16:20:47
3	Mo 202.031†	15236.9	15483.5	506.83 µg/L	506.83 ppb	16:21:07
3	Ni 231.604†	39675.6	40313.2	504.37 µg/L	504.37 ppb	16:20:47
3	P 214.914†	10728.5	10900.7	2512.9 µg/L	2512.9 ppb	16:21:07
3	Pb 220.353†	8277.2	8286.8	511.51 µg/L	511.51 ppb	16:21:07
3	S 181.975 Axial†	1258.9	1187.2	1003.0 µg/L	1003.0 ppb	16:21:07
3	Sb 206.836†	3914.5	3878.2	501.28 µg/L	501.28 ppb	16:21:07
3	Se 196.026†	1277.8	1289.1	510 µg/L	510 ppb	16:21:07
3	SiO2†	51475.0	50438.7	5319.7 µg/L	5319.7 ppb	16:20:47
3	Si 251.611†	157709.2	159095.7	2498.7 µg/L	2498.7 ppb	16:20:47
3	Sn 189.927†	7070.0	7164.7	498.65 µg/L	498.65 ppb	16:21:07
3	Ti 334.940†	480948.0	486692.3	499.22 µg/L	499.22 ppb	16:20:47
3	Tl 190.801†	3530.2	3692.6	511.73 µg/L	511.73 ppb	16:21:07
3	U 409.014†	7575.9	7842.7	525.40 µg/L	525.40 ppb	16:20:47
3	V 292.402†	95409.2	96288.8	505.80 µg/L	505.80 ppb	16:20:47
3	Zn 213.857†	83974.9	84618.5	501.35 µg/L	501.35 ppb	16:20:47

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1772900.5	98.268	%	0.3371				0.34%
Sc RADIAL	137102.1	97.9	%	0.37				0.38%
Y 371.029	1030580.9	97.473	%	0.3291				0.34%
Ag 328.068†	121675.7	504.37	µg/L	0.818	504.37	ppb	0.818	0.16%
QC value within limits for Ag 328.068 Recovery = 100.87%								
Al 396.153Radial†	23710.1	4968.3	µg/L	30.60	4968.3	ppb	30.60	0.62%
QC value within limits for Al 396.153Radial Recovery = 99.37%								
As 188.979†	1360.1	467.33	µg/L	1.986	467.33	ppb	1.986	0.42%
QC value within limits for As 188.979 Recovery = 93.47%								
B 249.677†	32000.7	495.91	µg/L	1.452	495.91	ppb	1.452	0.29%
QC value within limits for B 249.677 Recovery = 99.18%								
Ba 233.527†	111988.3	498.18	µg/L	0.700	498.18	ppb	0.700	0.14%
QC value within limits for Ba 233.527 Recovery = 99.64%								
Be 313.107†	1690290.0	489.78	µg/L	0.912	489.78	ppb	0.912	0.19%
QC value within limits for Be 313.107 Recovery = 97.96%								
Ca 317.933Radial†	74465.4	5071.8	µg/L	12.65	5071.8	ppb	12.65	0.25%
QC value within limits for Ca 317.933Radial Recovery = 101.44%								
Cd 226.502†	74433.1	502.76	µg/L	1.206	502.76	ppb	1.206	0.24%
QC value within limits for Cd 226.502 Recovery = 100.55%								
Co 228.616†	38340.2	507.48	µg/L	0.035	507.48	ppb	0.035	0.01%

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   QC value within limits for Co 228.616  Recovery = 101.50%
Cr 267.716†            58071.4      502.24 µg/L         0.591      502.24 ppb          0.591   0.12%
   QC value within limits for Cr 267.716  Recovery = 100.45%
Cu 324.752†           119841.2      502.82 µg/L         0.533      502.82 ppb          0.533   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.56%
Fe 238.204 Radial†     67238.2      5021.3 µg/L          9.81      5021.3 ppb           9.81   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.43%
K 766.490 Radial†      12848.3      5087.0 µg/L         19.50      5087.0 ppb          19.50   0.38%
   QC value within limits for K 766.490 Radial  Recovery = 101.74%
Mg 279.077 IEC†        10942.8      5060.8 µg/L         14.84      5060.8 ppb          14.84   0.29%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.22%
Mn 257.610†           379268.4      502.90 µg/L         0.624      502.90 ppb          0.624   0.12%
   QC value within limits for Mn 257.610  Recovery = 100.58%
Mo 202.031†            15458.0      506.00 µg/L         0.921      506.00 ppb          0.921   0.18%
   QC value within limits for Mo 202.031  Recovery = 101.20%
Na 589.592 Radial†     64881.3       10053 µg/L          41.2       10053 ppb           41.2   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 100.53%
Ni 231.604†            40308.1      504.30 µg/L         1.942      504.30 ppb          1.942   0.39%
   QC value within limits for Ni 231.604  Recovery = 100.86%
P 214.914†             10860.4      2503.6 µg/L          9.27      2503.6 ppb           9.27   0.37%
   QC value within limits for P 214.914  Recovery = 100.14%
Pb 220.353†             8245.1      508.96 µg/L         2.303      508.96 ppb          2.303   0.45%
   QC value within limits for Pb 220.353  Recovery = 101.79%
S 181.975 Axial†        1186.3      1002.3 µg/L          0.67      1002.3 ppb           0.67   0.07%
   QC value within limits for S 181.975 Axial  Recovery = 100.23%
Sb 206.836†             3873.3      500.63 µg/L         2.176      500.63 ppb          2.176   0.43%
   QC value within limits for Sb 206.836  Recovery = 100.13%
Se 196.026†             1279.1         506 µg/L           6.4         506 ppb            6.4   1.27%
   QC value within limits for Se 196.026  Recovery = 101.23%
SiO2†                  50431.6      5319.0 µg/L         18.46      5319.0 ppb          18.46   0.35%
   QC value within limits for SiO2  Recovery = 99.47%
Si 251.611†           159013.7      2497.4 µg/L          8.44      2497.4 ppb           8.44   0.34%
   QC value within limits for Si 251.611  Recovery = 99.90%
Sn 189.927†             7153.4      497.87 µg/L         0.684      497.87 ppb          0.684   0.14%
   QC value within limits for Sn 189.927  Recovery = 99.57%
Sr 421.552†           212453.0      501.02 µg/L         2.911      501.02 ppb          2.911   0.58%
   QC value within limits for Sr 421.552  Recovery = 100.20%
Ti 334.940†           486673.0      499.21 µg/L         0.563      499.21 ppb          0.563   0.11%
   QC value within limits for Ti 334.940  Recovery = 99.84%
Tl 190.801†             3683.5      510.49 µg/L         1.204      510.49 ppb          1.204   0.24%
   QC value within limits for Tl 190.801  Recovery = 102.10%
U 409.014†              7634.8      512.31 µg/L        11.413      512.31 ppb         11.413   2.23%
   QC value within limits for U 409.014  Recovery = 102.46%
V 292.402†             96410.1      506.41 µg/L         0.599      506.41 ppb          0.599   0.12%
   QC value within limits for V 292.402  Recovery = 101.28%
Zn 213.857†            84549.6      500.94 µg/L         0.707      500.94 ppb          0.707   0.14%
   QC value within limits for Zn 213.857  Recovery = 100.19%
All analyte(s) passed QC.
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Sequence No.: 19
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 16:21:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138251.6	138251.6	98.7	%			16:21:45
1	Al 396.153Radial†	-76.1	1.4	0.2603	µg/L	0.2603	ppb	16:22:05
1	Ca 317.933Radial†	638.8	75.9	5.1685	µg/L	5.1685	ppb	16:22:05
1	Fe 238.204 Radial†	164.2	49.1	3.6651	µg/L	3.6651	ppb	16:22:05
1	K 766.490 Radial†	1623.8	151.6	60.082	µg/L	60.082	ppb	16:21:45
1	Mg 279.077 IEC†	151.8	-18.6	-8.5672	µg/L	-8.5672	ppb	16:22:05
1	Na 589.592 Radial†	1054.6	116.2	17.951	µg/L	17.951	ppb	16:21:45
1	Sr 421.552†	-259.4	-58.3	-0.1377	µg/L	-0.1377	ppb	16:21:45
1	Sc 361.383	1797116.6	1797116.6	99.610	%			16:23:07
1	Y 371.029	1055412.4	1055412.4	99.822	%			16:23:07
1	Ag 328.068†	4139.7	-409.3	-1.6708	µg/L	-1.6708	ppb	16:23:09
1	As 188.979†	-9.2	9.3	3.1606	µg/L	3.1606	ppb	16:23:29
1	B 249.677†	4020.4	-29.0	-0.4523	µg/L	-0.4523	ppb	16:23:09
1	Ba 233.527†	-161.3	-17.4	-0.0773	µg/L	-0.0773	ppb	16:23:29
1	Be 313.107†	-690.7	398.4	0.1178	µg/L	0.1178	ppb	16:23:09
1	Cd 226.502†	-75.1	27.9	0.1884	µg/L	0.1884	ppb	16:23:29
1	Co 228.616†	-196.0	13.5	0.1781	µg/L	0.1781	ppb	16:23:29
1	Cr 267.716†	221.7	-10.6	-0.0981	µg/L	-0.0981	ppb	16:23:29
1	Cu 324.752†	2959.3	-65.2	-0.2658	µg/L	-0.2658	ppb	16:23:09
1	Mn 257.610†	237.6	53.8	0.0717	µg/L	0.0717	ppb	16:23:29
1	Mo 202.031†	-13.6	24.9	0.8136	µg/L	0.8136	ppb	16:23:29
1	Ni 231.604†	-78.1	17.5	0.2187	µg/L	0.2187	ppb	16:23:29
1	P 214.914†	17.3	43.1	9.9565	µg/L	9.9565	ppb	16:23:29
1	Pb 220.353†	117.8	14.8	0.9054	µg/L	0.9054	ppb	16:23:29
1	S 181.975 Axial†	94.6	6.1	5.1324	µg/L	5.1324	ppb	16:23:29
1	Sb 206.836†	85.2	-4.2	-0.5338	µg/L	-0.5338	ppb	16:23:29
1	Se 196.026†	22.6	16.5	6.52	µg/L	6.52	ppb	16:23:29
1	SiO2†	1804.9	72.9	7.7028	µg/L	7.7028	ppb	16:23:29
1	Si 251.611†	1009.1	246.0	3.8706	µg/L	3.8706	ppb	16:23:09
1	Sn 189.927†	-3.7	-5.6	-0.3917	µg/L	-0.3917	ppb	16:23:29
1	Ti 334.940†	743.3	-76.8	-0.0813	µg/L	-0.0813	ppb	16:23:09
1	Tl 190.801†	-121.1	-7.3	-1.0070	µg/L	-1.0070	ppb	16:23:29
1	U 409.014†	-35.9	127.3	8.0078	µg/L	8.0078	ppb	16:23:09
1	V 292.402†	337.4	-84.5	-0.4247	µg/L	-0.4247	ppb	16:23:09
1	Zn 213.857†	592.1	91.4	0.5444	µg/L	0.5444	ppb	16:23:29
2	Sc RADIAL	136698.2	136698.2	97.6	%			16:22:07
2.	Al 396.153Radial†	-58.6	18.5	3.8730	µg/L	3.8730	ppb	16:22:27
2	Ca 317.933Radial†	620.0	64.0	4.3571	µg/L	4.3571	ppb	16:22:27
2	Fe 238.204 Radial†	156.5	43.0	3.2137	µg/L	3.2137	ppb	16:22:27
2	K 766.490 Radial†	1517.1	61.0	24.162	µg/L	24.162	ppb	16:22:07
2	Mg 279.077 IEC†	168.9	0.6	0.2978	µg/L	0.2978	ppb	16:22:27
2	Na 589.592 Radial†	1201.3	278.6	43.163	µg/L	43.163	ppb	16:22:07
2	Sr 421.552†	-253.5	-55.3	-0.1306	µg/L	-0.1306	ppb	16:22:07
2	Sc 361.383	1792956.6	1792956.6	99.379	%			16:23:31
2	Y 371.029	1053819.1	1053819.1	99.671	%			16:23:31
2	Ag 328.068†	4119.4	-420.0	-1.7364	µg/L	-1.7364	ppb	16:23:33
2	As 188.979†	-5.8	12.7	4.2949	µg/L	4.2949	ppb	16:23:53
2	B 249.677†	4053.9	14.1	0.2183	µg/L	0.2183	ppb	16:23:33
2	Ba 233.527†	-173.8	-30.3	-0.1350	µg/L	-0.1350	ppb	16:23:53
2	Be 313.107†	-742.6	344.5	0.0976	µg/L	0.0976	ppb	16:23:33
2	Cd 226.502†	-68.1	34.9	0.2354	µg/L	0.2354	ppb	16:23:53
2	Co 228.616†	-201.0	8.0	0.1059	µg/L	0.1059	ppb	16:23:53
2	Cr 267.716†	253.1	21.5	0.1914	µg/L	0.1914	ppb	16:23:53
2	Cu 324.752†	2852.8	-165.5	-0.6976	µg/L	-0.6976	ppb	16:23:33
2	Mn 257.610†	232.7	49.4	0.0656	µg/L	0.0656	ppb	16:23:53
2	Mo 202.031†	-20.5	18.0	0.5873	µg/L	0.5873	ppb	16:23:53
2	Ni 231.604†	-69.7	25.8	0.3229	µg/L	0.3229	ppb	16:23:53
2	P 214.914†	26.1	52.0	12.017	µg/L	12.017	ppb	16:23:53
2	Pb 220.353†	115.7	12.9	0.8021	µg/L	0.8021	ppb	16:23:53

2	S 181.975 Axial†	87.6	-0.8	-0.6478 µg/L	-0.6478 ppb	16:23:53
2	Sb 206.836†	69.5	-19.8	-2.5479 µg/L	-2.5479 ppb	16:23:53
2	Se 196.026†	-0.7	-6.8	-2.70 µg/L	-2.70 ppb	16:23:53
2	SiO2†	1804.8	76.9	8.1330 µg/L	8.1330 ppb	16:23:53
2	Si 251.611†	1168.7	409.0	6.4425 µg/L	6.4425 ppb	16:23:33
2	Sn 189.927†	-0.4	-2.3	-0.1607 µg/L	-0.1607 ppb	16:23:53
2	Ti 334.940†	836.8	19.1	0.0225 µg/L	0.0225 ppb	16:23:33
2	Tl 190.801†	-123.7	-10.2	-1.3995 µg/L	-1.3995 ppb	16:23:53
2	U 409.014†	-275.2	-113.6	-7.2088 µg/L	-7.2088 ppb	16:23:33
2	V 292.402†	289.4	-132.0	-0.6823 µg/L	-0.6823 ppb	16:23:33
2	Zn 213.857†	580.1	80.7	0.4801 µg/L	0.4801 ppb	16:23:53
3	Sc RADIAL	135260.2	135260.2	96.6 %		16:22:29
3	Al 396.153Radial†	-92.4	-17.1	-3.6383 µg/L	-3.6383 ppb	16:22:49
3	Ca 317.933Radial†	627.0	78.0	5.3124 µg/L	5.3124 ppb	16:22:49
3	Fe 238.204 Radial†	161.8	50.3	3.7569 µg/L	3.7569 ppb	16:22:49
3	K 766.490 Radial†	1680.5	246.8	97.770 µg/L	97.770 ppb	16:22:29
3	Mg 279.077 IEC†	155.1	-11.9	-5.4573 µg/L	-5.4573 ppb	16:22:49
3	Na 589.592 Radial†	1122.8	210.4	32.526 µg/L	32.526 ppb	16:22:29
3	Sr 421.552†	-208.3	-11.2	-0.0265 µg/L	-0.0265 ppb	16:22:29
3	Sc 361.383	1800732.3	1800732.3	99.810 %		16:23:56
3	Y 371.029	1058680.1	1058680.1	100.13 %		16:23:56
3	Ag 328.068†	3878.2	-679.6	-2.7909 µg/L	-2.7909 ppb	16:23:58
3	As 188.979†	-18.1	0.4	0.1428 µg/L	0.1428 ppb	16:24:18
3	B 249.677†	3937.5	-120.2	-1.8691 µg/L	-1.8691 ppb	16:23:58
3	Ba 233.527†	-143.7	0.6	0.0026 µg/L	0.0026 ppb	16:24:18
3	Be 313.107†	-678.8	411.6	0.1182 µg/L	0.1182 ppb	16:23:58
3	Cd 226.502†	-84.4	18.8	0.1271 µg/L	0.1271 ppb	16:24:18
3	Co 228.616†	-207.7	2.2	0.0288 µg/L	0.0288 ppb	16:24:18
3	Cr 267.716†	248.8	16.0	0.1416 µg/L	0.1416 ppb	16:24:18
3	Cu 324.752†	2976.5	-54.0	-0.2282 µg/L	-0.2282 ppb	16:23:58
3	Mn 257.610†	227.4	43.1	0.0573 µg/L	0.0573 ppb	16:24:18
3	Mo 202.031†	-16.0	22.5	0.7372 µg/L	0.7372 ppb	16:24:18
3	Ni 231.604†	-61.6	34.2	0.4276 µg/L	0.4276 ppb	16:24:18
3	P 214.914†	15.7	41.5	9.5806 µg/L	9.5806 ppb	16:24:18
3	Pb 220.353†	92.3	-10.9	-0.6685 µg/L	-0.6685 ppb	16:24:18
3	S 181.975 Axial†	91.2	2.4	2.0512 µg/L	2.0512 ppb	16:24:18
3	Sb 206.836†	68.4	-21.2	-2.7306 µg/L	-2.7306 ppb	16:24:18
3	Se 196.026†	21.6	15.5	6.09 µg/L	6.09 ppb	16:24:18
3	SiO2†	1782.5	46.8	4.9392 µg/L	4.9392 ppb	16:24:18
3	Si 251.611†	1143.9	379.1	5.9689 µg/L	5.9689 ppb	16:23:58
3	Sn 189.927†	-0.8	-2.7	-0.1901 µg/L	-0.1901 ppb	16:24:18
3	Ti 334.940†	511.3	-310.7	-0.3171 µg/L	-0.3171 ppb	16:23:58
3	Tl 190.801†	-97.7	16.4	2.2354 µg/L	2.2354 ppb	16:24:18
3	U 409.014†	-218.9	-56.0	-3.5542 µg/L	-3.5542 ppb	16:23:58
3	V 292.402†	346.2	-76.4	-0.3900 µg/L	-0.3900 ppb	16:23:58
3	Zn 213.857†	583.5	81.6	0.4842 µg/L	0.4842 ppb	16:24:18

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1796935.2	99.600	%	0.2157				0.22%
Sc RADIAL	136736.7	97.6	%	1.07				1.09%
Y 371.029	1055970.5	99.875	%	0.2344				0.23%
Ag 328.068†	-502.9	-2.0660	µg/L	0.62861	-2.0660	ppb	0.62861	30.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.9	0.1650	µg/L	3.75658	0.1650	ppb	3.75658	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.5	2.5328	µg/L	2.14605	2.5328	ppb	2.14605	84.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-45.1	-0.7010	µg/L	1.06567	-0.7010	ppb	1.06567	152.02%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-15.7	-0.0699	µg/L	0.06910	-0.0699	ppb	0.06910	98.89%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	384.8	0.1112	µg/L	0.01176	0.1112	ppb	0.01176	10.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	72.6	4.9460	µg/L	0.51510	4.9460	ppb	0.51510	10.41%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.2	0.1837	µg/L	0.05431	0.1837	ppb	0.05431	29.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.9	0.1043	µg/L	0.07467	0.1043	ppb	0.07467	71.61%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.0      0.0783 µg/L       0.15482      0.0783 ppb        0.15482 197.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -94.9     -0.3972 µg/L       0.26085     -0.3972 ppb        0.26085  65.67%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         47.5      3.5452 µg/L       0.29075      3.5452 ppb        0.29075   8.20%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         153.1      60.671 µg/L       36.8077      60.671 ppb        36.8077  60.67%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -9.9     -4.5756 µg/L       4.49782     -4.5756 ppb        4.49782  98.30%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                48.8      0.0649 µg/L       0.00718      0.0649 ppb        0.00718  11.07%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                21.8      0.7127 µg/L       0.11510      0.7127 ppb        0.11510  16.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        201.7      31.213 µg/L       12.6571      31.213 ppb        12.6571  40.55%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                25.8      0.3231 µg/L       0.10444      0.3231 ppb        0.10444  32.33%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 45.5      10.518 µg/L        1.3118      10.518 ppb         1.3118  12.47%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 5.6      0.3463 µg/L       0.88039      0.3463 ppb        0.88039 254.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.6      2.1786 µg/L       2.89220      2.1786 ppb        2.89220 132.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -15.1     -1.9374 µg/L       1.21904     -1.9374 ppb        1.21904  62.92%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 8.4        3.30 µg/L         5.201        3.30 ppb          5.201 157.38%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      65.6      6.9250 µg/L       1.73317      6.9250 ppb        1.73317  25.03%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               344.7      5.4273 µg/L       1.36882      5.4273 ppb        1.36882  25.22%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.6     -0.2475 µg/L       0.12574     -0.2475 ppb        0.12574  50.80%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -41.6     -0.0982 µg/L       0.06221     -0.0982 ppb        0.06221  63.33%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -122.8     -0.1253 µg/L       0.17407     -0.1253 ppb        0.17407 138.93%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.4     -0.0570 µg/L       1.99496     -0.0570 ppb        1.99496 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -14.1     -0.9184 µg/L       7.94337     -0.9184 ppb        7.94337 864.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -97.6     -0.4990 µg/L       0.15971     -0.4990 ppb        0.15971  32.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                84.6      0.5029 µg/L       0.03599      0.5029 ppb        0.03599   7.16%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 16:37:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	134299.0	134299.0	95.9	%			16:37:48
1	Al 396.153Radial†	22539.9	23590.8	4943.4	µg/L	4943.4	ppb	16:37:48
1	Ca 317.933Radial†	71903.5	74434.2	5069.6	µg/L	5069.6	ppb	16:37:48
1	Fe 238.204 Radial†	64644.2	67315.8	5027.1	µg/L	5027.1	ppb	16:37:48
1	K 766.490 Radial†	13671.0	12767.0	5054.8	µg/L	5054.8	ppb	16:37:48
1	Mg 279.077 IEC†	10660.9	10948.4	5063.3	µg/L	5063.3	ppb	16:37:48
1	Na 589.592 Radial†	63306.0	65084.6	10084	µg/L	10084	ppb	16:37:48
1	Sr 421.552†	205476.3	214545.6	505.96	µg/L	505.96	ppb	16:37:46
1	Sc 361.383	1762859.8	1762859.8	97.711	%			16:38:15
1	Y 371.029	1025616.3	1025616.3	97.004	%			16:38:15
1	Ag 328.068†	123395.7	121721.0	504.56	µg/L	504.56	ppb	16:38:15
1	As 188.979†	1305.4	1354.6	465.43	µg/L	465.43	ppb	16:38:35
1	B 249.677†	35143.6	31901.6	494.37	µg/L	494.37	ppb	16:38:15
1	Ba 233.527†	109199.1	111901.6	497.80	µg/L	497.80	ppb	16:38:15
1	Be 313.107†	1647067.4	1686739.8	488.75	µg/L	488.75	ppb	16:38:15
1	Cd 226.502†	72599.6	74403.6	502.56	µg/L	502.56	ppb	16:38:15
1	Co 228.616†	37212.9	38294.9	506.88	µg/L	506.88	ppb	16:38:15
1	Cr 267.716†	56830.0	57927.9	501.01	µg/L	501.01	ppb	16:38:15
1	Cu 324.752†	119567.1	119331.7	500.69	µg/L	500.69	ppb	16:38:15
1	Mn 257.610†	369741.1	378217.2	501.51	µg/L	501.51	ppb	16:38:15
1	Mo 202.031†	14940.7	15329.3	501.79	µg/L	501.79	ppb	16:38:35
1	Ni 231.604†	39200.3	40214.4	503.13	µg/L	503.13	ppb	16:38:15
1	P 214.914†	10483.0	10754.2	2479.1	µg/L	2479.1	ppb	16:38:35
1	Pb 220.353†	8090.1	8176.1	504.70	µg/L	504.70	ppb	16:38:35
1	S 181.975 Axial†	1238.0	1178.1	995.28	µg/L	995.28	ppb	16:38:35
1	Sb 206.836†	3846.1	3846.5	497.12	µg/L	497.12	ppb	16:38:35
1	Se 196.026†	1250.7	1273.8	504	µg/L	504	ppb	16:38:35
1	SiO2†	50750.9	50200.6	5294.7	µg/L	5294.7	ppb	16:38:15
1	Si 251.611†	155479.4	158354.3	2487.1	µg/L	2487.1	ppb	16:38:15
1	Sn 189.927†	6943.7	7104.4	494.47	µg/L	494.47	ppb	16:38:35
1	Ti 334.940†	475046.0	485350.4	497.85	µg/L	497.85	ppb	16:38:15
1	Tl 190.801†	3445.5	3640.5	504.61	µg/L	504.61	ppb	16:38:35
1	U 409.014†	7234.1	7567.0	508.07	µg/L	508.07	ppb	16:38:15
1	V 292.402†	94774.3	96571.1	507.19	µg/L	507.19	ppb	16:38:15
1	Zn 213.857†	82846.3	84283.9	499.36	µg/L	499.36	ppb	16:38:15
2	Sc RADIAL	137458.8	137458.8	98.1	%			16:37:52
2	Al 396.153Radial†	23161.9	23684.3	4962.7	µg/L	4962.7	ppb	16:37:52
2	Ca 317.933Radial†	73735.6	74577.2	5079.4	µg/L	5079.4	ppb	16:37:52
2	Fe 238.204 Radial†	66292.7	67445.8	5036.8	µg/L	5036.8	ppb	16:37:52
2	K 766.490 Radial†	14026.1	12801.1	5068.3	µg/L	5068.3	ppb	16:37:52
2	Mg 279.077 IEC†	10894.8	10931.2	5055.5	µg/L	5055.5	ppb	16:37:52
2	Na 589.592 Radial†	64445.4	64727.8	10029	µg/L	10029	ppb	16:37:52
2	Sr 421.552†	205998.1	210150.1	495.59	µg/L	495.59	ppb	16:37:50
2	Sc 361.383	1741816.6	1741816.6	96.545	%			16:38:38
2	Y 371.029	1012847.4	1012847.4	95.796	%			16:38:38
2	Ag 328.068†	122256.6	122066.8	505.97	µg/L	505.97	ppb	16:38:38
2	As 188.979†	1323.8	1389.8	477.35	µg/L	477.35	ppb	16:38:58
2	B 249.677†	34721.3	31898.8	494.33	µg/L	494.33	ppb	16:38:38
2	Ba 233.527†	107587.0	111581.9	496.38	µg/L	496.38	ppb	16:38:38
2	Be 313.107†	1623113.4	1682293.1	487.47	µg/L	487.47	ppb	16:38:38
2	Cd 226.502†	71393.6	74052.0	500.18	µg/L	500.18	ppb	16:38:38
2	Co 228.616†	36629.0	38150.2	504.96	µg/L	504.96	ppb	16:38:38
2	Cr 267.716†	56033.9	57806.0	499.94	µg/L	499.94	ppb	16:38:38
2	Cu 324.752†	118002.7	119189.7	500.10	µg/L	500.10	ppb	16:38:38
2	Mn 257.610†	364470.7	377329.6	500.33	µg/L	500.33	ppb	16:38:38
2	Mo 202.031†	15046.1	15623.1	511.40	µg/L	511.40	ppb	16:38:58
2	Ni 231.604†	38541.8	40017.1	500.66	µg/L	500.66	ppb	16:38:38
2	P 214.914†	10569.3	10973.3	2529.7	µg/L	2529.7	ppb	16:38:58
2	Pb 220.353†	8110.9	8297.7	512.20	µg/L	512.20	ppb	16:38:58

2	S 181.975 Axial†	1245.8	1201.4	1015.0 µg/L	1015.0 ppb		16:38:58
2	Sb 206.836†	3885.7	3935.1	508.71 µg/L	508.71 ppb		16:38:58
2	Se 196.026†	1263.4	1302.5	515 µg/L	515 ppb		16:38:58
2	SiO2†	50053.9	50106.2	5284.3 µg/L	5284.3 ppb		16:38:38
2	Si 251.611†	153293.7	158012.8	2481.6 µg/L	2481.6 ppb		16:38:38
2	Sn 189.927†	6969.6	7217.2	502.29 µg/L	502.29 ppb		16:38:58
2	Ti 334.940†	468356.6	484295.1	496.76 µg/L	496.76 ppb		16:38:38
2	Tl 190.801†	3456.6	3694.6	511.97 µg/L	511.97 ppb		16:38:58
2	U 409.014†	7320.9	7746.2	519.25 µg/L	519.25 ppb		16:38:38
2	V 292.402†	93250.7	96164.7	505.19 µg/L	505.19 ppb		16:38:38
2	Zn 213.857†	81796.4	84220.7	499.00 µg/L	499.00 ppb		16:38:38
3	Sc RADIAL	135624.5	135624.5	96.8 %			16:37:56
3	Al 396.153Radial†	22686.3	23512.3	4926.9 µg/L	4926.9 ppb		16:37:56
3	Ca 317.933Radial†	72585.3	74405.4	5067.7 µg/L	5067.7 ppb		16:37:56
3	Fe 238.204 Radial†	65270.2	67303.3	5026.2 µg/L	5026.2 ppb		16:37:56
3	K 766.490 Radial†	13820.3	12781.9	5060.7 µg/L	5060.7 ppb		16:37:56
3	Mg 279.077 IEC†	10771.3	10953.7	5065.7 µg/L	5065.7 ppb		16:37:56
3	Na 589.592 Radial†	63778.2	64926.9	10060 µg/L	10060 ppb		16:37:56
3	Sr 421.552†	209035.9	216127.5	509.69 µg/L	509.69 ppb		16:37:54
3	Sc 361.383	1770882.7	1770882.7	98.156 %			16:39:01
3	Y 371.029	1029563.5	1029563.5	97.377 %			16:39:01
3	Ag 328.068†	124006.5	121771.1	504.76 µg/L	504.76 ppb		16:39:01
3	As 188.979†	1312.9	1356.2	465.98 µg/L	465.98 ppb		16:39:21
3	B 249.677†	35356.6	31955.7	495.21 µg/L	495.21 ppb		16:39:01
3	Ba 233.527†	109653.1	111857.8	497.60 µg/L	497.60 ppb		16:39:01
3	Be 313.107†	1656578.1	1688792.4	489.35 µg/L	489.35 ppb		16:39:01
3	Cd 226.502†	72927.7	74401.2	502.55 µg/L	502.55 ppb		16:39:01
3	Co 228.616†	37266.9	38177.3	505.32 µg/L	505.32 ppb		16:39:01
3	Cr 267.716†	57201.0	58042.4	501.99 µg/L	501.99 ppb		16:39:01
3	Cu 324.752†	119956.8	119174.4	500.03 µg/L	500.03 ppb		16:39:01
3	Mn 257.610†	371246.4	378036.4	501.27 µg/L	501.27 ppb		16:39:01
3	Mo 202.031†	15011.7	15332.3	501.88 µg/L	501.88 ppb		16:39:21
3	Ni 231.604†	39375.4	40211.0	503.09 µg/L	503.09 ppb		16:39:01
3	P 214.914†	10528.5	10751.9	2478.5 µg/L	2478.5 ppb		16:39:21
3	Pb 220.353†	8147.0	8196.6	505.96 µg/L	505.96 ppb		16:39:21
3	S 181.975 Axial†	1255.3	1190.0	1005.3 µg/L	1005.3 ppb		16:39:21
3	Sb 206.836†	3876.4	3859.5	498.78 µg/L	498.78 ppb		16:39:21
3	Se 196.026†	1249.1	1266.4	501 µg/L	501 ppb		16:39:21
3	SiO2†	51030.4	50250.0	5300.0 µg/L	5300.0 ppb		16:39:01
3	Si 251.611†	156527.4	158701.1	2492.6 µg/L	2492.6 ppb		16:39:01
3	Sn 189.927†	6968.3	7097.4	493.98 µg/L	493.98 ppb		16:39:21
3	Ti 334.940†	477306.2	485450.5	497.95 µg/L	497.95 ppb		16:39:01
3	Tl 190.801†	3451.0	3630.1	503.19 µg/L	503.19 ppb		16:39:21
3	U 409.014†	7309.5	7610.1	510.71 µg/L	510.71 ppb		16:39:01
3	V 292.402†	94957.8	96318.6	505.89 µg/L	505.89 ppb		16:39:01
3	Zn 213.857†	83187.1	84247.0	499.14 µg/L	499.14 ppb		16:39:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1758519.7	97.471	%	0.8320				0.85%
Sc RADIAL	135794.1	96.9	%	1.13				1.17%
Y 371.029	1022675.7	96.725	%	0.8264				0.85%
Ag 328.068†	121853.0	505.10	µg/L	0.761	505.10	ppb	0.761	0.15%
QC value within limits for Ag 328.068 Recovery = 101.02%								
Al 396.153Radial†	23595.8	4944.3	µg/L	17.91	4944.3	ppb	17.91	0.36%
QC value within limits for Al 396.153Radial Recovery = 98.89%								
As 188.979†	1366.8	469.59	µg/L	6.729	469.59	ppb	6.729	1.43%
QC value within limits for As 188.979 Recovery = 93.92%								
B 249.677†	31918.7	494.64	µg/L	0.500	494.64	ppb	0.500	0.10%
QC value within limits for B 249.677 Recovery = 98.93%								
Ba 233.527†	111780.4	497.26	µg/L	0.769	497.26	ppb	0.769	0.15%
QC value within limits for Ba 233.527 Recovery = 99.45%								
Be 313.107†	1685941.8	488.52	µg/L	0.961	488.52	ppb	0.961	0.20%
QC value within limits for Be 313.107 Recovery = 97.70%								
Ca 317.933Radial†	74472.2	5072.2	µg/L	6.27	5072.2	ppb	6.27	0.12%
QC value within limits for Ca 317.933Radial Recovery = 101.44%								
Cd 226.502†	74285.6	501.76	µg/L	1.369	501.76	ppb	1.369	0.27%
QC value within limits for Cd 226.502 Recovery = 100.35%								
Co 228.616†	38207.5	505.72	µg/L	1.018	505.72	ppb	1.018	0.20%

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   QC value within limits for Co 228.616  Recovery = 101.14%
Cr 267.716†            57925.4      500.98 µg/L         1.026      500.98 ppb          1.026   0.20%
   QC value within limits for Cr 267.716  Recovery = 100.20%
Cu 324.752†           119231.9      500.27 µg/L         0.360      500.27 ppb          0.360   0.07%
   QC value within limits for Cu 324.752  Recovery = 100.05%
Fe 238.204 Radial†     67355.0      5030.0 µg/L          5.89      5030.0 ppb           5.89   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.60%
K 766.490 Radial†      12783.3      5061.2 µg/L          6.79      5061.2 ppb           6.79   0.13%
   QC value within limits for K 766.490 Radial  Recovery = 101.22%
Mg 279.077 IEC†        10944.4      5061.5 µg/L          5.32      5061.5 ppb           5.32   0.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.23%
Mn 257.610†           377861.1      501.04 µg/L         0.622      501.04 ppb          0.622   0.12%
   QC value within limits for Mn 257.610  Recovery = 100.21%
Mo 202.031†            15428.2      505.02 µg/L         5.520      505.02 ppb          5.520   1.09%
   QC value within limits for Mo 202.031  Recovery = 101.00%
Na 589.592 Radial†     64913.1       10058 µg/L          27.7       10058 ppb           27.7   0.28%
   QC value within limits for Na 589.592 Radial  Recovery = 100.58%
Ni 231.604†            40147.5      502.30 µg/L         1.413      502.30 ppb          1.413   0.28%
   QC value within limits for Ni 231.604  Recovery = 100.46%
P 214.914†             10826.5      2495.8 µg/L         29.39      2495.8 ppb          29.39   1.18%
   QC value within limits for P 214.914  Recovery = 99.83%
Pb 220.353†             8223.5      507.62 µg/L         4.015      507.62 ppb          4.015   0.79%
   QC value within limits for Pb 220.353  Recovery = 101.52%
S 181.975 Axial†        1189.8      1005.2 µg/L          9.87      1005.2 ppb           9.87   0.98%
   QC value within limits for S 181.975 Axial  Recovery = 100.52%
Sb 206.836†             3880.3      501.54 µg/L         6.264      501.54 ppb          6.264   1.25%
   QC value within limits for Sb 206.836  Recovery = 100.31%
Se 196.026†             1280.9         507 µg/L           7.5         507 ppb            7.5   1.48%
   QC value within limits for Se 196.026  Recovery = 101.37%
SiO2†                  50185.6      5293.0 µg/L          7.95      5293.0 ppb           7.95   0.15%
   QC value within limits for SiO2  Recovery = 98.98%
Si 251.611†           158356.0      2487.1 µg/L          5.52      2487.1 ppb           5.52   0.22%
   QC value within limits for Si 251.611  Recovery = 99.48%
Sn 189.927†             7139.7      496.91 µg/L         4.661      496.91 ppb          4.661   0.94%
   QC value within limits for Sn 189.927  Recovery = 99.38%
Sr 421.552†           213607.7      503.75 µg/L         7.304      503.75 ppb          7.304   1.45%
   QC value within limits for Sr 421.552  Recovery = 100.75%
Ti 334.940†           485032.0      497.52 µg/L         0.659      497.52 ppb          0.659   0.13%
   QC value within limits for Ti 334.940  Recovery = 99.50%
Tl 190.801†             3655.1      506.59 µg/L         4.717      506.59 ppb          4.717   0.93%
   QC value within limits for Tl 190.801  Recovery = 101.32%
U 409.014†              7641.1      512.68 µg/L         5.844      512.68 ppb          5.844   1.14%
   QC value within limits for U 409.014  Recovery = 102.54%
V 292.402†             96351.5      506.09 µg/L         1.017      506.09 ppb          1.017   0.20%
   QC value within limits for V 292.402  Recovery = 101.22%
Zn 213.857†            84250.5      499.16 µg/L         0.182      499.16 ppb          0.182   0.04%
   QC value within limits for Zn 213.857  Recovery = 99.83%
All analyte(s) passed QC.
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Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 16:39:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137942.2	137942.2	98.5	%			16:40:00
1	Al 396.153Radial†	-70.1	7.3	1.5274	µg/L	1.5274	ppb	16:40:20
1	Ca 317.933Radial†	599.6	37.5	2.5564	µg/L	2.5564	ppb	16:40:20
1	Fe 238.204 Radial†	134.7	19.5	1.4526	µg/L	1.4526	ppb	16:40:20
1	K 766.490 Radial†	1647.4	179.3	71.054	µg/L	71.054	ppb	16:40:00
1	Mg 279.077 IEC†	195.5	26.1	12.041	µg/L	12.041	ppb	16:40:20
1	Na 589.592 Radial†	1040.9	104.6	16.153	µg/L	16.153	ppb	16:40:00
1	Sr 421.552†	-212.6	-11.4	-0.0269	µg/L	-0.0269	ppb	16:40:00
1	Sc 361.383	1798118.0	1798118.0	99.666	%			16:41:21
1	Y 371.029	1057321.3	1057321.3	100.00	%			16:41:21
1	Ag 328.068†	3964.1	-587.8	-2.4126	µg/L	-2.4126	ppb	16:41:24
1	As 188.979†	-15.3	3.2	1.0699	µg/L	1.0699	ppb	16:41:44
1	B 249.677†	4000.1	-51.6	-0.8028	µg/L	-0.8028	ppb	16:41:24
1	Ba 233.527†	-134.6	9.4	0.0423	µg/L	0.0423	ppb	16:41:44
1	Be 313.107†	-535.2	554.7	0.1582	µg/L	0.1582	ppb	16:41:24
1	Cd 226.502†	-57.4	45.7	0.3090	µg/L	0.3090	ppb	16:41:44
1	Co 228.616†	-195.4	14.3	0.1890	µg/L	0.1890	ppb	16:41:44
1	Cr 267.716†	264.8	32.5	0.2878	µg/L	0.2878	ppb	16:41:44
1	Cu 324.752†	2812.6	-214.1	-0.9016	µg/L	-0.9016	ppb	16:41:24
1	Mn 257.610†	219.9	35.9	0.0471	µg/L	0.0471	ppb	16:41:44
1	Mo 202.031†	-29.7	8.8	0.2887	µg/L	0.2887	ppb	16:41:44
1	Ni 231.604†	-75.4	20.3	0.2539	µg/L	0.2539	ppb	16:41:44
1	P 214.914†	17.6	43.3	10.032	µg/L	10.032	ppb	16:41:44
1	Pb 220.353†	114.7	11.6	0.7236	µg/L	0.7236	ppb	16:41:44
1	S 181.975 Axial†	94.7	6.1	5.1206	µg/L	5.1206	ppb	16:41:44
1	Sb 206.836†	86.7	-2.7	-0.3466	µg/L	-0.3466	ppb	16:41:44
1	Se 196.026†	13.2	7.1	2.80	µg/L	2.80	ppb	16:41:44
1	SiO2†	1753.4	20.2	2.1268	µg/L	2.1268	ppb	16:41:44
1	Si 251.611†	1068.6	305.2	4.8084	µg/L	4.8084	ppb	16:41:24
1	Sn 189.927†	2.4	0.6	0.0398	µg/L	0.0398	ppb	16:41:44
1	Ti 334.940†	913.0	93.0	0.0979	µg/L	0.0979	ppb	16:41:24
1	Tl 190.801†	-106.5	7.5	1.0204	µg/L	1.0204	ppb	16:41:44
1	U 409.014†	-291.9	-129.5	-8.1577	µg/L	-8.1577	ppb	16:41:24
1	V 292.402†	480.1	58.4	0.3014	µg/L	0.3014	ppb	16:41:24
1	Zn 213.857†	595.7	94.7	0.5647	µg/L	0.5647	ppb	16:41:44
2	Sc RADIAL	135829.4	135829.4	97.0	%			16:40:22
2	Al 396.153Radial†	-81.3	-5.3	-1.1368	µg/L	-1.1368	ppb	16:40:42
2	Ca 317.933Radial†	621.2	69.3	4.7175	µg/L	4.7175	ppb	16:40:42
2	Fe 238.204 Radial†	157.1	44.8	3.3436	µg/L	3.3436	ppb	16:40:42
2	K 766.490 Radial†	1505.9	59.4	23.526	µg/L	23.526	ppb	16:40:22
2	Mg 279.077 IEC†	162.7	-4.6	-2.1319	µg/L	-2.1319	ppb	16:40:42
2	Na 589.592 Radial†	1108.8	191.1	29.596	µg/L	29.596	ppb	16:40:22
2	Sr 421.552†	-212.6	-14.8	-0.0349	µg/L	-0.0349	ppb	16:40:22
2	Sc 361.383	1790048.2	1790048.2	99.218	%			16:41:46
2	Y 371.029	1053046.8	1053046.8	99.598	%			16:41:46
2	Ag 328.068†	3895.9	-638.6	-2.6305	µg/L	-2.6305	ppb	16:41:48
2	As 188.979†	-15.3	3.1	1.0582	µg/L	1.0582	ppb	16:42:08
2	B 249.677†	3908.1	-126.3	-1.9638	µg/L	-1.9638	ppb	16:41:48
2	Ba 233.527†	-167.8	-24.6	-0.1094	µg/L	-0.1094	ppb	16:42:08
2	Be 313.107†	-639.8	446.9	0.1266	µg/L	0.1266	ppb	16:41:48
2	Cd 226.502†	-87.9	14.8	0.0997	µg/L	0.0997	ppb	16:42:08
2	Co 228.616†	-216.5	-7.9	-0.1050	µg/L	-0.1050	ppb	16:42:08
2	Cr 267.716†	233.6	2.2	0.0264	µg/L	0.0264	ppb	16:42:08
2	Cu 324.752†	2737.5	-277.1	-1.1663	µg/L	-1.1663	ppb	16:41:48
2	Mn 257.610†	246.1	63.3	0.0841	µg/L	0.0841	ppb	16:42:08
2	Mo 202.031†	-30.1	8.2	0.2692	µg/L	0.2692	ppb	16:42:08
2	Ni 231.604†	-68.8	26.6	0.3323	µg/L	0.3323	ppb	16:42:08
2	P 214.914†	23.9	49.8	11.533	µg/L	11.533	ppb	16:42:08
2	Pb 220.353†	118.7	16.2	1.0043	µg/L	1.0043	ppb	16:42:08

2	S 181.975 Axial†	93.8	5.6	4.7433 µg/L	4.7433 ppb	16:42:08
2	Sb 206.836†	85.9	-3.1	-0.3997 µg/L	-0.3997 ppb	16:42:08
2	Se 196.026†	14.2	8.1	3.20 µg/L	3.20 ppb	16:42:08
2	SiO2†	1805.8	81.0	8.5639 µg/L	8.5639 ppb	16:42:08
2	Si 251.611†	1082.0	323.5	5.0963 µg/L	5.0963 ppb	16:41:48
2	Sn 189.927†	4.0	2.1	0.1457 µg/L	0.1457 ppb	16:42:08
2	Ti 334.940†	649.2	-168.7	-0.1691 µg/L	-0.1691 ppb	16:41:48
2	Tl 190.801†	-112.0	1.4	0.1895 µg/L	0.1895 ppb	16:42:08
2	U 409.014†	-309.6	-148.7	-9.4054 µg/L	-9.4054 ppb	16:41:48
2	V 292.402†	339.9	-80.7	-0.4219 µg/L	-0.4219 ppb	16:41:48
2	Zn 213.857†	584.0	85.6	0.5096 µg/L	0.5096 ppb	16:42:08
3	Sc RADIAL	136159.2	136159.2	97.2 %		16:40:44
3	Al 396.153Radial†	-49.1	28.0	5.8522 µg/L	5.8522 ppb	16:41:04
3	Ca 317.933Radial†	630.3	77.1	5.2493 µg/L	5.2493 ppb	16:41:04
3	Fe 238.204 Radial†	158.5	45.8	3.4169 µg/L	3.4169 ppb	16:41:04
3	K 766.490 Radial†	1618.7	171.6	68.010 µg/L	68.010 ppb	16:40:44
3	Mg 279.077 IEC†	183.9	16.8	7.7589 µg/L	7.7589 ppb	16:41:04
3	Na 589.592 Radial†	982.5	58.3	8.9837 µg/L	8.9837 ppb	16:40:44
3	Sr 421.552†	-155.2	44.8	0.1056 µg/L	0.1056 ppb	16:40:44
3	Sc 361.383	1784965.0	1784965.0	98.936 %		16:42:10
3	Y 371.029	1049565.0	1049565.0	99.269 %		16:42:10
3	Ag 328.068†	4128.3	-392.5	-1.6080 µg/L	-1.6080 ppb	16:42:12
3	As 188.979†	-19.2	-0.9	-0.2935 µg/L	-0.2935 ppb	16:42:32
3	B 249.677†	4037.5	15.8	0.2442 µg/L	0.2442 ppb	16:42:12
3	Ba 233.527†	-169.4	-26.6	-0.1183 µg/L	-0.1183 ppb	16:42:32
3	Be 313.107†	-650.5	434.2	0.1261 µg/L	0.1261 ppb	16:42:12
3	Cd 226.502†	-44.5	58.4	0.3944 µg/L	0.3944 ppb	16:42:32
3	Co 228.616†	-180.7	27.7	0.3658 µg/L	0.3658 ppb	16:42:32
3	Cr 267.716†	228.4	-2.3	-0.0211 µg/L	-0.0211 ppb	16:42:32
3	Cu 324.752†	2905.1	-99.8	-0.4156 µg/L	-0.4156 ppb	16:42:12
3	Mn 257.610†	227.5	45.3	0.0597 µg/L	0.0597 ppb	16:42:32
3	Mo 202.031†	-9.6	28.8	0.9435 µg/L	0.9435 ppb	16:42:32
3	Ni 231.604†	-57.6	37.7	0.4718 µg/L	0.4718 ppb	16:42:32
3	P 214.914†	22.8	48.7	11.259 µg/L	11.259 ppb	16:42:32
3	Pb 220.353†	119.8	17.6	1.0864 µg/L	1.0864 ppb	16:42:32
3	S 181.975 Axial†	84.0	-4.0	-3.3925 µg/L	-3.3925 ppb	16:42:32
3	Sb 206.836†	89.3	0.6	0.0839 µg/L	0.0839 ppb	16:42:32
3	Se 196.026†	23.1	17.2	6.78 µg/L	6.78 ppb	16:42:32
3	SiO2†	1790.2	70.4	7.4259 µg/L	7.4259 ppb	16:42:32
3	Si 251.611†	1153.3	398.6	6.2742 µg/L	6.2742 ppb	16:42:12
3	Sn 189.927†	0.5	-1.4	-0.0955 µg/L	-0.0955 ppb	16:42:32
3	Ti 334.940†	676.4	-139.4	-0.1441 µg/L	-0.1441 ppb	16:42:12
3	Tl 190.801†	-115.1	-2.0	-0.2824 µg/L	-0.2824 ppb	16:42:32
3	U 409.014†	-143.9	18.0	1.1202 µg/L	1.1202 ppb	16:42:12
3	V 292.402†	377.5	-41.7	-0.2057 µg/L	-0.2057 ppb	16:42:12
3	Zn 213.857†	584.5	87.8	0.5213 µg/L	0.5213 ppb	16:42:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1791043.7	99.273	%	0.3676				0.37%
Sc RADIAL	136643.6	97.5	%	0.81				0.83%
Y 371.029	1053311.0	99.623	%	0.3674				0.37%
Ag 328.068†	-539.6	-2.2171	µg/L	0.53857	-2.2171	ppb	0.53857	24.29%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.0	2.0809	µg/L	3.52725	2.0809	ppb	3.52725	169.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.8	0.6116	µg/L	0.78382	0.6116	ppb	0.78382	128.17%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-54.0	-0.8408	µg/L	1.10448	-0.8408	ppb	1.10448	131.36%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-13.9	-0.0618	µg/L	0.09022	-0.0618	ppb	0.09022	146.01%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	478.6	0.1370	µg/L	0.01839	0.1370	ppb	0.01839	13.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	61.3	4.1744	µg/L	1.42623	4.1744	ppb	1.42623	34.17%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	39.6	0.2677	µg/L	0.15164	0.2677	ppb	0.15164	56.65%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.3	0.1499	µg/L	0.23781	0.1499	ppb	0.23781	158.65%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              10.8      0.0977 µg/L       0.16635      0.0977 ppb        0.16635 170.29%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -197.0     -0.8278 µg/L       0.38076     -0.8278 ppb        0.38076  46.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       36.7      2.7377 µg/L       1.11353      2.7377 ppb        1.11353  40.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       136.8     54.197 µg/L       26.6054     54.197 ppb        26.6054  49.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          12.7      5.8892 µg/L       7.26896      5.8892 ppb        7.26896 123.43%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              48.2      0.0637 µg/L       0.01878      0.0637 ppb        0.01878  29.51%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              15.3      0.5005 µg/L       0.38378      0.5005 ppb        0.38378  76.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      118.0     18.244 µg/L       10.4639     18.244 ppb        10.4639  57.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              28.2      0.3527 µg/L       0.11039      0.3527 ppb        0.11039  31.30%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               47.3     10.941 µg/L        0.7992     10.941 ppb         0.7992   7.30%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              15.2      0.9381 µg/L       0.19024      0.9381 ppb        0.19024  20.28%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.6      2.1571 µg/L       4.80982      2.1571 ppb        4.80982 222.98%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.8     -0.2208 µg/L       0.26524     -0.2208 ppb        0.26524 120.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              10.8       4.26 µg/L         2.187        4.26 ppb          2.187  51.32%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    57.2      6.0389 µg/L       3.43538      6.0389 ppb        3.43538  56.89%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             342.4      5.3930 µg/L       0.77662      5.3930 ppb        0.77662  14.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.4      0.0300 µg/L       0.12089      0.0300 ppb        0.12089 403.31%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               6.2      0.0146 µg/L       0.07893      0.0146 ppb        0.07893 539.76%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -71.7     -0.0718 µg/L       0.14746     -0.0718 ppb        0.14746 205.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.3      0.3091 µg/L       0.65961      0.3091 ppb        0.65961 213.37%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -86.8     -5.4810 µg/L       5.75076     -5.4810 ppb        5.75076 104.92%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -21.3     -0.1088 µg/L       0.37124     -0.1088 ppb        0.37124 341.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              89.4      0.5319 µg/L       0.02905      0.5319 ppb        0.02905   5.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 33
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 16:51:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137355.8	137355.8	98.0	%			16:51:36
1	Al 396.153Radial†	22880.1	23414.6	4906.0	µg/L	4906.0	ppb	16:51:36
1	Ca 317.933Radial†	73465.8	74358.3	5064.5	µg/L	5064.5	ppb	16:51:36
1	Fe 238.204 Radial†	66113.6	67313.8	5026.9	µg/L	5026.9	ppb	16:51:36
1	K 766.490 Radial†	13798.9	12580.1	4980.7	µg/L	4980.7	ppb	16:51:36
1	Mg 279.077 IEC†	10888.3	10932.8	5056.2	µg/L	5056.2	ppb	16:51:36
1	Na 589.592 Radial†	64470.3	64802.5	10040	µg/L	10040	ppb	16:51:36
1	Sr 421.552†	206244.2	210558.6	496.56	µg/L	496.56	ppb	16:51:34
1	Sc 361.383	1752111.7	1752111.7	97.115	%			16:52:03
1	Y 371.029	1019584.4	1019584.4	96.433	%			16:52:03
1	Ag 328.068†	122797.2	121879.4	505.19	µg/L	505.19	ppb	16:52:03
1	As 188.979†	1318.6	1376.3	472.82	µg/L	472.82	ppb	16:52:23
1	B 249.677†	34713.1	31679.0	490.91	µg/L	490.91	ppb	16:52:03
1	Ba 233.527†	108160.2	111517.3	496.09	µg/L	496.09	ppb	16:52:03
1	Be 313.107†	1631065.2	1680602.7	486.97	µg/L	486.97	ppb	16:52:03
1	Cd 226.502†	71875.3	74113.5	500.60	µg/L	500.60	ppb	16:52:03
1	Co 228.616†	36789.0	38092.0	504.19	µg/L	504.19	ppb	16:52:03
1	Cr 267.716†	56587.7	58035.2	501.93	µg/L	501.93	ppb	16:52:03
1	Cu 324.752†	118690.0	119179.2	500.05	µg/L	500.05	ppb	16:52:03
1	Mn 257.610†	367234.6	377957.5	501.16	µg/L	501.16	ppb	16:52:03
1	Mo 202.031†	15075.9	15562.2	509.40	µg/L	509.40	ppb	16:52:23
1	Ni 231.604†	38933.2	40185.5	502.77	µg/L	502.77	ppb	16:52:03
1	P 214.914†	10611.3	10952.1	2524.8	µg/L	2524.8	ppb	16:52:23
1	Pb 220.353†	8167.7	8306.9	512.76	µg/L	512.76	ppb	16:52:23
1	S 181.975 Axial†	1254.0	1202.4	1015.8	µg/L	1015.8	ppb	16:52:23
1	Sb 206.836†	3885.0	3910.7	505.50	µg/L	505.50	ppb	16:52:23
1	Se 196.026†	1249.6	1280.6	507	µg/L	507	ppb	16:52:23
1	SiO2†	50526.9	50288.5	5303.7	µg/L	5303.7	ppb	16:52:03
1	Si 251.611†	154417.4	158236.9	2485.1	µg/L	2485.1	ppb	16:52:03
1	Sn 189.927†	7000.5	7206.5	501.55	µg/L	501.55	ppb	16:52:23
1	Ti 334.940†	471932.7	485127.0	497.62	µg/L	497.62	ppb	16:52:03
1	Tl 190.801†	3478.0	3695.6	512.13	µg/L	512.13	ppb	16:52:23
1	U 409.014†	7202.5	7579.8	508.77	µg/L	508.77	ppb	16:52:03
1	V 292.402†	93876.8	96241.9	505.57	µg/L	505.57	ppb	16:52:03
1	Zn 213.857†	82228.6	84167.9	498.67	µg/L	498.67	ppb	16:52:03
2	Sc RADIAL	137852.9	137852.9	98.4	%			16:51:40
2	Al 396.153Radial†	23111.3	23565.4	4938.1	µg/L	4938.1	ppb	16:51:40
2	Ca 317.933Radial†	73767.6	74394.9	5067.0	µg/L	5067.0	ppb	16:51:40
2	Fe 238.204 Radial†	66317.2	67277.5	5024.2	µg/L	5024.2	ppb	16:51:40
2	K 766.490 Radial†	14151.3	12887.5	5102.5	µg/L	5102.5	ppb	16:51:40
2	Mg 279.077 IEC†	10935.5	10940.7	5059.7	µg/L	5059.7	ppb	16:51:40
2	Na 589.592 Radial†	64562.9	64659.5	10018	µg/L	10018	ppb	16:51:40
2	Sr 421.552†	206421.6	209980.3	495.19	µg/L	495.19	ppb	16:51:38
2	Sc 361.383	1776733.8	1776733.8	98.480	%			16:52:26
2	Y 371.029	1032902.3	1032902.3	97.693	%			16:52:26
2	Ag 328.068†	124434.0	121789.1	504.80	µg/L	504.80	ppb	16:52:26
2	As 188.979†	1315.4	1354.2	465.34	µg/L	465.34	ppb	16:52:46
2	B 249.677†	35510.4	31993.2	495.79	µg/L	495.79	ppb	16:52:26
2	Ba 233.527†	109739.6	111577.7	496.36	µg/L	496.36	ppb	16:52:26
2	Be 313.107†	1659332.8	1686031.8	488.54	µg/L	488.54	ppb	16:52:26
2	Cd 226.502†	73406.4	74642.6	504.18	µg/L	504.18	ppb	16:52:26
2	Co 228.616†	37458.3	38246.7	506.24	µg/L	506.24	ppb	16:52:26
2	Cr 267.716†	57445.4	58098.7	502.50	µg/L	502.50	ppb	16:52:26
2	Cu 324.752†	120511.7	119335.4	500.68	µg/L	500.68	ppb	16:52:26
2	Mn 257.610†	372819.3	378388.0	501.74	µg/L	501.74	ppb	16:52:26
2	Mo 202.031†	15067.4	15338.5	502.09	µg/L	502.09	ppb	16:52:46
2	Ni 231.604†	39645.5	40353.2	504.87	µg/L	504.87	ppb	16:52:26
2	P 214.914†	10601.0	10790.3	2487.4	µg/L	2487.4	ppb	16:52:46
2	Pb 220.353†	8159.4	8181.9	505.07	µg/L	505.07	ppb	16:52:46

2	S 181.975 Axial†	1265.7	1196.3	1010.7 µg/L	1010.7 ppb		16:52:46
2	Sb 206.836†	3871.1	3841.2	496.41 µg/L	496.41 ppb		16:52:46
2	Se 196.026†	1244.2	1257.3	498 µg/L	498 ppb		16:52:46
2	SiO2†	51226.3	50277.8	5302.9 µg/L	5302.9 ppb		16:52:26
2	Si 251.611†	157027.6	158683.8	2492.3 µg/L	2492.3 ppb		16:52:26
2	Sn 189.927†	6964.6	7070.2	492.10 µg/L	492.10 ppb		16:52:46
2	Ti 334.940†	478755.5	485320.8	497.83 µg/L	497.83 ppb		16:52:26
2	Tl 190.801†	3477.5	3645.5	505.28 µg/L	505.28 ppb		16:52:46
2	U 409.014†	6916.8	7186.9	484.01 µg/L	484.01 ppb		16:52:26
2	V 292.402†	95292.6	96340.0	505.99 µg/L	505.99 ppb		16:52:26
2	Zn 213.857†	83762.7	84552.4	500.95 µg/L	500.95 ppb		16:52:26
3	Sc RADIAL	137437.1	137437.1	98.1 %			16:51:44
3	Al 396.153Radial†	22956.7	23478.9	4920.1 µg/L	4920.1 ppb		16:51:44
3	Ca 317.933Radial†	73406.7	74253.8	5057.4 µg/L	5057.4 ppb		16:51:44
3	Fe 238.204 Radial†	66060.4	67219.7	5019.9 µg/L	5019.9 ppb		16:51:44
3	K 766.490 Radial†	13890.5	12665.1	5014.4 µg/L	5014.4 ppb		16:51:44
3	Mg 279.077 IEC†	10871.5	10909.1	5045.0 µg/L	5045.0 ppb		16:51:44
3	Na 589.592 Radial†	64580.1	64875.6	10052 µg/L	10052 ppb		16:51:44
3	Sr 421.552†	209193.1	213440.2	503.35 µg/L	503.35 ppb		16:51:42
3	Sc 361.383	1788229.0	1788229.0	99.117 %			16:52:50
3	Y 371.029	1039209.1	1039209.1	98.289 %			16:52:50
3	Ag 328.068†	124379.2	120921.6	501.23 µg/L	501.23 ppb		16:52:50
3	As 188.979†	1310.9	1341.1	460.85 µg/L	460.85 ppb		16:53:10
3	B 249.677†	35624.4	31876.5	493.99 µg/L	493.99 ppb		16:52:50
3	Ba 233.527†	110273.6	111400.1	495.56 µg/L	495.56 ppb		16:52:50
3	Be 313.107†	1658855.5	1674719.0	485.26 µg/L	485.26 ppb		16:52:50
3	Cd 226.502†	73433.7	74190.9	501.13 µg/L	501.13 ppb		16:52:50
3	Co 228.616†	37523.8	38068.2	503.88 µg/L	503.88 ppb		16:52:50
3	Cr 267.716†	57525.0	57804.0	499.95 µg/L	499.95 ppb		16:52:50
3	Cu 324.752†	120901.5	118942.0	499.04 µg/L	499.04 ppb		16:52:50
3	Mn 257.610†	373498.7	376639.9	499.42 µg/L	499.42 ppb		16:52:50
3	Mo 202.031†	15019.9	15192.2	497.30 µg/L	497.30 ppb		16:53:10
3	Ni 231.604†	39570.8	40019.1	500.69 µg/L	500.69 ppb		16:52:50
3	P 214.914†	10580.5	10700.4	2466.7 µg/L	2466.7 ppb		16:53:10
3	Pb 220.353†	8141.0	8110.0	500.63 µg/L	500.63 ppb		16:53:10
3	S 181.975 Axial†	1242.0	1164.1	983.54 µg/L	983.54 ppb		16:53:10
3	Sb 206.836†	3881.2	3826.0	494.43 µg/L	494.43 ppb		16:53:10
3	Se 196.026†	1251.9	1256.9	497 µg/L	497 ppb		16:53:10
3	SiO2†	51622.9	50343.5	5310.0 µg/L	5310.0 ppb		16:52:50
3	Si 251.611†	157506.8	158142.3	2483.9 µg/L	2483.9 ppb		16:52:50
3	Sn 189.927†	6998.1	7058.5	491.27 µg/L	491.27 ppb		16:53:10
3	Ti 334.940†	479185.6	482629.6	495.06 µg/L	495.06 ppb		16:52:50
3	Tl 190.801†	3467.5	3612.7	500.76 µg/L	500.76 ppb		16:53:10
3	U 409.014†	7087.9	7314.4	491.93 µg/L	491.93 ppb		16:52:50
3	V 292.402†	95535.1	95962.6	503.98 µg/L	503.98 ppb		16:52:50
3	Zn 213.857†	83766.7	84009.7	497.74 µg/L	497.74 ppb		16:52:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1772358.1	98.238	%	1.0227				1.04%
Sc RADIAL	137548.6	98.2	%	0.19				0.19%
Y 371.029	1030565.3	97.472	%	0.9476				0.97%
Ag 328.068†	121530.0	503.74	µg/L	2.180	503.74	ppb	2.180	0.43%
QC value within limits for Ag 328.068 Recovery = 100.75%								
Al 396.153Radial†	23486.3	4921.4	µg/L	16.09	4921.4	ppb	16.09	0.33%
QC value within limits for Al 396.153Radial Recovery = 98.43%								
As 188.979†	1357.2	466.34	µg/L	6.044	466.34	ppb	6.044	1.30%
QC value within limits for As 188.979 Recovery = 93.27%								
B 249.677†	31849.6	493.56	µg/L	2.467	493.56	ppb	2.467	0.50%
QC value within limits for B 249.677 Recovery = 98.71%								
Ba 233.527†	111498.4	496.00	µg/L	0.403	496.00	ppb	0.403	0.08%
QC value within limits for Ba 233.527 Recovery = 99.20%								
Be 313.107†	1680451.2	486.92	µg/L	1.638	486.92	ppb	1.638	0.34%
QC value within limits for Be 313.107 Recovery = 97.38%								
Ca 317.933Radial†	74335.7	5062.9	µg/L	4.99	5062.9	ppb	4.99	0.10%
QC value within limits for Ca 317.933Radial Recovery = 101.26%								
Cd 226.502†	74315.7	501.97	µg/L	1.932	501.97	ppb	1.932	0.38%
QC value within limits for Cd 226.502 Recovery = 100.39%								
Co 228.616†	38135.6	504.77	µg/L	1.282	504.77	ppb	1.282	0.25%

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   QC value within limits for Co 228.616  Recovery = 100.95%
Cr 267.716†            57979.3      501.46 µg/L         1.342      501.46 ppb          1.342   0.27%
   QC value within limits for Cr 267.716  Recovery = 100.29%
Cu 324.752†           119152.2      499.92 µg/L         0.828      499.92 ppb          0.828   0.17%
   QC value within limits for Cu 324.752  Recovery = 99.98%
Fe 238.204 Radial†     67270.3      5023.7 µg/L          3.54      5023.7 ppb           3.54   0.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.47%
K 766.490 Radial†      12710.9      5032.6 µg/L         62.89      5032.6 ppb          62.89   1.25%
   QC value within limits for K 766.490 Radial  Recovery = 100.65%
Mg 279.077 IEC†        10927.5      5053.6 µg/L          7.69      5053.6 ppb           7.69   0.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.07%
Mn 257.610†           377661.8      500.77 µg/L         1.208      500.77 ppb          1.208   0.24%
   QC value within limits for Mn 257.610  Recovery = 100.15%
Mo 202.031†            15364.3      502.93 µg/L         6.095      502.93 ppb          6.095   1.21%
   QC value within limits for Mo 202.031  Recovery = 100.59%
Na 589.592 Radial†     64779.2       10037 µg/L          17.1       10037 ppb           17.1   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 100.37%
Ni 231.604†            40185.9      502.78 µg/L         2.091      502.78 ppb          2.091   0.42%
   QC value within limits for Ni 231.604  Recovery = 100.56%
P 214.914†             10814.3      2493.0 µg/L         29.49      2493.0 ppb          29.49   1.18%
   QC value within limits for P 214.914  Recovery = 99.72%
Pb 220.353†             8199.6      506.16 µg/L         6.139      506.16 ppb          6.139   1.21%
   QC value within limits for Pb 220.353  Recovery = 101.23%
S 181.975 Axial†        1187.6      1003.3 µg/L         17.33      1003.3 ppb          17.33   1.73%
   QC value within limits for S 181.975 Axial  Recovery = 100.33%
Sb 206.836†             3859.3      498.78 µg/L         5.907      498.78 ppb          5.907   1.18%
   QC value within limits for Sb 206.836  Recovery = 99.76%
Se 196.026†             1264.9         501 µg/L           5.4         501 ppb            5.4   1.07%
   QC value within limits for Se 196.026  Recovery = 100.11%
SiO2†                  50303.3      5305.6 µg/L         3.89      5305.6 ppb           3.89   0.07%
   QC value within limits for SiO2  Recovery = 99.22%
Si 251.611†           158354.3      2487.1 µg/L         4.57      2487.1 ppb           4.57   0.18%
   QC value within limits for Si 251.611  Recovery = 99.48%
Sn 189.927†             7111.8      494.97 µg/L         5.710      494.97 ppb          5.710   1.15%
   QC value within limits for Sn 189.927  Recovery = 98.99%
Sr 421.552†           211326.4      498.37 µg/L         4.371      498.37 ppb          4.371   0.88%
   QC value within limits for Sr 421.552  Recovery = 99.67%
Ti 334.940†           484359.1      496.84 µg/L         1.540      496.84 ppb          1.540   0.31%
   QC value within limits for Ti 334.940  Recovery = 99.37%
Tl 190.801†             3651.2      506.06 µg/L         5.722      506.06 ppb          5.722   1.13%
   QC value within limits for Tl 190.801  Recovery = 101.21%
U 409.014†              7360.4      494.91 µg/L        12.645      494.91 ppb         12.645   2.55%
   QC value within limits for U 409.014  Recovery = 98.98%
V 292.402†             96181.5      505.18 µg/L         1.059      505.18 ppb          1.059   0.21%
   QC value within limits for V 292.402  Recovery = 101.04%
Zn 213.857†            84243.3      499.12 µg/L         1.653      499.12 ppb          1.653   0.33%
   QC value within limits for Zn 213.857  Recovery = 99.82%
All analyte(s) passed QC.
```

Sequence No.: 34
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 16:53:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138223.2	138223.2	98.7	%			16:53:49
1	Al 396.153Radial†	-56.4	21.4	4.4752	µg/L	4.4752	ppb	16:54:09
1	Ca 317.933Radial†	654.1	91.5	6.2324	µg/L	6.2324	ppb	16:54:09
1	Fe 238.204 Radial†	167.3	52.3	3.9024	µg/L	3.9024	ppb	16:54:09
1	K 766.490 Radial†	1634.3	162.6	64.439	µg/L	64.439	ppb	16:53:49
1	Mg 279.077 IEC†	168.5	-1.7	-0.7631	µg/L	-0.7631	ppb	16:54:09
1	Na 589.592 Radial†	1154.6	217.7	33.695	µg/L	33.695	ppb	16:53:49
1	Sr 421.552†	-280.4	-79.7	-0.1881	µg/L	-0.1881	ppb	16:53:49
1	Sc 361.383	1785502.9	1785502.9	98.966	%			16:55:11
1	Y 371.029	1050032.6	1050032.6	99.313	%			16:55:11
1	Ag 328.068†	3973.5	-550.1	-2.2464	µg/L	-2.2464	ppb	16:55:13
1	As 188.979†	-12.8	5.7	1.9179	µg/L	1.9179	ppb	16:55:33
1	B 249.677†	4095.0	72.6	1.1281	µg/L	1.1281	ppb	16:55:13
1	Ba 233.527†	-162.8	-20.0	-0.0885	µg/L	-0.0885	ppb	16:55:33
1	Be 313.107†	-582.9	502.8	0.1461	µg/L	0.1461	ppb	16:55:13
1	Cd 226.502†	-68.9	33.7	0.2277	µg/L	0.2277	ppb	16:55:33
1	Co 228.616†	-186.1	22.3	0.2943	µg/L	0.2943	ppb	16:55:33
1	Cr 267.716†	247.7	17.1	0.1468	µg/L	0.1468	ppb	16:55:33
1	Cu 324.752†	2720.8	-286.8	-1.1978	µg/L	-1.1978	ppb	16:55:13
1	Mn 257.610†	260.5	78.5	0.1041	µg/L	0.1041	ppb	16:55:33
1	Mo 202.031†	-17.5	20.9	0.6845	µg/L	0.6845	ppb	16:55:33
1	Ni 231.604†	-74.1	21.1	0.2636	µg/L	0.2636	ppb	16:55:33
1	P 214.914†	20.4	46.3	10.715	µg/L	10.715	ppb	16:55:33
1	Pb 220.353†	85.2	-17.3	-1.0646	µg/L	-1.0646	ppb	16:55:33
1	S 181.975 Axial†	93.1	5.2	4.3508	µg/L	4.3508	ppb	16:55:33
1	Sb 206.836†	88.2	-0.6	-0.0640	µg/L	-0.0640	ppb	16:55:33
1	Se 196.026†	21.9	16.0	6.32	µg/L	6.32	ppb	16:55:33
1	SiO2†	1721.7	0.6	0.0275	µg/L	0.0275	ppb	16:55:33
1	Si 251.611†	967.3	210.4	3.3013	µg/L	3.3013	ppb	16:55:13
1	Sn 189.927†	18.2	16.5	1.1446	µg/L	1.1446	ppb	16:55:33
1	Ti 334.940†	610.2	-206.4	-0.2125	µg/L	-0.2125	ppb	16:55:13
1	Tl 190.801†	-118.9	-5.9	-0.8070	µg/L	-0.8070	ppb	16:55:33
1	U 409.014†	-138.9	23.1	1.4741	µg/L	1.4741	ppb	16:55:13
1	V 292.402†	482.6	64.4	0.3423	µg/L	0.3423	ppb	16:55:13
1	Zn 213.857†	570.4	73.4	0.4369	µg/L	0.4369	ppb	16:55:33
2	Sc RADIAL	136695.8	136695.8	97.6	%			16:54:11
2	Al 396.153Radial†	-86.0	-9.6	-2.0285	µg/L	-2.0285	ppb	16:54:31
2	Ca 317.933Radial†	634.0	78.3	5.3338	µg/L	5.3338	ppb	16:54:31
2	Fe 238.204 Radial†	156.7	43.2	3.2290	µg/L	3.2290	ppb	16:54:31
2	K 766.490 Radial†	1547.2	91.9	36.407	µg/L	36.407	ppb	16:54:11
2	Mg 279.077 IEC†	154.9	-13.7	-6.3271	µg/L	-6.3271	ppb	16:54:31
2	Na 589.592 Radial†	1159.9	236.2	36.576	µg/L	36.576	ppb	16:54:11
2	Sr 421.552†	-103.4	98.6	0.2324	µg/L	0.2324	ppb	16:54:11
2	Sc 361.383	1779341.5	1779341.5	98.625	%			16:55:35
2	Y 371.029	1046540.2	1046540.2	98.983	%			16:55:35
2	Ag 328.068†	4365.1	-139.2	-0.5853	µg/L	-0.5853	ppb	16:55:37
2	As 188.979†	-10.4	8.0	2.7126	µg/L	2.7126	ppb	16:55:57
2	B 249.677†	4120.1	112.4	1.7472	µg/L	1.7472	ppb	16:55:37
2	Ba 233.527†	-167.6	-25.3	-0.1130	µg/L	-0.1130	ppb	16:55:57
2	Be 313.107†	-454.4	631.0	0.1807	µg/L	0.1807	ppb	16:55:37
2	Cd 226.502†	-91.1	11.0	0.0739	µg/L	0.0739	ppb	16:55:57
2	Co 228.616†	-202.6	4.9	0.0642	µg/L	0.0642	ppb	16:55:57
2	Cr 267.716†	251.4	21.7	0.1928	µg/L	0.1928	ppb	16:55:57
2	Cu 324.752†	2876.7	-119.3	-0.5041	µg/L	-0.5041	ppb	16:55:37
2	Mn 257.610†	262.5	81.4	0.1083	µg/L	0.1083	ppb	16:55:57
2	Mo 202.031†	-28.1	10.1	0.3305	µg/L	0.3305	ppb	16:55:57
2	Ni 231.604†	-99.9	-5.4	-0.0674	µg/L	-0.0674	ppb	16:55:57
2	P 214.914†	13.5	39.4	9.1117	µg/L	9.1117	ppb	16:55:57
2	Pb 220.353†	127.1	25.4	1.5689	µg/L	1.5689	ppb	16:55:57

2	S 181.975 Axial†	86.2	-1.5	-1.2596 µg/L	-1.2596 ppb	16:55:57
2	Sb 206.836†	73.6	-15.1	-1.9428 µg/L	-1.9428 ppb	16:55:57
2	Se 196.026†	10.3	4.3	1.68 µg/L	1.68 ppb	16:55:57
2	SiO2†	1760.5	46.0	4.8496 µg/L	4.8496 ppb	16:55:57
2	Si 251.611†	887.6	132.9	2.0864 µg/L	2.0864 ppb	16:55:37
2	Sn 189.927†	12.7	11.0	0.7645 µg/L	0.7645 ppb	16:55:57
2	Ti 334.940†	611.7	-202.7	-0.2048 µg/L	-0.2048 ppb	16:55:37
2	Tl 190.801†	-111.8	0.9	0.1144 µg/L	0.1144 ppb	16:55:57
2	U 409.014†	-268.6	-108.9	-6.9078 µg/L	-6.9078 ppb	16:55:37
2	V 292.402†	309.4	-109.5	-0.5680 µg/L	-0.5680 ppb	16:55:37
2	Zn 213.857†	561.5	66.3	0.3964 µg/L	0.3964 ppb	16:55:57
3	Sc RADIAL	137343.0	137343.0	98.0 %		16:54:33
3	Al 396.153Radial†	-97.0	-20.4	-4.3347 µg/L	-4.3347 ppb	16:54:53
3	Ca 317.933Radial†	647.9	89.4	6.0917 µg/L	6.0917 ppb	16:54:53
3	Fe 238.204 Radial†	153.5	39.3	2.9351 µg/L	2.9351 ppb	16:54:53
3	K 766.490 Radial†	1513.7	50.2	19.876 µg/L	19.876 ppb	16:54:33
3	Mg 279.077 IEC†	171.0	2.0	0.9310 µg/L	0.9310 ppb	16:54:53
3	Na 589.592 Radial†	1203.0	274.6	42.545 µg/L	42.545 ppb	16:54:33
3	Sr 421.552†	-134.5	67.3	0.1587 µg/L	0.1587 ppb	16:54:33
3	Sc 361.383	1772750.2	1772750.2	98.259 %		16:55:59
3	Y 371.029	1041540.1	1041540.1	98.510 %		16:55:59
3	Ag 328.068†	4382.0	-105.5	-0.4464 µg/L	-0.4464 ppb	16:56:01
3	As 188.979†	-23.1	-5.0	-1.6861 µg/L	-1.6861 ppb	16:56:21
3	B 249.677†	4089.6	96.9	1.5067 µg/L	1.5067 ppb	16:56:01
3	Ba 233.527†	-194.8	-53.7	-0.2385 µg/L	-0.2385 ppb	16:56:21
3	Be 313.107†	-864.9	211.6	0.0588 µg/L	0.0588 ppb	16:56:01
3	Cd 226.502†	-63.6	38.6	0.2610 µg/L	0.2610 ppb	16:56:21
3	Co 228.616†	-193.9	13.0	0.1715 µg/L	0.1715 ppb	16:56:21
3	Cr 267.716†	253.2	24.5	0.2185 µg/L	0.2185 ppb	16:56:21
3	Cu 324.752†	2646.2	-343.0	-1.4411 µg/L	-1.4411 ppb	16:56:01
3	Mn 257.610†	261.4	81.3	0.1078 µg/L	0.1078 ppb	16:56:21
3	Mo 202.031†	-9.7	28.7	0.9397 µg/L	0.9397 ppb	16:56:21
3	Ni 231.604†	-77.8	16.7	0.2090 µg/L	0.2090 ppb	16:56:21
3	P 214.914†	17.1	43.1	9.9718 µg/L	9.9718 ppb	16:56:21
3	Pb 220.353†	116.7	15.3	0.9501 µg/L	0.9501 ppb	16:56:21
3	S 181.975 Axial†	75.2	-12.3	-10.379 µg/L	-10.379 ppb	16:56:21
3	Sb 206.836†	78.1	-10.2	-1.3088 µg/L	-1.3088 ppb	16:56:21
3	Se 196.026†	24.0	18.3	7.21 µg/L	7.21 ppb	16:56:21
3	SiO2†	1767.3	59.5	6.2698 µg/L	6.2698 ppb	16:56:21
3	Si 251.611†	971.0	221.2	3.4732 µg/L	3.4732 ppb	16:56:01
3	Sn 189.927†	6.5	4.8	0.3314 µg/L	0.3314 ppb	16:56:21
3	Ti 334.940†	907.8	100.9	0.1070 µg/L	0.1070 ppb	16:56:01
3	Tl 190.801†	-119.8	-7.7	-1.0512 µg/L	-1.0512 ppb	16:56:21
3	U 409.014†	-288.9	-130.6	-8.2628 µg/L	-8.2628 ppb	16:56:01
3	V 292.402†	348.5	-68.6	-0.3507 µg/L	-0.3507 ppb	16:56:01
3	Zn 213.857†	555.5	62.3	0.3716 µg/L	0.3716 ppb	16:56:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1779198.2	98.617	%	0.3535				0.36%
Sc RADIAL	137420.7	98.1	%	0.55				0.56%
Y 371.029	1046037.6	98.935	%	0.4037				0.41%
Ag 328.068†	-265.0	-1.0927	µg/L	1.00151	-1.0927	ppb	1.00151	91.65%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.8	-0.6293	µg/L	4.56854	-0.6293	ppb	4.56854	725.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.9	0.9814	µg/L	2.34409	0.9814	ppb	2.34409	238.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	94.0	1.4607	µg/L	0.31210	1.4607	ppb	0.31210	21.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-33.0	-0.1467	µg/L	0.08050	-0.1467	ppb	0.08050	54.89%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	448.4	0.1285	µg/L	0.06283	0.1285	ppb	0.06283	48.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	86.4	5.8860	µg/L	0.48335	5.8860	ppb	0.48335	8.21%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.8	0.1875	µg/L	0.09979	0.1875	ppb	0.09979	53.22%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	13.4	0.1767	µg/L	0.11514	0.1767	ppb	0.11514	65.18%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              21.1      0.1860 µg/L       0.03631      0.1860 ppb        0.03631  19.52%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -249.7     -1.0477 µg/L       0.48617     -1.0477 ppb        0.48617  46.40%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       44.9      3.3555 µg/L       0.49591      3.3555 ppb        0.49591  14.78%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       101.6     40.241 µg/L       22.5277     40.241 ppb        22.5277  55.98%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -4.5     -2.0531 µg/L       3.79712     -2.0531 ppb        3.79712 184.95%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              80.4      0.1068 µg/L       0.00227      0.1068 ppb        0.00227   2.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              19.9      0.6516 µg/L       0.30593      0.6516 ppb        0.30593  46.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      242.8     37.605 µg/L        4.5141     37.605 ppb         4.5141  12.00%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              10.8      0.1351 µg/L       0.17747      0.1351 ppb        0.17747 131.37%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               42.9      9.9327 µg/L       0.80224      9.9327 ppb        0.80224   8.08%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               7.8      0.4848 µg/L       1.37700      0.4848 ppb        1.37700 284.04%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.9     -2.4294 µg/L       7.43446     -2.4294 ppb        7.43446 306.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -8.6     -1.1052 µg/L       0.95582     -1.1052 ppb        0.95582  86.49%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              12.9      5.07 µg/L         2.971        5.07 ppb          2.971  58.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    35.4      3.7156 µg/L       3.27204      3.7156 ppb        3.27204  88.06%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             188.2      2.9536 µg/L       0.75596      2.9536 ppb        0.75596  25.59%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              10.8      0.7468 µg/L       0.40688      0.7468 ppb        0.40688  54.48%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              28.7      0.0676 µg/L       0.22453      0.0676 ppb        0.22453 331.91%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -102.8     -0.1034 µg/L       0.18229     -0.1034 ppb        0.18229 176.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -4.2     -0.5813 µg/L       0.61473     -0.5813 ppb        0.61473 105.75%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -72.2     -4.5655 µg/L       5.27416     -4.5655 ppb        5.27416 115.52%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -37.9     -0.1921 µg/L       0.47542     -0.1921 ppb        0.47542 247.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              67.3      0.4017 µg/L       0.03300      0.4017 ppb        0.03300   8.22%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 42
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 17:10:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137055.7	137055.7	97.8	%			17:10:43
1	Al 396.153Radial†	22620.0	23199.8	4861.3	µg/L	4861.3	ppb	17:10:43
1	Ca 317.933Radial†	73231.8	74283.3	5059.4	µg/L	5059.4	ppb	17:10:43
1	Fe 238.204 Radial†	65715.4	67054.4	5007.6	µg/L	5007.6	ppb	17:10:43
1	K 766.490 Radial†	13911.8	12726.3	5038.7	µg/L	5038.7	ppb	17:10:43
1	Mg 279.077 IEC†	10914.8	10984.2	5079.7	µg/L	5079.7	ppb	17:10:43
1	Na 589.592 Radial†	64048.5	64515.4	9995.9	µg/L	9995.9	ppb	17:10:43
1	Sr 421.552†	206888.5	211677.9	499.20	µg/L	499.20	ppb	17:10:41
1	Sc 361.383	1780631.5	1780631.5	98.696	%			17:11:10
1	Y 371.029	1034955.9	1034955.9	97.887	%			17:11:10
1	Ag 328.068†	124044.4	121117.8	502.05	µg/L	502.05	ppb	17:11:10
1	As 188.979†	1275.2	1310.6	450.55	µg/L	450.55	ppb	17:11:30
1	B 249.677†	35291.1	31692.2	491.12	µg/L	491.12	ppb	17:11:10
1	Ba 233.527†	109275.6	110863.6	493.18	µg/L	493.18	ppb	17:11:10
1	Be 313.107†	1648732.5	1671603.2	484.37	µg/L	484.37	ppb	17:11:10
1	Cd 226.502†	73212.0	74282.5	501.75	µg/L	501.75	ppb	17:11:10
1	Co 228.616†	37312.8	38016.0	503.18	µg/L	503.18	ppb	17:11:10
1	Cr 267.716†	57368.8	57893.4	500.71	µg/L	500.71	ppb	17:11:10
1	Cu 324.752†	120151.9	118702.9	498.05	µg/L	498.05	ppb	17:11:10
1	Mn 257.610†	371743.2	376469.0	499.19	µg/L	499.19	ppb	17:11:10
1	Mo 202.031†	14969.7	15206.0	497.75	µg/L	497.75	ppb	17:11:30
1	Ni 231.604†	39431.1	40047.9	501.05	µg/L	501.05	ppb	17:11:10
1	P 214.914†	10531.7	10696.5	2465.7	µg/L	2465.7	ppb	17:11:30
1	Pb 220.353†	8083.6	8086.9	499.19	µg/L	499.19	ppb	17:11:30
1	S 181.975 Axial†	1261.8	1189.6	1004.9	µg/L	1004.9	ppb	17:11:30
1	Sb 206.836†	3859.2	3820.5	493.71	µg/L	493.71	ppb	17:11:30
1	Se 196.026†	1267.3	1277.9	506	µg/L	506	ppb	17:11:30
1	SiO2†	51149.4	50086.0	5282.8	µg/L	5282.8	ppb	17:11:10
1	Si 251.611†	156453.9	157753.6	2477.7	µg/L	2477.7	ppb	17:11:10
1	Sn 189.927†	6948.7	7038.6	489.89	µg/L	489.89	ppb	17:11:30
1	Ti 334.940†	476133.7	481600.2	494.00	µg/L	494.00	ppb	17:11:10
1	Tl 190.801†	3446.6	3606.4	499.90	µg/L	499.90	ppb	17:11:30
1	U 409.014†	7294.1	7553.8	507.01	µg/L	507.01	ppb	17:11:10
1	V 292.402†	95018.5	95850.4	503.42	µg/L	503.42	ppb	17:11:10
1	Zn 213.857†	83456.0	84055.5	498.01	µg/L	498.01	ppb	17:11:10
2	Sc RADIAL	135408.6	135408.6	96.7	%			17:10:47
2	Al 396.153Radial†	22517.3	23374.9	4898.1	µg/L	4898.1	ppb	17:10:47
2	Ca 317.933Radial†	72313.8	74244.0	5056.7	µg/L	5056.7	ppb	17:10:47
2	Fe 238.204 Radial†	64838.0	66963.7	5000.8	µg/L	5000.8	ppb	17:10:47
2	K 766.490 Radial†	13819.4	12803.7	5069.3	µg/L	5069.3	ppb	17:10:47
2	Mg 279.077 IEC†	10682.9	10880.0	5031.6	µg/L	5031.6	ppb	17:10:47
2	Na 589.592 Radial†	63233.4	64468.4	9988.6	µg/L	9988.6	ppb	17:10:47
2	Sr 421.552†	205022.8	212320.0	500.71	µg/L	500.71	ppb	17:10:45
2	Sc 361.383	1773415.5	1773415.5	98.296	%			17:11:33
2	Y 371.029	1031141.7	1031141.7	97.526	%			17:11:33
2	Ag 328.068†	123480.7	121055.8	501.78	µg/L	501.78	ppb	17:11:33
2	As 188.979†	1277.7	1318.4	453.19	µg/L	453.19	ppb	17:11:53
2	B 249.677†	35100.4	31643.6	490.37	µg/L	490.37	ppb	17:11:33
2	Ba 233.527†	108533.0	110558.7	491.82	µg/L	491.82	ppb	17:11:33
2	Be 313.107†	1637326.4	1666796.7	482.97	µg/L	482.97	ppb	17:11:33
2	Cd 226.502†	72551.1	73911.9	499.24	µg/L	499.24	ppb	17:11:33
2	Co 228.616†	37155.6	38009.9	503.10	µg/L	503.10	ppb	17:11:33
2	Cr 267.716†	56945.8	57699.6	499.03	µg/L	499.03	ppb	17:11:33
2	Cu 324.752†	119557.0	118593.0	497.59	µg/L	497.59	ppb	17:11:33
2	Mn 257.610†	369699.1	375922.1	498.47	µg/L	498.47	ppb	17:11:33
2	Mo 202.031†	14961.3	15259.2	499.49	µg/L	499.49	ppb	17:11:53
2	Ni 231.604†	39207.3	39982.7	500.23	µg/L	500.23	ppb	17:11:33
2	P 214.914†	10496.3	10703.9	2467.5	µg/L	2467.5	ppb	17:11:53
2	Pb 220.353†	8111.8	8149.0	503.01	µg/L	503.01	ppb	17:11:53

2	S 181.975 Axial†	1254.9	1187.7	1003.4 µg/L	1003.4 ppb	17:11:53
2	Sb 206.836†	3864.5	3841.8	496.50 µg/L	496.50 ppb	17:11:53
2	Se 196.026†	1250.8	1266.3	501 µg/L	501 ppb	17:11:53
2	SiO2†	50934.6	50078.3	5281.9 µg/L	5281.9 ppb	17:11:33
2	Si 251.611†	156181.0	158120.9	2483.5 µg/L	2483.5 ppb	17:11:33
2	Sn 189.927†	6932.1	7050.4	490.71 µg/L	490.71 ppb	17:11:53
2	Ti 334.940†	473748.0	481136.1	493.52 µg/L	493.52 ppb	17:11:33
2	Tl 190.801†	3451.9	3626.0	502.55 µg/L	502.55 ppb	17:11:53
2	U 409.014†	7314.8	7604.9	510.15 µg/L	510.15 ppb	17:11:33
2	V 292.402†	94350.7	95562.7	501.94 µg/L	501.94 ppb	17:11:33
2	Zn 213.857†	83141.9	84080.0	498.16 µg/L	498.16 ppb	17:11:33
3	Sc RADIAL	136034.8	136034.8	97.1 %		17:10:51
3	Al 396.153Radial†	22623.7	23377.2	4898.3 µg/L	4898.3 ppb	17:10:51
3	Ca 317.933Radial†	72562.4	74155.6	5050.7 µg/L	5050.7 ppb	17:10:51
3	Fe 238.204 Radial†	65104.3	66929.1	4998.2 µg/L	4998.2 ppb	17:10:51
3	K 766.490 Radial†	13892.9	12813.5	5073.2 µg/L	5073.2 ppb	17:10:51
3	Mg 279.077 IEC†	10800.7	10950.5	5064.3 µg/L	5064.3 ppb	17:10:51
3	Na 589.592 Radial†	63633.4	64579.1	10006 µg/L	10006 ppb	17:10:51
3	Sr 421.552†	202879.3	209135.9	493.20 µg/L	493.20 ppb	17:10:49
3	Sc 361.383	1767543.4	1767543.4	97.971 %		17:11:56
3	Y 371.029	1027715.0	1027715.0	97.202 %		17:11:56
3	Ag 328.068†	123605.9	121600.9	504.02 µg/L	504.02 ppb	17:11:56
3	As 188.979†	1298.3	1343.8	461.78 µg/L	461.78 ppb	17:12:16
3	B 249.677†	35304.7	31970.8	495.45 µg/L	495.45 ppb	17:11:56
3	Ba 233.527†	108988.9	111390.8	495.53 µg/L	495.53 ppb	17:11:56
3	Be 313.107†	1634588.3	1669535.7	483.77 µg/L	483.77 ppb	17:11:56
3	Cd 226.502†	72862.0	74474.5	503.05 µg/L	503.05 ppb	17:11:56
3	Co 228.616†	37221.5	38202.8	505.66 µg/L	505.66 ppb	17:11:56
3	Cr 267.716†	56873.2	57818.0	500.05 µg/L	500.05 ppb	17:11:56
3	Cu 324.752†	119352.8	118788.8	498.41 µg/L	498.41 ppb	17:11:56
3	Mn 257.610†	370060.0	377540.0	500.61 µg/L	500.61 ppb	17:11:56
3	Mo 202.031†	15077.9	15428.7	505.04 µg/L	505.04 ppb	17:12:16
3	Ni 231.604†	39389.7	40301.4	504.22 µg/L	504.22 ppb	17:11:56
3	P 214.914†	10642.6	10888.8	2510.2 µg/L	2510.2 ppb	17:12:16
3	Pb 220.353†	8197.6	8264.0	510.11 µg/L	510.11 ppb	17:12:16
3	S 181.975 Axial†	1254.0	1191.1	1006.3 µg/L	1006.3 ppb	17:12:16
3	Sb 206.836†	3915.3	3906.7	504.95 µg/L	504.95 ppb	17:12:16
3	Se 196.026†	1258.0	1277.9	506 µg/L	506 ppb	17:12:16
3	SiO2†	51109.0	50428.5	5318.7 µg/L	5318.7 ppb	17:11:56
3	Si 251.611†	156522.7	158997.6	2497.2 µg/L	2497.2 ppb	17:11:56
3	Sn 189.927†	7013.8	7157.1	498.12 µg/L	498.12 ppb	17:12:16
3	Ti 334.940†	473724.5	482713.3	495.14 µg/L	495.14 ppb	17:11:56
3	Tl 190.801†	3493.7	3680.3	510.00 µg/L	510.00 ppb	17:12:16
3	U 409.014†	7206.6	7519.2	504.83 µg/L	504.83 ppb	17:11:56
3	V 292.402†	94298.6	95828.4	503.38 µg/L	503.38 ppb	17:11:56
3	Zn 213.857†	83272.4	84494.2	500.61 µg/L	500.61 ppb	17:11:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1773863.5	98.321	%	0.3634				0.37%
Sc RADIAL	136166.4	97.2	%	0.59				0.61%
Y 371.029	1031270.8	97.538	%	0.3426				0.35%
Ag 328.068†	121258.2	502.62	µg/L	1.224	502.62	ppb	1.224	0.24%
QC value within limits for Ag 328.068 Recovery = 100.52%								
Al 396.153Radial†	23317.3	4885.9	µg/L	21.30	4885.9	ppb	21.30	0.44%
QC value within limits for Al 396.153Radial Recovery = 97.72%								
As 188.979†	1324.3	455.17	µg/L	5.872	455.17	ppb	5.872	1.29%
QC value within limits for As 188.979 Recovery = 91.03%								
B 249.677†	31768.8	492.31	µg/L	2.741	492.31	ppb	2.741	0.56%
QC value within limits for B 249.677 Recovery = 98.46%								
Ba 233.527†	110937.7	493.51	µg/L	1.873	493.51	ppb	1.873	0.38%
QC value within limits for Ba 233.527 Recovery = 98.70%								
Be 313.107†	1669311.9	483.70	µg/L	0.698	483.70	ppb	0.698	0.14%
QC value within limits for Be 313.107 Recovery = 96.74%								
Ca 317.933Radial†	74227.6	5055.6	µg/L	4.46	5055.6	ppb	4.46	0.09%
QC value within limits for Ca 317.933Radial Recovery = 101.11%								
Cd 226.502†	74223.0	501.34	µg/L	1.934	501.34	ppb	1.934	0.39%
QC value within limits for Cd 226.502 Recovery = 100.27%								
Co 228.616†	38076.2	503.98	µg/L	1.452	503.98	ppb	1.452	0.29%

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   QC value within limits for Co 228.616  Recovery = 100.80%
Cr 267.716†            57803.7      499.93 µg/L         0.847      499.93 ppb          0.847   0.17%
   QC value within limits for Cr 267.716  Recovery = 99.99%
Cu 324.752†           118694.9      498.02 µg/L         0.409      498.02 ppb          0.409   0.08%
   QC value within limits for Cu 324.752  Recovery = 99.60%
Fe 238.204 Radial†     66982.4      5002.2 µg/L          4.83      5002.2 ppb           4.83   0.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.04%
K 766.490 Radial†      12781.2      5060.4 µg/L         18.93      5060.4 ppb          18.93   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 101.21%
Mg 279.077 IEC†        10938.3      5058.6 µg/L         24.54      5058.6 ppb          24.54   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.17%
Mn 257.610†           376643.7      499.42 µg/L         1.091      499.42 ppb          1.091   0.22%
   QC value within limits for Mn 257.610  Recovery = 99.88%
Mo 202.031†            15298.0      500.76 µg/L         3.804      500.76 ppb          3.804   0.76%
   QC value within limits for Mo 202.031  Recovery = 100.15%
Na 589.592 Radial†     64521.0      9996.8 µg/L          8.61      9996.8 ppb           8.61   0.09%
   QC value within limits for Na 589.592 Radial  Recovery = 99.97%
Ni 231.604†            40110.7      501.83 µg/L         2.107      501.83 ppb          2.107   0.42%
   QC value within limits for Ni 231.604  Recovery = 100.37%
P 214.914†             10763.1      2481.1 µg/L         25.20      2481.1 ppb          25.20   1.02%
   QC value within limits for P 214.914  Recovery = 99.25%
Pb 220.353†             8166.6      504.10 µg/L         5.542      504.10 ppb          5.542   1.10%
   QC value within limits for Pb 220.353  Recovery = 100.82%
S 181.975 Axial†        1189.5      1004.9 µg/L          1.46      1004.9 ppb           1.46   0.15%
   QC value within limits for S 181.975 Axial  Recovery = 100.49%
Sb 206.836†             3856.3      498.39 µg/L         5.853      498.39 ppb          5.853   1.17%
   QC value within limits for Sb 206.836  Recovery = 99.68%
Se 196.026†             1274.0         504 µg/L           2.6         504 ppb            2.6   0.52%
   QC value within limits for Se 196.026  Recovery = 100.83%
SiO2†                  50197.6      5294.5 µg/L         21.01      5294.5 ppb          21.01   0.40%
   QC value within limits for SiO2  Recovery = 99.01%
Si 251.611†           158290.7      2486.1 µg/L         10.00      2486.1 ppb          10.00   0.40%
   QC value within limits for Si 251.611  Recovery = 99.45%
Sn 189.927†             7082.1      492.90 µg/L         4.531      492.90 ppb          4.531   0.92%
   QC value within limits for Sn 189.927  Recovery = 98.58%
Sr 421.552†           211044.6      497.70 µg/L         3.971      497.70 ppb          3.971   0.80%
   QC value within limits for Sr 421.552  Recovery = 99.54%
Ti 334.940†           481816.5      494.22 µg/L         0.832      494.22 ppb          0.832   0.17%
   QC value within limits for Ti 334.940  Recovery = 98.84%
Tl 190.801†             3637.6      504.15 µg/L         5.234      504.15 ppb          5.234   1.04%
   QC value within limits for Tl 190.801  Recovery = 100.83%
U 409.014†              7559.3      507.33 µg/L         2.674      507.33 ppb          2.674   0.53%
   QC value within limits for U 409.014  Recovery = 101.47%
V 292.402†             95747.2      502.91 µg/L         0.841      502.91 ppb          0.841   0.17%
   QC value within limits for V 292.402  Recovery = 100.58%
Zn 213.857†            84209.9      498.93 µg/L         1.460      498.93 ppb          1.460   0.29%
   QC value within limits for Zn 213.857  Recovery = 99.79%
All analyte(s) passed QC.
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Sequence No.: 43
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 17:12:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135450.1	135450.1	96.7	%			17:12:56
1	Al 396.153Radial†	-81.3	-5.6	-1.1704	µg/L	-1.1704	ppb	17:13:16
1	Ca 317.933Radial†	651.0	101.9	6.9409	µg/L	6.9409	ppb	17:13:16
1	Fe 238.204 Radial†	154.7	42.7	3.1915	µg/L	3.1915	ppb	17:13:16
1	K 766.490 Radial†	1676.0	239.7	94.966	µg/L	94.966	ppb	17:12:56
1	Mg 279.077 IEC†	178.2	11.9	5.4792	µg/L	5.4792	ppb	17:13:16
1	Na 589.592 Radial†	1291.3	383.1	59.295	µg/L	59.295	ppb	17:12:56
1	Sr 421.552†	-290.3	-95.8	-0.2260	µg/L	-0.2260	ppb	17:12:56
1	Sc 361.383	1794956.0	1794956.0	99.490	%			17:14:17
1	Y 371.029	1055741.9	1055741.9	99.853	%			17:14:17
1	Ag 328.068†	4009.1	-535.5	-2.2145	µg/L	-2.2145	ppb	17:14:20
1	As 188.979†	-8.5	10.0	3.3980	µg/L	3.3980	ppb	17:14:40
1	B 249.677†	4081.5	37.3	0.5797	µg/L	0.5797	ppb	17:14:20
1	Ba 233.527†	-146.2	-2.4	-0.0105	µg/L	-0.0105	ppb	17:14:40
1	Be 313.107†	-734.1	353.9	0.0970	µg/L	0.0970	ppb	17:14:20
1	Cd 226.502†	-62.2	40.8	0.2757	µg/L	0.2757	ppb	17:14:40
1	Co 228.616†	-195.2	14.1	0.1868	µg/L	0.1868	ppb	17:14:40
1	Cr 267.716†	241.0	9.0	0.0924	µg/L	0.0924	ppb	17:14:40
1	Cu 324.752†	2546.0	-477.0	-2.0094	µg/L	-2.0094	ppb	17:14:20
1	Mn 257.610†	264.1	80.8	0.1069	µg/L	0.1069	ppb	17:14:40
1	Mo 202.031†	-41.4	-3.0	-0.0975	µg/L	-0.0975	ppb	17:14:40
1	Ni 231.604†	-56.6	39.0	0.4885	µg/L	0.4885	ppb	17:14:40
1	P 214.914†	32.5	58.4	13.522	µg/L	13.522	ppb	17:14:40
1	Pb 220.353†	113.5	10.6	0.6652	µg/L	0.6652	ppb	17:14:40
1	S 181.975 Axial†	101.3	12.9	10.885	µg/L	10.885	ppb	17:14:40
1	Sb 206.836†	84.4	-4.9	-0.6354	µg/L	-0.6354	ppb	17:14:40
1	Se 196.026†	24.6	18.5	7.29	µg/L	7.29	ppb	17:14:40
1	SiO2†	1814.0	84.2	8.9180	µg/L	8.9180	ppb	17:14:40
1	Si 251.611†	1086.7	325.3	5.1291	µg/L	5.1291	ppb	17:14:20
1	Sn 189.927†	5.2	3.4	0.2336	µg/L	0.2336	ppb	17:14:40
1	Ti 334.940†	616.5	-203.3	-0.2017	µg/L	-0.2017	ppb	17:14:20
1	Tl 190.801†	-115.3	-1.7	-0.2289	µg/L	-0.2289	ppb	17:14:40
1	U 409.014†	-447.5	-286.4	-18.072	µg/L	-18.072	ppb	17:14:20
1	V 292.402†	423.9	2.8	0.0017	µg/L	0.0017	ppb	17:14:20
1	Zn 213.857†	574.2	74.2	0.4407	µg/L	0.4407	ppb	17:14:40
2	Sc RADIAL	135362.7	135362.7	96.6	%			17:13:18
2	Al 396.153Radial†	-46.9	30.0	6.3205	µg/L	6.3205	ppb	17:13:38
2	Ca 317.933Radial†	654.8	106.2	7.2354	µg/L	7.2354	ppb	17:13:38
2	Fe 238.204 Radial†	151.1	39.1	2.9172	µg/L	2.9172	ppb	17:13:38
2	K 766.490 Radial†	1651.4	215.3	85.296	µg/L	85.296	ppb	17:13:18
2	Mg 279.077 IEC†	170.5	4.0	1.8339	µg/L	1.8339	ppb	17:13:38
2	Na 589.592 Radial†	1255.5	346.8	53.686	µg/L	53.686	ppb	17:13:18
2	Sr 421.552†	-150.8	48.4	0.1141	µg/L	0.1141	ppb	17:13:18
2	Sc 361.383	1774661.2	1774661.2	98.365	%			17:14:42
2	Y 371.029	1043754.1	1043754.1	98.719	%			17:14:42
2	Ag 328.068†	3896.3	-604.2	-2.4602	µg/L	-2.4602	ppb	17:14:44
2	As 188.979†	-4.0	14.4	4.8871	µg/L	4.8871	ppb	17:15:04
2	B 249.677†	4029.4	31.2	0.4860	µg/L	0.4860	ppb	17:14:44
2	Ba 233.527†	-177.5	-35.9	-0.1598	µg/L	-0.1598	ppb	17:15:04
2	Be 313.107†	-792.2	286.3	0.0869	µg/L	0.0869	ppb	17:14:44
2	Cd 226.502†	-77.2	24.9	0.1682	µg/L	0.1682	ppb	17:15:04
2	Co 228.616†	-211.6	-4.8	-0.0637	µg/L	-0.0637	ppb	17:15:04
2	Cr 267.716†	248.2	19.1	0.1546	µg/L	0.1546	ppb	17:15:04
2	Cu 324.752†	2897.7	-90.3	-0.3665	µg/L	-0.3665	ppb	17:14:44
2	Mn 257.610†	262.2	81.9	0.1085	µg/L	0.1085	ppb	17:15:04
2	Mo 202.031†	-39.9	-2.0	-0.0657	µg/L	-0.0657	ppb	17:15:04
2	Ni 231.604†	-57.8	37.2	0.4651	µg/L	0.4651	ppb	17:15:04
2	P 214.914†	59.1	85.8	19.849	µg/L	19.849	ppb	17:15:04
2	Pb 220.353†	102.6	0.9	0.0457	µg/L	0.0457	ppb	17:15:04

2	S 181.975 Axial†	96.4	9.1	7.6787 µg/L	7.6787 ppb	17:15:04
2	Sb 206.836†	91.0	2.8	0.3568 µg/L	0.3568 ppb	17:15:04
2	Se 196.026†	17.8	11.9	4.71 µg/L	4.71 ppb	17:15:04
2	SiO2†	1849.9	141.5	14.983 µg/L	14.983 ppb	17:15:04
2	Si 251.611†	1481.3	738.9	11.650 µg/L	11.650 ppb	17:14:44
2	Sn 189.927†	8.2	6.5	0.4504 µg/L	0.4504 ppb	17:15:04
2	Ti 334.940†	738.0	-72.7	-0.0800 µg/L	-0.0800 ppb	17:14:44
2	Tl 190.801†	-119.7	-7.4	-1.0189 µg/L	-1.0189 ppb	17:15:04
2	U 409.014†	41.9	206.0	12.984 µg/L	12.984 ppb	17:14:44
2	V 292.402†	369.3	-47.7	-0.2389 µg/L	-0.2389 ppb	17:14:44
2	Zn 213.857†	596.7	103.6	0.6157 µg/L	0.6157 ppb	17:15:04
3	Sc RADIAL	135515.0	135515.0	96.7 %		17:13:40
3	Al 396.153Radial†	-57.3	19.3	4.0176 µg/L	4.0176 ppb	17:14:00
3	Ca 317.933Radial†	669.5	120.6	8.2159 µg/L	8.2159 ppb	17:14:00
3	Fe 238.204 Radial†	201.1	90.6	6.7657 µg/L	6.7657 ppb	17:14:00
3	K 766.490 Radial†	1663.9	226.3	89.668 µg/L	89.668 ppb	17:13:40
3	Mg 279.077 IEC†	173.9	7.3	3.3985 µg/L	3.3985 ppb	17:14:00
3	Na 589.592 Radial†	1133.8	219.6	33.959 µg/L	33.959 ppb	17:13:40
3	Sr 421.552†	-187.3	10.8	0.0255 µg/L	0.0255 ppb	17:13:40
3	Sc 361.383	1777960.9	1777960.9	98.548 %		17:15:06
3	Y 371.029	1045750.5	1045750.5	98.908 %		17:15:06
3	Ag 328.068†	3929.1	-578.2	-2.3935 µg/L	-2.3935 ppb	17:15:08
3	As 188.979†	-0.9	17.6	5.9683 µg/L	5.9683 ppb	17:15:28
3	B 249.677†	3990.0	-16.4	-0.2556 µg/L	-0.2556 ppb	17:15:08
3	Ba 233.527†	-160.6	-18.4	-0.0818 µg/L	-0.0818 ppb	17:15:28
3	Be 313.107†	-481.6	603.1	0.1695 µg/L	0.1695 ppb	17:15:08
3	Cd 226.502†	-105.6	-3.8	-0.0264 µg/L	-0.0264 ppb	17:15:28
3	Co 228.616†	-199.0	8.3	0.1096 µg/L	0.1096 ppb	17:15:28
3	Cr 267.716†	245.7	16.1	0.1528 µg/L	0.1528 ppb	17:15:28
3	Cu 324.752†	2883.7	-109.9	-0.4727 µg/L	-0.4727 ppb	17:15:08
3	Mn 257.610†	296.9	116.6	0.1545 µg/L	0.1545 ppb	17:15:28
3	Mo 202.031†	-13.2	25.2	0.8237 µg/L	0.8237 ppb	17:15:28
3	Ni 231.604†	-69.5	25.4	0.3178 µg/L	0.3178 ppb	17:15:28
3	P 214.914†	25.3	51.4	11.884 µg/L	11.884 ppb	17:15:28
3	Pb 220.353†	98.0	-4.0	-0.2302 µg/L	-0.2302 ppb	17:15:28
3	S 181.975 Axial†	85.9	-1.7	-1.4411 µg/L	-1.4411 ppb	17:15:28
3	Sb 206.836†	109.7	21.6	2.7982 µg/L	2.7982 ppb	17:15:28
3	Se 196.026†	15.6	9.7	3.80 µg/L	3.80 ppb	17:15:28
3	SiO2†	1857.8	146.1	15.448 µg/L	15.448 ppb	17:15:28
3	Si 251.611†	1351.3	604.2	9.5170 µg/L	9.5170 ppb	17:15:08
3	Sn 189.927†	1.2	-0.7	-0.0491 µg/L	-0.0491 ppb	17:15:28
3	Ti 334.940†	765.8	-46.0	-0.0402 µg/L	-0.0402 ppb	17:15:08
3	Tl 190.801†	-118.5	-5.9	-0.8121 µg/L	-0.8121 ppb	17:15:28
3	U 409.014†	-430.2	-273.1	-17.262 µg/L	-17.262 ppb	17:15:08
3	V 292.402†	333.8	-84.5	-0.4409 µg/L	-0.4409 ppb	17:15:08
3	Zn 213.857†	555.7	60.9	0.3611 µg/L	0.3611 ppb	17:15:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1782526.0	98.801	%	0.6036				0.61%
Sc RADIAL	135442.6	96.7	%	0.05				0.06%
Y 371.029	1048415.5	99.160	%	0.6075				0.61%
Ag 328.068†	-572.6	-2.3561	µg/L	0.12707	-2.3561	ppb	0.12707	5.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.6	3.0559	µg/L	3.83691	3.0559	ppb	3.83691	125.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	14.0	4.7512	µg/L	1.29055	4.7512	ppb	1.29055	27.16%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	17.4	0.2700	µg/L	0.45762	0.2700	ppb	0.45762	169.48%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-18.9	-0.0841	µg/L	0.07468	-0.0841	ppb	0.07468	88.84%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	414.4	0.1178	µg/L	0.04505	0.1178	ppb	0.04505	38.24%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	109.6	7.4641	µg/L	0.66752	7.4641	ppb	0.66752	8.94%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	20.6	0.1392	µg/L	0.15308	0.1392	ppb	0.15308	110.00%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.9	0.0776	µg/L	0.12830	0.0776	ppb	0.12830	165.43%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.7      0.1333 µg/L       0.03539      0.1333 ppb        0.03539  26.55%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -225.7     -0.9496 µg/L       0.91940     -0.9496 ppb        0.91940  96.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       57.5      4.2915 µg/L       2.14715      4.2915 ppb        2.14715  50.03%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       227.1      89.976 µg/L        4.8423      89.976 ppb         4.8423   5.38%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           7.7      3.5705 µg/L       1.82871      3.5705 ppb        1.82871  51.22%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              93.1      0.1233 µg/L       0.02699      0.1233 ppb        0.02699  21.89%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.7      0.2201 µg/L       0.52291      0.2201 ppb        0.52291 237.53%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      316.5      48.980 µg/L       13.3077      48.980 ppb        13.3077  27.17%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              33.9      0.4238 µg/L       0.09251      0.4238 ppb        0.09251  21.83%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               65.2      15.085 µg/L        4.2062      15.085 ppb         4.2062  27.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               2.5      0.1602 µg/L       0.45859      0.1602 ppb        0.45859 286.20%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.8      5.7076 µg/L       6.39517      5.7076 ppb        6.39517 112.05%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.5      0.8399 µg/L       1.76706      0.8399 ppb        1.76706 210.40%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              13.4        5.27 µg/L         1.807        5.27 ppb          1.807  34.31%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   123.9      13.116 µg/L        3.6433      13.116 ppb         3.6433  27.78%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             556.1      8.7652 µg/L       3.32463      8.7652 ppb        3.32463  37.93%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.1      0.2116 µg/L       0.25047      0.2116 ppb        0.25047 118.34%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -12.2     -0.0288 µg/L       0.17643     -0.0288 ppb        0.17643 612.43%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -107.3     -0.1073 µg/L       0.08414     -0.1073 ppb        0.08414  78.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -5.0     -0.6867 µg/L       0.40968     -0.6867 ppb        0.40968  59.66%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -117.9     -7.4502 µg/L      17.70079     -7.4502 ppb       17.70079 237.59%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -43.1     -0.2260 µg/L       0.22162     -0.2260 ppb        0.22162  98.05%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              79.5      0.4725 µg/L       0.13026      0.4725 ppb        0.13026  27.57%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 49 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 4/5/2010 17:26:37**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137434.3	137434.3	98.1	%			17:27:10
1	Al 396.153Radial†	22772.8	23291.9	4880.6	µg/L	4880.6	ppb	17:27:10
1	Ca 317.933Radial†	73231.0	74076.2	5045.3	µg/L	5045.3	ppb	17:27:10
1	Fe 238.204 Radial†	65904.4	67062.0	5008.1	µg/L	5008.1	ppb	17:27:10
1	K 766.490 Radial†	13974.2	12750.7	5048.4	µg/L	5048.4	ppb	17:27:10
1	Mg 279.077 IEC†	10781.8	10817.9	5003.0	µg/L	5003.0	ppb	17:27:10
1	Na 589.592 Radial†	64015.4	64301.3	9962.7	µg/L	9962.7	ppb	17:27:10
1	Sr 421.552†	207090.5	211301.2	498.31	µg/L	498.31	ppb	17:27:08
1	Sc 361.383	1777803.3	1777803.3	98.540	%			17:27:23
1	Y 371.029	1034308.9	1034308.9	97.826	%			17:27:23
1	Ag 328.068†	123670.6	120938.4	501.30	µg/L	501.30	ppb	17:27:23
1	As 188.979†	1291.6	1329.3	456.87	µg/L	456.87	ppb	17:27:43
1	B 249.677†	35035.7	31489.8	487.98	µg/L	487.98	ppb	17:27:23
1	Ba 233.527†	109181.4	110944.2	493.54	µg/L	493.54	ppb	17:27:23
1	Be 313.107†	1641903.4	1667330.5	483.13	µg/L	483.13	ppb	17:27:23
1	Cd 226.502†	73069.7	74256.1	501.57	µg/L	501.57	ppb	17:27:23
1	Co 228.616†	37211.2	37973.0	502.61	µg/L	502.61	ppb	17:27:23
1	Cr 267.716†	57003.3	57614.9	498.30	µg/L	498.30	ppb	17:27:23
1	Cu 324.752†	119862.9	118603.3	497.63	µg/L	497.63	ppb	17:27:23
1	Mn 257.610†	370970.9	376284.5	498.95	µg/L	498.95	ppb	17:27:23
1	Mo 202.031†	15014.2	15275.3	500.02	µg/L	500.02	ppb	17:27:43
1	Ni 231.604†	39450.5	40131.1	502.09	µg/L	502.09	ppb	17:27:23
1	P 214.914†	10581.6	10764.1	2481.4	µg/L	2481.4	ppb	17:27:43
1	Pb 220.353†	8139.9	8157.1	503.52	µg/L	503.52	ppb	17:27:43
1	S 181.975 Axial†	1253.0	1182.6	999.10	µg/L	999.10	ppb	17:27:43
1	Sb 206.836†	3864.9	3832.4	495.32	µg/L	495.32	ppb	17:27:43
1	Se 196.026†	1239.8	1252.0	495	µg/L	495	ppb	17:27:43
1	SiO2†	50899.7	49915.0	5264.6	µg/L	5264.6	ppb	17:27:23
1	Si 251.611†	155782.0	157323.9	2470.9	µg/L	2470.9	ppb	17:27:23
1	Sn 189.927†	6968.1	7069.5	492.03	µg/L	492.03	ppb	17:27:43
1	Ti 334.940†	475655.5	481882.4	494.29	µg/L	494.29	ppb	17:27:23
1	Tl 190.801†	3477.9	3643.7	504.99	µg/L	504.99	ppb	17:27:43
1	U 409.014†	7267.7	7538.7	506.00	µg/L	506.00	ppb	17:27:23
1	V 292.402†	94668.3	95648.2	502.38	µg/L	502.38	ppb	17:27:23
1	Zn 213.857†	83290.6	84022.1	497.80	µg/L	497.80	ppb	17:27:23
2	Sc RADIAL	135899.1	135899.1	97.0	%			17:27:14
2	Al 396.153Radial†	22671.5	23449.7	4913.8	µg/L	4913.8	ppb	17:27:14
2	Ca 317.933Radial†	72365.0	74026.8	5041.9	µg/L	5041.9	ppb	17:27:14
2	Fe 238.204 Radial†	64973.2	66861.0	4993.1	µg/L	4993.1	ppb	17:27:14
2	K 766.490 Radial†	13791.6	12723.4	5037.5	µg/L	5037.5	ppb	17:27:14
2	Mg 279.077 IEC†	10644.0	10800.0	4994.7	µg/L	4994.7	ppb	17:27:14
2	Na 589.592 Radial†	63599.7	64609.9	10011	µg/L	10011	ppb	17:27:14
2	Sr 421.552†	206365.8	212938.8	502.17	µg/L	502.17	ppb	17:27:12
2	Sc 361.383	1769945.6	1769945.6	98.104	%			17:27:46
2	Y 371.029	1028630.4	1028630.4	97.289	%			17:27:46
2	Ag 328.068†	123368.7	121187.8	502.34	µg/L	502.34	ppb	17:27:46
2	As 188.979†	1276.0	1319.3	453.44	µg/L	453.44	ppb	17:28:06
2	B 249.677†	35110.0	31723.4	491.61	µg/L	491.61	ppb	17:27:46
2	Ba 233.527†	108539.0	110781.2	492.81	µg/L	492.81	ppb	17:27:46
2	Be 313.107†	1634007.9	1666679.6	482.94	µg/L	482.94	ppb	17:27:46
2	Cd 226.502†	72771.3	74281.1	501.74	µg/L	501.74	ppb	17:27:46
2	Co 228.616†	37005.3	37930.8	502.06	µg/L	502.06	ppb	17:27:46
2	Cr 267.716†	56615.2	57476.1	497.09	µg/L	497.09	ppb	17:27:46
2	Cu 324.752†	119311.6	118581.4	497.54	µg/L	497.54	ppb	17:27:46
2	Mn 257.610†	369325.0	376278.1	498.94	µg/L	498.94	ppb	17:27:46
2	Mo 202.031†	14943.0	15270.4	499.86	µg/L	499.86	ppb	17:28:06
2	Ni 231.604†	39125.9	39978.0	500.17	µg/L	500.17	ppb	17:27:46
2	P 214.914†	10473.4	10701.5	2466.9	µg/L	2466.9	ppb	17:28:06
2	Pb 220.353†	8085.2	8138.0	502.34	µg/L	502.34	ppb	17:28:06

2	S 181.975 Axial†	1238.2	1173.2	991.18 µg/L	991.18 ppb	17:28:06
2	Sb 206.836†	3863.8	3848.8	497.44 µg/L	497.44 ppb	17:28:06
2	Se 196.026†	1248.9	1266.9	501 µg/L	501 ppb	17:28:06
2	SiO2†	50662.2	49902.2	5263.2 µg/L	5263.2 ppb	17:27:46
2	Si 251.611†	155351.7	157587.1	2475.1 µg/L	2475.1 ppb	17:27:46
2	Sn 189.927†	6938.2	7070.4	492.10 µg/L	492.10 ppb	17:28:06
2	Ti 334.940†	473081.6	481401.7	493.80 µg/L	493.80 ppb	17:27:46
2	Tl 190.801†	3441.2	3622.0	502.03 µg/L	502.03 ppb	17:28:06
2	U 409.014†	7297.5	7601.9	510.02 µg/L	510.02 ppb	17:27:46
2	V 292.402†	94364.8	95765.3	502.99 µg/L	502.99 ppb	17:27:46
2	Zn 213.857†	82843.8	83941.9	497.34 µg/L	497.34 ppb	17:27:46
3	Sc RADIAL	135069.6	135069.6	96.4 %		17:27:18
3	Al 396.153Radial†	22481.3	23396.0	4902.7 µg/L	4902.7 ppb	17:27:18
3	Ca 317.933Radial†	71663.4	73757.2	5023.5 µg/L	5023.5 ppb	17:27:18
3	Fe 238.204 Radial†	64687.6	66976.1	5001.7 µg/L	5001.7 ppb	17:27:18
3	K 766.490 Radial†	13719.9	12736.3	5042.6 µg/L	5042.6 ppb	17:27:18
3	Mg 279.077 IEC†	10677.4	10902.1	5041.7 µg/L	5041.7 ppb	17:27:18
3	Na 589.592 Radial†	63244.1	64643.7	10016 µg/L	10016 ppb	17:27:18
3	Sr 421.552†	206489.1	214373.2	505.55 µg/L	505.55 ppb	17:27:16
3	Sc 361.383	1783229.0	1783229.0	98.840 %		17:28:09
3	Y 371.029	1037035.2	1037035.2	98.084 %		17:28:09
3	Ag 328.068†	124208.4	121100.6	501.97 µg/L	501.97 ppb	17:28:09
3	As 188.979†	1280.9	1314.5	451.83 µg/L	451.83 ppb	17:28:29
3	B 249.677†	35431.2	31781.8	492.51 µg/L	492.51 ppb	17:28:09
3	Ba 233.527†	109270.0	110696.7	492.44 µg/L	492.44 ppb	17:28:09
3	Be 313.107†	1645065.2	1665459.6	482.59 µg/L	482.59 ppb	17:28:09
3	Cd 226.502†	73506.8	74472.6	503.03 µg/L	503.03 ppb	17:28:09
3	Co 228.616†	37551.2	38202.1	505.64 µg/L	505.64 ppb	17:28:09
3	Cr 267.716†	57216.9	57655.0	498.65 µg/L	498.65 ppb	17:28:09
3	Cu 324.752†	119984.9	118356.7	496.60 µg/L	496.60 ppb	17:28:09
3	Mn 257.610†	372270.3	376453.7	499.17 µg/L	499.17 ppb	17:28:09
3	Mo 202.031†	14891.8	15105.2	494.45 µg/L	494.45 ppb	17:28:29
3	Ni 231.604†	39512.2	40071.7	501.35 µg/L	501.35 ppb	17:28:09
3	P 214.914†	10467.4	10615.9	2447.1 µg/L	2447.1 ppb	17:28:29
3	Pb 220.353†	8066.7	8057.9	497.40 µg/L	497.40 ppb	17:28:29
3	S 181.975 Axial†	1232.7	1158.3	978.57 µg/L	978.57 ppb	17:28:29
3	Sb 206.836†	3820.2	3775.3	487.85 µg/L	487.85 ppb	17:28:29
3	Se 196.026†	1250.9	1259.4	498 µg/L	498 ppb	17:28:29
3	SiO2†	51152.6	50013.7	5275.3 µg/L	5275.3 ppb	17:28:09
3	Si 251.611†	156853.9	157927.3	2480.5 µg/L	2480.5 ppb	17:28:09
3	Sn 189.927†	6902.2	6981.3	485.92 µg/L	485.92 ppb	17:28:29
3	Ti 334.940†	477150.2	481926.0	494.33 µg/L	494.33 ppb	17:28:09
3	Tl 190.801†	3421.7	3576.1	495.75 µg/L	495.75 ppb	17:28:29
3	U 409.014†	7259.4	7507.9	504.07 µg/L	504.07 ppb	17:28:09
3	V 292.402†	95004.8	95696.4	502.58 µg/L	502.58 ppb	17:28:09
3	Zn 213.857†	83971.1	84453.4	500.39 µg/L	500.39 ppb	17:28:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1776992.6	98.495	%	0.3702				0.38%
Sc RADIAL	136134.3	97.2	%	0.86				0.88%
Y 371.029	1033324.8	97.733	%	0.4056				0.41%
Ag 328.068†	121075.6	501.87	µg/L	0.524	501.87	ppb	0.524	0.10%
QC value within limits for Ag 328.068 Recovery = 100.37%								
Al 396.153Radial†	23379.2	4899.0	µg/L	16.93	4899.0	ppb	16.93	0.35%
QC value within limits for Al 396.153Radial Recovery = 97.98%								
As 188.979†	1321.0	454.05	µg/L	2.573	454.05	ppb	2.573	0.57%
QC value within limits for As 188.979 Recovery = 90.81%								
B 249.677†	31665.0	490.70	µg/L	2.400	490.70	ppb	2.400	0.49%
QC value within limits for B 249.677 Recovery = 98.14%								
Ba 233.527†	110807.4	492.93	µg/L	0.560	492.93	ppb	0.560	0.11%
QC value within limits for Ba 233.527 Recovery = 98.59%								
Be 313.107†	1666489.9	482.88	µg/L	0.276	482.88	ppb	0.276	0.06%
QC value within limits for Be 313.107 Recovery = 96.58%								
Ca 317.933Radial†	73953.4	5036.9	µg/L	11.70	5036.9	ppb	11.70	0.23%
QC value within limits for Ca 317.933Radial Recovery = 100.74%								
Cd 226.502†	74336.6	502.11	µg/L	0.801	502.11	ppb	0.801	0.16%
QC value within limits for Cd 226.502 Recovery = 100.42%								
Co 228.616†	38035.3	503.44	µg/L	1.930	503.44	ppb	1.930	0.38%

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   QC value within limits for Co 228.616  Recovery = 100.69%
Cr 267.716†            57582.0      498.01 µg/L         0.814      498.01 ppb          0.814   0.16%
   QC value within limits for Cr 267.716  Recovery = 99.60%
Cu 324.752†           118513.8      497.26 µg/L         0.571      497.26 ppb          0.571   0.11%
   QC value within limits for Cu 324.752  Recovery = 99.45%
Fe 238.204 Radial†     66966.4      5001.0 µg/L          7.53      5001.0 ppb           7.53   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.02%
K 766.490 Radial†      12736.8      5042.8 µg/L          5.42      5042.8 ppb           5.42   0.11%
   QC value within limits for K 766.490 Radial  Recovery = 100.86%
Mg 279.077 IEC†        10840.0      5013.1 µg/L         25.08      5013.1 ppb          25.08   0.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.26%
Mn 257.610†           376338.8      499.02 µg/L         0.131      499.02 ppb          0.131   0.03%
   QC value within limits for Mn 257.610  Recovery = 99.80%
Mo 202.031†            15216.9      498.11 µg/L         3.167      498.11 ppb          3.167   0.64%
   QC value within limits for Mo 202.031  Recovery = 99.62%
Na 589.592 Radial†     64518.3      9996.4 µg/L         29.25      9996.4 ppb          29.25   0.29%
   QC value within limits for Na 589.592 Radial  Recovery = 99.96%
Ni 231.604†            40060.3      501.20 µg/L         0.966      501.20 ppb          0.966   0.19%
   QC value within limits for Ni 231.604  Recovery = 100.24%
P 214.914†             10693.9      2465.2 µg/L         17.20      2465.2 ppb          17.20   0.70%
   QC value within limits for P 214.914  Recovery = 98.61%
Pb 220.353†             8117.7      501.09 µg/L         3.244      501.09 ppb          3.244   0.65%
   QC value within limits for Pb 220.353  Recovery = 100.22%
S 181.975 Axial†        1171.4      989.62 µg/L        10.354      989.62 ppb         10.354   1.05%
   QC value within limits for S 181.975 Axial  Recovery = 98.96%
Sb 206.836†             3818.8      493.54 µg/L         5.034      493.54 ppb          5.034   1.02%
   QC value within limits for Sb 206.836  Recovery = 98.71%
Se 196.026†             1259.4         498 µg/L           2.9         498 ppb            2.9   0.59%
   QC value within limits for Se 196.026  Recovery = 99.68%
SiO2†                  49943.6      5267.7 µg/L         6.60      5267.7 ppb          6.60   0.13%
   QC value within limits for SiO2  Recovery = 98.51%
Si 251.611†           157612.8      2475.5 µg/L         4.83      2475.5 ppb          4.83   0.20%
   QC value within limits for Si 251.611  Recovery = 99.02%
Sn 189.927†             7040.4      490.02 µg/L         3.549      490.02 ppb          3.549   0.72%
   QC value within limits for Sn 189.927  Recovery = 98.00%
Sr 421.552†           212871.1      502.01 µg/L         3.625      502.01 ppb          3.625   0.72%
   QC value within limits for Sr 421.552  Recovery = 100.40%
Ti 334.940†           481736.7      494.14 µg/L         0.298      494.14 ppb          0.298   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.83%
Tl 190.801†             3614.0      500.92 µg/L         4.721      500.92 ppb          4.721   0.94%
   QC value within limits for Tl 190.801  Recovery = 100.18%
U 409.014†              7549.5      506.70 µg/L         3.037      506.70 ppb          3.037   0.60%
   QC value within limits for U 409.014  Recovery = 101.34%
V 292.402†             95703.3      502.65 µg/L         0.309      502.65 ppb          0.309   0.06%
   QC value within limits for V 292.402  Recovery = 100.53%
Zn 213.857†            84139.1      498.51 µg/L         1.641      498.51 ppb          1.641   0.33%
   QC value within limits for Zn 213.857  Recovery = 99.70%
All analyte(s) passed QC.
```

Sequence No.: 50
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 17:28:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136904.7	136904.7	97.7	%			17:29:09
1	Al 396.153Radial†	-106.0	-29.9	-6.3055	µg/L	-6.3055	ppb	17:29:29
1	Ca 317.933Radial†	640.7	84.1	5.7301	µg/L	5.7301	ppb	17:29:29
1	Fe 238.204 Radial†	166.6	53.2	3.9696	µg/L	3.9696	ppb	17:29:29
1	K 766.490 Radial†	1592.6	135.9	53.852	µg/L	53.852	ppb	17:29:09
1	Mg 279.077 IEC†	172.7	4.3	1.9741	µg/L	1.9741	ppb	17:29:29
1	Na 589.592 Radial†	1164.0	238.6	36.933	µg/L	36.933	ppb	17:29:09
1	Sr 421.552†	-155.5	45.3	0.1069	µg/L	0.1069	ppb	17:29:09
1	Sc 361.383	1790505.4	1790505.4	99.244	%			17:30:31
1	Y 371.029	1053608.0	1053608.0	99.651	%			17:30:31
1	Ag 328.068†	4173.1	-360.2	-1.4814	µg/L	-1.4814	ppb	17:30:33
1	As 188.979†	-12.0	6.5	2.2030	µg/L	2.2030	ppb	17:30:54
1	B 249.677†	3984.8	-49.9	-0.7780	µg/L	-0.7780	ppb	17:30:33
1	Ba 233.527†	-162.7	-19.4	-0.0861	µg/L	-0.0861	ppb	17:30:54
1	Be 313.107†	-601.3	485.9	0.1396	µg/L	0.1396	ppb	17:30:33
1	Cd 226.502†	-85.8	16.9	0.1143	µg/L	0.1143	ppb	17:30:54
1	Co 228.616†	-178.6	30.3	0.4007	µg/L	0.4007	ppb	17:30:54
1	Cr 267.716†	226.2	-5.3	-0.0424	µg/L	-0.0424	ppb	17:30:54
1	Cu 324.752†	2823.7	-190.9	-0.8008	µg/L	-0.8008	ppb	17:30:33
1	Mn 257.610†	288.4	105.9	0.1404	µg/L	0.1404	ppb	17:30:54
1	Mo 202.031†	-27.7	10.7	0.3505	µg/L	0.3505	ppb	17:30:54
1	Ni 231.604†	-63.4	32.0	0.4000	µg/L	0.4000	ppb	17:30:54
1	P 214.914†	43.4	69.4	16.046	µg/L	16.046	ppb	17:30:54
1	Pb 220.353†	89.8	-13.0	-0.7938	µg/L	-0.7938	ppb	17:30:54
1	S 181.975 Axial†	85.3	-3.0	-2.5004	µg/L	-2.5004	ppb	17:30:54
1	Sb 206.836†	64.3	-25.0	-3.2138	µg/L	-3.2138	ppb	17:30:54
1	Se 196.026†	20.4	14.4	5.66	µg/L	5.66	ppb	17:30:54
1	SiO2†	1717.6	-8.4	-0.8980	µg/L	-0.8980	ppb	17:30:54
1	Si 251.611†	1112.0	353.4	5.5708	µg/L	5.5708	ppb	17:30:33
1	Sn 189.927†	-2.6	-4.5	-0.3134	µg/L	-0.3134	ppb	17:30:54
1	Ti 334.940†	598.4	-220.0	-0.2244	µg/L	-0.2244	ppb	17:30:33
1	Tl 190.801†	-114.9	-1.5	-0.2054	µg/L	-0.2054	ppb	17:30:54
1	U 409.014†	-223.3	-61.7	-3.9000	µg/L	-3.9000	ppb	17:30:33
1	V 292.402†	392.0	-28.2	-0.1456	µg/L	-0.1456	ppb	17:30:33
1	Zn 213.857†	564.6	65.9	0.3909	µg/L	0.3909	ppb	17:30:54
2	Sc RADIAL	137422.4	137422.4	98.1	%			17:29:31
2	Al 396.153Radial†	-79.4	-2.4	-0.5235	µg/L	-0.5235	ppb	17:29:51
2	Ca 317.933Radial†	651.7	92.9	6.3264	µg/L	6.3264	ppb	17:29:51
2	Fe 238.204 Radial†	165.1	51.0	3.8070	µg/L	3.8070	ppb	17:29:51
2	K 766.490 Radial†	1641.3	179.4	71.092	µg/L	71.092	ppb	17:29:31
2	Mg 279.077 IEC†	174.3	5.2	2.4027	µg/L	2.4027	ppb	17:29:51
2	Na 589.592 Radial†	1206.1	277.1	42.885	µg/L	42.885	ppb	17:29:31
2	Sr 421.552†	-208.9	-8.5	-0.0200	µg/L	-0.0200	ppb	17:29:31
2	Sc 361.383	1783725.3	1783725.3	98.868	%			17:30:56
2	Y 371.029	1049520.1	1049520.1	99.264	%			17:30:56
2	Ag 328.068†	4139.0	-378.7	-1.5381	µg/L	-1.5381	ppb	17:30:58
2	As 188.979†	-8.4	10.0	3.3930	µg/L	3.3930	ppb	17:31:18
2	B 249.677†	3936.5	-83.6	-1.3008	µg/L	-1.3008	ppb	17:30:58
2	Ba 233.527†	-132.7	10.3	0.0460	µg/L	0.0460	ppb	17:31:18
2	Be 313.107†	-732.9	350.4	0.1040	µg/L	0.1040	ppb	17:30:58
2	Cd 226.502†	-64.2	38.4	0.2596	µg/L	0.2596	ppb	17:31:18
2	Co 228.616†	-188.2	19.9	0.2636	µg/L	0.2636	ppb	17:31:18
2	Cr 267.716†	215.9	-14.9	-0.1351	µg/L	-0.1351	ppb	17:31:18
2	Cu 324.752†	2700.5	-304.7	-1.2669	µg/L	-1.2669	ppb	17:30:58
2	Mn 257.610†	275.9	94.3	0.1250	µg/L	0.1250	ppb	17:31:18
2	Mo 202.031†	-23.5	14.8	0.4848	µg/L	0.4848	ppb	17:31:18
2	Ni 231.604†	-48.5	46.9	0.5865	µg/L	0.5865	ppb	17:31:18
2	P 214.914†	18.7	44.6	10.317	µg/L	10.317	ppb	17:31:18
2	Pb 220.353†	109.5	7.3	0.4435	µg/L	0.4435	ppb	17:31:18

2	S 181.975 Axial†	84.9	-3.0	-2.5608 µg/L	-2.5608 ppb	17:31:18
2	Sb 206.836†	75.0	-13.8	-1.7722 µg/L	-1.7722 ppb	17:31:18
2	Se 196.026†	28.7	22.9	9.04 µg/L	9.04 ppb	17:31:18
2	SiO2†	1786.0	67.4	7.1221 µg/L	7.1221 ppb	17:31:18
2	Si 251.611†	932.9	176.5	2.7782 µg/L	2.7782 ppb	17:30:58
2	Sn 189.927†	-0.3	-2.2	-0.1545 µg/L	-0.1545 ppb	17:31:18
2	Ti 334.940†	723.1	-91.6	-0.0974 µg/L	-0.0974 ppb	17:30:58
2	Tl 190.801†	-128.3	-15.5	-2.1132 µg/L	-2.1132 ppb	17:31:18
2	U 409.014†	-32.6	130.4	8.2400 µg/L	8.2400 ppb	17:30:58
2	V 292.402†	456.3	38.3	0.2080 µg/L	0.2080 ppb	17:30:58
2	Zn 213.857†	549.7	53.0	0.3132 µg/L	0.3132 ppb	17:31:18
3	Sc RADIAL	135539.0	135539.0	96.7 %		17:29:53
3	Al 396.153Radial†	-81.5	-5.7	-1.2163 µg/L	-1.2163 ppb	17:30:13
3	Ca 317.933Radial†	639.9	90.0	6.1294 µg/L	6.1294 ppb	17:30:13
3	Fe 238.204 Radial†	159.6	47.6	3.5551 µg/L	3.5551 ppb	17:30:13
3	K 766.490 Radial†	1483.7	39.8	15.747 µg/L	15.747 ppb	17:29:53
3	Mg 279.077 IEC†	178.1	11.6	5.3731 µg/L	5.3731 ppb	17:30:13
3	Na 589.592 Radial†	1194.0	281.6	43.643 µg/L	43.643 ppb	17:29:53
3	Sr 421.552†	-273.9	-78.6	-0.1854 µg/L	-0.1854 ppb	17:29:53
3	Sc 361.383	1786924.6	1786924.6	99.045 %		17:31:20
3	Y 371.029	1051272.3	1051272.3	99.430 %		17:31:20
3	Ag 328.068†	4162.9	-362.1	-1.4924 µg/L	-1.4924 ppb	17:31:22
3	As 188.979†	-14.1	4.3	1.4647 µg/L	1.4647 ppb	17:31:42
3	B 249.677†	4015.8	-10.6	-0.1649 µg/L	-0.1649 ppb	17:31:22
3	Ba 233.527†	-169.4	-26.5	-0.1179 µg/L	-0.1179 ppb	17:31:42
3	Be 313.107†	-502.7	584.1	0.1674 µg/L	0.1674 ppb	17:31:22
3	Cd 226.502†	-95.0	7.4	0.0501 µg/L	0.0501 ppb	17:31:42
3	Co 228.616†	-207.0	1.3	0.0164 µg/L	0.0164 ppb	17:31:42
3	Cr 267.716†	263.7	33.0	0.2898 µg/L	0.2898 ppb	17:31:42
3	Cu 324.752†	2641.2	-369.5	-1.5495 µg/L	-1.5495 ppb	17:31:22
3	Mn 257.610†	244.0	61.6	0.0816 µg/L	0.0816 ppb	17:31:42
3	Mo 202.031†	-30.3	8.0	0.2624 µg/L	0.2624 ppb	17:31:42
3	Ni 231.604†	-49.8	45.6	0.5709 µg/L	0.5709 ppb	17:31:42
3	P 214.914†	19.8	45.7	10.588 µg/L	10.588 ppb	17:31:42
3	Pb 220.353†	117.8	15.5	0.9562 µg/L	0.9562 ppb	17:31:42
3	S 181.975 Axial†	86.8	-1.3	-1.0977 µg/L	-1.0977 ppb	17:31:42
3	Sb 206.836†	93.4	4.6	0.5927 µg/L	0.5927 ppb	17:31:42
3	Se 196.026†	8.8	2.7	1.06 µg/L	1.06 ppb	17:31:42
3	SiO2†	1807.0	85.4	9.0215 µg/L	9.0215 ppb	17:31:42
3	Si 251.611†	1037.1	280.1	4.4084 µg/L	4.4084 ppb	17:31:22
3	Sn 189.927†	11.4	9.6	0.6633 µg/L	0.6633 ppb	17:31:42
3	Ti 334.940†	504.2	-314.0	-0.3205 µg/L	-0.3205 ppb	17:31:22
3	Tl 190.801†	-131.7	-18.7	-2.5537 µg/L	-2.5537 ppb	17:31:42
3	U 409.014†	-253.4	-92.5	-5.8483 µg/L	-5.8483 ppb	17:31:22
3	V 292.402†	376.5	-43.1	-0.2237 µg/L	-0.2237 ppb	17:31:22
3	Zn 213.857†	565.0	67.4	0.3996 µg/L	0.3996 ppb	17:31:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787051.8	99.052	%	0.1880				0.19%
Sc RADIAL	136622.0	97.5	%	0.69				0.71%
Y 371.029	1051466.8	99.449	%	0.1940				0.20%
Ag 328.068†	-367.0	-1.5039	µg/L	0.03006	-1.5039	ppb	0.03006	2.00%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-12.7	-2.6818	µg/L	3.15730	-2.6818	ppb	3.15730	117.73%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	2.3535	µg/L	0.97291	2.3535	ppb	0.97291	41.34%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-48.0	-0.7479	µg/L	0.56851	-0.7479	ppb	0.56851	76.02%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-11.9	-0.0527	µg/L	0.08692	-0.0527	ppb	0.08692	165.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	473.5	0.1370	µg/L	0.03181	0.1370	ppb	0.03181	23.22%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	89.0	6.0620	µg/L	0.30381	6.0620	ppb	0.30381	5.01%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	20.9	0.1413	µg/L	0.10736	0.1413	ppb	0.10736	75.97%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.2	0.2269	µg/L	0.19473	0.2269	ppb	0.19473	85.82%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                4.3      0.0374 µg/L       0.22343      0.0374 ppb        0.22343 596.95%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -288.4     -1.2057 µg/L       0.37809     -1.2057 ppb        0.37809  31.36%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        50.6      3.7772 µg/L       0.20888      3.7772 ppb        0.20888   5.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        118.4      46.897 µg/L       28.3205      46.897 ppb        28.3205  60.39%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            7.0      3.2500 µg/L       1.85113      3.2500 ppb        1.85113  56.96%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               87.3      0.1156 µg/L       0.03050      0.1156 ppb        0.03050  26.37%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               11.2      0.3659 µg/L       0.11200      0.3659 ppb        0.11200  30.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       265.8      41.154 µg/L        3.6745      41.154 ppb         3.6745   8.93%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               41.5      0.5191 µg/L       0.10346      0.5191 ppb        0.10346  19.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                53.2      12.317 µg/L        3.2325      12.317 ppb         3.2325  26.24%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                3.3      0.2019 µg/L       0.89967      0.2019 ppb        0.89967 445.49%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.4     -2.0530 µg/L       0.82787     -2.0530 ppb        0.82787  40.33%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -11.4     -1.4644 µg/L       1.92181     -1.4644 ppb        1.92181 131.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               13.3        5.25 µg/L         4.003        5.25 ppb          4.003  76.23%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     48.1      5.0819 µg/L       5.26504      5.0819 ppb        5.26504 103.60%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              270.0      4.2525 µg/L       1.40278      4.2525 ppb        1.40278  32.99%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                0.9      0.0651 µg/L       0.52410      0.0651 ppb        0.52410 804.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -13.9     -0.0328 µg/L       0.14659     -0.0328 ppb        0.14659 446.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -208.5     -0.2141 µg/L       0.11187     -0.2141 ppb        0.11187  52.26%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -11.9     -1.6241 µg/L       1.24822     -1.6241 ppb        1.24822  76.86%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -7.9     -0.5027 µg/L       7.63388     -0.5027 ppb        7.63388 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -11.0     -0.0538 µg/L       0.22999     -0.0538 ppb        0.22999 427.88%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               62.1      0.3679 µg/L       0.04758      0.3679 ppb        0.04758  12.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 58
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 17:45:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135394.1	135394.1	96.6	%			17:46:15
1	Al 396.153Radial†	22754.7	23622.9	4949.8	µg/L	4949.8	ppb	17:46:15
1	Ca 317.933Radial†	73027.1	74990.0	5107.5	µg/L	5107.5	ppb	17:46:15
1	Fe 238.204 Radial†	65777.0	67942.5	5073.9	µg/L	5073.9	ppb	17:46:15
1	K 766.490 Radial†	14016.3	13008.9	5150.6	µg/L	5150.6	ppb	17:46:15
1	Mg 279.077 IEC†	10886.1	11091.5	5129.5	µg/L	5129.5	ppb	17:46:15
1	Na 589.592 Radial†	64190.9	65466.2	10143	µg/L	10143	ppb	17:46:15
1	Sr 421.552†	207620.2	215030.2	507.10	µg/L	507.10	ppb	17:46:13
1	Sc 361.383	1746065.5	1746065.5	96.780	%			17:46:42
1	Y 371.029	1015185.6	1015185.6	96.017	%			17:46:42
1	Ag 328.068†	123023.5	122551.1	507.96	µg/L	507.96	ppb	17:46:42
1	As 188.979†	1292.6	1354.2	465.37	µg/L	465.37	ppb	17:47:02
1	B 249.677†	35003.4	32102.8	497.49	µg/L	497.49	ppb	17:46:42
1	Ba 233.527†	108384.9	112135.1	498.84	µg/L	498.84	ppb	17:46:42
1	Be 313.107†	1627800.6	1683045.3	487.68	µg/L	487.68	ppb	17:46:42
1	Cd 226.502†	72501.4	75016.7	506.70	µg/L	506.70	ppb	17:46:42
1	Co 228.616†	37013.1	38454.8	508.99	µg/L	508.99	ppb	17:46:42
1	Cr 267.716†	56686.3	58338.9	504.57	µg/L	504.57	ppb	17:46:42
1	Cu 324.752†	118955.4	119876.7	502.97	µg/L	502.97	ppb	17:46:42
1	Mn 257.610†	368714.7	380796.2	504.93	µg/L	504.93	ppb	17:46:42
1	Mo 202.031†	15048.9	15588.1	510.25	µg/L	510.25	ppb	17:47:02
1	Ni 231.604†	39006.5	40400.0	505.45	µg/L	505.45	ppb	17:46:42
1	P 214.914†	10571.0	10948.4	2523.9	µg/L	2523.9	ppb	17:47:02
1	Pb 220.353†	8134.0	8301.2	512.43	µg/L	512.43	ppb	17:47:02
1	S 181.975 Axial†	1260.9	1213.9	1025.5	µg/L	1025.5	ppb	17:47:02
1	Sb 206.836†	3891.8	3931.6	508.18	µg/L	508.18	ppb	17:47:02
1	Se 196.026†	1247.8	1283.2	508	µg/L	508	ppb	17:47:02
1	SiO2†	50498.0	50438.8	5319.6	µg/L	5319.6	ppb	17:46:42
1	Si 251.611†	154674.9	159053.6	2498.0	µg/L	2498.0	ppb	17:46:42
1	Sn 189.927†	6973.9	7204.0	501.38	µg/L	501.38	ppb	17:47:02
1	Ti 334.940†	472550.2	487447.8	500.00	µg/L	500.00	ppb	17:46:42
1	Tl 190.801†	3456.1	3685.3	510.76	µg/L	510.76	ppb	17:47:02
1	U 409.014†	6994.9	7391.0	497.02	µg/L	497.02	ppb	17:46:42
1	V 292.402†	94018.5	96723.1	508.07	µg/L	508.07	ppb	17:46:42
1	Zn 213.857†	82648.3	84894.9	502.98	µg/L	502.98	ppb	17:46:42
2	Sc RADIAL	133381.5	133381.5	95.2	%			17:46:19
2	Al 396.153Radial†	22428.5	23635.6	4952.6	µg/L	4952.6	ppb	17:46:19
2	Ca 317.933Radial†	71876.6	74921.9	5102.9	µg/L	5102.9	ppb	17:46:19
2	Fe 238.204 Radial†	64375.3	67497.2	5040.6	µg/L	5040.6	ppb	17:46:19
2	K 766.490 Radial†	13782.6	12982.3	5140.1	µg/L	5140.1	ppb	17:46:19
2	Mg 279.077 IEC†	10536.8	10894.5	5038.5	µg/L	5038.5	ppb	17:46:19
2	Na 589.592 Radial†	63032.4	65251.5	10110	µg/L	10110	ppb	17:46:19
2	Sr 421.552†	206647.5	217250.1	512.34	µg/L	512.34	ppb	17:46:17
2	Sc 361.383	1758704.9	1758704.9	97.481	%			17:47:05
2	Y 371.029	1022847.7	1022847.7	96.742	%			17:47:05
2	Ag 328.068†	123872.6	122508.5	507.81	µg/L	507.81	ppb	17:47:05
2	As 188.979†	1286.1	1337.9	459.86	µg/L	459.86	ppb	17:47:25
2	B 249.677†	35329.4	32177.3	498.65	µg/L	498.65	ppb	17:47:05
2	Ba 233.527†	109072.1	112035.3	498.39	µg/L	498.39	ppb	17:47:05
2	Be 313.107†	1642289.4	1685820.6	488.49	µg/L	488.49	ppb	17:47:05
2	Cd 226.502†	72981.1	74970.4	506.40	µg/L	506.40	ppb	17:47:05
2	Co 228.616†	37232.8	38405.2	508.34	µg/L	508.34	ppb	17:47:05
2	Cr 267.716†	57060.4	58301.7	504.23	µg/L	504.23	ppb	17:47:05
2	Cu 324.752†	119880.1	119941.8	503.25	µg/L	503.25	ppb	17:47:05
2	Mn 257.610†	371349.4	380761.0	504.88	µg/L	504.88	ppb	17:47:05
2	Mo 202.031†	15096.6	15525.3	508.20	µg/L	508.20	ppb	17:47:25
2	Ni 231.604†	39470.8	40586.7	507.79	µg/L	507.79	ppb	17:47:05
2	P 214.914†	10623.9	10924.1	2518.3	µg/L	2518.3	ppb	17:47:25
2	Pb 220.353†	8174.9	8282.7	511.27	µg/L	511.27	ppb	17:47:25

2	S 181.975 Axial†	1258.8	1202.4	1015.8 µg/L	1015.8 ppb	17:47:25
2	Sb 206.836†	3885.3	3895.9	503.56 µg/L	503.56 ppb	17:47:25
2	Se 196.026†	1267.2	1293.8	512 µg/L	512 ppb	17:47:25
2	SiO2†	50832.8	50407.3	5316.3 µg/L	5316.3 ppb	17:47:05
2	Si 251.611†	156255.4	159526.3	2505.5 µg/L	2505.5 ppb	17:47:05
2	Sn 189.927†	7014.2	7193.5	500.66 µg/L	500.66 ppb	17:47:25
2	Ti 334.940†	476984.1	488487.1	501.07 µg/L	501.07 ppb	17:47:05
2	Tl 190.801†	3469.3	3673.2	509.11 µg/L	509.11 ppb	17:47:25
2	U 409.014†	7384.5	7738.7	518.97 µg/L	518.97 ppb	17:47:05
2	V 292.402†	94703.9	96728.0	508.09 µg/L	508.09 ppb	17:47:05
2	Zn 213.857†	83417.8	85070.4	504.02 µg/L	504.02 ppb	17:47:05
3	Sc RADIAL	134858.9	134858.9	96.3 %		17:46:23
3	Al 396.153Radial†	22702.7	23662.3	4958.3 µg/L	4958.3 ppb	17:46:23
3	Ca 317.933Radial†	72635.6	74883.2	5100.2 µg/L	5100.2 ppb	17:46:23
3	Fe 238.204 Radial†	65418.0	67839.7	5066.2 µg/L	5066.2 ppb	17:46:23
3	K 766.490 Radial†	14001.9	13051.5	5167.5 µg/L	5167.5 ppb	17:46:23
3	Mg 279.077 IEC†	10836.2	11084.3	5126.1 µg/L	5126.1 ppb	17:46:23
3	Na 589.592 Radial†	63883.7	65410.6	10135 µg/L	10135 ppb	17:46:23
3	Sr 421.552†	205770.0	213960.7	504.58 µg/L	504.58 ppb	17:46:21
3	Sc 361.383	1741611.9	1741611.9	96.534 %		17:47:28
3	Y 371.029	1012899.9	1012899.9	95.801 %		17:47:28
3	Ag 328.068†	123309.2	123172.0	510.54 µg/L	510.54 ppb	17:47:28
3	As 188.979†	1265.3	1329.3	456.95 µg/L	456.95 ppb	17:47:48
3	B 249.677†	34978.6	32169.6	498.52 µg/L	498.52 ppb	17:47:28
3	Ba 233.527†	108349.9	112385.2	499.95 µg/L	499.95 ppb	17:47:28
3	Be 313.107†	1630394.3	1690033.1	489.71 µg/L	489.71 ppb	17:47:28
3	Cd 226.502†	72587.0	75297.0	508.60 µg/L	508.60 ppb	17:47:28
3	Co 228.616†	37152.9	38697.3	512.20 µg/L	512.20 ppb	17:47:28
3	Cr 267.716†	56616.8	58416.7	505.23 µg/L	505.23 ppb	17:47:28
3	Cu 324.752†	119079.5	120319.5	504.84 µg/L	504.84 ppb	17:47:28
3	Mn 257.610†	368402.6	381447.1	505.79 µg/L	505.79 ppb	17:47:28
3	Mo 202.031†	14874.4	15447.1	505.64 µg/L	505.64 ppb	17:47:48
3	Ni 231.604†	39207.3	40711.1	509.35 µg/L	509.35 ppb	17:47:28
3	P 214.914†	10411.4	10811.0	2492.1 µg/L	2492.1 ppb	17:47:48
3	Pb 220.353†	8070.7	8257.1	509.69 µg/L	509.69 ppb	17:47:48
3	S 181.975 Axial†	1238.5	1194.0	1008.8 µg/L	1008.8 ppb	17:47:48
3	Sb 206.836†	3838.9	3887.1	502.36 µg/L	502.36 ppb	17:47:48
3	Se 196.026†	1241.5	1279.9	506 µg/L	506 ppb	17:47:48
3	SiO2†	50575.2	50652.2	5342.4 µg/L	5342.4 ppb	17:47:28
3	Si 251.611†	155493.2	160309.9	2517.9 µg/L	2517.9 ppb	17:47:28
3	Sn 189.927†	6886.9	7132.3	496.42 µg/L	496.42 ppb	17:47:48
3	Ti 334.940†	473285.6	489458.2	502.06 µg/L	502.06 ppb	17:47:28
3	Tl 190.801†	3440.4	3678.3	509.81 µg/L	509.81 ppb	17:47:48
3	U 409.014†	7269.6	7694.0	516.24 µg/L	516.24 ppb	17:47:28
3	V 292.402†	94100.4	97056.3	509.76 µg/L	509.76 ppb	17:47:28
3	Zn 213.857†	82709.9	85177.0	504.64 µg/L	504.64 ppb	17:47:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1748794.1	96.932	%	0.4915				0.51%
Sc RADIAL	134544.8	96.0	%	0.74				0.77%
Y 371.029	1016977.7	96.187	%	0.4928				0.51%
Ag 328.068†	122743.9	508.77	µg/L	1.537	508.77	ppb	1.537	0.30%
QC value within limits for Ag 328.068 Recovery = 101.75%								
Al 396.153Radial†	23640.3	4953.6	µg/L	4.34	4953.6	ppb	4.34	0.09%
QC value within limits for Al 396.153Radial Recovery = 99.07%								
As 188.979†	1340.5	460.73	µg/L	4.277	460.73	ppb	4.277	0.93%
QC value within limits for As 188.979 Recovery = 92.15%								
B 249.677†	32149.9	498.22	µg/L	0.635	498.22	ppb	0.635	0.13%
QC value within limits for B 249.677 Recovery = 99.64%								
Ba 233.527†	112185.2	499.06	µg/L	0.801	499.06	ppb	0.801	0.16%
QC value within limits for Ba 233.527 Recovery = 99.81%								
Be 313.107†	1686299.6	488.62	µg/L	1.022	488.62	ppb	1.022	0.21%
QC value within limits for Be 313.107 Recovery = 97.72%								
Ca 317.933Radial†	74931.7	5103.5	µg/L	3.68	5103.5	ppb	3.68	0.07%
QC value within limits for Ca 317.933Radial Recovery = 102.07%								
Cd 226.502†	75094.7	507.23	µg/L	1.194	507.23	ppb	1.194	0.24%
QC value within limits for Cd 226.502 Recovery = 101.45%								
Co 228.616†	38519.1	509.84	µg/L	2.068	509.84	ppb	2.068	0.41%

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   QC value within limits for Co 228.616  Recovery = 101.97%
Cr 267.716†            58352.4      504.68 µg/L         0.507      504.68 ppb          0.507   0.10%
   QC value within limits for Cr 267.716  Recovery = 100.94%
Cu 324.752†           120046.0      503.68 µg/L         1.007      503.68 ppb          1.007   0.20%
   QC value within limits for Cu 324.752  Recovery = 100.74%
Fe 238.204 Radial†     67759.8      5060.3 µg/L         17.41      5060.3 ppb          17.41   0.34%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.21%
K 766.490 Radial†      13014.3      5152.7 µg/L         13.82      5152.7 ppb          13.82   0.27%
   QC value within limits for K 766.490 Radial  Recovery = 103.05%
Mg 279.077 IEC†        11023.4      5098.0 µg/L         51.56      5098.0 ppb          51.56   1.01%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.96%
Mn 257.610†           381001.4      505.20 µg/L         0.511      505.20 ppb          0.511   0.10%
   QC value within limits for Mn 257.610  Recovery = 101.04%
Mo 202.031†            15520.2      508.03 µg/L         2.310      508.03 ppb          2.310   0.45%
   QC value within limits for Mo 202.031  Recovery = 101.61%
Na 589.592 Radial†     65376.1       10129 µg/L          17.3       10129 ppb           17.3   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 101.29%
Ni 231.604†            40566.0      507.53 µg/L         1.959      507.53 ppb          1.959   0.39%
   QC value within limits for Ni 231.604  Recovery = 101.51%
P 214.914†             10894.5      2511.5 µg/L         16.98      2511.5 ppb          16.98   0.68%
   QC value within limits for P 214.914  Recovery = 100.46%
Pb 220.353†             8280.3      511.13 µg/L         1.374      511.13 ppb          1.374   0.27%
   QC value within limits for Pb 220.353  Recovery = 102.23%
S 181.975 Axial†        1203.5      1016.7 µg/L          8.40      1016.7 ppb           8.40   0.83%
   QC value within limits for S 181.975 Axial  Recovery = 101.67%
Sb 206.836†             3904.9      504.70 µg/L         3.073      504.70 ppb          3.073   0.61%
   QC value within limits for Sb 206.836  Recovery = 100.94%
Se 196.026†             1285.6         509 µg/L           2.9         509 ppb            2.9   0.56%
   QC value within limits for Se 196.026  Recovery = 101.75%
SiO2†                  50499.5      5326.1 µg/L         14.20      5326.1 ppb          14.20   0.27%
   QC value within limits for SiO2  Recovery = 99.60%
Si 251.611†           159629.9      2507.1 µg/L         10.05      2507.1 ppb          10.05   0.40%
   QC value within limits for Si 251.611  Recovery = 100.28%
Sn 189.927†             7176.6      499.49 µg/L         2.683      499.49 ppb          2.683   0.54%
   QC value within limits for Sn 189.927  Recovery = 99.90%
Sr 421.552†           215413.7      508.01 µg/L         3.957      508.01 ppb          3.957   0.78%
   QC value within limits for Sr 421.552  Recovery = 101.60%
Ti 334.940†           488464.4      501.04 µg/L         1.029      501.04 ppb          1.029   0.21%
   QC value within limits for Ti 334.940  Recovery = 100.21%
Tl 190.801†             3678.9      509.89 µg/L         0.825      509.89 ppb          0.825   0.16%
   QC value within limits for Tl 190.801  Recovery = 101.98%
U 409.014†              7607.9      510.74 µg/L        11.965      510.74 ppb         11.965   2.34%
   QC value within limits for U 409.014  Recovery = 102.15%
V 292.402†             96835.8      508.64 µg/L         0.972      508.64 ppb          0.972   0.19%
   QC value within limits for V 292.402  Recovery = 101.73%
Zn 213.857†            85047.4      503.88 µg/L         0.838      503.88 ppb          0.838   0.17%
   QC value within limits for Zn 213.857  Recovery = 100.78%
All analyte(s) passed QC.
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Sequence No.: 59 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 4/5/2010 17:47:57**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	134914.4	134914.4	96.3	%			17:48:28
1	Al 396.153Radial†	-93.1	-18.2	-3.8506	µg/L	-3.8506	ppb	17:48:48
1	Ca 317.933Radial†	638.7	91.8	6.2535	µg/L	6.2535	ppb	17:48:48
1	Fe 238.204 Radial†	172.2	61.5	4.5892	µg/L	4.5892	ppb	17:48:48
1	K 766.490 Radial†	1678.7	249.3	98.777	µg/L	98.777	ppb	17:48:28
1	Mg 279.077 IEC†	168.3	2.3	1.0702	µg/L	1.0702	ppb	17:48:48
1	Na 589.592 Radial†	1169.4	261.8	40.493	µg/L	40.493	ppb	17:48:28
1	Sr 421.552†	-205.3	-8.7	-0.0206	µg/L	-0.0206	ppb	17:48:28
1	Sc 361.383	1765267.3	1765267.3	97.845	%			17:49:35
1	Y 371.029	1038191.9	1038191.9	98.193	%			17:49:35
1	Ag 328.068†	4150.1	-323.6	-1.3180	µg/L	-1.3180	ppb	17:49:38
1	As 188.979†	-23.4	-5.3	-1.7900	µg/L	-1.7900	ppb	17:49:58
1	B 249.677†	4009.4	32.6	0.5050	µg/L	0.5050	ppb	17:49:38
1	Ba 233.527†	-150.0	-8.8	-0.0391	µg/L	-0.0391	ppb	17:49:58
1	Be 313.107†	-594.3	484.4	0.1426	µg/L	0.1426	ppb	17:49:38
1	Cd 226.502†	-63.1	38.9	0.2624	µg/L	0.2624	ppb	17:49:58
1	Co 228.616†	-177.5	28.9	0.3824	µg/L	0.3824	ppb	17:49:58
1	Cr 267.716†	282.6	55.6	0.4754	µg/L	0.4754	ppb	17:49:58
1	Cu 324.752†	2892.9	-79.5	-0.3255	µg/L	-0.3255	ppb	17:49:38
1	Mn 257.610†	287.7	109.3	0.1449	µg/L	0.1449	ppb	17:49:58
1	Mo 202.031†	-21.9	16.2	0.5289	µg/L	0.5289	ppb	17:49:58
1	Ni 231.604†	-65.2	29.2	0.3660	µg/L	0.3660	ppb	17:49:58
1	P 214.914†	30.1	56.4	13.049	µg/L	13.049	ppb	17:49:58
1	Pb 220.353†	99.5	-1.7	-0.1123	µg/L	-0.1123	ppb	17:49:58
1	S 181.975 Axial†	95.6	8.8	7.3838	µg/L	7.3838	ppb	17:49:58
1	Sb 206.836†	77.3	-10.7	-1.3849	µg/L	-1.3849	ppb	17:49:58
1	Se 196.026†	12.7	6.8	2.69	µg/L	2.69	ppb	17:49:58
1	SiO2†	1804.9	105.6	11.160	µg/L	11.160	ppb	17:49:58
1	Si 251.611†	930.5	184.0	2.8917	µg/L	2.8917	ppb	17:49:38
1	Sn 189.927†	6.3	4.5	0.3139	µg/L	0.3139	ppb	17:49:58
1	Ti 334.940†	612.2	-197.3	-0.2059	µg/L	-0.2059	ppb	17:49:38
1	Tl 190.801†	-119.5	-7.8	-1.0767	µg/L	-1.0767	ppb	17:49:58
1	U 409.014†	-42.8	119.6	7.5366	µg/L	7.5366	ppb	17:49:38
1	V 292.402†	377.5	-37.5	-0.1818	µg/L	-0.1818	ppb	17:49:38
1	Zn 213.857†	602.8	113.1	0.6728	µg/L	0.6728	ppb	17:49:58
2	Sc RADIAL	134277.4	134277.4	95.8	%			17:48:50
2	Al 396.153Radial†	-60.6	15.4	3.1949	µg/L	3.1949	ppb	17:49:10
2	Ca 317.933Radial†	631.6	87.5	5.9623	µg/L	5.9623	ppb	17:49:10
2	Fe 238.204 Radial†	161.0	50.7	3.7832	µg/L	3.7832	ppb	17:49:10
2	K 766.490 Radial†	1516.2	88.1	34.893	µg/L	34.893	ppb	17:48:50
2	Mg 279.077 IEC†	161.0	-4.5	-2.0397	µg/L	-2.0397	ppb	17:49:10
2	Na 589.592 Radial†	1155.1	252.6	39.129	µg/L	39.129	ppb	17:48:50
2	Sr 421.552†	-89.5	111.1	0.2619	µg/L	0.2619	ppb	17:48:50
2	Sc 361.383	1768478.6	1768478.6	98.023	%			17:50:00
2	Y 371.029	1040097.2	1040097.2	98.373	%			17:50:00
2	Ag 328.068†	4131.2	-350.6	-1.4248	µg/L	-1.4248	ppb	17:50:02
2	As 188.979†	-11.2	7.1	2.4058	µg/L	2.4058	ppb	17:50:22
2	B 249.677†	4094.4	111.8	1.7379	µg/L	1.7379	ppb	17:50:02
2	Ba 233.527†	-168.3	-27.2	-0.1204	µg/L	-0.1204	ppb	17:50:22
2	Be 313.107†	-500.8	580.8	0.1702	µg/L	0.1702	ppb	17:50:02
2	Cd 226.502†	-96.2	5.2	0.0350	µg/L	0.0350	ppb	17:50:22
2	Co 228.616†	-180.7	25.9	0.3426	µg/L	0.3426	ppb	17:50:22
2	Cr 267.716†	285.0	57.5	0.4925	µg/L	0.4925	ppb	17:50:22
2	Cu 324.752†	2816.1	-163.2	-0.6765	µg/L	-0.6765	ppb	17:50:02
2	Mn 257.610†	275.7	96.6	0.1282	µg/L	0.1282	ppb	17:50:22
2	Mo 202.031†	-13.5	24.8	0.8123	µg/L	0.8123	ppb	17:50:22
2	Ni 231.604†	-78.3	16.0	0.2002	µg/L	0.2002	ppb	17:50:22
2	P 214.914†	39.5	66.0	15.270	µg/L	15.270	ppb	17:50:22
2	Pb 220.353†	116.5	15.4	0.9465	µg/L	0.9465	ppb	17:50:22

2	S 181.975 Axial†	86.4	-0.7	-0.6062 µg/L	-0.6062 ppb	17:50:22
2	Sb 206.836†	87.4	-0.6	-0.0687 µg/L	-0.0687 ppb	17:50:22
2	Se 196.026†	16.6	10.8	4.26 µg/L	4.26 ppb	17:50:22
2	SiO2†	1814.9	112.4	11.873 µg/L	11.873 ppb	17:50:22
2	Si 251.611†	1032.3	286.1	4.4980 µg/L	4.4980 ppb	17:50:02
2	Sn 189.927†	6.2	4.4	0.3062 µg/L	0.3062 ppb	17:50:22
2	Ti 334.940†	804.1	-2.7	-0.0052 µg/L	-0.0052 ppb	17:50:02
2	Tl 190.801†	-115.1	-3.1	-0.4225 µg/L	-0.4225 ppb	17:50:22
2	U 409.014†	-59.3	102.9	6.5032 µg/L	6.5032 ppb	17:50:02
2	V 292.402†	456.5	42.5	0.2346 µg/L	0.2346 ppb	17:50:02
2	Zn 213.857†	583.1	91.9	0.5476 µg/L	0.5476 ppb	17:50:22
3	Sc RADIAL	134475.2	134475.2	96.0 %		17:49:12
3	Al 396.153Radial†	-68.3	7.3	1.5270 µg/L	1.5270 ppb	17:49:32
3	Ca 317.933Radial†	642.5	97.9	6.6673 µg/L	6.6673 ppb	17:49:32
3	Fe 238.204 Radial†	175.2	65.3	4.8735 µg/L	4.8735 ppb	17:49:32
3	K 766.490 Radial†	1551.6	122.6	48.587 µg/L	48.587 ppb	17:49:12
3	Mg 279.077 IEC†	158.7	-7.1	-3.2881 µg/L	-3.2881 ppb	17:49:32
3	Na 589.592 Radial†	1014.0	103.8	16.051 µg/L	16.051 ppb	17:49:12
3	Sr 421.552†	-294.5	-102.3	-0.2413 µg/L	-0.2413 ppb	17:49:12
3	Sc 361.383	1774563.2	1774563.2	98.360 %		17:50:24
3	Y 371.029	1042992.5	1042992.5	98.647 %		17:50:24
3	Ag 328.068†	3769.0	-733.3	-3.0060 µg/L	-3.0060 ppb	17:50:26
3	As 188.979†	-11.8	6.6	2.2249 µg/L	2.2249 ppb	17:50:46
3	B 249.677†	4115.4	118.9	1.8488 µg/L	1.8488 ppb	17:50:26
3	Ba 233.527†	-134.5	7.8	0.0347 µg/L	0.0347 ppb	17:50:46
3	Be 313.107†	-675.6	404.9	0.1157 µg/L	0.1157 ppb	17:50:26
3	Cd 226.502†	-86.6	15.3	0.1034 µg/L	0.1034 ppb	17:50:46
3	Co 228.616†	-202.5	4.4	0.0579 µg/L	0.0579 ppb	17:50:46
3	Cr 267.716†	259.1	30.2	0.2662 µg/L	0.2662 ppb	17:50:46
3	Cu 324.752†	2853.0	-135.5	-0.5705 µg/L	-0.5705 ppb	17:50:26
3	Mn 257.610†	256.1	75.7	0.1005 µg/L	0.1005 ppb	17:50:46
3	Mo 202.031†	-24.9	13.2	0.4334 µg/L	0.4334 ppb	17:50:46
3	Ni 231.604†	-46.6	48.5	0.6071 µg/L	0.6071 ppb	17:50:46
3	P 214.914†	16.2	42.1	9.7366 µg/L	9.7366 ppb	17:50:46
3	Pb 220.353†	117.8	16.3	1.0096 µg/L	1.0096 ppb	17:50:46
3	S 181.975 Axial†	84.0	-3.5	-2.9423 µg/L	-2.9423 ppb	17:50:46
3	Sb 206.836†	100.7	12.7	1.6366 µg/L	1.6366 ppb	17:50:46
3	Se 196.026†	11.8	5.9	2.32 µg/L	2.32 ppb	17:50:46
3	SiO2†	1850.0	141.8	15.005 µg/L	15.005 ppb	17:50:46
3	Si 251.611†	1180.4	433.1	6.8256 µg/L	6.8256 ppb	17:50:26
3	Sn 189.927†	-2.9	-4.8	-0.3325 µg/L	-0.3325 ppb	17:50:46
3	Ti 334.940†	701.5	-109.8	-0.1102 µg/L	-0.1102 ppb	17:50:26
3	Tl 190.801†	-115.2	-2.8	-0.3840 µg/L	-0.3840 ppb	17:50:46
3	U 409.014†	-244.8	-85.5	-5.3851 µg/L	-5.3851 ppb	17:50:26
3	V 292.402†	456.9	41.3	0.2158 µg/L	0.2158 ppb	17:50:26
3	Zn 213.857†	571.6	78.1	0.4623 µg/L	0.4623 ppb	17:50:46

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769436.4	98.076	%	0.2617				0.27%
Sc RADIAL	134555.7	96.0	%	0.23				0.24%
Y 371.029	1040427.2	98.404	%	0.2286				0.23%
Ag 328.068†	-469.2	-1.9163	µg/L	0.94527	-1.9163	ppb	0.94527	49.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.5	0.2904	µg/L	3.68191	0.2904	ppb	3.68191	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.8	0.9469	µg/L	2.37194	0.9469	ppb	2.37194	250.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	87.8	1.3639	µg/L	0.74593	1.3639	ppb	0.74593	54.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-9.4	-0.0416	µg/L	0.07758	-0.0416	ppb	0.07758	186.50%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	490.0	0.1428	µg/L	0.02728	0.1428	ppb	0.02728	19.10%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	92.4	6.2944	µg/L	0.35430	6.2944	ppb	0.35430	5.63%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.8	0.1336	µg/L	0.11666	0.1336	ppb	0.11666	87.31%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	19.7	0.2610	µg/L	0.17696	0.2610	ppb	0.17696	67.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              47.8      0.4114 µg/L       0.12600      0.4114 ppb        0.12600  30.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -126.1     -0.5242 µg/L       0.18007     -0.5242 ppb        0.18007  34.35%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       59.1      4.4153 µg/L       0.56560      4.4153 ppb        0.56560  12.81%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       153.3      60.752 µg/L       33.6347      60.752 ppb        33.6347  55.36%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -3.1     -1.4192 µg/L       2.24445     -1.4192 ppb        2.24445 158.15%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              93.8      0.1245 µg/L       0.02244      0.1245 ppb        0.02244  18.02%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              18.1      0.5915 µg/L       0.19708      0.5915 ppb        0.19708  33.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      206.1      31.891 µg/L       13.7347      31.891 ppb        13.7347  43.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              31.3      0.3911 µg/L       0.20463      0.3911 ppb        0.20463  52.33%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               54.8      12.685 µg/L        2.7847      12.685 ppb         2.7847  21.95%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              10.0      0.6146 µg/L       0.63031      0.6146 ppb        0.63031 102.56%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.5      1.2784 µg/L       5.41492      1.2784 ppb        5.41492 423.57%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.5      0.0610 µg/L       1.51489      0.0610 ppb        1.51489 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               7.8        3.09 µg/L         1.032        3.09 ppb          1.032  33.41%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    119.9      12.679 µg/L        2.0450      12.679 ppb         2.0450  16.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              301.0      4.7384 µg/L       1.97797      4.7384 ppb        1.97797  41.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.4      0.0959 µg/L       0.37096      0.0959 ppb        0.37096 386.92%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               0.0      0.0000 µg/L       0.25223      0.0000 ppb        0.25223 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -103.3     -0.1071 µg/L       0.10034     -0.1071 ppb        0.10034  93.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -4.6     -0.6277 µg/L       0.38926     -0.6277 ppb        0.38926  62.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               45.6      2.8849 µg/L       7.18065      2.8849 ppb        7.18065 248.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               15.4      0.0895 µg/L       0.23518      0.0895 ppb        0.23518 262.66%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              94.4      0.5609 µg/L       0.10584      0.5609 ppb        0.10584  18.87%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 67
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 18:06:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136394.1	136394.1	97.4	%			18:07:15
1	Al 396.153Radial†	22987.8	23689.8	4964.0	µg/L	4964.0	ppb	18:07:15
1	Ca 317.933Radial†	73268.5	74684.0	5086.7	µg/L	5086.7	ppb	18:07:15
1	Fe 238.204 Radial†	66125.0	67801.0	5063.3	µg/L	5063.3	ppb	18:07:15
1	K 766.490 Radial†	14054.6	12942.0	5124.1	µg/L	5124.1	ppb	18:07:15
1	Mg 279.077 IEC†	10793.9	10914.2	5047.6	µg/L	5047.6	ppb	18:07:15
1	Na 589.592 Radial†	64495.2	65291.7	10116	µg/L	10116	ppb	18:07:15
1	Sr 421.552†	206872.2	212686.8	501.57	µg/L	501.57	ppb	18:07:13
1	Sc 361.383	1766323.1	1766323.1	97.903	%			18:07:42
1	Y 371.029	1026973.5	1026973.5	97.132	%			18:07:42
1	Ag 328.068†	124270.6	122366.9	507.21	µg/L	507.21	ppb	18:07:42
1	As 188.979†	1316.8	1363.5	468.52	µg/L	468.52	ppb	18:08:02
1	B 249.677†	35468.3	32162.8	498.42	µg/L	498.42	ppb	18:07:42
1	Ba 233.527†	109987.7	112487.9	500.41	µg/L	500.41	ppb	18:07:42
1	Be 313.107†	1655374.0	1691919.3	490.25	µg/L	490.25	ppb	18:07:42
1	Cd 226.502†	72949.9	74615.7	503.99	µg/L	503.99	ppb	18:07:42
1	Co 228.616†	37482.4	38495.5	509.53	µg/L	509.53	ppb	18:07:42
1	Cr 267.716†	57279.8	58273.3	504.00	µg/L	504.00	ppb	18:07:42
1	Cu 324.752†	120286.3	119826.4	502.75	µg/L	502.75	ppb	18:07:42
1	Mn 257.610†	372603.3	380398.8	504.40	µg/L	504.40	ppb	18:07:42
1	Mo 202.031†	15143.9	15506.8	507.59	µg/L	507.59	ppb	18:08:02
1	Ni 231.604†	39556.1	40499.1	506.69	µg/L	506.69	ppb	18:07:42
1	P 214.914†	10644.4	10898.0	2512.3	µg/L	2512.3	ppb	18:08:02
1	Pb 220.353†	8182.2	8253.9	509.51	µg/L	509.51	ppb	18:08:02
1	S 181.975 Axial†	1266.8	1205.0	1018.0	µg/L	1018.0	ppb	18:08:02
1	Sb 206.836†	3900.1	3893.9	503.29	µg/L	503.29	ppb	18:08:02
1	Se 196.026†	1252.3	1273.0	504	µg/L	504	ppb	18:08:02
1	SiO2†	51188.8	50546.0	5331.0	µg/L	5331.0	ppb	18:07:42
1	Si 251.611†	156782.1	159372.9	2503.1	µg/L	2503.1	ppb	18:07:42
1	Sn 189.927†	7056.3	7205.6	501.49	µg/L	501.49	ppb	18:08:02
1	Ti 334.940†	478085.6	487501.9	500.06	µg/L	500.06	ppb	18:07:42
1	Tl 190.801†	3512.0	3701.5	512.96	µg/L	512.96	ppb	18:08:02
1	U 409.014†	7091.3	7406.5	498.04	µg/L	498.04	ppb	18:07:42
1	V 292.402†	95269.6	96886.8	508.89	µg/L	508.89	ppb	18:07:42
1	Zn 213.857†	83615.2	84903.0	503.03	µg/L	503.03	ppb	18:07:42
2	Sc RADIAL	135310.2	135310.2	96.6	%			18:07:19
2	Al 396.153Radial†	22795.2	23679.5	4962.0	µg/L	4962.0	ppb	18:07:19
2	Ca 317.933Radial†	72531.5	74523.8	5075.7	µg/L	5075.7	ppb	18:07:19
2	Fe 238.204 Radial†	65507.1	67705.2	5056.2	µg/L	5056.2	ppb	18:07:19
2	K 766.490 Radial†	13898.7	12896.2	5106.0	µg/L	5106.0	ppb	18:07:19
2	Mg 279.077 IEC†	10779.2	10987.8	5081.5	µg/L	5081.5	ppb	18:07:19
2	Na 589.592 Radial†	63981.6	65290.6	10116	µg/L	10116	ppb	18:07:19
2	Sr 421.552†	206018.3	213504.9	503.50	µg/L	503.50	ppb	18:07:17
2	Sc 361.383	1765801.1	1765801.1	97.874	%			18:08:05
2	Y 371.029	1026767.3	1026767.3	97.112	%			18:08:05
2	Ag 328.068†	124519.8	122659.1	508.43	µg/L	508.43	ppb	18:08:05
2	As 188.979†	1298.5	1345.2	462.34	µg/L	462.34	ppb	18:08:25
2	B 249.677†	35512.3	32218.5	499.28	µg/L	499.28	ppb	18:08:05
2	Ba 233.527†	110155.8	112692.8	501.32	µg/L	501.32	ppb	18:08:05
2	Be 313.107†	1658146.0	1695251.3	491.21	µg/L	491.21	ppb	18:08:05
2	Cd 226.502†	73670.7	75374.1	509.12	µg/L	509.12	ppb	18:08:05
2	Co 228.616†	37539.8	38565.4	510.46	µg/L	510.46	ppb	18:08:05
2	Cr 267.716†	57466.4	58481.3	505.81	µg/L	505.81	ppb	18:08:05
2	Cu 324.752†	120521.2	120102.8	503.91	µg/L	503.91	ppb	18:08:05
2	Mn 257.610†	373384.7	381309.6	505.61	µg/L	505.61	ppb	18:08:05
2	Mo 202.031†	15054.8	15420.4	504.77	µg/L	504.77	ppb	18:08:25
2	Ni 231.604†	39851.8	40813.2	510.62	µg/L	510.62	ppb	18:08:05
2	P 214.914†	10608.3	10864.4	2504.5	µg/L	2504.5	ppb	18:08:25
2	Pb 220.353†	8182.3	8256.5	509.67	µg/L	509.67	ppb	18:08:25

2	S 181.975 Axial†	1256.5	1194.9	1009.5 µg/L	1009.5 ppb	18:08:25
2	Sb 206.836†	3885.0	3879.6	501.38 µg/L	501.38 ppb	18:08:25
2	Se 196.026†	1259.6	1280.8	507 µg/L	507 ppb	18:08:25
2	SiO2†	51337.7	50713.6	5348.9 µg/L	5348.9 ppb	18:08:05
2	Si 251.611†	157322.7	159972.6	2512.6 µg/L	2512.6 ppb	18:08:05
2	Sn 189.927†	7018.8	7169.4	498.98 µg/L	498.98 ppb	18:08:25
2	Ti 334.940†	478419.7	487987.5	500.56 µg/L	500.56 ppb	18:08:05
2	Tl 190.801†	3492.0	3682.1	510.34 µg/L	510.34 ppb	18:08:25
2	U 409.014†	7000.1	7315.5	492.42 µg/L	492.42 ppb	18:08:05
2	V 292.402†	95613.8	97267.2	510.84 µg/L	510.84 ppb	18:08:05
2	Zn 213.857†	84056.6	85379.2	505.85 µg/L	505.85 ppb	18:08:05
3	Sc RADIAL	137160.1	137160.1	97.9 %		18:07:23
3	Al 396.153Radial†	23074.7	23646.6	4955.1 µg/L	4955.1 ppb	18:07:23
3	Ca 317.933Radial†	73931.0	74940.4	5104.1 µg/L	5104.1 ppb	18:07:23
3	Fe 238.204 Radial†	66368.9	67670.8	5053.6 µg/L	5053.6 ppb	18:07:23
3	K 766.490 Radial†	14090.7	12898.2	5106.8 µg/L	5106.8 ppb	18:07:23
3	Mg 279.077 IEC†	10843.7	10903.1	5042.3 µg/L	5042.3 ppb	18:07:23
3	Na 589.592 Radial†	64747.0	65179.0	10099 µg/L	10099 ppb	18:07:23
3	Sr 421.552†	205933.6	210541.5	496.51 µg/L	496.51 ppb	18:07:21
3	Sc 361.383	1778994.9	1778994.9	98.606 %		18:08:28
3	Y 371.029	1032929.3	1032929.3	97.695 %		18:08:28
3	Ag 328.068†	125382.7	122590.7	508.17 µg/L	508.17 ppb	18:08:28
3	As 188.979†	1309.2	1346.2	462.68 µg/L	462.68 ppb	18:08:48
3	B 249.677†	35810.2	32251.5	499.79 µg/L	499.79 ppb	18:08:28
3	Ba 233.527†	110717.4	112427.7	500.14 µg/L	500.14 ppb	18:08:28
3	Be 313.107†	1674694.5	1699469.2	492.44 µg/L	492.44 ppb	18:08:28
3	Cd 226.502†	74328.2	75482.7	509.86 µg/L	509.86 ppb	18:08:28
3	Co 228.616†	37914.5	38661.0	511.72 µg/L	511.72 ppb	18:08:28
3	Cr 267.716†	57971.4	58558.0	506.46 µg/L	506.46 ppb	18:08:28
3	Cu 324.752†	121682.2	120366.8	505.02 µg/L	505.02 ppb	18:08:28
3	Mn 257.610†	376442.8	381581.6	505.97 µg/L	505.97 ppb	18:08:28
3	Mo 202.031†	15114.3	15366.6	503.01 µg/L	503.01 ppb	18:08:48
3	Ni 231.604†	40077.7	40740.4	509.71 µg/L	509.71 ppb	18:08:28
3	P 214.914†	10666.8	10843.3	2499.6 µg/L	2499.6 ppb	18:08:48
3	Pb 220.353†	8212.7	8225.4	507.74 µg/L	507.74 ppb	18:08:48
3	S 181.975 Axial†	1271.4	1200.4	1014.1 µg/L	1014.1 ppb	18:08:48
3	Sb 206.836†	3893.9	3859.3	498.73 µg/L	498.73 ppb	18:08:48
3	Se 196.026†	1259.5	1271.2	503 µg/L	503 ppb	18:08:48
3	SiO2†	51917.2	50912.3	5370.0 µg/L	5370.0 ppb	18:08:28
3	Si 251.611†	158906.8	160387.0	2519.1 µg/L	2519.1 ppb	18:08:28
3	Sn 189.927†	7059.4	7157.3	498.15 µg/L	498.15 ppb	18:08:48
3	Ti 334.940†	482379.9	488378.5	500.96 µg/L	500.96 ppb	18:08:28
3	Tl 190.801†	3488.1	3651.7	506.19 µg/L	506.19 ppb	18:08:48
3	U 409.014†	7316.3	7583.2	509.35 µg/L	509.35 ppb	18:08:28
3	V 292.402†	96456.1	97396.9	511.50 µg/L	511.50 ppb	18:08:28
3	Zn 213.857†	84721.6	85416.7	506.07 µg/L	506.07 ppb	18:08:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1770373.0	98.128	%	0.4141				0.42%
Sc RADIAL	136288.1	97.3	%	0.66				0.68%
Y 371.029	1028890.0	97.313	%	0.3310				0.34%
Ag 328.068†	122538.9	507.94	µg/L	0.640	507.94	ppb	0.640	0.13%
QC value within limits for Ag 328.068 Recovery = 101.59%								
Al 396.153Radial†	23672.0	4960.4	µg/L	4.65	4960.4	ppb	4.65	0.09%
QC value within limits for Al 396.153Radial Recovery = 99.21%								
As 188.979†	1351.7	464.51	µg/L	3.477	464.51	ppb	3.477	0.75%
QC value within limits for As 188.979 Recovery = 92.90%								
B 249.677†	32210.9	499.16	µg/L	0.694	499.16	ppb	0.694	0.14%
QC value within limits for B 249.677 Recovery = 99.83%								
Ba 233.527†	112536.1	500.62	µg/L	0.618	500.62	ppb	0.618	0.12%
QC value within limits for Ba 233.527 Recovery = 100.12%								
Be 313.107†	1695546.6	491.30	µg/L	1.098	491.30	ppb	1.098	0.22%
QC value within limits for Be 313.107 Recovery = 98.26%								
Ca 317.933Radial†	74716.1	5088.8	µg/L	14.31	5088.8	ppb	14.31	0.28%
QC value within limits for Ca 317.933Radial Recovery = 101.78%								
Cd 226.502†	75157.5	507.66	µg/L	3.194	507.66	ppb	3.194	0.63%
QC value within limits for Cd 226.502 Recovery = 101.53%								
Co 228.616†	38573.9	510.57	µg/L	1.099	510.57	ppb	1.099	0.22%

```
   QC value within limits for Co 228.616  Recovery = 102.11%
Cr 267.716†            58437.5      505.42 µg/L         1.272      505.42 ppb          1.272   0.25%
   QC value within limits for Cr 267.716  Recovery = 101.08%
Cu 324.752†           120098.7      503.89 µg/L         1.135      503.89 ppb          1.135   0.23%
   QC value within limits for Cu 324.752  Recovery = 100.78%
Fe 238.204 Radial†     67725.7      5057.7 µg/L          5.04      5057.7 ppb           5.04   0.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.15%
K 766.490 Radial†      12912.1      5112.3 µg/L         10.24      5112.3 ppb          10.24   0.20%
   QC value within limits for K 766.490 Radial  Recovery = 102.25%
Mg 279.077 IEC†        10935.0      5057.1 µg/L         21.25      5057.1 ppb          21.25   0.42%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.14%
Mn 257.610†           381096.7      505.33 µg/L         0.822      505.33 ppb          0.822   0.16%
   QC value within limits for Mn 257.610  Recovery = 101.07%
Mo 202.031†            15431.3      505.12 µg/L         2.313      505.12 ppb          2.313   0.46%
   QC value within limits for Mo 202.031  Recovery = 101.02%
Na 589.592 Radial†     65253.8       10110 µg/L          10.0       10110 ppb           10.0   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 101.10%
Ni 231.604†            40684.2      509.01 µg/L         2.057      509.01 ppb          2.057   0.40%
   QC value within limits for Ni 231.604  Recovery = 101.80%
P 214.914†             10868.6      2505.5 µg/L          6.38      2505.5 ppb           6.38   0.25%
   QC value within limits for P 214.914  Recovery = 100.22%
Pb 220.353†             8245.3      508.97 µg/L         1.074      508.97 ppb          1.074   0.21%
   QC value within limits for Pb 220.353  Recovery = 101.79%
S 181.975 Axial†        1200.1      1013.9 µg/L          4.26      1013.9 ppb           4.26   0.42%
   QC value within limits for S 181.975 Axial  Recovery = 101.39%
Sb 206.836†             3877.6      501.13 µg/L         2.293      501.13 ppb          2.293   0.46%
   QC value within limits for Sb 206.836  Recovery = 100.23%
Se 196.026†             1275.0         505 µg/L           2.0         505 ppb            2.0   0.40%
   QC value within limits for Se 196.026  Recovery = 100.90%
SiO2†                  50724.0      5350.0 µg/L         19.50      5350.0 ppb          19.50   0.36%
   QC value within limits for SiO2  Recovery = 100.05%
Si 251.611†           159910.8      2511.6 µg/L          8.08      2511.6 ppb           8.08   0.32%
   QC value within limits for Si 251.611  Recovery = 100.46%
Sn 189.927†             7177.4      499.54 µg/L         1.739      499.54 ppb          1.739   0.35%
   QC value within limits for Sn 189.927  Recovery = 99.91%
Sr 421.552†           212244.4      500.53 µg/L         3.610      500.53 ppb          3.610   0.72%
   QC value within limits for Sr 421.552  Recovery = 100.11%
Ti 334.940†           487956.0      500.53 µg/L         0.449      500.53 ppb          0.449   0.09%
   QC value within limits for Ti 334.940  Recovery = 100.11%
Tl 190.801†             3678.4      509.83 µg/L         3.415      509.83 ppb          3.415   0.67%
   QC value within limits for Tl 190.801  Recovery = 101.97%
U 409.014†              7435.1      499.94 µg/L         8.623      499.94 ppb          8.623   1.72%
   QC value within limits for U 409.014  Recovery = 99.99%
V 292.402†             97183.6      510.41 µg/L         1.359      510.41 ppb          1.359   0.27%
   QC value within limits for V 292.402  Recovery = 102.08%
Zn 213.857†            85233.0      504.98 µg/L         1.697      504.98 ppb          1.697   0.34%
   QC value within limits for Zn 213.857  Recovery = 101.00%
All analyte(s) passed QC.
```

Sequence No.: 68
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 18:08:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	133722.8	133722.8	95.5	%			18:09:26
1	Al 396.153Radial†	-52.2	23.8	4.9924	µg/L	4.9924	ppb	18:09:46
1	Ca 317.933Radial†	744.0	208.0	14.169	µg/L	14.169	ppb	18:09:46
1	Fe 238.204 Radial†	288.3	184.7	13.793	µg/L	13.793	ppb	18:09:46
1	K 766.490 Radial†	1625.4	209.0	82.821	µg/L	82.821	ppb	18:09:26
1	Mg 279.077 IEC†	186.3	22.8	10.509	µg/L	10.509	ppb	18:09:46
1	Na 589.592 Radial†	1152.2	254.6	39.393	µg/L	39.393	ppb	18:09:26
1	Sr 421.552†	-128.5	69.8	0.1646	µg/L	0.1646	ppb	18:09:26
1	Sc 361.383	1778030.7	1778030.7	98.552	%			18:10:48
1	Y 371.029	1044738.8	1044738.8	98.812	%			18:10:48
1	Ag 328.068†	4052.1	-453.5	-1.8528	µg/L	-1.8528	ppb	18:10:50
1	As 188.979†	-12.0	6.4	2.1804	µg/L	2.1804	ppb	18:11:10
1	B 249.677†	4012.4	6.2	0.0966	µg/L	0.0966	ppb	18:10:50
1	Ba 233.527†	-152.7	-10.4	-0.0461	µg/L	-0.0461	ppb	18:11:10
1	Be 313.107†	-890.1	188.5	0.0560	µg/L	0.0560	ppb	18:10:50
1	Cd 226.502†	-58.3	44.2	0.2977	µg/L	0.2977	ppb	18:11:10
1	Co 228.616†	-205.4	1.8	0.0237	µg/L	0.0237	ppb	18:11:10
1	Cr 267.716†	279.9	50.8	0.4364	µg/L	0.4364	ppb	18:11:10
1	Cu 324.752†	2817.2	-177.5	-0.7364	µg/L	-0.7364	ppb	18:10:50
1	Mn 257.610†	377.9	198.7	0.2632	µg/L	0.2632	ppb	18:11:10
1	Mo 202.031†	-19.5	18.8	0.6151	µg/L	0.6151	ppb	18:11:10
1	Ni 231.604†	-44.8	50.4	0.6310	µg/L	0.6310	ppb	18:11:10
1	P 214.914†	32.9	59.1	13.675	µg/L	13.675	ppb	18:11:10
1	Pb 220.353†	83.1	-19.2	-1.1810	µg/L	-1.1810	ppb	18:11:10
1	S 181.975 Axial†	96.1	8.6	7.2279	µg/L	7.2279	ppb	18:11:10
1	Sb 206.836†	87.4	-1.1	-0.1363	µg/L	-0.1363	ppb	18:11:10
1	Se 196.026†	15.8	9.9	3.92	µg/L	3.92	ppb	18:11:10
1	SiO2†	1758.6	45.3	4.7759	µg/L	4.7759	ppb	18:11:10
1	Si 251.611†	1033.3	281.5	4.4266	µg/L	4.4266	ppb	18:10:50
1	Sn 189.927†	10.7	9.0	0.6207	µg/L	0.6207	ppb	18:11:10
1	Ti 334.940†	741.0	-71.1	-0.0755	µg/L	-0.0755	ppb	18:10:50
1	Tl 190.801†	-115.3	-2.7	-0.3740	µg/L	-0.3740	ppb	18:11:10
1	U 409.014†	-89.2	72.9	4.5906	µg/L	4.5906	ppb	18:10:50
1	V 292.402†	390.7	-26.8	-0.1288	µg/L	-0.1288	ppb	18:10:50
1	Zn 213.857†	601.3	107.1	0.6347	µg/L	0.6347	ppb	18:11:10
2	Sc RADIAL	136069.9	136069.9	97.1	%			18:09:48
2	Al 396.153Radial†	-56.4	20.4	4.2585	µg/L	4.2585	ppb	18:10:08
2	Ca 317.933Radial†	705.4	154.9	10.547	µg/L	10.547	ppb	18:10:08
2	Fe 238.204 Radial†	184.1	72.3	5.3957	µg/L	5.3957	ppb	18:10:08
2	K 766.490 Radial†	1642.3	197.0	78.060	µg/L	78.060	ppb	18:09:48
2	Mg 279.077 IEC†	182.4	15.4	7.1148	µg/L	7.1148	ppb	18:10:08
2	Na 589.592 Radial†	1092.5	172.3	26.644	µg/L	26.644	ppb	18:09:48
2	Sr 421.552†	-196.9	1.8	0.0041	µg/L	0.0041	ppb	18:09:48
2	Sc 361.383	1779206.7	1779206.7	98.617	%			18:11:12
2	Y 371.029	1045410.7	1045410.7	98.876	%			18:11:12
2	Ag 328.068†	4031.3	-477.3	-1.9627	µg/L	-1.9627	ppb	18:11:14
2	As 188.979†	-7.8	10.6	3.5919	µg/L	3.5919	ppb	18:11:35
2	B 249.677†	4069.5	61.4	0.9539	µg/L	0.9539	ppb	18:11:14
2	Ba 233.527†	-163.1	-20.8	-0.0922	µg/L	-0.0922	ppb	18:11:35
2	Be 313.107†	-743.1	338.2	0.0955	µg/L	0.0955	ppb	18:11:14
2	Cd 226.502†	-86.3	15.9	0.1072	µg/L	0.1072	ppb	18:11:35
2	Co 228.616†	-184.7	23.0	0.3037	µg/L	0.3037	ppb	18:11:35
2	Cr 267.716†	233.3	3.3	0.0353	µg/L	0.0353	ppb	18:11:35
2	Cu 324.752†	2907.8	-87.6	-0.3718	µg/L	-0.3718	ppb	18:11:14
2	Mn 257.610†	302.0	121.5	0.1609	µg/L	0.1609	ppb	18:11:35
2	Mo 202.031†	-9.7	28.8	0.9415	µg/L	0.9415	ppb	18:11:35
2	Ni 231.604†	-31.2	64.3	0.8043	µg/L	0.8043	ppb	18:11:35
2	P 214.914†	11.2	37.0	8.5575	µg/L	8.5575	ppb	18:11:35
2	Pb 220.353†	106.9	4.9	0.3127	µg/L	0.3127	ppb	18:11:35

2	S 181.975 Axial†	92.3	4.6	3.8973 µg/L	3.8973 ppb	18:11:35
2	Sb 206.836†	98.2	9.8	1.2831 µg/L	1.2831 ppb	18:11:35
2	Se 196.026†	21.2	15.4	6.04 µg/L	6.04 ppb	18:11:35
2	SiO2†	1751.2	36.6	3.8434 µg/L	3.8434 ppb	18:11:35
2	Si 251.611†	1032.8	280.3	4.4022 µg/L	4.4022 ppb	18:11:14
2	Sn 189.927†	11.5	9.8	0.6801 µg/L	0.6801 ppb	18:11:35
2	Ti 334.940†	612.8	-201.6	-0.2041 µg/L	-0.2041 ppb	18:11:14
2	Tl 190.801†	-106.9	5.9	0.8054 µg/L	0.8054 ppb	18:11:35
2	U 409.014†	-287.8	-128.5	-8.0994 µg/L	-8.0994 ppb	18:11:14
2	V 292.402†	439.1	22.0	0.1180 µg/L	0.1180 ppb	18:11:14
2	Zn 213.857†	569.4	74.4	0.4383 µg/L	0.4383 ppb	18:11:35
3	Sc RADIAL	134675.6	134675.6	96.1 %		18:10:10
3	Al 396.153Radial†	-89.5	-14.6	-3.1218 µg/L	-3.1218 ppb	18:10:30
3	Ca 317.933Radial†	696.8	153.4	10.450 µg/L	10.450 ppb	18:10:30
3	Fe 238.204 Radial†	169.0	58.5	4.3659 µg/L	4.3659 ppb	18:10:30
3	K 766.490 Radial†	1640.4	212.6	84.240 µg/L	84.240 ppb	18:10:10
3	Mg 279.077 IEC†	154.5	-11.8	-5.4065 µg/L	-5.4065 ppb	18:10:30
3	Na 589.592 Radial†	1155.2	249.2	38.546 µg/L	38.546 ppb	18:10:10
3	Sr 421.552†	-187.9	9.0	0.0211 µg/L	0.0211 ppb	18:10:10
3	Sc 361.383	1758106.9	1758106.9	97.448 %		18:11:37
3	Y 371.029	1032777.2	1032777.2	97.681 %		18:11:37
3	Ag 328.068†	4186.1	-269.4	-1.1172 µg/L	-1.1172 ppb	18:11:39
3	As 188.979†	-15.6	2.5	0.8706 µg/L	0.8706 ppb	18:11:59
3	B 249.677†	4047.9	88.8	1.3799 µg/L	1.3799 ppb	18:11:39
3	Ba 233.527†	-151.3	-10.7	-0.0481 µg/L	-0.0481 ppb	18:11:59
3	Be 313.107†	-672.1	402.1	0.1162 µg/L	0.1162 ppb	18:11:39
3	Cd 226.502†	-76.6	24.8	0.1670 µg/L	0.1670 ppb	18:11:59
3	Co 228.616†	-189.4	16.0	0.2112 µg/L	0.2112 ppb	18:11:59
3	Cr 267.716†	288.5	62.8	0.5439 µg/L	0.5439 ppb	18:11:59
3	Cu 324.752†	2906.5	-53.5	-0.2240 µg/L	-0.2240 ppb	18:11:39
3	Mn 257.610†	344.7	169.0	0.2244 µg/L	0.2244 ppb	18:11:59
3	Mo 202.031†	-4.7	33.7	1.1020 µg/L	1.1020 ppb	18:11:59
3	Ni 231.604†	-62.0	32.3	0.4038 µg/L	0.4038 ppb	18:11:59
3	P 214.914†	13.2	39.2	9.0657 µg/L	9.0657 ppb	18:11:59
3	Pb 220.353†	112.4	11.9	0.7373 µg/L	0.7373 ppb	18:11:59
3	S 181.975 Axial†	91.0	4.4	3.7425 µg/L	3.7425 ppb	18:11:59
3	Sb 206.836†	87.9	0.4	0.0630 µg/L	0.0630 ppb	18:11:59
3	Se 196.026†	3.5	-2.6	-1.02 µg/L	-1.02 ppb	18:11:59
3	SiO2†	1799.1	107.1	11.312 µg/L	11.312 ppb	18:11:59
3	Si 251.611†	1031.5	291.5	4.5807 µg/L	4.5807 ppb	18:11:39
3	Sn 189.927†	4.5	2.7	0.1895 µg/L	0.1895 ppb	18:11:59
3	Ti 334.940†	696.5	-108.3	-0.1103 µg/L	-0.1103 ppb	18:11:39
3	Tl 190.801†	-129.5	-18.6	-2.5506 µg/L	-2.5506 ppb	18:11:59
3	U 409.014†	-174.9	-16.2	-1.0824 µg/L	-1.0824 ppb	18:11:39
3	V 292.402†	207.6	-210.1	-1.0764 µg/L	-1.0764 ppb	18:11:39
3	Zn 213.857†	573.7	85.8	0.5090 µg/L	0.5090 ppb	18:11:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1771781.5	98.206	%	0.6572				0.67%
Sc RADIAL	134822.7	96.2	%	0.84				0.88%
Y 371.029	1040975.5	98.456	%	0.6723				0.68%
Ag 328.068†	-400.1	-1.6442	µg/L	0.45972	-1.6442	ppb	0.45972	27.96%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.9	2.0430	µg/L	4.48787	2.0430	ppb	4.48787	219.67%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.5	2.2143	µg/L	1.36095	2.2143	ppb	1.36095	61.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	52.1	0.8101	µg/L	0.65360	0.8101	ppb	0.65360	80.68%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-14.0	-0.0622	µg/L	0.02607	-0.0622	ppb	0.02607	41.94%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	309.6	0.0892	µg/L	0.03057	0.0892	ppb	0.03057	34.26%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	172.1	11.722	µg/L	2.1195	11.722	ppb	2.1195	18.08%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	28.3	0.1906	µg/L	0.09742	0.1906	ppb	0.09742	51.10%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	13.6	0.1795	µg/L	0.14266	0.1795	ppb	0.14266	79.46%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              39.0      0.3385 µg/L       0.26802      0.3385 ppb        0.26802  79.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -106.2     -0.4440 µg/L       0.26375     -0.4440 ppb        0.26375  59.40%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      105.1      7.8515 µg/L       5.17108      7.8515 ppb        5.17108  65.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       206.2      81.707 µg/L        3.2371      81.707 ppb         3.2371   3.96%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           8.8      4.0725 µg/L       8.38269      4.0725 ppb        8.38269 205.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             163.1      0.2162 µg/L       0.05162      0.2162 ppb        0.05162  23.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              27.1      0.8862 µg/L       0.24812      0.8862 ppb        0.24812  28.00%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      225.4      34.861 µg/L        7.1288      34.861 ppb         7.1288  20.45%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              49.0      0.6130 µg/L       0.20083      0.6130 ppb        0.20083  32.76%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               45.1      10.433 µg/L        2.8191      10.433 ppb         2.8191  27.02%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -0.8     -0.0436 µg/L       1.00762     -0.0436 ppb        1.00762 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          5.9      4.9559 µg/L       1.96912      4.9559 ppb        1.96912  39.73%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.1      0.4033 µg/L       0.76844      0.4033 ppb        0.76844 190.53%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               7.6        2.98 µg/L         3.624        2.98 ppb          3.624 121.57%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    63.0      6.6438 µg/L       4.06962      6.6438 ppb        4.06962  61.25%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             284.4      4.4699 µg/L       0.09678      4.4699 ppb        0.09678   2.17%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.2      0.4968 µg/L       0.26777      0.4968 ppb        0.26777  53.90%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              26.9      0.0633 µg/L       0.08813      0.0633 ppb        0.08813 139.29%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -127.0     -0.1300 µg/L       0.06648     -0.1300 ppb        0.06648  51.15%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -5.1     -0.7064 µg/L       1.70252     -0.7064 ppb        1.70252 241.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -23.9     -1.5304 µg/L       6.35683     -1.5304 ppb        6.35683 415.37%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -71.6     -0.3624 µg/L       0.63058     -0.3624 ppb        0.63058 174.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              89.1      0.5274 µg/L       0.09946      0.5274 ppb        0.09946  18.86%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 76
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 18:27:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136282.7	136282.7	97.3	%			18:27:41
1	Al 396.153Radial†	23227.3	23955.3	5019.7	µg/L	5019.7	ppb	18:27:41
1	Ca 317.933Radial†	73360.9	74840.5	5097.3	µg/L	5097.3	ppb	18:27:41
1	Fe 238.204 Radial†	66185.3	67918.5	5072.1	µg/L	5072.1	ppb	18:27:41
1	K 766.490 Radial†	14066.8	12966.3	5133.7	µg/L	5133.7	ppb	18:27:41
1	Mg 279.077 IEC†	10872.5	11004.0	5089.1	µg/L	5089.1	ppb	18:27:41
1	Na 589.592 Radial†	64606.2	65460.0	10142	µg/L	10142	ppb	18:27:41
1	Sr 421.552†	209191.2	215244.4	507.61	µg/L	507.61	ppb	18:27:39
1	Sc 361.383	1764512.2	1764512.2	97.803	%			18:28:08
1	Y 371.029	1025160.9	1025160.9	96.961	%			18:28:08
1	Ag 328.068†	124339.7	122567.9	508.06	µg/L	508.06	ppb	18:28:08
1	As 188.979†	1321.2	1369.4	470.52	µg/L	470.52	ppb	18:28:28
1	B 249.677†	35174.1	31899.2	494.32	µg/L	494.32	ppb	18:28:08
1	Ba 233.527†	109584.9	112191.3	499.09	µg/L	499.09	ppb	18:28:08
1	Be 313.107†	1656005.2	1694299.8	490.94	µg/L	490.94	ppb	18:28:08
1	Cd 226.502†	72678.3	74414.4	502.63	µg/L	502.63	ppb	18:28:08
1	Co 228.616†	37344.5	38393.8	508.18	µg/L	508.18	ppb	18:28:08
1	Cr 267.716†	57209.2	58261.2	503.88	µg/L	503.88	ppb	18:28:08
1	Cu 324.752†	120525.0	120196.5	504.32	µg/L	504.32	ppb	18:28:08
1	Mn 257.610†	372156.2	380332.2	504.31	µg/L	504.31	ppb	18:28:08
1	Mo 202.031†	15228.1	15608.8	510.93	µg/L	510.93	ppb	18:28:28
1	Ni 231.604†	39343.1	40322.8	504.49	µg/L	504.49	ppb	18:28:08
1	P 214.914†	10694.4	10960.4	2526.7	µg/L	2526.7	ppb	18:28:28
1	Pb 220.353†	8225.2	8306.5	512.75	µg/L	512.75	ppb	18:28:28
1	S 181.975 Axial†	1273.4	1213.1	1024.8	µg/L	1024.8	ppb	18:28:28
1	Sb 206.836†	3935.5	3934.2	508.53	µg/L	508.53	ppb	18:28:28
1	Se 196.026†	1276.7	1299.2	514	µg/L	514	ppb	18:28:28
1	SiO2†	50826.2	50228.9	5297.3	µg/L	5297.3	ppb	18:28:08
1	Si 251.611†	156645.3	159397.3	2503.4	µg/L	2503.4	ppb	18:28:08
1	Sn 189.927†	7066.2	7223.0	502.71	µg/L	502.71	ppb	18:28:28
1	Ti 334.940†	479114.5	489055.0	501.65	µg/L	501.65	ppb	18:28:08
1	Tl 190.801†	3526.7	3720.2	515.54	µg/L	515.54	ppb	18:28:28
1	U 409.014†	7387.8	7717.2	517.62	µg/L	517.62	ppb	18:28:08
1	V 292.402†	95105.7	96819.1	508.58	µg/L	508.58	ppb	18:28:08
1	Zn 213.857†	83166.1	84531.4	500.82	µg/L	500.82	ppb	18:28:08
2	Sc RADIAL	136082.5	136082.5	97.1	%			18:27:45
2	Al 396.153Radial†	23114.4	23874.2	5003.1	µg/L	5003.1	ppb	18:27:45
2	Ca 317.933Radial†	73168.7	74753.6	5091.4	µg/L	5091.4	ppb	18:27:45
2	Fe 238.204 Radial†	66111.5	67942.6	5073.9	µg/L	5073.9	ppb	18:27:45
2	K 766.490 Radial†	14174.6	13098.5	5186.1	µg/L	5186.1	ppb	18:27:45
2	Mg 279.077 IEC†	10888.1	11036.5	5103.9	µg/L	5103.9	ppb	18:27:45
2	Na 589.592 Radial†	64608.1	65559.6	10158	µg/L	10158	ppb	18:27:45
2	Sr 421.552†	209582.5	215963.5	509.30	µg/L	509.30	ppb	18:27:43
2	Sc 361.383	1776828.5	1776828.5	98.485	%			18:28:31
2	Y 371.029	1031941.7	1031941.7	97.602	%			18:28:31
2	Ag 328.068†	125135.1	122494.3	507.75	µg/L	507.75	ppb	18:28:31
2	As 188.979†	1294.9	1333.4	458.33	µg/L	458.33	ppb	18:28:51
2	B 249.677†	35720.5	32204.7	499.07	µg/L	499.07	ppb	18:28:31
2	Ba 233.527†	110544.6	112389.1	499.97	µg/L	499.97	ppb	18:28:31
2	Be 313.107†	1674070.9	1700906.7	492.85	µg/L	492.85	ppb	18:28:31
2	Cd 226.502†	73715.0	74952.0	506.27	µg/L	506.27	ppb	18:28:31
2	Co 228.616†	37739.7	38530.3	509.99	µg/L	509.99	ppb	18:28:31
2	Cr 267.716†	57791.4	58446.9	505.50	µg/L	505.50	ppb	18:28:31
2	Cu 324.752†	121475.8	120307.7	504.77	µg/L	504.77	ppb	18:28:31
2	Mn 257.610†	375998.4	381595.8	505.99	µg/L	505.99	ppb	18:28:31
2	Mo 202.031†	15048.4	15318.4	501.43	µg/L	501.43	ppb	18:28:51
2	Ni 231.604†	39907.1	40616.7	508.17	µg/L	508.17	ppb	18:28:31
2	P 214.914†	10582.5	10771.0	2482.9	µg/L	2482.9	ppb	18:28:51
2	Pb 220.353†	8157.9	8179.9	504.94	µg/L	504.94	ppb	18:28:51

2	S 181.975 Axial†	1263.7	1194.2	1008.8 µg/L	1008.8 ppb	18:28:51
2	Sb 206.836†	3876.3	3846.2	497.02 µg/L	497.02 ppb	18:28:51
2	Se 196.026†	1259.5	1272.7	504 µg/L	504 ppb	18:28:51
2	SiO2†	51777.5	50834.6	5361.9 µg/L	5361.9 ppb	18:28:31
2	Si 251.611†	158334.4	160002.2	2513.1 µg/L	2513.1 ppb	18:28:31
2	Sn 189.927†	6989.8	7095.4	493.86 µg/L	493.86 ppb	18:28:51
2	Ti 334.940†	482647.5	489246.7	501.85 µg/L	501.85 ppb	18:28:31
2	Tl 190.801†	3471.3	3639.0	504.46 µg/L	504.46 ppb	18:28:51
2	U 409.014†	7142.9	7416.1	498.74 µg/L	498.74 ppb	18:28:31
2	V 292.402†	96116.1	97171.0	510.30 µg/L	510.30 ppb	18:28:31
2	Zn 213.857†	84305.2	85098.7	504.18 µg/L	504.18 ppb	18:28:31
3	Sc RADIAL	137251.0	137251.0	98.0 %		18:27:49
3	Al 396.153Radial†	23296.1	23857.1	4999.2 µg/L	4999.2 ppb	18:27:49
3	Ca 317.933Radial†	74063.7	75025.9	5109.9 µg/L	5109.9 ppb	18:27:49
3	Fe 238.204 Radial†	66829.7	68096.2	5085.4 µg/L	5085.4 ppb	18:27:49
3	K 766.490 Radial†	14304.3	13106.7	5189.4 µg/L	5189.4 ppb	18:27:49
3	Mg 279.077 IEC†	11062.8	11119.4	5142.3 µg/L	5142.3 ppb	18:27:49
3	Na 589.592 Radial†	64928.0	65319.9	10120 µg/L	10120 ppb	18:27:49
3	Sr 421.552†	209203.9	213740.2	504.06 µg/L	504.06 ppb	18:27:47
3	Sc 361.383	1766461.2	1766461.2	97.911 %		18:28:54
3	Y 371.029	1025573.5	1025573.5	97.000 %		18:28:54
3	Ag 328.068†	124452.0	122542.3	507.96 µg/L	507.96 ppb	18:28:54
3	As 188.979†	1331.5	1378.5	473.61 µg/L	473.61 ppb	18:29:14
3	B 249.677†	35563.8	32257.5	499.89 µg/L	499.89 ppb	18:28:54
3	Ba 233.527†	110311.0	112809.3	501.83 µg/L	501.83 ppb	18:28:54
3	Be 313.107†	1665426.0	1702053.5	493.19 µg/L	493.19 ppb	18:28:54
3	Cd 226.502†	73402.2	75071.7	507.08 µg/L	507.08 ppb	18:28:54
3	Co 228.616†	37490.9	38501.2	509.61 µg/L	509.61 ppb	18:28:54
3	Cr 267.716†	57579.2	58574.6	506.60 µg/L	506.60 ppb	18:28:54
3	Cu 324.752†	120905.9	120449.6	505.38 µg/L	505.38 ppb	18:28:54
3	Mn 257.610†	374289.7	382091.3	506.65 µg/L	506.65 ppb	18:28:54
3	Mo 202.031†	15138.6	15500.2	507.38 µg/L	507.38 ppb	18:29:14
3	Ni 231.604†	39813.6	40759.0	509.95 µg/L	509.95 ppb	18:28:54
3	P 214.914†	10616.8	10869.0	2505.5 µg/L	2505.5 ppb	18:29:14
3	Pb 220.353†	8189.1	8260.4	509.90 µg/L	509.90 ppb	18:29:14
3	S 181.975 Axial†	1269.4	1207.5	1020.1 µg/L	1020.1 ppb	18:29:14
3	Sb 206.836†	3907.9	3901.6	504.24 µg/L	504.24 ppb	18:29:14
3	Se 196.026†	1266.0	1286.8	509 µg/L	509 ppb	18:29:14
3	SiO2†	51592.2	50954.0	5374.3 µg/L	5374.3 ppb	18:28:54
3	Si 251.611†	157787.9	160387.7	2519.1 µg/L	2519.1 ppb	18:28:54
3	Sn 189.927†	7019.5	7167.4	498.85 µg/L	498.85 ppb	18:29:14
3	Ti 334.940†	480250.0	489674.3	502.28 µg/L	502.28 ppb	18:28:54
3	Tl 190.801†	3511.3	3700.5	512.87 µg/L	512.87 ppb	18:29:14
3	U 409.014†	7289.0	7607.9	510.85 µg/L	510.85 ppb	18:28:54
3	V 292.402†	95573.1	97189.2	510.47 µg/L	510.47 ppb	18:28:54
3	Zn 213.857†	83890.0	85177.0	504.64 µg/L	504.64 ppb	18:28:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769267.3	98.066	%	0.3669				0.37%
Sc RADIAL	136538.7	97.5	%	0.45				0.46%
Y 371.029	1027558.7	97.187	%	0.3595				0.37%
Ag 328.068†	122534.8	507.92	µg/L	0.156	507.92	ppb	0.156	0.03%
QC value within limits for Ag 328.068 Recovery = 101.58%								
Al 396.153Radial†	23895.5	5007.4	µg/L	10.90	5007.4	ppb	10.90	0.22%
QC value within limits for Al 396.153Radial Recovery = 100.15%								
As 188.979†	1360.4	467.48	µg/L	8.081	467.48	ppb	8.081	1.73%
QC value within limits for As 188.979 Recovery = 93.50%								
B 249.677†	32120.4	497.76	µg/L	3.005	497.76	ppb	3.005	0.60%
QC value within limits for B 249.677 Recovery = 99.55%								
Ba 233.527†	112463.2	500.30	µg/L	1.403	500.30	ppb	1.403	0.28%
QC value within limits for Ba 233.527 Recovery = 100.06%								
Be 313.107†	1699086.7	492.33	µg/L	1.210	492.33	ppb	1.210	0.25%
QC value within limits for Be 313.107 Recovery = 98.47%								
Ca 317.933Radial†	74873.3	5099.5	µg/L	9.47	5099.5	ppb	9.47	0.19%
QC value within limits for Ca 317.933Radial Recovery = 101.99%								
Cd 226.502†	74812.7	505.32	µg/L	2.367	505.32	ppb	2.367	0.47%
QC value within limits for Cd 226.502 Recovery = 101.06%								
Co 228.616†	38475.1	509.26	µg/L	0.952	509.26	ppb	0.952	0.19%

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   QC value within limits for Co 228.616  Recovery = 101.85%
Cr 267.716†            58427.6      505.33 µg/L         1.367      505.33 ppb          1.367   0.27%
   QC value within limits for Cr 267.716  Recovery = 101.07%
Cu 324.752†           120317.9      504.82 µg/L         0.530      504.82 ppb          0.530   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.96%
Fe 238.204 Radial†     67985.7      5077.1 µg/L          7.20      5077.1 ppb           7.20   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.54%
K 766.490 Radial†      13057.2      5169.7 µg/L         31.23      5169.7 ppb          31.23   0.60%
   QC value within limits for K 766.490 Radial  Recovery = 103.39%
Mg 279.077 IEC†        11053.3      5111.8 µg/L         27.44      5111.8 ppb          27.44   0.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.24%
Mn 257.610†           381339.8      505.65 µg/L         1.202      505.65 ppb          1.202   0.24%
   QC value within limits for Mn 257.610  Recovery = 101.13%
Mo 202.031†            15475.8      506.58 µg/L         4.799      506.58 ppb          4.799   0.95%
   QC value within limits for Mo 202.031  Recovery = 101.32%
Na 589.592 Radial†     65446.5       10140 µg/L          18.7       10140 ppb           18.7   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 101.40%
Ni 231.604†            40566.2      507.53 µg/L         2.783      507.53 ppb          2.783   0.55%
   QC value within limits for Ni 231.604  Recovery = 101.51%
P 214.914†             10866.8      2505.0 µg/L         21.91      2505.0 ppb          21.91   0.87%
   QC value within limits for P 214.914  Recovery = 100.20%
Pb 220.353†             8248.9      509.20 µg/L         3.949      509.20 ppb          3.949   0.78%
   QC value within limits for Pb 220.353  Recovery = 101.84%
S 181.975 Axial†        1204.9      1017.9 µg/L          8.22      1017.9 ppb           8.22   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 101.79%
Sb 206.836†             3894.0      503.26 µg/L         5.816      503.26 ppb          5.816   1.16%
   QC value within limits for Sb 206.836  Recovery = 100.65%
Se 196.026†             1286.3         509 µg/L           5.2         509 ppb            5.2   1.03%
   QC value within limits for Se 196.026  Recovery = 101.79%
SiO2†                  50672.5      5344.5 µg/L         41.31      5344.5 ppb          41.31   0.77%
   QC value within limits for SiO2  Recovery = 99.94%
Si 251.611†           159929.1      2511.9 µg/L          7.92      2511.9 ppb           7.92   0.32%
   QC value within limits for Si 251.611  Recovery = 100.47%
Sn 189.927†             7162.0      498.47 µg/L         4.438      498.47 ppb          4.438   0.89%
   QC value within limits for Sn 189.927  Recovery = 99.69%
Sr 421.552†           214982.7      506.99 µg/L         2.676      506.99 ppb          2.676   0.53%
   QC value within limits for Sr 421.552  Recovery = 101.40%
Ti 334.940†           489325.3      501.93 µg/L         0.324      501.93 ppb          0.324   0.06%
   QC value within limits for Ti 334.940  Recovery = 100.39%
Tl 190.801†             3686.6      510.95 µg/L         5.783      510.95 ppb          5.783   1.13%
   QC value within limits for Tl 190.801  Recovery = 102.19%
U 409.014†              7580.4      509.07 µg/L         9.566      509.07 ppb          9.566   1.88%
   QC value within limits for U 409.014  Recovery = 101.81%
V 292.402†             97059.7      509.78 µg/L         1.044      509.78 ppb          1.044   0.20%
   QC value within limits for V 292.402  Recovery = 101.96%
Zn 213.857†            84935.7      503.22 µg/L         2.085      503.22 ppb          2.085   0.41%
   QC value within limits for Zn 213.857  Recovery = 100.64%
All analyte(s) passed QC.
```

Sequence No.: 77
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 18:29:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135092.3	135092.3	96.4	%			18:29:51
1	Al 396.153Radial†	-44.9	32.0	6.6899	µg/L	6.6899	ppb	18:30:11
1	Ca 317.933Radial†	732.5	188.2	12.815	µg/L	12.815	ppb	18:30:11
1	Fe 238.204 Radial†	190.2	79.9	5.9667	µg/L	5.9667	ppb	18:30:11
1	K 766.490 Radial†	1696.7	265.8	105.30	µg/L	105.30	ppb	18:29:51
1	Mg 279.077 IEC†	168.6	2.4	1.1026	µg/L	1.1026	ppb	18:30:11
1	Na 589.592 Radial†	1046.6	132.9	20.499	µg/L	20.499	ppb	18:29:51
1	Sr 421.552†	-151.7	47.2	0.1112	µg/L	0.1112	ppb	18:29:51
1	Sc 361.383	1787344.8	1787344.8	99.068	%			18:31:13
1	Y 371.029	1048797.5	1048797.5	99.196	%			18:31:13
1	Ag 328.068†	4061.6	-465.3	-1.9365	µg/L	-1.9365	ppb	18:31:15
1	As 188.979†	-16.7	1.7	0.5855	µg/L	0.5855	ppb	18:31:35
1	B 249.677†	3961.9	-66.0	-1.0258	µg/L	-1.0258	ppb	18:31:15
1	Ba 233.527†	-151.7	-8.6	-0.0380	µg/L	-0.0380	ppb	18:31:35
1	Be 313.107†	-352.2	736.3	0.2063	µg/L	0.2063	ppb	18:31:15
1	Cd 226.502†	-66.6	36.1	0.2435	µg/L	0.2435	ppb	18:31:35
1	Co 228.616†	-205.9	2.5	0.0324	µg/L	0.0324	ppb	18:31:35
1	Cr 267.716†	271.5	40.8	0.3714	µg/L	0.3714	ppb	18:31:35
1	Cu 324.752†	2844.7	-164.7	-0.7069	µg/L	-0.7069	ppb	18:31:15
1	Mn 257.610†	314.7	133.0	0.1764	µg/L	0.1764	ppb	18:31:35
1	Mo 202.031†	-14.0	24.4	0.7996	µg/L	0.7996	ppb	18:31:35
1	Ni 231.604†	-71.4	23.9	0.2987	µg/L	0.2987	ppb	18:31:35
1	P 214.914†	31.0	57.0	13.189	µg/L	13.189	ppb	18:31:35
1	Pb 220.353†	103.9	1.4	0.1074	µg/L	0.1074	ppb	18:31:35
1	S 181.975 Axial†	100.4	12.5	10.494	µg/L	10.494	ppb	18:31:35
1	Sb 206.836†	78.6	-10.4	-1.3332	µg/L	-1.3332	ppb	18:31:35
1	Se 196.026†	11.3	5.3	2.06	µg/L	2.06	ppb	18:31:35
1	SiO2†	1737.9	15.1	1.5770	µg/L	1.5770	ppb	18:31:35
1	Si 251.611†	898.6	140.0	2.1951	µg/L	2.1951	ppb	18:31:15
1	Sn 189.927†	5.7	3.9	0.2711	µg/L	0.2711	ppb	18:31:35
1	Ti 334.940†	1050.4	237.2	0.2532	µg/L	0.2532	ppb	18:31:15
1	Tl 190.801†	-118.1	-4.9	-0.6742	µg/L	-0.6742	ppb	18:31:35
1	U 409.014†	-521.8	-363.3	-22.944	µg/L	-22.944	ppb	18:31:15
1	V 292.402†	369.0	-50.7	-0.2693	µg/L	-0.2693	ppb	18:31:15
1	Zn 213.857†	555.2	57.4	0.3408	µg/L	0.3408	ppb	18:31:35
2	Sc RADIAL	136375.6	136375.6	97.3	%			18:30:13
2	Al 396.153Radial†	-51.4	25.7	5.3917	µg/L	5.3917	ppb	18:30:33
2	Ca 317.933Radial†	713.9	161.9	11.027	µg/L	11.027	ppb	18:30:33
2	Fe 238.204 Radial†	180.1	67.7	5.0561	µg/L	5.0561	ppb	18:30:33
2	K 766.490 Radial†	1698.5	251.0	99.446	µg/L	99.446	ppb	18:30:13
2	Mg 279.077 IEC†	161.4	-6.6	-3.0474	µg/L	-3.0474	ppb	18:30:33
2	Na 589.592 Radial†	1146.3	225.0	34.791	µg/L	34.791	ppb	18:30:13
2	Sr 421.552†	-56.9	146.0	0.3442	µg/L	0.3442	ppb	18:30:13
2	Sc 361.383	1776624.3	1776624.3	98.474	%			18:31:37
2	Y 371.029	1043156.8	1043156.8	98.663	%			18:31:37
2	Ag 328.068†	4138.6	-362.4	-1.4823	µg/L	-1.4823	ppb	18:31:39
2	As 188.979†	-12.1	6.3	2.1274	µg/L	2.1274	ppb	18:32:00
2	B 249.677†	4198.4	198.3	3.0839	µg/L	3.0839	ppb	18:31:39
2	Ba 233.527†	-138.5	3.9	0.0173	µg/L	0.0173	ppb	18:32:00
2	Be 313.107†	-702.4	378.5	0.1101	µg/L	0.1101	ppb	18:31:39
2	Cd 226.502†	-94.1	7.8	0.0524	µg/L	0.0524	ppb	18:32:00
2	Co 228.616†	-206.8	0.3	0.0037	µg/L	0.0037	ppb	18:32:00
2	Cr 267.716†	260.8	31.6	0.2728	µg/L	0.2728	ppb	18:32:00
2	Cu 324.752†	2953.1	-37.2	-0.1539	µg/L	-0.1539	ppb	18:31:39
2	Mn 257.610†	307.1	127.1	0.1687	µg/L	0.1687	ppb	18:32:00
2	Mo 202.031†	-19.0	19.3	0.6318	µg/L	0.6318	ppb	18:32:00
2	Ni 231.604†	-40.1	55.1	0.6900	µg/L	0.6900	ppb	18:32:00
2	P 214.914†	20.7	46.7	10.807	µg/L	10.807	ppb	18:32:00
2	Pb 220.353†	131.6	30.2	1.8563	µg/L	1.8563	ppb	18:32:00

2	S 181.975 Axial†	79.5	-8.2	-6.8975 µg/L	-6.8975 ppb	18:32:00
2	Sb 206.836†	81.6	-6.8	-0.8762 µg/L	-0.8762 ppb	18:32:00
2	Se 196.026†	8.6	2.6	1.04 µg/L	1.04 ppb	18:32:00
2	SiO2†	1746.0	33.9	3.5646 µg/L	3.5646 ppb	18:32:00
2	Si 251.611†	1038.0	287.0	4.5138 µg/L	4.5138 ppb	18:31:39
2	Sn 189.927†	10.5	8.7	0.6068 µg/L	0.6068 ppb	18:32:00
2	Ti 334.940†	874.5	65.0	0.0666 µg/L	0.0666 ppb	18:31:39
2	Tl 190.801†	-111.9	0.6	0.0856 µg/L	0.0856 ppb	18:32:00
2	U 409.014†	-137.8	23.4	1.4747 µg/L	1.4747 ppb	18:31:39
2	V 292.402†	412.4	-4.4	-0.0147 µg/L	-0.0147 ppb	18:31:39
2	Zn 213.857†	538.5	43.9	0.2570 µg/L	0.2570 ppb	18:32:00
3	Sc RADIAL	137159.4	137159.4	97.9 %		18:30:35
3	Al 396.153Radial†	-60.8	16.4	3.4349 µg/L	3.4349 ppb	18:30:55
3	Ca 317.933Radial†	732.6	176.8	12.043 µg/L	12.043 ppb	18:30:55
3	Fe 238.204 Radial†	179.0	65.5	4.8905 µg/L	4.8905 ppb	18:30:55
3	K 766.490 Radial†	1704.7	247.4	98.011 µg/L	98.011 ppb	18:30:35
3	Mg 279.077 IEC†	171.8	3.0	1.4151 µg/L	1.4151 ppb	18:30:55
3	Na 589.592 Radial†	1050.3	120.2	18.552 µg/L	18.552 ppb	18:30:35
3	Sr 421.552†	-146.0	55.4	0.1305 µg/L	0.1305 ppb	18:30:35
3	Sc 361.383	1780995.5	1780995.5	98.716 %		18:32:02
3	Y 371.029	1045438.8	1045438.8	98.878 %		18:32:02
3	Ag 328.068†	4197.3	-313.3	-1.2626 µg/L	-1.2626 ppb	18:32:04
3	As 188.979†	-14.6	3.8	1.2814 µg/L	1.2814 ppb	18:32:24
3	B 249.677†	4079.3	67.2	1.0449 µg/L	1.0449 ppb	18:32:04
3	Ba 233.527†	-157.0	-14.4	-0.0640 µg/L	-0.0640 ppb	18:32:24
3	Be 313.107†	-798.0	283.4	0.0864 µg/L	0.0864 ppb	18:32:04
3	Cd 226.502†	-67.1	35.4	0.2387 µg/L	0.2387 ppb	18:32:24
3	Co 228.616†	-190.7	17.2	0.2267 µg/L	0.2267 ppb	18:32:24
3	Cr 267.716†	283.9	54.3	0.4591 µg/L	0.4591 ppb	18:32:24
3	Cu 324.752†	2913.1	-85.2	-0.3436 µg/L	-0.3436 ppb	18:32:04
3	Mn 257.610†	314.9	134.3	0.1781 µg/L	0.1781 ppb	18:32:24
3	Mo 202.031†	-24.2	14.1	0.4610 µg/L	0.4610 ppb	18:32:24
3	Ni 231.604†	-68.4	26.6	0.3331 µg/L	0.3331 ppb	18:32:24
3	P 214.914†	15.7	41.6	9.6155 µg/L	9.6155 ppb	18:32:24
3	Pb 220.353†	121.4	19.5	1.1913 µg/L	1.1913 ppb	18:32:24
3	S 181.975 Axial†	97.1	9.5	7.9692 µg/L	7.9692 ppb	18:32:24
3	Sb 206.836†	94.9	6.4	0.8247 µg/L	0.8247 ppb	18:32:24
3	Se 196.026†	5.1	-1.0	-0.383 µg/L	-0.383 ppb	18:32:24
3	SiO2†	1784.6	68.7	7.2727 µg/L	7.2727 ppb	18:32:24
3	Si 251.611†	1060.0	306.7	4.8343 µg/L	4.8343 ppb	18:32:04
3	Sn 189.927†	-6.6	-8.6	-0.5975 µg/L	-0.5975 ppb	18:32:24
3	Ti 334.940†	631.1	-183.7	-0.1944 µg/L	-0.1944 ppb	18:32:04
3	Tl 190.801†	-114.4	-1.6	-0.2234 µg/L	-0.2234 ppb	18:32:24
3	U 409.014†	60.6	224.7	14.196 µg/L	14.196 ppb	18:32:04
3	V 292.402†	461.4	44.2	0.2450 µg/L	0.2450 ppb	18:32:04
3	Zn 213.857†	571.3	75.8	0.4500 µg/L	0.4500 ppb	18:32:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1781654.9	98.753	%	0.2988				0.30%
Sc RADIAL	136209.1	97.2	%	0.74				0.77%
Y 371.029	1045797.7	98.912	%	0.2684				0.27%
Ag 328.068†	-380.4	-1.5605	µg/L	0.34367	-1.5605	ppb	0.34367	22.02%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	24.7	5.1722	µg/L	1.63858	5.1722	ppb	1.63858	31.68%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.9	1.3314	µg/L	0.77213	1.3314	ppb	0.77213	57.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	66.5	1.0344	µg/L	2.05485	1.0344	ppb	2.05485	198.66%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.4	-0.0282	µg/L	0.04153	-0.0282	ppb	0.04153	147.17%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	466.0	0.1343	µg/L	0.06354	0.1343	ppb	0.06354	47.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	175.6	11.962	µg/L	0.8969	11.962	ppb	0.8969	7.50%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	26.4	0.1782	µg/L	0.10901	0.1782	ppb	0.10901	61.16%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.6	0.0876	µg/L	0.12135	0.0876	ppb	0.12135	138.52%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              42.3      0.3678 µg/L       0.09322      0.3678 ppb        0.09322  25.35%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -95.7     -0.4015 µg/L       0.28101     -0.4015 ppb        0.28101  69.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       71.0      5.3044 µg/L       0.57945      5.3044 ppb        0.57945  10.92%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       254.7      100.92 µg/L         3.861      100.92 ppb          3.861   3.83%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.4     -0.1766 µg/L       2.49109     -0.1766 ppb        2.49109 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             131.5      0.1744 µg/L       0.00496      0.1744 ppb        0.00496   2.85%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              19.3      0.6308 µg/L       0.16927      0.6308 ppb        0.16927  26.83%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      159.4      24.614 µg/L        8.8668      24.614 ppb         8.8668  36.02%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              35.2      0.4406 µg/L       0.21664      0.4406 ppb        0.21664  49.17%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               48.4      11.204 µg/L        1.8192      11.204 ppb         1.8192  16.24%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              17.0      1.0517 µg/L       0.88278      1.0517 ppb        0.88278  83.94%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.6      3.8553 µg/L       9.39746      3.8553 ppb        9.39746 243.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.6     -0.4616 µg/L       1.13712     -0.4616 ppb        1.13712 246.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.3       0.906 µg/L        1.2290       0.906 ppb         1.2290 135.69%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    39.3      4.1381 µg/L       2.89080      4.1381 ppb        2.89080  69.86%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             244.6      3.8477 µg/L       1.44014      3.8477 ppb        1.44014  37.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.3      0.0934 µg/L       0.62148      0.0934 ppb        0.62148 665.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              82.8      0.1953 µg/L       0.12932      0.1953 ppb        0.12932  66.22%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              39.5      0.0418 µg/L       0.22484      0.0418 ppb        0.22484 538.04%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.0     -0.2706 µg/L       0.38207     -0.2706 ppb        0.38207 141.17%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -38.4     -2.4245 µg/L      18.87457     -2.4245 ppb       18.87457 778.48%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -3.6     -0.0130 µg/L       0.25716     -0.0130 ppb        0.25716 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              59.0      0.3493 µg/L       0.09680      0.3493 ppb        0.09680  27.71%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 85
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 18:46:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135848.7	135848.7	97.0	%			18:46:44
1	Al 396.153Radial†	23039.3	23837.7	4995.1	µg/L	4995.1	ppb	18:46:44
1	Ca 317.933Radial†	73202.6	74918.2	5102.6	µg/L	5102.6	ppb	18:46:44
1	Fe 238.204 Radial†	66062.6	68009.3	5078.9	µg/L	5078.9	ppb	18:46:44
1	K 766.490 Radial†	13978.1	12921.0	5115.8	µg/L	5115.8	ppb	18:46:44
1	Mg 279.077 IEC†	10772.3	10936.4	5057.8	µg/L	5057.8	ppb	18:46:44
1	Na 589.592 Radial†	64342.8	65400.5	10133	µg/L	10133	ppb	18:46:44
1	Sr 421.552†	211512.2	218324.9	514.87	µg/L	514.87	ppb	18:46:42
1	Sc 361.383	1768466.2	1768466.2	98.022	%			18:46:57
1	Y 371.029	1027264.6	1027264.6	97.159	%			18:46:57
1	Ag 328.068†	124610.6	122560.0	508.05	µg/L	508.05	ppb	18:46:57
1	As 188.979†	1334.8	1380.3	474.22	µg/L	474.22	ppb	18:47:17
1	B 249.677†	35415.4	32064.9	496.89	µg/L	496.89	ppb	18:46:57
1	Ba 233.527†	110137.8	112504.9	500.48	µg/L	500.48	ppb	18:46:57
1	Be 313.107†	1669411.8	1704191.3	493.81	µg/L	493.81	ppb	18:46:57
1	Cd 226.502†	73524.1	75111.1	507.34	µg/L	507.34	ppb	18:46:57
1	Co 228.616†	37759.3	38731.5	512.65	µg/L	512.65	ppb	18:46:57
1	Cr 267.716†	57672.3	58602.9	506.84	µg/L	506.84	ppb	18:46:57
1	Cu 324.752†	121047.9	120454.5	505.40	µg/L	505.40	ppb	18:46:57
1	Mn 257.610†	374840.9	382220.2	506.82	µg/L	506.82	ppb	18:46:57
1	Mo 202.031†	15217.5	15563.1	509.44	µg/L	509.44	ppb	18:47:17
1	Ni 231.604†	39600.4	40495.4	506.65	µg/L	506.65	ppb	18:46:57
1	P 214.914†	10699.9	10941.5	2522.3	µg/L	2522.3	ppb	18:47:17
1	Pb 220.353†	8239.2	8302.0	512.46	µg/L	512.46	ppb	18:47:17
1	S 181.975 Axial†	1269.2	1205.8	1018.7	µg/L	1018.7	ppb	18:47:17
1	Sb 206.836†	3915.5	3904.8	504.69	µg/L	504.69	ppb	18:47:17
1	Se 196.026†	1273.1	1292.6	511	µg/L	511	ppb	18:47:17
1	SiO2†	51287.8	50583.6	5334.9	µg/L	5334.9	ppb	18:46:57
1	Si 251.611†	157374.7	159783.4	2509.5	µg/L	2509.5	ppb	18:46:57
1	Sn 189.927†	7087.6	7228.8	503.11	µg/L	503.11	ppb	18:47:17
1	Ti 334.940†	481235.3	490123.4	502.75	µg/L	502.75	ppb	18:46:57
1	Tl 190.801†	3542.3	3728.1	516.62	µg/L	516.62	ppb	18:47:17
1	U 409.014†	7420.7	7733.8	518.79	µg/L	518.79	ppb	18:46:57
1	V 292.402†	95680.1	97187.6	510.49	µg/L	510.49	ppb	18:46:57
1	Zn 213.857†	83833.3	85022.0	503.74	µg/L	503.74	ppb	18:46:57
2	Sc RADIAL	136213.8	136213.8	97.2	%			18:46:48
2	Al 396.153Radial†	23258.8	23999.7	5029.2	µg/L	5029.2	ppb	18:46:48
2	Ca 317.933Radial†	73388.0	74906.5	5101.8	µg/L	5101.8	ppb	18:46:48
2	Fe 238.204 Radial†	66522.5	68299.7	5100.6	µg/L	5100.6	ppb	18:46:48
2	K 766.490 Radial†	14083.3	12990.6	5143.3	µg/L	5143.3	ppb	18:46:48
2	Mg 279.077 IEC†	10814.0	10949.5	5063.9	µg/L	5063.9	ppb	18:46:48
2	Na 589.592 Radial†	64586.2	65473.0	10144	µg/L	10144	ppb	18:46:48
2	Sr 421.552†	204142.5	210160.7	495.62	µg/L	495.62	ppb	18:46:46
2	Sc 361.383	1763162.4	1763162.4	97.728	%			18:47:20
2	Y 371.029	1024495.4	1024495.4	96.898	%			18:47:20
2	Ag 328.068†	124497.5	122826.7	509.15	µg/L	509.15	ppb	18:47:20
2	As 188.979†	1331.4	1380.9	474.44	µg/L	474.44	ppb	18:47:40
2	B 249.677†	35461.7	32221.0	499.32	µg/L	499.32	ppb	18:47:20
2	Ba 233.527†	110367.1	113077.5	503.03	µg/L	503.03	ppb	18:47:20
2	Be 313.107†	1667282.4	1707135.4	494.66	µg/L	494.66	ppb	18:47:20
2	Cd 226.502†	73322.7	75130.7	507.47	µg/L	507.47	ppb	18:47:20
2	Co 228.616†	37607.0	38691.6	512.13	µg/L	512.13	ppb	18:47:20
2	Cr 267.716†	57426.8	58528.7	506.20	µg/L	506.20	ppb	18:47:20
2	Cu 324.752†	120992.6	120769.4	506.72	µg/L	506.72	ppb	18:47:20
2	Mn 257.610†	373948.7	382457.6	507.13	µg/L	507.13	ppb	18:47:20
2	Mo 202.031†	15173.7	15565.0	509.50	µg/L	509.50	ppb	18:47:40
2	Ni 231.604†	39712.3	40731.5	509.60	µg/L	509.60	ppb	18:47:20
2	P 214.914†	10659.1	10932.6	2520.2	µg/L	2520.2	ppb	18:47:40
2	Pb 220.353†	8235.9	8323.9	513.82	µg/L	513.82	ppb	18:47:40

2	S 181.975 Axial†	1256.9	1197.2	1011.5 µg/L	1011.5 ppb	18:47:40
2	Sb 206.836†	3926.2	3927.7	507.65 µg/L	507.65 ppb	18:47:40
2	Se 196.026†	1261.7	1284.9	508 µg/L	508 ppb	18:47:40
2	SiO2†	51326.9	50781.1	5355.9 µg/L	5355.9 ppb	18:47:20
2	Si 251.611†	157424.5	160317.3	2517.9 µg/L	2517.9 ppb	18:47:20
2	Sn 189.927†	7062.3	7224.6	502.83 µg/L	502.83 ppb	18:47:40
2	Ti 334.940†	480438.8	490785.2	503.43 µg/L	503.43 ppb	18:47:20
2	Tl 190.801†	3523.4	3719.6	515.49 µg/L	515.49 ppb	18:47:40
2	U 409.014†	7330.3	7664.1	514.47 µg/L	514.47 ppb	18:47:20
2	V 292.402†	95646.3	97446.7	511.82 µg/L	511.82 ppb	18:47:20
2	Zn 213.857†	83872.4	85319.3	505.49 µg/L	505.49 ppb	18:47:20
3	Sc RADIAL	136274.4	136274.4	97.3 %		18:46:52
3	Al 396.153Radial†	23243.4	23973.2	5023.4 µg/L	5023.4 ppb	18:46:52
3	Ca 317.933Radial†	73653.1	75145.5	5118.1 µg/L	5118.1 ppb	18:46:52
3	Fe 238.204 Radial†	66230.4	67969.0	5075.9 µg/L	5075.9 ppb	18:46:52
3	K 766.490 Radial†	14011.7	12910.5	5111.6 µg/L	5111.6 ppb	18:46:52
3	Mg 279.077 IEC†	10884.8	11017.3	5095.3 µg/L	5095.3 ppb	18:46:52
3	Na 589.592 Radial†	64699.0	65559.5	10158 µg/L	10158 ppb	18:46:52
3	Sr 421.552†	206413.2	212401.7	500.90 µg/L	500.90 ppb	18:46:50
3	Sc 361.383	1756112.8	1756112.8	97.337 %		18:47:43
3	Y 371.029	1020814.2	1020814.2	96.549 %		18:47:43
3	Ag 328.068†	124208.5	123041.1	510.00 µg/L	510.00 ppb	18:47:43
3	As 188.979†	1333.2	1388.3	476.93 µg/L	476.93 ppb	18:48:03
3	B 249.677†	35395.9	32299.0	500.54 µg/L	500.54 ppb	18:47:43
3	Ba 233.527†	109680.9	112825.9	501.91 µg/L	501.91 ppb	18:47:43
3	Be 313.107†	1655330.0	1701704.7	493.08 µg/L	493.08 ppb	18:47:43
3	Cd 226.502†	73111.6	75215.0	508.04 µg/L	508.04 ppb	18:47:43
3	Co 228.616†	37325.4	38556.8	510.34 µg/L	510.34 ppb	18:47:43
3	Cr 267.716†	57252.3	58585.3	506.71 µg/L	506.71 ppb	18:47:43
3	Cu 324.752†	120315.4	120570.6	505.87 µg/L	505.87 ppb	18:47:43
3	Mn 257.610†	372118.3	382113.2	506.68 µg/L	506.68 ppb	18:47:43
3	Mo 202.031†	15250.9	15706.7	514.13 µg/L	514.13 ppb	18:48:03
3	Ni 231.604†	39498.8	40675.3	508.90 µg/L	508.90 ppb	18:47:43
3	P 214.914†	10779.1	11099.6	2558.9 µg/L	2558.9 ppb	18:48:03
3	Pb 220.353†	8283.1	8406.2	518.91 µg/L	518.91 ppb	18:48:03
3	S 181.975 Axial†	1274.5	1220.5	1031.1 µg/L	1031.1 ppb	18:48:03
3	Sb 206.836†	3959.8	3978.4	514.25 µg/L	514.25 ppb	18:48:03
3	Se 196.026†	1280.5	1309.3	518 µg/L	518 ppb	18:48:03
3	SiO2†	51167.7	50828.3	5360.7 µg/L	5360.7 ppb	18:47:43
3	Si 251.611†	156869.7	160394.0	2519.0 µg/L	2519.0 ppb	18:47:43
3	Sn 189.927†	7109.8	7302.4	508.22 µg/L	508.22 ppb	18:48:03
3	Ti 334.940†	478243.0	490502.7	503.14 µg/L	503.14 ppb	18:47:43
3	Tl 190.801†	3555.1	3766.7	521.92 µg/L	521.92 ppb	18:48:03
3	U 409.014†	6988.0	7342.5	494.16 µg/L	494.16 ppb	18:47:43
3	V 292.402†	95207.3	97388.5	511.56 µg/L	511.56 ppb	18:47:43
3	Zn 213.857†	83270.4	85045.3	503.86 µg/L	503.86 ppb	18:47:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1762580.5	97.696	%	0.3435				0.35%
Sc RADIAL	136112.3	97.2	%	0.16				0.17%
Y 371.029	1024191.4	96.869	%	0.3061				0.32%
Ag 328.068†	122809.3	509.06	µg/L	0.978	509.06	ppb	0.978	0.19%
QC value within limits for Ag 328.068 Recovery = 101.81%								
Al 396.153Radial†	23936.9	5015.9	µg/L	18.25	5015.9	ppb	18.25	0.36%
QC value within limits for Al 396.153Radial Recovery = 100.32%								
As 188.979†	1383.2	475.20	µg/L	1.508	475.20	ppb	1.508	0.32%
QC value within limits for As 188.979 Recovery = 95.04%								
B 249.677†	32195.0	498.91	µg/L	1.858	498.91	ppb	1.858	0.37%
QC value within limits for B 249.677 Recovery = 99.78%								
Ba 233.527†	112802.7	501.81	µg/L	1.276	501.81	ppb	1.276	0.25%
QC value within limits for Ba 233.527 Recovery = 100.36%								
Be 313.107†	1704343.8	493.85	µg/L	0.790	493.85	ppb	0.790	0.16%
QC value within limits for Be 313.107 Recovery = 98.77%								
Ca 317.933Radial†	74990.1	5107.5	µg/L	9.18	5107.5	ppb	9.18	0.18%
QC value within limits for Ca 317.933Radial Recovery = 102.15%								
Cd 226.502†	75152.2	507.62	µg/L	0.374	507.62	ppb	0.374	0.07%
QC value within limits for Cd 226.502 Recovery = 101.52%								
Co 228.616†	38660.0	511.71	µg/L	1.210	511.71	ppb	1.210	0.24%

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   QC value within limits for Co 228.616  Recovery = 102.34%
Cr 267.716†            58572.3      506.58 µg/L         0.336      506.58 ppb          0.336   0.07%
   QC value within limits for Cr 267.716  Recovery = 101.32%
Cu 324.752†           120598.2      506.00 µg/L         0.668      506.00 ppb          0.668   0.13%
   QC value within limits for Cu 324.752  Recovery = 101.20%
Fe 238.204 Radial†     68092.6      5085.1 µg/L         13.48      5085.1 ppb          13.48   0.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.70%
K 766.490 Radial†      12940.7      5123.6 µg/L         17.24      5123.6 ppb          17.24   0.34%
   QC value within limits for K 766.490 Radial  Recovery = 102.47%
Mg 279.077 IEC†        10967.8      5072.4 µg/L         20.13      5072.4 ppb          20.13   0.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.45%
Mn 257.610†           382263.7      506.88 µg/L         0.234      506.88 ppb          0.234   0.05%
   QC value within limits for Mn 257.610  Recovery = 101.38%
Mo 202.031†            15611.6      511.02 µg/L         2.694      511.02 ppb          2.694   0.53%
   QC value within limits for Mo 202.031  Recovery = 102.20%
Na 589.592 Radial†     65477.7       10145 µg/L          12.3       10145 ppb           12.3   0.12%
   QC value within limits for Na 589.592 Radial  Recovery = 101.45%
Ni 231.604†            40634.1      508.38 µg/L         1.543      508.38 ppb          1.543   0.30%
   QC value within limits for Ni 231.604  Recovery = 101.68%
P 214.914†             10991.3      2533.8 µg/L         21.74      2533.8 ppb          21.74   0.86%
   QC value within limits for P 214.914  Recovery = 101.35%
Pb 220.353†             8344.0      515.06 µg/L         3.398      515.06 ppb          3.398   0.66%
   QC value within limits for Pb 220.353  Recovery = 103.01%
S 181.975 Axial†        1207.9      1020.4 µg/L          9.91      1020.4 ppb           9.91   0.97%
   QC value within limits for S 181.975 Axial  Recovery = 102.04%
Sb 206.836†             3937.0      508.86 µg/L         4.894      508.86 ppb          4.894   0.96%
   QC value within limits for Sb 206.836  Recovery = 101.77%
Se 196.026†             1295.6         513 µg/L           4.9         513 ppb            4.9   0.96%
   QC value within limits for Se 196.026  Recovery = 102.53%
SiO2†                  50731.0      5350.5 µg/L         13.67      5350.5 ppb          13.67   0.26%
   QC value within limits for SiO2  Recovery = 100.06%
Si 251.611†           160164.9      2515.5 µg/L          5.21      2515.5 ppb           5.21   0.21%
   QC value within limits for Si 251.611  Recovery = 100.62%
Sn 189.927†             7251.9      504.72 µg/L         3.035      504.72 ppb          3.035   0.60%
   QC value within limits for Sn 189.927  Recovery = 100.94%
Sr 421.552†           213629.1      503.80 µg/L         9.949      503.80 ppb          9.949   1.97%
   QC value within limits for Sr 421.552  Recovery = 100.76%
Ti 334.940†           490470.4      503.11 µg/L         0.342      503.11 ppb          0.342   0.07%
   QC value within limits for Ti 334.940  Recovery = 100.62%
Tl 190.801†             3738.1      518.01 µg/L         3.432      518.01 ppb          3.432   0.66%
   QC value within limits for Tl 190.801  Recovery = 103.60%
U 409.014†              7580.1      509.14 µg/L        13.152      509.14 ppb         13.152   2.58%
   QC value within limits for U 409.014  Recovery = 101.83%
V 292.402†             97340.9      511.29 µg/L         0.707      511.29 ppb          0.707   0.14%
   QC value within limits for V 292.402  Recovery = 102.26%
Zn 213.857†            85128.9      504.36 µg/L         0.978      504.36 ppb          0.978   0.19%
   QC value within limits for Zn 213.857  Recovery = 100.87%
All analyte(s) passed QC.
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Sequence No.: 86
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 18:48:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137189.7	137189.7	97.9	%			18:48:41
1	Al 396.153Radial†	-58.5	18.8	3.9395	µg/L	3.9395	ppb	18:49:01
1	Ca 317.933Radial†	723.7	167.5	11.411	µg/L	11.411	ppb	18:49:01
1	Fe 238.204 Radial†	175.9	62.3	4.6541	µg/L	4.6541	ppb	18:49:01
1	K 766.490 Radial†	1750.9	294.1	116.53	µg/L	116.53	ppb	18:48:41
1	Mg 279.077 IEC†	158.4	-10.7	-4.9237	µg/L	-4.9237	ppb	18:49:01
1	Na 589.592 Radial†	1155.1	227.0	35.082	µg/L	35.082	ppb	18:48:41
1	Sr 421.552†	-77.4	125.4	0.2957	µg/L	0.2957	ppb	18:48:41
1	Sc 361.383	1797340.4	1797340.4	99.622	%			18:50:03
1	Y 371.029	1055087.8	1055087.8	99.791	%			18:50:03
1	Ag 328.068†	4039.3	-510.6	-2.0795	µg/L	-2.0795	ppb	18:50:05
1	As 188.979†	-13.7	4.8	1.6385	µg/L	1.6385	ppb	18:50:25
1	B 249.677†	4112.5	62.9	0.9779	µg/L	0.9779	ppb	18:50:05
1	Ba 233.527†	-136.1	8.0	0.0355	µg/L	0.0355	ppb	18:50:25
1	Be 313.107†	-528.4	561.4	0.1657	µg/L	0.1657	ppb	18:50:05
1	Cd 226.502†	-71.0	32.1	0.2167	µg/L	0.2167	ppb	18:50:25
1	Co 228.616†	-202.0	7.6	0.0999	µg/L	0.0999	ppb	18:50:25
1	Cr 267.716†	290.9	58.8	0.5004	µg/L	0.5004	ppb	18:50:25
1	Cu 324.752†	2772.2	-253.4	-1.0506	µg/L	-1.0506	ppb	18:50:05
1	Mn 257.610†	302.8	119.3	0.1584	µg/L	0.1584	ppb	18:50:25
1	Mo 202.031†	-20.3	18.2	0.5945	µg/L	0.5945	ppb	18:50:25
1	Ni 231.604†	-69.0	26.7	0.3338	µg/L	0.3338	ppb	18:50:25
1	P 214.914†	16.7	42.5	9.8287	µg/L	9.8287	ppb	18:50:25
1	Pb 220.353†	124.0	21.0	1.2857	µg/L	1.2857	ppb	18:50:25
1	S 181.975 Axial†	89.2	0.6	0.5332	µg/L	0.5332	ppb	18:50:25
1	Sb 206.836†	86.5	-2.9	-0.3713	µg/L	-0.3713	ppb	18:50:25
1	Se 196.026†	21.2	15.1	5.95	µg/L	5.95	ppb	18:50:25
1	SiO2†	1824.1	91.9	9.7145	µg/L	9.7145	ppb	18:50:25
1	Si 251.611†	1018.3	255.1	4.0124	µg/L	4.0124	ppb	18:50:05
1	Sn 189.927†	7.1	5.3	0.3657	µg/L	0.3657	ppb	18:50:25
1	Ti 334.940†	851.0	31.2	0.0283	µg/L	0.0283	ppb	18:50:05
1	Tl 190.801†	-123.3	-9.5	-1.2931	µg/L	-1.2931	ppb	18:50:25
1	U 409.014†	0.3	163.6	10.315	µg/L	10.315	ppb	18:50:05
1	V 292.402†	389.0	-32.7	-0.1549	µg/L	-0.1549	ppb	18:50:05
1	Zn 213.857†	595.8	95.1	0.5658	µg/L	0.5658	ppb	18:50:25
2	Sc RADIAL	136417.2	136417.2	97.4	%			18:49:03
2	Al 396.153Radial†	-74.8	1.8	0.3478	µg/L	0.3478	ppb	18:49:23
2	Ca 317.933Radial†	717.3	165.1	11.247	µg/L	11.247	ppb	18:49:23
2	Fe 238.204 Radial†	159.1	46.1	3.4409	µg/L	3.4409	ppb	18:49:23
2	K 766.490 Radial†	1643.3	193.8	76.762	µg/L	76.762	ppb	18:49:03
2	Mg 279.077 IEC†	168.9	1.0	0.4590	µg/L	0.4590	ppb	18:49:23
2	Na 589.592 Radial†	1235.6	316.4	48.976	µg/L	48.976	ppb	18:49:03
2	Sr 421.552†	-274.1	-77.0	-0.1817	µg/L	-0.1817	ppb	18:49:03
2	Sc 361.383	1780086.9	1780086.9	98.666	%			18:50:27
2	Y 371.029	1045705.9	1045705.9	98.904	%			18:50:27
2	Ag 328.068†	4162.3	-346.6	-1.4285	µg/L	-1.4285	ppb	18:50:29
2	As 188.979†	-15.5	2.9	0.9768	µg/L	0.9768	ppb	18:50:50
2	B 249.677†	4023.3	12.6	0.1960	µg/L	0.1960	ppb	18:50:29
2	Ba 233.527†	-162.9	-20.5	-0.0909	µg/L	-0.0909	ppb	18:50:50
2	Be 313.107†	-639.0	444.1	0.1252	µg/L	0.1252	ppb	18:50:29
2	Cd 226.502†	-48.4	54.3	0.3672	µg/L	0.3672	ppb	18:50:50
2	Co 228.616†	-217.9	-10.6	-0.1403	µg/L	-0.1403	ppb	18:50:50
2	Cr 267.716†	295.2	66.0	0.5801	µg/L	0.5801	ppb	18:50:50
2	Cu 324.752†	2954.5	-41.6	-0.1830	µg/L	-0.1830	ppb	18:50:29
2	Mn 257.610†	281.5	100.6	0.1334	µg/L	0.1334	ppb	18:50:50
2	Mo 202.031†	-22.4	15.9	0.5188	µg/L	0.5188	ppb	18:50:50
2	Ni 231.604†	-38.6	56.7	0.7099	µg/L	0.7099	ppb	18:50:50
2	P 214.914†	12.0	37.8	8.7509	µg/L	8.7509	ppb	18:50:50
2	Pb 220.353†	132.5	30.8	1.9064	µg/L	1.9064	ppb	18:50:50

2	S 181.975 Axial†	95.1	7.5	6.2758	µg/L	6.2758 ppb	18:50:50
2	Sb 206.836†	75.4	-13.3	-1.7114	µg/L	-1.7114 ppb	18:50:50
2	Se 196.026†	31.1	25.3	9.97	µg/L	9.97 ppb	18:50:50
2	SiO2†	1872.0	158.2	16.734	µg/L	16.734 ppb	18:50:50
2	Si 251.611†	994.5	240.9	3.7881	µg/L	3.7881 ppb	18:50:29
2	Sn 189.927†	9.6	7.8	0.5420	µg/L	0.5420 ppb	18:50:50
2	Ti 334.940†	651.2	-163.0	-0.1627	µg/L	-0.1627 ppb	18:50:29
2	Tl 190.801†	-121.6	-9.0	-1.2278	µg/L	-1.2278 ppb	18:50:50
2	U 409.014†	-338.0	-179.2	-11.285	µg/L	-11.285 ppb	18:50:29
2	V 292.402†	487.8	71.2	0.3691	µg/L	0.3691 ppb	18:50:29
2	Zn 213.857†	599.0	104.1	0.6166	µg/L	0.6166 ppb	18:50:50
3	Sc RADIAL	136070.5	136070.5	97.1	%		18:49:25
3	Al 396.153Radial†	-68.1	8.4	1.7567	µg/L	1.7567 ppb	18:49:45
3	Ca 317.933Radial†	708.7	158.2	10.776	µg/L	10.776 ppb	18:49:45
3	Fe 238.204 Radial†	160.3	47.7	3.5606	µg/L	3.5606 ppb	18:49:45
3	K 766.490 Radial†	1676.0	231.7	91.807	µg/L	91.807 ppb	18:49:25
3	Mg 279.077 IEC†	181.2	14.1	6.5031	µg/L	6.5031 ppb	18:49:45
3	Na 589.592 Radial†	1171.0	253.1	39.151	µg/L	39.151 ppb	18:49:25
3	Sr 421.552†	-216.8	-18.7	-0.0442	µg/L	-0.0442 ppb	18:49:25
3	Sc 361.383	1802317.2	1802317.2	99.898	%		18:50:52
3	Y 371.029	1057897.9	1057897.9	100.06	%		18:50:52
3	Ag 328.068†	4220.3	-340.5	-1.4317	µg/L	-1.4317 ppb	18:50:54
3	As 188.979†	-15.2	3.4	1.1469	µg/L	1.1469 ppb	18:51:14
3	B 249.677†	4147.1	86.2	1.3394	µg/L	1.3394 ppb	18:50:54
3	Ba 233.527†	-148.3	-3.9	-0.0177	µg/L	-0.0177 ppb	18:51:14
3	Be 313.107†	-694.5	396.5	0.1078	µg/L	0.1078 ppb	18:50:54
3	Cd 226.502†	-73.0	30.3	0.2046	µg/L	0.2046 ppb	18:51:14
3	Co 228.616†	-181.7	28.4	0.3754	µg/L	0.3754 ppb	18:51:14
3	Cr 267.716†	250.8	17.9	0.1728	µg/L	0.1728 ppb	18:51:14
3	Cu 324.752†	2858.4	-174.8	-0.7496	µg/L	-0.7496 ppb	18:50:54
3	Mn 257.610†	265.2	80.7	0.1068	µg/L	0.1068 ppb	18:51:14
3	Mo 202.031†	-30.5	8.1	0.2644	µg/L	0.2644 ppb	18:51:14
3	Ni 231.604†	-44.5	51.4	0.6428	µg/L	0.6428 ppb	18:51:14
3	P 214.914†	22.1	47.8	11.075	µg/L	11.075 ppb	18:51:14
3	Pb 220.353†	117.2	13.8	0.8696	µg/L	0.8696 ppb	18:51:14
3	S 181.975 Axial†	93.9	5.1	4.3139	µg/L	4.3139 ppb	18:51:14
3	Sb 206.836†	73.9	-15.7	-2.0300	µg/L	-2.0300 ppb	18:51:14
3	Se 196.026†	15.0	8.9	3.48	µg/L	3.48 ppb	18:51:14
3	SiO2†	1870.2	133.0	14.074	µg/L	14.074 ppb	18:51:14
3	Si 251.611†	1269.3	503.5	7.9341	µg/L	7.9341 ppb	18:50:54
3	Sn 189.927†	7.1	5.2	0.3633	µg/L	0.3633 ppb	18:51:14
3	Ti 334.940†	827.9	5.8	0.0152	µg/L	0.0152 ppb	18:50:54
3	Tl 190.801†	-119.8	-5.7	-0.7791	µg/L	-0.7791 ppb	18:51:14
3	U 409.014†	-533.4	-370.6	-23.429	µg/L	-23.429 ppb	18:50:54
3	V 292.402†	280.6	-142.3	-0.7504	µg/L	-0.7504 ppb	18:50:54
3	Zn 213.857†	582.5	80.1	0.4745	µg/L	0.4745 ppb	18:51:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1793248.1	99.396	%	0.6466				0.65%
Sc RADIAL	136559.1	97.5	%	0.41				0.42%
Y 371.029	1052897.2	99.584	%	0.6038				0.61%
Ag 328.068†	-399.2	-1.6466	µg/L	0.37495	-1.6466	ppb	0.37495	22.77%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.7	2.0146	µg/L	1.80972	2.0146	ppb	1.80972	89.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.7	1.2541	µg/L	0.34364	1.2541	ppb	0.34364	27.40%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	53.9	0.8378	µg/L	0.58446	0.8378	ppb	0.58446	69.76%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.5	-0.0244	µg/L	0.06345	-0.0244	ppb	0.06345	260.29%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	467.3	0.1329	µg/L	0.02973	0.1329	ppb	0.02973	22.37%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	163.6	11.145	µg/L	0.3295	11.145	ppb	0.3295	2.96%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	38.9	0.2628	µg/L	0.09058	0.2628	ppb	0.09058	34.46%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.5	0.1117	µg/L	0.25805	0.1117	ppb	0.25805	231.07%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              47.5      0.4177 µg/L       0.21587      0.4177 ppb        0.21587  51.67%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -156.6     -0.6611 µg/L       0.44052     -0.6611 ppb        0.44052  66.64%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       52.0      3.8852 µg/L       0.66858      3.8852 ppb        0.66858  17.21%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       239.9     95.034 µg/L       20.0804     95.034 ppb        20.0804  21.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.5      0.6794 µg/L       5.71658      0.6794 ppb        5.71658 841.36%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             100.2      0.1329 µg/L       0.02581      0.1329 ppb        0.02581  19.42%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              14.0      0.4592 µg/L       0.17291      0.4592 ppb        0.17291  37.65%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      265.5     41.069 µg/L        7.1429     41.069 ppb         7.1429  17.39%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              44.9      0.5622 µg/L       0.20061      0.5622 ppb        0.20061  35.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               42.7      9.8849 µg/L       1.16318      9.8849 ppb        1.16318  11.77%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              21.9      1.3539 µg/L       0.52177      1.3539 ppb        0.52177  38.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.4      3.7076 µg/L       2.91890      3.7076 ppb        2.91890  78.73%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -10.6     -1.3709 µg/L       0.88022     -1.3709 ppb        0.88022  64.21%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              16.4        6.46 µg/L         3.276        6.46 ppb          3.276  50.67%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   127.7     13.508 µg/L        3.5439     13.508 ppb         3.5439  26.24%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             333.2      5.2448 µg/L       2.33165      5.2448 ppb        2.33165  44.46%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.1      0.4237 µg/L       0.10252      0.4237 ppb        0.10252  24.20%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               9.9      0.0232 µg/L       0.24573      0.0232 ppb        0.24573 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -42.0     -0.0397 µg/L       0.10668     -0.0397 ppb        0.10668 268.57%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -8.0     -1.1000 µg/L       0.27983     -1.1000 ppb        0.27983  25.44%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -128.7     -8.1333 µg/L      17.09155     -8.1333 ppb       17.09155 210.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -34.6     -0.1787 µg/L       0.56012     -0.1787 ppb        0.56012 313.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              93.1      0.5523 µg/L       0.07204      0.5523 ppb        0.07204  13.04%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 92
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 19:02:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135345.8	135345.8	96.6	%			19:02:59
1	Al 396.153Radial†	23089.9	23978.3	5024.6	µg/L	5024.6	ppb	19:02:59
1	Ca 317.933Radial†	72828.8	74811.8	5095.4	µg/L	5095.4	ppb	19:02:59
1	Fe 238.204 Radial†	65814.3	68005.4	5078.6	µg/L	5078.6	ppb	19:02:59
1	K 766.490 Radial†	13964.3	12960.3	5131.3	µg/L	5131.3	ppb	19:02:59
1	Mg 279.077 IEC†	10773.2	10978.6	5077.4	µg/L	5077.4	ppb	19:02:59
1	Na 589.592 Radial†	64263.8	65565.3	10159	µg/L	10159	ppb	19:02:59
1	Sr 421.552†	210059.6	217631.8	513.24	µg/L	513.24	ppb	19:02:57
1	Sc 361.383	1771235.4	1771235.4	98.175	%			19:03:26
1	Y 371.029	1028869.9	1028869.9	97.311	%			19:03:26
1	Ag 328.068†	124756.2	122509.6	507.83	µg/L	507.83	ppb	19:03:26
1	As 188.979†	1332.7	1376.0	472.77	µg/L	472.77	ppb	19:03:46
1	B 249.677†	35469.5	32063.5	496.87	µg/L	496.87	ppb	19:03:26
1	Ba 233.527†	110565.8	112765.1	501.64	µg/L	501.64	ppb	19:03:26
1	Be 313.107†	1670083.7	1702213.0	493.23	µg/L	493.23	ppb	19:03:26
1	Cd 226.502†	73580.7	75051.5	506.94	µg/L	506.94	ppb	19:03:26
1	Co 228.616†	37652.0	38562.0	510.41	µg/L	510.41	ppb	19:03:26
1	Cr 267.716†	57722.5	58562.0	506.49	µg/L	506.49	ppb	19:03:26
1	Cu 324.752†	121142.7	120358.0	504.99	µg/L	504.99	ppb	19:03:26
1	Mn 257.610†	374994.6	381778.9	506.23	µg/L	506.23	ppb	19:03:26
1	Mo 202.031†	15249.3	15571.3	509.71	µg/L	509.71	ppb	19:03:46
1	Ni 231.604†	39658.1	40491.0	506.59	µg/L	506.59	ppb	19:03:26
1	P 214.914†	10707.4	10932.1	2520.1	µg/L	2520.1	ppb	19:03:46
1	Pb 220.353†	8274.0	8324.3	513.85	µg/L	513.85	ppb	19:03:46
1	S 181.975 Axial†	1280.1	1215.0	1026.4	µg/L	1026.4	ppb	19:03:46
1	Sb 206.836†	3940.3	3923.8	507.15	µg/L	507.15	ppb	19:03:46
1	Se 196.026†	1259.0	1276.2	505	µg/L	505	ppb	19:03:46
1	SiO2†	51503.4	50721.4	5349.5	µg/L	5349.5	ppb	19:03:26
1	Si 251.611†	157527.4	159687.9	2508.0	µg/L	2508.0	ppb	19:03:26
1	Sn 189.927†	7083.4	7213.2	502.03	µg/L	502.03	ppb	19:03:46
1	Ti 334.940†	481705.4	489834.6	502.45	µg/L	502.45	ppb	19:03:26
1	Tl 190.801†	3511.4	3691.0	511.57	µg/L	511.57	ppb	19:03:46
1	U 409.014†	7325.5	7625.0	511.93	µg/L	511.93	ppb	19:03:26
1	V 292.402†	95840.7	97198.7	510.54	µg/L	510.54	ppb	19:03:26
1	Zn 213.857†	84119.9	85180.3	504.68	µg/L	504.68	ppb	19:03:26
2	Sc RADIAL	137692.9	137692.9	98.3	%			19:03:03
2	Al 396.153Radial†	23514.1	24002.5	5029.8	µg/L	5029.8	ppb	19:03:03
2	Ca 317.933Radial†	74394.8	75120.1	5116.4	µg/L	5116.4	ppb	19:03:03
2	Fe 238.204 Radial†	66990.4	68040.8	5081.2	µg/L	5081.2	ppb	19:03:03
2	K 766.490 Radial†	14343.0	13099.2	5186.3	µg/L	5186.3	ppb	19:03:03
2	Mg 279.077 IEC†	11040.0	11060.0	5114.9	µg/L	5114.9	ppb	19:03:03
2	Na 589.592 Radial†	65689.4	65882.0	10208	µg/L	10208	ppb	19:03:03
2	Sr 421.552†	209519.7	213376.3	503.20	µg/L	503.20	ppb	19:03:01
2	Sc 361.383	1762967.5	1762967.5	97.717	%			19:03:49
2	Y 371.029	1023549.1	1023549.1	96.808	%			19:03:49
2	Ag 328.068†	125126.3	123484.3	511.84	µg/L	511.84	ppb	19:03:49
2	As 188.979†	1321.5	1370.9	471.07	µg/L	471.07	ppb	19:04:09
2	B 249.677†	35656.7	32424.5	502.48	µg/L	502.48	ppb	19:03:49
2	Ba 233.527†	110226.7	112946.3	502.45	µg/L	502.45	ppb	19:03:49
2	Be 313.107†	1670140.6	1710249.1	495.56	µg/L	495.56	ppb	19:03:49
2	Cd 226.502†	73471.2	75290.9	508.56	µg/L	508.56	ppb	19:03:49
2	Co 228.616†	37658.9	38749.0	512.89	µg/L	512.89	ppb	19:03:49
2	Cr 267.716†	57719.6	58834.8	508.86	µg/L	508.86	ppb	19:03:49
2	Cu 324.752†	121061.1	120853.1	507.06	µg/L	507.06	ppb	19:03:49
2	Mn 257.610†	374442.4	383005.2	507.86	µg/L	507.86	ppb	19:03:49
2	Mo 202.031†	15162.1	15554.9	509.17	µg/L	509.17	ppb	19:04:09
2	Ni 231.604†	39720.1	40744.0	509.76	µg/L	509.76	ppb	19:03:49
2	P 214.914†	10662.2	10937.0	2521.3	µg/L	2521.3	ppb	19:04:09
2	Pb 220.353†	8201.2	8289.4	511.71	µg/L	511.71	ppb	19:04:09

2	S 181.975 Axial†	1268.2	1208.9	1021.3 µg/L	1021.3 ppb	19:04:09
2	Sb 206.836†	3920.5	3922.4	506.92 µg/L	506.92 ppb	19:04:09
2	Se 196.026†	1262.5	1285.9	509 µg/L	509 ppb	19:04:09
2	SiO2†	51396.1	50857.7	5364.0 µg/L	5364.0 ppb	19:03:49
2	Si 251.611†	157570.1	160484.1	2520.6 µg/L	2520.6 ppb	19:03:49
2	Sn 189.927†	7043.5	7206.2	501.55 µg/L	501.55 ppb	19:04:09
2	Ti 334.940†	480702.6	491109.4	503.76 µg/L	503.76 ppb	19:03:49
2	Tl 190.801†	3495.8	3691.7	511.69 µg/L	511.69 ppb	19:04:09
2	U 409.014†	7074.0	7402.7	498.06 µg/L	498.06 ppb	19:03:49
2	V 292.402†	95880.1	97696.8	513.12 µg/L	513.12 ppb	19:03:49
2	Zn 213.857†	83969.9	85428.6	506.14 µg/L	506.14 ppb	19:03:49
3	Sc RADIAL	135773.5	135773.5	96.9 %		19:03:08
3	Al 396.153Radial†	23143.1	23957.9	5020.3 µg/L	5020.3 ppb	19:03:08
3	Ca 317.933Radial†	73300.6	75061.1	5112.3 µg/L	5112.3 ppb	19:03:08
3	Fe 238.204 Radial†	65974.6	67956.2	5074.9 µg/L	5074.9 ppb	19:03:08
3	K 766.490 Radial†	14024.3	12976.7	5137.8 µg/L	5137.8 ppb	19:03:08
3	Mg 279.077 IEC†	10810.3	10981.8	5078.8 µg/L	5078.8 ppb	19:03:08
3	Na 589.592 Radial†	64777.7	65885.9	10208 µg/L	10208 ppb	19:03:08
3	Sr 421.552†	214060.8	221075.3	521.36 µg/L	521.36 ppb	19:03:06
3	Sc 361.383	1755029.9	1755029.9	97.277 %		19:04:13
3	Y 371.029	1019203.8	1019203.8	96.397 %		19:04:13
3	Ag 328.068†	124449.8	123367.9	511.37 µg/L	511.37 ppb	19:04:13
3	As 188.979†	1332.2	1388.0	476.85 µg/L	476.85 ppb	19:04:33
3	B 249.677†	35486.4	32414.6	502.32 µg/L	502.32 ppb	19:04:13
3	Ba 233.527†	109908.6	113129.5	503.26 µg/L	503.26 ppb	19:04:13
3	Be 313.107†	1662735.4	1710366.8	495.59 µg/L	495.59 ppb	19:04:13
3	Cd 226.502†	73335.6	75491.6	509.92 µg/L	509.92 ppb	19:04:13
3	Co 228.616†	37659.2	38923.5	515.20 µg/L	515.20 ppb	19:04:13
3	Cr 267.716†	57372.2	58744.8	508.08 µg/L	508.08 ppb	19:04:13
3	Cu 324.752†	120846.8	121193.2	508.48 µg/L	508.48 ppb	19:04:13
3	Mn 257.610†	373612.3	383884.9	509.03 µg/L	509.03 ppb	19:04:13
3	Mo 202.031†	15166.0	15629.0	511.59 µg/L	511.59 ppb	19:04:33
3	Ni 231.604†	39679.7	40886.2	511.54 µg/L	511.54 ppb	19:04:13
3	P 214.914†	10656.9	10980.8	2531.4 µg/L	2531.4 ppb	19:04:33
3	Pb 220.353†	8224.0	8350.8	515.48 µg/L	515.48 ppb	19:04:33
3	S 181.975 Axial†	1262.5	1209.0	1021.4 µg/L	1021.4 ppb	19:04:33
3	Sb 206.836†	3897.8	3917.2	506.29 µg/L	506.29 ppb	19:04:33
3	Se 196.026†	1275.7	1305.2	516 µg/L	516 ppb	19:04:33
3	SiO2†	51287.4	50983.8	5377.2 µg/L	5377.2 ppb	19:04:13
3	Si 251.611†	157039.6	160668.1	2523.4 µg/L	2523.4 ppb	19:04:13
3	Sn 189.927†	7047.3	7242.7	504.08 µg/L	504.08 ppb	19:04:33
3	Ti 334.940†	479203.0	491792.8	504.46 µg/L	504.46 ppb	19:04:13
3	Tl 190.801†	3488.8	3700.8	512.92 µg/L	512.92 ppb	19:04:33
3	U 409.014†	7177.5	7541.7	506.84 µg/L	506.84 ppb	19:04:13
3	V 292.402†	95445.9	97694.2	513.13 µg/L	513.13 ppb	19:04:13
3	Zn 213.857†	83688.7	85528.2	506.73 µg/L	506.73 ppb	19:04:13

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1763077.6	97.723	%	0.4491				0.46%
Sc RADIAL	136270.7	97.3	%	0.89				0.92%
Y 371.029	1023874.3	96.839	%	0.4579				0.47%
Ag 328.068†	123120.6	510.35	µg/L	2.189	510.35	ppb	2.189	0.43%
QC value within limits for Ag 328.068 Recovery = 102.07%								
Al 396.153Radial†	23979.6	5024.9	µg/L	4.75	5024.9	ppb	4.75	0.09%
QC value within limits for Al 396.153Radial Recovery = 100.50%								
As 188.979†	1378.3	473.56	µg/L	2.968	473.56	ppb	2.968	0.63%
QC value within limits for As 188.979 Recovery = 94.71%								
B 249.677†	32300.9	500.56	µg/L	3.190	500.56	ppb	3.190	0.64%
QC value within limits for B 249.677 Recovery = 100.11%								
Ba 233.527†	112947.0	502.45	µg/L	0.811	502.45	ppb	0.811	0.16%
QC value within limits for Ba 233.527 Recovery = 100.49%								
Be 313.107†	1707609.6	494.80	µg/L	1.352	494.80	ppb	1.352	0.27%
QC value within limits for Be 313.107 Recovery = 98.96%								
Ca 317.933Radial†	74997.7	5108.0	µg/L	11.15	5108.0	ppb	11.15	0.22%
QC value within limits for Ca 317.933Radial Recovery = 102.16%								
Cd 226.502†	75278.0	508.47	µg/L	1.491	508.47	ppb	1.491	0.29%
QC value within limits for Cd 226.502 Recovery = 101.69%								
Co 228.616†	38744.8	512.83	µg/L	2.393	512.83	ppb	2.393	0.47%

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   QC value within limits for Co 228.616  Recovery = 102.57%
Cr 267.716†            58713.9      507.81 µg/L         1.208      507.81 ppb          1.208   0.24%
   QC value within limits for Cr 267.716  Recovery = 101.56%
Cu 324.752†           120801.4      506.84 µg/L         1.755      506.84 ppb          1.755   0.35%
   QC value within limits for Cu 324.752  Recovery = 101.37%
Fe 238.204 Radial†     68000.8      5078.3 µg/L          3.17      5078.3 ppb           3.17   0.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.57%
K 766.490 Radial†      13012.1      5151.8 µg/L         30.06      5151.8 ppb          30.06   0.58%
   QC value within limits for K 766.490 Radial  Recovery = 103.04%
Mg 279.077 IEC†        11006.8      5090.4 µg/L         21.26      5090.4 ppb          21.26   0.42%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.81%
Mn 257.610†           382889.7      507.71 µg/L         1.403      507.71 ppb          1.403   0.28%
   QC value within limits for Mn 257.610  Recovery = 101.54%
Mo 202.031†            15585.1      510.16 µg/L         1.273      510.16 ppb          1.273   0.25%
   QC value within limits for Mo 202.031  Recovery = 102.03%
Na 589.592 Radial†     65777.7       10191 µg/L          28.5       10191 ppb           28.5   0.28%
   QC value within limits for Na 589.592 Radial  Recovery = 101.91%
Ni 231.604†            40707.1      509.30 µg/L         2.504      509.30 ppb          2.504   0.49%
   QC value within limits for Ni 231.604  Recovery = 101.86%
P 214.914†             10950.0      2524.3 µg/L          6.19      2524.3 ppb           6.19   0.25%
   QC value within limits for P 214.914  Recovery = 100.97%
Pb 220.353†             8321.5      513.68 µg/L         1.894      513.68 ppb          1.894   0.37%
   QC value within limits for Pb 220.353  Recovery = 102.74%
S 181.975 Axial†        1210.9      1023.0 µg/L          2.92      1023.0 ppb           2.92   0.29%
   QC value within limits for S 181.975 Axial  Recovery = 102.30%
Sb 206.836†             3921.1      506.79 µg/L         0.440      506.79 ppb          0.440   0.09%
   QC value within limits for Sb 206.836  Recovery = 101.36%
Se 196.026†             1289.1         510 µg/L           5.8         510 ppb            5.8   1.14%
   QC value within limits for Se 196.026  Recovery = 102.02%
SiO2†                  50854.3      5363.6 µg/L         13.86      5363.6 ppb          13.86   0.26%
   QC value within limits for SiO2  Recovery = 100.30%
Si 251.611†           160280.0      2517.3 µg/L          8.20      2517.3 ppb           8.20   0.33%
   QC value within limits for Si 251.611  Recovery = 100.69%
Sn 189.927†             7220.7      502.55 µg/L         1.347      502.55 ppb          1.347   0.27%
   QC value within limits for Sn 189.927  Recovery = 100.51%
Sr 421.552†           217361.1      512.60 µg/L         9.096      512.60 ppb          9.096   1.77%
   QC value within limits for Sr 421.552  Recovery = 102.52%
Ti 334.940†           490912.3      503.56 µg/L         1.022      503.56 ppb          1.022   0.20%
   QC value within limits for Ti 334.940  Recovery = 100.71%
Tl 190.801†             3694.5      512.06 µg/L         0.749      512.06 ppb          0.749   0.15%
   QC value within limits for Tl 190.801  Recovery = 102.41%
U 409.014†              7523.1      505.61 µg/L         7.019      505.61 ppb          7.019   1.39%
   QC value within limits for U 409.014  Recovery = 101.12%
V 292.402†             97529.9      512.26 µg/L         1.491      512.26 ppb          1.491   0.29%
   QC value within limits for V 292.402  Recovery = 102.45%
Zn 213.857†            85379.0      505.85 µg/L         1.052      505.85 ppb          1.052   0.21%
   QC value within limits for Zn 213.857  Recovery = 101.17%
All analyte(s) passed QC.
```

Sequence No.: 93
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 19:04:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135410.3	135410.3	96.7	%			19:05:09
1	Al 396.153Radial†	-78.8	-3.0	-0.6555	µg/L	-0.6555	ppb	19:05:29
1	Ca 317.933Radial†	712.3	165.5	11.271	µg/L	11.271	ppb	19:05:29
1	Fe 238.204 Radial†	182.6	71.6	5.3438	µg/L	5.3438	ppb	19:05:29
1	K 766.490 Radial†	1595.1	156.4	61.981	µg/L	61.981	ppb	19:05:09
1	Mg 279.077 IEC†	151.9	-15.3	-7.0536	µg/L	-7.0536	ppb	19:05:29
1	Na 589.592 Radial†	1194.5	283.3	43.865	µg/L	43.865	ppb	19:05:09
1	Sr 421.552†	-197.2	0.4	0.0009	µg/L	0.0009	ppb	19:05:09
1	Sc 361.383	1774981.9	1774981.9	98.383	%			19:06:17
1	Y 371.029	1042222.9	1042222.9	98.574	%			19:06:17
1	Ag 328.068†	4006.0	-493.3	-2.0325	µg/L	-2.0325	ppb	19:06:19
1	As 188.979†	-12.9	5.5	1.8626	µg/L	1.8626	ppb	19:06:39
1	B 249.677†	3961.2	-38.9	-0.6056	µg/L	-0.6056	ppb	19:06:19
1	Ba 233.527†	-151.9	-9.9	-0.0438	µg/L	-0.0438	ppb	19:06:39
1	Be 313.107†	-606.2	475.5	0.1346	µg/L	0.1346	ppb	19:06:19
1	Cd 226.502†	-50.8	51.7	0.3490	µg/L	0.3490	ppb	19:06:39
1	Co 228.616†	-184.9	22.3	0.2951	µg/L	0.2951	ppb	19:06:39
1	Cr 267.716†	271.2	42.5	0.3758	µg/L	0.3758	ppb	19:06:39
1	Cu 324.752†	2885.6	-103.1	-0.4392	µg/L	-0.4392	ppb	19:06:19
1	Mn 257.610†	284.9	104.8	0.1393	µg/L	0.1393	ppb	19:06:39
1	Mo 202.031†	-17.9	20.4	0.6682	µg/L	0.6682	ppb	19:06:39
1	Ni 231.604†	-84.1	10.4	0.1307	µg/L	0.1307	ppb	19:06:39
1	P 214.914†	25.0	51.1	11.811	µg/L	11.811	ppb	19:06:39
1	Pb 220.353†	145.1	44.0	2.7188	µg/L	2.7188	ppb	19:06:39
1	S 181.975 Axial†	87.7	0.3	0.2297	µg/L	0.2297	ppb	19:06:39
1	Sb 206.836†	82.2	-6.2	-0.7954	µg/L	-0.7954	ppb	19:06:39
1	Se 196.026†	22.7	17.0	6.67	µg/L	6.67	ppb	19:06:39
1	SiO2†	1753.5	43.2	4.5587	µg/L	4.5587	ppb	19:06:39
1	Si 251.611†	967.3	216.2	3.4013	µg/L	3.4013	ppb	19:06:19
1	Sn 189.927†	-0.8	-2.7	-0.1877	µg/L	-0.1877	ppb	19:06:39
1	Ti 334.940†	576.8	-236.7	-0.2381	µg/L	-0.2381	ppb	19:06:19
1	Tl 190.801†	-113.0	-0.5	-0.0763	µg/L	-0.0763	ppb	19:06:39
1	U 409.014†	-324.2	-166.2	-10.487	µg/L	-10.487	ppb	19:06:19
1	V 292.402†	415.8	-0.6	-0.0022	µg/L	-0.0022	ppb	19:06:19
1	Zn 213.857†	601.6	108.5	0.6465	µg/L	0.6465	ppb	19:06:39
2	Sc RADIAL	135996.6	135996.6	97.1	%			19:05:31
2	Al 396.153Radial†	-43.9	33.4	6.9736	µg/L	6.9736	ppb	19:05:51
2	Ca 317.933Radial†	729.9	180.4	12.289	µg/L	12.289	ppb	19:05:51
2	Fe 238.204 Radial†	169.8	57.6	4.3046	µg/L	4.3046	ppb	19:05:51
2	K 766.490 Radial†	1640.3	195.9	77.627	µg/L	77.627	ppb	19:05:31
2	Mg 279.077 IEC†	170.3	3.0	1.4191	µg/L	1.4191	ppb	19:05:51
2	Na 589.592 Radial†	1209.6	293.5	45.428	µg/L	45.428	ppb	19:05:31
2	Sr 421.552†	-150.1	49.9	0.1175	µg/L	0.1175	ppb	19:05:31
2	Sc 361.383	1783227.1	1783227.1	98.840	%			19:06:41
2	Y 371.029	1046615.8	1046615.8	98.990	%			19:06:41
2	Ag 328.068†	4365.9	-148.0	-0.6118	µg/L	-0.6118	ppb	19:06:43
2	As 188.979†	-10.1	8.3	2.8239	µg/L	2.8239	ppb	19:07:04
2	B 249.677†	4137.3	120.8	1.8777	µg/L	1.8777	ppb	19:06:43
2	Ba 233.527†	-170.0	-27.5	-0.1215	µg/L	-0.1215	ppb	19:07:04
2	Be 313.107†	-748.3	334.6	0.0943	µg/L	0.0943	ppb	19:06:43
2	Cd 226.502†	-72.3	30.2	0.2036	µg/L	0.2036	ppb	19:07:04
2	Co 228.616†	-202.6	5.3	0.0699	µg/L	0.0699	ppb	19:07:04
2	Cr 267.716†	277.5	47.5	0.4184	µg/L	0.4184	ppb	19:07:04
2	Cu 324.752†	2774.9	-228.7	-0.9631	µg/L	-0.9631	ppb	19:06:43
2	Mn 257.610†	285.5	104.1	0.1380	µg/L	0.1380	ppb	19:07:04
2	Mo 202.031†	-3.7	34.8	1.1400	µg/L	1.1400	ppb	19:07:04
2	Ni 231.604†	-81.5	13.4	0.1682	µg/L	0.1682	ppb	19:07:04
2	P 214.914†	26.1	52.1	12.057	µg/L	12.057	ppb	19:07:04
2	Pb 220.353†	96.6	-5.7	-0.3418	µg/L	-0.3418	ppb	19:07:04

2	S 181.975 Axial†	87.9	-0.0	-0.0075 µg/L	-0.0075 ppb	19:07:04
2	Sb 206.836†	84.1	-4.6	-0.5852 µg/L	-0.5852 ppb	19:07:04
2	Se 196.026†	26.5	20.6	8.12 µg/L	8.12 ppb	19:07:04
2	SiO2†	1760.4	42.0	4.4127 µg/L	4.4127 ppb	19:07:04
2	Si 251.611†	951.0	195.1	3.0617 µg/L	3.0617 ppb	19:06:43
2	Sn 189.927†	1.7	-0.2	-0.0150 µg/L	-0.0150 ppb	19:07:04
2	Ti 334.940†	688.0	-126.9	-0.1267 µg/L	-0.1267 ppb	19:06:43
2	Tl 190.801†	-120.6	-7.7	-1.0540 µg/L	-1.0540 ppb	19:07:04
2	U 409.014†	-298.6	-138.7	-8.7276 µg/L	-8.7276 ppb	19:06:43
2	V 292.402†	502.0	84.6	0.4459 µg/L	0.4459 ppb	19:06:43
2	Zn 213.857†	587.1	91.0	0.5424 µg/L	0.5424 ppb	19:07:04
3	Sc RADIAL	137628.9	137628.9	98.2 %		19:05:53
3	Al 396.153Radial†	-36.9	41.0	8.6030 µg/L	8.6030 ppb	19:06:13
3	Ca 317.933Radial†	721.8	163.3	11.120 µg/L	11.120 ppb	19:06:13
3	Fe 238.204 Radial†	179.5	65.4	4.8824 µg/L	4.8824 ppb	19:06:13
3	K 766.490 Radial†	1571.8	106.2	42.063 µg/L	42.063 ppb	19:05:53
3	Mg 279.077 IEC†	165.7	-3.8	-1.7374 µg/L	-1.7374 ppb	19:06:13
3	Na 589.592 Radial†	1024.3	90.1	13.930 µg/L	13.930 ppb	19:05:53
3	Sr 421.552†	-192.2	8.8	0.0207 µg/L	0.0207 ppb	19:05:53
3	Sc 361.383	1805488.2	1805488.2	100.07 %		19:07:06
3	Y 371.029	1059716.1	1059716.1	100.23 %		19:07:06
3	Ag 328.068†	4097.2	-471.0	-1.9433 µg/L	-1.9433 ppb	19:07:08
3	As 188.979†	-25.6	-7.1	-2.3863 µg/L	-2.3863 ppb	19:07:28
3	B 249.677†	3932.8	-135.2	-2.1040 µg/L	-2.1040 ppb	19:07:08
3	Ba 233.527†	-145.1	-0.5	-0.0025 µg/L	-0.0025 ppb	19:07:28
3	Be 313.107†	-666.7	425.5	0.1219 µg/L	0.1219 ppb	19:07:08
3	Cd 226.502†	-47.1	56.3	0.3802 µg/L	0.3802 ppb	19:07:28
3	Co 228.616†	-185.0	25.5	0.3367 µg/L	0.3367 ppb	19:07:28
3	Cr 267.716†	263.5	30.1	0.2634 µg/L	0.2634 ppb	19:07:28
3	Cu 324.752†	2844.7	-193.6	-0.8123 µg/L	-0.8123 ppb	19:07:08
3	Mn 257.610†	305.2	120.2	0.1596 µg/L	0.1596 ppb	19:07:28
3	Mo 202.031†	-15.6	23.0	0.7506 µg/L	0.7506 ppb	19:07:28
3	Ni 231.604†	-66.7	29.3	0.3664 µg/L	0.3664 ppb	19:07:28
3	P 214.914†	38.2	63.8	14.766 µg/L	14.766 ppb	19:07:28
3	Pb 220.353†	104.0	0.5	0.0365 µg/L	0.0365 ppb	19:07:28
3	S 181.975 Axial†	81.9	-7.0	-5.9085 µg/L	-5.9085 ppb	19:07:28
3	Sb 206.836†	69.9	-19.9	-2.5547 µg/L	-2.5547 ppb	19:07:28
3	Se 196.026†	9.2	3.0	1.18 µg/L	1.18 ppb	19:07:28
3	SiO2†	1784.3	43.9	4.6193 µg/L	4.6193 ppb	19:07:28
3	Si 251.611†	1005.7	237.9	3.7396 µg/L	3.7396 ppb	19:07:08
3	Sn 189.927†	6.9	5.1	0.3502 µg/L	0.3502 ppb	19:07:28
3	Ti 334.940†	719.5	-104.0	-0.1047 µg/L	-0.1047 ppb	19:07:08
3	Tl 190.801†	-118.1	-3.8	-0.5234 µg/L	-0.5234 ppb	19:07:28
3	U 409.014†	-232.6	-69.1	-4.4077 µg/L	-4.4077 ppb	19:07:08
3	V 292.402†	267.0	-156.4	-0.8053 µg/L	-0.8053 ppb	19:07:08
3	Zn 213.857†	576.2	72.8	0.4323 µg/L	0.4323 ppb	19:07:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787899.1	99.099	%	0.8747				0.88%
Sc RADIAL	136345.3	97.3	%	0.82				0.84%
Y 371.029	1049518.2	99.264	%	0.8607				0.87%
Ag 328.068†	-370.8	-1.5292	µg/L	0.79573	-1.5292	ppb	0.79573	52.04%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	23.8	4.9737	µg/L	4.94264	4.9737	ppb	4.94264	99.38%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.2	0.7668	µg/L	2.77258	0.7668	ppb	2.77258	361.60%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-17.8	-0.2773	µg/L	2.01105	-0.2773	ppb	2.01105	725.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-12.6	-0.0559	µg/L	0.06042	-0.0559	ppb	0.06042	108.03%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	411.9	0.1169	µg/L	0.02061	0.1169	ppb	0.02061	17.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	169.7	11.560	µg/L	0.6358	11.560	ppb	0.6358	5.50%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	46.1	0.3109	µg/L	0.09427	0.3109	ppb	0.09427	30.32%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.7	0.2339	µg/L	0.14357	0.2339	ppb	0.14357	61.38%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              40.0      0.3525 µg/L       0.08006      0.3525 ppb        0.08006  22.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -175.1     -0.7382 µg/L       0.26969     -0.7382 ppb        0.26969  36.54%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       64.9      4.8436 µg/L       0.52071      4.8436 ppb        0.52071  10.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       152.8      60.557 µg/L       17.8246      60.557 ppb        17.8246  29.43%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -5.4     -2.4573 µg/L       4.28198     -2.4573 ppb        4.28198 174.26%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             109.7      0.1456 µg/L       0.01208      0.1456 ppb        0.01208   8.30%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              26.1      0.8529 µg/L       0.25199      0.8529 ppb        0.25199  29.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      222.3      34.408 µg/L       17.7512      34.408 ppb        17.7512  51.59%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              17.7      0.2217 µg/L       0.12663      0.2217 ppb        0.12663  57.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               55.7      12.878 µg/L        1.6394      12.878 ppb         1.6394  12.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              12.9      0.8045 µg/L       1.66856      0.8045 ppb        1.66856 207.41%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.3     -1.8954 µg/L       3.47746     -1.8954 ppb        3.47746 183.47%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -10.2     -1.3118 µg/L       1.08153     -1.3118 ppb        1.08153  82.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              13.5       5.32 µg/L         3.658        5.32 ppb          3.658  68.69%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    43.0      4.5303 µg/L       0.10619      4.5303 ppb        0.10619   2.34%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             216.4      3.4008 µg/L       0.33894      3.4008 ppb        0.33894   9.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.7      0.0492 µg/L       0.27462      0.0492 ppb        0.27462 558.36%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              19.7      0.0464 µg/L       0.06237      0.0464 ppb        0.06237 134.51%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -155.9     -0.1565 µg/L       0.07153     -0.1565 ppb        0.07153  45.71%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -4.0     -0.5512 µg/L       0.48944     -0.5512 ppb        0.48944  88.79%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -124.7     -7.8739 µg/L       3.12805     -7.8739 ppb        3.12805  39.73%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -24.2     -0.1205 µg/L       0.63394     -0.1205 ppb        0.63394 526.05%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              90.7      0.5404 µg/L       0.10714      0.5404 ppb        0.10714  19.83%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 94
Sample ID: 1202072045|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 410
Date Collected: 4/5/2010 19:07:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072045|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136492.2	136492.2	97.4	%			19:08:09
1	Al 396.153Radial†	-65.4	11.5	2.4018	µg/L	2.4018	ppb	19:08:29
1	Ca 317.933Radial†	739.0	187.1	12.741	µg/L	12.741	ppb	19:08:29
1	Fe 238.204 Radial†	546.9	444.0	33.156	µg/L	33.156	ppb	19:08:29
1	K 766.490 Radial†	1499.3	45.0	17.826	µg/L	17.826	ppb	19:08:09
1	Mg 279.077 IEC†	153.5	-14.9	-6.9225	µg/L	-6.9225	ppb	19:08:29
1	Na 589.592 Radial†	1161.4	239.5	37.105	µg/L	37.105	ppb	19:08:09
1	Sr 421.552†	-178.3	21.4	0.0505	µg/L	0.0505	ppb	19:08:09
1	Sc 361.383	1769566.8	1769566.8	98.083	%			19:09:31
1	Y 371.029	1035721.4	1035721.4	97.959	%			19:09:31
1	Ag 328.068†	4368.9	-110.8	-0.4544	µg/L	-0.4544	ppb	19:09:33
1	As 188.979†	-10.8	7.5	2.5463	µg/L	2.5463	ppb	19:09:53
1	B 249.677†	4342.6	362.3	5.6357	µg/L	5.6357	ppb	19:09:33
1	Ba 233.527†	-146.2	-4.6	-0.0205	µg/L	-0.0205	ppb	19:09:53
1	Be 313.107†	-503.2	578.7	0.1672	µg/L	0.1672	ppb	19:09:33
1	Cd 226.502†	-66.1	36.0	0.2400	µg/L	0.2400	ppb	19:09:53
1	Co 228.616†	-227.6	-21.7	-0.2893	µg/L	-0.2893	ppb	19:09:53
1	Cr 267.716†	276.5	48.7	0.4234	µg/L	0.4234	ppb	19:09:53
1	Cu 324.752†	2765.2	-216.9	-0.9039	µg/L	-0.9039	ppb	19:09:33
1	Mn 257.610†	665.0	493.3	0.6545	µg/L	0.6545	ppb	19:09:53
1	Mo 202.031†	-29.4	8.6	0.2816	µg/L	0.2816	ppb	19:09:53
1	Ni 231.604†	-64.3	30.4	0.3799	µg/L	0.3799	ppb	19:09:53
1	P 214.914†	21.7	47.8	11.055	µg/L	11.055	ppb	19:09:53
1	Pb 220.353†	115.1	13.9	0.8552	µg/L	0.8552	ppb	19:09:53
1	S 181.975 Axial†	103.5	16.6	14.009	µg/L	14.009	ppb	19:09:53
1	Sb 206.836†	82.1	-6.0	-0.7781	µg/L	-0.7781	ppb	19:09:53
1	Se 196.026†	13.8	7.9	3.13	µg/L	3.13	ppb	19:09:53
1	SiO2†	2248.6	553.5	58.597	µg/L	58.597	ppb	19:09:33
1	Si 251.611†	2333.4	1612.0	25.413	µg/L	25.413	ppb	19:09:33
1	Sn 189.927†	7.7	6.0	0.4155	µg/L	0.4155	ppb	19:09:53
1	Ti 334.940†	949.2	144.7	0.1501	µg/L	0.1501	ppb	19:09:33
1	Tl 190.801†	-120.2	-8.3	-1.1283	µg/L	-1.1283	ppb	19:09:53
1	U 409.014†	-185.1	-25.4	-1.5958	µg/L	-1.5958	ppb	19:09:33
1	V 292.402†	444.8	30.3	0.1569	µg/L	0.1569	ppb	19:09:33
1	Zn 213.857†	749.5	261.2	1.5546	µg/L	1.5546	ppb	19:09:53
2	Sc RADIAL	135377.1	135377.1	96.6	%			19:08:31
2	Al 396.153Radial†	-79.6	-3.9	-0.7960	µg/L	-0.7960	ppb	19:08:51
2	Ca 317.933Radial†	740.5	194.8	13.270	µg/L	13.270	ppb	19:08:51
2	Fe 238.204 Radial†	522.2	423.1	31.598	µg/L	31.598	ppb	19:08:51
2	K 766.490 Radial†	1645.2	208.8	82.713	µg/L	82.713	ppb	19:08:31
2	Mg 279.077 IEC†	180.4	14.2	6.5237	µg/L	6.5237	ppb	19:08:51
2	Na 589.592 Radial†	1137.6	224.7	34.762	µg/L	34.762	ppb	19:08:31
2	Sr 421.552†	-75.8	126.0	0.2971	µg/L	0.2971	ppb	19:08:31
2	Sc 361.383	1780793.8	1780793.8	98.705	%			19:09:55
2	Y 371.029	1042757.6	1042757.6	98.625	%			19:09:55
2	Ag 328.068†	4508.4	2.4	0.0043	µg/L	0.0043	ppb	19:09:57
2	As 188.979†	-19.1	-0.8	-0.2743	µg/L	-0.2743	ppb	19:10:17
2	B 249.677†	4167.5	157.1	2.4412	µg/L	2.4412	ppb	19:09:57
2	Ba 233.527†	-139.9	2.8	0.0115	µg/L	0.0115	ppb	19:10:17
2	Be 313.107†	-789.6	291.7	0.0844	µg/L	0.0844	ppb	19:09:57
2	Cd 226.502†	-85.6	16.6	0.1095	µg/L	0.1095	ppb	19:10:17
2	Co 228.616†	-182.2	25.7	0.3379	µg/L	0.3379	ppb	19:10:17
2	Cr 267.716†	277.8	48.2	0.4180	µg/L	0.4180	ppb	19:10:17
2	Cu 324.752†	2845.6	-153.2	-0.6359	µg/L	-0.6359	ppb	19:09:57
2	Mn 257.610†	659.2	483.1	0.6406	µg/L	0.6406	ppb	19:10:17
2	Mo 202.031†	-50.9	-13.0	-0.4243	µg/L	-0.4243	ppb	19:10:17
2	Ni 231.604†	-43.8	51.6	0.6452	µg/L	0.6452	ppb	19:10:17
2	P 214.914†	21.9	47.9	11.082	µg/L	11.082	ppb	19:10:17
2	Pb 220.353†	156.0	54.5	3.3545	µg/L	3.3545	ppb	19:10:17

2	S 181.975 Axial†	95.8	8.2	6.8658 µg/L	6.8658 ppb	19:10:17
2	Sb 206.836†	94.8	6.3	0.7986 µg/L	0.7986 ppb	19:10:17
2	Se 196.026†	26.2	20.4	8.03 µg/L	8.03 ppb	19:10:17
2	SiO2†	2128.4	417.2	44.177 µg/L	44.177 ppb	19:09:57
2	Si 251.611†	2230.6	1492.8	23.539 µg/L	23.539 ppb	19:09:57
2	Sn 189.927†	15.7	14.0	0.9745 µg/L	0.9745 ppb	19:10:17
2	Ti 334.940†	913.5	102.5	0.1051 µg/L	0.1051 ppb	19:09:57
2	Tl 190.801†	-131.9	-19.4	-2.6445 µg/L	-2.6445 ppb	19:10:17
2	U 409.014†	-165.4	-4.2	-0.2873 µg/L	-0.2873 ppb	19:09:57
2	V 292.402†	346.6	-72.1	-0.3799 µg/L	-0.3799 ppb	19:09:57
2	Zn 213.857†	751.8	258.7	1.5378 µg/L	1.5378 ppb	19:10:17
3	Sc RADIAL	135286.0	135286.0	96.6 %		19:08:53
3	Al 396.153Radial†	-63.8	12.5	2.6169 µg/L	2.6169 ppb	19:09:13
3	Ca 317.933Radial†	723.1	177.3	12.077 µg/L	12.077 ppb	19:09:13
3	Fe 238.204 Radial†	550.0	452.2	33.771 µg/L	33.771 ppb	19:09:13
3	K 766.490 Radial†	1744.0	312.2	123.69 µg/L	123.69 ppb	19:08:53
3	Mg 279.077 IEC†	159.2	-7.6	-3.5117 µg/L	-3.5117 ppb	19:09:13
3	Na 589.592 Radial†	1179.0	268.3	41.485 µg/L	41.485 ppb	19:08:53
3	Sr 421.552†	-71.4	130.5	0.3077 µg/L	0.3077 ppb	19:08:53
3	Sc 361.383	1776832.8	1776832.8	98.486 %		19:10:20
3	Y 371.029	1040822.6	1040822.6	98.442 %		19:10:20
3	Ag 328.068†	3938.5	-566.1	-2.3158 µg/L	-2.3158 ppb	19:10:22
3	As 188.979†	-11.6	6.8	2.2945 µg/L	2.2945 ppb	19:10:42
3	B 249.677†	4269.6	270.1	4.1997 µg/L	4.1997 ppb	19:10:22
3	Ba 233.527†	-149.9	-7.7	-0.0350 µg/L	-0.0350 ppb	19:10:42
3	Be 313.107†	-832.1	246.9	0.0745 µg/L	0.0745 ppb	19:10:22
3	Cd 226.502†	-69.8	32.5	0.2162 µg/L	0.2162 ppb	19:10:42
3	Co 228.616†	-198.4	8.8	0.1152 µg/L	0.1152 ppb	19:10:42
3	Cr 267.716†	258.1	28.9	0.2427 µg/L	0.2427 ppb	19:10:42
3	Cu 324.752†	2929.4	-61.7	-0.2450 µg/L	-0.2450 ppb	19:10:22
3	Mn 257.610†	674.4	500.1	0.6634 µg/L	0.6634 ppb	19:10:42
3	Mo 202.031†	-31.0	7.1	0.2329 µg/L	0.2329 ppb	19:10:42
3	Ni 231.604†	-87.3	7.2	0.0907 µg/L	0.0907 ppb	19:10:42
3	P 214.914†	39.8	66.1	15.272 µg/L	15.272 ppb	19:10:42
3	Pb 220.353†	136.9	35.5	2.1778 µg/L	2.1778 ppb	19:10:42
3	S 181.975 Axial†	90.2	2.7	2.2620 µg/L	2.2620 ppb	19:10:42
3	Sb 206.836†	99.0	10.8	1.3963 µg/L	1.3963 ppb	19:10:42
3	Se 196.026†	9.9	3.9	1.57 µg/L	1.57 ppb	19:10:42
3	SiO2†	2282.7	578.7	61.268 µg/L	61.268 ppb	19:10:22
3	Si 251.611†	2400.4	1670.3	26.332 µg/L	26.332 ppb	19:10:22
3	Sn 189.927†	10.0	8.3	0.5760 µg/L	0.5760 ppb	19:10:42
3	Ti 334.940†	766.8	-44.4	-0.0491 µg/L	-0.0491 ppb	19:10:22
3	Tl 190.801†	-116.6	-4.1	-0.5688 µg/L	-0.5688 ppb	19:10:42
3	U 409.014†	-7.7	155.5	9.7620 µg/L	9.7620 ppb	19:10:22
3	V 292.402†	261.7	-157.5	-0.8098 µg/L	-0.8098 ppb	19:10:22
3	Zn 213.857†	760.8	269.5	1.6055 µg/L	1.6055 ppb	19:10:42

Mean Data: 1202072045|965624|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1775731.1	98.425	%	0.3156				0.32%
Sc RADIAL	135718.5	96.9	%	0.48				0.49%
Y 371.029	1039767.2	98.342	%	0.3438				0.35%
Ag 328.068†	-224.9	-0.9220	µg/L	1.22867	-0.9220	ppb	1.22867	133.26%
Al 396.153Radial†	6.7	1.4076	µg/L	1.91137	1.4076	ppb	1.91137	135.79%
As 188.979†	4.5	1.5222	µg/L	1.56088	1.5222	ppb	1.56088	102.54%
B 249.677†	263.1	4.0922	µg/L	1.59995	4.0922	ppb	1.59995	39.10%
Ba 233.527†	-3.2	-0.0147	µg/L	0.02382	-0.0147	ppb	0.02382	162.54%
Be 313.107†	372.4	0.1087	µg/L	0.05088	0.1087	ppb	0.05088	46.81%
Ca 317.933Radial†	186.4	12.696	µg/L	0.5976	12.696	ppb	0.5976	4.71%
Cd 226.502†	28.4	0.1886	µg/L	0.06951	0.1886	ppb	0.06951	36.86%
Co 228.616†	4.3	0.0546	µg/L	0.31797	0.0546	ppb	0.31797	582.38%
Cr 267.716†	41.9	0.3613	µg/L	0.10282	0.3613	ppb	0.10282	28.46%
Cu 324.752†	-143.9	-0.5949	µg/L	0.33135	-0.5949	ppb	0.33135	55.70%
Fe 238.204 Radial†	439.8	32.842	µg/L	1.1201	32.842	ppb	1.1201	3.41%
K 766.490 Radial†	188.6	74.742	µg/L	53.3787	74.742	ppb	53.3787	71.42%
Mg 279.077 IEC†	-2.8	-1.3035	µg/L	6.98975	-1.3035	ppb	6.98975	536.24%
Mn 257.610†	492.2	0.6528	µg/L	0.01150	0.6528	ppb	0.01150	1.76%
Mo 202.031†	0.9	0.0301	µg/L	0.39423	0.0301	ppb	0.39423	>999.9%
Na 589.592 Radial†	244.2	37.784	µg/L	3.4126	37.784	ppb	3.4126	9.03%

Ni 231.604†	29.7	0.3719 µg/L	0.27735	0.3719 ppb	0.27735	74.57%
P 214.914†	53.9	12.470 µg/L	2.4273	12.470 ppb	2.4273	19.47%
Pb 220.353†	34.6	2.1292 µg/L	1.25034	2.1292 ppb	1.25034	58.72%
S 181.975 Axial†	9.2	7.7122 µg/L	5.91903	7.7122 ppb	5.91903	76.75%
Sb 206.836†	3.7	0.4723 µg/L	1.12336	0.4723 ppb	1.12336	237.86%
Se 196.026†	10.7	4.24 µg/L	3.371	4.24 ppb	3.371	79.44%
SiO2†	516.5	54.681 µg/L	9.1942	54.681 ppb	9.1942	16.81%
Si 251.611†	1591.7	25.094 µg/L	1.4234	25.094 ppb	1.4234	5.67%
Sn 189.927†	9.4	0.6553 µg/L	0.28778	0.6553 ppb	0.28778	43.91%
Sr 421.552†	92.7	0.2184 µg/L	0.14555	0.2184 ppb	0.14555	66.64%
Ti 334.940†	67.6	0.0687 µg/L	0.10444	0.0687 ppb	0.10444	152.09%
Tl 190.801†	-10.6	-1.4472 µg/L	1.07394	-1.4472 ppb	1.07394	74.21%
U 409.014†	42.0	2.6263 µg/L	6.21422	2.6263 ppb	6.21422	236.61%
V 292.402†	-66.4	-0.3443 µg/L	0.48433	-0.3443 ppb	0.48433	140.69%
Zn 213.857†	263.1	1.5660 µg/L	0.03525	1.5660 ppb	0.03525	2.25%

Sequence No.: 95
Sample ID: 1202072046|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 411
Date Collected: 4/5/2010 19:10:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072046|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138530.0	138530.0	98.9	%			19:11:22
1	Al 396.153Radial†	458590.2	463842.7	97626	µg/L	97626	ppb	19:11:22
1	Ca 317.933Radial†	1619014.1	1636709.0	111470	µg/L	111470	ppb	19:11:20
1	Fe 238.204 Radial†	2611261.7	2640605.6	197200	µg/L	197200	ppb	19:11:20
1	K 766.490 Radial†	112745.1	112523.4	44539	µg/L	44539	ppb	19:11:22
1	Mg 279.077 IEC†	87623.4	88439.5	40682	µg/L	40682	ppb	19:11:22
1	Na 589.592 Radial†	73029.1	72900.6	11261	µg/L	11261	ppb	19:11:22
1	Sr 421.552†	1099584.6	1112195.0	2622.2	µg/L	2622.2	ppb	19:11:20
1	Sc 361.383	1790613.2	1790613.2	99.250	%			19:11:36
1	Y 371.029	1119606.5	1119606.5	105.89	%			19:11:36
1	Ag 328.068†	83279.0	79343.5	335.27	µg/L	335.27	ppb	19:11:38
1	As 188.979†	3042.5	3084.1	1117.8	µg/L	1117.8	ppb	19:11:38
1	B 249.677†	117188.6	114009.6	1769.1	µg/L	1769.1	ppb	19:11:36
1	Ba 233.527†	439998.1	443469.7	1969.7	µg/L	1969.7	ppb	19:11:36
1	Be 313.107†	3059500.7	3083726.7	893.20	µg/L	893.20	ppb	19:11:36
1	Cd 226.502†	112079.5	113030.4	744.00	µg/L	744.00	ppb	19:11:38
1	Co 228.616†	84506.5	85355.8	1121.3	µg/L	1121.3	ppb	19:11:38
1	Cr 267.716†	346615.4	349003.1	3025.0	µg/L	3025.0	ppb	19:11:36
1	Cu 324.752†	511153.6	511982.5	2171.7	µg/L	2171.7	ppb	19:11:36
1	Mn 257.610†	4708442.9	4743860.9	6290.8	µg/L	6290.8	ppb	19:11:36
1	Mo 202.031†	19339.9	19524.7	647.54	µg/L	647.54	ppb	19:11:38
1	Ni 231.604†	137189.9	138323.1	1730.6	µg/L	1730.6	ppb	19:11:36
1	P 214.914†	39618.4	39943.6	9107.0	µg/L	9107.0	ppb	19:11:38
1	Pb 220.353†	13981.3	13983.6	869.53	µg/L	869.53	ppb	19:11:38
1	S 181.975 Axial†	5799.6	5754.6	4846.5	µg/L	4846.5	ppb	19:11:38
1	Sb 206.836†	16548.2	16583.6	2103.1	µg/L	2103.1	ppb	19:11:38
1	Se 196.026†	8281.5	8337.9	3350	µg/L	3350	ppb	19:11:38
1	SiO2†	247265.9	247396.5	26165	µg/L	26165	ppb	19:11:36
1	Si 251.611†	772693.9	777769.6	12249	µg/L	12249	ppb	19:11:36
1	Sn 189.927†	15292.4	15406.1	1089.6	µg/L	1089.6	ppb	19:11:38
1	Ti 334.940†	6018084.0	6062766.5	6225.6	µg/L	6225.6	ppb	19:11:36
1	Tl 190.801†	9081.5	9264.4	1348.4	µg/L	1348.4	ppb	19:11:38
1	U 409.014†	-4428.3	-4298.4	-194.73	µg/L	-194.73	ppb	19:11:36
1	V 292.402†	264349.8	265925.4	1371.1	µg/L	1371.1	ppb	19:11:36
1	Zn 213.857†	1150713.0	1158911.1	6890.9	µg/L	6890.9	ppb	19:11:36
2	Sc RADIAL	143458.6	143458.6	102	%			19:11:26
2	Al 396.153Radial†	474231.0	463183.8	97487	µg/L	97487	ppb	19:11:26
2	Ca 317.933Radial†	1629518.5	1590717.7	108340	µg/L	108340	ppb	19:11:24
2	Fe 238.204 Radial†	2629267.8	2567466.5	191740	µg/L	191740	ppb	19:11:24
2	K 766.490 Radial†	116920.3	112683.5	44603	µg/L	44603	ppb	19:11:26
2	Mg 279.077 IEC†	91311.2	88996.6	40944	µg/L	40944	ppb	19:11:26
2	Na 589.592 Radial†	75625.7	72899.0	11260	µg/L	11260	ppb	19:11:26
2	Sr 421.552†	1108878.4	1083068.0	2553.5	µg/L	2553.5	ppb	19:11:24
2	Sc 361.383	1774125.6	1774125.6	98.336	%			19:11:42
2	Y 371.029	1109438.5	1109438.5	104.93	%			19:11:42
2	Ag 328.068†	83585.4	80434.9	339.85	µg/L	339.85	ppb	19:11:44
2	As 188.979†	2976.9	3045.8	1103.6	µg/L	1103.6	ppb	19:11:44
2	B 249.677†	115856.1	113751.9	1765.1	µg/L	1765.1	ppb	19:11:42
2	Ba 233.527†	436233.2	443761.0	1971.1	µg/L	1971.1	ppb	19:11:42
2	Be 313.107†	3031355.6	3083753.3	893.20	µg/L	893.20	ppb	19:11:42
2	Cd 226.502†	112068.0	114068.2	751.59	µg/L	751.59	ppb	19:11:44
2	Co 228.616†	84583.9	86225.8	1133.1	µg/L	1133.1	ppb	19:11:44
2	Cr 267.716†	343498.6	349079.1	3025.5	µg/L	3025.5	ppb	19:11:42
2	Cu 324.752†	506681.5	512221.1	2171.9	µg/L	2171.9	ppb	19:11:42
2	Mn 257.610†	4667587.1	4746401.7	6294.2	µg/L	6294.2	ppb	19:11:42
2	Mo 202.031†	19392.6	19759.4	655.01	µg/L	655.01	ppb	19:11:44
2	Ni 231.604†	135738.2	138131.5	1728.2	µg/L	1728.2	ppb	19:11:42
2	P 214.914†	39709.2	40407.0	9217.9	µg/L	9217.9	ppb	19:11:44
2	Pb 220.353†	13935.4	14067.8	874.91	µg/L	874.91	ppb	19:11:44

2	S 181.975 Axial†	5856.5	5866.7	4940.9	µg/L	4940.9 ppb	19:11:44
2	Sb 206.836†	16589.9	16780.9	2128.8	µg/L	2128.8 ppb	19:11:44
2	Se 196.026†	8262.3	8396.0	3370	µg/L	3370 ppb	19:11:44
2	SiO2†	244652.6	247054.3	26128	µg/L	26128 ppb	19:11:42
2	Si 251.611†	764574.5	776748.0	12233	µg/L	12233 ppb	19:11:42
2	Sn 189.927†	15378.7	15637.1	1105.7	µg/L	1105.7 ppb	19:11:44
2	Ti 334.940†	5968148.7	6068337.1	6231.2	µg/L	6231.2 ppb	19:11:42
2	Tl 190.801†	9086.3	9354.4	1360.7	µg/L	1360.7 ppb	19:11:44
2	U 409.014†	-4348.9	-4259.1	-191.18	µg/L	-191.18 ppb	19:11:42
2	V 292.402†	261714.5	265720.9	1370.7	µg/L	1370.7 ppb	19:11:42
2	Zn 213.857†	1138992.7	1157767.2	6884.7	µg/L	6884.7 ppb	19:11:42
3	Sc RADIAL	137963.9	137963.9	98.5	%		19:11:31
3	Al 396.153Radial†	455025.2	462125.8	97265	µg/L	97265 ppb	19:11:31
3	Ca 317.933Radial†	1628691.5	1653254.6	112600	µg/L	112600 ppb	19:11:28
3	Fe 238.204 Radial†	2626743.9	2667163.4	199180	µg/L	199180 ppb	19:11:28
3	K 766.490 Radial†	112216.1	112454.1	44511	µg/L	44511 ppb	19:11:31
3	Mg 279.077 IEC†	86624.4	87788.8	40380	µg/L	40380 ppb	19:11:31
3	Na 589.592 Radial†	72662.7	72831.5	11250	µg/L	11250 ppb	19:11:31
3	Sr 421.552†	1107215.6	1124507.1	2651.2	µg/L	2651.2 ppb	19:11:28
3	Sc 361.383	1779403.8	1779403.8	98.628	%		19:11:48
3	Y 371.029	1111834.7	1111834.7	105.16	%		19:11:48
3	Ag 328.068†	81989.3	78564.5	332.05	µg/L	332.05 ppb	19:11:50
3	As 188.979†	2954.6	3014.3	1094.6	µg/L	1094.6 ppb	19:11:50
3	B 249.677†	116248.9	113800.6	1765.9	µg/L	1765.9 ppb	19:11:48
3	Ba 233.527†	437744.4	443977.4	1971.9	µg/L	1971.9 ppb	19:11:48
3	Be 313.107†	3041684.1	3085081.4	893.59	µg/L	893.59 ppb	19:11:48
3	Cd 226.502†	109511.7	111138.2	731.01	µg/L	731.01 ppb	19:11:50
3	Co 228.616†	82824.8	84187.1	1105.7	µg/L	1105.7 ppb	19:11:50
3	Cr 267.716†	344932.0	349496.3	3029.3	µg/L	3029.3 ppb	19:11:48
3	Cu 324.752†	508150.2	512181.8	2172.8	µg/L	2172.8 ppb	19:11:48
3	Mn 257.610†	4683012.5	4747962.0	6296.3	µg/L	6296.3 ppb	19:11:48
3	Mo 202.031†	18950.4	19252.5	638.72	µg/L	638.72 ppb	19:11:50
3	Ni 231.604†	136607.9	138603.9	1734.1	µg/L	1734.1 ppb	19:11:48
3	P 214.914†	38661.7	39225.1	8939.3	µg/L	8939.3 ppb	19:11:50
3	Pb 220.353†	13724.5	13812.0	858.86	µg/L	858.86 ppb	19:11:50
3	S 181.975 Axial†	5723.8	5714.5	4812.7	µg/L	4812.7 ppb	19:11:50
3	Sb 206.836†	16136.4	16271.1	2062.6	µg/L	2062.6 ppb	19:11:50
3	Se 196.026†	8065.4	8171.4	3290	µg/L	3290 ppb	19:11:50
3	SiO2†	245649.2	247326.7	26158	µg/L	26158 ppb	19:11:48
3	Si 251.611†	768084.1	778000.0	12253	µg/L	12253 ppb	19:11:48
3	Sn 189.927†	15043.7	15251.1	1078.9	µg/L	1078.9 ppb	19:11:50
3	Ti 334.940†	5979824.0	6062172.1	6225.1	µg/L	6225.1 ppb	19:11:48
3	Tl 190.801†	8890.8	9128.7	1330.0	µg/L	1330.0 ppb	19:11:50
3	U 409.014†	-4425.1	-4323.3	-196.63	µg/L	-196.63 ppb	19:11:48
3	V 292.402†	262812.2	266044.4	1371.4	µg/L	1371.4 ppb	19:11:48
3	Zn 213.857†	1143834.8	1159241.0	6892.6	µg/L	6892.6 ppb	19:11:48

Mean Data: 1202072046|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1781380.8	98.738	%	0.4667				0.47%
Sc RADIAL	139984.2	99.9	%	2.16				2.16%
Y 371.029	1113626.6	105.33	%	0.503				0.48%
Ag 328.068†	79447.6	335.72	µg/L	3.919	335.72	ppb	3.919	1.17%
Al 396.153Radial†	463050.8	97459	µg/L	182.1	97459	ppb	182.1	0.19%
As 188.979†	3048.1	1105.4	µg/L	11.67	1105.4	ppb	11.67	1.06%
B 249.677†	113854.0	1766.7	µg/L	2.13	1766.7	ppb	2.13	0.12%
Ba 233.527†	443736.0	1970.9	µg/L	1.12	1970.9	ppb	1.12	0.06%
Be 313.107†	3084187.1	893.33	µg/L	0.224	893.33	ppb	0.224	0.03%
Ca 317.933Radial†	1626893.8	110810	µg/L	2207.0	110810	ppb	2207.0	1.99%
Cd 226.502†	112745.6	742.20	µg/L	10.409	742.20	ppb	10.409	1.40%
Co 228.616†	85256.2	1120.0	µg/L	13.72	1120.0	ppb	13.72	1.22%
Cr 267.716†	349192.8	3026.6	µg/L	2.38	3026.6	ppb	2.38	0.08%
Cu 324.752†	512128.4	2172.1	µg/L	0.58	2172.1	ppb	0.58	0.03%
Fe 238.204 Radial†	2625078.5	196040	µg/L	3855.7	196040	ppb	3855.7	1.97%
K 766.490 Radial†	112553.7	44551	µg/L	47.0	44551	ppb	47.0	0.11%
Mg 279.077 IEC†	88408.3	40669	µg/L	282.5	40669	ppb	282.5	0.69%
Mn 257.610†	4746074.9	6293.8	µg/L	2.75	6293.8	ppb	2.75	0.04%
Mo 202.031†	19512.2	647.09	µg/L	8.155	647.09	ppb	8.155	1.26%
Na 589.592 Radial†	72877.0	11257	µg/L	6.1	11257	ppb	6.1	0.05%

Ni 231.604†	138352.8	1731.0	µg/L	2.97	1731.0	ppb	2.97	0.17%
P 214.914†	39858.6	9088.1	µg/L	140.25	9088.1	ppb	140.25	1.54%
Pb 220.353†	13954.4	867.77	µg/L	8.167	867.77	ppb	8.167	0.94%
S 181.975 Axial†	5778.6	4866.7	µg/L	66.44	4866.7	ppb	66.44	1.37%
Sb 206.836†	16545.2	2098.2	µg/L	33.36	2098.2	ppb	33.36	1.59%
Se 196.026†	8301.8	3340	µg/L	44.8	3340	ppb	44.8	1.34%
SiO2†	247259.2	26151	µg/L	19.5	26151	ppb	19.5	0.07%
Si 251.611†	777505.9	12245	µg/L	10.7	12245	ppb	10.7	0.09%
Sn 189.927†	15431.4	1091.4	µg/L	13.49	1091.4	ppb	13.49	1.24%
Sr 421.552†	1106590.0	2609.0	µg/L	50.17	2609.0	ppb	50.17	1.92%
Ti 334.940†	6064425.2	6227.3	µg/L	3.42	6227.3	ppb	3.42	0.05%
Tl 190.801†	9249.2	1346.4	µg/L	15.47	1346.4	ppb	15.47	1.15%
U 409.014†	-4293.6	-194.18	µg/L	2.766	-194.18	ppb	2.766	1.42%
Concentration less than lower limit for U 409.014.								
V 292.402†	265896.9	1371.1	µg/L	0.37	1371.1	ppb	0.37	0.03%
Zn 213.857†	1158639.8	6889.4	µg/L	4.17	6889.4	ppb	4.17	0.06%

Sequence No.: 97
Sample ID: 1202072047|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 413
Date Collected: 4/5/2010 19:14:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072047|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138683.1	138683.1	99.0	%			19:14:43
1	Al 396.153Radial†	183565.1	185509.7	39056	µg/L	39056	ppb	19:14:41
1	Ca 317.933Radial†	148731.4	149671.9	10194	µg/L	10194	ppb	19:14:43
1	Fe 238.204 Radial†	1268031.7	1280805.1	95650	µg/L	95650	ppb	19:14:41
1	K 766.490 Radial†	12818.0	11454.5	4527.5	µg/L	4527.5	ppb	19:14:43
1	Mg 279.077 IEC†	13941.8	13911.1	6341.6	µg/L	6341.6	ppb	19:14:43
1	Na 589.592 Radial†	9355.1	8497.7	1313.2	µg/L	1313.2	ppb	19:14:43
1	Sr 421.552†	40065.1	40676.8	95.855	µg/L	95.855	ppb	19:14:43
1	Sc 361.383	1799117.5	1799117.5	99.721	%			19:14:55
1	Y 371.029	1359626.5	1359626.5	128.59	%			19:14:55
1	Ag 328.068†	4060.2	-493.6	-3.0328	µg/L	-3.0328	ppb	19:14:55
1	As 188.979†	47.4	66.0	45.086	µg/L	45.086	ppb	19:15:15
1	B 249.677†	5190.8	1140.2	17.665	µg/L	17.665	ppb	19:14:55
1	Ba 233.527†	61877.5	62195.2	275.28	µg/L	275.28	ppb	19:14:55
1	Be 313.107†	29630.5	30805.2	8.7873	µg/L	8.7873	ppb	19:14:55
1	Cd 226.502†	1424.7	1532.0	0.3348	µg/L	0.3348	ppb	19:15:15
1	Co 228.616†	1260.8	1474.7	14.813	µg/L	14.813	ppb	19:15:15
1	Cr 267.716†	15393.3	15203.2	134.53	µg/L	134.53	ppb	19:15:15
1	Cu 324.752†	16020.2	13028.9	68.238	µg/L	68.238	ppb	19:14:55
1	Mn 257.610†	1886790.9	1891886.8	2509.2	µg/L	2509.2	ppb	19:14:55
1	Mo 202.031†	399.9	439.6	18.306	µg/L	18.306	ppb	19:15:15
1	Ni 231.604†	6357.0	6470.7	80.957	µg/L	80.957	ppb	19:15:15
1	P 214.914†	2372.0	2404.4	499.10	µg/L	499.10	ppb	19:15:15
1	Pb 220.353†	2336.6	2239.7	140.30	µg/L	140.30	ppb	19:15:15
1	S 181.975 Axial†	326.6	238.6	200.86	µg/L	200.86	ppb	19:15:15
1	Sb 206.836†	80.2	-9.3	-4.2784	µg/L	-4.2784	ppb	19:15:15
1	Se 196.026†	-53.2	-59.5	9.31	µg/L	9.31	ppb	19:15:15
1	SiO2†	352775.3	352023.5	37278	µg/L	37278	ppb	19:14:55
1	Si 251.611†	1104055.9	1106378.8	17446	µg/L	17446	ppb	19:14:55
1	Sn 189.927†	49.1	47.4	10.417	µg/L	10.417	ppb	19:15:15
1	Ti 334.940†	2053987.3	2058912.9	2114.5	µg/L	2114.5	ppb	19:14:55
1	Tl 190.801†	-372.7	-259.4	-7.1266	µg/L	-7.1266	ppb	19:15:15
1	U 409.014†	-7284.6	-7141.6	-450.54	µg/L	-450.54	ppb	19:14:55
1	V 292.402†	18237.2	17865.0	80.952	µg/L	80.952	ppb	19:14:55
1	Zn 213.857†	90553.1	90303.5	530.22	µg/L	530.22	ppb	19:14:55
2	Sc RADIAL	137739.7	137739.7	98.3	%			19:14:47
2	Al 396.153Radial†	184294.0	187521.2	39479	µg/L	39479	ppb	19:14:45
2	Ca 317.933Radial†	147886.3	149841.4	10206	µg/L	10206	ppb	19:14:47
2	Fe 238.204 Radial†	1267728.8	1289270.2	96282	µg/L	96282	ppb	19:14:45
2	K 766.490 Radial†	12921.8	11648.8	4604.4	µg/L	4604.4	ppb	19:14:47
2	Mg 279.077 IEC†	13768.8	13831.6	6304.3	µg/L	6304.3	ppb	19:14:47
2	Na 589.592 Radial†	9340.3	8547.3	1320.8	µg/L	1320.8	ppb	19:14:47
2	Sr 421.552†	39966.4	40853.7	96.272	µg/L	96.272	ppb	19:14:47
2	Sc 361.383	1793533.4	1793533.4	99.411	%			19:15:18
2	Y 371.029	1355359.4	1355359.4	128.19	%			19:15:18
2	Ag 328.068†	4244.7	-295.3	-2.2172	µg/L	-2.2172	ppb	19:15:18
2	As 188.979†	49.4	68.2	45.959	µg/L	45.959	ppb	19:15:38
2	B 249.677†	5057.8	1022.6	15.835	µg/L	15.835	ppb	19:15:18
2	Ba 233.527†	61597.0	62106.2	274.88	µg/L	274.88	ppb	19:15:18
2	Be 313.107†	29598.4	30865.4	8.8064	µg/L	8.8064	ppb	19:15:18
2	Cd 226.502†	1434.7	1546.6	0.3667	µg/L	0.3667	ppb	19:15:38
2	Co 228.616†	1265.6	1483.4	14.896	µg/L	14.896	ppb	19:15:38
2	Cr 267.716†	15410.3	15268.3	135.11	µg/L	135.11	ppb	19:15:38
2	Cu 324.752†	16173.4	13233.1	69.188	µg/L	69.188	ppb	19:15:18
2	Mn 257.610†	1884635.5	1895609.6	2514.1	µg/L	2514.1	ppb	19:15:18
2	Mo 202.031†	380.4	421.2	17.731	µg/L	17.731	ppb	19:15:38
2	Ni 231.604†	6363.2	6496.7	81.282	µg/L	81.282	ppb	19:15:38
2	P 214.914†	2375.6	2415.3	501.30	µg/L	501.30	ppb	19:15:38
2	Pb 220.353†	2341.0	2251.4	141.02	µg/L	141.02	ppb	19:15:38

2	S 181.975 Axial†	325.5	238.5	200.76	µg/L	200.76	ppb	19:15:38
2	Sb 206.836†	84.5	-4.7	-3.7102	µg/L	-3.7102	ppb	19:15:38
2	Se 196.026†	-54.5	-61.0	8.95	µg/L	8.95	ppb	19:15:38
2	SiO2†	352452.0	352799.8	37360	µg/L	37360	ppb	19:15:18
2	Si 251.611†	1102310.2	1108069.9	17473	µg/L	17473	ppb	19:15:18
2	Sn 189.927†	55.9	54.4	10.913	µg/L	10.913	ppb	19:15:38
2	Ti 334.940†	2050161.1	2061477.0	2117.2	µg/L	2117.2	ppb	19:15:18
2	Tl 190.801†	-368.8	-256.7	-6.7115	µg/L	-6.7115	ppb	19:15:38
2	U 409.014†	-7170.9	-7050.0	-444.86	µg/L	-444.86	ppb	19:15:18
2	V 292.402†	18220.9	17905.6	81.094	µg/L	81.094	ppb	19:15:18
2	Zn 213.857†	90270.0	90301.5	530.14	µg/L	530.14	ppb	19:15:18
3	Sc RADIAL	138871.5	138871.5	99.1	%			19:14:51
3	Al 396.153Radial†	185320.3	187028.9	39376	µg/L	39376	ppb	19:14:49
3	Ca 317.933Radial†	148765.7	149502.7	10182	µg/L	10182	ppb	19:14:51
3	Fe 238.204 Radial†	1278229.0	1289354.6	96288	µg/L	96288	ppb	19:14:49
3	K 766.490 Radial†	12876.3	11495.7	4543.7	µg/L	4543.7	ppb	19:14:51
3	Mg 279.077 IEC†	13934.4	13884.5	6328.8	µg/L	6328.8	ppb	19:14:51
3	Na 589.592 Radial†	9329.1	8458.6	1307.1	µg/L	1307.1	ppb	19:14:51
3	Sr 421.552†	40003.3	40559.6	95.579	µg/L	95.579	ppb	19:14:51
3	Sc 361.383	1797236.8	1797236.8	99.617	%			19:15:41
3	Y 371.029	1359206.5	1359206.5	128.55	%			19:15:41
3	Ag 328.068†	4208.4	-340.6	-2.4137	µg/L	-2.4137	ppb	19:15:41
3	As 188.979†	39.7	58.4	42.659	µg/L	42.659	ppb	19:16:01
3	B 249.677†	5170.6	1125.4	17.434	µg/L	17.434	ppb	19:15:41
3	Ba 233.527†	61812.0	62194.4	275.27	µg/L	275.27	ppb	19:15:41
3	Be 313.107†	29307.7	30512.2	8.7018	µg/L	8.7018	ppb	19:15:41
3	Cd 226.502†	1448.7	1557.7	0.4410	µg/L	0.4410	ppb	19:16:01
3	Co 228.616†	1254.0	1469.1	14.707	µg/L	14.707	ppb	19:16:01
3	Cr 267.716†	15461.9	15288.2	135.29	µg/L	135.29	ppb	19:16:01
3	Cu 324.752†	15925.7	12950.9	68.003	µg/L	68.003	ppb	19:15:41
3	Mn 257.610†	1887436.3	1894514.7	2512.7	µg/L	2512.7	ppb	19:15:41
3	Mo 202.031†	385.6	425.6	17.875	µg/L	17.875	ppb	19:16:01
3	Ni 231.604†	6368.4	6488.8	81.183	µg/L	81.183	ppb	19:16:01
3	P 214.914†	2377.0	2411.8	500.47	µg/L	500.47	ppb	19:16:01
3	Pb 220.353†	2376.9	2282.6	142.94	µg/L	142.94	ppb	19:16:01
3	S 181.975 Axial†	321.7	234.0	197.01	µg/L	197.01	ppb	19:16:01
3	Sb 206.836†	82.2	-7.2	-4.0275	µg/L	-4.0275	ppb	19:16:01
3	Se 196.026†	-62.1	-68.5	5.99	µg/L	5.99	ppb	19:16:01
3	SiO2†	353235.0	352855.2	37366	µg/L	37366	ppb	19:15:41
3	Si 251.611†	1103369.2	1106848.1	17454	µg/L	17454	ppb	19:15:41
3	Sn 189.927†	57.4	55.8	11.006	µg/L	11.006	ppb	19:16:01
3	Ti 334.940†	2053749.6	2060829.7	2116.5	µg/L	2116.5	ppb	19:15:41
3	Tl 190.801†	-362.8	-249.9	-5.8023	µg/L	-5.8023	ppb	19:16:01
3	U 409.014†	-7306.0	-7170.8	-452.51	µg/L	-452.51	ppb	19:15:41
3	V 292.402†	18212.8	17859.7	80.853	µg/L	80.853	ppb	19:15:41
3	Zn 213.857†	90578.3	90423.8	530.87	µg/L	530.87	ppb	19:15:41

Mean Data: 1202072047|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1796629.2	99.583	%	0.1575				0.16%
Sc RADIAL	138431.5	98.8	%	0.43				0.44%
Y 371.029	1358064.2	128.45	%	0.222				0.17%
Ag 328.068†	-376.5	-2.5546	µg/L	0.42565	-2.5546	ppb	0.42565	16.66%
Al 396.153Radial†	186686.6	39304	µg/L	220.8	39304	ppb	220.8	0.56%
As 188.979†	64.2	44.568	µg/L	1.7101	44.568	ppb	1.7101	3.84%
B 249.677†	1096.1	16.978	µg/L	0.9966	16.978	ppb	0.9966	5.87%
Ba 233.527†	62165.3	275.15	µg/L	0.230	275.15	ppb	0.230	0.08%
Be 313.107†	30727.6	8.7652	µg/L	0.05569	8.7652	ppb	0.05569	0.64%
Ca 317.933Radial†	149672.0	10194	µg/L	11.5	10194	ppb	11.5	0.11%
Cd 226.502†	1545.4	0.3808	µg/L	0.05447	0.3808	ppb	0.05447	14.30%
Co 228.616†	1475.7	14.805	µg/L	0.0946	14.805	ppb	0.0946	0.64%
Cr 267.716†	15253.2	134.98	µg/L	0.397	134.98	ppb	0.397	0.29%
Cu 324.752†	13071.0	68.476	µg/L	0.6274	68.476	ppb	0.6274	0.92%
Fe 238.204 Radial†	1286476.6	96073	µg/L	366.8	96073	ppb	366.8	0.38%
K 766.490 Radial†	11533.0	4558.5	µg/L	40.52	4558.5	ppb	40.52	0.89%
Mg 279.077 IEC†	13875.8	6324.9	µg/L	18.93	6324.9	ppb	18.93	0.30%
Mn 257.610†	1894003.7	2512.0	µg/L	2.54	2512.0	ppb	2.54	0.10%
Mo 202.031†	428.8	17.971	µg/L	0.2991	17.971	ppb	0.2991	1.66%
Na 589.592 Radial†	8501.2	1313.7	µg/L	6.86	1313.7	ppb	6.86	0.52%

Ni 231.604†	6485.4	81.141	µg/L	0.1667	81.141	ppb	0.1667	0.21%
P 214.914†	2410.5	500.29	µg/L	1.111	500.29	ppb	1.111	0.22%
Pb 220.353†	2257.9	141.42	µg/L	1.366	141.42	ppb	1.366	0.97%
S 181.975 Axial†	237.1	199.54	µg/L	2.199	199.54	ppb	2.199	1.10%
Sb 206.836†	-7.1	-4.0054	µg/L	0.28474	-4.0054	ppb	0.28474	7.11%
Se 196.026†	-63.0	8.08	µg/L	1.823	8.08	ppb	1.823	22.55%
SiO2†	352559.5	37335	µg/L	49.2	37335	ppb	49.2	0.13%
Si 251.611†	1107099.0	17457	µg/L	13.8	17457	ppb	13.8	0.08%
Sn 189.927†	52.5	10.779	µg/L	0.3165	10.779	ppb	0.3165	2.94%
Sr 421.552†	40696.7	95.902	µg/L	0.3491	95.902	ppb	0.3491	0.36%
Ti 334.940†	2060406.5	2116.1	µg/L	1.37	2116.1	ppb	1.37	0.06%
Tl 190.801†	-255.3	-6.5468	µg/L	0.67736	-6.5468	ppb	0.67736	10.35%
U 409.014†	-7120.8	-449.30	µg/L	3.971	-449.30	ppb	3.971	0.88%
Concentration less than lower limit for U 409.014.								
V 292.402†	17876.8	80.966	µg/L	0.1210	80.966	ppb	0.1210	0.15%
Zn 213.857†	90342.9	530.41	µg/L	0.402	530.41	ppb	0.402	0.08%

Sequence No.: 98
Sample ID: 1202072048|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 414
Date Collected: 4/5/2010 19:16:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072048|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139403.3	139403.3	99.5	%			19:16:42
1	Al 396.153Radial†	268887.2	270296.0	56884	µg/L	56884	ppb	19:16:40
1	Ca 317.933Radial†	188784.5	189147.0	12883	µg/L	12883	ppb	19:16:42
1	Fe 238.204 Radial†	1109916.0	1115289.7	83289	µg/L	83289	ppb	19:16:40
1	K 766.490 Radial†	28023.5	26668.4	10550	µg/L	10550	ppb	19:16:42
1	Mg 279.077 IEC†	26716.0	26675.7	12258	µg/L	12258	ppb	19:16:42
1	Na 589.592 Radial†	39660.0	38903.7	6021.0	µg/L	6021.0	ppb	19:16:42
1	Sr 421.552†	241351.1	242749.6	572.42	µg/L	572.42	ppb	19:16:40
1	Sc 361.383	1779391.2	1779391.2	98.628	%			19:16:55
1	Y 371.029	1309382.3	1309382.3	123.84	%			19:16:55
1	Ag 328.068†	126906.1	124106.9	513.69	µg/L	513.69	ppb	19:16:55
1	As 188.979†	1418.2	1456.5	518.50	µg/L	518.50	ppb	19:16:57
1	B 249.677†	37345.8	33800.3	523.86	µg/L	523.86	ppb	19:16:55
1	Ba 233.527†	163652.8	166074.7	737.64	µg/L	737.64	ppb	19:16:55
1	Be 313.107†	1732143.9	1757339.7	509.10	µg/L	509.10	ppb	19:16:55
1	Cd 226.502†	75824.1	76982.6	511.79	µg/L	511.79	ppb	19:16:55
1	Co 228.616†	38317.5	39061.1	513.19	µg/L	513.19	ppb	19:16:57
1	Cr 267.716†	69739.4	70476.7	612.06	µg/L	612.06	ppb	19:16:57
1	Cu 324.752†	137782.6	136663.9	584.51	µg/L	584.51	ppb	19:16:55
1	Mn 257.610†	1651250.2	1674043.9	2220.0	µg/L	2220.0	ppb	19:16:55
1	Mo 202.031†	15202.3	15452.4	509.07	µg/L	509.07	ppb	19:16:57
1	Ni 231.604†	44461.8	45176.5	565.21	µg/L	565.21	ppb	19:16:57
1	P 214.914†	3600.2	3676.0	799.07	µg/L	799.07	ppb	19:16:57
1	Pb 220.353†	9798.5	9831.4	610.11	µg/L	610.11	ppb	19:16:57
1	S 181.975 Axial†	6355.3	6354.8	5350.3	µg/L	5350.3	ppb	19:16:57
1	Sb 206.836†	3585.3	3545.5	455.53	µg/L	455.53	ppb	19:16:57
1	Se 196.026†	1231.5	1242.4	519	µg/L	519	ppb	19:16:57
1	SiO2†	411048.6	415029.5	43929	µg/L	43929	ppb	19:16:55
1	Si 251.611†	1286405.8	1303540.1	20545	µg/L	20545	ppb	19:16:55
1	Sn 189.927†	6960.6	7055.5	497.78	µg/L	497.78	ppb	19:16:57
1	Ti 334.940†	2388374.8	2420787.8	2485.4	µg/L	2485.4	ppb	19:16:55
1	Tl 190.801†	3250.8	3410.3	498.10	µg/L	498.10	ppb	19:16:57
1	U 409.014†	2158.6	2352.0	177.05	µg/L	177.05	ppb	19:16:55
1	V 292.402†	110600.5	111716.4	575.88	µg/L	575.88	ppb	19:16:55
1	Zn 213.857†	154818.6	156470.0	923.54	µg/L	923.54	ppb	19:16:55
2	Sc RADIAL	136830.7	136830.7	97.7	%			19:16:46
2	Al 396.153Radial†	267532.7	273989.7	57661	µg/L	57661	ppb	19:16:44
2	Ca 317.933Radial†	184796.7	188631.1	12847	µg/L	12847	ppb	19:16:46
2	Fe 238.204 Radial†	1104345.9	1130558.0	84429	µg/L	84429	ppb	19:16:44
2	K 766.490 Radial†	27388.0	26547.2	10502	µg/L	10502	ppb	19:16:46
2	Mg 279.077 IEC†	26244.7	26698.0	12267	µg/L	12267	ppb	19:16:46
2	Na 589.592 Radial†	38866.2	38840.4	6011.2	µg/L	6011.2	ppb	19:16:46
2	Sr 421.552†	240325.8	246260.0	580.70	µg/L	580.70	ppb	19:16:44
2	Sc 361.383	1768684.8	1768684.8	98.034	%			19:16:59
2	Y 371.029	1302333.2	1302333.2	123.18	%			19:16:59
2	Ag 328.068†	126329.4	124297.5	514.48	µg/L	514.48	ppb	19:16:59
2	As 188.979†	1380.6	1426.9	508.69	µg/L	508.69	ppb	19:17:01
2	B 249.677†	37055.3	33733.2	522.83	µg/L	522.83	ppb	19:16:59
2	Ba 233.527†	162391.5	165792.5	736.37	µg/L	736.37	ppb	19:16:59
2	Be 313.107†	1718479.1	1754031.9	508.15	µg/L	508.15	ppb	19:16:59
2	Cd 226.502†	75213.0	76824.6	510.60	µg/L	510.60	ppb	19:16:59
2	Co 228.616†	37791.5	38759.6	509.14	µg/L	509.14	ppb	19:17:01
2	Cr 267.716†	68788.0	69934.2	607.40	µg/L	607.40	ppb	19:17:01
2	Cu 324.752†	136946.8	136656.9	584.65	µg/L	584.65	ppb	19:16:59
2	Mn 257.610†	1638280.8	1670949.0	2215.9	µg/L	2215.9	ppb	19:16:59
2	Mo 202.031†	14988.7	15327.8	505.04	µg/L	505.04	ppb	19:17:01
2	Ni 231.604†	43930.3	44907.2	561.84	µg/L	561.84	ppb	19:17:01
2	P 214.914†	3772.4	3873.8	844.27	µg/L	844.27	ppb	19:17:01
2	Pb 220.353†	9741.4	9833.3	610.22	µg/L	610.22	ppb	19:17:01

2	S 181.975 Axial†	6242.2	6278.4	5286.0	µg/L	5286.0 ppb	19:17:01
2	Sb 206.836†	3557.8	3539.4	454.75	µg/L	454.75 ppb	19:17:01
2	Se 196.026†	1188.5	1206.1	505	µg/L	505 ppb	19:17:01
2	SiO2†	407971.8	414413.9	43864	µg/L	43864 ppb	19:16:59
2	Si 251.611†	1275255.5	1300061.5	20491	µg/L	20491 ppb	19:16:59
2	Sn 189.927†	6933.5	7070.7	498.82	µg/L	498.82 ppb	19:17:01
2	Ti 334.940†	2372009.8	2418753.4	2483.3	µg/L	2483.3 ppb	19:16:59
2	Tl 190.801†	3180.6	3358.7	491.04	µg/L	491.04 ppb	19:17:01
2	U 409.014†	2249.5	2457.9	183.50	µg/L	183.50 ppb	19:16:59
2	V 292.402†	110103.8	111888.5	576.59	µg/L	576.59 ppb	19:16:59
2	Zn 213.857†	153046.5	155612.6	918.33	µg/L	918.33 ppb	19:16:59
3	Sc RADIAL	138711.4	138711.4	99.0	%		19:16:50
3	Al 396.153Radial†	265074.6	267793.3	56357	µg/L	56357 ppb	19:16:48
3	Ca 317.933Radial†	187352.2	188646.8	12849	µg/L	12849 ppb	19:16:50
3	Fe 238.204 Radial†	1087288.1	1098000.0	81998	µg/L	81998 ppb	19:16:48
3	K 766.490 Radial†	27613.3	26394.5	10442	µg/L	10442 ppb	19:16:50
3	Mg 279.077 IEC†	26525.5	26617.2	12232	µg/L	12232 ppb	19:16:50
3	Na 589.592 Radial†	39511.3	38952.3	6028.6	µg/L	6028.6 ppb	19:16:50
3	Sr 421.552†	237919.9	240494.0	567.10	µg/L	567.10 ppb	19:16:48
3	Sc 361.383	1780015.4	1780015.4	98.662	%		19:17:04
3	Y 371.029	1310600.3	1310600.3	123.96	%		19:17:04
3	Ag 328.068†	127104.8	124263.2	514.35	µg/L	514.35 ppb	19:17:04
3	As 188.979†	1400.0	1437.6	511.81	µg/L	511.81 ppb	19:17:06
3	B 249.677†	37380.4	33822.2	524.21	µg/L	524.21 ppb	19:17:04
3	Ba 233.527†	163559.2	165921.6	736.97	µg/L	736.97 ppb	19:17:04
3	Be 313.107†	1732217.8	1756798.7	508.95	µg/L	508.95 ppb	19:17:04
3	Cd 226.502†	75971.5	77105.1	512.76	µg/L	512.76 ppb	19:17:04
3	Co 228.616†	38205.5	38933.9	511.57	µg/L	511.57 ppb	19:17:06
3	Cr 267.716†	69784.7	70497.8	612.20	µg/L	612.20 ppb	19:17:06
3	Cu 324.752†	137766.7	136598.7	584.05	µg/L	584.05 ppb	19:17:04
3	Mn 257.610†	1650744.0	1672943.7	2218.5	µg/L	2218.5 ppb	19:17:04
3	Mo 202.031†	15179.7	15424.1	508.09	µg/L	508.09 ppb	19:17:06
3	Ni 231.604†	44394.1	45092.0	564.16	µg/L	564.16 ppb	19:17:06
3	P 214.914†	3795.5	3872.6	845.32	µg/L	845.32 ppb	19:17:06
3	Pb 220.353†	9786.8	9816.1	609.17	µg/L	609.17 ppb	19:17:06
3	S 181.975 Axial†	6336.0	6333.0	5331.9	µg/L	5331.9 ppb	19:17:06
3	Sb 206.836†	3613.6	3572.8	459.06	µg/L	459.06 ppb	19:17:06
3	Se 196.026†	1169.2	1178.9	493	µg/L	493 ppb	19:17:06
3	SiO2†	410551.9	414380.0	43861	µg/L	43861 ppb	19:17:04
3	Si 251.611†	1284512.3	1301163.5	20508	µg/L	20508 ppb	19:17:04
3	Sn 189.927†	6963.1	7055.6	497.78	µg/L	497.78 ppb	19:17:06
3	Ti 334.940†	2387763.0	2419318.5	2483.9	µg/L	2483.9 ppb	19:17:04
3	Tl 190.801†	3229.8	3387.9	495.03	µg/L	495.03 ppb	19:17:06
3	U 409.014†	2151.8	2344.3	176.88	µg/L	176.88 ppb	19:17:04
3	V 292.402†	110747.2	111825.7	576.57	µg/L	576.57 ppb	19:17:04
3	Zn 213.857†	154728.7	156323.9	922.80	µg/L	922.80 ppb	19:17:04

Mean Data: 1202072048|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1776030.5	98.441	%	0.3530				0.36%
Sc RADIAL	138315.1	98.7	%	0.95				0.96%
Y 371.029	1307438.6	123.66	%	0.422				0.34%
Ag 328.068†	124222.5	514.17	µg/L	0.424	514.17	ppb	0.424	0.08%
Al 396.153Radial†	270693.0	56967	µg/L	656.4	56967	ppb	656.4	1.15%
As 188.979†	1440.3	513.00	µg/L	5.009	513.00	ppb	5.009	0.98%
B 249.677†	33785.2	523.63	µg/L	0.716	523.63	ppb	0.716	0.14%
Ba 233.527†	165929.6	736.99	µg/L	0.635	736.99	ppb	0.635	0.09%
Be 313.107†	1756056.8	508.73	µg/L	0.513	508.73	ppb	0.513	0.10%
Ca 317.933Radial†	188808.3	12860	µg/L	20.0	12860	ppb	20.0	0.16%
Cd 226.502†	76970.8	511.72	µg/L	1.078	511.72	ppb	1.078	0.21%
Co 228.616†	38918.2	511.30	µg/L	2.038	511.30	ppb	2.038	0.40%
Cr 267.716†	70302.9	610.55	µg/L	2.730	610.55	ppb	2.730	0.45%
Cu 324.752†	136639.8	584.40	µg/L	0.316	584.40	ppb	0.316	0.05%
Fe 238.204 Radial†	1114615.9	83239	µg/L	1216.5	83239	ppb	1216.5	1.46%
K 766.490 Radial†	26536.7	10498	µg/L	54.3	10498	ppb	54.3	0.52%
Mg 279.077 IEC†	26663.7	12253	µg/L	18.2	12253	ppb	18.2	0.15%
Mn 257.610†	1672645.5	2218.1	µg/L	2.08	2218.1	ppb	2.08	0.09%
Mo 202.031†	15401.5	507.40	µg/L	2.102	507.40	ppb	2.102	0.41%
Na 589.592 Radial†	38898.8	6020.3	µg/L	8.73	6020.3	ppb	8.73	0.14%

Ni 231.604†	45058.5	563.74	µg/L	1.723	563.74	ppb	1.723	0.31%
P 214.914†	3807.5	829.56	µg/L	26.402	829.56	ppb	26.402	3.18%
Pb 220.353†	9826.9	609.83	µg/L	0.576	609.83	ppb	0.576	0.09%
S 181.975 Axial†	6322.1	5322.8	µg/L	33.13	5322.8	ppb	33.13	0.62%
Sb 206.836†	3552.6	456.45	µg/L	2.299	456.45	ppb	2.299	0.50%
Se 196.026†	1209.1	505	µg/L	12.8	505	ppb	12.8	2.53%
SiO2†	414607.8	43885	µg/L	38.7	43885	ppb	38.7	0.09%
Si 251.611†	1301588.4	20515	µg/L	28.0	20515	ppb	28.0	0.14%
Sn 189.927†	7060.6	498.13	µg/L	0.602	498.13	ppb	0.602	0.12%
Sr 421.552†	243167.9	573.40	µg/L	6.853	573.40	ppb	6.853	1.20%
Ti 334.940†	2419619.9	2484.2	µg/L	1.08	2484.2	ppb	1.08	0.04%
Tl 190.801†	3385.6	494.72	µg/L	3.537	494.72	ppb	3.537	0.72%
U 409.014†	2384.8	179.14	µg/L	3.775	179.14	ppb	3.775	2.11%
V 292.402†	111810.2	576.35	µg/L	0.408	576.35	ppb	0.408	0.07%
Zn 213.857†	156135.5	921.56	µg/L	2.817	921.56	ppb	2.817	0.31%

Sequence No.: 99
Sample ID: 1202072050|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 415
Date Collected: 4/5/2010 19:17:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072050|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140025.0	140025.0	100.0	%			19:17:47
1	Al 396.153Radial†	312893.5	313123.9	65901	µg/L	65901	ppb	19:17:45
1	Ca 317.933Radial†	213191.8	212723.7	14488	µg/L	14488	ppb	19:17:47
1	Fe 238.204 Radial†	1264774.5	1265270.8	94490	µg/L	94490	ppb	19:17:45
1	K 766.490 Radial†	30445.6	28966.6	11458	µg/L	11458	ppb	19:17:47
1	Mg 279.077 IEC†	29793.2	29635.2	13615	µg/L	13615	ppb	19:17:47
1	Na 589.592 Radial†	41044.2	40111.6	6207.4	µg/L	6207.4	ppb	19:17:47
1	Sr 421.552†	247266.6	247591.1	583.82	µg/L	583.82	ppb	19:17:45
1	Sc 361.383	1797379.8	1797379.8	99.625	%			19:18:14
1	Y 371.029	1376383.8	1376383.8	130.18	%			19:18:14
1	Ag 328.068†	128093.0	124010.5	513.27	µg/L	513.27	ppb	19:18:14
1	As 188.979†	1404.1	1427.9	511.17	µg/L	511.17	ppb	19:18:16
1	B 249.677†	37745.2	33822.3	524.24	µg/L	524.24	ppb	19:18:14
1	Ba 233.527†	170647.8	171435.4	761.33	µg/L	761.33	ppb	19:18:14
1	Be 313.107†	1750687.9	1758376.7	509.38	µg/L	509.38	ppb	19:18:14
1	Cd 226.502†	76419.4	76810.8	509.45	µg/L	509.45	ppb	19:18:14
1	Co 228.616†	37964.4	38317.8	502.79	µg/L	502.79	ppb	19:18:16
1	Cr 267.716†	68440.8	68465.5	595.04	µg/L	595.04	ppb	19:18:16
1	Cu 324.752†	141018.3	138513.6	593.86	µg/L	593.86	ppb	19:18:14
1	Mn 257.610†	1793382.2	1799955.5	2386.9	µg/L	2386.9	ppb	19:18:14
1	Mo 202.031†	15165.2	15260.9	503.28	µg/L	503.28	ppb	19:18:16
1	Ni 231.604†	44021.5	44283.3	554.04	µg/L	554.04	ppb	19:18:16
1	P 214.914†	3991.0	4031.7	875.66	µg/L	875.66	ppb	19:18:16
1	Pb 220.353†	9782.1	9715.5	603.53	µg/L	603.53	ppb	19:18:16
1	S 181.975 Axial†	6366.3	6301.4	5305.3	µg/L	5305.3	ppb	19:18:16
1	Sb 206.836†	3540.6	3464.2	445.03	µg/L	445.03	ppb	19:18:16
1	Se 196.026†	1215.2	1213.6	511	µg/L	511	ppb	19:18:16
1	SiO2†	460063.7	460058.3	48698	µg/L	48698	ppb	19:18:14
1	Si 251.611†	1438494.7	1443148.3	22747	µg/L	22747	ppb	19:18:14
1	Sn 189.927†	6921.4	6945.6	491.00	µg/L	491.00	ppb	19:18:16
1	Ti 334.940†	2653483.5	2662659.6	2733.8	µg/L	2733.8	ppb	19:18:14
1	Tl 190.801†	3261.4	3387.9	498.15	µg/L	498.15	ppb	19:18:16
1	U 409.014†	1238.8	1406.8	117.02	µg/L	117.02	ppb	19:18:14
1	V 292.402†	115023.9	115034.1	591.48	µg/L	591.48	ppb	19:18:14
1	Zn 213.857†	166717.8	166843.0	984.64	µg/L	984.64	ppb	19:18:14
2	Sc RADIAL	137852.2	137852.2	98.4	%			19:17:51
2	Al 396.153Radial†	314714.5	319908.6	67329	µg/L	67329	ppb	19:17:49
2	Ca 317.933Radial†	209635.7	212471.8	14471	µg/L	14471	ppb	19:17:51
2	Fe 238.204 Radial†	1268126.2	1288622.0	96233	µg/L	96233	ppb	19:17:49
2	K 766.490 Radial†	29767.8	28757.9	11375	µg/L	11375	ppb	19:17:51
2	Mg 279.077 IEC†	29070.9	29370.9	13492	µg/L	13492	ppb	19:17:51
2	Na 589.592 Radial†	40588.5	40295.7	6236.0	µg/L	6236.0	ppb	19:17:51
2	Sr 421.552†	248195.6	252434.5	595.24	µg/L	595.24	ppb	19:17:49
2	Sc 361.383	1772329.1	1772329.1	98.236	%			19:18:18
2	Y 371.029	1359201.3	1359201.3	128.55	%			19:18:18
2	Ag 328.068†	126682.6	124392.1	514.79	µg/L	514.79	ppb	19:18:18
2	As 188.979†	1386.4	1429.9	512.38	µg/L	512.38	ppb	19:18:21
2	B 249.677†	37319.2	33924.2	525.78	µg/L	525.78	ppb	19:18:18
2	Ba 233.527†	168075.7	171238.2	760.43	µg/L	760.43	ppb	19:18:18
2	Be 313.107†	1722268.4	1754284.9	508.19	µg/L	508.19	ppb	19:18:18
2	Cd 226.502†	75131.6	76584.0	507.74	µg/L	507.74	ppb	19:18:18
2	Co 228.616†	38287.0	39184.7	514.17	µg/L	514.17	ppb	19:18:21
2	Cr 267.716†	69041.6	70048.1	608.81	µg/L	608.81	ppb	19:18:21
2	Cu 324.752†	139046.3	138506.9	594.07	µg/L	594.07	ppb	19:18:18
2	Mn 257.610†	1769184.1	1800766.5	2388.0	µg/L	2388.0	ppb	19:18:18
2	Mo 202.031†	15272.6	15585.4	513.96	µg/L	513.96	ppb	19:18:21
2	Ni 231.604†	44516.4	45411.7	568.16	µg/L	568.16	ppb	19:18:21
2	P 214.914†	4098.0	4197.3	913.08	µg/L	913.08	ppb	19:18:21
2	Pb 220.353†	9807.9	9880.5	613.76	µg/L	613.76	ppb	19:18:21

2	S 181.975 Axial†	6381.8	6407.5	5394.7	µg/L	5394.7 ppb	19:18:21
2	Sb 206.836†	3625.4	3600.8	462.58	µg/L	462.58 ppb	19:18:21
2	Se 196.026†	1234.4	1250.4	526	µg/L	526 ppb	19:18:21
2	SiO2†	453328.4	459729.2	48663	µg/L	48663 ppb	19:18:18
2	Si 251.611†	1417909.5	1442602.2	22738	µg/L	22738 ppb	19:18:18
2	Sn 189.927†	7005.5	7129.4	503.75	µg/L	503.75 ppb	19:18:21
2	Ti 334.940†	2618727.9	2664926.3	2736.1	µg/L	2736.1 ppb	19:18:18
2	Tl 190.801†	3268.8	3441.8	505.46	µg/L	505.46 ppb	19:18:21
2	U 409.014†	921.9	1101.8	97.330	µg/L	97.330 ppb	19:18:18
2	V 292.402†	113301.0	114912.2	590.82	µg/L	590.82 ppb	19:18:18
2	Zn 213.857†	164583.2	167035.5	985.54	µg/L	985.54 ppb	19:18:18
3	Sc RADIAL	140727.4	140727.4	100	%		19:17:55
3	Al 396.153Radial†	317241.6	315889.9	66483	µg/L	66483 ppb	19:17:53
3	Ca 317.933Radial†	213153.4	211621.0	14413	µg/L	14413 ppb	19:17:55
3	Fe 238.204 Radial†	1274411.4	1268548.5	94734	µg/L	94734 ppb	19:17:53
3	K 766.490 Radial†	30361.6	28730.9	11365	µg/L	11365 ppb	19:17:55
3	Mg 279.077 IEC†	29592.6	29286.7	13454	µg/L	13454 ppb	19:17:55
3	Na 589.592 Radial†	41233.1	40094.7	6204.9	µg/L	6204.9 ppb	19:17:55
3	Sr 421.552†	249602.7	248681.9	586.39	µg/L	586.39 ppb	19:17:53
3	Sc 361.383	1795629.0	1795629.0	99.528	%		19:18:23
3	Y 371.029	1375316.2	1375316.2	130.08	%		19:18:23
3	Ag 328.068†	128609.0	124654.3	515.87	µg/L	515.87 ppb	19:18:23
3	As 188.979†	1390.2	1415.3	507.01	µg/L	507.01 ppb	19:18:25
3	B 249.677†	37904.1	34018.9	527.27	µg/L	527.27 ppb	19:18:23
3	Ba 233.527†	170890.8	171846.5	763.15	µg/L	763.15 ppb	19:18:23
3	Be 313.107†	1751959.9	1761368.2	510.24	µg/L	510.24 ppb	19:18:23
3	Cd 226.502†	76738.1	77205.7	512.09	µg/L	512.09 ppb	19:18:23
3	Co 228.616†	38383.5	38776.0	508.84	µg/L	508.84 ppb	19:18:25
3	Cr 267.716†	68724.0	68817.0	598.11	µg/L	598.11 ppb	19:18:25
3	Cu 324.752†	141179.7	138813.8	595.13	µg/L	595.13 ppb	19:18:23
3	Mn 257.610†	1797813.9	1806163.4	2395.2	µg/L	2395.2 ppb	19:18:23
3	Mo 202.031†	15299.0	15410.2	508.17	µg/L	508.17 ppb	19:18:25
3	Ni 231.604†	44404.3	44711.0	559.39	µg/L	559.39 ppb	19:18:25
3	P 214.914†	4068.9	4113.9	894.63	µg/L	894.63 ppb	19:18:25
3	Pb 220.353†	9940.5	9884.2	613.98	µg/L	613.98 ppb	19:18:25
3	S 181.975 Axial†	6329.0	6270.1	5279.1	µg/L	5279.1 ppb	19:18:25
3	Sb 206.836†	3509.7	3436.7	441.51	µg/L	441.51 ppb	19:18:25
3	Se 196.026†	1174.8	1174.2	496	µg/L	496 ppb	19:18:25
3	SiO2†	460740.7	461188.7	48817	µg/L	48817 ppb	19:18:23
3	Si 251.611†	1440842.0	1446914.6	22806	µg/L	22806 ppb	19:18:23
3	Sn 189.927†	7025.2	7056.7	498.72	µg/L	498.72 ppb	19:18:25
3	Ti 334.940†	2656393.4	2668180.3	2739.5	µg/L	2739.5 ppb	19:18:23
3	Tl 190.801†	3222.5	3352.1	493.30	µg/L	493.30 ppb	19:18:25
3	U 409.014†	830.4	997.7	91.192	µg/L	91.192 ppb	19:18:23
3	V 292.402†	114912.7	115035.0	591.50	µg/L	591.50 ppb	19:18:23
3	Zn 213.857†	166954.2	167243.8	986.99	µg/L	986.99 ppb	19:18:23

Mean Data: 1202072050|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1788446.0	99.129	%	0.7752				0.78%
Sc RADIAL	139534.9	99.6	%	1.07				1.07%
Y 371.029	1370300.4	129.60	%	0.911				0.70%
Ag 328.068†	124352.3	514.64	µg/L	1.307	514.64	ppb	1.307	0.25%
Al 396.153Radial†	316307.5	66571	µg/L	718.0	66571	ppb	718.0	1.08%
As 188.979†	1424.4	510.19	µg/L	2.819	510.19	ppb	2.819	0.55%
B 249.677†	33921.8	525.76	µg/L	1.518	525.76	ppb	1.518	0.29%
Ba 233.527†	171506.7	761.64	µg/L	1.387	761.64	ppb	1.387	0.18%
Be 313.107†	1758009.9	509.27	µg/L	1.029	509.27	ppb	1.029	0.20%
Ca 317.933Radial†	212272.2	14458	µg/L	39.4	14458	ppb	39.4	0.27%
Cd 226.502†	76866.8	509.76	µg/L	2.194	509.76	ppb	2.194	0.43%
Co 228.616†	38759.5	508.60	µg/L	5.693	508.60	ppb	5.693	1.12%
Cr 267.716†	69110.2	600.66	µg/L	7.228	600.66	ppb	7.228	1.20%
Cu 324.752†	138611.4	594.35	µg/L	0.680	594.35	ppb	0.680	0.11%
Fe 238.204 Radial†	1274147.1	95152	µg/L	944.1	95152	ppb	944.1	0.99%
K 766.490 Radial†	28818.5	11400	µg/L	51.2	11400	ppb	51.2	0.45%
Mg 279.077 IEC†	29431.0	13520	µg/L	84.2	13520	ppb	84.2	0.62%
Mn 257.610†	1802295.1	2390.0	µg/L	4.48	2390.0	ppb	4.48	0.19%
Mo 202.031†	15418.9	508.47	µg/L	5.345	508.47	ppb	5.345	1.05%
Na 589.592 Radial†	40167.3	6216.1	µg/L	17.30	6216.1	ppb	17.30	0.28%

Ni 231.604†	44802.0	560.53	µg/L	7.127	560.53	ppb	7.127	1.27%
P 214.914†	4114.3	894.46	µg/L	18.712	894.46	ppb	18.712	2.09%
Pb 220.353†	9826.8	610.42	µg/L	5.970	610.42	ppb	5.970	0.98%
S 181.975 Axial†	6326.3	5326.4	µg/L	60.61	5326.4	ppb	60.61	1.14%
Sb 206.836†	3500.6	449.71	µg/L	11.287	449.71	ppb	11.287	2.51%
Se 196.026†	1212.7	511	µg/L	15.3	511	ppb	15.3	2.99%
SiO2†	460325.4	48726	µg/L	81.1	48726	ppb	81.1	0.17%
Si 251.611†	1444221.7	22764	µg/L	37.0	22764	ppb	37.0	0.16%
Sn 189.927†	7043.9	497.82	µg/L	6.423	497.82	ppb	6.423	1.29%
Sr 421.552†	249569.2	588.49	µg/L	5.992	588.49	ppb	5.992	1.02%
Ti 334.940†	2665255.4	2736.5	µg/L	2.86	2736.5	ppb	2.86	0.10%
Tl 190.801†	3393.9	498.97	µg/L	6.120	498.97	ppb	6.120	1.23%
U 409.014†	1168.8	101.85	µg/L	13.492	101.85	ppb	13.492	13.25%
V 292.402†	114993.8	591.27	µg/L	0.388	591.27	ppb	0.388	0.07%
Zn 213.857†	167040.8	985.72	µg/L	1.183	985.72	ppb	1.183	0.12%

Sequence No.: 100
Sample ID: 1202072049|965624|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 416
Date Collected: 4/5/2010 19:18:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202072049|965624|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138680.9	138680.9	99.0	%			19:19:02
1	Al 396.153Radial†	29596.8	29976.7	6311.1	µg/L	6311.1	ppb	19:19:02
1	Ca 317.933Radial†	24963.8	24646.6	1678.7	µg/L	1678.7	ppb	19:19:04
1	Fe 238.204 Radial†	198706.5	200612.5	14982	µg/L	14982	ppb	19:19:02
1	K 766.490 Radial†	3571.6	2114.2	835.90	µg/L	835.90	ppb	19:19:02
1	Mg 279.077 IEC†	2396.5	2248.4	1025.4	µg/L	1025.4	ppb	19:19:04
1	Na 589.592 Radial†	2284.9	1355.7	209.39	µg/L	209.39	ppb	19:19:04
1	Sr 421.552†	6660.4	6932.7	16.338	µg/L	16.338	ppb	19:19:04
1	Sc 361.383	1791457.3	1791457.3	99.296	%			19:19:31
1	Y 371.029	1098555.6	1098555.6	103.90	%			19:19:31
1	Ag 328.068†	3942.8	-594.4	-2.5884	µg/L	-2.5884	ppb	19:19:33
1	As 188.979†	-1.6	16.9	9.2703	µg/L	9.2703	ppb	19:19:53
1	B 249.677†	4369.0	334.8	5.1967	µg/L	5.1967	ppb	19:19:33
1	Ba 233.527†	9947.1	10162.1	44.987	µg/L	44.987	ppb	19:19:33
1	Be 313.107†	4332.7	5455.2	1.5589	µg/L	1.5589	ppb	19:19:33
1	Cd 226.502†	188.4	293.1	0.4111	µg/L	0.4111	ppb	19:19:53
1	Co 228.616†	24.5	235.0	2.3744	µg/L	2.3744	ppb	19:19:53
1	Cr 267.716†	2373.5	2157.1	19.135	µg/L	19.135	ppb	19:19:53
1	Cu 324.752†	4810.0	1808.0	9.7156	µg/L	9.7156	ppb	19:19:33
1	Mn 257.610†	287142.9	288993.1	383.28	µg/L	383.28	ppb	19:19:33
1	Mo 202.031†	39.2	78.1	3.1706	µg/L	3.1706	ppb	19:19:53
1	Ni 231.604†	847.2	949.1	11.874	µg/L	11.874	ppb	19:19:53
1	P 214.914†	353.2	381.4	79.344	µg/L	79.344	ppb	19:19:53
1	Pb 220.353†	454.3	354.1	22.171	µg/L	22.171	ppb	19:19:53
1	S 181.975 Axial†	130.4	42.4	35.679	µg/L	35.679	ppb	19:19:53
1	Sb 206.836†	92.0	3.0	-0.0652	µg/L	-0.0652	ppb	19:19:53
1	Se 196.026†	12.5	6.4	7.65	µg/L	7.65	ppb	19:19:53
1	SiO2†	50918.6	49540.3	5246.1	µg/L	5246.1	ppb	19:19:33
1	Si 251.611†	155054.9	155386.7	2450.2	µg/L	2450.2	ppb	19:19:33
1	Sn 189.927†	23.7	22.0	2.5940	µg/L	2.5940	ppb	19:19:53
1	Ti 334.940†	307967.1	309326.6	317.68	µg/L	317.68	ppb	19:19:33
1	Tl 190.801†	-151.9	-38.7	-1.0096	µg/L	-1.0096	ppb	19:19:53
1	U 409.014†	-1274.5	-1120.2	-70.711	µg/L	-70.711	ppb	19:19:33
1	V 292.402†	3243.9	2843.7	12.922	µg/L	12.922	ppb	19:19:33
1	Zn 213.857†	15297.7	14903.1	87.581	µg/L	87.581	ppb	19:19:33
2	Sc RADIAL	138063.9	138063.9	98.6	%			19:19:07
2	Al 396.153Radial†	29621.6	30135.5	6344.5	µg/L	6344.5	ppb	19:19:07
2	Ca 317.933Radial†	24919.9	24714.7	1683.3	µg/L	1683.3	ppb	19:19:09
2	Fe 238.204 Radial†	197644.8	200432.1	14968	µg/L	14968	ppb	19:19:07
2	K 766.490 Radial†	3542.9	2101.2	830.74	µg/L	830.74	ppb	19:19:07
2	Mg 279.077 IEC†	2379.0	2241.5	1022.2	µg/L	1022.2	ppb	19:19:09
2	Na 589.592 Radial†	2352.3	1434.3	221.59	µg/L	221.59	ppb	19:19:09
2	Sr 421.552†	6594.6	6896.0	16.251	µg/L	16.251	ppb	19:19:09
2	Sc 361.383	1762064.7	1762064.7	97.667	%			19:19:55
2	Y 371.029	1080785.7	1080785.7	102.22	%			19:19:55
2	Ag 328.068†	4243.4	-220.4	-1.0665	µg/L	-1.0665	ppb	19:19:57
2	As 188.979†	3.4	22.0	10.992	µg/L	10.992	ppb	19:20:17
2	B 249.677†	4350.2	389.0	6.0372	µg/L	6.0372	ppb	19:19:57
2	Ba 233.527†	9992.2	10375.5	45.935	µg/L	45.935	ppb	19:19:57
2	Be 313.107†	4460.9	5659.2	1.6168	µg/L	1.6168	ppb	19:19:57
2	Cd 226.502†	223.1	331.8	0.6744	µg/L	0.6744	ppb	19:20:17
2	Co 228.616†	59.2	270.9	2.8521	µg/L	2.8521	ppb	19:20:17
2	Cr 267.716†	2428.9	2253.7	19.971	µg/L	19.971	ppb	19:20:17
2	Cu 324.752†	4878.9	1959.3	10.343	µg/L	10.343	ppb	19:19:57
2	Mn 257.610†	287681.1	294367.8	390.41	µg/L	390.41	ppb	19:19:57
2	Mo 202.031†	43.0	82.6	3.3159	µg/L	3.3159	ppb	19:20:17
2	Ni 231.604†	880.1	997.0	12.474	µg/L	12.474	ppb	19:20:17
2	P 214.914†	364.8	399.2	83.458	µg/L	83.458	ppb	19:20:17
2	Pb 220.353†	426.9	333.6	20.926	µg/L	20.926	ppb	19:20:17

2	S 181.975 Axial†	135.7	50.0	42.103	µg/L	42.103 ppb	19:20:17
2	Sb 206.836†	77.6	-10.3	-1.7870	µg/L	-1.7870 ppb	19:20:17
2	Se 196.026†	-0.1	-6.3	2.65	µg/L	2.65 ppb	19:20:17
2	SiO2†	51052.4	50532.7	5351.2	µg/L	5351.2 ppb	19:19:57
2	Si 251.611†	155689.9	158641.7	2501.6	µg/L	2501.6 ppb	19:19:57
2	Sn 189.927†	12.0	10.4	1.8104	µg/L	1.8104 ppb	19:20:17
2	Ti 334.940†	308140.1	314677.3	323.18	µg/L	323.18 ppb	19:19:57
2	Tl 190.801†	-156.6	-46.1	-1.9528	µg/L	-1.9528 ppb	19:20:17
2	U 409.014†	-1314.8	-1182.8	-74.625	µg/L	-74.625 ppb	19:19:57
2	V 292.402†	3157.6	2809.8	12.746	µg/L	12.746 ppb	19:19:57
2	Zn 213.857†	15271.8	15133.6	88.958	µg/L	88.958 ppb	19:19:57
3	Sc RADIAL	139346.4	139346.4	99.5	%		19:19:11
3	Al 396.153Radial†	29836.4	30074.8	6331.7	µg/L	6331.7 ppb	19:19:11
3	Ca 317.933Radial†	24917.6	24479.7	1667.3	µg/L	1667.3 ppb	19:19:13
3	Fe 238.204 Radial†	199286.8	200237.3	14954	µg/L	14954 ppb	19:19:11
3	K 766.490 Radial†	3493.3	2018.3	797.88	µg/L	797.88 ppb	19:19:11
3	Mg 279.077 IEC†	2395.2	2235.6	1019.5	µg/L	1019.5 ppb	19:19:13
3	Na 589.592 Radial†	2438.1	1498.7	231.60	µg/L	231.60 ppb	19:19:13
3	Sr 421.552†	6465.8	6704.9	15.800	µg/L	15.800 ppb	19:19:13
3	Sc 361.383	1808346.0	1808346.0	100.23	%		19:20:19
3	Y 371.029	1107789.2	1107789.2	104.78	%		19:20:19
3	Ag 328.068†	4154.3	-420.5	-1.8847	µg/L	-1.8847 ppb	19:20:21
3	As 188.979†	-15.5	3.1	4.6003	µg/L	4.6003 ppb	19:20:41
3	B 249.677†	4405.8	330.4	5.1273	µg/L	5.1273 ppb	19:20:21
3	Ba 233.527†	9898.0	10019.6	44.354	µg/L	44.354 ppb	19:20:21
3	Be 313.107†	4376.5	5458.0	1.5571	µg/L	1.5571 ppb	19:20:21
3	Cd 226.502†	189.2	292.1	0.4075	µg/L	0.4075 ppb	19:20:41
3	Co 228.616†	38.4	248.6	2.5557	µg/L	2.5557 ppb	19:20:41
3	Cr 267.716†	2428.4	2189.5	19.422	µg/L	19.422 ppb	19:20:41
3	Cu 324.752†	4786.2	1739.0	9.4157	µg/L	9.4157 ppb	19:20:21
3	Mn 257.610†	286201.1	285352.7	378.45	µg/L	378.45 ppb	19:20:21
3	Mo 202.031†	36.5	75.0	3.0666	µg/L	3.0666 ppb	19:20:41
3	Ni 231.604†	858.8	952.7	11.919	µg/L	11.919 ppb	19:20:41
3	P 214.914†	347.9	372.8	77.373	µg/L	77.373 ppb	19:20:41
3	Pb 220.353†	468.0	363.4	22.749	µg/L	22.749 ppb	19:20:41
3	S 181.975 Axial†	135.3	46.1	38.804	µg/L	38.804 ppb	19:20:41
3	Sb 206.836†	91.7	1.7	-0.2328	µg/L	-0.2328 ppb	19:20:41
3	Se 196.026†	9.4	3.2	6.37	µg/L	6.37 ppb	19:20:41
3	SiO2†	50800.7	48943.9	5183.0	µg/L	5183.0 ppb	19:20:21
3	Si 251.611†	155187.3	154060.5	2429.3	µg/L	2429.3 ppb	19:20:21
3	Sn 189.927†	10.3	8.4	1.6390	µg/L	1.6390 ppb	19:20:41
3	Ti 334.940†	306806.3	305271.9	313.52	µg/L	313.52 ppb	19:20:21
3	Tl 190.801†	-159.0	-44.4	-1.8397	µg/L	-1.8397 ppb	19:20:41
3	U 409.014†	-1420.6	-1253.9	-79.174	µg/L	-79.174 ppb	19:20:21
3	V 292.402†	3282.9	2852.1	12.967	µg/L	12.967 ppb	19:20:21
3	Zn 213.857†	15202.7	14664.5	86.158	µg/L	86.158 ppb	19:20:21

Mean Data: 1202072049|965624|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787289.3	99.065	%	1.2981				1.31%
Sc RADIAL	138697.1	99.0	%	0.46				0.46%
Y 371.029	1095710.2	103.63	%	1.298				1.25%
Ag 328.068†	-411.8	-1.8465	µg/L	0.76167	-1.8465	ppb	0.76167	41.25%
Al 396.153Radial†	30062.3	6329.1	µg/L	16.87	6329.1	ppb	16.87	0.27%
As 188.979†	14.0	8.2877	µg/L	3.30739	8.2877	ppb	3.30739	39.91%
B 249.677†	351.4	5.4537	µg/L	0.50648	5.4537	ppb	0.50648	9.29%
Ba 233.527†	10185.7	45.092	µg/L	0.7959	45.092	ppb	0.7959	1.76%
Be 313.107†	5524.1	1.5776	µg/L	0.03394	1.5776	ppb	0.03394	2.15%
Ca 317.933Radial†	24613.6	1676.4	µg/L	8.24	1676.4	ppb	8.24	0.49%
Cd 226.502†	305.7	0.4977	µg/L	0.15306	0.4977	ppb	0.15306	30.76%
Co 228.616†	251.5	2.5941	µg/L	0.24116	2.5941	ppb	0.24116	9.30%
Cr 267.716†	2200.1	19.509	µg/L	0.4249	19.509	ppb	0.4249	2.18%
Cu 324.752†	1835.4	9.8249	µg/L	0.47340	9.8249	ppb	0.47340	4.82%
Fe 238.204 Radial†	200427.3	14968	µg/L	14.0	14968	ppb	14.0	0.09%
K 766.490 Radial†	2077.9	821.51	µg/L	20.623	821.51	ppb	20.623	2.51%
Mg 279.077 IEC†	2241.8	1022.4	µg/L	2.95	1022.4	ppb	2.95	0.29%
Mn 257.610†	289571.2	384.05	µg/L	6.016	384.05	ppb	6.016	1.57%
Mo 202.031†	78.5	3.1844	µg/L	0.12523	3.1844	ppb	0.12523	3.93%
Na 589.592 Radial†	1429.6	220.86	µg/L	11.120	220.86	ppb	11.120	5.03%

Ni 231.604†	966.2	12.089	µg/L	0.3340	12.089	ppb	0.3340	2.76%
P 214.914†	384.5	80.058	µg/L	3.1051	80.058	ppb	3.1051	3.88%
Pb 220.353†	350.4	21.949	µg/L	0.9318	21.949	ppb	0.9318	4.25%
S 181.975 Axial†	46.2	38.862	µg/L	3.2124	38.862	ppb	3.2124	8.27%
Sb 206.836†	-1.9	-0.6950	µg/L	0.94940	-0.6950	ppb	0.94940	136.61%
Se 196.026†	1.1	5.55	µg/L	2.599	5.55	ppb	2.599	46.79%
SiO2†	49672.3	5260.1	µg/L	84.99	5260.1	ppb	84.99	1.62%
Si 251.611†	156029.6	2460.4	µg/L	37.17	2460.4	ppb	37.17	1.51%
Sn 189.927†	13.6	2.0145	µg/L	0.50917	2.0145	ppb	0.50917	25.28%
Sr 421.552†	6844.5	16.129	µg/L	0.2884	16.129	ppb	0.2884	1.79%
Ti 334.940†	309758.6	318.13	µg/L	4.845	318.13	ppb	4.845	1.52%
Tl 190.801†	-43.0	-1.6007	µg/L	0.51504	-1.6007	ppb	0.51504	32.18%
U 409.014†	-1185.6	-74.837	µg/L	4.2354	-74.837	ppb	4.2354	5.66%
Concentration less than lower limit for U 409.014.								
V 292.402†	2835.2	12.879	µg/L	0.1172	12.879	ppb	0.1172	0.91%
Zn 213.857†	14900.4	87.566	µg/L	1.4002	87.566	ppb	1.4002	1.60%

Sequence No.: 101
Sample ID: 249329001|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 417
Date Collected: 4/5/2010 19:20:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249329001|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136764.7	136764.7	97.6	%			19:21:22
1	Al 396.153Radial†	178735.4	183163.7	38562	µg/L	38562	ppb	19:21:20
1	Ca 317.933Radial†	141593.5	144467.9	9839.6	µg/L	9839.6	ppb	19:21:22
1	Fe 238.204 Radial†	959688.4	982925.9	73404	µg/L	73404	ppb	19:21:20
1	K 766.490 Radial†	17533.2	16466.1	6513.4	µg/L	6513.4	ppb	19:21:22
1	Mg 279.077 IEC†	16090.1	16309.2	7467.8	µg/L	7467.8	ppb	19:21:22
1	Na 589.592 Radial†	9034.7	8302.1	1281.1	µg/L	1281.1	ppb	19:21:22
1	Sr 421.552†	27338.3	28208.1	66.451	µg/L	66.451	ppb	19:21:22
1	Sc 361.383	1767086.8	1767086.8	97.946	%			19:21:34
1	Y 371.029	1218327.3	1218327.3	115.23	%			19:21:34
1	Ag 328.068†	4079.0	-400.6	-2.4635	µg/L	-2.4635	ppb	19:21:34
1	As 188.979†	12.0	30.8	27.237	µg/L	27.237	ppb	19:21:54
1	B 249.677†	5038.5	1079.0	16.719	µg/L	16.719	ppb	19:21:34
1	Ba 233.527†	100136.0	102381.0	454.18	µg/L	454.18	ppb	19:21:34
1	Be 313.107†	21382.2	22922.4	6.5223	µg/L	6.5223	ppb	19:21:34
1	Cd 226.502†	1047.2	1172.5	0.2208	µg/L	0.2208	ppb	19:21:54
1	Co 228.616†	1106.0	1339.5	14.343	µg/L	14.343	ppb	19:21:54
1	Cr 267.716†	4053.2	3905.0	36.021	µg/L	36.021	ppb	19:21:54
1	Cu 324.752†	9302.4	6461.4	37.608	µg/L	37.608	ppb	19:21:34
1	Mn 257.610†	1651728.4	1686189.9	2236.3	µg/L	2236.3	ppb	19:21:34
1	Mo 202.031†	150.9	192.6	9.3679	µg/L	9.3679	ppb	19:21:54
1	Ni 231.604†	2400.1	2546.3	31.858	µg/L	31.858	ppb	19:21:54
1	P 214.914†	2226.3	2298.7	490.10	µg/L	490.10	ppb	19:21:54
1	Pb 220.353†	915.0	830.7	53.747	µg/L	53.747	ppb	19:21:54
1	S 181.975 Axial†	448.1	368.6	310.15	µg/L	310.15	ppb	19:21:54
1	Sb 206.836†	82.7	-5.3	-2.1368	µg/L	-2.1368	ppb	19:21:54
1	Se 196.026†	-27.1	-33.8	11.8	µg/L	11.8	ppb	19:21:54
1	SiO2†	340442.3	345844.3	36624	µg/L	36624	ppb	19:21:34
1	Si 251.611†	1064193.9	1085749.2	17121	µg/L	17121	ppb	19:21:34
1	Sn 189.927†	98.6	98.8	12.739	µg/L	12.739	ppb	19:21:54
1	Ti 334.940†	1665290.0	1699397.8	1745.2	µg/L	1745.2	ppb	19:21:34
1	Tl 190.801†	-321.8	-214.2	-5.4242	µg/L	-5.4242	ppb	19:21:54
1	U 409.014†	-6206.0	-6172.8	-386.53	µg/L	-386.53	ppb	19:21:34
1	V 292.402†	16224.9	16142.0	74.249	µg/L	74.249	ppb	19:21:54
1	Zn 213.857†	45860.7	46319.7	270.03	µg/L	270.03	ppb	19:21:34
2	Sc RADIAL	139569.0	139569.0	99.6	%			19:21:26
2	Al 396.153Radial†	177649.4	178394.8	37558	µg/L	37558	ppb	19:21:24
2	Ca 317.933Radial†	144391.3	144361.8	9832.3	µg/L	9832.3	ppb	19:21:26
2	Fe 238.204 Radial†	954939.5	958407.0	71573	µg/L	71573	ppb	19:21:24
2	K 766.490 Radial†	17892.4	16465.8	6513.5	µg/L	6513.5	ppb	19:21:26
2	Mg 279.077 IEC†	16437.8	16327.1	7477.6	µg/L	7477.6	ppb	19:21:26
2	Na 589.592 Radial†	9277.4	8359.7	1290.0	µg/L	1290.0	ppb	19:21:26
2	Sr 421.552†	28000.6	28310.2	66.692	µg/L	66.692	ppb	19:21:26
2	Sc 361.383	1762627.6	1762627.6	97.698	%			19:21:57
2	Y 371.029	1215382.0	1215382.0	114.95	%			19:21:57
2	Ag 328.068†	3897.4	-575.9	-3.1715	µg/L	-3.1715	ppb	19:21:57
2	As 188.979†	20.6	39.6	29.804	µg/L	29.804	ppb	19:22:17
2	B 249.677†	4863.3	912.7	14.132	µg/L	14.132	ppb	19:21:57
2	Ba 233.527†	100622.5	103137.6	457.57	µg/L	457.57	ppb	19:21:57
2	Be 313.107†	21329.9	22924.2	6.5223	µg/L	6.5223	ppb	19:21:57
2	Cd 226.502†	1073.4	1202.0	0.6128	µg/L	0.6128	ppb	19:22:17
2	Co 228.616†	1110.3	1346.8	14.539	µg/L	14.539	ppb	19:22:17
2	Cr 267.716†	4103.6	3967.0	36.494	µg/L	36.494	ppb	19:22:17
2	Cu 324.752†	9208.5	6389.4	37.039	µg/L	37.039	ppb	19:21:57
2	Mn 257.610†	1653801.7	1692578.4	2244.8	µg/L	2244.8	ppb	19:21:57
2	Mo 202.031†	133.0	174.7	8.7098	µg/L	8.7098	ppb	19:22:17
2	Ni 231.604†	2441.2	2594.6	32.462	µg/L	32.462	ppb	19:22:17
2	P 214.914†	2219.0	2296.9	490.71	µg/L	490.71	ppb	19:22:17
2	Pb 220.353†	939.1	857.8	55.415	µg/L	55.415	ppb	19:22:17

2	S 181.975 Axial†	451.8	373.5	314.29 µg/L	314.29 ppb		19:22:17
2	Sb 206.836†	87.3	-0.3	-1.4758 µg/L	-1.4758 ppb		19:22:17
2	Se 196.026†	-47.8	-55.1	2.74 µg/L	2.74 ppb		19:22:17
2	SiO2†	340724.5	347012.4	36748 µg/L	36748 ppb		19:21:57
2	Si 251.611†	1065647.8	1089986.1	17188 µg/L	17188 ppb		19:21:57
2	Sn 189.927†	108.0	108.7	13.435 µg/L	13.435 ppb		19:22:17
2	Ti 334.940†	1664495.5	1702885.9	1748.8 µg/L	1748.8 ppb		19:21:57
2	Tl 190.801†	-310.2	-203.2	-3.8657 µg/L	-3.8657 ppb		19:22:17
2	U 409.014†	-6216.7	-6199.8	-387.75 µg/L	-387.75 ppb		19:21:57
2	V 292.402†	16222.4	16181.3	74.637 µg/L	74.637 ppb		19:22:17
2	Zn 213.857†	46229.2	46815.3	273.17 µg/L	273.17 ppb		19:21:57
3	Sc RADIAL	136208.0	136208.0	97.2 %			19:21:30
3	Al 396.153Radial†	179727.1	184931.9	38935 µg/L	38935 ppb		19:21:28
3	Ca 317.933Radial†	141002.6	144452.9	9838.5 µg/L	9838.5 ppb		19:21:30
3	Fe 238.204 Radial†	967218.0	994688.0	74283 µg/L	74283 ppb		19:21:28
3	K 766.490 Radial†	17403.6	16406.2	6489.6 µg/L	6489.6 ppb		19:21:30
3	Mg 279.077 IEC†	16003.6	16287.6	7457.1 µg/L	7457.1 ppb		19:21:30
3	Na 589.592 Radial†	8970.6	8274.0	1276.8 µg/L	1276.8 ppb		19:21:30
3	Sr 421.552†	27243.0	28224.5	66.490 µg/L	66.490 ppb		19:21:30
3	Sc 361.383	1770426.6	1770426.6	98.131 %			19:22:20
3	Y 371.029	1220583.1	1220583.1	115.44 %			19:22:20
3	Ag 328.068†	4115.4	-371.3	-2.3614 µg/L	-2.3614 ppb		19:22:20
3	As 188.979†	13.8	32.6	28.035 µg/L	28.035 ppb		19:22:40
3	B 249.677†	5023.3	1053.8	16.328 µg/L	16.328 ppb		19:22:20
3	Ba 233.527†	100786.8	102851.3	456.26 µg/L	456.26 ppb		19:22:20
3	Be 313.107†	21525.5	23027.2	6.5523 µg/L	6.5523 ppb		19:22:20
3	Cd 226.502†	1041.9	1165.1	0.0785 µg/L	0.0785 ppb		19:22:40
3	Co 228.616†	1099.4	1330.7	14.183 µg/L	14.183 ppb		19:22:40
3	Cr 267.716†	4081.0	3925.6	36.228 µg/L	36.228 ppb		19:22:40
3	Cu 324.752†	9402.5	6545.5	38.087 µg/L	38.087 ppb		19:22:20
3	Mn 257.610†	1661632.2	1693101.2	2245.5 µg/L	2245.5 ppb		19:22:20
3	Mo 202.031†	153.1	194.6	9.4677 µg/L	9.4677 ppb		19:22:40
3	Ni 231.604†	2425.0	2567.1	32.118 µg/L	32.118 ppb		19:22:40
3	P 214.914†	2222.6	2290.7	487.72 µg/L	487.72 ppb		19:22:40
3	Pb 220.353†	956.4	871.1	56.233 µg/L	56.233 ppb		19:22:40
3	S 181.975 Axial†	439.6	359.1	302.12 µg/L	302.12 ppb		19:22:40
3	Sb 206.836†	65.8	-22.7	-4.3930 µg/L	-4.3930 ppb		19:22:40
3	Se 196.026†	-37.8	-44.7	7.80 µg/L	7.80 ppb		19:22:40
3	SiO2†	342667.6	347456.2	36795 µg/L	36795 ppb		19:22:20
3	Si 251.611†	1070415.1	1090039.2	17189 µg/L	17189 ppb		19:22:20
3	Sn 189.927†	110.2	110.4	13.553 µg/L	13.553 ppb		19:22:40
3	Ti 334.940†	1670727.9	1701731.9	1747.6 µg/L	1747.6 ppb		19:22:20
3	Tl 190.801†	-316.6	-208.3	-4.5749 µg/L	-4.5749 ppb		19:22:40
3	U 409.014†	-6235.2	-6190.6	-387.83 µg/L	-387.83 ppb		19:22:20
3	V 292.402†	16127.9	16011.9	73.480 µg/L	73.480 ppb		19:22:40
3	Zn 213.857†	46415.6	46796.9	272.80 µg/L	272.80 ppb		19:22:20

Mean Data: 249329001|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1766713.7	97.925	%	0.2169				0.22%
Sc RADIAL	137513.9	98.2	%	1.29				1.31%
Y 371.029	1218097.5	115.21	%	0.247				0.21%
Ag 328.068†	-449.3	-2.6655	µg/L	0.44121	-2.6655	ppb	0.44121	16.55%
Al 396.153Radial†	182163.5	38352	µg/L	711.9	38352	ppb	711.9	1.86%
As 188.979†	34.4	28.358	µg/L	1.3134	28.358	ppb	1.3134	4.63%
B 249.677†	1015.2	15.726	µg/L	1.3943	15.726	ppb	1.3943	8.87%
Ba 233.527†	102790.0	456.00	µg/L	1.708	456.00	ppb	1.708	0.37%
Be 313.107†	22957.9	6.5323	µg/L	0.01734	6.5323	ppb	0.01734	0.27%
Ca 317.933Radial†	144427.5	9836.8	µg/L	3.91	9836.8	ppb	3.91	0.04%
Cd 226.502†	1179.9	0.3040	µg/L	0.27669	0.3040	ppb	0.27669	91.01%
Co 228.616†	1339.0	14.355	µg/L	0.1781	14.355	ppb	0.1781	1.24%
Cr 267.716†	3932.5	36.248	µg/L	0.2368	36.248	ppb	0.2368	0.65%
Cu 324.752†	6465.4	37.578	µg/L	0.5244	37.578	ppb	0.5244	1.40%
Fe 238.204 Radial†	978673.6	73087	µg/L	1382.4	73087	ppb	1382.4	1.89%
K 766.490 Radial†	16446.0	6505.5	µg/L	13.79	6505.5	ppb	13.79	0.21%
Mg 279.077 IEC†	16308.0	7467.5	µg/L	10.26	7467.5	ppb	10.26	0.14%
Mn 257.610†	1690623.2	2242.2	µg/L	5.11	2242.2	ppb	5.11	0.23%
Mo 202.031†	187.3	9.1818	µg/L	0.41180	9.1818	ppb	0.41180	4.48%
Na 589.592 Radial†	8311.9	1282.6	µg/L	6.77	1282.6	ppb	6.77	0.53%

Ni 231.604†	2569.4	32.146	µg/L	0.3032	32.146	ppb	0.3032	0.94%
P 214.914†	2295.4	489.51	µg/L	1.582	489.51	ppb	1.582	0.32%
Pb 220.353†	853.2	55.132	µg/L	1.2666	55.132	ppb	1.2666	2.30%
S 181.975 Axial†	367.1	308.85	µg/L	6.186	308.85	ppb	6.186	2.00%
Sb 206.836†	-9.4	-2.6685	µg/L	1.52955	-2.6685	ppb	1.52955	57.32%
Se 196.026†	-44.5	7.44	µg/L	4.533	7.44	ppb	4.533	60.90%
SiO2†	346771.0	36722	µg/L	88.2	36722	ppb	88.2	0.24%
Si 251.611†	1088591.5	17166	µg/L	38.8	17166	ppb	38.8	0.23%
Sn 189.927†	106.0	13.242	µg/L	0.4397	13.242	ppb	0.4397	3.32%
Sr 421.552†	28247.6	66.544	µg/L	0.1294	66.544	ppb	0.1294	0.19%
Ti 334.940†	1701338.5	1747.2	µg/L	1.83	1747.2	ppb	1.83	0.10%
Tl 190.801†	-208.6	-4.6216	µg/L	0.78031	-4.6216	ppb	0.78031	16.88%
U 409.014†	-6187.7	-387.37	µg/L	0.730	-387.37	ppb	0.730	0.19%
Concentration less than lower limit for U 409.014.								
V 292.402†	16111.7	74.122	µg/L	0.5888	74.122	ppb	0.5888	0.79%
Zn 213.857†	46643.9	272.00	µg/L	1.712	272.00	ppb	1.712	0.63%

Sequence No.: 102
Sample ID: 249329002|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 418
Date Collected: 4/5/2010 19:22:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249329002|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137530.7	137530.7	98.2	%			19:23:21
1	Al 396.153Radial†	140896.8	143600.3	30233	µg/L	30233	ppb	19:23:21
1	Ca 317.933Radial†	155230.8	157551.3	10731	µg/L	10731	ppb	19:23:21
1	Fe 238.204 Radial†	875735.8	891933.7	66609	µg/L	66609	ppb	19:23:19
1	K 766.490 Radial†	15069.2	13856.2	5481.1	µg/L	5481.1	ppb	19:23:21
1	Mg 279.077 IEC†	13215.3	13289.1	6079.1	µg/L	6079.1	ppb	19:23:21
1	Na 589.592 Radial†	3814.5	2933.0	449.76	µg/L	449.76	ppb	19:23:21
1	Sr 421.552†	24495.4	25156.3	59.246	µg/L	59.246	ppb	19:23:21
1	Sc 361.383	1767425.9	1767425.9	97.964	%			19:23:34
1	Y 371.029	1241971.9	1241971.9	117.47	%			19:23:34
1	Ag 328.068†	3843.3	-642.0	-3.8034	µg/L	-3.8034	ppb	19:23:34
1	As 188.979†	13.6	32.5	26.434	µg/L	26.434	ppb	19:23:54
1	B 249.677†	4674.7	706.7	10.945	µg/L	10.945	ppb	19:23:34
1	Ba 233.527†	71798.3	73434.8	325.59	µg/L	325.59	ppb	19:23:34
1	Be 313.107†	18621.7	20100.4	5.7008	µg/L	5.7008	ppb	19:23:34
1	Cd 226.502†	988.5	1112.4	0.5349	µg/L	0.5349	ppb	19:23:54
1	Co 228.616†	750.2	976.1	9.7678	µg/L	9.7678	ppb	19:23:54
1	Cr 267.716†	6002.3	5893.8	52.937	µg/L	52.937	ppb	19:23:54
1	Cu 324.752†	9094.5	6247.4	35.672	µg/L	35.672	ppb	19:23:34
1	Mn 257.610†	1864124.5	1902676.0	2523.6	µg/L	2523.6	ppb	19:23:34
1	Mo 202.031†	201.5	244.2	10.754	µg/L	10.754	ppb	19:23:54
1	Ni 231.604†	3412.0	3578.8	44.775	µg/L	44.775	ppb	19:23:54
1	P 214.914†	6655.8	6819.8	1538.7	µg/L	1538.7	ppb	19:23:54
1	Pb 220.353†	1173.3	1094.2	69.135	µg/L	69.135	ppb	19:23:54
1	S 181.975 Axial†	366.0	284.7	239.54	µg/L	239.54	ppb	19:23:54
1	Sb 206.836†	82.1	-5.9	-2.3456	µg/L	-2.3456	ppb	19:23:54
1	Se 196.026†	-33.6	-40.5	6.78	µg/L	6.78	ppb	19:23:54
1	SiO2†	347594.1	353078.0	37390	µg/L	37390	ppb	19:23:34
1	Si 251.611†	1086628.0	1108440.9	17479	µg/L	17479	ppb	19:23:34
1	Sn 189.927†	99.5	99.7	11.426	µg/L	11.426	ppb	19:23:54
1	Ti 334.940†	1277131.7	1302847.3	1338.1	µg/L	1338.1	ppb	19:23:34
1	Tl 190.801†	-283.6	-175.2	-3.5983	µg/L	-3.5983	ppb	19:23:54
1	U 409.014†	-6412.4	-6382.3	-397.66	µg/L	-397.66	ppb	19:23:34
1	V 292.402†	11850.0	11673.0	52.263	µg/L	52.263	ppb	19:23:54
1	Zn 213.857†	46033.1	46486.6	271.27	µg/L	271.27	ppb	19:23:34
2	Sc RADIAL	138529.2	138529.2	98.9	%			19:23:25
2	Al 396.153Radial†	142231.9	143916.0	30299	µg/L	30299	ppb	19:23:25
2	Ca 317.933Radial†	156713.6	157911.2	10755	µg/L	10755	ppb	19:23:25
2	Fe 238.204 Radial†	879069.3	888875.5	66381	µg/L	66381	ppb	19:23:23
2	K 766.490 Radial†	15246.2	13924.5	5508.2	µg/L	5508.2	ppb	19:23:25
2	Mg 279.077 IEC†	13226.9	13203.8	6039.9	µg/L	6039.9	ppb	19:23:25
2	Na 589.592 Radial†	3996.2	3088.8	473.89	µg/L	473.89	ppb	19:23:25
2	Sr 421.552†	24626.1	25108.6	59.133	µg/L	59.133	ppb	19:23:25
2	Sc 361.383	1800208.0	1800208.0	99.781	%			19:23:56
2	Y 371.029	1264154.0	1264154.0	119.56	%			19:23:56
2	Ag 328.068†	4400.6	-154.9	-1.8328	µg/L	-1.8328	ppb	19:23:56
2	As 188.979†	26.8	45.4	30.746	µg/L	30.746	ppb	19:24:17
2	B 249.677†	4845.0	790.5	12.249	µg/L	12.249	ppb	19:23:56
2	Ba 233.527†	73335.8	73641.1	326.51	µg/L	326.51	ppb	19:23:56
2	Be 313.107†	19266.4	20400.3	5.7872	µg/L	5.7872	ppb	19:23:56
2	Cd 226.502†	1013.1	1118.7	0.6014	µg/L	0.6014	ppb	19:24:17
2	Co 228.616†	766.1	978.0	9.8059	µg/L	9.8059	ppb	19:24:17
2	Cr 267.716†	6017.5	5797.5	52.095	µg/L	52.095	ppb	19:24:17
2	Cu 324.752†	9159.7	6143.6	35.202	µg/L	35.202	ppb	19:23:56
2	Mn 257.610†	1906214.6	1910206.9	2533.6	µg/L	2533.6	ppb	19:23:56
2	Mo 202.031†	192.9	231.9	10.339	µg/L	10.339	ppb	19:24:17
2	Ni 231.604†	3402.0	3505.4	43.857	µg/L	43.857	ppb	19:24:17
2	P 214.914†	6636.8	6677.1	1505.9	µg/L	1505.9	ppb	19:24:17
2	Pb 220.353†	1156.4	1055.5	66.773	µg/L	66.773	ppb	19:24:17

2	S 181.975 Axial†	359.0	270.9	227.95	µg/L	227.95 ppb	19:24:17
2	Sb 206.836†	68.9	-20.6	-4.2400	µg/L	-4.2400 ppb	19:24:17
2	Se 196.026†	-23.3	-29.5	11.0	µg/L	11.0 ppb	19:24:17
2	SiO2†	355487.2	354527.1	37543	µg/L	37543 ppb	19:23:56
2	Si 251.611†	1110918.6	1112585.9	17544	µg/L	17544 ppb	19:23:56
2	Sn 189.927†	79.0	77.3	9.8894	µg/L	9.8894 ppb	19:24:17
2	Ti 334.940†	1305204.6	1307241.7	1342.6	µg/L	1342.6 ppb	19:23:56
2	Tl 190.801†	-304.1	-190.5	-5.6264	µg/L	-5.6264 ppb	19:24:17
2	U 409.014†	-6560.6	-6411.6	-399.47	µg/L	-399.47 ppb	19:23:56
2	V 292.402†	11760.9	11363.5	50.670	µg/L	50.670 ppb	19:24:17
2	Zn 213.857†	47041.3	46641.4	272.22	µg/L	272.22 ppb	19:23:56
3	Sc RADIAL	138537.1	138537.1	98.9	%		19:23:29
3	Al 396.153Radial†	142642.1	144322.6	30385	µg/L	30385 ppb	19:23:29
3	Ca 317.933Radial†	156827.5	158017.3	10762	µg/L	10762 ppb	19:23:29
3	Fe 238.204 Radial†	872827.4	882512.2	65905	µg/L	65905 ppb	19:23:27
3	K 766.490 Radial†	15374.0	14052.9	5559.0	µg/L	5559.0 ppb	19:23:29
3	Mg 279.077 IEC†	13326.5	13303.7	6086.5	µg/L	6086.5 ppb	19:23:29
3	Na 589.592 Radial†	3979.3	3071.4	471.14	µg/L	471.14 ppb	19:23:29
3	Sr 421.552†	24520.4	25000.3	58.878	µg/L	58.878 ppb	19:23:29
3	Sc 361.383	1804640.6	1804640.6	100.03	%		19:24:19
3	Y 371.029	1266674.0	1266674.0	119.80	%		19:24:19
3	Ag 328.068†	4241.6	-324.7	-2.5424	µg/L	-2.5424 ppb	19:24:19
3	As 188.979†	25.1	43.6	30.039	µg/L	30.039 ppb	19:24:39
3	B 249.677†	4892.3	825.8	12.799	µg/L	12.799 ppb	19:24:19
3	Ba 233.527†	73454.0	73578.7	326.24	µg/L	326.24 ppb	19:24:19
3	Be 313.107†	19101.2	20187.7	5.7202	µg/L	5.7202 ppb	19:24:19
3	Cd 226.502†	1001.8	1104.9	0.5579	µg/L	0.5579 ppb	19:24:39
3	Co 228.616†	735.7	945.8	9.4041	µg/L	9.4041 ppb	19:24:39
3	Cr 267.716†	6046.9	5812.0	52.218	µg/L	52.218 ppb	19:24:39
3	Cu 324.752†	9354.1	6315.4	35.838	µg/L	35.838 ppb	19:24:19
3	Mn 257.610†	1909053.4	1908352.7	2531.1	µg/L	2531.1 ppb	19:24:19
3	Mo 202.031†	211.7	250.2	10.921	µg/L	10.921 ppb	19:24:39
3	Ni 231.604†	3414.2	3509.2	43.904	µg/L	43.904 ppb	19:24:39
3	P 214.914†	6698.5	6722.4	1516.7	µg/L	1516.7 ppb	19:24:39
3	Pb 220.353†	1172.3	1068.5	67.605	µg/L	67.605 ppb	19:24:39
3	S 181.975 Axial†	373.3	284.3	239.26	µg/L	239.26 ppb	19:24:39
3	Sb 206.836†	71.9	-17.8	-3.8593	µg/L	-3.8593 ppb	19:24:39
3	Se 196.026†	-41.4	-47.6	3.71	µg/L	3.71 ppb	19:24:39
3	SiO2†	356032.6	354197.3	37508	µg/L	37508 ppb	19:24:19
3	Si 251.611†	1112696.0	1111628.2	17529	µg/L	17529 ppb	19:24:19
3	Sn 189.927†	109.8	107.9	12.006	µg/L	12.006 ppb	19:24:39
3	Ti 334.940†	1305897.0	1304721.0	1340.0	µg/L	1340.0 ppb	19:24:19
3	Tl 190.801†	-300.1	-185.7	-4.9995	µg/L	-4.9995 ppb	19:24:39
3	U 409.014†	-6858.2	-6693.0	-417.12	µg/L	-417.12 ppb	19:24:19
3	V 292.402†	11852.6	11426.1	51.042	µg/L	51.042 ppb	19:24:39
3	Zn 213.857†	47212.8	46697.1	272.60	µg/L	272.60 ppb	19:24:19

Mean Data: 249329002|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1790758.2	99.258	%	1.1267				1.14%
Sc RADIAL	138199.0	98.6	%	0.41				0.42%
Y 371.029	1257599.9	118.94	%	1.286				1.08%
Ag 328.068†	-373.9	-2.7262	µg/L	0.99807	-2.7262	ppb	0.99807	36.61%
Al 396.153Radial†	143946.3	30305	µg/L	76.2	30305	ppb	76.2	0.25%
As 188.979†	40.5	29.073	µg/L	2.3127	29.073	ppb	2.3127	7.95%
B 249.677†	774.3	11.998	µg/L	0.9523	11.998	ppb	0.9523	7.94%
Ba 233.527†	73551.5	326.11	µg/L	0.472	326.11	ppb	0.472	0.14%
Be 313.107†	20229.5	5.7361	µg/L	0.04529	5.7361	ppb	0.04529	0.79%
Ca 317.933Radial†	157826.6	10749	µg/L	16.6	10749	ppb	16.6	0.15%
Cd 226.502†	1112.0	0.5648	µg/L	0.03376	0.5648	ppb	0.03376	5.98%
Co 228.616†	966.7	9.6593	µg/L	0.22181	9.6593	ppb	0.22181	2.30%
Cr 267.716†	5834.4	52.417	µg/L	0.4551	52.417	ppb	0.4551	0.87%
Cu 324.752†	6235.5	35.571	µg/L	0.3297	35.571	ppb	0.3297	0.93%
Fe 238.204 Radial†	887773.8	66298	µg/L	358.9	66298	ppb	358.9	0.54%
K 766.490 Radial†	13944.5	5516.1	µg/L	39.55	5516.1	ppb	39.55	0.72%
Mg 279.077 IEC†	13265.5	6068.5	µg/L	25.04	6068.5	ppb	25.04	0.41%
Mn 257.610†	1907078.6	2529.4	µg/L	5.21	2529.4	ppb	5.21	0.21%
Mo 202.031†	242.1	10.671	µg/L	0.2997	10.671	ppb	0.2997	2.81%
Na 589.592 Radial†	3031.1	464.93	µg/L	13.209	464.93	ppb	13.209	2.84%

Ni 231.604†	3531.1	44.179 µg/L	0.5173	44.179 ppb	0.5173	1.17%
P 214.914†	6739.8	1520.4 µg/L	16.74	1520.4 ppb	16.74	1.10%
Pb 220.353†	1072.8	67.838 µg/L	1.1980	67.838 ppb	1.1980	1.77%
S 181.975 Axial†	280.0	235.58 µg/L	6.611	235.58 ppb	6.611	2.81%
Sb 206.836†	-14.8	-3.4816 µg/L	1.00210	-3.4816 ppb	1.00210	28.78%
Se 196.026†	-39.2	7.17 µg/L	3.672	7.17 ppb	3.672	51.22%
SiO2†	353934.1	37481 µg/L	80.4	37481 ppb	80.4	0.21%
Si 251.611†	1110885.0	17517 µg/L	34.2	17517 ppb	34.2	0.20%
Sn 189.927†	95.0	11.107 µg/L	1.0937	11.107 ppb	1.0937	9.85%
Sr 421.552†	25088.4	59.086 µg/L	0.1886	59.086 ppb	0.1886	0.32%
Ti 334.940†	1304936.7	1340.2 µg/L	2.27	1340.2 ppb	2.27	0.17%
Tl 190.801†	-183.8	-4.7414 µg/L	1.03841	-4.7414 ppb	1.03841	21.90%
U 409.014†	-6495.6	-404.75 µg/L	10.751	-404.75 ppb	10.751	2.66%
Concentration less than lower limit for U 409.014.						
V 292.402†	11487.5	51.325 µg/L	0.8335	51.325 ppb	0.8335	1.62%
Zn 213.857†	46608.4	272.03 µg/L	0.690	272.03 ppb	0.690	0.25%

Sequence No.: 103
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 19:24:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136521.1	136521.1	97.5	%			19:25:21
1	Al 396.153Radial†	23587.9	24283.6	5089.1	µg/L	5089.1	ppb	19:25:21
1	Ca 317.933Radial†	73815.2	75175.0	5120.1	µg/L	5120.1	ppb	19:25:21
1	Fe 238.204 Radial†	68552.7	70229.0	5244.7	µg/L	5244.7	ppb	19:25:21
1	K 766.490 Radial†	14027.7	12900.9	5107.8	µg/L	5107.8	ppb	19:25:21
1	Mg 279.077 IEC†	10897.0	11009.7	5091.4	µg/L	5091.4	ppb	19:25:21
1	Na 589.592 Radial†	64927.6	65673.9	10175	µg/L	10175	ppb	19:25:21
1	Sr 421.552†	213246.9	219030.7	516.54	µg/L	516.54	ppb	19:25:19
1	Sc 361.383	1785028.6	1785028.6	98.940	%			19:25:48
1	Y 371.029	1036837.5	1036837.5	98.065	%			19:25:48
1	Ag 328.068†	126278.3	123066.0	510.14	µg/L	510.14	ppb	19:25:48
1	As 188.979†	1348.4	1381.4	474.62	µg/L	474.62	ppb	19:26:08
1	B 249.677†	36066.4	32387.7	501.90	µg/L	501.90	ppb	19:25:48
1	Ba 233.527†	112036.2	113381.1	504.38	µg/L	504.38	ppb	19:25:48
1	Be 313.107†	1696395.5	1715661.9	497.13	µg/L	497.13	ppb	19:25:48
1	Cd 226.502†	74724.8	75628.7	510.82	µg/L	510.82	ppb	19:25:48
1	Co 228.616†	38208.2	38827.8	513.92	µg/L	513.92	ppb	19:25:48
1	Cr 267.716†	58401.2	58793.6	508.51	µg/L	508.51	ppb	19:25:48
1	Cu 324.752†	122726.4	121005.2	507.72	µg/L	507.72	ppb	19:25:48
1	Mn 257.610†	380187.9	384076.4	509.28	µg/L	509.28	ppb	19:25:48
1	Mo 202.031†	15218.7	15420.3	504.78	µg/L	504.78	ppb	19:26:08
1	Ni 231.604†	40317.6	40845.5	511.03	µg/L	511.03	ppb	19:25:48
1	P 214.914†	10718.0	10858.6	2503.0	µg/L	2503.0	ppb	19:26:08
1	Pb 220.353†	8208.8	8193.3	505.78	µg/L	505.78	ppb	19:26:08
1	S 181.975 Axial†	1267.6	1192.3	1007.3	µg/L	1007.3	ppb	19:26:08
1	Sb 206.836†	3931.0	3883.4	501.83	µg/L	501.83	ppb	19:26:08
1	Se 196.026†	1259.7	1267.1	501	µg/L	501	ppb	19:26:08
1	SiO2†	52219.3	51039.7	5383.5	µg/L	5383.5	ppb	19:25:48
1	Si 251.611†	159931.4	160877.9	2526.9	µg/L	2526.9	ppb	19:25:48
1	Sn 189.927†	7076.1	7150.0	497.65	µg/L	497.65	ppb	19:26:08
1	Ti 334.940†	487366.6	491765.1	504.44	µg/L	504.44	ppb	19:25:48
1	Tl 190.801†	3527.8	3679.9	510.08	µg/L	510.08	ppb	19:26:08
1	U 409.014†	7214.7	7455.3	501.41	µg/L	501.41	ppb	19:25:48
1	V 292.402†	97263.0	97881.8	514.01	µg/L	514.01	ppb	19:25:48
1	Zn 213.857†	85435.3	85847.6	508.62	µg/L	508.62	ppb	19:25:48
2	Sc RADIAL	137094.4	137094.4	97.9	%			19:25:25
2	Al 396.153Radial†	23424.0	24014.9	5032.5	µg/L	5032.5	ppb	19:25:25
2	Ca 317.933Radial†	74322.8	75376.9	5133.8	µg/L	5133.8	ppb	19:25:25
2	Fe 238.204 Radial†	67171.8	68523.6	5117.3	µg/L	5117.3	ppb	19:25:25
2	K 766.490 Radial†	14279.2	13097.8	5185.8	µg/L	5185.8	ppb	19:25:25
2	Mg 279.077 IEC†	11076.8	11146.7	5154.8	µg/L	5154.8	ppb	19:25:25
2	Na 589.592 Radial†	65167.5	65640.4	10170	µg/L	10170	ppb	19:25:25
2	Sr 421.552†	209465.0	214250.9	505.26	µg/L	505.26	ppb	19:25:23
2	Sc 361.383	1786971.9	1786971.9	99.048	%			19:26:11
2	Y 371.029	1036999.3	1036999.3	98.080	%			19:26:11
2	Ag 328.068†	126068.6	122715.5	508.71	µg/L	508.71	ppb	19:26:11
2	As 188.979†	1350.8	1382.3	474.93	µg/L	474.93	ppb	19:26:31
2	B 249.677†	35905.2	32185.3	498.76	µg/L	498.76	ppb	19:26:11
2	Ba 233.527†	111728.7	112947.4	502.45	µg/L	502.45	ppb	19:26:11
2	Be 313.107†	1693634.9	1711010.1	495.78	µg/L	495.78	ppb	19:26:11
2	Cd 226.502†	74712.9	75534.6	510.20	µg/L	510.20	ppb	19:26:11
2	Co 228.616†	38177.4	38754.8	512.96	µg/L	512.96	ppb	19:26:11
2	Cr 267.716†	58491.0	58820.1	508.72	µg/L	508.72	ppb	19:26:11
2	Cu 324.752†	122491.0	120632.6	506.16	µg/L	506.16	ppb	19:26:11
2	Mn 257.610†	379292.2	382754.2	507.52	µg/L	507.52	ppb	19:26:11
2	Mo 202.031†	15313.0	15498.8	507.34	µg/L	507.34	ppb	19:26:31
2	Ni 231.604†	40397.4	40881.7	511.48	µg/L	511.48	ppb	19:26:11
2	P 214.914†	10815.0	10944.7	2523.0	µg/L	2523.0	ppb	19:26:31
2	Pb 220.353†	8283.3	8259.5	509.84	µg/L	509.84	ppb	19:26:31

2	S 181.975 Axial†	1285.7	1209.2	1021.5 µg/L	1021.5 ppb	19:26:31
2	Sb 206.836†	3943.4	3891.6	502.93 µg/L	502.93 ppb	19:26:31
2	Se 196.026†	1283.8	1290.0	510 µg/L	510 ppb	19:26:31
2	SiO2†	52171.8	50934.3	5372.2 µg/L	5372.2 ppb	19:26:11
2	Si 251.611†	159707.8	160476.3	2520.5 µg/L	2520.5 ppb	19:26:11
2	Sn 189.927†	7124.0	7190.6	500.46 µg/L	500.46 ppb	19:26:31
2	Ti 334.940†	486042.2	489892.3	502.50 µg/L	502.50 ppb	19:26:11
2	Tl 190.801†	3535.1	3683.3	510.53 µg/L	510.53 ppb	19:26:31
2	U 409.014†	7502.0	7737.5	519.15 µg/L	519.15 ppb	19:26:11
2	V 292.402†	97106.3	97616.7	512.70 µg/L	512.70 ppb	19:26:11
2	Zn 213.857†	85218.7	85535.1	506.76 µg/L	506.76 ppb	19:26:11
3	Sc RADIAL	137874.2	137874.2	98.4 %		19:25:29
3	Al 396.153Radial†	23589.1	24047.3	5039.1 µg/L	5039.1 ppb	19:25:29
3	Ca 317.933Radial†	74961.1	75596.0	5148.8 µg/L	5148.8 ppb	19:25:29
3	Fe 238.204 Radial†	67823.4	68797.6	5137.8 µg/L	5137.8 ppb	19:25:29
3	K 766.490 Radial†	14366.5	13103.9	5188.2 µg/L	5188.2 ppb	19:25:29
3	Mg 279.077 IEC†	11197.0	11204.7	5181.7 µg/L	5181.7 ppb	19:25:29
3	Na 589.592 Radial†	65776.7	65882.7	10208 µg/L	10208 ppb	19:25:29
3	Sr 421.552†	212161.4	215780.1	508.87 µg/L	508.87 ppb	19:25:27
3	Sc 361.383	1778122.5	1778122.5	98.557 %		19:26:34
3	Y 371.029	1032990.8	1032990.8	97.701 %		19:26:34
3	Ag 328.068†	125744.9	123020.6	509.94 µg/L	509.94 ppb	19:26:34
3	As 188.979†	1344.1	1382.3	474.94 µg/L	474.94 ppb	19:26:55
3	B 249.677†	36086.7	32549.9	504.42 µg/L	504.42 ppb	19:26:34
3	Ba 233.527†	111477.2	113253.7	503.81 µg/L	503.81 ppb	19:26:34
3	Be 313.107†	1688919.0	1714735.2	496.86 µg/L	496.86 ppb	19:26:34
3	Cd 226.502†	74366.0	75558.0	510.36 µg/L	510.36 ppb	19:26:34
3	Co 228.616†	38121.1	38889.5	514.74 µg/L	514.74 ppb	19:26:34
3	Cr 267.716†	58136.3	58754.2	508.16 µg/L	508.16 ppb	19:26:34
3	Cu 324.752†	122208.1	120961.0	507.52 µg/L	507.52 ppb	19:26:34
3	Mn 257.610†	378251.3	383603.9	508.65 µg/L	508.65 ppb	19:26:34
3	Mo 202.031†	15335.2	15598.3	510.59 µg/L	510.59 ppb	19:26:55
3	Ni 231.604†	40219.7	40904.4	511.76 µg/L	511.76 ppb	19:26:34
3	P 214.914†	10818.9	11002.9	2536.5 µg/L	2536.5 ppb	19:26:55
3	Pb 220.353†	8297.7	8315.7	513.33 µg/L	513.33 ppb	19:26:55
3	S 181.975 Axial†	1279.7	1209.5	1021.8 µg/L	1021.8 ppb	19:26:55
3	Sb 206.836†	3968.3	3936.7	508.80 µg/L	508.80 ppb	19:26:55
3	Se 196.026†	1290.2	1303.0	516 µg/L	516 ppb	19:26:55
3	SiO2†	52053.3	51076.2	5387.1 µg/L	5387.1 ppb	19:26:34
3	Si 251.611†	159258.8	160823.2	2525.9 µg/L	2525.9 ppb	19:26:34
3	Sn 189.927†	7150.7	7253.5	504.83 µg/L	504.83 ppb	19:26:55
3	Ti 334.940†	484620.6	490892.1	503.53 µg/L	503.53 ppb	19:26:34
3	Tl 190.801†	3557.8	3724.1	516.11 µg/L	516.11 ppb	19:26:55
3	U 409.014†	7173.8	7442.2	500.55 µg/L	500.55 ppb	19:26:34
3	V 292.402†	96720.9	97713.6	513.21 µg/L	513.21 ppb	19:26:34
3	Zn 213.857†	84972.8	85713.8	507.83 µg/L	507.83 ppb	19:26:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783374.3	98.848	%	0.2578				0.26%
Sc RADIAL	137163.2	97.9	%	0.48				0.50%
Y 371.029	1035609.2	97.949	%	0.2146				0.22%
Ag 328.068†	122934.0	509.60	µg/L	0.774	509.60	ppb	0.774	0.15%
QC value within limits for Ag 328.068 Recovery = 101.92%								
Al 396.153Radial†	24115.3	5053.6	µg/L	30.98	5053.6	ppb	30.98	0.61%
QC value within limits for Al 396.153Radial Recovery = 101.07%								
As 188.979†	1382.0	474.83	µg/L	0.182	474.83	ppb	0.182	0.04%
QC value within limits for As 188.979 Recovery = 94.97%								
B 249.677†	32374.3	501.69	µg/L	2.838	501.69	ppb	2.838	0.57%
QC value within limits for B 249.677 Recovery = 100.34%								
Ba 233.527†	113194.1	503.55	µg/L	0.990	503.55	ppb	0.990	0.20%
QC value within limits for Ba 233.527 Recovery = 100.71%								
Be 313.107†	1713802.4	496.59	µg/L	0.710	496.59	ppb	0.710	0.14%
QC value within limits for Be 313.107 Recovery = 99.32%								
Ca 317.933Radial†	75382.6	5134.2	µg/L	14.34	5134.2	ppb	14.34	0.28%
QC value within limits for Ca 317.933Radial Recovery = 102.68%								
Cd 226.502†	75573.8	510.46	µg/L	0.324	510.46	ppb	0.324	0.06%
QC value within limits for Cd 226.502 Recovery = 102.09%								
Co 228.616†	38824.0	513.88	µg/L	0.892	513.88	ppb	0.892	0.17%

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   QC value within limits for Co 228.616  Recovery = 102.78%
Cr 267.716†            58789.3      508.46 µg/L        0.281      508.46 ppb          0.281   0.06%
   QC value within limits for Cr 267.716  Recovery = 101.69%
Cu 324.752†           120866.3      507.13 µg/L        0.850      507.13 ppb          0.850   0.17%
   QC value within limits for Cu 324.752  Recovery = 101.43%
Fe 238.204 Radial†     69183.4      5166.6 µg/L       68.39      5166.6 ppb          68.39   1.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.33%
K 766.490 Radial†      13034.2      5160.6 µg/L       45.75      5160.6 ppb          45.75   0.89%
   QC value within limits for K 766.490 Radial  Recovery = 103.21%
Mg 279.077 IEC†        11120.4      5142.7 µg/L       46.37      5142.7 ppb          46.37   0.90%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.85%
Mn 257.610†           383478.2      508.48 µg/L        0.890      508.48 ppb          0.890   0.17%
   QC value within limits for Mn 257.610  Recovery = 101.70%
Mo 202.031†            15505.8      507.57 µg/L        2.916      507.57 ppb          2.916   0.57%
   QC value within limits for Mo 202.031  Recovery = 101.51%
Na 589.592 Radial†     65732.3       10184 µg/L         20.3       10184 ppb           20.3   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 101.84%
Ni 231.604†            40877.2      511.42 µg/L        0.372      511.42 ppb          0.372   0.07%
   QC value within limits for Ni 231.604  Recovery = 102.28%
P 214.914†             10935.4      2520.8 µg/L       16.84      2520.8 ppb          16.84   0.67%
   QC value within limits for P 214.914  Recovery = 100.83%
Pb 220.353†             8256.2      509.65 µg/L        3.780      509.65 ppb          3.780   0.74%
   QC value within limits for Pb 220.353  Recovery = 101.93%
S 181.975 Axial†        1203.7      1016.9 µg/L        8.31      1016.9 ppb           8.31   0.82%
   QC value within limits for S 181.975 Axial  Recovery = 101.69%
Sb 206.836†             3903.9      504.52 µg/L        3.748      504.52 ppb          3.748   0.74%
   QC value within limits for Sb 206.836  Recovery = 100.90%
Se 196.026†             1286.7         509 µg/L          7.1         509 ppb            7.1   1.40%
   QC value within limits for Se 196.026  Recovery = 101.83%
SiO2†                  51016.7      5380.9 µg/L       7.76      5380.9 ppb          7.76   0.14%
   QC value within limits for SiO2  Recovery = 100.62%
Si 251.611†           160725.8      2524.4 µg/L       3.44      2524.4 ppb          3.44   0.14%
   QC value within limits for Si 251.611  Recovery = 100.98%
Sn 189.927†             7198.0      500.98 µg/L        3.616      500.98 ppb          3.616   0.72%
   QC value within limits for Sn 189.927  Recovery = 100.20%
Sr 421.552†           216353.9      510.22 µg/L        5.757      510.22 ppb          5.757   1.13%
   QC value within limits for Sr 421.552  Recovery = 102.04%
Ti 334.940†           490849.8      503.49 µg/L        0.969      503.49 ppb          0.969   0.19%
   QC value within limits for Ti 334.940  Recovery = 100.70%
Tl 190.801†             3695.8      512.24 µg/L        3.356      512.24 ppb          3.356   0.66%
   QC value within limits for Tl 190.801  Recovery = 102.45%
U 409.014†              7545.0      507.04 µg/L       10.500      507.04 ppb         10.500   2.07%
   QC value within limits for U 409.014  Recovery = 101.41%
V 292.402†             97737.4      513.31 µg/L        0.665      513.31 ppb          0.665   0.13%
   QC value within limits for V 292.402  Recovery = 102.66%
Zn 213.857†            85698.8      507.74 µg/L        0.932      507.74 ppb          0.932   0.18%
   QC value within limits for Zn 213.857  Recovery = 101.55%
All analyte(s) passed QC.
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Sequence No.: 104
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 19:27:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137538.0	137538.0	98.2	%			19:27:31
1	Al 396.153Radial†	-56.6	20.9	4.3459	µg/L	4.3459	ppb	19:27:51
1	Ca 317.933Radial†	719.8	161.7	11.016	µg/L	11.016	ppb	19:27:51
1	Fe 238.204 Radial†	177.9	63.9	4.7709	µg/L	4.7709	ppb	19:27:51
1	K 766.490 Radial†	1588.5	124.3	49.227	µg/L	49.227	ppb	19:27:31
1	Mg 279.077 IEC†	167.8	-1.6	-0.7105	µg/L	-0.7105	ppb	19:27:51
1	Na 589.592 Radial†	1161.9	231.0	35.761	µg/L	35.761	ppb	19:27:31
1	Sr 421.552†	-147.7	54.1	0.1274	µg/L	0.1274	ppb	19:27:31
1	Sc 361.383	1781074.8	1781074.8	98.721	%			19:28:53
1	Y 371.029	1046057.8	1046057.8	98.937	%			19:28:53
1	Ag 328.068†	3965.4	-548.4	-2.2712	µg/L	-2.2712	ppb	19:28:55
1	As 188.979†	-20.1	-1.8	-0.5998	µg/L	-0.5998	ppb	19:29:15
1	B 249.677†	4012.7	-0.4	-0.0070	µg/L	-0.0070	ppb	19:28:55
1	Ba 233.527†	-152.0	-9.4	-0.0422	µg/L	-0.0422	ppb	19:29:15
1	Be 313.107†	-581.3	502.8	0.1412	µg/L	0.1412	ppb	19:28:55
1	Cd 226.502†	-67.6	34.9	0.2354	µg/L	0.2354	ppb	19:29:15
1	Co 228.616†	-198.6	9.1	0.1201	µg/L	0.1201	ppb	19:29:15
1	Cr 267.716†	265.6	35.8	0.3213	µg/L	0.3213	ppb	19:29:15
1	Cu 324.752†	2803.6	-196.2	-0.8320	µg/L	-0.8320	ppb	19:28:55
1	Mn 257.610†	320.1	139.5	0.1851	µg/L	0.1851	ppb	19:29:15
1	Mo 202.031†	-8.7	29.7	0.9727	µg/L	0.9727	ppb	19:29:15
1	Ni 231.604†	-73.8	21.1	0.2640	µg/L	0.2640	ppb	19:29:15
1	P 214.914†	30.2	56.3	13.013	µg/L	13.013	ppb	19:29:15
1	Pb 220.353†	114.1	12.2	0.7624	µg/L	0.7624	ppb	19:29:15
1	S 181.975 Axial†	90.0	2.2	1.8805	µg/L	1.8805	ppb	19:29:15
1	Sb 206.836†	71.0	-17.8	-2.2895	µg/L	-2.2895	ppb	19:29:15
1	Se 196.026†	17.7	11.8	4.62	µg/L	4.62	ppb	19:29:15
1	SiO2†	1773.9	57.8	6.0928	µg/L	6.0928	ppb	19:29:15
1	Si 251.611†	831.2	74.9	1.1680	µg/L	1.1680	ppb	19:28:55
1	Sn 189.927†	3.0	1.1	0.0785	µg/L	0.0785	ppb	19:29:15
1	Ti 334.940†	691.3	-122.8	-0.1197	µg/L	-0.1197	ppb	19:28:55
1	Tl 190.801†	-123.7	-11.0	-1.5123	µg/L	-1.5123	ppb	19:29:15
1	U 409.014†	-394.1	-235.9	-14.923	µg/L	-14.923	ppb	19:28:55
1	V 292.402†	294.6	-124.8	-0.6461	µg/L	-0.6461	ppb	19:28:55
1	Zn 213.857†	611.5	116.4	0.6935	µg/L	0.6935	ppb	19:29:15
2	Sc RADIAL	135509.1	135509.1	96.7	%			19:27:53
2	Al 396.153Radial†	-68.0	8.3	1.6960	µg/L	1.6960	ppb	19:28:13
2	Ca 317.933Radial†	717.1	169.9	11.572	µg/L	11.572	ppb	19:28:13
2	Fe 238.204 Radial†	180.2	69.0	5.1534	µg/L	5.1534	ppb	19:28:13
2	K 766.490 Radial†	1647.3	209.3	82.916	µg/L	82.916	ppb	19:27:53
2	Mg 279.077 IEC†	162.7	-4.2	-1.9297	µg/L	-1.9297	ppb	19:28:13
2	Na 589.592 Radial†	1160.5	247.2	38.246	µg/L	38.246	ppb	19:27:53
2	Sr 421.552†	-205.6	-8.1	-0.0191	µg/L	-0.0191	ppb	19:27:53
2	Sc 361.383	1794413.8	1794413.8	99.460	%			19:29:17
2	Y 371.029	1053276.9	1053276.9	99.620	%			19:29:17
2	Ag 328.068†	4284.5	-257.5	-1.0692	µg/L	-1.0692	ppb	19:29:20
2	As 188.979†	-19.9	-1.5	-0.4985	µg/L	-0.4985	ppb	19:29:40
2	B 249.677†	4024.5	-18.8	-0.2925	µg/L	-0.2925	ppb	19:29:20
2	Ba 233.527†	-152.0	-8.3	-0.0360	µg/L	-0.0360	ppb	19:29:40
2	Be 313.107†	-579.1	509.5	0.1417	µg/L	0.1417	ppb	19:29:20
2	Cd 226.502†	-69.7	33.3	0.2247	µg/L	0.2247	ppb	19:29:40
2	Co 228.616†	-207.4	1.8	0.0232	µg/L	0.0232	ppb	19:29:40
2	Cr 267.716†	286.1	54.4	0.4865	µg/L	0.4865	ppb	19:29:40
2	Cu 324.752†	2856.4	-164.2	-0.7020	µg/L	-0.7020	ppb	19:29:20
2	Mn 257.610†	305.0	122.0	0.1619	µg/L	0.1619	ppb	19:29:40
2	Mo 202.031†	-9.8	28.7	0.9382	µg/L	0.9382	ppb	19:29:40
2	Ni 231.604†	-50.1	45.5	0.5696	µg/L	0.5696	ppb	19:29:40
2	P 214.914†	0.2	25.9	6.0006	µg/L	6.0006	ppb	19:29:40
2	Pb 220.353†	121.0	18.2	1.1351	µg/L	1.1351	ppb	19:29:40

2	S 181.975 Axial†	91.4	3.0	2.5491 µg/L	2.5491 ppb	19:29:40
2	Sb 206.836†	100.0	10.9	1.4088 µg/L	1.4088 ppb	19:29:40
2	Se 196.026†	9.5	3.4	1.32 µg/L	1.32 ppb	19:29:40
2	SiO2†	1806.8	77.5	8.1672 µg/L	8.1672 ppb	19:29:40
2	Si 251.611†	1044.1	282.8	4.4411 µg/L	4.4411 ppb	19:29:20
2	Sn 189.927†	12.8	11.0	0.7645 µg/L	0.7645 ppb	19:29:40
2	Ti 334.940†	830.7	12.2	0.0208 µg/L	0.0208 ppb	19:29:20
2	Tl 190.801†	-110.5	3.2	0.4432 µg/L	0.4432 ppb	19:29:40
2	U 409.014†	-467.8	-307.0	-19.331 µg/L	-19.331 ppb	19:29:20
2	V 292.402†	562.1	141.9	0.7336 µg/L	0.7336 ppb	19:29:20
2	Zn 213.857†	611.2	111.6	0.6626 µg/L	0.6626 ppb	19:29:40
3	Sc RADIAL	139524.3	139524.3	99.6 %		19:28:15
3	Al 396.153Radial†	-95.3	-17.1	-3.6292 µg/L	-3.6292 ppb	19:28:35
3	Ca 317.933Radial†	721.3	152.8	10.407 µg/L	10.407 ppb	19:28:35
3	Fe 238.204 Radial†	194.5	78.0	5.8243 µg/L	5.8243 ppb	19:28:35
3	K 766.490 Radial†	1638.3	151.2	59.920 µg/L	59.920 ppb	19:28:15
3	Mg 279.077 IEC†	175.9	4.2	1.9469 µg/L	1.9469 ppb	19:28:35
3	Na 589.592 Radial†	1097.1	149.0	23.048 µg/L	23.048 ppb	19:28:15
3	Sr 421.552†	-94.0	110.1	0.2596 µg/L	0.2596 ppb	19:28:15
3	Sc 361.383	1784487.6	1784487.6	98.910 %		19:29:42
3	Y 371.029	1047390.4	1047390.4	99.063 %		19:29:42
3	Ag 328.068†	4222.1	-296.5	-1.2368 µg/L	-1.2368 ppb	19:29:44
3	As 188.979†	-22.7	-4.4	-1.4829 µg/L	-1.4829 ppb	19:30:04
3	B 249.677†	3991.5	-29.7	-0.4618 µg/L	-0.4618 ppb	19:29:44
3	Ba 233.527†	-175.1	-32.5	-0.1446 µg/L	-0.1446 ppb	19:30:04
3	Be 313.107†	-417.2	670.0	0.1895 µg/L	0.1895 ppb	19:29:44
3	Cd 226.502†	-71.3	31.2	0.2107 µg/L	0.2107 ppb	19:30:04
3	Co 228.616†	-197.7	10.4	0.1375 µg/L	0.1375 ppb	19:30:04
3	Cr 267.716†	288.1	58.1	0.5143 µg/L	0.5143 ppb	19:30:04
3	Cu 324.752†	2903.2	-100.9	-0.4334 µg/L	-0.4334 ppb	19:29:44
3	Mn 257.610†	293.3	111.8	0.1483 µg/L	0.1483 ppb	19:30:04
3	Mo 202.031†	-19.1	19.2	0.6286 µg/L	0.6286 ppb	19:30:04
3	Ni 231.604†	-73.1	22.0	0.2750 µg/L	0.2750 ppb	19:30:04
3	P 214.914†	21.5	47.4	10.964 µg/L	10.964 ppb	19:30:04
3	Pb 220.353†	111.7	9.4	0.5932 µg/L	0.5932 ppb	19:30:04
3	S 181.975 Axial†	99.1	11.2	9.4517 µg/L	9.4517 ppb	19:30:04
3	Sb 206.836†	79.6	-9.2	-1.1853 µg/L	-1.1853 ppb	19:30:04
3	Se 196.026†	21.6	15.6	6.15 µg/L	6.15 ppb	19:30:04
3	SiO2†	1832.7	113.8	12.025 µg/L	12.025 ppb	19:30:04
3	Si 251.611†	1221.7	468.2	7.3685 µg/L	7.3685 ppb	19:29:44
3	Sn 189.927†	14.3	12.6	0.8713 µg/L	0.8713 ppb	19:30:04
3	Ti 334.940†	811.1	-2.9	0.0031 µg/L	0.0031 ppb	19:29:44
3	Tl 190.801†	-125.4	-12.5	-1.7091 µg/L	-1.7091 ppb	19:30:04
3	U 409.014†	-397.3	-238.4	-15.063 µg/L	-15.063 ppb	19:29:44
3	V 292.402†	350.0	-69.4	-0.3618 µg/L	-0.3618 ppb	19:29:44
3	Zn 213.857†	601.3	105.0	0.6246 µg/L	0.6246 ppb	19:30:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786658.7	99.030	%	0.3841				0.39%
Sc RADIAL	137523.8	98.2	%	1.43				1.46%
Y 371.029	1048908.4	99.207	%	0.3633				0.37%
Ag 328.068†	-367.5	-1.5258	µg/L	0.65103	-1.5258	ppb	0.65103	42.67%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.0	0.8042	µg/L	4.06162	0.8042	ppb	4.06162	505.04%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.6	-0.8604	µg/L	0.54146	-0.8604	ppb	0.54146	62.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-16.3	-0.2538	µg/L	0.22988	-0.2538	ppb	0.22988	90.59%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-16.7	-0.0742	µg/L	0.06099	-0.0742	ppb	0.06099	82.16%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	560.8	0.1575	µg/L	0.02776	0.1575	ppb	0.02776	17.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	161.5	10.998	µg/L	0.5828	10.998	ppb	0.5828	5.30%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	33.1	0.2236	µg/L	0.01242	0.2236	ppb	0.01242	5.55%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.1	0.0936	µg/L	0.06162	0.0936	ppb	0.06162	65.84%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              49.4      0.4407 µg/L       0.10432      0.4407 ppb        0.10432  23.67%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -153.7     -0.6558 µg/L       0.20328     -0.6558 ppb        0.20328  31.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       70.3      5.2495 µg/L       0.53322      5.2495 ppb        0.53322  10.16%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       161.6      64.021 µg/L       17.2148      64.021 ppb        17.2148  26.89%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.5     -0.2311 µg/L       1.98227     -0.2311 ppb        1.98227 857.66%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             124.4      0.1651 µg/L       0.01865      0.1651 ppb        0.01865  11.30%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              25.9      0.8465 µg/L       0.18948      0.8465 ppb        0.18948  22.38%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      209.1      32.352 µg/L        8.1524      32.352 ppb         8.1524  25.20%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              29.5      0.3696 µg/L       0.17333      0.3696 ppb        0.17333  46.90%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               43.2      9.9925 µg/L       3.60579      9.9925 ppb        3.60579  36.08%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              13.3      0.8302 µg/L       0.27727      0.8302 ppb        0.27727  33.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          5.5      4.6271 µg/L       4.19158      4.6271 ppb        4.19158  90.59%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -5.4     -0.6886 µg/L       1.89852     -0.6886 ppb        1.89852 275.69%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              10.3        4.03 µg/L         2.470        4.03 ppb          2.470  61.27%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    83.0      8.7615 µg/L       3.01019      8.7615 ppb        3.01019  34.36%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             275.3      4.3259 µg/L       3.10185      4.3259 ppb        3.10185  71.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.2      0.5714 µg/L       0.43023      0.5714 ppb        0.43023  75.29%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              52.0      0.1226 µg/L       0.13942      0.1226 ppb        0.13942 113.71%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -37.8     -0.0320 µg/L       0.07652     -0.0320 ppb        0.07652 239.36%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -6.8     -0.9261 µg/L       1.18991     -0.9261 ppb        1.18991 128.49%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -260.4     -16.439 µg/L        2.5059     -16.439 ppb         2.5059  15.24%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -17.5     -0.0914 µg/L       0.72848     -0.0914 ppb        0.72848 796.79%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             111.0      0.6602 µg/L       0.03449      0.6602 ppb        0.03449   5.22%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 105
Sample ID: 249329003|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 419
Date Collected: 4/5/2010 19:30:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249329003|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137518.5	137518.5	98.2	%			19:30:46
1	Al 396.153Radial†	200063.0	203886.9	42925	µg/L	42925	ppb	19:30:44
1	Ca 317.933Radial†	164111.9	166612.8	11348	µg/L	11348	ppb	19:30:46
1	Fe 238.204 Radial†	922889.7	940049.8	70202	µg/L	70202	ppb	19:30:44
1	K 766.490 Radial†	21014.2	19913.8	7878.4	µg/L	7878.4	ppb	19:30:46
1	Mg 279.077 IEC†	16493.2	16629.5	7618.4	µg/L	7618.4	ppb	19:30:46
1	Na 589.592 Radial†	4180.6	3306.3	505.49	µg/L	505.49	ppb	19:30:46
1	Sr 421.552†	34566.1	35417.7	83.443	µg/L	83.443	ppb	19:30:46
1	Sc 361.383	1753678.1	1753678.1	97.202	%			19:30:59
1	Y 371.029	1164248.2	1164248.2	110.12	%			19:30:59
1	Ag 328.068†	3755.4	-701.7	-3.5144	µg/L	-3.5144	ppb	19:30:59
1	As 188.979†	5.3	24.0	24.210	µg/L	24.210	ppb	19:31:19
1	B 249.677†	5074.7	1155.6	17.906	µg/L	17.906	ppb	19:30:59
1	Ba 233.527†	95495.8	98388.9	436.48	µg/L	436.48	ppb	19:30:59
1	Be 313.107†	20936.9	22631.2	6.4527	µg/L	6.4527	ppb	19:30:59
1	Cd 226.502†	990.9	1122.7	0.2208	µg/L	0.2208	ppb	19:31:19
1	Co 228.616†	1193.2	1437.8	15.793	µg/L	15.793	ppb	19:31:19
1	Cr 267.716†	3928.1	3808.0	35.097	µg/L	35.097	ppb	19:31:19
1	Cu 324.752†	10127.2	7382.6	41.040	µg/L	41.040	ppb	19:30:59
1	Mn 257.610†	1454164.6	1495833.9	1983.8	µg/L	1983.8	ppb	19:30:59
1	Mo 202.031†	123.6	165.8	8.3672	µg/L	8.3672	ppb	19:31:19
1	Ni 231.604†	2358.3	2522.0	31.554	µg/L	31.554	ppb	19:31:19
1	P 214.914†	2491.5	2588.9	560.32	µg/L	560.32	ppb	19:31:19
1	Pb 220.353†	1065.0	992.2	64.048	µg/L	64.048	ppb	19:31:19
1	S 181.975 Axial†	569.5	496.9	418.10	µg/L	418.10	ppb	19:31:19
1	Sb 206.836†	80.4	-7.0	-2.3312	µg/L	-2.3312	ppb	19:31:19
1	Se 196.026†	-20.0	-26.7	13.5	µg/L	13.5	ppb	19:31:19
1	SiO2†	385838.7	395204.9	41851	µg/L	41851	ppb	19:30:59
1	Si 251.611†	1205784.8	1239722.9	19549	µg/L	19549	ppb	19:30:59
1	Sn 189.927†	93.7	94.5	12.528	µg/L	12.528	ppb	19:31:19
1	Ti 334.940†	1676442.5	1723871.2	1770.3	µg/L	1770.3	ppb	19:30:59
1	Tl 190.801†	-294.0	-188.2	-2.2337	µg/L	-2.2337	ppb	19:31:19
1	U 409.014†	-5408.4	-5400.7	-338.31	µg/L	-338.31	ppb	19:30:59
1	V 292.402†	17189.7	17261.2	80.384	µg/L	80.384	ppb	19:31:19
1	Zn 213.857†	44407.2	45182.4	263.67	µg/L	263.67	ppb	19:30:59
2	Sc RADIAL	136458.5	136458.5	97.4	%			19:30:51
2	Al 396.153Radial†	196786.8	202106.6	42550	µg/L	42550	ppb	19:30:48
2	Ca 317.933Radial†	162833.1	166598.6	11347	µg/L	11347	ppb	19:30:51
2	Fe 238.204 Radial†	900347.2	924209.9	69019	µg/L	69019	ppb	19:30:48
2	K 766.490 Radial†	21063.3	20130.5	7964.4	µg/L	7964.4	ppb	19:30:51
2	Mg 279.077 IEC†	16257.7	16518.2	7568.0	µg/L	7568.0	ppb	19:30:51
2	Na 589.592 Radial†	4098.8	3255.5	497.53	µg/L	497.53	ppb	19:30:51
2	Sr 421.552†	34355.0	35474.5	83.577	µg/L	83.577	ppb	19:30:51
2	Sc 361.383	1774392.0	1774392.0	98.350	%			19:31:22
2	Y 371.029	1177438.5	1177438.5	111.36	%			19:31:22
2	Ag 328.068†	4026.9	-470.7	-2.5738	µg/L	-2.5738	ppb	19:31:22
2	As 188.979†	13.2	32.0	26.614	µg/L	26.614	ppb	19:31:42
2	B 249.677†	4979.3	997.7	15.449	µg/L	15.449	ppb	19:31:22
2	Ba 233.527†	96899.3	98669.1	437.74	µg/L	437.74	ppb	19:31:22
2	Be 313.107†	21033.8	22478.3	6.4104	µg/L	6.4104	ppb	19:31:22
2	Cd 226.502†	989.1	1109.0	0.2521	µg/L	0.2521	ppb	19:31:42
2	Co 228.616†	1223.0	1453.8	16.068	µg/L	16.068	ppb	19:31:42
2	Cr 267.716†	3907.8	3740.1	34.462	µg/L	34.462	ppb	19:31:42
2	Cu 324.752†	10347.9	7485.3	41.302	µg/L	41.302	ppb	19:31:22
2	Mn 257.610†	1475130.4	1499687.2	1988.9	µg/L	1988.9	ppb	19:31:22
2	Mo 202.031†	108.2	148.6	7.7589	µg/L	7.7589	ppb	19:31:42
2	Ni 231.604†	2364.1	2499.7	31.274	µg/L	31.274	ppb	19:31:42
2	P 214.914†	2453.5	2520.3	545.19	µg/L	545.19	ppb	19:31:42
2	Pb 220.353†	1067.7	982.2	63.446	µg/L	63.446	ppb	19:31:42

2	S 181.975 Axial†	564.7	485.2	408.23	µg/L	408.23 ppb	19:31:42
2	Sb 206.836†	69.9	-18.7	-3.8264	µg/L	-3.8264 ppb	19:31:42
2	Se 196.026†	-25.6	-32.2	10.9	µg/L	10.9 ppb	19:31:42
2	SiO2†	391327.2	396151.6	41951	µg/L	41951 ppb	19:31:22
2	Si 251.611†	1222842.8	1242585.8	19594	µg/L	19594 ppb	19:31:22
2	Sn 189.927†	87.1	86.6	11.988	µg/L	11.988 ppb	19:31:42
2	Ti 334.940†	1698407.1	1726070.5	1772.6	µg/L	1772.6 ppb	19:31:22
2	Tl 190.801†	-305.9	-196.7	-3.3757	µg/L	-3.3757 ppb	19:31:42
2	U 409.014†	-5367.4	-5294.1	-331.37	µg/L	-331.37 ppb	19:31:22
2	V 292.402†	17089.3	16952.7	78.904	µg/L	78.904 ppb	19:31:42
2	Zn 213.857†	45110.4	45364.0	264.87	µg/L	264.87 ppb	19:31:22
3	Sc RADIAL	135875.0	135875.0	97.0	%		19:30:55
3	Al 396.153Radial†	202360.7	208721.1	43943	µg/L	43943 ppb	19:30:53
3	Ca 317.933Radial†	162200.5	166664.2	11351	µg/L	11351 ppb	19:30:55
3	Fe 238.204 Radial†	934569.6	963463.9	71951	µg/L	71951 ppb	19:30:53
3	K 766.490 Radial†	20856.7	20010.4	7916.4	µg/L	7916.4 ppb	19:30:55
3	Mg 279.077 IEC†	16260.4	16592.7	7599.9	µg/L	7599.9 ppb	19:30:55
3	Na 589.592 Radial†	4146.8	3323.1	508.05	µg/L	508.05 ppb	19:30:55
3	Sr 421.552†	34186.1	35451.9	83.523	µg/L	83.523 ppb	19:30:55
3	Sc 361.383	1781957.3	1781957.3	98.770	%		19:31:45
3	Y 371.029	1182519.9	1182519.9	111.84	%		19:31:45
3	Ag 328.068†	4038.8	-476.0	-2.6227	µg/L	-2.6227 ppb	19:31:45
3	As 188.979†	17.2	36.0	28.632	µg/L	28.632 ppb	19:32:05
3	B 249.677†	5198.1	1197.7	18.559	µg/L	18.559 ppb	19:31:45
3	Ba 233.527†	97786.0	99148.6	439.83	µg/L	439.83 ppb	19:31:45
3	Be 313.107†	21352.4	22710.1	6.4761	µg/L	6.4761 ppb	19:31:45
3	Cd 226.502†	984.9	1100.6	-0.1135	µg/L	-0.1135 ppb	19:32:05
3	Co 228.616†	1220.9	1446.4	15.819	µg/L	15.819 ppb	19:32:05
3	Cr 267.716†	3905.9	3721.3	34.403	µg/L	34.403 ppb	19:32:05
3	Cu 324.752†	10251.2	7342.7	41.129	µg/L	41.129 ppb	19:31:45
3	Mn 257.610†	1484966.0	1503277.5	1993.7	µg/L	1993.7 ppb	19:31:45
3	Mo 202.031†	123.3	163.4	8.3595	µg/L	8.3595 ppb	19:32:05
3	Ni 231.604†	2339.0	2464.1	30.828	µg/L	30.828 ppb	19:32:05
3	P 214.914†	2487.3	2544.0	548.98	µg/L	548.98 ppb	19:32:05
3	Pb 220.353†	1069.7	979.6	63.286	µg/L	63.286 ppb	19:32:05
3	S 181.975 Axial†	565.6	483.8	407.01	µg/L	407.01 ppb	19:32:05
3	Sb 206.836†	80.4	-8.4	-2.5303	µg/L	-2.5303 ppb	19:32:05
3	Se 196.026†	-19.8	-26.2	14.3	µg/L	14.3 ppb	19:32:05
3	SiO2†	393265.5	396424.7	41980	µg/L	41980 ppb	19:31:45
3	Si 251.611†	1229759.5	1244309.9	19621	µg/L	19621 ppb	19:31:45
3	Sn 189.927†	89.8	89.1	12.167	µg/L	12.167 ppb	19:32:05
3	Ti 334.940†	1708767.4	1729228.3	1775.9	µg/L	1775.9 ppb	19:31:45
3	Tl 190.801†	-308.2	-197.8	-3.4712	µg/L	-3.4712 ppb	19:32:05
3	U 409.014†	-5467.6	-5372.3	-336.95	µg/L	-336.95 ppb	19:31:45
3	V 292.402†	17147.3	16937.7	78.515	µg/L	78.515 ppb	19:32:05
3	Zn 213.857†	45441.3	45504.3	265.43	µg/L	265.43 ppb	19:31:45

Mean Data: 249329003|965624|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1770009.1	98.107	%	0.8115				0.83%
Sc RADIAL	136617.3	97.5	%	0.59				0.61%
Y 371.029	1174735.5	111.11	%	0.892				0.80%
Ag 328.068†	-549.5	-2.9036	µg/L	0.52951	-2.9036	ppb	0.52951	18.24%
Al 396.153Radial†	204904.9	43140	µg/L	720.6	43140	ppb	720.6	1.67%
As 188.979†	30.7	26.486	µg/L	2.2140	26.486	ppb	2.2140	8.36%
B 249.677†	1117.0	17.305	µg/L	1.6398	17.305	ppb	1.6398	9.48%
Ba 233.527†	98735.5	438.02	µg/L	1.694	438.02	ppb	1.694	0.39%
Be 313.107†	22606.6	6.4464	µg/L	0.03328	6.4464	ppb	0.03328	0.52%
Ca 317.933Radial†	166625.2	11349	µg/L	2.4	11349	ppb	2.4	0.02%
Cd 226.502†	1110.8	0.1198	µg/L	0.20264	0.1198	ppb	0.20264	169.13%
Co 228.616†	1446.0	15.893	µg/L	0.1518	15.893	ppb	0.1518	0.96%
Cr 267.716†	3756.5	34.654	µg/L	0.3846	34.654	ppb	0.3846	1.11%
Cu 324.752†	7403.5	41.157	µg/L	0.1331	41.157	ppb	0.1331	0.32%
Fe 238.204 Radial†	942574.5	70391	µg/L	1474.8	70391	ppb	1474.8	2.10%
K 766.490 Radial†	20018.3	7919.7	µg/L	43.07	7919.7	ppb	43.07	0.54%
Mg 279.077 IEC†	16580.1	7595.4	µg/L	25.49	7595.4	ppb	25.49	0.34%
Mn 257.610†	1499599.5	1988.8	µg/L	4.94	1988.8	ppb	4.94	0.25%
Mo 202.031†	159.3	8.1619	µg/L	0.34903	8.1619	ppb	0.34903	4.28%
Na 589.592 Radial†	3294.9	503.69	µg/L	5.486	503.69	ppb	5.486	1.09%

Ni 231.604†	2745.4	34.349	µg/L	0.7023	34.349	ppb	0.7023	2.04%
P 214.914†	1984.8	420.81	µg/L	6.012	420.81	ppb	6.012	1.43%
Pb 220.353†	783.3	49.983	µg/L	1.2073	49.983	ppb	1.2073	2.42%
S 181.975 Axial†	202.4	170.33	µg/L	7.013	170.33	ppb	7.013	4.12%
Sb 206.836†	-16.7	-3.4865	µg/L	1.09823	-3.4865	ppb	1.09823	31.50%
Se 196.026†	-41.7	5.42	µg/L	5.612	5.42	ppb	5.612	103.46%
SiO2†	309653.1	32791	µg/L	61.9	32791	ppb	61.9	0.19%
Si 251.611†	972500.9	15335	µg/L	34.7	15335	ppb	34.7	0.23%
Sn 189.927†	137.2	14.434	µg/L	0.2910	14.434	ppb	0.2910	2.02%
Sr 421.552†	23035.2	54.262	µg/L	0.0646	54.262	ppb	0.0646	0.12%
Ti 334.940†	1419065.8	1457.5	µg/L	2.41	1457.5	ppb	2.41	0.17%
Tl 190.801†	-196.5	-5.0610	µg/L	1.14096	-5.0610	ppb	1.14096	22.54%
U 409.014†	-7175.4	-446.95	µg/L	8.916	-446.95	ppb	8.916	1.99%
Concentration less than lower limit for U 409.014.								
V 292.402†	10211.9	44.707	µg/L	0.6100	44.707	ppb	0.6100	1.36%
Zn 213.857†	44616.4	260.41	µg/L	0.742	260.41	ppb	0.742	0.29%

Sequence No.: 106
Sample ID: 249329004|965624|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 420
Date Collected: 4/5/2010 19:32:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249329004|965624|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137968.9	137968.9	98.5	%			19:32:44
1	Al 396.153Radial†	119997.6	121923.5	25669	µg/L	25669	ppb	19:32:44
1	Ca 317.933Radial†	121647.8	122949.1	8373.9	µg/L	8373.9	ppb	19:32:44
1	Fe 238.204 Radial†	851926.1	864924.4	64592	µg/L	64592	ppb	19:32:41
1	K 766.490 Radial†	12719.7	11421.8	4518.1	µg/L	4518.1	ppb	19:32:44
1	Mg 279.077 IEC†	10056.8	10039.2	4580.2	µg/L	4580.2	ppb	19:32:44
1	Na 589.592 Radial†	4951.1	4074.9	627.61	µg/L	627.61	ppb	19:32:44
1	Sr 421.552†	22505.4	23056.4	54.312	µg/L	54.312	ppb	19:32:44
1	Sc 361.383	1776342.0	1776342.0	98.459	%			19:33:10
1	Y 371.029	1252623.7	1252623.7	118.47	%			19:33:10
1	Ag 328.068†	4586.4	93.0	-0.8837	µg/L	-0.8837	ppb	19:33:10
1	As 188.979†	20.0	38.9	28.005	µg/L	28.005	ppb	19:33:30
1	B 249.677†	4718.2	726.9	11.261	µg/L	11.261	ppb	19:33:10
1	Ba 233.527†	60319.6	61408.5	272.16	µg/L	272.16	ppb	19:33:10
1	Be 313.107†	18954.4	20342.9	5.7591	µg/L	5.7591	ppb	19:33:10
1	Cd 226.502†	953.3	1071.5	0.4664	µg/L	0.4664	ppb	19:33:30
1	Co 228.616†	722.4	944.0	9.3929	µg/L	9.3929	ppb	19:33:30
1	Cr 267.716†	4363.9	4199.1	38.224	µg/L	38.224	ppb	19:33:30
1	Cu 324.752†	9676.8	6792.2	37.583	µg/L	37.583	ppb	19:33:10
1	Mn 257.610†	1954640.9	1985058.4	2632.9	µg/L	2632.9	ppb	19:33:10
1	Mo 202.031†	150.5	191.4	8.9172	µg/L	8.9172	ppb	19:33:30
1	Ni 231.604†	2669.8	2807.5	35.125	µg/L	35.125	ppb	19:33:30
1	P 214.914†	1957.2	2013.5	427.26	µg/L	427.26	ppb	19:33:30
1	Pb 220.353†	875.5	785.8	50.121	µg/L	50.121	ppb	19:33:30
1	S 181.975 Axial†	293.7	209.4	176.20	µg/L	176.20	ppb	19:33:30
1	Sb 206.836†	62.6	-26.2	-4.7133	µg/L	-4.7133	ppb	19:33:30
1	Se 196.026†	-49.5	-56.4	-0.246	µg/L	-0.246	ppb	19:33:30
1	SiO2†	305969.8	309021.0	32724	µg/L	32724	ppb	19:33:10
1	Si 251.611†	955895.7	970094.4	15297	µg/L	15297	ppb	19:33:10
1	Sn 189.927†	132.4	132.6	14.102	µg/L	14.102	ppb	19:33:30
1	Ti 334.940†	1395463.7	1416488.4	1454.9	µg/L	1454.9	ppb	19:33:10
1	Tl 190.801†	-313.8	-204.5	-6.1818	µg/L	-6.1818	ppb	19:33:30
1	U 409.014†	-7064.1	-7011.4	-436.66	µg/L	-436.66	ppb	19:33:10
1	V 292.402†	10608.4	10351.3	45.410	µg/L	45.410	ppb	19:33:30
1	Zn 213.857†	44341.9	44533.2	259.88	µg/L	259.88	ppb	19:33:10
2	Sc RADIAL	139388.4	139388.4	99.5	%			19:32:48
2	Al 396.153Radial†	121000.1	121690.2	25620	µg/L	25620	ppb	19:32:48
2	Ca 317.933Radial†	123006.5	123056.7	8381.3	µg/L	8381.3	ppb	19:32:48
2	Fe 238.204 Radial†	857510.6	861727.5	64353	µg/L	64353	ppb	19:32:46
2	K 766.490 Radial†	12875.4	11446.7	4527.9	µg/L	4527.9	ppb	19:32:48
2	Mg 279.077 IEC†	10200.2	10079.3	4599.0	µg/L	4599.0	ppb	19:32:48
2	Na 589.592 Radial†	5021.7	4094.6	630.66	µg/L	630.66	ppb	19:32:48
2	Sr 421.552†	22725.6	23045.0	54.285	µg/L	54.285	ppb	19:32:48
2	Sc 361.383	1803544.8	1803544.8	99.966	%			19:33:33
2	Y 371.029	1271210.4	1271210.4	120.23	%			19:33:33
2	Ag 328.068†	4689.2	125.6	-0.7834	µg/L	-0.7834	ppb	19:33:33
2	As 188.979†	11.8	30.3	25.051	µg/L	25.051	ppb	19:33:53
2	B 249.677†	4776.0	712.5	11.037	µg/L	11.037	ppb	19:33:33
2	Ba 233.527†	61309.7	61474.9	272.46	µg/L	272.46	ppb	19:33:33
2	Be 313.107†	19083.8	20181.9	5.7077	µg/L	5.7077	ppb	19:33:33
2	Cd 226.502†	971.9	1075.6	0.5187	µg/L	0.5187	ppb	19:33:53
2	Co 228.616†	722.8	933.4	9.2646	µg/L	9.2646	ppb	19:33:53
2	Cr 267.716†	4363.9	4132.2	37.648	µg/L	37.648	ppb	19:33:53
2	Cu 324.752†	10144.4	7111.7	38.872	µg/L	38.872	ppb	19:33:33
2	Mn 257.610†	1989052.2	1989538.1	2638.9	µg/L	2638.9	ppb	19:33:33
2	Mo 202.031†	141.9	180.6	8.5524	µg/L	8.5524	ppb	19:33:53
2	Ni 231.604†	2633.9	2730.7	34.164	µg/L	34.164	ppb	19:33:53
2	P 214.914†	1935.1	1961.4	415.35	µg/L	415.35	ppb	19:33:53
2	Pb 220.353†	904.8	801.6	51.115	µg/L	51.115	ppb	19:33:53

2	S 181.975 Axial†	293.5	204.7	172.24	µg/L	172.24 ppb	19:33:53
2	Sb 206.836†	75.6	-14.1	-3.1512	µg/L	-3.1512 ppb	19:33:53
2	Se 196.026†	-35.3	-41.5	5.54	µg/L	5.54 ppb	19:33:53
2	SiO2†	311398.2	309764.1	32803	µg/L	32803 ppb	19:33:33
2	Si 251.611†	973433.1	972994.3	15343	µg/L	15343 ppb	19:33:33
2	Sn 189.927†	142.1	140.2	14.643	µg/L	14.643 ppb	19:33:53
2	Ti 334.940†	1419993.7	1419649.4	1458.1	µg/L	1458.1 ppb	19:33:33
2	Tl 190.801†	-311.0	-196.8	-5.1003	µg/L	-5.1003 ppb	19:33:53
2	U 409.014†	-7423.2	-7262.4	-452.47	µg/L	-452.47 ppb	19:33:33
2	V 292.402†	10558.6	10138.9	44.314	µg/L	44.314 ppb	19:33:53
2	Zn 213.857†	45052.3	44564.5	260.10	µg/L	260.10 ppb	19:33:33
3	Sc RADIAL	139412.3	139412.3	99.5	%		19:32:52
3	Al 396.153Radial†	120676.2	121344.0	25547	µg/L	25547 ppb	19:32:52
3	Ca 317.933Radial†	123022.0	123051.2	8380.9	µg/L	8380.9 ppb	19:32:52
3	Fe 238.204 Radial†	852195.0	856238.5	63943	µg/L	63943 ppb	19:32:50
3	K 766.490 Radial†	12925.4	11494.7	4547.0	µg/L	4547.0 ppb	19:32:52
3	Mg 279.077 IEC†	10162.8	10039.9	4581.1	µg/L	4581.1 ppb	19:32:52
3	Na 589.592 Radial†	4941.5	4013.1	618.01	µg/L	618.01 ppb	19:32:52
3	Sr 421.552†	22689.1	23004.3	54.189	µg/L	54.189 ppb	19:32:52
3	Sc 361.383	1799867.9	1799867.9	99.762	%		19:33:56
3	Y 371.029	1268960.8	1268960.8	120.02	%		19:33:56
3	Ag 328.068†	4612.2	58.0	-1.0578	µg/L	-1.0578 ppb	19:33:56
3	As 188.979†	4.1	22.7	22.381	µg/L	22.381 ppb	19:34:16
3	B 249.677†	4690.8	636.8	9.8616	µg/L	9.8616 ppb	19:33:56
3	Ba 233.527†	61226.2	61516.5	272.65	µg/L	272.65 ppb	19:33:56
3	Be 313.107†	18875.8	20012.5	5.6588	µg/L	5.6588 ppb	19:33:56
3	Cd 226.502†	950.9	1056.5	0.4324	µg/L	0.4324 ppb	19:34:16
3	Co 228.616†	690.4	902.4	8.8763	µg/L	8.8763 ppb	19:34:16
3	Cr 267.716†	4327.1	4104.2	37.390	µg/L	37.390 ppb	19:34:16
3	Cu 324.752†	10114.5	7102.5	38.774	µg/L	38.774 ppb	19:33:56
3	Mn 257.610†	1988913.4	1993463.6	2644.1	µg/L	2644.1 ppb	19:33:56
3	Mo 202.031†	158.8	197.7	9.0977	µg/L	9.0977 ppb	19:34:16
3	Ni 231.604†	2596.1	2698.2	33.757	µg/L	33.757 ppb	19:34:16
3	P 214.914†	1949.3	1979.6	419.82	µg/L	419.82 ppb	19:34:16
3	Pb 220.353†	863.8	762.4	48.712	µg/L	48.712 ppb	19:34:16
3	S 181.975 Axial†	281.4	193.2	162.56	µg/L	162.56 ppb	19:34:16
3	Sb 206.836†	79.6	-9.9	-2.5949	µg/L	-2.5949 ppb	19:34:16
3	Se 196.026†	-21.1	-27.3	11.0	µg/L	11.0 ppb	19:34:16
3	SiO2†	311172.6	310174.3	32846	µg/L	32846 ppb	19:33:56
3	Si 251.611†	972865.0	974414.1	15365	µg/L	15365 ppb	19:33:56
3	Sn 189.927†	140.5	138.9	14.558	µg/L	14.558 ppb	19:34:16
3	Ti 334.940†	1418505.7	1421059.7	1459.6	µg/L	1459.6 ppb	19:33:56
3	Tl 190.801†	-301.8	-188.3	-3.9009	µg/L	-3.9009 ppb	19:34:16
3	U 409.014†	-7398.1	-7252.4	-451.71	µg/L	-451.71 ppb	19:33:56
3	V 292.402†	10543.8	10145.6	44.396	µg/L	44.396 ppb	19:34:16
3	Zn 213.857†	45147.1	44751.6	261.26	µg/L	261.26 ppb	19:33:56

Mean Data: 249329004|965624|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1793251.6	99.396	%	0.8181				0.82%
Sc RADIAL	138923.2	99.2	%	0.59				0.59%
Y 371.029	1264265.0	119.58	%	0.959				0.80%
Ag 328.068†	92.2	-0.9083	µg/L	0.13885	-0.9083	ppb	0.13885	15.29%
Al 396.153Radial†	121652.6	25612	µg/L	61.4	25612	ppb	61.4	0.24%
As 188.979†	30.6	25.145	µg/L	2.8131	25.145	ppb	2.8131	11.19%
B 249.677†	692.1	10.720	µg/L	0.7519	10.720	ppb	0.7519	7.01%
Ba 233.527†	61466.6	272.42	µg/L	0.246	272.42	ppb	0.246	0.09%
Be 313.107†	20179.1	5.7085	µg/L	0.05017	5.7085	ppb	0.05017	0.88%
Ca 317.933Radial†	123019.0	8378.7	µg/L	4.13	8378.7	ppb	4.13	0.05%
Cd 226.502†	1067.9	0.4725	µg/L	0.04344	0.4725	ppb	0.04344	9.19%
Co 228.616†	926.6	9.1779	µg/L	0.26900	9.1779	ppb	0.26900	2.93%
Cr 267.716†	4145.2	37.754	µg/L	0.4271	37.754	ppb	0.4271	1.13%
Cu 324.752†	7002.1	38.410	µg/L	0.7175	38.410	ppb	0.7175	1.87%
Fe 238.204 Radial†	860963.5	64296	µg/L	328.1	64296	ppb	328.1	0.51%
K 766.490 Radial†	11454.4	4531.0	µg/L	14.70	4531.0	ppb	14.70	0.32%
Mg 279.077 IEC†	10052.8	4586.8	µg/L	10.56	4586.8	ppb	10.56	0.23%
Mn 257.610†	1989353.4	2638.6	µg/L	5.58	2638.6	ppb	5.58	0.21%
Mo 202.031†	189.9	8.8557	µg/L	0.27780	8.8557	ppb	0.27780	3.14%
Na 589.592 Radial†	4060.8	625.43	µg/L	6.598	625.43	ppb	6.598	1.06%

Sequence No.: 113
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 19:46:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136033.3	136033.3	97.1	%			19:47:20
1	Al 396.153Radial†	23157.2	23926.9	5014.1	µg/L	5014.1	ppb	19:47:20
1	Ca 317.933Radial†	73468.0	75089.1	5114.2	µg/L	5114.2	ppb	19:47:20
1	Fe 238.204 Radial†	66165.6	68022.9	5079.9	µg/L	5079.9	ppb	19:47:20
1	K 766.490 Radial†	13938.6	12860.8	5091.9	µg/L	5091.9	ppb	19:47:20
1	Mg 279.077 IEC†	10950.4	11104.8	5135.5	µg/L	5135.5	ppb	19:47:20
1	Na 589.592 Radial†	64739.6	65719.2	10182	µg/L	10182	ppb	19:47:20
1	Sr 421.552†	208355.2	214777.6	506.51	µg/L	506.51	ppb	19:47:18
1	Sc 361.383	1783518.2	1783518.2	98.856	%			19:47:33
1	Y 371.029	1035854.5	1035854.5	97.972	%			19:47:33
1	Ag 328.068†	124709.6	121587.3	504.02	µg/L	504.02	ppb	19:47:33
1	As 188.979†	1319.6	1353.4	465.09	µg/L	465.09	ppb	19:47:53
1	B 249.677†	35576.7	31923.2	494.69	µg/L	494.69	ppb	19:47:33
1	Ba 233.527†	110702.6	112127.9	498.80	µg/L	498.80	ppb	19:47:33
1	Be 313.107†	1679740.8	1700266.4	492.66	µg/L	492.66	ppb	19:47:33
1	Cd 226.502†	73945.9	74904.8	505.95	µg/L	505.95	ppb	19:47:33
1	Co 228.616†	37811.3	38459.0	509.05	µg/L	509.05	ppb	19:47:33
1	Cr 267.716†	57870.9	58307.2	504.30	µg/L	504.30	ppb	19:47:33
1	Cu 324.752†	121446.5	119815.4	502.71	µg/L	502.71	ppb	19:47:33
1	Mn 257.610†	376862.6	381038.0	505.25	µg/L	505.25	ppb	19:47:33
1	Mo 202.031†	15182.6	15396.9	504.00	µg/L	504.00	ppb	19:47:53
1	Ni 231.604†	39872.9	40430.1	505.83	µg/L	505.83	ppb	19:47:33
1	P 214.914†	10667.7	10816.8	2493.5	µg/L	2493.5	ppb	19:47:53
1	Pb 220.353†	8235.6	8227.4	507.88	µg/L	507.88	ppb	19:47:53
1	S 181.975 Axial†	1258.9	1184.5	1000.8	µg/L	1000.8	ppb	19:47:53
1	Sb 206.836†	3908.6	3864.2	499.39	µg/L	499.39	ppb	19:47:53
1	Se 196.026†	1254.9	1263.3	500	µg/L	500	ppb	19:47:53
1	SiO2†	51759.4	50619.2	5339.0	µg/L	5339.0	ppb	19:47:33
1	Si 251.611†	158435.6	159501.6	2505.2	µg/L	2505.2	ppb	19:47:33
1	Sn 189.927†	7047.6	7127.3	496.06	µg/L	496.06	ppb	19:47:53
1	Ti 334.940†	483168.1	487935.1	500.50	µg/L	500.50	ppb	19:47:33
1	Tl 190.801†	3484.2	3638.8	504.42	µg/L	504.42	ppb	19:47:53
1	U 409.014†	7070.2	7315.4	492.32	µg/L	492.32	ppb	19:47:33
1	V 292.402†	96278.2	96968.9	509.27	µg/L	509.27	ppb	19:47:33
1	Zn 213.857†	84398.4	84871.9	502.85	µg/L	502.85	ppb	19:47:33
2	Sc RADIAL	138128.1	138128.1	98.6	%			19:47:24
2	Al 396.153Radial†	23418.6	23830.3	4993.6	µg/L	4993.6	ppb	19:47:24
2	Ca 317.933Radial†	74175.9	74659.6	5085.0	µg/L	5085.0	ppb	19:47:24
2	Fe 238.204 Radial†	67065.4	67902.1	5070.9	µg/L	5070.9	ppb	19:47:24
2	K 766.490 Radial†	14159.2	12866.8	5094.3	µg/L	5094.3	ppb	19:47:24
2	Mg 279.077 IEC†	11057.0	11041.8	5106.5	µg/L	5106.5	ppb	19:47:24
2	Na 589.592 Radial†	65417.6	65395.7	10132	µg/L	10132	ppb	19:47:24
2	Sr 421.552†	209457.4	212641.4	501.47	µg/L	501.47	ppb	19:47:22
2	Sc 361.383	1774259.1	1774259.1	98.343	%			19:47:56
2	Y 371.029	1030676.7	1030676.7	97.482	%			19:47:56
2	Ag 328.068†	124953.3	122493.4	507.75	µg/L	507.75	ppb	19:47:56
2	As 188.979†	1338.6	1379.7	474.01	µg/L	474.01	ppb	19:48:16
2	B 249.677†	35635.7	32171.0	498.54	µg/L	498.54	ppb	19:47:56
2	Ba 233.527†	110480.8	112486.8	500.40	µg/L	500.40	ppb	19:47:56
2	Be 313.107†	1671827.6	1701087.2	492.91	µg/L	492.91	ppb	19:47:56
2	Cd 226.502†	73565.9	74908.7	505.97	µg/L	505.97	ppb	19:47:56
2	Co 228.616†	37747.3	38593.6	510.83	µg/L	510.83	ppb	19:47:56
2	Cr 267.716†	57841.1	58582.4	506.67	µg/L	506.67	ppb	19:47:56
2	Cu 324.752†	121022.4	120025.3	503.60	µg/L	503.60	ppb	19:47:56
2	Mn 257.610†	374844.5	380975.3	505.17	µg/L	505.17	ppb	19:47:56
2	Mo 202.031†	15195.5	15490.1	507.05	µg/L	507.05	ppb	19:48:16
2	Ni 231.604†	39781.2	40547.4	507.30	µg/L	507.30	ppb	19:47:56
2	P 214.914†	10677.9	10883.5	2508.9	µg/L	2508.9	ppb	19:48:16
2	Pb 220.353†	8234.4	8269.7	510.47	µg/L	510.47	ppb	19:48:16

2	S 181.975 Axial†	1260.7	1193.0	1007.9 µg/L	1007.9 ppb		19:48:16
2	Sb 206.836†	3925.4	3901.9	504.26 µg/L	504.26 ppb		19:48:16
2	Se 196.026†	1256.0	1271.0	503 µg/L	503 ppb		19:48:16
2	SiO2†	51436.9	50564.4	5333.0 µg/L	5333.0 ppb		19:47:56
2	Si 251.611†	157806.2	159698.0	2508.2 µg/L	2508.2 ppb		19:47:56
2	Sn 189.927†	7059.1	7176.1	499.45 µg/L	499.45 ppb		19:48:16
2	Ti 334.940†	481129.0	488412.3	500.99 µg/L	500.99 ppb		19:47:56
2	Tl 190.801†	3534.3	3708.1	513.88 µg/L	513.88 ppb		19:48:16
2	U 409.014†	7314.1	7600.7	510.33 µg/L	510.33 ppb		19:47:56
2	V 292.402†	95824.1	97015.4	509.57 µg/L	509.57 ppb		19:47:56
2	Zn 213.857†	84121.7	85036.1	503.82 µg/L	503.82 ppb		19:47:56
3	Sc RADIAL	135902.0	135902.0	97.0 %			19:47:28
3	Al 396.153Radial†	23202.6	23996.7	5028.7 µg/L	5028.7 ppb		19:47:28
3	Ca 317.933Radial†	73095.5	74778.2	5093.1 µg/L	5093.1 ppb		19:47:28
3	Fe 238.204 Radial†	65894.1	67808.8	5063.9 µg/L	5063.9 ppb		19:47:28
3	K 766.490 Radial†	14081.9	13022.4	5155.9 µg/L	5155.9 ppb		19:47:28
3	Mg 279.077 IEC†	10738.2	10896.9	5039.6 µg/L	5039.6 ppb		19:47:28
3	Na 589.592 Radial†	64417.4	65451.4	10141 µg/L	10141 ppb		19:47:28
3	Sr 421.552†	211070.6	217784.1	513.60 µg/L	513.60 ppb		19:47:26
3	Sc 361.383	1773098.7	1773098.7	98.279 %			19:48:19
3	Y 371.029	1029704.6	1029704.6	97.390 %			19:48:19
3	Ag 328.068†	125246.3	122874.7	509.32 µg/L	509.32 ppb		19:48:19
3	As 188.979†	1344.1	1386.2	476.22 µg/L	476.22 ppb		19:48:39
3	B 249.677†	35775.7	32337.1	501.13 µg/L	501.13 ppb		19:48:19
3	Ba 233.527†	110829.4	112915.0	502.30 µg/L	502.30 ppb		19:48:19
3	Be 313.107†	1679033.4	1709531.7	495.35 µg/L	495.35 ppb		19:48:19
3	Cd 226.502†	73677.5	75071.3	507.07 µg/L	507.07 ppb		19:48:19
3	Co 228.616†	37744.6	38616.0	511.13 µg/L	511.13 ppb		19:48:19
3	Cr 267.716†	57800.6	58579.7	506.65 µg/L	506.65 ppb		19:48:19
3	Cu 324.752†	121568.3	120661.3	506.25 µg/L	506.25 ppb		19:48:19
3	Mn 257.610†	375808.4	382205.6	506.80 µg/L	506.80 ppb		19:48:19
3	Mo 202.031†	15170.5	15474.8	506.55 µg/L	506.55 ppb		19:48:39
3	Ni 231.604†	39871.6	40665.8	508.78 µg/L	508.78 ppb		19:48:19
3	P 214.914†	10698.7	10911.7	2515.4 µg/L	2515.4 ppb		19:48:39
3	Pb 220.353†	8193.1	8233.1	508.23 µg/L	508.23 ppb		19:48:39
3	S 181.975 Axial†	1269.1	1202.4	1015.8 µg/L	1015.8 ppb		19:48:39
3	Sb 206.836†	3923.7	3902.7	504.37 µg/L	504.37 ppb		19:48:39
3	Se 196.026†	1261.3	1277.3	505 µg/L	505 ppb		19:48:39
3	SiO2†	51453.1	50615.2	5338.4 µg/L	5338.4 ppb		19:48:19
3	Si 251.611†	158030.5	160031.2	2513.5 µg/L	2513.5 ppb		19:48:19
3	Sn 189.927†	7068.0	7189.9	500.41 µg/L	500.41 ppb		19:48:39
3	Ti 334.940†	482061.5	489681.3	502.30 µg/L	502.30 ppb		19:48:19
3	Tl 190.801†	3505.8	3681.5	510.27 µg/L	510.27 ppb		19:48:39
3	U 409.014†	7230.0	7520.0	505.32 µg/L	505.32 ppb		19:48:19
3	V 292.402†	95980.3	97238.1	510.71 µg/L	510.71 ppb		19:48:19
3	Zn 213.857†	84311.9	85285.6	505.30 µg/L	505.30 ppb		19:48:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1776958.7	98.493	%	0.3165				0.32%
Sc RADIAL	136687.8	97.6	%	0.89				0.91%
Y 371.029	1032078.6	97.615	%	0.3127				0.32%
Ag 328.068†	122318.5	507.03	µg/L	2.724	507.03	ppb	2.724	0.54%
QC value within limits for Ag 328.068 Recovery = 101.41%								
Al 396.153Radial†	23918.0	5012.1	µg/L	17.60	5012.1	ppb	17.60	0.35%
QC value within limits for Al 396.153Radial Recovery = 100.24%								
As 188.979†	1373.1	471.78	µg/L	5.893	471.78	ppb	5.893	1.25%
QC value within limits for As 188.979 Recovery = 94.36%								
B 249.677†	32143.8	498.12	µg/L	3.236	498.12	ppb	3.236	0.65%
QC value within limits for B 249.677 Recovery = 99.62%								
Ba 233.527†	112509.9	500.50	µg/L	1.752	500.50	ppb	1.752	0.35%
QC value within limits for Ba 233.527 Recovery = 100.10%								
Be 313.107†	1703628.4	493.64	µg/L	1.487	493.64	ppb	1.487	0.30%
QC value within limits for Be 313.107 Recovery = 98.73%								
Ca 317.933Radial†	74842.3	5097.4	µg/L	15.11	5097.4	ppb	15.11	0.30%
QC value within limits for Ca 317.933Radial Recovery = 101.95%								
Cd 226.502†	74961.6	506.33	µg/L	0.643	506.33	ppb	0.643	0.13%
QC value within limits for Cd 226.502 Recovery = 101.27%								
Co 228.616†	38556.2	510.33	µg/L	1.125	510.33	ppb	1.125	0.22%

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   QC value within limits for Co 228.616  Recovery = 102.07%
Cr 267.716†            58489.8      505.87 µg/L        1.361      505.87 ppb          1.361   0.27%
   QC value within limits for Cr 267.716  Recovery = 101.17%
Cu 324.752†           120167.4      504.19 µg/L        1.844      504.19 ppb          1.844   0.37%
   QC value within limits for Cu 324.752  Recovery = 100.84%
Fe 238.204 Radial†     67911.3      5071.6 µg/L         8.02      5071.6 ppb           8.02   0.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.43%
K 766.490 Radial†      12916.7      5114.0 µg/L        36.29      5114.0 ppb          36.29   0.71%
   QC value within limits for K 766.490 Radial  Recovery = 102.28%
Mg 279.077 IEC†        11014.5      5093.8 µg/L        49.18      5093.8 ppb          49.18   0.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.88%
Mn 257.610†           381406.3      505.74 µg/L        0.921      505.74 ppb          0.921   0.18%
   QC value within limits for Mn 257.610  Recovery = 101.15%
Mo 202.031†            15453.9      505.87 µg/L        1.634      505.87 ppb          1.634   0.32%
   QC value within limits for Mo 202.031  Recovery = 101.17%
Na 589.592 Radial†     65522.1       10152 µg/L         26.8       10152 ppb           26.8   0.26%
   QC value within limits for Na 589.592 Radial  Recovery = 101.52%
Ni 231.604†            40547.8      507.30 µg/L        1.474      507.30 ppb          1.474   0.29%
   QC value within limits for Ni 231.604  Recovery = 101.46%
P 214.914†             10870.7      2505.9 µg/L        11.27      2505.9 ppb          11.27   0.45%
   QC value within limits for P 214.914  Recovery = 100.24%
Pb 220.353†             8243.4      508.86 µg/L        1.407      508.86 ppb          1.407   0.28%
   QC value within limits for Pb 220.353  Recovery = 101.77%
S 181.975 Axial†        1193.3      1008.1 µg/L         7.53      1008.1 ppb           7.53   0.75%
   QC value within limits for S 181.975 Axial  Recovery = 100.81%
Sb 206.836†             3889.6      502.67 µg/L        2.846      502.67 ppb          2.846   0.57%
   QC value within limits for Sb 206.836  Recovery = 100.53%
Se 196.026†             1270.5         503 µg/L          2.8         503 ppb            2.8   0.55%
   QC value within limits for Se 196.026  Recovery = 100.55%
SiO2†                  50599.6      5336.8 µg/L        3.28      5336.8 ppb          3.28   0.06%
   QC value within limits for SiO2  Recovery = 99.80%
Si 251.611†           159743.6      2509.0 µg/L        4.19      2509.0 ppb          4.19   0.17%
   QC value within limits for Si 251.611  Recovery = 100.36%
Sn 189.927†             7164.4      498.64 µg/L        2.286      498.64 ppb          2.286   0.46%
   QC value within limits for Sn 189.927  Recovery = 99.73%
Sr 421.552†           215067.7      507.19 µg/L        6.093      507.19 ppb          6.093   1.20%
   QC value within limits for Sr 421.552  Recovery = 101.44%
Ti 334.940†           488676.3      501.26 µg/L        0.929      501.26 ppb          0.929   0.19%
   QC value within limits for Ti 334.940  Recovery = 100.25%
Tl 190.801†             3676.2      509.52 µg/L        4.776      509.52 ppb          4.776   0.94%
   QC value within limits for Tl 190.801  Recovery = 101.90%
U 409.014†              7478.7      502.66 µg/L        9.299      502.66 ppb          9.299   1.85%
   QC value within limits for U 409.014  Recovery = 100.53%
V 292.402†             97074.1      509.85 µg/L        0.761      509.85 ppb          0.761   0.15%
   QC value within limits for V 292.402  Recovery = 101.97%
Zn 213.857†            85064.5      503.99 µg/L        1.234      503.99 ppb          1.234   0.24%
   QC value within limits for Zn 213.857  Recovery = 100.80%
All analyte(s) passed QC.
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Sequence No.: 114
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 19:48:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136771.0	136771.0	97.6	%			19:49:18
1	Al 396.153Radial†	-90.4	-14.1	-2.9750	µg/L	-2.9750	ppb	19:49:38
1	Ca 317.933Radial†	717.1	163.1	11.106	µg/L	11.106	ppb	19:49:38
1	Fe 238.204 Radial†	194.4	81.9	6.1133	µg/L	6.1133	ppb	19:49:38
1	K 766.490 Radial†	1798.1	348.0	137.87	µg/L	137.87	ppb	19:49:18
1	Mg 279.077 IEC†	165.1	-3.4	-1.5608	µg/L	-1.5608	ppb	19:49:38
1	Na 589.592 Radial†	1209.5	286.4	44.272	µg/L	44.272	ppb	19:49:18
1	Sr 421.552†	-197.8	1.9	0.0044	µg/L	0.0044	ppb	19:49:18
1	Sc 361.383	1778603.7	1778603.7	98.584	%			19:50:40
1	Y 371.029	1044272.6	1044272.6	98.768	%			19:50:40
1	Ag 328.068†	3775.6	-735.3	-2.9968	µg/L	-2.9968	ppb	19:50:42
1	As 188.979†	-9.6	8.8	2.9988	µg/L	2.9988	ppb	19:51:02
1	B 249.677†	3987.1	-20.8	-0.3244	µg/L	-0.3244	ppb	19:50:42
1	Ba 233.527†	-163.0	-20.8	-0.0924	µg/L	-0.0924	ppb	19:51:02
1	Be 313.107†	-519.8	564.5	0.1661	µg/L	0.1661	ppb	19:50:42
1	Cd 226.502†	-86.3	15.9	0.1067	µg/L	0.1067	ppb	19:51:02
1	Co 228.616†	-181.9	25.8	0.3413	µg/L	0.3413	ppb	19:51:02
1	Cr 267.716†	289.4	60.3	0.5151	µg/L	0.5151	ppb	19:51:02
1	Cu 324.752†	2593.2	-405.7	-1.6886	µg/L	-1.6886	ppb	19:50:42
1	Mn 257.610†	290.9	110.3	0.1464	µg/L	0.1464	ppb	19:51:02
1	Mo 202.031†	-28.2	10.0	0.3258	µg/L	0.3258	ppb	19:51:02
1	Ni 231.604†	-61.4	33.7	0.4210	µg/L	0.4210	ppb	19:51:02
1	P 214.914†	12.1	38.0	8.8034	µg/L	8.8034	ppb	19:51:02
1	Pb 220.353†	122.1	20.4	1.2526	µg/L	1.2526	ppb	19:51:02
1	S 181.975 Axial†	96.8	9.3	7.8104	µg/L	7.8104	ppb	19:51:02
1	Sb 206.836†	67.3	-21.4	-2.7655	µg/L	-2.7655	ppb	19:51:02
1	Se 196.026†	28.4	22.7	8.94	µg/L	8.94	ppb	19:51:02
1	SiO2†	1741.9	27.8	2.9309	µg/L	2.9309	ppb	19:51:02
1	Si 251.611†	941.0	187.5	2.9491	µg/L	2.9491	ppb	19:50:42
1	Sn 189.927†	10.0	8.3	0.5726	µg/L	0.5726	ppb	19:51:02
1	Ti 334.940†	894.0	83.9	0.0828	µg/L	0.0828	ppb	19:50:42
1	Tl 190.801†	-100.0	12.9	1.7577	µg/L	1.7577	ppb	19:51:02
1	U 409.014†	-25.6	137.4	8.6834	µg/L	8.6834	ppb	19:50:42
1	V 292.402†	458.6	42.0	0.2284	µg/L	0.2284	ppb	19:50:42
1	Zn 213.857†	590.3	95.8	0.5696	µg/L	0.5696	ppb	19:51:02
2	Sc RADIAL	135601.5	135601.5	96.8	%			19:49:40
2	Al 396.153Radial†	-94.0	-18.6	-3.9570	µg/L	-3.9570	ppb	19:50:00
2	Ca 317.933Radial†	732.7	185.6	12.639	µg/L	12.639	ppb	19:50:00
2	Fe 238.204 Radial†	180.5	69.2	5.1646	µg/L	5.1646	ppb	19:50:00
2	K 766.490 Radial†	1480.7	36.0	14.245	µg/L	14.245	ppb	19:49:40
2	Mg 279.077 IEC†	160.8	-6.3	-2.8777	µg/L	-2.8777	ppb	19:50:00
2	Na 589.592 Radial†	1003.6	84.3	13.060	µg/L	13.060	ppb	19:49:40
2	Sr 421.552†	-290.4	-95.6	-0.2255	µg/L	-0.2255	ppb	19:49:40
2	Sc 361.383	1765884.9	1765884.9	97.879	%			19:51:04
2	Y 371.029	1037088.9	1037088.9	98.089	%			19:51:04
2	Ag 328.068†	4190.5	-283.8	-1.2081	µg/L	-1.2081	ppb	19:51:06
2	As 188.979†	-8.1	10.3	3.4926	µg/L	3.4926	ppb	19:51:26
2	B 249.677†	4017.2	39.1	0.6071	µg/L	0.6071	ppb	19:51:06
2	Ba 233.527†	-176.2	-35.5	-0.1577	µg/L	-0.1577	ppb	19:51:26
2	Be 313.107†	-684.5	392.4	0.1041	µg/L	0.1041	ppb	19:51:06
2	Cd 226.502†	-77.4	24.3	0.1638	µg/L	0.1638	ppb	19:51:26
2	Co 228.616†	-179.0	27.4	0.3625	µg/L	0.3625	ppb	19:51:26
2	Cr 267.716†	264.0	36.5	0.3402	µg/L	0.3402	ppb	19:51:26
2	Cu 324.752†	2830.7	-144.1	-0.6278	µg/L	-0.6278	ppb	19:51:06
2	Mn 257.610†	254.6	75.4	0.1002	µg/L	0.1002	ppb	19:51:26
2	Mo 202.031†	-5.4	33.1	1.0813	µg/L	1.0813	ppb	19:51:26
2	Ni 231.604†	-67.3	27.1	0.3395	µg/L	0.3395	ppb	19:51:26
2	P 214.914†	22.3	48.4	11.190	µg/L	11.190	ppb	19:51:26
2	Pb 220.353†	120.5	19.6	1.2345	µg/L	1.2345	ppb	19:51:26

2	S 181.975 Axial†	87.8	0.8	0.6824	µg/L	0.6824 ppb	19:51:26
2	Sb 206.836†	88.4	0.6	0.0840	µg/L	0.0840 ppb	19:51:26
2	Se 196.026†	16.8	11.0	4.30	µg/L	4.30 ppb	19:51:26
2	SiO2†	1720.3	18.5	1.9319	µg/L	1.9319 ppb	19:51:26
2	Si 251.611†	891.7	143.9	2.2578	µg/L	2.2578 ppb	19:51:06
2	Sn 189.927†	-3.1	-5.1	-0.3527	µg/L	-0.3527 ppb	19:51:26
2	Ti 334.940†	743.3	-63.6	-0.0519	µg/L	-0.0519 ppb	19:51:06
2	Tl 190.801†	-116.8	-5.1	-0.6981	µg/L	-0.6981 ppb	19:51:26
2	U 409.014†	-649.6	-500.3	-31.606	µg/L	-31.606 ppb	19:51:06
2	V 292.402†	302.6	-114.1	-0.6005	µg/L	-0.6005 ppb	19:51:06
2	Zn 213.857†	618.3	128.7	0.7659	µg/L	0.7659 ppb	19:51:26
3	Sc RADIAL	136819.8	136819.8	97.7	%		19:50:02
3	Al 396.153Radial†	-62.6	14.4	3.0017	µg/L	3.0017 ppb	19:50:22
3	Ca 317.933Radial†	702.5	147.9	10.074	µg/L	10.074 ppb	19:50:22
3	Fe 238.204 Radial†	171.3	58.1	4.3410	µg/L	4.3410 ppb	19:50:22
3	K 766.490 Radial†	1628.7	173.8	68.870	µg/L	68.870 ppb	19:50:02
3	Mg 279.077 IEC†	168.0	-0.5	-0.2064	µg/L	-0.2064 ppb	19:50:22
3	Na 589.592 Radial†	1102.6	176.5	27.290	µg/L	27.290 ppb	19:50:02
3	Sr 421.552†	-53.3	149.9	0.3534	µg/L	0.3534 ppb	19:50:02
3	Sc 361.383	1772854.3	1772854.3	98.265	%		19:51:28
3	Y 371.029	1041187.5	1041187.5	98.476	%		19:51:28
3	Ag 328.068†	4220.6	-270.0	-1.1233	µg/L	-1.1233 ppb	19:51:30
3	As 188.979†	-9.5	8.8	2.9983	µg/L	2.9983 ppb	19:51:50
3	B 249.677†	3915.3	-80.8	-1.2569	µg/L	-1.2569 ppb	19:51:30
3	Ba 233.527†	-155.6	-13.8	-0.0614	µg/L	-0.0614 ppb	19:51:50
3	Be 313.107†	-85.0	1005.2	0.2881	µg/L	0.2881 ppb	19:51:30
3	Cd 226.502†	-43.9	58.7	0.3967	µg/L	0.3967 ppb	19:51:50
3	Co 228.616†	-184.0	23.1	0.3047	µg/L	0.3047 ppb	19:51:50
3	Cr 267.716†	294.5	66.5	0.5832	µg/L	0.5832 ppb	19:51:50
3	Cu 324.752†	2951.1	-33.0	-0.1456	µg/L	-0.1456 ppb	19:51:30
3	Mn 257.610†	365.9	187.7	0.2489	µg/L	0.2489 ppb	19:51:50
3	Mo 202.031†	-17.4	20.9	0.6830	µg/L	0.6830 ppb	19:51:50
3	Ni 231.604†	-57.2	37.7	0.4722	µg/L	0.4722 ppb	19:51:50
3	P 214.914†	7.3	33.1	7.6514	µg/L	7.6514 ppb	19:51:50
3	Pb 220.353†	118.0	16.6	1.0342	µg/L	1.0342 ppb	19:51:50
3	S 181.975 Axial†	90.0	2.7	2.2447	µg/L	2.2447 ppb	19:51:50
3	Sb 206.836†	88.5	0.3	0.0401	µg/L	0.0401 ppb	19:51:50
3	Se 196.026†	14.8	9.0	3.52	µg/L	3.52 ppb	19:51:50
3	SiO2†	1757.6	49.5	5.2117	µg/L	5.2117 ppb	19:51:50
3	Si 251.611†	968.7	218.7	3.4357	µg/L	3.4357 ppb	19:51:30
3	Sn 189.927†	11.5	9.9	0.6842	µg/L	0.6842 ppb	19:51:50
3	Ti 334.940†	905.2	98.1	0.1051	µg/L	0.1051 ppb	19:51:30
3	Tl 190.801†	-117.4	-5.2	-0.7127	µg/L	-0.7127 ppb	19:51:50
3	U 409.014†	-321.3	-163.7	-10.351	µg/L	-10.351 ppb	19:51:30
3	V 292.402†	337.8	-79.5	-0.4100	µg/L	-0.4100 ppb	19:51:30
3	Zn 213.857†	603.3	111.0	0.6593	µg/L	0.6593 ppb	19:51:50

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1772447.6	98.243	%	0.3530				0.36%
Sc RADIAL	136397.4	97.4	%	0.49				0.51%
Y 371.029	1040849.7	98.444	%	0.3408				0.35%
Ag 328.068†	-429.7	-1.7761	µg/L	1.05805	-1.7761	ppb	1.05805	59.57%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.1	-1.3101	µg/L	3.76627	-1.3101	ppb	3.76627	287.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.3	3.1633	µg/L	0.28526	3.1633	ppb	0.28526	9.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-20.8	-0.3247	µg/L	0.93203	-0.3247	ppb	0.93203	287.01%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-23.4	-0.1038	µg/L	0.04916	-0.1038	ppb	0.04916	47.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	654.0	0.1861	µg/L	0.09358	0.1861	ppb	0.09358	50.28%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	165.5	11.273	µg/L	1.2906	11.273	ppb	1.2906	11.45%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	33.0	0.2224	µg/L	0.15363	0.2224	ppb	0.15363	69.07%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	25.4	0.3362	µg/L	0.02925	0.3362	ppb	0.02925	8.70%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              54.4      0.4795 µg/L       0.12533      0.4795 ppb        0.12533  26.14%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -194.2     -0.8207 µg/L       0.78938     -0.8207 ppb        0.78938  96.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       69.7      5.2063 µg/L       0.88690      5.2063 ppb        0.88690  17.04%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       185.9      73.661 µg/L       61.9508      73.661 ppb        61.9508  84.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -3.4     -1.5483 µg/L       1.33570     -1.5483 ppb        1.33570  86.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             124.5      0.1652 µg/L       0.07613      0.1652 ppb        0.07613  46.10%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              21.3      0.6967 µg/L       0.37790      0.6967 ppb        0.37790  54.24%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      182.4      28.208 µg/L       15.6262      28.208 ppb        15.6262  55.40%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              32.8      0.4109 µg/L       0.06692      0.4109 ppb        0.06692  16.29%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               39.8      9.2151 µg/L       1.80508      9.2151 ppb        1.80508  19.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              18.9      1.1737 µg/L       0.12120      1.1737 ppb        0.12120  10.33%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.2      3.5791 µg/L       3.74670      3.5791 ppb        3.74670 104.68%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -6.8     -0.8805 µg/L       1.63263     -0.8805 ppb        1.63263 185.43%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              14.2        5.59 µg/L         2.929        5.59 ppb          2.929  52.44%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    31.9      3.3581 µg/L       1.68112      3.3581 ppb        1.68112  50.06%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             183.4      2.8808 µg/L       0.59191      2.8808 ppb        0.59191  20.55%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.3      0.3013 µg/L       0.56919      0.3013 ppb        0.56919 188.88%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              18.7      0.0441 µg/L       0.29149      0.0441 ppb        0.29149 660.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              39.5      0.0453 µg/L       0.08497      0.0453 ppb        0.08497 187.42%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.9      0.1156 µg/L       1.42209      0.1156 ppb        1.42209 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -175.5     -11.091 µg/L       20.1548     -11.091 ppb        20.1548 181.72%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -50.5     -0.2607 µg/L       0.43417     -0.2607 ppb        0.43417 166.54%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             111.8      0.6650 µg/L       0.09828      0.6650 ppb        0.09828  14.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, May 15, 2010 19:25:27
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.1010
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	814.8	814.823	27.835	3.4
	Mg	24.0	13559.0	13559.040	557.699	4.1
	Co	58.9	35275.9	35275.900	91.490	0.3
	Rh	102.9	61879.5	61879.538	584.941	0.9
	In	114.9	68551.3	68551.291	602.423	0.9
	Pb	208.0	24345.1	24345.128	218.056	0.9
⌈>	Ba	137.9	64553.8	64553.796	396.893	0.6
⌊	Ba++	69.0	1220.4	0.019	0.000	1.6
⌈>	Ce	139.9	77055.3	77055.277	899.859	1.2
⌊	CeO	155.9	1037.3	0.013	0.000	3.1
	Bkgd	220.0	13.3	13.300	2.414	18.1

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
6.30	Lens Voltage
1000.00	ICP RF Power
-1800.00	Analog Stage Voltage
1200.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	5.8	1625.8
Co	59	17	6.8	62894.5
In	115	17	7.8	131884.3

ICPMS #4 TUNING REPORT

File Name: 100515.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	600	2080	0.663
Be	9.0	9.1	2068	2080	0.681
Mg	24.0	24.0	5663	2100	0.600
Mg	25.0	24.9	5948	2100	0.708
Mg	26.0	26.0	6126	2120	0.681
Co	58.9	58.9	14168	2150	0.687
Rh	102.9	102.9	24853	2240	0.695
In	114.9	114.9	27769	2275	0.682
Ce	139.9	139.9	33851	2310	0.718
Pb	206.0	205.9	49916	2485	0.739
Pb	207.0	207.0	50089	2400	0.701
Pb	208.0	208.0	50436	2510	0.706
U	238.1	238.1	57690	2520	0.683

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, May 16, 2010 07:09:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\Blank.181

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9		ug/L		10	
|>	Sc	45		ug/L		345991	
⌊	Ni	60		ug/L		72	
⌈>	Ge	74		ug/L		151543	
|	As	75		ug/L		549	
|	Se	77		ug/L		3053	
|	Se	82		ug/L		6	
⌊	Kr	83		ug/L		55	
⌈>	Lu	175		ug/L		73902	
|	Tl	205		ug/L		210	
⌊	U	238		ug/L		510	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45					
⌊	Ni	60					
⌈>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175					
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, May 16, 2010 07:13:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\Standard 1.182

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	6.129	977	0.003
>	Sc	45		ug/L		351503	351503.371
	Ni	60	10.000	ug/L	1.291	5515	0.015
>	Ge	74		ug/L		152645	152645.399
	As	75	10.000	ug/L	8.009	4579	0.026
	Se	77		ug/L		3018	-0.000
	Se	82	10.000	ug/L	8.633	330	0.002
	Kr	83		ug/L		54	-0.000
>	Lu	175		ug/L		74594	74594.327
	Tl	205	10.000	ug/L	2.705	12259	0.161
	U	238	10.000	ug/L	1.732	51913	0.689

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, May 16, 2010 07:17:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\Standard 2.183

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.930**	ug/L	1.212	9498	0.026
>	Sc	45		ug/L		369180	369180.418
	Ni	60	**99.976**	ug/L	1.246	55863	0.151
>	Ge	74		ug/L		160055	160054.972
	As	75	**100.012**	ug/L	2.842	43295	0.267
	Se	77		ug/L		6597	0.021
	Se	82	**100.042**	ug/L	2.807	3553	0.022
	Kr	83		ug/L		60	0.000
>	Lu	175		ug/L		75953	75953.493
	Tl	205	**100.018**	ug/L	2.171	125158	1.645
	U	238	**99.965**	ug/L	1.071	505926	6.655

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, May 16, 2010 07:21:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 1.184

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.655**	**ug/L**	2.546	4953	0.013
>	Sc	45		**ug/L**		372166	372166.417
	Ni	60	**52.401**	**ug/L**	0.096	29555	0.079
>	Ge	74		**ug/L**		163956	163955.534
	As	75	**51.580**	**ug/L**	1.683	23163	0.138
	Se	77		**ug/L**		6280	0.018
	Se	82	**51.777**	**ug/L**	2.676	1887	0.011
	Kr	83		**ug/L**		62	0.000
>	Lu	175		**ug/L**		74956	74955.542
	Tl	205	**50.802**	**ug/L**	0.672	62852	0.836
	U	238	**54.519**	**ug/L**	0.268	272556	3.629

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	103.309				
>	Sc	45		107.6			
	Ni	60	104.801				
>	Ge	74		108.2			
	As	75	103.159				
	Se	77					
	Se	82	103.555				
	Kr	83					
>	Lu	175		101.4			
	Tl	205	101.604				
	U	238	109.039				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, May 16, 2010 07:25:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 2.185

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.051**	**ug/L**	102.502	15	0.000
>	Sc	45		**ug/L**		365888	365888.150
	Ni	60	**0.009**	**ug/L**	445.019	81	0.000
>	Ge	74		**ug/L**		162471	162470.956
	As	75	**-0.712**	**ug/L**	104.110	281	-0.002
	Se	77		**ug/L**		3950	0.004
	Se	82	**-0.338**	**ug/L**	106.677	-6	-0.000
	Kr	83		**ug/L**		68	0.000
>	Lu	175		**ug/L**		74505	74504.538
	Tl	205	**0.466**	**ug/L**	2.703	782	0.008
	U	238	**0.007**	**ug/L**	107.926	550	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		105.8			
	Ni	60					
>	Ge	74		107.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, May 16, 2010 07:29:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 3.186

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.546**	**ug/L**	9.626	63	0.000
>	Sc	45		**ug/L**		372100	372100.174
	Ni	60	**2.350**	**ug/L**	1.394	1399	0.004
>	Ge	74		**ug/L**		162845	162845.185
	As	75	**5.867**	**ug/L**	10.094	3140	0.016
	Se	77		**ug/L**		3679	0.002
	Se	82	**6.087**	**ug/L**	3.273	226	0.001
	Kr	83		**ug/L**		56	-0.000
>	Lu	175		**ug/L**		75472	75471.601
	Tl	205	**1.243**	**ug/L**	2.281	1758	0.020
	U	238	**0.199**	**ug/L**	4.720	1522	0.013

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	109.203				
>	Sc	45		107.5			
	Ni	60	117.493				
>	Ge	74		107.5			
	As	75	117.342				
	Se	77					
	Se	82	121.738				
	Kr	83					
>	Lu	175		102.1			
	Tl	205	124.349				
	U	238	99.643				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, May 16, 2010 07:33:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 4.187

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.109**	**ug/L**	44.197	22	0.000
>	Sc	45		**ug/L**		391727	391727.408
	Ni	60	**2.473**	**ug/L**	1.637	1546	0.004
>	Ge	74		**ug/L**		168085	168084.748
	As	75	**-0.490**	**ug/L**	58.517	389	-0.001
	Se	77		**ug/L**		4559	0.007
	Se	82	**-0.572**	**ug/L**	24.742	-15	-0.000
	Kr	83		**ug/L**		96	0.000
>	Lu	175		**ug/L**		77420	77420.327
	Tl	205	**0.061**	**ug/L**	9.832	297	0.001
	U	238	**-0.088**	**ug/L**	2.178	80	-0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		113.2			
	Ni	60	74.716				
>	Ge	74		110.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, May 16, 2010 07:37:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 5.188

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**18.922**	**ug/L**	6.279	1890	0.005
>	Sc	45		**ug/L**		386058	386058.172
	Ni	60	**21.508**	**ug/L**	1.786	12630	0.033
>	Ge	74		**ug/L**		167185	167184.966
	As	75	**19.990**	**ug/L**	1.468	9526	0.053
	Se	77		**ug/L**		5230	0.011
	Se	82	**19.914**	**ug/L**	5.766	744	0.004
	Kr	83		**ug/L**		88	0.000
>	Lu	175		**ug/L**		75992	75992.368
	Tl	205	**17.936**	**ug/L**	0.779	22636	0.295
	U	238	**19.237**	**ug/L**	2.554	97816	1.281

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	94.612				
>	Sc	45		111.6			
	Ni	60	92.268				
>	Ge	74		110.3			
	As	75	99.949				
	Se	77					
	Se	82	99.572				
	Kr	83					
>	Lu	175		102.8			
	Tl	205	89.680				
	U	238	96.184				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, May 16, 2010 07:41:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 6.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**46.747**	**ug/L**	1.905	4855	0.012
>	Sc	45		**ug/L**		402866	402865.547
	Ni	60	**51.089**	**ug/L**	0.429	31194	0.077
>	Ge	74		**ug/L**		174895	174894.854
	As	75	**50.636**	**ug/L**	1.864	24273	0.135
	Se	77		**ug/L**		7407	0.022
	Se	82	**50.289**	**ug/L**	3.259	1955	0.011
	Kr	83		**ug/L**		69	0.000
>	Lu	175		**ug/L**		76963	76963.219
	Tl	205	**49.041**	**ug/L**	0.644	62305	0.807
	U	238	**51.094**	**ug/L**	1.068	262305	3.401

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	93.493				
>	Sc	45		116.4			
	Ni	60	102.178				
>	Ge	74		115.4			
	As	75	101.271				
	Se	77					
	Se	82	100.577				
	Kr	83					
>	Lu	175		104.1			
	Tl	205	98.083				
	U	238	102.189				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, May 16, 2010 07:46:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 7.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.038**	**ug/L**	80.951	15	0.000
|>	Sc	45		**ug/L**		396213	396213.283
⌊	Ni	60	**0.034**	**ug/L**	92.843	103	0.000
⌈>	Ge	74		**ug/L**		173493	173492.965
|	As	75	**-0.053**	**ug/L**	1017.630	606	-0.000
|	Se	77		**ug/L**		5001	0.009
|	Se	82	**0.105**	**ug/L**	197.546	10	0.000
⌊	Kr	83		**ug/L**		69	0.000
⌈>	Lu	175		**ug/L**		76927	76926.679
|	Tl	205	**0.374**	**ug/L**	6.393	692	0.006
⌊	U	238	**0.004**	**ug/L**	44.115	553	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		114.5			
⌊	Ni	60					
⌈>	Ge	74		114.5			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		104.1			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Sunday, May 16, 2010 07:50:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 10.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**918.871**	ug/L	0.842	91637	0.236
|>	Sc	45		ug/L		387784	387784.090
⌊	Ni	60	**914.483**	ug/L	0.584	536067	1.382
⌈>	Ge	74		ug/L		167063	167062.922
|	As	75	**957.753**	ug/L	1.531	427624	2.556
|	Se	77		ug/L		17551	0.085
|	Se	82	**486.774**	ug/L	0.823	18022	0.108
⌊	Kr	83		ug/L		78	0.000
⌈>	Lu	175		ug/L		76315	76314.725
|	Tl	205	**455.677**	ug/L	1.397	572232	7.496
⌊	U	238	**4623.616**	ug/L	0.841	23489190	307.794

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	91.887				
|>	Sc	45		112.1			
⌊	Ni	60	91.448				
⌈>	Ge	74		110.2			
|	As	75	95.775				
|	Se	77					
|	Se	82	97.355				
⌊	Kr	83					
⌈>	Lu	175		103.3			
|	Tl	205	91.135				
⌊	U	238	92.472				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Sunday, May 16, 2010 07:54:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 11.192

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.564**	**ug/L**	2.522	4776	0.012
>	Sc	45		**ug/L**		389636	389636.218
	Ni	60	**52.695**	**ug/L**	1.907	31110	0.080
>	Ge	74		**ug/L**		171787	171786.801
	As	75	**51.360**	**ug/L**	3.746	24167	0.137
	Se	77		**ug/L**		6840	0.020
	Se	82	**50.351**	**ug/L**	0.585	1923	0.011
	Kr	83		**ug/L**		68	0.000
>	Lu	175		**ug/L**		75810	75809.749
	Tl	205	**51.170**	**ug/L**	0.832	64027	0.842
	U	238	**53.010**	**ug/L**	0.679	268028	3.529

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	95.127				
>	Sc	45		112.6			
	Ni	60	105.389				
>	Ge	74		113.4			
	As	75	102.721				
	Se	77					
	Se	82	100.703				
	Kr	83					
>	Lu	175		102.6			
	Tl	205	102.339				
	U	238	106.021				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Sunday, May 16, 2010 07:58:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 12.193

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.043**	ug/L	16.798	16	0.000
>	Sc	45		ug/L		392980	392980.395
	Ni	60	**0.012**	ug/L	55.007	89	0.000
>	Ge	74		ug/L		173424	173424.422
	As	75	**-0.586**	ug/L	180.284	360	-0.002
	Se	77		ug/L		4787	0.007
	Se	82	**0.202**	ug/L	127.704	14	0.000
	Kr	83		ug/L		63	0.000
>	Lu	175		ug/L		75966	75966.229
	Tl	205	**0.813**	ug/L	1.931	1231	0.013
	U	238	**0.066**	ug/L	14.781	858	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		113.6			
	Ni	60					
>	Ge	74		114.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072051
Sample Date/Time: Sunday, May 16, 2010 08:02:34
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\1202072051.194

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.030	ug/L	133.058	8	-0.000
>	Sc	45		ug/L		393122	393121.609
	Ni	60	0.011	ug/L	168.320	89	0.000
>	Ge	74		ug/L		167895	167894.507
	As	75	-0.003	ug/L	22539.295	608	-0.000
	Se	77		ug/L		3595	0.001
	Se	82	0.053	ug/L	412.315	8	0.000
	Kr	83		ug/L		67	0.000
>	Lu	175		ug/L		74672	74671.729
	Tl	205	0.416	ug/L	2.656	723	0.007
	U	238	-0.062	ug/L	5.447	205	-0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		113.6			
	Ni	60					
>	Ge	74		110.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072052
Sample Date/Time: Sunday, May 16, 2010 08:06:47
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3 40x Typo BCD 5-16-10
Batch ID: 965627~~2~~bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\1202072052.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**16.180**	ug/L	0.538	1656	0.004
>	Sc	45		ug/L		395351	395350.805
	Ni	60	**32.452**	ug/L	1.773	19473	0.049
>	Ge	74		ug/L		171884	171883.667
	As	75	**23.838**	ug/L	3.842	11561	0.064
	Se	77		ug/L		6488	0.018
	Se	82	**63.372**	ug/L	0.832	2420	0.014
	Kr	83		ug/L		75	0.000
>	Lu	175		ug/L		76274	76273.541
	Tl	205	**25.385**	ug/L	1.239	32063	0.418
	U	238	**0.316**	ug/L	2.277	2131	0.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		114.3			
	Ni	60					
>	Ge	74		113.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249329001
Sample Date/Time: Sunday, May 16, 2010 08:10:59
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249329001.196

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**2.490**	ug/L	1.500	267	0.001
|>	Sc	45		ug/L		398999	398999.128
⌊	Ni	60	**17.316**	ug/L	0.677	10526	0.026
⌈>	Ge	74		ug/L		160526	160525.551
|	As	75	**5.521**	ug/L	10.878	2948	0.015
|	Se	77		ug/L		2814	-0.003
|	Se	82	**1.772**	ug/L	10.617	69	0.000
⌊	Kr	83		ug/L		87	0.000
⌈>	Lu	175		ug/L		79639	79638.864
|	Tl	205	**0.651**	ug/L	6.545	1079	0.011
⌊	U	238	**2.445**	ug/L	3.154	13509	0.163

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		115.3			
⌊	Ni	60					
⌈>	Ge	74		105.9			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		107.8			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249329002
Sample Date/Time: Sunday, May 16, 2010 08:15:10
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249329002.197

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.985**	**ug/L**	5.715	207	0.001
>	Sc	45		**ug/L**		384712	384712.209
	Ni	60	**13.227**	**ug/L**	1.970	7771	0.020
>	Ge	74		**ug/L**		155765	155765.259
	As	75	**3.945**	**ug/L**	13.248	2204	0.011
	Se	77		**ug/L**		2572	-0.004
	Se	82	**0.372**	**ug/L**	86.093	18	0.000
	Kr	83		**ug/L**		103	0.000
>	Lu	175		**ug/L**		80589	80588.502
	Tl	205	**0.411**	**ug/L**	5.066	773	0.007
	U	238	**2.491**	**ug/L**	1.404	13919	0.166

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		111.2			
	Ni	60					
>	Ge	74		102.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		109.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249329003
Sample Date/Time: Sunday, May 16, 2010 08:19:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249329003.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**1.972**	**ug/L**	4.950	202	0.001
|>	Sc	45		**ug/L**		377512	377512.083
⌊	Ni	60	**13.894**	**ug/L**	1.645	8006	0.021
⌈>	Ge	74		**ug/L**		152291	152291.326
|	As	75	**4.987**	**ug/L**	9.473	2580	0.013
|	Se	77		**ug/L**		2476	-0.004
|	Se	82	**0.625**	**ug/L**	128.425	27	0.000
⌊	Kr	83		**ug/L**		88	0.000
⌈>	Lu	175		**ug/L**		77957	77956.599
|	Tl	205	**0.401**	**ug/L**	2.435	736	0.007
⌊	U	238	**2.087**	**ug/L**	3.347	11368	0.139

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		109.1			
⌊	Ni	60					
⌈>	Ge	74		100.5			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		105.5			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 249329004
Sample Date/Time: Sunday, May 16, 2010 08:23:33
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\249329004.199

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**1.679**	**ug/L**	9.970	168	0.000
|>	Sc	45		**ug/L**		364662	364662.316
⌊	Ni	60	**12.361**	**ug/L**	1.208	6889	0.019
⌈>	Ge	74		**ug/L**		148434	148433.666
|	As	75	**3.627**	**ug/L**	12.606	1975	0.010
|	Se	77		**ug/L**		2439	-0.004
|	Se	82	**1.008**	**ug/L**	55.955	39	0.000
⌊	Kr	83		**ug/L**		91	0.000
⌈>	Lu	175		**ug/L**		78300	78299.774
|	Tl	205	**0.249**	**ug/L**	6.820	544	0.004
⌊	U	238	**2.200**	**ug/L**	1.348	12006	0.146

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		105.4			
⌊	Ni	60					
⌈>	Ge	74		97.9			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		106.0			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, May 16, 2010 08:44:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 6.204

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.788**	**ug/L**	1.794	4510	0.013
>	Sc	45		**ug/L**		344598	344598.324
	Ni	60	**50.450**	**ug/L**	1.687	26347	0.076
>	Ge	74		**ug/L**		148482	148482.002
	As	75	**50.190**	**ug/L**	1.601	20426	0.134
	Se	77		**ug/L**		4967	0.013
	Se	82	**49.360**	**ug/L**	1.799	1629	0.011
	Kr	83		**ug/L**		56	0.000
>	Lu	175		**ug/L**		72343	72342.809
	Tl	205	**48.014**	**ug/L**	3.604	57318	0.790
	U	238	**52.960**	**ug/L**	1.734	255492	3.526

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	101.575				
>	Sc	45		99.6			
	Ni	60	100.901				
>	Ge	74		98.0			
	As	75	100.381				
	Se	77					
	Se	82	98.720				
	Kr	83					
>	Lu	175		97.9			
	Tl	205	96.028				
	U	238	105.920				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, May 16, 2010 08:48:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 7.205

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.035**	**ug/L**	143.891	13	0.000
>	Sc	45		**ug/L**		343224	343224.346
	Ni	60	**0.006**	**ug/L**	202.112	75	0.000
>	Ge	74		**ug/L**		150691	150691.497
	As	75	**0.149**	**ug/L**	267.250	605	0.000
	Se	77		**ug/L**		3298	0.002
	Se	82	**-0.147**	**ug/L**	236.479	1	-0.000
	Kr	83		**ug/L**		56	0.000
>	Lu	175		**ug/L**		71369	71368.879
	Tl	205	**0.309**	**ug/L**	5.401	565	0.005
	U	238	**0.035**	**ug/L**	7.295	659	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		99.2			
	Ni	60					
>	Ge	74		99.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072053
Sample Date/Time: Sunday, May 16, 2010 09:13:59
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\1202072053.211

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.310**	**ug/L**	6.785	222	0.001
>	Sc	45		**ug/L**		355864	355864.403
	Ni	60	**15.899**	**ug/L**	2.536	8625	0.024
>	Ge	74		**ug/L**		142539	142538.839
	As	75	**7.832**	**ug/L**	3.654	3497	0.021
	Se	77		**ug/L**		2119	-0.005
	Se	82	**1.578**	**ug/L**	14.483	55	0.000
	Kr	83		**ug/L**		86	0.000
>	Lu	175		**ug/L**		77477	77477.311
	Tl	205	**0.130**	**ug/L**	18.291	385	0.002
	U	238	**3.761**	**ug/L**	1.728	19932	0.250

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		102.9			
	Ni	60					
>	Ge	74		94.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072054
Sample Date/Time: Sunday, May 16, 2010 09:18:09
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\1202072054.212

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**24.926**	**ug/L**	3.323	2279	0.006
|>	Sc	45		**ug/L**		354027	354026.653
⌊	Ni	60	**37.788**	**ug/L**	1.528	20295	0.057
⌈>	Ge	74		**ug/L**		143225	143224.838
|	As	75	**41.338**	**ug/L**	1.272	16321	0.110
|	Se	77		**ug/L**		2295	-0.004
|	Se	82	**9.439**	**ug/L**	8.622	305	0.002
⌊	Kr	83		**ug/L**		100	0.000
⌈>	Lu	175		**ug/L**		77155	77155.234
|	Tl	205	**41.473**	**ug/L**	2.340	52850	0.682
⌊	U	238	**26.223**	**ug/L**	2.560	135204	1.746

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		102.3			
⌊	Ni	60					
⌈>	Ge	74		94.5			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		104.4			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072056
Sample Date/Time: Sunday, May 16, 2010 09:22:15
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 965627|2|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\1202072056.213

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**25.039**	**ug/L**	1.930	2309	0.006
|>	Sc	45		**ug/L**		356987	356987.268
⌊	Ni	60	**39.410**	**ug/L**	1.391	21340	0.060
⌈>	Ge	74		**ug/L**		143410	143410.036
|	As	75	**42.142**	**ug/L**	1.883	16649	0.112
|	Se	77		**ug/L**		2250	-0.004
|	Se	82	**9.777**	**ug/L**	4.544	316	0.002
⌊	Kr	83		**ug/L**		93	0.000
⌈>	Lu	175		**ug/L**		76226	76226.289
|	Tl	205	**42.304**	**ug/L**	1.609	53253	0.696
⌊	U	238	**26.978**	**ug/L**	1.377	137407	1.796

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		103.2			
⌊	Ni	60					
⌈>	Ge	74		94.6			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		103.1			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202072055
Sample Date/Time: Sunday, May 16, 2010 09:26:21
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 965627|10|bcd1
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\1202072055.214

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.653**	**ug/L**	12.234	67	0.000
|>	Sc	45		**ug/L**		338967	338966.515
⌊	Ni	60	**3.232**	**ug/L**	2.844	1727	0.005
⌈>	Ge	74		**ug/L**		144833	144832.652
|	As	75	**0.869**	**ug/L**	44.934	862	0.002
|	Se	77		**ug/L**		2450	-0.003
|	Se	82	**0.005**	**ug/L**	677.209	5	0.000
⌊	Kr	83		**ug/L**		66	0.000
⌈>	Lu	175		**ug/L**		72044	72044.300
|	Tl	205	**0.099**	**ug/L**	10.131	322	0.002
⌊	U	238	**0.761**	**ug/L**	1.598	4145	0.051

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		98.0			
⌊	Ni	60					
⌈>	Ge	74		95.6			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		97.5			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, May 16, 2010 09:30:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 6.215

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.203**	**ug/L**	1.689	4533	0.013
>	Sc	45		**ug/L**		343605	343604.551
	Ni	60	**51.004**	**ug/L**	0.516	26560	0.077
>	Ge	74		**ug/L**		149915	149915.449
	As	75	**50.181**	**ug/L**	2.312	20620	0.134
	Se	77		**ug/L**		4914	0.013
	Se	82	**49.826**	**ug/L**	1.534	1661	0.011
	Kr	83		**ug/L**		56	0.000
>	Lu	175		**ug/L**		72335	72334.739
	Tl	205	**48.699**	**ug/L**	1.225	58158	0.801
	U	238	**52.851**	**ug/L**	1.529	254966	3.518

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	102.406				
>	Sc	45			99.3		
	Ni	60	102.009				
>	Ge	74			98.9		
	As	75	100.362				
	Se	77					
	Se	82	99.652				
	Kr	83					
>	Lu	175			97.9		
	Tl	205	97.399				
	U	238	105.702				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, May 16, 2010 09:34:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil short list.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 7.216

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.027**	**ug/L**	89.061	12	0.000
>	Sc	45		**ug/L**		344960	344959.626
	Ni	60	**-0.003**	**ug/L**	136.262	71	-0.000
>	Ge	74		**ug/L**		152722	152721.540
	As	75	**-0.296**	**ug/L**	186.358	432	-0.001
	Se	77		**ug/L**		3349	0.002
	Se	82	**0.564**	**ug/L**	103.597	25	0.000
	Kr	83		**ug/L**		49	-0.000
>	Lu	175		**ug/L**		70742	70742.435
	Tl	205	**0.320**	**ug/L**	3.817	573	0.005
	U	238	**0.033**	**ug/L**	9.338	644	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		99.7			
	Ni	60					
>	Ge	74		100.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #7 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, May 17, 2010 11:11:51
Sample Description:
Method File: C:\elandata\Method\daily2.mth
Dataset File: C:\elandata\Dataset\default\Sample.549
Tuning File: C:\elandata\Tuning\Default.tun
Optimization File: C:\elandata\Optimize\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 80
Current Dead Time (ns): 80

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1543.6	1543.591	19.519	1.3
	Mg	24.0	21761.4	21761.438	545.643	2.5
	Co	58.9	65762.6	65762.589	597.892	0.9
	Rh	102.9	104925.5	104925.512	1227.139	1.2
	In	114.9	122602.1	122602.055	730.862	0.6
	Pb	208.0	75108.0	75108.025	602.402	0.8
⌈>	Ba	137.9	111138.0	111138.003	804.294	0.7
⌊	Ba++	69.0	1939.1	0.017	0.000	1.6
⌈>	Ce	139.9	139600.9	139600.892	795.223	0.6
⌊	CeO	155.9	2565.3	0.018	0.001	3.2
	Bkgd	220.0	11.5	11.500	1.696	14.7

Current Optimization File Data

Current Value	Description
0.95	Nebulizer Gas Flow
5.75	Lens Voltage
1000.00	ICP RF Power
-1525.00	Analog Stage Voltage
750.00	Pulse Stage Voltage
14.00	Discriminator Threshold
-3.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	33	5.0	3910.2
Co	59	33	6.0	92923.7
In	115	33	7.0	151737.9

Instrument #7 Tuning Report

File Name: 100517.tun
File Path: C:\Elandata\Tuning\100517.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	566	2064	0.691
Be	9.0	9.0	2009	2060	0.660
Mg	24.0	24.0	5687	2080	0.640
Mg	25.0	25.0	5880	2070	0.560
Mg	26.0	26.0	6184	2070	0.601
Co	58.9	58.9	14157	2040	0.680
Rh	102.9	102.9	24855	2030	0.669
In	114.9	114.9	27787	2033	0.651
Ce	139.9	140.0	33870	2020	0.666
Pb	206.0	205.9	49930	1980	0.720
Pb	207.0	207.0	50179	2000	0.690
Pb	208.0	208.1	50458	1990	0.670
U	238.1	238.1	57747	1980	0.709

ICPMS#7 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, May 18, 2010 08:34:04
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\Blank.540

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9		ug/L		9	
Sc	45		ug/L		806595	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, May 18, 2010 08:34:45
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\Standard 1.541

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**10.000**	**ug/L**	4.239	1277	0.002
⌊>	Sc	45		**ug/L**		781754	781754.297

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, May 18, 2010 08:35:26
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\Standard 2.542

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**99.992**	**ug/L**	5.099	12155	0.016
⌊>	Sc	45		**ug/L**		755088	755088.406

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, May 18, 2010 08:36:06
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 1.543

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**50.828**	**ug/L**	1.776	6149	0.008
⌊>	Sc	45		**ug/L**		750102	750101.612

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	101.655				
⌊>	Sc	45		93.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, May 18, 2010 08:36:49
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 2.544

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.187	ug/L	48.564	30	0.000
⌊>	Sc	45		ug/L		747157	747157.479

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		92.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, May 18, 2010 08:37:30
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 3.545

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	**0.668**	**ug/L**	5.930	87	0.000
Sc	45		**ug/L**		737907	737907.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	133.650				
Sc	45			91.5		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Be	9	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#7 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, May 18, 2010 08:38:12
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 4.546

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.117**	**ug/L**	18.902	22	0.000
⌊>	Sc	45		**ug/L**		755678	755677.566

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		93.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, May 18, 2010 08:38:53
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 5.547

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	20.941	ug/L	1.846	2581	0.003
⌊>	Sc	45		ug/L		762812	762812.127

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	104.704				
⌊>	Sc	45			94.6		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 18, 2010 08:39:35
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.548

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**51.508**	**ug/L**	3.104	6246	0.008
⌊>	Sc	45		**ug/L**		752120	752120.357

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	103.015				
⌊>	Sc	45		93.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 18, 2010 08:40:18
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.549

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.156	ug/L	19.744	26	0.000
⌊>	Sc	45		ug/L		734735	734735.303

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		91.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202072051
Sample Date/Time: Tuesday, May 18, 2010 08:41:01
Sample Type: Sample
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\1202072051.550

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.051	ug/L	71.125	14	0.000
⌊>	Sc	45		ug/L		720894	720894.229

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		89.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202072052
Sample Date/Time: Tuesday, May 18, 2010 08:41:43
Sample Type: Sample
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 965627|40|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\1202072052.551

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	21.761	ug/L	3.338	2609	0.004
⌊>	Sc	45		ug/L		742356	742356.195

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		92.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249329001
Sample Date/Time: Tuesday, May 18, 2010 08:42:26
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249329001.552

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**2.480**	**ug/L**	4.557	316	0.000
⌊>	Sc	45		**ug/L**		769772	769772.438

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45			95.4		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249329002
Sample Date/Time: Tuesday, May 18, 2010 08:43:08
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249329002.553

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	1.945	ug/L	3.816	257	0.000
⌊>	Sc	45		ug/L		793103	793102.592

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		98.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249329003
Sample Date/Time: Tuesday, May 18, 2010 08:43:51
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249329003.554

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	1.999	ug/L	3.563	268	0.000
⌊>	Sc	45		ug/L		805828	805827.900

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		99.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 249329004
Sample Date/Time: Tuesday, May 18, 2010 08:44:34
Sample Type: Sample
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\249329004.555

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	1.805	ug/L	3.854	227	0.000
⌊>	Sc	45		ug/L		754282	754281.772

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		93.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 18, 2010 08:48:07
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.560

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**52.219**	**ug/L**	0.962	6108	0.008
⌊>	Sc	45		**ug/L**		725143	725142.818

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	104.439				
⌊>	Sc	45		89.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 18, 2010 08:48:50
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.561

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.226	ug/L	26.439	33	0.000
⌊>	Sc	45		ug/L		705195	705195.141

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		87.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202072053
Sample Date/Time: Tuesday, May 18, 2010 08:53:07
Sample Type: Sample
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\1202072053.567

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.312	ug/L	8.375	306	0.000
Sc	45		ug/L		798334	798334.104

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		99.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202072054
Sample Date/Time: Tuesday, May 18, 2010 08:53:50
Sample Type: Sample
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\1202072054.568

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	24.574	ug/L	0.470	3155	0.004
⌊>	Sc	45		ug/L		794912	794912.138

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		98.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202072056
Sample Date/Time: Tuesday, May 18, 2010 08:54:33
Sample Type: Sample
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 965627|2|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\1202072056.569

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**23.998**	**ug/L**	0.959	3148	0.004
⌊>	Sc	45		**ug/L**		812151	812151.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45			100.7		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: 1202072055
Sample Date/Time: Tuesday, May 18, 2010 08:55:14
Sample Type: Sample
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 965627|10|prb
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\1202072055.570

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.603	ug/L	10.711	82	0.000
⌊>	Sc	45		ug/L		763778	763778.214

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		94.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, May 18, 2010 08:55:56
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 6.571

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**49.093**	**ug/L**	3.344	6105	0.008
⌊>	Sc	45		**ug/L**		771299	771299.351

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	98.187				
⌊>	Sc	45			95.6		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#7 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, May 18, 2010 08:56:39
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\be only.mth
Dataset File: C:\Elandata\DataSet\100517\QC Std 7.572

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.183	ug/L	33.549	29	0.000
⌊>	Sc	45		ug/L		731167	731167.300

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		90.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========
Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 03/31/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 033110S1.SIF Results Data Set Name: 033110S1

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 03/31/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0038	0.0038	08:38:47	No
2			0.0037	0.0037	08:39:22	No
Mean:			0.0037			
SD :			0.0000			
%RSD:			1.2670			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 03/31/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0015	0.0052	08:40:44	No
2			0.0015	0.0052	08:41:18	No
Mean:			0.0015			
SD :			0.0000			
%RSD:			0.2319			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.00753
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 03/31/2010
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0042	0.0079	08:42:42	No
2			0.0041	0.0078	08:43:16	No
Mean:			0.0041			
SD :			0.0001			
%RSD:			1.6231			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99912 Slope: 0.00834
Intercept : -0.00006

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 03/31/2010
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0170	0.0207	08:44:41	No
2			0.0169	0.0206	08:45:16	No
Mean:			0.0169			
SD :			0.0000			
%RSD:			0.2231			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99994 Slope: 0.00852
Intercept : -0.00010

==========
Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 03/31/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0421	0.0459	08:46:41	No
2			0.0421	0.0459	08:47:16	No
Mean:			0.0421			
SD :			0.0000			
%RSD:						

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99999 Slope: 0.00845
Intercept : -0.00006

==========
Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 03/31/2010
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0829	0.0866	08:48:43	No
2			0.0826	0.0864	08:49:18	No
Mean:			0.0828			
SD :			0.0002			
%RSD:			0.2412			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99995 Slope: 0.00830
Intercept : 0.00011

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0037	---	----	----	----
S0.2	0.0015	0.200	0.169	0.0000	0.2
S0.5	0.0041	0.500	0.487	0.0001	1.6
S2.0	0.0169	2.000	2.030	0.0000	0.2
S5.0	0.0421	5.000	5.065	0.0000	----
S10	0.0828	10.000	9.963	0.0002	0.2

Correlation Coefficient: 0.99995 Slope: 0.00830 Intercept: 0.0001

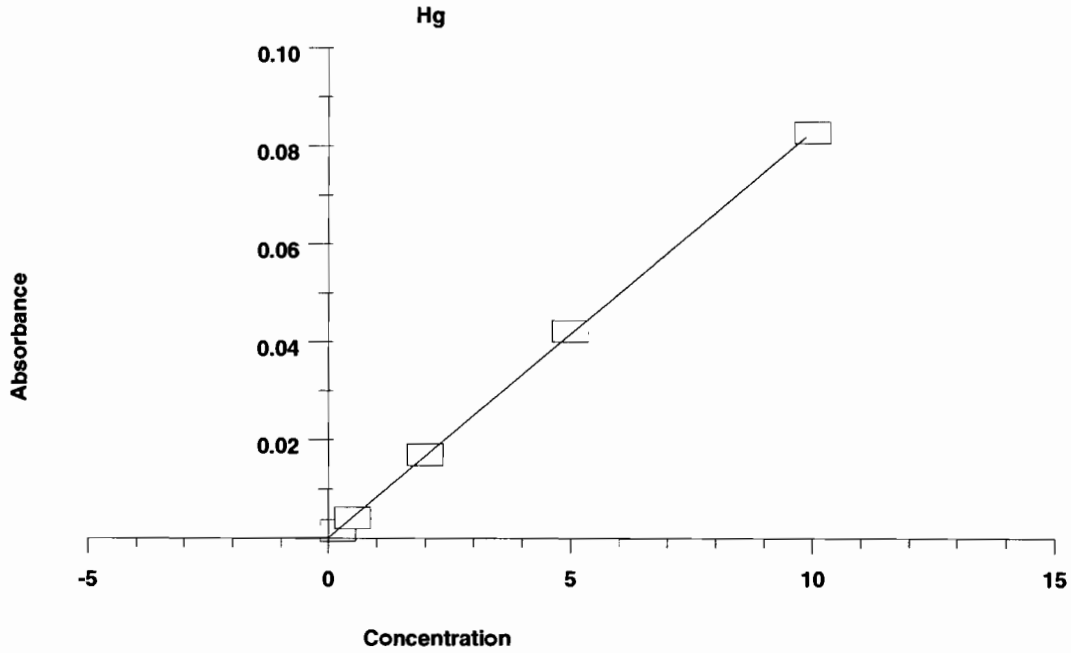

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 03/31/2010
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.187	5.187	0.0431	0.0469	08:50:47	No
2	5.163	5.163	0.0429	0.0467	08:51:23	No
Mean:	5.175	5.175	0.0430			
SD :	0.0170	0.0170	0.0001			
%RSD:	0.3	0.3	0.3275			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 03/31/2010
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.028	-0.028	-0.0001	0.0036	08:52:45	No
2	-0.046	-0.046	-0.0003	0.0035	08:53:20	No
Mean:	-0.037	-0.037	-0.0002			
SD :	0.0127	0.0127	0.0001			
%RSD:	34.4	34.4	53.2063			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 03/31/2010
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.235	0.235	0.0021	0.0058	08:54:43	No
2	0.216	0.216	0.0019	0.0056	08:55:17	No
Mean:	0.226	0.226	0.0020			
SD :	0.0132	0.0132	0.0001			
%RSD:	5.9	5.9	5.5497			

QC value within specified limits.

==========
Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 03/31/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.169	5.169	0.0430	0.0467	08:56:41	No
2	5.177	5.177	0.0431	0.0468	08:57:16	No
Mean:	5.173	5.173	0.0430			
SD :	0.0058	0.0058	0.0000			
%RSD:	0.1	0.1	0.1122			

QC value within specified limits.

==========
Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 03/31/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.024	-0.024	-0.0001	0.0036	08:58:44	No
2	-0.029	-0.029	-0.0001	0.0036	08:59:18	No
Mean:	-0.027	-0.027	-0.0001			
SD :	0.0034	0.0034	0.0000			
%RSD:	12.7	12.7	24.7998			

QC value within specified limits.

==========
Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 03/31/2010
Sample ID: 1202081090|i||969290|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.022	-0.022	-0.0001	0.0037	09:00:44	No
2	-0.035	-0.035	-0.0002	0.0035	09:01:19	No
Mean:	-0.029	-0.029	-0.0001			
SD :	0.0091	0.0091	0.0001			
%RSD:	31.8	31.8	58.2431			

==========
Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 03/31/2010
Sample ID: 1202081091|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.697	3.697	0.0308	0.0345	09:02:43	No
2	3.713	3.713	0.0309	0.0346	09:03:18	No
Mean:	3.705	3.705	0.0308			
SD :	0.0115	0.0115	0.0001			
%RSD:	0.3	0.3	0.3105			

==========
Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 03/31/2010
Sample ID: 249244001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.323	0.323	0.0028	0.0065	09:04:45	No
2	0.310	0.310	0.0027	0.0064	09:05:20	No
Mean:	0.316	0.316	0.0027			
SD :	0.0090	0.0090	0.0001			
%RSD:	2.8	2.8	2.7306			

==========
Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 03/31/2010
Sample ID: 249244002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.478	0.478	0.0041	0.0078	09:06:46	No
2	0.467	0.467	0.0040	0.0077	09:07:21	No
Mean:	0.473	0.473	0.0040			
SD :	0.0081	0.0081	0.0001			
%RSD:	1.7	1.7	1.6667			

Element: Hg Seq. No.: 16 AS Loc.: 16 Date: 03/31/2010
Sample ID: 249244003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.289	0.289	0.0025	0.0062	09:08:49	No
2	0.266	0.266	0.0023	0.0060	09:09:24	No
Mean:	0.278	0.278	0.0024			
SD :	0.0163	0.0163	0.0001			
%RSD:	5.9	5.9	5.6192			

Element: Hg Seq. No.: 17 AS Loc.: 17 Date: 03/31/2010
Sample ID: 249244004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.403	0.403	0.0035	0.0072	09:10:48	No
2	0.392	0.392	0.0034	0.0071	09:11:22	No
Mean:	0.398	0.398	0.0034			
SD :	0.0075	0.0075	0.0001			
%RSD:	1.9	1.9	1.8277			

Element: Hg Seq. No.: 18 AS Loc.: 18 Date: 03/31/2010
Sample ID: 249244005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.187	0.187	0.0017	0.0054	09:12:42	No
2	0.175	0.175	0.0016	0.0053	09:13:17	No
Mean:	0.181	0.181	0.0016			
SD :	0.0082	0.0082	0.0001			
%RSD:	4.5	4.5	4.2166			

Element: Hg Seq. No.: 19 AS Loc.: 19 Date: 03/31/2010
Sample ID: 249244006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.752	0.752	0.0063	0.0101	09:14:39	No
2	0.744	0.744	0.0063	0.0100	09:15:13	No
Mean:	0.748	0.748	0.0063			
SD :	0.0055	0.0055	0.0000			
%RSD:	0.7	0.7	0.7185			

Element: Hg Seq. No.: 20 AS Loc.: 20 Date: 03/31/2010
Sample ID: 249329001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.757	4.757	0.0396	0.0433	09:16:35	No
2	4.765	4.765	0.0396	0.0434	09:17:10	No
Mean:	4.761	4.761	0.0396			
SD :	0.0060	0.0060	0.0000			

%RSD: 0.1 0.1 0.1252

==========
Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 03/31/2010
Sample ID: 249329002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.051	4.051	0.0337	0.0374	09:18:32	No
2	4.060	4.060	0.0338	0.0375	09:19:07	No
Mean:	4.056	4.056	0.0338			
SD :	0.0068	0.0068	0.0001			
%RSD:	0.2	0.2	0.1665			

==========
Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 03/31/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.472	5.472	0.0455	0.0492	09:20:32	No
2	5.464	5.464	0.0454	0.0492	09:21:07	No
Mean:	5.468	5.468	0.0455			
SD :	0.0061	0.0061	0.0001			
%RSD:	0.1	0.1	0.1114			

QC value within specified limits.

==========
Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 03/31/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.020	-0.020	-0.0001	0.0037	09:22:35	No
2	-0.022	-0.022	-0.0001	0.0036	09:23:10	No
Mean:	-0.021	-0.021	-0.0001			
SD :	0.0015	0.0015	0.0000			
%RSD:	6.8	6.8	17.3510			

QC value within specified limits.

==========
Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 03/31/2010
Sample ID: 249329003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	7.730	7.730	0.0643	0.0680	09:24:35	No
2	7.757	7.757	0.0645	0.0682	09:25:10	No
Mean:	7.744	7.744	0.0644			
SD :	0.0190	0.0190	0.0002			
%RSD:	0.2	0.2	0.2450			

==========
Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 03/31/2010
Sample ID: 249329004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	8.932	8.932	0.0742	0.0780	09:26:34	No
2	8.932	8.932	0.0742	0.0780	09:27:09	No
Mean:	8.932	8.932	0.0742			
SD :	0.0000	0.0000	0.0000			
%RSD:						

==========
Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 03/31/2010
Sample ID: 249330001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.205	1.205	0.0101	0.0138	09:28:33	No
2	1.208	1.208	0.0101	0.0139	09:29:08	No
Mean:	1.206	1.206	0.0101			
SD :	0.0019	0.0019	0.0000			
%RSD:	0.2	0.2	0.1572			

Element: Hg Seq. No.: 27 AS Loc.: 25 Date: 03/31/2010
Sample ID: 1202081092|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.248	1.248	0.0105	0.0142	09:30:32	No
2	1.236	1.236	0.0104	0.0141	09:31:07	No
Mean:	1.242	1.242	0.0104			
SD :	0.0085	0.0085	0.0001			
%RSD:	0.7	0.7	0.6753			

Element: Hg Seq. No.: 28 AS Loc.: 26 Date: 03/31/2010
Sample ID: 1202081093|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.509	3.509	0.0292	0.0329	09:32:32	No
2	3.500	3.500	0.0292	0.0329	09:33:06	No
Mean:	3.505	3.505	0.0292			
SD :	0.0057	0.0057	0.0000			
%RSD:	0.2	0.2	0.1622			

Element: Hg Seq. No.: 29 AS Loc.: 27 Date: 03/31/2010
Sample ID: 1202081095|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.695	3.695	0.0308	0.0345	09:34:32	No
2	3.688	3.688	0.0307	0.0344	09:35:06	No
Mean:	3.692	3.692	0.0307			
SD :	0.0054	0.0054	0.0000			
%RSD:	0.1	0.1	0.1458			

Element: Hg Seq. No.: 30 AS Loc.: 28 Date: 03/31/2010
Sample ID: 1202081094|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.160	0.160	0.0014	0.0052	09:36:32	No
2	0.155	0.155	0.0014	0.0051	09:37:07	No
Mean:	0.157	0.157	0.0014			
SD :	0.0036	0.0036	0.0000			
%RSD:	2.3	2.3	2.1296			

Element: Hg Seq. No.: 31 AS Loc.: 29 Date: 03/31/2010
Sample ID: 249330002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.159	1.159	0.0097	0.0134	09:38:33	No
2	1.140	1.140	0.0096	0.0133	09:39:08	No
Mean:	1.149	1.149	0.0096			
SD :	0.0133	0.0133	0.0001			

```
%RSD:       1.2        1.2    1.1418

==========================================================================================
Element: Hg    Seq. No.: 32       AS Loc.: 30   Date: 03/31/2010
Sample ID: 249330003|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        30.55     30.55    0.2536     0.2573   09:40:35  No
Sample absorbance is greater than that of the highest standard.
 2        30.46     30.46    0.2528     0.2566   09:41:09  No
Sample absorbance is greater than that of the highest standard.
Mean:     30.50     30.50    0.2532
SD  :    0.0631    0.0631    0.0005
%RSD:       0.2        0.2    0.2067
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 33       AS Loc.: 31   Date: 03/31/2010
Sample ID: 249330004|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1       111.6     111.6    0.9260     0.9298   09:42:37  No
Sample absorbance is greater than that of the highest standard.
 2       110.6     110.6    0.9182     0.9219   09:43:12  No
Sample absorbance is greater than that of the highest standard.
Mean:    111.1     111.1    0.9221
SD  :   0.6703    0.6703    0.0056
%RSD:       0.6        0.6    0.6032
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 34       AS Loc.: 7    Date: 03/31/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        5.348     5.348    0.0445     0.0482   09:44:39  No
 2        5.346     5.346    0.0445     0.0482   09:45:14  No
Mean:     5.347     5.347    0.0445
SD  :    0.0016    0.0016    0.0000
%RSD:
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 35       AS Loc.: 8    Date: 03/31/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1       -0.050    -0.050   -0.0003     0.0034   09:46:42  No
 2       -0.051    -0.051   -0.0003     0.0034   09:47:17  No
Mean:    -0.051    -0.051   -0.0003
SD  :    0.0007    0.0007    0.0000
%RSD:       1.4        1.4    1.8244
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 36       AS Loc.: 32   Date: 03/31/2010
Sample ID: 249330005|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        20.49     20.49    0.1702     0.1739   09:48:41  No
Sample absorbance is greater than that of the highest standard.
 2        20.50     20.50    0.1702     0.1739   09:49:17  No
```

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **965623.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202072046	Metals Soil LCS SRM ICP/Hg	UI062540-I	.524	g
MS	1202072048	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202072048	Metals Spike Mix II	UI1286774-06	.25	mL
MSD	1202072050	Metals Spike Mix I	UI1286772-01	.25	mL
MSD	1202072050	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202072045 MB	31-MAR-2010 09:30:00	Soil	0.513	50	97.46589	<2
1202072046 LCS	31-MAR-2010 09:30:00	Soil	0.524	50	95.41985	<2
249329001	31-MAR-2010 09:30:00	Soil	0.532	50	93.98496	<2
249329002	31-MAR-2010 09:30:00	Soil	0.5	50	100	<2
249329003	31-MAR-2010 09:30:00	Soil	0.529	50	94.51796	<2
249329004	31-MAR-2010 09:30:00	Soil	0.514	50	97.27626	<2
249330001	31-MAR-2010 09:30:00	Soil	0.501	50	99.8004	<2
249330002	31-MAR-2010 09:30:00	Soil	0.518	50	96.5251	<2
249330003	31-MAR-2010 09:30:00	Soil	0.536	50	93.28358	<2
249330004	31-MAR-2010 09:30:00	Soil	0.503	50	99.40358	<2
249330005	31-MAR-2010 09:30:00	Soil	0.523	50	95.60229	<2
249330006	31-MAR-2010 09:30:00	Soil	0.52	50	96.15385	<2
249330007	31-MAR-2010 09:30:00	Soil	0.502	50	99.60159	<2
249330008	31-MAR-2010 09:30:00	Soil	0.549	50	91.07468	<2
249333003	31-MAR-2010 09:30:00	Soil	0.509	50	98.23183	<2
1202072047 DUP (249333003)	31-MAR-2010 09:30:00	Soil	0.567	50	88.18342	<2
1202072048 MS (249333003)	31-MAR-2010 09:30:00	Soil	0.502	50	99.60159	<2
1202072050 MSD (249333003)	31-MAR-2010 09:30:00	Soil	0.53	50	94.33962	<2
1202072049 SDILT (249333003)	31-MAR-2010 09:30:00	Soil	0.509	50	98.23183	<2
249333004	31-MAR-2010 09:30:00	Soil	0.567	50	88.18342	<2
249333005	31-MAR-2010 09:30:00	Soil	0.502	50	99.60159	<2
249333006	31-MAR-2010 09:30:00	Soil	0.53	50	94.33962	<2
249333007	31-MAR-2010 09:30:00	Soil	0.509	50	98.23183	<2

Prep Logbook

Batch ID: **965623.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202072046	Metals Soil LCS SRM ICP/Hg	UI062540-I	.524	g
MS	1202072048	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202072048	Metals Spike Mix II	UI1286774-06	.25	mL
MSD	1202072050	Metals Spike Mix I	UI1286772-01	.25	mL
MSD	1202072050	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
249333008	31-MAR-2010 09:30:00	Soil	0.502	50	99.60159	<2
249333009	31-MAR-2010 09:30:00	Soil	0.5	50	100	<2

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL
1291278	Nitric Acid CONC.	1.25 mL

Comments:

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 965626.0 **Verified by:** _____

Analyst: Louis Hall

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: Sartorius Balance B-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202072051 MB	31-MAR-2010 09:30:00	0.518	50	96.5251	<2
1202072052 LCS	31-MAR-2010 09:30:00	0.5	50	100	<2
249329001	31-MAR-2010 09:30:00	0.532	50	93.98496	<2
249329002	31-MAR-2010 09:30:00	0.538	50	92.9368	<2
249329003	31-MAR-2010 09:30:00	0.505	50	99.0099	<2
249329004	31-MAR-2010 09:30:00	0.528	50	94.69697	<2
249330001	31-MAR-2010 09:30:00	0.522	50	95.78544	<2
249330002	31-MAR-2010 09:30:00	0.517	50	96.7118	<2
249330003	31-MAR-2010 09:30:00	0.502	50	99.60159	<2
249330004	31-MAR-2010 09:30:00	0.507	50	98.61933	<2
249330005	31-MAR-2010 09:30:00	0.551	50	90.7441	<2
249330006	31-MAR-2010 09:30:00	0.526	50	95.05703	<2
249330007	31-MAR-2010 09:30:00	0.505	50	99.0099	<2
249330008	31-MAR-2010 09:30:00	0.502	50	99.60159	<2
249333003	31-MAR-2010 09:30:00	0.511	50	97.84736	<2
1202072053 DUP (249333003)	31-MAR-2010 09:30:00	0.516	50	96.89922	<2
1202072054 MS (249333003)	31-MAR-2010 09:30:00	0.509	50	98.23183	<2
1202072056 MSD (249330003)	31-MAR-2010 09:30:00	0.502	50	99.60159	<2
1202072055 SDILT (249333003)	31-MAR-2010 09:30:00	0.511	50	97.84736	<2
249333004	31-MAR-2010 09:30:00	0.506	50	98.81423	<2
249333005	31-MAR-2010 09:30:00	0.514	50	97.27626	<2
249333006	31-MAR-2010 09:30:00	0.507	50	98.61933	<2
249333007	31-MAR-2010 09:30:00	0.501	50	99.8004	<2
249333008	31-MAR-2010 09:30:00	0.57	50	87.7193	<2
249333009	31-MAR-2010 09:30:00	0.52	50	96.15385	<2

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202072052	Metals Soil LCS SRM ICPMS	UI062540-MS	.5	g
MS	1202072054	ICP-MS Spike for soil products.	UI1286780-A	.5	mL
MS	1202072054	ICP-MS Spike for Soil Products	UI1286784-B	.5	mL
MSD	1202072056	ICP-MS Spike for soil products.	UI1286780-A	.5	mL
MSD	1202072056	ICP-MS Spike for Soil Products	UI1286784-B	.5	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1291278	5	mL

Comments:

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **973754.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202091940	Metals Soil LCS SRM ICP/Hg	U1062540-I	.504	g
MS	1202072048	Metals Spike Mix I	U11286772-01	.25	mL
MS	1202072048	Metals Spike Mix II	U11286774-06	.25	mL
MSD	1202072050	Metals Spike Mix I	U11286772-01	.25	mL
MSD	1202072050	Metals Spike Mix II	U11286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202091939 MB	12-APR-2010 11:30:00	Soil	0.519	50	96.33911	
1202091940 LCS	12-APR-2010 11:30:00	Soil	0.504	50	99.20635	
249329001 - 2	12-APR-2010 11:30:00	Soil	0.501	50	99.8004	
249329002 - 2	12-APR-2010 11:30:00	Soil	0.502	50	99.60159	
249329003 - 2	12-APR-2010 11:30:00	Soil	0.516	50	96.89922	
249329004 - 2	12-APR-2010 11:30:00	Soil	0.507	50	98.61933	
249330001 - 2	12-APR-2010 11:30:00	Soil	0.541	50	92.42144	
249330002 - 2	12-APR-2010 11:30:00	Soil	0.535	50	93.45794	
249330003 - 2	12-APR-2010 11:30:00	Soil	0.502	50	99.60159	
249330004 - 2	12-APR-2010 11:30:00	Soil	0.523	50	95.60229	
249330005 - 2	12-APR-2010 11:30:00	Soil	0.528	50	94.69697	
249330006 - 2	12-APR-2010 11:30:00	Soil	0.559	50	89.44544	
249330007 - 2	12-APR-2010 11:30:00	Soil	0.564	50	88.65248	
249330008 - 2	12-APR-2010 11:30:00	Soil	0.553	50	90.41591	
249333003 - 2	12-APR-2010 11:30:00	Soil	0.513	50	97.46589	
1202072047 - 2 DUP (249333003)	12-APR-2010 11:30:00	Soil	0.511	50	97.84736	
1202072048 - 2 MS (249333003)	12-APR-2010 11:30:00	Soil	0.519	50	96.33911	
1202072050 - 2 MSD (249333003)	12-APR-2010 11:30:00	Soil	0.535	50	93.45794	
1202072049 - 2 SDILT (249333003)	12-APR-2010 11:30:00	Soil	0.513	50	97.46589	
249333004 - 2	12-APR-2010 11:30:00	Soil	0.502	50	99.60159	
249333005 - 2	12-APR-2010 11:30:00	Soil	0.553	50	90.41591	
249333006 - 2	12-APR-2010 11:30:00	Soil	0.5	50	100	
249333007 - 2	12-APR-2010 11:30:00	Soil	0.528	50	94.69697	

Prep Logbook

Batch ID: **973754.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202091940	Metals Soil LCS SRM ICP/Hg	UI062540-I	.504	g
MS	1202072048	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202072048	Metals Spike Mix II	UI1286774-06	.25	mL
MSD	1202072050	Metals Spike Mix I	UI1286772-01	.25	mL
MSD	1202072050	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
249333008 - 2	12-APR-2010 11:30:00	Soil	0.569	50	87.87346	
249333009 - 2	12-APR-2010 11:30:00	Soil	0.501	50	99.8004	

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL
1291278	Nitric Acid CONC.	1.25 mL

Comments:

Sample 249333003 consist of brown, medium soil.

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **969289.0** Verified by:
Analyst: Tara Griffin
Method: SW846 7471A Prep
Lab SOP: GL-MA-E-010 REV# 23
Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202081091	Metals LCS Soil SRM	UI031809A	.206	g
MS	1202081093	Mercury soil working intermediate standard for MS	WHG100330-14	.3	mL
MSD	1202081095	Mercury soil working intermediate standard for MS	WHG100330-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202081090 MB	30-MAR-2010 13:15:00	Soil	0.506	30	59.28854	
1202081091 LCS	30-MAR-2010 13:15:00	Soil	0.206	30	145.63107	
249244001	30-MAR-2010 13:15:00	Soil	0.581	30	51.63511	
249244002	30-MAR-2010 13:15:00	Soil	0.55	30	54.54545	
249244003	30-MAR-2010 13:15:00	Soil	0.553	30	54.24955	
249244004	30-MAR-2010 13:15:00	Soil	0.553	30	54.24955	
249244005	30-MAR-2010 13:15:00	Soil	0.538	30	55.76208	
249244006	30-MAR-2010 13:15:00	Soil	0.526	30	57.03422	
249329001	30-MAR-2010 13:15:00	Soil	0.53	30	56.60377	
249329002	30-MAR-2010 13:15:00	Soil	0.556	30	53.95683	
249329003	30-MAR-2010 13:15:00	Soil	0.539	30	55.65863	
249329004	30-MAR-2010 13:15:00	Soil	0.571	30	52.5394	
249330001	30-MAR-2010 13:15:00	Soil	0.505	30	59.40594	
1202081092 DUP (249330001)	30-MAR-2010 13:15:00	Soil	0.5	30	60	
1202081093 MS (249330001)	30-MAR-2010 13:15:00	Soil	0.507	30	59.1716	
1202081095 MSD (249330001)	30-MAR-2010 13:15:00	Soil	0.536	30	55.97015	
1202081094 SDILT (249330001)	30-MAR-2010 13:15:00	Soil	0.505	30	59.40594	
249330002	30-MAR-2010 13:15:00	Soil	0.52	30	57.69231	
249330003	30-MAR-2010 13:15:00	Soil	0.524	30	57.25191	
249330004	30-MAR-2010 13:15:00	Soil	0.581	30	51.63511	
249330005	30-MAR-2010 13:15:00	Soil	0.503	30	59.64215	
249330006	30-MAR-2010 13:15:00	Soil	0.519	30	57.80347	
249330007	30-MAR-2010 13:15:00	Soil	0.586	30	51.19454	
249330008	30-MAR-2010 13:15:00	Soil	0.543	30	55.24862	

Reagent/Solvent Lot ID	Description	Amount

Comments:

Prep Logbook

Batch ID: **969289.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202081091	Metals LCS Soil SRM	UI031809A	.206	g
MS	1202081093	Mercury soil working intermediate standard for MS	WHG100330-14	.3	mL
MSD	1202081095	Mercury soil working intermediate standard for MS	WHG100330-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1

Reagent/Solvent Lot ID	Description	Amount
1255532-C	Hg reducing agent	2 mL
1274391-1	NITRIC ACID	.375 mL
1277235-A	Hydrochloric Acid Conc.	1.125 mL
1277238-C	5% KMnO4 solution	7.5 mL
WHG100330-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL
WHG100330-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL
WHG100330-09	Mercury Working 1st Source CAL S 2.0	300 uL
WHG100330-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL
WHG100330-11	Mercury Working 1st Source CAL S 10.0	1.5 mL
WHG100330-12	Mercury Working 2nd Source S 5.0/ICV	750 uL

Comments:

Sample 249330001 is a dry rocky brown soil.

Digestion Start Date: 30-MAR-10 13:15

Digestion End Date: 30-MAR-10 13:45

GEL Laboratories LLC
Form GEL-DER

DER Report No.: 815763
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
09-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
965624	See Below		

Potentially affected work order(s)(SDG): 249329(10-2430),249330(10-2431),249333(10-2434)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202072048MS 2. Failed Recovery for MSD/PSD: QC 1202072050MSD	1. The matrix spike recovery failed outside of the control limits for magnesium,manganese and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The matrix spike duplicate recovery failed outside of the control limits for magnesium,manganese and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 09-APR-10

Data Validator/Group Leader:

Christopher Louviere 12-APR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
973755	See Below		

Potentially affected work order(s)(SDG): 249329(10-2430),249330(10-2431),249333(10-2434)

Application Issues:

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202072047DUP	1. The sample and sample duplicate % RPD failed outside the control limits for chromium and copper due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 16-APR-10

Data Validator/Group Leader:

Christopher Louviere 16-APR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-MAY-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
965627	See Below		

Potentially affected work order(s)(SDG): 249329(10-2430),249330(10-2431),249333(10-2434)

Application Issues:

Container scanning event for custody missed

Failed Recovery for LCS/LCSD

Specification and Requirements Exception Description:	DER Disposition:
1. Container scanning event for custody missed: 249329 001,002,003,004 249330 001,002,003,004,005,006,007,008 249333 003,004,005,006,007,008,009	1. The samples were in the custody of the ICPMS analyst at the time of analysis. However, the samples were inadvertently not scanned using the LIMS system.

Originator's Name:

Bryan Davis 17-MAY-10

Data Validator/Group Leader:

Jamie Johnson 19-MAY-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Cesium	1.68 mg/kg	Chromium	236 mg/kg
Cobalt	91.2 mg/kg	Copper	174 mg/kg
Iron	18000 mg/kg	Lead	86 mg/kg
Lithium	10.6 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	755 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silver	30.1 mg/kg

Analyte	Concentration	Analyte	Concentration
Sodium	1020 mg/kg	Strontium	227 mg/kg
Thallium	121 mg/kg	Thorium	9.84 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Uranium	2.13 mg/kg	Uranium-235	.0153 mg/kg
Uranium-238	2.11 mg/kg	Vanadium	92.4 mg/kg
Zinc	594 mg/kg	Zirconium	10.6 mg/kg

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 22-APR-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	30 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	30 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	100 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	3 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	5 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100310-49.16 **Opened:** 05-APR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 06-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L

Analyte	Concentration	Analyte	Concentration
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100317-06 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-MAR-10 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019161
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI100317-07 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-MAR-10 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019162
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L

Analyte	Concentration	Analyte	Concentration
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI100317-08 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-MAR-10 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019163
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI100329-40 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008325
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI100329-41 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008323
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI100329-42 **Opened:** 01-APR-10 **Amount :** 200 mL
Name: SILICON **Received:** 29-MAR-10 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 01-APR-11 **Lot Number :** 1004838
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100331-42 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 31-MAR-10 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 08-APR-11 **Lot Number :** 1019414
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100401-48 **Opened:** 02-APR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-APR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 16-APR-10 **Lot Number :** 1019463
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100405-40 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L

Analyte	Concentration	Analyte	Concentration
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100405-41 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100405-60 **Opened:** 05-APR-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 05-APR-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019464
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Zinc	250 mg/L		

Serial ID: UI100405-61 **Opened:** 05-APR-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 05-APR-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019464
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI100509-11 **Opened:** 09-MAY-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 09-MAY-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 09-MAY-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI1286772-01 **Opened:** 16-MAR-10 **Lot Number :** 1019097
Name: METALSPIKE-1 **Received:** 16-MAR-10
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL

Analyte	Concentration	Analyte	Concentration
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1286774-06 **Opened:** 16-MAR-10 **Lot Number :** 1018913
Name: METALSPIKE-2 **Received:** 16-MAR-10
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI1286780-A **Opened:** 16-MAR-10 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 16-MAR-10 **Lot Number :** 1017435
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L

Analyte	Concentration	Analyte	Concentration
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI1286784-B **Opened:** 16-MAR-10 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 16-MAR-10 **Lot Number :** 1017435
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100415-03 **Opened:** 15-APR-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100330-01 **Opened:** 30-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 30-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 31-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100330-02 **Opened:** 30-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 31-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: WHG100330-07 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100330-08 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100330-09 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100330-10 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: WHG100330-11 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100330-12 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100330-14 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100405-42 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100405-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100405-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100405-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100405-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100405-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100405-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100405-43 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100405-44 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1296961
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100405-45 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100405-46 **Opened:** 05-APR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1296961
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals

Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100405-47 **Opened:** 05-APR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL &1%HNO3-1296961
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100415-42 **Opened:** 15-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 16-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1300128
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100415-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100415-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100415-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100415-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100415-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100415-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100415-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100415-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100415-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100415-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100415-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100415-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100415-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100415-43 **Opened:** 15-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 16-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1300128
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI100329-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI100329-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100331-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L

Serial ID: WI100415-44 **Opened:** 15-APR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 16-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1300128
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI100329-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100331-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100415-45 **Opened:** 15-APR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 16-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1300128
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100415-46 **Opened:** 15-APR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 16-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1300128
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100329-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI100329-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100415-47 **Opened:** 15-APR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 16-APR-10 **Solvent :** 3%HCL &1%HNO3-1300128
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100515-04 **Opened:** 15-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 15-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 16-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1336568
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100515-04A **Opened:** 15-MAY-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 15-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 16-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100515-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100515-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100515-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100515-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100515-05 **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 15-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 16-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100515-06 **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 15-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 16-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100515-07 **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 15-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 16-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1336568
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100515-08 **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 15-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 16-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100515-70 **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 15-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 16-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100405-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100517-04 **Opened:** 17-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 17-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 18-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1339608
Supplier: GEL

Standard Logbook

Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100517-04A **Opened:** 17-MAY-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 17-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100517-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100517-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100517-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100517-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100517-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100517-05 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 17-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100517-06 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 17-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	30 mg/L	.05 mL	50 mL	30 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	200 ug/L
UI090701-09	Chromium	30 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100517-07 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 17-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 18-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1339608
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100517-08 **Opened:** 17-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 17-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 18-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1339608
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-08
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Standard Logbook

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1277235-A **Opened:** 01-MAR-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 01-MAR-11
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1282564 **Opened:** 09-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 09-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1291278 **Opened:** 25-MAR-10 **Lot Number :** J 08035 L
Name: I-HNO3 **Received:** 25-MAR-10
Type: Reagent/Solvent **Expires:** 25-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1296961 **Opened:** 05-APR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-APR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 11-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1300128 **Opened:** 12-APR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 02-APR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 18-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1302252 **Opened:** 15-APR-10 **Lot Number :** J 10027 L
Name: I-HNO3 **Received:** 15-APR-10
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1302255 **Opened:** 15-APR-10 **Lot Number :** J07033
Name: I-HCL **Received:** 15-APR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1336568 **Opened:** 10-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 10-MAY-10
Type: Reagent/Solvent **Expires:** 17-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1302255	I-HCL	36.5-38.0	80 mL	8 l	N/A

Standard Logbook

Serial ID: 1338237 **Opened:** 13-MAY-10 **Lot Number :** J11034
Name: I-HCL **Received:** 13-MAY-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 13-MAY-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1339608 **Opened:** 17-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 17-MAY-10
Type: Reagent/Solvent **Expires:** 24-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1338237	I-HCL	36.5-38.0	80 mL	8 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2430

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	965133	**Method:**	SW9012A Cyanide and Total
Prep Batch :	965131	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
249329001	RE46-10-13964
249329002	RE46-10-13966
249329003	RE46-10-13963
249329004	RE46-10-13965
1202070671	Method Blank (MB)
1202070672	249250003(RE16-10-2917) Sample Duplicate (DUP)
1202070673	249060003(RE16-10-2826) Sample Duplicate (DUP)
1202070674	249250003(RE16-10-2917) Matrix Spike (MS)
1202070675	249060003(RE16-10-2826) Matrix Spike (MS)
1202070676	249250003(RE16-10-2917) Matrix Spike Duplicate (MSD)
1202070677	249060003(RE16-10-2826) Matrix Spike Duplicate (MSD)
1202070678	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 249060003 (RE16-10-2826) and 249250003 (RE16-10-2917).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202070672 (RE16-10-2917) and 1202070673 (RE16-10-2826).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202070678 (LCS).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer:_____ **Date:**_____03/30/10_____

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2430 GEL Work Order: 249329

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2430

Client Sample ID:	RE46-10-13964	Project:	LANL01004
Sample ID:	249329001	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	10.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.2	273	ug/kg	1	AXC2 03/17/10	1312	965133	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2430

Client Sample ID:	RE46-10-13966	Project:	LANL01004
Sample ID:	249329002	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	16.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.0	257	ug/kg	1	AXC2 03/17/10	1313	965133	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2430

Client Sample ID:	RE46-10-13963	Project:	LANL01004
Sample ID:	249329003	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	23.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	88.8	326	ug/kg	1	AXC2 03/17/10	1314	965133	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 30, 2010

Client SDG: 10-2430

Client Sample ID:	RE46-10-13965	Project:	LANL01004
Sample ID:	249329004	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10 12:00		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	11%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.1	265	ug/kg	1	AXC2 03/17/10	1318	965133	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/16/10	1645	965131

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: March 30, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 249329

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis											
Batch 965133											
QC1202070672 249250003 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			AXC2	03/17/10 13:01
QC1202070673 249060003 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A				03/17/10 12:56
QC1202070678 LCS											
Cyanide, Total	67900				71300	ug/kg		105	(32%-157%)		03/17/10 12:54
QC1202070671 MB											
Cyanide, Total				U	250	ug/kg					03/17/10 12:53
QC1202070674 249250003 MS											
Cyanide, Total	5610	U	ND		5720	ug/kg		102	(26%-158%)		03/17/10 13:06
QC1202070675 249060003 MS											
Cyanide, Total	5710	U	ND		5270	ug/kg		92.3	(26%-158%)		03/17/10 12:57
QC1202070676 249250003 MSD											
Cyanide, Total	5720	U	ND		5780	ug/kg	0.995	101	(0%-30%)		03/17/10 13:07
QC1202070677 249060003 MSD											
Cyanide, Total	6060	U	ND		6000	ug/kg	12.8	99	(0%-30%)		03/17/10 12:58

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based

QC Summary

Workorder: 249329

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

on nearest internal standard response factor

N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 30-MAR-2010 14:56

GEL Laboratories LLC
Contract: LANL01004
SDG #: 10-2430

Flow Injection Analysis
Method: SW846 9012A Concentration Units:ug/L
Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**17-MAR-2010 12:48:22**	**OM_3-17-2010_12-39-43**	**152**	**150**	**101**	**(90%-110%)**	**Yes**
CCV	17-MAR-2010 13:02:40	OM_3-17-2010_12-39-43	102	100	102	(90%-110%)	Yes
CCV	17-MAR-2010 13:15:05	OM_3-17-2010_12-39-43	102	100	102	(90%-110%)	Yes
CCV	17-MAR-2010 13:27:29	OM_3-17-2010_12-39-43	103	100	103	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**17-MAR-2010 12:50:13**	**OM_3-17-2010_12-39-43**	**-1.21**	**10**	**Yes**
CCB	17-MAR-2010 13:04:31	OM_3-17-2010_12-39-43	-1.31	10	Yes
CCB	17-MAR-2010 13:16:57	OM_3-17-2010_12-39-43	-1.28	10	Yes
CCB	17-MAR-2010 13:29:19	OM_3-17-2010_12-39-43	-1.14	10	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **965131.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202070678	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202070674	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202070675	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202070676	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202070677	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202070671 MB	16-MAR-2010 16:45:00	Soil	0.5	25	50	>12
1202070678 LCS	16-MAR-2010 16:45:00	Soil	0.25	25	100	>12
249060003	16-MAR-2010 16:45:00	Soil	0.5	25	50	>12
1202070673 DUP (249060003)	16-MAR-2010 16:45:00	Soil	0.52	25	48.07692	>12
1202070675 MS (249060003)	16-MAR-2010 16:45:00	Soil	0.53	25	47.16981	>12
1202070677 MSD (249060003)	16-MAR-2010 16:45:00	Soil	0.5	25	50	>12
249245001	16-MAR-2010 16:45:00	Soil	0.5	25	50	>12
249245002	16-MAR-2010 16:45:00	Soil	0.51	25	49.01961	>12
249250003	16-MAR-2010 16:45:00	Soil	0.5	25	50	>12
1202070672 DUP (249250003)	16-MAR-2010 16:45:00	Soil	0.52	25	48.07692	>12
1202070674 MS (249250003)	16-MAR-2010 16:45:00	Soil	0.51	25	49.01961	>12
1202070676 MSD (249250003)	16-MAR-2010 16:45:00	Soil	0.5	25	50	>12
249250004	16-MAR-2010 16:45:00	Soil	0.58	25	43.10345	>12
249252001	16-MAR-2010 16:45:00	Soil	0.52	25	48.07692	>12
249252002	16-MAR-2010 16:45:00	Soil	0.52	25	48.07692	>12
249252003	16-MAR-2010 16:45:00	Soil	0.54	25	46.2963	>12
249262001	16-MAR-2010 16:45:00	Misc Solid	0.504	25	49.60317	>12
249329001	16-MAR-2010 16:45:00	Soil	0.51	25	49.01961	>12
249329002	16-MAR-2010 16:45:00	Soil	0.58	25	43.10345	>12
249329003	16-MAR-2010 16:45:00	Soil	0.5	25	50	>12
249329004	16-MAR-2010 16:45:00	Soil	0.53	25	47.16981	>12

Prep Logbook

Batch ID: **965131.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202070678	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202070674	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202070675	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202070676	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202070677	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
249333003	16-MAR-2010 16:45:00	Soil	0.52	25	48.07692	>12
249333004	16-MAR-2010 16:45:00	Soil	0.53	25	47.16981	>12
249333005	16-MAR-2010 16:45:00	Soil	0.52	25	48.07692	>12
249333006	16-MAR-2010 16:45:00	Soil	0.53	25	47.16981	>12
249333007	16-MAR-2010 16:45:00	Soil	0.51	25	49.01961	>12
249333008	16-MAR-2010 16:45:00	Soil	0.56	25	44.64286	>12
249333009	16-MAR-2010 16:45:00	Soil	0.57	25	43.85965	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100316-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/17/2010 12:41:14	OM_3-17-2010_12-39-43
150 ppb		1	axc2	3/17/2010 12:42:06	OM_3-17-2010_12-39-43
100 ppb		1	axc2	3/17/2010 12:42:58	OM_3-17-2010_12-39-43
50 ppb		1	axc2	3/17/2010 12:43:51	OM_3-17-2010_12-39-43
10 ppb		1	axc2	3/17/2010 12:44:44	OM_3-17-2010_12-39-43
CRDL 5.0 ppb		1	axc2	3/17/2010 12:45:38	OM_3-17-2010_12-39-43
ICAL-00		1	axc2	3/17/2010 12:46:32	OM_3-17-2010_12-39-43
ICV		1	axc2	3/17/2010 12:48:22	OM_3-17-2010_12-39-43
ICB		1	axc2	3/17/2010 12:50:13	OM_3-17-2010_12-39-43
CRDL		1	axc2	3/17/2010 12:52:03	OM_3-17-2010_12-39-43
1202070671	965133	1	axc2	3/17/2010 12:53:52	OM_3-17-2010_12-39-43
1202070678	965133	25	axc2	3/17/2010 12:54:46	OM_3-17-2010_12-39-43
249060003	965133	1	axc2	3/17/2010 12:55:39	OM_3-17-2010_12-39-43
1202070673	965133	1	axc2	3/17/2010 12:56:32	OM_3-17-2010_12-39-43
1202070675	965133	1	axc2	3/17/2010 12:57:25	OM_3-17-2010_12-39-43
1202070677	965133	1	axc2	3/17/2010 12:58:18	OM_3-17-2010_12-39-43
249245001	965133	1	axc2	3/17/2010 12:59:11	OM_3-17-2010_12-39-43
249245002	965133	1	axc2	3/17/2010 13:00:03	OM_3-17-2010_12-39-43
249250003	965133	1	axc2	3/17/2010 13:00:55	OM_3-17-2010_12-39-43
1202070672	965133	1	axc2	3/17/2010 13:01:48	OM_3-17-2010_12-39-43
CCV		1	axc2	3/17/2010 13:02:40	OM_3-17-2010_12-39-43
CCB		1	axc2	3/17/2010 13:04:31	OM_3-17-2010_12-39-43
1202070674	965133	1	axc2	3/17/2010 13:06:19	OM_3-17-2010_12-39-43
1202070676	965133	1	axc2	3/17/2010 13:07:10	OM_3-17-2010_12-39-43
249250004	965133	1	axc2	3/17/2010 13:08:02	OM_3-17-2010_12-39-43
249252001	965133	1	axc2	3/17/2010 13:08:54	OM_3-17-2010_12-39-43
249252002	965133	1	axc2	3/17/2010 13:09:46	OM_3-17-2010_12-39-43
249252003	965133	1	axc2	3/17/2010 13:10:40	OM_3-17-2010_12-39-43
249262001	965133	1	axc2	3/17/2010 13:11:33	OM_3-17-2010_12-39-43
249329001	965133	1	axc2	3/17/2010 13:12:27	OM_3-17-2010_12-39-43
249329002	965133	1	axc2	3/17/2010 13:13:19	OM_3-17-2010_12-39-43
249329003	965133	1	axc2	3/17/2010 13:14:13	OM_3-17-2010_12-39-43
CCV		1	axc2	3/17/2010 13:15:05	OM_3-17-2010_12-39-43
CCB		1	axc2	3/17/2010 13:16:57	OM_3-17-2010_12-39-43
249329004	965133	1	axc2	3/17/2010 13:18:46	OM_3-17-2010_12-39-43
249333003	965133	1	axc2	3/17/2010 13:19:39	OM_3-17-2010_12-39-43
249333004	965133	1	axc2	3/17/2010 13:20:31	OM_3-17-2010_12-39-43
249333005	965133	1	axc2	3/17/2010 13:21:24	OM_3-17-2010_12-39-43
249333006	965133	1	axc2	3/17/2010 13:22:16	OM_3-17-2010_12-39-43
249333007	965133	1	axc2	3/17/2010 13:23:09	OM_3-17-2010_12-39-43
249333008	965133	1	axc2	3/17/2010 13:24:01	OM_3-17-2010_12-39-43
249333009	965133	1	axc2	3/17/2010 13:24:53	OM_3-17-2010_12-39-43
1202070695	965142	1	axc2	3/17/2010 13:25:44	OM_3-17-2010_12-39-43
1202070697	965142	1	axc2	3/17/2010 13:26:36	OM_3-17-2010_12-39-43
CCV		1	axc2	3/17/2010 13:27:29	OM_3-17-2010_12-39-43
CCB		1	axc2	3/17/2010 13:29:19	OM_3-17-2010_12-39-43
249011001	965142	1	axc2	3/17/2010 13:31:08	OM_3-17-2010_12-39-43
1202070696	965142	1	axc2	3/17/2010 13:32:03	OM_3-17-2010_12-39-43
249011002	965142	1	axc2	3/17/2010 13:32:56	OM_3-17-2010_12-39-43
249011003	965142	1	axc2	3/17/2010 13:33:49	OM_3-17-2010_12-39-43
249011004	965142	1	axc2	3/17/2010 13:34:43	OM_3-17-2010_12-39-43
249011005	965142	1	axc2	3/17/2010 13:35:36	OM_3-17-2010_12-39-43
249011006	965142	1	axc2	3/17/2010 13:36:29	OM_3-17-2010_12-39-43
249262001	965142	1	axc2	3/17/2010 13:37:22	OM_3-17-2010_12-39-43
248634002	964231	1	axc2	3/17/2010 13:38:15	OM_3-17-2010_12-39-43
248885002	964231	1	axc2	3/17/2010 13:39:08	OM_3-17-2010_12-39-43
CCV		1	axc2	3/17/2010 13:40:00	OM_3-17-2010_12-39-43
CCB		1	axc2	3/17/2010 13:41:51	OM_3-17-2010_12-39-43

248952011	964231	1	axc2	3/17/2010	13:43:40	OM_3-17-2010_12-39-43
1202068610	964231	1	axc2	3/17/2010	13:44:32	OM_3-17-2010_12-39-43
1202068613	964231	1	axc2	3/17/2010	13:45:26	OM_3-17-2010_12-39-43
1202068616	964231	1	axc2	3/17/2010	13:46:18	OM_3-17-2010_12-39-43
248952012	964231	1	axc2	3/17/2010	13:47:10	OM_3-17-2010_12-39-43
248952018	964231	1	axc2	3/17/2010	13:48:03	OM_3-17-2010_12-39-43
248964002	964231	1	axc2	3/17/2010	13:48:57	OM_3-17-2010_12-39-43
1202068611	964231	1	axc2	3/17/2010	13:49:52	OM_3-17-2010_12-39-43
1202068614	964231	1	axc2	3/17/2010	13:50:47	OM_3-17-2010_12-39-43
1202068617	964231	1	axc2	3/17/2010	13:51:40	OM_3-17-2010_12-39-43
CCV		1	axc2	3/17/2010	13:52:32	OM_3-17-2010_12-39-43
CCB		1	axc2	3/17/2010	13:54:23	OM_3-17-2010_12-39-43
248964003	964231	1	axc2	3/17/2010	13:56:14	OM_3-17-2010_12-39-43
248964006	964231	1	axc2	3/17/2010	13:57:07	OM_3-17-2010_12-39-43
248966004	964231	1	axc2	3/17/2010	13:58:02	OM_3-17-2010_12-39-43
248993001	964231	1	axc2	3/17/2010	13:58:55	OM_3-17-2010_12-39-43
249057004	964231	1	axc2	3/17/2010	13:59:48	OM_3-17-2010_12-39-43
249059002	964231	1	axc2	3/17/2010	14:00:42	OM_3-17-2010_12-39-43
249064001	964231	1	axc2	3/17/2010	14:01:35	OM_3-17-2010_12-39-43
249076002	964231	1	axc2	3/17/2010	14:02:28	OM_3-17-2010_12-39-43
1202068609	964231	1	axc2	3/17/2010	14:03:21	OM_3-17-2010_12-39-43
1202068612	964231	1	axc2	3/17/2010	14:04:14	OM_3-17-2010_12-39-43
CCV		1	axc2	3/17/2010	14:05:06	OM_3-17-2010_12-39-43
CCB		1	axc2	3/17/2010	14:06:56	OM_3-17-2010_12-39-43
1202068615	964231	1	axc2	3/17/2010	14:08:48	OM_3-17-2010_12-39-43
249094003	964231	1	axc2	3/17/2010	14:09:42	OM_3-17-2010_12-39-43
249097001	964231	1	axc2	3/17/2010	14:10:36	OM_3-17-2010_12-39-43
249102001	964231	1	axc2	3/17/2010	14:11:31	OM_3-17-2010_12-39-43
249111002	964231	1	axc2	3/17/2010	14:12:25	OM_3-17-2010_12-39-43
249111004	964231	1	axc2	3/17/2010	14:13:19	OM_3-17-2010_12-39-43
249011006	965142	2	axc2	3/17/2010	14:14:12	OM_3-17-2010_12-39-43
CCV		1	axc2	3/17/2010	14:15:05	OM_3-17-2010_12-39-43
CCB		1	axc2	3/17/2010	14:16:55	OM_3-17-2010_12-39-43

Author: axc2 Date : 3/17/2010

Original Run Filename: OM_3-17-2010_12-39-43.OMN created 3/17/2010 12:39:43
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-17-2010_12-39-43.OMN last modified 3/17/2010 14:18:01
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100317-01	1	S1	200	10.7	3/17/2010@12:41:14			200 ppb
WCN100317-02	1	S2	150	8.04	3/17/2010@12:42:06			150 ppb
WCN100317-03	1	S3	100	5.23	3/17/2010@12:42:58			100 ppb
WCN100317-04	1	S4	50.0	2.90	3/17/2010@12:43:51			50 ppb
WCN100317-05	1	S5	10.0	0.655	3/17/2010@12:44:44			10 ppb
WCN100317-06	1	S6	5.00	0.378	3/17/2010@12:45:38			CRDL 5.0 ppb
WCN100317-08	1	S7	0.00	0.0182	3/17/2010@12:46:32			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99971 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100317-07	1	S8	152	8.17	3/17/2010@12:48:22			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	1.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100317-08	1	S7	-1.21	0.0286	3/17/2010@12:50:13			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.21 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.21 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100317-06	1	S6	5.69	0.395	3/17/2010@12:52:03			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.69 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.69 > 2.50					
		Message	Pass					
		Action	None					
1202070671|965133|MB	1	1	-1.32	0.0230	3/17/2010@12:53:52			
1202070678||LCS	1	2	28.5	1.60	3/17/2010@12:54:46		25.00	
249060003	1	3	-0.846	0.0482	3/17/2010@12:55:39			
1202070673||DUP	1	4	-0.597	0.0614	3/17/2010@12:56:32			
1202070675||MS	1	5	92.3	4.99	3/17/2010@12:57:25			
1202070677||MSD	1	6	99.0	5.34	3/17/2010@12:58:18			
249245001	1	7	-1.29	0.0244	3/17/2010@12:59:11			
249245002	1	8	-1.32	0.0229	3/17/2010@13:00:03			
249250003	1	9	-1.14	0.0324	3/17/2010@13:00:55			
1202070672||DUP	1	10	-1.75	1.93e-4	3/17/2010@13:01:48			
WCN100317-03	1	S3	102	5.49	3/17/2010@13:02:40			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.8 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	1.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100317-08	1	S7	-1.31	0.0237	3/17/2010@13:04:31			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.31 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.31 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202070674||MS	1	11	102	5.49	3/17/2010@13:06:19			
1202070676||MSD	1	12	101	5.47	3/17/2010@13:07:10			
249250004	1	13	-1.00	0.0400	3/17/2010@13:08:02			
249252001	1	14	-1.75	1.62e-4	3/17/2010@13:08:54			
249252002	1	15	-1.32	0.0230	3/17/2010@13:09:46			
249252003	1	16	-0.839	0.0485	3/17/2010@13:10:40			
249262001	1	17	3.55	0.281	3/17/2010@13:11:33			
249329001	1	18	-0.619	0.0602	3/17/2010@13:12:27			
249329002	1	19	-0.710	0.0554	3/17/2010@13:13:19			
249329003	1	20	-0.397	0.0720	3/17/2010@13:14:13			
WCN100317-03	1	S3	102	5.52	3/17/2010@13:15:05			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	2.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	2.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100317-08	1	S7	-1.28	0.0253	3/17/2010@13:16:57			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.28 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.28 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249329004	1	21	-0.531	0.0649	3/17/2010@13:18:46			
249333003	1	22	-0.996	0.0402	3/17/2010@13:19:39			
249333004	1	23	-1.20	0.0293	3/17/2010@13:20:31			
249333005	1	24	3.38	0.272	3/17/2010@13:21:24			
249333006	1	25	1.21	0.157	3/17/2010@13:22:16			
249333007	1	26	5.34	0.376	3/17/2010@13:23:09			
249333008	1	27	0.382	0.113	3/17/2010@13:24:01			
249333009	1	28	-0.993	0.0404	3/17/2010@13:24:53			
1202070695|965142|MB	1	29	-1.72	0.00180	3/17/2010@13:25:44			
1202070697||LCS	1	30	-1.31	0.0236	3/17/2010@13:26:36			
WCN100317-03	1	S3	103	5.57	3/17/2010@13:27:29			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100317-08	1	S7	-1.14	0.0326	3/17/2010@13:29:19			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.14 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.14 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249011001	1	31	112	6.04	3/17/2010@13:31:08			
1202070696||DUP	1	32	109	5.87	3/17/2010@13:32:03			
249011002	1	33	117	6.29	3/17/2010@13:32:56			
249011003	1	34	192	10.3	3/17/2010@13:33:49			
249011004	1	35	123	6.59	3/17/2010@13:34:43			
249011005	1	36	184	9.86	3/17/2010@13:35:36			
249011006	1	37	201	10.8	3/17/2010@13:36:29			
249262001	1	38	20.7	1.19	3/17/2010@13:37:22			
248634002|964231|	1	83	-0.504	0.0663	3/17/2010@13:38:15			
248885002	1	84	-0.201	0.0823	3/17/2010@13:39:08			
WCN100317-03	1	S3	103	5.56	3/17/2010@13:40:00			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100317-08	1	S7	-1.15	0.0319	3/17/2010@13:41:51			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.15 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.15 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248952011	1	85	-0.943	0.0430	3/17/2010@13:43:40			
1202068610||DUP	1	86	-0.657	0.0582	3/17/2010@13:44:32			
1202068613||MS	1	87	99.9	5.39	3/17/2010@13:45:26			
1202068616||MSD	1	88	106	5.73	3/17/2010@13:46:18			
248952012	1	89	-0.841	0.0484	3/17/2010@13:47:10			
248952018	1	90	-1.29	0.0244	3/17/2010@13:48:03			
248964002	1	91	-0.938	0.0433	3/17/2010@13:48:57			
1202068611||DUP	1	92	-1.31	0.0235	3/17/2010@13:49:52			
1202068614||MS	1	93	106	5.73	3/17/2010@13:50:47			
1202068617||MSD	1	94	106	5.73	3/17/2010@13:51:40			
WCN100317-03	1	S3	103	5.55	3/17/2010@13:52:32			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-1.75	0.00	3/17/2010@13:54:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.75 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.75 > -5.00					
		Message	CCB Passed					
		Action	Continue					

248964003	1	95	-1.13	0.0333	3/17/2010@13:56:14			
248964006	1	96	-1.18	0.0303	3/17/2010@13:57:07			
248966004	1	97	-0.499	0.0666	3/17/2010@13:58:02			
248993001	1	98	1.22	0.158	3/17/2010@13:58:55			
249057004	1	99	-1.19	0.0301	3/17/2010@13:59:48			
249059002	1	100	-1.27	0.0258	3/17/2010@14:00:42			
249064001	1	101	-0.996	0.0402	3/17/2010@14:01:35			
249076002	1	103	-0.849	0.0480	3/17/2010@14:02:28			
1202068609||DUP	1	104	-1.44	0.0167	3/17/2010@14:03:21			
1202068612||MS	1	105	110	5.90	3/17/2010@14:04:14			
WCN100317-03	1	S3	103	5.54	3/17/2010@14:05:06			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100317-08	1	S7	-1.22	0.0284	3/17/2010@14:06:56			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.22 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.22 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202068615||MSD	1	106	106	5.74	3/17/2010@14:08:48			
249094003	1	107	-1.08	0.0356	3/17/2010@14:09:42			
249097001	1	108	-1.16	0.0315	3/17/2010@14:10:36			
249102001	1	109	-1.00	0.0399	3/17/2010@14:11:31			
249111002	1	110	-1.22	0.0281	3/17/2010@14:12:25			
249111004	1	111	-0.897	0.0455	3/17/2010@14:13:19			
249011006|965142|	1	37	108	5.84	3/17/2010@14:14:12		2.00	
WCN100317-03	1	S3	103	5.57	3/17/2010@14:15:05			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	3.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100317-08	1	S7	-1.18	0.0305	3/17/2010@14:16:55			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.18 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.18 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_3-17-2010_12-39-43.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True

Author: axc2 Date : 3/17/2010

% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

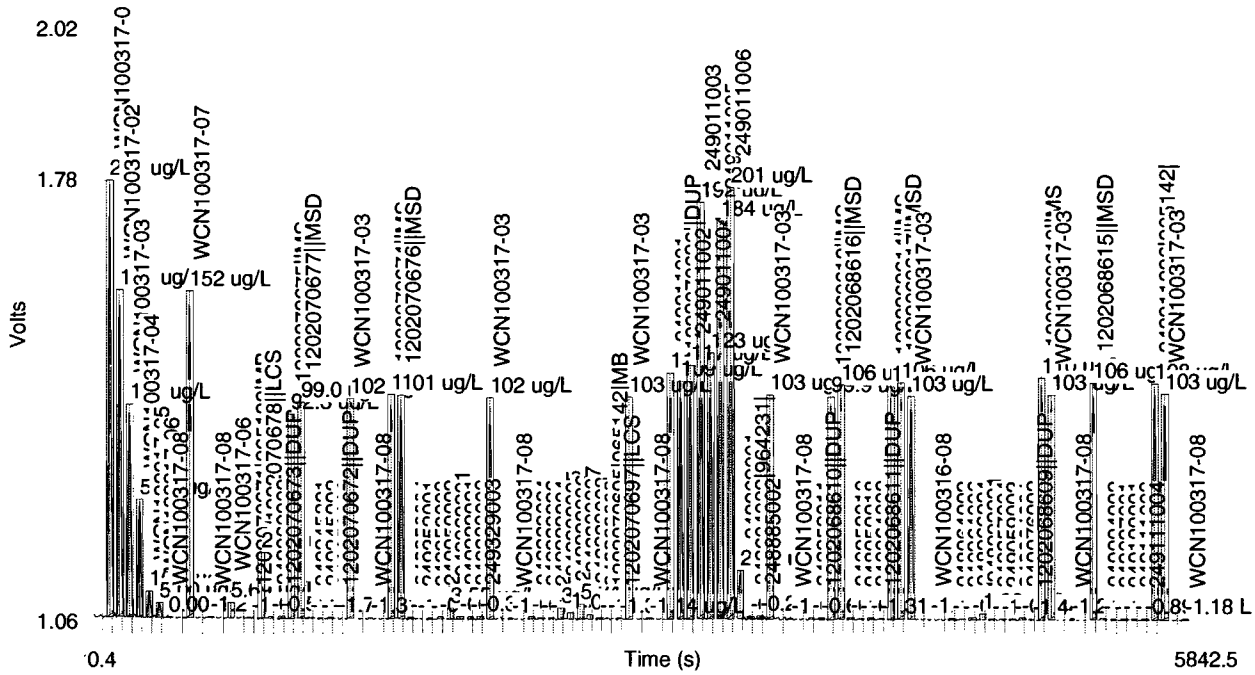

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.7	0.706	-0.4	3/17/2010	12:42:17
2	150	1	8.04	0.528	0.0	3/17/2010	12:43:09
3	100	1	5.23	0.343	3.1	3/17/2010	12:44:01
4	50.0	1	2.90	0.190	-5.6	3/17/2010	12:44:54
5	10.0	1	0.655	0.0420	-4.7	3/17/2010	12:45:47
6	5.00	1	0.378	0.0238	-4.9	3/17/2010	12:46:41
7	0.00	1	0.0182	9.70e-4		3/17/2010	12:47:35

Author: axc2 Date : 3/17/2010

Figure 1: TCYANIDE

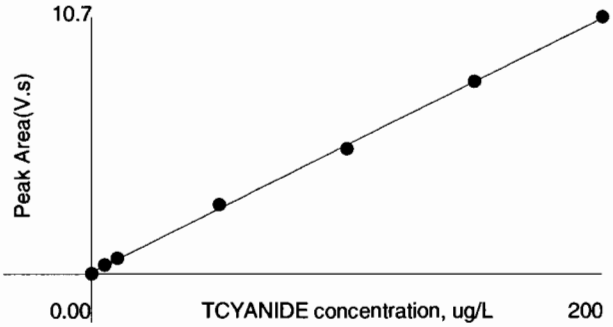

Area = 0.0530 * Conc + 0.0953
Conc = 18.9 * Area - 1.75
Correlation Coefficient (r) = 0.99971

No Weighting

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2430

Method/Analysis Information

Product:	**Dry Weight-Percent Moisture**
Analytical Method:	Dry Soil Prep
Analytical Batch Number:	965113

Sample ID	Client ID
249329001	RE46-10-13964
249329002	RE46-10-13966
249329003	RE46-10-13963
249329004	RE46-10-13965
1202070614	249060003(RE16-10-2826) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 249060003 (RE16-10-2826). The QC was from LANL work order 249060.

QC Information
All of the QC samples met the required acceptance limits.

CSU
Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965502
Prep Batch Number:	965113

Sample ID	Client ID
249329001	RE46-10-13964
249329002	RE46-10-13966
249329003	RE46-10-13963
249329004	RE46-10-13965
1202071683	Method Blank (MB)
1202071684	249334001(RE46-10-12972) Sample Duplicate (DUP)
1202071685	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202071683 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249334001 (RE46-10-12972). The QC was from LANL work order 249334.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965503
Prep Batch Number:	965113

Sample ID	Client ID
249329001	RE46-10-13964
249329002	RE46-10-13966
249329003	RE46-10-13963
249329004	RE46-10-13965
1202071686	Method Blank (MB)
1202071687	249334001(RE46-10-12972) Sample Duplicate (DUP)
1202071688	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202071686 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249334001 (RE46-10-12972). The QC was from LANL work order 249334.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The Pu239/240 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOTH**
Analytical Method:	DOE EML HASL-300, Th-01-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	967216
Prep Batch Number:	965113

Sample ID	Client ID
249329001	RE46-10-13964
249329002	RE46-10-13966
249329003	RE46-10-13963
249329004	RE46-10-13965
1202075933	Method Blank (MB)
1202075934	249331001(RE46-10-13219) Sample Duplicate (DUP)
1202075935	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as

Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-038 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202075933 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249331001 (RE46-10-13219). The QC was from LANL work order 249331.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were recounted due to high relative percent difference/relative error ratio. Sample 1202075934 (RE46-10-13219) was given additional clean-up steps and recounted due to poor resolution.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965504
Prep Batch Number:	965113

Sample ID	Client ID
249329001	RE46-10-13964
249329002	RE46-10-13966
249329003	RE46-10-13963
249329004	RE46-10-13965
1202071689	Method Blank (MB)
1202071690	249334001(RE46-10-12972) Sample Duplicate (DUP)
1202071691	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202071689 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249334001 (RE46-10-12972). The QC was from LANL work order

249334.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-233/234 and U-235/236 blank results are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965250
Prep Batch Number:	965113

Sample ID	Client ID
249329001	RE46-10-13964
249329002	RE46-10-13966
249329003	RE46-10-13963
249329004	RE46-10-13965
1202071014	Method Blank (MB)

1202071015 249334001(RE46-10-12972) Sample Duplicate (DUP)
1202071016 Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 19.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in March 2009, April 2009, May 2009, July 2009, December 2009, January 2010 and February 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 249334001 (RE46-10-12972). The QC was from LANL work order 249334.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank 1202071014 (MB) result is greater than 1.65 times the CSU but less than the MDC for Th-234.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank 1202071014 (MB) result is greater than the decision level but less than the MDC for Th-234.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to high peak-width.	Cesium-137	249329004	RE46-10-13965
UI	Data rejected due to interference.	Bismuth-211	249329001	RE46-10-13964
			249329002	RE46-10-13966
			249329003	RE46-10-13963
			249329004	RE46-10-13965
			1202071015	RE46-10-12972(249334001DUP)
		Cadmium-109	249329001	RE46-10-13964
			249329002	RE46-10-13966
			249329003	RE46-10-13963
			249329004	RE46-10-13965
			1202071015	RE46-10-12972(249334001DUP)
		Radium-224	249329001	RE46-10-13964
			249329002	RE46-10-13966
			249329003	RE46-10-13963
			249329004	RE46-10-13965
			1202071015	RE46-10-12972(249334001DUP)
UI	Data rejected due to low abundance.	Cesium-134	249329001	RE46-10-13964
			249329002	RE46-10-13966
			249329004	RE46-10-13965
			1202071015	RE46-10-12972(249334001DUP)
		Strontium-85	249329003	RE46-10-13963
			249329004	RE46-10-13965
			1202071015	RE46-10-12972(249334001DUP)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: Thomas Austin 4/8/2010

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2430 GEL Work Order: 249329

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Theresa L Austin

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID:	RE46-10-13964	Project:	LANL01004
Sample ID:	249329001	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	10.2%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	2.38E-05	0.0219	+/-0.00628	0.050	pCi/g		CXM2	03/27/10	1340	965502	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0239	+/-0.0018	0.050	pCi/g		CXM2	03/26/10	1720	965503	3
Plutonium-239/240	U	0.00151	0.0202	+/-0.00384	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		2.11	0.200	+/-0.212	0.100	pCi/g		CXM2	04/05/10	1534	967216	4
Thorium-230		1.33	0.251	+/-0.149	0.100	pCi/g						
Thorium-232		1.64	0.107	+/-0.173	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.55	0.136	+/-0.144	0.100	pCi/g		CXM2	03/27/10	1253	965504	6
Uranium-235/236		0.0891	0.0828	+/-0.0239	0.100	pCi/g						
Uranium-238		1.01	0.0953	+/-0.103	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.278	0.304	+/-0.0931	0.200	pCi/g		MXR1	03/24/10	0856	965250	7
Bismuth-211	UI	3.63	0.425	+/-0.300		pCi/g						
Bismuth-214		1.21	0.132	+/-0.108	0.200	pCi/g						
Cadmium-109	UI	4.18	1.31	+/-0.690		pCi/g						
Cerium-139	U	-0.0107	0.054	+/-0.0166	0.050	pCi/g						
Cesium-134	UI	0.134	0.102	+/-0.036	0.100	pCi/g						
Cesium-137	U	0.00363	0.0777	+/-0.023	0.100	pCi/g						
Cobalt-60	U	0.00484	0.0752	+/-0.0225	0.100	pCi/g						
Europium-152	U	-0.0736	0.181	+/-0.0583	0.200	pCi/g						
Lanthanum-140	U	-0.0192	0.141	+/-0.0437		pCi/g						
Lead-212		1.96	0.110	+/-0.121	0.100	pCi/g						
Lead-214		1.32	0.142	+/-0.115	0.100	pCi/g						
Mercury-203	U	0.0467	0.0772	+/-0.0242	0.100	pCi/g						
Potassium-40		32.6	0.597	+/-1.83	1.00	pCi/g						
Radium-223	U	0.944	1.25	+/-0.393		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13964
Sample ID: 249329001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-224	UI	3.96	1.18	+/-0.669		pCi/g						
Radium-226		1.21	0.132	+/-0.108		pCi/g						
Radium-228		2.19	0.249	+/-0.229	0.500	pCi/g						
Ruthenium-106	U	-0.0968	0.569	+/-0.172	0.800	pCi/g						
Sodium-22	U	0.00343	0.0899	+/-0.0271	0.080	pCi/g						
Strontium-85	U	0.0794	0.0797	+/-0.0235		pCi/g						
Thallium-208		0.631	0.0661	+/-0.0516	0.080	pCi/g						
Thorium-227	U	0.0314	0.482	+/-0.139		pCi/g						
Thorium-231	U	0.944	1.25	+/-0.393		pCi/g						
Thorium-234	U	2.32	2.95	+/-0.836	2.00	pCi/g						
Tin-113	U	-0.0351	0.0784	+/-0.0249	0.100	pCi/g						
Uranium-235	U	0.108	0.385	+/-0.115	0.500	pCi/g						
Yttrium-88	U	-0.0293	0.0389	+/-0.0158	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	81.3	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	81.3	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	68.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	67.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13964
Sample ID: 249329001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13966
Sample ID: 249329002
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 16.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.000963	0.0186	+/-0.00517	0.050	pCi/g		CXM2	03/27/10	1340	965502	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00463	0.027	+/-0.00382	0.050	pCi/g		CXM2	03/26/10	1720	965503	3
Plutonium-239/240	U	0.0133	0.0228	+/-0.00616	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.95	0.185	+/-0.195	0.100	pCi/g		CXM2	04/05/10	1534	967216	4
Thorium-230		1.13	0.232	+/-0.128	0.100	pCi/g						
Thorium-232		1.49	0.0988	+/-0.156	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.971	0.134	+/-0.0988	0.100	pCi/g		CXM2	03/27/10	1253	965504	6
Uranium-235/236	U	0.0176	0.0819	+/-0.0103	0.100	pCi/g						
Uranium-238		0.956	0.0943	+/-0.0976	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0665	0.192	+/-0.0569	0.200	pCi/g		MXR1	03/24/10	0857	965250	7
Bismuth-211	UI	4.35	0.357	+/-0.326		pCi/g						
Bismuth-214		1.25	0.131	+/-0.111	0.200	pCi/g						
Cadmium-109	UI	3.26	1.24	+/-0.544		pCi/g						
Cerium-139	U	0.00467	0.0553	+/-0.0169	0.050	pCi/g						
Cesium-134	UI	0.120	0.111	+/-0.0481	0.100	pCi/g						
Cesium-137		0.131	0.0763	+/-0.0316	0.100	pCi/g						
Cobalt-60	U	-0.0327	0.0684	+/-0.0227	0.100	pCi/g						
Europium-152	U	0.00713	0.177	+/-0.0603	0.200	pCi/g						
Lanthanum-140	U	-0.0567	0.125	+/-0.0494		pCi/g						
Lead-212		2.05	0.107	+/-0.119	0.100	pCi/g						
Lead-214		1.58	0.130	+/-0.126	0.100	pCi/g						
Mercury-203	U	0.0262	0.0744	+/-0.0244	0.100	pCi/g						
Potassium-40		35.0	0.508	+/-1.84	1.00	pCi/g						
Radium-223	U	-0.778	1.12	+/-0.419		pCi/g						
Radium-224	UI	4.67	1.15	+/-0.706		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13966
Sample ID: 249329002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-226		1.25	0.131	+/-0.111		pCi/g						
Radium-228		1.87	0.270	+/-0.222	0.500	pCi/g						
Ruthenium-106	U	0.145	0.641	+/-0.186	0.800	pCi/g						
Sodium-22	U	0.0148	0.0889	+/-0.0262	0.080	pCi/g						
Strontium-85	U	0.0694	0.0777	+/-0.0235		pCi/g						
Thallium-208		0.673	0.0686	+/-0.0555	0.080	pCi/g						
Thorium-227	U	0.0914	0.449	+/-0.130		pCi/g						
Thorium-231	U	-0.778	1.12	+/-0.419		pCi/g						
Thorium-234	U	0.171	1.94	+/-0.562	2.00	pCi/g						
Tin-113	U	-0.0457	0.0811	+/-0.0261	0.100	pCi/g						
Uranium-235	U	0.104	0.367	+/-0.112	0.500	pCi/g						
Yttrium-88	U	0.0111	0.0619	+/-0.0176	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.4	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	77.6	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	77.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	74.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13966
Sample ID: 249329002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13963
Sample ID: 249329003
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 23.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.010	0.0198	+/-0.00825	0.050	pCi/g		CXM2	03/27/10	1340	965502	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0135	0.0338	+/-0.00656	0.050	pCi/g		CXM2	03/26/10	1720	965503	3
Plutonium-239/240	U	-0.00662	0.0286	+/-0.00483	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.59	0.187	+/-0.168	0.100	pCi/g		CXM2	04/05/10	1534	967216	4
Thorium-230		1.20	0.234	+/-0.135	0.100	pCi/g						
Thorium-232		1.79	0.0998	+/-0.180	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.866	0.134	+/-0.0912	0.100	pCi/g		CXM2	03/27/10	1253	965504	6
Uranium-235/236	U	0.00587	0.0819	+/-0.00589	0.100	pCi/g						
Uranium-238		0.813	0.0942	+/-0.0866	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0544	0.292	+/-0.0962	0.200	pCi/g		MXR1	03/24/10	0857	965250	7
Bismuth-211	UI	4.39	0.381	+/-0.282		pCi/g						
Bismuth-214		1.43	0.120	+/-0.115	0.200	pCi/g						
Cadmium-109	UI	2.97	1.49	+/-0.566		pCi/g						
Cerium-139	U	-0.0235	0.0558	+/-0.0174	0.050	pCi/g						
Cesium-134	U	0.0705	0.100	+/-0.0283	0.100	pCi/g						
Cesium-137	U	0.0634	0.078	+/-0.0256	0.100	pCi/g						
Cobalt-60	U	0.0236	0.0765	+/-0.0219	0.100	pCi/g						
Europium-152	U	-0.0316	0.178	+/-0.0651	0.200	pCi/g						
Lanthanum-140	U	-0.0337	0.136	+/-0.044		pCi/g						
Lead-212		2.00	0.109	+/-0.0984	0.100	pCi/g						
Lead-214		1.59	0.138	+/-0.111	0.100	pCi/g						
Mercury-203	U	0.0576	0.0765	+/-0.0239	0.100	pCi/g						
Potassium-40		32.4	0.505	+/-1.54	1.00	pCi/g						
Radium-223	U	0.472	1.21	+/-0.391		pCi/g						
Radium-224	UI	5.42	1.17	+/-0.739		pCi/g						

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Report Date: April 8, 2010

Client Sample ID: RE46-10-13963
Sample ID: 249329003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-226		1.43	0.120	+/-0.115		pCi/g						
Radium-228		2.39	0.284	+/-0.225	0.500	pCi/g						
Ruthenium-106	U	0.125	0.570	+/-0.168	0.800	pCi/g						
Sodium-22	U	-0.0236	0.0748	+/-0.0237	0.080	pCi/g						
Strontium-85	UI	0.125	0.0805	+/-0.0228		pCi/g						
Thallium-208		0.558	0.0666	+/-0.0478	0.080	pCi/g						
Thorium-227	U	0.125	0.517	+/-0.156		pCi/g						
Thorium-231	U	0.472	1.21	+/-0.391		pCi/g						
Thorium-234		3.10	2.46	+/-1.28	2.00	pCi/g						
Tin-113	U	-0.00418	0.082	+/-0.0244	0.100	pCi/g						
Uranium-235	U	0.103	0.398	+/-0.119	0.500	pCi/g						
Yttrium-88	U	-0.00811	0.0445	+/-0.0147	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.9	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	60.7	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	77.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	73.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13963
Sample ID: 249329003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID:	RE46-10-13965	Project:	LANL01004
Sample ID:	249329004	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	11%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0102	0.0202	+/-0.00552	0.050	pCi/g		CXM2	03/27/10	1340	965502	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.000577	0.0273	+/-0.00254	0.050	pCi/g		CXM2	03/26/10	1720	965503	3
Plutonium-239/240	U	0.00585	0.0231	+/-0.00529	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.59	0.153	+/-0.157	0.100	pCi/g		CXM2	04/05/10	1534	967216	4
Thorium-230		1.17	0.193	+/-0.123	0.100	pCi/g						
Thorium-232		1.62	0.0821	+/-0.156	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.31	0.144	+/-0.127	0.100	pCi/g		CXM2	03/27/10	1253	965504	6
Uranium-235/236	U	0.0632	0.0881	+/-0.0224	0.100	pCi/g						
Uranium-238		0.742	0.101	+/-0.083	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0604	0.231	+/-0.0683	0.200	pCi/g		MXR1	03/24/10	0858	965250	7
Bismuth-211	UI	4.36	0.338	+/-0.326		pCi/g						
Bismuth-214		1.50	0.113	+/-0.117	0.200	pCi/g						
Cadmium-109	UI	3.27	1.28	+/-0.543		pCi/g						
Cerium-139	U	-0.0297	0.0503	+/-0.0153	0.050	pCi/g						
Cesium-134	UI	0.146	0.0915	+/-0.0413	0.100	pCi/g						
Cesium-137	UI	0.0778	0.058	+/-0.0359	0.100	pCi/g						
Cobalt-60	U	-0.0286	0.0618	+/-0.020	0.100	pCi/g						
Europium-152	U	-0.0804	0.161	+/-0.0548	0.200	pCi/g						
Lanthanum-140	U	-0.13	0.118	+/-0.0437		pCi/g						
Lead-212		2.25	0.0999	+/-0.161	0.100	pCi/g						
Lead-214		1.58	0.125	+/-0.126	0.100	pCi/g						
Mercury-203	U	0.0468	0.0672	+/-0.020	0.100	pCi/g						
Potassium-40		38.1	0.469	+/-1.94	1.00	pCi/g						
Radium-223	U	0.423	1.08	+/-0.356		pCi/g						
Radium-224	UI	5.42	1.07	+/-0.738		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13965
Sample ID: 249329004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-226		1.50	0.113	+/-0.117		pCi/g						
Radium-228		2.47	0.216	+/-0.219	0.500	pCi/g						
Ruthenium-106	U	-0.123	0.489	+/-0.151	0.800	pCi/g						
Sodium-22	U	-0.0132	0.0741	+/-0.0229	0.080	pCi/g						
Strontium-85	UI	0.144	0.0776	+/-0.0244		pCi/g						
Thallium-208		0.658	0.0538	+/-0.0537	0.080	pCi/g						
Thorium-227	U	-0.197	0.429	+/-0.136		pCi/g						
Thorium-231	U	0.423	1.08	+/-0.356		pCi/g						
Thorium-234	U	0.806	2.33	+/-0.664	2.00	pCi/g						
Tin-113	U	0.016	0.0712	+/-0.021	0.100	pCi/g						
Uranium-235	U	0.133	0.373	+/-0.109	0.500	pCi/g						
Yttrium-88	U	0.010	0.0512	+/-0.015	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
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2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.7	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	77.5	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	92.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	65.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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< Result is less than value reported
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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-13965
Sample ID: 249329004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

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B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
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E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
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E Organics--Concentration of the target analyte exceeds the instrument calibration range
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H Analytical holding time was exceeded
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M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
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UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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QC Summary

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 249329

Report Date: April 8, 2010

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965502										
QC1202071684 249334001 DUP										
Americium-241	U	0.00647	U	0.00344	pCi/g	0.194		(0-1)	CXM2	03/27/1013:40
	TPU:	+/-0.00348		+/-0.00435						
	Yield:	85.4		82.4						
QC1202071685 LCS										
Americium-241	33.1			26.7	pCi/g		80.6	(75%-125%)		
	TPU:			+/-1.92						
	Yield:			101						
QC1202071683 MB										
Americium-241			U	0.00639	pCi/g					03/27/1013:40
	TPU:			+/-0.004						
	Yield:			81.5						
Batch 965503										
QC1202071687 249334001 DUP										
Plutonium-238	U	-0.00287	U	0.0121	pCi/g	0.767		(0-1)	CXM2	03/26/1021:18
	TPU:	+/-0.00285		+/-0.00691						
	Yield:	81.5		79.9						
Plutonium-239/240	U	0.00567	U	0.00368	pCi/g	0.102		(0-1)		
	TPU:	+/-0.00512		+/-0.00463						
	Yield:	81.5		79.9						
QC1202071688 LCS										
Plutonium-238				5.19	pCi/g			(75%-125%)		
	TPU:			+/-0.475						
	Yield:			84.6						
Plutonium-239/240	41.8			37.6	pCi/g		90.4	(75%-125%)		
	TPU:			+/-2.61						
	Yield:			84.6						
QC1202071686 MB										
Plutonium-238			U	0.00219	pCi/g					03/26/1017:20
	TPU:			+/-0.0022						
	Yield:			84.5						
Plutonium-239/240			U	0.00877	pCi/g					
	TPU:			+/-0.00441						
	Yield:			84.5						
Batch 965504										
QC1202071690 249334001 DUP										
Uranium-233/234		1.90		1.84	pCi/g	0.0878		(0-1)	CXM2	03/27/1012:54
	TPU:	+/-0.166		+/-0.163						
	Yield:	77.6		78.6						
Uranium-235/236		0.128		0.106	pCi/g	0.203		(0-1)		
	TPU:	+/-0.0288		+/-0.0256						
	Yield:	77.6		78.6						
Uranium-238		1.31		1.21	pCi/g	0.215		(0-1)		
	TPU:	+/-0.123		+/-0.116						

QC Summary

Workorder: 249329

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965504										
	Yield:	77.6		78.6						
QC1202071691 LCS										
Uranium-233/234				5.98	pCi/g					03/27/1012:54
	TPU:			+/-0.566						
	Yield:			86.8						
Uranium-235/236			U	0.108	pCi/g					
	TPU:			+/-0.0492						
	Yield:			86.8						
Uranium-238	5.75			5.93	pCi/g		103	(75%-125%)		
	TPU:			+/-0.562						
	Yield:			86.8						
QC1202071689 MB										
Uranium-233/234			U	0.0143	pCi/g					03/27/1012:54
	TPU:			+/-0.0062						
	Yield:			84.6						
Uranium-235/236			U	0.00756	pCi/g					
	TPU:			+/-0.0044						
	Yield:			84.6						
Uranium-238			U	0.00612	pCi/g					
	TPU:			+/-0.00458						
	Yield:			84.6						
Batch 967216										
QC1202075934 249331001 DUP										
Thorium-228		1.77		2.06	pCi/g	0.389		(0-1)	CXM2	04/07/1018:23
	TPU:	+/-0.170		+/-0.210						
	Yield:	92.2		67.9						
Thorium-230		1.08		1.43	pCi/g	0.631		(0-1)		
	TPU:	+/-0.116		+/-0.158						
	Yield:	92.2		67.9						
Thorium-232		1.72		2.01	pCi/g	0.385		(0-1)		
	TPU:	+/-0.165		+/-0.204						
	Yield:	92.2		67.9						
QC1202075935 LCS										
Thorium-228				1.08	pCi/g					04/05/1015:34
	TPU:			+/-0.171						
	Yield:			89.7						
Thorium-230	25.6			23.5	pCi/g		91.9	(75%-125%)		
	TPU:			+/-1.90						
	Yield:			89.7						
Thorium-232				1.27	pCi/g			(75%-125%)		
	TPU:			+/-0.178						
	Yield:			89.7						
QC1202075933 MB										
Thorium-228			U	-0.0113	pCi/g					04/05/1015:34
	TPU:			+/-0.00723						
	Yield:			77.2						
Thorium-230			U	0.00271	pCi/g					
	TPU:			+/-0.00244						
	Yield:			77.2						
Thorium-232			U	0.00179	pCi/g					

QC Summary

Workorder: 249329

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 967216										
	TPU:			+/-0.00366						
	Yield:			77.2						
Rad Gamma Spec										
Batch 965250										
QC1202071015 249334001 DUP										
Americium-241	U	0.00495	U	0.0717	pCi/g	0.155		(0-1)	MXR1	03/24/1011:24
	TPU:	+/-0.0978		+/-0.117						
Bismuth-211	UI	5.61	UI	5.79	pCi/g	0.135		(0-1)		
	TPU:	+/-0.276		+/-0.395						
Bismuth-214		1.60		1.94	pCi/g	0.681		(0-1)		
	TPU:	+/-0.103		+/-0.143						
Cadmium-109	UI	4.00	UI	3.91	pCi/g	0.0359		(0-1)		
	TPU:	+/-0.553		+/-0.685						
Cerium-139	U	-0.00558	U	0.0107	pCi/g	0.250		(0-1)		
	TPU:	+/-0.0139		+/-0.0187						
Cesium-134	UI	0.169	UI	0.161	pCi/g	0.0457		(0-1)		
	TPU:	+/-0.0443		+/-0.0399						
Cesium-137	U	0.0215	U	-0.0433	pCi/g	0.762		(0-1)		
	TPU:	+/-0.0181		+/-0.0244						
Cobalt-60	U	0.0195	U	-0.0197	pCi/g	0.443		(0-1)		
	TPU:	+/-0.0182		+/-0.026						
Europium-152	U	-0.00996	U	0.0114	pCi/g	0.0881		(0-1)		
	TPU:	+/-0.0491		+/-0.0723						
Lanthanum-140	U	-0.0542	U	0.0955	pCi/g	0.925		(0-1)		
	TPU:	+/-0.0327		+/-0.0481						
Lead-212		2.40		2.38	pCi/g	0.0342		(0-1)		
	TPU:	+/-0.104		+/-0.145						
Lead-214		2.04		2.10	pCi/g	0.122		(0-1)		
	TPU:	+/-0.115		+/-0.155						
Mercury-203	U	0.0584	U	0.0382	pCi/g	0.226		(0-1)		
	TPU:	+/-0.019		+/-0.0255						
Potassium-40		35.1		36.8	pCi/g	0.231		(0-1)		
	TPU:	+/-1.55		+/-2.00						
Radium-223	U	0.305	U	0.597	pCi/g	0.196		(0-1)		
	TPU:	+/-0.315		+/-0.429						
Radium-224	UI	5.58	UI	6.11	pCi/g	0.175		(0-1)		
	TPU:	+/-0.636		+/-0.881						
Radium-226		1.60		1.94	pCi/g	0.681		(0-1)		
	TPU:	+/-0.103		+/-0.143						
Radium-228		2.82		2.54	pCi/g	0.276		(0-1)		
	TPU:	+/-0.253		+/-0.267						
Ruthenium-106	U	0.019	U	0.113	pCi/g	0.140		(0-1)		
	TPU:	+/-0.137		+/-0.199						
Sodium-22	U	-0.00918	U	-0.0365	pCi/g	0.280		(0-1)		
	TPU:	+/-0.020		+/-0.0287						
Strontium-85	UI	0.0957	UI	0.174	pCi/g	0.796		(0-1)		
	TPU:	+/-0.0193		+/-0.0299						
Thallium-208		0.713		0.771	pCi/g	0.259		(0-1)		
	TPU:	+/-0.0471		+/-0.0642						
Thorium-227	U	0.0592	U	-0.0329	pCi/g	0.166		(0-1)		

QC Summary

Workorder: 249329

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 965250										
	TPU:	+/-0.118		+/-0.160						
Thorium-231	U	0.305	U	0.597	pCi/g	0.196		(0-1)		
	TPU:	+/-0.315		+/-0.429						
Thorium-234	U	2.54		3.87	pCi/g	0.264		(0-1)		
	TPU:	+/-0.947		+/-1.59						
Tin-113	U	-0.0297	U	-0.0194	pCi/g	0.107		(0-1)		
	TPU:	+/-0.0194		+/-0.0286						
Uranium-235	U	0.0103	U	0.109	pCi/g	0.211		(0-1)		
	TPU:	+/-0.104		+/-0.129						
Yttrium-88	U	-0.0225	U	0.0225	pCi/g	0.622		(0-1)		
	TPU:	+/-0.0152		+/-0.021						
QC1202071016 LCS										
Americium-241	16.3			14.7	pCi/g		90.2	(75%-125%)		03/24/1011:06
	TPU:			+/-1.06						
Bismuth-211				2.98	pCi/g					
	TPU:			+/-0.361						
Bismuth-214				0.768	pCi/g					
	TPU:			+/-0.149						
Cadmium-109				34.5	pCi/g					
	TPU:			+/-2.58						
Cerium-139			U	0.0376	pCi/g					
	TPU:			+/-0.0231						
Cesium-134			U	0.00727	pCi/g					
	TPU:			+/-0.0465						
Cesium-137	5.68			5.65	pCi/g		99.4	(75%-125%)		
	TPU:			+/-0.195						
Cobalt-60	6.47			6.47	pCi/g		100	(75%-125%)		
	TPU:			+/-0.284						
Europium-152			U	-0.161	pCi/g					
	TPU:			+/-0.0905						
Lanthanum-140			U	0.0518	pCi/g					
	TPU:			+/-0.043						
Lead-212				1.46	pCi/g					
	TPU:			+/-0.0965						
Lead-214				1.08	pCi/g					
	TPU:			+/-0.134						
Mercury-203			U	0.0484	pCi/g					
	TPU:			+/-0.0302						
Potassium-40			U	0.978	pCi/g					
	TPU:			+/-0.323						
Radium-223			U	-0.829	pCi/g					
	TPU:			+/-0.584						
Radium-224				3.80	pCi/g					
	TPU:			+/-1.08						
Radium-226				0.768	pCi/g					
	TPU:			+/-0.149						
Radium-228				1.05	pCi/g					
	TPU:			+/-0.320						
Ruthenium-106			U	0.147	pCi/g					
	TPU:			+/-0.277						
Sodium-22			U	0.0074	pCi/g					

QC Summary

Workorder: 249329

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 965250										
	TPU:			+/-0.026						
Strontium-85			U	0.0661	pCi/g					
	TPU:			+/-0.0329						
Thallium-208				0.378	pCi/g					
	TPU:			+/-0.0593						
Thorium-227			U	-0.293	pCi/g					
	TPU:			+/-0.221						
Thorium-231			U	-0.829	pCi/g					
	TPU:			+/-0.584						
Thorium-234			U	-0.655	pCi/g					
	TPU:			+/-1.55						
Tin-113			U	-0.0188	pCi/g					
	TPU:			+/-0.0391						
Uranium-235			U	-0.158	pCi/g					
	TPU:			+/-0.144						
Yttrium-88			U	0.0245	pCi/g					
	TPU:			+/-0.0218						
QC1202071014 MB										
Americium-241			U	0.0412	pCi/g					03/24/1011:03
	TPU:			+/-0.0313						
Bismuth-211			U	0.0839	pCi/g					
	TPU:			+/-0.0569						
Bismuth-214			U	0.0104	pCi/g					
	TPU:			+/-0.0208						
Cadmium-109			U	-0.156	pCi/g					
	TPU:			+/-0.173						
Cerium-139			U	-0.0101	pCi/g					
	TPU:			+/-0.00741						
Cesium-134			U	0.000215	pCi/g					
	TPU:			+/-0.0125						
Cesium-137			U	-0.0095	pCi/g					
	TPU:			+/-0.0106						
Cobalt-60			U	0.00435	pCi/g					
	TPU:			+/-0.0106						
Europium-152			U	-0.00625	pCi/g					
	TPU:			+/-0.0261						
Lanthanum-140			U	-0.0042	pCi/g					
	TPU:			+/-0.0155						
Lead-212			U	-0.00202	pCi/g					
	TPU:			+/-0.0172						
Lead-214			U	0.00673	pCi/g					
	TPU:			+/-0.021						
Mercury-203			U	0.00957	pCi/g					
	TPU:			+/-0.00871						
Potassium-40			U	0.189	pCi/g					
	TPU:			+/-0.132						
Radium-223			U	-0.0193	pCi/g					
	TPU:			+/-0.146						
Radium-224			U	0.230	pCi/g					
	TPU:			+/-0.161						
Radium-226			U	0.0104	pCi/g					

QC Summary

Workorder: 249329

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 965250										
	TPU:			+/-0.0208						
Radium-228			U	-0.0717	pCi/g					
	TPU:			+/-0.041						
Ruthenium-106			U	-0.0223	pCi/g					
	TPU:			+/-0.0782						
Sodium-22			U	0.00519	pCi/g					
	TPU:			+/-0.00893						
Strontium-85			U	-0.0198	pCi/g					
	TPU:			+/-0.0156						
Thallium-208			U	-0.00734	pCi/g					
	TPU:			+/-0.0104						
Thorium-227			U	-0.0177	pCi/g					
	TPU:			+/-0.0637						
Thorium-231			U	-0.0193	pCi/g					
	TPU:			+/-0.146						
Thorium-234			U	0.833	pCi/g					
	TPU:			+/-0.410						
Tin-113			U	0.0029	pCi/g					
	TPU:			+/-0.0118						
Uranium-235			U	-0.146	pCi/g					
	TPU:			+/-0.052						
Yttrium-88			U	0.00938	pCi/g					
	TPU:			+/-0.0116						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.

QC Summary

Workorder: 249329

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 965502 Product: Am Date: 3/29/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time	✓		
Sample was correctly preserved if required			N/A
Smears Taken for Radioactive batches.	✓		
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are accarent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 3/29/10

Secondary Review Performed By: [illegible] 3/29/10

3/31
LANL

Am/Cm Que Sheet

22-MAR-10

Batch #: 965502 Analyst: CXM2 First Client Due Date: 31-MAR-10 Internal Due Date21-MAR-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-46-2-VV Expiration Date: 3/9/11 Vol: 0.1mL

LCS Isotope(s): Am241/Cm244 LCS Code(s): 0244-B / — Expiration Date: 4/30/20 / — Vol(s): 0.115g / —

Spike Isotope(s): Am241/Cm244 Spike Code(s): — / — Expiration Date: — / — Vol(s): — / —

Prep Date: 3/23/10 Initials: CMM Pipet ID: 4497063 Balance ID: 50410272 Witness: [illegible] 3/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g)(l/f)	Am/Cm Det #
											~~TK 3-27-10~~
249060003-1	RE16-10-2826	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	1	1	1.259	13
249329001-1	RE46-10-13964	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	2	2	1.290	19
249329002-1	RE46-10-13966	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	3	3	1.254	20
249329003-1	RE46-10-13963	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	4	4	1.260	22
249329004-1	RE46-10-13965	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	5	5	1.252	23
249331001-1	RE46-10-13219	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	6	6	1.266	24
249331002-1	RE46-10-13221	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	7	7	1.252	43
249331003-1	RE46-10-13220	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	8	8	1.256	44
249331004-1	RE46-10-13216	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	9	9	1.251	45
249331005-1	RE46-10-13217	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	10	10	1.256	46
249331006-1	RE46-10-13218	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	11	11	1.277	48
249331007-1	RE46-10-13234	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	12	12	1.255	72
249331008-1	RE46-10-14199	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	13	13	1.261	73
249334001-1	RE46-10-12972	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	14	14	~~1.25~~ 1.267	74
249334002-1	RE46-10-13003	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	15	15	1.264	75
249334003-1	RE46-10-12967	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	16	16	1.292	76
249334004-1	RE46-10-12971	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	17	17	1.250	77
249334005-1	RE46-10-12968	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	18	18	1.260	79
249334006-1	RE46-10-12969	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	19	19	1.280	80
249334007-1	RE46-10-12970	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	20	20	1.259	81
1202071683-1	MB for batch 965502	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1	82
1202071684-1	RE46-10-12972(249334001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	11-MAR-10	22	22	1.259	83
1202071685-1	LCS for batch 965502	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.115	85

*SRM 0244-B Exp 4/30/20

Choose SOP Used: GL-RAD-A-011
GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: [illegible] 3/29/10

Blank Correction Report

Batch ID 965502

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202071684	DUP	Americium-241	1.26 g	0.00344	0.00435	0.0189	.005071429	pCi/g	YES
1202071685	LCS	Americium-241	0.115 g	26.7	1.92	0.185	.055565217	pCi/g	NO
1202071683	MB	Americium-241	1.00 g	0.00639	0.004	0.0255	.00639	pCi/g	YES
249060003	RE16-10-2826	Americium-241	1.26 g	0.00677	0.00529	0.0213	.005071429	pCi/g	YES
249329001	RE46-10-13964	Americium-241	1.29 g	2.38E-05	0.00628	0.0219	.004953488	pCi/g	YES
249329002	RE46-10-13966	Americium-241	1.25 g	0.000963	0.00517	0.0186	.005112	pCi/g	YES
249329003	RE46-10-13963	Americium-241	1.26 g	0.010	0.00825	0.0198	.005071429	pCi/g	YES
249329004	RE46-10-13965	Americium-241	1.25 g	0.0102	0.00552	0.0202	.005112	pCi/g	YES
249331001	RE46-10-13219	Americium-241	1.27 g	-0.00269	0.00477	0.020	.005031496	pCi/g	YES
249331002	RE46-10-13221	Americium-241	1.25 g	0.000989	0.00121	0.0188	.005112	pCi/g	YES
249331003	RE46-10-13220	Americium-241	1.26 g	0.0112	0.00364	0.0179	.005071429	pCi/g	YES
249331004	RE46-10-13216	Americium-241	1.25 g	0.00326	0.00197	0.0183	.005112	pCi/g	YES
249331005	RE46-10-13217	Americium-241	1.26 g	-0.000235	0.00167	0.0184	.005071429	pCi/g	YES
249331006	RE46-10-13218	Americium-241	1.28 g	0.0106	0.00657	0.0208	.004992188	pCi/g	YES
249331007	RE46-10-13234	Americium-241	1.26 g	-0.000124	0.00606	0.0202	.005071429	pCi/g	YES
249331008	RE46-10-14199	Americium-241	1.26 g	0.00616	0.00378	0.0197	.005071429	pCi/g	YES
249334001	RE46-10-12972	Americium-241	1.27 g	0.00647	0.00348	0.0205	.005031496	pCi/g	YES
249334002	RE46-10-13003	Americium-241	1.26 g	-0.00141	0.00239	0.0215	.005071429	pCi/g	YES
249334003	RE46-10-12967	Americium-241	1.29 g	0.00802	0.00332	0.0209	.004953488	pCi/g	YES
249334004	RE46-10-12971	Americium-241	1.25 g	0.00613	0.00568	0.0236	.005112	pCi/g	YES
249334005	RE46-10-12968	Americium-241	1.26 g	0.00732	0.00389	0.0227	.005071429	pCi/g	YES
249334006	RE46-10-12969	Americium-241	1.28 g	-0.00139	0.00191	0.021	.004992188	pCi/g	YES
249334007	RE46-10-12970	Americium-241	1.26 g	-0.000124	0.00183	0.0201	.005071429	pCi/g	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249329001_AM
SAMPLE QTY : 1.290 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 81.263

CHAMBER : 019
DETECTOR S/N : 78786
AVERAGE %EFFICIENCY : 30.6248
COUNT DATE : 27-MAR-2010 13:40:24
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B019.CNF;1112
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W019.CNF;309
CAL DATE : 4-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.8490E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5470.923	0.000	11.000	0.017	10.000	2.7707	99.94000	2.38E-05	6.28E-03	9.05E-03	2.19E-02	6.28E-03
AM243	5270.000	5289.987	42.454	566.000	565.000	1.000	1.0000	99.78000	7.95E-01	6.25E-02	3.27E-03	1.04E-02	3.35E-02
CM-242	6102.000	6095.349	5.066	13.000	8.000	5.000	4.0092	100.0000	1.21E-02	6.45E-03	1.31E-02	3.00E-02	6.40E-03
CM-3/4	5795.020	5791.596	5.066	18.000	0.000	18.000	4.8510	100.0000	-2.68E-09	8.43E-03	1.58E-02	3.55E-02	8.43E-03
CM-5/6	5386.000	5380.683	0.000	6.000	4.000	2.000	6.1294	86.09000	6.52E-03	4.63E-03	2.32E-02	5.09E-02	4.61E-03
CM-247	4946.000	4785.445	5.066	1.000	1.000	0.000	6.3427	79.30000	1.77E-03	1.77E-03	2.61E-02	5.70E-02	1.77E-03
CM-248	5078.600	5064.711	6.280	6.000	6.000	0.000	11.0244	91.00000	9.25E-03	3.83E-03	3.95E-02	8.33E-02	3.78E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

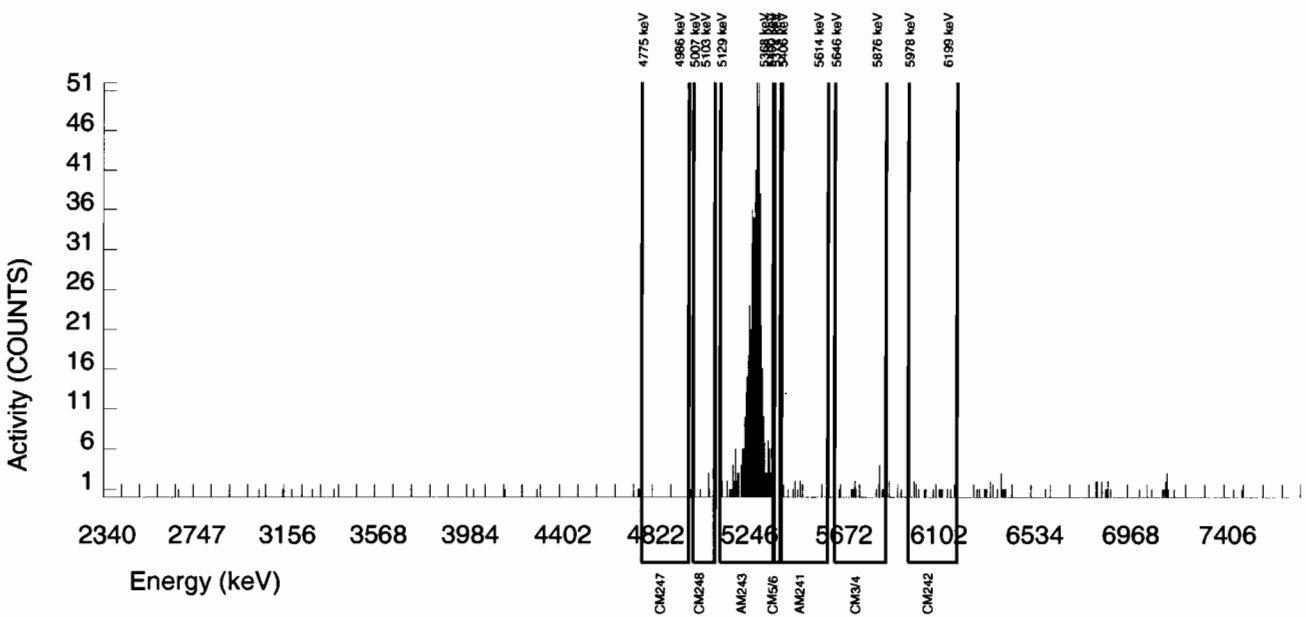

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249329002_AM
SAMPLE QTY : 1.254 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 86.434

CHAMBER : 020
DETECTOR S/N : 78787
AVERAGE %EFFICIENCY : 34.9079
COUNT DATE : 27-MAR-2010 13:40:24
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B020.CNF;1107
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W020.CNF;322
CAL DATE : 4-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.9666E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5473.192	9.949	11.000	0.808	9.000	2.7707	99.94000	9.63E-04	5.17E-03	7.68E-03	1.86E-02	5.17E-03
AM243	5270.000	5284.770	38.746	688.000	685.000	3.000	1.7321	99.78000	8.17E-01	6.10E-02	4.81E-03	1.28E-02	3.14E-02
CM-242	6102.000	6080.332	6.633	12.000	10.000	2.000	4.0092	100.0000	1.28E-02	4.86E-03	1.11E-02	2.54E-02	4.79E-03
CM-3/4	5795.020	5783.124	103.412	33.000	17.000	16.000	4.8510	100.0000	2.03E-02	8.45E-03	1.34E-02	3.01E-02	8.35E-03
CM-5/6	5386.000	5377.520	0.000	8.000	8.000	0.000	6.1294	86.09000	1.11E-02	3.98E-03	1.97E-02	4.32E-02	3.91E-03
CM-247	4946.000	4982.071	4.975	1.000	0.000	1.000	6.3427	79.30000	-1.79E-10	2.13E-03	2.22E-02	4.84E-02	2.12E-03
CM-248	5078.600	5056.248	4.975	1.000	1.000	0.000	11.0244	91.00000	1.31E-03	1.31E-03	3.36E-02	7.07E-02	1.31E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

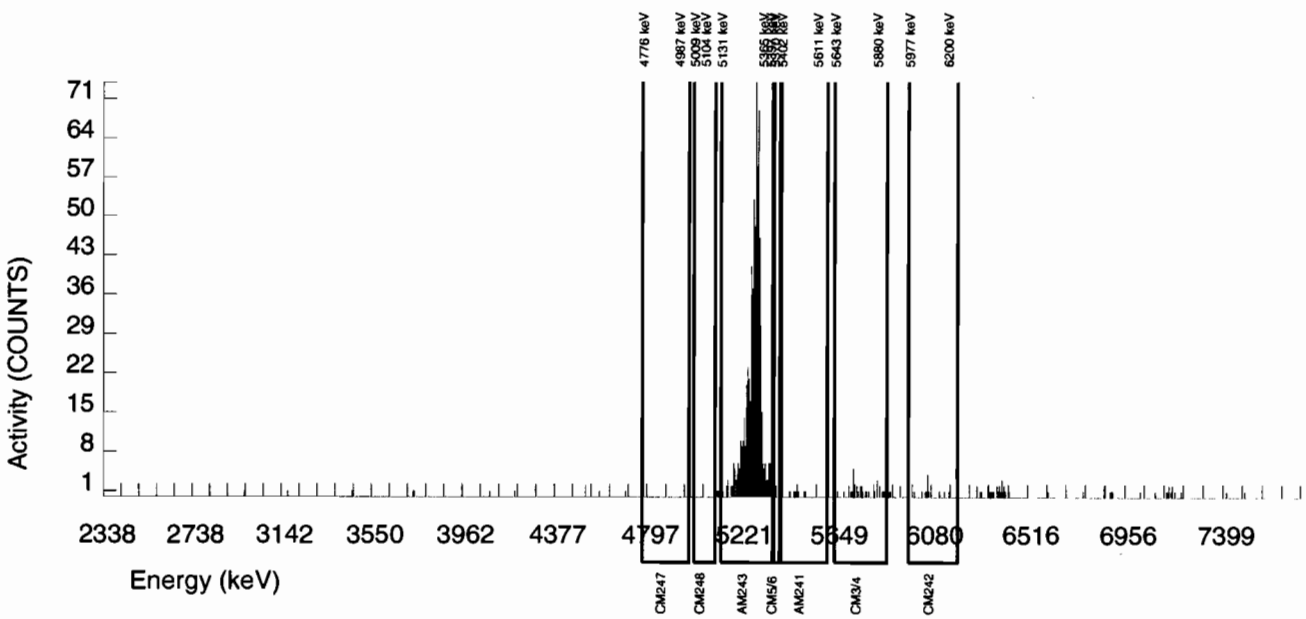

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249329003_AM
SAMPLE QTY : 1.260 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 86.930

CHAMBER : 022
DETECTOR S/N : 72530
AVERAGE %EFFICIENCY : 32.3779
COUNT DATE : 27-MAR-2010 13:40:24
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B022.CNF;1119
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W022.CNF;320
CAL DATE : 4-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.9779E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5480.334	5.481	26.000	7.888	17.000	2.7707	99.94000	1.00E-02	8.25E-03	8.19E-03	1.98E-02	8.23E-03
AM243	5270.000	5283.389	43.559	645.000	639.000	6.000	2.4495	99.78000	8.13E-01	6.20E-02	7.25E-03	1.80E-02	3.25E-02
CM-242	6102.000	6040.115	4.992	9.000	-1.000	10.000	4.0092	100.0000	-1.36E-03	5.95E-03	1.18E-02	2.71E-02	5.95E-03
CM-3/4	5795.020	5757.501	20.799	28.000	6.000	22.000	4.8510	100.0000	7.63E-03	9.01E-03	1.43E-02	3.21E-02	9.00E-03
CM-5/6	5386.000	5379.894	0.000	11.000	8.000	3.000	6.1294	86.09000	1.18E-02	5.57E-03	2.10E-02	4.61E-02	5.52E-03
CM-247	4946.000	4921.938	7.332	12.000	11.000	1.000	6.3427	79.30000	1.76E-02	5.89E-03	2.36E-02	5.16E-02	5.78E-03
CM-248	5078.600	5060.613	14.976	8.000	8.000	0.000	11.0244	91.00000	1.12E-02	4.01E-03	3.58E-02	7.54E-02	3.95E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

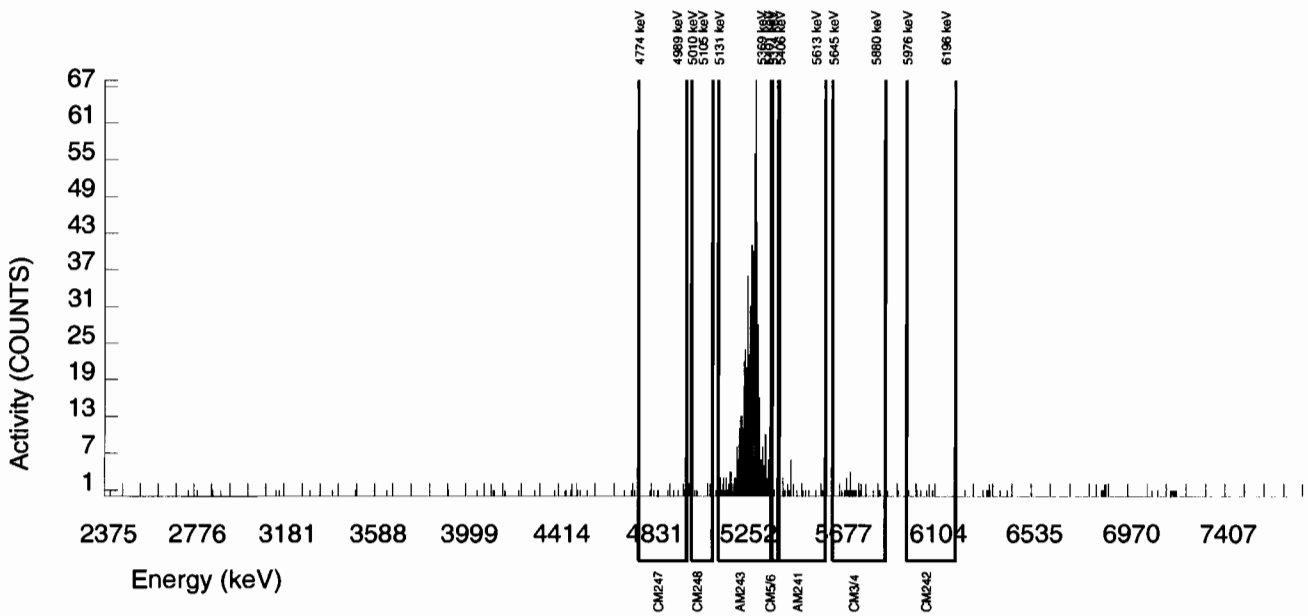

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249329004_AM
SAMPLE QTY : 1.252 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 82.663

CHAMBER : 023
DETECTOR S/N : 78264
AVERAGE %EFFICIENCY : 33.6228
COUNT DATE : 27-MAR-2010 13:40:24
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B023.CNF;1119
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W023.CNF;303
CAL DATE : 4-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.8808E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5475.750	52.364	14.000	7.902	5.000	2.7707	99.94000	1.02E-02	5.52E-03	8.35E-03	2.02E-02	5.48E-03
AM243	5270.000	5278.464	39.380	634.000	631.000	3.000	1.7321	99.78000	8.19E-01	6.25E-02	5.23E-03	1.40E-02	3.27E-02
CM-242	6102.000	6069.018	7.325	5.000	2.000	3.000	4.0092	100.0000	2.78E-03	3.94E-03	1.21E-02	2.77E-02	3.93E-03
CM-3/4	5795.020	5785.229	0.000	29.000	9.000	20.000	4.8510	100.0000	1.17E-02	9.11E-03	1.46E-02	3.27E-02	9.08E-03
CM-5/6	5386.000	5374.645	4.987	2.000	-1.000	3.000	6.1294	86.09000	-1.50E-03	3.36E-03	2.14E-02	4.70E-02	3.36E-03
CM-247	4946.000	4915.347	109.716	6.000	3.000	3.000	6.3427	79.30000	4.90E-03	4.91E-03	2.41E-02	5.26E-02	4.90E-03
CM-248	5078.600	5075.269	4.987	7.000	7.000	0.000	11.0244	91.00000	9.96E-03	3.82E-03	3.65E-02	7.68E-02	3.76E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

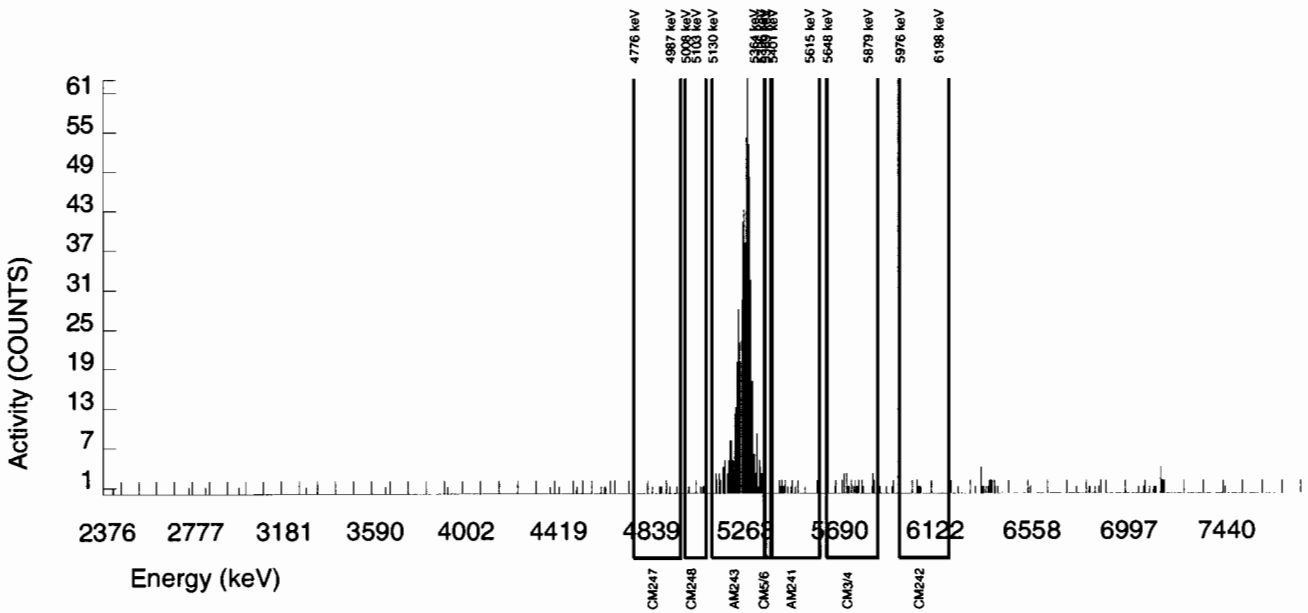

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249334001_AM
SAMPLE QTY : 1.267 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 85.417

CHAMBER : 074
DETECTOR S/N : 78266
AVERAGE %EFFICIENCY : 31.7138
COUNT DATE : 27-MAR-2010 13:40:29
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B074.CNF;1134
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W074.CNF;334
CAL DATE : 12-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.9435E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5488.044	99.355	7.000	4.930	1.000	2.7707	99.94000	6.47E-03	3.48E-03	8.46E-03	2.05E-02	3.46E-03
AM243	5270.000	5271.861	35.684	616.000	615.000	1.000	1.0000	99.78000	8.09E-01	6.21E-02	3.06E-03	9.68E-03	3.27E-02
CM-242	6102.000	6032.807	34.153	12.000	12.000	0.000	4.0092	100.0000	1.69E-02	5.01E-03	1.22E-02	2.80E-02	4.89E-03
CM-3/4	5795.020	5732.833	114.258	6.000	4.000	2.000	4.8510	100.0000	5.26E-03	3.73E-03	1.48E-02	3.32E-02	3.72E-03
CM-5/6	5386.000	5383.201	0.000	1.000	1.000	0.000	6.1294	86.09000	1.52E-03	1.53E-03	2.17E-02	4.76E-02	1.52E-03
CM-247	4946.000	4853.142	183.186	4.000	1.000	3.000	6.3427	79.30000	1.66E-03	4.38E-03	2.44E-02	5.33E-02	4.38E-03
CM-248	5078.600	5064.426	9.315	2.000	2.000	0.000	11.0244	91.00000	2.88E-03	2.05E-03	3.70E-02	7.79E-02	2.04E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

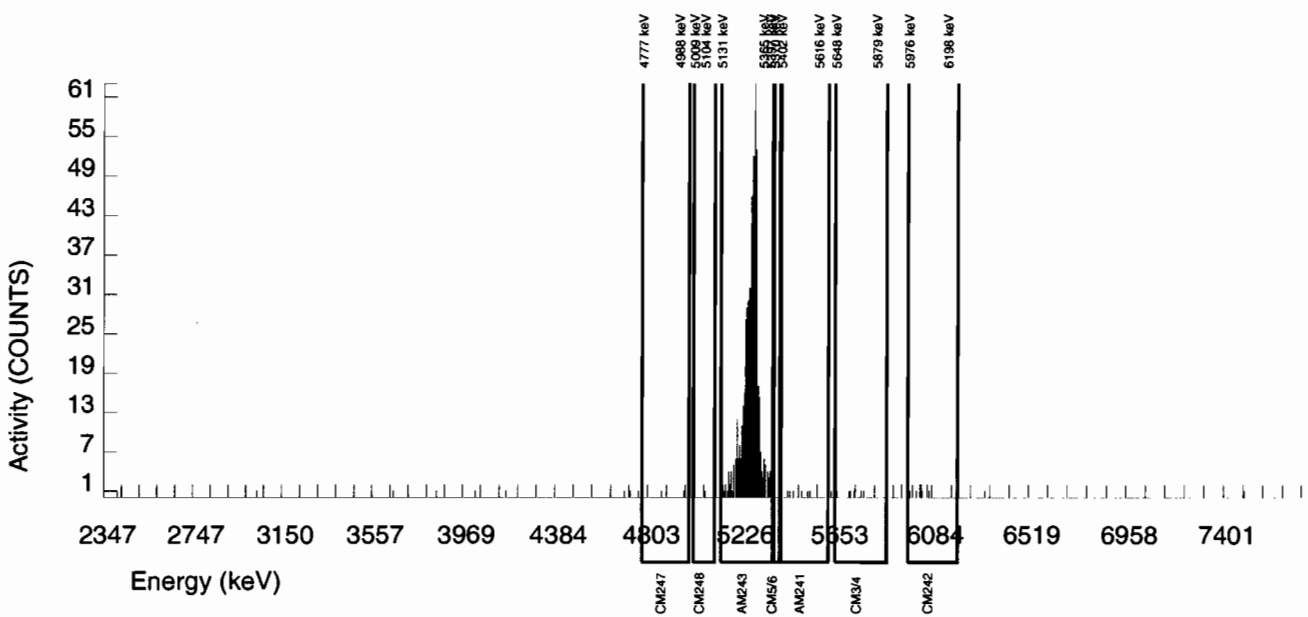

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S1202071683_AM
SAMPLE QTY : 1.000 G
SAMPLE DATE : 23-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 81.471

CHAMBER : 082
DETECTOR S/N : 79997
AVERAGE %EFFICIENCY : 33.8443
COUNT DATE : 27-MAR-2010 13:40:30
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B082.CNF;1027
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W082.CNF;259
CAL DATE : 12-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.8537E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3148E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3148E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5530.466	113.058	6.000	3.911	1.000	2.7707	99.94000	6.39E-03	4.00E-03	1.05E-02	2.55E-02	3.97E-03
AM243	5270.000	5277.986	28.480	627.000	626.000	1.000	1.0000	99.78000	1.02E+00	7.83E-02	3.81E-03	1.21E-02	4.10E-02
CM-242	6102.000	6052.082	59.206	12.000	12.000	0.000	4.0092	100.0000	2.00E-02	5.92E-03	1.52E-02	3.49E-02	5.78E-03
CM-3/4	5795.020	5788.211	4.942	5.000	5.000	0.000	4.8510	100.0000	8.17E-03	3.69E-03	1.84E-02	4.13E-02	3.65E-03
CM-5/6	5386.000	5374.251	0.000	5.000	5.000	0.000	6.1294	86.09000	9.49E-03	4.29E-03	2.71E-02	5.93E-02	4.24E-03
CM-247	4946.000	4880.654	163.100	3.000	0.000	3.000	6.3427	79.30000	0.00E+00	5.05E-03	3.04E-02	6.64E-02	5.05E-03
CM-248	5078.600	5067.046	4.942	8.000	8.000	0.000	11.0244	91.00000	1.44E-02	5.16E-03	4.60E-02	9.69E-02	5.08E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

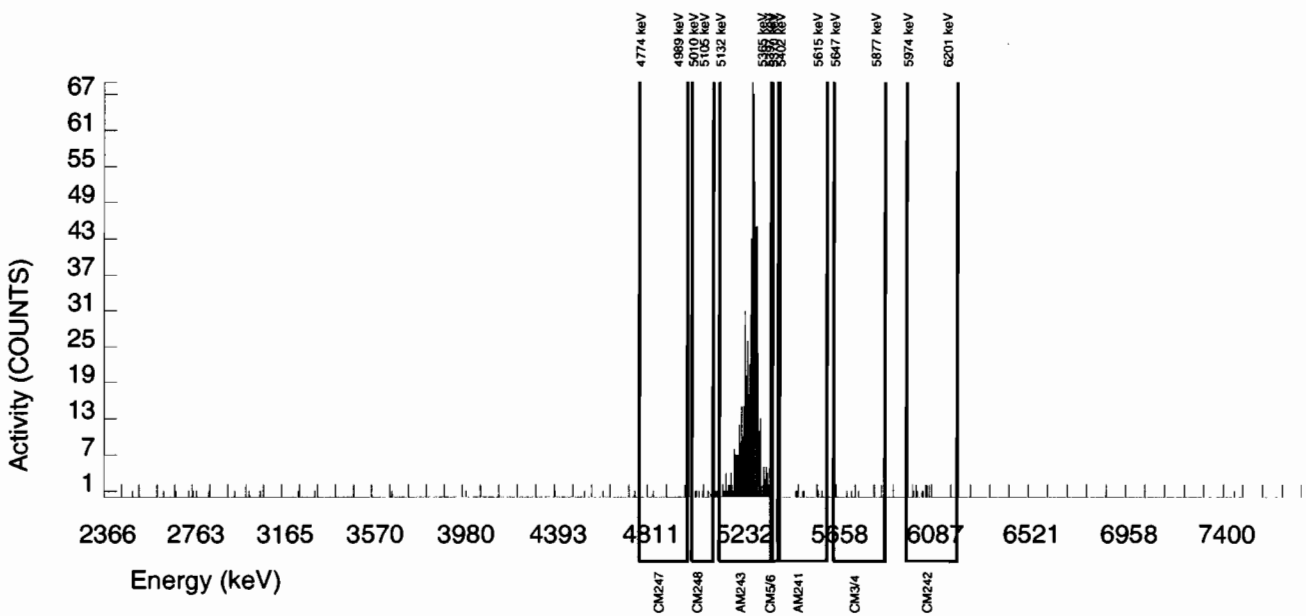

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502	CHAMBER : 083	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202071684_AM	DETECTOR S/N : 64278	BKG FILE : B083.CNF;1034
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 35.8135	BKG DATE : 21-MAR-2010
SAMPLE DATE : 11-MAR-2010 00:00:00	COUNT DATE : 27-MAR-2010 13:40:31	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W083.CNF;294
% YIELD : 82.403		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3150E+01 pCi/G	NOMINAL : 3.3150E+01 pCi/G
RESULTS : 1.8749E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5479.340	7.431	9.000	2.834	5.000	2.7707	99.94000	3.44E-03	4.35E-03	7.82E-03	1.89E-02	4.35E-03
AM243	5270.000	5290.171	53.958	672.000	670.000	2.000	1.4142	99.78000	8.14E-01	6.11E-02	4.00E-03	1.13E-02	3.15E-02
CM-242	6102.000	6057.787	0.000	11.000	8.000	3.000	4.0092	100.0000	1.04E-02	4.92E-03	1.13E-02	2.59E-02	4.87E-03
CM-3/4	5795.020	5756.569	6.272	8.000	0.000	8.000	4.8510	100.0000	5.79E-10	4.86E-03	1.37E-02	3.06E-02	4.86E-03
CM-5/6	5386.000	5380.197	10.409	11.000	8.000	3.000	6.1294	86.09000	1.13E-02	5.32E-03	2.01E-02	4.40E-02	5.27E-03
CM-247	4946.000	4880.540	156.852	4.000	1.000	3.000	6.3427	79.30000	1.53E-03	4.05E-03	2.26E-02	4.93E-02	4.04E-03
CM-248	5078.600	5067.657	7.431	11.000	11.000	0.000	11.0244	91.00000	1.47E-02	4.52E-03	3.42E-02	7.19E-02	4.42E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

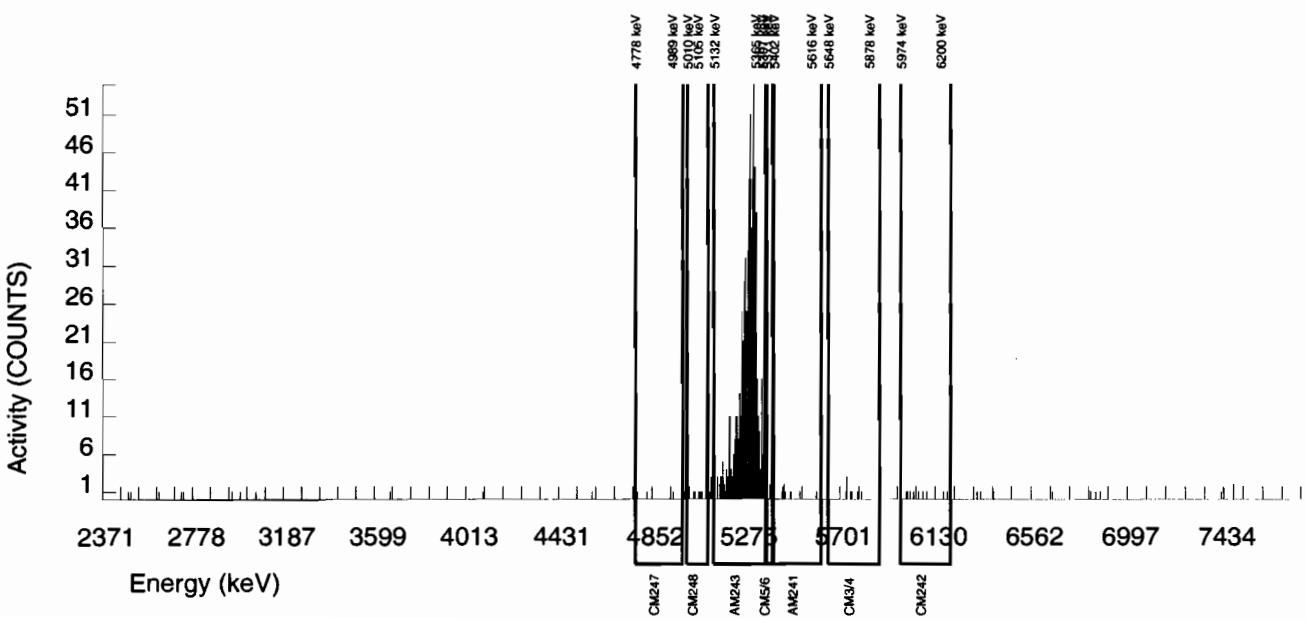

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502	CHAMBER : 085	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202071685_AM	DETECTOR S/N : 78776	BKG FILE : B085.CNF;1035
SAMPLE QTY : 0.115 G	AVERAGE %EFFICIENCY : 32.8080	BKG DATE : 21-MAR-2010
SAMPLE DATE : 23-MAR-2010 00:00:00	COUNT DATE : 27-MAR-2010 13:40:31	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W085.CNF;304
% YIELD : 100.827		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3148E+01 pCi/G	NOMINAL : 3.3148E+01 pCi/G
RESULTS : 2.2941E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5482.168	40.262	2260.000	2255.693	3.000	2.7707	99.94000	2.67E+01	1.92E+00	7.64E-02	1.85E-01	5.63E-01
AM243	5270.000	5265.295	41.816	752.000	751.000	1.000	1.0000	99.78000	8.91E+00	6.95E-01	2.76E-02	8.74E-02	3.26E-01
CM-242	6102.000	6036.202	6.201	10.000	10.000	0.000	4.0092	100.0000	1.21E-01	3.91E-02	1.10E-01	2.53E-01	3.82E-02
CM-3/4	5795.020	5734.394	6.201	7.000	6.000	1.000	4.8510	100.0000	7.11E-02	3.39E-02	1.34E-01	2.99E-01	3.35E-02
CM-5/6	5386.000	5386.222	0.000	69.000	69.000	0.000	6.1294	86.09000	9.49E-01	1.32E-01	1.96E-01	4.30E-01	1.14E-01
CM-247	4946.000	4886.554	0.000	23.000	23.000	0.000	6.3427	79.30000	3.43E-01	7.54E-02	2.20E-01	4.81E-01	7.16E-02
CM-248	5078.600	5060.574	0.000	23.000	23.000	0.000	11.0244	91.00000	2.99E-01	6.57E-02	3.34E-01	7.03E-01	6.24E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

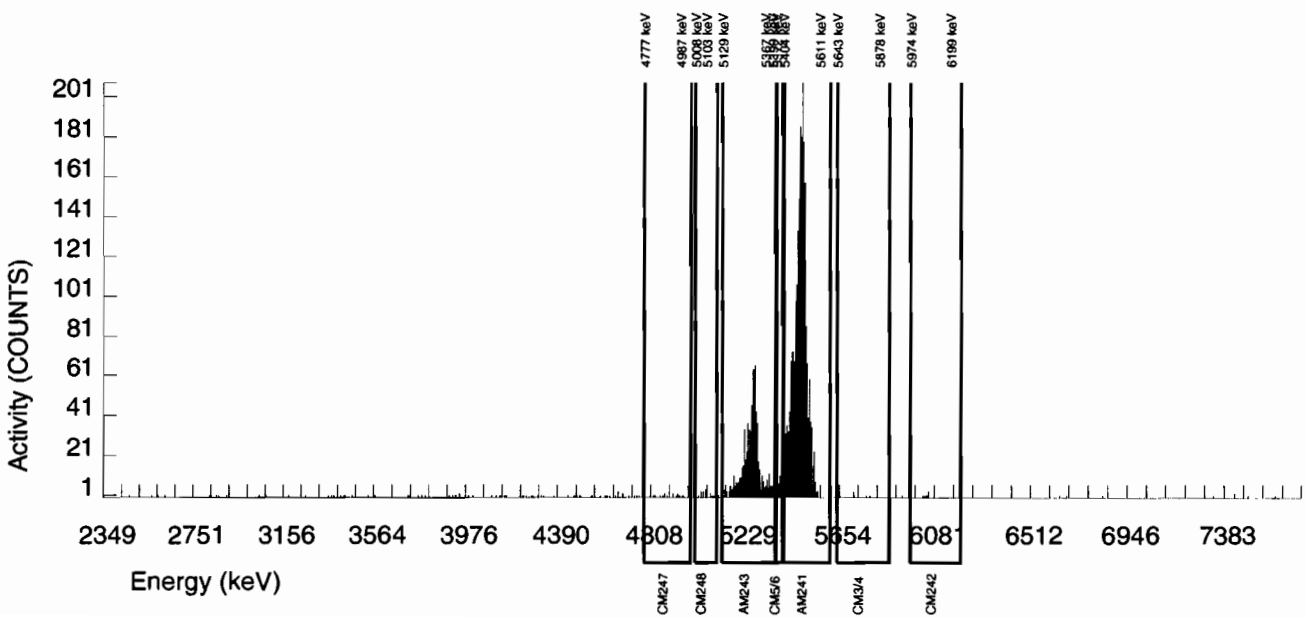

Radiochemistry Batch Checklist, Rev10

Batch# 965503 Product: Pu Date: 3/30/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125%. Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		case narrative
Sample was run within hold time	✓		
Sample was correctly preserved if required	✓		
Smears Taken for Radioactive batches			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
CC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JoLAL 3/30/10

Secondary Review Performed By: KBBellatt 3/30/10

3/31

LANL

Plutonium Que Sheet

15-MAR-10

Batch #: 965503 Pu-236 Analyst: CXM2 First Client Due Date:31-MAR-10 Internal Due Date:21-MAR-10

Tracer Isotope(s): ~~Pu-242~~/Pu-238 3/31/10 CMM Tracer Code: 1430-C Expiration Date: 3/4/11 Vol: 0.1mL

LCS Isotope(s): Pu-239/Pu-238 LCS Code: 0244-B Expiration Date: 4/30/20 Vol: 0.115 g * SRM

Spike Isotope(s): Pu-239/Pu-238 Spike Code: Expiration Date: Vol: —

Prep Date: 3/23/10 Initials: CMM Pipet ID: 4497063 Balance ID: 50410272 Witness: 3/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) (1/f)	Pu Det #
249060003-1	RE16-10-2826	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	1	1	1.259	72
249329001-1	RE46-10-13964	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	2	2	1.290	73
249329002-1	RE46-10-13966	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	3	3	1.254	74
249329003-1	RE46-10-13963	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	4	4	1.260	75
249329004-1	RE46-10-13965	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	5	5	1.252	76
249331001-1	RE46-10-13219	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	6	6	1.266	77
249331002-1	RE46-10-13221	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	7	7	1.252	78
249331003-1	RE46-10-13220	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	8	8	1.256	80
249331004-1	RE46-10-13216	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	9	9	1.251	81
249331005-1	RE46-10-13217	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	10	10	1.256	82
249331006-1	RE46-10-13218	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	11	11	1.277	83
249331007-1	RE46-10-13234	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	12	12	1.255	84
249331008-1	RE46-10-14199	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	13	13	1.261	31 ~~85~~ 3/31
249334001-1	RE46-10-12972	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	14	14	1.267	86
249334002-1	RE46-10-13003	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	15	15	1.264	87
249334003-1	RE46-10-12967	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	16	16	1.272	88
249334004-1	RE46-10-12971	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	17	17	1.250	89
249334005-1	RE46-10-12968	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	18	18	1.260	90
249334006-1	RE46-10-12969	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	19	19	1.280	91
249334007-1	RE46-10-12970	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	20	20	1.254	93
1202071686-1	MB for batch 965503	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1	94
1202071687-1	RE46-10-12972(249334001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	11-MAR-10	22	22	1.254	13
1202071688-1	LCS for batch 965503	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.115	14

* SRM 0244-B Exp 4/30/20

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION Circle One

Data Reviewed By: 3/30/10

Blank Correction Report

Batch ID 965503

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202071687	DUP	Plutonium-238	1.26 g	0.0121	0.00691	0.0231	.001738095	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00368	0.00463	0.0195	.006960317	pCi/g	YES
1202071688	LCS	Plutonium-238	0.115 g	5.19	0.475	0.255	.019043478	pCi/g	NO
		Plutonium-239/240	0.115 g	37.6	2.61	0.215	.076260870	pCi/g	NO
1202071686	MB	Plutonium-238	1.00 g	0.00219	0.0022	0.0291	.00219	pCi/g	YES
		Plutonium-239/240	1.00 g	0.00877	0.00441	0.0246	.00877	pCi/g	YES
249060003	RE16-10-2826	Plutonium-238	1.26 g	0.00681	0.00904	0.0293	.001738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0161	0.00652	0.0248	.006960317	pCi/g	YES
249329001	RE46-10-13964	Plutonium-238	1.29 g	0.00	0.0018	0.0239	.001697674	pCi/g	YES
		Plutonium-239/240	1.29 g	0.00151	0.00384	0.0202	.006798450	pCi/g	YES
249329002	RE46-10-13966	Plutonium-238	1.25 g	0.00463	0.00382	0.027	.001752	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0133	0.00616	0.0228	.007016	pCi/g	YES
249329003	RE46-10-13963	Plutonium-238	1.26 g	0.0135	0.00656	0.0338	.001738095	pCi/g	NO
		Plutonium-239/240	1.26 g	-0.00662	0.00483	0.0286	.006960317	pCi/g	YES
249329004	RE46-10-13965	Plutonium-238	1.25 g	0.000577	0.00254	0.0273	.001752	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00585	0.00529	0.0231	.007016	pCi/g	YES
249331001	RE46-10-13219	Plutonium-238	1.27 g	0.00509	0.00605	0.0252	.001724409	pCi/g	YES
		Plutonium-239/240	1.27 g	-0.000304	0.00358	0.0213	.006905512	pCi/g	YES
249331002	RE46-10-13221	Plutonium-238	1.25 g	0.000669	0.00295	0.0317	.001752	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00477	0.00339	0.0268	.007016	pCi/g	YES
249331003	RE46-10-13220	Plutonium-238	1.26 g	0.00496	0.00409	0.0289	.001738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0152	0.00583	0.0244	.006960317	pCi/g	YES
249331004	RE46-10-13216	Plutonium-238	1.25 g	0.0139	0.00565	0.0254	.001752	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00819	0.00452	0.0215	.007016	pCi/g	YES
249331005	RE46-10-13217	Plutonium-238	1.26 g	0.00258	0.0032	0.0267	.001738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00403	0.00286	0.0226	.006960317	pCi/g	YES
249331006	RE46-10-13218	Plutonium-238	1.28 g	-0.00128	0.00511	0.0224	.001710938	pCi/g	YES
		Plutonium-239/240	1.28 g	0.0359	0.00828	0.019	.006851563	pCi/g	NO
249331007	RE46-10-13234	Plutonium-238	1.26 g	0.00324	0.00417	0.0276	.001738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00946	0.00553	0.0233	.006960317	pCi/g	YES
249331008	RE46-10-14199	Plutonium-238	1.26 g	0.00926	0.00599	0.0344	.001738095	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0304	0.0101	0.029	.006960317	pCi/g	YES
249334001	RE46-10-12972	Plutonium-238	1.27 g	-0.00287	0.00285	0.0265	.001724409	pCi/g	YES
		Plutonium-239/240	1.27 g	0.00567	0.00512	0.0224	.006905512	pCi/g	YES
249334002	RE46-10-13003	Plutonium-238	1.26 g	-0.00202	0.00536	0.0258	.001738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.000466	0.00618	0.0218	.006960317	pCi/g	YES
249334003	RE46-10-12967	Plutonium-238	1.29 g	0.00943	0.00793	0.0234	.001697674	pCi/g	NO
		Plutonium-239/240	1.29 g	0.0165	0.00701	0.0197	.006798450	pCi/g	YES
249334004	RE46-10-12971	Plutonium-238	1.25 g	0.00388	0.00275	0.0257	.001752	pCi/g	YES

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
249334004	RE46-10-12971	Plutonium-239/240	1.25 g	0.0213	0.00656	0.0218	.007016	pCi/g	YES
249334005	RE46-10-12968	Plutonium-238	1.26 g	0.0105	0.00433	0.0233	.001738095	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0123	0.00469	0.0197	.006960317	pCi/g	YES
249334006	RE46-10-12969	Plutonium-238	1.28 g	0.00	0.0021	0.0279	.001710938	pCi/g	YES
		Plutonium-239/240	1.28 g	0.0105	0.00474	0.0236	.006851563	pCi/g	YES
249334007	RE46-10-12970	Plutonium-238	1.25 g	0.00697	0.00483	0.026	.001752	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00838	0.00463	0.022	.007016	pCi/g	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249329001_PU
SAMPLE QTY : 1.290 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 81.317

CHAMBER : 073
DETECTOR S/N : 78775
AVERAGE %EFFICIENCY : 33.1763
COUNT DATE : 26-MAR-2010 17:20:06
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B073.CNF;1112
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W073.CNF;287
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.4298E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5776.389	52.985	575.000	574.280	0.720	0.8485	100.0000	1.04E+00	7.54E-02	3.29E-03	1.15E-02	4.36E-02
PU-238	5499.000	5440.037	0.000	0.000	0.000	0.000	2.4495	99.90000	0.00E+00	1.80E-03	9.51E-03	2.39E-02	1.80E-03
PU-9/0	5155.000	5114.394	69.038	3.000	0.840	2.160	1.9732	99.90000	1.51E-03	3.84E-03	7.66E-03	2.02E-02	3.84E-03
PU242	4890.000	4872.382	221.909	3.000	-0.600	3.600	*******	100.0000	-1.08E-03	4.25E-03	4.83E-01	9.72E-01	4.25E-03
PU-244	4589.000	4529.215	83.832	3.000	3.000	0.000	6.4609	99.90000	5.40E-03	3.13E-03	2.51E-02	5.50E-02	3.12E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

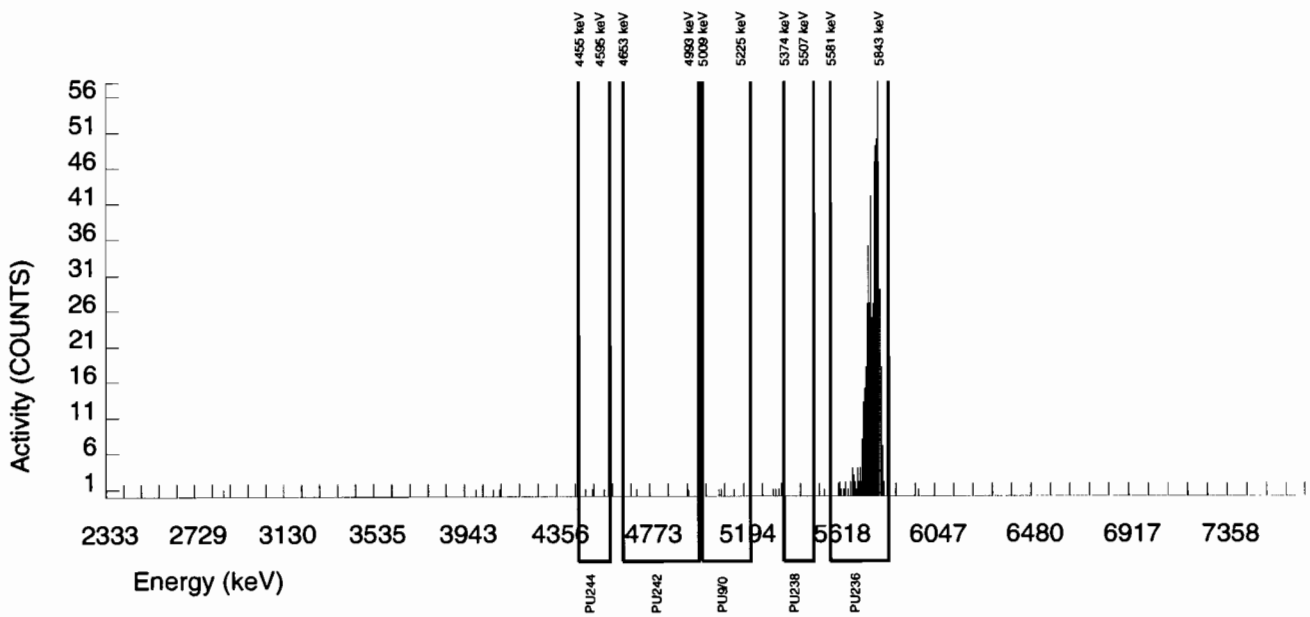

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249329002_PU
SAMPLE QTY : 1.254 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 77.554

CHAMBER : 074
DETECTOR S/N : 78266
AVERAGE %EFFICIENCY : 31.7138
COUNT DATE : 26-MAR-2010 17:20:06
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B074.CNF;1134
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W074.CNF;334
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.3174E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5763.656	38.950	525.000	523.560	1.440	1.2000	100.0000	1.07E+00	8.01E-02	5.25E-03	1.60E-02	4.70E-02
PU-238	5499.000	5423.204	54.645	3.000	2.280	0.720	2.4495	99.90000	4.63E-03	3.82E-03	1.07E-02	2.70E-02	3.81E-03
PU-9/0	5155.000	5126.679	9.936	8.000	6.560	1.440	1.9732	99.90000	1.33E-02	6.16E-03	8.64E-03	2.28E-02	6.10E-03
PU242	4890.000	4811.002	4.968	4.000	1.120	2.880	*******	100.0000	2.27E-03	5.00E-03	5.45E-01	1.10E+00	5.00E-03
PU-244	4589.000	4527.597	0.000	0.000	-1.440	1.440	6.4609	99.90000	-2.92E-03	2.90E-03	2.83E-02	6.21E-02	2.90E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

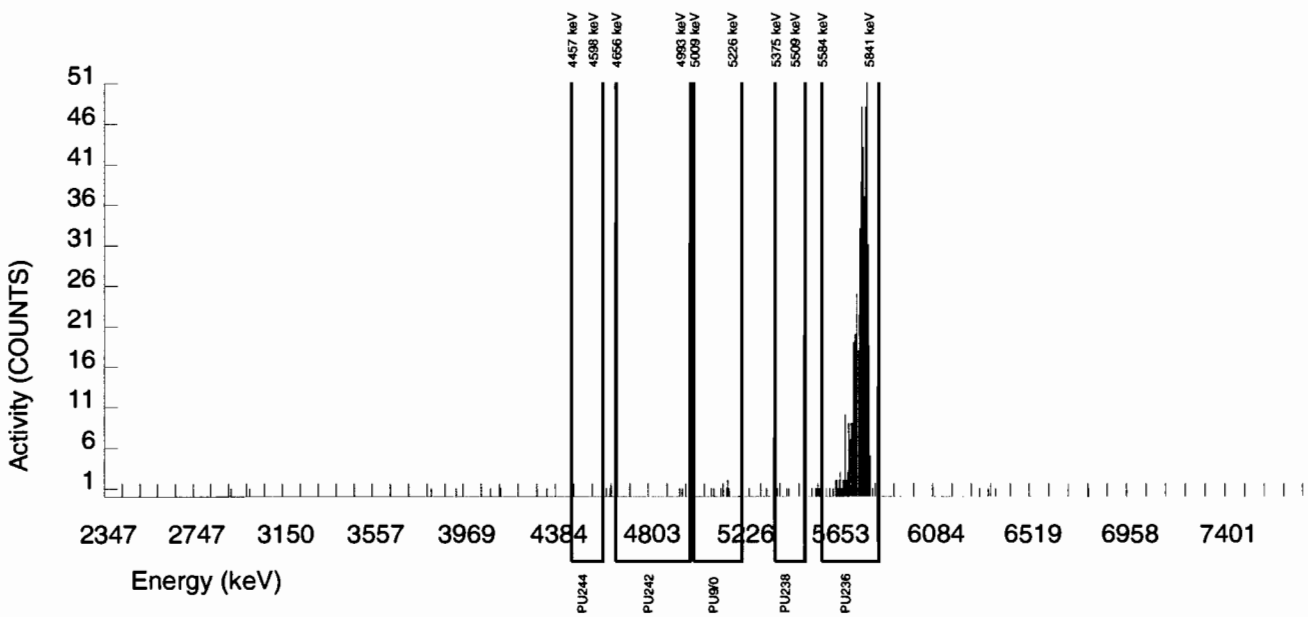

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503	CHAMBER : 075	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0249329003_PU	DETECTOR S/N : 80010	BKG FILE : B075.CNF;1115
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 32.1597	BKG DATE : 21-MAR-2010
SAMPLE DATE : 11-MAR-2010 00:00:00	COUNT DATE : 26-MAR-2010 17:20:06	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W075.CNF;292
% YIELD : 60.662		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9881E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 1.8126E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5758.045	26.162	416.000	415.280	0.720	0.8485	100.0000	1.07E+00	8.66E-02	4.66E-03	1.62E-02	5.25E-02
PU-238	5499.000	5465.975	0.000	6.000	5.280	0.720	2.4495	99.90000	1.35E-02	6.56E-03	1.35E-02	3.38E-02	6.51E-03
PU-9/0	5155.000	5162.439	4.950	1.000	-2.600	3.600	1.9732	99.90000	-6.62E-03	4.83E-03	1.08E-02	2.86E-02	4.83E-03
PU242	4890.000	4841.658	267.293	6.000	4.560	1.440	*******	100.0000	1.16E-02	6.79E-03	6.84E-01	1.38E+00	6.75E-03
PU-244	4589.000	4495.358	4.950	1.000	0.280	0.720	6.4609	99.90000	7.13E-04	3.14E-03	3.55E-02	7.79E-02	3.14E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

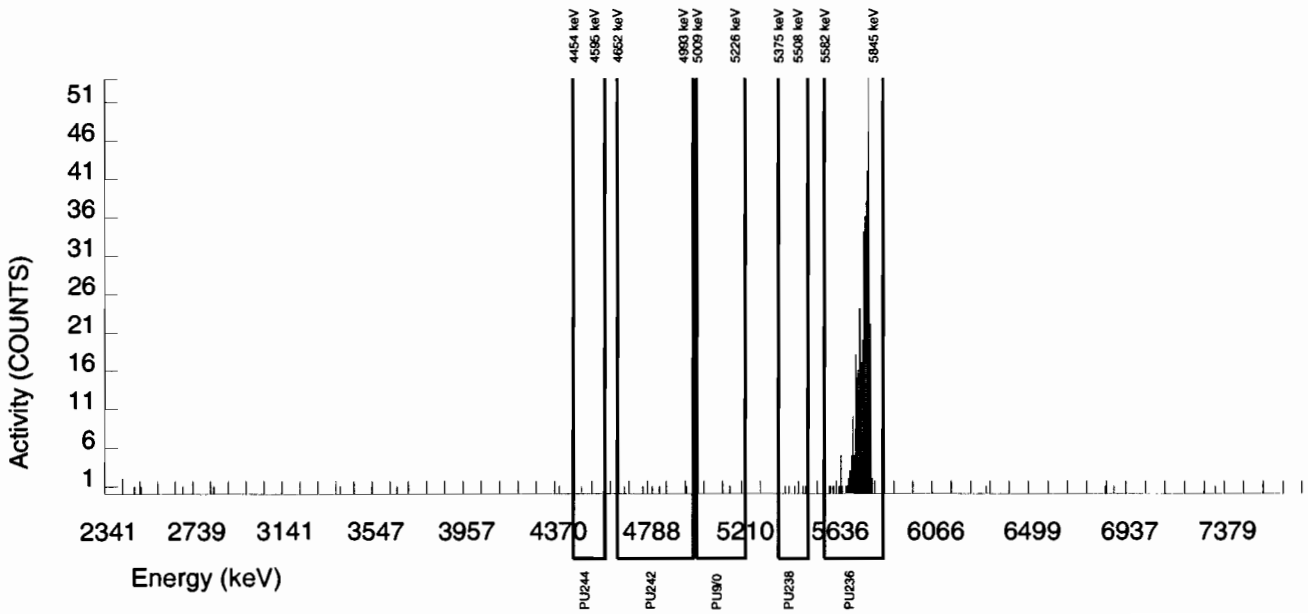

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249329004_PU
SAMPLE QTY : 1.252 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 77.525

CHAMBER : 076
DETECTOR S/N : 78779
AVERAGE %EFFICIENCY : 31.3281
COUNT DATE : 26-MAR-2010 17:20:06
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B076.CNF;1118
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W076.CNF;297
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.3165E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5768.830	47.679	517.000	517.000	0.000	0.0000	100.0000	1.08E+00	8.05E-02	0.00E+00	5.58E-03	4.73E-02
PU-238	5499.000	5429.573	4.952	1.000	0.280	0.720	2.4495	99.90000	5.77E-04	2.54E-03	1.09E-02	2.73E-02	2.54E-03
PU-9/0	5155.000	5126.168	4.952	5.000	2.840	2.160	1.9732	99.90000	5.85E-03	5.28E-03	8.77E-03	2.31E-02	5.27E-03
PU242	4890.000	4742.927	0.000	2.000	0.560	1.440	*******	100.0000	1.15E-03	3.59E-03	5.53E-01	1.11E+00	3.59E-03
PU-244	4589.000	4525.916	0.000	0.000	-0.720	0.720	6.4609	99.90000	-1.48E-03	2.54E-03	2.87E-02	6.30E-02	2.54E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

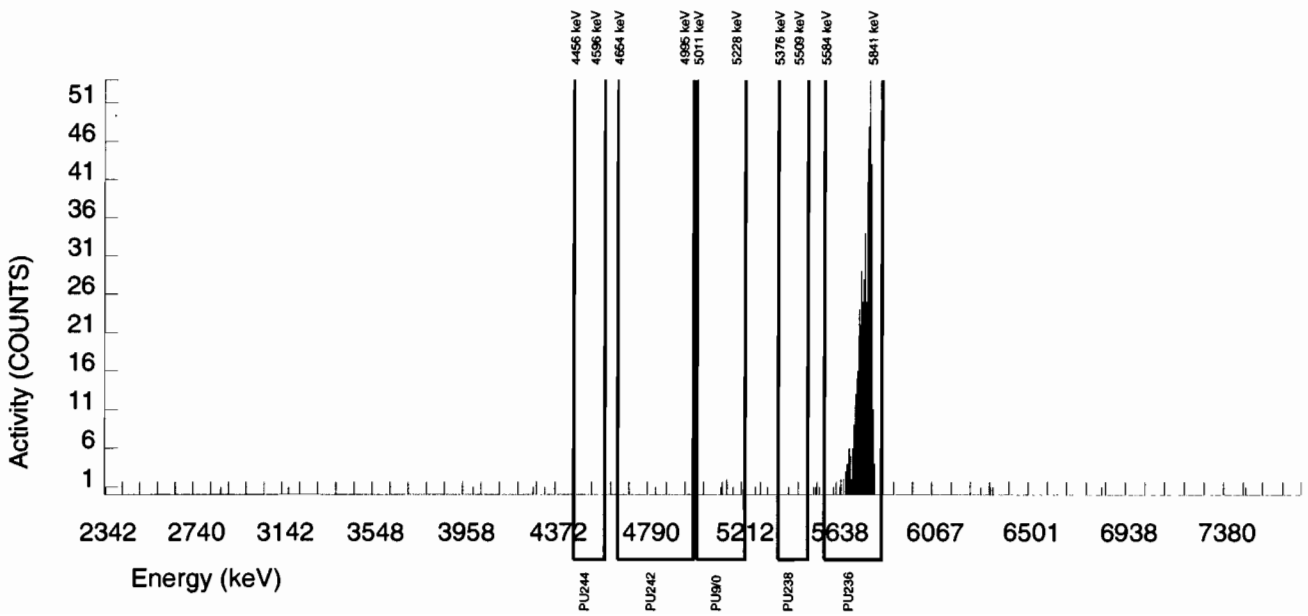

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249334001_PU
SAMPLE QTY : 1.267 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 81.504

CHAMBER : 086
DETECTOR S/N : 78198
AVERAGE %EFFICIENCY : 30.3911
COUNT DATE : 26-MAR-2010 17:20:08
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B086.CNF;1034
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W086.CNF;285
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.4354E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5772.089	43.163	528.000	527.280	0.720	0.8485	100.0000	1.06E+00	7.91E-02	3.65E-03	1.27E-02	4.63E-02
PU-238	5499.000	5442.401	0.000	0.000	-1.440	1.440	2.4495	99.90000	-2.87E-03	2.85E-03	1.05E-02	2.65E-02	2.85E-03
PU-9/0	5155.000	5139.289	105.576	5.000	2.840	2.160	1.9732	99.90000	5.67E-03	5.12E-03	8.49E-03	2.24E-02	5.11E-03
PU242	4890.000	4825.089	0.000	0.000	-2.160	2.160	*******	100.0000	-4.31E-03	3.19E-03	5.36E-01	1.08E+00	3.19E-03
PU-244	4589.000	4550.141	75.412	3.000	2.280	0.720	6.4609	99.90000	4.55E-03	3.75E-03	2.78E-02	6.10E-02	3.74E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

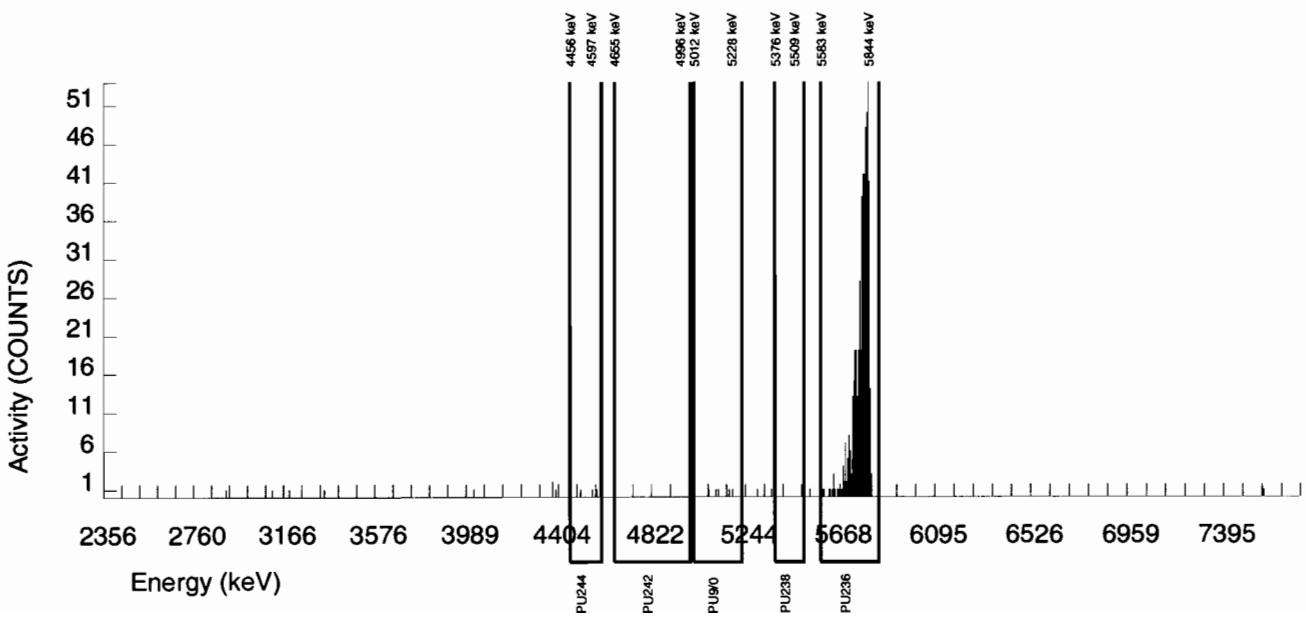

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S1202071686_PU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 23-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 84.468

CHAMBER : 094
DETECTOR S/N : 78267
AVERAGE %EFFICIENCY : 33.8294
COUNT DATE : 26-MAR-2010 17:20:09
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B094.CNF;727
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W094.CNF;195
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9643E+00 dpm
RESULTS : 2.5039E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5762.012	35.124	609.000	608.280	0.720	0.8485	100.0000	1.34E+00	9.48E-02	4.01E-03	1.39E-02	5.42E-02
PU-238	5499.000	5458.919	4.913	1.000	1.000	0.000	2.4495	99.90000	2.19E-03	2.20E-03	1.16E-02	2.91E-02	2.19E-03
PU-9/0	5155.000	5115.934	117.921	4.000	4.000	0.000	1.9732	99.90000	8.77E-03	4.41E-03	9.33E-03	2.46E-02	4.38E-03
PU242	4890.000	4699.958	68.787	3.000	1.560	1.440	*******	100.0000	3.42E-03	4.40E-03	5.89E-01	1.18E+00	4.40E-03
PU-244	4589.000	4525.383	0.000	0.000	-1.440	1.440	6.4609	99.90000	-3.16E-03	3.13E-03	3.05E-02	6.70E-02	3.13E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

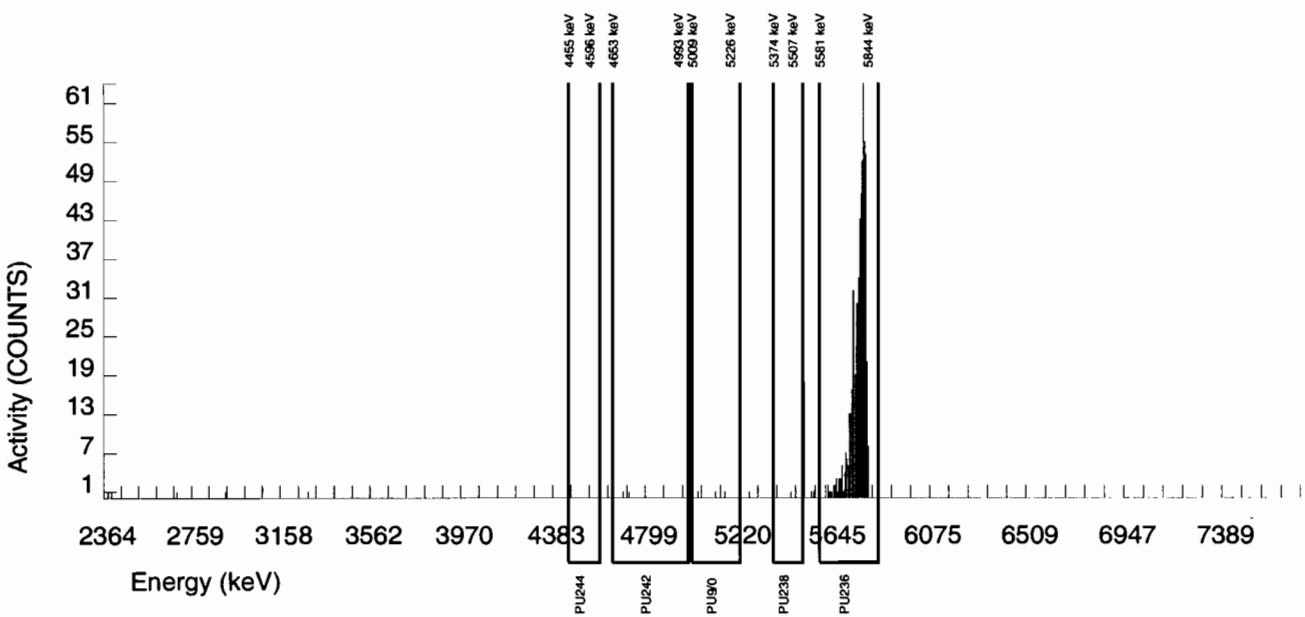

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S1202071687_PU
SAMPLE QTY : 1.259 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 79.887

CHAMBER : 013
DETECTOR S/N : 78790
AVERAGE %EFFICIENCY : 35.8414
COUNT DATE : 26-MAR-2010 21:18:56
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B013.CNF;1105
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W013.CNF;330
CAL DATE : 4-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.3871E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5774.821	34.843	626.000	609.440	16.560	4.0694	100.0000	1.07E+00	7.69E-02	1.52E-02	3.52E-02	4.43E-02
PU-238	5499.000	5434.900	0.000	12.000	6.960	5.040	2.4495	99.90000	1.21E-02	6.91E-03	9.18E-03	2.31E-02	6.87E-03
PU-9/0	5155.000	5122.941	88.452	5.000	2.120	2.880	1.9732	99.90000	3.68E-03	4.63E-03	7.40E-03	1.95E-02	4.62E-03
PU242	4890.000	4836.007	206.388	4.000	3.280	0.720	*******	100.0000	5.69E-03	3.70E-03	4.67E-01	9.38E-01	3.69E-03
PU-244	4589.000	4478.529	4.914	1.000	0.280	0.720	6.4609	99.90000	4.86E-04	2.14E-03	2.42E-02	5.31E-02	2.14E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

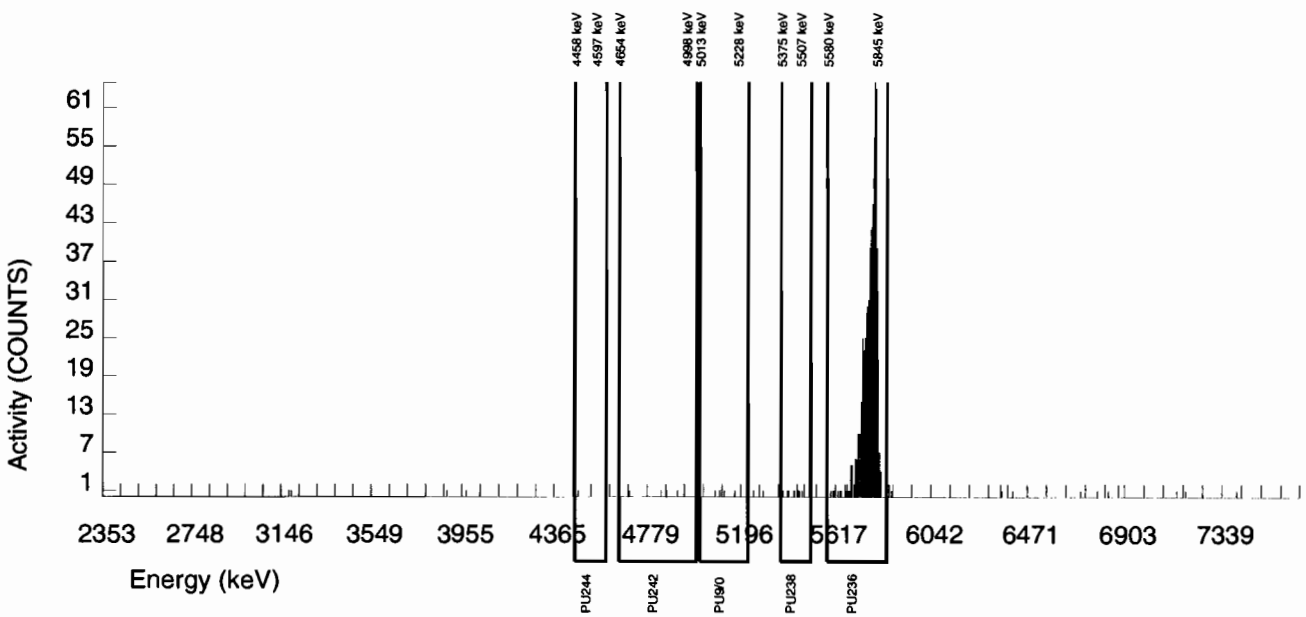

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503	CHAMBER : 014	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202071688_PU	DETECTOR S/N : 67616	BKG FILE : B014.CNF;1106
SAMPLE QTY : 0.115 G	AVERAGE %EFFICIENCY : 33.5532	BKG DATE : 21-MAR-2010
SAMPLE DATE : 23-MAR-2010 00:00:00	COUNT DATE : 26-MAR-2010 21:18:56	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W014.CNF;328
% YIELD : 84.568		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9643E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.5069E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5763.887	52.821	627.000	603.960	23.040	4.8000	100.0000	1.16E+01	9.03E-01	1.99E-01	4.49E-01	4.88E-01
PU-238	5499.000	5477.447	0.000	287.000	270.440	16.560	2.4495	99.90000	5.19E+00	4.75E-01	1.01E-01	2.55E-01	3.32E-01
PU-9/0	5155.000	5148.260	45.032	1965.000	1960.680	4.320	1.9732	99.90000	3.76E+01	2.61E+00	8.17E-02	2.15E-01	8.51E-01
PU242	4890.000	4886.226	0.000	36.000	34.560	1.440	*******	100.0000	6.63E-01	1.24E-01	5.16E+00	1.04E+01	1.17E-01
PU-244	4589.000	4524.693	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.92E-02	2.68E-01	5.87E-01	1.92E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

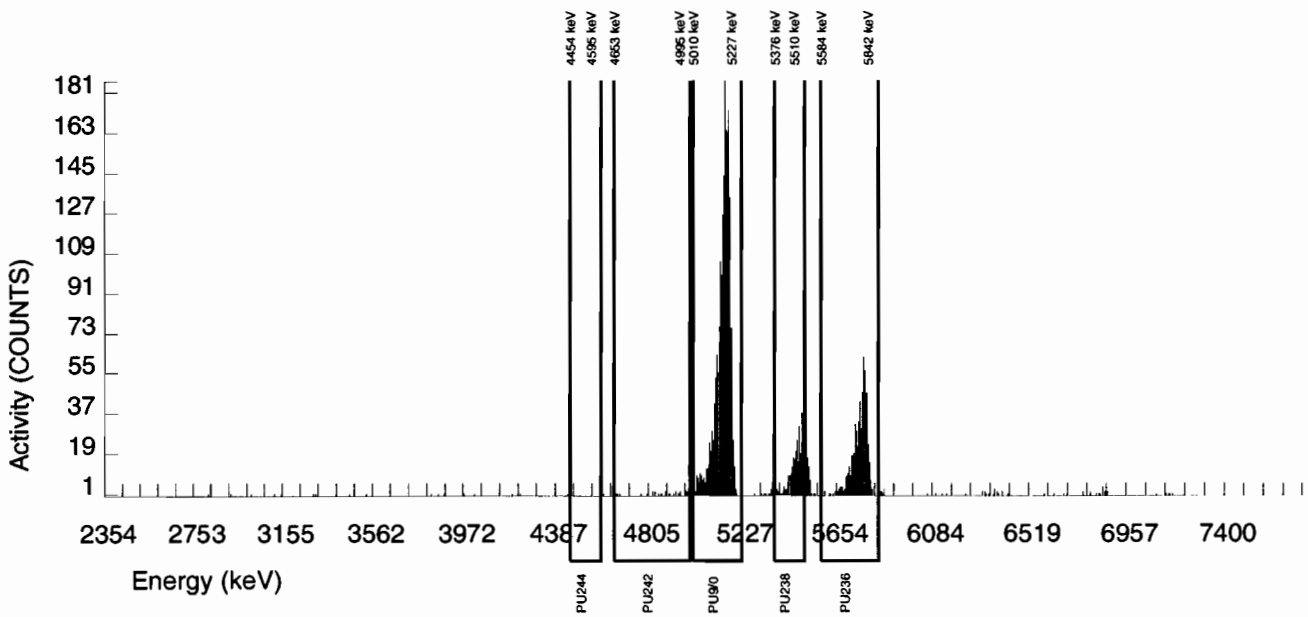

Radiochemistry Batch Checklist, Rev10

Batch# 965504 Product: U Date: 3/30/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RCL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RCL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time	✓		
Sample was correctly preserved if required	✓		
Smears Taken for Radioactive batches			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/30/10

Secondary Review Performed By: [signature] 3/30/10

3/31

Uranium Que Sheet

22-MAR-10

Batch #: 965504 Analyst: CXM2 First Client Due Date:31-MAR-10 Internal Due Date:21-MAR-10

Tracer Isotope: U-232 U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: 0.1mL

LCS Isotope: U-238 LCS Code: 0244-A Expiration Date: 10/31/20 Vol: 0.113 g

Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 3/23/10 Initials: CMM Pipet ID: 4497063 Balance ID: 50410272

Analyzed Sequentially with Pu N/A

Pu-236 ID: ____

~~Vol.~~: ____

Witness: MM 3/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) (1/f)	U Det #
249060003-1	RE16-10-2826	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	1	1	0.518	131
249329001-1	RE46-10-13964	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	2	2	0.523	132
249329002-1	RE46-10-13966	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	3	3	0.505	133
249329003-1	RE46-10-13963	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	4	4	0.522	134
249329004-1	RE46-10-13965	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	5	5	0.508	135
249331001-1	RE46-10-13219	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	6	6	0.537	136
249331002-1	RE46-10-13221	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	7	7	0.543	154 ~~137~~ TC 3-27-
249331003-1	RE46-10-13220	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	8	8	0.513	138
249331004-1	RE46-10-13216	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	9	9	0.509	139
249331005-1	RE46-10-13217	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	10	10	0.517	140
249331006-1	RE46-10-13218	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	11	11	0.532	141
249331007-1	RE46-10-13234	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	12	12	~~0.515~~ 0.515 03/22/10	142
249331008-1	RE46-10-14199	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	13	13	0.553	143
249334001-1	RE46-10-12972	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	14	14	0.519	144
249334002-1	RE46-10-13003	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	15	15	0.504	145
249334003-1	RE46-10-12967	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	16	16	0.504	146
249334004-1	RE46-10-12971	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	17	17	0.509	117 ~~147~~
249334005-1	RE46-10-12968	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	18	18	0.518	118 ~~148~~ 3/30/1
249334006-1	RE46-10-12969	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	19	19	0.527	149
249334007-1	RE46-10-12970	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	20	20	0.524	150
1202071689-1	MB for batch 965504	MB		.1 pCi/g	SOIL	QC ACCOUNT		21	21	1.0	151
1202071690-1	RE46-10-12972(249334001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	11-MAR-10	22	22	0.503	152
1202071691-1	LCS for batch 965504	LCS		.1 pCi/g	SOIL	QC ACCOUNT		23	23	0.113	153

*SRM 0244-A Exp 10/31/20

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: JDL 3/30/10

Blank Correction Report

Batch ID 965504

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202071690	DUP	Uranium-233/234	0.503 g	1.84	0.163	0.127	.028429423	pCi/g	NO
		Uranium-235/236	0.503 g	0.106	0.0256	0.0778	.015029821	pCi/g	NO
		Uranium-238	0.503 g	1.21	0.116	0.0895	.012166998	pCi/g	NO
1202071691	LCS	Uranium-233/234	0.113 g	5.98	0.566	0.494	.126548673	pCi/g	NO
		Uranium-235/236	0.113 g	0.108	0.0492	0.302	.066902655	pCi/g	YES
		Uranium-238	0.113 g	5.93	0.562	0.348	.054159292	pCi/g	NO
1202071689	MB	Uranium-233/234	1.00 g	0.0143	0.0062	0.0575	.0143	pCi/g	YES
		Uranium-235/236	1.00 g	0.00756	0.0044	0.0351	.00756	pCi/g	YES
		Uranium-238	1.00 g	0.00612	0.00458	0.0404	.00612	pCi/g	YES
249060003	RE16-10-2826	Uranium-233/234	0.518 g	0.900	0.0911	0.121	.027606178	pCi/g	NO
		Uranium-235/236	0.518 g	0.0266	0.0121	0.0741	.014594595	pCi/g	YES
		Uranium-238	0.518 g	0.908	0.0913	0.0853	.011814672	pCi/g	NO
249329001	RE46-10-13964	Uranium-233/234	0.523 g	1.55	0.144	0.136	.027342256	pCi/g	NO
		Uranium-235/236	0.523 g	0.0891	0.0239	0.0828	.014455067	pCi/g	NO
		Uranium-238	0.523 g	1.01	0.103	0.0953	.011701721	pCi/g	NO
249329002	RE46-10-13966	Uranium-233/234	0.505 g	0.971	0.0988	0.134	.028316832	pCi/g	NO
		Uranium-235/236	0.505 g	0.0176	0.0103	0.0819	.014970297	pCi/g	YES
		Uranium-238	0.505 g	0.956	0.0976	0.0943	.012118812	pCi/g	NO
249329003	RE46-10-13963	Uranium-233/234	0.522 g	0.866	0.0912	0.134	.027394636	pCi/g	NO
		Uranium-235/236	0.522 g	0.00587	0.00589	0.0819	.014482759	pCi/g	YES
		Uranium-238	0.522 g	0.813	0.0866	0.0942	.011724138	pCi/g	NO
249329004	RE46-10-13965	Uranium-233/234	0.508 g	1.31	0.127	0.144	.028149606	pCi/g	NO
		Uranium-235/236	0.508 g	0.0632	0.0224	0.0881	.014881890	pCi/g	YES
		Uranium-238	0.508 g	0.742	0.083	0.101	.012047244	pCi/g	NO
249331001	RE46-10-13219	Uranium-233/234	0.537 g	1.18	0.108	0.104	.026629423	pCi/g	NO
		Uranium-235/236	0.537 g	0.0365	0.0147	0.0635	.014078212	pCi/g	YES
		Uranium-238	0.537 g	1.02	0.0962	0.0731	.011396648	pCi/g	NO
249331002	RE46-10-13221	Uranium-233/234	0.543 g	0.915	0.0904	0.114	.026335175	pCi/g	NO
		Uranium-235/236	0.543 g	0.0399	0.016	0.0694	.013922652	pCi/g	YES
		Uranium-238	0.543 g	0.975	0.095	0.0799	.011270718	pCi/g	NO
249331003	RE46-10-13220	Uranium-233/234	0.513 g	1.05	0.106	0.137	.027875244	pCi/g	NO
		Uranium-235/236	0.513 g	0.0601	0.0213	0.0838	.014736842	pCi/g	YES
		Uranium-238	0.513 g	1.21	0.119	0.0964	.011929825	pCi/g	NO
249331004	RE46-10-13216	Uranium-233/234	0.509 g	3.13	0.272	0.161	.028094303	pCi/g	NO
		Uranium-235/236	0.509 g	0.177	0.0378	0.0984	.014852652	pCi/g	NO
		Uranium-238	0.509 g	1.22	0.124	0.113	.012023576	pCi/g	NO
249331005	RE46-10-13217	Uranium-233/234	0.517 g	2.67	0.222	0.118	.027659574	pCi/g	NO
		Uranium-235/236	0.517 g	0.134	0.028	0.0718	.014622824	pCi/g	NO
		Uranium-238	0.517 g	1.72	0.152	0.0827	.011837524	pCi/g	NO
249331006	RE46-10-13218	Uranium-233/234	0.532 g	1.32	0.132	0.153	.026879699	pCi/g	NO
		Uranium-235/236	0.532 g	0.094	0.0278	0.0936	.014210526	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
249331006	RE46-10-13218	Uranium-238	0.532 g	1.27	0.127	0.108	.011503759	pCi/g	NO
249331007	RE46-10-13234	Uranium-233/234	0.515 g	1.04	0.104	0.129	.027766990	pCi/g	NO
		Uranium-235/236	0.515 g	0.0793	0.022	0.0789	.014679612	pCi/g	NO
		Uranium-238	0.515 g	0.985	0.0992	0.0908	.011883495	pCi/g	NO
249331008	RE46-10-14199	Uranium-233/234	0.553 g	1.27	0.124	0.140	.025858951	pCi/g	NO
		Uranium-235/236	0.553 g	0.0981	0.027	0.0854	.013670886	pCi/g	NO
		Uranium-238	0.553 g	1.16	0.115	0.0983	.011066908	pCi/g	NO
249334001	RE46-10-12972	Uranium-233/234	0.519 g	1.90	0.166	0.122	.027552987	pCi/g	NO
		Uranium-235/236	0.519 g	0.128	0.0288	0.0744	.014566474	pCi/g	NO
		Uranium-238	0.519 g	1.31	0.123	0.0856	.011791908	pCi/g	NO
249334002	RE46-10-13003	Uranium-233/234	0.504 g	1.64	0.146	0.121	.028373016	pCi/g	NO
		Uranium-235/236	0.504 g	0.116	0.0273	0.0738	.015	pCi/g	NO
		Uranium-238	0.504 g	1.31	0.122	0.0849	.012142857	pCi/g	NO
249334003	RE46-10-12967	Uranium-233/234	0.504 g	86.7	6.59	0.161	.028373016	pCi/g	NO
		Uranium-235/236	0.504 g	4.33	0.371	0.0984	.015	pCi/g	NO
		Uranium-238	0.504 g	1.99	0.185	0.113	.012142857	pCi/g	NO
249334004	RE46-10-12971	Uranium-233/234	0.509 g	4.25	0.354	0.154	.028094303	pCi/g	NO
		Uranium-235/236	0.509 g	0.156	0.0358	0.0941	.014852652	pCi/g	NO
		Uranium-238	0.509 g	1.39	0.137	0.108	.012023576	pCi/g	NO
249334005	RE46-10-12968	Uranium-233/234	0.518 g	34.2	2.56	0.131	.027606178	pCi/g	NO
		Uranium-235/236	0.518 g	1.75	0.164	0.0801	.014594595	pCi/g	NO
		Uranium-238	0.518 g	1.30	0.124	0.0922	.011814672	pCi/g	NO
249334006	RE46-10-12969	Uranium-233/234	0.527 g	0.906	0.0907	0.119	.027134725	pCi/g	NO
		Uranium-235/236	0.527 g	0.0573	0.0178	0.0726	.014345351	pCi/g	YES
		Uranium-238	0.527 g	0.851	0.0868	0.0835	.011612903	pCi/g	NO
249334007	RE46-10-12970	Uranium-233/234	0.524 g	1.07	0.103	0.116	.027290076	pCi/g	NO
		Uranium-235/236	0.524 g	0.0813	0.0212	0.0708	.014427481	pCi/g	NO
		Uranium-238	0.524 g	1.09	0.104	0.0815	.011679389	pCi/g	NO

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249329001_UU
SAMPLE QTY : 0.523 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 67.767

CHAMBER : 132
DETECTOR S/N : 67579
AVERAGE %EFFICIENCY : 26.4369
COUNT DATE : 27-MAR-2010 12:53:48
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B132.CNF;455
BKG DATE : 22-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W132.CNF;134
CAL DATE : 18-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 3.0502E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5317.643	65.202	806.000	806.000	0.000	0.0000	100.0000	3.88E+00	3.18E-01	0.00E+00	1.30E-02	1.37E-01
U-3/4	4763.020	4770.188	56.526	323.000	322.183	0.000	5.4790	100.0000	1.55E+00	1.44E-01	6.13E-02	1.36E-01	8.63E-02
U-235	4391.000	4397.718	75.544	15.000	15.000	0.000	2.4127	80.90000	8.91E-02	2.39E-02	3.34E-02	8.28E-02	2.30E-02
U-238	4184.730	4199.818	28.313	211.000	211.000	0.000	3.6781	100.0000	1.01E+00	1.03E-01	4.11E-02	9.53E-02	6.98E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

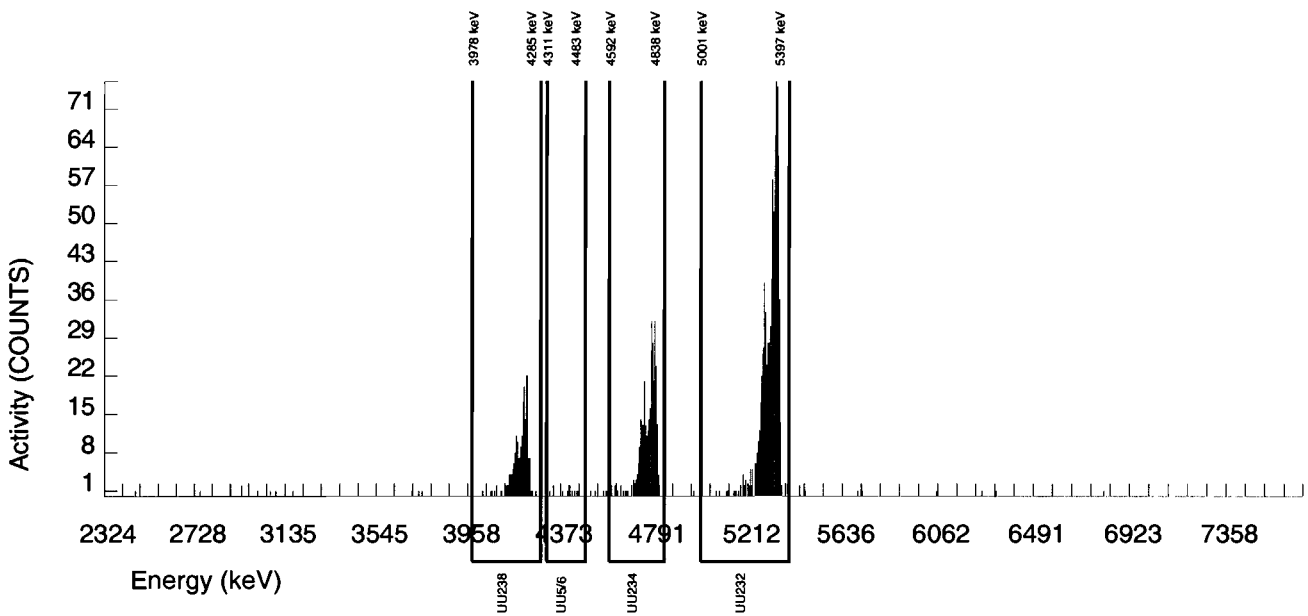

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249329002_UU
SAMPLE QTY : 0.505 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 74.692

CHAMBER : 133
DETECTOR S/N : 76229
AVERAGE %EFFICIENCY : 25.1168
COUNT DATE : 27-MAR-2010 12:53:51
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B133.CNF;446
BKG DATE : 22-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W133.CNF;125
CAL DATE : 18-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 3.3619E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5314.407	32.841	847.000	844.000	3.000	1.7321	100.0000	4.01E+00	3.27E-01	1.92E-02	5.12E-02	1.39E-01
U-3/4	4763.020	4767.173	23.573	205.000	204.145	0.000	5.4790	100.0000	9.71E-01	9.88E-02	6.06E-02	1.34E-01	6.79E-02
U-235	4391.000	4383.370	43.789	3.000	3.000	0.000	2.4127	80.90000	1.76E-02	1.03E-02	3.30E-02	8.19E-02	1.02E-02
U-238	4184.730	4193.973	51.492	201.000	201.000	0.000	3.6781	100.0000	9.56E-01	9.76E-02	4.07E-02	9.43E-02	6.74E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

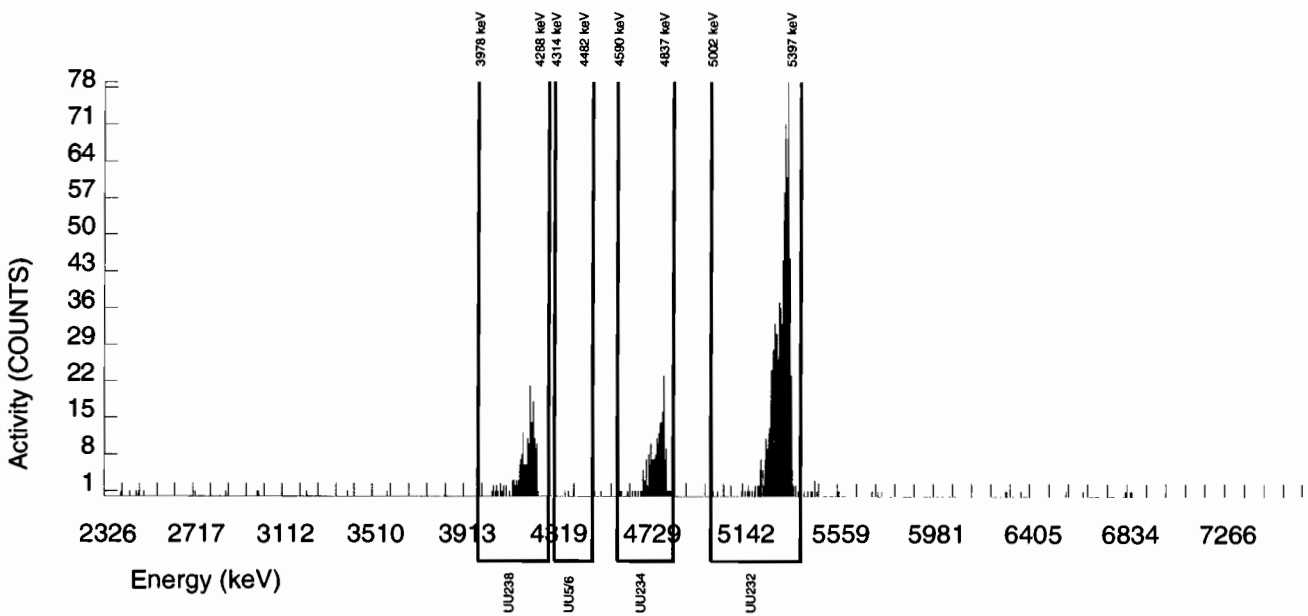

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249329003_UU
SAMPLE QTY : 0.522 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 73.087

CHAMBER : 134
DETECTOR S/N : 76230
AVERAGE %EFFICIENCY : 24.8472
COUNT DATE : 27-MAR-2010 12:53:53
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B134.CNF;444
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W134.CNF;131
CAL DATE : 18-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 3.2896E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5314.719	53.568	823.000	817.000	6.000	2.4495	100.0000	3.88E+00	3.19E-01	2.71E-02	6.70E-02	1.37E-01
U-3/4	4763.020	4770.128	36.776	185.000	182.172	2.000	5.4790	100.0000	8.66E-01	9.12E-02	6.06E-02	1.34E-01	6.48E-02
U-235	4391.000	4443.412	4.947	1.000	1.000	0.000	2.4127	80.90000	5.87E-03	5.89E-03	3.30E-02	8.19E-02	5.87E-03
U-238	4184.730	4196.254	46.481	171.000	171.000	0.000	3.6781	100.0000	8.13E-01	8.66E-02	4.07E-02	9.42E-02	6.21E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

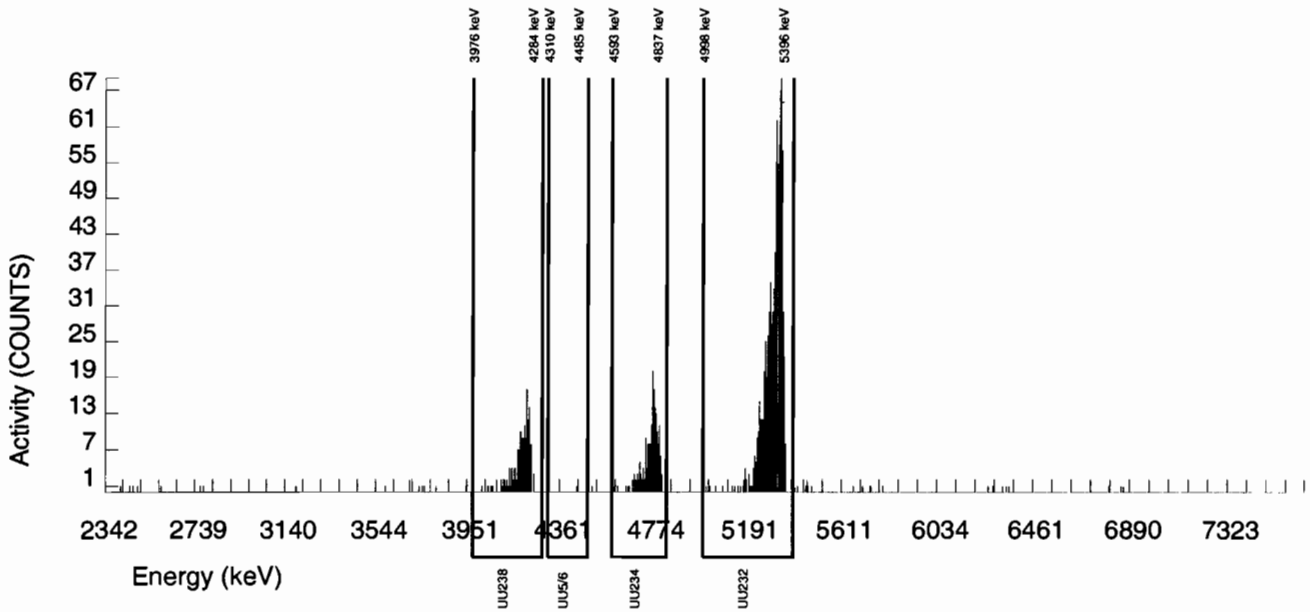

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249329004_UU
SAMPLE QTY : 0.508 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 65.547

CHAMBER : 135
DETECTOR S/N : 80005
AVERAGE %EFFICIENCY : 26.4506
COUNT DATE : 27-MAR-2010 12:53:56
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B135.CNF;458
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W135.CNF;144
CAL DATE : 18-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 2.9503E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.590	28.265	780.000	780.000	0.000	0.0000	100.0000	3.99E+00	3.30E-01	0.00E+00	1.39E-02	1.43E-01
U-3/4	4763.020	4756.241	21.808	257.000	256.210	0.000	5.4790	100.0000	1.31E+00	1.27E-01	6.52E-02	1.44E-01	8.19E-02
U-235	4391.000	4414.627	4.924	11.000	10.000	1.000	2.4127	80.90000	6.32E-02	2.24E-02	3.55E-02	8.81E-02	2.19E-02
U-238	4184.730	4189.422	31.711	146.000	145.000	1.000	3.6781	100.0000	7.42E-01	8.30E-02	4.38E-02	1.01E-01	6.20E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

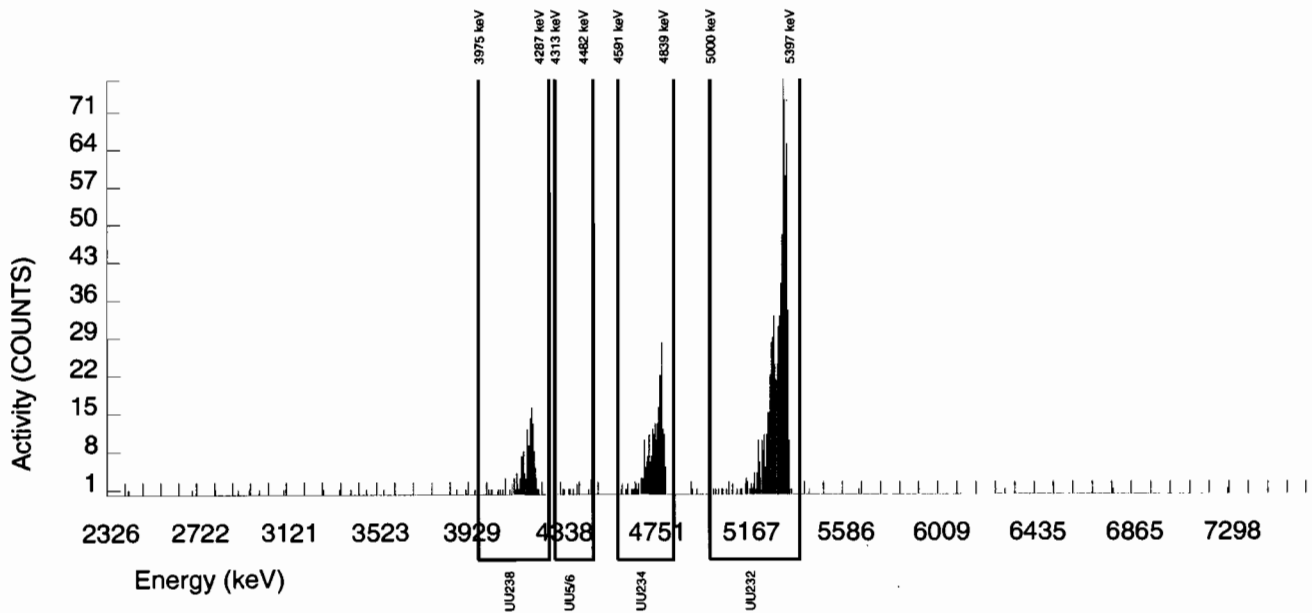

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504	CHAMBER : 144	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0249334001_UU	DETECTOR S/N : 75551	BKG FILE : B144.CNF;405
SAMPLE QTY : 0.519 G	AVERAGE %EFFICIENCY : 25.8806	BKG DATE : 21-MAR-2010
SAMPLE DATE : 11-MAR-2010 00:00:00	COUNT DATE : 27-MAR-2010 12:54:20	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W144.CNF;110
% YIELD : 77.641		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5010E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.4946E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.610	37.762	909.000	904.000	5.000	2.2361	100.0000	3.91E+00	3.15E-01	2.25E-02	5.66E-02	1.31E-01
U-3/4	4763.020	4757.353	56.941	443.000	439.084	3.000	5.4790	100.0000	1.90E+00	1.66E-01	5.51E-02	1.22E-01	9.11E-02
U-235	4391.000	4389.645	52.975	25.000	24.000	1.000	2.4127	80.90000	1.28E-01	2.88E-02	3.00E-02	7.44E-02	2.72E-02
U-238	4184.730	4184.521	62.212	307.000	304.000	3.000	3.6781	100.0000	1.31E+00	1.23E-01	3.70E-02	8.56E-02	7.60E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

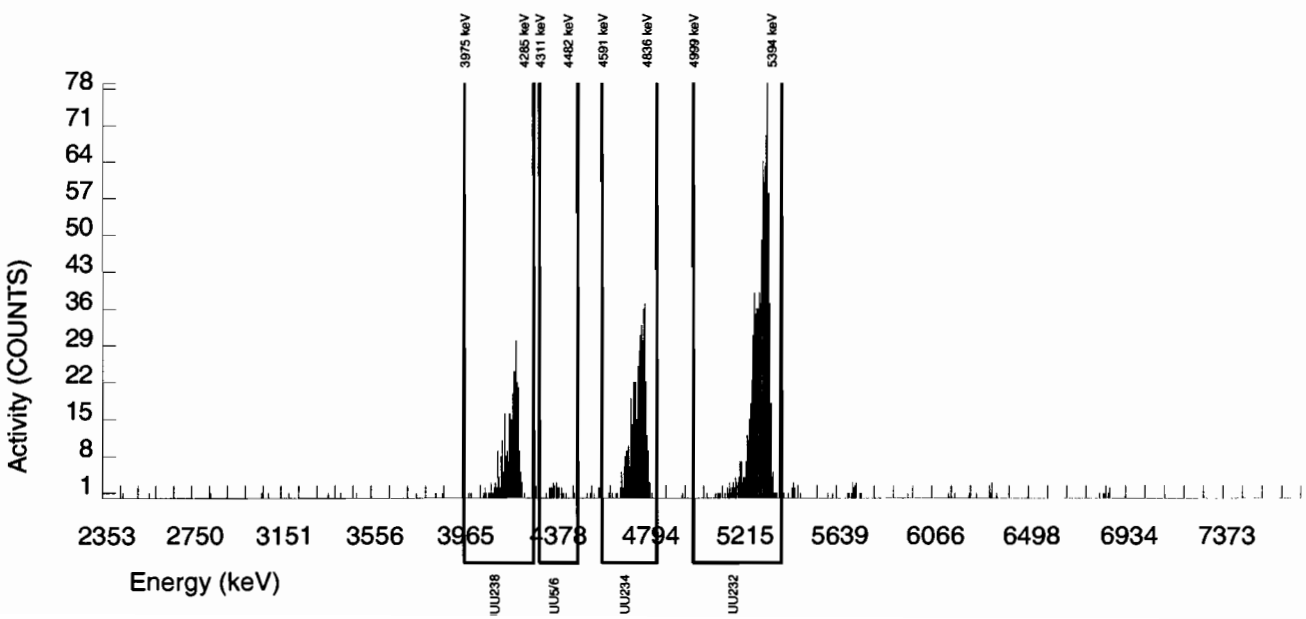

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504	CHAMBER : 151	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202071689_UU	DETECTOR S/N : 75556	BKG FILE : B151.CNF;407
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 26.1124	BKG DATE : 21-MAR-2010
SAMPLE DATE : 23-MAR-2010 00:00:00	COUNT DATE : 27-MAR-2010 12:54:39	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W151.CNF;122
% YIELD : 84.613		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4995E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.8071E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.331	62.610	998.000	994.000	4.000	2.0000	100.0000	2.03E+00	1.60E-01	9.49E-03	2.45E-02	6.45E-02
U-3/4	4763.020	4745.047	34.407	9.000	6.993	1.000	5.4790	100.0000	1.43E-02	6.20E-03	2.60E-02	5.75E-02	6.11E-03
U-235	4391.000	4401.571	123.249	3.000	3.000	0.000	2.4127	80.90000	7.56E-03	4.40E-03	1.41E-02	3.51E-02	4.36E-03
U-238	4184.730	4189.966	4.930	4.000	3.000	1.000	3.6781	100.0000	6.12E-03	4.58E-03	1.74E-02	4.04E-02	4.56E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

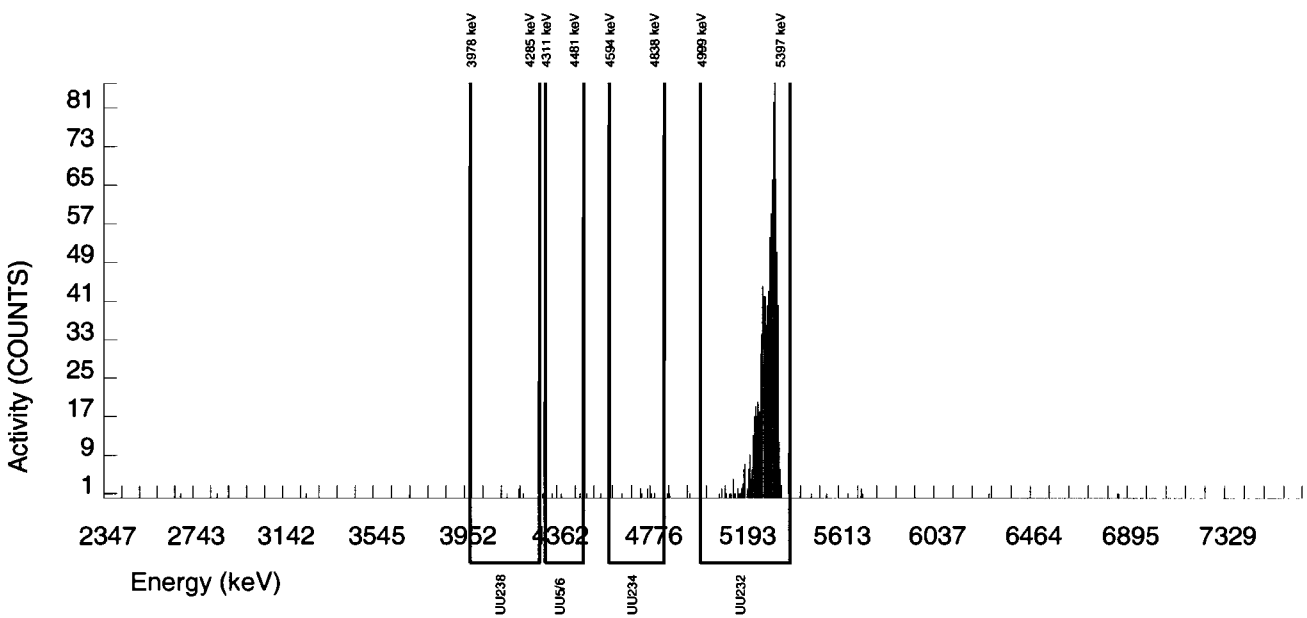

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504	CHAMBER : 152	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202071690_UU	DETECTOR S/N : 76222	BKG FILE : B152.CNF;404
SAMPLE QTY : 0.503 G	AVERAGE %EFFICIENCY : 25.2253	BKG DATE : 21-MAR-2010
SAMPLE DATE : 11-MAR-2010 00:00:00	COUNT DATE : 27-MAR-2010 12:54:43	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W152.CNF;109
% YIELD : 78.600		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5010E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.5378E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5304.253	28.479	895.000	892.000	3.000	1.7321	100.0000	4.03E+00	3.26E-01	1.82E-02	4.86E-02	1.35E-01
U-3/4	4763.020	4757.159	63.619	408.000	407.096	0.000	5.4790	100.0000	1.84E+00	1.63E-01	5.76E-02	1.27E-01	9.11E-02
U-235	4391.000	4390.489	74.134	19.000	19.000	0.000	2.4127	80.90000	1.06E-01	2.56E-02	3.13E-02	7.78E-02	2.43E-02
U-238	4184.730	4176.903	76.454	268.000	268.000	0.000	3.6781	100.0000	1.21E+00	1.16E-01	3.86E-02	8.95E-02	7.39E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

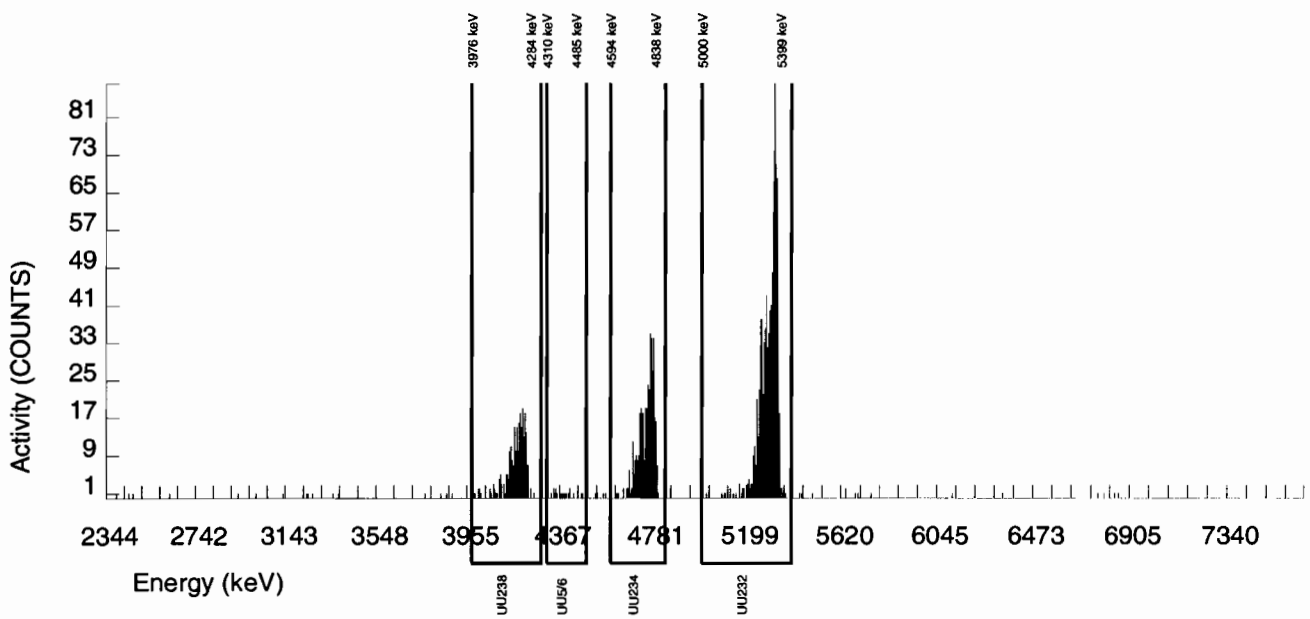

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504	CHAMBER : 153	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202071691_UU	DETECTOR S/N : 76223	BKG FILE : B153.CNF;399
SAMPLE QTY : 0.113 G	AVERAGE %EFFICIENCY : 26.2002	BKG DATE : 21-MAR-2010
SAMPLE DATE : 23-MAR-2010 00:00:00	COUNT DATE : 27-MAR-2010 12:54:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W153.CNF;112
% YIELD : 86.790		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4995E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9051E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5299.472	57.587	1029.000	1023.000	6.000	2.4495	100.0000	1.79E+01	1.50E+00	9.99E-02	2.47E-01	5.64E-01
U-3/4	4763.020	4754.737	68.329	342.000	340.964	0.000	5.4790	100.0000	5.98E+00	5.66E-01	2.23E-01	4.94E-01	3.24E-01
U-235	4391.000	4389.542	68.822	5.000	5.000	0.000	2.4127	80.90000	1.08E-01	4.92E-02	1.22E-01	3.02E-01	4.85E-02
U-238	4184.730	4183.175	45.683	338.000	338.000	0.000	3.6781	100.0000	5.93E+00	5.62E-01	1.50E-01	3.48E-01	3.22E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

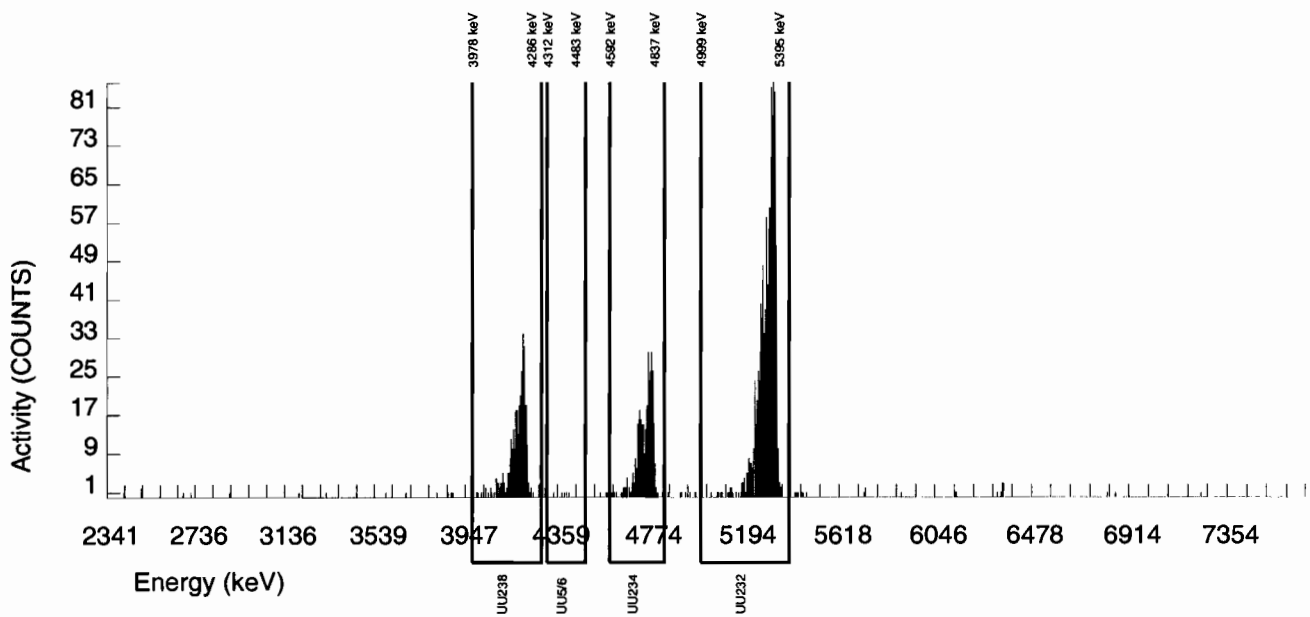

Radiochemistry Batch Checklist, Rev10

Batch# 967216 Product: Th Date: 4/8/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125%. Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JoyLMI 4/8/10

Secondary Review Performed By: Kath Bell 4/8/10

4/10

LANL

Thorium Que Sheet

19-MAR-10

Batch #: 967216 **Analyst:** CXM2 **First Client Due Date:** 10-APR-10 **Internal Due Date** 30-MAR-10

Tracer Isotope: Th-229 **Tracer Code:** 0934-L **Expiration Date:** 3/9/11 **Vol:** 0.1 mL

LCS Isotope: Th-230 **LCS Code:** 0244-A **Expiration Date:** 10/31/20 **Vol:** 0.107 g * SRM

Spike Isotope: Th-230 **Spike Code:** — **Expiration Date:** — **Vol:** —

Prep Date: 3/29/10 **Initials:** CMM **Pipet ID:** 1642319 **Balance ID:** 50410272 **Witness:** JEH 3-29-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/ml)	Th Det #
249329001-1	RE46-10-13964	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	1	1	0.267	173
249329002-1	RE46-10-13966	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	2	2	0.255	174
249329003-1	RE46-10-13963	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	3	3	0.258	177
249329004-1	RE46-10-13965	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	4	4	0.262	178
249331001-1	RE46-10-13219	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	5	5	0.259	179
249331002-1	RE46-10-13221	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	6	6	0.252	180
249331003-1	RE46-10-13220	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	7	7	0.256	181
249331004-1	RE46-10-13216	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	8	8	0.264	182
249331005-1	RE46-10-13217	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	9	9	0.254	183
249331006-1	RE46-10-13218	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	10	10	0.252	184
249331007-1	RE46-10-13234	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	11	11	0.250	185
249331008-1	RE46-10-14199	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	12	12	0.255	186
1202075933-1	MB for batch 967216	MB		.1 pCi/g	SOIL	QC ACCOUNT		13	13	1	187
1202075934-1	RE46-10-13219(249331001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	11-MAR-10	14	14	0.259	~~188~~ 173
1202075935-1	LCS for batch 967216	LCS		.1 pCi/g	SOIL	QC ACCOUNT		15	15	0.107	189

4/8/10

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Data Reviewed By: JoLMS 4/8/10

GEL Laboratories LLC, Radiochemistry Division

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Choose SOP Used: GL-RAD-A-032, GL-RAD-A-038, GL-RAD-A-043

Blank Correction Report

Batch ID 967216

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202075934	DUP	Thorium-228	0.259 g	2.06	0.210	0.207	-.04362934	pCi/g	NO
		Thorium-230	0.259 g	1.43	0.158	0.260	.010463320	pCi/g	NO
		Thorium-232	0.259 g	2.01	0.204	0.111	.006911197	pCi/g	NO
1202075935	LCS	Thorium-228	0.107 g	1.08	0.171	0.387	-.10560748	pCi/g	NO
		Thorium-230	0.107 g	23.5	1.90	0.486	.025327103	pCi/g	NO
		Thorium-232	0.107 g	1.27	0.178	0.207	.016728972	pCi/g	NO
1202075933	MB	Thorium-228	1.00 g	-0.0113	0.00723	0.0478	-.0113	pCi/g	NO
		Thorium-230	1.00 g	0.00271	0.00244	0.060	.00271	pCi/g	YES
		Thorium-232	1.00 g	0.00179	0.00366	0.0256	.00179	pCi/g	YES
249329001	RE46-10-13964	Thorium-228	0.267 g	2.11	0.212	0.200	-.04232210	pCi/g	NO
		Thorium-230	0.267 g	1.33	0.149	0.251	.010149813	pCi/g	NO
		Thorium-232	0.267 g	1.64	0.173	0.107	.006704120	pCi/g	NO
249329002	RE46-10-13966	Thorium-228	0.255 g	1.95	0.195	0.185	-.04431373	pCi/g	NO
		Thorium-230	0.255 g	1.13	0.128	0.232	.010627451	pCi/g	NO
		Thorium-232	0.255 g	1.49	0.156	0.0988	.007019608	pCi/g	NO
249329003	RE46-10-13963	Thorium-228	0.258 g	1.59	0.168	0.187	-.04379845	pCi/g	NO
		Thorium-230	0.258 g	1.20	0.135	0.234	.010503876	pCi/g	NO
		Thorium-232	0.258 g	1.79	0.180	0.0998	.006937984	pCi/g	NO
249329004	RE46-10-13965	Thorium-228	0.262 g	1.59	0.157	0.153	-.04312977	pCi/g	NO
		Thorium-230	0.262 g	1.17	0.123	0.193	.010343511	pCi/g	NO
		Thorium-232	0.262 g	1.62	0.156	0.0821	.006832061	pCi/g	NO
249331001	RE46-10-13219	Thorium-228	0.259 g	1.77	0.170	0.157	-.04362934	pCi/g	NO
		Thorium-230	0.259 g	1.08	0.116	0.197	.010463320	pCi/g	NO
		Thorium-232	0.259 g	1.72	0.165	0.084	.006911197	pCi/g	NO
249331002	RE46-10-13221	Thorium-228	0.252 g	2.02	0.199	0.186	-.04484127	pCi/g	NO
		Thorium-230	0.252 g	1.22	0.135	0.234	.010753968	pCi/g	NO
		Thorium-232	0.252 g	1.63	0.167	0.0996	.007103175	pCi/g	NO
249331003	RE46-10-13220	Thorium-228	0.256 g	1.86	0.196	0.208	-.04414063	pCi/g	NO
		Thorium-230	0.256 g	1.11	0.132	0.261	.010585938	pCi/g	NO
		Thorium-232	0.256 g	1.61	0.173	0.111	.006992188	pCi/g	NO
249331004	RE46-10-13216	Thorium-228	0.264 g	1.54	0.160	0.171	-.04280303	pCi/g	NO
		Thorium-230	0.264 g	1.22	0.133	0.215	.010265152	pCi/g	NO
		Thorium-232	0.264 g	1.47	0.150	0.0915	.006780303	pCi/g	NO
249331005	RE46-10-13217	Thorium-228	0.254 g	1.45	0.151	0.169	-.04448819	pCi/g	NO
		Thorium-230	0.254 g	1.07	0.119	0.212	.010669291	pCi/g	NO
		Thorium-232	0.254 g	1.48	0.151	0.0904	.007047244	pCi/g	NO
249331006	RE46-10-13218	Thorium-228	0.252 g	1.82	0.182	0.181	-.04484127	pCi/g	NO
		Thorium-230	0.252 g	1.32	0.143	0.227	.010753968	pCi/g	NO
		Thorium-232	0.252 g	1.80	0.180	0.0969	.007103175	pCi/g	NO
249331007	RE46-10-13234	Thorium-228	0.250 g	2.22	0.227	0.219	-.0452	pCi/g	NO
		Thorium-230	0.250 g	1.19	0.141	0.274	.01084	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
249331007	RE46-10-13234	Thorium-232	0.250 g	1.84	0.194	0.117	.00716	pCi/g	NO
249331008	RE46-10-14199	Thorium-228	0.255 g	2.13	0.218	0.211	-.04431373	pCi/g	NO
		Thorium-230	0.255 g	1.42	0.158	0.264	.010627451	pCi/g	NO
		Thorium-232	0.255 g	1.88	0.196	0.113	.007019608	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S0249329001_TH
SAMPLE QTY : 0.267 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 68.230

CHAMBER : 173
DETECTOR S/N : 74431
AVERAGE %EFFICIENCY : 27.1809
COUNT DATE : 5-APR-2010 15:34:17
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B173.CNF;187
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W173.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.5083E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6032.893	0.000	49.000	44.000	5.000	2.0641	57.44000	1.83E+00	3.34E-01	7.60E-02	1.95E-01	3.05E-01
TH-228	5363.000	5398.439	52.209	228.000	225.854	2.000	4.1318	99.94000	2.11E+00	2.12E-01	8.75E-02	2.00E-01	1.42E-01
TH229	4900.000	4897.972	39.729	409.000	408.000	1.000	1.0000	99.52000	3.73E+00	3.34E-01	2.13E-02	6.73E-02	1.85E-01
TH-230	4671.390	4663.975	66.203	151.000	145.732	1.000	5.3214	99.70000	1.33E+00	1.49E-01	1.13E-01	2.51E-01	1.11E-01
TH-232	3972.000	4003.087	35.609	181.000	179.841	1.000	1.9427	100.0000	1.64E+00	1.73E-01	4.11E-02	1.07E-01	1.23E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

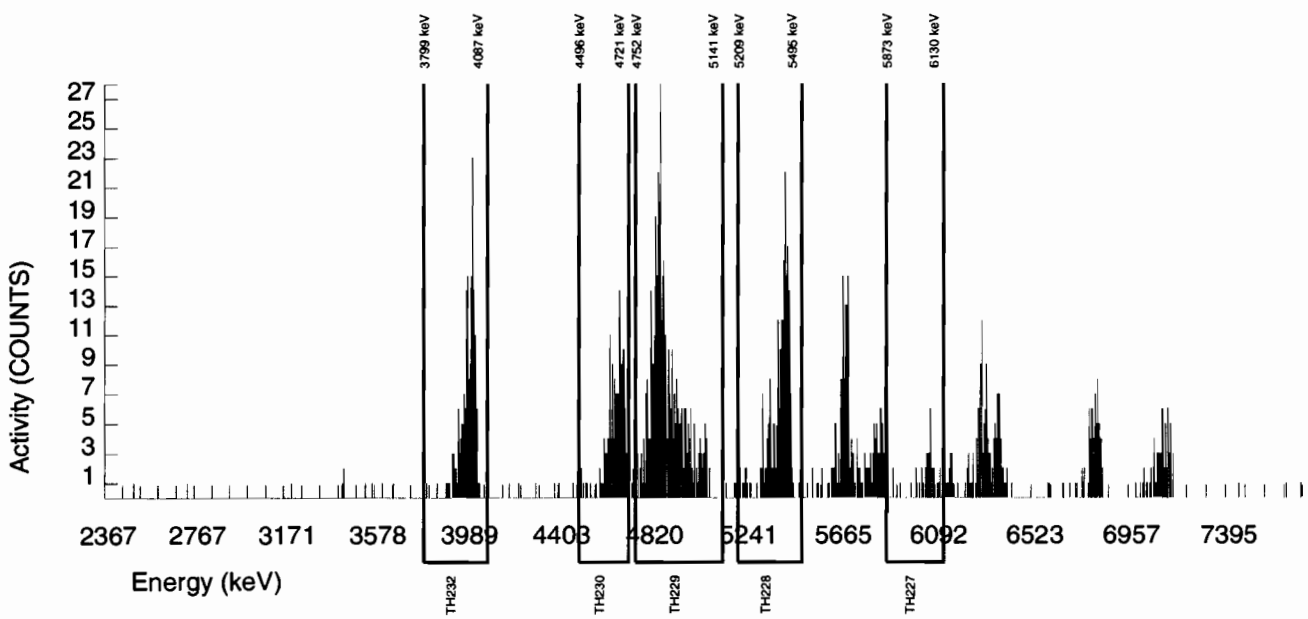

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S0249329002_TH
SAMPLE QTY : 0.255 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 77.389

CHAMBER : 174
DETECTOR S/N : 74432
AVERAGE %EFFICIENCY : 27.1359
COUNT DATE : 5-APR-2010 15:34:19
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B174.CNF;187
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W174.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.7108E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5967.393	0.000	50.000	38.000	12.000	2.0641	57.44000	1.46E+00	3.21E-01	7.03E-02	1.80E-01	3.03E-01
TH-228	5363.000	5420.064	30.642	233.000	225.835	7.000	4.1318	99.94000	1.95E+00	1.95E-01	8.09E-02	1.85E-01	1.34E-01
TH229	4900.000	4909.853	34.012	462.000	462.000	0.000	0.0000	99.52000	3.90E+00	3.37E-01	0.00E+00	2.29E-02	1.82E-01
TH-230	4671.390	4686.106	0.000	139.000	134.167	0.000	5.3214	99.70000	1.13E+00	1.28E-01	1.04E-01	2.32E-01	9.77E-02
TH-232	3972.000	4023.727	44.160	179.000	176.820	2.000	1.9427	100.0000	1.49E+00	1.56E-01	3.80E-02	9.88E-02	1.13E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

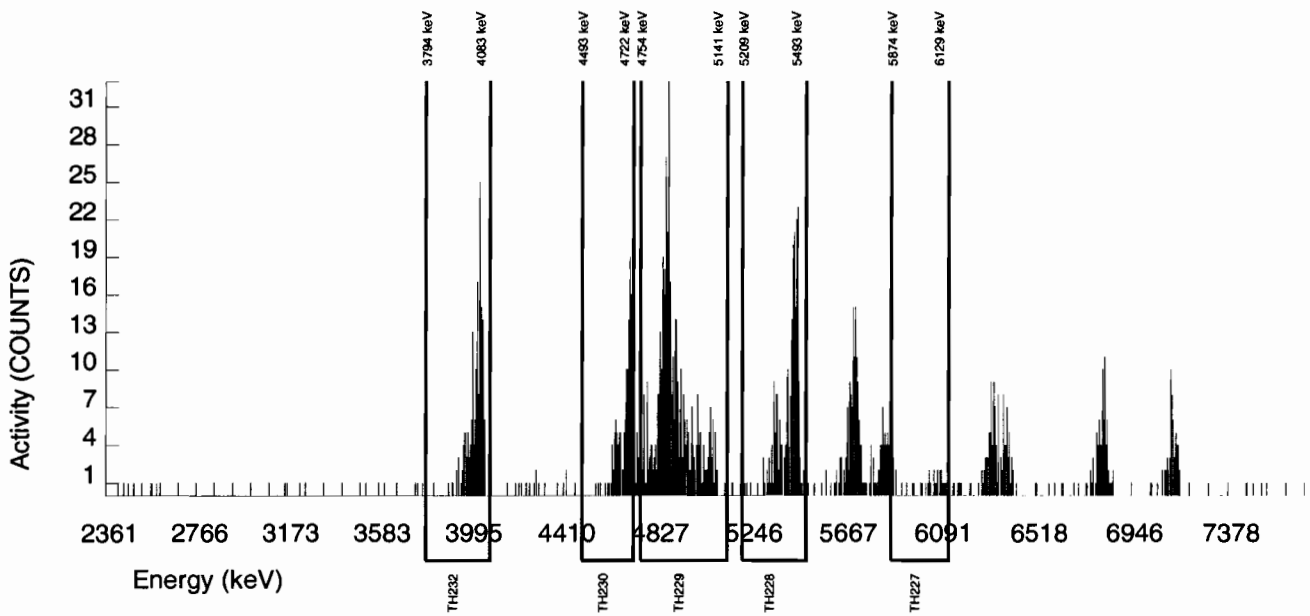

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S0249329003_TH
SAMPLE QTY : 0.258 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 77.492

CHAMBER : 177
DETECTOR S/N : 74435
AVERAGE %EFFICIENCY : 26.5132
COUNT DATE : 5-APR-2010 15:34:23
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B177.CNF;187
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W177.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.7130E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6065.889	0.000	35.000	32.000	3.000	2.0641	57.44000	1.24E+00	2.56E-01	7.10E-02	1.82E-01	2.39E-01
TH-228	5363.000	5404.939	30.907	188.000	181.839	6.000	4.1318	99.94000	1.59E+00	1.68E-01	8.17E-02	1.87E-01	1.21E-01
TH229	4900.000	4897.141	57.888	453.000	452.000	1.000	1.0000	99.52000	3.86E+00	3.35E-01	1.99E-02	6.29E-02	1.82E-01
TH-230	4671.390	4665.764	75.534	148.000	141.272	2.000	5.3214	99.70000	1.20E+00	1.35E-01	1.06E-01	2.34E-01	1.03E-01
TH-232	3972.000	4004.782	25.370	211.000	210.823	0.000	1.9427	100.0000	1.79E+00	1.80E-01	3.84E-02	9.98E-02	1.23E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

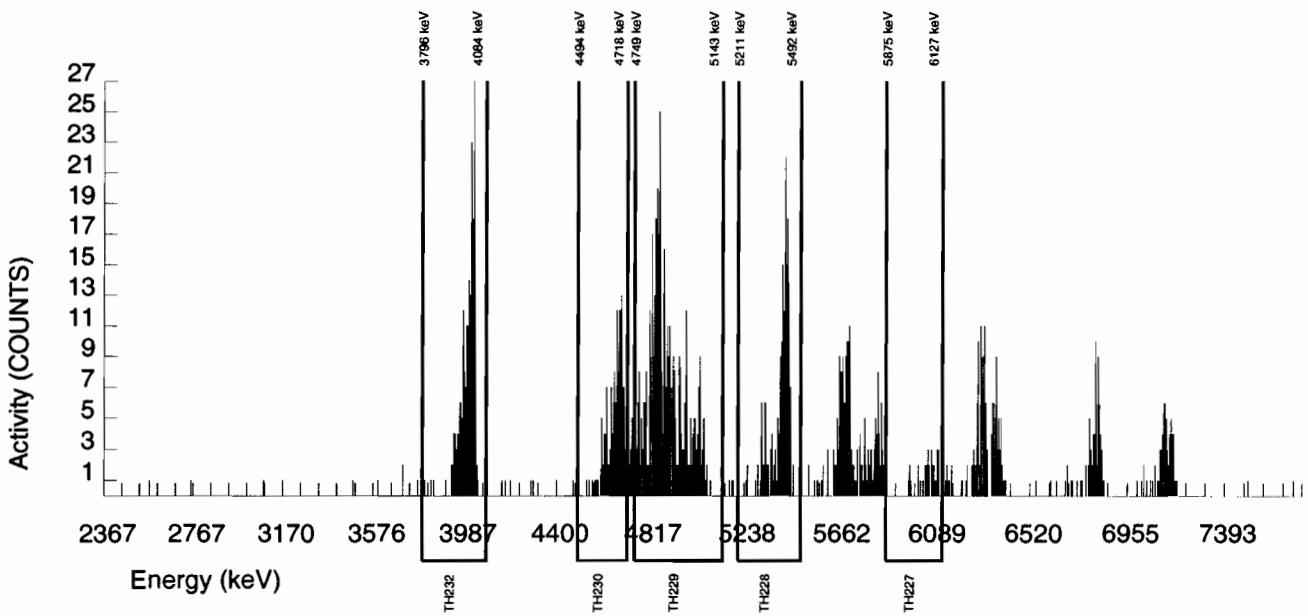

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S0249329004_TH
SAMPLE QTY : 0.262 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 92.320

CHAMBER : 178
DETECTOR S/N : 74436
AVERAGE %EFFICIENCY : 26.6368
COUNT DATE : 5-APR-2010 15:34:26
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B178.CNF;187
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W178.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 2.0408E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6019.742	0.000	33.000	28.000	5.000	2.0641	57.44000	8.94E-01	2.07E-01	5.84E-02	1.50E-01	1.97E-01
TH-228	5363.000	5412.243	34.471	227.000	221.807	5.000	4.1318	99.94000	1.59E+00	1.57E-01	6.72E-02	1.53E-01	1.09E-01
TH229	4900.000	4905.850	63.992	542.000	541.000	1.000	1.0000	99.52000	3.80E+00	3.14E-01	1.63E-02	5.17E-02	1.64E-01
TH-230	4671.390	4665.093	40.311	173.000	166.341	1.000	5.3214	99.70000	1.17E+00	1.23E-01	8.68E-02	1.93E-01	9.10E-02
TH-232	3972.000	4004.698	45.235	232.000	231.789	0.000	1.9427	100.0000	1.62E+00	1.56E-01	3.16E-02	8.21E-02	1.06E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

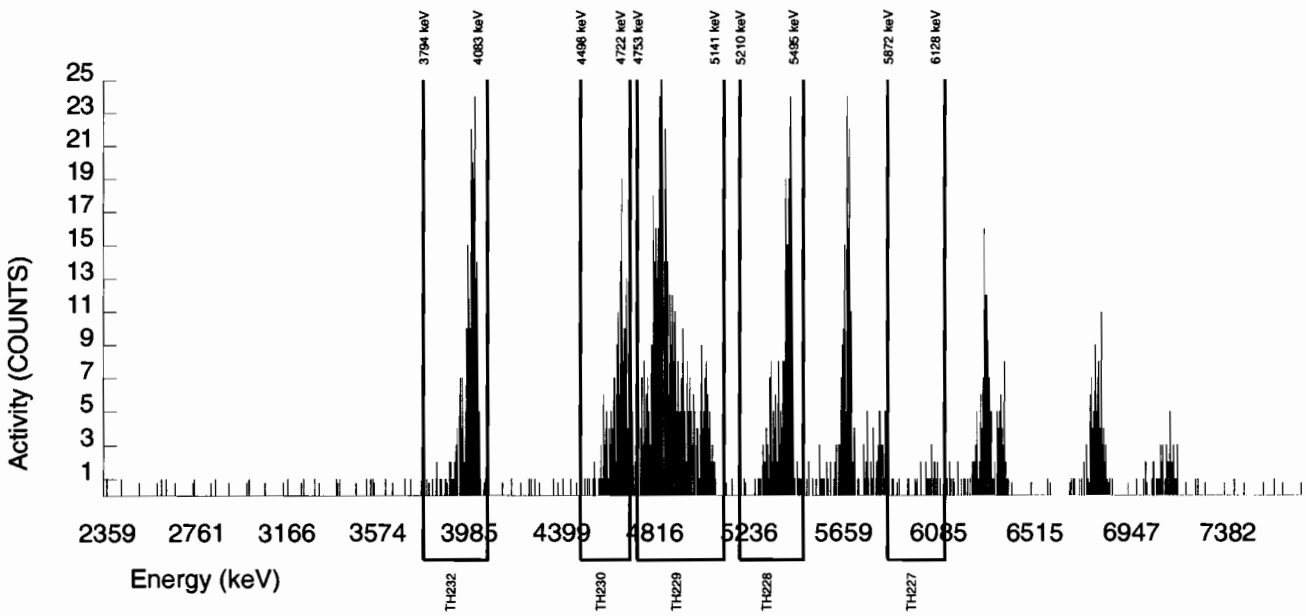

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S0249331001_TH
SAMPLE QTY : 0.259 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 92.168

CHAMBER : 179
DETECTOR S/N : 74437
AVERAGE %EFFICIENCY : 26.3847
COUNT DATE : 5-APR-2010 15:34:28
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B179.CNF;186
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W179.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 2.0375E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6021.555	0.000	31.000	24.000	7.000	2.0641	57.44000	7.84E-01	2.09E-01	5.98E-02	1.53E-01	2.01E-01
TH-228	5363.000	5408.299	36.035	243.000	240.809	2.000	4.1318	99.94000	1.77E+00	1.70E-01	6.88E-02	1.57E-01	1.15E-01
TH229	4900.000	4903.755	64.995	538.000	535.000	3.000	1.7321	99.52000	3.84E+00	3.19E-01	2.90E-02	7.74E-02	1.67E-01
TH-230	4671.390	4667.473	32.171	156.000	150.404	0.000	5.3214	99.70000	1.08E+00	1.16E-01	8.88E-02	1.97E-01	8.80E-02
TH-232	3972.000	4005.267	31.098	242.000	240.791	1.000	1.9427	100.0000	1.72E+00	1.65E-01	3.23E-02	8.40E-02	1.11E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

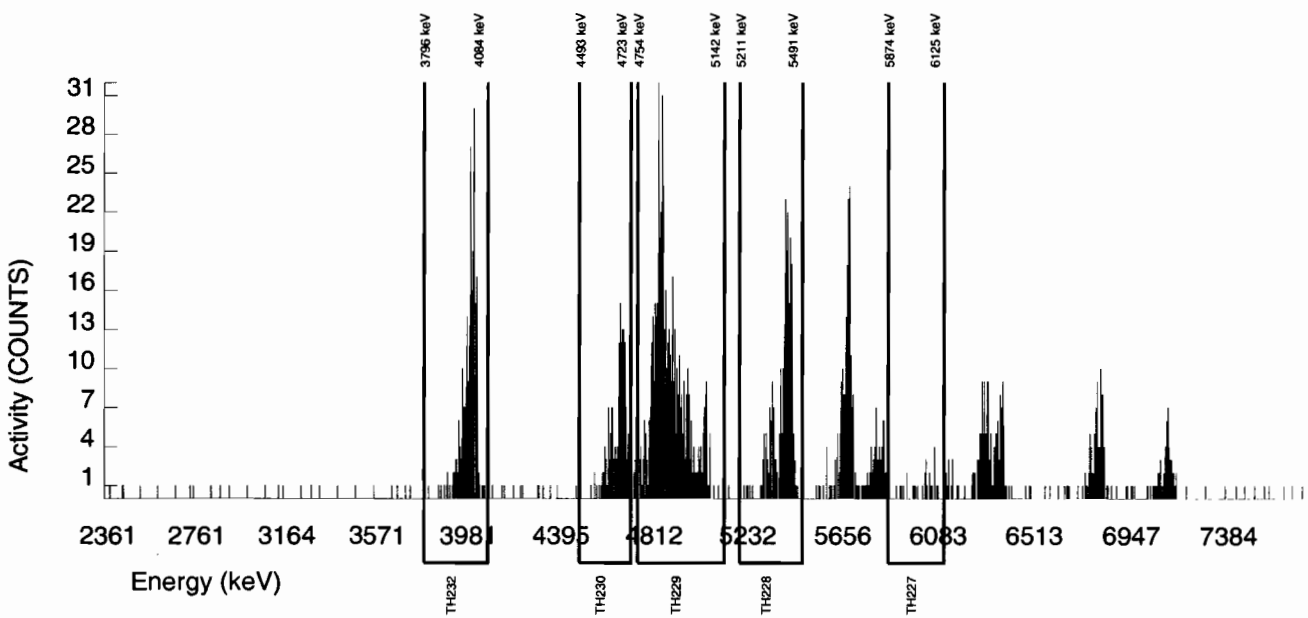

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S1202075933_TH
SAMPLE QTY : 1.000 G
SAMPLE DATE : 29-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 77.210

CHAMBER : 187
DETECTOR S/N : 68620
AVERAGE %EFFICIENCY : 26.7864
COUNT DATE : 5-APR-2010 15:34:51
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B187.CNF;168
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W187.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.7068E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5994.389	0.000	8.000	4.000	4.000	2.0641	57.44000	2.04E-02	1.77E-02	1.82E-02	4.67E-02	1.77E-02
TH-228	5363.000	5396.275	99.220	3.000	-5.162	8.000	4.1318	99.94000	-1.13E-02	7.23E-03	2.09E-02	4.78E-02	7.23E-03
TH229	4900.000	4907.035	42.054	459.000	455.000	4.000	2.0000	99.52000	9.96E-01	8.58E-02	1.02E-02	2.63E-02	4.71E-02
TH-230	4671.390	4651.975	0.000	6.000	1.240	0.000	5.3214	99.70000	2.71E-03	2.44E-03	2.70E-02	6.00E-02	2.43E-03
TH-232	3972.000	3918.157	193.479	2.000	0.822	1.000	1.9427	100.0000	1.79E-03	3.66E-03	9.84E-03	2.56E-02	3.66E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

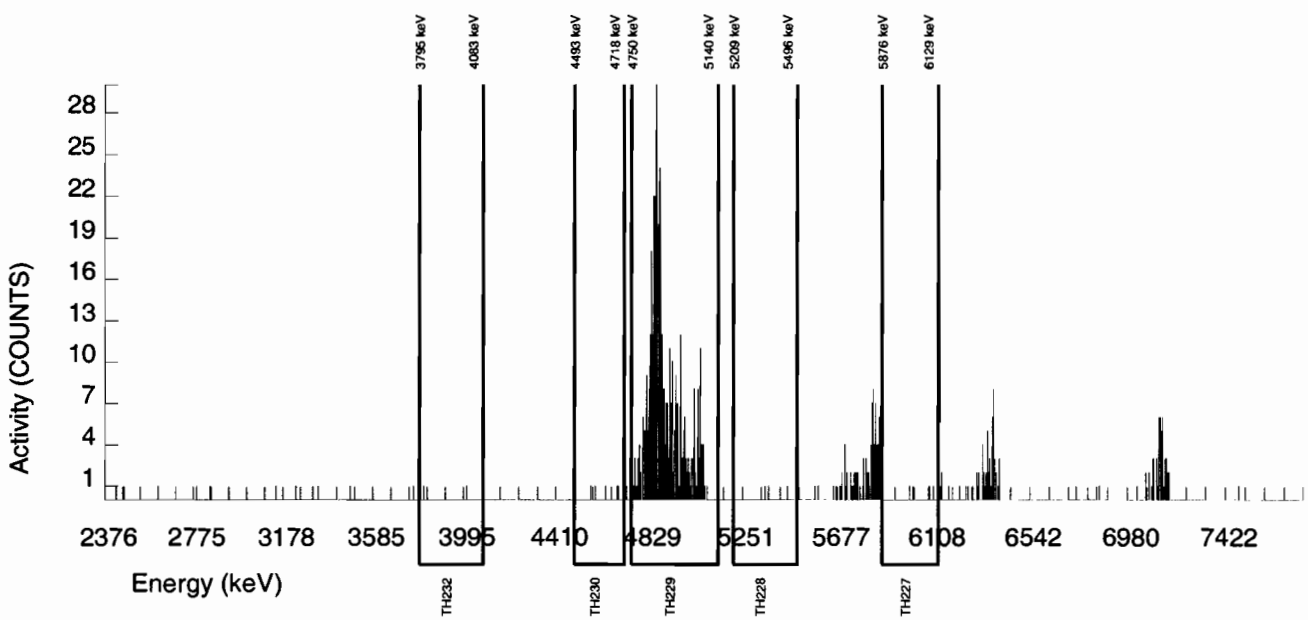

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S1202075934_TH
SAMPLE QTY : 0.259 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 67.896

CHAMBER : 173
DETECTOR S/N : 74431
AVERAGE %EFFICIENCY : 27.1809
COUNT DATE : 7-APR-2010 18:23:17
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B173.CNF;187
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W173.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.5009E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5977.485	0.000	7.000	2.000	5.000	2.0641	57.44000	9.31E-02	1.61E-01	7.88E-02	2.02E-01	1.61E-01
TH-228	5363.000	5409.509	22.154	215.000	212.855	2.000	4.1318	99.94000	2.06E+00	2.10E-01	9.06E-02	2.07E-01	1.43E-01
TH229	4900.000	4903.793	125.439	407.000	406.000	1.000	1.0000	99.52000	3.84E+00	3.45E-01	2.20E-02	6.97E-02	1.91E-01
TH-230	4671.390	4667.033	39.041	156.000	150.753	1.000	5.3214	99.70000	1.42E+00	1.58E-01	1.17E-01	2.60E-01	1.17E-01
TH-232	3972.000	4002.932	22.625	214.000	212.841	1.000	1.9427	100.0000	2.01E+00	2.04E-01	4.26E-02	1.11E-01	1.38E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

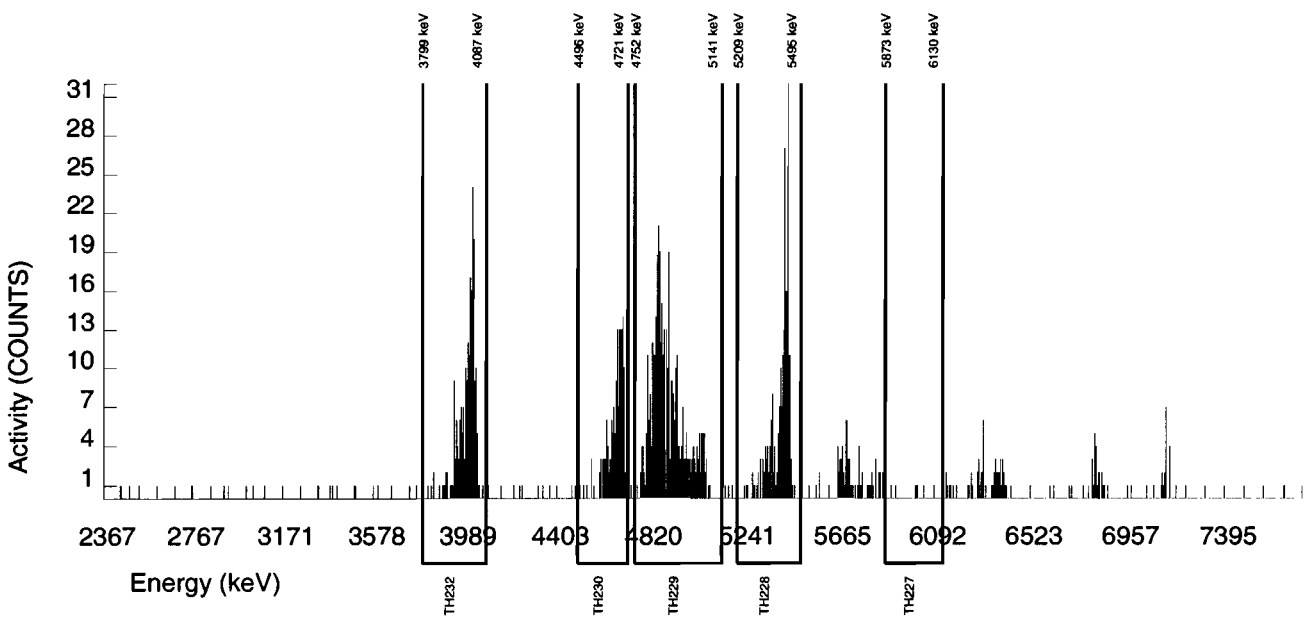

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967216
SAMPLE ID : S1202075935_TH
SAMPLE QTY : 0.107 G
SAMPLE DATE : 29-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 89.717

CHAMBER : 189
DETECTOR S/N : 68622
AVERAGE %EFFICIENCY : 26.5988
COUNT DATE : 5-APR-2010 15:34:57
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B189.CNF;168
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W189.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.9833E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5989.875	0.000	34.000	26.000	8.000	2.0641	57.44000	1.07E+00	2.80E-01	1.47E-01	3.78E-01	2.68E-01
TH-228	5363.000	5407.100	22.524	66.000	60.813	5.000	4.1318	99.94000	1.08E+00	1.71E-01	1.70E-01	3.87E-01	1.50E-01
TH229	4900.000	4897.214	28.118	526.000	525.000	1.000	1.0000	99.52000	9.31E+00	8.16E-01	4.12E-02	1.31E-01	4.07E-01
TH-230	4671.390	4672.565	36.409	1338.000	1330.508	2.000	5.3214	99.70000	2.35E+01	1.90E+00	2.19E-01	4.86E-01	6.46E-01
TH-232	3972.000	4004.897	70.255	72.000	71.795	0.000	1.9427	100.0000	1.27E+00	1.78E-01	7.97E-02	2.07E-01	1.49E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

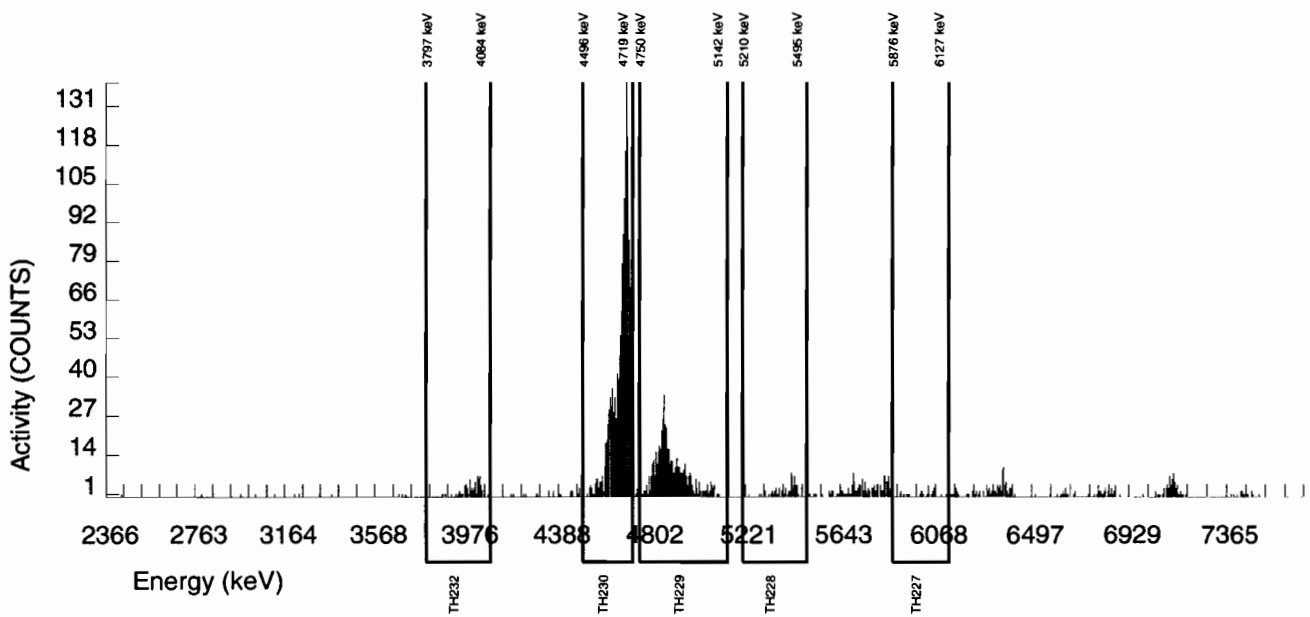

Radiochemistry Batch Checklist, Rev10

Batch# 965250 Product: γ-S Date: 3/26/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (If necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 3/26/10

Secondary Review Performed By: M. Stamps 3/26/10

LANL
3/31

I.6. -3/24/10

Gamma Spec Que Sheet

03/23/2010

Batch #:965250 **Analyst:** ~~GSO~~ MxRI **First Client DueDate** 03/31/2010 **Internal Due Date:** 03/21/2010

Gamma Spike Isotope: Mixed Gamma **Spike Code:** n/a **Expiration Date:** n/a **Vol:** n/a **Nominal Concentration:** n/a Co-60 6.46

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0mL **Nominal Concentration:** Cs 137 5.682 Am 241 16.29

Initials: RF **Prep Date:** 3/17/10 **Library:** Solid **Witness:** n/a

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Wet/Dry Aliquot (1/g/F)	Detector	Sealing Date/Time (if Applicable)
249060003-1	RE16-10-2826	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF	can	116.26	5	3/17/10
249329001-1	RE46-10-13964	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		135.71	6	
249329002-1	RE46-10-13966	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		122.41	7	
249329003-1	RE46-10-13963	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		120.02	19	
249329004-1	RE46-10-13965	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		118.49	22	
249331001-1	RE46-10-13219	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		122.51	4	
249331002-1	RE46-10-13221	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		123.63	10	
249331003-1	RE46-10-13220	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		133.14	11	
249331004-1	RE46-10-13216	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		129.85	15	
249331005-1	RE46-10-13217	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		138.26	25	
249331006-1	RE46-10-13218	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		113.55	29	
249331007-1	RE46-10-13234	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		122.74	1	
249331008-1	RE46-10-14199	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		128.17	16	
249334001-1	RE46-10-12972	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		120.31	18	
249334002-1	RE46-10-13003	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		122.81	23	
249334003-1	RE46-10-12967	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		102.94	17	
249334004-1	RE46-10-12971	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		123.57	21	
249334005-1	RE46-10-12968	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		115.515	15	
249334006-1	RE46-10-12969	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		112.40	6	
249334007-1	RE46-10-12970	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		110.71	22 ~~7~~ MS 3/24/10	
1202071014-1	MB	MB		QC ACCOUNT	SOIL	3/17/10 RF		135.71	19	
1202071015-1	DUP RE46-10-12972(249334001)	DUP		QC ACCOUNT	SOIL	11-MAR-10 12:00:00 RF		120.31	1	
1202071016-1	LCS	LCS		QC ACCOUNT	SOIL	3/17/10 RF		151.73	4	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: 3/26/10

✓ no history
✓ dat lines

H Stamps 3/26/10

Page 1 **of** 1

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
965250	249060003	SAMPLE	24-MAR-10		Cerium-139	0.02054	0.05938	0.050
					Cesium-134	0.1015	0.1144	0.100
					Sodium-22	0.02652	0.09303	0.080
965250	249329001	SAMPLE	24-MAR-10		Americium-241	-0.2777	0.3037	0.200
					Cerium-139	-0.01071	0.05399	0.050
					Sodium-22	0.00343	0.0899	0.080
					Thorium-234	2.317	2.946	2.00
965250	249329002	SAMPLE	24-MAR-10		Cerium-139	0.00467	0.0553	0.050
					Sodium-22	0.01483	0.08891	0.080
965250	249329003	SAMPLE	24-MAR-10		Americium-241	0.05444	0.2922	0.200
					Cerium-139	-0.02353	0.05575	0.050
					Cesium-134	0.07045	0.1004	0.100
965250	249329004	SAMPLE	24-MAR-10		Americium-241	-0.06037	0.2308	0.200
					Cerium-139	-0.02966	0.05027	0.050
					Thorium-234	0.8055	2.328	2.00
965250	249331001	SAMPLE	24-MAR-10		Americium-241	0.07702	0.4299	0.200
					Cerium-139	0.00374	0.05309	0.050
					Sodium-22	0.01298	0.08577	0.080
					Thorium-234	1.682	3.581	2.00
965250	249331002	SAMPLE	24-MAR-10		Americium-241	-0.1455	0.4228	0.200
					Cerium-139	-0.01861	0.05223	0.050
					Sodium-22	0.00137	0.08483	0.080
					Thorium-234	0.3896	3.652	2.00
965250	249331003	SAMPLE	24-MAR-10					
965250	249331004	SAMPLE	24-MAR-10		Americium-241	-0.3863	0.5304	0.200
					Cerium-139	0.0153	0.06607	0.050
					Europium-152	-0.1267	0.2134	0.200
					Sodium-22	0.00408	0.09388	0.080
					Thorium-234	1.481	4.403	2.00
965250	249331005	SAMPLE	24-MAR-10		Sodium-22	-0.03147	0.09217	0.080
965250	249331006	SAMPLE	24-MAR-10		Americium-241	0.06295	0.3445	0.200
					Cerium-139	-0.00511	0.06533	0.050
					Cesium-134	0.07548	0.1019	0.100
					Europium-152	0.02785	0.2066	0.200
					Sodium-22	-0.01763	0.08904	0.080
965250	249331007	SAMPLE	24-MAR-10		Americium-241	-0.1499	0.3314	0.200
					Cerium-139	0.00775	0.06235	0.050
					Sodium-22	-0.00114	0.08854	0.080
					Thorium-234	1.435	3.127	2.00
965250	249331008	SAMPLE	24-MAR-10		Americium-241	0.03972	0.2464	0.200
					Thorium-234	1.725	2.347	2.00
965250	249334001	SAMPLE	24-MAR-10		Americium-241	0.00495	0.3239	0.200
					Thorium-234	2.535	2.775	2.00
965250	249334002	SAMPLE	24-MAR-10		Americium-241	-0.1776	0.3787	0.200

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
965250	249334002	SAMPLE	24-MAR-10		Cerium-139	-0.0302	0.05895	0.050
					Sodium-22	-0.01509	0.09395	0.080
					Thorium-234	3.219	3.297	2.00
965250	249334003	SAMPLE	24-MAR-10		Cerium-139	0.02498	0.06754	0.050
					Cobalt-60	0.01846	0.1106	0.100
					Europium-152	0.0252	0.2121	0.200
					Ruthenium-106	0.2558	0.8041	0.800
					Sodium-22	-0.04015	0.1085	0.080
965250	249334004	SAMPLE	24-MAR-10		Sodium-22	-0.03361	0.1004	0.080
965250	249334005	SAMPLE	24-MAR-10		Americium-241	-0.3871	0.6185	0.200
					Cerium-139	0.04101	0.08399	0.050
					Cesium-134	0.1118	0.1199	0.100
					Europium-152	-0.09595	0.2308	0.200
					Sodium-22	-0.06042	0.09652	0.080
					Thorium-234	1.563	5.23	2.00
					Tin-113	0.00999	0.1076	0.100
965250	249334006	SAMPLE	24-MAR-10		Americium-241	-0.1051	0.3377	0.200
					Cerium-139	0.02722	0.06153	0.050
					Sodium-22	-0.02334	0.1007	0.080
965250	249334007	SAMPLE	25-MAR-10		Americium-241	-0.01084	0.2566	0.200
					Cerium-139	-0.00107	0.05585	0.050
					Thorium-234	0.9429	2.515	2.00
965250	1202071014	MB	24-MAR-10					
965250	1202071015	DUP	24-MAR-10		Americium-241	0.07168	0.3571	0.200
					Cerium-139	0.0107	0.06517	0.050
					Europium-152	0.01143	0.2111	0.200
					Sodium-22	-0.03645	0.0896	0.080
965250	1202071016	LCS	24-MAR-10		Cerium-139	0.03763	0.08267	0.050
					Cesium-134	0.00727	0.1589	0.100
					Europium-152	-0.1612	0.2874	0.200
					Mercury-203	0.04835	0.1109	0.100
					Potassium-40	0.9781	1.267	1.00
					Ruthenium-106	0.1469	0.9319	0.800
					Sodium-22	0.0074	0.08969	0.080
					Thorium-234	-0.6548	5.086	2.00
					Tin-113	-0.0188	0.1327	0.100

Gamma Review Report based on Result > MDA for Batch:965250

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249060003	04-MAR-10 12:00	24-MAR-10 08:56	19.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.723	0.2088	pCi/g	0.2502	N	910.9	3	1.717	IDENTIFIED	10.32	☐	
Annihilation Rad.	HE	0.1009	0.0413	pCi/g	0.06099	N	510.3	1	2.325	IDENTIFIED	40.8	☐	
Bismuth-211	INT	3.205	0.2945	pCi/g	0.3662	Y	351.6	2	1.469	IDENTIFIED	8.293	☑ UI	
Bismuth-212	—	2.947	0.5338	pCi/g	1.447	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.9593	0.09985	pCi/g	0.1212	0.200	608.8	3	1.515	IDENTIFIED	9.515	☐	
Cadmium-109	INT	3.627	0.4518	pCi/g	0.9853	Y	86.86	3	1.263	IDENTIFIED	11.86	☑ UI	
Cadmium-115	HE	1.413	30.65	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cerium-143	—	10670	1686	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.3592	0.09972	pCi/g	0.3253	N	0	10	0	NOT_IDENTI	0	☐	
Gross Gamma	—	8.255	1.4	pCi/g	3.301	N		0				☐	
Iodine-133	HE	1.60E+05	1.62E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.646	0.1077	pCi/g	0.101	0.100	238.3	2	1.234	IDENTIFIED	3.668	☐	
Lead-214	✓	1.163	0.1116	pCi/g	0.1332	0.100	351.6	2	1.469	IDENTIFIED	8.293	☐	
Neptunium-237	INT	1.05	0.171	pCi/g	0.2841	N	86.86	3	1.263	IDENTIFIED	11.86	☐	
Niobium-95m	—	1.041	0.1111	pCi/g	0.3568	N	0	10	0	NOT_IDENTI	0	☐	
Potassium-40	✓	25.18	1.211	pCi/g	0.6373	1.00	1460	1	1.965	IDENTIFIED	3.667	☐	
Promethium-149	HE	127.7	236.5	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Radium-224	INT	3.99	0.699	pCi/g	1.082	Y	241.2	1	1.833	IDENTIFIED	16.82	☑ UI	
Radium-226	✓	0.9593	0.09985	pCi/g	0.1212	Y	608.8	3	1.515	IDENTIFIED	9.515	☐	
Radium-228	✓	1.723	0.2088	pCi/g	0.2502	0.500	910.9	3	1.717	IDENTIFIED	10.32	☐	
Sodium-24	HE	7.63E+07	8.37E+07	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.1148	0.02909	pCi/g	0.09642	Y	0	10	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	—	4.12E+21	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4579	0.05011	pCi/g	0.06949	0.080	582.8	1	1.462	IDENTIFIED	10.31	☐	
Thorium-228	NR	1.646	0.1077	pCi/g	0.101	N	238.3	2	1.234	IDENTIFIED	3.668	☐	
Thorium-230	NR	0.9592	0.09659	pCi/g	0.1212	N	608.8	3	1.515	IDENTIFIED	9.515	☐	
Thorium-232	NR	1.723	0.2088	pCi/g	0.2502	N	910.9	3	1.717	IDENTIFIED	10.32	☐	
Thorium-234	✓	1.176	0.5778	pCi/g	1.149	2.00	62.57	2	1.442	IDENTIFIED	48.3	☐	
Tin-126	NR	0.352	0.04385	pCi/g	0.09551	N	86.86	3	1.263	IDENTIFIED	11.86	☐	
Total Uranium	—	3.564	1.72E-06	ug/g	1.7123	N		0				☐	
Uranium-238	HE	1.176	0.5778	pCi/g	1.149	N	62.57	2	1.442	IDENTIFIED	48.3	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249329001	11-MAR-10 12:00	24-MAR-10 08:56	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.186	0.2294	pCi/g	0.2494	N	911.5	3	1.969	IDENTIFIED	8.581	☐	
Annihilation Rad.	—	0.1267	0.0355	pCi/g	0.05193	N	511	1	1.872	IDENTIFIED	27.68	☐	
Bismuth-211	INT	3.633	0.2995	pCi/g	0.4253	Y	352.1	2	1.314	IDENTIFIED	6.781	☑ UI	
Bismuth-212	—	3.197	0.8334	pCi/g	1.441	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.205	0.1076	pCi/g	0.1317	0.200	609.6	3	1.24	IDENTIFIED	7.425	☐	
Cadmium-109	INT	4.182	0.69	pCi/g	1.308	Y	87.05	3	1.449	IDENTIFIED	15.56	☑ UI	
Cerium-143	—	182.7	35.84	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1339	0.03601	pCi/g	0.1024	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	—	10.32	1.468	pCi/g	3.5	N		0				☐	
Lead-212	✓	1.964	0.1207	pCi/g	0.1102	0.100	238.7	2	1.122	IDENTIFIED	3.379	☐	
Lead-214	✓	1.318	0.1146	pCi/g	0.1421	0.100	352.1	2	1.314	IDENTIFIED	6.781	☐	
Neptunium-237	INT	1.224	0.2393	pCi/g	0.3897	N	87.05	3	1.449	IDENTIFIED	15.56	☐	
Potassium-40	✓	32.6	1.834	pCi/g	0.5972	1.00	1461	1	2.199	IDENTIFIED	3.07	☐	
Radium-224	INT	3.958	0.6687	pCi/g	1.181	Y	241.8	1	1.678	IDENTIFIED	16.26	☑ UI	
Radium-226	✓	1.205	0.1076	pCi/g	0.1317	Y	609.6	3	1.24	IDENTIFIED	7.425	☐	
Radium-228	✓	2.186	0.2294	pCi/g	0.2494	0.500	911.5	3	1.969	IDENTIFIED	8.581	☐	

Sodium-24	HE	35830	33070	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐
Thallium-208	✓	0.6314	0.05164	pCi/g	0.06611	0.080	583.3	1	1.64	IDENTIFIED	6.787	☐
Thorium-228	NR	1.964	0.1207	pCi/g	0.1102	N	238.7	2	1.122	IDENTIFIED	3.379	☐
Thorium-230	NR	1.205	0.1028	pCi/g	0.1317	N	609.6	3	1.24	IDENTIFIED	7.425	☐
Thorium-232	NR	2.186	0.2294	pCi/g	0.2494	N	911.5	3	1.969	IDENTIFIED	8.581	☐
Tin-126	NR	0.4101	0.06768	pCi/g	0.129	N	87.05	3	1.449	IDENTIFIED	15.56	☐
Total Uranium	—	6.9421	2.49E-06	ug/g	4.385	N		0				☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249329002	11-MAR-10 12:00	24-MAR-10 08:57	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.873	0.2221	pCi/g	0.2695	N	911.5	3	1.616	IDENTIFIED	10.23	☐	
Annihilation Rad.	HE	0.1266	0.03785	pCi/g	0.05238	N	510.6	1	2.129	IDENTIFIED	29.57	☐	
Barium-137m	HE	0.1243	0.02993	pCi/g	0.07221	N	661.7	2	1.973	IDENTIFIED	23.66	☐	
Bismuth-211	INT	4.35	0.3263	pCi/g	0.3573	Y	352.1	2	1.266	IDENTIFIED	6.013	☑ UI	
Bismuth-212	✓	2.337	0.4498	pCi/g	0.8388	N	727.7	1	1.224	IDENTIFIED	18.16	☐	
Bismuth-214	✓	1.251	0.1112	pCi/g	0.1305	0.200	609.6	3	1.615	IDENTIFIED	7.211	☐	
Cadmium-109	INT	3.264	0.5441	pCi/g	1.241	Y	87.32	3	1.198	IDENTIFIED	16	☑ UI	
Cerium-143	—	134.2	32.38	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1199	0.04813	pCi/g	0.1112	0.100	0	3	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-137	✓	0.1313	0.03162	pCi/g	0.07628	0.100	661.7	2	1.973	IDENTIFIED	23.66	☐	
Europium-155	HE	0.2152	0.06945	pCi/g	0.169	N	105	1	1.169	IDENTIFIED	31.97	☐	
Gross Gamma	—	11.16	1.536	pCi/g	4.834	N		0				☐	
Lead-212	✓	2.054	0.119	pCi/g	0.1071	0.100	238.8	2	1.09	IDENTIFIED	3.234	☐	
Lead-214	✓	1.579	0.1262	pCi/g	0.1299	0.100	352.1	2	1.266	IDENTIFIED	6.013	☐	
Neptunium-237	INT	0.9554	0.1881	pCi/g	0.4224	N	87.32	3	1.198	IDENTIFIED	16	☐	
Potassium-40	✓	34.99	1.835	pCi/g	0.5076	1.00	1461	1	2.127	IDENTIFIED	3.012	☐	
Radium-224	INT	4.669	0.7058	pCi/g	1.148	Y	241.7	1	1.659	IDENTIFIED	14.51	☑ UI	
Radium-226	✓	1.251	0.1112	pCi/g	0.1305	Y	609.6	3	1.615	IDENTIFIED	7.211	☐	
Radium-228	✓	1.873	0.2221	pCi/g	0.2695	0.500	911.5	3	1.616	IDENTIFIED	10.23	☐	
Sodium-24	HE	557.5	32090	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.6734	0.05546	pCi/g	0.06863	0.080	583.5	1	1.468	IDENTIFIED	6.709	☐	
Thorium-228	NR	2.054	0.119	pCi/g	0.1071	N	238.8	2	1.09	IDENTIFIED	3.234	☐	
Thorium-230	NR	1.251	0.1062	pCi/g	0.1305	N	609.6	3	1.615	IDENTIFIED	7.211	☐	
Thorium-232	NR	1.873	0.2221	pCi/g	0.2695	N	911.5	3	1.616	IDENTIFIED	10.23	☐	
Tin-126	NR	0.3202	0.05337	pCi/g	0.122	N	87.32	3	1.198	IDENTIFIED	16	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249329003	11-MAR-10 12:00	24-MAR-10 08:57	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.393	0.2245	pCi/g	0.2838	N	911.4	3	1.614	IDENTIFIED	7.356	☐	
Annihilation Rad.	—	0.1416	0.04049	pCi/g	0.05022	N	511	1	1.882	IDENTIFIED	28.45	☐	
Bismuth-211	INT	4.385	0.2818	pCi/g	0.3809	Y	351.9	2	1.365	IDENTIFIED	5.578	☑ UI	
Bismuth-212	HE	2.015	0.4899	pCi/g	1.308	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.426	0.1145	pCi/g	0.1197	0.200	609.3	3	1.516	IDENTIFIED	6.986	☐	
Cadmium-109	INT	2.974	0.5657	pCi/g	1.485	Y	87.53	3	1.245	IDENTIFIED	18.5	☑ UI	
Cerium-143	—	324.5	47.42	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.3735	0.1039	pCi/g	0.3407	N	0	8	0	NOT_IDENTI	0	☐	
Europium-155	HE	0.2194	0.07175	pCi/g	0.2017	N	105.4	1	1.497	IDENTIFIED	32.51	☐	
Gross Gamma	—	10.93	1.714	pCi/g	4.699	N		0				☐	
Iodine-133	HE	64.8	511.6	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Iodine-135	HE	4.56E+12	1.33E+13	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.004	0.09842	pCi/g	0.1089	0.100	238.6	2	1.27	IDENTIFIED	3.297	☐	
Lead-214	✓	1.591	0.1113	pCi/g	0.1382	0.100	351.9	2	1.365	IDENTIFIED	5.578	☐	
Neptunium-237	INT	0.8702	0.189	pCi/g	0.4413	N	87.53	3	1.245	IDENTIFIED	18.5	☐	
Niobium-95m	—	0.4731	0.08687	pCi/g	0.2794	N	0	8	0	NOT_IDENTI	0	☐	
Potassium-40	✓	32.35	1.538	pCi/g	0.5047	1.00	1462	1	2.039	IDENTIFIED	2.958	☐	

Radium-224	INT	5.423	0.7386	pCi/g	1.166	Y	241.5	1	1.798	IDENTIFIED	13.32	☑ UI	
Radium-226	✓	1.426	0.1145	pCi/g	0.1197	Y	609.3	3	1.516	IDENTIFIED	6.986	☐	
Radium-228	✓	2.393	0.2245	pCi/g	0.2838	0.500	911.4	3	1.614	IDENTIFIED	7.356	☐	
Sodium-24	HE	1573	32020	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.1245	0.02277	pCi/g	0.08048	Y	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.5575	0.04781	pCi/g	0.06662	0.080	583.3	1	1.522	IDENTIFIED	7.876	☐	
Thorium-228	NR	2.004	0.09842	pCi/g	0.1089	N	238.6	2	1.27	IDENTIFIED	3.297	☐	
Thorium-230	NR	1.426	0.1082	pCi/g	0.1197	N	609.3	3	1.516	IDENTIFIED	6.986	☐	
Thorium-232	NR	2.393	0.2245	pCi/g	0.2838	N	911.4	3	1.614	IDENTIFIED	7.356	☐	
Thorium-234	✓	3.102	1.275	pCi/g	2.459	2.00	63.11	2	1.338	IDENTIFIED	40.11	☐	
Tin-126	NR	0.2916	0.05549	pCi/g	0.1463	N	87.53	3	1.245	IDENTIFIED	18.5	☐	
Total Uranium	–	9.2774	3.79E-06	ug/g	3.6618	N		0				☐	
Uranium-238	HE	3.102	1.275	pCi/g	2.459	N	63.11	2	1.338	IDENTIFIED	40.11	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249329004	11-MAR-10 12:00	24-MAR-10 08:58	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.466	0.219	pCi/g	0.2163	N	911.4	3	2.092	IDENTIFIED	5.745	☐	
Annihilation Rad.	–	0.1712	0.03158	pCi/g	0.04466	N	510.9	1	1.89	IDENTIFIED	17.75	☐	
Barium-137m	HE	0.0736	0.03394	pCi/g	0.05492	N	662.8	2	3.706	IDENTIFIED	45.81	☐	
Bismuth-211	INT	4.361	0.3257	pCi/g	0.3376	Y	352.1	2	1.302	IDENTIFIED	4.691	☑ UI	
Bismuth-212	–	2.114	0.4754	pCi/g	1.143	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.499	0.1171	pCi/g	0.113	0.200	609.5	3	1.744	IDENTIFIED	5.199	☐	
Cadmium-109	INT	3.267	0.5433	pCi/g	1.275	Y	87.19	3	1.173	IDENTIFIED	15.95	☑ UI	
Cerium-143	–	315.9	47.51	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1457	0.0413	pCi/g	0.09149	0.100	0	6	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.3326	0.09805	pCi/g	0.2968	N	0	6	0	NOT_IDENTI	0	☐	
Cesium-137	↑PW	0.07775	0.03586	pCi/g	0.05801	0.100	662.8	2	3.706	IDENTIFIED	45.81	☑ UI	Data rejected due to high peak-width.
Gross Gamma	–	11.87	1.491	pCi/g	3.081	N		0				☐	
Lead-212	✓	2.248	0.1605	pCi/g	0.09992	0.100	238.7	2	1.248	IDENTIFIED	2.659	☐	
Lead-214	✓	1.583	0.126	pCi/g	0.1246	0.100	352.1	2	1.302	IDENTIFIED	4.691	☐	
Neptunium-237	INT	0.9561	0.188	pCi/g	0.3683	N	87.19	3	1.173	IDENTIFIED	15.95	☐	
Niobium-95	HE	0.08319	0.02423	pCi/g	0.07557	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	✓	38.06	1.94	pCi/g	0.4688	1.00	1461	1	2.749	IDENTIFIED	2.237	☐	
Radium-224	INT	5.42	0.7383	pCi/g	1.07	Y	241.7	1	1.829	IDENTIFIED	12.09	☑ UI	
Radium-226	✓	1.499	0.1171	pCi/g	0.113	Y	609.5	3	1.744	IDENTIFIED	5.199	☐	
Radium-228	✓	2.466	0.219	pCi/g	0.2163	0.500	911.4	3	2.092	IDENTIFIED	5.745	☐	
Strontium-85	LA	0.1435	0.02436	pCi/g	0.07756	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.6578	0.05365	pCi/g	0.05382	0.080	583.2	1	1.625	IDENTIFIED	6.096	☐	
Thorium-228	NR	2.248	0.1605	pCi/g	0.09992	N	238.7	2	1.248	IDENTIFIED	2.659	☐	
Thorium-230	NR	1.499	0.1103	pCi/g	0.113	N	609.5	3	1.744	IDENTIFIED	5.199	☐	
Thorium-232	NR	2.466	0.219	pCi/g	0.2163	N	911.4	3	2.092	IDENTIFIED	5.745	☐	
Tin-126	NR	0.3204	0.05329	pCi/g	0.1336	N	87.19	3	1.173	IDENTIFIED	15.95	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331001	11-MAR-10 12:00	24-MAR-10 08:58	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.463	0.2204	pCi/g	0.2335	N	911.7	3	1.695	IDENTIFIED	6.96	☐	
Annihilation Rad.	–	0.1977	0.03558	pCi/g	0.05256	N	511.3	1	1.503	IDENTIFIED	17.78	☐	
Bismuth-211	INT	4.806	0.3149	pCi/g	0.3408	Y	352.2	2	1.186	IDENTIFIED	5.618	☑ UI	
Bismuth-212	HE	1.703	0.4294	pCi/g	1.301	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.508	0.1097	pCi/g	0.108	0.200	609.6	3	1.32	IDENTIFIED	6.26	☐	
Cadmium-109	INT	4.952	0.7346	pCi/g	1.363	Y	87.3	3	1.275	IDENTIFIED	13.57	☑ UI	
Cerium-143	–	174.2	32.06	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1053	0.02663	pCi/g	0.101	0.100	0	4	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	–	11.38	1.643	pCi/g	3.53	N		0				☐	
Lead-212	✓	2.309	0.1155	pCi/g	0.09866	0.100	238.8	2	1.181	IDENTIFIED	2.947	☐	

Lead-214	✓	1.744	0.124	pCi/g	0.1239	0.100	352.2	2	1.186	IDENTIFIED	5.618	☐	
Neptunium-237	INT	1.449	0.2633	pCi/g	0.4098	N	87.3	3	1.275	IDENTIFIED	13.57	☐	
Potassium-40	✓	32.39	1.543	pCi/g	0.6825	1.00	1462	1	1.931	IDENTIFIED	3.173	☐	
Radium-224	INT	5.12	0.7761	pCi/g	1.058	Y	241.5	1	1.863	IDENTIFIED	14.79	☑ UI	
Radium-226	✓	1.508	0.1097	pCi/g	0.108	Y	609.6	3	1.32	IDENTIFIED	6.26	☐	
Radium-228	✓	2.463	0.2204	pCi/g	0.2335	0.500	911.7	3	1.695	IDENTIFIED	6.96	☐	
Sodium-24	HE	22630	31720	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.6975	0.05165	pCi/g	0.05906	0.080	583.4	1	1.344	IDENTIFIED	6.708	☐	
Thorium-228	NR	2.309	0.1155	pCi/g	0.09866	N	238.8	2	1.181	IDENTIFIED	2.947	☐	
Thorium-230	NR	1.508	0.1022	pCi/g	0.108	N	609.6	3	1.32	IDENTIFIED	6.26	☐	
Thorium-232	NR	2.463	0.2204	pCi/g	0.2335	N	911.7	3	1.695	IDENTIFIED	6.96	☐	
Tin-126	NR	0.4857	0.07205	pCi/g	0.1347	N	87.3	3	1.275	IDENTIFIED	13.57	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331002	11-MAR-10 12:00	24-MAR-10 09:11	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.593	0.2594	pCi/g	0.2671	N	911.8	3	2.095	IDENTIFIED	7.848	☐	
Annihilation Rad.	—	0.205	0.03622	pCi/g	0.04991	N	510.6	1	2.031	IDENTIFIED	17.15	☐	
Bismuth-211	INT	4.911	0.3415	pCi/g	0.3875	Y	352.1	2	1.233	IDENTIFIED	5.133	☑ UI	
Bismuth-212	—	2.584	0.4983	pCi/g	1.315	N	0	3	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.592	0.125	pCi/g	0.1232	0.200	609.7	3	1.536	IDENTIFIED	6.119	☐	
Cadmium-109	INT	3.891	0.6682	pCi/g	1.472	Y	86.98	3	1.106	IDENTIFIED	16.23	☑ UI	
Cerium-143	—	221.1	37.25	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Europium-155	HE	0.2484	0.06055	pCi/g	0.2162	N	0	3	0	FAIL_ABUND	0	☐	
Gross Gamma	—	11.43	1.641	pCi/g	4.071	N		0				☐	
Lead-212	✓	2.239	0.138	pCi/g	0.1038	0.100	238.7	2	1.167	IDENTIFIED	2.993	☐	
Lead-214	✓	1.782	0.1333	pCi/g	0.1322	0.100	352.1	2	1.233	IDENTIFIED	5.133	☐	
Neptunium-237	INT	1.139	0.2291	pCi/g	0.5044	N	86.98	3	1.106	IDENTIFIED	16.23	☐	
Potassium-40	✓	35.68	1.978	pCi/g	0.6017	1.00	1462	1	2.039	IDENTIFIED	2.838	☐	
Radium-224	INT	4.574	0.72	pCi/g	1.113	Y	241.7	1	1.617	IDENTIFIED	14.97	☑ UI	
Radium-226	✓	1.592	0.125	pCi/g	0.1232	Y	609.7	3	1.536	IDENTIFIED	6.119	☐	
Radium-228	✓	2.593	0.2594	pCi/g	0.2671	0.500	911.8	3	2.095	IDENTIFIED	7.848	☐	
Thallium-208	✓	0.6294	0.05214	pCi/g	0.0688	0.080	583.6	1	1.524	IDENTIFIED	6.952	☐	
Thorium-228	NR	2.239	0.138	pCi/g	0.1038	N	238.7	2	1.167	IDENTIFIED	2.993	☐	
Thorium-230	NR	1.592	0.1177	pCi/g	0.1232	N	609.7	3	1.536	IDENTIFIED	6.119	☐	
Thorium-232	NR	2.593	0.2594	pCi/g	0.2671	N	911.8	3	2.095	IDENTIFIED	7.848	☐	
Tin-126	NR	0.3817	0.06553	pCi/g	0.1454	N	86.98	3	1.106	IDENTIFIED	16.23	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331003	11-MAR-10 12:00	24-MAR-10 09:11	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2	0.2041	pCi/g	0.2106	N	911.7	3	1.579	IDENTIFIED	8.065	☐	
Annihilation Rad.	—	0.1642	0.03527	pCi/g	0.04327	N	511.2	1	1.4	IDENTIFIED	20.8	☐	
Barium-137m	NR	0.1681	0.03258	pCi/g	0.05527	N	662.4	2	1.118	IDENTIFIED	18.79	☐	
Bismuth-211	INT	4.913	0.4046	pCi/g	0.2852	Y	352	2	1.169	IDENTIFIED	4.96	☑ UI	
Bismuth-212	HE	1.622	0.5529	pCi/g	1.165	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.325	0.1147	pCi/g	0.106	0.200	609.6	3	1.371	IDENTIFIED	6.546	☐	
Cadmium-109	INT	4.993	0.5069	pCi/g	0.9115	Y	87.2	3	1.236	IDENTIFIED	9.002	☑ UI	
Cerium-143	—	86.7	25.49	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.08709	0.025	pCi/g	0.08254	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-137	✓	0.1776	0.03442	pCi/g	0.05839	0.100	662.4	2	1.118	IDENTIFIED	18.79	☐	
Gross Gamma	—	11.46	1.409	pCi/g	3.464	N		0				☐	
Iodine-135	HE	9.12E+12	1.21E+13	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.109	0.1592	pCi/g	0.0843	0.100	238.7	2	1.002	IDENTIFIED	2.773	☐	
Lead-214	✓	1.783	0.1548	pCi/g	0.1037	0.100	352	2	1.169	IDENTIFIED	4.96	☐	
Neptunium-237	INT	1.461	0.2132	pCi/g	0.2698	N	87.2	3	1.236	IDENTIFIED	9.002	☐	
Potassium-40	✓	35.89	1.808	pCi/g	0.471	1.00	1462	1	1.767	IDENTIFIED	2.584	☐	

Radium-224	INT	5.237	0.7259	pCi/g	0.9037	Y	241.6	1	1.685	IDENTIFIED	12.13	☑ UI	
Radium-226	✓	1.325	0.1147	pCi/g	0.106	Y	609.6	3	1.371	IDENTIFIED	6.546	☐	
Radium-228	✓	2	0.2041	pCi/g	0.2106	0.500	911.7	3	1.579	IDENTIFIED	8.065	☐	
Thallium-208	✓	0.6912	0.05609	pCi/g	0.05378	0.080	583.4	1	1.319	IDENTIFIED	6.063	☐	
Thorium-228	NR	2.109	0.1592	pCi/g	0.0843	N	238.7	2	1.002	IDENTIFIED	2.773	☐	
Thorium-230	NR	1.325	0.1093	pCi/g	0.106	N	609.6	3	1.371	IDENTIFIED	6.546	☐	
Thorium-232	NR	2	0.2041	pCi/g	0.2106	N	911.7	3	1.579	IDENTIFIED	8.065	☐	
Thorium-234	✓	2.538	0.8358	pCi/g	1.66	2.00	63.06	2	1.243	IDENTIFIED	31.71	☐	
Tin-126	NR	0.4897	0.04971	pCi/g	0.08969	N	87.2	3	1.236	IDENTIFIED	9.002	☐	
Total Uranium	—	7.6199	2.49E-06	ug/g	2.4723	N		0				☐	
Uranium-238	HE	2.538	0.8358	pCi/g	1.66	N	63.06	2	1.243	IDENTIFIED	31.71	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331004	11-MAR-10 12:00	24-MAR-10 09:12	12.9	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.057	0.2248	pCi/g	0.2902	N	911	3	1.748	IDENTIFIED	9.098	☐	
Annihilation Rad.	—	0.2476	0.0419	pCi/g	0.0576	N	510.8	1	1.81	IDENTIFIED	16.36	☐	
Bismuth-211	INT	5.082	0.3759	pCi/g	0.4377	Y	352	2	1.566	IDENTIFIED	5.48	☑ UI	
Bismuth-212	✓	2.62	0.5469	pCi/g	0.9775	N	727.6	1	1.443	IDENTIFIED	19.93	☐	
Bismuth-214	✓	1.278	0.1101	pCi/g	0.1672	0.200	609.3	3	1.577	IDENTIFIED	7.023	☐	
Cadmium-109	INT	3.434	0.7752	pCi/g	2.196	Y	87.33	3	1.35	IDENTIFIED	21.71	☑ UI	
Cerium-143	—	284.4	45.46	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1225	0.03081	pCi/g	0.1155	0.100	0	5	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	—	10.81	1.659	pCi/g	4.178	N		0				☐	
Lead-212	✓	1.954	0.1378	pCi/g	0.1274	0.100	238.8	2	1.341	IDENTIFIED	3.747	☐	
Lead-214	✓	1.844	0.1456	pCi/g	0.1592	0.100	352	2	1.566	IDENTIFIED	5.48	☐	
Neptunium-237	HE	1.005	0.2501	pCi/g	0.6166	N	87.33	3	1.35	IDENTIFIED	21.71	☐	
Niobium-95m	HE	0.4499	0.1013	pCi/g	0.3269	N	0	5	0	NOT_IDENTI	0	☐	
Potassium-40	✓	38.6	2.187	pCi/g	0.5585	1.00	1460	1	2.049	IDENTIFIED	2.821	☐	
Radium-224	INT	5.166	0.9566	pCi/g	1.365	Y	241.7	1	2.04	IDENTIFIED	17.68	☑ UI	
Radium-226	✓	1.278	0.1101	pCi/g	0.1672	Y	609.3	3	1.577	IDENTIFIED	7.023	☐	
Radium-228	✓	2.057	0.2248	pCi/g	0.2902	0.500	911	3	1.748	IDENTIFIED	9.098	☐	
Sodium-24	HE	50770	37410	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.1286	0.02756	pCi/g	0.09258	Y	0	5	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.5367	0.06467	pCi/g	0.07092	0.080	583.4	1	1.703	IDENTIFIED	11.15	☐	
Thorium-228	NR	1.954	0.1378	pCi/g	0.1274	N	238.8	2	1.341	IDENTIFIED	3.747	☐	
Thorium-230	NR	1.278	0.1048	pCi/g	0.1672	N	609.3	3	1.577	IDENTIFIED	7.023	☐	
Thorium-232	NR	2.057	0.2248	pCi/g	0.2902	N	911	3	1.748	IDENTIFIED	9.098	☐	
Tin-126	HE	0.3368	0.07603	pCi/g	0.2204	N	87.33	3	1.35	IDENTIFIED	21.71	☐	

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331005	11-MAR-10 12:00	24-MAR-10 09:13	12.9	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.563	0.2709	pCi/g	0.2912	N	911.2	3	1.957	IDENTIFIED	8.626	☐	
Annihilation Rad.	—	0.1479	0.03846	pCi/g	0.05298	N	510.7	1	1.724	IDENTIFIED	25.49	☐	
Bismuth-211	INT	5.285	0.3662	pCi/g	0.3525	Y	351.9	2	1.215	IDENTIFIED	4.511	☑ UI	
Bismuth-212	—	2.889	0.5218	pCi/g	1.432	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.636	0.1442	pCi/g	0.1262	0.200	609.4	3	1.336	IDENTIFIED	6.407	☐	
Cadmium-109	INT	5.109	0.4388	pCi/g	0.8882	Y	87.24	3	0.914	IDENTIFIED	6.716	☑ UI	
Cerium-143	—	185.5	31.77	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.2249	0.04292	pCi/g	0.1129	0.100	0	5	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	—	12.88	1.354	pCi/g	3.92	N		0				☐	
Iodine-133	HE	668.1	563.4	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Iodine-135	HE	2.48E+13	1.54E+13	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-210	✓	1.393	0.3553	pCi/g	0.6751	N	46.43	1	0.843	IDENTIFIED	24.99	☐	
Lead-212	✓	2.549	0.1596	pCi/g	0.09132	0.100	238.7	2	1.012	IDENTIFIED	2.558	☐	
Lead-214	✓	1.918	0.143	pCi/g	0.1283	0.100	351.9	2	1.215	IDENTIFIED	4.511	☐	

Neptunium-237	INT	1.495	0.2026	pCi/g	0.3299	N	87.24	3	0.914	IDENTIFIED	6.716	☐	
Potassium-40	✓	36.73	1.877	pCi/g	0.5724	1.00	1461	1	2.031	IDENTIFIED	2.825	☐	
Radium-224	INT	6.334	0.7125	pCi/g	0.98	Y	241.7	1	1.773	IDENTIFIED	9.944	☑ UI	
Radium-226	✓	1.636	0.1442	pCi/g	0.1262	Y	609.4	3	1.336	IDENTIFIED	6.407	☐	
Radium-228	✓	2.563	0.2709	pCi/g	0.2912	0.500	911.2	3	1.957	IDENTIFIED	8.626	☐	
Thallium-208	✓	0.7523	0.06843	pCi/g	0.06444	0.080	583.1	1	1.432	IDENTIFIED	7.142	☐	
Thorium-228	NR	2.549	0.1596	pCi/g	0.09132	N	238.7	2	1.012	IDENTIFIED	2.558	☐	
Thorium-230	NR	1.636	0.1376	pCi/g	0.1262	N	609.4	3	1.336	IDENTIFIED	6.407	☐	
Thorium-232	NR	2.563	0.2709	pCi/g	0.2912	N	911.2	3	1.957	IDENTIFIED	8.626	☐	
Thorium-234	✓	2.843	0.5748	pCi/g	0.9105	2.00	63.31	2	0.802	IDENTIFIED	17.86	☐	
Tin-126	NR	0.5011	0.04303	pCi/g	0.08694	N	87.24	3	0.914	IDENTIFIED	6.716	☐	
Total Uranium	—	8.4693	1.71E-06	ug/g	1.3573	N		0				☐	
Uranium-238	NR	2.843	0.5748	pCi/g	0.9105	N	63.31	2	0.802	IDENTIFIED	17.86	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331006	11-MAR-10 12:00	24-MAR-10 09:13	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.147	0.2477	pCi/g	0.2967	N	911.1	3	1.237	IDENTIFIED	8.665	☐	
Annihilation Rad.	—	0.1603	0.04487	pCi/g	0.05942	N	510.6	1	1.659	IDENTIFIED	27.63	☐	
Barium-137m	NR	0.2001	0.04918	pCi/g	0.07096	N	661.3	2	1.025	IDENTIFIED	24.23	☐	
Bismuth-211	INT	5.487	0.3881	pCi/g	0.4211	Y	351.9	2	1.294	IDENTIFIED	5.208	☑ UI	
Bismuth-212	—	4.545	0.5942	pCi/g	1.542	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.581	0.1263	pCi/g	0.1406	0.200	609.2	3	1.469	IDENTIFIED	6.191	☐	
Cadmium-109	INT	3.583	0.6697	pCi/g	1.684	Y	87.12	3	1.185	IDENTIFIED	18.1	☑ UI	
Cerium-143	—	540.4	71.01	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.2114	0.05196	pCi/g	0.07497	0.100	661.3	2	1.025	IDENTIFIED	24.23	☐	
Gross Gamma	—	12.87	1.806	pCi/g	6.078	N		0				☐	
Iodine-135	HE	1.32E+13	1.45E+13	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.482	0.144	pCi/g	0.1185	0.100	238.5	2	1.129	IDENTIFIED	2.963	☐	
Lead-214	✓	1.991	0.1512	pCi/g	0.1531	0.100	351.9	2	1.294	IDENTIFIED	5.208	☐	
Neptunium-237	INT	1.048	0.2247	pCi/g	0.5005	N	87.12	3	1.185	IDENTIFIED	18.1	☐	
Niobium-95m	—	0.8399	0.1091	pCi/g	0.3499	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	✓	33.02	2.052	pCi/g	0.7182	1.00	1461	1	1.879	IDENTIFIED	3.007	☐	
Radium-224	INT	7.223	0.9299	pCi/g	1.268	Y	241.5	1	2.065	IDENTIFIED	12.08	☑ UI	
Radium-226	✓	1.581	0.1263	pCi/g	0.1406	Y	609.2	3	1.469	IDENTIFIED	6.191	☐	
Radium-228	✓	2.147	0.2477	pCi/g	0.2967	0.500	911.1	3	1.237	IDENTIFIED	8.665	☐	
Sodium-24	HE	24160	40320	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.1188	0.02765	pCi/g	0.0897	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.6473	0.05676	pCi/g	0.08623	0.080	583.2	1	1.446	IDENTIFIED	7.413	☐	
Thorium-228	NR	2.482	0.144	pCi/g	0.1185	N	238.5	2	1.129	IDENTIFIED	2.963	☐	
Thorium-230	NR	1.581	0.1192	pCi/g	0.1406	N	609.2	3	1.469	IDENTIFIED	6.191	☐	
Thorium-232	NR	2.147	0.2477	pCi/g	0.2967	N	911.1	3	1.237	IDENTIFIED	8.665	☐	
Thorium-234	✓	4.956	1.62	pCi/g	2.933	2.00	62.85	2	1.415	IDENTIFIED	31.42	☐	
Tin-126	NR	0.3514	0.06569	pCi/g	0.1659	N	87.12	3	1.185	IDENTIFIED	18.1	☐	
Total Uranium	—	14.748	4.82E-06	ug/g	4.367	N		0				☐	
Uranium-238	HE	4.956	1.62	pCi/g	2.933	N	62.85	2	1.415	IDENTIFIED	31.42	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331007	11-MAR-10 12:00	24-MAR-10 09:21	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.227	0.2635	pCi/g	0.261	N	911.9	3	1.675	IDENTIFIED	10.22	☐	
Annihilation Rad.	—	0.2125	0.04084	pCi/g	0.05969	N	511.3	1	1.712	IDENTIFIED	18.74	☐	
Barium-137m	HE	0.114	0.03092	pCi/g	0.07762	N	662.1	2	1.027	IDENTIFIED	26.82	☐	
Bismuth-211	INT	5.107	0.3518	pCi/g	0.4581	Y	352.4	2	1.505	IDENTIFIED	5.179	☑ UI	
Bismuth-212	—	2.833	0.4906	pCi/g	1.488	N	0	3	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.514	0.122	pCi/g	0.1345	0.200	609.8	3	1.532	IDENTIFIED	6.351	☐	
Cadmium-109	INT	4.099	0.6351	pCi/g	1.441	Y	87.24	3	1.092	IDENTIFIED	14.77	☑ UI	

Cerium-143	—	91.07	32.26	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.1604	0.03922	pCi/g	0.1217	0.100	0	3	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137	✓	0.1204	0.03267	pCi/g	0.082	0.100	662.1	2	1.027	IDENTIFIED	26.82	☐		
Gross Gamma	—	11.35	1.809	pCi/g	4.536	N		0				☐		
Lead-212	✓	2.222	0.134	pCi/g	0.1153	0.100	239.1	2	1.24	IDENTIFIED	3.243	☐		
Lead-214	✓	1.854	0.1375	pCi/g	0.1705	0.100	352.4	2	1.505	IDENTIFIED	5.179	☐		
Neptunium-237	INT	1.199	0.2244	pCi/g	0.5021	N	87.24	3	1.092	IDENTIFIED	14.77	☐		
Potassium-40	✓	33.22	1.798	pCi/g	0.4402	1.00	1461	1	1.922	IDENTIFIED	3.086	☐		
Radium-224	INT	4.487	0.6646	pCi/g	1.236	Y	241.9	1	1.558	IDENTIFIED	14.1	☑	UI	
Radium-226	✓	1.514	0.122	pCi/g	0.1345	Y	609.8	3	1.532	IDENTIFIED	6.351	☐		
Radium-228	✓	2.227	0.2635	pCi/g	0.261	0.500	911.9	3	1.675	IDENTIFIED	10.22	☐		
Thallium-208	✓	0.6058	0.05615	pCi/g	0.06818	0.080	583.6	1	1.592	IDENTIFIED	8.084	☐		
Thorium-228	NR	2.222	0.134	pCi/g	0.1153	N	239.1	2	1.24	IDENTIFIED	3.243	☐		
Thorium-230	NR	1.514	0.1153	pCi/g	0.1345	N	609.8	3	1.532	IDENTIFIED	6.351	☐		
Thorium-232	NR	2.227	0.2635	pCi/g	0.261	N	911.9	3	1.675	IDENTIFIED	10.22	☐		
Tin-126	NR	0.402	0.06229	pCi/g	0.1421	N	87.24	3	1.092	IDENTIFIED	14.77	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331008	11-MAR-10 12:00	24-MAR-10 09:21	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	2.104	0.213	pCi/g	0.2212	N	910.8	3	1.406	IDENTIFIED	8.074	☐		
Annihilation Rad.	—	0.1618	0.03573	pCi/g	0.04644	N	510.6	1	1.461	IDENTIFIED	21.56	☐		
Barium-137m	NR	0.3905	0.04215	pCi/g	0.06493	N	661.3	2	1.293	IDENTIFIED	9.84	☐		
Bismuth-211	INT	5.433	0.3926	pCi/g	0.3186	Y	351.8	2	1.137	IDENTIFIED	4.736	☑	UI	
Bismuth-212	✓	2.276	0.484	pCi/g	0.761	N	727.3	1	1.275	IDENTIFIED	20.28	☐		
Bismuth-214	✓	1.615	0.1177	pCi/g	0.1172	0.200	609.1	3	1.43	IDENTIFIED	4.989	☐		
Cadmium-109	INT	4.039	0.5167	pCi/g	1.191	Y	87.23	3	1.05	IDENTIFIED	11.87	☑	UI	
Cerium-143	—	219	36.78	pCi/g	0	N	0	1	0	SHORT_HLIF	0	☐		
Cesium-137	✓	0.4125	0.04454	pCi/g	0.0686	0.100	661.3	2	1.293	IDENTIFIED	9.84	☐		
Gross Gamma	—	12.35	1.601	pCi/g	4.275	N		0				☐		
Lead-212	✓	2.098	0.1389	pCi/g	0.09458	0.100	238.5	2	0.9542	IDENTIFIED	2.932	☐		
Lead-214	✓	1.972	0.1525	pCi/g	0.1159	0.100	351.8	2	1.137	IDENTIFIED	4.736	☐		
Neptunium-237	INT	1.182	0.1955	pCi/g	0.3578	N	87.23	3	1.05	IDENTIFIED	11.87	☐		
Potassium-40	✓	34	1.767	pCi/g	0.5376	1.00	1460	1	1.881	IDENTIFIED	2.773	☐		
Radium-224	INT	6.109	0.7385	pCi/g	1.014	Y	241.4	1	1.705	IDENTIFIED	10.76	☑	UI	
Radium-226	✓	1.615	0.1177	pCi/g	0.1172	Y	609.1	3	1.43	IDENTIFIED	4.989	☐		
Radium-228	✓	2.104	0.213	pCi/g	0.2212	0.500	910.8	3	1.406	IDENTIFIED	8.074	☐		
Thallium-208	✓	0.565	0.05	pCi/g	0.05633	0.080	583	1	1.134	IDENTIFIED	7.334	☐		
Thorium-228	NR	2.098	0.1389	pCi/g	0.09458	N	238.5	2	0.9542	IDENTIFIED	2.932	☐		
Thorium-230	NR	1.615	0.1097	pCi/g	0.1172	N	609.1	3	1.43	IDENTIFIED	4.989	☐		
Thorium-232	NR	2.104	0.213	pCi/g	0.2212	N	910.8	3	1.406	IDENTIFIED	8.074	☐		
Tin-126	NR	0.3961	0.05067	pCi/g	0.1173	N	87.23	3	1.05	IDENTIFIED	11.87	☐		
Total Uranium	—	5.1294	2.06E-06	ug/g	3.4941	N		0				☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334001	11-MAR-10 12:00	24-MAR-10 09:22	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	2.824	0.2525	pCi/g	0.1969	N	910.6	3	1.947	IDENTIFIED	5.829	☐		
Annihilation Rad.	—	0.1913	0.03195	pCi/g	0.04016	N	510.7	1	2.188	IDENTIFIED	16.38	☐		
Bismuth-211	INT	5.613	0.2762	pCi/g	0.2951	Y	351.8	2	1.274	IDENTIFIED	3.73	☑	UI	
Bismuth-212	—	2.478	0.4042	pCi/g	1.14	N	0	9	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.602	0.1031	pCi/g	0.1028	0.200	608.9	3	1.659	IDENTIFIED	4.607	☐		
Cadmium-109	INT	3.997	0.5531	pCi/g	1.485	Y	87.4	3	1.044	IDENTIFIED	13.05	☑	UI	
Cerium-143	—	379.1	48.15	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.1685	0.04429	pCi/g	0.09058	0.100	0	9	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-135	HE	0.2972	0.08343	pCi/g	0.2658	N	0	9	0	NOT_IDENTI	0	☐		
Gross Gamma	—	12.58	1.346	pCi/g	3	N		0				☐		

Iodine-133	HE	171.5	449	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Iodine-135	HE	4.88E+12	1.07E+13	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.396	0.1042	pCi/g	0.09005	0.100	238.7	2	1.179	IDENTIFIED	2.432	☐	
Lead-214	✓	2.037	0.1149	pCi/g	0.1073	0.100	351.8	2	1.274	IDENTIFIED	3.73	☐	
Neptunium-237	INT	1.17	0.2031	pCi/g	0.4445	N	87.4	3	1.044	IDENTIFIED	13.05	☐	
Niobium-95	HE	0.09081	0.02095	pCi/g	0.07602	N	0	9	0	NOT_IDENTI	0	☐	
Potassium-40	✓	35.11	1.551	pCi/g	0.5115	1.00	1460	1	2.167	IDENTIFIED	2.257	☐	
Radium-224	INT	5.582	0.6355	pCi/g	0.9639	Y	241.6	1	1.767	IDENTIFIED	11.04	☑ UI	
Radium-226	✓	1.602	0.1031	pCi/g	0.1028	Y	608.9	3	1.659	IDENTIFIED	4.607	☐	
Radium-228	✓	2.824	0.2525	pCi/g	0.1969	0.500	910.6	3	1.947	IDENTIFIED	5.829	☐	
Strontium-85	LA	0.0957	0.01925	pCi/g	0.06416	Y	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	HE	6.00E+12	4.14E+13	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.7132	0.04713	pCi/g	0.0493	0.080	582.8	1	1.537	IDENTIFIED	5.325	☐	
Thorium-228	NR	2.396	0.1042	pCi/g	0.09005	N	238.7	2	1.179	IDENTIFIED	2.432	☐	
Thorium-230	NR	1.602	0.094	pCi/g	0.1028	N	608.9	3	1.659	IDENTIFIED	4.607	☐	
Thorium-232	NR	2.824	0.2525	pCi/g	0.1969	N	910.6	3	1.947	IDENTIFIED	5.829	☐	
Tin-126	NR	0.392	0.05425	pCi/g	0.1466	N	87.4	3	1.044	IDENTIFIED	13.05	☐	
Total Uranium	—	7.546	2.82E-06	ug/g	4.1308	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334002	11-MAR-10 12:00	24-MAR-10 09:22	12.9	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.261	0.2226	pCi/g	0.2877	N	910.1	3	1.839	IDENTIFIED	7.852	☐	
Annihilation Rad.	—	0.1409	0.03796	pCi/g	0.05484	N	510.2	1	1.544	IDENTIFIED	26.79	☐	
Bismuth-211	INT	5.225	0.3313	pCi/g	0.3903	Y	351.3	2	1.268	IDENTIFIED	5.439	☑ UI	
Bismuth-212	—	3.067	0.4932	pCi/g	1.436	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.538	0.1097	pCi/g	0.133	0.200	608.6	3	1.487	IDENTIFIED	6.041	☐	
Cadmium-109	INT	4.289	0.6639	pCi/g	1.83	Y	87.05	3	1.086	IDENTIFIED	14.7	☑ UI	
Cerium-143	—	511.8	69.24	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1204	0.04904	pCi/g	0.1069	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.5252	0.167	pCi/g	0.3245	N	270	1	1.38	IDENTIFIED	31.57	☐	
Gross Gamma	—	11.17	1.647	pCi/g	3.822	N		0				☐	
Iodine-133	HE	211.7	610.3	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Iodine-135	HE	4.75E+12	1.65E+13	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.266	0.1073	pCi/g	0.1148	0.100	238.3	2	1.17	IDENTIFIED	3.043	☐	
Lead-214	✓	1.896	0.1311	pCi/g	0.142	0.100	351.3	2	1.268	IDENTIFIED	5.439	☐	
Neptunium-237	INT	1.255	0.2347	pCi/g	0.5666	N	87.05	3	1.086	IDENTIFIED	14.7	☐	
Niobium-95m	—	0.9718	0.1067	pCi/g	0.3539	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40	✓	32.12	1.578	pCi/g	0.4438	1.00	1459	1	2.141	IDENTIFIED	3.186	☐	
Radium-224	INT	6.573	0.8237	pCi/g	1.23	Y	241.3	1	1.952	IDENTIFIED	12.21	☑ UI	
Radium-226	✓	1.538	0.1097	pCi/g	0.133	Y	608.6	3	1.487	IDENTIFIED	6.041	☐	
Radium-228	✓	2.261	0.2226	pCi/g	0.2877	0.500	910.1	3	1.839	IDENTIFIED	7.852	☐	
Technetium-99m	HE	4.42E+12	5.17E+13	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.6767	0.04846	pCi/g	0.06319	0.080	582.5	1	1.41	IDENTIFIED	6.387	☐	
Thorium-228	NR	2.266	0.1073	pCi/g	0.1148	N	238.3	2	1.17	IDENTIFIED	3.043	☐	
Thorium-230	NR	1.538	0.1019	pCi/g	0.133	N	608.6	3	1.487	IDENTIFIED	6.041	☐	
Thorium-232	NR	2.261	0.2226	pCi/g	0.2877	N	910.1	3	1.839	IDENTIFIED	7.852	☐	
Tin-126	NR	0.4206	0.06511	pCi/g	0.198	N	87.05	3	1.086	IDENTIFIED	14.7	☐	
Total Uranium	—	9.5977	4.21E-06	ug/g	4.9088	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334003	11-MAR-10 12:00	24-MAR-10 09:48	12.9	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.722	0.2454	pCi/g	0.3194	N	911.2	3	1.296	IDENTIFIED	13	☐	
Annihilation Rad.	HE	0.1123	0.04446	pCi/g	0.07079	N	510.9	1	1.75	IDENTIFIED	39.32	☐	
Barium-137m	NR	0.4024	0.06442	pCi/g	0.08194	N	661.9	2	1.363	IDENTIFIED	15.45	☐	
Bismuth-211	INT	4.851	0.3752	pCi/g	0.416	Y	352	2	1.279	IDENTIFIED	6.17	☑ UI	

Bismuth-212	HE	2.12	0.6131	pCi/g	1.802	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.483	0.1515	pCi/g	0.1526	0.200	609.2	3	1.397	IDENTIFIED	8.846	☐	
Cadmium-109	INT	3.997	0.543	pCi/g	1.323	Y	87.35	3	1.111	IDENTIFIED	12.68	☑ UI	
Cerium-141	—	0.6223	0.06729	pCi/g	0.2111	N	0	5	0	NOT_IDENTI	0	☐	
Cerium-143	—	124.8	34.36	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.234	0.04962	pCi/g	0.139	0.100	0	5	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-137	✓	0.4251	0.06806	pCi/g	0.08656	0.100	661.9	2	1.363	IDENTIFIED	15.45	☐	
Europium-155	HE	0.3049	0.09552	pCi/g	0.2385	N	105.7	1	1.245	IDENTIFIED	30.87	☐	
Gross Gamma	—	15.14	1.842	pCi/g	6.257	N		0				☐	
Lead-210	HE	1.996	0.6107	pCi/g	1.05	N	46.72	1	1.033	IDENTIFIED	30.12	☐	
Lead-212	✓	1.85	0.119	pCi/g	0.1134	0.100	238.8	2	1.061	IDENTIFIED	3.966	☐	
Lead-214	✓	1.761	0.1446	pCi/g	0.1514	0.100	352	2	1.279	IDENTIFIED	6.17	☐	
Neptunium-237	INT	1.17	0.2007	pCi/g	0.4156	N	87.35	3	1.111	IDENTIFIED	12.68	☐	
Potassium-40	✓	30.34	1.813	pCi/g	0.7345	1.00	1461	1	2.007	IDENTIFIED	3.998	☐	
Radium-224	INT	5.169	0.8488	pCi/g	1.216	Y	241.7	1	1.823	IDENTIFIED	15.78	☑ UI	
Radium-226	✓	1.483	0.1515	pCi/g	0.1526	Y	609.2	3	1.397	IDENTIFIED	8.846	☐	
Radium-228	✓	1.722	0.2454	pCi/g	0.3194	0.500	911.2	3	1.296	IDENTIFIED	13	☐	
Technetium-99m	HE	1.26E+14	7.03E+13	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Tellurium-125m	HE	29.61	8.094	pCi/g	21.3	N	109	1	1.309	IDENTIFIED	26.62	☐	
Thallium-208	✓	0.544	0.06342	pCi/g	0.08792	0.080	583.2	1	1.102	IDENTIFIED	10.66	☐	
Thorium-228	NR	1.85	0.119	pCi/g	0.1134	N	238.8	2	1.061	IDENTIFIED	3.966	☐	
Thorium-230	NR	1.483	0.1463	pCi/g	0.1526	N	609.2	3	1.397	IDENTIFIED	8.846	☐	
Thorium-232	NR	1.722	0.2454	pCi/g	0.3194	N	911.2	3	1.296	IDENTIFIED	13	☐	
Thorium-234	✓	2.422	0.6816	pCi/g	1.351	2.00	63.46	2	1.058	IDENTIFIED	26.49	☐	
Tin-126	NR	0.392	0.05326	pCi/g	0.1295	N	87.35	3	1.111	IDENTIFIED	12.68	☐	
Total Uranium	—	8.9962	2.04E-06	ug/g	2.0144	N		0				☐	
Uranium-235	✓	3.871	0.4409	pCi/g	0.4806	0.500	143.9	1	1.076	IDENTIFIED	7.107	☐	
Uranium-238	HE	2.422	0.6816	pCi/g	1.351	N	63.46	2	1.058	IDENTIFIED	26.49	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334004	11-MAR-10 12:00	24-MAR-10 10:53	13	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.046	0.2431	pCi/g	0.2983	N	910.9	3	1.412	IDENTIFIED	10.34	☐	
Annihilation Rad.	—	0.1383	0.03706	pCi/g	0.05957	N	510.7	1	1.501	IDENTIFIED	26.37	☐	
Barium-137m	NR	0.375	0.04994	pCi/g	0.08932	N	661.6	2	1.234	IDENTIFIED	12.12	☐	
Bismuth-211	INT	4.753	0.3413	pCi/g	0.3604	Y	351.7	2	1.051	IDENTIFIED	5.588	☑ UI	
Bismuth-212	—	3.315	0.5626	pCi/g	1.678	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.369	0.1253	pCi/g	0.1463	0.200	609.2	3	1.23	IDENTIFIED	6.976	☐	
Cadmium-109	INT	3.23	0.419	pCi/g	0.9388	Y	87.3	3	0.9418	IDENTIFIED	12.1	☑ UI	
Cerium-143	—	137.6	30.53	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1533	0.0402	pCi/g	0.1219	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-137	✓	0.3961	0.05277	pCi/g	0.09436	0.100	661.6	2	1.234	IDENTIFIED	12.12	☐	
Gross Gamma	—	12.05	1.676	pCi/g	4.965	N		0				☐	
Lead-210	✓	2.445	0.373	pCi/g	0.69	N	46.46	1	0.6974	IDENTIFIED	14.5	☐	
Lead-212	✓	2.067	0.1212	pCi/g	0.0938	0.100	238.5	2	0.8382	IDENTIFIED	3.068	☐	
Lead-214	✓	1.725	0.1327	pCi/g	0.1312	0.100	351.7	2	1.051	IDENTIFIED	5.588	☐	
Neptunium-237	INT	0.9452	0.1577	pCi/g	0.2732	N	87.3	3	0.9418	IDENTIFIED	12.1	☐	
Potassium-40	✓	34.14	1.899	pCi/g	0.6962	1.00	1460	1	1.981	IDENTIFIED	3.566	☐	
Radium-224	INT	6.259	0.6379	pCi/g	1.008	Y	241.4	1	1.577	IDENTIFIED	9.172	☑ UI	
Radium-226	✓	1.369	0.1253	pCi/g	0.1463	Y	609.2	3	1.23	IDENTIFIED	6.976	☐	
Radium-228	✓	2.046	0.2431	pCi/g	0.2983	0.500	910.9	3	1.412	IDENTIFIED	10.34	☐	
Sodium-24	HE	15860	38880	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.6157	0.0638	pCi/g	0.07603	0.080	583	1	1.163	IDENTIFIED	8.818	☐	
Thorium-228	NR	2.067	0.1212	pCi/g	0.0938	N	238.5	2	0.8382	IDENTIFIED	3.068	☐	
Thorium-230	NR	1.369	0.12	pCi/g	0.1463	N	609.2	3	1.23	IDENTIFIED	6.976	☐	
Thorium-232	NR	2.046	0.2431	pCi/g	0.2983	N	910.9	3	1.412	IDENTIFIED	10.34	☐	
Thorium-234	✓	1.444	0.4345	pCi/g	0.8742	2.00	63.19	2	0.8891	IDENTIFIED	28.71	☐	
Tin-126	NR	0.3168	0.04109	pCi/g	0.09191	N	87.3	3	0.9418	IDENTIFIED	12.1	☐	

Total Uranium	–	4.5241	1.29E-06	ug/g	1.3029	N		0				☐
Uranium-235	✓	0.4947	0.1448	pCi/g	0.284	0.500	143.5	1	0.9349	IDENTIFIED	27.89	☐
Uranium-238	HE	1.444	0.4345	pCi/g	0.8742	N	63.19	2	0.8891	IDENTIFIED	28.71	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334005	11-MAR-10 12:00	24-MAR-10 11:16	13	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.512	0.2579	pCi/g	0.2968	N	910.9	3	1.521	IDENTIFIED	8.293	☐	
Annihilation Rad.	–	0.2686	0.04895	pCi/g	0.05755	N	510.9	1	2.19	IDENTIFIED	17.71	☐	
Barium-137m	HE	0.1124	0.03469	pCi/g	0.08889	N	661.5	2	0.9593	IDENTIFIED	30.57	☐	
Bismuth-211	INT	5.148	0.4203	pCi/g	0.4957	Y	352.1	2	1.318	IDENTIFIED	6.479	☑ UI	
Bismuth-212	HE	1.736	0.5964	pCi/g	1.614	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.506	0.1436	pCi/g	0.1583	0.200	609.5	3	1.573	IDENTIFIED	8.134	☐	
Cadmium-109	INT	4.556	0.7926	pCi/g	1.903	Y	87.24	3	1.241	IDENTIFIED	16.27	☑ UI	
Cerium-141	–	0.4947	0.06614	pCi/g	0.2053	N	0	9	0	NOT_IDENTI	0	☐	
Cerium-143	–	379.6	60.92	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.1188	0.03665	pCi/g	0.0939	0.100	661.5	2	0.9593	IDENTIFIED	30.57	☐	
Gross Gamma	–	13.96	1.928	pCi/g	6.244	N		0				☐	
Iodine-133	HE	9.693	764.3	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Iodine-135	HE	1.67E+13	2.09E+13	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.326	0.1628	pCi/g	0.1366	0.100	238.8	2	1.311	IDENTIFIED	3.643	☐	
Lead-214	✓	1.868	0.161	pCi/g	0.1669	0.100	352.1	2	1.318	IDENTIFIED	6.479	☐	
Neptunium-237	INT	1.333	0.2708	pCi/g	0.6739	N	87.24	3	1.241	IDENTIFIED	16.27	☐	
Niobium-95	HE	0.1282	0.03389	pCi/g	0.1137	N	0	9	0	NOT_IDENTI	0	☐	
Niobium-95m	HE	0.4949	0.1114	pCi/g	0.3544	N	0	9	0	NOT_IDENTI	0	☐	
Potassium-40	✓	35.91	2.123	pCi/g	0.7671	1.00	1461	1	2.412	IDENTIFIED	3.29	☐	
Radium-224	INT	5.983	0.9688	pCi/g	1.464	Y	241.8	1	1.888	IDENTIFIED	15.22	☑ UI	
Radium-226	✓	1.506	0.1436	pCi/g	0.1583	Y	609.5	3	1.573	IDENTIFIED	8.134	☐	
Radium-228	✓	2.512	0.2579	pCi/g	0.2968	0.500	910.9	3	1.521	IDENTIFIED	8.293	☐	
Sodium-24	HE	53810	46310	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.1718	0.03055	pCi/g	0.1043	Y	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.7471	0.05965	pCi/g	0.07889	0.080	583.2	1	1.637	IDENTIFIED	6.544	☐	
Thorium-228	NR	2.326	0.1628	pCi/g	0.1366	N	238.8	2	1.311	IDENTIFIED	3.643	☐	
Thorium-230	NR	1.506	0.138	pCi/g	0.1583	N	609.5	3	1.573	IDENTIFIED	8.134	☐	
Thorium-232	NR	2.512	0.2579	pCi/g	0.2968	N	910.9	3	1.521	IDENTIFIED	8.293	☐	
Tin-126	NR	0.4468	0.07772	pCi/g	0.1881	N	87.24	3	1.241	IDENTIFIED	16.27	☐	
Uranium-235	✓	1.766	0.3038	pCi/g	0.5385	0.500	143.9	1	1.471	IDENTIFIED	14.72	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334006	11-MAR-10 12:00	24-MAR-10 11:01	13	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.412	0.228	pCi/g	0.3006	N	911.5	3	1.589	IDENTIFIED	7.274	☐	
Annihilation Rad.	HE	0.1237	0.04488	pCi/g	0.06284	N	511	1	2.038	IDENTIFIED	36.01	☐	
Bismuth-211	INT	4.978	0.4041	pCi/g	0.4159	Y	352	2	1.369	IDENTIFIED	6.627	☑ UI	
Bismuth-212	HE	2.894	0.6737	pCi/g	1.566	N	0	3	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.506	0.1317	pCi/g	0.153	0.200	609.7	3	1.522	IDENTIFIED	7.204	☐	
Cadmium-109	INT	3.835	0.6835	pCi/g	1.771	Y	87.2	3	0.9961	IDENTIFIED	16.95	☑ UI	
Cerium-143	–	277.7	46.92	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1258	0.04219	pCi/g	0.1194	0.100	0	3	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	–	11.68	1.791	pCi/g	4.203	N		0				☐	
Lead-212	✓	2.153	0.1345	pCi/g	0.1213	0.100	238.7	2	1.113	IDENTIFIED	3.564	☐	
Lead-214	✓	1.807	0.1549	pCi/g	0.1513	0.100	352	2	1.369	IDENTIFIED	6.627	☐	
Neptunium-237	INT	1.122	0.232	pCi/g	0.487	N	87.2	3	0.9961	IDENTIFIED	16.95	☐	
Potassium-40	✓	34.28	1.995	pCi/g	0.7676	1.00	1461	1	2.283	IDENTIFIED	3.415	☐	
Radium-224	INT	4.874	0.9198	pCi/g	1.301	Y	241.7	1	1.846	IDENTIFIED	18.3	☑ UI	
Radium-226	✓	1.506	0.1317	pCi/g	0.153	Y	609.7	3	1.522	IDENTIFIED	7.204	☐	
Radium-228	✓	2.412	0.228	pCi/g	0.3006	0.500	911.5	3	1.589	IDENTIFIED	7.274	☐	

Thallium-208	✓	0.729	0.06143	pCi/g	0.06518	0.080	583.1	1	1.332	IDENTIFIED	7.082	☐
Thorium-228	NR	2.153	0.1345	pCi/g	0.1213	N	238.7	2	1.113	IDENTIFIED	3.564	☐
Thorium-230	NR	1.506	0.1256	pCi/g	0.153	N	609.7	3	1.522	IDENTIFIED	7.204	☐
Thorium-232	NR	2.412	0.228	pCi/g	0.3006	N	911.5	3	1.589	IDENTIFIED	7.274	☐
Thorium-234	✓	3.818	1.399	pCi/g	2.836	2.00	63.31	2	1.289	IDENTIFIED	35.46	☐
Tin-126	NR	0.3761	0.06703	pCi/g	0.1838	N	87.2	3	0.9961	IDENTIFIED	16.95	☐
Total Uranium	—	11.426	4.16E-06	ug/g	4.2222	N		0				☐
Uranium-238	HE	3.818	1.399	pCi/g	2.836	N	63.31	2	1.289	IDENTIFIED	35.46	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334007	11-MAR-10 12:00	24-MAR-10 11:02	13	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.206	0.2454	pCi/g	0.2867	N	911.6	3	1.652	IDENTIFIED	9.371	☐	
Annihilation Rad.	—	0.2229	0.04405	pCi/g	0.05337	N	510.9	1	1.603	IDENTIFIED	19.26	☐	
Bismuth-211	INT	5.817	0.3771	pCi/g	0.3906	Y	352	2	1.211	IDENTIFIED	4.681	☑ UI	
Bismuth-212	—	3.816	0.6487	pCi/g	1.515	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.734	0.1364	pCi/g	0.1308	0.200	609.6	3	1.705	IDENTIFIED	5.903	☐	
Cadmium-109	INT	4.871	0.5414	pCi/g	1.321	Y	87.33	3	1.019	IDENTIFIED	10.08	☑ UI	
Cerium-143	—	232.4	42.13	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1329	0.04147	pCi/g	0.1106	0.100	0	6	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cobalt-60	✓	0.2057	0.04519	pCi/g	0.07852	0.100	1333	1	1.689	IDENTIFIED	21.58	☐	
Europium-155	HE	0.2253	0.06009	pCi/g	0.2091	N	0	6	0	FAIL_ABUND	0	☐	
Gross Gamma	—	12.88	1.655	pCi/g	5.548	N		0				☐	
Iodine-135	HE	1.61E+13	1.86E+13	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.459	0.139	pCi/g	0.1057	0.100	238.8	2	1.139	IDENTIFIED	2.973	☐	
Lead-214	✓	2.111	0.1487	pCi/g	0.1421	0.100	352	2	1.211	IDENTIFIED	4.681	☐	
Mercury-203	INT	0.07542	0.03506	pCi/g	0.06542	0.100	277.8	1	1.002	IDENTIFIED	46.28	☑ UI	
Neptunium-237	INT	1.425	0.2178	pCi/g	0.4425	N	87.33	3	1.019	IDENTIFIED	10.08	☐	
Potassium-40	✓	35.98	1.879	pCi/g	0.5435	1.00	1461	1	2.15	IDENTIFIED	2.971	☐	
Radium-224	INT	6.609	0.776	pCi/g	1.134	Y	241.6	1	1.715	IDENTIFIED	10.95	☑ UI	
Radium-226	✓	1.734	0.1364	pCi/g	0.1308	Y	609.6	3	1.705	IDENTIFIED	5.903	☐	
Radium-228	✓	2.206	0.2454	pCi/g	0.2867	0.500	911.6	3	1.652	IDENTIFIED	9.371	☐	
Strontium-85	LA	0.09379	0.02398	pCi/g	0.08161	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.6796	0.05944	pCi/g	0.07524	0.080	583.5	1	1.657	IDENTIFIED	7.326	☐	
Thorium-228	NR	2.459	0.139	pCi/g	0.1057	N	238.8	2	1.139	IDENTIFIED	2.973	☐	
Thorium-230	NR	1.734	0.1284	pCi/g	0.1308	N	609.6	3	1.705	IDENTIFIED	5.903	☐	
Thorium-232	NR	2.206	0.2454	pCi/g	0.2867	N	911.6	3	1.652	IDENTIFIED	9.371	☐	
Thorium-234	✓	2.731	1.004	pCi/g	1.859	2.00	63.6	2	1.223	IDENTIFIED	35.66	☐	
Tin-126	NR	0.4777	0.05309	pCi/g	0.1298	N	87.33	3	1.019	IDENTIFIED	10.08	☐	
Total Uranium	—	8.1903	2.99E-06	ug/g	2.7677	N		0				☐	
Uranium-238	HE	2.731	1.004	pCi/g	1.859	N	63.6	2	1.223	IDENTIFIED	35.66	☐	

*** = Number of isotopes identified with a keyline at this energy.

3/26/10

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202071014		24-MAR-10 11:03	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Technetium-99m	HE	8.99E+06	5.62E+06	pCi/g	0	N	0	1	0	SHORT_HLIF	0	☐	
Total Uranium	—	2.4106	1.22E-06	ug/g	1.4732	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202071015	11-MAR-10 12:00	24-MAR-10 11:24	13	DUP	LOAD	1		LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.537	0.2671	pCi/g	0.3245	N	911.6	3	1.671	IDENTIFIED	8.683	☐	
Annihilation Rad.	—	0.2689	0.04812	pCi/g	0.05498	N	511.3	1	1.8	IDENTIFIED	17.38	☐	
Bismuth-211	INT	5.794	0.3945	pCi/g	0.4297	Y	352.4	2	1.359	IDENTIFIED	5.074	☑ UI	
Bismuth-212	—	3.294	0.6754	pCi/g	1.563	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.937	0.1429	pCi/g	0.1449	0.200	609.6	3	1.477	IDENTIFIED	5.466	☐	

Cadmium-109	INT	3.908	0.6848	pCi/g	1.679	Y	87.26	3	1.209	IDENTIFIED	16.88	☑ UI		
Cerium-143	–	128.8	37.93	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.1608	0.03993	pCi/g	0.123	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.	
Gross Gamma	–	13.56	1.899	pCi/g	5.468	N		0				☐		
Lead-212	✓	2.379	0.1446	pCi/g	0.1225	0.100	239.1	2	1.284	IDENTIFIED	3.328	☐		
Lead-214	✓	2.103	0.1545	pCi/g	0.1508	0.100	352.4	2	1.359	IDENTIFIED	5.074	☐		
Neptunium-237	INT	1.144	0.2335	pCi/g	0.5209	N	87.26	3	1.209	IDENTIFIED	16.88	☐		
Potassium-40	✓	36.75	2.003	pCi/g	0.6657	1.00	1461	1	1.989	IDENTIFIED	3.152	☐		
Radium-224	INT	6.112	0.881	pCi/g	1.313	Y	241.9	1	1.74	IDENTIFIED	13.68	☑ UI		
Radium-226	✓	1.937	0.1429	pCi/g	0.1449	Y	609.6	3	1.477	IDENTIFIED	5.466	☐		
Radium-228	✓	2.537	0.2671	pCi/g	0.3245	0.500	911.6	3	1.671	IDENTIFIED	8.683	☐		
Strontium-85	LA	0.1739	0.02989	pCi/g	0.1025	Y	0	4	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.	
Thallium-208	✓	0.7708	0.06423	pCi/g	0.0744	0.080	583.8	1	1.431	IDENTIFIED	6.99	☐		
Thorium-228	NR	2.379	0.1446	pCi/g	0.1225	N	239.1	2	1.284	IDENTIFIED	3.328	☐		
Thorium-230	NR	1.936	0.1334	pCi/g	0.1449	N	609.6	3	1.477	IDENTIFIED	5.466	☐		
Thorium-232	NR	2.537	0.2671	pCi/g	0.3245	N	911.6	3	1.671	IDENTIFIED	8.683	☐		
Thorium-234	✓	3.872	1.585	pCi/g	2.868	2.00	63.15	2	1.13	IDENTIFIED	39.94	☐		
Tin-126	NR	0.3833	0.06716	pCi/g	0.1655	N	87.26	3	1.209	IDENTIFIED	16.88	☐		
Total Uranium	–	11.568	4.72E-06	ug/g	4.2703	N		0				☐		
Uranium-238	HE	3.872	1.585	pCi/g	2.868	N	63.15	2	1.13	IDENTIFIED	39.94	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202071016		24-MAR-10 11:06	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	HE	1.049	0.3204	pCi/g	0.6158	N	911.3	3	1.258	IDENTIFIED	30.03	☐	
Americium-241	✓	14.7	1.056	pCi/g	0.7765	0.200	59.59	1	1.03	IDENTIFIED	3.422	☐ 90.2%	
Annihilation Rad.	HE	0.1709	0.06458	pCi/g	0.09087	N	511.1	1	2.164	IDENTIFIED	37.68	☐	
Barium-137m		5.347	0.1841	pCi/g	0.1153	N	662	2	1.459	IDENTIFIED	2.428	☐	
Bismuth-211		2.983	0.3611	pCi/g	0.6226	Y	352.1	2	1.076	IDENTIFIED	11.63	☐	
Bismuth-214		0.7681	0.1494	pCi/g	0.2124	0.200	609.9	3	1.599	IDENTIFIED	19.09	☐	
Cadmium-109		34.47	2.58	pCi/g	2.249	Y	88.02	2	0.9683	IDENTIFIED	4.463	☐	
Cesium-137	✓	5.648	0.195	pCi/g	0.1218	0.100	662	2	1.459	IDENTIFIED	2.428	☐ 99.4%	
Cobalt-57		0.1617	0.02843	pCi/g	0.06764	N	122.1	1	0.9509	IDENTIFIED	17.24	☐	
Cobalt-60	✓	6.474	0.2836	pCi/g	0.09371	0.100	1333	1	1.998	IDENTIFIED	2.73	☐ 100.1%	
Gross Gamma		28.09	2.836	pCi/g	3.595	N		0				☐	
Iodine-135	HE	2.06E+06	1.45E+07	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Lead-212		1.461	0.09654	pCi/g	0.1695	0.100	238.7	2	1.078	IDENTIFIED	5.222	☐	
Lead-214		1.083	0.1344	pCi/g	0.2248	0.100	352.1	2	1.076	IDENTIFIED	11.63	☐	
Neptunium-237		3.757	0.5351	pCi/g	1.139	N	0	4	0	NOT_IDENTI	0	☐	
Radium-224		3.796	1.084	pCi/g	1.817	Y	241.5	1	1.863	IDENTIFIED	28.37	☐	
Radium-226		0.7681	0.1494	pCi/g	0.2124	Y	609.9	3	1.599	IDENTIFIED	19.09	☐	
Radium-228		1.049	0.3204	pCi/g	0.6158	0.500	911.3	3	1.258	IDENTIFIED	30.03	☐	
Sodium-24	HE	120.9	82.15	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	6.14E+06	1.74E+07	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Thallium-208		0.3783	0.05932	pCi/g	0.1085	0.080	583.4	1	1.472	IDENTIFIED	15.37	☐	
Thorium-228		1.461	0.09654	pCi/g	0.1695	N	238.7	2	1.078	IDENTIFIED	5.222	☐	
Thorium-230		0.7681	0.148	pCi/g	0.2124	N	609.9	3	1.599	IDENTIFIED	19.09	☐	
Thorium-232	HE	1.049	0.3204	pCi/g	0.6158	N	911.3	3	1.258	IDENTIFIED	30.03	☐	
Tin-126		3.408	0.2552	pCi/g	0.2242	N	88.02	2	0.9683	IDENTIFIED	4.463	☐	

*** = Number of isotopes identified with a keyline at this energy.

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334006	11-MAR-10 12:00	24-MAR-10 11:01	13	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228		2.412	0.228	pCi/g	0.3006	N	911.5	3	1.589	IDENTIFIED	7.274	☐		
Annihilation Rad.	HE	0.1237	0.04488	pCi/g	0.06284	N	511	1	2.038	IDENTIFIED	36.01	☐		
Bismuth-211		4.978	0.4041	pCi/g	0.4159	Y	352	2	1.369	IDENTIFIED	6.627	☐		
Bismuth-212	HE	2.894	0.6737	pCi/g	1.566	N	0	3	0	FAIL_ABUND	0	☐		
Bismuth-214		1.506	0.1317	pCi/g	0.153	0.200	609.7	3	1.522	IDENTIFIED	7.204	☐		
Cadmium-109		3.835	0.6835	pCi/g	1.771	Y	87.2	3	0.9961	IDENTIFIED	16.95	☐		
Cerium-143		277.7	46.92	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐		
Cesium-134		0.1258	0.04219	pCi/g	0.1194	0.100	0	3	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma		11.68	1.791	pCi/g	4.203	N		0				☐		
Lead-212		2.153	0.1345	pCi/g	0.1213	0.100	238.7	2	1.113	IDENTIFIED	3.564	☐		
Lead-214		1.807	0.1549	pCi/g	0.1513	0.100	352	2	1.369	IDENTIFIED	6.627	☐		
Neptunium-237		1.122	0.232	pCi/g	0.487	N	87.2	3	0.9961	IDENTIFIED	16.95	☐		
Potassium-40		34.28	1.995	pCi/g	0.7676	1.00	1461	1	2.283	IDENTIFIED	3.415	☐		
Radium-224		4.874	0.9198	pCi/g	1.301	Y	241.7	1	1.846	IDENTIFIED	18.3	☐		
Radium-226		1.506	0.1317	pCi/g	0.153	Y	609.7	3	1.522	IDENTIFIED	7.204	☐		
Radium-228		2.412	0.228	pCi/g	0.3006	0.500	911.5	3	1.589	IDENTIFIED	7.274	☐		
Thallium-208		0.729	0.06143	pCi/g	0.06518	0.080	583.1	1	1.332	IDENTIFIED	7.082	☐		
Thorium-228		2.153	0.1345	pCi/g	0.1213	N	238.7	2	1.113	IDENTIFIED	3.564	☐		
Thorium-230		1.506	0.1256	pCi/g	0.153	N	609.7	3	1.522	IDENTIFIED	7.204	☐		
Thorium-232		2.412	0.228	pCi/g	0.3006	N	911.5	3	1.589	IDENTIFIED	7.274	☐		
Thorium-234		3.818	1.399	pCi/g	2.836	2.00	63.31	2	1.289	IDENTIFIED	35.46	☐		
Tin-126		0.3761	0.06703	pCi/g	0.1838	N	87.2	3	0.9961	IDENTIFIED	16.95	☐		
Total Uranium		11.426	4.16E-06	ug/g	4.2222	N		0				☐		
Uranium-238	HE	3.818	1.399	pCi/g	2.836	N	63.31	2	1.289	IDENTIFIED	35.46	☐		

3/26/10

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334007	11-MAR-10 12:00	25-MAR-10 14:47	14.1	SAMPLE	LOAD	2	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	2.428	0.2349	pCi/g	0.2433	N	911.4	3	1.863	IDENTIFIED	6.906	☐		
Annihilation Rad.	—	0.1761	0.03511	pCi/g	0.05254	N	510.7	1	1.926	IDENTIFIED	19.3	☐		
Bismuth-211	INT	5.847	0.4237	pCi/g	0.3647	Y	352	2	1.376	IDENTIFIED	4.328	☑ ✓	UI	
Bismuth-212	HE	1.786	0.4508	pCi/g	1.232	N	0	7	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.698	0.131	pCi/g	0.1123	0.200	609.4	3	1.643	IDENTIFIED	5.051	☐		
Cadmium-109	INT	6.115	0.6833	pCi/g	1.266	Y	87.22	3	1.448	IDENTIFIED	10.14	☑ ✓	UJ	
Cerium-143	—	649.6	98.31	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.1633	0.03585	pCi/g	0.0936	0.100	0	7	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cobalt-60	✓	0.1815	0.03779	pCi/g	0.07036	0.100	1333	1	2.943	IDENTIFIED	20.34	☐		
Gross Gamma	—	13.14	1.589	pCi/g	3.229	N		0				☐		
Iodine-133	HE	435.2	1397	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Iodine-135	HE	3.31E+14	2.63E+14	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-212	✓	2.201	0.1691	pCi/g	0.1264	0.100	238.6	2	1.176	IDENTIFIED	3.888	☐		
Lead-214	✓	2.122	0.1645	pCi/g	0.1326	0.100	352	2	1.376	IDENTIFIED	4.328	☐		

RPD = 12.5%

Neptunium-237	INT	1.786	0.2737	pCi/g	0.3753	N	87.22	3	1.448	IDENTIFIED	10.14	☐		
Niobium-95m	HE	0.3015	0.08439	pCi/g	0.2548	N	0	7	0	NOT_IDENTI	0	☐		
Potassium-40	✓	38.8	1.979	pCi/g	0.5527	1.00	1461	1	2.628	IDENTIFIED	2.246	☐		
Radium-224	INT	4.3	0.5655	pCi/g	1.64	Y	241.8	1	1.477	IDENTIFIED	11.56	☑	UI	
Radium-226	✓	1.698	0.131	pCi/g	0.1123	Y	609.4	3	1.643	IDENTIFIED	5.051	☐		
Radium-228	✓	2.428	0.2349	pCi/g	0.2433	0.500	911.4	3	1.863	IDENTIFIED	6.906	☐		
Strontium-85	LA	0.1769	0.02669	pCi/g	0.08514	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208	✓	0.71	0.05676	pCi/g	0.06501	0.080	583.1	1	1.574	IDENTIFIED	5.879	☐		
Thorium-228	NR	2.201	0.1691	pCi/g	0.1264	N	238.6	2	1.176	IDENTIFIED	3.888	☐		
Thorium-230	NR	1.698	0.1231	pCi/g	0.1123	N	609.4	3	1.643	IDENTIFIED	5.051	☐		
Thorium-232	NR	2.428	0.2349	pCi/g	0.2433	N	911.4	3	1.863	IDENTIFIED	6.906	☐		
Tin-126	NR	0.5987	0.0669	pCi/g	0.1245	N	87.22	3	1.448	IDENTIFIED	10.14	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202071014		24-MAR-10 11:03	0	MB	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Technetium-99m	HE 8.99E+06	5.62E+06	pCi/g	0	N	0	1	0	SHORT_HLIF	0	☐		
Total Uranium	2.4106	1.22E-06	ug/g	1.4732	N		0				☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202071015	11-MAR-10 12:00	24-MAR-10 11:24	13	DUP	LOAD	1		LAN101004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	2.537	0.2671	pCi/g	0.3245	N	911.6	3	1.671	IDENTIFIED	8.683	☐		
Annihilation Rad.	0.2689	0.04812	pCi/g	0.05498	N	511.3	1	1.8	IDENTIFIED	17.38	☐		
Bismuth-211	5.794	0.3945	pCi/g	0.4297	Y	352.4	2	1.359	IDENTIFIED	5.074	☐		
Bismuth-212	3.294	0.6754	pCi/g	1.563	N	0	4	0	FAIL_ABUND	0	☐		
Bismuth-214	1.937	0.1429	pCi/g	0.1449	0.200	609.6	3	1.477	IDENTIFIED	5.466	☐		
Cadmium-109	3.908	0.6848	pCi/g	1.679	Y	87.26	3	1.209	IDENTIFIED	16.88	☐		
Cerium-143	128.8	37.93	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐		
Cesium-134	0.1608	0.03993	pCi/g	0.123	0.100	0	4	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	13.56	1.899	pCi/g	5.468	N		0				☐		
Lead-212	2.379	0.1446	pCi/g	0.1225	0.100	239.1	2	1.284	IDENTIFIED	3.328	☐		
Lead-214	2.103	0.1545	pCi/g	0.1508	0.100	352.4	2	1.359	IDENTIFIED	5.074	☐		
Neptunium-237	1.144	0.2335	pCi/g	0.5209	N	87.26	3	1.209	IDENTIFIED	16.88	☐		
Potassium-40	36.75	2.003	pCi/g	0.6657	1.00	1461	1	1.989	IDENTIFIED	3.152	☐		
Radium-224	6.112	0.881	pCi/g	1.313	Y	241.9	1	1.74	IDENTIFIED	13.68	☐		
Radium-226	1.937	0.1429	pCi/g	0.1449	Y	609.6	3	1.477	IDENTIFIED	5.466	☐		
Radium-228	2.537	0.2671	pCi/g	0.3245	0.500	911.6	3	1.671	IDENTIFIED	8.683	☐		
Strontium-85	0.1739	0.02989	pCi/g	0.1025	Y	0	4	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208	0.7708	0.06423	pCi/g	0.0744	0.080	583.8	1	1.431	IDENTIFIED	6.99	☐		
Thorium-228	2.379	0.1446	pCi/g	0.1225	N	239.1	2	1.284	IDENTIFIED	3.328	☐		
Thorium-230	1.936	0.1334	pCi/g	0.1449	N	609.6	3	1.477	IDENTIFIED	5.466	☐		
Thorium-232	2.537	0.2671	pCi/g	0.3245	N	911.6	3	1.671	IDENTIFIED	8.683	☐		
Thorium-234	3.872	1.585	pCi/g	2.868	2.00	63.15	2	1.13	IDENTIFIED	39.94	☐		
Tin-126	0.3833	0.06716	pCi/g	0.1655	N	87.26	3	1.209	IDENTIFIED	16.88	☐		
Total Uranium	11.568	4.72E-06	ug/g	4.2703	N		0				☐		

3/26/10

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertanty	Units	DL	RDL
965250	249334006	SAMPLE	24-MAR-10	Cerium-143	277.7	46.92	pCi/g	0	N
				Cesium-134	0.1258	0.04219	pCi/g	0.05973	0.100
				Gross Gamma	11.68	1.791	pCi/g	2.038	N
				Lead-212	2.153	0.1345	pCi/g	0.0607	0.100
				Lead-214	1.807	0.1549	pCi/g	0.07568	0.100
				Mercury-203	0.05806	0.02769	pCi/g	0.04348	0.100
				Potassium-40	34.28	1.995	pCi/g	0.3841	1.00
				Radium-224	4.874	0.9198	pCi/g	0.6508	Y
				Radium-226	1.506	0.1317	pCi/g	0.07654	Y
				Radium-228	2.412	0.228	pCi/g	0.1504	0.500
				Ruthenium-106	0.5145	0.1973	pCi/g	0.3601	0.800
				Strontium-85	0.07237	0.02755	pCi/g	0.04495	Y
				Thallium-208	0.729	0.06143	pCi/g	0.03261	0.080
				Thorium-234	3.818	1.399	pCi/g	1.419	2.00
965250	249334007	SAMPLE	25-MAR-10	Bismuth-211	5.847	0.4237	pCi/g	0.1825	Y
				Bismuth-214	1.698	0.131	pCi/g	0.05619	0.200
				Cadmium-109	6.115	0.6833	pCi/g	0.6336	Y
				Cerium-143	649.6	98.31	pCi/g	0	N
				Cesium-134	0.1633	0.03585	pCi/g	0.04683	0.100
				Cobalt-60	0.1815	0.03779	pCi/g	0.0352	0.100
				Gross Gamma	13.14	1.589	pCi/g	1.574	N
				Iodine-133	435.2	1397	pCi/g	0	N
				Iodine-135	3.31E+14	2.63E+14	pCi/g	0	N
				Lead-212	2.201	0.1691	pCi/g	0.06324	0.100
				Lead-214	2.122	0.1645	pCi/g	0.06635	0.100
				Mercury-203	0.04987	0.02335	pCi/g	0.03465	0.100
				Molybdenum-99	9.073	5.135	pCi/g	8.697	N
				Potassium-40	38.8	1.979	pCi/g	0.2765	1.00
				Radium-224	4.3	0.5655	pCi/g	0.8206	Y
				Radium-226	1.698	0.131	pCi/g	0.05619	Y
				Radium-228	2.428	0.2349	pCi/g	0.1217	0.500
				Strontium-85	0.1769	0.02669	pCi/g	0.0426	Y
				Thallium-208	0.71	0.05676	pCi/g	0.03252	0.080
965250	1202071014	MB	24-MAR-10	Technetium-99m	8.99E+06	5.62E+06	pCi/g	0	N
				Thorium-234	0.8329	0.4096	pCi/g	0.4951	2.00
965250	1202071015	DUP	24-MAR-10	Bismuth-211	5.794	0.3945	pCi/g	0.215	Y
				Bismuth-214	1.937	0.1429	pCi/g	0.07252	0.200

no status

no status

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 10:57:57.96

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329001.CNF;2
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 08:56:57
Sample ID         : G249329001           Sample quantity  : 1.35710E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.37  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 965250                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	74.81*	389	488	1.21	149.18	145	12	5.40E-02	10.8	1.69E+00
2	2	77.08	630	390	0.96	153.73	145	12	8.75E-02	6.5	
3	5	84.28	108	340	1.27	168.13	165	26	1.50E-02	28.3	1.58E+00
4	5	87.05*	283	506	1.45	173.65	165	26	3.94E-02	15.6	
5	5	89.93	144	389	1.11	179.42	165	26	2.01E-02	24.2	
6	5	92.86*	213	550	1.66	185.26	165	26	2.96E-02	22.6	
7	0	186.15*	275	439	1.38	371.76	365	14	3.82E-02	17.6	
8	0	209.49	109	259	0.90	418.42	415	8	1.52E-02	27.5	
9	3	238.72*	1298	213	1.12	476.85	470	19	1.80E-01	3.4	1.31E+00
10	3	241.81	244	257	1.68	483.04	470	19	3.38E-02	16.3	
11	0	270.20	100	211	1.43	539.78	536	9	1.40E-02	27.8	
12	0	277.41	86	162	1.13	554.21	551	9	1.19E-02	28.7	
13	1	295.33*	357	162	1.28	590.02	585	19	4.97E-02	8.1	1.39E+00
14	1	300.19	93	156	1.46	599.73	585	19	1.29E-02	27.0	
15	0	328.05	75	170	1.01	655.45	651	10	1.04E-02	34.7	
16	0	338.51*	237	185	1.17	676.35	670	11	3.29E-02	13.1	
17	0	352.07*	533	195	1.31	703.46	698	11	7.41E-02	6.8	
18	0	463.38	57	115	1.02	926.02	921	10	7.88E-03	37.8	
19	0	511.04*	108	132	1.87	1021.32	1015	14	1.50E-02	27.7	
20	0	583.32*	412	77	1.64	1165.86	1159	14	5.73E-02	6.8	
21	0	609.56*	406	111	1.24	1218.32	1212	13	5.64E-02	7.4	
22	0	728.49	136	144	2.58	1456.15	1446	25	1.88E-02	25.3	
23	0	771.48*	56	85	0.73	1542.13	1533	18	7.80E-03	41.9	
24	0	794.39	60	48	1.74	1587.96	1582	12	8.31E-03	26.5	
25	0	860.45	55	52	1.07	1720.07	1711	14	7.60E-03	31.1	
26	0	911.46*	292	59	1.97	1822.10	1815	18	4.06E-02	8.6	
27	3	964.63*	62	50	2.47	1928.46	1923	21	8.59E-03	25.8	9.64E-01
28	3	969.09*	172	50	1.86	1937.38	1923	21	2.39E-02	11.2	
29	0	1120.29	101	54	1.55	2239.84	2231	14	1.40E-02	18.2	
30	0	1460.78*	1173	18	2.20	2921.07	2912	19	1.63E-01	3.1	
31	0	1764.39	81	6	1.75	3528.66	3519	16	1.12E-02	13.5	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 10:58:01

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329001.CNF;2
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 08:56:57
Sample ID : G249329001 Sample quantity : 135.71 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA6 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.37 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.260E+01	3.667E+00	5.957E-01	5.616E-02	54.716
CD-109	+	88.03	*	4.182E+00	1.380E+00	1.239E+00	1.379E-01	3.374
SN-126		64.28		8.332E-01	6.125E-01	1.027E+00	1.589E-01	0.812
	+	86.94		1.705E+00	8.901E-01	5.115E-01	2.144E-01	3.333
	+	87.57	*	4.101E-01	1.354E-01	1.222E-01	1.353E-02	3.357
TL-208	+	277.37		9.593E-01	5.644E-01	7.139E-01	9.291E-02	1.344
	+	583.19	*	6.314E-01	1.033E-01	6.481E-02	5.918E-03	9.742
	+	860.56		8.014E-01	5.053E-01	5.227E-01	5.082E-02	1.533
BI-211		72.87		5.904E+00	3.852E+00	5.993E+00	5.760E-01	0.985
	+	351.06	*	3.633E+00	5.989E-01	4.130E-01	3.876E-02	8.796
PB-212	+	74.82		2.538E+00	6.495E-01	6.275E-01	8.645E-02	4.044
	+	77.11		2.338E+00	3.812E-01	3.435E-01	3.416E-02	6.807
	+	238.63	*	1.964E+00	2.414E-01	1.063E-01	1.091E-02	18.485
	+	300.09		2.207E+00	1.214E+00	1.266E+00	1.404E-01	1.743
BI-214	+	609.32	*	1.205E+00	2.152E-01	1.293E-01	1.283E-02	9.323
	+	1120.29		1.589E+00	6.036E-01	5.339E-01	5.766E-02	2.976
	+	1764.49		1.768E+00	5.021E-01	5.153E-01	4.442E-02	3.432
PB-214	+	74.82		4.498E+00	1.123E+00	1.112E+00	1.398E-01	4.044
	+	77.11		4.122E+00	7.531E-01	6.055E-01	7.823E-02	6.807
	+	242.00		2.238E+00	7.674E-01	6.466E-01	7.031E-02	3.461
	+	295.22		1.498E+00	2.975E-01	2.439E-01	2.769E-02	6.143
	+	351.93	*	1.318E+00	2.292E-01	1.380E-01	1.501E-02	9.556
RA-224	+	240.99	*	3.958E+00	1.337E+00	1.139E+00	1.048E-01	3.474
RA-226	+	609.32	*	1.205E+00	2.152E-01	1.293E-01	1.283E-02	9.323
	+	1120.29		1.589E+00	6.036E-01	5.339E-01	5.766E-02	2.976
	+	1764.49		1.768E+00	5.021E-01	5.153E-01	4.442E-02	3.432
AC-228	+	338.32		1.795E+00	8.851E-01	4.024E-01	1.683E-01	4.462
	+	911.20	*	2.186E+00	4.588E-01	2.465E-01	2.977E-02	8.870
	+	968.97		2.225E+00	7.381E-01	4.453E-01	1.093E-01	4.996
RA-228	+	338.32		1.795E+00	8.851E-01	4.024E-01	1.683E-01	4.462
	+	911.20	*	2.186E+00	4.588E-01	2.465E-01	2.977E-02	8.870
	+	968.97		2.225E+00	7.381E-01	4.453E-01	1.093E-01	4.996
TH-228	+	74.82		2.538E+00	6.015E-01	6.275E-01	6.166E-02	4.044
	+	77.11		2.338E+00	3.812E-01	3.435E-01	3.416E-02	6.807

Sample ID : G249329001 Acquisition date : 24-MAR-2010 08:56:57

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	1.964E+00	2.414E-01	1.063E-01	1.091E-02	18.485
	+	300.09		2.207E+00	1.802E+00	1.266E+00	7.762E-01	1.743
TH-229	+	85.43		4.073E-01	2.344E-01	3.154E-01	3.409E-02	1.292
	+	88.47		6.323E-01	2.087E-01	1.865E-01	2.062E-02	3.389
		193.51	*	-2.079E-01	5.856E-01	9.602E-01	8.427E-02	-0.217
	+	210.85		2.347E+00	1.306E+00	1.531E+00	1.372E-01	1.533
TH-230	+	609.32	*	1.205E+00	2.056E-01	1.293E-01	1.086E-02	9.323
	+	1120.29		1.589E+00	5.942E-01	5.339E-01	4.522E-02	2.976
	+	1764.49		1.768E+00	5.021E-01	5.153E-01	4.442E-02	3.432
TH-232	+	338.32		1.795E+00	4.963E-01	4.024E-01	3.653E-02	4.462
	+	911.20	*	2.186E+00	4.588E-01	2.465E-01	2.977E-02	8.870
	+	968.97		2.225E+00	7.381E-01	4.453E-01	1.093E-01	4.996
U-235	+	89.96		2.157E+00	1.181E+00	1.272E+00	3.238E-01	1.696
	+	93.35		1.921E+00	9.806E-01	7.662E-01	1.823E-01	2.506
		143.76	*	1.076E-01	2.306E-01	3.677E-01	6.181E-02	0.293
		163.33		-1.057E-01	4.892E-01	7.663E-01	1.369E-01	-0.138
	+	185.72		2.674E-01	9.702E-02	7.118E-02	6.183E-03	3.757
		205.31		5.657E-01	5.883E-01	9.078E-01	1.660E-01	0.623
NP-237	+	86.48	*	1.224E+00	4.785E-01	3.691E-01	8.729E-02	3.316
		95.86		-4.301E-02	1.044E+00	1.513E+00	3.711E-01	-0.028
ANH-511	+	511.00	*	1.267E-01	7.100E-02	5.078E-02	4.407E-03	2.495

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	9.477E-02	3.346E-01	5.748E-01	5.368E-02	0.165
NA-22		1274.54	*	3.433E-03	5.427E-02	8.945E-02	7.859E-03	0.038
NA-24		1368.63	*	3.583E-02	5.427E-02	Half-Life too short		
SC-46		889.28	*	2.398E-02	4.557E-02	7.709E-02	7.124E-03	0.311
	+	1120.55		2.638E-01	9.866E-02	1.458E-01	1.235E-02	1.809
V-48		944.13		1.126E-01	8.711E-01	1.479E+00	1.361E-01	0.076
		983.53	*	-2.589E-02	7.808E-02	1.267E-01	1.153E-02	-0.204
		1312.11		-1.689E-02	8.504E-02	1.357E-01	1.224E-02	-0.124
CR-51		320.08	*	1.935E-02	3.758E-01	6.180E-01	5.949E-02	0.031
MN-54		834.85	*	-2.090E-02	4.367E-02	6.755E-02	6.088E-03	-0.309
CO-56		846.77	*	-1.378E-02	4.499E-02	7.056E-02	6.396E-03	-0.195
		1037.84		-6.883E-04	3.549E-01	5.910E-01	5.520E-02	-0.001
		1238.28		1.208E-01	1.094E-01	1.940E-01	1.705E-02	0.623
		1771.35		-1.012E+00	4.231E-01	4.538E-01	3.901E-02	-2.230
CO-57		122.06	*	1.421E-02	2.665E-02	4.387E-02	3.694E-03	0.324
		136.47		3.097E-02	2.324E-01	3.739E-01	3.357E-02	0.083
CO-58		810.76	*	7.677E-03	4.221E-02	6.971E-02	6.219E-03	0.110
FE-59		1099.45	*	-1.536E-01	9.903E-02	1.351E-01	1.256E-02	-1.136
		1291.59		-1.232E-01	1.430E-01	2.101E-01	2.105E-02	-0.586
CO-60		1173.23		-1.392E-02	5.217E-02	8.386E-02	6.799E-03	-0.166
		1332.49	*	4.844E-03	4.506E-02	7.485E-02	6.847E-03	0.065
ZN-65		1115.54	*	-1.068E-01	1.294E-01	1.641E-01	1.396E-02	-0.651
SE-75		121.12		-2.347E-02	1.372E-01	2.190E-01	2.398E-02	-0.107

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		136.00		4.060E-03	4.529E-02	7.274E-02	6.100E-03	0.056
		264.66	*	-3.139E-03	5.330E-02	8.163E-02	7.618E-03	-0.038
		279.54		7.825E-02	1.376E-01	2.076E-01	1.997E-02	0.377
		400.66		-2.080E-01	3.115E-01	4.801E-01	5.276E-02	-0.433
SR-85		514.00	*	7.936E-02	4.700E-02	7.794E-02	6.762E-03	1.018
Y-88		898.04		1.711E-02	4.537E-02	7.584E-02	7.064E-03	0.226
		1836.06	*	-2.933E-02	3.158E-02	3.896E-02	3.256E-03	-0.753
Y-91		1204.77	*	-3.096E+01	2.743E+01	4.054E+01	3.373E+00	-0.764
NB-94		702.65	*	2.282E-02	3.824E-02	6.563E-02	5.469E-03	0.348
		871.09		-6.805E-03	3.931E-02	6.230E-02	5.711E-03	-0.109
NB-95		765.81	*	9.495E-03	5.133E-02	7.399E-02	6.421E-03	0.128
NB-95M		235.69	*	1.135E-01	1.497E-01	2.293E-01	2.376E-02	0.495
ZR-95		724.19		4.154E-02	1.194E-01	1.758E-01	1.616E-02	0.236
		756.73	*	4.453E-02	8.409E-02	1.430E-01	1.363E-02	0.311
MO-99		140.51		-1.244E+00	1.355E+01	2.154E+01	5.092E+00	-0.058
		181.07		-9.511E+00	1.247E+01	1.767E+01	3.321E+00	-0.538
		366.42		2.658E+01	6.603E+01	1.099E+02	9.665E+00	0.242
		739.50	*	2.741E+00	8.823E+00	1.351E+01	2.123E+00	0.203
		777.92		-1.063E+01	2.614E+01	3.467E+01	3.030E+00	-0.307
TC-99M		140.51	*	-7.643E+06	2.614E+01	Half-Life too short		
RU-103		497.08	*	-4.422E-02	4.247E-02	6.357E-02	8.904E-03	-0.696
	+	610.33		1.195E+01	2.630E+00	3.091E+00	5.018E-01	3.867
RH-106		621.93	*	-9.681E-02	3.450E-01	5.580E-01	7.295E-02	-0.174
		1050.41		3.626E-01	3.146E+00	5.287E+00	4.677E-01	0.069
RU-106		621.93	*	-9.681E-02	3.448E-01	5.580E-01	4.653E-02	-0.174
		1050.41		3.626E-01	3.146E+00	5.287E+00	4.677E-01	0.069
AG-108M		433.94	*	-1.773E-02	3.476E-02	5.368E-02	4.770E-03	-0.330
		614.28		-1.515E-02	4.757E-02	6.612E-02	5.732E-03	-0.229
		722.91		5.109E-03	4.628E-02	6.647E-02	5.803E-03	0.077
AG-110M		657.76	*	-2.640E-02	4.080E-02	6.376E-02	5.351E-03	-0.414
		677.62		4.216E-02	3.455E-01	5.744E-01	4.853E-02	0.073
		706.68		-4.724E-02	2.342E-01	3.776E-01	3.252E-02	-0.125
		763.94		1.295E-01	1.836E-01	2.829E-01	2.518E-02	0.458
		884.68		-1.429E-02	5.486E-02	8.592E-02	8.147E-03	-0.166
		937.49		-6.080E-02	1.289E-01	2.073E-01	1.971E-02	-0.293
		1384.29		2.696E-02	1.891E-01	3.131E-01	2.945E-02	0.086
		1505.03		-2.552E-01	3.171E-01	4.411E-01	4.047E-02	-0.579
SN-113		391.69	*	-3.514E-02	4.972E-02	7.629E-02	6.654E-03	-0.461
CD-115		260.90		1.260E+01	7.837E+01	1.311E+02	1.217E+01	0.096
		492.35		-4.685E-01	2.079E+01	3.493E+01	3.034E+00	-0.013
		527.90	*	-3.255E+00	6.698E+00	1.039E+01	8.999E-01	-0.313
SN-117M		156.02		3.314E-01	2.314E+00	3.698E+00	3.102E-01	0.090
		158.56	*	-2.497E-02	5.422E-02	8.405E-02	7.064E-03	-0.297
TE-123M		159.00	*	-2.235E-02	3.162E-02	4.837E-02	4.092E-03	-0.462
SB-124		602.73		-5.249E-03	4.513E-02	6.732E-02	5.679E-03	-0.078
		645.85		-1.337E-01	5.170E-01	8.349E-01	7.278E-02	-0.160
		722.78		6.312E-02	4.540E-01	6.543E-01	5.659E-02	0.096
		1690.97	*	-2.365E-02	7.409E-02	1.146E-01	1.054E-02	-0.206
SB-125		427.87	*	1.722E-02	1.105E-01	1.795E-01	1.571E-02	0.096

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	463.37		5.873E-01	4.472E-01	6.055E-01	5.638E-02	0.970
		600.60		4.853E-02	1.910E-01	3.231E-01	2.938E-02	0.150
		635.95		7.155E-03	2.787E-01	4.618E-01	4.150E-02	0.015
TE-125M		109.28	*	3.425E+00	1.023E+01	1.659E+01	1.786E+00	0.206
I-126		388.63		7.448E-02	1.589E-01	2.654E-01	2.255E-02	0.281
		666.33	*	-5.404E-02	2.178E-01	3.516E-01	2.855E-02	-0.154
		753.82		2.113E+00	1.962E+00	3.461E+00	2.982E-01	0.611
SB-126		414.70		-4.735E-04	7.443E-02	1.199E-01	1.024E-02	-0.004
		666.50		-2.456E-02	7.387E-02	1.183E-01	9.611E-03	-0.208
		695.00		-1.980E-03	7.971E-02	1.307E-01	1.083E-02	-0.015
		697.00		-2.065E-01	2.848E-01	4.403E-01	3.655E-02	-0.469
		720.70	*	-7.807E-02	1.696E-01	2.266E-01	1.912E-02	-0.344
		856.80		-4.089E-01	5.581E-01	6.935E-01	6.316E-02	-0.590
SB-127		252.40		-2.924E+00	3.328E+00	4.899E+00	2.033E+00	-0.597
		473.00		2.185E-01	1.206E+00	1.953E+00	2.393E-01	0.112
		685.70	*	6.700E-02	1.014E+00	1.676E+00	1.750E-01	0.040
		783.70		4.028E+00	2.750E+00	4.947E+00	5.884E-01	0.814
I-131		80.19		2.494E+00	5.431E+00	6.506E+00	6.679E-01	0.383
		284.31		-3.804E-02	1.379E+00	2.273E+00	2.207E-01	-0.017
		364.49	*	-3.601E-02	1.093E-01	1.737E-01	1.608E-02	-0.207
		636.99		-4.244E-01	1.331E+00	2.137E+00	1.870E-01	-0.199
TE-132		49.72		1.375E+00	1.544E+01	2.588E+01	2.882E+00	0.053
		111.76		-7.033E+00	2.234E+01	3.507E+01	3.712E+00	-0.201
		116.30		6.176E+00	1.895E+01	3.099E+01	3.226E+00	0.199
		228.16	*	3.506E-01	5.225E-01	8.938E-01	1.402E-01	0.392
BA-133		81.00		-2.492E-02	1.201E-01	1.586E-01	2.620E-02	-0.157
	+	276.40		8.863E-01	5.247E-01	7.142E-01	1.039E-01	1.241
		302.85		1.385E-02	1.604E-01	2.330E-01	3.149E-02	0.059
		356.01	*	-1.720E-02	5.677E-02	7.871E-02	1.035E-02	-0.219
		383.85		3.137E-02	3.300E-01	5.378E-01	6.663E-02	0.058
I-133		529.87	*	-7.018E-04	3.300E-01	Half-Life too short		
		875.33		-3.022E-03	3.300E-01	Half-Life too short		
		1298.22		-3.615E-03	3.300E-01	Half-Life too short		
CS-134		563.25		2.258E-01	4.013E-01	6.951E-01	6.023E-02	0.325
		569.33		1.733E-01	2.185E-01	3.787E-01	3.288E-02	0.458
		604.72		-4.564E-02	4.388E-02	5.586E-02	4.718E-03	-0.817
	+	795.86	*	1.339E-01	7.202E-02	1.009E-01	8.972E-03	1.326
		801.95		2.280E-01	4.960E-01	7.992E-01	7.118E-02	0.285
		1365.19		-3.350E-01	1.402E+00	2.206E+00	2.107E-01	-0.152
CS-135		268.22	*	2.359E-01	1.999E-01	3.120E-01	3.295E-02	0.756
I-135		546.56		4.172E+06	1.999E-01	Half-Life too short		
		836.80		-5.176E+07	1.999E-01	Half-Life too short		
		1038.76		-2.261E+07	1.999E-01	Half-Life too short		
		1131.51		-7.240E+05	1.999E-01	Half-Life too short		
		1260.41	*	-2.146E+07	1.999E-01	Half-Life too short		
		1457.56		2.810E+09	1.999E-01	Half-Life too short		
		1678.03		1.404E+07	1.999E-01	Half-Life too short		
		1791.20		5.160E+07	1.999E-01	Half-Life too short		
CS-136		153.25		7.394E-01	8.707E-01	1.431E+00	1.439E-01	0.517

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		176.60		-6.071E-02	4.843E-01	8.171E-01	7.739E-02	-0.074
		273.65		2.394E-01	7.601E-01	8.313E-01	8.302E-02	0.288
		340.55		4.096E-01	1.802E-01	2.924E-01	2.739E-02	1.401
		818.51		4.985E-03	7.466E-02	1.219E-01	1.090E-02	0.041
		1048.07	*	8.014E-02	1.178E-01	2.070E-01	1.906E-02	0.387
		1235.36		-1.326E-01	6.409E-01	1.035E+00	1.210E-01	-0.128
BA-137M		661.66	*	3.435E-03	4.359E-02	7.226E-02	5.848E-03	0.048
CS-137		661.66	*	3.628E-03	4.604E-02	7.634E-02	6.191E-03	0.048
CE-139		165.86	*	-1.071E-02	3.322E-02	5.173E-02	4.374E-03	-0.207
BA-140		162.66		3.270E-01	8.006E-01	1.292E+00	1.166E-01	0.253
		304.85		-1.245E+00	1.500E+00	1.944E+00	5.730E-01	-0.640
		423.72		9.178E-01	2.038E+00	3.344E+00	1.100E+00	0.274
		537.26	*	-3.212E-01	2.940E-01	4.183E-01	1.419E-01	-0.768
LA-140	+	328.76		6.184E-01	4.337E-01	5.588E-01	5.372E-02	1.107
		487.02		1.513E-01	1.355E-01	2.436E-01	2.244E-02	0.621
		815.77		-9.921E-02	3.385E-01	5.335E-01	5.284E-02	-0.186
		1596.21	*	-1.922E-02	8.737E-02	1.411E-01	1.279E-02	-0.136
CE-141		145.44	*	1.928E-02	6.929E-02	1.098E-01	9.335E-03	0.176
CE-143		57.36		-6.559E-05	6.929E-02	Half-Life too short		
		293.27	*	1.827E-04	6.929E-02	Half-Life too short		
		664.57		3.279E-04	6.929E-02	Half-Life too short		
		721.93		6.089E-05	6.929E-02	Half-Life too short		
CE-144		80.12		1.698E+00	3.547E+00	4.255E+00	4.352E-01	0.399
		133.52	*	-4.460E-02	2.241E-01	3.557E-01	5.379E-02	-0.125
PM-144		476.78		-9.875E-03	7.136E-02	1.193E-01	1.123E-02	-0.083
		618.01		7.660E-04	3.665E-02	6.082E-02	5.235E-03	0.013
		696.49	*	-6.656E-03	3.976E-02	6.443E-02	5.348E-03	-0.103
PR-144		696.51	*	-5.208E-01	2.971E+00	4.810E+00	3.991E-01	-0.108
		1489.16		2.991E+00	1.244E+01	2.100E+01	1.929E+00	0.142
PM-146		453.88	*	1.934E-02	4.225E-02	7.018E-02	7.450E-03	0.276
		633.25		-2.392E-02	1.511E+00	2.496E+00	9.514E-01	-0.010
		735.93		1.043E-01	1.949E-01	2.905E-01	8.131E-02	0.359
		747.24		-4.428E-02	1.153E-01	1.818E-01	2.647E-02	-0.244
ND-147	+	91.11		6.062E-01	3.020E-01	4.492E-01	5.043E-02	1.349
		319.41		-2.743E+00	3.232E+00	5.006E+00	4.610E-01	-0.548
		531.02	*	-5.413E-02	5.467E-01	9.090E-01	1.361E-01	-0.060
PM-149		285.90	*	1.740E+01	5.085E+01	8.534E+01	1.360E+01	0.204
EU-152		121.78		3.790E-02	7.634E-02	1.255E-01	1.221E-02	0.302
		244.70		2.572E-01	4.002E-01	6.103E-01	5.625E-02	0.421
		344.28	*	-7.358E-02	1.166E-01	1.755E-01	1.670E-02	-0.419
		778.90		-1.959E-01	3.547E-01	4.623E-01	4.043E-02	-0.424
	+	964.08		8.611E-01	4.510E-01	6.916E-01	6.330E-02	1.245
		1085.87		-2.141E-01	4.744E-01	7.540E-01	6.537E-02	-0.284
		1112.07		-7.146E-02	4.367E-01	6.088E-01	5.187E-02	-0.117
		1408.01		4.928E-02	2.328E-01	3.878E-01	3.567E-02	0.127
GD-153		69.67		-1.147E+00	2.017E+00	3.099E+00	2.915E-01	-0.370
		97.43	*	-4.530E-02	9.945E-02	1.406E-01	1.387E-02	-0.322
		103.18		-1.265E-01	1.196E-01	1.844E-01	1.726E-02	-0.686
EU-154		123.07		1.818E-03	5.540E-02	8.923E-02	9.980E-03	0.020

Sample ID : G249329001 Acquisition date : 24-MAR-2010 08:56:57

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		723.31		-4.225E-02	2.179E-01	3.013E-01	2.814E-02	-0.140
		873.19		-1.063E-01	3.350E-01	5.230E-01	6.435E-02	-0.203
		996.26		-4.987E-01	4.403E-01	6.446E-01	1.140E-01	-0.774
		1004.73		-2.053E-01	2.714E-01	4.222E-01	5.042E-02	-0.486
		1274.44	*	3.644E-02	1.505E-01	2.524E-01	2.902E-02	0.144
EU-155	+	86.55		4.969E-01	1.641E-01	2.012E-01	2.216E-02	2.470
		105.31	*	6.207E-02	1.141E-01	1.888E-01	1.757E-02	0.329
TB-160	+	86.79		1.291E+00	4.262E-01	5.243E-01	5.755E-02	2.463
		197.04		1.117E-01	6.312E-01	1.042E+00	9.184E-02	0.107
		215.65		3.930E-01	8.047E-01	1.377E+00	1.240E-01	0.285
		298.57		1.869E-01	1.264E-01	2.214E-01	2.057E-02	0.844
		879.36	*	9.329E-02	1.551E-01	2.648E-01	2.437E-02	0.352
		962.29		9.040E-01	7.128E-01	1.181E+00	1.082E-01	0.765
		966.15		1.187E+00	3.147E-01	6.017E-01	5.504E-02	1.973
		1177.93		-9.600E-02	4.071E-01	6.561E-01	5.340E-02	-0.146
		1271.85		6.033E-02	8.756E-01	1.444E+00	1.265E-01	0.042
HO-166M		80.57		2.444E-01	3.786E-01	4.596E-01	4.720E-02	0.532
		184.41		9.030E-02	4.080E-02	7.240E-02	6.278E-03	1.247
		280.46		-2.329E-02	1.073E-01	1.532E-01	1.427E-02	-0.152
		410.95		6.079E-02	2.965E-01	4.784E-01	4.082E-02	0.127
		711.68	*	-4.915E-02	6.977E-02	1.073E-01	8.999E-03	-0.458
		752.31		-7.060E-02	3.357E-01	5.385E-01	4.635E-02	-0.131
		810.29		-3.833E-03	6.596E-02	1.064E-01	9.471E-03	-0.036
TA-182		67.75		-2.179E-02	1.268E-01	2.065E-01	1.920E-02	-0.106
		100.11		1.244E-01	1.875E-01	3.122E-01	3.002E-02	0.398
		152.43		-4.062E-02	3.908E-01	6.184E-01	5.175E-02	-0.066
		222.11		-9.901E-02	3.868E-01	6.405E-01	5.803E-02	-0.155
	+	1121.30		7.345E-01	2.747E-01	4.042E-01	3.421E-02	1.817
		1189.05		1.513E-02	3.876E-01	6.407E-01	5.263E-02	0.024
		1221.41	*	9.042E-02	2.240E-01	3.812E-01	3.214E-02	0.237
		1231.02		4.000E-01	5.506E-01	9.591E-01	8.145E-02	0.417
IR-192	+	295.96		1.085E+00	2.038E-01	3.185E-01	2.980E-02	3.406
		308.46		-2.432E-02	1.046E-01	1.695E-01	1.576E-02	-0.143
		316.51	*	-1.553E-02	3.620E-02	5.774E-02	5.335E-03	-0.269
		468.07		-3.812E-02	8.483E-02	1.120E-01	1.041E-02	-0.340
HG-203		70.83		-2.714E-01	1.583E+00	2.317E+00	3.831E-01	-0.117
		72.87		1.422E+00	9.455E-01	1.443E+00	2.324E-01	0.985
		279.20	*	4.674E-02	4.842E-02	7.468E-02	7.108E-03	0.626
BI-207		72.81		3.163E-01	2.209E-01	3.428E-01	3.293E-02	0.923
	+	74.97		7.312E-01	1.731E-01	2.515E-01	2.456E-02	2.907
		569.70		1.448E-02	3.428E-02	5.799E-02	4.966E-03	0.250
		1063.66	*	1.343E-02	6.155E-02	1.044E-01	9.167E-03	0.129
		1770.23		7.208E-02	6.500E-01	9.565E-01	8.226E-02	0.075
PB-210		46.54	*	9.125E-01	4.893E+00	8.161E+00	7.851E-01	0.112
PB-211		404.85	*	-7.891E-02	9.009E-01	1.445E+00	6.988E-01	-0.055
		427.09		3.602E-01	1.847E+00	2.996E+00	1.386E+00	0.120
		832.01		5.374E-01	1.196E+00	1.961E+00	1.018E+00	0.274
BI-212	+	727.33	*	3.197E+00	1.667E+00	1.419E+00	1.753E-01	2.253
		785.37		3.097E+00	3.757E+00	6.512E+00	5.715E-01	0.476

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		7.870E-01	2.426E+00	4.260E+00	3.840E-01	0.185
RN-219	+	271.23		6.724E-01	3.813E-01	5.286E-01	5.729E-02	1.272
		401.81	*	4.655E-01	4.985E-01	8.438E-01	1.249E-01	0.552
RA-223		81.07		-6.468E-02	2.717E-01	3.583E-01	3.699E-02	-0.181
	+	83.79		2.424E-01	1.395E-01	2.198E-01	2.333E-02	1.103
		94.87		6.471E-01	5.249E-01	8.047E-01	8.165E-02	0.804
		144.24		3.691E-01	7.704E-01	1.231E+00	1.153E-01	0.300
		154.21		3.746E-01	4.453E-01	7.318E-01	6.751E-02	0.512
	+	269.46		5.225E-01	2.950E-01	3.986E-01	3.771E-02	1.311
		323.87	*	9.440E-01	7.864E-01	1.216E+00	2.142E-01	0.776
	+	338.28		7.125E+00	2.059E+00	2.732E+00	3.388E-01	2.608
AC-227		79.69		9.370E-01	1.551E+00	2.137E+00	3.862E-01	0.438
		235.96		2.443E-01	1.961E-01	3.056E-01	3.301E-02	0.799
		256.23	*	3.144E-02	2.787E-01	4.656E-01	5.830E-02	0.068
	+	299.98		2.427E+00	1.347E+00	1.791E+00	2.358E-01	1.356
		304.50		-8.509E-01	1.952E+00	2.704E+00	4.563E-01	-0.315
		334.37		2.098E-01	2.242E+00	3.013E+00	4.780E-01	0.070
TH-227		79.80		1.294E+00	2.053E+00	2.822E+00	6.336E-01	0.458
		235.96		2.443E-01	1.959E-01	3.056E-01	3.130E-02	0.799
		256.23	*	3.144E-02	2.787E-01	4.656E-01	6.530E-02	0.068
	+	299.98		2.427E+00	1.347E+00	1.791E+00	2.358E-01	1.356
		304.50		-8.509E-01	1.952E+00	2.704E+00	4.563E-01	-0.315
		334.37		2.098E-01	2.242E+00	3.013E+00	4.780E-01	0.070
PA-231		283.69	*	-1.325E-01	1.709E+00	2.715E+00	4.074E-01	-0.049
	+	301.36		1.559E+00	8.633E-01	1.141E+00	1.441E-01	1.367
TH-231		81.07		-6.468E-02	2.717E-01	3.583E-01	3.699E-02	-0.181
	+	83.79		2.424E-01	1.395E-01	2.198E-01	2.333E-02	1.103
		94.87		6.471E-01	5.249E-01	8.047E-01	8.165E-02	0.804
		144.24		3.691E-01	7.704E-01	1.231E+00	1.153E-01	0.300
		154.21		3.746E-01	4.453E-01	7.318E-01	6.751E-02	0.512
	+	269.46		5.225E-01	2.950E-01	3.986E-01	3.771E-02	1.311
		323.87	*	9.440E-01	7.864E-01	1.216E+00	2.142E-01	0.776
	+	338.28		7.125E+00	2.059E+00	2.732E+00	3.388E-01	2.608
PA-233	+	300.13		1.098E+00	6.152E-01	8.106E-01	1.234E-01	1.355
		311.90	*	3.287E-03	7.062E-02	1.163E-01	1.102E-02	0.028
		340.48		2.315E+00	1.018E+00	1.441E+00	3.492E-01	1.606
PA-234		94.67		3.473E-01	1.983E-01	3.049E-01	4.124E-02	1.139
		98.44		6.942E-02	1.081E-01	1.613E-01	9.029E-02	0.430
		111.00		-1.445E-01	1.990E-01	3.103E-01	3.807E-02	-0.466
		131.20		-1.299E-01	1.187E-01	1.804E-01	1.503E-02	-0.720
		569.50		2.197E-01	3.002E-01	5.183E-01	4.438E-02	0.424
		733.00		2.707E-01	4.459E-01	7.586E-01	1.681E-01	0.357
		880.51		1.704E-01	3.174E-01	5.389E-01	4.961E-02	0.316
		883.24		-1.313E-01	3.437E-01	5.135E-01	3.456E-01	-0.256
		926.50		-6.864E-02	1.959E-01	3.011E-01	7.676E-02	-0.228
		946.00	*	-1.659E-01	3.400E-01	5.421E-01	1.032E-01	-0.306
		949.00		3.623E-01	5.048E-01	8.979E-01	8.251E-02	0.403
PA-234M		766.42		1.213E+01	1.586E+01	2.257E+01	1.146E+01	0.537
		1001.03	*	7.752E+00	5.832E+00	1.068E+01	1.104E+00	0.726

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	2.317E+00	1.671E+00	2.775E+00	5.157E-01	0.835
	+	92.59		2.543E+00	1.287E+00	1.352E+00	3.089E-01	1.881
U-238		63.29	*	2.317E+00	1.671E+00	2.775E+00	5.157E-01	0.835
	+	92.59		2.543E+00	1.178E+00	1.352E+00	1.410E-01	1.881
NP-239		99.53		1.663E-01	1.718E-01	2.891E-01	2.795E-02	0.575
		103.37		-1.117E-01	1.096E-01	1.693E-01	1.583E-02	-0.660
		106.12		-2.182E-04	9.224E-02	1.494E-01	1.368E-02	-0.001
		117.23	*	7.159E-02	4.198E-01	6.819E-01	5.856E-02	0.105
		228.18		2.242E-01	2.489E-01	4.308E-01	3.924E-02	0.521
	+	277.60		4.385E-01	2.549E-01	3.568E-01	3.323E-02	1.229
AM-241		59.54	*	-2.777E-01	1.863E-01	2.858E-01	2.713E-02	-0.972
CM-247	+	278.00		1.862E+00	1.082E+00	1.523E+00	1.418E-01	1.223
		287.50		-9.725E-01	1.391E+00	2.202E+00	2.050E-01	-0.442
		402.40	*	4.269E-02	4.546E-02	7.744E-02	6.582E-03	0.551
CF-249		252.80		-1.057E+00	1.048E+00	1.644E+00	1.522E-01	-0.643
		333.37		8.422E-02	3.021E-01	3.245E-01	2.958E-02	0.260
		388.16	*	2.197E-02	4.340E-02	7.263E-02	6.177E-03	0.303
CF-251		177.52	*	8.266E-02	1.417E-01	2.453E-01	2.107E-02	0.337
		227.38		1.364E-01	4.033E-01	6.842E-01	6.228E-02	0.199
		285.41		9.222E-01	2.428E+00	4.088E+00	3.806E-01	0.226

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329001       *
* Acquisition date : 24-MAR-2010 08:56:57 Detector SN#    :                 *
* Detector ID       : GAM06                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.37      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 11-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G249329001           Analyst initials: MXR1           *
* Batch Number      : 965250               Sample Quantity : 1.3571E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.260E+01	3.594E+00	5.972E-01	0.000E+00
CD-109	4.182E+00	1.352E+00	1.308E+00	0.000E+00
SN-126	4.101E-01	1.326E-01	1.290E-01	0.000E+00
TL-208	6.314E-01	1.012E-01	6.611E-02	0.000E+00
BI-211	3.633E+00	5.870E-01	4.253E-01	0.000E+00
PB-212	1.964E+00	2.365E-01	1.102E-01	0.000E+00
BI-214	1.205E+00	2.109E-01	1.317E-01	0.000E+00
PB-214	1.318E+00	2.246E-01	1.421E-01	0.000E+00
RA-224	3.958E+00	1.311E+00	1.181E+00	0.000E+00
RA-226	1.205E+00	2.109E-01	1.317E-01	0.000E+00
AC-228	2.186E+00	4.496E-01	2.494E-01	0.000E+00
RA-228	2.186E+00	4.496E-01	2.494E-01	0.000E+00
TH-228	1.964E+00	2.365E-01	1.102E-01	0.000E+00
TH-229	-2.079E-01	5.739E-01	9.995E-01	0.000E+00
TH-230	1.205E+00	2.015E-01	1.317E-01	0.000E+00
TH-232	2.186E+00	4.496E-01	2.494E-01	0.000E+00
U-235	1.076E-01	2.260E-01	3.848E-01	0.000E+00
NP-237	1.224E+00	4.689E-01	3.897E-01	0.000E+00
ANH-511	1.267E-01	6.958E-02	5.193E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	9.477E-02	3.279E-01	5.885E-01	0.000E+00	NOT IDENT.
NA-22	3.433E-03	5.318E-02	8.990E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.481E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	2.398E-02	4.466E-02	7.801E-02	0.000E+00	FAIL ABUN
V-48	-2.589E-02	7.652E-02	1.280E-01	0.000E+00	NOT IDENT.
CR-51	1.935E-02	3.683E-01	6.374E-01	0.000E+00	NOT IDENT.
MN-54	-2.090E-02	4.279E-02	6.845E-02	0.000E+00	NOT IDENT.
CO-56	-1.378E-02	4.409E-02	7.148E-02	0.000E+00	NOT IDENT.

CO-57	1.421E-02	2.612E-02	4.604E-02	0.000E+00	NOT IDENT.
CO-58	7.677E-03	4.136E-02	7.068E-02	0.000E+00	NOT IDENT.
FE-59	-1.536E-01	9.705E-02	1.362E-01	0.000E+00	NOT IDENT.
CO-60	4.844E-03	4.416E-02	7.517E-02	0.000E+00	NOT IDENT.
ZN-65	-1.068E-01	1.268E-01	1.653E-01	0.000E+00	NOT IDENT.
SE-75	-3.139E-03	5.223E-02	8.449E-02	0.000E+00	NOT IDENT.
SR-85	7.936E-02	4.606E-02	7.969E-02	0.000E+00	NOT IDENT.
Y-88	-2.933E-02	3.095E-02	3.888E-02	0.000E+00	NOT IDENT.
Y-91	-3.096E+01	2.688E+01	4.079E+01	0.000E+00	NOT IDENT.
NB-94	2.282E-02	3.748E-02	6.671E-02	0.000E+00	NOT IDENT.
NB-95	9.495E-03	5.030E-02	7.509E-02	0.000E+00	NOT IDENT.
NB-95M	1.135E-01	1.467E-01	2.378E-01	0.000E+00	NOT IDENT.
ZR-95	4.453E-02	8.240E-02	1.452E-01	0.000E+00	NOT IDENT.
MO-99	2.741E+00	8.646E+00	1.372E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.159E+13	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.422E-02	4.162E-02	6.504E-02	0.000E+00	FAIL ABUN
RH-106	-9.681E-02	3.381E-01	5.685E-01	0.000E+00	NOT IDENT.
RU-106	-9.681E-02	3.379E-01	5.685E-01	0.000E+00	NOT IDENT.
AG-108M	-1.773E-02	3.407E-02	5.506E-02	0.000E+00	NOT IDENT.
AG-110M	-2.640E-02	3.998E-02	6.490E-02	0.000E+00	NOT IDENT.
SN-113	-3.514E-02	4.872E-02	7.840E-02	0.000E+00	NOT IDENT.
CD-115	-3.255E+00	6.564E+00	1.062E+01	0.000E+00	NOT IDENT.
SN-117M	-2.497E-02	5.313E-02	8.780E-02	0.000E+00	NOT IDENT.
TE-123M	-2.235E-02	3.099E-02	5.052E-02	0.000E+00	NOT IDENT.
SB-124	-2.365E-02	7.260E-02	1.146E-01	0.000E+00	NOT IDENT.
SB-125	1.722E-02	1.083E-01	1.842E-01	0.000E+00	FAIL ABUN
TE-125M	3.425E+00	1.002E+01	1.745E+01	0.000E+00	NOT IDENT.
I-126	-5.404E-02	2.135E-01	3.578E-01	0.000E+00	NOT IDENT.
SB-126	-7.807E-02	1.662E-01	2.303E-01	0.000E+00	NOT IDENT.
SB-127	6.700E-02	9.938E-01	1.705E+00	0.000E+00	NOT IDENT.
I-131	-3.601E-02	1.071E-01	1.787E-01	0.000E+00	NOT IDENT.
TE-132	3.506E-01	5.121E-01	9.276E-01	0.000E+00	NOT IDENT.
BA-133	-1.720E-02	5.563E-02	8.103E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.117E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.058E-02	1.024E-01	0.000E+00	FAIL ABUN
CS-135	2.359E-01	1.959E-01	3.228E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.925E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	8.014E-02	1.154E-01	2.089E-01	0.000E+00	NOT IDENT.
BA-137M	3.435E-03	4.271E-02	7.354E-02	0.000E+00	NOT IDENT.
CS-137	3.628E-03	4.512E-02	7.769E-02	0.000E+00	NOT IDENT.
CE-139	-1.071E-02	3.255E-02	5.399E-02	0.000E+00	NOT IDENT.
BA-140	-3.212E-01	2.881E-01	4.274E-01	0.000E+00	NOT IDENT.
LA-140	-1.922E-02	8.562E-02	1.412E-01	0.000E+00	FAIL ABUN
CE-141	1.928E-02	6.790E-02	1.149E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.024E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-4.460E-02	2.196E-01	3.727E-01	0.000E+00	NOT IDENT.
PM-144	-6.656E-03	3.897E-02	6.550E-02	0.000E+00	NOT IDENT.
PR-144	-5.208E-01	2.911E+00	4.890E+00	0.000E+00	NOT IDENT.
PM-146	1.934E-02	4.140E-02	7.192E-02	0.000E+00	NOT IDENT.
ND-147	-5.413E-02	5.358E-01	9.289E-01	0.000E+00	FAIL ABUN
PM-149	1.740E+01	4.983E+01	8.821E+01	0.000E+00	NOT IDENT.
EU-152	-7.358E-02	1.143E-01	1.808E-01	0.000E+00	FAIL ABUN
GD-153	-4.530E-02	9.746E-02	1.481E-01	0.000E+00	NOT IDENT.
EU-154	3.644E-02	1.475E-01	2.537E-01	0.000E+00	NOT IDENT.
EU-155	6.207E-02	1.118E-01	1.987E-01	0.000E+00	FAIL ABUN
TB-160	9.329E-02	1.520E-01	2.681E-01	0.000E+00	FAIL ABUN
HO-166M	-4.915E-02	6.838E-02	1.091E-01	0.000E+00	NOT IDENT.
TA-182	9.042E-02	2.195E-01	3.835E-01	0.000E+00	FAIL ABUN
IR-192	-1.553E-02	3.548E-02	5.957E-02	0.000E+00	FAIL ABUN
HG-203	4.674E-02	4.745E-02	7.723E-02	0.000E+00	NOT IDENT.
BI-207	1.343E-02	6.032E-02	1.053E-01	0.000E+00	FAIL ABUN
PB-210	9.125E-01	4.795E+00	8.710E+00	0.000E+00	NOT IDENT.
PB-211	-7.891E-02	8.829E-01	1.484E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.633E+00	1.441E+00	0.000E+00	FAIL ABUN
RN-219	4.655E-01	4.885E-01	8.667E-01	0.000E+00	FAIL ABUN
RA-223	9.440E-01	7.707E-01	1.254E+00	0.000E+00	FAIL ABUN
AC-227	3.144E-02	2.731E-01	4.822E-01	0.000E+00	FAIL ABUN
TH-227	3.144E-02	2.731E-01	4.822E-01	0.000E+00	FAIL ABUN
PA-231	-1.325E-01	1.675E+00	2.806E+00	0.000E+00	FAIL ABUN
TH-231	9.440E-01	7.707E-01	1.254E+00	0.000E+00	FAIL ABUN
PA-233	3.287E-03	6.921E-02	1.200E-01	0.000E+00	FAIL ABUN
PA-234	-1.659E-01	3.332E-01	5.480E-01	0.000E+00	NOT IDENT.
PA-234M	7.752E+00	5.716E+00	1.079E+01	0.000E+00	NOT IDENT.
TH-234	2.317E+00	1.638E+00	2.946E+00	0.000E+00	FAIL ABUN
U-238	2.317E+00	1.638E+00	2.946E+00	0.000E+00	FAIL ABUN
NP-239	7.159E-02	4.114E-01	7.162E-01	0.000E+00	FAIL ABUN
AM-241	-2.777E-01	1.825E-01	3.037E-01	0.000E+00	NOT IDENT.
CM-247	4.269E-02	4.455E-02	7.955E-02	0.000E+00	FAIL ABUN

CF-249	2.197E-02	4.253E-02	7.465E-02	0.000E+00 NOT IDENT.
CF-251	8.266E-02	1.389E-01	2.558E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 10:57:59.20

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329001.CNF;2
Sample date      : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 08:56:57
Sample ID        : G249329001           Sample quantity  : 1.35710E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:01.37  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 965250               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1173	10.66*	9.338E-01	3.260E+01	3.260E+01	11.25
CD-109	88.03	283	3.70*	5.165E+00	4.101E+00	4.182E+00	33.00
SN-126	64.28	------	9.60	2.842E+00	------ Line Not Found		------
	86.94	283	8.90	5.165E+00	1.705E+00	1.705E+00	52.20
	87.57	283	37.00*	5.165E+00	4.101E-01	4.101E-01	33.00
TL-208	277.37	86	6.60	3.753E+00	9.593E-01	9.593E-01	58.84
	583.19	412	85.00*	2.126E+00	6.314E-01	6.314E-01	16.36
	860.56	55	12.50	1.512E+00	8.014E-01	8.014E-01	63.05
BI-211	72.87	------	1.23	3.914E+00	------ Line Not Found		------
	351.06	533	12.92*	3.143E+00	3.633E+00	3.633E+00	16.49
PB-212	74.82	389	10.28	4.126E+00	2.538E+00	2.538E+00	25.60
	77.11	630	17.10	4.359E+00	2.338E+00	2.338E+00	16.30
	238.63	1298	43.60*	4.191E+00	1.964E+00	1.964E+00	12.29
	300.09	93	3.30	3.540E+00	2.207E+00	2.207E+00	55.03
BI-214	609.32	406	45.49*	2.049E+00	1.205E+00	1.205E+00	17.86
	1120.29	101	14.92	1.179E+00	1.589E+00	1.589E+00	37.99
	1764.49	81	15.30	8.244E-01	1.768E+00	1.768E+00	28.39
PB-214	74.82	389	5.80	4.126E+00	4.498E+00	4.498E+00	24.97
	77.11	630	9.70	4.359E+00	4.121E+00	4.122E+00	18.27
	242.00	244	7.25	4.152E+00	2.238E+00	2.238E+00	34.29
	295.22	357	18.42	3.583E+00	1.498E+00	1.498E+00	19.86
	351.93	533	35.60*	3.143E+00	1.318E+00	1.318E+00	17.39
RA-224	240.99	244	4.10*	4.152E+00	3.958E+00	3.958E+00	33.79
RA-226	609.32	406	45.49*	2.049E+00	1.205E+00	1.205E+00	17.86
	1120.29	101	14.92	1.179E+00	1.589E+00	1.589E+00	37.99
	1764.49	81	15.30	8.244E-01	1.768E+00	1.768E+00	28.39
AC-228	338.32	237	11.27	3.237E+00	1.795E+00	1.795E+00	49.30
	911.20	292	25.80*	1.433E+00	2.186E+00	2.186E+00	20.98
	968.97	172	15.80	1.352E+00	2.225E+00	2.225E+00	33.18
RA-228	338.32	237	11.27	3.237E+00	1.795E+00	1.795E+00	49.30
	911.20	292	25.80*	1.433E+00	2.186E+00	2.186E+00	20.98
	968.97	172	15.80	1.352E+00	2.225E+00	2.225E+00	33.18

Sample ID : G249329001 Acquisition date : 24-MAR-2010 08:56:57

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	389	10.28	4.126E+00	2.538E+00	2.538E+00	23.70
	77.11	630	17.10	4.359E+00	2.338E+00	2.338E+00	16.30
	238.63	1298	43.60*	4.191E+00	1.964E+00	1.964E+00	12.29
	300.09	93	3.30	3.540E+00	2.207E+00	2.207E+00	81.64
TH-229	85.43	108	14.70	4.976E+00	4.073E-01	4.073E-01	57.56
	88.47	283	24.00	5.165E+00	6.323E-01	6.323E-01	33.00
	193.51	------	4.41*	4.855E+00	------ Line Not Found		------
	210.85	109	2.80	4.600E+00	2.347E+00	2.347E+00	55.63
TH-230	609.32	406	45.49*	2.049E+00	1.205E+00	1.205E+00	17.06
	1120.29	101	14.92	1.179E+00	1.589E+00	1.589E+00	37.39
	1764.49	81	15.30	8.244E-01	1.768E+00	1.768E+00	28.39
TH-232	338.32	237	11.27	3.237E+00	1.795E+00	1.795E+00	27.64
	911.20	292	25.80*	1.433E+00	2.186E+00	2.186E+00	20.98
	968.97	172	15.80	1.352E+00	2.225E+00	2.225E+00	33.18
U-235	89.96	144	3.47	5.336E+00	2.157E+00	2.157E+00	54.78
	93.35	213	5.60	5.484E+00	1.921E+00	1.921E+00	51.06
	143.76	------	10.96*	5.718E+00	------ Line Not Found		------
	163.33	------	5.08	5.383E+00	------ Line Not Found		------
	185.72	275	57.20	4.979E+00	2.674E-01	2.674E-01	36.28
	205.31	------	5.01	4.664E+00	------ Line Not Found		------
NP-237	86.48	283	12.40*	5.165E+00	1.224E+00	1.224E+00	39.10
	95.86	------	2.68	5.611E+00	------ Line Not Found		------
ANH-511	511.00	108	100.00*	2.365E+00	1.267E-01	1.267E-01	56.03

Flag: "*" = Keyline

Sample ID : G249329001 Acquisition date : 24-MAR-2010 08:56:57

Total number of lines in spectrum 31
Number of unidentified lines 1
Number of lines tentatively identified by NID 30 96.77%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.260E+01	3.260E+01	0.367E+01	11.25	
CD-109	461.40D	1.02	4.101E+00	4.182E+00	1.380E+00	33.00	
SN-126	2.30E+05Y	1.00	4.101E-01	4.101E-01	1.354E-01	33.00	
TL-208	1.41E+10Y	1.00	6.314E-01	6.314E-01	1.033E-01	16.36	
BI-211	7.04E+08Y	1.00	3.633E+00	3.633E+00	0.599E+00	16.49	
PB-212	1.41E+10Y	1.00	1.964E+00	1.964E+00	0.241E+00	12.29	
BI-214	1600.00Y	1.00	1.205E+00	1.205E+00	0.215E+00	17.86	
PB-214	1600.00Y	1.00	1.318E+00	1.318E+00	0.229E+00	17.39	
RA-224	1.41E+10Y	1.00	3.958E+00	3.958E+00	1.337E+00	33.79	
RA-226	1600.00Y	1.00	1.205E+00	1.205E+00	0.215E+00	17.86	
AC-228	1.41E+10Y	1.00	2.186E+00	2.186E+00	0.459E+00	20.98	
RA-228	1.41E+10Y	1.00	2.186E+00	2.186E+00	0.459E+00	20.98	
TH-228	1.41E+10Y	1.00	1.964E+00	1.964E+00	0.241E+00	12.29	
TH-229	7340.00Y	1.00	6.323E-01	6.323E-01	2.087E-01	33.00	K
TH-230	7.54E+04Y	1.00	1.205E+00	1.205E+00	0.206E+00	17.06	
TH-232	1.41E+10Y	1.00	2.186E+00	2.186E+00	0.459E+00	20.98	
U-235	7.04E+08Y	1.00	2.674E-01	2.674E-01	0.970E-01	36.28	K
NP-237	2.14E+06Y	1.00	1.224E+00	1.224E+00	0.479E+00	39.10	
ANH-511	1.00E+09Y	1.00	1.267E-01	1.267E-01	0.710E-01	56.03	
	Total Activity :		6.300E+01	6.308E+01			

Grand Total Activity : 6.300E+01 6.308E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249329001 Acquisition date : 24-MAR-2010 08:56:57

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	270.20	100	211	1.43	539.78	536	9	1.40E-02	55.7	3.83E+00	T
0	328.05	75	170	1.01	655.45	651	10	1.04E-02	69.5	3.31E+00	T
0	463.38	57	115	1.02	926.02	921	10	7.88E-03	75.6	2.55E+00	T
0	728.49	136	144	2.58	1456.15	1446	25	1.88E-02	50.7	1.76E+00	T
0	771.48	56	85	0.73	1542.13	1533	18	7.80E-03	83.9	1.67E+00	
0	794.39	60	48	1.74	1587.96	1582	12	8.31E-03	53.1	1.63E+00	T
3	964.63	62	50	2.47	1928.46	1923	21	8.59E-03	51.6	1.36E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 10:58:03.30

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329001.CNF;2  *
* Acquisition date : 24-MAR-2010 08:56:57  Detector SN#     :               *
* Detector ID      : GAM06                 Sensitivity      : 5.00000      *
* Geometry         : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:01.37         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G249329001            Analyst initials: MXR1           *
* Batch Number     : 965250                Sample Quantity : 1.35710E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04.7MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.260E+01	3.667E+00	5.957E-01	5.616E-02	54.716
CD-109	4.182E+00	1.380E+00	1.239E+00	1.379E-01	3.374
SN-126	4.101E-01	1.354E-01	1.222E-01	1.353E-02	3.357
TL-208	6.314E-01	1.033E-01	6.481E-02	5.918E-03	9.742
BI-211	3.633E+00	5.989E-01	4.130E-01	3.876E-02	8.796
PB-212	1.964E+00	2.414E-01	1.063E-01	1.091E-02	18.485
BI-214	1.205E+00	2.152E-01	1.293E-01	1.283E-02	9.323
PB-214	1.318E+00	2.292E-01	1.380E-01	1.501E-02	9.556
RA-224	3.958E+00	1.337E+00	1.139E+00	1.048E-01	3.474
RA-226	1.205E+00	2.152E-01	1.293E-01	1.283E-02	9.323
AC-228	2.186E+00	4.588E-01	2.465E-01	2.977E-02	8.870
RA-228	2.186E+00	4.588E-01	2.465E-01	2.977E-02	8.870
TH-228	1.964E+00	2.414E-01	1.063E-01	1.091E-02	18.485
TH-229	6.323E-01	2.087E-01	9.602E-01	8.427E-02	0.659
TH-230	1.205E+00	2.056E-01	1.293E-01	1.086E-02	9.323
TH-232	2.186E+00	4.588E-01	2.465E-01	2.977E-02	8.870
U-235	2.674E-01	9.702E-02	3.677E-01	6.181E-02	0.727
NP-237	1.224E+00	4.785E-01	3.691E-01	8.729E-02	3.316

Sample ID : G249329001 Acquisition date : 24-MAR-2010 08:56:57

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	1.267E-01	7.100E-02	5.078E-02	4.407E-03	2.495

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	9.477E-02		3.346E-01	5.748E-01	5.368E-02	0.165
NA-22	3.433E-03		5.427E-02	8.945E-02	7.859E-03	0.038
NA-24	3.583E-02		3.307E-02	Half-Life too short		
SC-46	2.398E-02		4.557E-02	7.709E-02	7.124E-03	0.311
V-48	-2.589E-02		7.808E-02	1.267E-01	1.153E-02	-0.204
CR-51	1.935E-02		3.758E-01	6.180E-01	5.949E-02	0.031
MN-54	-2.090E-02		4.367E-02	6.755E-02	6.088E-03	-0.309
CO-56	-1.378E-02		4.499E-02	7.056E-02	6.396E-03	-0.195
CO-57	1.421E-02		2.665E-02	4.387E-02	3.694E-03	0.324
CO-58	7.677E-03		4.221E-02	6.971E-02	6.219E-03	0.110
FE-59	-1.536E-01		9.903E-02	1.351E-01	1.256E-02	-1.136
CO-60	4.844E-03		4.506E-02	7.485E-02	6.847E-03	0.065
ZN-65	-1.068E-01		1.294E-01	1.641E-01	1.396E-02	-0.651
SE-75	-3.139E-03		5.330E-02	8.163E-02	7.618E-03	-0.038
SR-85	7.936E-02		4.700E-02	7.794E-02	6.762E-03	1.018
Y-88	-2.933E-02		3.158E-02	3.896E-02	3.256E-03	-0.753
Y-91	-3.096E+01		2.743E+01	4.054E+01	3.373E+00	-0.764
NB-94	2.282E-02		3.824E-02	6.563E-02	5.469E-03	0.348
NB-95	9.495E-03		5.133E-02	7.399E-02	6.421E-03	0.128
NB-95M	1.135E-01		1.497E-01	2.293E-01	2.376E-02	0.495
ZR-95	4.453E-02		8.409E-02	1.430E-01	1.363E-02	0.311
MO-99	2.741E+00		8.823E+00	1.351E+01	2.123E+00	0.203
TC-99M	-7.643E+06		4.163E+07	Half-Life too short		
RU-103	-4.422E-02		4.247E-02	6.357E-02	8.904E-03	-0.696
RH-106	-9.681E-02		3.450E-01	5.580E-01	7.295E-02	-0.174
RU-106	-9.681E-02		3.448E-01	5.580E-01	4.653E-02	-0.174
AG-108M	-1.773E-02		3.476E-02	5.368E-02	4.770E-03	-0.330
AG-110M	-2.640E-02		4.080E-02	6.376E-02	5.351E-03	-0.414
SN-113	-3.514E-02		4.972E-02	7.629E-02	6.654E-03	-0.461
CD-115	-3.255E+00		6.698E+00	1.039E+01	8.999E-01	-0.313
SN-117M	-2.497E-02		5.422E-02	8.405E-02	7.064E-03	-0.297
TE-123M	-2.235E-02		3.162E-02	4.837E-02	4.092E-03	-0.462
SB-124	-2.365E-02		7.409E-02	1.146E-01	1.054E-02	-0.206
SB-125	1.722E-02		1.105E-01	1.795E-01	1.571E-02	0.096
TE-125M	3.425E+00		1.023E+01	1.659E+01	1.786E+00	0.206
I-126	-5.404E-02		2.178E-01	3.516E-01	2.855E-02	-0.154
SB-126	-7.807E-02		1.696E-01	2.266E-01	1.912E-02	-0.344
SB-127	6.700E-02		1.014E+00	1.676E+00	1.750E-01	0.040
I-131	-3.601E-02		1.093E-01	1.737E-01	1.608E-02	-0.207
TE-132	3.506E-01		5.225E-01	8.938E-01	1.402E-01	0.392
BA-133	-1.720E-02		5.677E-02	7.871E-02	1.035E-02	-0.219
I-133	-7.018E-04		5.699E-04	Half-Life too short		

Sample ID : G249329001 Acquisition date : 24-MAR-2010 08:56:57

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-134	1.339E-01	+	7.202E-02	1.009E-01	8.972E-03	1.326
CS-135	2.359E-01		1.999E-01	3.120E-01	3.295E-02	0.756
I-135	-2.146E+07		1.492E+07	Half-Life too short		
CS-136	8.014E-02		1.178E-01	2.070E-01	1.906E-02	0.387
BA-137M	3.435E-03		4.359E-02	7.226E-02	5.848E-03	0.048
CS-137	3.628E-03		4.604E-02	7.634E-02	6.191E-03	0.048
CE-139	-1.071E-02		3.322E-02	5.173E-02	4.374E-03	-0.207
BA-140	-3.212E-01		2.940E-01	4.183E-01	1.419E-01	-0.768
LA-140	-1.922E-02		8.737E-02	1.411E-01	1.279E-02	-0.136
CE-141	1.928E-02		6.929E-02	1.098E-01	9.335E-03	0.176
CE-143	1.827E-04		3.584E-05	Half-Life too short		
CE-144	-4.460E-02		2.241E-01	3.557E-01	5.379E-02	-0.125
PM-144	-6.656E-03		3.976E-02	6.443E-02	5.348E-03	-0.103
PR-144	-5.208E-01		2.971E+00	4.810E+00	3.991E-01	-0.108
PM-146	1.934E-02		4.225E-02	7.018E-02	7.450E-03	0.276
ND-147	-5.413E-02		5.467E-01	9.090E-01	1.361E-01	-0.060
PM-149	1.740E+01		5.085E+01	8.534E+01	1.360E+01	0.204
EU-152	-7.358E-02		1.166E-01	1.755E-01	1.670E-02	-0.419
GD-153	-4.530E-02		9.945E-02	1.406E-01	1.387E-02	-0.322
EU-154	3.644E-02		1.505E-01	2.524E-01	2.902E-02	0.144
EU-155	6.207E-02		1.141E-01	1.888E-01	1.757E-02	0.329
TB-160	9.329E-02		1.551E-01	2.648E-01	2.437E-02	0.352
HO-166M	-4.915E-02		6.977E-02	1.073E-01	8.999E-03	-0.458
TA-182	9.042E-02		2.240E-01	3.812E-01	3.214E-02	0.237
IR-192	-1.553E-02		3.620E-02	5.774E-02	5.335E-03	-0.269
HG-203	4.674E-02		4.842E-02	7.468E-02	7.108E-03	0.626
BI-207	1.343E-02		6.155E-02	1.044E-01	9.167E-03	0.129
PB-210	9.125E-01		4.893E+00	8.161E+00	7.851E-01	0.112
PB-211	-7.891E-02		9.009E-01	1.445E+00	6.988E-01	-0.055
BI-212	3.197E+00	+	1.667E+00	1.419E+00	1.753E-01	2.253
RN-219	4.655E-01		4.985E-01	8.438E-01	1.249E-01	0.552
RA-223	9.440E-01		7.864E-01	1.216E+00	2.142E-01	0.776
AC-227	3.144E-02		2.787E-01	4.656E-01	5.830E-02	0.068
TH-227	3.144E-02		2.787E-01	4.656E-01	6.530E-02	0.068
PA-231	-1.325E-01		1.709E+00	2.715E+00	4.074E-01	-0.049
TH-231	9.440E-01		7.864E-01	1.216E+00	2.142E-01	0.776
PA-233	3.287E-03		7.062E-02	1.163E-01	1.102E-02	0.028
PA-234	-1.659E-01		3.400E-01	5.421E-01	1.032E-01	-0.306
PA-234M	7.752E+00		5.832E+00	1.068E+01	1.104E+00	0.726
TH-234	2.317E+00		1.671E+00	2.775E+00	5.157E-01	0.835
U-238	2.317E+00		1.671E+00	2.775E+00	5.157E-01	0.835
NP-239	7.159E-02		4.198E-01	6.819E-01	5.856E-02	0.105
AM-241	-2.777E-01		1.863E-01	2.858E-01	2.713E-02	-0.972
CM-247	4.269E-02		4.546E-02	7.744E-02	6.582E-03	0.551
CF-249	2.197E-02		4.340E-02	7.263E-02	6.177E-03	0.303
CF-251	8.266E-02		1.417E-01	2.453E-01	2.107E-02	0.337

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249329001            *
* Acquisition date : 24-MAR-2010 08:56:57 Detector SN#     :                *
* Detector ID      : GAM06                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.37     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G249329001           Analyst initials: MXR1           *
* Batch Number     : 965250               Sample Quantity : 1.3571E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.260E+01	3.594E+00	2.988E-01	1.834E+00
CD-109	4.182E+00	1.352E+00	6.545E-01	6.900E-01
SN-126	4.101E-01	1.326E-01	6.452E-02	6.768E-02
TL-208	6.314E-01	1.012E-01	3.308E-02	5.164E-02
BI-211	3.633E+00	5.870E-01	2.128E-01	2.995E-01
PB-212	1.964E+00	2.365E-01	5.513E-02	1.207E-01
BI-214	1.205E+00	2.109E-01	6.591E-02	1.076E-01
PB-214	1.318E+00	2.246E-01	7.107E-02	1.146E-01
RA-224	3.958E+00	1.311E+00	5.910E-01	6.687E-01
RA-226	1.205E+00	2.109E-01	6.591E-02	1.076E-01
AC-228	2.186E+00	4.496E-01	1.248E-01	2.294E-01
RA-228	2.186E+00	4.496E-01	1.248E-01	2.294E-01
TH-228	1.964E+00	2.365E-01	5.513E-02	1.207E-01
TH-229	-2.079E-01	5.739E-01	5.000E-01	2.928E-01
TH-230	1.205E+00	2.015E-01	6.591E-02	1.028E-01
TH-232	2.186E+00	4.496E-01	1.248E-01	2.294E-01
U-235	1.076E-01	2.260E-01	1.925E-01	1.153E-01
NP-237	1.224E+00	4.689E-01	1.950E-01	2.393E-01
ANH-511	1.267E-01	6.958E-02	2.598E-02	3.550E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	9.477E-02	3.279E-01	2.944E-01	1.673E-01	NOT IDENT.
NA-22	3.433E-03	5.318E-02	4.498E-02	2.713E-02	NOT IDENT.
NA-24	3.583E+04	6.481E+04	0.000E+00	3.307E+04	SHORT HLIF
SC-46	2.398E-02	4.466E-02	3.903E-02	2.278E-02	FAIL ABUN
V-48	-2.589E-02	7.652E-02	6.405E-02	3.904E-02	NOT IDENT.
CR-51	1.935E-02	3.683E-01	3.189E-01	1.879E-01	NOT IDENT.
MN-54	-2.090E-02	4.279E-02	3.424E-02	2.183E-02	NOT IDENT.
CO-56	-1.378E-02	4.409E-02	3.576E-02	2.249E-02	NOT IDENT.

CO-57	1.421E-02	2.612E-02	2.303E-02	1.332E-02	NOT IDENT.
CO-58	7.677E-03	4.136E-02	3.536E-02	2.110E-02	NOT IDENT.
FE-59	-1.536E-01	9.705E-02	6.815E-02	4.951E-02	NOT IDENT.
CO-60	4.844E-03	4.416E-02	3.761E-02	2.253E-02	NOT IDENT.
ZN-65	-1.068E-01	1.268E-01	8.271E-02	6.472E-02	NOT IDENT.
SE-75	-3.139E-03	5.223E-02	4.227E-02	2.665E-02	NOT IDENT.
SR-85	7.936E-02	4.606E-02	3.987E-02	2.350E-02	NOT IDENT.
Y-88	-2.933E-02	3.095E-02	1.945E-02	1.579E-02	NOT IDENT.
Y-91	-3.096E+01	2.688E+01	2.041E+01	1.371E+01	NOT IDENT.
NB-94	2.282E-02	3.748E-02	3.338E-02	1.912E-02	NOT IDENT.
NB-95	9.495E-03	5.030E-02	3.757E-02	2.566E-02	NOT IDENT.
NB-95M	1.135E-01	1.467E-01	1.190E-01	7.485E-02	NOT IDENT.
ZR-95	4.453E-02	8.240E-02	7.265E-02	4.204E-02	NOT IDENT.
MO-99	2.741E+00	8.646E+00	6.865E+00	4.411E+00	NOT IDENT.
TC-99M	-7.643E+12	8.159E+13	0.000E+00	4.163E+13	SHORT HLIF
RU-103	-4.422E-02	4.162E-02	3.254E-02	2.124E-02	FAIL ABUN
RH-106	-9.681E-02	3.381E-01	2.844E-01	1.725E-01	NOT IDENT.
RU-106	-9.681E-02	3.379E-01	2.844E-01	1.724E-01	NOT IDENT.
AG-108M	-1.773E-02	3.407E-02	2.755E-02	1.738E-02	NOT IDENT.
AG-110M	-2.640E-02	3.998E-02	3.247E-02	2.040E-02	NOT IDENT.
SN-113	-3.514E-02	4.872E-02	3.922E-02	2.486E-02	NOT IDENT.
CD-115	-3.255E+00	6.564E+00	5.313E+00	3.349E+00	NOT IDENT.
SN-117M	-2.497E-02	5.313E-02	4.393E-02	2.711E-02	NOT IDENT.
TE-123M	-2.235E-02	3.099E-02	2.528E-02	1.581E-02	NOT IDENT.
SB-124	-2.365E-02	7.260E-02	5.732E-02	3.704E-02	NOT IDENT.
SB-125	1.722E-02	1.083E-01	9.213E-02	5.525E-02	FAIL ABUN
TE-125M	3.425E+00	1.002E+01	8.730E+00	5.113E+00	NOT IDENT.
I-126	-5.404E-02	2.135E-01	1.790E-01	1.089E-01	NOT IDENT.
SB-126	-7.807E-02	1.662E-01	1.152E-01	8.481E-02	NOT IDENT.
SB-127	6.700E-02	9.938E-01	8.529E-01	5.070E-01	NOT IDENT.
I-131	-3.601E-02	1.071E-01	8.943E-02	5.464E-02	NOT IDENT.
TE-132	3.506E-01	5.121E-01	4.641E-01	2.613E-01	NOT IDENT.
BA-133	-1.720E-02	5.563E-02	4.054E-02	2.838E-02	FAIL ABUN
I-133	-7.018E+02	1.117E+03	0.000E+00	5.699E+02	SHORT HLIF
CS-134	1.339E-01	7.058E-02	5.121E-02	3.601E-02	FAIL ABUN
CS-135	2.359E-01	1.959E-01	1.615E-01	9.996E-02	NOT IDENT.
I-135	-2.146E+13	2.925E+13	0.000E+00	1.492E+13	SHORT HLIF
CS-136	8.014E-02	1.154E-01	1.045E-01	5.888E-02	NOT IDENT.
BA-137M	3.435E-03	4.271E-02	3.679E-02	2.179E-02	NOT IDENT.
CS-137	3.628E-03	4.512E-02	3.887E-02	2.302E-02	NOT IDENT.
CE-139	-1.071E-02	3.255E-02	2.701E-02	1.661E-02	NOT IDENT.
BA-140	-3.212E-01	2.881E-01	2.138E-01	1.470E-01	NOT IDENT.
LA-140	-1.922E-02	8.562E-02	7.067E-02	4.368E-02	FAIL ABUN
CE-141	1.928E-02	6.790E-02	5.748E-02	3.464E-02	NOT IDENT.
CE-143	1.827E+02	7.024E+01	0.000E+00	3.584E+01	SHORT HLIF
CE-144	-4.460E-02	2.196E-01	1.864E-01	1.121E-01	NOT IDENT.
PM-144	-6.656E-03	3.897E-02	3.277E-02	1.988E-02	NOT IDENT.
PR-144	-5.208E-01	2.911E+00	2.447E+00	1.485E+00	NOT IDENT.
PM-146	1.934E-02	4.140E-02	3.598E-02	2.112E-02	NOT IDENT.
ND-147	-5.413E-02	5.358E-01	4.647E-01	2.734E-01	FAIL ABUN
PM-149	1.740E+01	4.983E+01	4.413E+01	2.542E+01	NOT IDENT.
EU-152	-7.358E-02	1.143E-01	9.047E-02	5.830E-02	FAIL ABUN
GD-153	-4.530E-02	9.746E-02	7.410E-02	4.972E-02	NOT IDENT.
EU-154	3.644E-02	1.475E-01	1.269E-01	7.524E-02	NOT IDENT.
EU-155	6.207E-02	1.118E-01	9.939E-02	5.704E-02	FAIL ABUN
TB-160	9.329E-02	1.520E-01	1.341E-01	7.756E-02	FAIL ABUN
HO-166M	-4.915E-02	6.838E-02	5.457E-02	3.489E-02	NOT IDENT.
TA-182	9.042E-02	2.195E-01	1.919E-01	1.120E-01	FAIL ABUN
IR-192	-1.553E-02	3.548E-02	2.980E-02	1.810E-02	FAIL ABUN
HG-203	4.674E-02	4.745E-02	3.864E-02	2.421E-02	NOT IDENT.
BI-207	1.343E-02	6.032E-02	5.266E-02	3.078E-02	FAIL ABUN
PB-210	9.125E-01	4.795E+00	4.357E+00	2.447E+00	NOT IDENT.
PB-211	-7.891E-02	8.829E-01	7.423E-01	4.505E-01	NOT IDENT.
BI-212	3.197E+00	1.633E+00	7.210E-01	8.334E-01	FAIL ABUN
RN-219	4.655E-01	4.885E-01	4.336E-01	2.492E-01	FAIL ABUN
RA-223	9.440E-01	7.707E-01	6.274E-01	3.932E-01	FAIL ABUN
AC-227	3.144E-02	2.731E-01	2.412E-01	1.393E-01	FAIL ABUN
TH-227	3.144E-02	2.731E-01	2.412E-01	1.393E-01	FAIL ABUN
PA-231	-1.325E-01	1.675E+00	1.404E+00	8.545E-01	FAIL ABUN
TH-231	9.440E-01	7.707E-01	6.274E-01	3.932E-01	FAIL ABUN
PA-233	3.287E-03	6.921E-02	6.003E-02	3.531E-02	FAIL ABUN
PA-234	-1.659E-01	3.332E-01	2.741E-01	1.700E-01	NOT IDENT.
PA-234M	7.752E+00	5.716E+00	5.396E+00	2.916E+00	NOT IDENT.
TH-234	2.317E+00	1.638E+00	1.474E+00	8.357E-01	FAIL ABUN
U-238	2.317E+00	1.638E+00	1.474E+00	8.357E-01	FAIL ABUN
NP-239	7.159E-02	4.114E-01	3.583E-01	2.099E-01	FAIL ABUN
AM-241	-2.777E-01	1.825E-01	1.519E-01	9.313E-02	NOT IDENT.
CM-247	4.269E-02	4.455E-02	3.980E-02	2.273E-02	FAIL ABUN

CF-249	2.197E-02	4.253E-02	3.735E-02	2.170E-02 NOT IDENT.
CF-251	8.266E-02	1.389E-01	1.280E-01	7.086E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	274.3429
49.72	303.1295
57.36	0.0000
59.54	379.5844
63.29	363.7910
63.29	363.7910
64.28	372.4577
67.75	404.9987
69.67	429.0906
70.83	417.7934
72.81	400.3333
72.87	400.3887
72.87	400.3887
74.82	428.5456
74.82	428.5456
74.82	428.5456
74.97	428.6877
77.11	396.6465
77.11	396.6465
77.11	396.6465
79.69	366.6198
79.80	366.7049
80.12	371.9954
80.19	372.0499
80.57	351.1577
81.00	406.0157
81.07	406.0750
81.07	406.0750
83.79	400.7544
83.79	400.7544
85.43	332.2776
86.48	332.9823
86.55	333.0304
86.79	333.1896
86.94	333.2907
87.57	333.7103
88.03	334.0154
88.47	334.3072
89.96	335.2888
91.11	336.0416
92.59	337.0016
92.59	337.0016
93.35	337.4924
94.67	319.1395
94.87	319.2599
94.87	319.2599
95.86	315.1750
97.43	325.4872
98.44	293.4855
99.53	277.5257
100.11	297.7386
103.18	342.6115
103.37	342.7272
105.31	299.4626
106.12	323.2015
109.28	285.5515
111.00	322.7229
111.76	295.3178
116.30	279.2304
117.23	268.8584
121.12	270.5517
121.78	253.4335
122.06	257.8988
123.07	277.9309
131.20	339.9361
133.52	313.4349
136.00	313.4749

136.47	299.2318
140.51	286.4479
140.51	0.0000
143.76	285.5330
144.24	283.4769
144.24	283.4769
145.44	291.8440
152.43	300.3650
153.25	281.3349
154.21	280.5612
154.21	280.5612
156.02	292.6745
158.56	277.6068
159.00	290.3925
162.66	259.4948
163.33	275.8794
165.86	274.4628
176.60	279.9386
177.52	259.9818
181.07	297.3915
184.41	248.8174
185.72	249.2020
193.51	265.8404
197.04	258.7953
205.31	224.2418
210.85	232.9218
215.65	229.1498
222.11	242.7506
227.38	231.9595
228.16	231.2115
228.18	221.8921
235.69	226.9553
235.96	243.5537
235.96	243.5537
238.63	227.9920
238.63	227.9920
240.99	228.5201
242.00	228.7453
244.70	191.0580
252.40	197.6222
252.80	203.4284
256.23	183.0043
256.23	183.0043
260.90	188.6099
264.66	184.1119
268.22	170.4973
269.46	175.3431
269.46	175.3431
271.23	184.9468
273.65	171.3298
276.40	202.9727
277.37	189.0832
277.60	178.7668
278.00	178.8310
279.20	170.6052
279.54	170.6558
280.46	178.6288
283.69	178.4563
284.31	171.9559
285.41	160.3163
285.90	161.3674
287.50	182.2816
293.27	0.0000
295.22	156.7005
295.96	156.7994
298.57	157.1417
299.98	157.3250
299.98	157.3250
300.09	132.2448
300.09	132.2448
300.13	132.2488
301.36	124.4096
302.85	132.5467
304.50	148.7183
304.50	148.7183
304.85	159.9585
308.46	152.4082
311.90	141.7745

316.51	139.2719
319.41	157.7996
320.08	133.5932
323.87	113.6919
323.87	113.6919
328.76	148.3638
333.37	130.8926
334.37	135.0877
334.37	135.0877
338.28	130.3583
338.28	130.3583
338.32	130.3622
338.32	130.3622
338.32	130.3622
340.48	138.1837
340.55	143.1252
344.28	156.7245
351.06	170.7823
351.93	144.1370
356.01	151.4341
364.49	132.9008
366.42	128.8932
383.85	117.7478
388.16	103.2016
388.63	101.1057
391.69	129.0462
400.66	151.2841
401.81	120.2612
402.40	120.3091
404.85	147.4021
410.95	123.1498
414.70	109.3730
423.72	108.9203
427.09	117.8877
427.87	120.1295
433.94	118.3969
453.88	72.1381
463.37	97.1064
468.07	102.0795
473.00	87.5584
476.78	101.7028
477.60	89.1447
487.02	79.6716
492.35	91.7199
497.08	97.4298
511.00	87.1780
514.00	85.7893
527.90	87.9840
529.87	0.0000
531.02	90.9156
537.26	111.6943
546.56	0.0000
563.25	80.1959
569.33	68.1416
569.50	68.1486
569.70	74.7800
583.19	82.9134
600.60	77.8597
602.73	86.6008
604.72	107.5528
609.32	87.8408
609.32	87.8408
609.32	87.8408
610.33	83.6981
614.28	98.3704
618.01	83.3608
621.93	78.6606
621.93	78.6606
633.25	68.3406
635.95	62.5609
636.99	66.5025
645.85	71.6847
657.76	91.8216
661.66	90.9938
661.66	90.9938
664.57	0.0000
666.33	79.2910
666.50	79.2988

677.62	69.7300
685.70	73.9765
695.00	81.3026
696.49	83.3637
696.51	83.3647
697.00	96.4430
702.65	70.4939
706.68	74.6504
711.68	82.8969
720.70	79.4923
721.93	0.0000
722.78	66.0204
722.91	66.0236
723.31	74.5007
724.19	76.2213
727.33	67.1634
733.00	67.3213
735.93	62.9780
739.50	64.2889
747.24	76.9519
752.31	80.1957
753.82	63.7831
756.73	66.9487
763.94	48.2059
765.81	65.4718
766.42	65.4872
777.92	64.0559
778.90	74.4731
783.70	52.0557
785.37	63.5496
795.86	66.2511
801.95	59.4170
810.29	57.8547
810.76	53.6571
815.77	64.3002
818.51	55.9256
832.01	59.3934
834.85	74.3203
836.80	0.0000
846.77	62.9194
856.80	67.7896
860.56	58.9504
871.09	55.9482
873.19	61.3738
875.33	0.0000
879.36	46.4024
880.51	46.4213
883.24	58.3532
884.68	52.9777
889.28	50.8991
898.04	46.7111
911.20	50.2002
911.20	50.2002
911.20	50.2002
926.50	51.5634
937.49	65.1556
944.13	48.7472
946.00	58.9010
949.00	46.9845
962.29	55.5225
964.08	53.9681
966.15	54.6667
968.97	54.7171
968.97	54.7171
968.97	54.7171
983.53	63.3668
996.26	72.9869
1001.03	44.9844
1004.73	76.0001
1037.84	54.0452
1038.76	0.0000
1048.07	52.3167
1050.41	59.0181
1050.41	59.0181
1063.66	51.6116
1085.87	62.5456
1099.45	64.7318
1112.07	63.1734

1115.54	76.5533
1120.29	53.3281
1120.29	53.3281
1120.29	53.3281
1120.55	53.3326
1121.30	56.6777
1131.51	0.0000
1173.23	59.2236
1177.93	58.3134
1189.05	68.4104
1204.77	87.6276
1221.41	56.0205
1231.02	56.1663
1235.36	82.3403
1238.28	65.3200
1260.41	0.0000
1271.85	51.7139
1274.44	46.6757
1274.54	50.7345
1291.59	51.9816
1298.22	0.0000
1312.11	39.9617
1332.49	28.8408
1365.19	29.0789
1368.63	0.0000
1384.29	30.2603
1408.01	33.5833
1457.56	0.0000
1460.82	21.2565
1489.16	13.9082
1505.03	27.9181
1596.21	23.4828
1620.50	14.1640
1678.03	0.0000
1690.97	12.4595
1764.49	25.5386
1764.49	25.5386
1764.49	25.5386
1770.23	8.5226
1771.35	57.4814
1791.20	0.0000
1836.06	12.8273

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249329001

Total Uranium Activity	6.9421E+00	ug/g
Total Uranium Counting Unc.	4.8739E+00	ug/g
Total Uranium Tpu	2.4867E-06	ug/g
Total Uranium Mda	4.3850E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G249329001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM06            *
*   SAMPLE DATE   : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 08:56:57.21    SAMPLE ALQT:  135.710 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.032E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.468E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.500E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.700E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 10:58:45.47

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329002.CNF;2
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 08:57:22
Sample ID         : G249329002           Sample quantity  : 1.22410E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.40  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	74.85*	599	550	1.22	149.35	142	17	8.32E-02	7.8	1.72E+00
2	2	77.17	906	459	1.00	154.00	142	17	1.26E-01	5.1	
3	0	87.32*	264	536	1.20	174.29	171	7	3.67E-02	16.0	
4	4	90.08	175	267	0.97	179.80	178	15	2.42E-02	14.7	3.00E+00
5	4	93.01*	331	507	1.52	185.67	178	15	4.59E-02	14.2	
6	0	105.05	106	346	1.17	209.74	206	8	1.47E-02	32.0	
7	0	186.71*	239	538	1.11	373.02	366	14	3.32E-02	22.1	
8	0	209.42	145	296	0.87	418.44	414	9	2.02E-02	23.0	
9	7	238.78*	1433	236	1.09	477.16	472	17	1.99E-01	3.2	1.44E+00
10	7	241.68*	304	286	1.66	482.94	472	17	4.22E-02	14.5	
11	0	270.76	85	206	0.80	541.09	536	9	1.17E-02	32.6	
12	0	277.46	56	193	1.18	554.49	551	8	7.84E-03	44.4	
13	1	295.34	425	141	1.19	590.26	585	19	5.90E-02	6.7	1.07E+00
14	1	300.18	124	137	1.43	599.94	585	19	1.72E-02	17.9	
15	0	328.43	72	176	1.48	656.42	652	11	1.00E-02	37.6	
16	0	338.66*	244	250	1.34	676.87	672	13	3.39E-02	15.1	
17	0	352.12*	674	222	1.27	703.78	698	13	9.37E-02	6.0	
18	0	463.18	65	141	0.81	925.88	921	13	9.05E-03	39.4	
19	0	510.57*	114	167	2.13	1020.64	1014	15	1.58E-02	29.6	
20	0	583.51*	462	109	1.47	1166.50	1161	13	6.42E-02	6.7	
21	0	609.60*	443	129	1.61	1218.67	1212	13	6.15E-02	7.2	
22	0	661.74	81	77	1.97	1322.93	1317	11	1.13E-02	23.7	
23	0	727.69*	105	64	1.22	1454.82	1448	11	1.45E-02	18.2	
24	0	795.67	57	99	1.40	1590.77	1584	14	7.87E-03	39.9	
25	0	861.25	56	49	1.31	1721.91	1717	12	7.72E-03	28.4	
26	0	911.46*	267	101	1.62	1822.31	1815	14	3.71E-02	10.2	
27	1	964.85*	71	46	1.98	1929.09	1924	21	9.83E-03	22.1	7.14E-01
28	1	969.20*	185	53	1.78	1937.79	1924	21	2.57E-02	10.8	
29	0	1120.63	153	48	1.47	2240.62	2233	16	2.12E-02	13.0	
30	0	1238.85	25	55	1.22	2477.04	2473	7	3.48E-03	53.2	
31	0	1461.32*	1373	45	2.13	2921.94	2911	23	1.91E-01	3.0	
32	0	1588.97	29	23	2.45	3177.23	3167	16	4.01E-03	42.1	
33	0	1620.64	36	0	5.12	3240.56	3233	16	5.00E-03	16.7	
34	0	1731.26	19	24	1.64	3461.79	3455	15	2.57E-03	64.1	
35	0	1765.07*	93	6	2.02	3529.41	3523	13	1.30E-02	12.5	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 10:58:47

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329002.CNF;2
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 08:57:22
Sample ID : G249329002 Sample quantity : 122.41 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA7 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.40 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.499E+01	3.670E+00	5.085E-01	4.367E-02	68.808
CD-109	+	88.03	*	3.264E+00	1.088E+00	1.200E+00	1.130E-01	2.721
SN-126		64.28		1.488E-01	4.257E-01	7.097E-01	1.029E-01	0.210
	+	86.94		1.331E+00	6.977E-01	5.575E-01	2.314E-01	2.388
	+	87.57	*	3.202E-01	1.067E-01	1.179E-01	1.105E-02	2.715
BA-137M	+	661.66	*	1.243E-01	5.986E-02	7.158E-02	6.335E-03	1.737
CS-137	+	661.66	*	1.313E-01	6.324E-02	7.562E-02	6.704E-03	1.737
EU-155	+	86.55		3.879E-01	1.294E-01	1.657E-01	1.546E-02	2.341
	+	105.31	*	2.152E-01	1.389E-01	1.637E-01	1.446E-02	1.314
TL-208	+	277.37		5.958E-01	5.348E-01	6.668E-01	8.294E-02	0.894
	+	583.19	*	6.734E-01	1.109E-01	6.793E-02	6.491E-03	9.913
	+	860.56		7.654E-01	4.410E-01	4.616E-01	4.512E-02	1.658
BI-211		72.87		6.312E+00	2.789E+00	4.819E+00	3.803E-01	1.310
	+	351.06	*	4.350E+00	6.526E-01	3.513E-01	3.152E-02	12.380
BI-212	+	727.33	*	2.337E+00	8.995E-01	8.326E-01	1.062E-01	2.807
		785.37		2.966E+00	3.670E+00	6.303E+00	5.763E-01	0.471
	+	1620.50		7.200E+00	2.474E+00	4.062E+00	3.394E-01	1.773
PB-212	+	74.82		2.941E+00	5.889E-01	4.865E-01	6.143E-02	6.045
	+	77.11		2.595E+00	3.398E-01	2.845E-01	2.348E-02	9.122
	+	238.63	*	2.054E+00	2.380E-01	1.048E-01	1.007E-02	19.597
	+	300.09		2.773E+00	1.037E+00	1.448E+00	1.518E-01	1.915
BI-214	+	609.32	*	1.251E+00	2.223E-01	1.293E-01	1.343E-02	9.676
	+	1120.29		2.219E+00	6.242E-01	5.444E-01	5.873E-02	4.076
	+	1764.49		1.905E+00	5.010E-01	3.304E-01	2.717E-02	5.765
PB-214	+	74.82		5.212E+00	1.002E+00	8.622E-01	9.745E-02	6.045
	+	77.11		4.575E+00	7.080E-01	5.016E-01	5.852E-02	9.122
	+	242.00		2.641E+00	8.128E-01	6.376E-01	6.537E-02	4.142
	+	295.22		1.682E+00	2.889E-01	2.520E-01	2.708E-02	6.675
	+	351.93	*	1.579E+00	2.523E-01	1.278E-01	1.346E-02	12.353
RA-224	+	240.99	*	4.669E+00	1.412E+00	1.123E+00	9.501E-02	4.156
RA-226	+	609.32	*	1.251E+00	2.223E-01	1.293E-01	1.343E-02	9.676
	+	1120.29		2.219E+00	6.242E-01	5.444E-01	5.873E-02	4.076
	+	1764.49		1.905E+00	5.010E-01	3.304E-01	2.717E-02	5.765
AC-228	+	338.32		1.752E+00	9.024E-01	4.096E-01	1.708E-01	4.277

Sample ID : G249329002 Acquisition date : 24-MAR-2010 08:57:22

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	911.20	*	1.873E+00	4.442E-01	2.683E-01	3.216E-02	6.982
	+	968.97		2.234E+00	7.299E-01	3.914E-01	9.594E-02	5.708
RA-228	+	338.32		1.752E+00	9.024E-01	4.096E-01	1.708E-01	4.277
	+	911.20	*	1.873E+00	4.442E-01	2.683E-01	3.216E-02	6.982
	+	968.97		2.234E+00	7.299E-01	3.914E-01	9.594E-02	5.708
TH-228	+	74.82		2.941E+00	5.159E-01	4.865E-01	3.958E-02	6.045
	+	77.11		2.595E+00	3.398E-01	2.845E-01	2.348E-02	9.122
	+	238.63	*	2.054E+00	2.380E-01	1.048E-01	1.007E-02	19.597
	+	300.09		2.773E+00	1.968E+00	1.448E+00	8.865E-01	1.915
TH-230	+	609.32	*	1.251E+00	2.123E-01	1.293E-01	1.157E-02	9.676
	+	1120.29		2.219E+00	6.062E-01	5.444E-01	4.601E-02	4.076
	+	1764.49		1.905E+00	5.010E-01	3.304E-01	2.717E-02	5.765
TH-232	+	338.32		1.752E+00	5.504E-01	4.096E-01	3.506E-02	4.277
	+	911.20	*	1.873E+00	4.442E-01	2.683E-01	3.216E-02	6.982
	+	968.97		2.234E+00	7.299E-01	3.914E-01	9.594E-02	5.708
U-235	+	89.96		2.223E+00	8.572E-01	1.244E+00	3.093E-01	1.787
	+	93.35		2.577E+00	9.484E-01	6.774E-01	1.577E-01	3.805
		143.76	*	1.041E-01	2.236E-01	3.563E-01	5.972E-02	0.292
		163.33		-1.454E-01	4.867E-01	7.598E-01	1.340E-01	-0.191
	+	185.72		2.207E-01	9.933E-02	7.111E-02	5.757E-03	3.103
		205.31		1.633E-01	5.779E-01	8.619E-01	1.550E-01	0.189
NP-237	+	86.48	*	9.554E-01	3.762E-01	4.082E-01	9.352E-02	2.341
		95.86		2.107E-01	9.636E-01	1.412E+00	3.407E-01	0.149
ANH-511	+	511.00	*	1.266E-01	7.570E-02	5.175E-02	4.598E-03	2.446

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	3.203E-02	3.554E-01	5.735E-01	5.411E-02	0.056
NA-22		1274.54	*	1.483E-02	5.247E-02	8.890E-02	7.297E-03	0.167
NA-24		1368.63	*	5.575E-04	5.247E-02	Half-Life too short		
SC-46		889.28	*	-1.888E-02	4.490E-02	6.894E-02	6.317E-03	-0.274
	+	1120.55		3.684E-01	1.007E-01	1.505E-01	1.272E-02	2.447
V-48		944.13		-3.844E-01	9.882E-01	1.539E+00	1.399E-01	-0.250
		983.53	*	-3.183E-02	7.546E-02	1.164E-01	1.047E-02	-0.274
		1312.11		4.013E-02	8.123E-02	1.408E-01	1.154E-02	0.285
CR-51		320.08	*	1.546E-01	3.758E-01	6.320E-01	5.706E-02	0.245
MN-54		834.85	*	-2.874E-02	4.362E-02	6.708E-02	6.157E-03	-0.429
CO-56		846.77	*	-1.969E-02	4.365E-02	6.811E-02	6.252E-03	-0.289
		1037.84		-2.734E-01	3.239E-01	4.984E-01	4.620E-02	-0.549
	+	1238.28		9.962E-02	1.063E-01	2.015E-01	1.703E-02	0.494
		1771.35		8.645E-02	2.289E-01	3.655E-01	3.002E-02	0.237
CO-57		122.06	*	-4.285E-03	2.580E-02	4.117E-02	3.543E-03	-0.104
		136.47		-4.839E-02	2.221E-01	3.519E-01	3.165E-02	-0.138
CO-58		810.76	*	-3.075E-02	4.128E-02	6.250E-02	5.742E-03	-0.492
FE-59		1099.45	*	-1.039E-01	1.048E-01	1.593E-01	1.476E-02	-0.652
		1291.59		-7.366E-02	1.267E-01	1.953E-01	1.839E-02	-0.377
CO-60		1173.23		-2.618E-02	5.477E-02	8.751E-02	7.121E-03	-0.299

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1332.49	*	-3.272E-02	4.540E-02	6.838E-02	5.601E-03	-0.479
ZN-65		1115.54	*	-1.029E-02	1.096E-01	1.558E-01	1.322E-02	-0.066
SE-75		121.12		-3.106E-02	1.344E-01	2.139E-01	2.368E-02	-0.145
		136.00		1.441E-02	4.222E-02	6.852E-02	5.762E-03	0.210
		264.66	*	-2.959E-02	5.222E-02	7.761E-02	6.629E-03	-0.381
		279.54		9.939E-03	1.389E-01	2.016E-01	1.778E-02	0.049
		400.66		-2.427E-01	2.847E-01	4.337E-01	4.729E-02	-0.560
SR-85		514.00	*	6.939E-02	4.698E-02	7.677E-02	6.827E-03	0.904
Y-88		898.04		-2.736E-02	4.995E-02	7.694E-02	7.075E-03	-0.356
		1836.06	*	1.108E-02	3.529E-02	6.215E-02	5.044E-03	0.178
Y-91		1204.77	*	-9.168E+00	2.471E+01	3.974E+01	3.246E+00	-0.231
NB-94		702.65	*	1.930E-02	3.788E-02	6.486E-02	5.824E-03	0.298
		871.09		4.541E-03	3.915E-02	6.434E-02	5.903E-03	0.071
NB-95		765.81	*	-1.138E-02	4.859E-02	7.830E-02	7.138E-03	-0.145
NB-95M		235.69	*	1.829E-01	1.437E-01	2.257E-01	2.195E-02	0.810
ZR-95		724.19		-2.280E-03	1.102E-01	1.571E-01	1.528E-02	-0.015
		756.73	*	3.784E-02	7.878E-02	1.343E-01	1.338E-02	0.282
MO-99		140.51		-4.176E+00	1.384E+01	2.157E+01	5.095E+00	-0.194
		181.07		4.786E+00	1.187E+01	1.811E+01	3.356E+00	0.264
		366.42		3.792E+00	6.197E+01	1.015E+02	8.594E+00	0.037
	.	739.50	*	-2.237E+00	8.141E+00	1.309E+01	2.095E+00	-0.171
		777.92		-2.251E+01	2.262E+01	3.360E+01	3.069E+00	-0.670
TC-99M		140.51	*	-2.568E+07	2.262E+01	Half-Life too short		
RU-103		497.08	*	-1.790E-02	4.458E-02	6.897E-02	9.730E-03	-0.259
	+	610.33		1.241E+01	2.721E+00	3.025E+00	4.998E-01	4.102
RH-106		621.93	*	1.448E-01	3.716E-01	6.345E-01	8.543E-02	0.228
		1050.41		-2.002E+00	3.098E+00	4.912E+00	4.312E-01	-0.408
RU-106		621.93	*	1.448E-01	3.713E-01	6.345E-01	5.671E-02	0.228
		1050.41		-2.002E+00	3.098E+00	4.912E+00	4.312E-01	-0.408
AG-108M		433.94	*	-1.795E-02	3.342E-02	5.180E-02	4.592E-03	-0.346
		614.28		-7.260E-03	4.404E-02	6.271E-02	5.782E-03	-0.116
		722.91		-2.700E-02	4.883E-02	6.527E-02	6.067E-03	-0.414
AG-110M		657.76	*	-1.956E-02	4.167E-02	5.661E-02	5.158E-03	-0.345
		677.62		-2.051E-01	3.601E-01	5.697E-01	5.209E-02	-0.360
		706.68		1.637E-01	2.250E-01	3.919E-01	3.616E-02	0.418
		763.94		-4.676E-02	1.837E-01	2.955E-01	2.759E-02	-0.158
		884.68		1.213E-02	5.528E-02	9.162E-02	8.637E-03	0.132
		937.49		-8.710E-04	1.335E-01	2.158E-01	2.028E-02	-0.004
		1384.29		-2.143E-01	1.957E-01	2.778E-01	2.363E-02	-0.771
		1505.03		-1.470E-01	2.799E-01	4.166E-01	3.482E-02	-0.353
SN-113		391.69	*	-4.573E-02	5.214E-02	7.981E-02	6.861E-03	-0.573
CD-115		260.90		-2.341E+01	7.098E+01	1.160E+02	9.860E+00	-0.202
		492.35		1.852E+00	2.142E+01	3.449E+01	3.046E+00	0.054
		527.90	*	-7.962E-01	6.107E+00	1.019E+01	9.092E-01	-0.078
SN-117M		156.02		9.258E-01	2.204E+00	3.565E+00	2.872E-01	0.260
		158.56	*	2.752E-02	5.280E-02	8.576E-02	6.876E-03	0.321
TE-123M		159.00	*	1.536E-02	2.997E-02	4.868E-02	3.927E-03	0.315
SB-124		602.73		-6.674E-03	4.913E-02	7.036E-02	6.305E-03	-0.095
		645.85		5.582E-02	4.841E-01	8.120E-01	7.610E-02	0.069

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		722.78		-2.518E-01	4.787E-01	6.423E-01	5.922E-02	-0.392
		1690.97	*	-8.824E-03	6.424E-02	1.001E-01	8.691E-03	-0.088
SB-125		427.87	*	-1.165E-01	1.021E-01	1.504E-01	1.311E-02	-0.774
	+	463.37		6.410E-01	5.092E-01	5.789E-01	5.423E-02	1.107
		600.60		2.985E-02	2.013E-01	3.394E-01	3.250E-02	0.088
		635.95		2.019E-01	2.964E-01	5.170E-01	4.959E-02	0.391
TE-125M		109.28	*	-1.015E+00	1.095E+01	1.566E+01	1.647E+00	-0.065
I-126		388.63		7.236E-02	1.753E-01	2.917E-01	2.433E-02	0.248
		666.33	*	8.942E-02	2.544E-01	3.793E-01	3.363E-02	0.236
		753.82		2.083E+00	1.846E+00	3.282E+00	2.985E-01	0.635
SB-126		414.70		-2.609E-02	7.280E-02	1.148E-01	9.730E-03	-0.227
		666.50		2.858E-02	8.670E-02	1.290E-01	1.144E-02	0.222
		695.00		-3.438E-02	7.574E-02	1.207E-01	1.081E-02	-0.285
		697.00		-1.560E-01	2.612E-01	4.109E-01	3.683E-02	-0.380
		720.70	*	-6.971E-02	1.661E-01	2.256E-01	2.037E-02	-0.309
		856.80		4.940E-01	4.326E-01	7.087E-01	6.505E-02	0.697
SB-127		252.40		1.139E+00	2.971E+00	4.984E+00	2.060E+00	0.229
		473.00		-4.554E-01	1.207E+00	1.878E+00	2.314E-01	-0.242
		685.70	*	-6.056E-01	1.020E+00	1.607E+00	1.768E-01	-0.377
		783.70		2.186E+00	2.687E+00	4.665E+00	5.677E-01	0.469
I-131		80.19		1.127E-01	3.624E+00	5.260E+00	4.518E-01	0.021
		284.31		2.510E-01	1.260E+00	2.108E+00	1.885E-01	0.119
		364.49	*	1.040E-01	1.050E-01	1.810E-01	1.618E-02	0.574
		636.99		1.297E+00	1.427E+00	2.523E+00	2.365E-01	0.514
TE-132		49.72		-5.664E+00	6.826E+00	1.099E+01	1.082E+00	-0.516
		111.76		-2.719E+00	2.117E+01	3.382E+01	3.524E+00	-0.080
		116.30		1.448E+01	1.807E+01	3.001E+01	3.120E+00	0.482
		228.16	*	6.385E-01	4.790E-01	8.321E-01	1.272E-01	0.767
BA-133		81.00		-2.216E-01	1.048E-01	1.290E-01	2.002E-02	-1.718
	+	276.40		5.505E-01	4.954E-01	7.000E-01	9.823E-02	0.786
		302.85		1.620E-01	1.700E-01	2.615E-01	3.407E-02	0.619
		356.01	*	2.019E-02	5.109E-02	7.495E-02	9.656E-03	0.269
		383.85		-5.862E-02	3.353E-01	5.393E-01	6.609E-02	-0.109
I-133		529.87	*	-1.079E-03	3.353E-01	Half-Life too short		
		875.33		-2.087E-04	3.353E-01	Half-Life too short		
		1298.22		-9.665E-03	3.353E-01	Half-Life too short		
CS-134		563.25		4.374E-01	4.041E-01	7.218E-01	6.528E-02	0.606
		569.33		-2.332E-02	2.105E-01	3.500E-01	3.179E-02	-0.067
		604.72		3.845E-03	4.366E-02	6.387E-02	5.735E-03	0.060
	+	795.86	*	1.199E-01	9.625E-02	1.105E-01	1.018E-02	1.085
		801.95		5.098E-02	4.881E-01	7.001E-01	6.446E-02	0.073
		1365.19		7.072E-01	1.339E+00	2.343E+00	2.028E-01	0.302
CS-135		268.22	*	9.629E-02	1.904E-01	2.872E-01	2.832E-02	0.335
I-135		546.56		1.384E+07	1.904E-01	Half-Life too short		
		836.80		2.191E+07	1.904E-01	Half-Life too short		
		1038.76		-1.513E+07	1.904E-01	Half-Life too short		
		1131.51		-2.022E+07	1.904E-01	Half-Life too short		
		1260.41	*	-2.266E+06	1.904E-01	Half-Life too short		
		1457.56		1.385E+09	1.904E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1678.03		5.679E+07	1.904E-01	Half-Life too short		
		1791.20		-1.515E+07	1.904E-01	Half-Life too short		
CS-136		153.25		1.156E+00	8.361E-01	1.397E+00	1.373E-01	0.827
		176.60		2.136E-01	4.494E-01	7.761E-01	6.952E-02	0.275
		273.65		3.111E-01	6.911E-01	7.725E-01	7.132E-02	0.403
		340.55		5.345E-01	1.803E-01	2.992E-01	2.658E-02	1.786
		818.51		-2.699E-02	6.977E-02	1.096E-01	1.006E-02	-0.246
		1048.07	*	3.443E-02	1.147E-01	1.969E-01	1.800E-02	0.175
		1235.36		4.638E-01	7.391E-01	1.118E+00	1.280E-01	0.415
CE-139		165.86	*	4.672E-03	3.381E-02	5.387E-02	4.261E-03	0.087
BA-140		162.66		-7.338E-02	7.913E-01	1.249E+00	1.072E-01	-0.059
		304.85		1.127E-01	1.440E+00	2.096E+00	6.131E-01	0.054
		423.72		8.641E-01	1.893E+00	3.121E+00	1.026E+00	0.277
		537.26	*	-1.355E-01	2.606E-01	4.157E-01	1.413E-01	-0.326
LA-140	+	328.76		5.658E-01	4.283E-01	5.175E-01	4.693E-02	1.093
		487.02		1.566E-02	1.328E-01	2.145E-01	2.003E-02	0.073
		815.77		1.097E-01	3.144E-01	5.297E-01	5.364E-02	0.207
		1596.21	*	-5.667E-02	9.873E-02	1.255E-01	1.050E-02	-0.452
CE-141		145.44	*	2.386E-02	6.486E-02	1.050E-01	8.791E-03	0.227
CE-143		57.36		-1.079E-04	6.486E-02	Half-Life too short		
		293.27	*	1.342E-04	6.486E-02	Half-Life too short		
		664.57		7.722E-04	6.486E-02	Half-Life too short		
		721.93		-2.979E-04	6.486E-02	Half-Life too short		
CE-144		80.12		4.826E-02	2.363E+00	3.429E+00	2.929E-01	0.014
		133.52	*	-5.555E-02	2.102E-01	3.325E-01	5.038E-02	-0.167
PM-144		476.78		-6.976E-02	7.532E-02	1.119E-01	1.064E-02	-0.623
		618.01		3.720E-03	3.713E-02	6.231E-02	5.717E-03	0.060
		696.49	*	-2.496E-02	3.783E-02	5.917E-02	5.303E-03	-0.422
PR-144		696.51	*	-1.853E+00	2.828E+00	4.426E+00	3.967E-01	-0.419
		1489.16		-4.625E+00	1.206E+01	1.831E+01	1.530E+00	-0.253
PM-146		453.88	*	-1.299E-03	4.833E-02	7.760E-02	8.259E-03	-0.017
		633.25		-1.239E+00	1.621E+00	2.416E+00	9.246E-01	-0.513
		735.93		5.128E-02	1.663E-01	2.795E-01	7.871E-02	0.184
		747.24		-9.582E-02	1.083E-01	1.628E-01	2.420E-02	-0.588
ND-147	+	91.11		6.248E-01	1.944E-01	4.289E-01	4.247E-02	1.457
		319.41		3.061E+00	3.085E+00	5.340E+00	4.581E-01	0.573
		531.02	*	-6.423E-01	5.439E-01	8.167E-01	1.236E-01	-0.786
PM-149		285.90	*	-7.155E+01	5.090E+01	7.589E+01	1.175E+01	-0.943
EU-152		121.78		-4.922E-02	7.522E-02	1.172E-01	1.158E-02	-0.420
		244.70		4.983E-01	3.638E-01	5.797E-01	4.909E-02	0.860
		344.28	*	7.129E-03	1.207E-01	1.740E-01	1.576E-02	0.041
		778.90		-3.430E-02	2.774E-01	4.497E-01	4.108E-02	-0.076
	+	964.08		9.204E-01	4.153E-01	6.582E-01	5.956E-02	1.398
		1085.87		5.851E-02	4.449E-01	7.528E-01	6.493E-02	0.078
		1112.07		2.997E-01	3.509E-01	5.924E-01	5.033E-02	0.506
		1408.01		1.342E-01	2.065E-01	3.641E-01	3.018E-02	0.369
GD-153		69.67		-1.877E-01	1.612E+00	2.361E+00	1.809E-01	-0.079
		97.43	*	1.890E-02	8.761E-02	1.285E-01	1.149E-02	0.147
		103.18		5.431E-02	1.162E-01	1.722E-01	1.511E-02	0.315

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-154		123.07		5.952E-03	5.393E-02	8.709E-02	9.857E-03	0.068
		723.31		-3.126E-02	2.072E-01	2.906E-01	2.868E-02	-0.108
		873.19		-2.335E-02	3.278E-01	5.293E-01	6.512E-02	-0.044
		996.26		3.476E-02	4.451E-01	7.212E-01	1.272E-01	0.048
		1004.73		7.915E-02	2.499E-01	4.136E-01	4.912E-02	0.191
		1274.44	*	6.154E-02	1.470E-01	2.519E-01	2.787E-02	0.244
TB-160	+	86.79		1.008E+00	3.361E-01	4.868E-01	4.516E-02	2.071
		197.04		6.857E-02	5.402E-01	9.167E-01	7.512E-02	0.075
		215.65		1.419E-01	7.779E-01	1.317E+00	1.097E-01	0.108
		298.57		2.039E-01	1.299E-01	2.278E-01	1.948E-02	0.895
		879.36	*	1.425E-02	1.579E-01	2.587E-01	2.372E-02	0.055
		962.29		1.110E+00	6.425E-01	1.071E+00	9.695E-02	1.037
	+	966.15		6.295E-01	2.840E-01	5.466E-01	4.944E-02	1.152
		1177.93		1.937E-01	4.406E-01	7.566E-01	6.161E-02	0.256
		1271.85		-3.646E-01	8.388E-01	1.329E+00	1.090E-01	-0.274
HO-166M		80.57		-2.462E-01	2.707E-01	3.748E-01	3.219E-02	-0.657
		184.41		9.081E-02	4.378E-02	7.076E-02	5.720E-03	1.283
		280.46		-4.676E-02	1.056E-01	1.473E-01	1.251E-02	-0.317
		410.95		2.255E-01	2.714E-01	4.617E-01	3.902E-02	0.488
		711.68	*	-1.001E-02	6.412E-02	1.044E-01	9.402E-03	-0.096
		752.31		7.041E-02	3.118E-01	5.218E-01	4.745E-02	0.135
		810.29		-4.382E-02	6.276E-02	9.545E-02	8.750E-03	-0.459
TA-182		67.75		-4.689E-02	9.258E-02	1.499E-01	1.130E-02	-0.313
		100.11		1.884E-01	1.761E-01	2.844E-01	2.518E-02	0.662
		152.43		9.088E-02	3.758E-01	6.040E-01	4.897E-02	0.150
		222.11		2.256E-01	3.733E-01	6.415E-01	5.370E-02	0.352
	+	1121.30		1.026E+00	2.802E-01	4.167E-01	3.520E-02	2.462
		1189.05		-7.397E-02	3.746E-01	6.127E-01	4.996E-02	-0.121
		1221.41	*	5.306E-02	2.338E-01	3.943E-01	3.225E-02	0.135
		1231.02		4.985E-02	5.870E-01	9.580E-01	7.840E-02	0.052
IR-192	+	295.96		1.218E+00	1.940E-01	3.230E-01	2.781E-02	3.771
		308.46		4.519E-03	1.022E-01	1.679E-01	1.446E-02	0.027
		316.51	*	-4.884E-02	3.738E-02	5.643E-02	4.850E-03	-0.865
		468.07		4.386E-02	8.134E-02	1.201E-01	1.125E-02	0.365
HG-203		70.83		1.816E-01	1.224E+00	1.812E+00	2.827E-01	0.100
		72.87		1.520E+00	6.997E-01	1.160E+00	1.757E-01	1.310
		279.20	*	2.616E-02	4.882E-02	7.297E-02	6.356E-03	0.359
BI-207		72.81		3.418E-01	1.596E-01	2.754E-01	2.172E-02	1.241
	+	74.97		8.474E-01	1.483E-01	2.198E-01	1.772E-02	3.856
		569.70		4.394E-03	3.167E-02	5.359E-02	4.806E-03	0.082
		1063.66	*	4.281E-02	5.790E-02	1.030E-01	8.988E-03	0.416
		1770.23		2.127E-01	4.670E-01	7.591E-01	6.236E-02	0.280
PB-210		46.54	*	-3.703E-02	1.890E+00	3.128E+00	2.908E-01	-0.012
PB-211		404.85	*	5.800E-01	8.592E-01	1.375E+00	6.649E-01	0.422
		427.09		-9.608E-01	1.721E+00	2.573E+00	1.190E+00	-0.373
		832.01		-2.028E-01	1.128E+00	1.804E+00	9.372E-01	-0.112
RN-219	+	271.23		5.361E-01	3.541E-01	4.777E-01	4.850E-02	1.122
		401.81	*	-4.238E-01	4.717E-01	7.135E-01	1.052E-01	-0.594
RA-223		81.07		-5.071E-01	2.285E-01	2.917E-01	2.521E-02	-1.738

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		83.79		1.088E-01	1.313E-01	1.976E-01	1.765E-02	0.551
		94.87		1.403E+00	4.854E-01	7.769E-01	7.026E-02	1.805
		144.24		6.510E-01	7.433E-01	1.205E+00	1.117E-01	0.540
		154.21		2.136E-01	4.319E-01	7.006E-01	6.274E-02	0.305
	+	269.46		4.166E-01	2.742E-01	3.730E-01	3.234E-02	1.117
		323.87	*	-7.783E-01	8.371E-01	1.102E+00	1.908E-01	-0.706
	+	338.28		6.952E+00	2.262E+00	2.707E+00	3.256E-01	2.568
AC-227		79.69		3.778E-01	1.186E+00	1.743E+00	2.993E-01	0.217
		235.96		1.994E-01	1.838E-01	2.855E-01	2.910E-02	0.698
		256.23	*	9.135E-02	2.598E-01	4.399E-01	5.260E-02	0.208
	+	299.98		3.051E+00	1.161E+00	1.888E+00	2.390E-01	1.616
		304.50		3.877E-01	1.972E+00	2.895E+00	4.777E-01	0.134
		334.37		-5.907E-01	2.948E+00	2.964E+00	4.612E-01	-0.199
TH-227		79.80		3.467E-01	1.559E+00	2.281E+00	4.958E-01	0.152
		235.96		1.994E-01	1.836E-01	2.855E-01	2.740E-02	0.698
		256.23	*	9.135E-02	2.598E-01	4.399E-01	5.949E-02	0.208
	+	299.98		3.051E+00	1.161E+00	1.888E+00	2.390E-01	1.616
		304.50		3.877E-01	1.972E+00	2.895E+00	4.777E-01	0.134
		334.37		-5.907E-01	2.948E+00	2.964E+00	4.612E-01	-0.199
TH-229		85.43		4.958E-01	2.247E-01	3.501E-01	3.192E-02	1.416
	+	88.47		4.936E-01	1.645E-01	2.355E-01	2.211E-02	2.096
		193.51	*	-1.561E-01	5.380E-01	8.676E-01	7.084E-02	-0.180
	+	210.85		2.960E+00	1.381E+00	1.754E+00	1.456E-01	1.688
PA-231		283.69	*	3.883E-01	1.508E+00	2.530E+00	3.673E-01	0.153
	+	301.36		1.960E+00	7.423E-01	1.222E+00	1.480E-01	1.603
TH-231		81.07		-5.071E-01	2.285E-01	2.917E-01	2.521E-02	-1.738
		83.79		1.088E-01	1.313E-01	1.976E-01	1.765E-02	0.551
		94.87		1.403E+00	4.854E-01	7.769E-01	7.026E-02	1.805
		144.24		6.510E-01	7.433E-01	1.205E+00	1.117E-01	0.540
		154.21		2.136E-01	4.319E-01	7.006E-01	6.274E-02	0.305
	+	269.46		4.166E-01	2.742E-01	3.730E-01	3.234E-02	1.117
		323.87	*	-7.783E-01	8.371E-01	1.102E+00	1.908E-01	-0.706
	+	338.28		6.952E+00	2.262E+00	2.707E+00	3.256E-01	2.568
PA-233	+	300.13		1.380E+00	5.358E-01	8.531E-01	1.262E-01	1.618
		311.90	*	3.843E-03	7.284E-02	1.182E-01	1.042E-02	0.033
		340.48		2.531E+00	1.053E+00	1.467E+00	3.528E-01	1.725
PA-234		94.67		4.894E-01	1.919E-01	2.954E-01	3.754E-02	1.657
		98.44		8.569E-02	1.080E-01	1.470E-01	8.208E-02	0.583
		111.00		9.196E-02	1.883E-01	3.081E-01	3.731E-02	0.298
		131.20		-9.560E-02	1.185E-01	1.821E-01	1.534E-02	-0.525
		569.50		-4.726E-02	2.897E-01	4.797E-01	4.302E-02	-0.099
		733.00		-1.142E-02	4.885E-01	6.951E-01	1.555E-01	-0.016
		880.51		-9.425E-02	3.280E-01	5.185E-01	4.755E-02	-0.182
		883.24		-2.633E-01	3.813E-01	5.079E-01	3.418E-01	-0.518
		926.50		-6.732E-03	2.009E-01	3.240E-01	8.248E-02	-0.021
		946.00	*	2.731E-01	3.857E-01	6.549E-01	1.243E-01	0.417
		949.00		4.856E-01	5.926E-01	1.018E+00	9.242E-02	0.477
PA-234M		766.42		2.770E+00	1.326E+01	2.196E+01	1.116E+01	0.126
		1001.03	*	1.438E+00	5.687E+00	9.408E+00	9.647E-01	0.153

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	1.708E-01	1.124E+00	1.865E+00	3.317E-01	0.092
	+	92.59		3.412E+00	1.234E+00	1.317E+00	2.937E-01	2.590
U-238		63.29	*	1.708E-01	1.124E+00	1.865E+00	3.317E-01	0.092
	+	92.59		3.412E+00	1.021E+00	1.317E+00	1.205E-01	2.590
NP-239		99.53		1.091E-01	1.571E-01	2.616E-01	2.321E-02	0.417
		103.37		5.936E-02	1.068E-01	1.590E-01	1.394E-02	0.373
	+	106.12		1.717E-01	1.108E-01	1.448E-01	1.262E-02	1.186
		117.23	*	4.713E-02	4.113E-01	6.658E-01	5.728E-02	0.071
		228.18		3.060E-01	2.272E-01	4.005E-01	3.366E-02	0.764
	+	277.60		2.723E-01	2.432E-01	3.530E-01	2.997E-02	0.771
AM-241		59.54	*	-6.650E-02	1.137E-01	1.842E-01	1.460E-02	-0.361
CM-247	+	278.00		1.157E+00	1.033E+00	1.539E+00	1.306E-01	0.752
		287.50		6.128E-01	1.343E+00	2.272E+00	1.936E-01	0.270
		402.40	*	-2.448E-02	4.266E-02	6.653E-02	5.585E-03	-0.368
CF-249		252.80		2.254E-01	9.863E-01	1.662E+00	1.411E-01	0.136
		333.37		-1.347E-01	3.076E-01	2.978E-01	2.551E-02	-0.452
		388.16	*	2.947E-02	4.686E-02	7.892E-02	6.586E-03	0.373
CF-251		177.52	*	3.952E-02	1.336E-01	2.292E-01	1.838E-02	0.172
		227.38		2.514E-01	3.764E-01	6.479E-01	5.443E-02	0.388
		285.41		-4.329E+00	2.383E+00	3.505E+00	2.983E-01	-1.235

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329002       *
* Acquisition date : 24-MAR-2010 08:57:22 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.40     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249329002           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.2241E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.499E+01	3.597E+00	5.076E-01	0.000E+00
CD-109	3.264E+00	1.066E+00	1.241E+00	0.000E+00
SN-126	3.202E-01	1.046E-01	1.220E-01	0.000E+00
BA-137M	1.243E-01	5.866E-02	7.221E-02	0.000E+00
CS-137	1.313E-01	6.197E-02	7.628E-02	0.000E+00
EU-155	2.152E-01	1.361E-01	1.690E-01	0.000E+00
TL-208	6.734E-01	1.087E-01	6.863E-02	0.000E+00
BI-211	4.350E+00	6.395E-01	3.573E-01	0.000E+00
BI-212	2.337E+00	8.815E-01	8.388E-01	0.000E+00
PB-212	2.054E+00	2.332E-01	1.071E-01	0.000E+00
BI-214	1.251E+00	2.179E-01	1.305E-01	0.000E+00
PB-214	1.579E+00	2.473E-01	1.299E-01	0.000E+00
RA-224	4.669E+00	1.383E+00	1.148E+00	0.000E+00
RA-226	1.251E+00	2.179E-01	1.305E-01	0.000E+00
AC-228	1.873E+00	4.353E-01	2.695E-01	0.000E+00
RA-228	1.873E+00	4.353E-01	2.695E-01	0.000E+00
TH-228	2.054E+00	2.332E-01	1.071E-01	0.000E+00
TH-230	1.251E+00	2.081E-01	1.305E-01	0.000E+00
TH-232	1.873E+00	4.353E-01	2.695E-01	0.000E+00
U-235	1.041E-01	2.191E-01	3.665E-01	0.000E+00
NP-237	9.554E-01	3.687E-01	4.224E-01	0.000E+00
ANH-511	1.266E-01	7.419E-02	5.238E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	3.203E-02	3.483E-01	5.809E-01	0.000E+00	NOT IDENT.
NA-22	1.483E-02	5.142E-02	8.891E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.290E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-1.888E-02	4.401E-02	6.927E-02	0.000E+00	FAIL ABUN
V-48	-3.183E-02	7.395E-02	1.168E-01	0.000E+00	NOT IDENT.

CR-51	1.546E-01	3.682E-01	6.434E-01	0.000E+00	NOT IDENT.
MN-54	-2.874E-02	4.274E-02	6.746E-02	0.000E+00	NOT IDENT.
CO-56	-1.969E-02	4.278E-02	6.848E-02	0.000E+00	FAIL ABUN
CO-57	-4.285E-03	2.528E-02	4.243E-02	0.000E+00	NOT IDENT.
CO-58	-3.075E-02	4.045E-02	6.287E-02	0.000E+00	NOT IDENT.
FE-59	-1.039E-01	1.027E-01	1.597E-01	0.000E+00	NOT IDENT.
CO-60	-3.272E-02	4.449E-02	6.835E-02	0.000E+00	NOT IDENT.
ZN-65	-1.029E-02	1.074E-01	1.561E-01	0.000E+00	NOT IDENT.
SE-75	-2.959E-02	5.117E-02	7.921E-02	0.000E+00	NOT IDENT.
SR-85	6.939E-02	4.604E-02	7.769E-02	0.000E+00	NOT IDENT.
Y-88	1.108E-02	3.458E-02	6.185E-02	0.000E+00	NOT IDENT.
Y-91	-9.168E+00	2.421E+01	3.978E+01	0.000E+00	NOT IDENT.
NB-94	1.930E-02	3.713E-02	6.538E-02	0.000E+00	NOT IDENT.
NB-95	-1.138E-02	4.762E-02	7.883E-02	0.000E+00	NOT IDENT.
NB-95M	1.829E-01	1.408E-01	2.306E-01	0.000E+00	NOT IDENT.
ZR-95	3.784E-02	7.720E-02	1.353E-01	0.000E+00	NOT IDENT.
MO-99	-2.237E+00	7.978E+00	1.319E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.346E+13	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.790E-02	4.369E-02	6.983E-02	0.000E+00	FAIL ABUN
RH-106	1.448E-01	3.642E-01	6.406E-01	0.000E+00	NOT IDENT.
RU-106	1.448E-01	3.639E-01	6.406E-01	0.000E+00	NOT IDENT.
AG-108M	-1.795E-02	3.275E-02	5.254E-02	0.000E+00	NOT IDENT.
AG-110M	-1.956E-02	4.084E-02	5.711E-02	0.000E+00	NOT IDENT.
SN-113	-4.573E-02	5.110E-02	8.105E-02	0.000E+00	NOT IDENT.
CD-115	-7.962E-01	5.985E+00	1.031E+01	0.000E+00	NOT IDENT.
SN-117M	2.752E-02	5.174E-02	8.809E-02	0.000E+00	NOT IDENT.
TE-123M	1.536E-02	2.937E-02	5.000E-02	0.000E+00	NOT IDENT.
SB-124	-8.824E-03	6.296E-02	9.974E-02	0.000E+00	NOT IDENT.
SB-125	-1.165E-01	1.000E-01	1.526E-01	0.000E+00	FAIL ABUN
TE-125M	-1.015E+00	1.073E+01	1.616E+01	0.000E+00	NOT IDENT.
I-126	8.942E-02	2.493E-01	3.826E-01	0.000E+00	NOT IDENT.
SB-126	-6.971E-02	1.627E-01	2.274E-01	0.000E+00	NOT IDENT.
SB-127	-6.056E-01	9.999E-01	1.621E+00	0.000E+00	NOT IDENT.
I-131	1.040E-01	1.029E-01	1.840E-01	0.000E+00	NOT IDENT.
TE-132	6.385E-01	4.694E-01	8.508E-01	0.000E+00	NOT IDENT.
BA-133	2.019E-02	5.007E-02	7.621E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.058E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.433E-02	1.112E-01	0.000E+00	FAIL ABUN
CS-135	9.629E-02	1.866E-01	2.930E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.647E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.443E-02	1.124E-01	1.974E-01	0.000E+00	NOT IDENT.
CE-139	4.672E-03	3.313E-02	5.530E-02	0.000E+00	NOT IDENT.
BA-140	-1.355E-01	2.554E-01	4.204E-01	0.000E+00	NOT IDENT.
LA-140	-5.667E-02	9.675E-02	1.251E-01	0.000E+00	FAIL ABUN
CE-141	2.386E-02	6.356E-02	1.080E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	6.346E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-5.555E-02	2.060E-01	3.422E-01	0.000E+00	NOT IDENT.
PM-144	-2.496E-02	3.707E-02	5.964E-02	0.000E+00	NOT IDENT.
PR-144	-1.853E+00	2.772E+00	4.462E+00	0.000E+00	NOT IDENT.
PM-146	-1.299E-03	4.736E-02	7.865E-02	0.000E+00	NOT IDENT.
ND-147	-6.423E-01	5.330E-01	8.261E-01	0.000E+00	FAIL ABUN
PM-149	-7.155E+01	4.988E+01	7.738E+01	0.000E+00	NOT IDENT.
EU-152	7.129E-03	1.182E-01	1.770E-01	0.000E+00	FAIL ABUN
GD-153	1.890E-02	8.586E-02	1.328E-01	0.000E+00	NOT IDENT.
EU-154	6.154E-02	1.440E-01	2.519E-01	0.000E+00	NOT IDENT.
TB-160	1.425E-02	1.547E-01	2.599E-01	0.000E+00	FAIL ABUN
HO-166M	-1.001E-02	6.284E-02	1.052E-01	0.000E+00	NOT IDENT.
TA-182	5.306E-02	2.291E-01	3.946E-01	0.000E+00	FAIL ABUN
IR-192	-4.884E-02	3.664E-02	5.746E-02	0.000E+00	FAIL ABUN
HG-203	2.616E-02	4.785E-02	7.442E-02	0.000E+00	NOT IDENT.
BI-207	4.281E-02	5.674E-02	1.033E-01	0.000E+00	FAIL ABUN
PB-210	-3.703E-02	1.852E+00	3.262E+00	0.000E+00	NOT IDENT.
PB-211	5.800E-01	8.420E-01	1.396E+00	0.000E+00	NOT IDENT.
RN-219	-4.238E-01	4.622E-01	7.243E-01	0.000E+00	FAIL ABUN
RA-223	-7.783E-01	8.204E-01	1.122E+00	0.000E+00	FAIL ABUN
AC-227	9.135E-02	2.546E-01	4.491E-01	0.000E+00	FAIL ABUN
TH-227	9.135E-02	2.546E-01	4.491E-01	0.000E+00	FAIL ABUN
TH-229	-1.561E-01	5.272E-01	8.890E-01	0.000E+00	FAIL ABUN
PA-231	3.883E-01	1.478E+00	2.580E+00	0.000E+00	FAIL ABUN
TH-231	-7.783E-01	8.204E-01	1.122E+00	0.000E+00	FAIL ABUN
PA-233	3.843E-03	7.138E-02	1.204E-01	0.000E+00	FAIL ABUN
PA-234	2.731E-01	3.780E-01	6.576E-01	0.000E+00	NOT IDENT.
PA-234M	1.438E+00	5.573E+00	9.439E+00	0.000E+00	NOT IDENT.
TH-234	1.708E-01	1.101E+00	1.937E+00	0.000E+00	FAIL ABUN
U-238	1.708E-01	1.101E+00	1.937E+00	0.000E+00	FAIL ABUN
NP-239	4.713E-02	4.031E-01	6.865E-01	0.000E+00	FAIL ABUN
AM-241	-6.650E-02	1.114E-01	1.915E-01	0.000E+00	NOT IDENT.
CM-247	-2.448E-02	4.181E-02	6.754E-02	0.000E+00	FAIL ABUN

CF-249	2.947E-02	4.593E-02	8.015E-02	0.000E+00 NOT IDENT.
CF-251	3.952E-02	1.309E-01	2.351E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 10:58:46.35

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329002.CNF;2
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 08:57:22
Sample ID         : G249329002           Sample quantity  : 1.22410E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.40  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1373	10.66*	1.129E+00	3.499E+01	3.499E+01	10.49
CD-109	88.03	264	3.70*	6.840E+00	3.202E+00	3.264E+00	33.33
SN-126	64.28	------	9.60	4.930E+00	------ Line Not Found		------
	86.94	264	8.90	6.840E+00	1.331E+00	1.331E+00	52.42
	87.57	264	37.00*	6.840E+00	3.202E-01	3.202E-01	33.33
BA-137M	661.66	81	89.90*	2.231E+00	1.242E-01	1.243E-01	48.14
CS-137	661.66	81	85.10*	2.231E+00	1.312E-01	1.313E-01	48.15
EU-155	86.55	264	30.70	6.840E+00	3.859E-01	3.879E-01	33.36
	105.31	106	21.10*	7.182E+00	2.141E-01	2.152E-01	64.56
TL-208	277.37	56	6.60	4.400E+00	5.958E-01	5.958E-01	89.76
	583.19	462	85.00*	2.475E+00	6.734E-01	6.734E-01	16.47
	860.56	56	12.50	1.782E+00	7.654E-01	7.654E-01	57.62
BI-211	72.87	------	1.23	5.899E+00	------ Line Not Found		------
	351.06	674	12.92*	3.680E+00	4.350E+00	4.350E+00	15.00
BI-212	727.33	105	6.67*	2.060E+00	2.337E+00	2.337E+00	38.49
	785.37	------	1.10	1.930E+00	------ Line Not Found		------
	1620.50	36	1.47	1.043E+00	7.200E+00	7.200E+00	34.36
PB-212	74.82	599	10.28	6.076E+00	2.941E+00	2.941E+00	20.03
	77.11	906	17.10	6.262E+00	2.595E+00	2.595E+00	13.09
	238.63	1433	43.60*	4.908E+00	2.054E+00	2.054E+00	11.59
	300.09	124	3.30	4.150E+00	2.773E+00	2.773E+00	37.39
BI-214	609.32	443	45.49*	2.388E+00	1.251E+00	1.251E+00	17.78
	1120.29	153	14.92	1.414E+00	2.219E+00	2.219E+00	28.13
	1764.49	93	15.30	9.831E-01	1.905E+00	1.905E+00	26.30
PB-214	74.82	599	5.80	6.076E+00	5.212E+00	5.212E+00	19.22
	77.11	906	9.70	6.262E+00	4.575E+00	4.575E+00	15.47
	242.00	304	7.25	4.866E+00	2.640E+00	2.641E+00	30.78
	295.22	425	18.42	4.201E+00	1.682E+00	1.682E+00	17.18
	351.93	674	35.60*	3.680E+00	1.579E+00	1.579E+00	15.98
RA-224	240.99	304	4.10*	4.866E+00	4.669E+00	4.669E+00	30.23
RA-226	609.32	443	45.49*	2.388E+00	1.251E+00	1.251E+00	17.78
	1120.29	153	14.92	1.414E+00	2.219E+00	2.219E+00	28.13

Sample ID : G249329002 Acquisition date : 24-MAR-2010 08:57:22

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1764.49	93	15.30	9.831E-01	1.905E+00	1.905E+00	26.30
AC-228	338.32	244	11.27	3.790E+00	1.752E+00	1.752E+00	51.51
	911.20	267	25.80*	1.695E+00	1.873E+00	1.873E+00	23.71
	968.97	185	15.80	1.606E+00	2.234E+00	2.234E+00	32.67
RA-228	338.32	244	11.27	3.790E+00	1.752E+00	1.752E+00	51.51
	911.20	267	25.80*	1.695E+00	1.873E+00	1.873E+00	23.71
	968.97	185	15.80	1.606E+00	2.234E+00	2.234E+00	32.67
TH-228	74.82	599	10.28	6.076E+00	2.941E+00	2.941E+00	17.54
	77.11	906	17.10	6.262E+00	2.595E+00	2.595E+00	13.09
	238.63	1433	43.60*	4.908E+00	2.054E+00	2.054E+00	11.59
	300.09	124	3.30	4.150E+00	2.773E+00	2.773E+00	70.95
TH-230	609.32	443	45.49*	2.388E+00	1.251E+00	1.251E+00	16.98
	1120.29	153	14.92	1.414E+00	2.219E+00	2.219E+00	27.32
	1764.49	93	15.30	9.831E-01	1.905E+00	1.905E+00	26.30
TH-232	338.32	244	11.27	3.790E+00	1.752E+00	1.752E+00	31.42
	911.20	267	25.80*	1.695E+00	1.873E+00	1.873E+00	23.71
	968.97	185	15.80	1.606E+00	2.234E+00	2.234E+00	32.67
U-235	89.96	175	3.47	6.940E+00	2.223E+00	2.223E+00	38.56
	93.35	331	5.60	7.024E+00	2.577E+00	2.577E+00	36.80
	143.76	------	10.96*	6.691E+00	------ Line Not Found		------
	163.33	------	5.08	6.279E+00	------ Line Not Found		------
	185.72	239	57.20	5.800E+00	2.207E-01	2.207E-01	45.01
	205.31	------	5.01	5.451E+00	------ Line Not Found		------
NP-237	86.48	264	12.40*	6.840E+00	9.554E-01	9.554E-01	39.38
	95.86	------	2.68	7.087E+00	------ Line Not Found		------
ANH-511	511.00	114	100.00*	2.757E+00	1.266E-01	1.266E-01	59.80

Flag: "*" = Keyline

Sample ID : G249329002 Acquisition date : 24-MAR-2010 08:57:22

Total number of lines in spectrum 35
Number of unidentified lines 2
Number of lines tentatively identified by NID 33 94.29%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.499E+01	3.499E+01	0.367E+01	10.49	
CD-109	461.40D	1.02	3.202E+00	3.264E+00	1.088E+00	33.33	
SN-126	2.30E+05Y	1.00	3.202E-01	3.202E-01	1.067E-01	33.33	
BA-137M	30.08Y	1.00	1.242E-01	1.243E-01	0.599E-01	48.14	
CS-137	30.08Y	1.00	1.312E-01	1.313E-01	0.632E-01	48.15	
EU-155	4.75Y	1.01	2.141E-01	2.152E-01	1.389E-01	64.56	
TL-208	1.41E+10Y	1.00	6.734E-01	6.734E-01	1.109E-01	16.47	
BI-211	7.04E+08Y	1.00	4.350E+00	4.350E+00	0.653E+00	15.00	
BI-212	1.41E+10Y	1.00	2.337E+00	2.337E+00	0.900E+00	38.49	
PB-212	1.41E+10Y	1.00	2.054E+00	2.054E+00	0.238E+00	11.59	
BI-214	1600.00Y	1.00	1.251E+00	1.251E+00	0.222E+00	17.78	
PB-214	1600.00Y	1.00	1.579E+00	1.579E+00	0.252E+00	15.98	
RA-224	1.41E+10Y	1.00	4.669E+00	4.669E+00	1.412E+00	30.23	
RA-226	1600.00Y	1.00	1.251E+00	1.251E+00	0.222E+00	17.78	
AC-228	1.41E+10Y	1.00	1.873E+00	1.873E+00	0.444E+00	23.71	
RA-228	1.41E+10Y	1.00	1.873E+00	1.873E+00	0.444E+00	23.71	
TH-228	1.41E+10Y	1.00	2.054E+00	2.054E+00	0.238E+00	11.59	
TH-230	7.54E+04Y	1.00	1.251E+00	1.251E+00	0.212E+00	16.98	
TH-232	1.41E+10Y	1.00	1.873E+00	1.873E+00	0.444E+00	23.71	
U-235	7.04E+08Y	1.00	2.207E-01	2.207E-01	0.993E-01	45.01	K
NP-237	2.14E+06Y	1.00	9.554E-01	9.554E-01	3.762E-01	39.38	
ANH-511	1.00E+09Y	1.00	1.266E-01	1.266E-01	0.757E-01	59.80	
	Total Activity :		6.737E+01	6.743E+01			

Grand Total Activity : 6.737E+01 6.743E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249329002 Acquisition date : 24-MAR-2010 08:57:22

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.42	145	296	0.87	418.44	414	9	2.02E-02	45.9	5.38E+00	T
0	270.76	85	206	0.80	541.09	536	9	1.17E-02	65.3	4.48E+00	T
0	328.43	72	176	1.48	656.42	652	11	1.00E-02	75.2	3.88E+00	T
0	463.18	65	141	0.81	925.88	921	13	9.05E-03	78.9	2.98E+00	T
0	795.67	57	99	1.40	1590.77	1584	14	7.87E-03	79.8	1.91E+00	T
1	964.85	71	46	1.98	1929.09	1924	21	9.83E-03	44.2	1.61E+00	T
0	1238.85	25	55	1.22	2477.04	2473	7	3.48E-03	****	1.30E+00	T
0	1588.97	29	23	2.45	3177.23	3167	16	4.01E-03	84.2	1.06E+00	
0	1731.26	19	24	1.64	3461.79	3455	15	2.57E-03	****	9.96E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 10:58:49.90

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329002.CNF;2  *
* Acquisition date : 24-MAR-2010 08:57:22  Detector SN#    :                *
* Detector ID      : GAM07                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.40         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G249329002            Analyst initials: MXR1           *
* Batch Number     : 965250                Sample Quantity : 1.22410E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58.0MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.499E+01	3.670E+00	5.085E-01	4.367E-02	68.808
CD-109	3.264E+00	1.088E+00	1.200E+00	1.130E-01	2.721
SN-126	3.202E-01	1.067E-01	1.179E-01	1.105E-02	2.715
BA-137M	1.243E-01	5.986E-02	7.158E-02	6.335E-03	1.737
CS-137	1.313E-01	6.324E-02	7.562E-02	6.704E-03	1.737
EU-155	2.152E-01	1.389E-01	1.637E-01	1.446E-02	1.314
TL-208	6.734E-01	1.109E-01	6.793E-02	6.491E-03	9.913
BI-211	4.350E+00	6.526E-01	3.513E-01	3.152E-02	12.380
BI-212	2.337E+00	8.995E-01	8.326E-01	1.062E-01	2.807
PB-212	2.054E+00	2.380E-01	1.048E-01	1.007E-02	19.597
BI-214	1.251E+00	2.223E-01	1.293E-01	1.343E-02	9.676
PB-214	1.579E+00	2.523E-01	1.278E-01	1.346E-02	12.353
RA-224	4.669E+00	1.412E+00	1.123E+00	9.501E-02	4.156
RA-226	1.251E+00	2.223E-01	1.293E-01	1.343E-02	9.676
AC-228	1.873E+00	4.442E-01	2.683E-01	3.216E-02	6.982
RA-228	1.873E+00	4.442E-01	2.683E-01	3.216E-02	6.982
TH-228	2.054E+00	2.380E-01	1.048E-01	1.007E-02	19.597
TH-230	1.251E+00	2.123E-01	1.293E-01	1.157E-02	9.676

Sample ID : G249329002 Acquisition date : 24-MAR-2010 08:57:22

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.873E+00	4.442E-01	2.683E-01	3.216E-02	6.982
U-235	2.207E-01	9.933E-02	3.563E-01	5.972E-02	0.619
NP-237	9.554E-01	3.762E-01	4.082E-01	9.352E-02	2.341
ANH-511	1.266E-01	7.570E-02	5.175E-02	4.598E-03	2.446

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	3.203E-02		3.554E-01	5.735E-01	5.411E-02	0.056
NA-22	1.483E-02		5.247E-02	8.890E-02	7.297E-03	0.167
NA-24	5.575E-04		3.209E-02	Half-Life too short		
SC-46	-1.888E-02		4.490E-02	6.894E-02	6.317E-03	-0.274
V-48	-3.183E-02		7.546E-02	1.164E-01	1.047E-02	-0.274
CR-51	1.546E-01		3.758E-01	6.320E-01	5.706E-02	0.245
MN-54	-2.874E-02		4.362E-02	6.708E-02	6.157E-03	-0.429
CO-56	-1.969E-02		4.365E-02	6.811E-02	6.252E-03	-0.289
CO-57	-4.285E-03		2.580E-02	4.117E-02	3.543E-03	-0.104
CO-58	-3.075E-02		4.128E-02	6.250E-02	5.742E-03	-0.492
FE-59	-1.039E-01		1.048E-01	1.593E-01	1.476E-02	-0.652
CO-60	-3.272E-02		4.540E-02	6.838E-02	5.601E-03	-0.479
ZN-65	-1.029E-02		1.096E-01	1.558E-01	1.322E-02	-0.066
SE-75	-2.959E-02		5.222E-02	7.761E-02	6.629E-03	-0.381
SR-85	6.939E-02		4.698E-02	7.677E-02	6.827E-03	0.904
Y-88	1.108E-02		3.529E-02	6.215E-02	5.044E-03	0.178
Y-91	-9.168E+00		2.471E+01	3.974E+01	3.246E+00	-0.231
NB-94	1.930E-02		3.788E-02	6.486E-02	5.824E-03	0.298
NB-95	-1.138E-02		4.859E-02	7.830E-02	7.138E-03	-0.145
NB-95M	1.829E-01		1.437E-01	2.257E-01	2.195E-02	0.810
ZR-95	3.784E-02		7.878E-02	1.343E-01	1.338E-02	0.282
MO-99	-2.237E+00		8.141E+00	1.309E+01	2.095E+00	-0.171
TC-99M	-2.568E+07		4.258E+07	Half-Life too short		
RU-103	-1.790E-02		4.458E-02	6.897E-02	9.730E-03	-0.259
RH-106	1.448E-01		3.716E-01	6.345E-01	8.543E-02	0.228
RU-106	1.448E-01		3.713E-01	6.345E-01	5.671E-02	0.228
AG-108M	-1.795E-02		3.342E-02	5.180E-02	4.592E-03	-0.346
AG-110M	-1.956E-02		4.167E-02	5.661E-02	5.158E-03	-0.345
SN-113	-4.573E-02		5.214E-02	7.981E-02	6.861E-03	-0.573
CD-115	-7.962E-01		6.107E+00	1.019E+01	9.092E-01	-0.078
SN-117M	2.752E-02		5.280E-02	8.576E-02	6.876E-03	0.321
TE-123M	1.536E-02		2.997E-02	4.868E-02	3.927E-03	0.315
SB-124	-8.824E-03		6.424E-02	1.001E-01	8.691E-03	-0.088
SB-125	-1.165E-01		1.021E-01	1.504E-01	1.311E-02	-0.774
TE-125M	-1.015E+00		1.095E+01	1.566E+01	1.647E+00	-0.065
I-126	8.942E-02		2.544E-01	3.793E-01	3.363E-02	0.236
SB-126	-6.971E-02		1.661E-01	2.256E-01	2.037E-02	-0.309
SB-127	-6.056E-01		1.020E+00	1.607E+00	1.768E-01	-0.377
I-131	1.040E-01		1.050E-01	1.810E-01	1.618E-02	0.574

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-132	6.385E-01		4.790E-01	8.321E-01	1.272E-01	0.767
BA-133	2.019E-02		5.109E-02	7.495E-02	9.656E-03	0.269
I-133	-1.079E-03		5.396E-04	Half-Life too short		
CS-134	1.199E-01	+	9.625E-02	1.105E-01	1.018E-02	1.085
CS-135	9.629E-02		1.904E-01	2.872E-01	2.832E-02	0.335
I-135	-2.266E+06		1.351E+07	Half-Life too short		
CS-136	3.443E-02		1.147E-01	1.969E-01	1.800E-02	0.175
CE-139	4.672E-03		3.381E-02	5.387E-02	4.261E-03	0.087
BA-140	-1.355E-01		2.606E-01	4.157E-01	1.413E-01	-0.326
LA-140	-5.667E-02		9.873E-02	1.255E-01	1.050E-02	-0.452
CE-141	2.386E-02		6.486E-02	1.050E-01	8.791E-03	0.227
CE-143	1.342E-04		3.238E-05	Half-Life too short		
CE-144	-5.555E-02		2.102E-01	3.325E-01	5.038E-02	-0.167
PM-144	-2.496E-02		3.783E-02	5.917E-02	5.303E-03	-0.422
PR-144	-1.853E+00		2.828E+00	4.426E+00	3.967E-01	-0.419
PM-146	-1.299E-03		4.833E-02	7.760E-02	8.259E-03	-0.017
ND-147	-6.423E-01		5.439E-01	8.167E-01	1.236E-01	-0.786
PM-149	-7.155E+01		5.090E+01	7.589E+01	1.175E+01	-0.943
EU-152	7.129E-03		1.207E-01	1.740E-01	1.576E-02	0.041
GD-153	1.890E-02		8.761E-02	1.285E-01	1.149E-02	0.147
EU-154	6.154E-02		1.470E-01	2.519E-01	2.787E-02	0.244
TB-160	1.425E-02		1.579E-01	2.587E-01	2.372E-02	0.055
HO-166M	-1.001E-02		6.412E-02	1.044E-01	9.402E-03	-0.096
TA-182	5.306E-02		2.338E-01	3.943E-01	3.225E-02	0.135
IR-192	-4.884E-02		3.738E-02	5.643E-02	4.850E-03	-0.865
HG-203	2.616E-02		4.882E-02	7.297E-02	6.356E-03	0.359
BI-207	4.281E-02		5.790E-02	1.030E-01	8.988E-03	0.416
PB-210	-3.703E-02		1.890E+00	3.128E+00	2.908E-01	-0.012
PB-211	5.800E-01		8.592E-01	1.375E+00	6.649E-01	0.422
RN-219	-4.238E-01		4.717E-01	7.135E-01	1.052E-01	-0.594
RA-223	-7.783E-01		8.371E-01	1.102E+00	1.908E-01	-0.706
AC-227	9.135E-02		2.598E-01	4.399E-01	5.260E-02	0.208
TH-227	9.135E-02		2.598E-01	4.399E-01	5.949E-02	0.208
TH-229	-1.561E-01		5.380E-01	8.676E-01	7.084E-02	-0.180
PA-231	3.883E-01		1.508E+00	2.530E+00	3.673E-01	0.153
TH-231	-7.783E-01		8.371E-01	1.102E+00	1.908E-01	-0.706
PA-233	3.843E-03		7.284E-02	1.182E-01	1.042E-02	0.033
PA-234	2.731E-01		3.857E-01	6.549E-01	1.243E-01	0.417
PA-234M	1.438E+00		5.687E+00	9.408E+00	9.647E-01	0.153
TH-234	1.708E-01		1.124E+00	1.865E+00	3.317E-01	0.092
U-238	1.708E-01		1.124E+00	1.865E+00	3.317E-01	0.092
NP-239	4.713E-02		4.113E-01	6.658E-01	5.728E-02	0.071
AM-241	-6.650E-02		1.137E-01	1.842E-01	1.460E-02	-0.361
CM-247	-2.448E-02		4.266E-02	6.653E-02	5.585E-03	-0.368
CF-249	2.947E-02		4.686E-02	7.892E-02	6.586E-03	0.373
CF-251	3.952E-02		1.336E-01	2.292E-01	1.838E-02	0.172

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249329002            *
* Acquisition date : 24-MAR-2010 08:57:22 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.40     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249329002           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.2241E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.499E+01	3.597E+00	2.540E-01	1.835E+00
CD-109	3.264E+00	1.066E+00	6.210E-01	5.441E-01
SN-126	3.202E-01	1.046E-01	6.104E-02	5.337E-02
BA-137M	1.243E-01	5.866E-02	3.612E-02	2.993E-02
CS-137	1.313E-01	6.197E-02	3.816E-02	3.162E-02
EU-155	2.152E-01	1.361E-01	8.457E-02	6.945E-02
TL-208	6.734E-01	1.087E-01	3.434E-02	5.546E-02
BI-211	4.350E+00	6.395E-01	1.788E-01	3.263E-01
BI-212	2.337E+00	8.815E-01	4.196E-01	4.498E-01
PB-212	2.054E+00	2.332E-01	5.358E-02	1.190E-01
BI-214	1.251E+00	2.179E-01	6.530E-02	1.112E-01
PB-214	1.579E+00	2.473E-01	6.501E-02	1.262E-01
RA-224	4.669E+00	1.383E+00	5.743E-01	7.058E-01
RA-226	1.251E+00	2.179E-01	6.530E-02	1.112E-01
AC-228	1.873E+00	4.353E-01	1.348E-01	2.221E-01
RA-228	1.873E+00	4.353E-01	1.348E-01	2.221E-01
TH-228	2.054E+00	2.332E-01	5.358E-02	1.190E-01
TH-230	1.251E+00	2.081E-01	6.530E-02	1.062E-01
TH-232	1.873E+00	4.353E-01	1.348E-01	2.221E-01
U-235	1.041E-01	2.191E-01	1.833E-01	1.118E-01
NP-237	9.554E-01	3.687E-01	2.113E-01	1.881E-01
ANH-511	1.266E-01	7.419E-02	2.620E-02	3.785E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	3.203E-02	3.483E-01	2.906E-01	1.777E-01	NOT IDENT.
NA-22	1.483E-02	5.142E-02	4.448E-02	2.623E-02	NOT IDENT.
NA-24	5.575E+02	6.290E+04	0.000E+00	3.209E+04	SHORT HLIF
SC-46	-1.888E-02	4.401E-02	3.466E-02	2.245E-02	FAIL ABUN
V-48	-3.183E-02	7.395E-02	5.842E-02	3.773E-02	NOT IDENT.

CR-51	1.546E-01	3.682E-01	3.219E-01	1.879E-01	NOT IDENT.
MN-54	-2.874E-02	4.274E-02	3.375E-02	2.181E-02	NOT IDENT.
CO-56	-1.969E-02	4.278E-02	3.426E-02	2.183E-02	FAIL ABUN
CO-57	-4.285E-03	2.528E-02	2.123E-02	1.290E-02	NOT IDENT.
CO-58	-3.075E-02	4.045E-02	3.146E-02	2.064E-02	NOT IDENT.
FE-59	-1.039E-01	1.027E-01	7.988E-02	5.238E-02	NOT IDENT.
CO-60	-3.272E-02	4.449E-02	3.419E-02	2.270E-02	NOT IDENT.
ZN-65	-1.029E-02	1.074E-01	7.811E-02	5.481E-02	NOT IDENT.
SE-75	-2.959E-02	5.117E-02	3.963E-02	2.611E-02	NOT IDENT.
SR-85	6.939E-02	4.604E-02	3.887E-02	2.349E-02	NOT IDENT.
Y-88	1.108E-02	3.458E-02	3.095E-02	1.764E-02	NOT IDENT.
Y-91	-9.168E+00	2.421E+01	1.990E+01	1.235E+01	NOT IDENT.
NB-94	1.930E-02	3.713E-02	3.271E-02	1.894E-02	NOT IDENT.
NB-95	-1.138E-02	4.762E-02	3.944E-02	2.430E-02	NOT IDENT.
NB-95M	1.829E-01	1.408E-01	1.154E-01	7.185E-02	NOT IDENT.
ZR-95	3.784E-02	7.720E-02	6.768E-02	3.939E-02	NOT IDENT.
MO-99	-2.237E+00	7.978E+00	6.597E+00	4.071E+00	NOT IDENT.
TC-99M	-2.568E+13	8.346E+13	0.000E+00	4.258E+13	SHORT HLIF
RU-103	-1.790E-02	4.369E-02	3.493E-02	2.229E-02	FAIL ABUN
RH-106	1.448E-01	3.642E-01	3.205E-01	1.858E-01	NOT IDENT.
RU-106	1.448E-01	3.639E-01	3.205E-01	1.856E-01	NOT IDENT.
AG-108M	-1.795E-02	3.275E-02	2.628E-02	1.671E-02	NOT IDENT.
AG-110M	-1.956E-02	4.084E-02	2.857E-02	2.083E-02	NOT IDENT.
SN-113	-4.573E-02	5.110E-02	4.055E-02	2.607E-02	NOT IDENT.
CD-115	-7.962E-01	5.985E+00	5.158E+00	3.054E+00	NOT IDENT.
SN-117M	2.752E-02	5.174E-02	4.407E-02	2.640E-02	NOT IDENT.
TE-123M	1.536E-02	2.937E-02	2.501E-02	1.499E-02	NOT IDENT.
SB-124	-8.824E-03	6.296E-02	4.990E-02	3.212E-02	NOT IDENT.
SB-125	-1.165E-01	1.000E-01	7.635E-02	5.104E-02	FAIL ABUN
TE-125M	-1.015E+00	1.073E+01	8.085E+00	5.473E+00	NOT IDENT.
I-126	8.942E-02	2.493E-01	1.914E-01	1.272E-01	NOT IDENT.
SB-126	-6.971E-02	1.627E-01	1.137E-01	8.303E-02	NOT IDENT.
SB-127	-6.056E-01	9.999E-01	8.108E-01	5.101E-01	NOT IDENT.
I-131	1.040E-01	1.029E-01	9.205E-02	5.249E-02	NOT IDENT.
TE-132	6.385E-01	4.694E-01	4.256E-01	2.395E-01	NOT IDENT.
BA-133	2.019E-02	5.007E-02	3.813E-02	2.555E-02	FAIL ABUN
I-133	-1.079E+03	1.058E+03	0.000E+00	5.396E+02	SHORT HLIF
CS-134	1.199E-01	9.433E-02	5.563E-02	4.813E-02	FAIL ABUN
CS-135	9.629E-02	1.866E-01	1.466E-01	9.518E-02	NOT IDENT.
I-135	-2.266E+12	2.647E+13	0.000E+00	1.351E+13	SHORT HLIF
CS-136	3.443E-02	1.124E-01	9.877E-02	5.733E-02	NOT IDENT.
CE-139	4.672E-03	3.313E-02	2.767E-02	1.690E-02	NOT IDENT.
BA-140	-1.355E-01	2.554E-01	2.103E-01	1.303E-01	NOT IDENT.
LA-140	-5.667E-02	9.675E-02	6.260E-02	4.936E-02	FAIL ABUN
CE-141	2.386E-02	6.356E-02	5.402E-02	3.243E-02	NOT IDENT.
CE-143	1.342E+02	6.346E+01	0.000E+00	3.238E+01	SHORT HLIF
CE-144	-5.555E-02	2.060E-01	1.712E-01	1.051E-01	NOT IDENT.
PM-144	-2.496E-02	3.707E-02	2.984E-02	1.891E-02	NOT IDENT.
PR-144	-1.853E+00	2.772E+00	2.232E+00	1.414E+00	NOT IDENT.
PM-146	-1.299E-03	4.736E-02	3.935E-02	2.416E-02	NOT IDENT.
ND-147	-6.423E-01	5.330E-01	4.133E-01	2.719E-01	FAIL ABUN
PM-149	-7.155E+01	4.988E+01	3.871E+01	2.545E+01	NOT IDENT.
EU-152	7.129E-03	1.182E-01	8.853E-02	6.033E-02	FAIL ABUN
GD-153	1.890E-02	8.586E-02	6.642E-02	4.381E-02	NOT IDENT.
EU-154	6.154E-02	1.440E-01	1.260E-01	7.349E-02	NOT IDENT.
TB-160	1.425E-02	1.547E-01	1.301E-01	7.894E-02	FAIL ABUN
HO-166M	-1.001E-02	6.284E-02	5.265E-02	3.206E-02	NOT IDENT.
TA-182	5.306E-02	2.291E-01	1.974E-01	1.169E-01	FAIL ABUN
IR-192	-4.884E-02	3.664E-02	2.875E-02	1.869E-02	FAIL ABUN
HG-203	2.616E-02	4.785E-02	3.723E-02	2.441E-02	NOT IDENT.
BI-207	4.281E-02	5.674E-02	5.166E-02	2.895E-02	FAIL ABUN
PB-210	-3.703E-02	1.852E+00	1.632E+00	9.452E-01	NOT IDENT.
PB-211	5.800E-01	8.420E-01	6.983E-01	4.296E-01	NOT IDENT.
RN-219	-4.238E-01	4.622E-01	3.624E-01	2.358E-01	FAIL ABUN
RA-223	-7.783E-01	8.204E-01	5.613E-01	4.186E-01	FAIL ABUN
AC-227	9.135E-02	2.546E-01	2.247E-01	1.299E-01	FAIL ABUN
TH-227	9.135E-02	2.546E-01	2.247E-01	1.299E-01	FAIL ABUN
TH-229	-1.561E-01	5.272E-01	4.447E-01	2.690E-01	FAIL ABUN
PA-231	3.883E-01	1.478E+00	1.291E+00	7.541E-01	FAIL ABUN
TH-231	-7.783E-01	8.204E-01	5.613E-01	4.186E-01	FAIL ABUN
PA-233	3.843E-03	7.138E-02	6.021E-02	3.642E-02	FAIL ABUN
PA-234	2.731E-01	3.780E-01	3.290E-01	1.929E-01	NOT IDENT.
PA-234M	1.438E+00	5.573E+00	4.722E+00	2.843E+00	NOT IDENT.
TH-234	1.708E-01	1.101E+00	9.692E-01	5.618E-01	FAIL ABUN
U-238	1.708E-01	1.101E+00	9.692E-01	5.618E-01	FAIL ABUN
NP-239	4.713E-02	4.031E-01	3.435E-01	2.056E-01	FAIL ABUN
AM-241	-6.650E-02	1.114E-01	9.580E-02	5.686E-02	NOT IDENT.
CM-247	-2.448E-02	4.181E-02	3.379E-02	2.133E-02	FAIL ABUN

CF-249	2.947E-02	4.593E-02	4.010E-02	2.343E-02 NOT IDENT.
CF-251	3.952E-02	1.309E-01	1.176E-01	6.679E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	328.6094
49.72	385.5573
57.36	0.0000
59.54	422.3160
63.29	489.7736
63.29	489.7736
64.28	492.8304
67.75	492.6344
69.67	471.7747
70.83	475.9204
72.81	451.8350
72.87	451.8923
72.87	451.8923
74.82	453.6953
74.82	453.6953
74.82	453.6953
74.97	453.8329
77.11	455.7828
77.11	455.7828
77.11	455.7828
79.69	405.2790
79.80	405.3663
80.12	413.2423
80.19	413.2982
80.57	474.6480
81.00	557.5250
81.07	557.6002
81.07	557.6002
83.79	457.6062
83.79	457.6062
85.43	428.2030
86.48	583.3662
86.55	583.4412
86.79	583.6949
86.94	563.7795
87.57	439.1717
88.03	439.5400
88.47	439.8932
89.96	441.0762
91.11	348.6072
92.59	349.5198
92.59	349.5198
93.35	349.9863
94.67	350.7930
94.87	296.0840
94.87	296.0840
95.86	340.5294
97.43	308.4018
98.44	297.8979
99.53	301.0762
100.11	288.3022
103.18	284.3690
103.37	284.4578
105.31	299.7039
106.12	330.4243
109.28	330.4845
111.00	302.4219
111.76	325.3265
116.30	282.1871
117.23	300.9885
121.12	299.4664
121.78	309.5676
122.06	294.4281
123.07	299.2304
131.20	361.2654
133.52	311.4428
136.00	299.1552

136.47	314.9262
140.51	325.5870
140.51	0.0000
143.76	300.0165
144.24	283.3411
144.24	283.3411
145.44	304.0521
152.43	299.9595
153.25	271.8338
154.21	302.9056
154.21	302.9056
156.02	287.6093
158.56	269.0461
159.00	262.3167
162.66	293.3963
163.33	303.9958
165.86	303.7567
176.60	252.5977
177.52	263.3972
181.07	277.8465
184.41	311.4348
185.72	275.5536
193.51	244.0535
197.04	237.6634
205.31	253.2715
210.85	251.7834
215.65	246.7701
222.11	232.6920
227.38	218.1531
228.16	195.1869
228.18	195.1917
235.69	222.0922
235.96	244.5105
235.96	244.5105
238.63	247.5398
238.63	247.5398
240.99	248.0736
242.00	248.3020
244.70	162.3059
252.40	173.0676
252.80	179.7514
256.23	173.6484
256.23	173.6484
260.90	182.9268
264.66	207.7262
268.22	188.6681
269.46	193.4728
269.46	193.4728
271.23	178.3812
273.65	157.9391
276.40	180.6930
277.37	184.5067
277.60	162.3193
278.00	157.7339
279.20	198.1344
279.54	198.1906
280.46	190.5900
283.69	161.1848
284.31	157.3800
285.41	211.9692
285.90	208.1615
287.50	169.4705
293.27	0.0000
295.22	187.1704
295.96	187.2783
298.57	187.6601
299.98	187.8670
299.98	187.8670
300.09	193.5869
300.09	193.5869
300.13	193.5929
301.36	165.4186
302.85	151.4156
304.50	161.0833
304.50	161.0833
304.85	161.1256
308.46	150.4832
311.90	156.8307

316.51	180.2819
319.41	129.7639
320.08	143.8088
323.87	185.8719
323.87	185.8719
328.76	145.7301
333.37	161.3428
334.37	161.4575
334.37	161.4575
338.28	150.7779
338.28	150.7779
338.32	150.7825
338.32	150.7825
338.32	150.7825
340.48	145.9446
340.55	145.9534
344.28	144.7097
351.06	137.8386
351.93	137.9210
356.01	119.6623
364.49	115.4060
366.42	133.0942
383.85	140.8894
388.16	133.9551
388.63	140.2772
391.69	160.4800
400.66	144.5131
401.81	150.9512
402.40	143.6160
404.85	121.6242
410.95	113.5912
414.70	122.3647
423.72	104.8458
427.09	118.9944
427.87	132.9912
433.94	122.7062
453.88	114.3327
463.37	105.0952
468.07	93.0774
473.00	105.6592
476.78	123.5254
477.60	103.7204
487.02	90.9437
492.35	95.6543
497.08	109.2765
511.00	99.9702
514.00	100.5007
527.90	93.3639
529.87	0.0000
531.02	106.2226
537.26	101.0924
546.56	0.0000
563.25	83.0193
569.33	91.5895
569.50	91.5967
569.70	82.3532
583.19	100.5750
600.60	98.5759
602.73	104.9356
604.72	105.0310
609.32	97.0830
609.32	97.0830
609.32	97.0830
610.33	86.4410
614.28	92.8933
618.01	94.6265
621.93	91.9487
621.93	91.9487
633.25	90.5074
635.95	70.5836
636.99	68.7076
645.85	66.1009
657.76	78.6381
661.66	101.2727
661.66	101.2727
664.57	0.0000
666.33	83.7573
666.50	83.7637

677.62	94.1890
685.70	92.5577
695.00	88.0247
696.49	91.0133
696.51	91.0133
697.00	90.0526
702.65	79.4694
706.68	65.8419
711.68	72.8672
720.70	85.6489
721.93	0.0000
722.78	90.6641
722.91	90.6685
723.31	75.8450
724.19	77.5206
727.33	64.4049
733.00	77.7902
735.93	72.5776
739.50	82.6353
747.24	81.8859
752.31	73.0410
753.82	63.0723
756.73	67.1521
763.94	86.4325
765.81	89.5106
766.42	83.4965
777.92	79.8178
778.90	65.6967
783.70	66.8282
785.37	65.8553
795.86	73.2322
801.95	61.1631
810.29	66.4615
810.76	68.5180
815.77	56.3495
818.51	60.5067
832.01	71.1057
834.85	86.6496
836.80	0.0000
846.77	69.4045
856.80	32.9183
860.56	52.0435
871.09	60.5899
873.19	64.8154
875.33	0.0000
879.36	61.8088
880.51	67.0734
883.24	73.4299
884.68	56.6736
889.28	64.1200
898.04	76.9601
911.20	67.7672
911.20	67.7672
911.20	67.7672
926.50	59.5957
937.49	68.3531
944.13	72.7796
946.00	64.2568
949.00	69.6782
962.29	46.6489
964.08	55.6514
966.15	48.5024
968.97	48.5453
968.97	48.5453
968.97	48.5453
983.53	63.9392
996.26	67.4553
1001.03	59.9266
1004.73	57.8135
1037.84	61.5148
1038.76	0.0000
1048.07	63.5448
1050.41	76.4886
1050.41	76.4886
1063.66	48.1089
1085.87	58.6600
1099.45	77.5828
1112.07	46.2781

1115.54	59.5598
1120.29	64.8784
1120.29	64.8784
1120.29	64.8784
1120.55	64.8812
1121.30	64.8953
1131.51	0.0000
1173.23	80.1377
1177.93	72.5983
1189.05	79.5214
1204.77	76.9661
1221.41	76.3384
1231.02	83.4851
1235.36	86.4514
1238.28	98.9951
1260.41	0.0000
1271.85	62.6484
1274.44	51.9152
1274.54	54.8538
1291.59	47.2188
1298.22	0.0000
1312.11	37.5717
1332.49	46.7036
1365.19	26.0391
1368.63	0.0000
1384.29	50.3031
1408.01	28.3258
1457.56	0.0000
1460.82	18.4307
1489.16	19.5783
1505.03	24.8174
1596.21	28.4700
1620.50	19.0759
1678.03	0.0000
1690.97	9.6753
1764.49	12.1526
1764.49	12.1526
1764.49	12.1526
1770.23	8.1885
1771.35	8.1903
1791.20	0.0000
1836.06	11.3705

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249329002

Total Uranium Activity	5.5631E-01	ug/g
Total Uranium Counting Unc.	3.2771E+00	ug/g
Total Uranium Tpu	1.6720E-06	ug/g
Total Uranium Mda	2.8845E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G249329002       *
*   ANALYST       : MXR1                      DETECTOR   : GAM07            *
*   SAMPLE DATE   : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 08:57:22.72    SAMPLE ALQT:  122.410 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.116E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.536E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 4.834E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.356E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 10:59:30.62

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329003.CNF;2
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 08:57:47
Sample ID         : G249329003           Sample quantity  : 1.20020E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.65  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 965250                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.11*	132	653	1.34	126.08	120	12	1.83E-02	40.1	
2	2	74.84*	540	686	1.59	149.53	145	13	7.50E-02	10.7	4.86E+00
3	2	77.21	799	507	1.26	154.26	145	13	1.11E-01	6.4	
4	2	87.53	211	547	1.24	174.89	169	24	2.93E-02	18.5	2.49E+00
5	2	90.12	126	466	1.11	180.05	169	24	1.75E-02	29.8	
6	2	92.87*	217	399	1.19	185.55	169	24	3.02E-02	18.3	
7	0	105.41	100	318	1.50	210.62	207	8	1.38E-02	32.5	
8	0	129.18*	124	349	1.70	258.12	254	9	1.72E-02	29.2	
9	0	185.82*	227	404	1.14	371.31	365	13	3.15E-02	19.9	
10	0	208.81	140	314	1.58	417.27	413	11	1.94E-02	25.8	
11	2	238.56*	1401	215	1.27	476.72	471	17	1.95E-01	3.3	2.11E+00
12	2	241.46	354	272	1.80	482.52	471	17	4.91E-02	13.3	
13	0	270.37	78	229	1.35	540.31	536	9	1.08E-02	37.2	
14	0	277.10	54	215	1.01	553.75	549	10	7.44E-03	53.0	
15	0	295.05*	395	190	1.34	589.63	585	10	5.49E-02	8.4	
16	0	300.67	141	183	1.35	600.86	596	12	1.95E-02	21.2	
17	0	327.70	78	196	1.33	654.88	649	11	1.09E-02	36.3	
18	0	338.24	298	214	1.13	675.96	670	13	4.14E-02	11.7	
19	0	351.88	686	193	1.37	703.23	698	12	9.53E-02	5.6	
20	0	461.39	71	184	1.61	922.13	916	19	9.86E-03	47.0	
21	0	511.01*	129	182	1.88	1021.33	1014	17	1.79E-02	28.4	
22	0	568.48*	147	105	2.05	1136.21	1130	12	2.04E-02	16.5	
23	0	583.35*	387	119	1.52	1165.95	1160	13	5.37E-02	7.9	
24	0	609.32	511	156	1.52	1217.87	1211	16	7.10E-02	7.0	
25	0	662.07*	40	65	1.02	1323.34	1320	8	5.51E-03	40.3	
26	0	727.72	91	90	1.47	1454.62	1450	13	1.27E-02	23.7	
27	0	768.37	50	62	0.96	1535.89	1531	10	6.90E-03	33.0	
28	0	911.41*	345	57	1.61	1821.94	1813	15	4.79E-02	7.4	
29	6	965.09	50	59	1.91	1929.30	1925	19	7.01E-03	29.4	1.63E+00
30	6	969.61	156	54	2.03	1938.34	1925	19	2.17E-02	12.8	
31	0	1120.55	128	56	1.62	2240.24	2235	13	1.78E-02	14.6	
32	0	1239.18*	35	75	1.21	2477.55	2471	12	4.92E-03	52.3	
33	0	1377.76	43	16	2.53	2754.81	2748	14	5.95E-03	25.6	
34	0	1461.50*	1288	27	2.04	2922.36	2914	18	1.79E-01	3.0	
35	0	1730.26	18	9	1.20	3460.19	3454	12	2.49E-03	41.0	
36	0	1765.46	75	23	2.25	3530.64	3522	19	1.04E-02	19.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 10:59:33

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329003.CNF;2
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 08:57:47
Sample ID : G249329003 Sample quantity : 120.02 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA19 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.65 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.235E+01	3.077E+00	5.059E-01	3.768E-02	63.956
CD-109	+	88.03	*	2.974E+00	1.131E+00	1.441E+00	1.290E-01	2.064
SN-126	+	64.28		1.196E+00	9.749E-01	9.023E-01	1.318E-01	1.325
	+	86.94		1.212E+00	6.733E-01	5.936E-01	2.458E-01	2.043
	+	87.57	*	2.916E-01	1.110E-01	1.419E-01	1.266E-02	2.055
BA-137M	+	661.66	*	6.002E-02	4.852E-02	7.326E-02	4.266E-03	0.819
CS-137	+	661.66	*	6.340E-02	5.125E-02	7.740E-02	4.526E-03	0.819
EU-155	+	86.55		3.533E-01	1.345E-01	1.736E-01	1.547E-02	2.035
	+	105.31	*	2.194E-01	1.435E-01	1.961E-01	1.410E-02	1.119
TL-208	+	277.37		5.625E-01	5.993E-01	6.762E-01	7.287E-02	0.832
	+	583.19	*	5.575E-01	9.562E-02	6.605E-02	4.482E-03	8.440
		860.56		6.305E-01	3.438E-01	6.295E-01	5.636E-02	1.002
BI-211		72.87		1.115E+01	4.544E+00	7.008E+00	5.491E-01	1.591
	+	351.06	*	4.385E+00	5.636E-01	3.754E-01	2.398E-02	11.679
PB-212	+	74.82		3.238E+00	8.019E-01	6.592E-01	8.278E-02	4.911
	+	77.11		2.752E+00	4.167E-01	3.621E-01	2.925E-02	7.600
	+	238.63	*	2.004E+00	1.968E-01	1.068E-01	7.779E-03	18.759
	+	300.09		3.130E+00	1.356E+00	1.363E+00	1.145E-01	2.296
BI-214	+	609.32	*	1.426E+00	2.290E-01	1.188E-01	9.410E-03	12.007
	+	1120.29		1.848E+00	5.674E-01	4.725E-01	4.350E-02	3.912
	+	1764.49		1.486E+00	5.837E-01	3.377E-01	2.046E-02	4.402
PB-214	+	74.82		5.739E+00	1.384E+00	1.168E+00	1.311E-01	4.911
	+	77.11		4.851E+00	8.364E-01	6.384E-01	7.370E-02	7.600
	+	242.00		3.067E+00	8.540E-01	6.075E-01	4.925E-02	5.048
	+	295.22		1.556E+00	2.933E-01	2.652E-01	2.316E-02	5.868
	+	351.93	*	1.591E+00	2.226E-01	1.363E-01	1.150E-02	11.679
RA-224	+	240.99	*	5.423E+00	1.477E+00	1.144E+00	6.484E-02	4.739
RA-226	+	609.32	*	1.426E+00	2.290E-01	1.188E-01	9.410E-03	12.007
	+	1120.29		1.848E+00	5.674E-01	4.725E-01	4.350E-02	3.912
	+	1764.49		1.486E+00	5.837E-01	3.377E-01	2.046E-02	4.402
AC-228	+	338.32		2.121E+00	1.005E+00	4.347E-01	1.792E-01	4.878
	+	911.20	*	2.393E+00	4.491E-01	2.829E-01	3.298E-02	8.458
	+	968.97		1.869E+00	6.580E-01	4.764E-01	1.153E-01	3.923
RA-228	+	338.32		2.121E+00	1.005E+00	4.347E-01	1.792E-01	4.878

Sample ID : G249329003 Acquisition date : 24-MAR-2010 08:57:47

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	911.20	*	2.393E+00	4.491E-01	2.829E-01	3.298E-02	8.458
	+	968.97		1.869E+00	6.580E-01	4.764E-01	1.153E-01	3.923
TH-228	+	74.82		3.238E+00	7.384E-01	6.592E-01	5.290E-02	4.911
	+	77.11		2.752E+00	4.167E-01	3.621E-01	2.925E-02	7.600
	+	238.63	*	2.004E+00	1.968E-01	1.068E-01	7.779E-03	18.759
	+	300.09		3.130E+00	2.324E+00	1.363E+00	8.299E-01	2.296
TH-230	+	609.32	*	1.426E+00	2.163E-01	1.188E-01	7.021E-03	12.007
	+	1120.29		1.848E+00	5.537E-01	4.725E-01	2.982E-02	3.912
	+	1764.49		1.486E+00	5.837E-01	3.377E-01	2.046E-02	4.402
TH-232	+	338.32		2.121E+00	5.098E-01	4.347E-01	2.513E-02	4.878
	+	911.20	*	2.393E+00	4.491E-01	2.829E-01	3.298E-02	8.458
	+	968.97		1.869E+00	6.580E-01	4.764E-01	1.153E-01	3.923
TH-234	+	63.29	*	3.102E+00	2.550E+00	2.377E+00	4.250E-01	1.305
	+	92.59		2.513E+00	1.073E+00	1.192E+00	2.619E-01	2.108
U-235	+	89.96		1.814E+00	1.171E+00	1.482E+00	3.650E-01	1.224
	+	93.35		1.898E+00	8.207E-01	8.961E-01	2.057E-01	2.119
		143.76	*	1.026E-01	2.385E-01	3.879E-01	6.057E-02	0.264
		163.33		6.324E-01	5.242E-01	8.707E-01	1.445E-01	0.726
	+	185.72		2.109E-01	8.456E-02	7.329E-02	3.916E-03	2.877
		205.31		4.539E-01	6.250E-01	9.091E-01	1.535E-01	0.499
NP-237	+	86.48	*	8.702E-01	3.781E-01	4.280E-01	9.736E-02	2.033
		95.86		3.930E-01	1.208E+00	1.753E+00	4.165E-01	0.224
U-238	+	63.29	*	3.102E+00	2.550E+00	2.377E+00	4.250E-01	1.305
	+	92.59		2.513E+00	9.437E-01	1.192E+00	9.926E-02	2.108
ANH-511	+	511.00	*	1.416E-01	8.097E-02	4.972E-02	2.934E-03	2.848

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.090E-01	3.620E-01	5.834E-01	3.958E-02	-0.187
NA-22		1274.54	*	-2.355E-02	4.747E-02	7.484E-02	4.992E-03	-0.315
NA-24		1368.63	*	1.573E-03	4.747E-02	Half-Life too short		
SC-46		889.28	*	2.268E-03	4.147E-02	6.728E-02	5.847E-03	0.034
	+	1120.55		3.069E-01	9.194E-02	1.479E-01	9.328E-03	2.075
V-48		944.13		-3.144E-01	9.338E-01	1.452E+00	1.224E-01	-0.216
		983.53	*	-5.366E-02	7.566E-02	1.126E-01	9.050E-03	-0.477
		1312.11		5.358E-02	8.422E-02	1.482E-01	1.054E-02	0.362
CR-51		320.08	*	-2.973E-01	3.968E-01	6.202E-01	4.007E-02	-0.479
MN-54		834.85	*	5.547E-03	4.653E-02	7.598E-02	6.044E-03	0.073
CO-56		846.77	*	3.888E-02	4.365E-02	7.600E-02	6.166E-03	0.512
		1037.84		1.094E-01	3.365E-01	5.799E-01	4.607E-02	0.189
	+	1238.28		1.392E-01	1.458E-01	1.920E-01	1.261E-02	0.725
		1771.35		-6.644E-02	2.267E-01	2.830E-01	1.706E-02	-0.235
CO-57		122.06	*	3.304E-04	2.936E-02	4.780E-02	2.853E-03	0.007
		136.47		-6.015E-03	2.382E-01	3.864E-01	2.546E-02	-0.016
CO-58		810.76	*	1.791E-03	4.057E-02	6.601E-02	5.058E-03	0.027
FE-59		1099.45	*	8.386E-02	9.941E-02	1.776E-01	1.332E-02	0.472
		1291.59		-8.007E-02	1.335E-01	2.077E-01	1.720E-02	-0.386

Sample ID : G249329003 Acquisition date : 24-MAR-2010 08:57:47

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-60		1173.23		-4.238E-02	5.246E-02	8.143E-02	4.463E-03	-0.520
		1332.49	*	2.357E-02	4.372E-02	7.659E-02	5.644E-03	0.308
ZN-65		1115.54	*	6.270E-04	9.833E-02	1.418E-01	9.066E-03	0.004
SE-75		121.12		-4.105E-02	1.513E-01	2.436E-01	2.243E-02	-0.169
		136.00		-3.114E-03	4.580E-02	7.416E-02	4.273E-03	-0.042
		264.66	*	-5.750E-02	5.431E-02	7.803E-02	4.539E-03	-0.737
		279.54		1.001E-01	1.366E-01	2.097E-01	1.315E-02	0.477
		400.66		2.397E-01	3.058E-01	5.178E-01	4.632E-02	0.463
SR-85		514.00	*	1.245E-01	4.555E-02	7.968E-02	4.705E-03	1.562
Y-88		898.04		-2.894E-02	4.983E-02	7.581E-02	6.710E-03	-0.382
		1836.06	*	-8.105E-03	2.949E-02	4.474E-02	2.554E-03	-0.181
Y-91		1204.77	*	-9.185E+00	2.469E+01	3.987E+01	2.327E+00	-0.230
NB-94		702.65	*	3.149E-02	3.799E-02	6.574E-02	4.141E-03	0.479
		871.09		-2.266E-03	3.685E-02	5.914E-02	4.992E-03	-0.038
NB-95		765.81	*	2.879E-02	5.353E-02	7.957E-02	5.623E-03	0.362
NB-95M		235.69	*	4.731E-01	1.737E-01	2.741E-01	2.037E-02	1.726
ZR-95		724.19		8.839E-02	1.100E-01	1.688E-01	1.263E-02	0.524
		756.73	*	1.791E-02	8.412E-02	1.390E-01	1.118E-02	0.129
MO-99		140.51		-9.068E+00	1.474E+01	2.310E+01	5.270E+00	-0.393
		181.07		-4.374E+00	1.262E+01	1.735E+01	3.039E+00	-0.252
		366.42		-1.722E+01	6.080E+01	9.987E+01	5.684E+00	-0.172
		739.50	*	-1.630E+00	7.854E+00	1.254E+01	1.858E+00	-0.130
		777.92		-2.325E+01	2.203E+01	3.203E+01	2.313E+00	-0.726
TC-99M		140.51	*	-5.580E+07	2.203E+01	Half-Life too short		
RU-103		497.08	*	-1.650E-02	4.230E-02	6.792E-02	8.466E-03	-0.243
	+	610.33		1.414E+01	2.909E+00	3.205E+00	4.837E-01	4.414
RH-106		621.93	*	1.254E-01	3.353E-01	5.653E-01	6.597E-02	0.222
		1050.41		-8.928E-01	2.670E+00	4.332E+00	3.150E-01	-0.206
RU-106		621.93	*	1.254E-01	3.351E-01	5.653E-01	3.333E-02	0.222
		1050.41		-8.928E-01	2.670E+00	4.332E+00	3.150E-01	-0.206
AG-108M		433.94	*	-2.911E-03	3.430E-02	5.668E-02	3.478E-03	-0.051
		614.28		-1.248E-02	4.532E-02	6.240E-02	3.939E-03	-0.200
		722.91		7.708E-03	4.492E-02	6.453E-02	4.453E-03	0.119
AG-110M		657.76	*	8.148E-03	4.289E-02	6.199E-02	3.847E-03	0.131
		677.62		1.803E-02	3.370E-01	5.528E-01	3.514E-02	0.033
		706.68		-1.961E-01	2.396E-01	3.639E-01	2.430E-02	-0.539
		763.94		1.193E-01	1.916E-01	2.891E-01	2.120E-02	0.413
		884.68		-2.853E-02	5.463E-02	8.342E-02	7.427E-03	-0.342
		937.49		6.322E-03	1.271E-01	2.056E-01	1.809E-02	0.031
		1384.29		2.157E-02	1.890E-01	2.744E-01	2.078E-02	0.079
		1505.03		2.115E-02	3.137E-01	5.210E-01	3.671E-02	0.041
SN-113		391.69	*	-4.183E-03	4.879E-02	8.091E-02	4.827E-03	-0.052
CD-115		260.90		2.422E+01	8.219E+01	1.331E+02	7.644E+00	0.182
		492.35		-1.427E+01	2.040E+01	3.199E+01	1.878E+00	-0.446
		527.90	*	-3.296E+00	5.965E+00	9.411E+00	5.570E-01	-0.350
SN-117M		156.02		-9.789E-01	2.357E+00	3.749E+00	2.009E-01	-0.261
		158.56	*	-6.776E-03	5.675E-02	9.135E-02	4.862E-03	-0.074
TE-123M		159.00	*	-1.336E-02	3.317E-02	5.277E-02	2.850E-03	-0.253
SB-124		602.73		-4.000E-02	5.034E-02	6.550E-02	3.878E-03	-0.611

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		645.85		2.285E-01	5.013E-01	8.510E-01	5.587E-02	0.269
		722.78		7.956E-02	4.400E-01	6.328E-01	4.301E-02	0.126
		1690.97	*	3.514E-02	7.295E-02	1.304E-01	8.965E-03	0.270
SB-125		427.87	*	-2.528E-02	1.043E-01	1.708E-01	1.016E-02	-0.148
		463.37		7.053E-01	3.091E-01	5.738E-01	3.865E-02	1.229
		600.60		1.264E-01	2.055E-01	3.511E-01	2.393E-02	0.360
		635.95		-1.430E-01	2.897E-01	4.544E-01	3.117E-02	-0.315
TE-125M		109.28	*	-4.651E+00	1.263E+01	1.768E+01	1.593E+00	-0.263
I-126		388.63		1.451E-01	1.655E-01	2.890E-01	1.613E-02	0.502
		666.33	*	1.776E-01	2.517E-01	3.826E-01	2.248E-02	0.464
		753.82		2.375E+00	1.849E+00	3.299E+00	2.282E-01	0.720
SB-126		414.70		-3.287E-03	7.756E-02	1.287E-01	7.281E-03	-0.026
		666.50		6.156E-02	8.599E-02	1.308E-01	7.690E-03	0.471
		695.00		-4.411E-02	7.996E-02	1.208E-01	7.500E-03	-0.365
		697.00		-1.621E-01	2.659E-01	4.120E-01	2.568E-02	-0.393
		720.70	*	-1.520E-02	1.423E-01	2.160E-01	1.407E-02	-0.070
		856.80		-8.181E-01	5.119E-01	7.004E-01	5.777E-02	-1.168
SB-127		252.40		-9.761E-03	3.415E+00	5.453E+00	2.228E+00	-0.002
		473.00		3.961E-01	1.166E+00	1.973E+00	2.060E-01	0.201
		685.70	*	1.751E-01	1.001E+00	1.656E+00	1.467E-01	0.106
		783.70		1.776E+00	2.618E+00	4.477E+00	4.858E-01	0.397
I-131		80.19		-3.425E+00	4.894E+00	6.815E+00	5.680E-01	-0.502
		284.31		-1.101E+00	1.378E+00	2.228E+00	1.429E-01	-0.494
		364.49	*	4.347E-02	1.035E-01	1.770E-01	1.126E-02	0.246
		636.99		8.868E-01	1.399E+00	2.403E+00	1.576E-01	0.369
TE-132		49.72		-2.741E+00	1.168E+01	1.915E+01	1.767E+00	-0.143
		111.76		-2.243E+01	2.412E+01	3.783E+01	3.328E+00	-0.593
		116.30		3.802E+00	2.074E+01	3.402E+01	2.918E+00	0.112
		228.16	*	2.360E-01	5.070E-01	8.289E-01	1.156E-01	0.285
BA-133		81.00		-2.341E-01	1.540E-01	1.639E-01	2.519E-02	-1.428
	+	276.40		5.197E-01	5.547E-01	7.037E-01	8.854E-02	0.739
		302.85		1.995E-01	1.707E-01	2.680E-01	3.059E-02	0.744
		356.01	*	3.946E-02	5.208E-02	7.995E-02	8.987E-03	0.494
		383.85		-1.825E-01	3.274E-01	5.273E-01	5.569E-02	-0.346
I-133		529.87	*	6.480E-05	3.274E-01	Half-Life too short		
		875.33		8.116E-03	3.274E-01	Half-Life too short		
		1298.22		-6.423E-04	3.274E-01	Half-Life too short		
CS-134		563.25		1.883E-02	4.718E-01	6.750E-01	4.087E-02	0.028
	+	569.33		1.161E+00	3.903E-01	5.746E-01	3.509E-02	2.021
		604.72		-3.354E-02	4.170E-02	5.388E-02	3.205E-03	-0.622
		795.86	*	7.045E-02	5.660E-02	9.995E-02	7.515E-03	0.705
		801.95		-4.350E-02	4.801E-01	7.739E-01	5.867E-02	-0.056
		1365.19		-7.437E-01	1.282E+00	1.953E+00	1.522E-01	-0.381
CS-135		268.22	*	3.735E-01	2.079E-01	3.348E-01	2.555E-02	1.116
I-135		546.56		7.912E+07	2.079E-01	Half-Life too short		
		836.80		5.759E+07	2.079E-01	Half-Life too short		
		1038.76		-2.107E+07	2.079E-01	Half-Life too short		
		1131.51		-2.344E+07	2.079E-01	Half-Life too short		
		1260.41	*	4.563E+06	2.079E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1457.56		8.215E+08	2.079E-01	Half-Life too short		
		1678.03		-2.795E+07	2.079E-01	Half-Life too short		
		1791.20		3.118E+07	2.079E-01	Half-Life too short		
CS-136		153.25		4.682E-02	8.969E-01	1.455E+00	1.129E-01	0.032
		176.60		3.734E-01	5.123E-01	8.510E-01	5.646E-02	0.439
		273.65		2.231E-01	7.976E-01	8.192E-01	5.584E-02	0.272
		340.55		6.278E-01	1.747E-01	3.043E-01	1.902E-02	2.063
		818.51		5.961E-02	6.929E-02	1.212E-01	9.386E-03	0.492
		1048.07	*	-4.351E-02	1.027E-01	1.653E-01	1.276E-02	-0.263
		1235.36		2.460E-01	6.470E-01	9.659E-01	9.777E-02	0.255
CE-139		165.86	*	-2.353E-02	3.471E-02	5.447E-02	2.844E-03	-0.432
BA-140		162.66		1.079E+00	8.378E-01	1.420E+00	8.759E-02	0.760
		304.85		2.669E-01	1.346E+00	1.997E+00	5.705E-01	0.134
		423.72		1.323E+00	1.952E+00	3.298E+00	1.064E+00	0.401
		537.26	*	-3.996E-02	2.382E-01	3.867E-01	1.289E-01	-0.103
LA-140	+	328.76		6.110E-01	4.452E-01	5.640E-01	3.671E-02	1.083
		487.02		1.472E-01	1.361E-01	2.405E-01	1.592E-02	0.612
		815.77		-1.236E-01	3.201E-01	4.991E-01	4.402E-02	-0.248
		1596.21	*	-3.365E-02	8.793E-02	1.364E-01	9.231E-03	-0.247
CE-141		145.44	*	4.862E-02	7.016E-02	1.167E-01	6.720E-03	0.417
CE-143		57.36		6.378E-04	7.016E-02	Half-Life too short		
		293.27	*	3.245E-04	7.016E-02	Half-Life too short		
		664.57		6.331E-04	7.016E-02	Half-Life too short		
		721.93		2.283E-04	7.016E-02	Half-Life too short		
CE-144		80.12		-1.640E+00	3.207E+00	4.509E+00	3.737E-01	-0.364
		133.52	*	-5.576E-03	2.600E-01	3.689E-01	5.112E-02	-0.015
PM-144		476.78		-1.623E-02	7.411E-02	1.201E-01	8.277E-03	-0.135
		618.01		-1.556E-02	3.804E-02	5.655E-02	3.533E-03	-0.275
		696.49	*	-2.793E-02	3.882E-02	5.960E-02	3.712E-03	-0.469
PR-144		696.51	*	-2.096E+00	2.901E+00	4.453E+00	2.772E-01	-0.471
		1489.16		-7.662E+00	1.263E+01	1.870E+01	1.326E+00	-0.410
PM-146		453.88	*	1.482E-02	5.051E-02	8.072E-02	6.817E-03	0.184
		633.25		-1.373E+00	1.617E+00	2.309E+00	8.697E-01	-0.595
		735.93		1.068E-01	1.576E-01	2.549E-01	7.008E-02	0.419
		747.24		-2.457E-02	1.137E-01	1.816E-01	2.471E-02	-0.135
ND-147	+	91.11		5.099E-01	3.081E-01	5.375E-01	4.967E-02	0.949
		319.41		-2.344E+00	3.174E+00	5.112E+00	2.972E-01	-0.459
		531.02	*	3.031E-01	5.074E-01	8.713E-01	1.183E-01	0.348
PM-149		285.90	*	1.101E+01	5.126E+01	8.708E+01	1.234E+01	0.126
EU-152		121.78		-1.289E-02	8.481E-02	1.372E-01	1.058E-02	-0.094
		244.70		1.859E-01	4.037E-01	5.811E-01	3.302E-02	0.320
		344.28	*	-3.159E-02	1.302E-01	1.751E-01	1.139E-02	-0.180
		778.90		5.427E-03	2.635E-01	4.285E-01	3.099E-02	0.013
	+	964.08		6.505E-01	3.863E-01	6.756E-01	5.564E-02	0.963
		1085.87		1.755E-01	4.313E-01	7.469E-01	5.081E-02	0.235
		1112.07		-1.493E-02	3.093E-01	5.034E-01	3.238E-02	-0.030
		1408.01		7.021E-02	1.949E-01	3.359E-01	2.440E-02	0.209
GD-153		69.67		3.869E-01	2.444E+00	3.310E+00	2.547E-01	0.117
		97.43	*	7.141E-02	1.098E-01	1.623E-01	1.262E-02	0.440

Sample ID : G249329003 Acquisition date : 24-MAR-2010 08:57:47

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		103.18		-1.202E-01	1.478E-01	2.021E-01	1.464E-02	-0.595
EU-154		123.07		-2.684E-02	6.312E-02	9.728E-02	9.216E-03	-0.276
		723.31		9.169E-02	1.977E-01	2.940E-01	2.252E-02	0.312
		873.19		1.549E-01	3.053E-01	5.166E-01	6.088E-02	0.300
		996.26		-4.837E-02	3.921E-01	6.210E-01	1.064E-01	-0.078
		1004.73		-8.129E-02	2.442E-01	3.983E-01	4.402E-02	-0.204
		1274.44	*	-1.074E-01	1.387E-01	2.119E-01	2.114E-02	-0.507
TB-160	+	86.79		9.183E-01	3.494E-01	5.721E-01	5.061E-02	1.605
		197.04		-1.329E-01	6.420E-01	1.010E+00	5.474E-02	-0.132
		215.65		5.998E-01	8.659E-01	1.386E+00	7.672E-02	0.433
		298.57		2.009E-01	2.060E-01	2.279E-01	1.325E-02	0.881
		879.36	*	7.017E-02	1.545E-01	2.530E-01	2.164E-02	0.277
		962.29		7.906E-01	7.176E-01	1.113E+00	9.189E-02	0.710
	+	966.15		4.449E-01	2.642E-01	5.175E-01	4.252E-02	0.860
		1177.93		3.919E-02	4.095E-01	6.879E-01	3.806E-02	0.057
		1271.85		-3.190E-01	7.714E-01	1.228E+00	8.138E-02	-0.260
HO-166M		80.57		-5.842E-01	3.838E-01	4.697E-01	3.909E-02	-1.244
	+	184.41		1.675E-01	6.718E-02	7.621E-02	4.065E-03	2.199
		280.46		-2.406E-02	1.071E-01	1.547E-01	8.962E-03	-0.155
		410.95		3.535E-01	2.938E-01	5.184E-01	2.925E-02	0.682
		711.68	*	3.900E-04	7.028E-02	1.146E-01	7.339E-03	0.003
		752.31		-1.663E-01	3.335E-01	5.201E-01	3.588E-02	-0.320
		810.29		1.243E-03	6.399E-02	1.039E-01	7.928E-03	0.012
TA-182		67.75		-2.231E-01	1.510E-01	2.025E-01	1.545E-02	-1.102
		100.11		2.208E-01	2.280E-01	3.416E-01	2.567E-02	0.646
		152.43		4.648E-01	3.969E-01	6.710E-01	3.631E-02	0.693
		222.11		4.566E-01	3.987E-01	6.719E-01	3.743E-02	0.680
	+	1121.30		8.544E-01	2.560E-01	4.114E-01	2.590E-02	2.077
		1189.05		1.876E-01	3.379E-01	5.885E-01	3.330E-02	0.319
		1221.41	*	-1.196E-01	2.250E-01	3.582E-01	2.160E-02	-0.334
		1231.02		-4.903E-01	6.061E-01	8.608E-01	5.287E-02	-0.570
IR-192	+	295.96		1.127E+00	1.996E-01	3.164E-01	1.869E-02	3.561
		308.46		-5.884E-02	1.021E-01	1.614E-01	9.497E-03	-0.365
		316.51	*	3.084E-02	3.655E-02	6.392E-02	3.734E-03	0.483
		468.07		-4.560E-02	7.707E-02	1.038E-01	6.969E-03	-0.439
HG-203		70.83		1.411E+00	1.711E+00	2.532E+00	3.951E-01	0.557
		72.87		2.684E+00	1.148E+00	1.688E+00	2.551E-01	1.591
		279.20	*	5.755E-02	4.776E-02	7.523E-02	4.599E-03	0.765
BI-207		72.81		6.958E-01	2.571E-01	3.990E-01	3.125E-02	1.744
	+	74.97		9.330E-01	2.125E-01	2.888E-01	2.295E-02	3.231
	+	569.70		1.806E-01	6.064E-02	8.893E-02	5.278E-03	2.030
		1063.66	*	3.622E-02	5.822E-02	1.026E-01	7.284E-03	0.353
		1770.23		1.690E-02	4.830E-01	6.829E-01	4.119E-02	0.025
PB-210		46.54	*	-1.342E+00	3.510E+00	5.719E+00	4.311E-01	-0.235
PB-211		404.85	*	-5.950E-01	9.341E-01	1.428E+00	6.849E-01	-0.417
		427.09		-1.073E+00	1.813E+00	2.792E+00	1.279E+00	-0.384
		832.01		3.032E-01	1.247E+00	2.041E+00	1.056E+00	0.149
BI-212	+	727.33	*	2.015E+00	9.797E-01	1.300E+00	1.450E-01	1.550
		785.37		1.075E+00	3.581E+00	5.954E+00	4.354E-01	0.181

Sample ID : G249329003 Acquisition date : 24-MAR-2010 08:57:47

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		1.742E+00	2.462E+00	4.470E+00	2.985E-01	0.390
RN-219	+	271.23		4.904E-01	3.671E-01	5.070E-01	4.062E-02	0.967
		401.81	*	2.523E-01	4.903E-01	8.368E-01	1.117E-01	0.301
RA-223		81.07		-5.288E-01	3.421E-01	3.715E-01	3.105E-02	-1.424
		83.79		-1.479E-02	1.673E-01	2.389E-01	2.050E-02	-0.062
		94.87		1.555E+00	6.175E-01	9.634E-01	7.759E-02	1.614
		144.24		4.696E-01	8.037E-01	1.317E+00	9.213E-02	0.357
		154.21		8.867E-02	4.545E-01	7.413E-01	4.912E-02	0.120
	+	269.46		3.811E-01	2.845E-01	4.090E-01	2.463E-02	0.932
		323.87	*	4.723E-01	7.811E-01	1.186E+00	1.912E-01	0.398
	+	338.28		8.415E+00	2.144E+00	2.765E+00	2.831E-01	3.043
AC-227		79.69		3.392E+00	1.724E+00	2.536E+00	4.325E-01	1.338
		235.96		1.356E+00	2.585E-01	4.164E-01	3.344E-02	3.258
		256.23	*	1.251E-01	3.119E-01	5.073E-01	5.167E-02	0.247
	+	299.98		3.443E+00	1.511E+00	1.900E+00	2.089E-01	1.813
		304.50		5.542E-01	1.860E+00	2.781E+00	4.243E-01	0.199
		334.37		2.825E-01	2.278E+00	3.167E+00	4.504E-01	0.089
TH-227		79.80		2.941E+00	2.194E+00	3.199E+00	6.923E-01	0.919
		235.96		1.356E+00	2.543E-01	4.164E-01	3.024E-02	3.258
		256.23	*	1.251E-01	3.120E-01	5.073E-01	6.079E-02	0.247
	+	299.98		3.443E+00	1.511E+00	1.900E+00	2.089E-01	1.813
		304.50		5.542E-01	1.860E+00	2.781E+00	4.243E-01	0.199
		334.37		2.825E-01	2.278E+00	3.167E+00	4.504E-01	0.089
TH-229		85.43		7.588E-01	2.865E-01	4.423E-01	3.858E-02	1.716
	+	88.47		4.496E-01	1.711E-01	2.912E-01	2.589E-02	1.544
		193.51	*	1.798E-01	6.047E-01	9.858E-01	5.318E-02	0.182
		210.85		1.350E+00	1.208E+00	1.798E+00	9.897E-02	0.751
PA-231		283.69	*	-1.658E+00	1.733E+00	2.587E+00	3.393E-01	-0.641
	+	301.36		2.212E+00	9.672E-01	1.211E+00	1.254E-01	1.826
TH-231		81.07		-5.288E-01	3.421E-01	3.715E-01	3.105E-02	-1.424
		83.79		-1.479E-02	1.673E-01	2.389E-01	2.050E-02	-0.062
		94.87		1.555E+00	6.175E-01	9.634E-01	7.759E-02	1.614
		144.24		4.696E-01	8.037E-01	1.317E+00	9.213E-02	0.357
		154.21		8.867E-02	4.545E-01	7.413E-01	4.912E-02	0.120
	+	269.46		3.811E-01	2.845E-01	4.090E-01	2.463E-02	0.932
		323.87	*	4.723E-01	7.811E-01	1.186E+00	1.912E-01	0.398
	+	338.28		8.415E+00	2.144E+00	2.765E+00	2.831E-01	3.043
PA-233	+	300.13		1.558E+00	6.940E-01	8.640E-01	1.157E-01	1.803
		311.90	*	-7.648E-03	6.904E-02	1.152E-01	7.115E-03	-0.066
		340.48		3.276E+00	1.125E+00	1.496E+00	3.471E-01	2.190
PA-234		94.67		6.907E-01	2.382E-01	3.619E-01	4.354E-02	1.909
		98.44		1.387E-01	1.408E-01	1.787E-01	9.942E-02	0.777
		111.00		-1.227E-01	2.232E-01	3.429E-01	3.693E-02	-0.358
		131.20		1.893E-01	1.361E-01	2.072E-01	1.193E-02	0.913
	+	569.50		1.603E+00	5.385E-01	7.931E-01	4.708E-02	2.022
		733.00		9.452E-02	4.478E-01	6.461E-01	1.390E-01	0.146
		880.51		-1.028E-01	3.215E-01	4.876E-01	4.179E-02	-0.211
		883.24		-1.622E-01	3.313E-01	4.781E-01	3.214E-01	-0.339
		926.50		-1.139E-01	1.885E-01	2.801E-01	7.077E-02	-0.407

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	-6.272E-02	3.460E-01	5.463E-01	1.020E-01	-0.115
		949.00		3.903E-02	5.307E-01	8.594E-01	7.202E-02	0.045
PA-234M		766.42		7.890E+00	1.620E+01	2.318E+01	1.170E+01	0.340
		1001.03	*	4.949E-01	5.108E+00	8.718E+00	8.115E-01	0.057
NP-239		99.53		2.909E-01	2.110E-01	3.216E-01	2.434E-02	0.904
		103.37		-8.211E-02	1.360E-01	1.884E-01	1.361E-02	-0.436
	+	106.12		1.751E-01	1.145E-01	1.709E-01	1.197E-02	1.025
		117.23	*	-1.070E-01	4.681E-01	7.557E-01	4.715E-02	-0.142
		228.18		1.122E-01	2.437E-01	3.990E-01	2.236E-02	0.281
	+	277.60		2.571E-01	2.729E-01	3.535E-01	2.046E-02	0.727
AM-241		59.54	*	5.444E-02	1.924E-01	2.822E-01	2.323E-02	0.193
CM-247	+	278.00		1.092E+00	1.159E+00	1.502E+00	8.692E-02	0.727
		287.50		1.535E-01	1.432E+00	2.422E+00	1.406E-01	0.063
		402.40	*	2.685E-02	4.459E-02	7.659E-02	4.296E-03	0.350
CF-249		252.80		1.658E-01	1.125E+00	1.810E+00	1.034E-01	0.092
		333.37		-1.056E-01	2.952E-01	3.253E-01	1.884E-02	-0.325
		388.16	*	5.156E-02	4.482E-02	7.930E-02	4.428E-03	0.650
CF-251		177.52	*	-1.698E-02	1.501E-01	2.409E-01	1.274E-02	-0.071
		227.38		1.368E-01	4.015E-01	6.538E-01	3.661E-02	0.209
		285.41		-1.118E+00	2.484E+00	4.093E+00	2.374E-01	-0.273

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329003       *
* Acquisition date : 24-MAR-2010 08:57:47 Detector SN#    :                 *
* Detector ID      : GAM19                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.65     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249329003           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.2002E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.235E+01	3.015E+00	5.047E-01	0.000E+00
CD-109	2.974E+00	1.109E+00	1.485E+00	0.000E+00
SN-126	2.916E-01	1.088E-01	1.463E-01	0.000E+00
BA-137M	6.002E-02	4.755E-02	7.378E-02	0.000E+00
CS-137	6.340E-02	5.023E-02	7.795E-02	0.000E+00
EU-155	2.194E-01	1.406E-01	2.017E-01	0.000E+00
TL-208	5.575E-01	9.371E-02	6.662E-02	0.000E+00
BI-211	4.385E+00	5.523E-01	3.809E-01	0.000E+00
PB-212	2.004E+00	1.929E-01	1.089E-01	0.000E+00
BI-214	1.426E+00	2.245E-01	1.197E-01	0.000E+00
PB-214	1.591E+00	2.181E-01	1.382E-01	0.000E+00
RA-224	5.423E+00	1.448E+00	1.166E+00	0.000E+00
RA-226	1.426E+00	2.245E-01	1.197E-01	0.000E+00
AC-228	2.393E+00	4.401E-01	2.838E-01	0.000E+00
RA-228	2.393E+00	4.401E-01	2.838E-01	0.000E+00
TH-228	2.004E+00	1.929E-01	1.089E-01	0.000E+00
TH-230	1.426E+00	2.120E-01	1.197E-01	0.000E+00
TH-232	2.393E+00	4.401E-01	2.838E-01	0.000E+00
TH-234	3.102E+00	2.499E+00	2.459E+00	0.000E+00
U-235	1.026E-01	2.337E-01	3.977E-01	0.000E+00
NP-237	8.702E-01	3.705E-01	4.413E-01	0.000E+00
U-238	3.102E+00	2.499E+00	2.459E+00	0.000E+00
ANH-511	1.416E-01	7.935E-02	5.022E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-1.090E-01		3.547E-01	5.898E-01	0.000E+00	NOT IDENT.
NA-22	-2.355E-02		4.652E-02	7.478E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		6.276E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	2.268E-03		4.064E-02	6.752E-02	0.000E+00	FAIL ABUN

V-48	-5.366E-02	7.414E-02	1.128E-01	0.000E+00	NOT IDENT.
CR-51	-2.973E-01	3.889E-01	6.300E-01	0.000E+00	NOT IDENT.
MN-54	5.547E-03	4.560E-02	7.631E-02	0.000E+00	NOT IDENT.
CO-56	3.888E-02	4.278E-02	7.631E-02	0.000E+00	FAIL ABUN
CO-57	3.304E-04	2.877E-02	4.910E-02	0.000E+00	NOT IDENT.
CO-58	1.791E-03	3.976E-02	6.632E-02	0.000E+00	NOT IDENT.
FE-59	8.386E-02	9.742E-02	1.777E-01	0.000E+00	NOT IDENT.
CO-60	2.357E-02	4.285E-02	7.649E-02	0.000E+00	NOT IDENT.
ZN-65	6.270E-04	9.637E-02	1.419E-01	0.000E+00	NOT IDENT.
SE-75	-5.750E-02	5.322E-02	7.944E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.464E-02	8.048E-02	0.000E+00	NOT IDENT.
Y-88	-8.105E-03	2.890E-02	4.451E-02	0.000E+00	NOT IDENT.
Y-91	-9.185E+00	2.420E+01	3.987E+01	0.000E+00	NOT IDENT.
NB-94	3.149E-02	3.723E-02	6.616E-02	0.000E+00	NOT IDENT.
NB-95	2.879E-02	5.246E-02	7.999E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.703E-01	2.794E-01	0.000E+00	NOT IDENT.
ZR-95	1.791E-02	8.244E-02	1.398E-01	0.000E+00	NOT IDENT.
MO-99	-1.630E+00	7.697E+00	1.262E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.901E+13	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.650E-02	4.145E-02	6.864E-02	0.000E+00	FAIL ABUN
RH-106	1.254E-01	3.286E-01	5.697E-01	0.000E+00	NOT IDENT.
RU-106	1.254E-01	3.284E-01	5.697E-01	0.000E+00	NOT IDENT.
AG-108M	-2.911E-03	3.362E-02	5.737E-02	0.000E+00	NOT IDENT.
AG-110M	8.148E-03	4.203E-02	6.243E-02	0.000E+00	NOT IDENT.
SN-113	-4.183E-03	4.781E-02	8.198E-02	0.000E+00	NOT IDENT.
CD-115	-3.296E+00	5.845E+00	9.503E+00	0.000E+00	NOT IDENT.
SN-117M	-6.776E-03	5.561E-02	9.354E-02	0.000E+00	NOT IDENT.
TE-123M	-1.336E-02	3.251E-02	5.403E-02	0.000E+00	NOT IDENT.
SB-124	3.514E-02	7.149E-02	1.298E-01	0.000E+00	NOT IDENT.
SB-125	-2.528E-02	1.022E-01	1.729E-01	0.000E+00	NOT IDENT.
TE-125M	-4.651E+00	1.238E+01	1.818E+01	0.000E+00	NOT IDENT.
I-126	1.776E-01	2.467E-01	3.853E-01	0.000E+00	NOT IDENT.
SB-126	-1.520E-02	1.395E-01	2.173E-01	0.000E+00	NOT IDENT.
SB-127	1.751E-01	9.811E-01	1.667E+00	0.000E+00	NOT IDENT.
I-131	4.347E-02	1.015E-01	1.795E-01	0.000E+00	NOT IDENT.
TE-132	2.360E-01	4.969E-01	8.452E-01	0.000E+00	NOT IDENT.
BA-133	3.946E-02	5.104E-02	8.111E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.003E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.045E-02	5.547E-02	1.004E-01	0.000E+00	FAIL ABUN
CS-135	0.000E+00	2.037E-01	3.407E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.606E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.351E-02	1.006E-01	1.655E-01	0.000E+00	NOT IDENT.
CE-139	-2.353E-02	3.402E-02	5.575E-02	0.000E+00	NOT IDENT.
BA-140	-3.996E-02	2.334E-01	3.904E-01	0.000E+00	NOT IDENT.
LA-140	-3.365E-02	8.617E-02	1.359E-01	0.000E+00	FAIL ABUN
CE-141	4.862E-02	6.876E-02	1.196E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	9.294E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-5.576E-03	2.548E-01	3.785E-01	0.000E+00	NOT IDENT.
PM-144	-2.793E-02	3.804E-02	5.998E-02	0.000E+00	NOT IDENT.
PR-144	-2.096E+00	2.843E+00	4.481E+00	0.000E+00	NOT IDENT.
PM-146	1.482E-02	4.950E-02	8.165E-02	0.000E+00	NOT IDENT.
ND-147	3.031E-01	4.973E-01	8.798E-01	0.000E+00	FAIL ABUN
PM-149	1.101E+01	5.023E+01	8.856E+01	0.000E+00	NOT IDENT.
EU-152	-3.159E-02	1.276E-01	1.777E-01	0.000E+00	FAIL ABUN
GD-153	7.141E-02	1.076E-01	1.671E-01	0.000E+00	NOT IDENT.
EU-154	-1.074E-01	1.360E-01	2.118E-01	0.000E+00	NOT IDENT.
TB-160	7.017E-02	1.514E-01	2.539E-01	0.000E+00	FAIL ABUN
HO-166M	3.900E-04	6.887E-02	1.153E-01	0.000E+00	FAIL ABUN
TA-182	-1.196E-01	2.205E-01	3.581E-01	0.000E+00	FAIL ABUN
IR-192	3.084E-02	3.582E-02	6.493E-02	0.000E+00	FAIL ABUN
HG-203	5.755E-02	4.680E-02	7.654E-02	0.000E+00	NOT IDENT.
BI-207	3.622E-02	5.705E-02	1.027E-01	0.000E+00	FAIL ABUN
PB-210	-1.342E+00	3.440E+00	5.939E+00	0.000E+00	NOT IDENT.
PB-211	-5.950E-01	9.154E-01	1.447E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	9.602E-01	1.308E+00	0.000E+00	FAIL ABUN
RN-219	2.523E-01	4.805E-01	8.476E-01	0.000E+00	FAIL ABUN
RA-223	4.723E-01	7.655E-01	1.205E+00	0.000E+00	FAIL ABUN
AC-227	1.251E-01	3.057E-01	5.166E-01	0.000E+00	FAIL ABUN
TH-227	1.251E-01	3.058E-01	5.166E-01	0.000E+00	FAIL ABUN
TH-229	1.798E-01	5.926E-01	1.007E+00	0.000E+00	FAIL ABUN
PA-231	-1.658E+00	1.698E+00	2.631E+00	0.000E+00	FAIL ABUN
TH-231	4.723E-01	7.655E-01	1.205E+00	0.000E+00	FAIL ABUN
PA-233	-7.648E-03	6.766E-02	1.171E-01	0.000E+00	FAIL ABUN
PA-234	-6.272E-02	3.390E-01	5.479E-01	0.000E+00	FAIL ABUN
PA-234M	4.949E-01	5.006E+00	8.736E+00	0.000E+00	NOT IDENT.
NP-239	-1.070E-01	4.587E-01	7.765E-01	0.000E+00	FAIL ABUN
AM-241	5.444E-02	1.886E-01	2.922E-01	0.000E+00	NOT IDENT.
CM-247	2.685E-02	4.370E-02	7.759E-02	0.000E+00	FAIL ABUN

CF-249	5.156E-02	4.392E-02	8.037E-02	0.000E+00	NOT IDENT.
CF-251	-1.698E-02	1.471E-01	2.463E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 10:59:31.47

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329003.CNF;2
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 08:57:47
Sample ID         : G249329003           Sample quantity  : 1.20020E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.65  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1288	10.66*	1.168E+00	3.235E+01	3.235E+01	9.51
CD-109	88.03	211	3.70*	6.111E+00	2.916E+00	2.974E+00	38.05
SN-126	64.28	132	9.60	3.598E+00	1.196E+00	1.196E+00	81.53
	86.94	211	8.90	6.111E+00	1.212E+00	1.212E+00	55.53
	87.57	211	37.00*	6.111E+00	2.916E-01	2.916E-01	38.05
BA-137M	661.66	40	89.90*	2.300E+00	5.997E-02	6.002E-02	80.84
CS-137	661.66	40	85.10*	2.300E+00	6.335E-02	6.340E-02	80.84
EU-155	86.55	211	30.70	6.111E+00	3.515E-01	3.533E-01	38.07
	105.31	100	21.10*	6.770E+00	2.182E-01	2.194E-01	65.41
TL-208	277.37	54	6.60	4.514E+00	5.625E-01	5.625E-01	106.54
	583.19	387	85.00*	2.554E+00	5.575E-01	5.575E-01	17.15
	860.56	------	12.50	1.836E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	4.857E+00	------ Line Not Found		------
	351.06	686	12.92*	3.787E+00	4.385E+00	4.385E+00	12.85
PB-212	74.82	540	10.28	5.071E+00	3.238E+00	3.238E+00	24.77
	77.11	799	17.10	5.309E+00	2.752E+00	2.752E+00	15.14
	238.63	1401	43.60*	5.017E+00	2.004E+00	2.004E+00	9.82
	300.09	141	3.30	4.255E+00	3.130E+00	3.130E+00	43.31
BI-214	609.32	511	45.49*	2.465E+00	1.426E+00	1.426E+00	16.06
	1120.29	128	14.92	1.455E+00	1.848E+00	1.848E+00	30.70
	1764.49	75	15.30	1.029E+00	1.486E+00	1.486E+00	39.27
PB-214	74.82	540	5.80	5.071E+00	5.738E+00	5.739E+00	24.12
	77.11	799	9.70	5.309E+00	4.851E+00	4.851E+00	17.24
	242.00	354	7.25	4.975E+00	3.067E+00	3.067E+00	27.85
	295.22	395	18.42	4.314E+00	1.556E+00	1.556E+00	18.84
	351.93	686	35.60*	3.787E+00	1.591E+00	1.591E+00	13.99
RA-224	240.99	354	4.10*	4.975E+00	5.423E+00	5.423E+00	27.24
RA-226	609.32	511	45.49*	2.465E+00	1.426E+00	1.426E+00	16.06
	1120.29	128	14.92	1.455E+00	1.848E+00	1.848E+00	30.70
	1764.49	75	15.30	1.029E+00	1.486E+00	1.486E+00	39.27
AC-228	338.32	298	11.27	3.900E+00	2.121E+00	2.121E+00	47.37
	911.20	345	25.80*	1.746E+00	2.393E+00	2.393E+00	18.77

Sample ID : G249329003 Acquisition date : 24-MAR-2010 08:57:47

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	156	15.80	1.653E+00	1.869E+00	1.869E+00	35.21
RA-228	338.32	298	11.27	3.900E+00	2.121E+00	2.121E+00	47.37
	911.20	345	25.80*	1.746E+00	2.393E+00	2.393E+00	18.77
	968.97	156	15.80	1.653E+00	1.869E+00	1.869E+00	35.21
TH-228	74.82	540	10.28	5.071E+00	3.238E+00	3.238E+00	22.81
	77.11	799	17.10	5.309E+00	2.752E+00	2.752E+00	15.14
	238.63	1401	43.60*	5.017E+00	2.004E+00	2.004E+00	9.82
	300.09	141	3.30	4.255E+00	3.130E+00	3.130E+00	74.24
TH-230	609.32	511	45.49*	2.465E+00	1.426E+00	1.426E+00	15.17
	1120.29	128	14.92	1.455E+00	1.848E+00	1.848E+00	29.96
	1764.49	75	15.30	1.029E+00	1.486E+00	1.486E+00	39.27
TH-232	338.32	298	11.27	3.900E+00	2.121E+00	2.121E+00	24.04
	911.20	345	25.80*	1.746E+00	2.393E+00	2.393E+00	18.77
	968.97	156	15.80	1.653E+00	1.869E+00	1.869E+00	35.21
TH-234	63.29	132	3.70*	3.598E+00	3.102E+00	3.102E+00	82.18
	92.59	217	4.23	6.392E+00	2.513E+00	2.513E+00	42.70
U-235	89.96	126	3.47	6.258E+00	1.814E+00	1.814E+00	64.57
	93.35	217	5.60	6.392E+00	1.898E+00	1.898E+00	43.23
	143.76	------	10.96*	6.636E+00	------	Line Not Found	------
	163.33	------	5.08	6.300E+00	------	Line Not Found	------
	185.72	227	57.20	5.885E+00	2.109E-01	2.109E-01	40.10
	205.31	------	5.01	5.540E+00	------	Line Not Found	------
NP-237	86.48	211	12.40*	6.111E+00	8.702E-01	8.702E-01	43.44
	95.86	------	2.68	6.514E+00	------	Line Not Found	------
U-238	63.29	132	3.70*	3.598E+00	3.102E+00	3.102E+00	82.18
	92.59	217	4.23	6.392E+00	2.513E+00	2.513E+00	37.55
ANH-511	511.00	129	100.00*	2.841E+00	1.416E-01	1.416E-01	57.20

Flag: "*" = Keyline

Sample ID : G249329003 Acquisition date : 24-MAR-2010 08:57:47

Total number of lines in spectrum 36
Number of unidentified lines 6
Number of lines tentatively identified by NID 30 83.33%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.235E+01	3.235E+01	0.308E+01	9.51	
CD-109	461.40D	1.02	2.916E+00	2.974E+00	1.131E+00	38.05	
SN-126	2.30E+05Y	1.00	2.916E-01	2.916E-01	1.110E-01	38.05	
BA-137M	30.08Y	1.00	5.997E-02	6.002E-02	4.852E-02	80.84	
CS-137	30.08Y	1.00	6.335E-02	6.340E-02	5.125E-02	80.84	
EU-155	4.75Y	1.01	2.182E-01	2.194E-01	1.435E-01	65.41	
TL-208	1.41E+10Y	1.00	5.575E-01	5.575E-01	0.956E-01	17.15	
BI-211	7.04E+08Y	1.00	4.385E+00	4.385E+00	0.564E+00	12.85	
PB-212	1.41E+10Y	1.00	2.004E+00	2.004E+00	0.197E+00	9.82	
BI-214	1600.00Y	1.00	1.426E+00	1.426E+00	0.229E+00	16.06	
PB-214	1600.00Y	1.00	1.591E+00	1.591E+00	0.223E+00	13.99	
RA-224	1.41E+10Y	1.00	5.423E+00	5.423E+00	1.477E+00	27.24	
RA-226	1600.00Y	1.00	1.426E+00	1.426E+00	0.229E+00	16.06	
AC-228	1.41E+10Y	1.00	2.393E+00	2.393E+00	0.449E+00	18.77	
RA-228	1.41E+10Y	1.00	2.393E+00	2.393E+00	0.449E+00	18.77	
TH-228	1.41E+10Y	1.00	2.004E+00	2.004E+00	0.197E+00	9.82	
TH-230	7.54E+04Y	1.00	1.426E+00	1.426E+00	0.216E+00	15.17	
TH-232	1.41E+10Y	1.00	2.393E+00	2.393E+00	0.449E+00	18.77	
TH-234	4.47E+09Y	1.00	3.102E+00	3.102E+00	2.550E+00	82.18	
U-235	7.04E+08Y	1.00	2.109E-01	2.109E-01	0.846E-01	40.10	K
NP-237	2.14E+06Y	1.00	8.702E-01	8.702E-01	3.781E-01	43.44	
U-238	4.47E+09Y	1.00	3.102E+00	3.102E+00	2.550E+00	82.18	
ANH-511	1.00E+09Y	1.00	1.416E-01	1.416E-01	0.810E-01	57.20	
	Total Activity :		7.075E+01	7.081E+01			

Grand Total Activity : 7.075E+01 7.081E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249329003 Acquisition date : 24-MAR-2010 08:57:47

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.18	124	349	1.70	258.12	254	9	1.72E-02	58.4	6.82E+00	
0	208.81	140	314	1.58	417.27	413	11	1.94E-02	51.7	5.48E+00	
0	270.37	78	229	1.35	540.31	536	9	1.08E-02	74.4	4.59E+00	T
0	327.70	78	196	1.33	654.88	649	11	1.09E-02	72.6	3.99E+00	T
0	461.39	71	184	1.61	922.13	916	19	9.86E-03	94.0	3.08E+00	
0	568.48	147	105	2.05	1136.21	1130	12	2.04E-02	33.1	2.61E+00	T
0	727.72	91	90	1.47	1454.62	1450	13	1.27E-02	47.3	2.12E+00	T
0	768.37	50	62	0.96	1535.89	1531	10	6.90E-03	65.9	2.03E+00	
6	965.09	50	59	1.91	1929.30	1925	19	7.01E-03	58.8	1.66E+00	T
0	1239.18	35	75	1.21	2477.55	2471	12	4.92E-03	****	1.33E+00	T
0	1377.76	43	16	2.53	2754.81	2748	14	5.95E-03	51.2	1.22E+00	
0	1730.26	18	9	1.20	3460.19	3454	12	2.49E-03	82.1	1.04E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 10:59:34.99

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329003.CNF;2  *
* Acquisition date : 24-MAR-2010 08:57:47  Detector SN#     :               *
* Detector ID      : GAM19                 Sensitivity      : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.65         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G249329003            Analyst initials: MXR1           *
* Batch Number     : 965250                Sample Quantity : 1.20020E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54.1MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.235E+01	3.077E+00	5.059E-01	3.768E-02	63.956
CD-109	2.974E+00	1.131E+00	1.441E+00	1.290E-01	2.064
SN-126	2.916E-01	1.110E-01	1.419E-01	1.266E-02	2.055
BA-137M	6.002E-02	4.852E-02	7.326E-02	4.266E-03	0.819
CS-137	6.340E-02	5.125E-02	7.740E-02	4.526E-03	0.819
EU-155	2.194E-01	1.435E-01	1.961E-01	1.410E-02	1.119
TL-208	5.575E-01	9.562E-02	6.605E-02	4.482E-03	8.440
BI-211	4.385E+00	5.636E-01	3.754E-01	2.398E-02	11.679
PB-212	2.004E+00	1.968E-01	1.068E-01	7.779E-03	18.759
BI-214	1.426E+00	2.290E-01	1.188E-01	9.410E-03	12.007
PB-214	1.591E+00	2.226E-01	1.363E-01	1.150E-02	11.679
RA-224	5.423E+00	1.477E+00	1.144E+00	6.484E-02	4.739
RA-226	1.426E+00	2.290E-01	1.188E-01	9.410E-03	12.007
AC-228	2.393E+00	4.491E-01	2.829E-01	3.298E-02	8.458
RA-228	2.393E+00	4.491E-01	2.829E-01	3.298E-02	8.458
TH-228	2.004E+00	1.968E-01	1.068E-01	7.779E-03	18.759
TH-230	1.426E+00	2.163E-01	1.188E-01	7.021E-03	12.007
TH-232	2.393E+00	4.491E-01	2.829E-01	3.298E-02	8.458

Sample ID : G249329003 Acquisition date : 24-MAR-2010 08:57:47

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234	3.102E+00	2.550E+00	2.377E+00	4.250E-01	1.305
U-235	2.109E-01	8.456E-02	3.879E-01	6.057E-02	0.544
NP-237	8.702E-01	3.781E-01	4.280E-01	9.736E-02	2.033
U-238	3.102E+00	2.550E+00	2.377E+00	4.250E-01	1.305
ANH-511	1.416E-01	8.097E-02	4.972E-02	2.934E-03	2.848

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.090E-01		3.620E-01	5.834E-01	3.958E-02	-0.187
NA-22	-2.355E-02		4.747E-02	7.484E-02	4.992E-03	-0.315
NA-24	1.573E-03		3.202E-02	Half-Life too short		
SC-46	2.268E-03		4.147E-02	6.728E-02	5.847E-03	0.034
V-48	-5.366E-02		7.566E-02	1.126E-01	9.050E-03	-0.477
CR-51	-2.973E-01		3.968E-01	6.202E-01	4.007E-02	-0.479
MN-54	5.547E-03		4.653E-02	7.598E-02	6.044E-03	0.073
CO-56	3.888E-02		4.365E-02	7.600E-02	6.166E-03	0.512
CO-57	3.304E-04		2.936E-02	4.780E-02	2.853E-03	0.007
CO-58	1.791E-03		4.057E-02	6.601E-02	5.058E-03	0.027
FE-59	8.386E-02		9.941E-02	1.776E-01	1.332E-02	0.472
CO-60	2.357E-02		4.372E-02	7.659E-02	5.644E-03	0.308
ZN-65	6.270E-04		9.833E-02	1.418E-01	9.066E-03	0.004
SE-75	-5.750E-02		5.431E-02	7.803E-02	4.539E-03	-0.737
SR-85	1.245E-01		4.555E-02	7.968E-02	4.705E-03	1.562
Y-88	-8.105E-03		2.949E-02	4.474E-02	2.554E-03	-0.181
Y-91	-9.185E+00		2.469E+01	3.987E+01	2.327E+00	-0.230
NB-94	3.149E-02		3.799E-02	6.574E-02	4.141E-03	0.479
NB-95	2.879E-02		5.353E-02	7.957E-02	5.623E-03	0.362
NB-95M	4.731E-01		1.737E-01	2.741E-01	2.037E-02	1.726
ZR-95	1.791E-02		8.412E-02	1.390E-01	1.118E-02	0.129
MO-99	-1.630E+00		7.854E+00	1.254E+01	1.858E+00	-0.130
TC-99M	-5.580E+07		4.541E+07	Half-Life too short		
RU-103	-1.650E-02		4.230E-02	6.792E-02	8.466E-03	-0.243
RH-106	1.254E-01		3.353E-01	5.653E-01	6.597E-02	0.222
RU-106	1.254E-01		3.351E-01	5.653E-01	3.333E-02	0.222
AG-108M	-2.911E-03		3.430E-02	5.668E-02	3.478E-03	-0.051
AG-110M	8.148E-03		4.289E-02	6.199E-02	3.847E-03	0.131
SN-113	-4.183E-03		4.879E-02	8.091E-02	4.827E-03	-0.052
CD-115	-3.296E+00		5.965E+00	9.411E+00	5.570E-01	-0.350
SN-117M	-6.776E-03		5.675E-02	9.135E-02	4.862E-03	-0.074
TE-123M	-1.336E-02		3.317E-02	5.277E-02	2.850E-03	-0.253
SB-124	3.514E-02		7.295E-02	1.304E-01	8.965E-03	0.270
SB-125	-2.528E-02		1.043E-01	1.708E-01	1.016E-02	-0.148
TE-125M	-4.651E+00		1.263E+01	1.768E+01	1.593E+00	-0.263
I-126	1.776E-01		2.517E-01	3.826E-01	2.248E-02	0.464
SB-126	-1.520E-02		1.423E-01	2.160E-01	1.407E-02	-0.070
SB-127	1.751E-01		1.001E+00	1.656E+00	1.467E-01	0.106

Sample ID : G249329003 Acquisition date : 24-MAR-2010 08:57:47

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-131	4.347E-02		1.035E-01	1.770E-01	1.126E-02	0.246
TE-132	2.360E-01		5.070E-01	8.289E-01	1.156E-01	0.285
BA-133	3.946E-02		5.208E-02	7.995E-02	8.987E-03	0.494
I-133	6.480E-05		5.116E-04	Half-Life too short		
CS-134	7.045E-02		5.660E-02	9.995E-02	7.515E-03	0.705
CS-135	3.735E-01		2.079E-01	3.348E-01	2.555E-02	1.116
I-135	4.563E+06		1.330E+07	Half-Life too short		
CS-136	-4.351E-02		1.027E-01	1.653E-01	1.276E-02	-0.263
CE-139	-2.353E-02		3.471E-02	5.447E-02	2.844E-03	-0.432
BA-140	-3.996E-02		2.382E-01	3.867E-01	1.289E-01	-0.103
LA-140	-3.365E-02		8.793E-02	1.364E-01	9.231E-03	-0.247
CE-141	4.862E-02		7.016E-02	1.167E-01	6.720E-03	0.417
CE-143	3.245E-04		4.742E-05	Half-Life too short		
CE-144	-5.576E-03		2.600E-01	3.689E-01	5.112E-02	-0.015
PM-144	-2.793E-02		3.882E-02	5.960E-02	3.712E-03	-0.469
PR-144	-2.096E+00		2.901E+00	4.453E+00	2.772E-01	-0.471
PM-146	1.482E-02		5.051E-02	8.072E-02	6.817E-03	0.184
ND-147	3.031E-01		5.074E-01	8.713E-01	1.183E-01	0.348
PM-149	1.101E+01		5.126E+01	8.708E+01	1.234E+01	0.126
EU-152	-3.159E-02		1.302E-01	1.751E-01	1.139E-02	-0.180
GD-153	7.141E-02		1.098E-01	1.623E-01	1.262E-02	0.440
EU-154	-1.074E-01		1.387E-01	2.119E-01	2.114E-02	-0.507
TB-160	7.017E-02		1.545E-01	2.530E-01	2.164E-02	0.277
HO-166M	3.900E-04		7.028E-02	1.146E-01	7.339E-03	0.003
TA-182	-1.196E-01		2.250E-01	3.582E-01	2.160E-02	-0.334
IR-192	3.084E-02		3.655E-02	6.392E-02	3.734E-03	0.483
HG-203	5.755E-02		4.776E-02	7.523E-02	4.599E-03	0.765
BI-207	3.622E-02		5.822E-02	1.026E-01	7.284E-03	0.353
PB-210	-1.342E+00		3.510E+00	5.719E+00	4.311E-01	-0.235
PB-211	-5.950E-01		9.341E-01	1.428E+00	6.849E-01	-0.417
BI-212	2.015E+00	+	9.797E-01	1.300E+00	1.450E-01	1.550
RN-219	2.523E-01		4.903E-01	8.368E-01	1.117E-01	0.301
RA-223	4.723E-01		7.811E-01	1.186E+00	1.912E-01	0.398
AC-227	1.251E-01		3.119E-01	5.073E-01	5.167E-02	0.247
TH-227	1.251E-01		3.120E-01	5.073E-01	6.079E-02	0.247
TH-229	1.798E-01		6.047E-01	9.858E-01	5.318E-02	0.182
PA-231	-1.658E+00		1.733E+00	2.587E+00	3.393E-01	-0.641
TH-231	4.723E-01		7.811E-01	1.186E+00	1.912E-01	0.398
PA-233	-7.648E-03		6.904E-02	1.152E-01	7.115E-03	-0.066
PA-234	-6.272E-02		3.460E-01	5.463E-01	1.020E-01	-0.115
PA-234M	4.949E-01		5.108E+00	8.718E+00	8.115E-01	0.057
NP-239	-1.070E-01		4.681E-01	7.557E-01	4.715E-02	-0.142
AM-241	5.444E-02		1.924E-01	2.822E-01	2.323E-02	0.193
CM-247	2.685E-02		4.459E-02	7.659E-02	4.296E-03	0.350
CF-249	5.156E-02		4.482E-02	7.930E-02	4.428E-03	0.650
CF-251	-1.698E-02		1.501E-01	2.409E-01	1.274E-02	-0.071

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249329003            *
* Acquisition date : 24-MAR-2010 08:57:47 Detector SN#    :                 *
* Detector ID      : GAM19                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.65     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249329003           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.2002E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.235E+01	3.015E+00	2.525E-01	1.538E+00
CD-109	2.974E+00	1.109E+00	7.431E-01	5.657E-01
SN-126	2.916E-01	1.088E-01	7.320E-02	5.549E-02
BA-137M	6.002E-02	4.755E-02	3.691E-02	2.426E-02
CS-137	6.340E-02	5.023E-02	3.900E-02	2.563E-02
EU-155	2.194E-01	1.406E-01	1.009E-01	7.175E-02
TL-208	5.575E-01	9.371E-02	3.333E-02	4.781E-02
BI-211	4.385E+00	5.523E-01	1.906E-01	2.818E-01
PB-212	2.004E+00	1.929E-01	5.447E-02	9.842E-02
BI-214	1.426E+00	2.245E-01	5.989E-02	1.145E-01
PB-214	1.591E+00	2.181E-01	6.916E-02	1.113E-01
RA-224	5.423E+00	1.448E+00	5.834E-01	7.386E-01
RA-226	1.426E+00	2.245E-01	5.989E-02	1.145E-01
AC-228	2.393E+00	4.401E-01	1.420E-01	2.245E-01
RA-228	2.393E+00	4.401E-01	1.420E-01	2.245E-01
TH-228	2.004E+00	1.929E-01	5.447E-02	9.842E-02
TH-230	1.426E+00	2.120E-01	5.989E-02	1.082E-01
TH-232	2.393E+00	4.401E-01	1.420E-01	2.245E-01
TH-234	3.102E+00	2.499E+00	1.230E+00	1.275E+00
U-235	1.026E-01	2.337E-01	1.989E-01	1.192E-01
NP-237	8.702E-01	3.705E-01	2.208E-01	1.890E-01
U-238	3.102E+00	2.499E+00	1.230E+00	1.275E+00
ANH-511	1.416E-01	7.935E-02	2.513E-02	4.049E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.090E-01	3.547E-01	2.951E-01	1.810E-01	NOT IDENT.
NA-22	-2.355E-02	4.652E-02	3.741E-02	2.374E-02	NOT IDENT.
NA-24	1.573E+03	6.276E+04	0.000E+00	3.202E+04	SHORT HLIF
SC-46	2.268E-03	4.064E-02	3.378E-02	2.074E-02	FAIL ABUN

V-48	-5.366E-02	7.414E-02	5.645E-02	3.783E-02	NOT IDENT.
CR-51	-2.973E-01	3.889E-01	3.152E-01	1.984E-01	NOT IDENT.
MN-54	5.547E-03	4.560E-02	3.818E-02	2.326E-02	NOT IDENT.
CO-56	3.888E-02	4.278E-02	3.818E-02	2.183E-02	FAIL ABUN
CO-57	3.304E-04	2.877E-02	2.456E-02	1.468E-02	NOT IDENT.
CO-58	1.791E-03	3.976E-02	3.318E-02	2.028E-02	NOT IDENT.
FE-59	8.386E-02	9.742E-02	8.892E-02	4.970E-02	NOT IDENT.
CO-60	2.357E-02	4.285E-02	3.827E-02	2.186E-02	NOT IDENT.
ZN-65	6.270E-04	9.637E-02	7.100E-02	4.917E-02	NOT IDENT.
SE-75	-5.750E-02	5.322E-02	3.974E-02	2.715E-02	NOT IDENT.
SR-85	1.245E-01	4.464E-02	4.027E-02	2.277E-02	NOT IDENT.
Y-88	-8.105E-03	2.890E-02	2.227E-02	1.474E-02	NOT IDENT.
Y-91	-9.185E+00	2.420E+01	1.994E+01	1.234E+01	NOT IDENT.
NB-94	3.149E-02	3.723E-02	3.310E-02	1.899E-02	NOT IDENT.
NB-95	2.879E-02	5.246E-02	4.002E-02	2.677E-02	NOT IDENT.
NB-95M	4.731E-01	1.703E-01	1.398E-01	8.687E-02	NOT IDENT.
ZR-95	1.791E-02	8.244E-02	6.993E-02	4.206E-02	NOT IDENT.
MO-99	-1.630E+00	7.697E+00	6.311E+00	3.927E+00	NOT IDENT.
TC-99M	-5.580E+13	8.901E+13	0.000E+00	4.541E+13	SHORT HLIF
RU-103	-1.650E-02	4.145E-02	3.434E-02	2.115E-02	FAIL ABUN
RH-106	1.254E-01	3.286E-01	2.850E-01	1.677E-01	NOT IDENT.
RU-106	1.254E-01	3.284E-01	2.850E-01	1.676E-01	NOT IDENT.
AG-108M	-2.911E-03	3.362E-02	2.870E-02	1.715E-02	NOT IDENT.
AG-110M	8.148E-03	4.203E-02	3.123E-02	2.145E-02	NOT IDENT.
SN-113	-4.183E-03	4.781E-02	4.102E-02	2.439E-02	NOT IDENT.
CD-115	-3.296E+00	5.845E+00	4.754E+00	2.982E+00	NOT IDENT.
SN-117M	-6.776E-03	5.561E-02	4.680E-02	2.837E-02	NOT IDENT.
TE-123M	-1.336E-02	3.251E-02	2.703E-02	1.659E-02	NOT IDENT.
SB-124	3.514E-02	7.149E-02	6.496E-02	3.647E-02	NOT IDENT.
SB-125	-2.528E-02	1.022E-01	8.649E-02	5.216E-02	NOT IDENT.
TE-125M	-4.651E+00	1.238E+01	9.098E+00	6.315E+00	NOT IDENT.
I-126	1.776E-01	2.467E-01	1.928E-01	1.259E-01	NOT IDENT.
SB-126	-1.520E-02	1.395E-01	1.087E-01	7.117E-02	NOT IDENT.
SB-127	1.751E-01	9.811E-01	8.342E-01	5.005E-01	NOT IDENT.
I-131	4.347E-02	1.015E-01	8.981E-02	5.176E-02	NOT IDENT.
TE-132	2.360E-01	4.969E-01	4.229E-01	2.535E-01	NOT IDENT.
BA-133	3.946E-02	5.104E-02	4.058E-02	2.604E-02	FAIL ABUN
I-133	6.480E+01	1.003E+03	0.000E+00	5.116E+02	SHORT HLIF
CS-134	7.045E-02	5.547E-02	5.025E-02	2.830E-02	FAIL ABUN
CS-135	3.735E-01	2.037E-01	1.705E-01	1.039E-01	NOT IDENT.
I-135	4.563E+12	2.606E+13	0.000E+00	1.330E+13	SHORT HLIF
CS-136	-4.351E-02	1.006E-01	8.281E-02	5.134E-02	NOT IDENT.
CE-139	-2.353E-02	3.402E-02	2.789E-02	1.736E-02	NOT IDENT.
BA-140	-3.996E-02	2.334E-01	1.953E-01	1.191E-01	NOT IDENT.
LA-140	-3.365E-02	8.617E-02	6.801E-02	4.396E-02	FAIL ABUN
CE-141	4.862E-02	6.876E-02	5.983E-02	3.508E-02	NOT IDENT.
CE-143	3.245E+02	9.294E+01	0.000E+00	4.742E+01	SHORT HLIF
CE-144	-5.576E-03	2.548E-01	1.894E-01	1.300E-01	NOT IDENT.
PM-144	-2.793E-02	3.804E-02	3.001E-02	1.941E-02	NOT IDENT.
PR-144	-2.096E+00	2.843E+00	2.242E+00	1.450E+00	NOT IDENT.
PM-146	1.482E-02	4.950E-02	4.085E-02	2.525E-02	NOT IDENT.
ND-147	3.031E-01	4.973E-01	4.402E-01	2.537E-01	FAIL ABUN
PM-149	1.101E+01	5.023E+01	4.431E+01	2.563E+01	NOT IDENT.
EU-152	-3.159E-02	1.276E-01	8.893E-02	6.510E-02	FAIL ABUN
GD-153	7.141E-02	1.076E-01	8.359E-02	5.492E-02	NOT IDENT.
EU-154	-1.074E-01	1.360E-01	1.059E-01	6.936E-02	NOT IDENT.
TB-160	7.017E-02	1.514E-01	1.270E-01	7.725E-02	FAIL ABUN
HO-166M	3.900E-04	6.887E-02	5.768E-02	3.514E-02	FAIL ABUN
TA-182	-1.196E-01	2.205E-01	1.792E-01	1.125E-01	FAIL ABUN
IR-192	3.084E-02	3.582E-02	3.248E-02	1.828E-02	FAIL ABUN
HG-203	5.755E-02	4.680E-02	3.829E-02	2.388E-02	NOT IDENT.
BI-207	3.622E-02	5.705E-02	5.140E-02	2.911E-02	FAIL ABUN
PB-210	-1.342E+00	3.440E+00	2.971E+00	1.755E+00	NOT IDENT.
PB-211	-5.950E-01	9.154E-01	7.239E-01	4.671E-01	NOT IDENT.
BI-212	2.015E+00	9.602E-01	6.542E-01	4.899E-01	FAIL ABUN
RN-219	2.523E-01	4.805E-01	4.241E-01	2.451E-01	FAIL ABUN
RA-223	4.723E-01	7.655E-01	6.028E-01	3.905E-01	FAIL ABUN
AC-227	1.251E-01	3.057E-01	2.585E-01	1.560E-01	FAIL ABUN
TH-227	1.251E-01	3.058E-01	2.585E-01	1.560E-01	FAIL ABUN
TH-229	1.798E-01	5.926E-01	5.039E-01	3.023E-01	FAIL ABUN
PA-231	-1.658E+00	1.698E+00	1.316E+00	8.663E-01	FAIL ABUN
TH-231	4.723E-01	7.655E-01	6.028E-01	3.905E-01	FAIL ABUN
PA-233	-7.648E-03	6.766E-02	5.856E-02	3.452E-02	FAIL ABUN
PA-234	-6.272E-02	3.390E-01	2.741E-01	1.730E-01	FAIL ABUN
PA-234M	4.949E-01	5.006E+00	4.371E+00	2.554E+00	NOT IDENT.
NP-239	-1.070E-01	4.587E-01	3.885E-01	2.340E-01	FAIL ABUN
AM-241	5.444E-02	1.886E-01	1.462E-01	9.621E-02	NOT IDENT.
CM-247	2.685E-02	4.370E-02	3.882E-02	2.230E-02	FAIL ABUN

CF-249	5.156E-02	4.392E-02	4.021E-02	2.241E-02	NOT IDENT.
CF-251	-1.698E-02	1.471E-01	1.232E-01	7.503E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	392.6341
49.72	385.3587
57.36	0.0000
59.54	438.7501
63.29	480.2896
63.29	480.2896
64.28	502.7848
67.75	601.6323
69.67	552.1445
70.83	536.4023
72.81	579.0100
72.87	615.8332
72.87	615.8332
74.82	557.8754
74.82	557.8754
74.82	557.8754
74.97	557.9540
77.11	509.0807
77.11	509.0807
77.11	509.0807
79.69	490.9636
79.80	491.0139
80.12	557.1795
80.19	557.2154
80.57	596.0695
81.00	612.4160
81.07	612.4531
81.07	612.4531
83.79	560.6198
83.79	560.6198
85.43	488.6155
86.48	486.8349
86.55	486.8643
86.79	486.9633
86.94	487.0276
87.57	487.2918
88.03	487.4826
88.47	487.6661
89.96	488.2826
91.11	488.7542
92.59	489.3578
92.59	489.3578
93.35	489.6661
94.67	414.1716
94.87	412.6089
94.87	412.6089
95.86	421.1034
97.43	377.5139
98.44	350.0162
99.53	335.5874
100.11	353.7580
103.18	413.7144
103.37	413.7759
105.31	366.9156
106.12	370.2283
109.28	390.9126
111.00	394.0127
111.76	408.9913
116.30	358.5455
117.23	365.0101
121.12	351.4713
121.78	351.6351
122.06	348.5830
123.07	368.9143
131.20	306.6054
133.52	342.3250
136.00	349.8238

136.47	343.6279
140.51	374.0430
140.51	0.0000
143.76	343.1528
144.24	343.2594
144.24	343.2594
145.44	340.3513
152.43	306.8156
153.25	353.7083
154.21	342.2257
154.21	342.2257
156.02	350.0545
158.56	328.2181
159.00	346.4258
162.66	293.7737
163.33	302.4407
165.86	343.5654
176.60	285.3958
177.52	304.9410
181.07	288.4909
184.41	292.4905
185.72	287.9380
193.51	280.4652
197.04	291.8859
205.31	260.7773
210.85	289.6040
215.65	247.5795
222.11	230.5694
227.38	235.5916
228.16	229.0421
228.18	229.0437
235.69	257.6352
235.96	257.6688
235.96	257.6688
238.63	257.9963
238.63	257.9963
240.99	258.2830
242.00	226.3273
244.70	201.6316
252.40	226.0772
252.80	218.2823
256.23	232.0767
256.23	232.0767
260.90	213.4659
264.66	234.0793
268.22	201.3871
269.46	209.0147
269.46	209.0147
271.23	189.6127
273.65	189.8126
276.40	214.9271
277.37	191.6291
277.60	191.6472
278.00	190.1715
279.20	188.7589
279.54	191.8074
280.46	205.4803
283.69	220.1386
284.31	217.0168
285.41	215.3020
285.90	196.2642
287.50	210.0374
293.27	0.0000
295.22	209.8034
295.96	191.6173
298.57	191.8250
299.98	173.6556
299.98	173.6556
300.09	173.6649
300.09	173.6649
300.13	173.6672
301.36	163.0862
302.85	154.0336
304.50	146.5078
304.50	146.5078
304.85	143.4766
308.46	169.1611
311.90	163.4767

316.51	144.4565
319.41	178.7052
320.08	182.2322
323.87	147.6445
323.87	147.6445
328.76	163.3347
333.37	185.2368
334.37	168.6299
334.37	168.6299
338.28	172.5949
338.28	172.5949
338.32	172.5972
338.32	172.5972
338.32	172.5972
340.48	134.6613
340.55	134.6649
344.28	161.8272
351.06	160.0616
351.93	159.4922
356.01	133.8903
364.49	130.2446
366.42	142.5260
383.85	150.0213
388.16	121.8981
388.63	125.6990
391.69	139.0794
400.66	139.5100
401.81	150.9568
402.40	147.1895
404.85	184.3781
410.95	138.0934
414.70	143.9882
423.72	113.8141
427.09	141.7075
427.87	135.9990
433.94	132.4291
453.88	115.8940
463.37	88.1485
468.07	103.4753
473.00	97.1558
476.78	112.8324
477.60	115.7795
487.02	89.7663
492.35	105.5465
497.08	107.6542
511.00	94.3395
514.00	73.7672
527.90	92.8273
529.87	0.0000
531.02	76.1071
537.26	81.1932
546.56	0.0000
563.25	99.7363
569.33	108.2275
569.50	108.2328
569.70	106.5729
583.19	97.2700
600.60	94.6977
602.73	115.9181
604.72	104.2138
609.32	83.8085
609.32	83.8085
609.32	83.8085
610.33	83.8308
614.28	97.7334
618.01	93.6111
621.93	73.9517
621.93	73.9517
633.25	80.2614
635.95	81.3340
636.99	69.1522
645.85	66.2489
657.76	74.9644
661.66	108.4637
661.66	108.4637
664.57	0.0000
666.33	76.8311
666.50	76.8347

677.62	74.9890
685.70	79.2521
695.00	86.6506
696.49	95.9698
696.51	95.9698
697.00	92.8850
702.65	75.4417
706.68	95.1670
711.68	84.9229
720.70	71.3516
721.93	0.0000
722.78	69.2220
722.91	69.2253
723.31	62.3086
724.19	67.5137
727.33	84.8867
733.00	62.4478
735.93	52.0752
739.50	76.0922
747.24	82.4929
752.31	93.0415
753.82	61.7008
756.73	80.5774
763.94	61.1418
765.81	76.8962
766.42	90.8900
777.92	76.7534
778.90	57.8413
783.70	65.2726
785.37	72.6673
795.86	71.7802
801.95	73.9888
810.29	61.4154
810.76	58.2455
815.77	66.7883
818.51	46.6737
832.01	80.8502
834.85	88.3496
836.80	0.0000
846.77	54.4241
856.80	98.3811
860.56	52.4393
871.09	55.7718
873.19	50.4309
875.33	0.0000
879.36	50.4940
880.51	60.1781
883.24	61.2861
884.68	63.4552
889.28	53.8257
898.04	65.7835
911.20	76.7705
911.20	76.7705
911.20	76.7705
926.50	57.4809
937.49	61.9527
944.13	65.2969
946.00	62.0557
949.00	64.2705
962.29	69.1672
964.08	76.4736
966.15	73.2256
968.97	73.2649
968.97	73.2649
968.97	73.2649
983.53	67.9851
996.26	54.9585
1001.03	57.7577
1004.73	68.8065
1037.84	54.4602
1038.76	0.0000
1048.07	59.1849
1050.41	55.5078
1050.41	55.5078
1063.66	51.0052
1085.87	53.0687
1099.45	51.3298
1112.07	48.9759

1115.54	48.1306
1120.29	49.7760
1120.29	49.7760
1120.29	49.7760
1120.55	53.3911
1121.30	53.3981
1131.51	0.0000
1173.23	79.3892
1177.93	68.1006
1189.05	57.8031
1204.77	78.8561
1221.41	81.9268
1231.02	92.8698
1235.36	70.3819
1238.28	80.2402
1260.41	0.0000
1271.85	54.7433
1274.44	59.5680
1274.54	53.8057
1291.59	53.9492
1298.22	0.0000
1312.11	40.5918
1332.49	33.9319
1365.19	33.1270
1368.63	0.0000
1384.29	28.4764
1408.01	28.4360
1457.56	0.0000
1460.82	18.7743
1489.16	23.8105
1505.03	27.8416
1596.21	29.1994
1620.50	15.1520
1678.03	0.0000
1690.97	10.1953
1764.49	13.3787
1764.49	13.3787
1764.49	13.3787
1770.23	10.5929
1771.35	10.5942
1791.20	0.0000
1836.06	10.3825

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249329003

Total Uranium Activity	9.2774E+00	ug/g
Total Uranium Counting Unc.	7.4344E+00	ug/g
Total Uranium Tpu	3.7931E-06	ug/g
Total Uranium Mda	3.6618E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G249329003       *
*   ANALYST       : MXR1                      DETECTOR   : GAM19            *
*   SAMPLE DATE   : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 08:57:47.04    SAMPLE ALQT:  120.020 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.093E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.714E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 4.699E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 2.292E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:00:14.66

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329004.CNF;2
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 08:58:15
Sample ID         : G249329004           Sample quantity  : 1.18490E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.37  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	76.44*	1582	1306	2.91	153.10	146	16	2.20E-01	5.8	
2	0	84.13*	126	476	0.95	168.46	166	6	1.75E-02	29.3	
3	0	87.19	280	629	1.17	174.58	172	7	3.89E-02	16.0	
4	5	90.01	183	414	0.89	180.22	178	13	2.54E-02	18.0	2.33E+00
5	5	92.90*	330	681	1.54	186.00	178	13	4.59E-02	16.2	
6	0	129.27	72	566	1.04	258.66	254	9	1.01E-02	60.7	
7	0	186.01*	241	561	1.16	372.03	368	10	3.35E-02	20.4	
8	0	209.39	165	504	1.12	418.75	413	11	2.29E-02	27.6	
9	3	238.74*	2076	302	1.25	477.39	469	20	2.88E-01	2.7	1.25E+00
10	3	241.69	467	461	1.83	483.29	469	20	6.49E-02	12.1	
11	0	269.99	232	407	1.62	539.85	533	14	3.23E-02	19.5	
12	0	295.18*	595	417	1.35	590.18	582	14	8.26E-02	8.4	
13	0	299.99	110	234	1.30	599.80	596	8	1.53E-02	26.0	
14	0	328.07	115	218	1.07	655.90	652	9	1.60E-02	25.0	
15	0	338.42*	401	257	1.51	676.60	672	10	5.57E-02	9.2	
16	0	352.05*	960	287	1.30	703.84	699	10	1.33E-01	4.7	
17	0	463.23	134	179	1.57	926.02	922	11	1.86E-02	21.2	
18	0	510.91*	232	215	1.89	1021.32	1015	16	3.23E-02	17.8	
19	0	583.19*	694	195	1.63	1165.78	1157	17	9.64E-02	6.1	
20	0	609.52*	820	182	1.74	1218.42	1212	15	1.14E-01	5.2	
21	0	662.79	75	220	3.71	1324.90	1317	16	1.04E-02	45.8	
22	0	727.16*	149	159	1.52	1453.59	1445	16	2.07E-02	21.4	
23	0	768.49	85	101	1.68	1536.20	1532	10	1.18E-02	24.6	
24	0	795.63	109	139	2.36	1590.47	1584	18	1.51E-02	27.8	
25	0	861.00	118	119	2.02	1721.16	1714	17	1.64E-02	23.1	
26	0	911.37*	560	82	2.09	1821.86	1815	16	7.78E-02	5.7	
27	0	969.25*	273	139	1.49	1937.59	1932	12	3.79E-02	10.9	
28	0	1120.55*	178	128	2.29	2240.13	2234	13	2.47E-02	15.7	
29	0	1239.13*	85	177	3.99	2477.26	2468	21	1.18E-02	41.3	
30	0	1460.95*	2444	80	2.75	2920.92	2910	21	3.39E-01	2.2	
31	1	1661.44	31	11	2.90	3322.00	3316	21	4.24E-03	26.9	3.79E+00
32	1	1665.44	31	15	2.90	3330.00	3316	21	4.24E-03	32.5	
33	0	1729.57	92	6	2.64	3458.32	3447	21	1.28E-02	12.1	
34	0	1764.74*	137	33	3.69	3528.67	3519	21	1.90E-02	14.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 11:00:17

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329004.CNF;2
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 08:58:15
Sample ID : G249329004 Sample quantity : 118.49 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.37 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.806E+01	3.880E+00	4.701E-01	4.307E-02	80.946
CD-109	+	88.03	*	3.267E+00	1.087E+00	1.240E+00	1.177E-01	2.635
SN-126		64.28		-1.760E-01	4.944E-01	8.203E-01	1.191E-01	-0.215
	+	86.94		1.332E+00	6.976E-01	4.967E-01	2.062E-01	2.682
	+	87.57	*	3.204E-01	1.066E-01	1.299E-01	1.226E-02	2.467
BA-137M	+	661.66	*	7.360E-02	6.788E-02	5.459E-02	5.756E-03	1.348
CS-137	+	661.66	*	7.775E-02	7.171E-02	5.767E-02	6.089E-03	1.348
TL-208		277.37		3.926E-01	4.245E-01	6.753E-01	1.123E-01	0.581
	+	583.19	*	6.578E-01	1.073E-01	5.342E-02	5.788E-03	12.314
	+	860.56		1.024E+00	4.876E-01	4.722E-01	5.501E-02	2.168
BI-211		72.87		6.596E+00	3.405E+00	5.306E+00	4.247E-01	1.243
	+	351.06	*	4.361E+00	6.514E-01	3.332E-01	3.888E-02	13.088
PB-212		74.82		3.073E+00	5.645E-01	7.837E-01	9.952E-02	3.922
	+	77.11		4.597E+00	6.521E-01	3.059E-01	2.558E-02	15.028
	+	238.63	*	2.248E+00	3.210E-01	9.820E-02	1.301E-02	22.893
	+	300.09		1.782E+00	9.609E-01	1.289E+00	1.889E-01	1.383
BI-214	+	609.32	*	1.499E+00	2.343E-01	1.123E-01	1.310E-02	13.352
	+	1120.29		1.608E+00	5.349E-01	4.538E-01	5.035E-02	3.543
	+	1764.49		1.649E+00	4.922E-01	2.675E-01	2.228E-02	6.164
PB-214		74.82		5.447E+00	9.523E-01	1.389E+00	1.581E-01	3.922
	+	77.11		8.104E+00	1.330E+00	5.393E-01	6.334E-02	15.028
	+	242.00		3.065E+00	8.537E-01	5.964E-01	8.248E-02	5.139
	+	295.22		1.714E+00	3.871E-01	2.239E-01	3.359E-02	7.655
	+	351.93	*	1.583E+00	2.520E-01	1.230E-01	1.583E-02	12.868
RA-224	+	240.99	*	5.420E+00	1.477E+00	1.051E+00	1.316E-01	5.154
RA-226	+	609.32	*	1.499E+00	2.343E-01	1.123E-01	1.310E-02	13.352
	+	1120.29		1.608E+00	5.349E-01	4.538E-01	5.035E-02	3.543
	+	1764.49		1.649E+00	4.922E-01	2.675E-01	2.228E-02	6.164
AC-228	+	338.32		2.040E+00	9.449E-01	3.958E-01	1.683E-01	5.154
	+	911.20	*	2.466E+00	4.381E-01	2.158E-01	2.923E-02	11.431
	+	968.97		2.068E+00	6.877E-01	4.597E-01	1.156E-01	4.498
RA-228	+	338.32		2.040E+00	9.449E-01	3.958E-01	1.683E-01	5.154
	+	911.20	*	2.466E+00	4.381E-01	2.158E-01	2.923E-02	11.431
	+	968.97		2.068E+00	6.877E-01	4.597E-01	1.156E-01	4.498

Sample ID : G249329004 Acquisition date : 24-MAR-2010 08:58:15

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228		74.82		3.073E+00	4.802E-01	7.837E-01	6.462E-02	3.922
	+	77.11		4.597E+00	6.521E-01	3.059E-01	2.558E-02	15.028
	+	238.63	*	2.248E+00	3.210E-01	9.820E-02	1.301E-02	22.893
	+	300.09		1.782E+00	1.441E+00	1.289E+00	7.997E-01	1.383
TH-229	+	85.43		3.773E-01	2.235E-01	3.052E-01	2.808E-02	1.236
	+	88.47		4.940E-01	1.643E-01	1.868E-01	1.764E-02	2.644
		193.51	*	-2.957E-01	5.648E-01	9.130E-01	9.812E-02	-0.324
	+	210.85		2.592E+00	1.460E+00	1.406E+00	1.600E-01	1.844
TH-230	+	609.32	*	1.499E+00	2.205E-01	1.123E-01	1.168E-02	13.351
	+	1120.29		1.608E+00	5.240E-01	4.538E-01	4.013E-02	3.543
	+	1764.49		1.649E+00	4.922E-01	2.675E-01	2.228E-02	6.164
TH-232	+	338.32		2.040E+00	4.468E-01	3.958E-01	4.707E-02	5.154
	+	911.20	*	2.466E+00	4.381E-01	2.158E-01	2.923E-02	11.431
	+	968.97		2.068E+00	6.877E-01	4.597E-01	1.156E-01	4.498
U-235	+	89.96		2.171E+00	9.498E-01	1.277E+00	3.174E-01	1.700
	+	93.35		2.373E+00	9.476E-01	7.135E-01	1.660E-01	3.325
		143.76	*	1.325E-01	2.175E-01	3.643E-01	6.227E-02	0.364
		163.33		4.472E-01	4.603E-01	7.796E-01	1.442E-01	0.574
	+	185.72		1.754E-01	7.375E-02	7.204E-02	7.544E-03	2.435
		205.31		-4.761E-02	5.777E-01	8.277E-01	1.613E-01	-0.058
NP-237	+	86.48	*	9.561E-01	3.759E-01	3.581E-01	8.215E-02	2.670
		95.86		5.819E-01	1.005E+00	1.470E+00	3.540E-01	0.396
ANH-511	+	511.00	*	1.712E-01	6.316E-02	4.426E-02	4.435E-03	3.869

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.504E-02	3.167E-01	5.130E-01	5.352E-02	0.029
NA-22		1274.54	*	-1.322E-02	4.572E-02	7.422E-02	6.397E-03	-0.178
NA-24		1368.63	*	-3.216E-02	4.572E-02	Half-Life too short		
SC-46		889.28	*	-1.494E-02	3.767E-02	6.083E-02	6.809E-03	-0.246
	+	1120.55		2.669E-01	8.700E-02	1.308E-01	1.156E-02	2.041
V-48		944.13		-8.817E-01	7.977E-01	1.208E+00	1.310E-01	-0.730
		983.53	*	-2.172E-02	6.196E-02	9.922E-02	1.041E-02	-0.219
		1312.11		-1.298E-02	7.443E-02	1.213E-01	1.068E-02	-0.107
CR-51		320.08	*	-3.818E-01	3.550E-01	5.614E-01	7.266E-02	-0.680
MN-54		834.85	*	1.349E-03	3.822E-02	6.389E-02	7.098E-03	0.021
CO-56		846.77	*	-1.992E-02	3.976E-02	6.422E-02	7.148E-03	-0.310
		1037.84		-2.199E-01	2.850E-01	4.373E-01	4.506E-02	-0.503
	+	1238.28		2.085E-01	1.733E-01	1.734E-01	1.503E-02	1.202
		1771.35		-1.696E-01	2.835E-01	3.525E-01	2.929E-02	-0.481
CO-57		122.06	*	-1.451E-02	2.682E-02	4.158E-02	3.429E-03	-0.349
		136.47		-2.515E-02	2.131E-01	3.589E-01	3.326E-02	-0.070
CO-58		810.76	*	-1.421E-02	3.678E-02	6.005E-02	6.649E-03	-0.237
FE-59		1099.45	*	-2.285E-02	8.493E-02	1.353E-01	1.325E-02	-0.169
		1291.59		-1.090E-02	1.180E-01	1.938E-01	1.910E-02	-0.056
CO-60		1173.23		-1.812E-02	4.785E-02	7.811E-02	6.282E-03	-0.232
		1332.49	*	-2.855E-02	3.994E-02	6.193E-02	5.522E-03	-0.461

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZN-65		1115.54	*	-1.928E-02	1.143E-01	1.551E-01	1.384E-02	-0.124
SE-75		121.12		-1.430E-02	1.397E-01	2.207E-01	2.382E-02	-0.065
		136.00		-4.521E-03	4.053E-02	6.830E-02	5.928E-03	-0.066
		264.66	*	-3.340E-02	5.457E-02	7.348E-02	9.890E-03	-0.455
		279.54		9.360E-02	1.136E-01	1.869E-01	2.654E-02	0.501
		400.66		-5.127E-02	2.523E-01	4.100E-01	4.788E-02	-0.125
SR-85		514.00	*	1.435E-01	4.872E-02	7.688E-02	7.714E-03	1.867
Y-88		898.04		1.004E-03	4.061E-02	6.740E-02	7.573E-03	0.015
		1836.06	*	1.003E-02	2.998E-02	5.143E-02	4.158E-03	0.195
Y-91		1204.77	*	-1.548E+01	2.164E+01	3.445E+01	2.833E+00	-0.449
NB-94		702.65	*	1.728E-02	3.405E-02	5.706E-02	6.115E-03	0.303
		871.09		-2.784E-02	3.609E-02	5.280E-02	5.898E-03	-0.527
NB-95		765.81	*	8.319E-02	4.846E-02	7.524E-02	8.227E-03	1.106
NB-95M		235.69	*	2.161E-01	1.475E-01	2.204E-01	2.916E-02	0.981
ZR-95		724.19		1.141E-01	1.076E-01	1.613E-01	1.837E-02	0.707
		756.73	*	1.441E-02	7.251E-02	1.189E-01	1.383E-02	0.121
MO-99		140.51		-8.469E+00	1.315E+01	2.150E+01	5.117E+00	-0.394
		181.07		-1.078E+00	1.180E+01	1.710E+01	3.355E+00	-0.063
		366.42		3.056E+01	5.547E+01	9.391E+01	9.961E+00	0.325
		739.50	*	2.059E+00	6.746E+00	1.116E+01	1.905E+00	0.185
		777.92		-1.892E+01	2.014E+01	3.033E+01	3.328E+00	-0.624
TC-99M		140.51	*	-5.216E+07	2.014E+01	Half-Life too short		
RU-103		497.08	*	-3.714E-03	3.750E-02	6.001E-02	8.897E-03	-0.062
	+	610.33		1.487E+01	3.008E+00	2.672E+00	4.638E-01	5.564
RH-106		621.93	*	-1.232E-01	3.017E-01	4.856E-01	7.046E-02	-0.254
		1050.41		-3.985E-01	2.703E+00	4.369E+00	4.265E-01	-0.091
RU-106		621.93	*	-1.232E-01	3.014E-01	4.856E-01	5.072E-02	-0.254
		1050.41		-3.985E-01	2.703E+00	4.369E+00	4.265E-01	-0.091
AG-108M		433.94	*	1.519E-02	2.947E-02	4.924E-02	4.846E-03	0.309
		614.28		4.653E-02	3.757E-02	5.821E-02	6.204E-03	0.799
		722.91		6.475E-04	4.194E-02	5.854E-02	6.448E-03	0.011
AG-110M		657.76	*	-1.196E-02	3.907E-02	5.359E-02	5.760E-03	-0.223
		677.62		-1.022E-01	2.967E-01	4.755E-01	5.143E-02	-0.215
		706.68		-2.376E-02	2.127E-01	3.449E-01	3.770E-02	-0.069
		763.94		5.793E-02	1.766E-01	2.517E-01	2.798E-02	0.230
		884.68		1.043E-02	4.851E-02	8.155E-02	9.300E-03	0.128
		937.49		5.559E-02	1.100E-01	1.869E-01	2.084E-02	0.297
		1384.29		-2.598E-01	1.735E-01	2.466E-01	2.259E-02	-1.053
		1505.03		-1.423E-02	2.751E-01	4.455E-01	3.961E-02	-0.032
SN-113		391.69	*	1.596E-02	4.203E-02	7.038E-02	6.721E-03	0.227
CD-115		260.90		2.851E+01	7.413E+01	1.210E+02	1.608E+01	0.236
		492.35		-1.199E+01	1.997E+01	3.106E+01	3.083E+00	-0.386
		527.90	*	-5.940E+00	5.068E+00	7.856E+00	7.933E-01	-0.756
SN-117M		156.02		-1.749E-01	2.104E+00	3.515E+00	3.296E-01	-0.050
		158.56	*	-3.331E-02	5.182E-02	8.477E-02	8.039E-03	-0.393
TE-123M		159.00	*	-1.655E-02	2.926E-02	4.798E-02	4.582E-03	-0.345
SB-124		602.73		-5.753E-02	4.661E-02	5.979E-02	6.211E-03	-0.962
		645.85		-4.154E-01	4.427E-01	6.814E-01	7.440E-02	-0.610
		722.78		-1.484E-02	4.095E-01	5.690E-01	6.230E-02	-0.026

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		1690.97	*	-8.590E-03	6.692E-02	1.090E-01	9.716E-03	-0.079
SB-125		427.87	*	-8.900E-02	9.315E-02	1.440E-01	1.396E-02	-0.618
	+	463.37		8.847E-01	3.861E-01	5.443E-01	5.632E-02	1.625
		600.60		-2.818E-02	1.882E-01	3.025E-01	3.302E-02	-0.093
		635.95		-4.002E-03	2.642E-01	4.349E-01	4.813E-02	-0.009
TE-125M		109.28	*	-1.100E+01	1.052E+01	1.583E+01	1.627E+00	-0.695
I-126		388.63		-1.726E-01	1.455E-01	2.239E-01	2.120E-02	-0.771
		666.33	*	3.473E-02	2.286E-01	3.256E-01	3.441E-02	0.107
		753.82		1.127E+00	1.665E+00	2.799E+00	3.050E-01	0.403
SB-126		414.70		-5.812E-02	6.793E-02	1.061E-01	1.004E-02	-0.548
		666.50		1.248E-02	7.804E-02	1.113E-01	1.176E-02	0.112
		695.00		1.743E-02	6.925E-02	1.147E-01	1.226E-02	0.152
		697.00		-1.738E-01	2.506E-01	3.927E-01	4.200E-02	-0.443
		720.70	*	8.667E-02	1.369E-01	2.011E-01	2.169E-02	0.431
		856.80		5.228E-01	4.757E-01	7.360E-01	8.205E-02	0.710
SB-127		252.40		2.329E+00	3.231E+00	5.115E+00	2.173E+00	0.455
		473.00		-7.165E-01	1.072E+00	1.662E+00	2.176E-01	-0.431
		685.70	*	-5.380E-01	8.443E-01	1.322E+00	1.644E-01	-0.407
		783.70		5.162E+00	2.402E+00	4.207E+00	5.726E-01	1.227
I-131		80.19		1.772E+00	4.682E+00	5.526E+00	4.803E-01	0.321
		284.31		-7.181E-01	1.263E+00	1.957E+00	2.763E-01	-0.367
		364.49	*	5.380E-02	9.525E-02	1.614E-01	1.786E-02	0.333
		636.99		3.689E-01	1.246E+00	2.087E+00	2.272E-01	0.177
TE-132		49.72		-3.380E+00	1.011E+01	1.677E+01	1.662E+00	-0.201
		111.76		1.142E+00	2.209E+01	3.531E+01	3.591E+00	0.032
		116.30		-9.779E+00	1.909E+01	2.975E+01	3.011E+00	-0.329
		228.16	*	-2.410E-01	4.760E-01	7.566E-01	1.327E-01	-0.319
BA-133		81.00		-5.322E-02	1.205E-01	1.338E-01	2.085E-02	-0.398
		276.40		5.271E-01	4.305E-01	6.294E-01	1.122E-01	0.837
		302.85		1.174E-01	1.600E-01	2.420E-01	3.993E-02	0.485
		356.01	*	1.121E-02	4.707E-02	6.875E-02	1.012E-02	0.163
		383.85		2.189E-01	2.858E-01	4.857E-01	6.417E-02	0.451
I-133		529.87	*	-2.202E-04	2.858E-01	Half-Life too short		
		875.33		1.597E-02	2.858E-01	Half-Life too short		
		1298.22		2.585E-02	2.858E-01	Half-Life too short		
CS-134		563.25		1.888E-01	3.482E-01	5.954E-01	6.142E-02	0.317
		569.33		-5.391E-02	2.088E-01	3.363E-01	3.488E-02	-0.160
		604.72		-1.460E-03	3.749E-02	5.322E-02	5.541E-03	-0.027
	+	795.86	*	1.457E-01	8.261E-02	9.113E-02	1.009E-02	1.599
		801.95		-3.276E-01	4.688E-01	5.936E-01	6.573E-02	-0.552
		1365.19		2.169E-01	1.209E+00	2.019E+00	1.881E-01	0.107
CS-135		268.22	*	3.326E-01	1.961E-01	2.920E-01	4.224E-02	1.139
I-135		546.56		6.093E+07	1.961E-01	Half-Life too short		
		836.80		5.745E+07	1.961E-01	Half-Life too short		
		1038.76		-1.004E+08	1.961E-01	Half-Life too short		
		1131.51		2.003E+07	1.961E-01	Half-Life too short		
		1260.41	*	-5.883E+06	1.961E-01	Half-Life too short		
		1457.56		5.145E+09	1.961E-01	Half-Life too short		
		1678.03		-9.100E+06	1.961E-01	Half-Life too short		

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		1791.20		5.797E+07	1.961E-01	Half-Life too short		
CS-136		153.25		7.489E-01	8.027E-01	1.377E+00	1.489E-01	0.544
		176.60		5.104E-02	4.528E-01	7.544E-01	8.240E-02	0.068
		273.65		-8.098E-01	5.828E-01	7.322E-01	1.043E-01	-1.106
		340.55		8.739E-01	1.966E-01	2.982E-01	3.589E-02	2.931
		818.51		-2.587E-02	6.252E-02	1.017E-01	1.127E-02	-0.254
		1048.07	*	8.430E-02	9.883E-02	1.695E-01	1.714E-02	0.497
		1235.36		6.371E-01	6.337E-01	9.571E-01	1.110E-01	0.666
CE-139		165.86	*	-2.966E-02	3.064E-02	4.921E-02	4.827E-03	-0.603
BA-140		162.66		8.122E-01	7.533E-01	1.293E+00	1.317E-01	0.628
		304.85		8.665E-01	1.354E+00	2.015E+00	6.230E-01	0.430
		423.72		-8.500E-02	1.770E+00	2.884E+00	9.559E-01	-0.029
		537.26	*	-1.104E-01	2.232E-01	3.580E-01	1.229E-01	-0.308
LA-140	+	328.76		6.441E-01	3.317E-01	4.847E-01	6.127E-02	1.329
		487.02		6.376E-02	1.302E-01	2.151E-01	2.230E-02	0.296
		815.77		3.915E-02	2.717E-01	4.584E-01	5.442E-02	0.085
		1596.21	*	-1.296E-01	8.747E-02	1.186E-01	1.040E-02	-1.093
CE-141		145.44	*	3.342E-02	6.277E-02	1.072E-01	9.761E-03	0.312
CE-143		57.36		-3.555E-07	6.277E-02	Half-Life too short		
		293.27	*	3.159E-04	6.277E-02	Half-Life too short		
		664.57		7.408E-04	6.277E-02	Half-Life too short		
		721.93		1.921E-04	6.277E-02	Half-Life too short		
CE-144		80.12		1.310E+00	3.059E+00	3.623E+00	3.132E-01	0.362
		133.52	*	-2.155E-01	2.339E-01	3.323E-01	5.065E-02	-0.648
PM-144		476.78		3.207E-02	6.443E-02	1.068E-01	1.121E-02	0.300
		618.01		-9.434E-03	3.362E-02	5.045E-02	5.365E-03	-0.187
		696.49	*	-3.134E-03	3.543E-02	5.761E-02	6.160E-03	-0.054
PR-144		696.51	*	-2.399E-01	2.648E+00	4.305E+00	4.603E-01	-0.056
		1489.16		-4.237E+00	1.192E+01	1.865E+01	1.661E+00	-0.227
PM-146		453.88	*	-1.509E-02	4.338E-02	6.910E-02	7.945E-03	-0.218
		633.25		-4.122E-01	1.371E+00	2.205E+00	8.522E-01	-0.187
		735.93		-1.422E-01	1.517E-01	2.093E-01	6.026E-02	-0.679
		747.24		7.780E-03	1.013E-01	1.652E-01	2.647E-02	0.047
ND-147	+	91.11		6.101E-01	2.280E-01	4.436E-01	4.385E-02	1.375
		319.41		-2.848E+00	2.898E+00	4.609E+00	5.834E-01	-0.618
		531.02	*	1.636E-01	4.446E-01	7.581E-01	1.202E-01	0.216
PM-149		285.90	*	-7.600E+00	4.627E+01	7.327E+01	1.386E+01	-0.104
EU-152		121.78		-1.891E-02	7.712E-02	1.211E-01	1.159E-02	-0.156
		244.70		2.941E-01	3.939E-01	5.767E-01	7.301E-02	0.510
		344.28	*	-8.044E-02	1.097E-01	1.584E-01	1.904E-02	-0.508
		778.90		-2.660E-01	2.643E-01	3.966E-01	4.353E-02	-0.671
		964.08		7.840E-01	3.642E-01	5.792E-01	6.180E-02	1.354
		1085.87		-5.673E-02	3.721E-01	5.984E-01	5.575E-02	-0.095
		1112.07		2.053E-01	3.294E-01	4.987E-01	4.469E-02	0.412
		1408.01		7.855E-02	1.826E-01	3.098E-01	2.770E-02	0.254
GD-153		69.67		-5.080E-01	1.730E+00	2.688E+00	2.087E-01	-0.189
		97.43	*	-1.105E-01	1.013E-01	1.375E-01	1.209E-02	-0.804
		103.18		-1.077E-01	1.178E-01	1.823E-01	1.558E-02	-0.591
EU-154		123.07		-2.739E-02	5.591E-02	8.678E-02	9.616E-03	-0.316

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		723.31		6.180E-02	1.930E-01	2.762E-01	3.178E-02	0.224
		873.19		3.629E-02	2.730E-01	4.573E-01	6.337E-02	0.079
		996.26		-5.137E-01	3.946E-01	5.744E-01	1.056E-01	-0.894
		1004.73		-2.732E-02	2.256E-01	3.669E-01	4.736E-02	-0.074
		1274.44	*	-2.976E-02	1.302E-01	2.122E-01	2.413E-02	-0.140
EU-155	+	86.55		3.882E-01	1.292E-01	1.880E-01	1.769E-02	2.064
		105.31	*	6.566E-02	1.107E-01	1.809E-01	1.552E-02	0.363
TB-160	+	86.79		1.009E+00	3.356E-01	4.888E-01	4.571E-02	2.064
		197.04		-3.588E-01	6.081E-01	9.594E-01	1.043E-01	-0.374
		215.65		-2.419E-01	7.849E-01	1.223E+00	1.413E-01	-0.198
	+	298.57		2.455E-01	1.316E-01	2.082E-01	2.790E-02	1.180
		879.36	*	-5.527E-02	1.494E-01	2.303E-01	2.575E-02	-0.240
		962.29		1.171E+00	6.222E-01	9.849E-01	1.053E-01	1.189
		966.15		1.632E+00	3.425E-01	5.447E-01	5.802E-02	2.996
		1177.93		1.942E-01	3.787E-01	6.488E-01	5.235E-02	0.299
		1271.85		4.120E-01	7.103E-01	1.219E+00	1.047E-01	0.338
HO-166M		80.57		8.253E-02	3.333E-01	3.899E-01	3.388E-02	0.212
		184.41		1.027E-01	4.521E-02	7.074E-02	7.376E-03	1.452
		280.46		-4.496E-02	9.074E-02	1.416E-01	1.978E-02	-0.317
		410.95		1.720E-01	2.525E-01	4.256E-01	4.017E-02	0.404
		711.68	*	-7.429E-03	5.804E-02	9.388E-02	1.009E-02	-0.079
		752.31		2.190E-01	2.819E-01	4.765E-01	5.190E-02	0.460
		810.29		-2.072E-02	5.606E-02	9.161E-02	1.013E-02	-0.226
TA-182		67.75		1.556E-02	1.076E-01	1.762E-01	1.344E-02	0.088
		100.11		1.290E-01	1.850E-01	3.042E-01	2.636E-02	0.424
		152.43		3.112E-01	3.593E-01	6.168E-01	5.690E-02	0.505
		222.11		1.384E-01	3.721E-01	6.144E-01	7.250E-02	0.225
	+	1121.30		7.432E-01	2.422E-01	3.623E-01	3.199E-02	2.051
		1189.05		-2.265E-01	3.186E-01	5.082E-01	4.133E-02	-0.446
		1221.41	*	4.423E-02	2.030E-01	3.413E-01	2.838E-02	0.130
		1231.02		-4.184E-01	5.862E-01	7.779E-01	6.511E-02	-0.538
IR-192	+	295.96		1.241E+00	2.687E-01	2.801E-01	3.789E-02	4.431
		308.46		-9.515E-02	9.299E-02	1.479E-01	1.936E-02	-0.643
		316.51	*	1.165E-02	3.390E-02	5.752E-02	7.351E-03	0.203
		468.07		4.699E-02	7.299E-02	1.068E-01	1.106E-02	0.440
HG-203		70.83		3.666E-01	1.374E+00	2.042E+00	3.197E-01	0.180
		72.87		1.588E+00	8.452E-01	1.278E+00	1.942E-01	1.243
		279.20	*	4.675E-02	3.996E-02	6.620E-02	9.359E-03	0.706
BI-207		72.81		3.474E-01	1.949E-01	3.027E-01	2.421E-02	1.148
	+	74.97		2.204E+00	3.126E-01	2.268E-01	1.854E-02	9.718
		569.70		-5.477E-04	3.218E-02	5.248E-02	5.390E-03	-0.010
		1063.66	*	-8.603E-03	5.531E-02	8.923E-02	8.566E-03	-0.096
		1770.23		6.709E-01	6.482E-01	1.030E+00	8.561E-02	0.651
PB-210		46.54	*	-2.311E+00	3.153E+00	5.048E+00	4.648E-01	-0.458
PB-211		404.85	*	-4.932E-01	7.852E-01	1.189E+00	5.771E-01	-0.415
		427.09		1.546E-01	1.514E+00	2.482E+00	1.153E+00	0.062
		832.01		-1.158E-03	9.877E-01	1.648E+00	8.626E-01	-0.001
BI-212	+	727.33	*	2.114E+00	9.508E-01	1.137E+00	1.599E-01	1.859
		785.37		5.700E+00	3.198E+00	5.611E+00	6.168E-01	1.016

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		3.688E+00	2.312E+00	4.380E+00	3.819E-01	0.842
RN-219	+	271.23		1.086E+00	4.535E-01	4.648E-01	6.868E-02	2.337
		401.81	*	-2.759E-01	4.145E-01	6.551E-01	1.004E-01	-0.421
RA-223		81.07		-1.308E-01	2.723E-01	3.021E-01	2.640E-02	-0.433
	+	83.79		2.245E-01	1.330E-01	2.081E-01	1.877E-02	1.079
		94.87		1.004E+00	5.120E-01	7.870E-01	7.037E-02	1.276
		144.24		4.025E-01	7.251E-01	1.217E+00	1.203E-01	0.331
		154.21		5.201E-01	4.093E-01	7.069E-01	7.117E-02	0.736
	+	269.46		8.440E-01	3.496E-01	3.651E-01	5.013E-02	2.312
		323.87	*	4.228E-01	7.117E-01	1.065E+00	2.081E-01	0.397
	+	338.28		8.095E+00	1.900E+00	2.431E+00	3.547E-01	3.330
AC-227		79.69		1.364E+00	1.354E+00	1.871E+00	3.223E-01	0.729
		235.96		7.082E-01	2.178E-01	3.203E-01	4.352E-02	2.211
		256.23	*	-1.972E-01	2.719E-01	4.220E-01	6.575E-02	-0.467
	+	299.98		1.960E+00	1.066E+00	1.624E+00	2.647E-01	1.206
		304.50		2.583E+00	1.818E+00	2.776E+00	5.362E-01	0.931
		334.37		7.991E-01	2.188E+00	2.848E+00	5.048E-01	0.281
TH-227		79.80		1.633E+00	1.789E+00	2.448E+00	5.332E-01	0.667
		235.96		7.082E-01	2.164E-01	3.203E-01	4.212E-02	2.211
		256.23	*	-1.972E-01	2.722E-01	4.220E-01	7.095E-02	-0.467
	+	299.98		1.960E+00	1.066E+00	1.624E+00	2.647E-01	1.206
		304.50		2.583E+00	1.818E+00	2.776E+00	5.362E-01	0.931
		334.37		7.991E-01	2.188E+00	2.848E+00	5.048E-01	0.281
PA-231		283.69	*	-8.442E-01	1.497E+00	2.317E+00	4.214E-01	-0.364
	+	301.36		1.259E+00	6.833E-01	1.053E+00	1.667E-01	1.195
TH-231		81.07		-1.308E-01	2.723E-01	3.021E-01	2.640E-02	-0.433
	+	83.79		2.245E-01	1.330E-01	2.081E-01	1.877E-02	1.079
		94.87		1.004E+00	5.120E-01	7.870E-01	7.037E-02	1.276
		144.24		4.025E-01	7.251E-01	1.217E+00	1.203E-01	0.331
		154.21		5.201E-01	4.093E-01	7.069E-01	7.117E-02	0.736
	+	269.46		8.440E-01	3.496E-01	3.651E-01	5.013E-02	2.312
		323.87	*	4.228E-01	7.117E-01	1.065E+00	2.081E-01	0.397
	+	338.28		8.095E+00	1.900E+00	2.431E+00	3.547E-01	3.330
PA-233	+	300.13		8.867E-01	4.871E-01	7.361E-01	1.325E-01	1.205
		311.90	*	-1.322E-02	6.316E-02	1.049E-01	1.375E-02	-0.126
		340.48		4.355E+00	1.367E+00	1.449E+00	3.678E-01	3.005
PA-234		94.67		4.982E-01	1.969E-01	2.981E-01	3.767E-02	1.671
		98.44		5.806E-02	1.005E-01	1.564E-01	8.726E-02	0.371
		111.00		5.139E-02	1.996E-01	3.163E-01	3.762E-02	0.162
		131.20		2.746E-02	1.173E-01	1.775E-01	1.503E-02	0.155
		569.50		-5.835E-02	2.878E-01	4.650E-01	4.776E-02	-0.125
		733.00		-2.628E-01	4.076E-01	5.245E-01	1.214E-01	-0.501
		880.51		-1.724E-01	3.046E-01	4.621E-01	5.168E-02	-0.373
		883.24		1.546E-01	3.052E-01	4.916E-01	3.323E-01	0.314
		926.50		1.801E-03	1.720E-01	2.844E-01	7.446E-02	0.006
		946.00	*	-2.117E-01	3.041E-01	4.738E-01	9.417E-02	-0.447
		949.00		6.096E-01	4.540E-01	8.016E-01	8.661E-02	0.760
PA-234M		766.42		2.239E+01	1.771E+01	2.111E+01	1.081E+01	1.061
		1001.03	*	6.326E+00	4.991E+00	8.577E+00	9.829E-01	0.738

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	8.055E-01	1.328E+00	2.255E+00	4.014E-01	0.357
	+	92.59		3.141E+00	1.236E+00	1.345E+00	2.996E-01	2.335
U-238		63.29	*	8.055E-01	1.328E+00	2.255E+00	4.014E-01	0.357
	+	92.59		3.141E+00	1.059E+00	1.345E+00	1.223E-01	2.335
NP-239		99.53		6.209E-02	1.737E-01	2.828E-01	2.458E-02	0.220
		103.37		-6.802E-02	1.066E-01	1.669E-01	1.425E-02	-0.408
		106.12		5.658E-02	8.895E-02	1.455E-01	1.230E-02	0.389
		117.23	*	-2.495E-01	4.303E-01	6.685E-01	5.524E-02	-0.373
		228.18		-1.162E-01	2.287E-01	3.643E-01	4.383E-02	-0.319
		277.60		1.984E-01	1.874E-01	3.099E-01	4.319E-02	0.640
AM-241		59.54	*	-6.037E-02	1.365E-01	2.234E-01	1.747E-02	-0.270
CM-247		278.00		9.107E-01	8.021E-01	1.328E+00	1.853E-01	0.686
		287.50		-6.095E-02	1.369E+00	2.009E+00	2.764E-01	-0.030
		402.40	*	-2.746E-02	3.792E-02	5.992E-02	5.620E-03	-0.458
CF-249		252.80		1.284E+00	1.023E+00	1.713E+00	2.223E-01	0.749
		333.37		3.298E-01	2.718E-01	3.020E-01	3.655E-02	1.092
		388.16	*	-4.118E-02	3.926E-02	6.097E-02	5.788E-03	-0.675
CF-251		177.52	*	5.845E-02	1.313E-01	2.211E-01	2.252E-02	0.264
		227.38		-1.098E-01	3.725E-01	5.992E-01	7.190E-02	-0.183
		285.41		-9.753E-01	2.232E+00	3.485E+00	4.816E-01	-0.280

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329004       *
* Acquisition date : 24-MAR-2010 08:58:15 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.37     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249329004           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.1849E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.806E+01	3.802E+00	4.688E-01	0.000E+00
CD-109	3.267E+00	1.065E+00	1.275E+00	0.000E+00
SN-126	3.204E-01	1.044E-01	1.336E-01	0.000E+00
BA-137M	7.360E-02	6.653E-02	5.492E-02	0.000E+00
CS-137	7.775E-02	7.028E-02	5.801E-02	0.000E+00
TL-208	6.578E-01	1.051E-01	5.382E-02	0.000E+00
BI-211	4.361E+00	6.384E-01	3.376E-01	0.000E+00
PB-212	2.248E+00	3.146E-01	9.992E-02	0.000E+00
BI-214	1.499E+00	2.296E-01	1.130E-01	0.000E+00
PB-214	1.583E+00	2.470E-01	1.246E-01	0.000E+00
RA-224	5.420E+00	1.447E+00	1.070E+00	0.000E+00
RA-226	1.499E+00	2.296E-01	1.130E-01	0.000E+00
AC-228	2.466E+00	4.293E-01	2.163E-01	0.000E+00
RA-228	2.466E+00	4.293E-01	2.163E-01	0.000E+00
TH-228	2.248E+00	3.146E-01	9.992E-02	0.000E+00
TH-229	-2.957E-01	5.535E-01	9.310E-01	0.000E+00
TH-230	1.499E+00	2.161E-01	1.130E-01	0.000E+00
TH-232	2.466E+00	4.293E-01	2.163E-01	0.000E+00
U-235	1.325E-01	2.131E-01	3.727E-01	0.000E+00
NP-237	9.561E-01	3.684E-01	3.683E-01	0.000E+00
ANH-511	1.712E-01	6.190E-02	4.466E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.504E-02	3.103E-01	5.179E-01	0.000E+00	NOT IDENT.
NA-22	-1.322E-02	4.481E-02	7.412E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.292E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-1.494E-02	3.692E-02	6.100E-02	0.000E+00	FAIL ABUN
V-48	-2.172E-02	6.072E-02	9.938E-02	0.000E+00	NOT IDENT.
CR-51	-3.818E-01	3.479E-01	5.693E-01	0.000E+00	NOT IDENT.

MN-54	1.349E-03	3.746E-02	6.411E-02	0.000E+00	NOT IDENT.
CO-56	-1.992E-02	3.896E-02	6.442E-02	0.000E+00	FAIL ABUN
CO-57	-1.451E-02	2.628E-02	4.261E-02	0.000E+00	NOT IDENT.
CO-58	-1.421E-02	3.604E-02	6.027E-02	0.000E+00	NOT IDENT.
FE-59	-2.285E-02	8.323E-02	1.353E-01	0.000E+00	NOT IDENT.
CO-60	-2.855E-02	3.914E-02	6.181E-02	0.000E+00	NOT IDENT.
ZN-65	-1.928E-02	1.120E-01	1.552E-01	0.000E+00	NOT IDENT.
SE-75	-3.340E-02	5.348E-02	7.467E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.774E-02	7.756E-02	0.000E+00	NOT IDENT.
Y-88	1.003E-02	2.938E-02	5.115E-02	0.000E+00	NOT IDENT.
Y-91	-1.548E+01	2.120E+01	3.443E+01	0.000E+00	NOT IDENT.
NB-94	1.728E-02	3.337E-02	5.737E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	4.749E-02	7.557E-02	0.000E+00	NOT IDENT.
NB-95M	2.161E-01	1.446E-01	2.243E-01	0.000E+00	NOT IDENT.
ZR-95	1.441E-02	7.106E-02	1.194E-01	0.000E+00	NOT IDENT.
MO-99	2.059E+00	6.611E+00	1.121E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	7.952E+13	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-3.714E-03	3.675E-02	6.057E-02	0.000E+00	FAIL ABUN
RH-106	-1.232E-01	2.957E-01	4.889E-01	0.000E+00	NOT IDENT.
RU-106	-1.232E-01	2.954E-01	4.889E-01	0.000E+00	NOT IDENT.
AG-108M	1.519E-02	2.888E-02	4.977E-02	0.000E+00	NOT IDENT.
AG-110M	-1.196E-02	3.828E-02	5.392E-02	0.000E+00	NOT IDENT.
SN-113	1.596E-02	4.119E-02	7.122E-02	0.000E+00	NOT IDENT.
CD-115	-5.940E+00	4.967E+00	7.923E+00	0.000E+00	NOT IDENT.
SN-117M	-3.331E-02	5.078E-02	8.663E-02	0.000E+00	NOT IDENT.
TE-123M	-1.655E-02	2.867E-02	4.903E-02	0.000E+00	NOT IDENT.
SB-124	-8.590E-03	6.558E-02	1.085E-01	0.000E+00	NOT IDENT.
SB-125	-8.900E-02	9.128E-02	1.456E-01	0.000E+00	FAIL ABUN
TE-125M	-1.100E+01	1.031E+01	1.624E+01	0.000E+00	NOT IDENT.
I-126	3.473E-02	2.240E-01	3.276E-01	0.000E+00	NOT IDENT.
SB-126	8.667E-02	1.341E-01	2.021E-01	0.000E+00	NOT IDENT.
SB-127	-5.380E-01	8.274E-01	1.330E+00	0.000E+00	NOT IDENT.
I-131	5.380E-02	9.335E-02	1.634E-01	0.000E+00	NOT IDENT.
TE-132	-2.410E-01	4.665E-01	7.701E-01	0.000E+00	NOT IDENT.
BA-133	1.121E-02	4.613E-02	6.964E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	8.649E+02	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.096E-02	9.149E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.922E-01	2.968E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.229E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	8.430E-02	9.685E-02	1.697E-01	0.000E+00	NOT IDENT.
CE-139	-2.966E-02	3.002E-02	5.027E-02	0.000E+00	NOT IDENT.
BA-140	-1.104E-01	2.187E-01	3.610E-01	0.000E+00	NOT IDENT.
LA-140	-1.296E-01	8.572E-02	1.182E-01	0.000E+00	FAIL ABUN
CE-141	3.342E-02	6.152E-02	1.097E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	9.312E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.155E-01	2.292E-01	3.402E-01	0.000E+00	NOT IDENT.
PM-144	-3.134E-03	3.472E-02	5.792E-02	0.000E+00	NOT IDENT.
PR-144	-2.399E-01	2.595E+00	4.329E+00	0.000E+00	NOT IDENT.
PM-146	-1.509E-02	4.251E-02	6.981E-02	0.000E+00	NOT IDENT.
ND-147	1.636E-01	4.357E-01	7.646E-01	0.000E+00	FAIL ABUN
PM-149	-7.600E+00	4.535E+01	7.440E+01	0.000E+00	NOT IDENT.
EU-152	-8.044E-02	1.075E-01	1.605E-01	0.000E+00	NOT IDENT.
GD-153	-1.105E-01	9.932E-02	1.413E-01	0.000E+00	NOT IDENT.
EU-154	-2.976E-02	1.276E-01	2.120E-01	0.000E+00	NOT IDENT.
EU-155	6.566E-02	1.085E-01	1.857E-01	0.000E+00	FAIL ABUN
TB-160	-5.527E-02	1.464E-01	2.309E-01	0.000E+00	FAIL ABUN
HO-166M	-7.429E-03	5.688E-02	9.437E-02	0.000E+00	NOT IDENT.
TA-182	4.423E-02	1.989E-01	3.410E-01	0.000E+00	FAIL ABUN
IR-192	1.165E-02	3.323E-02	5.834E-02	0.000E+00	FAIL ABUN
HG-203	4.675E-02	3.916E-02	6.724E-02	0.000E+00	NOT IDENT.
BI-207	-8.603E-03	5.421E-02	8.929E-02	0.000E+00	FAIL ABUN
PB-210	-2.311E+00	3.090E+00	5.226E+00	0.000E+00	NOT IDENT.
PB-211	-4.932E-01	7.695E-01	1.203E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	9.318E-01	1.143E+00	0.000E+00	FAIL ABUN
RN-219	-2.759E-01	4.062E-01	6.627E-01	0.000E+00	FAIL ABUN
RA-223	4.228E-01	6.974E-01	1.080E+00	0.000E+00	FAIL ABUN
AC-227	-1.972E-01	2.665E-01	4.291E-01	0.000E+00	FAIL ABUN
TH-227	-1.972E-01	2.667E-01	4.291E-01	0.000E+00	FAIL ABUN
PA-231	-8.442E-01	1.467E+00	2.353E+00	0.000E+00	FAIL ABUN
TH-231	4.228E-01	6.974E-01	1.080E+00	0.000E+00	FAIL ABUN
PA-233	-1.322E-02	6.190E-02	1.064E-01	0.000E+00	FAIL ABUN
PA-234	-2.117E-01	2.980E-01	4.747E-01	0.000E+00	NOT IDENT.
PA-234M	6.326E+00	4.892E+00	8.588E+00	0.000E+00	NOT IDENT.
TH-234	8.055E-01	1.301E+00	2.328E+00	0.000E+00	FAIL ABUN
U-238	8.055E-01	1.301E+00	2.328E+00	0.000E+00	FAIL ABUN
NP-239	-2.495E-01	4.217E-01	6.854E-01	0.000E+00	NOT IDENT.
AM-241	-6.037E-02	1.338E-01	2.308E-01	0.000E+00	NOT IDENT.
CM-247	-2.746E-02	3.716E-02	6.062E-02	0.000E+00	NOT IDENT.

CF-249	-4.118E-02	3.848E-02	6.170E-02	0.000E+00 NOT IDENT.
CF-251	5.845E-02	1.287E-01	2.256E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:00:15.53

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329004.CNF;2
Sample date      : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 08:58:15
Sample ID        : G249329004           Sample quantity  : 1.18490E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:02.37  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 965250               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	2444	10.66*	1.909E+00	3.806E+01	3.806E+01	10.20
CD-109	88.03	280	3.70*	7.478E+00	3.204E+00	3.267E+00	33.26
SN-126	64.28	------	9.60	4.512E+00	------ Line Not Found		------
	86.94	280	8.90	7.478E+00	1.332E+00	1.332E+00	52.37
	87.57	280	37.00*	7.478E+00	3.204E-01	3.204E-01	33.26
BA-137M	661.66	75	89.90*	3.585E+00	7.354E-02	7.360E-02	92.23
CS-137	661.66	75	85.10*	3.585E+00	7.769E-02	7.775E-02	92.24
TL-208	277.37	------	6.60	6.182E+00	------ Line Not Found		------
	583.19	694	85.00*	3.930E+00	6.578E-01	6.578E-01	16.31
	860.56	118	12.50	2.922E+00	1.024E+00	1.024E+00	47.64
BI-211	72.87	------	1.23	5.897E+00	------ Line Not Found		------
	351.06	960	12.92*	5.400E+00	4.361E+00	4.361E+00	14.94
PB-212	74.82	------	10.28	6.167E+00	------ Line Not Found		------
	77.11	1582	17.10	6.377E+00	4.597E+00	4.597E+00	14.19
	238.63	2076	43.60*	6.708E+00	2.248E+00	2.248E+00	14.28
	300.09	110	3.30	5.917E+00	1.782E+00	1.782E+00	53.94
BI-214	609.32	820	45.49*	3.810E+00	1.499E+00	1.499E+00	15.63
	1120.29	178	14.92	2.345E+00	1.608E+00	1.608E+00	33.28
	1764.49	137	15.30	1.716E+00	1.649E+00	1.649E+00	29.86
PB-214	74.82	------	5.80	6.167E+00	------ Line Not Found		------
	77.11	1582	9.70	6.377E+00	8.104E+00	8.104E+00	16.41
	242.00	467	7.25	6.664E+00	3.065E+00	3.065E+00	27.85
	295.22	595	18.42	5.971E+00	1.714E+00	1.714E+00	22.59
	351.93	960	35.60*	5.400E+00	1.583E+00	1.583E+00	15.92
RA-224	240.99	467	4.10*	6.664E+00	5.420E+00	5.420E+00	27.24
RA-226	609.32	820	45.49*	3.810E+00	1.499E+00	1.499E+00	15.63
	1120.29	178	14.92	2.345E+00	1.608E+00	1.608E+00	33.28
	1764.49	137	15.30	1.716E+00	1.649E+00	1.649E+00	29.86
AC-228	338.32	401	11.27	5.525E+00	2.040E+00	2.040E+00	46.32
	911.20	560	25.80*	2.788E+00	2.466E+00	2.466E+00	17.76
	968.97	273	15.80	2.648E+00	2.068E+00	2.068E+00	33.26
RA-228	338.32	401	11.27	5.525E+00	2.040E+00	2.040E+00	46.32

Sample ID : G249329004 Acquisition date : 24-MAR-2010 08:58:15

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	560	25.80*	2.788E+00	2.466E+00	2.466E+00	17.76
	968.97	273	15.80	2.648E+00	2.068E+00	2.068E+00	33.26
TH-228	74.82	------	10.28	6.167E+00	------ Line Not Found		------
	77.11	1582	17.10	6.377E+00	4.597E+00	4.597E+00	14.19
	238.63	2076	43.60*	6.708E+00	2.248E+00	2.248E+00	14.28
	300.09	110	3.30	5.917E+00	1.782E+00	1.782E+00	80.90
TH-229	85.43	126	14.70	7.215E+00	3.773E-01	3.773E-01	59.25
	88.47	280	24.00	7.478E+00	4.940E-01	4.940E-01	33.26
	193.51	------	4.41*	7.465E+00	------ Line Not Found		------
	210.85	165	2.80	7.182E+00	2.592E+00	2.592E+00	56.33
TH-230	609.32	820	45.49*	3.810E+00	1.499E+00	1.499E+00	14.71
	1120.29	178	14.92	2.345E+00	1.608E+00	1.608E+00	32.59
	1764.49	137	15.30	1.716E+00	1.649E+00	1.649E+00	29.86
TH-232	338.32	401	11.27	5.525E+00	2.040E+00	2.040E+00	21.90
	911.20	560	25.80*	2.788E+00	2.466E+00	2.466E+00	17.76
	968.97	273	15.80	2.648E+00	2.068E+00	2.068E+00	33.26
U-235	89.96	183	3.47	7.687E+00	2.171E+00	2.171E+00	43.76
	93.35	330	5.60	7.872E+00	2.373E+00	2.373E+00	39.94
	143.76	------	10.96*	8.364E+00	------ Line Not Found		------
	163.33	------	5.08	8.031E+00	------ Line Not Found		------
	185.72	241	57.20	7.604E+00	1.754E-01	1.754E-01	42.04
	205.31	------	5.01	7.253E+00	------ Line Not Found		------
NP-237	86.48	280	12.40*	7.478E+00	9.561E-01	9.561E-01	39.32
	95.86	------	2.68	8.032E+00	------ Line Not Found		------
ANH-511	511.00	232	100.00*	4.298E+00	1.712E-01	1.712E-01	36.89

Flag: "*" = Keyline

Sample ID : G249329004 Acquisition date : 24-MAR-2010 08:58:15

Total number of lines in spectrum 34
Number of unidentified lines 5
Number of lines tentatively identified by NID 29 85.29%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.806E+01	3.806E+01	0.388E+01	10.20	
CD-109	461.40D	1.02	3.204E+00	3.267E+00	1.087E+00	33.26	
SN-126	2.30E+05Y	1.00	3.204E-01	3.204E-01	1.066E-01	33.26	
BA-137M	30.08Y	1.00	7.354E-02	7.360E-02	6.788E-02	92.23	
CS-137	30.08Y	1.00	7.769E-02	7.775E-02	7.171E-02	92.24	
TL-208	1.41E+10Y	1.00	6.578E-01	6.578E-01	1.073E-01	16.31	
BI-211	7.04E+08Y	1.00	4.361E+00	4.361E+00	0.651E+00	14.94	
PB-212	1.41E+10Y	1.00	2.248E+00	2.248E+00	0.321E+00	14.28	
BI-214	1600.00Y	1.00	1.499E+00	1.499E+00	0.234E+00	15.63	
PB-214	1600.00Y	1.00	1.583E+00	1.583E+00	0.252E+00	15.92	
RA-224	1.41E+10Y	1.00	5.420E+00	5.420E+00	1.477E+00	27.24	
RA-226	1600.00Y	1.00	1.499E+00	1.499E+00	0.234E+00	15.63	
AC-228	1.41E+10Y	1.00	2.466E+00	2.466E+00	0.438E+00	17.76	
RA-228	1.41E+10Y	1.00	2.466E+00	2.466E+00	0.438E+00	17.76	
TH-228	1.41E+10Y	1.00	2.248E+00	2.248E+00	0.321E+00	14.28	
TH-229	7340.00Y	1.00	4.940E-01	4.940E-01	1.643E-01	33.26	K
TH-230	7.54E+04Y	1.00	1.499E+00	1.499E+00	0.221E+00	14.71	
TH-232	1.41E+10Y	1.00	2.466E+00	2.466E+00	0.438E+00	17.76	
U-235	7.04E+08Y	1.00	1.754E-01	1.754E-01	0.737E-01	42.04	K
NP-237	2.14E+06Y	1.00	9.561E-01	9.561E-01	3.759E-01	39.32	
ANH-511	1.00E+09Y	1.00	1.712E-01	1.712E-01	0.632E-01	36.89	
			---	---			
	Total Activity :		7.194E+01	7.200E+01			

Grand Total Activity : 7.194E+01 7.200E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249329004 Acquisition date : 24-MAR-2010 08:58:15

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.27	72	566	1.04	258.66	254	9	1.01E-02	****	8.53E+00	
0	269.99	232	407	1.62	539.85	533	14	3.23E-02	39.1	6.27E+00	T
0	328.07	115	218	1.07	655.90	652	9	1.60E-02	49.9	5.62E+00	T
0	463.23	134	179	1.57	926.02	922	11	1.86E-02	42.4	4.58E+00	T
0	727.16	149	159	1.52	1453.59	1445	16	2.07E-02	42.7	3.34E+00	T
0	768.49	85	101	1.68	1536.20	1532	10	1.18E-02	49.2	3.20E+00	
0	795.63	109	139	2.36	1590.47	1584	18	1.51E-02	55.6	3.11E+00	T
0	1239.13	85	177	3.99	2477.26	2468	21	1.18E-02	82.7	2.16E+00	T
1	1661.44	31	11	2.90	3322.00	3316	21	4.24E-03	53.8	1.77E+00	
1	1665.44	31	15	2.90	3330.00	3316	21	4.24E-03	64.9	1.76E+00	
0	1729.57	92	6	2.64	3458.32	3447	21	1.28E-02	24.2	1.73E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:00:19.05

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249329004.CNF;2  *
* Acquisition date : 24-MAR-2010 08:58:15  Detector SN#    :                *
* Detector ID      : GAM22                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:02.37         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G249329004            Analyst initials: MXR1           *
* Batch Number     : 965250                Sample Quantity : 1.18490E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.806E+01	3.880E+00	4.701E-01	4.307E-02	80.946
CD-109	3.267E+00	1.087E+00	1.240E+00	1.177E-01	2.635
SN-126	3.204E-01	1.066E-01	1.299E-01	1.226E-02	2.467
BA-137M	7.360E-02	6.788E-02	5.459E-02	5.756E-03	1.348
CS-137	7.775E-02	7.171E-02	5.767E-02	6.089E-03	1.348
TL-208	6.578E-01	1.073E-01	5.342E-02	5.788E-03	12.314
BI-211	4.361E+00	6.514E-01	3.332E-01	3.888E-02	13.088
PB-212	2.248E+00	3.210E-01	9.820E-02	1.301E-02	22.893
BI-214	1.499E+00	2.343E-01	1.123E-01	1.310E-02	13.352
PB-214	1.583E+00	2.520E-01	1.230E-01	1.583E-02	12.868
RA-224	5.420E+00	1.477E+00	1.051E+00	1.316E-01	5.154
RA-226	1.499E+00	2.343E-01	1.123E-01	1.310E-02	13.352
AC-228	2.466E+00	4.381E-01	2.158E-01	2.923E-02	11.431
RA-228	2.466E+00	4.381E-01	2.158E-01	2.923E-02	11.431
TH-228	2.248E+00	3.210E-01	9.820E-02	1.301E-02	22.893
TH-229	4.940E-01	1.643E-01	9.130E-01	9.812E-02	0.541
TH-230	1.499E+00	2.205E-01	1.123E-01	1.168E-02	13.351
TH-232	2.466E+00	4.381E-01	2.158E-01	2.923E-02	11.431

Sample ID : G249329004 Acquisition date : 24-MAR-2010 08:58:15

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	1.754E-01	7.375E-02	3.643E-01	6.227E-02	0.482
NP-237	9.561E-01	3.759E-01	3.581E-01	8.215E-02	2.670
ANH-511	1.712E-01	6.316E-02	4.426E-02	4.435E-03	3.869

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.504E-02		3.167E-01	5.130E-01	5.352E-02	0.029
NA-22	-1.322E-02		4.572E-02	7.422E-02	6.397E-03	-0.178
NA-24	-3.216E-02		3.210E-02	Half-Life too short		
SC-46	-1.494E-02		3.767E-02	6.083E-02	6.809E-03	-0.246
V-48	-2.172E-02		6.196E-02	9.922E-02	1.041E-02	-0.219
CR-51	-3.818E-01		3.550E-01	5.614E-01	7.266E-02	-0.680
MN-54	1.349E-03		3.822E-02	6.389E-02	7.098E-03	0.021
CO-56	-1.992E-02		3.976E-02	6.422E-02	7.148E-03	-0.310
CO-57	-1.451E-02		2.682E-02	4.158E-02	3.429E-03	-0.349
CO-58	-1.421E-02		3.678E-02	6.005E-02	6.649E-03	-0.237
FE-59	-2.285E-02		8.493E-02	1.353E-01	1.325E-02	-0.169
CO-60	-2.855E-02		3.994E-02	6.193E-02	5.522E-03	-0.461
ZN-65	-1.928E-02		1.143E-01	1.551E-01	1.384E-02	-0.124
SE-75	-3.340E-02		5.457E-02	7.348E-02	9.890E-03	-0.455
SR-85	1.435E-01		4.872E-02	7.688E-02	7.714E-03	1.867
Y-88	1.003E-02		2.998E-02	5.143E-02	4.158E-03	0.195
Y-91	-1.548E+01		2.164E+01	3.445E+01	2.833E+00	-0.449
NB-94	1.728E-02		3.405E-02	5.706E-02	6.115E-03	0.303
NB-95	8.319E-02		4.846E-02	7.524E-02	8.227E-03	1.106
NB-95M	2.161E-01		1.475E-01	2.204E-01	2.916E-02	0.981
ZR-95	1.441E-02		7.251E-02	1.189E-01	1.383E-02	0.121
MO-99	2.059E+00		6.746E+00	1.116E+01	1.905E+00	0.185
TC-99M	-5.216E+07		4.057E+07	Half-Life too short		
RU-103	-3.714E-03		3.750E-02	6.001E-02	8.897E-03	-0.062
RH-106	-1.232E-01		3.017E-01	4.856E-01	7.046E-02	-0.254
RU-106	-1.232E-01		3.014E-01	4.856E-01	5.072E-02	-0.254
AG-108M	1.519E-02		2.947E-02	4.924E-02	4.846E-03	0.309
AG-110M	-1.196E-02		3.907E-02	5.359E-02	5.760E-03	-0.223
SN-113	1.596E-02		4.203E-02	7.038E-02	6.721E-03	0.227
CD-115	-5.940E+00		5.068E+00	7.856E+00	7.933E-01	-0.756
SN-117M	-3.331E-02		5.182E-02	8.477E-02	8.039E-03	-0.393
TE-123M	-1.655E-02		2.926E-02	4.798E-02	4.582E-03	-0.345
SB-124	-8.590E-03		6.692E-02	1.090E-01	9.716E-03	-0.079
SB-125	-8.900E-02		9.315E-02	1.440E-01	1.396E-02	-0.618
TE-125M	-1.100E+01		1.052E+01	1.583E+01	1.627E+00	-0.695
I-126	3.473E-02		2.286E-01	3.256E-01	3.441E-02	0.107
SB-126	8.667E-02		1.369E-01	2.011E-01	2.169E-02	0.431
SB-127	-5.380E-01		8.443E-01	1.322E+00	1.644E-01	-0.407
I-131	5.380E-02		9.525E-02	1.614E-01	1.786E-02	0.333
TE-132	-2.410E-01		4.760E-01	7.566E-01	1.327E-01	-0.319

Sample ID : G249329004 Acquisition date : 24-MAR-2010 08:58:15

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-133	1.121E-02		4.707E-02	6.875E-02	1.012E-02	0.163
I-133	-2.202E-04		4.413E-04	Half-Life too short		
CS-134	1.457E-01	+	8.261E-02	9.113E-02	1.009E-02	1.599
CS-135	3.326E-01		1.961E-01	2.920E-01	4.224E-02	1.139
I-135	-5.883E+06		1.137E+07	Half-Life too short		
CS-136	8.430E-02		9.883E-02	1.695E-01	1.714E-02	0.497
CE-139	-2.966E-02		3.064E-02	4.921E-02	4.827E-03	-0.603
BA-140	-1.104E-01		2.232E-01	3.580E-01	1.229E-01	-0.308
LA-140	-1.296E-01		8.747E-02	1.186E-01	1.040E-02	-1.093
CE-141	3.342E-02		6.277E-02	1.072E-01	9.761E-03	0.312
CE-143	3.159E-04		4.751E-05	Half-Life too short		
CE-144	-2.155E-01		2.339E-01	3.323E-01	5.065E-02	-0.648
PM-144	-3.134E-03		3.543E-02	5.761E-02	6.160E-03	-0.054
PR-144	-2.399E-01		2.648E+00	4.305E+00	4.603E-01	-0.056
PM-146	-1.509E-02		4.338E-02	6.910E-02	7.945E-03	-0.218
ND-147	1.636E-01		4.446E-01	7.581E-01	1.202E-01	0.216
PM-149	-7.600E+00		4.627E+01	7.327E+01	1.386E+01	-0.104
EU-152	-8.044E-02		1.097E-01	1.584E-01	1.904E-02	-0.508
GD-153	-1.105E-01		1.013E-01	1.375E-01	1.209E-02	-0.804
EU-154	-2.976E-02		1.302E-01	2.122E-01	2.413E-02	-0.140
EU-155	6.566E-02		1.107E-01	1.809E-01	1.552E-02	0.363
TB-160	-5.527E-02		1.494E-01	2.303E-01	2.575E-02	-0.240
HO-166M	-7.429E-03		5.804E-02	9.388E-02	1.009E-02	-0.079
TA-182	4.423E-02		2.030E-01	3.413E-01	2.838E-02	0.130
IR-192	1.165E-02		3.390E-02	5.752E-02	7.351E-03	0.203
HG-203	4.675E-02		3.996E-02	6.620E-02	9.359E-03	0.706
BI-207	-8.603E-03		5.531E-02	8.923E-02	8.566E-03	-0.096
PB-210	-2.311E+00		3.153E+00	5.048E+00	4.648E-01	-0.458
PB-211	-4.932E-01		7.852E-01	1.189E+00	5.771E-01	-0.415
BI-212	2.114E+00	+	9.508E-01	1.137E+00	1.599E-01	1.859
RN-219	-2.759E-01		4.145E-01	6.551E-01	1.004E-01	-0.421
RA-223	4.228E-01		7.117E-01	1.065E+00	2.081E-01	0.397
AC-227	-1.972E-01		2.719E-01	4.220E-01	6.575E-02	-0.467
TH-227	-1.972E-01		2.722E-01	4.220E-01	7.095E-02	-0.467
PA-231	-8.442E-01		1.497E+00	2.317E+00	4.214E-01	-0.364
TH-231	4.228E-01		7.117E-01	1.065E+00	2.081E-01	0.397
PA-233	-1.322E-02		6.316E-02	1.049E-01	1.375E-02	-0.126
PA-234	-2.117E-01		3.041E-01	4.738E-01	9.417E-02	-0.447
PA-234M	6.326E+00		4.991E+00	8.577E+00	9.829E-01	0.738
TH-234	8.055E-01		1.328E+00	2.255E+00	4.014E-01	0.357
U-238	8.055E-01		1.328E+00	2.255E+00	4.014E-01	0.357
NP-239	-2.495E-01		4.303E-01	6.685E-01	5.524E-02	-0.373
AM-241	-6.037E-02		1.365E-01	2.234E-01	1.747E-02	-0.270
CM-247	-2.746E-02		3.792E-02	5.992E-02	5.620E-03	-0.458
CF-249	-4.118E-02		3.926E-02	6.097E-02	5.788E-03	-0.675
CF-251	5.845E-02		1.313E-01	2.211E-01	2.252E-02	0.264

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249329004            *
* Acquisition date : 24-MAR-2010 08:58:15 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.37     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249329004           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.1849E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.806E+01	3.802E+00	2.345E-01	1.940E+00
CD-109	3.267E+00	1.065E+00	6.380E-01	5.433E-01
SN-126	3.204E-01	1.044E-01	6.682E-02	5.329E-02
BA-137M	7.360E-02	6.653E-02	2.747E-02	3.394E-02
CS-137	7.775E-02	7.028E-02	2.902E-02	3.586E-02
TL-208	6.578E-01	1.051E-01	2.693E-02	5.365E-02
BI-211	4.361E+00	6.384E-01	1.689E-01	3.257E-01
PB-212	2.248E+00	3.146E-01	4.999E-02	1.605E-01
BI-214	1.499E+00	2.296E-01	5.655E-02	1.171E-01
PB-214	1.583E+00	2.470E-01	6.234E-02	1.260E-01
RA-224	5.420E+00	1.447E+00	5.352E-01	7.383E-01
RA-226	1.499E+00	2.296E-01	5.655E-02	1.171E-01
AC-228	2.466E+00	4.293E-01	1.082E-01	2.190E-01
RA-228	2.466E+00	4.293E-01	1.082E-01	2.190E-01
TH-228	2.248E+00	3.146E-01	4.999E-02	1.605E-01
TH-229	-2.957E-01	5.535E-01	4.658E-01	2.824E-01
TH-230	1.499E+00	2.161E-01	5.655E-02	1.103E-01
TH-232	2.466E+00	4.293E-01	1.082E-01	2.190E-01
U-235	1.325E-01	2.131E-01	1.865E-01	1.087E-01
NP-237	9.561E-01	3.684E-01	1.843E-01	1.880E-01
ANH-511	1.712E-01	6.190E-02	2.234E-02	3.158E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.504E-02	3.103E-01	2.591E-01	1.583E-01	NOT IDENT.
NA-22	-1.322E-02	4.481E-02	3.708E-02	2.286E-02	NOT IDENT.
NA-24	-3.216E+04	6.292E+04	0.000E+00	3.210E+04	SHORT HLIF
SC-46	-1.494E-02	3.692E-02	3.052E-02	1.884E-02	FAIL ABUN
V-48	-2.172E-02	6.072E-02	4.972E-02	3.098E-02	NOT IDENT.
CR-51	-3.818E-01	3.479E-01	2.848E-01	1.775E-01	NOT IDENT.

MN-54	1.349E-03	3.746E-02	3.208E-02	1.911E-02	NOT IDENT.
CO-56	-1.992E-02	3.896E-02	3.223E-02	1.988E-02	FAIL ABUN
CO-57	-1.451E-02	2.628E-02	2.132E-02	1.341E-02	NOT IDENT.
CO-58	-1.421E-02	3.604E-02	3.015E-02	1.839E-02	NOT IDENT.
FE-59	-2.285E-02	8.323E-02	6.769E-02	4.247E-02	NOT IDENT.
CO-60	-2.855E-02	3.914E-02	3.092E-02	1.997E-02	NOT IDENT.
ZN-65	-1.928E-02	1.120E-01	7.762E-02	5.715E-02	NOT IDENT.
SE-75	-3.340E-02	5.348E-02	3.736E-02	2.729E-02	NOT IDENT.
SR-85	1.435E-01	4.774E-02	3.880E-02	2.436E-02	NOT IDENT.
Y-88	1.003E-02	2.938E-02	2.559E-02	1.499E-02	NOT IDENT.
Y-91	-1.548E+01	2.120E+01	1.722E+01	1.082E+01	NOT IDENT.
NB-94	1.728E-02	3.337E-02	2.870E-02	1.703E-02	NOT IDENT.
NB-95	8.319E-02	4.749E-02	3.781E-02	2.423E-02	NOT IDENT.
NB-95M	2.161E-01	1.446E-01	1.122E-01	7.377E-02	NOT IDENT.
ZR-95	1.441E-02	7.106E-02	5.975E-02	3.626E-02	NOT IDENT.
MO-99	2.059E+00	6.611E+00	5.608E+00	3.373E+00	NOT IDENT.
TC-99M	-5.216E+13	7.952E+13	0.000E+00	4.057E+13	SHORT HLIF
RU-103	-3.714E-03	3.675E-02	3.030E-02	1.875E-02	FAIL ABUN
RH-106	-1.232E-01	2.957E-01	2.446E-01	1.508E-01	NOT IDENT.
RU-106	-1.232E-01	2.954E-01	2.446E-01	1.507E-01	NOT IDENT.
AG-108M	1.519E-02	2.888E-02	2.490E-02	1.474E-02	NOT IDENT.
AG-110M	-1.196E-02	3.828E-02	2.697E-02	1.953E-02	NOT IDENT.
SN-113	1.596E-02	4.119E-02	3.563E-02	2.102E-02	NOT IDENT.
CD-115	-5.940E+00	4.967E+00	3.964E+00	2.534E+00	NOT IDENT.
SN-117M	-3.331E-02	5.078E-02	4.334E-02	2.591E-02	NOT IDENT.
TE-123M	-1.655E-02	2.867E-02	2.453E-02	1.463E-02	NOT IDENT.
SB-124	-8.590E-03	6.558E-02	5.427E-02	3.346E-02	NOT IDENT.
SB-125	-8.900E-02	9.128E-02	7.283E-02	4.657E-02	FAIL ABUN
TE-125M	-1.100E+01	1.031E+01	8.127E+00	5.261E+00	NOT IDENT.
I-126	3.473E-02	2.240E-01	1.639E-01	1.143E-01	NOT IDENT.
SB-126	8.667E-02	1.341E-01	1.011E-01	6.844E-02	NOT IDENT.
SB-127	-5.380E-01	8.274E-01	6.653E-01	4.222E-01	NOT IDENT.
I-131	5.380E-02	9.335E-02	8.176E-02	4.763E-02	NOT IDENT.
TE-132	-2.410E-01	4.665E-01	3.853E-01	2.380E-01	NOT IDENT.
BA-133	1.121E-02	4.613E-02	3.484E-02	2.353E-02	NOT IDENT.
I-133	-2.202E+02	8.649E+02	0.000E+00	4.413E+02	SHORT HLIF
CS-134	1.457E-01	8.096E-02	4.577E-02	4.130E-02	FAIL ABUN
CS-135	3.326E-01	1.922E-01	1.485E-01	9.805E-02	NOT IDENT.
I-135	-5.883E+12	2.229E+13	0.000E+00	1.137E+13	SHORT HLIF
CS-136	8.430E-02	9.685E-02	8.489E-02	4.941E-02	NOT IDENT.
CE-139	-2.966E-02	3.002E-02	2.515E-02	1.532E-02	NOT IDENT.
BA-140	-1.104E-01	2.187E-01	1.806E-01	1.116E-01	NOT IDENT.
LA-140	-1.296E-01	8.572E-02	5.911E-02	4.373E-02	FAIL ABUN
CE-141	3.342E-02	6.152E-02	5.487E-02	3.139E-02	NOT IDENT.
CE-143	3.159E+02	9.312E+01	0.000E+00	4.751E+01	SHORT HLIF
CE-144	-2.155E-01	2.292E-01	1.702E-01	1.169E-01	NOT IDENT.
PM-144	-3.134E-03	3.472E-02	2.898E-02	1.772E-02	NOT IDENT.
PR-144	-2.399E-01	2.595E+00	2.166E+00	1.324E+00	NOT IDENT.
PM-146	-1.509E-02	4.251E-02	3.492E-02	2.169E-02	NOT IDENT.
ND-147	1.636E-01	4.357E-01	3.825E-01	2.223E-01	FAIL ABUN
PM-149	-7.600E+00	4.535E+01	3.722E+01	2.314E+01	NOT IDENT.
EU-152	-8.044E-02	1.075E-01	8.032E-02	5.483E-02	NOT IDENT.
GD-153	-1.105E-01	9.932E-02	7.067E-02	5.067E-02	NOT IDENT.
EU-154	-2.976E-02	1.276E-01	1.060E-01	6.510E-02	NOT IDENT.
EU-155	6.566E-02	1.085E-01	9.288E-02	5.533E-02	FAIL ABUN
TB-160	-5.527E-02	1.464E-01	1.155E-01	7.468E-02	FAIL ABUN
HO-166M	-7.429E-03	5.688E-02	4.721E-02	2.902E-02	NOT IDENT.
TA-182	4.423E-02	1.989E-01	1.706E-01	1.015E-01	FAIL ABUN
IR-192	1.165E-02	3.323E-02	2.919E-02	1.695E-02	FAIL ABUN
HG-203	4.675E-02	3.916E-02	3.364E-02	1.998E-02	NOT IDENT.
BI-207	-8.603E-03	5.421E-02	4.467E-02	2.766E-02	FAIL ABUN
PB-210	-2.311E+00	3.090E+00	2.615E+00	1.576E+00	NOT IDENT.
PB-211	-4.932E-01	7.695E-01	6.017E-01	3.926E-01	NOT IDENT.
BI-212	2.114E+00	9.318E-01	5.717E-01	4.754E-01	FAIL ABUN
RN-219	-2.759E-01	4.062E-01	3.316E-01	2.072E-01	FAIL ABUN
RA-223	4.228E-01	6.974E-01	5.402E-01	3.558E-01	FAIL ABUN
AC-227	-1.972E-01	2.665E-01	2.147E-01	1.359E-01	FAIL ABUN
TH-227	-1.972E-01	2.667E-01	2.147E-01	1.361E-01	FAIL ABUN
PA-231	-8.442E-01	1.467E+00	1.177E+00	7.486E-01	FAIL ABUN
TH-231	4.228E-01	6.974E-01	5.402E-01	3.558E-01	FAIL ABUN
PA-233	-1.322E-02	6.190E-02	5.325E-02	3.158E-02	FAIL ABUN
PA-234	-2.117E-01	2.980E-01	2.375E-01	1.521E-01	NOT IDENT.
PA-234M	6.326E+00	4.892E+00	4.297E+00	2.496E+00	NOT IDENT.
TH-234	8.055E-01	1.301E+00	1.165E+00	6.639E-01	FAIL ABUN
U-238	8.055E-01	1.301E+00	1.165E+00	6.639E-01	FAIL ABUN
NP-239	-2.495E-01	4.217E-01	3.429E-01	2.152E-01	NOT IDENT.
AM-241	-6.037E-02	1.338E-01	1.154E-01	6.827E-02	NOT IDENT.
CM-247	-2.746E-02	3.716E-02	3.033E-02	1.896E-02	NOT IDENT.

CF-249	-4.118E-02	3.848E-02	3.087E-02	1.963E-02	NOT IDENT.
CF-251	5.845E-02	1.287E-01	1.129E-01	6.567E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	369.4684
49.72	376.7960
57.36	0.0000
59.54	417.6603
63.29	469.3680
63.29	469.3680
64.28	512.9812
67.75	492.9555
69.67	551.5476
70.83	538.2477
72.81	531.4068
72.87	531.5172
72.87	531.5172
74.82	522.4064
74.82	522.4064
74.82	522.4064
74.97	522.6694
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77.11	526.3850
77.11	526.3850
79.69	437.3711
79.80	437.5249
80.12	450.3085
80.19	450.4088
80.57	450.9523
81.00	494.8682
81.07	494.9780
81.07	494.9780
83.79	450.8327
83.79	450.8327
85.43	498.5636
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86.94	500.8369
87.57	599.6093
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88.47	531.5984
89.96	533.9273
91.11	455.9936
92.59	457.9334
92.59	457.9334
93.35	458.9240
94.67	444.5307
94.87	444.7792
94.87	444.7792
95.86	421.7693
97.43	525.8499
98.44	444.8444
99.53	462.4832
100.11	445.7669
103.18	495.5659
103.37	478.2239
105.31	429.8176
106.12	436.2520
109.28	501.1559
111.00	438.2959
111.76	463.8289
116.30	456.4845
117.23	451.8064
121.12	424.9426
121.78	419.8406
122.06	432.7726
123.07	446.4688
131.20	422.9260
133.52	485.9781
136.00	457.5734

136.47	460.7016
140.51	494.2581
140.51	0.0000
143.76	459.5572
144.24	459.0974
144.24	459.0974
145.44	462.9346
152.43	435.2999
153.25	443.3632
154.21	425.7124
154.21	425.7124
156.02	457.7656
158.56	474.8643
159.00	456.6161
162.66	409.9976
163.33	408.6223
165.86	455.8047
176.60	401.0450
177.52	381.4497
181.07	429.4954
184.41	416.3108
185.72	453.1569
193.51	447.0549
197.04	428.6785
205.31	422.3119
210.85	365.7101
215.65	388.1883
222.11	384.1586
227.38	378.7075
228.16	386.4121
228.18	386.4234
235.69	375.4986
235.96	395.8511
235.96	395.8511
238.63	380.3769
238.63	380.3769
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256.23	347.0639
256.23	347.0639
260.90	315.3998
264.66	335.6719
268.22	293.2448
269.46	291.2711
269.46	291.2711
271.23	301.3708
273.65	392.3969
276.40	283.7422
277.37	299.2884
277.60	296.3539
278.00	297.6069
279.20	285.7996
279.54	285.9133
280.46	326.3166
283.69	294.0170
284.31	291.9922
285.41	285.6454
285.90	275.7215
287.50	275.4834
293.27	0.0000
295.22	279.4308
295.96	263.0355
298.57	263.8073
299.98	294.5917
299.98	294.5917
300.09	291.5938
300.09	291.5938
300.13	299.1993
301.36	304.1707
302.85	272.6808
304.50	222.8169
304.50	222.8169
304.85	256.4912
308.46	282.3373
311.90	261.2361

316.51	254.1792
319.41	281.9505
320.08	292.3895
323.87	236.8413
323.87	236.8413
328.76	281.8982
333.37	193.5438
334.37	252.8058
334.37	252.8058
338.28	279.9007
338.28	279.9007
338.32	279.9151
338.32	279.9151
338.32	279.9151
340.48	244.0683
340.55	242.5021
344.28	280.9042
351.06	249.8406
351.93	257.7472
356.01	228.5139
364.49	216.0950
366.42	213.5651
383.85	196.2187
388.16	237.7717
388.63	239.8615
391.69	196.6056
400.66	228.3439
401.81	243.6779
402.40	244.8094
404.85	259.4659
410.95	224.2940
414.70	239.2657
423.72	220.5666
427.09	199.5818
427.87	232.6514
433.94	187.2572
453.88	212.3441
463.37	204.3863
468.07	166.5100
473.00	190.9610
476.78	174.3893
477.60	188.4137
487.02	192.9756
492.35	203.4747
497.08	170.5094
511.00	166.7361
514.00	186.8765
527.90	161.8729
529.87	0.0000
531.02	143.6822
537.26	166.6362
546.56	0.0000
563.25	160.0707
569.33	189.2306
569.50	187.3488
569.70	180.7149
583.19	146.7838
600.60	199.9651
602.73	231.4017
604.72	180.0163
609.32	174.5316
609.32	174.5316
609.32	174.5316
610.33	174.6408
614.28	130.7708
618.01	163.3640
621.93	158.1797
621.93	158.1797
633.25	151.3315
635.95	149.5930
636.99	140.7606
645.85	147.4670
657.76	154.7848
661.66	142.7771
661.66	142.7771
664.57	0.0000
666.33	162.4510
666.50	162.4674

677.62	146.0889
685.70	148.7773
695.00	159.7769
696.49	175.2827
696.51	175.2861
697.00	193.7873
702.65	157.3548
706.68	162.8475
711.68	141.5795
720.70	112.1440
721.93	0.0000
722.78	146.1254
722.91	146.1340
723.31	146.1655
724.19	153.3645
727.33	122.9527
733.00	132.5713
735.93	144.4351
739.50	125.8276
747.24	151.5908
752.31	135.0964
753.82	140.4791
756.73	145.9764
763.94	131.0349
765.81	129.3363
766.42	143.9507
777.92	145.3826
778.90	156.1498
783.70	100.7700
785.37	111.5812
795.86	115.3855
801.95	122.3666
810.29	129.3696
810.76	132.1915
815.77	115.7072
818.51	125.1997
832.01	140.0928
834.85	158.1650
836.80	0.0000
846.77	148.6194
856.80	114.8266
860.56	137.1671
871.09	132.7688
873.19	114.9526
875.33	0.0000
879.36	134.4775
880.51	134.5459
883.24	114.5010
884.68	116.4992
889.28	123.4866
898.04	122.9892
911.20	111.0260
911.20	111.0260
911.20	111.0260
926.50	114.6904
937.49	114.2340
944.13	133.3120
946.00	130.4508
949.00	100.9274
962.29	116.6509
964.08	137.6425
966.15	148.2208
968.97	170.5855
968.97	170.5855
968.97	170.5855
983.53	111.3813
996.26	156.3190
1001.03	96.9994
1004.73	134.5795
1037.84	109.6646
1038.76	0.0000
1048.07	107.0033
1050.41	129.7529
1050.41	129.7529
1063.66	127.2899
1085.87	104.3387
1099.45	110.0977
1112.07	98.3105

1115.54	153.1832
1120.29	116.2036
1120.29	116.2036
1120.29	116.2036
1120.55	122.5541
1121.30	128.9272
1131.51	0.0000
1173.23	154.4106
1177.93	141.4581
1189.05	157.1346
1204.77	157.0139
1221.41	152.1389
1231.02	177.4635
1235.36	158.9204
1238.28	139.5085
1260.41	0.0000
1271.85	100.1710
1274.44	119.7193
1274.54	119.7231
1291.59	96.8821
1298.22	0.0000
1312.11	95.5288
1332.49	91.1718
1365.19	63.0500
1368.63	0.0000
1384.29	102.6568
1408.01	64.8594
1457.56	0.0000
1460.82	42.1786
1489.16	48.7312
1505.03	56.2330
1596.21	75.8615
1620.50	30.5339
1678.03	0.0000
1690.97	30.1036
1764.49	22.7323
1764.49	22.7323
1764.49	22.7323
1770.23	42.7547
1771.35	44.5483
1791.20	0.0000
1836.06	24.1165

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249329004

Total Uranium Activity	2.4576E+00	ug/g
Total Uranium Counting Unc.	3.8725E+00	ug/g
Total Uranium Tpu	1.9758E-06	ug/g
Total Uranium Mda	3.4658E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 965250                    SAMPLE ID  : G249329004        *
*   ANALYST      : MXR1                      DETECTOR   : GAM22             *
*   SAMPLE DATE  : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 08:58:15.91   SAMPLE ALQT:  118.490 GRAM     *
*                                                                           *
*****************************************************************************
```

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GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.187E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.491E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 3.081E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.501E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:23:34.95

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334001.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:22:02
Sample ID         : G249334001           Sample quantity  : 1.20310E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.94  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 965250                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.60*	94	409	0.91	126.32	124	6	1.31E-02	36.2	
2	3	75.05	461	542	0.98	149.22	145	14	6.41E-02	9.2	5.29E-01
3	3	77.27*	876	517	1.04	153.65	145	14	1.22E-01	5.4	
4	1	87.40	300	516	1.04	173.92	169	13	4.17E-02	13.0	2.98E+00
5	1	90.02	213	465	0.92	179.14	169	13	2.96E-02	17.5	
6	0	93.14*	438	611	1.39	185.38	182	9	6.08E-02	11.7	
7	0	186.03*	423	470	1.41	371.10	366	11	5.87E-02	11.4	
8	0	209.31	198	483	1.37	417.63	413	12	2.76E-02	23.3	
9	3	238.67*	2274	256	1.18	476.34	472	24	3.16E-01	2.4	2.01E+00
10	3	241.62*	495	349	1.77	482.24	472	24	6.88E-02	11.0	
11	0	270.17	199	277	1.73	539.32	535	11	2.77E-02	17.7	
12	0	277.43	72	230	1.00	553.84	550	8	1.00E-02	38.4	
13	0	295.12*	760	316	1.29	589.21	583	13	1.06E-01	6.1	
14	0	300.23	148	262	1.34	599.43	595	10	2.06E-02	22.0	
15	0	327.92	143	226	1.75	654.78	650	10	1.98E-02	21.4	
16	0	338.33*	467	352	1.35	675.59	668	16	6.48E-02	10.3	
17	0	351.82*	1267	225	1.27	702.58	697	12	1.76E-01	3.7	
18	0	409.62*	91	161	1.82	818.13	814	10	1.27E-02	28.7	
19	0	462.88	157	153	1.44	924.63	920	11	2.18E-02	17.1	
20	0	510.67*	264	225	2.19	1020.17	1011	18	3.67E-02	16.4	
21	0	582.85*	765	177	1.54	1164.49	1158	15	1.06E-01	5.3	
22	0	608.91*	890	172	1.66	1216.61	1210	13	1.24E-01	4.6	
23	0	726.94*	177	125	1.41	1452.60	1447	12	2.46E-02	15.1	
24	0	795.06	128	159	1.96	1588.81	1579	20	1.77E-02	25.8	
25	0	860.49*	143	105	1.69	1719.64	1712	17	1.99E-02	18.7	
26	0	910.61*	649	129	1.95	1819.87	1811	19	9.02E-02	5.8	
27	1	964.01	130	120	2.31	1926.64	1920	21	1.81E-02	19.5	9.40E-01
28	1	968.39*	283	74	1.90	1935.40	1920	21	3.93E-02	8.8	
29	0	1119.59*	218	78	1.75	2237.75	2231	14	3.02E-02	11.3	
30	0	1237.99*	82	166	1.11	2474.51	2468	16	1.14E-02	37.7	
31	0	1459.64*	2272	48	2.17	2917.76	2906	24	3.16E-01	2.3	
32	0	1587.99	36	32	2.11	3174.44	3164	14	4.97E-03	37.3	
33	0	1729.44	59	22	1.02	3457.34	3447	19	8.22E-03	23.5	
34	0	1763.18*	193	24	2.30	3524.81	3515	19	2.68E-02	9.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 11:23:37

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:22:02
Sample ID : G249334001 Sample quantity : 120.31 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.94 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.511E+01	3.101E+00	5.127E-01	3.891E-02	68.482
CD-109	+	88.03	*	3.997E+00	1.106E+00	1.440E+00	1.331E-01	2.776
SN-126	+	64.28		9.770E-01	7.228E-01	1.053E+00	1.556E-01	0.928
	+	86.94		1.630E+00	7.988E-01	5.962E-01	2.473E-01	2.734
	+	87.57	*	3.920E-01	1.085E-01	1.421E-01	1.310E-02	2.758
TL-208	+	277.37		5.438E-01	4.222E-01	5.564E-01	5.969E-02	0.977
	+	583.19	*	7.132E-01	9.426E-02	4.887E-02	3.824E-03	14.596
	+	860.56		1.227E+00	4.787E-01	3.985E-01	4.458E-02	3.078
BI-211		72.87		4.467E+00	3.944E+00	6.086E+00	5.025E-01	0.734
	+	351.06	*	5.613E+00	5.524E-01	2.907E-01	1.867E-02	19.307
PB-212	+	74.82		2.832E+00	6.357E-01	6.408E-01	8.216E-02	4.420
	+	77.11		3.041E+00	4.184E-01	3.626E-01	3.074E-02	8.386
	+	238.63	*	2.396E+00	2.084E-01	8.832E-02	6.367E-03	27.128
	+	300.09		2.343E+00	1.047E+00	1.157E+00	9.666E-02	2.025
BI-214	+	609.32	*	1.602E+00	2.061E-01	1.019E-01	9.161E-03	15.711
	+	1120.29		1.950E+00	4.808E-01	4.510E-01	4.343E-02	4.324
	+	1764.49		2.325E+00	4.698E-01	3.250E-01	1.976E-02	7.154
PB-214	+	74.82		5.020E+00	1.091E+00	1.136E+00	1.308E-01	4.420
	+	77.11		5.361E+00	8.600E-01	6.393E-01	7.561E-02	8.386
	+	242.00		3.157E+00	7.417E-01	5.362E-01	4.311E-02	5.887
	+	295.22		2.130E+00	3.194E-01	1.955E-01	1.698E-02	10.894
	+	351.93	*	2.037E+00	2.298E-01	1.057E-01	8.948E-03	19.271
RA-224	+	240.99	*	5.582E+00	1.271E+00	9.455E-01	5.267E-02	5.903
RA-226	+	609.32	*	1.602E+00	2.061E-01	1.019E-01	9.161E-03	15.711
	+	1120.29		1.950E+00	4.808E-01	4.510E-01	4.343E-02	4.324
	+	1764.49		2.325E+00	4.698E-01	3.250E-01	1.976E-02	7.154
AC-228	+	338.32		2.316E+00	1.067E+00	3.331E-01	1.373E-01	6.954
	+	911.20	*	2.824E+00	5.049E-01	1.962E-01	2.657E-02	14.396
	+	968.97		2.118E+00	6.460E-01	3.442E-01	8.586E-02	6.153
RA-228	+	338.32		2.316E+00	1.067E+00	3.331E-01	1.373E-01	6.954
	+	911.20	*	2.824E+00	5.049E-01	1.962E-01	2.657E-02	14.396
	+	968.97		2.118E+00	6.460E-01	3.442E-01	8.586E-02	6.153
TH-228	+	74.82		2.832E+00	5.739E-01	6.408E-01	5.404E-02	4.420
	+	77.11		3.041E+00	4.184E-01	3.626E-01	3.074E-02	8.386

Sample ID : G249334001 Acquisition date : 24-MAR-2010 09:22:02

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	2.396E+00	2.084E-01	8.832E-02	6.367E-03	27.128
	+	300.09		2.343E+00	1.759E+00	1.157E+00	7.045E-01	2.025
TH-230	+	609.32	*	1.602E+00	1.880E-01	1.019E-01	7.416E-03	15.711
	+	1120.29		1.950E+00	4.627E-01	4.510E-01	3.118E-02	4.324
	+	1764.49		2.325E+00	4.698E-01	3.250E-01	1.976E-02	7.154
TH-232	+	338.32		2.316E+00	4.947E-01	3.331E-01	1.927E-02	6.954
	+	911.20	*	2.824E+00	5.049E-01	1.962E-01	2.657E-02	14.396
	+	968.97		2.118E+00	6.460E-01	3.442E-01	8.586E-02	6.153
TH-234	+	63.29	*	2.535E+00	1.894E+00	2.680E+00	4.828E-01	0.946
	+	92.59		4.631E+00	1.484E+00	1.054E+00	2.321E-01	4.395
U-235	+	89.96		2.859E+00	1.222E+00	1.452E+00	3.589E-01	1.968
	+	93.35		3.498E+00	1.146E+00	7.427E-01	1.708E-01	4.710
		143.76	*	1.029E-02	2.087E-01	3.284E-01	5.122E-02	0.031
		163.33		2.830E-01	4.145E-01	7.121E-01	1.183E-01	0.397
	+	185.72		3.014E-01	7.058E-02	6.287E-02	3.344E-03	4.795
		205.31		-1.158E-01	5.160E-01	7.470E-01	1.259E-01	-0.155
NP-237	+	86.48	*	1.170E+00	4.062E-01	4.309E-01	9.852E-02	2.715
		95.86		3.169E-01	1.064E+00	1.566E+00	3.724E-01	0.202
U-238	+	63.29	*	2.535E+00	1.894E+00	2.680E+00	4.828E-01	0.946
	+	92.59		4.631E+00	1.147E+00	1.054E+00	8.923E-02	4.395
ANH-511	+	511.00	*	1.913E-01	6.390E-02	3.975E-02	2.625E-03	4.811

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-2.588E-02	2.696E-01	4.421E-01	3.202E-02	-0.059
NA-22		1274.54	*	-9.178E-03	3.999E-02	6.450E-02	4.389E-03	-0.142
NA-24		1368.63	*	-7.959E-02	3.999E-02	Half-Life too short		
SC-46		889.28	*	1.279E-02	3.529E-02	5.909E-02	6.591E-03	0.216
	+	1120.55		3.239E-01	7.684E-02	1.195E-01	8.257E-03	2.709
V-48		944.13		-7.567E-02	7.375E-01	1.190E+00	1.259E-01	-0.064
		983.53	*	1.443E-02	6.253E-02	1.029E-01	1.017E-02	0.140
		1312.11		-2.628E-02	7.139E-02	1.135E-01	8.267E-03	-0.232
CR-51		320.08	*	-2.627E-02	3.236E-01	5.190E-01	3.336E-02	-0.051
MN-54		834.85	*	1.262E-02	3.534E-02	5.930E-02	6.075E-03	0.213
CO-56		846.77	*	5.661E-03	3.258E-02	5.416E-02	5.654E-03	0.105
		1037.84		-1.787E-01	2.743E-01	4.377E-01	4.051E-02	-0.408
	+	1238.28		1.995E-01	1.511E-01	1.744E-01	1.162E-02	1.144
		1771.35		1.473E-01	1.996E-01	3.235E-01	1.955E-02	0.455
CO-57		122.06	*	-2.208E-02	2.639E-02	4.091E-02	2.424E-03	-0.540
		136.47		5.356E-02	2.014E-01	3.241E-01	2.117E-02	0.165
CO-58		810.76	*	4.418E-03	3.281E-02	5.458E-02	5.388E-03	0.081
FE-59		1099.45	*	-1.782E-02	8.302E-02	1.363E-01	1.121E-02	-0.131
		1291.59		8.654E-02	1.133E-01	1.959E-01	1.647E-02	0.442
CO-60		1173.23		-2.178E-02	4.209E-02	6.727E-02	3.718E-03	-0.324
		1332.49	*	1.949E-02	3.647E-02	6.229E-02	4.706E-03	0.313
ZN-65		1115.54	*	1.083E-01	1.021E-01	1.581E-01	1.114E-02	0.685
SE-75		121.12		-2.714E-03	1.330E-01	2.133E-01	1.957E-02	-0.013

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		136.00		1.625E-02	3.823E-02	6.194E-02	3.529E-03	0.262
		264.66	*	6.306E-03	4.388E-02	6.689E-02	3.827E-03	0.094
		279.54		1.219E-01	1.085E-01	1.653E-01	1.023E-02	0.737
		400.66		-3.666E-03	2.336E-01	3.807E-01	3.456E-02	-0.010
SR-85		514.00	*	9.570E-02	3.851E-02	6.350E-02	4.207E-03	1.507
Y-88		898.04		-2.721E-02	3.883E-02	5.844E-02	6.624E-03	-0.466
		1836.06	*	-2.247E-02	3.030E-02	4.425E-02	2.520E-03	-0.508
Y-91		1204.77	*	2.737E+00	2.165E+01	3.600E+01	2.128E+00	0.076
NB-94		702.65	*	1.529E-02	3.092E-02	5.296E-02	4.345E-03	0.289
		871.09		-7.436E-03	3.079E-02	4.952E-02	5.371E-03	-0.150
NB-95		765.81	*	9.081E-02	4.191E-02	7.560E-02	6.916E-03	1.201
NB-95M		235.69	*	1.425E-01	1.308E-01	1.989E-01	1.465E-02	0.716
ZR-95		724.19		2.046E-01	1.095E-01	1.748E-01	1.617E-02	1.171
		756.73	*	3.617E-02	6.525E-02	1.116E-01	1.102E-02	0.324
MO-99		140.51		9.350E-01	1.290E+01	2.025E+01	4.618E+00	0.046
		181.07		8.471E+00	1.043E+01	1.591E+01	2.786E+00	0.532
		366.42		-1.005E+01	4.961E+01	8.277E+01	4.781E+00	-0.121
		739.50	*	1.015E+01	6.363E+00	1.125E+01	1.781E+00	0.902
		777.92		-1.770E+01	1.859E+01	2.871E+01	2.680E+00	-0.616
TC-99M		140.51	*	6.003E+06	1.859E+01	Half-Life too short		
RU-103		497.08	*	-1.127E-02	3.124E-02	5.012E-02	6.401E-03	-0.225
	+	610.33		1.589E+01	2.890E+00	2.649E+00	4.155E-01	5.999
RH-106		621.93	*	1.902E-02	2.732E-01	4.425E-01	5.519E-02	0.043
		1050.41		-1.736E-01	2.276E+00	3.786E+00	3.236E-01	-0.046
RU-106		621.93	*	1.902E-02	2.732E-01	4.425E-01	3.256E-02	0.043
		1050.41		-1.736E-01	2.276E+00	3.786E+00	3.236E-01	-0.046
AG-108M		433.94	*	-7.436E-03	2.569E-02	4.204E-02	2.710E-03	-0.177
		614.28		7.566E-03	3.547E-02	5.030E-02	3.843E-03	0.150
		722.91		-3.398E-04	4.088E-02	5.858E-02	5.144E-03	-0.006
AG-110M		657.76	*	-2.212E-02	3.209E-02	5.172E-02	4.080E-03	-0.428
		677.62		-1.018E-01	2.854E-01	4.679E-01	3.798E-02	-0.218
		706.68		-1.312E-01	1.937E-01	3.100E-01	2.641E-02	-0.423
		763.94		-1.626E-01	1.643E-01	2.565E-01	2.396E-02	-0.634
		884.68		-5.005E-02	4.446E-02	6.592E-02	7.444E-03	-0.759
		937.49		-1.539E-01	1.165E-01	1.710E-01	1.872E-02	-0.900
		1384.29		5.999E-02	1.527E-01	2.573E-01	1.991E-02	0.233
		1505.03		3.562E-01	2.889E-01	5.281E-01	3.790E-02	0.675
SN-113		391.69	*	-2.969E-02	3.884E-02	6.256E-02	3.837E-03	-0.475
CD-115		260.90		1.190E+01	6.534E+01	1.078E+02	6.084E+00	0.110
		492.35		-1.222E+01	1.546E+01	2.408E+01	1.559E+00	-0.508
		527.90	*	1.976E-01	5.075E+00	8.319E+00	5.591E-01	0.024
SN-117M		156.02		1.690E+00	2.008E+00	3.490E+00	1.864E-01	0.484
		158.56	*	-2.814E-02	4.748E-02	7.886E-02	4.191E-03	-0.357
TE-123M		159.00	*	-1.455E-02	2.681E-02	4.459E-02	2.406E-03	-0.326
SB-124		602.73		-2.016E-02	4.157E-02	5.555E-02	4.018E-03	-0.363
		645.85		-3.187E-02	4.283E-01	6.844E-01	5.531E-02	-0.047
		722.78		-2.425E-02	3.992E-01	5.696E-01	4.956E-02	-0.043
		1690.97	*	7.094E-03	6.707E-02	1.123E-01	7.775E-03	0.063
SB-125		427.87	*	6.241E-02	7.917E-02	1.370E-01	8.548E-03	0.456

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	463.37		1.019E+00	3.568E-01	5.183E-01	3.699E-02	1.967
		600.60		-4.874E-02	1.721E-01	2.656E-01	2.117E-02	-0.183
		635.95		7.828E-02	2.427E-01	3.987E-01	3.290E-02	0.196
TE-125M		109.28	*	-2.134E+00	9.882E+00	1.584E+01	1.420E+00	-0.135
I-126		388.63		4.361E-03	1.320E-01	2.217E-01	1.274E-02	0.020
		666.33	*	-4.838E-02	1.878E-01	3.106E-01	2.388E-02	-0.156
		753.82		4.116E-01	1.448E+00	2.443E+00	2.190E-01	0.168
SB-126		414.70		4.811E-02	6.577E-02	1.004E-01	5.937E-03	0.479
		666.50		-1.958E-02	6.394E-02	1.055E-01	8.109E-03	-0.186
		695.00		-4.482E-02	6.185E-02	9.881E-02	7.998E-03	-0.454
		697.00		6.457E-02	2.188E-01	3.714E-01	3.016E-02	0.174
		720.70	*	9.608E-02	1.340E-01	2.035E-01	1.723E-02	0.472
		856.80		6.808E-01	4.400E-01	6.998E-01	7.422E-02	0.973
SB-127		252.40		-7.513E-01	2.739E+00	4.414E+00	1.803E+00	-0.170
		473.00		3.370E-01	9.777E-01	1.643E+00	1.763E-01	0.205
		685.70	*	-2.397E-01	8.210E-01	1.350E+00	1.381E-01	-0.178
		783.70		3.007E+00	2.178E+00	3.841E+00	4.759E-01	0.783
I-131		80.19		3.581E-01	4.336E+00	6.411E+00	5.579E-01	0.056
		284.31		-3.569E-01	1.141E+00	1.828E+00	1.159E-01	-0.195
		364.49	*	5.552E-02	8.366E-02	1.452E-01	9.339E-03	0.382
		636.99		1.271E-01	1.155E+00	1.871E+00	1.498E-01	0.068
TE-132		49.72		-6.164E+00	1.729E+01	2.880E+01	2.801E+00	-0.214
		111.76		-7.067E+00	2.112E+01	3.364E+01	2.945E+00	-0.210
		116.30		1.035E+01	1.828E+01	3.003E+01	2.564E+00	0.344
		228.16	*	1.024E-01	4.298E-01	7.166E-01	9.971E-02	0.143
BA-133		81.00		-1.089E-01	1.129E-01	1.574E-01	2.450E-02	-0.692
	+	276.40		5.025E-01	3.915E-01	5.824E-01	7.303E-02	0.863
		302.85		1.487E-01	1.447E-01	2.169E-01	2.469E-02	0.685
		356.01	*	1.196E-02	4.284E-02	6.085E-02	6.856E-03	0.197
		383.85		-1.940E-01	2.688E-01	4.345E-01	4.622E-02	-0.447
I-133		529.87	*	1.715E-04	2.688E-01	Half-Life too short		
		875.33		-1.581E-03	2.688E-01	Half-Life too short		
		1298.22		-1.127E-02	2.688E-01	Half-Life too short		
CS-134		563.25		2.415E-01	3.252E-01	5.513E-01	3.896E-02	0.438
		569.33		2.429E-02	1.845E-01	2.862E-01	2.047E-02	0.085
		604.72		1.755E-02	3.652E-02	5.284E-02	3.842E-03	0.332
	+	795.86	*	1.685E-01	8.858E-02	9.013E-02	8.717E-03	1.870
		801.95		-9.850E-02	4.254E-01	5.875E-01	5.732E-02	-0.168
		1365.19		1.482E-01	1.143E+00	1.886E+00	1.502E-01	0.079
CS-135		268.22	*	2.972E-01	1.669E-01	2.610E-01	1.973E-02	1.139
I-135		546.56		2.158E+07	1.669E-01	Half-Life too short		
		836.80		9.793E+07	1.669E-01	Half-Life too short		
		1038.76		-4.700E+07	1.669E-01	Half-Life too short		
		1131.51		-1.001E+07	1.669E-01	Half-Life too short		
		1260.41	*	4.879E+06	1.669E-01	Half-Life too short		
		1457.56		6.323E+09	1.669E-01	Half-Life too short		
		1678.03		3.581E+06	1.669E-01	Half-Life too short		
		1791.20		1.361E+07	1.669E-01	Half-Life too short		
CS-136		153.25		4.725E-01	7.423E-01	1.283E+00	9.934E-02	0.368

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		176.60		1.264E-01	4.204E-01	7.145E-01	4.738E-02	0.177
		273.65		-1.384E-01	6.297E-01	6.296E-01	4.242E-02	-0.220
		340.55		5.637E-01	1.467E-01	2.450E-01	1.534E-02	2.300
		818.51		-2.190E-02	5.548E-02	8.862E-02	8.847E-03	-0.247
		1048.07	*	-3.366E-02	9.072E-02	1.480E-01	1.326E-02	-0.227
		1235.36		5.943E-01	6.632E-01	9.890E-01	1.007E-01	0.601
BA-137M		661.66	*	2.033E-02	3.427E-02	5.920E-02	4.512E-03	0.343
CS-137		661.66	*	2.148E-02	3.621E-02	6.253E-02	4.779E-03	0.343
CE-139		165.86	*	-5.575E-03	2.775E-02	4.657E-02	2.444E-03	-0.120
BA-140		162.66		5.937E-01	6.798E-01	1.181E+00	7.297E-02	0.503
		304.85		3.535E-02	1.226E+00	1.735E+00	4.955E-01	0.020
		423.72		-7.112E-01	1.520E+00	2.441E+00	7.885E-01	-0.291
		537.26	*	-4.873E-02	2.066E-01	3.313E-01	1.110E-01	-0.147
LA-140	+	328.76		7.793E-01	3.372E-01	4.741E-01	3.078E-02	1.644
		487.02		4.523E-02	1.050E-01	1.771E-01	1.263E-02	0.255
		815.77		-9.874E-02	2.418E-01	3.858E-01	4.176E-02	-0.256
		1596.21	*	-5.417E-02	6.548E-02	9.080E-02	6.231E-03	-0.597
CE-141		145.44	*	3.928E-03	6.233E-02	9.805E-02	5.598E-03	0.040
CE-143		57.36		1.958E-04	6.233E-02	Half-Life too short		
		293.27	*	3.791E-04	6.233E-02	Half-Life too short		
		664.57		2.265E-04	6.233E-02	Half-Life too short		
		721.93		1.831E-05	6.233E-02	Half-Life too short		
CE-144		80.12		3.000E-01	2.829E+00	4.187E+00	3.626E-01	0.072
		133.52	*	-2.073E-01	2.038E-01	3.086E-01	4.267E-02	-0.672
PM-144		476.78		-7.019E-03	5.728E-02	9.384E-02	6.888E-03	-0.075
		618.01		-4.111E-03	2.859E-02	4.567E-02	3.478E-03	-0.090
		696.49	*	8.547E-03	3.127E-02	5.301E-02	4.303E-03	0.161
PR-144		696.51	*	6.557E-01	2.338E+00	3.966E+00	3.219E-01	0.165
		1489.16		-1.279E+01	1.265E+01	1.812E+01	1.309E+00	-0.706
PM-146		453.88	*	3.610E-04	3.789E-02	6.280E-02	5.486E-03	0.006
		633.25		-5.994E-01	1.330E+00	2.045E+00	7.760E-01	-0.293
		735.93		-1.603E-01	1.362E-01	1.964E-01	5.510E-02	-0.816
		747.24		-4.022E-02	8.765E-02	1.410E-01	2.077E-02	-0.285
ND-147	+	91.11		8.043E-01	2.911E-01	4.720E-01	4.442E-02	1.704
		319.41		8.211E-01	2.643E+00	4.325E+00	2.498E-01	0.190
		531.02	*	1.803E-01	4.420E-01	7.387E-01	1.031E-01	0.244
PM-149		285.90	*	2.793E+01	4.207E+01	7.017E+01	9.918E+00	0.398
EU-152		121.78		-2.261E-02	7.462E-02	1.183E-01	9.080E-03	-0.191
		244.70		-8.813E-02	3.101E-01	5.042E-01	2.816E-02	-0.175
		344.28	*	-9.960E-03	9.814E-02	1.359E-01	8.863E-03	-0.073
		778.90		-7.246E-02	2.313E-01	3.746E-01	3.503E-02	-0.193
	+	964.08		1.050E+00	4.239E-01	6.000E-01	6.145E-02	1.749
		1085.87		-2.085E-01	3.649E-01	5.768E-01	4.469E-02	-0.361
		1112.07		5.379E-02	3.366E-01	4.863E-01	3.461E-02	0.111
		1408.01		1.823E-01	1.750E-01	3.096E-01	2.299E-02	0.589
GD-153		69.67		-2.109E+00	2.011E+00	3.214E+00	2.609E-01	-0.656
		97.43	*	-3.827E-02	1.012E-01	1.443E-01	1.129E-02	-0.265
		103.18		-8.308E-02	1.151E-01	1.814E-01	1.308E-02	-0.458
EU-154		123.07		-4.788E-03	5.244E-02	8.379E-02	7.912E-03	-0.057

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		723.31		3.557E-02	1.900E-01	2.765E-01	2.596E-02	0.129
		873.19		-1.608E-02	2.553E-01	4.160E-01	5.668E-02	-0.039
		996.26		-1.540E-01	3.297E-01	5.122E-01	9.219E-02	-0.301
		1004.73		-6.775E-02	2.082E-01	3.250E-01	3.995E-02	-0.208
		1274.44	*	-4.764E-02	1.151E-01	1.829E-01	1.841E-02	-0.260
EU-155	+	86.55		4.750E-01	1.316E-01	2.088E-01	1.924E-02	2.274
		105.31	*	-2.408E-02	1.126E-01	1.793E-01	1.281E-02	-0.134
TB-160	+	86.79		1.235E+00	3.417E-01	5.455E-01	4.991E-02	2.263
		197.04		-4.909E-01	5.334E-01	8.437E-01	4.531E-02	-0.582
		215.65		9.807E-02	7.981E-01	1.172E+00	6.396E-02	0.084
		298.57		4.061E-01	1.415E-01	1.884E-01	1.082E-02	2.155
		879.36	*	1.957E-02	1.212E-01	2.006E-01	2.204E-02	0.098
		962.29		1.988E+00	6.244E-01	1.039E+00	1.067E-01	1.913
		966.15		2.015E+00	3.320E-01	5.497E-01	5.610E-02	3.665
		1177.93		2.841E-01	3.171E-01	5.548E-01	3.098E-02	0.512
		1271.85		-7.393E-02	6.032E-01	9.809E-01	6.629E-02	-0.075
HO-166M		80.57		-9.446E-02	3.126E-01	4.540E-01	3.945E-02	-0.208
		184.41		1.168E-01	4.039E-02	6.661E-02	3.539E-03	1.753
		280.46		4.142E-02	8.412E-02	1.237E-01	7.055E-03	0.335
	+	410.95		5.112E-01	2.954E-01	4.069E-01	2.395E-02	1.256
		711.68	*	-3.037E-03	5.431E-02	9.025E-02	7.523E-03	-0.034
		752.31		-1.124E-01	2.477E-01	3.989E-01	3.567E-02	-0.282
		810.29		-3.153E-03	5.128E-02	8.417E-02	8.287E-03	-0.037
TA-182		67.75		-7.585E-03	1.403E-01	2.204E-01	1.772E-02	-0.034
		100.11		5.701E-02	1.843E-01	3.028E-01	2.276E-02	0.188
		152.43		-1.271E-02	3.549E-01	5.600E-01	3.013E-02	-0.023
		222.11		-9.138E-02	3.272E-01	5.361E-01	2.943E-02	-0.170
		1121.30		7.248E-01	1.875E-01	3.266E-01	2.250E-02	2.219
		1189.05		-6.060E-02	2.795E-01	4.553E-01	2.604E-02	-0.133
		1221.41	*	2.972E-02	1.865E-01	3.105E-01	1.899E-02	0.096
		1231.02		-6.363E-02	5.554E-01	7.732E-01	4.823E-02	-0.082
IR-192	+	295.96		1.543E+00	2.089E-01	2.932E-01	1.710E-02	5.262
		308.46		-6.005E-02	8.761E-02	1.365E-01	7.955E-03	-0.440
		316.51	*	1.049E-03	3.174E-02	5.048E-02	2.928E-03	0.021
		468.07		-6.619E-04	6.760E-02	9.676E-02	6.905E-03	-0.007
HG-203		70.83		3.519E-01	1.628E+00	2.439E+00	3.858E-01	0.144
		72.87		1.076E+00	9.601E-01	1.466E+00	2.248E-01	0.734
		279.20	*	5.838E-02	3.807E-02	5.919E-02	3.568E-03	0.986
BI-207		72.81		2.288E-01	2.263E-01	3.479E-01	2.872E-02	0.658
	+	74.97		8.162E-01	1.651E-01	2.648E-01	2.214E-02	3.082
		569.70		-1.294E-03	2.890E-02	4.436E-02	3.109E-03	-0.029
		1063.66	*	4.019E-02	4.729E-02	8.324E-02	6.871E-03	0.483
		1770.23		3.001E-01	4.010E-01	6.511E-01	3.939E-02	0.461
PB-210		46.54	*	9.467E-01	5.483E+00	9.336E+00	7.157E-01	0.101
PB-211		404.85	*	6.120E-02	7.334E-01	1.072E+00	5.141E-01	0.057
		427.09		4.997E-01	1.370E+00	2.291E+00	1.050E+00	0.218
		832.01		3.130E-01	9.501E-01	1.571E+00	8.193E-01	0.199
BI-212	+	727.33	*	2.478E+00	8.084E-01	1.134E+00	1.408E-01	2.186
		785.37		2.025E+00	3.098E+00	4.967E+00	4.695E-01	0.408

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		2.506E+00	2.198E+00	4.050E+00	2.739E-01	0.619
RN-219	+	271.23		9.074E-01	3.283E-01	4.175E-01	3.317E-02	2.173
		401.81	*	-1.222E-01	3.814E-01	6.120E-01	8.229E-02	-0.200
RA-223		81.07		-2.501E-01	2.537E-01	3.560E-01	3.105E-02	-0.702
		83.79		8.540E-02	1.499E-01	2.231E-01	1.989E-02	0.383
		94.87		1.429E+00	5.482E-01	8.678E-01	7.067E-02	1.646
		144.24		-5.536E-02	7.001E-01	1.096E+00	7.622E-02	-0.051
		154.21		4.804E-01	3.856E-01	6.769E-01	4.471E-02	0.710
	+	269.46		7.050E-01	2.524E-01	3.277E-01	1.943E-02	2.152
		323.87	*	3.054E-01	6.296E-01	9.134E-01	1.471E-01	0.334
	+	338.28		9.192E+00	2.111E+00	2.330E+00	2.386E-01	3.945
AC-227		79.69		3.038E-01	1.435E+00	2.133E+00	3.677E-01	0.142
		235.96		5.266E-01	1.771E-01	2.832E-01	2.256E-02	1.859
		256.23	*	5.921E-02	2.360E-01	3.909E-01	3.959E-02	0.151
	+	299.98		2.577E+00	1.167E+00	1.539E+00	1.687E-01	1.675
		304.50		-1.560E-01	1.690E+00	2.373E+00	3.614E-01	-0.066
		334.37		-4.702E-01	1.998E+00	2.548E+00	3.622E-01	-0.185
TH-227		79.80		4.129E-01	1.885E+00	2.801E+00	6.102E-01	0.147
		235.96		5.266E-01	1.762E-01	2.832E-01	2.036E-02	1.859
		256.23	*	5.921E-02	2.361E-01	3.909E-01	4.666E-02	0.151
	+	299.98		2.577E+00	1.167E+00	1.539E+00	1.687E-01	1.675
		304.50		-1.560E-01	1.690E+00	2.373E+00	3.614E-01	-0.066
		334.37		-4.702E-01	1.998E+00	2.548E+00	3.622E-01	-0.185
TH-229		85.43		2.524E-01	2.538E-01	3.824E-01	3.457E-02	0.660
	+	88.47		6.044E-01	1.673E-01	2.614E-01	2.394E-02	2.312
		193.51	*	-1.301E-01	4.954E-01	8.206E-01	4.393E-02	-0.159
		210.85		1.623E+00	9.745E-01	1.530E+00	8.315E-02	1.061
PA-231		283.69	*	-6.686E-01	1.323E+00	2.095E+00	2.740E-01	-0.319
	+	301.36		1.656E+00	7.469E-01	9.977E-01	1.029E-01	1.660
TH-231		81.07		-2.501E-01	2.537E-01	3.560E-01	3.105E-02	-0.702
		83.79		8.540E-02	1.499E-01	2.231E-01	1.989E-02	0.383
		94.87		1.429E+00	5.482E-01	8.678E-01	7.067E-02	1.646
		144.24		-5.536E-02	7.001E-01	1.096E+00	7.622E-02	-0.051
		154.21		4.804E-01	3.856E-01	6.769E-01	4.471E-02	0.710
	+	269.46		7.050E-01	2.524E-01	3.277E-01	1.943E-02	2.152
		323.87	*	3.054E-01	6.296E-01	9.134E-01	1.471E-01	0.334
	+	338.28		9.192E+00	2.111E+00	2.330E+00	2.386E-01	3.945
PA-233	+	300.13		1.166E+00	5.354E-01	7.024E-01	9.387E-02	1.660
		311.90	*	-3.654E-03	6.031E-02	9.666E-02	5.923E-03	-0.038
		340.48		2.967E+00	9.765E-01	1.206E+00	2.798E-01	2.461
PA-234		94.67		6.843E-01	2.157E-01	3.306E-01	3.999E-02	2.070
		98.44		1.646E-01	1.350E-01	1.641E-01	9.134E-02	1.003
		111.00		1.928E-02	1.874E-01	3.037E-01	3.258E-02	0.063
		131.20		-2.019E-02	1.107E-01	1.755E-01	9.988E-03	-0.115
		569.50		-1.997E-02	2.561E-01	3.922E-01	2.748E-02	-0.051
		733.00		-7.930E-02	3.647E-01	5.105E-01	1.134E-01	-0.155
		880.51		-2.733E-03	2.466E-01	4.031E-01	4.436E-02	-0.007
		883.24		-5.656E-02	2.514E-01	3.994E-01	2.699E-01	-0.142
		926.50		-2.320E-01	1.822E-01	2.526E-01	6.601E-02	-0.918

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	9.976E-02	2.746E-01	4.569E-01	9.013E-02	0.218
		949.00		2.533E-02	4.212E-01	6.870E-01	7.215E-02	0.037
PA-234M		766.42		2.499E+01	1.706E+01	2.090E+01	1.062E+01	1.196
		1001.03	*	3.219E+00	4.349E+00	7.327E+00	7.904E-01	0.439
NP-239		99.53		2.216E-01	1.717E-01	2.907E-01	2.204E-02	0.762
		103.37		5.511E-03	1.028E-01	1.671E-01	1.202E-02	0.033
		106.12		-3.002E-02	9.180E-02	1.456E-01	1.012E-02	-0.206
		117.23	*	8.212E-02	4.076E-01	6.608E-01	4.081E-02	0.124
		228.18		5.009E-02	2.062E-01	3.440E-01	1.897E-02	0.146
	+	277.60		2.486E-01	1.917E-01	2.838E-01	1.617E-02	0.876
AM-241		59.54	*	4.950E-03	1.955E-01	3.127E-01	2.593E-02	0.016
CM-247	+	278.00		1.056E+00	8.140E-01	1.209E+00	6.889E-02	0.873
		287.50		1.185E+00	1.134E+00	1.928E+00	1.103E-01	0.615
		402.40	*	-1.311E-02	3.504E-02	5.612E-02	3.268E-03	-0.234
CF-249		252.80		-4.975E-01	9.141E-01	1.464E+00	8.225E-02	-0.340
		333.37		4.034E-02	2.624E-01	2.678E-01	1.549E-02	0.151
		388.16	*	2.136E-03	3.587E-02	6.032E-02	3.467E-03	0.035
CF-251		177.52	*	3.801E-02	1.211E-01	2.058E-01	1.088E-02	0.185
		227.38		-1.598E-01	3.405E-01	5.527E-01	3.047E-02	-0.289
		285.41		6.831E-01	2.012E+00	3.321E+00	1.898E-01	0.206

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334001       *
* Acquisition date : 24-MAR-2010 09:22:02 Detector SN#    :                 *
* Detector ID       : GAM18               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.94     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 11-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G249334001           Analyst initials: MXR1           *
* Batch Number      : 965250               Sample Quantity : 1.2031E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.511E+01	3.039E+00	5.115E-01	0.000E+00
CD-109	3.997E+00	1.084E+00	1.485E+00	0.000E+00
SN-126	3.920E-01	1.063E-01	1.466E-01	0.000E+00
TL-208	7.132E-01	9.237E-02	4.930E-02	0.000E+00
BI-211	5.613E+00	5.414E-01	2.951E-01	0.000E+00
PB-212	2.396E+00	2.042E-01	9.005E-02	0.000E+00
BI-214	1.602E+00	2.020E-01	1.028E-01	0.000E+00
PB-214	2.037E+00	2.252E-01	1.073E-01	0.000E+00
RA-224	5.582E+00	1.246E+00	9.639E-01	0.000E+00
RA-226	1.602E+00	2.020E-01	1.028E-01	0.000E+00
AC-228	2.824E+00	4.948E-01	1.969E-01	0.000E+00
RA-228	2.824E+00	4.948E-01	1.969E-01	0.000E+00
TH-228	2.396E+00	2.042E-01	9.005E-02	0.000E+00
TH-230	1.602E+00	1.842E-01	1.028E-01	0.000E+00
TH-232	2.824E+00	4.948E-01	1.969E-01	0.000E+00
TH-234	2.535E+00	1.856E+00	2.775E+00	0.000E+00
U-235	1.029E-02	2.045E-01	3.368E-01	0.000E+00
NP-237	1.170E+00	3.980E-01	4.445E-01	0.000E+00
U-238	2.535E+00	1.856E+00	2.775E+00	0.000E+00
ANH-511	1.913E-01	6.262E-02	4.016E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.588E-02	2.642E-01	4.471E-01	0.000E+00	NOT IDENT.
NA-22	-9.178E-03	3.919E-02	6.446E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.274E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	1.279E-02	3.458E-02	5.931E-02	0.000E+00	FAIL ABUN
V-48	1.443E-02	6.128E-02	1.031E-01	0.000E+00	NOT IDENT.
CR-51	-2.627E-02	3.171E-01	5.274E-01	0.000E+00	NOT IDENT.
MN-54	1.262E-02	3.463E-02	5.957E-02	0.000E+00	NOT IDENT.

CO-56	5.661E-03	3.193E-02	5.440E-02	0.000E+00	FAIL ABUN
CO-57	-2.208E-02	2.587E-02	4.204E-02	0.000E+00	NOT IDENT.
CO-58	4.418E-03	3.215E-02	5.484E-02	0.000E+00	NOT IDENT.
FE-59	-1.782E-02	8.136E-02	1.364E-01	0.000E+00	NOT IDENT.
CO-60	1.949E-02	3.574E-02	6.221E-02	0.000E+00	NOT IDENT.
ZN-65	1.083E-01	1.001E-01	1.582E-01	0.000E+00	NOT IDENT.
SE-75	6.306E-03	4.300E-02	6.811E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.774E-02	6.416E-02	0.000E+00	NOT IDENT.
Y-88	-2.247E-02	2.970E-02	4.402E-02	0.000E+00	NOT IDENT.
Y-91	2.737E+00	2.122E+01	3.600E+01	0.000E+00	NOT IDENT.
NB-94	1.529E-02	3.030E-02	5.331E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	4.107E-02	7.602E-02	0.000E+00	NOT IDENT.
NB-95M	1.425E-01	1.281E-01	2.029E-01	0.000E+00	NOT IDENT.
ZR-95	3.617E-02	6.395E-02	1.123E-01	0.000E+00	NOT IDENT.
MO-99	1.015E+01	6.235E+00	1.132E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.119E+13	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.127E-02	3.062E-02	5.066E-02	0.000E+00	FAIL ABUN
RH-106	1.902E-02	2.678E-01	4.460E-01	0.000E+00	NOT IDENT.
RU-106	1.902E-02	2.678E-01	4.460E-01	0.000E+00	NOT IDENT.
AG-108M	-7.436E-03	2.518E-02	4.256E-02	0.000E+00	NOT IDENT.
AG-110M	-2.212E-02	3.145E-02	5.210E-02	0.000E+00	NOT IDENT.
SN-113	-2.969E-02	3.806E-02	6.341E-02	0.000E+00	NOT IDENT.
CD-115	1.976E-01	4.973E+00	8.402E+00	0.000E+00	NOT IDENT.
SN-117M	-2.814E-02	4.653E-02	8.078E-02	0.000E+00	NOT IDENT.
TE-123M	-1.455E-02	2.628E-02	4.567E-02	0.000E+00	NOT IDENT.
SB-124	7.094E-03	6.572E-02	1.118E-01	0.000E+00	NOT IDENT.
SB-125	6.241E-02	7.759E-02	1.387E-01	0.000E+00	FAIL ABUN
TE-125M	-2.134E+00	9.684E+00	1.630E+01	0.000E+00	NOT IDENT.
I-126	-4.838E-02	1.841E-01	3.128E-01	0.000E+00	NOT IDENT.
SB-126	9.608E-02	1.313E-01	2.047E-01	0.000E+00	NOT IDENT.
SB-127	-2.397E-01	8.046E-01	1.359E+00	0.000E+00	NOT IDENT.
I-131	5.552E-02	8.199E-02	1.473E-01	0.000E+00	NOT IDENT.
TE-132	1.024E-01	4.212E-01	7.309E-01	0.000E+00	NOT IDENT.
BA-133	1.196E-02	4.198E-02	6.175E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	8.801E+02	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.680E-02	9.058E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.635E-01	2.658E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.097E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.366E-02	8.891E-02	1.482E-01	0.000E+00	NOT IDENT.
BA-137M	2.033E-02	3.359E-02	5.963E-02	0.000E+00	NOT IDENT.
CS-137	2.148E-02	3.548E-02	6.299E-02	0.000E+00	NOT IDENT.
CE-139	-5.575E-03	2.720E-02	4.768E-02	0.000E+00	NOT IDENT.
BA-140	-4.873E-02	2.024E-01	3.345E-01	0.000E+00	NOT IDENT.
LA-140	-5.417E-02	6.417E-02	9.049E-02	0.000E+00	FAIL ABUN
CE-141	3.928E-03	6.108E-02	1.005E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	9.437E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.073E-01	1.997E-01	3.167E-01	0.000E+00	NOT IDENT.
PM-144	8.547E-03	3.064E-02	5.337E-02	0.000E+00	NOT IDENT.
PR-144	6.557E-01	2.292E+00	3.992E+00	0.000E+00	NOT IDENT.
PM-146	3.610E-04	3.714E-02	6.354E-02	0.000E+00	NOT IDENT.
ND-147	1.803E-01	4.332E-01	7.460E-01	0.000E+00	FAIL ABUN
PM-149	2.793E+01	4.123E+01	7.139E+01	0.000E+00	NOT IDENT.
EU-152	-9.960E-03	9.618E-02	1.380E-01	0.000E+00	FAIL ABUN
GD-153	-3.827E-02	9.918E-02	1.487E-01	0.000E+00	NOT IDENT.
EU-154	-4.764E-02	1.128E-01	1.828E-01	0.000E+00	NOT IDENT.
EU-155	-2.408E-02	1.103E-01	1.845E-01	0.000E+00	FAIL ABUN
TB-160	1.957E-02	1.188E-01	2.014E-01	0.000E+00	FAIL ABUN
HO-166M	-3.037E-03	5.322E-02	9.083E-02	0.000E+00	FAIL ABUN
TA-182	2.972E-02	1.828E-01	3.104E-01	0.000E+00	NOT IDENT.
IR-192	1.049E-03	3.111E-02	5.130E-02	0.000E+00	FAIL ABUN
HG-203	5.838E-02	3.731E-02	6.024E-02	0.000E+00	NOT IDENT.
BI-207	4.019E-02	4.634E-02	8.337E-02	0.000E+00	FAIL ABUN
PB-210	9.467E-01	5.373E+00	9.699E+00	0.000E+00	NOT IDENT.
PB-211	6.120E-02	7.187E-01	1.086E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.922E-01	1.140E+00	0.000E+00	FAIL ABUN
RN-219	-1.222E-01	3.737E-01	6.201E-01	0.000E+00	FAIL ABUN
RA-223	3.054E-01	6.170E-01	9.279E-01	0.000E+00	FAIL ABUN
AC-227	5.921E-02	2.313E-01	3.982E-01	0.000E+00	FAIL ABUN
TH-227	5.921E-02	2.313E-01	3.982E-01	0.000E+00	FAIL ABUN
TH-229	-1.301E-01	4.855E-01	8.387E-01	0.000E+00	FAIL ABUN
PA-231	-6.686E-01	1.297E+00	2.132E+00	0.000E+00	FAIL ABUN
TH-231	3.054E-01	6.170E-01	9.279E-01	0.000E+00	FAIL ABUN
PA-233	-3.654E-03	5.910E-02	9.824E-02	0.000E+00	FAIL ABUN
PA-234	9.976E-02	2.691E-01	4.582E-01	0.000E+00	NOT IDENT.
PA-234M	3.219E+00	4.262E+00	7.344E+00	0.000E+00	NOT IDENT.
NP-239	8.212E-02	3.994E-01	6.793E-01	0.000E+00	FAIL ABUN
AM-241	4.950E-03	1.916E-01	3.239E-01	0.000E+00	NOT IDENT.
CM-247	-1.311E-02	3.434E-02	5.686E-02	0.000E+00	FAIL ABUN

CF-249	2.136E-03	3.515E-02	6.115E-02	0.000E+00 NOT IDENT.
CF-251	3.801E-02	1.187E-01	2.106E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:23:35.86

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334001.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:22:02
Sample ID         : G249334001           Sample quantity  : 1.20310E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.94  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	2272	10.66*	1.894E+00	3.511E+01	3.511E+01	8.83
CD-109	88.03	300	3.70*	6.458E+00	3.920E+00	3.997E+00	27.67
SN-126	64.28	94	9.60	3.132E+00	9.770E-01	9.770E-01	73.99
	86.94	300	8.90	6.458E+00	1.630E+00	1.630E+00	49.01
	87.57	300	37.00*	6.458E+00	3.920E-01	3.920E-01	27.67
TL-208	277.37	72	6.60	6.257E+00	5.438E-01	5.438E-01	77.64
	583.19	765	85.00*	3.935E+00	7.132E-01	7.132E-01	13.22
	860.56	143	12.50	2.915E+00	1.227E+00	1.227E+00	39.03
BI-211	72.87	------	1.23	4.622E+00	------	Line Not Found	------
	351.06	1267	12.92*	5.452E+00	5.613E+00	5.613E+00	9.84
PB-212	74.82	461	10.28	4.944E+00	2.832E+00	2.832E+00	22.45
	77.11	876	17.10	5.255E+00	3.041E+00	3.041E+00	13.76
	238.63	2274	43.60*	6.793E+00	2.396E+00	2.396E+00	8.70
	300.09	148	3.30	5.983E+00	2.343E+00	2.343E+00	44.71
BI-214	609.32	890	45.49*	3.813E+00	1.602E+00	1.602E+00	12.87
	1120.29	218	14.92	2.335E+00	1.950E+00	1.950E+00	24.66
	1764.49	193	15.30	1.695E+00	2.325E+00	2.325E+00	20.21
PB-214	74.82	461	5.80	4.944E+00	5.020E+00	5.020E+00	21.73
	77.11	876	9.70	5.255E+00	5.361E+00	5.361E+00	16.04
	242.00	495	7.25	6.749E+00	3.156E+00	3.157E+00	23.50
	295.22	760	18.42	6.042E+00	2.130E+00	2.130E+00	14.99
	351.93	1267	35.60*	5.452E+00	2.037E+00	2.037E+00	11.28
RA-224	240.99	495	4.10*	6.749E+00	5.582E+00	5.582E+00	22.77
RA-226	609.32	890	45.49*	3.813E+00	1.602E+00	1.602E+00	12.87
	1120.29	218	14.92	2.335E+00	1.950E+00	1.950E+00	24.66
	1764.49	193	15.30	1.695E+00	2.325E+00	2.325E+00	20.21
AC-228	338.32	467	11.27	5.580E+00	2.316E+00	2.316E+00	46.07
	911.20	649	25.80*	2.780E+00	2.824E+00	2.824E+00	17.88
	968.97	283	15.80	2.640E+00	2.118E+00	2.118E+00	30.51
RA-228	338.32	467	11.27	5.580E+00	2.316E+00	2.316E+00	46.07
	911.20	649	25.80*	2.780E+00	2.824E+00	2.824E+00	17.88
	968.97	283	15.80	2.640E+00	2.118E+00	2.118E+00	30.51

Sample ID : G249334001 Acquisition date : 24-MAR-2010 09:22:02

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	461	10.28	4.944E+00	2.832E+00	2.832E+00	20.26
	77.11	876	17.10	5.255E+00	3.041E+00	3.041E+00	13.76
	238.63	2274	43.60*	6.793E+00	2.396E+00	2.396E+00	8.70
	300.09	148	3.30	5.983E+00	2.343E+00	2.343E+00	75.07
TH-230	609.32	890	45.49*	3.813E+00	1.602E+00	1.602E+00	11.74
	1120.29	218	14.92	2.335E+00	1.950E+00	1.950E+00	23.73
	1764.49	193	15.30	1.695E+00	2.325E+00	2.325E+00	20.21
TH-232	338.32	467	11.27	5.580E+00	2.316E+00	2.316E+00	21.36
	911.20	649	25.80*	2.780E+00	2.824E+00	2.824E+00	17.88
	968.97	283	15.80	2.640E+00	2.118E+00	2.118E+00	30.51
TH-234	63.29	94	3.70*	3.132E+00	2.535E+00	2.535E+00	74.70
	92.59	438	4.23	6.974E+00	4.631E+00	4.631E+00	32.05
U-235	89.96	213	3.47	6.707E+00	2.859E+00	2.859E+00	42.77
	93.35	438	5.60	6.974E+00	3.498E+00	3.498E+00	32.76
	143.76	------	10.96*	8.222E+00	------ Line Not Found		------
	163.33	------	5.08	8.005E+00	------ Line Not Found		------
	185.72	423	57.20	7.647E+00	3.014E-01	3.014E-01	23.42
	205.31	------	5.01	7.323E+00	------ Line Not Found		------
NP-237	86.48	300	12.40*	6.458E+00	1.170E+00	1.170E+00	34.72
	95.86	------	2.68	7.180E+00	------ Line Not Found		------
U-238	63.29	94	3.70*	3.132E+00	2.535E+00	2.535E+00	74.70
	92.59	438	4.23	6.974E+00	4.631E+00	4.631E+00	24.78
ANH-511	511.00	264	100.00*	4.311E+00	1.913E-01	1.913E-01	33.41

Flag: "*" = Keyline

Sample ID : G249334001 Acquisition date : 24-MAR-2010 09:22:02

Total number of lines in spectrum 34
Number of unidentified lines 3
Number of lines tentatively identified by NID 31 91.18%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.511E+01	3.511E+01	0.310E+01	8.83	
CD-109	461.40D	1.02	3.920E+00	3.997E+00	1.106E+00	27.67	
SN-126	2.30E+05Y	1.00	3.920E-01	3.920E-01	1.085E-01	27.67	
TL-208	1.41E+10Y	1.00	7.132E-01	7.132E-01	0.943E-01	13.22	
BI-211	7.04E+08Y	1.00	5.613E+00	5.613E+00	0.552E+00	9.84	
PB-212	1.41E+10Y	1.00	2.396E+00	2.396E+00	0.208E+00	8.70	
BI-214	1600.00Y	1.00	1.602E+00	1.602E+00	0.206E+00	12.87	
PB-214	1600.00Y	1.00	2.037E+00	2.037E+00	0.230E+00	11.28	
RA-224	1.41E+10Y	1.00	5.582E+00	5.582E+00	1.271E+00	22.77	
RA-226	1600.00Y	1.00	1.602E+00	1.602E+00	0.206E+00	12.87	
AC-228	1.41E+10Y	1.00	2.824E+00	2.824E+00	0.505E+00	17.88	
RA-228	1.41E+10Y	1.00	2.824E+00	2.824E+00	0.505E+00	17.88	
TH-228	1.41E+10Y	1.00	2.396E+00	2.396E+00	0.208E+00	8.70	
TH-230	7.54E+04Y	1.00	1.602E+00	1.602E+00	0.188E+00	11.74	
TH-232	1.41E+10Y	1.00	2.824E+00	2.824E+00	0.505E+00	17.88	
TH-234	4.47E+09Y	1.00	2.535E+00	2.535E+00	1.894E+00	74.70	
U-235	7.04E+08Y	1.00	3.014E-01	3.014E-01	0.706E-01	23.42	K
NP-237	2.14E+06Y	1.00	1.170E+00	1.170E+00	0.406E+00	34.72	
U-238	4.47E+09Y	1.00	2.535E+00	2.535E+00	1.894E+00	74.70	
ANH-511	1.00E+09Y	1.00	1.913E-01	1.913E-01	0.639E-01	33.41	
	Total Activity :		7.817E+01	7.825E+01			

Grand Total Activity : 7.817E+01 7.825E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249334001 Acquisition date : 24-MAR-2010 09:22:02

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.31	198	483	1.37	417.63	413	12	2.76E-02	46.5	7.26E+00	
0	270.17	199	277	1.73	539.32	535	11	2.77E-02	35.3	6.35E+00	T
0	327.92	143	226	1.75	654.78	650	10	1.98E-02	42.8	5.68E+00	T
0	409.62	91	161	1.82	818.13	814	10	1.27E-02	57.5	4.97E+00	T
0	462.88	157	153	1.44	924.63	920	11	2.18E-02	34.3	4.60E+00	T
0	726.94	177	125	1.41	1452.60	1447	12	2.46E-02	30.2	3.34E+00	T
0	795.06	128	159	1.96	1588.81	1579	20	1.77E-02	51.7	3.11E+00	T
1	964.01	130	120	2.31	1926.64	1920	21	1.81E-02	39.1	2.65E+00	T
0	1237.99	82	166	1.11	2474.51	2468	16	1.14E-02	75.4	2.15E+00	T
0	1587.99	36	32	2.11	3174.44	3164	14	4.97E-03	74.6	1.79E+00	
0	1729.44	59	22	1.02	3457.34	3447	19	8.22E-03	47.0	1.71E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:23:39.52

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334001.CNF;1  *
* Acquisition date : 24-MAR-2010 09:22:02  Detector SN#    :                *
* Detector ID      : GAM18                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.94         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G249334001            Analyst initials: MXR1           *
* Batch Number     : 965250                Sample Quantity : 1.20310E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23.2MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.511E+01	3.101E+00	5.127E-01	3.891E-02	68.482
CD-109	3.997E+00	1.106E+00	1.440E+00	1.331E-01	2.776
SN-126	3.920E-01	1.085E-01	1.421E-01	1.310E-02	2.758
TL-208	7.132E-01	9.426E-02	4.887E-02	3.824E-03	14.596
BI-211	5.613E+00	5.524E-01	2.907E-01	1.867E-02	19.307
PB-212	2.396E+00	2.084E-01	8.832E-02	6.367E-03	27.128
BI-214	1.602E+00	2.061E-01	1.019E-01	9.161E-03	15.711
PB-214	2.037E+00	2.298E-01	1.057E-01	8.948E-03	19.271
RA-224	5.582E+00	1.271E+00	9.455E-01	5.267E-02	5.903
RA-226	1.602E+00	2.061E-01	1.019E-01	9.161E-03	15.711
AC-228	2.824E+00	5.049E-01	1.962E-01	2.657E-02	14.396
RA-228	2.824E+00	5.049E-01	1.962E-01	2.657E-02	14.396
TH-228	2.396E+00	2.084E-01	8.832E-02	6.367E-03	27.128
TH-230	1.602E+00	1.880E-01	1.019E-01	7.416E-03	15.711
TH-232	2.824E+00	5.049E-01	1.962E-01	2.657E-02	14.396
TH-234	2.535E+00	1.894E+00	2.680E+00	4.828E-01	0.946
U-235	3.014E-01	7.058E-02	3.284E-01	5.122E-02	0.918
NP-237	1.170E+00	4.062E-01	4.309E-01	9.852E-02	2.715

Sample ID : G249334001 Acquisition date : 24-MAR-2010 09:22:02

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-238	2.535E+00	1.894E+00	2.680E+00	4.828E-01	0.946
ANH-511	1.913E-01	6.390E-02	3.975E-02	2.625E-03	4.811

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.588E-02		2.696E-01	4.421E-01	3.202E-02	-0.059
NA-22	-9.178E-03		3.999E-02	6.450E-02	4.389E-03	-0.142
NA-24	-7.959E-02		3.201E-02	Half-Life too short		
SC-46	1.279E-02		3.529E-02	5.909E-02	6.591E-03	0.216
V-48	1.443E-02		6.253E-02	1.029E-01	1.017E-02	0.140
CR-51	-2.627E-02		3.236E-01	5.190E-01	3.336E-02	-0.051
MN-54	1.262E-02		3.534E-02	5.930E-02	6.075E-03	0.213
CO-56	5.661E-03		3.258E-02	5.416E-02	5.654E-03	0.105
CO-57	-2.208E-02		2.639E-02	4.091E-02	2.424E-03	-0.540
CO-58	4.418E-03		3.281E-02	5.458E-02	5.388E-03	0.081
FE-59	-1.782E-02		8.302E-02	1.363E-01	1.121E-02	-0.131
CO-60	1.949E-02		3.647E-02	6.229E-02	4.706E-03	0.313
ZN-65	1.083E-01		1.021E-01	1.581E-01	1.114E-02	0.685
SE-75	6.306E-03		4.388E-02	6.689E-02	3.827E-03	0.094
SR-85	9.570E-02		3.851E-02	6.350E-02	4.207E-03	1.507
Y-88	-2.247E-02		3.030E-02	4.425E-02	2.520E-03	-0.508
Y-91	2.737E+00		2.165E+01	3.600E+01	2.128E+00	0.076
NB-94	1.529E-02		3.092E-02	5.296E-02	4.345E-03	0.289
NB-95	9.081E-02		4.191E-02	7.560E-02	6.916E-03	1.201
NB-95M	1.425E-01		1.308E-01	1.989E-01	1.465E-02	0.716
ZR-95	3.617E-02		6.525E-02	1.116E-01	1.102E-02	0.324
MO-99	1.015E+01		6.363E+00	1.125E+01	1.781E+00	0.902
TC-99M	6.003E+06		4.142E+07	Half-Life too short		
RU-103	-1.127E-02		3.124E-02	5.012E-02	6.401E-03	-0.225
RH-106	1.902E-02		2.732E-01	4.425E-01	5.519E-02	0.043
RU-106	1.902E-02		2.732E-01	4.425E-01	3.256E-02	0.043
AG-108M	-7.436E-03		2.569E-02	4.204E-02	2.710E-03	-0.177
AG-110M	-2.212E-02		3.209E-02	5.172E-02	4.080E-03	-0.428
SN-113	-2.969E-02		3.884E-02	6.256E-02	3.837E-03	-0.475
CD-115	1.976E-01		5.075E+00	8.319E+00	5.591E-01	0.024
SN-117M	-2.814E-02		4.748E-02	7.886E-02	4.191E-03	-0.357
TE-123M	-1.455E-02		2.681E-02	4.459E-02	2.406E-03	-0.326
SB-124	7.094E-03		6.707E-02	1.123E-01	7.775E-03	0.063
SB-125	6.241E-02		7.917E-02	1.370E-01	8.548E-03	0.456
TE-125M	-2.134E+00		9.882E+00	1.584E+01	1.420E+00	-0.135
I-126	-4.838E-02		1.878E-01	3.106E-01	2.388E-02	-0.156
SB-126	9.608E-02		1.340E-01	2.035E-01	1.723E-02	0.472
SB-127	-2.397E-01		8.210E-01	1.350E+00	1.381E-01	-0.178
I-131	5.552E-02		8.366E-02	1.452E-01	9.339E-03	0.382
TE-132	1.024E-01		4.298E-01	7.166E-01	9.971E-02	0.143
BA-133	1.196E-02		4.284E-02	6.085E-02	6.856E-03	0.197

Sample ID : G249334001 Acquisition date : 24-MAR-2010 09:22:02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	1.715E-04		4.490E-04	Half-Life too short		
CS-134	1.685E-01	+	8.858E-02	9.013E-02	8.717E-03	1.870
CS-135	2.972E-01		1.669E-01	2.610E-01	1.973E-02	1.139
I-135	4.879E+06		1.070E+07	Half-Life too short		
CS-136	-3.366E-02		9.072E-02	1.480E-01	1.326E-02	-0.227
BA-137M	2.033E-02		3.427E-02	5.920E-02	4.512E-03	0.343
CS-137	2.148E-02		3.621E-02	6.253E-02	4.779E-03	0.343
CE-139	-5.575E-03		2.775E-02	4.657E-02	2.444E-03	-0.120
BA-140	-4.873E-02		2.066E-01	3.313E-01	1.110E-01	-0.147
LA-140	-5.417E-02		6.548E-02	9.080E-02	6.231E-03	-0.597
CE-141	3.928E-03		6.233E-02	9.805E-02	5.598E-03	0.040
CE-143	3.791E-04		4.815E-05	Half-Life too short		
CE-144	-2.073E-01		2.038E-01	3.086E-01	4.267E-02	-0.672
PM-144	8.547E-03		3.127E-02	5.301E-02	4.303E-03	0.161
PR-144	6.557E-01		2.338E+00	3.966E+00	3.219E-01	0.165
PM-146	3.610E-04		3.789E-02	6.280E-02	5.486E-03	0.006
ND-147	1.803E-01		4.420E-01	7.387E-01	1.031E-01	0.244
PM-149	2.793E+01		4.207E+01	7.017E+01	9.918E+00	0.398
EU-152	-9.960E-03		9.814E-02	1.359E-01	8.863E-03	-0.073
GD-153	-3.827E-02		1.012E-01	1.443E-01	1.129E-02	-0.265
EU-154	-4.764E-02		1.151E-01	1.829E-01	1.841E-02	-0.260
EU-155	-2.408E-02		1.126E-01	1.793E-01	1.281E-02	-0.134
TB-160	1.957E-02		1.212E-01	2.006E-01	2.204E-02	0.098
HO-166M	-3.037E-03		5.431E-02	9.025E-02	7.523E-03	-0.034
TA-182	2.972E-02		1.865E-01	3.105E-01	1.899E-02	0.096
IR-192	1.049E-03		3.174E-02	5.048E-02	2.928E-03	0.021
HG-203	5.838E-02		3.807E-02	5.919E-02	3.568E-03	0.986
BI-207	4.019E-02		4.729E-02	8.324E-02	6.871E-03	0.483
PB-210	9.467E-01		5.483E+00	9.336E+00	7.157E-01	0.101
PB-211	6.120E-02		7.334E-01	1.072E+00	5.141E-01	0.057
BI-212	2.478E+00	+	8.084E-01	1.134E+00	1.408E-01	2.186
RN-219	-1.222E-01		3.814E-01	6.120E-01	8.229E-02	-0.200
RA-223	3.054E-01		6.296E-01	9.134E-01	1.471E-01	0.334
AC-227	5.921E-02		2.360E-01	3.909E-01	3.959E-02	0.151
TH-227	5.921E-02		2.361E-01	3.909E-01	4.666E-02	0.151
TH-229	-1.301E-01		4.954E-01	8.206E-01	4.393E-02	-0.159
PA-231	-6.686E-01		1.323E+00	2.095E+00	2.740E-01	-0.319
TH-231	3.054E-01		6.296E-01	9.134E-01	1.471E-01	0.334
PA-233	-3.654E-03		6.031E-02	9.666E-02	5.923E-03	-0.038
PA-234	9.976E-02		2.746E-01	4.569E-01	9.013E-02	0.218
PA-234M	3.219E+00		4.349E+00	7.327E+00	7.904E-01	0.439
NP-239	8.212E-02		4.076E-01	6.608E-01	4.081E-02	0.124
AM-241	4.950E-03		1.955E-01	3.127E-01	2.593E-02	0.016
CM-247	-1.311E-02		3.504E-02	5.612E-02	3.268E-03	-0.234
CF-249	2.136E-03		3.587E-02	6.032E-02	3.467E-03	0.035
CF-251	3.801E-02		1.211E-01	2.058E-01	1.088E-02	0.185

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249334001            *
* Acquisition date : 24-MAR-2010 09:22:02 Detector SN#    :                 *
* Detector ID      : GAM18                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.94     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249334001           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.2031E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.511E+01	3.039E+00	2.559E-01	1.551E+00
CD-109	3.997E+00	1.084E+00	7.430E-01	5.531E-01
SN-126	3.920E-01	1.063E-01	7.334E-02	5.425E-02
TL-208	7.132E-01	9.237E-02	2.466E-02	4.713E-02
BI-211	5.613E+00	5.414E-01	1.476E-01	2.762E-01
PB-212	2.396E+00	2.042E-01	4.505E-02	1.042E-01
BI-214	1.602E+00	2.020E-01	5.142E-02	1.031E-01
PB-214	2.037E+00	2.252E-01	5.367E-02	1.149E-01
RA-224	5.582E+00	1.246E+00	4.822E-01	6.355E-01
RA-226	1.602E+00	2.020E-01	5.142E-02	1.031E-01
AC-228	2.824E+00	4.948E-01	9.849E-02	2.525E-01
RA-228	2.824E+00	4.948E-01	9.849E-02	2.525E-01
TH-228	2.396E+00	2.042E-01	4.505E-02	1.042E-01
TH-230	1.602E+00	1.842E-01	5.142E-02	9.400E-02
TH-232	2.824E+00	4.948E-01	9.849E-02	2.525E-01
TH-234	2.535E+00	1.856E+00	1.388E+00	9.468E-01
U-235	1.029E-02	2.045E-01	1.685E-01	1.044E-01
NP-237	1.170E+00	3.980E-01	2.224E-01	2.031E-01
U-238	2.535E+00	1.856E+00	1.388E+00	9.468E-01
ANH-511	1.913E-01	6.262E-02	2.009E-02	3.195E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.588E-02	2.642E-01	2.237E-01	1.348E-01	NOT IDENT.
NA-22	-9.178E-03	3.919E-02	3.225E-02	1.999E-02	NOT IDENT.
NA-24	-7.959E+04	6.274E+04	0.000E+00	3.201E+04	SHORT HLIF
SC-46	1.279E-02	3.458E-02	2.967E-02	1.764E-02	FAIL ABUN
V-48	1.443E-02	6.128E-02	5.159E-02	3.126E-02	NOT IDENT.
CR-51	-2.627E-02	3.171E-01	2.638E-01	1.618E-01	NOT IDENT.
MN-54	1.262E-02	3.463E-02	2.980E-02	1.767E-02	NOT IDENT.

CO-56	5.661E-03	3.193E-02	2.721E-02	1.629E-02	FAIL ABUN
CO-57	-2.208E-02	2.587E-02	2.103E-02	1.320E-02	NOT IDENT.
CO-58	4.418E-03	3.215E-02	2.744E-02	1.640E-02	NOT IDENT.
FE-59	-1.782E-02	8.136E-02	6.825E-02	4.151E-02	NOT IDENT.
CO-60	1.949E-02	3.574E-02	3.112E-02	1.824E-02	NOT IDENT.
ZN-65	1.083E-01	1.001E-01	7.917E-02	5.107E-02	NOT IDENT.
SE-75	6.306E-03	4.300E-02	3.408E-02	2.194E-02	NOT IDENT.
SR-85	9.570E-02	3.774E-02	3.210E-02	1.925E-02	NOT IDENT.
Y-88	-2.247E-02	2.970E-02	2.202E-02	1.515E-02	NOT IDENT.
Y-91	2.737E+00	2.122E+01	1.801E+01	1.083E+01	NOT IDENT.
NB-94	1.529E-02	3.030E-02	2.667E-02	1.546E-02	NOT IDENT.
NB-95	9.081E-02	4.107E-02	3.803E-02	2.095E-02	NOT IDENT.
NB-95M	1.425E-01	1.281E-01	1.015E-01	6.538E-02	NOT IDENT.
ZR-95	3.617E-02	6.395E-02	5.616E-02	3.263E-02	NOT IDENT.
MO-99	1.015E+01	6.235E+00	5.662E+00	3.181E+00	NOT IDENT.
TC-99M	6.003E+12	8.119E+13	0.000E+00	4.142E+13	SHORT HLIF
RU-103	-1.127E-02	3.062E-02	2.534E-02	1.562E-02	FAIL ABUN
RH-106	1.902E-02	2.678E-01	2.231E-01	1.366E-01	NOT IDENT.
RU-106	1.902E-02	2.678E-01	2.231E-01	1.366E-01	NOT IDENT.
AG-108M	-7.436E-03	2.518E-02	2.129E-02	1.285E-02	NOT IDENT.
AG-110M	-2.212E-02	3.145E-02	2.607E-02	1.605E-02	NOT IDENT.
SN-113	-2.969E-02	3.806E-02	3.172E-02	1.942E-02	NOT IDENT.
CD-115	1.976E-01	4.973E+00	4.203E+00	2.537E+00	NOT IDENT.
SN-117M	-2.814E-02	4.653E-02	4.041E-02	2.374E-02	NOT IDENT.
TE-123M	-1.455E-02	2.628E-02	2.285E-02	1.341E-02	NOT IDENT.
SB-124	7.094E-03	6.572E-02	5.593E-02	3.353E-02	NOT IDENT.
SB-125	6.241E-02	7.759E-02	6.938E-02	3.959E-02	FAIL ABUN
TE-125M	-2.134E+00	9.684E+00	8.152E+00	4.941E+00	NOT IDENT.
I-126	-4.838E-02	1.841E-01	1.565E-01	9.391E-02	NOT IDENT.
SB-126	9.608E-02	1.313E-01	1.024E-01	6.698E-02	NOT IDENT.
SB-127	-2.397E-01	8.046E-01	6.799E-01	4.105E-01	NOT IDENT.
I-131	5.552E-02	8.199E-02	7.370E-02	4.183E-02	NOT IDENT.
TE-132	1.024E-01	4.212E-01	3.657E-01	2.149E-01	NOT IDENT.
BA-133	1.196E-02	4.198E-02	3.089E-02	2.142E-02	FAIL ABUN
I-133	1.715E+02	8.801E+02	0.000E+00	4.490E+02	SHORT HLIF
CS-134	1.685E-01	8.680E-02	4.532E-02	4.429E-02	FAIL ABUN
CS-135	2.972E-01	1.635E-01	1.330E-01	8.343E-02	NOT IDENT.
I-135	4.879E+12	2.097E+13	0.000E+00	1.070E+13	SHORT HLIF
CS-136	-3.366E-02	8.891E-02	7.416E-02	4.536E-02	NOT IDENT.
BA-137M	2.033E-02	3.359E-02	2.983E-02	1.714E-02	NOT IDENT.
CS-137	2.148E-02	3.548E-02	3.151E-02	1.810E-02	NOT IDENT.
CE-139	-5.575E-03	2.720E-02	2.385E-02	1.388E-02	NOT IDENT.
BA-140	-4.873E-02	2.024E-01	1.674E-01	1.033E-01	NOT IDENT.
LA-140	-5.417E-02	6.417E-02	4.527E-02	3.274E-02	FAIL ABUN
CE-141	3.928E-03	6.108E-02	5.030E-02	3.116E-02	NOT IDENT.
CE-143	3.791E+02	9.437E+01	0.000E+00	4.815E+01	SHORT HLIF
CE-144	-2.073E-01	1.997E-01	1.585E-01	1.019E-01	NOT IDENT.
PM-144	8.547E-03	3.064E-02	2.670E-02	1.563E-02	NOT IDENT.
PR-144	6.557E-01	2.292E+00	1.997E+00	1.169E+00	NOT IDENT.
PM-146	3.610E-04	3.714E-02	3.179E-02	1.895E-02	NOT IDENT.
ND-147	1.803E-01	4.332E-01	3.732E-01	2.210E-01	FAIL ABUN
PM-149	2.793E+01	4.123E+01	3.572E+01	2.103E+01	NOT IDENT.
EU-152	-9.960E-03	9.618E-02	6.903E-02	4.907E-02	FAIL ABUN
GD-153	-3.827E-02	9.918E-02	7.439E-02	5.060E-02	NOT IDENT.
EU-154	-4.764E-02	1.128E-01	9.145E-02	5.755E-02	NOT IDENT.
EU-155	-2.408E-02	1.103E-01	9.233E-02	5.628E-02	FAIL ABUN
TB-160	1.957E-02	1.188E-01	1.008E-01	6.062E-02	FAIL ABUN
HO-166M	-3.037E-03	5.322E-02	4.544E-02	2.715E-02	FAIL ABUN
TA-182	2.972E-02	1.828E-01	1.553E-01	9.325E-02	NOT IDENT.
IR-192	1.049E-03	3.111E-02	2.566E-02	1.587E-02	FAIL ABUN
HG-203	5.838E-02	3.731E-02	3.014E-02	1.904E-02	NOT IDENT.
BI-207	4.019E-02	4.634E-02	4.171E-02	2.365E-02	FAIL ABUN
PB-210	9.467E-01	5.373E+00	4.852E+00	2.741E+00	NOT IDENT.
PB-211	6.120E-02	7.187E-01	5.432E-01	3.667E-01	NOT IDENT.
BI-212	2.478E+00	7.922E-01	5.706E-01	4.042E-01	FAIL ABUN
RN-219	-1.222E-01	3.737E-01	3.102E-01	1.907E-01	FAIL ABUN
RA-223	3.054E-01	6.170E-01	4.642E-01	3.148E-01	FAIL ABUN
AC-227	5.921E-02	2.313E-01	1.992E-01	1.180E-01	FAIL ABUN
TH-227	5.921E-02	2.313E-01	1.992E-01	1.180E-01	FAIL ABUN
TH-229	-1.301E-01	4.855E-01	4.196E-01	2.477E-01	FAIL ABUN
PA-231	-6.686E-01	1.297E+00	1.067E+00	6.616E-01	FAIL ABUN
TH-231	3.054E-01	6.170E-01	4.642E-01	3.148E-01	FAIL ABUN
PA-233	-3.654E-03	5.910E-02	4.915E-02	3.015E-02	FAIL ABUN
PA-234	9.976E-02	2.691E-01	2.292E-01	1.373E-01	NOT IDENT.
PA-234M	3.219E+00	4.262E+00	3.674E+00	2.175E+00	NOT IDENT.
NP-239	8.212E-02	3.994E-01	3.399E-01	2.038E-01	FAIL ABUN
AM-241	4.950E-03	1.916E-01	1.621E-01	9.775E-02	NOT IDENT.
CM-247	-1.311E-02	3.434E-02	2.845E-02	1.752E-02	FAIL ABUN

CF-249	2.136E-03	3.515E-02	3.059E-02	1.793E-02	NOT IDENT.
CF-251	3.801E-02	1.187E-01	1.054E-01	6.054E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	338.5255
49.72	364.4930
57.36	0.0000
59.54	360.9886
63.29	443.4100
63.29	443.4100
64.28	511.1403
67.75	454.9262
69.67	519.1625
70.83	471.2564
72.81	487.2626
72.87	487.3517
72.87	487.3517
74.82	497.0704
74.82	497.0704
74.82	497.0704
74.97	497.2926
77.11	500.4397
77.11	500.4397
77.11	500.4397
79.69	454.0584
79.80	451.2220
80.12	451.6335
80.19	451.7213
80.57	474.5957
81.00	517.0096
81.07	517.1125
81.07	517.1125
83.79	480.3789
83.79	480.3789
85.43	502.1971
86.48	549.1285
86.55	549.2335
86.79	549.5815
86.94	549.8052
87.57	550.7304
88.03	551.4043
88.47	552.0450
89.96	541.9599
91.11	451.4481
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92.59	453.1685
93.35	401.5369
94.67	399.7787
94.87	399.9795
94.87	399.9795
95.86	411.8486
97.43	435.2947
98.44	347.8461
99.53	359.6421
100.11	393.6479
103.18	416.5775
103.37	377.7256
105.31	398.5208
106.12	423.6920
109.28	407.5061
111.00	379.0197
111.76	400.0956
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121.78	381.3333
122.06	413.4436
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133.52	415.1926
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144.24	392.6682
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154.21	395.3338
156.02	404.4899
158.56	416.8531
159.00	402.1379
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163.33	361.4544
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176.60	362.0023
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181.07	329.7189
184.41	369.6980
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193.51	365.7744
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205.31	370.4588
210.85	350.3515
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222.11	339.7408
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228.16	324.8039
228.18	324.8115
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235.96	343.0412
235.96	343.0412
238.63	325.1472
238.63	325.1472
240.99	326.0931
242.00	326.4960
244.70	327.5721
252.40	289.2794
252.80	302.5269
256.23	268.3097
256.23	268.3097
260.90	269.7674
264.66	254.9146
268.22	239.7950
269.46	241.7712
269.46	241.7712
271.23	251.3160
273.65	251.9936
276.40	237.5673
277.37	250.9546
277.60	251.0174
278.00	235.7699
279.20	214.4656
279.54	214.5444
280.46	218.0913
283.69	252.6828
284.31	257.0320
285.41	238.5066
285.90	227.1189
287.50	219.1190
293.27	0.0000
295.22	224.9246
295.96	225.0999
298.57	161.2217
299.98	248.1323
299.98	248.1323
300.09	248.1608
300.09	248.1608
300.13	248.1679
301.36	241.6739
302.85	213.0676
304.50	233.9135
304.50	233.9135
304.85	225.4570
308.46	242.1389
311.90	216.0959

316.51	213.8464
319.41	206.8749
320.08	222.1824
323.87	184.4959
323.87	184.4959
328.76	222.0888
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334.37	243.9304
334.37	243.9304
338.28	208.4318
338.28	208.4318
338.32	208.4404
338.32	208.4404
338.32	208.4404
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340.55	187.4332
344.28	193.4031
351.06	199.7389
351.93	199.8946
356.01	184.7135
364.49	177.9781
366.42	199.0930
383.85	219.5462
388.16	196.3698
388.63	193.6809
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400.66	190.0173
401.81	200.4510
402.40	202.4124
404.85	191.5969
410.95	189.4047
414.70	158.5687
423.72	180.2472
427.09	167.4020
427.87	153.2251
433.94	168.2807
453.88	169.8346
463.37	159.2831
468.07	166.6838
473.00	154.4779
476.78	159.8227
477.60	150.0443
487.02	135.1334
492.35	135.6298
497.08	132.0661
511.00	139.3653
514.00	136.6059
527.90	139.8932
529.87	0.0000
531.02	139.1510
537.26	139.7088
546.56	0.0000
563.25	133.6375
569.33	136.2302
569.50	141.4830
569.70	141.5028
583.19	126.7998
600.60	164.8702
602.73	174.5745
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609.32	148.4145
609.32	148.4145
609.32	148.4145
610.33	127.0321
614.28	130.9045
618.01	133.6966
621.93	121.0262
621.93	121.0262
633.25	140.2780
635.95	118.7051
636.99	120.9537
645.85	123.7317
657.76	159.7974
661.66	151.8475
661.66	151.8475
664.57	0.0000
666.33	166.9846
666.50	166.9993

677.62	145.7054
685.70	145.3867
695.00	152.6400
696.49	140.5731
696.51	140.5762
697.00	143.4219
702.65	139.1354
706.68	154.4907
711.68	132.2127
720.70	123.5928
721.93	0.0000
722.78	151.3975
722.91	151.4072
723.31	156.3214
724.19	156.3884
727.33	128.8930
733.00	112.8927
735.93	138.5866
739.50	90.9547
747.24	129.7348
752.31	131.0140
753.82	119.5397
756.73	120.6716
763.94	189.8591
765.81	128.9466
766.42	135.7731
777.92	133.5800
778.90	120.9600
783.70	105.5852
785.37	117.4072
795.86	114.0412
801.95	111.5384
810.29	103.8998
810.76	97.9849
815.77	98.2044
818.51	98.3232
832.01	119.8926
834.85	129.0446
836.80	0.0000
846.77	91.5036
856.80	90.0225
860.56	100.1380
871.09	103.6332
873.19	102.7076
875.33	0.0000
879.36	94.8164
880.51	94.8618
883.24	94.9697
884.68	114.4404
889.28	97.2556
898.04	113.0190
911.20	94.0011
911.20	94.0011
911.20	94.0011
926.50	134.0758
937.49	155.5388
944.13	101.5212
946.00	93.2171
949.00	105.9111
962.29	93.9598
964.08	93.8744
966.15	93.9505
968.97	97.8260
968.97	97.8260
968.97	97.8260
983.53	104.1390
996.26	104.6394
1001.03	89.8516
1004.73	112.4683
1037.84	107.7992
1038.76	0.0000
1048.07	114.7291
1050.41	98.0200
1050.41	98.0200
1063.66	85.3538
1085.87	103.0353
1099.45	112.0654
1112.07	110.1665

1115.54	115.3088
1120.29	117.1680
1120.29	117.1680
1120.29	117.1680
1120.55	117.1808
1121.30	112.1874
1131.51	0.0000
1173.23	122.6470
1177.93	92.6144
1189.05	115.4484
1204.77	143.5609
1221.41	129.4877
1231.02	152.6787
1235.36	178.9487
1238.28	142.0973
1260.41	0.0000
1271.85	80.3153
1274.44	96.4520
1274.54	91.4316
1291.59	77.7627
1298.22	0.0000
1312.11	90.4279
1332.49	62.3488
1365.19	56.7456
1368.63	0.0000
1384.29	61.2018
1408.01	52.2095
1457.56	0.0000
1460.82	50.8443
1489.16	60.8329
1505.03	50.6382
1596.21	42.5201
1620.50	31.8580
1678.03	0.0000
1690.97	28.4716
1764.49	33.7283
1764.49	33.7283
1764.49	33.7283
1770.23	15.9971
1771.35	16.0015
1791.20	0.0000
1836.06	32.4639

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249334001

Total Uranium Activity	7.5460E+00	ug/g
Total Uranium Counting Unc.	5.5217E+00	ug/g
Total Uranium Tpu	2.8172E-06	ug/g
Total Uranium Mda	4.1308E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G249334001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM18            *
*   SAMPLE DATE   : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 09:22:02.99    SAMPLE ALQT:  120.310 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.258E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.346E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.000E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.461E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:06:22.75

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071014.CNF;1
Sample date      : 17-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 11:03:00
Sample ID        : G1202071014          Sample quantity  : 1.35710E+02 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:00.61  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 965250               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.11*	38	60	1.03	124.09	118	12	5.34E-03	48.4	
2	0	1119.95	13	6	1.45	2239.05	2235	8	1.84E-03	42.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 13:06:35

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071014.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 17-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 11:03:00
Sample ID : G1202071014 Sample quantity : 135.71 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA19 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.61 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-6.890E-02	1.577E-01	2.402E-01	1.630E-02	-0.287
NA-22		1274.54	*	5.185E-03	1.787E-02	3.158E-02	2.106E-03	0.164
NA-24		1368.63	*	-9.599E-06	1.787E-02	Half-Life too short		
K-40		1460.82	*	1.887E-01	2.649E-01	5.089E-01	3.790E-02	0.371
SC-46		889.28	*	7.283E-03	1.846E-02	3.194E-02	2.776E-03	0.228
	+	1120.55		2.676E-02	2.258E-02	4.596E-02	2.899E-03	0.582
V-48		944.13		-6.181E-02	3.134E-01	4.838E-01	4.076E-02	-0.128
		983.53	*	-2.209E-02	2.660E-02	3.508E-02	2.820E-03	-0.630
		1312.11		-2.710E-04	2.923E-02	4.837E-02	3.442E-03	-0.006
CR-51		320.08	*	5.273E-02	1.405E-01	2.451E-01	1.584E-02	0.215
MN-54		834.85	*	-1.752E-04	1.529E-02	2.468E-02	1.963E-03	-0.007
CO-56		846.77	*	1.967E-02	1.988E-02	3.709E-02	3.009E-03	0.530
		1037.84		2.382E-02	1.338E-01	2.315E-01	1.839E-02	0.103
		1238.28		-2.190E-03	3.844E-02	6.342E-02	4.166E-03	-0.035
		1771.35		1.738E-02	1.367E-01	2.309E-01	1.391E-02	0.075
CO-57		122.06	*	6.969E-03	1.219E-02	2.073E-02	1.237E-03	0.336
		136.47		-8.433E-02	9.503E-02	1.416E-01	9.331E-03	-0.595
CO-58		810.76	*	-6.667E-03	1.712E-02	2.558E-02	1.960E-03	-0.261
FE-59		1099.45	*	1.041E-02	3.246E-02	5.787E-02	4.341E-03	0.180
		1291.59		-2.880E-02	4.928E-02	7.046E-02	5.834E-03	-0.409
CO-60		1173.23		1.515E-02	1.955E-02	3.710E-02	2.033E-03	0.408
		1332.49	*	4.349E-03	2.117E-02	3.649E-02	2.689E-03	0.119
ZN-65		1115.54	*	-2.531E-03	4.087E-02	5.778E-02	3.694E-03	-0.044
SE-75		121.12		-7.747E-03	6.191E-02	9.973E-02	9.182E-03	-0.078
		136.00		-1.278E-02	1.792E-02	2.722E-02	1.568E-03	-0.470
		264.66	*	8.449E-03	2.143E-02	3.737E-02	2.174E-03	0.226
		279.54		3.279E-02	5.353E-02	9.477E-02	5.941E-03	0.346
		400.66		7.803E-02	1.458E-01	2.374E-01	2.123E-02	0.329
SR-85		514.00	*	-1.984E-02	3.129E-02	4.928E-02	2.910E-03	-0.403
Y-88		898.04		2.410E-03	2.488E-02	4.045E-02	3.580E-03	0.060
		1836.06	*	9.380E-03	2.319E-02	4.154E-02	2.371E-03	0.226
Y-91		1204.77	*	1.291E+00	7.962E+00	1.368E+01	7.988E-01	0.094
NB-94		702.65	*	1.026E-02	1.974E-02	3.431E-02	2.161E-03	0.299
		871.09		-6.833E-03	1.701E-02	2.524E-02	2.130E-03	-0.271

Sample ID : G1202071014 Acquisition date : 24-MAR-2010 11:03:00

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	9.520E-03	2.125E-02	3.669E-02	2.592E-03	0.260
NB-95M		235.69	*	-6.697E-02	5.835E-02	8.268E-02	6.145E-03	-0.810
ZR-95		724.19		-3.141E-02	4.377E-02	6.298E-02	4.714E-03	-0.499
		756.73	*	-3.089E-04	3.512E-02	5.700E-02	4.585E-03	-0.005
MO-99		140.51		1.169E+00	1.475E+00	2.516E+00	5.742E-01	0.465
		181.07		-8.127E-01	1.303E+00	1.973E+00	3.457E-01	-0.412
		366.42		5.169E+00	7.831E+00	1.391E+01	7.917E-01	0.372
		739.50	*	1.629E-01	8.186E-01	1.379E+00	2.043E-01	0.118
		777.92		7.561E-01	2.575E+00	4.389E+00	3.169E-01	0.172
TC-99M		140.51	*	8.991E+00	2.575E+00	Half-Life too short		
RU-103		497.08	*	-1.393E-02	1.889E-02	2.807E-02	3.499E-03	-0.496
		610.33		-7.717E-03	3.581E-01	5.857E-01	8.841E-02	-0.013
RH-106		621.93	*	-2.225E-02	1.564E-01	2.507E-01	2.926E-02	-0.089
		1050.41		-2.857E-01	1.271E+00	2.046E+00	1.488E-01	-0.140
RU-106		621.93	*	-2.225E-02	1.564E-01	2.507E-01	1.478E-02	-0.089
		1050.41		-2.857E-01	1.271E+00	2.046E+00	1.488E-01	-0.140
AG-108M		433.94	*	6.937E-03	1.640E-02	2.848E-02	1.748E-03	0.244
		614.28		-1.314E-02	1.862E-02	2.739E-02	1.729E-03	-0.480
		722.91		1.372E-03	1.923E-02	3.165E-02	2.184E-03	0.043
CD-109		88.03	*	-1.556E-01	3.463E-01	5.483E-01	4.911E-02	-0.284
AG-110M		657.76	*	-1.536E-02	1.798E-02	2.539E-02	1.576E-03	-0.605
		677.62		3.860E-02	1.696E-01	2.858E-01	1.817E-02	0.135
		706.68		-1.288E-01	1.185E-01	1.608E-01	1.074E-02	-0.801
		763.94		-1.374E-02	8.793E-02	1.395E-01	1.023E-02	-0.098
		884.68		-2.112E-02	2.649E-02	3.612E-02	3.216E-03	-0.585
		937.49		2.114E-03	6.231E-02	1.009E-01	8.875E-03	0.021
		1384.29		-6.967E-03	8.430E-02	1.369E-01	1.037E-02	-0.051
		1505.03		1.760E-02	1.491E-01	2.524E-01	1.779E-02	0.070
SN-113		391.69	*	2.896E-03	2.354E-02	3.973E-02	2.370E-03	0.073
CD-115		260.90		4.481E+00	6.184E+00	1.064E+01	6.111E-01	0.421
		492.35		1.262E+00	1.924E+00	3.427E+00	2.012E-01	0.368
		527.90	*	3.182E-01	5.292E-01	9.428E-01	5.580E-02	0.337
SN-117M		156.02		8.511E-02	7.264E-01	1.187E+00	6.364E-02	0.072
		158.56	*	-1.038E-02	1.832E-02	2.816E-02	1.499E-03	-0.369
TE-123M		159.00	*	-1.307E-02	1.379E-02	2.043E-02	1.103E-03	-0.640
SB-124		602.73		-1.670E-02	2.298E-02	3.456E-02	2.046E-03	-0.483
		645.85		9.441E-02	2.612E-01	4.476E-01	2.938E-02	0.211
		722.78		1.262E-02	1.768E-01	2.911E-01	1.979E-02	0.043
		1690.97	*	4.714E-03	5.813E-02	9.671E-02	6.650E-03	0.049
SB-125		427.87	*	-1.510E-02	4.709E-02	7.526E-02	4.475E-03	-0.201
		463.37		5.111E-02	1.483E-01	2.549E-01	1.717E-02	0.200
		600.60		8.150E-02	1.048E-01	1.872E-01	1.276E-02	0.435
		635.95		6.934E-02	1.605E-01	2.771E-01	1.901E-02	0.250
TE-125M		109.28	*	-7.127E-01	4.034E+00	6.482E+00	5.833E-01	-0.110
I-126		388.63		1.766E-02	6.075E-02	1.042E-01	5.818E-03	0.169
		666.33	*	-2.415E-02	7.570E-02	1.177E-01	6.914E-03	-0.205
		753.82		-2.859E-01	6.046E-01	9.011E-01	6.233E-02	-0.317
SB-126		414.70		-2.035E-02	2.473E-02	3.693E-02	2.089E-03	-0.551
		666.50		-7.504E-03	2.558E-02	3.993E-02	2.347E-03	-0.188

Sample ID : G1202071014 Acquisition date : 24-MAR-2010 11:03:00

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		695.00		1.780E-02	3.723E-02	6.036E-02	3.747E-03	0.295
		697.00		5.852E-02	1.135E-01	1.961E-01	1.222E-02	0.298
		720.70	*	-5.584E-03	4.909E-02	7.853E-02	5.115E-03	-0.071
		856.80		-8.836E-03	1.322E-01	2.106E-01	1.737E-02	-0.042
SN-126		64.28		-1.479E-01	2.505E-01	3.578E-01	5.225E-02	-0.413
		86.94		8.538E-02	1.431E-01	2.375E-01	9.836E-02	0.359
		87.57	*	2.430E-03	3.313E-02	5.458E-02	4.869E-03	0.045
SB-127		252.40		2.171E-01	5.768E-01	9.452E-01	3.833E-01	0.230
		473.00		5.326E-02	2.009E-01	3.440E-01	3.168E-02	0.155
		685.70	*	-4.929E-02	1.645E-01	2.550E-01	1.878E-02	-0.193
		783.70		3.515E-02	4.945E-01	8.110E-01	7.844E-02	0.043
I-131		80.19		-4.968E-01	8.922E-01	1.395E+00	1.158E-01	-0.356
		284.31		4.549E-02	3.712E-01	6.320E-01	4.032E-02	0.072
		364.49	*	2.155E-02	3.208E-02	5.712E-02	3.612E-03	0.377
		636.99		-3.756E-01	5.049E-01	7.446E-01	4.856E-02	-0.504
TE-132		49.72		3.132E-01	1.403E+00	2.362E+00	1.869E-01	0.133
		111.76		1.408E+00	2.771E+00	4.713E+00	3.492E-01	0.299
		116.30		-2.415E+00	2.374E+00	3.480E+00	2.488E-01	-0.694
		228.16	*	1.083E-02	6.831E-02	1.111E-01	1.457E-02	0.097
BA-133		81.00		-3.265E-02	3.710E-02	5.595E-02	8.600E-03	-0.584
		276.40		-1.523E-01	1.788E-01	2.763E-01	3.476E-02	-0.551
		302.85		-3.700E-02	6.703E-02	1.061E-01	1.211E-02	-0.349
		356.01	*	-1.968E-02	2.334E-02	3.556E-02	3.997E-03	-0.553
		383.85		-7.276E-02	1.543E-01	2.438E-01	2.574E-02	-0.298
I-133		529.87	*	-7.053E-06	1.543E-01	Half-Life too short		
		875.33		7.754E-06	1.543E-01	Half-Life too short		
		1298.22		3.304E-05	1.543E-01	Half-Life too short		
CS-134		563.25		-1.456E-01	2.007E-01	2.981E-01	1.805E-02	-0.488
		569.33		1.263E-01	1.310E-01	2.274E-01	1.389E-02	0.555
		604.72		9.415E-03	2.021E-02	3.486E-02	2.074E-03	0.270
		795.86	*	2.151E-04	2.490E-02	4.044E-02	3.041E-03	0.005
		801.95		-1.184E-01	2.737E-01	4.205E-01	3.188E-02	-0.281
		1365.19		1.132E+00	7.500E-01	1.557E+00	1.213E-01	0.727
CS-135		268.22	*	2.663E-02	7.911E-02	1.371E-01	1.046E-02	0.194
I-135		546.56		-6.965E+00	7.911E-02	Half-Life too short		
		836.80		3.525E+01	7.911E-02	Half-Life too short		
		1038.76		-2.232E+01	7.911E-02	Half-Life too short		
		1131.51		-4.255E+00	7.911E-02	Half-Life too short		
		1260.41	*	-1.403E+00	7.911E-02	Half-Life too short		
		1457.56		-3.693E+01	7.911E-02	Half-Life too short		
		1678.03		1.496E+01	7.911E-02	Half-Life too short		
		1791.20		4.669E+00	7.911E-02	Half-Life too short		
CS-136		153.25		-5.647E-03	2.665E-01	4.308E-01	3.341E-02	-0.013
		176.60		6.005E-02	1.584E-01	2.643E-01	1.752E-02	0.227
		273.65		5.237E-02	1.688E-01	2.920E-01	1.989E-02	0.179
		340.55		-5.188E-03	4.833E-02	8.007E-02	5.001E-03	-0.065
		818.51		-3.914E-04	2.282E-02	3.683E-02	2.851E-03	-0.011
		1048.07	*	1.502E-03	3.792E-02	6.396E-02	4.936E-03	0.023
		1235.36		-9.102E-03	1.907E-01	3.147E-01	3.185E-02	-0.029

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-137M		661.66	*	-8.994E-03	2.003E-02	2.814E-02	1.638E-03	-0.320
CS-137		661.66	*	-9.501E-03	2.116E-02	2.972E-02	1.738E-03	-0.320
CE-139		165.86	*	-1.013E-02	1.482E-02	2.253E-02	1.176E-03	-0.450
BA-140		162.66		2.569E-01	2.563E-01	4.488E-01	2.768E-02	0.572
		304.85		-3.208E-01	4.238E-01	6.378E-01	1.822E-01	-0.503
		423.72		-4.546E-02	6.443E-01	1.062E+00	3.424E-01	-0.043
		537.26	*	1.218E-02	1.082E-01	1.804E-01	6.014E-02	0.068
LA-140		328.76		6.483E-02	9.424E-02	1.684E-01	1.096E-02	0.385
		487.02		-2.776E-02	4.501E-02	6.794E-02	4.498E-03	-0.409
		815.77		5.426E-02	8.980E-02	1.634E-01	1.441E-02	0.332
		1596.21	*	-4.196E-03	3.092E-02	4.893E-02	3.311E-03	-0.086
CE-141		145.44	*	-9.850E-03	2.465E-02	3.854E-02	2.220E-03	-0.256
CE-143		57.36		-2.580E+00	9.634E+00	1.349E+01	1.183E+00	-0.191
		293.27	*	6.372E-01	1.278E+00	2.236E+00	4.494E-01	0.285
		664.57		2.059E+00	1.196E+01	2.006E+01	5.833E+00	0.103
		721.93		2.914E-01	1.369E+01	2.237E+01	6.078E+00	0.013
CE-144		80.12		-5.210E-01	9.162E-01	1.430E+00	1.185E-01	-0.364
		133.52	*	6.765E-02	9.074E-02	1.559E-01	2.160E-02	0.434
PM-144		476.78		-9.944E-03	3.466E-02	5.393E-02	3.716E-03	-0.184
		618.01		1.093E-02	1.664E-02	2.971E-02	1.855E-03	0.368
		696.49	*	1.923E-02	2.232E-02	3.989E-02	2.484E-03	0.482
PR-144		696.51	*	1.434E+00	1.664E+00	2.974E+00	1.851E-01	0.482
		1489.16		1.592E+00	7.737E+00	1.332E+01	9.439E-01	0.120
PM-146		453.88	*	-6.912E-03	2.365E-02	3.791E-02	3.202E-03	-0.182
		633.25		5.383E-02	8.606E-01	1.406E+00	5.297E-01	0.038
		735.93		-7.065E-02	8.481E-02	1.161E-01	3.192E-02	-0.609
		747.24		2.858E-02	4.524E-02	8.131E-02	1.106E-02	0.351
ND-147		91.11		6.114E-02	7.204E-02	1.245E-01	1.151E-02	0.491
		319.41		1.753E-01	9.508E-01	1.626E+00	9.452E-02	0.108
		531.02	*	-1.445E-01	1.869E-01	2.735E-01	3.713E-02	-0.528
PM-149		285.90	*	-2.714E+00	4.073E+00	6.375E+00	9.023E-01	-0.426
EU-152		121.78		7.805E-03	3.589E-02	5.943E-02	4.583E-03	0.131
		244.70		7.289E-02	1.759E-01	2.919E-01	1.659E-02	0.250
		344.28	*	-6.247E-03	5.211E-02	8.619E-02	5.606E-03	-0.072
		778.90		3.625E-02	1.314E-01	2.231E-01	1.613E-02	0.162
		964.08		1.967E-04	1.500E-01	2.411E-01	1.986E-02	0.001
		1085.87		1.775E-01	2.086E-01	3.936E-01	2.678E-02	0.451
		1112.07		-8.715E-02	1.533E-01	2.229E-01	1.434E-02	-0.391
		1408.01		-2.290E-02	9.102E-02	1.411E-01	1.025E-02	-0.162
GD-153		69.67		-5.278E-01	7.061E-01	1.094E+00	8.419E-02	-0.482
		97.43	*	-1.430E-04	3.929E-02	6.424E-02	4.996E-03	-0.002
		103.18		-5.794E-02	5.024E-02	7.365E-02	5.333E-03	-0.787
EU-154		123.07		2.007E-02	2.561E-02	4.413E-02	4.180E-03	0.455
		723.31		-2.500E-02	9.043E-02	1.411E-01	1.080E-02	-0.177
		873.19		6.653E-02	1.369E-01	2.410E-01	2.840E-02	0.276
		996.26		1.036E-01	1.778E-01	3.158E-01	5.408E-02	0.328
		1004.73		3.881E-02	9.692E-02	1.741E-01	1.924E-02	0.223
		1274.44	*	-5.191E-03	5.414E-02	8.802E-02	8.780E-03	-0.059
EU-155		86.55		3.743E-02	4.020E-02	7.014E-02	6.249E-03	0.534

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		105.31	*	1.164E-02	4.822E-02	8.027E-02	5.771E-03	0.145
TB-160		86.79		9.062E-02	9.903E-02	1.726E-01	1.527E-02	0.525
		197.04		-6.973E-02	2.916E-01	4.390E-01	2.379E-02	-0.159
		215.65		1.231E-02	3.375E-01	5.434E-01	3.007E-02	0.023
		298.57		-1.005E-02	5.018E-02	8.275E-02	4.811E-03	-0.122
		879.36	*	1.660E-02	8.285E-02	1.284E-01	1.098E-02	0.129
		962.29		1.070E-01	2.428E-01	4.197E-01	3.464E-02	0.255
		966.15		-1.952E-02	9.983E-02	1.553E-01	1.275E-02	-0.126
		1177.93		-2.736E-02	1.271E-01	2.015E-01	1.115E-02	-0.136
		1271.85		-2.409E-01	2.973E-01	4.001E-01	2.651E-02	-0.602
HO-166M		80.57		-8.191E-02	1.044E-01	1.599E-01	1.330E-02	-0.512
		184.41		-1.354E-03	1.985E-02	3.341E-02	1.782E-03	-0.041
		280.46		3.201E-02	4.355E-02	7.785E-02	4.510E-03	0.411
		410.95		3.799E-02	1.197E-01	2.064E-01	1.164E-02	0.184
		711.68	*	4.726E-03	3.562E-02	5.909E-02	3.785E-03	0.080
		752.31		-1.568E-02	1.349E-01	2.149E-01	1.482E-02	-0.073
		810.29		-1.869E-02	2.836E-02	3.981E-02	3.039E-03	-0.470
TA-182		67.75		-7.496E-03	5.176E-02	7.257E-02	5.537E-03	-0.103
		100.11		9.816E-02	7.747E-02	1.386E-01	1.041E-02	0.708
		152.43		-1.612E-02	1.602E-01	2.572E-01	1.392E-02	-0.063
		222.11		-2.877E-02	1.617E-01	2.546E-01	1.419E-02	-0.113
	+	1121.30		7.541E-02	6.362E-02	1.237E-01	7.787E-03	0.610
		1189.05		-8.405E-03	1.091E-01	1.786E-01	1.010E-02	-0.047
		1221.41	*	1.811E-02	6.923E-02	1.216E-01	7.331E-03	0.149
		1231.02		3.267E-02	2.240E-01	3.812E-01	2.341E-02	0.086
IR-192		295.96		-7.987E-03	5.384E-02	8.228E-02	4.859E-03	-0.097
		308.46		2.705E-02	4.512E-02	8.003E-02	4.708E-03	0.338
		316.51	*	-4.260E-03	1.513E-02	2.462E-02	1.438E-03	-0.173
		468.07		-7.789E-03	3.287E-02	5.287E-02	3.550E-03	-0.147
HG-203		70.83		-3.807E-01	4.827E-01	7.391E-01	1.153E-01	-0.515
		72.87		1.775E-01	2.752E-01	4.716E-01	7.128E-02	0.376
		279.20	*	9.574E-03	1.743E-02	3.071E-02	1.878E-03	0.312
BI-207		72.81		3.136E-02	7.191E-02	1.219E-01	9.550E-03	0.257
		74.97		2.795E-02	4.368E-02	7.197E-02	5.720E-03	0.388
		569.70		7.654E-03	2.078E-02	3.404E-02	2.020E-03	0.225
		1063.66	*	3.389E-03	2.746E-02	4.690E-02	3.330E-03	0.072
		1770.23		-1.685E-01	3.196E-01	4.464E-01	2.693E-02	-0.377
TL-208		277.37		-3.139E-02	1.953E-01	3.243E-01	3.495E-02	-0.097
		583.19	*	-7.342E-03	2.076E-02	3.021E-02	2.050E-03	-0.243
		860.56		-7.308E-02	1.403E-01	2.036E-01	1.823E-02	-0.359
PB-210		46.54	*	-8.288E-01	1.463E+00	2.294E+00	1.729E-01	-0.361
BI-211		72.87		7.987E-01	1.234E+00	2.123E+00	1.663E-01	0.376
		351.06	*	8.389E-02	1.138E-01	2.026E-01	1.294E-02	0.414
PB-211		404.85	*	-1.621E-01	3.823E-01	5.930E-01	2.843E-01	-0.273
		427.09		-4.832E-01	8.374E-01	1.247E+00	5.713E-01	-0.387
		832.01		-3.780E-01	5.421E-01	7.031E-01	3.638E-01	-0.538
BI-212		727.33	*	-7.653E-02	3.122E-01	4.917E-01	5.484E-02	-0.156
		785.37		8.848E-01	1.674E+00	2.934E+00	2.146E-01	0.302
		1620.50		8.530E-01	1.597E+00	2.907E+00	1.942E-01	0.293

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PB-212		74.82		1.083E-01	1.525E-01	2.519E-01	3.163E-02	0.430
		77.11		-3.712E-02	7.985E-02	1.263E-01	1.020E-02	-0.294
		238.63	*	-2.018E-03	3.431E-02	5.413E-02	3.942E-03	-0.037
		300.09		4.107E-02	3.724E-01	6.324E-01	5.311E-02	0.065
BI-214		609.32	*	1.043E-02	4.164E-02	7.030E-02	5.570E-03	0.148
	+	1120.29		1.686E-01	1.426E-01	2.925E-01	2.693E-02	0.576
		1764.49		6.564E-02	1.588E-01	2.825E-01	1.712E-02	0.232
PB-214		74.82		1.920E-01	2.701E-01	4.464E-01	5.010E-02	0.430
		77.11		-6.545E-02	1.409E-01	2.226E-01	2.570E-02	-0.294
		242.00		-2.909E-01	2.026E-01	2.795E-01	2.266E-02	-1.041
		295.22		3.375E-03	7.778E-02	1.210E-01	1.057E-02	0.028
		351.93	*	6.726E-03	4.190E-02	7.109E-02	5.998E-03	0.095
RN-219		271.23		7.747E-02	1.192E-01	2.114E-01	1.694E-02	0.366
		401.81	*	6.873E-02	2.186E-01	3.756E-01	5.017E-02	0.183
RA-223		81.07		-7.495E-02	8.355E-02	1.266E-01	1.059E-02	-0.592
		83.79		-3.763E-04	5.449E-02	8.559E-02	7.342E-03	-0.004
		94.87		4.607E-03	2.012E-01	3.298E-01	2.656E-02	0.014
		144.24		-4.092E-01	3.454E-01	4.740E-01	3.317E-02	-0.863
		154.21		3.747E-02	1.837E-01	3.026E-01	2.005E-02	0.124
		269.46		-5.203E-02	9.270E-02	1.486E-01	8.948E-03	-0.350
		323.87	*	-1.928E-02	2.913E-01	4.849E-01	7.816E-02	-0.040
		338.28		-4.191E-01	4.956E-01	7.579E-01	7.761E-02	-0.553
RA-224		240.99	*	2.303E-01	3.227E-01	5.490E-01	3.111E-02	0.420
RA-226		609.32	*	1.043E-02	4.164E-02	7.030E-02	5.570E-03	0.148
	+	1120.29		1.686E-01	1.426E-01	2.925E-01	2.693E-02	0.576
		1764.49		6.564E-02	1.588E-01	2.825E-01	1.712E-02	0.232
AC-227		79.69		-1.060E-01	4.510E-01	7.249E-01	1.236E-01	-0.146
		235.96		-6.581E-02	7.620E-02	1.116E-01	8.964E-03	-0.590
		256.23	*	-1.769E-02	1.273E-01	2.001E-01	2.038E-02	-0.088
		299.98		4.994E-02	4.100E-01	6.970E-01	7.665E-02	0.072
		304.50		-1.057E+00	8.016E-01	1.132E+00	1.726E-01	-0.934
		334.37		4.136E-01	8.739E-01	1.526E+00	2.170E-01	0.271
TH-227		79.80		-1.451E-01	5.942E-01	9.537E-01	2.064E-01	-0.152
		235.96		-6.581E-02	7.617E-02	1.116E-01	8.106E-03	-0.590
		256.23	*	-1.769E-02	1.273E-01	2.001E-01	2.398E-02	-0.088
		299.98		4.994E-02	4.100E-01	6.970E-01	7.665E-02	0.072
		304.50		-1.057E+00	8.016E-01	1.132E+00	1.726E-01	-0.934
		334.37		4.136E-01	8.739E-01	1.526E+00	2.170E-01	0.271
AC-228		338.32		-1.066E-01	1.319E-01	1.907E-01	7.860E-02	-0.559
		911.20	*	-7.166E-02	8.200E-02	1.099E-01	1.281E-02	-0.652
		968.97		1.579E-02	1.346E-01	2.206E-01	5.340E-02	0.072
RA-228		338.32		-1.066E-01	1.319E-01	1.907E-01	7.860E-02	-0.559
		911.20	*	-7.166E-02	8.200E-02	1.099E-01	1.281E-02	-0.652
		968.97		1.579E-02	1.346E-01	2.206E-01	5.340E-02	0.072
TH-228		74.82		1.083E-01	1.522E-01	2.519E-01	2.021E-02	0.430
		77.11		-3.712E-02	7.985E-02	1.263E-01	1.020E-02	-0.294
		238.63	*	-2.018E-03	3.431E-02	5.413E-02	3.942E-03	-0.037
		300.09		4.107E-02	3.732E-01	6.324E-01	3.850E-01	0.065
TH-229		85.43		3.974E-02	9.230E-02	1.498E-01	1.307E-02	0.265

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		88.47		-7.200E-02	5.565E-02	8.209E-02	7.297E-03	-0.877
		193.51	*	-6.190E-02	2.558E-01	4.023E-01	2.170E-02	-0.154
		210.85		1.282E-01	4.120E-01	6.810E-01	3.749E-02	0.188
TH-230		609.32	*	1.042E-02	4.164E-02	7.030E-02	4.156E-03	0.148
	+	1120.29		1.686E-01	1.422E-01	2.925E-01	1.846E-02	0.576
		1764.49		6.564E-02	1.588E-01	2.825E-01	1.712E-02	0.232
PA-231		283.69	*	-1.609E-01	7.253E-01	1.195E+00	1.568E-01	-0.135
		301.36		5.563E-02	2.511E-01	4.312E-01	4.464E-02	0.129
TH-231		81.07		-7.495E-02	8.355E-02	1.266E-01	1.059E-02	-0.592
		83.79		-3.763E-04	5.449E-02	8.559E-02	7.342E-03	-0.004
		94.87		4.607E-03	2.012E-01	3.298E-01	2.656E-02	0.014
		144.24		-4.092E-01	3.454E-01	4.740E-01	3.317E-02	-0.863
		154.21		3.747E-02	1.837E-01	3.026E-01	2.005E-02	0.124
		269.46		-5.203E-02	9.270E-02	1.486E-01	8.948E-03	-0.350
		323.87	*	-1.928E-02	2.913E-01	4.849E-01	7.816E-02	-0.040
		338.28		-4.191E-01	4.956E-01	7.579E-01	7.761E-02	-0.553
TH-232		338.32		-1.066E-01	1.245E-01	1.907E-01	1.102E-02	-0.559
		911.20	*	-7.166E-02	8.200E-02	1.099E-01	1.281E-02	-0.652
		968.97		1.579E-02	1.346E-01	2.206E-01	5.340E-02	0.072
PA-233		300.13		1.966E-02	1.853E-01	3.145E-01	4.213E-02	0.063
		311.90	*	-3.677E-03	3.250E-02	5.394E-02	3.331E-03	-0.068
		340.48		-3.537E-02	3.085E-01	5.106E-01	1.185E-01	-0.069
PA-234		94.67		1.575E-02	7.611E-02	1.264E-01	1.520E-02	0.125
		98.44		2.705E-02	4.574E-02	7.399E-02	4.117E-02	0.366
		111.00		-2.054E-03	8.167E-02	1.329E-01	1.431E-02	-0.015
		131.20		2.117E-02	4.672E-02	7.891E-02	4.542E-03	0.268
		569.50		1.556E-01	1.797E-01	3.091E-01	1.835E-02	0.503
		733.00		8.440E-02	2.291E-01	3.899E-01	8.387E-02	0.216
		880.51		8.997E-02	1.716E-01	2.785E-01	2.387E-02	0.323
		883.24		-7.010E-02	1.675E-01	2.392E-01	1.608E-01	-0.293
		926.50		8.286E-03	1.056E-01	1.722E-01	4.350E-02	0.048
		946.00	*	-7.583E-02	1.576E-01	2.283E-01	4.262E-02	-0.332
		949.00		2.363E-01	2.293E-01	4.343E-01	3.639E-02	0.544
PA-234M		766.42		1.954E+00	6.333E+00	1.060E+01	5.355E+00	0.184
		1001.03	*	-1.805E+00	2.369E+00	3.589E+00	3.341E-01	-0.503
TH-234	+	63.29	*	8.329E-01	8.192E-01	9.321E-01	1.667E-01	0.894
		92.59		-4.000E-01	3.390E-01	5.189E-01	1.140E-01	-0.771
U-235		89.96		-5.414E-01	3.889E-01	5.318E-01	1.310E-01	-1.018
		93.35		-2.174E-01	2.504E-01	3.976E-01	9.128E-02	-0.547
		143.76	*	-1.455E-01	1.039E-01	1.354E-01	2.115E-02	-1.074
		163.33		1.291E-01	2.173E-01	3.669E-01	6.091E-02	0.352
		185.72		-2.608E-03	2.491E-02	4.185E-02	2.236E-03	-0.062
		205.31		-1.384E-01	2.308E-01	3.471E-01	5.859E-02	-0.399
NP-237		86.48	*	9.297E-02	1.012E-01	1.734E-01	3.943E-02	0.536
		95.86		-8.310E-01	5.032E-01	6.554E-01	1.557E-01	-1.268
U-238	+	63.29	*	8.329E-01	8.192E-01	9.321E-01	1.667E-01	0.894
		92.59		-4.000E-01	3.291E-01	5.189E-01	4.320E-02	-0.771
NP-239		99.53		8.217E-02	7.657E-02	1.350E-01	1.022E-02	0.608
		103.37		-3.938E-02	4.532E-02	6.826E-02	4.931E-03	-0.577

Sample ID : G1202071014 Acquisition date : 24-MAR-2010 11:03:00

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		106.12		2.418E-02	3.817E-02	6.547E-02	4.584E-03	0.369
		117.23	*	-1.634E-01	1.795E-01	2.673E-01	1.668E-02	-0.611
		228.18		1.627E-02	1.062E-01	1.727E-01	9.678E-03	0.094
		277.60		-6.553E-03	9.006E-02	1.507E-01	8.723E-03	-0.043
AM-241		59.54	*	4.122E-02	6.249E-02	9.764E-02	8.039E-03	0.422
CM-247		278.00		-1.244E-01	3.856E-01	6.314E-01	3.654E-02	-0.197
		287.50		-3.832E-01	5.924E-01	9.317E-01	5.407E-02	-0.411
		402.40	*	-1.462E-03	2.010E-02	3.322E-02	1.863E-03	-0.044
CF-249		252.80		1.450E-01	5.085E-01	8.350E-01	4.772E-02	0.174
		333.37		-4.321E-04	9.428E-02	1.579E-01	9.144E-03	-0.003
		388.16	*	1.464E-02	2.137E-02	3.809E-02	2.127E-03	0.384
CF-251		177.52	*	3.724E-02	6.307E-02	1.070E-01	5.659E-03	0.348
		227.38		5.136E-02	1.725E-01	2.844E-01	1.593E-02	0.181
		285.41		-6.538E-01	1.065E+00	1.683E+00	9.764E-02	-0.388
ANH-511		511.00	*	-2.693E-02	3.347E-02	6.054E-02	3.572E-03	-0.445

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071014      *
* Acquisition date : 24-MAR-2010 11:03:00 Detector SN#    :                 *
* Detector ID      : GAM19                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.61     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 17-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202071014          Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.3571E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)	
BE-7	-6.890E-02	1.546E-01	2.460E-01	0.000E+00 NOT IDENT.
NA-22	5.185E-03	1.751E-02	3.174E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	9.548E+01	0.000E+00	0.000E+00 SHORT HLIF
K-40	1.887E-01	2.596E-01	5.102E-01	0.000E+00 NOT IDENT.
SC-46	7.283E-03	1.809E-02	3.233E-02	0.000E+00 FAIL ABUN
V-48	-2.209E-02	2.607E-02	3.543E-02	0.000E+00 NOT IDENT.
CR-51	5.273E-02	1.377E-01	2.528E-01	0.000E+00 NOT IDENT.
MN-54	-1.752E-04	1.498E-02	2.501E-02	0.000E+00 NOT IDENT.
CO-56	1.967E-02	1.948E-02	3.757E-02	0.000E+00 NOT IDENT.
CO-57	6.969E-03	1.194E-02	2.176E-02	0.000E+00 NOT IDENT.
CO-58	-6.667E-03	1.678E-02	2.593E-02	0.000E+00 NOT IDENT.
FE-59	1.041E-02	3.181E-02	5.833E-02	0.000E+00 NOT IDENT.
CO-60	4.349E-03	2.074E-02	3.665E-02	0.000E+00 NOT IDENT.
ZN-65	-2.531E-03	4.006E-02	5.822E-02	0.000E+00 NOT IDENT.
SE-75	8.449E-03	2.100E-02	3.868E-02	0.000E+00 NOT IDENT.
SR-85	-1.984E-02	3.066E-02	5.039E-02	0.000E+00 NOT IDENT.
Y-88	9.380E-03	2.273E-02	4.146E-02	0.000E+00 NOT IDENT.
Y-91	1.291E+00	7.802E+00	1.377E+01	0.000E+00 NOT IDENT.
NB-94	1.026E-02	1.934E-02	3.488E-02	0.000E+00 NOT IDENT.
NB-95	9.520E-03	2.082E-02	3.723E-02	0.000E+00 NOT IDENT.
NB-95M	-6.697E-02	5.719E-02	8.576E-02	0.000E+00 NOT IDENT.
ZR-95	-3.089E-04	3.442E-02	5.786E-02	0.000E+00 NOT IDENT.
MO-99	1.629E-01	8.022E-01	1.401E+00	0.000E+00 NOT IDENT.
TC-99M	0.000E+00	1.102E+07	0.000E+00	0.000E+00 SHORT HLIF
RU-103	-1.393E-02	1.851E-02	2.872E-02	0.000E+00 NOT IDENT.
RH-106	-2.225E-02	1.533E-01	2.554E-01	0.000E+00 NOT IDENT.

RU-106	-2.225E-02	1.533E-01	2.554E-01	0.000E+00	NOT IDENT.
AG-108M	6.937E-03	1.608E-02	2.922E-02	0.000E+00	NOT IDENT.
CD-109	-1.556E-01	3.394E-01	5.788E-01	0.000E+00	NOT IDENT.
AG-110M	-1.536E-02	1.762E-02	2.584E-02	0.000E+00	NOT IDENT.
SN-113	2.896E-03	2.307E-02	4.083E-02	0.000E+00	NOT IDENT.
CD-115	3.182E-01	5.186E-01	9.635E-01	0.000E+00	NOT IDENT.
SN-117M	-1.038E-02	1.796E-02	2.941E-02	0.000E+00	NOT IDENT.
TE-123M	-1.307E-02	1.351E-02	2.134E-02	0.000E+00	NOT IDENT.
SB-124	4.714E-03	5.697E-02	9.668E-02	0.000E+00	NOT IDENT.
SB-125	-1.510E-02	4.615E-02	7.722E-02	0.000E+00	NOT IDENT.
TE-125M	-7.127E-01	3.953E+00	6.816E+00	0.000E+00	NOT IDENT.
I-126	-2.415E-02	7.419E-02	1.197E-01	0.000E+00	NOT IDENT.
SB-126	-5.584E-03	4.811E-02	7.979E-02	0.000E+00	NOT IDENT.
SN-126	2.430E-03	3.247E-02	5.762E-02	0.000E+00	NOT IDENT.
SB-127	-4.929E-02	1.612E-01	2.593E-01	0.000E+00	NOT IDENT.
I-131	2.155E-02	3.144E-02	5.878E-02	0.000E+00	NOT IDENT.
TE-132	1.083E-02	6.695E-02	1.153E-01	0.000E+00	NOT IDENT.
BA-133	-1.968E-02	2.287E-02	3.661E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.690E+00	0.000E+00	0.000E+00	SHORT HLIF
CS-134	2.151E-04	2.440E-02	4.101E-02	0.000E+00	NOT IDENT.
CS-135	2.663E-02	7.753E-02	1.419E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.331E+07	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.502E-03	3.716E-02	6.452E-02	0.000E+00	NOT IDENT.
BA-137M	-8.994E-03	1.963E-02	2.863E-02	0.000E+00	NOT IDENT.
CS-137	-9.501E-03	2.074E-02	3.025E-02	0.000E+00	NOT IDENT.
CE-139	-1.013E-02	1.452E-02	2.351E-02	0.000E+00	NOT IDENT.
BA-140	1.218E-02	1.060E-01	1.843E-01	0.000E+00	NOT IDENT.
LA-140	-4.196E-03	3.030E-02	4.896E-02	0.000E+00	NOT IDENT.
CE-141	-9.850E-03	2.416E-02	4.032E-02	0.000E+00	NOT IDENT.
CE-143	6.372E-01	1.252E+00	2.310E+00	0.000E+00	NOT IDENT.
CE-144	6.765E-02	8.892E-02	1.633E-01	0.000E+00	NOT IDENT.
PM-144	1.923E-02	2.187E-02	4.056E-02	0.000E+00	NOT IDENT.
PR-144	1.434E+00	1.630E+00	3.023E+00	0.000E+00	NOT IDENT.
PM-146	-6.912E-03	2.318E-02	3.885E-02	0.000E+00	NOT IDENT.
ND-147	-1.445E-01	1.832E-01	2.795E-01	0.000E+00	NOT IDENT.
PM-149	-2.714E+00	3.992E+00	6.589E+00	0.000E+00	NOT IDENT.
EU-152	-6.247E-03	5.107E-02	8.879E-02	0.000E+00	NOT IDENT.
GD-153	-1.430E-04	3.851E-02	6.769E-02	0.000E+00	NOT IDENT.
EU-154	-5.191E-03	5.306E-02	8.847E-02	0.000E+00	NOT IDENT.
EU-155	1.164E-02	4.725E-02	8.447E-02	0.000E+00	NOT IDENT.
TB-160	1.660E-02	8.120E-02	1.299E-01	0.000E+00	NOT IDENT.
HO-166M	4.726E-03	3.490E-02	6.005E-02	0.000E+00	NOT IDENT.
TA-182	1.811E-02	6.785E-02	1.223E-01	0.000E+00	FAIL ABUN
IR-192	-4.260E-03	1.483E-02	2.540E-02	0.000E+00	NOT IDENT.
HG-203	9.574E-03	1.708E-02	3.176E-02	0.000E+00	NOT IDENT.
BI-207	3.389E-03	2.691E-02	4.731E-02	0.000E+00	NOT IDENT.
TL-208	-7.342E-03	2.034E-02	3.081E-02	0.000E+00	NOT IDENT.
PB-210	-8.288E-01	1.434E+00	2.448E+00	0.000E+00	NOT IDENT.
BI-211	8.389E-02	1.115E-01	2.087E-01	0.000E+00	NOT IDENT.
PB-211	-1.621E-01	3.746E-01	6.090E-01	0.000E+00	NOT IDENT.
BI-212	-7.653E-02	3.060E-01	4.995E-01	0.000E+00	NOT IDENT.
PB-212	-2.018E-03	3.363E-02	5.614E-02	0.000E+00	NOT IDENT.
BI-214	1.043E-02	4.081E-02	7.165E-02	0.000E+00	FAIL ABUN
PB-214	6.726E-03	4.106E-02	7.320E-02	0.000E+00	NOT IDENT.
RN-219	6.873E-02	2.142E-01	3.858E-01	0.000E+00	NOT IDENT.
RA-223	-1.928E-02	2.855E-01	5.000E-01	0.000E+00	NOT IDENT.
RA-224	2.303E-01	3.162E-01	5.692E-01	0.000E+00	NOT IDENT.
RA-226	1.043E-02	4.081E-02	7.165E-02	0.000E+00	FAIL ABUN
AC-227	-1.769E-02	1.248E-01	2.073E-01	0.000E+00	NOT IDENT.
TH-227	-1.769E-02	1.248E-01	2.073E-01	0.000E+00	NOT IDENT.
AC-228	-7.166E-02	8.036E-02	1.112E-01	0.000E+00	NOT IDENT.
RA-228	-7.166E-02	8.036E-02	1.112E-01	0.000E+00	NOT IDENT.
TH-228	-2.018E-03	3.363E-02	5.614E-02	0.000E+00	NOT IDENT.
TH-229	-6.190E-02	2.507E-01	4.187E-01	0.000E+00	NOT IDENT.
TH-230	1.042E-02	4.081E-02	7.165E-02	0.000E+00	FAIL ABUN
PA-231	-1.609E-01	7.108E-01	1.236E+00	0.000E+00	NOT IDENT.
TH-231	-1.928E-02	2.855E-01	5.000E-01	0.000E+00	NOT IDENT.
TH-232	-7.166E-02	8.036E-02	1.112E-01	0.000E+00	NOT IDENT.
PA-233	-3.677E-03	3.185E-02	5.566E-02	0.000E+00	NOT IDENT.
PA-234	-7.583E-02	1.545E-01	2.308E-01	0.000E+00	NOT IDENT.
PA-234M	-1.805E+00	2.321E+00	3.624E+00	0.000E+00	NOT IDENT.
TH-234	8.329E-01	8.029E-01	9.895E-01	0.000E+00	FAIL ABUN
U-235	-1.455E-01	1.019E-01	1.417E-01	0.000E+00	NOT IDENT.
NP-237	9.297E-02	9.920E-02	1.831E-01	0.000E+00	NOT IDENT.
U-238	8.329E-01	8.029E-01	9.895E-01	0.000E+00	FAIL ABUN
NP-239	-1.634E-01	1.759E-01	2.808E-01	0.000E+00	NOT IDENT.
AM-241	4.122E-02	6.124E-02	1.038E-01	0.000E+00	NOT IDENT.
CM-247	-1.462E-03	1.970E-02	3.412E-02	0.000E+00	NOT IDENT.

CF-249	1.464E-02	2.094E-02	3.915E-02	0.000E+00	NOT IDENT.
CF-251	3.724E-02	6.181E-02	1.115E-01	0.000E+00	NOT IDENT.
ANH-511	-2.693E-02	3.280E-02	6.191E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:06:27.55

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071014.CNF;1
Sample date       : 17-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 11:03:00
Sample ID         : G1202071014          Sample quantity  : 1.35710E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.61  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 965250                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202071014 Acquisition date : 24-MAR-2010 11:03:00

Total number of lines in spectrum	2	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	2	100.00%

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202071014 Acquisition date : 24-MAR-2010 11:03:00

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	62.11	38	60	1.03	124.09	118	12	5.34E-03	96.7	3.45E+00	T
0	1119.95	13	6	1.45	2239.05	2235	8	1.84E-03	84.1	1.46E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:06:44.05

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071014.CNF;1  *
* Acquisition date  : 24-MAR-2010 11:03:00  Detector SN#     :             *
* Detector ID       : GAM19                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:00.61          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 17-MAR-2010 00:00:00  Nuclide Library : SOLID        *
* Sample ID         : G1202071014           Analyst initials: MXR1         *
* Batch Number      : 965250                Sample Quantity : 1.35710E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54.1MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.890E-02		1.577E-01	2.402E-01	1.630E-02	-0.287
NA-22	5.185E-03		1.787E-02	3.158E-02	2.106E-03	0.164
NA-24	-9.599E-06		4.872E-05	Half-Life too short		
K-40	1.887E-01		2.649E-01	5.089E-01	3.790E-02	0.371
SC-46	7.283E-03		1.846E-02	3.194E-02	2.776E-03	0.228
V-48	-2.209E-02		2.660E-02	3.508E-02	2.820E-03	-0.630
CR-51	5.273E-02		1.405E-01	2.451E-01	1.584E-02	0.215
MN-54	-1.752E-04		1.529E-02	2.468E-02	1.963E-03	-0.007
CO-56	1.967E-02		1.988E-02	3.709E-02	3.009E-03	0.530
CO-57	6.969E-03		1.219E-02	2.073E-02	1.237E-03	0.336
CO-58	-6.667E-03		1.712E-02	2.558E-02	1.960E-03	-0.261
FE-59	1.041E-02		3.246E-02	5.787E-02	4.341E-03	0.180
CO-60	4.349E-03		2.117E-02	3.649E-02	2.689E-03	0.119
ZN-65	-2.531E-03		4.087E-02	5.778E-02	3.694E-03	-0.044
SE-75	8.449E-03		2.143E-02	3.737E-02	2.174E-03	0.226
SR-85	-1.984E-02		3.129E-02	4.928E-02	2.910E-03	-0.403
Y-88	9.380E-03		2.319E-02	4.154E-02	2.371E-03	0.226

Sample ID : G1202071014 Acquisition date : 24-MAR-2010 11:03:00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	1.291E+00		7.962E+00	1.368E+01	7.988E-01	0.094
NB-94	1.026E-02		1.974E-02	3.431E-02	2.161E-03	0.299
NB-95	9.520E-03		2.125E-02	3.669E-02	2.592E-03	0.260
NB-95M	-6.697E-02		5.835E-02	8.268E-02	6.145E-03	-0.810
ZR-95	-3.089E-04		3.512E-02	5.700E-02	4.585E-03	-0.005
MO-99	1.629E-01		8.186E-01	1.379E+00	2.043E-01	0.118
TC-99M	8.991E+00		5.620E+00	Half-Life too short		
RU-103	-1.393E-02		1.889E-02	2.807E-02	3.499E-03	-0.496
RH-106	-2.225E-02		1.564E-01	2.507E-01	2.926E-02	-0.089
RU-106	-2.225E-02		1.564E-01	2.507E-01	1.478E-02	-0.089
AG-108M	6.937E-03		1.640E-02	2.848E-02	1.748E-03	0.244
CD-109	-1.556E-01		3.463E-01	5.483E-01	4.911E-02	-0.284
AG-110M	-1.536E-02		1.798E-02	2.539E-02	1.576E-03	-0.605
SN-113	2.896E-03		2.354E-02	3.973E-02	2.370E-03	0.073
CD-115	3.182E-01		5.292E-01	9.428E-01	5.580E-02	0.337
SN-117M	-1.038E-02		1.832E-02	2.816E-02	1.499E-03	-0.369
TE-123M	-1.307E-02		1.379E-02	2.043E-02	1.103E-03	-0.640
SB-124	4.714E-03		5.813E-02	9.671E-02	6.650E-03	0.049
SB-125	-1.510E-02		4.709E-02	7.526E-02	4.475E-03	-0.201
TE-125M	-7.127E-01		4.034E+00	6.482E+00	5.833E-01	-0.110
I-126	-2.415E-02		7.570E-02	1.177E-01	6.914E-03	-0.205
SB-126	-5.584E-03		4.909E-02	7.853E-02	5.115E-03	-0.071
SN-126	2.430E-03		3.313E-02	5.458E-02	4.869E-03	0.045
SB-127	-4.929E-02		1.645E-01	2.550E-01	1.878E-02	-0.193
I-131	2.155E-02		3.208E-02	5.712E-02	3.612E-03	0.377
TE-132	1.083E-02		6.831E-02	1.111E-01	1.457E-02	0.097
BA-133	-1.968E-02		2.334E-02	3.556E-02	3.997E-03	-0.553
I-133	-7.053E-06		3.413E-06	Half-Life too short		
CS-134	2.151E-04		2.490E-02	4.044E-02	3.041E-03	0.005
CS-135	2.663E-02		7.911E-02	1.371E-01	1.046E-02	0.194
I-135	-1.403E+00		6.791E+00	Half-Life too short		
CS-136	1.502E-03		3.792E-02	6.396E-02	4.936E-03	0.023
BA-137M	-8.994E-03		2.003E-02	2.814E-02	1.638E-03	-0.320
CS-137	-9.501E-03		2.116E-02	2.972E-02	1.738E-03	-0.320
CE-139	-1.013E-02		1.482E-02	2.253E-02	1.176E-03	-0.450
BA-140	1.218E-02		1.082E-01	1.804E-01	6.014E-02	0.068
LA-140	-4.196E-03		3.092E-02	4.893E-02	3.311E-03	-0.086
CE-141	-9.850E-03		2.465E-02	3.854E-02	2.220E-03	-0.256
CE-143	6.372E-01		1.278E+00	2.236E+00	4.494E-01	0.285
CE-144	6.765E-02		9.074E-02	1.559E-01	2.160E-02	0.434
PM-144	1.923E-02		2.232E-02	3.989E-02	2.484E-03	0.482
PR-144	1.434E+00		1.664E+00	2.974E+00	1.851E-01	0.482
PM-146	-6.912E-03		2.365E-02	3.791E-02	3.202E-03	-0.182
ND-147	-1.445E-01		1.869E-01	2.735E-01	3.713E-02	-0.528
PM-149	-2.714E+00		4.073E+00	6.375E+00	9.023E-01	-0.426
EU-152	-6.247E-03		5.211E-02	8.619E-02	5.606E-03	-0.072
GD-153	-1.430E-04		3.929E-02	6.424E-02	4.996E-03	-0.002
EU-154	-5.191E-03		5.414E-02	8.802E-02	8.780E-03	-0.059

Sample ID : G1202071014 Acquisition date : 24-MAR-2010 11:03:00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	1.164E-02		4.822E-02	8.027E-02	5.771E-03	0.145
TB-160	1.660E-02		8.285E-02	1.284E-01	1.098E-02	0.129
HO-166M	4.726E-03		3.562E-02	5.909E-02	3.785E-03	0.080
TA-182	1.811E-02		6.923E-02	1.216E-01	7.331E-03	0.149
IR-192	-4.260E-03		1.513E-02	2.462E-02	1.438E-03	-0.173
HG-203	9.574E-03		1.743E-02	3.071E-02	1.878E-03	0.312
BI-207	3.389E-03		2.746E-02	4.690E-02	3.330E-03	0.072
TL-208	-7.342E-03		2.076E-02	3.021E-02	2.050E-03	-0.243
PB-210	-8.288E-01		1.463E+00	2.294E+00	1.729E-01	-0.361
BI-211	8.389E-02		1.138E-01	2.026E-01	1.294E-02	0.414
PB-211	-1.621E-01		3.823E-01	5.930E-01	2.843E-01	-0.273
BI-212	-7.653E-02		3.122E-01	4.917E-01	5.484E-02	-0.156
PB-212	-2.018E-03		3.431E-02	5.413E-02	3.942E-03	-0.037
BI-214	1.043E-02		4.164E-02	7.030E-02	5.570E-03	0.148
PB-214	6.726E-03		4.190E-02	7.109E-02	5.998E-03	0.095
RN-219	6.873E-02		2.186E-01	3.756E-01	5.017E-02	0.183
RA-223	-1.928E-02		2.913E-01	4.849E-01	7.816E-02	-0.040
RA-224	2.303E-01		3.227E-01	5.490E-01	3.111E-02	0.420
RA-226	1.043E-02		4.164E-02	7.030E-02	5.570E-03	0.148
AC-227	-1.769E-02		1.273E-01	2.001E-01	2.038E-02	-0.088
TH-227	-1.769E-02		1.273E-01	2.001E-01	2.398E-02	-0.088
AC-228	-7.166E-02		8.200E-02	1.099E-01	1.281E-02	-0.652
RA-228	-7.166E-02		8.200E-02	1.099E-01	1.281E-02	-0.652
TH-228	-2.018E-03		3.431E-02	5.413E-02	3.942E-03	-0.037
TH-229	-6.190E-02		2.558E-01	4.023E-01	2.170E-02	-0.154
TH-230	1.042E-02		4.164E-02	7.030E-02	4.156E-03	0.148
PA-231	-1.609E-01		7.253E-01	1.195E+00	1.568E-01	-0.135
TH-231	-1.928E-02		2.913E-01	4.849E-01	7.816E-02	-0.040
TH-232	-7.166E-02		8.200E-02	1.099E-01	1.281E-02	-0.652
PA-233	-3.677E-03		3.250E-02	5.394E-02	3.331E-03	-0.068
PA-234	-7.583E-02		1.576E-01	2.283E-01	4.262E-02	-0.332
PA-234M	-1.805E+00		2.369E+00	3.589E+00	3.341E-01	-0.503
TH-234	8.329E-01	+	8.192E-01	9.321E-01	1.667E-01	0.894
U-235	-1.455E-01		1.039E-01	1.354E-01	2.115E-02	-1.074
NP-237	9.297E-02		1.012E-01	1.734E-01	3.943E-02	0.536
U-238	8.329E-01	+	8.192E-01	9.321E-01	1.667E-01	0.894
NP-239	-1.634E-01		1.795E-01	2.673E-01	1.668E-02	-0.611
AM-241	4.122E-02		6.249E-02	9.764E-02	8.039E-03	0.422
CM-247	-1.462E-03		2.010E-02	3.322E-02	1.863E-03	-0.044
CF-249	1.464E-02		2.137E-02	3.809E-02	2.127E-03	0.384
CF-251	3.724E-02		6.307E-02	1.070E-01	5.659E-03	0.348
ANH-511	-2.693E-02		3.347E-02	6.054E-02	3.572E-03	-0.445

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202071014           *
* Acquisition date : 24-MAR-2010 11:03:00 Detector SN#    :                 *
* Detector ID      : GAM19                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.61     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 17-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202071014          Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.3571E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act Error	DLC (pCi/GRAM)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-6.890E-02	1.546E-01	1.231E-01	7.886E-02 NOT IDENT.
NA-22	5.185E-03	1.751E-02	1.588E-02	8.934E-03 NOT IDENT.
NA-24	-9.599E+00	9.548E+01	0.000E+00	4.872E+01 SHORT HLIF
K-40	1.887E-01	2.596E-01	2.552E-01	1.324E-01 NOT IDENT.
SC-46	7.283E-03	1.809E-02	1.617E-02	9.228E-03 FAIL ABUN
V-48	-2.209E-02	2.607E-02	1.773E-02	1.330E-02 NOT IDENT.
CR-51	5.273E-02	1.377E-01	1.265E-01	7.027E-02 NOT IDENT.
MN-54	-1.752E-04	1.498E-02	1.251E-02	7.644E-03 NOT IDENT.
CO-56	1.967E-02	1.948E-02	1.880E-02	9.939E-03 NOT IDENT.
CO-57	6.969E-03	1.194E-02	1.089E-02	6.093E-03 NOT IDENT.
CO-58	-6.667E-03	1.678E-02	1.297E-02	8.560E-03 NOT IDENT.
FE-59	1.041E-02	3.181E-02	2.918E-02	1.623E-02 NOT IDENT.
CO-60	4.349E-03	2.074E-02	1.833E-02	1.058E-02 NOT IDENT.
ZN-65	-2.531E-03	4.006E-02	2.913E-02	2.044E-02 NOT IDENT.
SE-75	8.449E-03	2.100E-02	1.935E-02	1.072E-02 NOT IDENT.
SR-85	-1.984E-02	3.066E-02	2.521E-02	1.564E-02 NOT IDENT.
Y-88	9.380E-03	2.273E-02	2.074E-02	1.159E-02 NOT IDENT.
Y-91	1.291E+00	7.802E+00	6.889E+00	3.981E+00 NOT IDENT.
NB-94	1.026E-02	1.934E-02	1.745E-02	9.869E-03 NOT IDENT.
NB-95	9.520E-03	2.082E-02	1.863E-02	1.062E-02 NOT IDENT.
NB-95M	-6.697E-02	5.719E-02	4.290E-02	2.918E-02 NOT IDENT.
ZR-95	-3.089E-04	3.442E-02	2.895E-02	1.756E-02 NOT IDENT.
MO-99	1.629E-01	8.022E-01	7.007E-01	4.093E-01 NOT IDENT.
TC-99M	8.991E+06	1.102E+07	0.000E+00	5.620E+06 SHORT HLIF
RU-103	-1.393E-02	1.851E-02	1.437E-02	9.443E-03 NOT IDENT.
RH-106	-2.225E-02	1.533E-01	1.278E-01	7.820E-02 NOT IDENT.

RU-106	-2.225E-02	1.533E-01	1.278E-01	7.820E-02	NOT IDENT.
AG-108M	6.937E-03	1.608E-02	1.462E-02	8.202E-03	NOT IDENT.
CD-109	-1.556E-01	3.394E-01	2.896E-01	1.732E-01	NOT IDENT.
AG-110M	-1.536E-02	1.762E-02	1.293E-02	8.992E-03	NOT IDENT.
SN-113	2.896E-03	2.307E-02	2.043E-02	1.177E-02	NOT IDENT.
CD-115	3.182E-01	5.186E-01	4.820E-01	2.646E-01	NOT IDENT.
SN-117M	-1.038E-02	1.796E-02	1.472E-02	9.162E-03	NOT IDENT.
TE-123M	-1.307E-02	1.351E-02	1.068E-02	6.893E-03	NOT IDENT.
SB-124	4.714E-03	5.697E-02	4.837E-02	2.907E-02	NOT IDENT.
SB-125	-1.510E-02	4.615E-02	3.863E-02	2.355E-02	NOT IDENT.
TE-125M	-7.127E-01	3.953E+00	3.410E+00	2.017E+00	NOT IDENT.
I-126	-2.415E-02	7.419E-02	5.990E-02	3.785E-02	NOT IDENT.
SB-126	-5.584E-03	4.811E-02	3.992E-02	2.454E-02	NOT IDENT.
SN-126	2.430E-03	3.247E-02	2.883E-02	1.656E-02	NOT IDENT.
SB-127	-4.929E-02	1.612E-01	1.297E-01	8.225E-02	NOT IDENT.
I-131	2.155E-02	3.144E-02	2.941E-02	1.604E-02	NOT IDENT.
TE-132	1.083E-02	6.695E-02	5.770E-02	3.416E-02	NOT IDENT.
BA-133	-1.968E-02	2.287E-02	1.832E-02	1.167E-02	NOT IDENT.
I-133	-7.053E+00	6.690E+00	0.000E+00	3.413E+00	SHORT HLIF
CS-134	2.151E-04	2.440E-02	2.052E-02	1.245E-02	NOT IDENT.
CS-135	2.663E-02	7.753E-02	7.098E-02	3.956E-02	NOT IDENT.
I-135	-1.403E+06	1.331E+07	0.000E+00	6.791E+06	SHORT HLIF
CS-136	1.502E-03	3.716E-02	3.228E-02	1.896E-02	NOT IDENT.
BA-137M	-8.994E-03	1.963E-02	1.433E-02	1.002E-02	NOT IDENT.
CS-137	-9.501E-03	2.074E-02	1.513E-02	1.058E-02	NOT IDENT.
CE-139	-1.013E-02	1.452E-02	1.176E-02	7.408E-03	NOT IDENT.
BA-140	1.218E-02	1.060E-01	9.222E-02	5.408E-02	NOT IDENT.
LA-140	-4.196E-03	3.030E-02	2.450E-02	1.546E-02	NOT IDENT.
CE-141	-9.850E-03	2.416E-02	2.017E-02	1.233E-02	NOT IDENT.
CE-143	6.372E-01	1.252E+00	1.156E+00	6.389E-01	NOT IDENT.
CE-144	6.765E-02	8.892E-02	8.172E-02	4.537E-02	NOT IDENT.
PM-144	1.923E-02	2.187E-02	2.029E-02	1.116E-02	NOT IDENT.
PR-144	1.434E+00	1.630E+00	1.513E+00	8.318E-01	NOT IDENT.
PM-146	-6.912E-03	2.318E-02	1.944E-02	1.183E-02	NOT IDENT.
ND-147	-1.445E-01	1.832E-01	1.398E-01	9.345E-02	NOT IDENT.
PM-149	-2.714E+00	3.992E+00	3.296E+00	2.036E+00	NOT IDENT.
EU-152	-6.247E-03	5.107E-02	4.442E-02	2.606E-02	NOT IDENT.
GD-153	-1.430E-04	3.851E-02	3.386E-02	1.965E-02	NOT IDENT.
EU-154	-5.191E-03	5.306E-02	4.426E-02	2.707E-02	NOT IDENT.
EU-155	1.164E-02	4.725E-02	4.226E-02	2.411E-02	NOT IDENT.
TB-160	1.660E-02	8.120E-02	6.501E-02	4.143E-02	NOT IDENT.
HO-166M	4.726E-03	3.490E-02	3.004E-02	1.781E-02	NOT IDENT.
TA-182	1.811E-02	6.785E-02	6.118E-02	3.462E-02	FAIL ABUN
IR-192	-4.260E-03	1.483E-02	1.271E-02	7.567E-03	NOT IDENT.
HG-203	9.574E-03	1.708E-02	1.589E-02	8.713E-03	NOT IDENT.
BI-207	3.389E-03	2.691E-02	2.367E-02	1.373E-02	NOT IDENT.
TL-208	-7.342E-03	2.034E-02	1.542E-02	1.038E-02	NOT IDENT.
PB-210	-8.288E-01	1.434E+00	1.225E+00	7.315E-01	NOT IDENT.
BI-211	8.389E-02	1.115E-01	1.044E-01	5.688E-02	NOT IDENT.
PB-211	-1.621E-01	3.746E-01	3.047E-01	1.911E-01	NOT IDENT.
BI-212	-7.653E-02	3.060E-01	2.499E-01	1.561E-01	NOT IDENT.
PB-212	-2.018E-03	3.363E-02	2.809E-02	1.716E-02	NOT IDENT.
BI-214	1.043E-02	4.081E-02	3.585E-02	2.082E-02	FAIL ABUN
PB-214	6.726E-03	4.106E-02	3.662E-02	2.095E-02	NOT IDENT.
RN-219	6.873E-02	2.142E-01	1.930E-01	1.093E-01	NOT IDENT.
RA-223	-1.928E-02	2.855E-01	2.502E-01	1.457E-01	NOT IDENT.
RA-224	2.303E-01	3.162E-01	2.848E-01	1.613E-01	NOT IDENT.
RA-226	1.043E-02	4.081E-02	3.585E-02	2.082E-02	FAIL ABUN
AC-227	-1.769E-02	1.248E-01	1.037E-01	6.365E-02	NOT IDENT.
TH-227	-1.769E-02	1.248E-01	1.037E-01	6.365E-02	NOT IDENT.
AC-228	-7.166E-02	8.036E-02	5.561E-02	4.100E-02	NOT IDENT.
RA-228	-7.166E-02	8.036E-02	5.561E-02	4.100E-02	NOT IDENT.
TH-228	-2.018E-03	3.363E-02	2.809E-02	1.716E-02	NOT IDENT.
TH-229	-6.190E-02	2.507E-01	2.095E-01	1.279E-01	NOT IDENT.
TH-230	1.042E-02	4.081E-02	3.585E-02	2.082E-02	FAIL ABUN
PA-231	-1.609E-01	7.108E-01	6.182E-01	3.627E-01	NOT IDENT.
TH-231	-1.928E-02	2.855E-01	2.502E-01	1.457E-01	NOT IDENT.
TH-232	-7.166E-02	8.036E-02	5.561E-02	4.100E-02	NOT IDENT.
PA-233	-3.677E-03	3.185E-02	2.785E-02	1.625E-02	NOT IDENT.
PA-234	-7.583E-02	1.545E-01	1.155E-01	7.882E-02	NOT IDENT.
PA-234M	-1.805E+00	2.321E+00	1.813E+00	1.184E+00	NOT IDENT.
TH-234	8.329E-01	8.029E-01	4.951E-01	4.096E-01	FAIL ABUN
U-235	-1.455E-01	1.019E-01	7.090E-02	5.197E-02	NOT IDENT.
NP-237	9.297E-02	9.920E-02	9.158E-02	5.061E-02	NOT IDENT.
U-238	8.329E-01	8.029E-01	4.951E-01	4.096E-01	FAIL ABUN
NP-239	-1.634E-01	1.759E-01	1.405E-01	8.975E-02	NOT IDENT.
AM-241	4.122E-02	6.124E-02	5.191E-02	3.125E-02	NOT IDENT.
CM-247	-1.462E-03	1.970E-02	1.707E-02	1.005E-02	NOT IDENT.

CF-249	1.464E-02	2.094E-02	1.959E-02	1.069E-02	NOT IDENT.
CF-251	3.724E-02	6.181E-02	5.580E-02	3.153E-02	NOT IDENT.
ANH-511	-2.693E-02	3.280E-02	3.097E-02	1.674E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	79.6931
49.72	70.2426
57.36	66.1303
59.54	53.6601
63.29	93.4832
63.29	93.4832
64.28	84.0618
67.75	74.8061
69.67	101.6584
70.83	97.7817
72.81	84.9721
72.87	79.9783
72.87	79.9783
74.82	73.1147
74.82	73.1147
74.82	73.1147
74.97	74.1267
77.11	91.3374
77.11	91.3374
77.11	91.3374
79.69	73.4433
79.80	73.4509
80.12	82.5302
80.19	82.5355
80.57	89.6118
81.00	92.6682
81.07	92.6738
81.07	92.6738
83.79	80.7809
83.79	80.7809
85.43	79.8854
86.48	76.9219
86.55	76.9266
86.79	76.9422
86.94	83.0276
87.57	90.1642
88.03	104.3882
88.47	127.7462
89.96	122.8320
91.11	88.4025
92.59	84.4422
92.59	84.4422
93.35	78.3873
94.67	93.7593
94.87	88.6783
94.87	88.6783
95.86	131.5948
97.43	86.8200
98.44	76.6683
99.53	67.5267
100.11	61.4163
103.18	92.3470
103.37	84.1508
105.31	72.9720
106.12	66.8468
109.28	76.2857
111.00	70.1909
111.76	61.9684
116.30	74.6106
117.23	77.7720
121.12	80.0689
121.78	76.9852
122.06	71.7977
123.07	70.8077
131.20	61.7818
133.52	61.8786
136.00	80.8902

136.47	81.9663
140.51	60.0576
140.51	0.0000
143.76	87.6359
144.24	86.6070
144.24	86.6070
145.44	76.1034
152.43	76.4385
153.25	71.1665
154.21	70.1456
154.21	70.1456
156.02	70.2237
158.56	82.0545
159.00	90.6037
162.66	58.7547
163.33	68.3965
165.86	88.8347
176.60	61.3870
177.52	61.4192
181.07	84.2151
184.41	68.1468
185.72	67.1134
193.51	68.4857
197.04	74.0606
205.31	70.0073
210.85	58.1402
215.65	60.4810
222.11	59.5730
227.38	54.1971
228.16	56.4307
228.18	56.4310
235.69	83.2872
235.96	79.9662
235.96	79.9662
238.63	61.1629
238.63	61.1629
240.99	59.0043
242.00	99.1296
244.70	62.4523
252.40	52.6021
252.80	54.8504
256.23	52.6937
256.23	52.6937
260.90	39.3227
264.66	50.4171
268.22	55.0057
269.46	66.7644
269.46	66.7644
271.23	52.3692
273.65	53.3283
276.40	66.0618
277.37	59.7521
277.60	59.7577
278.00	63.3905
279.20	49.8323
279.54	49.8397
280.46	48.0461
283.69	53.5595
284.31	46.3090
285.41	54.5068
285.90	54.5178
287.50	52.7367
293.27	44.6611
295.22	49.2582
295.96	52.0104
298.57	52.0668
299.98	45.6989
299.98	45.6989
300.09	45.7013
300.09	45.7013
300.13	45.7019
301.36	40.2381
302.85	51.2429
304.50	58.6031
304.50	58.6031
304.85	49.4536
308.46	40.3541
311.90	46.8388

316.51	41.4047
319.41	35.9253
320.08	34.0918
323.87	37.8339
323.87	37.8339
328.76	36.9814
333.37	50.0139
334.37	42.6208
334.37	42.6208
338.28	59.3875
338.28	59.3875
338.32	59.3883
338.32	59.3883
338.32	59.3883
340.48	49.2210
340.55	49.2223
344.28	49.2922
351.06	44.7551
351.93	52.2313
356.01	57.9154
364.49	36.5435
366.42	38.4445
383.85	44.3459
388.16	34.9630
388.63	40.6395
391.69	42.5753
400.66	36.0638
401.81	37.9766
402.40	41.7828
404.85	42.7681
410.95	31.4281
414.70	41.0033
423.72	33.4747
427.09	41.1718
427.87	37.3518
433.94	34.5467
453.88	40.5629
463.37	34.8719
468.07	34.9229
473.00	25.2605
476.78	28.2081
477.60	29.1881
487.02	31.2230
492.35	26.3866
497.08	37.1896
511.00	45.2043
514.00	110.1591
527.90	20.7380
529.87	0.0000
531.02	34.5941
537.26	36.6360
546.56	0.0000
563.25	36.9024
569.33	22.9775
569.50	22.9787
569.70	29.9736
583.19	20.0557
600.60	28.2078
602.73	49.3912
604.72	34.2897
609.32	33.3215
609.32	33.3215
609.32	33.3215
610.33	32.3203
614.28	32.3531
618.01	20.2402
621.93	23.2999
621.93	23.2999
633.25	22.3513
635.95	26.4335
636.99	38.6438
645.85	25.4803
657.76	29.6450
661.66	23.5346
661.66	23.5346
664.57	19.4555
666.33	25.6104
666.50	25.6116

677.62	23.6267
685.70	21.6142
695.00	29.9151
696.49	29.9261
696.51	29.9261
697.00	31.9937
702.65	25.8362
706.68	35.1704
711.68	26.9268
720.70	22.8325
721.93	20.7627
722.78	21.8049
722.91	21.8060
723.31	25.9619
724.19	28.0441
727.33	33.2617
733.00	26.0199
735.93	30.2036
739.50	14.5930
747.24	12.5306
752.31	18.8174
753.82	21.9613
756.73	20.9292
763.94	26.2036
765.81	22.0203
766.42	24.1208
777.92	15.7712
778.90	16.8266
783.70	23.1612
785.37	17.9035
795.86	22.1674
801.95	29.5955
810.29	19.0600
810.76	16.9441
815.77	8.4811
818.51	13.7900
832.01	22.3402
834.85	12.7734
836.80	0.0000
846.77	12.8057
856.80	12.8323
860.56	19.2634
871.09	17.1605
873.19	11.8030
875.33	0.0000
879.36	18.2638
880.51	13.9699
883.24	21.5039
884.68	22.5858
889.28	12.9182
898.04	11.8626
911.20	19.4629
911.20	19.4629
911.20	19.4629
926.50	20.6064
937.49	19.5640
944.13	15.2359
946.00	18.5078
949.00	9.8040
962.29	15.2896
964.08	20.7571
966.15	22.9513
968.97	18.5896
968.97	18.5896
968.97	18.5896
983.53	19.7376
996.26	10.9917
1001.03	17.4190
1004.73	11.0090
1037.84	11.9997
1038.76	0.0000
1048.07	16.6458
1050.41	16.6523
1050.41	16.6523
1063.66	15.7653
1085.87	12.1034
1099.45	8.3994
1112.07	18.3659

1115.54	11.2305
1120.29	9.3665
1120.29	9.3665
1120.29	9.3665
1120.55	13.1136
1121.30	17.6655
1131.51	0.0000
1173.23	8.5060
1177.93	10.4043
1189.05	9.4759
1204.77	10.4508
1221.41	8.5737
1231.02	17.1746
1235.36	20.0507
1238.28	14.3286
1260.41	0.0000
1271.85	14.4061
1274.44	10.5685
1274.54	7.6865
1291.59	12.5239
1298.22	0.0000
1312.11	11.5977
1332.49	10.6643
1365.19	4.8716
1368.63	0.0000
1384.29	10.7485
1408.01	9.8055
1457.56	0.0000
1460.82	5.9287
1489.16	8.9290
1505.03	7.9548
1596.21	8.0550
1620.50	8.0811
1678.03	0.0000
1690.97	11.2148
1764.49	8.2331
1764.49	8.2331
1764.49	8.2331
1770.23	10.2987
1771.35	6.1799
1791.20	0.0000
1836.06	6.2295

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202071014

Total Uranium Activity	2.4106E+00	ug/g
Total Uranium Counting Unc.	2.3889E+00	ug/g
Total Uranium Tpu	1.2189E-06	ug/g
Total Uranium Mda	1.4732E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G1202071014      *
*   ANALYST       : MXR1                      DETECTOR   : GAM19            *
*   SAMPLE DATE   : 17-MAR-2010 00:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 11:03:00.83    SAMPLE ALQT:  135.710 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 5.597E-02
GROSS GAMMA ERROR   (pCi/GRAM  )  : 2.621E-02
GROSS GAMMA MDA     (pCi/GRAM  )  : 1.146E-01
GROSS GAMMA DLC     (pCi/GRAM  )  : 5.367E-02
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:24:36.03

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071015.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 11:24:08
Sample ID         : G1202071015          Sample quantity  : 1.20310E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.33  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.15*	127	619	1.13	127.03	122	11	1.76E-02	39.9	
2	3	74.92	452	498	1.18	150.55	146	15	6.28E-02	9.4	1.27E+00
3	3	77.22*	792	438	1.23	155.14	146	15	1.10E-01	6.1	
4	1	84.04*	112	343	1.20	168.78	166	13	1.56E-02	27.0	2.80E+00
5	1	87.26*	236	482	1.21	175.22	166	13	3.28E-02	16.9	
6	3	89.96	176	200	1.24	180.63	179	17	2.45E-02	12.3	5.89E-01
7	3	93.00*	298	465	1.36	186.69	179	17	4.13E-02	15.0	
8	0	105.72	78	340	1.51	212.12	208	8	1.09E-02	42.3	
9	0	129.43	69	436	1.27	259.51	255	9	9.64E-03	55.6	
10	0	186.32*	348	482	1.54	373.22	366	14	4.83E-02	14.9	
11	0	209.67*	120	281	1.03	419.91	416	8	1.67E-02	26.7	
12	4	239.06*	1444	253	1.28	478.65	473	17	2.01E-01	3.3	5.54E-01
13	4	241.93	346	294	1.74	484.40	473	17	4.80E-02	13.7	
14	0	270.84*	181	206	1.82	542.18	538	11	2.52E-02	17.3	
15	0	295.76	433	235	1.31	591.99	587	10	6.01E-02	8.2	
16	0	328.59	57	132	0.88	657.60	656	6	7.95E-03	35.0	
17	0	338.77	263	218	1.09	677.96	673	11	3.66E-02	12.5	
18	0	352.35*	774	172	1.36	705.11	700	13	1.07E-01	5.1	
19	0	410.01	72	155	1.38	820.36	815	13	9.97E-03	37.7	
20	0	463.34	113	123	1.28	926.95	921	12	1.57E-02	21.7	
21	0	511.29*	206	153	1.80	1022.79	1014	19	2.86E-02	17.4	
22	0	583.79*	450	114	1.43	1167.70	1162	13	6.25E-02	7.0	
23	0	609.65*	583	95	1.48	1219.38	1213	13	8.09E-02	5.5	
24	0	728.34	125	83	2.33	1456.61	1449	18	1.73E-02	19.5	
25	0	795.62*	64	45	1.36	1591.08	1586	11	8.89E-03	24.4	
26	0	861.17	50	51	1.23	1722.10	1719	11	6.89E-03	31.5	
27	0	911.64*	303	80	1.67	1822.98	1814	14	4.21E-02	8.7	
28	1	965.33	60	50	1.92	1930.27	1925	23	8.36E-03	25.7	1.13E+00
29	1	969.58*	178	38	1.89	1938.78	1925	23	2.47E-02	10.6	
30	0	1121.06*	136	46	1.94	2241.52	2234	17	1.90E-02	14.7	
31	0	1238.90*	48	53	2.11	2477.02	2472	11	6.66E-03	33.9	
32	0	1461.46*	1187	33	1.99	2921.81	2912	19	1.65E-01	3.2	
33	2	1588.90	46	32	2.42	3176.48	3169	21	6.33E-03	26.7	3.94E+00
34	2	1593.29	30	9	2.18	3185.27	3169	21	4.21E-03	26.5	
35	0	1662.84	21	2	0.80	3324.25	3319	11	2.85E-03	26.9	
36	0	1765.73*	107	4	1.69	3529.85	3523	15	1.49E-02	10.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 13:24:39

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071015.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 11:24:08
Sample ID         : G1202071015          Sample quantity  : 120.31 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA1               Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.33   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.675E+01	4.006E+00	6.672E-01	5.932E-02	55.082
CD-109	+	88.03	*	3.908E+00	1.370E+00	1.628E+00	1.541E-01	2.400
SN-126	+	64.28		1.492E+00	1.212E+00	1.021E+00	1.503E-01	1.461
	+	86.94		1.593E+00	8.527E-01	6.996E-01	2.905E-01	2.277
	+	87.57	*	3.833E-01	1.343E-01	1.605E-01	1.512E-02	2.388
EU-155	+	86.55		4.643E-01	1.628E-01	2.048E-01	1.925E-02	2.267
	+	105.31	*	1.966E-01	1.671E-01	2.073E-01	1.823E-02	0.948
TL-208		277.37		1.320E+00	5.644E-01	9.346E-01	1.205E-01	1.412
	+	583.19	*	7.708E-01	1.285E-01	7.375E-02	6.689E-03	10.452
	+	860.56		8.144E-01	5.193E-01	4.322E-01	4.141E-02	1.884
BI-211		72.87		7.968E+00	4.748E+00	7.253E+00	5.949E-01	1.099
	+	351.06	*	5.794E+00	7.890E-01	4.234E-01	3.852E-02	13.685
PB-212	+	74.82		3.298E+00	7.486E-01	7.403E-01	9.479E-02	4.454
	+	77.11		3.291E+00	4.871E-01	4.226E-01	3.586E-02	7.787
	+	238.63	*	2.379E+00	2.892E-01	1.201E-01	1.222E-02	19.804
		300.09		2.581E+00	1.123E+00	1.828E+00	1.997E-01	1.412
BI-214	+	609.32	*	1.937E+00	2.858E-01	1.438E-01	1.425E-02	13.471
	+	1120.29		2.393E+00	7.477E-01	5.827E-01	6.263E-02	4.107
	+	1764.49		2.646E+00	6.178E-01	3.744E-01	3.139E-02	7.069
PB-214	+	74.82		5.845E+00	1.285E+00	1.312E+00	1.509E-01	4.454
	+	77.11		5.801E+00	9.830E-01	7.450E-01	8.816E-02	7.787
	+	242.00		3.456E+00	1.016E+00	7.308E-01	7.878E-02	4.730
	+	295.22		1.981E+00	3.945E-01	3.035E-01	3.398E-02	6.528
	+	351.93	*	2.103E+00	3.089E-01	1.485E-01	1.579E-02	14.155
RA-224	+	240.99	*	6.112E+00	1.762E+00	1.288E+00	1.170E-01	4.746
RA-226	+	609.32	*	1.937E+00	2.858E-01	1.438E-01	1.425E-02	13.471
	+	1120.29		2.393E+00	7.477E-01	5.827E-01	6.263E-02	4.107
	+	1764.49		2.646E+00	6.178E-01	3.744E-01	3.139E-02	7.069
AC-228	+	338.32		2.193E+00	1.067E+00	4.826E-01	2.015E-01	4.545
	+	911.20	*	2.537E+00	5.342E-01	3.234E-01	3.853E-02	7.844
	+	968.97		2.574E+00	8.332E-01	4.617E-01	1.130E-01	5.576
RA-228	+	338.32		2.193E+00	1.067E+00	4.826E-01	2.015E-01	4.545
	+	911.20	*	2.537E+00	5.342E-01	3.234E-01	3.853E-02	7.844
	+	968.97		2.574E+00	8.332E-01	4.617E-01	1.130E-01	5.576

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	74.82		3.298E+00	6.775E-01	7.403E-01	6.224E-02	4.454
	+	77.11		3.291E+00	4.871E-01	4.226E-01	3.586E-02	7.787
	+	238.63	*	2.379E+00	2.892E-01	1.201E-01	1.222E-02	19.804
		300.09		2.581E+00	1.919E+00	1.828E+00	1.120E+00	1.412
TH-229	+	85.43		4.800E-01	2.632E-01	4.316E-01	3.971E-02	1.112
	+	88.47		5.909E-01	2.071E-01	2.450E-01	2.308E-02	2.412
		193.51	*	8.141E-02	6.523E-01	1.098E+00	9.622E-02	0.074
	+	210.85		2.805E+00	1.520E+00	1.721E+00	1.533E-01	1.630
TH-230	+	609.32	*	1.936E+00	2.669E-01	1.438E-01	1.206E-02	13.471
	+	1120.29		2.393E+00	7.303E-01	5.827E-01	4.896E-02	4.107
	+	1764.49		2.646E+00	6.178E-01	3.744E-01	3.139E-02	7.069
TH-232	+	338.32		2.193E+00	5.797E-01	4.826E-01	4.248E-02	4.545
	+	911.20	*	2.537E+00	5.342E-01	3.234E-01	3.853E-02	7.844
	+	968.97		2.574E+00	8.332E-01	4.617E-01	1.130E-01	5.576
TH-234	+	63.29	*	3.872E+00	3.170E+00	2.771E+00	4.976E-01	1.397
	+	92.59		3.983E+00	1.485E+00	1.177E+00	2.624E-01	3.383
U-235	+	89.96		2.963E+00	1.036E+00	1.669E+00	4.149E-01	1.776
	+	93.35		3.009E+00	1.140E+00	8.840E-01	2.057E-01	3.403
		143.76	*	1.086E-01	2.577E-01	4.364E-01	7.382E-02	0.249
		163.33		-1.078E-01	5.470E-01	9.154E-01	1.639E-01	-0.118
	+	185.72		3.678E-01	1.144E-01	8.640E-02	7.508E-03	4.257
		205.31		2.021E-01	7.149E-01	1.058E+00	1.932E-01	0.191
NP-237	+	86.48	*	1.144E+00	4.670E-01	5.049E-01	1.158E-01	2.265
		95.86		-3.710E-02	1.297E+00	1.844E+00	4.445E-01	-0.020
U-238	+	63.29	*	3.872E+00	3.170E+00	2.771E+00	4.976E-01	1.397
	+	92.59		3.983E+00	1.245E+00	1.177E+00	1.074E-01	3.383
ANH-511	+	511.00	*	2.689E-01	9.624E-02	5.441E-02	4.612E-03	4.942

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.610E-02	4.229E-01	6.801E-01	6.185E-02	0.024
NA-22		1274.54	*	-3.645E-02	5.745E-02	8.966E-02	7.529E-03	-0.407
NA-24		1368.63	*	-1.078E-02	5.745E-02	Half-Life too short		
SC-46		889.28	*	-2.980E-02	4.931E-02	7.557E-02	6.831E-03	-0.394
	+	1120.55		3.977E-01	1.214E-01	1.708E-01	1.435E-02	2.329
V-48		944.13		-6.660E-01	1.005E+00	1.518E+00	1.367E-01	-0.439
		983.53	*	8.125E-03	8.711E-02	1.427E-01	1.274E-02	0.057
		1312.11		6.878E-02	9.050E-02	1.629E-01	1.381E-02	0.422
CR-51		320.08	*	-1.107E-01	4.487E-01	7.245E-01	6.810E-02	-0.153
MN-54		834.85	*	-2.061E-02	4.599E-02	7.233E-02	6.438E-03	-0.285
CO-56		846.77	*	-1.101E-02	5.000E-02	8.030E-02	7.175E-03	-0.137
		1037.84		-2.794E-02	3.946E-01	6.335E-01	5.835E-02	-0.044
	+	1238.28		2.308E-01	1.575E-01	2.348E-01	2.007E-02	0.983
		1771.35		4.508E-03	2.738E-01	3.845E-01	3.219E-02	0.012
CO-57		122.06	*	-1.141E-02	3.351E-02	5.235E-02	4.609E-03	-0.218
		136.47		-1.451E-01	2.519E-01	4.182E-01	3.859E-02	-0.347
CO-58		810.76	*	-2.030E-02	5.188E-02	8.236E-02	7.286E-03	-0.247

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
FE-59		1099.45	*	8.203E-02	1.191E-01	2.045E-01	1.885E-02	0.401
		1291.59		1.143E-02	1.560E-01	2.621E-01	2.521E-02	0.044
CO-60		1173.23		2.247E-02	6.296E-02	1.086E-01	8.791E-03	0.207
		1332.49	*	-1.965E-02	5.197E-02	8.269E-02	7.048E-03	-0.238
ZN-65		1115.54	*	-8.327E-02	1.342E-01	1.684E-01	1.421E-02	-0.494
SE-75		121.12		1.478E-02	1.732E-01	2.758E-01	3.092E-02	0.054
		136.00		-3.646E-02	4.839E-02	7.977E-02	6.906E-03	-0.457
		264.66	*	2.605E-04	5.823E-02	9.307E-02	8.551E-03	0.003
		279.54		4.805E-03	1.484E-01	2.451E-01	2.317E-02	0.020
		400.66		-2.319E-01	3.410E-01	5.268E-01	5.630E-02	-0.440
SR-85		514.00	*	1.739E-01	5.978E-02	1.014E-01	8.598E-03	1.715
Y-88		898.04		-2.379E-02	5.504E-02	8.618E-02	7.841E-03	-0.276
		1836.06	*	2.252E-02	4.208E-02	7.567E-02	6.224E-03	0.298
Y-91		1204.77	*	2.579E+01	2.857E+01	5.115E+01	4.190E+00	0.504
NB-94		702.65	*	6.258E-02	4.630E-02	8.344E-02	7.004E-03	0.750
		871.09		-1.869E-02	4.107E-02	6.394E-02	5.753E-03	-0.292
NB-95		765.81	*	-2.459E-02	6.265E-02	9.913E-02	8.590E-03	-0.248
NB-95M		235.69	*	2.440E-02	1.733E-01	2.553E-01	2.623E-02	0.096
ZR-95		724.19		-3.928E-03	1.300E-01	1.861E-01	1.717E-02	-0.021
		756.73	*	1.403E-02	9.204E-02	1.539E-01	1.467E-02	0.091
MO-99		140.51		-1.273E+01	1.640E+01	2.638E+01	6.257E+00	-0.483
		181.07		2.138E+00	1.473E+01	2.198E+01	4.133E+00	0.097
		366.42		2.556E+01	7.011E+01	1.168E+02	9.875E+00	0.219
		739.50	*	7.370E+00	9.130E+00	1.598E+01	2.512E+00	0.461
		777.92		-2.378E+01	2.847E+01	4.350E+01	3.789E+00	-0.547
TC-99M		140.51	*	-1.011E+08	2.847E+01	Half-Life too short		
RU-103		497.08	*	-5.076E-03	5.089E-02	8.080E-02	1.120E-02	-0.063
	+	610.33		1.924E+01	3.765E+00	3.953E+00	6.414E-01	4.869
RH-106		621.93	*	1.130E-01	3.985E-01	6.794E-01	8.889E-02	0.166
		1050.41		1.400E+00	3.368E+00	5.669E+00	4.944E-01	0.247
RU-106		621.93	*	1.130E-01	3.984E-01	6.794E-01	5.675E-02	0.166
		1050.41		1.400E+00	3.368E+00	5.669E+00	4.944E-01	0.247
AG-108M		433.94	*	3.744E-02	3.624E-02	6.260E-02	5.357E-03	0.598
		614.28		-2.253E-03	4.950E-02	7.163E-02	6.209E-03	-0.031
		722.91		-8.397E-03	5.446E-02	7.685E-02	6.738E-03	-0.109
AG-110M		657.76	*	-3.756E-03	4.418E-02	7.310E-02	6.198E-03	-0.051
		677.62		3.319E-02	4.027E-01	6.737E-01	5.747E-02	0.049
		706.68		-3.238E-01	2.757E-01	4.116E-01	3.568E-02	-0.787
		763.94		-3.020E-01	2.416E-01	3.601E-01	3.203E-02	-0.839
		884.68		2.483E-02	5.914E-02	1.007E-01	9.364E-03	0.246
		937.49		4.781E-02	1.532E-01	2.564E-01	2.388E-02	0.186
		1384.29		5.695E-02	1.816E-01	3.143E-01	2.773E-02	0.181
		1505.03		-3.595E-01	3.227E-01	4.260E-01	3.688E-02	-0.844
SN-113		391.69	*	-1.942E-02	5.726E-02	9.075E-02	7.559E-03	-0.214
CD-115		260.90		-2.482E+01	9.049E+01	1.476E+02	1.350E+01	-0.168
		492.35		-1.760E+01	2.654E+01	4.022E+01	3.398E+00	-0.438
		527.90	*	5.935E+00	7.132E+00	1.269E+01	1.077E+00	0.468
SN-117M		156.02		-7.490E-01	2.603E+00	4.352E+00	3.706E-01	-0.172
		158.56	*	-1.742E-02	6.127E-02	1.024E-01	8.714E-03	-0.170

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-123M		159.00	*	4.224E-03	3.450E-02	5.851E-02	5.013E-03	0.072
SB-124		602.73		3.760E-03	5.066E-02	7.774E-02	6.538E-03	0.048
		645.85		-3.277E-01	5.876E-01	9.338E-01	8.197E-02	-0.351
		722.78		-7.296E-02	5.344E-01	7.557E-01	6.565E-02	-0.097
		1690.97	*	-1.095E-02	8.319E-02	1.321E-01	1.174E-02	-0.083
SB-125		427.87	*	-1.446E-02	1.150E-01	1.839E-01	1.546E-02	-0.079
	+	463.37		1.302E+00	5.779E-01	7.583E-01	6.857E-02	1.716
		600.60		-1.562E-02	2.210E-01	3.682E-01	3.338E-02	-0.042
		635.95		9.227E-02	3.315E-01	5.651E-01	5.101E-02	0.163
TE-125M		109.28	*	8.446E+00	1.374E+01	2.006E+01	2.109E+00	0.421
I-126		388.63		5.748E-02	1.923E-01	3.178E-01	2.574E-02	0.181
		666.33	*	-1.290E-02	2.538E-01	4.208E-01	3.457E-02	-0.031
		753.82		1.230E+00	2.030E+00	3.518E+00	3.032E-01	0.350
SB-126		414.70		5.480E-02	9.337E-02	1.393E-01	1.139E-02	0.393
		666.50		5.300E-03	8.642E-02	1.445E-01	1.187E-02	0.037
		695.00		-1.122E-02	8.847E-02	1.454E-01	1.215E-02	-0.077
		697.00		-2.287E-01	3.191E-01	5.001E-01	4.185E-02	-0.457
		720.70	*	-2.914E-02	1.911E-01	2.833E-01	2.402E-02	-0.103
		856.80		-1.764E-01	6.022E-01	8.190E-01	7.340E-02	-0.215
SB-127		252.40		1.551E+00	3.690E+00	6.144E+00	2.548E+00	0.253
		473.00		-3.503E-02	1.438E+00	2.303E+00	2.785E-01	-0.015
		685.70	*	-6.680E-01	1.122E+00	1.768E+00	1.862E-01	-0.378
		783.70		4.058E-01	3.130E+00	5.213E+00	6.198E-01	0.078
I-131		80.19		5.956E+00	6.262E+00	7.559E+00	6.627E-01	0.788
		284.31		7.182E-01	1.623E+00	2.730E+00	2.605E-01	0.263
		364.49	*	3.138E-02	1.157E-01	1.916E-01	1.713E-02	0.164
		636.99		-5.955E-01	1.623E+00	2.628E+00	2.311E-01	-0.227
TE-132		49.72		-1.761E+01	1.712E+01	2.660E+01	2.744E+00	-0.662
		111.76		8.956E+00	2.756E+01	4.441E+01	4.650E+00	0.202
		116.30		-2.697E+00	2.380E+01	3.763E+01	3.950E+00	-0.072
		228.16	*	-1.611E-01	5.666E-01	9.300E-01	1.456E-01	-0.173
BA-133		81.00		1.497E-01	1.559E-01	1.869E-01	2.919E-02	0.801
		276.40		8.461E-01	5.366E-01	8.356E-01	1.207E-01	1.013
		302.85		-1.824E-01	1.841E-01	2.839E-01	3.796E-02	-0.643
		356.01	*	-1.409E-02	5.727E-02	7.980E-02	1.033E-02	-0.177
		383.85		-1.587E-01	3.766E-01	5.935E-01	7.197E-02	-0.267
I-133		529.87	*	-5.372E-04	3.766E-01	Half-Life too short		
		875.33		3.346E-02	3.766E-01	Half-Life too short		
		1298.22		4.837E-02	3.766E-01	Half-Life too short		
CS-134		563.25		1.580E-01	4.638E-01	7.968E-01	6.823E-02	0.198
		569.33		-3.551E-02	2.526E-01	4.201E-01	3.609E-02	-0.085
		604.72		1.867E-02	4.466E-02	6.786E-02	5.718E-03	0.275
	+	795.86	*	1.608E-01	7.985E-02	1.224E-01	1.082E-02	1.314
		801.95		-2.883E-01	6.174E-01	8.806E-01	7.789E-02	-0.327
		1365.19		-7.426E-01	1.546E+00	2.380E+00	2.135E-01	-0.312
CS-135		268.22	*	2.159E-01	2.309E-01	3.537E-01	3.688E-02	0.610
I-135		546.56		-3.006E+07	2.309E-01	Half-Life too short		
		836.80		-3.879E+07	2.309E-01	Half-Life too short		
		1038.76		3.774E+07	2.309E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1131.51		1.240E+07	2.309E-01	Half-Life too short		
		1260.41	*	-3.295E+07	2.309E-01	Half-Life too short		
		1457.56		1.069E+09	2.309E-01	Half-Life too short		
		1678.03		3.149E+07	2.309E-01	Half-Life too short		
		1791.20		-8.472E+06	2.309E-01	Half-Life too short		
CS-136		153.25		1.117E+00	9.610E-01	1.678E+00	1.709E-01	0.666
		176.60		-1.080E-01	5.710E-01	9.533E-01	9.053E-02	-0.113
		273.65		-8.653E-01	7.059E-01	9.321E-01	9.170E-02	-0.928
		340.55		8.723E-01	2.341E-01	3.888E-01	3.538E-02	2.244
		818.51		-2.857E-02	8.292E-02	1.317E-01	1.167E-02	-0.217
		1048.07	*	-6.827E-02	1.309E-01	2.000E-01	1.817E-02	-0.341
		1235.36		4.753E-01	7.329E-01	1.136E+00	1.309E-01	0.418
BA-137M		661.66	*	-4.097E-02	4.617E-02	7.139E-02	5.848E-03	-0.574
CS-137		661.66	*	-4.328E-02	4.877E-02	7.542E-02	6.191E-03	-0.574
CE-139		165.86	*	1.070E-02	3.738E-02	6.365E-02	5.421E-03	0.168
BA-140		162.66		-4.089E-01	9.078E-01	1.505E+00	1.370E-01	-0.272
		304.85		-1.330E+00	1.578E+00	2.390E+00	7.028E-01	-0.556
		423.72		3.114E-01	2.280E+00	3.712E+00	1.217E+00	0.084
		537.26	*	7.998E-02	2.983E-01	5.096E-01	1.727E-01	0.157
LA-140	+	328.76		5.237E-01	3.697E-01	6.485E-01	6.078E-02	0.808
		487.02		2.349E-01	1.669E-01	2.919E-01	2.622E-02	0.804
		815.77		-7.407E-03	3.466E-01	5.685E-01	5.589E-02	-0.013
		1596.21	*	9.548E-02	9.629E-02	1.676E-01	1.446E-02	0.570
CE-141		145.44	*	4.033E-02	7.677E-02	1.306E-01	1.136E-02	0.309
CE-143		57.36		2.161E-04	7.677E-02	Half-Life too short		
		293.27	*	1.288E-04	7.677E-02	Half-Life too short		
		664.57		2.288E-04	7.677E-02	Half-Life too short		
		721.93		-3.953E-05	7.677E-02	Half-Life too short		
CE-144		80.12		3.698E+00	4.047E+00	4.875E+00	4.252E-01	0.759
		133.52	*	9.810E-02	2.941E-01	4.199E-01	6.419E-02	0.234
PM-144		476.78		-1.479E-02	8.677E-02	1.374E-01	1.261E-02	-0.108
		618.01		-4.437E-03	4.115E-02	6.824E-02	5.878E-03	-0.065
		696.49	*	-1.104E-02	4.496E-02	7.324E-02	6.128E-03	-0.151
PR-144		696.51	*	-8.198E-01	3.362E+00	5.476E+00	4.581E-01	-0.150
		1489.16		-2.286E+01	1.496E+01	1.723E+01	1.491E+00	-1.327
PM-146		453.88	*	4.235E-02	5.488E-02	9.281E-02	9.623E-03	0.456
		633.25		7.339E-03	1.796E+00	2.999E+00	1.143E+00	0.002
		735.93		-6.870E-02	2.111E-01	2.892E-01	8.099E-02	-0.238
		747.24		9.145E-02	1.203E-01	2.103E-01	3.064E-02	0.435
ND-147	+	91.11		8.382E-01	2.224E-01	5.896E-01	5.831E-02	1.422
		319.41		-6.753E-01	3.738E+00	6.062E+00	5.438E-01	-0.111
		531.02	*	1.606E-01	6.099E-01	1.046E+00	1.556E-01	0.154
PM-149		285.90	*	-1.904E+01	6.253E+01	1.013E+02	1.603E+01	-0.188
EU-152		121.78		-2.798E-02	9.713E-02	1.521E-01	1.529E-02	-0.184
		244.70		5.433E-01	4.635E-01	7.212E-01	6.565E-02	0.753
		344.28	*	1.143E-02	1.446E-01	2.080E-01	1.922E-02	0.055
		778.90		-2.274E-01	3.380E-01	5.234E-01	4.562E-02	-0.434
	+	964.08		9.382E-01	4.895E-01	7.871E-01	7.061E-02	1.192
		1085.87		-4.496E-02	5.429E-01	8.683E-01	7.443E-02	-0.052

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1112.07		9.623E-02	4.202E-01	6.738E-01	5.691E-02	0.143
		1408.01		9.656E-02	2.236E-01	3.909E-01	3.367E-02	0.247
GD-153		69.67		-1.126E+00	2.480E+00	3.746E+00	3.004E-01	-0.301
		97.43	*	-3.138E-04	1.198E-01	1.704E-01	1.513E-02	-0.002
		103.18		6.456E-02	1.427E-01	2.079E-01	1.814E-02	0.310
EU-154		123.07		-1.882E-02	6.869E-02	1.076E-01	1.234E-02	-0.175
		723.31		-7.499E-02	2.468E-01	3.419E-01	3.205E-02	-0.219
		873.19		-1.078E-01	3.531E-01	5.598E-01	6.816E-02	-0.193
		996.26		-7.483E-02	4.718E-01	7.529E-01	1.326E-01	-0.099
		1004.73		1.729E-01	2.980E-01	5.076E-01	6.003E-02	0.341
		1274.44	*	-1.194E-01	1.648E-01	2.542E-01	2.849E-02	-0.470
TB-160	+	86.79		1.208E+00	4.233E-01	6.342E-01	5.923E-02	1.905
		197.04		-3.536E-01	7.045E-01	1.134E+00	9.965E-02	-0.312
		215.65		4.566E-01	9.477E-01	1.610E+00	1.440E-01	0.284
		298.57		1.440E-01	1.598E-01	2.441E-01	2.219E-02	0.590
		879.36	*	-6.345E-02	1.625E-01	2.545E-01	2.295E-02	-0.249
		962.29		6.855E-01	7.313E-01	1.147E+00	1.030E-01	0.597
	+	966.15		6.423E-01	3.351E-01	6.079E-01	5.451E-02	1.057
		1177.93		-2.656E-01	4.926E-01	7.892E-01	6.400E-02	-0.337
		1271.85		-4.954E-02	9.185E-01	1.526E+00	1.279E-01	-0.032
HO-166M		80.57		1.338E-02	4.744E-01	5.353E-01	4.689E-02	0.025
		184.41		1.516E-01	4.832E-02	8.605E-02	7.467E-03	1.762
		280.46		-1.494E-01	1.154E-01	1.768E-01	1.617E-02	-0.845
	+	410.95		6.992E-01	5.309E-01	5.717E-01	4.663E-02	1.223
		711.68	*	7.138E-03	7.743E-02	1.293E-01	1.091E-02	0.055
		752.31		-2.496E-01	3.516E-01	5.442E-01	4.686E-02	-0.459
		810.29		-2.321E-02	7.869E-02	1.260E-01	1.112E-02	-0.184
TA-182		67.75		1.012E-01	1.656E-01	2.449E-01	1.941E-02	0.413
		100.11		-4.783E-02	2.316E-01	3.484E-01	3.063E-02	-0.137
		152.43		3.017E-01	4.333E-01	7.490E-01	6.382E-02	0.403
		222.11		1.911E-01	4.308E-01	7.308E-01	6.567E-02	0.261
	+	1121.30		1.107E+00	3.378E-01	4.817E-01	4.045E-02	2.298
		1189.05		-3.478E-02	4.015E-01	6.685E-01	5.444E-02	-0.052
		1221.41	*	2.913E-02	2.454E-01	4.150E-01	3.420E-02	0.070
		1231.02		-1.115E-01	6.323E-01	9.932E-01	8.214E-02	-0.112
IR-192	+	295.96		1.436E+00	2.706E-01	3.840E-01	3.518E-02	3.739
		308.46		-5.259E-02	1.221E-01	1.954E-01	1.775E-02	-0.269
		316.51	*	-1.263E-03	4.364E-02	7.143E-02	6.435E-03	-0.018
		468.07		2.457E-02	9.254E-02	1.333E-01	1.204E-02	0.184
HG-203		70.83		-2.748E-01	1.977E+00	2.829E+00	4.464E-01	-0.097
		72.87		1.922E+00	1.172E+00	1.749E+00	2.677E-01	1.099
		279.20	*	3.819E-02	5.108E-02	8.691E-02	8.129E-03	0.439
BI-207		72.81		3.913E-01	2.710E-01	4.113E-01	3.372E-02	0.951
	+	74.97		9.503E-01	1.949E-01	3.103E-01	2.586E-02	3.063
		569.70		2.913E-03	3.878E-02	6.545E-02	5.544E-03	0.045
		1063.66	*	-4.823E-03	6.641E-02	1.064E-01	9.223E-03	-0.045
		1770.23		2.312E-01	6.405E-01	9.875E-01	8.270E-02	0.234
PB-210		46.54	*	2.987E+00	5.158E+00	8.538E+00	7.996E-01	0.350
PB-211		404.85	*	7.942E-02	1.114E+00	1.585E+00	7.656E-01	0.050

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.09		-5.884E-01	2.024E+00	3.172E+00	1.465E+00	-0.186
		832.01		-7.047E-01	1.313E+00	1.964E+00	1.019E+00	-0.359
BI-212	+	727.33	*	3.294E+00	1.351E+00	1.554E+00	1.923E-01	2.120
		785.37		4.083E+00	4.050E+00	7.191E+00	6.284E-01	0.568
		1620.50		3.593E+00	3.421E+00	6.382E+00	5.492E-01	0.563
RN-219	+	271.23		1.323E+00	4.804E-01	6.146E-01	6.579E-02	2.153
		401.81	*	-2.992E-01	5.642E-01	8.806E-01	1.284E-01	-0.340
RA-223		81.07		3.504E-01	3.509E-01	4.247E-01	3.738E-02	0.825
	+	83.79		2.857E-01	1.567E-01	2.808E-01	2.540E-02	1.017
		94.87		1.694E+00	6.742E-01	1.048E+00	9.428E-02	1.616
		144.24		9.478E-01	8.631E-01	1.490E+00	1.423E-01	0.636
		154.21		9.758E-01	4.920E-01	8.736E-01	8.169E-02	1.117
	+	269.46		1.028E+00	3.693E-01	4.570E-01	4.256E-02	2.250
		323.87	*	5.971E-01	8.587E-01	1.405E+00	2.458E-01	0.425
	+	338.28		8.703E+00	2.415E+00	3.188E+00	3.890E-01	2.730
AC-227		79.69		1.237E+00	1.888E+00	2.543E+00	4.392E-01	0.486
		235.96		1.501E-01	2.151E-01	3.259E-01	3.492E-02	0.460
		256.23	*	-3.287E-02	3.193E-01	5.260E-01	6.535E-02	-0.062
		299.98		2.488E+00	1.260E+00	2.006E+00	2.612E-01	1.241
		304.50		-3.611E+00	2.222E+00	3.188E+00	5.345E-01	-1.132
		334.37		-1.549E+00	2.717E+00	3.412E+00	5.361E-01	-0.454
TH-227		79.80		3.125E+00	2.775E+00	3.306E+00	7.209E-01	0.945
		235.96		1.501E-01	2.151E-01	3.259E-01	3.309E-02	0.460
		256.23	*	-3.287E-02	3.193E-01	5.260E-01	7.331E-02	-0.062
		299.98		2.488E+00	1.260E+00	2.006E+00	2.612E-01	1.241
		304.50		-3.611E+00	2.222E+00	3.188E+00	5.345E-01	-1.132
		334.37		-1.549E+00	2.717E+00	3.412E+00	5.361E-01	-0.454
PA-231		283.69	*	1.716E+00	1.874E+00	3.201E+00	4.768E-01	0.536
		301.36		1.309E+00	7.753E-01	1.275E+00	1.592E-01	1.027
TH-231		81.07		3.504E-01	3.509E-01	4.247E-01	3.738E-02	0.825
	+	83.79		2.857E-01	1.567E-01	2.808E-01	2.540E-02	1.017
		94.87		1.694E+00	6.742E-01	1.048E+00	9.428E-02	1.616
		144.24		9.478E-01	8.631E-01	1.490E+00	1.423E-01	0.636
		154.21		9.758E-01	4.920E-01	8.736E-01	8.169E-02	1.117
	+	269.46		1.028E+00	3.693E-01	4.570E-01	4.256E-02	2.250
		323.87	*	5.971E-01	8.587E-01	1.405E+00	2.458E-01	0.425
	+	338.28		8.703E+00	2.415E+00	3.188E+00	3.890E-01	2.730
PA-233		300.13		1.285E+00	5.748E-01	9.101E-01	1.375E-01	1.412
		311.90	*	1.112E-03	8.307E-02	1.364E-01	1.263E-02	0.008
		340.48		4.605E+00	1.522E+00	1.877E+00	4.528E-01	2.453
PA-234		94.67		8.088E-01	2.647E-01	3.996E-01	5.064E-02	2.024
		98.44		1.967E-01	1.665E-01	1.933E-01	1.079E-01	1.018
		111.00		2.279E-01	2.420E-01	3.974E-01	4.817E-02	0.573
		131.20		1.017E-01	1.553E-01	2.258E-01	1.952E-02	0.451
		569.50		1.549E-02	3.435E-01	5.785E-01	4.901E-02	0.027
		733.00		-1.147E-01	5.114E-01	7.117E-01	1.577E-01	-0.161
		880.51		-1.996E-01	3.489E-01	5.363E-01	4.838E-02	-0.372
		883.24		-2.407E-02	3.499E-01	5.675E-01	3.818E-01	-0.042
		926.50		1.246E-01	2.053E-01	3.524E-01	8.959E-02	0.354

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	7.313E-02	3.796E-01	6.296E-01	1.193E-01	0.116
		949.00		4.873E-01	5.701E-01	1.002E+00	9.014E-02	0.486
PA-234M		766.42		1.318E+01	1.771E+01	2.815E+01	1.429E+01	0.468
		1001.03	*	2.139E+00	6.419E+00	1.096E+01	1.117E+00	0.195
NP-239		99.53		1.691E-01	2.271E-01	3.355E-01	2.956E-02	0.504
		103.37		7.943E-02	1.314E-01	1.930E-01	1.683E-02	0.412
	+	106.12		1.569E-01	1.333E-01	1.777E-01	1.543E-02	0.883
		117.23	*	-4.026E-01	5.342E-01	8.195E-01	7.139E-02	-0.491
		228.18		-7.639E-02	2.667E-01	4.381E-01	3.953E-02	-0.174
		277.60		5.133E-01	2.467E-01	4.264E-01	3.900E-02	1.204
AM-241		59.54	*	7.168E-02	2.344E-01	3.447E-01	2.841E-02	0.208
CM-247		278.00		1.691E+00	1.009E+00	1.771E+00	1.619E-01	0.955
		287.50		-7.810E-01	1.662E+00	2.671E+00	2.438E-01	-0.292
		402.40	*	1.007E-02	5.059E-02	8.292E-02	6.723E-03	0.121
CF-249		252.80		-1.958E-01	1.195E+00	1.964E+00	1.793E-01	-0.100
		333.37		-1.418E-01	3.704E-01	3.605E-01	3.191E-02	-0.393
		388.16	*	5.015E-03	5.112E-02	8.345E-02	6.766E-03	0.060
CF-251		177.52	*	-1.518E-01	1.695E-01	2.745E-01	2.365E-02	-0.553
		227.38		-4.157E-02	4.306E-01	7.135E-01	6.435E-02	-0.058
		285.41		-3.040E-01	2.858E+00	4.683E+00	4.277E-01	-0.065

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071015      *
* Acquisition date : 24-MAR-2010 11:24:08 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.33     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202071015          Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.2031E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.675E+01	3.926E+00	6.657E-01	0.000E+00
CD-109	3.908E+00	1.342E+00	1.679E+00	0.000E+00
SN-126	3.833E-01	1.316E-01	1.655E-01	0.000E+00
EU-155	1.966E-01	1.638E-01	2.134E-01	0.000E+00
TL-208	7.708E-01	1.259E-01	7.440E-02	0.000E+00
BI-211	5.794E+00	7.732E-01	4.297E-01	0.000E+00
PB-212	2.379E+00	2.834E-01	1.225E-01	0.000E+00
BI-214	1.937E+00	2.800E-01	1.449E-01	0.000E+00
PB-214	2.103E+00	3.028E-01	1.508E-01	0.000E+00
RA-224	6.112E+00	1.727E+00	1.313E+00	0.000E+00
RA-226	1.937E+00	2.800E-01	1.449E-01	0.000E+00
AC-228	2.537E+00	5.235E-01	3.245E-01	0.000E+00
RA-228	2.537E+00	5.235E-01	3.245E-01	0.000E+00
TH-228	2.379E+00	2.834E-01	1.225E-01	0.000E+00
TH-229	8.141E-02	6.393E-01	1.123E+00	0.000E+00
TH-230	1.936E+00	2.615E-01	1.449E-01	0.000E+00
TH-232	2.537E+00	5.235E-01	3.245E-01	0.000E+00
TH-234	3.872E+00	3.106E+00	2.868E+00	0.000E+00
U-235	1.086E-01	2.526E-01	4.475E-01	0.000E+00
NP-237	1.144E+00	4.577E-01	5.209E-01	0.000E+00
U-238	3.872E+00	3.106E+00	2.868E+00	0.000E+00
ANH-511	2.689E-01	9.431E-02	5.498E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.610E-02	4.145E-01	6.877E-01	0.000E+00	NOT IDENT.
NA-22	-3.645E-02	5.630E-02	8.960E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.590E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.980E-02	4.832E-02	7.585E-02	0.000E+00	FAIL ABUN
V-48	8.125E-03	8.537E-02	1.431E-01	0.000E+00	NOT IDENT.

CR-51	-1.107E-01	4.397E-01	7.361E-01	0.000E+00	NOT IDENT.
MN-54	-2.061E-02	4.507E-02	7.265E-02	0.000E+00	NOT IDENT.
CO-56	-1.101E-02	4.900E-02	8.064E-02	0.000E+00	FAIL ABUN
CO-57	-1.141E-02	3.284E-02	5.379E-02	0.000E+00	NOT IDENT.
CO-58	-2.030E-02	5.084E-02	8.275E-02	0.000E+00	NOT IDENT.
FE-59	8.203E-02	1.168E-01	2.048E-01	0.000E+00	NOT IDENT.
CO-60	-1.965E-02	5.093E-02	8.259E-02	0.000E+00	NOT IDENT.
ZN-65	-8.327E-02	1.316E-01	1.686E-01	0.000E+00	NOT IDENT.
SE-75	2.605E-04	5.707E-02	9.477E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.858E-02	1.025E-01	0.000E+00	NOT IDENT.
Y-88	2.252E-02	4.124E-02	7.528E-02	0.000E+00	NOT IDENT.
Y-91	2.579E+01	2.800E+01	5.115E+01	0.000E+00	NOT IDENT.
NB-94	6.258E-02	4.538E-02	8.399E-02	0.000E+00	NOT IDENT.
NB-95	-2.459E-02	6.140E-02	9.967E-02	0.000E+00	NOT IDENT.
NB-95M	2.440E-02	1.699E-01	2.604E-01	0.000E+00	NOT IDENT.
ZR-95	1.403E-02	9.020E-02	1.548E-01	0.000E+00	NOT IDENT.
MO-99	7.370E+00	8.948E+00	1.607E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.280E+14	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-5.076E-03	4.988E-02	8.166E-02	0.000E+00	FAIL ABUN
RH-106	1.130E-01	3.906E-01	6.848E-01	0.000E+00	NOT IDENT.
RU-106	1.130E-01	3.904E-01	6.848E-01	0.000E+00	NOT IDENT.
AG-108M	3.744E-02	3.552E-02	6.337E-02	0.000E+00	NOT IDENT.
AG-110M	-3.756E-03	4.329E-02	7.363E-02	0.000E+00	NOT IDENT.
SN-113	-1.942E-02	5.612E-02	9.199E-02	0.000E+00	NOT IDENT.
CD-115	5.935E+00	6.990E+00	1.281E+01	0.000E+00	NOT IDENT.
SN-117M	-1.742E-02	6.005E-02	1.048E-01	0.000E+00	NOT IDENT.
TE-123M	4.224E-03	3.381E-02	5.994E-02	0.000E+00	NOT IDENT.
SB-124	-1.095E-02	8.152E-02	1.315E-01	0.000E+00	NOT IDENT.
SB-125	-1.446E-02	1.127E-01	1.862E-01	0.000E+00	FAIL ABUN
TE-125M	8.446E+00	1.346E+01	2.064E+01	0.000E+00	NOT IDENT.
I-126	-1.290E-02	2.487E-01	4.238E-01	0.000E+00	NOT IDENT.
SB-126	-2.914E-02	1.873E-01	2.851E-01	0.000E+00	NOT IDENT.
SB-127	-6.680E-01	1.100E+00	1.780E+00	0.000E+00	NOT IDENT.
I-131	3.138E-02	1.133E-01	1.944E-01	0.000E+00	NOT IDENT.
TE-132	-1.611E-01	5.553E-01	9.486E-01	0.000E+00	NOT IDENT.
BA-133	-1.409E-02	5.613E-02	8.098E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.318E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.825E-02	1.230E-01	0.000E+00	FAIL ABUN
CS-135	2.159E-01	2.263E-01	3.601E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.531E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.827E-02	1.282E-01	2.003E-01	0.000E+00	NOT IDENT.
BA-137M	-4.097E-02	4.524E-02	7.191E-02	0.000E+00	NOT IDENT.
CS-137	-4.328E-02	4.779E-02	7.597E-02	0.000E+00	NOT IDENT.
CE-139	1.070E-02	3.664E-02	6.517E-02	0.000E+00	NOT IDENT.
BA-140	7.998E-02	2.924E-01	5.146E-01	0.000E+00	NOT IDENT.
LA-140	9.548E-02	9.436E-02	1.671E-01	0.000E+00	FAIL ABUN
CE-141	4.033E-02	7.523E-02	1.339E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.434E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	9.810E-02	2.882E-01	4.310E-01	0.000E+00	NOT IDENT.
PM-144	-1.104E-02	4.407E-02	7.372E-02	0.000E+00	NOT IDENT.
PR-144	-8.198E-01	3.295E+00	5.513E+00	0.000E+00	NOT IDENT.
PM-146	4.235E-02	5.378E-02	9.391E-02	0.000E+00	NOT IDENT.
ND-147	1.606E-01	5.977E-01	1.056E+00	0.000E+00	FAIL ABUN
PM-149	-1.904E+01	6.128E+01	1.031E+02	0.000E+00	NOT IDENT.
EU-152	1.143E-02	1.417E-01	2.111E-01	0.000E+00	FAIL ABUN
GD-153	-3.138E-04	1.174E-01	1.755E-01	0.000E+00	NOT IDENT.
EU-154	-1.194E-01	1.615E-01	2.541E-01	0.000E+00	NOT IDENT.
TB-160	-6.345E-02	1.592E-01	2.555E-01	0.000E+00	FAIL ABUN
HO-166M	7.138E-03	7.588E-02	1.301E-01	0.000E+00	FAIL ABUN
TA-182	2.913E-02	2.405E-01	4.149E-01	0.000E+00	FAIL ABUN
IR-192	-1.263E-03	4.277E-02	7.258E-02	0.000E+00	FAIL ABUN
HG-203	3.819E-02	5.005E-02	8.844E-02	0.000E+00	NOT IDENT.
BI-207	-4.823E-03	6.508E-02	1.066E-01	0.000E+00	FAIL ABUN
PB-210	2.987E+00	5.055E+00	8.870E+00	0.000E+00	NOT IDENT.
PB-211	7.942E-02	1.092E+00	1.606E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.324E+00	1.563E+00	0.000E+00	FAIL ABUN
RN-219	-2.992E-01	5.529E-01	8.923E-01	0.000E+00	FAIL ABUN
RA-223	5.971E-01	8.415E-01	1.427E+00	0.000E+00	FAIL ABUN
AC-227	-3.287E-02	3.129E-01	5.358E-01	0.000E+00	NOT IDENT.
TH-227	-3.287E-02	3.129E-01	5.358E-01	0.000E+00	NOT IDENT.
PA-231	1.716E+00	1.836E+00	3.257E+00	0.000E+00	NOT IDENT.
TH-231	5.971E-01	8.415E-01	1.427E+00	0.000E+00	FAIL ABUN
PA-233	1.112E-03	8.141E-02	1.386E-01	0.000E+00	NOT IDENT.
PA-234	7.313E-02	3.720E-01	6.315E-01	0.000E+00	NOT IDENT.
PA-234M	2.139E+00	6.291E+00	1.098E+01	0.000E+00	NOT IDENT.
NP-239	-4.026E-01	5.235E-01	8.424E-01	0.000E+00	FAIL ABUN
AM-241	7.168E-02	2.297E-01	3.571E-01	0.000E+00	NOT IDENT.
CM-247	1.007E-02	4.958E-02	8.402E-02	0.000E+00	NOT IDENT.

CF-249	5.015E-03	5.009E-02	8.460E-02	0.000E+00	NOT IDENT.
CF-251	-1.518E-01	1.661E-01	2.809E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:24:37.37

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071015.CNF;1
Sample date      : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 11:24:08
Sample ID        : G1202071015          Sample quantity  : 1.20310E+02 GRAM
Detector name    : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:01.33  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 965250               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1187	10.66*	9.453E-01	3.675E+01	3.675E+01	10.90
CD-109	88.03	236	3.70*	5.191E+00	3.833E+00	3.908E+00	35.04
SN-126	64.28	127	9.60	2.758E+00	1.492E+00	1.492E+00	81.22
	86.94	236	8.90	5.191E+00	1.593E+00	1.593E+00	53.52
	87.57	236	37.00*	5.191E+00	3.833E-01	3.833E-01	35.04
EU-155	86.55	236	30.70	5.191E+00	4.619E-01	4.643E-01	35.07
	105.31	78	21.10*	5.927E+00	1.956E-01	1.966E-01	84.99
TL-208	277.37	------	6.60	3.885E+00	------ Line Not Found		------
	583.19	450	85.00*	2.142E+00	7.708E-01	7.708E-01	16.66
	860.56	50	12.50	1.521E+00	8.144E-01	8.144E-01	63.77
BI-211	72.87	------	1.23	3.944E+00	------ Line Not Found		------
	351.06	774	12.92*	3.225E+00	5.794E+00	5.794E+00	13.62
PB-212	74.82	452	10.28	4.162E+00	3.298E+00	3.298E+00	22.70
	77.11	792	17.10	4.390E+00	3.291E+00	3.291E+00	14.80
	238.63	1444	43.60*	4.345E+00	2.379E+00	2.379E+00	12.16
	300.09	------	3.30	3.656E+00	------ Line Not Found		------
BI-214	609.32	583	45.49*	2.064E+00	1.936E+00	1.937E+00	14.76
	1120.29	136	14.92	1.193E+00	2.393E+00	2.393E+00	31.25
	1764.49	107	15.30	8.253E-01	2.646E+00	2.646E+00	23.35
PB-214	74.82	452	5.80	4.162E+00	5.845E+00	5.845E+00	21.99
	77.11	792	9.70	4.390E+00	5.801E+00	5.801E+00	16.94
	242.00	346	7.25	4.307E+00	3.456E+00	3.456E+00	29.41
	295.22	433	18.42	3.698E+00	1.981E+00	1.981E+00	19.91
	351.93	774	35.60*	3.225E+00	2.103E+00	2.103E+00	14.69
RA-224	240.99	346	4.10*	4.307E+00	6.112E+00	6.112E+00	28.83
RA-226	609.32	583	45.49*	2.064E+00	1.936E+00	1.937E+00	14.76
	1120.29	136	14.92	1.193E+00	2.393E+00	2.393E+00	31.25
	1764.49	107	15.30	8.253E-01	2.646E+00	2.646E+00	23.35
AC-228	338.32	263	11.27	3.326E+00	2.193E+00	2.193E+00	48.63
	911.20	303	25.80*	1.444E+00	2.537E+00	2.537E+00	21.06
	968.97	178	15.80	1.364E+00	2.574E+00	2.574E+00	32.36
RA-228	338.32	263	11.27	3.326E+00	2.193E+00	2.193E+00	48.63

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	303	25.80*	1.444E+00	2.537E+00	2.537E+00	21.06
	968.97	178	15.80	1.364E+00	2.574E+00	2.574E+00	32.36
TH-228	74.82	452	10.28	4.162E+00	3.298E+00	3.298E+00	20.54
	77.11	792	17.10	4.390E+00	3.291E+00	3.291E+00	14.80
	238.63	1444	43.60*	4.345E+00	2.379E+00	2.379E+00	12.16
	300.09	------	3.30	3.656E+00	------ Line Not Found		------
TH-229	85.43	112	14.70	4.969E+00	4.800E-01	4.800E-01	54.83
	88.47	236	24.00	5.191E+00	5.909E-01	5.909E-01	35.04
	193.51	------	4.41*	5.034E+00	------ Line Not Found		------
	210.85	120	2.80	4.771E+00	2.805E+00	2.805E+00	54.19
TH-230	609.32	583	45.49*	2.064E+00	1.936E+00	1.936E+00	13.78
	1120.29	136	14.92	1.193E+00	2.393E+00	2.393E+00	30.52
	1764.49	107	15.30	8.253E-01	2.646E+00	2.646E+00	23.35
TH-232	338.32	263	11.27	3.326E+00	2.193E+00	2.193E+00	26.43
	911.20	303	25.80*	1.444E+00	2.537E+00	2.537E+00	21.06
	968.97	178	15.80	1.364E+00	2.574E+00	2.574E+00	32.36
TH-234	63.29	127	3.70*	2.758E+00	3.872E+00	3.872E+00	81.87
	92.59	298	4.23	5.510E+00	3.983E+00	3.983E+00	37.29
U-235	89.96	176	3.47	5.353E+00	2.963E+00	2.963E+00	34.97
	93.35	298	5.60	5.510E+00	3.009E+00	3.009E+00	37.90
	143.76	------	10.96*	5.865E+00	------ Line Not Found		------
	163.33	------	5.08	5.555E+00	------ Line Not Found		------
	185.72	348	57.20	5.156E+00	3.678E-01	3.678E-01	31.10
	205.31	------	5.01	4.840E+00	------ Line Not Found		------
NP-237	86.48	236	12.40*	5.191E+00	1.144E+00	1.144E+00	40.84
	95.86	------	2.68	5.636E+00	------ Line Not Found		------
U-238	63.29	127	3.70*	2.758E+00	3.872E+00	3.872E+00	81.87
	92.59	298	4.23	5.510E+00	3.983E+00	3.983E+00	31.26
ANH-511	511.00	206	100.00*	2.392E+00	2.689E-01	2.689E-01	35.79

Flag: "*" = Keyline

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

Total number of lines in spectrum 36
Number of unidentified lines 4
Number of lines tentatively identified by NID 32 88.89%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.675E+01	3.675E+01	0.401E+01	10.90	
CD-109	461.40D	1.02	3.833E+00	3.908E+00	1.370E+00	35.04	
SN-126	2.30E+05Y	1.00	3.833E-01	3.833E-01	1.343E-01	35.04	
EU-155	4.75Y	1.01	1.956E-01	1.966E-01	1.671E-01	84.99	
TL-208	1.41E+10Y	1.00	7.708E-01	7.708E-01	1.285E-01	16.66	
BI-211	7.04E+08Y	1.00	5.794E+00	5.794E+00	0.789E+00	13.62	
PB-212	1.41E+10Y	1.00	2.379E+00	2.379E+00	0.289E+00	12.16	
BI-214	1600.00Y	1.00	1.936E+00	1.937E+00	0.286E+00	14.76	
PB-214	1600.00Y	1.00	2.103E+00	2.103E+00	0.309E+00	14.69	
RA-224	1.41E+10Y	1.00	6.112E+00	6.112E+00	1.762E+00	28.83	
RA-226	1600.00Y	1.00	1.936E+00	1.937E+00	0.286E+00	14.76	
AC-228	1.41E+10Y	1.00	2.537E+00	2.537E+00	0.534E+00	21.06	
RA-228	1.41E+10Y	1.00	2.537E+00	2.537E+00	0.534E+00	21.06	
TH-228	1.41E+10Y	1.00	2.379E+00	2.379E+00	0.289E+00	12.16	
TH-229	7340.00Y	1.00	5.909E-01	5.909E-01	2.071E-01	35.04	K
TH-230	7.54E+04Y	1.00	1.936E+00	1.936E+00	0.267E+00	13.78	
TH-232	1.41E+10Y	1.00	2.537E+00	2.537E+00	0.534E+00	21.06	
TH-234	4.47E+09Y	1.00	3.872E+00	3.872E+00	3.170E+00	81.87	
U-235	7.04E+08Y	1.00	3.678E-01	3.678E-01	1.144E-01	31.10	K
NP-237	2.14E+06Y	1.00	1.144E+00	1.144E+00	0.467E+00	40.84	
U-238	4.47E+09Y	1.00	3.872E+00	3.872E+00	3.170E+00	81.87	
ANH-511	1.00E+09Y	1.00	2.689E-01	2.689E-01	0.962E-01	35.79	
	Total Activity :		8.423E+01	8.431E+01			

Grand Total Activity : 8.423E+01 8.431E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.43	69	436	1.27	259.51	255	9	9.64E-03	****	6.02E+00	
0	270.84	181	206	1.82	542.18	538	11	2.52E-02	34.7	3.96E+00	T
0	328.59	57	132	0.88	657.60	656	6	7.95E-03	70.0	3.41E+00	T
0	410.01	72	155	1.38	820.36	815	13	9.97E-03	75.5	2.86E+00	T
0	463.34	113	123	1.28	926.95	921	12	1.57E-02	43.5	2.59E+00	T
0	728.34	125	83	2.33	1456.61	1449	18	1.73E-02	39.1	1.77E+00	T
0	795.62	64	45	1.36	1591.08	1586	11	8.89E-03	48.9	1.63E+00	T
1	965.33	60	50	1.92	1930.27	1925	23	8.36E-03	51.4	1.37E+00	T
0	1238.90	48	53	2.11	2477.02	2472	11	6.66E-03	67.7	1.09E+00	T
2	1588.90	46	32	2.42	3176.48	3169	21	6.33E-03	53.4	8.86E-01	
2	1593.29	30	9	2.18	3185.27	3169	21	4.21E-03	52.9	8.84E-01	
0	1662.84	21	2	0.80	3324.25	3319	11	2.85E-03	53.8	8.58E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:24:41.52

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071015.CNF;1 *
* Acquisition date : 24-MAR-2010 11:24:08  Detector SN#     :              *
* Detector ID      : GAM01                 Sensitivity      : 5.00000      *
* Geometry         : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:01.33         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G1202071015           Analyst initials: MXR1           *
* Batch Number     : 965250                Sample Quantity : 1.20310E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52.7MS Isotope      :               *
* MSD ID           :                       MSD Isotope     :               *
* LCS ID           : 1032-A                LCS Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.675E+01	4.006E+00	6.672E-01	5.932E-02	55.082
CD-109	3.908E+00	1.370E+00	1.628E+00	1.541E-01	2.400
SN-126	3.833E-01	1.343E-01	1.605E-01	1.512E-02	2.388
EU-155	1.966E-01	1.671E-01	2.073E-01	1.823E-02	0.948
TL-208	7.708E-01	1.285E-01	7.375E-02	6.689E-03	10.452
BI-211	5.794E+00	7.890E-01	4.234E-01	3.852E-02	13.685
PB-212	2.379E+00	2.892E-01	1.201E-01	1.222E-02	19.804
BI-214	1.937E+00	2.858E-01	1.438E-01	1.425E-02	13.471
PB-214	2.103E+00	3.089E-01	1.485E-01	1.579E-02	14.155
RA-224	6.112E+00	1.762E+00	1.288E+00	1.170E-01	4.746
RA-226	1.937E+00	2.858E-01	1.438E-01	1.425E-02	13.471
AC-228	2.537E+00	5.342E-01	3.234E-01	3.853E-02	7.844
RA-228	2.537E+00	5.342E-01	3.234E-01	3.853E-02	7.844
TH-228	2.379E+00	2.892E-01	1.201E-01	1.222E-02	19.804
TH-229	5.909E-01	2.071E-01	1.098E+00	9.622E-02	0.538
TH-230	1.936E+00	2.669E-01	1.438E-01	1.206E-02	13.471
TH-232	2.537E+00	5.342E-01	3.234E-01	3.853E-02	7.844
TH-234	3.872E+00	3.170E+00	2.771E+00	4.976E-01	1.397

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	3.678E-01	1.144E-01	4.364E-01	7.382E-02	0.843
NP-237	1.144E+00	4.670E-01	5.049E-01	1.158E-01	2.265
U-238	3.872E+00	3.170E+00	2.771E+00	4.976E-01	1.397
ANH-511	2.689E-01	9.624E-02	5.441E-02	4.612E-03	4.942

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.610E-02		4.229E-01	6.801E-01	6.185E-02	0.024
NA-22	-3.645E-02		5.745E-02	8.966E-02	7.529E-03	-0.407
NA-24	-1.078E-02		3.872E-02	Half-Life too short		
SC-46	-2.980E-02		4.931E-02	7.557E-02	6.831E-03	-0.394
V-48	8.125E-03		8.711E-02	1.427E-01	1.274E-02	0.057
CR-51	-1.107E-01		4.487E-01	7.245E-01	6.810E-02	-0.153
MN-54	-2.061E-02		4.599E-02	7.233E-02	6.438E-03	-0.285
CO-56	-1.101E-02		5.000E-02	8.030E-02	7.175E-03	-0.137
CO-57	-1.141E-02		3.351E-02	5.235E-02	4.609E-03	-0.218
CO-58	-2.030E-02		5.188E-02	8.236E-02	7.286E-03	-0.247
FE-59	8.203E-02		1.191E-01	2.045E-01	1.885E-02	0.401
CO-60	-1.965E-02		5.197E-02	8.269E-02	7.048E-03	-0.238
ZN-65	-8.327E-02		1.342E-01	1.684E-01	1.421E-02	-0.494
SE-75	2.605E-04		5.823E-02	9.307E-02	8.551E-03	0.003
SR-85	1.739E-01		5.978E-02	1.014E-01	8.598E-03	1.715
Y-88	2.252E-02		4.208E-02	7.567E-02	6.224E-03	0.298
Y-91	2.579E+01		2.857E+01	5.115E+01	4.190E+00	0.504
NB-94	6.258E-02		4.630E-02	8.344E-02	7.004E-03	0.750
NB-95	-2.459E-02		6.265E-02	9.913E-02	8.590E-03	-0.248
NB-95M	2.440E-02		1.733E-01	2.553E-01	2.623E-02	0.096
ZR-95	1.403E-02		9.204E-02	1.539E-01	1.467E-02	0.091
MO-99	7.370E+00		9.130E+00	1.598E+01	2.512E+00	0.461
TC-99M	-1.011E+08		6.529E+07	Half-Life too short		
RU-103	-5.076E-03		5.089E-02	8.080E-02	1.120E-02	-0.063
RH-106	1.130E-01		3.985E-01	6.794E-01	8.889E-02	0.166
RU-106	1.130E-01		3.984E-01	6.794E-01	5.675E-02	0.166
AG-108M	3.744E-02		3.624E-02	6.260E-02	5.357E-03	0.598
AG-110M	-3.756E-03		4.418E-02	7.310E-02	6.198E-03	-0.051
SN-113	-1.942E-02		5.726E-02	9.075E-02	7.559E-03	-0.214
CD-115	5.935E+00		7.132E+00	1.269E+01	1.077E+00	0.468
SN-117M	-1.742E-02		6.127E-02	1.024E-01	8.714E-03	-0.170
TE-123M	4.224E-03		3.450E-02	5.851E-02	5.013E-03	0.072
SB-124	-1.095E-02		8.319E-02	1.321E-01	1.174E-02	-0.083
SB-125	-1.446E-02		1.150E-01	1.839E-01	1.546E-02	-0.079
TE-125M	8.446E+00		1.374E+01	2.006E+01	2.109E+00	0.421
I-126	-1.290E-02		2.538E-01	4.208E-01	3.457E-02	-0.031
SB-126	-2.914E-02		1.911E-01	2.833E-01	2.402E-02	-0.103
SB-127	-6.680E-01		1.122E+00	1.768E+00	1.862E-01	-0.378
I-131	3.138E-02		1.157E-01	1.916E-01	1.713E-02	0.164

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-132	-1.611E-01		5.666E-01	9.300E-01	1.456E-01	-0.173
BA-133	-1.409E-02		5.727E-02	7.980E-02	1.033E-02	-0.177
I-133	-5.372E-04		6.723E-04	Half-Life too short		
CS-134	1.608E-01	+	7.985E-02	1.224E-01	1.082E-02	1.314
CS-135	2.159E-01		2.309E-01	3.537E-01	3.688E-02	0.610
I-135	-3.295E+07		1.802E+07	Half-Life too short		
CS-136	-6.827E-02		1.309E-01	2.000E-01	1.817E-02	-0.341
BA-137M	-4.097E-02		4.617E-02	7.139E-02	5.848E-03	-0.574
CS-137	-4.328E-02		4.877E-02	7.542E-02	6.191E-03	-0.574
CE-139	1.070E-02		3.738E-02	6.365E-02	5.421E-03	0.168
BA-140	7.998E-02		2.983E-01	5.096E-01	1.727E-01	0.157
LA-140	9.548E-02		9.629E-02	1.676E-01	1.446E-02	0.570
CE-141	4.033E-02		7.677E-02	1.306E-01	1.136E-02	0.309
CE-143	1.288E-04		3.793E-05	Half-Life too short		
CE-144	9.810E-02		2.941E-01	4.199E-01	6.419E-02	0.234
PM-144	-1.104E-02		4.496E-02	7.324E-02	6.128E-03	-0.151
PR-144	-8.198E-01		3.362E+00	5.476E+00	4.581E-01	-0.150
PM-146	4.235E-02		5.488E-02	9.281E-02	9.623E-03	0.456
ND-147	1.606E-01		6.099E-01	1.046E+00	1.556E-01	0.154
PM-149	-1.904E+01		6.253E+01	1.013E+02	1.603E+01	-0.188
EU-152	1.143E-02		1.446E-01	2.080E-01	1.922E-02	0.055
GD-153	-3.138E-04		1.198E-01	1.704E-01	1.513E-02	-0.002
EU-154	-1.194E-01		1.648E-01	2.542E-01	2.849E-02	-0.470
TB-160	-6.345E-02		1.625E-01	2.545E-01	2.295E-02	-0.249
HO-166M	7.138E-03		7.743E-02	1.293E-01	1.091E-02	0.055
TA-182	2.913E-02		2.454E-01	4.150E-01	3.420E-02	0.070
IR-192	-1.263E-03		4.364E-02	7.143E-02	6.435E-03	-0.018
HG-203	3.819E-02		5.108E-02	8.691E-02	8.129E-03	0.439
BI-207	-4.823E-03		6.641E-02	1.064E-01	9.223E-03	-0.045
PB-210	2.987E+00		5.158E+00	8.538E+00	7.996E-01	0.350
PB-211	7.942E-02		1.114E+00	1.585E+00	7.656E-01	0.050
BI-212	3.294E+00	+	1.351E+00	1.554E+00	1.923E-01	2.120
RN-219	-2.992E-01		5.642E-01	8.806E-01	1.284E-01	-0.340
RA-223	5.971E-01		8.587E-01	1.405E+00	2.458E-01	0.425
AC-227	-3.287E-02		3.193E-01	5.260E-01	6.535E-02	-0.062
TH-227	-3.287E-02		3.193E-01	5.260E-01	7.331E-02	-0.062
PA-231	1.716E+00		1.874E+00	3.201E+00	4.768E-01	0.536
TH-231	5.971E-01		8.587E-01	1.405E+00	2.458E-01	0.425
PA-233	1.112E-03		8.307E-02	1.364E-01	1.263E-02	0.008
PA-234	7.313E-02		3.796E-01	6.296E-01	1.193E-01	0.116
PA-234M	2.139E+00		6.419E+00	1.096E+01	1.117E+00	0.195
NP-239	-4.026E-01		5.342E-01	8.195E-01	7.139E-02	-0.491
AM-241	7.168E-02		2.344E-01	3.447E-01	2.841E-02	0.208
CM-247	1.007E-02		5.059E-02	8.292E-02	6.723E-03	0.121
CF-249	5.015E-03		5.112E-02	8.345E-02	6.766E-03	0.060
CF-251	-1.518E-01		1.695E-01	2.745E-01	2.365E-02	-0.553

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202071015           *
* Acquisition date : 24-MAR-2010 11:24:08 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.33     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202071015          Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.2031E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.675E+01	3.926E+00	3.330E-01	2.003E+00
CD-109	3.908E+00	1.342E+00	8.402E-01	6.848E-01
SN-126	3.833E-01	1.316E-01	8.282E-02	6.716E-02
EU-155	1.966E-01	1.638E-01	1.068E-01	8.355E-02
TL-208	7.708E-01	1.259E-01	3.722E-02	6.423E-02
BI-211	5.794E+00	7.732E-01	2.150E-01	3.945E-01
PB-212	2.379E+00	2.834E-01	6.126E-02	1.446E-01
BI-214	1.937E+00	2.800E-01	7.252E-02	1.429E-01
PB-214	2.103E+00	3.028E-01	7.542E-02	1.545E-01
RA-224	6.112E+00	1.727E+00	6.567E-01	8.810E-01
RA-226	1.937E+00	2.800E-01	7.252E-02	1.429E-01
AC-228	2.537E+00	5.235E-01	1.623E-01	2.671E-01
RA-228	2.537E+00	5.235E-01	1.623E-01	2.671E-01
TH-228	2.379E+00	2.834E-01	6.126E-02	1.446E-01
TH-229	8.141E-02	6.393E-01	5.616E-01	3.262E-01
TH-230	1.936E+00	2.615E-01	7.252E-02	1.334E-01
TH-232	2.537E+00	5.235E-01	1.623E-01	2.671E-01
TH-234	3.872E+00	3.106E+00	1.435E+00	1.585E+00
U-235	1.086E-01	2.526E-01	2.239E-01	1.289E-01
NP-237	1.144E+00	4.577E-01	2.606E-01	2.335E-01
U-238	3.872E+00	3.106E+00	1.435E+00	1.585E+00
ANH-511	2.689E-01	9.431E-02	2.751E-02	4.812E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.610E-02	4.145E-01	3.441E-01	2.115E-01	NOT IDENT.
NA-22	-3.645E-02	5.630E-02	4.483E-02	2.873E-02	NOT IDENT.
NA-24	-1.078E+04	7.590E+04	0.000E+00	3.872E+04	SHORT HLIF
SC-46	-2.980E-02	4.832E-02	3.795E-02	2.465E-02	FAIL ABUN
V-48	8.125E-03	8.537E-02	7.159E-02	4.356E-02	NOT IDENT.

CR-51	-1.107E-01	4.397E-01	3.683E-01	2.243E-01	NOT IDENT.
MN-54	-2.061E-02	4.507E-02	3.635E-02	2.300E-02	NOT IDENT.
CO-56	-1.101E-02	4.900E-02	4.035E-02	2.500E-02	FAIL ABUN
CO-57	-1.141E-02	3.284E-02	2.691E-02	1.676E-02	NOT IDENT.
CO-58	-2.030E-02	5.084E-02	4.140E-02	2.594E-02	NOT IDENT.
FE-59	8.203E-02	1.168E-01	1.024E-01	5.957E-02	NOT IDENT.
CO-60	-1.965E-02	5.093E-02	4.132E-02	2.598E-02	NOT IDENT.
ZN-65	-8.327E-02	1.316E-01	8.433E-02	6.712E-02	NOT IDENT.
SE-75	2.605E-04	5.707E-02	4.741E-02	2.912E-02	NOT IDENT.
SR-85	1.739E-01	5.858E-02	5.126E-02	2.989E-02	NOT IDENT.
Y-88	2.252E-02	4.124E-02	3.766E-02	2.104E-02	NOT IDENT.
Y-91	2.579E+01	2.800E+01	2.559E+01	1.429E+01	NOT IDENT.
NB-94	6.258E-02	4.538E-02	4.202E-02	2.315E-02	NOT IDENT.
NB-95	-2.459E-02	6.140E-02	4.987E-02	3.132E-02	NOT IDENT.
NB-95M	2.440E-02	1.699E-01	1.303E-01	8.667E-02	NOT IDENT.
ZR-95	1.403E-02	9.020E-02	7.742E-02	4.602E-02	NOT IDENT.
MO-99	7.370E+00	8.948E+00	8.041E+00	4.565E+00	NOT IDENT.
TC-99M	-1.011E+14	1.280E+14	0.000E+00	6.529E+13	SHORT HLIF
RU-103	-5.076E-03	4.988E-02	4.086E-02	2.545E-02	FAIL ABUN
RH-106	1.130E-01	3.906E-01	3.426E-01	1.993E-01	NOT IDENT.
RU-106	1.130E-01	3.904E-01	3.426E-01	1.992E-01	NOT IDENT.
AG-108M	3.744E-02	3.552E-02	3.170E-02	1.812E-02	NOT IDENT.
AG-110M	-3.756E-03	4.329E-02	3.684E-02	2.209E-02	NOT IDENT.
SN-113	-1.942E-02	5.612E-02	4.602E-02	2.863E-02	NOT IDENT.
CD-115	5.935E+00	6.990E+00	6.410E+00	3.566E+00	NOT IDENT.
SN-117M	-1.742E-02	6.005E-02	5.245E-02	3.064E-02	NOT IDENT.
TE-123M	4.224E-03	3.381E-02	2.999E-02	1.725E-02	NOT IDENT.
SB-124	-1.095E-02	8.152E-02	6.580E-02	4.159E-02	NOT IDENT.
SB-125	-1.446E-02	1.127E-01	9.315E-02	5.750E-02	FAIL ABUN
TE-125M	8.446E+00	1.346E+01	1.033E+01	6.868E+00	NOT IDENT.
I-126	-1.290E-02	2.487E-01	2.120E-01	1.269E-01	NOT IDENT.
SB-126	-2.914E-02	1.873E-01	1.426E-01	9.556E-02	NOT IDENT.
SB-127	-6.680E-01	1.100E+00	8.907E-01	5.610E-01	NOT IDENT.
I-131	3.138E-02	1.133E-01	9.725E-02	5.783E-02	NOT IDENT.
TE-132	-1.611E-01	5.553E-01	4.746E-01	2.833E-01	NOT IDENT.
BA-133	-1.409E-02	5.613E-02	4.051E-02	2.864E-02	NOT IDENT.
I-133	-5.372E+02	1.318E+03	0.000E+00	6.723E+02	SHORT HLIF
CS-134	1.608E-01	7.825E-02	6.156E-02	3.993E-02	FAIL ABUN
CS-135	2.159E-01	2.263E-01	1.802E-01	1.155E-01	NOT IDENT.
I-135	-3.295E+13	3.531E+13	0.000E+00	1.802E+13	SHORT HLIF
CS-136	-6.827E-02	1.282E-01	1.002E-01	6.543E-02	NOT IDENT.
BA-137M	-4.097E-02	4.524E-02	3.598E-02	2.308E-02	NOT IDENT.
CS-137	-4.328E-02	4.779E-02	3.801E-02	2.438E-02	NOT IDENT.
CE-139	1.070E-02	3.664E-02	3.260E-02	1.869E-02	NOT IDENT.
BA-140	7.998E-02	2.924E-01	2.575E-01	1.492E-01	NOT IDENT.
LA-140	9.548E-02	9.436E-02	8.359E-02	4.814E-02	FAIL ABUN
CE-141	4.033E-02	7.523E-02	6.698E-02	3.838E-02	NOT IDENT.
CE-143	1.288E+02	7.434E+01	0.000E+00	3.793E+01	SHORT HLIF
CE-144	9.810E-02	2.882E-01	2.156E-01	1.470E-01	NOT IDENT.
PM-144	-1.104E-02	4.407E-02	3.688E-02	2.248E-02	NOT IDENT.
PR-144	-8.198E-01	3.295E+00	2.758E+00	1.681E+00	NOT IDENT.
PM-146	4.235E-02	5.378E-02	4.698E-02	2.744E-02	NOT IDENT.
ND-147	1.606E-01	5.977E-01	5.284E-01	3.049E-01	FAIL ABUN
PM-149	-1.904E+01	6.128E+01	5.157E+01	3.126E+01	NOT IDENT.
EU-152	1.143E-02	1.417E-01	1.056E-01	7.228E-02	FAIL ABUN
GD-153	-3.138E-04	1.174E-01	8.780E-02	5.989E-02	NOT IDENT.
EU-154	-1.194E-01	1.615E-01	1.271E-01	8.239E-02	NOT IDENT.
TB-160	-6.345E-02	1.592E-01	1.278E-01	8.123E-02	FAIL ABUN
HO-166M	7.138E-03	7.588E-02	6.510E-02	3.871E-02	FAIL ABUN
TA-182	2.913E-02	2.405E-01	2.076E-01	1.227E-01	FAIL ABUN
IR-192	-1.263E-03	4.277E-02	3.631E-02	2.182E-02	FAIL ABUN
HG-203	3.819E-02	5.005E-02	4.425E-02	2.554E-02	NOT IDENT.
BI-207	-4.823E-03	6.508E-02	5.331E-02	3.320E-02	FAIL ABUN
PB-210	2.987E+00	5.055E+00	4.437E+00	2.579E+00	NOT IDENT.
PB-211	7.942E-02	1.092E+00	8.034E-01	5.570E-01	NOT IDENT.
BI-212	3.294E+00	1.324E+00	7.820E-01	6.754E-01	FAIL ABUN
RN-219	-2.992E-01	5.529E-01	4.464E-01	2.821E-01	FAIL ABUN
RA-223	5.971E-01	8.415E-01	7.141E-01	4.293E-01	FAIL ABUN
AC-227	-3.287E-02	3.129E-01	2.680E-01	1.596E-01	NOT IDENT.
TH-227	-3.287E-02	3.129E-01	2.680E-01	1.596E-01	NOT IDENT.
PA-231	1.716E+00	1.836E+00	1.629E+00	9.369E-01	NOT IDENT.
TH-231	5.971E-01	8.415E-01	7.141E-01	4.293E-01	FAIL ABUN
PA-233	1.112E-03	8.141E-02	6.934E-02	4.154E-02	NOT IDENT.
PA-234	7.313E-02	3.720E-01	3.159E-01	1.898E-01	NOT IDENT.
PA-234M	2.139E+00	6.291E+00	5.493E+00	3.210E+00	NOT IDENT.
NP-239	-4.026E-01	5.235E-01	4.214E-01	2.671E-01	FAIL ABUN
AM-241	7.168E-02	2.297E-01	1.787E-01	1.172E-01	NOT IDENT.
CM-247	1.007E-02	4.958E-02	4.203E-02	2.529E-02	NOT IDENT.

CF-249	5.015E-03	5.009E-02	4.232E-02	2.556E-02	NOT IDENT.
CF-251	-1.518E-01	1.661E-01	1.405E-01	8.473E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	290.7350
49.72	349.3412
57.36	0.0000
59.54	359.1706
63.29	384.8551
63.29	384.8551
64.28	385.5239
67.75	413.9293
69.67	493.8288
70.83	494.7734
72.81	464.1416
72.87	464.1855
72.87	464.1855
74.82	474.2609
74.82	474.2609
74.82	474.2609
74.97	474.3728
77.11	475.9729
77.11	475.9729
77.11	475.9729
79.69	408.3641
79.80	351.9476
80.12	352.1190
80.19	352.1569
80.57	427.3991
81.00	352.5886
81.07	352.6265
81.07	352.6265
83.79	460.6104
83.79	460.6104
85.43	491.3019
86.48	492.0547
86.55	492.1027
86.79	492.2737
86.94	492.3810
87.57	454.9203
88.03	455.2214
88.47	455.5078
89.96	456.4764
91.11	354.5093
92.59	355.2424
92.59	355.2424
93.35	355.6180
94.67	356.2645
94.87	356.3625
94.87	356.3625
95.86	370.1841
97.43	349.2481
98.44	284.4639
99.53	304.9866
100.11	339.4329
103.18	267.7242
103.37	267.7909
105.31	315.1752
106.12	326.2073
109.28	327.5119
111.00	325.3814
111.76	347.2476
116.30	342.3294
117.23	364.4159
121.12	332.8182
121.78	345.7096
122.06	345.8221
123.07	345.0790
131.20	323.9050
133.52	326.4825
136.00	351.8788

136.47	343.3021
140.51	363.2687
140.51	0.0000
143.76	327.4499
144.24	304.6545
144.24	304.6545
145.44	318.2986
152.43	324.1514
153.25	308.3780
154.21	281.9124
154.21	281.9124
156.02	357.4951
158.56	327.0358
159.00	306.5611
162.66	335.5441
163.33	326.7615
165.86	314.0209
176.60	319.9281
177.52	346.6537
181.07	310.4330
184.41	309.3452
185.72	309.7051
193.51	276.6626
197.04	295.1336
205.31	285.6070
210.85	249.3566
215.65	266.7246
222.11	235.8881
227.38	231.1533
228.16	240.8106
228.18	240.8144
235.69	269.5795
235.96	260.4432
235.96	260.4432
238.63	246.5747
238.63	246.5747
240.99	247.0100
242.00	247.1962
244.70	203.5494
252.40	190.9324
252.80	205.5303
256.23	206.0357
256.23	206.0357
260.90	206.7207
264.66	198.8873
268.22	197.5887
269.46	213.4529
269.46	213.4529
271.23	213.1226
273.65	259.7139
276.40	181.3496
277.37	164.3753
277.60	179.2438
278.00	187.4661
279.20	210.3316
279.54	227.1713
280.46	244.1130
283.69	169.3666
284.31	186.2788
285.41	196.3323
285.90	205.3228
287.50	212.4914
293.27	0.0000
295.22	203.5860
295.96	203.6825
298.57	177.6244
299.98	142.5477
299.98	142.5477
300.09	131.3461
300.09	131.3461
300.13	131.3481
301.36	152.2922
302.85	207.5938
304.50	218.8549
304.50	218.8549
304.85	190.7886
308.46	176.1269
311.90	164.4028

316.51	160.8293
319.41	162.1289
320.08	163.2085
323.87	150.9586
323.87	150.9586
328.76	172.2234
333.37	171.6786
334.37	173.8235
334.37	173.8235
338.28	155.7805
338.28	155.7805
338.32	155.7828
338.32	155.7828
338.32	155.7828
340.48	146.1308
340.55	159.2709
344.28	153.0368
351.06	148.6824
351.93	138.4267
356.01	127.5651
364.49	112.3638
366.42	114.5671
383.85	134.5957
388.16	125.4207
388.63	124.3991
391.69	135.1602
400.66	149.5952
401.81	153.9297
402.40	135.9258
404.85	139.5021
410.95	123.7279
414.70	99.1735
423.72	118.0936
427.09	122.5949
427.87	110.8080
433.94	84.1664
453.88	95.8821
463.37	101.7883
468.07	91.2628
473.00	101.1486
476.78	110.1364
477.60	107.9741
487.02	84.0980
492.35	110.9222
497.08	100.0429
511.00	80.5303
514.00	82.4277
527.90	73.9121
529.87	0.0000
531.02	85.7435
537.26	86.8781
546.56	0.0000
563.25	90.5671
569.33	96.2944
569.50	90.7991
569.70	90.8064
583.19	85.7662
600.60	89.1445
602.73	86.2964
604.72	75.9564
609.32	86.6517
609.32	86.6517
609.32	86.6517
610.33	86.6857
614.28	84.0168
618.01	86.9423
621.93	77.7092
621.93	77.7092
633.25	78.0415
635.95	68.7084
636.99	79.0925
645.85	78.4103
657.76	80.6525
661.66	95.0195
661.66	95.0195
664.57	0.0000
666.33	83.7590
666.50	81.8596

677.62	77.4088
685.70	78.5907
695.00	81.7336
696.49	87.5475
696.51	87.5497
697.00	97.1854
702.65	73.2743
706.68	95.5824
711.68	73.5044
720.70	85.9268
721.93	0.0000
722.78	77.6680
722.91	77.6699
723.31	79.3000
724.19	77.7051
727.33	64.1744
733.00	63.3242
735.93	69.8872
739.50	57.6042
747.24	54.8160
752.31	77.4609
753.82	59.8414
756.73	69.7173
763.94	120.0789
765.81	109.3198
766.42	84.7150
777.92	84.0433
778.90	76.1559
783.70	71.3215
785.37	57.4846
795.86	72.9233
801.95	79.7070
810.29	69.9265
810.76	72.9341
815.77	52.0343
818.51	60.0908
832.01	68.3868
834.85	67.4384
836.80	0.0000
846.77	62.6327
856.80	60.7954
860.56	32.1228
871.09	52.9141
873.19	56.0017
875.33	0.0000
879.36	51.0034
880.51	57.1430
883.24	50.0408
884.68	43.9312
889.28	60.3583
898.04	65.6406
911.20	68.9776
911.20	68.9776
911.20	68.9776
926.50	37.2243
937.49	60.1580
944.13	56.1133
946.00	48.8646
949.00	43.7032
962.29	50.4774
964.08	59.2095
966.15	47.0457
968.97	47.0819
968.97	47.0819
968.97	47.0819
983.53	54.6216
996.26	55.8622
1001.03	51.7120
1004.73	54.9326
1037.84	51.1477
1038.76	0.0000
1048.07	60.8993
1050.41	48.1069
1050.41	48.1069
1063.66	48.2695
1085.87	58.2504
1099.45	47.6244
1112.07	53.0807

1115.54	61.5780
1120.29	51.1309
1120.29	51.1309
1120.29	51.1309
1120.55	51.1354
1121.30	51.1446
1131.51	0.0000
1173.23	64.2721
1177.93	74.4543
1189.05	62.6681
1204.77	56.4205
1221.41	59.4219
1231.02	66.9961
1235.36	57.4830
1238.28	62.3140
1260.41	0.0000
1271.85	48.8304
1274.44	56.3770
1274.54	54.4977
1291.59	43.3852
1298.22	0.0000
1312.11	29.3678
1332.49	39.9629
1365.19	29.7008
1368.63	0.0000
1384.29	22.1240
1408.01	24.1659
1457.56	0.0000
1460.82	21.4933
1489.16	27.5078
1505.03	26.6078
1596.21	10.3125
1620.50	17.1204
1678.03	0.0000
1690.97	11.2189
1764.49	10.6251
1764.49	10.6251
1764.49	10.6251
1770.23	10.6356
1771.35	8.8647
1791.20	0.0000
1836.06	9.4094

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202071015

Total Uranium Activity	1.1568E+01	ug/g
Total Uranium Counting Unc.	9.2420E+00	ug/g
Total Uranium Tpu	4.7153E-06	ug/g
Total Uranium Mda	4.2703E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G1202071015      *
*   ANALYST       : MXR1                      DETECTOR   : GAM01            *
*   SAMPLE DATE   : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 11:24:08.41    SAMPLE ALQT:  120.310 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.356E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.899E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 5.468E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 2.661E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 12:07:25.39

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071016.CNF;1
Sample date       : 17-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 11:06:54
Sample ID         : G1202071016          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.40  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 965250                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.59	1680	508	1.03	119.20	114	9	4.67E-01	3.4	
2	2	74.82	120	269	0.86	149.68	146	13	3.34E-02	22.2	1.56E+00
3	2	77.16*	214	330	0.99	154.37	146	13	5.94E-02	15.0	
4	0	88.02	1296	547	0.97	176.09	171	11	3.60E-01	4.5	
5	0	122.14*	178	254	0.95	244.33	241	8	4.95E-02	17.2	
6	0	185.83*	91	259	1.27	371.71	368	8	2.51E-02	32.8	
7	5	238.73*	621	172	1.08	477.53	473	15	1.73E-01	5.2	1.38E+00
8	5	241.47*	151	280	1.86	483.02	473	15	4.18E-02	28.4	
9	0	295.39*	126	206	0.97	590.86	587	9	3.50E-02	22.5	
10	0	338.42*	99	183	1.39	676.93	673	9	2.74E-02	26.7	
11	0	352.05*	282	210	1.08	704.19	699	11	7.84E-02	11.6	
12	0	463.43	66	166	1.38	926.94	923	9	1.83E-02	37.3	
13	0	511.05*	94	199	2.16	1022.20	1015	18	2.62E-02	37.7	
14	0	583.35	159	129	1.47	1166.81	1163	10	4.43E-02	15.4	
15	0	609.91*	167	165	1.60	1219.91	1212	16	4.64E-02	19.1	
16	0	662.00*	2143	123	1.46	1324.09	1317	14	5.95E-01	2.4	
17	0	911.33*	90	152	1.26	1822.71	1818	13	2.51E-02	30.0	
18	0	969.44*	101	83	2.80	1938.93	1934	11	2.81E-02	20.2	
19	0	1173.78	1693	70	1.91	2347.56	2338	20	4.70E-01	2.7	
20	0	1333.21	1511	33	2.00	2666.36	2657	19	4.20E-01	2.7	
21	0	1765.38*	37	6	1.95	3530.48	3525	11	1.04E-02	21.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 12:07:27

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071016.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 17-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 11:06:54
Sample ID : G1202071016 Sample quantity : 151.73 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA4 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.40 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	+	122.06	*	1.617E-01	5.687E-02	6.310E-02	4.380E-03	2.563
		136.47		-1.718E-01	3.185E-01	5.069E-01	3.764E-02	-0.339
CO-60	+	1173.23		6.472E+00	5.214E-01	1.200E-01	7.140E-03	53.910
	+	1332.49	*	6.474E+00	5.672E-01	9.280E-02	6.359E-03	69.763
CD-109	+	88.03	*	3.447E+01	5.161E+00	2.083E+00	2.503E-01	16.551
SN-126		64.28		-4.913E-01	1.022E+00	1.682E+00	2.898E-01	-0.292
	+	86.94		1.417E+01	6.112E+00	8.720E-01	3.678E-01	16.249
	+	87.57	*	3.408E+00	5.103E-01	2.075E-01	2.489E-02	16.425
BA-137M	+	661.66	*	5.347E+00	3.681E-01	1.121E-01	5.469E-03	47.681
CS-137	+	661.66	*	5.648E+00	3.901E-01	1.185E-01	5.812E-03	47.681
TL-208		277.37		3.281E-01	6.751E-01	1.163E+00	1.310E-01	0.282
	+	583.19	*	3.783E-01	1.186E-01	1.052E-01	6.600E-03	3.596
		860.56		-2.508E-02	6.753E-01	1.112E+00	9.275E-02	-0.023
BI-211		72.87		-9.937E-01	6.376E+00	9.550E+00	1.095E+00	-0.104
	+	351.06	*	2.983E+00	7.222E-01	5.958E-01	4.026E-02	5.006
PB-212	+	74.82		1.590E+00	7.464E-01	1.070E+00	1.608E-01	1.486
	+	77.11		1.573E+00	5.047E-01	5.975E-01	6.855E-02	2.633
	+	238.63	*	1.461E+00	1.931E-01	1.607E-01	1.300E-02	9.095
		300.09		1.912E+00	1.559E+00	2.485E+00	2.220E-01	0.769
BI-214	+	609.32	*	7.681E-01	2.987E-01	2.061E-01	1.528E-02	3.727
		1120.29		1.213E+00	6.676E-01	1.218E+00	1.142E-01	0.996
	+	1764.49		1.270E+00	5.388E-01	4.553E-01	2.776E-02	2.789
PB-214	+	74.82		2.818E+00	1.313E+00	1.896E+00	2.642E-01	1.486
	+	77.11		2.773E+00	9.186E-01	1.053E+00	1.488E-01	2.633
	+	242.00		2.147E+00	1.233E+00	9.225E-01	8.149E-02	2.327
	+	295.22		8.188E-01	3.768E-01	4.152E-01	3.848E-02	1.972
	+	351.93	*	1.083E+00	2.688E-01	2.152E-01	1.875E-02	5.031
RA-224	+	240.99	*	3.796E+00	2.169E+00	1.723E+00	1.149E-01	2.204
RA-226	+	609.32	*	7.681E-01	2.987E-01	2.061E-01	1.528E-02	3.727
		1120.29		1.213E+00	6.676E-01	1.218E+00	1.142E-01	0.996
	+	1764.49		1.270E+00	5.388E-01	4.553E-01	2.776E-02	2.789
AC-228	+	338.32		1.161E+00	7.841E-01	6.861E-01	2.833E-01	1.692
	+	911.20	*	1.049E+00	6.407E-01	6.037E-01	6.799E-02	1.737
	+	968.97		2.034E+00	9.557E-01	1.020E+00	2.457E-01	1.995

Sample ID : G1202071016 Acquisition date : 24-MAR-2010 11:06:54

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	+	338.32		1.161E+00	7.841E-01	6.861E-01	2.833E-01	1.692
	+	911.20	*	1.049E+00	6.407E-01	6.037E-01	6.799E-02	1.737
	+	968.97		2.034E+00	9.557E-01	1.020E+00	2.457E-01	1.995
TH-228	+	74.82		1.590E+00	7.304E-01	1.070E+00	1.232E-01	1.486
	+	77.11		1.573E+00	5.047E-01	5.975E-01	6.855E-02	2.633
	+	238.63	*	1.461E+00	1.931E-01	1.607E-01	1.300E-02	9.095
		300.09		1.912E+00	1.939E+00	2.485E+00	1.515E+00	0.769
TH-230	+	609.32	*	7.681E-01	2.959E-01	2.061E-01	1.073E-02	3.727
		1120.29		1.213E+00	6.626E-01	1.218E+00	7.980E-02	0.996
	+	1764.49		1.270E+00	5.388E-01	4.553E-01	2.776E-02	2.789
TH-232	+	338.32		1.161E+00	6.247E-01	6.861E-01	4.313E-02	1.692
	+	911.20	*	1.049E+00	6.407E-01	6.037E-01	6.799E-02	1.737
	+	968.97		2.034E+00	9.557E-01	1.020E+00	2.457E-01	1.995
AM-241	+	59.54	*	1.470E+01	2.111E+00	7.125E-01	8.995E-02	20.638
ANH-511	+	511.00	*	1.709E-01	1.292E-01	8.778E-02	4.909E-03	1.947

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.682E-01	6.198E-01	9.936E-01	6.578E-02	-0.169
NA-22		1274.54	*	7.400E-03	5.193E-02	8.871E-02	5.800E-03	0.083
NA-24		1368.63	*	1.209E-04	5.193E-02	Half-Life too short		
K-40		1460.82	*	9.781E-01	6.465E-01	1.258E+00	8.939E-02	0.778
SC-46		889.28	*	-6.434E-03	8.597E-02	1.410E-01	1.140E-02	-0.046
		1120.55		1.657E-01	1.068E-01	1.930E-01	1.264E-02	0.859
V-48		944.13		1.501E+00	1.661E+00	2.881E+00	2.303E-01	0.521
		983.53	*	1.516E-02	1.237E-01	2.038E-01	1.579E-02	0.074
		1312.11		-5.109E-02	5.850E-02	7.955E-02	5.360E-03	-0.642
CR-51		320.08	*	-2.852E-02	5.499E-01	9.179E-01	6.455E-02	-0.031
MN-54		834.85	*	-2.639E-02	7.709E-02	1.244E-01	9.003E-03	-0.212
CO-56		846.77	*	-7.737E-03	7.969E-02	1.308E-01	9.703E-03	-0.059
		1037.84		-1.404E-01	6.618E-01	1.058E+00	8.313E-02	-0.133
		1238.28		7.778E-02	9.918E-02	1.810E-01	1.205E-02	0.430
		1771.35		-7.524E-01	5.177E-01	6.368E-01	3.866E-02	-1.182
CO-58		810.76	*	3.654E-02	7.871E-02	1.347E-01	9.300E-03	0.271
FE-59		1099.45	*	1.244E-01	1.970E-01	3.336E-01	2.548E-02	0.373
		1291.59		2.637E-02	1.547E-01	2.643E-01	2.136E-02	0.100
ZN-65		1115.54	*	-2.488E-01	2.058E-01	2.993E-01	1.980E-02	-0.831
SE-75	+	121.12		8.245E-01	2.956E-01	4.005E-01	3.959E-02	2.059
		136.00		-3.188E-02	5.959E-02	9.488E-02	6.361E-03	-0.336
		264.66	*	2.231E-02	7.276E-02	1.249E-01	8.404E-03	0.179
		279.54		1.133E-01	1.839E-01	3.188E-01	2.253E-02	0.355
		400.66		3.061E-01	4.874E-01	8.304E-01	7.449E-02	0.369
SR-85		514.00	*	6.609E-02	6.579E-02	1.134E-01	6.333E-03	0.583
Y-88		898.04		-1.328E-04	9.702E-02	1.596E-01	1.321E-02	-0.001
		1836.06	*	2.451E-02	4.363E-02	8.076E-02	4.712E-03	0.303
Y-91		1204.77	*	-3.416E+00	2.771E+01	4.378E+01	2.683E+00	-0.078
NB-94		702.65	*	2.038E-02	6.177E-02	1.059E-01	5.706E-03	0.192

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		871.09		-4.229E-02	7.789E-02	1.232E-01	9.605E-03	-0.343
NB-95		765.81	*	4.872E-03	7.299E-02	1.222E-01	7.613E-03	0.040
NB-95M		235.69	*	8.219E-02	2.174E-01	3.140E-01	2.584E-02	0.262
ZR-95		724.19		-1.760E-01	1.635E-01	2.519E-01	1.694E-02	-0.698
		756.73	*	-1.846E-02	1.322E-01	2.182E-01	1.598E-02	-0.085
MO-99		140.51		8.336E-01	4.736E+00	7.783E+00	1.796E+00	0.107
		181.07		-3.651E-01	4.305E+00	6.565E+00	1.174E+00	-0.056
		366.42		-2.074E+01	2.734E+01	4.339E+01	2.593E+00	-0.478
		739.50	*	9.348E-01	3.518E+00	5.982E+00	8.637E-01	0.156
		777.92		-6.479E+00	1.012E+01	1.598E+01	1.023E+00	-0.406
TC-99M		140.51	*	6.135E+00	1.012E+01	Half-Life too short		
RU-103		497.08	*	-1.165E-02	6.871E-02	1.104E-01	1.363E-02	-0.106
	+	610.33		6.923E+00	2.835E+00	3.178E+00	4.713E-01	2.178
RH-106		621.93	*	1.469E-01	5.534E-01	9.047E-01	1.023E-01	0.162
		1050.41		-3.703E+00	5.927E+00	9.134E+00	6.603E-01	-0.405
RU-106		621.93	*	1.469E-01	5.532E-01	9.047E-01	4.648E-02	0.162
		1050.41		-3.703E+00	5.927E+00	9.134E+00	6.603E-01	-0.405
AG-108M		433.94	*	1.888E-02	5.859E-02	9.800E-02	5.965E-03	0.193
		614.28		-3.091E-02	7.162E-02	9.476E-02	5.344E-03	-0.326
		722.91		-7.786E-02	7.235E-02	1.114E-01	6.758E-03	-0.699
AG-110M		657.76	*	-2.212E-02	7.786E-02	1.112E-01	5.940E-03	-0.199
		677.62		-5.801E-03	5.485E-01	9.209E-01	5.049E-02	-0.006
		706.68		2.166E-02	4.171E-01	7.011E-01	4.083E-02	0.031
		763.94		-1.630E-01	2.950E-01	4.707E-01	3.074E-02	-0.346
		884.68		-1.039E-02	1.148E-01	1.879E-01	1.562E-02	-0.055
		937.49		-2.728E-01	2.833E-01	4.326E-01	3.619E-02	-0.630
		1384.29		4.555E-02	2.177E-01	3.736E-01	2.666E-02	0.122
		1505.03		-1.040E-01	4.015E-01	6.321E-01	4.266E-02	-0.165
SN-113		391.69	*	-1.880E-02	7.818E-02	1.273E-01	7.670E-03	-0.148
CD-115		260.90		4.316E-02	2.236E+01	3.788E+01	2.529E+00	0.001
		492.35		8.054E-01	7.215E+00	1.182E+01	6.656E-01	0.068
		527.90	*	1.012E+00	1.980E+00	3.324E+00	1.844E-01	0.304
SN-117M		156.02		1.237E+00	2.219E+00	3.703E+00	2.376E-01	0.334
		158.56	*	4.156E-02	5.669E-02	9.519E-02	6.089E-03	0.437
TE-123M		159.00	*	3.120E-02	4.148E-02	6.971E-02	4.506E-03	0.448
SB-124		602.73		-7.445E-02	7.760E-02	9.604E-02	5.039E-03	-0.775
		645.85		1.698E-01	8.777E-01	1.499E+00	8.695E-02	0.113
		722.78		-4.905E-01	6.484E-01	1.024E+00	6.090E-02	-0.479
		1690.97	*	-9.782E-02	1.162E-01	1.531E-01	1.045E-02	-0.639
SB-125		427.87	*	1.831E-01	1.830E-01	3.171E-01	1.875E-02	0.577
	+	463.37		1.056E+00	7.907E-01	1.099E+00	7.267E-02	0.961
		600.60		-7.751E-02	3.186E-01	5.005E-01	3.127E-02	-0.155
		635.95		-1.427E-01	5.046E-01	7.856E-01	4.847E-02	-0.182
TE-125M		109.28	*	-3.113E-01	1.343E+01	2.217E+01	2.232E+00	-0.014
I-126		388.63		1.097E-01	2.017E-01	3.439E-01	1.951E-02	0.319
		666.33	*	-3.525E-01	3.227E-01	4.197E-01	2.070E-02	-0.840
		753.82		1.960E+00	2.247E+00	3.982E+00	2.416E-01	0.492
SB-126		414.70		-1.406E-02	9.314E-02	1.519E-01	8.597E-03	-0.093
		666.50		-1.373E-01	1.100E-01	1.405E-01	6.936E-03	-0.977

---- Non-Identified Nuclides ----

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		695.00		7.743E-02	9.141E-02	1.623E-01	8.583E-03	0.477
		697.00		-2.750E-01	2.995E-01	4.653E-01	2.473E-02	-0.591
		720.70	*	1.151E-02	1.757E-01	2.953E-01	1.660E-02	0.039
		856.80		-3.104E-01	7.008E-01	1.121E+00	8.490E-02	-0.277
SB-127		252.40		4.130E-01	1.881E+00	3.211E+00	1.307E+00	0.129
		473.00		3.463E-01	8.826E-01	1.472E+00	1.339E-01	0.235
		685.70	*	1.306E-02	6.225E-01	1.047E+00	6.921E-02	0.012
		783.70		1.286E+00	1.737E+00	3.034E+00	2.753E-01	0.424
I-131		80.19		-1.196E+00	4.522E+00	6.701E+00	7.750E-01	-0.178
		284.31		-8.913E-01	1.288E+00	2.091E+00	1.494E-01	-0.426
		364.49	*	3.224E-02	1.118E-01	1.886E-01	1.245E-02	0.171
		636.99		-9.455E-02	1.548E+00	2.459E+00	1.423E-01	-0.038
TE-132		49.72		9.764E+00	1.400E+01	2.439E+01	3.118E+00	0.400
		111.76		1.315E+00	9.703E+00	1.611E+01	1.379E+00	0.082
		116.30		-5.644E-01	8.446E+00	1.387E+01	1.131E+00	-0.041
		228.16	*	3.843E-02	2.436E-01	3.901E-01	5.300E-02	0.099
BA-133		81.00		-1.941E-02	1.769E-01	2.642E-01	4.582E-02	-0.073
		276.40		1.526E-01	6.156E-01	1.051E+00	1.366E-01	0.145
		302.85		-2.122E-01	2.487E-01	3.975E-01	4.693E-02	-0.534
		356.01	*	2.772E-02	8.484E-02	1.272E-01	1.454E-02	0.218
		383.85		-2.455E-01	5.208E-01	8.354E-01	8.882E-02	-0.294
I-133		529.87	*	-1.262E-06	5.208E-01	Half-Life too short		
		875.33		9.765E-05	5.208E-01	Half-Life too short		
		1298.22		1.502E-04	5.208E-01	Half-Life too short		
CS-134		563.25		3.607E-04	6.708E-01	1.080E+00	6.005E-02	0.000
		569.33		1.698E-01	3.632E-01	6.053E-01	3.383E-02	0.281
		604.72		2.316E-02	6.867E-02	9.884E-02	5.209E-03	0.234
		795.86	*	7.273E-03	9.294E-02	1.552E-01	1.046E-02	0.047
		801.95		3.809E-01	8.058E-01	1.383E+00	9.415E-02	0.276
		1365.19		8.715E-01	1.443E+00	2.662E+00	1.956E-01	0.327
CS-135		268.22	*	-1.343E-01	2.677E-01	4.417E-01	3.682E-02	-0.304
I-135		546.56		2.819E+01	2.677E-01	Half-Life too short		
		836.80		5.619E+01	2.677E-01	Half-Life too short		
		1038.76		1.519E+02	2.677E-01	Half-Life too short		
		1131.51		-3.138E+01	2.677E-01	Half-Life too short		
		1260.41	*	2.058E+00	2.677E-01	Half-Life too short		
		1457.56		-5.637E+01	2.677E-01	Half-Life too short		
		1678.03		-4.597E+01	2.677E-01	Half-Life too short		
		1791.20		-1.425E+01	2.677E-01	Half-Life too short		
CS-136		153.25		3.304E-01	8.236E-01	1.365E+00	1.162E-01	0.242
		176.60		9.627E-02	5.475E-01	8.904E-01	6.722E-02	0.108
		273.65		-4.878E-01	5.828E-01	9.434E-01	7.146E-02	-0.517
		340.55		1.478E-01	1.978E-01	3.049E-01	2.043E-02	0.485
		818.51		8.207E-02	1.156E-01	2.003E-01	1.401E-02	0.410
		1048.07	*	1.434E-02	1.576E-01	2.581E-01	1.980E-02	0.056
		1235.36		-9.747E-02	4.534E-01	7.404E-01	7.542E-02	-0.132
CE-139		165.86	*	3.763E-02	4.627E-02	7.768E-02	4.936E-03	0.484
BA-140		162.66		-1.239E+00	8.516E-01	1.270E+00	9.061E-02	-0.976
		304.85		-1.413E+00	1.616E+00	2.504E+00	7.192E-01	-0.564

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		423.72		-3.905E+00	2.973E+00	4.054E+00	1.307E+00	-0.963
		537.26	*	-7.288E-02	3.430E-01	5.445E-01	1.811E-01	-0.134
LA-140		328.76		-1.471E-01	3.474E-01	5.673E-01	3.985E-02	-0.259
		487.02		-2.011E-01	1.800E-01	2.696E-01	1.732E-02	-0.746
		815.77		-3.113E-01	4.899E-01	7.747E-01	6.330E-02	-0.402
		1596.21	*	5.184E-02	8.594E-02	1.556E-01	1.025E-02	0.333
CE-141		145.44	*	2.802E-02	7.510E-02	1.247E-01	8.369E-03	0.225
CE-143		57.36		8.444E+01	8.556E+01	1.350E+02	1.804E+01	0.625
		293.27	*	3.971E+00	5.165E+00	7.964E+00	1.620E+00	0.499
		664.57		1.168E+03	3.526E+02	2.200E+02	6.360E+01	5.308
		721.93		-3.257E+01	5.173E+01	8.132E+01	2.193E+01	-0.400
CE-144		80.12		-1.280E+00	4.656E+00	6.896E+00	7.967E-01	-0.186
		133.52	*	-4.445E-02	2.972E-01	4.827E-01	6.891E-02	-0.092
PM-144		476.78		5.463E-02	1.362E-01	2.273E-01	1.530E-02	0.240
		618.01		-3.458E-02	5.748E-02	8.708E-02	4.833E-03	-0.397
		696.49	*	-1.291E-04	5.896E-02	9.886E-02	5.249E-03	-0.001
PR-144		696.51	*	-4.030E-01	4.414E+00	7.352E+00	3.903E-01	-0.055
		1489.16		-1.602E+00	1.805E+01	2.933E+01	1.985E+00	-0.055
PM-146		453.88	*	4.870E-02	8.947E-02	1.508E-01	1.262E-02	0.323
		633.25		1.659E+00	2.809E+00	4.587E+00	1.722E+00	0.362
		735.93		1.366E-01	2.824E-01	4.841E-01	1.321E-01	0.282
		747.24		4.135E-03	1.759E-01	2.941E-01	3.881E-02	0.014
ND-147		91.11		-3.943E-02	2.760E-01	4.089E-01	4.797E-02	-0.096
		319.41		6.796E-01	3.653E+00	6.175E+00	3.980E-01	0.110
		531.02	*	-1.359E-02	6.533E-01	1.055E+00	1.415E-01	-0.013
PM-149		285.90	*	-8.682E+00	1.416E+01	2.301E+01	3.339E+00	-0.377
EU-152	+	121.78		4.742E-01	1.683E-01	2.376E-01	2.019E-02	1.996
		244.70		-4.403E-02	6.219E-01	8.684E-01	5.794E-02	-0.051
		344.28	*	-1.612E-01	1.810E-01	2.749E-01	1.901E-02	-0.587
		778.90		-5.047E-01	5.026E-01	7.678E-01	4.926E-02	-0.657
		964.08		4.908E-01	7.742E-01	1.158E+00	9.120E-02	0.424
		1085.87		-2.464E-01	9.461E-01	1.501E+00	1.037E-01	-0.164
		1112.07		4.512E-01	7.115E-01	1.206E+00	8.007E-02	0.374
		1408.01		-1.276E-01	2.466E-01	3.723E-01	2.547E-02	-0.343
GD-153		69.67		-4.496E-01	3.286E+00	5.502E+00	6.353E-01	-0.082
		97.43	*	-7.915E-02	1.265E-01	2.035E-01	1.997E-02	-0.389
		103.18		-1.001E-01	1.709E-01	2.751E-01	2.448E-02	-0.364
EU-154	+	123.07		3.351E-01	1.204E-01	1.675E-01	1.693E-02	2.001
		723.31		-3.554E-01	3.274E-01	5.035E-01	3.482E-02	-0.706
		873.19		1.688E-01	6.510E-01	1.093E+00	1.239E-01	0.154
		996.26		-1.268E-01	8.559E-01	1.381E+00	2.349E-01	-0.092
		1004.73		-4.056E-02	5.051E-01	8.187E-01	8.923E-02	-0.050
		1274.44	*	1.186E-02	1.496E-01	2.532E-01	2.504E-02	0.047
EU-155	+	86.55		4.120E+00	6.190E-01	4.483E-01	5.370E-02	9.190
		105.31	*	7.645E-02	1.594E-01	2.695E-01	2.348E-02	0.284
TB-160	+	86.79		1.019E+01	1.525E+00	1.271E+00	1.516E-01	8.018
		197.04		-2.788E-01	8.607E-01	1.360E+00	8.848E-02	-0.205
		215.65		-1.016E+00	1.240E+00	1.890E+00	1.247E-01	-0.537
		298.57		3.195E-02	2.078E-01	3.111E-01	2.045E-02	0.103

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		879.36	*	6.932E-02	3.232E-01	5.402E-01	4.284E-02	0.128
		962.29		1.566E-01	1.271E+00	1.978E+00	1.560E-01	0.079
		966.15		-3.047E-01	5.401E-01	7.242E-01	5.693E-02	-0.421
		1177.93		1.356E+00	8.011E-01	1.326E+00	7.923E-02	1.022
		1271.85		4.705E-01	8.117E-01	1.467E+00	9.549E-02	0.321
HO-166M		80.57		-1.335E-01	5.163E-01	7.653E-01	8.855E-02	-0.174
	+	184.41		1.092E-01	7.190E-02	9.154E-02	5.896E-03	1.193
		280.46		4.602E-02	1.463E-01	2.505E-01	1.664E-02	0.184
		410.95		-9.617E-02	4.673E-01	7.604E-01	4.300E-02	-0.126
		711.68	*	-1.045E-01	1.132E-01	1.762E-01	9.699E-03	-0.593
		752.31		-2.643E-02	5.186E-01	8.615E-01	5.209E-02	-0.031
		810.29		5.803E-02	1.277E-01	2.184E-01	1.500E-02	0.266
TA-182		67.75		-2.917E-02	2.109E-01	3.535E-01	4.112E-02	-0.083
		100.11		1.196E-01	2.571E-01	4.353E-01	4.074E-02	0.275
		152.43		-2.490E-01	4.891E-01	7.736E-01	4.983E-02	-0.322
		222.11		2.804E-01	5.842E-01	9.523E-01	6.303E-02	0.294
		1121.30		4.620E-01	3.008E-01	5.430E-01	3.552E-02	0.851
		1189.05		1.484E-01	4.852E-01	8.062E-01	4.868E-02	0.184
		1221.41	*	-1.295E-01	2.341E-01	3.658E-01	2.277E-02	-0.354
		1231.02		-1.891E-01	5.391E-01	8.641E-01	5.425E-02	-0.219
IR-192	+	295.96		5.634E-01	2.567E-01	3.616E-01	2.411E-02	1.558
		308.46		1.344E-01	1.638E-01	2.855E-01	1.878E-02	0.471
		316.51	*	-2.074E-02	5.701E-02	9.359E-02	6.076E-03	-0.222
		468.07		1.805E-01	1.515E-01	2.363E-01	1.554E-02	0.764
HG-203		70.83		1.702E+00	2.502E+00	3.890E+00	6.916E-01	0.438
		72.87		-2.207E-01	1.416E+00	2.121E+00	3.665E-01	-0.104
		279.20	*	4.835E-02	6.044E-02	1.056E-01	7.317E-03	0.458
BI-207		72.81		-6.308E-02	3.672E-01	5.496E-01	6.302E-02	-0.115
	+	74.97		4.581E-01	2.103E-01	3.571E-01	4.089E-02	1.283
		569.70		2.197E-02	5.677E-02	9.406E-02	5.080E-03	0.234
		1063.66	*	-8.138E-02	1.128E-01	1.710E-01	1.216E-02	-0.476
		1770.23		-3.779E-02	8.873E-01	1.220E+00	7.411E-02	-0.031
PB-210		46.54	*	-6.425E+00	1.537E+01	2.579E+01	2.250E+00	-0.249
PB-211		404.85	*	-1.682E-01	1.432E+00	2.342E+00	1.123E+00	-0.072
		427.09		2.901E+00	3.346E+00	5.318E+00	2.436E+00	0.546
		832.01		-1.645E+00	2.296E+00	3.330E+00	1.720E+00	-0.494
BI-212		727.33	*	1.430E+00	1.015E+00	1.833E+00	1.953E-01	0.780
		785.37		2.589E+00	6.317E+00	1.080E+01	7.030E-01	0.240
		1620.50		1.837E+00	2.833E+00	5.318E+00	3.472E-01	0.346
RN-219		271.23		3.005E-01	3.998E-01	6.976E-01	6.053E-02	0.431
		401.81	*	-3.977E-01	8.303E-01	1.331E+00	1.779E-01	-0.299
RA-223		81.07		-5.131E-02	4.006E-01	5.978E-01	6.929E-02	-0.086
		83.79		1.227E-01	2.294E-01	3.529E-01	4.140E-02	0.348
		94.87		-2.670E-01	6.817E-01	1.113E+00	1.148E-01	-0.240
		144.24		-1.706E-01	9.660E-01	1.555E+00	1.213E-01	-0.110
		154.21		-1.175E-01	5.698E-01	9.156E-01	6.865E-02	-0.128
		269.46		3.488E-01	3.088E-01	5.473E-01	3.770E-02	0.637
		323.87	*	-8.285E-01	1.168E+00	1.868E+00	3.053E-01	-0.444
	+	338.28		4.607E+00	2.509E+00	3.496E+00	3.683E-01	1.318

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227		79.69		-8.733E-01	2.394E+00	3.523E+00	6.645E-01	-0.248
		235.96		1.931E-01	2.793E-01	4.115E-01	3.611E-02	0.469
		256.23	*	-2.929E-01	4.411E-01	7.230E-01	7.771E-02	-0.405
		299.98		2.080E+00	1.720E+00	2.729E+00	3.114E-01	0.762
		304.50		-3.216E+00	2.952E+00	4.609E+00	7.165E-01	-0.698
		334.37		-4.820E-01	3.369E+00	4.894E+00	7.070E-01	-0.098
TH-227		79.80		-1.188E+00	3.154E+00	4.631E+00	1.069E+00	-0.257
		235.96		1.931E-01	2.792E-01	4.115E-01	3.324E-02	0.469
		256.23	*	-2.929E-01	4.415E-01	7.230E-01	9.013E-02	-0.405
		299.98		2.080E+00	1.720E+00	2.729E+00	3.114E-01	0.762
		304.50		-3.216E+00	2.952E+00	4.609E+00	7.165E-01	-0.698
		334.37		-4.820E-01	3.369E+00	4.894E+00	7.070E-01	-0.098
TH-229		85.43		1.177E-01	3.829E-01	5.823E-01	6.891E-02	0.202
	+	88.47		5.255E+00	7.867E-01	7.288E-01	8.663E-02	7.210
		193.51	*	-6.601E-02	8.780E-01	1.403E+00	9.104E-02	-0.047
		210.85		1.100E+00	1.594E+00	2.623E+00	1.724E-01	0.419
PA-231		283.69	*	-5.384E-01	2.402E+00	4.000E+00	5.403E-01	-0.135
		301.36		9.028E-01	1.005E+00	1.704E+00	1.838E-01	0.530
TH-231		81.07		-5.131E-02	4.006E-01	5.978E-01	6.929E-02	-0.086
		83.79		1.227E-01	2.294E-01	3.529E-01	4.140E-02	0.348
		94.87		-2.670E-01	6.817E-01	1.113E+00	1.148E-01	-0.240
		144.24		-1.706E-01	9.660E-01	1.555E+00	1.213E-01	-0.110
		154.21		-1.175E-01	5.698E-01	9.156E-01	6.865E-02	-0.128
		269.46		3.488E-01	3.088E-01	5.473E-01	3.770E-02	0.637
		323.87	*	-8.285E-01	1.168E+00	1.868E+00	3.053E-01	-0.444
	+	338.28		4.607E+00	2.509E+00	3.496E+00	3.683E-01	1.318
PA-233		300.13		9.560E-01	7.829E-01	1.238E+00	1.700E-01	0.772
		311.90	*	1.062E-02	1.142E-01	1.924E-01	1.312E-02	0.055
		340.48		1.117E+00	1.297E+00	1.977E+00	4.613E-01	0.565
PA-234		94.67		-7.223E-02	2.492E-01	4.088E-01	5.586E-02	-0.177
		98.44		-1.065E-01	1.509E-01	2.218E-01	1.241E-01	-0.480
		111.00		2.897E-01	2.832E-01	4.859E-01	5.645E-02	0.596
		131.20		-9.056E-02	1.600E-01	2.547E-01	1.708E-02	-0.356
		569.50		1.543E-01	5.070E-01	8.349E-01	4.510E-02	0.185
		733.00		-4.268E-01	7.536E-01	1.199E+00	2.549E-01	-0.356
		880.51		-5.042E-02	7.100E-01	1.164E+00	9.255E-02	-0.043
		883.24		6.799E-02	6.839E-01	1.132E+00	7.601E-01	0.060
		926.50		-3.144E-02	4.386E-01	7.162E-01	1.798E-01	-0.044
		946.00	*	-7.501E-02	8.077E-01	1.315E+00	2.431E-01	-0.057
		949.00		1.217E-01	1.192E+00	1.966E+00	1.566E-01	0.062
PA-234M		766.42		8.630E+00	2.078E+01	3.490E+01	1.758E+01	0.247
		1001.03	*	1.629E+00	1.079E+01	1.779E+01	1.622E+00	0.092
TH-234		63.29	*	-6.548E-01	3.104E+00	4.673E+00	9.406E-01	-0.140
		92.59		-1.233E-01	1.106E+00	1.661E+00	3.825E-01	-0.074
U-235		89.96		4.371E+00	1.962E+00	2.697E+00	6.945E-01	1.621
		93.35		6.271E-01	7.603E-01	1.245E+00	2.979E-01	0.504
		143.76	*	-1.580E-01	2.887E-01	4.542E-01	7.262E-02	-0.348
		163.33		-5.246E-01	6.801E-01	1.048E+00	1.781E-01	-0.500
	+	185.72		1.374E-01	9.050E-02	1.245E-01	8.030E-03	1.103

Sample ID : G1202071016 Acquisition date : 24-MAR-2010 11:06:54

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		205.31		-1.469E-01	8.133E-01	1.287E+00	2.222E-01	-0.114
NP-237		86.48	*	3.757E+00	1.070E+00	1.054E+00	2.542E-01	3.563
		95.86		-7.173E-01	1.427E+00	2.301E+00	5.653E-01	-0.312
U-238		63.29	*	-6.548E-01	3.104E+00	4.673E+00	9.406E-01	-0.140
		92.59		-1.233E-01	1.105E+00	1.661E+00	1.796E-01	-0.074
NP-239		99.53		1.043E-01	2.485E-01	4.200E-01	3.970E-02	0.248
		103.37		-8.415E-02	1.575E-01	2.542E-01	2.255E-02	-0.331
		106.12		-4.583E-02	1.264E-01	2.054E-01	1.747E-02	-0.223
		117.23	*	-2.467E-01	6.244E-01	1.009E+00	7.402E-02	-0.245
		228.18		6.000E-02	3.803E-01	6.092E-01	4.043E-02	0.098
		277.60		2.591E-01	3.040E-01	5.323E-01	3.541E-02	0.487
CM-247		278.00		1.042E+00	1.298E+00	2.269E+00	1.509E-01	0.459
		287.50		7.301E-01	2.105E+00	3.607E+00	2.388E-01	0.202
		402.40	*	-2.288E-02	7.637E-02	1.239E-01	6.993E-03	-0.185
CF-249		252.80		4.057E-01	1.635E+00	2.805E+00	1.873E-01	0.145
		333.37		-4.734E-02	3.528E-01	5.130E-01	3.248E-02	-0.092
		388.16	*	3.645E-02	7.360E-02	1.252E-01	7.107E-03	0.291
CF-251		177.52	*	9.308E-02	2.112E-01	3.478E-01	2.228E-02	0.268
		227.38		2.711E-01	6.094E-01	9.909E-01	6.575E-02	0.274
		285.41		-2.418E+00	3.676E+00	5.977E+00	3.962E-01	-0.404

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071016      *
* Acquisition date : 24-MAR-2010 11:06:54 Detector SN#    :                 *
* Detector ID      : GAM04                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:01.40     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 17-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202071016          Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-57	1.617E-01	5.573E-02	6.764E-02	0.000E+00
CO-60	6.474E+00	5.558E-01	9.371E-02	0.000E+00
CD-109	3.447E+01	5.058E+00	2.249E+00	0.000E+00
SN-126	3.408E+00	5.001E-01	2.242E-01	0.000E+00
BA-137M	5.347E+00	3.608E-01	1.153E-01	0.000E+00
CS-137	5.648E+00	3.823E-01	1.218E-01	0.000E+00
TL-208	3.783E-01	1.163E-01	1.085E-01	0.000E+00
BI-211	2.983E+00	7.078E-01	6.226E-01	0.000E+00
PB-212	1.461E+00	1.892E-01	1.695E-01	0.000E+00
BI-214	7.681E-01	2.927E-01	2.124E-01	0.000E+00
PB-214	1.083E+00	2.634E-01	2.248E-01	0.000E+00
RA-224	3.796E+00	2.125E+00	1.817E+00	0.000E+00
RA-226	7.681E-01	2.927E-01	2.124E-01	0.000E+00
AC-228	1.049E+00	6.279E-01	6.158E-01	0.000E+00
RA-228	1.049E+00	6.279E-01	6.158E-01	0.000E+00
TH-228	1.461E+00	1.892E-01	1.695E-01	0.000E+00
TH-230	7.681E-01	2.900E-01	2.124E-01	0.000E+00
TH-232	1.049E+00	6.279E-01	6.158E-01	0.000E+00
AM-241	1.470E+01	2.069E+00	7.765E-01	0.000E+00
ANH-511	1.709E-01	1.266E-01	9.087E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-1.682E-01		6.074E-01	1.030E+00	0.000E+00	NOT IDENT.
NA-22	7.400E-03		5.089E-02	8.969E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		1.610E+02	0.000E+00	0.000E+00	SHORT HLIF
K-40	9.781E-01		6.336E-01	1.267E+00	0.000E+00	NOT IDENT.
SC-46	-6.434E-03		8.425E-02	1.439E-01	0.000E+00	NOT IDENT.
V-48	1.516E-02		1.212E-01	2.075E-01	0.000E+00	NOT IDENT.
CR-51	-2.852E-02		5.389E-01	9.613E-01	0.000E+00	NOT IDENT.

MN-54	-2.639E-02	7.555E-02	1.272E-01	0.000E+00	NOT IDENT.
CO-56	-7.737E-03	7.810E-02	1.336E-01	0.000E+00	NOT IDENT.
CO-58	3.654E-02	7.713E-02	1.378E-01	0.000E+00	NOT IDENT.
FE-59	1.244E-01	1.930E-01	3.386E-01	0.000E+00	NOT IDENT.
ZN-65	-2.488E-01	2.017E-01	3.037E-01	0.000E+00	NOT IDENT.
SE-75	2.231E-02	7.131E-02	1.314E-01	0.000E+00	FAIL ABUN
SR-85	6.609E-02	6.447E-02	1.174E-01	0.000E+00	NOT IDENT.
Y-88	2.451E-02	4.276E-02	8.086E-02	0.000E+00	NOT IDENT.
Y-91	-3.416E+00	2.716E+01	4.433E+01	0.000E+00	NOT IDENT.
NB-94	2.038E-02	6.054E-02	1.088E-01	0.000E+00	NOT IDENT.
NB-95	4.872E-03	7.153E-02	1.252E-01	0.000E+00	NOT IDENT.
NB-95M	8.219E-02	2.130E-01	3.313E-01	0.000E+00	NOT IDENT.
ZR-95	-1.846E-02	1.296E-01	2.236E-01	0.000E+00	NOT IDENT.
MO-99	9.348E-01	3.448E+00	6.134E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.415E+07	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.165E-02	6.733E-02	1.144E-01	0.000E+00	FAIL ABUN
RH-106	1.469E-01	5.423E-01	9.319E-01	0.000E+00	NOT IDENT.
RU-106	1.469E-01	5.421E-01	9.319E-01	0.000E+00	NOT IDENT.
AG-108M	1.888E-02	5.742E-02	1.019E-01	0.000E+00	NOT IDENT.
AG-110M	-2.212E-02	7.630E-02	1.143E-01	0.000E+00	NOT IDENT.
SN-113	-1.880E-02	7.662E-02	1.327E-01	0.000E+00	NOT IDENT.
CD-115	1.012E+00	1.940E+00	3.438E+00	0.000E+00	NOT IDENT.
SN-117M	4.156E-02	5.556E-02	1.014E-01	0.000E+00	NOT IDENT.
TE-123M	3.120E-02	4.065E-02	7.426E-02	0.000E+00	NOT IDENT.
SB-124	-9.782E-02	1.139E-01	1.537E-01	0.000E+00	NOT IDENT.
SB-125	1.831E-01	1.793E-01	3.298E-01	0.000E+00	FAIL ABUN
TE-125M	-3.113E-01	1.317E+01	2.383E+01	0.000E+00	NOT IDENT.
I-126	-3.525E-01	3.163E-01	4.315E-01	0.000E+00	NOT IDENT.
SB-126	1.151E-02	1.721E-01	3.030E-01	0.000E+00	NOT IDENT.
SB-127	1.306E-02	6.100E-01	1.075E+00	0.000E+00	NOT IDENT.
I-131	3.224E-02	1.096E-01	1.969E-01	0.000E+00	NOT IDENT.
TE-132	3.843E-02	2.387E-01	4.119E-01	0.000E+00	NOT IDENT.
BA-133	2.772E-02	8.314E-02	1.328E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.418E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.273E-03	9.109E-02	1.589E-01	0.000E+00	NOT IDENT.
CS-135	-1.343E-01	2.624E-01	4.646E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.836E+07	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.434E-02	1.545E-01	2.623E-01	0.000E+00	NOT IDENT.
CE-139	3.763E-02	4.535E-02	8.267E-02	0.000E+00	NOT IDENT.
BA-140	-7.288E-02	3.361E-01	5.629E-01	0.000E+00	NOT IDENT.
LA-140	5.184E-02	8.422E-02	1.564E-01	0.000E+00	NOT IDENT.
CE-141	2.802E-02	7.360E-02	1.331E-01	0.000E+00	NOT IDENT.
CE-143	3.971E+00	5.062E+00	8.359E+00	0.000E+00	NOT IDENT.
CE-144	-4.445E-02	2.913E-01	5.164E-01	0.000E+00	NOT IDENT.
PM-144	-1.291E-04	5.778E-02	1.015E-01	0.000E+00	NOT IDENT.
PR-144	-4.030E-01	4.326E+00	7.551E+00	0.000E+00	NOT IDENT.
PM-146	4.870E-02	8.768E-02	1.566E-01	0.000E+00	NOT IDENT.
ND-147	-1.359E-02	6.402E-01	1.091E+00	0.000E+00	NOT IDENT.
PM-149	-8.682E+00	1.387E+01	2.416E+01	0.000E+00	NOT IDENT.
EU-152	-1.612E-01	1.774E-01	2.874E-01	0.000E+00	FAIL ABUN
GD-153	-7.915E-02	1.239E-01	2.193E-01	0.000E+00	NOT IDENT.
EU-154	1.186E-02	1.466E-01	2.560E-01	0.000E+00	FAIL ABUN
EU-155	7.645E-02	1.562E-01	2.898E-01	0.000E+00	FAIL ABUN
TB-160	6.932E-02	3.168E-01	5.515E-01	0.000E+00	FAIL ABUN
HO-166M	-1.045E-01	1.110E-01	1.809E-01	0.000E+00	FAIL ABUN
TA-182	-1.295E-01	2.294E-01	3.703E-01	0.000E+00	NOT IDENT.
IR-192	-2.074E-02	5.587E-02	9.805E-02	0.000E+00	FAIL ABUN
HG-203	4.835E-02	5.923E-02	1.109E-01	0.000E+00	NOT IDENT.
BI-207	-8.138E-02	1.106E-01	1.737E-01	0.000E+00	FAIL ABUN
PB-210	-6.425E+00	1.507E+01	2.826E+01	0.000E+00	NOT IDENT.
PB-211	-1.682E-01	1.404E+00	2.439E+00	0.000E+00	NOT IDENT.
BI-212	1.430E+00	9.945E-01	1.880E+00	0.000E+00	NOT IDENT.
RN-219	-3.977E-01	8.137E-01	1.386E+00	0.000E+00	NOT IDENT.
RA-223	-8.285E-01	1.145E+00	1.955E+00	0.000E+00	FAIL ABUN
AC-227	-2.929E-01	4.323E-01	7.614E-01	0.000E+00	NOT IDENT.
TH-227	-2.929E-01	4.327E-01	7.614E-01	0.000E+00	NOT IDENT.
TH-229	-6.601E-02	8.604E-01	1.487E+00	0.000E+00	FAIL ABUN
PA-231	-5.384E-01	2.354E+00	4.202E+00	0.000E+00	NOT IDENT.
TH-231	-8.285E-01	1.145E+00	1.955E+00	0.000E+00	FAIL ABUN
PA-233	1.062E-02	1.119E-01	2.016E-01	0.000E+00	NOT IDENT.
PA-234	-7.501E-02	7.915E-01	1.340E+00	0.000E+00	NOT IDENT.
PA-234M	1.629E+00	1.057E+01	1.810E+01	0.000E+00	NOT IDENT.
TH-234	-6.548E-01	3.042E+00	5.086E+00	0.000E+00	NOT IDENT.
U-235	-1.580E-01	2.830E-01	4.849E-01	0.000E+00	FAIL ABUN
NP-237	0.000E+00	1.049E+00	1.139E+00	0.000E+00	NOT IDENT.
U-238	-6.548E-01	3.042E+00	5.086E+00	0.000E+00	NOT IDENT.
NP-239	-2.467E-01	6.119E-01	1.082E+00	0.000E+00	NOT IDENT.
CM-247	-2.288E-02	7.485E-02	1.290E-01	0.000E+00	NOT IDENT.

CF-249	3.645E-02	7.212E-02	1.305E-01	0.000E+00 NOT IDENT.
CF-251	9.308E-02	2.070E-01	3.695E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 12:07:26.27

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071016.CNF;1
Sample date       : 17-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 11:06:54
Sample ID         : G1202071016          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.40  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 965250                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	178	85.60*	6.487E+00	1.587E-01	1.617E-01	35.17
	136.47	------	10.68	6.470E+00	------	Line Not Found	------
CO-60	1173.23	1693	99.85	1.299E+00	6.454E+00	6.472E+00	8.06
	1332.49	1511	99.98*	1.158E+00	6.456E+00	6.474E+00	8.76
CD-109	88.03	1296	3.70*	5.086E+00	3.408E+01	3.447E+01	14.97
SN-126	64.28	------	9.60	2.203E+00	------	Line Not Found	------
	86.94	1296	8.90	5.086E+00	1.417E+01	1.417E+01	43.13
	87.57	1296	37.00*	5.086E+00	3.408E+00	3.408E+00	14.97
BA-137M	661.66	2143	89.90*	2.207E+00	5.344E+00	5.347E+00	6.89
CS-137	661.66	2143	85.10*	2.207E+00	5.646E+00	5.648E+00	6.91
TL-208	277.37	------	6.60	4.326E+00	------	Line Not Found	------
	583.19	159	85.00*	2.454E+00	3.783E-01	3.783E-01	31.37
	860.56	------	12.50	1.744E+00	------	Line Not Found	------
BI-211	72.87	------	1.23	3.384E+00	------	Line Not Found	------
	351.06	282	12.92*	3.625E+00	2.983E+00	2.983E+00	24.21
PB-212	74.82	120	10.28	3.639E+00	1.590E+00	1.590E+00	46.94
	77.11	214	17.10	3.935E+00	1.573E+00	1.573E+00	32.08
	238.63	621	43.60*	4.824E+00	1.461E+00	1.461E+00	13.21
	300.09	------	3.30	4.082E+00	------	Line Not Found	------
BI-214	609.32	167	45.49*	2.365E+00	7.681E-01	7.681E-01	38.89
	1120.29	------	14.92	1.358E+00	------	Line Not Found	------
	1764.49	37	15.30	9.527E-01	1.270E+00	1.270E+00	42.43
PB-214	74.82	120	5.80	3.639E+00	2.818E+00	2.818E+00	46.60
	77.11	214	9.70	3.935E+00	2.773E+00	2.773E+00	33.12
	242.00	151	7.25	4.785E+00	2.147E+00	2.147E+00	57.41
	295.22	126	18.42	4.130E+00	8.188E-01	8.188E-01	46.02
	351.93	282	35.60*	3.625E+00	1.083E+00	1.083E+00	24.83
RA-224	240.99	151	4.10*	4.785E+00	3.796E+00	3.796E+00	57.12
RA-226	609.32	167	45.49*	2.365E+00	7.681E-01	7.681E-01	38.89
	1120.29	------	14.92	1.358E+00	------	Line Not Found	------
	1764.49	37	15.30	9.527E-01	1.270E+00	1.270E+00	42.43
AC-228	338.32	99	11.27	3.733E+00	1.161E+00	1.161E+00	67.54

Sample ID : G1202071016 Acquisition date : 24-MAR-2010 11:06:54

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	90	25.80*	1.652E+00	1.049E+00	1.049E+00	61.10
	968.97	101	15.80	1.558E+00	2.034E+00	2.034E+00	46.99
RA-228	338.32	99	11.27	3.733E+00	1.161E+00	1.161E+00	67.54
	911.20	90	25.80*	1.652E+00	1.049E+00	1.049E+00	61.10
	968.97	101	15.80	1.558E+00	2.034E+00	2.034E+00	46.99
TH-228	74.82	120	10.28	3.639E+00	1.590E+00	1.590E+00	45.93
	77.11	214	17.10	3.935E+00	1.573E+00	1.573E+00	32.08
	238.63	621	43.60*	4.824E+00	1.461E+00	1.461E+00	13.21
	300.09	------	3.30	4.082E+00	------ Line Not Found		------
TH-230	609.32	167	45.49*	2.365E+00	7.681E-01	7.681E-01	38.53
	1120.29	------	14.92	1.358E+00	------ Line Not Found		------
	1764.49	37	15.30	9.527E-01	1.270E+00	1.270E+00	42.43
TH-232	338.32	99	11.27	3.733E+00	1.161E+00	1.161E+00	53.82
	911.20	90	25.80*	1.652E+00	1.049E+00	1.049E+00	61.10
	968.97	101	15.80	1.558E+00	2.034E+00	2.034E+00	46.99
AM-241	59.54	1680	35.90*	1.575E+00	1.470E+01	1.470E+01	14.36
ANH-511	511.00	94	100.00*	2.730E+00	1.709E-01	1.709E-01	75.57

Flag: "*" = Keyline

Sample ID : Gl202071016 Acquisition date : 24-MAR-2010 11:06:54

Total number of lines in spectrum 21
Number of unidentified lines 0
Number of lines tentatively identified by NID 21 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	271.74D	1.02	1.587E-01	1.617E-01	0.569E-01	35.17	
CO-60	5.27Y	1.00	6.456E+00	6.474E+00	0.567E+00	8.76	
CD-109	461.40D	1.01	3.408E+01	3.447E+01	0.516E+01	14.97	
SN-126	2.30E+05Y	1.00	3.408E+00	3.408E+00	0.510E+00	14.97	
BA-137M	30.08Y	1.00	5.344E+00	5.347E+00	0.368E+00	6.89	
CS-137	30.08Y	1.00	5.646E+00	5.648E+00	0.390E+00	6.91	
TL-208	1.41E+10Y	1.00	3.783E-01	3.783E-01	1.186E-01	31.37	
BI-211	7.04E+08Y	1.00	2.983E+00	2.983E+00	0.722E+00	24.21	
PB-212	1.41E+10Y	1.00	1.461E+00	1.461E+00	0.193E+00	13.21	
BI-214	1600.00Y	1.00	7.681E-01	7.681E-01	2.987E-01	38.89	
PB-214	1600.00Y	1.00	1.083E+00	1.083E+00	0.269E+00	24.83	
RA-224	1.41E+10Y	1.00	3.796E+00	3.796E+00	2.169E+00	57.12	
RA-226	1600.00Y	1.00	7.681E-01	7.681E-01	2.987E-01	38.89	
AC-228	1.41E+10Y	1.00	1.049E+00	1.049E+00	0.641E+00	61.10	
RA-228	1.41E+10Y	1.00	1.049E+00	1.049E+00	0.641E+00	61.10	
TH-228	1.41E+10Y	1.00	1.461E+00	1.461E+00	0.193E+00	13.21	
TH-230	7.54E+04Y	1.00	7.681E-01	7.681E-01	2.959E-01	38.53	
TH-232	1.41E+10Y	1.00	1.049E+00	1.049E+00	0.641E+00	61.10	
AM-241	432.60Y	1.00	1.470E+01	1.470E+01	0.211E+01	14.36	
ANH-511	1.00E+09Y	1.00	1.709E-01	1.709E-01	1.292E-01	75.57	
		Total Activity :	8.658E+01	8.700E+01			

Grand Total Activity : 8.658E+01 8.700E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202071016 Acquisition date : 24-MAR-2010 11:06:54

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	185.83	91	259	1.27	371.71	368	8	2.51E-02	65.5	5.70E+00	T
0	463.43	66	166	1.38	926.94	923	9	1.83E-02	74.6	2.95E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 12:07:29.85

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071016.CNF;1  *
* Acquisition date  : 24-MAR-2010 11:06:54  Detector SN#     :               *
* Detector ID       : GAM04                 Sensitivity      : 5.00000      *
* Geometry          : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 01:00:00.00          Abundance limit : 75.00000      *
* Elapsed real time: 0 01:00:01.40          Half life ratio : 8.00000       *
*****************************************************************************
*                                                                            *
*                                SAMPLE DATA                                 *
*                                                                            *
* Sample date       : 17-MAR-2010 00:00:00  Nuclide Library : SOLID          *
* Sample ID         : G1202071016           Analyst initials: MXR1           *
* Batch Number      : 965250                Sample Quantity : 1.51730E+02 GRAM *
*****************************************************************************
*                                                                            *
*                                  QC DATA                                   *
*                                                                            *
* CALIB. DATE/TIME : 5-MAY-2009 14:25:41.36MS Isotope      :                 *
* MSD ID           :                      MSD Isotope      :                 *
* LCS ID           : 1032-A               LCS Isotope      :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	1.617E-01	5.687E-02	6.310E-02	4.380E-03	2.563
CO-60	6.474E+00	5.672E-01	9.280E-02	6.359E-03	69.763
CD-109	3.447E+01	5.161E+00	2.083E+00	2.503E-01	16.551
SN-126	3.408E+00	5.103E-01	2.075E-01	2.489E-02	16.425
BA-137M	5.347E+00	3.681E-01	1.121E-01	5.469E-03	47.681
CS-137	5.648E+00	3.901E-01	1.185E-01	5.812E-03	47.681
TL-208	3.783E-01	1.186E-01	1.052E-01	6.600E-03	3.596
BI-211	2.983E+00	7.222E-01	5.958E-01	4.026E-02	5.006
PB-212	1.461E+00	1.931E-01	1.607E-01	1.300E-02	9.095
BI-214	7.681E-01	2.987E-01	2.061E-01	1.528E-02	3.727
PB-214	1.083E+00	2.688E-01	2.152E-01	1.875E-02	5.031
RA-224	3.796E+00	2.169E+00	1.723E+00	1.149E-01	2.204
RA-226	7.681E-01	2.987E-01	2.061E-01	1.528E-02	3.727
AC-228	1.049E+00	6.407E-01	6.037E-01	6.799E-02	1.737
RA-228	1.049E+00	6.407E-01	6.037E-01	6.799E-02	1.737
TH-228	1.461E+00	1.931E-01	1.607E-01	1.300E-02	9.095
TH-230	7.681E-01	2.959E-01	2.061E-01	1.073E-02	3.727
TH-232	1.049E+00	6.407E-01	6.037E-01	6.799E-02	1.737

Sample ID : G1202071016 Acquisition date : 24-MAR-2010 11:06:54

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-241	1.470E+01	2.111E+00	7.125E-01	8.995E-02	20.638
ANH-511	1.709E-01	1.292E-01	8.778E-02	4.909E-03	1.947

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.682E-01		6.198E-01	9.936E-01	6.578E-02	-0.169
NA-22	7.400E-03		5.193E-02	8.871E-02	5.800E-03	0.083
NA-24	1.209E-04		8.215E-05	Half-Life too short		
K-40	9.781E-01		6.465E-01	1.258E+00	8.939E-02	0.778
SC-46	-6.434E-03		8.597E-02	1.410E-01	1.140E-02	-0.046
V-48	1.516E-02		1.237E-01	2.038E-01	1.579E-02	0.074
CR-51	-2.852E-02		5.499E-01	9.179E-01	6.455E-02	-0.031
MN-54	-2.639E-02		7.709E-02	1.244E-01	9.003E-03	-0.212
CO-56	-7.737E-03		7.969E-02	1.308E-01	9.703E-03	-0.059
CO-58	3.654E-02		7.871E-02	1.347E-01	9.300E-03	0.271
FE-59	1.244E-01		1.970E-01	3.336E-01	2.548E-02	0.373
ZN-65	-2.488E-01		2.058E-01	2.993E-01	1.980E-02	-0.831
SE-75	2.231E-02		7.276E-02	1.249E-01	8.404E-03	0.179
SR-85	6.609E-02		6.579E-02	1.134E-01	6.333E-03	0.583
Y-88	2.451E-02		4.363E-02	8.076E-02	4.712E-03	0.303
Y-91	-3.416E+00		2.771E+01	4.378E+01	2.683E+00	-0.078
NB-94	2.038E-02		6.177E-02	1.059E-01	5.706E-03	0.192
NB-95	4.872E-03		7.299E-02	1.222E-01	7.613E-03	0.040
NB-95M	8.219E-02		2.174E-01	3.140E-01	2.584E-02	0.262
ZR-95	-1.846E-02		1.322E-01	2.182E-01	1.598E-02	-0.085
MO-99	9.348E-01		3.518E+00	5.982E+00	8.637E-01	0.156
TC-99M	6.135E+00		1.742E+01	Half-Life too short		
RU-103	-1.165E-02		6.871E-02	1.104E-01	1.363E-02	-0.106
RH-106	1.469E-01		5.534E-01	9.047E-01	1.023E-01	0.162
RU-106	1.469E-01		5.532E-01	9.047E-01	4.648E-02	0.162
AG-108M	1.888E-02		5.859E-02	9.800E-02	5.965E-03	0.193
AG-110M	-2.212E-02		7.786E-02	1.112E-01	5.940E-03	-0.199
SN-113	-1.880E-02		7.818E-02	1.273E-01	7.670E-03	-0.148
CD-115	1.012E+00		1.980E+00	3.324E+00	1.844E-01	0.304
SN-117M	4.156E-02		5.669E-02	9.519E-02	6.089E-03	0.437
TE-123M	3.120E-02		4.148E-02	6.971E-02	4.506E-03	0.448
SB-124	-9.782E-02		1.162E-01	1.531E-01	1.045E-02	-0.639
SB-125	1.831E-01		1.830E-01	3.171E-01	1.875E-02	0.577
TE-125M	-3.113E-01		1.343E+01	2.217E+01	2.232E+00	-0.014
I-126	-3.525E-01		3.227E-01	4.197E-01	2.070E-02	-0.840
SB-126	1.151E-02		1.757E-01	2.953E-01	1.660E-02	0.039
SB-127	1.306E-02		6.225E-01	1.047E+00	6.921E-02	0.012
I-131	3.224E-02		1.118E-01	1.886E-01	1.245E-02	0.171
TE-132	3.843E-02		2.436E-01	3.901E-01	5.300E-02	0.099
BA-133	2.772E-02		8.484E-02	1.272E-01	1.454E-02	0.218
I-133	-1.262E-06		1.234E-05	Half-Life too short		

Sample ID : G1202071016 Acquisition date : 24-MAR-2010 11:06:54

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-134	7.273E-03		9.294E-02	1.552E-01	1.046E-02	0.047
CS-135	-1.343E-01		2.677E-01	4.417E-01	3.682E-02	-0.304
I-135	2.058E+00		1.447E+01	Half-Life too short		
CS-136	1.434E-02		1.576E-01	2.581E-01	1.980E-02	0.056
CE-139	3.763E-02		4.627E-02	7.768E-02	4.936E-03	0.484
BA-140	-7.288E-02		3.430E-01	5.445E-01	1.811E-01	-0.134
LA-140	5.184E-02		8.594E-02	1.556E-01	1.025E-02	0.333
CE-141	2.802E-02		7.510E-02	1.247E-01	8.369E-03	0.225
CE-143	3.971E+00		5.165E+00	7.964E+00	1.620E+00	0.499
CE-144	-4.445E-02		2.972E-01	4.827E-01	6.891E-02	-0.092
PM-144	-1.291E-04		5.896E-02	9.886E-02	5.249E-03	-0.001
PR-144	-4.030E-01		4.414E+00	7.352E+00	3.903E-01	-0.055
PM-146	4.870E-02		8.947E-02	1.508E-01	1.262E-02	0.323
ND-147	-1.359E-02		6.533E-01	1.055E+00	1.415E-01	-0.013
PM-149	-8.682E+00		1.416E+01	2.301E+01	3.339E+00	-0.377
EU-152	-1.612E-01		1.810E-01	2.749E-01	1.901E-02	-0.587
GD-153	-7.915E-02		1.265E-01	2.035E-01	1.997E-02	-0.389
EU-154	1.186E-02		1.496E-01	2.532E-01	2.504E-02	0.047
EU-155	7.645E-02		1.594E-01	2.695E-01	2.348E-02	0.284
TB-160	6.932E-02		3.232E-01	5.402E-01	4.284E-02	0.128
HO-166M	-1.045E-01		1.132E-01	1.762E-01	9.699E-03	-0.593
TA-182	-1.295E-01		2.341E-01	3.658E-01	2.277E-02	-0.354
IR-192	-2.074E-02		5.701E-02	9.359E-02	6.076E-03	-0.222
HG-203	4.835E-02		6.044E-02	1.056E-01	7.317E-03	0.458
BI-207	-8.138E-02		1.128E-01	1.710E-01	1.216E-02	-0.476
PB-210	-6.425E+00		1.537E+01	2.579E+01	2.250E+00	-0.249
PB-211	-1.682E-01		1.432E+00	2.342E+00	1.123E+00	-0.072
BI-212	1.430E+00		1.015E+00	1.833E+00	1.953E-01	0.780
RN-219	-3.977E-01		8.303E-01	1.331E+00	1.779E-01	-0.299
RA-223	-8.285E-01		1.168E+00	1.868E+00	3.053E-01	-0.444
AC-227	-2.929E-01		4.411E-01	7.230E-01	7.771E-02	-0.405
TH-227	-2.929E-01		4.415E-01	7.230E-01	9.013E-02	-0.405
TH-229	-6.601E-02		8.780E-01	1.403E+00	9.104E-02	-0.047
PA-231	-5.384E-01		2.402E+00	4.000E+00	5.403E-01	-0.135
TH-231	-8.285E-01		1.168E+00	1.868E+00	3.053E-01	-0.444
PA-233	1.062E-02		1.142E-01	1.924E-01	1.312E-02	0.055
PA-234	-7.501E-02		8.077E-01	1.315E+00	2.431E-01	-0.057
PA-234M	1.629E+00		1.079E+01	1.779E+01	1.622E+00	0.092
TH-234	-6.548E-01		3.104E+00	4.673E+00	9.406E-01	-0.140
U-235	-1.580E-01		2.887E-01	4.542E-01	7.262E-02	-0.348
NP-237	3.757E+00		1.070E+00	1.054E+00	2.542E-01	3.563
U-238	-6.548E-01		3.104E+00	4.673E+00	9.406E-01	-0.140
NP-239	-2.467E-01		6.244E-01	1.009E+00	7.402E-02	-0.245
CM-247	-2.288E-02		7.637E-02	1.239E-01	6.993E-03	-0.185
CF-249	3.645E-02		7.360E-02	1.252E-01	7.107E-03	0.291
CF-251	9.308E-02		2.112E-01	3.478E-01	2.228E-02	0.268

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202071016           *
* Acquisition date : 24-MAR-2010 11:06:54 Detector SN#    :                 *
* Detector ID      : GAM04                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:01.40     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 17-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202071016          Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
CO-57	1.617E-01	5.573E-02	3.384E-02	2.843E-02
CO-60	6.474E+00	5.558E-01	4.688E-02	2.836E-01
CD-109	3.447E+01	5.058E+00	1.125E+00	2.580E+00
SN-126	3.408E+00	5.001E-01	1.121E-01	2.552E-01
BA-137M	5.347E+00	3.608E-01	5.769E-02	1.841E-01
CS-137	5.648E+00	3.823E-01	6.095E-02	1.950E-01
TL-208	3.783E-01	1.163E-01	5.429E-02	5.932E-02
BI-211	2.983E+00	7.078E-01	3.115E-01	3.611E-01
PB-212	1.461E+00	1.892E-01	8.480E-02	9.654E-02
BI-214	7.681E-01	2.927E-01	1.063E-01	1.494E-01
PB-214	1.083E+00	2.634E-01	1.125E-01	1.344E-01
RA-224	3.796E+00	2.125E+00	9.090E-01	1.084E+00
RA-226	7.681E-01	2.927E-01	1.063E-01	1.494E-01
AC-228	1.049E+00	6.279E-01	3.081E-01	3.204E-01
RA-228	1.049E+00	6.279E-01	3.081E-01	3.204E-01
TH-228	1.461E+00	1.892E-01	8.480E-02	9.654E-02
TH-230	7.681E-01	2.900E-01	1.063E-01	1.480E-01
TH-232	1.049E+00	6.279E-01	3.081E-01	3.204E-01
AM-241	1.470E+01	2.069E+00	3.885E-01	1.056E+00
ANH-511	1.709E-01	1.266E-01	4.546E-02	6.458E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.682E-01	6.074E-01	5.154E-01	3.099E-01	NOT IDENT.
NA-22	7.400E-03	5.089E-02	4.487E-02	2.597E-02	NOT IDENT.
NA-24	1.209E+02	1.610E+02	0.000E+00	8.215E+01	SHORT HLIF
K-40	9.781E-01	6.336E-01	6.339E-01	3.233E-01	NOT IDENT.
SC-46	-6.434E-03	8.425E-02	7.198E-02	4.298E-02	NOT IDENT.
V-48	1.516E-02	1.212E-01	1.038E-01	6.183E-02	NOT IDENT.
CR-51	-2.852E-02	5.389E-01	4.809E-01	2.750E-01	NOT IDENT.

MN-54	-2.639E-02	7.555E-02	6.362E-02	3.855E-02	NOT IDENT.
CO-56	-7.737E-03	7.810E-02	6.686E-02	3.985E-02	NOT IDENT.
CO-58	3.654E-02	7.713E-02	6.895E-02	3.935E-02	NOT IDENT.
FE-59	1.244E-01	1.930E-01	1.694E-01	9.848E-02	NOT IDENT.
ZN-65	-2.488E-01	2.017E-01	1.519E-01	1.029E-01	NOT IDENT.
SE-75	2.231E-02	7.131E-02	6.575E-02	3.638E-02	FAIL ABUN
SR-85	6.609E-02	6.447E-02	5.871E-02	3.289E-02	NOT IDENT.
Y-88	2.451E-02	4.276E-02	4.045E-02	2.182E-02	NOT IDENT.
Y-91	-3.416E+00	2.716E+01	2.218E+01	1.386E+01	NOT IDENT.
NB-94	2.038E-02	6.054E-02	5.441E-02	3.089E-02	NOT IDENT.
NB-95	4.872E-03	7.153E-02	6.261E-02	3.650E-02	NOT IDENT.
NB-95M	8.219E-02	2.130E-01	1.658E-01	1.087E-01	NOT IDENT.
ZR-95	-1.846E-02	1.296E-01	1.119E-01	6.611E-02	NOT IDENT.
MO-99	9.348E-01	3.448E+00	3.069E+00	1.759E+00	NOT IDENT.
TC-99M	6.135E+06	3.415E+07	0.000E+00	1.742E+07	SHORT HLIF
RU-103	-1.165E-02	6.733E-02	5.721E-02	3.435E-02	FAIL ABUN
RH-106	1.469E-01	5.423E-01	4.662E-01	2.767E-01	NOT IDENT.
RU-106	1.469E-01	5.421E-01	4.662E-01	2.766E-01	NOT IDENT.
AG-108M	1.888E-02	5.742E-02	5.096E-02	2.929E-02	NOT IDENT.
AG-110M	-2.212E-02	7.630E-02	5.720E-02	3.893E-02	NOT IDENT.
SN-113	-1.880E-02	7.662E-02	6.637E-02	3.909E-02	NOT IDENT.
CD-115	1.012E+00	1.940E+00	1.720E+00	9.899E-01	NOT IDENT.
SN-117M	4.156E-02	5.556E-02	5.073E-02	2.834E-02	NOT IDENT.
TE-123M	3.120E-02	4.065E-02	3.715E-02	2.074E-02	NOT IDENT.
SB-124	-9.782E-02	1.139E-01	7.688E-02	5.809E-02	NOT IDENT.
SB-125	1.831E-01	1.793E-01	1.650E-01	9.148E-02	FAIL ABUN
TE-125M	-3.113E-01	1.317E+01	1.192E+01	6.717E+00	NOT IDENT.
I-126	-3.525E-01	3.163E-01	2.159E-01	1.614E-01	NOT IDENT.
SB-126	1.151E-02	1.721E-01	1.516E-01	8.783E-02	NOT IDENT.
SB-127	1.306E-02	6.100E-01	5.380E-01	3.112E-01	NOT IDENT.
I-131	3.224E-02	1.096E-01	9.852E-02	5.592E-02	NOT IDENT.
TE-132	3.843E-02	2.387E-01	2.061E-01	1.218E-01	NOT IDENT.
BA-133	2.772E-02	8.314E-02	6.645E-02	4.242E-02	NOT IDENT.
I-133	-1.262E+00	2.418E+01	0.000E+00	1.234E+01	SHORT HLIF
CS-134	7.273E-03	9.109E-02	7.948E-02	4.647E-02	NOT IDENT.
CS-135	-1.343E-01	2.624E-01	2.324E-01	1.339E-01	NOT IDENT.
I-135	2.058E+06	2.836E+07	0.000E+00	1.447E+07	SHORT HLIF
CS-136	1.434E-02	1.545E-01	1.312E-01	7.882E-02	NOT IDENT.
CE-139	3.763E-02	4.535E-02	4.136E-02	2.314E-02	NOT IDENT.
BA-140	-7.288E-02	3.361E-01	2.816E-01	1.715E-01	NOT IDENT.
LA-140	5.184E-02	8.422E-02	7.826E-02	4.297E-02	NOT IDENT.
CE-141	2.802E-02	7.360E-02	6.658E-02	3.755E-02	NOT IDENT.
CE-143	3.971E+00	5.062E+00	4.182E+00	2.582E+00	NOT IDENT.
CE-144	-4.445E-02	2.913E-01	2.583E-01	1.486E-01	NOT IDENT.
PM-144	-1.291E-04	5.778E-02	5.080E-02	2.948E-02	NOT IDENT.
PR-144	-4.030E-01	4.326E+00	3.778E+00	2.207E+00	NOT IDENT.
PM-146	4.870E-02	8.768E-02	7.833E-02	4.473E-02	NOT IDENT.
ND-147	-1.359E-02	6.402E-01	5.461E-01	3.266E-01	NOT IDENT.
PM-149	-8.682E+00	1.387E+01	1.209E+01	7.079E+00	NOT IDENT.
EU-152	-1.612E-01	1.774E-01	1.438E-01	9.051E-02	FAIL ABUN
GD-153	-7.915E-02	1.239E-01	1.097E-01	6.323E-02	NOT IDENT.
EU-154	1.186E-02	1.466E-01	1.281E-01	7.480E-02	FAIL ABUN
EU-155	7.645E-02	1.562E-01	1.450E-01	7.971E-02	FAIL ABUN
TB-160	6.932E-02	3.168E-01	2.759E-01	1.616E-01	FAIL ABUN
HO-166M	-1.045E-01	1.110E-01	9.050E-02	5.661E-02	FAIL ABUN
TA-182	-1.295E-01	2.294E-01	1.852E-01	1.171E-01	NOT IDENT.
IR-192	-2.074E-02	5.587E-02	4.905E-02	2.851E-02	FAIL ABUN
HG-203	4.835E-02	5.923E-02	5.550E-02	3.022E-02	NOT IDENT.
BI-207	-8.138E-02	1.106E-01	8.691E-02	5.641E-02	FAIL ABUN
PB-210	-6.425E+00	1.507E+01	1.414E+01	7.686E+00	NOT IDENT.
PB-211	-1.682E-01	1.404E+00	1.220E+00	7.161E-01	NOT IDENT.
BI-212	1.430E+00	9.945E-01	9.407E-01	5.074E-01	NOT IDENT.
RN-219	-3.977E-01	8.137E-01	6.934E-01	4.152E-01	NOT IDENT.
RA-223	-8.285E-01	1.145E+00	9.783E-01	5.841E-01	FAIL ABUN
AC-227	-2.929E-01	4.323E-01	3.809E-01	2.205E-01	NOT IDENT.
TH-227	-2.929E-01	4.327E-01	3.809E-01	2.207E-01	NOT IDENT.
TH-229	-6.601E-02	8.604E-01	7.442E-01	4.390E-01	FAIL ABUN
PA-231	-5.384E-01	2.354E+00	2.102E+00	1.201E+00	NOT IDENT.
TH-231	-8.285E-01	1.145E+00	9.783E-01	5.841E-01	FAIL ABUN
PA-233	1.062E-02	1.119E-01	1.009E-01	5.711E-02	NOT IDENT.
PA-234	-7.501E-02	7.915E-01	6.705E-01	4.038E-01	NOT IDENT.
PA-234M	1.629E+00	1.057E+01	9.058E+00	5.393E+00	NOT IDENT.
TH-234	-6.548E-01	3.042E+00	2.545E+00	1.552E+00	NOT IDENT.
U-235	-1.580E-01	2.830E-01	2.426E-01	1.444E-01	FAIL ABUN
NP-237	3.757E+00	1.049E+00	5.700E-01	5.351E-01	NOT IDENT.
U-238	-6.548E-01	3.042E+00	2.545E+00	1.552E+00	NOT IDENT.
NP-239	-2.467E-01	6.119E-01	5.415E-01	3.122E-01	NOT IDENT.
CM-247	-2.288E-02	7.485E-02	6.456E-02	3.819E-02	NOT IDENT.

CF-249	3.645E-02	7.212E-02	6.526E-02	3.680E-02	NOT IDENT.
CF-251	9.308E-02	2.070E-01	1.849E-01	1.056E-01	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	245.8286
49.72	249.8552
57.36	364.2346
59.54	304.3602
63.29	238.4623
63.29	238.4623
64.28	247.0970
67.75	269.9164
69.67	285.6354
70.83	265.9366
72.81	306.8567
72.87	306.8977
72.87	306.8977
74.82	302.7232
74.82	302.7232
74.82	302.7232
74.97	302.8223
77.11	304.2355
77.11	304.2355
77.11	304.2355
79.69	312.8666
79.80	312.9387
80.12	308.9737
80.19	309.0186
80.57	312.0520
81.00	299.7832
81.07	299.8259
81.07	299.8259
83.79	286.0859
83.79	286.0859
85.43	308.1425
86.48	324.3026
86.55	324.3482
86.79	283.1153
86.94	283.2010
87.57	283.5562
88.03	283.8134
88.47	284.0599
89.96	295.2993
91.11	280.3048
92.59	265.4053
92.59	265.4053
93.35	221.7762
94.67	256.9010
94.87	256.0427
94.87	256.0427
95.86	253.6443
97.43	236.1441
98.44	235.6203
99.53	209.1073
100.11	208.3623
103.18	249.2772
103.37	244.5095
105.31	209.3223
106.12	225.2170
109.28	223.5028
111.00	204.4929
111.76	227.3941
116.30	228.1165
117.23	237.4015
121.12	229.3914
121.78	223.1270
122.06	223.2257
123.07	201.5234
131.20	239.5843
133.52	226.1530
136.00	245.3833

136.47	246.5749
140.51	211.9995
140.51	0.0000
143.76	210.9104
144.24	203.8115
144.24	203.8115
145.44	187.5732
152.43	216.5852
153.25	191.6861
154.21	209.7616
154.21	209.7616
156.02	186.0891
158.56	197.2627
159.00	195.2659
162.66	258.7685
163.33	232.4558
165.86	212.9761
176.60	226.6327
177.52	215.0003
181.07	227.8568
184.41	217.3244
185.72	254.2085
193.51	226.7836
197.04	222.1645
205.31	233.1329
210.85	249.1222
215.65	252.6494
222.11	205.5288
227.38	195.2226
228.16	209.0881
228.18	209.0918
235.69	212.3935
235.96	198.6319
235.96	198.6319
238.63	215.8935
238.63	215.8935
240.99	216.3900
242.00	192.8578
244.70	188.1348
252.40	195.6558
252.80	189.5850
256.23	213.0867
256.23	213.0867
260.90	198.0884
264.66	176.5846
268.22	204.7490
269.46	170.2201
269.46	170.2201
271.23	178.5217
273.65	212.0039
276.40	190.9967
277.37	189.3643
277.60	175.9382
278.00	178.6919
279.20	177.0824
279.54	179.8309
280.46	176.3779
283.69	166.0425
284.31	177.8669
285.41	178.0353
285.90	179.9186
287.50	162.0576
293.27	168.8542
295.22	188.6329
295.96	199.8742
298.57	188.6089
299.98	159.5535
299.98	159.5535
300.09	159.5695
300.09	159.5695
300.13	159.5748
301.36	163.2935
302.85	196.2461
304.50	200.1837
304.50	200.1837
304.85	190.1364
308.46	158.4523
311.90	159.8170

316.51	164.1145
319.41	155.1967
320.08	164.5763
323.87	181.8514
323.87	181.8514
328.76	176.9251
333.37	156.3224
334.37	157.9460
334.37	157.9460
338.28	157.4697
338.28	157.4697
338.32	157.4748
338.32	157.4748
338.32	157.4748
340.48	164.7215
340.55	164.7294
344.28	168.8703
351.06	147.7426
351.93	145.7394
356.01	139.1038
364.49	143.2229
366.42	169.4097
383.85	136.4069
388.16	129.9680
388.63	126.0986
391.69	140.0739
400.66	147.8142
401.81	174.5558
402.40	172.6501
404.85	162.0581
410.95	149.8088
414.70	139.2352
423.72	188.0545
427.09	130.3174
427.87	129.3779
433.94	131.8855
453.88	142.6788
463.37	175.2635
468.07	131.5566
473.00	141.2144
476.78	137.3917
477.60	147.7939
487.02	136.1252
492.35	124.0316
497.08	119.1367
511.00	108.4772
514.00	108.6556
527.90	91.4065
529.87	0.0000
531.02	99.0112
537.26	107.8858
546.56	0.0000
563.25	95.2751
569.33	87.9684
569.50	91.2341
569.70	89.0694
583.19	90.9848
600.60	91.5437
602.73	111.2897
604.72	86.6424
609.32	93.0363
609.32	93.0363
609.32	93.0363
610.33	93.0824
614.28	88.8159
618.01	88.9746
621.93	73.5390
621.93	73.5390
633.25	79.5305
635.95	84.1164
636.99	85.2773
645.85	94.6384
657.76	107.2338
661.66	93.5022
661.66	93.5022
664.57	81.8086
666.33	112.1954
666.50	116.7533

677.62	80.4547
685.70	86.2455
695.00	73.6953
696.49	79.2739
696.51	81.1186
697.00	88.5117
702.65	84.1039
706.68	101.8386
711.68	97.4172
720.70	84.7482
721.93	97.8376
722.78	100.6699
722.91	109.9970
723.31	110.0143
724.19	112.8526
727.33	74.7109
733.00	101.0971
735.93	77.7882
739.50	84.4739
747.24	73.4411
752.31	81.1415
753.82	67.9728
756.73	90.7383
763.94	91.9487
765.81	88.2229
766.42	77.8059
777.92	89.6006
778.90	93.4493
783.70	77.3831
785.37	85.0823
795.86	91.1893
801.95	80.8192
810.29	86.8689
810.76	86.8843
815.77	109.2977
818.51	93.9190
832.01	105.0996
834.85	100.3395
836.80	0.0000
846.77	90.9997
856.80	109.9930
860.56	112.1102
871.09	99.7030
873.19	91.8761
875.33	0.0000
879.36	106.9295
880.51	113.9078
883.24	98.1541
884.68	100.1888
889.28	93.3964
898.04	107.6388
911.20	125.1526
911.20	125.1526
911.20	125.1526
926.50	106.6910
937.49	132.3465
944.13	100.2423
946.00	122.5952
949.00	119.6767
962.29	123.5175
964.08	110.4254
966.15	144.4993
968.97	119.1105
968.97	119.1105
968.97	119.1105
983.53	93.3505
996.26	95.7973
1001.03	90.7844
1004.73	93.9904
1037.84	84.5398
1038.76	0.0000
1048.07	74.3385
1050.41	94.3022
1050.41	94.3022
1063.66	79.9559
1085.87	94.2626
1099.45	84.0108
1112.07	78.9899

1115.54	111.1246
1120.29	60.9883
1120.29	60.9883
1120.29	60.9883
1120.55	67.4143
1121.30	67.4297
1131.51	0.0000
1173.23	45.6278
1177.93	52.5767
1189.05	42.5553
1204.77	35.0703
1221.41	34.8627
1231.02	31.2746
1235.36	32.2314
1238.28	24.8840
1260.41	0.0000
1271.85	17.6679
1274.44	20.4719
1274.54	19.5414
1291.59	25.2367
1298.22	0.0000
1312.11	16.9138
1332.49	21.7249
1365.19	9.5231
1368.63	0.0000
1384.29	17.2229
1408.01	20.2096
1457.56	0.0000
1460.82	16.5670
1489.16	14.7144
1505.03	17.7217
1596.21	12.0566
1620.50	6.0601
1678.03	0.0000
1690.97	16.4017
1764.49	8.3245
1764.49	8.3245
1764.49	8.3245
1770.23	12.5010
1771.35	35.4263
1791.20	0.0000
1836.06	5.2763

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202071016

Total Uranium Activity	-2.0213E+00	ug/g
Total Uranium Counting Unc.	9.0509E+00	ug/g
Total Uranium Tpu	4.6178E-06	ug/g
Total Uranium Mda	7.5710E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G1202071016      *
*   ANALYST       : MXR1                      DETECTOR   : GAM04            *
*   SAMPLE DATE   : 17-MAR-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 11:06:54.77    SAMPLE ALQT:  151.730 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.809E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 2.836E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.595E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.739E+00
```

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W013.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:19 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.311179 through 0.370113

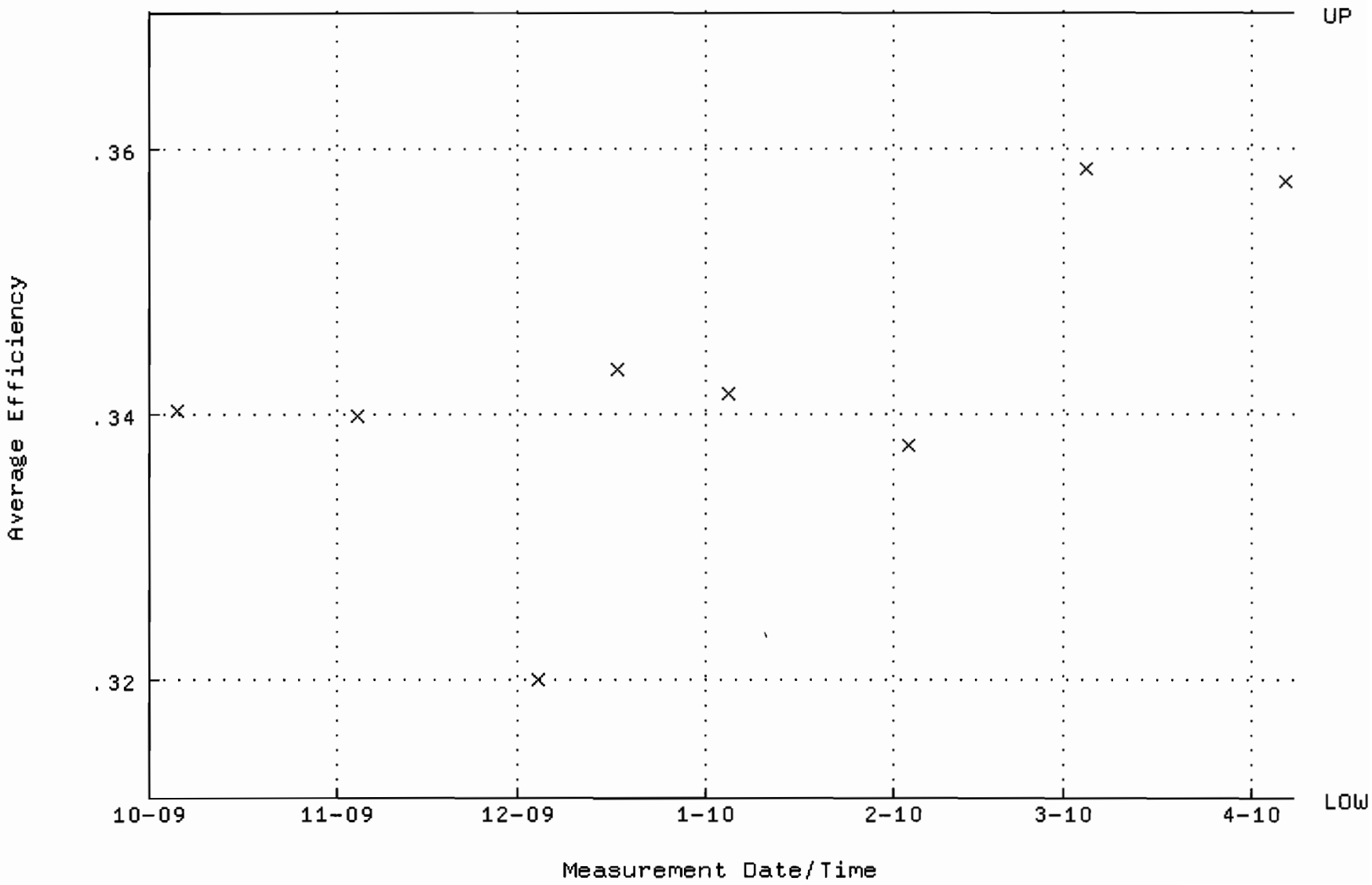

QA filename : DKA100:[ENV_ALPHA.QA.W]W013.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:19 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 85.5651 through 97.2315

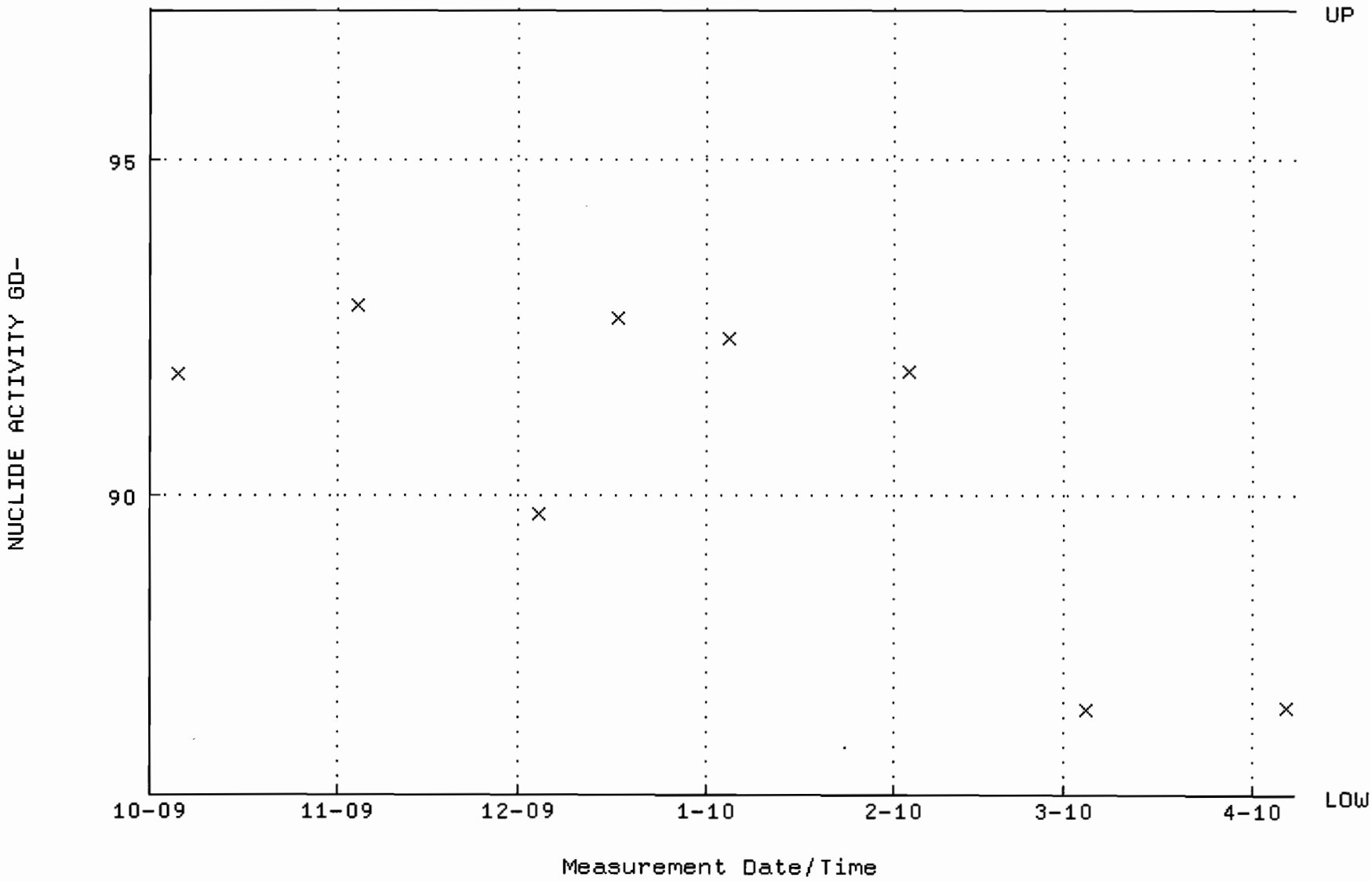

QA filename : DKA100:[ENV_ALPHA.QA.B]B013.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:07 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

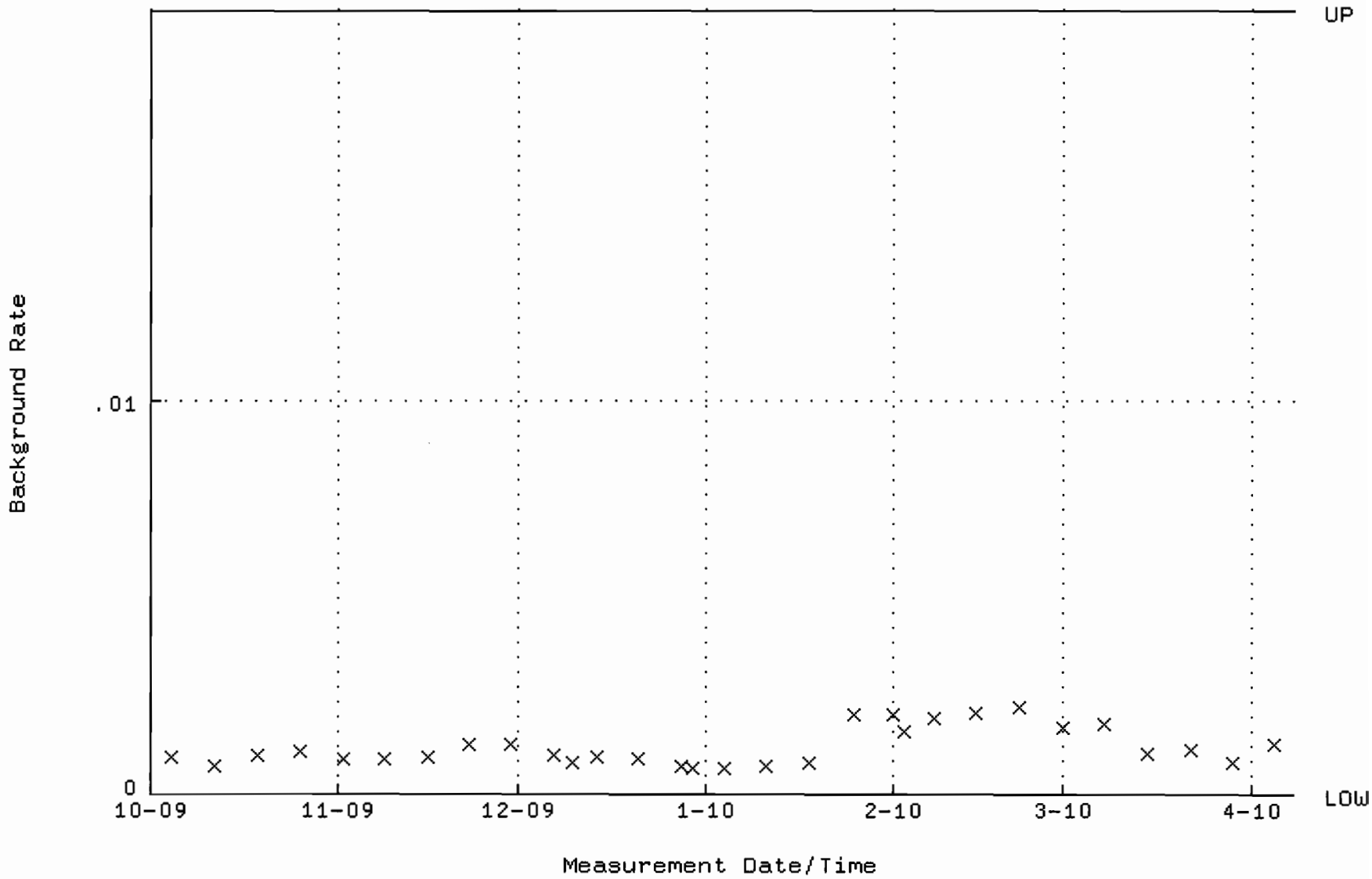

QA filename : DKA100:[ENV_ALPHA.QA.W]W014.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:19 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.288973 through 0.340739

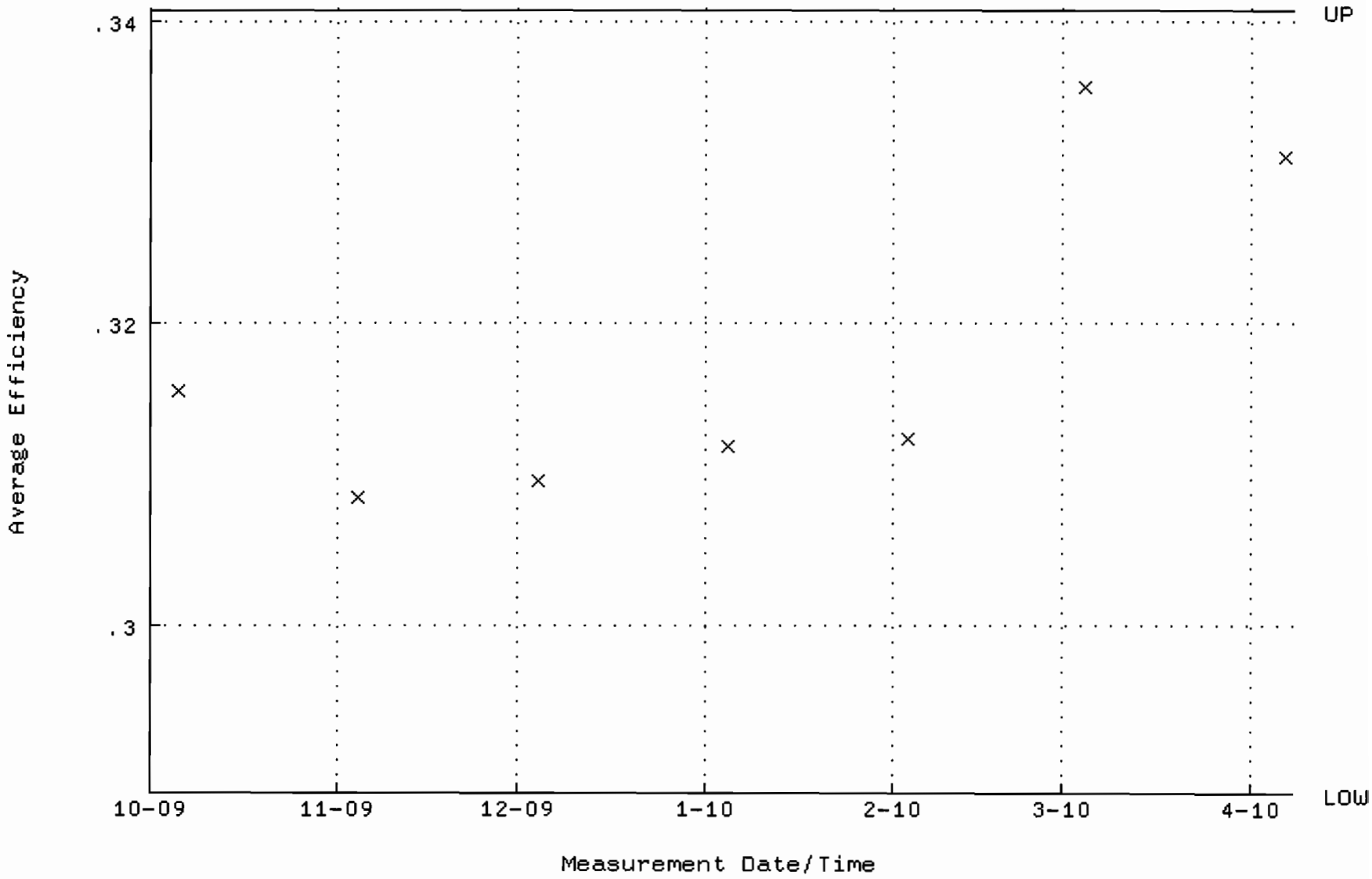

QA filename : DKA100:[ENV_ALPHA.QA.W]W014.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:19 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 87.9529 through 99.8771

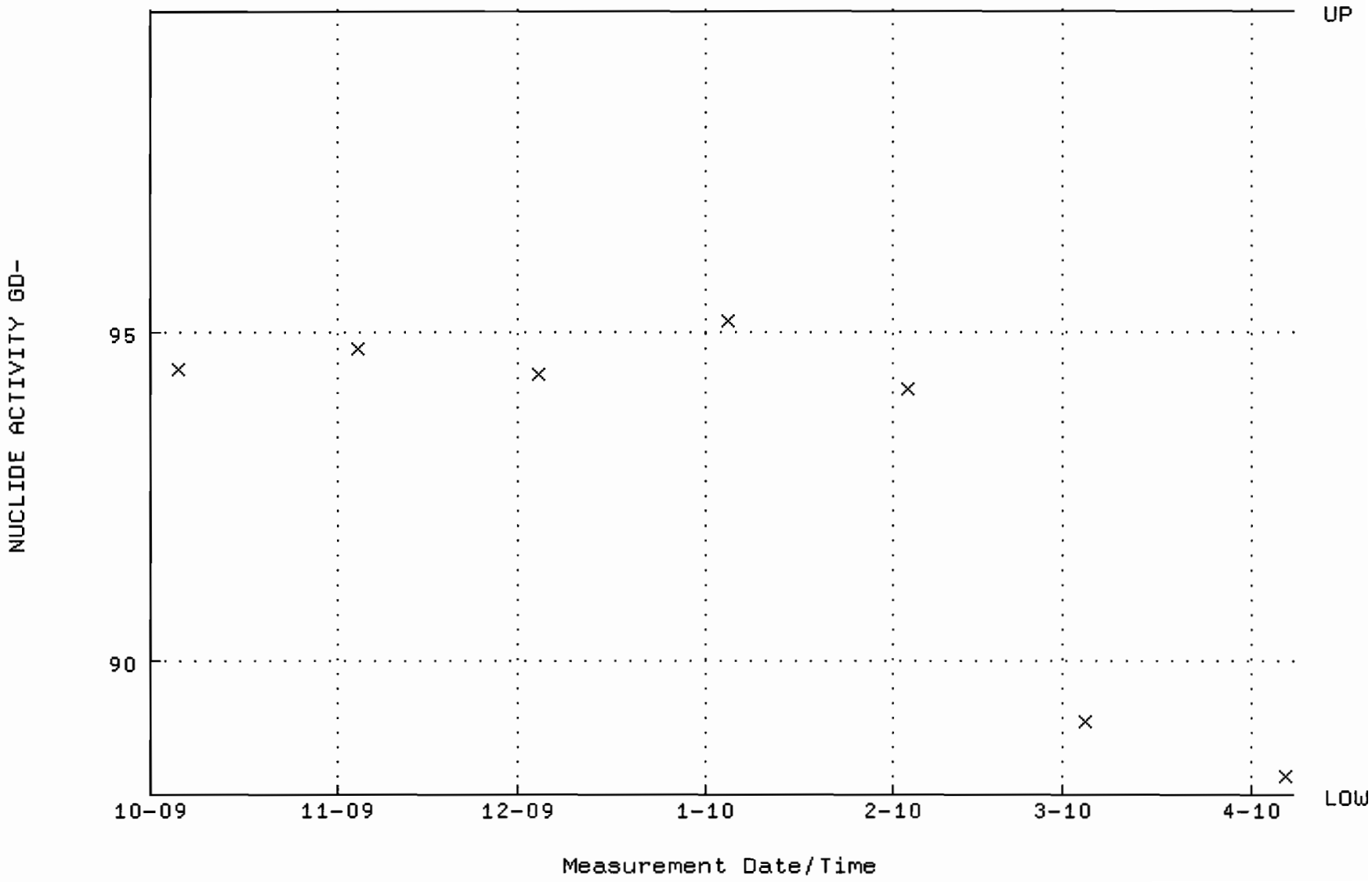

QA filename : DKA100:[ENV_ALPHA.QA.B]B014.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:07 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

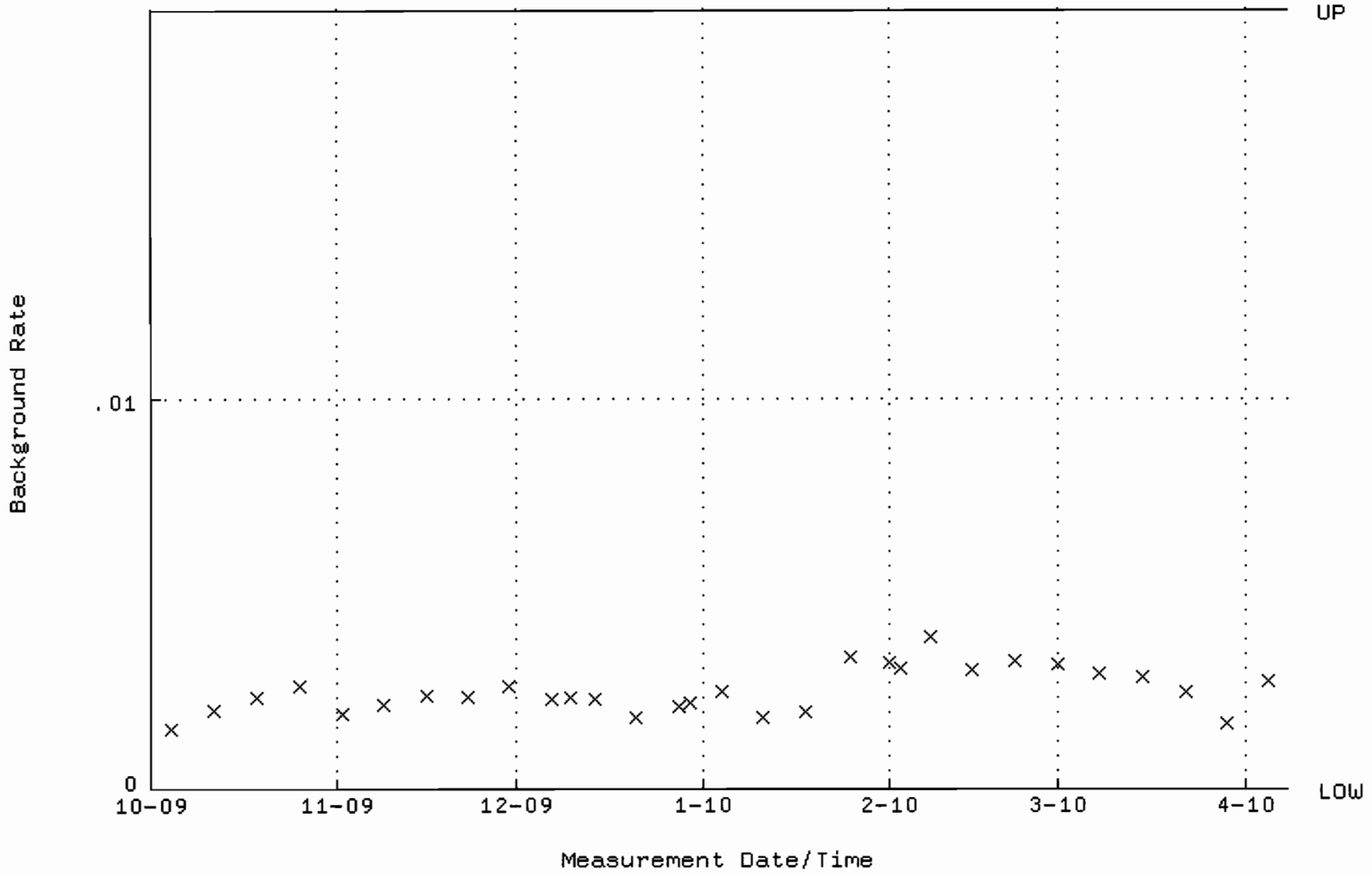

QA filename : DKA100:[ENV_ALPHA.QA.W]W019.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:21 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.270780 through 0.319416

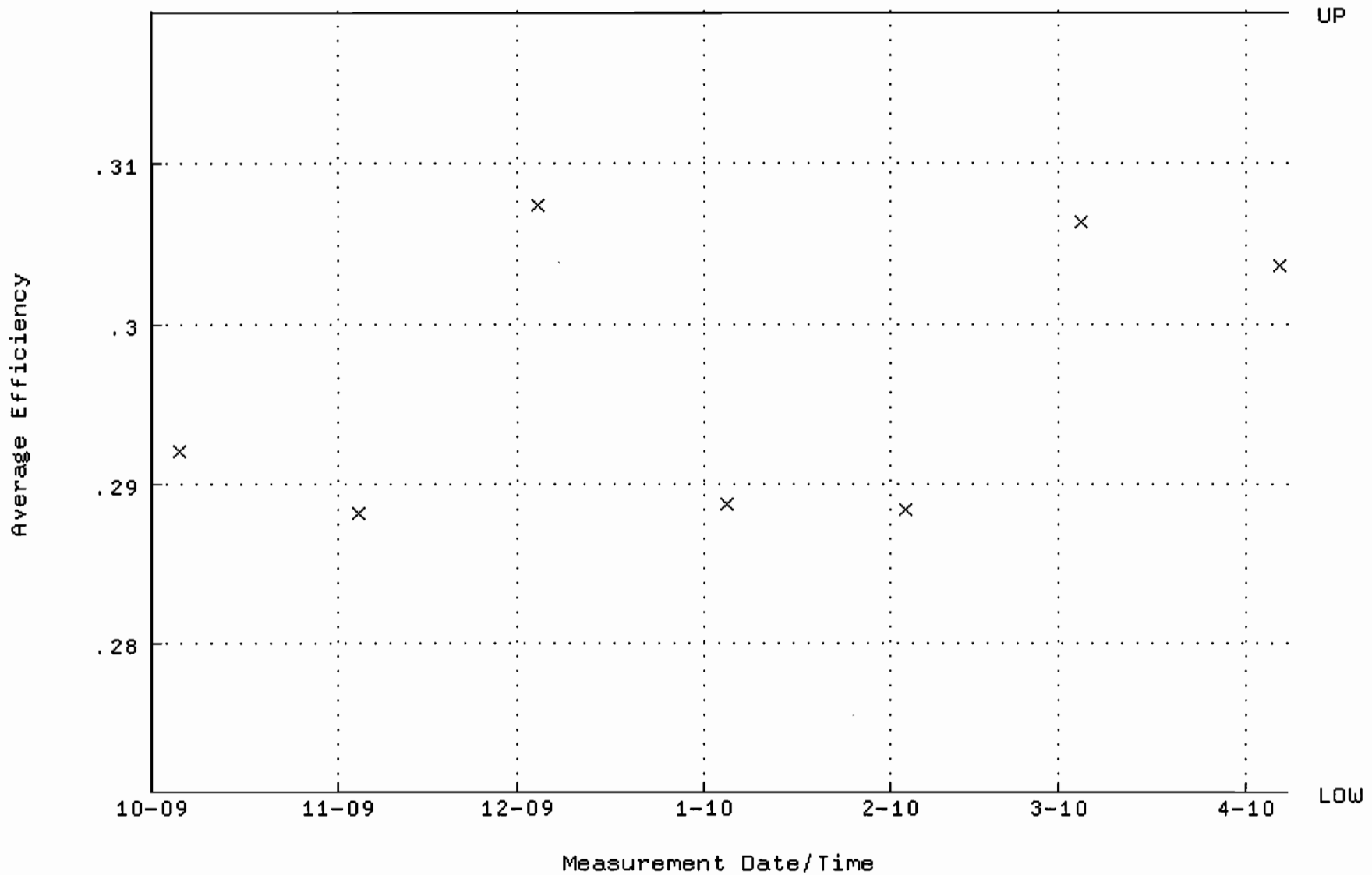

QA filename : DKA100:[ENV_ALPHA.QA.W]W019.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:21 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 81.1587 through 95.4133

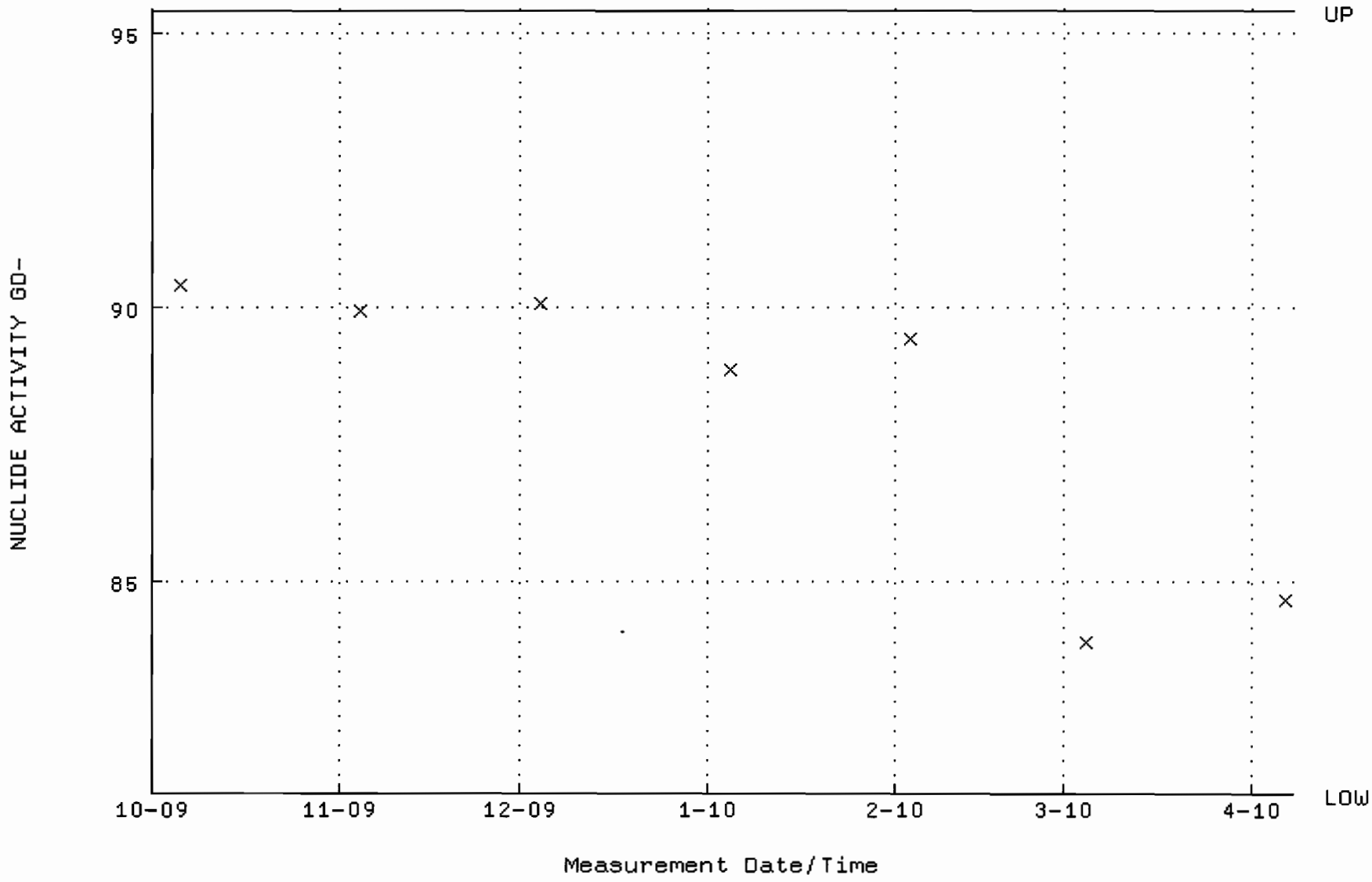

QA filename : DKA100:[ENV_ALPHA.QA.B]B019.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:07 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

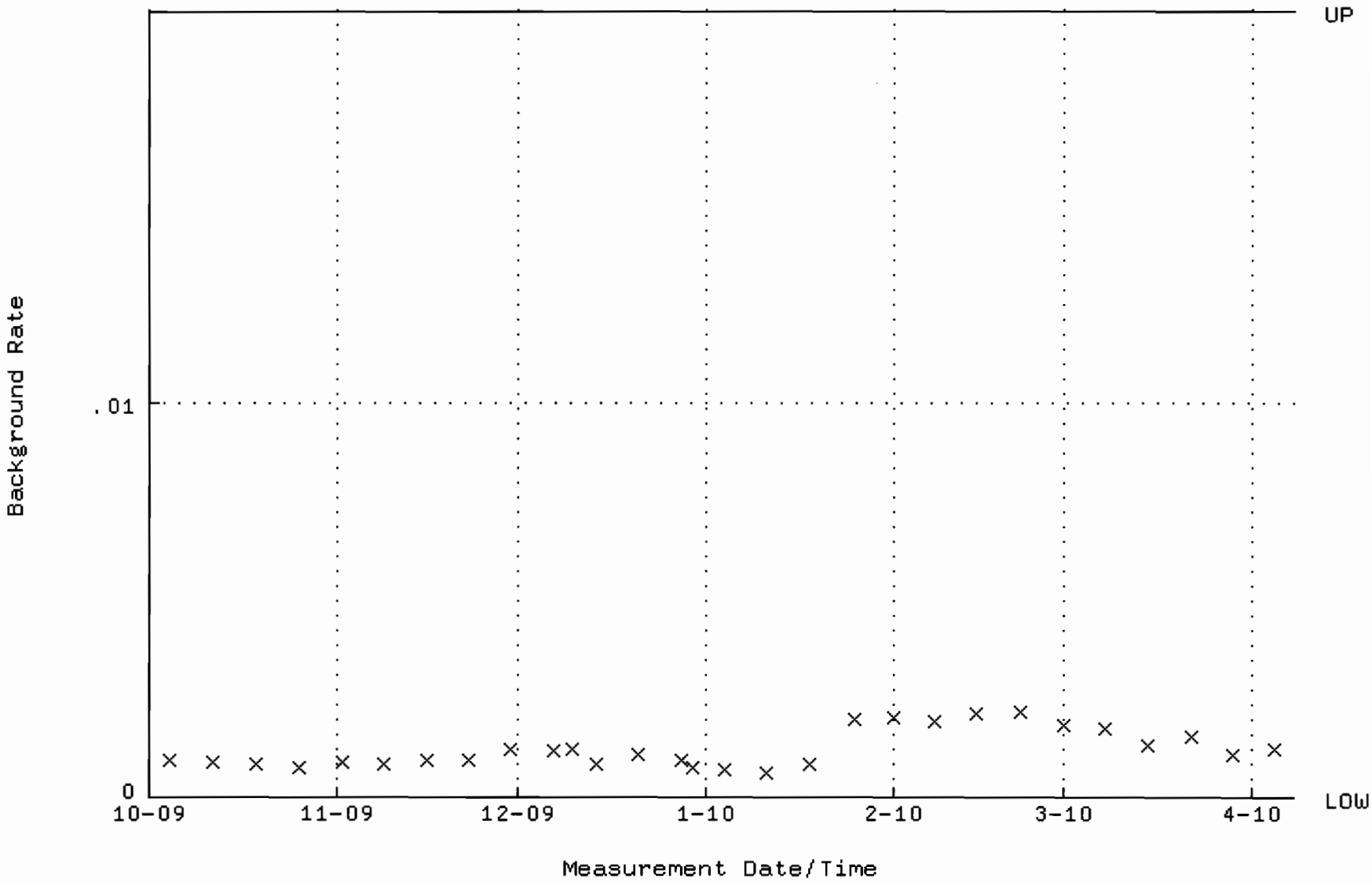

QA filename : DKA100:[ENV_ALPHA.QA.W]W020.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:21 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.332714 through 0.357350

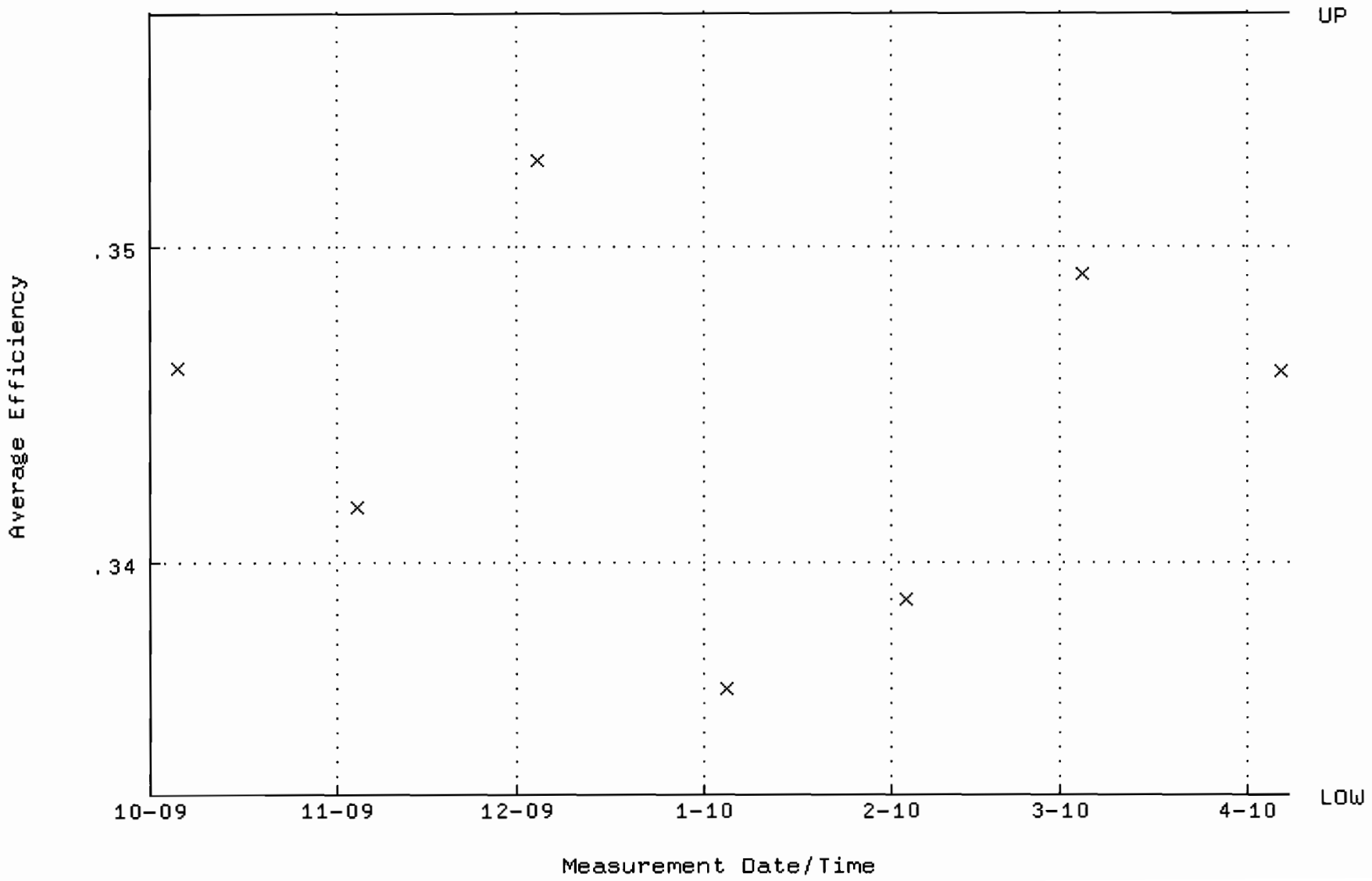

QA filename : DKA100:[ENV_ALPHA.QA.W]W020.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:21 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 87.0220 through 92.8676

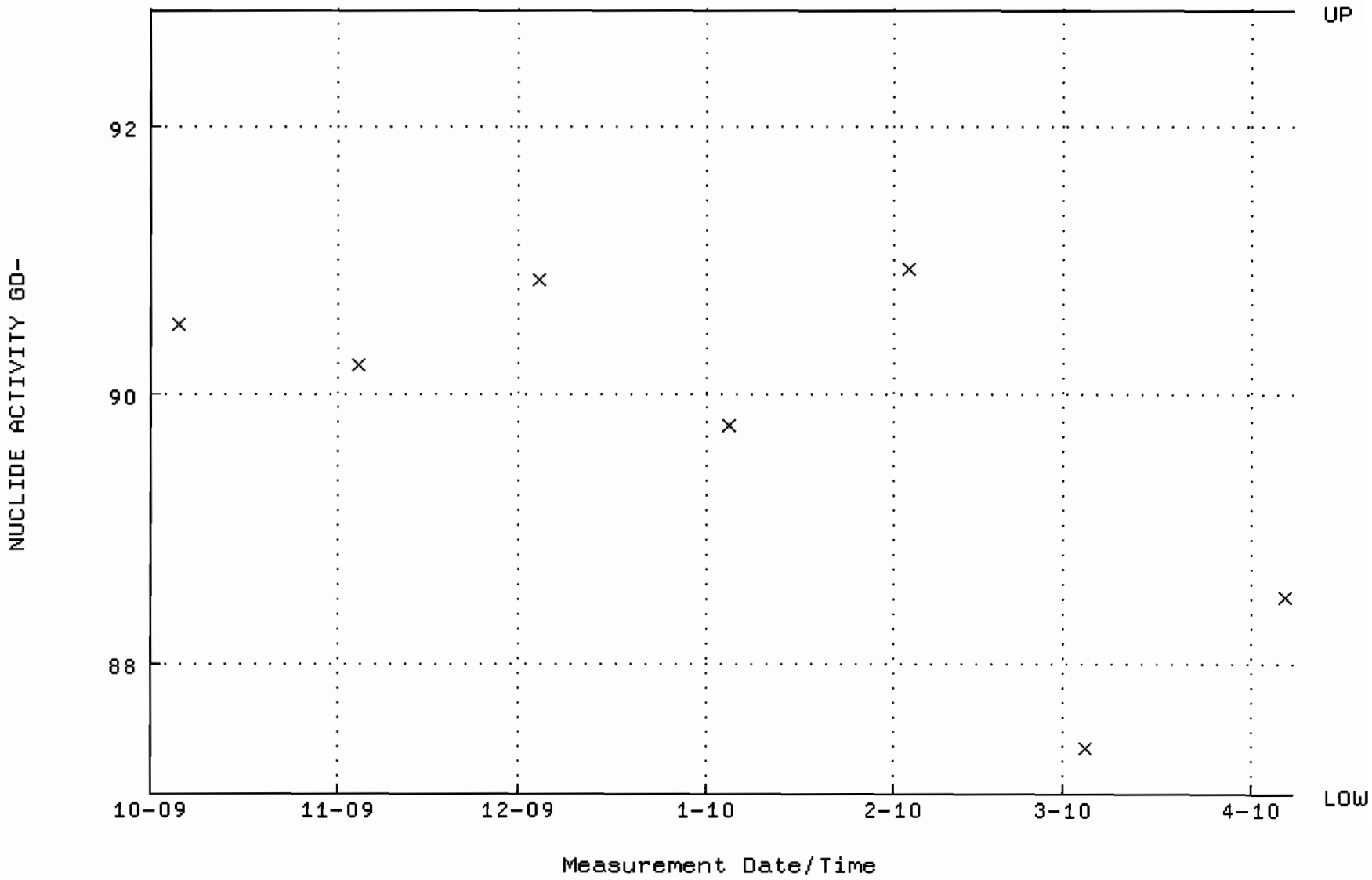

QA filename : DKA100:[ENV_ALPHA.QA.B]B020.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:07 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

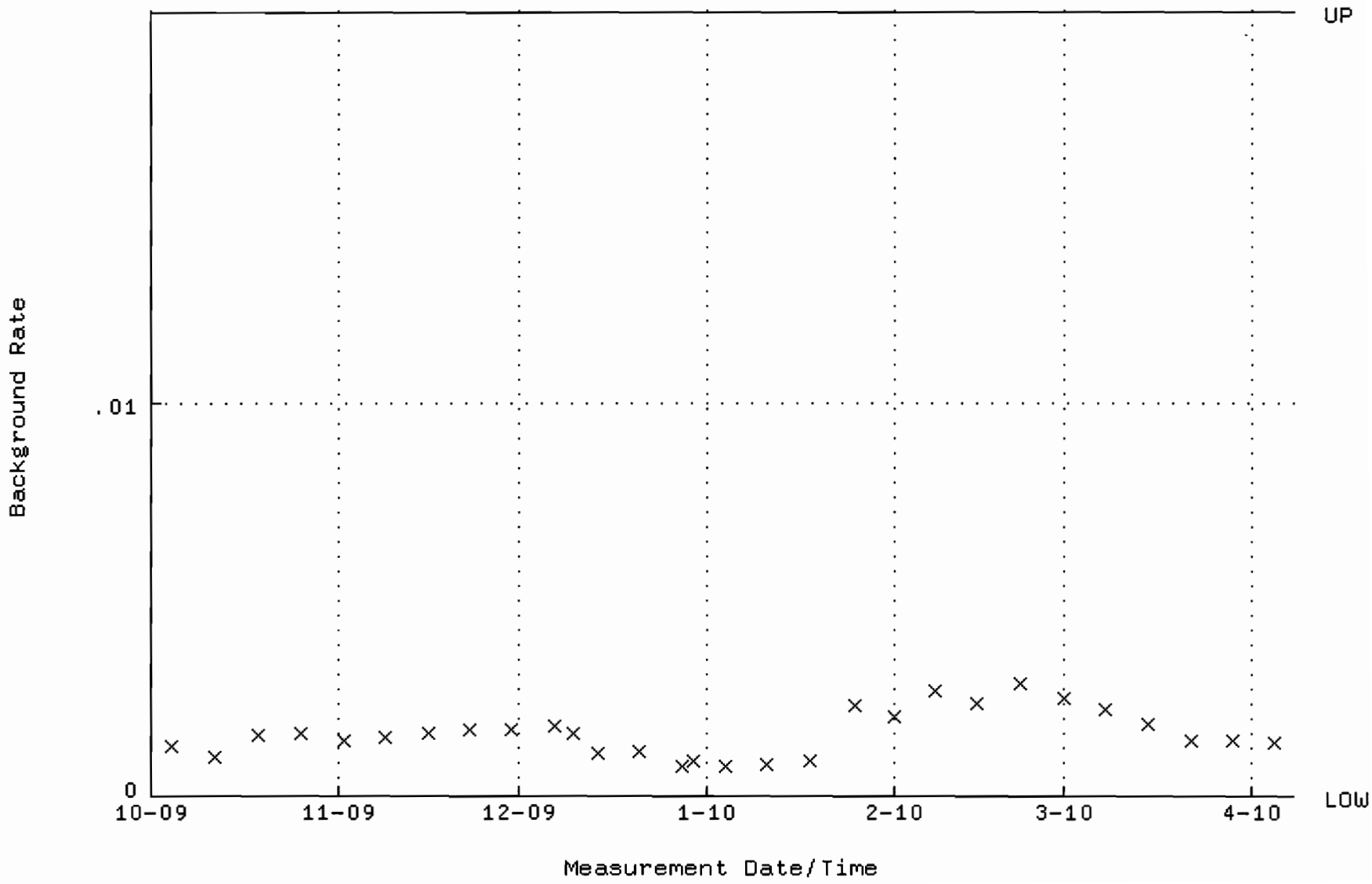

QA filename : DKA100:[ENV_ALPHA.QA.W]W022.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:21 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.300933 through 0.333065

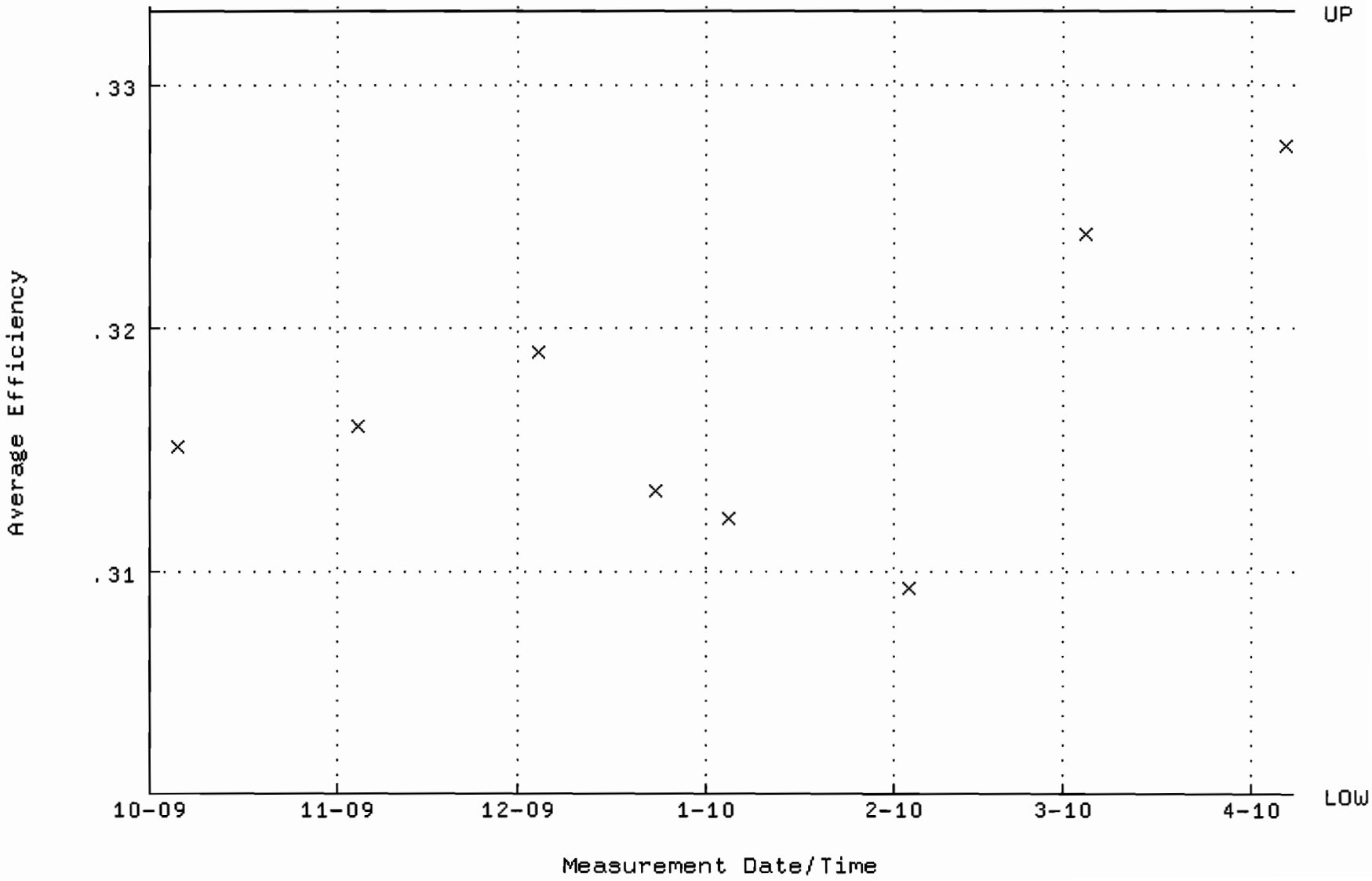

QA filename : DKA100:[ENV_ALPHA.QA.W]W022.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:21 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 88.2129 through 95.4761

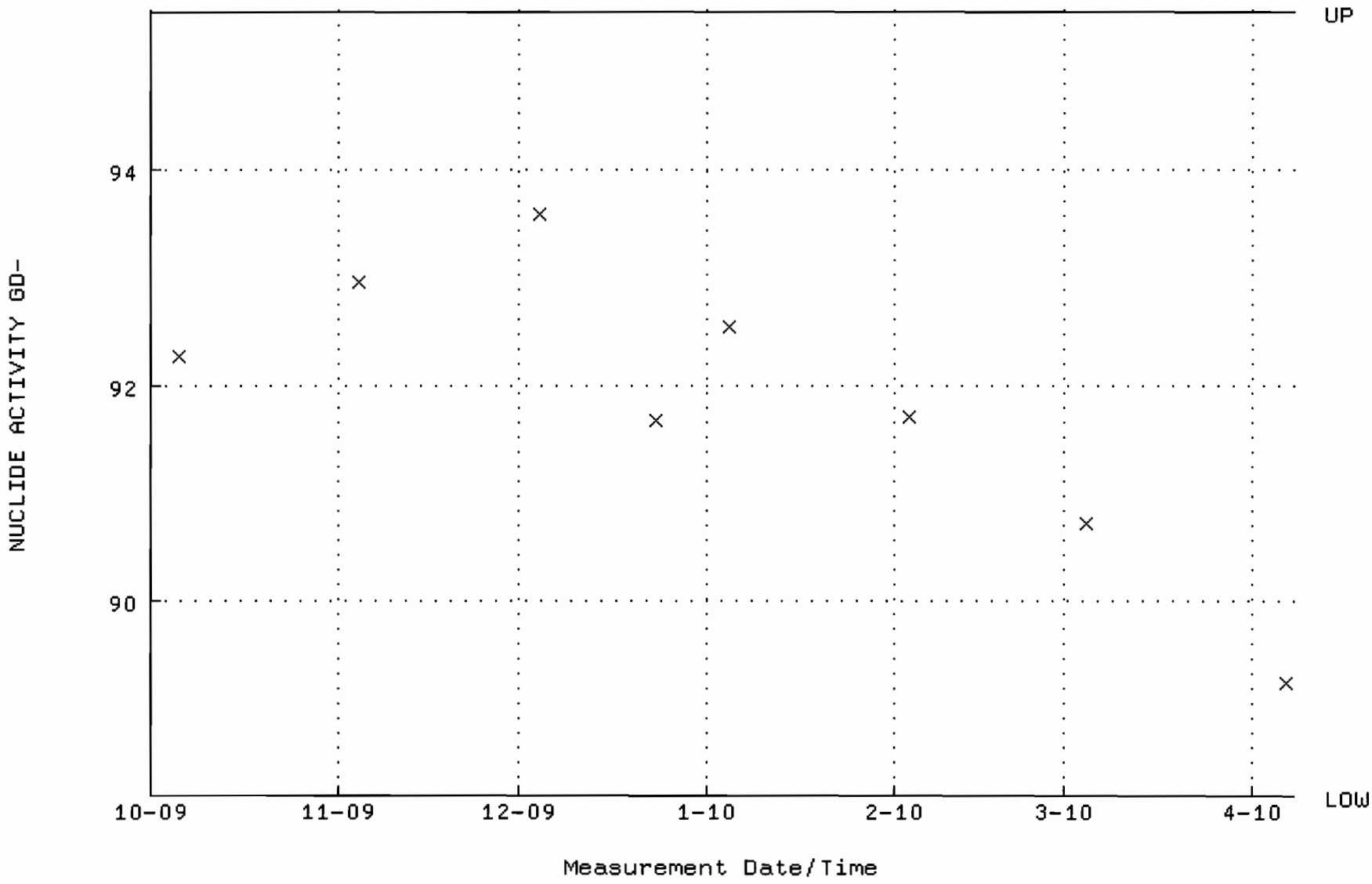

QA filename : DKA100:[ENV_ALPHA.QA.B]B022.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:07 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

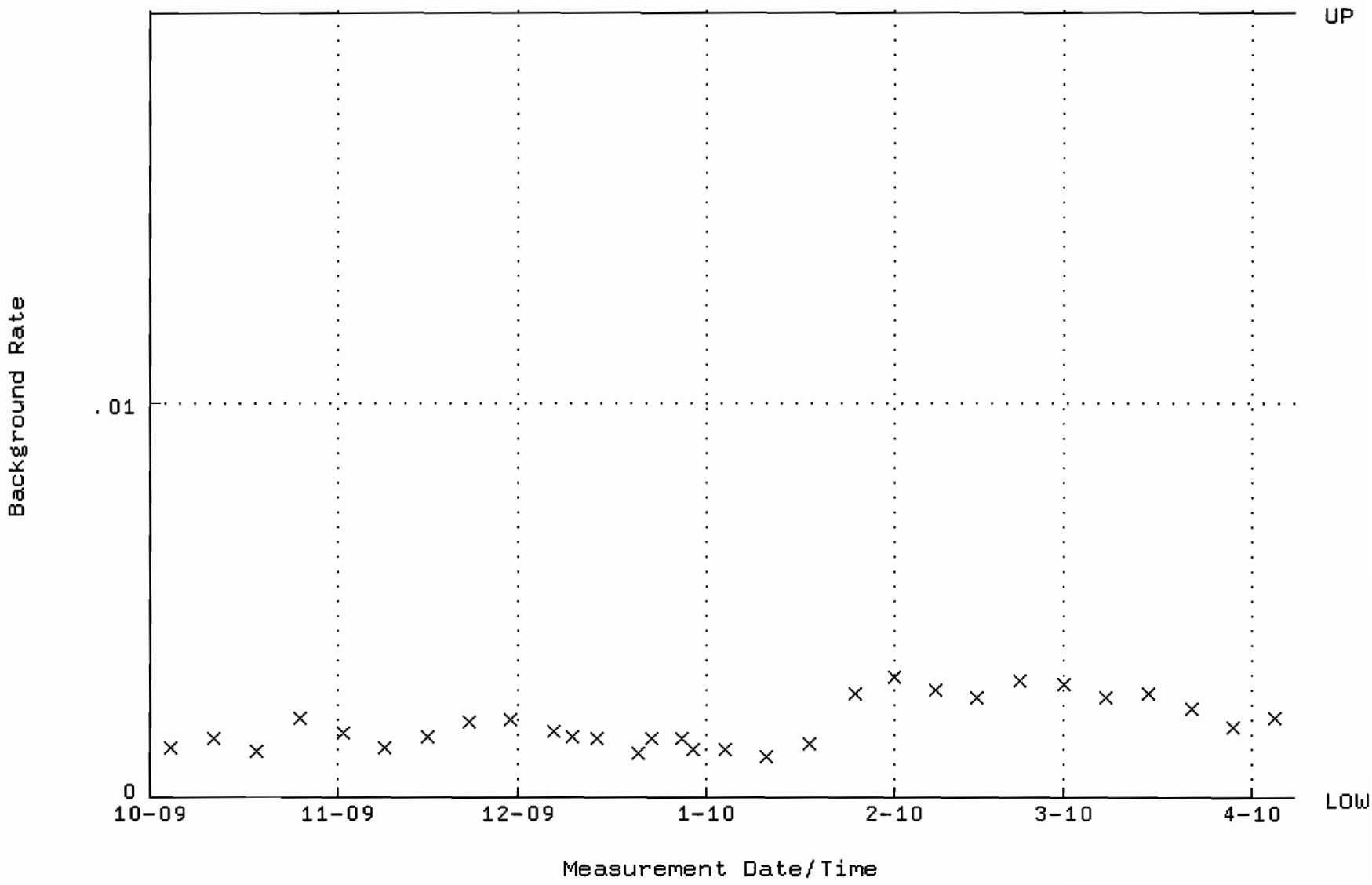

QA filename : DKA100:[ENV_ALPHA.QA.W]W023.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:21 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

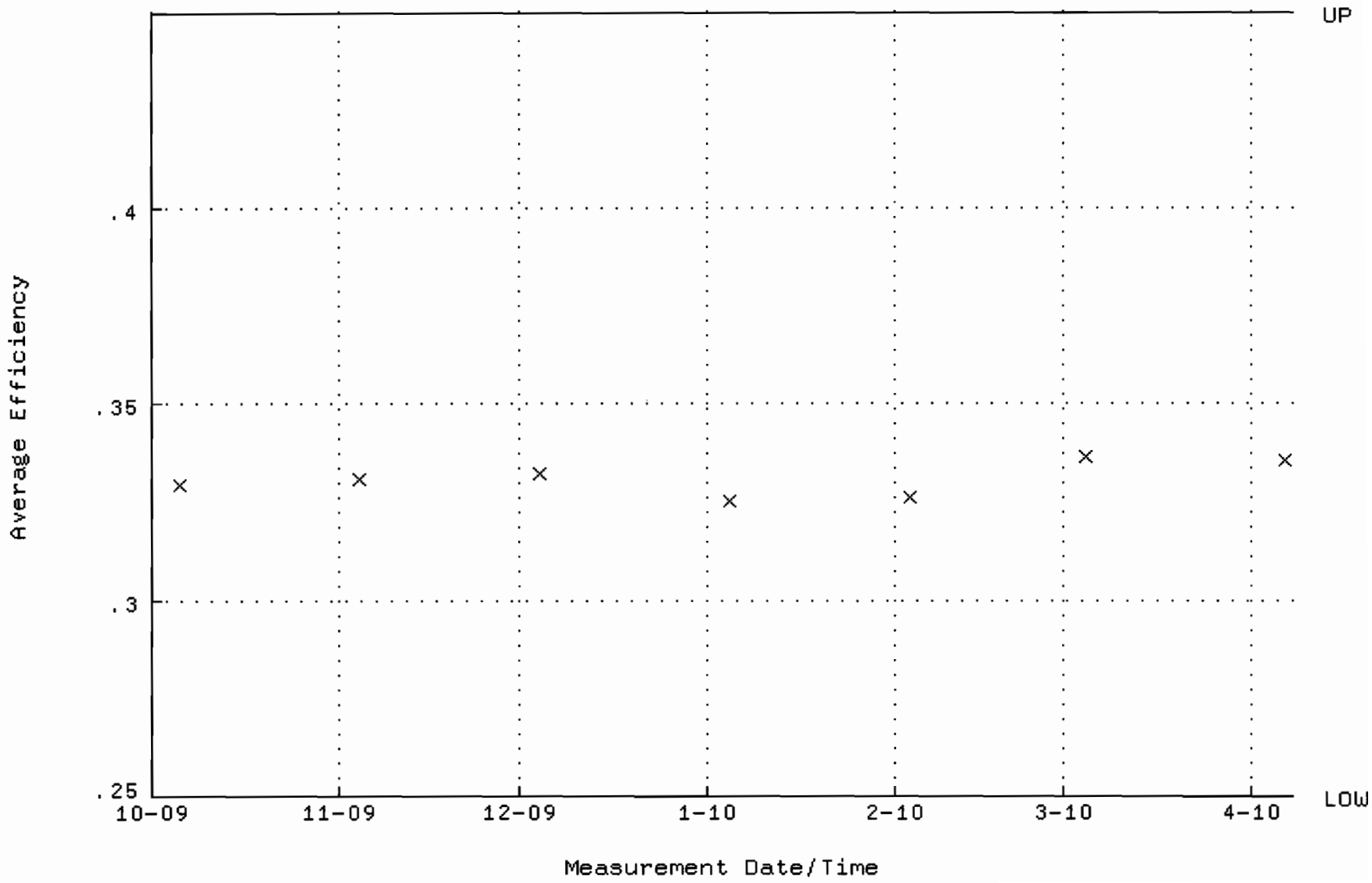

QA filename : DKA100:[ENV_ALPHA.QA.W]W023.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:21 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

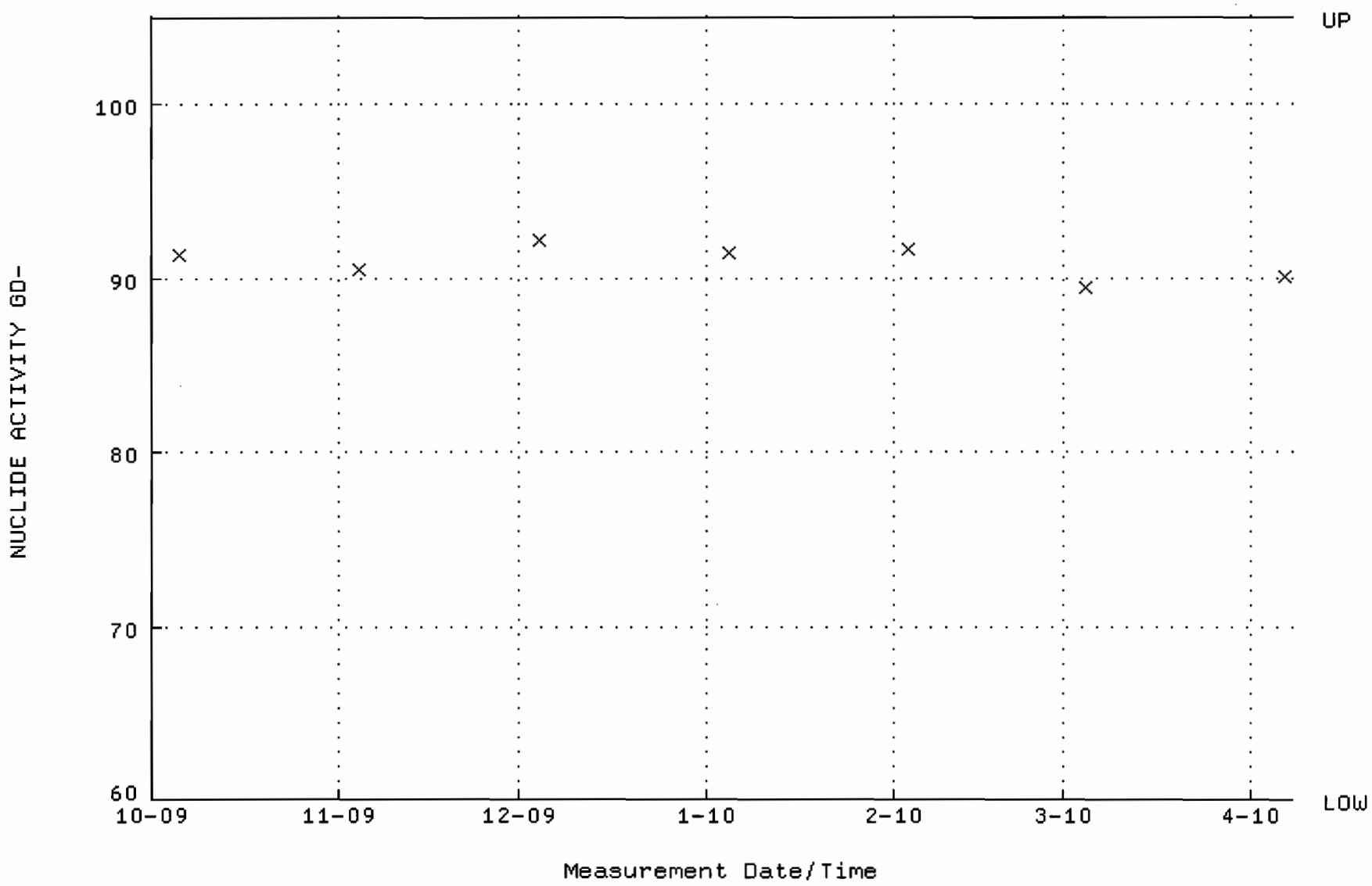

QA filename : DKA100:[ENV_ALPHA.QA.B]B023.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:07 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

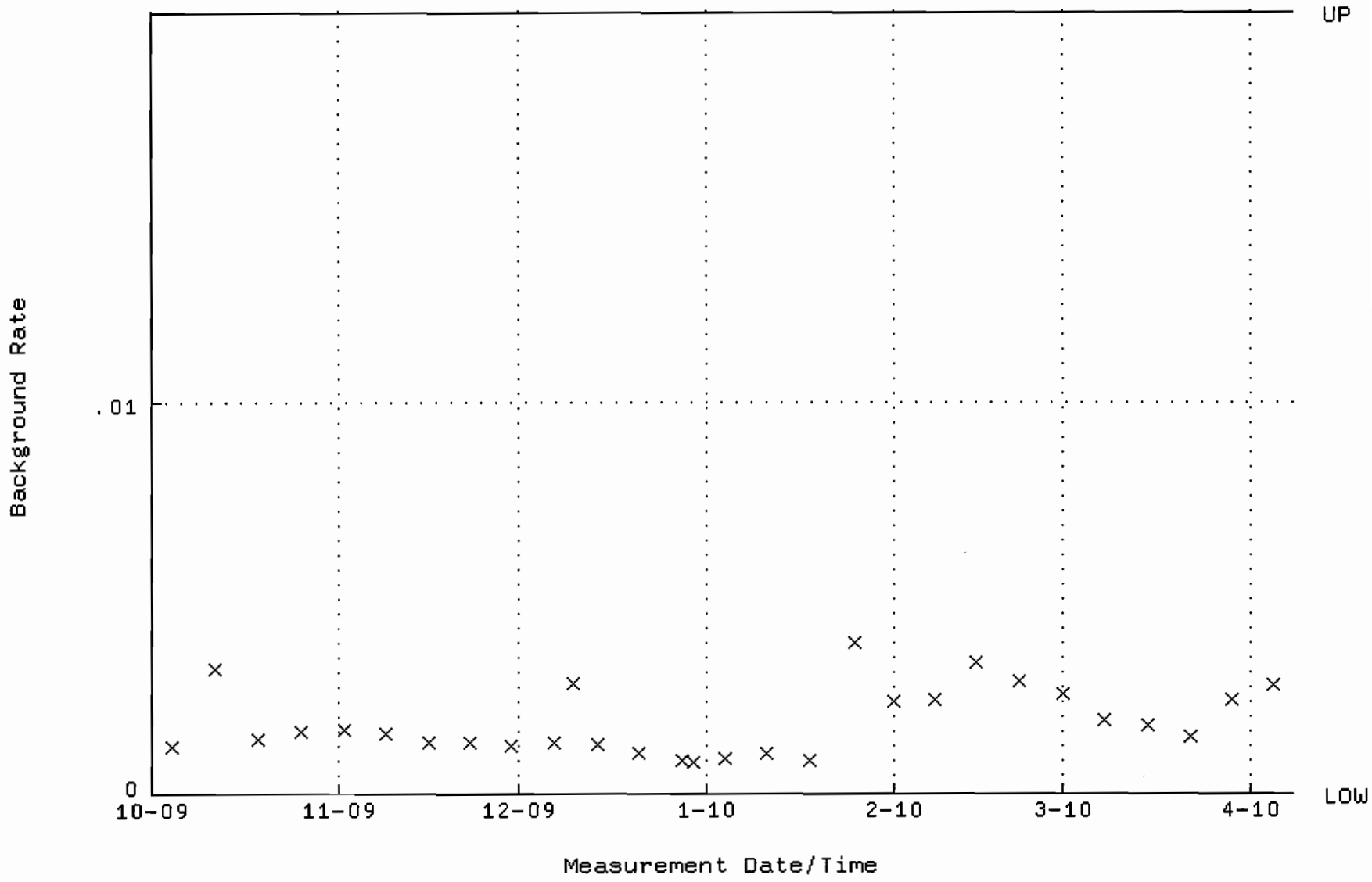

QA filename : DKA100:[ENV_ALPHA.QA.W]W073.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.326078 through 0.341146

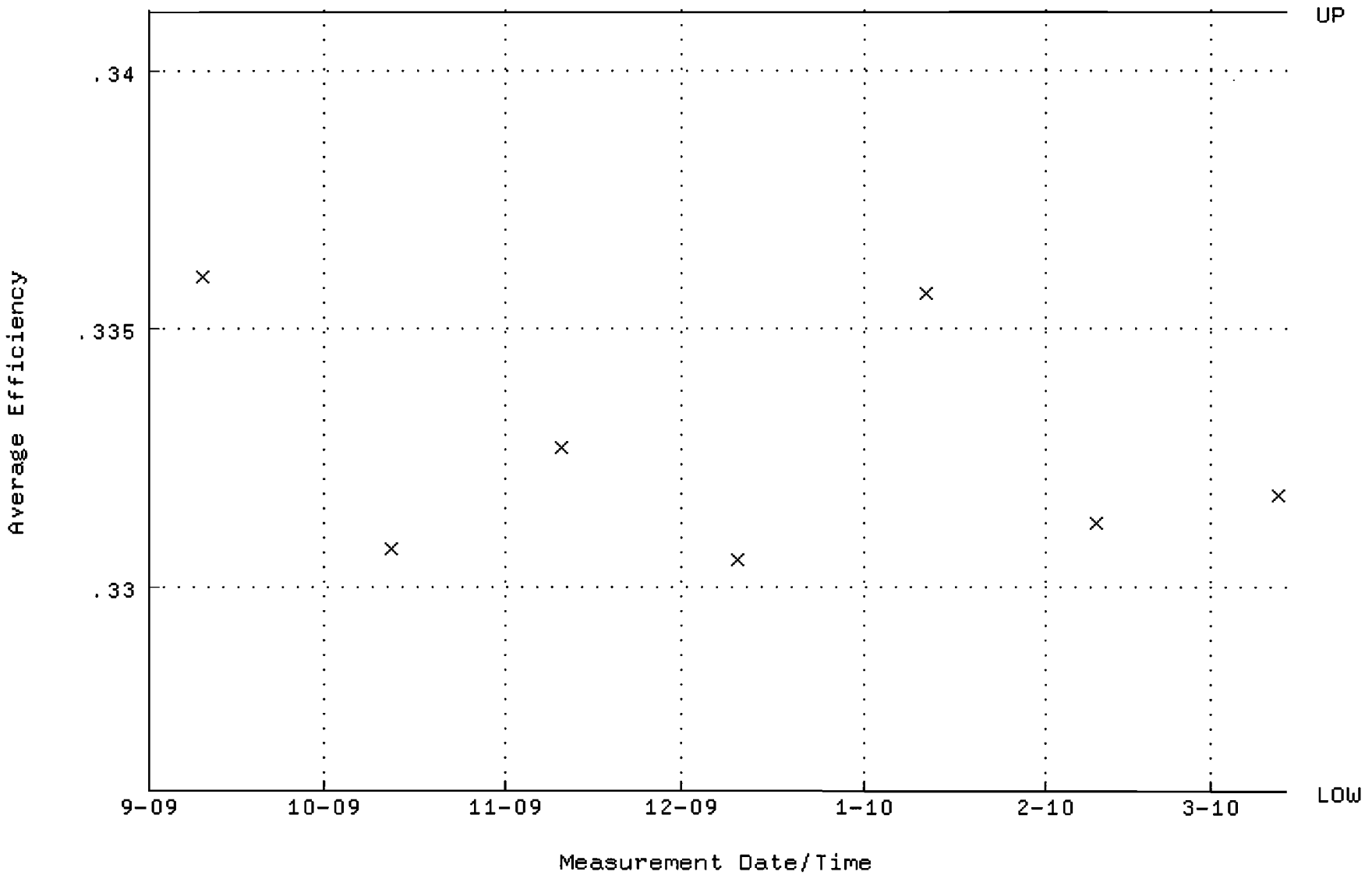

QA filename : DKA100:[ENV_ALPHA.QA.W]W073.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 89.8600 through 92.3006

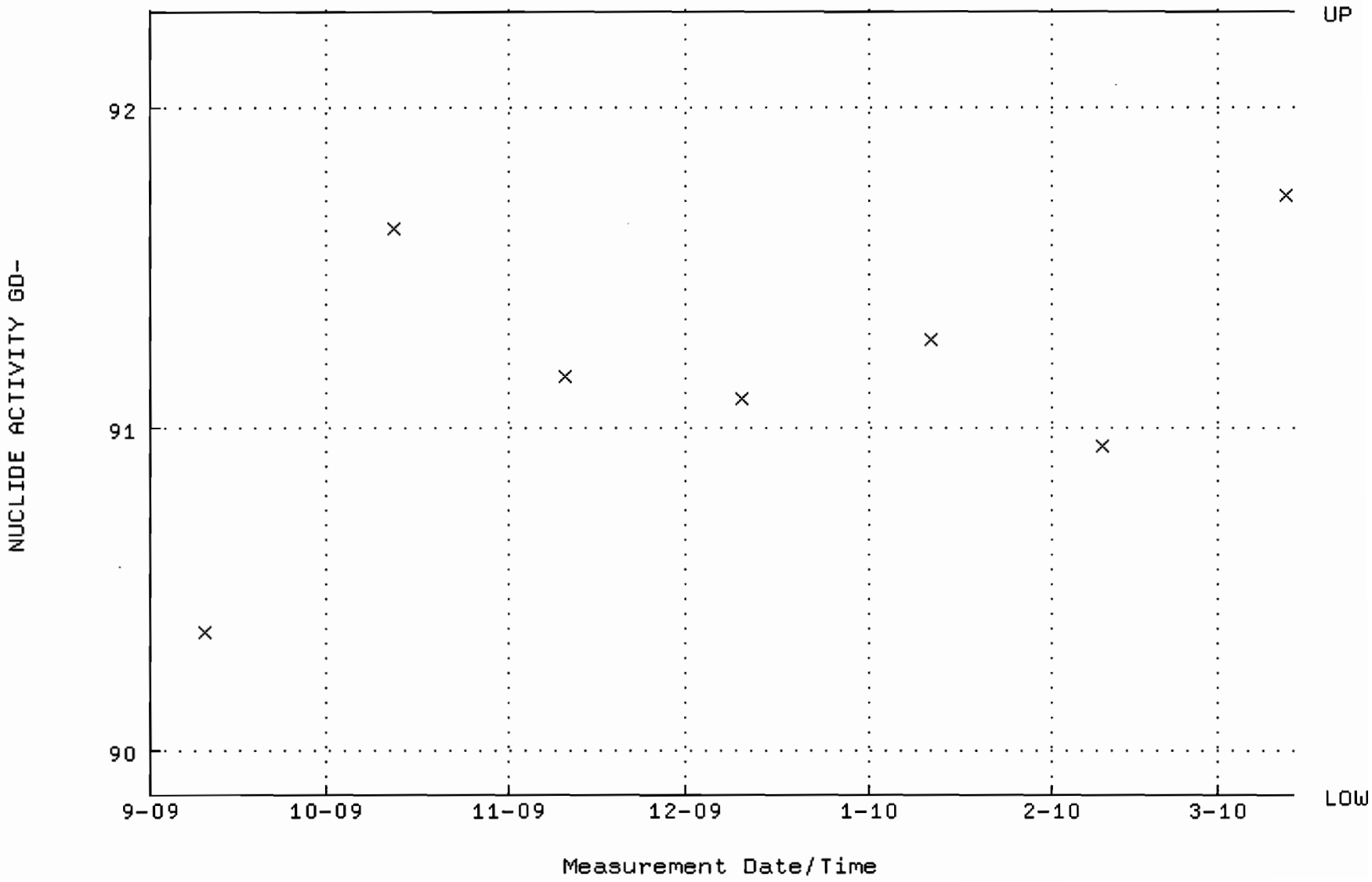

QA filename : DKA100:[ENV_ALPHA.QA.B]B073.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:07 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

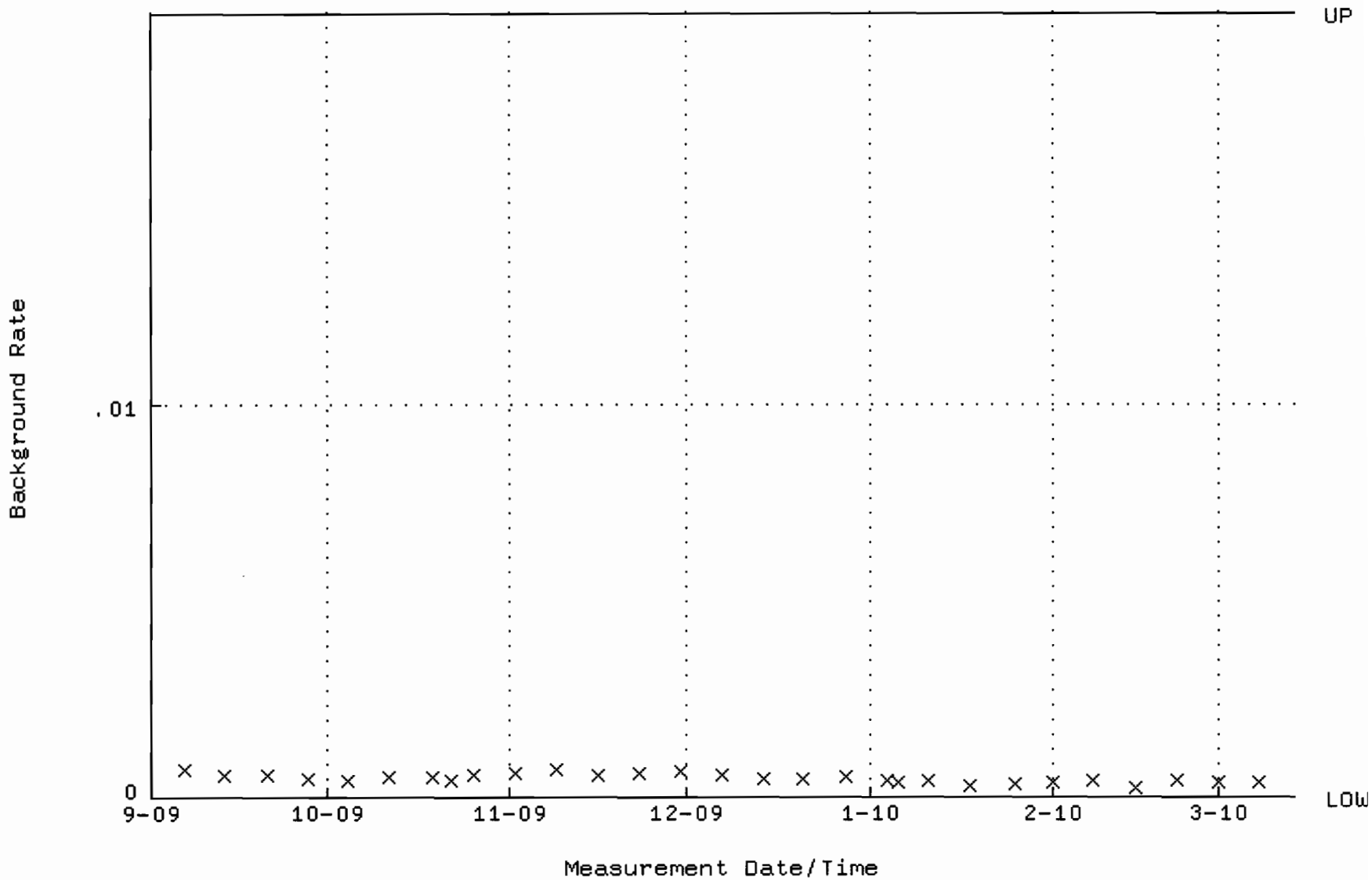

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.309960 through 0.321424

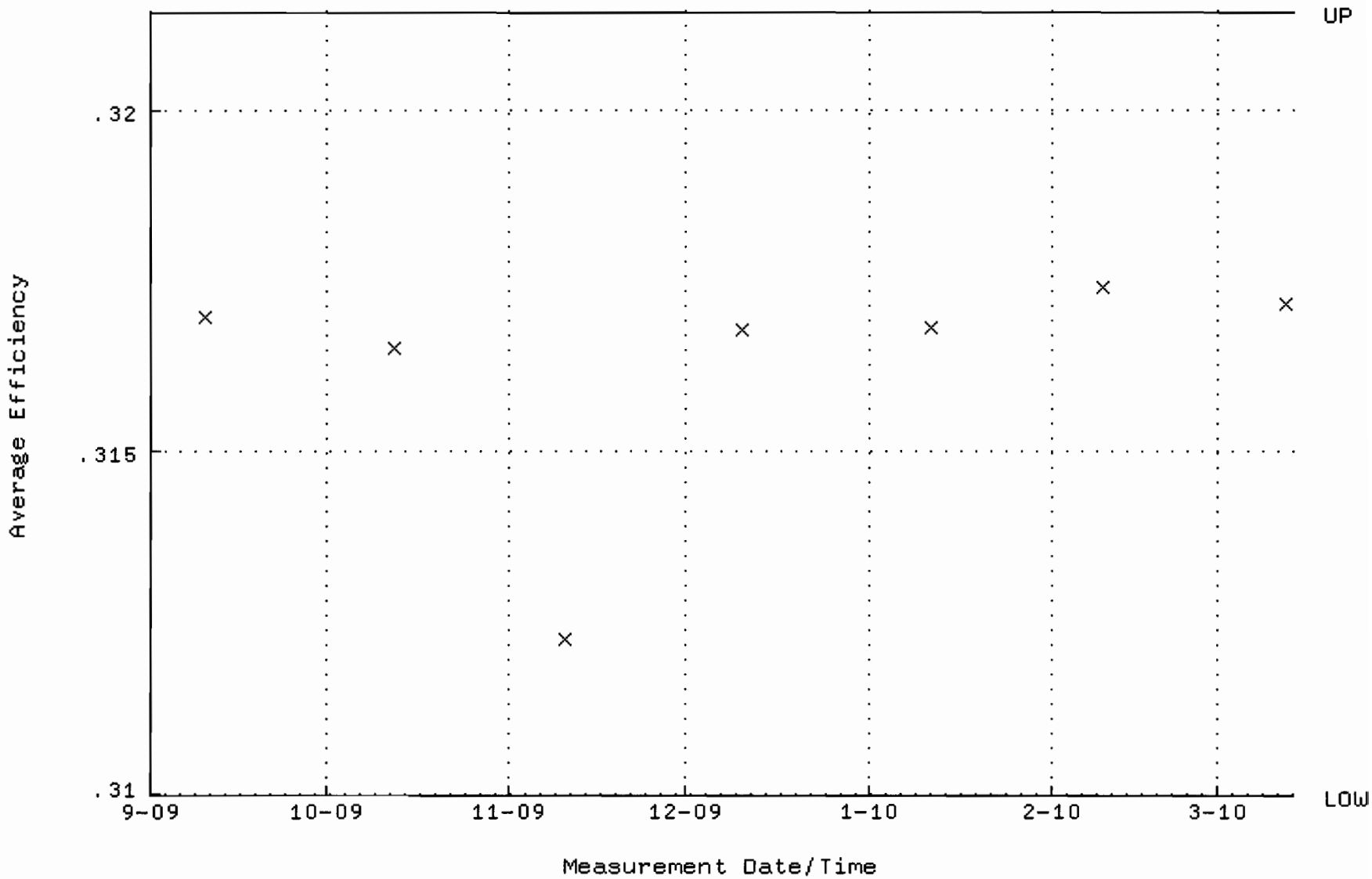

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 88.0938 through 92.5190

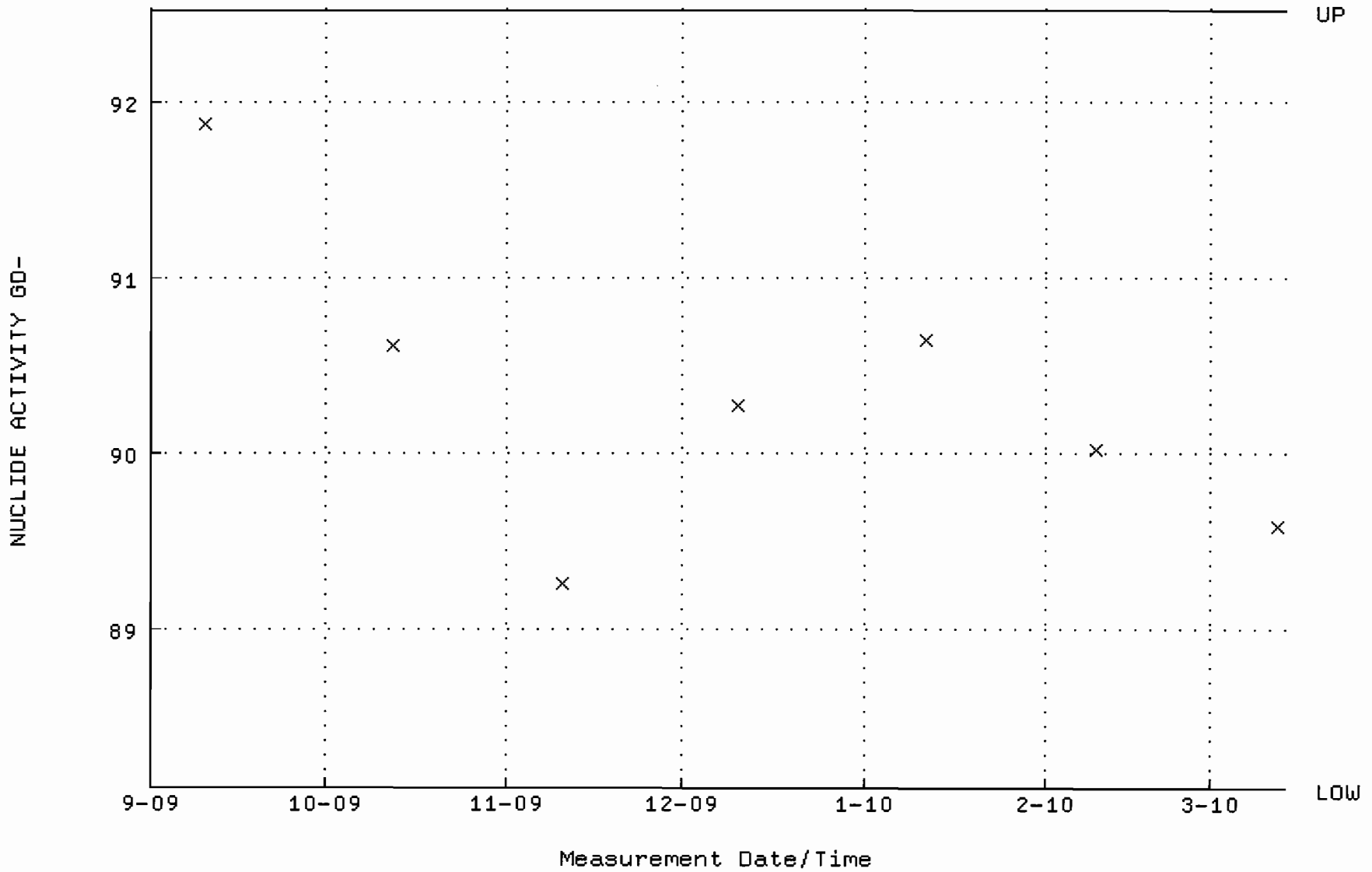

QA filename : DKA100:[ENV_ALPHA.QA.B]B074.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:07 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

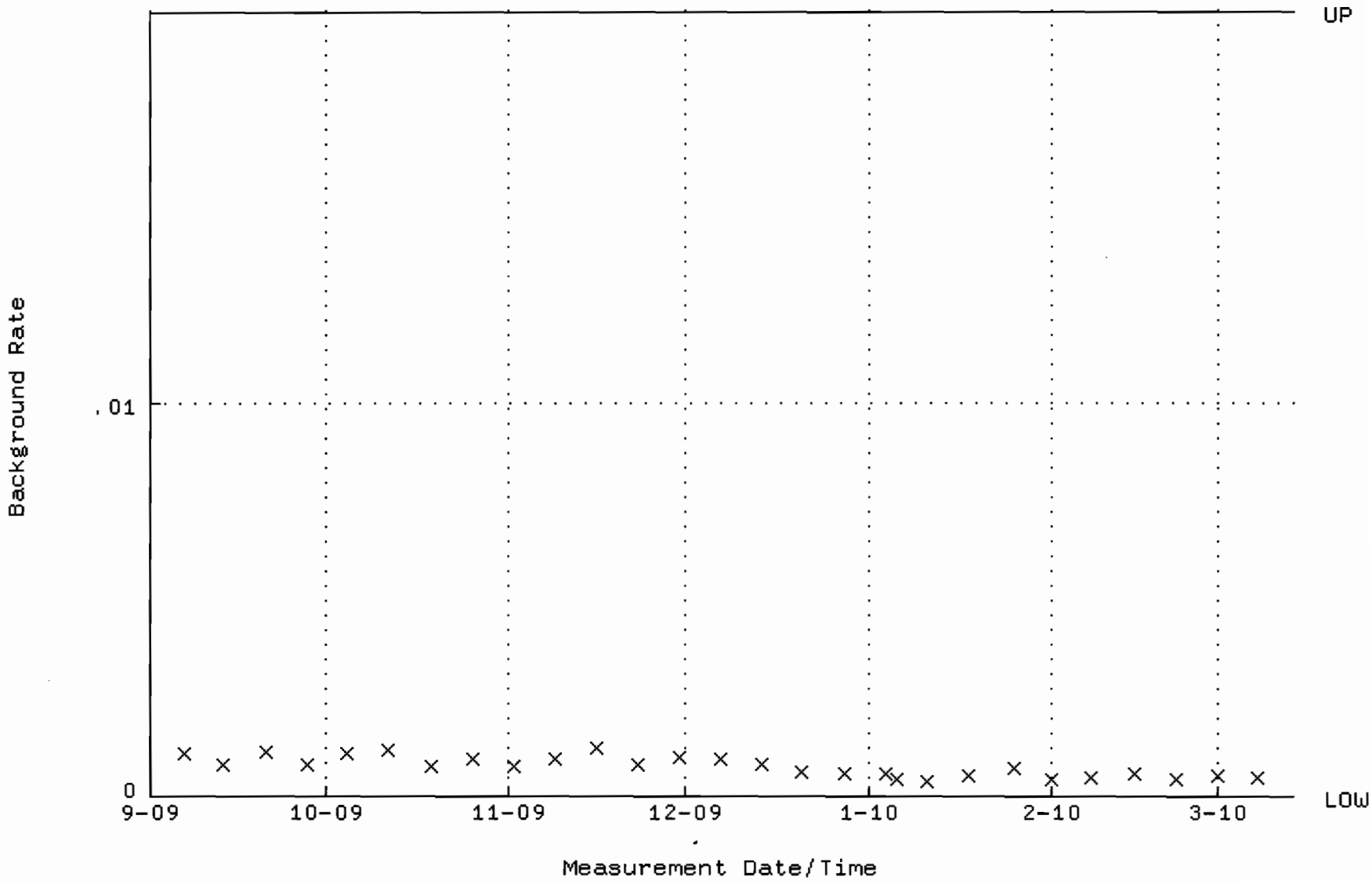

QA filename : DKA100:[ENV_ALPHA.QA.W]W075.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.279983 through 0.335803

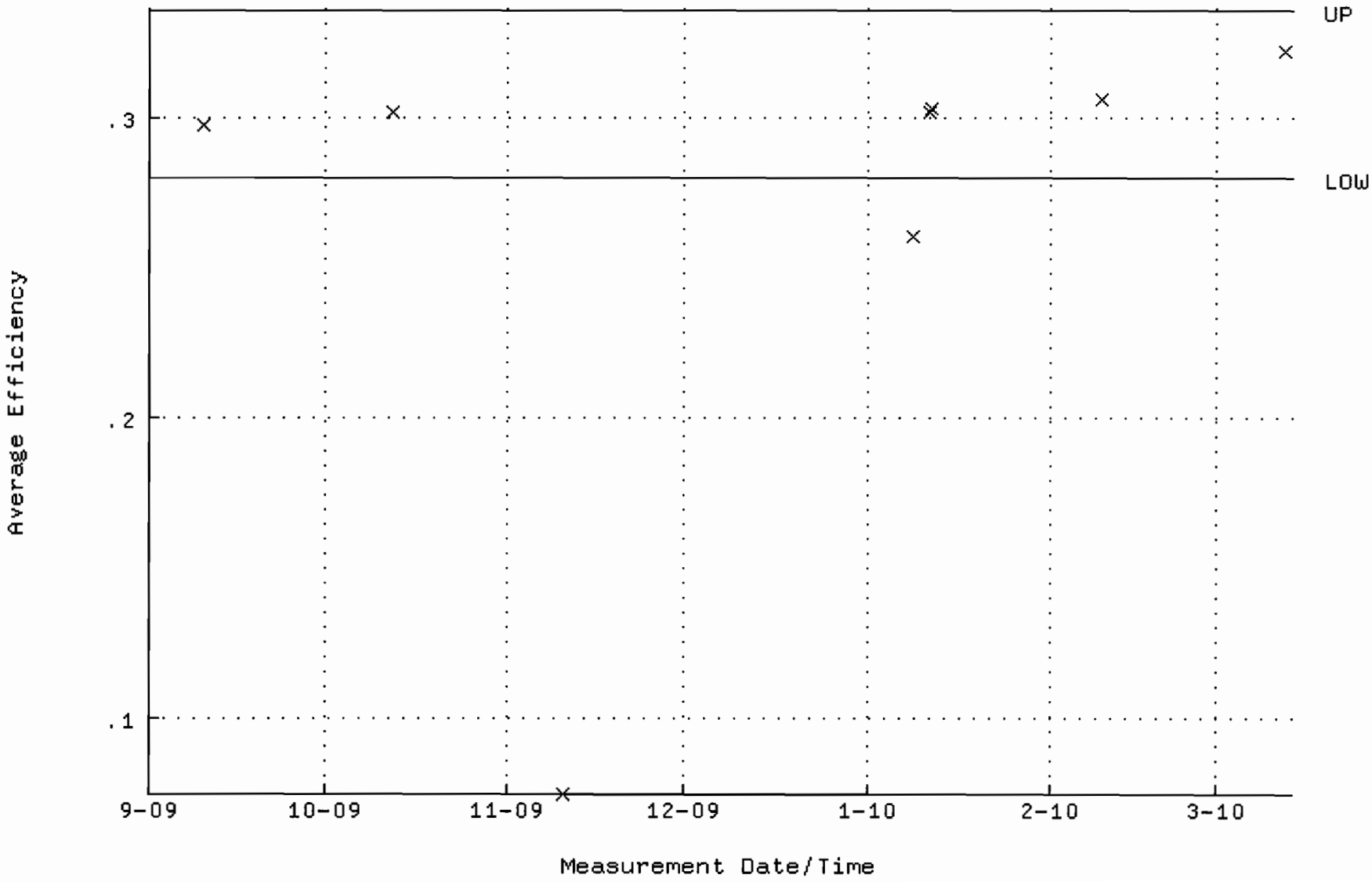

QA filename : DKA100:[ENV_ALPHA.QA.W]W075.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 86.1031 through 102.173

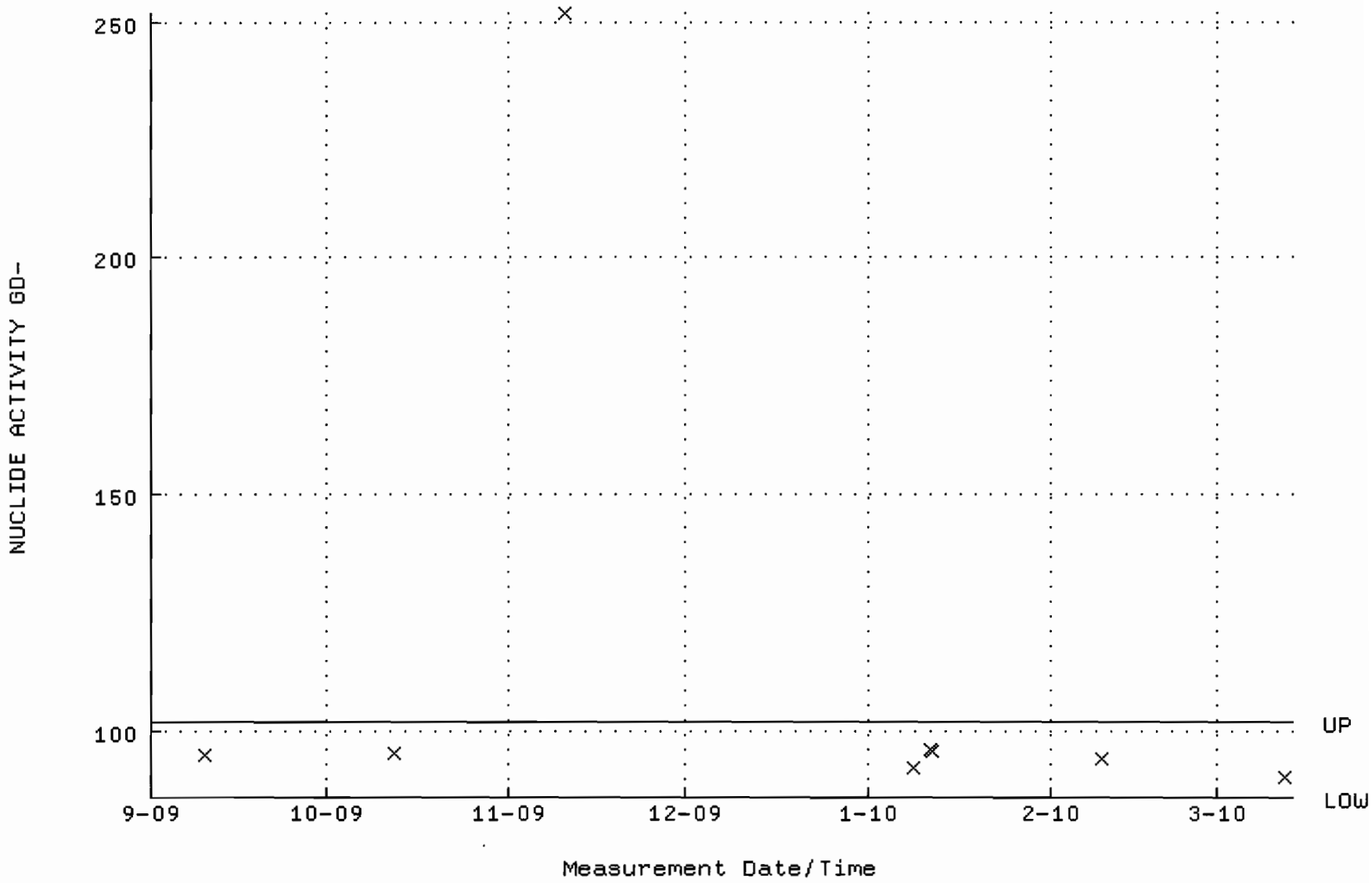

QA filename : DKA100:[ENV_ALPHA.QA.B]B075.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:07 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

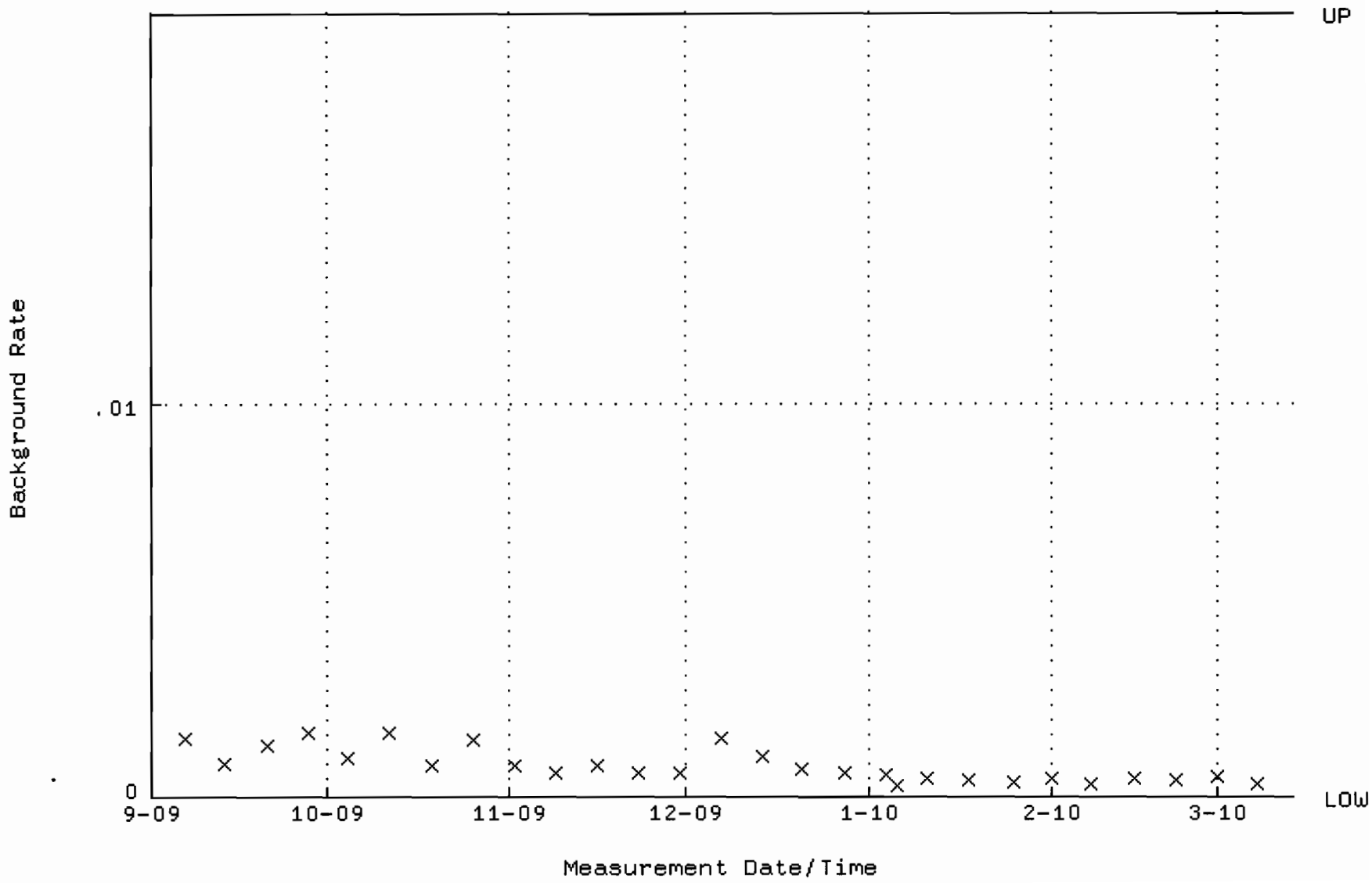

QA filename : DKA100:[ENV_ALPHA.QA.W]W076.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.296554 through 0.316286

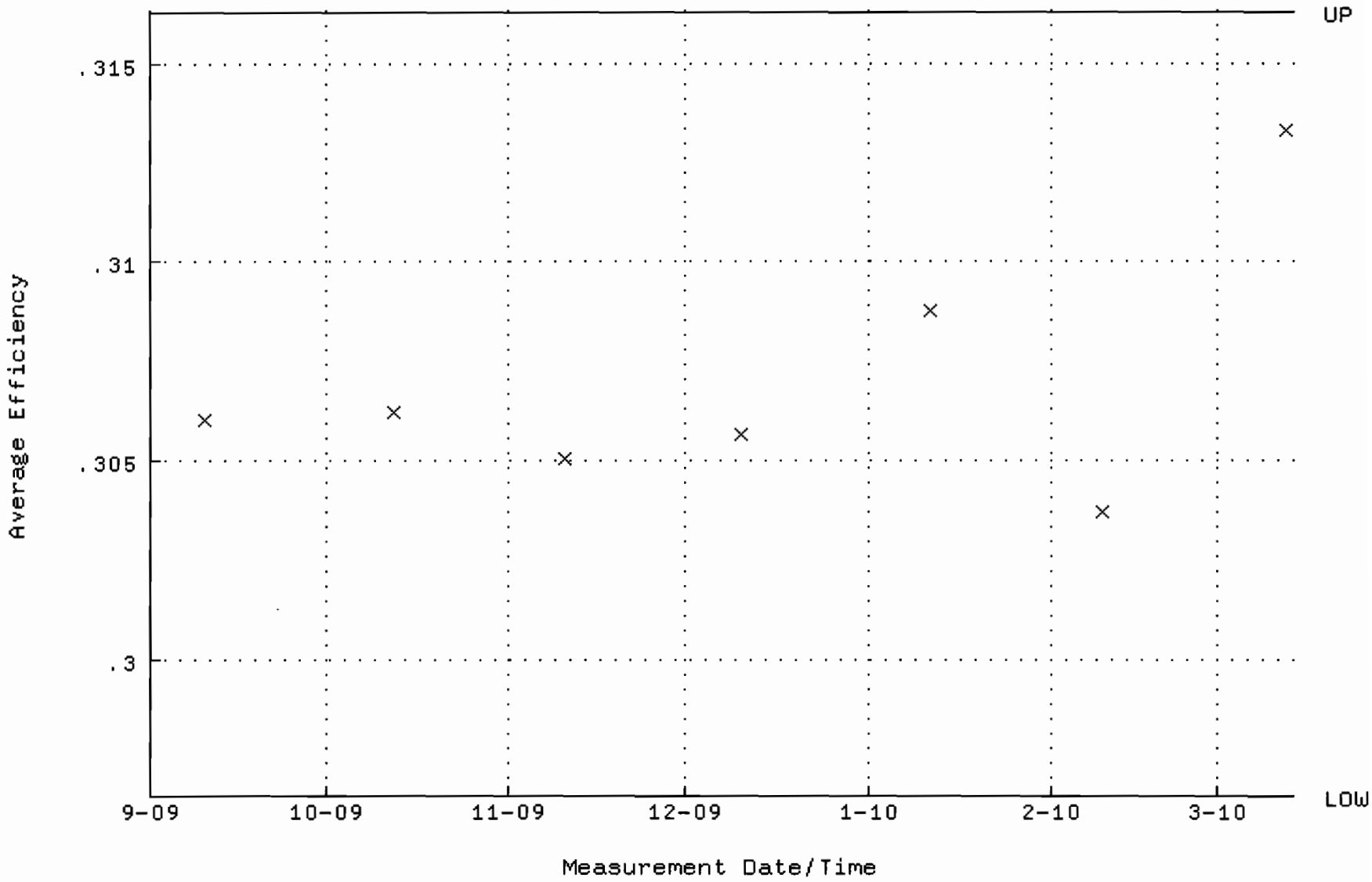

QA filename : DKA100:[ENV_ALPHA.QA.W]W076.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 89.7306 through 94.6123

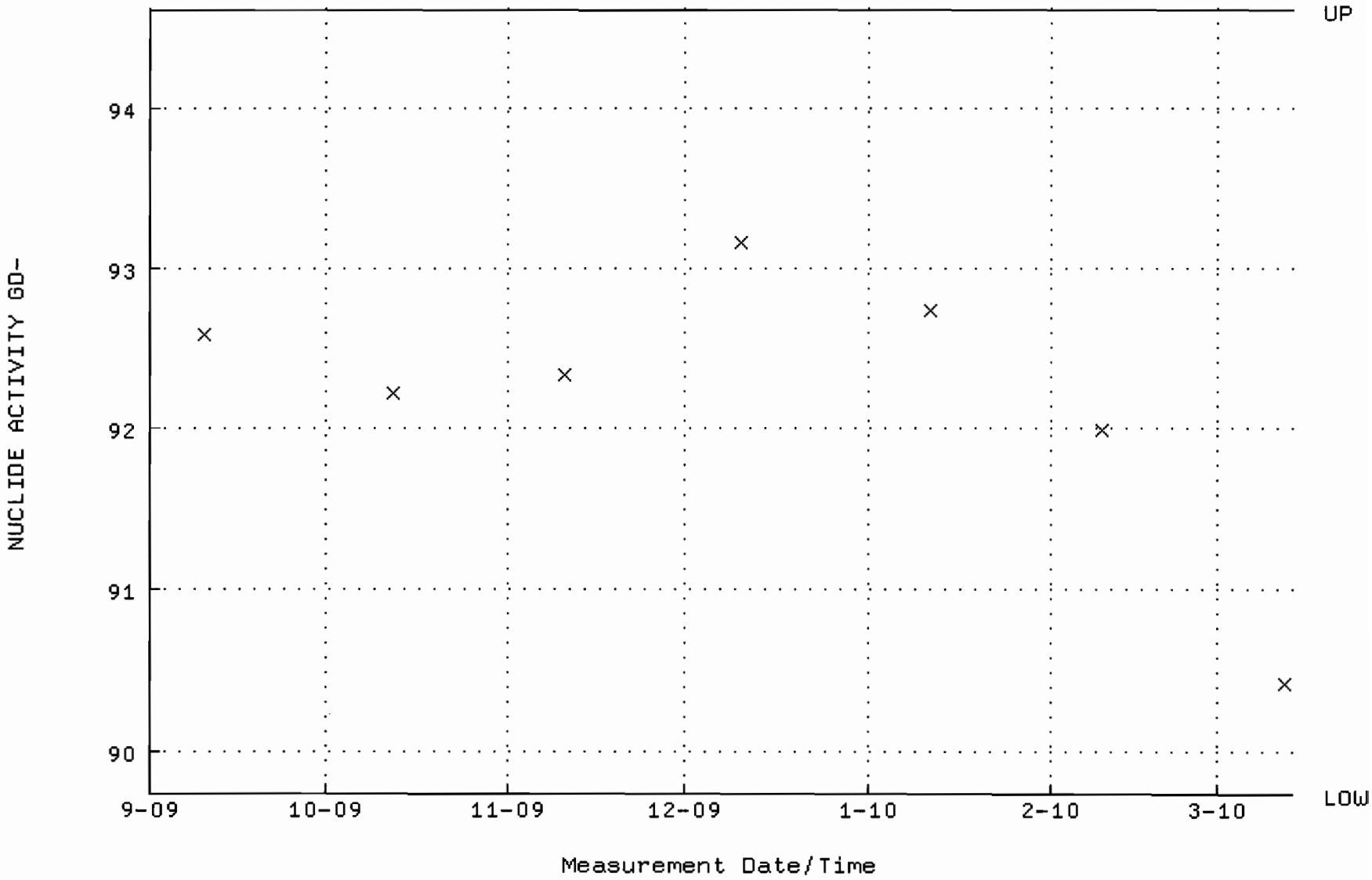

QA filename : DKA100:[ENV_ALPHA.QA.B]B076.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:07 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

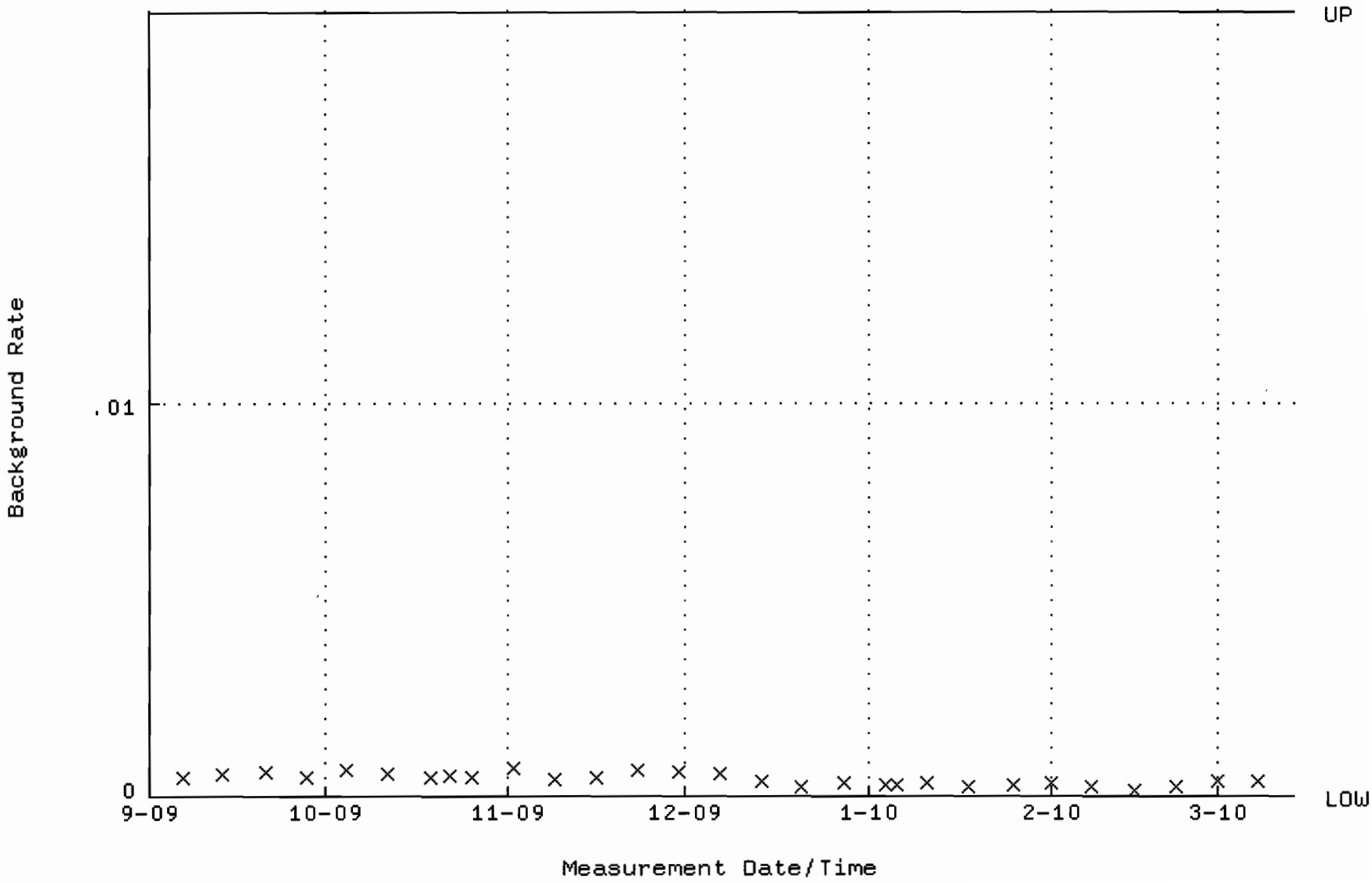

QA filename : DKA100:[ENV_ALPHA.QA.W]W082.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.300260 through 0.351240

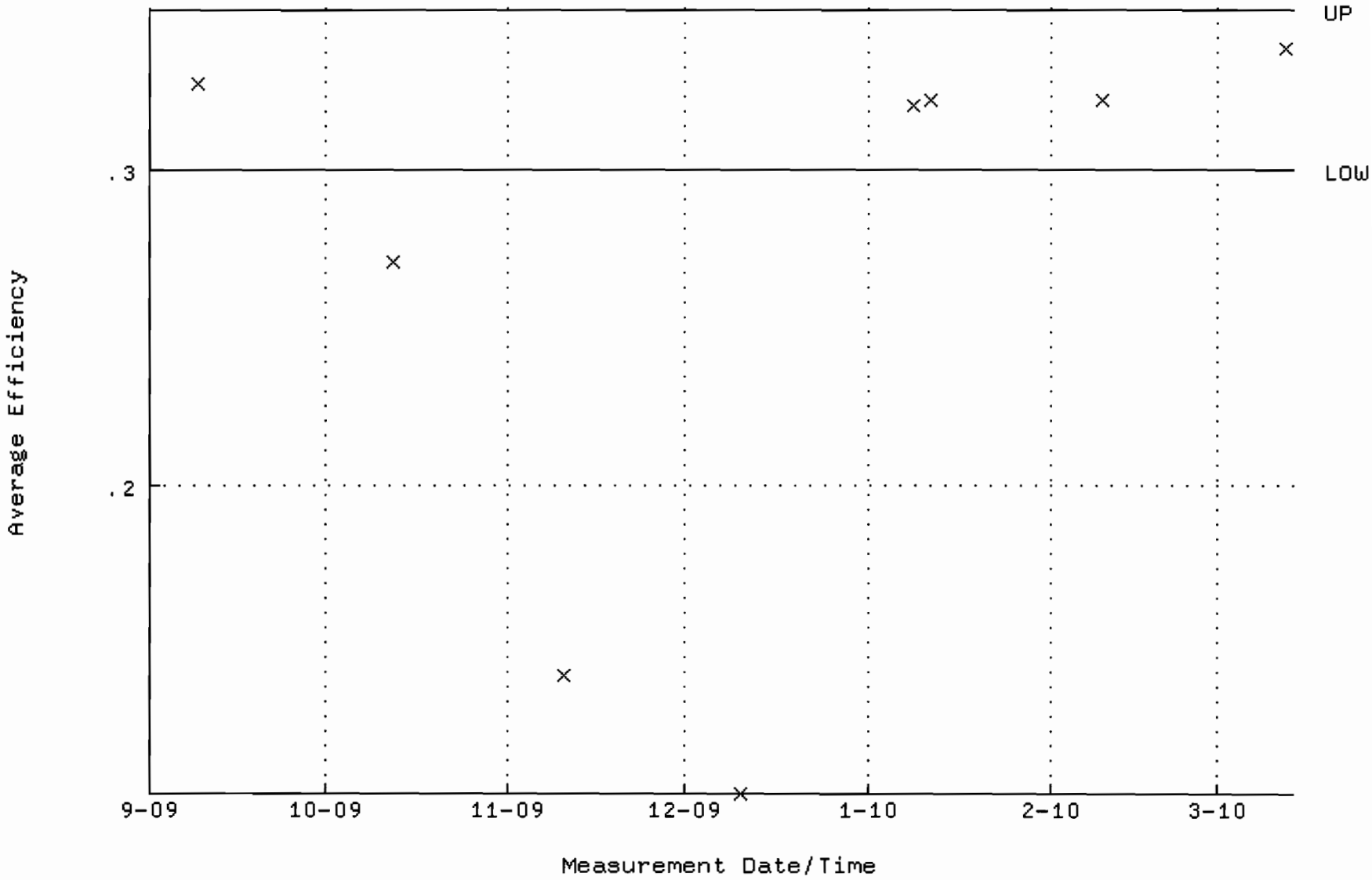

QA filename : DKA100:[ENV_ALPHA.QA.W]W082.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 85.2649 through 95.7657

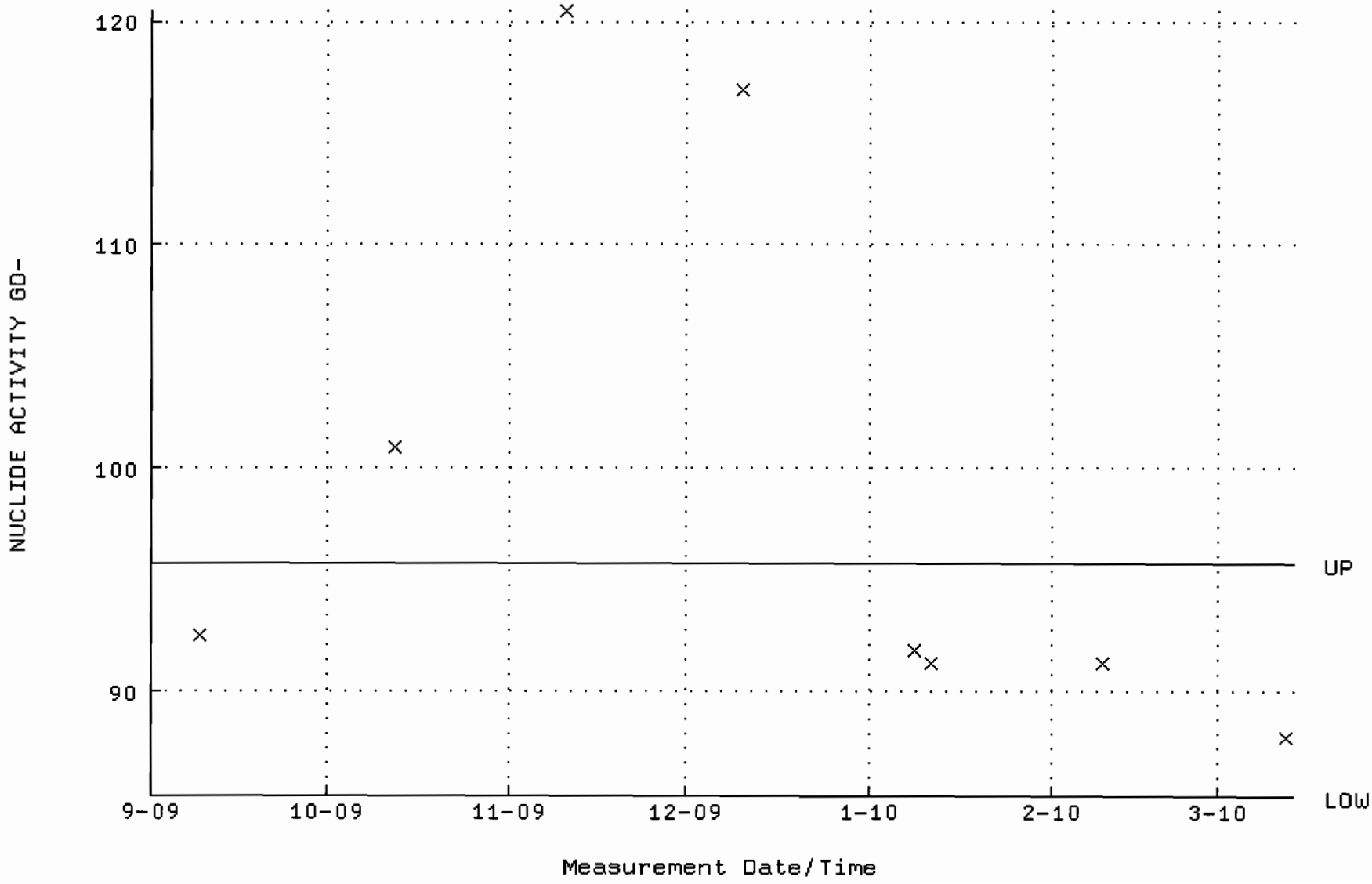

QA filename : DKA100:[ENV_ALPHA.QA.B]B082.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:08 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

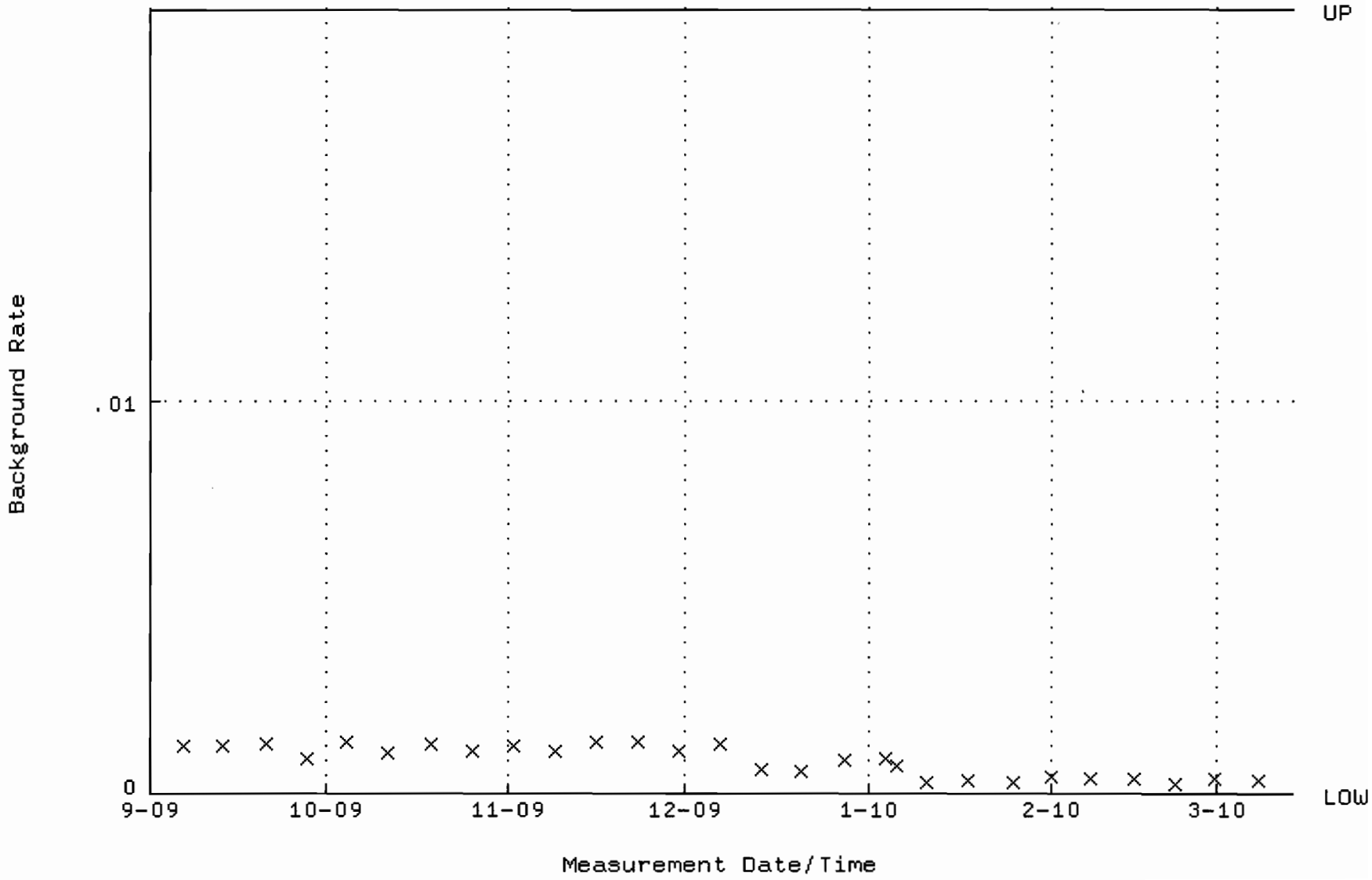

QA filename : DKA100:[ENV_ALPHA.QA.W]W083.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.316282 through 0.365366

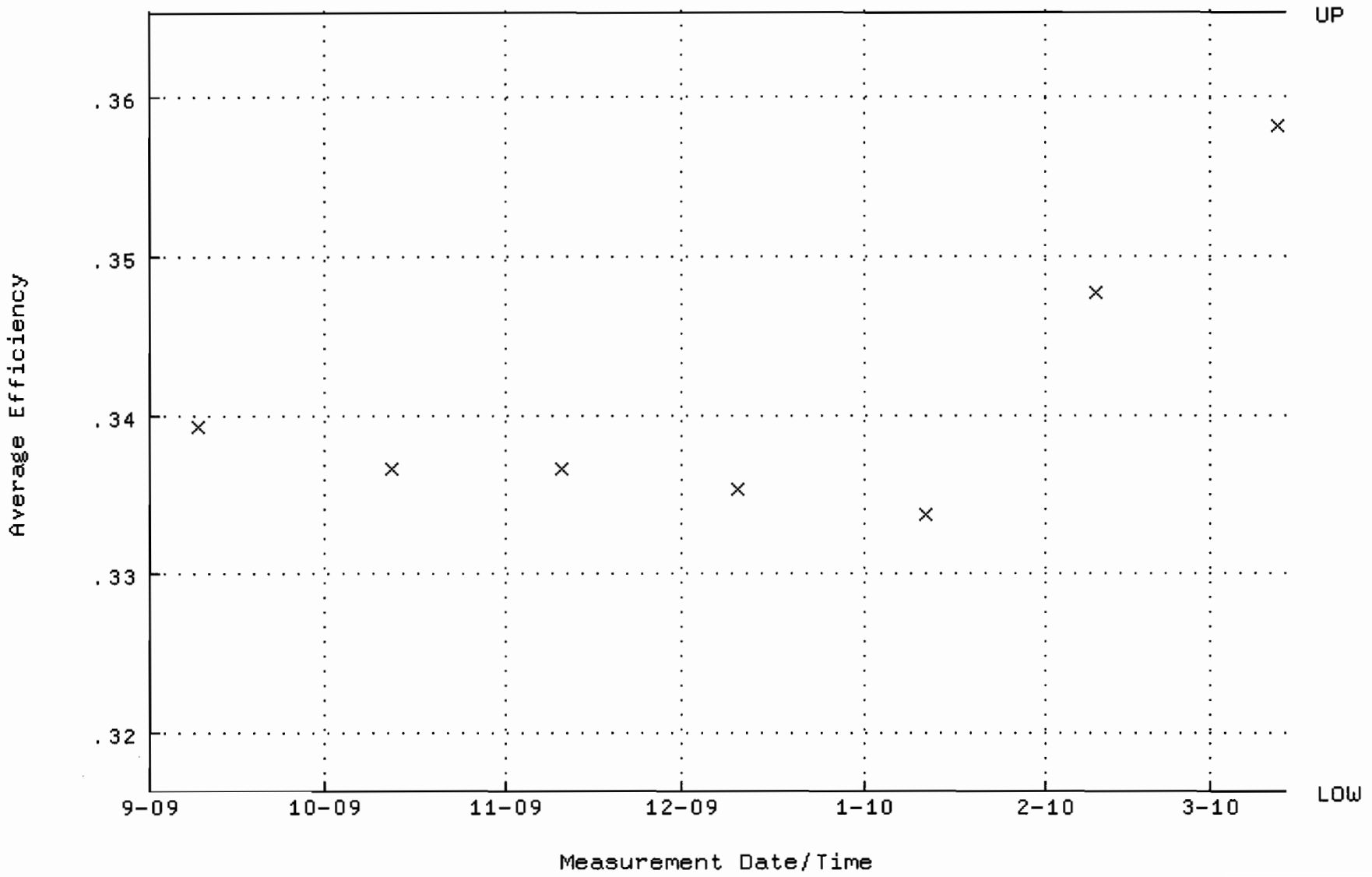

QA filename : DKA100:[ENV_ALPHA.QA.W]W083.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 82.1020 through 93.7348

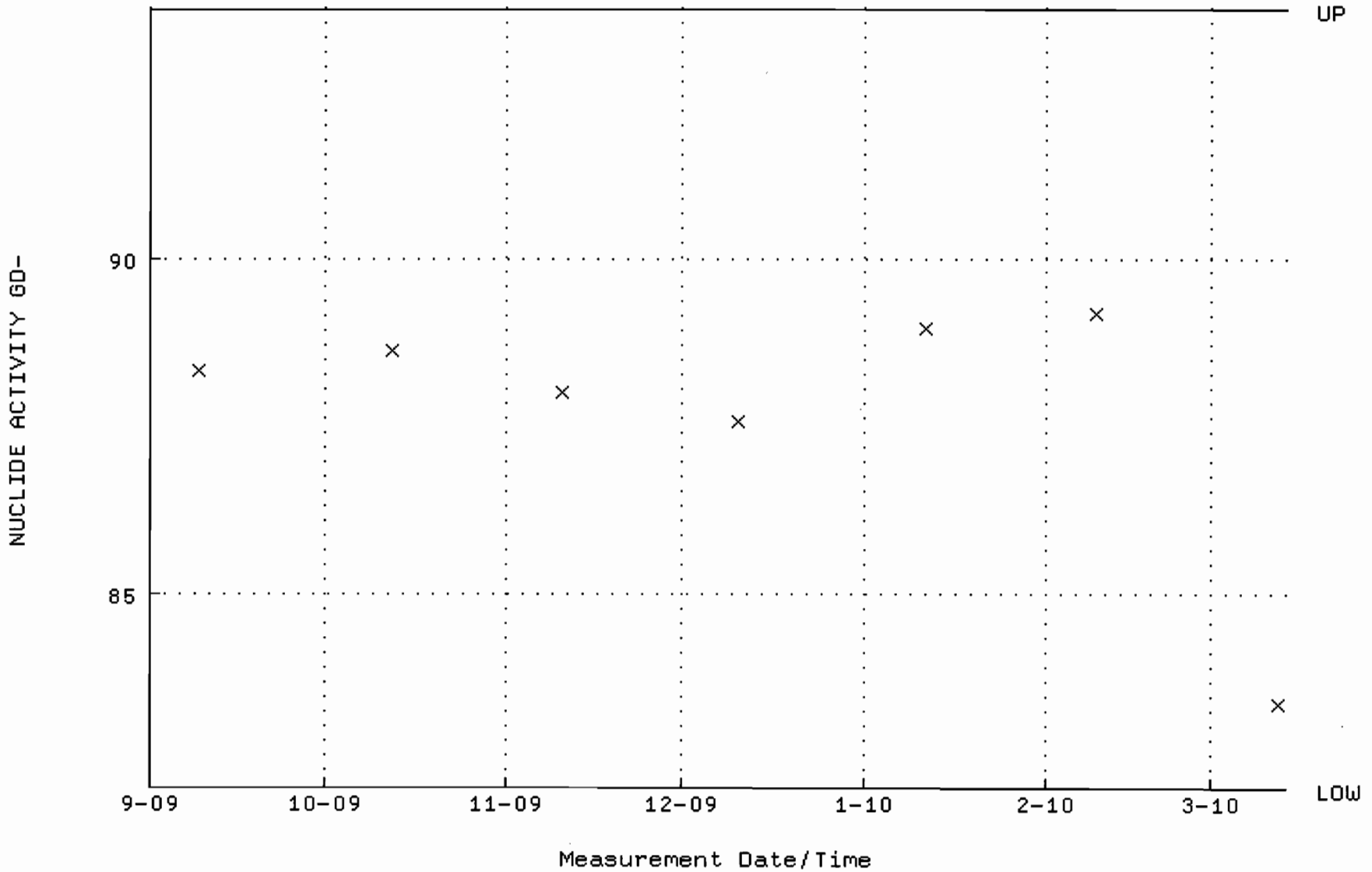

QA filename : DKA100:[ENV_ALPHA.QA.B]B083.QAF;3
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:09 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

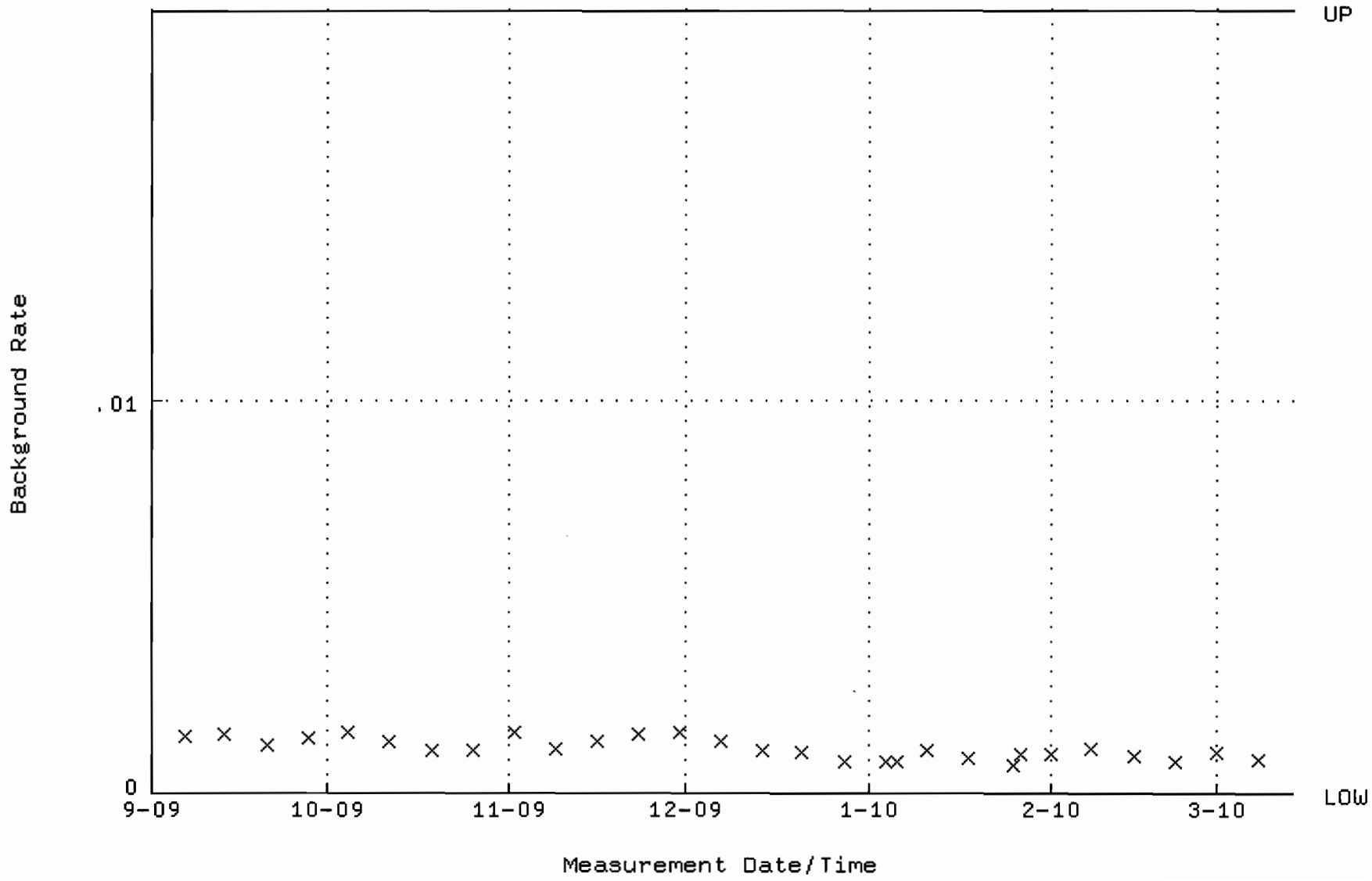

QA filename : DKA100:[ENV_ALPHA.QA.W]W085.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.306815 through 0.344543

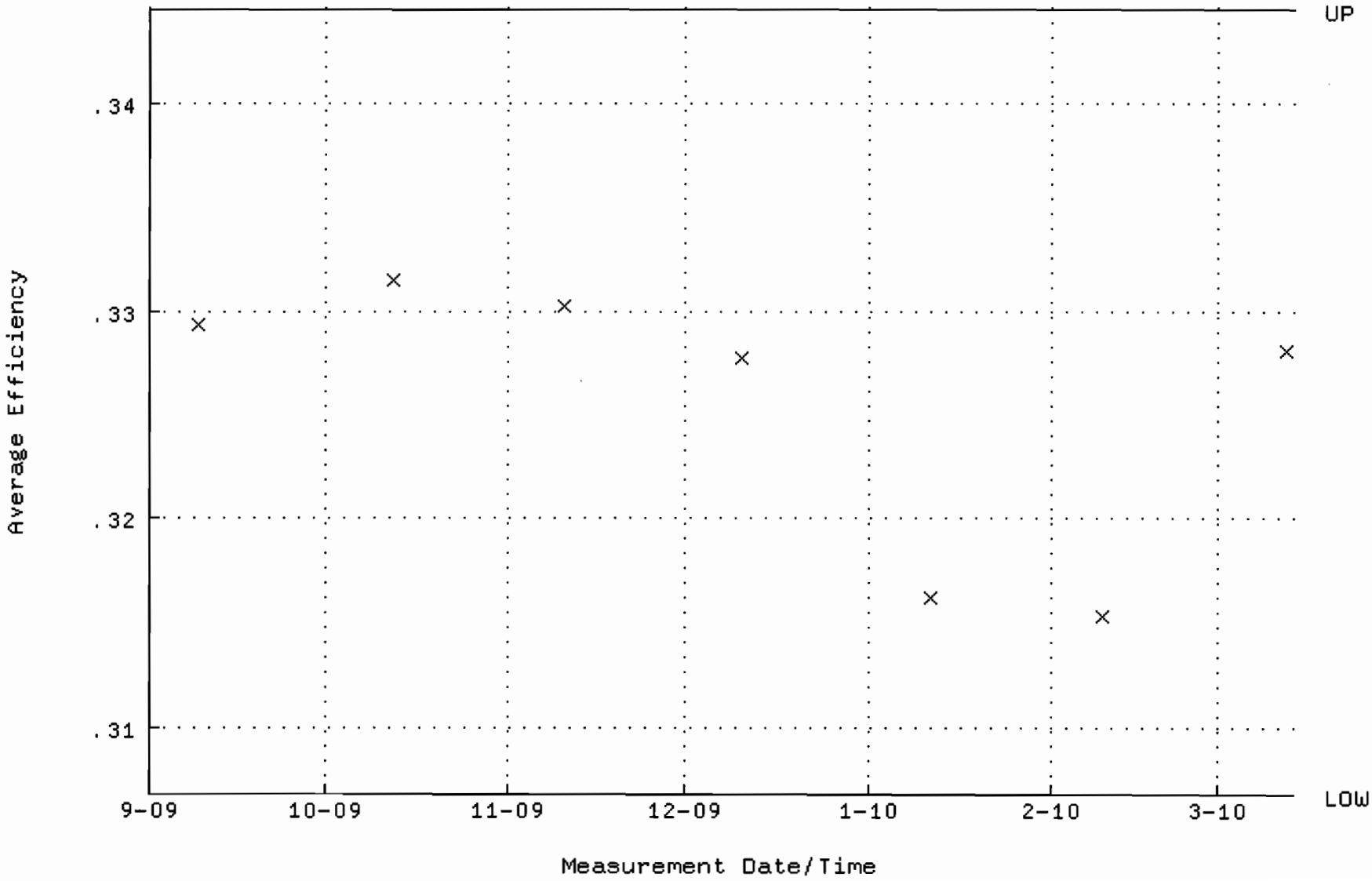

QA filename : DKA100:[ENV_ALPHA.QA.W]W085.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 86.1313 through 96.4525

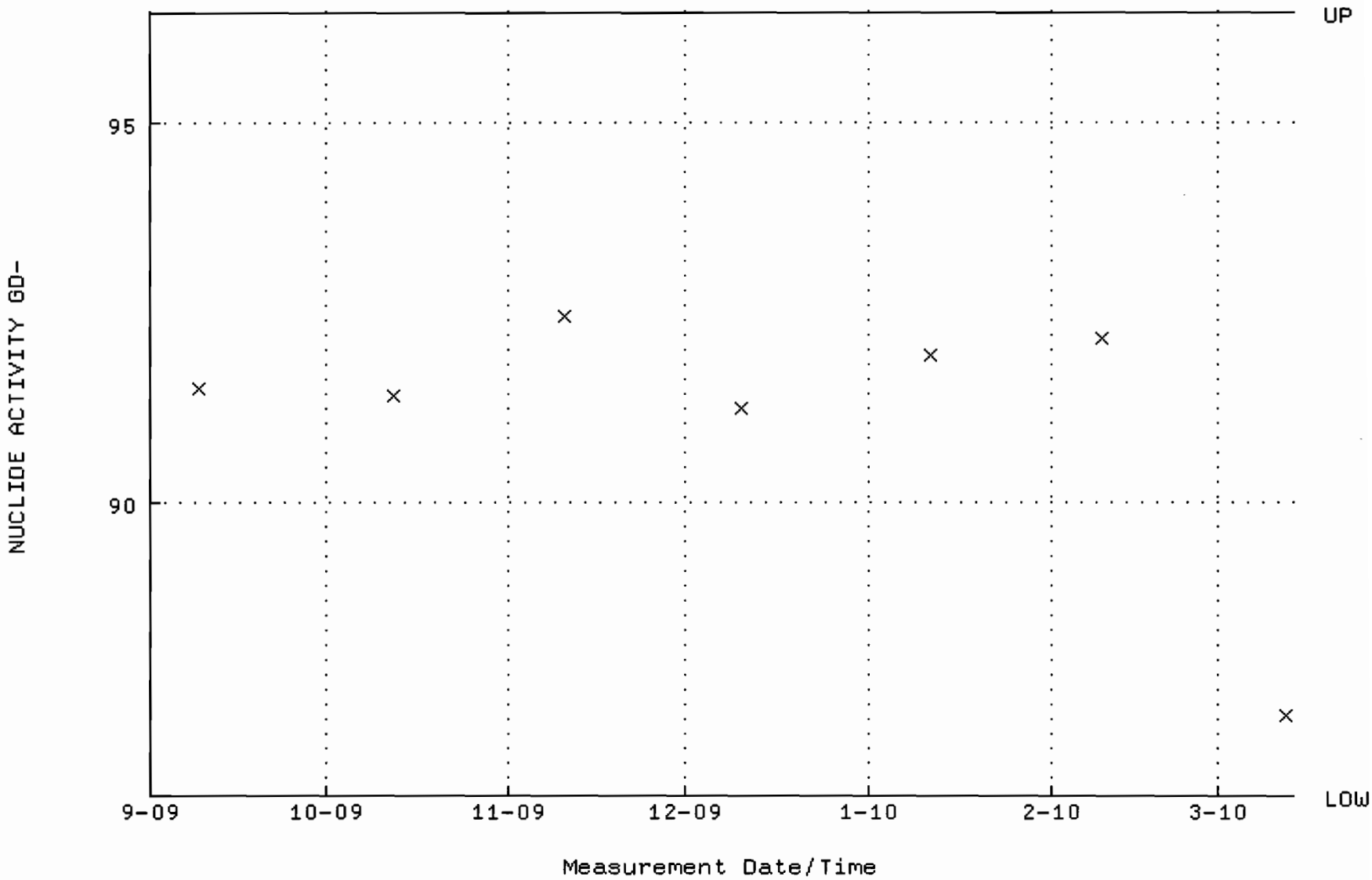

QA filename : DKA100:[ENV_ALPHA.QA.B]B085.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:09 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

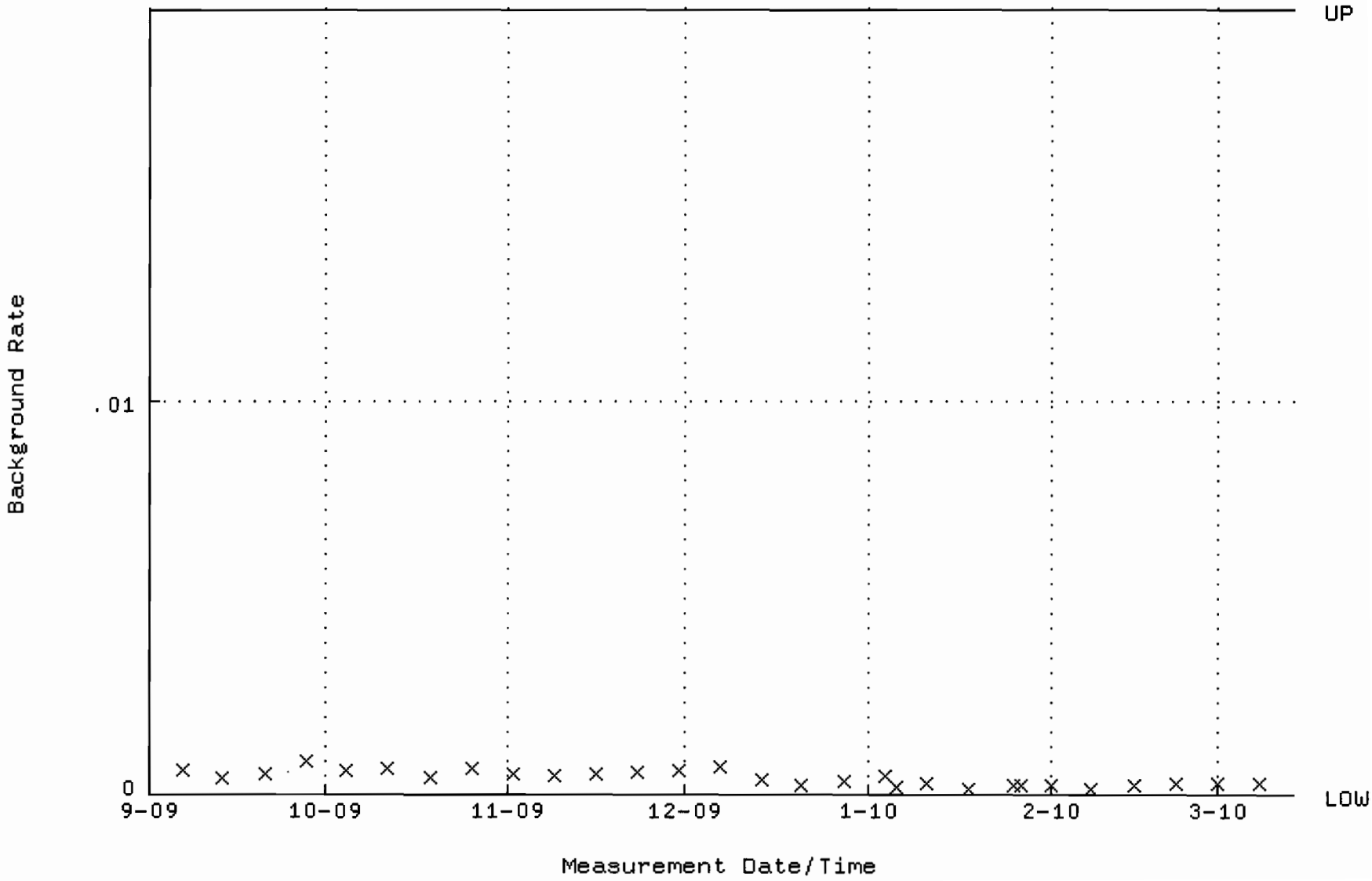

QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.287158 through 0.309794

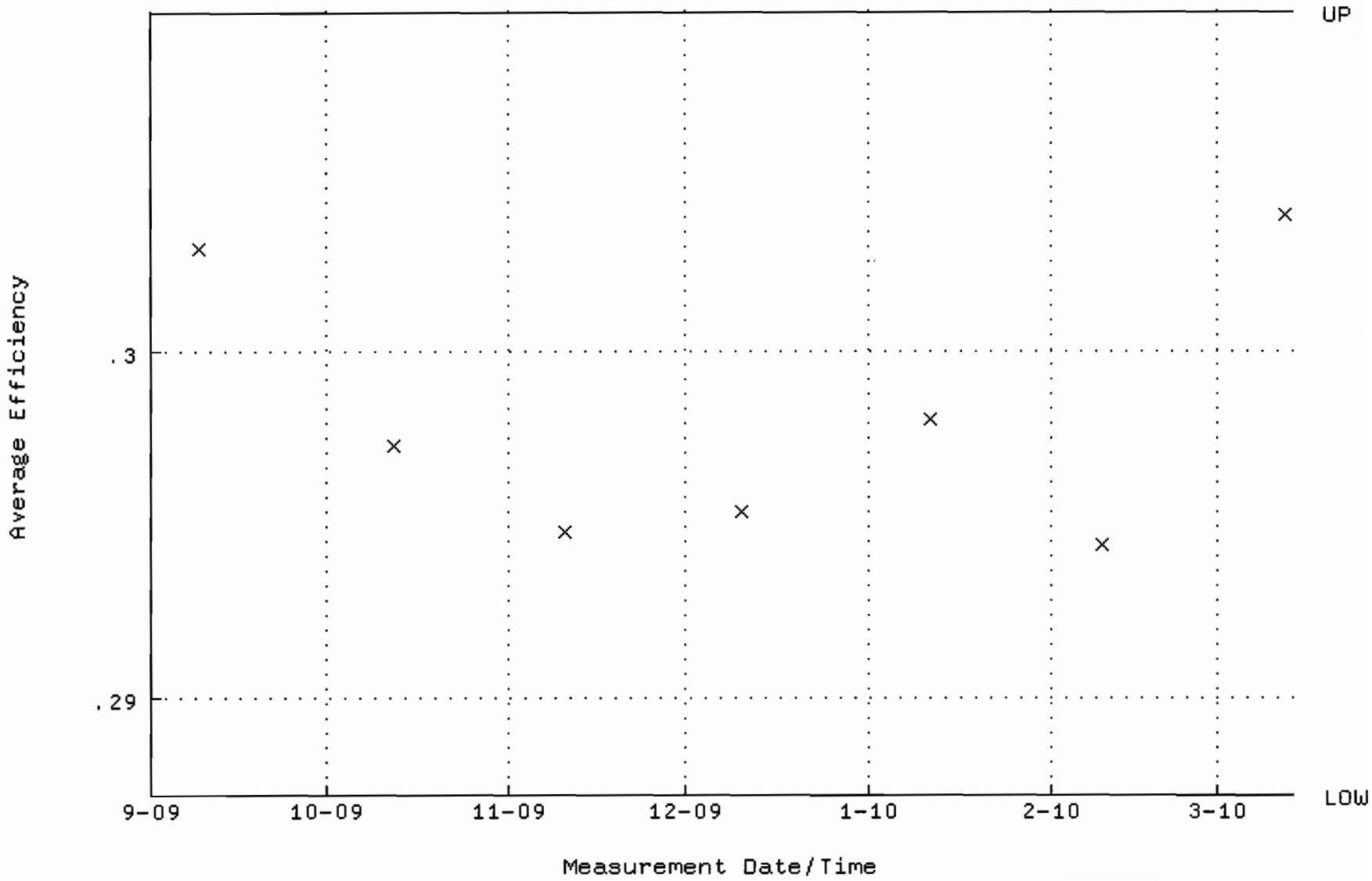

QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 89.1886 through 95.1274

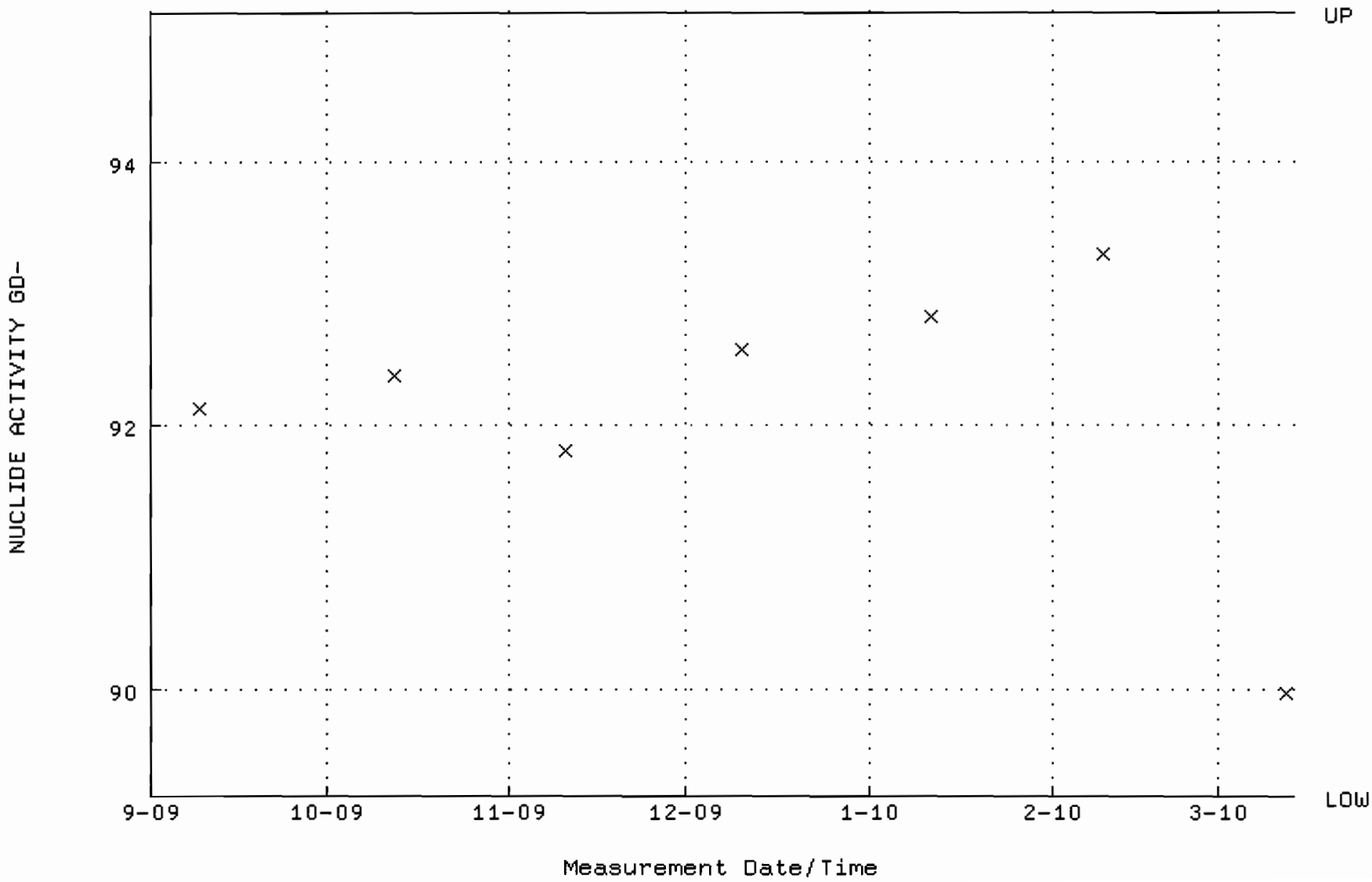

QA filename : DKA100:[ENV_ALPHA.QA.B]B086.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:09 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

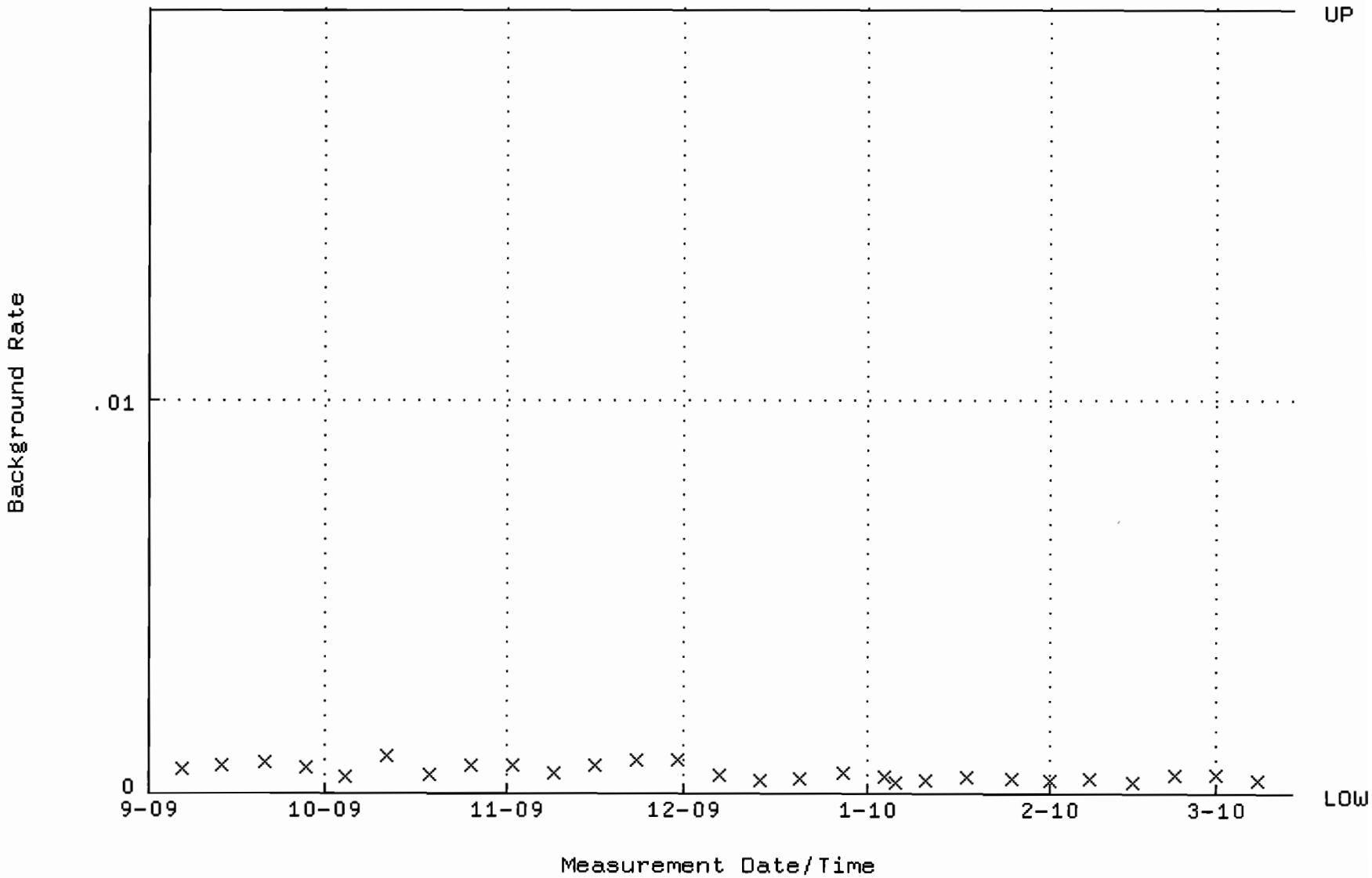

QA filename : DKA100:[ENV_ALPHA.QA.W]W094.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.276224 through 0.344338

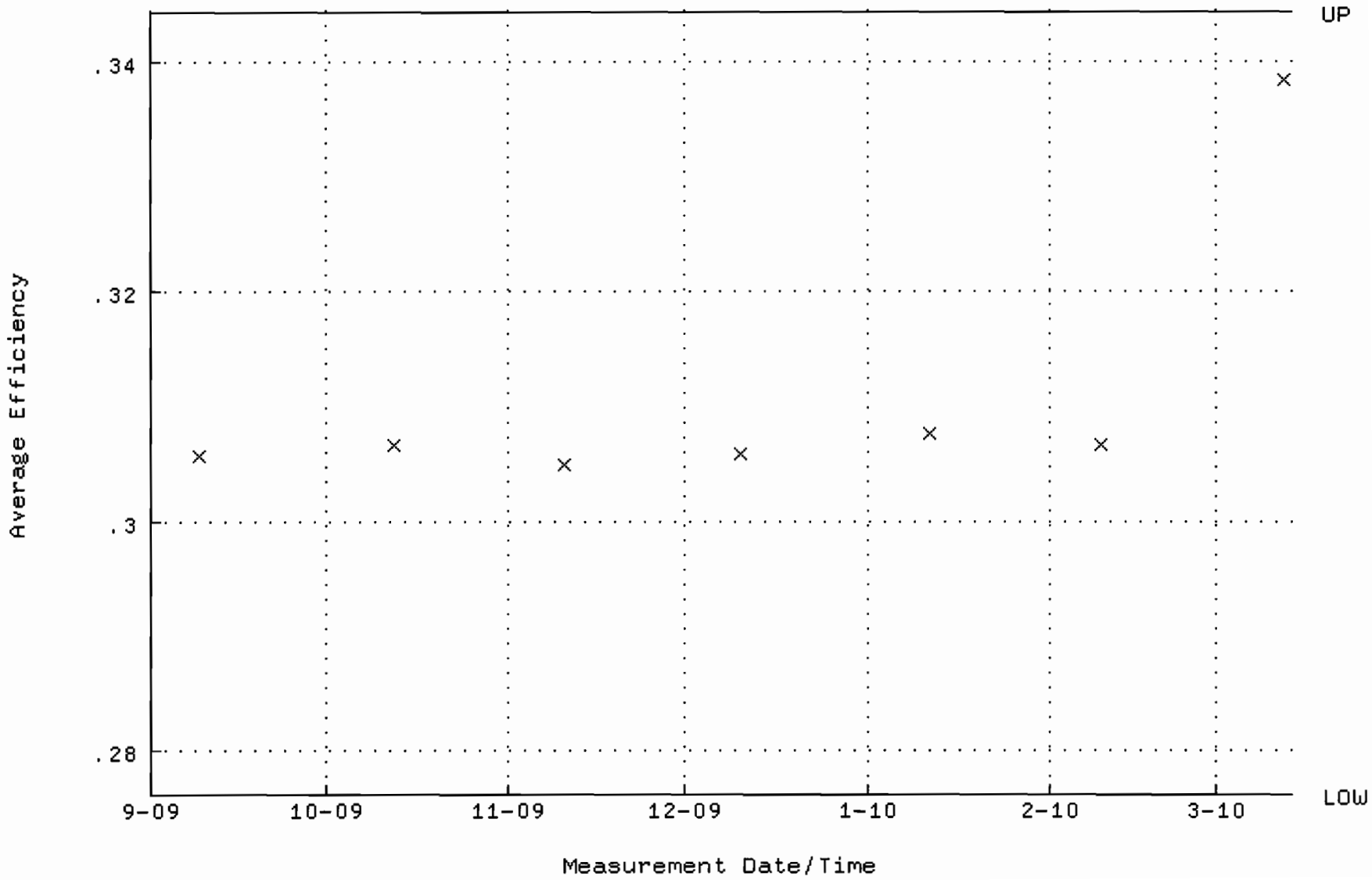

QA filename : DKA100:[ENV_ALPHA.QA.W]W094.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 85.1305 through 90.3863

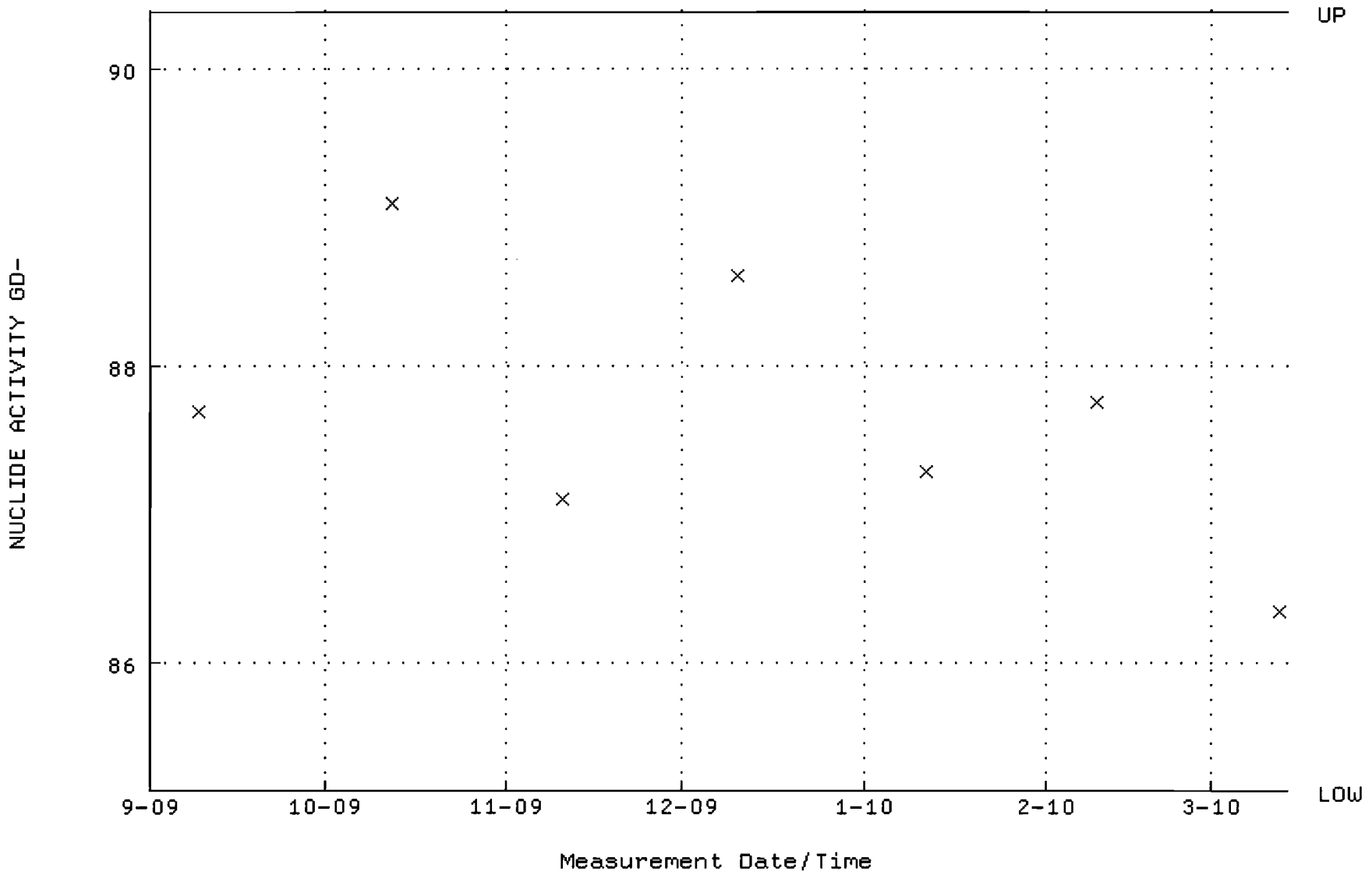

QA filename : DKA100:[ENV_ALPHA.QA.B]B094.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:10 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

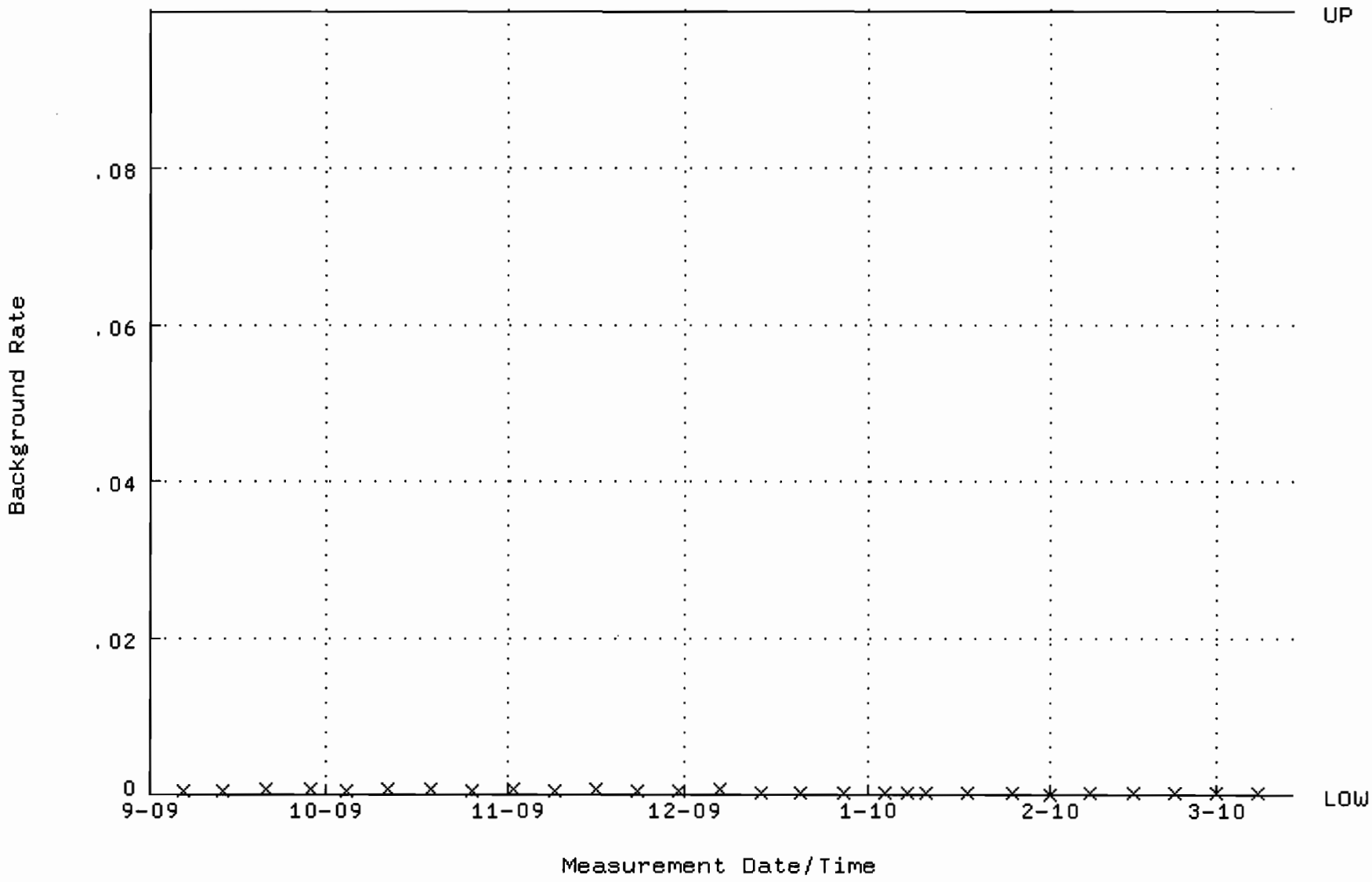

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:36 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.233719 through 0.270221

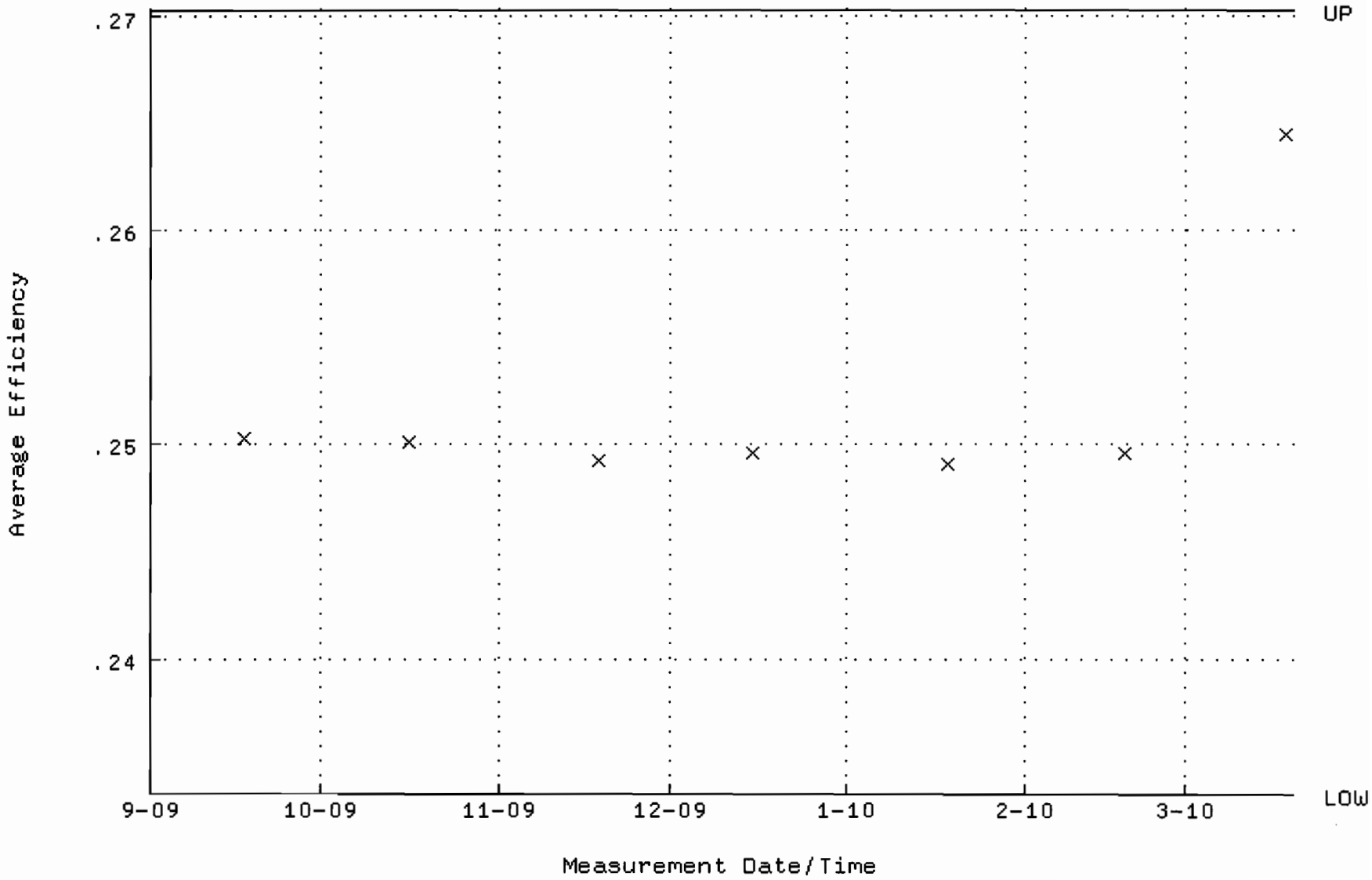

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:36 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 88.2311 through 95.5107

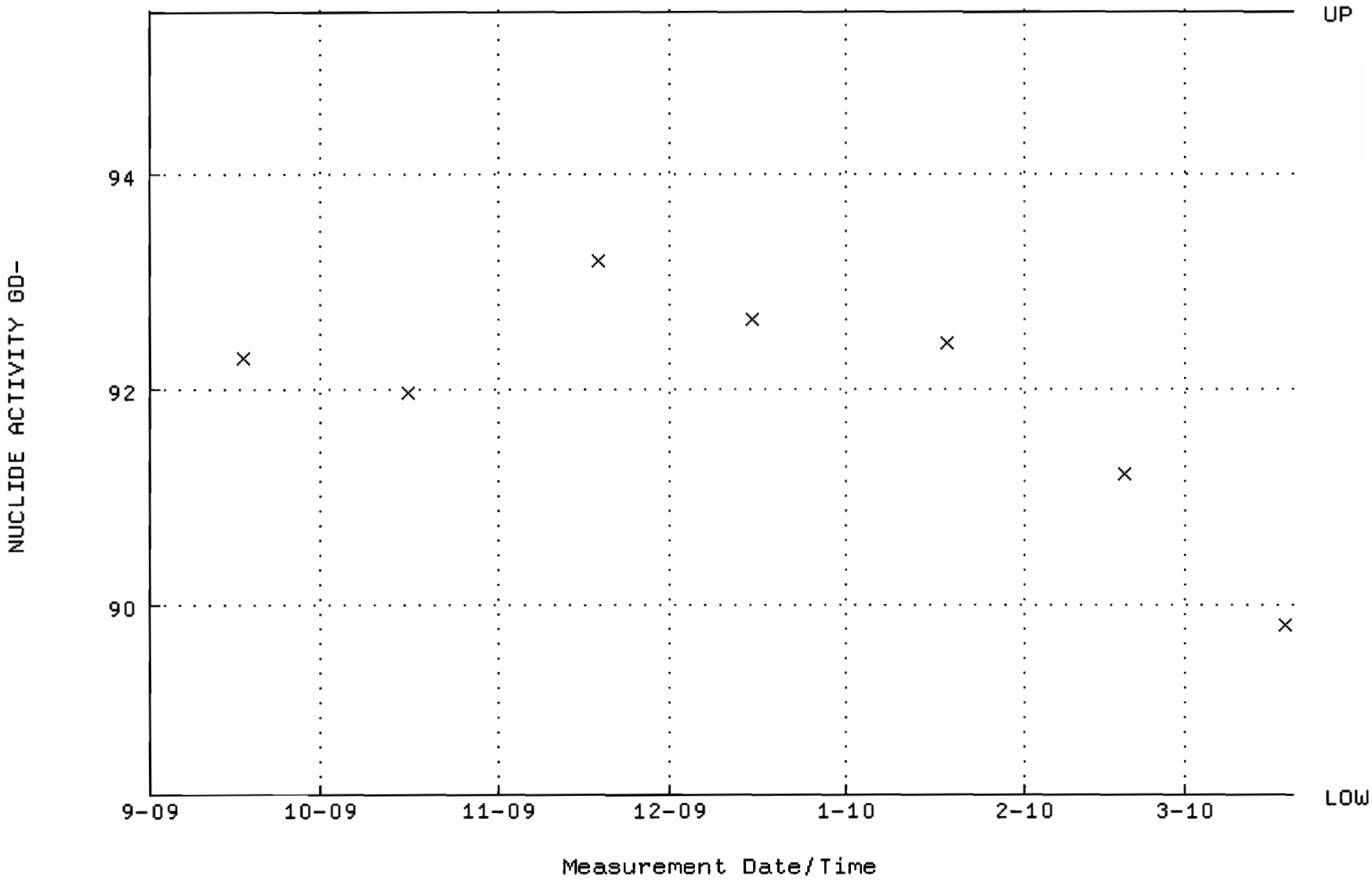

QA filename : DKA100:[ENV_ALPHA.QA.B]B132.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:32 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

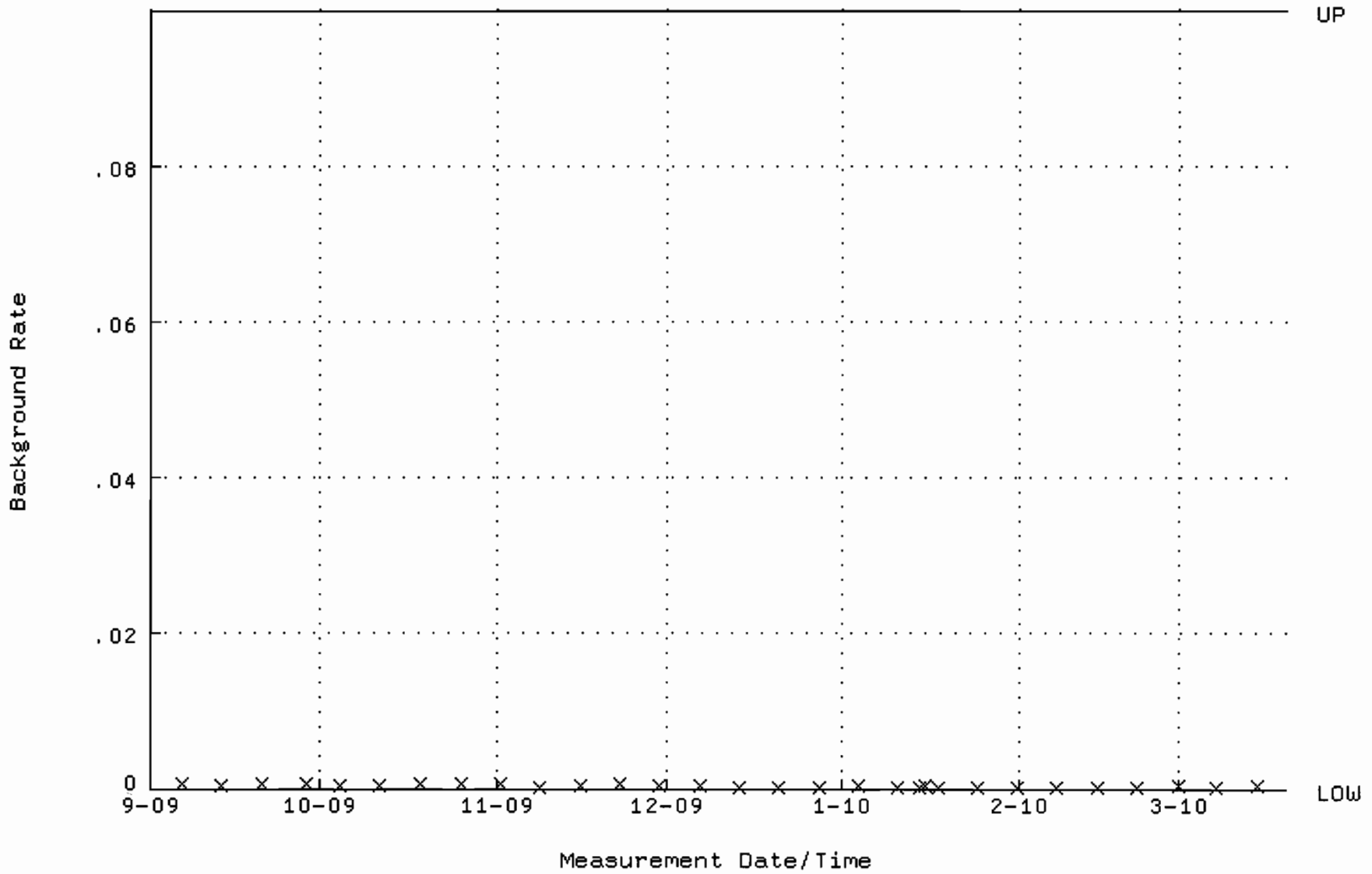

QA filename : DKA100:[ENV_ALPHA.QA.W]W133.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:41 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.236089 through 0.254355

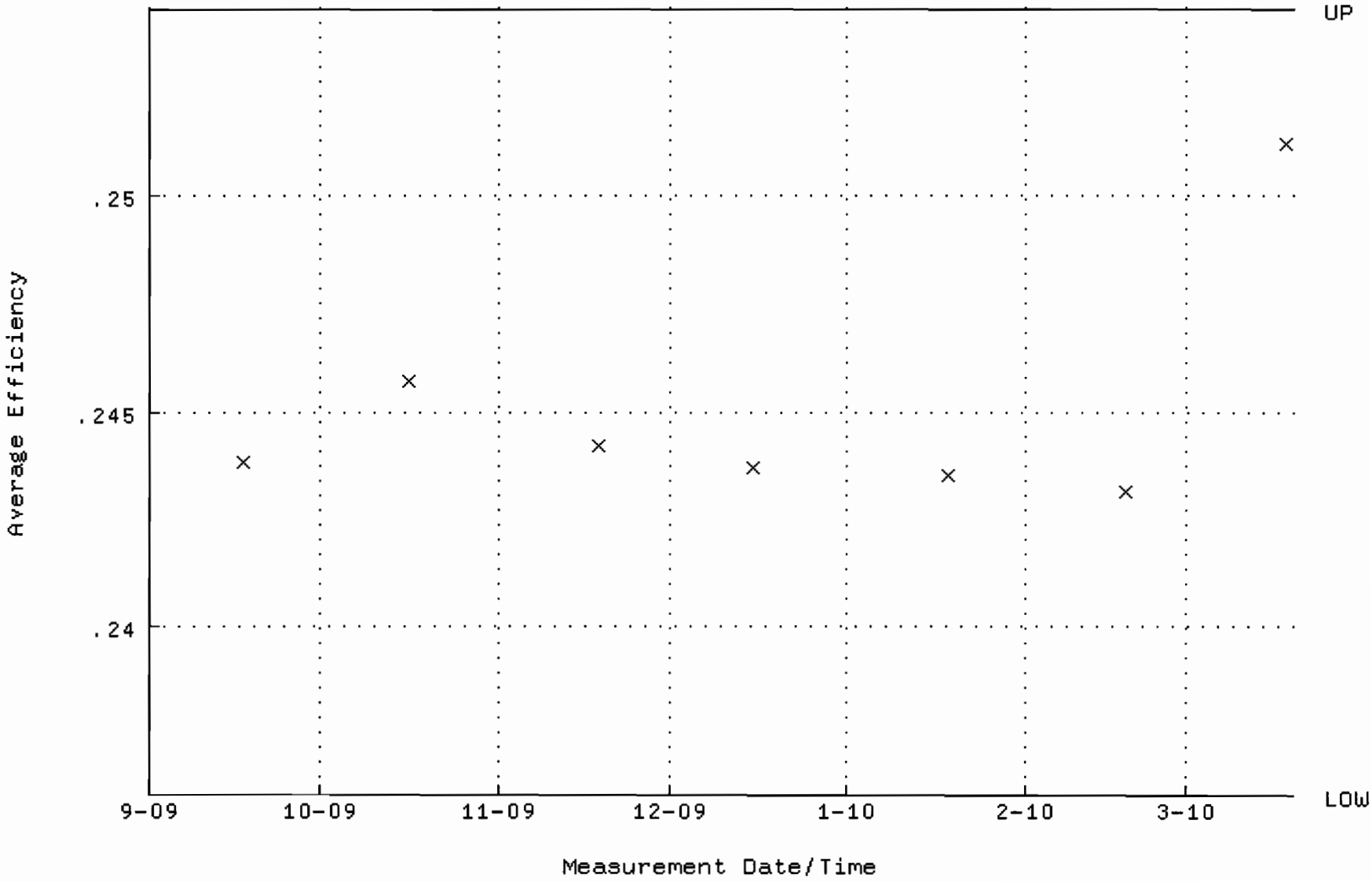

QA filename : DKA100:[ENV_ALPHA.QA.W]W133.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:41 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 89.3104 through 97.4810

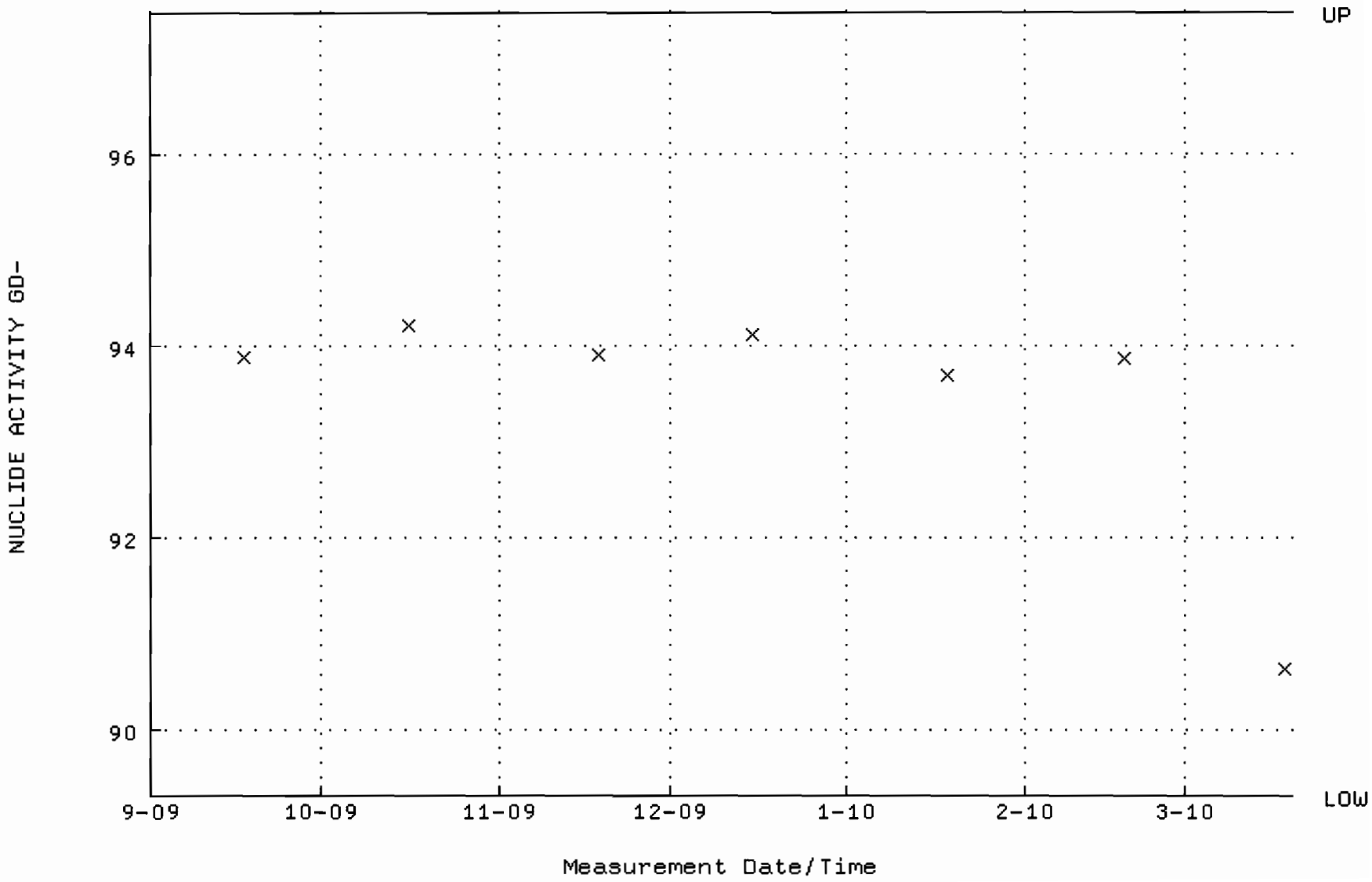

QA filename : DKA100:[ENV_ALPHA.QA.B]B133.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:37 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

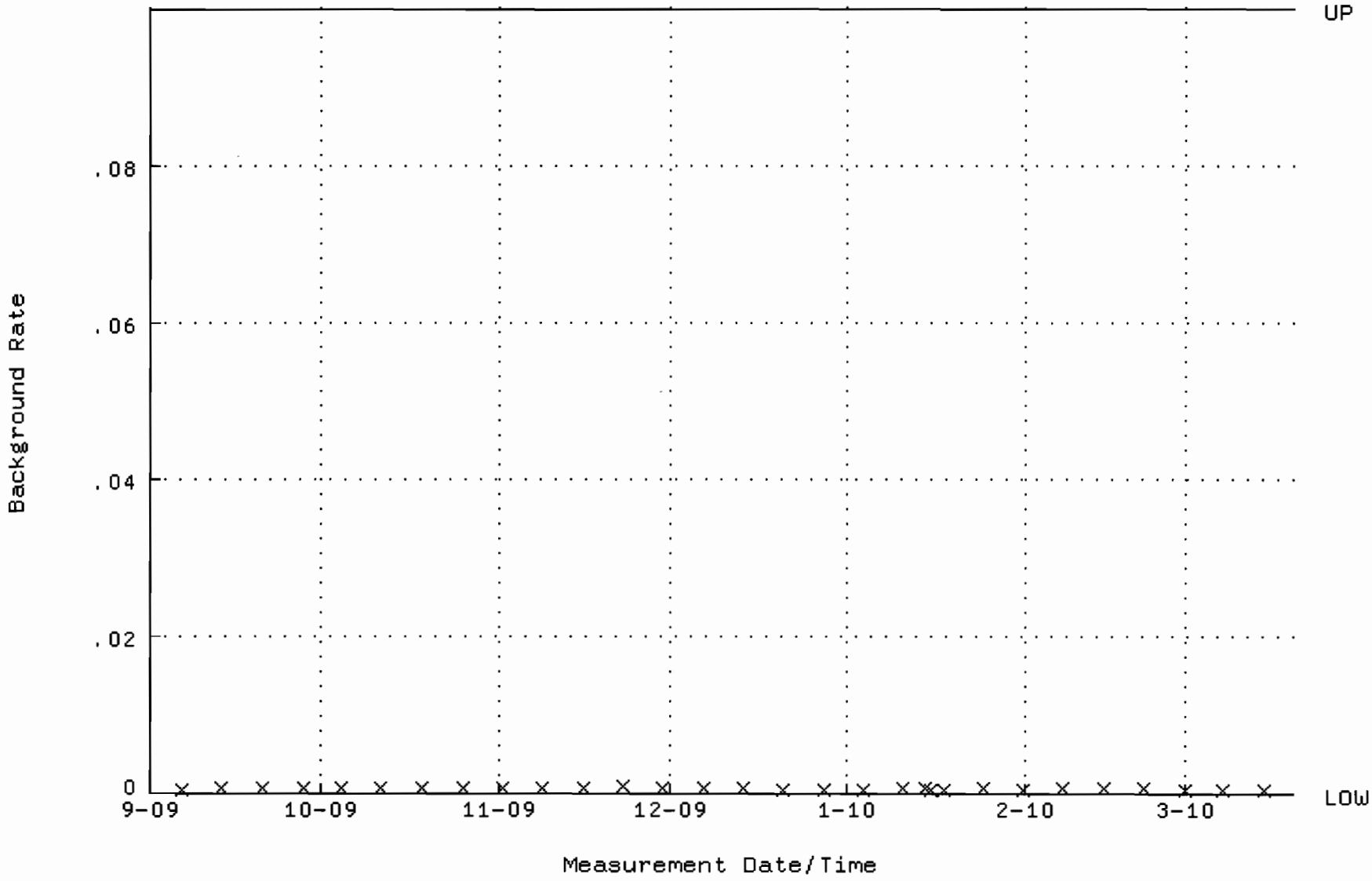

QA filename : DKA100:[ENV_ALPHA.QA.W]W134.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:46 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.240916 through 0.249606

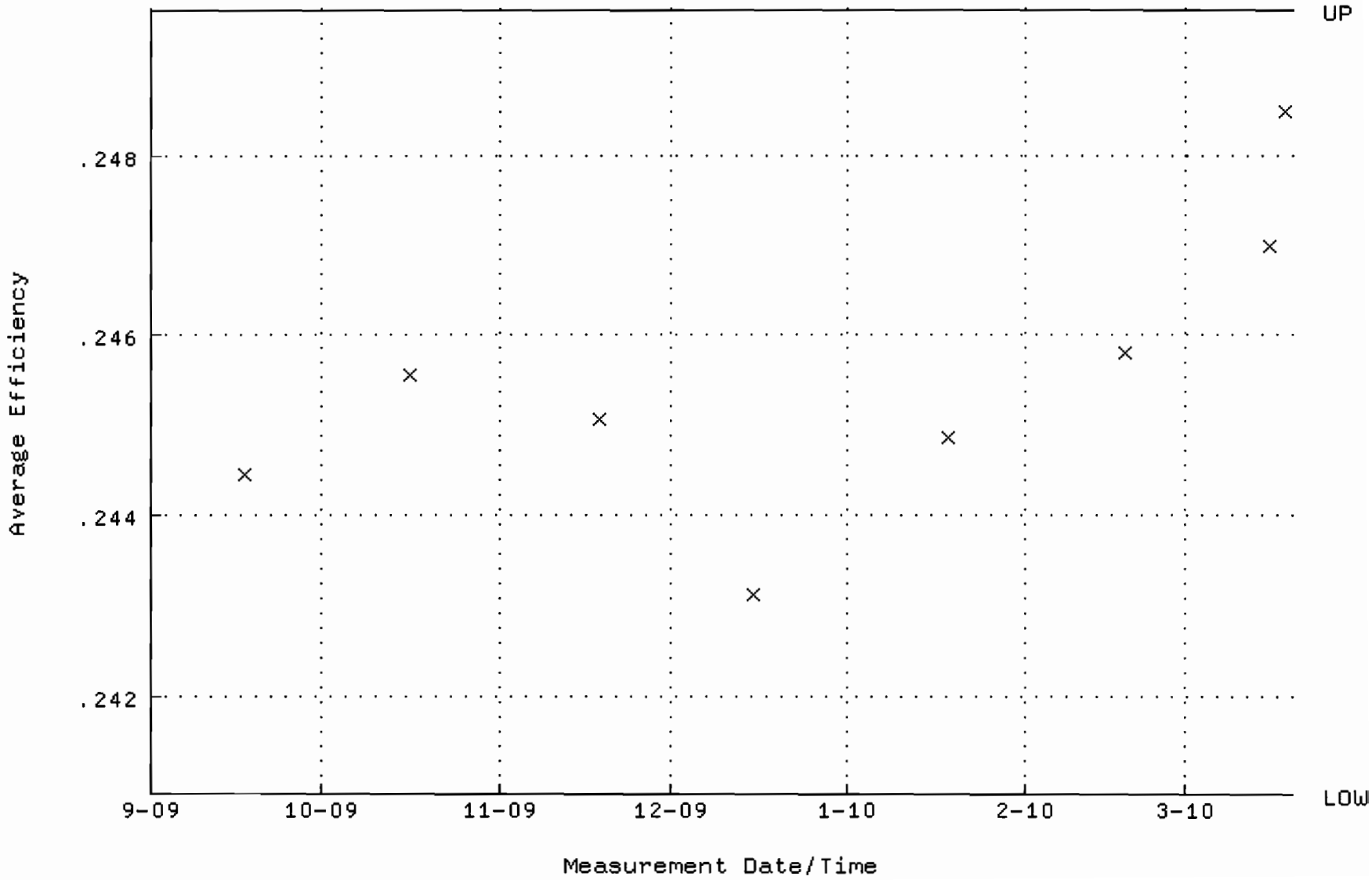

QA filename : DKA100:[ENV_ALPHA.QA.W]W134.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:46 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 89.4572 through 94.2254

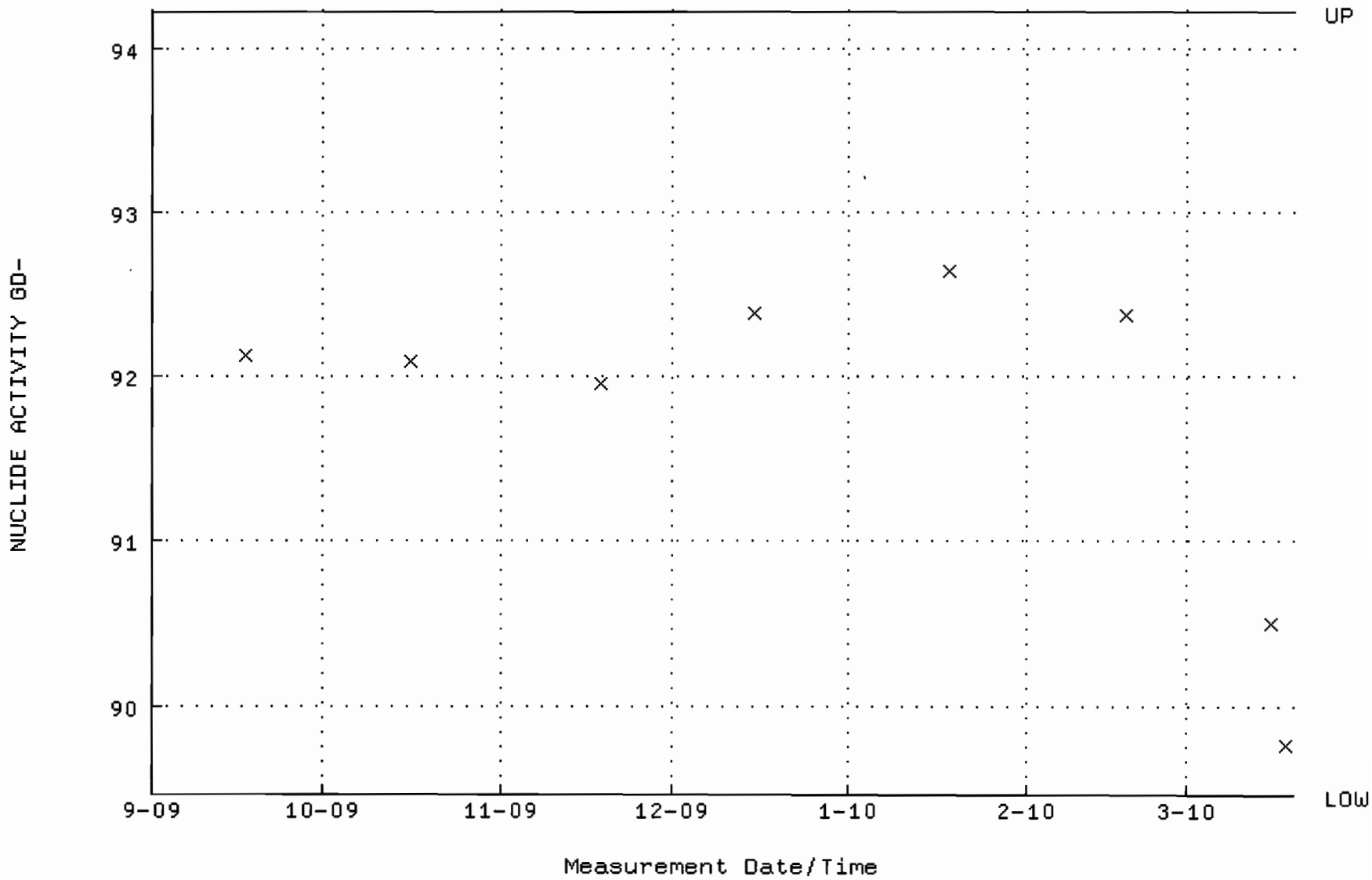

QA filename : DKA100:[ENV_ALPHA.QA.B]B134.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:41 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

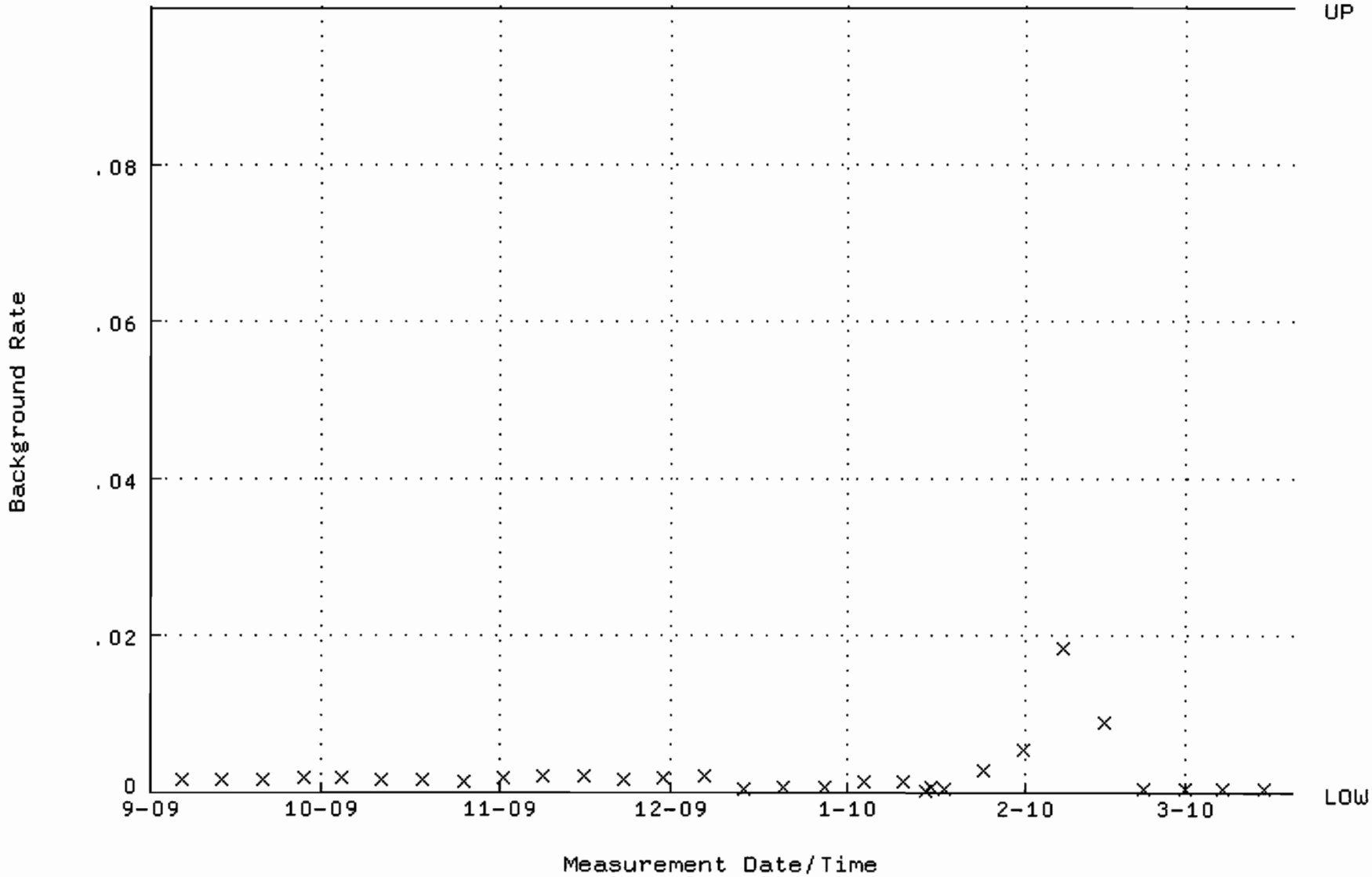

QA filename : DKA100:[ENV_ALPHA.QA.W]W135.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:53 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.194457 through 0.303279

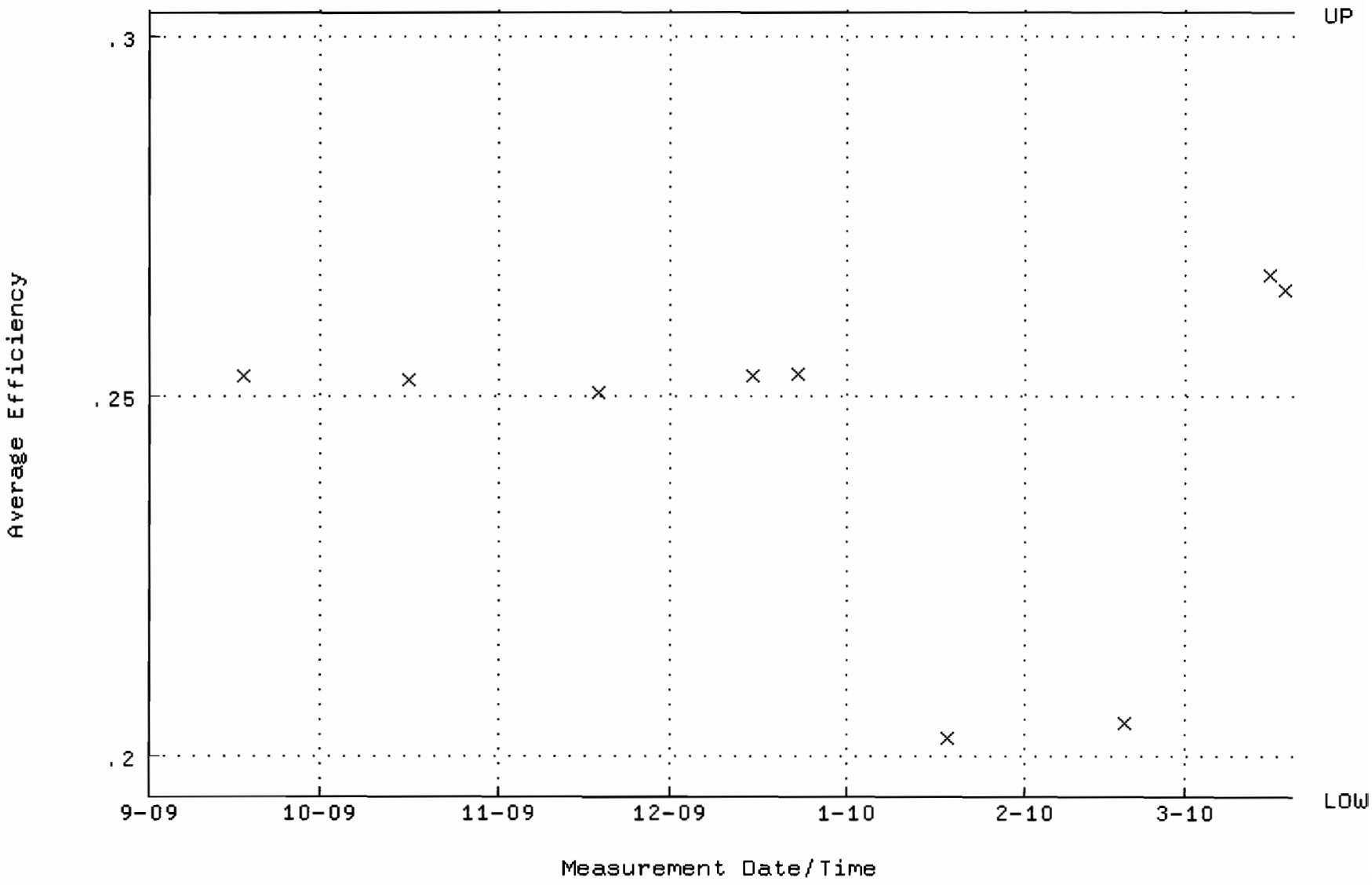

QA filename : DKA100:[ENV_ALPHA.QA.W]W135.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:53 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 77.0697 through 108.428

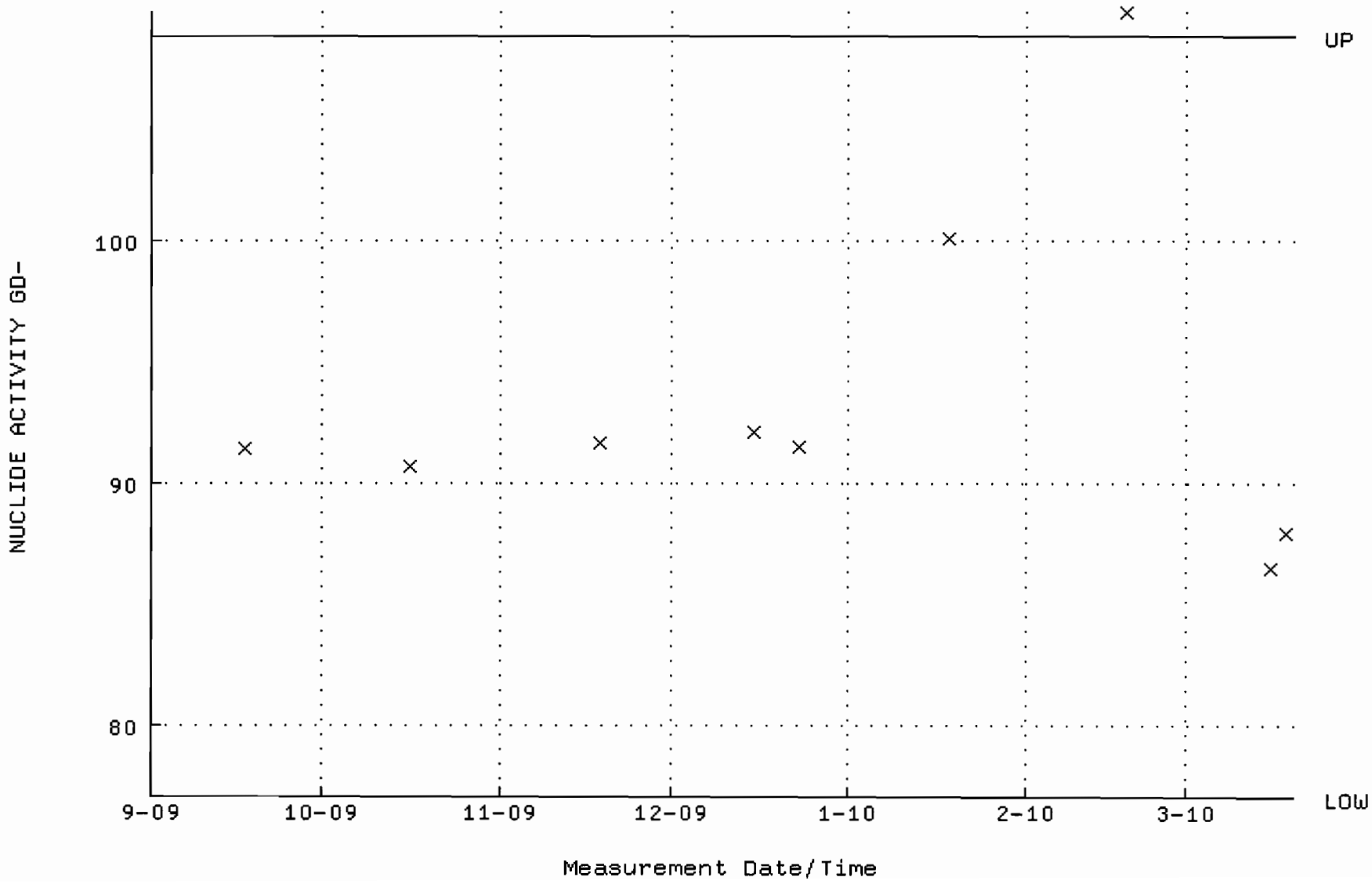

QA filename : DKA100:[ENV_ALPHA.QA.B]B135.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:45 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

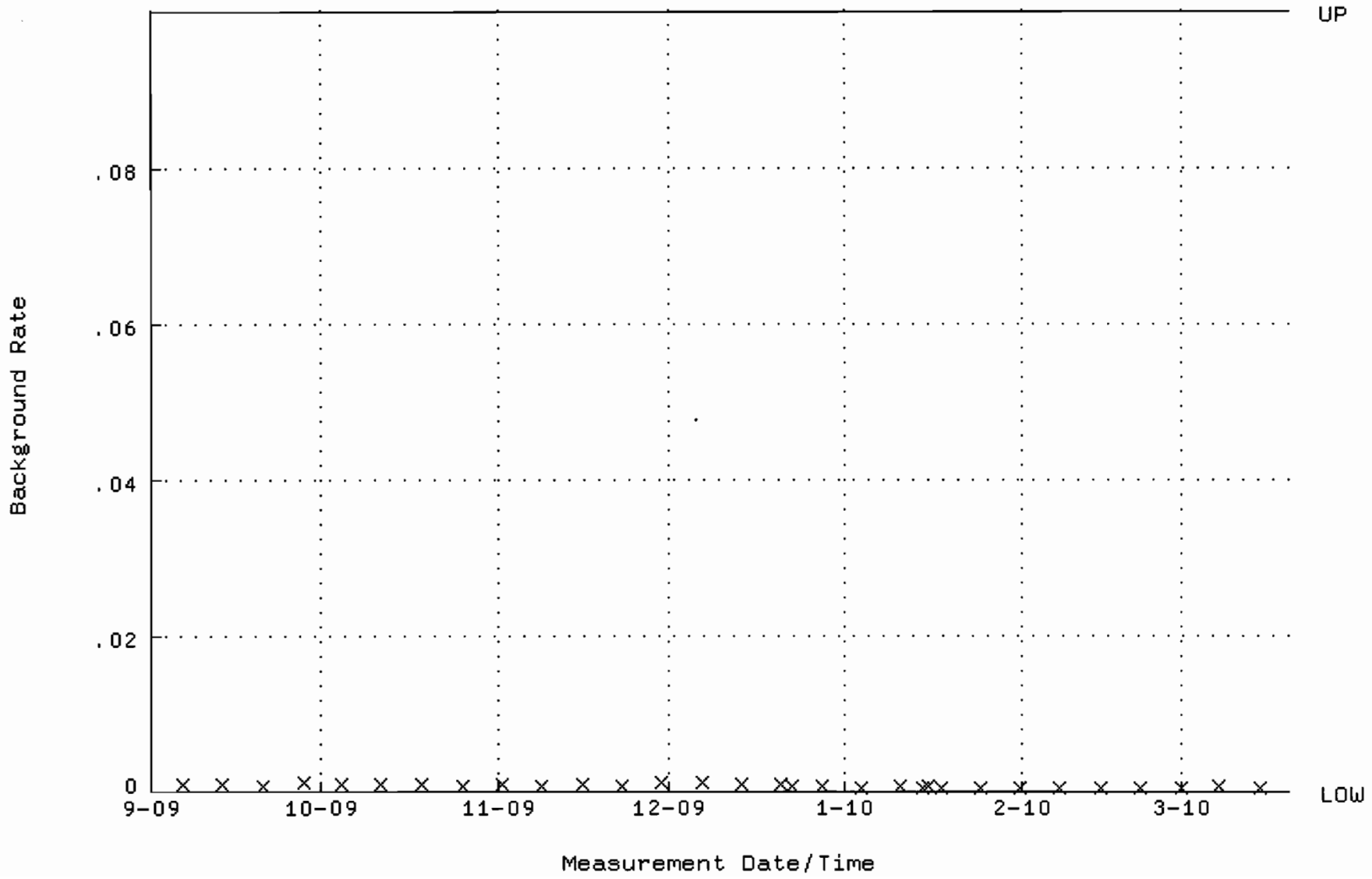

QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:04:02 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.237368 through 0.264286

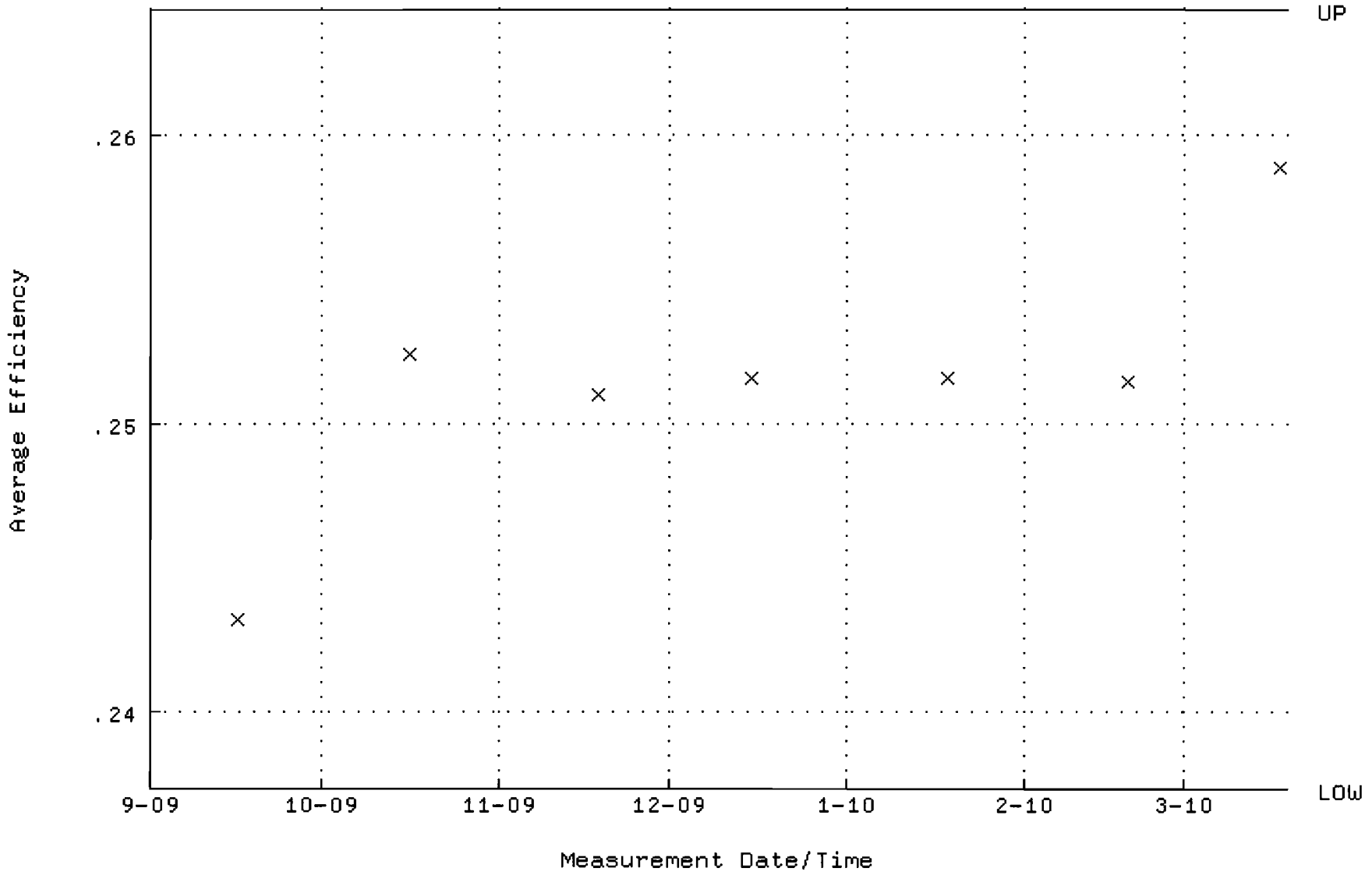

QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:04:02 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 84.3705 through 92.6214

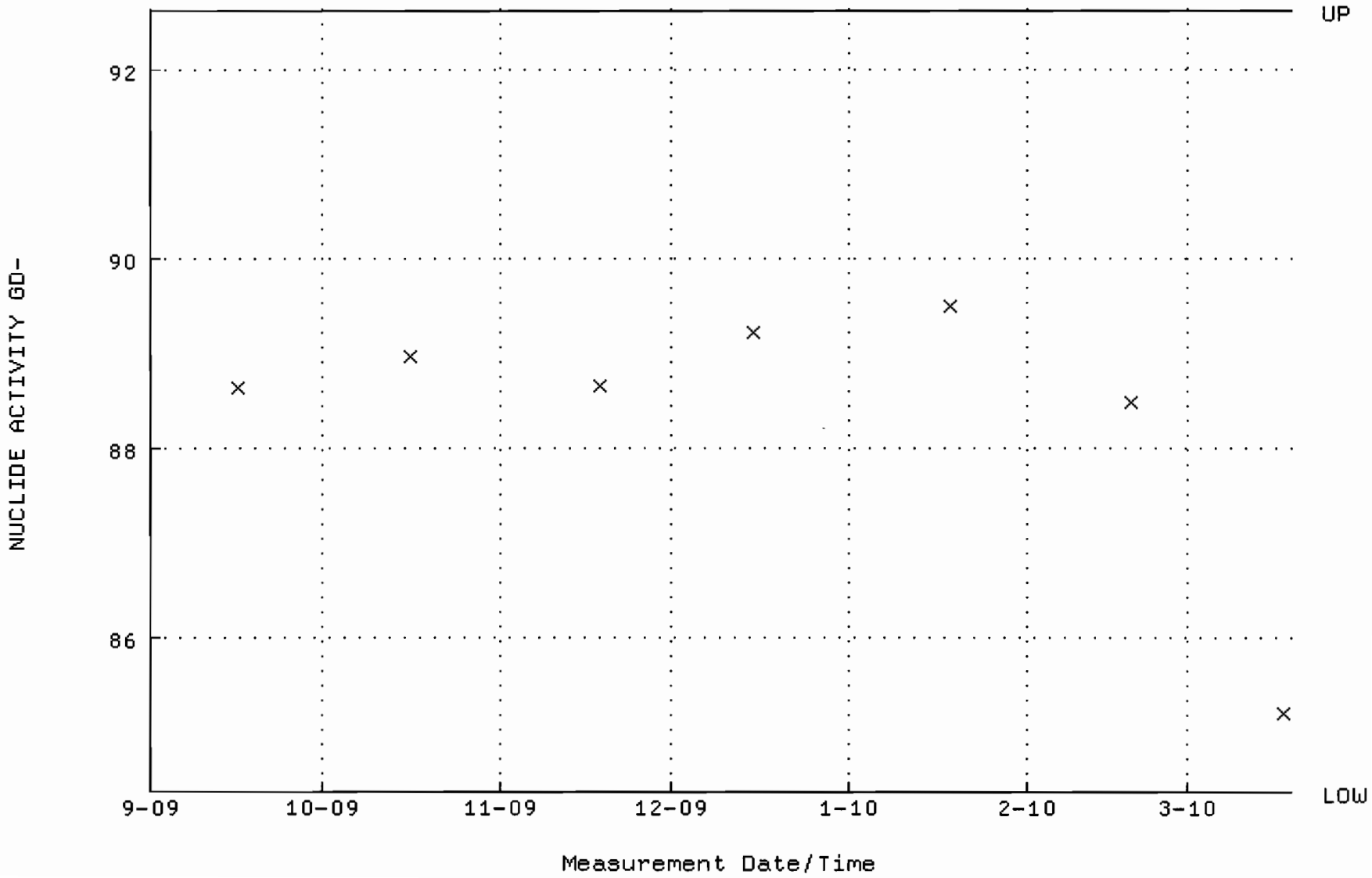

QA filename : DKA100:[ENV_ALPHA.QA.B]B144.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:22 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

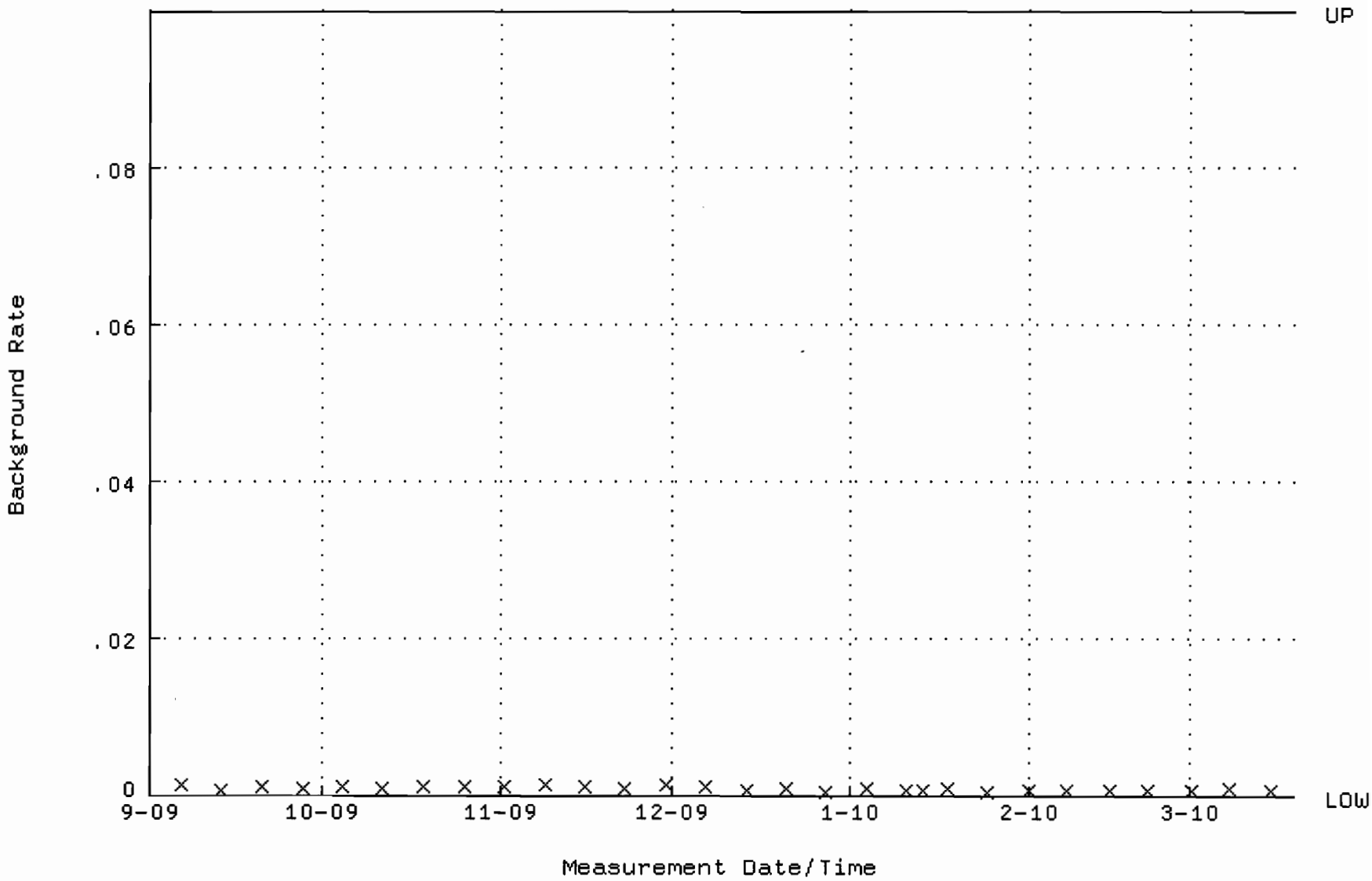

QA filename : DKA100:[ENV_ALPHA.QA.W]W151.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:30 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.229470 through 0.264472

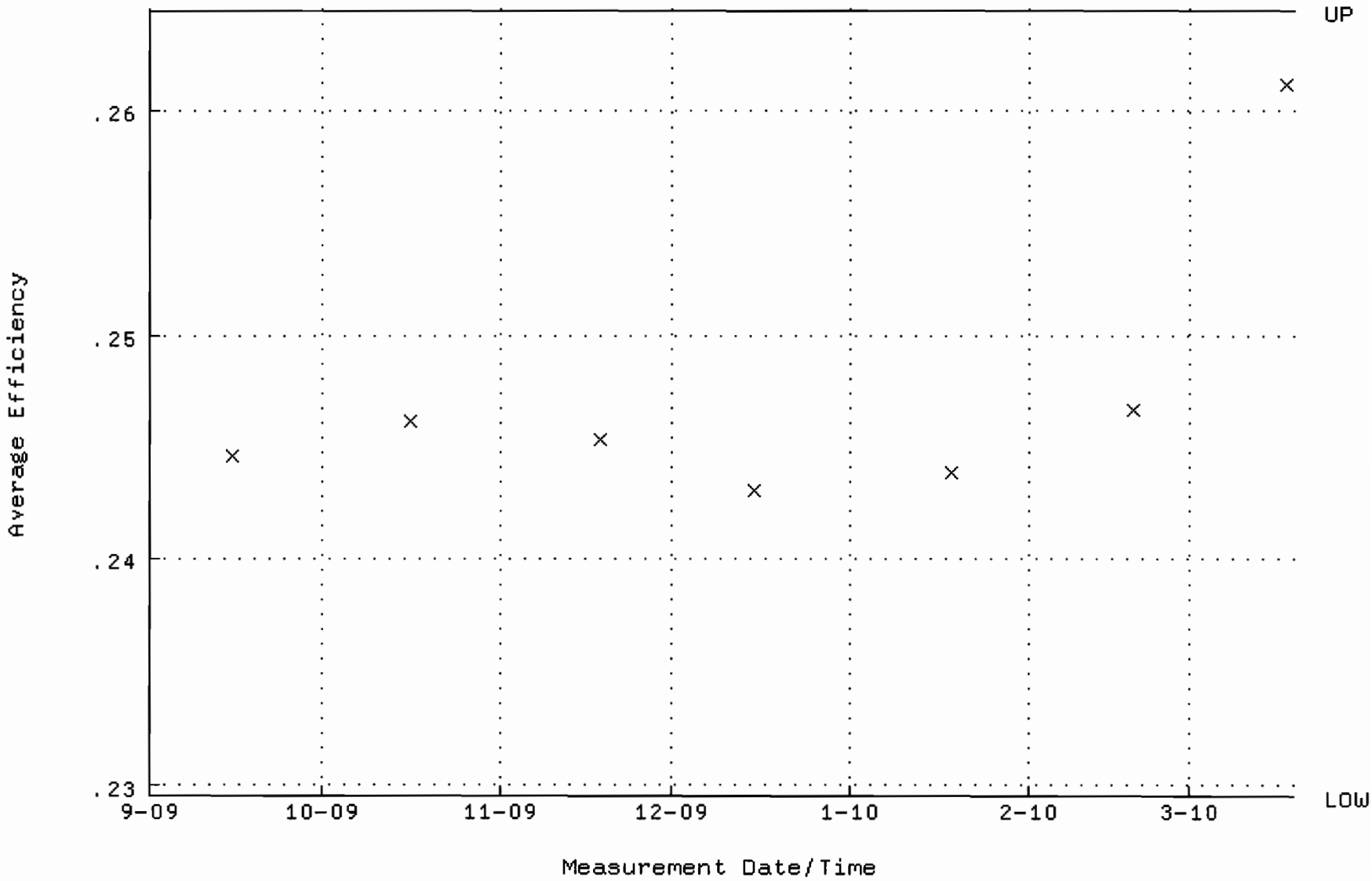

QA filename : DKA100:[ENV_ALPHA.QA.W]W151.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:30 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 84.8674 through 94.1592

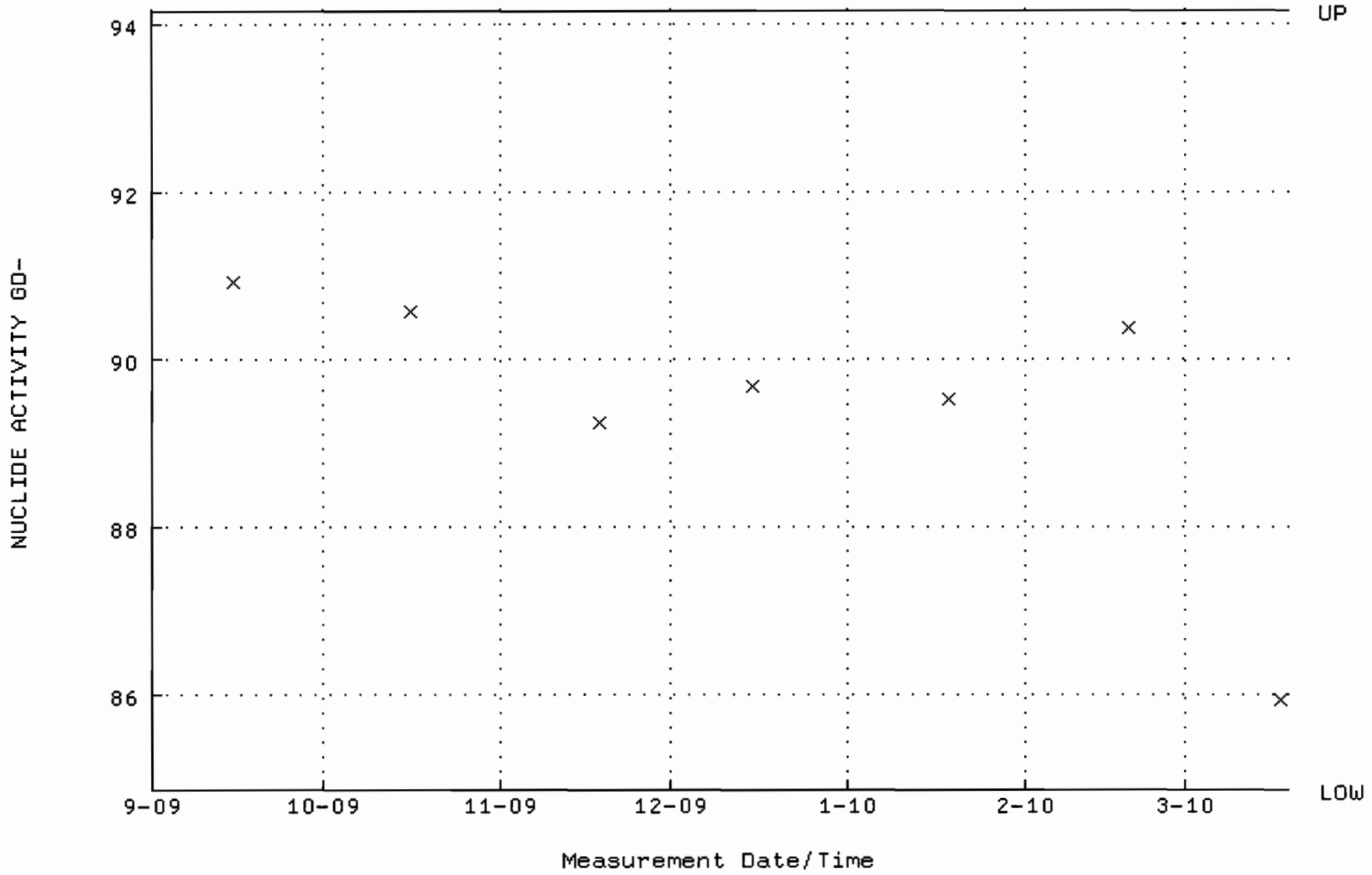

QA filename : DKA100:[ENV_ALPHA.QA.B]B151.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:51 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

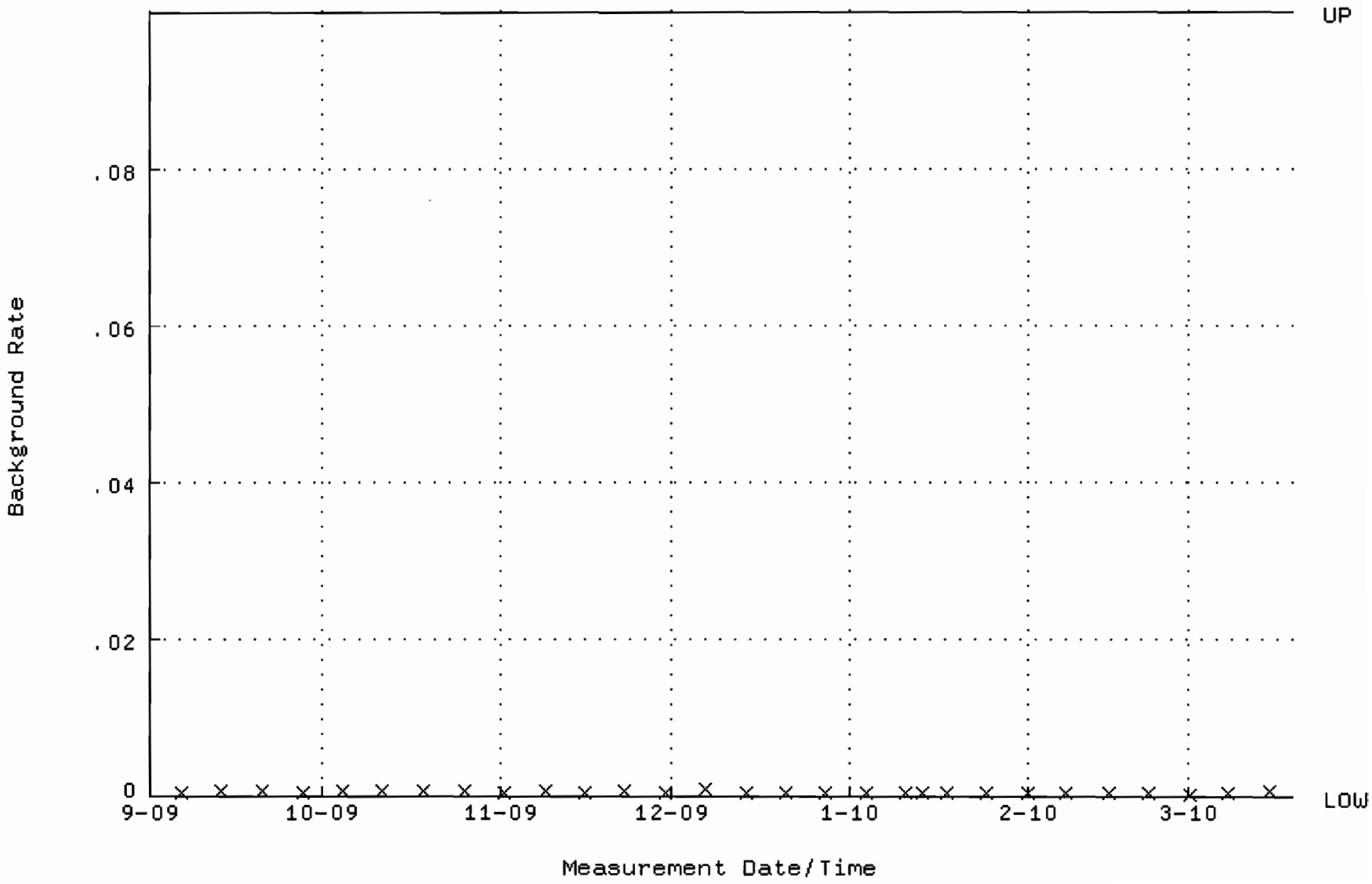

QA filename : DKA100:[ENV_ALPHA.QA.W]W152.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:36 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.236513 through 0.255567

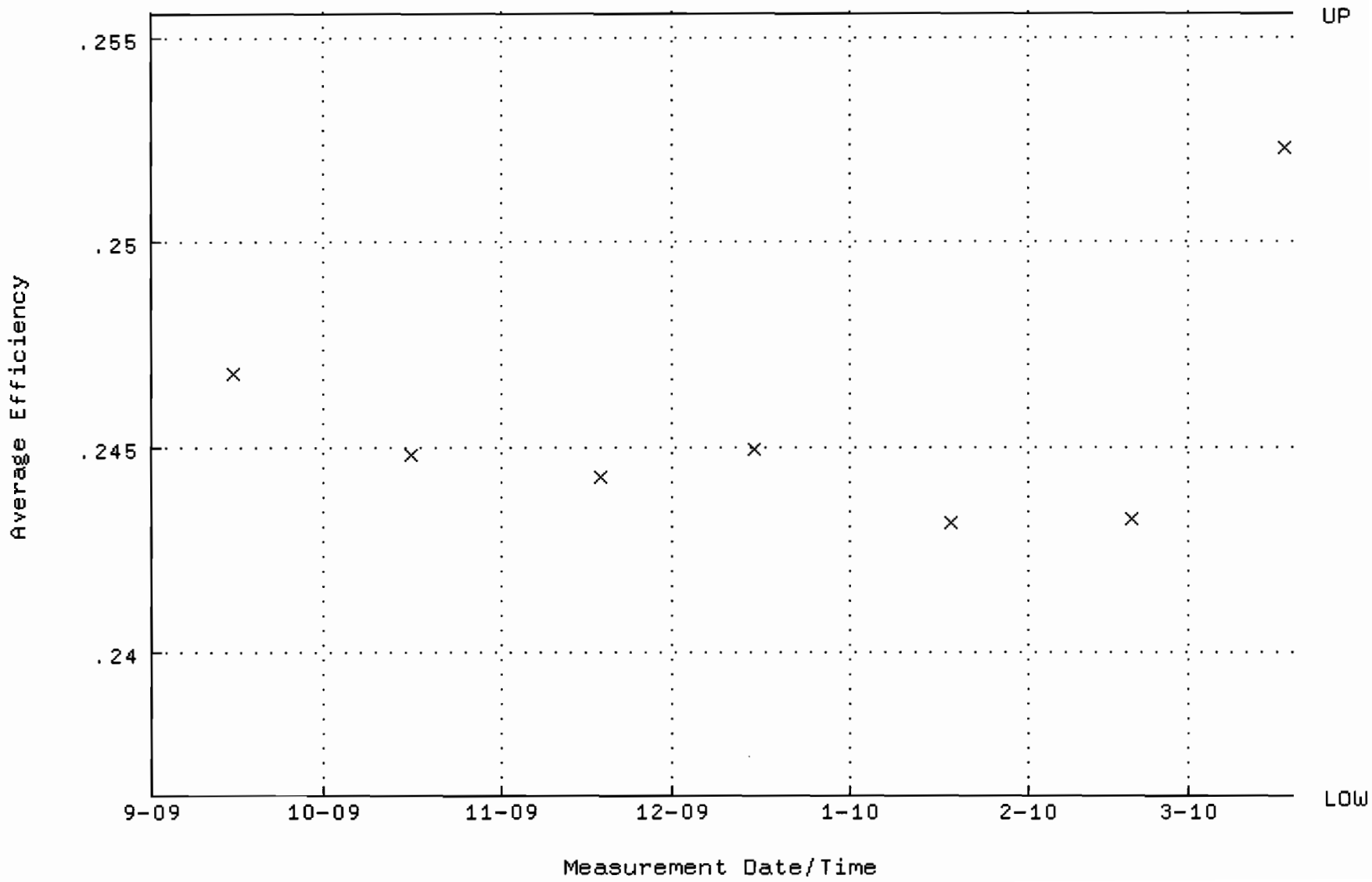

QA filename : DKA100:[ENV_ALPHA.QA.W]W152.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:36 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 83.6285 through 91.5809

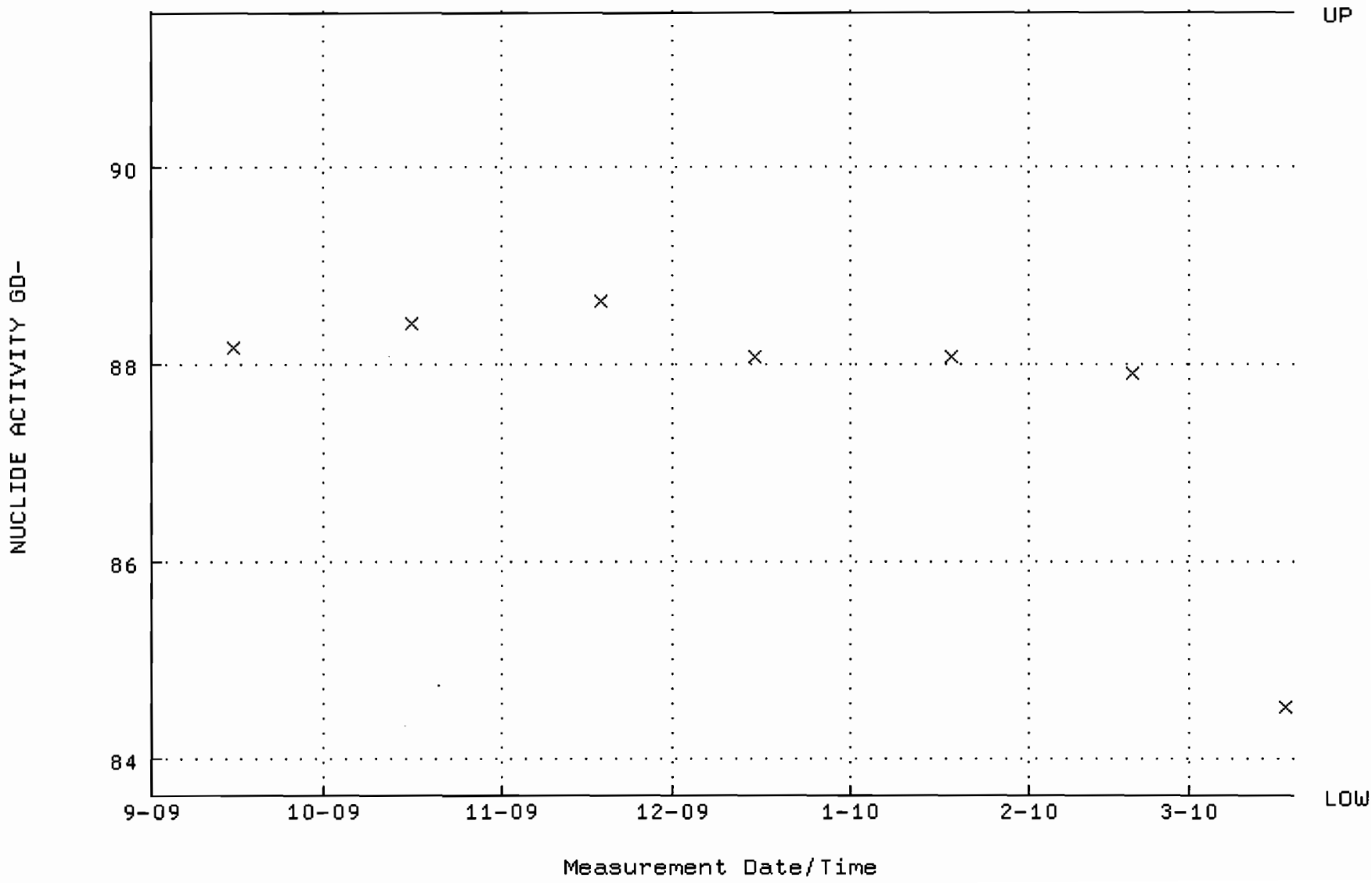

QA filename : DKA100:[ENV_ALPHA.QA.B]B152.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:55 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

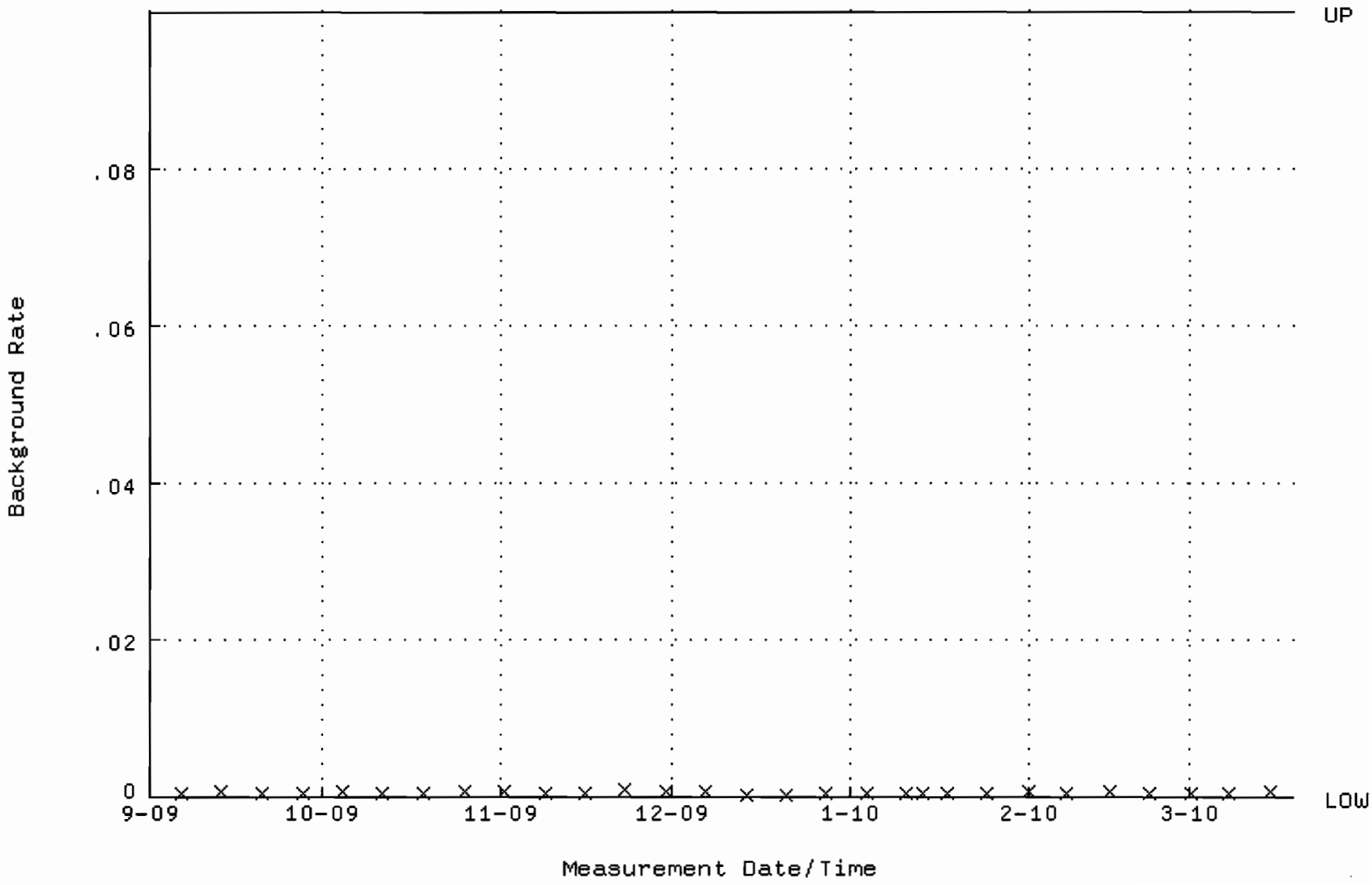

QA filename : DKA100:[ENV_ALPHA.QA.W]W153.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:41 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.243195 through 0.264993

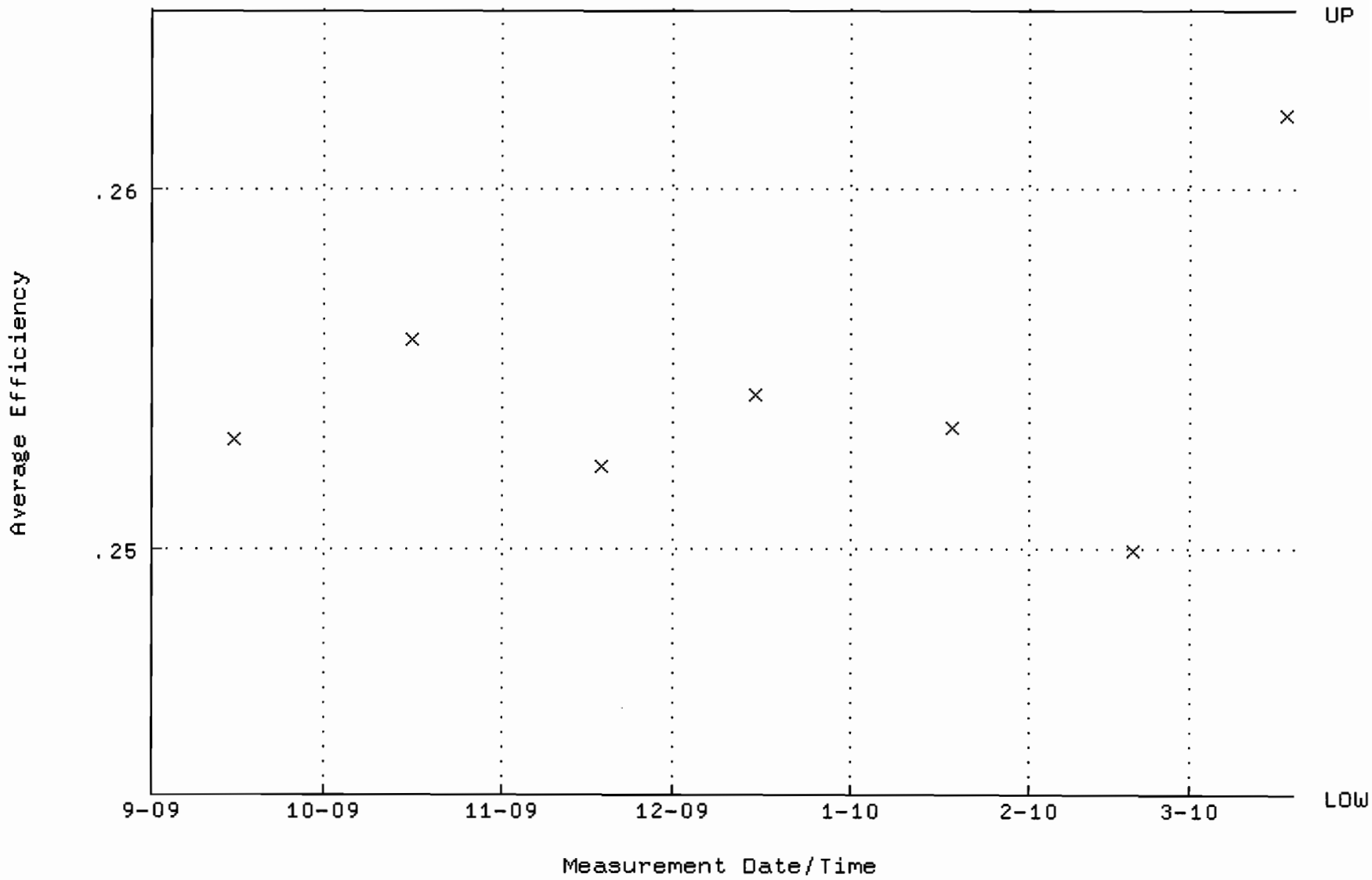

QA filename : DKA100:[ENV_ALPHA.QA.W]W153.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:41 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 82.6961 through 88.8445

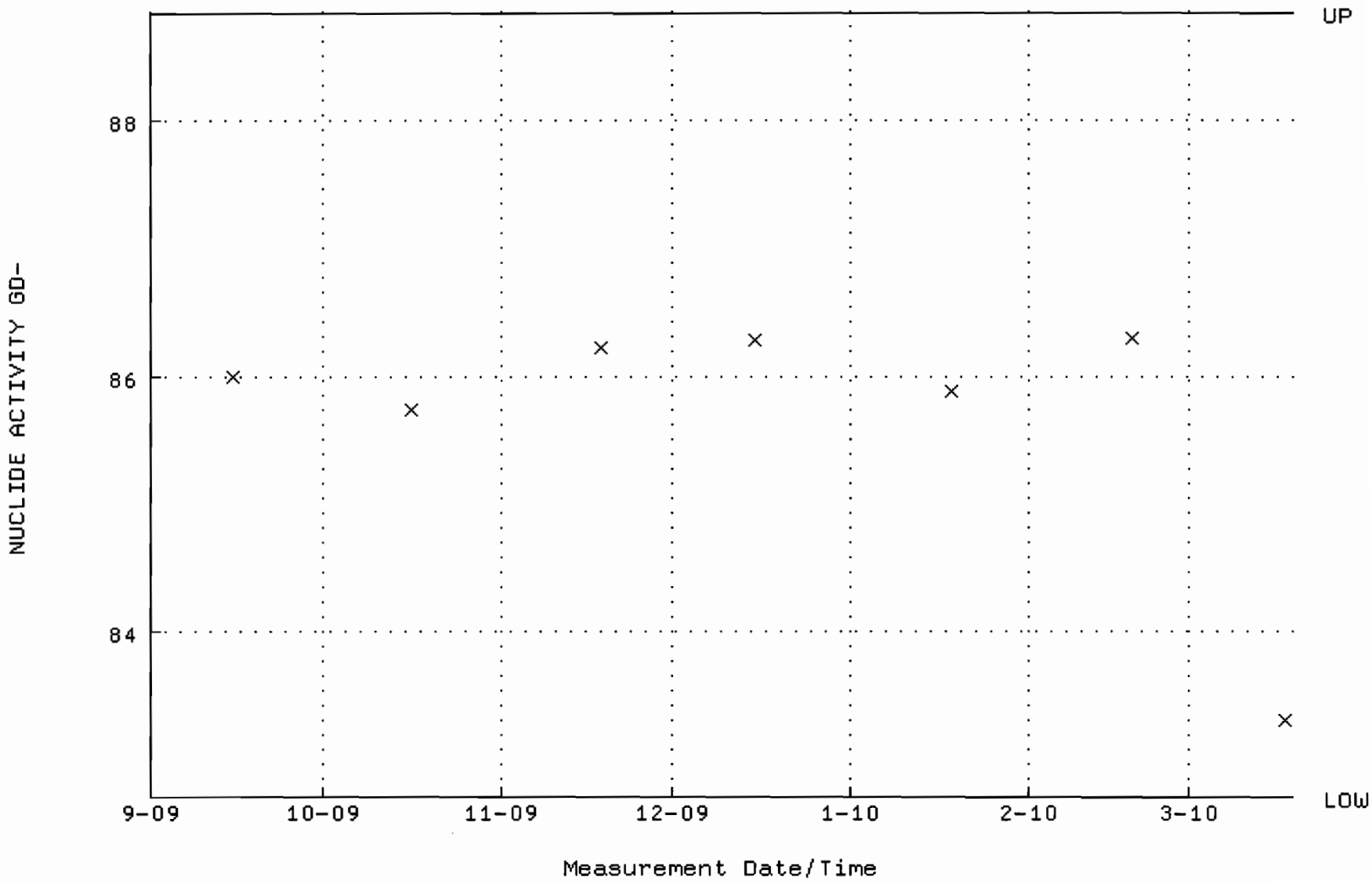

QA filename : DKA100:[ENV_ALPHA.QA.B]B153.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:58 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

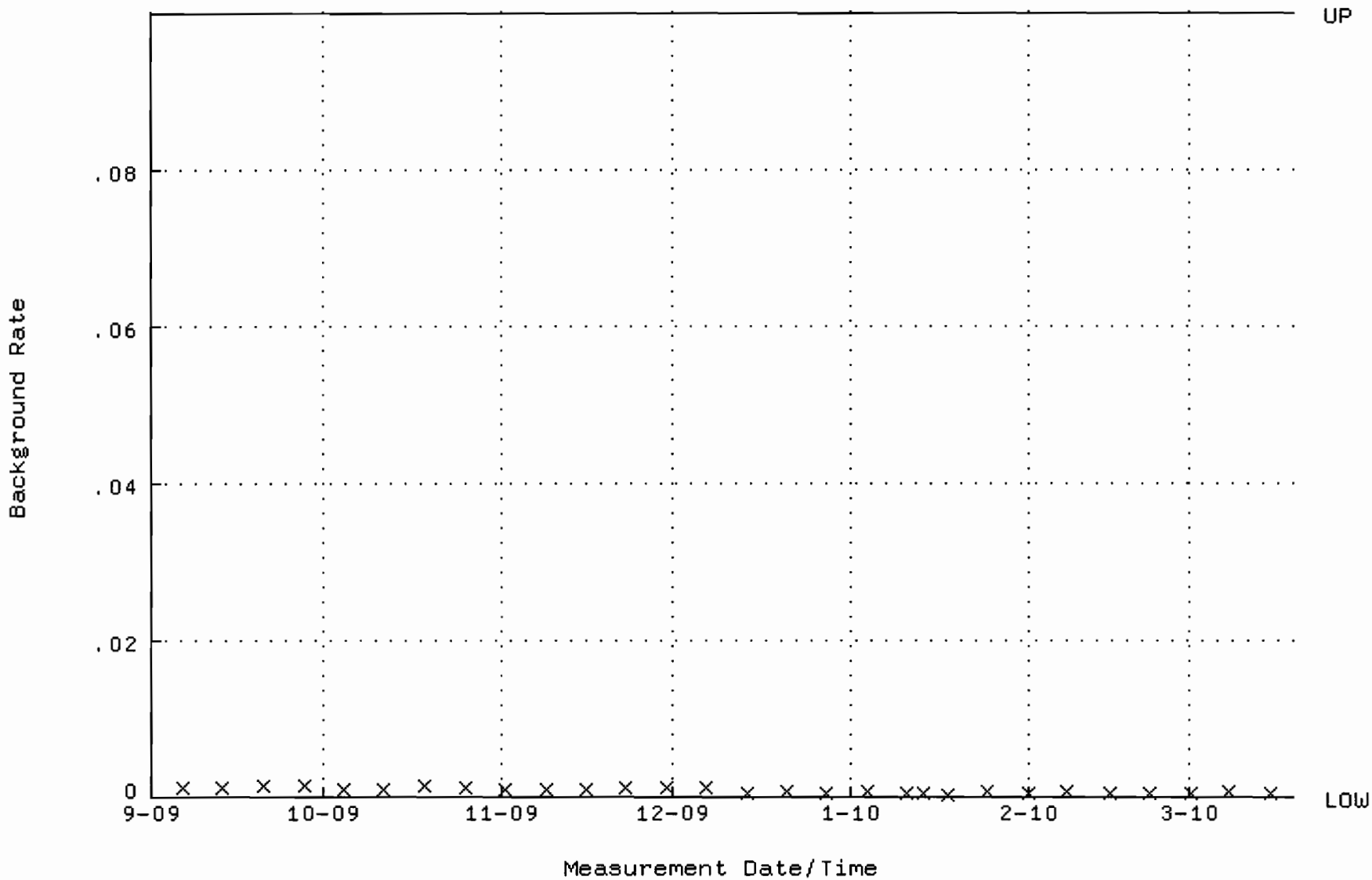

QA filename : DKA100:[ENV_ALPHA.QA.W]W173.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:29:38 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.248314 through 0.274256

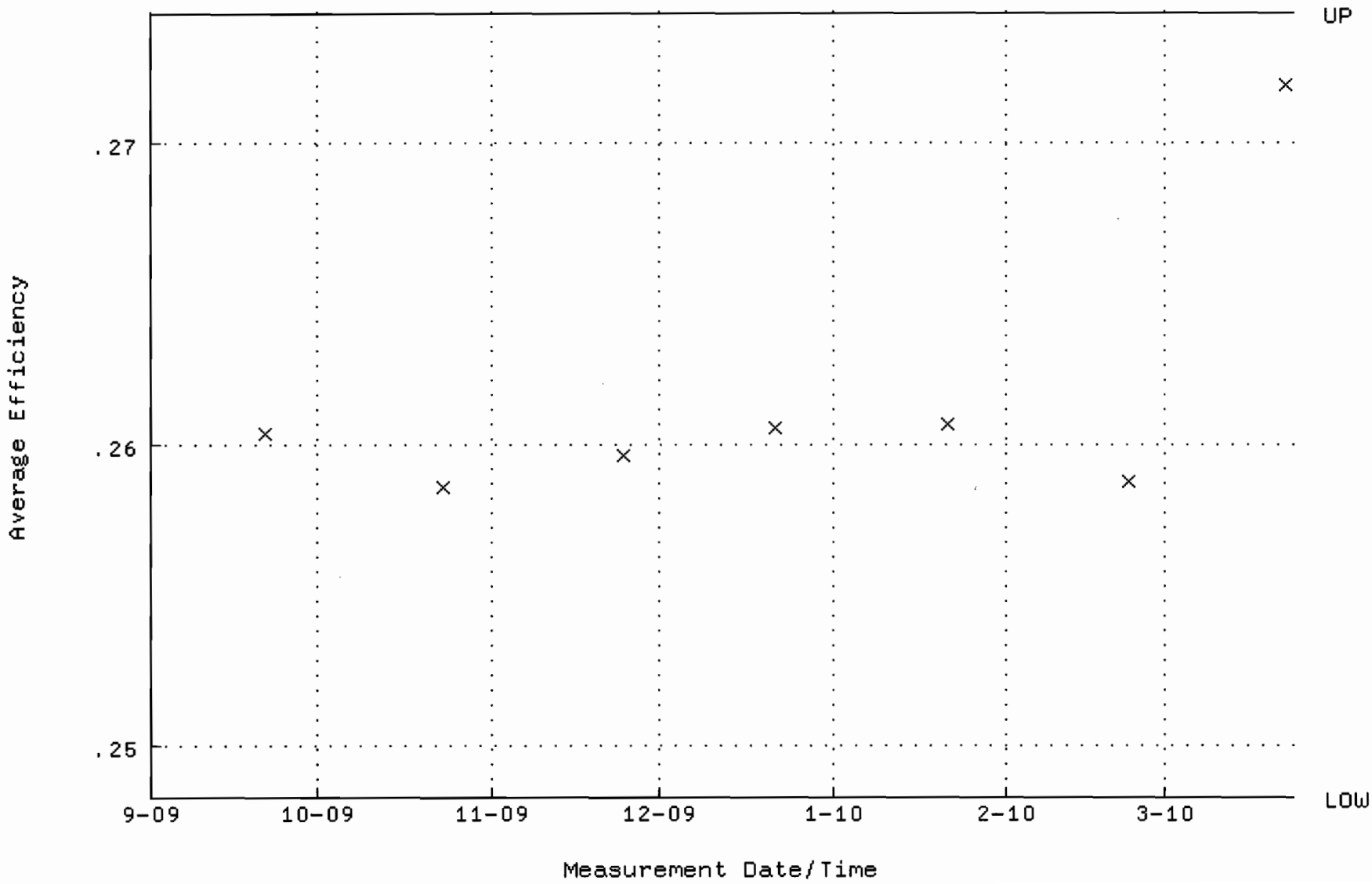

QA filename : DKA100:[ENV_ALPHA.QA.W]W173.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:29:38 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.6391 through 98.2805

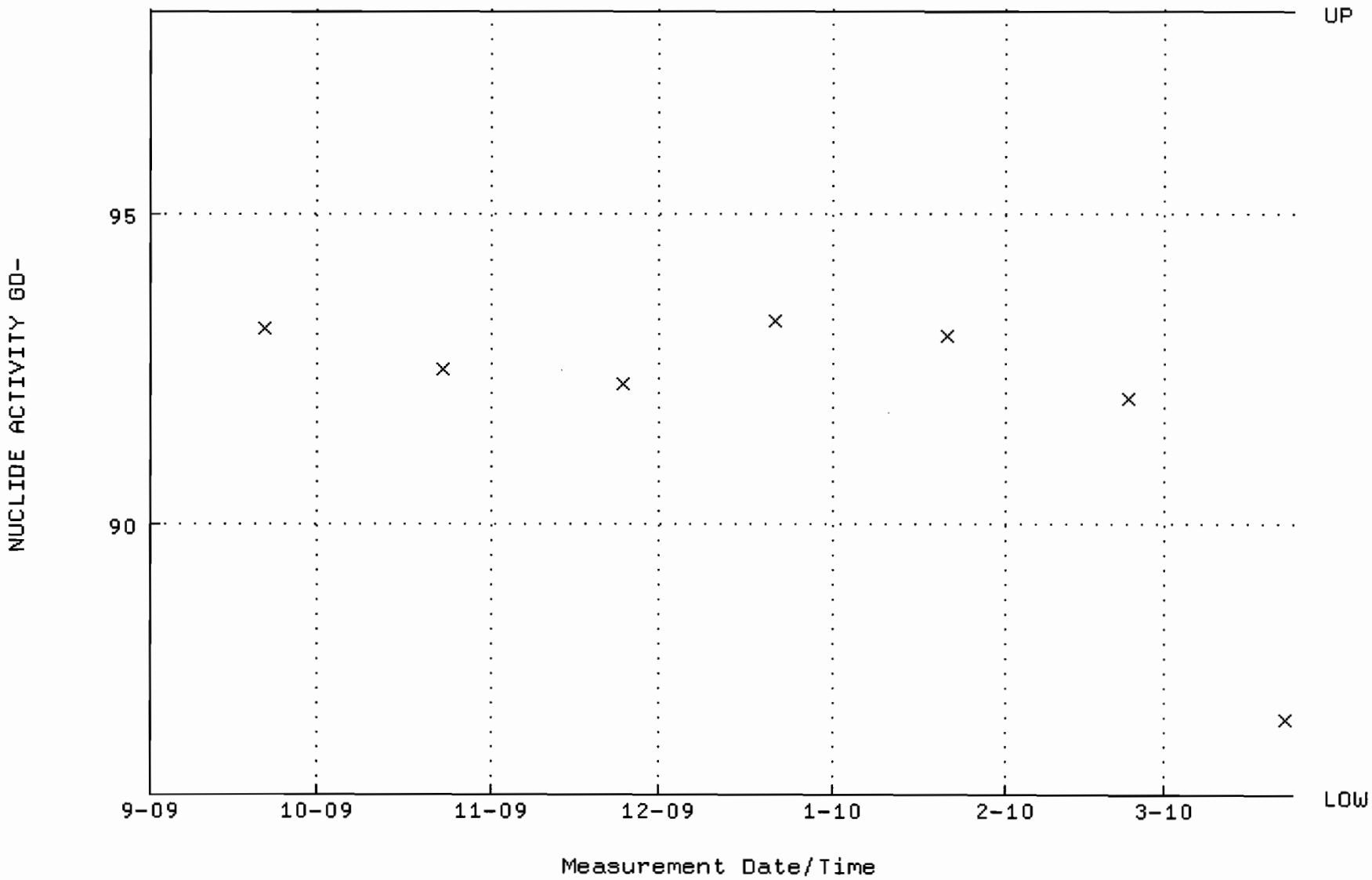

QA filename : DKA100:[ENV_ALPHA.QA.B]B173.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:07 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

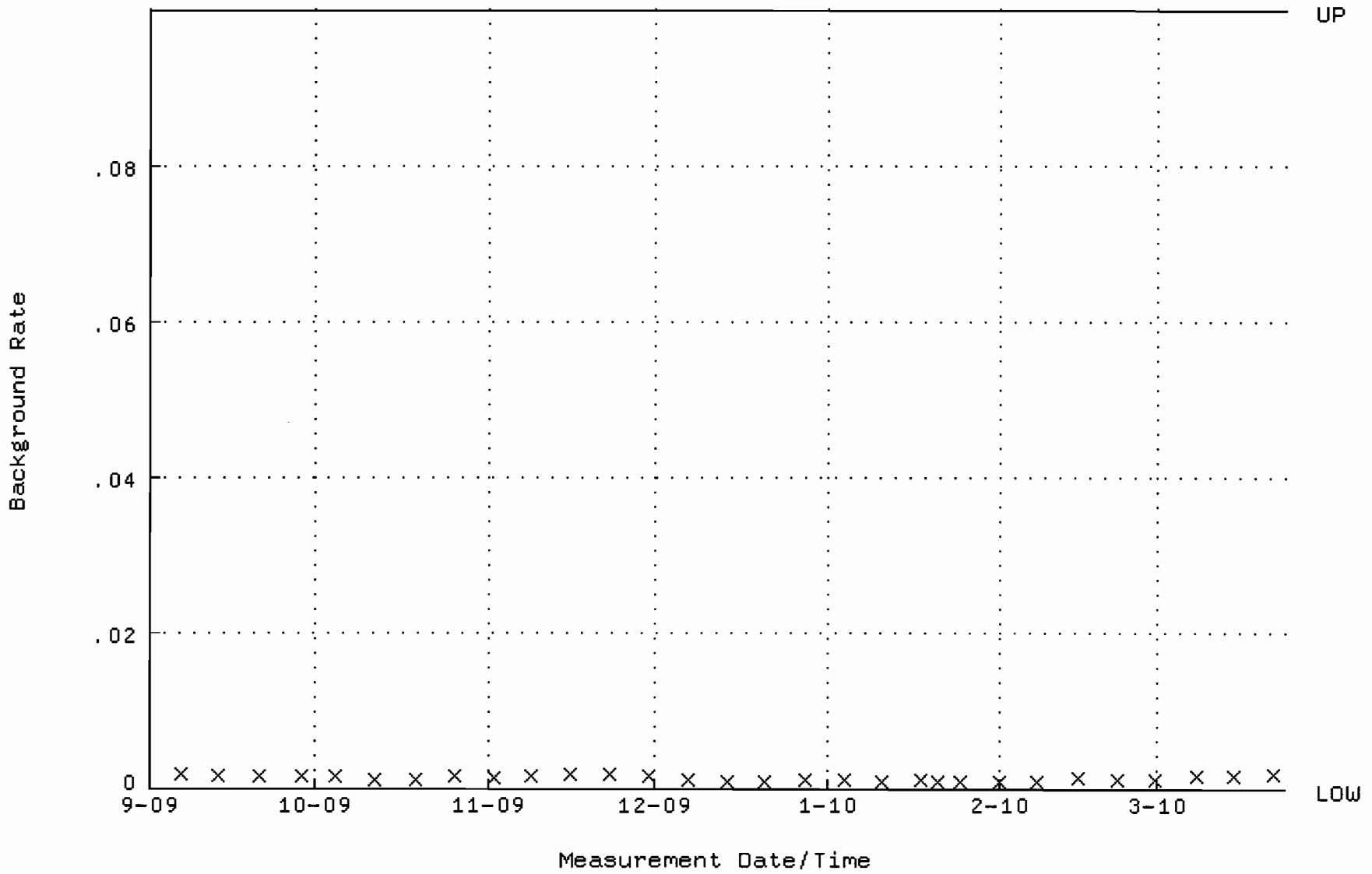

QA filename : DKA100:[ENV_ALPHA.QA.W]W174.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:29:43 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.237559 through 0.274837

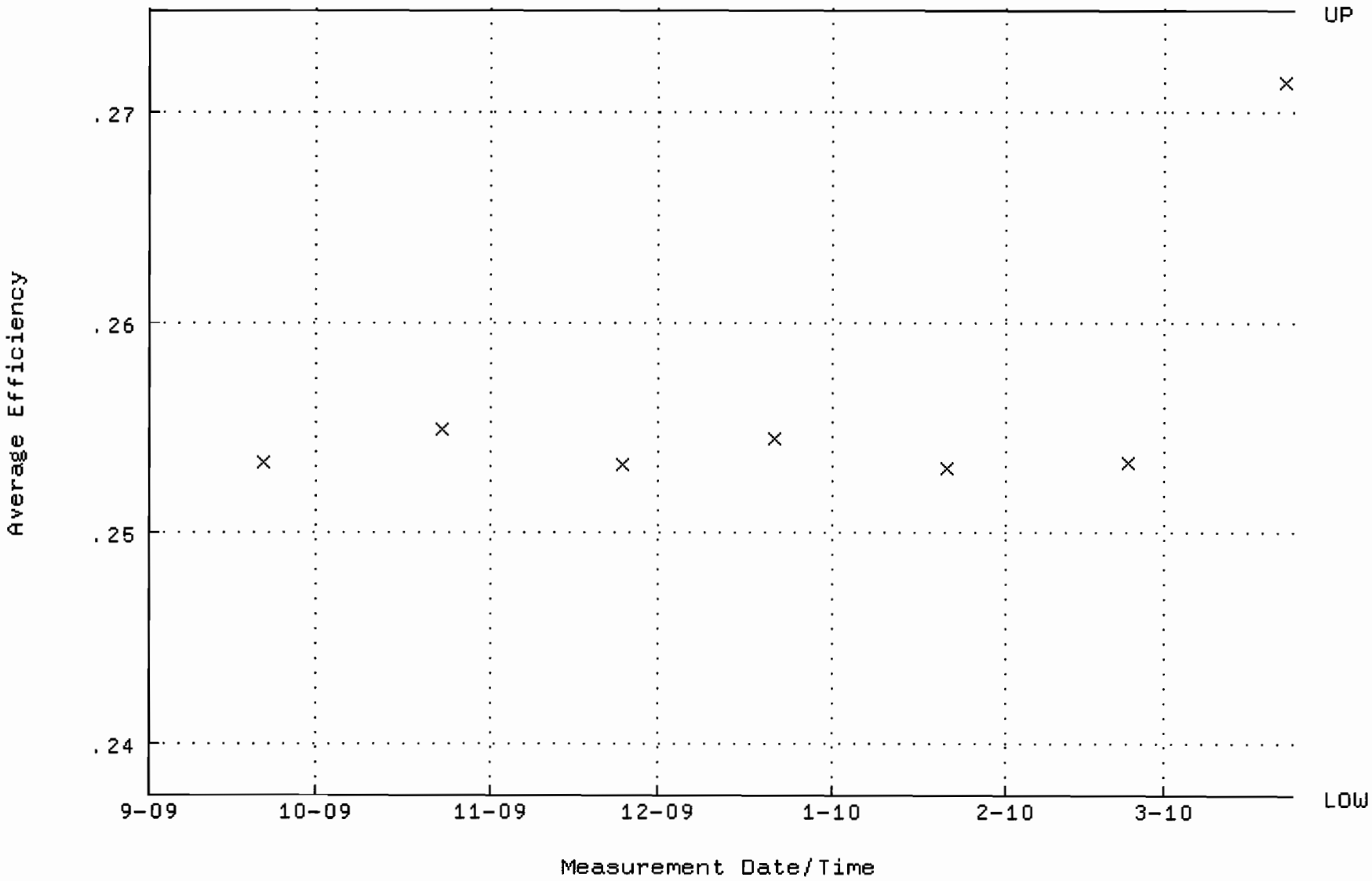

QA filename : DKA100:[ENV_ALPHA.QA.W]W174.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:29:43 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 83.3921 through 94.7659

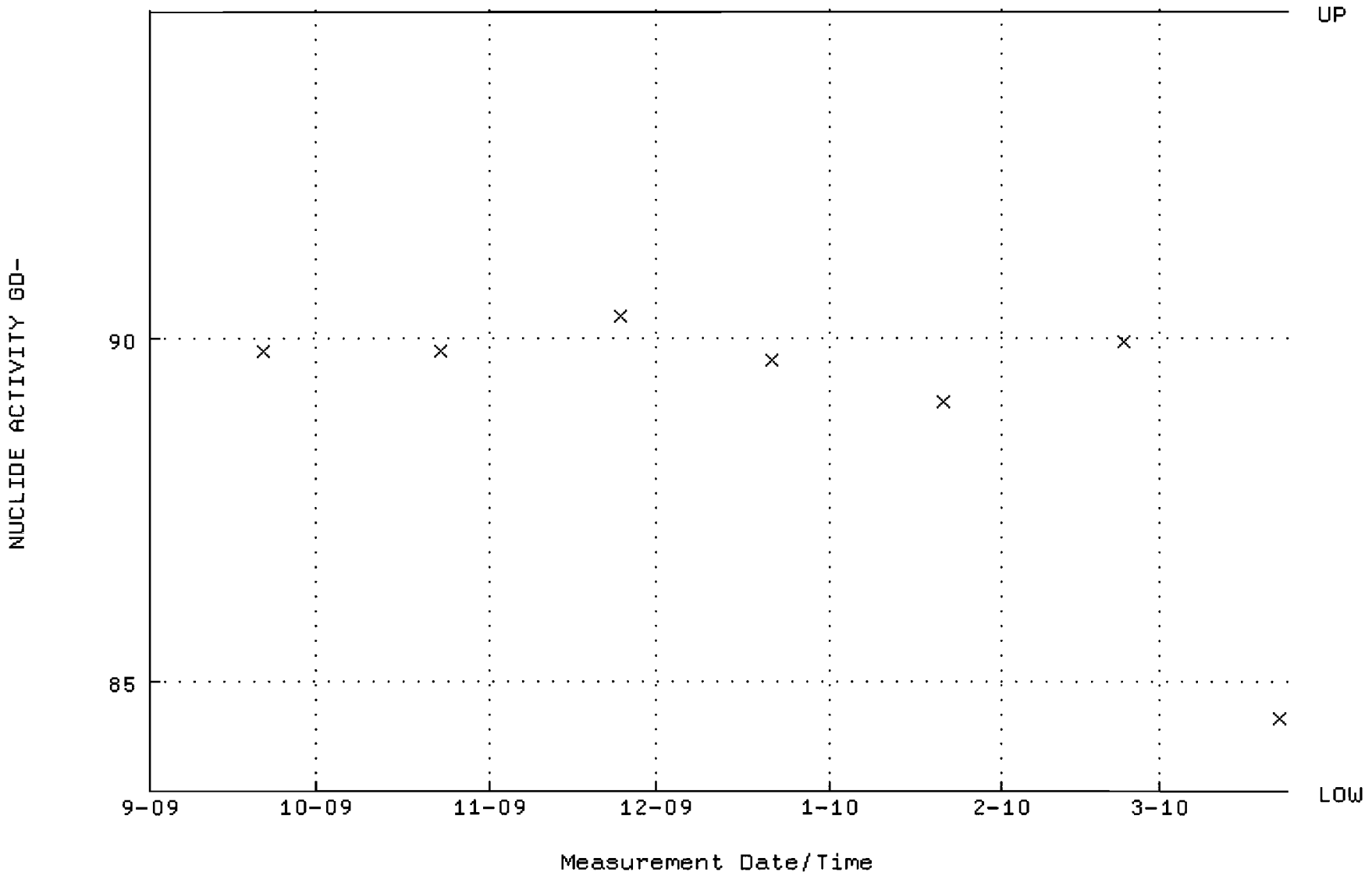

QA filename : DKA100:[ENV_ALPHA.QA.B]B174.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:12 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

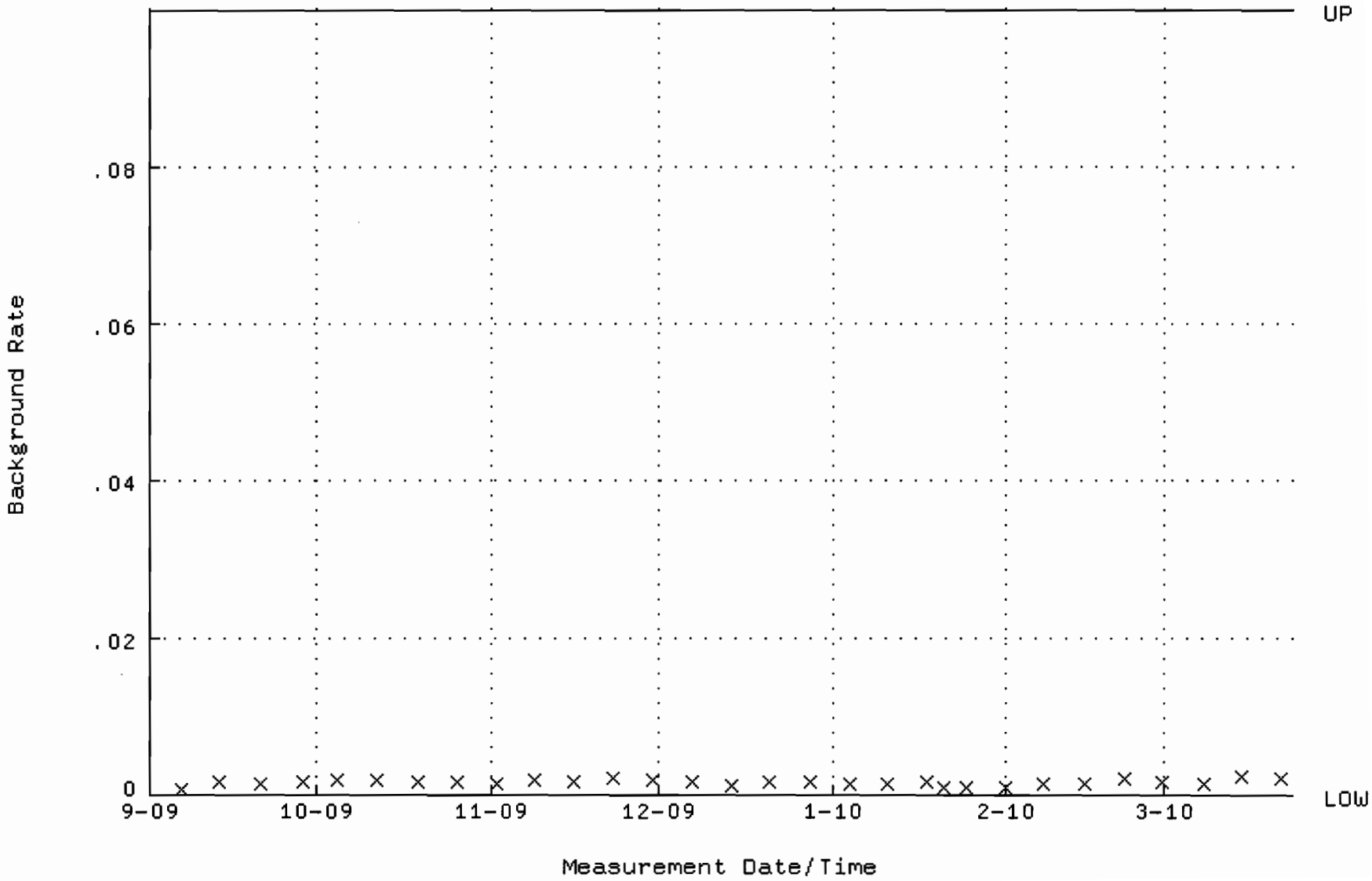

QA filename : DKA100:[ENV_ALPHA.QA.W]W177.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:03 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.259935 through 0.279935

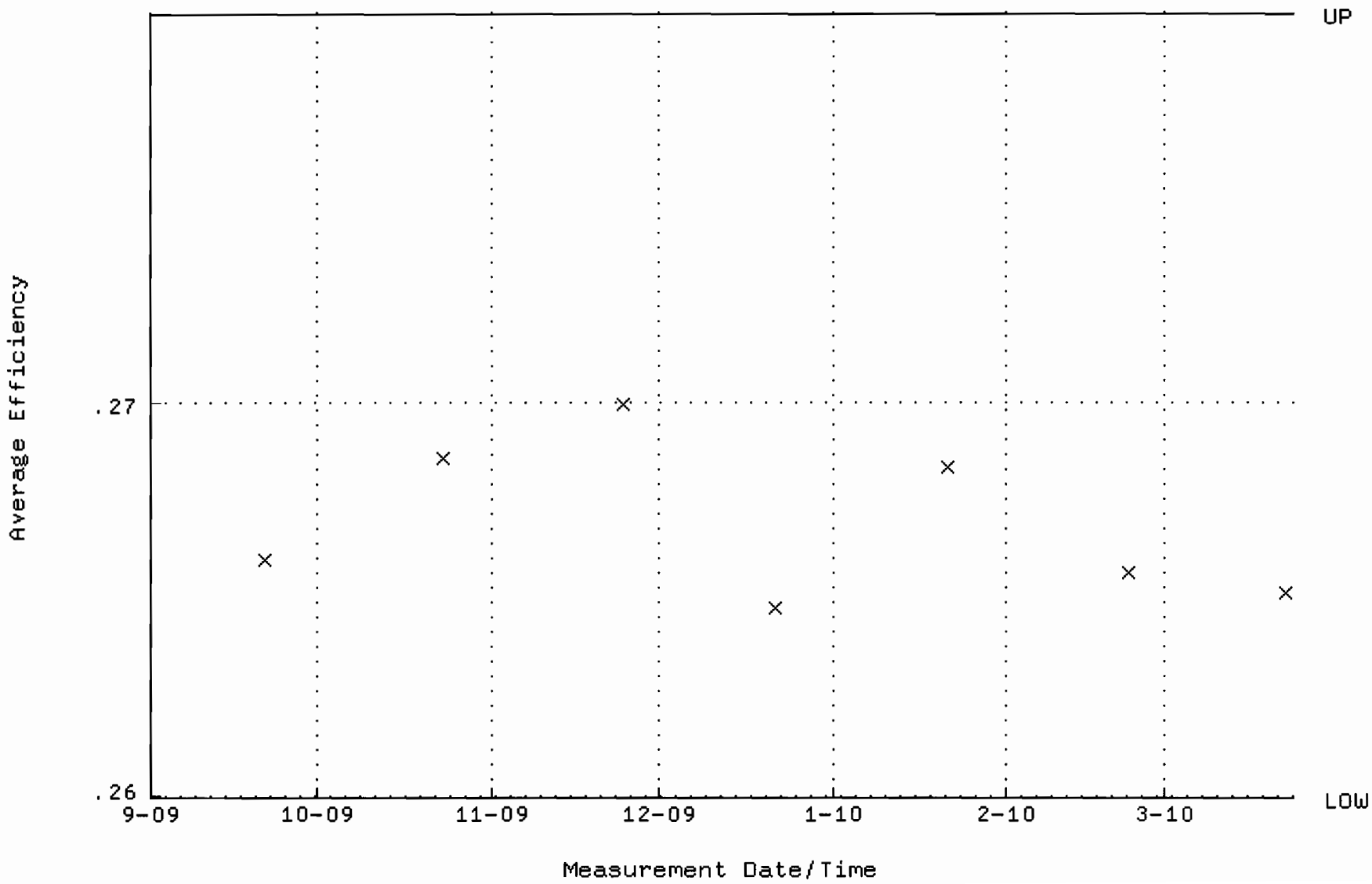

QA filename : DKA100:[ENV_ALPHA.QA.W]W177.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:03 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 86.4857 through 95.5895

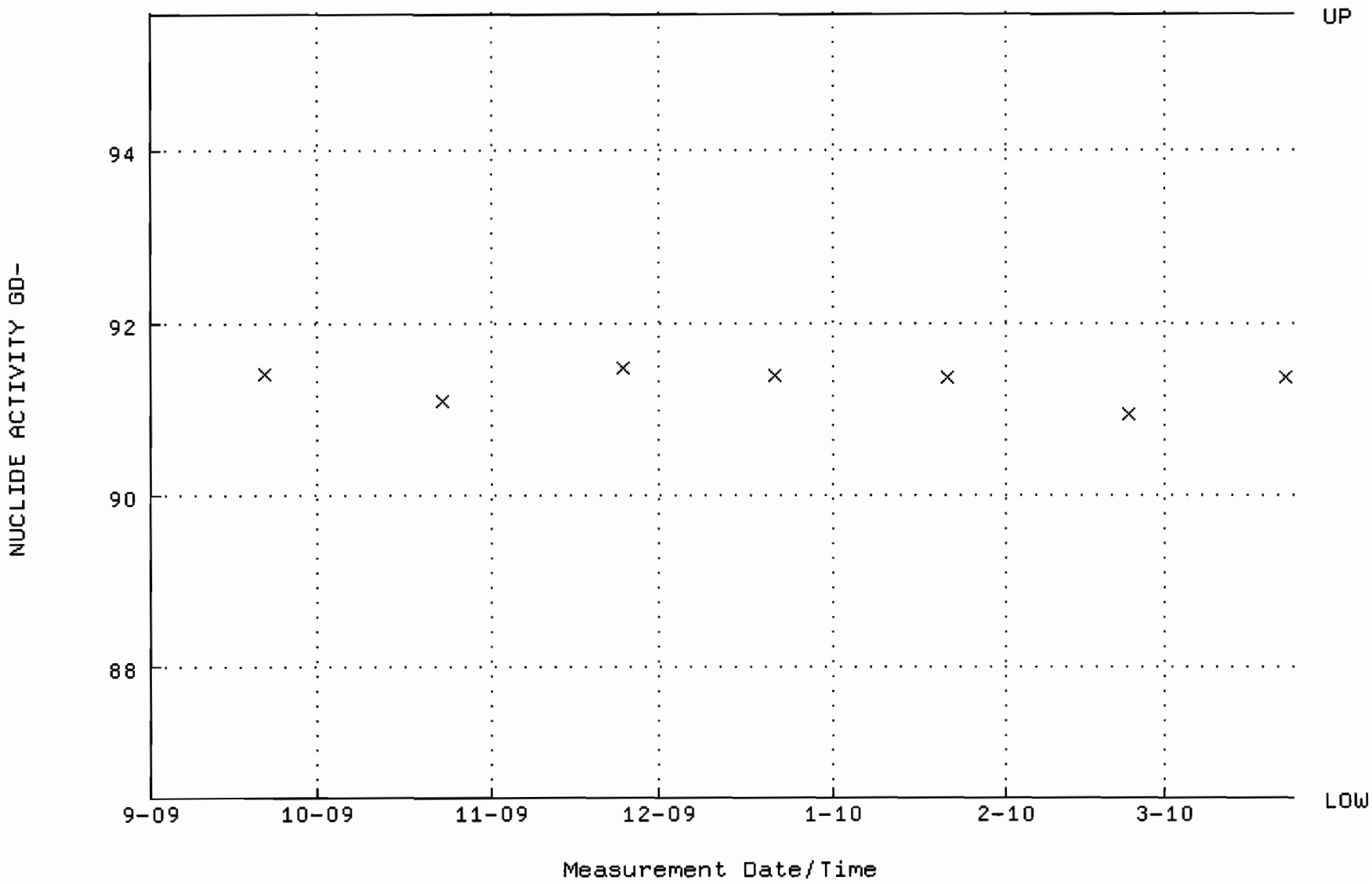

QA filename : DKA100:[ENV_ALPHA.QA.B]B177.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:25 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

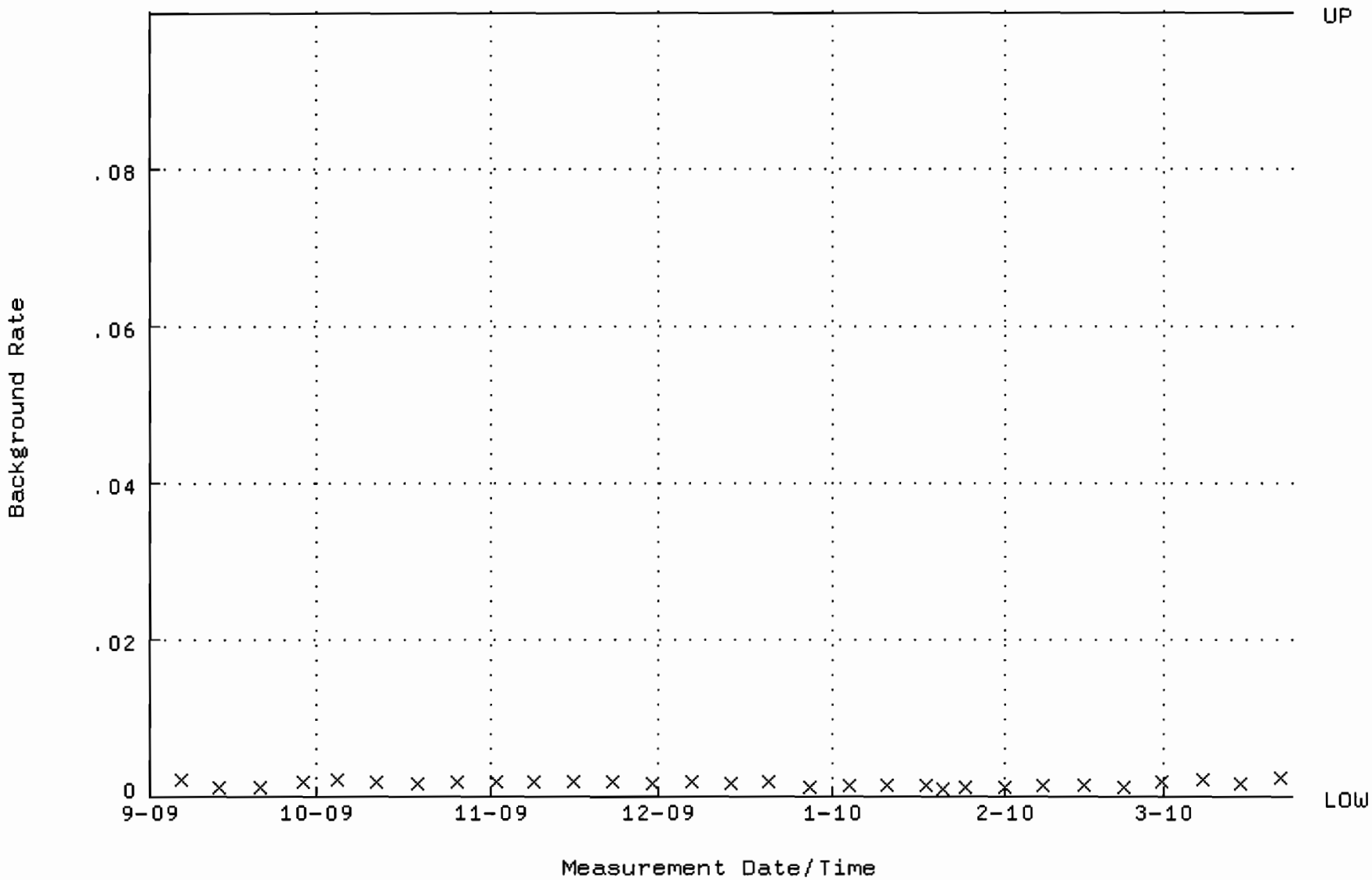

QA filename : DKA100:[ENV_ALPHA.QA.W]W178.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:10 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.249490 through 0.269490

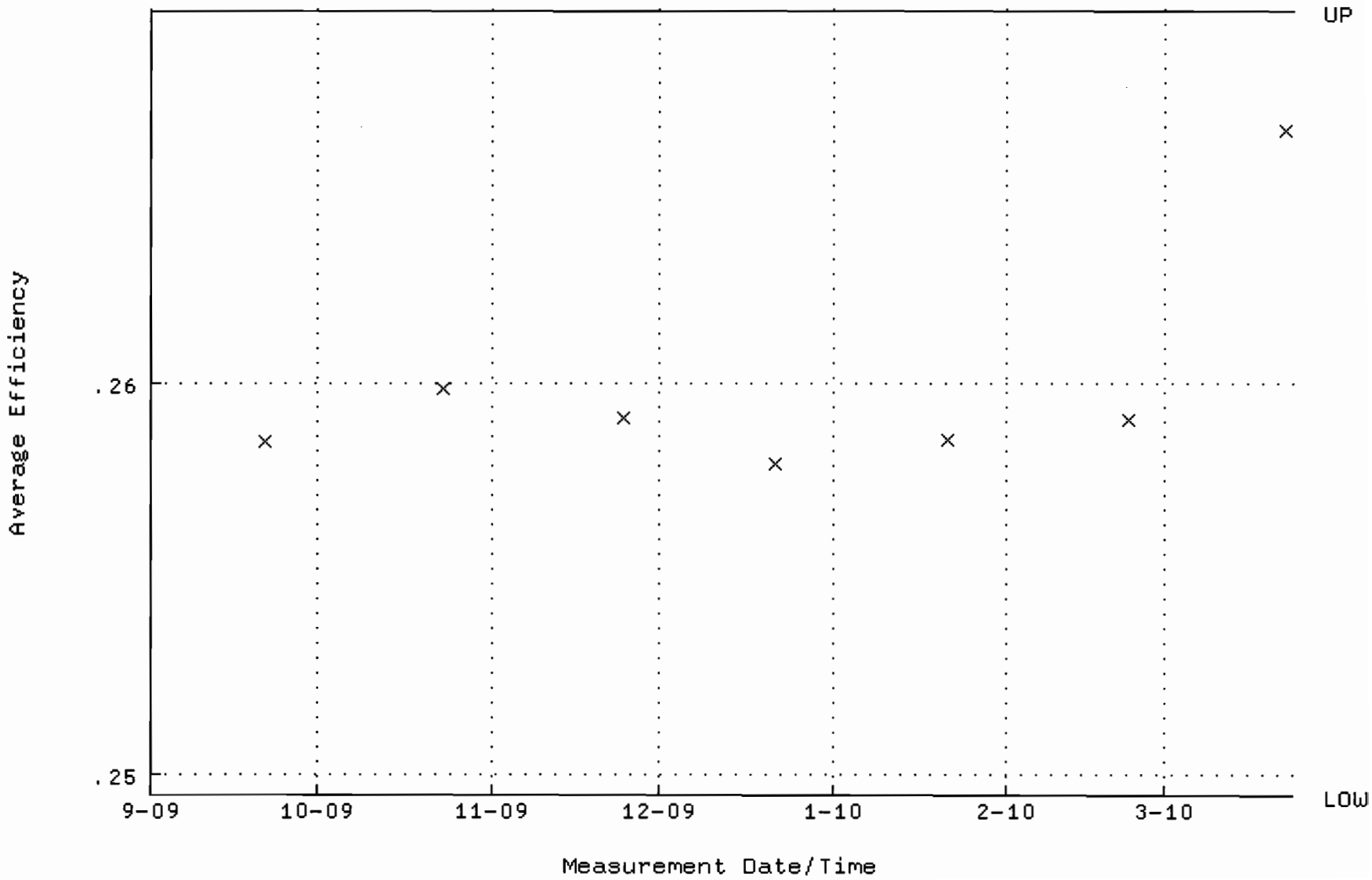

QA filename : DKA100:[ENV_ALPHA.QA.W]W178.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:10 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 88.5525 through 97.8739

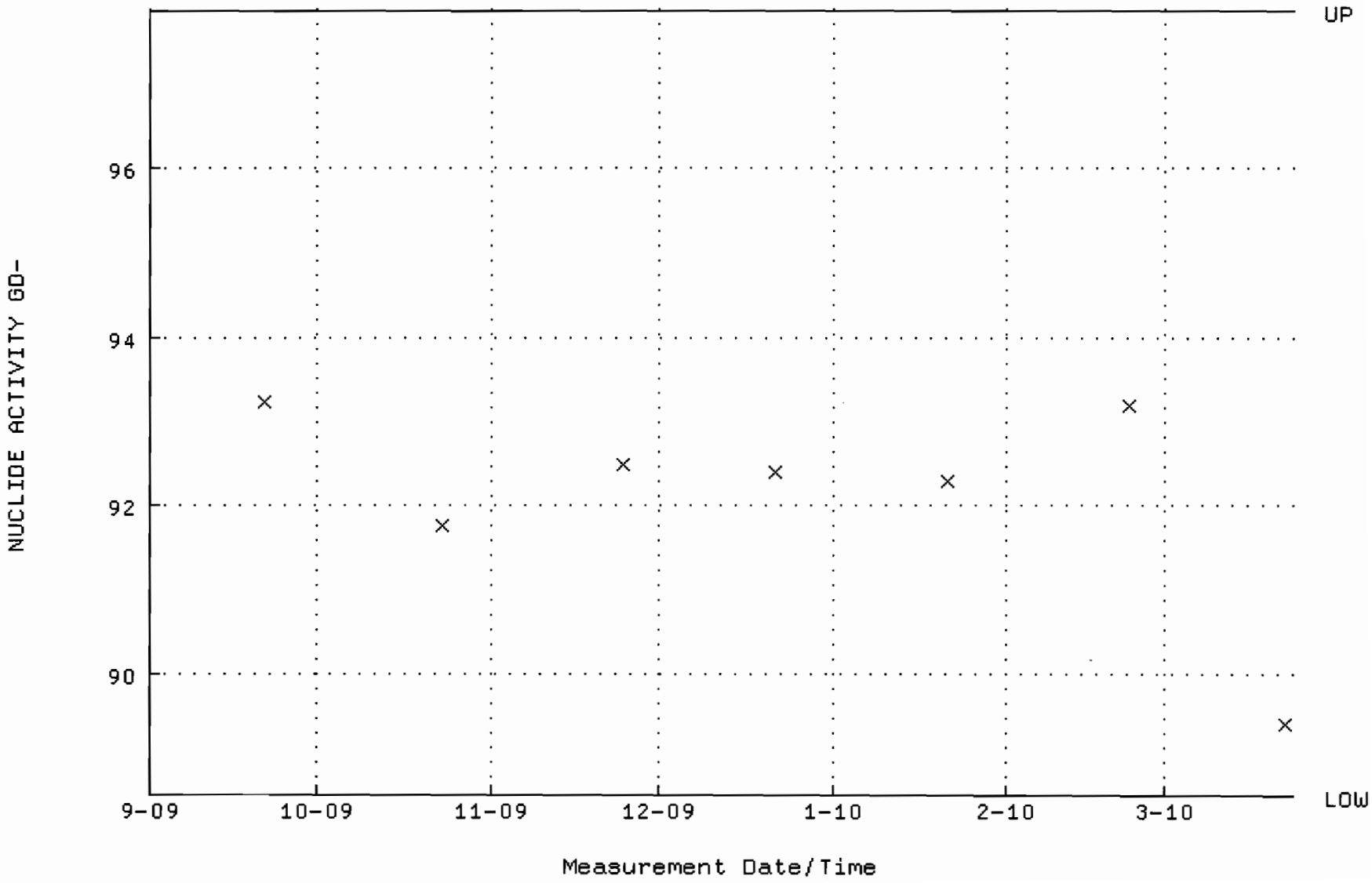

QA filename : DKA100:[ENV_ALPHA.QA.B]B178.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:29 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

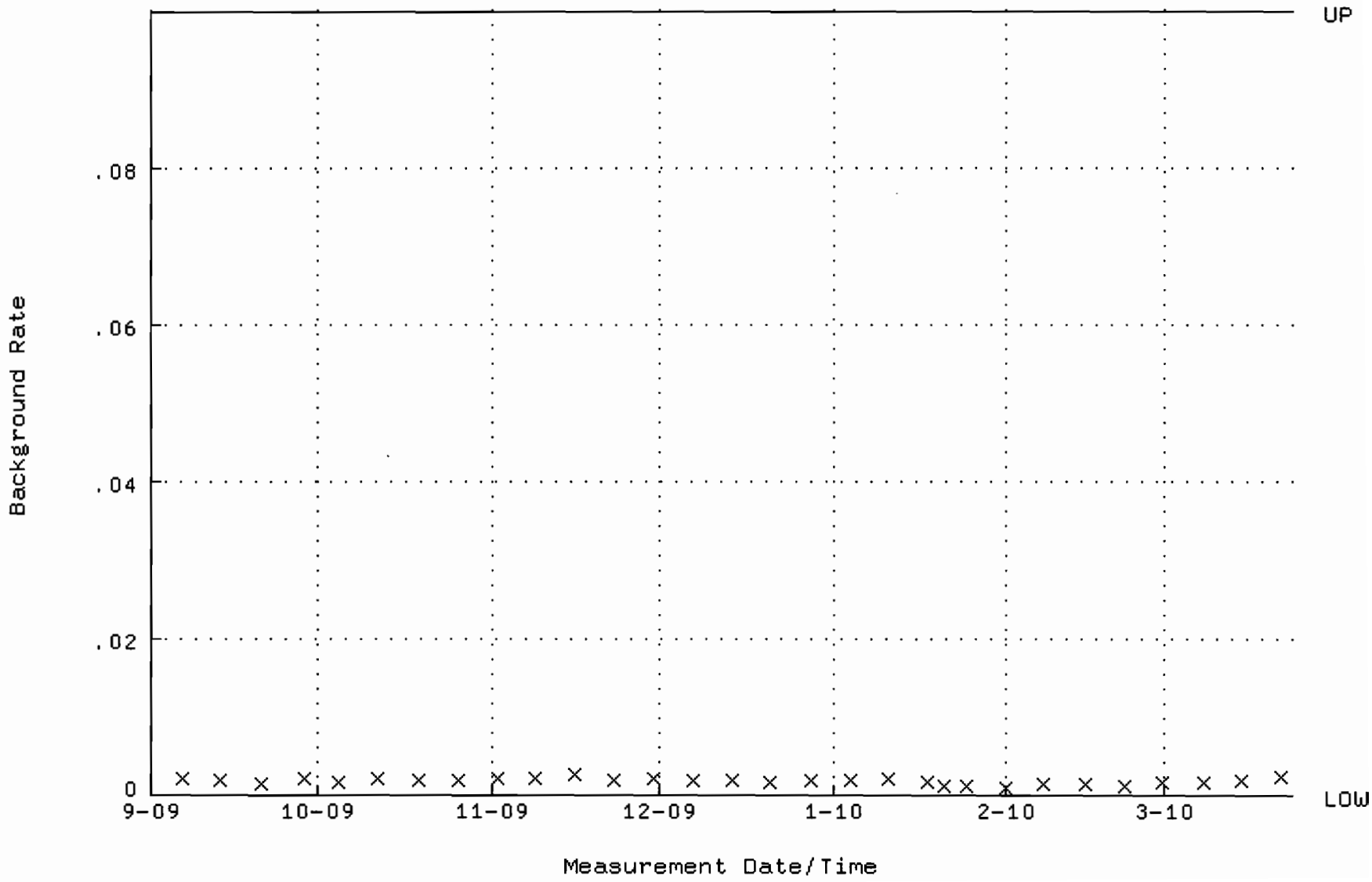

QA filename : DKA100:[ENV_ALPHA.QA.W]W179.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:16 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.256911 through 0.276911

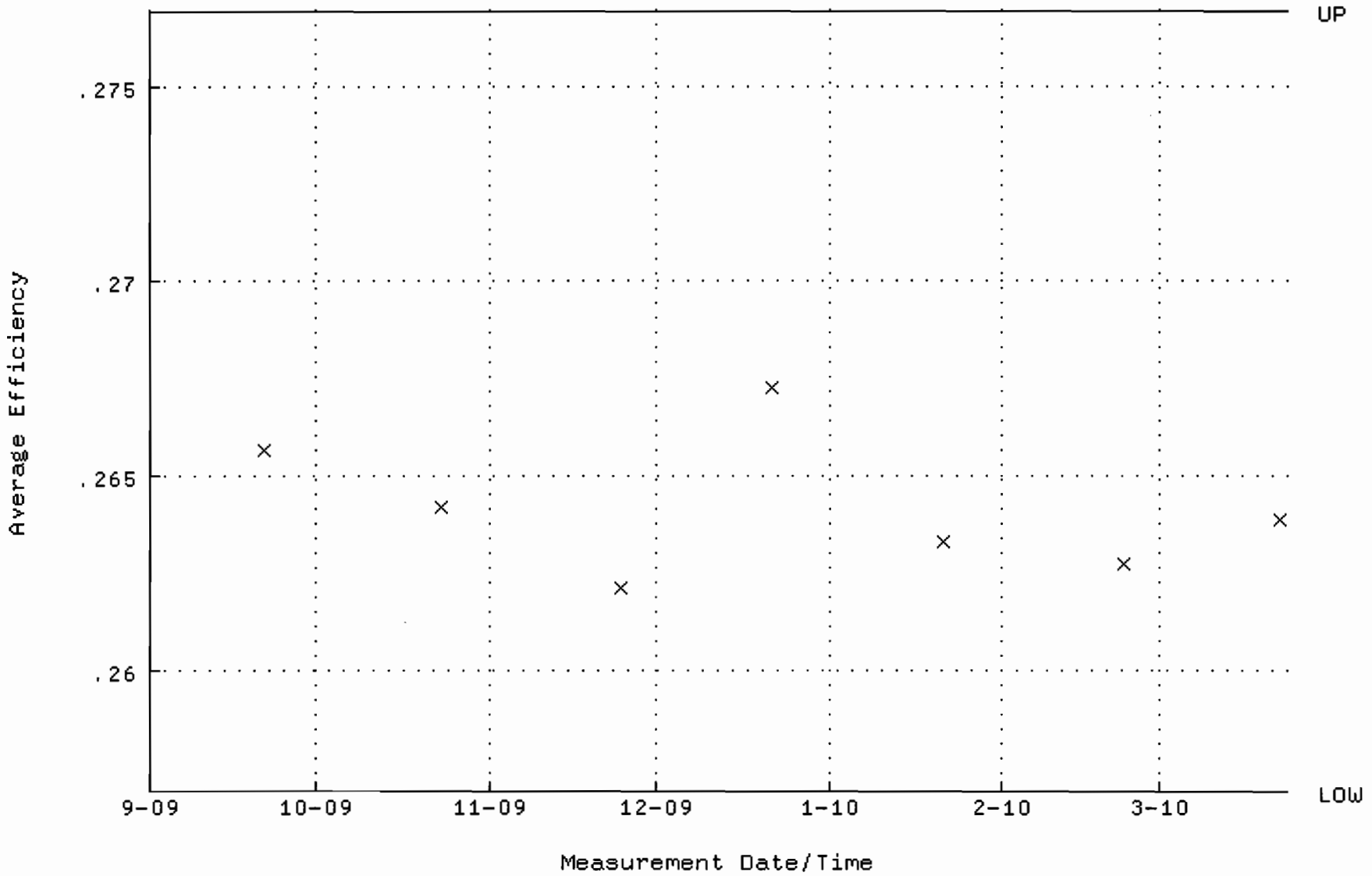

QA filename : DKA100:[ENV_ALPHA.QA.W]W179.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:16 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 86.7434 through 95.8742

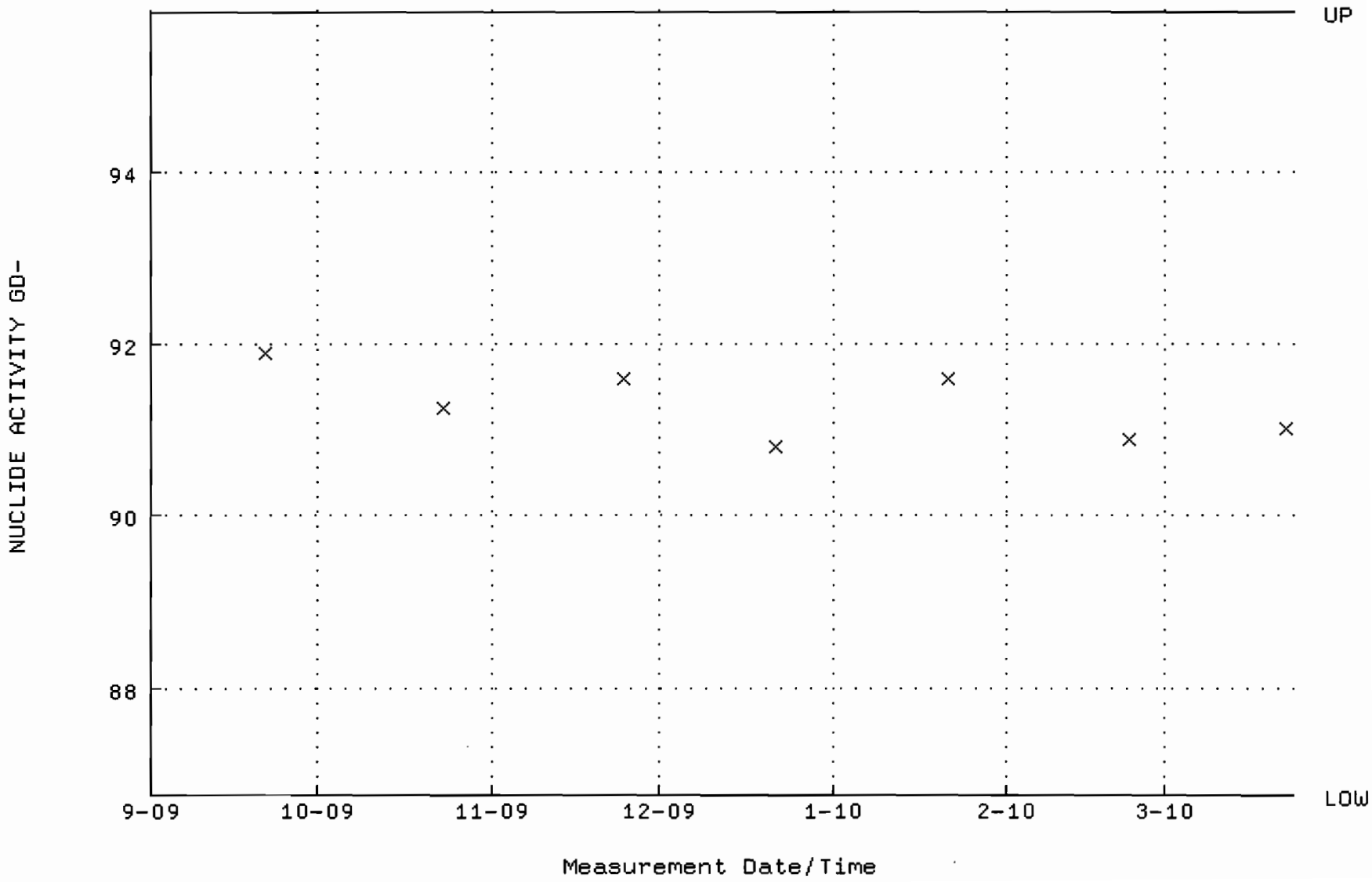

QA filename : DKA100:[ENV_ALPHA.QA.B]B179.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:34 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

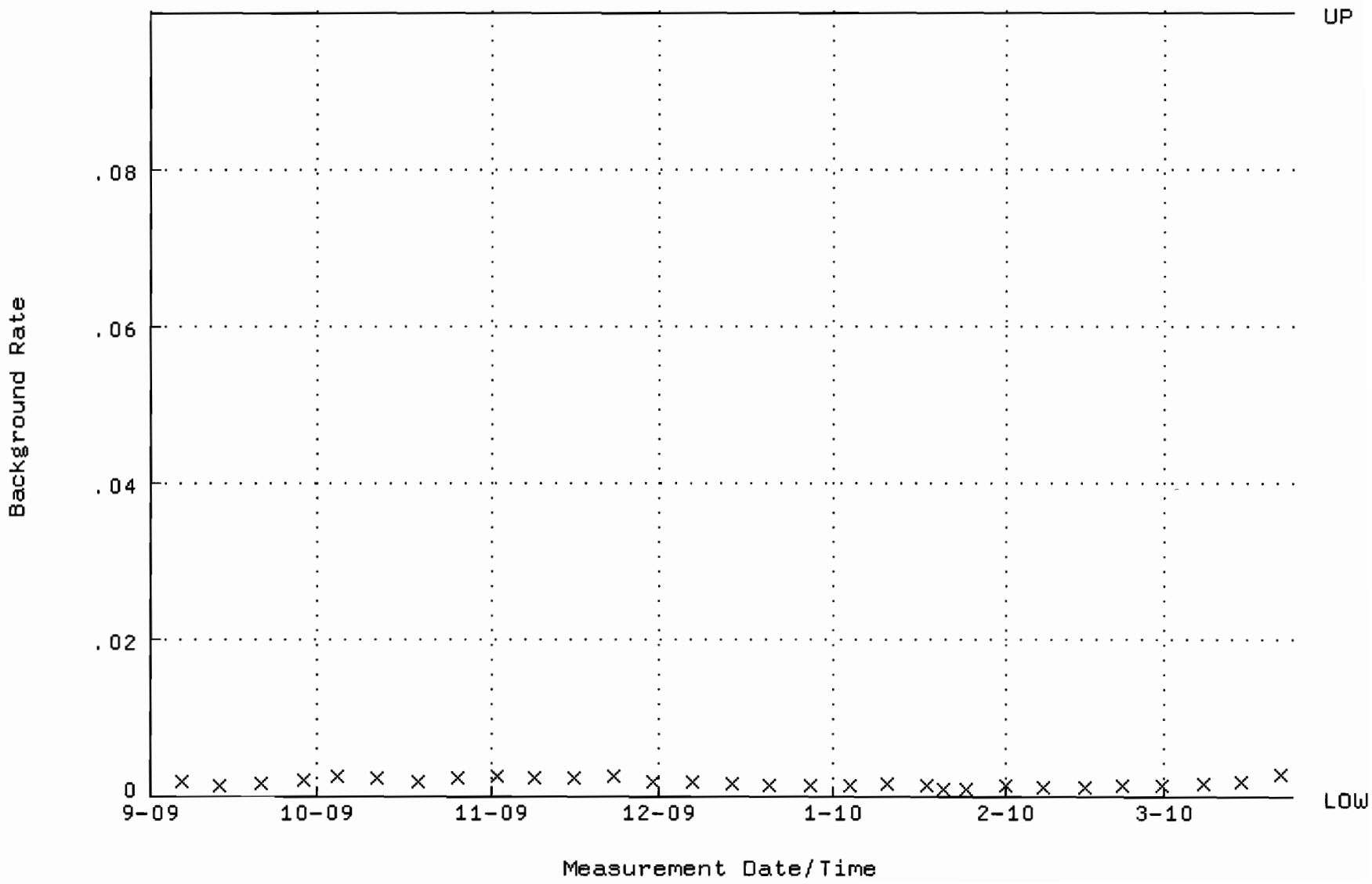

QA filename : DKA100:[ENV_ALPHA.QA.W]W187.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:03 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.237106 through 0.271130

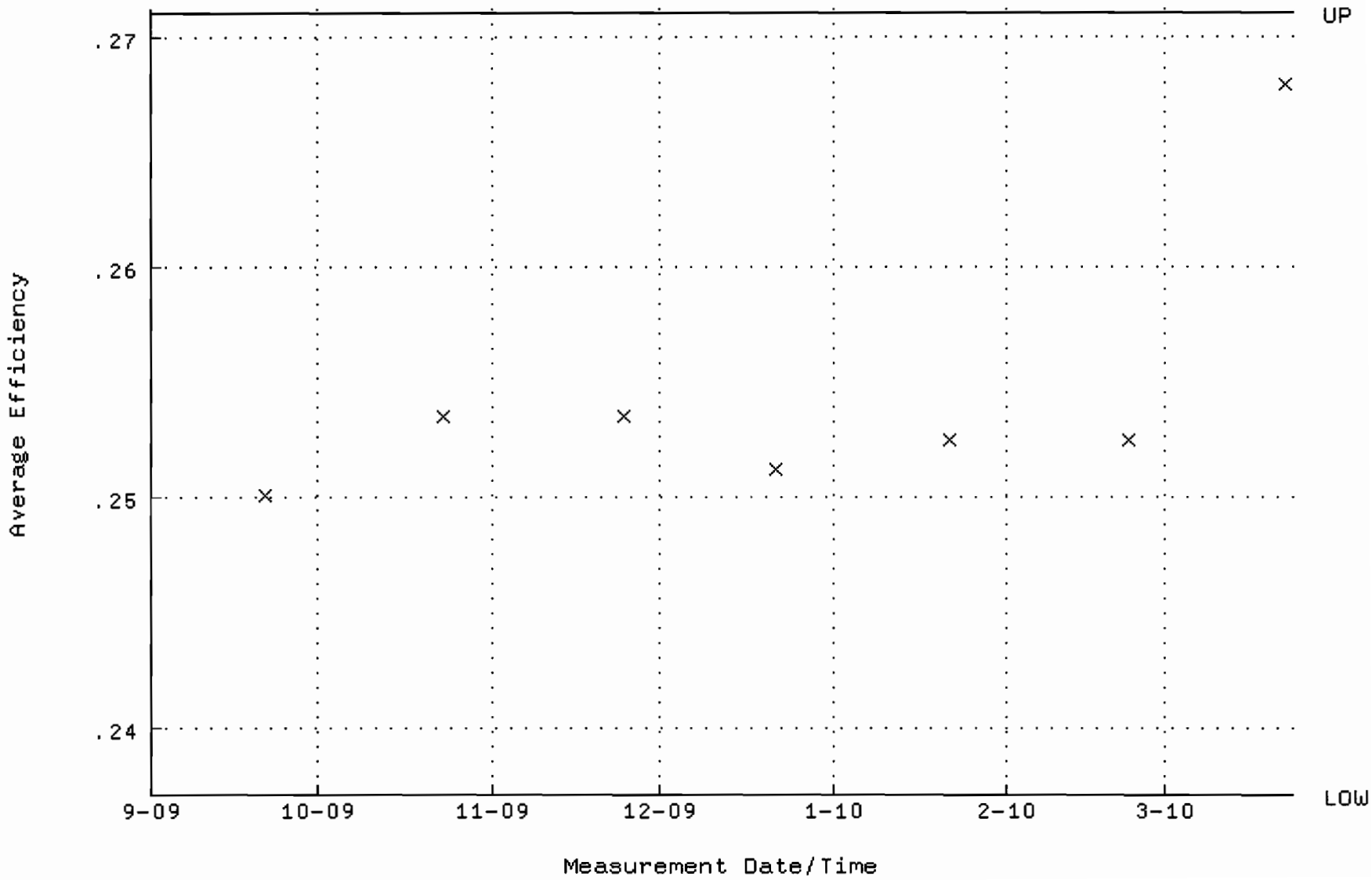

QA filename : DKA100:[ENV_ALPHA.QA.W]W187.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:03 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 88.8925 through 91.3089

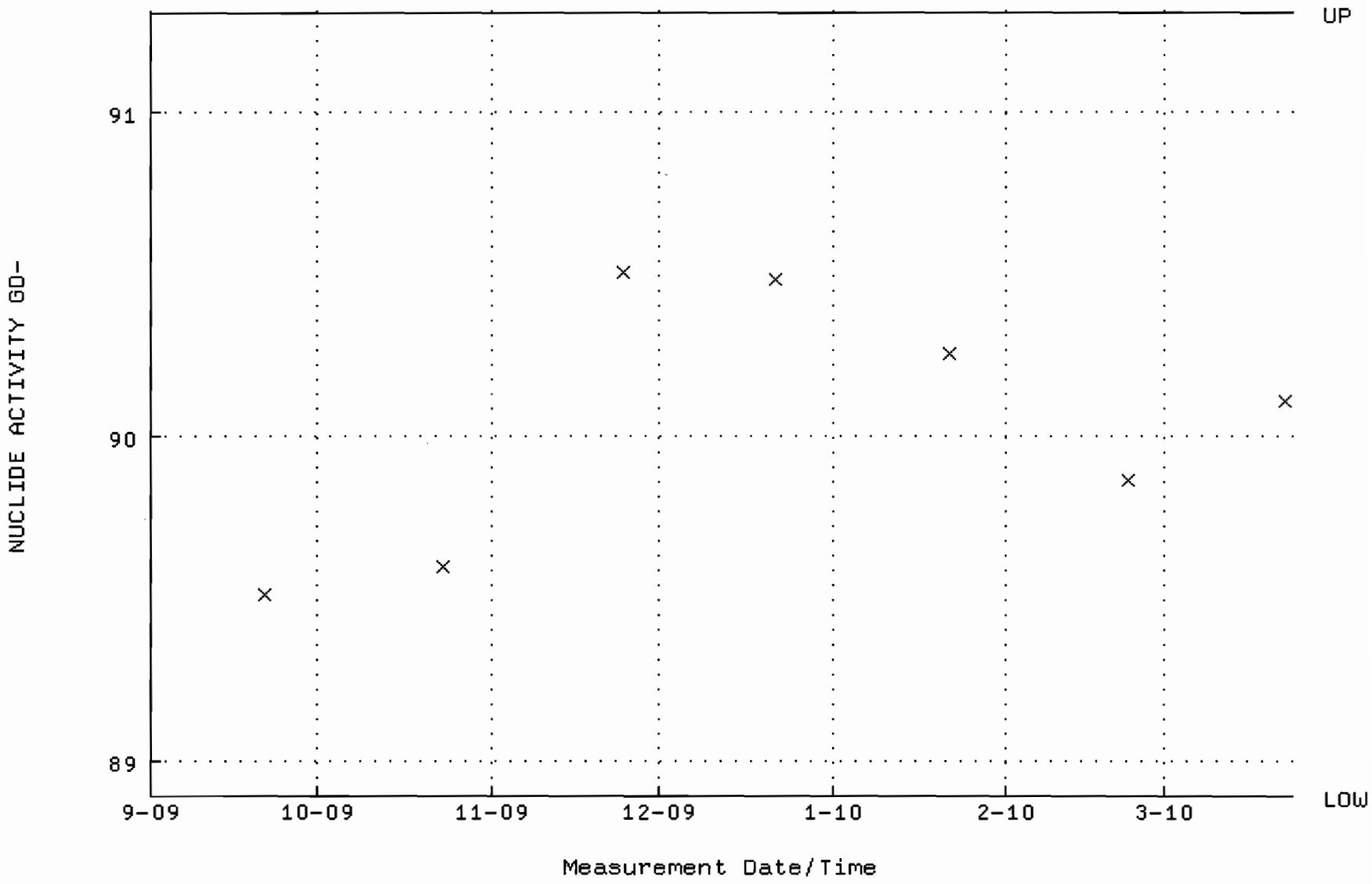

QA filename : DKA100:[ENV_ALPHA.QA.B]B187.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:11 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

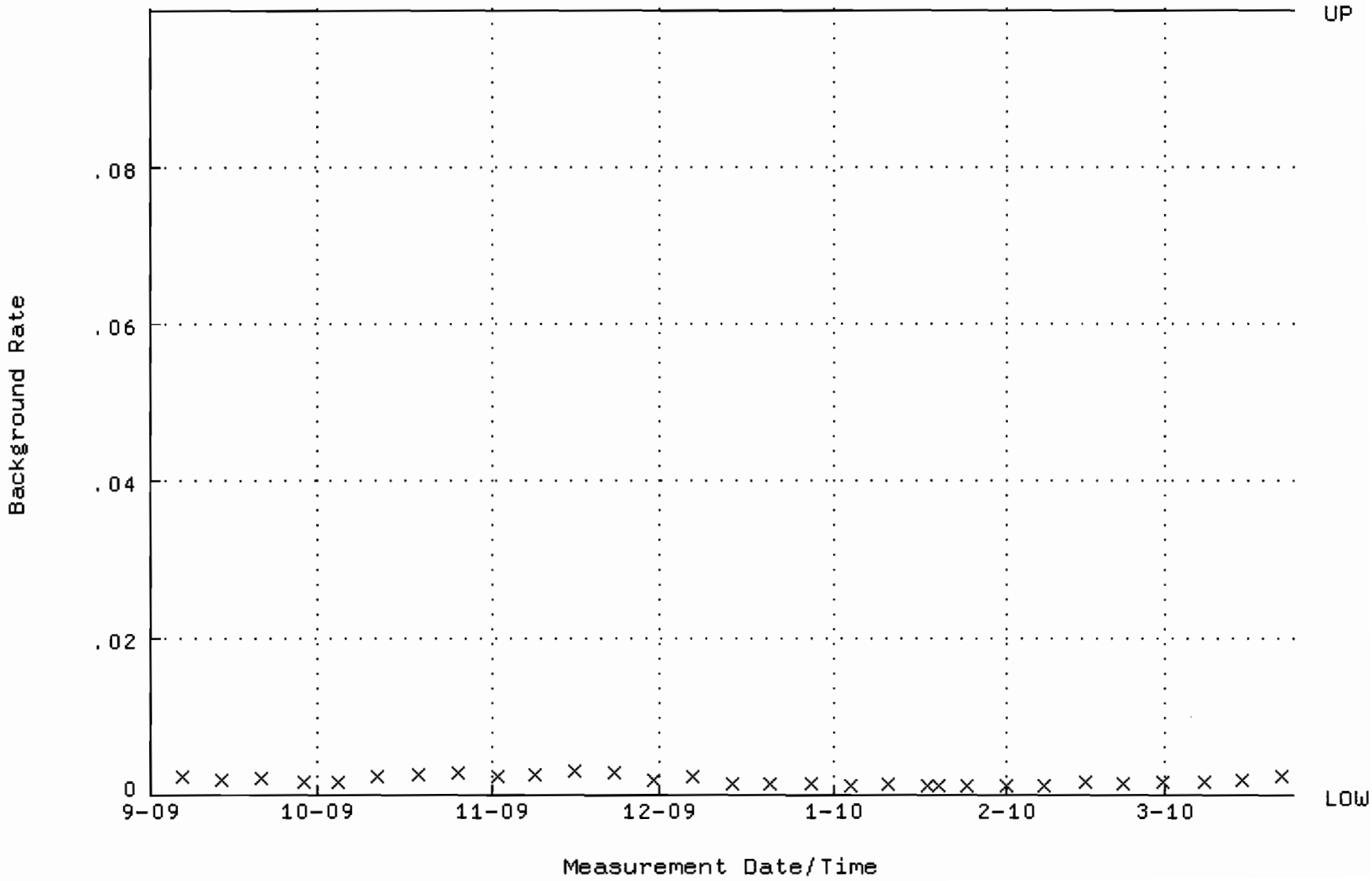

QA filename : DKA100:[ENV_ALPHA.QA.W]W189.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:15 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.251590 through 0.271590

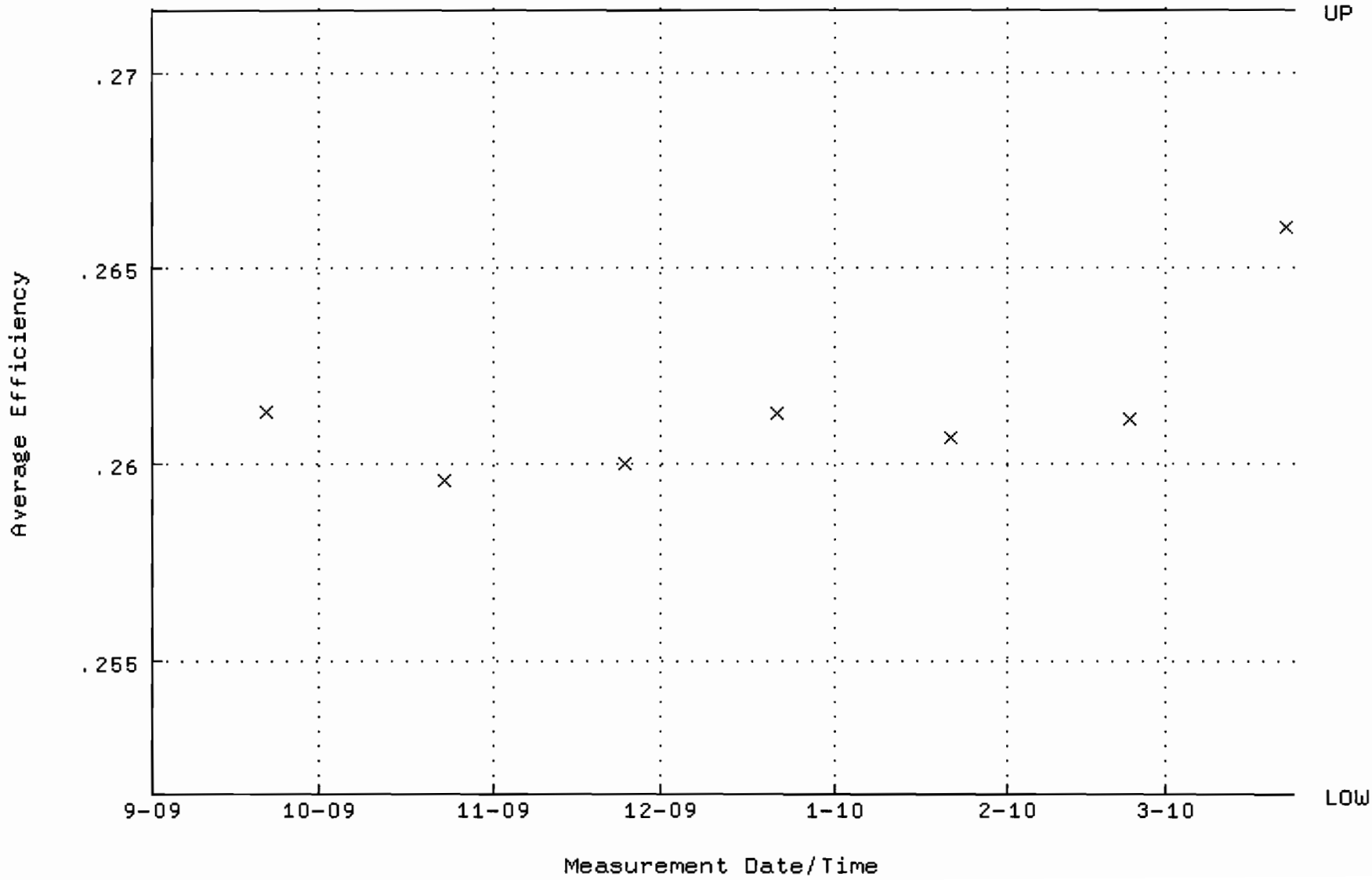

QA filename : DKA100:[ENV_ALPHA.QA.W]W189.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:15 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 81.7473 through 90.3523

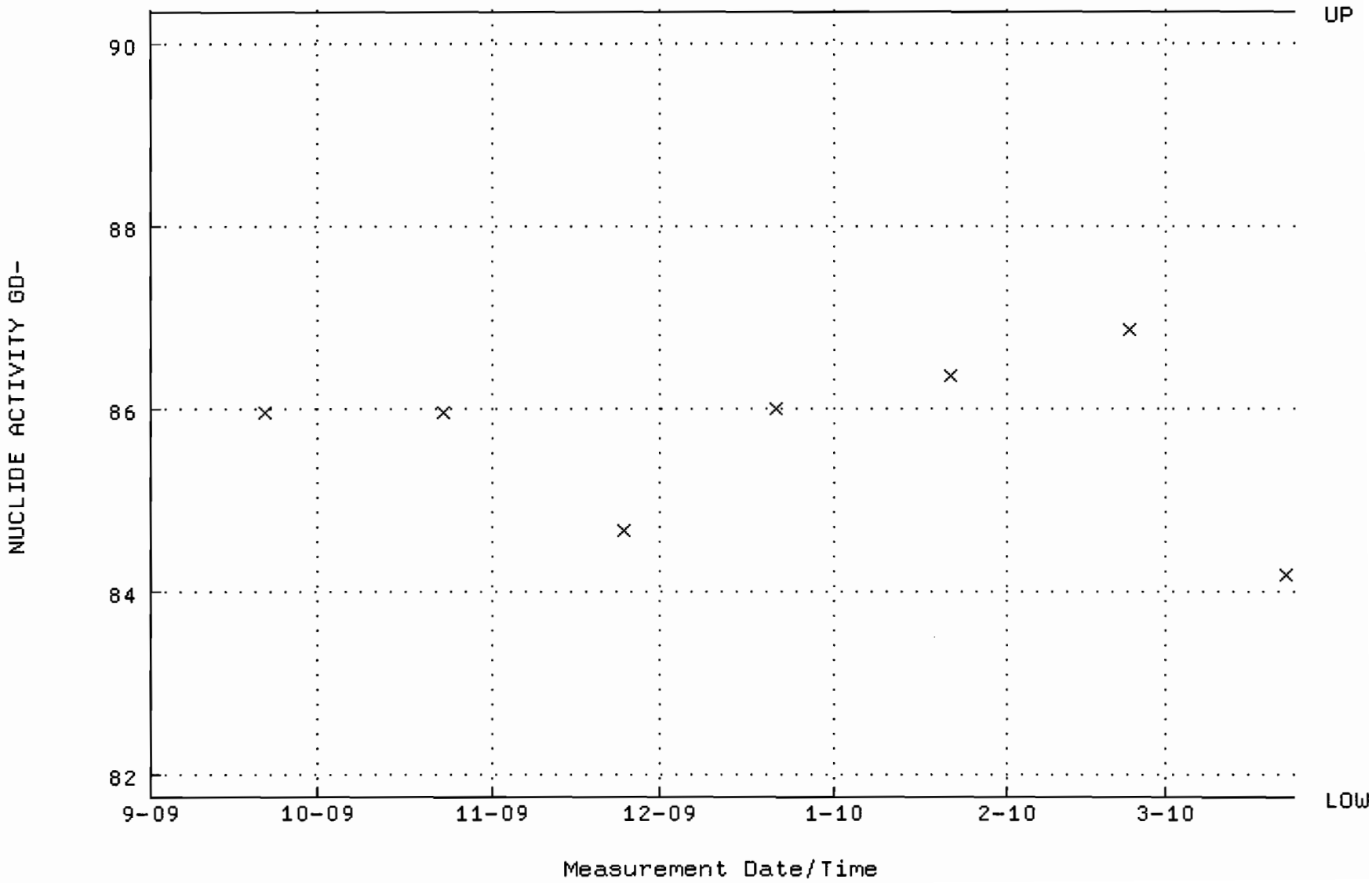

QA filename : DKA100:[ENV_ALPHA.QA.B]B189.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:20 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

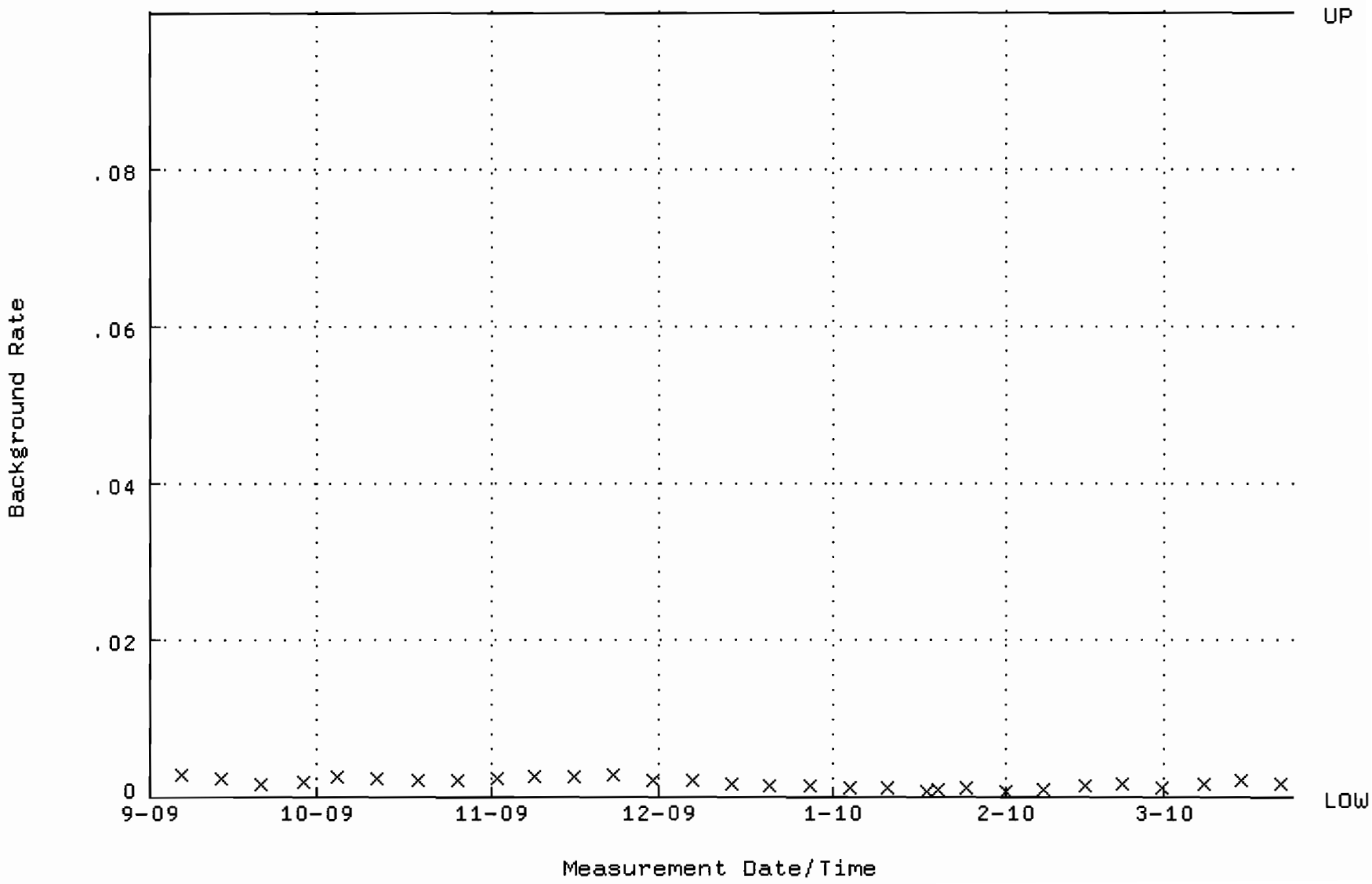

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_500MLMB.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 2-OCT-2009 10:01:56 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

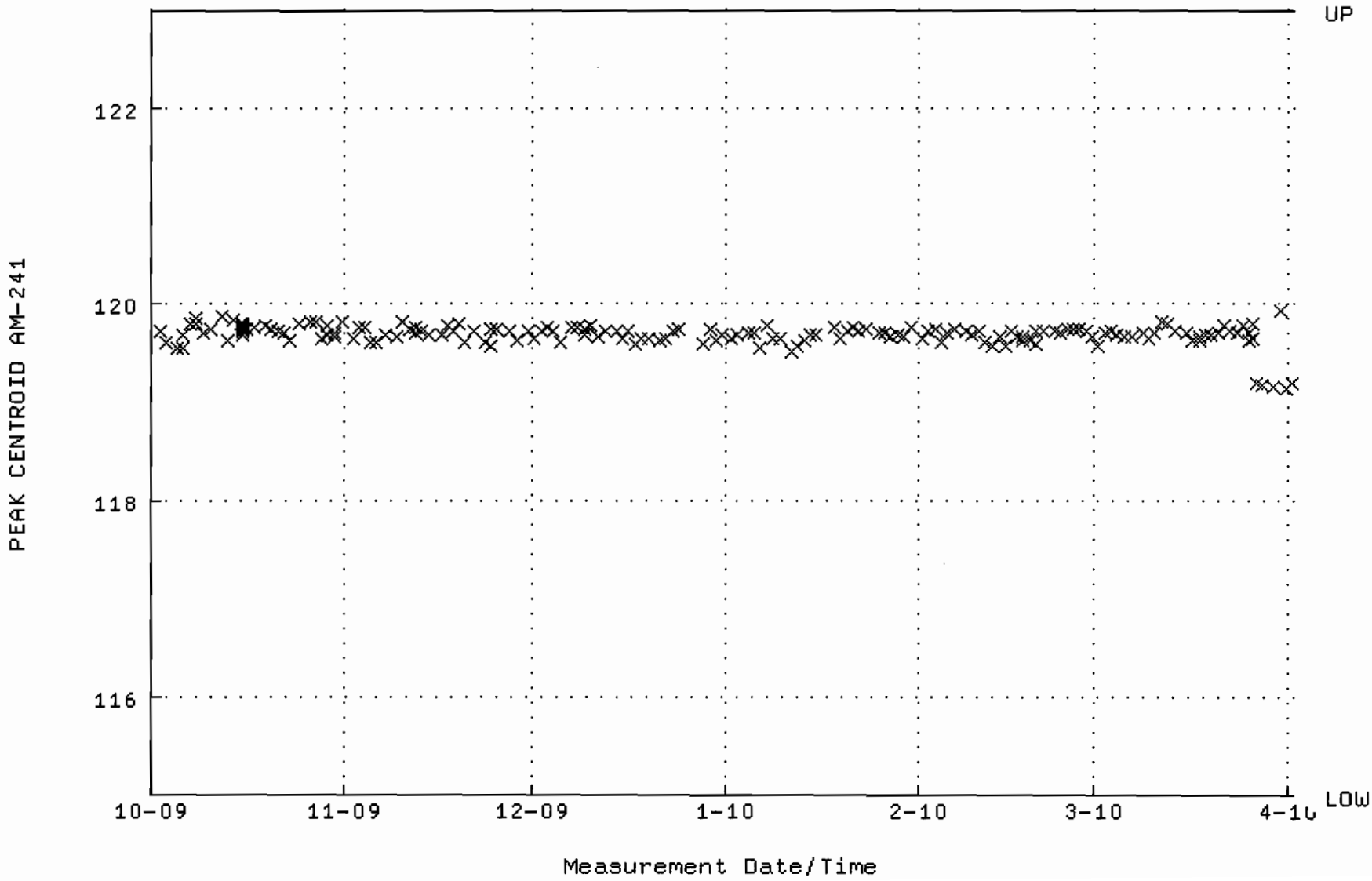

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM01.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 4-OCT-2009 12:43:56 through 1-APR-2010 12:00:00
Mean +- Std Dev : 1.75722 +- 1.751785E-02 (1.00 %)

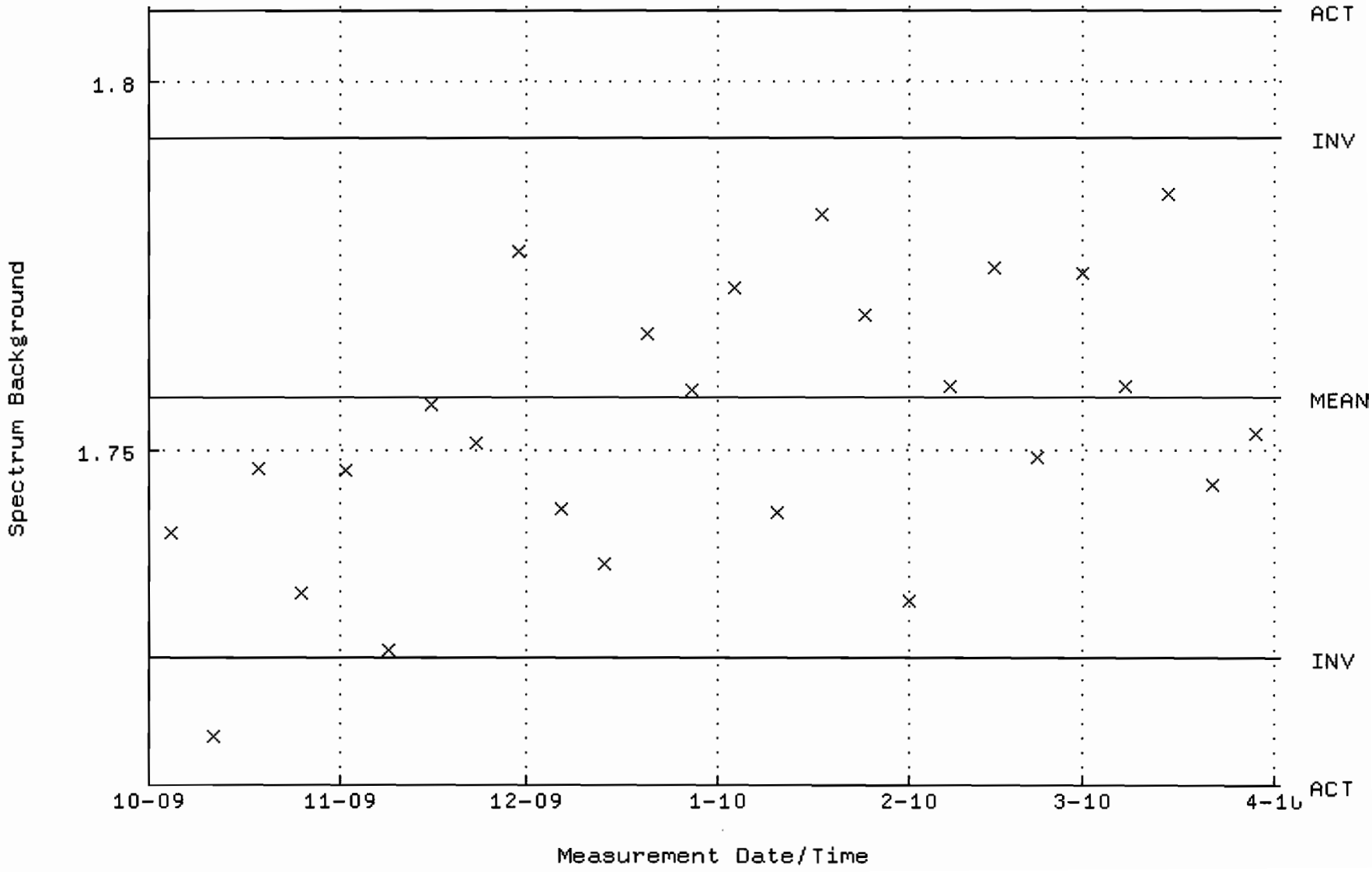

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM04_CAN.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 2-OCT-2009 04:59:16 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

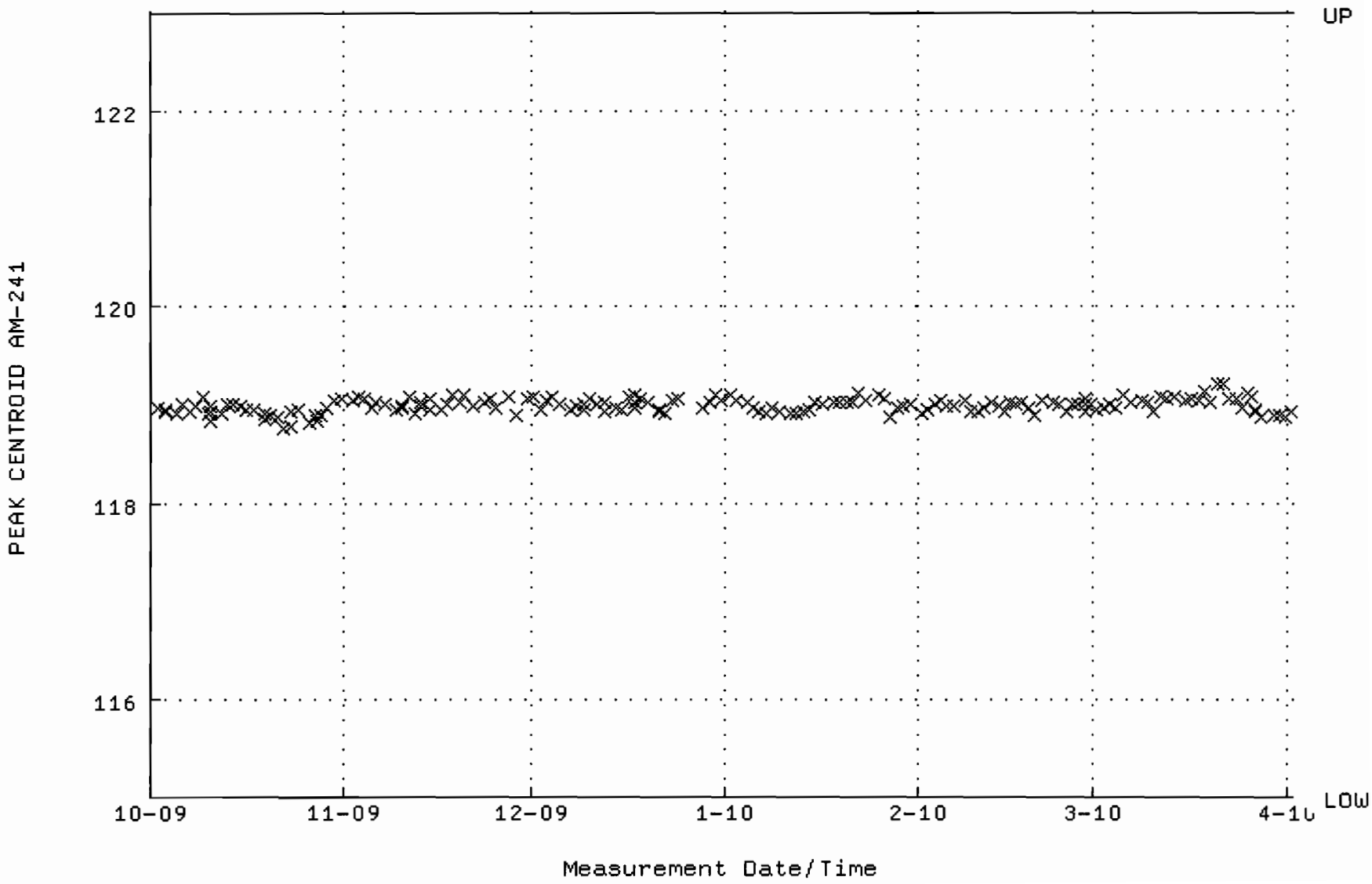

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM04.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 4-OCT-2009 12:45:35 through 1-APR-2010 12:00:00
Mean +- Std Dev : 1.31668 +- 1.420348E-02 (1.08 %)

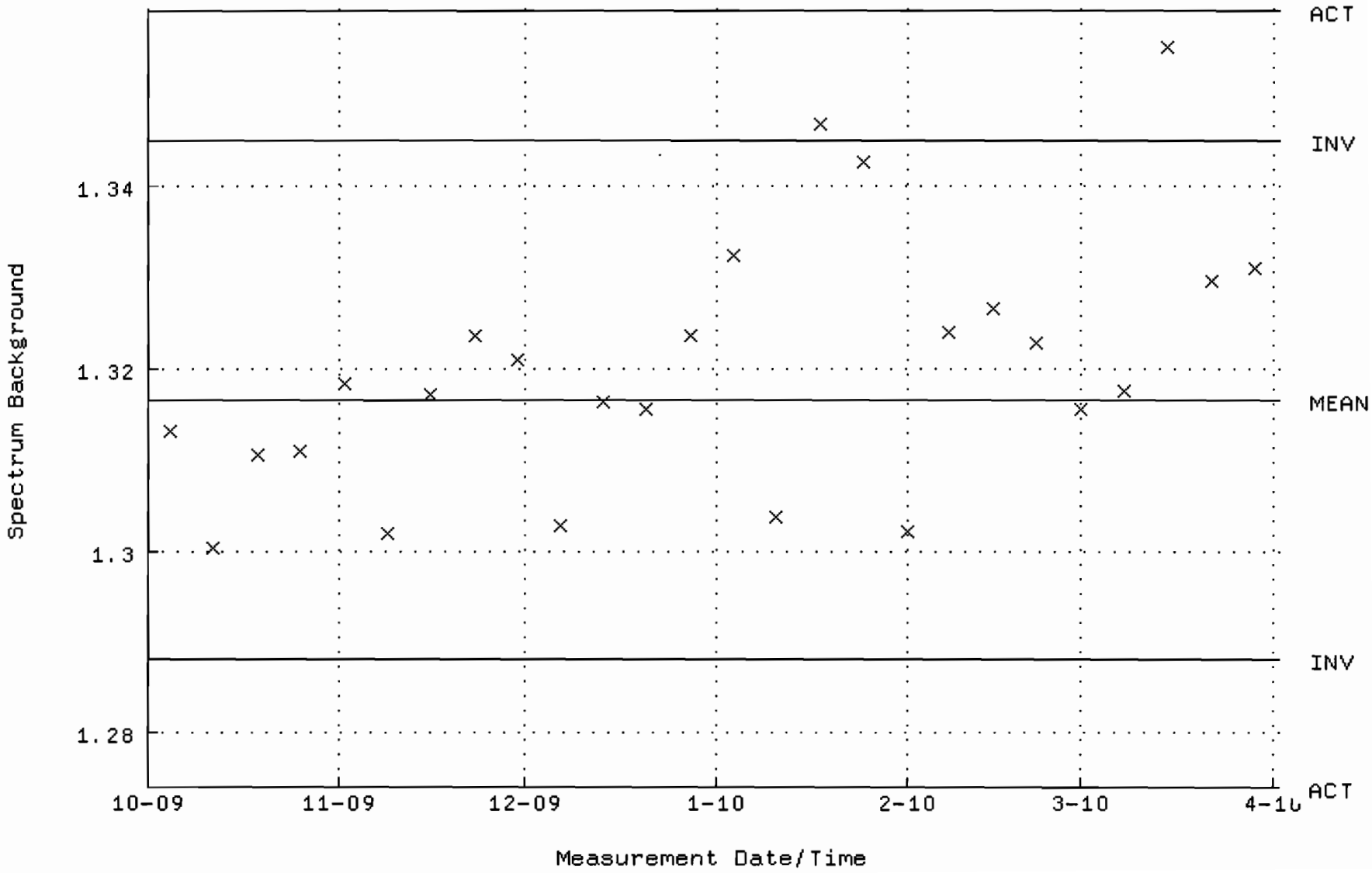

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM06_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:40:19 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

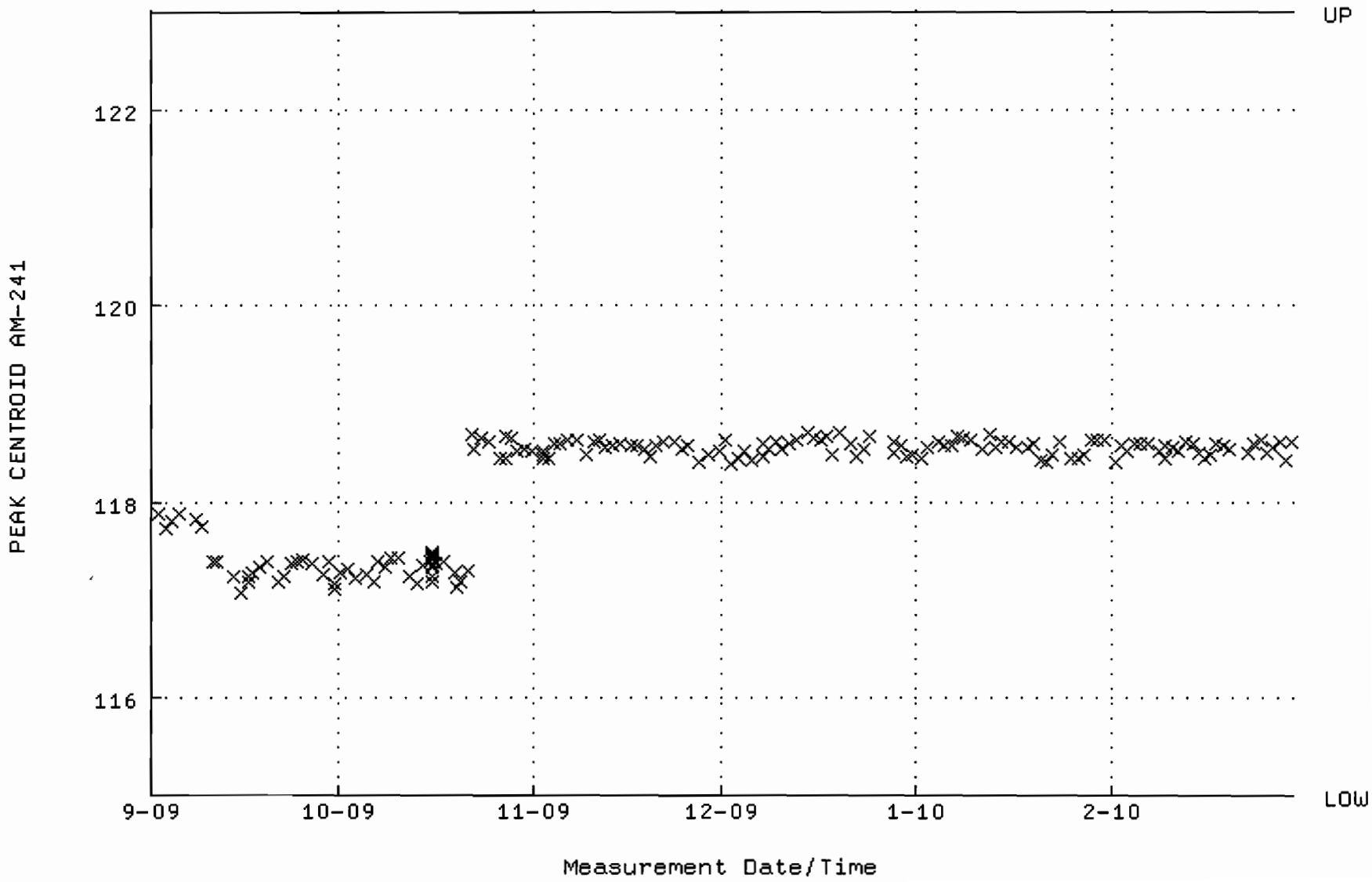

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM06.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:39:28 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.52603 +- 1.215987E-02 (0.80 %)

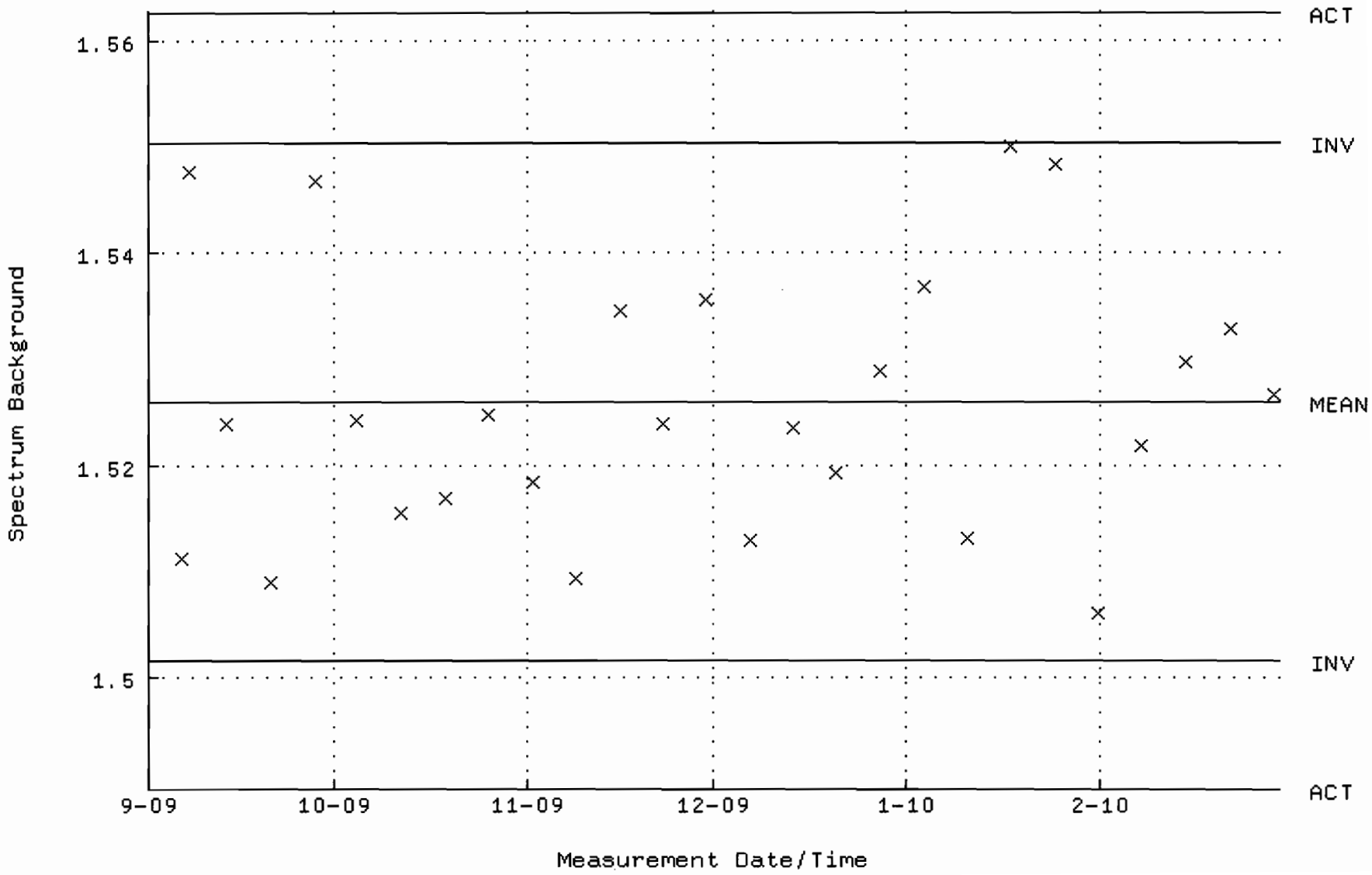

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM07_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:09:02 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

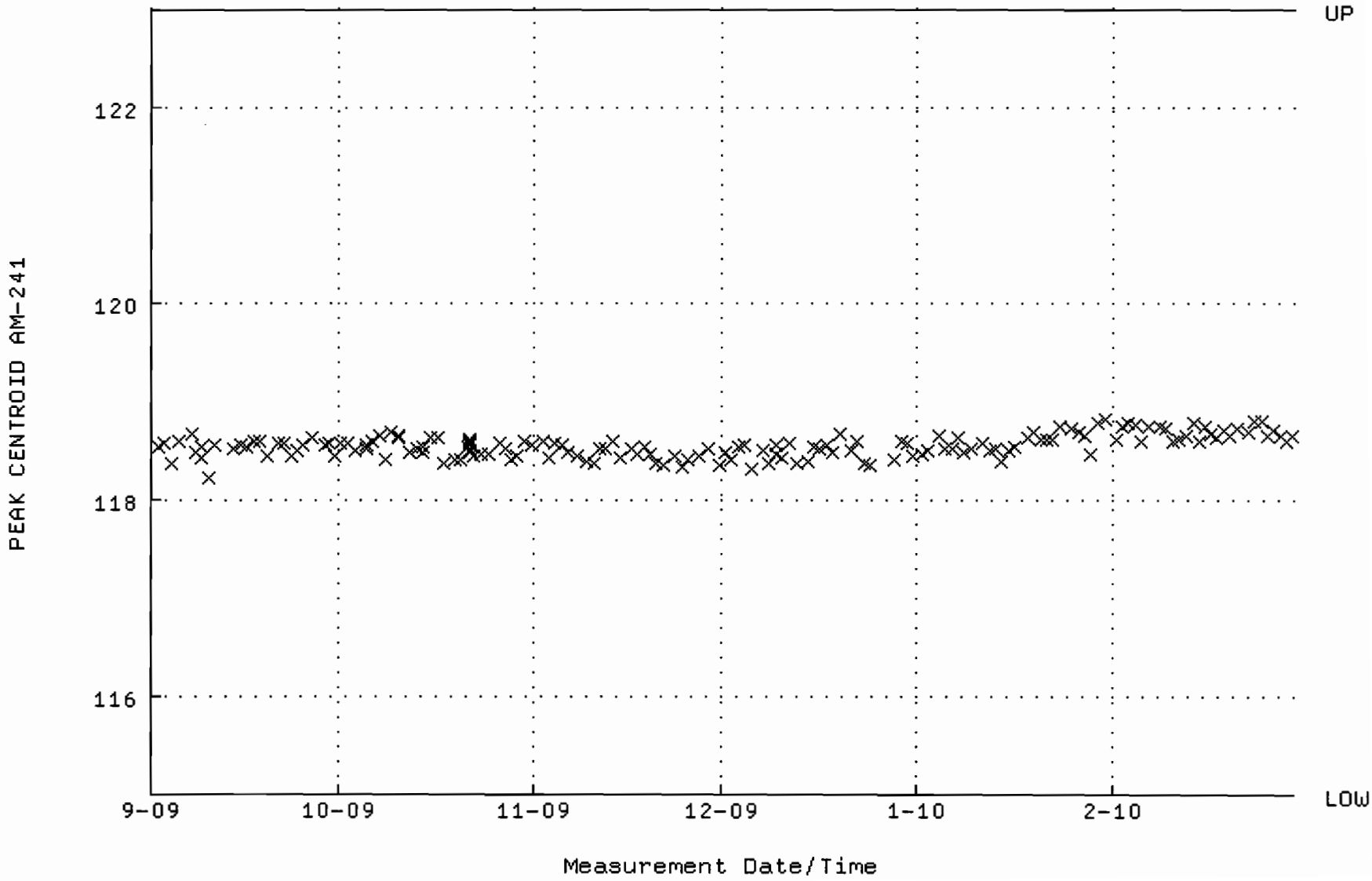

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM07.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:39:54 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.51715 +- 2.726376E-02 (1.80 %)

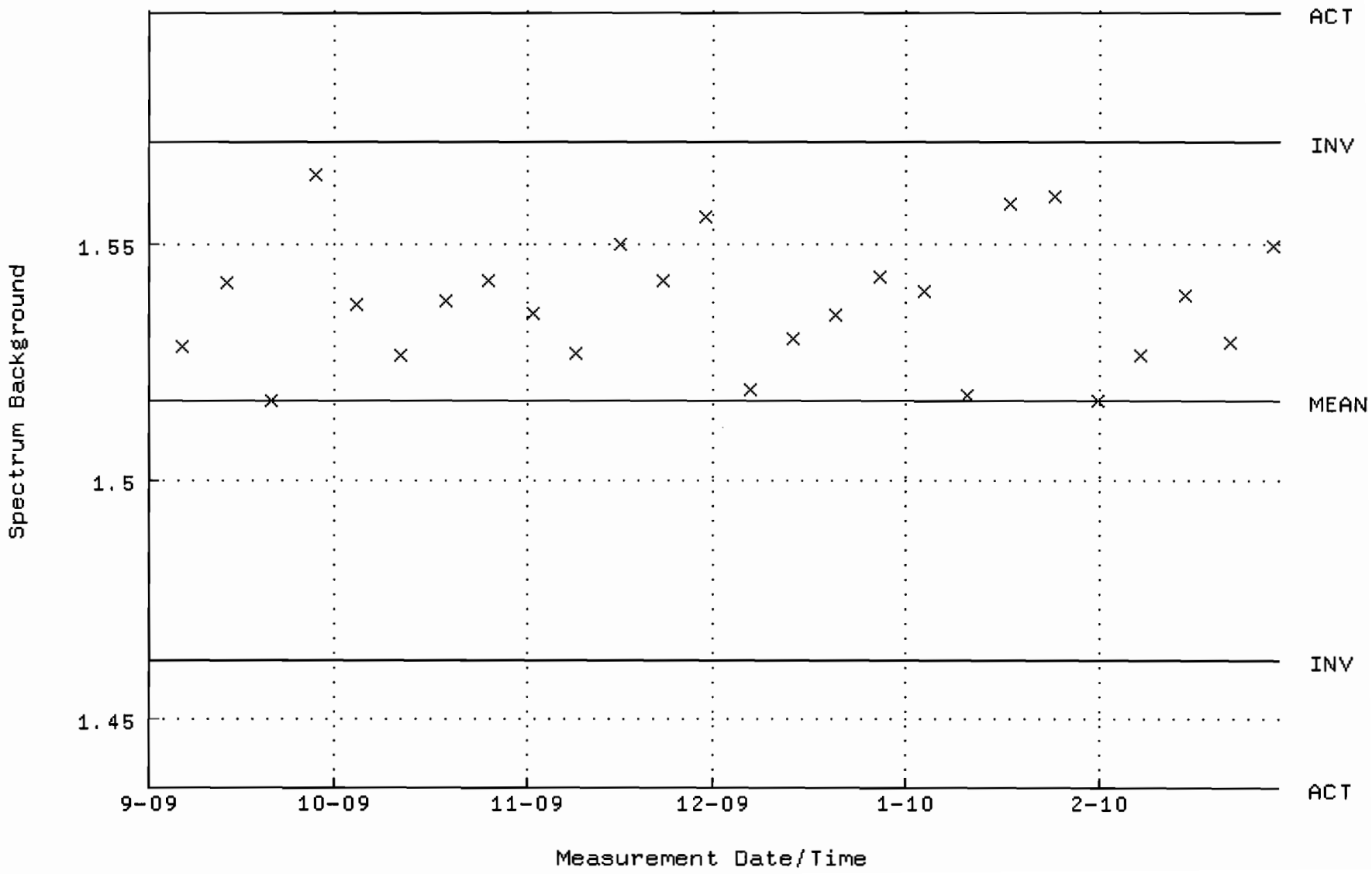

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:13:07 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

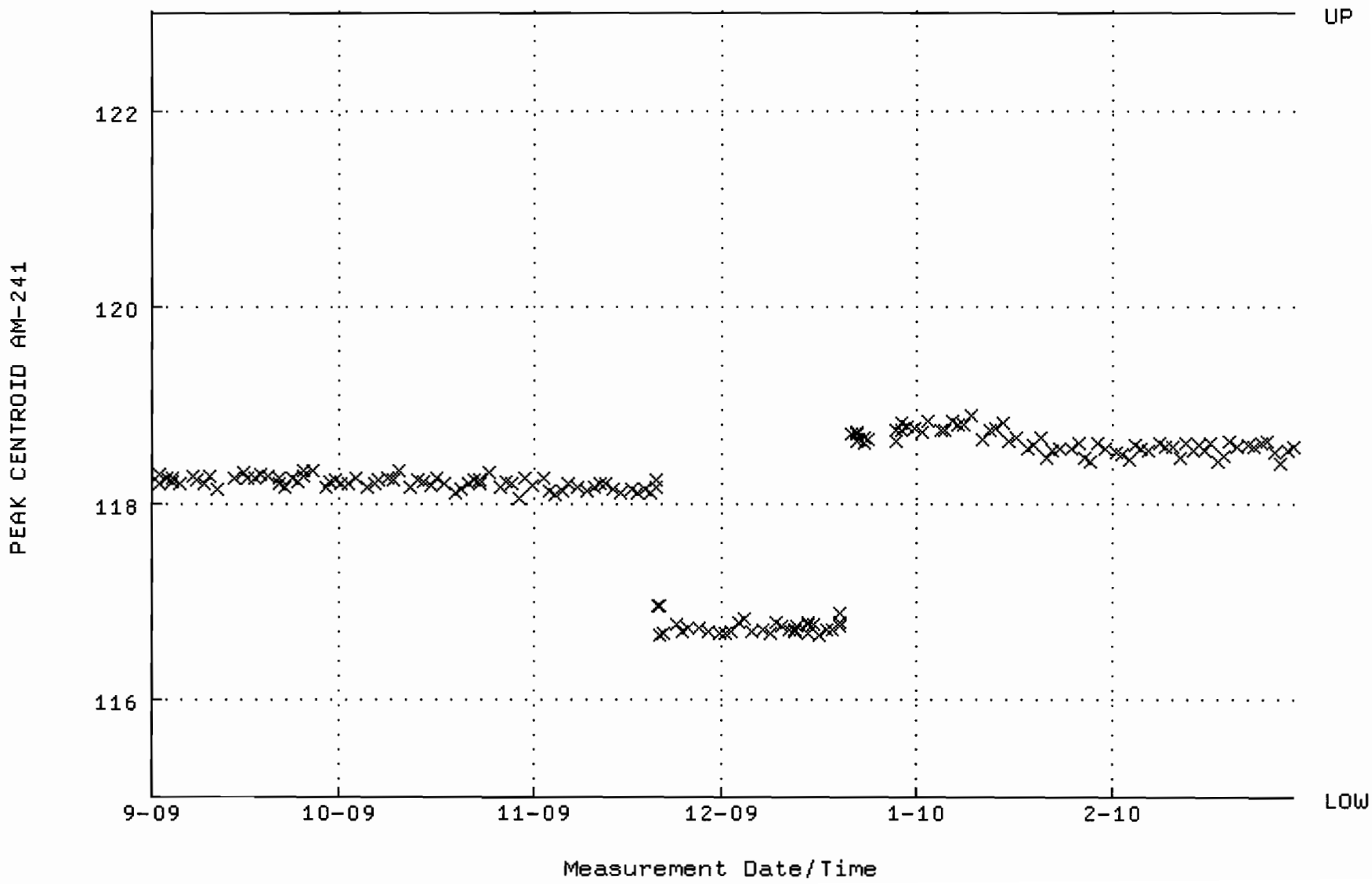

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM18.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:45:03 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)

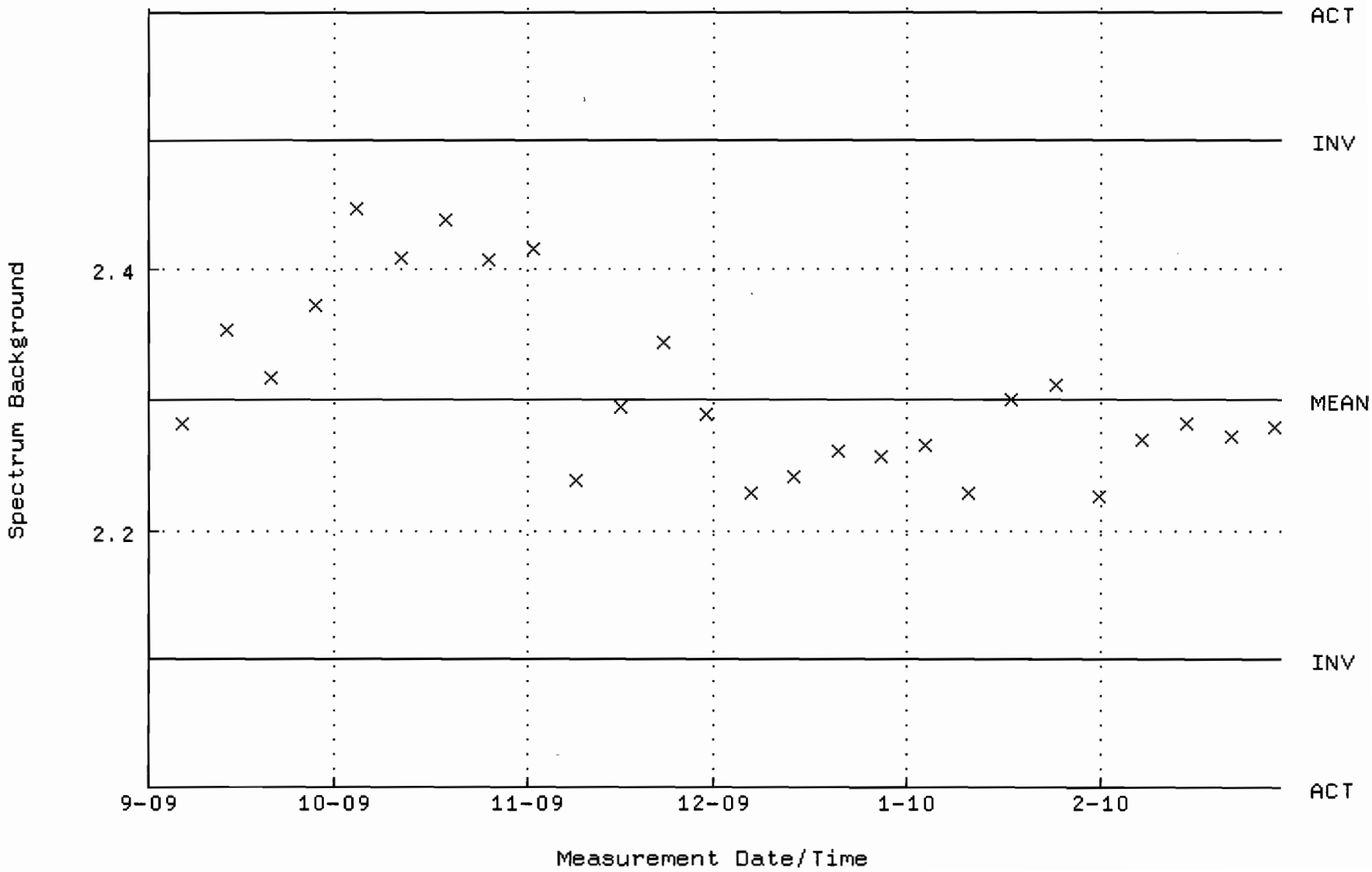

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM19_CAN.QAF;1
Parameter Name : PSCENTRO-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 05:06:58 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

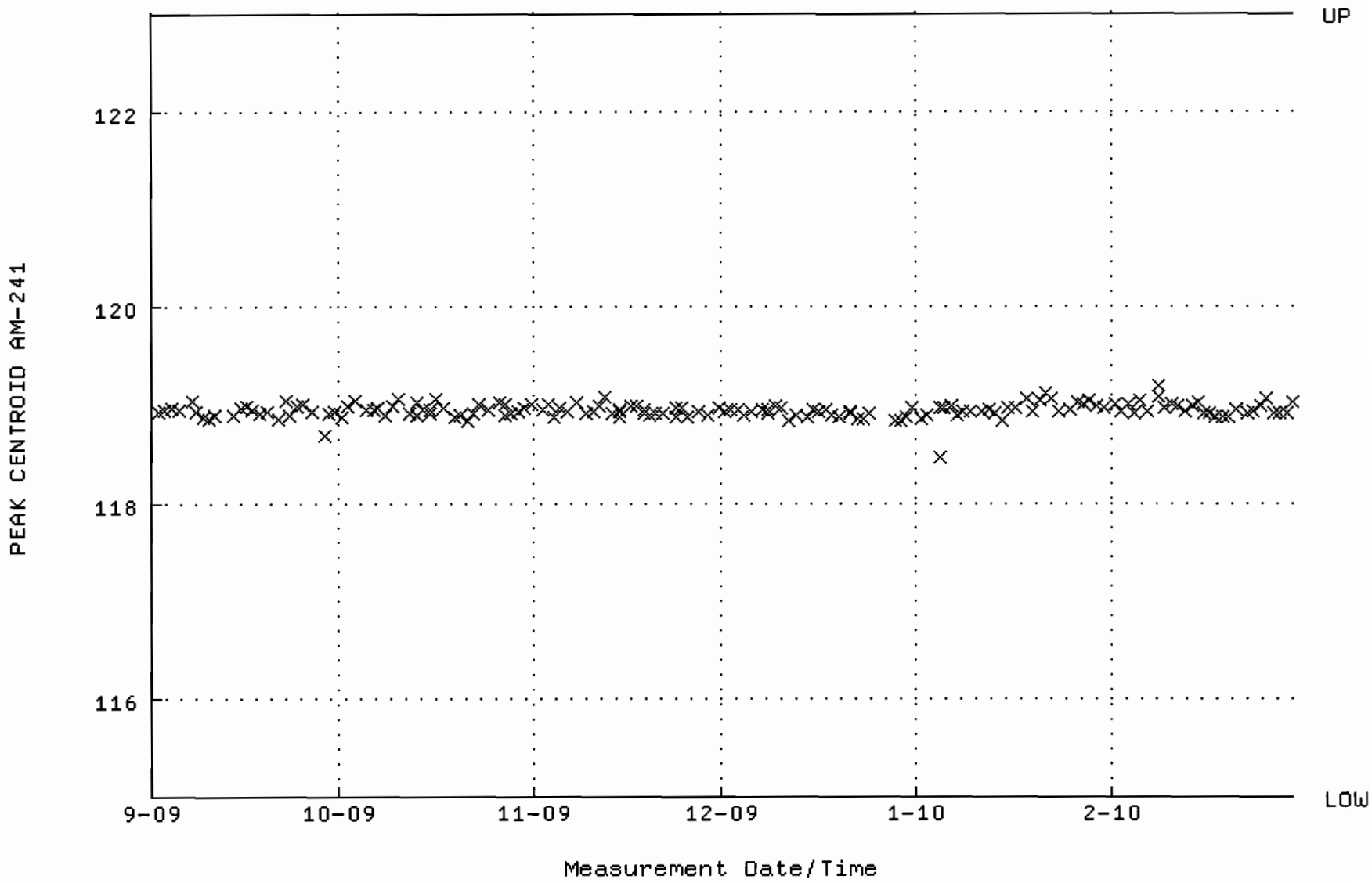

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM19.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:45:39 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.45067 +- 2.046038E-02 (1.41 %)

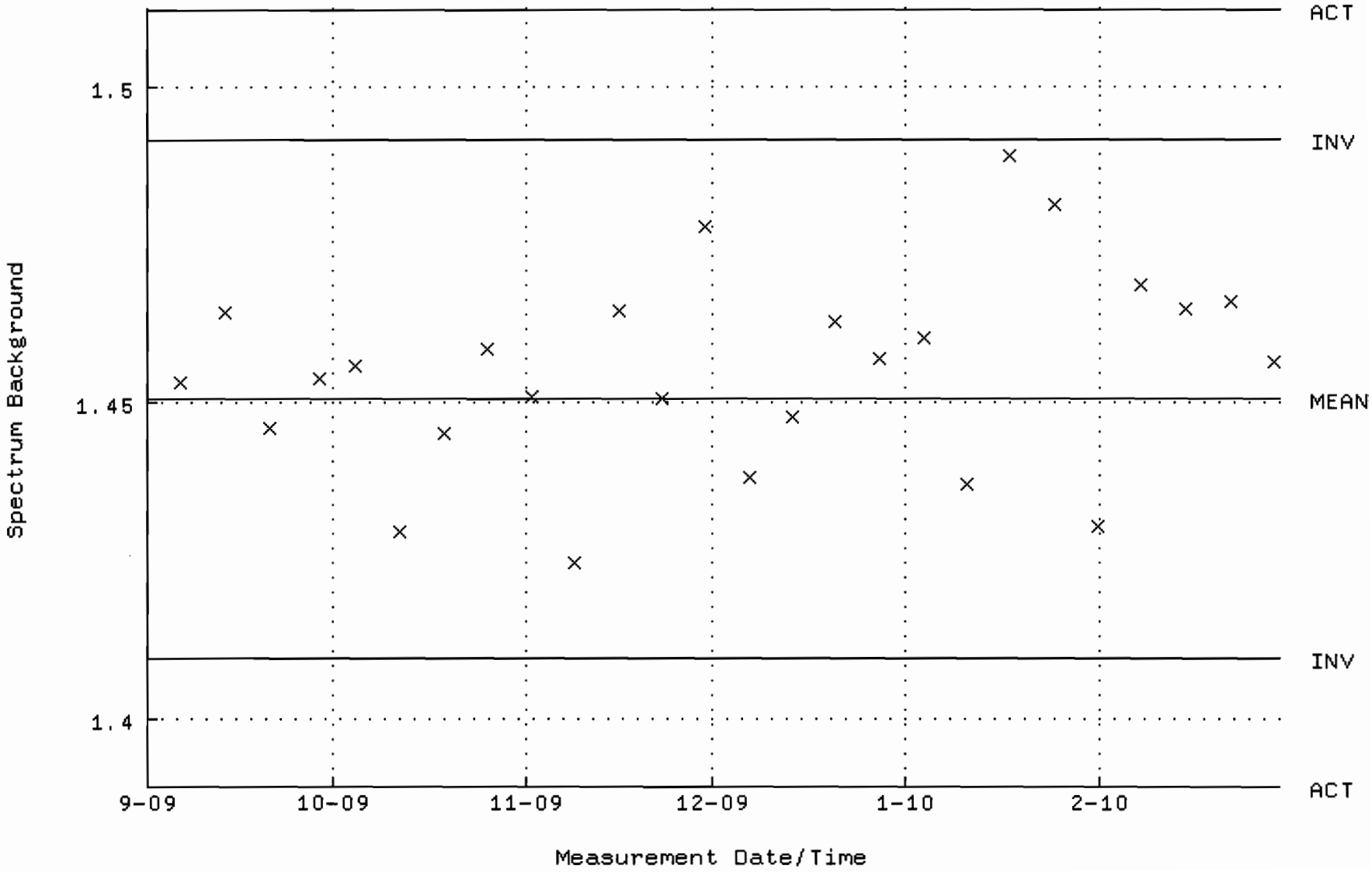

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

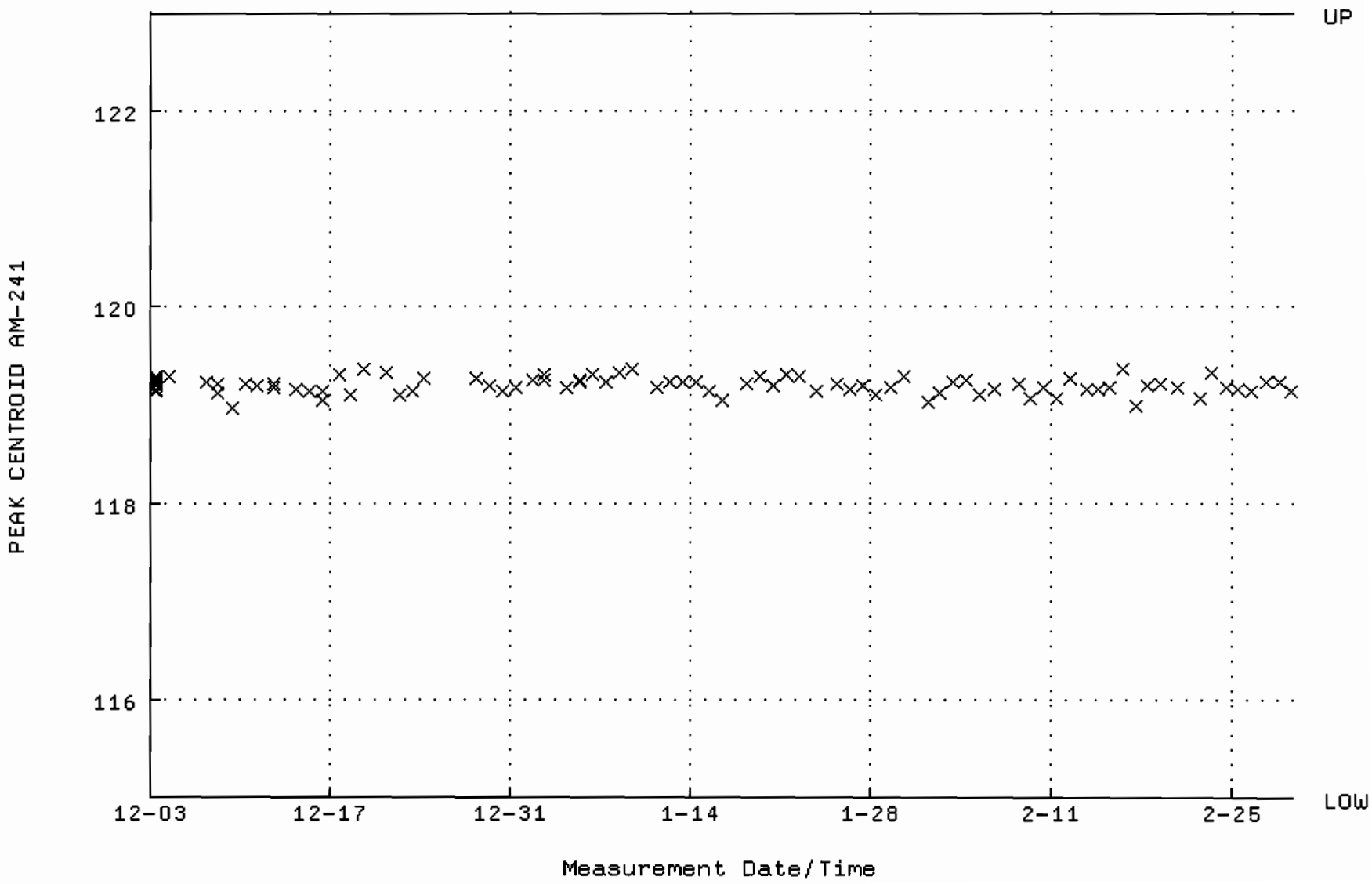

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

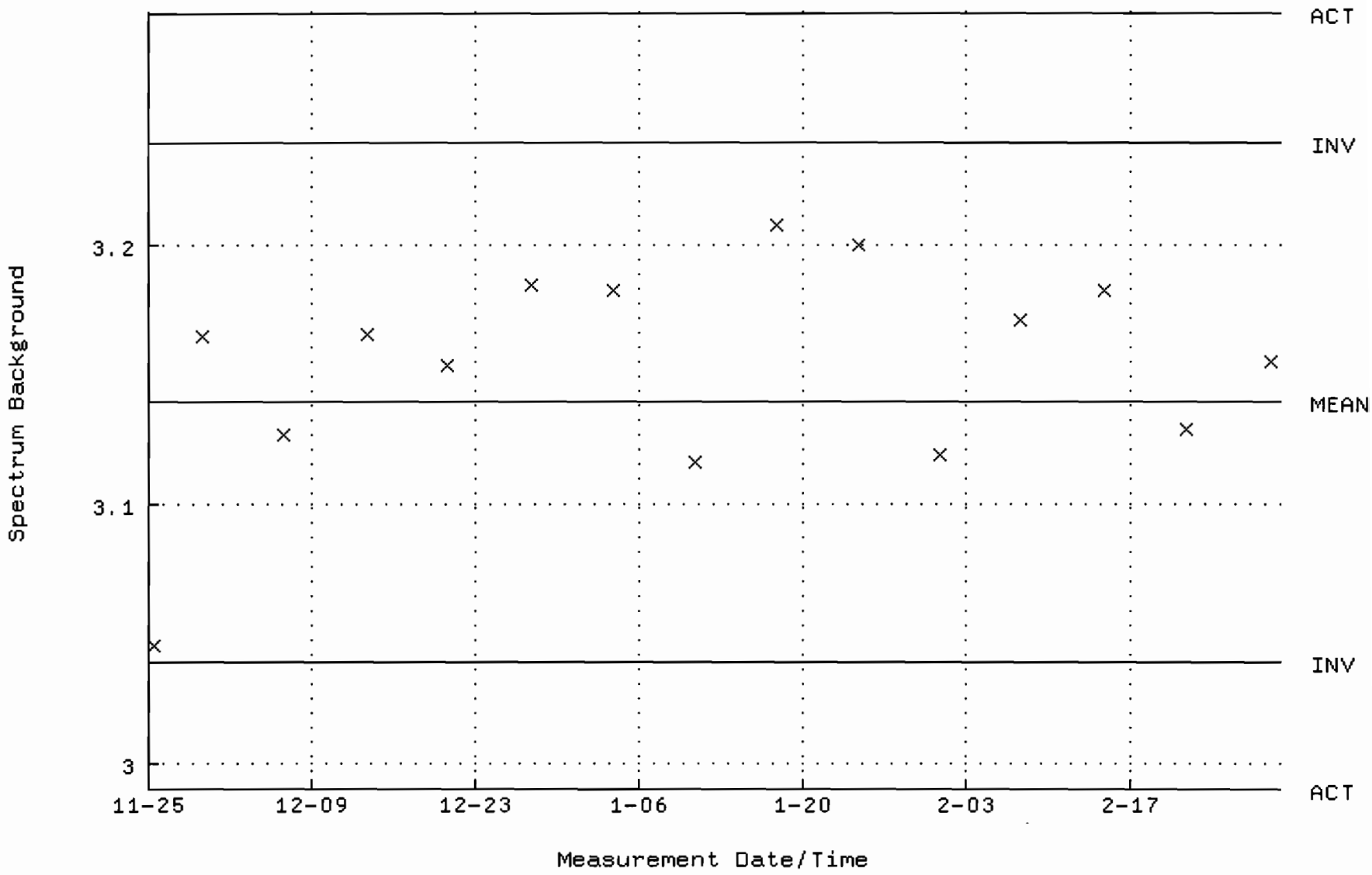

STANDARDS DATA

ANALYTICS
Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-2-06

This standard will expire one year after the calibration date.

Rec'd 11/30/06
RC-S-045-073-0

24937 Avenue Tibbitts, Valencia, California 91355
Laboratory
1380 Seaboard Industrial Blvd., Atlanta, Georgia 30318

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER. JAR-1
	Mixed Gamma N2	2510	pCi/L	- VER. JAR-3
	Mixed Gamma N3	2413	pCi/L	- VER. JAR-5

Mean Value (Counting) =	2485.67	**100.00**	**Pass**
Stdev =	64.065		**Rule 3 (Pass/Fail)**

Certificate Value =	2485.68018	pCi/L
Lower Limit =	2357.536524	pCi/L
Upper Limit =	2613.796809	pCi/L
Rule 1 (Pass/Fail)	**Pass**	
Two sigma =	128.1301422	
10 % of Mean =	248.56666667	
Rule 2 (Pass/Fail)	**Pass**	

M. Stamps 12/2/09 verification 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result		
	Mixed Gamma N1	1572	pCi/L	- VER - JAR - 5
	Mixed Gamma N2	1495	pCi/L	- VER - JAR - 2
	Mixed Gamma N3	1501	pCi/L	- VER - JAR - 3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**	
Stdev =	42.829	**Rule 3 (Pass/Fail)**		
Certificate Value =	1545.8378	pCi/L		
Lower Limit =	1437.008431	pCi/L		
Upper Limit =	1608.324902	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	85.65823564			
10 % of Mean =	152.26666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATA 4/14/2000 Scott C Neff 12/1/04

Angela D. Johnson 12/3/04

TRM

Invoice:

5 boxes of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM–1	TRM–2	TRM–3	TRM–4
U–238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U–234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th–230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra–226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb–210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726494
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1-3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL on behalf of Hank Mistaer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date
QC Limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. WESTON	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
Matt L. Stokes 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 7-26-794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL are below A Hack Mistake
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date
QC Limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry		DEP	Weston / 7577 / 845-0867

1. Relinquished by	Org.	Date	Time	4. Relinquished by	Org.	Date
1. Received by	Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by	Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by	Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by	Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by	Org.	Date	Time	6. Received by	Org.	Date

1. Relinquished by: Org. 777 Date 11-16-99 Time 0900

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

0934

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 • U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

72858-278

Th-229 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Th-229
ACTIVITY (dps):	3.842 E3
HALF-LIFE:	7340 years
CALIBRATION DATE:	May 2, 2006 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	3.5%

Impurities: Th-228 5.7 dps
Th-230 24 dps
Th-232 1.5 dps

5.05657 grams 0.5M HNO_3 solution.

P O NUMBER 2724RD, Item 1

SOURCE PREPARED BY: M Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 05-02-2006

RECEIVED 5/5/06 MLH

RCS-041-110

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0934
Prepared By:	Daniel Roy
Carrier Conc:	0.05M HNO3
Reference Date:	05/02/2006
Ampoule Mass (g):	5.05657 g
Uncertainty:	+/- 3.5 %
LogBook No:	RC-S-041-110

A Solution Material Info	
Isotope:	Thorium-229
Prepared By:	Daniel Roy
Prep Date:	04/23/2008
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	0934-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8973 g
Density(g/mL):	1.0143
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8973 g) * (3842 dps) * (60 dpm/dps) / (5.05657 g * 100 mL) = 2232.5917 dpm/mL
(4.8973 g) * (3842 dps) * (60 dpm/dps) / (1.0143 g/mL)/ (5.05657 g * 100 mL) = 2201.0332 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
04/23/2008	Daniel Roy	2.5898	250	0934-B	22.8009 dpm/ml	04/23/2008	04/23/2009
09/25/2008	Daniel Roy	2.6237	250	0934-C	23.0994 dpm/ml	09/25/2008	09/25/2009
12/16/2008	Daniel Roy	2.6547	250	0934-D	23.3723 dpm/ml	12/16/2008	12/16/2009
01/09/2009	Daniel Roy	2.5399	250	0934-E	22.3616 dpm/ml	01/09/2009	01/09/2010
04/03/2009	Mary Aders	2.5434	250	0934-F	22.3924 dpm/ml	04/03/2009	04/03/2010
04/22/2009	Mary Aders	2.5138	250	0934-G	22.1318 dpm/ml	04/28/2009	04/28/2010
07/31/2009	Mary Aders	2.579	250	0934-H	22.7059 dpm/mL	07/31/2009	07/31/2010
09/16/2009	Mary Aders	2.5029	250	0934-I	22.0359 dpm/mL	09/16/2009	09/16/2010
10/21/2009	Mary Aders	2.4847	250	0934-J	21.8756 dpm/mL	10/21/2009	10/21/2010
12/02/2009	Ashley Drochter	5.0356	500	0934-K	22.167 dpm/mL	12/02/2009	12/02/2010
03/09/2010	Ashley Drochter	5.0236	500	0934-L	22.1142 dpm/mL	03/09/2010	03/09/2011

Verification for Th-229 Standard 0934-L

A.DROCHTER	Isotope	Value	Uncertainty
3/15/2010	0934-L	0.958	0.1630
	0934-L	1.020	0.2040
	0934-L	0.978	0.1550

Mean Value (Counting) =	0.985	98.95	**Pass**
Stdev =	0.031643851		**Rule 3 (Pass/Fail)**

Target =	0.996
Lower Limit =	0.92204563
Upper Limit =	1.048621036
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.063287703
10 % of Mean =	0.098533333
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard 0934-L using 0.1 mL for each source. Each standard was combined with 0.1 mL of Th-230 standard A2796-J and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Two mL of 49% HF was added to precipitate neodymium(and Thorium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Th-229 were calculated by comparison to Th-230 certified values.

3/18/10

3/18/10

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Khan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 µCi beta-gamma or 0.0001 µCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 µCi beta-gamma or 0.0001 µCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 µCi beta-gamma or 0.0001 µCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 µCi beta-gamma or 0.0001 µCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 µCi beta-gamma or 0.0001 µCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	03/09/2010
Expiration Date:	03/09/2011
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Tara Sides	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/14/2009	09/14/2010
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/09/2010	Ashley Drochter	.011	1000	445-96-2-VV	22.7878 dpm/mL	03/09/2010	03/09/2011
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
03/23/2010	Ashley Drochter	.0163	1000	445-96-2-WW	33.7674 dpm/mL	03/23/2010	03/23/2011
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-VV*

A.Drochter 3/15/2010	Isotope	Value	Uncertainty
	445-96-2-VV #1	1.040	0.1630
	445-96-2-VV #2	0.964	0.1480
	445-96-2-VV #3	0.970	0.1550
Mean Value (Counting) =	0.991	96.72	**Pass**
Stdev =	0.042253205		**Rule 3 (Pass/Fail)**

Target =	1.025
Lower Limit =	0.906826923
Upper Limit =	1.075839743
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.08450641
10 % of Mean =	0.099133333
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-VV*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

3/15/10
3/16/10

1430

NATIONAL PHYSICAL LABORATORY

Teddington Middlesex UK TW11 0LW Telephone +44 20 8977 3222

Certificate of Calibration

UKAS CALIBRATION 0478

PLUTONIUM-236 SOLUTION
R37-02

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

FOR:	GEL Laboratories LLC 2040 Savage Road Charleston, SC 29407 USA
FOR THE ATTENTION OF:	Mr Tim Winters
NPL PRODUCT CODE:	R37-02
IDENTIFICATION:	A09881
DESCRIPTION:	An aqueous solution of ^{236}Pu also containing 2 mol dm^{-3} of nitric acid. The solution is contained in a flame sealed ampoule of type Q and nominal volume 5 ml (squat) as defined in BS 795:1983.
DATE(S) OF CALIBRATION:	26 June 2009 to 1 July 2009
INTENDED USE:	Calibration of instruments for response to ^{236}Pu
STORAGE:	The material may be stored at room temperature in a suitably sealed container. Flame-sealed glass ampoules are recommended for long-term storage. Regulatory conditions may apply to the manner in which this material is stored.

RECEIVED 11 2009 AM.

MEASUREMENTS

The samples were prepared by gravimetric dilution of a ^{236}Pu solution, which had been previously standardised using liquid scintillation counting. The accuracy of the dilution factor was checked using liquid scintillation counting.

Reference: 2009100356

Date of Issue: 4 November 2009

Checked by:

Signed:

Name: Dr Arvic Harms

(Authorised Signatory)

for Managing Director

RESULTS

Principal radionuclide:	^{236}Pu
Reference time:	2009-07-01 12:00 UTC
Activity concentration of principal radionuclide:	170.8 Bq g^{-1}
Expanded uncertainty:	±0.6 Bq g^{-1} (±0.36 %)
Contaminants present:	^{226}Ra, ^{232}U, ^{228}Th, ^{237}Np
Activity concentration of ^{226}Ra:	11.0 mBq g^{-1}
Expanded uncertainty:	±4.0 mBq g^{-1} (±36 %)
Activity concentration of ^{232}U:	0.67 Bq g^{-1}
Expanded uncertainty:	±0.12 Bq g^{-1} (±18 %)
Activity concentration of ^{228}Th:	11.38 mBq g^{-1}
Expanded uncertainty:	±0.46 mBq g^{-1} (±4 %)
Activity concentration of ^{237}Np:	5.00 mBq g^{-1}
Expanded uncertainty:	±0.34 mBq g^{-1} (±8 %)
Sample Mass:	4.97 g ± 0.02 g

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

NOTES

[1]. The reported reference time is stated consistent with the format given in ISO 8601:2004. UTC is the abbreviation for Universal Time, Coordinated. The date is stated in the format YYYY-MM-DD such that 2008-09-01 represents 1 September 2008.

[2]. The recommended half life of ^{236}Pu is 1044 (6) days and is taken from the evaluations published in *Nuclear Data Sheets*.

[3]. The recommended half life of ^{226}Ra is 5.844 (50) $\times 10^5$ days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[4]. The recommended half life of ^{232}U is 25800 (800) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[5]. The recommended half life of ^{237}Np is 7.83 (6) $\times 10^8$ days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[6]. The recommended half life of ^{228}Th is 698.60 (46) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Checked by:

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1430
Prepared By:	Ashley Drochter
Carrier Conc:	2 M HNO3
Reference Date:	07/01/2009
Ampoule Mass (g):	4.97 g
Uncertainty:	+/- .36 %
LogBook No:	RC-S-051-149

A Solution Material Info	
Isotope:	Plutonium-236
Prepared By:	Ashley Drochter
Prep Date:	01/27/2010
Verification Date:	01/27/2010
Expiration Date:	01/27/2011
Primary Code:	1430-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8051 g
Density(g/mL):	1.0610
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (100 mL) = 492.4266 dpm/mL
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (1.0610 g/mL) / (100 mL) = 464.1156 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/27/2010	Bethany Fiem	33.0429	200	1430-B	76.6786262 dpm/mL	01/27/2010	01/27/2011
03/04/2010	Ashley Drochter	15.2331	200	1430-C	35.3496 dpm/mL	03/04/2010	03/04/2011
03/17/2010	Ashley Drochter	15.0683	200	1430-D	34.9672 dpm/mL	03/17/2010	03/17/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-236 Standard 1430-C

	Isotope	Value	Uncertainty
A. Drochter	1430-C	2.760	0.4480
3/4/2010	1430-C	2.770	0.4520
	1430-C	2.950	0.4850

Mean Value (Counting) =	2.827	104.54659	% of Known Value
Stdev =	0.106926766		
Target =	2.70		
Lower Limit =	2.612813134		
Upper Limit =	3.040520199		
Rule 1 Pass/Fail	Pass	Pass	Pass
Two sigma =	0.213853532		
10 % of Mean =	0.282666667		
Rule 2 (Pass/Fail)	Pass		

The analyst prepared three standard verification sources for standard 1430-B using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. After approximately ten minutes, two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-236 were calculated by comparison to Pu-239 certified values.

3/5/10

3/5/10

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: W. Mao, Radiochemist

QA Approved: D. M. Montgomery, QA Manager Date: 12-11-08

End of Certificate

RECEIVED 12/15/08
RC-S-05

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 965250**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status		Geometry	Calibration Date
249060003	SAMPLE	MXR1	GAM05	24-MAR-10 08:56	DONE	CAN		11-JUN-09 00:00
249329001	SAMPLE	MXR1	GAM06	24-MAR-10 08:56	DONE	CAN		16-FEB-10 00:00
249329002	SAMPLE	MXR1	GAM07	24-MAR-10 08:57	DONE	CAN		20-JUL-09 00:00
249329003	SAMPLE	MXR1	GAM19	24-MAR-10 08:57	DONE	CAN		12-MAR-09 00:00
249329004	SAMPLE	MXR1	GAM22	24-MAR-10 08:58	DONE	CAN		02-DEC-09 00:00
249331001	SAMPLE	MXR1	GAM04	24-MAR-10 08:58	DONE	CAN		05-MAY-09 00:00
249331002	SAMPLE	MXR1	GAM10	24-MAR-10 09:11	DONE	CAN		13-MAR-10 00:00
249331003	SAMPLE	MXR1	GAM11	24-MAR-10 09:11	DONE	CAN		18-NOV-09 00:00
249331004	SAMPLE	MXR1	GAM15	24-MAR-10 09:12	DONE	CAN		03-FEB-10 00:00
249331005	SAMPLE	MXR1	GAM25	24-MAR-10 09:13	DONE	CAN		07-OCT-09 00:00
249331006	SAMPLE	MXR1	GAM29	24-MAR-10 09:13	DONE	CAN		23-FEB-10 00:00
249331007	SAMPLE	MXR1	GAM01	24-MAR-10 09:21	DONE	CAN		12-JAN-10 00:00
249331008	SAMPLE	MXR1	GAM16	24-MAR-10 09:21	DONE	CAN		16-NOV-09 00:00
249334001	SAMPLE	MXR1	GAM18	24-MAR-10 09:22	DONE	CAN		23-APR-09 00:00
249334002	SAMPLE	MXR1	GAM23	24-MAR-10 09:22	DONE	CAN		02-JUN-09 00:00
249334003	SAMPLE	MXR1	GAM17	24-MAR-10 09:48	DONE	CAN		06-JAN-10 00:00
249334004	SAMPLE	MXR1	GAM21	24-MAR-10 10:53	DONE	CAN		28-JUL-09 00:00
249334006	SAMPLE	MXR1	GAM06	24-MAR-10 11:01	DONE	CAN		16-FEB-10 00:00
249334007	SAMPLE	MXR1	GAM07	24-MAR-10 11:02	DUSE	CAN		20-JUL-09 00:00
1202071014	MB	MXR1	GAM19	24-MAR-10 11:03	DONE	CAN		12-MAR-09 00:00
1202071016	LCS	MXR1	GAM04	24-MAR-10 11:06	DONE	CAN		05-MAY-09 00:00
249334005	SAMPLE	MXR1	GAM15	24-MAR-10 11:16	DONE	CAN		03-FEB-10 00:00
1202071015	DUP	MXR1	GAM01	24-MAR-10 11:24	DONE	CAN		12-JAN-10 00:00
249334007	SAMPLE	MXR1	GAM22	25-MAR-10 14:47	DONE	CAN		02-DEC-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965502**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249060003	SAMPLE	CXM2	1013	27-MAR-10 13:01	DONE		
249329001	SAMPLE	CXM2	1019	27-MAR-10 13:40	DONE		
249329002	SAMPLE	CXM2	1020	27-MAR-10 13:40	DONE		
249329003	SAMPLE	CXM2	1022	27-MAR-10 13:40	DONE		
249329004	SAMPLE	CXM2	1023	27-MAR-10 13:40	DONE		
249331001	SAMPLE	CXM2	1024	27-MAR-10 13:40	DONE		
249331002	SAMPLE	CXM2	1043	27-MAR-10 13:40	DONE		
249331003	SAMPLE	CXM2	1044	27-MAR-10 13:40	DONE		
249331004	SAMPLE	CXM2	1045	27-MAR-10 13:40	DONE		
249331005	SAMPLE	CXM2	1046	27-MAR-10 13:40	DONE		
249331006	SAMPLE	CXM2	1048	27-MAR-10 13:40	DONE		
249331007	SAMPLE	CXM2	1072	27-MAR-10 13:40	DONE		
249331008	SAMPLE	CXM2	1073	27-MAR-10 13:40	DONE		
249334001	SAMPLE	CXM2	1074	27-MAR-10 13:40	DONE		
249334002	SAMPLE	CXM2	1075	27-MAR-10 13:40	DONE		
249334003	SAMPLE	CXM2	1076	27-MAR-10 13:40	DONE		
249334004	SAMPLE	CXM2	1077	27-MAR-10 13:40	DONE		
249334005	SAMPLE	CXM2	1079	27-MAR-10 13:40	DONE		
249334006	SAMPLE	CXM2	1080	27-MAR-10 13:40	DONE		
249334007	SAMPLE	CXM2	1081	27-MAR-10 13:40	DONE		
1202071683	MB	CXM2	1082	27-MAR-10 13:40	DONE		
1202071684	DUP	CXM2	1083	27-MAR-10 13:40	DONE		
1202071685	LCS	CXM2	1085	27-MAR-10 13:40	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965503**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249060003	SAMPLE	CXM2	1072	26-MAR-10 17:20	DONE		
249329001	SAMPLE	CXM2	1073	26-MAR-10 17:20	DONE		
249329002	SAMPLE	CXM2	1074	26-MAR-10 17:20	DONE		
249329003	SAMPLE	CXM2	1075	26-MAR-10 17:20	DONE		
249329004	SAMPLE	CXM2	1076	26-MAR-10 17:20	DONE		
249331001	SAMPLE	CXM2	1077	26-MAR-10 17:20	DONE		
249331002	SAMPLE	CXM2	1079	26-MAR-10 17:20	DONE		
249331003	SAMPLE	CXM2	1080	26-MAR-10 17:20	DONE		
249331004	SAMPLE	CXM2	1081	26-MAR-10 17:20	DONE		
249331005	SAMPLE	CXM2	1082	26-MAR-10 17:20	DONE		
249331006	SAMPLE	CXM2	1083	26-MAR-10 17:20	DONE		
249331007	SAMPLE	CXM2	1084	26-MAR-10 17:20	DONE		
249331008	SAMPLE	CXM2	1085	26-MAR-10 17:20	DUSE		
249334001	SAMPLE	CXM2	1086	26-MAR-10 17:20	DONE		
249334002	SAMPLE	CXM2	1087	26-MAR-10 17:20	DONE		
249334003	SAMPLE	CXM2	1088	26-MAR-10 17:20	DONE		
249334004	SAMPLE	CXM2	1089	26-MAR-10 17:20	DONE		
249334005	SAMPLE	CXM2	1090	26-MAR-10 17:20	DONE		
249334006	SAMPLE	CXM2	1091	26-MAR-10 17:20	DONE		
249334007	SAMPLE	CXM2	1093	26-MAR-10 17:20	DONE		
1202071686	MB	CXM2	1094	26-MAR-10 17:20	DONE		
1202071687	DUP	CXM2	1013	26-MAR-10 21:18	DONE		
1202071688	LCS	CXM2	1014	26-MAR-10 21:18	DONE		
249331008	SAMPLE	CXM2	1031	29-MAR-10 10:30	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965504**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249060003	SAMPLE	CXM2	1131	27-MAR-10 12:53	DONE		
249329001	SAMPLE	CXM2	1132	27-MAR-10 12:53	DONE		
249329002	SAMPLE	CXM2	1133	27-MAR-10 12:53	DONE		
249329003	SAMPLE	CXM2	1134	27-MAR-10 12:53	DONE		
249329004	SAMPLE	CXM2	1135	27-MAR-10 12:53	DONE		
249331001	SAMPLE	CXM2	1136	27-MAR-10 12:53	DONE		
249331003	SAMPLE	CXM2	1138	27-MAR-10 12:54	DONE		
249331004	SAMPLE	CXM2	1139	27-MAR-10 12:54	DONE		
249331005	SAMPLE	CXM2	1140	27-MAR-10 12:54	DONE		
249331006	SAMPLE	CXM2	1141	27-MAR-10 12:54	DONE		
249331007	SAMPLE	CXM2	1142	27-MAR-10 12:54	DONE		
249331008	SAMPLE	CXM2	1143	27-MAR-10 12:54	DONE		
249334001	SAMPLE	CXM2	1144	27-MAR-10 12:54	DONE		
249334002	SAMPLE	CXM2	1145	27-MAR-10 12:54	DONE		
249334003	SAMPLE	CXM2	1146	27-MAR-10 12:54	DONE		
249334004	SAMPLE	CXM2	1147	27-MAR-10 12:54	DUSE		
249334005	SAMPLE	CXM2	1148	27-MAR-10 12:54	DUSE		
249334006	SAMPLE	CXM2	1149	27-MAR-10 12:54	DONE		
249334007	SAMPLE	CXM2	1150	27-MAR-10 12:54	DONE		
1202071689	MB	CXM2	1151	27-MAR-10 12:54	DONE		
1202071690	DUP	CXM2	1152	27-MAR-10 12:54	DONE		
1202071691	LCS	CXM2	1153	27-MAR-10 12:54	DONE		
249331002	SAMPLE	CXM2	1154	27-MAR-10 12:54	DONE		
249334004	SAMPLE	CXM2	1117	29-MAR-10 12:37	DONE		
249334005	SAMPLE	CXM2	1118	29-MAR-10 12:38	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 967216**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249329001	SAMPLE	CXM2	1173	01-APR-10 17:52	DUSE		
249329002	SAMPLE	CXM2	1174	01-APR-10 17:52	DUSE		
249329003	SAMPLE	CXM2	1177	01-APR-10 17:52	DUSE		
249329004	SAMPLE	CXM2	1178	01-APR-10 17:52	DUSE		
249331001	SAMPLE	CXM2	1179	01-APR-10 17:52	DUSE		
249331002	SAMPLE	CXM2	1180	01-APR-10 17:52	DUSE		
249331003	SAMPLE	CXM2	1181	01-APR-10 17:52	DUSE		
249331004	SAMPLE	CXM2	1182	01-APR-10 17:52	DUSE		
249331005	SAMPLE	CXM2	1183	01-APR-10 17:52	DUSE		
249331006	SAMPLE	CXM2	1184	01-APR-10 17:52	DUSE		
249331007	SAMPLE	CXM2	1185	01-APR-10 17:52	DUSE		
249331008	SAMPLE	CXM2	1186	01-APR-10 17:52	DUSE		
1202075933	MB	CXM2	1187	01-APR-10 17:52	DUSE		
1202075934	DUP	CXM2	1188	01-APR-10 17:52	DUSE		
1202075935	LCS	CXM2	1189	01-APR-10 17:52	DUSE		
249329001	SAMPLE	CXM2	1173	05-APR-10 15:34	DONE		
249329002	SAMPLE	CXM2	1174	05-APR-10 15:34	DONE		
249329003	SAMPLE	CXM2	1177	05-APR-10 15:34	DONE		
249329004	SAMPLE	CXM2	1178	05-APR-10 15:34	DONE		
249331001	SAMPLE	CXM2	1179	05-APR-10 15:34	DONE		
249331002	SAMPLE	CXM2	1180	05-APR-10 15:34	DONE		
249331003	SAMPLE	CXM2	1181	05-APR-10 15:34	DONE		
249331004	SAMPLE	CXM2	1182	05-APR-10 15:34	DONE		
249331005	SAMPLE	CXM2	1183	05-APR-10 15:34	DONE		
249331006	SAMPLE	CXM2	1184	05-APR-10 15:34	DONE		
249331007	SAMPLE	CXM2	1185	05-APR-10 15:34	DONE		
249331008	SAMPLE	CXM2	1186	05-APR-10 15:34	DONE		
1202075933	MB	CXM2	1187	05-APR-10 15:34	DONE		
1202075935	LCS	CXM2	1189	05-APR-10 15:34	DONE		
1202075934	DUP	CXM2	1173	07-APR-10 18:23	DONE		

Thursday, March 11, 2010

REQUEST NUMBER: 10-2412

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2412
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/11/2010
TURNAROUND/REPORT DUE: 4/10/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	HASL-300:AM-241	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	

Thursday, March 11, 2010

REQUEST NUMBER: 10-2412

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	HASL-300:ISOPU	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	HASL-300:ISOTH	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	HASL-300:ISOU	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	SW-846:6010B	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	SW-846:8082	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	

Thursday, March 11, 2010

REQUEST NUMBER: 10-2412

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	SW-846:8270C	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	SW-846:9012A	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	

Final Page of REQUEST NUMBER 10-2412

Thursday, March 11, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2412C

REQUEST NUMBER: 10-2412

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/10/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-12927	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12927	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12927	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12923	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12923	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12923	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12924	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12924	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12924	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12926	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12926	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12926	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12928	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12928	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12928	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12925	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12925	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12925	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	3/11/10	3:00			
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2638 **EVENT NAME:** SWMU 46-004(d2), 46-004(g), 46-004(h)

SAMPLE ID: RE46-10-12923 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/10/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1505	SUB-MEDIA:	SOIL	
PRS ID:	46-004(d2)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611481		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA	NA	

~~COMPOSITE TYPE:~~ ~~COMPOSITE TIME INTERVAL:~~ JR 3/4/10 ~~WATER FLOWING: YES / NO / NA~~

~~BOREHOLE: YES / NO / NA~~ ~~BOREHOLE DECLINATION:~~ JR 3/4/10 ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: dark yellowish brown clayey sediment (10 YR 3/4)

SAMPLE COMMENTS: plant roots present

LOCATION DESC: 4d2 - 4

FIELD SCREENING/MEASUREMENT RESULTS: PID: SAMPLES < MDA

α: 7
β: 964 dpm

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/10/10	(Printed Name) Merri Sherwood	3/10/10
(Signature) [signature]	1650	(Signature) Merri Sherwood	1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2638 **EVENT NAME:** SWMU 46-004(d2), 46-004(g), 46-004(h)

SAMPLE ID: RE46-10-12925 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/10/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1517	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d2)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	46-611482	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA	NO	

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: brown sandy weathered tuff fill (7.5YR 4/3) w/ gravel

SAMPLE COMMENTS:

LOCATION DESC: 4d2-5

FIELD SCREENING/MEASUREMENT RESULTS: PID:

Background Screening α: 7 β: 964 dpm Samples < MDA

COLLECTED BY (PRINT) Mc Navck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/10/10	(Printed Name) Sherri Sherwood	3/16/10
(Signature) [signature]	1650	(Signature) [signature]	1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2638 **EVENT NAME:** SWMU 46-004(d2), 46-004(g), 46-004(h)

SAMPLE ID: RE46-10-12924 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/10/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1511	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d2)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611481		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

~~COMPOSITE TYPE:~~ ~~COMPOSITE TIME INTERVAL:~~ 3/4/10 ~~WATER FLOWING: YES / NO / NA~~

~~BOREHOLE: YES / NO / NA~~ ~~BOREHOLE DECLINATION:~~ 3/4/10 ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: brown clayey sediment (7.5YR 4/4), occasional gravel

SAMPLE COMMENTS:

LOCATION DESC: 4d2-4

FIELD SCREENING/MEASUREMENT RESULTS: PID: SAMPLES CMDA

α: 7
β: 964 dpm

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature)	3/10/10 1650	(Printed Name) Sherri Sherwood (Signature)	3/10/10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2638 **EVENT NAME:** SWMU 46-004(d2), 46-004(g), 46-004(h)

SAMPLE ID: RE46-10-12926 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/10/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1523	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d2)	ok	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611482		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	N/A	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ____ COMPOSITE TIME INTERVAL: ____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ____ BOREHOLE DIRECTION: ____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: brown clayey sediment (7.5 YR 4/4) w/ coarse sand & gravel

SAMPLE COMMENTS:

LOCATION DESC: 4d2-5

FIELD SCREENING/MEASUREMENT RESULTS: PID:

Background screenings α: 7 dpm β: 964 dpm samples < MDA

COLLECTED BY (PRINT) M. Navck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/10/10 1650	(Printed Name) Sherri Sherwood	3/10/10 1650
(Signature) [signature]		(Signature) [signature]	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2638 **EVENT NAME:** SWMU 46-004(d2), 46-004(g), 46-004(h)

SAMPLE ID: RE46-10-12928 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/10/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1538	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d2)	ok	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611483	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: COMPOSITE TIME INTERVAL: WATER FLOWING: YES / ~~NO~~ / ~~NA~~

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: BOREHOLE DIRECTION:

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Reddish brown coarse sandy sediment w/ gravel fill & tuff (5YR 4/3)

SAMPLE COMMENTS: tuff @ 1.2 ft, musty odor

LOCATION DESC: 4d2-6

FIELD SCREENING/MEASUREMENT RESULTS: PID:

Background Screening α: 7 dpm β: 964 samples < MDA

COLLECTED BY (PRINT) M. Shendo REVIEWED BY (PRINT) Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature)	3/10/10 1650	(Printed Name) Sherri Sherwood (Signature)	3/10/10 1650
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2638 **EVENT NAME:** SWMU 46-004(d2), 46-004(g), 46-004(h)

SAMPLE ID: RE46-10-12927 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/10/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1533	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d2)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611483	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: dark brown coarse grained sediment, weathered tuff & gravel fill (7.5 YR 3/3)

SAMPLE COMMENTS: tuff @ 1.2 ft

LOCATION DESC: 4d2-6

FIELD SCREENING/MEASUREMENT RESULTS: PID!

Background screening α: 7 β: 964 dpm samples < MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/10/10 1650	(Printed Name) Sherri Sherwood	3/10/10 1650
(Signature) [signature]		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2412 VALIDATION DATE: 06/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV and/or CCV %Ds were > 20% for pyridine; 2-methyl-4,6-dinitrophenol; bis(2-chloroisopropyl)ether; benzyl alcohol; 2,4-dimethylphenol; 3-nitroaniline; 4-nitroaniline and 4-nitrophenol. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The LCS %R was < the laboratory LAL but ≥10% for benzyl alcohol. The associated sample results were NDs and, thus, were qualified UJ,V12a.
3. The MS/MSD %Rs and/or RPDs for several compounds did not meet laboratory acceptance criteria. Since the analysis of an MS or MSD was not required for SVOCs, no sample data were qualified as a result. It should be noted that the parent sample for the matrix QC analyses was from another LANL RN. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 06/04/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 06/03/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2 Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2412	**Date Collected:**	03/10/2010 12:00	**Matrix:**	S
Lab Sample ID:	249244002	**Date Received:**	03/12/2010 08:45	**%Moisture:**	15.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12923	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/27/2010 01:18	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	s2c2631.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	393	ug/kg	78.5	393	
108-95-2	Phenol	U	393	ug/kg	78.5	393	
95-57-8	2-Chlorophenol	U	393	ug/kg	78.5	393	
106-46-7	1,4-Dichlorobenzene	U	393	ug/kg	78.5	393	
621-64-7	N-Nitrosodipropylamine	U	393	ug/kg	78.5	393	
59-50-7	4-Chloro-3-methylphenol	U	393	ug/kg	78.5	393	
83-32-9	Acenaphthene	J	23.2	ug/kg	13.0	39.3	
121-14-2	2,4-Dinitrotoluene	U	393	ug/kg	39.3	393	
100-02-7	4-Nitrophenol	U	393	ug/kg	130	393	UJ,SV7c
87-86-5	Pentachlorophenol	U	393	ug/kg	98.2	393	
129-00-0	Pyrene		708	ug/kg	11.8	39.3	
110-86-1	Pyridine	U	393	ug/kg	78.5	393	UJ,SV7c
62-53-3	Aniline	U	393	ug/kg	118	393	
111-44-4	bis(2-Chloroethyl) ether	U	393	ug/kg	78.5	393	
541-73-1	1,3-Dichlorobenzene	U	393	ug/kg	78.5	393	
100-51-6	Benzyl alcohol	U	393	ug/kg	118	393	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	393	ug/kg	78.5	393	
108-60-1	bis(2-Chloroisopropyl)ether	U	393	ug/kg	78.5	393	UJ,SV7c
95-48-7	o-Cresol	U	393	ug/kg	78.5	393	
65794-96-9	m,p-Cresols	U	393	ug/kg	118	393	
67-72-1	Hexachloroethane	U	393	ug/kg	78.5	393	
98-95-3	Nitrobenzene	U	393	ug/kg	78.5	393	
78-59-1	Isophorone	U	393	ug/kg	78.5	393	
88-75-5	2-Nitrophenol	U	393	ug/kg	78.5	393	
105-67-9	2,4-Dimethylphenol	U	393	ug/kg	137	393	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	393	ug/kg	78.5	393	
120-83-2	2,4-Dichlorophenol	U	393	ug/kg	78.5	393	
65-85-0	Benzoic acid	U	785	ug/kg	196	785	
91-20-3	Naphthalene	U	39.3	ug/kg	11.8	39.3	
106-47-8	4-Chloroaniline	U	393	ug/kg	78.5	393	
87-68-3	Hexachlorobutadiene	U	393	ug/kg	78.5	393	
91-57-6	2-Methylnaphthalene	U	39.3	ug/kg	7.85	39.3	
77-47-4	Hexachlorocyclopentadiene	U	393	ug/kg	78.5	393	
88-06-2	2,4,6-Trichlorophenol	U	393	ug/kg	78.5	393	
95-95-4	2,4,5-Trichlorophenol	U	393	ug/kg	78.5	393	
91-58-7	2-Chloronaphthalene	U	39.3	ug/kg	13.0	39.3	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	393	ug/kg	78.5	393	
99-09-2	3-Nitroaniline	U	393	ug/kg	78.5	393	UJ,SV7c

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244002**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12923**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 01:18**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2631.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	393	ug/kg	78.5	393	
606-20-2	2,6-Dinitrotoluene	U	393	ug/kg	39.3	393	
208-96-8	Acenaphthylene	U	39.3	ug/kg	11.8	39.3	
51-28-5	2,4-Dinitrophenol	U	785	ug/kg	149	785	
132-64-9	Dibenzofuran	U	393	ug/kg	78.5	393	
84-66-2	Diethylphthalate	U	393	ug/kg	78.5	393	
86-73-7	Fluorene	J	13.5	ug/kg	11.8	39.3	
7005-72-3	4-Chlorophenylphenylether	U	393	ug/kg	78.5	393	
534-52-1	2-Methyl-4,6-dinitrophenol	U	393	ug/kg	78.5	393	UJ,SV7c
100-01-6	4-Nitroaniline	U	393	ug/kg	118	393	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	393	ug/kg	78.5	393	
122-66-7	Azobenzene	U	393	ug/kg	78.5	393	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	393	ug/kg	78.5	393	
118-74-1	Hexachlorobenzene	U	393	ug/kg	78.5	393	
85-01-8	Phenanthrene		271	ug/kg	11.8	39.3	
120-12-7	Anthracene		51.0	ug/kg	7.85	39.3	
84-74-2	Di-n-butylphthalate	U	393	ug/kg	78.5	393	
206-44-0	Fluoranthene		796	ug/kg	11.8	39.3	
85-68-7	Butylbenzylphthalate	U	393	ug/kg	78.5	393	
56-55-3	Benzo(a)anthracene		399	ug/kg	11.8	39.3	
91-94-1	3,3'-Dichlorobenzidine	U	393	ug/kg	118	393	
218-01-9	Chrysene		362	ug/kg	11.8	39.3	
117-81-7	bis(2-Ethylhexyl)phthalate	U	393	ug/kg	78.5	393	
117-84-0	Di-n-octylphthalate	U	393	ug/kg	78.5	393	
205-99-2	Benzo(b)fluoranthene		663	ug/kg	11.8	39.3	
207-08-9	Benzo(k)fluoranthene	U	39.3	ug/kg	11.8	39.3	
50-32-8	Benzo(a)pyrene		431	ug/kg	11.8	39.3	
193-39-5	Indeno(1,2,3-cd)pyrene		244	ug/kg	11.8	39.3	
53-70-3	Dibenzo(a,h)anthracene	U	39.3	ug/kg	11.8	39.3	
191-24-2	Benzo(ghi)perylene		294	ug/kg	11.8	39.3	
120-82-1	1,2,4-Trichlorobenzene	U	393	ug/kg	78.5	393	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	426	ug/kg		JA
192-97-2	Benzo[e]pyrene	9.81	284	ug/kg	97	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2412	**Date Collected:**	03/10/2010 12:00	**Matrix:**	S
Lab Sample ID:	249244003	**Date Received:**	03/12/2010 08:45	**%Moisture:**	14.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12924	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/27/2010 01:38	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	s2c2632.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	390	ug/kg	78.0	390	
108-95-2	Phenol	U	390	ug/kg	78.0	390	
95-57-8	2-Chlorophenol	U	390	ug/kg	78.0	390	
106-46-7	1,4-Dichlorobenzene	U	390	ug/kg	78.0	390	
621-64-7	N-Nitrosodipropylamine	U	390	ug/kg	78.0	390	
59-50-7	4-Chloro-3-methylphenol	U	390	ug/kg	78.0	390	
83-32-9	Acenaphthene	U	39.0	ug/kg	12.9	39.0	
121-14-2	2,4-Dinitrotoluene	U	390	ug/kg	39.0	390	
100-02-7	4-Nitrophenol	U	390	ug/kg	129	390	UJ,SV7c
87-86-5	Pentachlorophenol	U	390	ug/kg	97.5	390	
129-00-0	Pyrene		41.9	ug/kg	11.7	39.0	
110-86-1	Pyridine	U	390	ug/kg	78.0	390	UJ,SV7c
62-53-3	Aniline	U	390	ug/kg	117	390	
111-44-4	bis(2-Chloroethyl) ether	U	390	ug/kg	78.0	390	
541-73-1	1,3-Dichlorobenzene	U	390	ug/kg	78.0	390	
100-51-6	Benzyl alcohol	U	390	ug/kg	117	390	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	390	ug/kg	78.0	390	
108-60-1	bis(2-Chloroisopropyl)ether	U	390	ug/kg	78.0	390	UJ,SV7c
95-48-7	o-Cresol	U	390	ug/kg	78.0	390	
65794-96-9	m,p-Cresols	U	390	ug/kg	117	390	
67-72-1	Hexachloroethane	U	390	ug/kg	78.0	390	
98-95-3	Nitrobenzene	U	390	ug/kg	78.0	390	
78-59-1	Isophorone	U	390	ug/kg	78.0	390	
88-75-5	2-Nitrophenol	U	390	ug/kg	78.0	390	
105-67-9	2,4-Dimethylphenol	U	390	ug/kg	136	390	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	390	ug/kg	78.0	390	
120-83-2	2,4-Dichlorophenol	U	390	ug/kg	78.0	390	
65-85-0	Benzoic acid	U	780	ug/kg	195	780	
91-20-3	Naphthalene	U	39.0	ug/kg	11.7	39.0	
106-47-8	4-Chloroaniline	U	390	ug/kg	78.0	390	
87-68-3	Hexachlorobutadiene	U	390	ug/kg	78.0	390	
91-57-6	2-Methylnaphthalene	U	39.0	ug/kg	7.80	39.0	
77-47-4	Hexachlorocyclopentadiene	U	390	ug/kg	78.0	390	
88-06-2	2,4,6-Trichlorophenol	U	390	ug/kg	78.0	390	
95-95-4	2,4,5-Trichlorophenol	U	390	ug/kg	78.0	390	
91-58-7	2-Chloronaphthalene	U	39.0	ug/kg	12.9	39.0	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	390	ug/kg	78.0	390	
99-09-2	3-Nitroaniline	U	390	ug/kg	78.0	390	UJ,SV7c

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244003**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**14.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12924**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 01:38**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2632.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	390	ug/kg	78.0	390	
606-20-2	2,6-Dinitrotoluene	U	390	ug/kg	39.0	390	
208-96-8	Acenaphthylene	U	39.0	ug/kg	11.7	39.0	
51-28-5	2,4-Dinitrophenol	U	780	ug/kg	148	780	
132-64-9	Dibenzofuran	U	390	ug/kg	78.0	390	
84-66-2	Diethylphthalate	U	390	ug/kg	78.0	390	
86-73-7	Fluorene	U	39.0	ug/kg	11.7	39.0	
7005-72-3	4-Chlorophenylphenylether	U	390	ug/kg	78.0	390	
534-52-1	2-Methyl-4,6-dinitrophenol	U	390	ug/kg	78.0	390	UJ,SV7c
100-01-6	4-Nitroaniline	U	390	ug/kg	117	390	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	390	ug/kg	78.0	390	
122-66-7	Azobenzene	U	390	ug/kg	78.0	390	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	390	ug/kg	78.0	390	
118-74-1	Hexachlorobenzene	U	390	ug/kg	78.0	390	
85-01-8	Phenanthrene	U	39.0	ug/kg	11.7	39.0	
120-12-7	Anthracene	U	39.0	ug/kg	7.80	39.0	
84-74-2	Di-n-butylphthalate	U	390	ug/kg	78.0	390	
206-44-0	Fluoranthene		43.2	ug/kg	11.7	39.0	
85-68-7	Butylbenzylphthalate	U	390	ug/kg	78.0	390	
56-55-3	Benzo(a)anthracene	U	39.0	ug/kg	11.7	39.0	
91-94-1	3,3'-Dichlorobenzidine	U	390	ug/kg	117	390	
218-01-9	Chrysene	U	39.0	ug/kg	11.7	39.0	
117-81-7	bis(2-Ethylhexyl)phthalate	U	390	ug/kg	78.0	390	
117-84-0	Di-n-octylphthalate	U	390	ug/kg	78.0	390	
205-99-2	Benzo(b)fluoranthene		49.2	ug/kg	11.7	39.0	
207-08-9	Benzo(k)fluoranthene	U	39.0	ug/kg	11.7	39.0	
50-32-8	Benzo(a)pyrene	J	29.9	ug/kg	11.7	39.0	
193-39-5	Indeno(1,2,3-cd)pyrene	J	20.8	ug/kg	11.7	39.0	
53-70-3	Dibenzo(a,h)anthracene	U	39.0	ug/kg	11.7	39.0	
191-24-2	Benzo(ghi)perylene	J	24.2	ug/kg	11.7	39.0	
120-82-1	1,2,4-Trichlorobenzene	U	390	ug/kg	78.0	390	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	374	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2412	**Date Collected:**	03/10/2010 12:00	**Matrix:**	S
Lab Sample ID:	249244006	**Date Received:**	03/12/2010 08:45	**%Moisture:**	13.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12925	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/27/2010 02:39	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.14 g	**Final Volume:**	1 mL
Data File:	s2c2635.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	383	ug/kg	76.5	383	
108-95-2	Phenol	U	383	ug/kg	76.5	383	
95-57-8	2-Chlorophenol	U	383	ug/kg	76.5	383	
106-46-7	1,4-Dichlorobenzene	U	383	ug/kg	76.5	383	
621-64-7	N-Nitrosodipropylamine	U	383	ug/kg	76.5	383	
59-50-7	4-Chloro-3-methylphenol	U	383	ug/kg	76.5	383	
83-32-9	Acenaphthene	J	23.7	ug/kg	12.6	38.3	
121-14-2	2,4-Dinitrotoluene	U	383	ug/kg	38.3	383	
100-02-7	4-Nitrophenol	U	383	ug/kg	126	383	UJ,SV7c
87-86-5	Pentachlorophenol	U	383	ug/kg	95.7	383	
129-00-0	Pyrene		148	ug/kg	11.5	38.3	
110-86-1	Pyridine	U	383	ug/kg	76.5	383	UJ,SV7c
62-53-3	Aniline	U	383	ug/kg	115	383	
111-44-4	bis(2-Chloroethyl) ether	U	383	ug/kg	76.5	383	
541-73-1	1,3-Dichlorobenzene	U	383	ug/kg	76.5	383	
100-51-6	Benzyl alcohol	U	383	ug/kg	115	383	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	383	ug/kg	76.5	383	
108-60-1	bis(2-Chloroisopropyl)ether	U	383	ug/kg	76.5	383	UJ,SV7c
95-48-7	o-Cresol	U	383	ug/kg	76.5	383	
65794-96-9	m,p-Cresols	U	383	ug/kg	115	383	
67-72-1	Hexachloroethane	U	383	ug/kg	76.5	383	
98-95-3	Nitrobenzene	U	383	ug/kg	76.5	383	
78-59-1	Isophorone	U	383	ug/kg	76.5	383	
88-75-5	2-Nitrophenol	U	383	ug/kg	76.5	383	
105-67-9	2,4-Dimethylphenol	U	383	ug/kg	134	383	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	383	ug/kg	76.5	383	
120-83-2	2,4-Dichlorophenol	U	383	ug/kg	76.5	383	
65-85-0	Benzoic acid	U	765	ug/kg	191	765	
91-20-3	Naphthalene	U	38.3	ug/kg	11.5	38.3	
106-47-8	4-Chloroaniline	U	383	ug/kg	76.5	383	
87-68-3	Hexachlorobutadiene	U	383	ug/kg	76.5	383	
91-57-6	2-Methylnaphthalene	U	38.3	ug/kg	7.65	38.3	
77-47-4	Hexachlorocyclopentadiene	U	383	ug/kg	76.5	383	
88-06-2	2,4,6-Trichlorophenol	U	383	ug/kg	76.5	383	
95-95-4	2,4,5-Trichlorophenol	U	383	ug/kg	76.5	383	
91-58-7	2-Chloronaphthalene	U	38.3	ug/kg	12.6	38.3	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	383	ug/kg	76.5	383	
99-09-2	3-Nitroaniline	U	383	ug/kg	76.5	383	UJ,SV7c

P.S. 6/3/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2412	**Date Collected:**	03/10/2010 12:00	**Matrix:**	S
Lab Sample ID:	249244006	**Date Received:**	03/12/2010 08:45	**%Moisture:**	13.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12925	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/27/2010 02:39	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.14 g	**Final Volume:**	1 mL
Data File:	s2c2635.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	383	ug/kg	76.5	383	
606-20-2	2,6-Dinitrotoluene	U	383	ug/kg	38.3	383	
208-96-8	Acenaphthylene	U	38.3	ug/kg	11.5	38.3	
51-28-5	2,4-Dinitrophenol	U	765	ug/kg	145	765	
132-64-9	Dibenzofuran	U	383	ug/kg	76.5	383	
84-66-2	Diethylphthalate	U	383	ug/kg	76.5	383	
86-73-7	Fluorene	J	15.1	ug/kg	11.5	38.3	
7005-72-3	4-Chlorophenylphenylether	U	383	ug/kg	76.5	383	
534-52-1	2-Methyl-4,6-dinitrophenol	U	383	ug/kg	76.5	383	UJ,SV7c
100-01-6	4-Nitroaniline	U	383	ug/kg	115	383	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	383	ug/kg	76.5	383	
122-66-7	Azobenzene	U	383	ug/kg	76.5	383	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	383	ug/kg	76.5	383	
118-74-1	Hexachlorobenzene	U	383	ug/kg	76.5	383	
85-01-8	Phenanthrene		112	ug/kg	11.5	38.3	
120-12-7	Anthracene	J	32.4	ug/kg	7.65	38.3	
84-74-2	Di-n-butylphthalate	U	383	ug/kg	76.5	383	
206-44-0	Fluoranthene		165	ug/kg	11.5	38.3	
85-68-7	Butylbenzylphthalate	U	383	ug/kg	76.5	383	
56-55-3	Benzo(a)anthracene		85.1	ug/kg	11.5	38.3	
91-94-1	3,3'-Dichlorobenzidine	U	383	ug/kg	115	383	
218-01-9	Chrysene		79.3	ug/kg	11.5	38.3	
117-81-7	bis(2-Ethylhexyl)phthalate	U	383	ug/kg	76.5	383	
117-84-0	Di-n-octylphthalate	U	383	ug/kg	76.5	383	
205-99-2	Benzo(b)fluoranthene		111	ug/kg	11.5	38.3	
207-08-9	Benzo(k)fluoranthene	U	38.3	ug/kg	11.5	38.3	
50-32-8	Benzo(a)pyrene		64.0	ug/kg	11.5	38.3	
193-39-5	Indeno(1,2,3-cd)pyrene	J	35.4	ug/kg	11.5	38.3	
53-70-3	Dibenzo(a,h)anthracene	U	38.3	ug/kg	11.5	38.3	
191-24-2	Benzo(ghi)perylene	J	37.8	ug/kg	11.5	38.3	
120-82-1	1,2,4-Trichlorobenzene	U	383	ug/kg	76.5	383	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	336	ug/kg		JA
	Unknown	8.62	490	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2412	**Date Collected:**	03/10/2010 12:00	**Matrix:**	S
Lab Sample ID:	249244006	**Date Received:**	03/12/2010 08:45	**%Moisture:**	13.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12925	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/27/2010 02:39	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.14 g	**Final Volume:**	1 mL
Data File:	s2c2635.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.18	164	ug/kg		J
593-45-3	Octadecane	9.42	282	ug/kg	95	NJ
56619-93-3	Propanamide, N-(3-methoxyphenyl)-2,2-dim	9.62	186	ug/kg	38	NJ
192-97-2	Benzo[e]pyrene	9.81	221	ug/kg	95	NJ
112-95-8	Eicosane	10.26	243	ug/kg	86	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2412	**Date Collected:**	03/10/2010 12:00	**Matrix:**	S
Lab Sample ID:	249244004	**Date Received:**	03/12/2010 08:45	**%Moisture:**	15.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12926	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/27/2010 01:58	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.13 g	**Final Volume:**	1 mL
Data File:	s2c2633.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	392	ug/kg	78.4	392	
108-95-2	Phenol	U	392	ug/kg	78.4	392	
95-57-8	2-Chlorophenol	U	392	ug/kg	78.4	392	
106-46-7	1,4-Dichlorobenzene	U	392	ug/kg	78.4	392	
621-64-7	N-Nitrosodipropylamine	U	392	ug/kg	78.4	392	
59-50-7	4-Chloro-3-methylphenol	U	392	ug/kg	78.4	392	
83-32-9	Acenaphthene	U	39.2	ug/kg	12.9	39.2	
121-14-2	2,4-Dinitrotoluene	U	392	ug/kg	39.2	392	
100-02-7	4-Nitrophenol	U	392	ug/kg	129	392	UJ,SV7c
87-86-5	Pentachlorophenol	U	392	ug/kg	98.0	392	
129-00-0	Pyrene	U	39.2	ug/kg	11.8	39.2	
110-86-1	Pyridine	U	392	ug/kg	78.4	392	UJ,SV7c
62-53-3	Aniline	U	392	ug/kg	118	392	
111-44-4	bis(2-Chloroethyl) ether	U	392	ug/kg	78.4	392	
541-73-1	1,3-Dichlorobenzene	U	392	ug/kg	78.4	392	
100-51-6	Benzyl alcohol	U	392	ug/kg	118	392	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	392	ug/kg	78.4	392	
108-60-1	bis(2-Chloroisopropyl)ether	U	392	ug/kg	78.4	392	UJ,SV7c
95-48-7	o-Cresol	U	392	ug/kg	78.4	392	
65794-96-9	m,p-Cresols	U	392	ug/kg	118	392	
67-72-1	Hexachloroethane	U	392	ug/kg	78.4	392	
98-95-3	Nitrobenzene	U	392	ug/kg	78.4	392	
78-59-1	Isophorone	U	392	ug/kg	78.4	392	
88-75-5	2-Nitrophenol	U	392	ug/kg	78.4	392	
105-67-9	2,4-Dimethylphenol	U	392	ug/kg	137	392	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	392	ug/kg	78.4	392	
120-83-2	2,4-Dichlorophenol	U	392	ug/kg	78.4	392	
65-85-0	Benzoic acid	U	784	ug/kg	196	784	
91-20-3	Naphthalene	U	39.2	ug/kg	11.8	39.2	
106-47-8	4-Chloroaniline	U	392	ug/kg	78.4	392	
87-68-3	Hexachlorobutadiene	U	392	ug/kg	78.4	392	
91-57-6	2-Methylnaphthalene	U	39.2	ug/kg	7.84	39.2	
77-47-4	Hexachlorocyclopentadiene	U	392	ug/kg	78.4	392	
88-06-2	2,4,6-Trichlorophenol	U	392	ug/kg	78.4	392	
95-95-4	2,4,5-Trichlorophenol	U	392	ug/kg	78.4	392	
91-58-7	2-Chloronaphthalene	U	39.2	ug/kg	12.9	39.2	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	392	ug/kg	78.4	392	
99-09-2	3-Nitroaniline	U	392	ug/kg	78.4	392	UJ,SV7c

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2412	**Date Collected:**	03/10/2010 12:00	**Matrix:**	S
Lab Sample ID:	249244004	**Date Received:**	03/12/2010 08:45	**%Moisture:**	15.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12926	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/27/2010 01:58	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.13 g	**Final Volume:**	1 mL
Data File:	s2c2633.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	392	ug/kg	78.4	392	
606-20-2	2,6-Dinitrotoluene	U	392	ug/kg	39.2	392	
208-96-8	Acenaphthylene	U	39.2	ug/kg	11.8	39.2	
51-28-5	2,4-Dinitrophenol	U	784	ug/kg	149	784	
132-64-9	Dibenzofuran	U	392	ug/kg	78.4	392	
84-66-2	Diethylphthalate	U	392	ug/kg	78.4	392	
86-73-7	Fluorene	U	39.2	ug/kg	11.8	39.2	
7005-72-3	4-Chlorophenylphenylether	U	392	ug/kg	78.4	392	
534-52-1	2-Methyl-4,6-dinitrophenol	U	392	ug/kg	78.4	392	UJ,SV7c
100-01-6	4-Nitroaniline	U	392	ug/kg	118	392	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	392	ug/kg	78.4	392	
122-66-7	Azobenzene	U	392	ug/kg	78.4	392	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	392	ug/kg	78.4	392	
118-74-1	Hexachlorobenzene	U	392	ug/kg	78.4	392	
85-01-8	Phenanthrene	U	39.2	ug/kg	11.8	39.2	
120-12-7	Anthracene	U	39.2	ug/kg	7.84	39.2	
84-74-2	Di-n-butylphthalate	U	392	ug/kg	78.4	392	
206-44-0	Fluoranthene	U	39.2	ug/kg	11.8	39.2	
85-68-7	Butylbenzylphthalate	U	392	ug/kg	78.4	392	
56-55-3	Benzo(a)anthracene	U	39.2	ug/kg	11.8	39.2	
91-94-1	3,3'-Dichlorobenzidine	U	392	ug/kg	118	392	
218-01-9	Chrysene	U	39.2	ug/kg	11.8	39.2	
117-81-7	bis(2-Ethylhexyl)phthalate	U	392	ug/kg	78.4	392	
117-84-0	Di-n-octylphthalate	U	392	ug/kg	78.4	392	
205-99-2	Benzo(b)fluoranthene	U	39.2	ug/kg	11.8	39.2	
207-08-9	Benzo(k)fluoranthene	U	39.2	ug/kg	11.8	39.2	
50-32-8	Benzo(a)pyrene	U	39.2	ug/kg	11.8	39.2	
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.2	ug/kg	11.8	39.2	
53-70-3	Dibenzo(a,h)anthracene	U	39.2	ug/kg	11.8	39.2	
191-24-2	Benzo(ghi)perylene	U	39.2	ug/kg	11.8	39.2	
120-82-1	1,2,4-Trichlorobenzene	U	392	ug/kg	78.4	392	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	364	ug/kg		JA

Semi-Volatile
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Sample Summary

SDG Number:	10-2412	**Date Collected:**	03/10/2010 12:00	**Matrix:**	S
Lab Sample ID:	249244001	**Date Received:**	03/12/2010 08:45	**%Moisture:**	12
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12927	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/27/2010 00:58	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.14 g	**Final Volume:**	1 mL
Data File:	s2c2630.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	377	ug/kg	75.4	377	
108-95-2	Phenol	U	377	ug/kg	75.4	377	
95-57-8	2-Chlorophenol	U	377	ug/kg	75.4	377	
106-46-7	1,4-Dichlorobenzene	U	377	ug/kg	75.4	377	
621-64-7	N-Nitrosodipropylamine	U	377	ug/kg	75.4	377	
59-50-7	4-Chloro-3-methylphenol	U	377	ug/kg	75.4	377	
83-32-9	Acenaphthene		49.8	ug/kg	12.4	37.7	
121-14-2	2,4-Dinitrotoluene	U	377	ug/kg	37.7	377	
100-02-7	4-Nitrophenol	U	377	ug/kg	124	377	UJ,SV7c
87-86-5	Pentachlorophenol	U	377	ug/kg	94.2	377	
129-00-0	Pyrene		312	ug/kg	11.3	37.7	
110-86-1	Pyridine	U	377	ug/kg	75.4	377	UJ,SV7c
62-53-3	Aniline	U	377	ug/kg	113	377	
111-44-4	bis(2-Chloroethyl) ether	U	377	ug/kg	75.4	377	
541-73-1	1,3-Dichlorobenzene	U	377	ug/kg	75.4	377	
100-51-6	Benzyl alcohol	U	377	ug/kg	113	377	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	377	ug/kg	75.4	377	
108-60-1	bis(2-Chloroisopropyl)ether	U	377	ug/kg	75.4	377	UJ,SV7c
95-48-7	o-Cresol	U	377	ug/kg	75.4	377	
65794-96-9	m,p-Cresols	U	377	ug/kg	113	377	
67-72-1	Hexachloroethane	U	377	ug/kg	75.4	377	
98-95-3	Nitrobenzene	U	377	ug/kg	75.4	377	
78-59-1	Isophorone	U	377	ug/kg	75.4	377	
88-75-5	2-Nitrophenol	U	377	ug/kg	75.4	377	
105-67-9	2,4-Dimethylphenol	U	377	ug/kg	132	377	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	377	ug/kg	75.4	377	
120-83-2	2,4-Dichlorophenol	U	377	ug/kg	75.4	377	
65-85-0	Benzoic acid	U	754	ug/kg	188	754	
91-20-3	Naphthalene	J	36.8	ug/kg	11.3	37.7	
106-47-8	4-Chloroaniline	U	377	ug/kg	75.4	377	
87-68-3	Hexachlorobutadiene	U	377	ug/kg	75.4	377	
91-57-6	2-Methylnaphthalene	J	12.8	ug/kg	7.54	37.7	
77-47-4	Hexachlorocyclopentadiene	U	377	ug/kg	75.4	377	
88-06-2	2,4,6-Trichlorophenol	U	377	ug/kg	75.4	377	
95-95-4	2,4,5-Trichlorophenol	U	377	ug/kg	75.4	377	
91-58-7	2-Chloronaphthalene	U	37.7	ug/kg	12.4	37.7	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	377	ug/kg	75.4	377	
99-09-2	3-Nitroaniline	U	377	ug/kg	75.4	377	UJ,SV7c

R.S. 6/3/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2412	**Date Collected:**	03/10/2010 12:00	**Matrix:**	S
Lab Sample ID:	249244001	**Date Received:**	03/12/2010 08:45	**%Moisture:**	12
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12927	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/27/2010 00:58	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.14 g	**Final Volume:**	1 mL
Data File:	s2c2630.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	377	ug/kg	75.4	377	
606-20-2	2,6-Dinitrotoluene	U	377	ug/kg	37.7	377	
208-96-8	Acenaphthylene	U	37.7	ug/kg	11.3	37.7	
51-28-5	2,4-Dinitrophenol	U	754	ug/kg	143	754	
132-64-9	Dibenzofuran	U	377	ug/kg	75.4	377	
84-66-2	Diethylphthalate	U	377	ug/kg	75.4	377	
86-73-7	Fluorene		43.6	ug/kg	11.3	37.7	
7005-72-3	4-Chlorophenylphenylether	U	377	ug/kg	75.4	377	
534-52-1	2-Methyl-4,6-dinitrophenol	U	377	ug/kg	75.4	377	UJ,SV7c
100-01-6	4-Nitroaniline	U	377	ug/kg	113	377	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	377	ug/kg	75.4	377	
122-66-7	Azobenzene	U	377	ug/kg	75.4	377	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	377	ug/kg	75.4	377	
118-74-1	Hexachlorobenzene	U	377	ug/kg	75.4	377	
85-01-8	Phenanthrene		320	ug/kg	11.3	37.7	
120-12-7	Anthracene		79.7	ug/kg	7.54	37.7	
84-74-2	Di-n-butylphthalate	U	377	ug/kg	75.4	377	
206-44-0	Fluoranthene		404	ug/kg	11.3	37.7	
85-68-7	Butylbenzylphthalate	U	377	ug/kg	75.4	377	
56-55-3	Benzo(a)anthracene		167	ug/kg	11.3	37.7	
91-94-1	3,3'-Dichlorobenzidine	U	377	ug/kg	113	377	
218-01-9	Chrysene		136	ug/kg	11.3	37.7	
117-81-7	bis(2-Ethylhexyl)phthalate	U	377	ug/kg	75.4	377	
117-84-0	Di-n-octylphthalate	U	377	ug/kg	75.4	377	
205-99-2	Benzo(b)fluoranthene		205	ug/kg	11.3	37.7	
207-08-9	Benzo(k)fluoranthene	U	37.7	ug/kg	11.3	37.7	
50-32-8	Benzo(a)pyrene		130	ug/kg	11.3	37.7	
193-39-5	Indeno(1,2,3-cd)pyrene		74.5	ug/kg	11.3	37.7	
53-70-3	Dibenzo(a,h)anthracene	U	37.7	ug/kg	11.3	37.7	
191-24-2	Benzo(ghi)perylene		88.2	ug/kg	11.3	37.7	
120-82-1	1,2,4-Trichlorobenzene	U	377	ug/kg	75.4	377	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.84	325	ug/kg		JA

R.S. 6/3/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2412	**Date Collected:**	03/10/2010 12:00	**Matrix:**	S
Lab Sample ID:	249244005	**Date Received:**	03/12/2010 08:45	**%Moisture:**	18.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12928	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/27/2010 02:19	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	s2c2634.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	408	ug/kg	81.7	408	
108-95-2	Phenol	U	408	ug/kg	81.7	408	
95-57-8	2-Chlorophenol	U	408	ug/kg	81.7	408	
106-46-7	1,4-Dichlorobenzene	U	408	ug/kg	81.7	408	
621-64-7	N-Nitrosodipropylamine	U	408	ug/kg	81.7	408	
59-50-7	4-Chloro-3-methylphenol	U	408	ug/kg	81.7	408	
83-32-9	Acenaphthene	U	40.8	ug/kg	13.5	40.8	
121-14-2	2,4-Dinitrotoluene	U	408	ug/kg	40.8	408	
100-02-7	4-Nitrophenol	U	408	ug/kg	135	408	UJ,SV7c
87-86-5	Pentachlorophenol	U	408	ug/kg	102	408	
129-00-0	Pyrene		49.8	ug/kg	12.2	40.8	
110-86-1	Pyridine	U	408	ug/kg	81.7	408	UJ,SV7c
62-53-3	Aniline	U	408	ug/kg	122	408	
111-44-4	bis(2-Chloroethyl) ether	U	408	ug/kg	81.7	408	
541-73-1	1,3-Dichlorobenzene	U	408	ug/kg	81.7	408	
100-51-6	Benzyl alcohol	U	408	ug/kg	122	408	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	408	ug/kg	81.7	408	
108-60-1	bis(2-Chloroisopropyl)ether	U	408	ug/kg	81.7	408	UJ,SV7c
95-48-7	o-Cresol	U	408	ug/kg	81.7	408	
65794-96-9	m,p-Cresols	U	408	ug/kg	122	408	
67-72-1	Hexachloroethane	U	408	ug/kg	81.7	408	
98-95-3	Nitrobenzene	U	408	ug/kg	81.7	408	
78-59-1	Isophorone	U	408	ug/kg	81.7	408	
88-75-5	2-Nitrophenol	U	408	ug/kg	81.7	408	
105-67-9	2,4-Dimethylphenol	U	408	ug/kg	143	408	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	408	ug/kg	81.7	408	
120-83-2	2,4-Dichlorophenol	U	408	ug/kg	81.7	408	
65-85-0	Benzoic acid	U	817	ug/kg	204	817	
91-20-3	Naphthalene	U	40.8	ug/kg	12.2	40.8	
106-47-8	4-Chloroaniline	U	408	ug/kg	81.7	408	
87-68-3	Hexachlorobutadiene	U	408	ug/kg	81.7	408	
91-57-6	2-Methylnaphthalene	U	40.8	ug/kg	8.17	40.8	
77-47-4	Hexachlorocyclopentadiene	U	408	ug/kg	81.7	408	
88-06-2	2,4,6-Trichlorophenol	U	408	ug/kg	81.7	408	
95-95-4	2,4,5-Trichlorophenol	U	408	ug/kg	81.7	408	
91-58-7	2-Chloronaphthalene	U	40.8	ug/kg	13.5	40.8	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	408	ug/kg	81.7	408	
99-09-2	3-Nitroaniline	U	408	ug/kg	81.7	408	UJ,SV7c

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2412	**Date Collected:**	03/10/2010 12:00	**Matrix:**	S
Lab Sample ID:	249244005	**Date Received:**	03/12/2010 08:45	**%Moisture:**	18.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12928	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/27/2010 02:19	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	s2c2634.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	408	ug/kg	81.7	408	
606-20-2	2,6-Dinitrotoluene	U	408	ug/kg	40.8	408	
208-96-8	Acenaphthylene	U	40.8	ug/kg	12.2	40.8	
51-28-5	2,4-Dinitrophenol	U	817	ug/kg	155	817	
132-64-9	Dibenzofuran	U	408	ug/kg	81.7	408	
84-66-2	Diethylphthalate	U	408	ug/kg	81.7	408	
86-73-7	Fluorene	U	40.8	ug/kg	12.2	40.8	
7005-72-3	4-Chlorophenylphenylether	U	408	ug/kg	81.7	408	
534-52-1	2-Methyl-4,6-dinitrophenol	U	408	ug/kg	81.7	408	UJ,SV7c
100-01-6	4-Nitroaniline	U	408	ug/kg	122	408	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	408	ug/kg	81.7	408	
122-66-7	Azobenzene	U	408	ug/kg	81.7	408	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	408	ug/kg	81.7	408	
118-74-1	Hexachlorobenzene	U	408	ug/kg	81.7	408	
85-01-8	Phenanthrene	J	34.3	ug/kg	12.2	40.8	
120-12-7	Anthracene	U	40.8	ug/kg	8.17	40.8	
84-74-2	Di-n-butylphthalate	U	408	ug/kg	81.7	408	
206-44-0	Fluoranthene		59.8	ug/kg	12.2	40.8	
85-68-7	Butylbenzylphthalate	U	408	ug/kg	81.7	408	
56-55-3	Benzo(a)anthracene	U	40.8	ug/kg	12.2	40.8	
91-94-1	3,3'-Dichlorobenzidine	U	408	ug/kg	122	408	
218-01-9	Chrysene	U	40.8	ug/kg	12.2	40.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	408	ug/kg	81.7	408	
117-84-0	Di-n-octylphthalate	U	408	ug/kg	81.7	408	
205-99-2	Benzo(b)fluoranthene	J	38.3	ug/kg	12.2	40.8	
207-08-9	Benzo(k)fluoranthene	U	40.8	ug/kg	12.2	40.8	
50-32-8	Benzo(a)pyrene	J	22.9	ug/kg	12.2	40.8	
193-39-5	Indeno(1,2,3-cd)pyrene	J	14.2	ug/kg	12.2	40.8	
53-70-3	Dibenzo(a,h)anthracene	U	40.8	ug/kg	12.2	40.8	
191-24-2	Benzo(ghi)perylene	J	16.6	ug/kg	12.2	40.8	
120-82-1	1,2,4-Trichlorobenzene	U	408	ug/kg	81.7	408	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	360	ug/kg		JA
79-92-5	Camphene	3.49	289	ug/kg	97	NJ

P.S. 6/3/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244005**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**18.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12928**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 02:19**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2634.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	3.58	220	ug/kg		J
127-91-3	.beta.-Pinene	3.63	595	ug/kg	83	NJ

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2412 VALIDATION DATE: 06/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS and MSD %R calculations were performed incorrectly. The parent sample result was < the MDL and, thus, a result of 0 µg/kg should have been used to calculate the %Rs. The laboratory subtracted the parent sample concentration. The %Rs were within the acceptance limits when calculated correctly. No sample results were qualified.

Reviewed by: Mary Donivan Level: I Date: 06/04/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 06/03/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☒	☐	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☐	☒	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☐	☒	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12927

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 249244001

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.568	2.27	0.568	ug/kg	U	1	30-MAR-10 16:12	per0330039a
	Perchlorate Isotope Ratio						1	30-MAR-10 16:12	per0330039a
14797-73-0	Perchlorate-101	.568	2.27	0.568	ug/kg	U	1	30-MAR-10 16:12	per0330039a
	Perchlorate-O(18)			5.32	ug/kg		1	30-MAR-10 16:12	per0330039a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

P.S. 6/03/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12923

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 249244002

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.591	2.36	0.591	ug/kg	U	1	30-MAR-10 16:36	per0330042a
	Perchlorate Isotope Ratio						1	30-MAR-10 16:36	per0330042a
14797-73-0	Perchlorate-101	.591	2.36	0.591	ug/kg	U	1	30-MAR-10 16:36	per0330042a
	Perchlorate-O(18)			5.56	ug/kg		1	30-MAR-10 16:36	per0330042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

P.S. 6/03/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46–10–12924

Date Received: 12–MAR–10

GEL Job No (SDG): 10–2412

GEL Sample ID: 249244003

Date Filtered: 22–MAR–10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.586	2.34	0.586	ug/kg	U	1	30–MAR–10 16:44	per0330043a
	Perchlorate Isotope Ratio						1	30–MAR–10 16:44	per0330043a
14797–73–0	Perchlorate–101	.586	2.34	0.586	ug/kg	U	1	30–MAR–10 16:44	per0330043a
	Perchlorate–O(18)			5.49	ug/kg		1	30–MAR–10 16:44	per0330043a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

P.S. 6/03/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12926

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 249244004

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.591	2.36	0.591	ug/kg	U	1	30-MAR-10 16:52	per0330044a
	Perchlorate Isotope Ratio						1	30-MAR-10 16:52	per0330044a
14797-73-0	Perchlorate-101	.591	2.36	0.591	ug/kg	U	1	30-MAR-10 16:52	per0330044a
	Perchlorate-O(18)			5.25	ug/kg		1	30-MAR-10 16:52	per0330044a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

P.S. 6/03/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12928

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 249244005

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.614	2.46	0.614	ug/kg	U	1	30-MAR-10 17:24	per0330048a
	Perchlorate Isotope Ratio						1	30-MAR-10 17:24	per0330048a
14797-73-0	Perchlorate-101	.614	2.46	0.614	ug/kg	U	1	30-MAR-10 17:24	per0330048a
	Perchlorate-O(18)			5.82	ug/kg		1	30-MAR-10 17:24	per0330048a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

P.S. 6/03/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12925

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 249244006

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.577	2.31	0.577	ug/kg	U	1	30-MAR-10 17:33	per0330049a
	Perchlorate Isotope Ratio						1	30-MAR-10 17:33	per0330049a
14797-73-0	Perchlorate-101	.577	2.31	0.577	ug/kg	U	1	30-MAR-10 17:33	per0330049a
	Perchlorate-O(18)			5.41	ug/kg		1	30-MAR-10 17:33	per0330049a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2412 VALIDATION DATE: 06/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL parent sample from another RN. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 06/04/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 06/03/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

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Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	**32.** The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	**UJ, R, P15**	**R, P15**
☒	☐	☐	**33.** Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	**U, U_LAB**	**J, J_LAB, NQ, NQ**
☐	☒	☐	**34.** The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	**UJ, R, P19**	**J, R, P19**

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	Date Collected:	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244002**	Date Received:	**03/12/2010 08:45**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12923**	Method:	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967824**	Inst:	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 13:03**	Analyst:	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	Aliquot:	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**024f2401.d**	Column:	**1 CLP1**	**Level:**	**LOW**
	024b2401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	19.6	ug/kg	6.52	19.6	1
11104-28-2	Aroclor-1221	U	19.6	ug/kg	6.52	19.6	1
11141-16-5	Aroclor-1232	U	19.6	ug/kg	6.52	19.6	1
53469-21-9	Aroclor-1242	U	19.6	ug/kg	6.52	19.6	1
12672-29-6	Aroclor-1248	U	19.6	ug/kg	6.52	19.6	1
11097-69-1	Aroclor-1254	U	19.6	ug/kg	6.52	19.6	1
11096-82-5	Aroclor-1260	J	18.4	ug/kg	6.52	19.6	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	Date Collected:	03/10/2010 12:00	**Matrix:**	**S**
Lab Sample ID:	**249244003**	Date Received:	03/12/2010 08:45	**%Moisture:**	**14.6**
		Client:	LANL010	**Project:**	**LANL01004**
Client ID:	**RE46-10-12924**	Method:	SW846 8082	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967824**	Inst:	ECD8A.I	**Dilution:**	**1**
Run Date:	**03/23/2010 13:15**	Analyst:	JAOC	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	Aliquot:	30.09 g	**Final Volume:**	**1 mL**
Data File:	**025f2501.d**	Column:	1 CLP1	**Level:**	**LOW**
	025b2501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.89	ug/kg	1.30	3.89	1
11104-28-2	Aroclor-1221	U	3.89	ug/kg	1.30	3.89	1
11141-16-5	Aroclor-1232	U	3.89	ug/kg	1.30	3.89	1
53469-21-9	Aroclor-1242	U	3.89	ug/kg	1.30	3.89	1
12672-29-6	Aroclor-1248	U	3.89	ug/kg	1.30	3.89	1
11097-69-1	Aroclor-1254	U	3.89	ug/kg	1.30	3.89	1
11096-82-5	Aroclor-1260	J	1.70	ug/kg	1.30	3.89	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	Date Collected:	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244006**	Date Received:	**03/12/2010 08:45**	**%Moisture:**	**13.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12925**	Method:	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967824**	Inst:	**ECD8A.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 13:52**	Analyst:	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	Aliquot:	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**028f2801.d**	Column:	**1 CLP1**	**Level:**	**LOW**
	028b2801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	38.4	ug/kg	12.8	38.4	1
11104-28-2	Aroclor-1221	U	38.4	ug/kg	12.8	38.4	1
11141-16-5	Aroclor-1232	U	38.4	ug/kg	12.8	38.4	1
53469-21-9	Aroclor-1242	U	38.4	ug/kg	12.8	38.4	1
12672-29-6	Aroclor-1248	U	38.4	ug/kg	12.8	38.4	1
11097-69-1	Aroclor-1254	U	38.4	ug/kg	12.8	38.4	1
11096-82-5	Aroclor-1260	U	38.4	ug/kg	12.8	38.4	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	Date Collected:	03/10/2010 12:00	**Matrix:**	**S**
Lab Sample ID:	**249244004**	Date Received:	03/12/2010 08:45	**%Moisture:**	**15.3**
		Client:	LANL010	**Project:**	**LANL01004**
Client ID:	**RE46-10-12926**	Method:	SW846 8082	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967824**	Inst:	ECD8A.I	**Dilution:**	**1**
Run Date:	**03/23/2010 13:28**	Analyst:	JAOC	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	Aliquot:	30.08 g	**Final Volume:**	**1 mL**
Data File:	**026f2601.d**	Column:	1 CLP1	**Level:**	**LOW**
	026b2601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.93	ug/kg	1.31	3.93	1
11104-28-2	Aroclor-1221	U	3.93	ug/kg	1.31	3.93	1
11141-16-5	Aroclor-1232	U	3.93	ug/kg	1.31	3.93	1
53469-21-9	Aroclor-1242	U	3.93	ug/kg	1.31	3.93	1
12672-29-6	Aroclor-1248	U	3.93	ug/kg	1.31	3.93	1
11097-69-1	Aroclor-1254	U	3.93	ug/kg	1.31	3.93	1
11096-82-5	Aroclor-1260	U	3.93	ug/kg	1.31	3.93	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	Date Collected:	03/10/2010 12:00	**Matrix:**	**S**
Lab Sample ID:	**249244001**	Date Received:	03/12/2010 08:45	**%Moisture:**	**12**
		Client:	LANL010	**Project:**	**LANL01004**
Client ID:	**RE46-10-12927**	Method:	SW846 8082	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967824**	Inst:	ECD8A.I	**Dilution:**	**10**
Run Date:	**03/23/2010 12:51**	Analyst:	JAOC	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	Aliquot:	30.02 g	**Final Volume:**	**1 mL**
Data File:	**023f2301.d**	Column:	1 CLP1	**Level:**	**LOW**
	023b2301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	37.8	ug/kg	12.6	37.8	1
11104-28-2	Aroclor-1221	U	37.8	ug/kg	12.6	37.8	1
11141-16-5	Aroclor-1232	U	37.8	ug/kg	12.6	37.8	1
53469-21-9	Aroclor-1242	U	37.8	ug/kg	12.6	37.8	1
12672-29-6	Aroclor-1248	U	37.8	ug/kg	12.6	37.8	1
11097-69-1	Aroclor-1254	U	37.8	ug/kg	12.6	37.8	1
11096-82-5	Aroclor-1260	U	37.8	ug/kg	12.6	37.8	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2412**	Date Collected:	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244005**	Date Received:	**03/12/2010 08:45**	**%Moisture:**	**18.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12928**	Method:	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	Inst:	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 13:40**	Analyst:	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	Aliquot:	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**027f2701.d**	Column:	**1 CLP1**	**Level:**	**LOW**
	027b2701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	20.4	ug/kg	6.80	20.4	1
11104–28–2	Aroclor–1221	U	20.4	ug/kg	6.80	20.4	1
11141–16–5	Aroclor–1232	U	20.4	ug/kg	6.80	20.4	1
53469–21–9	Aroclor–1242	U	20.4	ug/kg	6.80	20.4	1
12672–29–6	Aroclor–1248	U	20.4	ug/kg	6.80	20.4	1
11097–69–1	Aroclor–1254	U	20.4	ug/kg	6.80	20.4	1
11096–82–5	Aroclor–1260	U	20.4	ug/kg	6.80	20.4	1

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

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Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2412 VALIDATION DATE: 06/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the ICB and/or CCBs, K was detected. The associated sample results were detects >5X the greatest associated blank concentration and, thus, were not qualified.
2. The MS %R was < the laboratory LAL but ≥10% for Ni. The associated sample results were detects and, thus, were qualified J-,I6a. The MS %Rs were > the laboratory UAL for Ca, Mg and K. The associated sample results were detects and, thus, were qualified J+,I6b. Also, the MS %Rs were > the laboratory UAL for Al, Fe and Mn. However, the associated parent sample concentrations were >4X the spike concentrations. Thus, the associated sample results were not qualified, based on professional judgment.
3. The RPD between the duplicate and its parent sample for Ba, Cr, Pb, Mn and V were >35%, and the duplicate and parent sample results were ≥5X the PQLs. The associated sample results were detects and, thus, were qualified J,I10a.
4. It should be noted the matrix QC analyses for Hg were performed on a LANL sample from another RN. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 06/04/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 06/03/10

DATA VALIDATION COVER SHEET

5118-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2412 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249244001 **BASIS:** Dry Weight **DATE COLLECTED** 10-MAR-10

CLIENT ID: RE46-10-12927 **LEVEL:** Low **DATE RECEIVED** 12-MAR-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum		5550000	ug/kg		7560	22200	22200	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-36-0	Antimony		1110	ug/kg	U	367	1110	1110	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-38-2	Arsenic		2090	ug/kg		224	1120	1120	2	MS	RMJ	05/16/10 05:02	100515-3	965591
7440-39-3	Barium	J,I10a	89300	ug/kg	*	111	556	556	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-41-7	Beryllium		506	ug/kg		22.4	112	112	2	MS	RMJ	05/14/10 06:40	100512-2	965591
7440-43-9	Cadmium		556	ug/kg	U	111	556	556	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-70-2	Calcium	J+,I6b	2170000	ug/kg	*N	8890	27800	27800	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-47-3	Chromium	J,I10a	5550	ug/kg	*	167	556	556	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-48-4	Cobalt		2760	ug/kg	*	167	556	556	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-50-8	Copper		5250	ug/kg		333	1110	1110	1	P	HSC	04/05/10 17:00	040510-1	965588
7439-89-6	Iron		9420000	ug/kg	*	8890	27800	27800	1	P	HSC	04/05/10 17:00	040510-1	965588
7439-92-1	Lead	J,I10a	15600	ug/kg	*	278	1110	1110	1	P	HSC	04/05/10 17:00	040510-1	965588
7439-95-4	Magnesium	J+,I6b	1210000	ug/kg	N	9450	33300	33300	1	P	HSC	04/05/10 17:00	040510-1	965588
7439-96-5	Manganese	J,I10a	223000	ug/kg	*	222	1110	1110	1	P	HSC	04/05/10 17:00	040510-1	965588
7439-97-6	Mercury		18.6	ug/kg		3.99	11.7	11.7	1	AV	JXL1	03/31/10 09:05	033110S1-4	969290
7440-02-0	Nickel	J-,I6a	6310	ug/kg	N	112	447	447	2	MS	RMJ	05/16/10 05:02	100515-3	965591
7440-09-7	Potassium	J+,I6b	829000	ug/kg	N	7110	27800	27800	1	P	HSC	04/05/10 17:00	040510-1	965588
7782-49-2	Selenium		1120	ug/kg	U	559	1120	1120	2	MS	RMJ	05/16/10 05:02	100515-3	965591
7440-22-4	Silver		556	ug/kg	U	111	556	556	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-23-5	Sodium		128000	ug/kg		7780	27800	27800	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-28-0	Thallium		114	ug/kg	J	67.1	224	224	2	MS	RMJ	05/14/10 06:40	100512-2	965591
7440-62-2	Vanadium	J,I10a	13500	ug/kg	*	111	556	556	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-66-6	Zinc		26600	ug/kg	*E	367	1110	1110	1	P	HSC	04/05/10 17:00	040510-1	965588

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965588	965587	SW846 3050B	0.511	g	50	mL	03/25/10	LYH1
965591	965590	SW846 3050B	0.508	g	50	mL	03/26/10	LYH1
969290	969289	SW846 7471A Prep	0.581	g	30	mL	03/30/10	TXB3

P.S. 6/3/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2412 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249244002 **BASIS:** Dry Weight **DATE COLLECTED** 10-MAR-10

CLIENT ID: RE46-10-12923 **LEVEL:** Low **DATE RECEIVED** 12-MAR-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum		7410000	ug/kg		7670	22500	22500	1	P	HSC	04/05/10 17:15	040510-1	965588
7440-36-0	Antimony		1130	ug/kg	U	372	1130	1130	1	P	HSC	04/05/10 17:15	040510-1	965588
7440-38-2	Arsenic		2080	ug/kg		224	1120	1120	2	MS	RMJ	05/16/10 05:24	100515-3	965591
7440-39-3	Barium	J,I10a	124000	ug/kg	*	113	564	564	1	P	HSC	04/05/10 17:15	040510-1	965588
7440-41-7	Beryllium		678	ug/kg		22.4	112	112	2	MS	RMJ	05/14/10 07:14	100512-2	965591
7440-43-9	Cadmium		564	ug/kg	U	113	564	564	1	P	HSC	04/05/10 17:15	040510-1	965588
7440-70-2	Calcium	J+,I6b	4370000	ug/kg	*N	9020	28200	28200	1	P	HSC	04/05/10 17:15	040510-1	965588
7440-47-3	Chromium	J,I10a	8090	ug/kg	*	169	564	564	1	P	HSC	04/05/10 17:15	040510-1	965588
7440-48-4	Cobalt		4910	ug/kg	*	169	564	564	1	P	HSC	04/05/10 17:15	040510-1	965588
7440-50-8	Copper		6230	ug/kg		338	1130	1130	1	P	HSC	04/05/10 17:15	040510-1	965588
7439-89-6	Iron		12400000	ug/kg	*	9020	28200	28200	1	P	HSC	04/05/10 17:15	040510-1	965588
7439-92-1	Lead	J,I10a	17500	ug/kg	*	282	1130	1130	1	P	HSC	04/05/10 17:15	040510-1	965588
7439-95-4	Magnesium	J+,I6b	1770000	ug/kg	N	9580	33800	33800	1	P	HSC	04/05/10 17:15	040510-1	965588
7439-96-5	Manganese	J,I10a	340000	ug/kg	*	225	1130	1130	1	P	HSC	04/05/10 17:15	040510-1	965588
7439-97-6	Mercury		30.5	ug/kg		4.38	12.9	12.9	1	AV	JXL1	03/31/10 09:07	033110S1-4	969290
7440-02-0	Nickel	J-,I6a	8130	ug/kg	N	112	447	447	2	MS	RMJ	05/16/10 05:24	100515-3	965591
7440-09-7	Potassium	J+,I6b	1100000	ug/kg	N	7210	28200	28200	1	P	HSC	04/05/10 17:15	040510-1	965588
7782-49-2	Selenium		1120	ug/kg	U	559	1120	1120	2	MS	RMJ	05/16/10 05:24	100515-3	965591
7440-22-4	Silver		564	ug/kg	U	113	564	564	1	P	HSC	04/05/10 17:15	040510-1	965588
7440-23-5	Sodium		73500	ug/kg		7890	28200	28200	1	P	HSC	04/05/10 17:15	040510-1	965588
7440-28-0	Thallium		155	ug/kg	J	67.1	224	224	2	MS	RMJ	05/14/10 07:14	100512-2	965591
7440-62-2	Vanadium	J,I10a	22200	ug/kg	*	113	564	564	1	P	HSC	04/05/10 17:15	040510-1	965588
7440-66-6	Zinc		35900	ug/kg	*E	372	1130	1130	1	P	HSC	04/05/10 17:15	040510-1	965588

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965588	965587	SW846 3050B	0.524	g	50	mL	03/25/10	LYH1
965591	965590	SW846 3050B	0.528	g	50	mL	03/26/10	LYH.
969290	969289	SW846 7471A Prep	0.55	g	30	mL	03/30/10	TXB3

P.S. 6/3/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2412 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249244003 **BASIS:** Dry Weight **DATE COLLECTED** 10-MAR-10

CLIENT ID: RE46-10-12924 **LEVEL:** Low **DATE RECEIVED** 12-MAR-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	8420000	ug/kg		7280	21400	21400	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-36-0	Antimony	1070	ug/kg	U	353	1070	1070	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-38-2	Arsenic	1790	ug/kg		218	1090	1090	2	MS	RMJ	05/16/10 05:37	100515-3	965591
7440-39-3	Barium J,I10a	133000	ug/kg	*	107	535	535	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-41-7	Beryllium	642	ug/kg		21.8	109	109	2	MS	RMJ	05/14/10 07:19	100512-2	965591
7440-43-9	Cadmium	535	ug/kg	U	107	535	535	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-70-2	Calcium J+,I6b	2210000	ug/kg	*N	8570	26800	26800	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-47-3	Chromium J,I10a	11500	ug/kg	*	161	535	535	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-48-4	Cobalt	5580	ug/kg	*	161	535	535	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-50-8	Copper	9080	ug/kg		321	1070	1070	1	P	HSC	04/05/10 17:17	040510-1	965588
7439-89-6	Iron	13000000	ug/kg	*	8570	26800	26800	1	P	HSC	04/05/10 17:17	040510-1	965588
7439-92-1	Lead J,I10a	15000	ug/kg	*	268	1070	1070	1	P	HSC	04/05/10 17:17	040510-1	965588
7439-95-4	Magnesium J+,I6b	1990000	ug/kg	N	9100	32100	32100	1	P	HSC	04/05/10 17:17	040510-1	965588
7439-96-5	Manganese J,I10a	331000	ug/kg	*	214	1070	1070	1	P	HSC	04/05/10 17:17	040510-1	965588
7439-97-6	Mercury	17.6	ug/kg		4.32	12.7	12.7	1	AV	JXL1	03/31/10 09:09	033110S1-4	969290
7440-02-0	Nickel J-,I6a	7850	ug/kg	N	109	436	436	2	MS	RMJ	05/16/10 05:37	100515-3	965591
7440-09-7	Potassium J+,I6b	1100000	ug/kg	N	6850	26800	26800	1	P	HSC	04/05/10 17:17	040510-1	965588
7782-49-2	Selenium	1090	ug/kg	U	545	1090	1090	2	MS	RMJ	05/16/10 05:37	100515-3	965591
7440-22-4	Silver	535	ug/kg	U	107	535	535	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-23-5	Sodium	101000	ug/kg		7500	26800	26800	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-28-0	Thallium	146	ug/kg	J	65.4	218	218	2	MS	RMJ	05/14/10 07:19	100512-2	965591
7440-62-2	Vanadium J,I10a	23600	ug/kg	*	107	535	535	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-66-6	Zinc	34200	ug/kg	*E	353	1070	1070	1	P	HSC	04/05/10 17:17	040510-1	965588

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965588	965587	SW846 3050B	0.547	g	50	mL	03/25/10	LYH1
965591	965590	SW846 3050B	0.537	g	50	mL	03/26/10	LYH1
969290	969289	SW846 7471A Prep	0.553	g	30	mL	03/30/10	TXB3

P.S. 6/3/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2412 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249244004 **BASIS:** Dry Weight **DATE COLLECTED** 10-MAR-10

CLIENT ID: RE46-10-12926 **LEVEL:** Low **DATE RECEIVED** 12-MAR-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum		10600000	ug/kg		7840	23100	23100	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-36-0	Antimony		1150	ug/kg	U	381	1150	1150	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-38-2	Arsenic		2360	ug/kg		230	1150	1150	2	MS	RMJ	05/16/10 05:41	100515-3	965591
7440-39-3	Barium	J,I10a	139000	ug/kg	*	115	577	577	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-41-7	Beryllium		753	ug/kg		23	115	115	2	MS	RMJ	05/14/10 07:24	100512-2	965591
7440-43-9	Cadmium		577	ug/kg	U	115	577	577	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-70-2	Calcium	J+,I6b	2820000	ug/kg	*N	9230	28800	28800	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-47-3	Chromium	J,I10a	11900	ug/kg	*	173	577	577	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-48-4	Cobalt		5080	ug/kg	*	173	577	577	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-50-8	Copper		7660	ug/kg		346	1150	1150	1	P	HSC	04/05/10 17:20	040510-1	965588
7439-89-6	Iron		15100000	ug/kg	*	9230	28800	28800	1	P	HSC	04/05/10 17:20	040510-1	965588
7439-92-1	Lead	J,I10a	12500	ug/kg	*	288	1150	1150	1	P	HSC	04/05/10 17:20	040510-1	965588
7439-95-4	Magnesium	J+,I6b	2610000	ug/kg	N	9800	34600	34600	1	P	HSC	04/05/10 17:20	040510-1	965588
7439-96-5	Manganese	J,I10a	276000	ug/kg	*	231	1150	1150	1	P	HSC	04/05/10 17:20	040510-1	965588
7439-97-6	Mercury		25.5	ug/kg		4.36	12.8	12.8	1	AV	JXLI	03/31/10 09:11	033110S1-4	969290
7440-02-0	Nickel	J-,I6a	8680	ug/kg	N	115	460	460	2	MS	RMJ	05/16/10 05:41	100515-3	965591
7440-09-7	Potassium	J+,I6b	1130000	ug/kg	N	7380	28800	28800	1	P	HSC	04/05/10 17:20	040510-1	965588
7782-49-2	Selenium		1150	ug/kg	U	574	1150	1150	2	MS	RMJ	05/16/10 05:41	100515-3	965591
7440-22-4	Silver		577	ug/kg	U	115	577	577	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-23-5	Sodium		178000	ug/kg		8070	28800	28800	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-28-0	Thallium		155	ug/kg	J	68.9	230	230	2	MS	RMJ	05/14/10 07:24	100512-2	965591
7440-62-2	Vanadium	J,I10a	30000	ug/kg	*	115	577	577	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-66-6	Zinc		26800	ug/kg	*E	381	1150	1150	1	P	HSC	04/05/10 17:20	040510-1	965588

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965588	965587	SW846 3050B	0.512	g	50	mL	03/25/10	LYHI
965591	965590	SW846 3050B	0.514	g	50	mL	03/26/10	LYHI
969290	969289	SW846 7471A Prep	0.553	g	30	mL	03/30/10	TXB3

P.S. 6/3/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2412 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249244005 **BASIS:** Dry Weight **DATE COLLECTED** 10-MAR-10

CLIENT ID: RE46-10-12928 **LEVEL:** Low **DATE RECEIVED** 12-MAR-10

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	3230000	ug/kg		8040	23700	23700	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-36-0	Antimony	1180	ug/kg	U	390	1180	1180	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-38-2	Arsenic	664	ug/kg	J	229	1140	1140	2	MS	RMJ	05/16/10 05:45	100515-3	965591
7440-39-3	Barium J,I10a	45900	ug/kg	*	118	591	591	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-41-7	Beryllium	335	ug/kg		22.9	114	114	2	MS	RMJ	05/14/10 07:29	100512-2	965591
7440-43-9	Cadmium	591	ug/kg	U	118	591	591	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-70-2	Calcium J+,I6b	1030000	ug/kg	*N	9460	29600	29600	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-47-3	Chromium J,I10a	3290	ug/kg	*	177	591	591	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-48-4	Cobalt	935	ug/kg	*	177	591	591	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-50-8	Copper	2050	ug/kg		355	1180	1180	1	P	HSC	04/05/10 17:22	040510-1	965588
7439-89-6	Iron	7600000	ug/kg	*	9460	29600	29600	1	P	HSC	04/05/10 17:22	040510-1	965588
7439-92-1	Lead J,I10a	6660	ug/kg	*	296	1180	1180	1	P	HSC	04/05/10 17:22	040510-1	965588
7439-95-4	Magnesium J+,I6b	622000	ug/kg	N	10100	35500	35500	1	P	HSC	04/05/10 17:22	040510-1	965588
7439-96-5	Manganese J,I10a	152000	ug/kg	*	237	1180	1180	1	P	HSC	04/05/10 17:22	040510-1	965588
7439-97-6	Mercury	12.4	ug/kg	J	4.66	13.7	13.7	1	AV	JXL1	03/31/10 09:13	033110S1-4	969290
7440-02-0	Nickel J-,I6a	2980	ug/kg	N	114	457	457	2	MS	RMJ	05/16/10 05:45	100515-3	965591
7440-09-7	Potassium J+,I6b	406000	ug/kg	N	7570	29600	29600	1	P	HSC	04/05/10 17:22	040510-1	965588
7782-49-2	Selenium	1140	ug/kg	U	572	1140	1140	2	MS	RMJ	05/16/10 05:45	100515-3	965591
7440-22-4	Silver	591	ug/kg	U	118	591	591	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-23-5	Sodium	124000	ug/kg		8280	29600	29600	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-28-0	Thallium	229	ug/kg	U	68.6	229	229	2	MS	RMJ	05/14/10 07:29	100512-2	965591
7440-62-2	Vanadium J,I10a	6700	ug/kg	*	118	591	591	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-66-6	Zinc	17900	ug/kg	*E	390	1180	1180	1	P	HSC	04/05/10 17:22	040510-1	965588

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965588	965587	SW846 3050B	0.519	g	50	mL	03/25/10	LYH1
965591	965590	SW846 3050B	0.537	g	50	mL	03/26/10	LYH1
969290	969289	SW846 7471A Prep	0.538	g	30	mL	03/30/10	TXB3

P.S. 6/3/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2412 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249244006 **BASIS:** Dry Weight **DATE COLLECTED** 10-MAR-10

CLIENT ID: RE46-10-12925 **LEVEL:** Low **DATE RECEIVED** 12-MAR-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum		2830000	ug/kg		7410	21800	21800	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-36-0	Antimony		1090	ug/kg	U	360	1090	1090	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-38-2	Arsenic		1120	ug/kg		222	1110	1110	2	MS	RMJ	05/16/10 05:50	100515-3	965591
7440-39-3	Barium	J,I10a	39800	ug/kg	*	109	545	545	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-41-7	Beryllium		377	ug/kg		22.2	111	111	2	MS	RMJ	05/14/10 07:33	100512-2	965591
7440-43-9	Cadmium		545	ug/kg	U	109	545	545	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-70-2	Calcium	J+,I6b	2490000	ug/kg	*N	8720	27300	27300	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-47-3	Chromium	J,I10a	4490	ug/kg	*	164	545	545	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-48-4	Cobalt		1570	ug/kg	*	164	545	545	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-50-8	Copper		3280	ug/kg		327	1090	1090	1	P	HSC	04/05/10 17:24	040510-1	965588
7439-89-6	Iron		6910000	ug/kg	*	8720	27300	27300	1	P	HSC	04/05/10 17:24	040510-1	965588
7439-92-1	Lead	J,I10a	9810	ug/kg	*	273	1090	1090	1	P	HSC	04/05/10 17:24	040510-1	965588
7439-95-4	Magnesium	J+,I6b	742000	ug/kg	N	9270	32700	32700	1	P	HSC	04/05/10 17:24	040510-1	965588
7439-96-5	Manganese	J,I10a	201000	ug/kg	*	218	1090	1090	1	P	HSC	04/05/10 17:24	040510-1	965588
7439-97-6	Mercury		49.2	ug/kg		4.47	13.2	13.2	1	AV	JXL1	03/31/10 09:15	033110S1-4	969290
7440-02-0	Nickel	J-,I6a	3650	ug/kg	N	111	444	444	2	MS	RMJ	05/16/10 05:50	100515-3	965591
7440-09-7	Potassium	J+,I6b	501000	ug/kg	N	6980	27300	27300	1	P	HSC	04/05/10 17:24	040510-1	965588
7782-49-2	Selenium		1110	ug/kg	U	554	1110	1110	2	MS	RMJ	05/16/10 05:50	100515-3	965591
7440-22-4	Silver		545	ug/kg	U	109	545	545	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-23-5	Sodium		86400	ug/kg		7630	27300	27300	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-28-0	Thallium		222	ug/kg	U	66.5	222	222	2	MS	RMJ	05/14/10 07:33	100512-2	965591
7440-62-2	Vanadium	J,I10a	8410	ug/kg	*	109	545	545	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-66-6	Zinc		24500	ug/kg	*E	360	1090	1090	1	P	HSC	04/05/10 17:24	040510-1	965588

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965588	965587	SW846 3050B	0.529	g	50	mL	03/25/10	LYH1
965591	965590	SW846 3050B	0.52	g	50	mL	03/26/10	LYH1
969290	969289	SW846 7471A Prep	0.526	g	30	mL	03/30/10	TXB3

P.S. 6/3/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2412 VALIDATION DATE: 06/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Total Cyanide Only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the matrix QC analyses were performed on a LANL samples from other RNs. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 06/04/10

VALIDATOR'S SIGNATURE: ### Mr. Peter Steves DATE: 06/03/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 29, 2010

Client SDG: 10-2412

Client Sample ID:	RE46-10-12927	Project:	LANL01004
Sample ID:	249244001	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10 12:00		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	12%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	67.8	249	ug/kg	1	AXC2 03/23/10	1458	964817	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

P.S. 6/3/10

GEL LABORATORIES LLC

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Certificate of Analysis

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TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 29, 2010

Client SDG: 10-2412

Client Sample ID:	RE46-10-12923	Project:	LANL01004
Sample ID:	249244002	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10 12:00		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	15.4%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
'012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	74.4	273	ug/kg	1	AXC2 03/23/10	1459	964817	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

P.S. 6/3/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 29, 2010

Client SDG: 10-2412

Client Sample ID:	RE46-10-12924	Project:	LANL01004
Sample ID:	249244003	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10 12:00		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	14.6%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	69.9	257	ug/kg	1	AXC2 03/23/10	1459	964817	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

P.S. 6/3/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 29, 2010

Client SDG: 10-2412

Client Sample ID:	RE46-10-12926	Project:	LANL01004
Sample ID:	249244004	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10 12:00		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	15.3%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	68.1	250	ug/kg	1	AXC2 03/23/10	1500	964817	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

P.S. 6/3/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 29, 2010

Client SDG: 10-2412

Client Sample ID:	RE46-10-12928	Project:	LANL01004
Sample ID:	249244005	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10 12:00		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	18.5%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	72.0	265	ug/kg	1	AXC2 03/23/10	1501	964817	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

P.S. 6/3/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 29, 2010

Client SDG: 10-2412

Client Sample ID:	RE46-10-12925	Project:	LANL01004
Sample ID:	249244006	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10 12:00		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	13.3%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	78.4	288	ug/kg	1	AXC2 03/23/10	1502	964817	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

P.S. 6/3/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2412 VALIDATION DATE: 06/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. All gamma-spec sample results that were rejected by the laboratory due to interference were qualified R,R5a. In the duplicate sample, several results were also rejected by the laboratory. No data were qualified as a result.
2. The alpha spec Th-229 tracer %R was < the laboratory LAL for the duplicate sample associated with sample RE46-10-12923. Since this was a QC sample no sample data were qualified.
3. It should be noted that the alpha spec Am-241 and gamma spec matrix QC analyses were performed on LANL samples from other RNs. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 06/04/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 06/03/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☒	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID:	RE46-10-12927	Project:	LANL01004
Sample ID:	249244001	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	12%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	M...
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
ericium-241	U	0.00188		0.0212	+/-0.00231	0.050	pCi/g		HAKB	03/26/10	1820	966602	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.0129		0.0194	+/-0.00729	0.050	pCi/g		HAKB	04/07/10	2048	972663	3
tonium-239/240	U	-0.00593		0.0164	+/-0.00374	0.050	pCi/g						
)TH "Dry Weight Corrected"													
›rium-228		1.09		0.166	+/-0.124	0.100	pCi/g		HAKB	03/25/10	1758	966707	6
›rium-230		1.17		0.209	+/-0.126	0.100	pCi/g						
›rium-232		1.14		0.089	+/-0.124	0.100	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.877		0.102	+/-0.0845	0.100	pCi/g		HAKB	04/03/10	1616	966612	7
.nium-235/236	U	0.0313		0.0622	+/-0.012	0.100	pCi/g						
.nium-238		0.827		0.0716	+/-0.0808	0.100	pCi/g						
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
.ericium-241	U	-0.252		0.312	+/-0.0905	0.200	pCi/g		MXR1	03/23/10	2240	964804	8
muth-211	UI	3.31	R,R5a	0.276	+/-0.228		pCi/g						
muth-214		1.19		0.083	+/-0.0803	0.200	pCi/g						
lmium-109	UI	3.34	R,R5a	1.03	+/-0.455		pCi/g						
ium-139	U	-0.0145		0.0385	+/-0.0121	0.050	pCi/g						
ium-134	UI	0.0806	R,R5a	0.0635	+/-0.0189	0.100	pCi/g						
ium-137	U	0.00809		0.0465	+/-0.0133	0.100	pCi/g						
›alt-60	U	0.0108		0.0466	+/-0.0138	0.100	pCi/g						
opium-152	U	-0.0444		0.126	+/-0.0459	0.200	pCi/g						
ıthanum-140	U	-0.0358		0.0902	+/-0.0287		pCi/g						
.d-212		1.36		0.0751	+/-0.0911	0.100	pCi/g						
.d-214		1.20		0.0974	+/-0.0892	0.100	pCi/g						
rcury-203	U	0.0315		0.0519	+/-0.0143	0.100	pCi/g						
assium-40		24.2		0.358	+/-1.32	1.00	pCi/g						
lium-223	U	0.293		0.843	+/-0.272		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12927
Sample ID: 249244001

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
. Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
lium-224	UI	3.43	R,R5a	0.805	+/-0.489		pCi/g						
lium-226		1.19		0.083	+/-0.0803		pCi/g						
lium-228		1.28		0.167	+/-0.139	0.500	pCi/g						
henium-106	U	-0.22		0.361	+/-0.115	0.800	pCi/g						
lium-22	U	-0.0151		0.0488	+/-0.0155	0.080	pCi/g						
›ntium-85	UI	0.0916	R,R5a	0.0562	+/-0.0154		pCi/g						
ıllium-208		0.398		0.0439	+/-0.033	0.080	pCi/g						
›rium-227	U	0.108		0.339	+/-0.0944		pCi/g						
›rium-231	U	0.293		0.843	+/-0.272		pCi/g						
›rium-234	U	0.275		2.60	+/-0.729	2.00	pCi/g						
-113	U	-0.0202		0.0536	+/-0.016	0.100	pCi/g						
.nium-235	U	-0.0226		0.271	+/-0.0818	0.500	pCi/g						
rium-88	U	0.00689		0.0385	+/-0.0112	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ɜricium-243 Tracer	AM241 "Dry Weight Corrected"	85.8	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	99.7	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	86.7	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	97.9	(50%-105%)

tes:
?U is calculated at the 67% confidence level (1-sigma).
ıe Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID:	RE46-10-12923	Project:	LANL01004
Sample ID:	249244002	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	15.4%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
ericium-241	U	0.0035		0.022	+/-0.00285	0.050	pCi/g		HAKB	03/26/10	1821	966602	2
)PU "Dry Weight Corrected"													
tonium-238	U	-0.000861		0.019	+/-0.00507	0.050	pCi/g		HAKB	04/07/10	2048	972663	3
tonium-239/240	U	0.012		0.016	+/-0.00478	0.050	pCi/g						
)TH "Dry Weight Corrected"													
›rium-228		1.32		0.0514	+/-0.116	0.100	pCi/g		HAKB	04/07/10	0718	971616	6
›rium-230		1.16		0.0645	+/-0.103	0.100	pCi/g						
›rium-232		1.31		0.0275	+/-0.115	0.100	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.908		0.103	+/-0.0875	0.100	pCi/g		HAKB	04/03/10	1616	966612	9
.nium-235/236	U	0.0451		0.0628	+/-0.016	0.100	pCi/g						
.nium-238		0.861		0.0723	+/-0.084	0.100	pCi/g						
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.042		0.298	+/-0.0858	0.200	pCi/g		MXR1	03/23/10	2101	964804	10
muth-211	UI	3.60	R,R5a	0.385	+/-0.311		pCi/g						
muth-214		1.21		0.128	+/-0.105	0.200	pCi/g						
lmium-109	UI	2.25	R,R5a	1.41	+/-0.542		pCi/g						
ium-139	U	-0.041		0.0487	+/-0.0159	0.050	pCi/g						
ium-134	U	0.0953		0.0997	+/-0.0329	0.100	pCi/g						
ium-137		0.138		0.0673	+/-0.0375	0.100	pCi/g						
alt-60	U	-0.000373		0.067	+/-0.0204	0.100	pCi/g						
opium-152	U	-0.0409		0.176	+/-0.0534	0.200	pCi/g						
ithanum-140	U	0.00282		0.141	+/-0.0419		pCi/g						
.d-212		1.52		0.0969	+/-0.0977	0.100	pCi/g						
.d-214		1.31		0.129	+/-0.119	0.100	pCi/g						
rcury-203	U	0.00252		0.0712	+/-0.0207	0.100	pCi/g						
assium-40		24.2		0.508	+/-1.42	1.00	pCi/g						
lium-223	U	0.0826		1.13	+/-0.378		pCi/g						
lium-224	UI	4.59	R,R5a	1.04	+/-0.620		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12923
Sample ID: 249244002

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
lium-226		1.21		0.128	+/-0.105		pCi/g						
lium-228		1.54		0.248	+/-0.189	0.500	pCi/g						
henium-106	U	-0.189		0.529	+/-0.165	0.800	pCi/g						
lium-22	U	-0.00328		0.0778	+/-0.0238	0.080	pCi/g						
ontium-85	UI	0.0798	R,R5a	0.0739	+/-0.0212		pCi/g						
illium-208		0.479		0.0569	+/-0.0439	0.080	pCi/g						
orium-227	U	-0.151		0.415	+/-0.125		pCi/g						
orium-231	U	0.0826		1.13	+/-0.378		pCi/g						
orium-234	U	0.916		2.53	+/-0.713	2.00	pCi/g						
-113	U	-0.0188		0.0744	+/-0.023	0.100	pCi/g						
nium-235	U	0.0671		0.352	+/-0.106	0.500	pCi/g						
rium-88	U	-0.0233		0.0469	+/-0.017	0.100	pCi/g						

e following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	82.2	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	99.6	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	55.6	(50%-105%)
nium-232 Tracer	ISOU "Dry Weight Corrected"	93.5	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12924
Sample ID: 249244003
Matrix: S
Collect Date: 10-MAR-10
Receive Date: 12-MAR-10
Collector: Client
Moisture: 14.6%

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	M·d.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
.ericium-241	U	-0.00142		0.0214	+/-0.00146	0.050	pCi/g		HAKB	03/26/10	1821	966602	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.0147		0.0203	+/-0.00568	0.050	pCi/g		HAKB	04/07/10	2048	972663	3
tonium-239/240	U	-0.0108		0.0171	+/-0.00453	0.050	pCi/g						
)TH "Dry Weight Corrected"													
›rium-228		1.50		0.151	+/-0.149	0.100	pCi/g		HAKB	03/25/10	1758	966707	6
›rium-230		1.05		0.190	+/-0.115	0.100	pCi/g						
›rium-232		1.36		0.0811	+/-0.137	0.100	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.915		0.108	+/-0.0888	0.100	pCi/g		HAKB	04/03/10	1616	966612	7
.nium-235/236	U	0.0236		0.0657	+/-0.0107	0.100	pCi/g						
.nium-238		0.908		0.0756	+/-0.0884	0.100	pCi/g						
. Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
.ericium-241	U	0.00986		0.185	+/-0.0604	0.200	pCi/g		MXR1	03/23/10	2107	964804	8
muth-211	UI	4.05	R,R5a	0.350	+/-0.306		pCi/g						
muth-214		1.26		0.115	+/-0.106	0.200	pCi/g						
lmium-109	UI	2.93	R,R5a	1.19	+/-0.499		pCi/g						
ium-139	U	0.0232		0.0508	+/-0.0152	0.050	pCi/g						
ium-134	UI	0.134	R,R5a	0.107	+/-0.035	0.100	pCi/g						
ium-137	U	-0.0481		0.0601	+/-0.0202	0.100	pCi/g						
›alt-60	U	-0.0101		0.0739	+/-0.0231	0.100	pCi/g						
opium-152	U	-0.0196		0.160	+/-0.0508	0.200	pCi/g						
ıthanum-140	U	-0.012		0.152	+/-0.0481		pCi/g						
.d-212		1.69		0.0946	+/-0.101	0.100	pCi/g						
.d-214		1.47		0.128	+/-0.118	0.100	pCi/g						
rcury-203	U	0.0572		0.0726	+/-0.0206	0.100	pCi/g						
assium-40		25.3		0.589	+/-1.39	1.00	pCi/g						
lium-223	U	0.488		1.12	+/-0.366		pCi/g						
lium-224	UI	4.66	R,R5a	1.01	+/-0.653		pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12924
Sample ID: 249244003
Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	M·d.
Gamma Spec Analysis												
IMMA SPEC "Dry Weight Corrected"												
lium-226		1.26	0.115	+/-0.106		pCi/g						
lium-228		1.69	0.220	+/-0.216	0.500	pCi/g						
henium-106	U	0.00897	0.549	+/-0.164	0.800	pCi/g						
lium-22	U	-0.0299	0.0649	+/-0.0215	0.080	pCi/g						
›ntium-85	U	-0.122	0.0741	+/-0.0257		pCi/g						
ıllium-208		0.525	0.0592	+/-0.0445	0.080	pCi/g						
›rium-227	U	-0.00926	0.421	+/-0.125		pCi/g						
›rium-231	U	0.488	1.12	+/-0.366		pCi/g						
›rium-234		1.98	1.63	+/-0.728	2.00	pCi/g						
-113	U	-0.00381	0.0731	+/-0.0224	0.100	pCi/g						
.nium-235	U	0.166	0.340	+/-0.104	0.500	pCi/g						
rium-88	U	-0.0271	0.0506	+/-0.0182	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
·ericium-243 Tracer	AM241 "Dry Weight Corrected"	87.8	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	90.8	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	92.1	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	90.7	(50%-105%)

tes:
?U is calculated at the 67% confidence level (1-sigma).
ıe Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported

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Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12926
Sample ID: 249244004
Matrix: S
Collect Date: 10-MAR-10
Receive Date: 12-MAR-10
Collector: Client
Moisture: 15.3%

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
. Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
.ericium-241	U	-0.00767		0.0218	+/-0.004	0.050	pCi/g		HAKB	03/26/10	1821	966602	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.00627		0.0217	+/-0.00725	0.050	pCi/g		HAKB	04/07/10	2048	972663	3
tonium-239/240	U	0.00363		0.0183	+/-0.00307	0.050	pCi/g						
)TH "Dry Weight Corrected"													
›rium-228		1.56		0.138	+/-0.150	0.100	pCi/g		HAKB	03/25/10	1758	966707	6
›rium-230		1.09		0.173	+/-0.113	0.100	pCi/g						
›rium-232		1.41		0.0739	+/-0.137	0.100	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.890		0.0973	+/-0.0849	0.100	pCi/g		HAKB	04/03/10	1616	966612	7
.nium-235/236	U	0.0341		0.0595	+/-0.0137	0.100	pCi/g						
.nium-238		0.908		0.0684	+/-0.0861	0.100	pCi/g						
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
.ericium-241	U	-0.0269		0.0731	+/-0.0247	0.200	pCi/g		MXR1	03/23/10	2108	964804	8
muth-211	UI	4.31	R,R5a	0.309	+/-0.312		pCi/g						
muth-214		1.20		0.113	+/-0.115	0.200	pCi/g						
lmium-109	UI	3.68	R,R5a	0.717	+/-0.395		pCi/g						
ium-139	U	-0.00629		0.0405	+/-0.0121	0.050	pCi/g						
ium-134	U	0.0729		0.0908	+/-0.0304	0.100	pCi/g						
ium-137	U	-0.00576		0.0842	+/-0.0242	0.100	pCi/g						
›alt-60	U	-0.0326		0.0632	+/-0.0214	0.100	pCi/g						
·opium-152	U	0.0101		0.153	+/-0.0479	0.200	pCi/g						
ıthanum-140	U	-0.0366		0.131	+/-0.0421		pCi/g						
.d-212		1.60		0.0796	+/-0.106	0.100	pCi/g						
.d-214		1.57		0.109	+/-0.121	0.100	pCi/g						
rcury-203	U	0.0213		0.0564	+/-0.0168	0.100	pCi/g						
assium-40		25.0		0.514	+/-1.36	1.00	pCi/g						
lium-223	U	0.653		1.05	+/-0.325		pCi/g						
lium-224	UI	4.94	R,R5a	0.854	+/-0.572		pCi/g						

P.S. 6/3/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12926
Sample ID: 249244004

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
lium-226		1.20		0.113	+/-0.115		pCi/g						
lium-228		1.81		0.212	+/-0.182	0.500	pCi/g						
henium-106	U	-0.0377		0.539	+/-0.160	0.800	pCi/g						
lium-22	U	0.00768		0.0695	+/-0.0207	0.080	pCi/g						
ontium-85	U	0.0504		0.0657	+/-0.0205		pCi/g						
llium-208		0.526		0.0537	+/-0.0489	0.080	pCi/g						
rium-227	U	-0.133		0.384	+/-0.122		pCi/g						
rium-231	U	0.653		1.05	+/-0.325		pCi/g						
rium-234	UI	0.819	R,R5a	0.740	+/-0.421	2.00	pCi/g						
-113	U	-0.00251		0.0645	+/-0.0193	0.100	pCi/g						
nium-235	U	0.108		0.288	+/-0.0829	0.500	pCi/g						
rium-88	U	-0.0122		0.0534	+/-0.0176	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	83.6	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	87.5	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	93.2	(50%-105%)
nium-232 Tracer	ISOU "Dry Weight Corrected"	93.2	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

* Analyte is a surrogate compound
< Result is less than value reported

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GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID:	RE46-10-12928	Project:	LANL01004
Sample ID:	249244005	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	18.5%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
.ericium-241	U	-0.00098		0.0221	+/-0.00186	0.050	pCi/g		HAKB	03/26/10	1821	966602	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.0128		0.0214	+/-0.00458	0.050	pCi/g		HAKB	04/07/10	2048	972663	3
tonium-239/240	U	0.000763		0.0181	+/-0.00284	0.050	pCi/g						
)TH "Dry Weight Corrected"													
›rium-228		1.46		0.138	+/-0.142	0.100	pCi/g		HAKB	03/25/10	1758	966707	6
›rium-230		0.898		0.174	+/-0.0979	0.100	pCi/g						
›rium-232		1.46		0.074	+/-0.140	0.100	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.785		0.0905	+/-0.0752	0.100	pCi/g		HAKB	04/03/10	1616	966612	7
.nium-235/236	U	0.0159		0.0553	+/-0.0113	0.100	pCi/g						
.nium-238		0.748		0.0636	+/-0.0726	0.100	pCi/g						
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
.ericium-241	U	-0.0062		0.0562	+/-0.0184	0.200	pCi/g		MXR1	03/23/10	2316	964804	8
muth-211	UI	4.30	R,R5a	0.219	+/-0.282		pCi/g						
muth-214		1.32		0.0835	+/-0.101	0.200	pCi/g						
lmium-109	UI	3.02	R,R5a	0.639	+/-0.316		pCi/g						
ium-139	U	-0.0101		0.0291	+/-0.00875	0.050	pCi/g						
ium-134	UI	0.145	R,R5a	0.0681	+/-0.0259	0.100	pCi/g						
ium-137	U	-0.0344		0.0569	+/-0.0179	0.100	pCi/g						
›alt-60	U	-0.0239		0.049	+/-0.0163	0.100	pCi/g						
'opium-152	U	-0.00308		0.109	+/-0.0344	0.200	pCi/g						
ıthanum-140	U	0.0862		0.109	+/-0.0318		pCi/g						
.d-212		2.08		0.0588	+/-0.126	0.100	pCi/g						
.d-214		1.56		0.0798	+/-0.111	0.100	pCi/g						
rcury-203	U	0.00524		0.0423	+/-0.0146	0.100	pCi/g						
assium-40		34.8		0.392	+/-1.64	1.00	pCi/g						
lium-223	U	-0.344		0.692	+/-0.240		pCi/g						
lium-224	UI	4.97	R,R5a	0.631	+/-0.561		pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12928
Sample ID: 249244005

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	M.E.
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
lium-226		1.32		0.0835	+/-0.101		pCi/g						
lium-228		2.03		0.177	+/-0.180	0.500	pCi/g						
henium-106	U	0.0647		0.388	+/-0.113	0.800	pCi/g						
lium-22	U	-0.00651		0.062	+/-0.0191	0.080	pCi/g						
ontium-85	UI	0.0517	R,R5a	0.0475	+/-0.015		pCi/g						
illium-208		0.641		0.0442	+/-0.0473	0.080	pCi/g						
orium-227	U	-0.0497		0.272	+/-0.0845		pCi/g						
orium-231	U	-0.344		0.692	+/-0.240		pCi/g						
orium-234		1.60		0.565	+/-0.368	2.00	pCi/g						
-113	U	-0.0325		0.0488	+/-0.0153	0.100	pCi/g						
nium-235	U	0.0671		0.208	+/-0.0616	0.500	pCi/g						
rium-88	U	0.0127		0.0447	+/-0.0132	0.100	pCi/g						

e following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	81.5	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	88.0	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	96.3	(50%-105%)
nium-232 Tracer	ISOU "Dry Weight Corrected"	101	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported

P.S. 6/3/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID:	RE46-10-12925	Project:	LANL01004
Sample ID:	249244006	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	13.3%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
. Alpha Spec Analysis													
4241 "Dry Weight Corrected"													
ericium-241	U	0.000154		0.0225	+/-0.00154	0.050	pCi/g		HAKB	03/26/10	1821	966602	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.0107		0.0205	+/-0.00408	0.050	pCi/g		HAKB	04/07/10	2048	972663	3
tonium-239/240	U	0.00378		0.0173	+/-0.00347	0.050	pCi/g						
)TH "Dry Weight Corrected"													
›rium-228		1.22		0.150	+/-0.127	0.100	pCi/g		HAKB	03/25/10	1758	966707	6
›rium-230		0.878		0.188	+/-0.100	0.100	pCi/g						
›rium-232		1.15		0.0802	+/-0.121	0.100	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.749		0.0979	+/-0.0741	0.100	pCi/g		HAKB	04/03/10	1616	966612	7
.nium-235/236	U	0.0429		0.0598	+/-0.0139	0.100	pCi/g						
.nium-238		0.788		0.0688	+/-0.077	0.100	pCi/g						
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
ericium-241	U	0.0395		0.200	+/-0.0614	0.200	pCi/g		MXR1	03/24/10	1106	964804	8
muth-211	UI	3.81	R,R5a	0.284	+/-0.278		pCi/g						
muth-214		0.908		0.100	+/-0.0935	0.200	pCi/g						
lmium-109	UI	2.33	R,R5a	0.915	+/-0.427		pCi/g						
ium-139	U	-0.0072		0.044	+/-0.0127	0.050	pCi/g						
ium-134	UI	0.133	R,R5a	0.0682	+/-0.027	0.100	pCi/g						
ium-137	U	0.0373		0.0564	+/-0.0159	0.100	pCi/g						
›alt-60	U	0.00783		0.0492	+/-0.0145	0.100	pCi/g						
opium-152	U	0.0339		0.143	+/-0.0494	0.200	pCi/g						
ıthanum-140	U	0.0172		0.0952	+/-0.0332		pCi/g						
.d-212		1.57		0.0809	+/-0.114	0.100	pCi/g						
.d-214		1.38		0.099	+/-0.108	0.100	pCi/g						
rcury-203	U	0.0563		0.061	+/-0.0198	0.100	pCi/g						
assium-40		29.3		0.483	+/-1.51	1.00	pCi/g						
lium-223	U	0.0584		0.883	+/-0.291		pCi/g						
lium-224	UI	3.95	R,R5a	0.866	+/-0.561		pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12925
Sample ID: 249244006
Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
lium-226		0.908		0.100	+/-0.0935		pCi/g						
lium-228		1.51		0.200	+/-0.167	0.500	pCi/g						
henium-106	U	-0.0608		0.421	+/-0.126	0.800	pCi/g						
lium-22	U	0.00826		0.0594	+/-0.0175	0.080	pCi/g						
ontium-85	UI	0.124	R,R5a	0.0654	+/-0.020		pCi/g						
illium-208		0.513		0.0442	+/-0.0403	0.080	pCi/g						
orium-227	U	-0.159		0.358	+/-0.111		pCi/g						
orium-231	U	0.0584		0.883	+/-0.291		pCi/g						
orium-234	U	1.48		1.73	+/-0.737	2.00	pCi/g						
-113	U	0.00649		0.0643	+/-0.0188	0.100	pCi/g						
nium-235	U	0.120		0.312	+/-0.0882	0.500	pCi/g						
rium-88	U	0.0117		0.0422	+/-0.0121	0.100	pCi/g						

e following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	78.2	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	89.1	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	94.1	(50%-105%)
ium-232 Tracer	ISOU "Dry Weight Corrected"	96.1	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported

P.S. 6/3/10

Thursday, March 11, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2412C

LOS ALAMOS
NATIONAL LABORATORY

REQUEST NUMBER: 10-2412

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/10/2010
TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

249244%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-12927	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12927	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12927	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12923	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12923	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12923	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12924	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12924	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12924	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12926	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12926	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12926	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12928	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12928	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12928	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12925	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12925	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12925	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/11/10	3:00	Greg Tyler		3-12-10	0845
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Thursday, March 11, 2010

REQUEST NUMBER: 10-2412

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-2412
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/11/2010
TURNAROUND/REPORT DUE: 4/10/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	HASL-300:AM-241	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	

Thursday, March 11, 2010

REQUEST NUMBER: 10-2412

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	HASL-300:ISOPU	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	HASL-300:ISOTH	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	HASL-300:ISOU	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	SW-846:6010B	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	SW-846:8082	1	RE46-10-12923	S	3/10/2010	

Thursday, March 11, 2010

REQUEST NUMBER: 10-2412

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	SW-846:8270C	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	SW-846:9012A	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	

Final Page of REQUEST NUMBER 10-2412

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

March 19, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 249244
SDG: 10-2412

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 12, 2010, and analyzed for GC Semivolatile PCB, GC/MS Semivolatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2412
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 249244
SDG: 10-2412

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 249244
SDG # : 10-2412

March 19, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 12, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 12/13C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
249244001	RE46-10-12927
249244002	RE46-10-12923
249244003	RE46-10-12924
249244004	RE46-10-12926
249244005	RE46-10-12928
249244006	RE46-10-12925

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile PCB, GC/MS Semivolatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 19 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Thursday, March 11, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2412C

REQUEST NUMBER: 10-2412

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/10/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 249244%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-12927	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12927	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12927	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12923	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12923	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12923	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12924	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12924	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12924	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12926	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12926	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12926	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12928	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12928	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12928	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12925	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12925	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12925	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
	3/11/10	3:00	Greg Tyler	3-12-10	0845
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name / Signature

Hard Copy Required

Thursday, March 11, 2010

REQUEST NUMBER: 10-2412

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2412
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/11/2010
TURNAROUND/REPORT DUE: 4/10/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	HASL-300:AM-241	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	

Thursday, March 11, 2010

REQUEST NUMBER: 10-2412

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	HASL-300:ISOPU	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	HASL-300:ISOTH	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	HASL-300:ISOU	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	SW-846:6010B	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	SW-846:8082	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	

Thursday, March 11, 2010

REQUEST NUMBER: 10-2412

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	SW-846:8270C	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	
	SW-846:9012A	1	RE46-10-12923	S	3/10/2010	
		1	RE46-10-12924	S	3/10/2010	
		1	RE46-10-12925	S	3/10/2010	
		1	RE46-10-12926	S	3/10/2010	
		1	RE46-10-12927	S	3/10/2010	
		1	RE46-10-12928	S	3/10/2010	

Final Page of REQUEST NUMBER 10-2412

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2412**
Received By: Greg Tyler	**Date Received: 3/12/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **1-4C** **12,13C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:
7209 7850 4701 1C
7209 7850 4675 1C
7209 7850 4686 2C
7209 7850 4642 3C
7209 7850 4631 3C
7209 7850 4697 4C
7209 7850 4610 12C
7209 7850 4620 13C

PM (or PMA) review: Initials _____ Date 3/16/10

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 11MAR10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

10

FedEx Express

FRI - 12MAR A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7850 4701

XX CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 11MAR10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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1 of 2

FRI - 12MAR A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7850 4675

** MASTER **

XX CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

20

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2 of 2

FRI - 12MAR A1
PRIORITY OVERNIGHT

MPS# 0263 7209 7850 4686
Mstr# 7209 7850 4675 0201

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 11MAR10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

30

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2 of 2

FRI - 12MAR A1
PRIORITY OVERNIGHT

MPS# 0263 7209 7850 4642
Mstr# 7209 7850 4631 0201

XX CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 11MAR10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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1 of 2

TRK# 0201 7209 7850 4631

FRI - 12MAR A1
PRIORITY OVERNIGHT

MASTER

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 11MAR10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

4°

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TRK# 0201 7209 7850 4697

FRI - 12MAR A1
PRIORITY OVERNIGHT

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SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

12°

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2 of 3

MPS# 0263 7209 7850 4610

Mstr# 7209 7850 4609 0201

FRI - 12MAR A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

13°

FedEx Express

3 of 3

MPS# 0263 7209 7850 4620

Mstr# 7209 7850 4609 0201

FRI - 12MAR A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2412

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	966675
Prep Batch Number:	966672

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
249244001	RE46-10-12927
249244002	RE46-10-12923
249244003	RE46-10-12924
249244004	RE46-10-12926
249244005	RE46-10-12928
249244006	RE46-10-12925
1202074566	Method Blank (MB)
1202074567	Laboratory Control Sample (LCS)
1202074568	249250003(RE16-10-2917) Matrix Spike (MS)
1202074569	249250003(RE16-10-2917) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS(1202074567) recovered Benzyl alcohol at 20%. The limits are 27%-108%. The LCS failure represented less than 5% of the total requested spike analyte list. That satisfied the acceptance criteria for the client and the data results have been reported. Please note that Benzyl alcohol is known to be a poor

responder as stated in the Method (EPA 8270). This may account for the low recovery of the analyte in the LCS (as well as the zero recoveries in the MS and MSD).

QC Sample Designation
The non-SDG sample 249250003 (RE16-10-2917) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
The MS(1202074568) and the MSD(1202074569) both recovered 4-Nitrophenol at 0% (limits are 15%-110%) and Benzyl alcohol 0% (limits are 19%-112%). Since the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported. Please note that 4-Nitrophenol and Benzyl alcohol are designated as poor responders in the analytical method (EPA 8270). This may account for the zero recoveries of the analyte in the MS and MSD (as well as the low recovery for Benzyl alcohol in the LCS).

Matrix Spike Duplicate (MSD) Recovery Statement
The MS(1202074568) and the MSD(1202074569) both recovered 4-Nitrophenol at 0% (limits are 15%-110%) and Benzyl alcohol 0% (limits are 19%-112%). Since the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported. Please note that 4-Nitrophenol and Benzyl alcohol are designated as poor responders in the analytical method (EPA 8270). This may account for the zero recoveries of the analyte in the MS and MSD (as well as the low recovery for Benzyl alcohol in the LCS).

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD value for Benzoic acid is at 32.9% (limit: 30.00%). Since Benzoic acid was individually within the acceptance limits for the MS and MSD, the data results have been reported un-qualified for the RPD failures.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 811794. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration
The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD2.I	Agilent 5975 Mass Spectrometer	HP7890A/HP5975C	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Beckman **Date:** 4-6-10

Roadmap for LANL 10-2412 SVOA

This roadmap was analyzed by ANN00964 on 03-30-2010, 16:28.
This roadmap was reviewed by bar00895 on 03-31-2010, 09:14.
This roadmap was packaged by CHA01131 on 04-01-2010, 14:52.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD2.i/s032610.b/s2c2630.d	249244001	27-MAR-2010	00:58	10-2412.sub	RE46-10-12927	1	966675	
☐	N	/chem/MSD2.i/s032610.b/s2c2631.d	249244002	27-MAR-2010	01:18	10-2412.sub	RE46-10-12923	1	966675	
☐	N	/chem/MSD2.i/s032610.b/s2c2632.d	249244003	27-MAR-2010	01:38	10-2412.sub	RE46-10-12924	1	966675	
☐	N	/chem/MSD2.i/s032610.b/s2c2633.d	249244004	27-MAR-2010	01:58	10-2412.sub	RE46-10-12926	1	966675	
☐	N	/chem/MSD2.i/s032610.b/s2c2634.d	249244005	27-MAR-2010	02:19	10-2412.sub	RE46-10-12928	1	966675	
☐	N	/chem/MSD2.i/s032610.b/s2c2635.d	249244006	27-MAR-2010	02:39	10-2412.sub	RE46-10-12925	1	966675	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD2.i/s032610.b/s2c2608-1.d	1202074566	mb	26-MAR-2010	17:36	10-2412.sub	SBLK01	1	966675	
☐	Y	/chem/MSD2.i/s032610.b/s2c2609-1.d	1202074567	lcs	26-MAR-2010	17:56	10-2412.sub	SBLK01LCS	1.00000	966675	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244002**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12923**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 01:18**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2631.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	393	ug/kg	78.5	393
108-95-2	Phenol	U	393	ug/kg	78.5	393
95-57-8	2-Chlorophenol	U	393	ug/kg	78.5	393
106-46-7	1,4-Dichlorobenzene	U	393	ug/kg	78.5	393
621-64-7	N-Nitrosodipropylamine	U	393	ug/kg	78.5	393
59-50-7	4-Chloro-3-methylphenol	U	393	ug/kg	78.5	393
83-32-9	Acenaphthene	J	23.2	ug/kg	13.0	39.3
121-14-2	2,4-Dinitrotoluene	U	393	ug/kg	39.3	393
100-02-7	4-Nitrophenol	U	393	ug/kg	130	393
87-86-5	Pentachlorophenol	U	393	ug/kg	98.2	393
129-00-0	Pyrene		708	ug/kg	11.8	39.3
110-86-1	Pyridine	U	393	ug/kg	78.5	393
62-53-3	Aniline	U	393	ug/kg	118	393
111-44-4	bis(2-Chloroethyl) ether	U	393	ug/kg	78.5	393
541-73-1	1,3-Dichlorobenzene	U	393	ug/kg	78.5	393
100-51-6	Benzyl alcohol	U	393	ug/kg	118	393
95-50-1	1,2-Dichlorobenzene	U	393	ug/kg	78.5	393
108-60-1	bis(2-Chloroisopropyl)ether	U	393	ug/kg	78.5	393
95-48-7	o-Cresol	U	393	ug/kg	78.5	393
65794-96-9	m,p-Cresols	U	393	ug/kg	118	393
67-72-1	Hexachloroethane	U	393	ug/kg	78.5	393
98-95-3	Nitrobenzene	U	393	ug/kg	78.5	393
78-59-1	Isophorone	U	393	ug/kg	78.5	393
88-75-5	2-Nitrophenol	U	393	ug/kg	78.5	393
105-67-9	2,4-Dimethylphenol	U	393	ug/kg	137	393
111-91-1	bis(2-Chloroethoxy)methane	U	393	ug/kg	78.5	393
120-83-2	2,4-Dichlorophenol	U	393	ug/kg	78.5	393
65-85-0	Benzoic acid	U	785	ug/kg	196	785
91-20-3	Naphthalene	U	39.3	ug/kg	11.8	39.3
106-47-8	4-Chloroaniline	U	393	ug/kg	78.5	393
87-68-3	Hexachlorobutadiene	U	393	ug/kg	78.5	393
91-57-6	2-Methylnaphthalene	U	39.3	ug/kg	7.85	39.3
77-47-4	Hexachlorocyclopentadiene	U	393	ug/kg	78.5	393
88-06-2	2,4,6-Trichlorophenol	U	393	ug/kg	78.5	393
95-95-4	2,4,5-Trichlorophenol	U	393	ug/kg	78.5	393
91-58-7	2-Chloronaphthalene	U	39.3	ug/kg	13.0	39.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	393	ug/kg	78.5	393
99-09-2	3-Nitroaniline	U	393	ug/kg	78.5	393

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244002**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12923**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 01:18**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2631.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	393	ug/kg	78.5	393
606-20-2	2,6-Dinitrotoluene	U	393	ug/kg	39.3	393
208-96-8	Acenaphthylene	U	39.3	ug/kg	11.8	39.3
51-28-5	2,4-Dinitrophenol	U	785	ug/kg	149	785
132-64-9	Dibenzofuran	U	393	ug/kg	78.5	393
84-66-2	Diethylphthalate	U	393	ug/kg	78.5	393
86-73-7	Fluorene	J	13.5	ug/kg	11.8	39.3
7005-72-3	4-Chlorophenylphenylether	U	393	ug/kg	78.5	393
534-52-1	2-Methyl-4,6-dinitrophenol	U	393	ug/kg	78.5	393
100-01-6	4-Nitroaniline	U	393	ug/kg	118	393
	p-Nitroaniline					
122-39-4	Diphenylamine	U	393	ug/kg	78.5	393
122-66-7	Azobenzene	U	393	ug/kg	78.5	393
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	393	ug/kg	78.5	393
118-74-1	Hexachlorobenzene	U	393	ug/kg	78.5	393
85-01-8	Phenanthrene		271	ug/kg	11.8	39.3
120-12-7	Anthracene		51.0	ug/kg	7.85	39.3
84-74-2	Di-n-butylphthalate	U	393	ug/kg	78.5	393
206-44-0	Fluoranthene		796	ug/kg	11.8	39.3
85-68-7	Butylbenzylphthalate	U	393	ug/kg	78.5	393
56-55-3	Benzo(a)anthracene		399	ug/kg	11.8	39.3
91-94-1	3,3'-Dichlorobenzidine	U	393	ug/kg	118	393
218-01-9	Chrysene		362	ug/kg	11.8	39.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	393	ug/kg	78.5	393
117-84-0	Di-n-octylphthalate	U	393	ug/kg	78.5	393
205-99-2	Benzo(b)fluoranthene		663	ug/kg	11.8	39.3
207-08-9	Benzo(k)fluoranthene	U	39.3	ug/kg	11.8	39.3
50-32-8	Benzo(a)pyrene		431	ug/kg	11.8	39.3
193-39-5	Indeno(1,2,3-cd)pyrene		244	ug/kg	11.8	39.3
53-70-3	Dibenzo(a,h)anthracene	U	39.3	ug/kg	11.8	39.3
191-24-2	Benzo(ghi)perylene		294	ug/kg	11.8	39.3
120-82-1	1,2,4-Trichlorobenzene	U	393	ug/kg	78.5	393

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	426	ug/kg		JA
192-97-2	Benzo[e]pyrene	9.81	284	ug/kg	97	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244003**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**14.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12924**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 01:38**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2632.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	390	ug/kg	78.0	390
108-95-2	Phenol	U	390	ug/kg	78.0	390
95-57-8	2-Chlorophenol	U	390	ug/kg	78.0	390
106-46-7	1,4-Dichlorobenzene	U	390	ug/kg	78.0	390
621-64-7	N-Nitrosodipropylamine	U	390	ug/kg	78.0	390
59-50-7	4-Chloro-3-methylphenol	U	390	ug/kg	78.0	390
83-32-9	Acenaphthene	U	39.0	ug/kg	12.9	39.0
121-14-2	2,4-Dinitrotoluene	U	390	ug/kg	39.0	390
100-02-7	4-Nitrophenol	U	390	ug/kg	129	390
87-86-5	Pentachlorophenol	U	390	ug/kg	97.5	390
129-00-0	Pyrene		41.9	ug/kg	11.7	39.0
110-86-1	Pyridine	U	390	ug/kg	78.0	390
62-53-3	Aniline	U	390	ug/kg	117	390
111-44-4	bis(2-Chloroethyl) ether	U	390	ug/kg	78.0	390
541-73-1	1,3-Dichlorobenzene	U	390	ug/kg	78.0	390
100-51-6	Benzyl alcohol	U	390	ug/kg	117	390
95-50-1	1,2-Dichlorobenzene	U	390	ug/kg	78.0	390
108-60-1	bis(2-Chloroisopropyl)ether	U	390	ug/kg	78.0	390
95-48-7	o-Cresol	U	390	ug/kg	78.0	390
65794-96-9	m,p-Cresols	U	390	ug/kg	117	390
67-72-1	Hexachloroethane	U	390	ug/kg	78.0	390
98-95-3	Nitrobenzene	U	390	ug/kg	78.0	390
78-59-1	Isophorone	U	390	ug/kg	78.0	390
88-75-5	2-Nitrophenol	U	390	ug/kg	78.0	390
105-67-9	2,4-Dimethylphenol	U	390	ug/kg	136	390
111-91-1	bis(2-Chloroethoxy)methane	U	390	ug/kg	78.0	390
120-83-2	2,4-Dichlorophenol	U	390	ug/kg	78.0	390
65-85-0	Benzoic acid	U	780	ug/kg	195	780
91-20-3	Naphthalene	U	39.0	ug/kg	11.7	39.0
106-47-8	4-Chloroaniline	U	390	ug/kg	78.0	390
87-68-3	Hexachlorobutadiene	U	390	ug/kg	78.0	390
91-57-6	2-Methylnaphthalene	U	39.0	ug/kg	7.80	39.0
77-47-4	Hexachlorocyclopentadiene	U	390	ug/kg	78.0	390
88-06-2	2,4,6-Trichlorophenol	U	390	ug/kg	78.0	390
95-95-4	2,4,5-Trichlorophenol	U	390	ug/kg	78.0	390
91-58-7	2-Chloronaphthalene	U	39.0	ug/kg	12.9	39.0
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	390	ug/kg	78.0	390
99-09-2	3-Nitroaniline	U	390	ug/kg	78.0	390

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2412	Date Collected:	03/10/2010 12:00	Matrix:	S
Lab Sample ID:	249244003	Date Received:	03/12/2010 08:45	%Moisture:	14.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-12924	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966675	Inst:	MSD2.I	Dilution:	1
Run Date:	03/27/2010 01:38	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/18/2010 22:34	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	s2c2632.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	390	ug/kg	78.0	390
606-20-2	2,6-Dinitrotoluene	U	390	ug/kg	39.0	390
208-96-8	Acenaphthylene	U	39.0	ug/kg	11.7	39.0
51-28-5	2,4-Dinitrophenol	U	780	ug/kg	148	780
132-64-9	Dibenzofuran	U	390	ug/kg	78.0	390
84-66-2	Diethylphthalate	U	390	ug/kg	78.0	390
86-73-7	Fluorene	U	39.0	ug/kg	11.7	39.0
7005-72-3	4-Chlorophenylphenylether	U	390	ug/kg	78.0	390
534-52-1	2-Methyl-4,6-dinitrophenol	U	390	ug/kg	78.0	390
100-01-6	4-Nitroaniline	U	390	ug/kg	117	390
	p-Nitroaniline					
122-39-4	Diphenylamine	U	390	ug/kg	78.0	390
122-66-7	Azobenzene	U	390	ug/kg	78.0	390
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	390	ug/kg	78.0	390
118-74-1	Hexachlorobenzene	U	390	ug/kg	78.0	390
85-01-8	Phenanthrene	U	39.0	ug/kg	11.7	39.0
120-12-7	Anthracene	U	39.0	ug/kg	7.80	39.0
84-74-2	Di-n-butylphthalate	U	390	ug/kg	78.0	390
206-44-0	Fluoranthene		43.2	ug/kg	11.7	39.0
85-68-7	Butylbenzylphthalate	U	390	ug/kg	78.0	390
56-55-3	Benzo(a)anthracene	U	39.0	ug/kg	11.7	39.0
91-94-1	3,3'-Dichlorobenzidine	U	390	ug/kg	117	390
218-01-9	Chrysene	U	39.0	ug/kg	11.7	39.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	390	ug/kg	78.0	390
117-84-0	Di-n-octylphthalate	U	390	ug/kg	78.0	390
205-99-2	Benzo(b)fluoranthene		49.2	ug/kg	11.7	39.0
207-08-9	Benzo(k)fluoranthene	U	39.0	ug/kg	11.7	39.0
50-32-8	Benzo(a)pyrene	J	29.9	ug/kg	11.7	39.0
193-39-5	Indeno(1,2,3-cd)pyrene	J	20.8	ug/kg	11.7	39.0
53-70-3	Dibenzo(a,h)anthracene	U	39.0	ug/kg	11.7	39.0
191-24-2	Benzo(ghi)perylene	J	24.2	ug/kg	11.7	39.0
120-82-1	1,2,4-Trichlorobenzene	U	390	ug/kg	78.0	390

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	374	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244006**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**13.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12925**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 02:39**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2635.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	383	ug/kg	76.5	383
108-95-2	Phenol	U	383	ug/kg	76.5	383
95-57-8	2-Chlorophenol	U	383	ug/kg	76.5	383
106-46-7	1,4-Dichlorobenzene	U	383	ug/kg	76.5	383
621-64-7	N-Nitrosodipropylamine	U	383	ug/kg	76.5	383
59-50-7	4-Chloro-3-methylphenol	U	383	ug/kg	76.5	383
83-32-9	Acenaphthene	J	23.7	ug/kg	12.6	38.3
121-14-2	2,4-Dinitrotoluene	U	383	ug/kg	38.3	383
100-02-7	4-Nitrophenol	U	383	ug/kg	126	383
87-86-5	Pentachlorophenol	U	383	ug/kg	95.7	383
129-00-0	Pyrene		148	ug/kg	11.5	38.3
110-86-1	Pyridine	U	383	ug/kg	76.5	383
62-53-3	Aniline	U	383	ug/kg	115	383
111-44-4	bis(2-Chloroethyl) ether	U	383	ug/kg	76.5	383
541-73-1	1,3-Dichlorobenzene	U	383	ug/kg	76.5	383
100-51-6	Benzyl alcohol	U	383	ug/kg	115	383
95-50-1	1,2-Dichlorobenzene	U	383	ug/kg	76.5	383
108-60-1	bis(2-Chloroisopropyl)ether	U	383	ug/kg	76.5	383
95-48-7	o-Cresol	U	383	ug/kg	76.5	383
65794-96-9	m,p-Cresols	U	383	ug/kg	115	383
67-72-1	Hexachloroethane	U	383	ug/kg	76.5	383
98-95-3	Nitrobenzene	U	383	ug/kg	76.5	383
78-59-1	Isophorone	U	383	ug/kg	76.5	383
88-75-5	2-Nitrophenol	U	383	ug/kg	76.5	383
105-67-9	2,4-Dimethylphenol	U	383	ug/kg	134	383
111-91-1	bis(2-Chloroethoxy)methane	U	383	ug/kg	76.5	383
120-83-2	2,4-Dichlorophenol	U	383	ug/kg	76.5	383
65-85-0	Benzoic acid	U	765	ug/kg	191	765
91-20-3	Naphthalene	U	38.3	ug/kg	11.5	38.3
106-47-8	4-Chloroaniline	U	383	ug/kg	76.5	383
87-68-3	Hexachlorobutadiene	U	383	ug/kg	76.5	383
91-57-6	2-Methylnaphthalene	U	38.3	ug/kg	7.65	38.3
77-47-4	Hexachlorocyclopentadiene	U	383	ug/kg	76.5	383
88-06-2	2,4,6-Trichlorophenol	U	383	ug/kg	76.5	383
95-95-4	2,4,5-Trichlorophenol	U	383	ug/kg	76.5	383
91-58-7	2-Chloronaphthalene	U	38.3	ug/kg	12.6	38.3
88-74-4	2-Nitroaniline	U	383	ug/kg	76.5	383
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	383	ug/kg	76.5	383

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244006**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**13.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12925**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 02:39**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2635.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	383	ug/kg	76.5	383
606-20-2	2,6-Dinitrotoluene	U	383	ug/kg	38.3	383
208-96-8	Acenaphthylene	U	38.3	ug/kg	11.5	38.3
51-28-5	2,4-Dinitrophenol	U	765	ug/kg	145	765
132-64-9	Dibenzofuran	U	383	ug/kg	76.5	383
84-66-2	Diethylphthalate	U	383	ug/kg	76.5	383
86-73-7	Fluorene	J	15.1	ug/kg	11.5	38.3
7005-72-3	4-Chlorophenylphenylether	U	383	ug/kg	76.5	383
534-52-1	2-Methyl-4,6-dinitrophenol	U	383	ug/kg	76.5	383
100-01-6	4-Nitroaniline	U	383	ug/kg	115	383
	p-Nitroaniline					
122-39-4	Diphenylamine	U	383	ug/kg	76.5	383
122-66-7	Azobenzene	U	383	ug/kg	76.5	383
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	383	ug/kg	76.5	383
118-74-1	Hexachlorobenzene	U	383	ug/kg	76.5	383
85-01-8	Phenanthrene		112	ug/kg	11.5	38.3
120-12-7	Anthracene	J	32.4	ug/kg	7.65	38.3
84-74-2	Di-n-butylphthalate	U	383	ug/kg	76.5	383
206-44-0	Fluoranthene		165	ug/kg	11.5	38.3
85-68-7	Butylbenzylphthalate	U	383	ug/kg	76.5	383
56-55-3	Benzo(a)anthracene		85.1	ug/kg	11.5	38.3
91-94-1	3,3'-Dichlorobenzidine	U	383	ug/kg	115	383
218-01-9	Chrysene		79.3	ug/kg	11.5	38.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	383	ug/kg	76.5	383
117-84-0	Di-n-octylphthalate	U	383	ug/kg	76.5	383
205-99-2	Benzo(b)fluoranthene		111	ug/kg	11.5	38.3
207-08-9	Benzo(k)fluoranthene	U	38.3	ug/kg	11.5	38.3
50-32-8	Benzo(a)pyrene		64.0	ug/kg	11.5	38.3
193-39-5	Indeno(1,2,3-cd)pyrene	J	35.4	ug/kg	11.5	38.3
53-70-3	Dibenzo(a,h)anthracene	U	38.3	ug/kg	11.5	38.3
191-24-2	Benzo(ghi)perylene	J	37.8	ug/kg	11.5	38.3
120-82-1	1,2,4-Trichlorobenzene	U	383	ug/kg	76.5	383

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	336	ug/kg		JA
	Unknown	8.62	490	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244006**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**13.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12925**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 02:39**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2635.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.18	164	ug/kg		J
593-45-3	Octadecane	9.42	282	ug/kg	95	NJ
56619-93-3	Propanamide, N-(3-methoxyphenyl)-2,2-dim	9.62	186	ug/kg	38	NJ
192-97-2	Benzo[e]pyrene	9.81	221	ug/kg	95	NJ
112-95-8	Eicosane	10.26	243	ug/kg	86	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244004**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**15.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12926**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 01:58**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2633.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	392	ug/kg	78.4	392
108-95-2	Phenol	U	392	ug/kg	78.4	392
95-57-8	2-Chlorophenol	U	392	ug/kg	78.4	392
106-46-7	1,4-Dichlorobenzene	U	392	ug/kg	78.4	392
621-64-7	N-Nitrosodipropylamine	U	392	ug/kg	78.4	392
59-50-7	4-Chloro-3-methylphenol	U	392	ug/kg	78.4	392
83-32-9	Acenaphthene	U	39.2	ug/kg	12.9	39.2
121-14-2	2,4-Dinitrotoluene	U	392	ug/kg	39.2	392
100-02-7	4-Nitrophenol	U	392	ug/kg	129	392
87-86-5	Pentachlorophenol	U	392	ug/kg	98.0	392
129-00-0	Pyrene	U	39.2	ug/kg	11.8	39.2
110-86-1	Pyridine	U	392	ug/kg	78.4	392
62-53-3	Aniline	U	392	ug/kg	118	392
111-44-4	bis(2-Chloroethyl) ether	U	392	ug/kg	78.4	392
541-73-1	1,3-Dichlorobenzene	U	392	ug/kg	78.4	392
100-51-6	Benzyl alcohol	U	392	ug/kg	118	392
95-50-1	1,2-Dichlorobenzene	U	392	ug/kg	78.4	392
108-60-1	bis(2-Chloroisopropyl)ether	U	392	ug/kg	78.4	392
95-48-7	o-Cresol	U	392	ug/kg	78.4	392
65794-96-9	m,p-Cresols	U	392	ug/kg	118	392
67-72-1	Hexachloroethane	U	392	ug/kg	78.4	392
98-95-3	Nitrobenzene	U	392	ug/kg	78.4	392
78-59-1	Isophorone	U	392	ug/kg	78.4	392
88-75-5	2-Nitrophenol	U	392	ug/kg	78.4	392
105-67-9	2,4-Dimethylphenol	U	392	ug/kg	137	392
111-91-1	bis(2-Chloroethoxy)methane	U	392	ug/kg	78.4	392
120-83-2	2,4-Dichlorophenol	U	392	ug/kg	78.4	392
65-85-0	Benzoic acid	U	784	ug/kg	196	784
91-20-3	Naphthalene	U	39.2	ug/kg	11.8	39.2
106-47-8	4-Chloroaniline	U	392	ug/kg	78.4	392
87-68-3	Hexachlorobutadiene	U	392	ug/kg	78.4	392
91-57-6	2-Methylnaphthalene	U	39.2	ug/kg	7.84	39.2
77-47-4	Hexachlorocyclopentadiene	U	392	ug/kg	78.4	392
88-06-2	2,4,6-Trichlorophenol	U	392	ug/kg	78.4	392
95-95-4	2,4,5-Trichlorophenol	U	392	ug/kg	78.4	392
91-58-7	2-Chloronaphthalene	U	39.2	ug/kg	12.9	39.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	392	ug/kg	78.4	392
99-09-2	3-Nitroaniline	U	392	ug/kg	78.4	392

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2412	Date Collected:	03/10/2010 12:00	Matrix:	S
Lab Sample ID:	249244004	Date Received:	03/12/2010 08:45	%Moisture:	15.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-12926	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966675	Inst:	MSD2.I	Dilution:	1
Run Date:	03/27/2010 01:58	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/18/2010 22:34	Aliquot:	30.13 g	Final Volume:	1 mL
Data File:	s2c2633.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	392	ug/kg	78.4	392
606-20-2	2,6-Dinitrotoluene	U	392	ug/kg	39.2	392
208-96-8	Acenaphthylene	U	39.2	ug/kg	11.8	39.2
51-28-5	2,4-Dinitrophenol	U	784	ug/kg	149	784
132-64-9	Dibenzofuran	U	392	ug/kg	78.4	392
84-66-2	Diethylphthalate	U	392	ug/kg	78.4	392
86-73-7	Fluorene	U	39.2	ug/kg	11.8	39.2
7005-72-3	4-Chlorophenylphenylether	U	392	ug/kg	78.4	392
534-52-1	2-Methyl-4,6-dinitrophenol	U	392	ug/kg	78.4	392
100-01-6	4-Nitroaniline	U	392	ug/kg	118	392
	p-Nitroaniline					
122-39-4	Diphenylamine	U	392	ug/kg	78.4	392
122-66-7	Azobenzene	U	392	ug/kg	78.4	392
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	392	ug/kg	78.4	392
118-74-1	Hexachlorobenzene	U	392	ug/kg	78.4	392
85-01-8	Phenanthrene	U	39.2	ug/kg	11.8	39.2
120-12-7	Anthracene	U	39.2	ug/kg	7.84	39.2
84-74-2	Di-n-butylphthalate	U	392	ug/kg	78.4	392
206-44-0	Fluoranthene	U	39.2	ug/kg	11.8	39.2
85-68-7	Butylbenzylphthalate	U	392	ug/kg	78.4	392
56-55-3	Benzo(a)anthracene	U	39.2	ug/kg	11.8	39.2
91-94-1	3,3'-Dichlorobenzidine	U	392	ug/kg	118	392
218-01-9	Chrysene	U	39.2	ug/kg	11.8	39.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	392	ug/kg	78.4	392
117-84-0	Di-n-octylphthalate	U	392	ug/kg	78.4	392
205-99-2	Benzo(b)fluoranthene	U	39.2	ug/kg	11.8	39.2
207-08-9	Benzo(k)fluoranthene	U	39.2	ug/kg	11.8	39.2
50-32-8	Benzo(a)pyrene	U	39.2	ug/kg	11.8	39.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.2	ug/kg	11.8	39.2
53-70-3	Dibenzo(a,h)anthracene	U	39.2	ug/kg	11.8	39.2
191-24-2	Benzo(ghi)perylene	U	39.2	ug/kg	11.8	39.2
120-82-1	1,2,4-Trichlorobenzene	U	392	ug/kg	78.4	392

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	364	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244001**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**12**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12927**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 00:58**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2630.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	377	ug/kg	75.4	377
108-95-2	Phenol	U	377	ug/kg	75.4	377
95-57-8	2-Chlorophenol	U	377	ug/kg	75.4	377
106-46-7	1,4-Dichlorobenzene	U	377	ug/kg	75.4	377
621-64-7	N-Nitrosodipropylamine	U	377	ug/kg	75.4	377
59-50-7	4-Chloro-3-methylphenol	U	377	ug/kg	75.4	377
83-32-9	Acenaphthene		49.8	ug/kg	12.4	37.7
121-14-2	2,4-Dinitrotoluene	U	377	ug/kg	37.7	377
100-02-7	4-Nitrophenol	U	377	ug/kg	124	377
87-86-5	Pentachlorophenol	U	377	ug/kg	94.2	377
129-00-0	Pyrene		312	ug/kg	11.3	37.7
110-86-1	Pyridine	U	377	ug/kg	75.4	377
62-53-3	Aniline	U	377	ug/kg	113	377
111-44-4	bis(2-Chloroethyl) ether	U	377	ug/kg	75.4	377
541-73-1	1,3-Dichlorobenzene	U	377	ug/kg	75.4	377
100-51-6	Benzyl alcohol	U	377	ug/kg	113	377
95-50-1	1,2-Dichlorobenzene	U	377	ug/kg	75.4	377
108-60-1	bis(2-Chloroisopropyl)ether	U	377	ug/kg	75.4	377
95-48-7	o-Cresol	U	377	ug/kg	75.4	377
65794-96-9	m,p-Cresols	U	377	ug/kg	113	377
67-72-1	Hexachloroethane	U	377	ug/kg	75.4	377
98-95-3	Nitrobenzene	U	377	ug/kg	75.4	377
78-59-1	Isophorone	U	377	ug/kg	75.4	377
88-75-5	2-Nitrophenol	U	377	ug/kg	75.4	377
105-67-9	2,4-Dimethylphenol	U	377	ug/kg	132	377
111-91-1	bis(2-Chloroethoxy)methane	U	377	ug/kg	75.4	377
120-83-2	2,4-Dichlorophenol	U	377	ug/kg	75.4	377
65-85-0	Benzoic acid	U	754	ug/kg	188	754
91-20-3	Naphthalene	J	36.8	ug/kg	11.3	37.7
106-47-8	4-Chloroaniline	U	377	ug/kg	75.4	377
87-68-3	Hexachlorobutadiene	U	377	ug/kg	75.4	377
91-57-6	2-Methylnaphthalene	J	12.8	ug/kg	7.54	37.7
77-47-4	Hexachlorocyclopentadiene	U	377	ug/kg	75.4	377
88-06-2	2,4,6-Trichlorophenol	U	377	ug/kg	75.4	377
95-95-4	2,4,5-Trichlorophenol	U	377	ug/kg	75.4	377
91-58-7	2-Chloronaphthalene	U	37.7	ug/kg	12.4	37.7
88-74-4	2-Nitroaniline	U	377	ug/kg	75.4	377
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	377	ug/kg	75.4	377

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244001**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**12**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12927**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 00:58**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2630.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	377	ug/kg	75.4	377
606-20-2	2,6-Dinitrotoluene	U	377	ug/kg	37.7	377
208-96-8	Acenaphthylene	U	37.7	ug/kg	11.3	37.7
51-28-5	2,4-Dinitrophenol	U	754	ug/kg	143	754
132-64-9	Dibenzofuran	U	377	ug/kg	75.4	377
84-66-2	Diethylphthalate	U	377	ug/kg	75.4	377
86-73-7	Fluorene		43.6	ug/kg	11.3	37.7
7005-72-3	4-Chlorophenylphenylether	U	377	ug/kg	75.4	377
534-52-1	2-Methyl-4,6-dinitrophenol	U	377	ug/kg	75.4	377
100-01-6	4-Nitroaniline	U	377	ug/kg	113	377
	p-Nitroaniline					
122-39-4	Diphenylamine	U	377	ug/kg	75.4	377
122-66-7	Azobenzene	U	377	ug/kg	75.4	377
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	377	ug/kg	75.4	377
118-74-1	Hexachlorobenzene	U	377	ug/kg	75.4	377
85-01-8	Phenanthrene		320	ug/kg	11.3	37.7
120-12-7	Anthracene		79.7	ug/kg	7.54	37.7
84-74-2	Di-n-butylphthalate	U	377	ug/kg	75.4	377
206-44-0	Fluoranthene		404	ug/kg	11.3	37.7
85-68-7	Butylbenzylphthalate	U	377	ug/kg	75.4	377
56-55-3	Benzo(a)anthracene		167	ug/kg	11.3	37.7
91-94-1	3,3'-Dichlorobenzidine	U	377	ug/kg	113	377
218-01-9	Chrysene		136	ug/kg	11.3	37.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	377	ug/kg	75.4	377
117-84-0	Di-n-octylphthalate	U	377	ug/kg	75.4	377
205-99-2	Benzo(b)fluoranthene		205	ug/kg	11.3	37.7
207-08-9	Benzo(k)fluoranthene	U	37.7	ug/kg	11.3	37.7
50-32-8	Benzo(a)pyrene		130	ug/kg	11.3	37.7
193-39-5	Indeno(1,2,3-cd)pyrene		74.5	ug/kg	11.3	37.7
53-70-3	Dibenzo(a,h)anthracene	U	37.7	ug/kg	11.3	37.7
191-24-2	Benzo(ghi)perylene		88.2	ug/kg	11.3	37.7
120-82-1	1,2,4-Trichlorobenzene	U	377	ug/kg	75.4	377

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.84	325	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244005**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**18.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12928**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 02:19**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2634.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	408	ug/kg	81.7	408
108-95-2	Phenol	U	408	ug/kg	81.7	408
95-57-8	2-Chlorophenol	U	408	ug/kg	81.7	408
106-46-7	1,4-Dichlorobenzene	U	408	ug/kg	81.7	408
621-64-7	N-Nitrosodipropylamine	U	408	ug/kg	81.7	408
59-50-7	4-Chloro-3-methylphenol	U	408	ug/kg	81.7	408
83-32-9	Acenaphthene	U	40.8	ug/kg	13.5	40.8
121-14-2	2,4-Dinitrotoluene	U	408	ug/kg	40.8	408
100-02-7	4-Nitrophenol	U	408	ug/kg	135	408
87-86-5	Pentachlorophenol	U	408	ug/kg	102	408
129-00-0	Pyrene		49.8	ug/kg	12.2	40.8
110-86-1	Pyridine	U	408	ug/kg	81.7	408
62-53-3	Aniline	U	408	ug/kg	122	408
111-44-4	bis(2-Chloroethyl) ether	U	408	ug/kg	81.7	408
541-73-1	1,3-Dichlorobenzene	U	408	ug/kg	81.7	408
100-51-6	Benzyl alcohol	U	408	ug/kg	122	408
95-50-1	1,2-Dichlorobenzene	U	408	ug/kg	81.7	408
108-60-1	bis(2-Chloroisopropyl)ether	U	408	ug/kg	81.7	408
95-48-7	o-Cresol	U	408	ug/kg	81.7	408
65794-96-9	m,p-Cresols	U	408	ug/kg	122	408
67-72-1	Hexachloroethane	U	408	ug/kg	81.7	408
98-95-3	Nitrobenzene	U	408	ug/kg	81.7	408
78-59-1	Isophorone	U	408	ug/kg	81.7	408
88-75-5	2-Nitrophenol	U	408	ug/kg	81.7	408
105-67-9	2,4-Dimethylphenol	U	408	ug/kg	143	408
111-91-1	bis(2-Chloroethoxy)methane	U	408	ug/kg	81.7	408
120-83-2	2,4-Dichlorophenol	U	408	ug/kg	81.7	408
65-85-0	Benzoic acid	U	817	ug/kg	204	817
91-20-3	Naphthalene	U	40.8	ug/kg	12.2	40.8
106-47-8	4-Chloroaniline	U	408	ug/kg	81.7	408
87-68-3	Hexachlorobutadiene	U	408	ug/kg	81.7	408
91-57-6	2-Methylnaphthalene	U	40.8	ug/kg	8.17	40.8
77-47-4	Hexachlorocyclopentadiene	U	408	ug/kg	81.7	408
88-06-2	2,4,6-Trichlorophenol	U	408	ug/kg	81.7	408
95-95-4	2,4,5-Trichlorophenol	U	408	ug/kg	81.7	408
91-58-7	2-Chloronaphthalene	U	40.8	ug/kg	13.5	40.8
88-74-4	2-Nitroaniline	U	408	ug/kg	81.7	408
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	408	ug/kg	81.7	408

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244005**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**18.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12928**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 02:19**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2634.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	408	ug/kg	81.7	408
606-20-2	2,6-Dinitrotoluene	U	408	ug/kg	40.8	408
208-96-8	Acenaphthylene	U	40.8	ug/kg	12.2	40.8
51-28-5	2,4-Dinitrophenol	U	817	ug/kg	155	817
132-64-9	Dibenzofuran	U	408	ug/kg	81.7	408
84-66-2	Diethylphthalate	U	408	ug/kg	81.7	408
86-73-7	Fluorene	U	40.8	ug/kg	12.2	40.8
7005-72-3	4-Chlorophenylphenylether	U	408	ug/kg	81.7	408
534-52-1	2-Methyl-4,6-dinitrophenol	U	408	ug/kg	81.7	408
100-01-6	4-Nitroaniline	U	408	ug/kg	122	408
	p-Nitroaniline					
122-39-4	Diphenylamine	U	408	ug/kg	81.7	408
122-66-7	Azobenzene	U	408	ug/kg	81.7	408
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	408	ug/kg	81.7	408
118-74-1	Hexachlorobenzene	U	408	ug/kg	81.7	408
85-01-8	Phenanthrene	J	34.3	ug/kg	12.2	40.8
120-12-7	Anthracene	U	40.8	ug/kg	8.17	40.8
84-74-2	Di-n-butylphthalate	U	408	ug/kg	81.7	408
206-44-0	Fluoranthene		59.8	ug/kg	12.2	40.8
85-68-7	Butylbenzylphthalate	U	408	ug/kg	81.7	408
56-55-3	Benzo(a)anthracene	U	40.8	ug/kg	12.2	40.8
91-94-1	3,3'-Dichlorobenzidine	U	408	ug/kg	122	408
218-01-9	Chrysene	U	40.8	ug/kg	12.2	40.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	408	ug/kg	81.7	408
117-84-0	Di-n-octylphthalate	U	408	ug/kg	81.7	408
205-99-2	Benzo(b)fluoranthene	J	38.3	ug/kg	12.2	40.8
207-08-9	Benzo(k)fluoranthene	U	40.8	ug/kg	12.2	40.8
50-32-8	Benzo(a)pyrene	J	22.9	ug/kg	12.2	40.8
193-39-5	Indeno(1,2,3-cd)pyrene	J	14.2	ug/kg	12.2	40.8
53-70-3	Dibenzo(a,h)anthracene	U	40.8	ug/kg	12.2	40.8
191-24-2	Benzo(ghi)perylene	J	16.6	ug/kg	12.2	40.8
120-82-1	1,2,4-Trichlorobenzene	U	408	ug/kg	81.7	408

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	360	ug/kg		JA
79-92-5	Camphene	3.49	289	ug/kg	97	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244005**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**18.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12928**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 02:19**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2634.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	3.58	220	ug/kg		J
127-91-3	.beta.-Pinene	3.63	595	ug/kg	83	NJ

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-2412

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202074566	MB for batch 966672	75	68	78	68	82	98
1202074567	LCS for batch 966672	72	70	76	68	79	77
249244001	RE46-10-12927	54	49	57	53	59	72
249244002	RE46-10-12923	68	60	69	63	71	91
249244003	RE46-10-12924	62	54	65	57	58	88
249244004	RE46-10-12926	62	56	68	60	63	97
249244005	RE46-10-12928	68	58	71	63	67	87
249244006	RE46-10-12925	61	53	65	58	61	80

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(29%-99%)
PHL	=	Phenol-d5	(33%-98%)
NBZ	=	Nitrobenzene-d5	(31%-105%)
FBP	=	2-Fluorobiphenyl	(25%-109%)
TBP	=	2,4,6-Tribromophenol	(37%-106%)
TPH	=	p-Terphenyl-d14	(13%-150%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2412 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 966672 **Matrix:** SOIL

Lab Sample ID: 1202074567

Instrument: MSD2.I **Analysis Date:** 03/26/2010 17:56 **Dilution:** 1

Analyst: AGS1 **Prep Batch ID:** 966672

Inj. Vol: .5 uL **Batch ID:** 966675

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	993	60	22-114
108-95-2	LCS	Phenol	1670	0.0	1140	68	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1170	70	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1090	65	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1260	76	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1230	74	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	1180	71	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1330	80	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	623	37	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	943	57	27-116
129-00-0	LCS	Pyrene	1670	0.0	1090	65	42-113
110-86-1	LCS	Pyridine	1670	0.0	921	55	8-125
62-53-3	LCS	Aniline	1670	0.0	1010	61	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1170	70	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1100	66	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	341	20 *	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1100	66	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1520	91	28-117
95-48-7	LCS	o-Cresol	1670	0.0	1150	69	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1430	86	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	1190	71	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	1270	76	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2412
Client ID: LCS for batch 966672
Lab Sample ID: 1202074567
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/26/2010 17:56
Prep Batch ID: 966672
Batch ID: 966675
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1250	75	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	1110	67	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	831	50	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1130	68	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1180	71	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	3000	90	22-138
91-20-3	LCS	Naphthalene	1670	0.0	1160	70	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	990	59	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1310	78	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1280	77	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	959	58	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1020	61	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1220	73	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1130	68	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1280	77	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1230	74	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	1350	81	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1250	75	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	1230	74	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1220	73	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	1220	73	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	1440	87	51-126

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2412 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 966672 **Matrix:** SOIL

Lab Sample ID: 1202074567

Instrument: MSD2.I **Analysis Date:** 03/26/2010 17:56 **Dilution:** 1

Analyst: AGS1 **Prep Batch ID** 966672

Inj. Vol: .5 uL **Batch ID:** 966675

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1330	80	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1280	77	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1230	74	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1560	93	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	1190	71	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1300	78	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1220	73	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1210	73	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	1250	75	46-107
120-12-7	LCS	Anthracene	1670	0.0	1220	73	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1510	91	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1430	86	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1310	78	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1230	74	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1120	67	36-103
218-01-9	LCS	Chrysene	1670	0.0	1270	76	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1340	80	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1300	78	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1210	72	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1390	83	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1320	79	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1460	87	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2412 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 966672 **Matrix:** SOIL

Lab Sample ID: 1202074567

Instrument: MSD2.I **Analysis Date:** 03/26/2010 17:56 **Dilution:** 1

Analyst: AGS1 **Prep Batch ID:** 966672

Inj. Vol: .5 uL **Batch ID:** 966675

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1480	89	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1420	85	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1210	72	32-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2412
Client ID: RE16-10-2917MS
Lab Sample ID: 1202074568
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 03/26/2010 19:57
Prep Batch ID: 966672
Batch ID: 966675

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1900	0.00	U	926	49	27-98
108-95-2	MS	Phenol	1900	0.00	U	940	49	33-94
95-57-8	MS	2-Chlorophenol	1900	0.00	U	1040	55	29-96
106-46-7	MS	1,4-Dichlorobenzene	1900	0.00	U	1020	54	27-96
621-64-7	MS	N-Nitrosodipropylamine	1900	0.00	U	1160	61	29-102
59-50-7	MS	4-Chloro-3-methylphenol	1900	0.00	U	1110	59	29-110
83-32-9	MS	Acenaphthene	1900	0.00	U	1060	56	17-109
121-14-2	MS	2,4-Dinitrotoluene	1900	0.00	U	1210	64	33-107
100-02-7	MS	4-Nitrophenol	1900	0.00	U	0.00	0 *	15-110
87-86-5	MS	Pentachlorophenol	1900	0.00	U	480	25	23-110
129-00-0	MS	Pyrene	1900	32.8	J	1090	56	24-118
110-86-1	MS	Pyridine	1900	0.00	U	842	44	25-102
62-53-3	MS	Aniline	1900	0.00	U	1160	61	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	1900	0.00	U	1080	57	29-96
541-73-1	MS	1,3-Dichlorobenzene	1900	0.00	U	1030	54	26-97
100-51-6	MS	Benzyl alcohol	1900	0.00	U	0.00	0 *	19-112
95-50-1	MS	1,2-Dichlorobenzene	1900	0.00	U	1010	53	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	1900	0.00	U	1360	72	28-103
95-48-7	MS	o-Cresol	1900	0.00	U	1030	54	32-107
65794-96-9	MS	m,p-Cresols	1900	0.00	U	1250	66	33-115
67-72-1	MS	Hexachloroethane	1900	0.00	U	1070	57	25-100
98-95-3	MS	Nitrobenzene	1900	0.00	U	1220	64	27-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2412
Client ID: RE16-10-2917MS
Lab Sample ID: 1202074568
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 03/26/2010 19:57
Prep Batch ID: 966672
Batch ID: 966675
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1900	0.00	U	1170	62	29-104
88-75-5	MS	2-Nitrophenol	1900	0.00	U	1080	57	26-102
105-67-9	MS	2,4-Dimethylphenol	1900	0.00	U	733	39	22-104
111-91-1	MS	bis(2-Chloroethoxy)methane	1900	0.00	U	1060	56	27-101
120-83-2	MS	2,4-Dichlorophenol	1900	0.00	U	1120	59	26-103
65-85-0	MS	Benzoic acid	3800	0.00	U	747	20	13-131
91-20-3	MS	Naphthalene	1900	0.00	U	1150	60	23-103
106-47-8	MS	4-Chloroaniline	1900	0.00	U	1030	54	26-103
87-68-3	MS	Hexachlorobutadiene	1900	0.00	U	1250	66	28-101
91-57-6	MS	2-Methylnaphthalene	1900	0.00	U	1220	64	27-106
77-47-4	MS	Hexachlorocyclopentadiene	1900	0.00	U	847	45	24-117
88-06-2	MS	2,4,6-Trichlorophenol	1900	0.00	U	782	41	26-105
95-95-4	MS	2,4,5-Trichlorophenol	1900	0.00	U	931	49	30-110
91-58-7	MS	2-Chloronaphthalene	1900	0.00	U	1040	55	28-102
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	1190	63	33-106
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	1230	65	33-116
131-11-3	MS	Dimethylphthalate	1900	0.00	U	1200	63	38-113
606-20-2	MS	2,6-Dinitrotoluene	1900	0.00	U	1110	59	29-107
208-96-8	MS	Acenaphthylene	1900	0.00	U	1110	58	25-108
51-28-5	MS	2,4-Dinitrophenol	1900	0.00	U	848	45	14-102
132-64-9	MS	Dibenzofuran	1900	0.00	U	1110	58	35-112
84-66-2	MS	Diethylphthalate	1900	0.00	U	1280	67	36-122

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2412

Client ID: RE16-10-2917MS

Lab Sample ID: 1202074568

Instrument: MSD2.I

Analyst: AGS1

Inj. Vol: .5 uL

Sample Type: Matrix Spike

Matrix: S

%Moisture: 12.6

Analysis Date: 03/26/2010 19:57

Dilution: 1

Prep Batch ID: 966672

Batch ID: 966675

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1900	0.00	U	1200	63	33-105
7005-72-3	MS	4-Chlorophenylphenylether	1900	0.00	U	1160	61	30-110
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1900	0.00	U	951	50	26-97
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	1690	89	28-135
122-39-4	MS	Diphenylamine	1900	0.00	U	1110	58	33-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1180	62	31-113
101-55-3	MS	4-Bromophenylphenylether	1900	0.00	U	1080	57	31-109
118-74-1	MS	Hexachlorobenzene	1900	0.00	U	1060	56	37-99
85-01-8	MS	Phenanthrene	1900	30.0	J	1260	65	29-109
120-12-7	MS	Anthracene	1900	8.64	J	1160	60	19-118
84-74-2	MS	Di-n-butylphthalate	1900	0.00	U	1300	68	39-123
206-44-0	MS	Fluoranthene	1900	42.9		1410	72	33-114
85-68-7	MS	Butylbenzylphthalate	1900	0.00	U	1120	59	35-131
56-55-3	MS	Benzo(a)anthracene	1900	0.00	U	1190	63	30-111
91-94-1	MS	3,3'-Dichlorobenzidine	1900	0.00	U	1000	53	30-124
218-01-9	MS	Chrysene	1900	20.1	J	1210	63	32-108
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1900	0.00	U	1120	59	37-129
117-84-0	MS	Di-n-octylphthalate	1900	0.00	U	1140	60	31-143
205-99-2	MS	Benzo(b)fluoranthene	1900	26.7	J	1190	61	29-118
207-08-9	MS	Benzo(k)fluoranthene	1900	0.00	U	1270	67	32-118
50-32-8	MS	Benzo(a)pyrene	1900	17.3	J	1260	65	33-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1900	12.6	J	1310	68	29-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2412
Client ID: RE16-10-2917MS
Lab Sample ID: 1202074568
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 03/26/2010 19:57
Prep Batch ID: 966672
Batch ID: 966675
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1900	0.00	U	1300	69	27-119
191-24-2	MS	Benzo(ghi)perylene	1900	15.0	J	1270	66	28-112
120-82-1	MS	1,2,4-Trichlorobenzene	1900	0.00	U	1150	60	28-99

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2412
Client ID: RE16-10-2917MSD
Lab Sample ID: 1202074569
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.6
Analysis Date: 03/26/2010 20:18
Dilution: 1
Prep Batch ID: 966672
Batch ID: 966675

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	1900	0.00	U	772	41	27-98	18	0-30
108-95-2	MSD	Phenol	1900	0.00	U	804	42	33-94	16	0-30
95-57-8	MSD	2-Chlorophenol	1900	0.00	U	912	48	29-96	14	0-30
106-46-7	MSD	1,4-Dichlorobenzene	1900	0.00	U	860	45	27-96	18	0-30
621-64-7	MSD	N-Nitrosodipropylamine	1900	0.00	U	979	51	29-102	17	0-30
59-50-7	MSD	4-Chloro-3-methylphenol	1900	0.00	U	1090	57	29-110	2	0-30
83-32-9	MSD	Acenaphthene	1900	0.00	U	949	50	17-109	11	0-30
121-14-2	MSD	2,4-Dinitrotoluene	1900	0.00	U	1160	61	33-107	5	0-30
100-02-7	MSD	4-Nitrophenol	1900	0.00	U	0.00	0 *	15-110	0	0-30
87-86-5	MSD	Pentachlorophenol	1900	0.00	U	573	30	23-110	18	0-30
129-00-0	MSD	Pyrene	1900	32.8	J	944	48	24-118	14	0-30
110-86-1	MSD	Pyridine	1900	0.00	U	708	37	25-102	17	0-30
62-53-3	MSD	Aniline	1900	0.00	U	1130	59	18-109	3	0-30
111-44-4	MSD	bis(2-Chloroethyl) ether	1900	0.00	U	917	48	29-96	16	0-30
541-73-1	MSD	1,3-Dichlorobenzene	1900	0.00	U	851	45	26-97	19	0-30
100-51-6	MSD	Benzyl alcohol	1900	0.00	U	0.00	0 *	19-112	0	0-30
95-50-1	MSD	1,2-Dichlorobenzene	1900	0.00	U	845	44	30-97	17	0-30
108-60-1	MSD	bis(2-Chloroisopropyl)ether	1900	0.00	U	1150	60	28-103	17	0-30
95-48-7	MSD	o-Cresol	1900	0.00	U	930	49	32-107	10	0-30
65794-96-9	MSD	m,p-Cresols	1900	0.00	U	1140	60	33-115	9	0-30
67-72-1	MSD	Hexachloroethane	1900	0.00	U	899	47	25-100	18	0-30
98-95-3	MSD	Nitrobenzene	1900	0.00	U	1060	56	27-106	14	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2412
Client ID: RE16-10-2917MSD
Lab Sample ID: 1202074569
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.6
Analysis Date: 03/26/2010 20:18
Dilution: 1
Prep Batch ID: 966672
Batch ID: 966675

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1900	0.00	U	1020	54	29-104	13	0-30
88-75-5	MSD 2-Nitrophenol	1900	0.00	U	901	47	26-102	18	0-30
105-67-9	MSD 2,4-Dimethylphenol	1900	0.00	U	667	35	22-104	9	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1900	0.00	U	931	49	27-101	13	0-30
120-83-2	MSD 2,4-Dichlorophenol	1900	0.00	U	1020	53	26-103	9	0-30
65-85-0	MSD Benzoic acid	3810	0.00	U	1040	27	13-131	33 *	0-30
91-20-3	MSD Naphthalene	1900	0.00	U	954	50	23-103	19	0-30
106-47-8	MSD 4-Chloroaniline	1900	0.00	U	974	51	26-103	5	0-30
87-68-3	MSD Hexachlorobutadiene	1900	0.00	U	1050	55	28-101	18	0-30
91-57-6	MSD 2-Methylnaphthalene	1900	0.00	U	1050	55	27-106	15	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1900	0.00	U	669	35	24-117	24	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1900	0.00	U	805	42	26-105	3	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1900	0.00	U	992	52	30-110	6	0-30
91-58-7	MSD 2-Chloronaphthalene	1900	0.00	U	911	48	28-102	14	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	1130	59	33-106	5	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	1210	64	33-116	2	0-30
131-11-3	MSD Dimethylphthalate	1900	0.00	U	1140	60	38-113	5	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1900	0.00	U	1060	56	29-107	5	0-30
208-96-8	MSD Acenaphthylene	1900	0.00	U	997	52	25-108	11	0-30
51-28-5	MSD 2,4-Dinitrophenol	1900	0.00	U	874	46	14-102	3	0-30
132-64-9	MSD Dibenzofuran	1900	0.00	U	1020	53	35-112	9	0-30
84-66-2	MSD Diethylphthalate	1900	0.00	U	1210	64	36-122	5	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2412
Client ID: RE16-10-2917MSD
Lab Sample ID: 1202074569
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.6
Analysis Date: 03/26/2010 20:18
Prep Batch ID: 966672
Batch ID: 966675
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1900	0.00	U	1120	59	33-105	8	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1900	0.00	U	1080	57	30-110	7	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1900	0.00	U	928	49	26-97	2	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	1670	88	28-135	1	0-30
122-39-4	MSD	Diphenylamine	1900	0.00	U	1040	55	33-109	6	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1110	58	31-113	7	0-30
101-55-3	MSD	4-Bromophenylphenylether	1900	0.00	U	1000	53	31-109	8	0-30
118-74-1	MSD	Hexachlorobenzene	1900	0.00	U	992	52	37-99	7	0-30
85-01-8	MSD	Phenanthrene	1900	30.0	J	1120	57	29-109	12	0-30
120-12-7	MSD	Anthracene	1900	8.64	J	1080	56	19-118	7	0-30
84-74-2	MSD	Di-n-butylphthalate	1900	0.00	U	1220	64	39-123	6	0-30
206-44-0	MSD	Fluoranthene	1900	42.9		1240	63	33-114	13	0-30
85-68-7	MSD	Butylbenzylphthalate	1900	0.00	U	1040	55	35-131	7	0-30
56-55-3	MSD	Benzo(a)anthracene	1900	0.00	U	1130	60	30-111	5	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1900	0.00	U	950	50	30-124	5	0-30
218-01-9	MSD	Chrysene	1900	20.1	J	1050	54	32-108	14	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1900	0.00	U	1040	54	37-129	8	0-30
117-84-0	MSD	Di-n-octylphthalate	1900	0.00	U	1050	55	31-143	8	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1900	26.7	J	1170	60	29-118	1	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1900	0.00	U	1060	56	32-118	18	0-30
50-32-8	MSD	Benzo(a)pyrene	1900	17.3	J	1140	59	33-115	10	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1900	12.6	J	1190	62	29-114	9	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2412
Client ID: RE16-10-2917MSD
Lab Sample ID: 1202074569
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.6
Analysis Date: 03/26/2010 20:18
Dilution: 1
Prep Batch ID: 966672
Batch ID: 966675

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1900	0.00	U	1210	64	27-119	7	0-30
191-24-2	MSD Benzo(ghi)perylene	1900	15.0	J	1140	59	28-112	11	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1900	0.00	U	955	50	28-99	18	0-30

Method Blank Summary

SDG Number:	10-2412	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 966672	Instrument ID:	MSD2.I	Data File:	s2c2608-1.d
Lab Sample ID:	1202074566	Prep Date:	03/18/2010 22:34	Analyzed:	03/26/10 17:36
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 966672	1202074567	s2c2609-1.d	03/26/10	1756
04	RE46-10-12927	249244001	s2c2630.d	03/27/10	0058
05	RE46-10-12923	249244002	s2c2631.d	03/27/10	0118
06	RE46-10-12924	249244003	s2c2632.d	03/27/10	0138
07	RE46-10-12926	249244004	s2c2633.d	03/27/10	0158
08	RE46-10-12928	249244005	s2c2634.d	03/27/10	0219
09	RE46-10-12925	249244006	s2c2635.d	03/27/10	0239

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2412

Instrument ID: MSD2.I **Injection Date/Time:** 12-MAR-10 14:32

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s031210.b/s2c1201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	51.2
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	43.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.7
197	0 - 1% of mass 198	0.5
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	21.3
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	67.2
442	Greater than 40% of mass 198	65.7
443	17 - 23% of mass 442	21.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100309-08	s2c1203.d	12-MAR-10 15:04
MEGA010	WBN100309-07	s2c1204.d	12-MAR-10 15:31
MEGA020	WBN100309-06	s2c1205.d	12-MAR-10 15:59
MEGA040	WBN100309-05.1	s2c1206.d	12-MAR-10 16:23
MEGA050	WBN100309-04	s2c1207.d	12-MAR-10 16:48
MEGA080	WBN100309-03	s2c1208.d	12-MAR-10 17:13
MEGA100	WBN100309-02	s2c1209.d	12-MAR-10 17:38
MEGA120	WBN100309-01	s2c1210.d	12-MAR-10 18:02
MEGAICV	WBN100309-09.1	s2c1212.d	12-MAR-10 18:54
AP010	WBN100218-01	s2c1213.d	12-MAR-10 19:18
AP020	WBN100218-02	s2c1214.d	12-MAR-10 19:39
AP040	WBN100218-03.1	s2c1215.d	12-MAR-10 19:59
AP050	WBN100218-04	s2c1216.d	12-MAR-10 20:19
AP080	WBN100218-05	s2c1217.d	12-MAR-10 20:39
AP100	WBN100218-06	s2c1218.d	12-MAR-10 20:59
AP120	WBN100218-07	s2c1219.d	12-MAR-10 21:19

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2412

Instrument ID: MSD2.I **Injection Date/Time:** 12-MAR-10 14:32

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s031210.b/s2c1201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	51.2
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	43.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.7
197	0 - 1% of mass 198	0.5
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	21.3
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	67.2
442	Greater than 40% of mass 198	65.7
443	17 - 23% of mass 442	21.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
APICV	WBN100218-08.1	s2c1227.d	13-MAR-10 00:00

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2412

Instrument ID: MSD2.I **Injection Date/Time:** 26-MAR-10 15:12

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s032610.b/s2c2601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	53.5
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	45
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	53.4
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	22.5
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	68.2
442	Greater than 40% of mass 198	69.5
443	17 - 23% of mass 442	21.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-09.1	s2c2602.d	26-MAR-10 15:25
APCVS	WBN100218-08.1	s2c2605.d	26-MAR-10 16:34
SBLK01	1202074566	s2c2608-1.d	26-MAR-10 17:36
SBLK01LCS	1202074567	s2c2609-1.d	26-MAR-10 17:56
RE46-10-12927	249244001	s2c2630.d	27-MAR-10 00:58
RE46-10-12923	249244002	s2c2631.d	27-MAR-10 01:18
RE46-10-12924	249244003	s2c2632.d	27-MAR-10 01:38
RE46-10-12926	249244004	s2c2633.d	27-MAR-10 01:58
RE46-10-12928	249244005	s2c2634.d	27-MAR-10 02:19
RE46-10-12925	249244006	s2c2635.d	27-MAR-10 02:39

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2412

Instrument: MSD2.I

STD Analysis Time: 26-MAR-10 15:25

GC Column: J&W DB-5MS

Data File: s2c2602.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	158646		3.81	744655		4.67	397163		5.92	686062		6.91	608658		8.56	380590		9.96
Upper Limit	317292		4.31	1489310		5.17	794326		6.42	1372124		7.41	1217316		9.06	761180		10.5
Lower Limit	79323		3.31	372328		4.17	198582		5.42	343031		6.41	304329		8.06	190295		9.46
Sample ID																		
BLK01	194616		3.81	754016		4.67	452391		5.91	803516		6.9	641005		8.54	413678		9.95
BLK01LCS	141015		3.81	632826		4.67	339607		5.92	612202		6.91	566944		8.55	390661		9.96
RE46-10-12927	124238		3.81	495877		4.67	302954		5.91	544740		6.91	424403		8.54	270485		9.95
RE46-10-12923	179061		3.81	716887		4.67	438209		5.91	816606		6.91	599826		8.54	355874		9.95
RE46-10-12924	208502		3.81	831222		4.67	516020		5.91	955083		6.91	656363		8.54	389742		9.95
RE46-10-12926	182666		3.81	723490		4.67	437499		5.91	819161		6.91	550466		8.54	301896		9.95
RE46-10-12928	188928		3.81	751624		4.67	456990		5.91	831173		6.91	625852		8.54	414728		9.95
RE46-10-12925	160026		3.81	631865		4.67	388576		5.91	712387		6.91	495042		8.54	279197		9.95

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2412	Date Collected:	03/10/2010 12:00	Matrix:	S
Lab Sample ID:	249244002	Date Received:	03/12/2010 08:45	%Moisture:	15.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-12923	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966675	Inst:	MSD2.I	Dilution:	1
Run Date:	03/27/2010 01:18	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/18/2010 22:34	Aliquot:	30.08 g	Final Volume:	1 mL
Data File:	s2c2631.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	393	ug/kg	78.5	393
108-95-2	Phenol	U	393	ug/kg	78.5	393
95-57-8	2-Chlorophenol	U	393	ug/kg	78.5	393
106-46-7	1,4-Dichlorobenzene	U	393	ug/kg	78.5	393
621-64-7	N-Nitrosodipropylamine	U	393	ug/kg	78.5	393
59-50-7	4-Chloro-3-methylphenol	U	393	ug/kg	78.5	393
83-32-9	Acenaphthene	J	23.2	ug/kg	13.0	39.3
121-14-2	2,4-Dinitrotoluene	U	393	ug/kg	39.3	393
100-02-7	4-Nitrophenol	U	393	ug/kg	130	393
87-86-5	Pentachlorophenol	U	393	ug/kg	98.2	393
129-00-0	Pyrene		708	ug/kg	11.8	39.3
110-86-1	Pyridine	U	393	ug/kg	78.5	393
62-53-3	Aniline	U	393	ug/kg	118	393
111-44-4	bis(2-Chloroethyl) ether	U	393	ug/kg	78.5	393
541-73-1	1,3-Dichlorobenzene	U	393	ug/kg	78.5	393
100-51-6	Benzyl alcohol	U	393	ug/kg	118	393
95-50-1	1,2-Dichlorobenzene	U	393	ug/kg	78.5	393
108-60-1	bis(2-Chloroisopropyl)ether	U	393	ug/kg	78.5	393
95-48-7	o-Cresol	U	393	ug/kg	78.5	393
65794-96-9	m,p-Cresols	U	393	ug/kg	118	393
67-72-1	Hexachloroethane	U	393	ug/kg	78.5	393
98-95-3	Nitrobenzene	U	393	ug/kg	78.5	393
78-59-1	Isophorone	U	393	ug/kg	78.5	393
88-75-5	2-Nitrophenol	U	393	ug/kg	78.5	393
105-67-9	2,4-Dimethylphenol	U	393	ug/kg	137	393
111-91-1	bis(2-Chloroethoxy)methane	U	393	ug/kg	78.5	393
120-83-2	2,4-Dichlorophenol	U	393	ug/kg	78.5	393
65-85-0	Benzoic acid	U	785	ug/kg	196	785
91-20-3	Naphthalene	U	39.3	ug/kg	11.8	39.3
106-47-8	4-Chloroaniline	U	393	ug/kg	78.5	393
87-68-3	Hexachlorobutadiene	U	393	ug/kg	78.5	393
91-57-6	2-Methylnaphthalene	U	39.3	ug/kg	7.85	39.3
77-47-4	Hexachlorocyclopentadiene	U	393	ug/kg	78.5	393
88-06-2	2,4,6-Trichlorophenol	U	393	ug/kg	78.5	393
95-95-4	2,4,5-Trichlorophenol	U	393	ug/kg	78.5	393
91-58-7	2-Chloronaphthalene	U	39.3	ug/kg	13.0	39.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	393	ug/kg	78.5	393
99-09-2	3-Nitroaniline	U	393	ug/kg	78.5	393

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244002**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12923**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 01:18**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2631.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	393	ug/kg	78.5	393
606-20-2	2,6-Dinitrotoluene	U	393	ug/kg	39.3	393
208-96-8	Acenaphthylene	U	39.3	ug/kg	11.8	39.3
51-28-5	2,4-Dinitrophenol	U	785	ug/kg	149	785
132-64-9	Dibenzofuran	U	393	ug/kg	78.5	393
84-66-2	Diethylphthalate	U	393	ug/kg	78.5	393
86-73-7	Fluorene	J	13.5	ug/kg	11.8	39.3
7005-72-3	4-Chlorophenylphenylether	U	393	ug/kg	78.5	393
534-52-1	2-Methyl-4,6-dinitrophenol	U	393	ug/kg	78.5	393
100-01-6	4-Nitroaniline	U	393	ug/kg	118	393
	p-Nitroaniline					
122-39-4	Diphenylamine	U	393	ug/kg	78.5	393
122-66-7	Azobenzene	U	393	ug/kg	78.5	393
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	393	ug/kg	78.5	393
118-74-1	Hexachlorobenzene	U	393	ug/kg	78.5	393
85-01-8	Phenanthrene		271	ug/kg	11.8	39.3
120-12-7	Anthracene		51.0	ug/kg	7.85	39.3
84-74-2	Di-n-butylphthalate	U	393	ug/kg	78.5	393
206-44-0	Fluoranthene		796	ug/kg	11.8	39.3
85-68-7	Butylbenzylphthalate	U	393	ug/kg	78.5	393
56-55-3	Benzo(a)anthracene		399	ug/kg	11.8	39.3
91-94-1	3,3'-Dichlorobenzidine	U	393	ug/kg	118	393
218-01-9	Chrysene		362	ug/kg	11.8	39.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	393	ug/kg	78.5	393
117-84-0	Di-n-octylphthalate	U	393	ug/kg	78.5	393
205-99-2	Benzo(b)fluoranthene		663	ug/kg	11.8	39.3
207-08-9	Benzo(k)fluoranthene	U	39.3	ug/kg	11.8	39.3
50-32-8	Benzo(a)pyrene		431	ug/kg	11.8	39.3
193-39-5	Indeno(1,2,3-cd)pyrene		244	ug/kg	11.8	39.3
53-70-3	Dibenzo(a,h)anthracene	U	39.3	ug/kg	11.8	39.3
191-24-2	Benzo(ghi)perylene		294	ug/kg	11.8	39.3
120-82-1	1,2,4-Trichlorobenzene	U	393	ug/kg	78.5	393

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	426	ug/kg		JA
192-97-2	Benzo[e]pyrene	9.81	284	ug/kg	97	NJ

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2631.d
Lab Smp Id: 249244002 Client Smp ID: RE46-10-12923
Inj Date : 27-MAR-2010 01:18
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249244002|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 31
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2412.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	15.35240	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	179061	40.0000	
* 29 Naphthalene-d8	136	4.672	4.672	(1.000)	716887	40.0000	
* 46 Acenaphthene-d10	164	5.913	5.918	(1.000)	438209	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	816606	40.0000	
* 91 Chrysene-d12	240	8.544	8.555	(1.000)	599826	40.0000	
* 98 Perylene-d12	264	9.946	9.962	(1.000)	355874	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	289346	67.8633	2660
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	312675	59.5537	2340
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.892)	178556	34.4136	1350
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.915)	377980	31.3513	1230
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.091)	91865	70.8773	2780
$ 81 p-Terphenyl-d14	244	7.817	7.822	(0.915)	497347	45.4636	1780

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
47 Acenaphthene	154	5.934	5.940	(1.004)	6892	0.59052	23.2(a)
79 Pyrene	202	7.769	7.774	(0.909)	352643	18.0358	708
53 Fluorene	166	6.293	6.293	(1.064)	4269	0.34319	13.5(a)
68 Phenanthrene	178	6.918	6.924	(1.002)	139470	6.91006	271
69 Anthracene	178	6.950	6.956	(1.006)	25369	1.29928	51.0
76 Fluoranthene	202	7.630	7.635	(1.105)	369480	20.2667	796
89 Benzo(a)anthracene	228	8.534	8.544	(0.999)	152034	10.1563	399
92 Chrysene	228	8.560	8.576	(1.002)	128788	9.22205	362
95 Benzo(b)fluoranthene	252	9.502	9.512	(0.955)	163887	16.8836	663
97 Benzo(a)pyrene	252	9.882	9.892	(0.994)	88251	10.9692	431
99 Indeno(1,2,3-cd)pyrene	276	11.507	11.534	(1.157)	42792	6.21356	244
101 Benzo(ghi)perylene	276	12.000	12.021	(1.206)	41760	7.48631	294

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s2c2631.d
Report Date: 03/27/2010 22:00
Lab. ID: 249244002 SampleType: SAMPLE
Injection Date: 27-MAR-2010 01:18
Operator: AGS1 Instrument: MSD2.i
Sample Info: |249244002|966675|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2412
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	29216	4.17	4.05	80-120	100	(T)
42	25467	4.17	4.05	96-156	87	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	79115	5.91	5.69	80-120	100	(T)
164	438209	5.91	5.69	0- 40	554	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	57309	5.91	5.74	80-120	100	(T)
63	1080	5.91	5.74	87-147	2	(QT)
47 Acenaphthene				CAS#: 83-32-9		
154	6892	5.93	5.94	80-120	100	( )
153	6000	5.93	5.94	69-129	87	( )
152	2376	5.93	5.94	13- 73	34	( )
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	57309	5.91	6.03	80-120	100	(T)
89	1143	5.91	6.03	58-118	2	(QT)
63	1080	5.91	6.03	47-107	2	(QT)
53 Fluorene				CAS#: 86-73-7		
166	4269	6.29	6.29	80-120	100	( )
165	3911	6.29	6.29	61-121	92	( )
167	1006	6.29	6.29	0- 43	24	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	343	6.45	6.31	80-120	100	(T)
105	989	6.45	6.31	15- 75	288	(QT)
51	1725	6.45	6.31	92-152	502	(QT)
68 Phenanthrene				CAS#: 85-01-8		
178	139470	6.92	6.92	80-120	100	( )
179	23355	6.92	6.92	0- 45	17	( )
176	27269	6.92	6.92	0- 49	20	( )
69 Anthracene				CAS#: 120-12-7		
178	25369	6.95	6.96	80-120	100	( )
179	5820	6.95	6.96	0- 46	23	( )
176	4834	6.95	6.96	0- 48	19	( )
76 Fluoranthene				CAS#: 206-44-0		
202	369480	7.63	7.64	80-120	100	( )
203	66340	7.63	7.64	0- 47	18	( )
101	30441	7.63	7.64	0- 39	8	( )
79 Pyrene				CAS#: 129-00-0		
202	352643	7.77	7.77	80-120	100	( )
200	72872	7.77	7.77	0- 51	21	( )
101	37648	7.77	7.77	0- 40	11	( )
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	152034	8.53	8.54	80-120	100	( )
226	42071	8.53	8.54	0- 56	28	( )
229	44524	8.53	8.54	0- 49	29	( )
92 Chrysene				CAS#: 218-01-9		
228	128788	8.56	8.58	80-120	100	( )
229	33714	8.56	8.58	0- 50	26	( )
226	38733	8.56	8.58	0- 59	30	( )
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	163887	9.50	9.51	80-120	100	( )
253	36897	9.50	9.51	0- 49	23	( )
125	18042	9.50	9.51	0- 39	11	( )
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	163887	9.50	9.54	80-120	100	( )
253	37769	9.50	9.54	0- 54	23	( )
125	18042	9.50	9.54	0- 40	11	( )
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	88251	9.88	9.89	80-120	100	( )
253	20893	9.88	9.89	0- 52	24	( )
125	9959	9.88	9.89	0- 42	11	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	42792	11.51	11.53	80-120	100	( )
138	10485	11.50	11.53	0- 58	25	( )
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	9254	11.51	11.54	80-120	100	( )
139	264	11.51	11.53	0- 52	3	( )
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	41760	12.00	12.02	80-120	100	( )
138	10763	11.99	12.02	0- 58	26	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2631.d
Lab Smp Id: 249244002 Client Smp ID: RE46-10-12923
Inj Date : 27-MAR-2010 01:18
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249244002|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 31
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2412.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	15.35240	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.811	1347787	40.000
* 98 Perylene-d12	9.946	1084827	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.848	365544	10.8487282	426	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
Benzo[e]pyrene					CAS #: 192-97-2		
9.812	196435	7.24300812	284	97	NIST05.L	93577	98

Data File: /chem/MSD2.i/s032610.b/s2c2631.d
Date : 27-MAR-2010 01:18
Client ID: RE46-10-12923
Sample Info: |2492440021966675|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: AGS1
Column diameter: 0.20

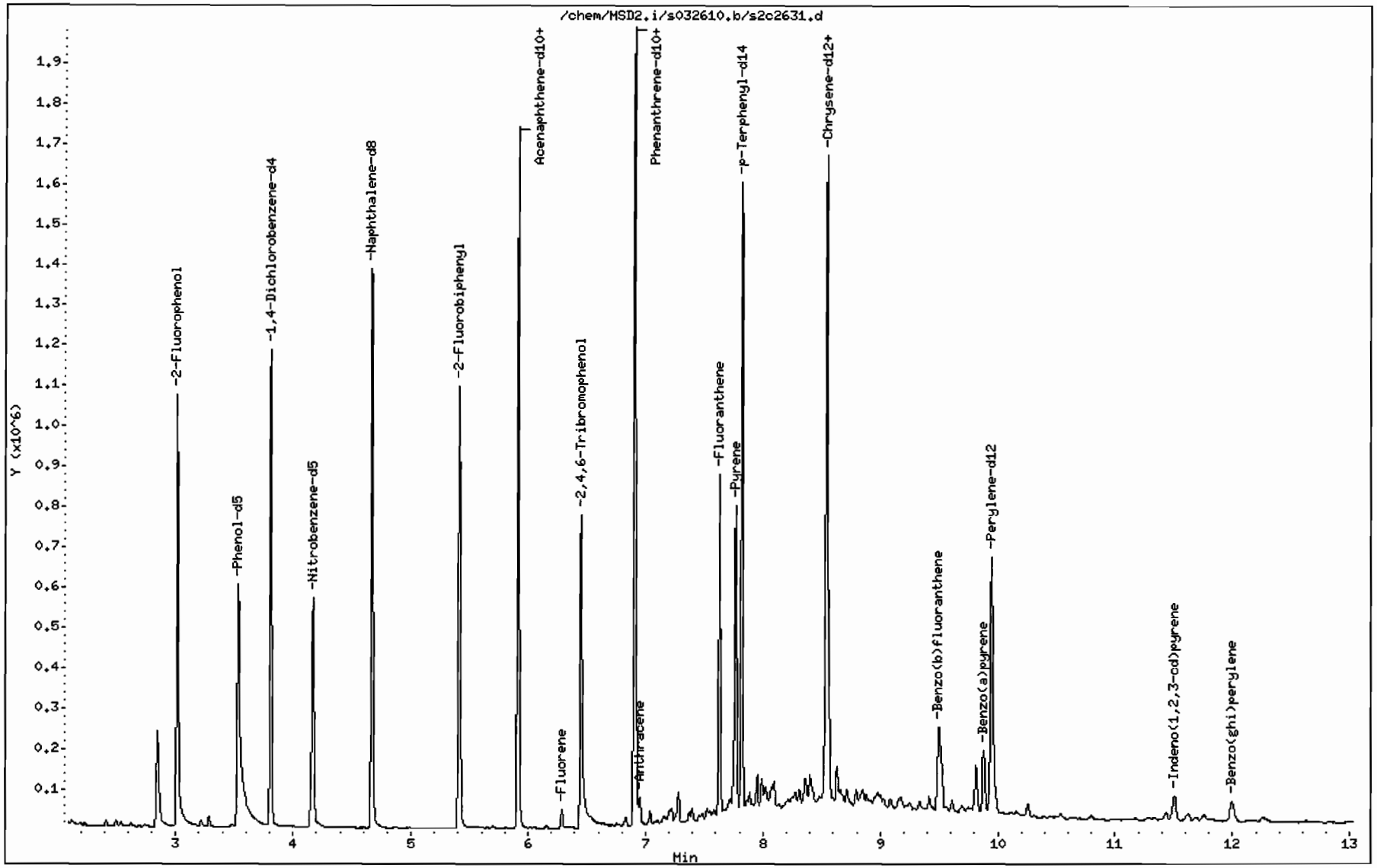

Data File: /chem/MSD2.i/s032610.b/s2c2631.d

Date : 27-MAR-2010 01:18

Client ID: RE46-10-12923

Instrument: MSD2.i

Sample Info: |2492440021966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 23.2 ug/Kg

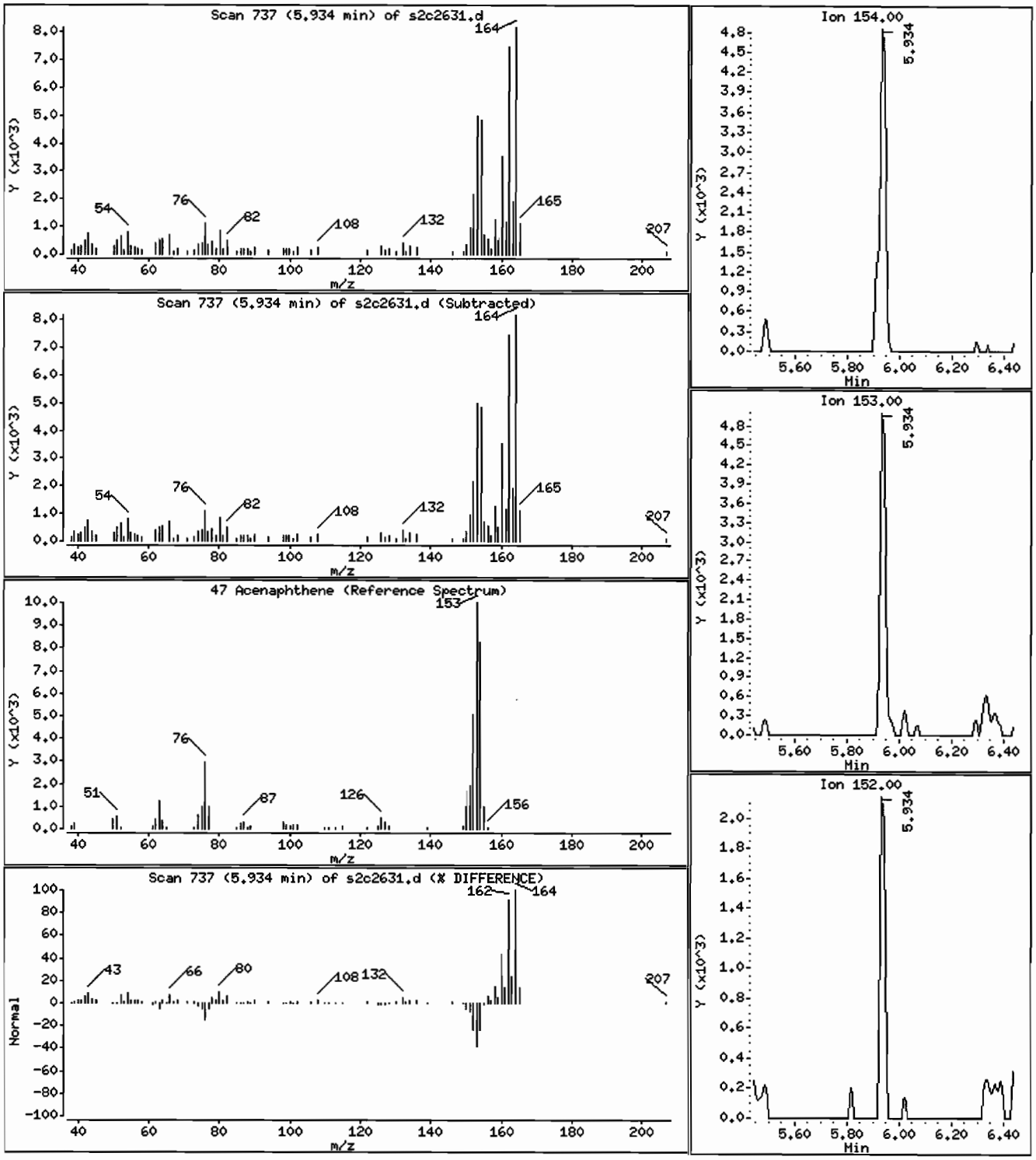

Data File: /chem/MSD2.i/s032610.b/s2c2631.d

Date : 27-MAR-2010 01:18

Client ID: RE46-10-12923

Instrument: MSD2.i

Sample Info: |2492440021966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 708 ug/Kg

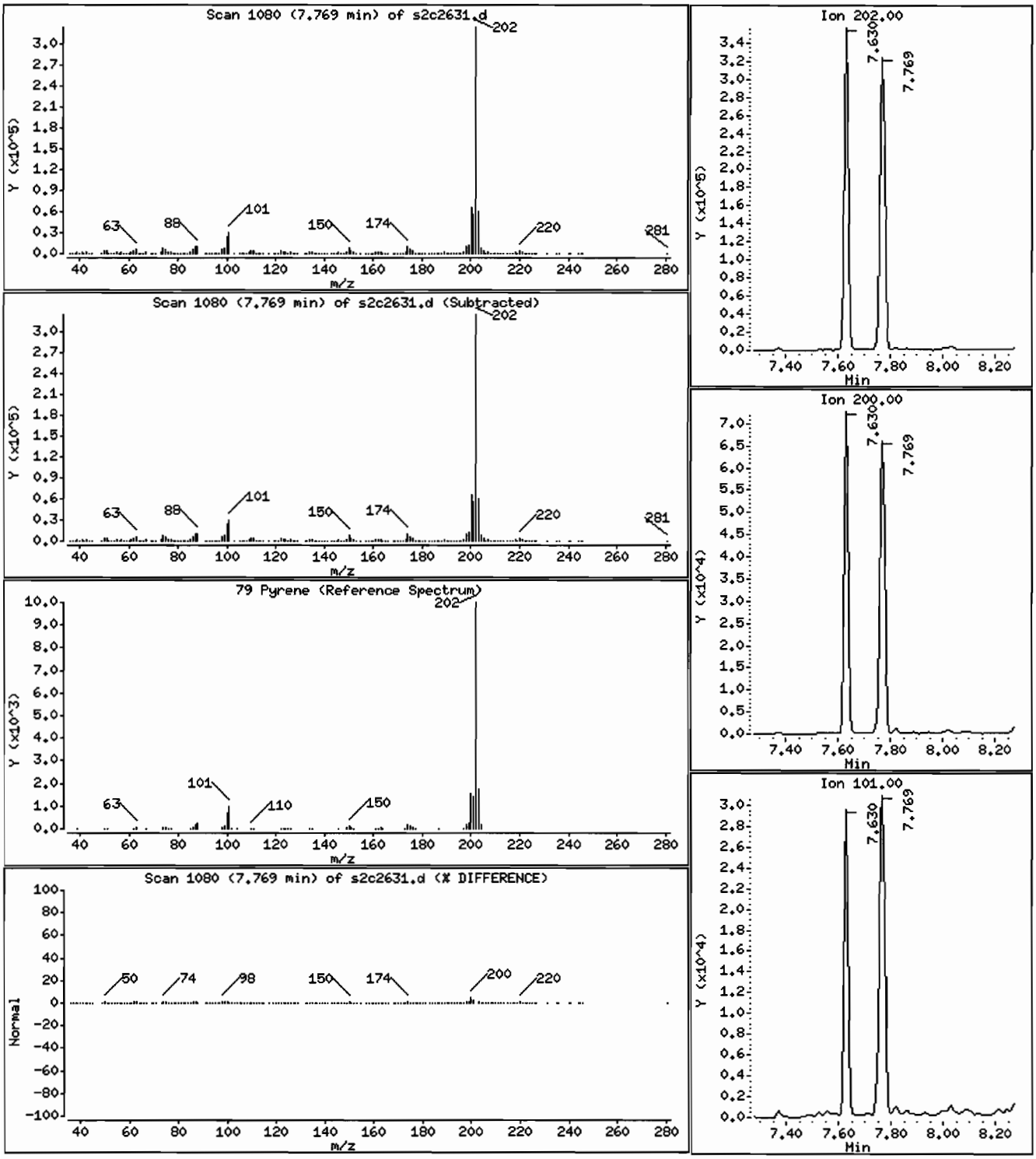

Data File: /chem/MSD2.i/s032610.b/s2c2631.d

Date : 27-MAR-2010 01:18

Client ID: RE46-10-12923

Instrument: MSD2.i

Sample Info: |249244002|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 13.5 ug/Kg

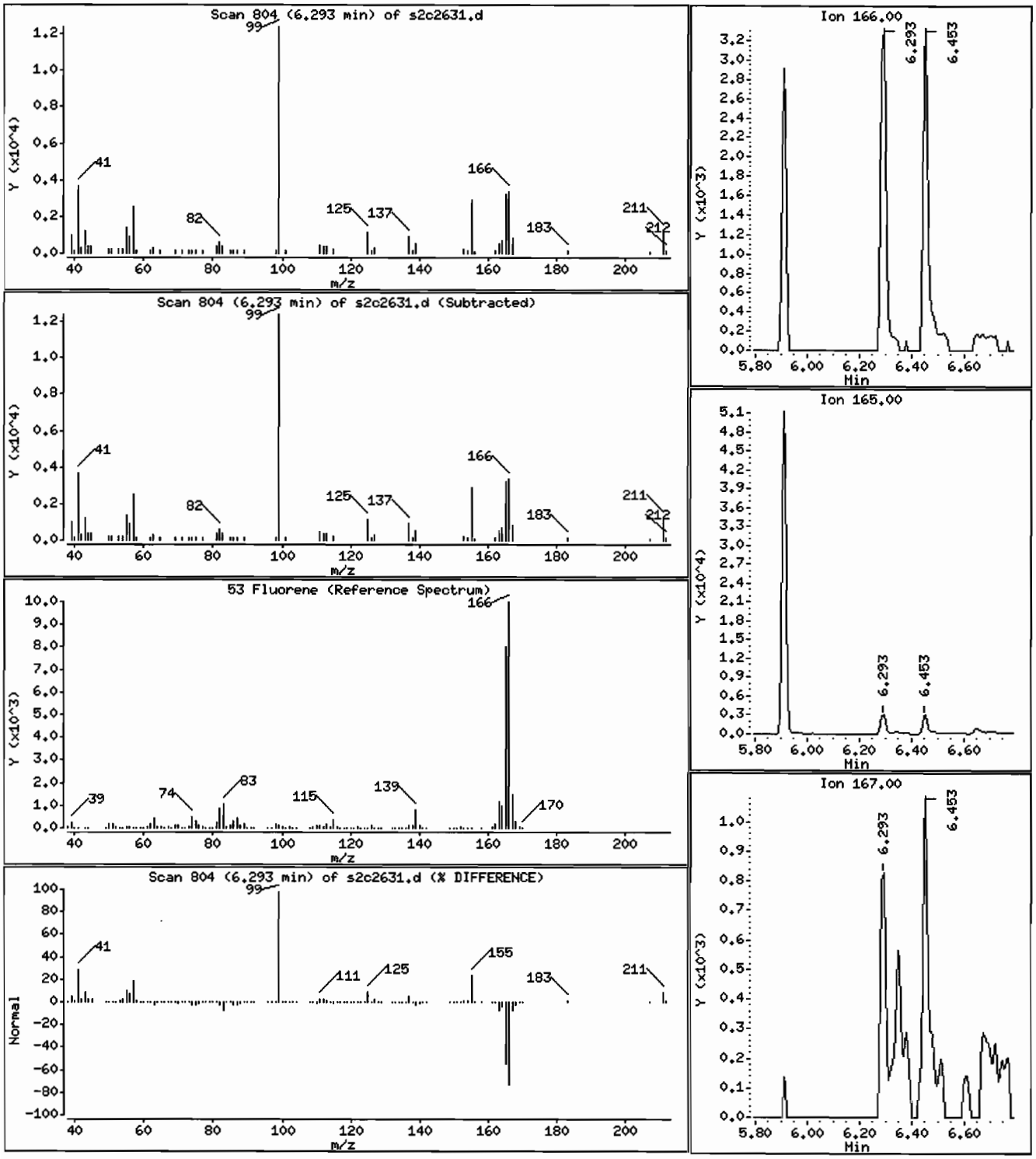

Data File: /chem/MSD2.i/s032610.b/s2c2631.d

Date : 27-MAR-2010 01:18

Client ID: RE46-10-12923

Instrument: MSD2.i

Sample Info: |2492440021966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 271 ug/Kg

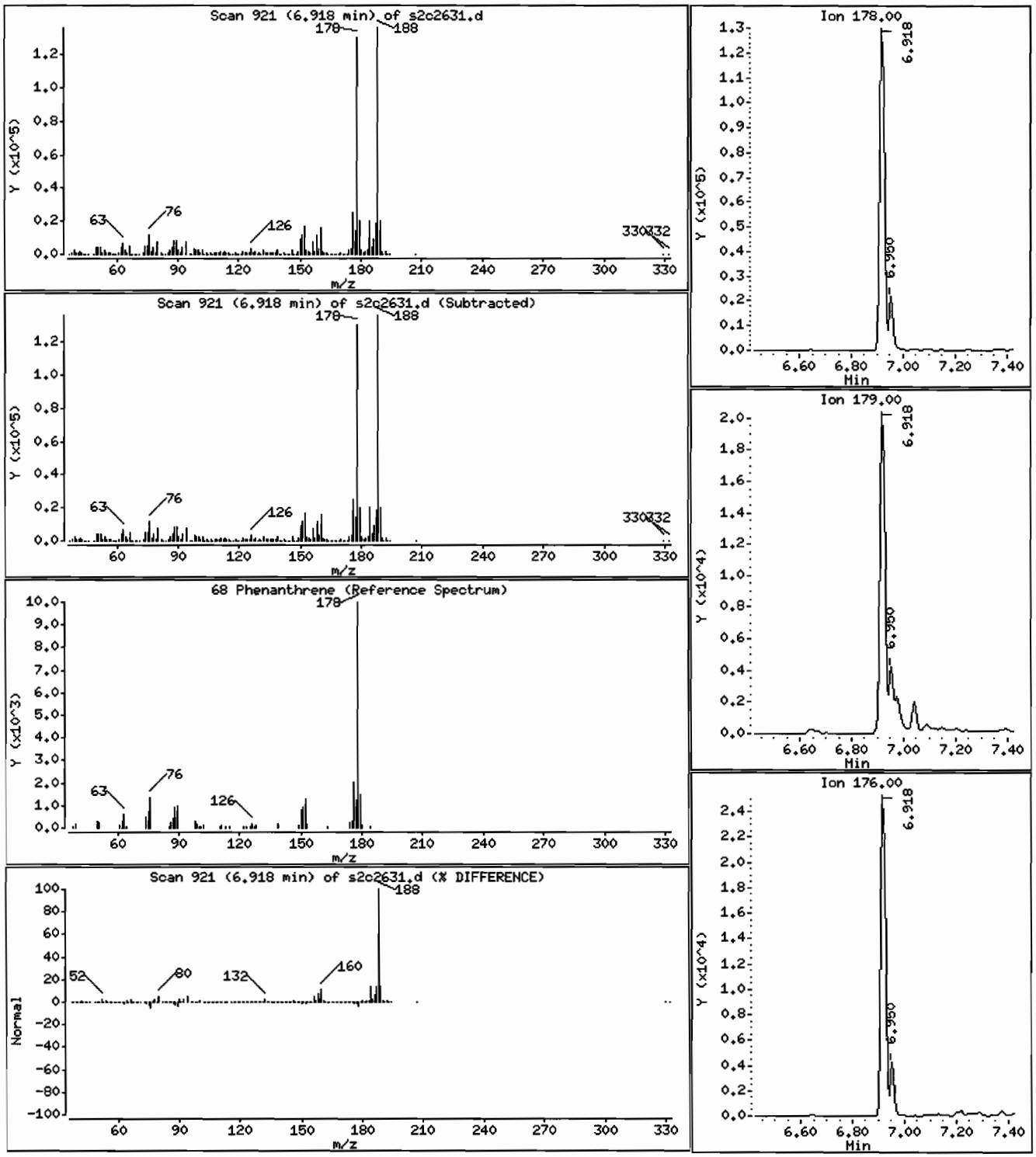

Data File: /chem/MSD2.i/s032610.b/s2c2631.d

Date : 27-MAR-2010 01:18

Client ID: RE46-10-12923

Instrument: MSD2.i

Sample Info: |2492440021966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 51.0 ug/Kg

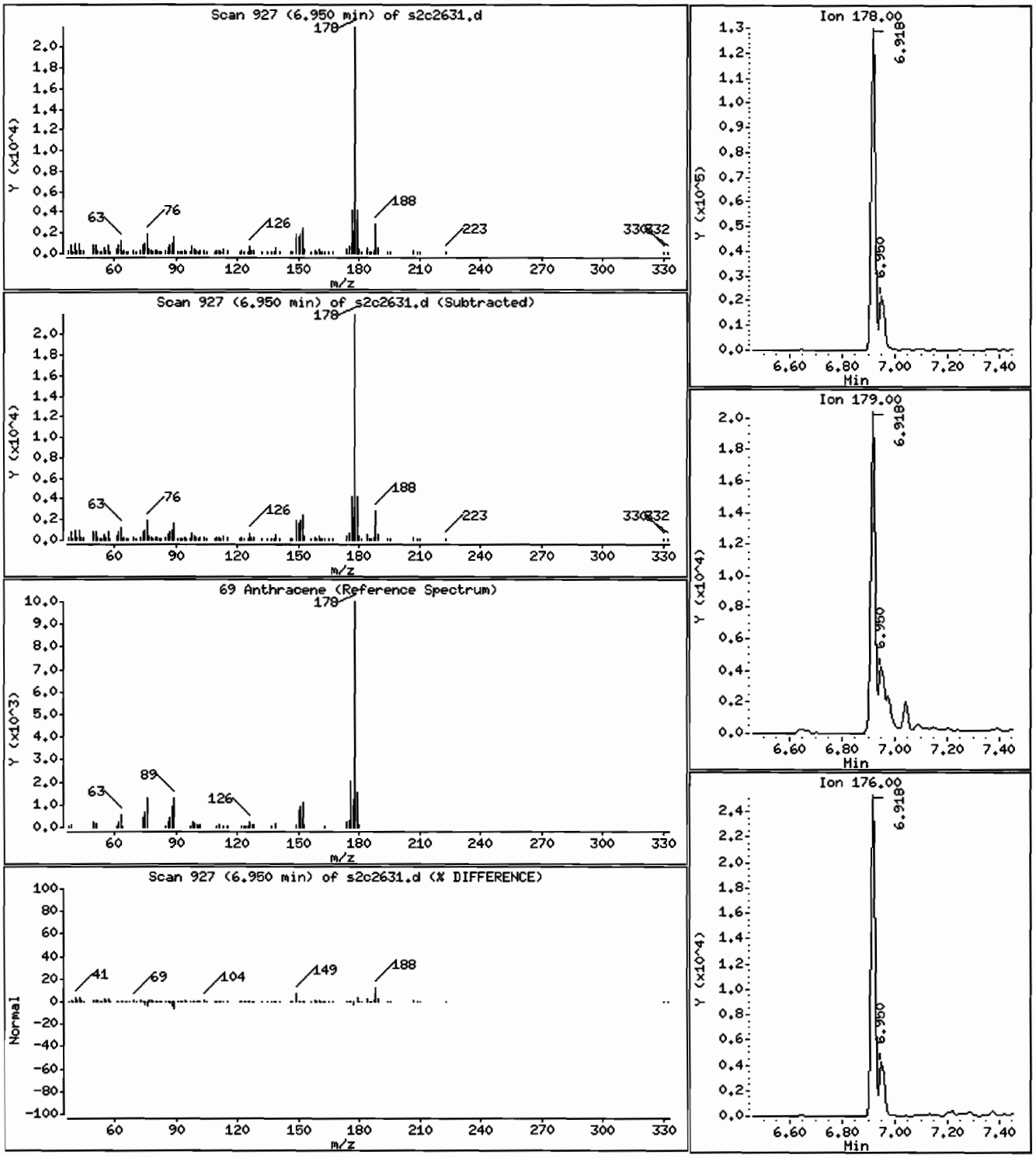

Data File: /chem/MSD2.i/s032610.b/s2c2631.d

Date : 27-MAR-2010 01:18

Client ID: RE46-10-12923

Instrument: MSD2.i

Sample Info: |2492440021966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 796 ug/Kg

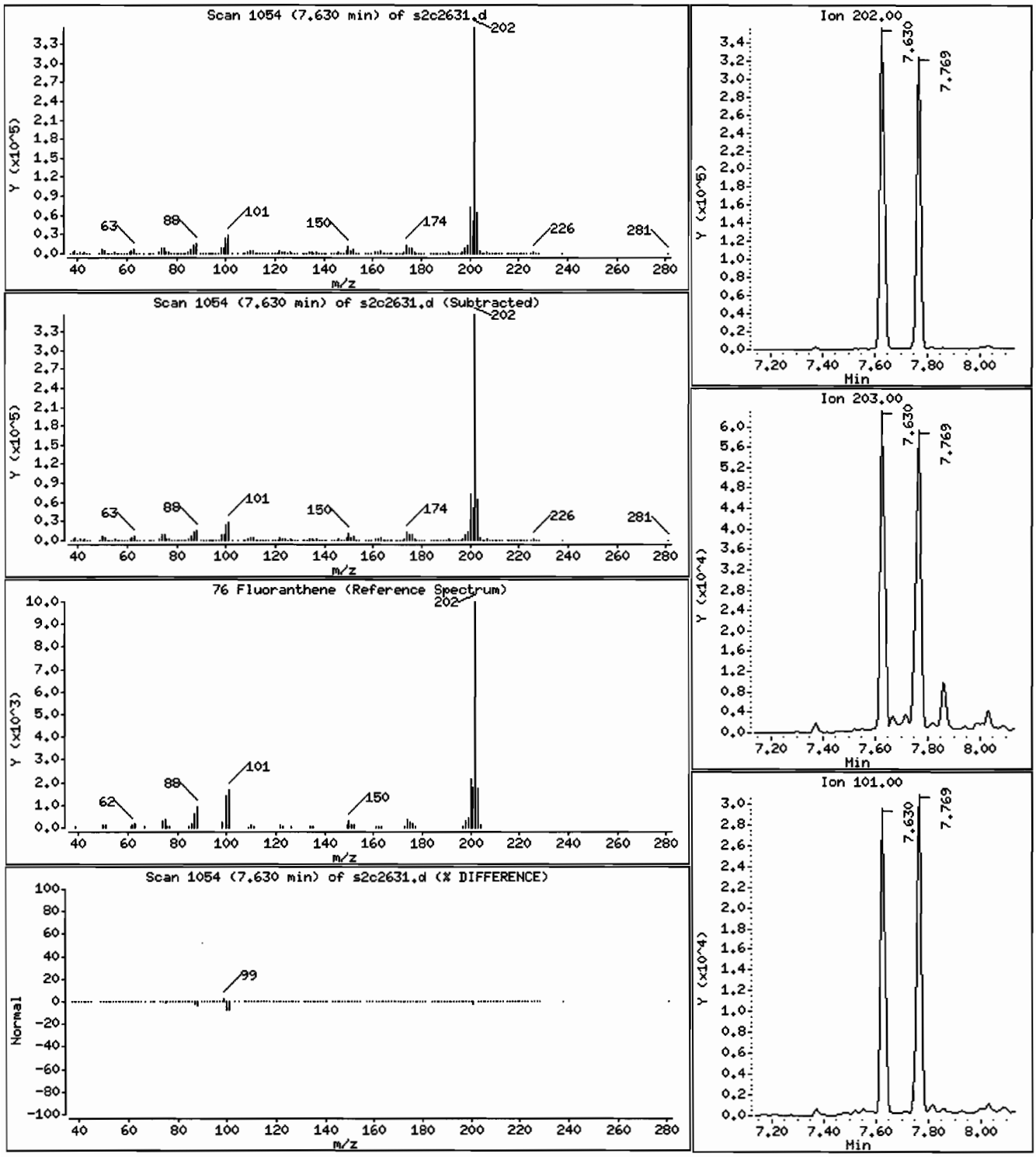

Data File: /chem/MSD2.i/s032610.b/s2c2631.d

Date : 27-MAR-2010 01:18

Client ID: RE46-10-12923

Instrument: MSD2.i

Sample Info: 1249244002196667511ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 399 ug/Kg

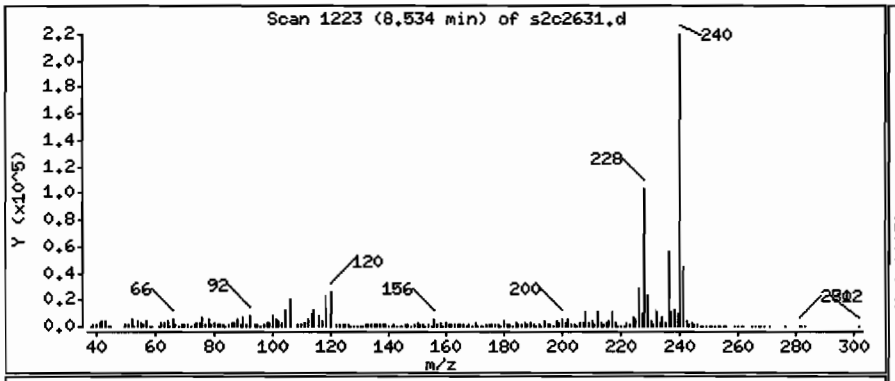

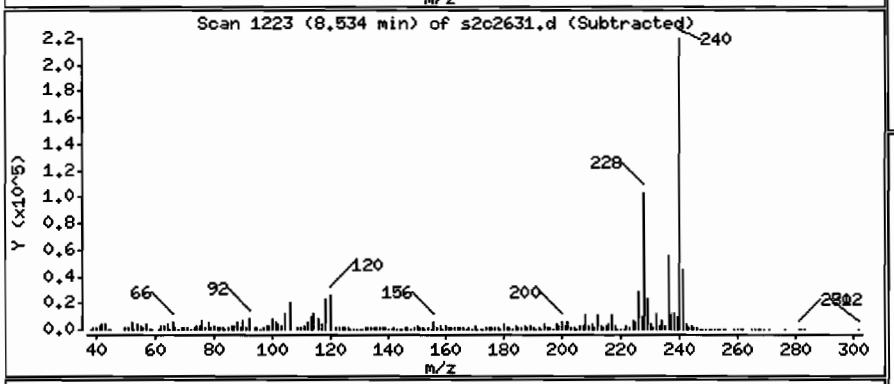

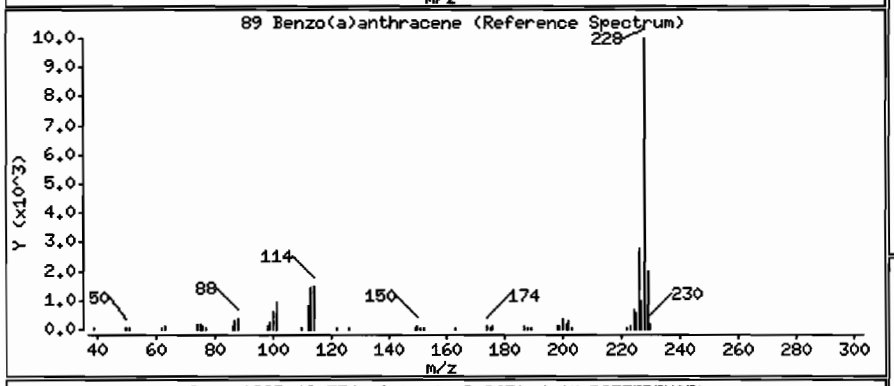

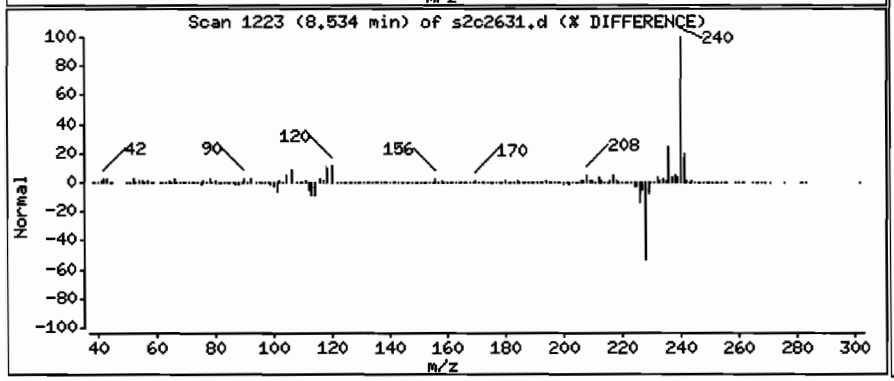

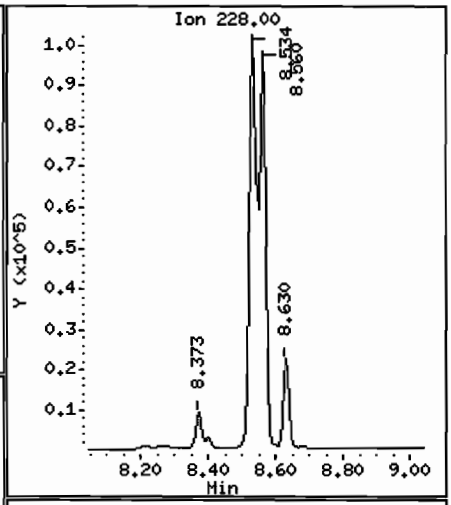

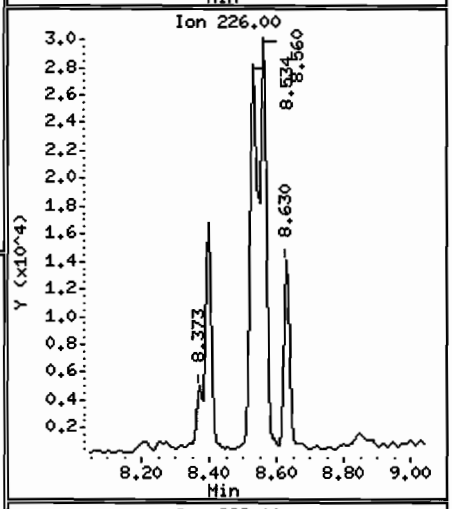

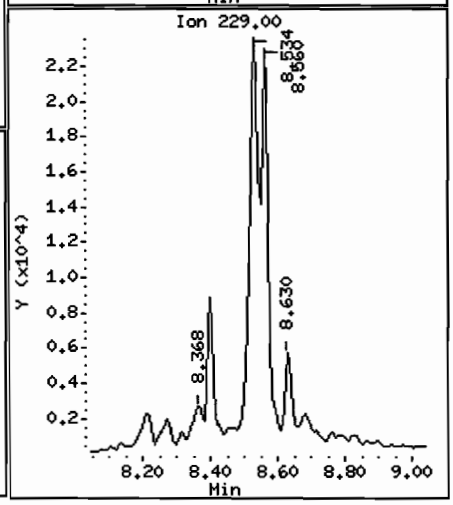

Data File: /chem/MSD2.i/s032610.b/s2c2631.d

Date : 27-MAR-2010 01:18

Client ID: RE46-10-12923

Instrument: MSD2.i

Sample Info: |2492440021966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 362 ug/Kg

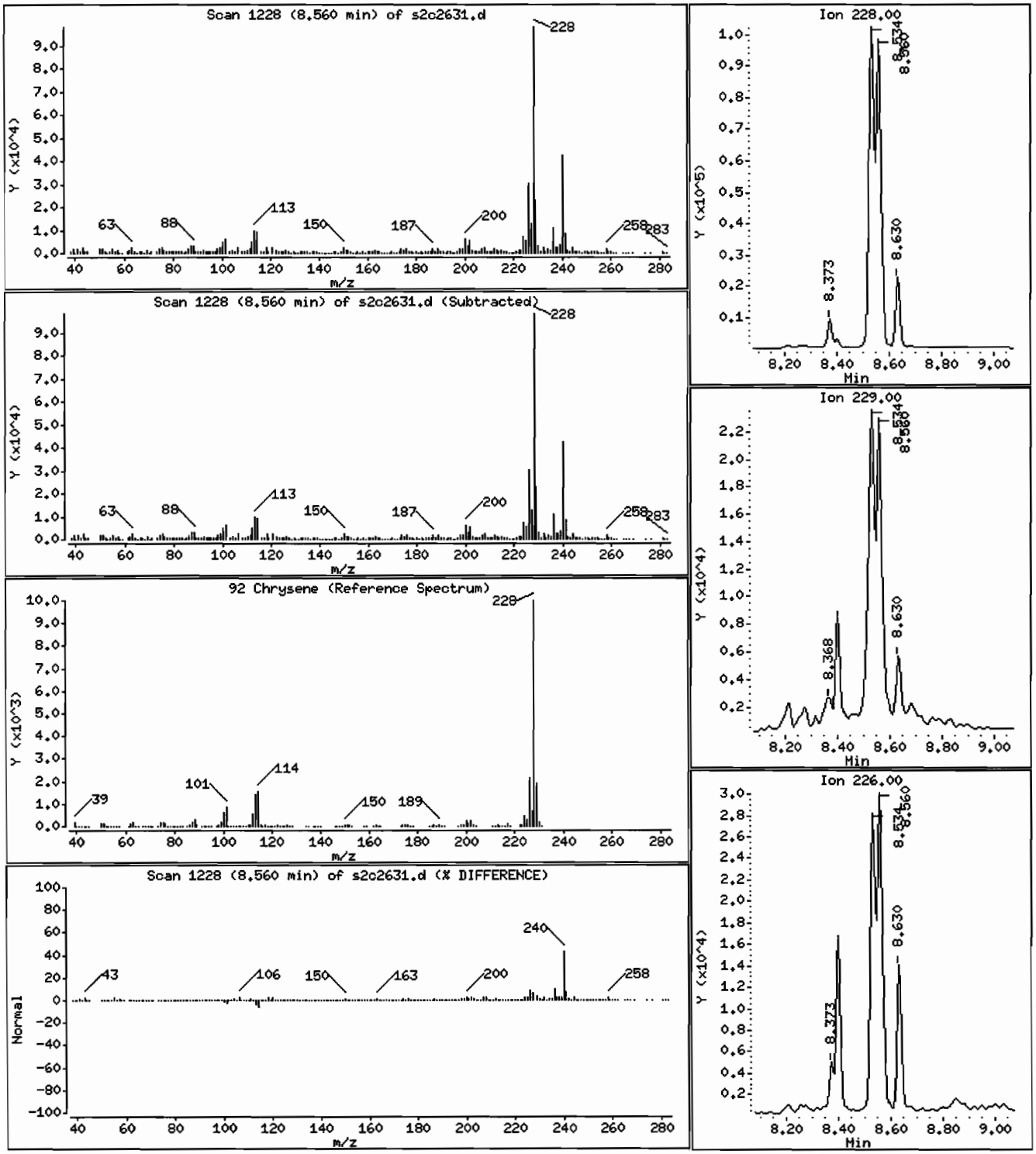

Data File: /chem/MSD2.i/s032610.b/s2c2631.d

Date : 27-MAR-2010 01:18

Client ID: RE46-10-12923

Instrument: MSD2.i

Sample Info: |2492440021966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 663 ug/Kg

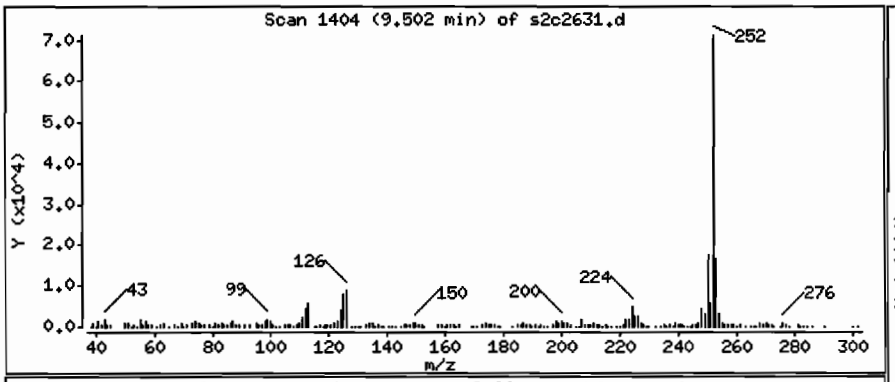

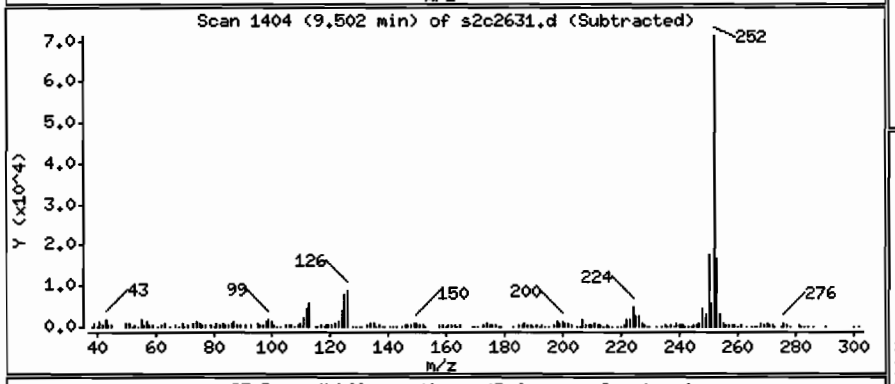

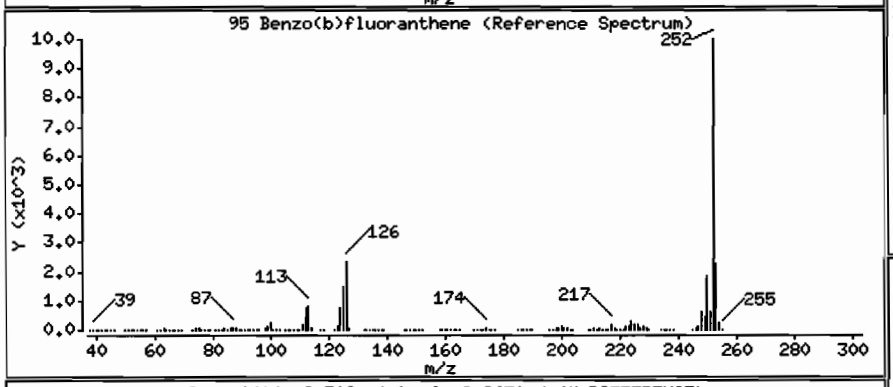

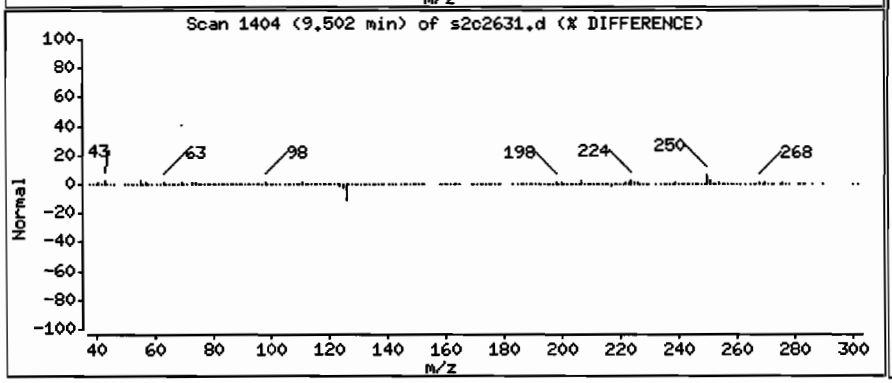

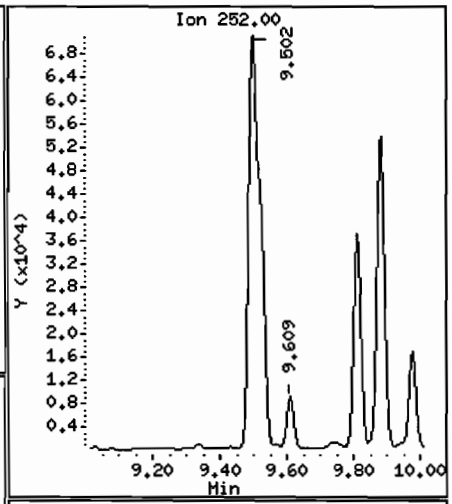

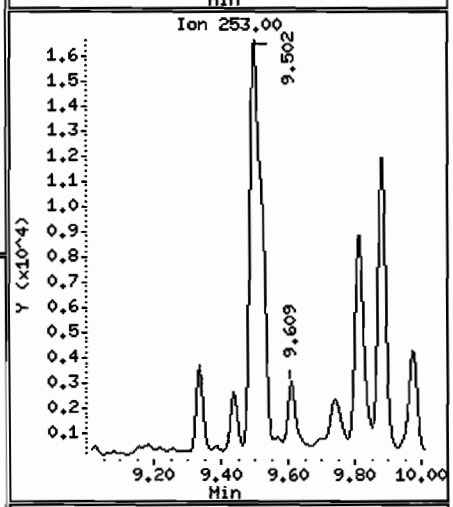

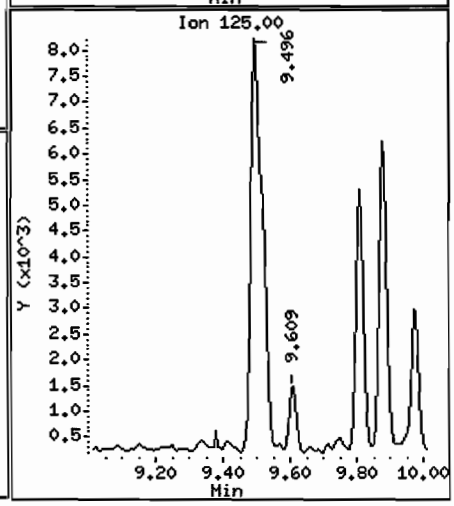

Data File: /chem/MSD2.i/s032610.b/s2c2631.d

Date : 27-MAR-2010 01:18

Client ID: RE46-10-12923

Instrument: MSD2.i

Sample Info: |2492440021966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 431 ug/Kg

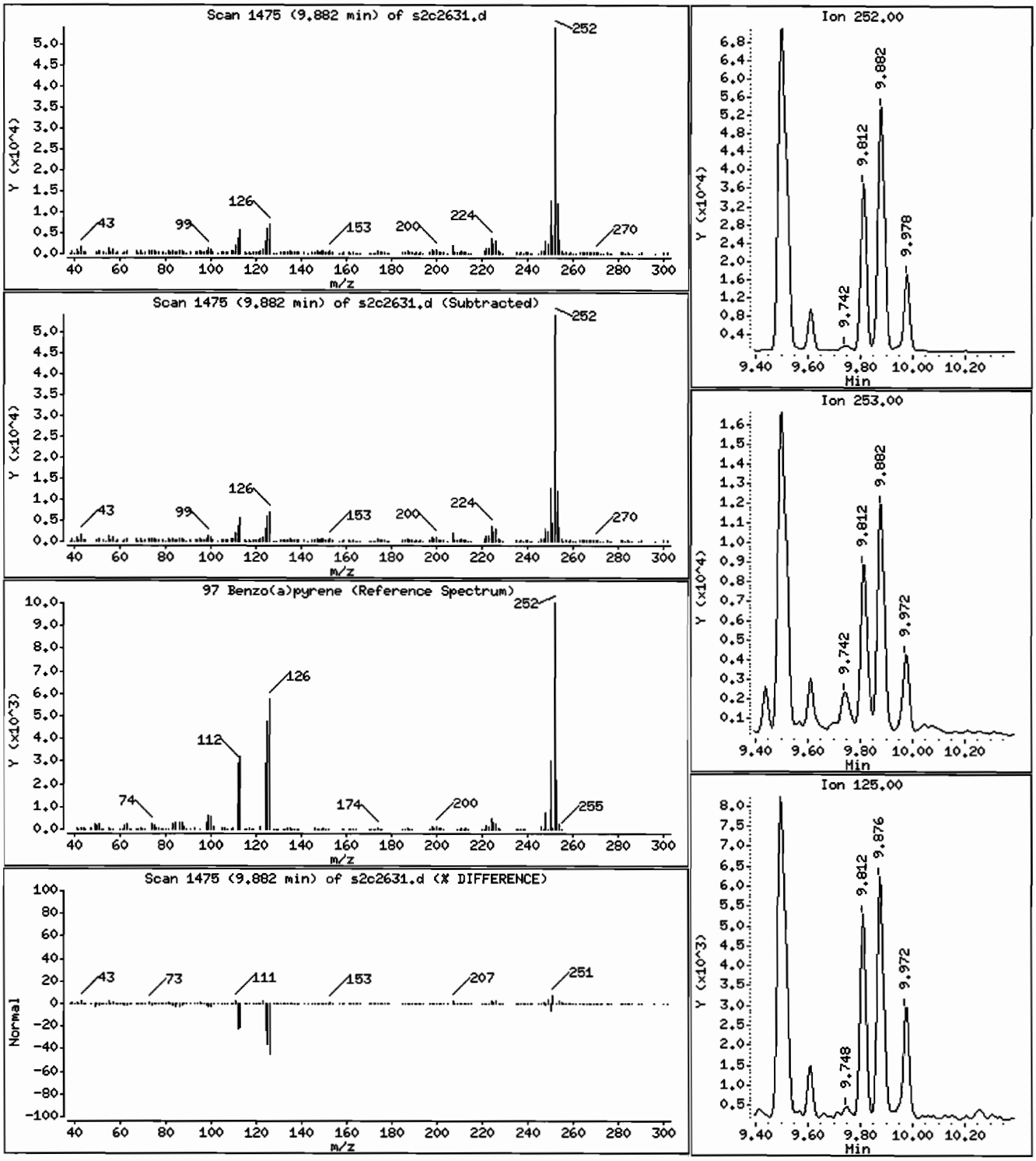

Data File: /chem/MSD2.i/s032610.b/s2c2631.d

Date : 27-MAR-2010 01:18

Client ID: RE46-10-12923

Instrument: MSD2.i

Sample Info: |2492440021966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 244 ug/Kg

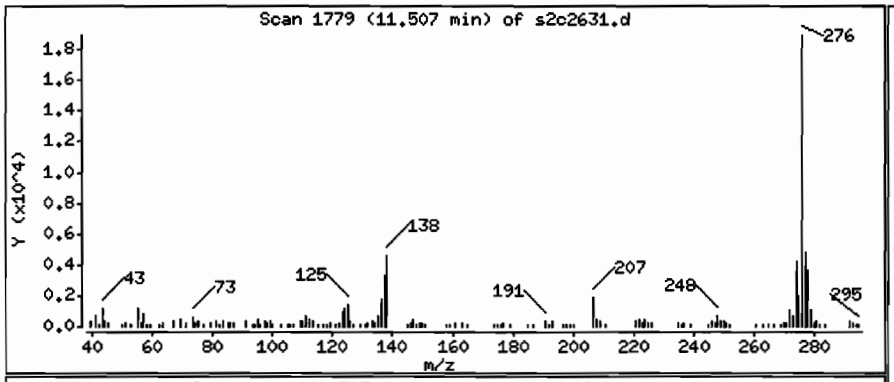

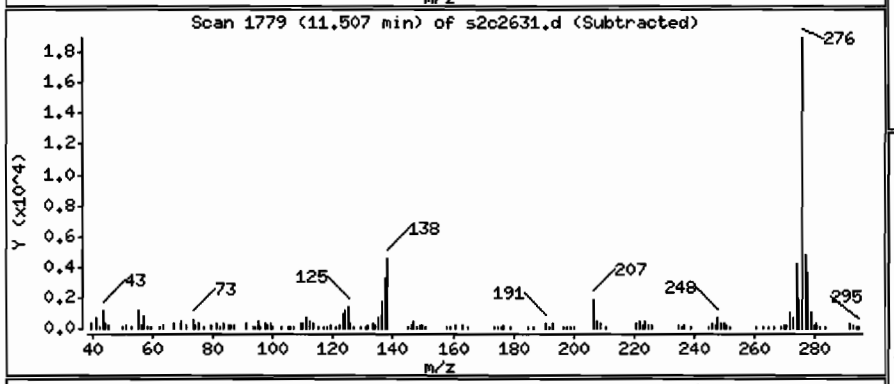

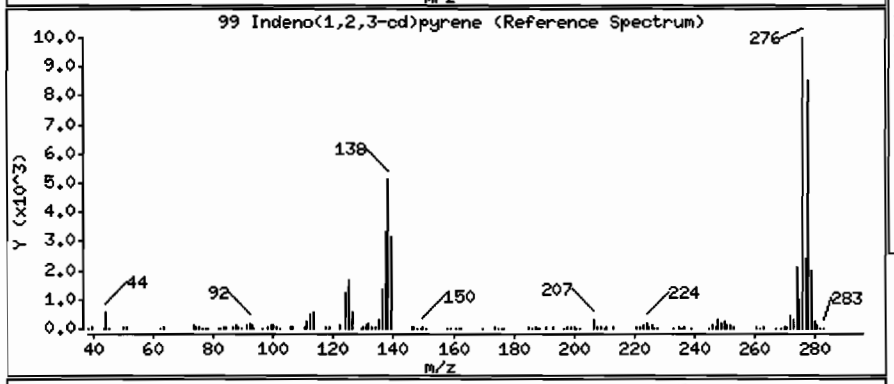

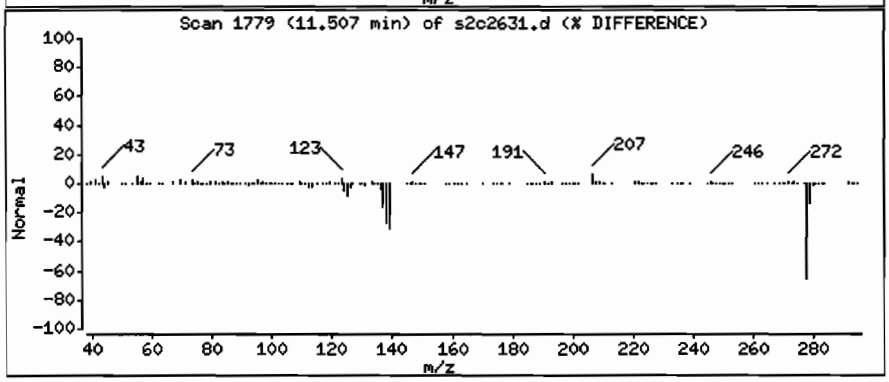

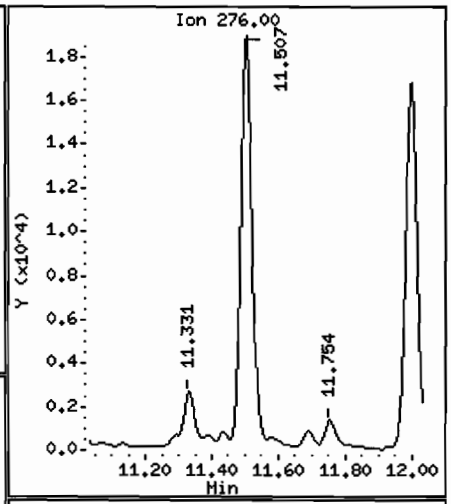

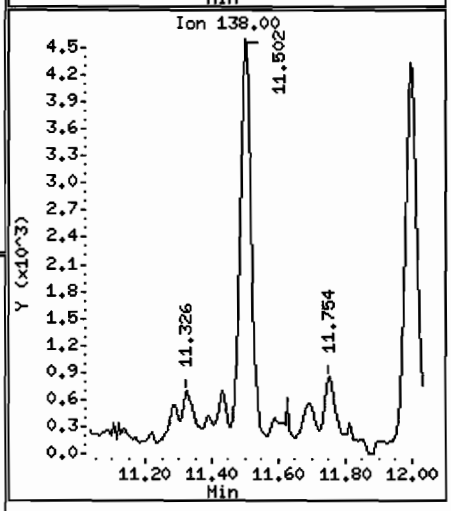

Data File: /chem/MSD2.i/s032610.b/s2c2631.d

Date : 27-MAR-2010 01:18

Client ID: RE46-10-12923

Instrument: MSD2.i

Sample Info: |2492440021966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 294 ug/Kg

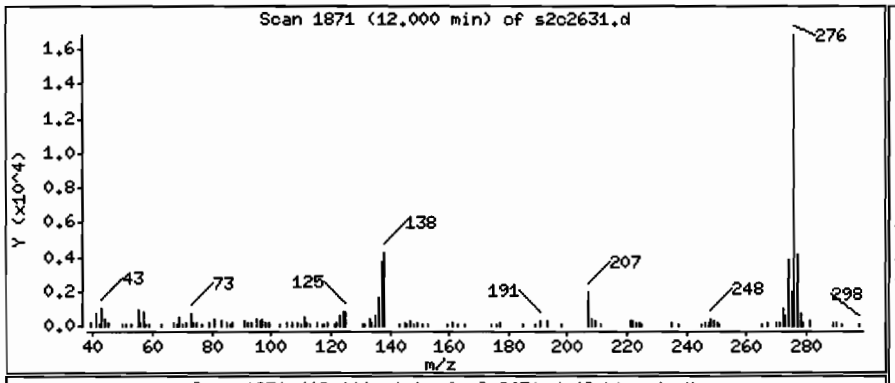

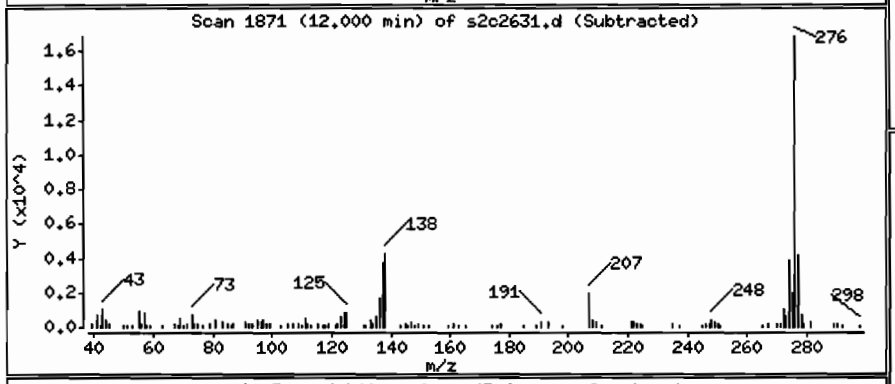

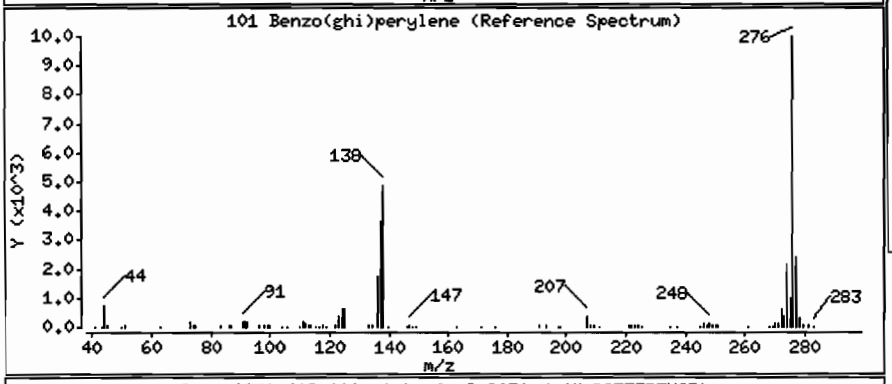

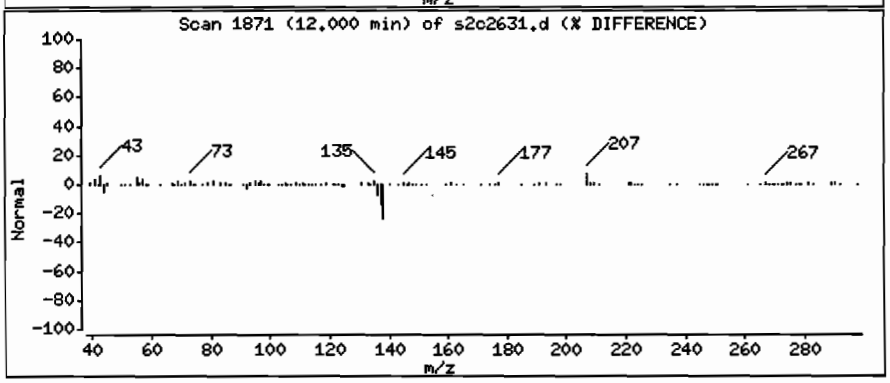

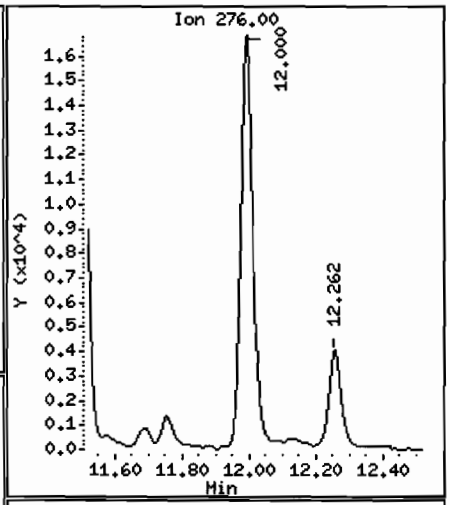

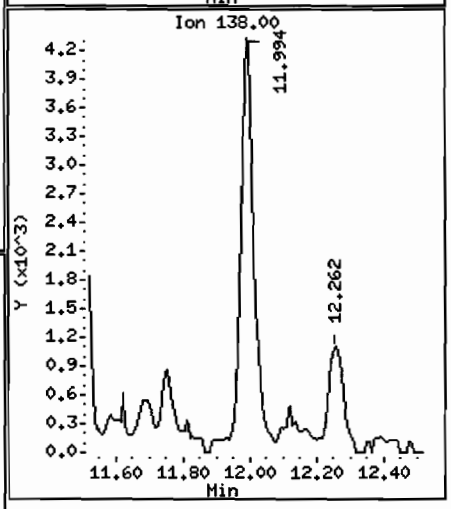

Data File: /chem/MSD2.i/s032610.b/s2c2631.d

Date : 27-MAR-2010 01:18

Client ID: RE46-10-12923

Instrument: MSD2.i

Sample Info: 1249244002|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
Diacetamide	625-77-4	NIST05.L	3936	9	C4H7NO2	101

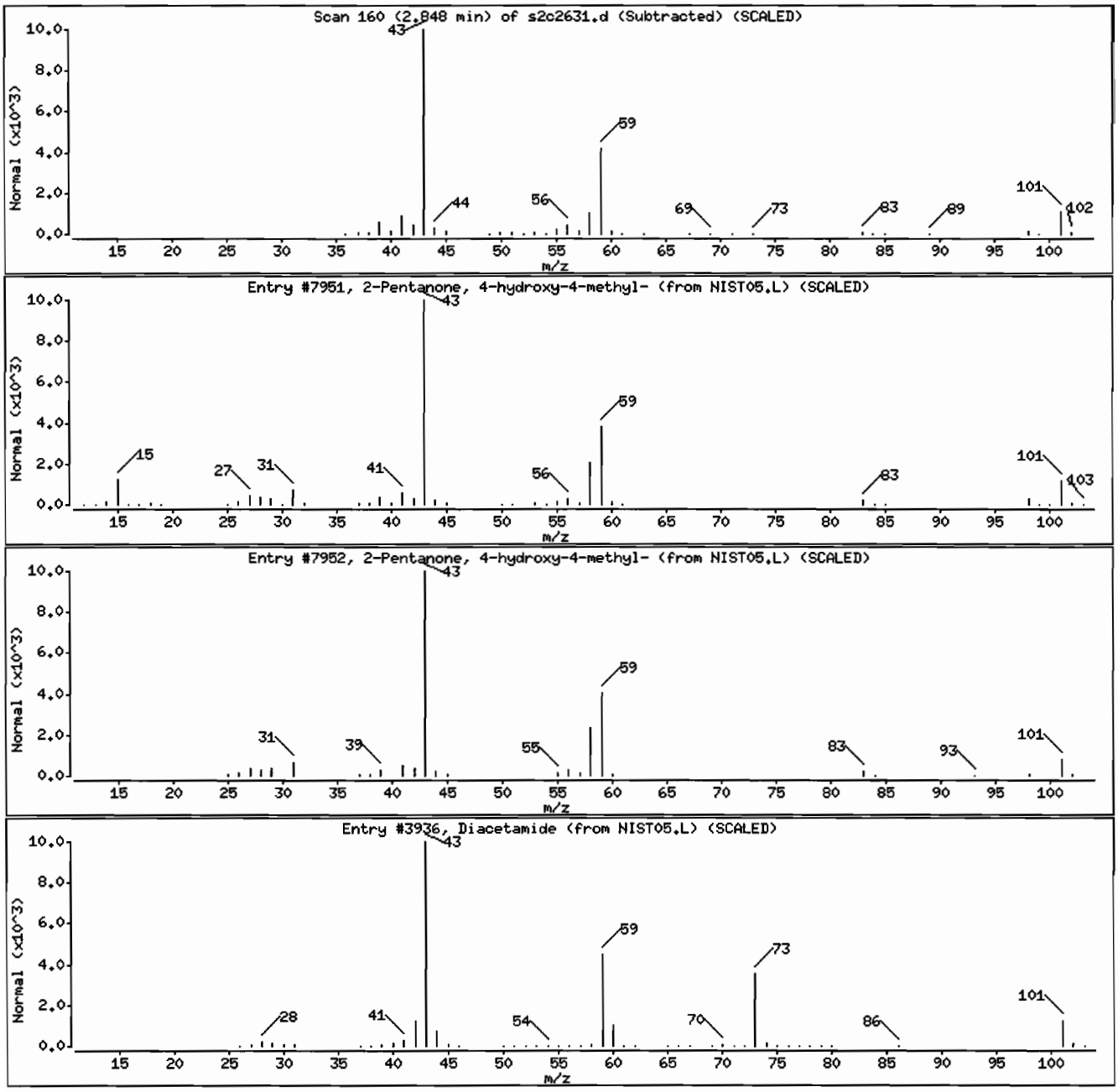

Data File: /chem/MSD2.i/s032610.b/s2c2631.d

Date : 27-MAR-2010 01:18

Client ID: RE46-10-12923

Instrument: MSD2.i

Sample Info: |2492440021966675|1|SVH|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[e]pyrene	192-97-2	NIST05.L	93577	97	C20H12	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	96	C20H12	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93585	95	C20H12	252

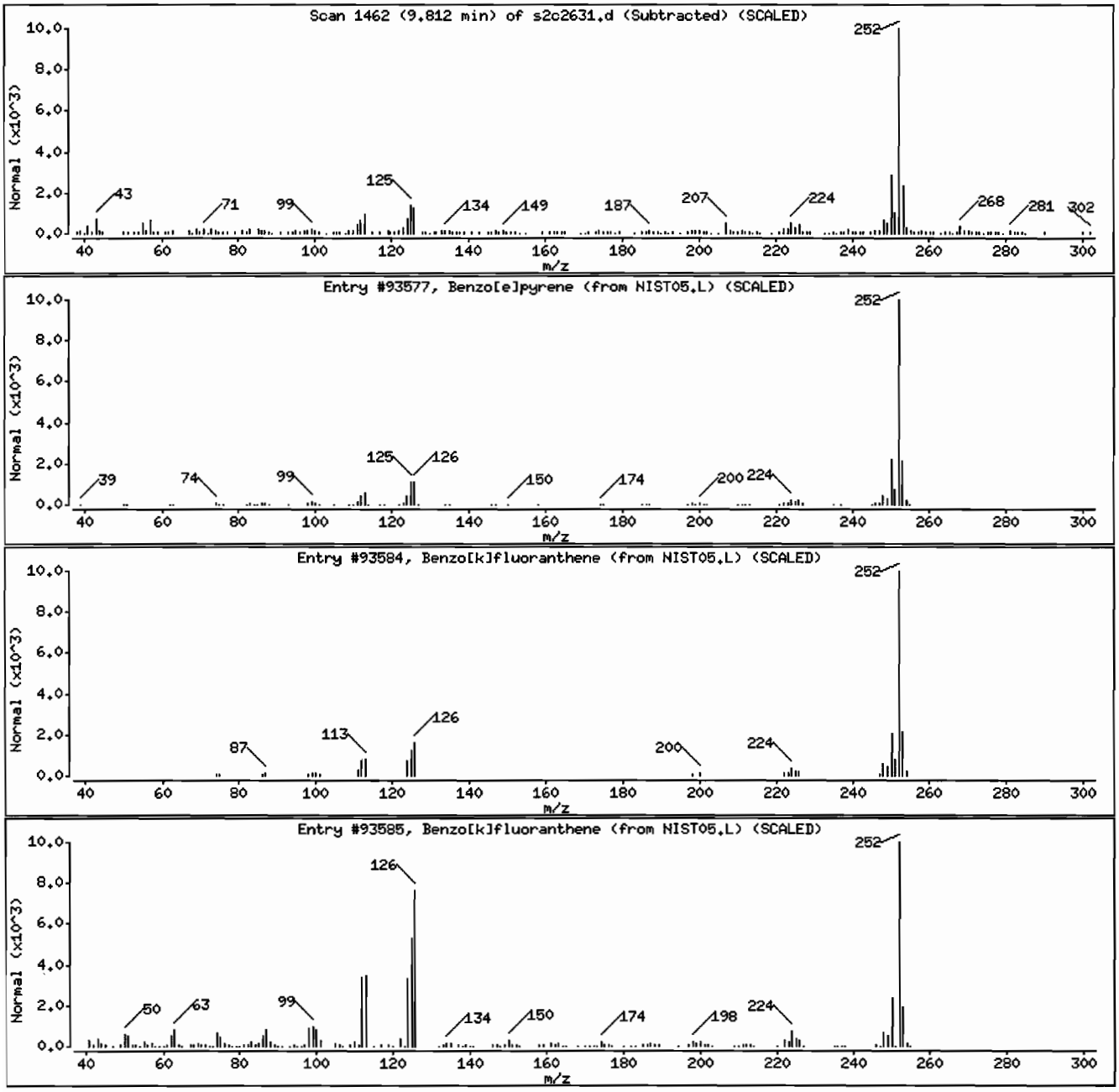

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244003**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**14.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12924**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 01:38**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2632.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	390	ug/kg	78.0	390
108-95-2	Phenol	U	390	ug/kg	78.0	390
95-57-8	2-Chlorophenol	U	390	ug/kg	78.0	390
106-46-7	1,4-Dichlorobenzene	U	390	ug/kg	78.0	390
621-64-7	N-Nitrosodipropylamine	U	390	ug/kg	78.0	390
59-50-7	4-Chloro-3-methylphenol	U	390	ug/kg	78.0	390
83-32-9	Acenaphthene	U	39.0	ug/kg	12.9	39.0
121-14-2	2,4-Dinitrotoluene	U	390	ug/kg	39.0	390
100-02-7	4-Nitrophenol	U	390	ug/kg	129	390
87-86-5	Pentachlorophenol	U	390	ug/kg	97.5	390
129-00-0	Pyrene		41.9	ug/kg	11.7	39.0
110-86-1	Pyridine	U	390	ug/kg	78.0	390
62-53-3	Aniline	U	390	ug/kg	117	390
111-44-4	bis(2-Chloroethyl) ether	U	390	ug/kg	78.0	390
541-73-1	1,3-Dichlorobenzene	U	390	ug/kg	78.0	390
100-51-6	Benzyl alcohol	U	390	ug/kg	117	390
95-50-1	1,2-Dichlorobenzene	U	390	ug/kg	78.0	390
108-60-1	bis(2-Chloroisopropyl)ether	U	390	ug/kg	78.0	390
95-48-7	o-Cresol	U	390	ug/kg	78.0	390
65794-96-9	m,p-Cresols	U	390	ug/kg	117	390
67-72-1	Hexachloroethane	U	390	ug/kg	78.0	390
98-95-3	Nitrobenzene	U	390	ug/kg	78.0	390
78-59-1	Isophorone	U	390	ug/kg	78.0	390
88-75-5	2-Nitrophenol	U	390	ug/kg	78.0	390
105-67-9	2,4-Dimethylphenol	U	390	ug/kg	136	390
111-91-1	bis(2-Chloroethoxy)methane	U	390	ug/kg	78.0	390
120-83-2	2,4-Dichlorophenol	U	390	ug/kg	78.0	390
65-85-0	Benzoic acid	U	780	ug/kg	195	780
91-20-3	Naphthalene	U	39.0	ug/kg	11.7	39.0
106-47-8	4-Chloroaniline	U	390	ug/kg	78.0	390
87-68-3	Hexachlorobutadiene	U	390	ug/kg	78.0	390
91-57-6	2-Methylnaphthalene	U	39.0	ug/kg	7.80	39.0
77-47-4	Hexachlorocyclopentadiene	U	390	ug/kg	78.0	390
88-06-2	2,4,6-Trichlorophenol	U	390	ug/kg	78.0	390
95-95-4	2,4,5-Trichlorophenol	U	390	ug/kg	78.0	390
91-58-7	2-Chloronaphthalene	U	39.0	ug/kg	12.9	39.0
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	390	ug/kg	78.0	390
99-09-2	3-Nitroaniline	U	390	ug/kg	78.0	390

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244003**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**14.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12924**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 01:38**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2632.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	390	ug/kg	78.0	390
606-20-2	2,6-Dinitrotoluene	U	390	ug/kg	39.0	390
208-96-8	Acenaphthylene	U	39.0	ug/kg	11.7	39.0
51-28-5	2,4-Dinitrophenol	U	780	ug/kg	148	780
132-64-9	Dibenzofuran	U	390	ug/kg	78.0	390
84-66-2	Diethylphthalate	U	390	ug/kg	78.0	390
86-73-7	Fluorene	U	39.0	ug/kg	11.7	39.0
7005-72-3	4-Chlorophenylphenylether	U	390	ug/kg	78.0	390
534-52-1	2-Methyl-4,6-dinitrophenol	U	390	ug/kg	78.0	390
100-01-6	4-Nitroaniline	U	390	ug/kg	117	390
	p-Nitroaniline					
122-39-4	Diphenylamine	U	390	ug/kg	78.0	390
122-66-7	Azobenzene	U	390	ug/kg	78.0	390
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	390	ug/kg	78.0	390
118-74-1	Hexachlorobenzene	U	390	ug/kg	78.0	390
85-01-8	Phenanthrene	U	39.0	ug/kg	11.7	39.0
120-12-7	Anthracene	U	39.0	ug/kg	7.80	39.0
84-74-2	Di-n-butylphthalate	U	390	ug/kg	78.0	390
206-44-0	Fluoranthene		43.2	ug/kg	11.7	39.0
85-68-7	Butylbenzylphthalate	U	390	ug/kg	78.0	390
56-55-3	Benzo(a)anthracene	U	39.0	ug/kg	11.7	39.0
91-94-1	3,3'-Dichlorobenzidine	U	390	ug/kg	117	390
218-01-9	Chrysene	U	39.0	ug/kg	11.7	39.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	390	ug/kg	78.0	390
117-84-0	Di-n-octylphthalate	U	390	ug/kg	78.0	390
205-99-2	Benzo(b)fluoranthene		49.2	ug/kg	11.7	39.0
207-08-9	Benzo(k)fluoranthene	U	39.0	ug/kg	11.7	39.0
50-32-8	Benzo(a)pyrene	J	29.9	ug/kg	11.7	39.0
193-39-5	Indeno(1,2,3-cd)pyrene	J	20.8	ug/kg	11.7	39.0
53-70-3	Dibenzo(a,h)anthracene	U	39.0	ug/kg	11.7	39.0
191-24-2	Benzo(ghi)perylene	J	24.2	ug/kg	11.7	39.0
120-82-1	1,2,4-Trichlorobenzene	U	390	ug/kg	78.0	390

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	374	ug/kg		JA

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2632.d
Lab Smp Id: 249244003 Client Smp ID: RE46-10-12924
Inj Date : 27-MAR-2010 01:38
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249244003|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2412.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	14.64270	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	208502	40.0000	
* 29 Naphthalene-d8	136	4.667	4.672	(1.000)	831222	40.0000	
* 46 Acenaphthene-d10	164	5.913	5.918	(1.000)	516020	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	955083	40.0000	
* 91 Chrysene-d12	240	8.544	8.555	(1.000)	656363	40.0000	
* 98 Perylene-d12	264	9.951	9.962	(1.000)	389742	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	307950	62.0281	2420
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	330995	54.1412	2110
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.893)	196390	32.6444	1270
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.915)	403334	28.4097	1110
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.091)	89216	58.4540	2280
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.915)	529465	44.2306	1720

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.769	7.774	(0.909)	22980	1.07407	41.9
76 Fluoranthene	202	7.630	7.635	(1.105)	23618	1.10766	43.2
95 Benzo(b)fluoranthene	252	9.502	9.512	(0.955)	13415	1.26192	49.2
97 Benzo(a)pyrene	252	9.882	9.892	(0.993)	6756	0.76677	29.9(a)
99 Indeno(1,2,3-cd)pyrene	276	11.513	11.534	(1.157)	4020	0.53299	20.8(a)
101 Benzo(ghi)perylene	276	12.000	12.021	(1.206)	3794	0.62105	24.2(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s2c2632.d
Report Date: 03/27/2010 22:00
Lab. ID: 249244003 SampleType: SAMPLE
Injection Date: 27-MAR-2010 01:38
Operator: AGS1 Instrument: MSD2.i
Sample Info: |249244003|966675|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2412
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	31048	4.17	4.05	80-120	100	(T)
42	28167	4.17	4.05	96-156	91	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	91936	5.92	5.69	80-120	100	(T)
164	516020	5.91	5.69	0- 40	561	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	66417	5.91	5.74	80-120	100	(T)
63	1085	5.91	5.74	87-147	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	66417	5.91	6.03	80-120	100	(T)
89	1274	5.91	6.03	58-118	2	(QT)
63	1085	5.91	6.03	47-107	2	(QT)
53 Fluorene				CAS#: 86-73-7		
166	4650	6.45	6.29	80-120	100	(T)
165	4608	6.45	6.29	61-121	99	(T)
167	1296	6.45	6.29	0- 43	28	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	343	6.45	6.31	80-120	100	(T)
105	864	6.45	6.31	15- 75	252	(QT)
51	931	6.45	6.31	92-152	272	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
68 Phenanthrene			CAS#: 85-01-8			
178	8546	6.92	6.92	80-120	100	( )
179	1916	6.92	6.92	0- 45	22	( )
176	1662	6.92	6.92	0- 49	19	( )
69 Anthracene			CAS#: 120-12-7			
178	8546	6.92	6.96	80-120	100	( )
179	1916	6.92	6.96	0- 46	22	( )
176	1662	6.92	6.96	0- 48	19	( )
76 Fluoranthene			CAS#: 206-44-0			
202	23618	7.63	7.64	80-120	100	( )
203	3869	7.63	7.64	0- 47	16	( )
101	2187	7.63	7.64	0- 39	9	( )
79 Pyrene			CAS#: 129-00-0			
202	22980	7.77	7.77	80-120	100	( )
200	5219	7.77	7.77	0- 51	23	( )
101	2957	7.77	7.77	0- 40	13	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	12910	8.54	8.54	80-120	100	( )
226	3148	8.54	8.54	0- 56	24	( )
229	3442	8.54	8.54	0- 49	27	( )
92 Chrysene			CAS#: 218-01-9			
228	11628	8.56	8.58	80-120	100	( )
229	2560	8.56	8.58	0- 50	22	( )
226	3329	8.56	8.58	0- 59	29	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	13415	9.50	9.51	80-120	100	( )
253	3202	9.50	9.51	0- 49	24	( )
125	1787	9.50	9.51	0- 39	13	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	13415	9.50	9.54	80-120	100	( )
253	3202	9.50	9.54	0- 54	24	( )
125	1787	9.50	9.54	0- 40	13	( )
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	6756	9.88	9.89	80-120	100	( )
253	1794	9.88	9.89	0- 52	27	( )
125	872	9.88	9.89	0- 42	13	( )
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	4020	11.51	11.53	80-120	100	( )
138	1004	11.51	11.53	0- 58	25	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
101	Benzo(ghi)perylene			CAS#: 191-24-2		
276	3794	12.00	12.02	80-120	100	( )
138	965	11.99	12.02	0- 58	25	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2632.d
Lab Smp Id: 249244003 Client Smp ID: RE46-10-12924
Inj Date : 27-MAR-2010 01:38
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249244003|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2412.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	14.64270	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.811	1557412	40.000

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.848	373295	9.58757930	374	0		0	10

Data File: /chem/MSD2.i/s032610.b/s2c2632.d
Date : 27-MAR-2010 01:38
Client ID: RE46-10-12924
Sample Info: |2492440031966675|1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD2.i

Operator: AGS1
Column diameter: 0.20

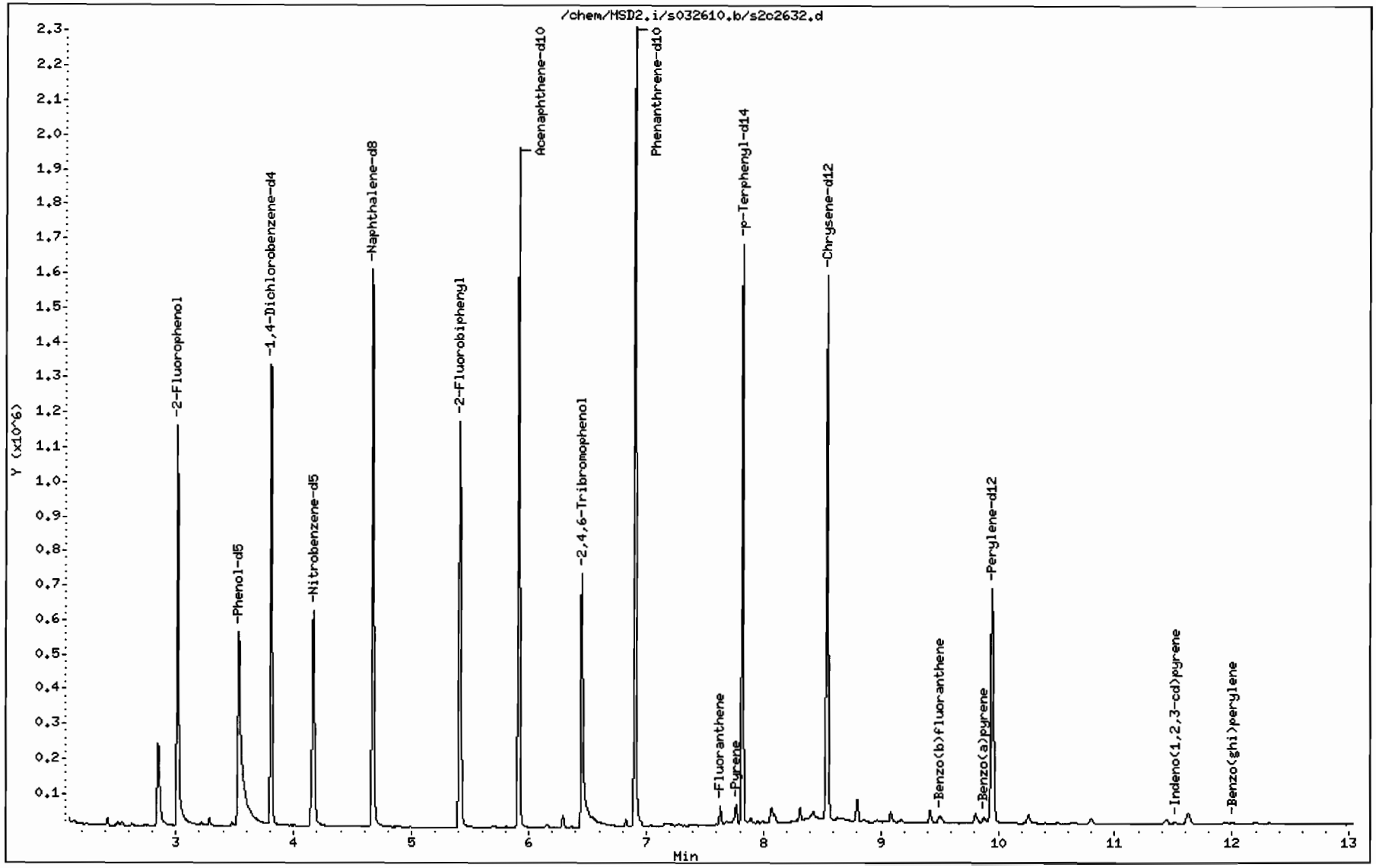

Data File: /chem/MSD2.i/s032610.b/s2c2632.d

Date : 27-MAR-2010 01:38

Client ID: RE46-10-12924

Instrument: MSD2.i

Sample Info: 1249244003196667511SVMI1ILANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 41.9 ug/Kg

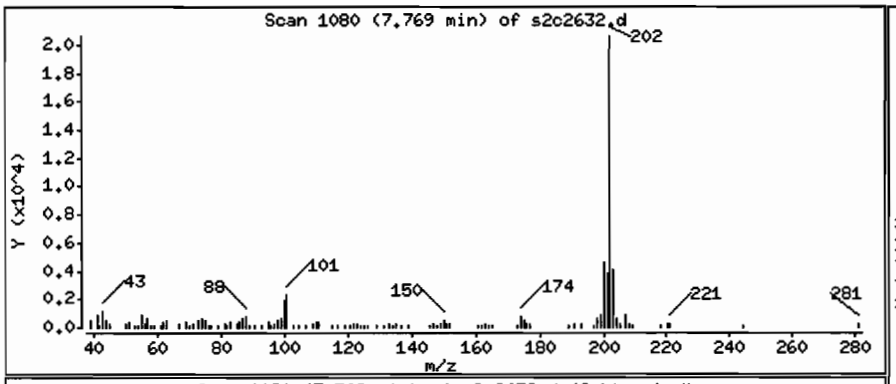

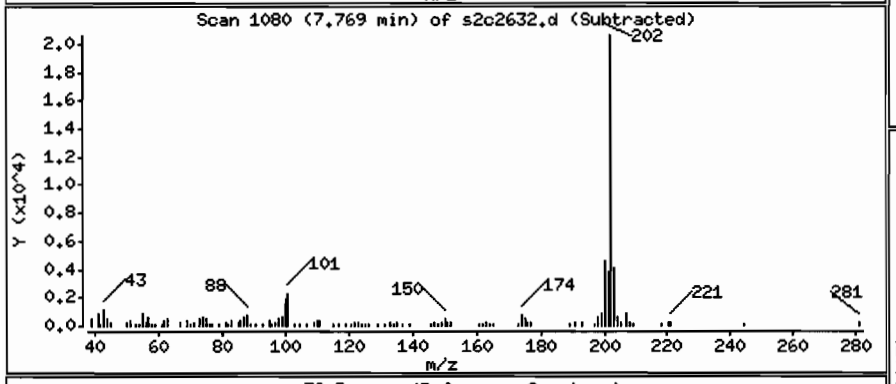

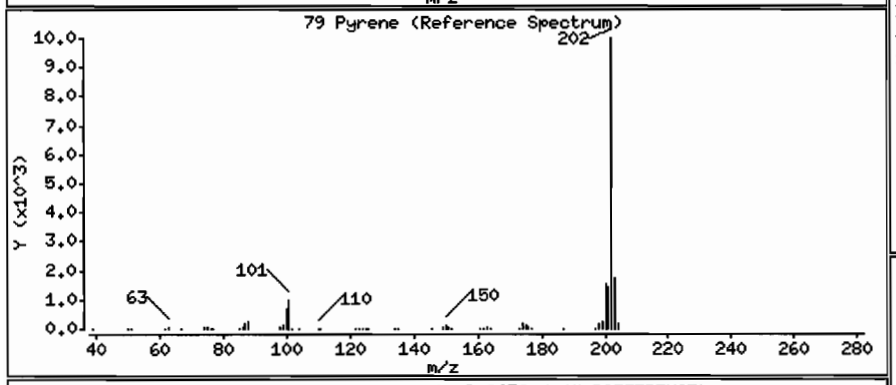

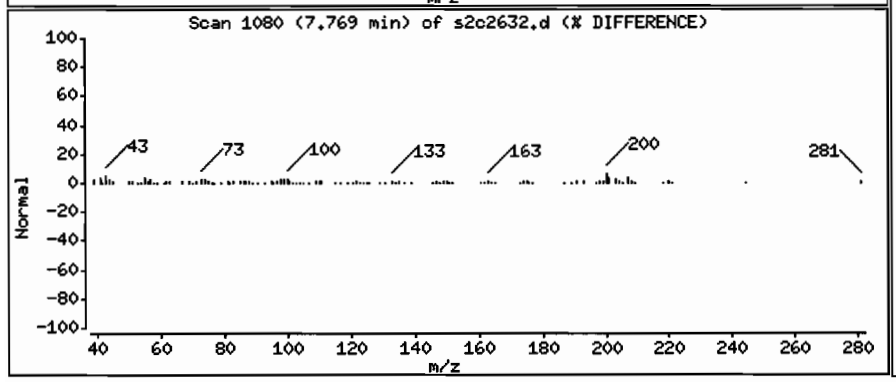

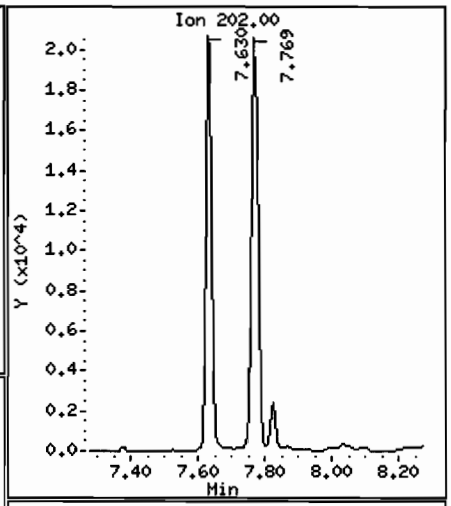

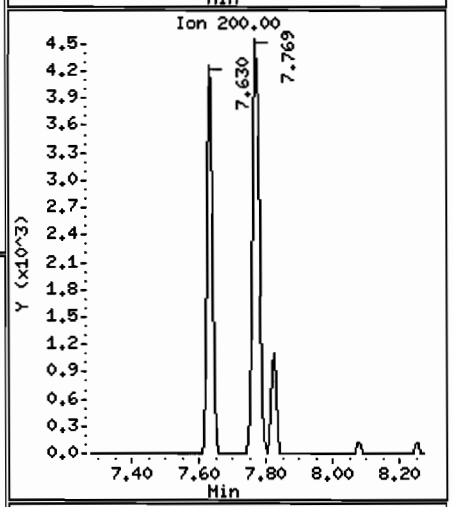

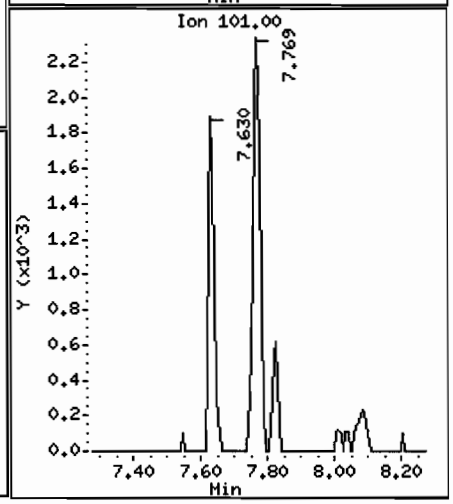

Data File: /chem/MSD2.i/s032610.b/s2c2632.d

Date : 27-MAR-2010 01:38

Client ID: RE46-10-12924

Instrument: MSD2.i

Sample Info: |249244003|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 43.2 ug/Kg

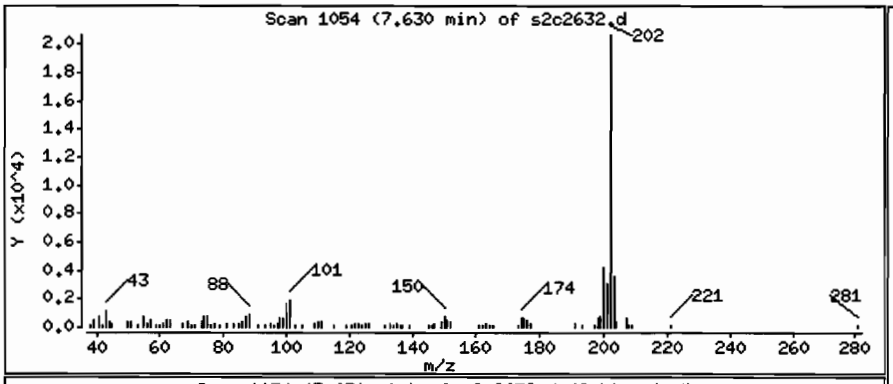

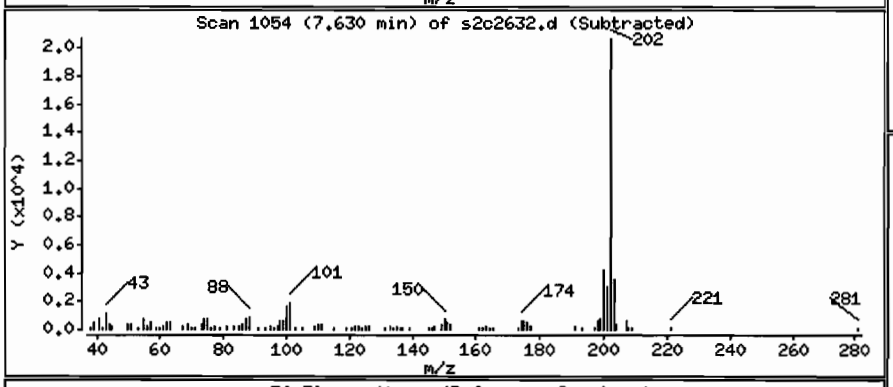

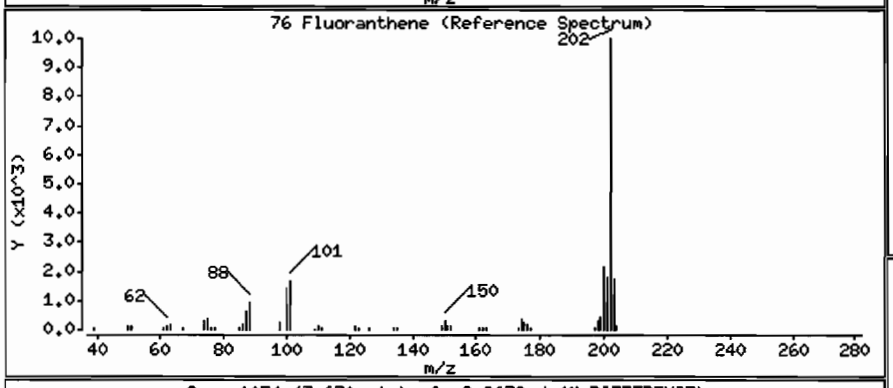

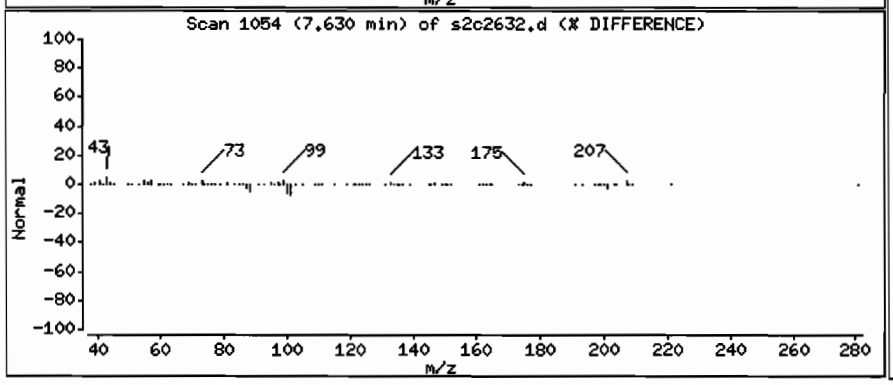

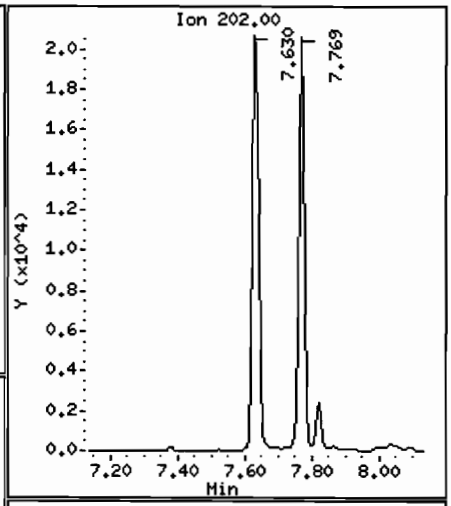

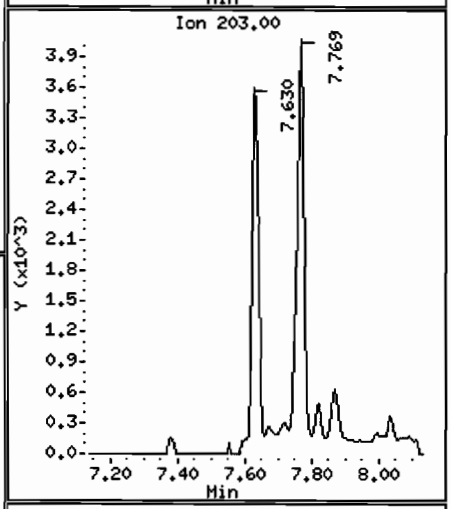

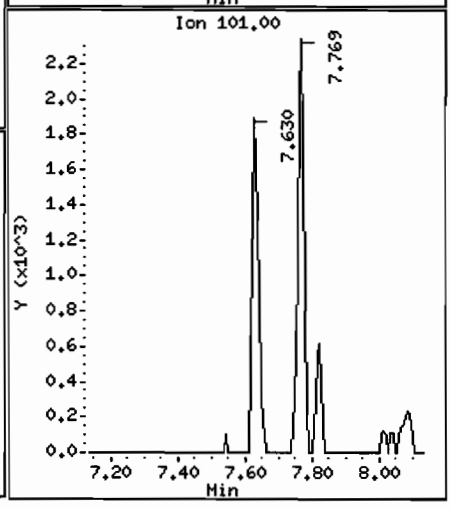

Data File: /chem/MSD2.i/s032610.b/s2c2632.d

Date : 27-MAR-2010 01:38

Client ID: RE46-10-12924

Instrument: MSD2.i

Sample Info: |249244003|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 49.2 ug/Kg

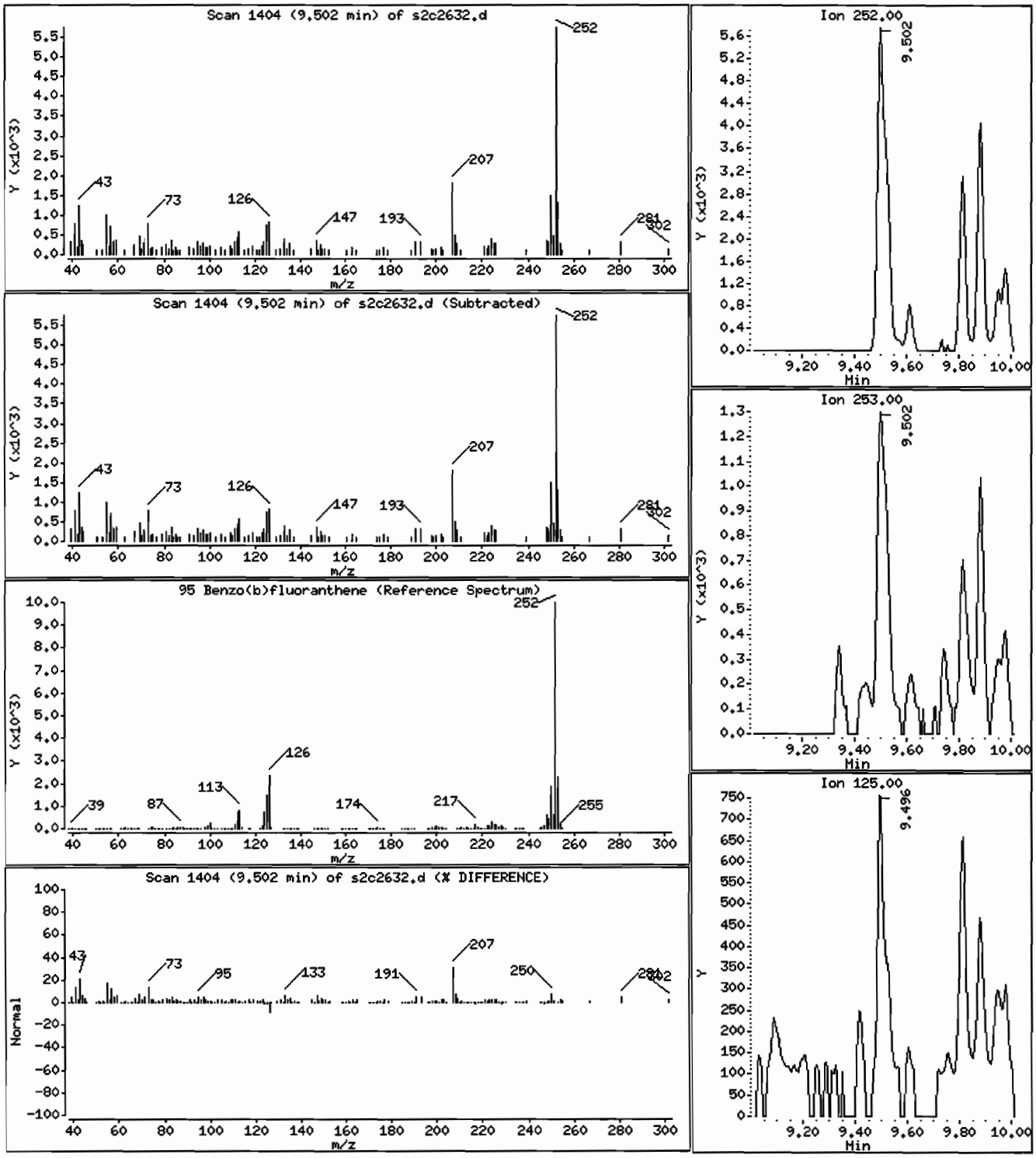

Data File: /chem/MSD2.i/s032610.b/s2c2632.d

Date : 27-MAR-2010 01:38

Client ID: RE46-10-12924

Instrument: MSD2.i

Sample Info: |249244003|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 29.9 ug/Kg

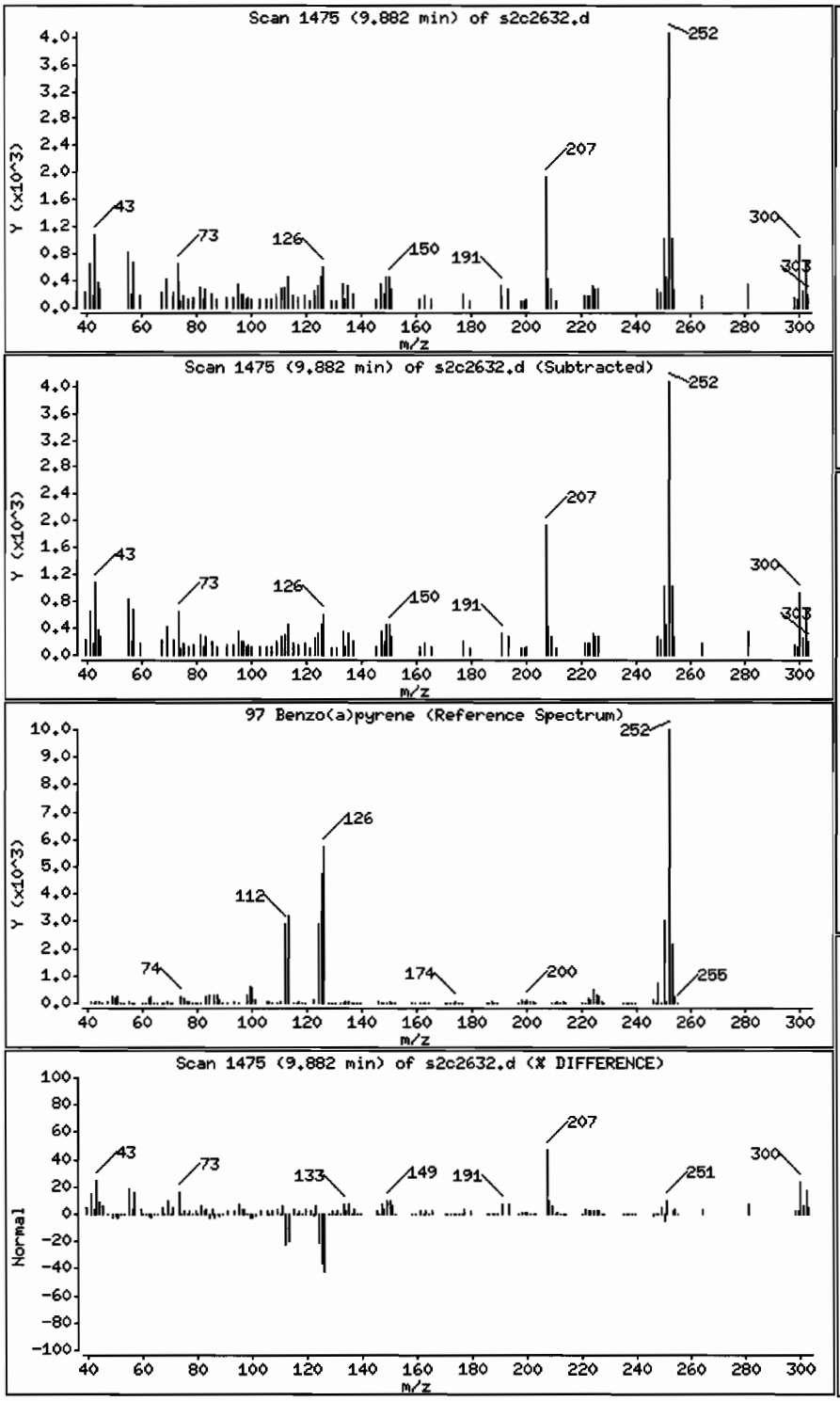

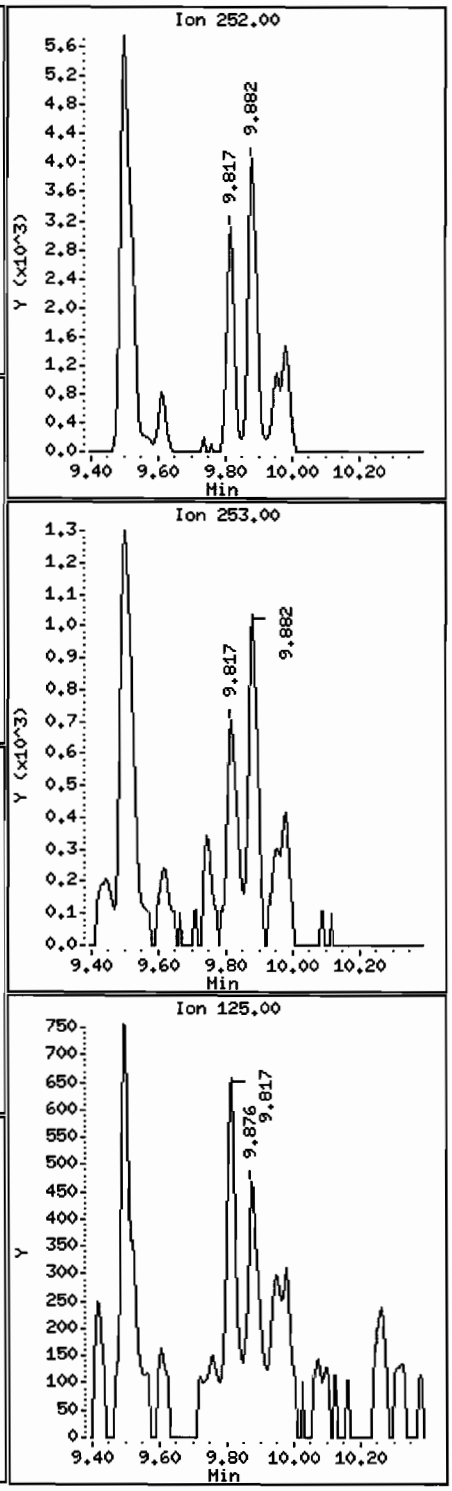

Data File: /chem/MSD2.i/s032610.b/s2c2632.d

Date : 27-MAR-2010 01:38

Client ID: RE46-10-12924

Instrument: MSD2.i

Sample Info: |2492440031966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 20.8 ug/Kg

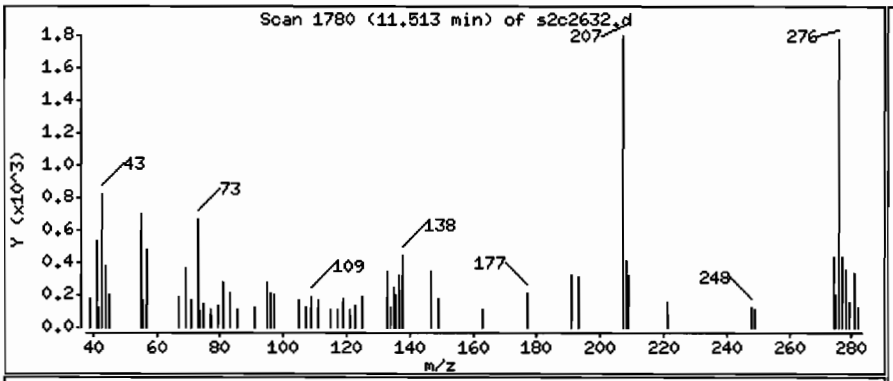

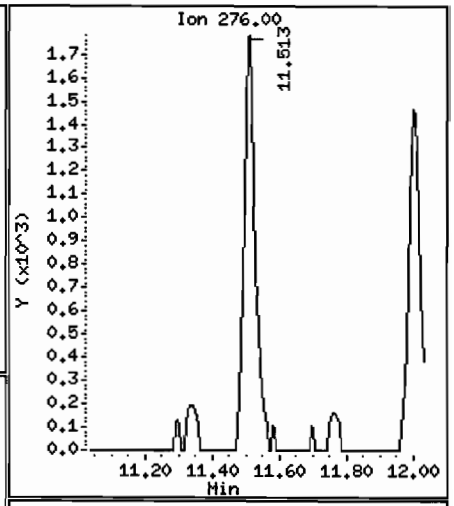

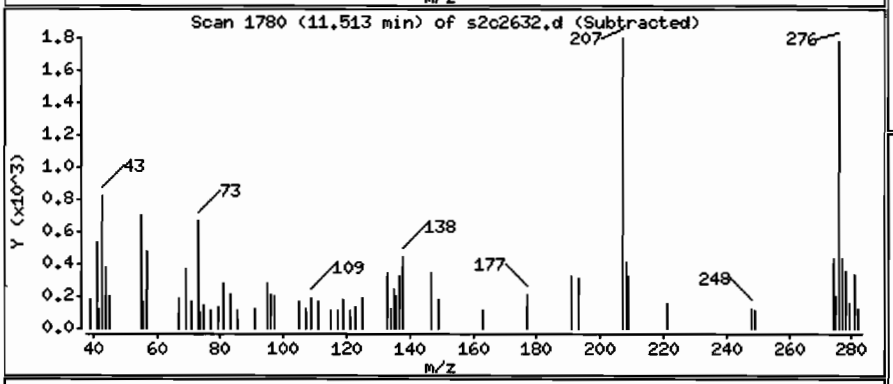

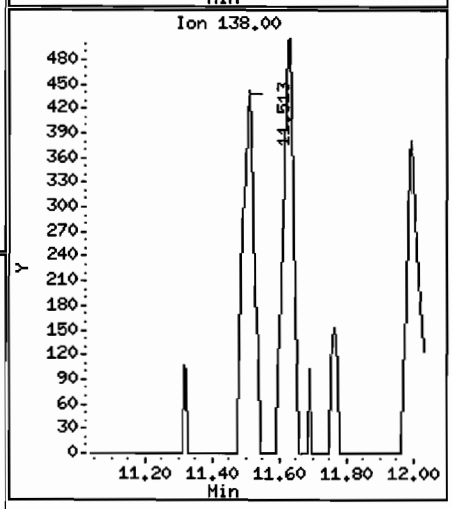

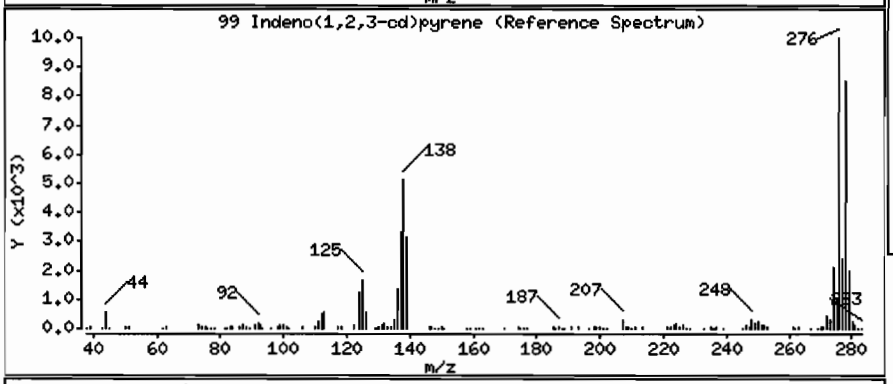

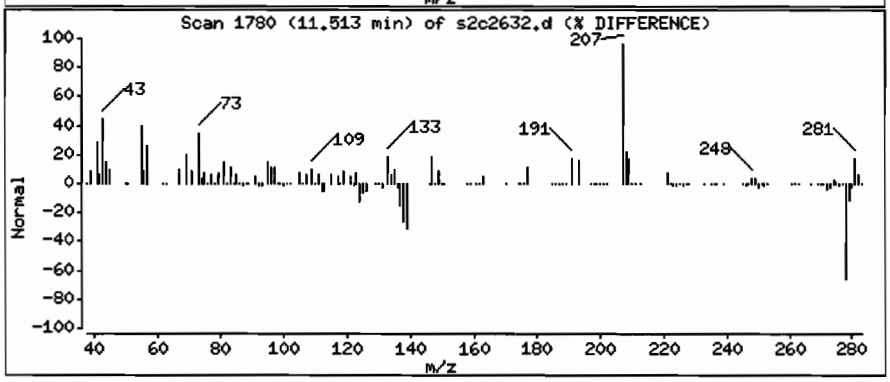

Data File: /chem/MSD2.i/s032610.b/s2c2632.d

Date : 27-MAR-2010 01:38

Client ID: RE46-10-12924

Instrument: MSD2.i

Sample Info: |2492440031966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 24.2 ug/Kg

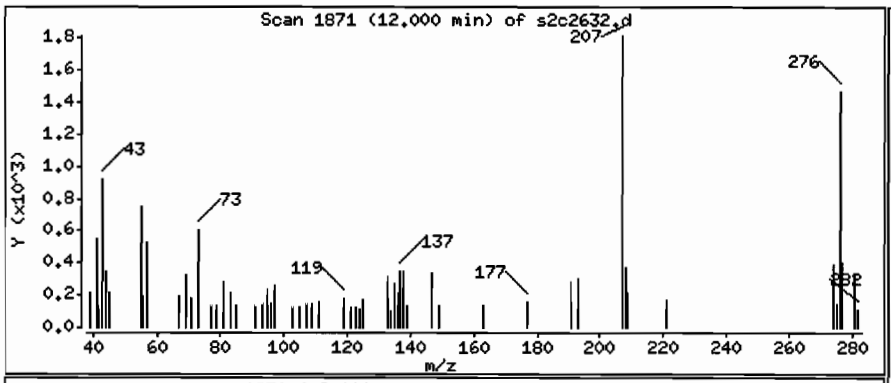

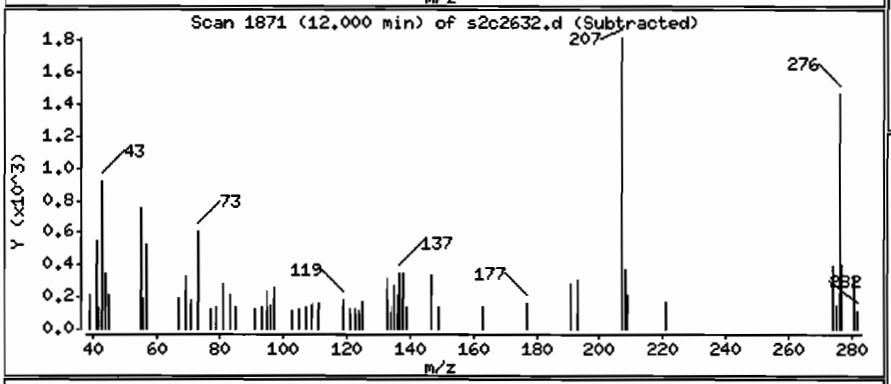

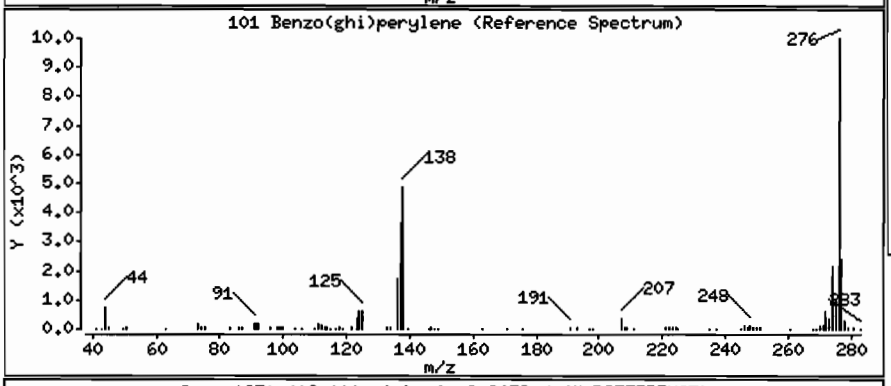

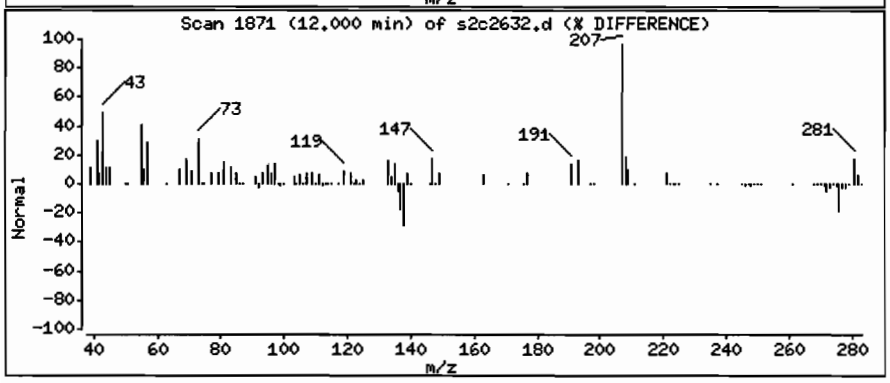

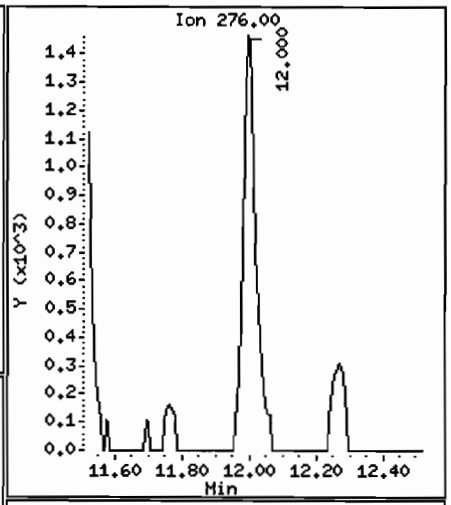

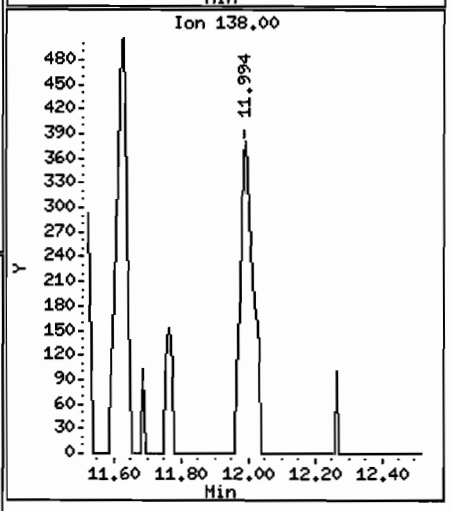

Data File: /chem/MSD2.i/s032610.b/s2c2632.d

Date : 27-MAR-2010 01:38

Client ID: RE46-10-12924

Instrument: MSD2.i

Sample Info: |2492440031966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
Propylamine	107-10-8	NIST05.L	242	9	C3H9N	59

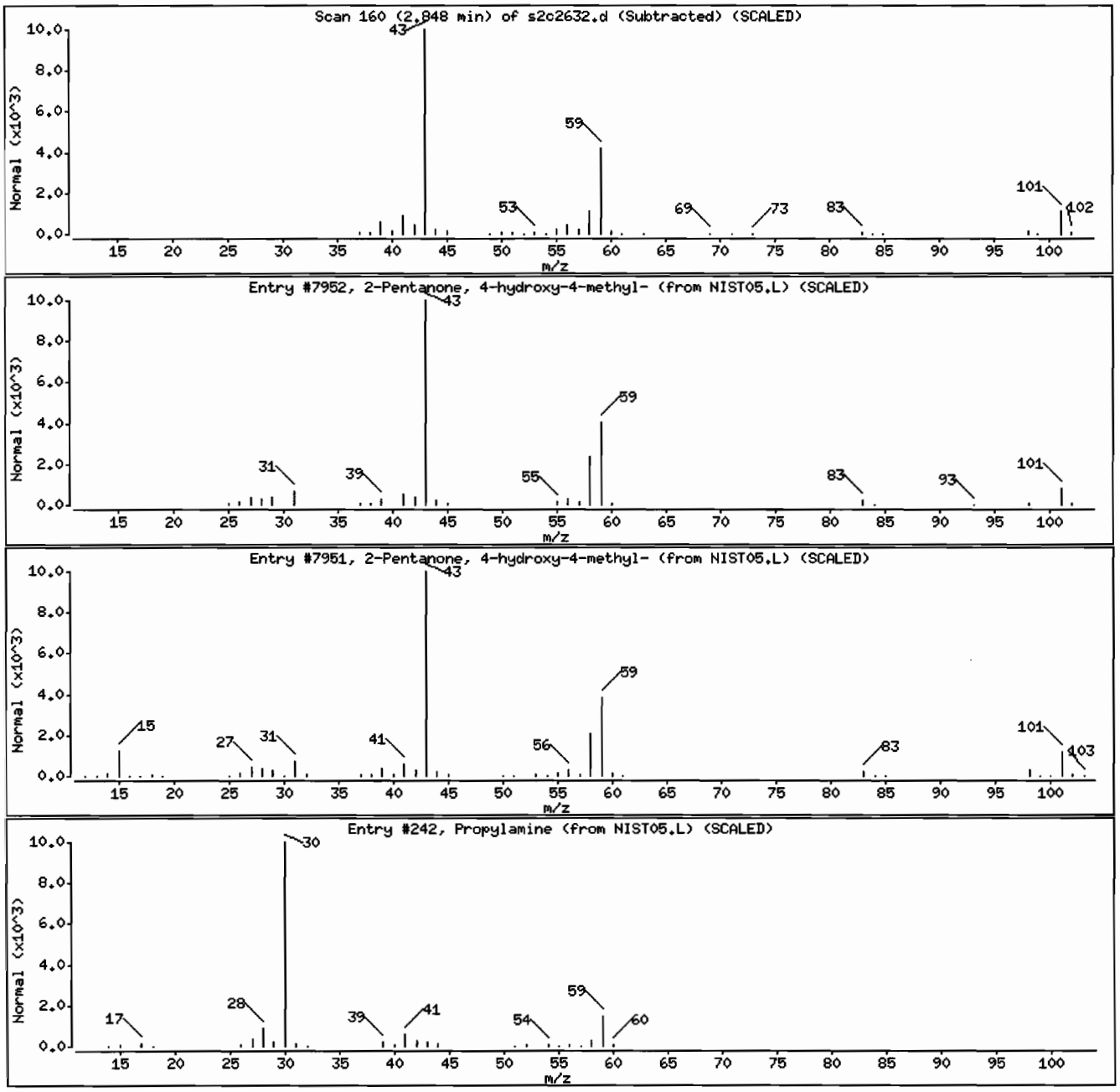

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244006**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**13.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12925**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 02:39**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2635.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	383	ug/kg	76.5	383
108-95-2	Phenol	U	383	ug/kg	76.5	383
95-57-8	2-Chlorophenol	U	383	ug/kg	76.5	383
106-46-7	1,4-Dichlorobenzene	U	383	ug/kg	76.5	383
621-64-7	N-Nitrosodipropylamine	U	383	ug/kg	76.5	383
59-50-7	4-Chloro-3-methylphenol	U	383	ug/kg	76.5	383
83-32-9	Acenaphthene	J	23.7	ug/kg	12.6	38.3
121-14-2	2,4-Dinitrotoluene	U	383	ug/kg	38.3	383
100-02-7	4-Nitrophenol	U	383	ug/kg	126	383
87-86-5	Pentachlorophenol	U	383	ug/kg	95.7	383
129-00-0	Pyrene		148	ug/kg	11.5	38.3
110-86-1	Pyridine	U	383	ug/kg	76.5	383
62-53-3	Aniline	U	383	ug/kg	115	383
111-44-4	bis(2-Chloroethyl) ether	U	383	ug/kg	76.5	383
541-73-1	1,3-Dichlorobenzene	U	383	ug/kg	76.5	383
100-51-6	Benzyl alcohol	U	383	ug/kg	115	383
95-50-1	1,2-Dichlorobenzene	U	383	ug/kg	76.5	383
108-60-1	bis(2-Chloroisopropyl)ether	U	383	ug/kg	76.5	383
95-48-7	o-Cresol	U	383	ug/kg	76.5	383
65794-96-9	m,p-Cresols	U	383	ug/kg	115	383
67-72-1	Hexachloroethane	U	383	ug/kg	76.5	383
98-95-3	Nitrobenzene	U	383	ug/kg	76.5	383
78-59-1	Isophorone	U	383	ug/kg	76.5	383
88-75-5	2-Nitrophenol	U	383	ug/kg	76.5	383
105-67-9	2,4-Dimethylphenol	U	383	ug/kg	134	383
111-91-1	bis(2-Chloroethoxy)methane	U	383	ug/kg	76.5	383
120-83-2	2,4-Dichlorophenol	U	383	ug/kg	76.5	383
65-85-0	Benzoic acid	U	765	ug/kg	191	765
91-20-3	Naphthalene	U	38.3	ug/kg	11.5	38.3
106-47-8	4-Chloroaniline	U	383	ug/kg	76.5	383
87-68-3	Hexachlorobutadiene	U	383	ug/kg	76.5	383
91-57-6	2-Methylnaphthalene	U	38.3	ug/kg	7.65	38.3
77-47-4	Hexachlorocyclopentadiene	U	383	ug/kg	76.5	383
88-06-2	2,4,6-Trichlorophenol	U	383	ug/kg	76.5	383
95-95-4	2,4,5-Trichlorophenol	U	383	ug/kg	76.5	383
91-58-7	2-Chloronaphthalene	U	38.3	ug/kg	12.6	38.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	383	ug/kg	76.5	383
99-09-2	3-Nitroaniline	U	383	ug/kg	76.5	383

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244006**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**13.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12925**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 02:39**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2635.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	383	ug/kg	76.5	383
606-20-2	2,6-Dinitrotoluene	U	383	ug/kg	38.3	383
208-96-8	Acenaphthylene	U	38.3	ug/kg	11.5	38.3
51-28-5	2,4-Dinitrophenol	U	765	ug/kg	145	765
132-64-9	Dibenzofuran	U	383	ug/kg	76.5	383
84-66-2	Diethylphthalate	U	383	ug/kg	76.5	383
86-73-7	Fluorene	J	15.1	ug/kg	11.5	38.3
7005-72-3	4-Chlorophenylphenylether	U	383	ug/kg	76.5	383
534-52-1	2-Methyl-4,6-dinitrophenol	U	383	ug/kg	76.5	383
100-01-6	4-Nitroaniline	U	383	ug/kg	115	383
	p-Nitroaniline					
122-39-4	Diphenylamine	U	383	ug/kg	76.5	383
122-66-7	Azobenzene	U	383	ug/kg	76.5	383
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	383	ug/kg	76.5	383
118-74-1	Hexachlorobenzene	U	383	ug/kg	76.5	383
85-01-8	Phenanthrene		112	ug/kg	11.5	38.3
120-12-7	Anthracene	J	32.4	ug/kg	7.65	38.3
84-74-2	Di-n-butylphthalate	U	383	ug/kg	76.5	383
206-44-0	Fluoranthene		165	ug/kg	11.5	38.3
85-68-7	Butylbenzylphthalate	U	383	ug/kg	76.5	383
56-55-3	Benzo(a)anthracene		85.1	ug/kg	11.5	38.3
91-94-1	3,3'-Dichlorobenzidine	U	383	ug/kg	115	383
218-01-9	Chrysene		79.3	ug/kg	11.5	38.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	383	ug/kg	76.5	383
117-84-0	Di-n-octylphthalate	U	383	ug/kg	76.5	383
205-99-2	Benzo(b)fluoranthene		111	ug/kg	11.5	38.3
207-08-9	Benzo(k)fluoranthene	U	38.3	ug/kg	11.5	38.3
50-32-8	Benzo(a)pyrene		64.0	ug/kg	11.5	38.3
193-39-5	Indeno(1,2,3-cd)pyrene	J	35.4	ug/kg	11.5	38.3
53-70-3	Dibenzo(a,h)anthracene	U	38.3	ug/kg	11.5	38.3
191-24-2	Benzo(ghi)perylene	J	37.8	ug/kg	11.5	38.3
120-82-1	1,2,4-Trichlorobenzene	U	383	ug/kg	76.5	383

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	336	ug/kg		JA
	Unknown	8.62	490	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244006**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**13.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12925**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 02:39**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2635.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.18	164	ug/kg		J
593-45-3	Octadecane	9.42	282	ug/kg	95	NJ
56619-93-3	Propanamide, N-(3-methoxyphenyl)-2,2-dim	9.62	186	ug/kg	38	NJ
192-97-2	Benzo[e]pyrene	9.81	221	ug/kg	95	NJ
112-95-8	Eicosane	10.26	243	ug/kg	86	NJ

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2635.d
Lab Smp Id: 249244006 Client Smp ID: RE46-10-12925
Inj Date : 27-MAR-2010 02:39
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249244006|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2412.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.14000	weight of sample
M	13.29110	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	160026	40.0000	
* 29 Naphthalene-d8	136	4.667	4.672	(1.000)	631865	40.0000	
* 46 Acenaphthene-d10	164	5.913	5.918	(1.000)	388576	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	712387	40.0000	
* 91 Chrysene-d12	240	8.544	8.555	(1.000)	495042	40.0000	
* 98 Perylene-d12	264	9.946	9.962	(1.000)	279197	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	232248	60.9509	2330
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	250448	53.3757	2040
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.893)	148415	32.4534	1240
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.915)	310328	29.0278	1110
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.091)	69831	60.7590	2320
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.915)	359809	39.8529	1520

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
47 Acenaphthene	154	5.934	5.940	(1.004)	6415	0.61986	23.7(a)
79 Pyrene	202	7.769	7.774	(0.909)	62457	3.87047	148
53 Fluorene	166	6.293	6.293	(1.064)	4345	0.39392	15.1(a)
68 Phenanthrene	178	6.918	6.924	(1.002)	51332	2.91532	112
69 Anthracene	178	6.950	6.956	(1.006)	14429	0.84710	32.4(a)
76 Fluoranthene	202	7.630	7.635	(1.105)	68738	4.32201	165
89 Benzo(a)anthracene	228	8.534	8.544	(0.999)	27479	2.22422	85.1
92 Chrysene	228	8.560	8.576	(1.002)	23896	2.07329	79.3
95 Benzo(b)fluoranthene	252	9.502	9.512	(0.955)	22076	2.89886	111
97 Benzo(a)pyrene	252	9.881	9.892	(0.994)	10561	1.67319	64.0
99 Indeno(1,2,3-cd)pyrene	276	11.507	11.534	(1.157)	4993	0.92411	35.4(a)
101 Benzo(ghi)perylene	276	12.000	12.021	(1.206)	4326	0.98851	37.8(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s2c2635.d
Report Date: 03/27/2010 22:00
Lab. ID: 249244006 SampleType: SAMPLE
Injection Date: 27-MAR-2010 02:39
Operator: AGS1 Instrument: MSD2.i
Sample Info: |249244006|966675|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2412
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	20682	3.53	3.60	80-120	100	(T)
93	132	3.38	3.61	335-395	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	23614	4.17	4.05	80-120	100	(T)
42	21359	4.17	4.05	96-156	90	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	69629	5.91	5.69	80-120	100	(T)
164	388451	5.91	5.69	0- 40	558	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	50032	5.91	5.74	80-120	100	(T)
63	771	5.91	5.74	87-147	2	(QT)
47 Acenaphthene				CAS#: 83-32-9		
154	6415	5.93	5.94	80-120	100	( )
153	5341	5.93	5.94	69-129	83	( )
152	2312	5.93	5.94	13- 73	36	( )
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	50032	5.91	6.03	80-120	100	(T)
89	1172	5.91	6.03	58-118	2	(QT)
63	771	5.91	6.03	47-107	2	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	4345	6.29	6.29	80-120	100	( )
165	4168	6.29	6.29	61-121	96	( )
167	935	6.29	6.29	0- 43	22	( )
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	276	6.45	6.31	80-120	100	(T)
105	868	6.45	6.31	15- 75	314	(QT)
51	1105	6.45	6.31	92-152	400	(QT)
68 Phenanthrene			CAS#: 85-01-8			
178	51332	6.92	6.92	80-120	100	( )
179	8186	6.92	6.92	0- 45	16	( )
176	9907	6.92	6.92	0- 49	19	( )
69 Anthracene			CAS#: 120-12-7			
178	14429	6.95	6.96	80-120	100	( )
179	3689	6.95	6.96	0- 46	26	( )
176	2514	6.95	6.96	0- 48	17	( )
76 Fluoranthene			CAS#: 206-44-0			
202	68738	7.63	7.64	80-120	100	( )
203	12051	7.63	7.64	0- 47	18	( )
101	6413	7.63	7.64	0- 39	9	( )
79 Pyrene			CAS#: 129-00-0			
202	62457	7.77	7.77	80-120	100	( )
200	13236	7.77	7.77	0- 51	21	( )
101	7379	7.77	7.77	0- 40	12	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	27479	8.53	8.54	80-120	100	( )
226	6888	8.53	8.54	0- 56	25	( )
229	7127	8.53	8.54	0- 49	26	( )
92 Chrysene			CAS#: 218-01-9			
228	23896	8.56	8.58	80-120	100	( )
229	5419	8.56	8.58	0- 50	23	( )
226	6978	8.56	8.58	0- 59	29	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	22076	9.50	9.51	80-120	100	( )
253	4718	9.50	9.51	0- 49	21	( )
125	2819	9.50	9.51	0- 39	13	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	22076	9.50	9.54	80-120	100	( )
253	4718	9.50	9.54	0- 54	21	( )
125	2819	9.50	9.54	0- 40	13	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	10561	9.88	9.89	80-120	100	( )
253	2716	9.88	9.89	0- 52	26	( )
125	1352	9.88	9.89	0- 42	13	( )
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	4993	11.51	11.53	80-120	100	( )
138	1566	11.51	11.53	0- 58	31	( )
100 Dibenzo(a,h)anthracene			CAS#: 53-70-3			
278	1522	11.51	11.54	80-120	100	( )
139	575	11.51	11.53	0- 52	38	( )
101 Benzo(ghi)perylene			CAS#: 191-24-2			
276	4326	12.00	12.02	80-120	100	( )
138	1335	12.00	12.02	0- 58	31	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2635.d
Lab Smp Id: 249244006 Client Smp ID: RE46-10-12925
Inj Date : 27-MAR-2010 02:39
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249244006|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2412.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.14000	weight of sample
M	13.29110	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.811	1204825	40.000
* 91 Chrysene-d12	8.544	1736388	40.000
* 98 Perylene-d12	9.946	912087	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.848	264316	8.77524362	336	0		0	10
Unknown					CAS #:		
8.619	555390	12.7941475	490	0		0	91
Unknown					CAS #:		
9.181	186336	4.29248358	164	0		0	91
Octadecane					CAS #: 593-45-3		
9.416	167838	7.36061439	282	95	NIST05.L	94931	98
Propanamide, N-(3-methoxyphenyl)-2,2-dim					CAS #: 56619-93-3		
9.619	110629	4.85166808	186	38	NIST05.L	62123	98
Benzo[e]pyrene					CAS #: 192-97-2		
9.812	131484	5.76627992	221	95	NIST05.L	93577	98
Eicosane					CAS #: 112-95-8		
10.256	144970	6.35773920	243	86	NIST05.L	113489	98

Data File: /chem/MSD2.i/s032610.b/s2c2635.d
Date : 27-MAR-2010 02:39
Client ID: RE46-10-12925
Sample Info: |249244006|966675|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

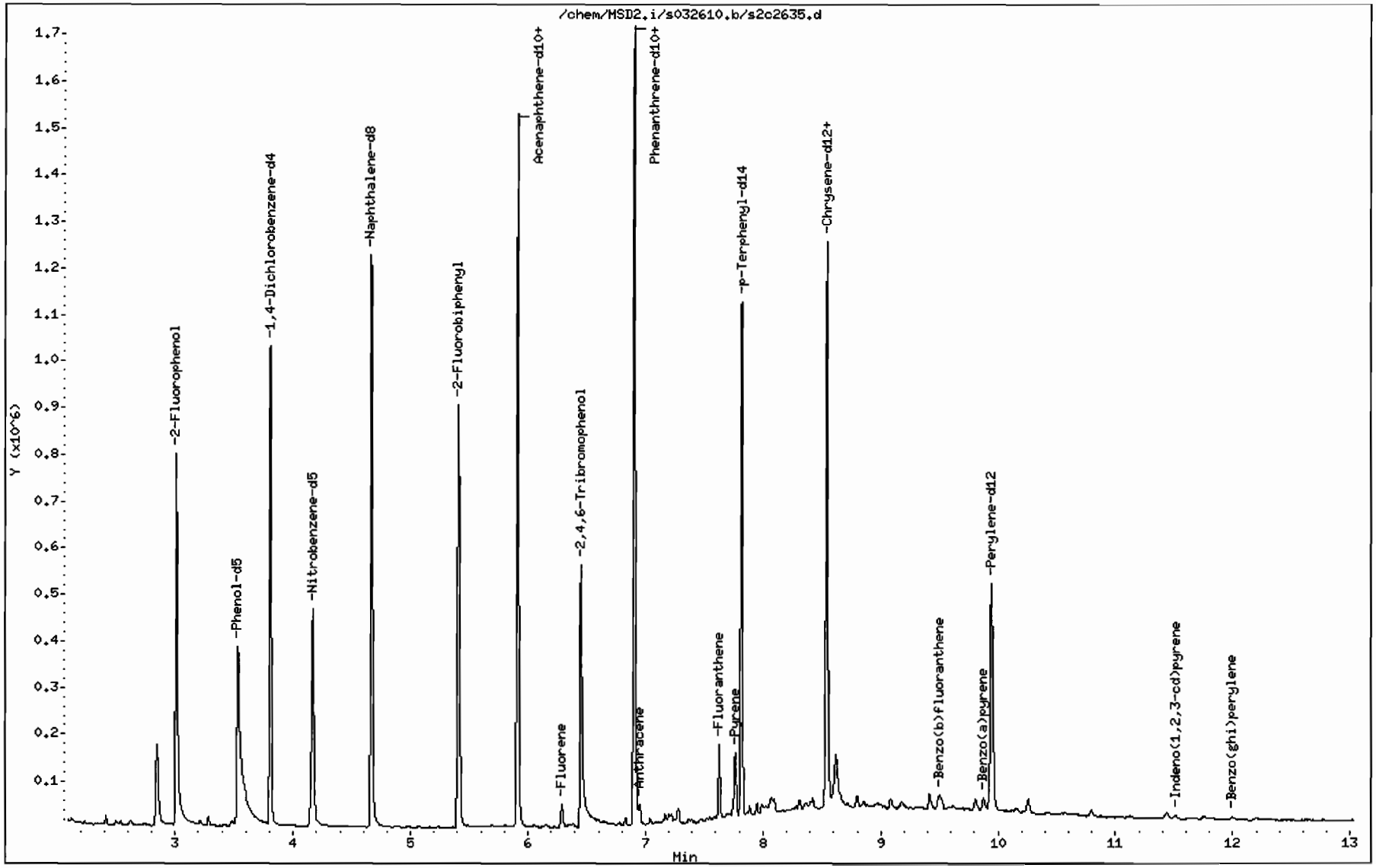

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: 1249244006196667511SVMI1ILANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 23.7 ug/Kg

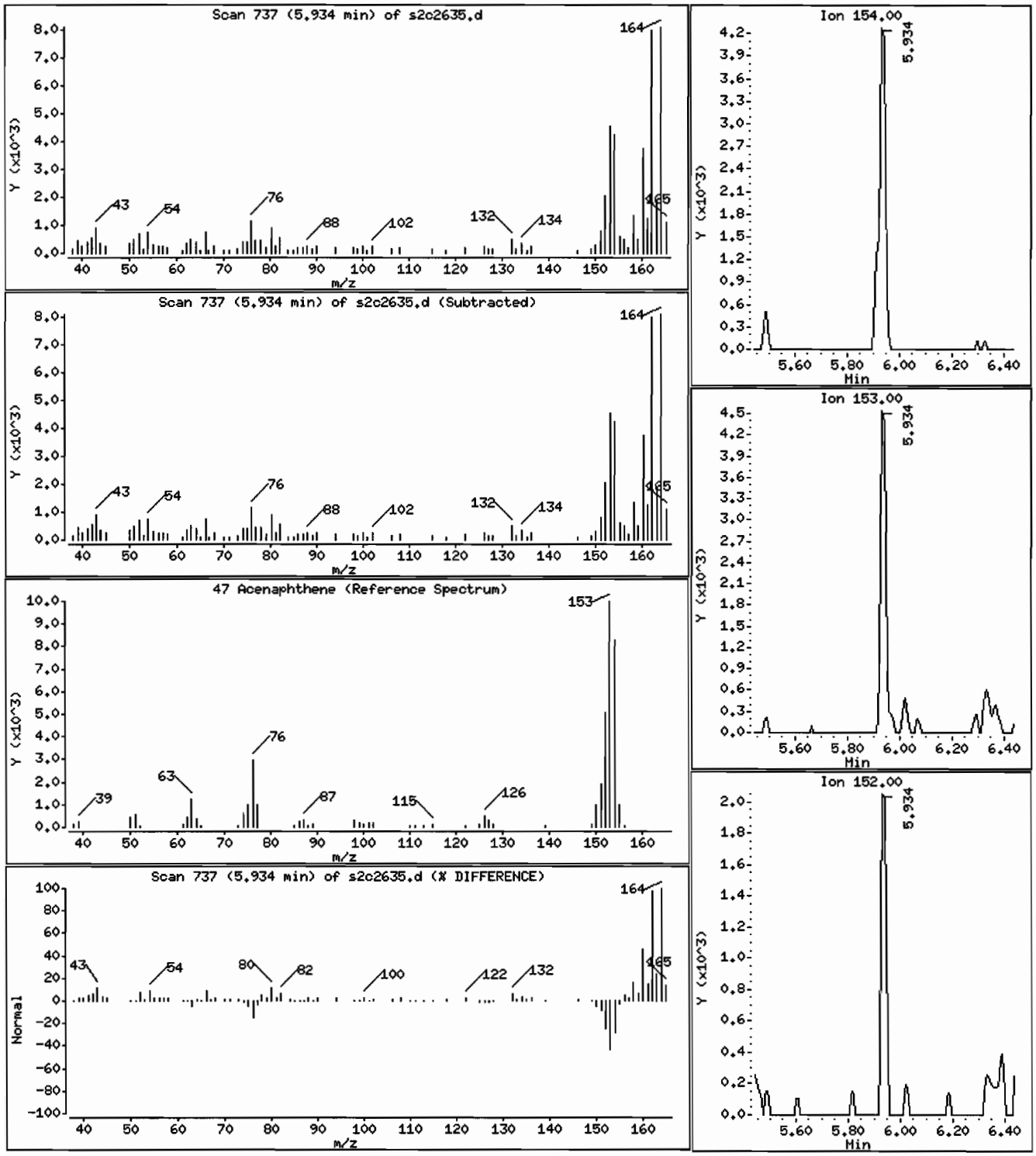

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: |2492440061966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 148 ug/Kg

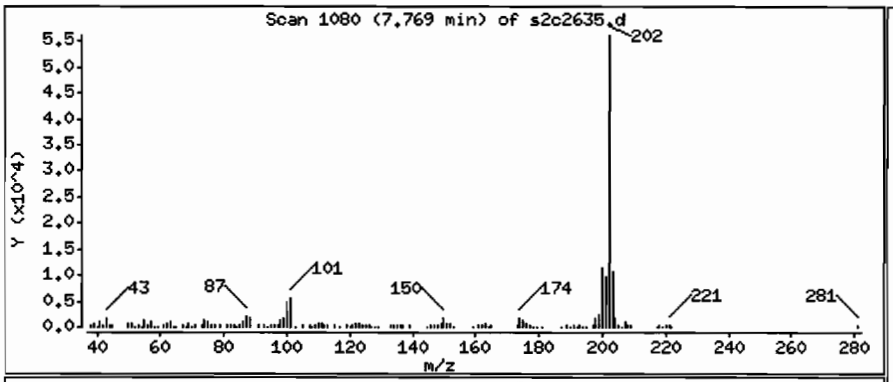

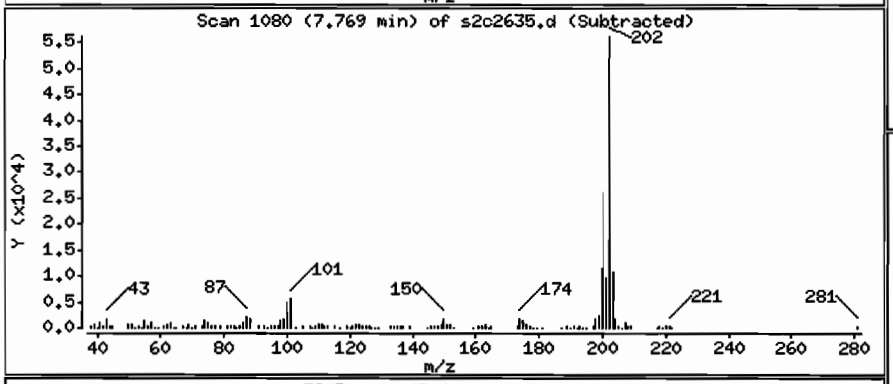

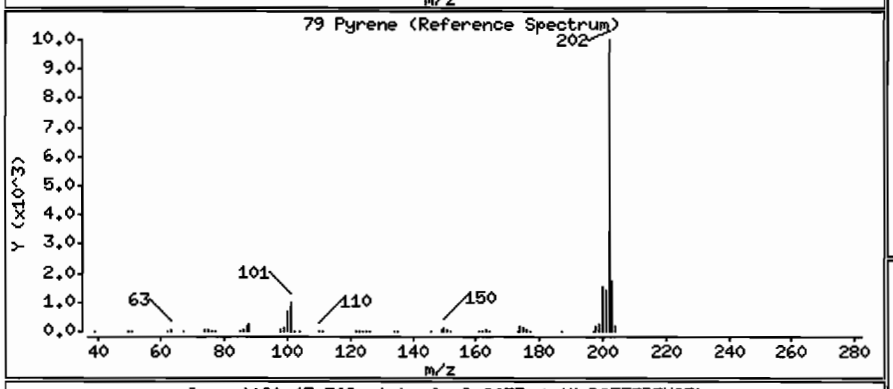

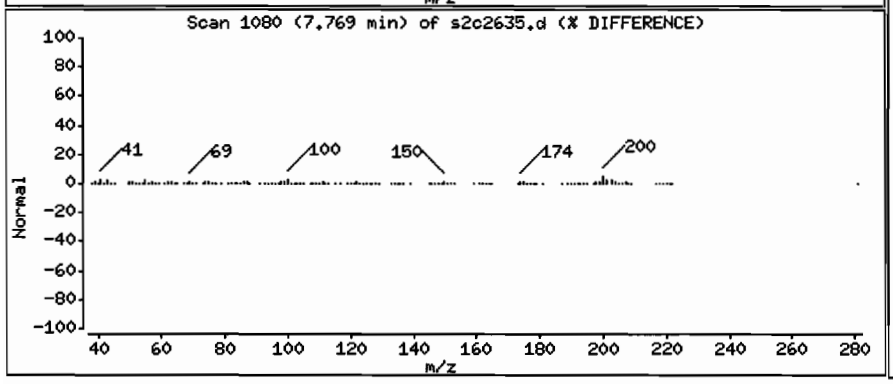

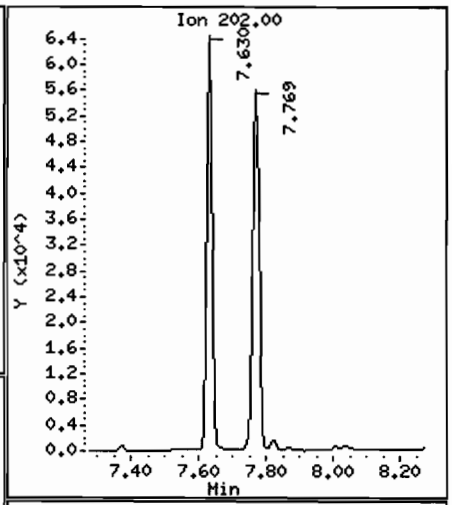

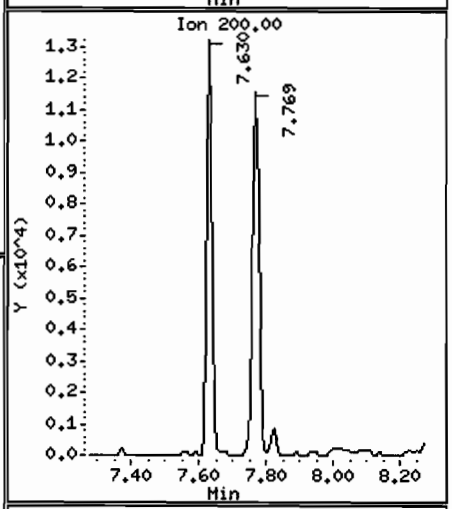

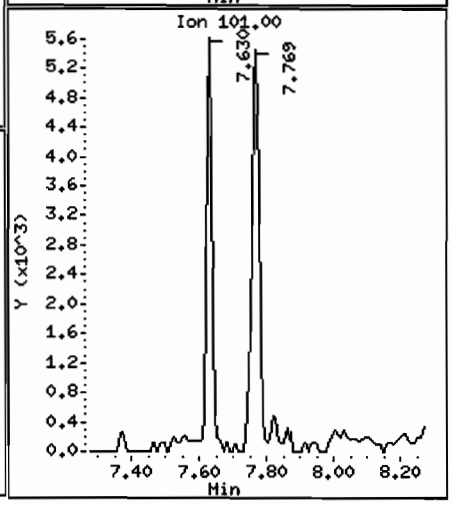

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: |249244006|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 15.1 ug/Kg

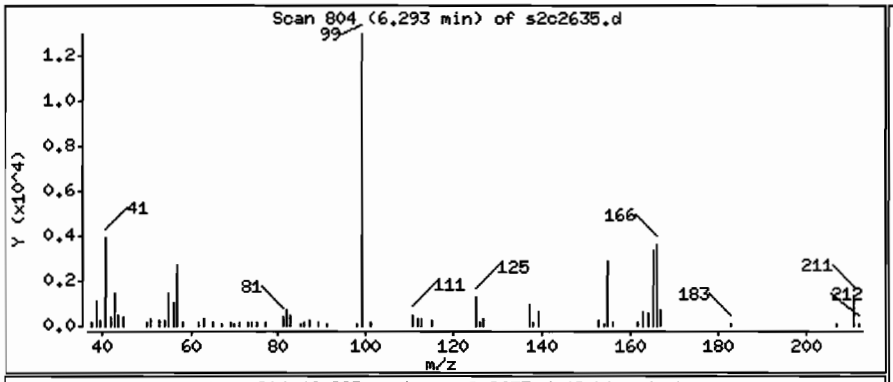

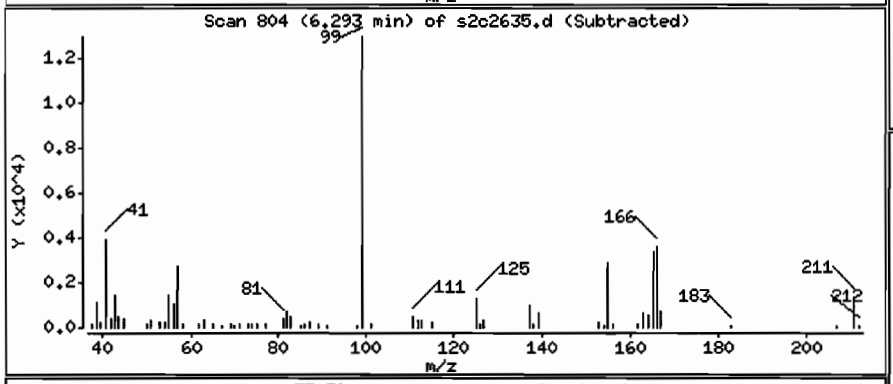

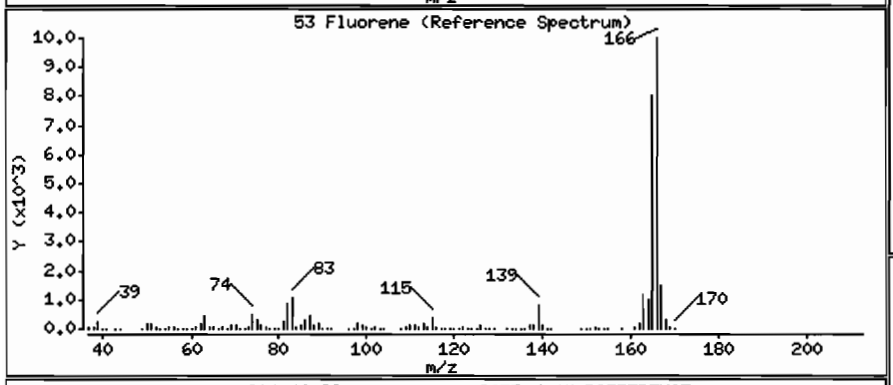

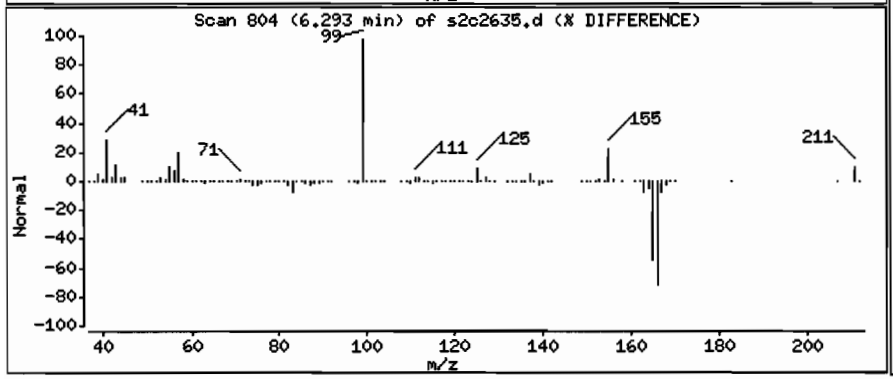

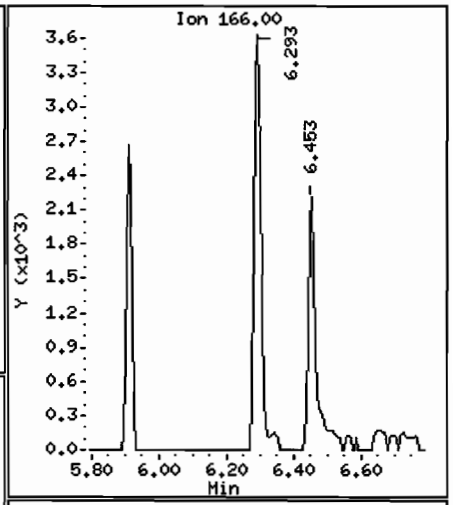

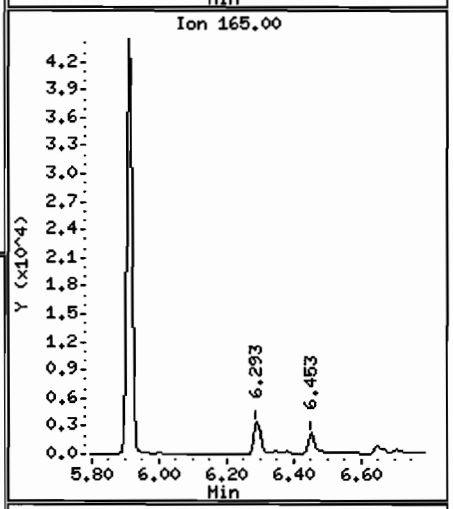

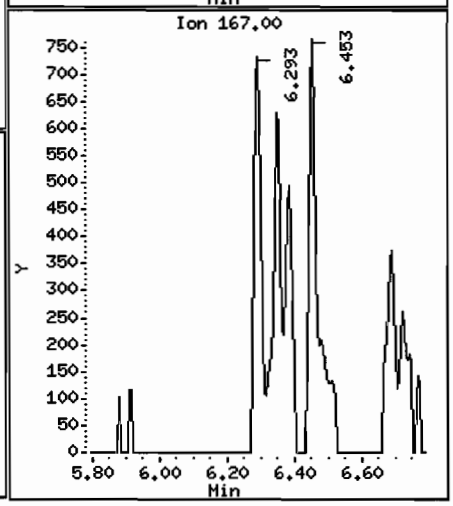

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: |249244006|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 112 ug/Kg

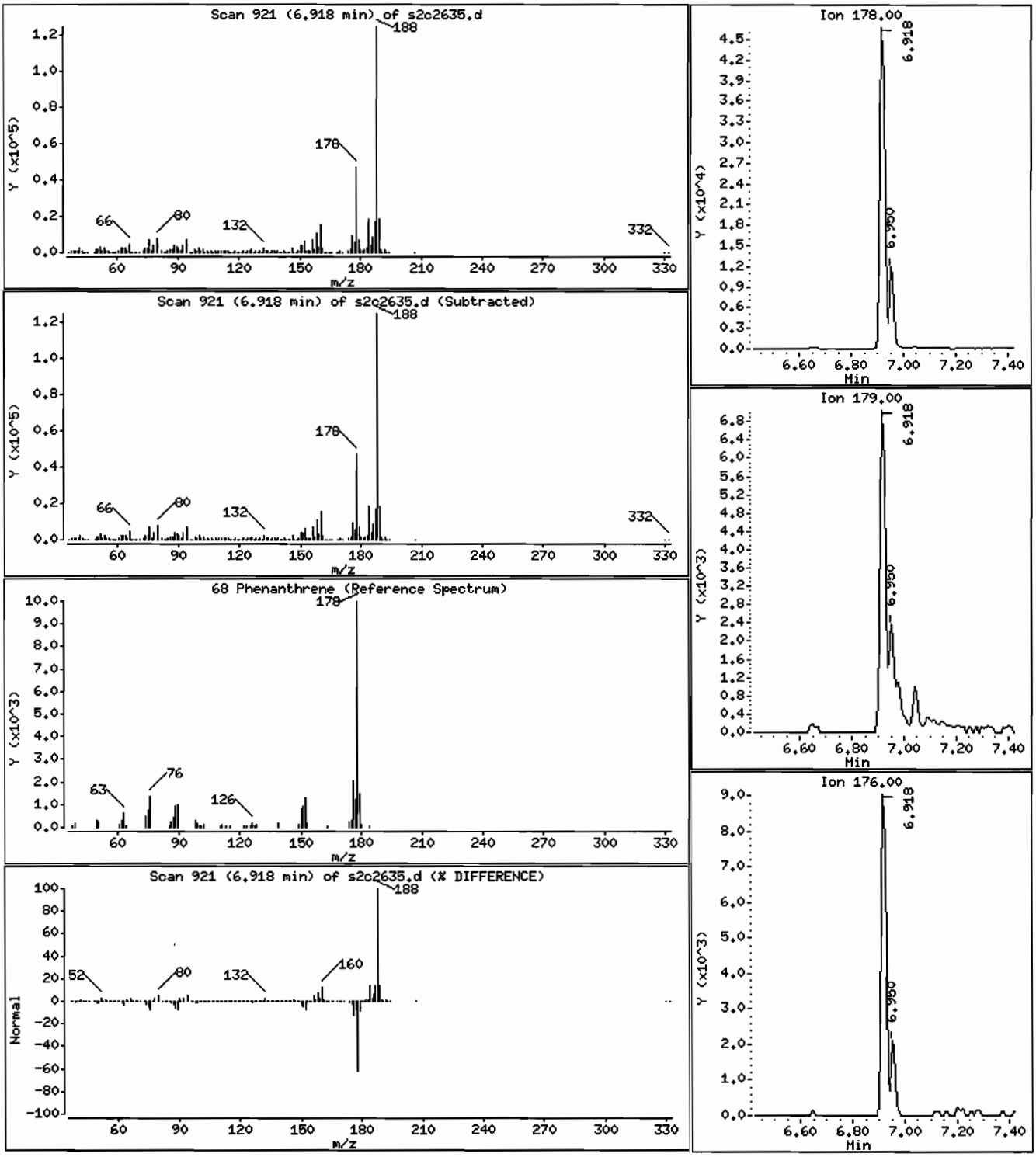

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: |2492440061966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 32.4 ug/Kg

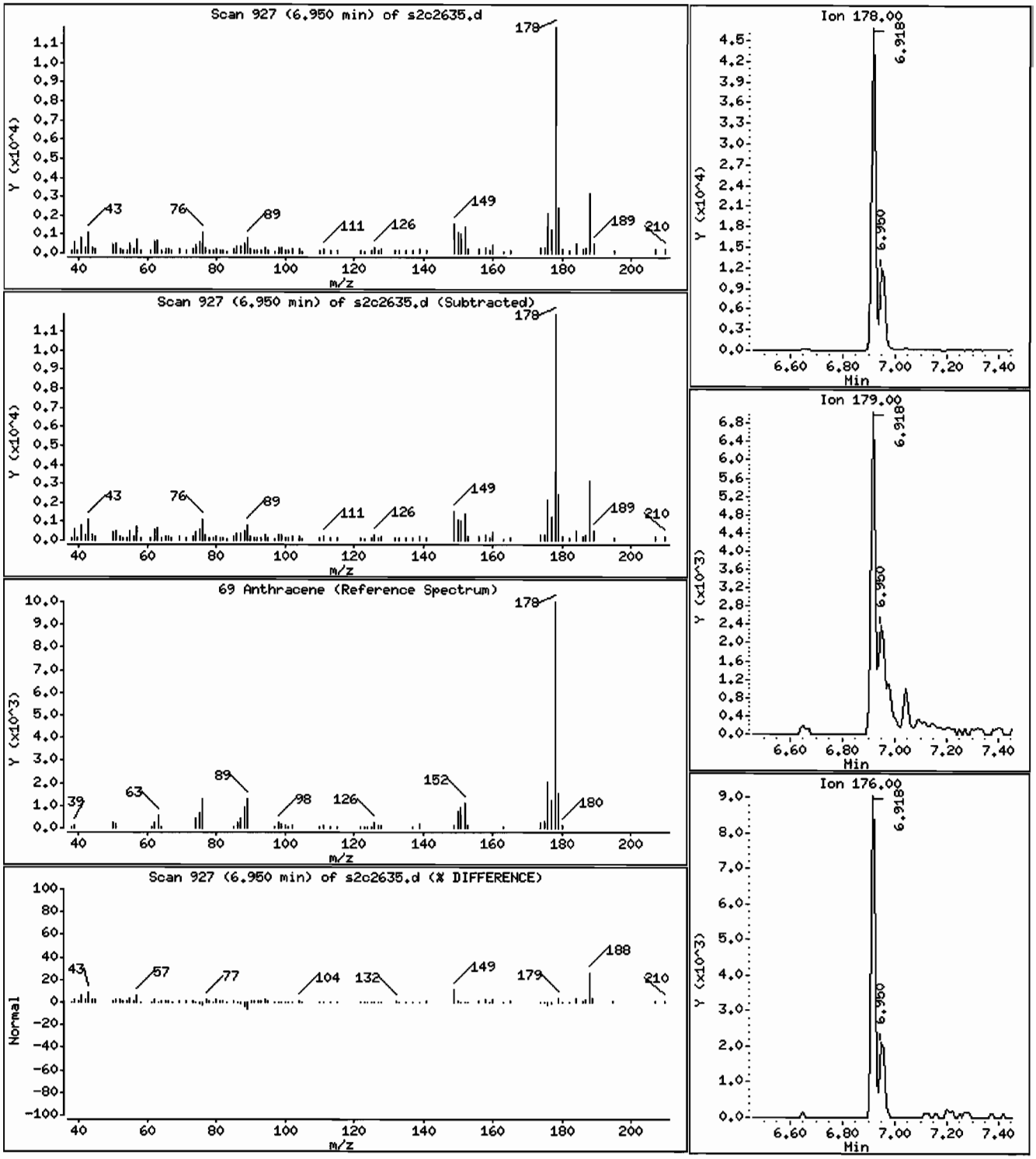

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: |249244006|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 165 ug/Kg

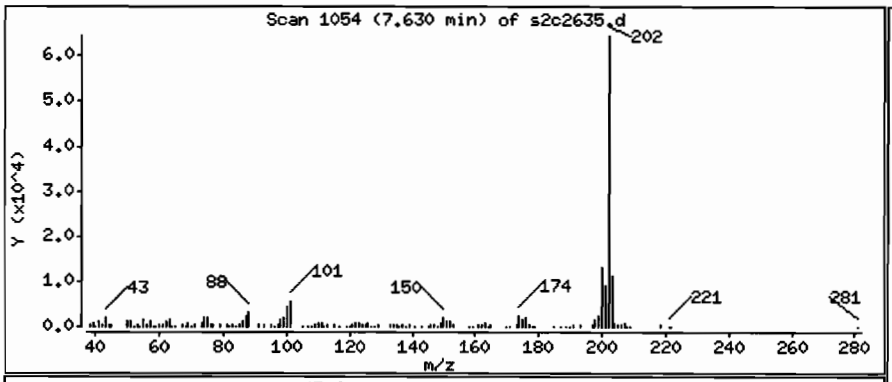

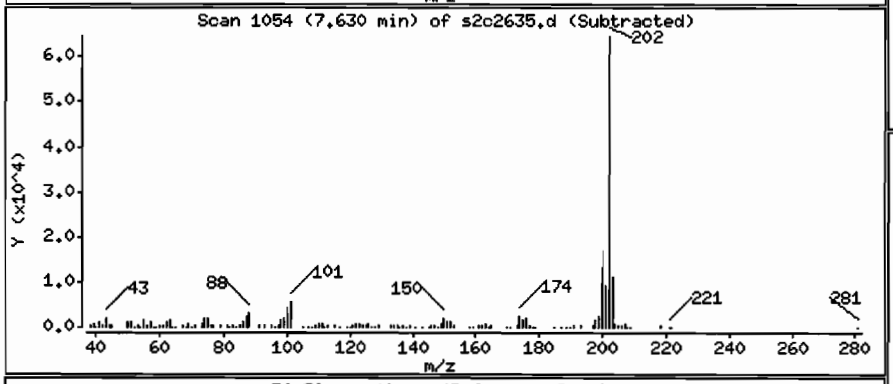

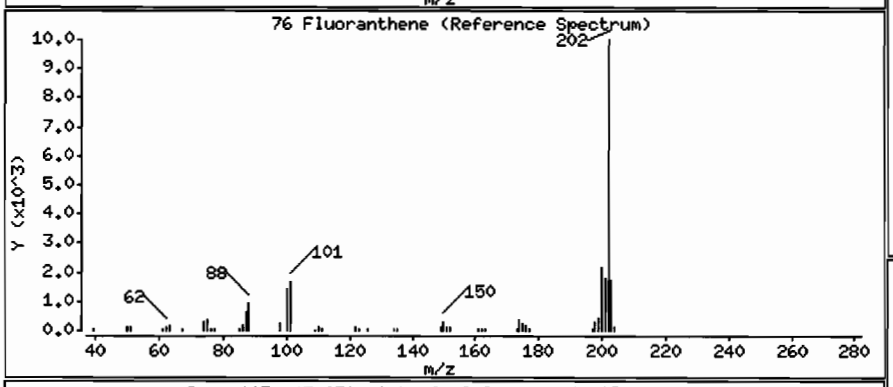

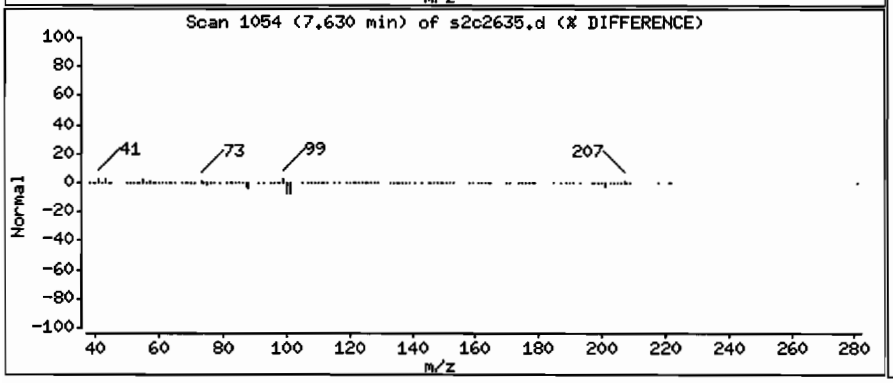

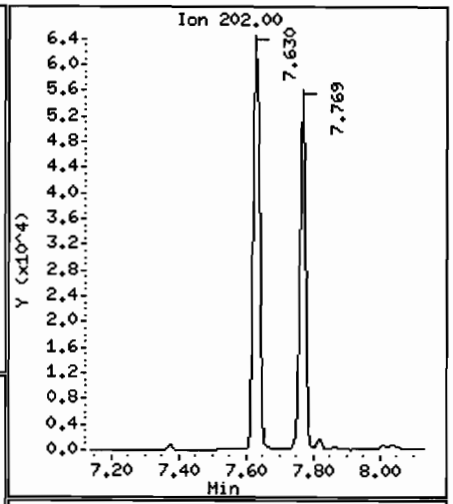

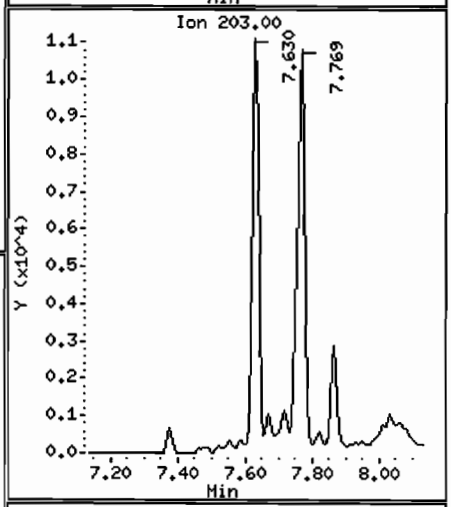

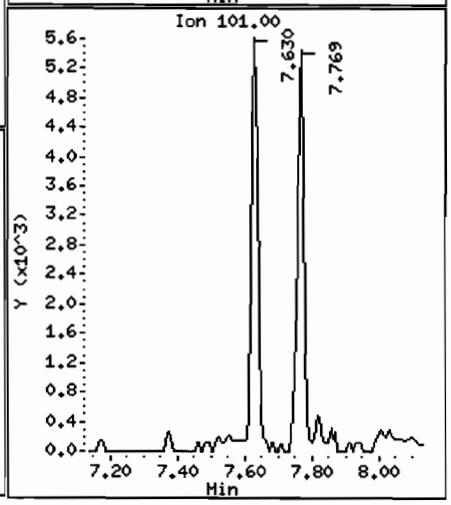

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: |249244006|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 85.1 ug/Kg

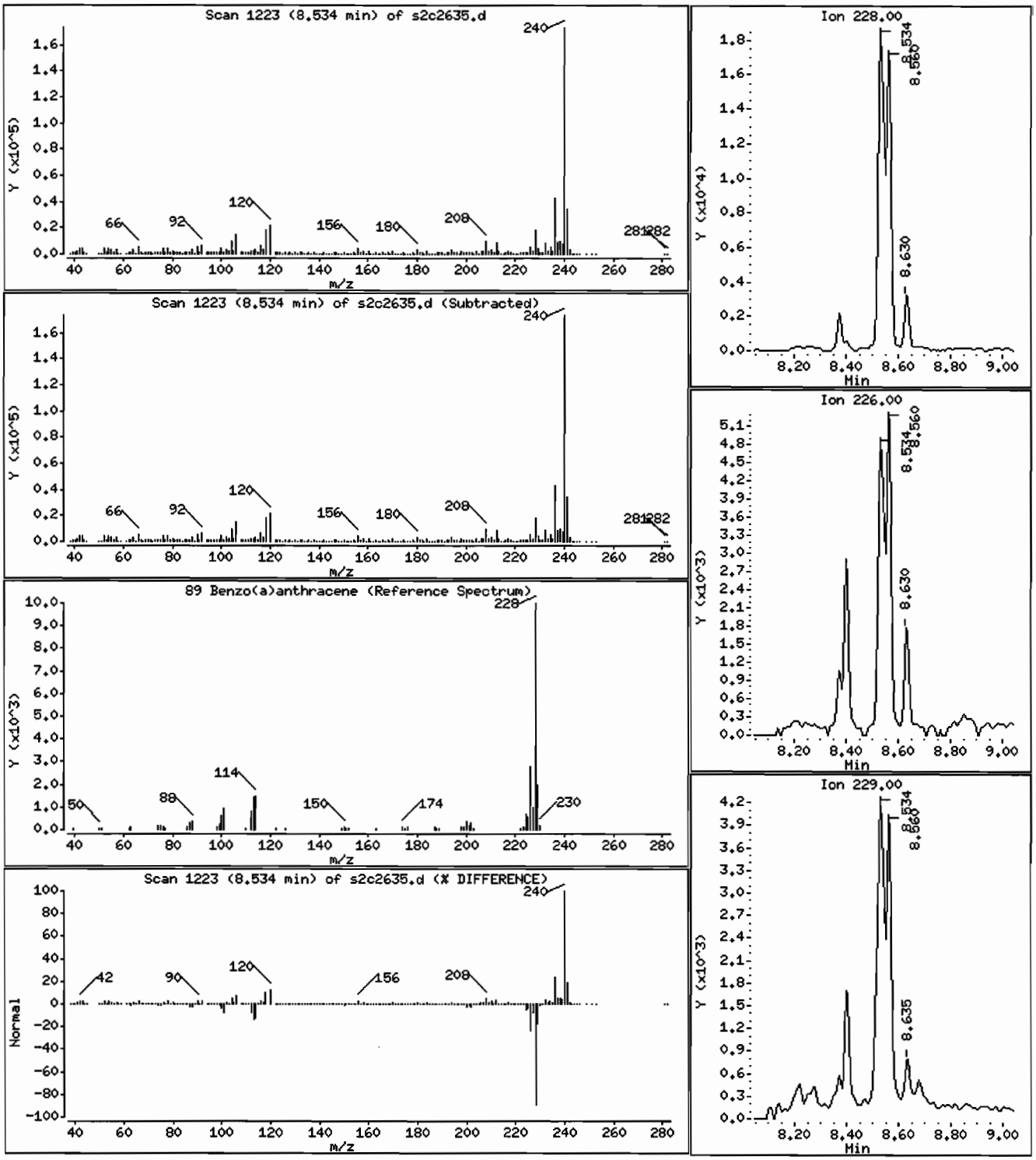

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: |2492440061966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 79.3 ug/Kg

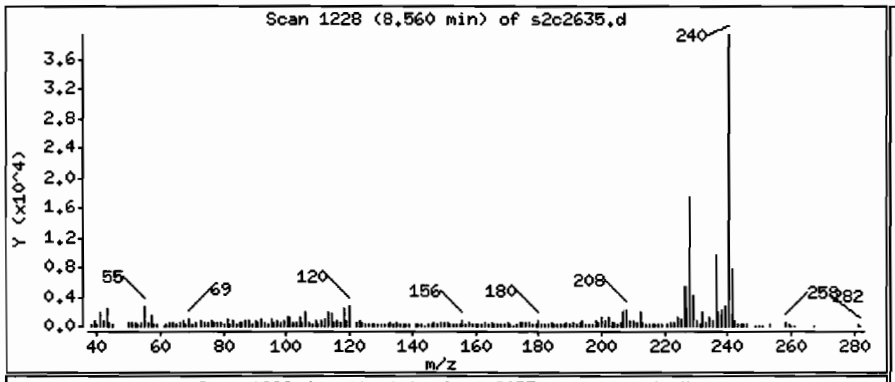

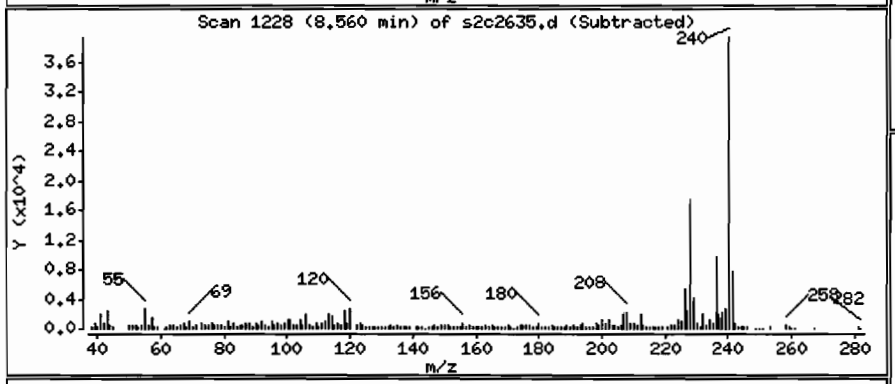

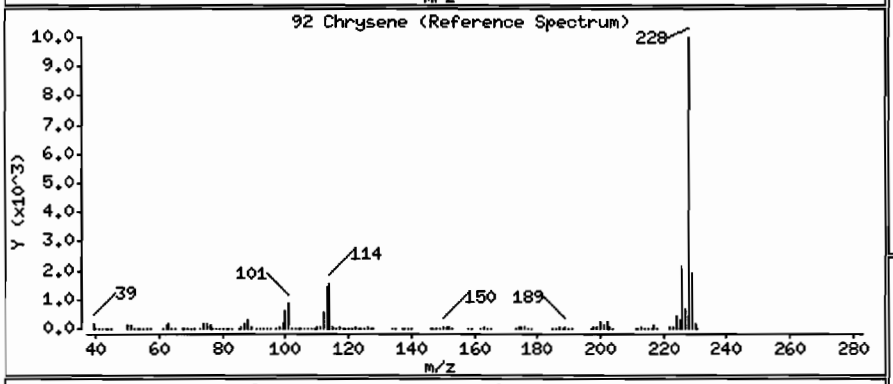

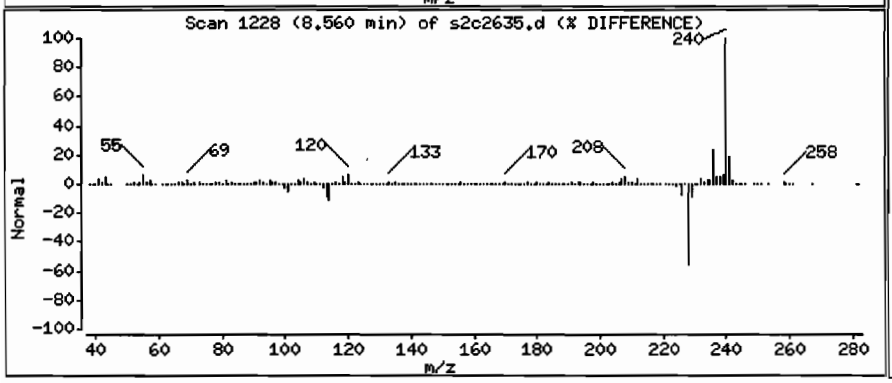

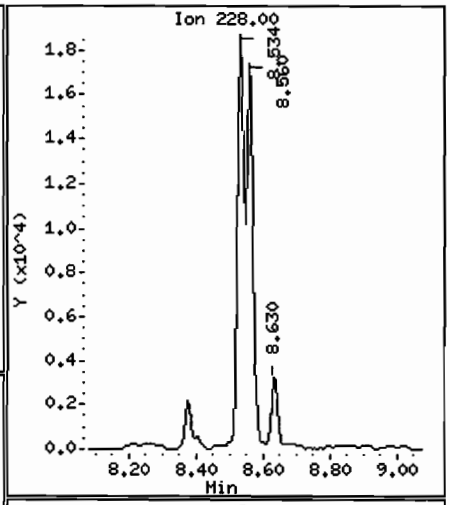

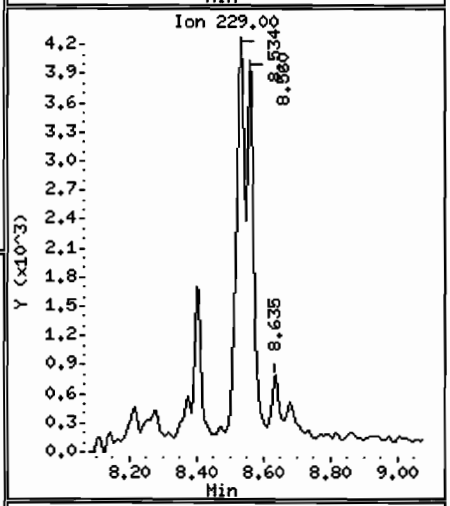

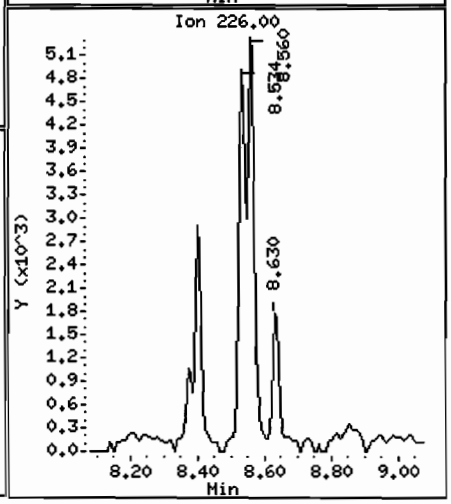

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: |2492440061966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 111 ug/Kg

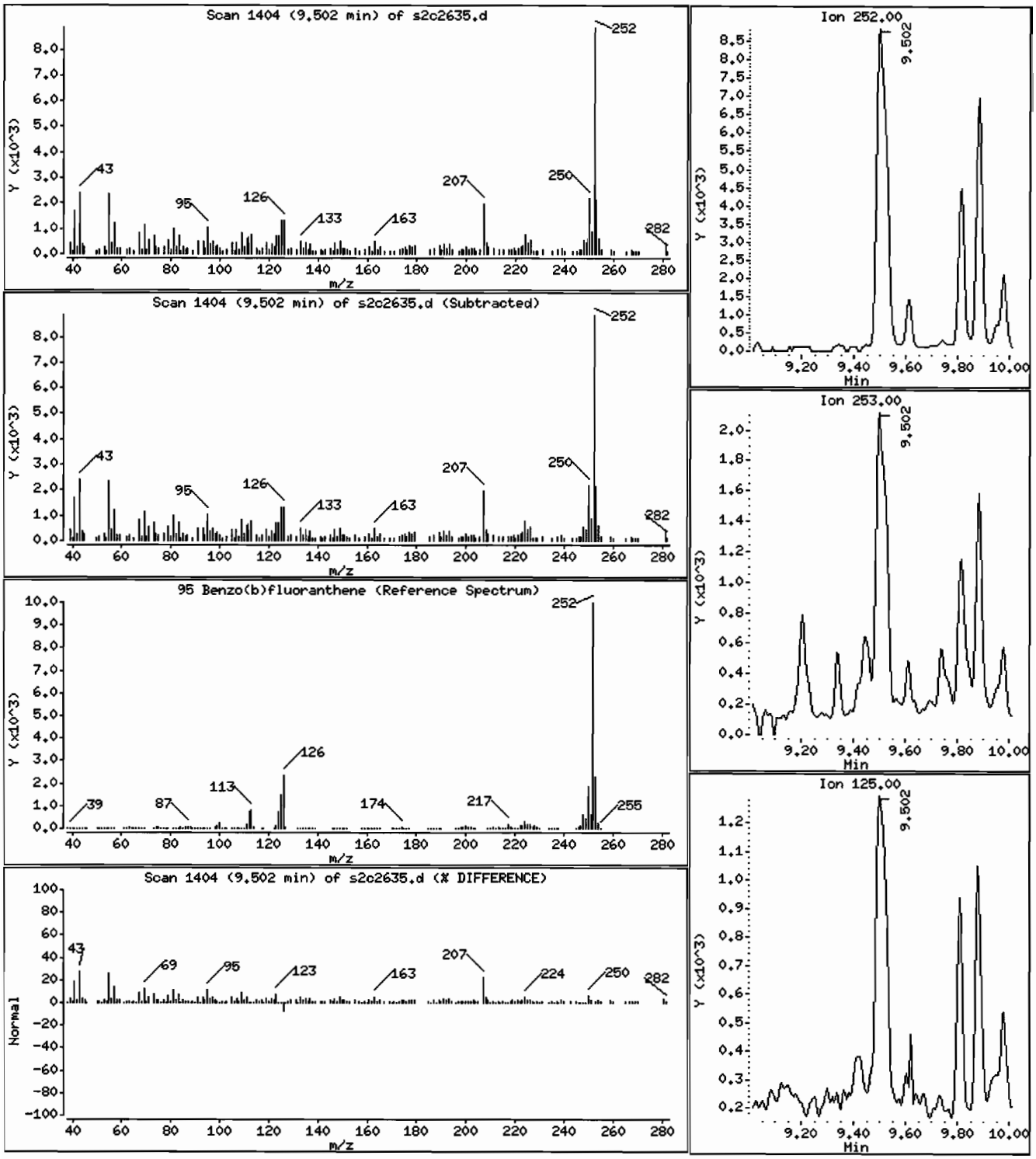

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: 1249244006196667511SVM11LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 64.0 ug/Kg

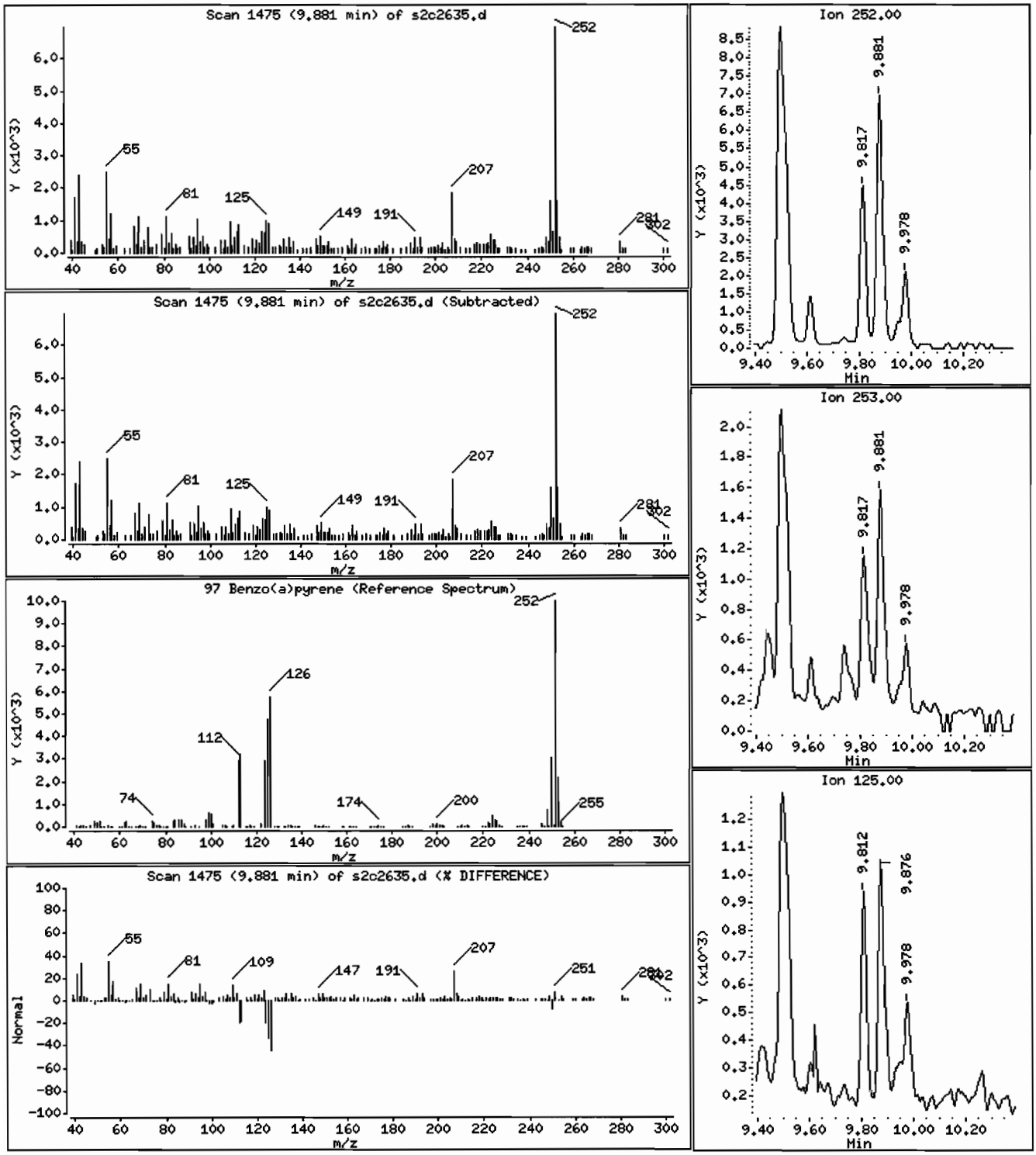

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: |2492440061966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 35.4 ug/Kg

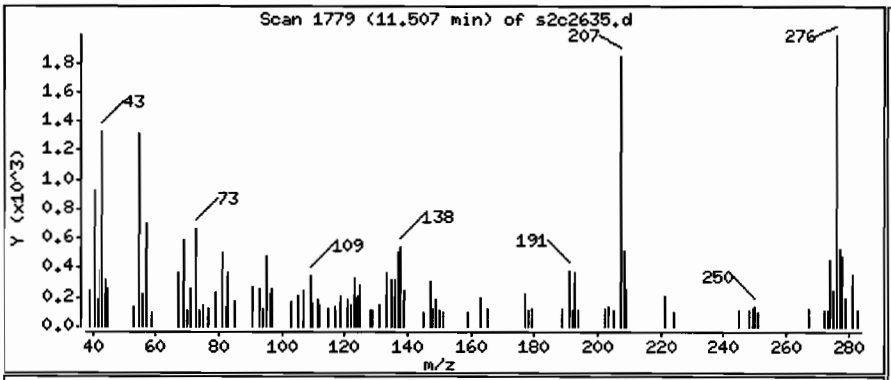

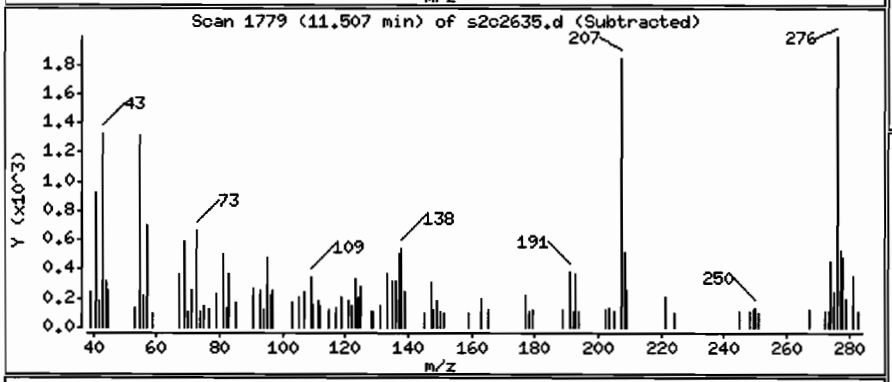

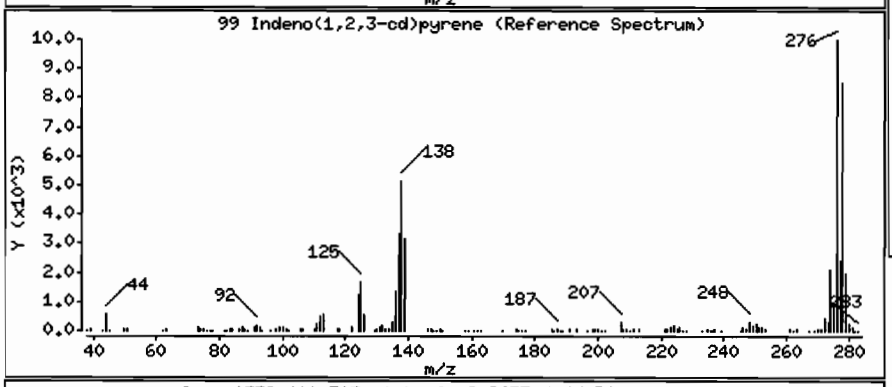

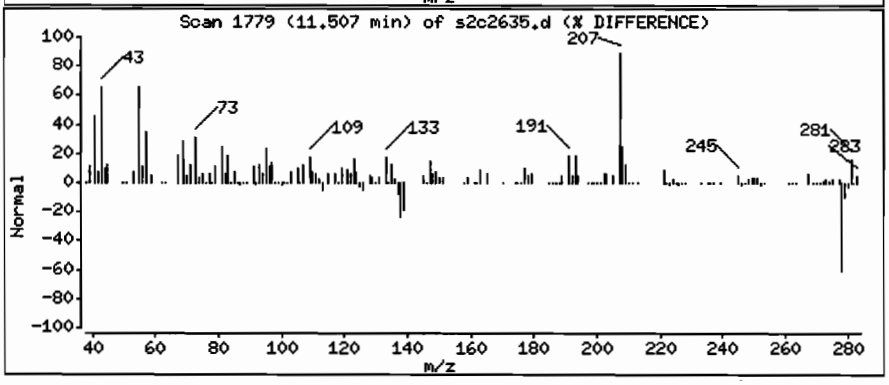

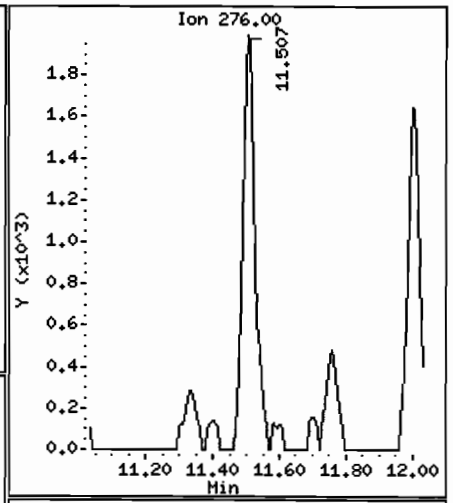

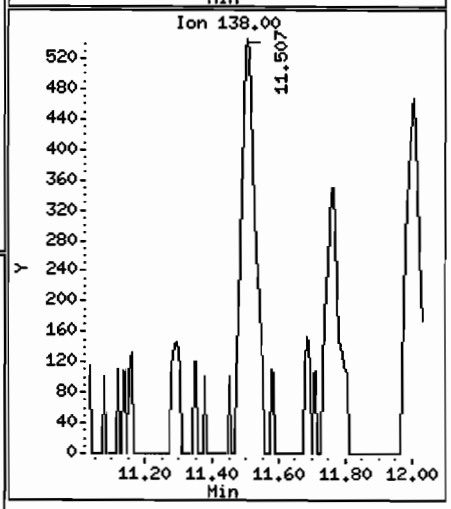

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: |2492440061966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 37.8 ug/Kg

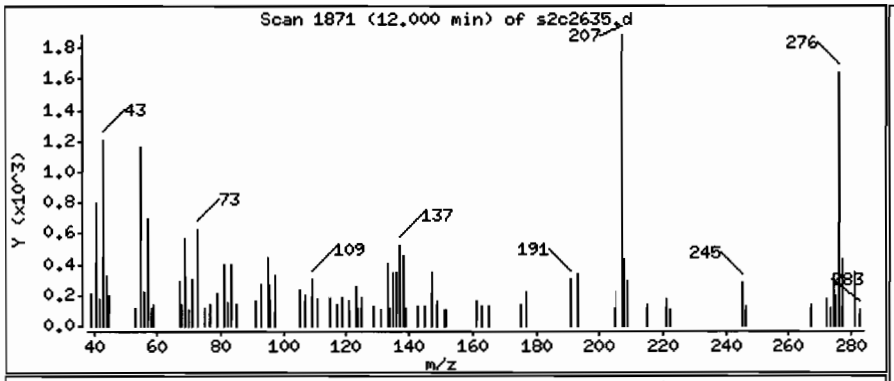

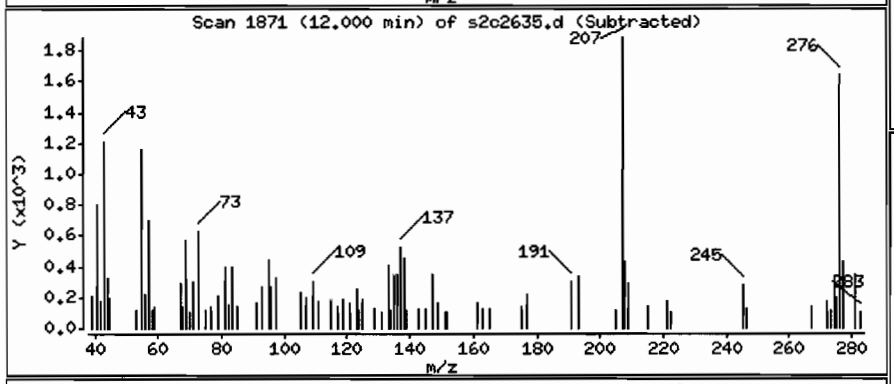

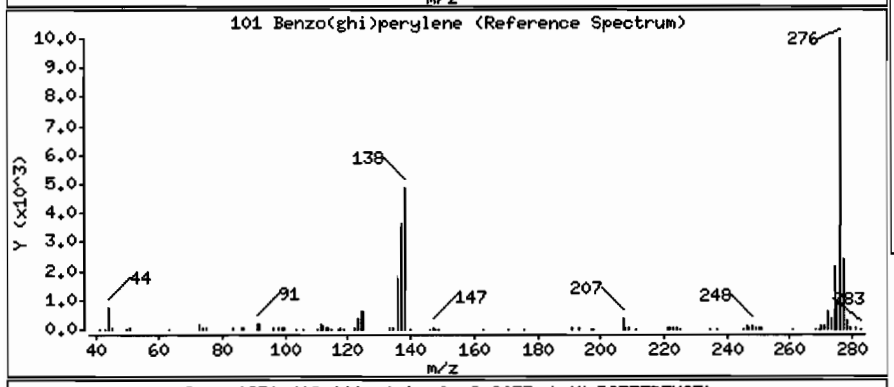

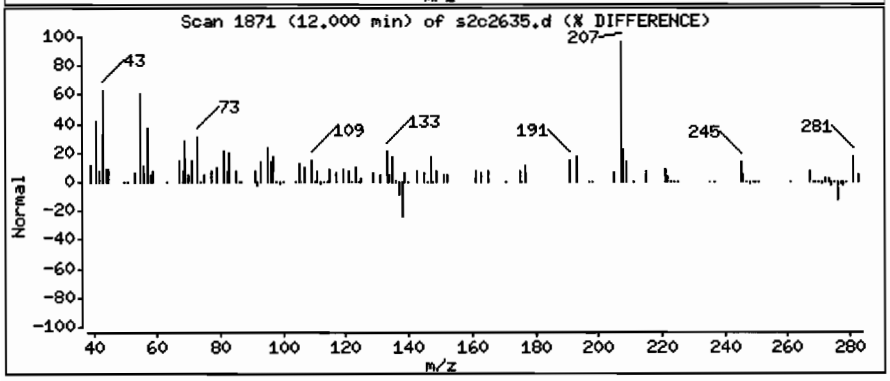

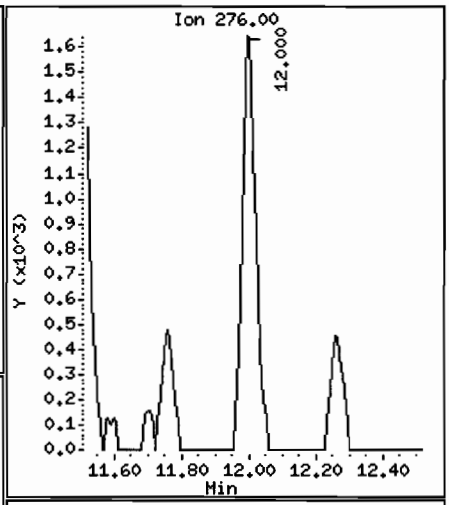

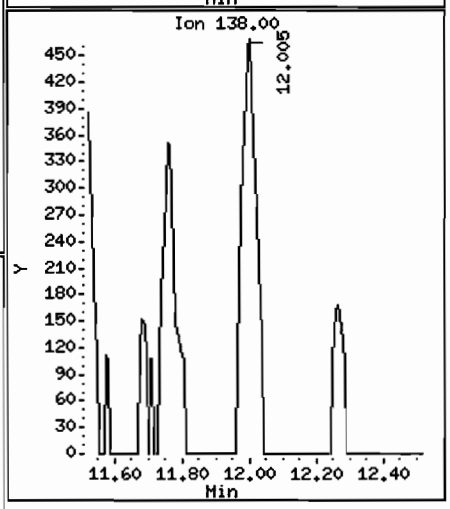

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: 1249244006196667511SVMI1ILANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
1-Propen-2-ol, acetate	108-22-5	NIST05.L	3595	10	C5H8O2	100

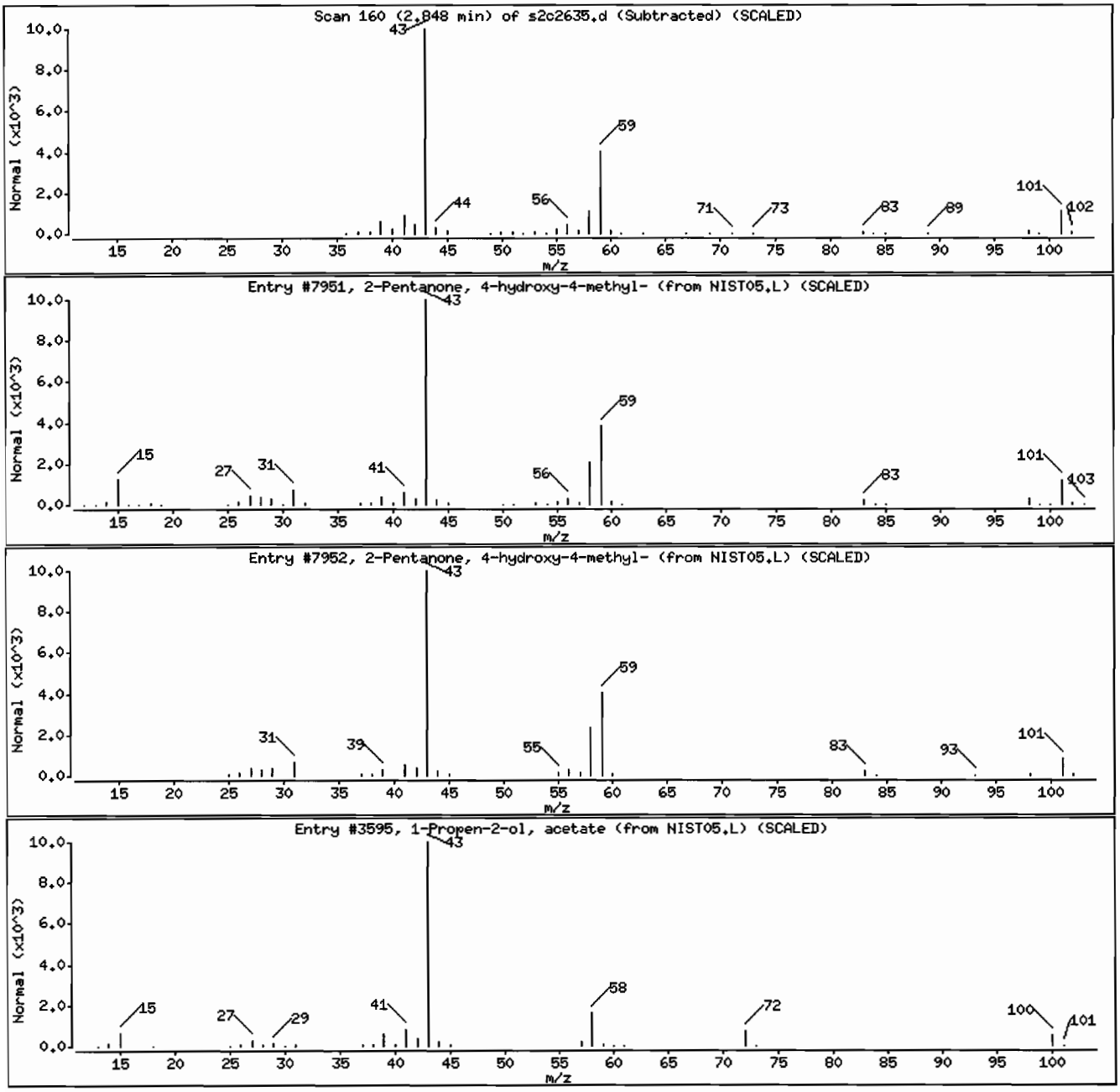

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: |249244006|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ledol	577-27-5	NIST05.L	72883	70	C15H260	222
1H-Cycloprop[e]azulene, decahydro-1,1,7-	489-39-4	NIST05.L	60078	60	C15H24	204
Naphthalene, decahydro-4a-methyl-1-methy	17066-67-0	NIST05.L	60021	55	C15H24	204

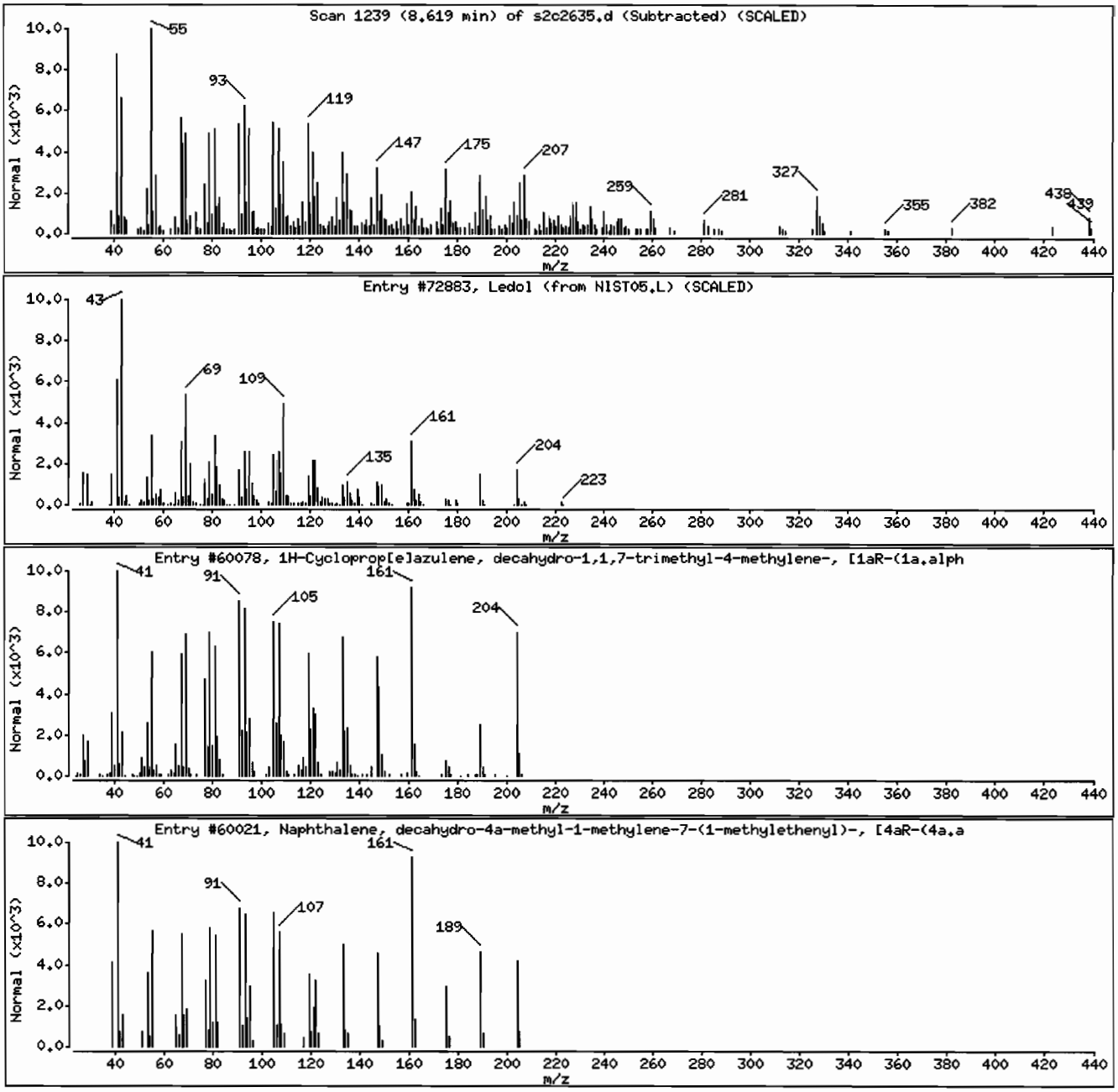

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: |249244006|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexane, 1-(cyclohexylmethyl)-4-ethy	54934-94-0	NIST05.L	63060	42	C15H28	208
Cyclohexane, 1-(cyclohexylmethyl)-4-ethy	54934-95-1	NIST05.L	63058	41	C15H28	208
2-(Acetoxymethyl)-3-(methoxycarbonyl)bip	93103-70-9	NIST05.L	113217	25	C17H1404	282

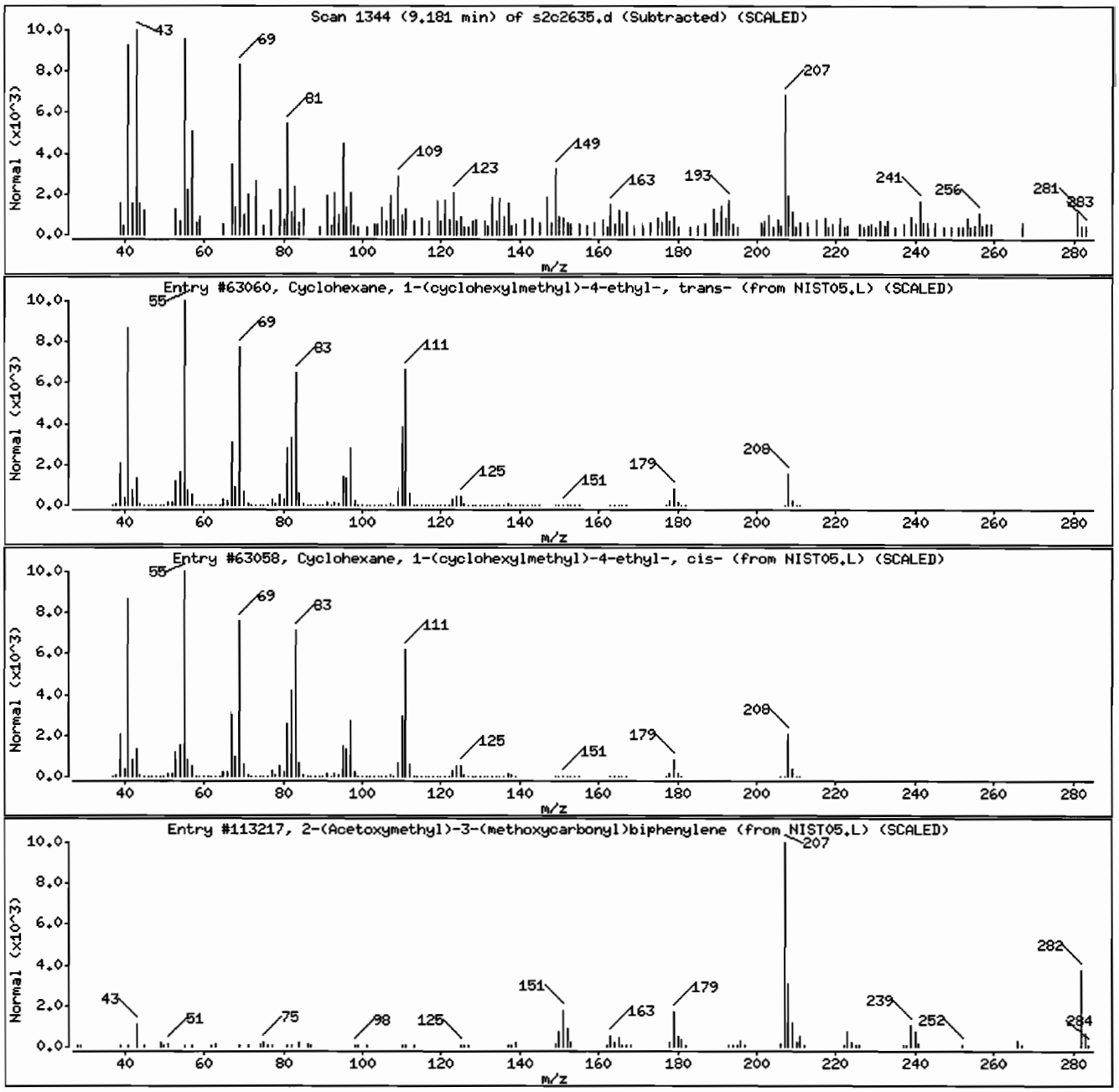

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: |249244006|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octadecane	593-45-3	NIST05.L	94931	95	C18H38	254
Eicosane	112-95-8	NIST05.L	113492	87	C20H42	282
Octadecane	593-45-3	NIST05.L	94929	86	C18H38	254

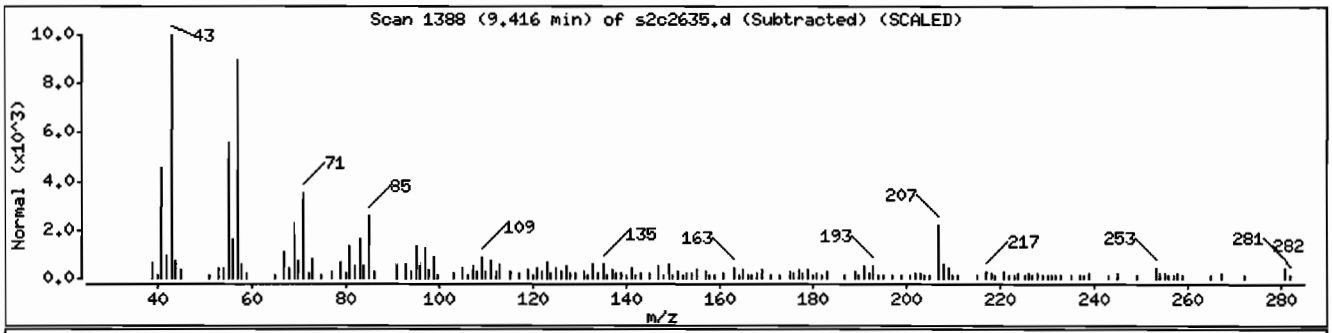

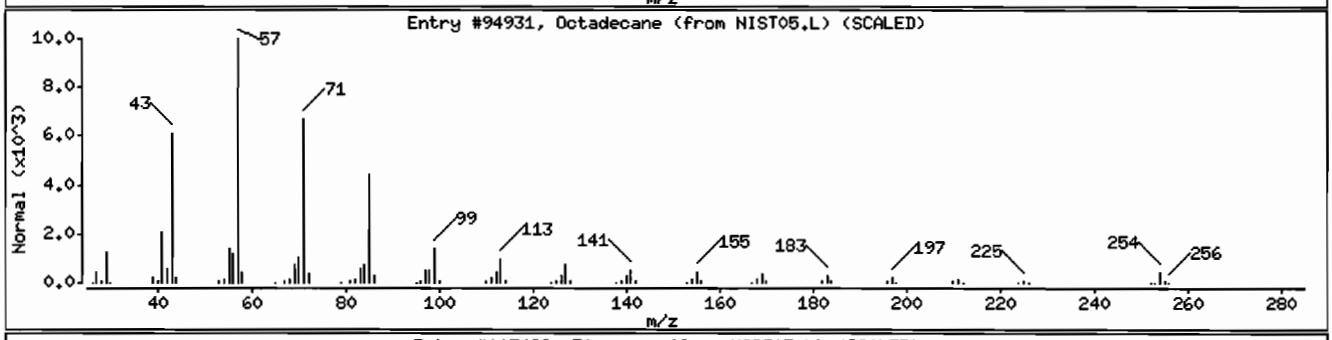

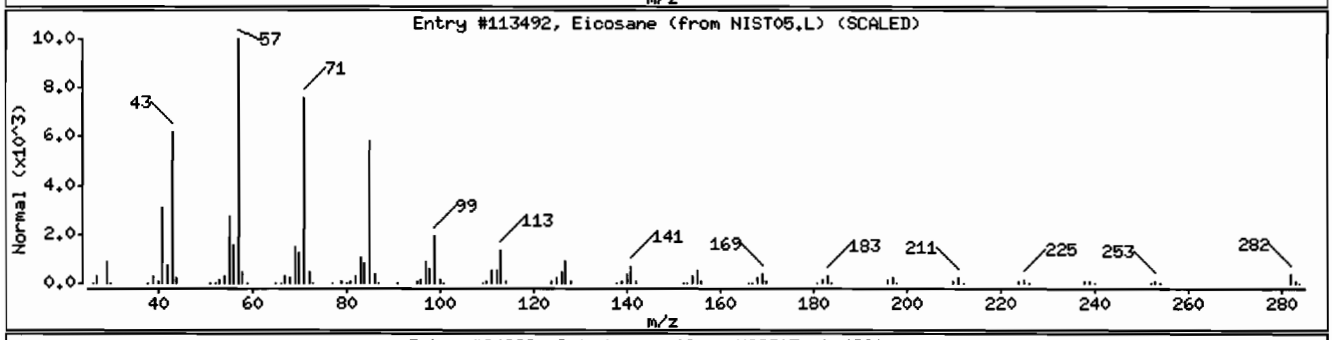

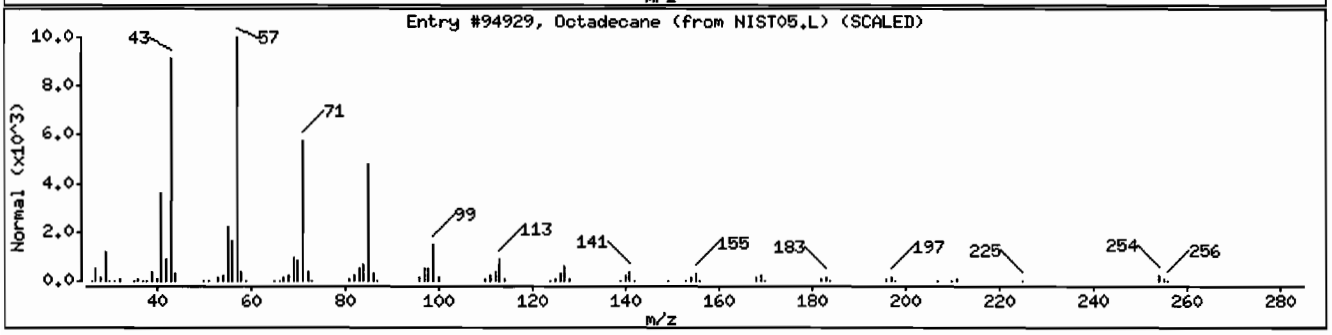

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: |249244006|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Propanamide, N-(3-methoxyphenyl)-2,2-dim	56619-93-3	NIST05.L	62123	38	C12H17NO2	207
3-Benzo[g]quinoxalin-2-yl-propionic acid	25470-39-7	NIST05.L	93242	38	C15H12N2O2	252
Silicic acid, diethyl bis(trimethylsilyl	3555-45-1	NIST05.L	121708	38	C10H28O4Si3	296

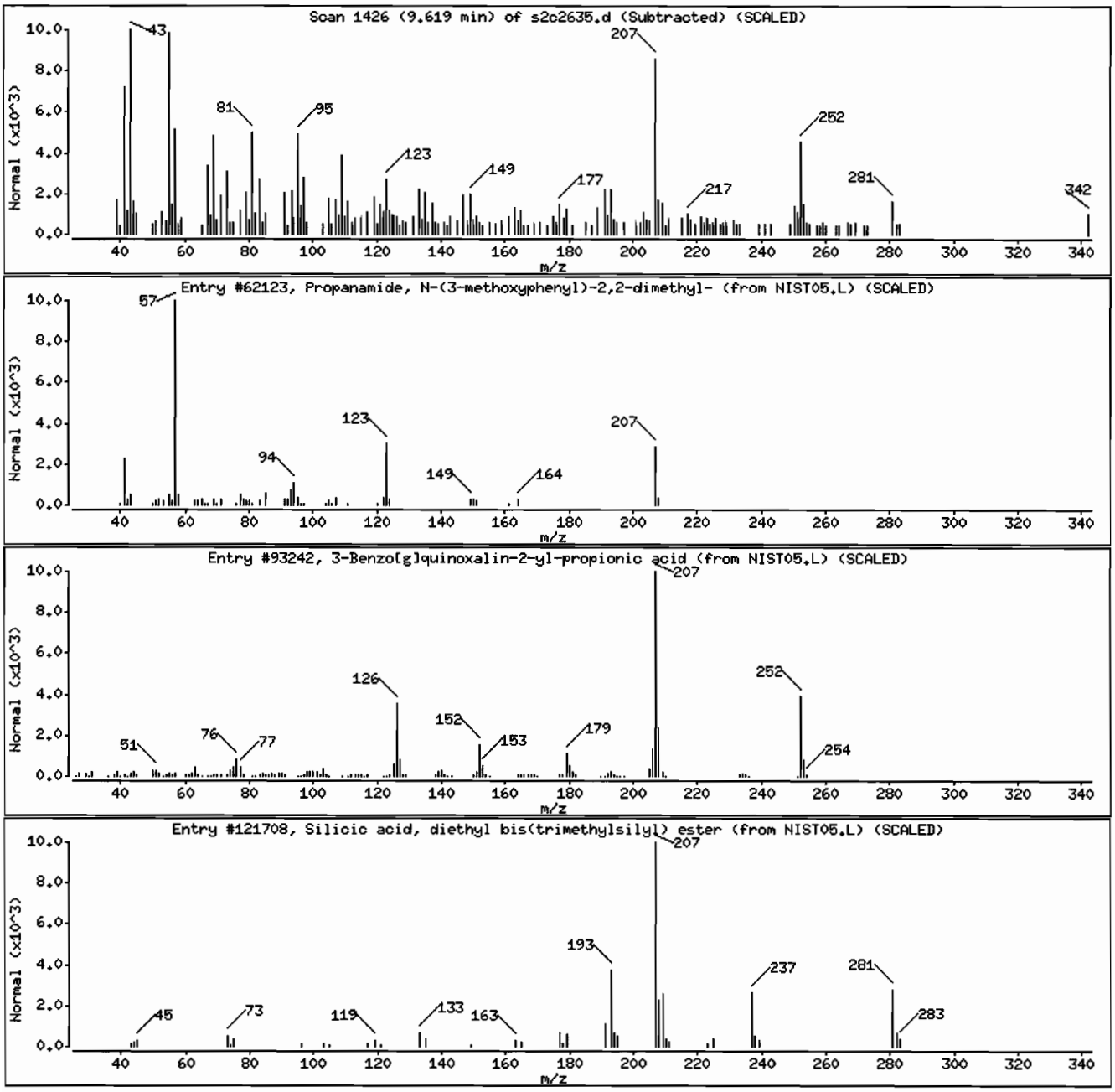

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: |2492440061966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[e]pyrene	192-97-2	NIST05.L	93577	95	C20H12	252
Benzo[e]pyrene	192-97-2	NIST05.L	93581	91	C20H12	252
Benzo[a]pyrene	50-32-8	NIST05.L	93578	90	C20H12	252

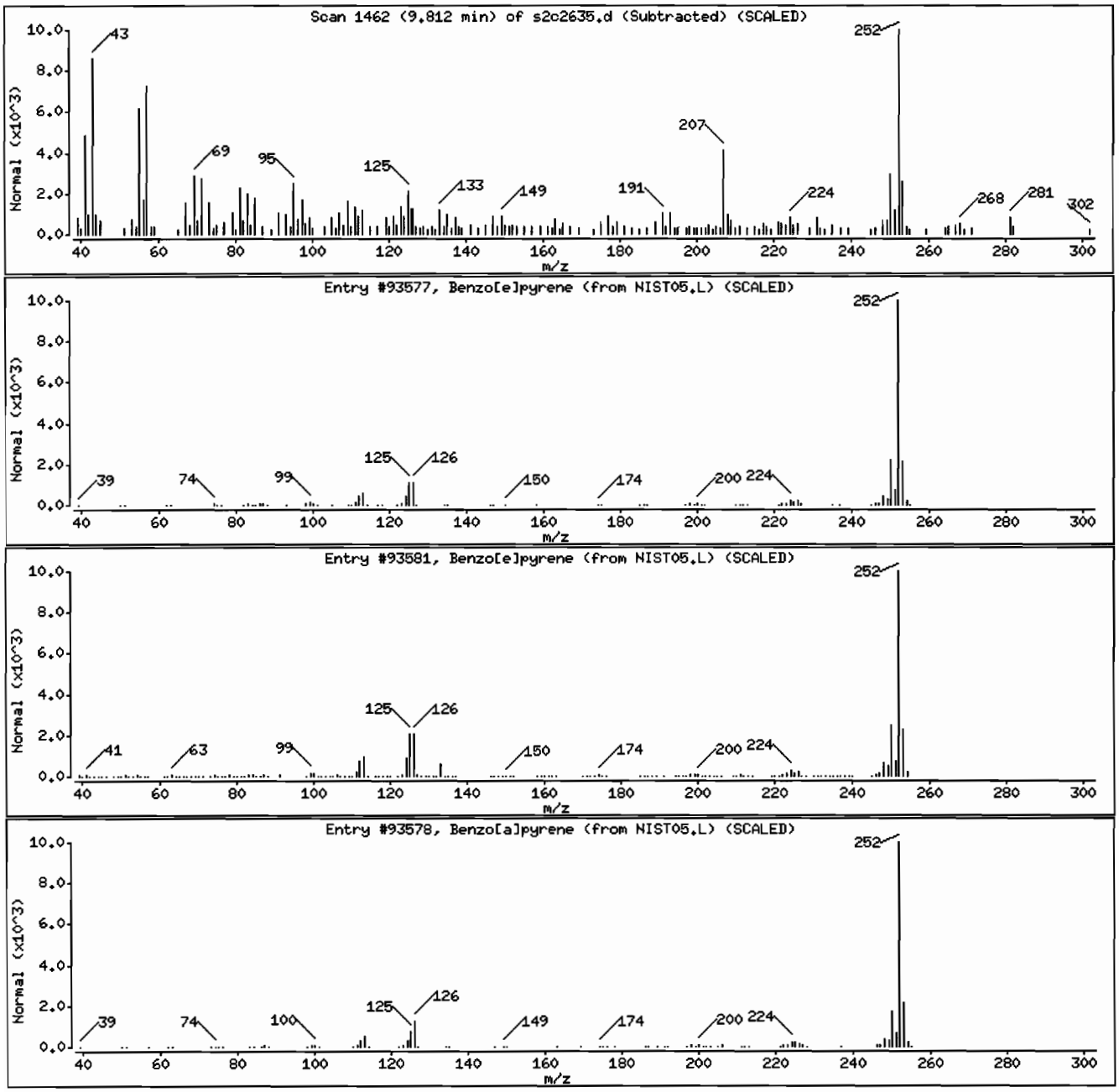

Data File: /chem/MSD2.i/s032610.b/s2c2635.d

Date : 27-MAR-2010 02:39

Client ID: RE46-10-12925

Instrument: MSD2.i

Sample Info: |2492440061966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NIST05.L	113489	86	C20H42	282
Nonadecane	629-92-5	NIST05.L	104272	83	C19H40	268
Sulfurous acid, butyl octadecyl ester	1000309-18-5	NIST05.L	168427	46	C22H46O3S	390

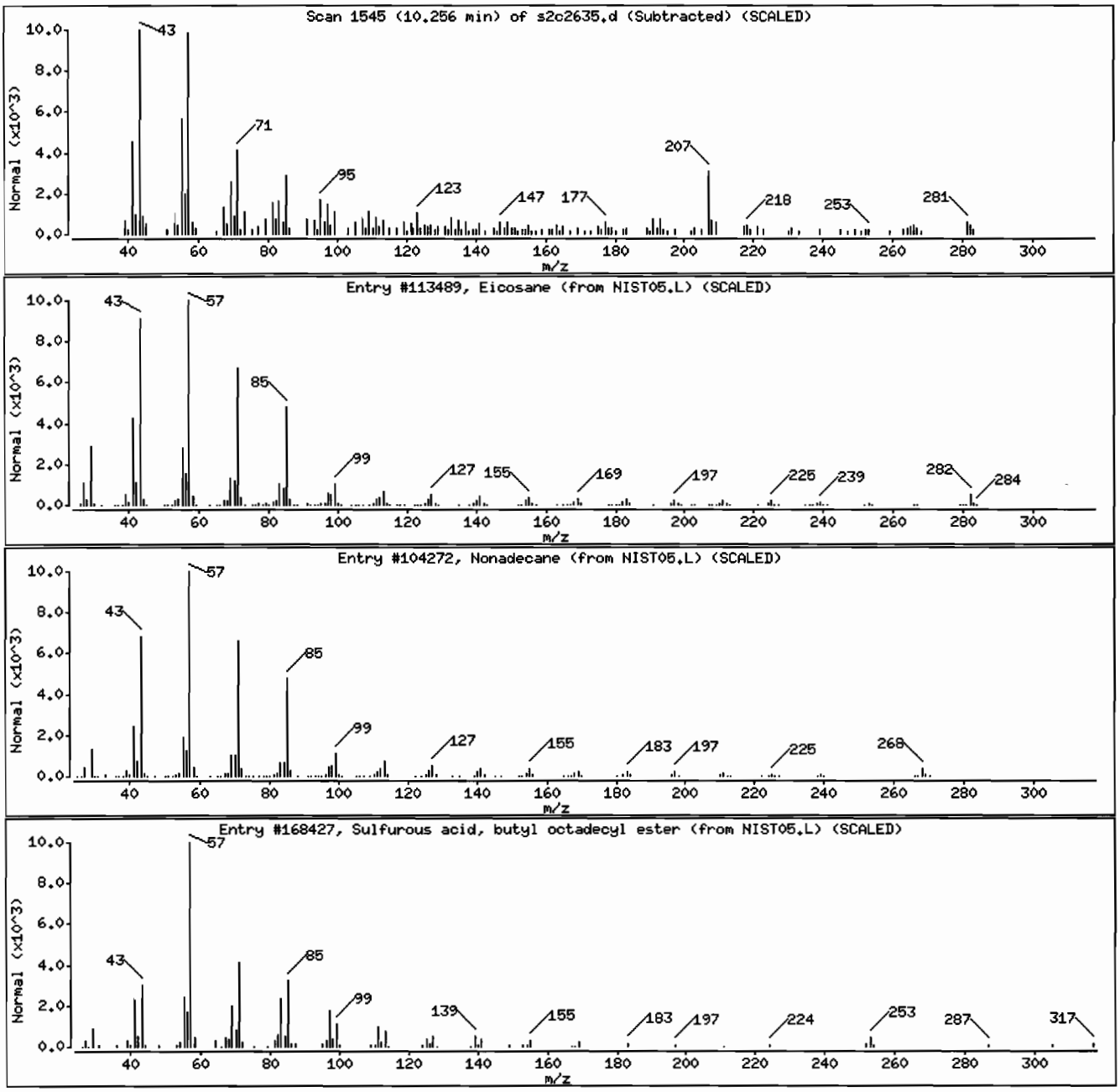

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244004**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**15.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12926**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 01:58**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2633.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	392	ug/kg	78.4	392
108-95-2	Phenol	U	392	ug/kg	78.4	392
95-57-8	2-Chlorophenol	U	392	ug/kg	78.4	392
106-46-7	1,4-Dichlorobenzene	U	392	ug/kg	78.4	392
621-64-7	N-Nitrosodipropylamine	U	392	ug/kg	78.4	392
59-50-7	4-Chloro-3-methylphenol	U	392	ug/kg	78.4	392
83-32-9	Acenaphthene	U	39.2	ug/kg	12.9	39.2
121-14-2	2,4-Dinitrotoluene	U	392	ug/kg	39.2	392
100-02-7	4-Nitrophenol	U	392	ug/kg	129	392
87-86-5	Pentachlorophenol	U	392	ug/kg	98.0	392
129-00-0	Pyrene	U	39.2	ug/kg	11.8	39.2
110-86-1	Pyridine	U	392	ug/kg	78.4	392
62-53-3	Aniline	U	392	ug/kg	118	392
111-44-4	bis(2-Chloroethyl) ether	U	392	ug/kg	78.4	392
541-73-1	1,3-Dichlorobenzene	U	392	ug/kg	78.4	392
100-51-6	Benzyl alcohol	U	392	ug/kg	118	392
95-50-1	1,2-Dichlorobenzene	U	392	ug/kg	78.4	392
108-60-1	bis(2-Chloroisopropyl)ether	U	392	ug/kg	78.4	392
95-48-7	o-Cresol	U	392	ug/kg	78.4	392
65794-96-9	m,p-Cresols	U	392	ug/kg	118	392
67-72-1	Hexachloroethane	U	392	ug/kg	78.4	392
98-95-3	Nitrobenzene	U	392	ug/kg	78.4	392
78-59-1	Isophorone	U	392	ug/kg	78.4	392
88-75-5	2-Nitrophenol	U	392	ug/kg	78.4	392
105-67-9	2,4-Dimethylphenol	U	392	ug/kg	137	392
111-91-1	bis(2-Chloroethoxy)methane	U	392	ug/kg	78.4	392
120-83-2	2,4-Dichlorophenol	U	392	ug/kg	78.4	392
65-85-0	Benzoic acid	U	784	ug/kg	196	784
91-20-3	Naphthalene	U	39.2	ug/kg	11.8	39.2
106-47-8	4-Chloroaniline	U	392	ug/kg	78.4	392
87-68-3	Hexachlorobutadiene	U	392	ug/kg	78.4	392
91-57-6	2-Methylnaphthalene	U	39.2	ug/kg	7.84	39.2
77-47-4	Hexachlorocyclopentadiene	U	392	ug/kg	78.4	392
88-06-2	2,4,6-Trichlorophenol	U	392	ug/kg	78.4	392
95-95-4	2,4,5-Trichlorophenol	U	392	ug/kg	78.4	392
91-58-7	2-Chloronaphthalene	U	39.2	ug/kg	12.9	39.2
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	392	ug/kg	78.4	392
99-09-2	3-Nitroaniline	U	392	ug/kg	78.4	392

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244004**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**15.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12926**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 01:58**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2633.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	392	ug/kg	78.4	392
606-20-2	2,6-Dinitrotoluene	U	392	ug/kg	39.2	392
208-96-8	Acenaphthylene	U	39.2	ug/kg	11.8	39.2
51-28-5	2,4-Dinitrophenol	U	784	ug/kg	149	784
132-64-9	Dibenzofuran	U	392	ug/kg	78.4	392
84-66-2	Diethylphthalate	U	392	ug/kg	78.4	392
86-73-7	Fluorene	U	39.2	ug/kg	11.8	39.2
7005-72-3	4-Chlorophenylphenylether	U	392	ug/kg	78.4	392
534-52-1	2-Methyl-4,6-dinitrophenol	U	392	ug/kg	78.4	392
100-01-6	4-Nitroaniline	U	392	ug/kg	118	392
	p-Nitroaniline					
122-39-4	Diphenylamine	U	392	ug/kg	78.4	392
122-66-7	Azobenzene	U	392	ug/kg	78.4	392
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	392	ug/kg	78.4	392
118-74-1	Hexachlorobenzene	U	392	ug/kg	78.4	392
85-01-8	Phenanthrene	U	39.2	ug/kg	11.8	39.2
120-12-7	Anthracene	U	39.2	ug/kg	7.84	39.2
84-74-2	Di-n-butylphthalate	U	392	ug/kg	78.4	392
206-44-0	Fluoranthene	U	39.2	ug/kg	11.8	39.2
85-68-7	Butylbenzylphthalate	U	392	ug/kg	78.4	392
56-55-3	Benzo(a)anthracene	U	39.2	ug/kg	11.8	39.2
91-94-1	3,3'-Dichlorobenzidine	U	392	ug/kg	118	392
218-01-9	Chrysene	U	39.2	ug/kg	11.8	39.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	392	ug/kg	78.4	392
117-84-0	Di-n-octylphthalate	U	392	ug/kg	78.4	392
205-99-2	Benzo(b)fluoranthene	U	39.2	ug/kg	11.8	39.2
207-08-9	Benzo(k)fluoranthene	U	39.2	ug/kg	11.8	39.2
50-32-8	Benzo(a)pyrene	U	39.2	ug/kg	11.8	39.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.2	ug/kg	11.8	39.2
53-70-3	Dibenzo(a,h)anthracene	U	39.2	ug/kg	11.8	39.2
191-24-2	Benzo(ghi)perylene	U	39.2	ug/kg	11.8	39.2
120-82-1	1,2,4-Trichlorobenzene	U	392	ug/kg	78.4	392

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	364	ug/kg		JA

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2633.d
Lab Smp Id: 249244004 Client Smp ID: RE46-10-12926
Inj Date : 27-MAR-2010 01:58
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249244004|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2412.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.13000	weight of sample
M	15.33150	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	182666	40.0000	
* 29 Naphthalene-d8	136	4.667	4.672	(1.000)	723490	40.0000	
* 46 Acenaphthene-d10	164	5.913	5.918	(1.000)	437499	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	819161	40.0000	
* 91 Chrysene-d12	240	8.544	8.555	(1.000)	550466	40.0000	
* 98 Perylene-d12	264	9.951	9.962	(1.000)	301896	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	271010	62.3083	2440
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	301732	56.3353	2210
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.893)	177214	33.8433	1330
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.915)	360228	29.9274	1170
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.091)	81098	62.6717	2460
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.915)	484452	48.2558	1890

ION RATIO REPORT

SV REPORT

Data file: s2c2633.d
Report Date: 03/27/2010 22:00
Lab. ID: 249244004 SampleType: SAMPLE
Injection Date: 27-MAR-2010 01:58
Operator: AGS1 Instrument: MSD2.i
Sample Info: |249244004|966675|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2412
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	28842	4.17	4.05	80-120	100	(T)
42	25593	4.17	4.05	96-156	89	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	79365	5.91	5.69	80-120	100	(T)
164	437504	5.91	5.69	0- 40	551	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	56732	5.91	5.74	80-120	100	(T)
63	974	5.91	5.74	87-147	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	56732	5.91	6.03	80-120	100	(T)
89	1235	5.91	6.03	58-118	2	(QT)
63	974	5.91	6.03	47-107	2	(QT)
53 Fluorene				CAS#: 86-73-7		
166	3962	6.45	6.29	80-120	100	(T)
165	4451	6.45	6.29	61-121	112	(T)
167	1505	6.45	6.29	0- 43	38	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	376	6.45	6.31	80-120	100	(T)
105	755	6.45	6.31	15- 75	200	(QT)
51	975	6.45	6.31	92-152	259	(QT)

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD2.i/s032610.b/s2c2633.d
Lab Smp Id: 249244004 Client Smp ID: RE46-10-12926
Inj Date : 27-MAR-2010 01:58
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249244004|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2412.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.13000	weight of sample
M	15.33150	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.811	1342408	40.000

	CONCENTRATIONS			QUANT			
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.848	311814	9.29116496	364	0		0	10

Data File: /chem/MSD2.i/s032610.b/s2c2633.d
Date : 27-MAR-2010 01:58
Client ID: RE46-10-12926
Sample Info: |249244004|966675|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: AGS1
Column diameter: 0.20

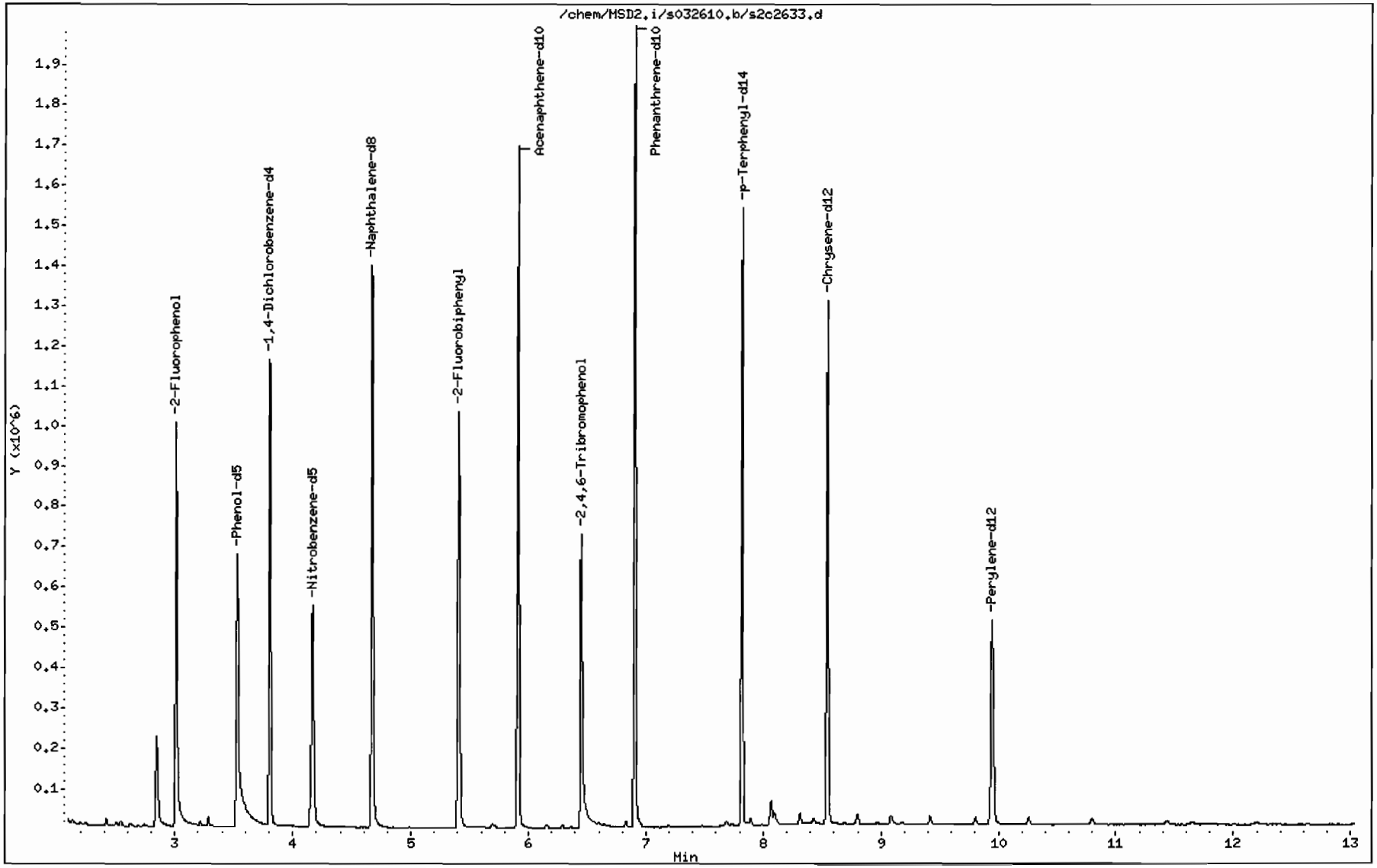

Data File: /chem/MSD2.i/s032610.b/s2c2633.d

Date : 27-MAR-2010 01:58

Client ID: RE46-10-12926

Instrument: MSD2.i

Sample Info: 1249244004196667511SVMI1ILANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	27	C4H7NO2	101

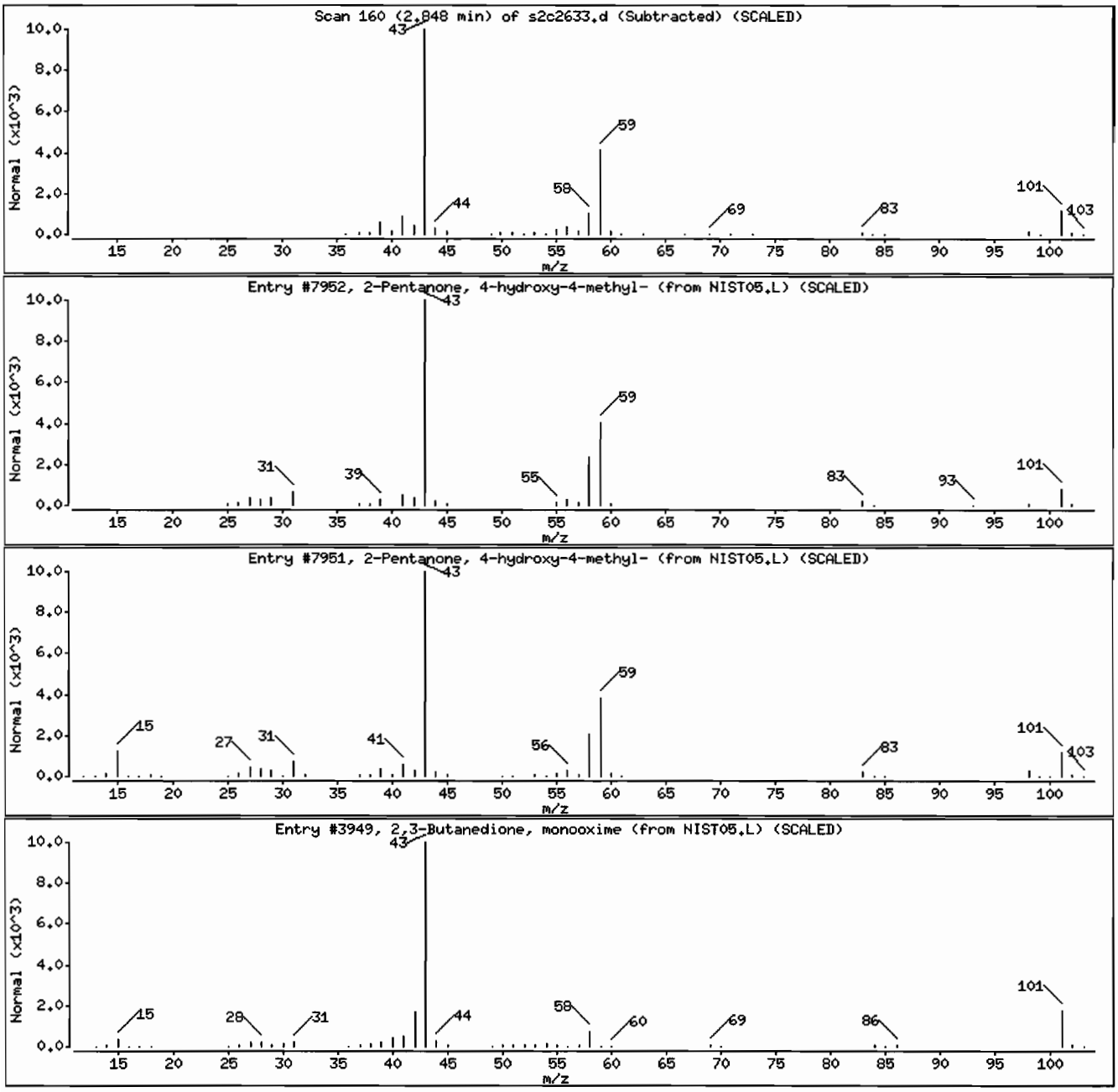

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244001**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**12**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12927**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 00:58**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2630.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	377	ug/kg	75.4	377
108-95-2	Phenol	U	377	ug/kg	75.4	377
95-57-8	2-Chlorophenol	U	377	ug/kg	75.4	377
106-46-7	1,4-Dichlorobenzene	U	377	ug/kg	75.4	377
621-64-7	N-Nitrosodipropylamine	U	377	ug/kg	75.4	377
59-50-7	4-Chloro-3-methylphenol	U	377	ug/kg	75.4	377
83-32-9	Acenaphthene		49.8	ug/kg	12.4	37.7
121-14-2	2,4-Dinitrotoluene	U	377	ug/kg	37.7	377
100-02-7	4-Nitrophenol	U	377	ug/kg	124	377
87-86-5	Pentachlorophenol	U	377	ug/kg	94.2	377
129-00-0	Pyrene		312	ug/kg	11.3	37.7
110-86-1	Pyridine	U	377	ug/kg	75.4	377
62-53-3	Aniline	U	377	ug/kg	113	377
111-44-4	bis(2-Chloroethyl) ether	U	377	ug/kg	75.4	377
541-73-1	1,3-Dichlorobenzene	U	377	ug/kg	75.4	377
100-51-6	Benzyl alcohol	U	377	ug/kg	113	377
95-50-1	1,2-Dichlorobenzene	U	377	ug/kg	75.4	377
108-60-1	bis(2-Chloroisopropyl)ether	U	377	ug/kg	75.4	377
95-48-7	o-Cresol	U	377	ug/kg	75.4	377
65794-96-9	m,p-Cresols	U	377	ug/kg	113	377
67-72-1	Hexachloroethane	U	377	ug/kg	75.4	377
98-95-3	Nitrobenzene	U	377	ug/kg	75.4	377
78-59-1	Isophorone	U	377	ug/kg	75.4	377
88-75-5	2-Nitrophenol	U	377	ug/kg	75.4	377
105-67-9	2,4-Dimethylphenol	U	377	ug/kg	132	377
111-91-1	bis(2-Chloroethoxy)methane	U	377	ug/kg	75.4	377
120-83-2	2,4-Dichlorophenol	U	377	ug/kg	75.4	377
65-85-0	Benzoic acid	U	754	ug/kg	188	754
91-20-3	Naphthalene	J	36.8	ug/kg	11.3	37.7
106-47-8	4-Chloroaniline	U	377	ug/kg	75.4	377
87-68-3	Hexachlorobutadiene	U	377	ug/kg	75.4	377
91-57-6	2-Methylnaphthalene	J	12.8	ug/kg	7.54	37.7
77-47-4	Hexachlorocyclopentadiene	U	377	ug/kg	75.4	377
88-06-2	2,4,6-Trichlorophenol	U	377	ug/kg	75.4	377
95-95-4	2,4,5-Trichlorophenol	U	377	ug/kg	75.4	377
91-58-7	2-Chloronaphthalene	U	37.7	ug/kg	12.4	37.7
88-74-4	2-Nitroaniline	U	377	ug/kg	75.4	377
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	377	ug/kg	75.4	377

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244001**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**12**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12927**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 00:58**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2630.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	377	ug/kg	75.4	377
606-20-2	2,6-Dinitrotoluene	U	377	ug/kg	37.7	377
208-96-8	Acenaphthylene	U	37.7	ug/kg	11.3	37.7
51-28-5	2,4-Dinitrophenol	U	754	ug/kg	143	754
132-64-9	Dibenzofuran	U	377	ug/kg	75.4	377
84-66-2	Diethylphthalate	U	377	ug/kg	75.4	377
86-73-7	Fluorene		43.6	ug/kg	11.3	37.7
7005-72-3	4-Chlorophenylphenylether	U	377	ug/kg	75.4	377
534-52-1	2-Methyl-4,6-dinitrophenol	U	377	ug/kg	75.4	377
100-01-6	4-Nitroaniline	U	377	ug/kg	113	377
	p-Nitroaniline					
122-39-4	Diphenylamine	U	377	ug/kg	75.4	377
122-66-7	Azobenzene	U	377	ug/kg	75.4	377
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	377	ug/kg	75.4	377
118-74-1	Hexachlorobenzene	U	377	ug/kg	75.4	377
85-01-8	Phenanthrene		320	ug/kg	11.3	37.7
120-12-7	Anthracene		79.7	ug/kg	7.54	37.7
84-74-2	Di-n-butylphthalate	U	377	ug/kg	75.4	377
206-44-0	Fluoranthene		404	ug/kg	11.3	37.7
85-68-7	Butylbenzylphthalate	U	377	ug/kg	75.4	377
56-55-3	Benzo(a)anthracene		167	ug/kg	11.3	37.7
91-94-1	3,3'-Dichlorobenzidine	U	377	ug/kg	113	377
218-01-9	Chrysene		136	ug/kg	11.3	37.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	377	ug/kg	75.4	377
117-84-0	Di-n-octylphthalate	U	377	ug/kg	75.4	377
205-99-2	Benzo(b)fluoranthene		205	ug/kg	11.3	37.7
207-08-9	Benzo(k)fluoranthene	U	37.7	ug/kg	11.3	37.7
50-32-8	Benzo(a)pyrene		130	ug/kg	11.3	37.7
193-39-5	Indeno(1,2,3-cd)pyrene		74.5	ug/kg	11.3	37.7
53-70-3	Dibenzo(a,h)anthracene	U	37.7	ug/kg	11.3	37.7
191-24-2	Benzo(ghi)perylene		88.2	ug/kg	11.3	37.7
120-82-1	1,2,4-Trichlorobenzene	U	377	ug/kg	75.4	377

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.84	325	ug/kg		JA

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD2.i/s032610.b/s2c2630.d
Lab Smp Id: 249244001 Client Smp ID: RE46-10-12927
Inj Date : 27-MAR-2010 00:58
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249244001|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2412.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.14000	weight of sample
M	11.95940	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	124238	40.0000	
* 29 Naphthalene-d8	136	4.672	4.672	(1.000)	495877	40.0000	
* 46 Acenaphthene-d10	164	5.913	5.918	(1.000)	302954	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	544740	40.0000	
* 91 Chrysene-d12	240	8.544	8.555	(1.000)	424403	40.0000	
* 98 Perylene-d12	264	9.946	9.962	(1.000)	270485	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	158406	53.5471	2020
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	177569	48.7449	1840
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.892)	103011	28.7023	1080
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.915)	221874	26.6194	1000
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.091)	53065	59.2202	2230
$ 81 p-Terphenyl-d14	244	7.817	7.822	(0.915)	280021	36.1778	1360

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
47 Acenaphthene	154	5.934	5.940	(1.004)	10671	1.32252	49.8
79 Pyrene	202	7.769	7.774	(0.909)	114597	8.28361	312
30 Naphthalene	128	4.683	4.688	(1.002)	9592	0.97549	36.8(aQ)
34 2-Methylnaphthalene	142	5.169	5.164	(1.106)	2142	0.33894	12.8(a)
53 Fluorene	166	6.292	6.293	(1.064)	9942	1.15609	43.6
68 Phenanthrene	178	6.918	6.924	(1.002)	114264	8.48660	320
69 Anthracene	178	6.950	6.956	(1.006)	27542	2.11455	79.7
76 Fluoranthene	202	7.630	7.635	(1.105)	130453	10.7268	404
89 Benzo(a)anthracene	228	8.534	8.544	(0.999)	46859	4.42418	167
92 Chrysene	228	8.560	8.576	(1.002)	35777	3.62079	136
95 Benzo(b)fluoranthene	252	9.496	9.512	(0.955)	40194	5.44798	205
97 Benzo(a)pyrene	252	9.876	9.892	(0.993)	21105	3.45138	130
99 Indeno(1,2,3-cd)pyrene	276	11.502	11.534	(1.156)	10351	1.97749	74.5
101 Benzo(ghi)perylene	276	11.994	12.021	(1.206)	9921	2.34000	88.2

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

SV REPORT

Data file: s2c2630.d
Report Date: 03/27/2010 21:59
Lab. ID: 249244001 SampleType: SAMPLE
Injection Date: 27-MAR-2010 00:58
Operator: AGS1 Instrument: MSD2.i
Sample Info: |249244001|966675|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2412
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	14876	3.53	3.60	80-120	100	(T)
93	236	3.38	3.61	335-395	2	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	16800	4.17	4.05	80-120	100	(T)
42	15219	4.17	4.05	96-156	91	(QT)
30 Naphthalene			CAS#: 91-20-3			
128	9592	4.68	4.69	80-120	100	( )
129	964	4.68	4.69	0- 49	10	( )
127	1316	4.68	4.70	17- 77	14	(Q)
34 2-Methylnaphthalene				CAS#: 91-57-6		
142	2142	5.17	5.16	80-120	100	( )
141	1805	5.17	5.16	56-116	84	( )
43 Dimethylphthalate				CAS#: 131-11-3		
163	53531	5.91	5.69	80-120	100	(T)
164	302954	5.91	5.69	0- 40	566	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	39197	5.91	5.74	80-120	100	(T)
63	664	5.91	5.74	87-147	2	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
45 Acenaphthylene			CAS#: 208-96-8			
152	4440	5.93	5.82	80-120	100	(T)
151	1746	5.93	5.82	0- 50	39	(T)
153	10523	5.93	5.82	0- 44	237	(QT)
47 Acenaphthene			CAS#: 83-32-9			
154	10671	5.93	5.94	80-120	100	( )
153	10523	5.93	5.94	69-129	99	( )
152	4440	5.93	5.94	13- 73	42	( )
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	39197	5.91	6.03	80-120	100	(T)
89	957	5.91	6.03	58-118	2	(QT)
63	664	5.91	6.03	47-107	2	(QT)
53 Fluorene			CAS#: 86-73-7			
166	9942	6.29	6.29	80-120	100	( )
165	9135	6.29	6.29	61-121	92	( )
167	1331	6.29	6.29	0- 43	13	( )
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	262	6.45	6.31	80-120	100	(T)
105	677	6.45	6.31	15- 75	258	(QT)
51	1145	6.45	6.31	92-152	436	(QT)
68 Phenanthrene			CAS#: 85-01-8			
178	114264	6.92	6.92	80-120	100	( )
179	17725	6.92	6.92	0- 45	16	( )
176	21761	6.92	6.92	0- 49	19	( )
69 Anthracene			CAS#: 120-12-7			
178	27542	6.95	6.96	80-120	100	( )
179	9363	6.95	6.96	0- 46	34	( )
176	5202	6.95	6.96	0- 48	19	( )
76 Fluoranthene			CAS#: 206-44-0			
202	130453	7.63	7.64	80-120	100	( )
203	21681	7.63	7.64	0- 47	17	( )
101	10762	7.63	7.64	0- 39	8	( )
79 Pyrene			CAS#: 129-00-0			
202	114597	7.77	7.77	80-120	100	( )
200	23939	7.77	7.77	0- 51	21	( )
101	12686	7.77	7.77	0- 40	11	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	46859	8.53	8.54	80-120	100	( )
226	11835	8.53	8.54	0- 56	25	( )
229	12976	8.53	8.54	0- 49	28	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
92 Chrysene			CAS#: 218-01-9			
228	35777	8.56	8.58	80-120	100	( )
229	8642	8.56	8.58	0- 50	24	( )
226	12930	8.56	8.58	0- 59	36	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	40194	9.50	9.51	80-120	100	( )
253	8912	9.50	9.51	0- 49	22	( )
125	4254	9.50	9.51	0- 39	11	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	40194	9.50	9.54	80-120	100	( )
253	8912	9.50	9.54	0- 54	22	( )
125	4254	9.50	9.54	0- 40	11	( )
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	21105	9.88	9.89	80-120	100	( )
253	5010	9.88	9.89	0- 52	24	( )
125	2308	9.88	9.89	0- 42	11	( )
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	10351	11.50	11.53	80-120	100	( )
138	2565	11.50	11.53	0- 58	25	( )
100 Dibenzo(a,h)anthracene			CAS#: 53-70-3			
278	2951	11.51	11.54	80-120	100	( )
139	408	11.50	11.53	0- 52	14	( )
101 Benzo(ghi)perylene			CAS#: 191-24-2			
276	9921	11.99	12.02	80-120	100	( )
138	2535	11.99	12.02	0- 58	26	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2630.d
Lab Smp Id: 249244001 Client Smp ID: RE46-10-12927
Inj Date : 27-MAR-2010 00:58
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249244001|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2412.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.14000	weight of sample
M	11.95940	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.811	946224	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.843	204058	8.62620511	325	0		0	10

Data File: /chem/MSD2.i/s032610.b/s2c2630.d
Date : 27-MAR-2010 00:58
Client ID: RE46-10-12927
Sample Info: I249244001|96667511|SVH11|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

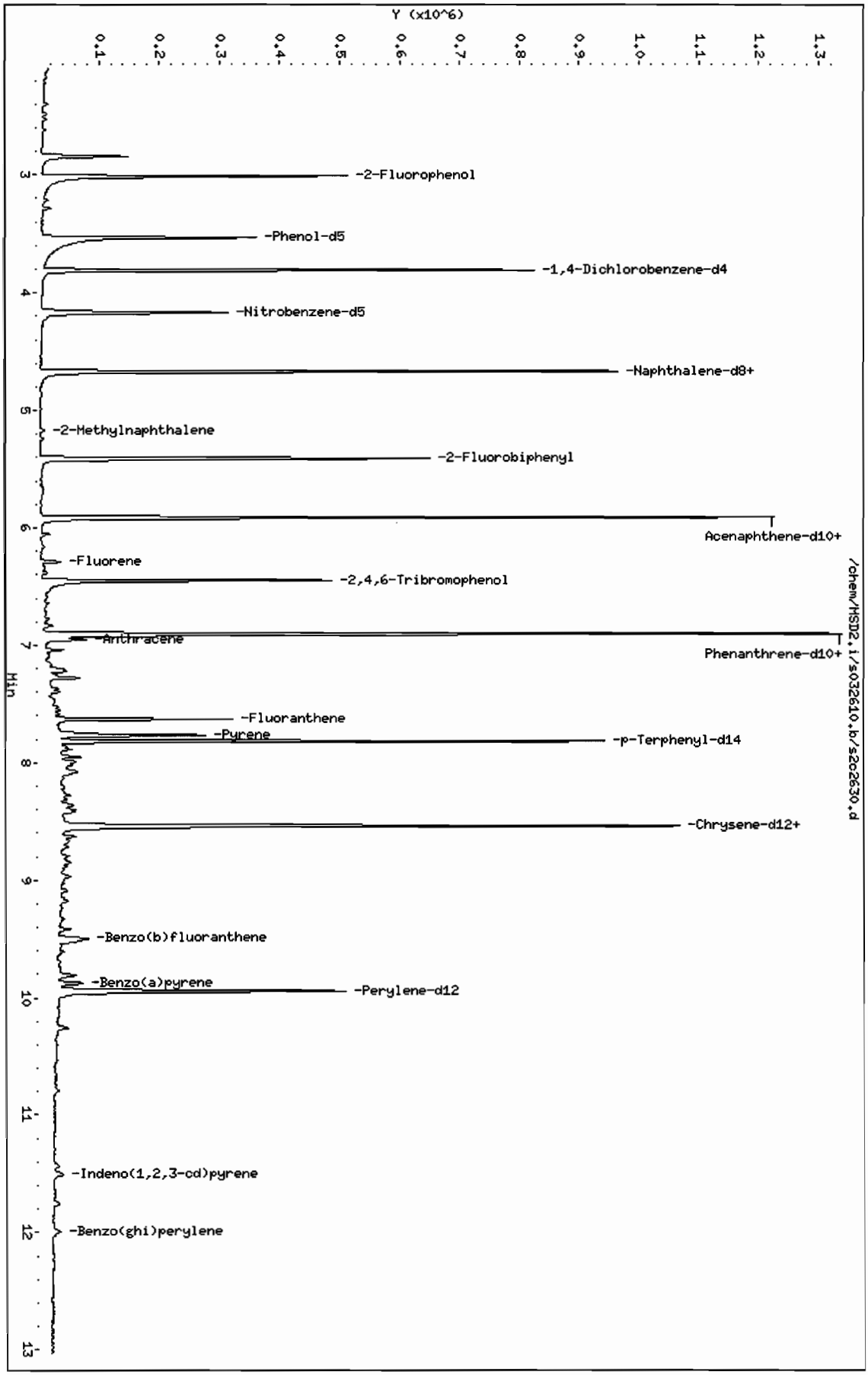

Page 1

Data File: /chem/MSD2.i/s032610.b/s2c2630.d

Date : 27-MAR-2010 00:58

Client ID: RE46-10-12927

Instrument: MSD2.i

Sample Info: |2492440001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 49.8 ug/Kg

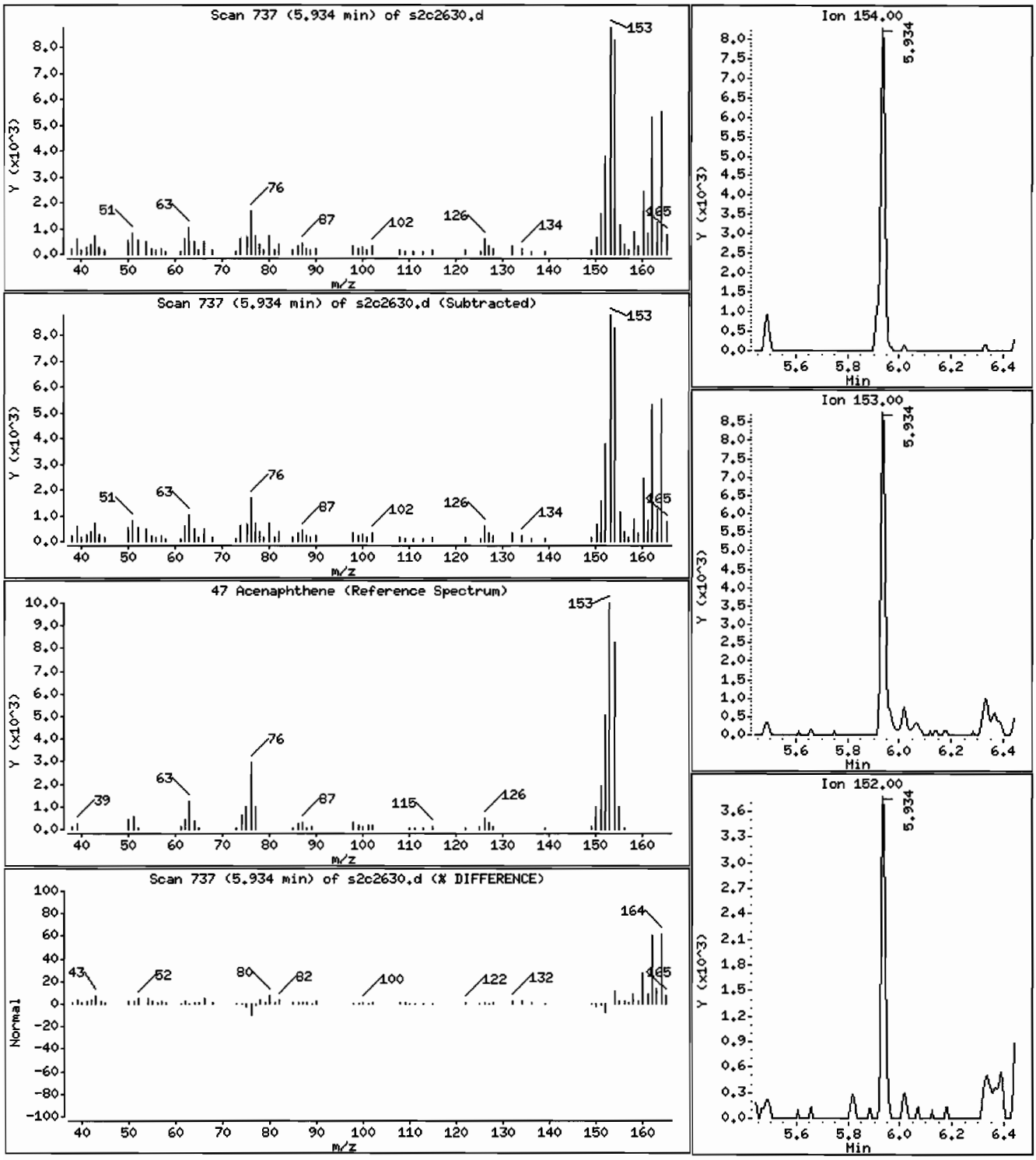

Data File: /chem/MSD2.i/s032610.b/s2c2630.d

Date : 27-MAR-2010 00:58

Client ID: RE46-10-12927

Instrument: MSD2.i

Sample Info: |249244001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 312 ug/Kg

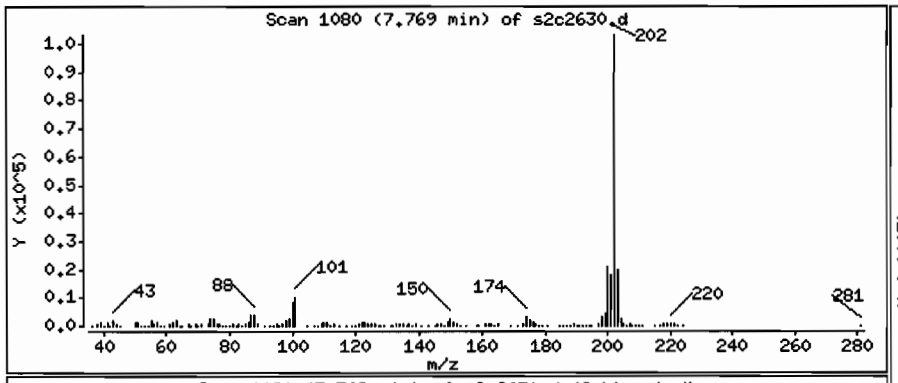

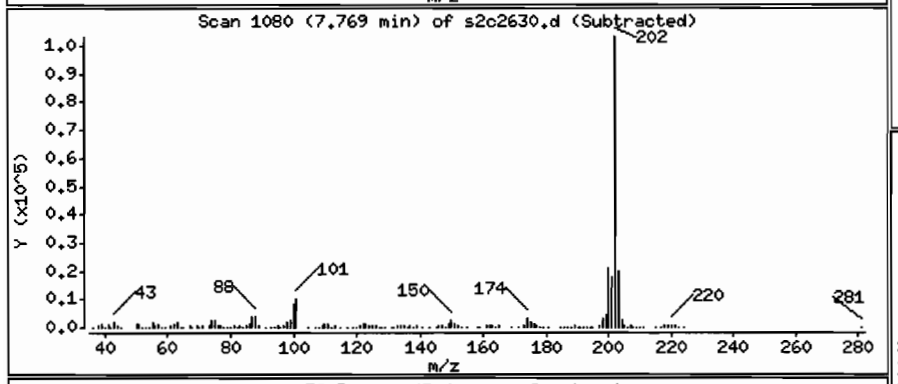

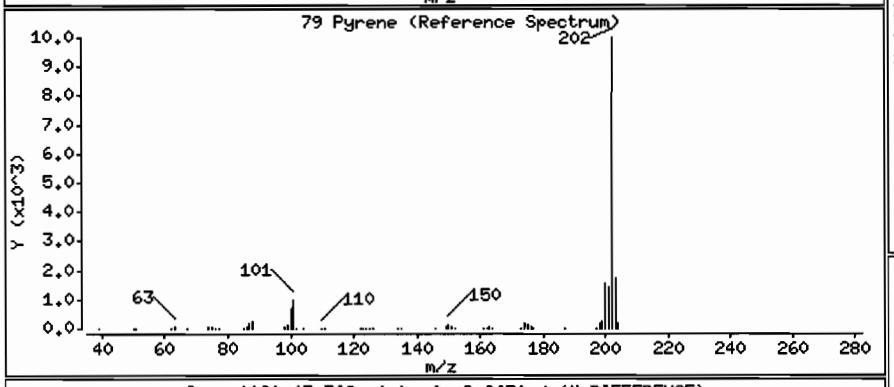

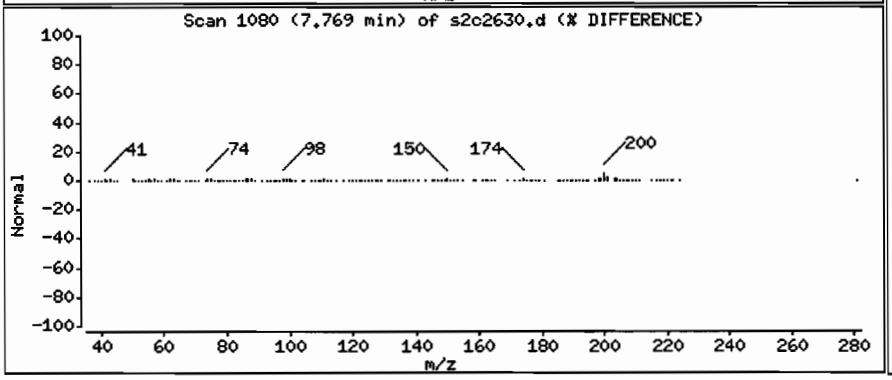

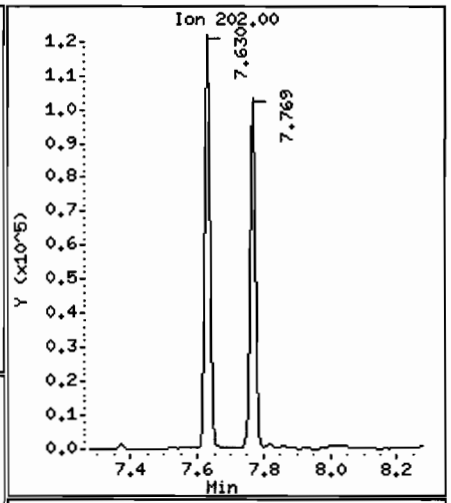

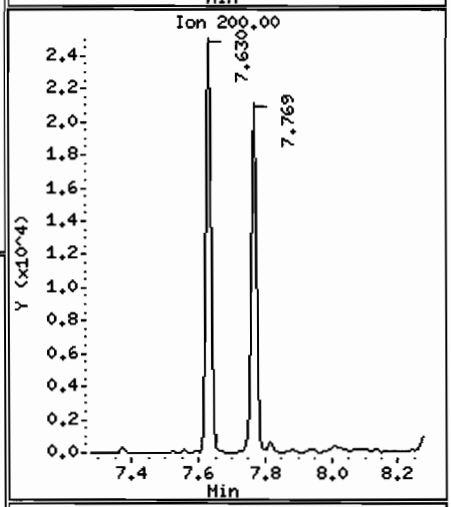

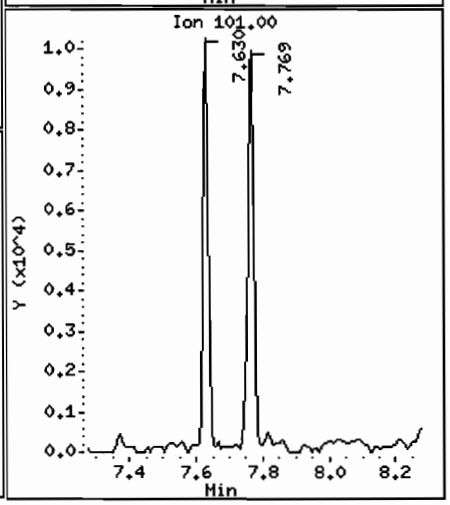

Data File: /chem/MSD2.i/s032610.b/s2c2630.d

Date : 27-MAR-2010 00:58

Client ID: RE46-10-12927

Instrument: MSD2.i

Sample Info: |2492440011966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

30 Naphthalene

Concentration: 36.8 ug/Kg

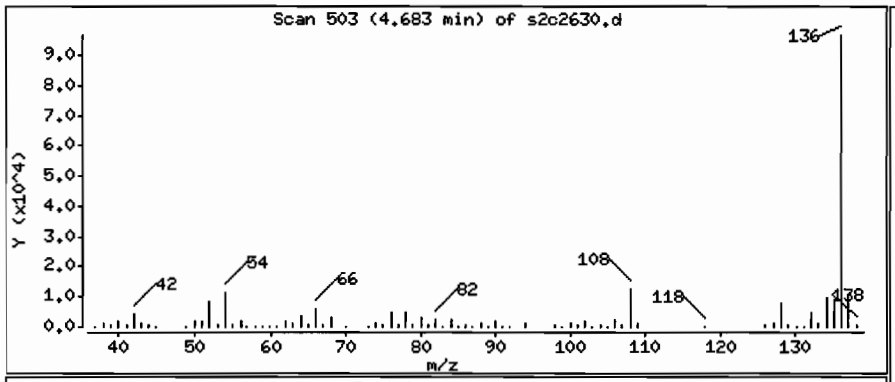

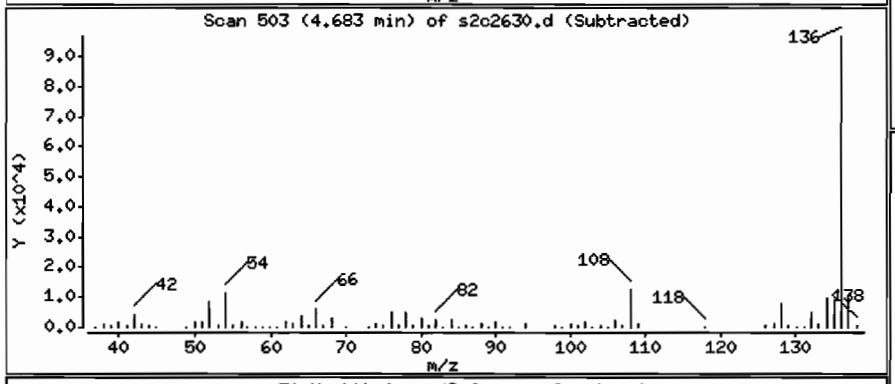

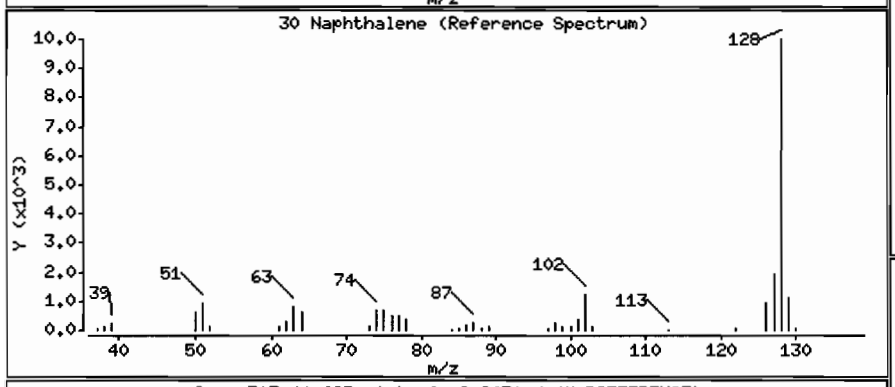

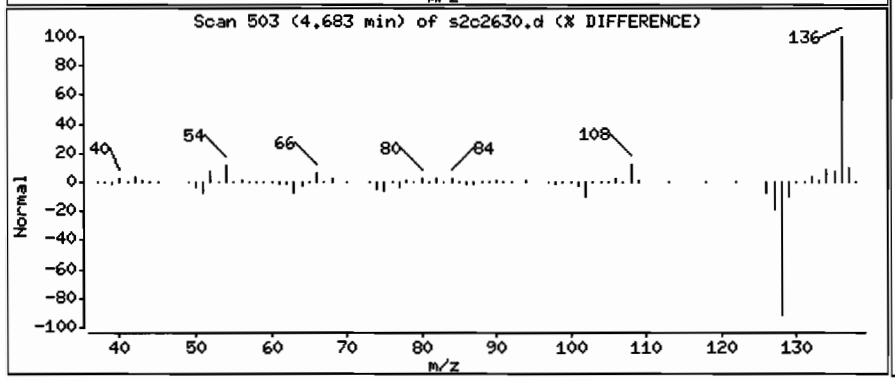

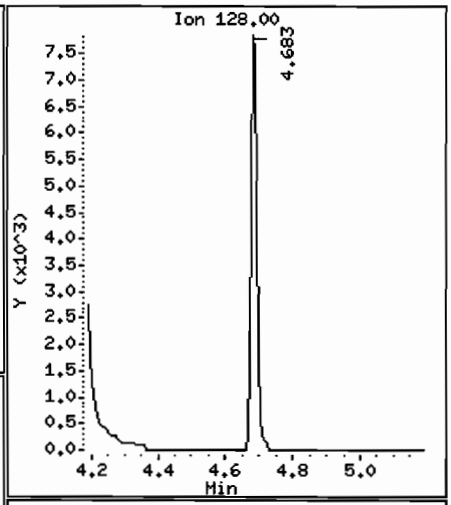

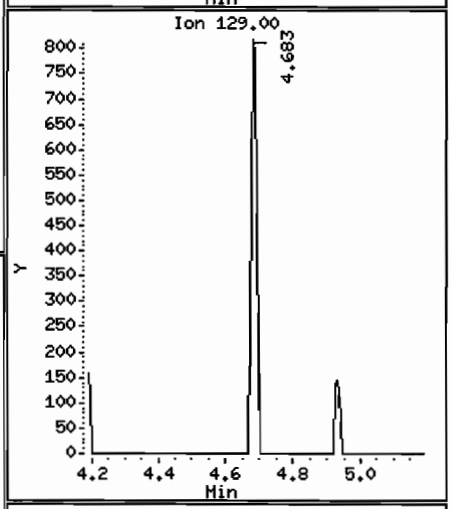

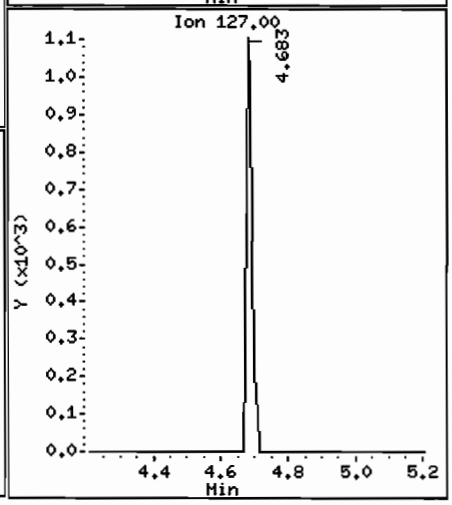

Data File: /chem/MSD2.i/s032610.b/s2c2630.d

Date : 27-MAR-2010 00:58

Client ID: RE46-10-12927

Instrument: MSD2.i

Sample Info: |2492440001|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

34 2-Methylnaphthalene

Concentration: 12.8 ug/Kg

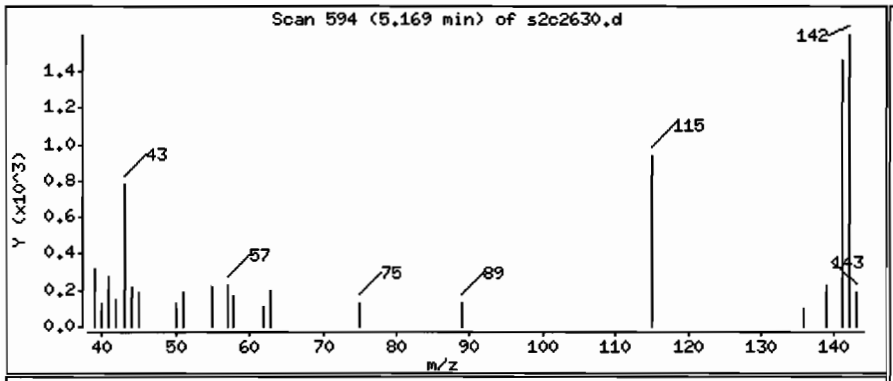

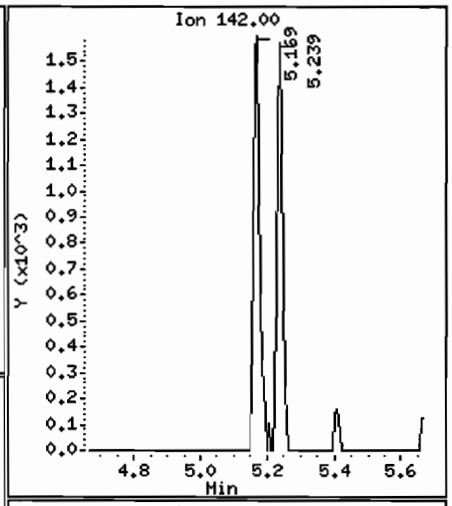

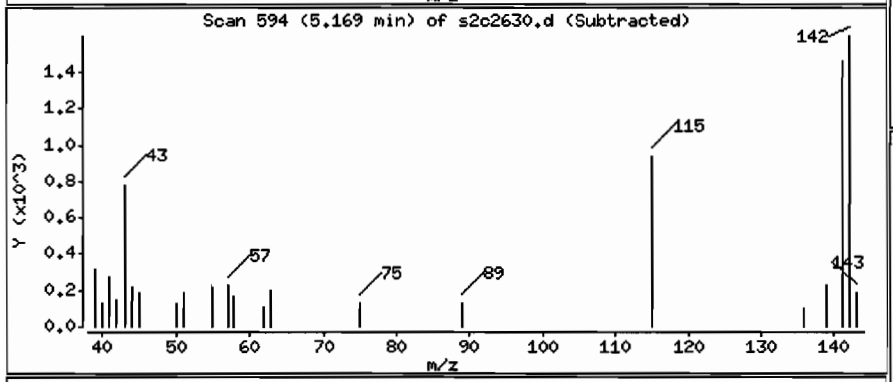

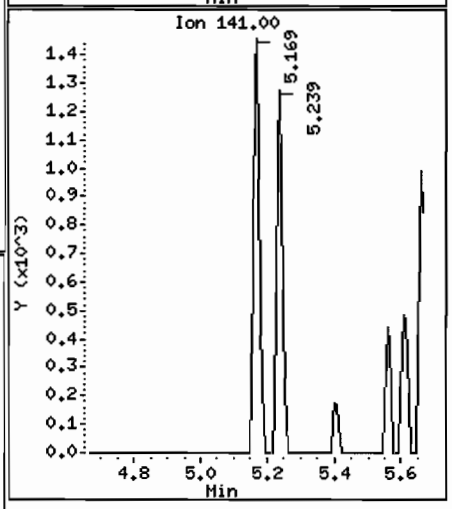

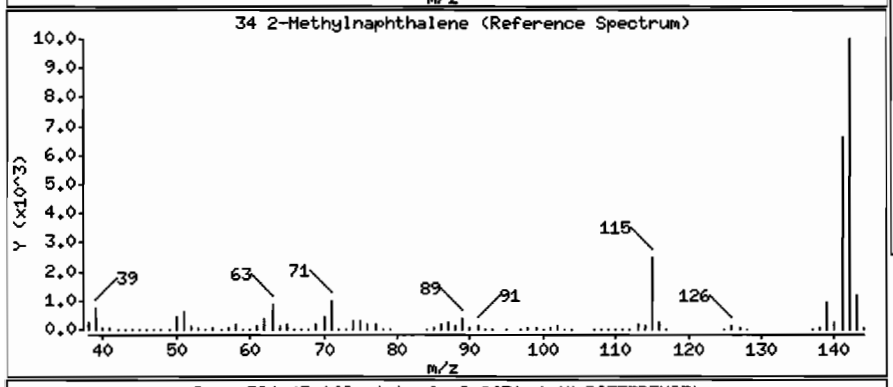

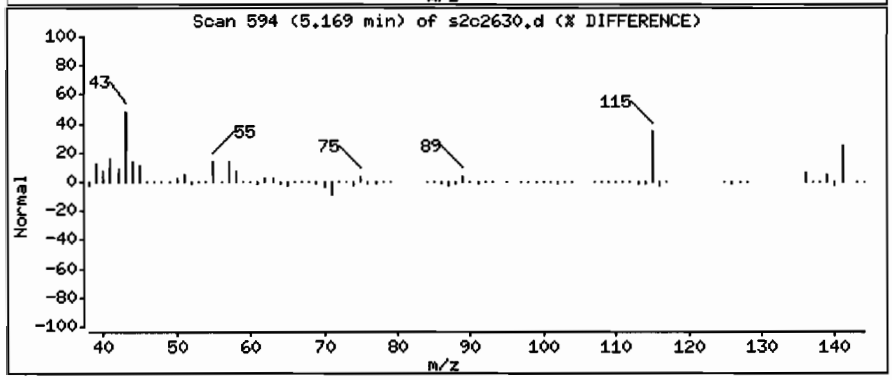

Data File: /chem/MSD2.i/s032610.b/s2c2630.d

Date : 27-MAR-2010 00:58

Client ID: RE46-10-12927

Instrument: MSD2.i

Sample Info: 1249244001|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 43.6 ug/Kg

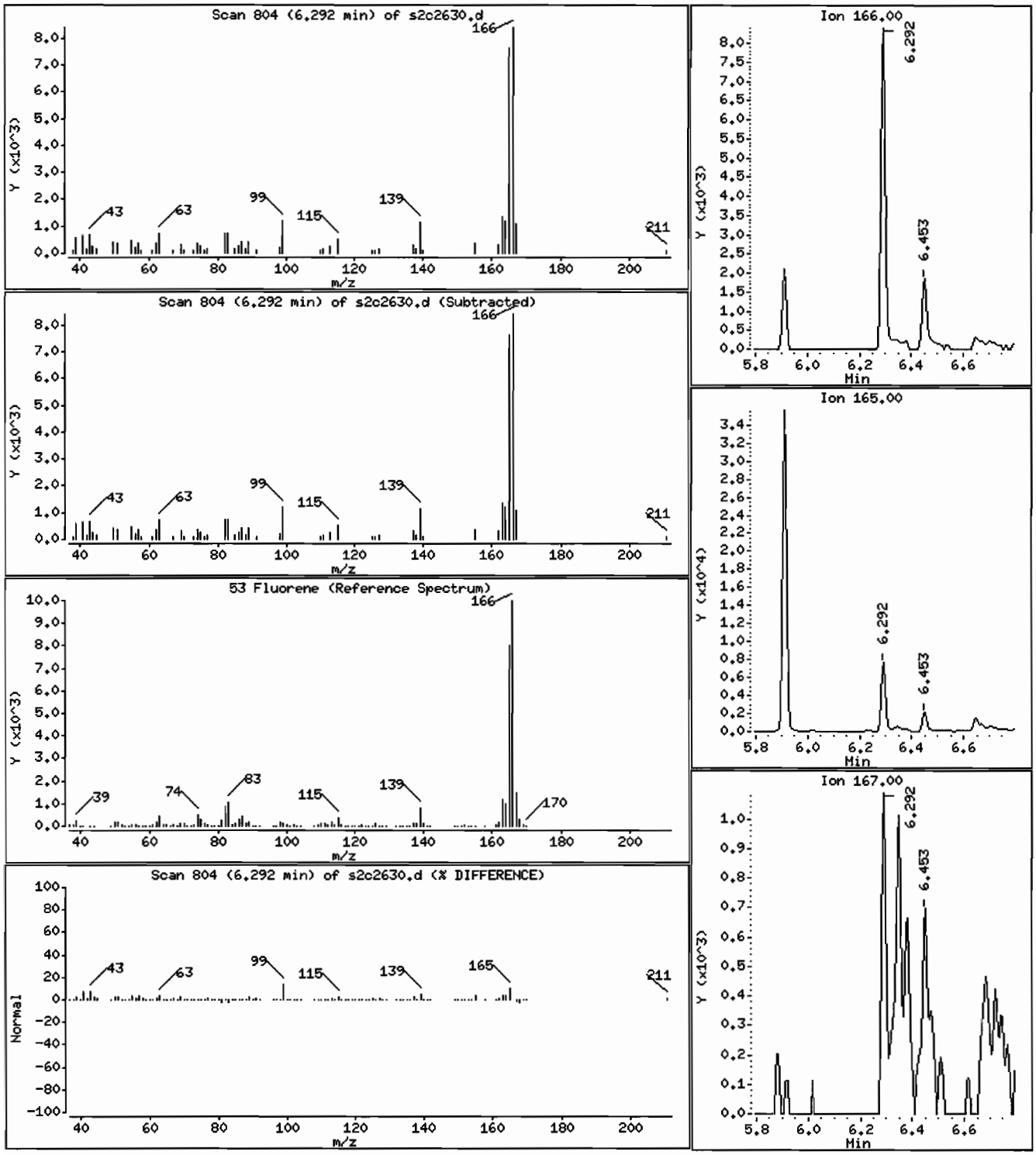

Data File: /chem/MSD2.i/s032610.b/s2c2630.d

Date : 27-MAR-2010 00:58

Client ID: RE46-10-12927

Instrument: MSD2.i

Sample Info: |249244001|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 320 ug/Kg

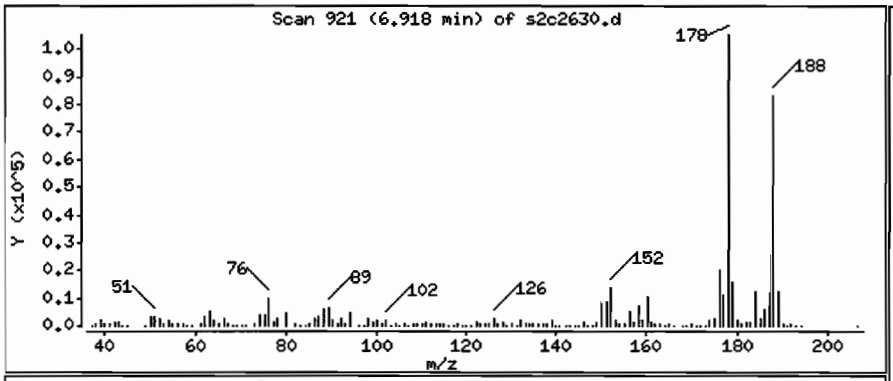

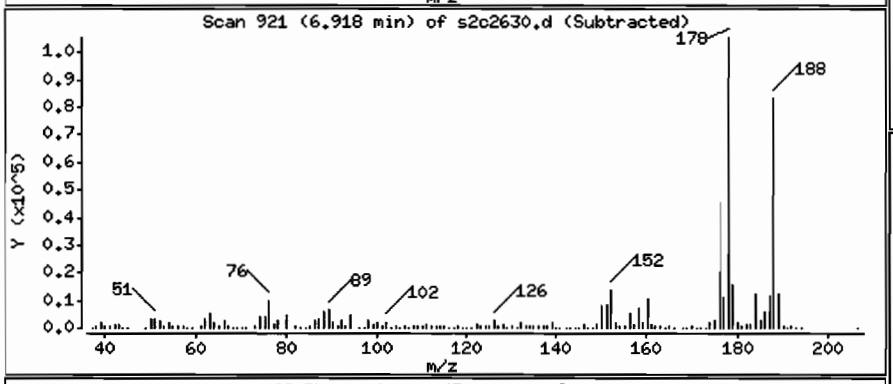

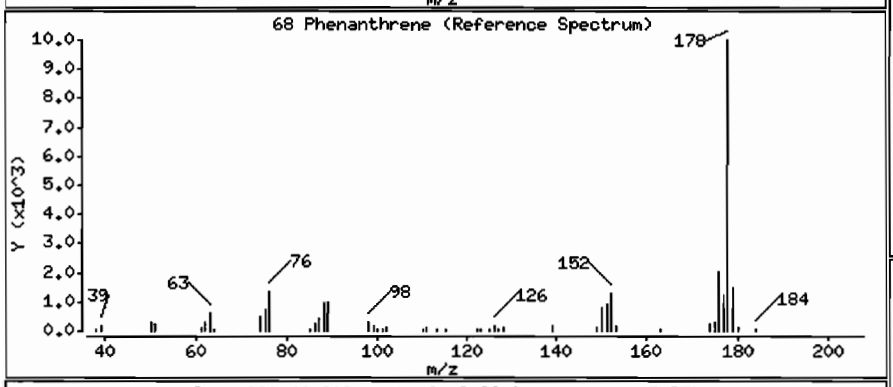

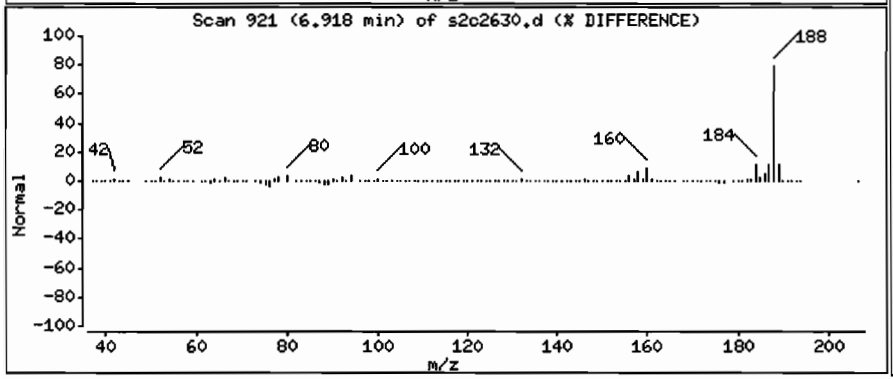

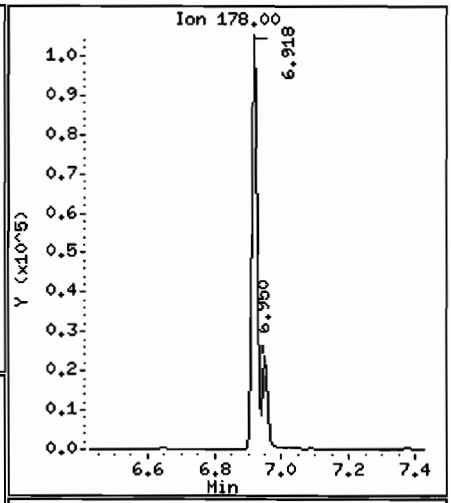

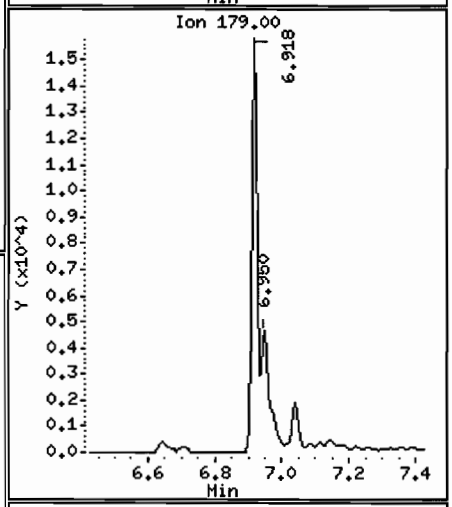

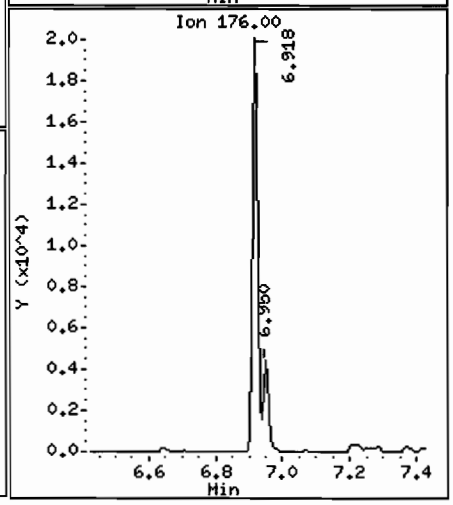

Data File: /chem/MSD2.i/s032610.b/s2c2630.d

Date : 27-MAR-2010 00:58

Client ID: RE46-10-12927

Instrument: MSD2.i

Sample Info: 1249244001196667511SVMI1ILANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 79.7 ug/Kg

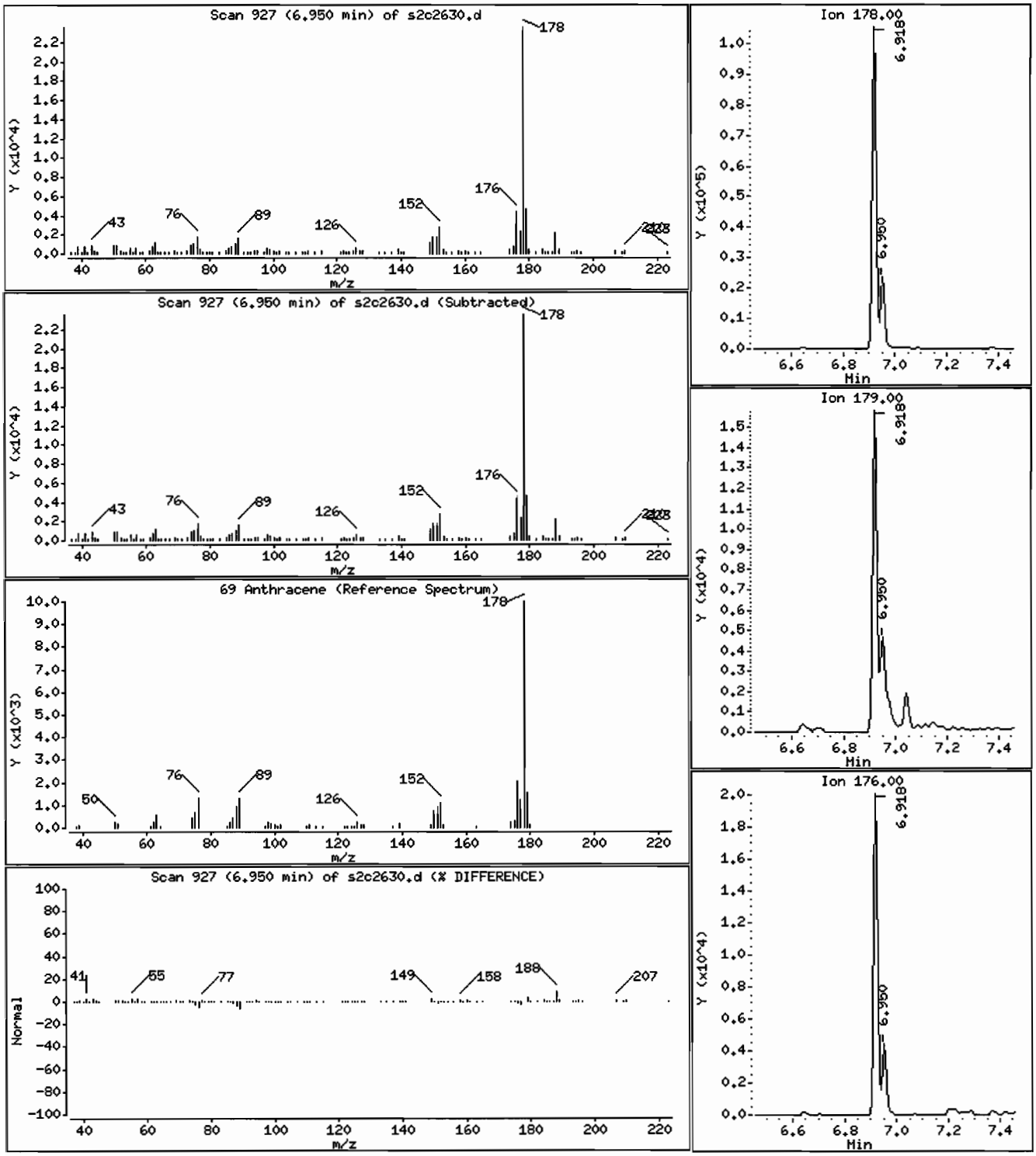

Data File: /chem/MSD2.i/s032610.b/s2c2630.d

Date : 27-MAR-2010 00:58

Client ID: RE46-10-12927

Instrument: MSD2.i

Sample Info: |2492440001|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 404 ug/Kg

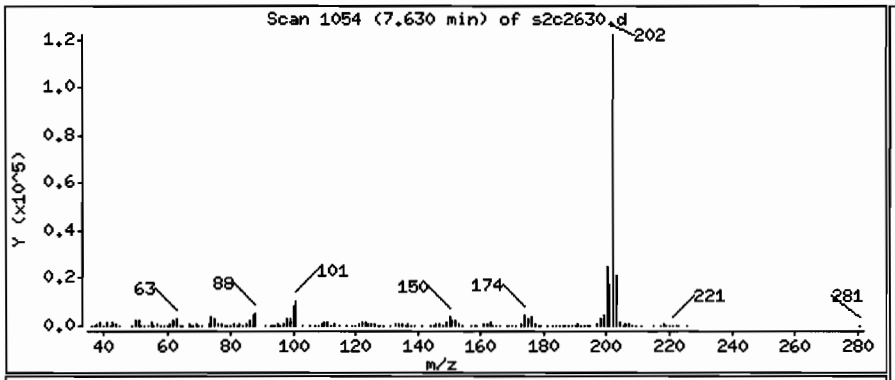

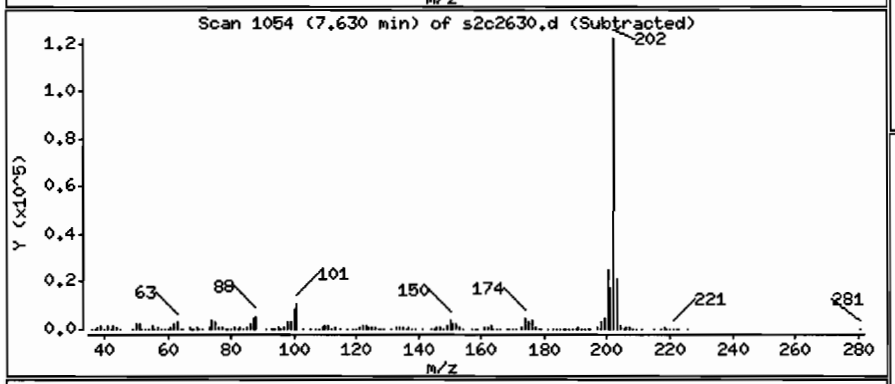

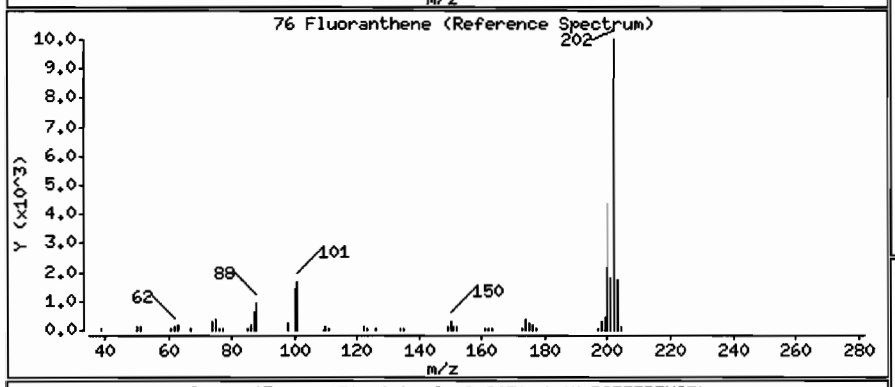

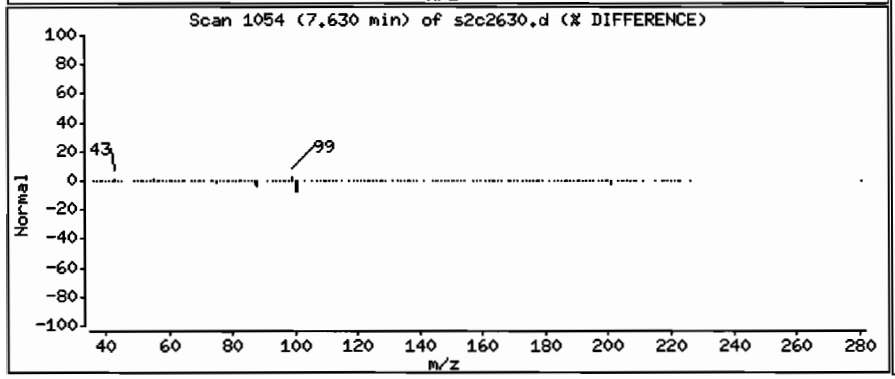

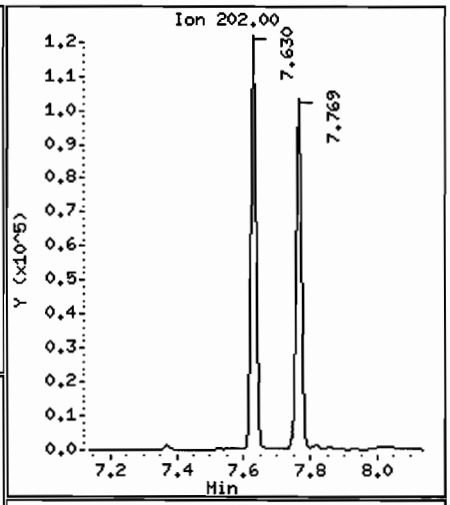

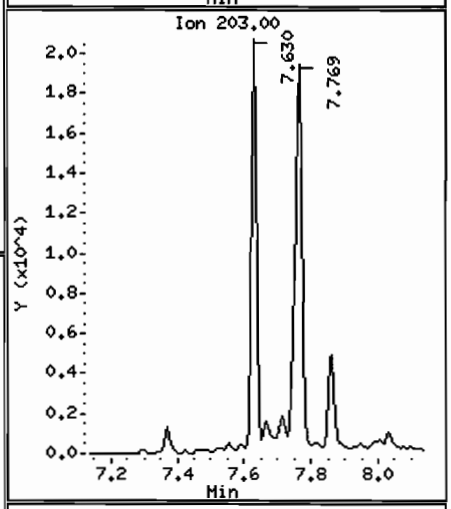

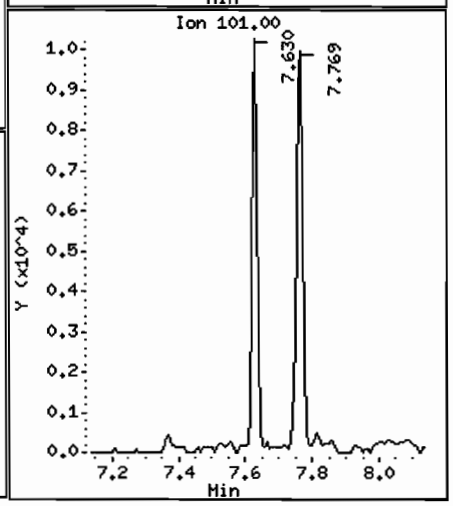

Data File: /chem/MSD2.i/s032610.b/s2c2630.d

Date : 27-MAR-2010 00:58

Client ID: RE46-10-12927

Instrument: MSD2.i

Sample Info: |249244001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 167 ug/Kg

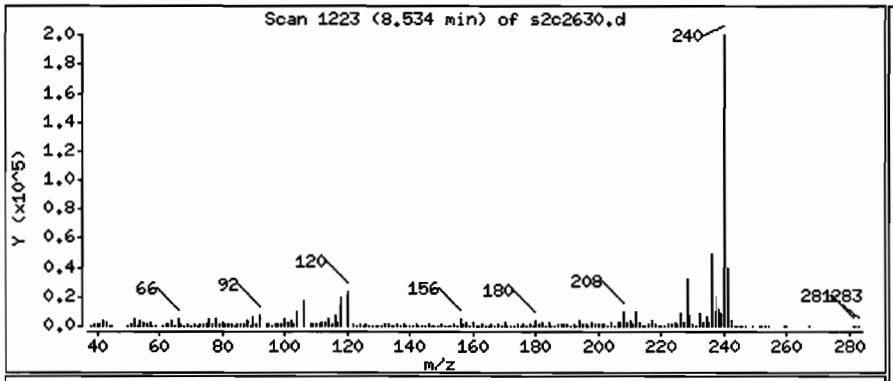

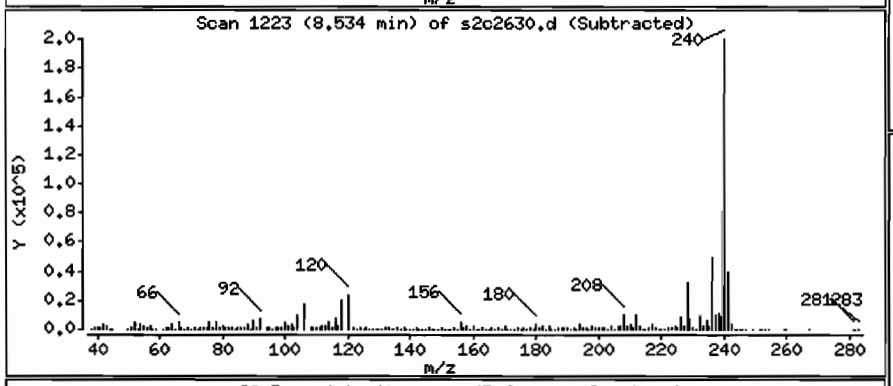

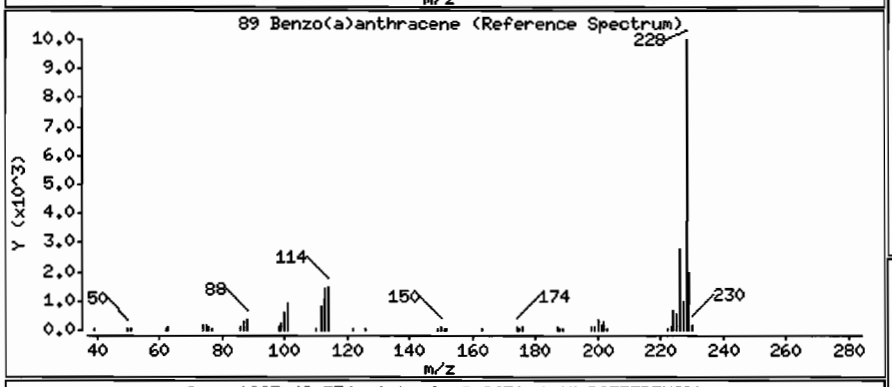

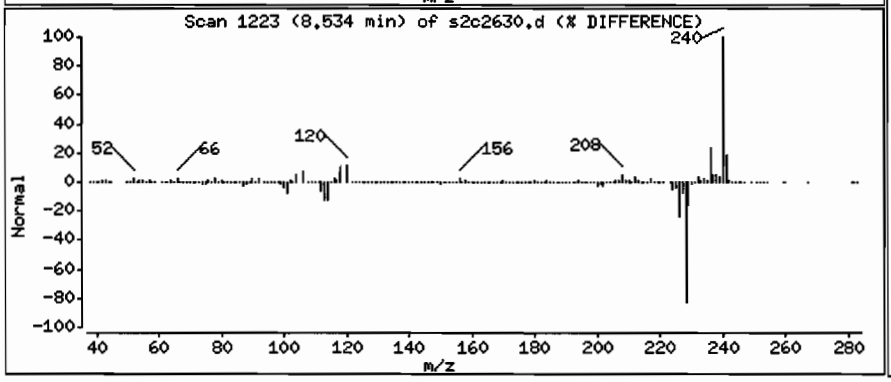

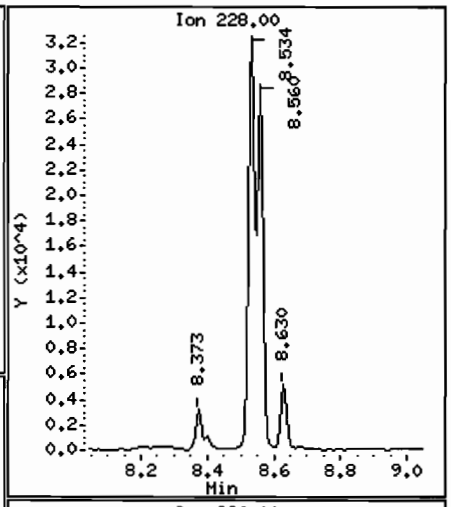

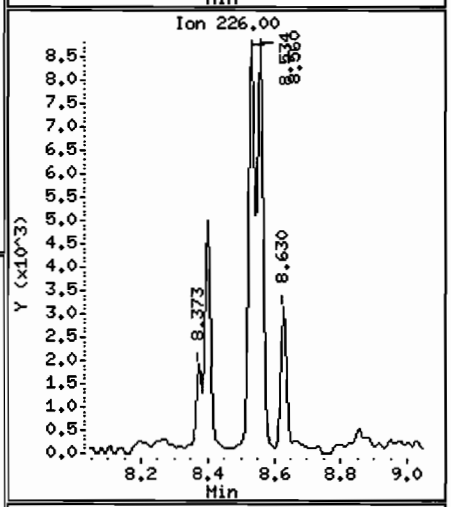

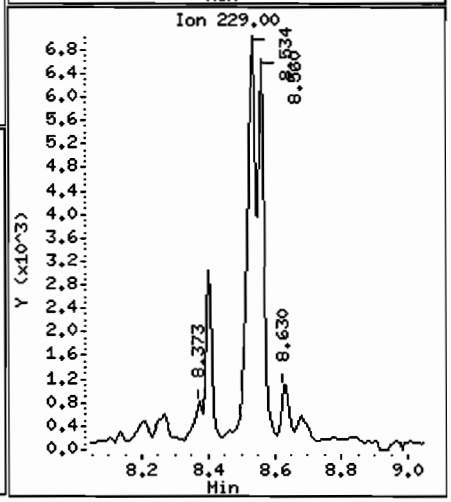

Data File: /chem/MSD2.i/s032610.b/s2c2630.d

Date : 27-MAR-2010 00:58

Client ID: RE46-10-12927

Instrument: MSD2.i

Sample Info: 1249244001|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 136 ug/Kg

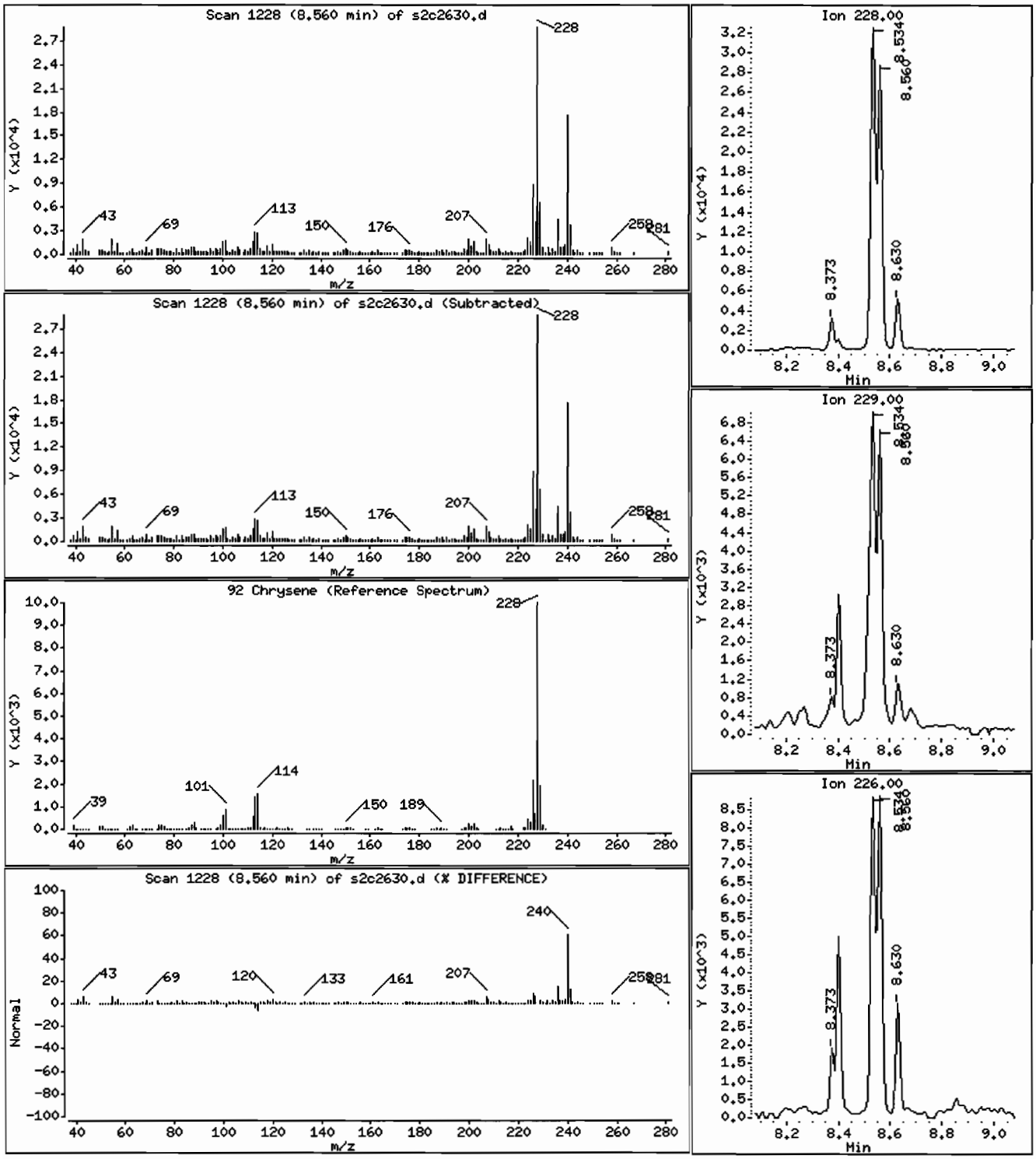

Data File: /chem/MSD2.i/s032610.b/s2c2630.d

Date : 27-MAR-2010 00:58

Client ID: RE46-10-12927

Instrument: MSD2.i

Sample Info: |2492440011966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 205 ug/Kg

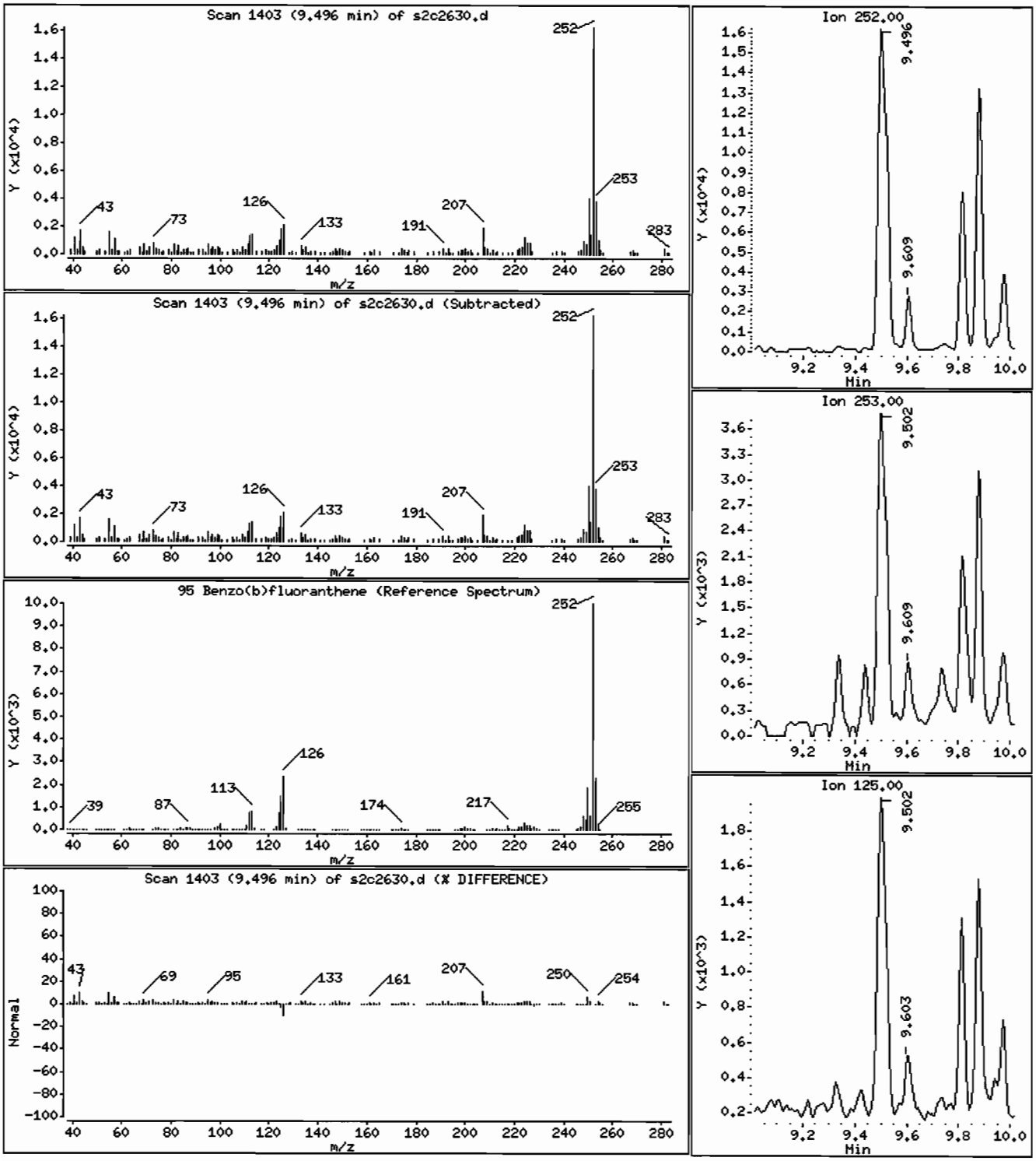

Data File: /chem/MSD2.i/s032610.b/s2c2630.d

Date : 27-MAR-2010 00:58

Client ID: RE46-10-12927

Instrument: MSD2.i

Sample Info: |249244001|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 130 ug/Kg

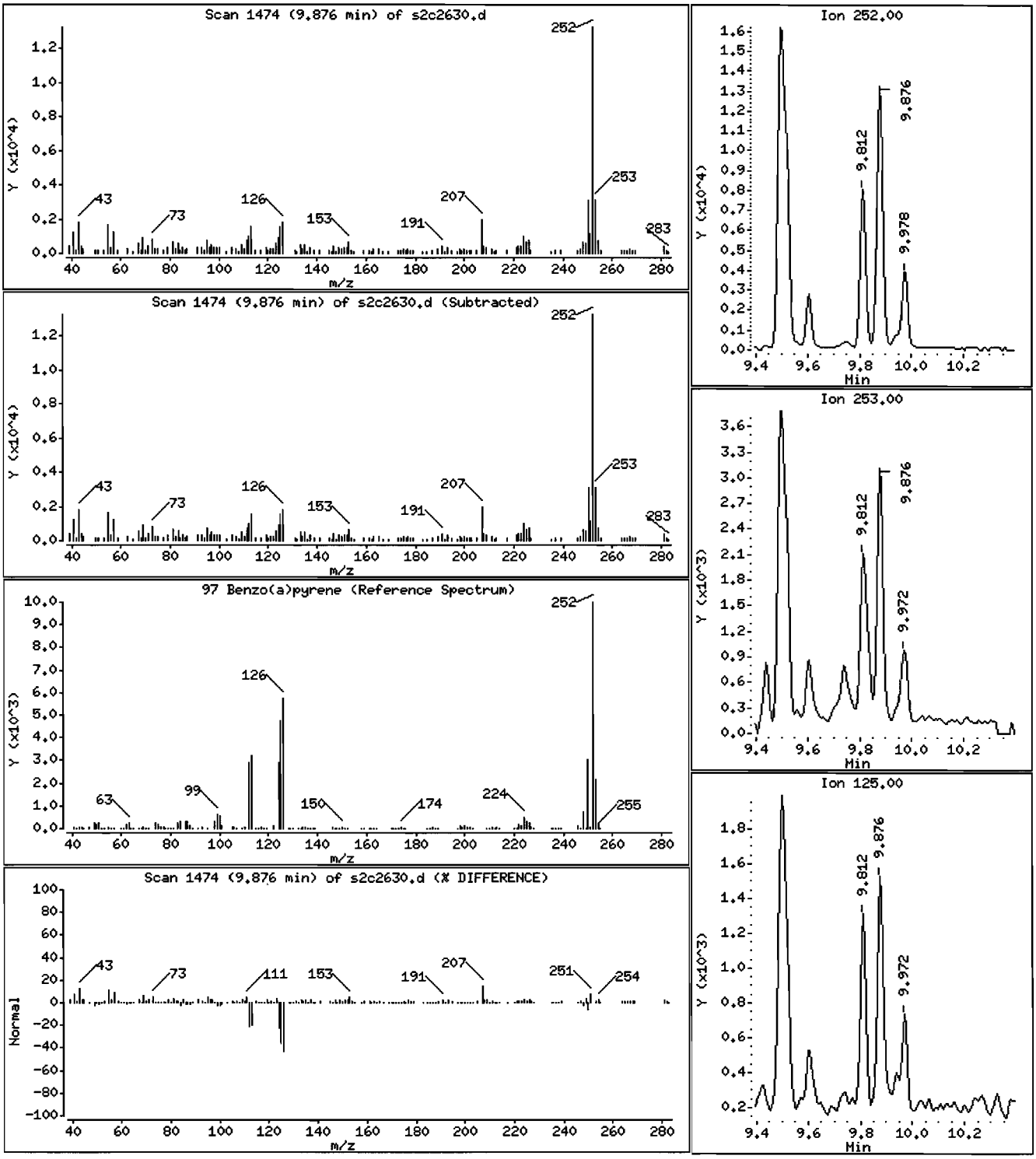

Data File: /chem/MSD2.i/s032610.b/s2c2630.d

Date : 27-MAR-2010 00:58

Client ID: RE46-10-12927

Instrument: MSD2.i

Sample Info: |2492440001|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 74.5 ug/Kg

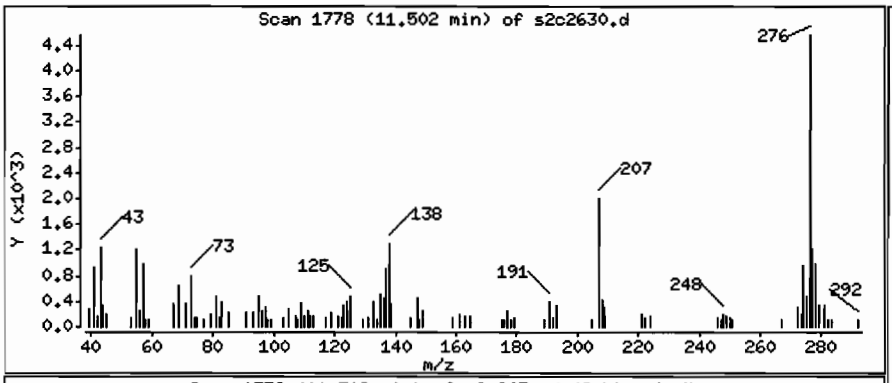

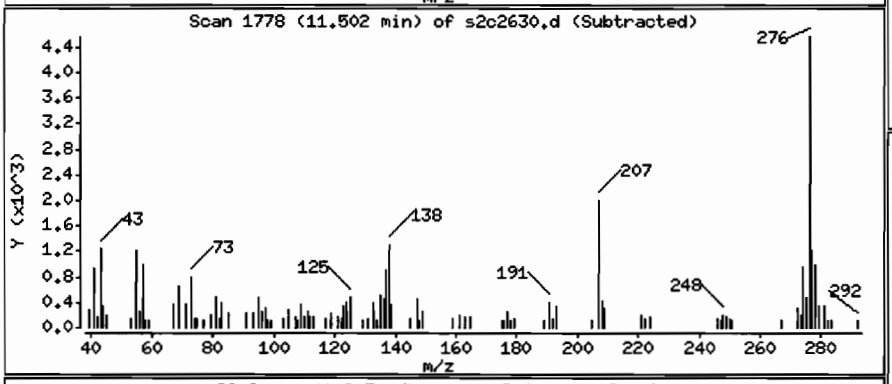

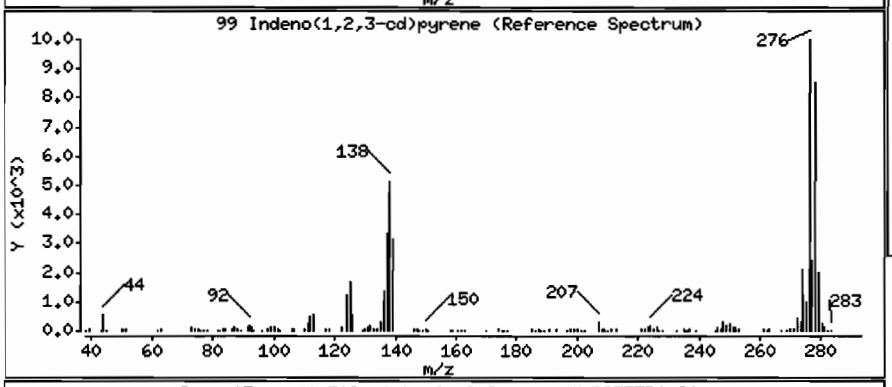

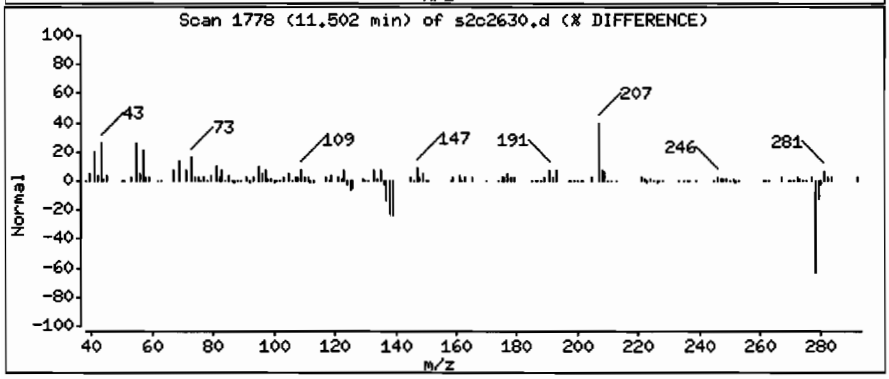

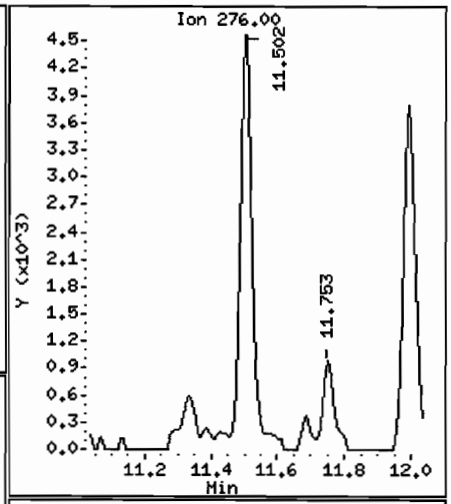

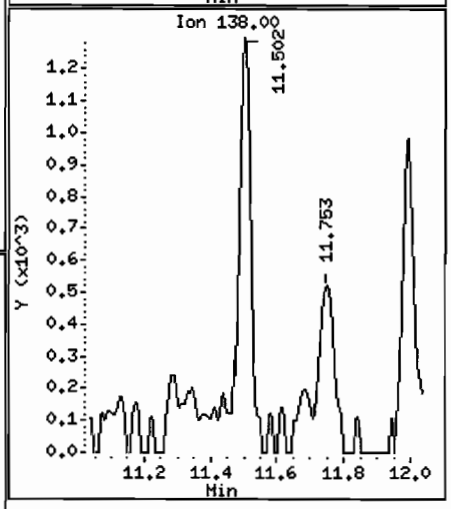

Data File: /chem/MSD2.i/s032610.b/s2c2630.d

Date : 27-MAR-2010 00:58

Client ID: RE46-10-12927

Instrument: MSD2.i

Sample Info: 1249244001|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 88.2 ug/Kg

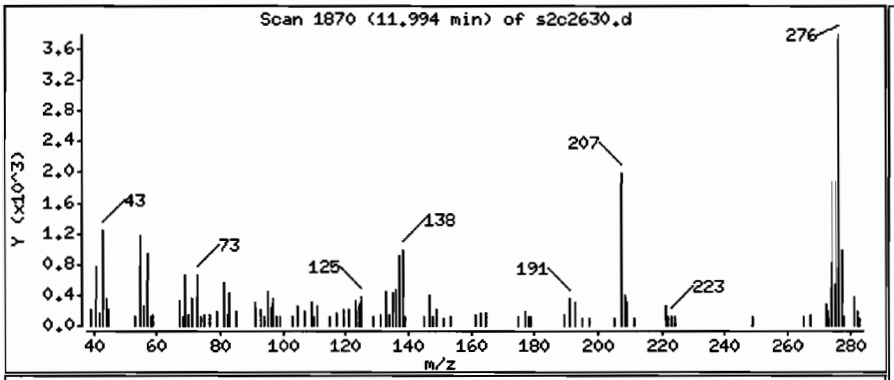

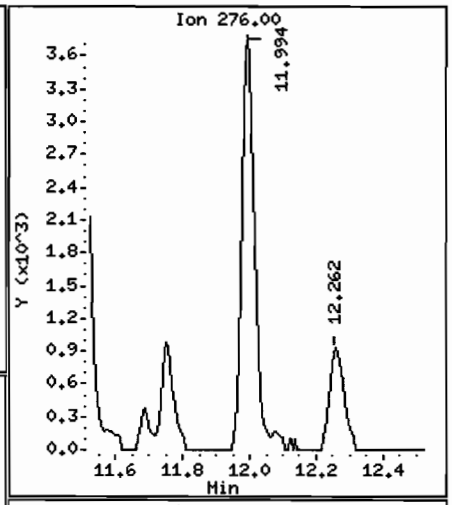

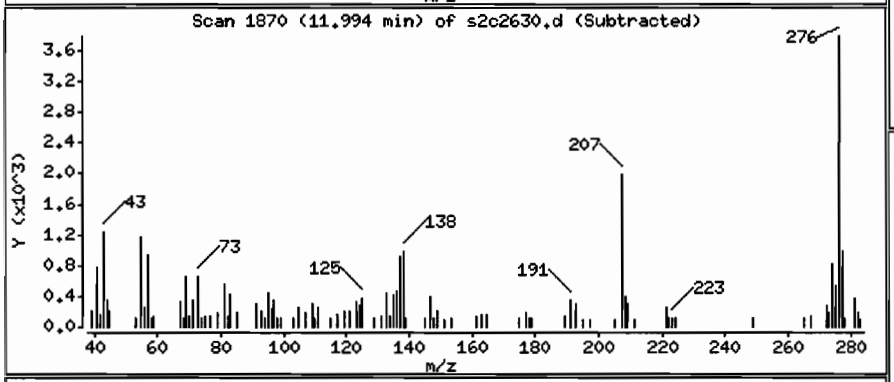

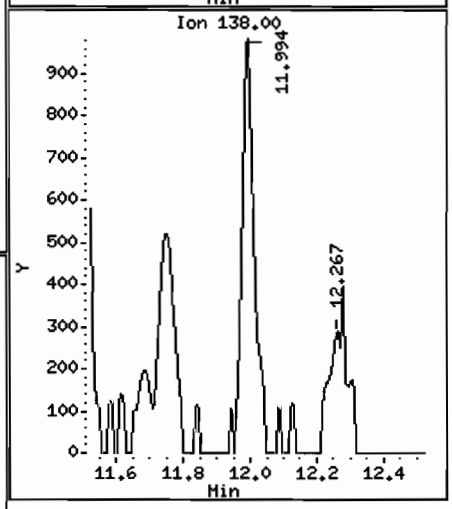

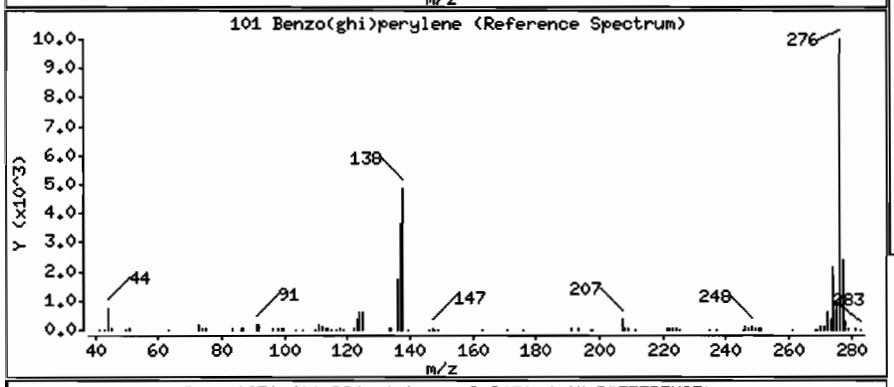

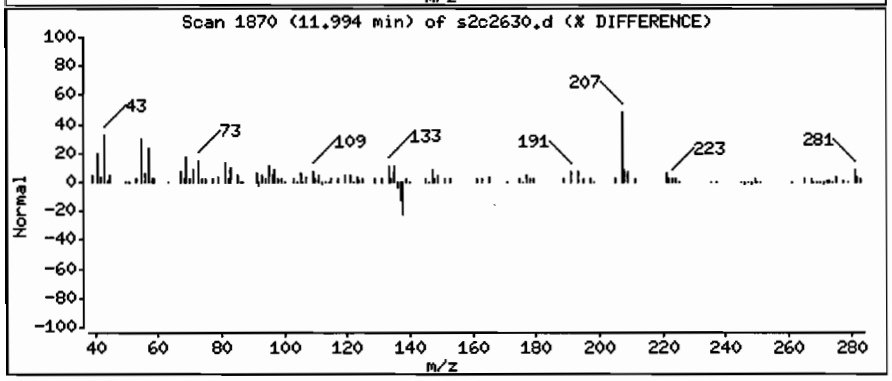

Data File: /chem/MSD2.i/s032610.b/s2c2630.d

Date : 27-MAR-2010 00:58

Client ID: RE46-10-12927

Instrument: MSD2.i

Sample Info: |249244001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
Propylamine	107-10-8	NIST05.L	242	9	C3H9N	59

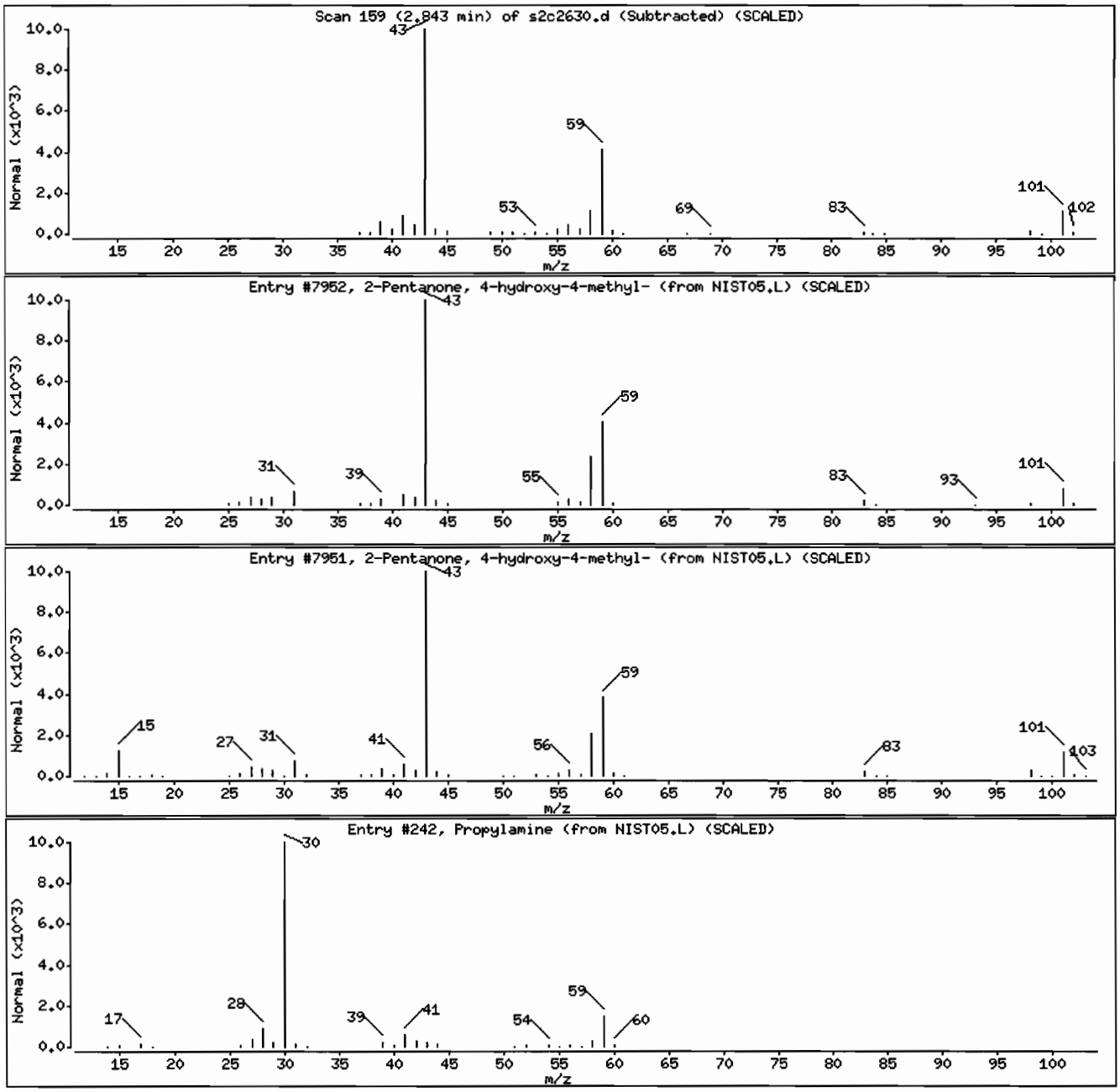

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244005**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**18.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12928**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 02:19**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2634.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	408	ug/kg	81.7	408
108-95-2	Phenol	U	408	ug/kg	81.7	408
95-57-8	2-Chlorophenol	U	408	ug/kg	81.7	408
106-46-7	1,4-Dichlorobenzene	U	408	ug/kg	81.7	408
621-64-7	N-Nitrosodipropylamine	U	408	ug/kg	81.7	408
59-50-7	4-Chloro-3-methylphenol	U	408	ug/kg	81.7	408
83-32-9	Acenaphthene	U	40.8	ug/kg	13.5	40.8
121-14-2	2,4-Dinitrotoluene	U	408	ug/kg	40.8	408
100-02-7	4-Nitrophenol	U	408	ug/kg	135	408
87-86-5	Pentachlorophenol	U	408	ug/kg	102	408
129-00-0	Pyrene		49.8	ug/kg	12.2	40.8
110-86-1	Pyridine	U	408	ug/kg	81.7	408
62-53-3	Aniline	U	408	ug/kg	122	408
111-44-4	bis(2-Chloroethyl) ether	U	408	ug/kg	81.7	408
541-73-1	1,3-Dichlorobenzene	U	408	ug/kg	81.7	408
100-51-6	Benzyl alcohol	U	408	ug/kg	122	408
95-50-1	1,2-Dichlorobenzene	U	408	ug/kg	81.7	408
108-60-1	bis(2-Chloroisopropyl)ether	U	408	ug/kg	81.7	408
95-48-7	o-Cresol	U	408	ug/kg	81.7	408
65794-96-9	m,p-Cresols	U	408	ug/kg	122	408
67-72-1	Hexachloroethane	U	408	ug/kg	81.7	408
98-95-3	Nitrobenzene	U	408	ug/kg	81.7	408
78-59-1	Isophorone	U	408	ug/kg	81.7	408
88-75-5	2-Nitrophenol	U	408	ug/kg	81.7	408
105-67-9	2,4-Dimethylphenol	U	408	ug/kg	143	408
111-91-1	bis(2-Chloroethoxy)methane	U	408	ug/kg	81.7	408
120-83-2	2,4-Dichlorophenol	U	408	ug/kg	81.7	408
65-85-0	Benzoic acid	U	817	ug/kg	204	817
91-20-3	Naphthalene	U	40.8	ug/kg	12.2	40.8
106-47-8	4-Chloroaniline	U	408	ug/kg	81.7	408
87-68-3	Hexachlorobutadiene	U	408	ug/kg	81.7	408
91-57-6	2-Methylnaphthalene	U	40.8	ug/kg	8.17	40.8
77-47-4	Hexachlorocyclopentadiene	U	408	ug/kg	81.7	408
88-06-2	2,4,6-Trichlorophenol	U	408	ug/kg	81.7	408
95-95-4	2,4,5-Trichlorophenol	U	408	ug/kg	81.7	408
91-58-7	2-Chloronaphthalene	U	40.8	ug/kg	13.5	40.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	408	ug/kg	81.7	408
99-09-2	3-Nitroaniline	U	408	ug/kg	81.7	408

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244005**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**18.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12928**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 02:19**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2634.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	408	ug/kg	81.7	408
606-20-2	2,6-Dinitrotoluene	U	408	ug/kg	40.8	408
208-96-8	Acenaphthylene	U	40.8	ug/kg	12.2	40.8
51-28-5	2,4-Dinitrophenol	U	817	ug/kg	155	817
132-64-9	Dibenzofuran	U	408	ug/kg	81.7	408
84-66-2	Diethylphthalate	U	408	ug/kg	81.7	408
86-73-7	Fluorene	U	40.8	ug/kg	12.2	40.8
7005-72-3	4-Chlorophenylphenylether	U	408	ug/kg	81.7	408
534-52-1	2-Methyl-4,6-dinitrophenol	U	408	ug/kg	81.7	408
100-01-6	4-Nitroaniline	U	408	ug/kg	122	408
	p-Nitroaniline					
122-39-4	Diphenylamine	U	408	ug/kg	81.7	408
122-66-7	Azobenzene	U	408	ug/kg	81.7	408
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	408	ug/kg	81.7	408
118-74-1	Hexachlorobenzene	U	408	ug/kg	81.7	408
85-01-8	Phenanthrene	J	34.3	ug/kg	12.2	40.8
120-12-7	Anthracene	U	40.8	ug/kg	8.17	40.8
84-74-2	Di-n-butylphthalate	U	408	ug/kg	81.7	408
206-44-0	Fluoranthene		59.8	ug/kg	12.2	40.8
85-68-7	Butylbenzylphthalate	U	408	ug/kg	81.7	408
56-55-3	Benzo(a)anthracene	U	40.8	ug/kg	12.2	40.8
91-94-1	3,3'-Dichlorobenzidine	U	408	ug/kg	122	408
218-01-9	Chrysene	U	40.8	ug/kg	12.2	40.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	408	ug/kg	81.7	408
117-84-0	Di-n-octylphthalate	U	408	ug/kg	81.7	408
205-99-2	Benzo(b)fluoranthene	J	38.3	ug/kg	12.2	40.8
207-08-9	Benzo(k)fluoranthene	U	40.8	ug/kg	12.2	40.8
50-32-8	Benzo(a)pyrene	J	22.9	ug/kg	12.2	40.8
193-39-5	Indeno(1,2,3-cd)pyrene	J	14.2	ug/kg	12.2	40.8
53-70-3	Dibenzo(a,h)anthracene	U	40.8	ug/kg	12.2	40.8
191-24-2	Benzo(ghi)perylene	J	16.6	ug/kg	12.2	40.8
120-82-1	1,2,4-Trichlorobenzene	U	408	ug/kg	81.7	408

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	360	ug/kg		JA
79-92-5	Camphene	3.49	289	ug/kg	97	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244005**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**18.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12928**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 02:19**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2634.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	3.58	220	ug/kg		J
127-91-3	.beta.-Pinene	3.63	595	ug/kg	83	NJ

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Data file : /chem/MSD2.i/s032610.b/s2c2634.d
Lab Smp Id: 249244005 Client Smp ID: RE46-10-12928
Inj Date : 27-MAR-2010 02:19
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249244005|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2412.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.07000	weight of sample
M	18.54410	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	188928	40.0000	
* 29 Naphthalene-d8	136	4.667	4.672	(1.000)	751624	40.0000	
* 46 Acenaphthene-d10	164	5.913	5.918	(1.000)	456990	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	831173	40.0000	
* 91 Chrysene-d12	240	8.544	8.555	(1.000)	625852	40.0000	
* 98 Perylene-d12	264	9.951	9.962	(1.000)	414728	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	303881	67.5500	2760
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	321007	57.9475	2360
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.893)	193493	35.5690	1450
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.915)	394459	31.3736	1280
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.091)	89926	66.5299	2720
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.915)	498096	43.6386	1780

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.769	7.774	(0.909)	24877	1.21941	49.8
68 Phenanthrene	178	6.918	6.924	(1.002)	17260	0.84016	34.3(a)
76 Fluoranthene	202	7.630	7.635	(1.105)	27191	1.46534	59.8
95 Benzo(b)fluoranthene	252	9.496	9.512	(0.954)	10625	0.93925	38.3(a)
97 Benzo(a)pyrene	252	9.876	9.892	(0.992)	5254	0.56037	22.9(a)
99 Indeno(1,2,3-cd)pyrene	276	11.508	11.534	(1.156)	2795	0.34825	14.2(a)
101 Benzo(ghi)perylene	276	11.994	12.021	(1.205)	2640	0.40611	16.6(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s2c2634.d
Report Date: 03/27/2010 22:00
Lab. ID: 249244005 SampleType: SAMPLE
Injection Date: 27-MAR-2010 02:19
Operator: AGS1 Instrument: MSD2.i
Sample Info: |249244005|966675|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2412
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	21011	3.53	3.60	80-120	100	(T)
93	36308	3.49	3.61	335-395	173	(QT)
6 Phenol		CAS#: 108-95-2				
94	19793	3.39	3.54	80-120	100	(T)
66	5309	3.39	3.54	40-100	27	(QT)
65	21430	3.39	3.54	6- 66	108	(QT)
17 N-Nitrosodipropylamine			CAS#: 621-64-7			
70	30229	4.17	4.05	80-120	100	(T)
42	27994	4.17	4.05	96-156	93	(QT)
22 Isophorone		CAS#: 78-59-1				
82	193493	4.17	4.34	80-120	100	(T)
138	150	4.48	4.34	0- 50	0	(T)
42 o-Nitroaniline		CAS#: 88-74-4				
65	6928	5.48	5.58	80-120	100	(T)
92	3558	5.48	5.58	27- 87	51	(T)
138	561	5.48	5.58	61-121	8	(QT)
43 Dimethylphthalate		CAS#: 131-11-3				
163	81906	5.91	5.69	80-120	100	(T)
164	456990	5.91	5.69	0- 40	558	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	59342	5.91	5.74	80-120	100	(T)
63	991	5.91	5.74	87-147	2	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	59342	5.91	6.03	80-120	100	(T)
89	959	5.91	6.03	58-118	2	(QT)
63	991	5.91	6.03	47-107	2	(QT)
53 Fluorene			CAS#: 86-73-7			
166	4238	6.45	6.29	80-120	100	(T)
165	3610	6.45	6.29	61-121	85	(T)
167	1290	6.45	6.29	0- 43	30	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	386	6.45	6.31	80-120	100	(T)
105	1067	6.45	6.31	15- 75	276	(QT)
51	1205	6.45	6.31	92-152	311	(QT)
68 Phenanthrene			CAS#: 85-01-8			
178	17260	6.92	6.92	80-120	100	( )
179	3442	6.92	6.92	0- 45	20	( )
176	3313	6.92	6.92	0- 49	19	( )
69 Anthracene			CAS#: 120-12-7			
178	17260	6.92	6.96	80-120	100	( )
179	3442	6.92	6.96	0- 46	20	( )
176	3313	6.92	6.96	0- 48	19	( )
76 Fluoranthene			CAS#: 206-44-0			
202	27191	7.63	7.64	80-120	100	( )
203	5104	7.63	7.64	0- 47	19	( )
101	2653	7.63	7.64	0- 39	10	( )
79 Pyrene			CAS#: 129-00-0			
202	24877	7.77	7.77	80-120	100	( )
200	5204	7.77	7.77	0- 51	21	( )
101	2906	7.77	7.77	0- 40	12	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	11442	8.53	8.54	80-120	100	( )
226	3519	8.54	8.54	0- 56	31	( )
229	3133	8.53	8.54	0- 49	27	( )
92 Chrysene			CAS#: 218-01-9			
228	10243	8.56	8.58	80-120	100	( )
229	2611	8.56	8.58	0- 50	25	( )
226	3089	8.56	8.58	0- 59	30	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	10625	9.50	9.51	80-120	100	( )
253	2605	9.50	9.51	0- 49	25	( )
125	1430	9.50	9.51	0- 39	13	( )
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	10625	9.50	9.54	80-120	100	( )
253	2605	9.50	9.54	0- 54	25	( )
125	1430	9.50	9.54	0- 40	13	( )
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	5254	9.88	9.89	80-120	100	( )
253	1388	9.88	9.89	0- 52	26	( )
125	935	9.88	9.89	0- 42	18	( )
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	2795	11.51	11.53	80-120	100	( )
138	743	11.50	11.53	0- 58	27	( )
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	2640	11.99	12.02	80-120	100	( )
138	346	11.99	12.02	0- 58	13	( )

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD2.i/s032610.b/s2c2634.d
Lab Smp Id: 249244005 Client Smp ID: RE46-10-12928
Inj Date : 27-MAR-2010 02:19
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249244005|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2412.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.07000	weight of sample
M	18.54410	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.811	1410751	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.848	311420	8.82991034	360	0		0	10
Camphene				CAS #: 79-92-5			
3.490	249477	7.07358568	289	97	NIST05.L	15152	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
3.575	189652	5.37732950	220	0		0	10
.beta.-Pinene				CAS #: 127-91-3			
3.629	513792	14.5678898	595	83	NIST05.L	15171	10

Data File: /chem/MSD2.i/s032610.b/s2o2634.d
Date : 27-MAR-2010 02:19
Client ID: RE46-10-12928
Sample Info: 1249244005|966675|1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

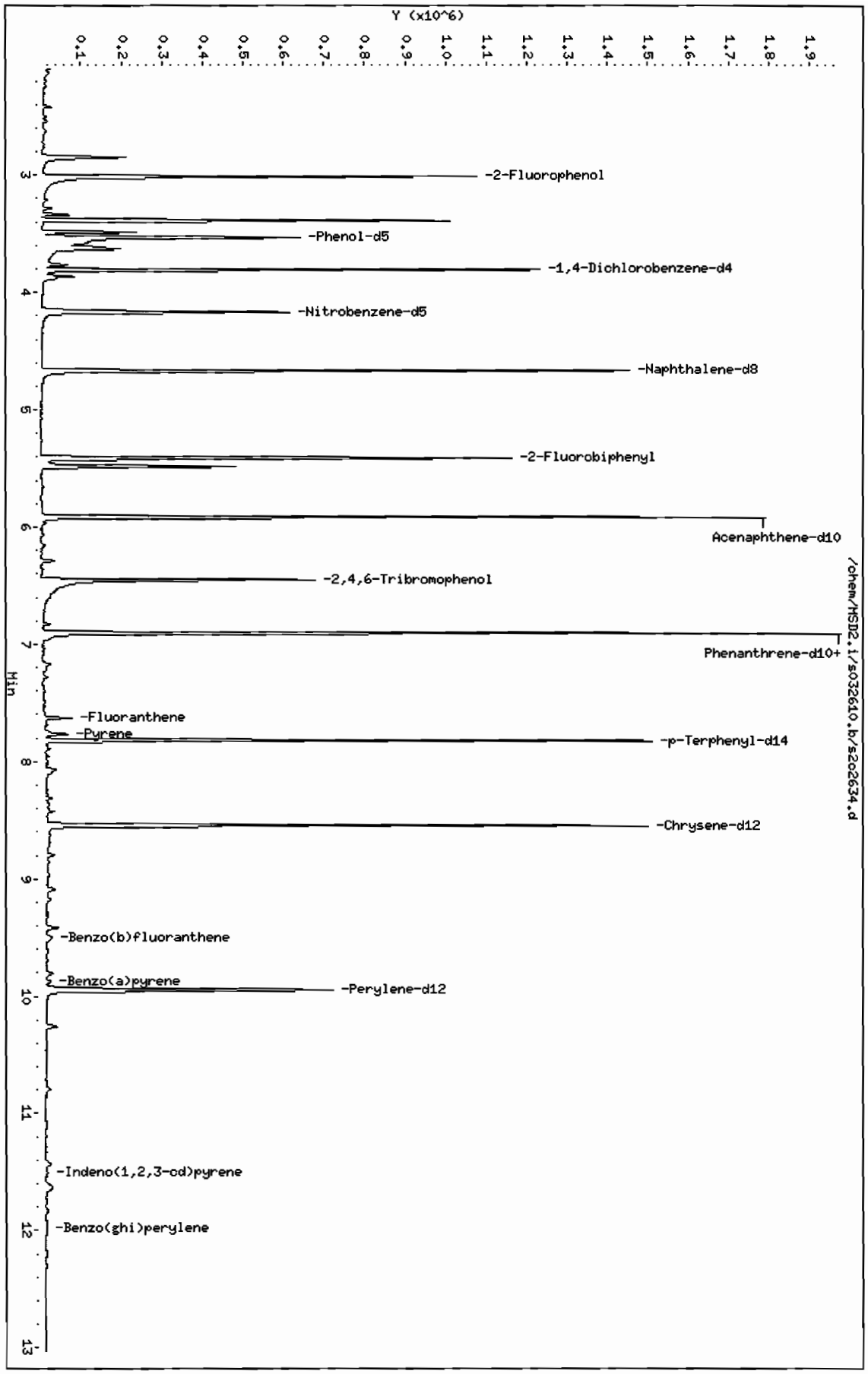

Page 1

Data File: /chem/MSD2.i/s032610.b/s2c2634.d

Date : 27-MAR-2010 02:19

Client ID: RE46-10-12928

Instrument: MSD2.i

Sample Info: |2492440051966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 49.8 ug/Kg

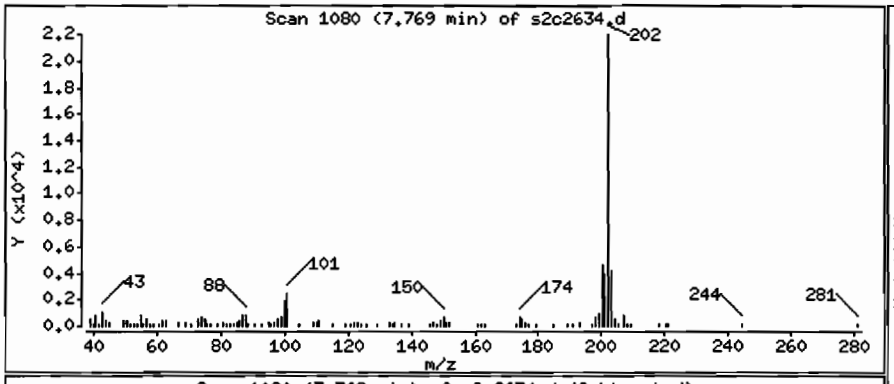

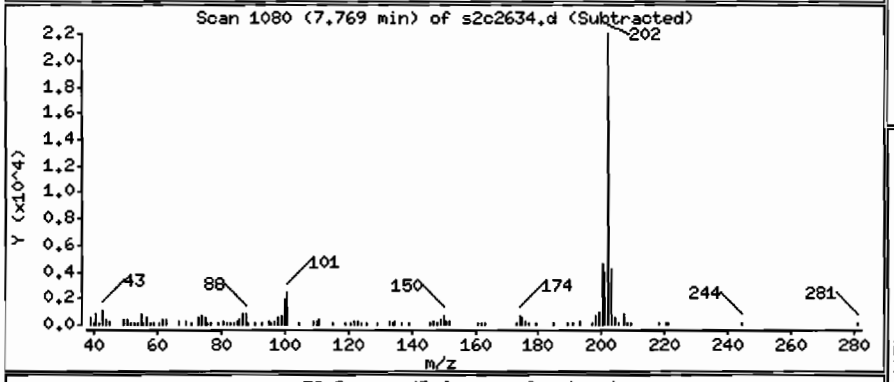

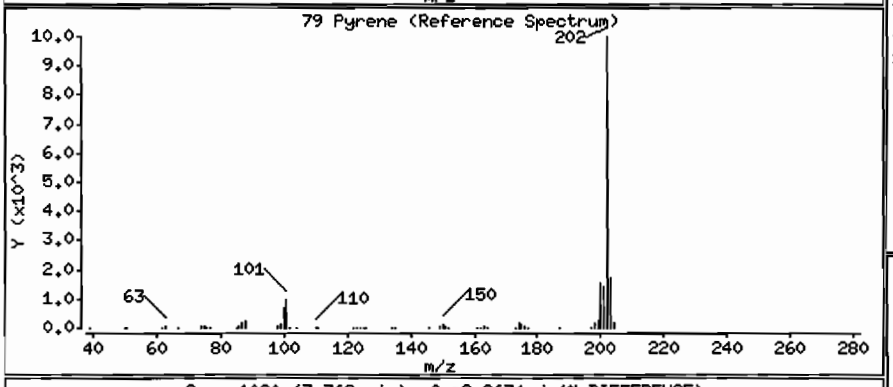

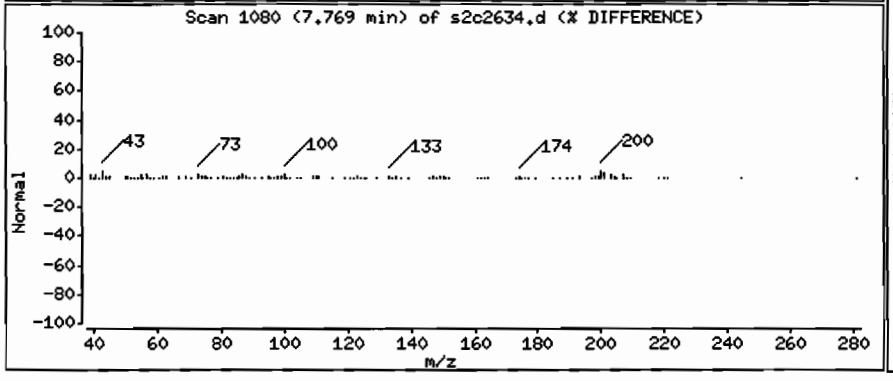

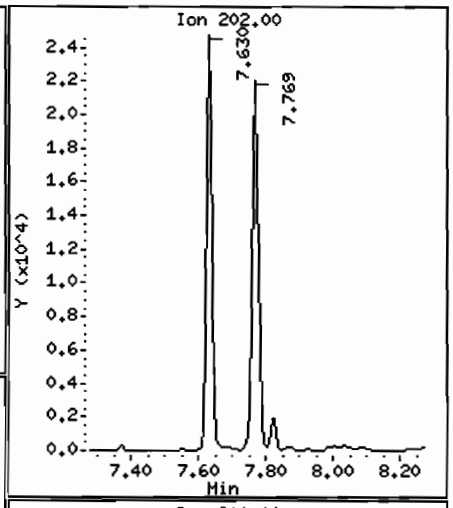

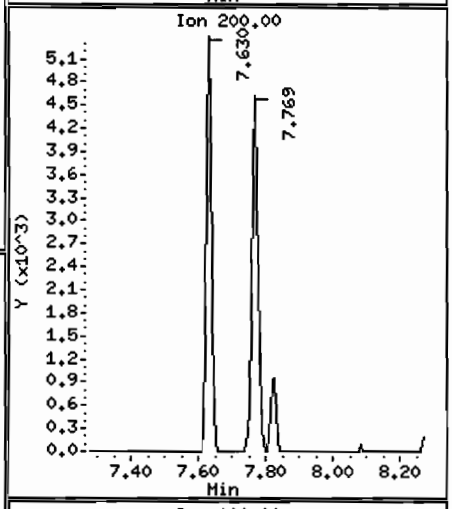

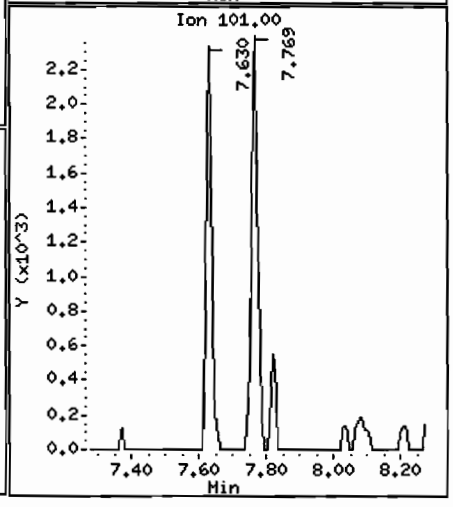

Data File: /chem/MSD2.i/s032610.b/s2c2634.d

Date : 27-MAR-2010 02:19

Client ID: RE46-10-12928

Instrument: MSD2.i

Sample Info: |249244005|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 34.3 ug/Kg

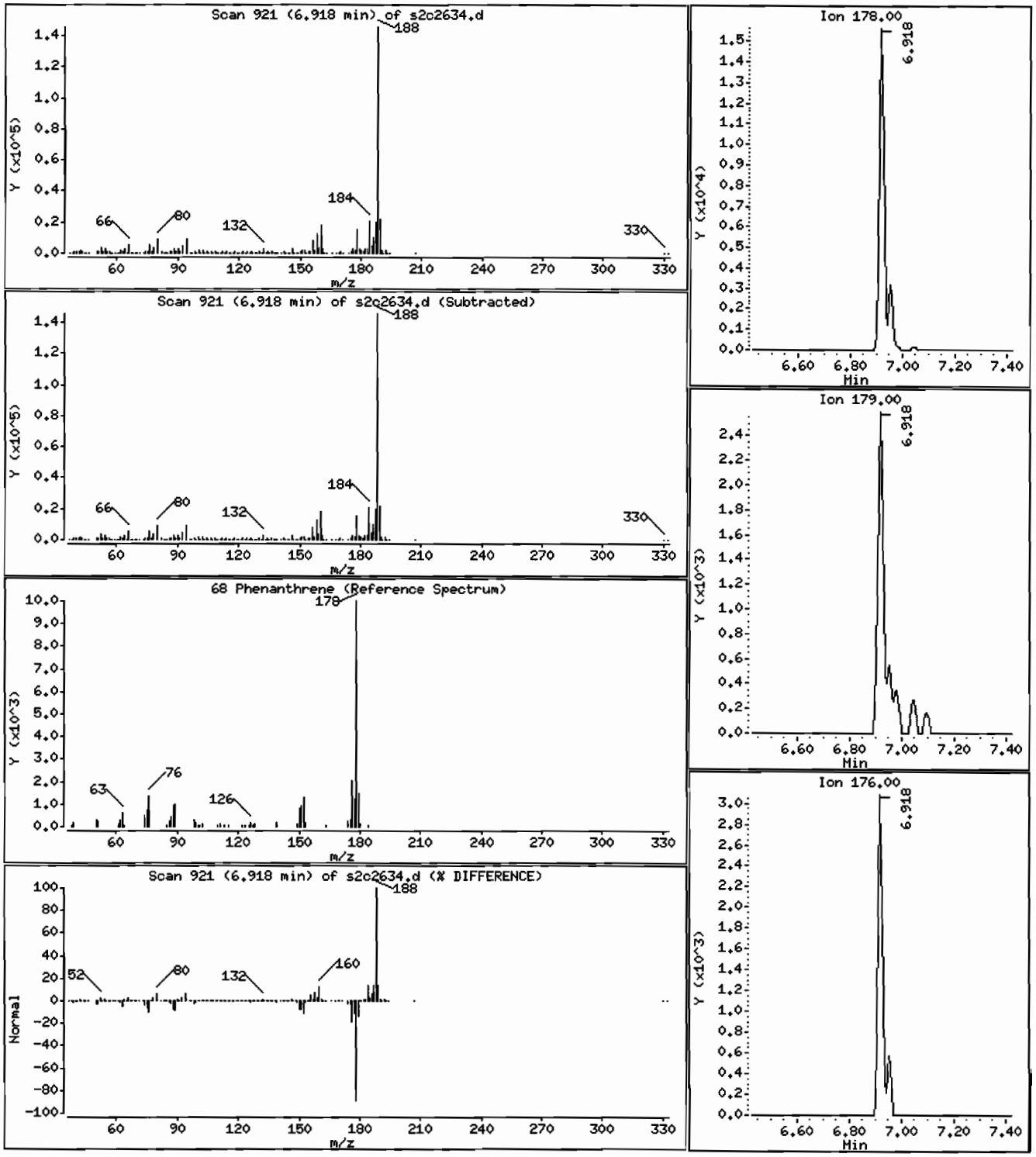

Data File: /chem/MSD2.i/s032610.b/s2c2634.d

Date : 27-MAR-2010 02:19

Client ID: RE46-10-12928

Instrument: MSD2.i

Sample Info: 1249244005|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 59.8 ug/Kg

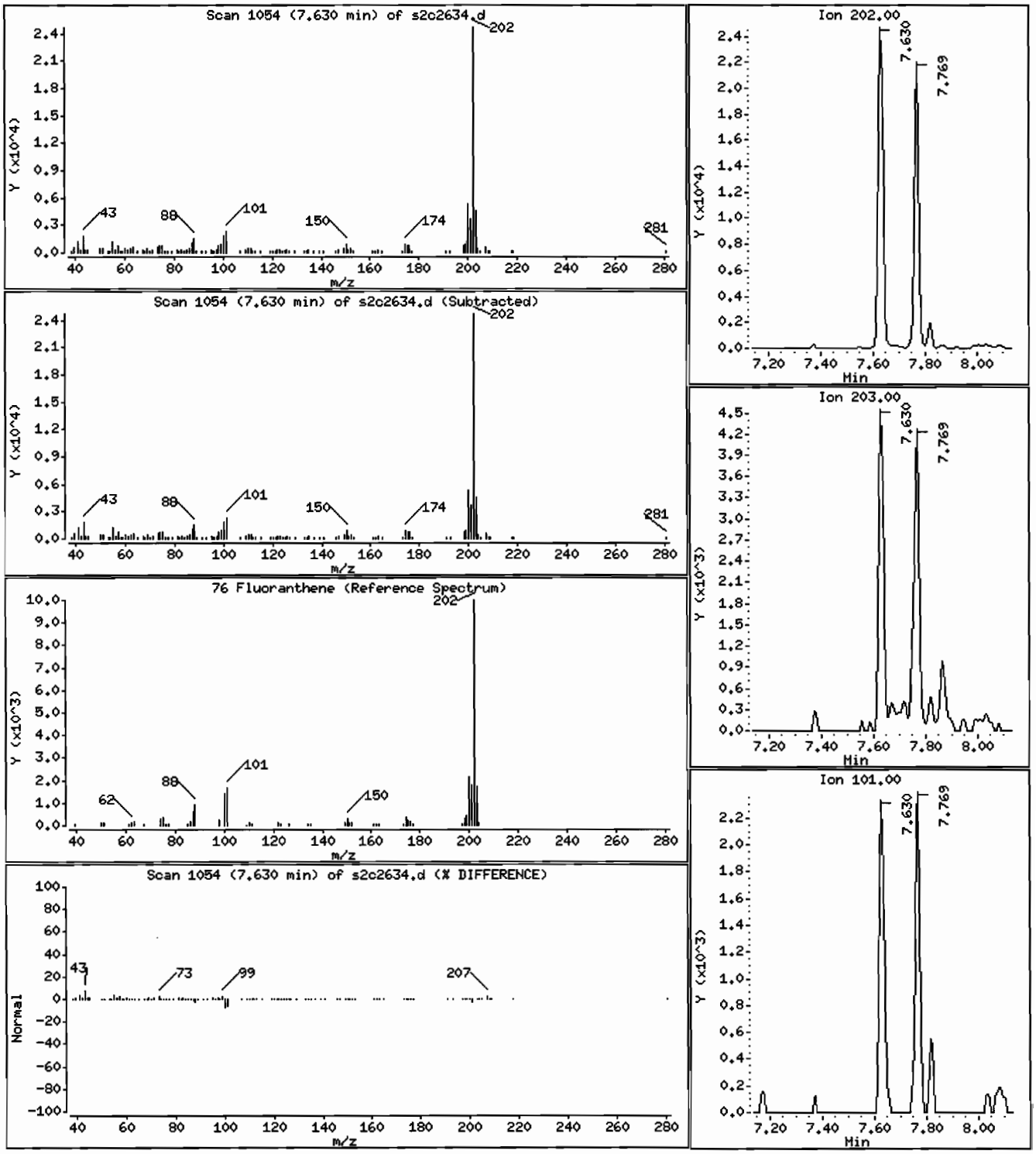

Data File: /chem/MSD2.i/s032610.b/s2c2634.d

Date : 27-MAR-2010 02:19

Client ID: RE46-10-12928

Instrument: MSD2.i

Sample Info: |2492440051966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 38.3 ug/Kg

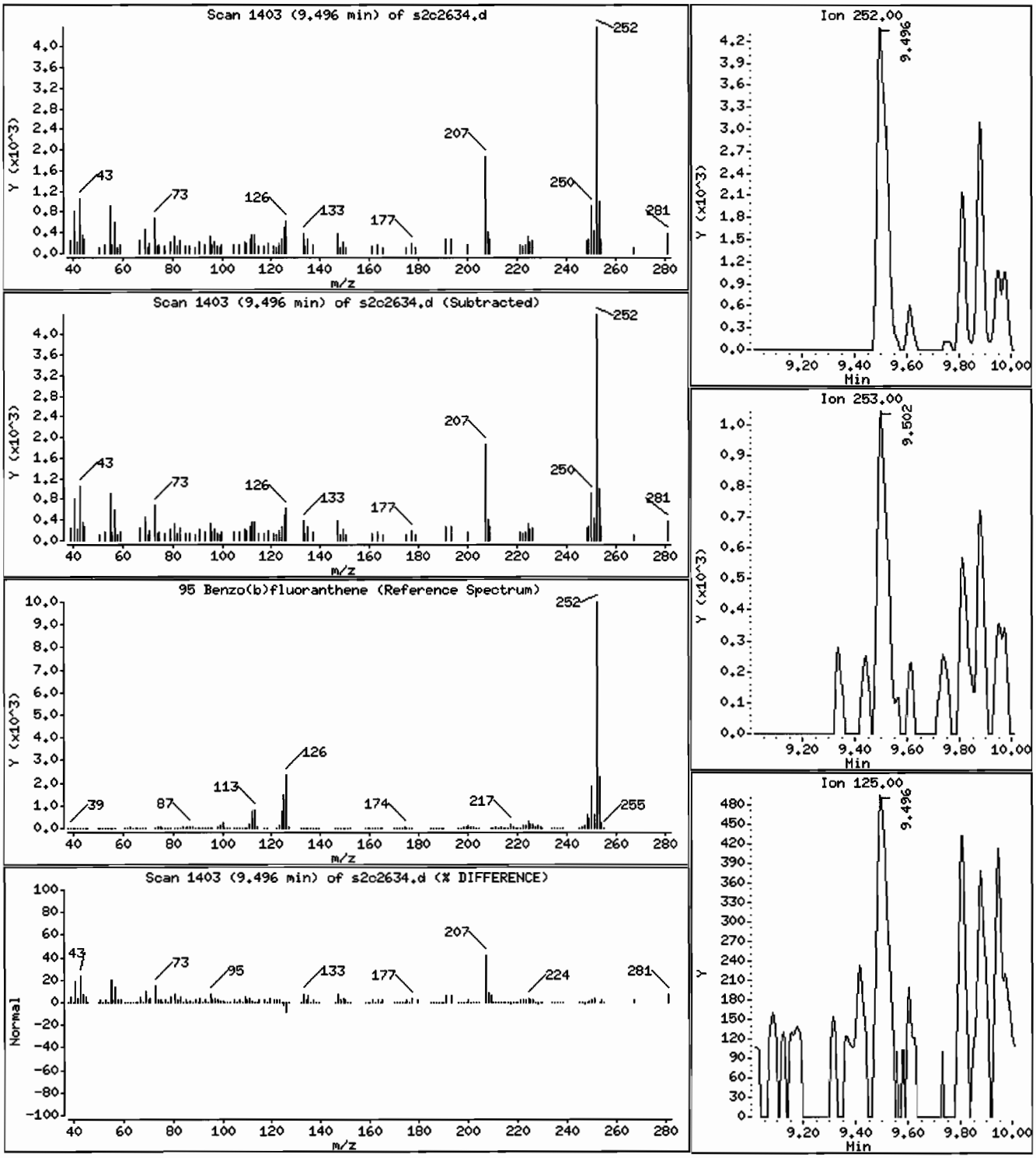

Data File: /chem/MSD2.i/s032610.b/s2c2634.d

Date : 27-MAR-2010 02:19

Client ID: RE46-10-12928

Instrument: MSD2.i

Sample Info: |2492440051966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 22.9 ug/Kg

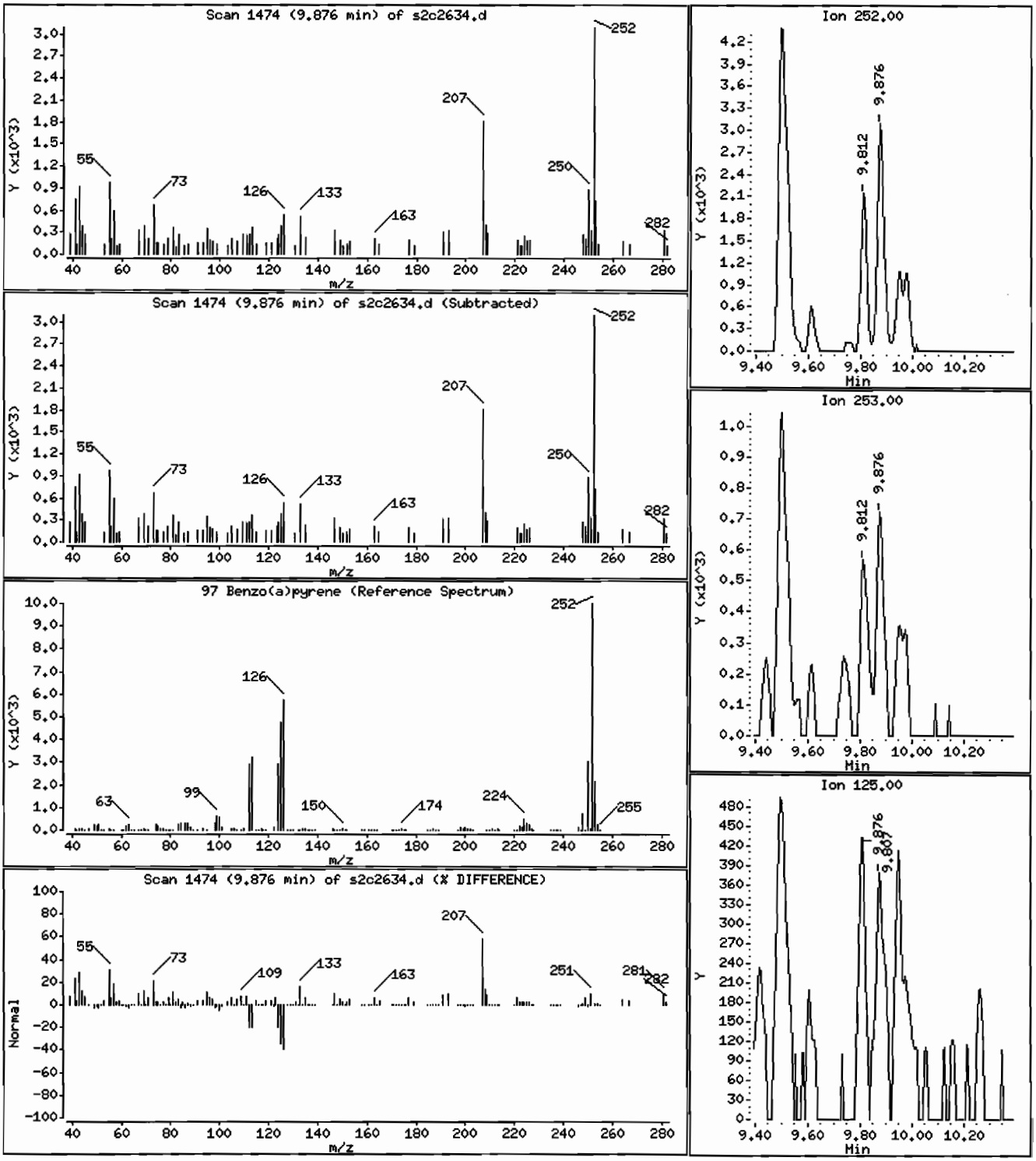

Data File: /chem/MSD2.i/s032610.b/s2c2634.d

Date : 27-MAR-2010 02:19

Client ID: RE46-10-12928

Instrument: MSD2.i

Sample Info: |2492440051966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 14.2 ug/Kg

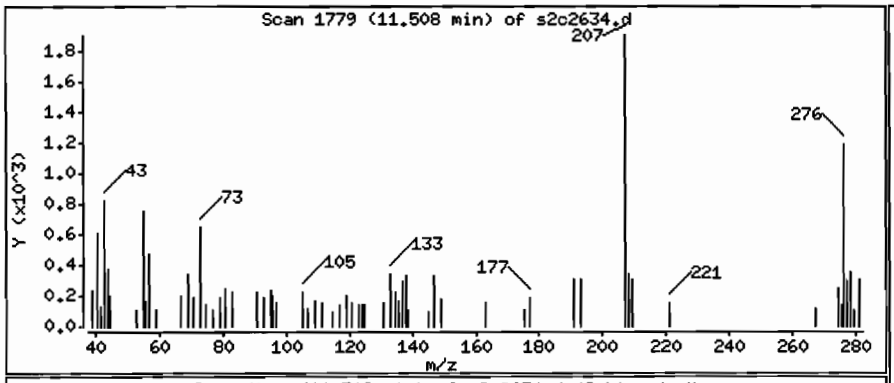

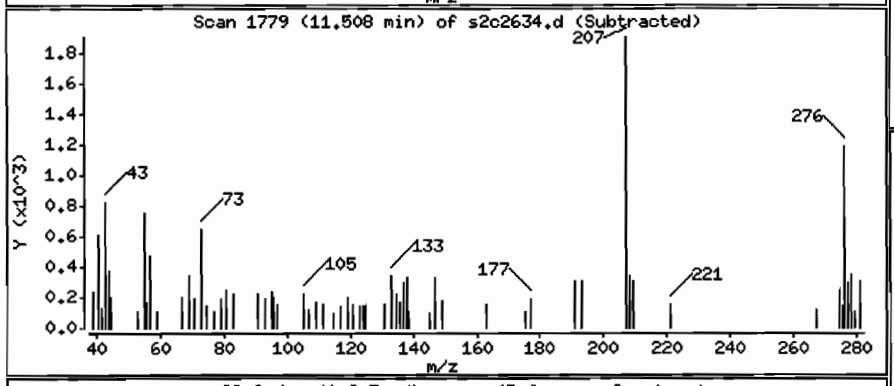

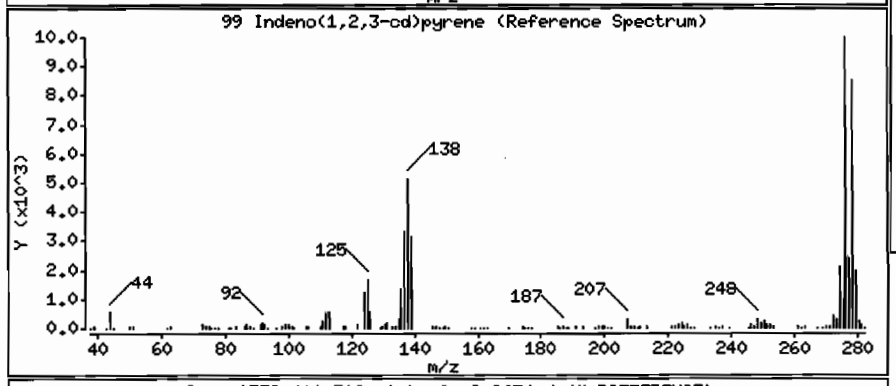

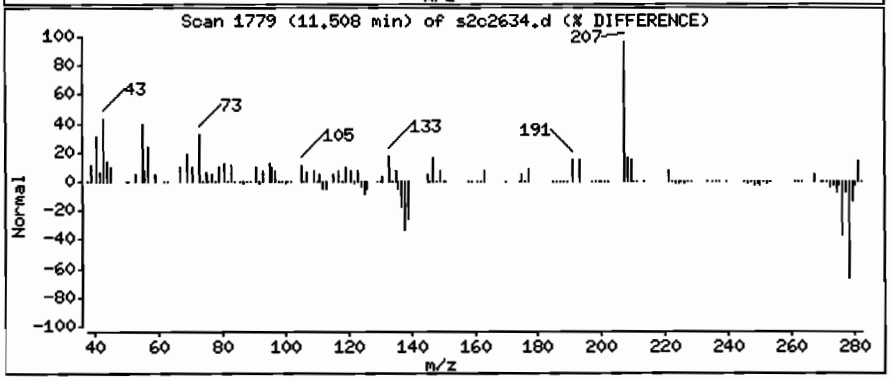

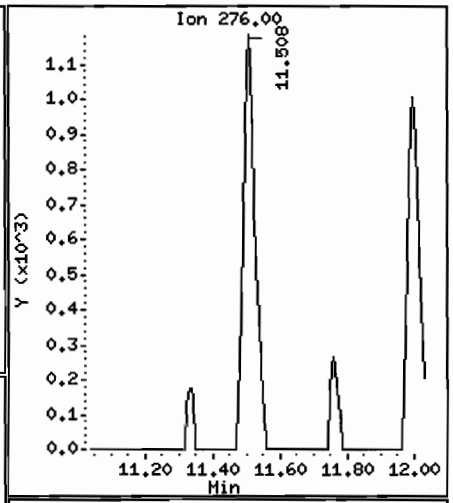

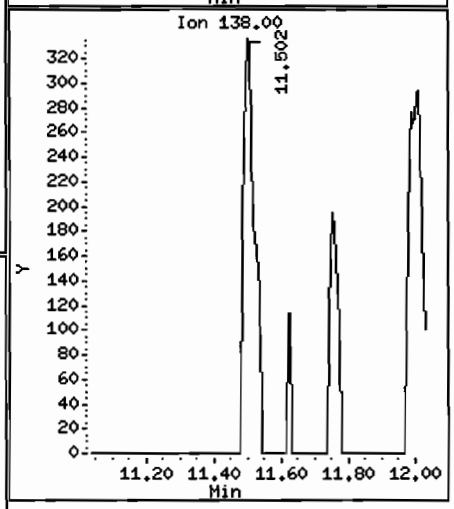

Data File: /chem/MSD2.i/s032610.b/s2c2634.d

Date : 27-MAR-2010 02:19

Client ID: RE46-10-12928

Instrument: MSD2.i

Sample Info: |2492440051966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 16.6 ug/Kg

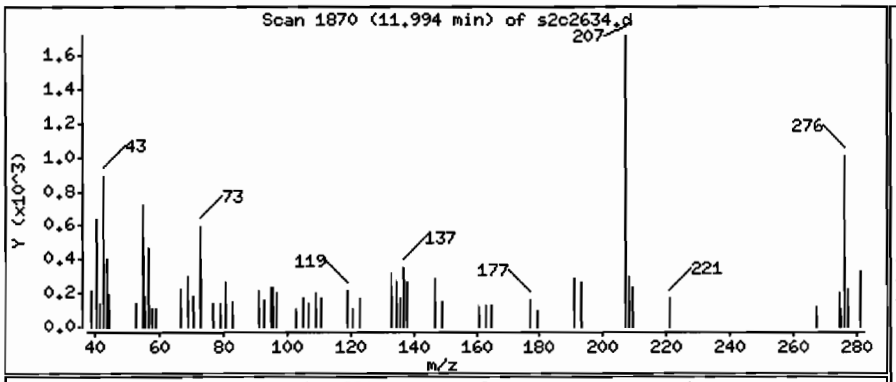

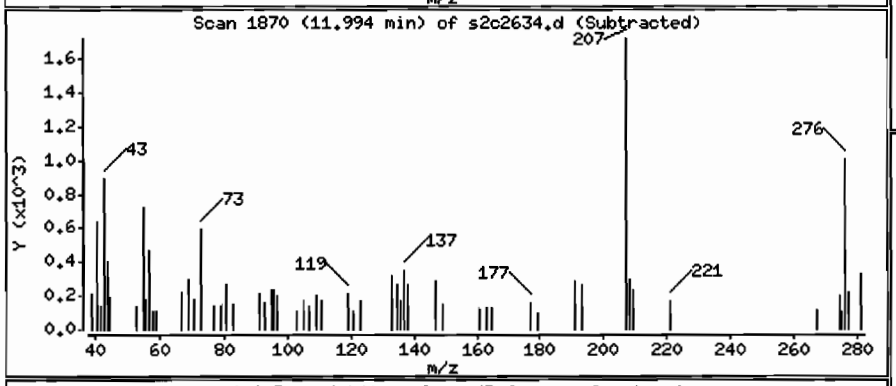

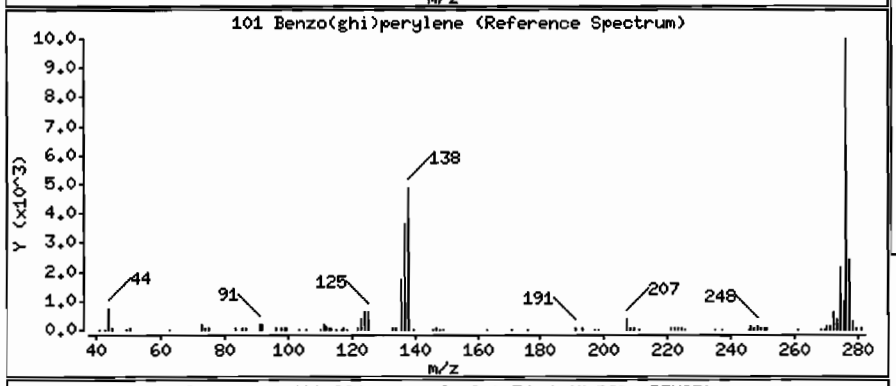

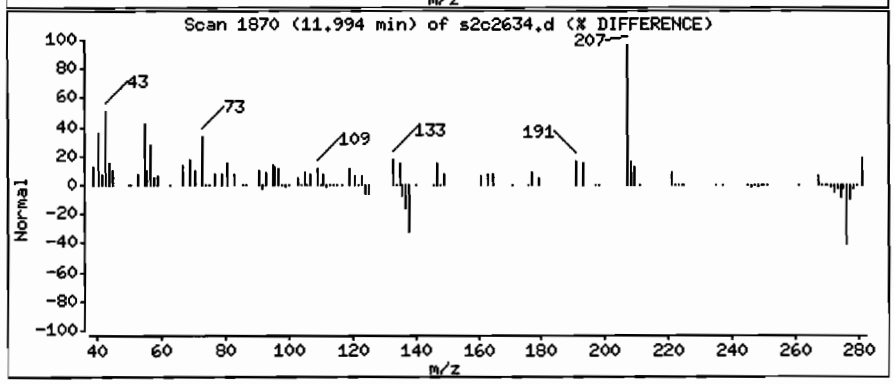

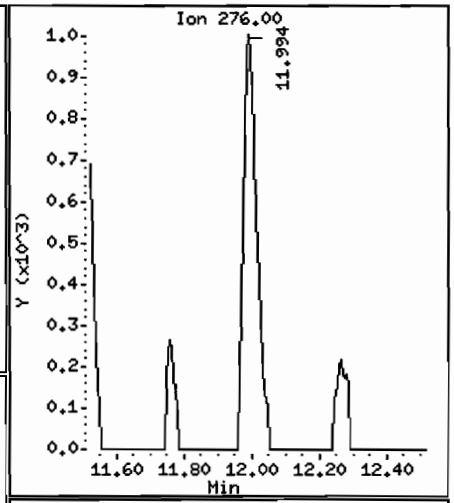

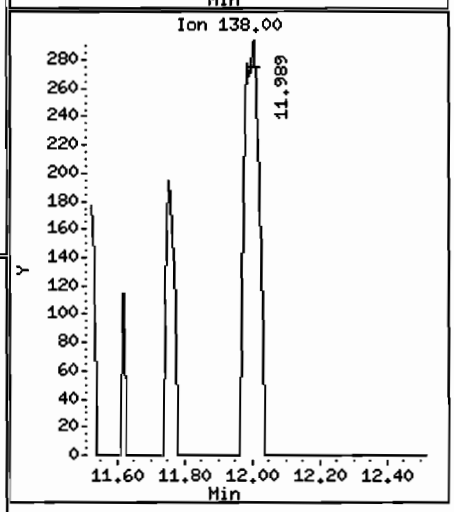

Data File: /chem/MSD2.i/s032610.b/s2c2634.d

Date : 27-MAR-2010 02:19

Client ID: RE46-10-12928

Instrument: MSD2.i

Sample Info: |249244005|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7976	28	C6H12O2	116

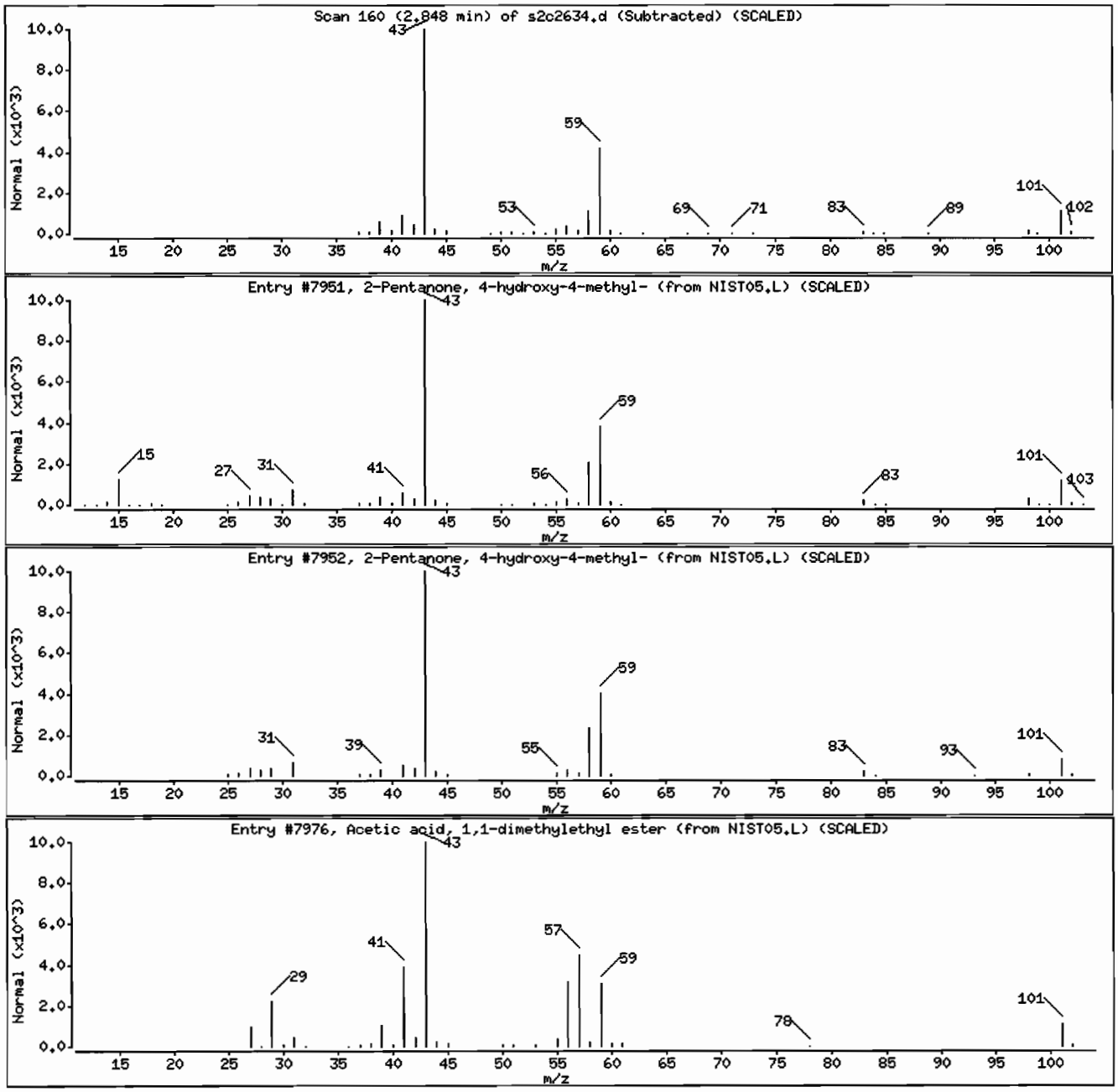

Data File: /chem/MSD2.i/s032610.b/s2c2634.d

Date : 27-MAR-2010 02:19

Client ID: RE46-10-12928

Instrument: MSD2.i

Sample Info: |249244005|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Camphene	79-92-5	NIST05.L	15152	97	C10H16	136
Camphene	79-92-5	NIST05.L	15160	97	C10H16	136
Bicyclo[2.2.1]heptane, 2,2-dimethyl-3-me	5794-04-7	NIST05.L	15387	95	C10H16	136

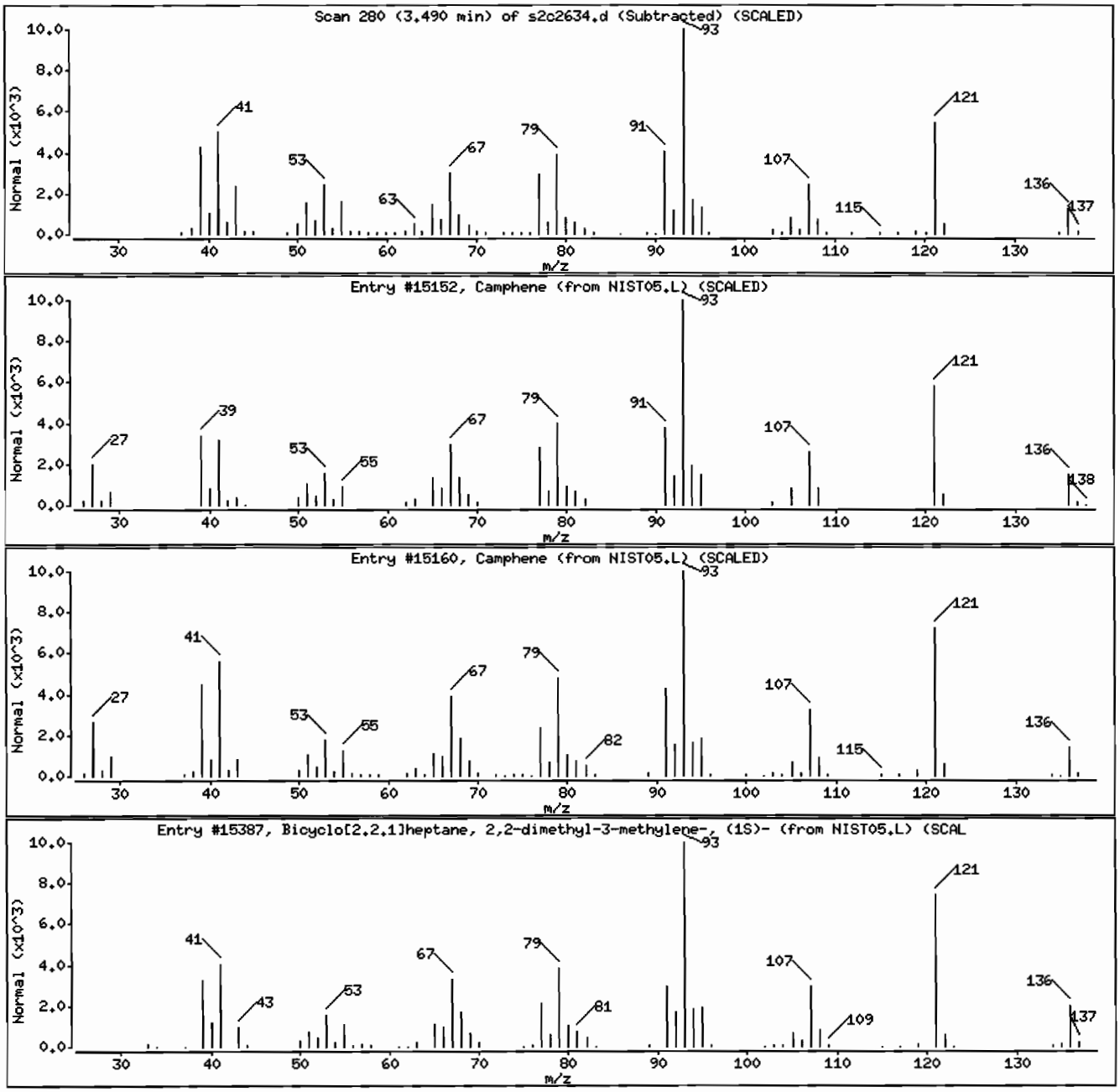

Data File: /chem/MSD2.i/s032610.b/s2c2634.d

Date : 27-MAR-2010 02:19

Client ID: RE46-10-12928 Instrument: MSD2.i

Sample Info: |249244005|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
cis-3-Methyl-4-octanolide	39638-67-0	NIST05.L	27765	47	C9H16O2	156
Phenol-d6-	13127-88-3	NIST05.L	3682	40	C6D6O	100
2(3H)-Furanone, 5-butyldihydro-4-methyl-	39212-23-2	NIST05.L	27864	38	C9H16O2	156

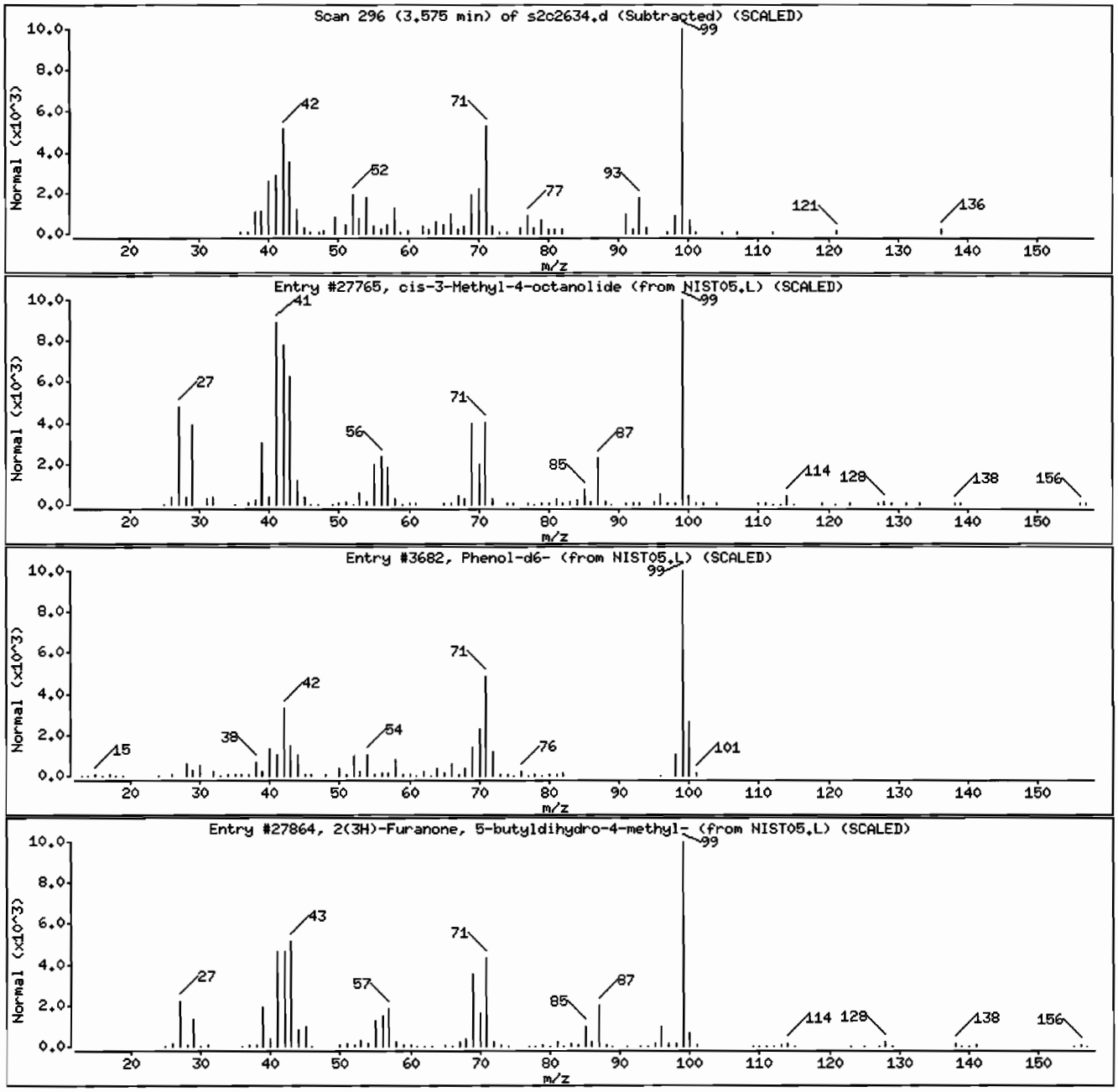

Data File: /chem/MSD2.i/s032610.b/s2c2634.d

Date : 27-MAR-2010 02:19

Client ID: RE46-10-12928

Instrument: MSD2.i

Sample Info: |2492440051966675|1|SVH|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Pinene	127-91-3	NIST05.L	15171	83	C10H16	136
.beta.-Pinene	127-91-3	NIST05.L	15175	70	C10H16	136
Bicyclo[3.1.0]hexane, 4-methylene-1-(1-m	3387-41-5	NIST05.L	15373	64	C10H16	136

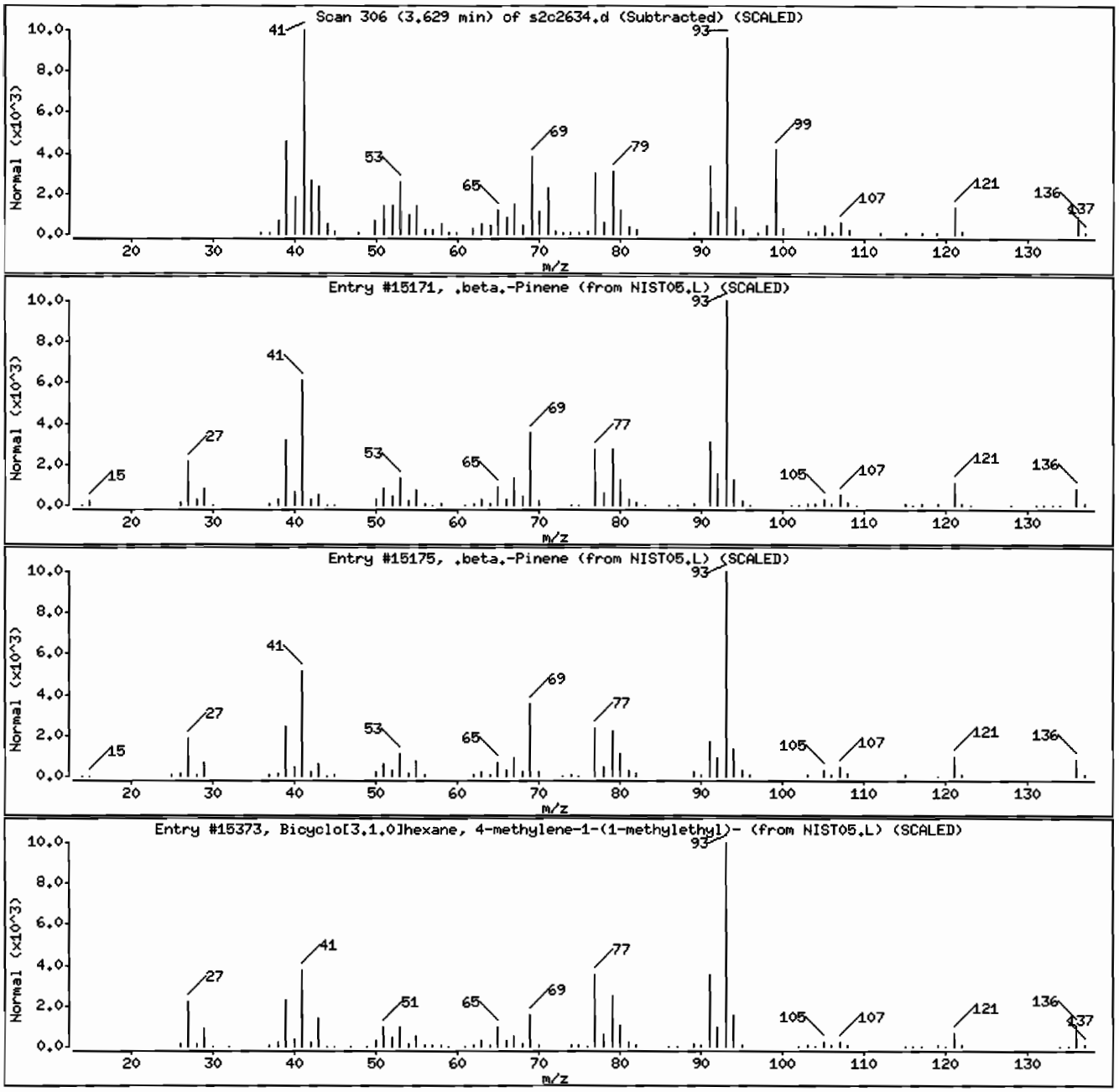

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 26-Mar-2010 17:06

Calibration History

Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Start Cal Date: 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
12-MAR-2010 15:04	MEGAII	/chem/MSD2.i/s031210.b/s2c1203.d
Cal Level: 2 , Cal Amount: 10.00000		
13-MAR-2010 03:15	BJCO	/chem/MSD2.i/s031210.b/s2c1237.d
13-MAR-2010 01:15	HEX	/chem/MSD2.i/s031210.b/s2c1231.d
12-MAR-2010 21:39	PEST	/chem/MSD2.i/s031210.b/s2c1220.d
12-MAR-2010 19:18	AP12	/chem/MSD2.i/s031210.b/s2c1213.d
12-MAR-2010 15:31	MEGAII	/chem/MSD2.i/s031210.b/s2c1204.d
Cal Level: 3 , Cal Amount: 20.00000		
13-MAR-2010 03:42	BJCO	/chem/MSD2.i/s031210.b/s2c1238.d
13-MAR-2010 01:35	HEX	/chem/MSD2.i/s031210.b/s2c1232.d
12-MAR-2010 21:59	PEST	/chem/MSD2.i/s031210.b/s2c1221.d
12-MAR-2010 19:39	AP12	/chem/MSD2.i/s031210.b/s2c1214.d
12-MAR-2010 15:59	MEGAII	/chem/MSD2.i/s031210.b/s2c1205.d
Cal Level: 4 , Cal Amount: 40.00000		
13-MAR-2010 04:08	BJCO	/chem/MSD2.i/s031210.b/s2c1239.d
13-MAR-2010 01:55	HEX	/chem/MSD2.i/s031210.b/s2c1233.d
12-MAR-2010 22:19	PEST	/chem/MSD2.i/s031210.b/s2c1222.d
12-MAR-2010 19:59	AP12	/chem/MSD2.i/s031210.b/s2c1215.d
12-MAR-2010 16:23	MEGAII	/chem/MSD2.i/s031210.b/s2c1206.d
Cal Level: 5 , Cal Amount: 50.00000		
13-MAR-2010 04:35	BJCO	/chem/MSD2.i/s031210.b/s2c1240.d
13-MAR-2010 02:15	HEX	/chem/MSD2.i/s031210.b/s2c1234.d
12-MAR-2010 22:39	PEST	/chem/MSD2.i/s031210.b/s2c1223.d
12-MAR-2010 20:19	AP12	/chem/MSD2.i/s031210.b/s2c1216.d
12-MAR-2010 16:48	MEGAII	/chem/MSD2.i/s031210.b/s2c1207.d
Cal Level: 6 , Cal Amount: 80.00000		
13-MAR-2010 05:01	BJCO	/chem/MSD2.i/s031210.b/s2c1241.d
13-MAR-2010 02:35	HEX	/chem/MSD2.i/s031210.b/s2c1235.d
12-MAR-2010 23:00	PEST	/chem/MSD2.i/s031210.b/s2c1224.d
12-MAR-2010 20:39	AP12	/chem/MSD2.i/s031210.b/s2c1217.d
12-MAR-2010 17:13	MEGAII	/chem/MSD2.i/s031210.b/s2c1208.d
Cal Level: 7 , Cal Amount: 100.00000		

13-MAR-2010 05:28	BJCO	/chem/MSD2.i/s031210.b/s2c1242.d
13-MAR-2010 02:55	HEX	/chem/MSD2.i/s031210.b/s2c1236.d
12-MAR-2010 23:20	PEST	/chem/MSD2.i/s031210.b/s2c1225.d
12-MAR-2010 20:59	AP12	/chem/MSD2.i/s031210.b/s2c1218.d
12-MAR-2010 17:38	MEGAII	/chem/MSD2.i/s031210.b/s2c1209.d

Cal Level: 8 , Cal Amount: 120.00000		
13-MAR-2010 05:54	BJCO	/chem/MSD2.i/s031210.b/s2c1243.d
12-MAR-2010 23:40	PEST	/chem/MSD2.i/s031210.b/s2c1226.d
12-MAR-2010 21:19	AP12	/chem/MSD2.i/s031210.b/s2c1219.d
12-MAR-2010 18:02	MEGAII	/chem/MSD2.i/s031210.b/s2c1210.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
26-MAR-2010 16:34	AP12	/chem/MSD2.i/s032610.b/s2c2605.d
Ccal Level: 4 , Ccal Amount: 40.0		
26-MAR-2010 16:12	PEST	/chem/MSD2.i/s032610.b/s2c2604.d
Ccal Level: 4 , Ccal Amount: 40.0		
26-MAR-2010 15:52	AP12	/chem/MSD2.i/s032610.b/s2c2603.d
Ccal Level: 4 , Ccal Amount: 40.0		
26-MAR-2010 15:25	MEGAII	/chem/MSD2.i/s032610.b/s2c2602.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Calibration File Names:
Level 1: /chem/MSD2.i/s031210.b/s2c1203.d
Level 2: /chem/MSD2.i/s031210.b/s2c1237.d
Level 3: /chem/MSD2.i/s031210.b/s2c1238.d
Level 4: /chem/MSD2.i/s031210.b/s2c1239.d
Level 5: /chem/MSD2.i/s031210.b/s2c1240.d
Level 6: /chem/MSD2.i/s031210.b/s2c1241.d
Level 7: /chem/MSD2.i/s031210.b/s2c1242.d
Level 8: /chem/MSD2.i/s031210.b/s2c1243.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.53069	0.56409	0.54068	0.55457	0.54064					
	+++++	0.55374					AVRG		0.54740		2.22282
2 Pyridine	+++++	0.74049	0.79261	0.76560	0.80515	0.77149					
	+++++	0.79393					AVRG		0.77821		3.04477
4 Aniline	+++++	0.55826	0.57077	0.56362	0.58547	0.57284					
	+++++	0.59420					AVRG		0.57419		2.34554
209 Benzaldehyde	+++++	0.93842	0.91810	0.84928	0.88119	0.86080					
	0.82896	0.76897					AVRG		0.86368		6.55756
6 Phenol	+++++	1.14465	1.17926	1.17186	1.24067	1.22191					
	+++++	1.29706					AVRG		1.20923		4.57865

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Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
7 bis(2-Chloroethyl) ether	1.04016	1.03764	1.04161	1.01485	1.04797	1.03256					
	+++++	1.05677					AVRG		1.03880		1.26167
8 2-Chlorophenol	+++++	1.02487	1.07560	1.05680	1.09331	1.07141					
	+++++	1.13071					AVRG		1.07545		3.29921
203 n-Decane	+++++	2.00990	2.00845	1.84585	1.80869	1.77685					
	+++++	1.56954					AVRG		1.83655		8.95766
9 1,3-Dichlorobenzene	+++++	1.24048	1.30102	1.24836	1.29021	1.27457					
	+++++	1.32500					AVRG		1.27994		2.51073
11 1,4-Dichlorobenzene	+++++	1.33103	1.36189	1.32236	1.38180	1.35219					
	+++++	1.39329					AVRG		1.35709		2.04557
12 Benzyl alcohol	+++++	0.46844	0.53613	0.58192	0.62208	0.59998					
	+++++	0.60896					AVRG		0.56959		10.15574
13 1,2-Dichlorobenzene	+++++	1.21698	1.24338	1.21938	1.27220	1.26460					
	+++++	1.29976					AVRG		1.25272		2.57686
14 bis(2-Chloroisopropyl)ether	+++++	2.68696	2.65305	2.54839	2.53017	2.49533					
	+++++	2.32358					AVRG		2.53958		5.08482
15 o-Cresol	+++++	0.84323	0.82956	0.80082	0.84780	0.84739					
	+++++	0.95435					AVRG		0.85386		6.12877

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Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.37504	1.34990	1.31025	1.39529	1.40445					
	1.40367	1.39174					AVRG		1.37576		2.51790
17 N-Nitrosodipropylamine	0.73303	0.75246	0.76349	0.75895	0.77570	0.75404					
	+++++	0.77361					AVRG		0.75875		1.90533
18 m,p-Cresols	+++++	0.98606	1.00993	1.01061	1.04500	1.01871					
	+++++	1.03374					AVRG		1.01734		2.02140
19 Hexachloroethane	+++++	0.53473	0.54456	0.52915	0.54253	0.52984					
	+++++	0.53701					AVRG		0.53630		1.18806
21 Nitrobenzene	+++++	0.30184	0.30097	0.28004	0.26992	0.25041					
	+++++	0.23182					AVRG		0.27250		10.21908
22 Isophorone	+++++	0.54505	0.54677	0.50717	0.49346	0.45822					
	+++++	0.40630					AVRG		0.49283		10.93751
23 2-Nitrophenol	+++++	0.17908	0.15205	0.13691	0.13791	0.12777					
	+++++	0.12234					AVRG		0.14268		14.37906
24 2,4-Dimethylphenol	+++++	0.27372	0.30536	0.25113	0.23635	0.20969					
	+++++	+++++					AVRG		0.25525		14.26274
25 bis(2-Chloroethoxy)methane	+++++	0.30134	0.30867	0.28603	0.28357	0.26861					
	+++++	0.24812					AVRG		0.28272		7.79457

GEL Laboratories LLC

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Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	++++++	0.21397	0.21772	0.20785	0.20427	0.19269					
	++++++	0.17722					AVRG		0.20229		7.43147
27 Benzoic acid	++++++	++++++	0.09573	0.12767	0.14526	0.12886					
	++++++	0.13198					AVRG		0.12590		14.50415
28 1,2,4-Trichlorobenzene	++++++	0.27075	0.27246	0.25039	0.24546	0.23111					
	++++++	0.21355					AVRG		0.24729		9.21640
30 Naphthalene	0.88264	0.83585	0.83802	0.78823	0.78416	0.73200					
	++++++	0.69134					AVRG		0.79318		8.30793
204 alpha-Terpineol	++++++	0.30499	0.30556	0.27977	0.26969	0.25106					
	++++++	0.21766					AVRG		0.27145		12.40556
31 4-Chloroaniline	++++++	0.30611	0.36557	0.36836	0.36658	0.33911					
	++++++	0.32132					AVRG		0.34451		7.72390
189 Caprolactam	++++++	0.07385	0.08037	0.08218	0.09025	0.09135					
	0.08948	0.09264					AVRG		0.08573		8.19744
32 Hexachlorobutadiene	++++++	0.16400	0.16685	0.15308	0.14816	0.13933					
	++++++	0.12666					AVRG		0.14968		10.13585
33 4-Chloro-3-methylphenol	++++++	0.23613	0.23807	0.22392	0.22130	0.20293					
	++++++	0.18282					AVRG		0.21753		9.73149

GEL Laboratories LLC

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Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.55918	0.54065	0.54701	0.50998	0.50398	0.47433					
	+++++	0.43335					AVRG		0.50978		8.74067
35 1-Methylnaphthalene	0.54513	0.53724	0.53347	0.50485	0.49777	0.46277					
	+++++	0.42797					AVRG		0.50131		8.59294
36 Hexachlorocyclopentadiene	+++++	0.16297	0.19074	0.20053	0.20711	0.17732					
	+++++	0.20353					AVRG		0.19037		9.03164
208 1,1'-Biphenyl	+++++	1.35911	1.33104	1.31085	1.38582	1.39800					
	1.41044	1.39351					AVRG		1.36982		2.72454
205 2,3-Dichloroaniline	+++++	0.51010	0.54015	0.54652	0.56436	0.57152					
	+++++	0.61221					AVRG		0.55748		6.16449
37 2,4,6-Trichlorophenol	+++++	0.27124	0.28804	0.30627	0.30322	0.30549					
	+++++	0.33030					AVRG		0.30076		6.59007
38 2,4,5-Trichlorophenol	+++++	0.29158	0.32247	0.31010	0.33011	0.33422					
	+++++	0.35852					AVRG		0.32450		6.99838
40 2-Chloronaphthalene	0.95732	0.92503	0.97188	0.94372	0.96936	0.97959					
	+++++	1.03937					AVRG		0.96947		3.71428
42 o-Nitroaniline	+++++	0.28178	0.30956	0.30499	0.30426	0.30435					
	+++++	0.30862					AVRG		0.30226		3.40284

GEL Laboratories LLC

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Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
41 m-Nitroaniline	+++++	21802	52996	142135	204510	208409					
	+++++	402686					LINR	0.08432	0.22019		0.99755
43 Dimethylphthalate	+++++	1.10980	1.15239	1.11587	1.13305	1.14965					
	+++++	1.16434					AVRG		1.13752		1.90358
44 2,6-Dinitrotoluene	+++++	0.24590	0.25940	0.25324	0.25815	0.25973					
	+++++	0.26721					AVRG		0.25727		2.77894
45 Acenaphthylene	1.37487	1.40503	1.46492	1.45336	1.46622	1.49132					
	+++++	1.57389					AVRG		1.46137		4.35613
47 Acenaphthene	1.09285	0.99386	1.05730	1.04614	1.07303	1.07796					
	+++++	1.11624					AVRG		1.06534		3.65712
48 2,4-Dinitrophenol	+++++	+++++	26928	70814	105683	112290					
	+++++	256161					LINR	0.27701	0.14408		0.99297
49 Dibenzofuran	+++++	1.23686	1.30875	1.28894	1.31722	1.32619					
	+++++	1.37415					AVRG		1.30868		3.45347
50 2,4-Dinitrotoluene	+++++	0.29926	0.32448	0.32292	0.32838	0.33137					
	+++++	0.32165					AVRG		0.32134		3.54887
51 Diethylphthalate	+++++	1.14932	1.19433	1.15409	1.17087	1.17737					
	+++++	1.15441					AVRG		1.16673		1.48807

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
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Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
52 4-Nitrophenol	+++++	0.13055	0.15792	0.16796	0.17481	0.16540					
	+++++	0.16153					AVRG		0.15969		9.64147
53 Fluorene	1.05424	1.07394	1.13370	1.14492	1.17060	1.17058					
	+++++	1.20012					AVRG		1.13544		4.70479
54 4-Chlorophenylphenylether	+++++	0.50279	0.52689	0.52750	0.53924	0.54595					
	+++++	0.56736					AVRG		0.53496		4.04829
55 2-Methyl-4,6-dinitrophenol	+++++	18180	48014	109404	161133	168398					
	+++++	347979					LINR	0.18671	0.12250		0.99452
56 p-Nitroaniline	+++++	22179	45659	125678	187857	194328					
	+++++	406138					LINR	0.15309	0.22168		0.99822
133 Diphenylamine	+++++	0.48570	0.49400	0.50138	0.51990	0.52948					
	+++++	0.59303					AVRG		0.52058		7.49917
58 1,2-Diphenylhydrazine	+++++	0.63730	0.66715	0.65507	0.67151	0.69301					
	+++++	0.74396					AVRG		0.67800		5.48585
59 Tributylphosphate	+++++	1.14218	1.23338	1.26398	1.24736	1.30493					
	1.31959	1.26442					AVRG		1.25369		4.61401
61 4-Bromophenylphenylether	+++++	0.16412	0.17037	0.17123	0.17327	0.18076					
	+++++	0.19621					AVRG		0.17599		6.39971

GEL Laboratories LLC

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.16428	0.16925	0.17087	0.17418	0.18013					
	+++++	0.19569					AVRG		0.17573		6.32010
207 Atrazine	+++++	0.04678	0.04546	0.04310	0.04200	0.04389					
	0.04014	0.03918					AVRG		0.04293		6.37284
65 Pentachlorophenol	+++++	0.07005	0.08362	0.09145	0.09635	0.09801					
	+++++	0.10656					AVRG		0.09101		14.01556
206 n-Octadecane	+++++	0.58190	0.60061	0.56933	0.56240	0.58766					
	+++++	0.58012					AVRG		0.58034		2.32517
68 Phenanthrene	0.98272	0.94591	0.98449	0.95745	1.00421	0.99535					
	+++++	1.05048					AVRG		0.98866		3.44563
69 Anthracene	0.88306	0.89261	0.96551	0.99042	0.96594	0.99150					
	+++++	1.00588					AVRG		0.95642		5.13275
72 Di-n-butylphthalate	+++++	1.11765	1.16093	1.12721	1.12060	1.15861					
	+++++	1.10402					AVRG		1.13150		2.04799
76 Fluoranthene	0.81916	0.85958	0.91809	0.91892	0.91345	0.92075					
	+++++	0.90111					AVRG		0.89301		4.36703
77 Benzidine	+++++	0.33270	0.32337	0.26589	0.33110	0.36513					
	0.36116	0.39174					AVRG		0.33873		11.83753

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INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
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Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.23304	1.24570	1.28178	1.24643	1.33748	1.35539					
	++++++	1.42729					AVRG		1.30387		5.53101
85 Butylbenzylphthalate	++++++	0.59999	0.62912	0.59210	0.60752	0.62259					
	++++++	0.60906					AVRG		0.61006		2.26136
89 Benzo(a)anthracene	1.07945	0.96635	0.97615	0.97295	1.00816	0.99033					
	++++++	0.99439					AVRG		0.99826		3.86151
90 3,3'-Dichlorobenzidine	++++++	0.21872	0.24546	0.24771	0.27723	0.29323					
	0.27943	0.29408					AVRG		0.26512		10.69374
92 Chrysene	0.92724	0.88493	0.98051	0.91794	0.90417	0.93552					
	++++++	0.96869					AVRG		0.93128		3.64633
93 bis(2-Ethylhexyl)phthalate	0.83224	0.82159	0.85356	0.79815	0.82639	0.87973					
	++++++	0.86867					AVRG		0.84005		3.40874
94 Di-n-octylphthalate	++++++	1.80144	1.89250	1.71252	1.93706	2.03001					
	++++++	2.06832					AVRG		1.90697		7.08363
95 Benzo(b)fluoranthene	0.94096	1.08670	1.08972	1.16567	1.15813	1.07475					
	++++++	1.12139					AVRG		1.09105		6.87930
96 Benzo(k)fluoranthene	1.00301	0.98897	1.13567	0.97578	1.11291	1.23028					
	++++++	1.27986					AVRG		1.10378		10.96105

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.82242	0.84279	0.91106	0.89892	0.92930	0.92862					
	++++++	0.99694					AVRG		0.90429		6.44159
99 Indeno(1,2,3-cd)pyrene	0.72384	0.70149	0.79920	0.80145	0.75282	0.78505					
	++++++	0.85471					AVRG		0.77408		6.72266
100 Dibenzo(a,h)anthracene	0.58300	0.56617	0.64555	0.65848	0.61402	0.64622					
	++++++	0.71335					AVRG		0.63240		7.84312
101 Benzo(ghi)perylene	0.62290	0.59146	0.65859	0.64551	0.59098	0.61395					
	++++++	0.66549					AVRG		0.62698		4.85944
102 1,4-Dioxane	++++++	0.35160	0.34509	0.33135	0.35428	0.34578					
	0.35023	0.34933					AVRG		0.34681		2.17036
103 Methyl methacrylate	++++++	0.20061	0.19873	0.18864	0.20452	0.20433					
	0.20673	0.20414					AVRG		0.20110		3.03929
104 Ethyl methacrylate	++++++	0.75667	0.76459	0.72872	0.77419	0.76818					
	0.77700	0.76357					AVRG		0.76185		2.11428
105 2-Picoline	++++++	1.16328	1.16948	1.11649	1.19601	1.20509					
	1.22656	1.22244					AVRG		1.18562		3.27696
106 N-Nitrosomethylethylamine	++++++	0.45377	0.46348	0.43670	0.46929	0.45242					
	0.45863	0.45164					AVRG		0.45513		2.27560

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.63060	0.60690	0.56958	0.58418	0.57873					
	0.55212	0.52685					AVRG		0.57842		5.90367
108 N-Nitrosodiethylamine	+++++	0.49994	0.50455	0.48829	0.51912	0.51895					
	0.52868	0.51703					AVRG		0.51094		2.71861
109 Ethyl Methanesulfonate	+++++	0.64316	0.63898	0.61674	0.64614	0.64667					
	0.63240	0.62556					AVRG		0.63566		1.78065
110 Pentachloroethane	+++++	0.38534	0.38296	0.36184	0.37892	0.37518					
	0.37755	0.36804					AVRG		0.37569		2.20176
111 N-Nitrosopyrrolidine	+++++	0.49075	0.50988	0.50101	0.53665	0.55050					
	0.56242	0.57355					AVRG		0.53211		6.02450
113 N-Nitrosomorpholine	+++++	1.00110	0.99132	0.94345	1.00036	0.97827					
	0.95370	0.93068					AVRG		0.97127		2.94734
114 o-Toluidine	+++++	1.80852	1.83550	1.80199	1.84876	1.97447					
	1.98694	2.00308					AVRG		1.89418		4.73437
115 N-Nitrosopiperidine	+++++	0.13521	0.13511	0.13226	0.14210	0.14020					
	0.13850	0.13785					AVRG		0.13732		2.44499
116 a,a-Dimethylphenethylamine	+++++	0.79717	0.87203	0.88887	0.95657	0.97824					
	0.96170	0.96066					AVRG		0.91646		7.23662

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.12969	0.13498	0.13988	0.14347	0.15050					
	0.15111	0.15112					AVRG		0.14297		5.98605
118 2,6-Dichlorophenol	+++++	0.21704	0.22718	0.22752	0.24481	0.24384					
	0.24812	0.24650					AVRG		0.23643		5.19197
119 Hexachloropropene	+++++	0.09452	0.12047	0.11686	0.12728	0.13200					
	0.12883	0.13145					AVRG		0.12163		10.85915
120 p-Phenylenediamine	+++++	0.16662	0.22639	0.22496	0.24913	0.22983					
	0.19849	0.20531					AVRG		0.21439		12.51311
121 N-Nitrosodi-n-butylamine	+++++	0.23456	0.24217	0.20702	0.21125	0.21342					
	0.20654	0.20943					AVRG		0.21777		6.62755
122 Safrole	+++++	0.20577	0.20863	0.20444	0.21501	0.21894					
	0.21571	0.21789					AVRG		0.21234		2.80176
123 1,2,4,5-Tetrachlorobenzene	+++++	0.45777	0.45385	0.43570	0.46563	0.46742					
	0.47683	0.46456					AVRG		0.46025		2.83817
124 Isosafrole	+++++	0.35040	0.35154	0.34687	0.36295	0.36305					
	0.36929	0.36287					AVRG		0.35814		2.34899
125 1,4-Naphthoquinone	+++++	0.35704	0.37620	0.36066	0.36273	0.31265					
	0.28003	0.26784					AVRG		0.33102		13.24400

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	++++++	0.15972	0.17551	0.17202	0.17880	0.17527					
	++++++	0.18357					AVRG		0.17415		4.63730
127 Pentachlorobenzene	++++++	0.39226	0.39020	0.38763	0.40604	0.41773					
	0.41906	0.42405					AVRG		0.40528		3.77750
128 1-Naphthylamine	++++++	0.87990	0.89273	0.87839	0.96023	0.99070					
	0.96177	0.97320					AVRG		0.93385		5.16042
129 2-Naphthylamine	++++++	0.96003	0.98889	0.96557	1.04769	1.04666					
	1.01828	1.03999					AVRG		1.00959		3.76020
130 2,3,4,6-Tetrachlorophenol	++++++	0.24559	0.25323	0.27046	0.28031	0.29434					
	++++++	0.30632					AVRG		0.27504		8.51517
131 5-Nitro-o-toluidine	++++++	0.22743	0.26020	0.25061	0.27591	0.28592					
	0.27827	0.28407					AVRG		0.26606		8.01756
132 Thionazin	++++++	0.15011	0.15522	0.16542	0.16383	0.17150					
	0.17067	0.16715					AVRG		0.16341		4.87242
134 Sulfotepp	++++++	0.08160	0.08679	0.09355	0.09774	0.10316					
	0.10522	0.10640					AVRG		0.09635		9.88855
135 Phorate	++++++	0.34717	0.36619	0.37505	0.38205	0.38811					
	0.38037	0.37522					AVRG		0.37345		3.60208

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
136 1,3,5-Trinitrobenzene	+++++	0.09652	0.13549	0.13757	0.14799	0.14625					
	0.13417	0.13774					AVRG		0.13367		12.87991
137 Phenacetin	+++++	0.27229	0.29485	0.28597	0.30648	0.30974					
	0.30537	0.31201					AVRG		0.29810		4.89196
138 Diallate	+++++	0.27591	0.25445	0.25725	0.26238	0.26308					
	0.26769	0.26482					AVRG		0.26365		2.66294
139 Dimethoate	+++++	0.18468	0.19709	0.20942	0.21468	0.22518					
	0.22365	0.22216					AVRG		0.21098		7.20828
140 4-Aminobiphenyl	+++++	0.54803	0.54411	0.53885	0.63692	0.66300					
	0.65007	0.64996					AVRG		0.60442		9.49504
141 Pentachloronitrobenzene	+++++	0.08753	0.08511	0.08321	0.08704	0.08548					
	0.08309	0.08073					AVRG		0.08460		2.84314
142 Pronamide	+++++	0.31192	0.30186	0.29923	0.31237	0.31025					
	0.30730	0.29182					AVRG		0.30496		2.51189
143 Dinoseb	+++++	26318	64904	148620	219199	230621					
	+++++	463231					LINR	0.16895	0.16301		0.99661
144 Disulfoton	+++++	0.26029	0.26807	0.27619	0.28099	0.29536					
	0.28719	0.28588					AVRG		0.27914		4.29750

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
145 Methyl parathion	+++++	0.16726	0.18176	0.19745	0.20499	0.21200					
	0.21135	0.20784					AVRG		0.19752		8.59064
146 4-Nitroquinoline-1-oxide	+++++	2342	9511	16827	20691	41438					
	+++++	+++++					LINR	0.12110	0.01872		0.99242
147 Methapyrilene	+++++	0.47127	0.44938	0.39997	0.40196	0.40766					
	0.34925	0.35531					AVRG		0.40497		11.03384
148 Isodrin	+++++	0.10675	0.09831	0.09726	0.09704	0.10075					
	0.09619	0.09809					AVRG		0.09920		3.65672
149 Aramite	+++++	0.05128	0.05168	0.04752	0.04833	0.05257					
	0.04617	0.04656					AVRG		0.04916		5.35243
150 Kepone	+++++	0.06472	0.06750	0.06098	0.06584	0.07074					
	0.06165	0.06597					AVRG		0.06534		5.13220
151 p-(Dimethylamino)azobenzene	+++++	0.40077	0.36831	0.39870	0.38456	0.36646					
	0.39314	0.38315					AVRG		0.38501		3.56168
152 Chlorobenzilate	+++++	0.36667	0.32344	0.37057	0.34530	0.34588					
	0.37301	0.36768					AVRG		0.35608		5.16475
153 3,3'-Dimethylbenzidine	+++++	0.51799	0.49896	0.45789	0.49166	0.51632					
	0.51079	0.52916					AVRG		0.50325		4.67890

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	100 Level 7	120 Level 8										
154 Famphur	+++++	0.36991	0.39797	0.41889	0.44377	0.43941						
	0.42710	0.42618					AVRG		0.41760		6.17190	
155 2-Acetylaminofluorene	+++++	0.24420	0.30205	0.29363	0.33824	0.35451						
	0.33945	0.35224					AVRG		0.31776		12.63393	
157 7,12Dimethylbenz(a)anthracene	+++++	0.56588	0.53307	0.57223	0.56155	0.56719						
	0.57623	0.59670					AVRG		0.56755		3.35460	
158 3-Methylcholanthrene	+++++	0.38667	0.38727	0.39472	0.41832	0.42507						
	0.41325	0.43432					AVRG		0.40852		4.66290	
26 Phthalic anhydride	+++++	16723	47830	125691	196574	215901						
	+++++	+++++					LINR	0.12340	0.10949		0.99655	
173 Carbazole	18867	141917	253992	658583	1027960	1048673						
	+++++	2140487					LINR	0.13239	0.73569		0.99210	
174 Hexachlorophene	+++++	518849	1036568	1456110	1739399	+++++						
	2263726	+++++					LINR	5.32015	0.08280		0.99874	
179 Dibenzo(a,e)pyrene	+++++	0.28512	0.33642	0.33663	0.27673	0.30466						
	+++++	0.34488					AVRG		0.31408		9.31398	
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	10744	27498	56694	89591	116622					
	+++++	221829					LINR	0.17295	0.25904		0.99077
191 Parathion	+++++	0.04839	0.05278	0.05817	0.06057	0.06406					
	0.06770	0.06650					AVRG		0.05974		11.99755
192 Methoxychlor	+++++	0.56862	0.61889	0.60522	0.60255	0.61534					
	+++++	0.62322					AVRG		0.60564		3.26803
210 m-Toluidine	+++++	1.14296	1.20463	1.50407	1.47783	1.51385					
	+++++	1.62653					AVRG		1.41165		13.61097
211 p-Toluidine	+++++	1.03688	1.03950	0.98382	1.16617	1.07729					
	+++++	1.06044					AVRG		1.06068		5.70763
212 Cis Diallate	+++++	0.26579	0.24953	0.24544	0.24698	0.24161					
	0.24032	0.24133					AVRG		0.24728		3.56817
213 Trans Diallate	+++++	0.32461	0.29935	0.30264	0.30868	0.30950					
	0.31493	0.31155					AVRG		0.31018		2.66294
214 1,4-Dinitrobenzene	+++++	0.20082	0.22011	0.22052	0.22474	0.22190					
	+++++	0.23207					AVRG		0.22002		4.72222
215 2-Ethoxyethanol	+++++	0.67233	0.71321	0.70155	0.72308	0.70042					
	+++++	0.72494					AVRG		0.70592		2.75199

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216 Methylenebis(2-chloroaniline)	+++++	18503	31120	85711	123300	126551						
	+++++	+++++					LINR	0.12923	0.11629		0.99554	
226 2,2'-Dichlorobenzil	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
227 4-Chlorothioanisole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
228 4-Chlorothiophenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
229 bis(p-Chlorophenyl)sulfone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
230 bis(p-Chlorophenyl)disulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
231 Diphenyl disulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
232 Diphenyl sulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
233 Phenyl sulfone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
234 Hydroxymethyl phthalimide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
235 Phthalic acid	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
236 Thiophenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
237 bis(Chloromethyl)ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
238 Octachlorostyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
239 Dibenzo(a,h)pyrene	+++++	0.30133	0.24543	0.32224	0.29208	0.31923						
	0.31975	0.32872					AVRG		0.30411		9.49556	<-
240 Benzo(j)fluoranthene	+++++	0.83072	0.92385	0.96790	1.00940	1.00885						
	0.96377	1.00814					AVRG		0.95895		6.76250	<-
241 Dibenzo(a,j)acridine	+++++	0.52861	0.50350	0.56758	0.54588	0.60197						
	0.62650	0.57297					AVRG		0.56386		7.48315	<-
242 Dibenz(a,h)acridine	+++++	0.50014	0.47046	0.53958	0.51864	0.56520						
	0.59114	0.54589					AVRG		0.53301		7.59150	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
243 Quinoline	+++++	0.46673	0.48865	0.51133	0.52553	0.56197						
	0.54063	0.54407					AVRG		0.51984		6.42466	<-
244 2,4-Toluene Diisocyanate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
245 Dibenzo(a,i)pyrene	+++++	0.17203	0.15057	0.20368	0.18325	0.20792						
	0.21104	0.21682					AVRG		0.19219		12.67372	<-
246 1-Nitropyrene	+++++	20082	52196	139152	171773	455481						
	483179	481130					LINR	0.19784	0.19692		0.99615	<-
247 5-Methylchrysene	+++++	0.49606	0.51261	0.54747	0.54329	0.55777						
	0.55201	0.55122					AVRG		0.53721		4.35140	<-
248 Dibenzo(a,l)pyrene	+++++	0.27683	0.24014	0.28791	0.26504	0.29597						
	0.31327	0.28427					AVRG		0.28049		8.31565	<-
249 7H-Dibenzo(c,g)carbazole	+++++	0.36891	0.33138	0.39163	0.37071	0.41623						
	0.44981	0.40022					AVRG		0.38984		9.72582	<-
250 1-Hexanol	+++++	0.81019	0.88354	0.90810	0.89375	0.82269						
	0.80572	0.80074					AVRG		0.84639		5.50854	<-
M 222 Trichlorophenols	+++++	0.28141	0.30525	0.30818	0.31667	0.31985						
	+++++	0.34441					AVRG		0.31263		6.59754	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
M 223 Tetrachlorophenols	+++++	0.24559	0.25323	0.27046	0.28031	0.29434						
	+++++	0.30632					AVRG		0.27504		8.51517	
M 224 Benzo(b,k)fluoranthene	0.97199	1.03784	1.11270	1.07072	1.13552	1.15252						
	+++++	1.20062					AVRG		1.09742		6.99618	
M 225 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 3 2-Fluorophenol	+++++	0.91171	0.95294	0.93696	0.97627	0.93389						
	+++++	1.00292					AVRG		0.95245		3.43740	
$ 5 Phenol-d5	+++++	1.12207	1.15643	1.14832	1.20475	1.17617						
	+++++	1.22938					AVRG		1.17285		3.34024	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.32032	0.32188	0.29453	0.28831	0.26888						
	+++++	0.24310					AVRG		0.28950		10.48064	
$ 39 2-Fluorobiphenyl	+++++	1.04124	1.09665	1.06393	1.09049	1.11952						
	+++++	1.19118					AVRG		1.10050		4.73010	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
$ 60 2,4,6-Tribromophenol	+++++	0.10863	0.11665	0.11808	0.12058	0.12299					
	+++++	0.12293					AVRG		0.11831		4.54874
$ 81 p-Terphenyl-d14	+++++	0.66878	0.70423	0.69072	0.73707	0.76446					
	+++++	0.81180					AVRG		0.72951		7.22278

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 12-MAR-2010 18:54
Lab File ID: s2c1212.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 18:02
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	0.95245	0.93834	0.93834	0.000	-1.48102	60.00000	Averaged
$ 5 Phenol-d5	1.17285	1.13234	1.13234	0.000	-3.45424	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28950	0.29753	0.29753	0.000	2.77388	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.10050	1.08541	1.08541	0.000	-1.37168	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11831	0.11606	0.11606	0.000	-1.90573	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.72951	0.73940	0.73940	0.000	1.35559	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.54740	0.52461	0.52461	0.000	-4.16446	60.00000	Averaged
2 Pyridine	0.77821	0.58893	0.58893	0.000	-24.32317	60.00000	Averaged
4 Aniline	0.57419	0.51885	0.51885	0.000	-9.63809	60.00000	Averaged
6 Phenol	1.20923	1.19909	1.19909	0.001	-0.83915	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.03880	0.93188	0.93188	0.000	-10.29272	60.00000	Averaged
8 2-Chlorophenol	1.07545	1.09732	1.09732	0.000	2.03377	60.00000	Averaged
203 n-Decane	1.83655	1.81258	1.81258	0.000	-1.30488	60.00000	Averaged
9 1,3-Dichlorobenzene	1.27994	1.24868	1.24868	0.000	-2.44251	60.00000	Averaged
11 1,4-Dichlorobenzene	1.35709	1.30739	1.30739	0.001	-3.66268	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.25272	1.26001	1.26001	0.000	0.58216	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.53958	2.42695	2.42695	0.000	-4.43484	60.00000	Averaged
12 Benzyl alcohol	0.56959	0.59115	0.59115	0.000	3.78667	60.00000	Averaged
15 o-Cresol	0.85386	0.84683	0.84683	0.000	-0.82343	60.00000	Averaged
18 m,p-Cresols	1.01734	1.03157	1.03157	0.000	1.39833	60.00000	Averaged
17 N-Nitrosodipropylamine	0.75875	0.75192	0.75192	0.050	-0.89997	60.00000	Averaged spcc
19 Hexachloroethane	0.53630	0.51130	0.51130	0.000	-4.66258	60.00000	Averaged
21 Nitrobenzene	0.27250	0.26462	0.26462	0.000	-2.89142	60.00000	Averaged
22 Isophorone	0.49283	0.46638	0.46638	0.000	-5.36610	60.00000	Averaged
23 2-Nitrophenol	0.14268	0.13889	0.13889	0.001	-2.65087	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.25525	0.24875	0.24875	0.000	-2.54825	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.28272	0.25590	0.25590	0.000	-9.48667	60.00000	Averaged
26 2,4-Dichlorophenol	0.20229	0.20678	0.20678	0.001	2.22074	20.00000	Averaged ccc
27 Benzoic acid	0.12590	0.13539	0.13539	0.000	7.54080	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24729	0.23757	0.23757	0.000	-3.92985	60.00000	Averaged
30 Naphthalene	0.79318	0.73998	0.73998	0.000	-6.70624	60.00000	Averaged
204 alpha-Terpineol	0.27145	0.24457	0.24457	0.000	-9.90400	60.00000	Averaged
31 4-Chloroaniline	0.34451	0.34387	0.34387	0.000	-0.18513	60.00000	Averaged
32 Hexachlorobutadiene	0.14968	0.14732	0.14732	0.001	-1.57512	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21753	0.22451	0.22451	0.001	3.20750	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.50978	0.50939	0.50939	0.000	-0.07628	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 12-MAR-2010 18:54
Lab File ID: s2c1212.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 18:02
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35	1-Methylnaphthalene	0.50131	0.48065	0.48065	0.000	-4.12090	60.00000	Averaged
36	Hexachlorocyclopentadiene	0.19037	0.16197	0.16197	0.050	-14.91714	60.00000	Averaged spcc
205	2,3-Dichloroaniline	0.55748	0.52593	0.52593	0.000	-5.65805	60.00000	Averaged
37	2,4,6-Trichlorophenol	0.30076	0.29510	0.29510	0.001	-1.88287	20.00000	Averaged ccc
38	2,4,5-Trichlorophenol	0.32450	0.32264	0.32264	0.000	-0.57285	60.00000	Averaged
40	2-Chloronaphthalene	0.96947	0.93771	0.93771	0.000	-3.27528	60.00000	Averaged
42	o-Nitroaniline	0.30226	0.29731	0.29731	0.000	-1.63904	60.00000	Averaged
41	m-Nitroaniline	42.34792	40.00000	0.21455	0.000	5.86981	0.000e+00	Linear <-
43	Dimethylphthalate	1.13752	1.08580	1.08580	0.000	-4.54616	60.00000	Averaged
44	2,6-Dinitrotoluene	0.25727	0.24724	0.24724	0.000	-3.90095	60.00000	Averaged
50	2,4-Dinitrotoluene	0.32134	0.32044	0.32044	0.000	-0.28246	60.00000	Averaged
45	Acenaphthylene	1.46137	1.43394	1.43394	0.000	-1.87723	60.00000	Averaged
47	Acenaphthene	1.06534	0.99366	0.99366	0.001	-6.72774	20.00000	Averaged ccc
48	2,4-Dinitrophenol	43.39364	40.00000	0.11639	0.050	8.48410	0.000e+00	Linear <-spcc
49	Dibenzofuran	1.30868	1.27744	1.27744	0.000	-2.38769	60.00000	Averaged
51	Diethylphthalate	1.16673	1.11642	1.11642	0.000	-4.31267	60.00000	Averaged
52	4-Nitrophenol	0.15969	0.17678	0.17678	0.050	10.70040	60.00000	Averaged spcc
53	Fluorene	1.13544	1.09827	1.09827	0.000	-3.27395	60.00000	Averaged
54	4-Chlorophenylphenylether	0.53496	0.50010	0.50010	0.000	-6.51651	60.00000	Averaged
55	2-Methyl-4,6-dinitrophenol	49.43642	40.00000	0.12853	0.000	23.59104	0.000e+00	Linear <-
56	p-Nitroaniline	45.98377	40.00000	0.22091	0.000	14.95942	0.000e+00	Linear <-
133	Diphenylamine	0.52058	0.49828	0.49828	0.001	-4.28299	20.00000	Averaged ccc
58	1,2-Diphenylhydrazine	0.67800	0.63515	0.63515	0.000	-6.32056	60.00000	Averaged
61	4-Bromophenylphenylether	0.17599	0.15541	0.15541	0.000	-11.69298	60.00000	Averaged
63	Hexachlorobenzene	0.17573	0.16135	0.16135	0.000	-8.18286	60.00000	Averaged
65	Pentachlorophenol	0.09101	0.09422	0.09422	0.001	3.52958	20.00000	Averaged ccc
206	n-Octadecane	0.58034	0.54417	0.54417	0.000	-6.23136	60.00000	Averaged
68	Phenanthrene	0.98866	0.94474	0.94474	0.000	-4.44244	60.00000	Averaged
69	Anthracene	0.95642	0.88574	0.88574	0.000	-7.39015	60.00000	Averaged
72	Di-n-butylphthalate	1.13150	1.06538	1.06538	0.000	-5.84413	60.00000	Averaged
76	Fluoranthene	0.89301	0.88183	0.88183	0.001	-1.25167	20.00000	Averaged ccc
79	Pyrene	1.30387	1.11648	1.11648	0.000	-14.37193	60.00000	Averaged
85	Butylbenzylphthalate	0.61006	0.54363	0.54363	0.000	-10.88944	60.00000	Averaged
89	Benzo(a)anthracene	0.99826	0.91547	0.91547	0.000	-8.29331	60.00000	Averaged
92	Chrysene	0.93128	0.85492	0.85492	0.000	-8.19991	60.00000	Averaged
93	bis(2-Ethylhexyl)phthalate	0.84005	0.76087	0.76087	0.000	-9.42480	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 12-MAR-2010 18:54
Lab File ID: s2c1212.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 18:02
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.90697	1.62008	1.62008	0.001	-15.04453	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.09105	1.07318	1.07318	0.000	-1.63732	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.10378	0.96926	0.96926	0.000	-12.18747	60.00000	Averaged	
	97 Benzo(a)pyrene	0.90429	0.85268	0.85268	0.001	-5.70785	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.77408	0.74575	0.74575	0.000	-3.65997	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.63240	0.61423	0.61423	0.000	-2.87235	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.62698	0.59748	0.59748	0.000	-4.70493	60.00000	Averaged	
	126 m-Dinitrobenzene	0.17415	0.17536	0.17536	0.000	0.69298	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27504	0.24941	0.24941	0.000	-9.31817	60.00000	Averaged	
	143 Dinoseb	40.05156	40.00000	0.13568	0.000	0.12890	0.000e+00	Linear	<-
	173 Carbazole	42.31804	40.00000	0.68093	0.000	5.79511	0.000e+00	Linear	<-
	184 p-Benzoquinone	25.62660	40.00000	0.12116	0.000	-35.93349	0.000e+00	Linear	<-
	192 Methoxychlor	0.60564	0.58020	0.58020	0.000	-4.20018	60.00000	Averaged	
	211 p-Toluidine	1.06068	0.79713	0.79713	0.000	-24.84761	60.00000	Averaged	
	210 m-Toluidine	1.41165	1.45567	1.45567	0.000	3.11867	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.22002	0.22732	0.22732	0.000	3.31771	60.00000	Averaged	
	215 2-Ethoxyethanol	0.70592	0.72271	0.72271	0.000	2.37858	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	48.62249	40.00000	0.12633	0.000	21.55622	0.000e+00	Linear	<-
	179 Dibenzo(a,e)pyrene	0.31408	0.23056	0.23056	0.000	-26.59122	60.00000	Averaged	
	26 Phthalic anhydride	56.98108	40.00000	0.14245	0.000	42.45270	0.000e+00	Linear	<-
M	222 Trichlorophenols	0.31263	0.30887	0.30887	0.000	-1.20299	60.00000	Averaged	
M	223 Tetrachlorophenols	0.27504	0.24941	0.24941	0.000	-9.31817	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.09742	1.02122	1.02122	0.000	-6.94301	60.00000	Averaged	

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s031210.b/s2c1212.d
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGAICV
Inj Date : 12-MAR-2010 18:54
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100309-09.1|40PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m
Meth Date : 12-Mar-2010 19:19 ann00964 Quant Type: ISTD
Cal Date : 12-MAR-2010 18:02 Cal File: s2c1210.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpc1p1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.982	3.982	(1.000)	333197	40.0000	
* 29 Naphthalene-d8	136	4.848	4.848	(1.000)	1447881	40.0000	
* 46 Acenaphthene-d10	164	6.095	6.095	(1.000)	750245	40.0000	
* 67 Phenanthrene-d10	188	7.073	7.073	(1.000)	1307528	40.0000	
* 91 Chrysene-d12	240	8.769	8.769	(1.000)	1059004	40.0000	
* 98 Perylene-d12	264	10.304	10.304	(1.000)	718805	40.0000	
$ 3 2-Fluorophenol	112	3.169	3.169	(0.796)	312653	40.0000	39.4
$ 5 Phenol-d5	99	3.693	3.693	(0.927)	377292	40.0000	38.6
$ 20 Nitrobenzene-d5	82	4.346	4.346	(0.896)	430793	40.0000	41.1
$ 39 2-Fluorobiphenyl	172	5.586	5.586	(0.917)	814322	40.0000	39.4
$ 60 2,4,6-Tribromophenol	329	6.624	6.624	(1.087)	87070	40.0000	39.2
$ 81 p-Terphenyl-d14	244	7.988	7.988	(0.911)	783025	40.0000	40.5
1 N-Methyl-N-nitrosomethylamine	74	2.490	2.490	(0.625)	174797	40.0000	38.3
2 Pyridine	79	2.527	2.527	(0.635)	196229	40.0000	30.3
4 Aniline	66	3.768	3.768	(0.946)	172880	40.0000	36.1
6 Phenol	94	3.704	3.704	(0.930)	399532	40.0000	39.7(Q)
7 bis(2-Chloroethyl) ether	63	3.779	3.779	(0.949)	310498	40.0000	35.9
8 2-Chlorophenol	128	3.848	3.848	(0.966)	365625	40.0000	40.8
203 n-Decane	43	3.827	3.827	(0.961)	603947	40.0000	39.5
9 1,3-Dichlorobenzene	146	3.950	3.950	(0.992)	416056	40.0000	39.0
11 1,4-Dichlorobenzene	146	3.993	3.993	(1.003)	435617	40.0000	38.5
13 1,2-Dichlorobenzene	146	4.099	4.099	(1.030)	419832	40.0000	40.2
14 bis(2-Chloroisopropyl)ether	45	4.121	4.121	(1.035)	808653	40.0000	38.2
12 Benzyl alcohol	108	4.046	4.046	(1.016)	196971	40.0000	41.5
15 o-Cresol	107	4.094	4.094	(1.028)	282161	40.0000	39.7
18 m,p-Cresols	107	4.196	4.196	(1.054)	343715	40.0000	40.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.222	4.222	(1.060)	250539	40.0000	39.6
19 Hexachloroethane	117	4.329	4.329	(1.087)	170363	40.0000	38.1
21 Nitrobenzene	77	4.356	4.356	(0.898)	383137	40.0000	38.8
22 Isophorone	82	4.511	4.511	(0.930)	675266	40.0000	37.8
23 2-Nitrophenol	139	4.570	4.570	(0.943)	201103	40.0000	38.9
24 2,4-Dimethylphenol	122	4.559	4.559	(0.940)	360154	40.0000	39.0
25 bis(2-Chloroethoxy)methane	93	4.629	4.629	(0.955)	370515	40.0000	36.2
26 2,4-Dichlorophenol	162	4.731	4.731	(0.976)	299391	40.0000	40.9
27 Benzoic acid	105	4.613	4.613	(0.951)	196034	40.0000	43.0(H)
28 1,2,4-Trichlorobenzene	180	4.795	4.795	(0.989)	343972	40.0000	38.4
30 Naphthalene	128	4.864	4.864	(1.003)	1071410	40.0000	37.3(Q)
204 alpha-Terpineol	59	4.838	4.838	(0.998)	354106	40.0000	36.0
31 4-Chloroaniline	127	4.875	4.875	(1.006)	497883	40.0000	39.9
32 Hexachlorobutadiene	225	4.928	4.928	(1.017)	213305	40.0000	39.4
33 4-Chloro-3-methylphenol	107	5.185	5.185	(1.069)	325058	40.0000	41.3
34 2-Methylnaphthalene	142	5.340	5.340	(1.101)	737542	40.0000	40.0
35 1-Methylnaphthalene	142	5.415	5.415	(1.117)	695929	40.0000	38.4
36 Hexachlorocyclopentadiene	237	5.447	5.447	(0.894)	121516	40.0000	34.0
205 2,3-Dichloroaniline	161	5.538	5.538	(0.909)	394580	40.0000	37.7
37 2,4,6-Trichlorophenol	196	5.528	5.528	(0.907)	221395	40.0000	39.2
38 2,4,5-Trichlorophenol	196	5.560	5.560	(0.912)	242060	40.0000	39.8
40 2-Chloronaphthalene	162	5.699	5.699	(0.935)	703515	40.0000	38.7
42 o-Nitroaniline	65	5.752	5.752	(0.944)	223053	40.0000	39.3
41 m-Nitroaniline	138	6.041	6.041	(0.991)	160966	40.0000	42.3
43 Dimethylphthalate	163	5.859	5.859	(0.961)	814618	40.0000	38.2
44 2,6-Dinitrotoluene	165	5.913	5.913	(0.970)	185488	40.0000	38.4
50 2,4-Dinitrotoluene	165	6.196	6.196	(1.017)	240405	40.0000	39.9
45 Acenaphthylene	152	5.998	5.998	(0.984)	1075805	40.0000	39.2
47 Acenaphthene	154	6.116	6.116	(1.004)	745492	40.0000	37.3
48 2,4-Dinitrophenol	184	6.111	6.111	(1.003)	87320	40.0000	43.4
49 Dibenzofuran	168	6.228	6.228	(1.022)	958390	40.0000	39.0
51 Diethylphthalate	149	6.335	6.335	(1.039)	837585	40.0000	38.3
52 4-Nitrophenol	139	6.127	6.127	(1.005)	132630	40.0000	44.3
53 Fluorene	166	6.464	6.464	(1.061)	823971	40.0000	38.7
54 4-Chlorophenylphenylether	204	6.442	6.442	(1.057)	375195	40.0000	37.4
55 2-Methyl-4,6-dinitrophenol	198	6.480	6.480	(0.916)	168059	40.0000	49.4
56 p-Nitroaniline	138	6.464	6.464	(1.061)	165733	40.0000	46.0
133 Diphenylamine	169	6.517	6.517	(0.921)	651520	40.0000	38.3
58 1,2-Diphenylhydrazine	77	6.549	6.549	(0.926)	830471	40.0000	37.5
61 4-Bromophenylphenylether	248	6.763	6.763	(0.956)	203209	40.0000	35.3
63 Hexachlorobenzene	284	6.822	6.822	(0.964)	210975	40.0000	36.7
65 Pentachlorophenol	266	6.940	6.940	(0.981)	123194	40.0000	41.4
206 n-Octadecane	57	6.918	6.918	(0.978)	711522	40.0000	37.5
68 Phenanthrene	178	7.089	7.089	(1.002)	1235271	40.0000	38.2
69 Anthracene	178	7.121	7.121	(1.007)	1158125	40.0000	37.0
72 Di-n-butylphthalate	149	7.357	7.357	(1.040)	1393010	40.0000	37.7
76 Fluoranthene	202	7.801	7.801	(1.103)	1153017	40.0000	39.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.945	7.945	(0.906)	1182358	40.0000	34.2
85 Butylbenzylphthalate	149	8.261	8.261	(0.942)	575706	40.0000	35.6
89 Benzo(a)anthracene	228	8.758	8.758	(0.999)	969483	40.0000	36.7
92 Chrysene	228	8.790	8.790	(1.002)	905364	40.0000	36.7
93 bis(2-Ethylhexyl)phthalate	149	8.630	8.630	(0.984)	805769	40.0000	36.2
94 Di-n-octylphthalate	149	9.191	9.191	(0.892)	1164521	40.0000	34.0
95 Benzo(b)fluoranthene	252	9.812	9.812	(0.952)	771408	40.0000	39.3
96 Benzo(k)fluoranthene	252	9.844	9.844	(0.955)	696710	40.0000	35.1
97 Benzo(a)pyrene	252	10.229	10.229	(0.993)	612909	40.0000	37.7
99 Indeno(1,2,3-cd)pyrene	276	12.037	12.037	(1.168)	536048	40.0000	38.5
100 Dibenzo(a,h)anthracene	278	12.042	12.042	(1.169)	441515	40.0000	38.8
101 Benzo(ghi)perylene	276	12.572	12.572	(1.220)	429475	40.0000	38.1
126 m-Dinitrobenzene	168	5.902	5.902	(0.968)	131560	40.0000	40.3
130 2,3,4,6-Tetrachlorophenol	232	6.303	6.303	(1.034)	187121	40.0000	36.3
143 Dinoseb	211	7.025	7.025	(0.993)	177407	40.0000	40.0
173 Carbazole	167	7.202	7.202	(1.018)	890330	40.0000	42.3
184 p-Benzoquinone	54	3.468	3.468	(0.871)	40369	40.0000	25.6
192 Methoxychlor	227	8.619	8.619	(0.983)	614438	40.0000	38.3
211 p-Toluidine	106	4.260	4.260	(1.070)	265601	40.0000	30.1
210 m-Toluidine	106	4.281	4.281	(1.075)	485025	40.0000	41.2
214 1,4-Dinitrobenzene	75	5.843	5.843	(0.959)	170549	40.0000	41.3
215 2-Ethoxyethanol	59	2.340	2.340	(0.588)	240806	40.0000	41.0
216 Methylenebis(2-chloroaniline)	231	8.683	8.683	(0.990)	133781	40.0000	48.6(Q)
179 Dibenzo(a,e)pyrene	302	16.706	16.706	(1.621)	165727	40.0000	29.4
26 Phthalic anhydride	104	5.383	5.383	(1.110)	206257	40.0000	57.0
M 222 Trichlorophenols	196				463455	80.0000	79.0
M 223 Tetrachlorophenols	232				187121	40.0000	36.3
M 224 Benzo(b,k)fluoranthene	252				1468118	80.0000	74.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD2.i/s031210.b/s2c1212.d
Date : 12-MAR-2010 18:54
Client ID: MEGAICV
Sample Info: IWBN100309-09,1|40PPM|1|SVHF|1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

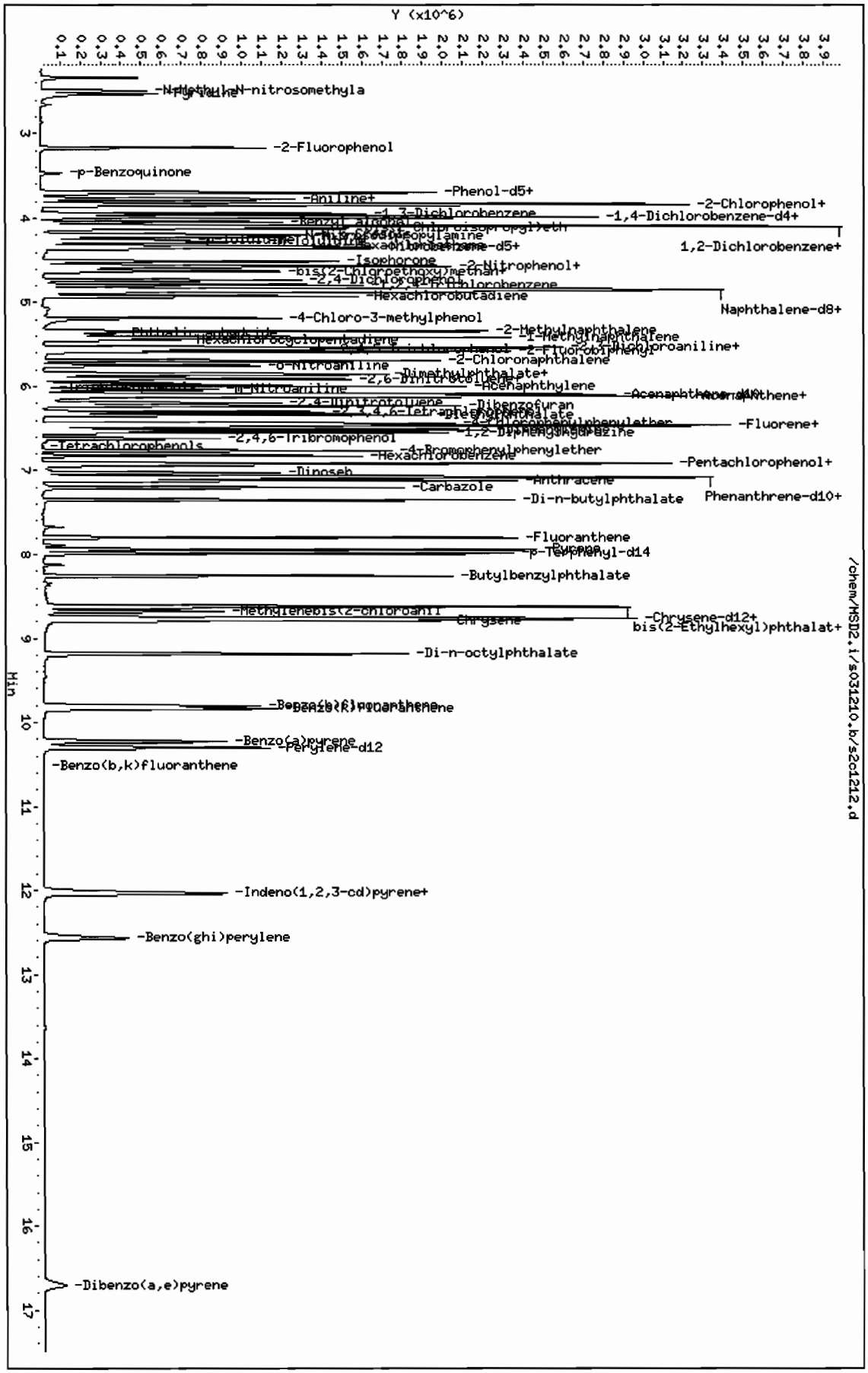

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 13-MAR-2010 00:00
Lab File ID: s2c1227.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 21:19
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86368	0.75564	0.75564	0.000	-12.50838	60.00000	Averaged
16 Acetophenone	1.37576	1.27079	1.27079	0.000	-7.62984	60.00000	Averaged
189 Caprolactam	0.08573	0.08566	0.08566	0.000	-0.08430	60.00000	Averaged
208 1,1'-Biphenyl	1.36982	1.31903	1.31903	0.000	-3.70836	60.00000	Averaged
207 Atrazine	0.04293	0.04369	0.04369	0.000	1.76064	60.00000	Averaged
77 Benzidine	0.33873	0.34309	0.34309	0.000	1.28761	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.26512	0.28321	0.28321	0.000	6.82159	60.00000	Averaged
102 1,4-Dioxane	0.34681	0.37068	0.37068	0.000	6.88370	60.00000	Averaged
103 Methyl methacrylate	0.20110	0.21548	0.21548	0.000	7.15166	60.00000	Averaged
104 Ethyl methacrylate	0.76185	0.80024	0.80024	0.000	5.03989	60.00000	Averaged
105 2-Picoline	1.18562	1.12632	1.12632	0.000	-5.00158	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45513	0.44655	0.44655	0.000	-1.88560	60.00000	Averaged
107 Methyl methanesulfonate	0.57842	0.59134	0.59134	0.000	2.23361	60.00000	Averaged
108 N-Nitrosodiethylamine	0.51094	0.49566	0.49566	0.000	-2.99036	60.00000	Averaged
109 Ethyl Methanesulfonate	0.63566	0.67502	0.67502	0.000	6.19142	60.00000	Averaged
110 Pentachloroethane	0.37569	0.42896	0.42896	0.000	14.17796	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.53211	0.49610	0.49610	0.000	-6.76619	60.00000	Averaged
113 N-Nitrosomorpholine	0.97127	0.96572	0.96572	0.000	-0.57150	60.00000	Averaged
114 o-Toluidine	1.89418	1.79540	1.79540	0.000	-5.21493	60.00000	Averaged
115 N-Nitrosopiperidine	0.13732	0.13231	0.13231	0.000	-3.64621	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.91646	0.89653	0.89653	0.000	-2.17525	60.00000	Averaged
118 2,6-Dichlorophenol	0.23643	0.22415	0.22415	0.000	-5.19240	60.00000	Averaged
119 Hexachloropropene	0.12163	0.15923	0.15923	0.000	30.90841	60.00000	Averaged
120 p-Phenylenediamine	0.21439	0.23161	0.23161	0.000	8.03359	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21777	0.20771	0.20771	0.000	-4.61876	60.00000	Averaged
122 Safrole	0.21234	0.21590	0.21590	0.000	1.67394	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.46025	0.44876	0.44876	0.000	-2.49607	60.00000	Averaged
124 Isosafrole	0.35814	0.40082	0.40082	0.000	11.91638	60.00000	Averaged
125 1,4-Naphthoquinone	0.33102	0.34506	0.34506	0.000	4.24213	60.00000	Averaged
127 Pentachlorobenzene	0.40528	0.38955	0.38955	0.000	-3.88134	60.00000	Averaged
128 1-Naphthylamine	0.93385	0.95763	0.95763	0.000	2.54649	60.00000	Averaged
129 2-Naphthylamine	1.00959	1.04476	1.04476	0.000	3.48365	60.00000	Averaged
131 5-Nitro-o-toluidine	0.26606	0.26753	0.26753	0.000	0.55219	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.13367	0.16141	0.16141	0.000	20.75009	60.00000	Averaged
137 Phenacetin	0.29810	0.30174	0.30174	0.000	1.22161	60.00000	Averaged
138 Diallate	0.26365	0.23898	0.23898	0.000	-9.35913	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 13-MAR-2010 00:00
Lab File ID: s2c1227.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 21:19
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.24728	0.26374	0.26374	0.000	6.65322	60.00000	Averaged
213 Trans Diallate	0.31018	0.28115	0.28115	0.000	-9.35913	60.00000	Averaged
140 4-Aminobiphenyl	0.60442	0.62924	0.62924	0.000	4.10653	60.00000	Averaged
141 Pentachloronitrobenzene	0.08460	0.08405	0.08405	0.000	-0.64552	60.00000	Averaged
142 Pronamide	0.30496	0.30856	0.30856	0.000	1.17857	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	45.34862	40.00000	0.01896	0.000	13.37156	60.00000	Linear
147 Methapyrilene	0.40497	0.44250	0.44250	0.000	9.26786	60.00000	Averaged
148 Isodrin	0.09920	0.08903	0.08903	0.000	-10.25242	60.00000	Averaged
149 Aramite	0.04916	0.04815	0.04815	0.000	-2.05353	60.00000	Averaged
150 Kepone	0.06534	0.05728	0.05728	0.000	-12.34233	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.38501	0.37365	0.37365	0.000	-2.95212	60.00000	Averaged
152 Chlorobenzilate	0.35608	0.32534	0.32534	0.000	-8.63249	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.50325	0.52227	0.52227	0.000	3.77811	60.00000	Averaged
155 2-Acetylaminofluorene	0.31776	0.33833	0.33833	0.000	6.47277	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.56755	0.51824	0.51824	0.000	-8.68907	60.00000	Averaged
158 3-Methylcholanthrene	0.40852	0.40827	0.40827	0.000	-0.06068	60.00000	Averaged

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Data file : /chem/MSD2.i/s031210.b/s2c1227.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV
Inj Date : 13-MAR-2010 00:00
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100218-08.1|40 PPM|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m
Meth Date : 15-Mar-2010 14:05 ann00964 Quant Type: ISTD
Cal Date : 12-MAR-2010 21:19 Cal File: s2c1219.d
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.982	3.982	(1.000)	327425	40.0000	
* 29 Naphthalene-d8	136	4.843	4.843	(1.000)	1276866	40.0000	
* 46 Acenaphthene-d10	164	6.089	6.089	(1.000)	725322	40.0000	
* 67 Phenanthrene-d10	188	7.068	7.068	(1.000)	1248188	40.0000	
* 91 Chrysene-d12	240	8.758	8.758	(1.000)	903803	40.0000	
* 98 Perylene-d12	264	10.288	10.288	(1.000)	599145	40.0000	
209 Benzaldehyde	77	3.704	3.704	(0.930)	247417	40.0000	35.0
16 Acetophenone	105	4.228	4.228	(1.062)	416090	40.0000	36.9
189 Caprolactam	113	5.116	5.116	(1.056)	109373	40.0000	40.0
208 1,1'-Biphenyl	154	5.667	5.667	(0.931)	956718	40.0000	38.5
207 Atrazine	173	6.833	6.833	(0.967)	54534	40.0000	40.7
77 Benzidine	184	7.844	7.844	(0.896)	310084	40.0000	40.5
90 3,3'-Dichlorobenzidine	252	8.683	8.683	(0.991)	255965	40.0000	42.7
102 1,4-Dioxane	88	2.345	2.345	(0.589)	121371	40.0000	42.8
103 Methyl methacrylate	100	2.335	2.335	(0.586)	70554	40.0000	42.9
104 Ethyl methacrylate	69	2.693	2.693	(0.676)	262019	40.0000	42.0
105 2-Picoline	93	2.885	2.885	(0.725)	368786	40.0000	38.0
106 N-Nitrosomethylethylamine	88	2.928	2.928	(0.735)	146212	40.0000	39.2
107 Methyl methanesulfonate	80	3.078	3.078	(0.773)	193620	40.0000	40.9
108 N-Nitrosodiethylamine	102	3.313	3.313	(0.832)	162291	40.0000	38.8
109 Ethyl Methanesulfonate	79	3.468	3.468	(0.871)	221018	40.0000	42.5
110 Pentachloroethane	167	3.805	3.805	(0.956)	140451	40.0000	45.7
111 N-Nitrosopyrrolidine	100	4.217	4.217	(1.059)	162437	40.0000	37.3(Q)
113 N-Nitrosomorpholine	56	4.239	4.239	(1.064)	316200	40.0000	39.8
114 o-Toluidine	106	4.255	4.255	(1.068)	587859	40.0000	37.9
115 N-Nitrosopiperidine	114	4.458	4.458	(0.920)	168944	40.0000	38.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.699	4.699	(0.970)	1144746	40.0000	39.1
118 2,6-Dichlorophenol	162	4.886	4.886	(1.009)	286211	40.0000	37.9
119 Hexachloropropene	213	4.918	4.918	(1.015)	203309	40.0000	52.4
120 p-Phenylenediamine	108	5.121	5.121	(1.057)	295737	40.0000	43.2
121 N-Nitrosodi-n-butylamine	84	5.089	5.089	(1.051)	265219	40.0000	38.2
122 Safrole	162	5.255	5.255	(1.085)	275669	40.0000	40.7
123 1,2,4,5-Tetrachlorobenzene	216	5.458	5.458	(0.896)	325498	40.0000	39.0
124 Isosafrole	162	5.624	5.624	(0.924)	290720	40.0000	44.8
125 1,4-Naphthoquinone	158	5.811	5.811	(0.954)	250282	40.0000	41.7
127 Pentachlorobenzene	250	6.202	6.202	(1.018)	282550	40.0000	38.4
128 1-Naphthylamine	143	6.277	6.277	(1.031)	694587	40.0000	41.0
129 2-Naphthylamine	143	6.330	6.330	(1.040)	757785	40.0000	41.4
131 5-Nitro-o-toluidine	152	6.453	6.453	(1.060)	194043	40.0000	40.2
136 1,3,5-Trinitrobenzene	75	6.667	6.667	(0.943)	201473	40.0000	48.3
137 Phenacetin	108	6.699	6.699	(0.948)	376632	40.0000	40.5(Q)
138 Diallate	86	6.688	6.688	(0.946)	298288	40.0000	36.2
212 Cis Diallate	86	6.747	6.747	(0.955)	49379	6.00000	6.4
213 Trans Diallate	86	6.688	6.688	(0.946)	298288	34.0000	30.8
140 4-Aminobiphenyl	169	6.929	6.929	(0.980)	785409	40.0000	41.6
141 Pentachloronitrobenzene	237	6.945	6.945	(0.983)	104915	40.0000	39.7
142 Pronamide	173	6.934	6.934	(0.981)	385139	40.0000	40.5
146 4-Nitroquinoline-1-oxide	101	7.533	7.533	(1.066)	23665	40.0000	45.3
147 Methapyrilene	58	7.544	7.544	(1.067)	552326	40.0000	43.7
148 Isodrin	193	7.710	7.710	(1.091)	111124	40.0000	35.9
149 Aramite	185	7.935	7.935	(1.123)	60098	40.0000	39.2
150 Kepone	272	8.373	8.373	(1.185)	71493	40.0000	35.1
151 p-(Dimethylamino)azobenzene	120	8.063	8.063	(0.921)	337704	40.0000	38.8
152 Chlorobenzilate	251	8.074	8.074	(0.922)	294042	40.0000	36.5
153 3,3'-Dimethylbenzidine	212	8.277	8.277	(0.945)	472026	40.0000	41.5
155 2-Acetylaminofluorene	181	8.464	8.464	(0.966)	305783	40.0000	42.6
157 7,12Dimethylbenz(a)anthracene	256	9.764	9.764	(0.949)	310498	40.0000	36.5
158 3-Methylcholanthrene	268	10.668	10.668	(1.037)	244613	40.0000	40.0(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

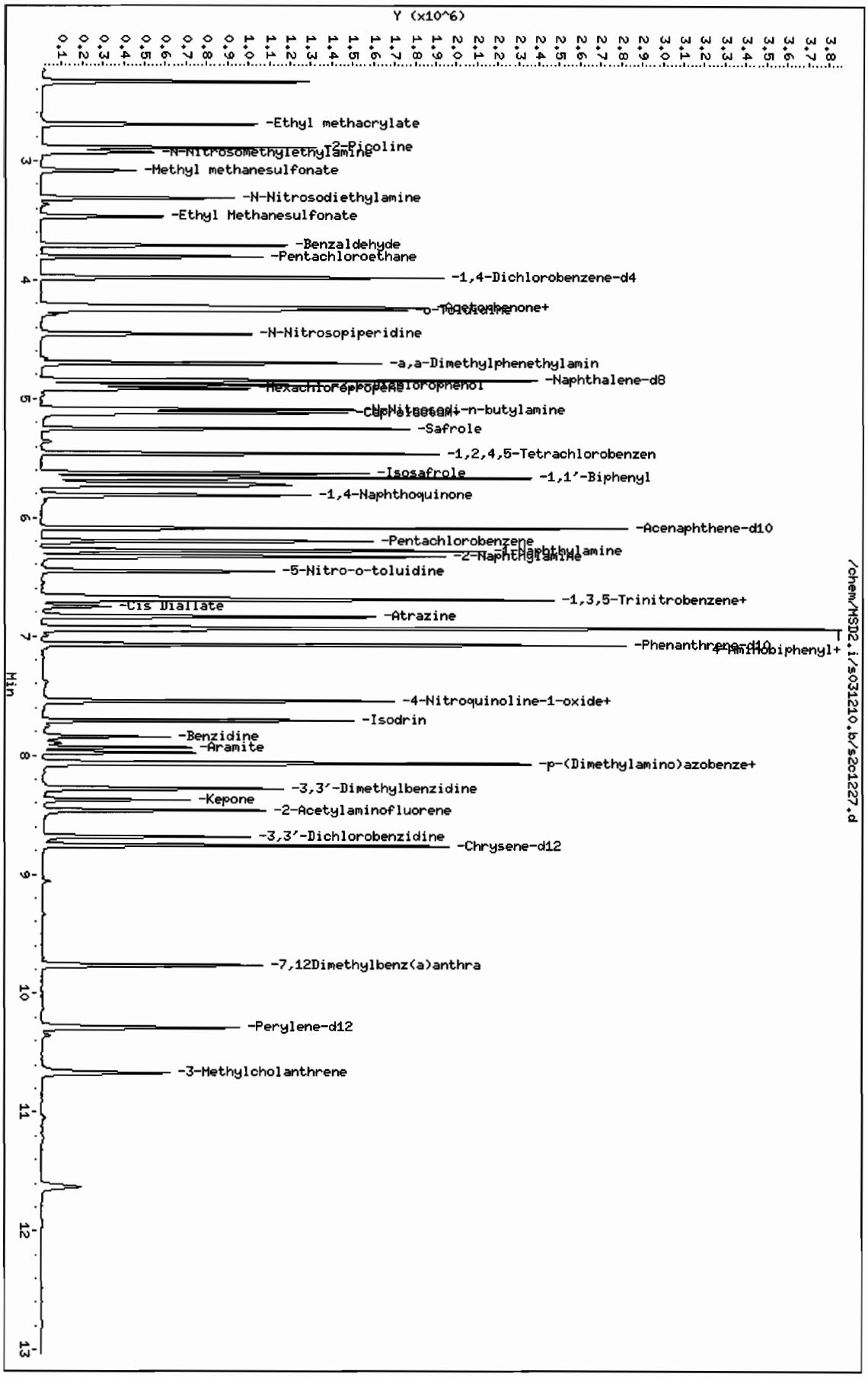
Data File: /chem/MSD2.i/s031210.b/s2c1227.d
Date : 13-MAR-2010 00:00
Client ID: APICV
Sample Info: IWBN100218-08.1|40 PPM|1|SVMF|1|APICV
Column phase: J&W DB-5MS
Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20
Page 1
Y (x10^6)
Min
/chem/MSD2.i/s031210.b/s2c1227.d
-Ethyl methacrylate
-N-Nitrosomethylethylamine
-2-Picoline
-Methyl methanesulfonate
-N-Nitrosodiethylamine
-Ethyl Methanesulfonate
-Benzaldehyde
-Pentachloroethane
-1,4-Dichlorobenzene-d4
-o-Toluidine
-Acetophenone+
-N-Nitrosopiperidine
-a,a-Dimethylphenethylamin
-Naphthalene-d8
-Hexachloroethane
-Chlorobenzene+
-Phenol
-N-Nitrosodi-n-butylamine
-Safrole
-1,2,4,5-Tetrachlorobenzen
-Isosafrole
-1,1'-Biphenyl
-1,4-Naphthoquinone
-Acenaphthene-d10
-Pentachlorobenzene
-1-Naphthylamine
-2-Naphthylamine
-5-Nitro-o-toluidine
-1,3,5-Trinitrobenzene+
-Cis Diallate
-Atrazine
-Phenanthrene-d10
-4-Aminobiphenyl+
-4-Nitroquinoline-1-oxide+
-Isodrin
-Benzidine
-Aramite
-p-(Dimethylamino)azobenze+
-3,3'-Dimethylbenzidine
-Kepone
-2-Acetylaminofluorene
-3,3'-Dichlorobenzidine
-Chrysene-d12
-7,12Dimethylbenz(a)anthra
-Perylene-d12
-3-Methylcholanthrene

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-MAR-2010 15:25
Lab File ID: s2c2602.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 3 2-Fluorophenol	0.95245	0.84952	0.84952	0.000	-10.80672	60.00000	Averaged	
$ 5 Phenol-d5	1.17285	1.08428	1.08428	0.000	-7.55170	60.00000	Averaged	
$ 20 Nitrobenzene-d5	0.28950	0.29672	0.29672	0.000	2.49196	60.00000	Averaged	
$ 39 2-Fluorobiphenyl	1.10050	1.05389	1.05389	0.000	-4.23522	60.00000	Averaged	
$ 60 2,4,6-Tribromophenol	0.11831	0.11272	0.11272	0.000	-4.72328	60.00000	Averaged	
$ 81 p-Terphenyl-d14	0.72951	0.66032	0.66032	0.000	-9.48427	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.54740	0.51431	0.51431	0.000	-6.04438	60.00000	Averaged	
2 Pyridine	0.77821	0.70775	0.70775	0.000	-9.05518	60.00000	Averaged	
4 Aniline	0.57419	0.58211	0.58211	0.000	1.37825	60.00000	Averaged	
6 Phenol	1.20923	1.05758	1.05758	0.001	-12.54122	20.00000	Averaged	ccc
7 bis(2-Chloroethyl) ether	1.03880	1.07689	1.07689	0.000	3.66701	60.00000	Averaged	
8 2-Chlorophenol	1.07545	1.00261	1.00261	0.000	-6.77315	60.00000	Averaged	
203 n-Decane	1.83655	2.33238	2.33238	0.000	26.99819	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.27994	1.27457	1.27457	0.000	-0.41938	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.35709	1.37861	1.37861	0.001	1.58564	20.00000	Averaged	ccc
13 1,2-Dichlorobenzene	1.25272	1.25785	1.25785	0.000	0.40970	60.00000	Averaged	
14 bis(2-Chloroisopropyl)ether	2.53958	3.15355	3.15355	0.000	24.17613	60.00000	Averaged	
12 Benzyl alcohol	0.56959	0.28350	0.28350	0.000	-50.22720	60.00000	Averaged	
15 o-Cresol	0.85386	0.78314	0.78314	0.000	-8.28244	60.00000	Averaged	
18 m,p-Cresols	1.01734	0.91492	0.91492	0.000	-10.06716	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.75875	0.77340	0.77340	0.050	1.93055	60.00000	Averaged	spcc
19 Hexachloroethane	0.53630	0.58524	0.58524	0.000	9.12475	60.00000	Averaged	
21 Nitrobenzene	0.27250	0.27942	0.27942	0.000	2.53840	60.00000	Averaged	
22 Isophorone	0.49283	0.49816	0.49816	0.000	1.08185	60.00000	Averaged	
23 2-Nitrophenol	0.14268	0.12233	0.12233	0.001	-14.26424	20.00000	Averaged	ccc
24 2,4-Dimethylphenol	0.25525	0.17231	0.17231	0.000	-32.49390	60.00000	Averaged	
25 bis(2-Chloroethoxy)methane	0.28272	0.26585	0.26585	0.000	-5.96907	60.00000	Averaged	
26 2,4-Dichlorophenol	0.20229	0.18460	0.18460	0.001	-8.74083	20.00000	Averaged	ccc
27 Benzoic acid	0.12590	0.11622	0.11622	0.000	-7.68513	60.00000	Averaged	
28 1,2,4-Trichlorobenzene	0.24729	0.24808	0.24808	0.000	0.32111	60.00000	Averaged	
30 Naphthalene	0.79318	0.74995	0.74995	0.000	-5.44972	60.00000	Averaged	
204 alpha-Terpineol	0.27145	0.30185	0.30185	0.000	11.19925	60.00000	Averaged	
31 4-Chloroaniline	0.34451	0.30723	0.30723	0.000	-10.82115	60.00000	Averaged	
32 Hexachlorobutadiene	0.14968	0.16557	0.16557	0.001	10.61384	20.00000	Averaged	ccc
33 4-Chloro-3-methylphenol	0.21753	0.20717	0.20717	0.001	-4.76276	20.00000	Averaged	ccc
34 2-Methylnaphthalene	0.50978	0.49774	0.49774	0.000	-2.36278	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-MAR-2010 15:25
Lab File ID: s2c2602.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.50131	0.50289	0.50289	0.000	0.31570	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.19037	0.16309	0.16309	0.050	-14.32971	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.55748	0.52537	0.52537	0.000	-5.75916	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.30076	0.26359	0.26359	0.001	-12.35965	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.32450	0.28177	0.28177	0.000	-13.16692	60.00000	Averaged
40 2-Chloronaphthalene	0.96947	0.91506	0.91506	0.000	-5.61251	60.00000	Averaged
42 o-Nitroaniline	0.30226	0.29730	0.29730	0.000	-1.64178	60.00000	Averaged
41 m-Nitroaniline	27.91412	40.00000	0.13510	0.000	-30.21471	60.00000	Linear
43 Dimethylphthalate	1.13752	1.14724	1.14724	0.000	0.85501	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25727	0.24980	0.24980	0.000	-2.90390	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32134	0.31078	0.31078	0.000	-3.28817	60.00000	Averaged
45 Acenaphthylene	1.46137	1.39595	1.39595	0.000	-4.47650	60.00000	Averaged
47 Acenaphthene	1.06534	1.07340	1.07340	0.001	0.75634	20.00000	Averaged ccc
48 2,4-Dinitrophenol	42.41691	40.00000	0.11287	0.050	6.04226	60.00000	Linear spcc
49 Dibenzofuran	1.30868	1.25298	1.25298	0.000	-4.25650	60.00000	Averaged
51 Diethylphthalate	1.16673	1.24765	1.24765	0.000	6.93551	60.00000	Averaged
52 4-Nitrophenol	0.15969	0.12437	0.12437	0.050	-22.11706	60.00000	Averaged spcc
53 Fluorene	1.13544	1.14385	1.14385	0.000	0.74043	60.00000	Averaged
54 4-Chlorophenylphenylether	0.53496	0.52189	0.52189	0.000	-2.44331	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	38.13931	40.00000	0.09393	0.000	-4.65173	60.00000	Linear
56 p-Nitroaniline	27.89801	40.00000	0.12067	0.000	-30.25498	60.00000	Linear
133 Diphenylamine	0.52058	0.46026	0.46026	0.001	-11.58680	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.67800	0.63314	0.63314	0.000	-6.61712	60.00000	Averaged
61 4-Bromophenylphenylether	0.17599	0.16998	0.16998	0.000	-3.41758	60.00000	Averaged
63 Hexachlorobenzene	0.17573	0.17982	0.17982	0.000	2.32611	60.00000	Averaged
65 Pentachlorophenol	0.09101	0.07956	0.07956	0.001	-12.58297	20.00000	Averaged ccc
206 n-Octadecane	0.58034	0.63764	0.63764	0.000	9.87408	60.00000	Averaged
68 Phenanthrene	0.98866	1.00053	1.00053	0.000	1.20041	60.00000	Averaged
69 Anthracene	0.95642	0.92635	0.92635	0.000	-3.14379	60.00000	Averaged
72 Di-n-butylphthalate	1.13150	1.23666	1.23666	0.000	9.29374	60.00000	Averaged
76 Fluoranthene	0.89301	0.97516	0.97516	0.001	9.19937	20.00000	Averaged ccc
79 Pyrene	1.30387	1.18791	1.18791	0.000	-8.89359	60.00000	Averaged
85 Butylbenzylphthalate	0.61006	0.60541	0.60541	0.000	-0.76218	60.00000	Averaged
89 Benzo(a)anthracene	0.99826	0.97209	0.97209	0.000	-2.62083	60.00000	Averaged
92 Chrysene	0.93128	0.88559	0.88559	0.000	-4.90619	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.84005	0.81972	0.81972	0.000	-2.42018	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-MAR-2010 15:25
Lab File ID: s2c2602.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.90697	1.94128	1.94128	0.001	1.79884	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.09105	1.19664	1.19664	0.000	9.67851	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.10378	1.09567	1.09567	0.000	-0.73544	60.00000	Averaged	
	97 Benzo(a)pyrene	0.90429	0.92966	0.92966	0.001	2.80475	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.77408	0.81172	0.81172	0.000	4.86204	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.63240	0.66504	0.66504	0.000	5.16073	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.62698	0.64149	0.64149	0.000	2.31335	60.00000	Averaged	
	126 m-Dinitrobenzene	0.17415	0.15567	0.15567	0.000	-10.61312	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27504	0.26617	0.26617	0.000	-3.22744	60.00000	Averaged	
	143 Dinoseb	39.69399	40.00000	0.13422	0.000	-0.76503	60.00000	Linear	
	173 Carbazole	20.90772	40.00000	0.28714	0.000	-47.73071	60.00000	Linear	
	184 p-Benzoquinone	34.30498	40.00000	0.17736	0.000	-14.23755	60.00000	Linear	
	192 Methoxychlor	0.60564	0.61717	0.61717	0.000	1.90282	60.00000	Averaged	
	211 p-Toluidine	1.06068	0.86766	0.86766	0.000	-18.19850	60.00000	Averaged	
	210 m-Toluidine	1.41165	1.36151	1.36151	0.000	-3.55164	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.22002	0.23185	0.23185	0.000	5.37315	60.00000	Averaged	
	215 2-Ethoxyethanol	0.70592	0.55001	0.55001	0.000	-22.08626	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	36.16631	40.00000	0.09011	0.000	-9.58422	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	0.31408	0.30121	0.30121	0.000	-4.09508	60.00000	Averaged	
	26 Phthalic anhydride	39.20317	40.00000	0.09379	0.000	-1.99207	60.00000	Linear	
M	222 Trichlorophenols	0.31263	0.27268	0.27268	0.000	-12.77861	60.00000	Averaged	
M	223 Tetrachlorophenols	0.27504	0.26617	0.26617	0.000	-3.22744	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.09742	1.14615	1.14615	0.000	4.44131	60.00000	Averaged	

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Data file : /chem/MSD2.i/s032610.b/s2c2602.d
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGACVS
Inj Date : 26-MAR-2010 15:25
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100309-09.1|40PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	158646	40.0000	
* 29 Naphthalene-d8	136	4.672	4.672	(1.000)	744655	40.0000	
* 46 Acenaphthene-d10	164	5.918	5.918	(1.000)	397163	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	686062	40.0000	
* 91 Chrysene-d12	240	8.555	8.555	(1.000)	608658	40.0000	
* 98 Perylene-d12	264	9.962	9.962	(1.000)	380590	40.0000	
$ 3 2-Fluorophenol	112	3.003	3.003	(0.788)	134773	40.0000	35.7
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	172017	40.0000	37.0
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.892)	220952	40.0000	41.0
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.914)	418568	40.0000	38.3
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.090)	44769	40.0000	38.1
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.914)	401909	40.0000	36.2
1 N-Methyl-N-nitrosomethylamine	74	2.319	2.319	(0.608)	81594	40.0000	37.6
2 Pyridine	79	2.345	2.345	(0.615)	112281	40.0000	36.4
4 Aniline	66	3.597	3.597	(0.944)	92349	40.0000	40.6
6 Phenol	94	3.538	3.538	(0.928)	167781	40.0000	35.0
7 bis(2-Chloroethyl) ether	63	3.613	3.613	(0.948)	170844	40.0000	41.5
8 2-Chlorophenol	128	3.677	3.677	(0.965)	159060	40.0000	37.3
203 n-Decane	43	3.661	3.661	(0.961)	370023	40.0000	50.8
9 1,3-Dichlorobenzene	146	3.773	3.773	(0.990)	202206	40.0000	39.8
11 1,4-Dichlorobenzene	146	3.822	3.822	(1.003)	218711	40.0000	40.6
13 1,2-Dichlorobenzene	146	3.923	3.923	(1.029)	199553	40.0000	40.2
14 bis(2-Chloroisopropyl)ether	45	3.955	3.955	(1.038)	500298	40.0000	49.7
12 Benzyl alcohol	108	3.880	3.880	(1.018)	44976	40.0000	19.9
15 o-Cresol	107	3.929	3.929	(1.031)	124242	40.0000	36.7
18 m,p-Cresols	107	4.030	4.030	(1.058)	145149	40.0000	36.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.046	4.046	(1.062)	122697	40.0000	40.8
19 Hexachloroethane	117	4.148	4.148	(1.088)	92846	40.0000	43.6
21 Nitrobenzene	77	4.185	4.185	(0.896)	208068	40.0000	41.0
22 Isophorone	82	4.335	4.335	(0.928)	370957	40.0000	40.4
23 2-Nitrophenol	139	4.394	4.394	(0.940)	91090	40.0000	34.3
24 2,4-Dimethylphenol	122	4.394	4.394	(0.940)	128311	40.0000	27.0
25 bis(2-Chloroethoxy)methane	93	4.458	4.458	(0.954)	197964	40.0000	37.6
26 2,4-Dichlorophenol	162	4.560	4.560	(0.976)	137467	40.0000	36.5
27 Benzoic acid	105	4.447	4.447	(0.952)	86547	40.0000	36.9
28 1,2,4-Trichlorobenzene	180	4.624	4.624	(0.990)	184735	40.0000	40.1
30 Naphthalene	128	4.688	4.688	(1.003)	558455	40.0000	37.8
204 alpha-Terpineol	59	4.667	4.667	(0.999)	224777	40.0000	44.5
31 4-Chloroaniline	127	4.704	4.704	(1.007)	228779	40.0000	35.7
32 Hexachlorobutadiene	225	4.752	4.752	(1.017)	123290	40.0000	44.2
33 4-Chloro-3-methylphenol	107	5.020	5.020	(1.074)	154269	40.0000	38.1
34 2-Methylnaphthalene	142	5.164	5.164	(1.105)	370643	40.0000	39.0
35 1-Methylnaphthalene	142	5.239	5.239	(1.121)	374483	40.0000	40.1
36 Hexachlorocyclopentadiene	237	5.266	5.266	(0.890)	64772	40.0000	34.3
205 2,3-Dichloroaniline	161	5.362	5.362	(0.906)	208658	40.0000	37.7
37 2,4,6-Trichlorophenol	196	5.357	5.357	(0.905)	104687	40.0000	35.0
38 2,4,5-Trichlorophenol	196	5.383	5.383	(0.910)	111910	40.0000	34.7
40 2-Chloronaphthalene	162	5.517	5.517	(0.932)	363426	40.0000	37.8
42 o-Nitroaniline	65	5.576	5.576	(0.942)	118076	40.0000	39.3
41 m-Nitroaniline	138	5.870	5.870	(0.992)	53655	40.0000	27.9
43 Dimethylphthalate	163	5.688	5.688	(0.961)	455642	40.0000	40.3
44 2,6-Dinitrotoluene	165	5.742	5.742	(0.970)	99212	40.0000	38.8
50 2,4-Dinitrotoluene	165	6.025	6.025	(1.018)	123429	40.0000	38.7
45 Acenaphthylene	152	5.817	5.817	(0.983)	554421	40.0000	38.2
47 Acenaphthene	154	5.940	5.940	(1.004)	426313	40.0000	40.3
48 2,4-Dinitrophenol	184	5.940	5.940	(1.004)	44828	40.0000	42.4
49 Dibenzofuran	168	6.057	6.057	(1.023)	497637	40.0000	38.3
51 Diethylphthalate	149	6.170	6.170	(1.042)	495521	40.0000	42.8
52 4-Nitrophenol	139	5.966	5.966	(1.008)	49397	40.0000	31.2
53 Fluorene	166	6.293	6.293	(1.063)	454295	40.0000	40.3
54 4-Chlorophenylphenylether	204	6.271	6.271	(1.060)	207274	40.0000	39.0
55 2-Methyl-4,6-dinitrophenol	198	6.309	6.309	(0.913)	64444	40.0000	38.1
56 p-Nitroaniline	138	6.293	6.293	(1.063)	47927	40.0000	27.9
133 Diphenylamine	169	6.351	6.351	(0.919)	315768	40.0000	35.4
58 1,2-Diphenylhydrazine	77	6.378	6.378	(0.923)	434370	40.0000	37.4
61 4-Bromophenylphenylether	248	6.597	6.597	(0.955)	116616	40.0000	38.6
63 Hexachlorobenzene	284	6.656	6.656	(0.964)	123369	40.0000	40.9
65 Pentachlorophenol	266	6.774	6.774	(0.981)	54580	40.0000	35.0
206 n-Octadecane	57	6.763	6.763	(0.979)	437460	40.0000	43.9
68 Phenanthrene	178	6.924	6.924	(1.002)	686423	40.0000	40.5
69 Anthracene	178	6.956	6.956	(1.007)	635533	40.0000	38.7
72 Di-n-butylphthalate	149	7.197	7.197	(1.042)	848427	40.0000	43.7
76 Fluoranthene	202	7.635	7.635	(1.105)	669019	40.0000	43.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.774	7.774	(0.909)	723032	40.0000	36.4
85 Butylbenzylphthalate	149	8.084	8.084	(0.945)	368489	40.0000	39.7
89 Benzo(a)anthracene	228	8.544	8.544	(0.999)	591672	40.0000	39.0
92 Chrysene	228	8.576	8.576	(1.002)	539024	40.0000	38.0
93 bis(2-Ethylhexyl)phthalate	149	8.437	8.437	(0.986)	498927	40.0000	39.0
94 Di-n-octylphthalate	149	8.951	8.951	(0.899)	738831	40.0000	40.7
95 Benzo(b)fluoranthene	252	9.512	9.512	(0.955)	455430	40.0000	43.9
96 Benzo(k)fluoranthene	252	9.539	9.539	(0.958)	417000	40.0000	39.7
97 Benzo(a)pyrene	252	9.892	9.892	(0.993)	353818	40.0000	41.1
99 Indeno(1,2,3-cd)pyrene	276	11.534	11.534	(1.158)	308931	40.0000	41.9
100 Dibenzo(a,h)anthracene	278	11.540	11.540	(1.158)	253106	40.0000	42.1
101 Benzo(ghi)perylene	276	12.021	12.021	(1.207)	244144	40.0000	40.9
126 m-Dinitrobenzene	168	5.726	5.726	(0.967)	61825	40.0000	35.8
130 2,3,4,6-Tetrachlorophenol	232	6.132	6.132	(1.036)	105711	40.0000	38.7
143 Dinoseb	211	6.865	6.865	(0.994)	92086	40.0000	39.7
173 Carbazole	167	7.041	7.041	(1.019)	196996	40.0000	20.9
184 p-Benzoquinone	54	3.303	3.303	(0.867)	28137	40.0000	34.3
192 Methoxychlor	227	8.421	8.421	(0.984)	375643	40.0000	40.8
211 p-Toluidine	106	4.089	4.089	(1.073)	137650	40.0000	32.7
210 m-Toluidine	106	4.110	4.110	(1.079)	215998	40.0000	38.6
214 1,4-Dinitrobenzene	75	5.667	5.667	(0.958)	92081	40.0000	42.1
215 2-Ethoxyethanol	59	2.158	2.158	(0.566)	87257	40.0000	31.2
216 Methylenebis(2-chloroaniline)	231	8.480	8.480	(0.991)	54849	40.0000	36.2
179 Dibenzo(a,e)pyrene	302	15.770	15.770	(1.583)	114639	40.0000	38.4
26 Phthalic anhydride	104	5.207	5.207	(1.114)	69844	40.0000	39.2
M 222 Trichlorophenols	196				216597	80.0000	69.8
M 223 Tetrachlorophenols	232				105711	40.0000	38.7
M 224 Benzo(b,k)fluoranthene	252				872430	80.0000	83.6

Data File: /chem/MSD2.i/s032610.b/s2o2602.d
Date : 26-MAR-2010 15:25
Client ID: MEGACVS
Sample Info: IWBN100309-09.1|40PPM|1|SVMF|1|MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

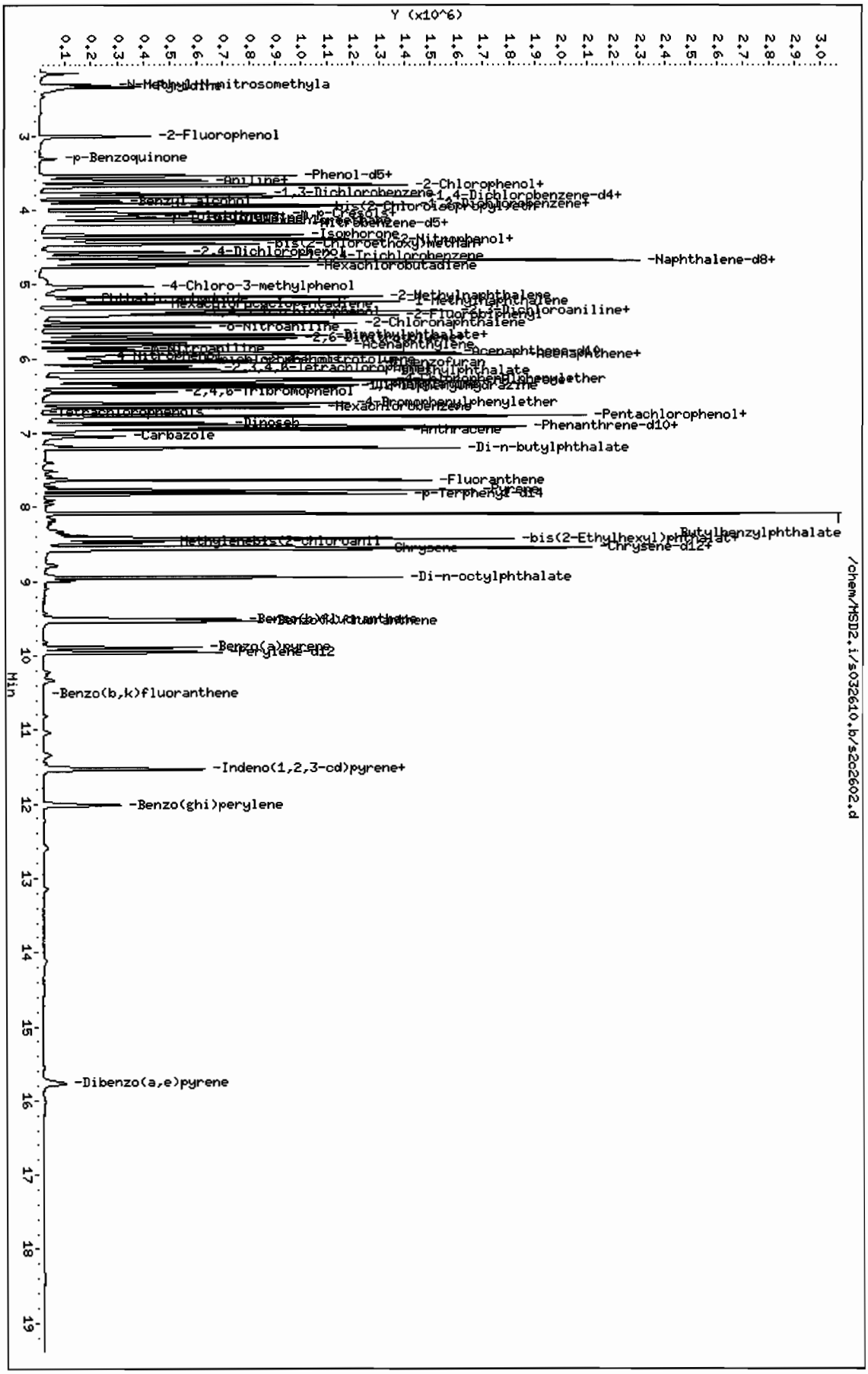

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-MAR-2010 16:34
Lab File ID: s2c2605.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86368	0.81614	0.81614	0.000	-5.50454	60.00000	Averaged
16 Acetophenone	1.37576	1.39463	1.39463	0.000	1.37145	60.00000	Averaged
189 Caprolactam	0.08573	0.07926	0.07926	0.000	-7.54673	60.00000	Averaged
208 1,1'-Biphenyl	1.36982	1.24082	1.24082	0.000	-9.41777	60.00000	Averaged
207 Atrazine	0.04293	0.04070	0.04070	0.000	-5.20042	60.00000	Averaged
77 Benzidine	0.33873	0.15976	0.15976	0.000	-52.83396	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.26512	0.26252	0.26252	0.000	-0.98085	60.00000	Averaged
102 1,4-Dioxane	0.34681	0.26478	0.26478	0.000	-23.65264	60.00000	Averaged
103 Methyl methacrylate	0.20110	0.15368	0.15368	0.000	-23.57876	60.00000	Averaged
104 Ethyl methacrylate	0.76185	0.61445	0.61445	0.000	-19.34673	60.00000	Averaged
105 2-Picoline	1.18562	0.96844	0.96844	0.000	-18.31807	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45513	0.38562	0.38562	0.000	-15.27205	60.00000	Averaged
107 Methyl methanesulfonate	0.57842	0.57101	0.57101	0.000	-1.28221	60.00000	Averaged
108 N-Nitrosodiethylamine	0.51094	0.47555	0.47555	0.000	-6.92658	60.00000	Averaged
109 Ethyl Methanesulfonate	0.63566	0.58560	0.58560	0.000	-7.87612	60.00000	Averaged
110 Pentachloroethane	0.37569	0.36414	0.36414	0.000	-3.07397	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.53211	0.49645	0.49645	0.000	-6.70041	60.00000	Averaged
113 N-Nitrosomorpholine	0.97127	1.16376	1.16376	0.000	19.81823	60.00000	Averaged
114 o-Toluidine	1.89418	1.80202	1.80202	0.000	-4.86538	60.00000	Averaged
115 N-Nitrosopiperidine	0.13732	0.12093	0.12093	0.000	-11.93267	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.91646	0.93864	0.93864	0.000	2.41938	60.00000	Averaged
118 2,6-Dichlorophenol	0.23643	0.21746	0.21746	0.000	-8.02446	60.00000	Averaged
119 Hexachloropropene	0.12163	0.13266	0.13266	0.000	9.07094	60.00000	Averaged
120 p-Phenylenediamine	0.21439	0.18197	0.18197	0.000	-15.12054	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21777	0.20311	0.20311	0.000	-6.73091	60.00000	Averaged
122 Safrole	0.21234	0.20391	0.20391	0.000	-3.97130	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.46025	0.42650	0.42650	0.000	-7.33424	60.00000	Averaged
124 Isosafrole	0.35814	0.30007	0.30007	0.000	-16.21275	60.00000	Averaged
125 1,4-Naphthoquinone	0.33102	0.28003	0.28003	0.000	-15.40405	60.00000	Averaged
127 Pentachlorobenzene	0.40528	0.39612	0.39612	0.000	-2.26147	60.00000	Averaged
128 1-Naphthylamine	0.93385	0.83975	0.83975	0.000	-10.07595	60.00000	Averaged
129 2-Naphthylamine	1.00959	0.83732	0.83732	0.000	-17.06281	60.00000	Averaged
131 5-Nitro-o-toluidine	0.26606	0.22952	0.22952	0.000	-13.73210	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.13367	0.16157	0.16157	0.000	20.86978	60.00000	Averaged
137 Phenacetin	0.29810	0.27909	0.27909	0.000	-6.37834	60.00000	Averaged
138 Diallate	0.26365	0.23159	0.23159	0.000	-12.15938	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-MAR-2010 16:34
Lab File ID: s2c2605.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.24728	0.19881	0.19881	0.000	-19.60261	60.00000	Averaged
213 Trans Diallate	0.31018	0.27246	0.27246	0.000	-12.15938	60.00000	Averaged
140 4-Aminobiphenyl	0.60442	0.50091	0.50091	0.000	-17.12453	60.00000	Averaged
141 Pentachloronitrobenzene	0.08460	0.10249	0.10249	0.000	21.14627	60.00000	Averaged
142 Pronamide	0.30496	0.35150	0.35150	0.000	15.26076	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	30.28667	40.00000	0.01191	0.000	-24.28331	60.00000	Linear
147 Methapyrilene	0.40497	0.37524	0.37524	0.000	-7.34237	60.00000	Averaged
148 Isodrin	0.09920	0.10321	0.10321	0.000	4.04865	60.00000	Averaged
149 Aramite	0.04916	0.04809	0.04809	0.000	-2.16305	60.00000	Averaged
150 Kepone	0.06534	0.06391	0.06391	0.000	-2.18656	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.38501	0.33876	0.33876	0.000	-12.01296	60.00000	Averaged
152 Chlorobenzilate	0.35608	0.33623	0.33623	0.000	-5.57274	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.50325	0.38113	0.38113	0.000	-24.26658	60.00000	Averaged
155 2-Acetylaminofluorene	0.31776	0.34795	0.34795	0.000	9.49941	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.56755	0.54684	0.54684	0.000	-3.64944	60.00000	Averaged
158 3-Methylcholanthrene	0.40852	0.39297	0.39297	0.000	-3.80636	60.00000	Averaged

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Data file : /chem/MSD2.i/s032610.b/s2c2605.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APCVS
Inj Date : 26-MAR-2010 16:34
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100218-08.1|40 PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 26-Mar-2010 17:05 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	205189	40.0000	
* 29 Naphthalene-d8	136	4.672	4.672	(1.000)	856171	40.0000	
* 46 Acenaphthene-d10	164	5.918	5.918	(1.000)	554090	40.0000	
* 67 Phenanthrene-d10	188	6.913	6.913	(1.000)	990324	40.0000	
* 91 Chrysene-d12	240	8.555	8.555	(1.000)	790141	40.0000	
* 98 Perylene-d12	264	9.962	9.962	(1.000)	502641	40.0000	
209 Benzaldehyde	77	3.538	3.538	(0.928)	167462	40.0000	37.8
16 Acetophenone	105	4.062	4.062	(1.066)	286163	40.0000	40.5
189 Caprolactam	113	4.955	4.955	(1.061)	67860	40.0000	37.0
208 1,1'-Biphenyl	154	5.490	5.490	(0.928)	687524	40.0000	36.2
207 Atrazine	173	6.683	6.683	(0.967)	40308	40.0000	37.9
77 Benzidine	184	7.689	7.689	(0.899)	126236	40.0000	18.9
90 3,3'-Dichlorobenzidine	252	8.491	8.491	(0.992)	207430	40.0000	39.6
102 1,4-Dioxane	88	2.163	2.163	(0.568)	54330	40.0000	30.5
103 Methyl methacrylate	100	2.158	2.158	(0.566)	31534	40.0000	30.6
104 Ethyl methacrylate	69	2.527	2.527	(0.663)	126079	40.0000	32.3
105 2-Picoline	93	2.720	2.720	(0.714)	198713	40.0000	32.7
106 N-Nitrosomethylethylamine	88	2.763	2.763	(0.725)	79126	40.0000	33.9
107 Methyl methanesulfonate	80	2.918	2.918	(0.766)	117164	40.0000	39.5
108 N-Nitrosodiethylamine	102	3.148	3.148	(0.826)	97577	40.0000	37.2
109 Ethyl Methanesulfonate	79	3.308	3.308	(0.868)	120158	40.0000	36.8
110 Pentachloroethane	167	3.634	3.634	(0.954)	74718	40.0000	38.8
111 N-Nitrosopyrrolidine	100	4.057	4.057	(1.065)	101867	40.0000	37.3(Q)
113 N-Nitrosomorpholine	56	4.073	4.073	(1.069)	238790	40.0000	47.9
114 o-Toluidine	106	4.089	4.089	(1.073)	369755	40.0000	38.0
115 N-Nitrosopiperidine	114	4.287	4.287	(0.918)	103539	40.0000	35.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.528	4.528	(0.969)	803633	40.0000	41.0
118 2,6-Dichlorophenol	162	4.715	4.715	(1.009)	186179	40.0000	36.8
119 Hexachloropropene	213	4.742	4.742	(1.015)	113583	40.0000	43.6
120 p-Phenylenediamine	108	4.955	4.955	(1.061)	155799	40.0000	34.0
121 N-Nitrosodi-n-butylamine	84	4.918	4.918	(1.053)	173898	40.0000	37.3
122 Safrole	162	5.084	5.084	(1.088)	174580	40.0000	38.4
123 1,2,4,5-Tetrachlorobenzene	216	5.287	5.287	(0.893)	236317	40.0000	37.1
124 Isosafrole	162	5.453	5.453	(0.921)	166268	40.0000	33.5
125 1,4-Naphthoquinone	158	5.640	5.640	(0.953)	155162	40.0000	33.8
127 Pentachlorobenzene	250	6.031	6.031	(1.019)	219484	40.0000	39.1
128 1-Naphthylamine	143	6.111	6.111	(1.033)	465298	40.0000	36.0
129 2-Naphthylamine	143	6.164	6.164	(1.042)	463952	40.0000	33.2
131 5-Nitro-o-toluidine	152	6.287	6.287	(1.062)	127176	40.0000	34.5
136 1,3,5-Trinitrobenzene	75	6.517	6.517	(0.943)	160009	40.0000	48.3
137 Phenacetin	108	6.544	6.544	(0.947)	276387	40.0000	37.4(Q)
138 Diallate	86	6.528	6.528	(0.944)	229353	40.0000	35.1
212 Cis Diallate	86	6.587	6.587	(0.953)	29533	6.00000	4.8
213 Trans Diallate	86	6.528	6.528	(0.944)	229353	34.0000	29.9
140 4-Aminobiphenyl	169	6.774	6.774	(0.980)	496068	40.0000	33.2
141 Pentachloronitrobenzene	237	6.785	6.785	(0.981)	101498	40.0000	48.4
142 Pronamide	173	6.785	6.785	(0.981)	348103	40.0000	46.1
146 4-Nitroquinoline-1-oxide	101	7.378	7.378	(1.067)	11794	40.0000	30.3
147 Methapyrilene	58	7.394	7.394	(1.070)	371605	40.0000	37.1
148 Isodrin	193	7.550	7.550	(1.092)	102216	40.0000	41.6
149 Aramite	185	7.785	7.785	(1.126)	47629	40.0000	39.1
150 Kepone	272	8.191	8.191	(1.185)	63295	40.0000	39.1
151 p-(Dimethylamino)azobenzene	120	7.903	7.903	(0.924)	267670	40.0000	35.2
152 Chlorobenzilate	251	7.919	7.919	(0.926)	265672	40.0000	37.8
153 3,3'-Dimethylbenzidine	212	8.111	8.111	(0.948)	301147	40.0000	30.3
155 2-Acetylaminofluorene	181	8.282	8.282	(0.968)	274927	40.0000	43.8
157 7,12Dimethylbenz(a)anthracene	256	9.486	9.486	(0.952)	274863	40.0000	38.5
158 3-Methylcholanthrene	268	10.309	10.309	(1.035)	197522	40.0000	38.5(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s032610.b/s2c2605.d
Date : 26-MAR-2010 16:34
Client ID: APCVS
Sample Info: IWBN100218-08.1|40 PPM|1|SVMF|1|APCVS

Column phase: J&W DB-5MS

Page 1

Instrument: MSD2.i

Operator: AGS1
Column diameter: 0.20

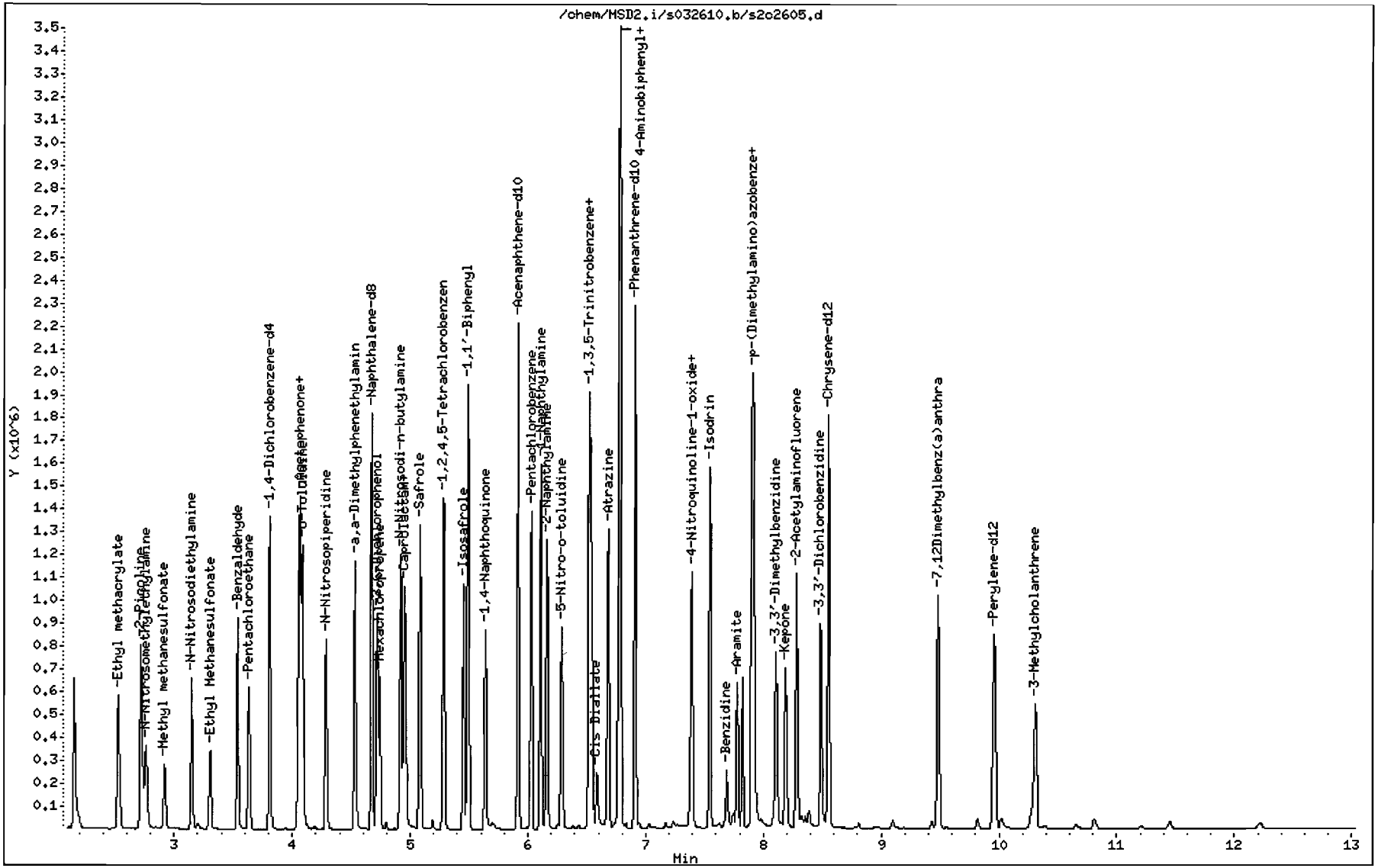

QC Data

Data File: /chem/MSD2.i/s031210.b/s2c1201.d

Page 1

Date : 12-MAR-2010 14:32

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

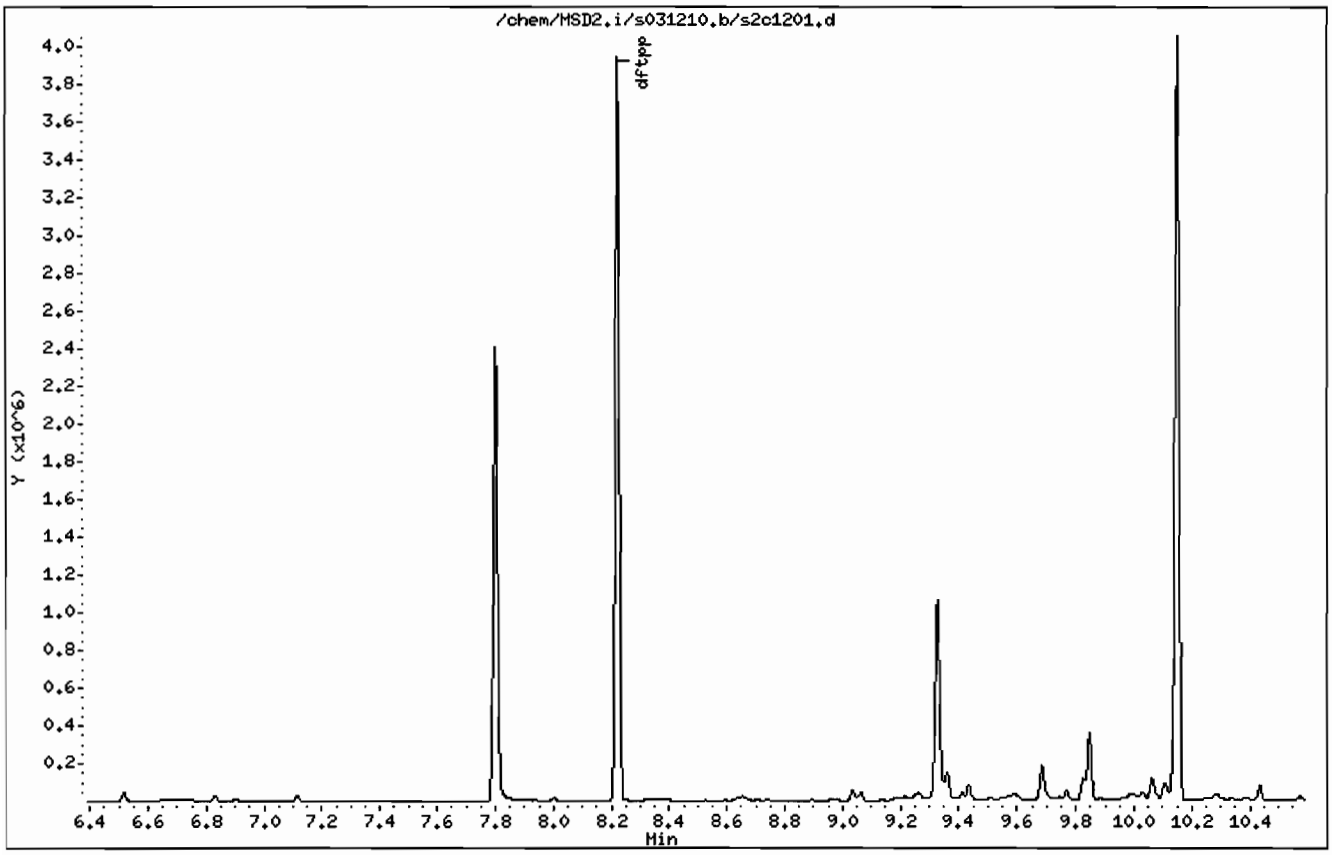

Data File: /chem/MSD2.i/s031210.b/s2c1201.d

Date : 12-MAR-2010 14:32

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

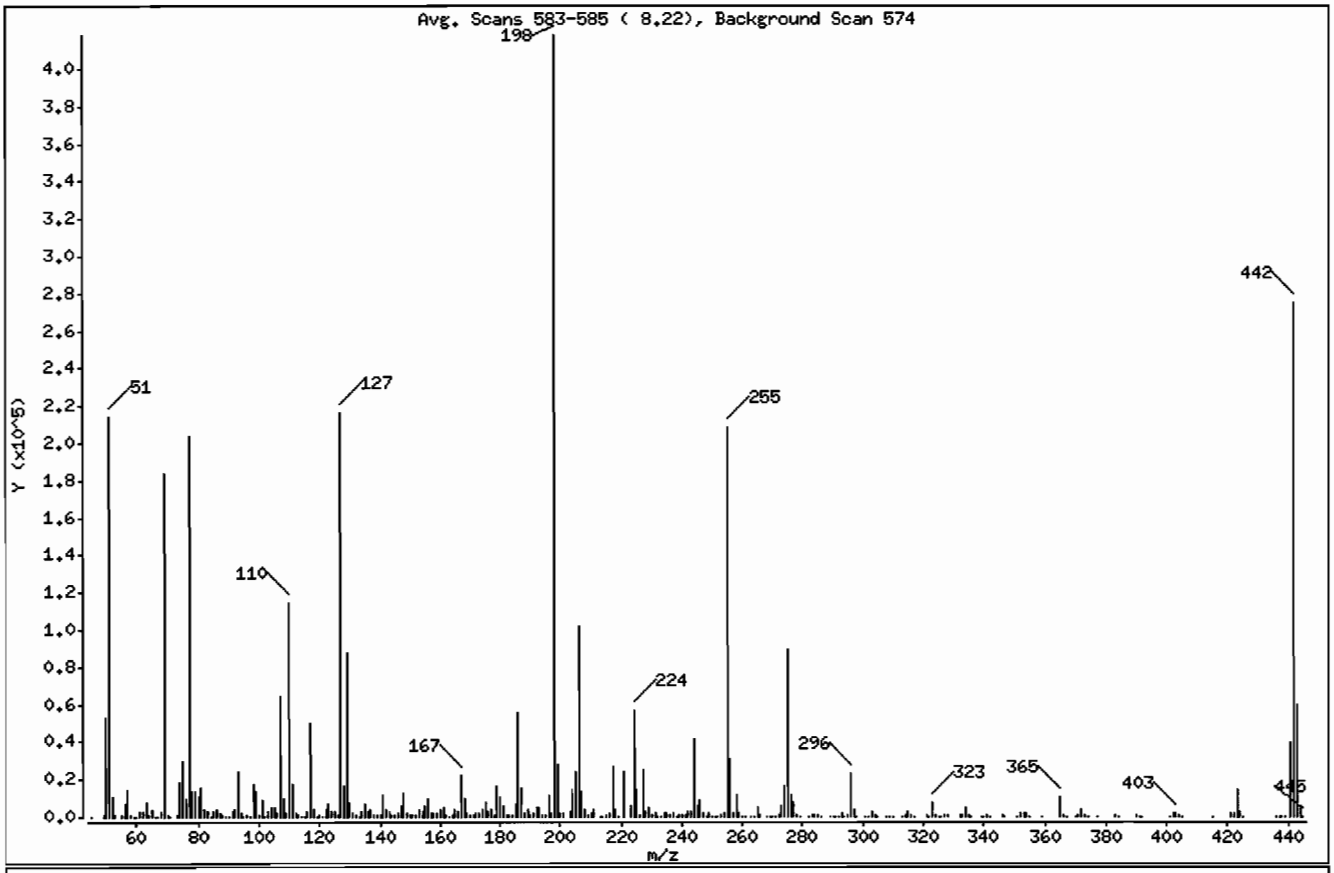

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	51.23
68	Less than 2.00% of mass 69	0.66 (1.50)
69	Mass 69 relative abundance	43.91
70	Less than 2.00% of mass 69	0.22 (0.50)
127	40.00 - 60.00% of mass 198	51.73
197	Less than 1.00% of mass 198	0.54
199	5.00 - 9.00% of mass 198	6.68
275	10.00 - 30.00% of mass 198	21.33
365	Greater than 1.00% of mass 198	2.44
441	Present, but less than mass 443	9.51
442	Greater than 40.00% of mass 198	65.73
443	17.00 - 23.00% of mass 442	14.16 (21.54)

Date : 12-MAR-2010 14:32

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: ACS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c1201.d
Spectrum: Avg. Scans 583-585 (8.22), Background Scan 574
Location of Maximum: 198.00
Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	111	128.00	16105	207.00	13087	294.00	340
49.00	1232	129.00	87200	208.00	3366	295.00	506
50.00	53328	130.00	7430	209.00	1093	296.00	23416
51.00	214272	131.00	1539	210.00	1706	297.00	3588
52.00	10549	132.00	939	211.00	4158	298.00	195
53.00	487	133.00	251	213.00	272	301.00	290
55.00	832	134.00	2602	214.00	82	302.00	297
56.00	6559	135.00	7153	215.00	1062	303.00	2593
57.00	14416	136.00	2794	216.00	2280	304.00	688
58.00	574	137.00	3413	217.00	27360	305.00	141
59.00	214	138.00	835	218.00	3612	308.00	266
60.00	128	139.00	544	219.00	310	309.00	175
61.00	2499	140.00	1186	221.00	23584	310.00	263
62.00	2815	141.00	11269	223.00	5914	313.00	188
63.00	7676	142.00	3759	224.00	56600	314.00	1057
64.00	1029	143.00	2548	225.00	14894	315.00	2589
65.00	3643	144.00	564	226.00	1401	316.00	1393
66.00	227	145.00	550	227.00	24744	317.00	244
67.00	249	146.00	1785	228.00	3284	321.00	907
68.00	2751	147.00	5698	229.00	4822	322.00	417
69.00	183616	148.00	12040	230.00	606	323.00	7352
70.00	924	149.00	2352	231.00	2082	324.00	1433
71.00	69	150.00	590	232.00	344	325.00	163
73.00	1326	151.00	1386	233.00	452	326.00	205
74.00	18456	152.00	915	234.00	1620	327.00	1409
75.00	30256	153.00	3731	235.00	1697	328.00	800
76.00	9563	154.00	2755	236.00	1243	332.00	529
77.00	203648	155.00	6002	237.00	1721	333.00	698
78.00	13270	156.00	9198	238.00	174	334.00	4633
79.00	13512	157.00	1778	239.00	837	335.00	1148
80.00	10545	158.00	2068	240.00	582	336.00	129
81.00	15127	159.00	1680	241.00	1318	339.00	36
82.00	3756	160.00	3406	242.00	2859	340.00	35
83.00	3210	161.00	4970	243.00	2882	341.00	750
84.00	283	162.00	1386	244.00	41656	342.00	198

Date : 12-MAR-2010 14:32

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c1201.d
Spectrum: Avg. Scans 583-585 (8.22), Background Scan 574
Location of Maximum: 198.00
Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
85.00	2708	163.00	351	245.00	5634	346.00	1433
86.00	4261	164.00	594	246.00	8289	347.00	279
87.00	1859	165.00	4127	247.00	1512	351.00	89
88.00	737	166.00	3102	248.00	396	352.00	2169
89.00	409	167.00	21928	249.00	1500	353.00	1448
90.00	33	168.00	9147	250.00	274	354.00	2178
91.00	3326	169.00	1600	251.00	362	355.00	446
92.00	3744	170.00	833	252.00	354	359.00	204
93.00	23560	171.00	791	253.00	954	365.00	10190
94.00	1638	172.00	1833	254.00	1580	366.00	1326
95.00	431	173.00	2299	255.00	208832	367.00	69
96.00	1044	174.00	4053	256.00	30520	370.00	245
97.00	353	175.00	8142	257.00	2349	371.00	659
98.00	17640	176.00	2587	258.00	11879	372.00	4217
99.00	13822	177.00	4010	259.00	1703	373.00	973
100.00	1267	178.00	1325	260.00	329	374.00	71
101.00	8433	179.00	16023	261.00	399	377.00	73
102.00	446	180.00	10416	263.00	145	383.00	1032
103.00	2592	181.00	5383	264.00	341	384.00	293
104.00	5157	182.00	761	265.00	4795	390.00	534
105.00	4954	183.00	489	266.00	713	391.00	366
106.00	1577	184.00	1375	268.00	265	392.00	291
107.00	64696	185.00	6858	269.00	39	401.00	207
108.00	10050	186.00	56160	270.00	297	402.00	1528
109.00	1764	187.00	15585	271.00	433	403.00	2384
110.00	114096	188.00	1641	272.00	551	404.00	798
111.00	17488	189.00	3417	273.00	5795	405.00	91
112.00	2390	190.00	598	274.00	15910	415.00	123
113.00	762	191.00	1833	275.00	89224	421.00	1870
114.00	188	192.00	4782	276.00	11921	422.00	1814
115.00	216	193.00	5187	277.00	7262	423.00	14591
116.00	3185	194.00	1094	278.00	1035	424.00	2911
117.00	49888	195.00	806	279.00	226	425.00	233
118.00	3469	196.00	11999	282.00	142	436.00	76
119.00	443	197.00	2241	283.00	690	437.00	117

Data File: /chem/MSD2.i/s031210.b/s2c1201.d

Date : 12-MAR-2010 14:32

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2c1201.d
Spectrum: Avg. Scans 583-585 (8.22), Background Scan 574
Location of Maximum: 198.00
Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
120.00	823	198.00	418304	284.00	641	438.00	77
121.00	272	199.00	27952	285.00	1258	439.00	437
122.00	4046	200.00	2119	286.00	201	441.00	39784
123.00	6733	201.00	2001	289.00	268	442.00	274944
124.00	2787	203.00	2988	290.00	239	443.00	59232
125.00	2776	204.00	14572	291.00	177	444.00	5408
126.00	814	205.00	24104	292.00	278	445.00	225
127.00	216384	206.00	101472	293.00	1773		

Data File: /chem/MSD2.i/s032610.b/s2c2601.d

Date : 26-MAR-2010 15:12

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

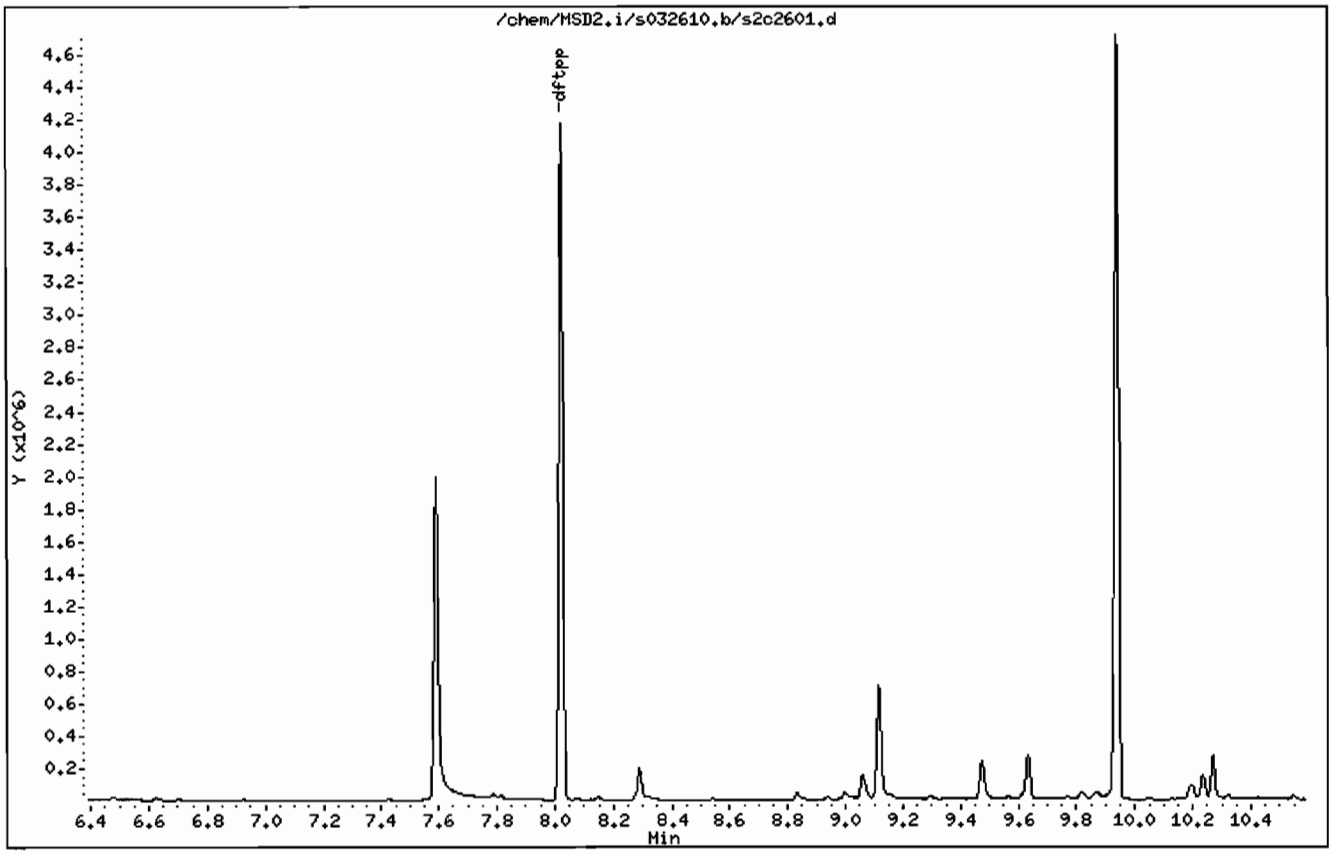

Data File: /chem/MSD2.i/s032610.b/s2c2601.d

Date : 26-MAR-2010 15:12

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100306-01,2|50PPM|1|SVMF|1|DFTPP|

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

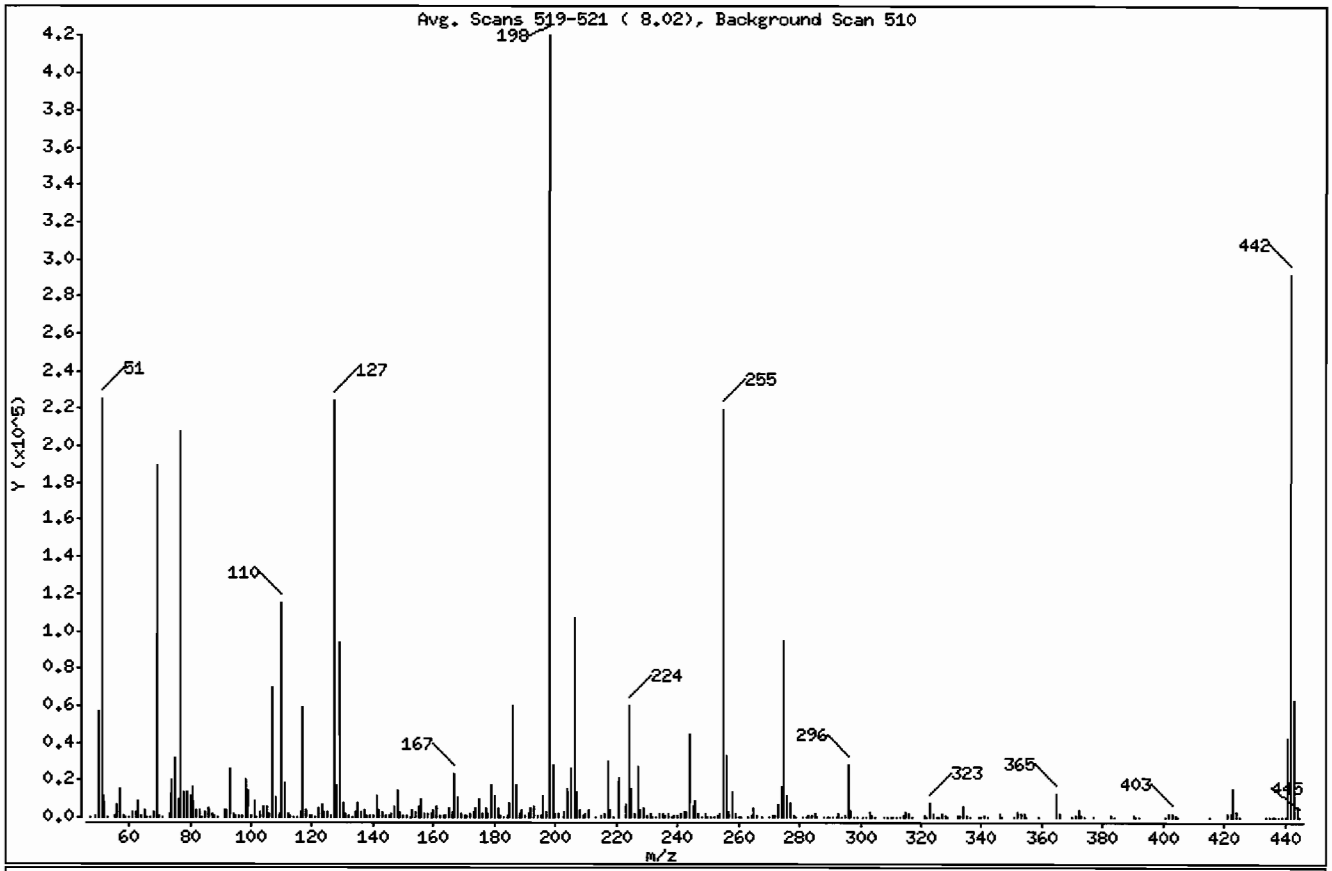

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	53.50
68	Less than 2.00% of mass 69	0.69 (1.54)
69	Mass 69 relative abundance	45.03
70	Less than 2.00% of mass 69	0.24 (0.53)
127	40.00 - 60.00% of mass 198	53.40
197	Less than 1.00% of mass 198	0.68
199	5.00 - 9.00% of mass 198	6.70
275	10.00 - 30.00% of mass 198	22.48
365	Greater than 1.00% of mass 198	2.88
441	Present, but less than mass 443	10.22
442	Greater than 40.00% of mass 198	69.48
443	17.00 - 23.00% of mass 442	14.98 (21.56)

Date : 26-MAR-2010 15:12

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100306-01,2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c2601.d
Spectrum: Avg. Scans 519-521 (8.02), Background Scan 510
Location of Maximum: 198.00
Number of points: 316

m/z	Y	m/z	Y	m/z	Y	m/z	Y
47.00	36	131.00	1818	213.00	245	302.00	473
49.00	1134	132.00	826	215.00	1215	303.00	3157
50.00	56928	133.00	351	216.00	2361	304.00	803
51.00	224896	134.00	2770	217.00	30000	305.00	33
52.00	11346	135.00	7325	218.00	3562	308.00	397
53.00	433	136.00	3248	219.00	330	309.00	207
55.00	945	137.00	3735	221.00	21256	310.00	293
56.00	6698	138.00	750	223.00	6314	311.00	42
57.00	15103	139.00	519	224.00	59792	312.00	73
58.00	539	140.00	1084	225.00	15432	313.00	233
59.00	265	141.00	11972	226.00	1831	314.00	1251
60.00	69	142.00	4062	227.00	27536	315.00	2953
61.00	2491	143.00	2536	228.00	3789	316.00	1455
62.00	3061	144.00	722	229.00	4742	317.00	211
63.00	8339	145.00	585	230.00	777	321.00	909
64.00	1145	146.00	2129	231.00	2143	322.00	420
65.00	3412	147.00	5899	232.00	405	323.00	7889
66.00	396	148.00	14283	233.00	474	324.00	1505
67.00	204	149.00	2957	234.00	1724	325.00	114
68.00	2913	150.00	590	235.00	1792	326.00	176
69.00	189312	151.00	1379	236.00	1278	327.00	1623
70.00	1000	152.00	238	237.00	1808	328.00	765
71.00	179	153.00	3755	238.00	301	329.00	150
73.00	1465	154.00	2766	239.00	984	332.00	689
74.00	20104	155.00	6231	240.00	701	333.00	827
75.00	31632	156.00	9291	241.00	1488	334.00	5354
76.00	10073	157.00	1651	242.00	3141	335.00	1299
77.00	207744	158.00	2282	243.00	3050	336.00	145
78.00	13585	159.00	1691	244.00	44464	339.00	114
79.00	13774	160.00	3819	245.00	5706	340.00	35
80.00	11217	161.00	5590	246.00	9121	341.00	834
81.00	16229	162.00	1389	247.00	1871	342.00	211
82.00	3922	163.00	534	248.00	395	346.00	1609
83.00	3462	164.00	654	249.00	1518	347.00	245
84.00	396	165.00	4456	250.00	294	351.00	179

Date : 26-MAR-2010 15:12

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100306-01,2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c2601.d
Spectrum: Avg. Scans 519-521 (8.02), Background Scan 510
Location of Maximum: 198.00
Number of points: 316

m/z	Y	m/z	Y	m/z	Y	m/z	Y
85.00	2663	166.00	3368	251.00	397	352.00	2524
86.00	4739	167.00	23648	252.00	455	353.00	1708
87.00	2120	168.00	10178	253.00	1084	354.00	2416
88.00	760	169.00	1852	254.00	1634	355.00	409
89.00	363	170.00	732	255.00	219520	359.00	140
91.00	3502	171.00	965	256.00	32432	365.00	12126
92.00	3947	172.00	2138	257.00	2590	366.00	1624
93.00	25904	173.00	2623	258.00	13537	370.00	281
94.00	1575	174.00	4522	259.00	2305	371.00	619
95.00	525	175.00	9401	260.00	396	372.00	4256
96.00	1191	176.00	2390	261.00	391	373.00	953
97.00	522	177.00	4438	263.00	6	374.00	73
98.00	20552	178.00	1493	264.00	686	377.00	38
99.00	14671	179.00	17376	265.00	5132	383.00	1154
100.00	1329	180.00	11343	266.00	1031	384.00	283
101.00	8842	181.00	5312	268.00	418	390.00	630
102.00	396	182.00	857	270.00	359	391.00	284
103.00	2541	183.00	474	271.00	517	392.00	321
104.00	5742	184.00	1379	272.00	721	401.00	243
105.00	5801	185.00	7687	273.00	6744	402.00	1774
106.00	1792	186.00	59704	274.00	16416	403.00	2278
107.00	69888	187.00	17128	275.00	94520	404.00	858
108.00	10215	188.00	1813	276.00	11976	405.00	37
109.00	1669	189.00	4113	277.00	8137	415.00	79
110.00	114864	190.00	656	278.00	1249	421.00	1911
111.00	18008	191.00	1645	279.00	279	422.00	2023
112.00	2329	192.00	4928	281.00	133	423.00	15341
113.00	774	193.00	5831	282.00	245	424.00	3128
114.00	113	194.00	1196	283.00	971	425.00	299
115.00	236	195.00	540	284.00	668	434.00	135
116.00	3315	196.00	11383	285.00	1559	435.00	80
117.00	59056	197.00	2840	286.00	218	436.00	286
118.00	4065	198.00	420416	288.00	35	437.00	205
119.00	504	199.00	28152	289.00	241	438.00	243
120.00	916	200.00	2179	290.00	215	439.00	336

Date : 26-MAR-2010 15:12

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: ACS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c2601.d
Spectrum: Avg. Scans 519-521 (8.02), Background Scan 510
Location of Maximum: 198.00
Number of points: 316

m/z	Y	m/z	Y	m/z	Y	m/z	Y
121.00	303	201.00	1899	291.00	169	440.00	204
122.00	4685	203.00	3352	292.00	412	441.00	42952
123.00	7039	204.00	15646	293.00	1765	442.00	292096
124.00	3205	205.00	26056	294.00	368	443.00	62992
125.00	2805	206.00	107016	295.00	551	444.00	5770
126.00	723	207.00	13672	296.00	27800	445.00	397
127.00	224512	208.00	3975	297.00	3636		
128.00	16992	209.00	1307	298.00	234		
129.00	93432	210.00	2009	299.00	38		
130.00	7581	211.00	3971	301.00	430		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074566**				
Client Sample:	**QC for batch 966672**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966672**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 17:36**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2608-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074566**				
Client Sample:	**QC for batch 966672**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966672**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 17:36**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2608-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
108-88-3	Toluene	2.51	143	ug/kg	95	NJ
	Unknown Aldol Condensate	2.85	363	ug/kg		JA

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Data file : /chem/MSD2.i/s032610.b/s2c2608-1.d
Lab Smp Id: 1202074566 Client Smp ID: SBLK01
Inj Date : 26-MAR-2010 17:36
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202074566|966675|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2412.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.805	3.811	(1.000)	194616	40.0000	
* 29 Naphthalene-d8	136	4.667	4.672	(1.000)	754016	40.0000	
* 46 Acenaphthene-d10	164	5.913	5.918	(1.000)	452391	40.0000	
* 67 Phenanthrene-d10	188	6.902	6.908	(1.000)	803516	40.0000	
* 91 Chrysene-d12	240	8.544	8.555	(1.000)	641005	40.0000	
* 98 Perylene-d12	264	9.946	9.962	(1.000)	413678	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.792)	346280	74.7252	2490
$ 5 Phenol-d5	99	3.527	3.533	(0.927)	386263	67.6895	2260
$ 20 Nitrobenzene-d5	82	4.164	4.169	(0.892)	212489	38.9370	1300
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.915)	422368	33.9348	1130
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.091)	110156	82.3251	2740
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.915)	573695	49.0738	1640

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Data file : /chem/MSD2.i/s032610.b/s2c2608-1.d
Lab Smp Id: 1202074566 Client Smp ID: SBLK01
Inj Date : 26-MAR-2010 17:36
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202074566|966675|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2412.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.805	1437075	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Toluene				CAS #: 108-88-3			
2.506	154308	4.29505195	143	95	NIST05.L	2400	10
Unknown Aldol Condensate				CAS #:			
2.848	391750	10.9040980	363	0		0	10

Data File: /chem/MSD2.i/s032610.b/s2c2608-1.d
Date : 26-MAR-2010 17:36
Client ID: SBLK01
Sample Info: |1202074566|966675|1|SVMI1|MB
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: ACS1
Column diameter: 0.20

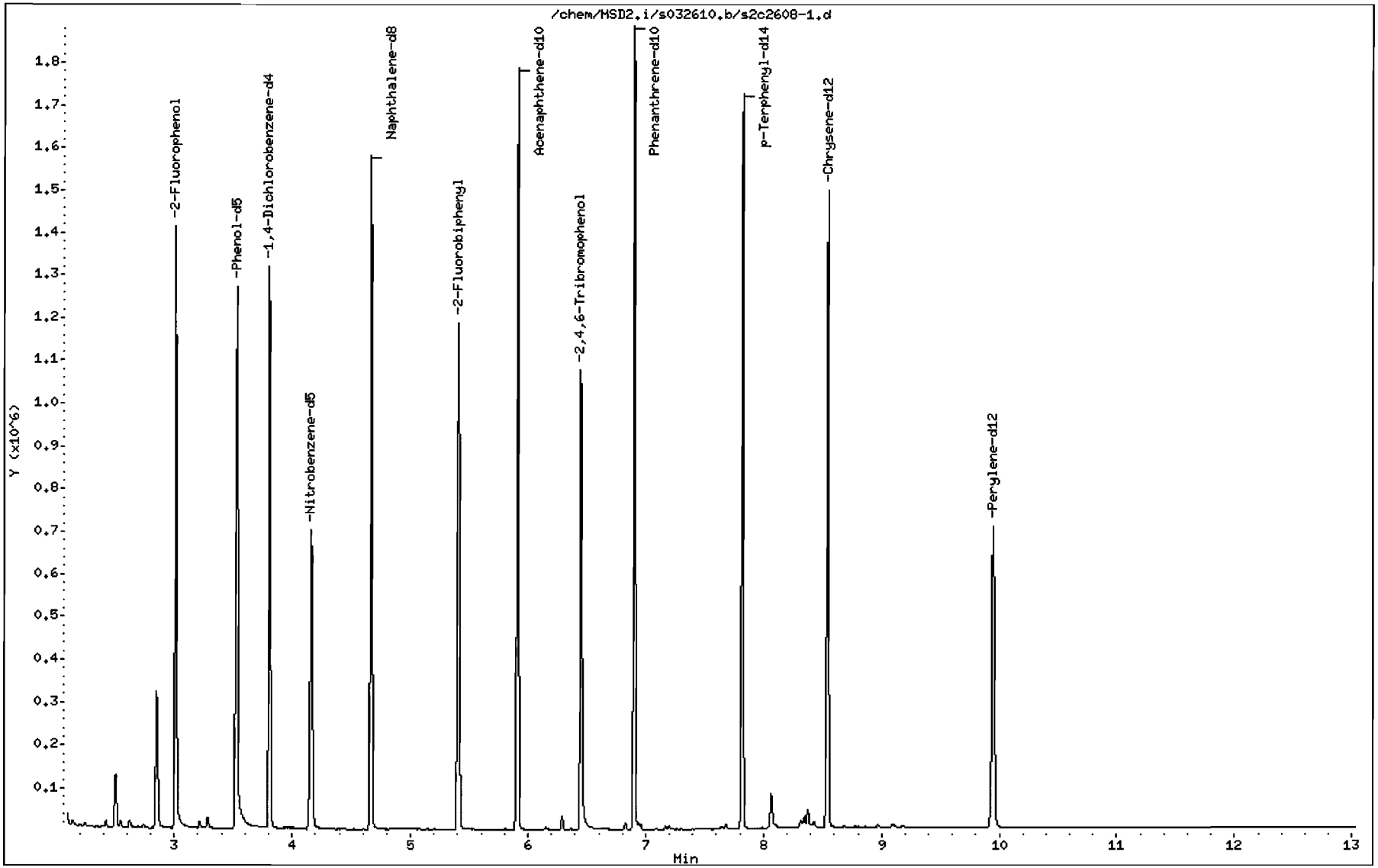

Data File: /chem/MSD2.i/s032610.b/s2c2608-1.d

Date : 26-MAR-2010 17:36

Client ID: SBLK01

Instrument: MSD2.i

Sample Info: |1202074566|966675|1|SVM|1|MB

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Toluene	108-88-3	NIST05.L	2400	95	C7H8	92
1,3,5-Cycloheptatriene	544-25-2	NIST05.L	2414	90	C7H8	92
Toluene	108-88-3	NIST05.L	2397	90	C7H8	92

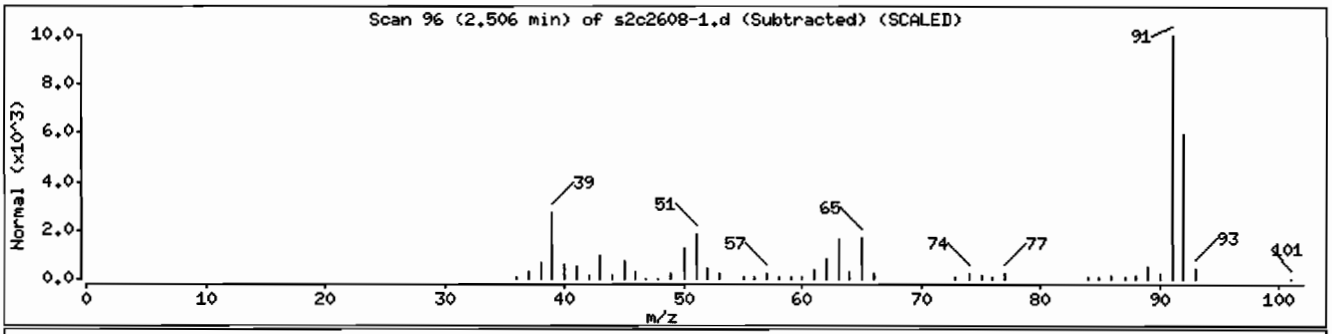

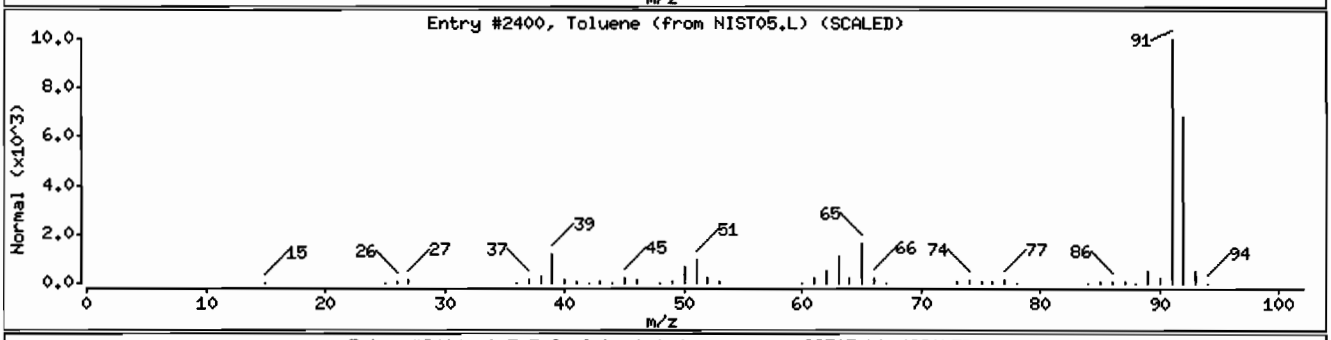

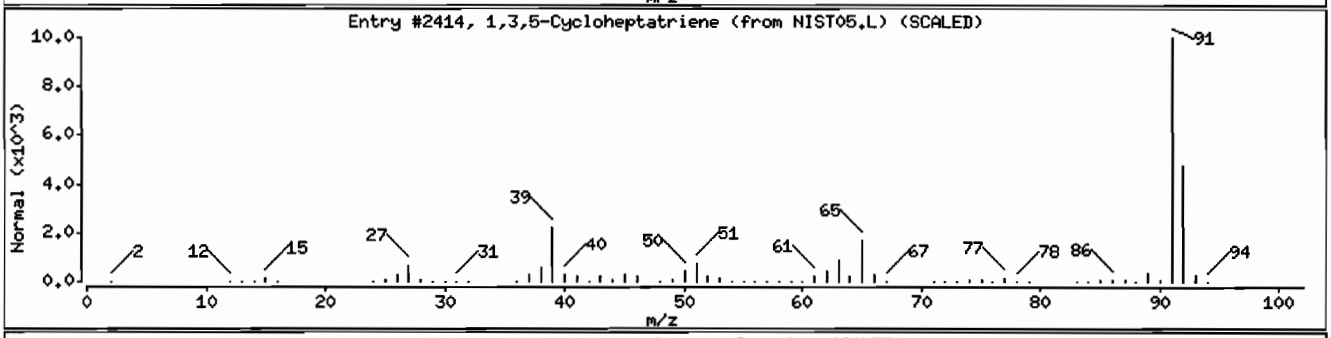

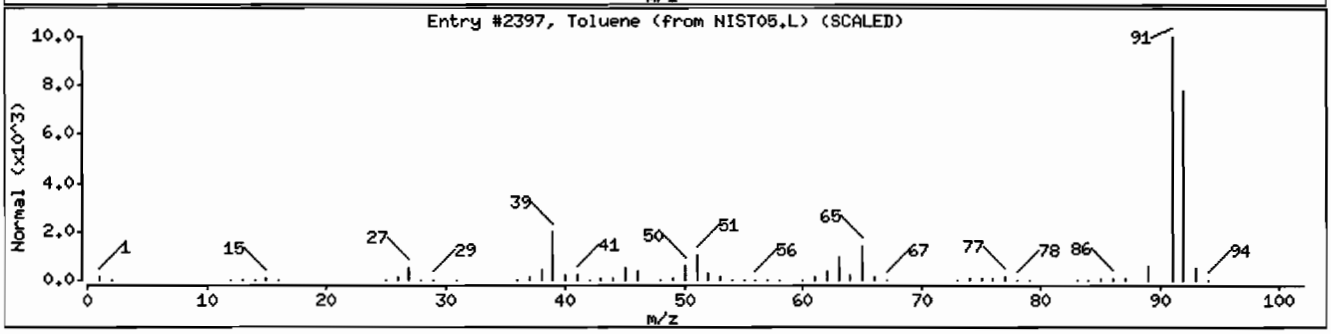

Data File: /chem/MSD2.i/s032610.b/s2c2608-1.d

Date : 26-MAR-2010 17:36

Client ID: SBLK01

Instrument: MSD2.i

Sample Info: |1202074566|966675|1|SVM|1|MB

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
Diacetamide	625-77-4	NIST05.L	3936	9	C4H7NO2	101

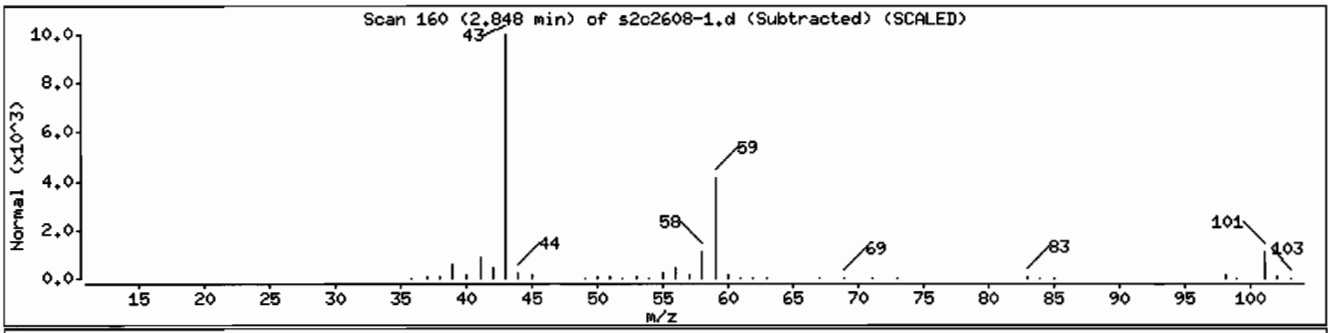

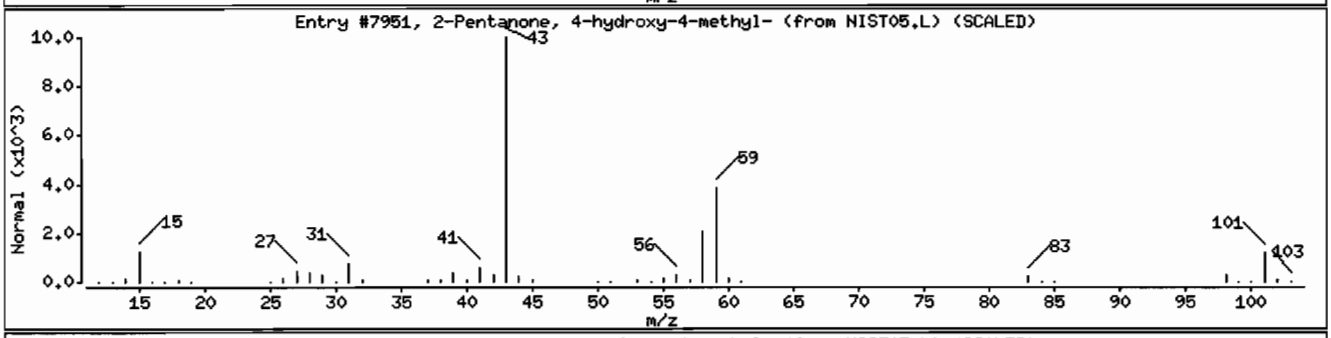

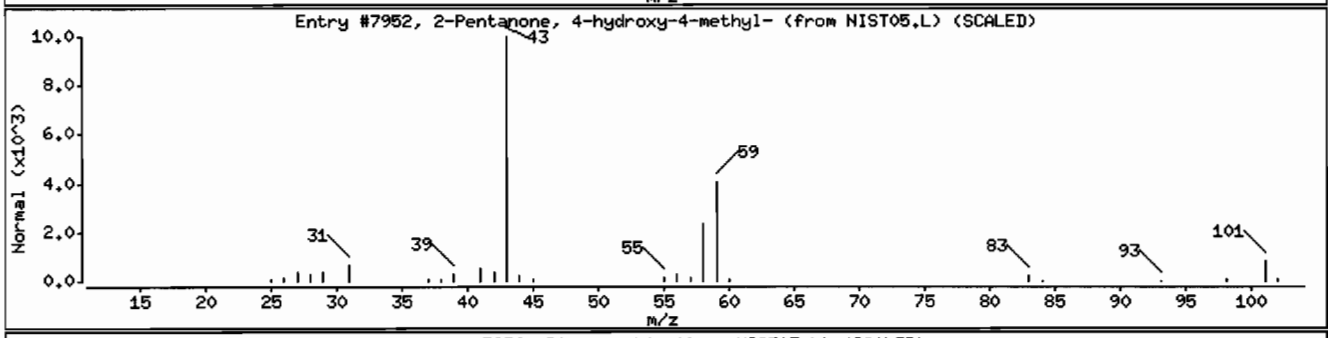

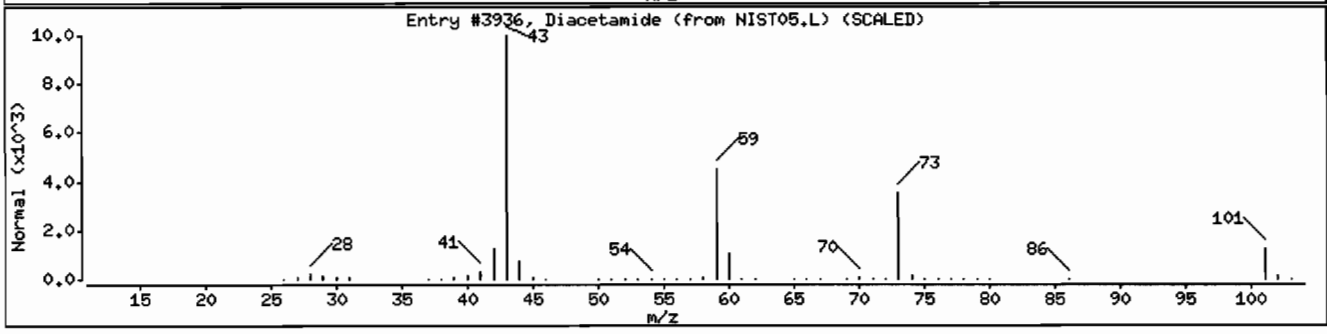

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074567**				
Client Sample:	**QC for batch 966672**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966672**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 17:56**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2609-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		993	ug/kg	66.7	333
108-95-2	Phenol		1140	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1170	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1090	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1260	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1230	ug/kg	66.7	333
83-32-9	Acenaphthene		1180	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1330	ug/kg	33.3	333
100-02-7	4-Nitrophenol		623	ug/kg	110	333
87-86-5	Pentachlorophenol		943	ug/kg	83.3	333
129-00-0	Pyrene		1090	ug/kg	10.0	33.3
110-86-1	Pyridine		921	ug/kg	66.7	333
62-53-3	Aniline		1010	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1170	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1100	ug/kg	66.7	333
100-51-6	Benzyl alcohol		341	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1100	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1520	ug/kg	66.7	333
95-48-7	o-Cresol		1150	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1430	ug/kg	100	333
67-72-1	Hexachloroethane		1190	ug/kg	66.7	333
98-95-3	Nitrobenzene		1270	ug/kg	66.7	333
78-59-1	Isophorone		1250	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1110	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		831	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1130	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1180	ug/kg	66.7	333
65-85-0	Benzoic acid		3000	ug/kg	167	667
91-20-3	Naphthalene		1160	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		990	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1310	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1280	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		959	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1020	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1220	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1130	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1280	ug/kg	66.7	333
	o-Nitroaniline					
99-09-2	3-Nitroaniline		1230	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2412**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074567**				
Client Sample:	**QC for batch 966672**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966672**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 17:56**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2609-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1350	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1250	ug/kg	33.3	333
208-96-8	Acenaphthylene		1230	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1220	ug/kg	127	667
132-64-9	Dibenzofuran		1220	ug/kg	66.7	333
84-66-2	Diethylphthalate		1440	ug/kg	66.7	333
86-73-7	Fluorene		1330	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1280	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1230	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1560	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1190	ug/kg	66.7	333
122-66-7	Azobenzene		1300	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1220	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1210	ug/kg	66.7	333
85-01-8	Phenanthrene		1250	ug/kg	10.0	33.3
120-12-7	Anthracene		1220	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1510	ug/kg	66.7	333
206-44-0	Fluoranthene		1430	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1310	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1230	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1120	ug/kg	100	333
218-01-9	Chrysene		1270	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1340	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1300	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1210	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1390	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1320	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1460	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1480	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1420	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1210	ug/kg	66.7	333

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2609-1.d
Lab Smp Id: 1202074567 Client Smp ID: SBLK01LCS
Inj Date : 26-MAR-2010 17:56
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202074567|966675|1|SVM|1|LCS
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2412.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	141015	40.0000	
* 29 Naphthalene-d8	136	4.672	4.672	(1.000)	632826	40.0000	
* 46 Acenaphthene-d10	164	5.918	5.918	(1.000)	339607	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	612202	40.0000	
* 91 Chrysene-d12	240	8.550	8.555	(1.000)	566944	40.0000	
* 98 Perylene-d12	264	9.956	9.962	(1.000)	390661	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	241953	72.0583	2400
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	290615	70.2861	2340
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.892)	173780	37.9422	1260
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.914)	315853	33.8047	1130
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.090)	78895	78.5436	2620
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.915)	397652	38.4585	1280

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.543	3.538	(0.930)	145868	34.2172	1140
8 2-Chlorophenol	128	3.677	3.677	(0.965)	132799	35.0267	1170
11 1,4-Dichlorobenzene	146	3.821	3.822	(1.003)	156605	32.7334	1090
17 N-Nitrosodipropylamine	70	4.046	4.046	(1.062)	101478	37.9373	1260(Q)
28 1,2,4-Trichlorobenzene	180	4.624	4.624	(0.990)	141739	36.2296	1210
33 4-Chloro-3-methylphenol	107	5.030	5.020	(1.077)	127439	37.0306	1230
47 Acenaphthene	154	5.940	5.940	(1.004)	321471	35.5417	1180
50 2,4-Dinitrotoluene	165	6.025	6.025	(1.018)	109247	40.0428	1330
52 4-Nitrophenol	139	5.993	5.966	(1.013)	25349	18.6963	623
65 Pentachlorophenol	266	6.779	6.774	(0.981)	39392	28.2813	943
79 Pyrene	202	7.774	7.774	(0.909)	604525	32.7114	1090
2 Pyridine	79	2.367	2.345	(0.621)	75781	27.6220	921
4 Aniline	66	3.597	3.597	(0.944)	61352	30.3085	1010
7 bis(2-Chloroethyl) ether	63	3.613	3.613	(0.948)	128062	34.9691	1160
9 1,3-Dichlorobenzene	146	3.779	3.773	(0.992)	149208	33.0671	1100
12 Benzyl alcohol	108	3.886	3.880	(1.020)	20559	10.2385	341(R)
13 1,2-Dichlorobenzene	146	3.923	3.923	(1.029)	145206	32.8795	1100
14 bis(2-Chloroisopropyl)ether	45	3.955	3.955	(1.038)	408181	45.5917	1520
15 o-Cresol	107	3.934	3.929	(1.032)	103917	34.5219	1150
18 m,p-Cresols	107	4.030	4.030	(1.058)	153816	42.8874	1430
19 Hexachloroethane	117	4.148	4.148	(1.088)	67238	35.5630	1180
21 Nitrobenzene	77	4.185	4.185	(0.896)	164756	38.2167	1270
22 Isophorone	82	4.335	4.335	(0.928)	291589	37.3983	1250
23 2-Nitrophenol	139	4.399	4.394	(0.942)	75055	33.2508	1110
24 2,4-Dimethylphenol	122	4.394	4.394	(0.940)	100690	24.9342	831
25 bis(2-Chloroethoxy)methane	93	4.458	4.458	(0.954)	151185	33.8006	1130
26 2,4-Dichlorophenol	162	4.565	4.560	(0.977)	113628	35.5054	1180
27 Benzoic acid	105	4.463	4.447	(0.955)	179329	90.0328	3000
30 Naphthalene	128	4.688	4.688	(1.003)	438526	34.9463	1160
31 4-Chloroaniline	127	4.704	4.704	(1.007)	161912	29.7068	990
32 Hexachlorobutadiene	225	4.752	4.752	(1.017)	92760	39.1718	1300
34 2-Methylnaphthalene	142	5.164	5.164	(1.105)	308749	38.2821	1280
36 Hexachlorocyclopentadiene	237	5.271	5.266	(0.891)	46493	28.7662	959
37 2,4,6-Trichlorophenol	196	5.357	5.357	(0.905)	77922	30.5157	1020
38 2,4,5-Trichlorophenol	196	5.394	5.383	(0.911)	100906	36.6257	1220
40 2-Chloronaphthalene	162	5.517	5.517	(0.932)	278554	33.8423	1130
42 o-Nitroaniline	65	5.576	5.576	(0.942)	98464	38.3688	1280
41 m-Nitroaniline	138	5.870	5.870	(0.992)	62737	36.9314	1230
43 Dimethylphthalate	163	5.683	5.688	(0.960)	390779	40.4629	1350
44 2,6-Dinitrotoluene	165	5.742	5.742	(0.970)	81585	37.3508	1240
45 Acenaphthylene	152	5.817	5.817	(0.983)	456614	36.8020	1230
48 2,4-Dinitrophenol	184	5.945	5.940	(1.005)	31104	36.5083	1220(Q)
49 Dibenzofuran	168	6.057	6.057	(1.023)	406478	36.5835	1220
51 Diethylphthalate	149	6.170	6.170	(1.042)	429273	43.3357	1440
53 Fluorene	166	6.293	6.293	(1.063)	385680	40.0078	1330
54 4-Chlorophenylphenylether	204	6.271	6.271	(1.060)	174389	38.3958	1280
55 2-Methyl-4,6-dinitrophenol	198	6.309	6.309	(0.913)	55086	36.8485	1230

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56	p-Nitroaniline	138	6.293	6.293	(1.063)	76455	46.7457	1560
133	Diphenylamine	169	6.351	6.351	(0.919)	283607	35.5955	1190
58	1,2-Diphenylhydrazine	77	6.378	6.378	(0.923)	405870	39.1132	1300
61	4-Bromophenylphenylether	248	6.597	6.597	(0.955)	98918	36.7235	1220
63	Hexachlorobenzene	284	6.656	6.656	(0.964)	97589	36.2836	1210
68	Phenanthrene	178	6.924	6.924	(1.002)	568235	37.5532	1250
69	Anthracene	178	6.956	6.956	(1.007)	536708	36.6654	1220
72	Di-n-butylphthalate	149	7.202	7.197	(1.043)	784173	45.2816	1510
76	Fluoranthene	202	7.635	7.635	(1.105)	588149	43.0326	1430
85	Butylbenzylphthalate	149	8.084	8.084	(0.946)	338521	39.1500	1300
89	Benzo(a)anthracene	228	8.539	8.544	(0.999)	524117	37.0430	1230
90	3,3'-Dichlorobenzidine	252	8.480	8.491	(0.992)	126495	33.6624	1120
92	Chrysene	228	8.571	8.576	(1.002)	502837	38.0947	1270
93	bis(2-Ethylhexyl)phthalate	149	8.432	8.437	(0.986)	477204	40.0793	1340
94	Di-n-octylphthalate	149	8.945	8.951	(0.898)	723823	38.8640	1300
95	Benzo(b)fluoranthene	252	9.507	9.512	(0.955)	385954	36.2204	1210
96	Benzo(k)fluoranthene	252	9.534	9.539	(0.958)	448209	41.5773	1380
97	Benzo(a)pyrene	252	9.887	9.892	(0.993)	348982	39.5142	1320
99	Indeno(1,2,3-cd)pyrene	276	11.529	11.534	(1.158)	330514	43.7184	1460
100	Dibenzo(a,h)anthracene	278	11.534	11.540	(1.158)	275109	44.5424	1480
101	Benzo(ghi)perylene	276	12.016	12.021	(1.207)	260132	42.4813	1420
1	N-Methyl-N-nitrosomethylamine	74	2.329	2.319	(0.611)	57496	29.7938	993

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/HSD2.i/s032610.b/s2o2609-1.d
Date : 26-MAR-2010 17:56
Client ID: SBLK01LCS
Sample Info: 1120207456719666751|SVM14|LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: HSD2.i
Operator: ACS1
Column diameter: 0.20

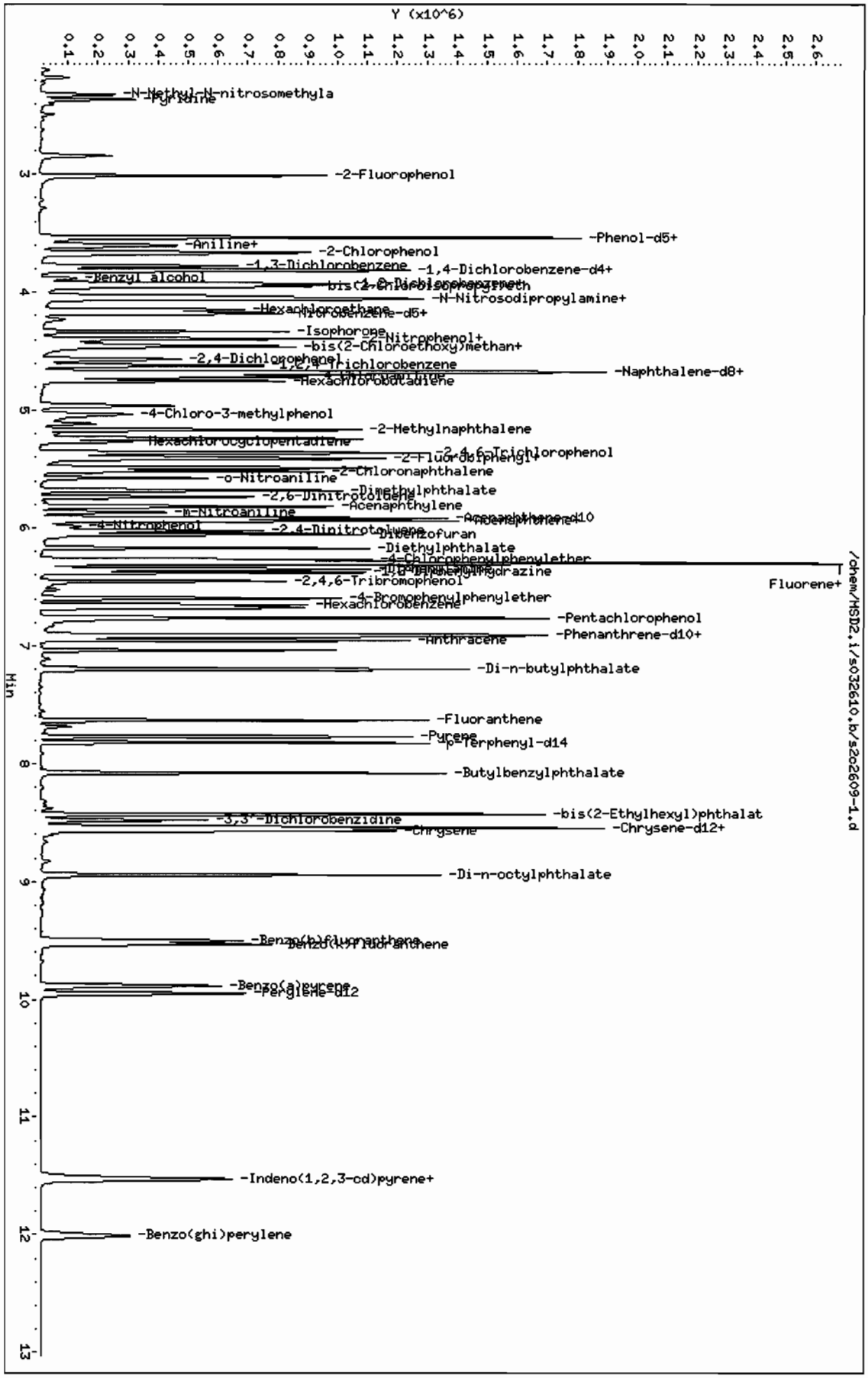

Page 1

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 966672 **Verified by:** _____

Analyst: Alberto Velasco

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202074566 MB	18-MAR-2010 22:34:00	30	1	0.03333
1202074567 LCS	18-MAR-2010 22:34:00	30	1	0.03333
249180001	18-MAR-2010 22:34:00	30.01	1	0.03332
249180002	18-MAR-2010 22:34:00	30.15	1	0.03317
249180003	18-MAR-2010 22:34:00	30.13	1	0.03319
249180004	18-MAR-2010 22:34:00	30.02	1	0.03331
249180005	18-MAR-2010 22:34:00	30.17	1	0.03315
249180006	18-MAR-2010 22:34:00	30.17	1	0.03315
249180008	18-MAR-2010 22:34:00	30.02	1	0.03331
249244001	18-MAR-2010 22:34:00	30.14	1	0.03318
249244002	18-MAR-2010 22:34:00	30.08	1	0.03324
249244003	18-MAR-2010 22:34:00	30.04	1	0.03329
249244004	18-MAR-2010 22:34:00	30.13	1	0.03319
249244005	18-MAR-2010 22:34:00	30.07	1	0.03326
249244006	18-MAR-2010 22:34:00	30.14	1	0.03318
249245001	18-MAR-2010 22:34:00	30.03	1	0.0333
249245002	18-MAR-2010 22:34:00	30.14	1	0.03318
249247001	18-MAR-2010 22:34:00	30.02	1	0.03331
249247002	18-MAR-2010 22:34:00	30.19	1	0.03312
249247003	18-MAR-2010 22:34:00	30.02	1	0.03331
249250003	18-MAR-2010 22:34:00	30.07	1	0.03326
1202074568 MS (249250003)	18-MAR-2010 22:34:00	30.11	1	0.03321
1202074569 MSD (249250003)	18-MAR-2010 22:34:00	30.04	1	0.03329
249250004	18-MAR-2010 22:34:00	30.19	1	0.03312

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202074567	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
LCS	1202074567	BENZIDINE LCS	UE100310-23	1	mL
MS	1202074568	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MS	1202074568	BENZIDINE LCS	UE100310-23	1	mL
MSD	1202074569	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MSD	1202074569	BENZIDINE LCS	UE100310-23	1	mL
SURR	All	BNA for all Surrogate	UE100310-10	1	mL
REGNT	All	Acetone	1273823-B1	150	mL
REGNT	All	Methylene Chloride	1287549-D	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: AJS

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD2

DATE: 03/12/2010 METHOD:8270C MSD2-DFTPP.m OPERATOR:AGS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1165 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100227-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD2.i/s031210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c1201.d	WBN100207-01	AGS1	12-MAR-2010 14:32	50PPM	DFTPP	1.0	DFTPP	8270C (MEGA-AP-PEST)
s2c1201D.d	WBN100207-01	AGS1	12-MAR-2010 14:32	50PPM	DFTPP	1.0	DFTPP	8270D (MEGA-AP-PEST)
s2c1202.d	INSTBLK	AGS1	12-MAR-2010 14:44	------	s031210	1.0	INSTBLK	
s2c1203.d	WBN100309-08	AGS1	12-MAR-2010 15:04	1PPM	CAL	1.0	MEGA001	
s2c1204.d	WBN100309-07	AGS1	12-MAR-2010 15:31	10PPM	CAL	1.0	MEGA010	
s2c1204D.d	WBN100309-07	AGS1	12-MAR-2010 15:31	10PPM	CAL	1.0	MEGA010	requanted for linear analytes in 8270D passes 70-130% 56/26/216
s2c1205.d	WBN100309-06	AGS1	12-MAR-2010 15:59	20PPM	CAL	1.0	MEGA020	
s2c1206.d	WBN100309-05.1	AGS1	12-MAR-2010 16:23	40PPM	CAL	1.0	MEGA040	
s2c1207.d	WBN100309-04	AGS1	12-MAR-2010 16:48	50PPM	CAL	1.0	MEGA050	
s2c1208.d	WBN100309-03	AGS1	12-MAR-2010 17:13	80PPM	CAL	1.0	MEGA080	
s2c1209.d	WBN100309-02	AGS1	12-MAR-2010 17:38	1000PPM	CAL	1.0	MEGA100	
s2c1210.d	WBN100309-01	AGS1	12-MAR-2010 18:02	120PPM	CAL	1.0	MEGA120	
s2c1211.d	INSTBLK	AGS1	12-MAR-2010 18:27	------	s031210	1.0	INSTBLK	
s2c1212.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	8270C 333197
s2c1212BOE.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	BOE 333197
s2c1212D.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	8270D 333197
s2c1212-625.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	625 333197
s2c1213.d	WBN100218-01	AGS1	12-MAR-2010 19:18	10 PPM	s031210	1.0	AP010	
s2c1214.d	WBN100218-02	AGS1	12-MAR-2010 19:39	20 PPM	CAL	1.0	AP020	

s2c1215.d	WBN100218-03.1	AGS1	12-MAR-2010 19:59	40 PPM	CAL		1.0	AP040	
s2c1216.d	WBN100218-04	AGS1	12-MAR-2010 20:19	50 PPM	CAL		1.0	AP050	
s2c1217.d	WBN100218-05	AGS1	12-MAR-2010 20:39	80 PPM	CAL		1.0	AP0800	
s2c1218.d	WBN100218-06	AGS1	12-MAR-2010 20:59	100 PPM	CAL		1.0	AP100	
s2c1219.d	WBN100218-07	AGS1	12-MAR-2010 21:19	120 PPM	CAL		1.0	AP120	
s2c1220.d	WBN100304-25	AGS1	12-MAR-2010 21:39	10 PPM	CAL		1.0	PEST010	
s2c1221.d	WBN100304-24	AGS1	12-MAR-2010 21:59	20 PPM	CAL		1.0	PEST020	
s2c1222.d	WBN100304-23.1	AGS1	12-MAR-2010 22:19	40 PPM	CAL		1.0	PEST040	
s2c1223.d	WBN100304-22	AGS1	12-MAR-2010 22:39	50 PPM	CAL		1.0	PEST050	
s2c1224.d	WBN100304-21	AGS1	12-MAR-2010 23:00	80 PPM	CAL		1.0	PEST080	
s2c1225.d	WBN100304-20	AGS1	12-MAR-2010 23:20	100 PPM	CAL		1.0	PEST100	
s2c1226.d	WBN100304-19	AGS1	12-MAR-2010 23:40	120 PPM	CAL		1.0	PEST120	
s2c1227.d	WBN100218-08.1	AGS1	13-MAR-2010 00:00	40 PPM	ICV		1.0	APICV	8270C
s2c1227D.d	WBN100218-08.1	AGS1	13-MAR-2010 00:00	40 PPM	ICV		1.0	APICV	8270D
s2c1228.d	WBN100304-26.1	AGS1	13-MAR-2010 00:20	40 PPM	ICV		1.0	PESTICV	8270C
s2c1228D.d	WBN100304-26.1	AGS1	13-MAR-2010 00:20	40 PPM	ICV		1.0	PESTICV	8270D
s2c1229.d	WBN100207-01	AGS1	13-MAR-2010 00:42	50PPM	DFTPP		1.0	DFTPP	8270C (HEX-BJCO)
s2c1229D.d	WBN100207-01	AGS1	13-MAR-2010 00:42	50PPM	DFTPP		1.0	DFTPP	8270D (HEX)
s2c1230.d	INSTBLK	AGS1	13-MAR-2010 00:55	------	s031210		1.0	INSTBLK	
s2c1231.d	WBN100304-16	AGS1	13-MAR-2010 01:15	500 PPM	CAL		1.0	HEX500	
s2c1232.d	WBN100304-15	AGS1	13-MAR-2010 01:35	1000 PPM	CAL		1.0	HEX1000	
s2c1233.d	WBN100304-14	AGS1	13-MAR-2010 01:55	1250 PPM	CAL		1.0	HEX1250	
s2c1234.d	WBN100304-13	AGS1	13-MAR-2010 02:15	1500 PPM	CAL		1.0	HEX1500	

Instrument Batch: /chem/MSD2.i/s031210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c1235.d	WBN100304-12	AGS1	13-MAR-2010 02:35	1750 PPM	CAL		1.0	HEX1750

s2c1236.d	UBN100126-02.3	AGS1	13-MAR-2010 02:55	2000 PPM	CAL		1.0	HEX2000
s2c1237.d	WBN100301-07	AGS1	13-MAR-2010 03:15	10PPM	CAL		1.0	BJCO010
s2c1238.d	WBN100301-06	AGS1	13-MAR-2010 03:42	10PPM	CAL		1.0	BJCO010
s2c1239.d	WBN100301-05.1	AGS1	13-MAR-2010 04:08	40PPM	CAL		1.0	BJCO040
s2c1240.d	WBN100301-04	AGS1	13-MAR-2010 04:35	10PPM	CAL		1.0	BJCO010
s2c1241.d	WBN100301-03	AGS1	13-MAR-2010 05:01	10PPM	CAL		1.0	BJCO010
s2c1242.d	WBN100301-02	AGS1	13-MAR-2010 05:28	10PPM	CAL		1.0	BJCO010
s2c1243.d	WBN100301-01	AGS1	13-MAR-2010 05:54	10PPM	CAL		1.0	BJCO010
s2c1244.d	WBN100304-10.1	AGS1	13-MAR-2010 06:21	1250 PPM	ICV		1.0	HEXICV	8270C
s2c1244D.d	WBN100304-10.1	AGS1	13-MAR-2010 06:21	1250 PPM	ICV		1.0	HEXICV	8270D
s2c1245.d	WBN100301-05.3	AGS1	13-MAR-2010 06:41	10PPM	ICV		1.0	BJCOICV
s2c1245D.d	WBN100301-05.3	AGS1	13-MAR-2010 06:41	10PPM	ICV		1.0	BJCOICV

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD2

DATE: 03/26/2010 METHOD:8270C MSD2-DFTPP.m OPERATOR:AGS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1165 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD2.i/s032610.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c2601.d	WBN100306-01.2	AGS1	26-MAR-2010 15:12	50PPM	DFTPP	1.0	DFTPP	8270C TUNE
s2c2601D.d	WBN100306-01.2	AGS1	26-MAR-2010 15:12	50PPM	DFTPP	1.0	DFTPP	8270D TUNE
s2c2602.d	WBN100309-09.1	AGS1	26-MAR-2010 15:25	40PPM	CVS	1.0	MEGACVS	8270C 158646
s2c2602D.d	WBN100309-09.1	AGS1	26-MAR-2010 15:25	40PPM	CVS	1.0	MEGACVS	8270D 158646
s2c2603.d	WBN100218-08.1	AGS1	26-MAR-2010 15:52	40 PPM	DUSE	1.0	APCVS	DUSE ISTD HIGH
s2c2604.d	WBN100304-26.1	AGS1	26-MAR-2010 16:12	40 PPM	CVS	1.0	PESTCVS	8270C
s2c2604D.d	WBN100304-26.1	AGS1	26-MAR-2010 16:12	40 PPM	CVS	1.0	PESTCVS	8270D
s2c2605.d	WBN100218-08.1	AGS1	26-MAR-2010 16:34	40 PPM	CVS	1.0	APCVS	8270C
s2c2605D.d	WBN100218-08.1	AGS1	26-MAR-2010 16:34	40 PPM	CVS	1.0	APCVS	8270D
s2c2606.d	1202080906	AGS1	26-MAR-2010 16:55	969217	249338	1.0	MB	
s2c2607.d	1202080907	AGS1	26-MAR-2010 17:15	969217	249338	1.0	LCS	
s2c2608.d	1202074566	AGS1	26-MAR-2010 17:36	966675	10-2398	1.0	MB	
s2c2608-1.d	1202074566	AGS1	26-MAR-2010 17:36	966675	10-2412	1.0	MB	
s2c2608-2.d	1202074566	AGS1	26-MAR-2010 17:36	966675	10-2415	1.0	MB	
s2c2608-3.d	1202074566	AGS1	26-MAR-2010 17:36	966675	10-2416	1.0	MB	
s2c2608-4.d	1202074566	AGS1	26-MAR-2010 17:36	966675	10-2418	1.0	MB	
s2c2609.d	1202074567	AGS1	26-MAR-2010 17:56	966675	10-2398	1.0	LCS	
s2c2609-1.d	1202074567	AGS1	26-MAR-2010 17:56	966675	10-2412	1.0	LCS	
s2c2609-2.d	1202074567	AGS1	26-MAR-2010 17:56	966675	10-2415	1.0	LCS	

s2c2609-3.d	1202074567	AGS1	26-MAR-2010 17:56	966675	10-2416		1.0	LCS
s2c2609-4.d	1202074567	AGS1	26-MAR-2010 17:56	966675	10-2418		1.0	LCS
s2c2610.d	248862002	AGS1	26-MAR-2010 18:17	965979	10-2314		1.0	LANL
s2c2611.d	249338018	AGS1	26-MAR-2010 18:37	969217	249338		1.0	GEEL_BEAM
s2c2612.d	1202080908	AGS1	26-MAR-2010 18:57	969217	249338		1.0	MS
s2c2613.d	1202080909	AGS1	26-MAR-2010 19:17	969217	249338		1.0	MSD
s2c2614.d	249250003	AGS1	26-MAR-2010 19:37	966675	10-2418		1.0	LANL
s2c2615.d	1202074568	AGS1	26-MAR-2010 19:57	966675	10-2418		1.0	MS
s2c2616.d	1202074569	AGS1	26-MAR-2010 20:18	966675	10-2418		1.0	MSD
s2c2617.d	249250004	AGS1	26-MAR-2010 20:38	966675	10-2418		1.0	LANL
s2c2618.d	249245001	AGS1	26-MAR-2010 20:58	966675	10-2415		1.0	LANL
s2c2619.d	249245002	AGS1	26-MAR-2010 21:18	966675	10-2415		1.0	LANL
s2c2620.d	249247001	AGS1	26-MAR-2010 21:38	966675	10-2416		1.0	LANL
s2c2621.d	249247002	AGS1	26-MAR-2010 21:58	966675	10-2416		1.0	LANL
s2c2622.d	249247003	AGS1	26-MAR-2010 22:18	966675	10-2416		1.0	LANL
s2c2623.d	249180001	AGS1	26-MAR-2010 22:38	966675	10-2398		1.0	LANL
s2c2624.d	249180002	AGS1	26-MAR-2010 22:58	966675	10-2398		1.0	LANL
s2c2625.d	249180003	AGS1	26-MAR-2010 23:18	966675	10-2398		1.0	LANL
s2c2626.d	249180004	AGS1	26-MAR-2010 23:38	966675	10-2398		1.0	LANL
s2c2627.d	249180005	AGS1	26-MAR-2010 23:58	966675	10-2398		1.0	LANL
s2c2628.d	249180006	AGS1	27-MAR-2010 00:18	966675	10-2398		1.0	LANL
s2c2629.d	249180008	AGS1	27-MAR-2010 00:38	966675	10-2398		1.0	LANL
s2c2630.d	249244001	AGS1	27-MAR-2010 00:58	966675	10-2412		1.0	LANL
s2c2631.d	249244002	AGS1	27-MAR-2010 01:18	966675	10-2412		1.0	LANL
s2c2632.d	249244003	AGS1	27-MAR-2010 01:38	966675	10-2412		1.0	LANL
s2c2633.d	249244004	AGS1	27-MAR-2010 01:58	966675	10-2412		1.0	LANL
s2c2634.d	249244005	AGS1	27-MAR-2010 02:19	966675	10-2412		1.0	LANL

s2c2635.d	249244006	AGS1	27-MAR-2010 02:39	966675	10-2412		1.0	LANL

Instrument Batch: /chem/MSD2.i/s032610.b

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
30-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
966675	See Below		

Potentially affected work order(s)(SDG): 249180(10-2398),249244(10-2412),249245(10-2415),249247(10-2416),249250(10-2418)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for LCS/LCSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The LCS(1202074567) recovered Benzyl alcohol at 21%. The limits are 27%-108%.	1. The LCS failure represented less than 5% of the total requested spike analyte list. That satisfied the acceptance criteria for the client and the data results have been reported. Please note that Benzyl alcohol is known to be a poor responder as stated in the Method and Benzyl alcohol is subject to erratic chromatography behavior. This may account for the low recovery of the analyte in the LCS (as well as the zero recoveries in the MS and MSD).
2. The MS(1202074568) and the MSD(1202074569) both recovered 4-Nitrophenol at 0% (limits are 15%-110%) and Benzyl alcohol 0% (limits are 19%-112%).	2. Since the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported. Please note that Benzyl alcohol is known to be a poor responder as stated in the Method and Benzyl alcohol is subject to erratic chromatography behavior. This may account for the zero recoveries of the analyte in the MS and MSD (as well as the low recovery in the LCS).
3. The MS(1202074568)/MSD(1202074569) RPD value for Benzoic acid was 33%. The limit is 30%.	3. Since Benzoic acid was individually within the acceptance limits for the MS and MSD, the data results have been reported un-qualified for the RPD failures.

Originator's Name:

Anne Salter 30-MAR-10

Data Validator/Group Leader:

Barbara Bailey 31-MAR-10

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2615.d
Lab Smp Id: 1202074568 Client Smp ID: RE16-10-2917MS
Inj Date : 26-MAR-2010 19:57
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202074568|966675|1|SVM|1|MS
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 26-Mar-2010 19:34 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 15 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2418.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.11000	weight of sample
M	12.61330	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	187005	40.0000	
* 29 Naphthalene-d8	136	4.672	4.672	(1.000)	793825	40.0000	
* 46 Acenaphthene-d10	164	5.918	5.918	(1.000)	436749	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	786537	40.0000	
* 91 Chrysene-d12	240	8.550	8.555	(1.000)	712849	40.0000	
* 98 Perylene-d12	264	9.951	9.962	(1.000)	460232	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	259169	58.2034	2210
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	296456	54.0659	2050
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.892)	183410	31.9231	1210
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.914)	330130	27.4740	1040
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.090)	66129	51.1915	1940
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.915)	386940	29.7629	1130

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.543	3.538	(0.930)	139858	24.7391	940
8 2-Chlorophenol	128	3.677	3.677	(0.965)	138194	27.4856	1040
11 1,4-Dichlorobenzene	146	3.822	3.822	(1.003)	171071	26.9634	1020
17 N-Nitrosodipropylamine	70	4.046	4.046	(1.062)	108215	30.5066	1160(Q)
28 1,2,4-Trichlorobenzene	180	4.619	4.624	(0.989)	148189	30.1960	1150
33 4-Chloro-3-methylphenol	107	5.046	5.020	(1.080)	126595	29.3248	1110
47 Acenaphthene	154	5.940	5.940	(1.004)	324000	27.8539	1060
50 2,4-Dinitrotoluene	165	6.025	6.025	(1.018)	111605	31.8085	1210
65 Pentachlorophenol	266	6.790	6.774	(0.983)	22588	12.6225	480
79 Pyrene	202	7.769	7.774	(0.909)	664950	28.6165	1090
2 Pyridine	79	2.377	2.345	(0.624)	80592	22.1513	842
4 Aniline	66	3.592	3.597	(0.942)	81757	30.4560	1160(Q)
7 bis(2-Chloroethyl) ether	63	3.608	3.613	(0.947)	137751	28.3643	1080
9 1,3-Dichlorobenzene	146	3.773	3.773	(0.990)	161976	27.0687	1030
13 1,2-Dichlorobenzene	146	3.923	3.923	(1.029)	154907	26.4499	1000
14 bis(2-Chloroisopropyl)ether	45	3.950	3.955	(1.036)	425861	35.8685	1360
15 o-Cresol	107	3.934	3.929	(1.032)	108155	27.0936	1030
18 m,p-Cresols	107	4.030	4.030	(1.058)	157025	33.0148	1250
19 Hexachloroethane	117	4.148	4.148	(1.088)	70849	28.2572	1070
21 Nitrobenzene	77	4.185	4.185	(0.896)	173448	32.0731	1220
22 Isophorone	82	4.335	4.335	(0.928)	300935	30.7689	1170
23 2-Nitrophenol	139	4.394	4.394	(0.940)	80561	28.4516	1080
24 2,4-Dimethylphenol	122	4.399	4.394	(0.942)	97679	19.2828	733
25 bis(2-Chloroethoxy)methane	93	4.458	4.458	(0.954)	157076	27.9953	1060
26 2,4-Dichlorophenol	162	4.565	4.560	(0.977)	118260	29.4582	1120
27 Benzoic acid	105	4.431	4.447	(0.948)	49081	19.6437	746(aQ)
30 Naphthalene	128	4.688	4.688	(1.003)	475710	30.2209	1150
31 4-Chloroaniline	127	4.704	4.704	(1.007)	184752	27.0225	1030
32 Hexachlorobutadiene	225	4.752	4.752	(1.017)	97856	32.9427	1250
34 2-Methylnaphthalene	142	5.164	5.164	(1.105)	324544	32.0792	1220
36 Hexachlorocyclopentadiene	237	5.266	5.266	(0.890)	46309	22.2795	847
37 2,4,6-Trichlorophenol	196	5.357	5.357	(0.905)	67600	20.5852	782
38 2,4,5-Trichlorophenol	196	5.405	5.383	(0.913)	86758	24.4863	931
40 2-Chloronaphthalene	162	5.517	5.517	(0.932)	291038	27.4944	1040
42 o-Nitroaniline	65	5.576	5.576	(0.942)	103522	31.3674	1190
41 m-Nitroaniline	138	5.870	5.870	(0.992)	69906	32.4491	1230
43 Dimethylphthalate	163	5.683	5.688	(0.960)	390609	31.4494	1200
44 2,6-Dinitrotoluene	165	5.736	5.742	(0.969)	82338	29.3113	1110
45 Acenaphthylene	152	5.817	5.817	(0.983)	464722	29.1246	1110
48 2,4-Dinitrophenol	184	5.945	5.940	(1.005)	17654	22.3028	848(Q)
49 Dibenzofuran	168	6.057	6.057	(1.023)	417059	29.1871	1110
51 Diethylphthalate	149	6.170	6.170	(1.042)	429059	33.6801	1280
53 Fluorene	166	6.293	6.293	(1.063)	392812	31.6845	1200
54 4-Chlorophenylphenylether	204	6.271	6.271	(1.060)	178442	30.5496	1160
55 2-Methyl-4,6-dinitrophenol	198	6.309	6.309	(0.913)	42275	25.0182	951
56 p-Nitroaniline	138	6.293	6.293	(1.063)	92515	44.3456	1680
133 Diphenylamine	169	6.351	6.351	(0.919)	297790	29.0913	1100

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
58 1,2-Diphenylhydrazine	77	6.378	6.378	(0.923)	415577	31.1719	1180
61 4-Bromophenylphenylether	248	6.598	6.597	(0.955)	98794	28.5479	1080
63 Hexachlorobenzene	284	6.656	6.656	(0.964)	96482	27.9210	1060
68 Phenanthrene	178	6.924	6.924	(1.002)	644541	33.1547	1260
69 Anthracene	178	6.956	6.956	(1.007)	572282	30.4301	1160
72 Di-n-butylphthalate	149	7.197	7.197	(1.042)	760566	34.1839	1300
76 Fluoranthene	202	7.635	7.635	(1.105)	651074	37.0780	1410
85 Butylbenzylphthalate	149	8.079	8.084	(0.945)	319919	29.4258	1120
89 Benzo(a)anthracene	228	8.539	8.544	(0.999)	556890	31.3033	1190
90 3,3'-Dichlorobenzidine	252	8.486	8.491	(0.992)	124427	26.3348	1000
92 Chrysene	228	8.571	8.576	(1.002)	528416	31.8387	1210
93 bis(2-Ethylhexyl)phthalate	149	8.432	8.437	(0.986)	441806	29.5114	1120
94 Di-n-octylphthalate	149	8.946	8.951	(0.899)	657389	29.9613	1140
95 Benzo(b)fluoranthene	252	9.502	9.512	(0.955)	391859	31.2155	1190
96 Benzo(k)fluoranthene	252	9.534	9.539	(0.958)	424561	33.4302	1270
97 Benzo(a)pyrene	252	9.887	9.892	(0.994)	344882	33.1470	1260
99 Indeno(1,2,3-cd)pyrene	276	11.524	11.534	(1.158)	306051	34.3630	1300
100 Dibenzo(a,h)anthracene	278	11.529	11.540	(1.159)	249807	34.3318	1300
101 Benzo(ghi)perylene	276	12.010	12.021	(1.207)	241748	33.5112	1270
1 N-Methyl-N-nitrosomethylamine	74	2.340	2.319	(0.614)	62337	24.3583	926

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/HSD2.i/s032610.b/s2c2615.d
Date : 26-MAR-2010 19:57
Client ID: RE16-10-2917MS
Sample Info: 1120207456819666751|1|SVHI1|MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: HSD2.i
Operator: ACS1
Column diameter: 0.20

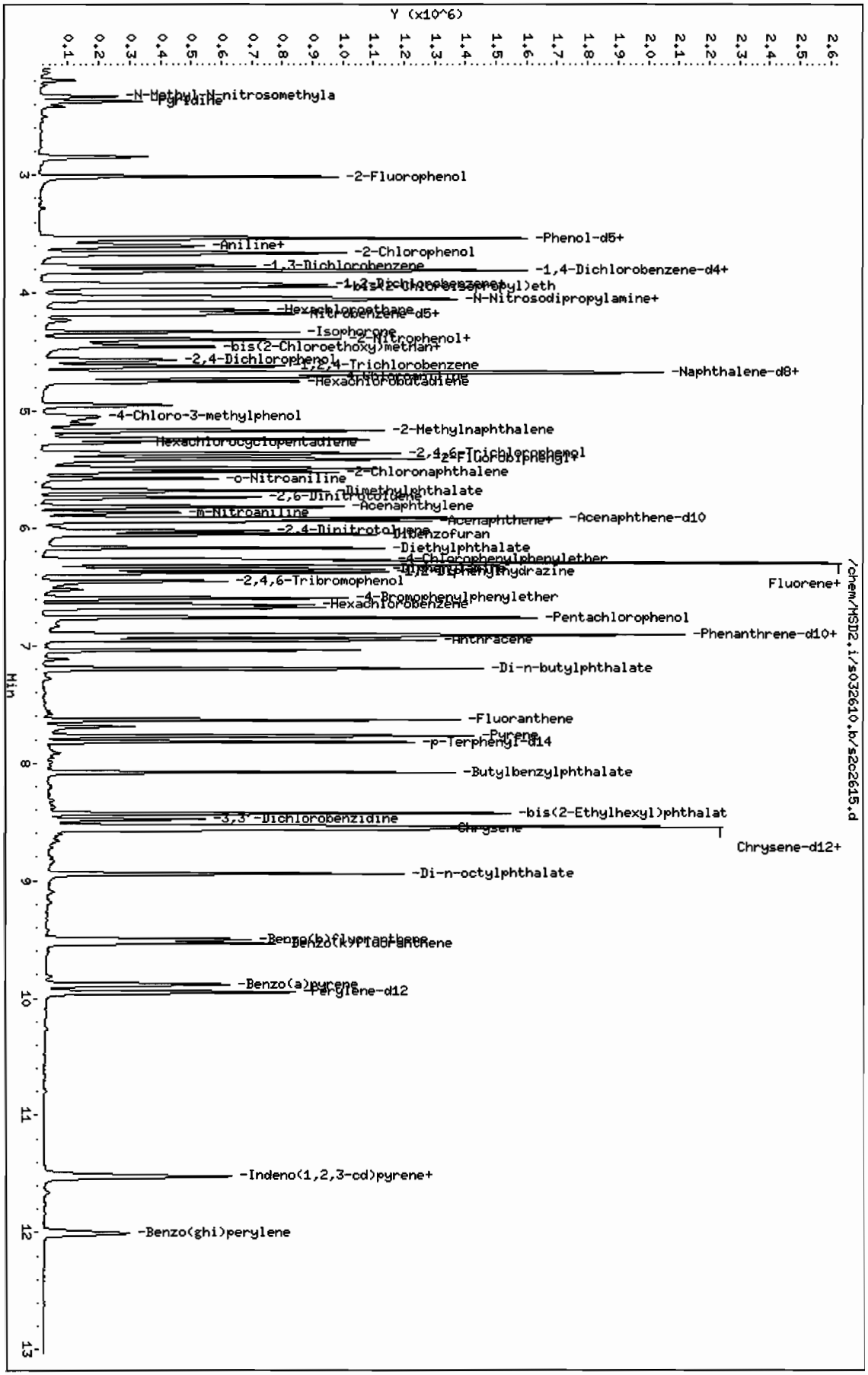

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Data file : /chem/MSD2.i/s032610.b/s2c2616.d
Lab Smp Id: 1202074569 Client Smp ID: RE16-10-2917MSD
Inj Date : 26-MAR-2010 20:18
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202074569|966675|1|SVM|1|MSD
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 26-Mar-2010 19:34 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 16 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2418.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	12.61330	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	181275	40.0000	
* 29 Naphthalene-d8	136	4.672	4.672	(1.000)	767276	40.0000	
* 46 Acenaphthene-d10	164	5.918	5.918	(1.000)	431641	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	790472	40.0000	
* 91 Chrysene-d12	240	8.550	8.555	(1.000)	726348	40.0000	
* 98 Perylene-d12	264	9.951	9.962	(1.000)	471154	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	205671	47.6490	1820
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	241389	45.4147	1730
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.892)	146929	26.4584	1010
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.914)	275710	23.2166	884
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.090)	67584	52.9370	2020
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.915)	362656	27.3766	1040

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.543	3.538	(0.930)	115640	21.1018	804
8 2-Chlorophenol	128	3.677	3.677	(0.965)	116643	23.9326	912
11 1,4-Dichlorobenzene	146	3.822	3.822	(1.003)	138778	22.5649	860
17 N-Nitrosodipropylamine	70	4.041	4.046	(1.060)	88414	25.7124	979(Q)
28 1,2,4-Trichlorobenzene	180	4.618	4.624	(0.989)	118897	25.0656	955
33 4-Chloro-3-methylphenol	107	5.041	5.020	(1.079)	119790	28.7086	1090
47 Acenaphthene	154	5.940	5.940	(1.004)	286393	24.9122	949
50 2,4-Dinitrotoluene	165	6.025	6.025	(1.018)	105194	30.3361	1160
65 Pentachlorophenol	266	6.779	6.774	(0.981)	27042	15.0362	573
79 Pyrene	202	7.769	7.774	(0.909)	586532	24.7726	944
2 Pyridine	79	2.383	2.345	(0.625)	65522	18.5785	708
4 Aniline	66	3.592	3.597	(0.942)	76926	29.5622	1130(Q)
7 bis(2-Chloroethyl) ether	63	3.608	3.613	(0.947)	113299	24.0668	917
9 1,3-Dichlorobenzene	146	3.773	3.773	(0.990)	129603	22.3433	851
13 1,2-Dichlorobenzene	146	3.923	3.923	(1.029)	125917	22.1796	845
14 bis(2-Chloroisopropyl)ether	45	3.950	3.955	(1.036)	347353	30.1809	1150
15 o-Cresol	107	3.934	3.929	(1.032)	94497	24.4204	930
18 m,p-Cresols	107	4.030	4.030	(1.058)	138467	30.0332	1140
19 Hexachloroethane	117	4.148	4.148	(1.088)	57337	23.5910	899
21 Nitrobenzene	77	4.180	4.185	(0.895)	145742	27.8824	1060
22 Isophorone	82	4.335	4.335	(0.928)	253755	26.8428	1020
23 2-Nitrophenol	139	4.394	4.394	(0.940)	64738	23.6545	901
24 2,4-Dimethylphenol	122	4.394	4.394	(0.940)	85696	17.5026	667
25 bis(2-Chloroethoxy)methane	93	4.458	4.458	(0.954)	132601	24.4509	931
26 2,4-Dichlorophenol	162	4.565	4.560	(0.977)	103741	26.7357	1020
27 Benzoic acid	105	4.437	4.447	(0.950)	65978	27.3201	1040
30 Naphthalene	128	4.683	4.688	(1.002)	381075	25.0466	954
31 4-Chloroaniline	127	4.704	4.704	(1.007)	169038	25.5796	974
32 Hexachlorobutadiene	225	4.752	4.752	(1.017)	79060	27.5361	1050
34 2-Methylnaphthalene	142	5.164	5.164	(1.105)	270152	27.6268	1050
36 Hexachlorocyclopentadiene	237	5.266	5.266	(0.890)	36053	17.5505	668
37 2,4,6-Trichlorophenol	196	5.357	5.357	(0.905)	68597	21.1360	805
38 2,4,5-Trichlorophenol	196	5.394	5.383	(0.911)	91155	26.0317	992
40 2-Chloronaphthalene	162	5.517	5.517	(0.932)	250089	23.9056	911
42 o-Nitroaniline	65	5.576	5.576	(0.942)	97001	29.7393	1130
41 m-Nitroaniline	138	5.870	5.870	(0.992)	67516	31.7873	1210
43 Dimethylphthalate	163	5.683	5.688	(0.960)	366625	29.8677	1140
44 2,6-Dinitrotoluene	165	5.736	5.742	(0.969)	77346	27.8600	1060
45 Acenaphthylene	152	5.817	5.817	(0.983)	412660	26.1679	997
48 2,4-Dinitrophenol	184	5.945	5.940	(1.005)	18449	22.9469	874(Q)
49 Dibenzofuran	168	6.057	6.057	(1.023)	377353	26.7209	1020
51 Diethylphthalate	149	6.170	6.170	(1.042)	400476	31.8084	1210
53 Fluorene	166	6.293	6.293	(1.063)	358970	29.2975	1120
54 4-Chlorophenylphenylether	204	6.271	6.271	(1.060)	163468	28.3172	1080
55 2-Methyl-4,6-dinitrophenol	198	6.309	6.309	(0.913)	40922	24.3719	928
56 p-Nitroaniline	138	6.293	6.293	(1.063)	90415	43.9201	1670
133 Diphenylamine	169	6.351	6.351	(0.919)	280425	27.2585	1040

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
58 1,2-Diphenylhydrazine	77	6.378	6.378	(0.923)	388709	29.0114	1100
61 4-Bromophenylphenylether	248	6.598	6.597	(0.955)	91738	26.3770	1000
63 Hexachlorobenzene	284	6.656	6.656	(0.964)	90400	26.0307	992
68 Phenanthrene	178	6.924	6.924	(1.002)	572444	29.2995	1120
69 Anthracene	178	6.956	6.956	(1.007)	533408	28.2219	1080
72 Di-n-butylphthalate	149	7.197	7.197	(1.042)	716456	32.0411	1220
76 Fluoranthene	202	7.630	7.635	(1.105)	573494	32.4973	1240
85 Butylbenzylphthalate	149	8.079	8.084	(0.945)	303335	27.3819	1040
89 Benzo(a)anthracene	228	8.539	8.544	(0.999)	539610	29.7683	1130
90 3,3'-Dichlorobenzidine	252	8.480	8.491	(0.992)	120007	24.9272	950
92 Chrysene	228	8.566	8.576	(1.002)	466482	27.5847	1050
93 bis(2-Ethylhexyl)phthalate	149	8.427	8.437	(0.986)	415511	27.2392	1040
94 Di-n-octylphthalate	149	8.940	8.951	(0.898)	621340	27.6619	1050
95 Benzo(b)fluoranthene	252	9.502	9.512	(0.955)	395340	30.7627	1170
96 Benzo(k)fluoranthene	252	9.529	9.539	(0.958)	361813	27.8290	1060
97 Benzo(a)pyrene	252	9.882	9.892	(0.993)	317624	29.8195	1140
99 Indeno(1,2,3-cd)pyrene	276	11.524	11.534	(1.158)	285486	31.3109	1190
100 Dibenzo(a,h)anthracene	278	11.524	11.540	(1.158)	237479	31.8809	1210
101 Benzo(ghi)perylene	276	12.005	12.021	(1.206)	221473	29.9890	1140
1 N-Methyl-N-nitrosomethylamine	74	2.340	2.319	(0.614)	50303	20.2773	772

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s032610.b/s2o2616.d
Date : 26-MAR-2010 20:18
Client ID: RE16-10-2917MSD
Sample Info: 1120207456919666751|SVM|1|MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

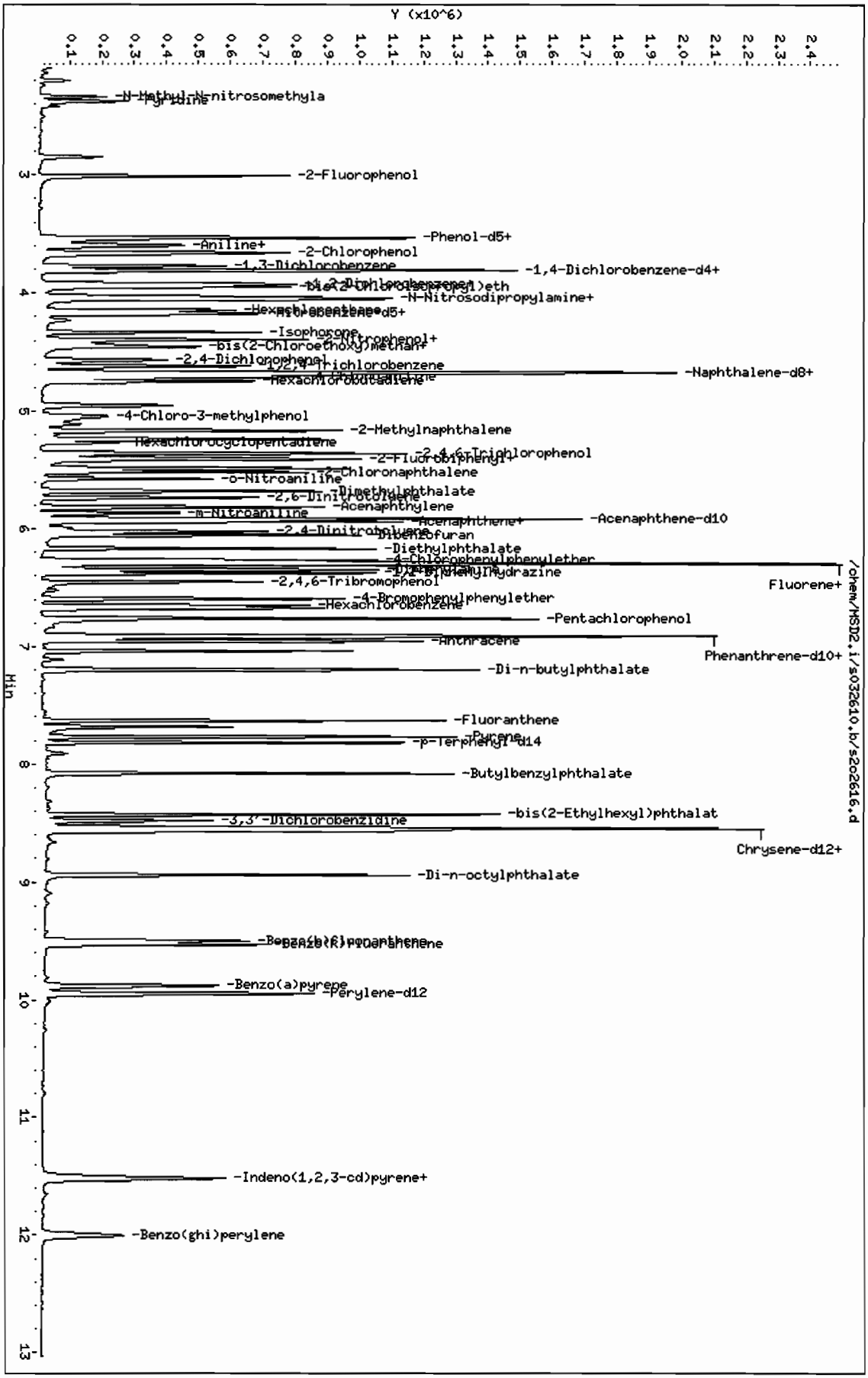

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2412

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	966575
Prep Batch Number:	966574

Sample Analysis

Sample ID	Client ID
249244001	RE46-10-12927
249244002	RE46-10-12923
249244003	RE46-10-12924
249244004	RE46-10-12926
249244005	RE46-10-12928
249244006	RE46-10-12925
1202074303	Interference Check Sample (ICS)
1202074299	Method Blank (MB)
1202074300	Laboratory Control Sample (LCS)
1202074301	249244001(RE46-10-12927) Matrix Spike (MS)
1202074302	249244001(RE46-10-12927) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

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CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 249244001 (RE46-10-12927) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

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Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

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Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert K Maier **Date:** 04/06/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12927

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 249244001

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.568	2.27	0.568	ug/kg	U	1	30-MAR-10 16:12	per0330039a
	Perchlorate Isotope Ratio						1	30-MAR-10 16:12	per0330039a
14797-73-0	Perchlorate-101	.568	2.27	0.568	ug/kg	U	1	30-MAR-10 16:12	per0330039a
	Perchlorate-O(18)			5.32	ug/kg		1	30-MAR-10 16:12	per0330039a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12923

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 249244002

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.591	2.36	0.591	ug/kg	U	1	30-MAR-10 16:36	per0330042a
	Perchlorate Isotope Ratio						1	30-MAR-10 16:36	per0330042a
14797-73-0	Perchlorate-101	.591	2.36	0.591	ug/kg	U	1	30-MAR-10 16:36	per0330042a
	Perchlorate-O(18)			5.56	ug/kg		1	30-MAR-10 16:36	per0330042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12924

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 249244003

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.586	2.34	0.586	ug/kg	U	1	30-MAR-10 16:44	per0330043a
	Perchlorate Isotope Ratio						1	30-MAR-10 16:44	per0330043a
14797-73-0	Perchlorate-101	.586	2.34	0.586	ug/kg	U	1	30-MAR-10 16:44	per0330043a
	Perchlorate-O(18)			5.49	ug/kg		1	30-MAR-10 16:44	per0330043a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12926

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 249244004

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.591	2.36	0.591	ug/kg	U	1	30-MAR-10 16:52	per0330044a
	Perchlorate Isotope Ratio						1	30-MAR-10 16:52	per0330044a
14797-73-0	Perchlorate-101	.591	2.36	0.591	ug/kg	U	1	30-MAR-10 16:52	per0330044a
	Perchlorate-O(18)			5.25	ug/kg		1	30-MAR-10 16:52	per0330044a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12928

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 249244005

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.614	2.46	0.614	ug/kg	U	1	30-MAR-10 17:24	per0330048a
	Perchlorate Isotope Ratio						1	30-MAR-10 17:24	per0330048a
14797-73-0	Perchlorate-101	.614	2.46	0.614	ug/kg	U	1	30-MAR-10 17:24	per0330048a
	Perchlorate-O(18)			5.82	ug/kg		1	30-MAR-10 17:24	per0330048a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12925

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 249244006

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.577	2.31	0.577	ug/kg	U	1	30-MAR-10 17:33	per0330049a
	Perchlorate Isotope Ratio						1	30-MAR-10 17:33	per0330049a
14797-73-0	Perchlorate-101	.577	2.31	0.577	ug/kg	U	1	30-MAR-10 17:33	per0330049a
	Perchlorate-O(18)			5.41	ug/kg		1	30-MAR-10 17:33	per0330049a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2412

Extract Batch Code: 966574

Date Filtered: 22–MAR–10

Matrix: SOIL

Sample ID: 1202074300

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.81	ug/kg	90.6		70 – 130
Perchlorate Isotope Ratio		3.17				–
Perchlorate–101	2.00	1.84	ug/kg	91.8		70 – 130
Perchlorate–O(18)		4.73	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2412

Extract Batch Code: 966574

Date Filtered: 22–MAR–10

Matrix: SOIL

Sample ID: 1202074303

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.89	ug/kg	94.3		70 – 130
Perchlorate Isotope Ratio		3.24				
Perchlorate–101	2.00	1.87	ug/kg	93.7		70 – 130
Perchlorate–O(18)		5.04	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330038a
Date: 30-Mar-2010
Time: 16:04:19
ID: 1202074303
Vial: 2:1,C

| LAW | 966575 | 50120 | ZCS | 1 |

WW 04-01-10

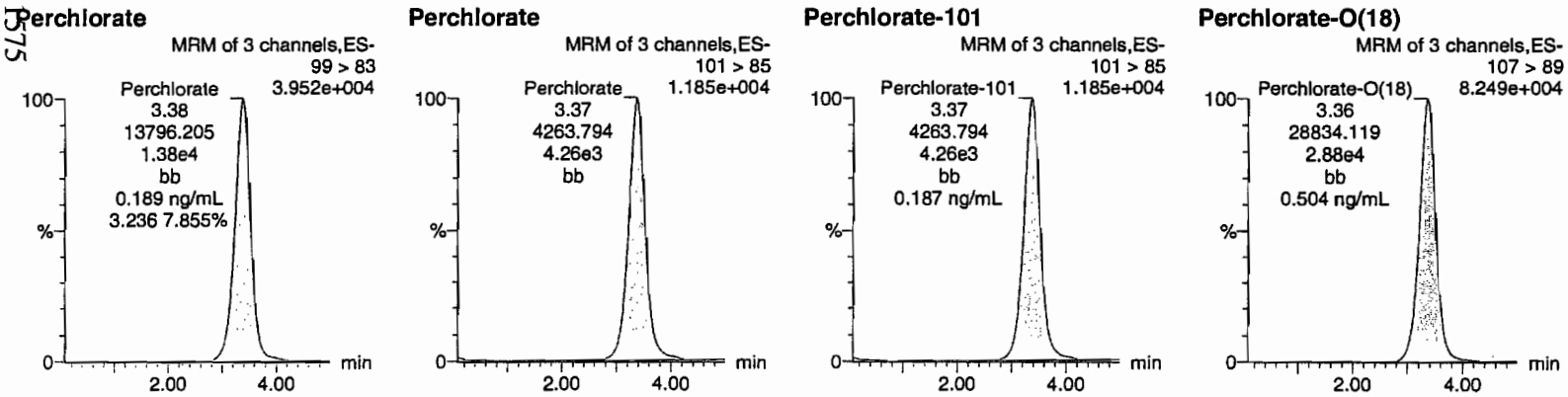

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202074303	Perchlorate	99 > 83	3.38	13796.205	13796.205	bb			0.1886	94.32	-5.68	976.222	3.24
1202074303	Perchlorate-101	101 > 85	3.37	4263.794	4263.794	bb			0.1874	93.71	-6.29	1069.4...	
1202074303	Perchlorate-O(18)	107 > 89	3.36	28834.119	28834.119	bb			0.5042	100.85	0.85	4764.3...	

MAT 4/2/10

$$\frac{13796.205}{4263.794} = 3.2357$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-2412

Extract Batch Code: 966574

Date Extracted: 22-MAR-10

GEL MS/PS ID: 1202074301

Client ID: RE46-10-12927

GEL MSD/PSD ID: 1202074302

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.27	0.0709	ug/kg	2.09	88.7	2.12	90.3	1.71	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.16		3.31		0		–
Perchlorate-101	2.27	0.0618	ug/kg	2.12	90.8	2.06	88.1	2.95	30	75 – 125
Perchlorate-O(18)	0	5.32	ug/kg	5.15		5.29		2.75		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2412

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	30–MAR–10	per0330001a	IPB001
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330001a	IPB001
Perchlorate	0.00	0	NA	30–MAR–10	per0330002a	IPB001
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330002a	IPB001

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per033010a.mdb 31 Mar 2010 11:16:12
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per033010a.cdb 31 Mar 2010 11:16:25

Name: per0330001a
Date: 30-Mar-2010
Time: 11:06:29
ID: IPB001
Vial: 1:1,A

AWD 04.01-10

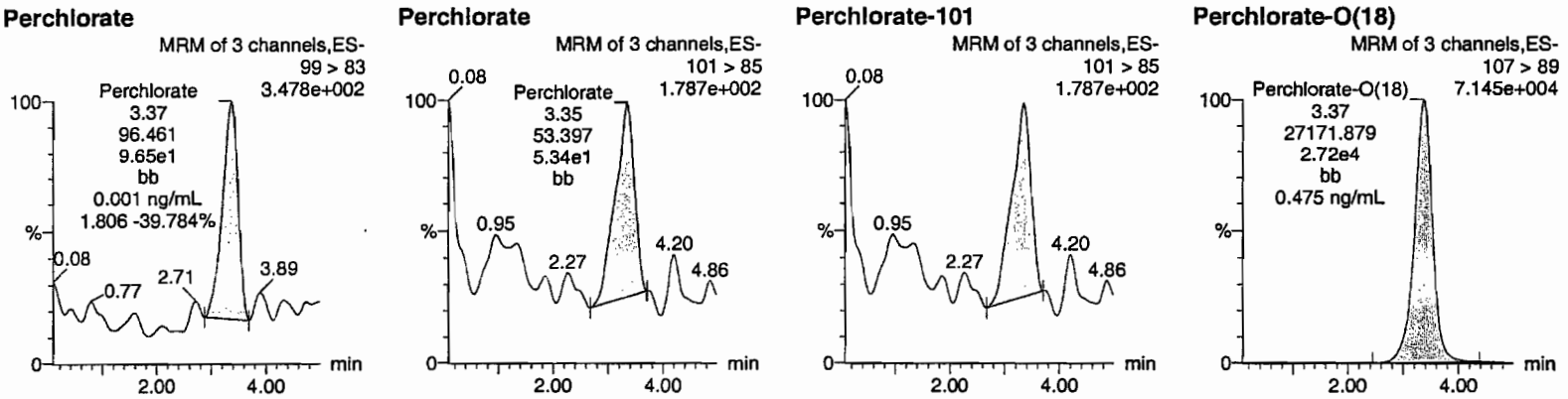

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	3.37	96.461	96.461	bb			0.0013			38.545	1.81
IPB001	Perchlorate-101	101 > 85	3.35	53.397	53.397	bb			0.0023			22.166	
IPB001	Perchlorate-O(18)	107 > 89	3.37	27171.879	27171.879	bb			0.4752	95.03	-4.97	1502.8...	

OKGH
LO.0500
MM
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330002a
Date: 30-Mar-2010
Time: 11:14:43
ID: IPB001
Vial: 1:1,A

CWW 04-01-10

Perchlorate

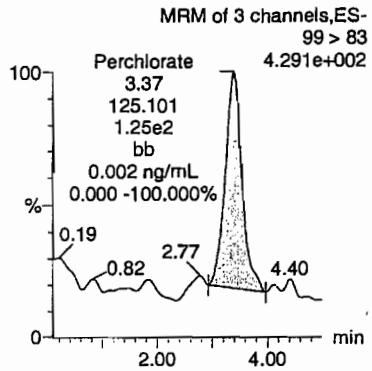

Perchlorate

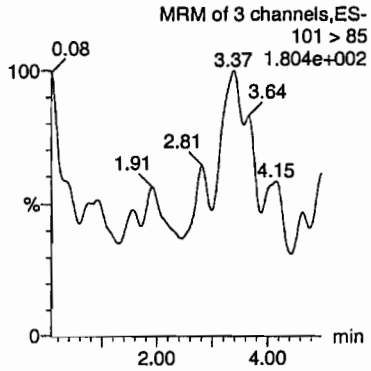

Perchlorate-101

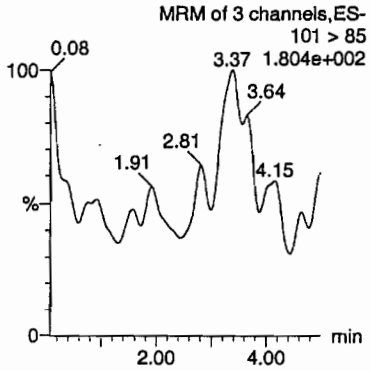

Perchlorate-O(18)

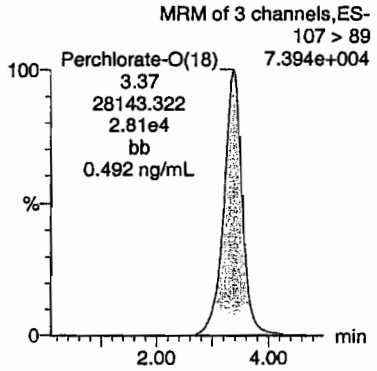

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	3.37	125.101	125.101	bb			0.0017			70.677	0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.37	28143.322	28143.322	bb			0.4922 ✓	98.43	-1.57	3185.4...	

MAT 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2412

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	30–MAR–10	per0330008a	IPB002
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330008a	IPB002
Perchlorate	0.00	0	NA	30–MAR–10	per0330010a	IPB003
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330010a	IPB003
Perchlorate	0.00	0	NA	30–MAR–10	per0330023a	IPB004
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330023a	IPB004
Perchlorate	0.00	0	NA	30–MAR–10	per0330034a	IPB005
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330034a	IPB005
Perchlorate	0.00	0	NA	30–MAR–10	per0330046a	IPB006
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330046a	IPB006
Perchlorate	0.00	0	NA	30–MAR–10	per0330057a	IPB007
Perchlorate–101	0.00	0	NA	30–MAR–10	per0330057a	IPB007

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330008a
Date: 30-Mar-2010
Time: 12:02:52
ID: IPB002
Vial: 1:1,A

CWO
04-01-10

Perchlorate

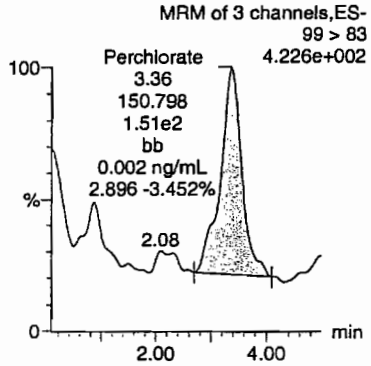

Perchlorate

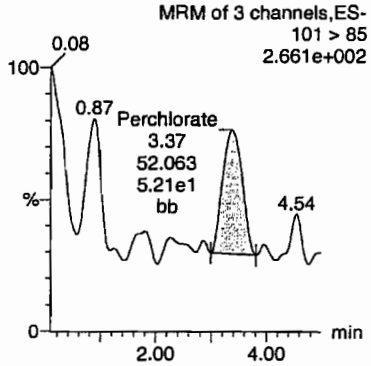

Perchlorate-101

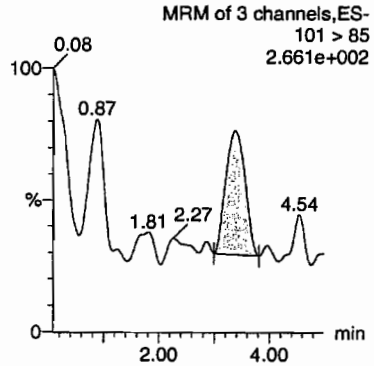

Perchlorate-O(18)

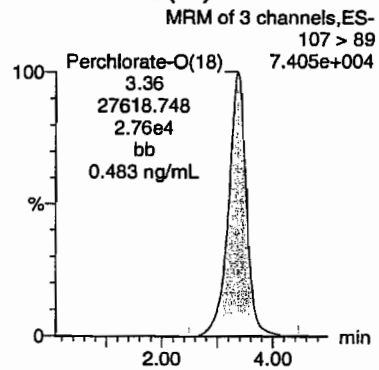

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83	3.36	150.798	150.798	bb			0.0021			39.764	2.90
IPB002	Perchlorate-101	101 > 85	3.37	52.063	52.063	bb			0.0023			10.293	
IPB002	Perchlorate-O(18)	107 > 89	3.36	27618.748	27618.748	bb			0.4830	96.60	-3.40	2123.7...	

MM
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330010a
Date: 30-Mar-2010
Time: 12:18:57
ID: IPB003
Vial: 1:1,A

04-01-10

Perchlorate

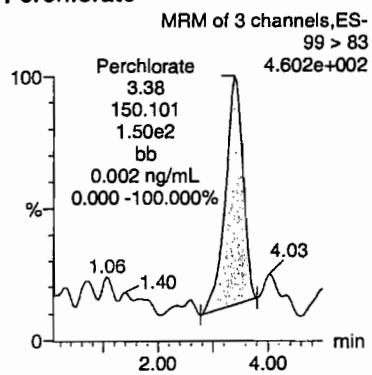

Perchlorate

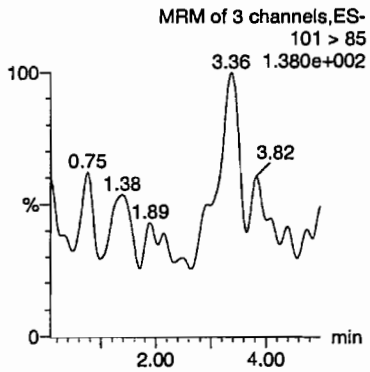

Perchlorate-101

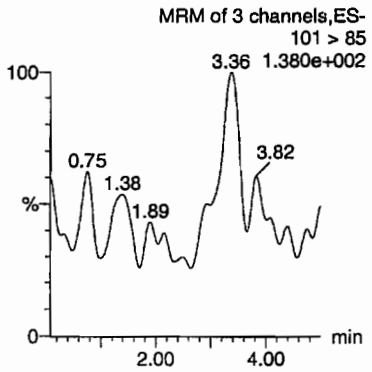

Perchlorate-O(18)

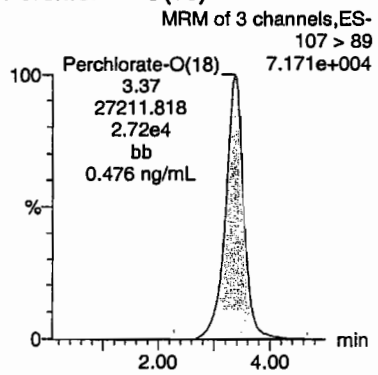

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83	3.38	150.101	150.101	bb			0.0021			59.909	0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	3.37	27211.818	27211.818	bb			0.4759	95.17	-4.83	7432.9...	

MM 4/2/10

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330023a
Date: 30-Mar-2010
Time: 14:03:30
ID: IPB004
Vial: 1:1,A

KWO 04-01-10

Perchlorate

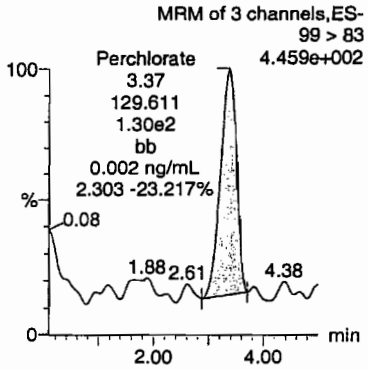

Perchlorate

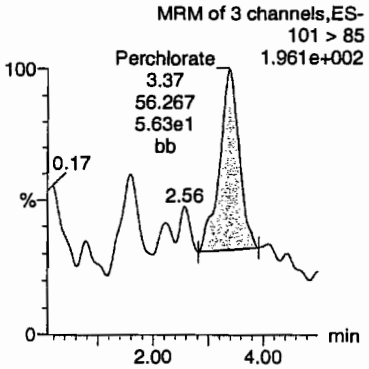

Perchlorate-101

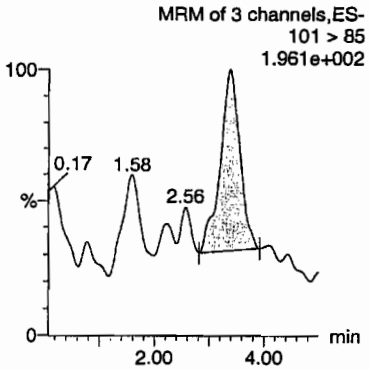

Perchlorate-O(18)

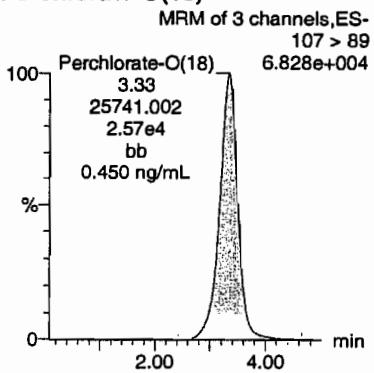

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83	3.37	129.611	129.611	bb			0.0018			20.032	2.30
IPB004	Perchlorate-101	101 > 85	3.37	56.267	56.267	bb			0.0025			3.267	
IPB004	Perchlorate-O(18)	107 > 89	3.33	25741.002	25741.002	bb			0.4501	90.03	-9.97	6511.3...	

DLY4
LOQ500
MMP
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330034a
Date: 30-Mar-2010
Time: 15:31:58
ID: IPB005
Vial: 1:1,A

CWJ
04-01-10

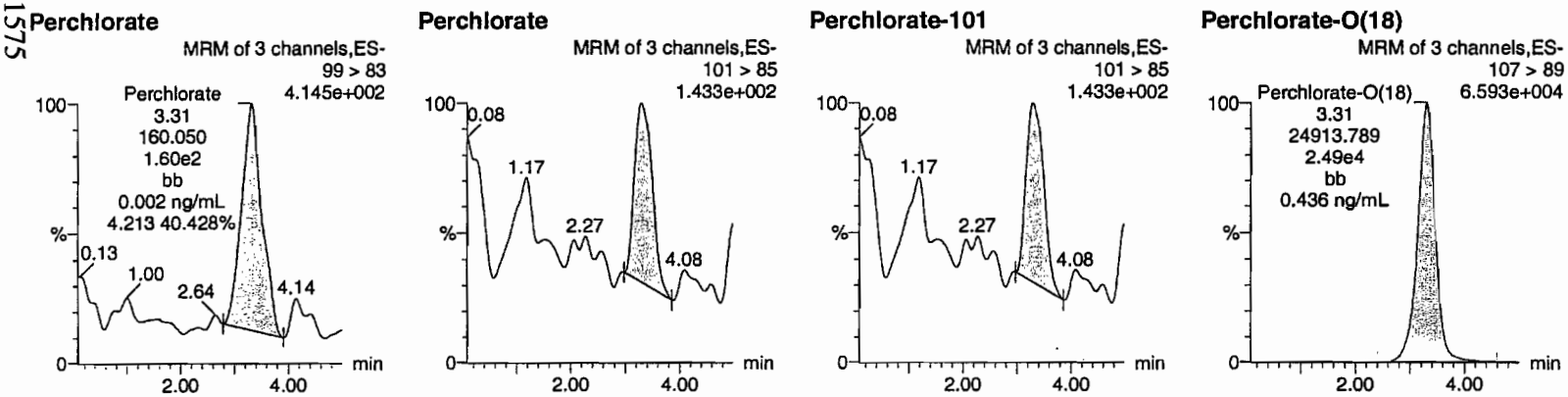

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83	3.31	160.050	160.050	bb			0.0022			18.437	4.21
IPB005	Perchlorate-101	101 > 85	3.28	37.991	37.991	bb			0.0017			22.239	
IPB005	Perchlorate-O(18)	107 > 89	3.31	24913.789	24913.789	bb			0.4357	✓87.14	-12.86	6308.3...	

CWJ
<0.0500
MMP
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330046a
Date: 30-Mar-2010
Time: 17:08:48
ID: IPB006
Vial: 1:1,A

CWW 04-10-10

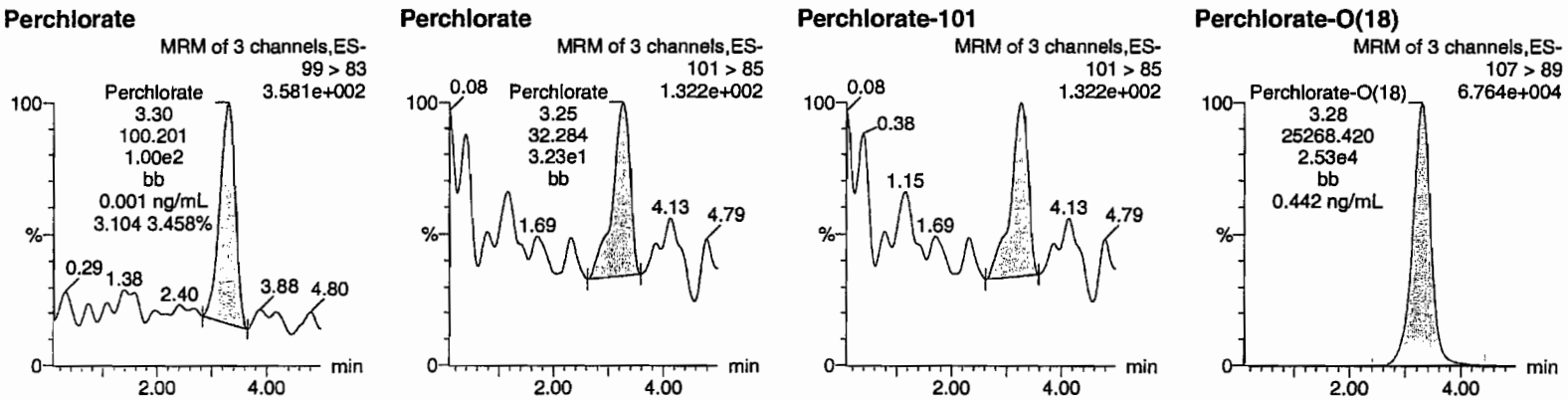

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83	3.30	100.201	100.201	bb			0.0014			17.429	3.10
IPB006	Perchlorate-101	101 > 85	3.25	32.284	32.284	bb			0.0014			9.503	
IPB006	Perchlorate-O(18)	107 > 89	3.28	25268.420	25268.420	bb			0.4419	88.38	-11.62	689.278	

MAP 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330057a
Date: 30-Mar-2010
Time: 18:37:34
ID: IPB007
Vial: 1:1,A

EWJ 04-01-10

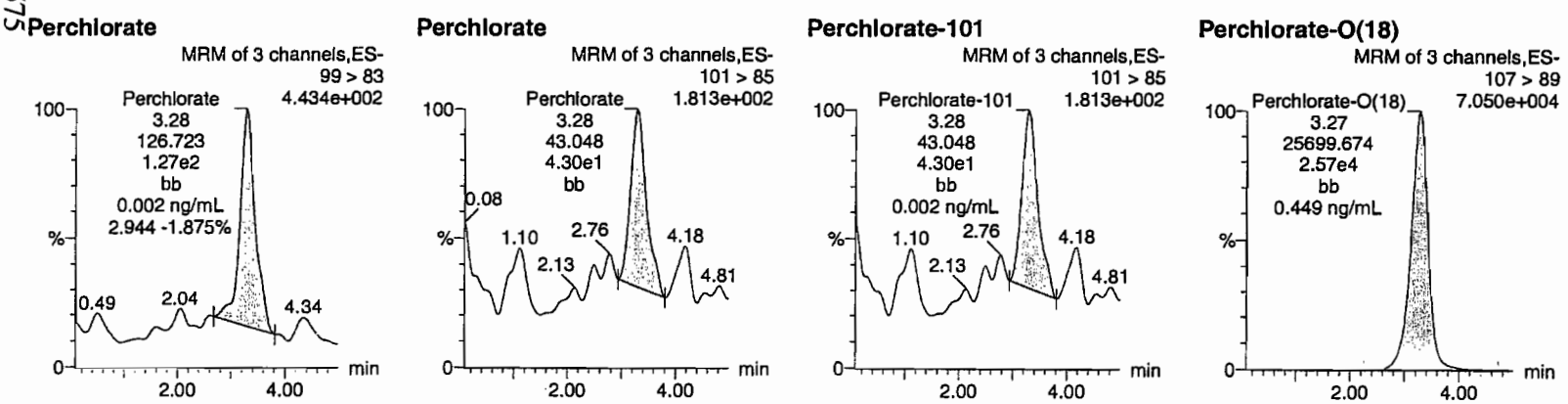

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83	3.28	126.723	126.723	bb			0.0017			43.130	2.94
IPB007	Perchlorate-101	101 > 85	3.28	43.048	43.048	bb			0.0019			14.116	
IPB007	Perchlorate-O(18)	107 > 89	3.27	25699.674	25699.674	bb			0.4494	89.88	-10.12	5871.6...	

MMT 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nainbrf

;Positive ion monoisotopic and average masses from solution
;of Nainbrf (2.0+0.05mg/ml) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CODES 01-07+03

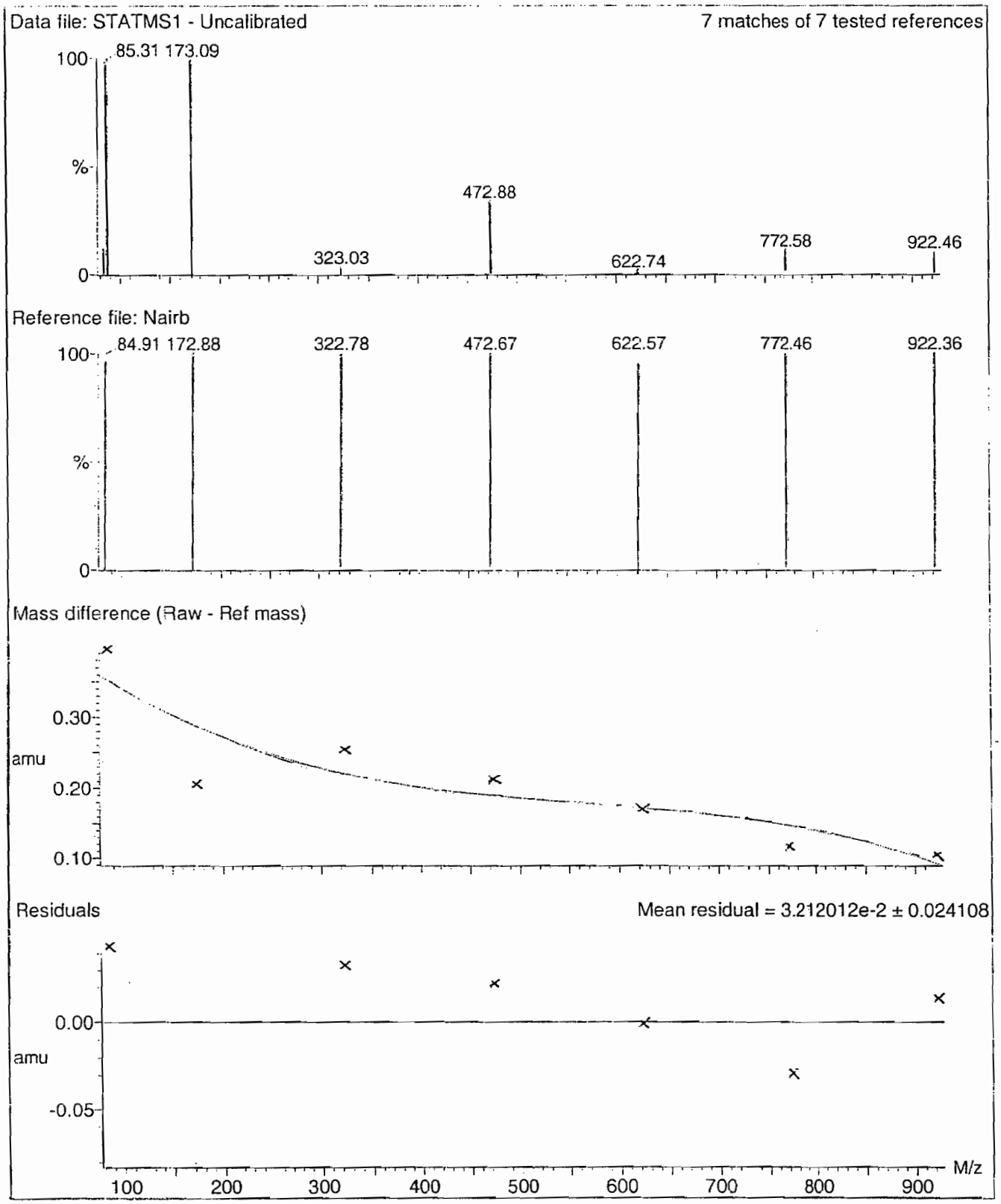

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Calibration Report - MS1 Scanning

Printed: **Tue Jan 08 12:20:09 2008**

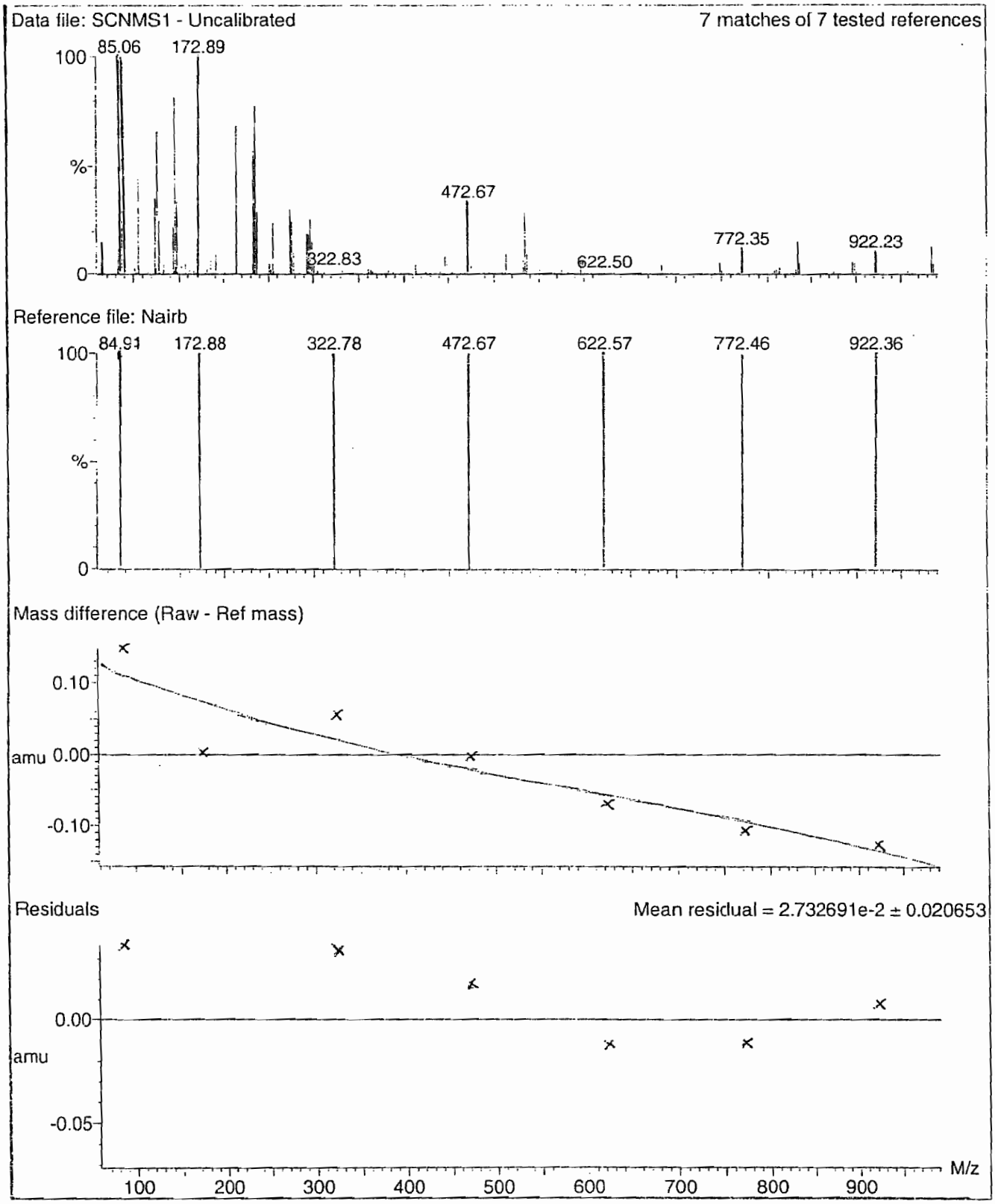

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Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

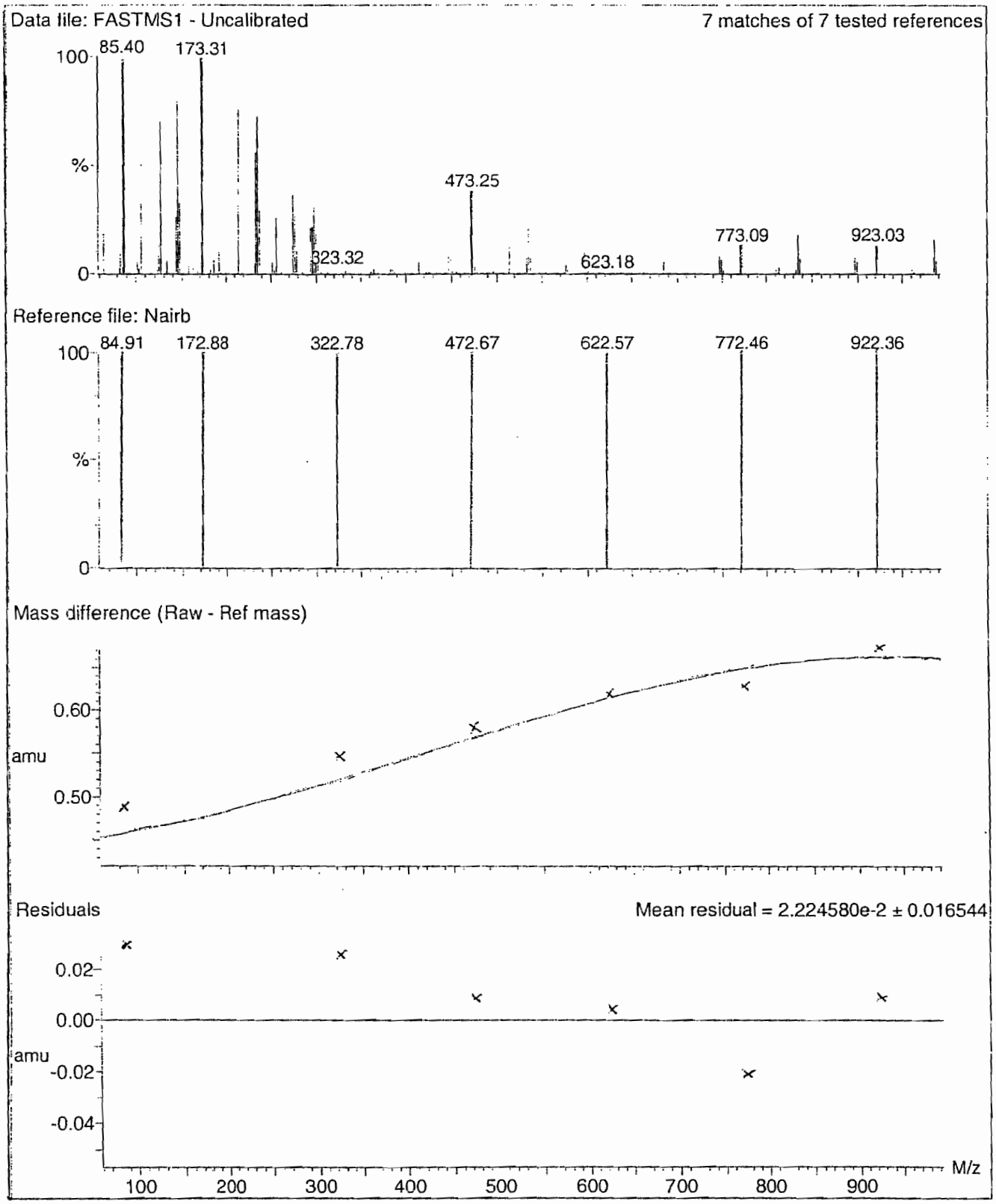

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

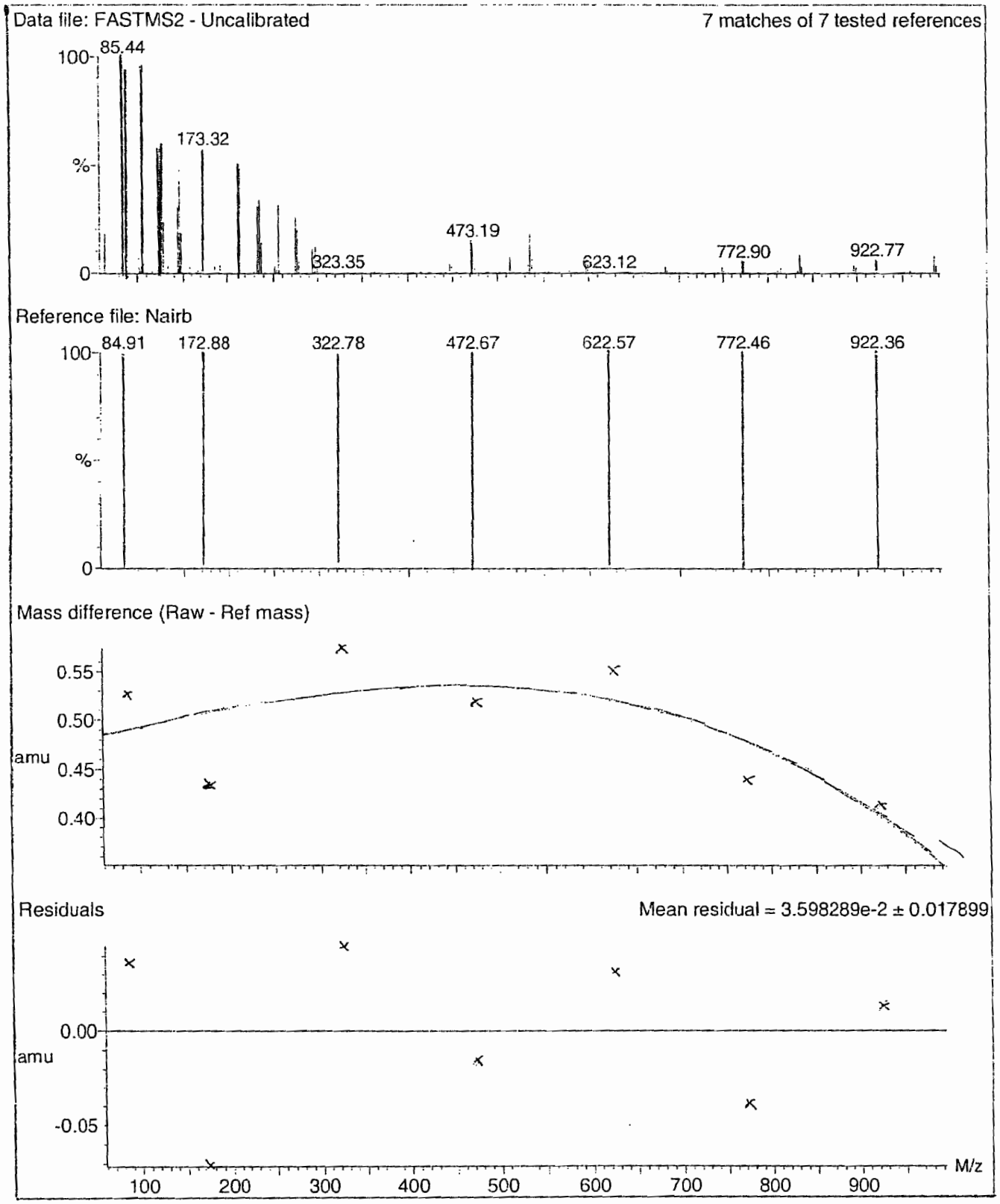

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Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

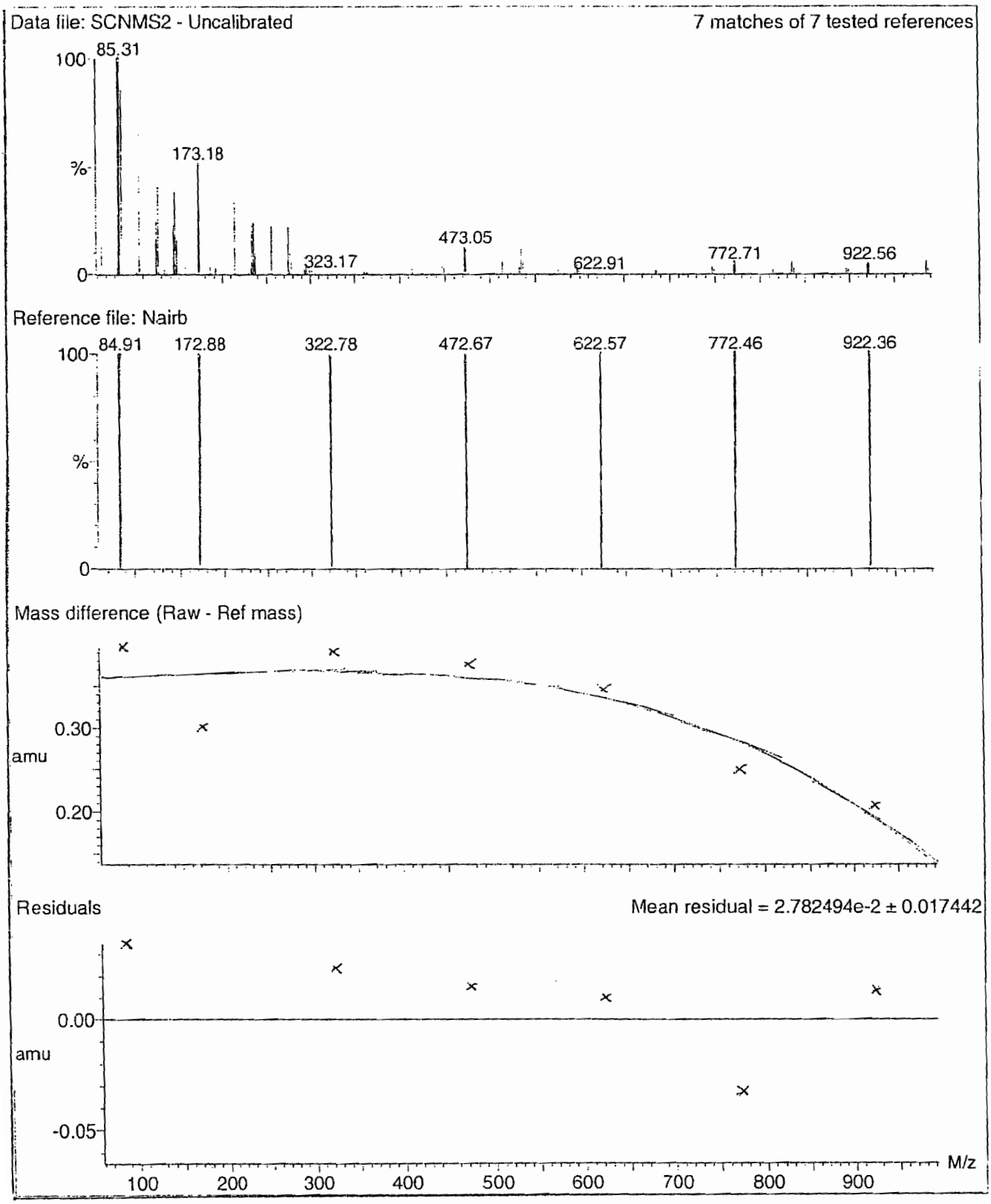

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Calibration Report - MS2 Static

Printed: **Tue Jan 08 12:21:59 2008**

Data file: STATMS2 - Uncalibrated

7 matches of 7 tested references

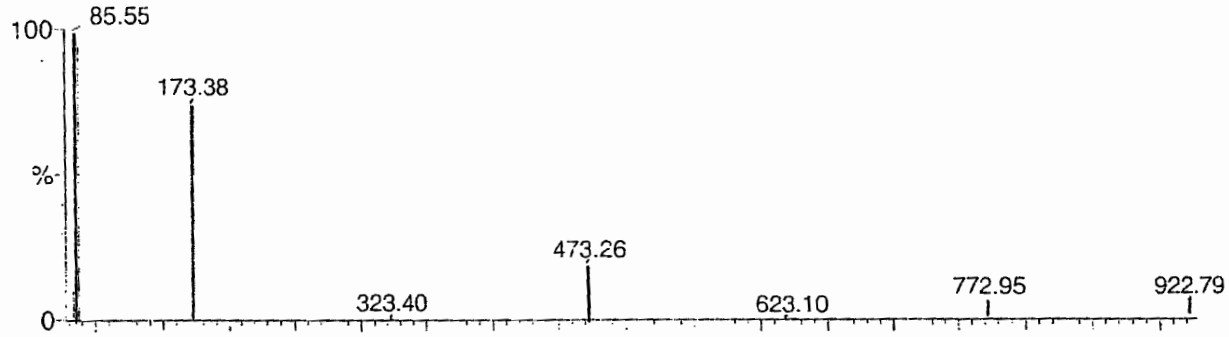

Reference file: Nairb

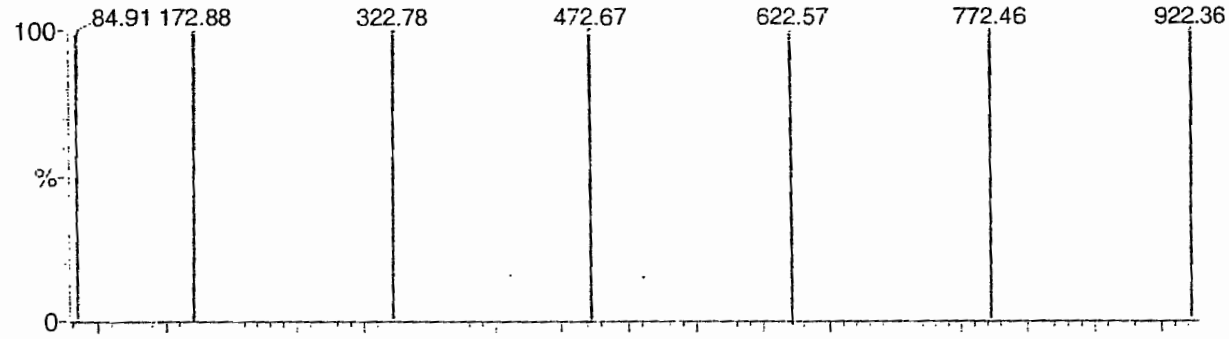

Mass difference (Raw - Ref mass)

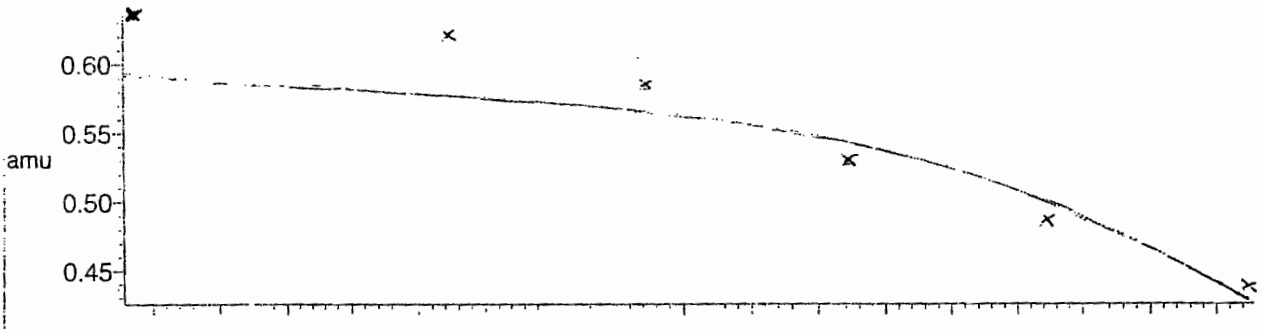

Residuals

Mean residual = 3.295980e-2 ± 0.025603

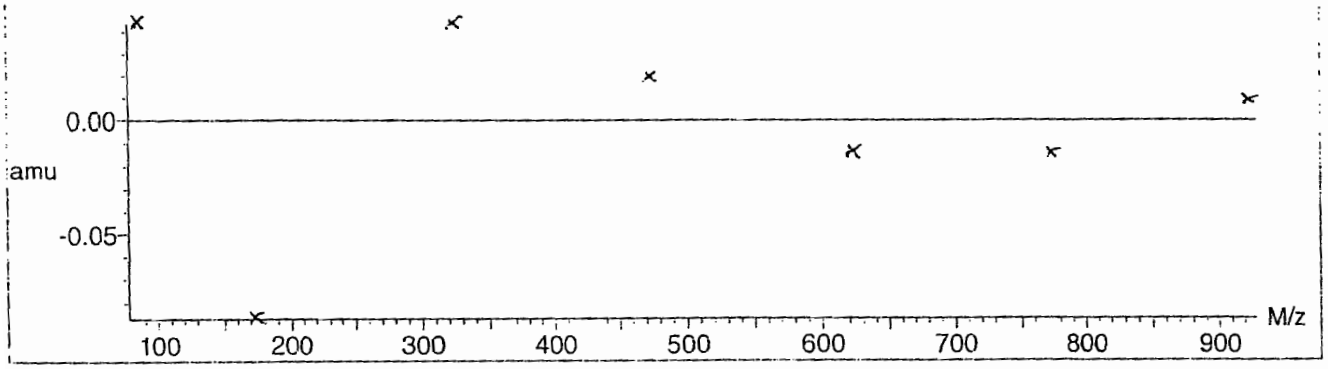

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Tuesday, March 30, 2010 08:55:18 Eastern Standard Time

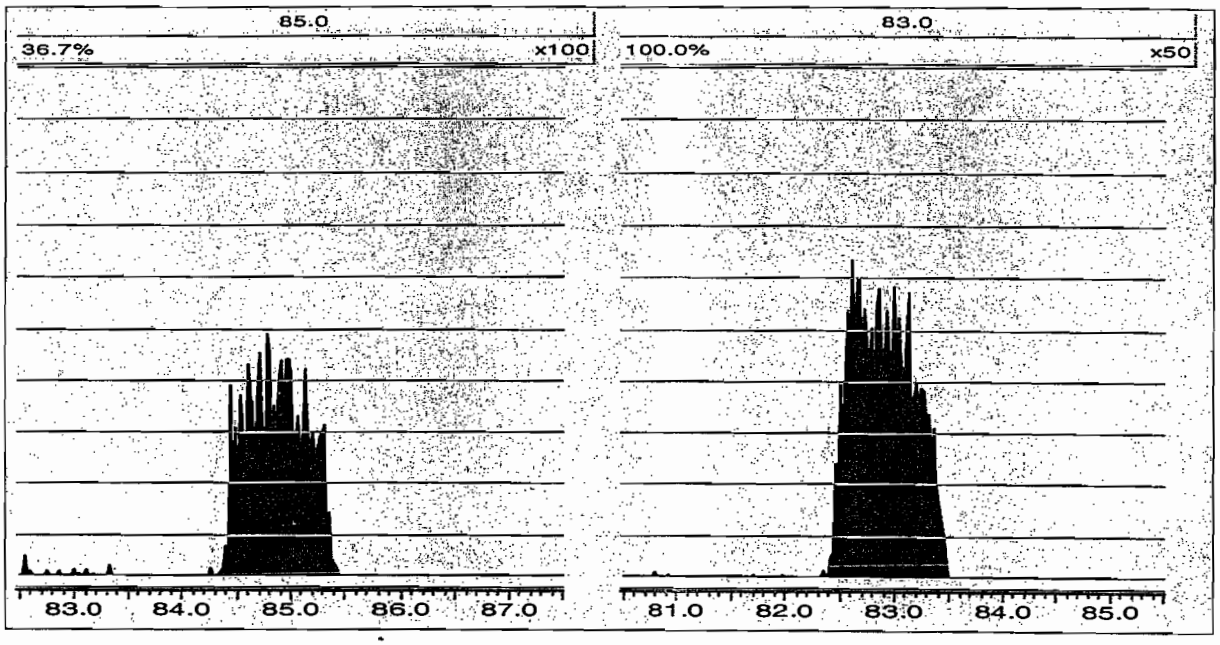

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2412

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0330006a**	**30–MAR–10**	**28137.8**				
Lower Area Limit			**14068.9**				
Upper Area Limit			**56275.6**				
1202074299	per0330036a	30–MAR–10 15:48	27212.9	3.31	3.30895	1	
1202074300	per0330037a	30–MAR–10 15:56	27041.8	3.31	3.3214	1.003	
1202074303	per0330038a	30–MAR–10 16:04	28834.1	3.36	3.38345	1.007	
249244001	per0330039a	30–MAR–10 16:12	26775.3	3.31	3.32135	1.003	
1202074301	per0330040a	30–MAR–10 16:20	25907.6	3.28	3.3089	1.009	
1202074302	per0330041a	30–MAR–10 16:28	26630	3.3	3.3089	1.003	
249244002	per0330042a	30–MAR–10 16:36	26913.7	3.3	3.2841	.995	
249244003	per0330043a	30–MAR–10 16:44	26795.7	3.28	3.3089	1.009	

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Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2412

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0330006a**	**30–MAR–10**	**28137.8**				
Lower Area Limit			**14068.9**				
Upper Area Limit			**56275.6**				
249244004	per0330044a	30–MAR–10 16:52	25403.5	3.3	3.29643	.999	
249244005	per0330048a	30–MAR–10 17:24	27087.1	3.28	3.29645	1.005	
249244006	per0330049a	30–MAR–10 17:33	26821.5	3.28	3.29647	1.005	

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12927

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 249244001

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.568	2.27	0.568	ug/kg	U	1	30-MAR-10 16:12	per0330039a
	Perchlorate Isotope Ratio						1	30-MAR-10 16:12	per0330039a
14797-73-0	Perchlorate-101	.568	2.27	0.568	ug/kg	U	1	30-MAR-10 16:12	per0330039a
	Perchlorate-O(18)			5.32	ug/kg		1	30-MAR-10 16:12	per0330039a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330039a
Date: 30-Mar-2010
Time: 16:12:21
ID: 249244001
Vial: 2:1,D

|LRJL|966575|SDL20|1|

WW 04-01-10

Perchlorate

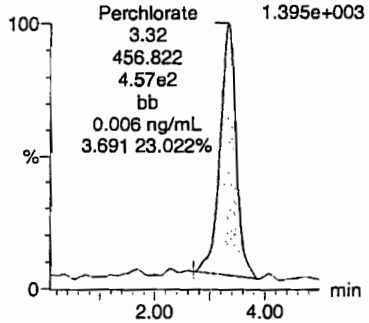

Perchlorate

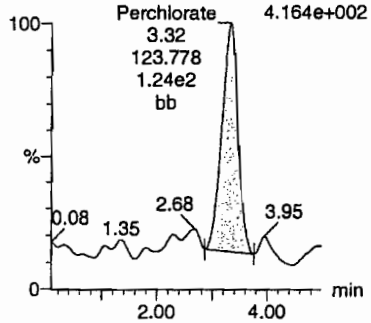

Perchlorate-101

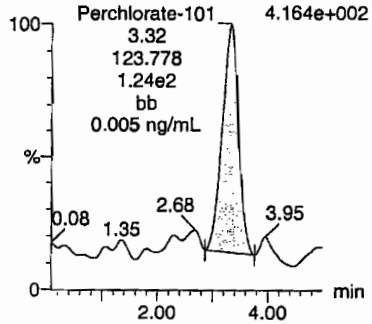

Perchlorate-O(18)

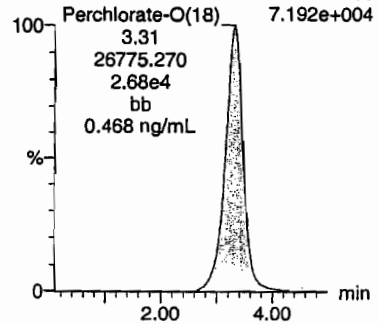

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
249244001	Perchlorate	99 > 83	3.32	456.822	456.822	bb			0.0062			182.027	3.69
249244001	Perchlorate-101	101 > 85	3.32	123.778	123.778	bb			0.0054			29.774	
249244001	Perchlorate-O(18)	107 > 89	3.31	26775.270	26775.270	bb			0.4682	93.65	-6.35	8074.3...	

MMT 4/2/10

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12923

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 249244002

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.591	2.36	0.591	ug/kg	U	1	30-MAR-10 16:36	per0330042a
	Perchlorate Isotope Ratio						1	30-MAR-10 16:36	per0330042a
14797-73-0	Perchlorate-101	.591	2.36	0.591	ug/kg	U	1	30-MAR-10 16:36	per0330042a
	Perchlorate-O(18)			5.56	ug/kg		1	30-MAR-10 16:36	per0330042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330042a
Date: 30-Mar-2010
Time: 16:36:24
ID: 249244002
Vial: 2:2,A

LZNL | 966575 | 5020 | 1 |

CWJ 04-01-10

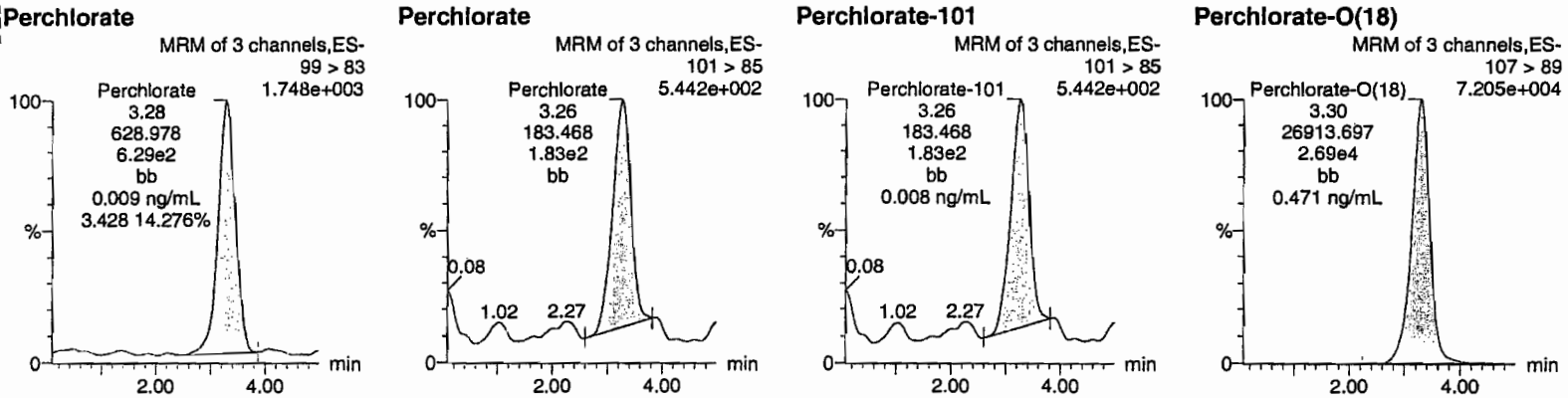

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
249244002	Perchlorate	99 > 83	3.28	628.978	628.978	bb			0.0086			12.112	3.43
249244002	Perchlorate-101	101 > 85	3.26	183.468	183.468	bb			0.0081			21.498	
249244002	Perchlorate-O(18)	107 > 89	3.30	26913.697	26913.697	bb			0.4706	94.13	-5.87	3128.2...	

MATT 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12924

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 249244003

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.586	2.34	0.586	ug/kg	U	1	30-MAR-10 16:44	per0330043a
	Perchlorate Isotope Ratio						1	30-MAR-10 16:44	per0330043a
14797-73-0	Perchlorate-101	.586	2.34	0.586	ug/kg	U	1	30-MAR-10 16:44	per0330043a
	Perchlorate-O(18)			5.49	ug/kg		1	30-MAR-10 16:44	per0330043a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330043a
Date: 30-Mar-2010
Time: 16:44:27
ID: 249244003
Vial: 2:2,B

|LANL|966575|5020|1|

CWW
04-10-10

Perchlorate

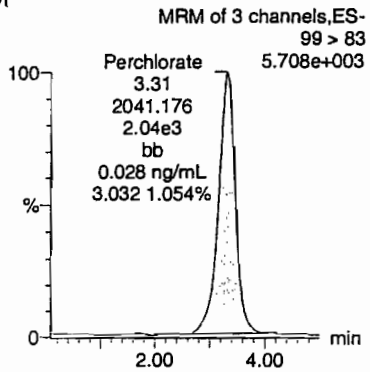

Perchlorate

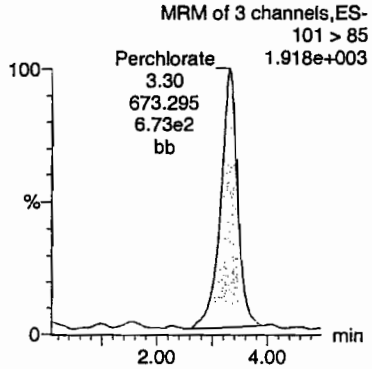

Perchlorate-101

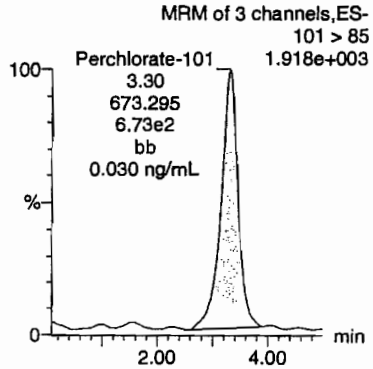

Perchlorate-O(18)

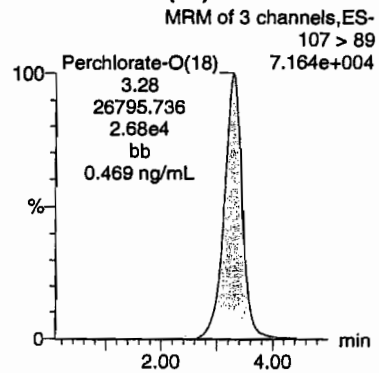

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
249244003	Perchlorate	99 > 83	3.31	2041.176	2041.176	bb			0.0279			204.109	3.03
249244003	Perchlorate-101	101 > 85	3.30	673.295	673.295	bb			0.0296			172.447	
249244003	Perchlorate-O(18)	107 > 89	3.28	26795.736	26795.736	bb			0.4686	93.72	-6.28	31.793	

MMT
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12926

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 249244004

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.591	2.36	0.591	ug/kg	U	1	30-MAR-10 16:52	per0330044a
	Perchlorate Isotope Ratio						1	30-MAR-10 16:52	per0330044a
14797-73-0	Perchlorate-101	.591	2.36	0.591	ug/kg	U	1	30-MAR-10 16:52	per0330044a
	Perchlorate-O(18)			5.25	ug/kg		1	30-MAR-10 16:52	per0330044a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330044a
Date: 30-Mar-2010
Time: 16:52:29
ID: 249244004
Vial: 2:2,C

|LANL|966575|SOLID|1|

04-01-10

Perchlorate

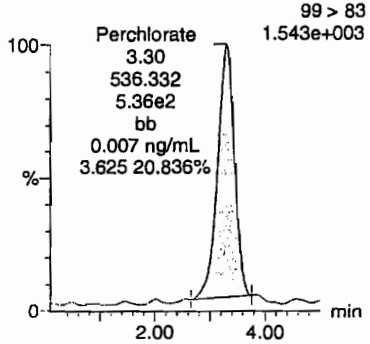

Perchlorate

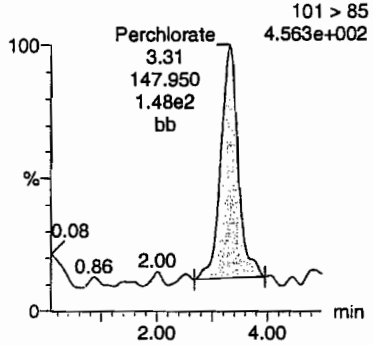

Perchlorate-101

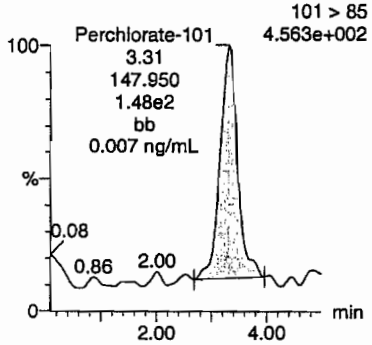

Perchlorate-O(18)

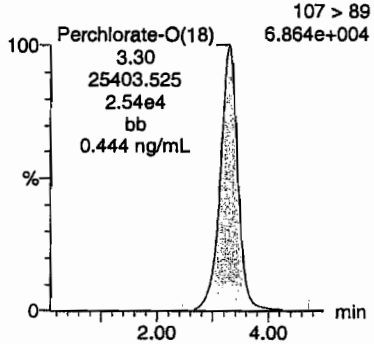

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
249244004	Perchlorate	99 > 83	3.30	536.332	536.332	bb			0.0073			75.270	3.63
249244004	Perchlorate-101	101 > 85	3.31	147.950	147.950	bb			0.0065			43.815	
249244004	Perchlorate-O(18)	107 > 89	3.30	25403.525	25403.525	bb			0.4442	88.85	-11.15	4291.7...	

MM 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12928

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 249244005

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.614	2.46	0.614	ug/kg	U	1	30-MAR-10 17:24	per0330048a
	Perchlorate Isotope Ratio						1	30-MAR-10 17:24	per0330048a
14797-73-0	Perchlorate-101	.614	2.46	0.614	ug/kg	U	1	30-MAR-10 17:24	per0330048a
	Perchlorate-O(18)			5.82	ug/kg		1	30-MAR-10 17:24	per0330048a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330048a
Date: 30-Mar-2010
Time: 17:24:52
ID: 249244005
Vial: 2:2,D

|LANL|966575|SOIL|1|

04-01-10

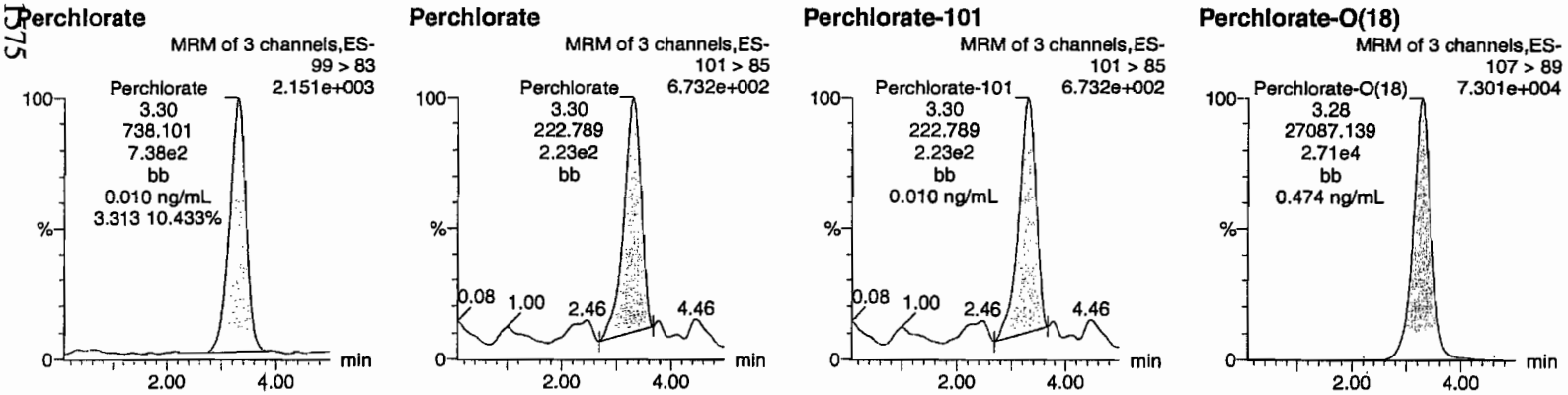

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
249244005	Perchlorate	99 > 83	3.30	738.101	738.101	bb			0.0101			163.328	3.31
249244005	Perchlorate-101	101 > 85	3.30	222.789	222.789	bb			0.0098			29.830	
249244005	Perchlorate-O(18)	107 > 89	3.28	27087.139	27087.139	bb			0.4737	94.74	-5.26	7611.0...	

MM 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12925

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 249244006

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.577	2.31	0.577	ug/kg	U	1	30-MAR-10 17:33	per0330049a
	Perchlorate Isotope Ratio						1	30-MAR-10 17:33	per0330049a
14797-73-0	Perchlorate-101	.577	2.31	0.577	ug/kg	U	1	30-MAR-10 17:33	per0330049a
	Perchlorate-O(18)			5.41	ug/kg		1	30-MAR-10 17:33	per0330049a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330049a
Date: 30-Mar-2010
Time: 17:33:05
ID: 249244006
Vial: 2:2,E

ILZNL|966575|50120|1|

04-01-10

Perchlorate

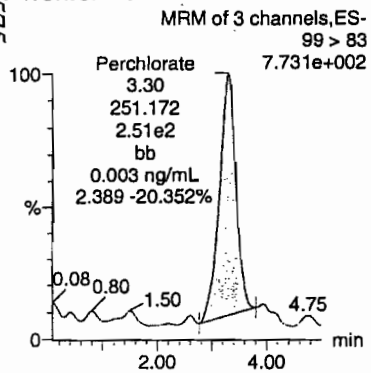

Perchlorate

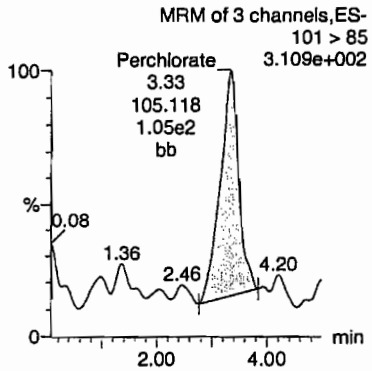

Perchlorate-101

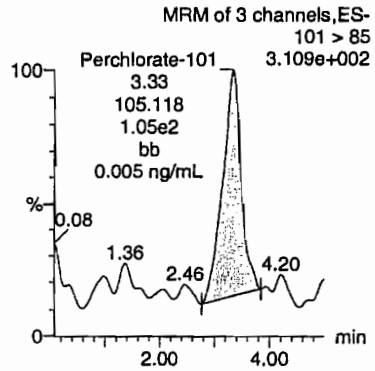

Perchlorate-O(18)

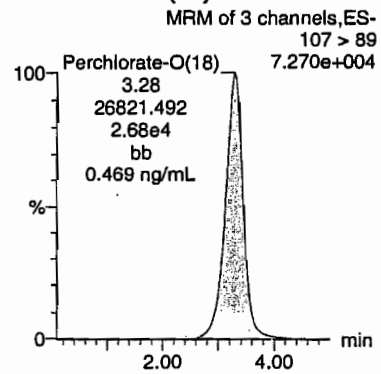

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
249244006	Perchlorate	99 > 83	3.30	251.172	251.172	bb			0.0034			86.712	2.39
249244006	Perchlorate-101	101 > 85	3.33	105.118	105.118	bb			0.0046			53.232	
249244006	Perchlorate-O(18)	107 > 89	3.28	26821.492	26821.492	bb			0.4690	93.81	-6.19	3881.9...	

MM 4/2/10

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2412

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 30–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 73132.72

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2412

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 30–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 22749.34

Response Type: External Standard

Curve Type: RF

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per033010a.mdb 31 Mar 2010 11:16:12
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per033010a.cdb 31 Mar 2010 11:16:25

Compound name: Perchlorate
Response Factor: 73132.7
RRF SD: 1899.06, % Relative SD: 2.59673
Response type: External Std, Area
Curve type: RF

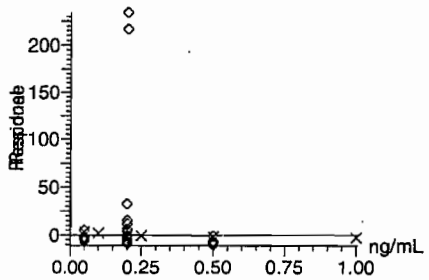

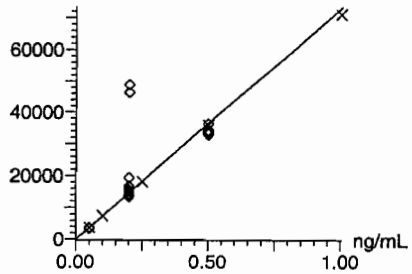

CWW
04-01-10

Compound name: Perchlorate-101
Response Factor: 22749.3
RRF SD: 893.276, % Relative SD: 3.9266
Response type: External Std, Area
Curve type: RF

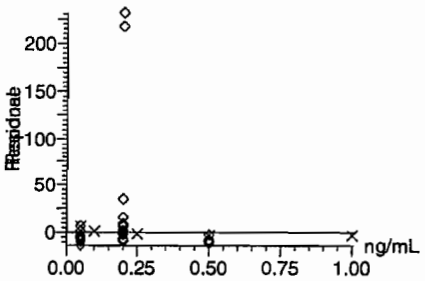

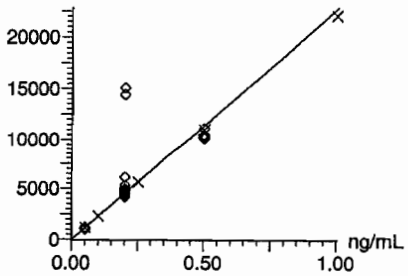

MM
4/2/10

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 57184.3
RRF SD: 840.879, % Relative SD: 1.47047
Response type: External Std, Area
Curve type: RF

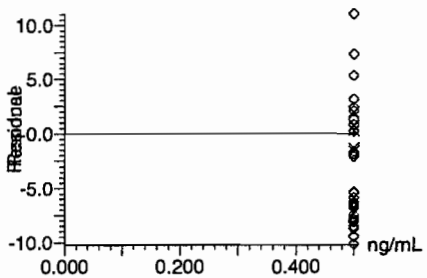

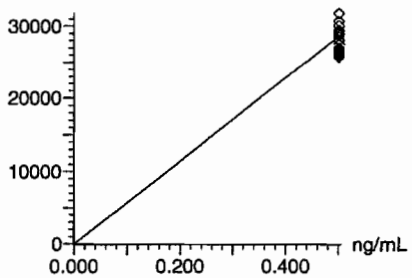

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Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2412

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.03	30–MAR–10 12:10	per0330009a
Perchlorate Isotope Ratio		3.26		30–MAR–10 12:10	per0330009a
Perchlorate–101	.5	.49	97.71	30–MAR–10 12:10	per0330009a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330009a
Date: 30-Mar-2010
Time: 12:10:54
ID: WCL100326-06ICV
Vial: 1:2,A

Pass
aw
04-01-10

Perchlorate

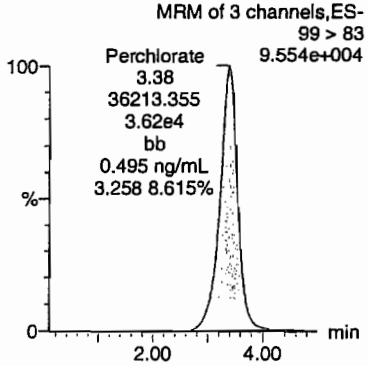

Perchlorate

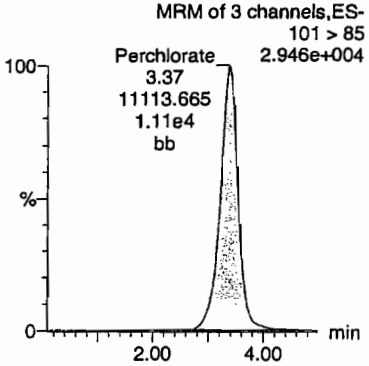

Perchlorate-101

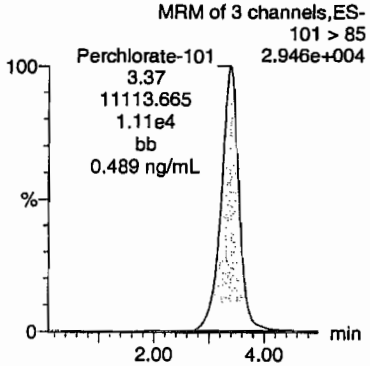

Perchlorate-O(18)

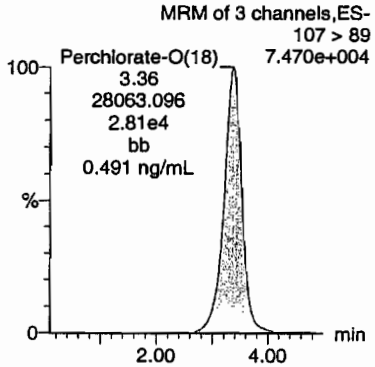

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06ICV	Perchlorate	99 > 83	3.38	36213.355	36213.355	bb			0.4952	99.03	-0.97	1892.9...	3.26
WCL100326-06ICV	Perchlorate-101	101 > 85	3.37	11113.665	11113.665	bb			0.4885	97.71	-2.29	653.159	
WCL100326-06ICV	Perchlorate-O(18)	107 > 89	3.36	28063.096	28063.096	bb			0.4907	98.15	-1.85	2260.4...	

MAP
4/2/10

$\frac{36213.355}{73132.7} = 0.4952$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2412

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.46	91.62	30–MAR–10 13:55	per0330022a
Perchlorate Isotope Ratio		3.22		30–MAR–10 13:55	per0330022a
Perchlorate–101	.5	.46	91.39	30–MAR–10 13:55	per0330022a
Perchlorate	.5	.46	92.43	30–MAR–10 15:23	per0330033a
Perchlorate Isotope Ratio		3.32		30–MAR–10 15:23	per0330033a
Perchlorate–101	.5	.45	89.54	30–MAR–10 15:23	per0330033a
Perchlorate	.5	.46	91.09	30–MAR–10 17:00	per0330045a
Perchlorate Isotope Ratio		3.24		30–MAR–10 17:00	per0330045a
Perchlorate–101	.5	.45	90.34	30–MAR–10 17:00	per0330045a
Perchlorate	.5	.46	91.6	30–MAR–10 18:29	per0330056a
Perchlorate Isotope Ratio		3.18		30–MAR–10 18:29	per0330056a
Perchlorate–101	.5	.46	92.66	30–MAR–10 18:29	per0330056a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330022a
Date: 30-Mar-2010
Time: 13:55:27
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
CWJ
04-01-10

Perchlorate

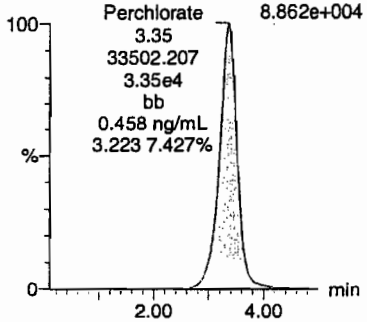

Perchlorate

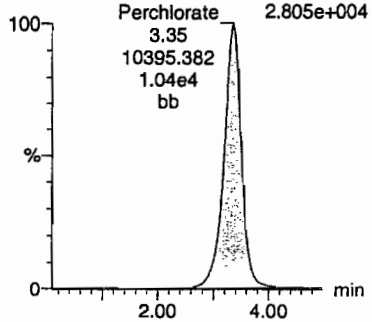

Perchlorate-101

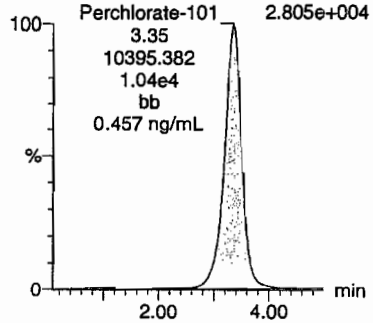

Perchlorate-O(18)

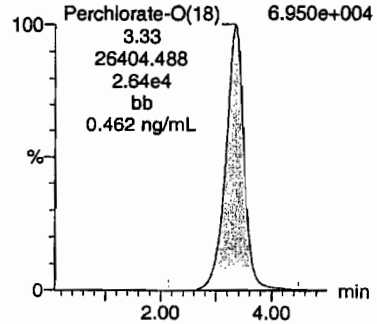

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.35	33502.207	33502.207	bb			0.4581	91.62	-8.38	6220.3...	3.22
WCL100326-06CCV	Perchlorate-101	101 > 85	3.35	10395.382	10395.382	bb			0.4570	91.39	-8.61	1075.9...	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.33	26404.488	26404.488	bb			0.4617	92.35	-7.65	5376.9...	

MMP
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330033a
Date: 30-Mar-2010
Time: 15:23:55
ID: WCL100326-06CCV
Vial: 1:2,A

04-01-10

Perchlorate

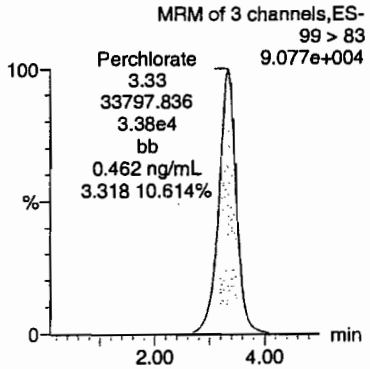

Perchlorate

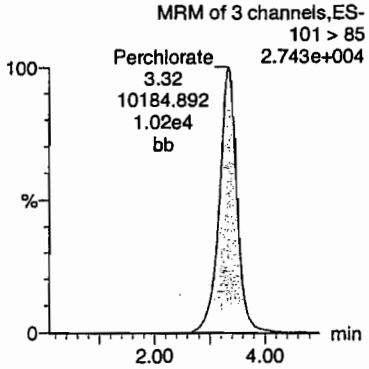

Perchlorate-101

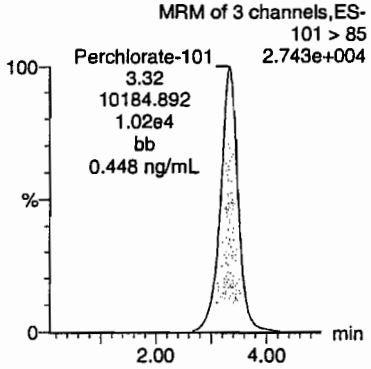

Perchlorate-O(18)

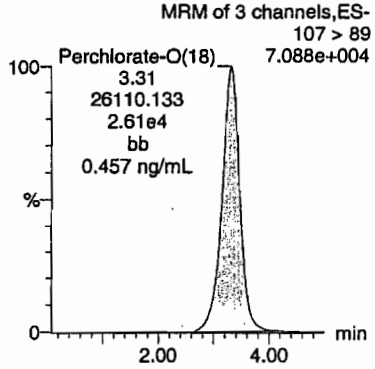

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.33	33797.836	33797.836	bb			0.4621	92.43	-7.57	1903.2...	3.32
WCL100326-06CCV	Perchlorate-101	101 > 85	3.32	10184.892	10184.892	bb			0.4477	89.54	-10.46	742.369	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.31	26110.133	26110.133	bb			0.4566	91.32	-8.68	3135.4...	

MAT 4/2/10

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330045a
Date: 30-Mar-2010
Time: 17:00:31
ID: WCL100326-06CCV
Vial: 1:2,A

3/30 04-01-10

Pad 3/30 04-01-10

Perchlorate

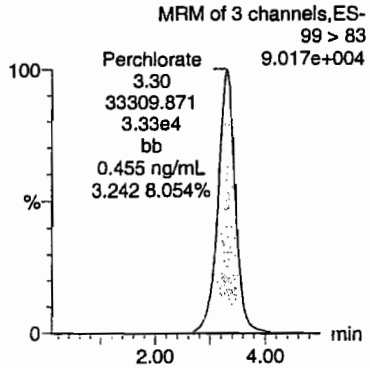

Perchlorate

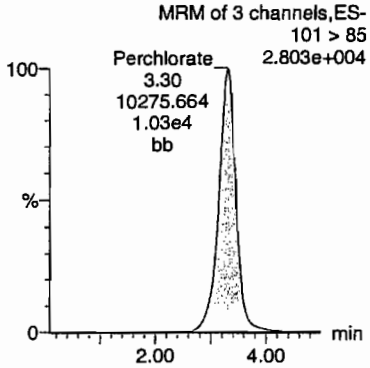

Perchlorate-101

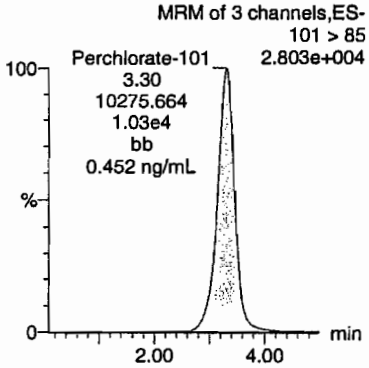

Perchlorate-O(18)

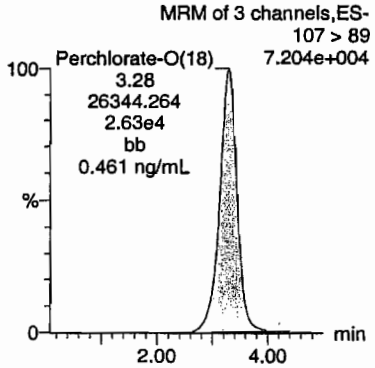

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.30	33309.871	33309.871	bb			0.4555	91.09	-8.91	4995.6...	3.24
WCL100326-06CCV	Perchlorate-101	101 > 85	3.30	10275.664	10275.664	bb			0.4517	90.34	-9.66	627.269	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.28	26344.264	26344.264	bb			0.4607	92.14	-7.86	2288.2...	

MM 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330056a
Date: 30-Mar-2010
Time: 18:29:17
ID: WCL100326-06CCV
Vial: 1:2,A

Rvw
aw
04-01-10

Perchlorate

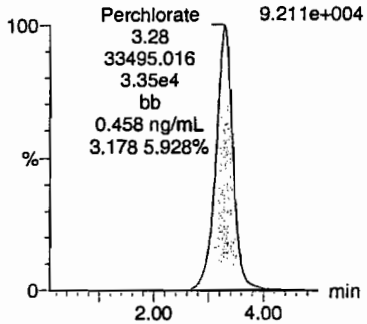

Perchlorate

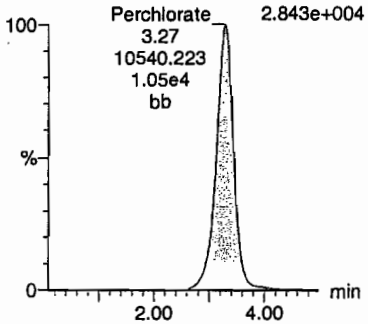

Perchlorate-101

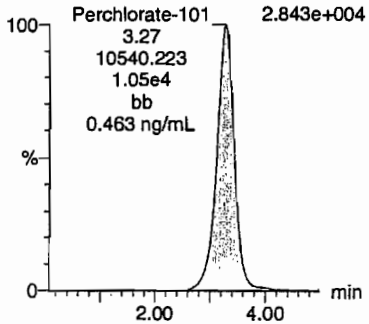

Perchlorate-O(18)

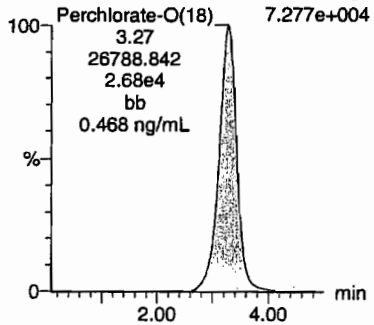

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.28	33495.016	33495.016	bb			0.4580	91.60	-8.40	4549.8...	3.18
WCL100326-06CCV	Perchlorate-101	101 > 85	3.27	10540.223	10540.223	bb			0.4633	92.66	-7.34	1068.2...	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.27	26788.842	26788.842	bb			0.4685	93.69	-6.31	9304.0...	

MJT
4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2412

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	105.07	30–MAR–10 12:26	per0330011a
Perchlorate Isotope Ratio		3.17		30–MAR–10 12:26	per0330011a
Perchlorate–101	.05	.05	106.69	30–MAR–10 12:26	per0330011a
Perchlorate	.05	.05	97.45	30–MAR–10 14:11	per0330024a
Perchlorate Isotope Ratio		3.6		30–MAR–10 14:11	per0330024a
Perchlorate–101	.05	.04	86.95	30–MAR–10 14:11	per0330024a
Perchlorate	.05	.05	94.96	30–MAR–10 15:40	per0330035a
Perchlorate Isotope Ratio		3.29		30–MAR–10 15:40	per0330035a
Perchlorate–101	.05	.05	92.9	30–MAR–10 15:40	per0330035a
Perchlorate	.05	.05	98.75	30–MAR–10 17:16	per0330047a
Perchlorate Isotope Ratio		3.34		30–MAR–10 17:16	per0330047a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2412

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate–101	.05	.05	94.97	30–MAR–10 17:16	per0330047a
Perchlorate	.05	.05	92.98	30–MAR–10 18:45	per0330058a
Perchlorate Isotope Ratio		3.19		30–MAR–10 18:45	per0330058a
Perchlorate–101	.05	.05	93.62	30–MAR–10 18:45	per0330058a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330011a
Date: 30-Mar-2010
Time: 12:26:59
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
GW
04-01-10

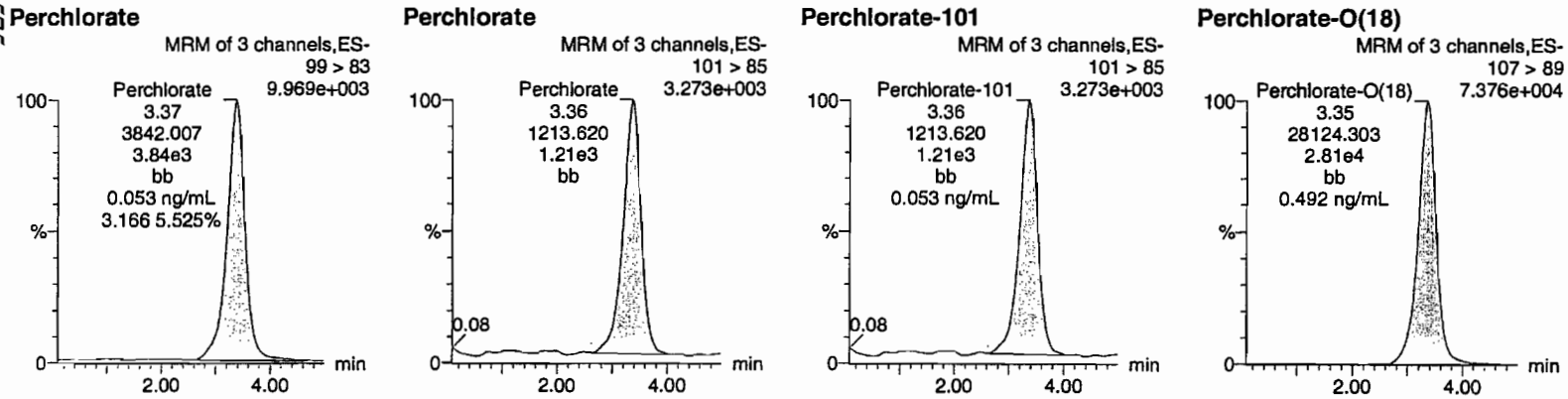

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.37	3842.007	3842.007	bb			0.0525	105.07	5.07	249.490	3.17
WCL100326-07CRI	Perchlorate-101	101 > 85	3.36	1213.620	1213.620	bb			0.0533	106.69	6.69	404.632	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.35	28124.303	28124.303	bb			0.4918	98.36	-1.64	751.713	

MAT 4/2/10

$$\frac{3842.007}{1213.620} = 3.1657$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330024a
Date: 30-Mar-2010
Time: 14:11:32
ID: WCL100326-07CRI
Vial: 1:2,B

PMD
033
04-01-10

Perchlorate

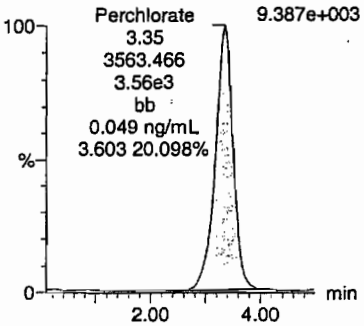

Perchlorate

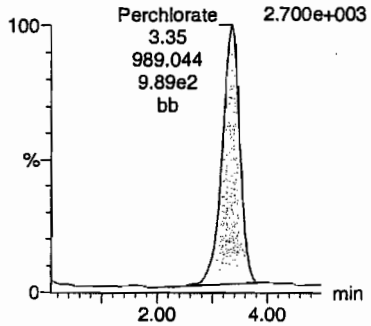

Perchlorate-101

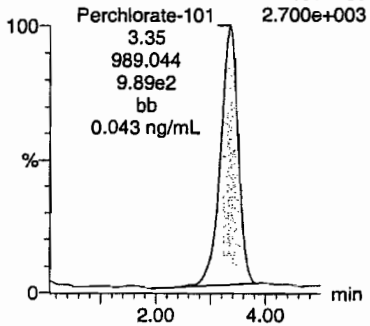

Perchlorate-O(18)

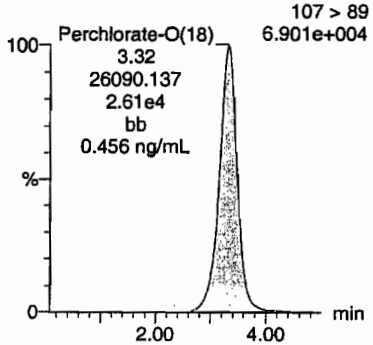

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.35	3563.466	3563.466	bb			0.0487	97.45	-2.55	205.660	3.60
WCL100326-07CRI	Perchlorate-101	101 > 85	3.35	989.044	989.044	bb			0.0435	86.95	-13.05	142.415	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.32	26090.137	26090.137	bb			0.4562	91.25	-8.75	21.093	

MMT 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330035a
Date: 30-Mar-2010
Time: 15:40:00
ID: WCL100326-07CRI
Vial: 1:2,B

04-01-10

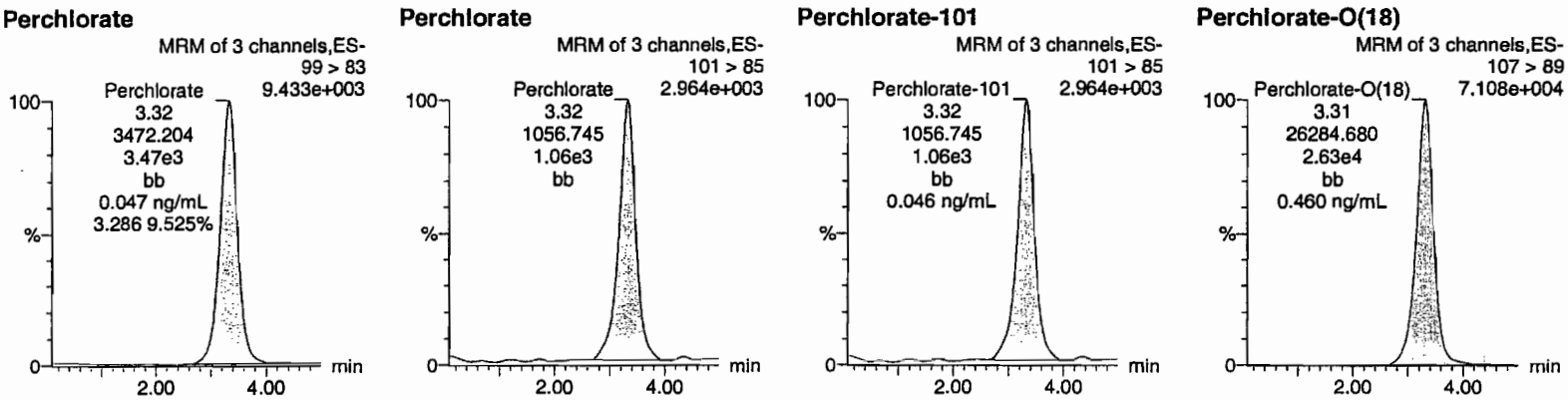

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.32	3472.204	3472.204	bb			0.0475	94.96	-5.04	309.760	3.29
WCL100326-07CRI	Perchlorate-101	101 > 85	3.32	1056.745	1056.745	bb			0.0465	92.90	-7.10	248.026	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.31	26284.680	26284.680	bb			0.4596	91.93	-8.07	3935.3...	

MMP 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330047a
Date: 30-Mar-2010
Time: 17:16:50
ID: WCL100326-07CRI
Vial: 1:2,B

PJD
04-01-10

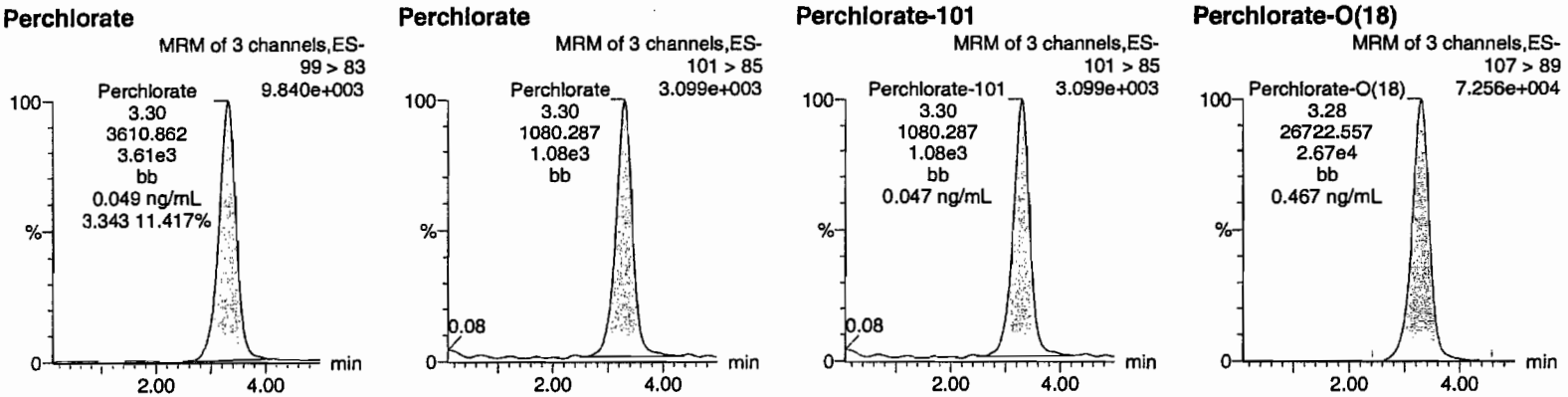

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.30	3610.862	3610.862	bb			0.0494	98.75	-1.25	1204.6...	3.34
WCL100326-07CRI	Perchlorate-101	101 > 85	3.30	1080.287	1080.287	bb			0.0475	94.97	-5.03	187.949	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.28	26722.557	26722.557	bb			0.4673	93.46	-6.54	963.961	

MAT
4/2/10

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330058a
Date: 30-Mar-2010
Time: 18:45:36
ID: WCL100326-07CRI
Vial: 1:2,B

Pass 04-01-10

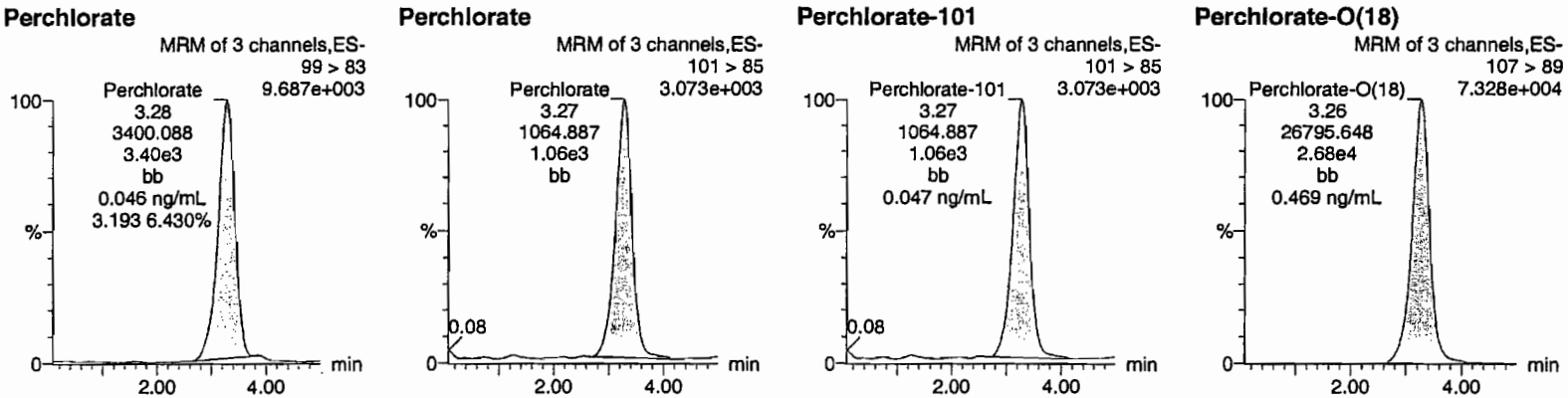

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.28	3400.088	3400.088	bb			0.0465	92.98	-7.02	393.557	3.19
WCL100326-07CRI	Perchlorate-101	101 > 85	3.27	1064.887	1064.887	bb			0.0468	93.62	-6.38	223.001	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.26	26795.648	26795.648	bb			0.4686	93.72	-6.28	3553.8...	

MAT 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

MB

Date Received: 22-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 1202074299

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	30-MAR-10 15:48	per0330036a
	Perchlorate Isotope Ratio						1	30-MAR-10 15:48	per0330036a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	30-MAR-10 15:48	per0330036a
	Perchlorate-O(18)			4.76	ug/kg		1	30-MAR-10 15:48	per0330036a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330036a
Date: 30-Mar-2010
Time: 15:48:04
ID: 1202074299
Vial: 2:1,A

|LANL|966575|50120|MB|1|

04-01-10

Perchlorate

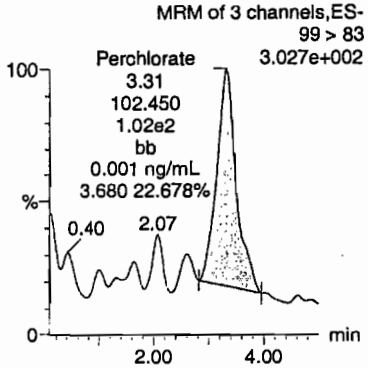

Perchlorate

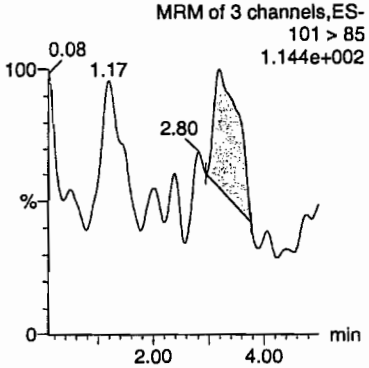

Perchlorate-101

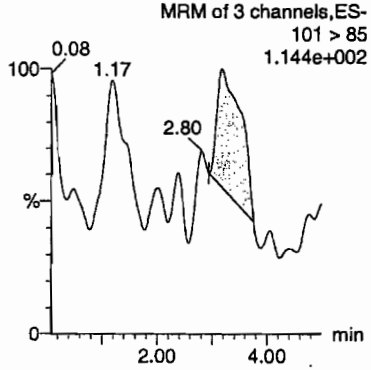

Perchlorate-O(18)

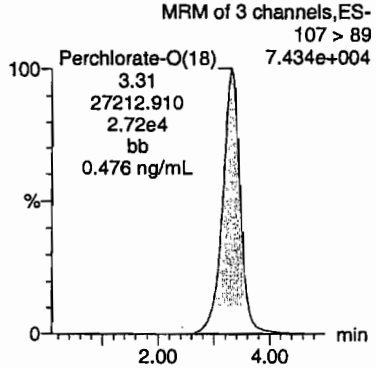

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202074299	Perchlorate	99 > 83	3.31	102.450	102.450	bb			0.0014			22.148	3.68
1202074299	Perchlorate-101	101 > 85	3.17	27.837	27.837	bb			0.0012			11.697	
1202074299	Perchlorate-O(18)	107 > 89	3.31	27212.910	27212.910	bb			0.4759	95.18	-4.82	3613.5...	

MM 4/2/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 22-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 1202074300

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	1.81	ug/kg	J	1	30-MAR-10 15:56	per0330037a
	Perchlorate Isotope Ratio			3.17			1	30-MAR-10 15:56	per0330037a
14797-73-0	Perchlorate-101	.5	2	1.84	ug/kg	J	1	30-MAR-10 15:56	per0330037a
	Perchlorate-O(18)			4.73	ug/kg		1	30-MAR-10 15:56	per0330037a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330037a
Date: 30-Mar-2010
Time: 15:56:18
ID: 1202074300
Vial: 2:1,B

|LANL|966575|5020|LCS|1|

WW 04-01-10

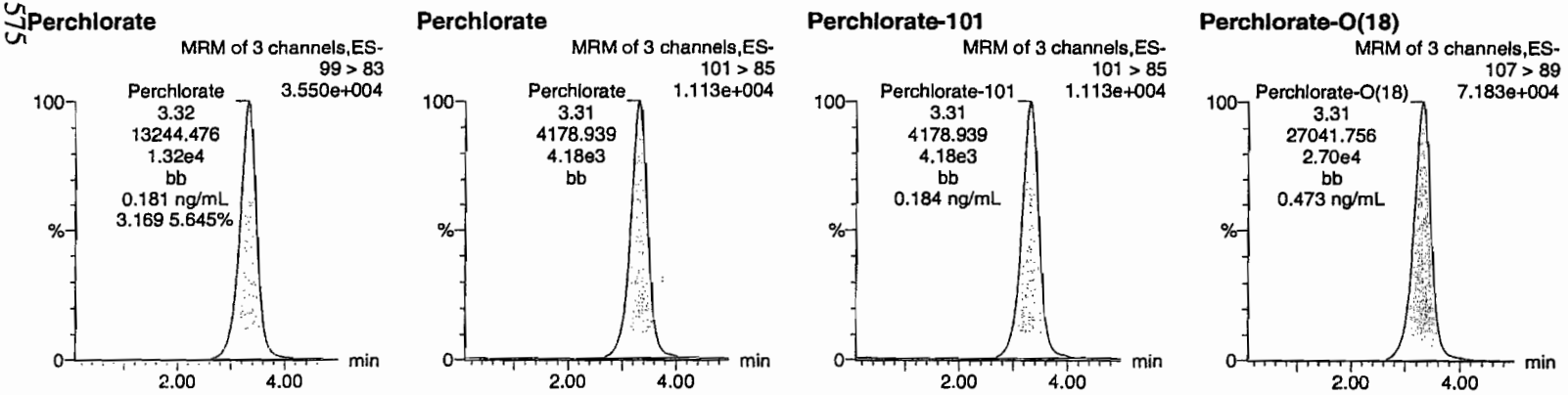

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202074300	Perchlorate	99 > 83	3.32	13244.476	13244.476	bb			0.1811	90.55	-9.45	1752.0...	3.17
1202074300	Perchlorate-101	101 > 85	3.31	4178.939	4178.939	bb			0.1837	91.85	-8.15	956.882	
1202074300	Perchlorate-O(18)	107 > 89	3.31	27041.756	27041.756	bb			0.4729	94.58	-5.42	1009.8...	

MMP 4/2/10

$$\frac{13244.476}{73132.7} = 0.1811$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12927MS

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 1202074301

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.568	2.27	2.09	ug/kg	J	1	30-MAR-10 16:20	per0330040a
	Perchlorate Isotope Ratio			3.16			1	30-MAR-10 16:20	per0330040a
14797-73-0	Perchlorate-101	.568	2.27	2.12	ug/kg	J	1	30-MAR-10 16:20	per0330040a
	Perchlorate-O(18)			5.15	ug/kg		1	30-MAR-10 16:20	per0330040a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330040a
Date: 30-Mar-2010
Time: 16:20:22
ID: 1202074301
Vial: 2:1,E

|LANL|966575|50120|MJ|1|

WW 04-01-10

Perchlorate

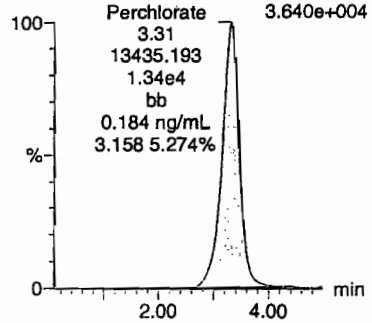

Perchlorate

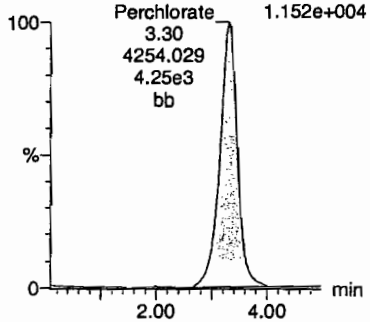

Perchlorate-101

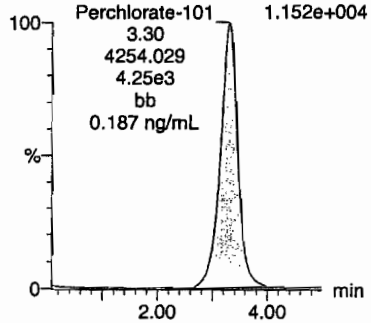

Perchlorate-O(18)

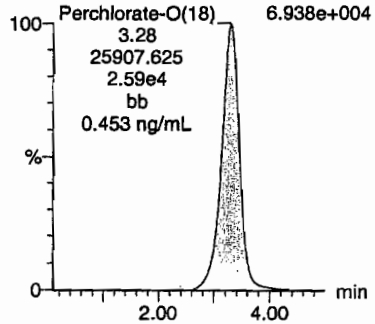

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202074301	Perchlorate	99 > 83	3.31	13435.193	13435.193	bb			0.1837	91.85	-8.15	382.445	3.16
1202074301	Perchlorate-101	101 > 85	3.30	4254.029	4254.029	bb			0.1870	93.50	-6.50	338.654	
1202074301	Perchlorate-O(18)	107 > 89	3.28	25907.625	25907.625	bb			0.4531	90.61	-9.39	6085.4...	

MM 4/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966574

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12927MSD

Date Received: 12-MAR-10

GEL Job No (SDG): 10-2412

GEL Sample ID: 1202074302

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.568	2.27	2.12	ug/kg	J	1	30-MAR-10 16:28	per0330041a
	Perchlorate Isotope Ratio			3.31			1	30-MAR-10 16:28	per0330041a
14797-73-0	Perchlorate-101	.568	2.27	2.06	ug/kg	J	1	30-MAR-10 16:28	per0330041a
	Perchlorate-O(18)			5.29	ug/kg		1	30-MAR-10 16:28	per0330041a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per033010a.qld

Last Altered: Wednesday, March 31, 2010 11:16:26 AM Eastern Standard Time
Printed: Wednesday, March 31, 2010 11:33:40 AM Eastern Standard Time

Name: per0330041a
Date: 30-Mar-2010
Time: 16:28:23
ID: 1202074302
Vial: 2:1,F

|LANL|966575|50120|MSD|1|

WW 04-01-10

Perchlorate

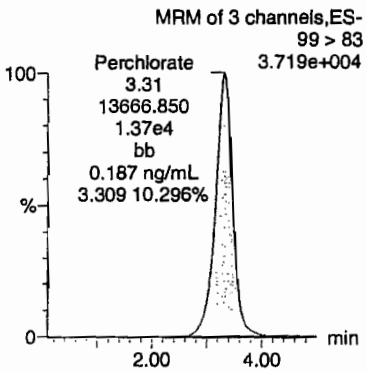

Perchlorate

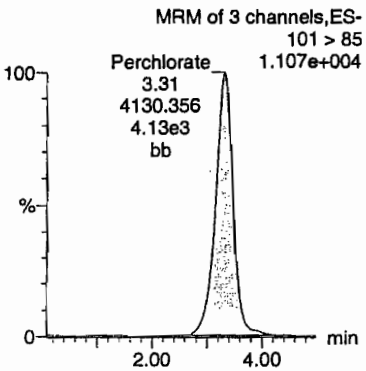

Perchlorate-101

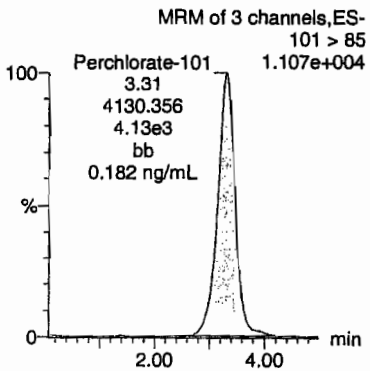

Perchlorate-O(18)

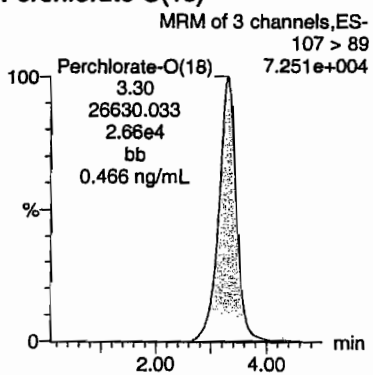

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202074302	Perchlorate	99 > 83	3.31	13666.850	13666.850	bb			0.1869	93.44	-6.56	2417.2...	3.31
1202074302	Perchlorate-101	101 > 85	3.31	4130.356	4130.356	bb			0.1816	90.78	-9.22	743.061	
1202074302	Perchlorate-O(18)	107 > 89	3.30	26630.033	26630.033	bb			0.4657	93.14	-6.86	12133....	

MM 4/2/10

$\frac{13666.850}{73132.7} = 0.1869$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 966574 Verified by:
Analyst: Kaylie Westmoreland
Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6
Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202074299 MB	22-MAR-2010 14:43:00	2	20	10
1202074300 LCS	22-MAR-2010 14:43:00	2	20	10
249244001	22-MAR-2010 14:43:00	2	20	10
1202074301 MS (249244001)	22-MAR-2010 14:43:00	2	20	10
1202074302 MSD (249244001)	22-MAR-2010 14:43:00	2	20	10
249244002	22-MAR-2010 14:43:00	2	20	10
249244003	22-MAR-2010 14:43:00	2	20	10
249244004	22-MAR-2010 14:43:00	2	20	10
249244005	22-MAR-2010 14:43:00	2	20	10
249244006	22-MAR-2010 14:43:00	2	20	10
249245001	22-MAR-2010 14:43:00	2	20	10
249245002	22-MAR-2010 14:43:00	2	20	10
249247001	22-MAR-2010 14:43:00	2	20	10
249247002	22-MAR-2010 14:43:00	2	20	10
249247003	22-MAR-2010 14:43:00	2	20	10
249248002	22-MAR-2010 14:43:00	2	20	10
249248003	22-MAR-2010 14:43:00	2	20	10
249248004	22-MAR-2010 14:43:00	2	20	10
249250003	22-MAR-2010 14:43:00	2	20	10
249250004	22-MAR-2010 14:43:00	2	20	10
249252001	22-MAR-2010 14:43:00	2	20	10
249252002	22-MAR-2010 14:43:00	2	20	10
249252003	22-MAR-2010 14:43:00	2	20	10
249255001	22-MAR-2010 14:43:00	2	20	10
1202074303 ICS	22-MAR-2010 14:43:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202074303	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL
LCS	1202074300	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL
MS	1202074301	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL
MSD	1202074302	10 ug/L ICV/CCV Second Source	UCL100311-01.1	.4	mL

Comments:

Desalting Cartridges used: 100224-1-Ba & 100223-1-H

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/30/10
Extr. Injection Volume: 20uL
Sequence Number: per033010a
Initial Calibration Date: 03/30/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1284736
Standard-Samp Reagent Lot#:: 1284736

Reviewed BY: MAT
Date: 4/2/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100326-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0330001a	IPB001	CWW	3/30/2010 11:06			1		USE	B
per0330002a	IPB001	CWW	3/30/2010 11:14			1		USE	B
per0330003a	WCLICAL-01	CWW	3/30/2010 11:22			1		USE	I
per0330004a	WCLICAL-02	CWW	3/30/2010 11:30			1		USE	I
per0330005a	WCLICAL-03	CWW	3/30/2010 11:38			1		USE	I
per0330006a	WCLICAL-04	CWW	3/30/2010 11:46			1		USE	I
per0330007a	WCLICAL-05	CWW	3/30/2010 11:54			1		USE	I
per0330008a	IPB002	CWW	3/30/2010 12:02			1		USE	B
per0330009a	WCLICV	CWW	3/30/2010 12:10			1		USE	C
per0330010a	IPB003	CWW	3/30/2010 12:18			1		USE	B
per0330011a	WCLCRI	CWW	3/30/2010 12:26			1		USE	C
per0330012a	1202074289	CWW	3/30/2010 12:35	966569	VARIOUS	1	LANL	USE	S
per0330013a	1202074290	CWW	3/30/2010 12:43	966569	VARIOUS	1	LANL	USE	S
per0330014a	1202074293	CWW	3/30/2010 12:51	966569	VARIOUS	1	LANL	USE	S
per0330015a	248964001	CWW	3/30/2010 12:59	966569	10-2336	1	LANL	USE	S
per0330016a	248964004	CWW	3/30/2010 13:07	966569	10-2336	1	LANL	USE	S
per0330017a	1202074291	CWW	3/30/2010 13:15	966569	10-2336	1	LANL	USE	S
per0330018a	1202074292	CWW	3/30/2010 13:23	966569	10-2336	1	LANL	USE	S
per0330019a	248964005	CWW	3/30/2010 13:31	966569	10-2336	1	LANL	USE	S
per0330020a	248966005	CWW	3/30/2010 13:39	966569	10-2347	1	LANL	USE	S
per0330021a	249094005	CWW	3/30/2010 13:47	966569	10-2365	1	LANL	USE	S
per0330022a	WCLCCV	CWW	3/30/2010 13:55			1		USE	C
per0330023a	IPB004	CWW	3/30/2010 14:03			1		USE	B
per0330024a	WCLCRI	CWW	3/30/2010 14:11			1		USE	C
per0330025a	249111001	CWW	3/30/2010 14:19	966569	10-2375	1	LANL	USE	S
per0330026a	249111003	CWW	3/30/2010 14:27	966569	10-2375	1	LANL	USE	S
per0330027a	249122001	CWW	3/30/2010 14:35	966569	10-2379	1	LANL	USE	S
per0330028a	249172002	CWW	3/30/2010 14:43	966569	10-2393	1	LANL	USE	S
per0330029a	249172004	CWW	3/30/2010 14:51	966569	10-2393	1	LANL	USE	S

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per0330030a	249178002	CWW	3/30/2010 14:59	966569	10-2402	1	LANL	USE	S
per0330031a	249243002	CWW	3/30/2010 15:07	966569	10-2409	1	LANL	USE	S
per0330032a	249261003	CWW	3/30/2010 15:15	966569	10-2422	1	LANL	USE	S
per0330033a	WCLCCV	CWW	3/30/2010 15:23			1		USE	C
per0330034a	IPB005	CWW	3/30/2010 15:31			1		USE	B
per0330035a	WCLCRI	CWW	3/30/2010 15:40			1		USE	C
per0330036a	1202074299	CWW	3/30/2010 15:48	966575	VARIOUS	1	LANL	USE	S
per0330037a	1202074300	CWW	3/30/2010 15:56	966575	VARIOUS	1	LANL	USE	S
per0330038a	1202074303	CWW	3/30/2010 16:04	966575	VARIOUS	1	LANL	USE	S
per0330039a	249244001	CWW	3/30/2010 16:12	966575	10-2412	1	LANL	USE	S
per0330040a	1202074301	CWW	3/30/2010 16:20	966575	10-2412	1	LANL	USE	S
per0330041a	1202074302	CWW	3/30/2010 16:28	966575	10-2412	1	LANL	USE	S
per0330042a	249244002	CWW	3/30/2010 16:36	966575	10-2412	1	LANL	USE	S
per0330043a	249244003	CWW	3/30/2010 16:44	966575	10-2412	1	LANL	USE	S
per0330044a	249244004	CWW	3/30/2010 16:52	966575	10-2412	1	LANL	USE	S
per0330045a	WCLCCV	CWW	3/30/2010 17:00			1		USE	C
per0330046a	IPB006	CWW	3/30/2010 17:08			1		USE	B
per0330047a	WCLCRI	CWW	3/30/2010 17:16			1		USE	C
per0330048a	249244005	CWW	3/30/2010 17:24	966575	10-2412	1	LANL	USE	S
per0330049a	249244006	CWW	3/30/2010 17:33	966575	10-2412	1	LANL	USE	S
per0330050a	249245001	CWW	3/30/2010 17:41	966575	10-2415	1	LANL	USE	S
per0330051a	249245002	CWW	3/30/2010 17:49	966575	10-2415	1	LANL	USE	S
per0330052a	249247001	CWW	3/30/2010 17:57	966575	10-2416	1	LANL	USE	S
per0330053a	249247002	CWW	3/30/2010 18:05	966575	10-2416	1	LANL	USE	S
per0330054a	249247003	CWW	3/30/2010 18:13	966575	10-2416	1	LANL	USE	S
per0330055a	249248002	CWW	3/30/2010 18:21	966575	10-2417	1	LANL	USE	S
per0330056a	WCLCCV	CWW	3/30/2010 18:29			1		USE	C
per0330057a	IPB007	CWW	3/30/2010 18:37			1		USE	B
per0330058a	WCLCRI	CWW	3/30/2010 18:45			1		USE	C
per0330059a	249248003	CWW	3/30/2010 18:53	966575	10-2417	1	LANL	USE	S
per0330060a	249248004	CWW	3/30/2010 19:01	966575	10-2417	1	LANL	USE	S
per0330061a	249250003	CWW	3/30/2010 19:09	966575	10-2418	1	LANL	USE	S
per0330062a	249250004	CWW	3/30/2010 19:18	966575	10-2418	1	LANL	USE	S
per0330063a	249252001	CWW	3/30/2010 19:26	966575	10-2419	1	LANL	USE	S
per0330064a	249252002	CWW	3/30/2010 19:34	966575	10-2419	1	LANL	USE	S
per0330065a	249252003	CWW	3/30/2010 19:42	966575	10-2419	1	LANL	USE	S
per0330066a	249255001	CWW	3/30/2010 19:50	966575	10-2420	1	LANL	USE	S

per0330067a	WCLCCV	CWW	3/30/2010 19:58			1		USE	C
per0330068a	IPB008	CWW	3/30/2010 20:06			1		USE	B
per0330069a	WCLCRI	CWW	3/30/2010 20:14			1		USE	C
per0330070a	1202074304	CWW	3/30/2010 20:23	966578	VARIOUS	1	LANL	USE	S
per0330071a	1202074305	CWW	3/30/2010 20:31	966578	VARIOUS	1	LANL	USE	S
per0330072a	1202074308	CWW	3/30/2010 20:39	966578	VARIOUS	1	LANL	USE	S
per0330073a	249259001	CWW	3/30/2010 20:47	966578	10-2421	1	LANL	USE	S
per0330074a	249259002	CWW	3/30/2010 20:55	966578	10-2421	1	LANL	USE	S
per0330075a	249329001	CWW	3/30/2010 21:03	966578	10-2430	1	LANL	USE	S
per0330076a	249329002	CWW	3/30/2010 21:11	966578	10-2430	1	LANL	USE	S
per0330077a	249329003	CWW	3/30/2010 21:19	966578	10-2430	1	LANL	USE	S
per0330078a	249329004	CWW	3/30/2010 21:27	966578	10-2430	1	LANL	USE	S
per0330079a	WCLCCV	CWW	3/30/2010 21:36			1		USE	C
per0330080a	IPB009	CWW	3/30/2010 21:44			1		USE	B
per0330081a	WCLCRI	CWW	3/30/2010 21:52			1		USE	C
per0330082a	249333003	CWW	3/30/2010 22:00	966578	10-2434	1	LANL	USE	S
per0330083a	1202074306	CWW	3/30/2010 22:09	966578	10-2434	1	LANL	USE	S
per0330084a	1202074307	CWW	3/30/2010 22:17	966578	10-2434	1	LANL	USE	S
per0330085a	249333004	CWW	3/30/2010 22:25	966578	10-2434	1	LANL	USE	S
per0330086a	249333005	CWW	3/30/2010 22:33	966578	10-2434	1	LANL	USE	S
per0330087a	249333006	CWW	3/30/2010 22:41	966578	10-2434	1	LANL	USE	S
per0330088a	249333007	CWW	3/30/2010 22:49	966578	10-2434	1	LANL	USE	S
per0330089a	249333008	CWW	3/30/2010 22:57	966578	10-2434	1	LANL	USE	S
per0330090a	249333009	CWW	3/30/2010 23:05	966578	10-2434	1	LANL	USE	S
per0330091a	WCLCCV	CWW	3/30/2010 23:14			1		USE	C
per0330092a	IPB010	CWW	3/30/2010 23:22			1		USE	B
per0330093a	WCLCRI	CWW	3/30/2010 23:30			1		USE	C
per0330094a	1202078316	CWW	3/30/2010 23:38	968117	VARIOUS	1	LANL	DUSE-RE	S
per0330095a	1202078317	CWW	3/30/2010 23:46	968117	VARIOUS	1	LANL	DUSE-RE	S
per0330096a	1202078320	CWW	3/30/2010 23:55	968117	VARIOUS	1	LANL	DUSE-RE	S
per0330097a	249510003	CWW	3/31/2010 0:03	968117	10-2465	1	LANL	DUSE-RE	S
per0330098a	249510005	CWW	3/31/2010 0:11	968117	10-2465	1	LANL	DUSE-RE	S
per0330099a	1202078318	CWW	3/31/2010 0:19	968117	10-2465	1	LANL	DUSE-RE	S
per0330100a	1202078319	CWW	3/31/2010 0:27	968117	10-2465	1	LANL	DUSE-RE	S
per0330101a	249524006	CWW	3/31/2010 0:35	968117	10-2472	1	LANL	DUSE-RE	S
per0330102a	WCLCCV	CWW	3/31/2010 0:43			1		USE	C
per0330103a	IPB011	CWW	3/31/2010 0:51			1		USE	B

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per0330104a	WCLCRI	CWW	3/31/2010 0:59			1		USE	C
per0330105a	249524007	CWW	3/31/2010 1:07	968117	10-2472	1	LANL	DUSE-RE	S
per0330106a	249528001	CWW	3/31/2010 1:15	968117	10-2468	1	LANL	DUSE-RE	S
per0330107a	249591001	CWW	3/31/2010 1:23	968117	10-2475	1	LANL	DUSE-RE	S
per0330108a	249591002	CWW	3/31/2010 1:31	968117	10-2475	1	LANL	DUSE-RE	S
per0330109a	249607003	CWW	3/31/2010 1:39	968117	10-2480	1	LANL	DUSE-RE	S
per0330110a	249608006	CWW	3/31/2010 1:47	968117	10-2490	1	LANL	DUSE-RE	S
per0330111a	249608007	CWW	3/31/2010 1:55	968117	10-2490	1	LANL	DUSE-RE	S
per0330112a	249610001	CWW	3/31/2010 2:03	968117	10-2482	1	LANL	DUSE-RE	S
per0330113a	WCLCCV	CWW	3/31/2010 2:11			1		USE	C
per0330114a	IPB012	CWW	3/31/2010 2:20			1		USE	B
per0330115a	WCLCRI	CWW	3/31/2010 2:28			1		USE	C
per0330116a	249610002	CWW	3/31/2010 2:36	968117	10-2482	1	LANL	DUSE-RE	S
per0330117a	249613001	CWW	3/31/2010 2:44	968117	10-2492	1	LANL	DUSE-RE	S
per0330118a	249704001	CWW	3/31/2010 2:52	968117	10-2498	1	LANL	DUSE-RE	S
per0330119a	249707001	CWW	3/31/2010 3:00	968117	10-2501	1	LANL	DUSE-RE	S
per0330120a	249707002	CWW	3/31/2010 3:08	968117	10-2501	1	LANL	DUSE-RE	S
per0330121a	249715008	CWW	3/31/2010 3:17	968117	10-2506	1	LANL	DUSE-RE	S
per0330122a	249715009	CWW	3/31/2010 3:25	968117	10-2506	1	LANL	DUSE-RE	S
per0330123a	WCLCCV	CWW	3/31/2010 3:33			1		USE	C
per0330124a	IPB013	CWW	3/31/2010 3:41			1		USE	B
per0330125a	WCLCRI	CWW	3/31/2010 3:49			1		USE	C

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}Cl$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2412

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	967824
Prep Batch Number:	967820

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
249244001	RE46-10-12927
249244002	RE46-10-12923
249244003	RE46-10-12924
249244004	RE46-10-12926
249244005	RE46-10-12928
249244006	RE46-10-12925
1202077524	Method Blank (MB)
1202077525	Laboratory Control Sample (LCS)
1202077526	249335002(RE46-10-12972) Matrix Spike (MS)
1202077527	249335002(RE46-10-12972) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria for the Aroclors.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-2436) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina.

Sample Dilutions
Samples 249244001 (RE46-10-12927) (1:10), 249244002 (RE46-10-12923) (1:5), 249244005 (RE46-10-12928) (1:5) and 249244006 (RE46-10-12925) (1:10) were diluted due to the oily matrix of the extracts.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation

Data exception reports (DERs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integrations

Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD8A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD8A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Andy Whittock Date: 4-8-2010

Roadmap for LANL 10-2412 PCB

This roadmap was analyzed by jen01212 on 03-24-2010, 09:59.
This roadmap was packaged by yml on 04-07-2010, 19:31.
This roadmap was validated by rob01090 on 04-08-2010, 10:31.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032310.b/023f2301.d	249244001	sample	23-MAR-2010	12:51	10-2412.sub	RE46-10-12927	10.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/024f2401.d	249244002	sample	23-MAR-2010	13:03	10-2412.sub	RE46-10-12923	5.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/025f2501.d	249244003	sample	23-MAR-2010	13:15	10-2412.sub	RE46-10-12924	1.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/026f2601.d	249244004	sample	23-MAR-2010	13:28	10-2412.sub	RE46-10-12926	1.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/027f2701.d	249244005	sample	23-MAR-2010	13:40	10-2412.sub	RE46-10-12928	5.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/028f2801.d	249244006	sample	23-MAR-2010	13:52	10-2412.sub	RE46-10-12925	10.00000	967824	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032310.b/023b2301.d	249244001	sample	23-MAR-2010	12:51	10-2412.sub	RE46-10-12927	10.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/024b2401.d	249244002	sample	23-MAR-2010	13:03	10-2412.sub	RE46-10-12923	5.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/025b2501.d	249244003	sample	23-MAR-2010	13:15	10-2412.sub	RE46-10-12924	1.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/026b2601.d	249244004	sample	23-MAR-2010	13:28	10-2412.sub	RE46-10-12926	1.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/027b2701.d	249244005	sample	23-MAR-2010	13:40	10-2412.sub	RE46-10-12928	5.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/028b2801.d	249244006	sample	23-MAR-2010	13:52	10-2412.sub	RE46-10-12925	10.00000	967824	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032310.b/021f2101.d	1202077524	mb	23-MAR-2010	12:26	10-2412.sub	PBLK01	1.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/022f2201.d	1202077525	lcs	23-MAR-2010	12:38	10-2412.sub	PBLK01LCS	1.00000	967824	UPLOAD BOTH, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032310.b/021b2101.d	1202077524	mb	23-MAR-2010	12:26	10-2412.sub	PBLK01	1.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/022b2201.d	1202077525	lcs	23-MAR-2010	12:38	10-2412.sub	PBLK01LCS	1.00000	967824	UPLOAD BOTH, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2412	**Date Collected:**	03/10/2010 12:00	**Matrix:**	S
Lab Sample ID:	249244002	**Date Received:**	03/12/2010 08:45	**%Moisture:**	15.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12923	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967824	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/23/2010 13:03	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 22:20	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	024f2401.d	**Column:**	1 CLP1	**Level:**	LOW
	024b2401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	19.6	ug/kg	6.52	19.6	1
11104-28-2	Aroclor-1221	U	19.6	ug/kg	6.52	19.6	1
11141-16-5	Aroclor-1232	U	19.6	ug/kg	6.52	19.6	1
53469-21-9	Aroclor-1242	U	19.6	ug/kg	6.52	19.6	1
12672-29-6	Aroclor-1248	U	19.6	ug/kg	6.52	19.6	1
11097-69-1	Aroclor-1254	U	19.6	ug/kg	6.52	19.6	1
11096-82-5	Aroclor-1260	J	18.4	ug/kg	6.52	19.6	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244003**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**14.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12924**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:15**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**025f2501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	025b2501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.89	ug/kg	1.30	3.89	1
11104–28–2	Aroclor–1221	U	3.89	ug/kg	1.30	3.89	1
11141–16–5	Aroclor–1232	U	3.89	ug/kg	1.30	3.89	1
53469–21–9	Aroclor–1242	U	3.89	ug/kg	1.30	3.89	1
12672–29–6	Aroclor–1248	U	3.89	ug/kg	1.30	3.89	1
11097–69–1	Aroclor–1254	U	3.89	ug/kg	1.30	3.89	1
11096–82–5	Aroclor–1260	J	1.70	ug/kg	1.30	3.89	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244006**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**13.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12925**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 13:52**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**028f2801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	028b2801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	38.4	ug/kg	12.8	38.4	1
11104–28–2	Aroclor–1221	U	38.4	ug/kg	12.8	38.4	1
11141–16–5	Aroclor–1232	U	38.4	ug/kg	12.8	38.4	1
53469–21–9	Aroclor–1242	U	38.4	ug/kg	12.8	38.4	1
12672–29–6	Aroclor–1248	U	38.4	ug/kg	12.8	38.4	1
11097–69–1	Aroclor–1254	U	38.4	ug/kg	12.8	38.4	1
11096–82–5	Aroclor–1260	U	38.4	ug/kg	12.8	38.4	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2412	**Date Collected:**	03/10/2010 12:00	**Matrix:**	S
Lab Sample ID:	249244004	**Date Received:**	03/12/2010 08:45	**%Moisture:**	15.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–12926	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967824	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	03/23/2010 13:28	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 22:20	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	026f2601.d	**Column:**	1 CLP1	**Level:**	LOW
	026b2601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.93	ug/kg	1.31	3.93	1
11104–28–2	Aroclor–1221	U	3.93	ug/kg	1.31	3.93	1
11141–16–5	Aroclor–1232	U	3.93	ug/kg	1.31	3.93	1
53469–21–9	Aroclor–1242	U	3.93	ug/kg	1.31	3.93	1
12672–29–6	Aroclor–1248	U	3.93	ug/kg	1.31	3.93	1
11097–69–1	Aroclor–1254	U	3.93	ug/kg	1.31	3.93	1
11096–82–5	Aroclor–1260	U	3.93	ug/kg	1.31	3.93	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244001**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**12**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12927**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 12:51**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**023f2301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	023b2301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	37.8	ug/kg	12.6	37.8	1
11104–28–2	Aroclor–1221	U	37.8	ug/kg	12.6	37.8	1
11141–16–5	Aroclor–1232	U	37.8	ug/kg	12.6	37.8	1
53469–21–9	Aroclor–1242	U	37.8	ug/kg	12.6	37.8	1
12672–29–6	Aroclor–1248	U	37.8	ug/kg	12.6	37.8	1
11097–69–1	Aroclor–1254	U	37.8	ug/kg	12.6	37.8	1
11096–82–5	Aroclor–1260	U	37.8	ug/kg	12.6	37.8	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244005**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**18.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12928**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 13:40**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**027f2701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	027b2701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	20.4	ug/kg	6.80	20.4	1
11104–28–2	Aroclor–1221	U	20.4	ug/kg	6.80	20.4	1
11141–16–5	Aroclor–1232	U	20.4	ug/kg	6.80	20.4	1
53469–21–9	Aroclor–1242	U	20.4	ug/kg	6.80	20.4	1
12672–29–6	Aroclor–1248	U	20.4	ug/kg	6.80	20.4	1
11097–69–1	Aroclor–1254	U	20.4	ug/kg	6.80	20.4	1
11096–82–5	Aroclor–1260	U	20.4	ug/kg	6.80	20.4	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–2412

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
1202077524	MB for batch 967820	85		91		96		98	
1202077525	LCS for batch 967820	89		95		97		105	
249244001	RE46–10–12927	83	D	80	D	97	D	101	D
249244002	RE46–10–12923	83	D	83	D	91	D	96	D
249244003	RE46–10–12924	82		88		87		92	
249244004	RE46–10–12926	82		89		90		100	
249244005	RE46–10–12928	78	D	77	D	92	D	96	D
249244006	RE46–10–12925	90	D	87	D	93	D	104	D

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%–120%)
DCB = Decachlorobiphenyl	(30%–116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2412
Client ID: LCS for batch 967820
Lab Sample ID: 1202077525
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 12:38
Dilution: 1
Prep Batch ID: 967820
Batch ID: 967824

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674–11–2	LCS	Aroclor–1016	33.3	0.0	28.8	86	39–102
11096–82–5	LCS	Aroclor–1260	33.3	0.0	32.8	98	45–118

Method Blank Summary

SDG Number:	10–2412	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 967820	Instrument ID:	ECD8A.I_2 ECD8A.I_1	Data File:	021b2101–1.d 021f2101–1.d
Lab Sample ID:	1202077524				
Column:	CLP2 CLP1	Prep Date:	03/22/2010 22:20	Analyzed:	03/23/10 12:26
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 967820	1202077525	022f2201–1.d 022b2201–1.d	03/23/10	1238
02 RE46–10–12927	249244001	023f2301.d 023b2301.d	03/23/10	1251
03 RE46–10–12923	249244002	024f2401.d 024b2401.d	03/23/10	1303
04 RE46–10–12924	249244003	025f2501.d 025b2501.d	03/23/10	1315
05 RE46–10–12926	249244004	026f2601.d 026b2601.d	03/23/10	1328
06 RE46–10–12928	249244005	027f2701.d 027b2701.d	03/23/10	1340
07 RE46–10–12925	249244006	028f2801.d 028b2801.d	03/23/10	1352

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244002**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12923**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 13:03**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**024f2401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	024b2401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	19.6	ug/kg	6.52	19.6	1
11104–28–2	Aroclor–1221	U	19.6	ug/kg	6.52	19.6	1
11141–16–5	Aroclor–1232	U	19.6	ug/kg	6.52	19.6	1
53469–21–9	Aroclor–1242	U	19.6	ug/kg	6.52	19.6	1
12672–29–6	Aroclor–1248	U	19.6	ug/kg	6.52	19.6	1
11097–69–1	Aroclor–1254	U	19.6	ug/kg	6.52	19.6	1
11096–82–5	Aroclor–1260	J	18.4	ug/kg	6.52	19.6	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/024f2401.d
Lab Smp Id: 249244002 Client Smp ID: RE46-10-12923
Inj Date : 23-MAR-2010 13:03
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249244002|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12923|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 24
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2412.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	15.35240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.248	0.001	4169005	33.3623	6.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	2993442	36.3498	7.1	80.00- 120.00	100.00(M)
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.429	-0.001	474199	80.5085	15.8	80.00- 120.00	100.00(aM)
4.623	4.625	-0.002	682256	80.3100	15.7	130.34- 170.34	138.19
4.899	4.900	-0.001	538106	106.214	20.8	68.48- 108.48	108.99
5.069	5.072	-0.003	402255	75.4840	14.8	73.08- 113.08	81.47
5.481	5.483	-0.002	626368	111.039	21.7	82.89- 122.89	126.87

Average of Peak Concentrations = 17.8

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032310.b/024f2401.d

Page 1

Date : 23-MAR-2010 13:03

Client ID: RE46-10-12923

Instrument: ecd8a.i

Sample Info: |249244002|5|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

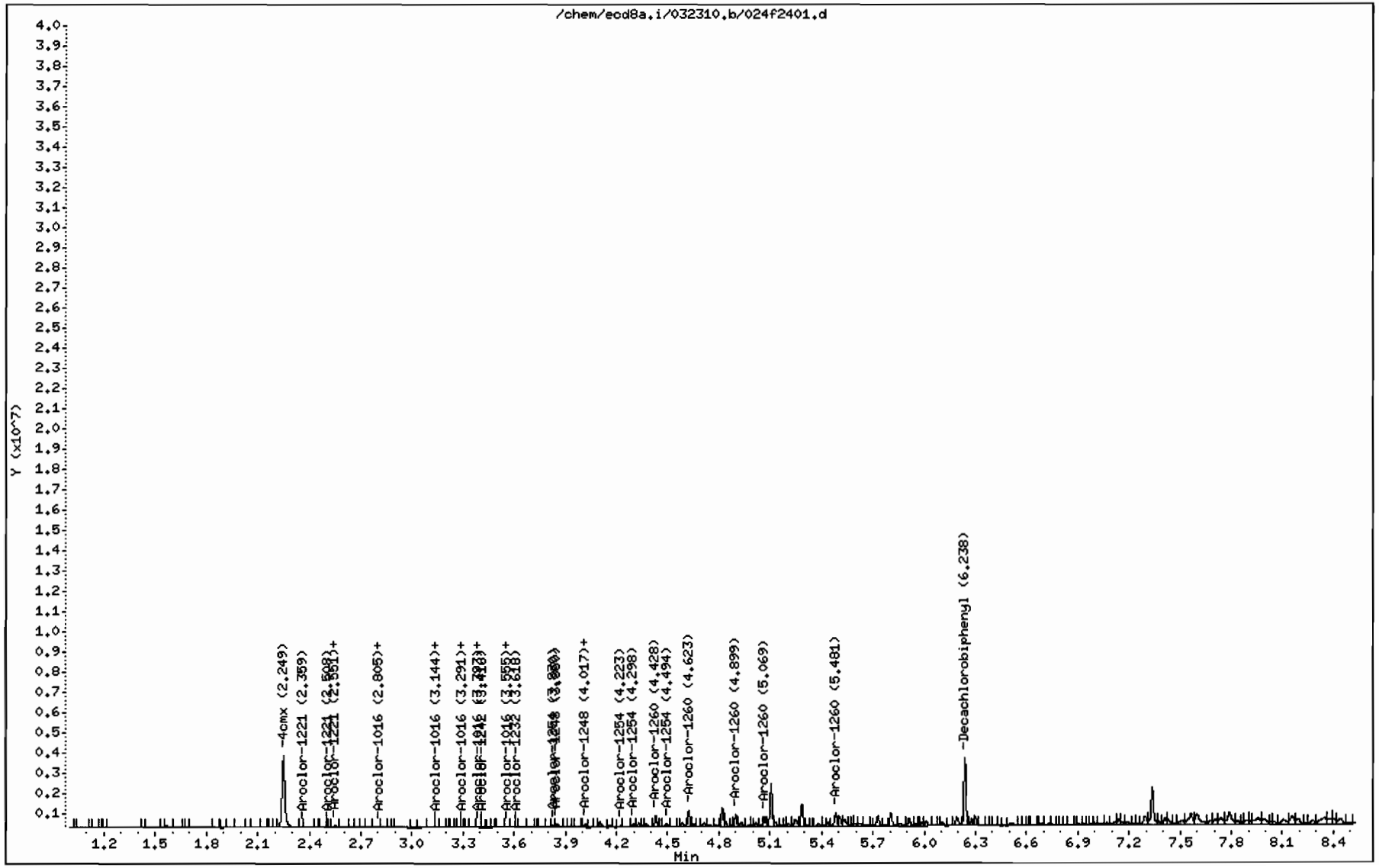

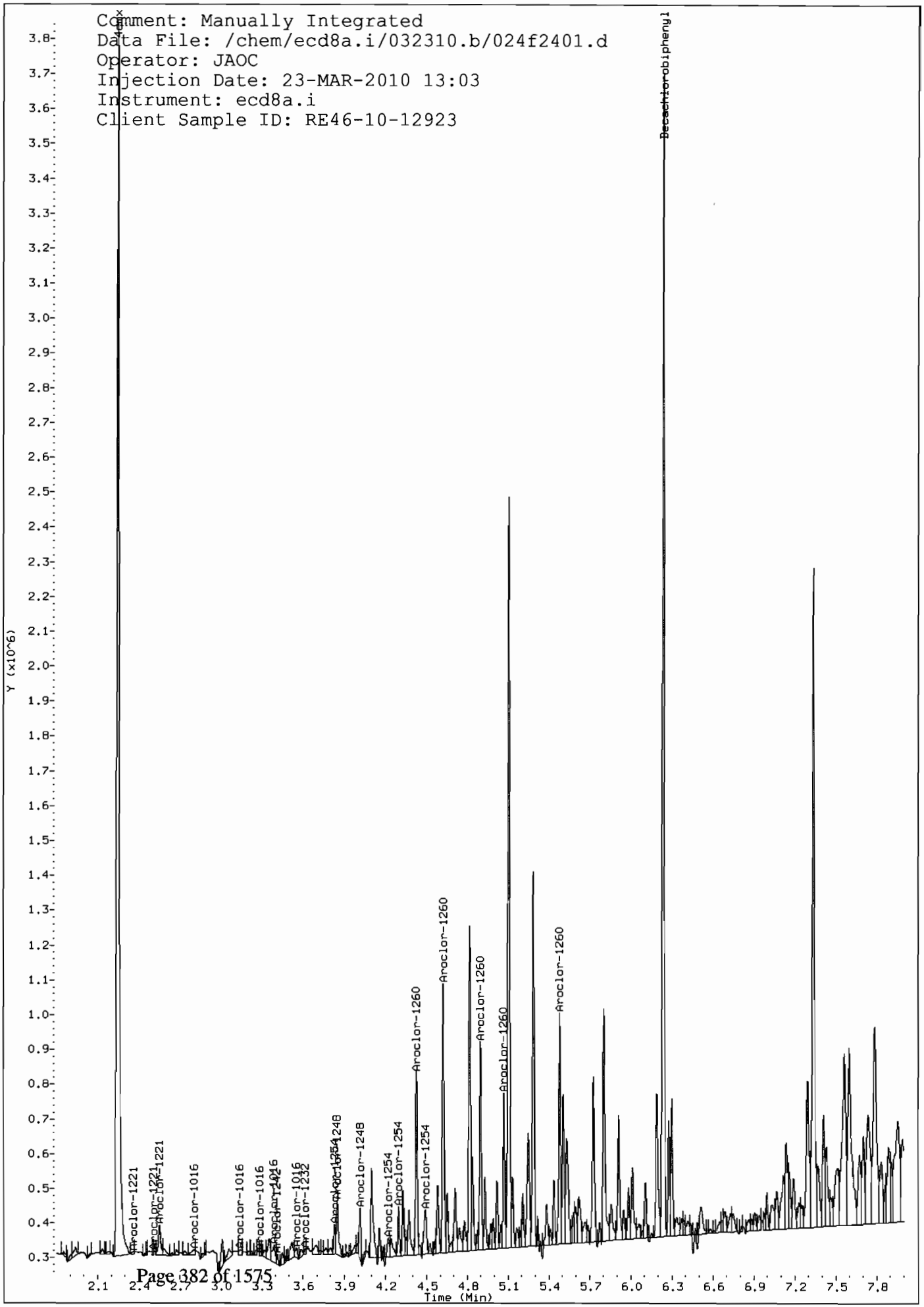
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032310.b/024f2401.d
Operator: JAOC
Injection Date: 23-MAR-2010 13:03
Instrument: ecd8a.i
Client Sample ID: RE46-10-12923
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Y (x10^6)
Time (Min)

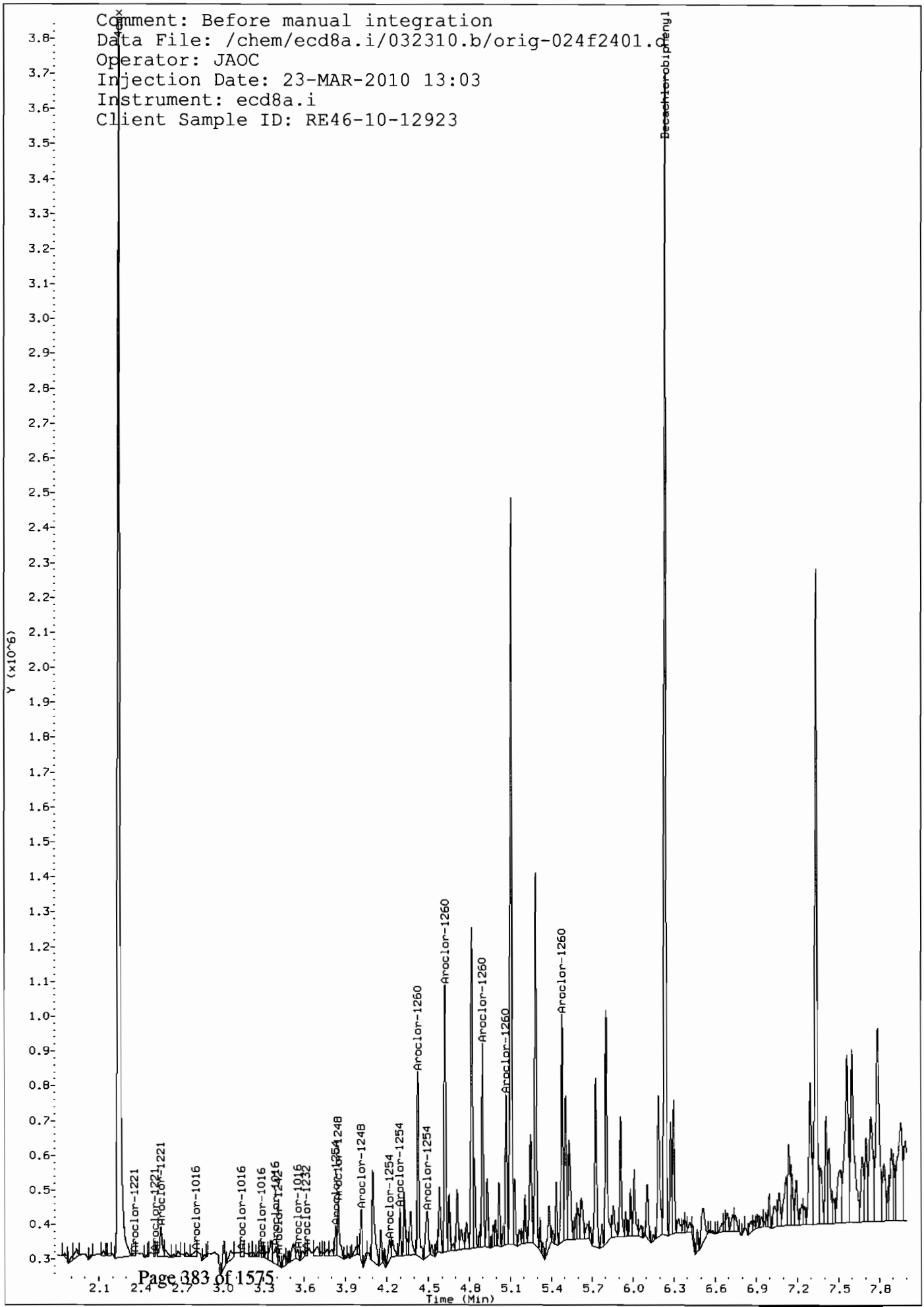
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Data File: /chem/ecd8a.i/032310.b/orig-024f2401.c
Operator: JAOC
Injection Date: 23-MAR-2010 13:03
Instrument: ecd8a.i
Client Sample ID: RE46-10-12923
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1254
Aroclor-1260
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/024b2401.d
Lab Smp Id: 249244002 Client Smp ID: RE46-10-12923
Inj Date : 23-MAR-2010 13:03
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249244002|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12923|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 24
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2412.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	15.35240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	2791619	33.3997	6.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.824	0.000	2268990	38.2936	7.5	80.00- 120.00	100.00(M)
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.907	0.000	299773	76.1134	14.9	80.00- 120.00	100.00(aM)
5.056	5.056	0.000	399740	84.5031	16.5	102.64- 142.64	133.35
5.373	5.373	0.000	385600	107.510	21.0	72.26- 112.26	128.63
5.578	5.580	-0.002	351935	94.8040	18.6	76.20- 116.20	117.40
6.010	6.011	-0.001	621577	106.410	20.8	134.50- 174.50	207.35

Average of Peak Concentrations = 18.4

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032310.b/024b2401.d

Date : 23-MAR-2010 13:03

Client ID: RE46-10-12923

Sample Info: |249244002|5|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

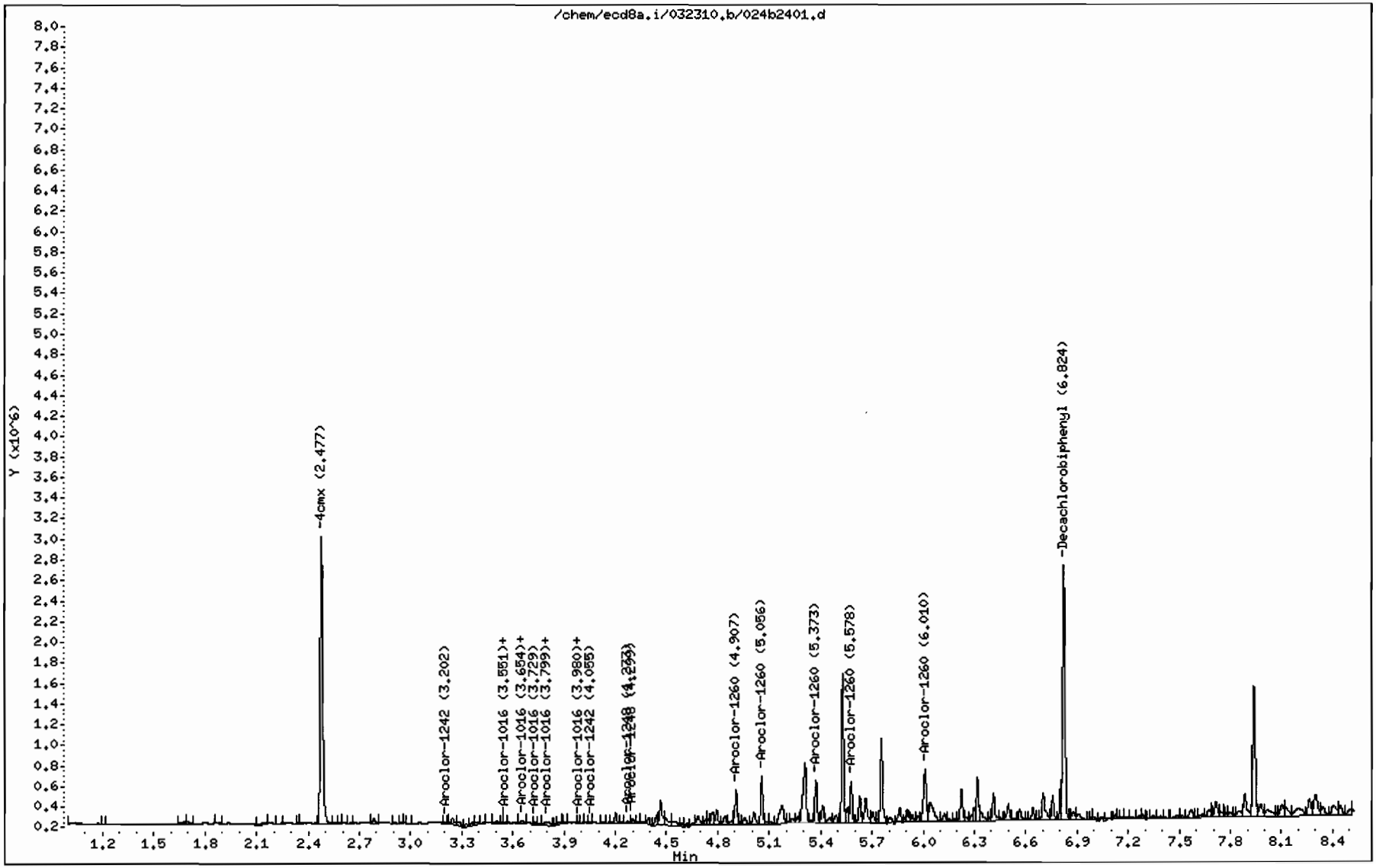

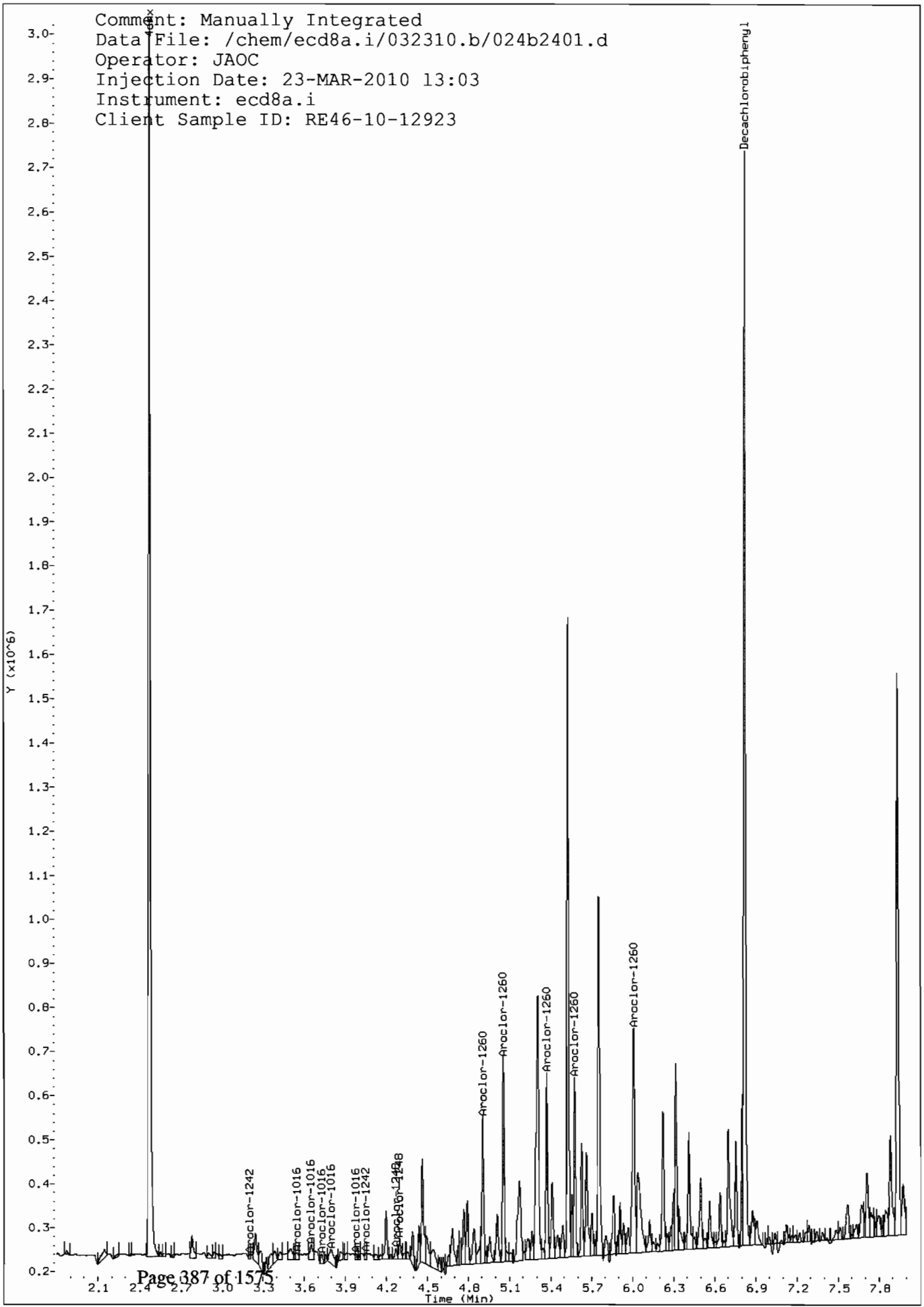
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032310.b/024b2401.d
Operator: JAOC
Injection Date: 23-MAR-2010 13:03
Instrument: ecd8a.i
Client Sample ID: RE46-10-12923
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1242
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1242
Y (x10^6)
Time (Min)

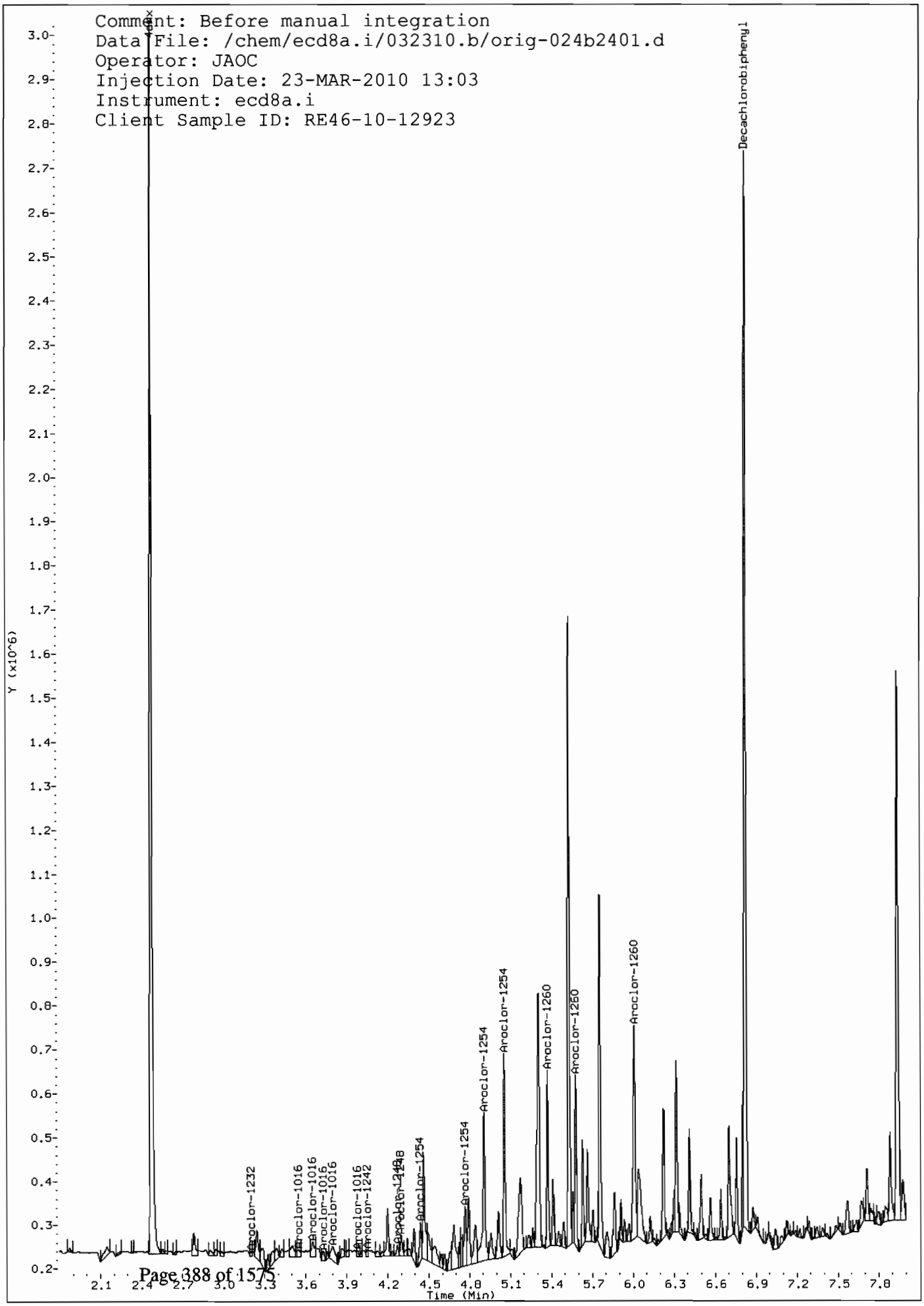
Comment: Before manual integration
Data File: /chem/ecd8a.i/032310.b/orig-024b2401.d
Operator: JAOC
Injection Date: 23-MAR-2010 13:03
Instrument: ecd8a.i
Client Sample ID: RE46-10-12923
Decachlorobiphenyl
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^6)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244003**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**14.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12924**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:15**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**025f2501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	025b2501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.89	ug/kg	1.30	3.89	1
11104–28–2	Aroclor–1221	U	3.89	ug/kg	1.30	3.89	1
11141–16–5	Aroclor–1232	U	3.89	ug/kg	1.30	3.89	1
53469–21–9	Aroclor–1242	U	3.89	ug/kg	1.30	3.89	1
12672–29–6	Aroclor–1248	U	3.89	ug/kg	1.30	3.89	1
11097–69–1	Aroclor–1254	U	3.89	ug/kg	1.30	3.89	1
11096–82–5	Aroclor–1260	J	1.70	ug/kg	1.30	3.89	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/025f2501.d
Lab Smp Id: 249244003 Client Smp ID: RE46-10-12924
Inj Date : 23-MAR-2010 13:15
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249244003|1|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12924|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2412.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	14.64270	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.248	0.001	20497973	164.034	6.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	14285344	173.469	6.8	80.00- 120.00	100.00
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.429	-0.001	240895	40.8986	1.6	80.00- 120.00	100.00(aM)
4.624	4.625	-0.001	362090	42.6225	1.6	127.82- 167.82	146.17
4.899	4.900	-0.001	263644	52.0391	2.0	67.21- 107.21	106.43
5.070	5.072	-0.002	194260	36.4533	1.4	73.14- 113.14	78.42
5.482	5.483	-0.001	278833	49.4299	1.9	79.68- 119.68	112.56
Average of Peak Concentrations =					1.7		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032310.b/025f2501.d
Date : 23-MAR-2010 13:15
Client ID: RE46-10-12924
Sample Info: 1249244003111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

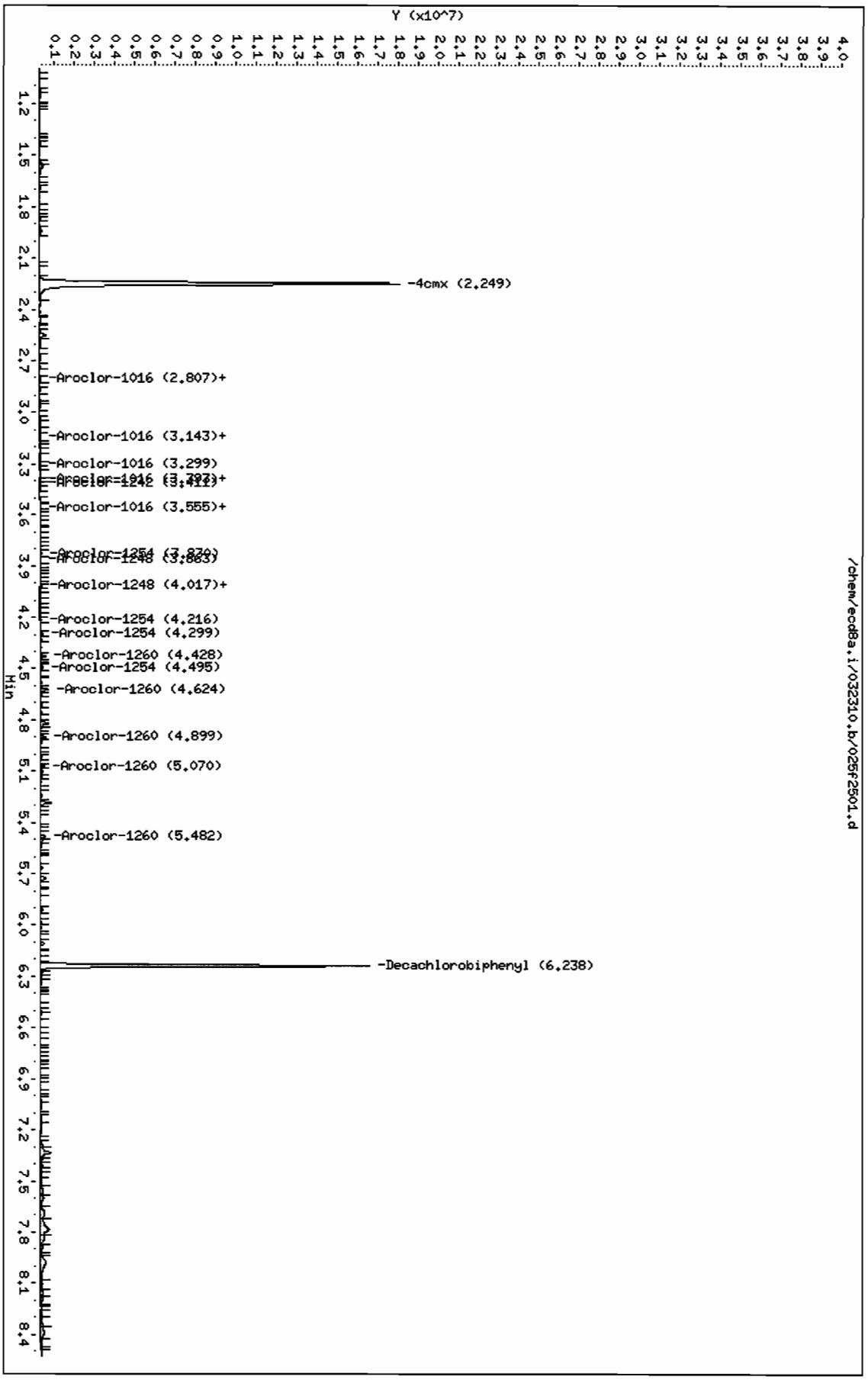

Page 1

Comment: Manually Integrated
Data File: /chem/ecd8a.i/032310.b/025f2501.d
Operator: JAOC
Injection Date: 23-MAR-2010 13:15
Instrument: ecd8a.i
Client Sample ID: RE46-10-12924

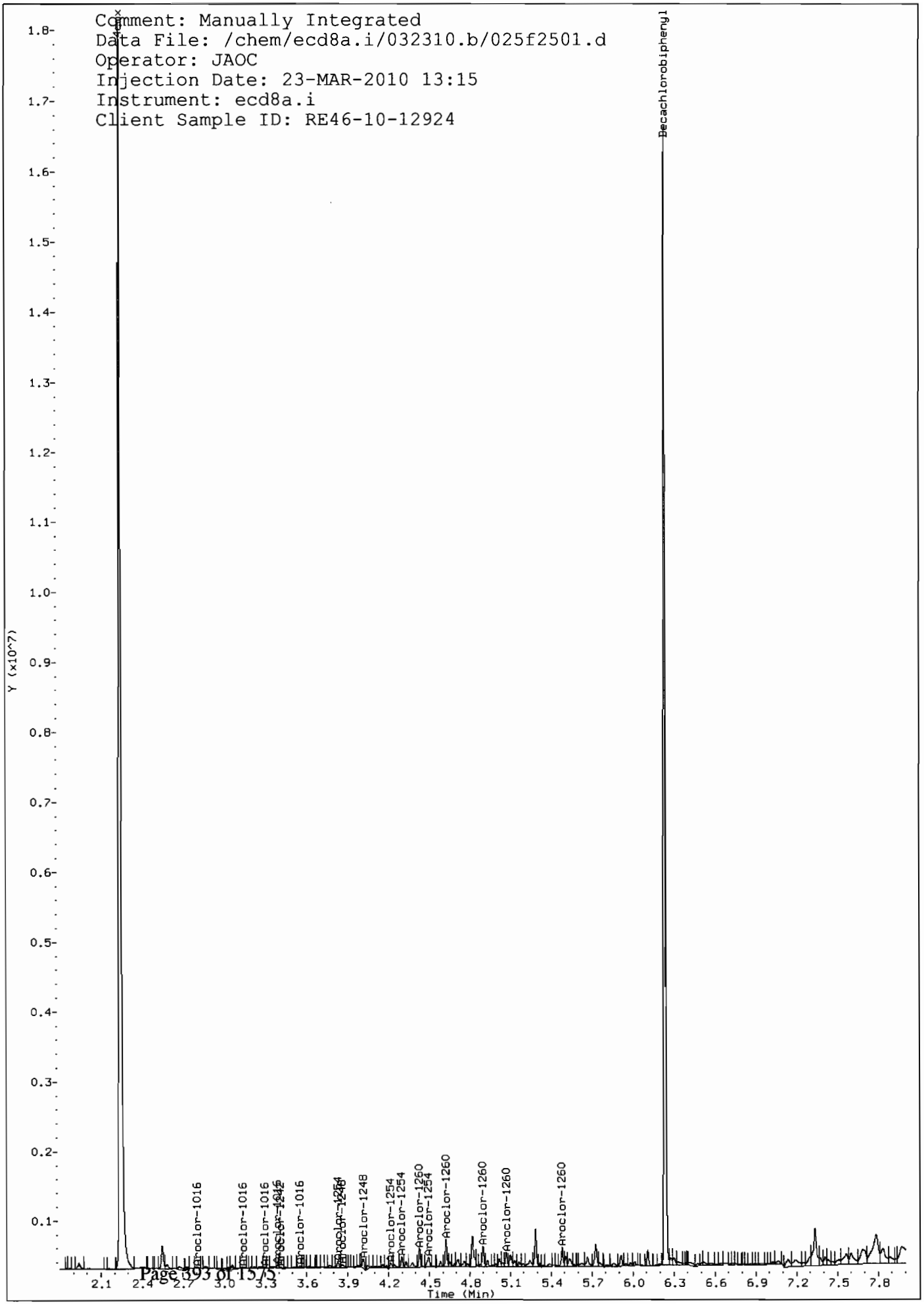

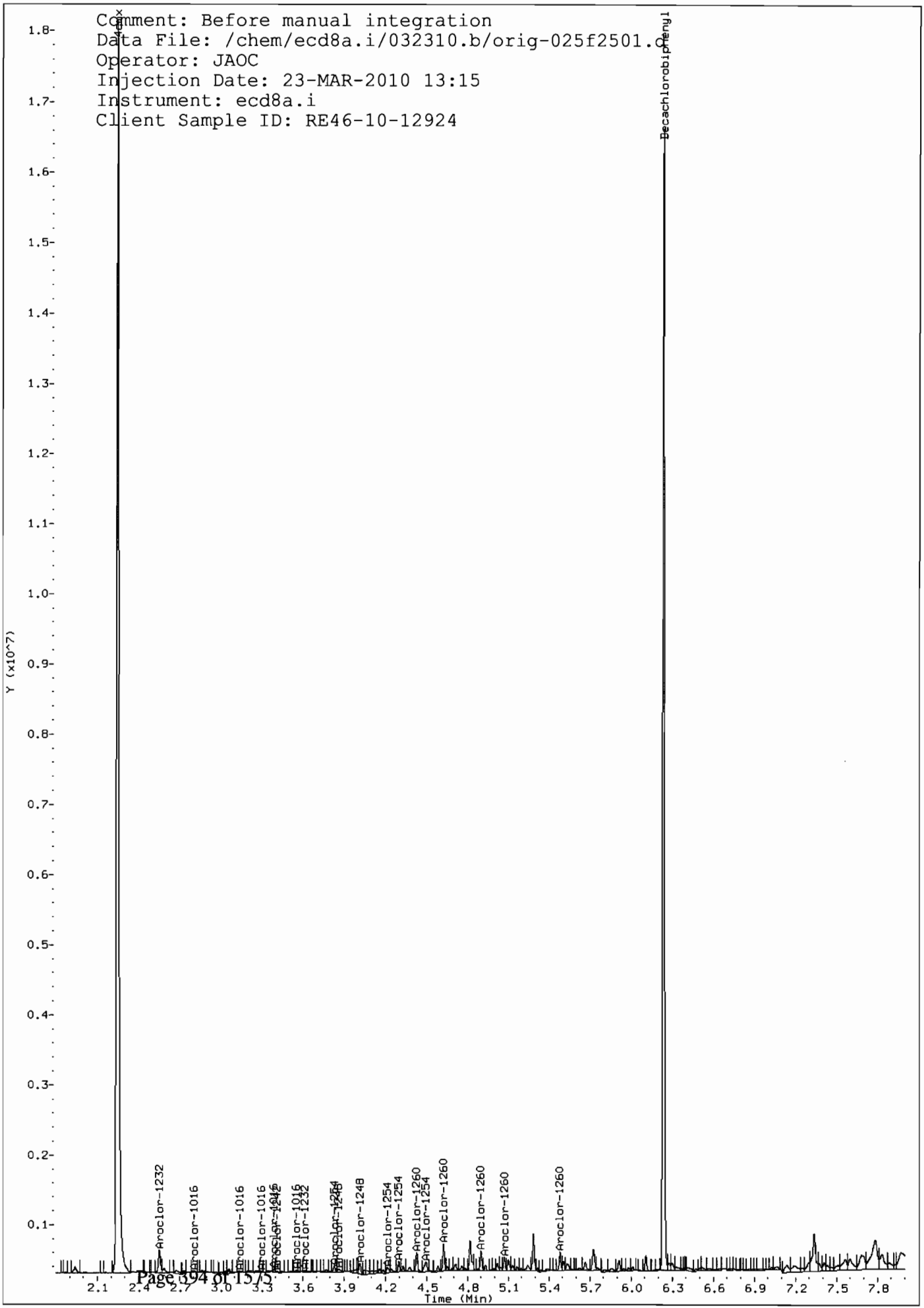
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Data File: /chem/ecd8a.i/032310.b/orig-025f2501.c
Operator: JAOC
Injection Date: 23-MAR-2010 13:15
Instrument: ecd8a.i
Client Sample ID: RE46-10-12924
Decachlorobiphenyl
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/025b2501.d
Lab Smp Id: 249244003 Client Smp ID: RE46-10-12924
Inj Date : 23-MAR-2010 13:15
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249244003|1|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12924|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2412.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	14.64270	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	14734459	176.287	6.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	10870880	183.467	7.1	80.00- 120.00	100.00(M)
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.907	0.000	160708	40.8043	1.6	80.00- 120.00	100.00(aM)
5.056	5.056	0.000	181447	38.3570	1.5	102.64- 142.64	112.90
5.372	5.373	-0.001	167630	46.7372	1.8	72.26- 112.26	104.31
5.579	5.580	-0.001	116216	31.3062	1.2	76.20- 116.20	72.32
6.010	6.011	-0.001	301807	51.6675	2.0	134.50- 174.50	187.80
		Average of Peak Concentrations =			1.6		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032310.b/025b2501.d

Date : 23-MAR-2010 13:15

Client ID: RE46-10-12924

Sample Info: |249244003|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

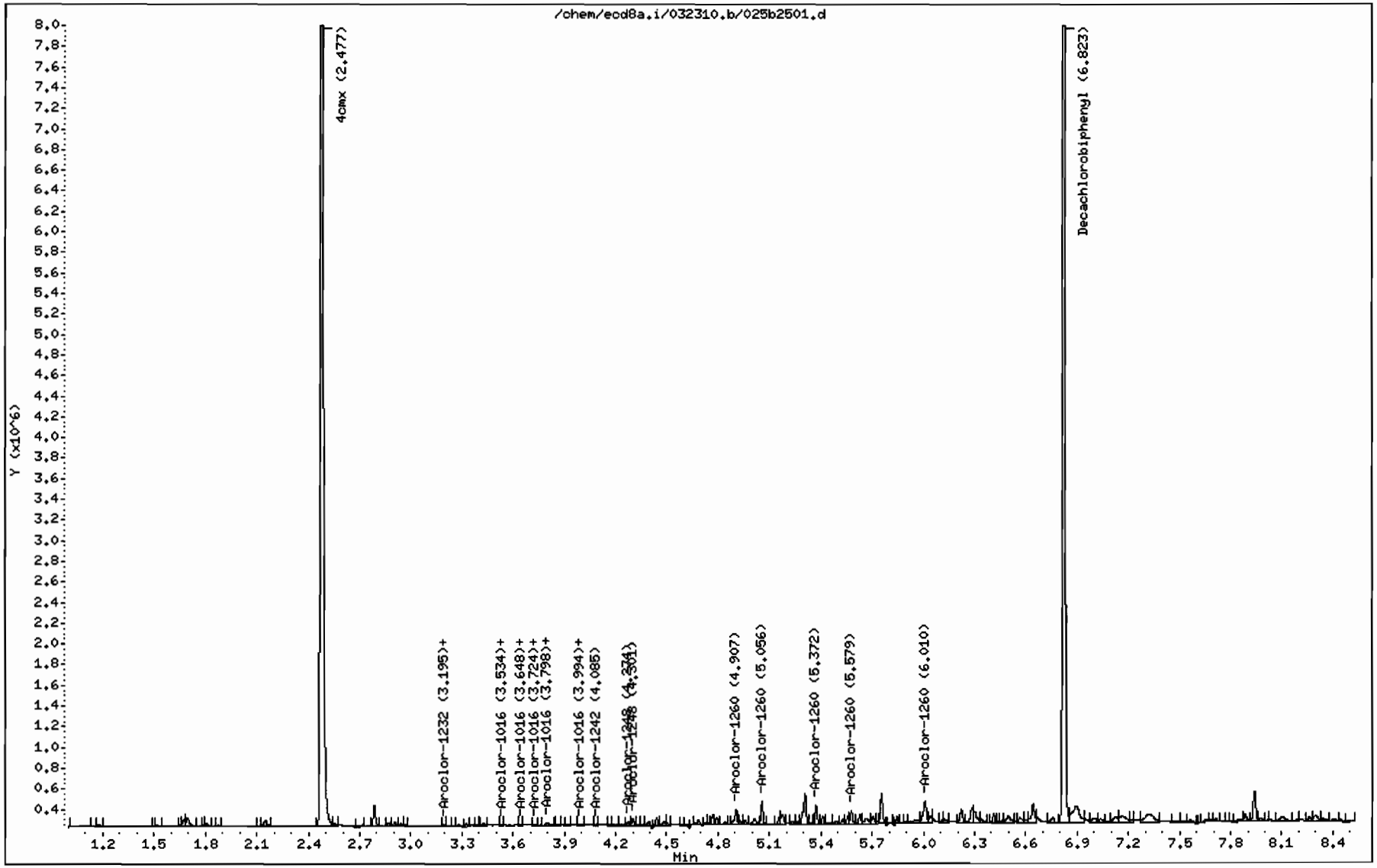

Comment: Manually Integrated
Data File: /chem/ecd8a.i/032310.b/025b2501.d
Operator: JAOC
Injection Date: 23-MAR-2010 13:15
Instrument: ecd8a.i
Client Sample ID: RE46-10-12924

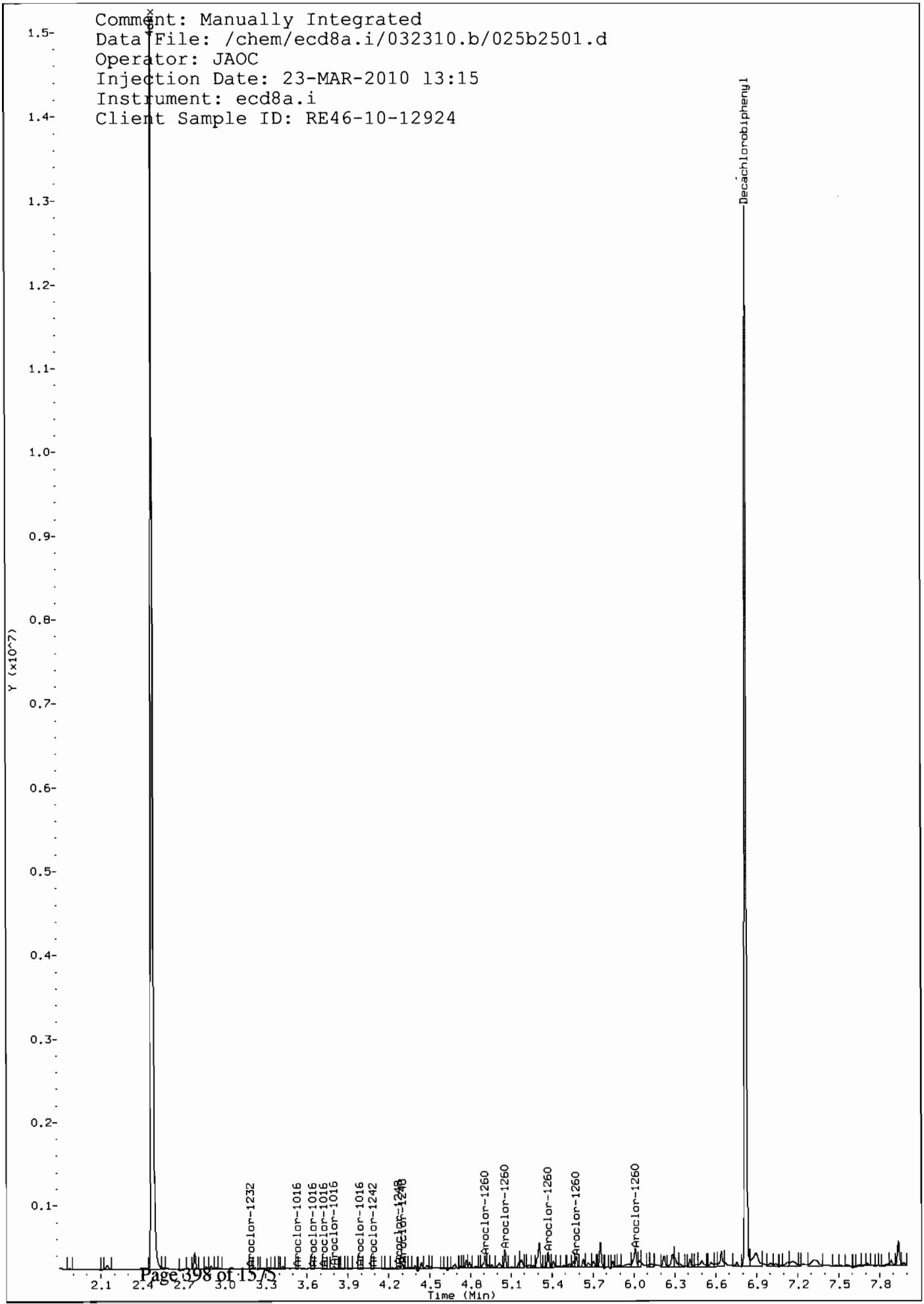

Comment: Before manual integration
Data File: /chem/ecd8a.i/032310.b/orig-025b2501.d
Operator: JAOC
Injection Date: 23-MAR-2010 13:15
Instrument: ecd8a.i
Client Sample ID: RE46-10-12924

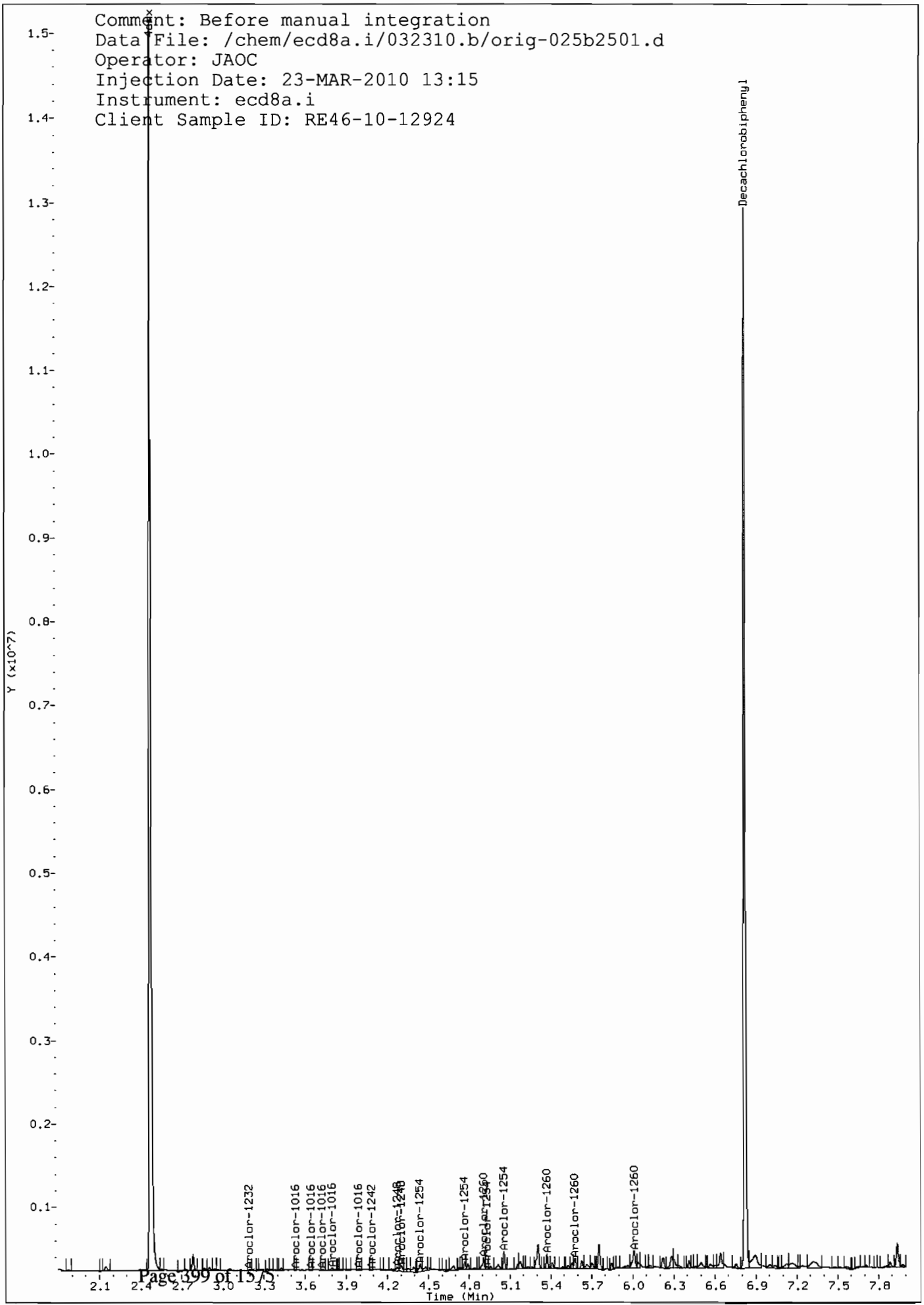

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244006**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**13.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12925**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 13:52**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**028f2801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	028b2801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	38.4	ug/kg	12.8	38.4	1
11104–28–2	Aroclor–1221	U	38.4	ug/kg	12.8	38.4	1
11141–16–5	Aroclor–1232	U	38.4	ug/kg	12.8	38.4	1
53469–21–9	Aroclor–1242	U	38.4	ug/kg	12.8	38.4	1
12672–29–6	Aroclor–1248	U	38.4	ug/kg	12.8	38.4	1
11097–69–1	Aroclor–1254	U	38.4	ug/kg	12.8	38.4	1
11096–82–5	Aroclor–1260	U	38.4	ug/kg	12.8	38.4	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/028f2801.d
Lab Smp Id: 249244006 Client Smp ID: RE46-10-12925
Inj Date : 23-MAR-2010 13:52
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249244006|10|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12925|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 28
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2412.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	13.29110	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.248	0.000	2249367	18.0005	6.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.237	6.240	-0.003	1537355	18.6683	7.2	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/028f2801.d

Date : 23-MAR-2010 13:52

Client ID: RE46-10-12925

Sample Info: |2492440061101|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

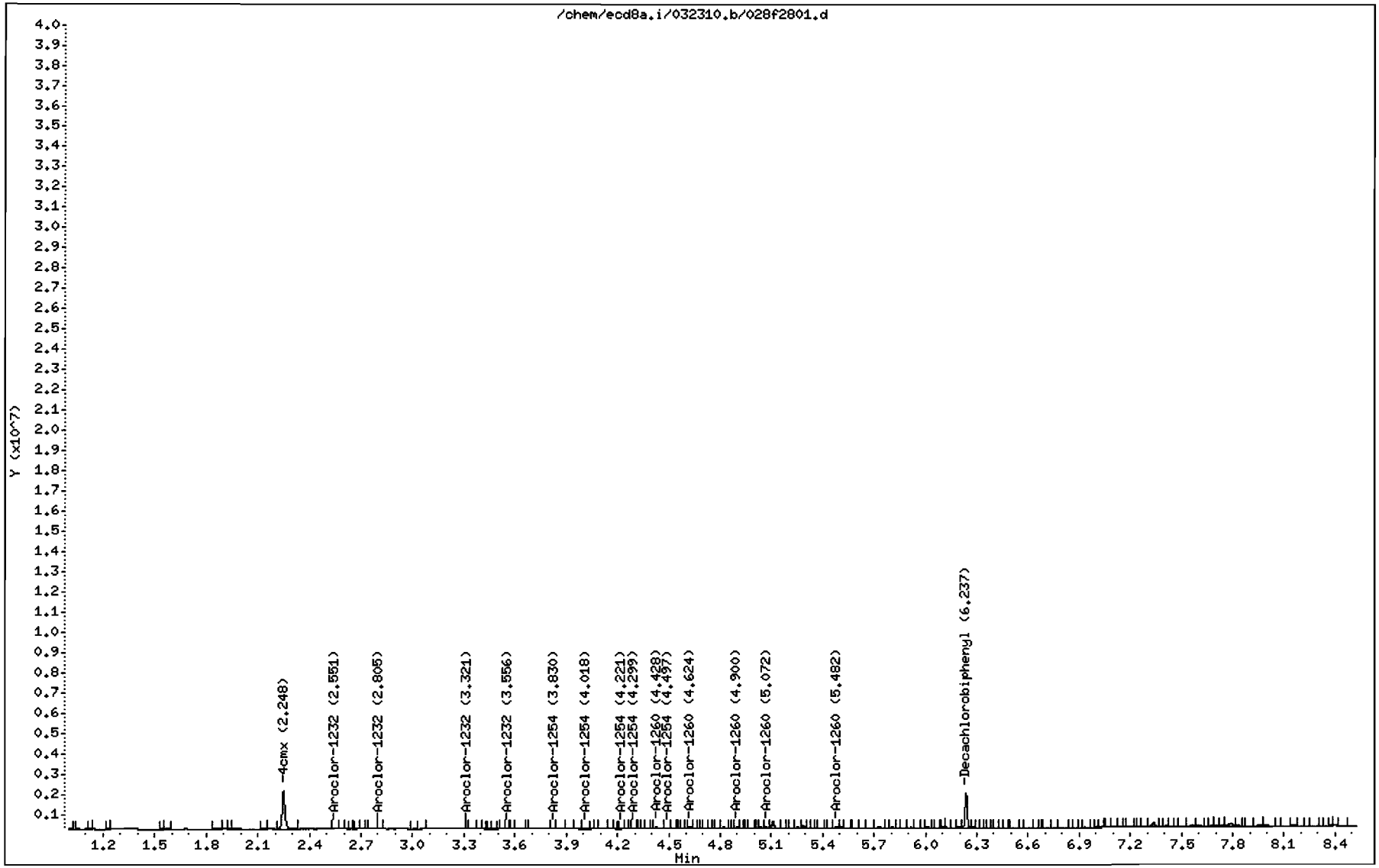

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/028b2801.d
Lab Smp Id: 249244006 Client Smp ID: RE46-10-12925
Inj Date : 23-MAR-2010 13:52
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249244006|10|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12925|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 28
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2412.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	13.29110	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	1447519	17.3185	6.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	1236359	20.8659	8.0	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/028b2801.d

Page 1

Date : 23-MAR-2010 13:52

Client ID: RE46-10-12925

Instrument: ecd8a.i

Sample Info: 1249244006110

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

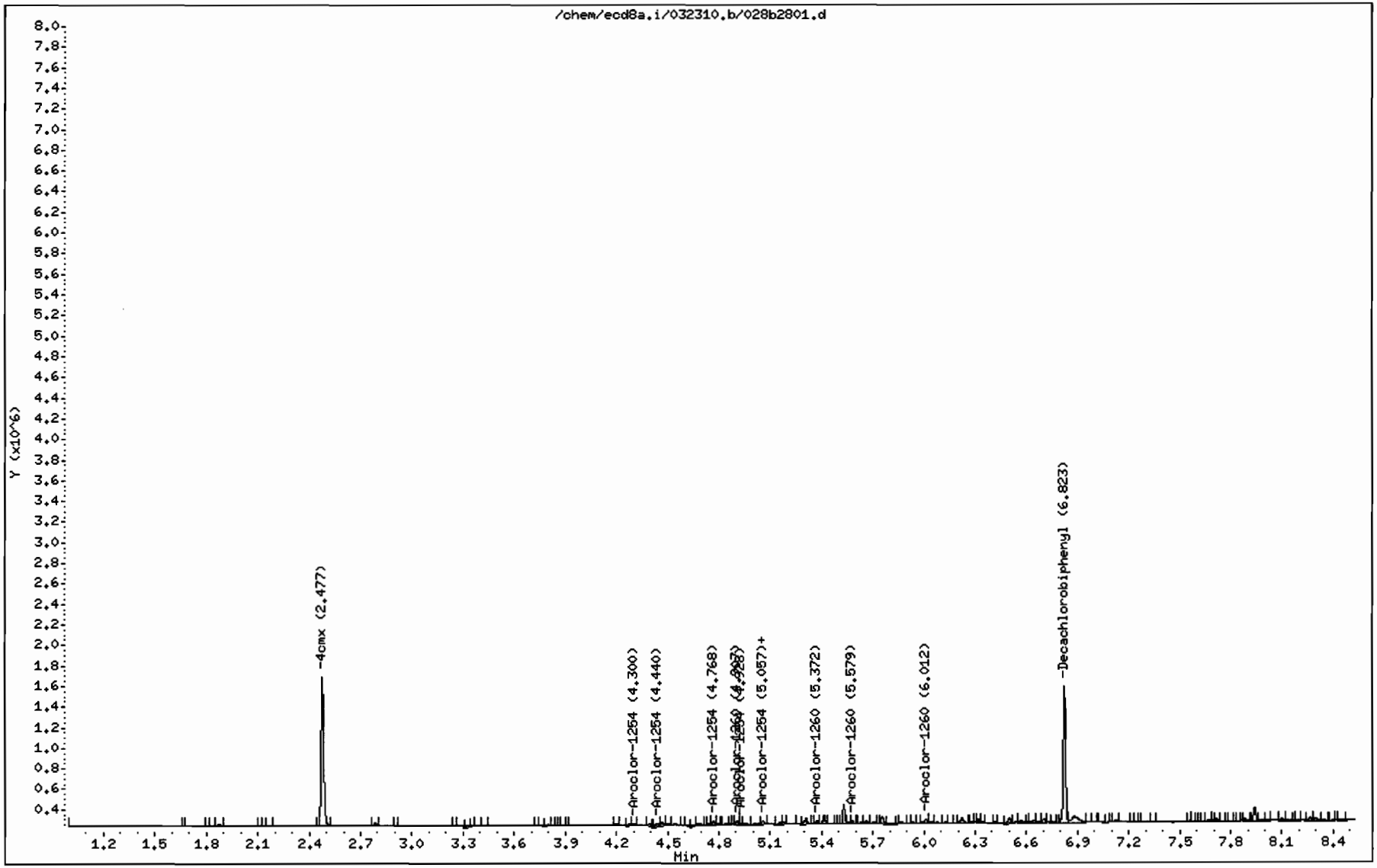

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244004**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**15.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12926**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:28**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**026f2601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	026b2601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.93	ug/kg	1.31	3.93	1
11104–28–2	Aroclor–1221	U	3.93	ug/kg	1.31	3.93	1
11141–16–5	Aroclor–1232	U	3.93	ug/kg	1.31	3.93	1
53469–21–9	Aroclor–1242	U	3.93	ug/kg	1.31	3.93	1
12672–29–6	Aroclor–1248	U	3.93	ug/kg	1.31	3.93	1
11097–69–1	Aroclor–1254	U	3.93	ug/kg	1.31	3.93	1
11096–82–5	Aroclor–1260	U	3.93	ug/kg	1.31	3.93	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/026f2601.d
Lab Smp Id: 249244004 Client Smp ID: RE46-10-12926
Inj Date : 23-MAR-2010 13:28
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249244004|1|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12926|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2412.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	15.33150	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.248	0.000	20556101	164.500	6.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.237	6.240	-0.003	14865149	180.510	7.1	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/026f2601.d

Date : 23-MAR-2010 13:28

Client ID: RE46-10-12926

Sample Info: |249244004|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

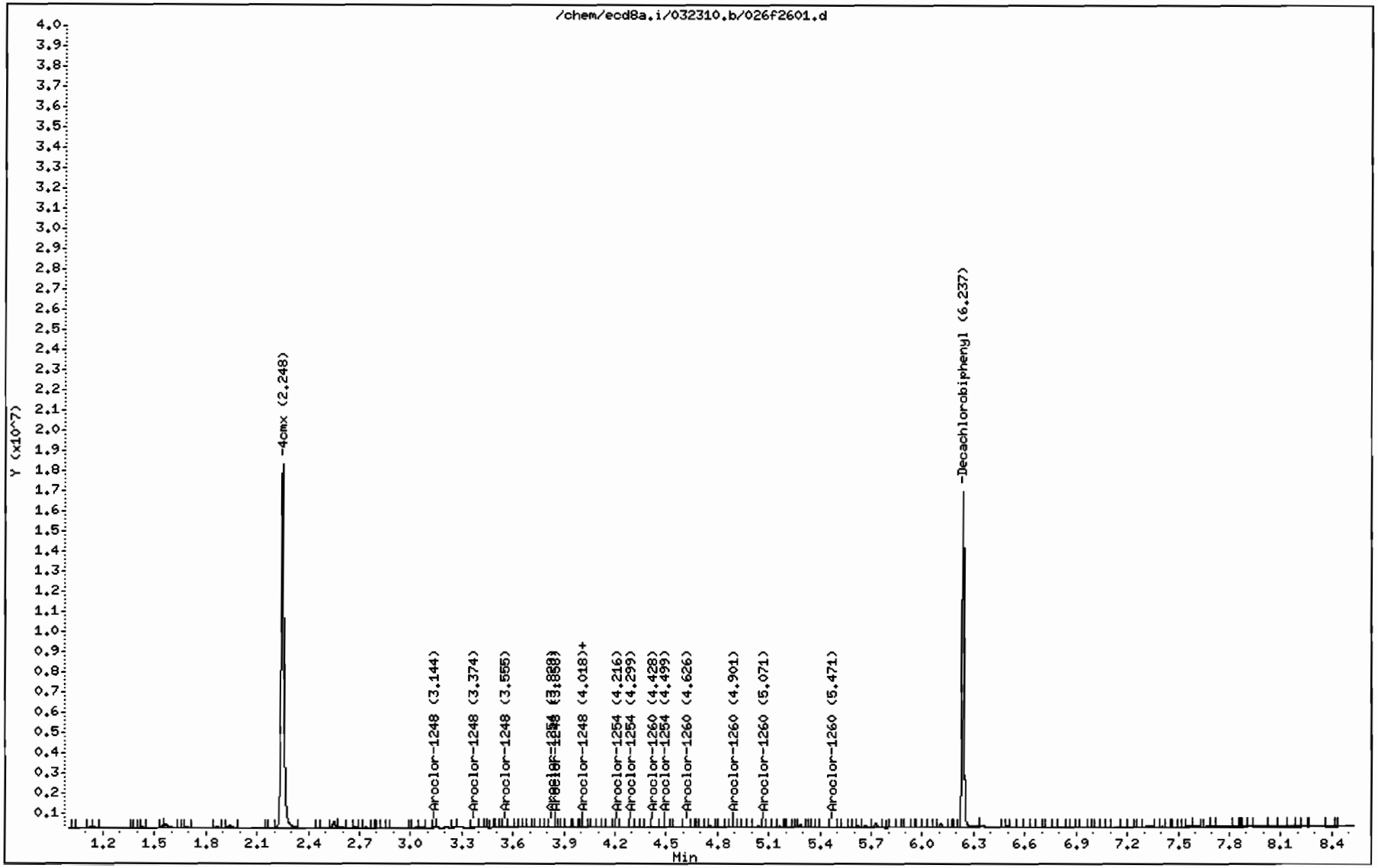

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/026b2601.d
Lab Smp Id: 249244004 Client Smp ID: RE46-10-12926
Inj Date : 23-MAR-2010 13:28
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249244004|1|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12926|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2412.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	15.33150	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.476	0.000	14905422	178.333	7.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	11828370	199.627	7.8	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/026b2601.d

Date : 23-MAR-2010 13:28

Client ID: RE46-10-12926

Sample Info: |249244004|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

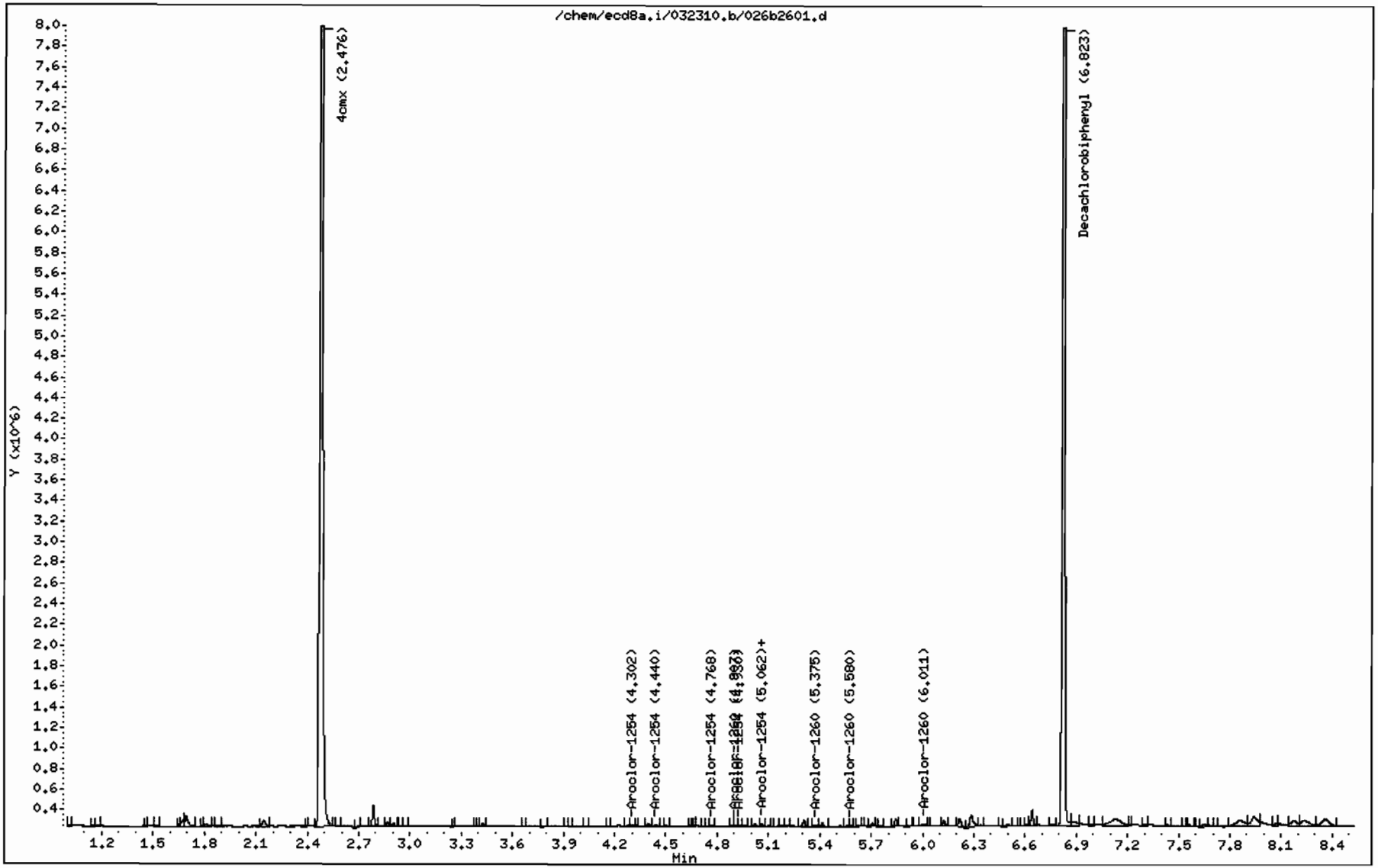

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244001**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**12**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12927**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**10**
Run Date:	**03/23/2010 12:51**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**023f2301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	023b2301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	37.8	ug/kg	12.6	37.8	1
11104–28–2	Aroclor–1221	U	37.8	ug/kg	12.6	37.8	1
11141–16–5	Aroclor–1232	U	37.8	ug/kg	12.6	37.8	1
53469–21–9	Aroclor–1242	U	37.8	ug/kg	12.6	37.8	1
12672–29–6	Aroclor–1248	U	37.8	ug/kg	12.6	37.8	1
11097–69–1	Aroclor–1254	U	37.8	ug/kg	12.6	37.8	1
11096–82–5	Aroclor–1260	U	37.8	ug/kg	12.6	37.8	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/023f2301.d
Lab Smp Id: 249244001 Client Smp ID: RE46-10-12927
Inj Date : 23-MAR-2010 12:51
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249244001|10|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12927|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 23
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2412.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	11.95940	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.248	0.001	2063014	16.5092	6.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	1595746	19.3774	7.3	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/023f2301.d

Page 1

Date : 23-MAR-2010 12:51

Client ID: RE46-10-12927

Instrument: ecd8a.i

Sample Info: |2492440011|10|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

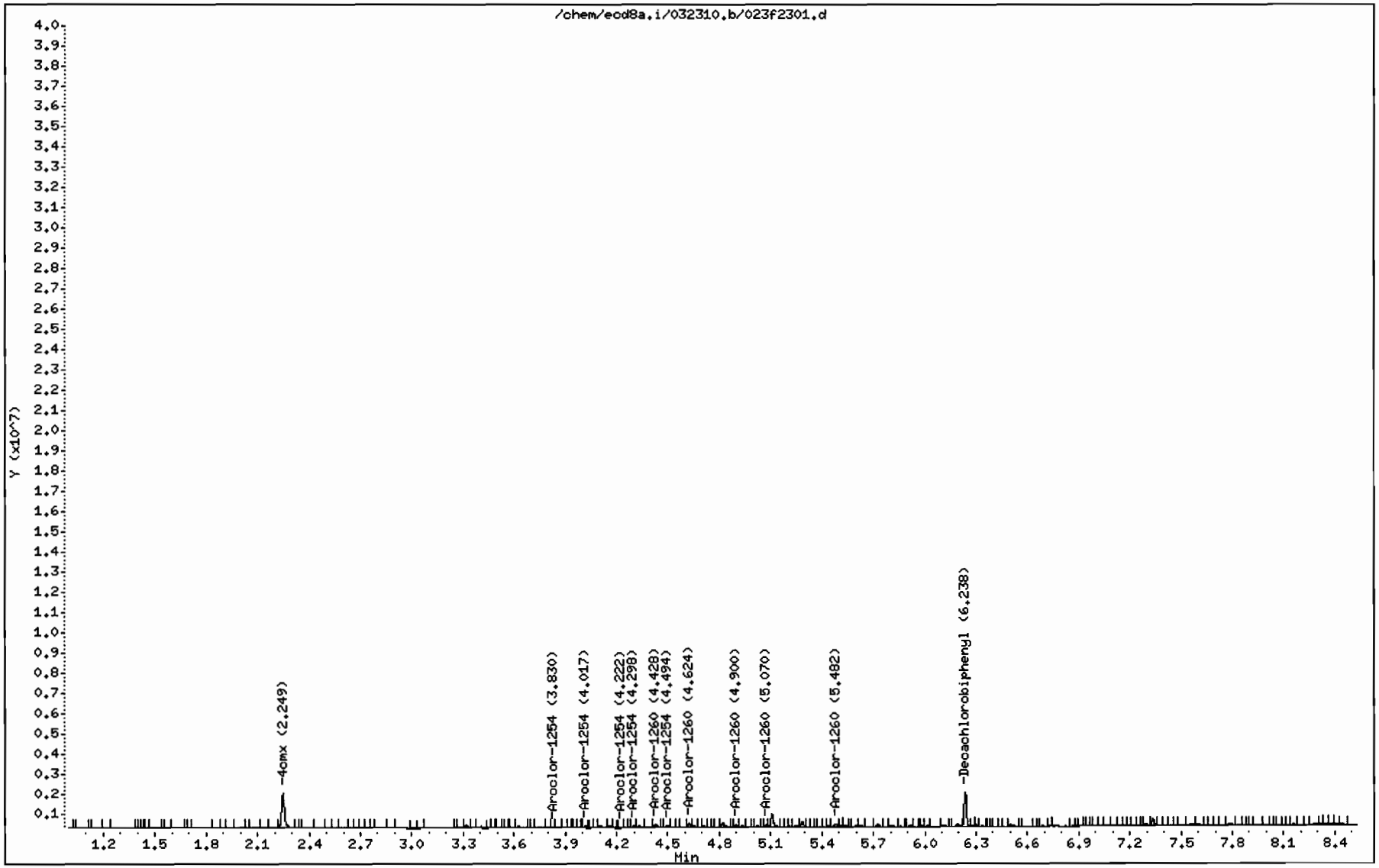

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/023b2301.d
Lab Smp Id: 249244001 Client Smp ID: RE46-10-12927
Inj Date : 23-MAR-2010 12:51
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249244001|10|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12927|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 23
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2412.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	11.95940	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	1330331	15.9165	6.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	1194480	20.1592	7.6	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/023b2301.d

Page 1

Date : 23-MAR-2010 12:51

Client ID: RE46-10-12927

Instrument: ecd8a.i

Sample Info: |2492440011|10|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

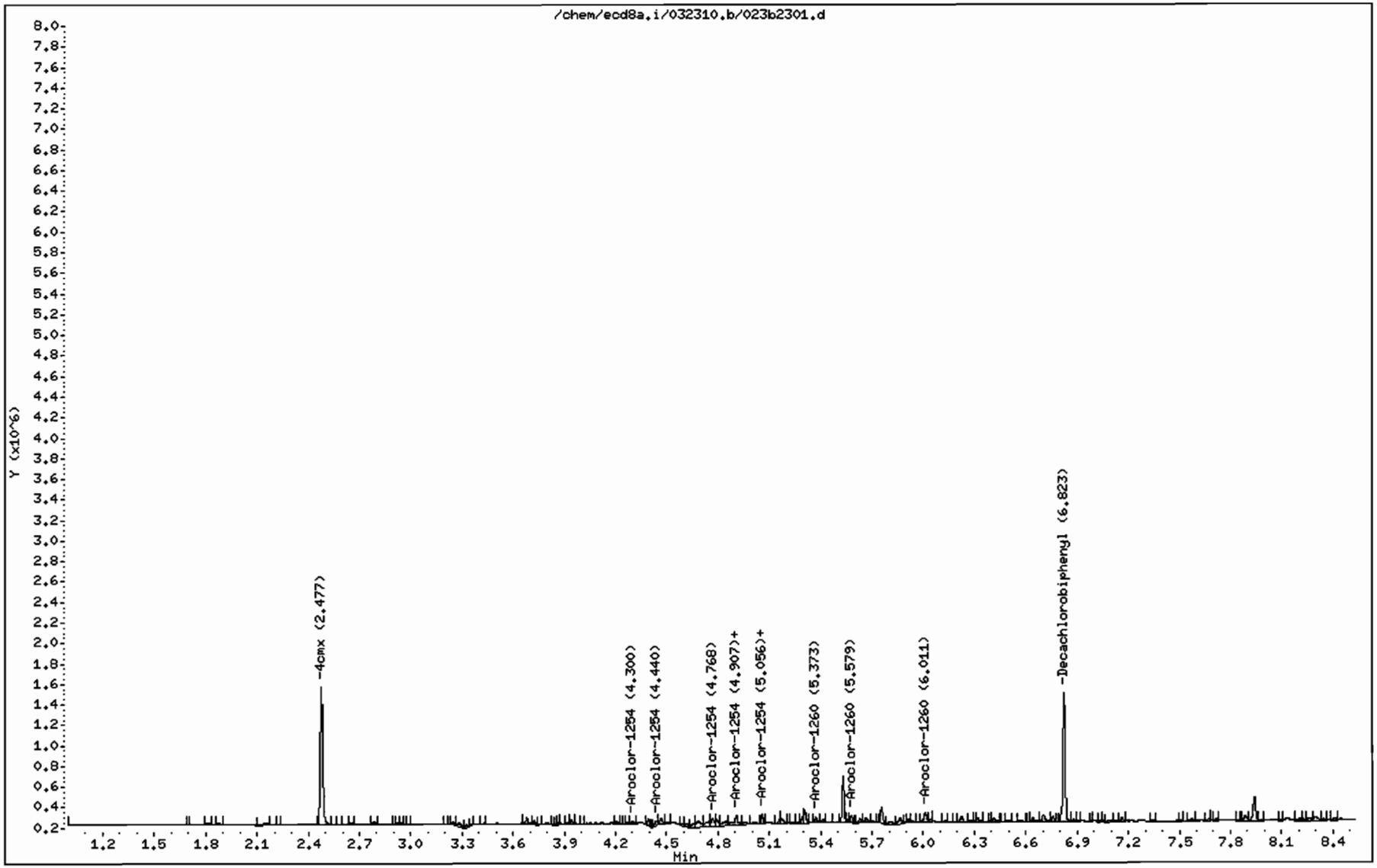

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2412**	**Date Collected:**	**03/10/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249244005**	**Date Received:**	**03/12/2010 08:45**	**%Moisture:**	**18.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12928**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 13:40**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**027f2701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	027b2701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	20.4	ug/kg	6.80	20.4	1
11104–28–2	Aroclor–1221	U	20.4	ug/kg	6.80	20.4	1
11141–16–5	Aroclor–1232	U	20.4	ug/kg	6.80	20.4	1
53469–21–9	Aroclor–1242	U	20.4	ug/kg	6.80	20.4	1
12672–29–6	Aroclor–1248	U	20.4	ug/kg	6.80	20.4	1
11097–69–1	Aroclor–1254	U	20.4	ug/kg	6.80	20.4	1
11096–82–5	Aroclor–1260	U	20.4	ug/kg	6.80	20.4	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/027f2701.d
Lab Smp Id: 249244005 Client Smp ID: RE46-10-12928
Inj Date : 23-MAR-2010 13:40
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249244005|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12928|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 27
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2412.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	18.54410	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.248	0.000	3874976	31.0094	6.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	3026230	36.7479	7.5	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/027f2701.d

Date : 23-MAR-2010 13:40

Client ID: RE46-10-12928

Sample Info: |249244005151

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

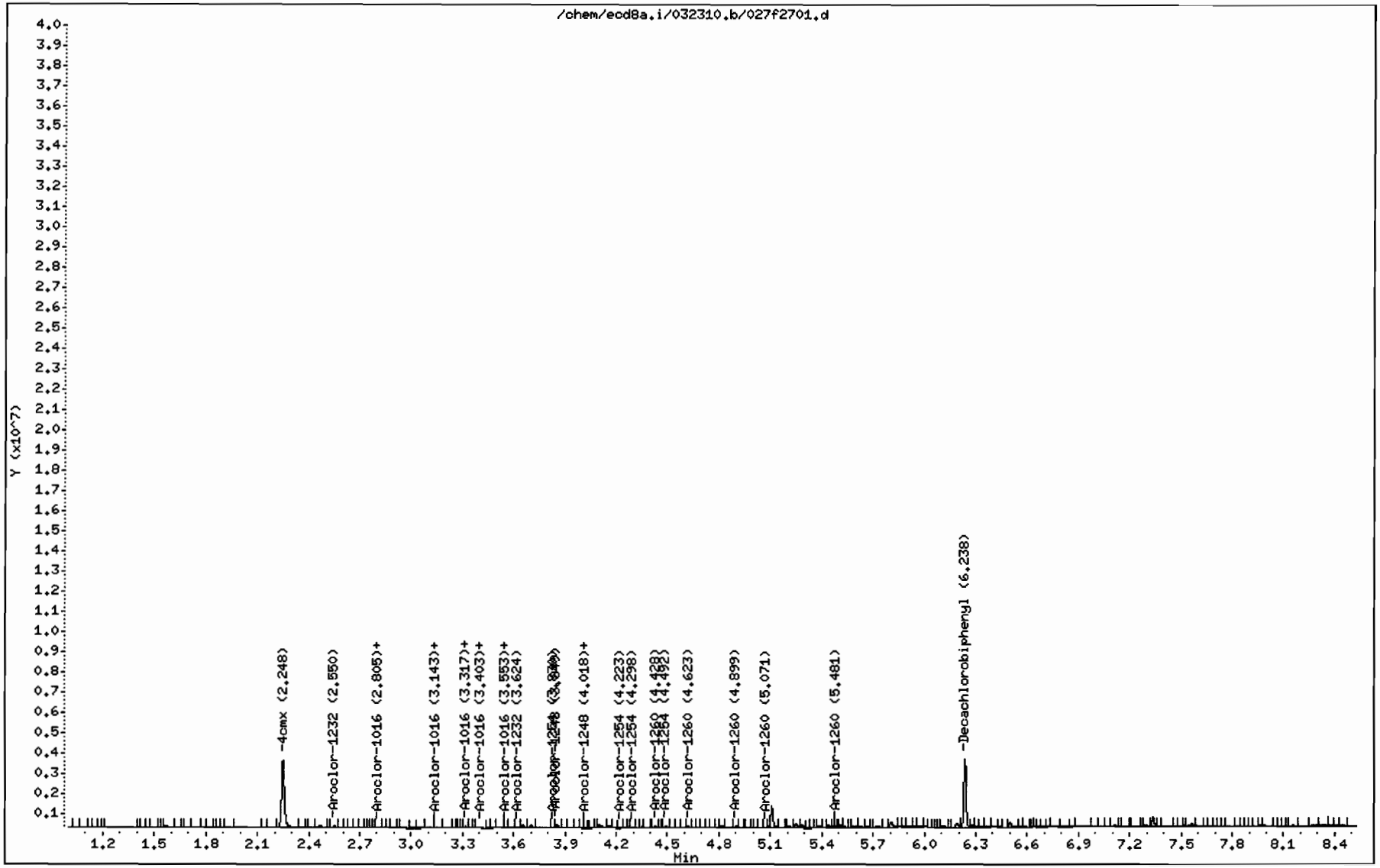

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/027b2701.d
Lab Smp Id: 249244005 Client Smp ID: RE46-10-12928
Inj Date : 23-MAR-2010 13:40
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249244005|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12928|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 27
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2412.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	18.54410	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	2577419	30.8370	6.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	2275525	38.4039	7.8	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/027b2701.d

Date : 23-MAR-2010 13:40

Client ID: RE46-10-12928

Sample Info: |249244005|5|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

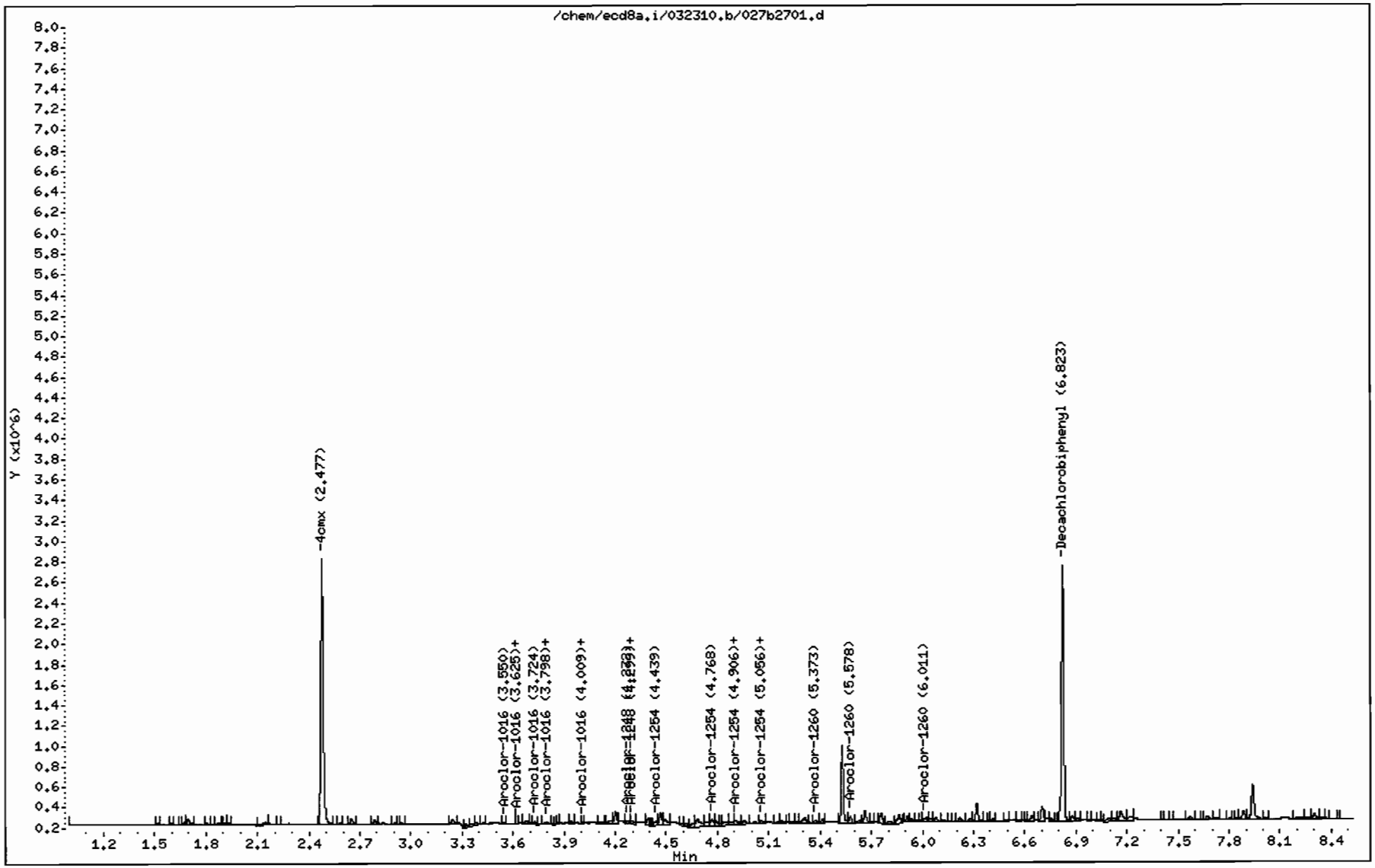

STANDARDS DATA

Report Date: 24-Mar-2010 09:23

Calibration History

Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
23-FEB-2010 10:43	AR1221	/chem/ecd8a.i/022310.b/013f1301.d
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028f2801.d
09-MAR-2010 10:41	AR1248	/chem/ecd8a.i/030910.b/013f1301.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014f1401.d
09-MAR-2010 09:27	AR1254	/chem/ecd8a.i/030910.b/007f0701.d
18-MAR-2010 06:25	AR1660	/chem/ecd8a.i/031810.b/002f0201.d
Cal Level: 2 , Cal Amount: 250.00000		
23-FEB-2010 10:55	AR1221	/chem/ecd8a.i/022310.b/014f1401.d
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029f2901.d
09-MAR-2010 10:53	AR1248	/chem/ecd8a.i/030910.b/014f1401.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015f1501.d
09-MAR-2010 09:39	AR1254	/chem/ecd8a.i/030910.b/008f0801.d
18-MAR-2010 06:38	AR1660	/chem/ecd8a.i/031810.b/003f0301.d
Cal Level: 3 , Cal Amount: 500.00000		
23-FEB-2010 11:07	AR1221	/chem/ecd8a.i/022310.b/015f1501.d
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030f3001.d
09-MAR-2010 11:05	AR1248	/chem/ecd8a.i/030910.b/015f1501.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016f1601.d
09-MAR-2010 09:51	AR1254	/chem/ecd8a.i/030910.b/009f0901.d
18-MAR-2010 06:50	AR1660	/chem/ecd8a.i/031810.b/004f0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036f3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034f3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031f3101.d
23-FEB-2010 11:20	AR1221	/chem/ecd8a.i/022310.b/016f1601.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026f2601.d
09-MAR-2010 11:18	AR1248	/chem/ecd8a.i/030910.b/016f1601.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017f1701.d
09-MAR-2010 10:04	AR1254	/chem/ecd8a.i/030910.b/010f1001.d
18-MAR-2010 07:02	AR1660	/chem/ecd8a.i/031810.b/005f0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
23-FEB-2010 11:32	AR1221	/chem/ecd8a.i/022310.b/017f1701.d
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032f3201.d
09-MAR-2010 11:30	AR1248	/chem/ecd8a.i/030910.b/017f1701.d

03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018f1801.d
09-MAR-2010 10:16	AR1254	/chem/ecd8a.i/030910.b/011f1101.d
18-MAR-2010 07:15	AR1660	/chem/ecd8a.i/031810.b/006f0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:56	AR1660	/chem/ecd8a.i/032310.b/046f4601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:15	AR1660	/chem/ecd8a.i/032310.b/043f4301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 14:38	AR1660	/chem/ecd8a.i/032310.b/031f3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:46	AR1242	/chem/ecd8a.i/032310.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 12:01	AR1660	/chem/ecd8a.i/032310.b/019f1901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:48	AR1268	/chem/ecd8a.i/032310.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:36	AR1262	/chem/ecd8a.i/032310.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:23	AR1221	/chem/ecd8a.i/032310.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:11	AR1232	/chem/ecd8a.i/032310.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:59	AR1248	/chem/ecd8a.i/032310.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:34	AR1254	/chem/ecd8a.i/032310.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:22	AR1660	/chem/ecd8a.i/032310.b/002f0201.d

Report Date: 24-Mar-2010 09:23

Calibration History

Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
23-FEB-2010 10:43	AR1221	/chem/ecd8a.i/022310.b/013b1301.d
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028b2801.d
09-MAR-2010 10:41	AR1248	/chem/ecd8a.i/030910.b/013b1301.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014b1401.d
09-MAR-2010 09:27	AR1254	/chem/ecd8a.i/030910.b/007b0701.d
18-MAR-2010 06:25	AR1660	/chem/ecd8a.i/031810.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
23-FEB-2010 10:55	AR1221	/chem/ecd8a.i/022310.b/014b1401.d
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029b2901.d
09-MAR-2010 10:53	AR1248	/chem/ecd8a.i/030910.b/014b1401.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015b1501.d
09-MAR-2010 09:39	AR1254	/chem/ecd8a.i/030910.b/008b0801.d
18-MAR-2010 06:38	AR1660	/chem/ecd8a.i/031810.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
23-FEB-2010 11:07	AR1221	/chem/ecd8a.i/022310.b/015b1501.d
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030b3001.d
09-MAR-2010 11:05	AR1248	/chem/ecd8a.i/030910.b/015b1501.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016b1601.d
09-MAR-2010 09:51	AR1254	/chem/ecd8a.i/030910.b/009b0901.d
18-MAR-2010 06:50	AR1660	/chem/ecd8a.i/031810.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036b3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034b3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031b3101.d
23-FEB-2010 11:20	AR1221	/chem/ecd8a.i/022310.b/016b1601.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026b2601.d
09-MAR-2010 11:18	AR1248	/chem/ecd8a.i/030910.b/016b1601.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017b1701.d
09-MAR-2010 10:04	AR1254	/chem/ecd8a.i/030910.b/010b1001.d
18-MAR-2010 07:02	AR1660	/chem/ecd8a.i/031810.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
23-FEB-2010 11:32	AR1221	/chem/ecd8a.i/022310.b/017b1701.d
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032b3201.d
09-MAR-2010 11:30	AR1248	/chem/ecd8a.i/030910.b/017b1701.d
03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018b1801.d
09-MAR-2010 10:16	AR1254	/chem/ecd8a.i/030910.b/011b1101.d
18-MAR-2010 07:15	AR1660	/chem/ecd8a.i/031810.b/006b0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:56	AR1660	/chem/ecd8a.i/032310.b/046b4601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:15	AR1660	/chem/ecd8a.i/032310.b/043b4301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 14:38	AR1660	/chem/ecd8a.i/032310.b/031b3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 12:01	AR1660	/chem/ecd8a.i/032310.b/019b1901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:48	AR1268	/chem/ecd8a.i/032310.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:36	AR1262	/chem/ecd8a.i/032310.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:23	AR1221	/chem/ecd8a.i/032310.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:11	AR1232	/chem/ecd8a.i/032310.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:59	AR1248	/chem/ecd8a.i/032310.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:46	AR1242	/chem/ecd8a.i/032310.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:34	AR1254	/chem/ecd8a.i/032310.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:22	AR1660	/chem/ecd8a.i/032310.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Mar-2010 08:51 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	758.000000
Initial:End Threshold	379.000000
Initial:Area Threshold	734.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.500000
6.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.806	2.776-2.836	4.772e+03
	3.157	3.127-3.187	5.397e+03
	3.301	3.271-3.331	2.352e+03
	3.393	3.363-3.423	2.192e+03
	3.555	3.525-3.585	3.079e+03
2 Aroclor-1221	2.389	2.359-2.419	1.568e+03
	2.503	2.473-2.533	9.154e+02
	2.534	2.504-2.564	3.573e+03
3 Aroclor-1232	2.535	2.505-2.565	2.601e+03
	2.806	2.776-2.836	2.261e+03
	3.301	3.271-3.331	1.243e+03
	3.555	3.525-3.585	1.479e+03
	3.617	3.587-3.647	9.227e+02
4 Aroclor-1242	2.806	2.776-2.836	3.974e+03
	3.157	3.127-3.187	4.796e+03
	3.393	3.363-3.423	1.805e+03
	3.410	3.380-3.440	1.889e+03
	3.556	3.526-3.586	2.645e+03
5 Aroclor-1248	3.143	3.113-3.173	2.721e+03
	3.392	3.362-3.422	3.402e+03
	3.555	3.525-3.585	4.371e+03
	3.860	3.830-3.890	5.250e+03
	4.020	3.990-4.050	4.212e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.830	3.800-3.860	4.334e+03
		4.017	3.987-4.047	5.767e+03
		4.213	4.183-4.243	4.459e+03
		4.300	4.270-4.330	7.522e+03
		4.496	4.466-4.526	5.749e+03
	7 Aroclor-1260	4.429	4.399-4.459	5.890e+03
		4.625	4.595-4.655	8.495e+03
		4.900	4.870-4.930	5.066e+03
		5.072	5.042-5.102	5.329e+03
		5.483	5.453-5.513	5.641e+03
	8 Aroclor-1262	4.331	4.301-4.361	3.367e+03
		4.429	4.399-4.459	5.243e+03
		4.624	4.594-4.654	7.103e+03
		4.900	4.870-4.930	8.580e+03
		5.071	5.041-5.101	7.966e+03
	9 Aroclor-1268	5.507	5.477-5.537	1.632e+04
		5.534	5.504-5.564	1.572e+04
		5.668	5.638-5.698	1.207e+04
		5.913	5.883-5.943	6.023e+03
		6.110	6.080-6.140	3.601e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.248	2.218-2.278	1.250e+05
$	12 Decachlorobiphenyl	6.240	6.210-6.270	8.235e+04
	13 4,4'-DDT	4.852	4.832-4.872	2.393e+04
	14 4,4'-DDD	4.658	4.638-4.678	1.570e+05
	15 4,4'-DDE	4.234	4.214-4.254	1.340e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Mar-2010 08:39 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	733.000000
Initial:End Threshold	366.500000
Initial:Area Threshold	522.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	2.000000
9.000:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.548	3.518-3.578	3.678e+03
	3.647	3.617-3.677	2.551e+03
	3.723	3.693-3.753	1.492e+03
	3.799	3.769-3.829	1.478e+03
	3.995	3.965-4.025	2.025e+03
2 Aroclor-1221	2.717	2.687-2.747	9.481e+02
	2.829	2.799-2.859	5.911e+02
	2.877	2.847-2.907	2.179e+03
3 Aroclor-1232	3.195	3.165-3.225	1.515e+03
	3.548	3.518-3.578	1.744e+03
	3.648	3.618-3.678	1.176e+03
	3.723	3.693-3.753	7.101e+02
	3.798	3.768-3.828	6.182e+02
4 Aroclor-1242	3.196	3.166-3.226	2.677e+03
	3.548	3.518-3.578	3.126e+03
	3.648	3.618-3.678	2.127e+03
	3.995	3.965-4.025	1.703e+03
	4.084	4.054-4.114	1.567e+03
5 Aroclor-1248	3.646	3.616-3.676	1.329e+03
	3.798	3.768-3.828	2.249e+03
	3.994	3.964-4.024	2.790e+03
	4.272	4.242-4.302	3.273e+03
	4.305	4.275-4.335	3.592e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m

Compound	RT	RT Window	RF
6 Aroclor-1254	4.301	4.271-4.331	3.117e+03
	4.440	4.410-4.470	3.478e+03
	4.769	4.739-4.799	4.832e+03
	4.931	4.901-4.961	3.494e+03
	5.057	5.027-5.087	2.202e+03
7 Aroclor-1260	4.907	4.877-4.937	3.939e+03
	5.056	5.026-5.086	4.730e+03
	5.373	5.343-5.403	3.587e+03
	5.580	5.550-5.610	3.712e+03
	6.011	5.981-6.041	5.841e+03
8 Aroclor-1262	4.907	4.877-4.937	3.276e+03
	5.056	5.026-5.086	3.827e+03
	5.373	5.343-5.403	5.446e+03
	5.580	5.550-5.610	5.047e+03
	6.008	5.978-6.038	7.196e+03
9 Aroclor-1268	6.006	5.976-6.036	1.138e+04
	6.039	6.009-6.069	1.041e+04
	6.217	6.187-6.247	8.192e+03
	6.414	6.384-6.444	4.057e+03
	6.643	6.613-6.673	2.464e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.476	2.446-2.506	8.358e+04
$ 12 Decachlorobiphenyl	6.824	6.794-6.854	5.925e+04
13 4,4'-DDT	5.323	5.303-5.343	1.460e+04
14 4,4'-DDD	5.102	5.082-5.122	1.001e+05
15 4,4'-DDE	4.691	4.671-4.711	8.898e+04

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Cal Date : 24-Mar-2010 08:51 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/022310.b/013f1301.d
Level 2: /chem/ecd8a.i/022310.b/014f1401.d
Level 3: /chem/ecd8a.i/022310.b/015f1501.d
Level 4: /chem/ecd8a.i/020310a.b/036f3601.d
Level 5: /chem/ecd8a.i/022310.b/017f1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	5919	5050	4827	4394	3671	4772	17.374
(2)	6305	5464	5600	5079	4539	5397	12.103
(3)	2780	2401	2389	2196	1992	2352	12.417
(4)	2749	2248	2191	2001	1769	2192	16.589
(5)	3808	3166	3086	2824	2511	3079	15.627
2 Aroclor-1221(1)	1843	1746	1580	1468	1203	1568	15.964
(2)	1118	1046	917	835	660	915	19.675
(3)	4334	3992	3544	3325	2672	3573	17.859
3 Aroclor-1232(1)	+++++	+++++	+++++	2601	+++++	2601	0.000
(2)	+++++	+++++	+++++	2261	+++++	2261	0.000
(3)	+++++	+++++	+++++	1243	+++++	1243	0.000
(4)	+++++	+++++	+++++	1479	+++++	1479	0.000
(5)	+++++	+++++	+++++	923	+++++	923	0.000
4 Aroclor-1242(1)	4726	4372	4070	3706	2998	3974	16.680
(2)	5172	5152	4949	4680	4027	4796	9.873
(3)	2139	1968	1820	1683	1417	1805	15.251
(4)	2229	2050	1908	1759	1500	1889	14.735
(5)	3065	2855	2678	2500	2127	2645	13.507
5 Aroclor-1248(1)	3009	2847	2875	2619	2254	2721	10.891
(2)	3979	3666	3503	3232	2633	3402	14.930
(3)	4974	4644	4593	4148	3497	4371	13.049
(4)	5772	5534	5553	5051	4341	5250	10.905
(5)	4772	4453	4399	4004	3430	4212	12.231
6 Aroclor-1254(1)	4848	4583	4256	4143	3840	4334	9.026
(2)	6355	6045	5692	5573	5168	5767	7.878
(3)	4755	4649	4399	4320	4170	4459	5.382
(4)	7994	7880	7432	7366	6934	7522	5.676
(5)	6153	6013	5632	5615	5334	5749	5.750

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Cal Date : 24-Mar-2010 08:51 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	7147	5970	6060	5488	4785	5890	14.695
	(2)	10103	8518	8810	7994	7052	8495	13.185
	(3)	6142	5086	5206	4683	4213	5066	14.134
	(4)	6261	5444	5587	4872	4481	5329	12.849
	(5)	6525	5540	5787	5277	5076	5641	9.964
	8 Aroclor-1262(1)	3851	3558	3311	3256	2859	3367	10.954
	(2)	5935	5551	5239	5102	4386	5243	10.995
	(3)	7996	7523	7022	6963	6012	7103	10.414
	(4)	9555	9028	8567	8433	7318	8580	9.694
	(5)	8875	8357	7946	7802	6850	7966	9.421
	9 Aroclor-1268(1)	+++++	+++++	+++++	16324	+++++	16324	0.000
	(2)	+++++	+++++	+++++	15723	+++++	15723	0.000
	(3)	+++++	+++++	+++++	12075	+++++	12075	0.000
	(4)	+++++	+++++	+++++	6023	+++++	6023	0.000
	(5)	+++++	+++++	+++++	36012	+++++	36012	0.000
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	23929	+++++	23929	0.000
	14 4,4'-DDD	+++++	+++++	+++++	157020	+++++	157020	0.000
	15 4,4'-DDE	+++++	+++++	+++++	133975	+++++	133975	0.000
$	11 4cmx	136153	126431	127871	122774	111579	124961	7.155
$	12 Decachlorobiphenyl	95355	82633	85082	76716	71970	82351	10.796

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Cal Date : 24-Mar-2010 08:39 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/022310.b/013b1301.d
Level 2: /chem/ecd8a.i/022310.b/014b1401.d
Level 3: /chem/ecd8a.i/022310.b/015b1501.d
Level 4: /chem/ecd8a.i/020310a.b/036b3601.d
Level 5: /chem/ecd8a.i/022310.b/017b1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	3858	3610	3858	3627	3436	3678	4.905
(2)	2824	2559	2590	2465	2318	2551	7.270
(3)	1619	1461	1511	1446	1422	1492	5.243
(4)	1671	1484	1494	1405	1335	1478	8.500
(5)	2238	2022	2057	1951	1857	2025	6.982
2 Aroclor-1221(1)	1008	1017	964	925	826	948	8.179
(2)	642	644	604	571	494	591	10.518
(3)	2384	2349	2220	2116	1827	2179	10.256
3 Aroclor-1232(1)	+++++	+++++	+++++	1515	+++++	1515	0.000
(2)	+++++	+++++	+++++	1744	+++++	1744	0.000
(3)	+++++	+++++	+++++	1176	+++++	1176	0.000
(4)	+++++	+++++	+++++	710	+++++	710	0.000
(5)	+++++	+++++	+++++	618	+++++	618	0.000
4 Aroclor-1242(1)	2949	2857	2758	2609	2213	2677	10.779
(2)	3213	3196	3180	3232	2808	3126	5.721
(3)	2287	2232	2178	2099	1842	2127	8.178
(4)	1820	1782	1741	1678	1497	1703	7.463
(5)	1675	1595	1607	1522	1434	1567	5.872
5 Aroclor-1248(1)	1413	1408	1337	1299	1188	1329	6.944
(2)	2387	2358	2277	2198	2024	2249	6.480
(3)	2920	2903	2849	2753	2523	2790	5.825
(4)	3350	3368	3334	3259	3054	3273	3.955
(5)	3677	3689	3657	3584	3353	3592	3.894
6 Aroclor-1254(1)	3242	3137	3080	3079	3045	3117	2.483
(2)	3591	3494	3433	3454	3418	3478	1.994
(3)	4854	4823	4800	4853	4830	4832	0.471
(4)	3516	3466	3440	3510	3538	3494	1.145
(5)	2281	2214	2159	2166	2188	2202	2.240

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Cal Date : 24-Mar-2010 08:39 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	4310	3885	4025	3827	3646	3939	6.300
	(2)	5135	4638	4867	4591	4421	4730	5.847
	(3)	3916	3515	3674	3464	3365	3587	5.999
	(4)	4033	3615	3813	3590	3510	3712	5.689
	(5)	6224	5645	6036	5678	5624	5841	4.664
	8 Aroclor-1262(1)	3545	3367	3269	3249	2948	3276	6.635
	(2)	4038	3929	3844	3825	3498	3827	5.277
	(3)	5683	5613	5515	5463	4958	5446	5.255
	(4)	5266	5178	5090	5067	4633	5047	4.838
	(5)	7327	7356	7286	7270	6740	7196	3.572
	9 Aroclor-1268(1)	+++++	+++++	+++++	11384	+++++	11384	0.000
	(2)	+++++	+++++	+++++	10412	+++++	10412	0.000
	(3)	+++++	+++++	+++++	8192	+++++	8192	0.000
	(4)	+++++	+++++	+++++	4057	+++++	4057	0.000
	(5)	+++++	+++++	+++++	24640	+++++	24640	0.000
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	14596	+++++	14596	0.000
	14 4,4'-DDD	+++++	+++++	+++++	100145	+++++	100145	0.000
	15 4,4'-DDE	+++++	+++++	+++++	88982	+++++	88982	0.000
$	11 4cmx	83925	81585	84996	84651	82754	83582	1.685
$	12 Decachlorobiphenyl	64763	57453	61017	56769	56260	59252	6.076

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2412

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 0822

Lab File ID: 002F0201 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4356.912	0.01	-8.7	15.0
(2)	5397.398	5314.052	0.01	-1.5	15.0
(3)	2351.643	2244.950	0.01	-4.5	15.0
(4)	2191.567	2026.561	0.01	-7.5	15.0
(5)	3078.945	2883.384	0.01	-6.4	15.0
Aroclor-1260	5890.060	5924.060	0.01	0.6	15.0
(2)	8495.287	8697.557	0.01	2.4	15.0
(3)	5066.269	5099.908	0.01	0.7	15.0
(4)	5329.016	5481.293	0.01	2.8	15.0
(5)	5640.982	5903.839	0.01	4.6	15.0
4cmx	124961.40	128432.09	0.01	2.8	15.0
Decachlorobiphenyl	82351.042	86595.090	0.01	5.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2412

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 0822

Lab File ID: 002B0201 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3813.714	0.01	3.7	15.0
(2)	2551.186	2498.966	0.01	-2.0	15.0
(3)	1492.032	1490.552	0.01	-0.1	15.0
(4)	1477.704	1447.833	0.01	-2.0	15.0
(5)	2024.804	2010.893	0.01	-0.7	15.0
Aroclor-1260	3938.505	4265.170	0.01	8.3	15.0
(2)	4730.476	5176.085	0.01	9.4	15.0
(3)	3586.650	3889.009	0.01	8.4	15.0
(4)	3712.238	4037.036	0.01	8.7	15.0
(5)	5841.333	6431.111	0.01	10.1	15.0
4cmx	83582.102	90007.610	0.01	7.7	15.0
Decachlorobiphenyl	59252.492	64417.740	0.01	8.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2412

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 1201

Lab File ID: 019F1901 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4188.230	0.01	-12.2	15.0
(2)	5397.398	5213.562	0.01	-3.4	15.0
(3)	2351.643	2188.215	0.01	-6.9	15.0
(4)	2191.567	1921.201	0.01	-12.3	15.0
(5)	3078.945	2770.682	0.01	-10.0	15.0
Aroclor-1260	5890.060	5694.698	0.01	-3.3	15.0
(2)	8495.287	8561.344	0.01	0.8	15.0
(3)	5066.269	5038.763	0.01	-0.5	15.0
(4)	5329.016	5300.445	0.01	-0.5	15.0
(5)	5640.982	5859.339	0.01	3.9	15.0
4cmx	124961.40	125576.24	0.01	0.5	15.0
Decachlorobiphenyl	82351.042	84887.520	0.01	3.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2412

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 1201

Lab File ID: 019B1901 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3750.070	0.01	2.0	15.0
(2)	2551.186	2478.563	0.01	-2.8	15.0
(3)	1492.032	1508.121	0.01	1.1	15.0
(4)	1477.704	1443.862	0.01	-2.3	15.0
(5)	2024.804	1995.748	0.01	-1.4	15.0
Aroclor-1260	3938.505	4152.360	0.01	5.4	15.0
(2)	4730.476	5056.096	0.01	6.9	15.0
(3)	3586.650	3778.164	0.01	5.3	15.0
(4)	3712.238	4002.290	0.01	7.8	15.0
(5)	5841.333	6250.416	0.01	7.0	15.0
4cmx	83582.102	89527.720	0.01	7.1	15.0
Decachlorobiphenyl	59252.492	61113.380	0.01	3.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2412

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 1438

Lab File ID: 031F3101 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4253.348	0.01	-10.9	15.0
(2)	5397.398	5344.393	0.01	-1.0	15.0
(3)	2351.643	2222.771	0.01	-5.5	15.0
(4)	2191.567	2002.583	0.01	-8.6	15.0
(5)	3078.945	2809.397	0.01	-8.8	15.0
Aroclor-1260	5890.060	5831.201	0.01	-1.0	15.0
(2)	8495.287	8623.550	0.01	1.5	15.0
(3)	5066.269	5100.014	0.01	0.7	15.0
(4)	5329.016	5507.514	0.01	3.3	15.0
(5)	5640.982	6022.391	0.01	6.8	15.0
4cmx	124961.40	127305.18	0.01	1.9	15.0
Decachlorobiphenyl	82351.042	89433.280	0.01	8.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2412

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 1438

Lab File ID: 031B3101 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3823.176	0.01	4.0	15.0
(2)	2551.186	2501.019	0.01	-2.0	15.0
(3)	1492.032	1515.874	0.01	1.6	15.0
(4)	1477.704	1456.490	0.01	-1.4	15.0
(5)	2024.804	1992.410	0.01	-1.6	15.0
Aroclor-1260	3938.505	4274.803	0.01	8.5	15.0
(2)	4730.476	5217.673	0.01	10.3	15.0
(3)	3586.650	3927.164	0.01	9.5	15.0
(4)	3712.238	4092.848	0.01	10.2	15.0
(5)	5841.333	6569.408	0.01	12.5	15.0
4cmx	83582.102	90223.040	0.01	7.9	15.0
Decachlorobiphenyl	59252.492	65888.720	0.01	11.2	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/002f0201.d
Lab Smp Id: WAR100224-60 01 Client Smp ID: AR166001
Inj Date : 23-MAR-2010 08:22
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.248	0.000	12843209	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.240	6.240	0.000	8659509	100.000	105	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.806	2.806	0.000	4356912	1000.00	913	80.00- 120.00	100.00(M)
3.157	3.157	0.000	5314052	1000.00	984	104.48- 144.48	121.97
3.301	3.301	0.000	2244950	1000.00	955	32.25- 72.25	51.53
3.393	3.393	0.000	2026561	1000.00	925	25.87- 65.87	46.51
3.555	3.555	0.000	2883384	1000.00	936	46.15- 86.15	66.18
Average of Peak Amounts =					943		
7 Aroclor-1260					CAS #: 11096-82-5		
4.429	4.429	0.000	5924060	1000.00	1000	80.00- 120.00	100.00(M)
4.625	4.625	0.000	8697557	1000.00	1020	130.34- 170.34	146.82
4.900	4.900	0.000	5099908	1000.00	1010	68.48- 108.48	86.09
5.072	5.072	0.000	5481293	1000.00	1030	73.08- 113.08	92.53
5.483	5.483	0.000	5903839	1000.00	1050	82.89- 122.89	99.66
Average of Peak Amounts =					1.02e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032310.b/002f0201.d

Date : 23-MAR-2010 08:22

Client ID: AR166001

Sample Info: IWAR100224-60 01

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

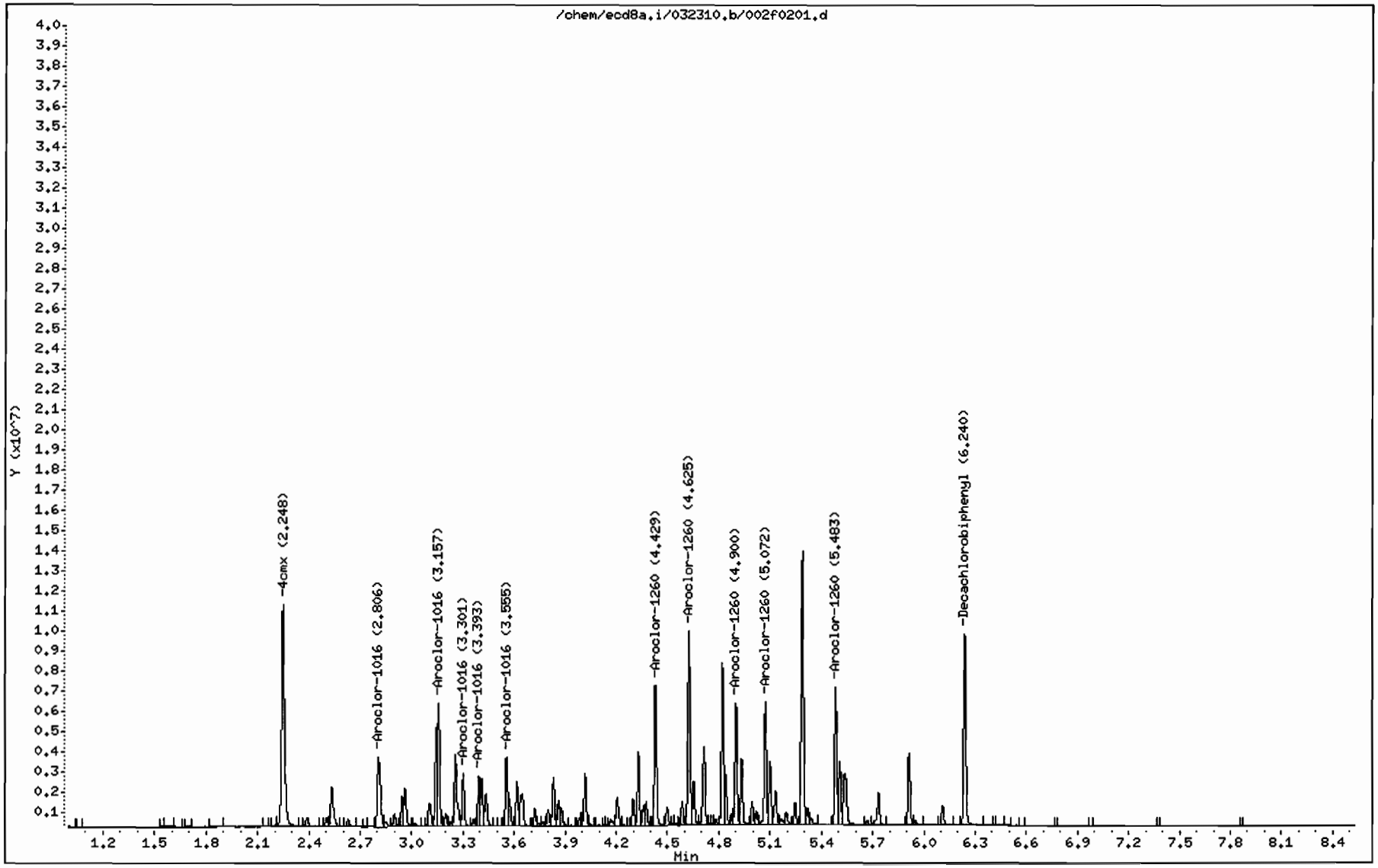

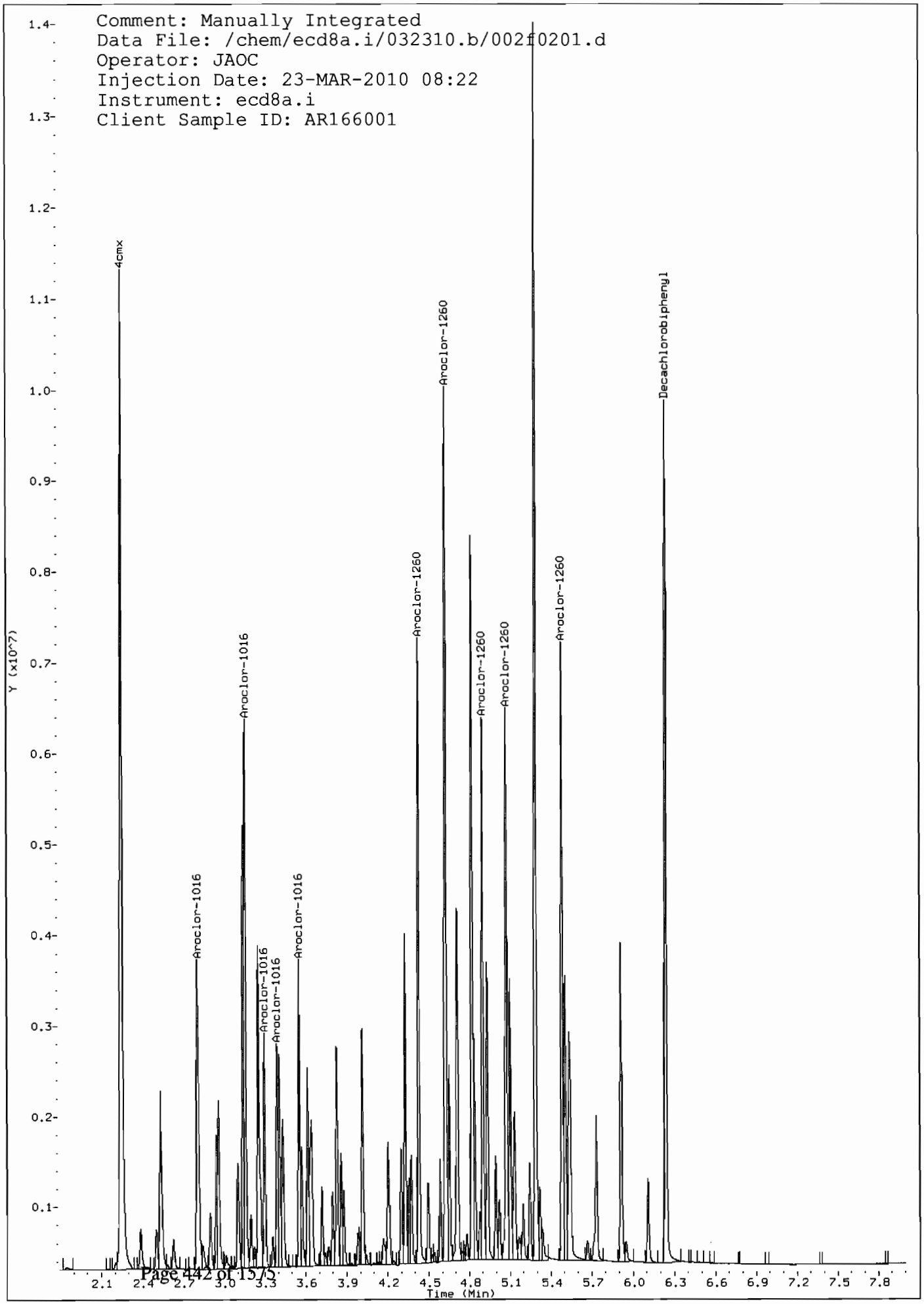
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032310.b/002f0201.d
Operator: JAOC
Injection Date: 23-MAR-2010 08:22
Instrument: ecd8a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

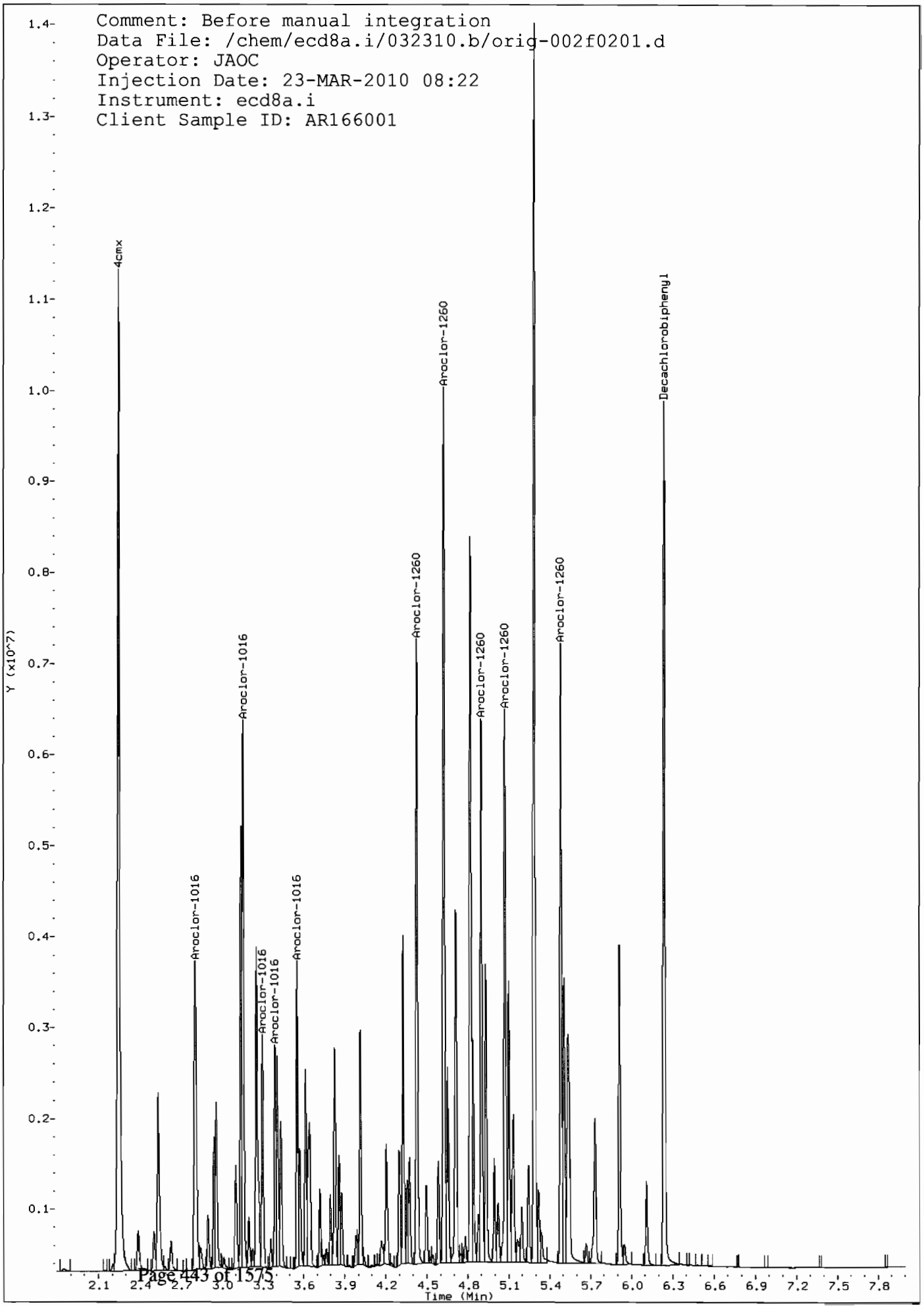
Comment: Before manual integration
Data File: /chem/ecd8a.i/032310.b/orig-002f0201.d
Operator: JAOC
Injection Date: 23-MAR-2010 08:22
Instrument: ecd8a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/002b0201.d
Lab Smp Id: WAR100224-60 01 Client Smp ID: AR166001
Inj Date : 23-MAR-2010 08:22
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.476	0.000	9000761	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.824	0.000	6441774	100.000	109	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.548	0.000	3813713	1000.00	1040	80.00- 120.00	100.00
3.647	3.647	0.000	2498965	1000.00	980	46.09- 86.09	65.53
3.723	3.723	0.000	1490551	1000.00	999	20.22- 60.22	39.08
3.799	3.799	0.000	1447833	1000.00	980	18.50- 58.50	37.96
3.995	3.995	0.000	2010893	1000.00	993	33.22- 73.22	52.73
Average of Peak Amounts =					998		
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.907	0.000	4265170	1000.00	1080	80.00- 120.00	100.00
5.056	5.056	0.000	5176085	1000.00	1090	101.76- 141.76	121.36
5.373	5.373	0.000	3889008	1000.00	1080	70.99- 110.99	91.18
5.580	5.580	0.000	4037036	1000.00	1090	76.39- 116.39	94.65
6.011	6.011	0.000	6431111	1000.00	1100	130.53- 170.53	150.78
Average of Peak Amounts =					1.09e+03		

Data File: /chem/ecd8a.i/032310.b/002b0201.d

Date : 23-MAR-2010 08:22

Client ID: AR166001

Sample Info: IWAR100224-60 01

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

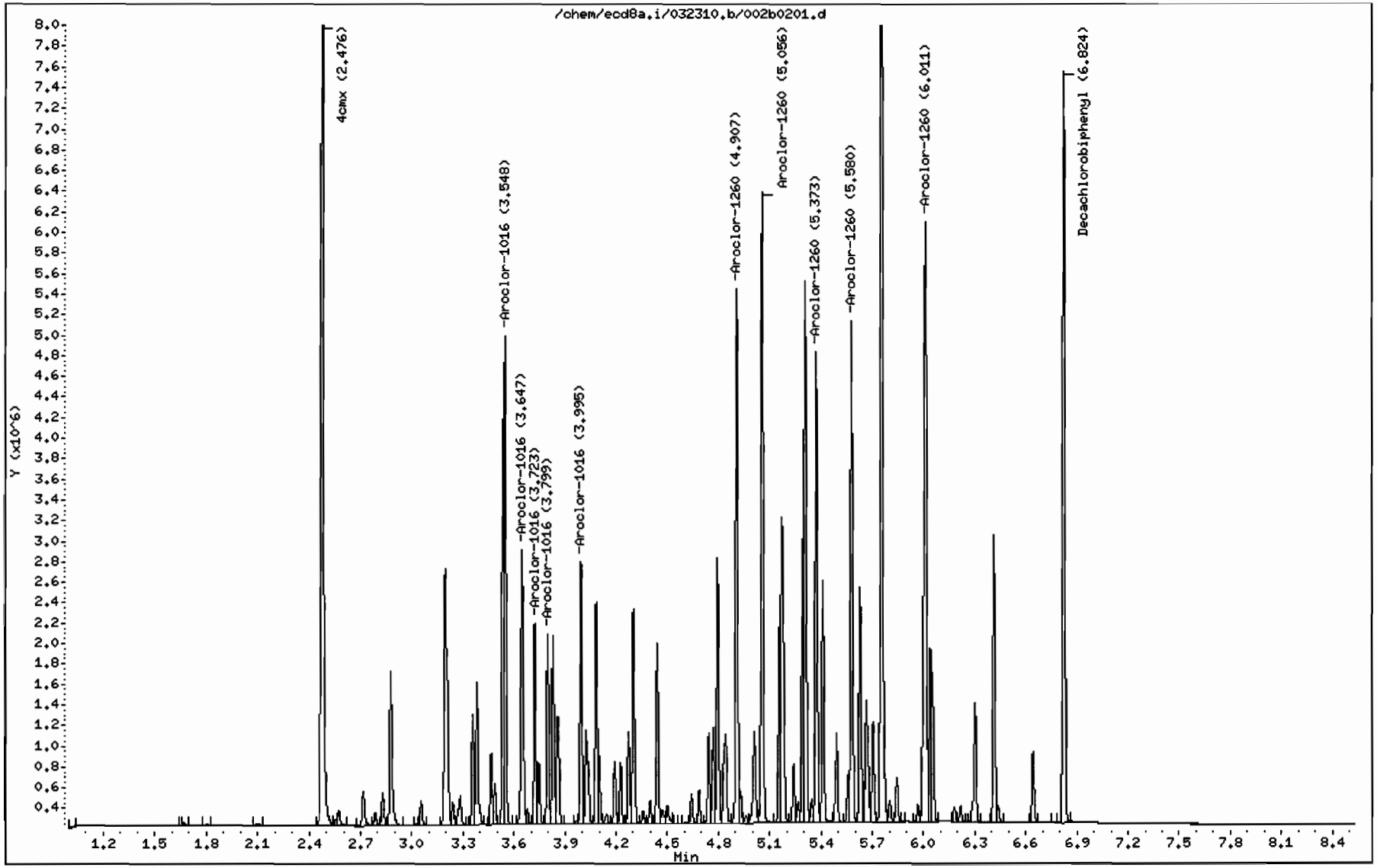

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 23-MAR-2010 08:34
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100219-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.830	3.830	0.000	4170263	1000.00	962	80.00- 120.00	100.00
4.017	4.017	0.000	5614912	1000.00	974	114.64- 154.64	134.64
4.213	4.213	0.000	4376010	1000.00	981	84.93- 124.93	104.93
4.300	4.300	0.000	7372606	1000.00	980	156.79- 196.79	176.79
4.496	4.496	0.000	5596134	1000.00	973	114.19- 154.19	134.19
		Average of Peak Amounts =			974		

Data File: /chem/ecd8a.i/032310.b/003f0301.d

Page 1

Date : 23-MAR-2010 08:34

Client ID: AR125401

Instrument: ecd8a.i

Sample Info: IWAR100219-54

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

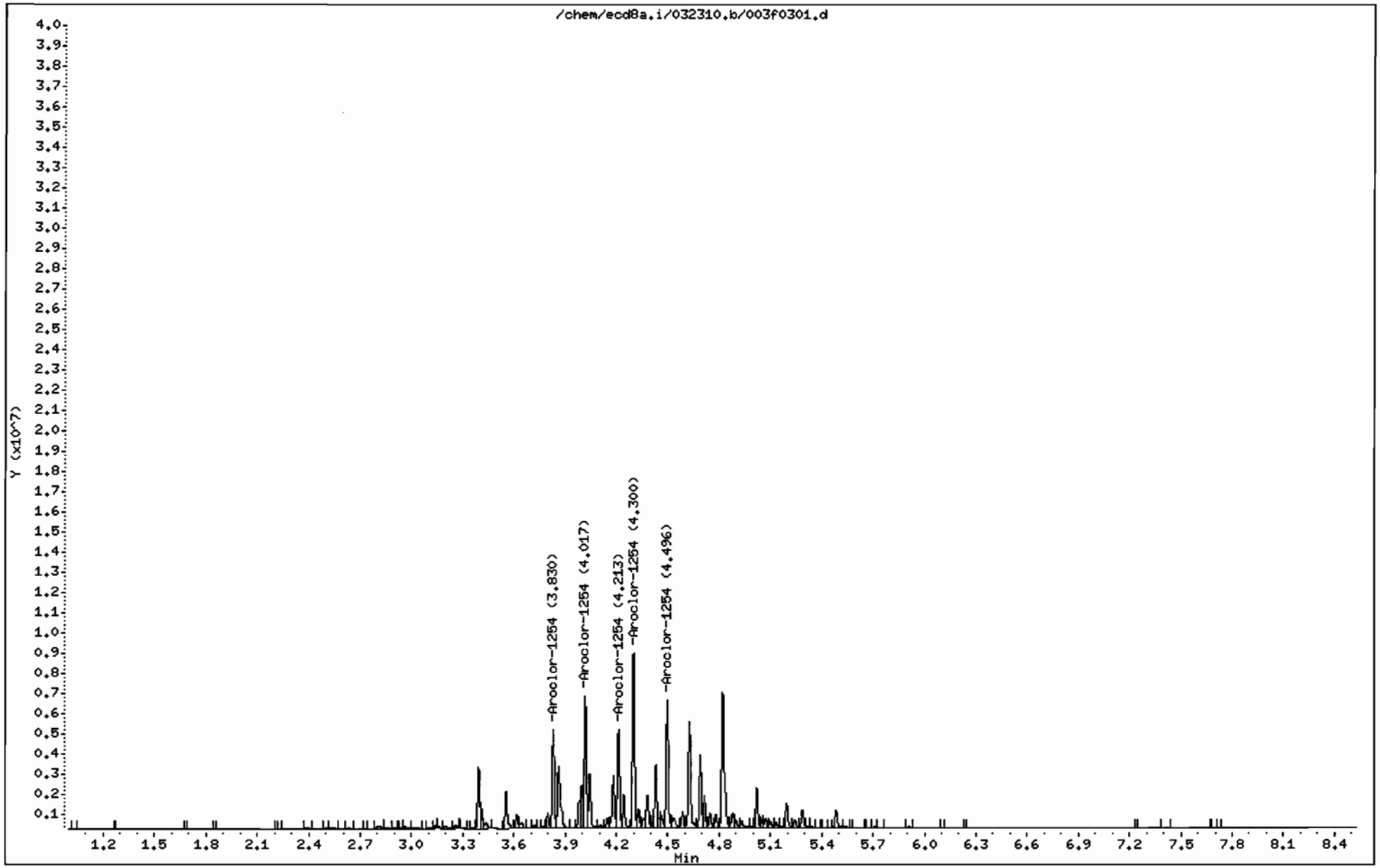

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 23-MAR-2010 08:34
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100219-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.301	4.301	0.000	3312879	1000.00	1060	80.00- 120.00	100.00
4.440	4.440	0.000	3709561	1000.00	1070	91.97- 131.97	111.97
4.769	4.769	0.000	5255007	1000.00	1090	138.62- 178.62	158.62
4.931	4.931	0.000	3762160	1000.00	1080	93.56- 133.56	113.56
5.057	5.057	0.000	2353978	1000.00	1070	51.06- 91.06	71.06

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd8a.i/032310.b/003b0301.d

Date : 23-MAR-2010 08:34

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

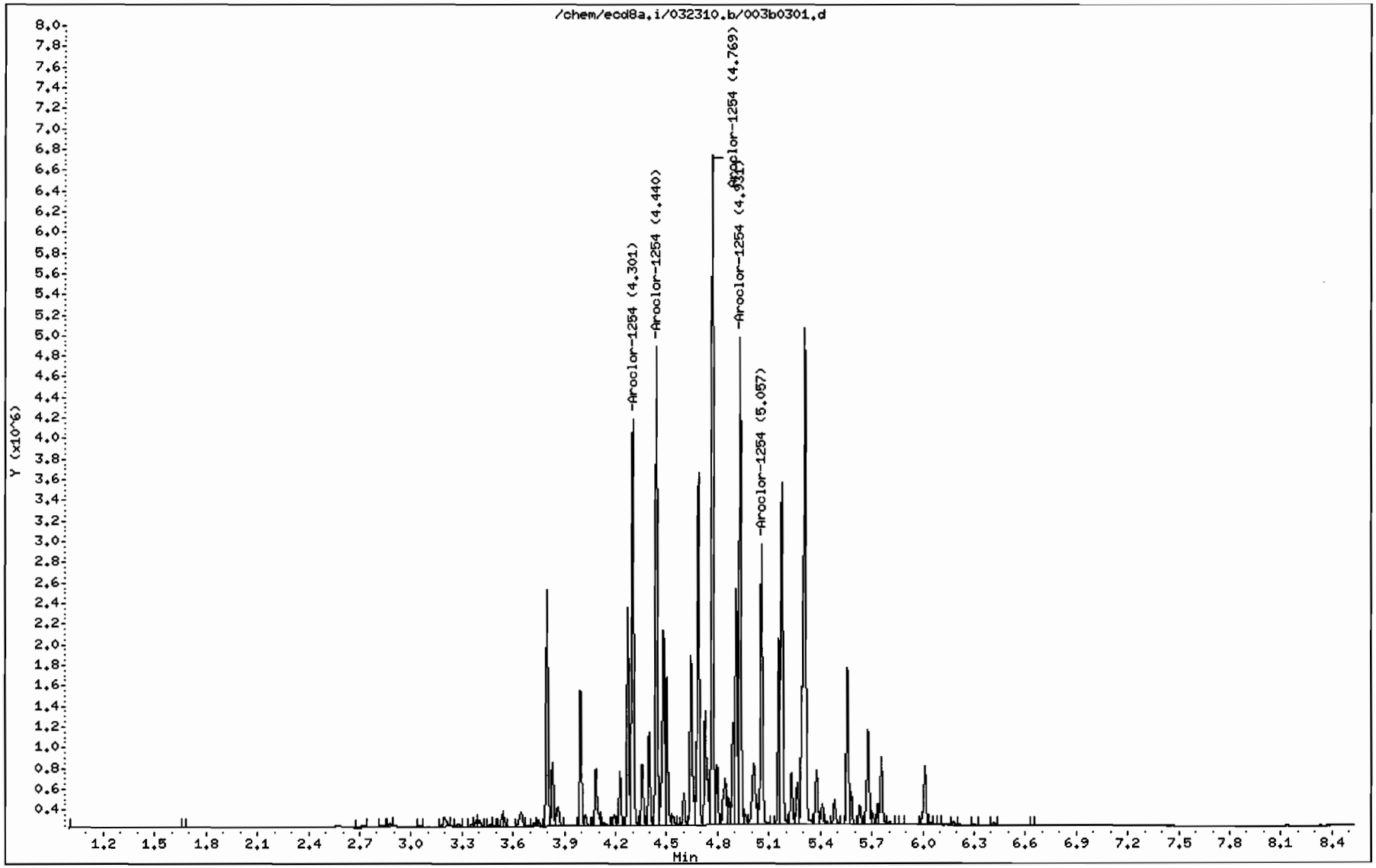

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 23-MAR-2010 08:46
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 14:46 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.806	2.806	0.000	3840147	1000.00	966	80.00- 120.00	100.00
3.157	3.157	0.000	4639711	1000.00	967	100.82- 140.82	120.82
3.393	3.393	0.000	1693716	1000.00	938	24.11- 64.11	44.11
3.410	3.410	0.000	1789282	1000.00	947	26.59- 66.59	46.59
3.556	3.556	0.000	2521270	1000.00	953	45.66- 85.66	65.66
		Average of Peak Amounts =			954		

Data File: /chem/ecd8a.i/032310.b/004f0401.d

Date : 23-MAR-2010 08:46

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

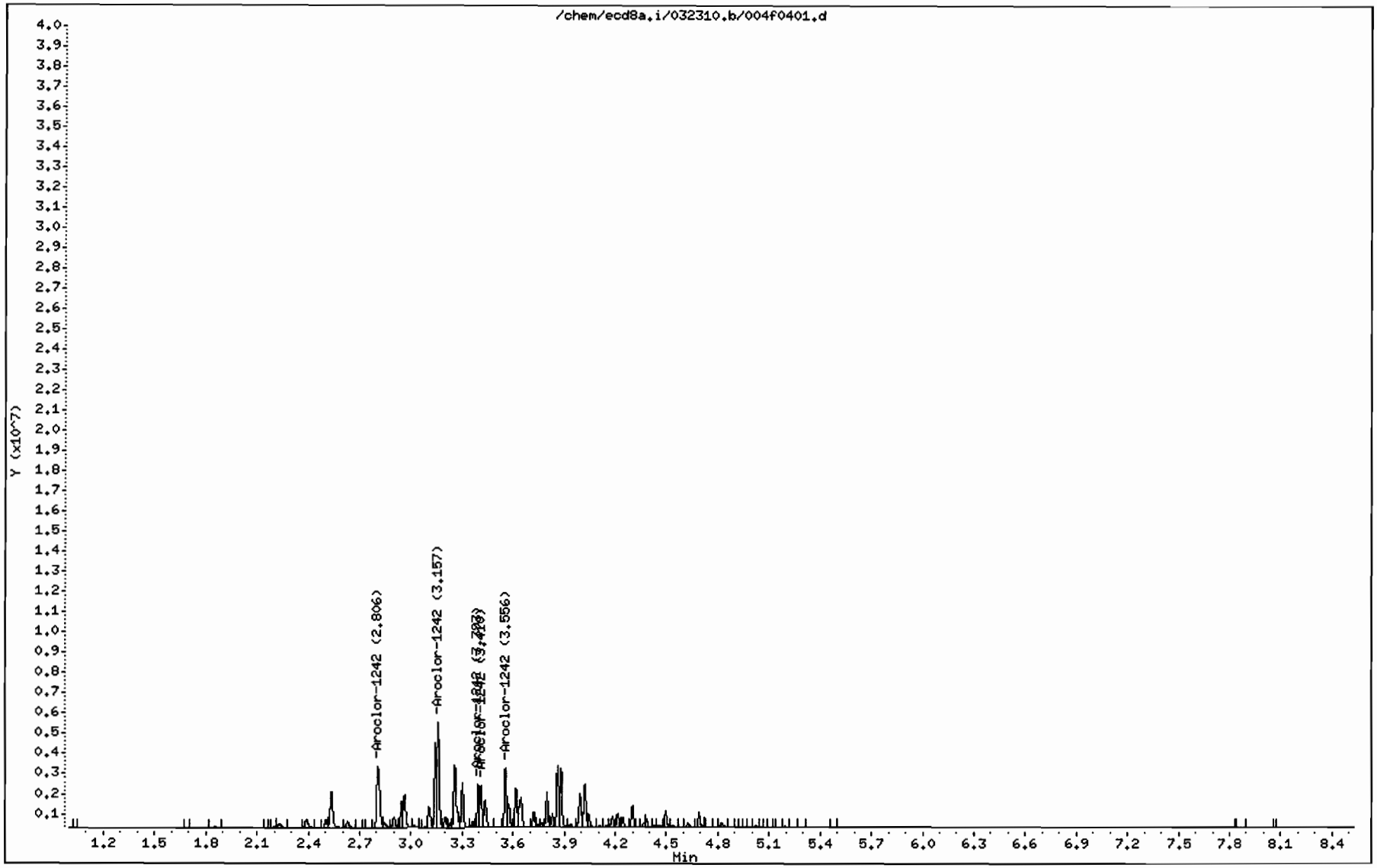

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 23-MAR-2010 08:46
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.196	3.196	0.000	2760376	1000.00	1030	80.00- 120.00	100.00
3.548	3.548	0.000	3278645	1000.00	1050	98.78- 138.78	118.78
3.648	3.648	0.000	2184772	1000.00	1030	59.15- 99.15	79.15
3.995	3.995	0.000	1734065	1000.00	1020	42.82- 82.82	62.82
4.084	4.084	0.000	1612745	1000.00	1030	38.42- 78.42	58.42

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd8a.i/032310.b/004b0401.d

Date : 23-MAR-2010 08:46

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

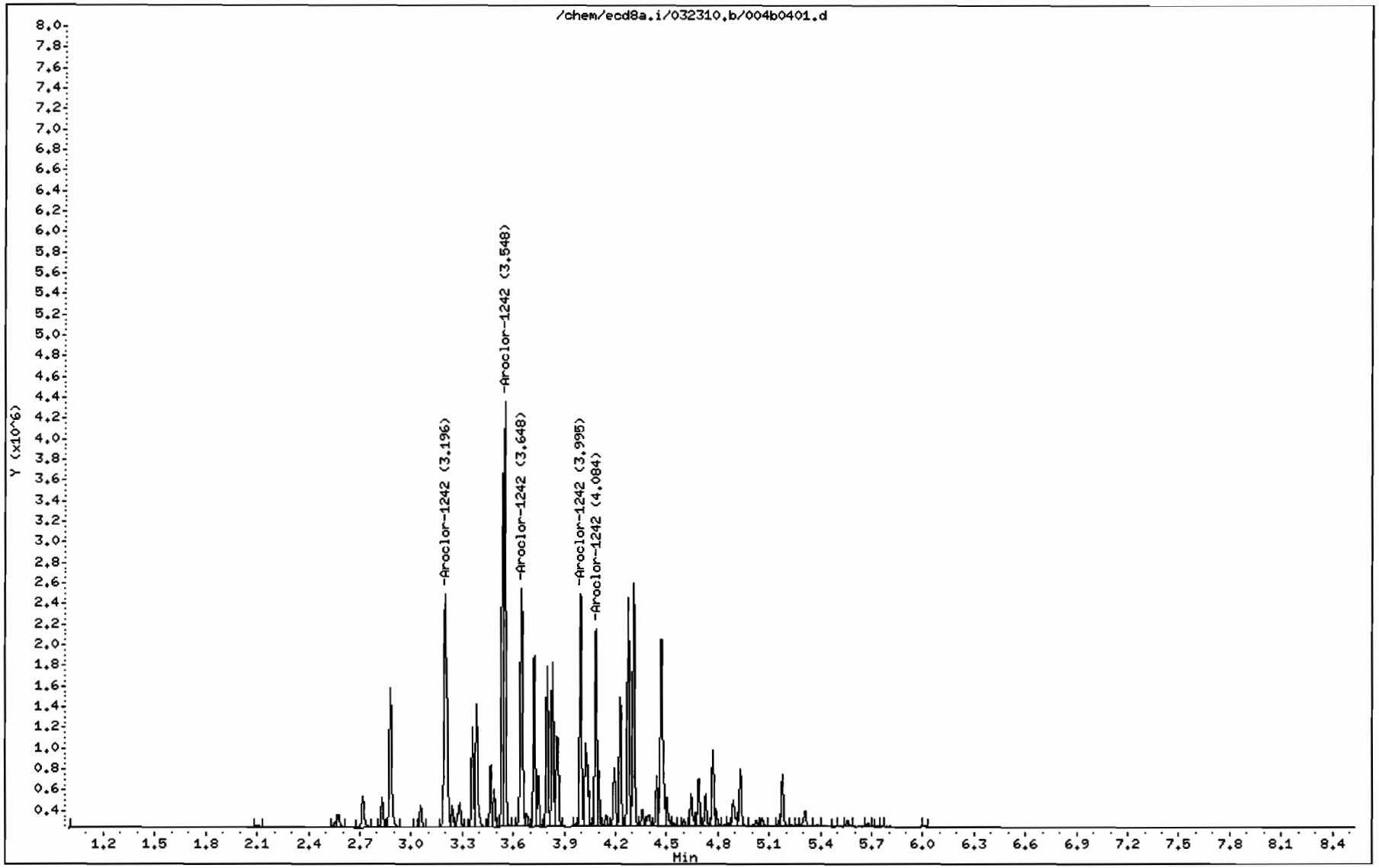

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 23-MAR-2010 08:59
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100223-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.143	3.143	0.000	2512808	1000.00	924	80.00- 120.00	100.00
3.392	3.392	0.000	3268730	1000.00	961	110.08- 150.08	130.08
3.555	3.555	0.000	4190216	1000.00	959	146.75- 186.75	166.75
3.860	3.860	0.000	5007690	1000.00	954	179.29- 219.29	199.29
4.020	4.020	0.000	3933750	1000.00	934	136.55- 176.55	156.55
Average of Peak Amounts =					946		

Data File: /chem/ecd8a.i/032310.b/005f0501.d

Date : 23-MAR-2010 08:59

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

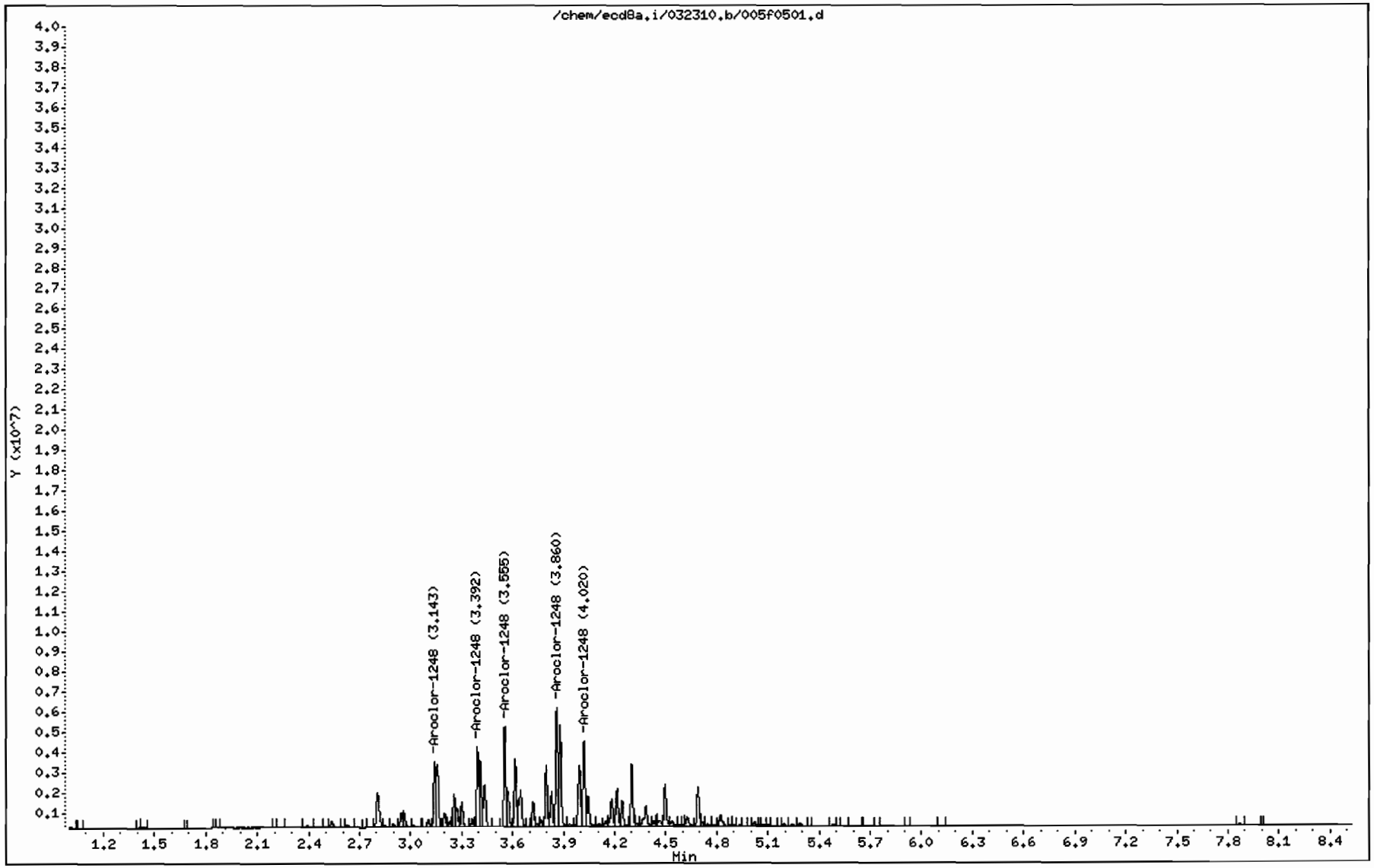

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 23-MAR-2010 08:59
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100223-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.646	3.646	0.000	1335703	1000.00	1000	80.00- 120.00	100.00
3.798	3.798	0.000	2421805	1000.00	1080	161.31- 201.31	181.31
3.994	3.994	0.000	3054451	1000.00	1090	208.68- 248.68	228.68
4.272	4.272	0.000	3538646	1000.00	1080	244.93- 284.93	264.93
4.305	4.305	0.000	3916908	1000.00	1090	273.25- 313.25	293.25

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd8a.i/032310.b/005b0501.d

Page 1

Date : 23-MAR-2010 08:59

Client ID: AR124801

Instrument: ecd8a.i

Sample Info: |WAR100223-48

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

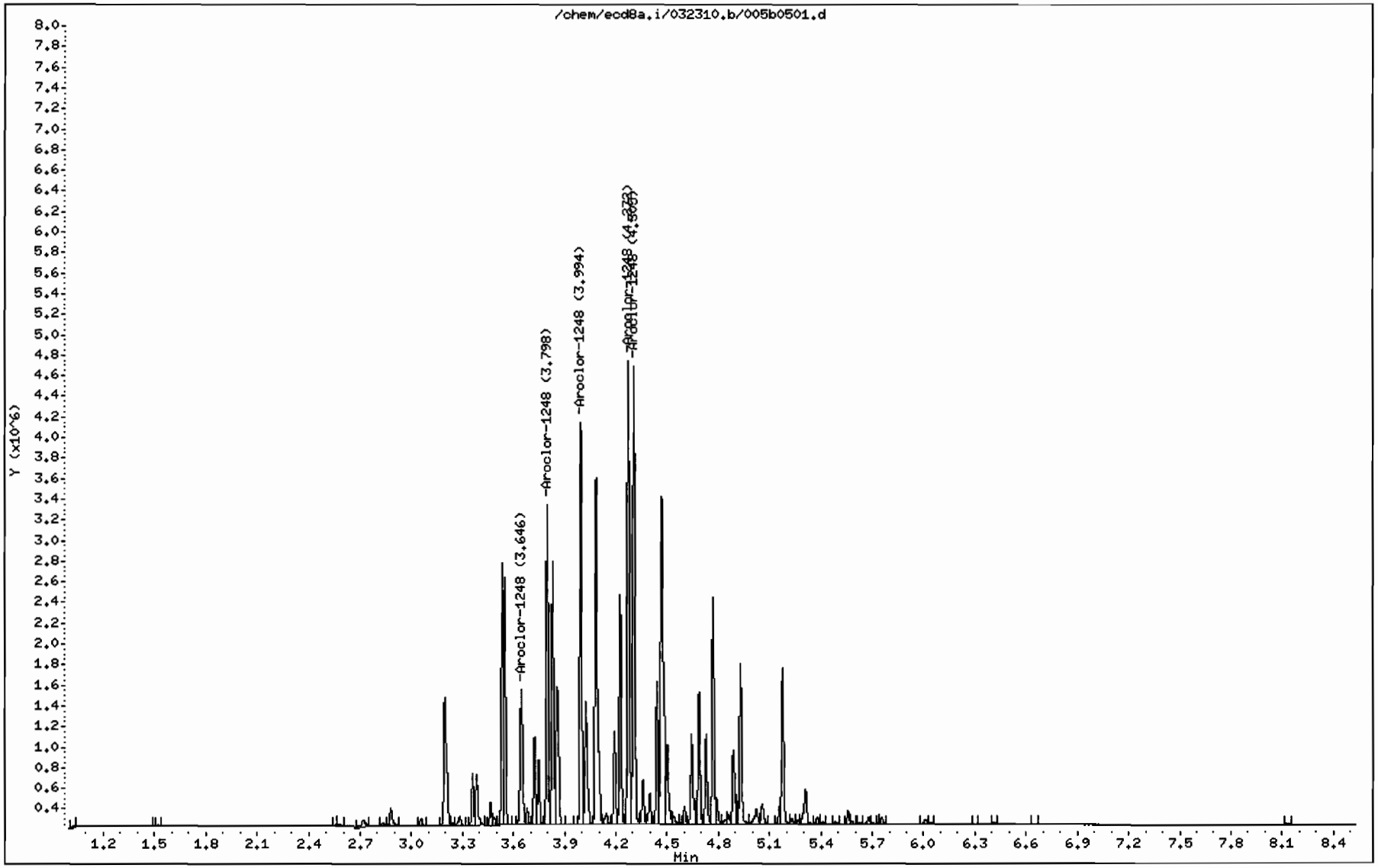

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 23-MAR-2010 09:11
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.535	2.535	0.000	2708474	1000.00	1040	80.00- 120.00	100.00
2.806	2.806	0.000	2297537	1000.00	1020	64.83- 104.83	84.83
3.301	3.301	0.000	1211921	1000.00	975	24.75- 64.75	44.75
3.555	3.555	0.000	1456816	1000.00	985	33.79- 73.79	53.79
3.617	3.617	0.000	882284	1000.00	956	12.57- 52.57	32.57
			Average of Peak Amounts =		995		

Data File: /chem/ecd8a.i/032310.b/006f0601.d

Page 1

Date : 23-MAR-2010 09:11

Client ID: AR123201

Instrument: ecd8a.i

Sample Info: IWAR100104-32

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

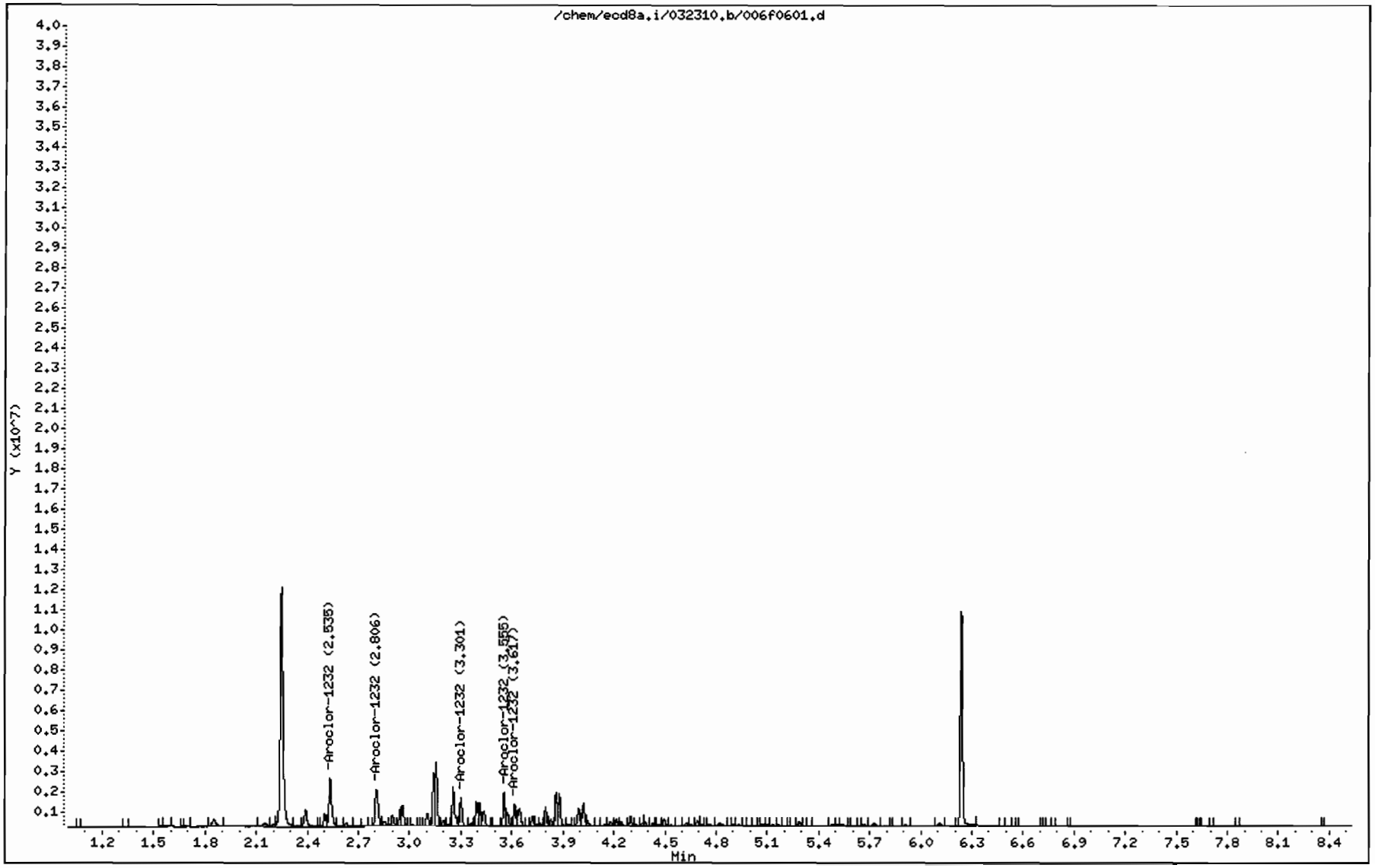

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 23-MAR-2010 09:11
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
3.195	3.195	0.000	1702408	1000.00	1120	80.00- 120.00	100.00
3.548	3.548	0.000	1923574	1000.00	1100	92.99- 132.99	112.99
3.648	3.648	0.000	1312323	1000.00	1120	57.09- 97.09	77.09
3.723	3.723	0.000	788615	1000.00	1110	26.32- 66.32	46.32
3.798	3.798	0.000	681169	1000.00	1100	20.01- 60.01	40.01

Average of Peak Amounts = 1.11e+03

Data File: /chem/ecd8a.i/032310.b/006b0601.d

Page 1

Date : 23-MAR-2010 09:11

Client ID: AR123201

Instrument: ecd8a.i

Sample Info: IWAR100104-32

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

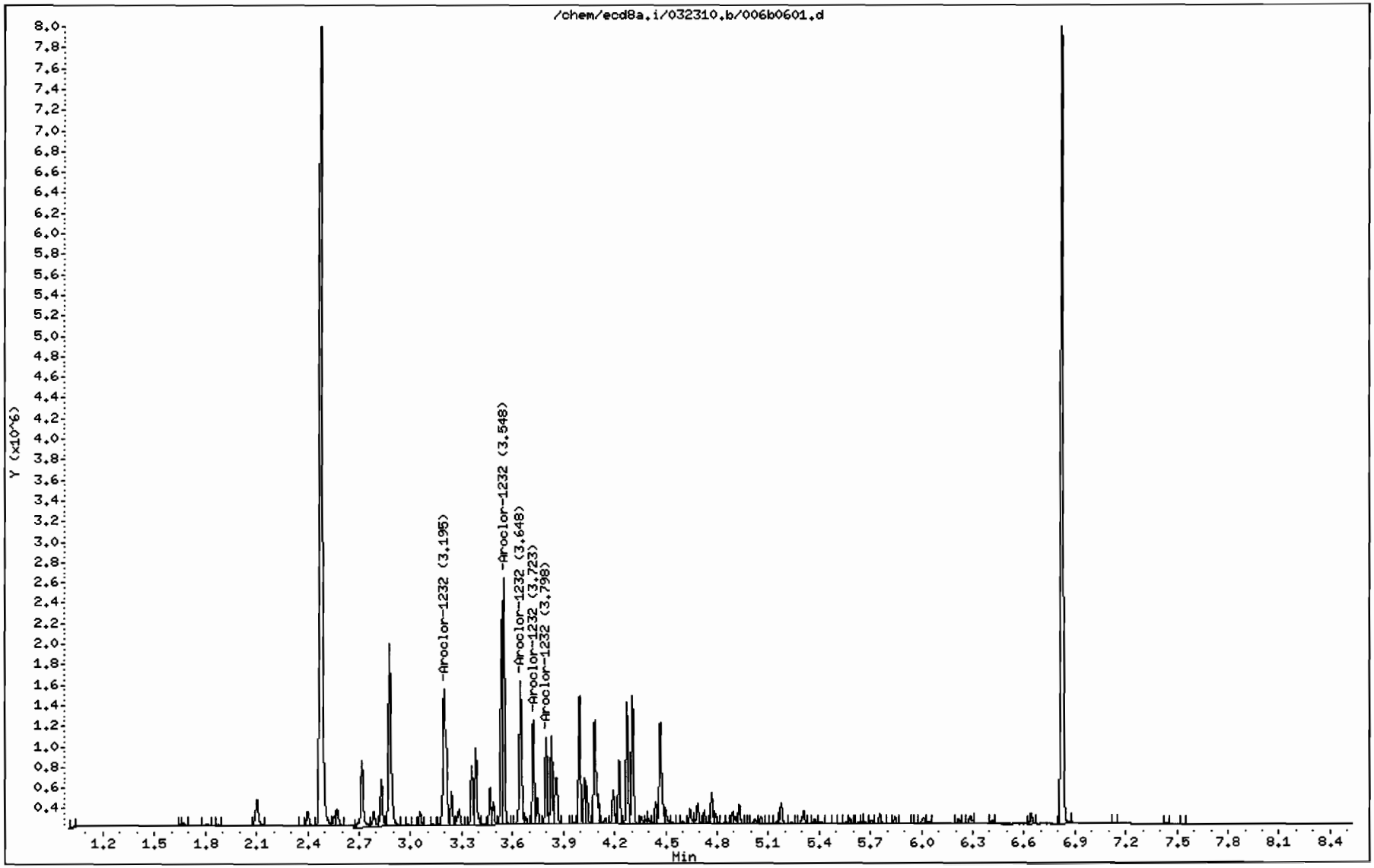

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 23-MAR-2010 09:23
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.389	2.389	0.000	1570477	1000.00	1000	80.00- 120.00	100.00
2.503	2.503	0.000	909439	1000.00	993	37.91- 77.91	57.91
2.534	2.534	0.000	3510933	1000.00	982	203.56- 243.56	223.56
Average of Peak Amounts =					993		

Data File: /chem/ecd8a.i/032310.b/007f0701.d

Date : 23-MAR-2010 09:23

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

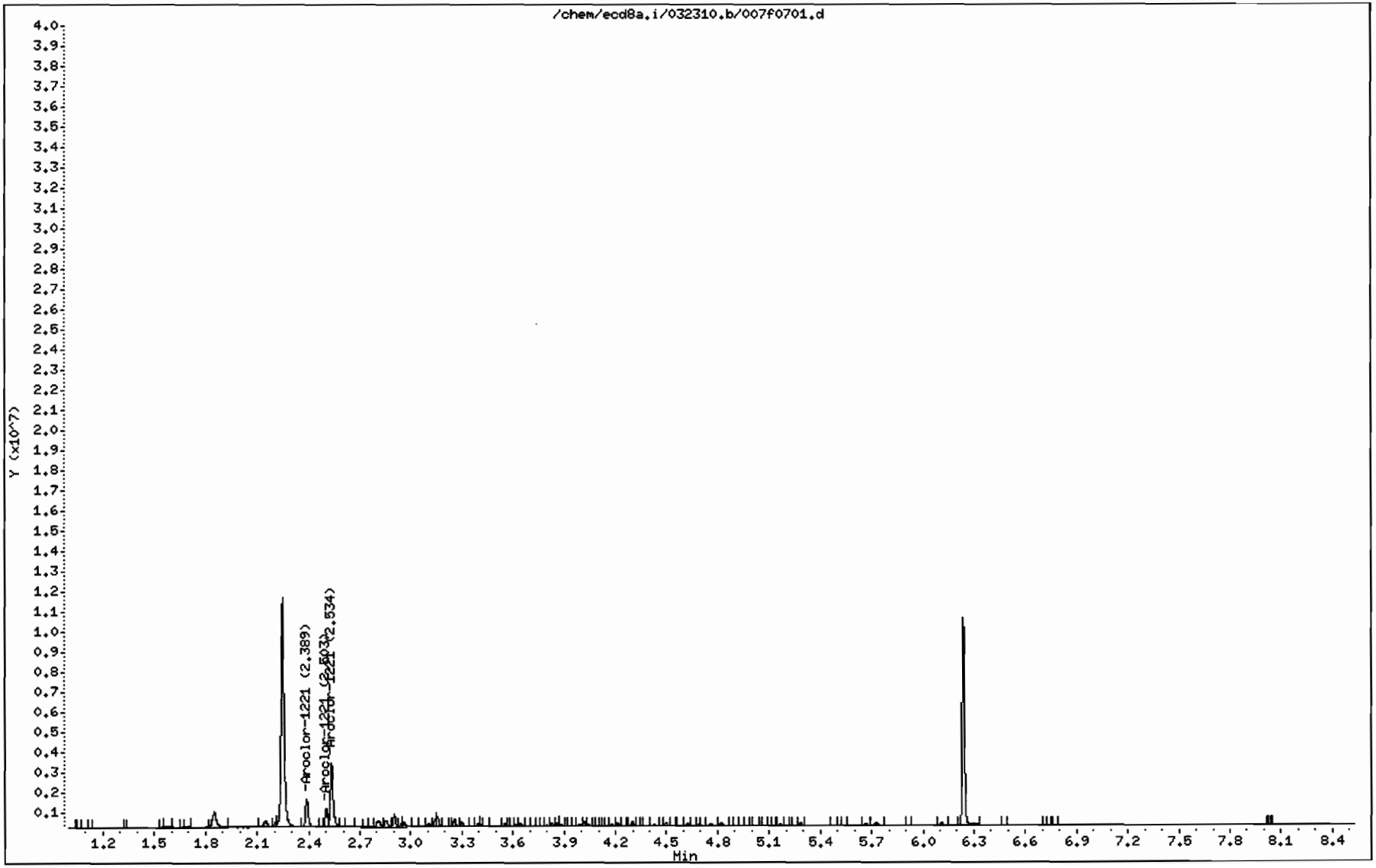

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 23-MAR-2010 09:23
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.717	2.717	0.000	1097982	1000.00	1160	80.00- 120.00	100.00
2.829	2.829	0.000	655989	1000.00	1110	39.74- 79.74	59.74
2.877	2.877	0.000	2379444	1000.00	1090	196.71- 236.71	216.71

Average of Peak Amounts = 1.12e+03

Data File: /chem/ecd8a.i/032310.b/007b0701.d
Date : 23-MAR-2010 09:23
Client ID: AR122101
Sample Info: IWAR100104-21

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

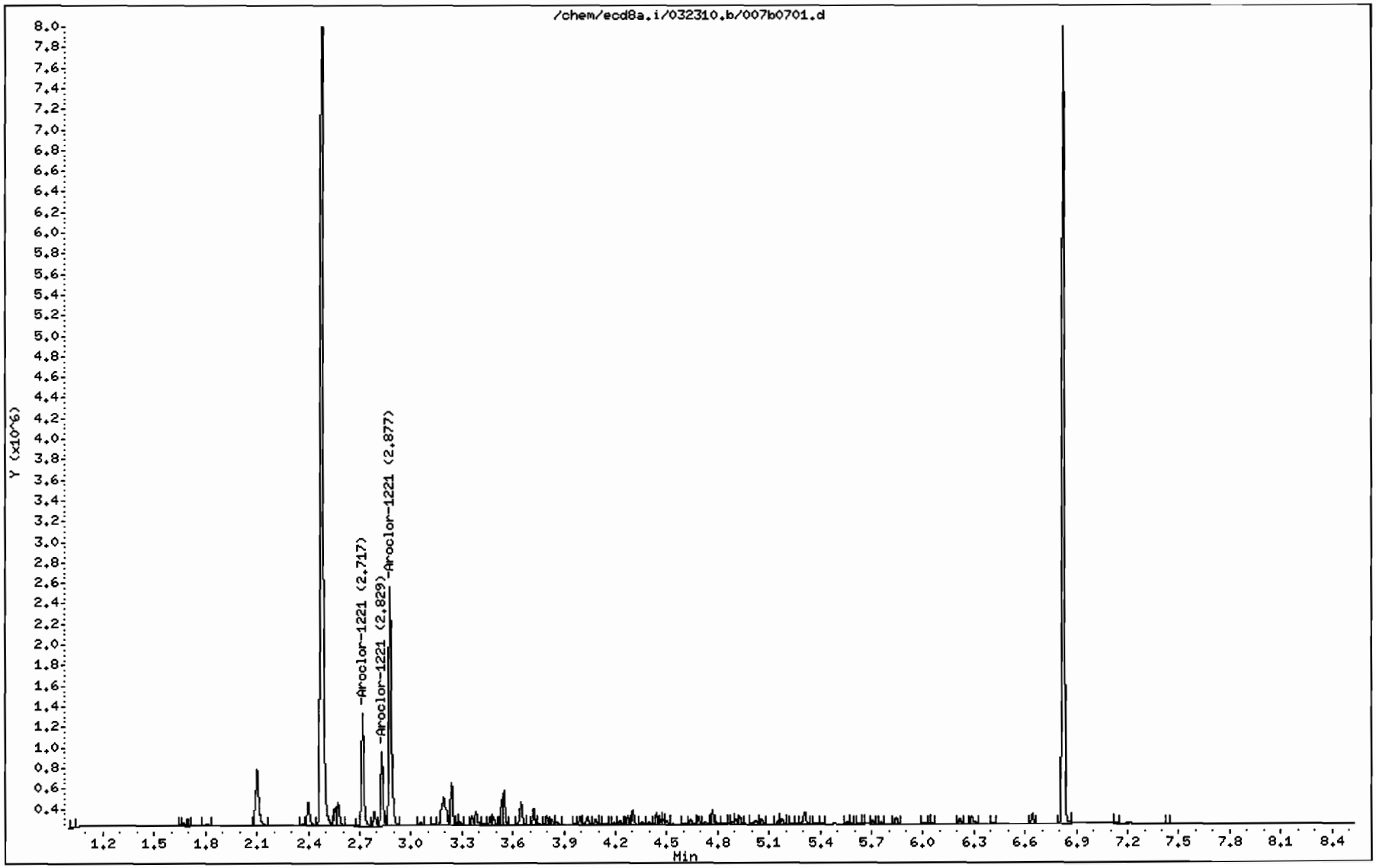

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/019f1901.d
Lab Smp Id: WAR100224-60 02 Client Smp ID: AR166002
Inj Date : 23-MAR-2010 12:01
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 02
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.250	2.248	0.002	12557624	100.000	100	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.240	6.240	0.000	8488752	100.000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.806	2.806	0.000	4188230	1000.00	878	80.00- 120.00	100.00
3.158	3.157	0.001	5213561	1000.00	966	104.48- 144.48	124.48
3.301	3.301	0.000	2188215	1000.00	930	32.25- 72.25	52.25
3.394	3.393	0.001	1921200	1000.00	877	25.87- 65.87	45.87
3.555	3.555	0.000	2770682	1000.00	900	46.15- 86.15	66.15
Average of Peak Amounts =					910		
7 Aroclor-1260					CAS #: 11096-82-5		
4.430	4.429	0.001	5694698	1000.00	967	80.00- 120.00	100.00
4.625	4.625	0.000	8561344	1000.00	1010	130.34- 170.34	150.34
4.901	4.900	0.001	5038762	1000.00	994	68.48- 108.48	88.48
5.073	5.072	0.001	5300444	1000.00	995	73.08- 113.08	93.08
5.485	5.483	0.002	5859338	1000.00	1040	82.89- 122.89	102.89
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd8a.i/032310.b/019f1901.d

Page 1

Date : 23-MAR-2010 12:01

Client ID: AR166002

Instrument: ecd8a.i

Sample Info: IWAR100224-60 02

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

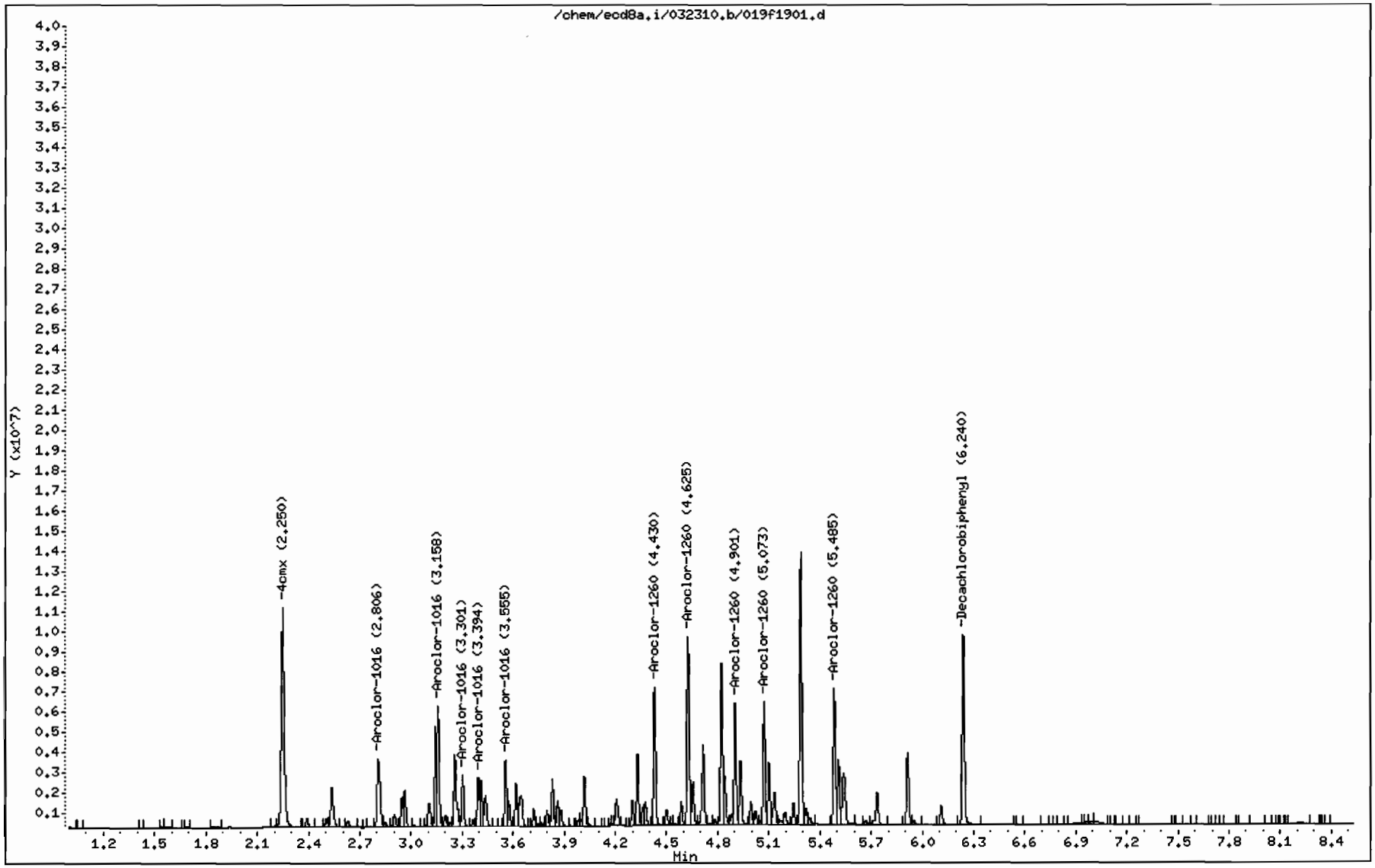

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/019b1901.d
Lab Smp Id: WAR100224-60 02 Client Smp ID: AR166002
Inj Date : 23-MAR-2010 12:01
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 02
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	8952772	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	6111338	100.000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.548	0.000	3750070	1000.00	1020	80.00- 120.00	100.00
3.647	3.647	0.000	2478563	1000.00	972	46.09- 86.09	66.09
3.724	3.723	0.001	1508121	1000.00	1010	20.22- 60.22	40.22
3.799	3.799	0.000	1443861	1000.00	977	18.50- 58.50	38.50
3.995	3.995	0.000	1995747	1000.00	986	33.22- 73.22	53.22
Average of Peak Amounts =					993		
7 Aroclor-1260					CAS #: 11096-82-5		
4.908	4.907	0.001	4152359	1000.00	1050	80.00- 120.00	100.00
5.057	5.056	0.001	5056096	1000.00	1070	101.76- 141.76	121.76
5.373	5.373	0.000	3778164	1000.00	1050	70.99- 110.99	90.99
5.580	5.580	0.000	4002289	1000.00	1080	76.39- 116.39	96.39
6.010	6.011	-0.001	6250415	1000.00	1070	130.53- 170.53	150.53
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd8a.i/032310.b/019b1901.d

Date : 23-MAR-2010 12:01

Client ID: AR166002

Sample Info: |WAR100224-60 02

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

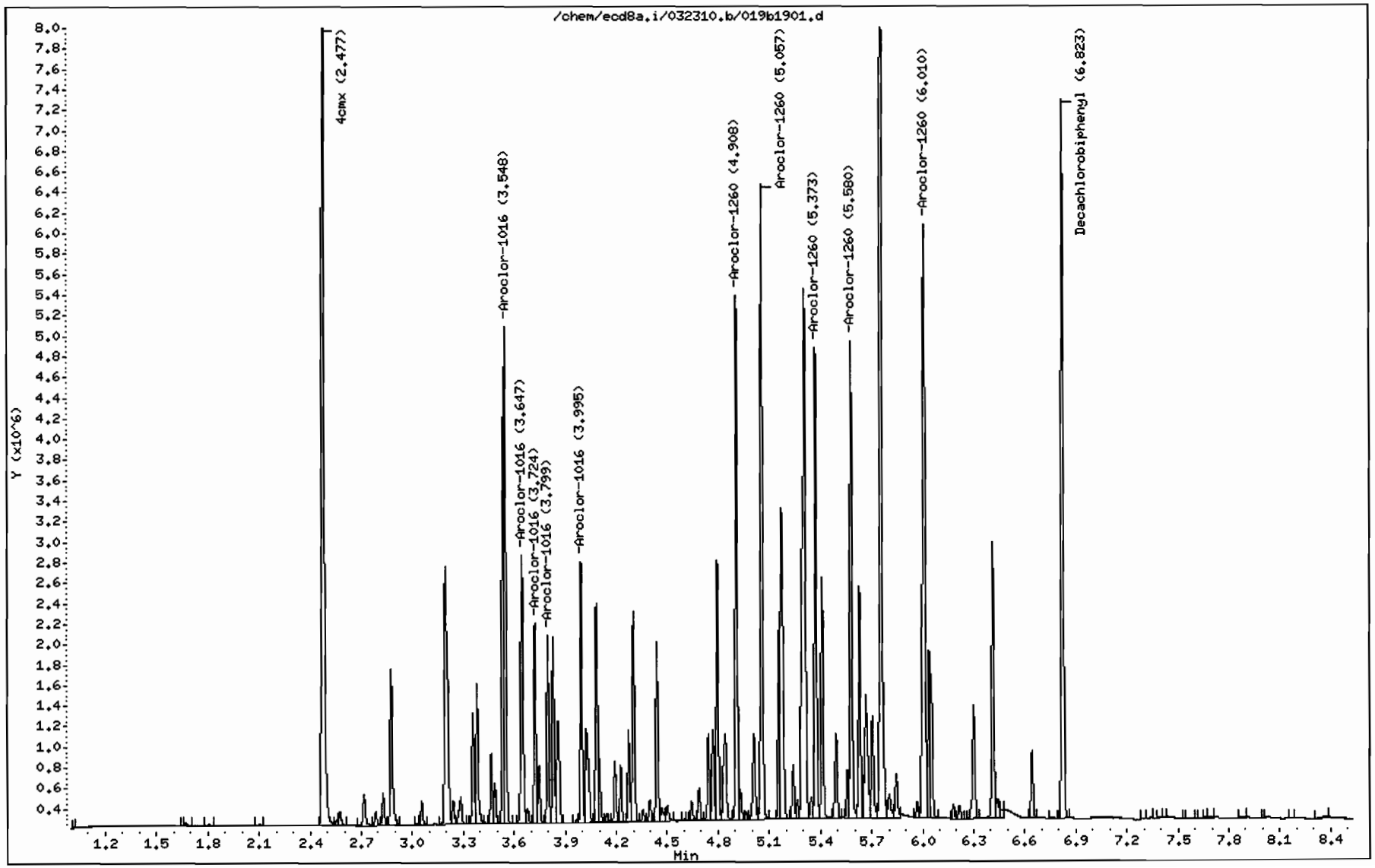

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/031f3101.d
Lab Smp Id: WAR100224-60 03 Client Smp ID: AR166003
Inj Date : 23-MAR-2010 14:38
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 03
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 14:48 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.247	2.248	-0.001	12730518	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.236	6.240	-0.004	8943328	100.000	109	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.803	2.806	-0.003	4253348	1000.00	891	80.00- 120.00	100.00
3.154	3.157	-0.003	5344393	1000.00	990	105.65- 145.65	125.65
3.298	3.301	-0.003	2222770	1000.00	945	32.26- 72.26	52.26
3.390	3.393	-0.003	2002583	1000.00	914	27.08- 67.08	47.08
3.552	3.555	-0.003	2809397	1000.00	912	46.05- 86.05	66.05
Average of Peak Amounts =					931		
7 Aroclor-1260					CAS #: 11096-82-5		
4.426	4.429	-0.003	5831201	1000.00	990	80.00- 120.00	100.00
4.622	4.625	-0.003	8623549	1000.00	1020	127.89- 167.89	147.89
4.897	4.900	-0.003	5100013	1000.00	1010	67.46- 107.46	87.46
5.069	5.072	-0.003	5507513	1000.00	1030	74.45- 114.45	94.45
5.480	5.483	-0.003	6022391	1000.00	1070	83.28- 123.28	103.28
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd8a.i/032310.b/031f3101.d

Date : 23-MAR-2010 14:38

Client ID: AR166003

Sample Info: IWAR100224-60 03

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

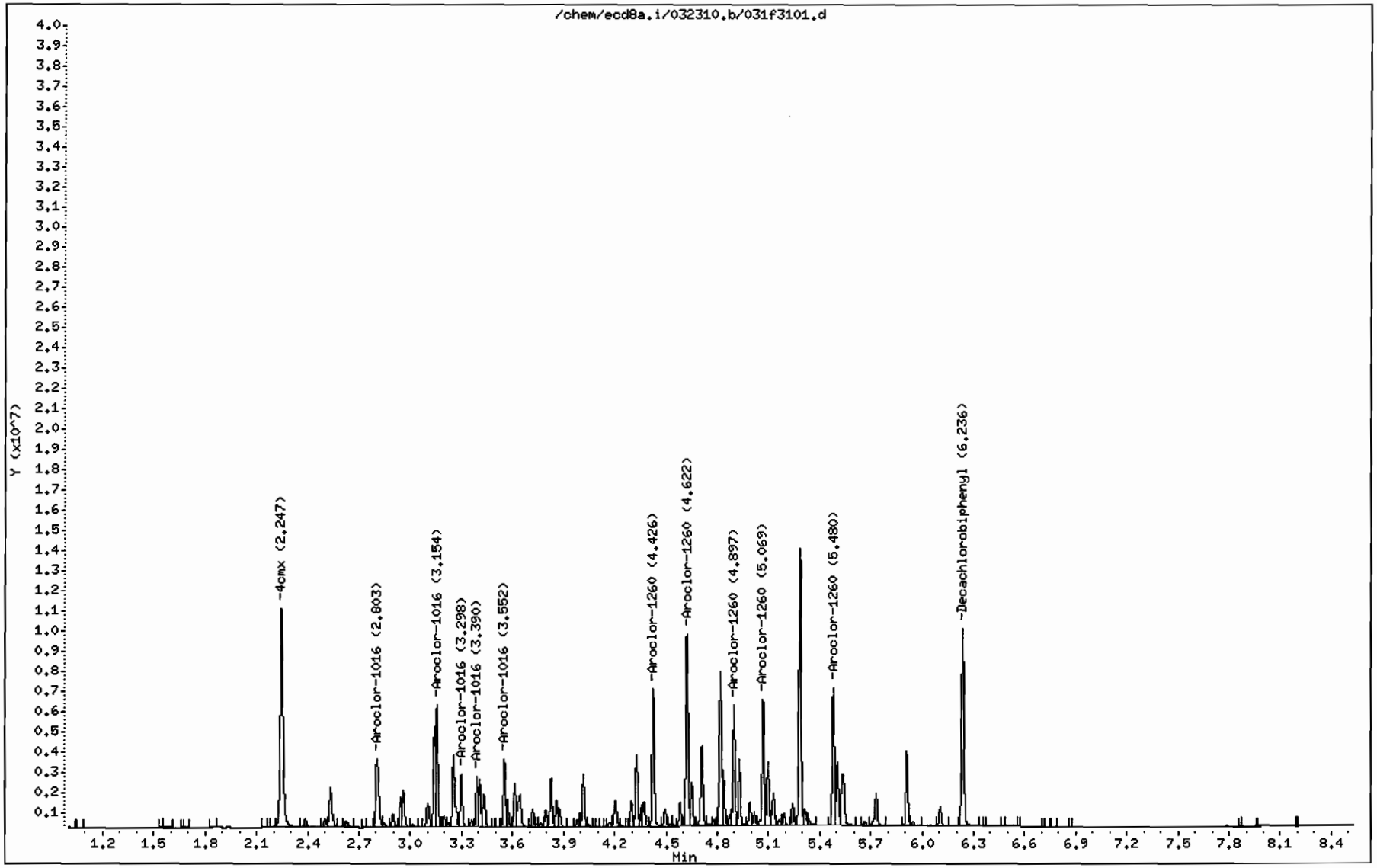

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/031b3101.d
Lab Smp Id: WAR100224-60 03 Client Smp ID: AR166003
Inj Date : 23-MAR-2010 14:38
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 03
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 14:47 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.475	2.476	-0.001	9022304	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.824	-0.002	6588872	100.000	111	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.546	3.548	-0.002	3823176	1000.00	1040	80.00- 120.00	100.00
3.645	3.647	-0.002	2501018	1000.00	980	45.42- 85.42	65.42
3.722	3.723	-0.001	1515874	1000.00	1020	19.65- 59.65	39.65
3.797	3.799	-0.002	1456489	1000.00	986	18.10- 58.10	38.10
3.993	3.995	-0.002	1992410	1000.00	984	32.11- 72.11	52.11
Average of Peak Amounts =					1e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.905	4.907	-0.002	4274803	1000.00	1080	80.00- 120.00	100.00
5.054	5.056	-0.002	5217673	1000.00	1100	102.06- 142.06	122.06
5.371	5.373	-0.002	3927164	1000.00	1090	71.87- 111.87	91.87
5.578	5.580	-0.002	4092848	1000.00	1100	75.74- 115.74	95.74
6.009	6.011	-0.002	6569408	1000.00	1120	133.68- 173.68	153.68
Average of Peak Amounts =					1.1e+03		

Data File: /chem/ecd8a.i/032310.b/031b3101.d
Date : 23-MAR-2010 14:38
Client ID: AR166003
Sample Info: IWAR100224-60 03

Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

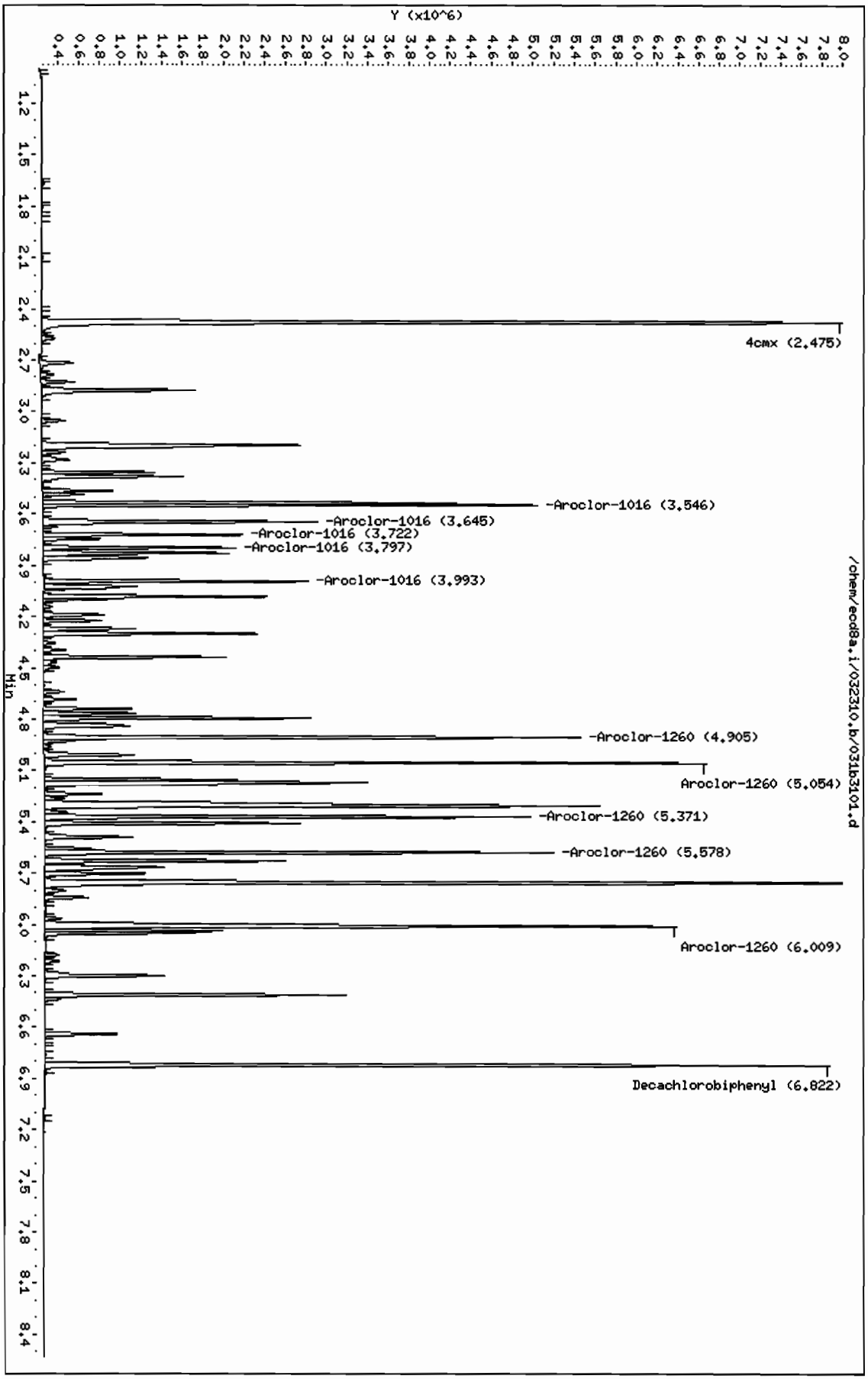

Page 1

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2412

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/18/10	0613	2.25	6.24
02	AR166001	WAR100317-01	03/18/10	0625	2.25	6.24
03	AR166002	WAR100317-02	03/18/10	0638	2.25	6.24
04	AR166003	WAR100317-03	03/18/10	0650	2.25	6.24
05	AR166004	WAR100317-04	03/18/10	0702	2.25	6.24
06	AR166005	IAR100311-01	03/18/10	0715	2.25	6.24
07	AR166001	WAR100224-60	03/18/10	0727	2.25	6.24
08	AR125401	WAR100201-54	03/18/10	0739		
09	AR124201	WAR091217-42	03/18/10	0752		
10	AR124801	WAR091217-48	03/18/10	0804		
11	AR123201	WAR100104-32	03/18/10	0817		
12	AR122101	WAR100104-21	03/18/10	0829		
13	AR126201	WAR100104-62	03/18/10	0841		
14	AR126801	WAR100107-68	03/18/10	0854		
15	DDTANALOGSTD	WAR091219-DD	03/18/10	0906		
16	PIBLK02	WAR100219-99	03/18/10	0919	2.25	6.24
17	ZZZZZ	ZZZZZ	03/18/10	0931	2.25	6.24
18	ZZZZZ	ZZZZZ	03/18/10	0943	2.25	6.24
19	ZZZZZ	ZZZZZ	03/18/10	0955	2.25	6.24
20	ZZZZZ	ZZZZZ	03/18/10	1008	2.25	6.24
21	ZZZZZ	ZZZZZ	03/18/10	1020	2.25	6.24
22	ZZZZZ	ZZZZZ	03/18/10	1033	2.25	6.25
23	ZZZZZ	ZZZZZ	03/18/10	1045	2.25	6.24
24	ZZZZZ	ZZZZZ	03/18/10	1057	2.25	6.24
25	ZZZZZ	ZZZZZ	03/18/10	1110	2.25	6.24
26	ZZZZZ	ZZZZZ	03/18/10	1122	2.25	6.25
27	AR166002	WAR100224-60	03/18/10	1139	2.25	6.24
28	PIBLK03	WAR100219-99	03/18/10	1151	2.25	6.24
29	ZZZZZ	ZZZZZ	03/18/10	1203	2.25	6.24
30	ZZZZZ	ZZZZZ	03/18/10	1216	2.25	6.29*
31	ZZZZZ	ZZZZZ	03/18/10	1228	2.25	6.26
32	ZZZZZ	ZZZZZ	03/18/10	1240	2.25	6.24

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2412

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/18/10	0613	2.48	6.82
02	AR166001	WAR100317-01	03/18/10	0625	2.48	6.83
03	AR166002	WAR100317-02	03/18/10	0638	2.48	6.83
04	AR166003	WAR100317-03	03/18/10	0650	2.48	6.83
05	AR166004	WAR100317-04	03/18/10	0702	2.48	6.83
06	AR166005	IAR100311-01	03/18/10	0715	2.48	6.83
07	AR166001	WAR100224-60	03/18/10	0727	2.48	6.83
08	AR125401	WAR100201-54	03/18/10	0739		
09	AR124201	WAR091217-42	03/18/10	0752		
10	AR124801	WAR091217-48	03/18/10	0804		
11	AR123201	WAR100104-32	03/18/10	0817		
12	AR122101	WAR100104-21	03/18/10	0829		
13	AR126201	WAR100104-62	03/18/10	0841		
14	AR126801	WAR100107-68	03/18/10	0854		
15	DDTANALOGSTD	WAR091219-DD	03/18/10	0906		
16	PIBLK02	WAR100219-99	03/18/10	0919	2.48	6.83
17	ZZZZZ	ZZZZZ	03/18/10	0931	2.48	6.83
18	ZZZZZ	ZZZZZ	03/18/10	0943	2.48	6.82
19	ZZZZZ	ZZZZZ	03/18/10	0955	2.48	6.82
20	ZZZZZ	ZZZZZ	03/18/10	1008	2.48	6.83
21	ZZZZZ	ZZZZZ	03/18/10	1020	2.48	6.83
22	ZZZZZ	ZZZZZ	03/18/10	1033	2.48	6.83
23	ZZZZZ	ZZZZZ	03/18/10	1045	2.48	6.83
24	ZZZZZ	ZZZZZ	03/18/10	1057	2.48	6.83
25	ZZZZZ	ZZZZZ	03/18/10	1110	2.48	6.83
26	ZZZZZ	ZZZZZ	03/18/10	1122	2.48	6.83
27	AR166002	WAR100224-60	03/18/10	1139	2.48	6.82
28	PIBLK03	WAR100219-99	03/18/10	1151	2.48	6.83
29	ZZZZZ	ZZZZZ	03/18/10	1203	2.48	6.83
30	ZZZZZ	ZZZZZ	03/18/10	1216	2.48	6.86*
31	ZZZZZ	ZZZZZ	03/18/10	1228	2.48	6.84
32	ZZZZZ	ZZZZZ	03/18/10	1240	2.48	6.83

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2412

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/23/10	0809	2.25	6.24
02	AR166001	WAR100224-60	03/23/10	0822	2.25	6.24
03	AR125401	WAR100219-54	03/23/10	0834		
04	AR124201	WAR091217-42	03/23/10	0846		
05	AR124801	WAR100223-48	03/23/10	0859		
06	AR123201	WAR100104-32	03/23/10	0911		
07	AR122101	WAR100104-21	03/23/10	0923		
08	AR126201	WAR100104-62	03/23/10	0936		
09	AR126801	WAR100107-68	03/23/10	0948		
10	DDTANALOGSTD	WAR091219-DD	03/23/10	1000		
11	PIBLK02	WAR100219-99	03/23/10	1013	2.25	6.24
12	ZZZZZ	ZZZZZ	03/23/10	1025	2.25	6.24
13	ZZZZZ	ZZZZZ	03/23/10	1037	2.25	6.24
14	ZZZZZ	ZZZZZ	03/23/10	1050	2.25	6.24
15	ZZZZZ	ZZZZZ	03/23/10	1102	2.25	6.24
16	ZZZZZ	ZZZZZ	03/23/10	1114	2.25	6.24
17	ZZZZZ	ZZZZZ	03/23/10	1127	2.25	6.24
18	ZZZZZ	ZZZZZ	03/23/10	1143	2.25	6.24
19	AR166002	WAR100224-60	03/23/10	1201	2.25	6.24
20	PIBLK03	WAR100219-99	03/23/10	1214	2.25	6.24
21	PBLK01	1202077524	03/23/10	1226	2.25	6.24
22	PBLK01LCS	1202077525	03/23/10	1238	2.25	6.24
23	RE46-10-12927	249244001	03/23/10	1251	2.25	6.24
24	RE46-10-12923	249244002	03/23/10	1303	2.25	6.24
25	RE46-10-12924	249244003	03/23/10	1315	2.25	6.24
26	RE46-10-12926	249244004	03/23/10	1328	2.25	6.24
27	RE46-10-12928	249244005	03/23/10	1340	2.25	6.24
28	RE46-10-12925	249244006	03/23/10	1352	2.25	6.24
29	ZZZZZ	ZZZZZ	03/23/10	1405	2.25	6.24
30	ZZZZZ	ZZZZZ	03/23/10	1421	2.25	6.24
31	AR166003	WAR100224-60	03/23/10	1438	2.25	6.24
32	PIBLK04	WAR100219-99	03/23/10	1450	2.25	6.24

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2412

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/23/10	0809	2.48	6.82
02	AR166001	WAR100224-60	03/23/10	0822	2.48	6.82
03	AR125401	WAR100219-54	03/23/10	0834		
04	AR124201	WAR091217-42	03/23/10	0846		
05	AR124801	WAR100223-48	03/23/10	0859		
06	AR123201	WAR100104-32	03/23/10	0911		
07	AR122101	WAR100104-21	03/23/10	0923		
08	AR126201	WAR100104-62	03/23/10	0936		
09	AR126801	WAR100107-68	03/23/10	0948		
10	DDTANALOGSTD	WAR091219-DD	03/23/10	1000		
11	PIBLK02	WAR100219-99	03/23/10	1013	2.48	6.82
12	ZZZZZ	ZZZZZ	03/23/10	1025	2.48	6.82
13	ZZZZZ	ZZZZZ	03/23/10	1037	2.48	6.82
14	ZZZZZ	ZZZZZ	03/23/10	1050	2.48	6.82
15	ZZZZZ	ZZZZZ	03/23/10	1102	2.48	6.82
16	ZZZZZ	ZZZZZ	03/23/10	1114	2.48	6.82
17	ZZZZZ	ZZZZZ	03/23/10	1127	2.48	6.82
18	ZZZZZ	ZZZZZ	03/23/10	1143	2.48	6.82
19	AR166002	WAR100224-60	03/23/10	1201	2.48	6.82
20	PIBLK03	WAR100219-99	03/23/10	1214	2.48	6.82
21	PBLK01	1202077524	03/23/10	1226	2.48	6.82
22	PBLK01LCS	1202077525	03/23/10	1238	2.48	6.82
23	RE46-10-12927	249244001	03/23/10	1251	2.48	6.82
24	RE46-10-12923	249244002	03/23/10	1303	2.48	6.82
25	RE46-10-12924	249244003	03/23/10	1315	2.48	6.82
26	RE46-10-12926	249244004	03/23/10	1328	2.48	6.82
27	RE46-10-12928	249244005	03/23/10	1340	2.48	6.82
28	RE46-10-12925	249244006	03/23/10	1352	2.48	6.82
29	ZZZZZ	ZZZZZ	03/23/10	1405	2.48	6.82
30	ZZZZZ	ZZZZZ	03/23/10	1421	2.48	6.82
31	AR166003	WAR100224-60	03/23/10	1438	2.48	6.82
32	PIBLK04	WAR100219-99	03/23/10	1450	2.48	6.82

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10–2412 **Client ID:** LCS for batch 967820

Lab Sample ID: 1202077525

Data File:	022f2201.d	**Data File:**	022b2201.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 12:38	**Analyzed:**	23–MAR–10 12:38

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							6.16
Column 1	1	2.81	2.78 – 2.84	26		ug/kg	
	2	3.16	3.13 – 3.19	28.5		ug/kg	
	3	3.3	3.27 – 3.33	27.7		ug/kg	
	4	3.39	3.36 – 3.42	26.8		ug/kg	
	5	3.55	3.52 – 3.58	26.4		ug/kg	
					27.1		
Column 2	1	3.55	3.52 – 3.58	29.9		ug/kg	
	2	3.65	3.62 – 3.68	28		ug/kg	
	3	3.72	3.69 – 3.75	28.6		ug/kg	
	4	3.8	3.77 – 3.83	28.8		ug/kg	
	5	3.99	3.96 – 4.02	28.6		ug/kg	
					28.8		
Aroclor–1260							4.38
Column 1	1	4.43	4.4 – 4.46	31.1		ug/kg	
	2	4.62	4.59 – 4.65	32.2		ug/kg	
	3	4.9	4.87 – 4.93	32.2		ug/kg	
	4	5.07	5.04 – 5.1	31.4		ug/kg	
	5	5.48	5.45 – 5.51	30.4		ug/kg	
					31.4		
Column 2	1	4.91	4.88 – 4.94	32.1		ug/kg	
	2	5.06	5.03 – 5.09	32.7		ug/kg	
	3	5.37	5.34 – 5.4	33.4		ug/kg	
	4	5.58	5.55 – 5.61	31.1		ug/kg	
	5	6.01	5.98 – 6.04	34.8		ug/kg	
					32.9		

Identification Summary

SDG Number: 10–2412 **Client ID:** RE46–10–12923

Lab Sample ID: 249244002

Data File:	024f2401.d	**Data File:**	024b2401.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 13:03	**Analyzed:**	23–MAR–10 13:03

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1260							3.42
Column 1	1	4.43	4.4 – 4.46	15.8		ug/kg	
	2	4.62	4.59 – 4.65	15.7		ug/kg	
	3	4.9	4.87 – 4.93	20.8		ug/kg	
	4	5.07	5.04 – 5.1	14.8		ug/kg	
	5	5.48	5.45 – 5.51	21.7		ug/kg	
					17.8		
Column 2	1	4.91	4.88 – 4.94	14.9		ug/kg	
	2	5.06	5.03 – 5.09	16.5		ug/kg	
	3	5.37	5.34 – 5.4	21		ug/kg	
	4	5.58	5.55 – 5.61	18.6		ug/kg	
	5	6.01	5.98 – 6.04	20.8		ug/kg	
					18.4		

Identification Summary

SDG Number: 10–2412 **Client ID:** RE46–10–12924

Lab Sample ID: 249244003

Data File:	025f2501.d	**Data File:**	025b2501.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 13:15	**Analyzed:**	23–MAR–10 13:15

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1260							5.84
Column 1	1	4.43	4.4 – 4.46	1.59		ug/kg	
	2	4.62	4.59 – 4.65	1.66		ug/kg	
	3	4.9	4.87 – 4.93	2.03		ug/kg	
	4	5.07	5.04 – 5.1	1.42		ug/kg	
	5	5.48	5.45 – 5.51	1.92		ug/kg	
					1.72		
Column 2	1	4.91	4.88 – 4.94	1.59		ug/kg	
	2	5.06	5.03 – 5.09	1.49		ug/kg	
	3	5.37	5.34 – 5.4	1.82		ug/kg	
	4	5.58	5.55 – 5.61	1.22		ug/kg	
	5	6.01	5.98 – 6.04	2.01		ug/kg	
					1.63		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2412**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202077524**				
Client Sample:	**QC for batch 967820**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 967820**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:26**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**021f2101–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	021b2101–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/021f2101.d
Lab Smp Id: 1202077524 Client Smp ID: PBLK01
Inj Date : 23-MAR-2010 12:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077524|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 21 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2412.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.248	0.000	21275087	170.253	5.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	15848889	192.455	6.4	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/021f2101.d

Date : 23-MAR-2010 12:26

Client ID: PBLK01

Sample Info: |1202077524|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

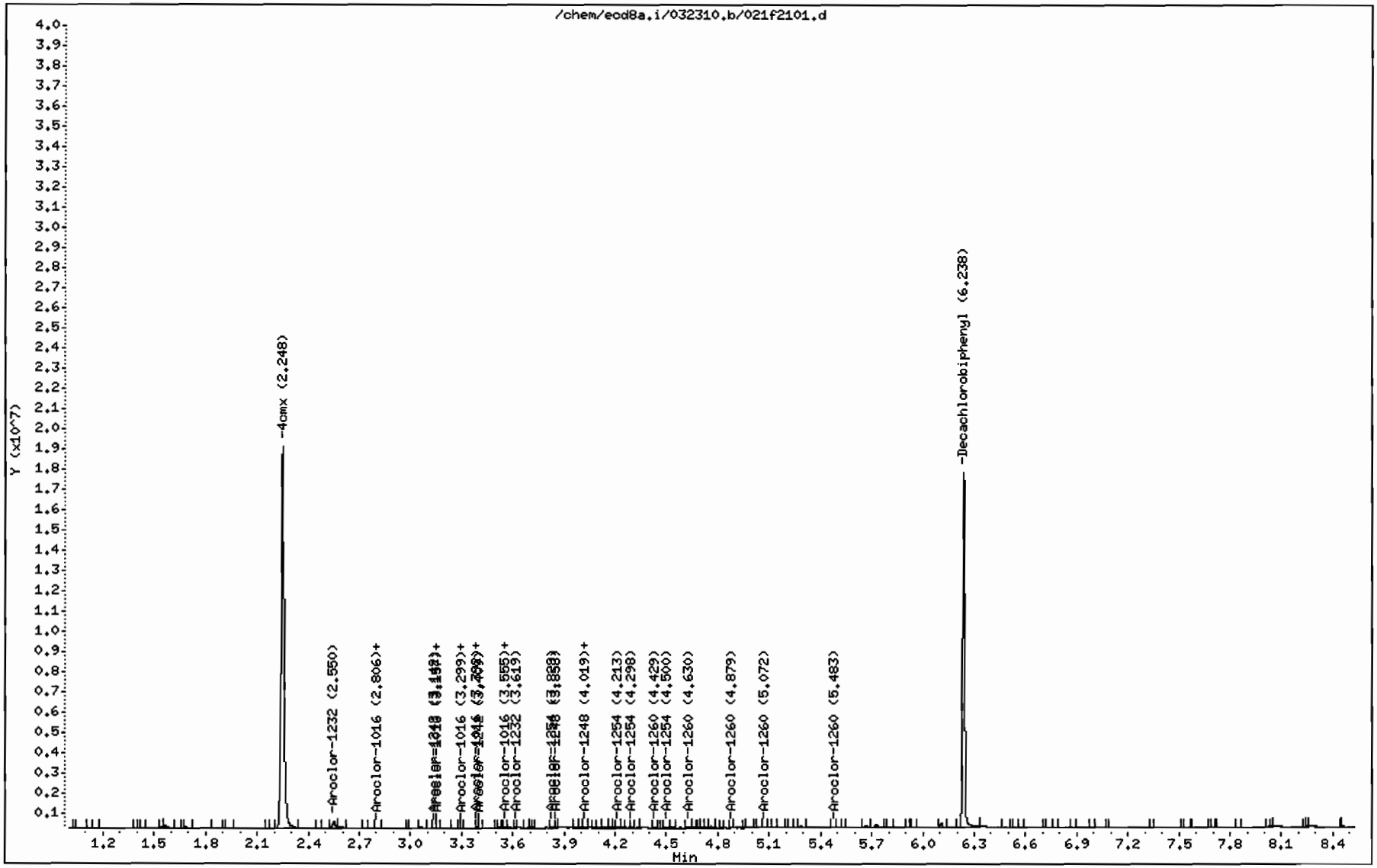

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/021b2101.d
Lab Smp Id: 1202077524 Client Smp ID: PBLK01
Inj Date : 23-MAR-2010 12:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077524|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 21 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2412.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	15146143	181.213	6.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	11669286	196.942	6.6	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/021b2101.d

Date : 23-MAR-2010 12:26

Client ID: PBLK01

Sample Info: |1202077524|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

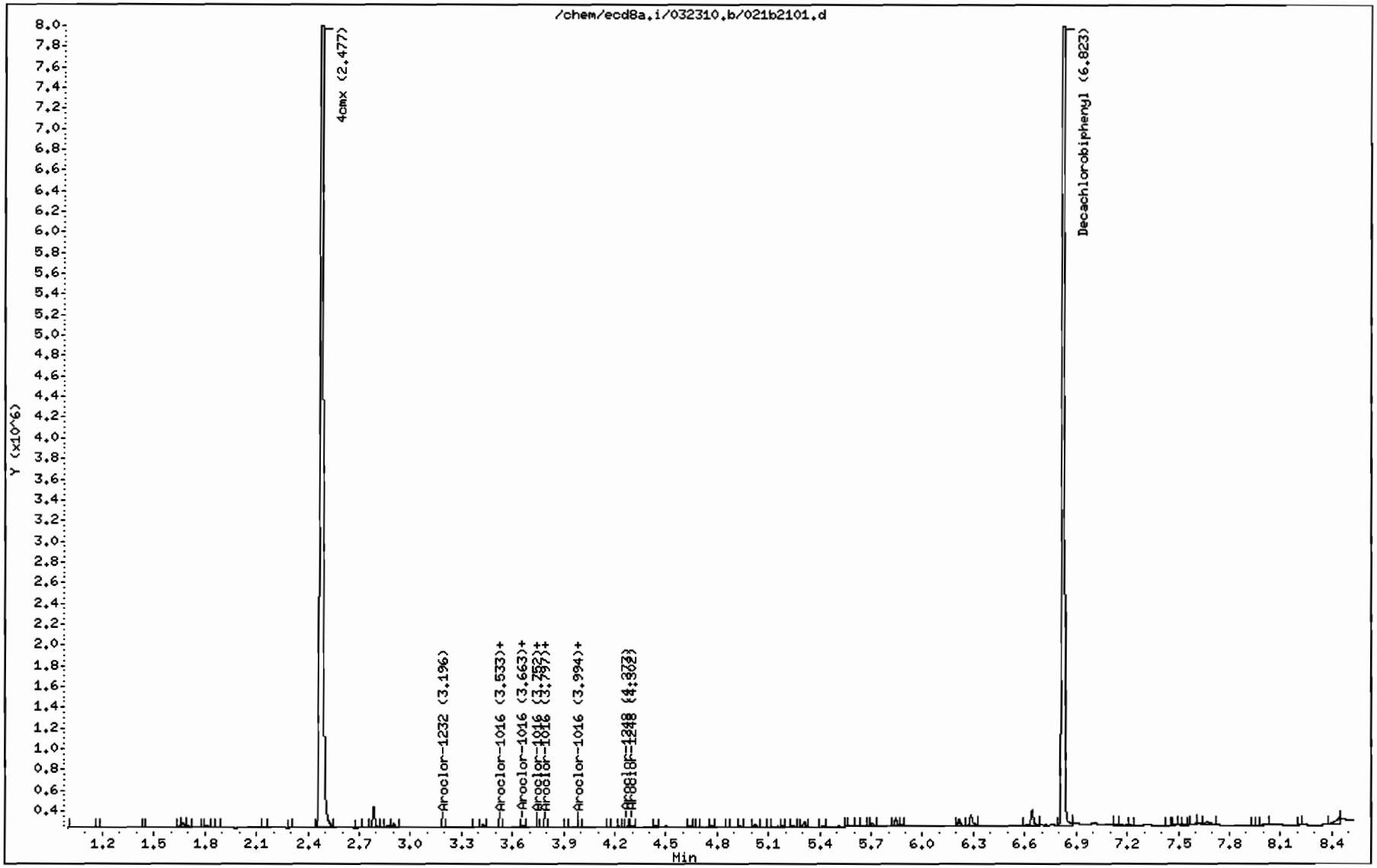

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2412**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202077525**				
Client Sample:	**QC for batch 967820**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967820**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:38**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**022f2201–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	022b2201–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		28.8	ug/kg	1.11	3.33	2
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		32.8	ug/kg	1.11	3.33	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/022f2201.d
Lab Smp Id: 1202077525 Client Smp ID: PBLK01LCS
Inj Date : 23-MAR-2010 12:38
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077525|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 22 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2412.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.248	0.001	22287691	178.357	5.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.240	-0.001	16008470	194.393	6.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.805	2.806	-0.001	3724861	780.522	26.0	80.00- 120.00	100.00
3.156	3.157	-0.001	4623049	856.533	28.6	106.71- 146.71	124.11
3.300	3.301	-0.001	1951962	830.042	27.7	32.91- 72.91	52.40
3.392	3.393	-0.001	1760013	803.084	26.8	26.61- 66.61	47.25
3.555	3.555	0.000	2436153	791.230	26.4	47.49- 87.49	65.40

Average of Peak Concentrations = 27.1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.429	-0.001	5500093	933.792	31.1	80.00- 120.00	100.00
4.624	4.625	-0.001	8201358	965.401	32.2	127.82- 167.82	149.11
4.900	4.900	0.000	4888449	964.901	32.2	67.21- 107.21	88.88
5.071	5.072	-0.001	5020047	942.021	31.4	73.14- 113.14	91.27
5.482	5.483	-0.001	5139009	911.013	30.4	79.68- 119.68	93.43
Average of Peak Concentrations =					31.5		

Data File: /chem/ecd8a.i/032310.b/022f2201.d

Date : 23-MAR-2010 12:38

Client ID: PBLK01LCS

Sample Info: |1202077525|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

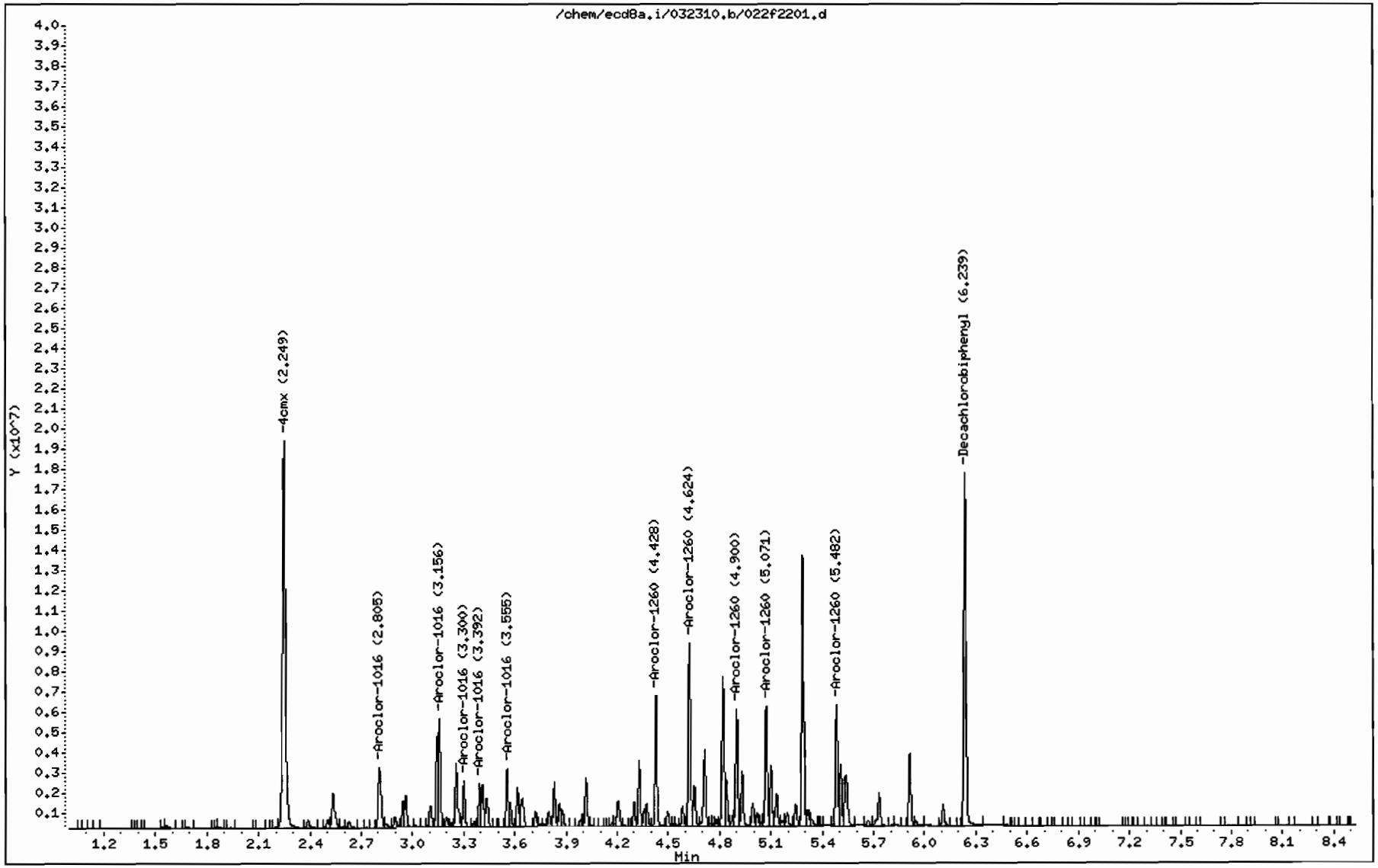

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/022b2201.d
Lab Smp Id: 1202077525 Client Smp ID: PBLK01LCS
Inj Date : 23-MAR-2010 12:38
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077525|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 22 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2412.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.476	0.000	15844573	189.569	6.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	12410533	209.452	7.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.548	0.000	3300626	897.453	29.9	80.00- 120.00	100.00
3.647	3.647	0.000	2139608	838.672	28.0	44.17- 84.17	64.82
3.723	3.723	0.000	1281937	859.189	28.6	19.13- 59.13	38.84
3.798	3.799	-0.001	1278154	864.960	28.8	17.45- 57.45	38.72
3.995	3.995	0.000	1739987	859.336	28.6	31.97- 71.97	52.72

Average of Peak Concentrations = 28.8

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.908	4.907	0.001	3797082	964.092	32.1	80.00- 120.00	100.00
5.056	5.056	0.000	4645285	981.991	32.7	102.64- 142.64	122.34
5.373	5.373	0.000	3597095	1002.91	33.4	72.26- 112.26	94.73
5.580	5.580	0.000	3467947	934.193	31.1	76.20- 116.20	91.33
6.010	6.011	-0.001	6104953	1045.13	34.8	134.50- 174.50	160.78
			Average of Peak Concentrations =		32.8		

Data File: /chem/ecd8a.i/032310.b/022b2201.d

Date : 23-MAR-2010 12:38

Client ID: PBLK01LCS

Sample Info: |1202077525|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

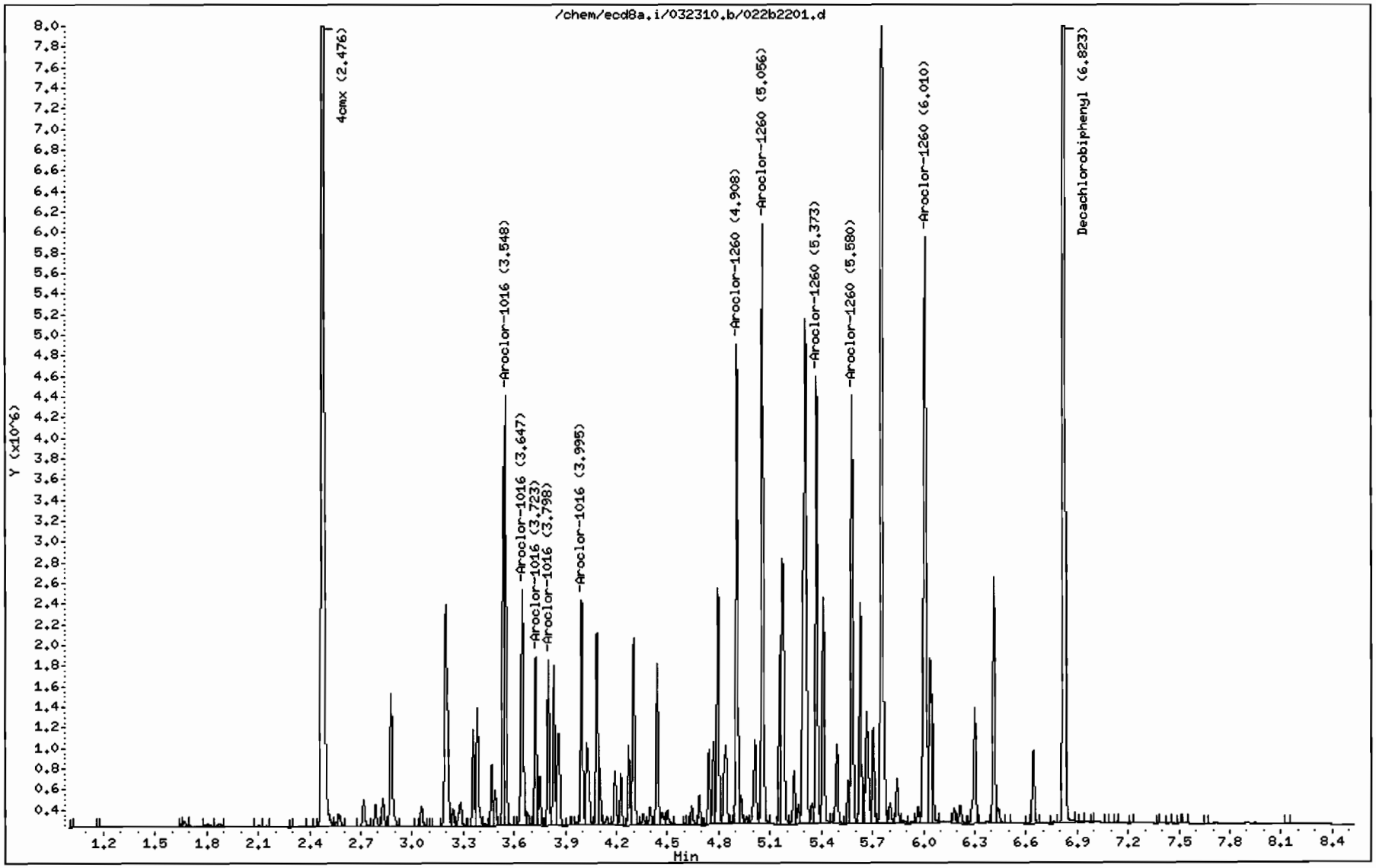

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 03/19/2010 METHOD: ECD8-F-8082-031810.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/031810.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	JAOC	18-MAR-2010 06:13		031810	1.0		CLEAN
002f0201.d	WAR100318-01 60	JAOC	18-MAR-2010 06:25		031810	1.0		1660 LEVEL 1
003f0301.d	WAR100318-02 60	JAOC	18-MAR-2010 06:38		031810	1.0		1660 LEVEL 2
004f0401.d	WAR100318-03 60	JAOC	18-MAR-2010 06:50		031810	1.0		1660 LEVEL 3
005f0501.d	WAR100318-04 60	JAOC	18-MAR-2010 07:02		031810	1.0		1660 LEVEL 4
006f0601.d	IAR100311-01 60	JAOC	18-MAR-2010 07:15		031810	1.0		1660 LEVEL 5
007f0701.d	WAR100224-60 01	JAOC	18-MAR-2010 07:27		031810	1.0		PASSES BOTH COLUMNS
008f0801.d	WAR100201-54	JAOC	18-MAR-2010 07:39		031810	1.0		PASSES BOTH COLUMNS
009f0901.d	WAR091217-42	JAOC	18-MAR-2010 07:52		031810	1.0		PASSES BOTH COLUMNS
010f1001.d	WAR091217-48	JAOC	18-MAR-2010 08:04		031810	1.0		PASSES BOTH COLUMNS
011f1101.d	WAR100104-32	JAOC	18-MAR-2010 08:17		031810	1.0		PATTERN ONLY
012f1201.d	WAR100104-21	JAOC	18-MAR-2010 08:29		031810	1.0		PATTERN ONLY
013f1301.d	WAR100104-62	JAOC	18-MAR-2010 08:41		031810	1.0		PATTERN ONLY
014f1401.d	WAR100107-68	JAOC	18-MAR-2010 08:54		031810	1.0		PATTERN ONLY
015f1501.d	WAR091219-DDT	JAOC	18-MAR-2010 09:06		031810	1.0		DDT

Instrument Batch: /chem/ecd8a.i/031810.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR100219-99 02	JAOC	18-MAR-2010 09:19		031810	1.0		CLEAN
017f1701.d	1202073907	JAOC	18-MAR-2010 09:31	966402	10033	1.0	QC A	UPLOAD BOTH, USE HIGHER

018f1801.d	1202073908	JAOC	18-MAR-2010 09:43	966402	10033		1.0	QC A	UPLOAD BOTH, USE HIGHER
019f1901.d	1202073909	JAOC	18-MAR-2010 09:55	966402	10033		1.0	QC A	UPLOAD BOTH, USE HIGHER
020f2001.d	248554001	JAOC	18-MAR-2010 10:08	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
021f2101.d	248554002	JAOC	18-MAR-2010 10:20	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
022f2201.d	248554003	JAOC	18-MAR-2010 10:33	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
023f2301.d	248554004	JAOC	18-MAR-2010 10:45	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
024f2401.d	248554005	JAOC	18-MAR-2010 10:57	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
025f2501.d	248554006	JAOC	18-MAR-2010 11:10	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
026f2601.d	248554007	JAOC	18-MAR-2010 11:22	966402	10033		5.0	WSRS	UPLOAD BOTH, USE HIGHER
027f2701.d	WAR100224-60 02	JAOC	18-MAR-2010 11:39		031810		1.0		PASSES BOTH COLUMNS
028f2801.d	WAR100219-99 03	JAOC	18-MAR-2010 11:51		031810		1.0		CLEAN
029f2901.d	248554008	JAOC	18-MAR-2010 12:03	966402	10033		5.0	WSRS	UPLOAD BOTH, USE HIGHER
030f3001.d	248554009	JAOC	18-MAR-2010 12:16	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
031f3101.d	248554010	JAOC	18-MAR-2010 12:28	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
032f3201.d	248554011	JAOC	18-MAR-2010 12:40	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
033f3301.d	248554012	JAOC	18-MAR-2010 12:53	966402	10033		1.0	WSRS	DUSE, 5X RERUN END SEQUENCE
034f3401.d	248554013	JAOC	18-MAR-2010 13:05	966402	10033		1.0	WSRS	DUSE, AFTER OVERRANGE RERUN END SEQUENCE
035f3501.d	248554014	JAOC	18-MAR-2010 13:17	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/031810.b Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	248554015	JAOC	18-MAR-2010 13:30	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
037f3701.d	248554016	JAOC	18-MAR-2010 13:42	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
038f3801.d	248554017	JAOC	18-MAR-2010 13:54	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
039f3901.d	WAR100224-60 03	JAOC	18-MAR-2010 14:11		031810		1.0		PASSES BOTH COLUMNS
040f4001.d	WAR100219-99 04	JAOC	18-MAR-2010 14:23		031810		1.0		CLEAN
041f4101.d	248554018	JAOC	18-MAR-2010 14:36	966402	10033		1.0	WSRS	DUSE, 5X RERUN 031910

042f4201.d	248554019	JAOC	18-MAR-2010 14:48	966402	10033		1.0	WSRS	DUSE, AFTER OVERRANGE RERUN 031910
043f4301.d	248554020	JAOC	18-MAR-2010 15:01	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
044f4401.d	248554012	JAOC	18-MAR-2010 15:13	966402	10033		5.0	WSRS	UPLOAD BOTH, USE HIGHER
045f4501.d	248554013	JAOC	18-MAR-2010 15:25	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
046f4601.d	WAR100224-60 04	JAOC	18-MAR-2010 15:38		031810		1.0		PASSES BOTH COLUMNS
047f4701.d	WAR100219-99 05	JAOC	18-MAR-2010 15:50		031810		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 03/24/2010 METHOD: ECD8-F-8082-031810.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/032310.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	JAOC	23-MAR-2010 08:09		032310	1.0		CLEAN
002f0201.d	WAR100224-60 01	JAOC	23-MAR-2010 08:22		032310	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR100219-54	JAOC	23-MAR-2010 08:34		032310	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091217-42	JAOC	23-MAR-2010 08:46		032310	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR100223-48	JAOC	23-MAR-2010 08:59		032310	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR100104-32	JAOC	23-MAR-2010 09:11		032310	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	JAOC	23-MAR-2010 09:23		032310	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	JAOC	23-MAR-2010 09:36		032310	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	JAOC	23-MAR-2010 09:48		032310	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	JAOC	23-MAR-2010 10:00		032310	1.0		DDT
011f1101.d	WAR100219-99 02	JAOC	23-MAR-2010 10:13		032310	1.0		CLEAN
012f1201.d	1202077508	JAOC	23-MAR-2010 10:25	967817	10-2168	1.0	QC A	UPLOAD BOTH, USE HIGHER
013f1301.d	1202077509	JAOC	23-MAR-2010 10:37	967817	10-2168	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	1202077510	JAOC	23-MAR-2010 10:50	967817	10-2168	1.0	QC A	UPLOAD BOTH, USE HIGHER
015f1501.d	248394006	JAOC	23-MAR-2010 11:02	967817	10-2168	1.0	LANL	UPLOAD BOTH, USE HIGHER: DOESN'T CONFIRM $FAILURE

Instrument Batch: /chem/ecd8a.i/032310.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	248514002	JAOC	23-MAR-2010 11:14	967817	10-2196	1.0	LANL	UPLOAD BOTH, USE HIGHER: DOESN'T CONFIRM $FAILURE
017f1701.d	248519002	JAOC	23-MAR-2010 11:27	967817	10-2199	1.0	LANL	UPLOAD BOTH, USE HIGHER: DOESN'T CONFIRM $FAILURE

018f1801.d	248519004	JAOC	23-MAR-2010 11:43	967817	10-2199		1.0	LANL	UPLOAD BOTH, USE HIGHER: DOESN'T CONFIRM $FAILURE
019f1901.d	WAR100224-60 02	JAOC	23-MAR-2010 12:01		032310		1.0		PASSES BOTH COLUMNS
020f2001.d	WAR100219-99 03	JAOC	23-MAR-2010 12:14		032310		1.0		CLEAN
021f2101.d	1202077524	JAOC	23-MAR-2010 12:26	967824	10-2412		1.0	QC A	UPLOAD BOTH, USE HIGHER
022f2201.d	1202077525	JAOC	23-MAR-2010 12:38	967824	10-2412		1.0	QC A	UPLOAD BOTH, USE HIGHER
023f2301.d	249244001	JAOC	23-MAR-2010 12:51	967824	10-2412		10.0	LANL	UPLOAD BOTH, USE HIGHER
024f2401.d	249244002	JAOC	23-MAR-2010 13:03	967824	10-2412		5.0	LANL	UPLOAD BOTH, USE HIGHER
025f2501.d	249244003	JAOC	23-MAR-2010 13:15	967824	10-2412		1.0	LANL	UPLOAD BOTH, USE HIGHER
026f2601.d	249244004	JAOC	23-MAR-2010 13:28	967824	10-2412		1.0	LANL	UPLOAD BOTH, USE HIGHER
027f2701.d	249244005	JAOC	23-MAR-2010 13:40	967824	10-2412		5.0	LANL	UPLOAD BOTH, USE HIGHER
028f2801.d	249244006	JAOC	23-MAR-2010 13:52	967824	10-2412		10.0	LANL	UPLOAD BOTH, USE HIGHER
029f2901.d	249329001	JAOC	23-MAR-2010 14:05	967824	10-2430		5.0	LANL	UPLOAD BOTH, USE HIGHER
030f3001.d	249329002	JAOC	23-MAR-2010 14:21	967824	10-2430		5.0	LANL	UPLOAD BOTH, USE HIGHER
031f3101.d	WAR100224-60 03	JAOC	23-MAR-2010 14:38		032310		1.0		PASSES BOTH COLUMNS
032f3201.d	WAR100219-99 04	JAOC	23-MAR-2010 14:50		032310		1.0		CLEAN
033f3301.d	249329003	JAOC	23-MAR-2010 15:03	967824	10-2430		5.0	LANL	UPLOAD BOTH, USE HIGHER
034f3401.d	249329004	JAOC	23-MAR-2010 15:15	967824	10-2430		5.0	LANL	UPLOAD BOTH, USE HIGHER
035f3501.d	249335002	JAOC	23-MAR-2010 15:27	967824	10-2436		1.0	LANL	UPLOAD BOTH, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202077526	JAOC	23-MAR-2010 15:40	967824	10-2436	1.0	QC A	UPLOAD BOTH, USE HIGHER
037f3701.d	1202077527	JAOC	23-MAR-2010 15:52	967824	10-2436	1.0	QC A	UPLOAD BOTH, USE HIGHER
038f3801.d	249335003	JAOC	23-MAR-2010 16:04	967824	10-2436	5.0	LANL	UPLOAD BOTH, USE HIGHER
039f3901.d	249335004	JAOC	23-MAR-2010 16:17	967824	10-2436	5.0	LANL	UPLOAD BOTH, USE HIGHER
040f4001.d	249335005	JAOC	23-MAR-2010 16:29	967824	10-2436	5.0	LANL	UPLOAD BOTH, USE HIGHER
041f4101.d	249335006	JAOC	23-MAR-2010 16:42	967824	10-2436	5.0	LANL	UPLOAD BOTH, USE HIGHER

042f4201.d	249335007	JAOC	23-MAR-2010 16:58	967824	10-2436	20.0	LANL	UPLOAD BOTH, USE HIGHER
043f4301.d	WAR100224-60 04	JAOC	23-MAR-2010 17:15		032310	1.0		FRONT PASSING ALL PEAKS, BACK PASSING AVG
044f4401.d	WAR100219-99 05	JAOC	23-MAR-2010 17:27		032310	1.0		CLEAN
045f4501.d	249335008	JAOC	23-MAR-2010 17:39	967824	10-2436	20.0	LANL	UPLOAD BOTH, USE HIGHER
046f4601.d	WAR100224-60 05	JAOC	23-MAR-2010 17:56		032310	1.0		BACK FAILS HIGH 1260 AND DCB, FRONT PASSING AVG
047f4701.d	WAR100219-99 06	JAOC	23-MAR-2010 18:08		032310	1.0		CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/036b3601.d
Lab Smp Id: 1202077526 Client Smp ID: RE46-10-12972MS
Inj Date : 23-MAR-2010 15:40
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077526|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	12.26540	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	15003680	179.508	6.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	11658273	196.756	7.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.548	0.000	3130184	851.109	32.3	80.00- 120.00	100.00
3.647	3.647	0.000	1996057	782.403	29.7	44.17- 84.17	63.77
3.723	3.723	0.000	1180716	791.348	30.0	19.13- 59.13	37.72
3.798	3.799	-0.001	1282086	867.621	32.9	17.45- 57.45	40.96
3.994	3.995	-0.001	1665260	822.430	31.2	31.97- 71.97	53.20

Average of Peak Concentrations = 31.2

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.301	4.301	0.000	1717399	551.038	20.9	80.00- 120.00	100.00
4.439	4.440	-0.001	1580069	454.286	17.2	91.97- 131.97	92.00
4.768	4.769	-0.001	1179584	244.117	9.3	138.62- 178.62	68.68
4.930	4.931	-0.001	538272	154.054	5.8	93.56- 133.56	31.34
5.056	5.057	-0.001	4956612	2251.27	85.4	51.06- 91.06	288.61
Average of Peak Concentrations =					27.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.907	0.000	4009379	1018.00	38.6	80.00- 120.00	100.00
5.056	5.056	0.000	4956612	1047.80	39.8	102.64- 142.64	123.63
5.373	5.373	0.000	3590248	1001.00	38.0	72.26- 112.26	89.55
5.578	5.580	-0.002	3518672	947.857	36.0	76.20- 116.20	87.76
6.010	6.011	-0.001	5865064	1004.06	38.1	134.50- 174.50	146.28
Average of Peak Concentrations =					38.1		

Data File: /chem/ecd8a.i/032310.b/036b3601.d
Date : 23-MAR-2010 15:40
Client ID: RE46-10-12972MS
Sample Info: 1120207752611
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

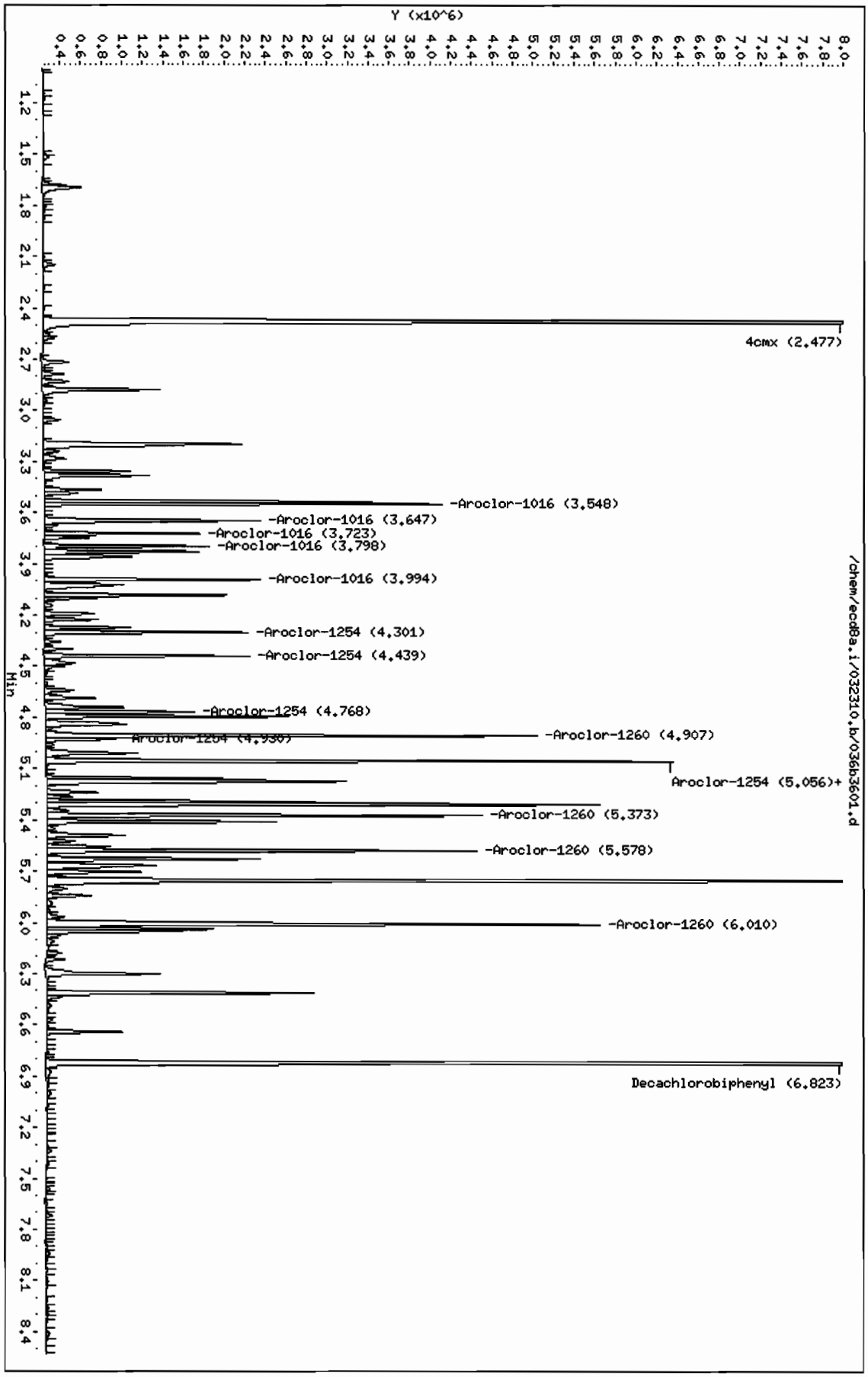

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/036f3601.d
Lab Smp Id: 1202077526 Client Smp ID: RE46-10-12972MS
Inj Date : 23-MAR-2010 15:40
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077526|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	12.26540	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.248	0.000	21217036	169.789	6.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	15454515	187.666	7.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.805	2.806	-0.001	3387328	709.794	26.9	80.00- 120.00	100.00
3.157	3.157	0.000	4322575	800.863	30.4	106.71- 146.71	127.61
3.300	3.301	-0.001	1685615	716.782	27.2	32.91- 72.91	49.76
3.392	3.393	-0.001	1737838	792.966	30.1	26.61- 66.61	51.30
3.554	3.555	-0.001	2281015	740.843	28.1	47.49- 87.49	67.34

Average of Peak Concentrations = 28.5

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.830	3.830	0.000	2006678	463.012	17.6	80.00- 120.00	100.00
4.017	4.017	0.000	2414490	418.707	15.9	87.01- 127.01	120.32
4.207	4.213	-0.006	1427332	320.136	12.2	49.92- 89.92	71.13
4.299	4.300	-0.001	1721394	228.862	8.7	31.87- 71.87	85.78
4.496	4.496	0.000	1314493	228.639	8.7	16.76- 56.76	65.51
Average of Peak Concentrations =					12.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.429	-0.001	5468453	928.421	35.2	80.00- 120.00	100.00
4.623	4.625	-0.002	8444446	994.015	37.7	127.82- 167.82	154.42
4.899	4.900	-0.001	4781267	943.745	35.8	67.21- 107.21	87.43
5.071	5.072	-0.001	4776254	896.273	34.0	73.14- 113.14	87.34
5.482	5.483	-0.001	5417471	960.377	36.4	79.68- 119.68	99.07
Average of Peak Concentrations =					35.8		

Data File: /chem/ecd8a.i/032310.b/036f3601.d
Date : 23-MAR-2010 15:40
Client ID: RE46-10-12972MS
Sample Info: 1120207752614
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JADC
Column diameter: 0.25

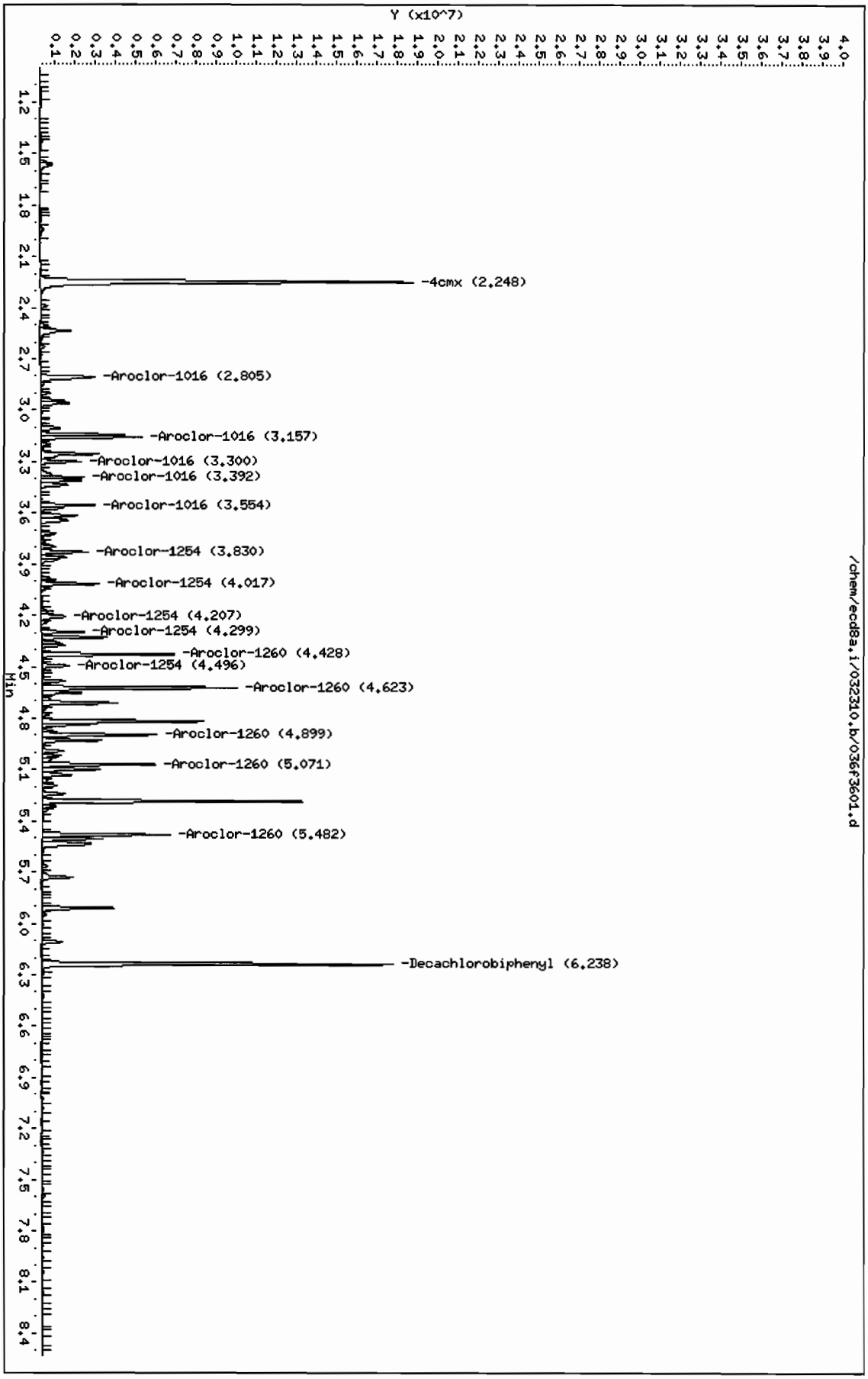

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/037b3701.d
Lab Smp Id: 1202077527 Client Smp ID: RE46-10-12972MSD
Inj Date : 23-MAR-2010 15:52
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077527|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	12.26540	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	14285646	170.918	6.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.824	-0.002	11236540	189.638	7.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.548	0.000	3033291	824.763	31.3	80.00- 120.00	100.00
3.647	3.647	0.000	2018867	791.344	30.0	44.17- 84.17	66.56
3.722	3.723	-0.001	1198144	803.028	30.4	19.13- 59.13	39.50
3.798	3.799	-0.001	1250346	846.141	32.1	17.45- 57.45	41.22
3.994	3.995	-0.001	1658928	819.303	31.1	31.97- 71.97	54.69
Average of Peak Concentrations =					31.0		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.301	4.301	0.000	1655857	531.292	20.1	80.00- 120.00	100.00
4.440	4.440	0.000	1425999	409.989	15.5	91.97- 131.97	86.12
4.768	4.769	-0.001	1002257	207.419	7.9	138.62- 178.62	60.53
4.930	4.931	-0.001	420840	120.445	4.6	93.56- 133.56	25.42
5.056	5.057	-0.001	4603623	2090.95	79.3	51.06- 91.06	278.02
			Average of Peak Concentrations =		25.5		
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.907	0.000	3889804	987.635	37.4	80.00- 120.00	100.00
5.056	5.056	0.000	4603623	973.184	36.9	102.64- 142.64	118.35
5.372	5.373	-0.001	3519769	981.353	37.2	72.26- 112.26	90.49
5.579	5.580	-0.001	3161698	851.696	32.3	76.20- 116.20	81.28
6.010	6.011	-0.001	5588125	956.652	36.3	134.50- 174.50	143.66
			Average of Peak Concentrations =		36.0		

Data File: /chem/ecd8a.i/032310.b/037b3701.d

Date : 23-MAR-2010 15:52

Client ID: RE46-10-12972MSD

Sample Info: |120207752711|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

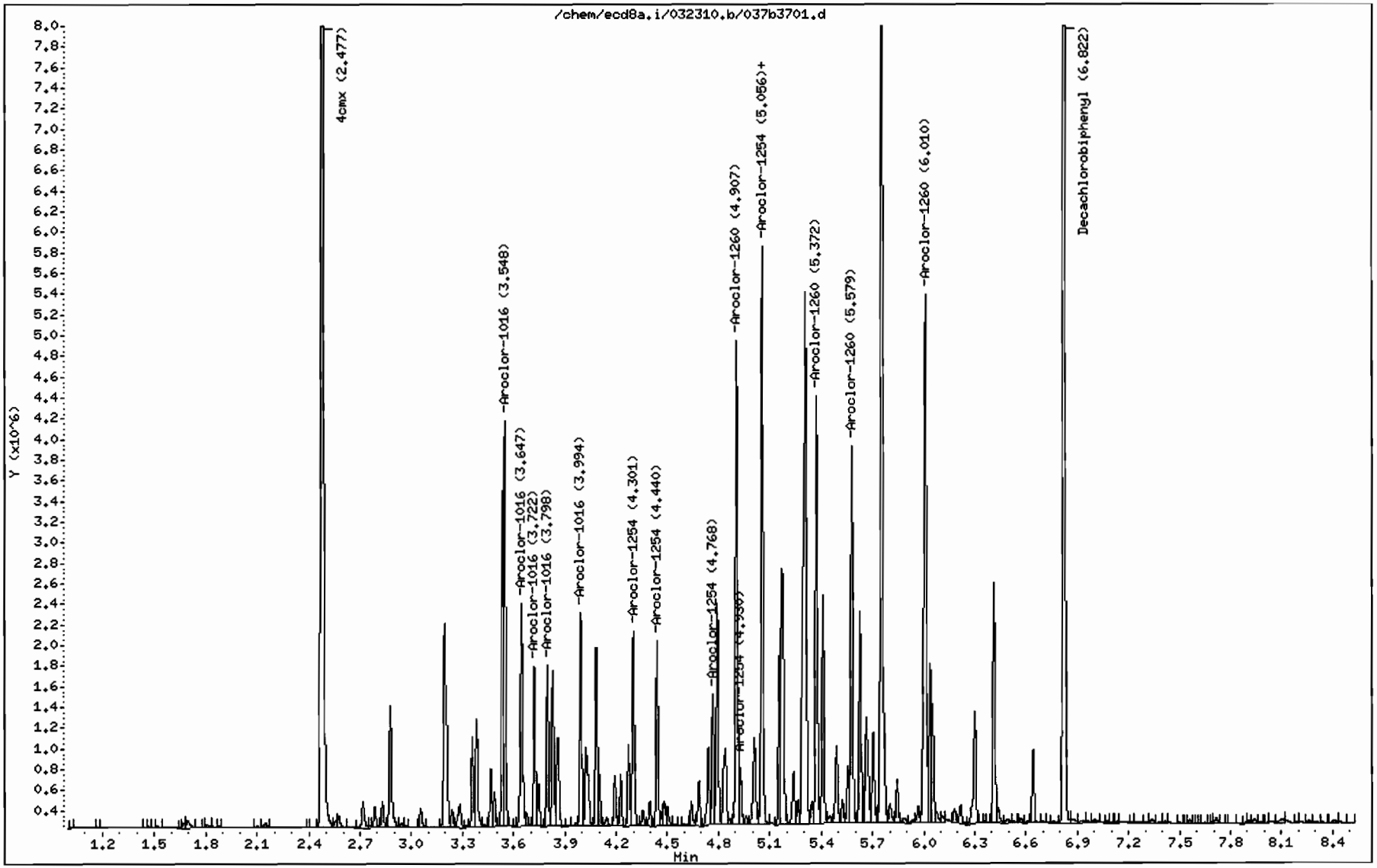

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/037f3701.d
Lab Smp Id: 1202077527 Client Smp ID: RE46-10-12972MSD
Inj Date : 23-MAR-2010 15:52
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077527|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	12.26540	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.248	0.001	20317373	162.589	6.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.237	6.240	-0.003	13401392	162.735	6.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.805	2.806	-0.001	3369255	706.007	26.8	80.00- 120.00	100.00
3.157	3.157	0.000	4313081	799.104	30.3	106.71- 146.71	128.01
3.300	3.301	-0.001	1665314	708.149	26.8	32.91- 72.91	49.43
3.392	3.393	-0.001	1589172	725.130	27.5	26.61- 66.61	47.17
3.555	3.555	0.000	2257740	733.284	27.8	47.49- 87.49	67.01

Average of Peak Concentrations = 27.8

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.830	3.830	0.000	1912091	441.188	16.7	80.00- 120.00	100.00
4.017	4.017	0.000	2208522	382.990	14.5	87.01- 127.01	115.50
4.205	4.213	-0.008	1307858	293.339	11.1	49.92- 89.92	68.40
4.299	4.300	-0.001	1450422	192.836	7.3	31.87- 71.87	75.86
4.496	4.496	0.000	1071036	186.293	7.1	16.76- 56.76	56.01
Average of Peak Concentrations =					11.3		
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.429	-0.001	5310347	901.578	34.2	80.00- 120.00	100.00
4.623	4.625	-0.002	7748015	912.037	34.6	127.82- 167.82	145.90
4.899	4.900	-0.001	4680631	923.881	35.0	67.21- 107.21	88.14
5.071	5.072	-0.001	4650542	872.683	33.1	73.14- 113.14	87.58
5.482	5.483	-0.001	4848204	859.461	32.6	79.68- 119.68	91.30
Average of Peak Concentrations =					33.9		

Data File: /chem/ecd8a.i/032310.b/037f3701.d
Date : 23-MAR-2010 15:52
Client ID: RE46-10-12972MSD
Sample Info: 1120207752711
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JADC
Column diameter: 0.25

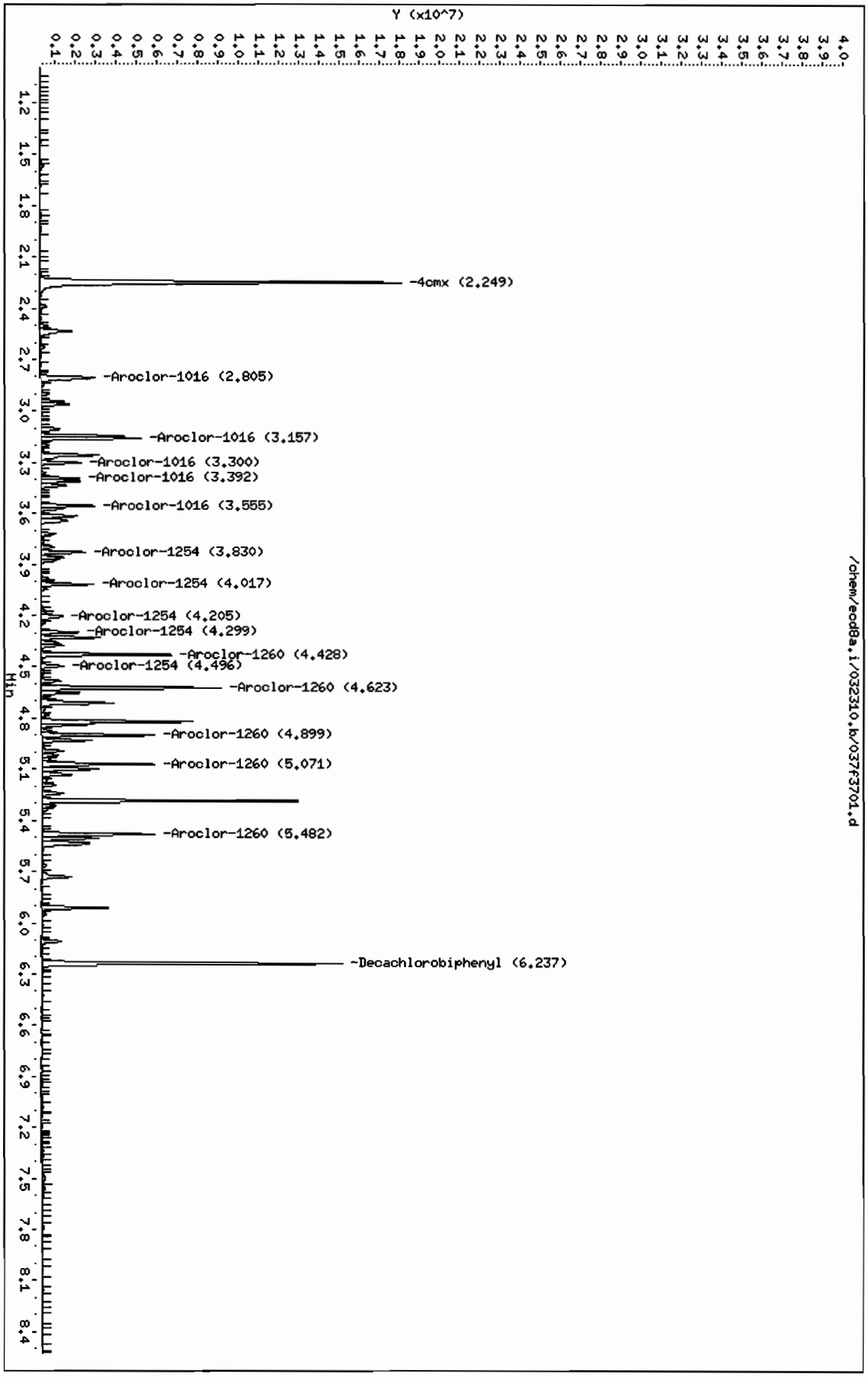

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 967820 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL–OA–E–010 REV# 18

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202077524 MB	22–MAR–2010 22:20:00	30	H2SO4/KMi2		2	9	1	0.03333
1202077525 LCS	22–MAR–2010 22:20:00	30	H2SO4/KMi2		2	9	1	0.03333
249244001	22–MAR–2010 22:20:00	30.02	H2SO4/KMi2		2	9	1	0.03331
249244002	22–MAR–2010 22:20:00	30.18	H2SO4/KMi2		2	9	1	0.03313
249244003	22–MAR–2010 22:20:00	30.09	H2SO4/KMi2		2	9	1	0.03323
249244004	22–MAR–2010 22:20:00	30.08	H2SO4/KMi2		2	9	1	0.03324
249244005	22–MAR–2010 22:20:00	30.05	H2SO4/KMi2		2	9	1	0.03328
249244006	22–MAR–2010 22:20:00	30.02	H2SO4/KMi2		2	9	1	0.03331
249329001	22–MAR–2010 22:20:00	30.02	H2SO4/KMi2		2	9	1	0.03331
249329002	22–MAR–2010 22:20:00	30.19	H2SO4/KMi2		2	9	1	0.03312
249329003	22–MAR–2010 22:20:00	30.05	H2SO4/KMi2		2	9	1	0.03328
249329004	22–MAR–2010 22:20:00	30.18	H2SO4/KMi2		2	9	1	0.03313
249335002	22–MAR–2010 22:20:00	30.17	H2SO4/KMi2		2	9	1	0.03315
1202077526 MS (249335002)	22–MAR–2010 22:20:00	30.03	H2SO4/KMi2		2	9	1	0.0333
1202077527 MSD (249335002)	22–MAR–2010 22:20:00	30.06	H2SO4/KMi2		2	9	1	0.03327
249335003	22–MAR–2010 22:20:00	30.07	H2SO4/KMi2		2	9	1	0.03326
249335004	22–MAR–2010 22:20:00	30.05	H2SO4/KMi2		2	9	1	0.03328
249335005	22–MAR–2010 22:20:00	30.11	H2SO4/KMi2		2	9	1	0.03321
249335006	22–MAR–2010 22:20:00	30.11	H2SO4/KMi2		2	9	1	0.03321
249335007	22–MAR–2010 22:20:00	30.01	H2SO4/KMi2		2	9	1	0.03332
249335008	22–MAR–2010 22:20:00	30.09	H2SO4/KMi2		2	9	1	0.03323

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202077525	PCB Laboratory Control	WE100311–07	1	mL
MS	1202077526	PCB Laboratory Control	WE100311–07	1	mL
MSD	1202077527	PCB Laboratory Control	WE100311–07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100310–16	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1289815–B1	150	mL
REGNT	All	Hexane	1289823–B2	150	mL
REGNT	All	5% Potassium Permanganate	B1275177–F	5	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 22–MAR–2010
Clean up Initials: AJS
Verified By: AV
Final Solvent: Hexane
Clean Up SOP: GL–OA–E–037

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2412

Sample Analysis

Sample ID	Client ID
249244001	RE46-10-12927
249244002	RE46-10-12923
249244003	RE46-10-12924
249244004	RE46-10-12926
249244005	RE46-10-12928
249244006	RE46-10-12925
1202071964	Method Blank (MB) **ICP**
1202071965	Laboratory Control Sample (LCS)
1202071968	249244001(RE46-10-12927L) Serial Dilution (SD)
1202071966	249244001(RE46-10-12927D) Sample Duplicate (DUP)
1202071967	249244001(RE46-10-12927S) Matrix Spike (MS)
1202071969	249244001(RE46-10-12927SD) Matrix Spike Duplicate (MSD)
1202071970	Method Blank (MB) **ICP-MS**
1202071971	Laboratory Control Sample (LCS)
1202071974	249244001(RE46-10-12927L) Serial Dilution (SD)
1202071972	249244001(RE46-10-12927D) Sample Duplicate (DUP)
1202071973	249244001(RE46-10-12927S) Matrix Spike (MS)
1202071975	249244001(RE46-10-12927SD) Matrix Spike Duplicate (MSD)
1202081090	Method Blank (MB) **CVAA**
1202081091	Laboratory Control Sample (LCS)

1202081094	249330001(RE46-10-13219L) Serial Dilution (SD)
1202081092	249330001(RE46-10-13219D) Sample Duplicate (DUP)
1202081093	249330001(RE46-10-13219S) Matrix Spike (MS)
1202081095	249330001(RE46-10-13219SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	965588, 965591 and 969290
Prep Batch :	965587, 965590 and 969289
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 249244001 (RE46-10-12927) and 249330001 (RE46-10-13219).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of calcium, magnesium, potassium and nickel, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of magnesium and potassium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of calcium, as indicated by the "*" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of barium, calcium, chromium, cobalt, iron, lead, manganese, vanadium and zinc, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D) with the exception of zinc, as indicated by the "E" qualifier.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 814381 and 828178. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Pauson **Date:** 5/17/10

Sample Data Summary

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2412 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249244001 **BASIS:** Dry Weight **DATE COLLECTED** 10-MAR-10

CLIENT ID: RE46-10-12927 **LEVEL:** Low **DATE RECEIVED** 12-MAR-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5550000	ug/kg		7560	22200	22200	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-36-0	Antimony	1110	ug/kg	U	367	1110	1110	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-38-2	Arsenic	2090	ug/kg		224	1120	1120	2	MS	RMJ	05/16/10 05:02	100515-3	965591
7440-39-3	Barium	89300	ug/kg	*	111	556	556	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-41-7	Beryllium	506	ug/kg		22.4	112	112	2	MS	RMJ	05/14/10 06:40	100512-2	965591
7440-43-9	Cadmium	556	ug/kg	U	111	556	556	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-70-2	Calcium	2170000	ug/kg	*N	8890	27800	27800	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-47-3	Chromium	5550	ug/kg	*	167	556	556	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-48-4	Cobalt	2760	ug/kg	*	167	556	556	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-50-8	Copper	5250	ug/kg		333	1110	1110	1	P	HSC	04/05/10 17:00	040510-1	965588
7439-89-6	Iron	9420000	ug/kg	*	8890	27800	27800	1	P	HSC	04/05/10 17:00	040510-1	965588
7439-92-1	Lead	15600	ug/kg	*	278	1110	1110	1	P	HSC	04/05/10 17:00	040510-1	965588
7439-95-4	Magnesium	1210000	ug/kg	N	9450	33300	33300	1	P	HSC	04/05/10 17:00	040510-1	965588
7439-96-5	Manganese	223000	ug/kg	*	222	1110	1110	1	P	HSC	04/05/10 17:00	040510-1	965588
7439-97-6	Mercury	18.6	ug/kg		3.99	11.7	11.7	1	AV	JXL1	03/31/10 09:05	033110S1-4	969290
7440-02-0	Nickel	6310	ug/kg	N	112	447	447	2	MS	RMJ	05/16/10 05:02	100515-3	965591
7440-09-7	Potassium	829000	ug/kg	N	7110	27800	27800	1	P	HSC	04/05/10 17:00	040510-1	965588
7782-49-2	Selenium	1120	ug/kg	U	559	1120	1120	2	MS	RMJ	05/16/10 05:02	100515-3	965591
7440-22-4	Silver	556	ug/kg	U	111	556	556	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-23-5	Sodium	128000	ug/kg		7780	27800	27800	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-28-0	Thallium	114	ug/kg	J	67.1	224	224	2	MS	RMJ	05/14/10 06:40	100512-2	965591
7440-62-2	Vanadium	13500	ug/kg	*	111	556	556	1	P	HSC	04/05/10 17:00	040510-1	965588
7440-66-6	Zinc	26600	ug/kg	*E	367	1110	1110	1	P	HSC	04/05/10 17:00	040510-1	965588

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965588	965587	SW846 3050B	0.511	g	50	mL	03/25/10	LYH1
965591	965590	SW846 3050B	0.508	g	50	mL	03/26/10	LYH1
969290	969289	SW846 7471A Prep	0.581	g	30	mL	03/30/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–2412 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249244002 **BASIS:** Dry Weight **DATE COLLECTED** 10–MAR–10

CLIENT ID: RE46–10–12923 **LEVEL:** Low **DATE RECEIVED** 12–MAR–10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429–90–5	Aluminum	7410000	ug/kg		7670	22500	22500	1	P	HSC	04/05/10 17:15	040510–1	965588
7440–36–0	Antimony	1130	ug/kg	U	372	1130	1130	1	P	HSC	04/05/10 17:15	040510–1	965588
7440–38–2	Arsenic	2080	ug/kg		224	1120	1120	2	MS	RMJ	05/16/10 05:24	100515–3	965591
7440–39–3	Barium	124000	ug/kg	*	113	564	564	1	P	HSC	04/05/10 17:15	040510–1	965588
7440–41–7	Beryllium	678	ug/kg		22.4	112	112	2	MS	RMJ	05/14/10 07:14	100512–2	965591
7440–43–9	Cadmium	564	ug/kg	U	113	564	564	1	P	HSC	04/05/10 17:15	040510–1	965588
7440–70–2	Calcium	4370000	ug/kg	*N	9020	28200	28200	1	P	HSC	04/05/10 17:15	040510–1	965588
7440–47–3	Chromium	8090	ug/kg	*	169	564	564	1	P	HSC	04/05/10 17:15	040510–1	965588
7440–48–4	Cobalt	4910	ug/kg	*	169	564	564	1	P	HSC	04/05/10 17:15	040510–1	965588
7440–50–8	Copper	6230	ug/kg		338	1130	1130	1	P	HSC	04/05/10 17:15	040510–1	965588
7439–89–6	Iron	12400000	ug/kg	*	9020	28200	28200	1	P	HSC	04/05/10 17:15	040510–1	965588
7439–92–1	Lead	17500	ug/kg	*	282	1130	1130	1	P	HSC	04/05/10 17:15	040510–1	965588
7439–95–4	Magnesium	1770000	ug/kg	N	9580	33800	33800	1	P	HSC	04/05/10 17:15	040510–1	965588
7439–96–5	Manganese	340000	ug/kg	*	225	1130	1130	1	P	HSC	04/05/10 17:15	040510–1	965588
7439–97–6	Mercury	30.5	ug/kg		4.38	12.9	12.9	1	AV	JXL1	03/31/10 09:07	033110S1–4	969290
7440–02–0	Nickel	8130	ug/kg	N	112	447	447	2	MS	RMJ	05/16/10 05:24	100515–3	965591
7440–09–7	Potassium	1100000	ug/kg	N	7210	28200	28200	1	P	HSC	04/05/10 17:15	040510–1	965588
7782–49–2	Selenium	1120	ug/kg	U	559	1120	1120	2	MS	RMJ	05/16/10 05:24	100515–3	965591
7440–22–4	Silver	564	ug/kg	U	113	564	564	1	P	HSC	04/05/10 17:15	040510–1	965588
7440–23–5	Sodium	73500	ug/kg		7890	28200	28200	1	P	HSC	04/05/10 17:15	040510–1	965588
7440–28–0	Thallium	155	ug/kg	J	67.1	224	224	2	MS	RMJ	05/14/10 07:14	100512–2	965591
7440–62–2	Vanadium	22200	ug/kg	*	113	564	564	1	P	HSC	04/05/10 17:15	040510–1	965588
7440–66–6	Zinc	35900	ug/kg	*E	372	1130	1130	1	P	HSC	04/05/10 17:15	040510–1	965588

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965588	965587	SW846 3050B	0.524	g	50	mL	03/25/10	LYH1
965591	965590	SW846 3050B	0.528	g	50	mL	03/26/10	LYH1
969290	969289	SW846 7471A Prep	0.55	g	30	mL	03/30/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2412 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249244003 **BASIS:** Dry Weight **DATE COLLECTED** 10-MAR-10

CLIENT ID: RE46-10-12924 **LEVEL:** Low **DATE RECEIVED** 12-MAR-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8420000	ug/kg		7280	21400	21400	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-36-0	Antimony	1070	ug/kg	U	353	1070	1070	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-38-2	Arsenic	1790	ug/kg		218	1090	1090	2	MS	RMJ	05/16/10 05:37	100515-3	965591
7440-39-3	Barium	133000	ug/kg	*	107	535	535	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-41-7	Beryllium	642	ug/kg		21.8	109	109	2	MS	RMJ	05/14/10 07:19	100512-2	965591
7440-43-9	Cadmium	535	ug/kg	U	107	535	535	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-70-2	Calcium	2210000	ug/kg	*N	8570	26800	26800	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-47-3	Chromium	11500	ug/kg	*	161	535	535	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-48-4	Cobalt	5580	ug/kg	*	161	535	535	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-50-8	Copper	9080	ug/kg		321	1070	1070	1	P	HSC	04/05/10 17:17	040510-1	965588
7439-89-6	Iron	13000000	ug/kg	*	8570	26800	26800	1	P	HSC	04/05/10 17:17	040510-1	965588
7439-92-1	Lead	15000	ug/kg	*	268	1070	1070	1	P	HSC	04/05/10 17:17	040510-1	965588
7439-95-4	Magnesium	1990000	ug/kg	N	9100	32100	32100	1	P	HSC	04/05/10 17:17	040510-1	965588
7439-96-5	Manganese	331000	ug/kg	*	214	1070	1070	1	P	HSC	04/05/10 17:17	040510-1	965588
7439-97-6	Mercury	17.6	ug/kg		4.32	12.7	12.7	1	AV	JXL1	03/31/10 09:09	033110S1-4	969290
7440-02-0	Nickel	7850	ug/kg	N	109	436	436	2	MS	RMJ	05/16/10 05:37	100515-3	965591
7440-09-7	Potassium	1100000	ug/kg	N	6850	26800	26800	1	P	HSC	04/05/10 17:17	040510-1	965588
7782-49-2	Selenium	1090	ug/kg	U	545	1090	1090	2	MS	RMJ	05/16/10 05:37	100515-3	965591
7440-22-4	Silver	535	ug/kg	U	107	535	535	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-23-5	Sodium	101000	ug/kg		7500	26800	26800	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-28-0	Thallium	146	ug/kg	J	65.4	218	218	2	MS	RMJ	05/14/10 07:19	100512-2	965591
7440-62-2	Vanadium	23600	ug/kg	*	107	535	535	1	P	HSC	04/05/10 17:17	040510-1	965588
7440-66-6	Zinc	34200	ug/kg	*E	353	1070	1070	1	P	HSC	04/05/10 17:17	040510-1	965588

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965588	965587	SW846 3050B	0.547	g	50	mL	03/25/10	LYH1
965591	965590	SW846 3050B	0.537	g	50	mL	03/26/10	LYH1
969290	969289	SW846 7471A Prep	0.553	g	30	mL	03/30/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2412 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249244004 **BASIS:** Dry Weight **DATE COLLECTED** 10-MAR-10

CLIENT ID: RE46-10-12926 **LEVEL:** Low **DATE RECEIVED** 12-MAR-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10600000	ug/kg		7840	23100	23100	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-36-0	Antimony	1150	ug/kg	U	381	1150	1150	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-38-2	Arsenic	2360	ug/kg		230	1150	1150	2	MS	RMJ	05/16/10 05:41	100515-3	965591
7440-39-3	Barium	139000	ug/kg	*	115	577	577	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-41-7	Beryllium	753	ug/kg		23	115	115	2	MS	RMJ	05/14/10 07:24	100512-2	965591
7440-43-9	Cadmium	577	ug/kg	U	115	577	577	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-70-2	Calcium	2820000	ug/kg	*N	9230	28800	28800	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-47-3	Chromium	11900	ug/kg	*	173	577	577	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-48-4	Cobalt	5080	ug/kg	*	173	577	577	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-50-8	Copper	7660	ug/kg		346	1150	1150	1	P	HSC	04/05/10 17:20	040510-1	965588
7439-89-6	Iron	15100000	ug/kg	*	9230	28800	28800	1	P	HSC	04/05/10 17:20	040510-1	965588
7439-92-1	Lead	12500	ug/kg	*	288	1150	1150	1	P	HSC	04/05/10 17:20	040510-1	965588
7439-95-4	Magnesium	2610000	ug/kg	N	9800	34600	34600	1	P	HSC	04/05/10 17:20	040510-1	965588
7439-96-5	Manganese	276000	ug/kg	*	231	1150	1150	1	P	HSC	04/05/10 17:20	040510-1	965588
7439-97-6	Mercury	25.5	ug/kg		4.36	12.8	12.8	1	AV	JXL1	03/31/10 09:11	033110S1-4	969290
7440-02-0	Nickel	8680	ug/kg	N	115	460	460	2	MS	RMJ	05/16/10 05:41	100515-3	965591
7440-09-7	Potassium	1130000	ug/kg	N	7380	28800	28800	1	P	HSC	04/05/10 17:20	040510-1	965588
7782-49-2	Selenium	1150	ug/kg	U	574	1150	1150	2	MS	RMJ	05/16/10 05:41	100515-3	965591
7440-22-4	Silver	577	ug/kg	U	115	577	577	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-23-5	Sodium	178000	ug/kg		8070	28800	28800	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-28-0	Thallium	155	ug/kg	J	68.9	230	230	2	MS	RMJ	05/14/10 07:24	100512-2	965591
7440-62-2	Vanadium	30000	ug/kg	*	115	577	577	1	P	HSC	04/05/10 17:20	040510-1	965588
7440-66-6	Zinc	26800	ug/kg	*E	381	1150	1150	1	P	HSC	04/05/10 17:20	040510-1	965588

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965588	965587	SW846 3050B	0.512	g	50	mL	03/25/10	LYH1
965591	965590	SW846 3050B	0.514	g	50	mL	03/26/10	LYH1
969290	969289	SW846 7471A Prep	0.553	g	30	mL	03/30/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2412 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249244005 **BASIS:** Dry Weight **DATE COLLECTED** 10-MAR-10

CLIENT ID: RE46-10-12928 **LEVEL:** Low **DATE RECEIVED** 12-MAR-10

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3230000	ug/kg		8040	23700	23700	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-36-0	Antimony	1180	ug/kg	U	390	1180	1180	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-38-2	Arsenic	664	ug/kg	J	229	1140	1140	2	MS	RMJ	05/16/10 05:45	100515-3	965591
7440-39-3	Barium	45900	ug/kg	*	118	591	591	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-41-7	Beryllium	335	ug/kg		22.9	114	114	2	MS	RMJ	05/14/10 07:29	100512-2	965591
7440-43-9	Cadmium	591	ug/kg	U	118	591	591	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-70-2	Calcium	1030000	ug/kg	*N	9460	29600	29600	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-47-3	Chromium	3290	ug/kg	*	177	591	591	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-48-4	Cobalt	935	ug/kg	*	177	591	591	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-50-8	Copper	2050	ug/kg		355	1180	1180	1	P	HSC	04/05/10 17:22	040510-1	965588
7439-89-6	Iron	7600000	ug/kg	*	9460	29600	29600	1	P	HSC	04/05/10 17:22	040510-1	965588
7439-92-1	Lead	6660	ug/kg	*	296	1180	1180	1	P	HSC	04/05/10 17:22	040510-1	965588
7439-95-4	Magnesium	622000	ug/kg	N	10100	35500	35500	1	P	HSC	04/05/10 17:22	040510-1	965588
7439-96-5	Manganese	152000	ug/kg	*	237	1180	1180	1	P	HSC	04/05/10 17:22	040510-1	965588
7439-97-6	Mercury	12.4	ug/kg	J	4.66	13.7	13.7	1	AV	JXL1	03/31/10 09:13	033110S1-4	969290
7440-02-0	Nickel	2980	ug/kg	N	114	457	457	2	MS	RMJ	05/16/10 05:45	100515-3	965591
7440-09-7	Potassium	406000	ug/kg	N	7570	29600	29600	1	P	HSC	04/05/10 17:22	040510-1	965588
7782-49-2	Selenium	1140	ug/kg	U	572	1140	1140	2	MS	RMJ	05/16/10 05:45	100515-3	965591
7440-22-4	Silver	591	ug/kg	U	118	591	591	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-23-5	Sodium	124000	ug/kg		8280	29600	29600	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-28-0	Thallium	229	ug/kg	U	68.6	229	229	2	MS	RMJ	05/14/10 07:29	100512-2	965591
7440-62-2	Vanadium	6700	ug/kg	*	118	591	591	1	P	HSC	04/05/10 17:22	040510-1	965588
7440-66-6	Zinc	17900	ug/kg	*E	390	1180	1180	1	P	HSC	04/05/10 17:22	040510-1	965588

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965588	965587	SW846 3050B	0.519	g	50	mL	03/25/10	LYH1
965591	965590	SW846 3050B	0.537	g	50	mL	03/26/10	LYH1
969290	969289	SW846 7471A Prep	0.538	g	30	mL	03/30/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2412 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249244006 **BASIS:** Dry Weight **DATE COLLECTED** 10-MAR-10

CLIENT ID: RE46-10-12925 **LEVEL:** Low **DATE RECEIVED** 12-MAR-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2830000	ug/kg		7410	21800	21800	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-36-0	Antimony	1090	ug/kg	U	360	1090	1090	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-38-2	Arsenic	1120	ug/kg		222	1110	1110	2	MS	RMJ	05/16/10 05:50	100515-3	965591
7440-39-3	Barium	39800	ug/kg	*	109	545	545	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-41-7	Beryllium	377	ug/kg		22.2	111	111	2	MS	RMJ	05/14/10 07:33	100512-2	965591
7440-43-9	Cadmium	545	ug/kg	U	109	545	545	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-70-2	Calcium	2490000	ug/kg	*N	8720	27300	27300	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-47-3	Chromium	4490	ug/kg	*	164	545	545	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-48-4	Cobalt	1570	ug/kg	*	164	545	545	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-50-8	Copper	3280	ug/kg		327	1090	1090	1	P	HSC	04/05/10 17:24	040510-1	965588
7439-89-6	Iron	6910000	ug/kg	*	8720	27300	27300	1	P	HSC	04/05/10 17:24	040510-1	965588
7439-92-1	Lead	9810	ug/kg	*	273	1090	1090	1	P	HSC	04/05/10 17:24	040510-1	965588
7439-95-4	Magnesium	742000	ug/kg	N	9270	32700	32700	1	P	HSC	04/05/10 17:24	040510-1	965588
7439-96-5	Manganese	201000	ug/kg	*	218	1090	1090	1	P	HSC	04/05/10 17:24	040510-1	965588
7439-97-6	Mercury	49.2	ug/kg		4.47	13.2	13.2	1	AV	JXL1	03/31/10 09:15	033110S1-4	969290
7440-02-0	Nickel	3650	ug/kg	N	111	444	444	2	MS	RMJ	05/16/10 05:50	100515-3	965591
7440-09-7	Potassium	501000	ug/kg	N	6980	27300	27300	1	P	HSC	04/05/10 17:24	040510-1	965588
7782-49-2	Selenium	1110	ug/kg	U	554	1110	1110	2	MS	RMJ	05/16/10 05:50	100515-3	965591
7440-22-4	Silver	545	ug/kg	U	109	545	545	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-23-5	Sodium	86400	ug/kg		7630	27300	27300	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-28-0	Thallium	222	ug/kg	U	66.5	222	222	2	MS	RMJ	05/14/10 07:33	100512-2	965591
7440-62-2	Vanadium	8410	ug/kg	*	109	545	545	1	P	HSC	04/05/10 17:24	040510-1	965588
7440-66-6	Zinc	24500	ug/kg	*E	360	1090	1090	1	P	HSC	04/05/10 17:24	040510-1	965588

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965588	965587	SW846 3050B	0.529	g	50	mL	03/25/10	LYH1
965591	965590	SW846 3050B	0.52	g	50	mL	03/26/10	LYH1
969290	969289	SW846 7471A Prep	0.526	g	30	mL	03/30/10	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.17	ug/L	5	ug/L	103.5	90.0 – 110.0	AV	31–MAR–10 08:51	033110S1–4
	Aluminum	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Antimony	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Barium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Calcium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Cobalt	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Copper	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Iron	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Magnesium	5270	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Manganese	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Potassium	2540	ug/L	2500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Silver	259	ug/L	250	ug/L	103.6	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Sodium	2530	ug/L	2500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Zinc	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Beryllium	53.1	ug/L	50	ug/L	106.1	90.0 – 110.0	MS	14–MAY–10 04:55	100512–2
	Thallium	52	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	14–MAY–10 04:55	100512–2
	Arsenic	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	16–MAY–10 04:24	100515–3
	Nickel	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	16–MAY–10 04:24	100515–3
	Selenium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	16–MAY–10 04:24	100515–3
CCV01										
	Mercury	5.17	ug/L	5	ug/L	103.5	80.0 – 120.0	AV	31–MAR–10 08:57	033110S1–4
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Antimony	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Barium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Cadmium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Calcium	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 10:36	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Cobalt	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Lead	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Magnesium	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Potassium	5650	ug/L	5000	ug/L	113	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Silver	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Sodium	10100	ug/L	10000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Vanadium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Zinc	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Beryllium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	14–MAY–10 05:19	100512–2
	Thallium	51.5	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	14–MAY–10 05:19	100512–2
	Arsenic	52.5	ug/L	50	ug/L	105.1	90.0 – 110.0	MS	16–MAY–10 04:45	100515–3
	Nickel	52.7	ug/L	50	ug/L	105.4	90.0 – 110.0	MS	16–MAY–10 04:45	100515–3
	Selenium	52.8	ug/L	50	ug/L	105.5	90.0 – 110.0	MS	16–MAY–10 04:45	100515–3
CCV02										
	Mercury	5.47	ug/L	5	ug/L	109.4	80.0 – 120.0	AV	31–MAR–10 09:21	033110S1–4
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Antimony	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Chromium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Copper	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Lead	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Magnesium	5180	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	05–APR–10 10:49	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Potassium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Silver	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Sodium	9950	ug/L	10000	ug/L	99.5	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Vanadium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Zinc	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Beryllium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	14–MAY–10 05:33	100512–2
	Thallium	51.5	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	14–MAY–10 05:33	100512–2
	Arsenic	52.3	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	16–MAY–10 05:28	100515–3
	Nickel	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	16–MAY–10 05:28	100515–3
	Selenium	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	16–MAY–10 05:28	100515–3
CCV03										
	Mercury	5.35	ug/L	5	ug/L	106.9	80.0 – 120.0	AV	31–MAR–10 09:45	033110S1–4
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Antimony	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Cadmium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Calcium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Chromium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Iron	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Magnesium	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Manganese	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Potassium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Silver	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Sodium	9980	ug/L	10000	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Zinc	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:21	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Beryllium	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	14–MAY–10 06:21	100512–2
	Thallium	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	14–MAY–10 06:21	100512–2
	Arsenic	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	16–MAY–10 05:54	100515–3
	Nickel	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	16–MAY–10 05:54	100515–3
	Selenium	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	16–MAY–10 05:54	100515–3
CCV04										
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Antimony	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Barium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Cadmium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Chromium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Lead	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Manganese	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Potassium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Sodium	10000	ug/L	10000	ug/L	100.1	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Zinc	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Beryllium	50	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	14–MAY–10 07:04	100512–2
	Thallium	49.3	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	14–MAY–10 07:04	100512–2
CCV05										
	Aluminum	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Barium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Cadmium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Chromium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Copper	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Iron	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Manganese	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Silver	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Zinc	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Beryllium	53.2	ug/L	50	ug/L	106.4	90.0 – 110.0	MS	14–MAY–10 07:38	100512–2
	Thallium	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	14–MAY–10 07:38	100512–2
CCV06										
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Antimony	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Barium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Cadmium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Chromium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Copper	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Iron	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Lead	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Magnesium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Manganese	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Potassium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Silver	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 12:16	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Zinc	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 12:16	040510–1
CCV07										
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Antimony	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Cadmium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Chromium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Copper	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Lead	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Magnesium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Potassium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Silver	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Sodium	9960	ug/L	10000	ug/L	99.6	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Vanadium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Zinc	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 12:41	040510–1
CCV08										
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Barium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Cadmium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Calcium	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Chromium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Cobalt	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 13:02	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Lead	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Manganese	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Silver	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Sodium	10000	ug/L	10000	ug/L	100.2	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Vanadium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Zinc	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 13:02	040510–1
CCV09										
	Aluminum	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Antimony	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Cadmium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Chromium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Copper	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Lead	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Potassium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Silver	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Sodium	10100	ug/L	10000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Vanadium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 13:19	040510–1
CCV10										
	Aluminum	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Antimony	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 13:42	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Cadmium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Calcium	5140	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Chromium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Cobalt	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Copper	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Iron	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Lead	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Magnesium	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Manganese	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Potassium	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Silver	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Vanadium	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 13:42	040510–1
	Zinc	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 13:42	040510–1
CCV11										
	Aluminum	4970	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Antimony	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Barium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Cadmium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Calcium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Chromium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Iron	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Lead	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Potassium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Silver	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 13:57	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Vanadium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 13:57	040510–1
	Zinc	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 13:57	040510–1
CCV12										
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Antimony	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Cadmium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Calcium	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Chromium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Copper	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Lead	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Magnesium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Silver	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05–APR–10 14:22	040510–1
	Zinc	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 14:22	040510–1
CCV13										
	Aluminum	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Antimony	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Barium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Chromium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Copper	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 14:55	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Lead	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Magnesium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Manganese	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Potassium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 14:55	040510–1
	Zinc	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 14:55	040510–1
CCV14										
	Aluminum	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Antimony	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Cadmium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Chromium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Copper	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Lead	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Potassium	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Silver	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Sodium	10100	ug/L	10000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 15:16	040510–1
	Zinc	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 15:16	040510–1
CCV15										
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Antimony	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 15:42	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Cadmium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Calcium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Chromium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Cobalt	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Iron	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Lead	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Magnesium	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Potassium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Silver	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Sodium	10100	ug/L	10000	ug/L	101	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Vanadium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 15:42	040510–1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 15:42	040510–1
CCV16										
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Antimony	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Cadmium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Calcium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Chromium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Copper	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Magnesium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Potassium	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Silver	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 16:01	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 16:01	040510–1
	Zinc	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 16:01	040510–1
CCV17										
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Antimony	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Cadmium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Chromium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Cobalt	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Copper	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Iron	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Lead	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Potassium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Silver	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Sodium	10100	ug/L	10000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 16:19	040510–1
	Zinc	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 16:19	040510–1
CCV18										
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Antimony	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Barium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Chromium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Cobalt	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Copper	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 16:37	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Lead	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Sodium	10100	ug/L	10000	ug/L	100.6	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:37	040510–1
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 16:37	040510–1
CCV19										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Barium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Chromium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Cobalt	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Copper	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Lead	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Magnesium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Potassium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Silver	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Vanadium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 16:51	040510–1
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 16:51	040510–1
CCV20										
	Aluminum	4890	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Antimony	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 17:10	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Cadmium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Calcium	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Chromium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Cobalt	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Copper	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Manganese	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Silver	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Vanadium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 17:10	040510–1
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 17:10	040510–1
CCV21										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Antimony	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Barium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Chromium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Cobalt	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Copper	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Lead	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Magnesium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Manganese	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Potassium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Silver	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 17:26	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Vanadium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 17:26	040510–1
	Zinc	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 17:26	040510–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS6,MER536,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.226	ug/L	.2	ug/L	112.9	70.0 – 130.0	AV	31–MAR–10 08:55	033110S1–4
	Thallium	1.08	ug/L	1	ug/L	107.6	70.0 – 130.0	MS	14–MAY–10 05:04	100512–2
	Beryllium	.616	ug/L	.5	ug/L	123.2	70.0 – 130.0	MS	14–MAY–10 05:04	100512–2
	Nickel	2.26	ug/L	2	ug/L	113.1	70.0 – 130.0	MS	16–MAY–10 04:32	100515–3
	Arsenic	5.97	ug/L	5	ug/L	119.4	70.0 – 130.0	MS	16–MAY–10 04:32	100515–3
	Selenium	5.96	ug/L	5	ug/L	119.2	70.0 – 130.0	MS	16–MAY–10 04:32	100515–3
PQL01										
	Aluminum	206	ug/L	200	ug/L	103	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Iron	104	ug/L	100	ug/L	103.9	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Lead	9.5	ug/L	10	ug/L	95	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Magnesium	329	ug/L	300	ug/L	109.5	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Manganese	10.5	ug/L	10	ug/L	104.5	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Potassium	150	ug/L	150	ug/L	100.3	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Silver	4.82	ug/L	5	ug/L	96.4	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Sodium	277	ug/L	300	ug/L	92.3	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Antimony	7.08	ug/L	10	ug/L	70.8	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Barium	5.09	ug/L	5	ug/L	101.8	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Cadmium	5.13	ug/L	5	ug/L	102.6	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Chromium	5.01	ug/L	5	ug/L	100.1	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Cobalt	5.33	ug/L	5	ug/L	106.7	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Copper	10.3	ug/L	10	ug/L	102.9	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Vanadium	5.27	ug/L	5	ug/L	105.5	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Zinc	10.5	ug/L	10	ug/L	104.5	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Calcium	206	ug/L	200	ug/L	103.1	70.0 – 130.0	P	05–APR–10 10:28	040510–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2412

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	31–MAR–10 08:53	033110S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 10:25	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:25	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:25	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:25	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:25	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 10:25	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:25	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 10:25	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 10:25	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 10:25	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 10:25	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 10:25	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:25	040510–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	14–MAY–10 04:59	100512–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	14–MAY–10 04:59	100512–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 04:28	100515–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 04:28	100515–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 04:28	100515–3
CCB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	31–MAR–10 08:59	033110S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 10:38	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:38	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:38	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:38	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2412

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:38	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 10:38	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:38	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 10:38	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 10:38	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 10:38	040510–1
	Potassium	236.18	+/–250	J	64.0	250	SOL	P	05–APR–10 10:38	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–1
	Sodium	98.65	+/–250	J	70.0	250	SOL	P	05–APR–10 10:38	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:38	040510–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	14–MAY–10 05:23	100512–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	14–MAY–10 05:23	100512–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 04:49	100515–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 04:49	100515–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 04:49	100515–3
CCB02										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	31–MAR–10 09:23	033110S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 10:51	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:51	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:51	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:51	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:51	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 10:51	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:51	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 10:51	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 10:51	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 10:51	040510–1
	Potassium	70.41	+/–250	J	64.0	250	SOL	P	05–APR–10 10:51	040510–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2412

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 10:51	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:51	040510–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	14–MAY–10 05:38	100512–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	14–MAY–10 05:38	100512–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 05:33	100515–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 05:33	100515–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 05:33	100515–3
CCB03										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	31–MAR–10 09:47	033110S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 11:23	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:23	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:23	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:23	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:23	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 11:23	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:23	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 11:23	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 11:23	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 11:23	040510–1
	Potassium	85.5	+/–250	J	64.0	250	SOL	P	05–APR–10 11:23	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 11:23	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:23	040510–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	14–MAY–10 06:26	100512–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	14–MAY–10 06:26	100512–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	16–MAY–10 05:58	100515–3

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2412

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	16–MAY–10 05:58	100515–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	16–MAY–10 05:58	100515–3
CCB04										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 11:31	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:31	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:31	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:31	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:31	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 11:31	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:31	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 11:31	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 11:31	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 11:31	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 11:31	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 11:31	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:31	040510–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	14–MAY–10 07:09	100512–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	14–MAY–10 07:09	100512–2
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 11:54	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:54	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:54	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:54	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:54	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:54	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:54	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 11:54	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2412

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:54	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 11:54	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 11:54	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 11:54	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 11:54	040510–1
	Silver	–1.55	+/–5	J	1.0	5.0	SOL	P	05–APR–10 11:54	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 11:54	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:54	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:54	040510–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	14–MAY–10 07:43	100512–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	14–MAY–10 07:43	100512–2
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 12:18	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 12:18	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:18	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 12:18	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 12:18	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 12:18	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:18	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 12:18	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 12:18	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 12:18	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 12:18	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 12:18	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 12:18	040510–1
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 12:43	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2412

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 12:43	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:43	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:43	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:43	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 12:43	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 12:43	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 12:43	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:43	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 12:43	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 12:43	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 12:43	040510–1
	Potassium	84.07	+/–250	J	64.0	250	SOL	P	05–APR–10 12:43	040510–1
	Silver	–1.25	+/–5	J	1.0	5.0	SOL	P	05–APR–10 12:43	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 12:43	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:43	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 12:43	040510–1
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 13:04	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:04	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:04	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:04	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:04	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:04	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:04	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 13:04	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:04	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:04	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:04	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:04	040510–1
	Potassium	87.68	+/–250	J	64.0	250	SOL	P	05–APR–10 13:04	040510–1
	Silver	–1.14	+/–5	J	1.0	5.0	SOL	P	05–APR–10 13:04	040510–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2412

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	05-APR-10 13:04	040510-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 13:04	040510-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	05-APR-10 13:04	040510-1
CCB09										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	05-APR-10 13:21	040510-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	05-APR-10 13:21	040510-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 13:21	040510-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 13:21	040510-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	05-APR-10 13:21	040510-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	05-APR-10 13:21	040510-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	05-APR-10 13:21	040510-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	05-APR-10 13:21	040510-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	05-APR-10 13:21	040510-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	05-APR-10 13:21	040510-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	05-APR-10 13:21	040510-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	05-APR-10 13:21	040510-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	05-APR-10 13:21	040510-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 13:21	040510-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	05-APR-10 13:21	040510-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 13:21	040510-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	05-APR-10 13:21	040510-1
CCB10										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	05-APR-10 13:44	040510-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	05-APR-10 13:44	040510-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 13:44	040510-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	05-APR-10 13:44	040510-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	05-APR-10 13:44	040510-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	05-APR-10 13:44	040510-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	05-APR-10 13:44	040510-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	05-APR-10 13:44	040510-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	05-APR-10 13:44	040510-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2412

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:44	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:44	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:44	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 13:44	040510–1
	Silver	–1.38	+/–5	J	1.0	5.0	SOL	P	05–APR–10 13:44	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 13:44	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:44	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:44	040510–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 13:59	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:59	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:59	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:59	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:59	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:59	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:59	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 13:59	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:59	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:59	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:59	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:59	040510–1
	Potassium	75.96	+/–250	J	64.0	250	SOL	P	05–APR–10 13:59	040510–1
	Silver	–1.41	+/–5	J	1.0	5.0	SOL	P	05–APR–10 13:59	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 13:59	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:59	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:59	040510–1
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 14:24	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 14:24	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:24	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:24	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2412

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 14:24	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 14:24	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 14:24	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 14:24	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 14:24	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 14:24	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 14:24	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 14:24	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 14:24	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:24	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 14:24	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:24	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 14:24	040510–1
CCB13										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 14:58	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 14:58	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:58	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:58	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 14:58	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 14:58	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 14:58	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 14:58	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 14:58	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 14:58	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 14:58	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 14:58	040510–1
	Potassium	68.95	+/–250	J	64.0	250	SOL	P	05–APR–10 14:58	040510–1
	Silver	–1.26	+/–5	J	1.0	5.0	SOL	P	05–APR–10 14:58	040510–1
	Sodium	85.97	+/–250	J	70.0	250	SOL	P	05–APR–10 14:58	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 14:58	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 14:58	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2412

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB14										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 15:19	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 15:19	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:19	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:19	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 15:19	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 15:19	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 15:19	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 15:19	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 15:19	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 15:19	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 15:19	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 15:19	040510–1
	Potassium	85.73	+/–250	J	64.0	250	SOL	P	05–APR–10 15:19	040510–1
	Silver	–1.85	+/–5	J	1.0	5.0	SOL	P	05–APR–10 15:19	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 15:19	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:19	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 15:19	040510–1
CCB15										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 15:45	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 15:45	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:45	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:45	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 15:45	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 15:45	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 15:45	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 15:45	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 15:45	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 15:45	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 15:45	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 15:45	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 15:45	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2412

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	–1.39	+/–5	J	1.0	5.0	SOL	P	05–APR–10 15:45	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 15:45	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 15:45	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 15:45	040510–1
CCB16										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 16:03	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:03	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:03	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:03	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:03	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:03	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:03	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 16:03	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:03	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 16:03	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 16:03	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 16:03	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 16:03	040510–1
	Silver	–1.77	+/–5	J	1.0	5.0	SOL	P	05–APR–10 16:03	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 16:03	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:03	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:03	040510–1
CCB17										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 16:21	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:21	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:21	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:21	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:21	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:21	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:21	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 16:21	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2412

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:21	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 16:21	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 16:21	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 16:21	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 16:21	040510–1
	Silver	–2.07	+/–5	J	1.0	5.0	SOL	P	05–APR–10 16:21	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 16:21	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:21	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:21	040510–1
CCB18										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 16:39	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:39	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:39	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:39	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:39	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:39	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:39	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 16:39	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:39	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 16:39	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 16:39	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 16:39	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 16:39	040510–1
	Silver	–2.22	+/–5	J	1.0	5.0	SOL	P	05–APR–10 16:39	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 16:39	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:39	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:39	040510–1
CCB19										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 16:53	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:53	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:53	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2412

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:53	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:53	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:53	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 16:53	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 16:53	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 16:53	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 16:53	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 16:53	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 16:53	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 16:53	040510–1
	Silver	–1.09	+/–5	J	1.0	5.0	SOL	P	05–APR–10 16:53	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 16:53	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 16:53	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 16:53	040510–1
CCB20										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 17:12	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:12	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:12	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:12	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:12	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 17:12	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 17:12	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 17:12	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:12	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 17:12	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 17:12	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 17:12	040510–1
	Potassium	89.98	+/–250	J	64.0	250	SOL	P	05–APR–10 17:12	040510–1
	Silver	–2.36	+/–5	J	1.0	5.0	SOL	P	05–APR–10 17:12	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 17:12	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:12	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2412

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:12	040510–1
CCB21										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 17:28	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:28	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:28	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:28	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:28	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 17:28	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 17:28	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 17:28	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 17:28	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 17:28	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 17:28	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 17:28	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 17:28	040510–1
	Silver	–1.5	+/–5	J	1.0	5.0	SOL	P	05–APR–10 17:28	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 17:28	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 17:28	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 17:28	040510–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2412

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202071964								
	Aluminum	6650	ug/kg	+/–19600	U	P	6650	19600
	Antimony	323	ug/kg	+/–978	U	P	323	978
	Barium	97.8	ug/kg	+/–489	U	P	97.8	489
	Cadmium	97.8	ug/kg	+/–489	U	P	97.8	489
	Calcium	7830	ug/kg	+/–24500	U	P	7830	24500
	Chromium	147	ug/kg	+/–489	U	P	147	489
	Cobalt	147	ug/kg	+/–489	U	P	147	489
	Copper	294	ug/kg	+/–978	U	P	294	978
	Iron	7830	ug/kg	+/–24500	U	P	7830	24500
	Lead	245	ug/kg	+/–978	U	P	245	978
	Magnesium	8320	ug/kg	+/–29400	U	P	8320	29400
	Manganese	196	ug/kg	+/–978	U	P	196	978
	Potassium	6260	ug/kg	+/–24500	U	P	6260	24500
	Silver	97.8	ug/kg	+/–489	U	P	97.8	489
	Sodium	6850	ug/kg	+/–24500	U	P	6850	24500
	Vanadium	97.8	ug/kg	+/–489	U	P	97.8	489
	Zinc	323	ug/kg	+/–978	U	P	323	978
1202071970								
	Arsenic	191	ug/kg	+/–954	U	MS	191	954
	Beryllium	19.1	ug/kg	+/–95.4	U	MS	19.1	95.4
	Nickel	95.4	ug/kg	+/–382	U	MS	95.4	382
	Selenium	477	ug/kg	+/–954	U	MS	477	954
	Thallium	57.3	ug/kg	+/–191	U	MS	57.3	191
1202081090								
	Mercury	4.03	ug/kg	+/–11.9	U	AV	4.03	11.9

METALS
–4–
Interference Check Sample

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	507000	ug/L	500000	ug/L	101	80.0 – 120.0	05–APR–10 10:30	040510–1
	Antimony	2.46	ug/L					05–APR–10 10:30	040510–1
	Barium	0.214	ug/L					05–APR–10 10:30	040510–1
	Cadmium	–1.98	ug/L					05–APR–10 10:30	040510–1
	Calcium	489000	ug/L	500000	ug/L	97.8	80.0 – 120.0	05–APR–10 10:30	040510–1
	Chromium	0.825	ug/L					05–APR–10 10:30	040510–1
	Cobalt	–6.2	ug/L					05–APR–10 10:30	040510–1
	Copper	2.05	ug/L					05–APR–10 10:30	040510–1
	Iron	192000	ug/L	200000	ug/L	95.9	80.0 – 120.0	05–APR–10 10:30	040510–1
	Lead	–2.28	ug/L					05–APR–10 10:30	040510–1
	Magnesium	488000	ug/L	500000	ug/L	97.6	80.0 – 120.0	05–APR–10 10:30	040510–1
	Manganese	2.95	ug/L					05–APR–10 10:30	040510–1
	Potassium	–150.0	ug/L					05–APR–10 10:30	040510–1
	Silver	–1.56	ug/L					05–APR–10 10:30	040510–1
	Sodium	72.8	ug/L					05–APR–10 10:30	040510–1
	Vanadium	1.44	ug/L					05–APR–10 10:30	040510–1
	Zinc	8.71	ug/L					05–APR–10 10:30	040510–1
ICSAB01									
	Aluminum	510000	ug/L	500000	ug/L	102	80.0 – 120.0	05–APR–10 10:32	040510–1
	Antimony	518	ug/L	500	ug/L	104	80.0 – 120.0	05–APR–10 10:32	040510–1
	Barium	505	ug/L	500	ug/L	101	80.0 – 120.0	05–APR–10 10:32	040510–1
	Cadmium	483	ug/L	500	ug/L	96.6	80.0 – 120.0	05–APR–10 10:32	040510–1
	Calcium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	05–APR–10 10:32	040510–1
	Chromium	493	ug/L	500	ug/L	98.6	80.0 – 120.0	05–APR–10 10:32	040510–1
	Cobalt	452	ug/L	500	ug/L	90.4	80.0 – 120.0	05–APR–10 10:32	040510–1
	Copper	544	ug/L	500	ug/L	109	80.0 – 120.0	05–APR–10 10:32	040510–1
	Iron	193000	ug/L	200000	ug/L	96.5	80.0 – 120.0	05–APR–10 10:32	040510–1
	Lead	472	ug/L	500	ug/L	94.4	80.0 – 120.0	05–APR–10 10:32	040510–1
	Magnesium	491000	ug/L	500000	ug/L	98.2	80.0 – 120.0	05–APR–10 10:32	040510–1

METALS
–4–
Interference Check Sample

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Manganese	486	ug/L	500	ug/L	97.3	80.0 – 120.0	05–APR–10 10:32	040510–1
	Potassium	5510	ug/L	5000	ug/L	110	80.0 – 120.0	05–APR–10 10:32	040510–1
	Silver	271	ug/L	250	ug/L	108	80.0 – 120.0	05–APR–10 10:32	040510–1
	Sodium	5380	ug/L	5000	ug/L	108	80.0 – 120.0	05–APR–10 10:32	040510–1
	Vanadium	520	ug/L	500	ug/L	104	80.0 – 120.0	05–APR–10 10:32	040510–1
	Zinc	500	ug/L	500	ug/L	100	80.0 – 120.0	05–APR–10 10:32	040510–1

METALS
–4–
Interference Check Sample

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.062	ug/L					14–MAY–10 05:09	100512–2
	Thallium	–0.072	ug/L					14–MAY–10 05:09	100512–2
ICSAB01									
	Beryllium	19.3	ug/L	20	ug/L	96.4	80.0 – 120.0	14–MAY–10 05:14	100512–2
	Thallium	18.6	ug/L	20	ug/L	92.9	80.0 – 120.0	14–MAY–10 05:14	100512–2

METALS
–4–
Interference Check Sample

SDG No: 10–2412

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.499	ug/L					16–MAY–10 04:36	100515–3
	Nickel	3.17	ug/L					16–MAY–10 04:36	100515–3
	Selenium	–0.888	ug/L					16–MAY–10 04:36	100515–3
ICSAB01									
	Arsenic	21.2	ug/L	20	ug/L	106	80.0 – 120.0	16–MAY–10 04:41	100515–3
	Nickel	21.5	ug/L	23.31	ug/L	92.3	80.0 – 120.0	16–MAY–10 04:41	100515–3
	Selenium	20.1	ug/L	20	ug/L	101	80.0 – 120.0	16–MAY–10 04:41	100515–3

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2412 **Client ID:** RE46–10–12927S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 249244001 **Spike ID:** 1202071967

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		10600000		5550000		557000	901	N/A	P
Antimony	ug/kg	75–125	45400		367	U	55700	81.5		P
Barium	ug/kg	75–125	143000		89300		55700	97		P
Cadmium	ug/kg	75–125	55800		111	U	55700	100		P
Calcium	ug/kg	75–125	3030000		2170000		557000	154	N	P
Chromium	ug/kg	75–125	64400		5550		55700	106		P
Cobalt	ug/kg	75–125	59400		2760		55700	102		P
Copper	ug/kg	75–125	65600		5250		55700	108		P
Iron	ug/kg		12300000		9420000		557000	520	N/A	P
Lead	ug/kg	75–125	73000		15600		55700	103		P
Magnesium	ug/kg	75–125	2280000		1210000		557000	192	N	P
Manganese	ug/kg		294000		223000		55700	129	N/A	P
Potassium	ug/kg	75–125	1800000		829000		557000	175	N	P
Silver	ug/kg	75–125	56900		111	U	55700	102		P
Sodium	ug/kg	75–125	704000		128000		557000	103		P
Vanadium	ug/kg	75–125	75500		13500		55700	111		P
Zinc	ug/kg	75–125	89100		26600		55700	112		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2412 **Client ID** RE46–10–12927SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 249244001 **Spike ID:** 1202071969

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/kg	75–125	39700		367	U	51800	76.5		P
Barium	ug/kg	75–125	145000		89300		51800	107		P
Cadmium	ug/kg	75–125	51800		111	U	51800	99.9		P
Calcium	ug/kg		4850000		2170000		518000	517	N/A	P
Chromium	ug/kg	75–125	59300		5550		51800	104		P
Cobalt	ug/kg	75–125	53800		2760		51800	98.4		P
Copper	ug/kg	75–125	61000		5250		51800	108		P
Iron	ug/kg		12500000		9420000		518000	594	N/A	P
Lead	ug/kg	75–125	66300		15600		51800	97.8		P
Magnesium	ug/kg	75–125	2390000		1210000		518000	227	N	P
Manganese	ug/kg		332000		223000		51800	211	N/A	P
Potassium	ug/kg	75–125	1870000		829000		518000	200	N	P
Silver	ug/kg	75–125	52400		111	U	51800	101		P
Sodium	ug/kg	75–125	670000		128000		518000	105		P
Vanadium	ug/kg	75–125	71100		13500		51800	111		P
Zinc	ug/kg	75–125	84600		26600		51800	112		P
Aluminum	ug/kg		11800000		5550000		518000	1210	N/A	P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2412 **Client ID** RE46–10–12927S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 249244001 **Spike ID:** 1202071973

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	9820		2090		8940	86.4		MS
Beryllium	ug/kg	75–125	5400		506		5590	87.5		MS
Nickel	ug/kg	75–125	10000		6310		5590	66.3	N	MS
Selenium	ug/kg	75–125	2000		559	U	2240	85.8		MS
Thallium	ug/kg	75–125	10400		114	J	11200	91.8		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2412 **Client ID** RE46–10–12927SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 88

Sample ID: 249244001 **Spike ID:** 1202071975

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Nickel	ug/kg	75–125	11200		6310		5330	90.9		MS
Selenium	ug/kg	75–125	1750		559	U	2130	78.1		MS
Thallium	ug/kg	75–125	9340		114	J	10700	86.5		MS
Arsenic	ug/kg	75–125	9130		2090		8520	82.6		MS
Beryllium	ug/kg	75–125	5030		506		5330	84.9		MS

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–2412 **Client ID** RE46–10–13219S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.1

Sample ID: 249330001 **Spike ID:** 1202081093

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	225		77.8		128	115		AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2412 **Client ID** RE46–10–13219SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.1

Sample ID: 249330001 **Spike ID:** 1202081095

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	224		77.8		122	121		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12927D

Sample ID: 249244001 **Duplicate ID:** 1202071966 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	5550000		6620000		17.5		P
Antimony	ug/kg		367	U	370	U			P
Barium	ug/kg	+/–20%	89300		229000		87.9	*	P
Cadmium	ug/kg		111	U	112	U			P
Calcium	ug/kg	+/–20%	2170000		2720000		22.4	*	P
Chromium	ug/kg	+/–20%	5550		8440		41.4	*	P
Cobalt	ug/kg	+/–561	2760		15400		139	*	P
Copper	ug/kg	+/–1120	5250		6080		14.7		P
Iron	ug/kg	+/–20%	9420000		12500000		28.1	*	P
Lead	ug/kg	+/–20%	15600		29200		61	*	P
Magnesium	ug/kg	+/–20%	1210000		1440000		17.2		P
Manganese	ug/kg	+/–20%	223000		1250000		140	*	P
Potassium	ug/kg	+/–20%	829000		975000		16.1		P
Silver	ug/kg		111	U	112	U			P
Sodium	ug/kg	+/–28100	128000		142000		10.1		P
Vanadium	ug/kg	+/–20%	13500		21700		46.5	*	P
Zinc	ug/kg	+/–20%	26600		34000		24.4	*	P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12927SD

Sample ID: 1202071967 **Duplicate ID:** 1202071969 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	10600000		11800000		11.3		P
Antimony	ug/kg	+/–20	45400		39700		13.4		P
Barium	ug/kg	+/–20	143000		145000		1.06		P
Cadmium	ug/kg	+/–20	55800		51800		7.56		P
Calcium	ug/kg	+/–20	3030000		4850000		46.3	*	P
Chromium	ug/kg	+/–20	64400		59300		8.25		P
Cobalt	ug/kg	+/–20	59400		53800		9.95		P
Copper	ug/kg	+/–20	65600		61000		7.16		P
Iron	ug/kg	+/–20	12300000		12500000		1.48		P
Lead	ug/kg	+/–20	73000		66300		9.7		P
Magnesium	ug/kg	+/–20	2280000		2390000		4.68		P
Manganese	ug/kg	+/–20	294000		332000		12		P
Potassium	ug/kg	+/–20	1800000		1870000		3.49		P
Silver	ug/kg	+/–20	56900		52400		8.24		P
Sodium	ug/kg	+/–20	704000		670000		4.89		P
Vanadium	ug/kg	+/–20	75500		71100		5.92		P
Zinc	ug/kg	+/–20	89100		84600		5.16		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12927D

Sample ID: 249244001 **Duplicate ID:** 1202071972 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–1130	2090		1680		22		MS
Beryllium	ug/kg	+/–113	506		585		14.3		MS
Nickel	ug/kg	+/–20%	6310		6890		8.87		MS
Selenium	ug/kg		559	U	567	U			MS
Thallium	ug/kg	+/–227	114	J	123	J	7.48		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12927SD

Sample ID: 1202071973 **Duplicate ID:** 1202071975 **Percent Solids for Dup:** 88

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	9820		9130		7.27		MS
Beryllium	ug/kg	+/–20	5400		5030		7.07		MS
Nickel	ug/kg	+/–20	10000		11200		10.7		MS
Selenium	ug/kg	+/–20	2000		1750		13.5		MS
Thallium	ug/kg	+/–20	10400		9340		10.6		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13219D

Sample ID: 249330001 **Duplicate ID:** 1202081092 **Percent Solids for Dup:** 92.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20%	77.8		80.9		3.95		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2412

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–13219SD

Sample ID: 1202081093 **Duplicate ID:** 1202081095 **Percent Solids for Dup:** 92.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	225		224		.36		AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2412

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202071965								
	Cadmium	ug/kg	60700	65600		108	81–120	P
	Calcium	ug/kg	9870000	10600000		107	83–117	P
	Chromium	ug/kg	236000	261000		110	80–120	P
	Cobalt	ug/kg	91200	99800		109	81–120	P
	Copper	ug/kg	174000	200000		115	81–118	P
	Iron	ug/kg	18000000	19500000		108	51–149	P
	Lead	ug/kg	86000	87100		101	79–121	P
	Magnesium	ug/kg	4000000	3930000		98.2	79–122	P
	Manganese	ug/kg	558000	583000		105	81–119	P
	Potassium	ug/kg	4300000	4340000		101	74–127	P
	Silver	ug/kg	30100	32700		109	66–134	P
	Sodium	ug/kg	1020000	1070000		105	74–127	P
	Vanadium	ug/kg	115000	129000		112	79–121	P
	Zinc	ug/kg	594000	634000		107	80–121	P
	Aluminum	ug/kg	10500000	9110000		86.8	56–144	P
	Antimony	ug/kg	173000	127000		73.4	71–130	P
	Barium	ug/kg	198000	209000		106	80–120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2412

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202071971								
	Arsenic	ug/kg	104000	119000		114	78-123	MS
	Beryllium	ug/kg	77600	89000		115	84-116	MS
	Nickel	ug/kg	134000	159000		119	78-123	MS
	Selenium	ug/kg	286000	329000		115	77-123	MS
	Thallium	ug/kg	121000	140000		116	78-122	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2412

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202081091								
	Mercury	ug/kg	5150	5400		105	71.6–128.3	AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2412 **Client ID** RE46–10–12927L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 249244001 **Serial Dilution ID:** 1202071968

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	49900		51500		3.21		10	P
Antimony	3.3	U	16.5	U				P
Barium	803		815		1.49		10	P
Cadmium	1	U	5	U				P
Calcium	19500		20000		2.56		10	P
Chromium	49.9		51		2.2			P
Cobalt	24.9		26.3		5.62			P
Copper	47.2		40.8	J	13.6			P
Iron	84800		86500		2		10	P
Lead	140		146		3.93		10	P
Magnesium	10900		11100		1.38		10	P
Manganese	2000		2070		3.25		10	P
Potassium	7460		7750		3.89		10	P
Silver	1	U	5	U				P
Sodium	1160		1210	J	4.31			P
Vanadium	122		122		0		10	P
Zinc	239		270		13	E	10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2412 **Client ID** RE46–10–12927L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 249244001 **Serial Dilution ID:** 1202071974

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	9.36		9.8	J	4.7			MS
Beryllium	2.27		2.47	J	8.81			MS
Nickel	28.2		29.6		4.96			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.509	J	1.5	U	100			MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2412 **Client ID** RE46–10–13219L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 249330001 **Serial Dilution ID:** 1202081094

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	1.21		.785	J	35.1			AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2412 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	965587						
1202071964	MB for batch 965587	MB	S	25–MAR–10	.511g	50mL	
1202071965	LCS for batch 965587	LCS	S	25–MAR–10	.515g	50mL	
1202071967	RE46–10–12927S	MS	S	25–MAR–10	.51g	50mL	
1202071969	RE46–10–12927SD	MSD	S	25–MAR–10	.548g	50mL	
1202071966	RE46–10–12927D	DUP	S	25–MAR–10	.506g	50mL	
249244001	RE46–10–12927	SAMPLE	S	25–MAR–10	.511g	50mL	
249244002	RE46–10–12923	SAMPLE	S	25–MAR–10	.524g	50mL	
249244003	RE46–10–12924	SAMPLE	S	25–MAR–10	.547g	50mL	
249244004	RE46–10–12926	SAMPLE	S	25–MAR–10	.512g	50mL	
249244005	RE46–10–12928	SAMPLE	S	25–MAR–10	.519g	50mL	
249244006	RE46–10–12925	SAMPLE	S	25–MAR–10	.529g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2412 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	965590						
1202071970	MB for batch 965590	MB	S	26–MAR–10	.524g	50mL	
1202071971	LCS for batch 965590	LCS	S	26–MAR–10	.519g	50mL	
1202071973	RE46–10–12927S	MS	S	26–MAR–10	.508g	50mL	
1202071975	RE46–10–12927SD	MSD	S	26–MAR–10	.533g	50mL	
1202071972	RE46–10–12927D	DUP	S	26–MAR–10	.501g	50mL	
249244001	RE46–10–12927	SAMPLE	S	26–MAR–10	.508g	50mL	
249244002	RE46–10–12923	SAMPLE	S	26–MAR–10	.528g	50mL	
249244003	RE46–10–12924	SAMPLE	S	26–MAR–10	.537g	50mL	
249244004	RE46–10–12926	SAMPLE	S	26–MAR–10	.514g	50mL	
249244005	RE46–10–12928	SAMPLE	S	26–MAR–10	.537g	50mL	
249244006	RE46–10–12925	SAMPLE	S	26–MAR–10	.52g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2412 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	969289						
1202081090	MB for batch 969289	MB	S	30–MAR–10	.506g	30mL	
1202081091	LCS for batch 969289	LCS	S	30–MAR–10	.206g	30mL	
1202081093	RE46–10–13219S	MS	S	30–MAR–10	.507g	30mL	
1202081095	RE46–10–13219SD	MSD	S	30–MAR–10	.536g	30mL	
1202081092	RE46–10–13219D	DUP	S	30–MAR–10	.5g	30mL	
249244001	RE46–10–12927	SAMPLE	S	30–MAR–10	.581g	30mL	
249244002	RE46–10–12923	SAMPLE	S	30–MAR–10	.55g	30mL	
249244003	RE46–10–12924	SAMPLE	S	30–MAR–10	.553g	30mL	
249244004	RE46–10–12926	SAMPLE	S	30–MAR–10	.553g	30mL	
249244005	RE46–10–12928	SAMPLE	S	30–MAR–10	.538g	30mL	
249244006	RE46–10–12925	SAMPLE	S	30–MAR–10	.526g	30mL	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 14-MAY-10 **End Date:** 14-MAY-10

Client Sdg: 10-2412
Method MS
Data File: 100512-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	04:40:00					X																X		
S10	1	04:45:00					X																X		
S100	1	04:50:00					X																X		
ICV01	1	04:55:00					X																X		
ICB01	1	04:59:00					X																X		
CRDL01	1	05:04:00					X																X		
ICSA01	1	05:09:00					X																X		
ICSAB01	1	05:14:00					X																X		
CCV01	1	05:19:00					X																X		
CCB01	1	05:23:00					X																X		
LR01	1	05:28:00					X																X		
CCV02	1	05:33:00					X																X		
CCB02	1	05:38:00					X																X		
ZZZZZZ	1	05:42:00																							
ZZZZZZ	1	05:47:00																							
ZZZZZZ	1	05:52:00																							
ZZZZZZ	1	05:57:00																							
ZZZZZZ	1	06:02:00																							
ZZZZZZ	1	06:07:00																							
ZZZZZZ	1	06:11:00																							
ZZZZZZ	5	06:16:00																							
CCV03	1	06:21:00					X																X		
CCB03	1	06:26:00					X																X		
1202071970	2	06:31:00					X																X		
1202071971	40	06:35:00					X																X		
249244001	2	06:40:00					X																X		
1202071972	2	06:45:00					X																X		
1202071973	2	06:50:00					X																X		
1202071975	2	06:55:00					X																X		
1202071974	2 10	07:00:00					X																X		
CCV04	1	07:04:00					X																X		
CCB04	1	07:09:00					X																X		
249244002	2	07:14:00					X																X		
249244003	2	07:19:00					X																X		
249244004	2	07:24:00					X																X		
249244005	2	07:29:00					X																X		
249244006	2	07:33:00					X																X		
CCV05	1	07:38:00					X																X		
CCB05	1	07:43:00					X																X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 16–MAY–10 **End Date:** 16–MAY–10

Client Sdg: 10–2412
Method MS
Data File: 100515–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	04:11:00			X													X		X					
S10	1	04:15:00			X													X		X					
S100	1	04:19:00			X													X		X					
ICV01	1	04:24:00			X													X		X					
ICB01	1	04:28:00			X													X		X					
CRDL01	1	04:32:00			X													X		X					
ICSA01	1	04:36:00			X													X		X					
ICSAB01	1	04:41:00			X													X		X					
CCV01	1	04:45:00			X													X		X					
CCB01	1	04:49:00			X													X		X					
1202071970	2	04:53:00			X													X		X					
1202071971	40	04:57:00			X													X		X					
249244001	2	05:02:00			X													X		X					
1202071972	2	05:06:00			X													X		X					
1202071973	2	05:10:00			X													X		X					
1202071975	2	05:16:00			X													X		X					
1202071974	10	05:20:00			X													X		X					
249244002	2	05:24:00			X													X		X					
CCV02	1	05:28:00			X													X		X					
CCB02	1	05:33:00			X													X		X					
249244003	2	05:37:00			X													X		X					
249244004	2	05:41:00			X													X		X					
249244005	2	05:45:00			X													X		X					
249244006	2	05:50:00			X													X		X					
CCV03	1	05:54:00			X													X		X					
CCB03	1	05:58:00			X													X		X					

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 05–APR–10 **End Date:** 05–APR–10

Client Sdg: 10–2412
Method P
Data File: 040510–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	10:13:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
S0.1	1	10:16:46		X		X		X		X	X	X		X		X			X		X			X	X
S0.5	1	10:18:43	X	X		X		X	X	X	X	X		X	X	X			X		X			X	X
SCAL	1	10:20:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
S10	1	10:22:45	X						X				X		X							X			
ICV01	1	10:23:35	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICB01	1	10:25:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
PQL01	1	10:28:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICSA01	1	10:30:46	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICSAB01	1	10:32:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR01	1	10:33:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR02	1	10:34:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV01	1	10:36:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB01	1	10:38:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV02	1	10:49:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB02	1	10:51:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	10:59:53																							
ZZZZZZ	1	11:02:52																							
ZZZZZZ	1	11:04:51																							
ZZZZZZ	1	11:06:48																							
ZZZZZZ	1	11:09:00																							
ZZZZZZ	5	11:11:00																							
ZZZZZZ	1	11:14:06																							
ZZZZZZ	1	11:16:04																							
ZZZZZZ	1	11:18:02																							
ZZZZZZ	1	11:20:17																							
CCV03	1	11:21:36	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB03	1	11:23:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	50	11:26:32																							
CCV04	1	11:29:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB04	1	11:31:43	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	11:39:33																							
ZZZZZZ	1	11:42:30																							
ZZZZZZ	1	11:43:52																							
ZZZZZZ	1	11:45:56																							
ZZZZZZ	1	11:48:00																							
ZZZZZZ	1	11:49:08																							
ZZZZZZ	5	11:50:20																							
CCV05	1	11:52:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB05	1	11:54:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	11:57:21																							
ZZZZZZ	1	11:59:22																							
ZZZZZZ	1	12:01:21																							
ZZZZZZ	1	12:03:34																							
ZZZZZZ	1	12:05:52																							
ZZZZZZ	1	12:08:09																							
ZZZZZZ	1	12:10:08																							
ZZZZZZ	1	12:12:12																							
ZZZZZZ	1	12:14:30																							
CCV06	1	12:16:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB06	1	12:18:49	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	12:21:45																							
ZZZZZZ	1	12:23:45																							
ZZZZZZ	1	12:26:05																							
ZZZZZZ	1	12:28:05																							
ZZZZZZ	1	12:30:03																							
ZZZZZZ	1	12:32:23																							
ZZZZZZ	1	12:34:21																							
ZZZZZZ	1	12:36:40																							
ZZZZZZ	1	12:38:52																							
CCV07	1	12:41:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB07	1	12:43:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	12:47:04																							
ZZZZZZ	1	12:50:02																							
ZZZZZZ	1	12:52:06																							
ZZZZZZ	1	12:54:12																							
ZZZZZZ	1	12:56:30																							
ZZZZZZ	1	12:58:28																							
ZZZZZZ	5	13:00:34																							
CCV08	1	13:02:50	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB08	1	13:04:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	13:08:02																							
ZZZZZZ	1	13:10:18																							
ZZZZZZ	1	13:12:31																							
ZZZZZZ	1	13:14:44																							
ZZZZZZ	1	13:16:57																							
CCV09	1	13:19:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB09	1	13:21:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	13:29:13																							
ZZZZZZ	1	13:32:11																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	13:33:39																							
ZZZZZZ	1	13:35:42																							
ZZZZZZ	1	13:37:41																							
ZZZZZZ	1	13:38:45																							
ZZZZZZ	5	13:39:49																							
CCV10	1	13:42:06	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB10	1	13:44:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	13:47:03																							
ZZZZZZ	1	13:49:23																							
ZZZZZZ	1	13:51:22																							
ZZZZZZ	1	13:53:20																							
ZZZZZZ	1	13:55:19																							
CCV11	1	13:57:17	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB11	1	13:59:32	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV12	1	14:22:36	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB12	1	14:24:50	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	14:28:01																							
ZZZZZZ	1	14:31:00																							
ZZZZZZ	1	14:33:13																							
ZZZZZZ	1	14:36:20																							
ZZZZZZ	1	14:39:27																							
ZZZZZZ	5	14:41:41																							
ZZZZZZ	1	14:44:33																							
ZZZZZZ	1	14:47:40																							
ZZZZZZ	1	14:49:53																							
ZZZZZZ	1	14:52:46																							
CCV13	1	14:55:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB13	1	14:58:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	15:01:18																							
ZZZZZZ	1	15:04:31																							
ZZZZZZ	1	15:05:54																							
ZZZZZZ	1	15:08:07																							
ZZZZZZ	1	15:10:20																							
ZZZZZZ	1	15:11:26																							
ZZZZZZ	5	15:12:34																							
ZZZZZZ	1	15:14:38																							
CCV14	1	15:16:50	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB14	1	15:19:06	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV15	1	15:42:57	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB15	1	15:45:12	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	15:48:24																							
ZZZZZZ	1	15:51:37																							
ZZZZZZ	1	15:53:00																							
ZZZZZZ	1	15:54:59																							
ZZZZZZ	1	15:57:11																							
ZZZZZZ	1	15:58:16																							
ZZZZZZ	5	15:59:35																							
CCV16	1	16:01:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB16	1	16:03:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	16:06:49																							
ZZZZZZ	1	16:08:49																							
ZZZZZZ	1	16:10:53																							
ZZZZZZ	1	16:12:51																							
ZZZZZZ	1	16:15:04																							
ZZZZZZ	1	16:17:02																							
CCV17	1	16:19:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB17	1	16:21:14	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	16:24:26																							
ZZZZZZ	1	16:27:25																							
ZZZZZZ	1	16:28:35																							
ZZZZZZ	1	16:30:48																							
ZZZZZZ	1	16:32:47																							
ZZZZZZ	1	16:33:52																							
ZZZZZZ	5	16:34:58																							
CCV18	1	16:37:14	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB18	1	16:39:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	16:42:40																							
ZZZZZZ	1	16:44:54																							
ZZZZZZ	1	16:47:06																							
ZZZZZZ	1	16:49:05																							
CCV19	1	16:51:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB19	1	16:53:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202071964	1	16:56:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202071965	1	16:59:42	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
249244001	1	17:00:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202071966	1	17:03:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202071967	1	17:05:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202071969	1	17:06:45	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202071968	5	17:08:06	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV20	1	17:10:09	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
CCB20	1	17:12:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
249244002	1	17:15:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
249244003	1	17:17:53	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
249244004	1	17:20:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
249244005	1	17:22:06	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
249244006	1	17:24:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV21	1	17:26:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB21	1	17:28:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 31–MAR–10 **End Date:** 31–MAR–10

Client Sdg: 10–2412
Method AV
Data File: 033110S1–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	08:39:00															X								
S0.2	1	08:41:00															X								
S0.5	1	08:43:00															X								
S2.0	1	08:45:00															X								
S5.0	1	08:47:00															X								
S10	1	08:49:00															X								
ICV01	1	08:51:00															X								
ICB01	1	08:53:00															X								
CRDL01	1	08:55:00															X								
CCV01	1	08:57:00															X								
CCB01	1	08:59:00															X								
1202081090	1	09:01:00															X								
1202081091	10	09:03:00															X								
249244001	1	09:05:00															X								
249244002	1	09:07:00															X								
249244003	1	09:09:00															X								
249244004	1	09:11:00															X								
249244005	1	09:13:00															X								
249244006	1	09:15:00															X								
ZZZZZZ	1	09:17:00																							
ZZZZZZ	1	09:19:00																							
CCV02	1	09:21:00															X								
CCB02	1	09:23:00															X								
ZZZZZZ	1	09:25:00																							
ZZZZZZ	1	09:27:00																							
ZZZZZZ	1	09:29:00																							
1202081092	1	09:31:00															X								
1202081093	1	09:33:00															X								
1202081095	1	09:35:00															X								
1202081094	5	09:37:00															X								
ZZZZZZ	1	09:39:00																							
ZZZZZZ	1	09:41:00																							
ZZZZZZ	1	09:43:00																							
CCV03	1	09:45:00															X								
CCB03	1	09:47:00															X								

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2412

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2412

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2412

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10–2412
Effective Dates: 22–MAR–10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	–0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	–0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	–0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	–0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2412
Effective Dates: 22-MAR-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2412
Effective Dates: 22-MAR-10

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2412
Effective Dates: 22-MAR-10

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2412
Effective Dates: 22-MAR-10

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2412
Effective Dates: 22-MAR-10

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–2412

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2412

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Aluminum	20	500000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 051410

Sample ID: Hg_ReAlign

Hg 253.652 **Rep: 1**

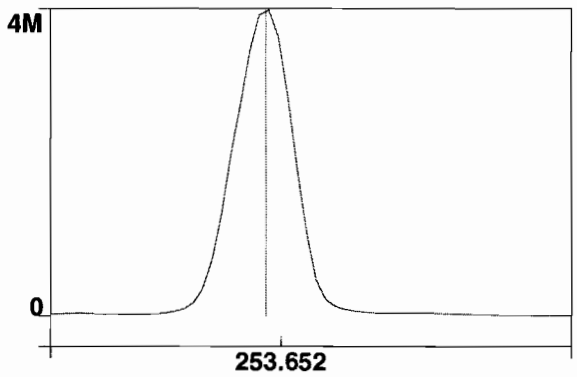

Intensity: 4403595.9 cps
Conc:

1

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Analysis Begun

Start Time: 4/5/2010 10:13:47 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 4/5/2010 10:13:47**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	141345.5	141345.5	101	%	10:14:20
1	Al 396.153Radial†	-71.7	-71.1	[0.00]	µg/L	10:14:40
1	Ca 317.933Radial†	562.0	557.0	[0.00]	µg/L	10:14:40
1	Fe 238.204 Radial†	133.2	132.1	[0.00]	µg/L	10:14:40
1	K 766.490 Radial†	1511.3	1497.9	[0.00]	µg/L	10:14:20
1	Mg 279.077 IEC†	180.5	178.9	[0.00]	µg/L	10:14:40
1	Na 589.592 Radial†	981.7	973.0	[0.00]	µg/L	10:14:20
1	Sr 421.552†	-166.0	-164.6	[0.00]	µg/L	10:14:20
1	Sc 361.383	1809917.0	1809917.0	100.32	%	10:15:28
1	Y 371.029	1061056.9	1061056.9	100.36	%	10:15:28
1	Ag 328.068†	4631.5	4616.7	[0.00]	µg/L	10:15:30
1	As 188.979†	-28.2	-28.1	[0.00]	µg/L	10:15:50
1	B 249.677†	4081.8	4068.8	[0.00]	µg/L	10:15:30
1	Ba 233.527†	-140.2	-139.8	[0.00]	µg/L	10:15:50
1	Be 313.107†	-1250.1	-1246.2	[0.00]	µg/L	10:15:30
1	Cd 226.502†	-99.6	-99.3	[0.00]	µg/L	10:15:50
1	Co 228.616†	-189.2	-188.6	[0.00]	µg/L	10:15:50
1	Cr 267.716†	232.1	231.3	[0.00]	µg/L	10:15:50
1	Cu 324.752†	3023.5	3013.9	[0.00]	µg/L	10:15:30
1	Mn 257.610†	175.2	174.7	[0.00]	µg/L	10:15:50
1	Mo 202.031†	-46.7	-46.6	[0.00]	µg/L	10:15:50
1	Ni 231.604†	-85.5	-85.2	[0.00]	µg/L	10:15:50
1	P 214.914†	-41.4	-41.3	[0.00]	µg/L	10:15:50
1	Pb 220.353†	103.1	102.8	[0.00]	µg/L	10:15:50
1	S 181.975 Axial†	82.1	81.8	[0.00]	µg/L	10:15:50
1	Sb 206.836†	104.3	104.0	[0.00]	µg/L	10:15:50
1	Se 196.026†	2.3	2.3	[0.00]	µg/L	10:15:50
1	SiO2†	1729.4	1723.9	[0.00]	µg/L	10:15:50
1	Si 251.611†	902.0	899.1	[0.00]	µg/L	10:15:30
1	Sn 189.927†	-6.6	-6.6	[0.00]	µg/L	10:15:50
1	Ti 334.940†	626.5	624.5	[0.00]	µg/L	10:15:30
1	Tl 190.801†	-120.7	-120.3	[0.00]	µg/L	10:15:50
1	U 409.014†	-208.2	-207.6	[0.00]	µg/L	10:15:30
1	V 292.402†	491.5	490.0	[0.00]	µg/L	10:15:30
1	Zn 213.857†	493.7	492.1	[0.00]	µg/L	10:15:50
2	Sc RADIAL	138787.4	138787.4	99.1	%	10:14:42
2	Al 396.153Radial†	-93.8	-94.7	[0.00]	µg/L	10:15:02
2	Ca 317.933Radial†	579.9	585.4	[0.00]	µg/L	10:15:02
2	Fe 238.204 Radial†	118.7	119.8	[0.00]	µg/L	10:15:02
2	K 766.490 Radial†	1516.0	1530.3	[0.00]	µg/L	10:14:42
2	Mg 279.077 IEC†	160.6	162.1	[0.00]	µg/L	10:15:02
2	Na 589.592 Radial†	883.5	891.9	[0.00]	µg/L	10:14:42
2	Sr 421.552†	-276.7	-279.3	[0.00]	µg/L	10:14:42
2	Sc 361.383	1802726.4	1802726.4	99.921	%	10:15:52
2	Y 371.029	1056514.6	1056514.6	99.926	%	10:15:52
2	Ag 328.068†	4445.4	4448.9	[0.00]	µg/L	10:15:54
2	As 188.979†	-17.6	-17.6	[0.00]	µg/L	10:16:14

2	B 249.677†	4098.2	4101.4	[0.00]	µg/L	10:15:54
2	Ba 233.527†	-137.4	-137.5	[0.00]	µg/L	10:16:14
2	Be 313.107†	-919.9	-920.6	[0.00]	µg/L	10:15:54
2	Cd 226.502†	-97.2	-97.3	[0.00]	µg/L	10:16:14
2	Co 228.616†	-212.6	-212.8	[0.00]	µg/L	10:16:14
2	Cr 267.716†	221.8	222.0	[0.00]	µg/L	10:16:14
2	Cu 324.752†	3087.1	3089.6	[0.00]	µg/L	10:15:54
2	Mn 257.610†	185.6	185.7	[0.00]	µg/L	10:16:14
2	Mo 202.031†	-31.7	-31.7	[0.00]	µg/L	10:16:14
2	Ni 231.604†	-105.8	-105.9	[0.00]	µg/L	10:16:14
2	P 214.914†	-25.3	-25.4	[0.00]	µg/L	10:16:14
2	Pb 220.353†	104.3	104.3	[0.00]	µg/L	10:16:14
2	S 181.975 Axial†	94.0	94.1	[0.00]	µg/L	10:16:14
2	Sb 206.836†	82.5	82.6	[0.00]	µg/L	10:16:14
2	Se 196.026†	-0.8	-0.8	[0.00]	µg/L	10:16:14
2	SiO2†	1742.2	1743.6	[0.00]	µg/L	10:16:14
2	Si 251.611†	730.3	730.9	[0.00]	µg/L	10:15:54
2	Sn 189.927†	-6.8	-6.8	[0.00]	µg/L	10:16:14
2	Ti 334.940†	782.7	783.4	[0.00]	µg/L	10:15:54
2	Tl 190.801†	-114.4	-114.5	[0.00]	µg/L	10:16:14
2	U 409.014†	-209.5	-209.7	[0.00]	µg/L	10:15:54
2	V 292.402†	334.7	335.0	[0.00]	µg/L	10:15:54
2	Zn 213.857†	495.4	495.8	[0.00]	µg/L	10:16:14
3	Sc RADIAL	140146.0	140146.0	100	%	10:15:04
3	Al 396.153Radial†	-69.9	-69.8	[0.00]	µg/L	10:15:24
3	Ca 317.933Radial†	572.2	572.0	[0.00]	µg/L	10:15:24
3	Fe 238.204 Radial†	100.1	100.0	[0.00]	µg/L	10:15:24
3	K 766.490 Radial†	1453.7	1453.2	[0.00]	µg/L	10:15:04
3	Mg 279.077 IEC†	176.4	176.3	[0.00]	µg/L	10:15:24
3	Na 589.592 Radial†	993.1	992.7	[0.00]	µg/L	10:15:04
3	Sr 421.552†	-169.7	-169.6	[0.00]	µg/L	10:15:04
3	Sc 361.383	1799815.0	1799815.0	99.760	%	10:16:16
3	Y 371.029	1054320.2	1054320.2	99.718	%	10:16:16
3	Ag 328.068†	4618.7	4629.8	[0.00]	µg/L	10:16:19
3	As 188.979†	-10.0	-10.0	[0.00]	µg/L	10:16:39
3	B 249.677†	4015.5	4025.2	[0.00]	µg/L	10:16:19
3	Ba 233.527†	-155.9	-156.3	[0.00]	µg/L	10:16:39
3	Be 313.107†	-1105.7	-1108.4	[0.00]	µg/L	10:16:19
3	Cd 226.502†	-113.2	-113.5	[0.00]	µg/L	10:16:39
3	Co 228.616†	-229.0	-229.5	[0.00]	µg/L	10:16:39
3	Cr 267.716†	245.8	246.4	[0.00]	µg/L	10:16:39
3	Cu 324.752†	2997.6	3004.8	[0.00]	µg/L	10:16:19
3	Mn 257.610†	193.3	193.8	[0.00]	µg/L	10:16:39
3	Mo 202.031†	-37.4	-37.5	[0.00]	µg/L	10:16:39
3	Ni 231.604†	-96.4	-96.6	[0.00]	µg/L	10:16:39
3	P 214.914†	-10.4	-10.4	[0.00]	µg/L	10:16:39
3	Pb 220.353†	103.0	103.3	[0.00]	µg/L	10:16:39
3	S 181.975 Axial†	90.6	90.9	[0.00]	µg/L	10:16:39
3	Sb 206.836†	82.4	82.6	[0.00]	µg/L	10:16:39
3	Se 196.026†	16.9	16.9	[0.00]	µg/L	10:16:39
3	SiO2†	1745.6	1749.8	[0.00]	µg/L	10:16:39
3	Si 251.611†	669.5	671.1	[0.00]	µg/L	10:16:19
3	Sn 189.927†	19.0	19.1	[0.00]	µg/L	10:16:39
3	Ti 334.940†	1058.6	1061.1	[0.00]	µg/L	10:16:19
3	Tl 190.801†	-107.8	-108.0	[0.00]	µg/L	10:16:39
3	U 409.014†	-72.6	-72.8	[0.00]	µg/L	10:16:19
3	V 292.402†	443.7	444.7	[0.00]	µg/L	10:16:19
3	Zn 213.857†	519.8	521.1	[0.00]	µg/L	10:16:39

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1804152.8	5199.83	0.29%	100.00	%
Sc RADIAL	140093.0	1279.85	0.91%	100.0	%
Y 371.029	1057297.2	3435.88	0.32%	100.00	%
Ag 328.068†	4565.2	100.87	2.21%	[0.00]	µg/L
Al 396.153Radial†	-78.5	14.00	17.83%	[0.00]	µg/L
As 188.979†	-18.6	9.07	48.89%	[0.00]	µg/L
B 249.677†	4065.1	38.25	0.94%	[0.00]	µg/L
Ba 233.527†	-144.5	10.26	7.10%	[0.00]	µg/L

Be 313.107†	-1091.7	163.40	14.97%	[0.00]	µg/L
Ca 317.933Radial†	571.4	14.18	2.48%	[0.00]	µg/L
Cd 226.502†	-103.4	8.84	8.55%	[0.00]	µg/L
Co 228.616†	-210.3	20.61	9.80%	[0.00]	µg/L
Cr 267.716†	233.2	12.30	5.28%	[0.00]	µg/L
Cu 324.752†	3036.1	46.52	1.53%	[0.00]	µg/L
Fe 238.204 Radial†	117.3	16.16	13.77%	[0.00]	µg/L
K 766.490 Radial†	1493.8	38.73	2.59%	[0.00]	µg/L
Mg 279.077 IEC†	172.5	9.01	5.22%	[0.00]	µg/L
Mn 257.610†	184.7	9.58	5.18%	[0.00]	µg/L
Mo 202.031†	-38.6	7.49	19.42%	[0.00]	µg/L
Na 589.592 Radial†	952.5	53.45	5.61%	[0.00]	µg/L
Ni 231.604†	-95.9	10.38	10.83%	[0.00]	µg/L
P 214.914†	-25.7	15.43	60.06%	[0.00]	µg/L
Pb 220.353†	103.5	0.81	0.78%	[0.00]	µg/L
S 181.975 Axial†	88.9	6.36	7.15%	[0.00]	µg/L
Sb 206.836†	89.7	12.37	13.78%	[0.00]	µg/L
Se 196.026†	6.2	9.46	153.73%	[0.00]	µg/L
SiO2†	1739.1	13.54	0.78%	[0.00]	µg/L
Si 251.611†	767.0	118.25	15.42%	[0.00]	µg/L
Sn 189.927†	1.9	14.90	789.79%	[0.00]	µg/L
Sr 421.552†	-204.5	64.82	31.70%	[0.00]	µg/L
Ti 334.940†	823.0	220.99	26.85%	[0.00]	µg/L
Tl 190.801†	-114.3	6.14	5.38%	[0.00]	µg/L
U 409.014†	-163.4	78.42	48.00%	[0.00]	µg/L
V 292.402†	423.2	79.68	18.83%	[0.00]	µg/L
Zn 213.857†	503.0	15.77	3.14%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 4/5/2010 10:16:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139125.6	139125.6	99.3	%	10:17:17
1	K 766.490 Radial†	4201.0	2736.4	[1000]	µg/L	10:17:17
1	Sr 421.552†	43301.9	43807.5	[100]	µg/L	10:17:17
1	Sc 361.383	1787922.4	1787922.4	99.100	%	10:17:25
1	Y 371.029	1045378.7	1045378.7	98.873	%	10:17:25
1	Ag 328.068†	29278.8	24979.4	[100]	µg/L	10:17:27
1	As 188.979†	269.9	290.9	[100]	µg/L	10:17:47
1	B 249.677†	10470.2	6500.1	[100]	µg/L	10:17:27
1	Ba 233.527†	22677.6	23028.0	[100]	µg/L	10:17:27
1	Be 313.107†	339780.2	343956.4	[100]	µg/L	10:17:25
1	Cd 226.502†	14950.1	15189.2	[100]	µg/L	10:17:27
1	Co 228.616†	7586.0	7865.2	[100]	µg/L	10:17:47
1	Cr 267.716†	11980.0	11855.6	[100]	µg/L	10:17:27
1	Cu 324.752†	27030.3	24239.6	[100]	µg/L	10:17:27
1	Mn 257.610†	77870.5	78392.6	[100]	µg/L	10:17:27
1	Mo 202.031†	3044.8	3111.0	[100]	µg/L	10:17:47
1	Ni 231.604†	8145.6	8315.5	[100]	µg/L	10:17:27
1	P 214.914†	2132.7	2177.8	[500]	µg/L	10:17:47
1	Pb 220.353†	1754.2	1666.6	[100]	µg/L	10:17:47
1	S 181.975 Axial†	320.2	234.2	[200]	µg/L	10:17:47
1	Sb 206.836†	856.2	774.3	[100]	µg/L	10:17:47
1	Se 196.026†	271.1	267.4	[100]	µg/L	10:17:47
1	SiO2†	11802.6	10170.7	[1069.5]	µg/L	10:17:27
1	Si 251.611†	32208.0	31733.4	[500]	µg/L	10:17:27
1	Sn 189.927†	1460.8	1472.2	[100]	µg/L	10:17:47
1	Ti 334.940†	97532.1	97594.5	[100]	µg/L	10:17:27
1	Tl 190.801†	651.1	771.2	[100]	µg/L	10:17:47
1	U 409.014†	1450.2	1626.7	[100]	µg/L	10:17:27
1	V 292.402†	19578.5	19333.0	[100]	µg/L	10:17:27
1	Zn 213.857†	17573.4	17230.0	[100]	µg/L	10:17:27
2	Sc RADIAL	139393.7	139393.7	99.5	%	10:17:19
2	K 766.490 Radial†	4071.1	2597.8	[1000]	µg/L	10:17:19
2	Sr 421.552†	43490.4	43913.0	[100]	µg/L	10:17:19
2	Sc 361.383	1810051.8	1810051.8	100.33	%	10:17:49
2	Y 371.029	1057261.6	1057261.6	99.997	%	10:17:49
2	Ag 328.068†	29153.6	24493.4	[100]	µg/L	10:17:51
2	As 188.979†	282.4	300.0	[100]	µg/L	10:18:11
2	B 249.677†	10334.4	6235.5	[100]	µg/L	10:17:51
2	Ba 233.527†	22670.7	22741.4	[100]	µg/L	10:17:51
2	Be 313.107†	345851.8	345816.4	[100]	µg/L	10:17:49
2	Cd 226.502†	14777.3	14832.5	[100]	µg/L	10:17:51
2	Co 228.616†	7580.5	7766.1	[100]	µg/L	10:18:11
2	Cr 267.716†	11835.9	11564.1	[100]	µg/L	10:17:51
2	Cu 324.752†	26968.9	23844.9	[100]	µg/L	10:17:51
2	Mn 257.610†	77589.5	77151.9	[100]	µg/L	10:17:51
2	Mo 202.031†	3039.5	3068.1	[100]	µg/L	10:18:11
2	Ni 231.604†	8167.1	8236.4	[100]	µg/L	10:17:51
2	P 214.914†	2136.5	2155.2	[500]	µg/L	10:18:11
2	Pb 220.353†	1760.7	1651.5	[100]	µg/L	10:18:11
2	S 181.975 Axial†	328.5	238.5	[200]	µg/L	10:18:11
2	Sb 206.836†	849.0	756.5	[100]	µg/L	10:18:11
2	Se 196.026†	270.8	263.7	[100]	µg/L	10:18:11
2	SiO2†	11845.9	10068.2	[1069.5]	µg/L	10:17:51
2	Si 251.611†	32133.9	31262.1	[500]	µg/L	10:17:51
2	Sn 189.927†	1448.7	1442.0	[100]	µg/L	10:18:11
2	Ti 334.940†	97204.0	96064.2	[100]	µg/L	10:17:51
2	Tl 190.801†	624.5	736.7	[100]	µg/L	10:18:11
2	U 409.014†	1369.3	1528.2	[100]	µg/L	10:17:51
2	V 292.402†	19503.3	19016.5	[100]	µg/L	10:17:51

2	Zn 213.857†	17334.5	16775.0	[100]	µg/L	10:17:51
3	Sc RADIAL	139506.2	139506.2	99.6	%	10:17:21
3	K 766.490 Radial†	4050.2	2573.4	[1000]	µg/L	10:17:21
3	Sr 421.552†	43526.0	43913.6	[100]	µg/L	10:17:21
3	Sc 361.383	1784413.8	1784413.8	98.906	%	10:18:13
3	Y 371.029	1042010.1	1042010.1	98.554	%	10:18:13
3	Ag 328.068†	29725.5	25489.2	[100]	µg/L	10:18:15
3	As 188.979†	279.2	300.8	[100]	µg/L	10:18:35
3	B 249.677†	10468.9	6519.6	[100]	µg/L	10:18:15
3	Ba 233.527†	23077.9	23477.7	[100]	µg/L	10:18:15
3	Be 313.107†	340163.6	345018.2	[100]	µg/L	10:18:13
3	Cd 226.502†	15190.7	15462.1	[100]	µg/L	10:18:15
3	Co 228.616†	7560.7	7854.6	[100]	µg/L	10:18:35
3	Cr 267.716†	12082.6	11983.0	[100]	µg/L	10:18:15
3	Cu 324.752†	27791.7	25063.0	[100]	µg/L	10:18:15
3	Mn 257.610†	79356.0	80049.1	[100]	µg/L	10:18:15
3	Mo 202.031†	3030.9	3103.0	[100]	µg/L	10:18:35
3	Ni 231.604†	8277.7	8465.2	[100]	µg/L	10:18:15
3	P 214.914†	2104.3	2153.2	[500]	µg/L	10:18:35
3	Pb 220.353†	1742.8	1658.6	[100]	µg/L	10:18:35
3	S 181.975 Axial†	334.2	248.9	[200]	µg/L	10:18:35
3	Sb 206.836†	850.6	770.3	[100]	µg/L	10:18:35
3	Se 196.026†	268.2	265.0	[100]	µg/L	10:18:35
3	SiO2†	12111.5	10506.4	[1069.5]	µg/L	10:18:15
3	Si 251.611†	32912.6	32509.7	[500]	µg/L	10:18:15
3	Sn 189.927†	1471.6	1486.0	[100]	µg/L	10:18:35
3	Ti 334.940†	99214.9	99489.4	[100]	µg/L	10:18:15
3	Tl 190.801†	647.7	769.1	[100]	µg/L	10:18:35
3	U 409.014†	1258.3	1435.6	[100]	µg/L	10:18:15
3	V 292.402†	19749.3	19544.6	[100]	µg/L	10:18:15
3	Zn 213.857†	17875.8	17570.6	[100]	µg/L	10:18:15

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1794129.3	13900.45	0.77%	99.444	%
Sc RADIAL	139341.9	195.52	0.14%	99.5	%
Y 371.029	1048216.8	8012.07	0.76%	99.141	%
Ag 328.068†	24987.3	497.93	1.99%	[100]	µg/L
As 188.979†	297.3	5.50	1.85%	[100]	µg/L
B 249.677†	6418.4	158.67	2.47%	[100]	µg/L
Ba 233.527†	23082.4	371.18	1.61%	[100]	µg/L
Be 313.107†	344930.4	933.09	0.27%	[100]	µg/L
Cd 226.502†	15161.2	315.73	2.08%	[100]	µg/L
Co 228.616†	7828.6	54.43	0.70%	[100]	µg/L
Cr 267.716†	11800.9	214.74	1.82%	[100]	µg/L
Cu 324.752†	24382.5	621.49	2.55%	[100]	µg/L
K 766.490 Radial†	2635.9	87.91	3.34%	[1000]	µg/L
Mn 257.610†	78531.2	1453.57	1.85%	[100]	µg/L
Mo 202.031†	3094.1	22.79	0.74%	[100]	µg/L
Ni 231.604†	8339.0	116.20	1.39%	[100]	µg/L
P 214.914†	2162.1	13.62	0.63%	[500]	µg/L
Pb 220.353†	1658.9	7.56	0.46%	[100]	µg/L
S 181.975 Axial†	240.6	7.56	3.14%	[200]	µg/L
Sb 206.836†	767.0	9.36	1.22%	[100]	µg/L
Se 196.026†	265.4	1.87	0.71%	[100]	µg/L
SiO2†	10248.4	229.21	2.24%	[1069.5]	µg/L
Si 251.611†	31835.1	629.94	1.98%	[500]	µg/L
Sn 189.927†	1466.7	22.48	1.53%	[100]	µg/L
Sr 421.552†	43878.0	61.08	0.14%	[100]	µg/L
Ti 334.940†	97716.0	1715.86	1.76%	[100]	µg/L
Tl 190.801†	759.0	19.35	2.55%	[100]	µg/L
U 409.014†	1530.2	95.58	6.25%	[100]	µg/L
V 292.402†	19298.0	265.76	1.38%	[100]	µg/L
Zn 213.857†	17191.8	399.18	2.32%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 4/5/2010 10:18:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	140889.5	140889.5	101	%	10:19:14
1	Al 396.153Radial†	24220.4	24162.1	[5000]	µg/L	10:19:14
1	Ca 317.933Radial†	76005.1	75004.0	[5000]	µg/L	10:19:14
1	K 766.490 Radial†	14239.3	12665.0	[5000]	µg/L	10:19:14
1	Mg 279.077 IEC†	11509.4	11271.9	[5000]	µg/L	10:19:14
1	Sr 421.552†	210637.5	209651.1	[500]	µg/L	10:19:12
1	Sc 361.383	1784374.4	1784374.4	98.904	%	10:19:27
1	Y 371.029	1033889.2	1033889.2	97.786	%	10:19:27
1	Ag 328.068†	125108.2	121929.8	[500]	µg/L	10:19:27
1	As 188.979†	1453.4	1488.1	[500]	µg/L	10:19:47
1	B 249.677†	35710.1	32040.8	[500]	µg/L	10:19:27
1	Ba 233.527†	112243.1	113631.8	[500]	µg/L	10:19:27
1	Be 313.107†	1716024.7	1736137.2	[500]	µg/L	10:19:27
1	Cd 226.502†	74131.2	75056.2	[500]	µg/L	10:19:27
1	Co 228.616†	37990.1	38621.5	[500]	µg/L	10:19:27
1	Cr 267.716†	57961.7	58371.0	[500]	µg/L	10:19:27
1	Cu 324.752†	121855.7	120170.2	[500]	µg/L	10:19:27
1	Mn 257.610†	376432.9	380420.6	[500]	µg/L	10:19:27
1	Mo 202.031†	15177.4	15384.2	[500]	µg/L	10:19:47
1	Ni 231.604†	39962.4	40501.3	[500]	µg/L	10:19:27
1	P 214.914†	10759.6	10904.6	[2500]	µg/L	10:19:47
1	Pb 220.353†	8251.5	8239.5	[500]	µg/L	10:19:47
1	S 181.975 Axial†	1269.7	1194.8	[1000]	µg/L	10:19:47
1	Sb 206.836†	3940.0	3893.9	[500]	µg/L	10:19:47
1	Se 196.026†	1265.4	1273.2	[500]	µg/L	10:19:47
1	SiO2†	51424.7	50255.6	[5347.5]	µg/L	10:19:27
1	Si 251.611†	157621.6	158601.7	[2500]	µg/L	10:19:27
1	Sn 189.927†	7160.0	7237.4	[500]	µg/L	10:19:47
1	Ti 334.940†	483114.1	487646.0	[500]	µg/L	10:19:27
1	Tl 190.801†	3546.4	3700.0	[500]	µg/L	10:19:47
1	U 409.014†	7287.7	7531.8	[500]	µg/L	10:19:27
1	V 292.402†	96138.3	96780.7	[500]	µg/L	10:19:27
1	Zn 213.857†	84347.2	84779.1	[500]	µg/L	10:19:27
2	Sc RADIAL	138468.7	138468.7	98.8	%	10:19:18
2	Al 396.153Radial†	23978.5	24338.3	[5000]	µg/L	10:19:18
2	Ca 317.933Radial†	74778.0	75083.7	[5000]	µg/L	10:19:18
2	K 766.490 Radial†	14166.1	12838.5	[5000]	µg/L	10:19:18
2	Mg 279.077 IEC†	11391.8	11353.0	[5000]	µg/L	10:19:18
2	Sr 421.552†	211261.0	213943.6	[500]	µg/L	10:19:16
2	Sc 361.383	1766889.2	1766889.2	97.935	%	10:19:50
2	Y 371.029	1024585.0	1024585.0	96.906	%	10:19:50
2	Ag 328.068†	123756.3	121801.2	[500]	µg/L	10:19:50
2	As 188.979†	1438.9	1487.8	[500]	µg/L	10:20:10
2	B 249.677†	35488.1	32171.4	[500]	µg/L	10:19:50
2	Ba 233.527†	111071.8	113558.9	[500]	µg/L	10:19:50
2	Be 313.107†	1696070.7	1732932.4	[500]	µg/L	10:19:50
2	Cd 226.502†	73034.6	74678.2	[500]	µg/L	10:19:50
2	Co 228.616†	37302.4	38299.4	[500]	µg/L	10:19:50
2	Cr 267.716†	57219.6	58193.2	[500]	µg/L	10:19:50
2	Cu 324.752†	120326.7	119828.2	[500]	µg/L	10:19:50
2	Mn 257.610†	372256.6	379922.7	[500]	µg/L	10:19:50
2	Mo 202.031†	15119.8	15477.2	[500]	µg/L	10:20:10
2	Ni 231.604†	39549.3	40479.3	[500]	µg/L	10:19:50
2	P 214.914†	10712.4	10964.0	[2500]	µg/L	10:20:10
2	Pb 220.353†	8202.8	8272.3	[500]	µg/L	10:20:10
2	S 181.975 Axial†	1257.6	1195.2	[1000]	µg/L	10:20:10
2	Sb 206.836†	3905.6	3898.3	[500]	µg/L	10:20:10
2	Se 196.026†	1247.8	1267.9	[500]	µg/L	10:20:10
2	SiO2†	50930.2	50265.3	[5347.5]	µg/L	10:19:50

2	Si 251.611†	155571.9	158085.9	[2500]	µg/L	10:19:50
2	Sn 189.927†	7125.7	7274.1	[500]	µg/L	10:20:10
2	Ti 334.940†	478384.9	487651.0	[500]	µg/L	10:19:50
2	Tl 190.801†	3514.3	3702.7	[500]	µg/L	10:20:10
2	U 409.014†	6992.6	7303.4	[500]	µg/L	10:19:50
2	V 292.402†	95133.6	96716.8	[500]	µg/L	10:19:50
2	Zn 213.857†	83229.4	84481.7	[500]	µg/L	10:19:50
3	Sc RADIAL	140766.3	140766.3	100	%	10:19:22
3	Al 396.153Radial†	24151.9	24114.9	[5000]	µg/L	10:19:22
3	Ca 317.933Radial†	75881.7	74947.3	[5000]	µg/L	10:19:22
3	K 766.490 Radial†	14167.2	12605.6	[5000]	µg/L	10:19:22
3	Mg 279.077 IEC†	11441.7	11214.6	[5000]	µg/L	10:19:22
3	Sr 421.552†	210189.9	209388.9	[500]	µg/L	10:19:20
3	Sc 361.383	1763888.5	1763888.5	97.768	%	10:20:13
3	Y 371.029	1022018.7	1022018.7	96.663	%	10:20:13
3	Ag 328.068†	123587.5	121843.4	[500]	µg/L	10:20:13
3	As 188.979†	1445.8	1497.3	[500]	µg/L	10:20:33
3	B 249.677†	35619.8	32367.8	[500]	µg/L	10:20:13
3	Ba 233.527†	110853.9	113528.9	[500]	µg/L	10:20:13
3	Be 313.107†	1698086.3	1737940.2	[500]	µg/L	10:20:13
3	Cd 226.502†	72949.0	74717.6	[500]	µg/L	10:20:13
3	Co 228.616†	37273.2	38334.3	[500]	µg/L	10:20:13
3	Cr 267.716†	57178.4	58250.4	[500]	µg/L	10:20:13
3	Cu 324.752†	120255.8	119964.8	[500]	µg/L	10:20:13
3	Mn 257.610†	371797.5	380099.8	[500]	µg/L	10:20:13
3	Mo 202.031†	15118.6	15502.3	[500]	µg/L	10:20:33
3	Ni 231.604†	39356.5	40350.8	[500]	µg/L	10:20:13
3	P 214.914†	10731.2	11001.8	[2500]	µg/L	10:20:33
3	Pb 220.353†	8211.7	8295.7	[500]	µg/L	10:20:33
3	S 181.975 Axial†	1263.9	1203.8	[1000]	µg/L	10:20:33
3	Sb 206.836†	3912.4	3912.0	[500]	µg/L	10:20:33
3	Se 196.026†	1265.8	1288.6	[500]	µg/L	10:20:33
3	SiO2†	51139.1	50567.4	[5347.5]	µg/L	10:20:13
3	Si 251.611†	155385.6	158165.5	[2500]	µg/L	10:20:13
3	Sn 189.927†	7157.9	7319.4	[500]	µg/L	10:20:33
3	Ti 334.940†	478003.2	488091.5	[500]	µg/L	10:20:13
3	Tl 190.801†	3508.4	3702.8	[500]	µg/L	10:20:33
3	U 409.014†	7057.3	7381.7	[500]	µg/L	10:20:13
3	V 292.402†	94875.9	96618.4	[500]	µg/L	10:20:13
3	Zn 213.857†	83345.0	84744.5	[500]	µg/L	10:20:13

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1771717.4	11063.51	0.62%	98.202	%
Sc RADIAL	140041.5	1363.47	0.97%	100.0	%
Y 371.029	1026831.0	6245.79	0.61%	97.118	%
Ag 328.068†	121858.1	65.55	0.05%	[500]	µg/L
Al 396.153Radial†	24205.1	117.77	0.49%	[5000]	µg/L
As 188.979†	1491.1	5.44	0.36%	[500]	µg/L
B 249.677†	32193.3	164.59	0.51%	[500]	µg/L
Ba 233.527†	113573.2	52.90	0.05%	[500]	µg/L
Be 313.107†	1735670.0	2536.38	0.15%	[500]	µg/L
Ca 317.933Radial†	75011.7	68.50	0.09%	[5000]	µg/L
Cd 226.502†	74817.4	207.79	0.28%	[500]	µg/L
Co 228.616†	38418.4	176.73	0.46%	[500]	µg/L
Cr 267.716†	58271.5	90.76	0.16%	[500]	µg/L
Cu 324.752†	119987.7	172.15	0.14%	[500]	µg/L
K 766.490 Radial†	12703.1	121.01	0.95%	[5000]	µg/L
Mg 279.077 IEC†	11279.8	69.56	0.62%	[5000]	µg/L
Mn 257.610†	380147.7	252.39	0.07%	[500]	µg/L
Mo 202.031†	15454.6	62.19	0.40%	[500]	µg/L
Ni 231.604†	40443.8	81.27	0.20%	[500]	µg/L
P 214.914†	10956.8	49.03	0.45%	[2500]	µg/L
Pb 220.353†	8269.2	28.26	0.34%	[500]	µg/L
S 181.975 Axial†	1198.0	5.06	0.42%	[1000]	µg/L
Sb 206.836†	3901.4	9.46	0.24%	[500]	µg/L
Se 196.026†	1276.6	10.73	0.84%	[500]	µg/L
SiO2†	50362.7	177.29	0.35%	[5347.5]	µg/L
Si 251.611†	158284.4	277.66	0.18%	[2500]	µg/L

Sn 189.927†	7277.0	41.07	0.56%	[500] µg/L
Sr 421.552†	210994.5	2557.30	1.21%	[500] µg/L
Ti 334.940†	487796.2	255.79	0.05%	[500] µg/L
Tl 190.801†	3701.8	1.60	0.04%	[500] µg/L
U 409.014†	7405.7	116.08	1.57%	[500] µg/L
V 292.402†	96705.3	81.74	0.08%	[500] µg/L
Zn 213.857†	84668.5	162.65	0.19%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 4/5/2010 10:20:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	138521.2	138521.2	98.9	%	10:21:12
1	Al 396.153Radial†	47739.4	48359.6	[10000]	µg/L	10:21:12
1	Ca 317.933Radial†	147603.9	148707.2	[10000]	µg/L	10:21:12
1	Fe 238.204 Radial†	132955.6	134346.9	[10000]	µg/L	10:21:12
1	K 766.490 Radial†	26494.7	25301.6	[10000]	µg/L	10:21:12
1	Mg 279.077 IEC†	22115.4	22193.9	[10000]	µg/L	10:21:12
1	Na 589.592 Radial†	64423.3	64201.8	[10000]	µg/L	10:21:12
1	Sr 421.552†	421705.7	426695.0	[1000]	µg/L	10:21:10
1	Sc 361.383	1787517.3	1787517.3	99.078	%	10:21:25
1	Y 371.029	1030588.8	1030588.8	97.474	%	10:21:25
1	Ag 328.068†	247472.6	245210.6	[1000]	µg/L	10:21:27
1	As 188.979†	2895.1	2940.6	[1000]	µg/L	10:21:47
1	B 249.677†	67826.5	64392.6	[1000]	µg/L	10:21:27
1	Ba 233.527†	223075.2	225295.8	[1000]	µg/L	10:21:27
1	Be 313.107†	3410791.6	3443625.8	[1000]	µg/L	10:21:25
1	Cd 226.502†	146771.7	148241.0	[1000]	µg/L	10:21:27
1	Co 228.616†	74870.3	75777.4	[1000]	µg/L	10:21:27
1	Cr 267.716†	114942.2	115778.7	[1000]	µg/L	10:21:27
1	Cu 324.752†	240746.6	239950.9	[1000]	µg/L	10:21:27
1	Mn 257.610†	744414.1	751157.3	[1000]	µg/L	10:21:25
1	Mo 202.031†	30103.8	30422.6	[1000]	µg/L	10:21:47
1	Ni 231.604†	79132.1	79964.5	[1000]	µg/L	10:21:27
1	P 214.914†	21254.4	21477.9	[5000]	µg/L	10:21:47
1	Pb 220.353†	16098.9	16145.3	[1000]	µg/L	10:21:47
1	S 181.975 Axial†	2437.0	2370.8	[2000]	µg/L	10:21:47
1	Sb 206.836†	7748.6	7731.0	[1000]	µg/L	10:21:47
1	Se 196.026†	2500.5	2517.6	[1000]	µg/L	10:21:47
1	SiO2†	102325.7	101538.9	[10695]	µg/L	10:21:27
1	Si 251.611†	316394.8	318572.3	[5000]	µg/L	10:21:27
1	Sn 189.927†	14188.1	14318.3	[1000]	µg/L	10:21:47
1	Ti 334.940†	964390.5	972542.5	[1000]	µg/L	10:21:25
1	Tl 190.801†	7109.4	7289.9	[1000]	µg/L	10:21:47
1	U 409.014†	15951.4	16263.2	[1000]	µg/L	10:21:27
1	V 292.402†	192075.9	193440.2	[1000]	µg/L	10:21:27
1	Zn 213.857†	166493.8	167540.3	[1000]	µg/L	10:21:27
2	Sc RADIAL	137587.7	137587.7	98.2	%	10:21:16
2	Al 396.153Radial†	47286.5	48226.0	[10000]	µg/L	10:21:16
2	Ca 317.933Radial†	146236.4	148327.7	[10000]	µg/L	10:21:16
2	Fe 238.204 Radial†	132132.0	134420.6	[10000]	µg/L	10:21:16
2	K 766.490 Radial†	26206.6	25190.0	[10000]	µg/L	10:21:16
2	Mg 279.077 IEC†	21947.0	22174.2	[10000]	µg/L	10:21:16
2	Na 589.592 Radial†	64079.1	64293.4	[10000]	µg/L	10:21:16
2	Sr 421.552†	418133.3	425951.3	[1000]	µg/L	10:21:14
2	Sc 361.383	1788077.8	1788077.8	99.109	%	10:21:50
2	Y 371.029	1031083.9	1031083.9	97.521	%	10:21:50
2	Ag 328.068†	245852.5	243497.5	[1000]	µg/L	10:21:52
2	As 188.979†	2920.6	2965.4	[1000]	µg/L	10:22:12
2	B 249.677†	67486.4	64027.9	[1000]	µg/L	10:21:52
2	Ba 233.527†	221407.1	223542.1	[1000]	µg/L	10:21:52
2	Be 313.107†	3418889.0	3450717.0	[1000]	µg/L	10:21:50
2	Cd 226.502†	145207.6	146616.4	[1000]	µg/L	10:21:52
2	Co 228.616†	73965.8	74841.1	[1000]	µg/L	10:21:52
2	Cr 267.716†	114087.3	114879.7	[1000]	µg/L	10:21:52
2	Cu 324.752†	238734.9	237845.0	[1000]	µg/L	10:21:52
2	Mn 257.610†	745639.7	752158.3	[1000]	µg/L	10:21:50
2	Mo 202.031†	30297.9	30608.8	[1000]	µg/L	10:22:12
2	Ni 231.604†	78509.5	79311.2	[1000]	µg/L	10:21:52
2	P 214.914†	21418.7	21637.0	[5000]	µg/L	10:22:12
2	Pb 220.353†	16212.2	16254.5	[1000]	µg/L	10:22:12

2	S 181.975 Axial†	2451.4	2384.5	[2000]	µg/L	10:22:12
2	Sb 206.836†	7810.0	7790.5	[1000]	µg/L	10:22:12
2	Se 196.026†	2535.5	2552.1	[1000]	µg/L	10:22:12
2	SiO2†	101458.8	100631.9	[10695]	µg/L	10:21:52
2	Si 251.611†	313775.9	315829.7	[5000]	µg/L	10:21:52
2	Sn 189.927†	14324.6	14451.5	[1000]	µg/L	10:22:12
2	Ti 334.940†	965317.9	973173.2	[1000]	µg/L	10:21:50
2	Tl 190.801†	7148.1	7326.6	[1000]	µg/L	10:22:12
2	U 409.014†	15724.4	16029.1	[1000]	µg/L	10:21:52
2	V 292.402†	190884.5	192177.3	[1000]	µg/L	10:21:52
2	Zn 213.857†	165290.1	166273.1	[1000]	µg/L	10:21:52
3	Sc RADIAL	139275.7	139275.7	99.4	%	10:21:20
3	Al 396.153Radial†	47754.7	48113.5	[10000]	µg/L	10:21:20
3	Ca 317.933Radial†	148116.2	148413.8	[10000]	µg/L	10:21:20
3	Fe 238.204 Radial†	133471.4	134137.3	[10000]	µg/L	10:21:20
3	K 766.490 Radial†	26397.5	25058.6	[10000]	µg/L	10:21:20
3	Mg 279.077 IEC†	22321.0	22279.5	[10000]	µg/L	10:21:20
3	Na 589.592 Radial†	64773.3	64200.9	[10000]	µg/L	10:21:20
3	Sr 421.552†	417779.7	420435.7	[1000]	µg/L	10:21:18
3	Sc 361.383	1807535.5	1807535.5	100.19	%	10:22:15
3	Y 371.029	1042236.8	1042236.8	98.576	%	10:22:15
3	Ag 328.068†	249483.7	244451.6	[1000]	µg/L	10:22:17
3	As 188.979†	2931.8	2944.9	[1000]	µg/L	10:22:37
3	B 249.677†	68615.7	64422.1	[1000]	µg/L	10:22:17
3	Ba 233.527†	224580.6	224304.8	[1000]	µg/L	10:22:17
3	Be 313.107†	3453157.0	3447786.3	[1000]	µg/L	10:22:15
3	Cd 226.502†	147846.5	147673.2	[1000]	µg/L	10:22:17
3	Co 228.616†	75097.4	75167.1	[1000]	µg/L	10:22:17
3	Cr 267.716†	115767.2	115317.3	[1000]	µg/L	10:22:17
3	Cu 324.752†	242135.7	238646.5	[1000]	µg/L	10:22:17
3	Mn 257.610†	754003.5	752407.7	[1000]	µg/L	10:22:15
3	Mo 202.031†	30459.8	30441.4	[1000]	µg/L	10:22:37
3	Ni 231.604†	79738.5	79685.1	[1000]	µg/L	10:22:17
3	P 214.914†	21516.4	21501.8	[5000]	µg/L	10:22:37
3	Pb 220.353†	16270.1	16136.2	[1000]	µg/L	10:22:37
3	S 181.975 Axial†	2455.6	2362.1	[2000]	µg/L	10:22:37
3	Sb 206.836†	7815.0	7710.7	[1000]	µg/L	10:22:37
3	Se 196.026†	2541.3	2530.4	[1000]	µg/L	10:22:37
3	SiO2†	102897.8	100966.2	[10695]	µg/L	10:22:17
3	Si 251.611†	318548.9	317185.7	[5000]	µg/L	10:22:17
3	Sn 189.927†	14399.1	14370.3	[1000]	µg/L	10:22:37
3	Ti 334.940†	976267.5	973617.4	[1000]	µg/L	10:22:15
3	Tl 190.801†	7181.7	7282.5	[1000]	µg/L	10:22:37
3	U 409.014†	15907.0	16040.6	[1000]	µg/L	10:22:17
3	V 292.402†	193637.0	192851.4	[1000]	µg/L	10:22:17
3	Zn 213.857†	167762.6	166945.7	[1000]	µg/L	10:22:17

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1794376.9	11399.19	0.64%	99.458	%
Sc RADIAL	138461.6	845.59	0.61%	98.8	%
Y 371.029	1034636.5	6586.69	0.64%	97.857	%
Ag 328.068†	244386.6	858.36	0.35%	[1000]	µg/L
Al 396.153Radial†	48233.0	123.22	0.26%	[10000]	µg/L
As 188.979†	2950.3	13.27	0.45%	[1000]	µg/L
B 249.677†	64280.9	219.57	0.34%	[1000]	µg/L
Ba 233.527†	224380.9	879.34	0.39%	[1000]	µg/L
Be 313.107†	3447376.3	3563.34	0.10%	[1000]	µg/L
Ca 317.933Radial†	148482.9	198.99	0.13%	[10000]	µg/L
Cd 226.502†	147510.2	824.46	0.56%	[1000]	µg/L
Co 228.616†	75261.9	475.26	0.63%	[1000]	µg/L
Cr 267.716†	115325.3	449.55	0.39%	[1000]	µg/L
Cu 324.752†	238814.2	1062.92	0.45%	[1000]	µg/L
Fe 238.204 Radial†	134301.6	146.99	0.11%	[10000]	µg/L
K 766.490 Radial†	25183.4	121.63	0.48%	[10000]	µg/L
Mg 279.077 IEC†	22215.9	56.02	0.25%	[10000]	µg/L
Mn 257.610†	751907.8	661.81	0.09%	[1000]	µg/L
Mo 202.031†	30490.9	102.54	0.34%	[1000]	µg/L
Na 589.592 Radial†	64232.0	53.14	0.08%	[10000]	µg/L

Ni 231.604†	79653.6	327.78	0.41%	[1000]	µg/L
P 214.914†	21538.9	85.80	0.40%	[5000]	µg/L
Pb 220.353†	16178.7	65.80	0.41%	[1000]	µg/L
S 181.975 Axial†	2372.5	11.31	0.48%	[2000]	µg/L
Sb 206.836†	7744.1	41.45	0.54%	[1000]	µg/L
Se 196.026†	2533.4	17.42	0.69%	[1000]	µg/L
SiO2†	101045.6	458.71	0.45%	[10695]	µg/L
Si 251.611†	317195.9	1371.33	0.43%	[5000]	µg/L
Sn 189.927†	14380.0	67.17	0.47%	[1000]	µg/L
Sr 421.552†	424360.7	3419.43	0.81%	[1000]	µg/L
Ti 334.940†	973111.1	540.12	0.06%	[1000]	µg/L
Tl 190.801†	7299.7	23.64	0.32%	[1000]	µg/L
U 409.014†	16111.0	131.96	0.82%	[1000]	µg/L
V 292.402†	192823.0	631.90	0.33%	[1000]	µg/L
Zn 213.857†	166919.7	633.98	0.38%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 4/5/2010 10:22:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	137102.1	137102.1	97.9	%	10:23:14
1	Al 396.153Radial†	232459.5	237609.2	[50000]	µg/L	10:23:14
1	Ca 317.933Radial†	719831.0	734962.7	[50000]	µg/L	10:23:14
1	Fe 238.204 Radial†	262262.3	267866.3	[20000]	µg/L	10:23:14
1	Mg 279.077 IEC†	106118.0	108260.5	[50000]	µg/L	10:23:14
1	Na 589.592 Radial†	127559.4	129389.6	[20000]	µg/L	10:23:14
1	Sc 361.383	1750599.2	1750599.2	97.032	%	10:23:22
1	Y 371.029	1010808.0	1010808.0	95.603	%	10:23:22
2	Sc RADIAL	136704.4	136704.4	97.6	%	10:23:16
2	Al 396.153Radial†	231023.6	236828.7	[50000]	µg/L	10:23:16
2	Ca 317.933Radial†	713826.0	730948.6	[50000]	µg/L	10:23:16
2	Fe 238.204 Radial†	260455.2	266793.9	[20000]	µg/L	10:23:16
2	Mg 279.077 IEC†	105162.9	107597.2	[50000]	µg/L	10:23:16
2	Na 589.592 Radial†	126553.4	128737.8	[20000]	µg/L	10:23:16
2	Sc 361.383	1767118.9	1767118.9	97.947	%	10:23:25
2	Y 371.029	1019622.9	1019622.9	96.437	%	10:23:25
3	Sc RADIAL	137409.9	137409.9	98.1	%	10:23:18
3	Al 396.153Radial†	232827.3	237451.9	[50000]	µg/L	10:23:18
3	Ca 317.933Radial†	721449.1	734964.4	[50000]	µg/L	10:23:18
3	Fe 238.204 Radial†	263160.9	268182.0	[20000]	µg/L	10:23:18
3	Mg 279.077 IEC†	106621.9	108531.3	[50000]	µg/L	10:23:18
3	Na 589.592 Radial†	127827.4	129370.8	[20000]	µg/L	10:23:18
3	Sc 361.383	1753846.2	1753846.2	97.212	%	10:23:28
3	Y 371.029	1011915.1	1011915.1	95.708	%	10:23:28

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1757188.1	8752.21	0.50%	97.397	%
Sc RADIAL	137072.1	353.73	0.26%	97.8	%
Y 371.029	1014115.3	4801.69	0.47%	95.916	%
Al 396.153Radial†	237296.6	412.77	0.17%	[50000]	µg/L
Ca 317.933Radial†	733625.3	2318.04	0.32%	[50000]	µg/L
Fe 238.204 Radial†	267614.1	727.59	0.27%	[20000]	µg/L
Mg 279.077 IEC†	108129.7	480.63	0.44%	[50000]	µg/L
Na 589.592 Radial†	129166.1	371.00	0.29%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	244.3	0.00000	0.999997	
Al 396.153Radial	3	Lin Thru 0	0.0	4.750	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	2.957	0.00000	0.999991	
B 249.677	3	Lin Thru 0	0.0	64.30	0.00000	1.000000	
Ba 233.527	3	Lin Thru 0	0.0	225.0	0.00000	0.999985	
Be 313.107	3	Lin Thru 0	0.0	3452	0.00000	0.999996	
Ca 317.933Radial	3	Lin Thru 0	0.0	14.68	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	148.0	0.00000	0.999981	
Co 228.616	3	Lin Thru 0	0.0	75.60	0.00000	0.999960	
Cr 267.716	3	Lin Thru 0	0.0	115.6	0.00000	0.999989	
Cu 324.752	3	Lin Thru 0	0.0	239.1	0.00000	0.999997	
Fe 238.204 Radia	2	Lin Thru 0	0.0	13.39	0.00000	0.999999	
K 766.490 Radial	3	Lin Thru 0	0.0	2.524	0.00000	0.999986	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.166	0.00000	0.999978	
Mn 257.610	3	Lin Thru 0	0.0	753.8	0.00000	0.999983	
Mo 202.031	3	Lin Thru 0	0.0	30.58	0.00000	0.999985	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.451	0.00000	0.999998	

Ni 231.604	3	Lin Thru 0	0.0	79.93	0.00000	0.999974
P 214.914	3	Lin Thru 0	0.0	4.323	0.00000	0.999976
Pb 220.353	3	Lin Thru 0	0.0	16.25	0.00000	0.999959
S 181.975 Axial	3	Lin Thru 0	0.0	1.189	0.00000	0.999992
Sb 206.836	3	Lin Thru 0	0.0	7.755	0.00000	0.999995
Se 196.026	3	Lin Thru 0	0.0	2.538	0.00000	0.999987
SiO2	3	Lin Thru 0	0.0	9.443	0.00000	0.999998
Si 251.611	3	Lin Thru 0	0.0	63.42	0.00000	1.000000
Sn 189.927	3	Lin Thru 0	0.0	14.42	0.00000	0.999987
Sr 421.552	3	Lin Thru 0	0.0	424.0	0.00000	0.999993
Ti 334.940	3	Lin Thru 0	0.0	973.6	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	7.323	0.00000	0.999979
U 409.014	3	Lin Thru 0	0.0	15.85	0.00000	0.999462
V 292.402	3	Lin Thru 0	0.0	192.9	0.00000	0.999999
Zn 213.857	3	Lin Thru 0	0.0	167.4	0.00000	0.999981

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 4/5/2010 10:23:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140523.3	140523.3	100	%			10:24:07
1	Al 396.153Radial†	24438.5	24442.2	5121.2	µg/L	5121.2	ppb	10:24:07
1	Ca 317.933Radial†	74783.5	73983.1	5038.9	µg/L	5038.9	ppb	10:24:07
1	Fe 238.204 Radial†	68030.6	67704.9	5056.2	µg/L	5056.2	ppb	10:24:07
1	K 766.490 Radial†	8010.1	6491.7	2569.4	µg/L	2569.4	ppb	10:24:07
1	Mg 279.077 IEC†	11573.0	11365.1	5256.4	µg/L	5256.4	ppb	10:24:07
1	Na 589.592 Radial†	17343.2	16337.6	2530.2	µg/L	2530.2	ppb	10:24:07
1	Sr 421.552†	225106.1	224621.2	529.72	µg/L	529.72	ppb	10:24:05
1	Sc 361.383	1811067.9	1811067.9	100.38	%			10:24:20
1	Y 371.029	1053070.2	1053070.2	99.600	%			10:24:20
1	Ag 328.068†	66564.0	61744.7	259.05	µg/L	259.05	ppb	10:24:20
1	As 188.979†	1394.2	1407.4	483.32	µg/L	483.32	ppb	10:24:40
1	B 249.677†	37900.4	33690.5	522.17	µg/L	522.17	ppb	10:24:20
1	Ba 233.527†	115320.6	115024.8	511.69	µg/L	511.69	ppb	10:24:20
1	Be 313.107†	892073.7	889759.3	257.88	µg/L	257.88	ppb	10:24:20
1	Cd 226.502†	74846.1	74663.7	504.32	µg/L	504.32	ppb	10:24:20
1	Co 228.616†	38714.5	38776.9	513.26	µg/L	513.26	ppb	10:24:20
1	Cr 267.716†	57458.5	57005.9	493.05	µg/L	493.05	ppb	10:24:20
1	Cu 324.752†	125966.4	122449.3	513.72	µg/L	513.72	ppb	10:24:20
1	Mn 257.610†	386772.5	385111.0	510.65	µg/L	510.65	ppb	10:24:20
1	Mo 202.031†	16355.4	16331.5	534.57	µg/L	534.57	ppb	10:24:40
1	Ni 231.604†	39957.0	39900.4	499.20	µg/L	499.20	ppb	10:24:20
1	P 214.914†	10952.7	10936.6	2521.1	µg/L	2521.1	ppb	10:24:40
1	Pb 220.353†	8370.6	8235.2	508.44	µg/L	508.44	ppb	10:24:40
1	S 181.975 Axial†	3038.8	2938.3	2476.4	µg/L	2476.4	ppb	10:24:40
1	Sb 206.836†	3984.8	3879.9	502.09	µg/L	502.09	ppb	10:24:40
1	Se 196.026†	6435.0	6404.3	2530	µg/L	2530	ppb	10:24:40
1	SiO2†	100095.5	97974.2	10352	µg/L	10352	ppb	10:24:20
1	Si 251.611†	309334.8	307386.6	4836.5	µg/L	4836.5	ppb	10:24:20
1	Sn 189.927†	7699.8	7668.5	533.57	µg/L	533.57	ppb	10:24:40
1	Ti 334.940†	481280.6	478620.0	490.93	µg/L	490.93	ppb	10:24:20
1	Tl 190.801†	3769.5	3869.4	535.81	µg/L	535.81	ppb	10:24:40
1	U 409.014†	7018.0	7154.6	482.25	µg/L	482.25	ppb	10:24:20
1	V 292.402†	97850.1	97053.2	509.98	µg/L	509.98	ppb	10:24:20
1	Zn 213.857†	86050.7	85219.1	504.95	µg/L	504.95	ppb	10:24:20
2	Sc RADIAL	141521.6	141521.6	101	%			10:24:11
2	Al 396.153Radial†	24648.2	24477.9	5128.8	µg/L	5128.8	ppb	10:24:11
2	Ca 317.933Radial†	75579.4	74245.0	5056.8	µg/L	5056.8	ppb	10:24:11
2	Fe 238.204 Radial†	68747.0	67935.7	5073.4	µg/L	5073.4	ppb	10:24:11
2	K 766.490 Radial†	8086.3	6510.9	2577.0	µg/L	2577.0	ppb	10:24:11
2	Mg 279.077 IEC†	11660.2	11370.0	5258.6	µg/L	5258.6	ppb	10:24:11
2	Na 589.592 Radial†	17495.8	16366.7	2534.7	µg/L	2534.7	ppb	10:24:11
2	Sr 421.552†	225995.0	223918.1	528.06	µg/L	528.06	ppb	10:24:09
2	Sc 361.383	1803387.2	1803387.2	99.958	%			10:24:43
2	Y 371.029	1048161.1	1048161.1	99.136	%			10:24:43
2	Ag 328.068†	66375.0	61838.0	259.41	µg/L	259.41	ppb	10:24:43
2	As 188.979†	1372.6	1391.8	478.02	µg/L	478.02	ppb	10:25:03
2	B 249.677†	37478.9	33429.7	518.10	µg/L	518.10	ppb	10:24:43
2	Ba 233.527†	114759.5	114952.8	511.37	µg/L	511.37	ppb	10:24:43
2	Be 313.107†	886689.4	888157.6	257.41	µg/L	257.41	ppb	10:24:43
2	Cd 226.502†	74557.3	74692.3	504.51	µg/L	504.51	ppb	10:24:43
2	Co 228.616†	38671.9	38898.6	514.87	µg/L	514.87	ppb	10:24:43
2	Cr 267.716†	57014.3	56805.3	491.33	µg/L	491.33	ppb	10:24:43
2	Cu 324.752†	124971.6	121988.6	511.78	µg/L	511.78	ppb	10:24:43
2	Mn 257.610†	384842.3	384821.0	510.26	µg/L	510.26	ppb	10:24:43
2	Mo 202.031†	16218.2	16263.6	532.35	µg/L	532.35	ppb	10:25:03
2	Ni 231.604†	39961.4	40074.3	501.38	µg/L	501.38	ppb	10:24:43
2	P 214.914†	10845.8	10876.1	2507.2	µg/L	2507.2	ppb	10:25:03
2	Pb 220.353†	8298.4	8198.4	506.19	µg/L	506.19	ppb	10:25:03

2	S 181.975 Axial†	2999.7	2912.0	2454.3 µg/L	2454.3 ppb	10:25:03
2	Sb 206.836†	3927.6	3839.5	496.87 µg/L	496.87 ppb	10:25:03
2	Se 196.026†	6386.0	6382.6	2520 µg/L	2520 ppb	10:25:03
2	SiO2†	99482.5	97785.7	10332 µg/L	10332 ppb	10:24:43
2	Si 251.611†	307517.6	306881.1	4828.6 µg/L	4828.6 ppb	10:24:43
2	Sn 189.927†	7645.8	7647.2	532.09 µg/L	532.09 ppb	10:25:03
2	Ti 334.940†	478739.3	478119.5	490.43 µg/L	490.43 ppb	10:24:43
2	Tl 190.801†	3725.8	3841.6	532.00 µg/L	532.00 ppb	10:25:03
2	U 409.014†	6667.8	6834.0	462.00 µg/L	462.00 ppb	10:24:43
2	V 292.402†	97411.1	97029.3	509.81 µg/L	509.81 ppb	10:24:43
2	Zn 213.857†	85869.6	85403.1	506.04 µg/L	506.04 ppb	10:24:43
3	Sc RADIAL	140619.3	140619.3	100 %		10:24:15
3	Al 396.153Radial†	24689.2	24675.4	5170.3 µg/L	5170.3 ppb	10:24:15
3	Ca 317.933Radial†	75209.3	74356.3	5064.3 µg/L	5064.3 ppb	10:24:15
3	Fe 238.204 Radial†	68498.2	68124.5	5087.5 µg/L	5087.5 ppb	10:24:15
3	K 766.490 Radial†	7806.5	6283.5	2486.9 µg/L	2486.9 ppb	10:24:15
3	Mg 279.077 IEC†	11680.4	11464.3	5302.2 µg/L	5302.2 ppb	10:24:15
3	Na 589.592 Radial†	17364.6	16347.1	2531.7 µg/L	2531.7 ppb	10:24:15
3	Sr 421.552†	224592.5	223956.3	528.15 µg/L	528.15 ppb	10:24:13
3	Sc 361.383	1807264.5	1807264.5	100.17 %		10:25:06
3	Y 371.029	1050693.9	1050693.9	99.375 %		10:25:06
3	Ag 328.068†	66243.0	61563.8	258.30 µg/L	258.30 ppb	10:25:06
3	As 188.979†	1388.9	1405.1	482.54 µg/L	482.54 ppb	10:25:26
3	B 249.677†	37737.0	33606.9	520.86 µg/L	520.86 ppb	10:25:06
3	Ba 233.527†	115014.8	114961.3	511.41 µg/L	511.41 ppb	10:25:06
3	Be 313.107†	890592.0	890150.3	257.99 µg/L	257.99 ppb	10:25:06
3	Cd 226.502†	74469.1	74444.2	502.83 µg/L	502.83 ppb	10:25:06
3	Co 228.616†	38759.6	38903.2	514.93 µg/L	514.93 ppb	10:25:06
3	Cr 267.716†	57275.1	56943.2	492.52 µg/L	492.52 ppb	10:25:06
3	Cu 324.752†	125282.2	122030.3	511.96 µg/L	511.96 ppb	10:25:06
3	Mn 257.610†	385605.2	384756.6	510.17 µg/L	510.17 ppb	10:25:06
3	Mo 202.031†	16300.9	16311.4	533.91 µg/L	533.91 ppb	10:25:26
3	Ni 231.604†	39880.4	39907.6	499.29 µg/L	499.29 ppb	10:25:06
3	P 214.914†	10929.8	10936.7	2521.2 µg/L	2521.2 ppb	10:25:26
3	Pb 220.353†	8313.7	8195.9	506.04 µg/L	506.04 ppb	10:25:26
3	S 181.975 Axial†	3024.1	2930.0	2469.4 µg/L	2469.4 ppb	10:25:26
3	Sb 206.836†	3985.2	3888.6	503.21 µg/L	503.21 ppb	10:25:26
3	Se 196.026†	6418.8	6401.6	2520 µg/L	2520 ppb	10:25:26
3	SiO2†	99707.6	97796.8	10334 µg/L	10334 ppb	10:25:06
3	Si 251.611†	308174.3	306876.6	4828.4 µg/L	4828.4 ppb	10:25:06
3	Sn 189.927†	7722.0	7706.8	536.23 µg/L	536.23 ppb	10:25:26
3	Ti 334.940†	480594.4	478943.9	491.27 µg/L	491.27 ppb	10:25:06
3	Tl 190.801†	3769.9	3877.6	536.93 µg/L	536.93 ppb	10:25:26
3	U 409.014†	6753.8	6905.5	466.53 µg/L	466.53 ppb	10:25:06
3	V 292.402†	97691.0	97099.6	510.20 µg/L	510.20 ppb	10:25:06
3	Zn 213.857†	85980.5	85329.5	505.61 µg/L	505.61 ppb	10:25:06

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807239.8	100.17	%	0.213				0.21%
Sc RADIAL	140888.1	101	%	0.4				0.39%
Y 371.029	1050641.7	99.371	%	0.2322				0.23%
Ag 328.068†	61715.5	258.92	µg/L	0.568	258.92	ppb	0.568	0.22%
QC value within limits for Ag 328.068 Recovery = 103.57%								
Al 396.153Radial†	24531.8	5140.1	µg/L	26.43	5140.1	ppb	26.43	0.51%
QC value within limits for Al 396.153Radial Recovery = 102.80%								
As 188.979†	1401.4	481.30	µg/L	2.864	481.30	ppb	2.864	0.60%
QC value within limits for As 188.979 Recovery = 96.26%								
B 249.677†	33575.7	520.38	µg/L	2.073	520.38	ppb	2.073	0.40%
QC value within limits for B 249.677 Recovery = 104.08%								
Ba 233.527†	114979.6	511.49	µg/L	0.175	511.49	ppb	0.175	0.03%
QC value within limits for Ba 233.527 Recovery = 102.30%								
Be 313.107†	889355.7	257.76	µg/L	0.308	257.76	ppb	0.308	0.12%
QC value within limits for Be 313.107 Recovery = 103.10%								
Ca 317.933Radial†	74194.8	5053.3	µg/L	13.05	5053.3	ppb	13.05	0.26%
QC value within limits for Ca 317.933Radial Recovery = 101.07%								
Cd 226.502†	74600.1	503.88	µg/L	0.919	503.88	ppb	0.919	0.18%
QC value within limits for Cd 226.502 Recovery = 100.78%								
Co 228.616†	38859.6	514.36	µg/L	0.946	514.36	ppb	0.946	0.18%

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   QC value within limits for Co 228.616  Recovery = 102.87%
Cr 267.716†            56918.2      492.30 µg/L         0.880      492.30 ppb          0.880   0.18%
   QC value within limits for Cr 267.716  Recovery = 98.46%
Cu 324.752†           122156.1      512.49 µg/L         1.072      512.49 ppb          1.072   0.21%
   QC value within limits for Cu 324.752  Recovery = 102.50%
Fe 238.204 Radial†     67921.7      5072.3 µg/L         15.69      5072.3 ppb          15.69   0.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.45%
K 766.490 Radial†       6428.7      2544.4 µg/L         49.99      2544.4 ppb          49.99   1.96%
   QC value within limits for K 766.490 Radial  Recovery = 101.78%
Mg 279.077 IEC†        11399.8      5272.4 µg/L         25.80      5272.4 ppb          25.80   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.45%
Mn 257.610†           384896.2      510.36 µg/L         0.251      510.36 ppb          0.251   0.05%
   QC value within limits for Mn 257.610  Recovery = 102.07%
Mo 202.031†            16302.2      533.61 µg/L         1.140      533.61 ppb          1.140   0.21%
   QC value within limits for Mo 202.031  Recovery = 106.72%
Na 589.592 Radial†     16350.4      2532.2 µg/L          2.29      2532.2 ppb           2.29   0.09%
   QC value within limits for Na 589.592 Radial  Recovery = 101.29%
Ni 231.604†            39960.8      499.96 µg/L         1.231      499.96 ppb          1.231   0.25%
   QC value within limits for Ni 231.604  Recovery = 99.99%
P 214.914†             10916.5      2516.5 µg/L          8.09      2516.5 ppb           8.09   0.32%
   QC value within limits for P 214.914  Recovery = 100.66%
Pb 220.353†             8209.8      506.89 µg/L         1.346      506.89 ppb          1.346   0.27%
   QC value within limits for Pb 220.353  Recovery = 101.38%
S 181.975 Axial†        2926.8      2466.7 µg/L         11.31      2466.7 ppb          11.31   0.46%
   QC value within limits for S 181.975 Axial  Recovery = 98.67%
Sb 206.836†             3869.3      500.72 µg/L         3.381      500.72 ppb          3.381   0.68%
   QC value within limits for Sb 206.836  Recovery = 100.14%
Se 196.026†             6396.1        2520 µg/L           4.7        2520 ppb            4.7   0.19%
   QC value within limits for Se 196.026  Recovery = 100.88%
SiO2†                  97852.2       10339 µg/L          11.2       10339 ppb           11.2   0.11%
   QC value within limits for SiO2  Recovery = 96.68%
Si 251.611†           307048.1      4831.2 µg/L          4.61      4831.2 ppb           4.61   0.10%
   QC value within limits for Si 251.611  Recovery = 96.62%
Sn 189.927†             7674.1      533.96 µg/L         2.097      533.96 ppb          2.097   0.39%
   QC value within limits for Sn 189.927  Recovery = 106.79%
Sr 421.552†           224165.2      528.65 µg/L         0.933      528.65 ppb          0.933   0.18%
   QC value within limits for Sr 421.552  Recovery = 105.73%
Ti 334.940†           478561.1      490.88 µg/L         0.423      490.88 ppb          0.423   0.09%
   QC value within limits for Ti 334.940  Recovery = 98.18%
Tl 190.801†             3862.9      534.91 µg/L         2.585      534.91 ppb          2.585   0.48%
   QC value within limits for Tl 190.801  Recovery = 106.98%
U 409.014†              6964.7      470.26 µg/L        10.624      470.26 ppb         10.624   2.26%
   QC value within limits for U 409.014  Recovery = 94.05%
V 292.402†             97060.7      510.00 µg/L         0.194      510.00 ppb          0.194   0.04%
   QC value within limits for V 292.402  Recovery = 102.00%
Zn 213.857†            85317.2      505.54 µg/L         0.546      505.54 ppb          0.546   0.11%
   QC value within limits for Zn 213.857  Recovery = 101.11%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 4/5/2010 10:25:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139162.3	139162.3	99.3	%			10:26:03
1	Al 396.153Radial†	-53.9	24.2	5.0642	µg/L	5.0642	ppb	10:26:23
1	Ca 317.933Radial†	571.7	4.0	0.2745	µg/L	0.2745	ppb	10:26:23
1	Fe 238.204 Radial†	117.8	1.3	0.0992	µg/L	0.0992	ppb	10:26:23
1	K 766.490 Radial†	1466.1	-17.9	-7.0792	µg/L	-7.0792	ppb	10:26:03
1	Mg 279.077 IEC†	183.5	12.3	5.6777	µg/L	5.6777	ppb	10:26:23
1	Na 589.592 Radial†	1119.8	174.8	27.100	µg/L	27.100	ppb	10:26:03
1	Sr 421.552†	-218.0	-14.9	-0.0352	µg/L	-0.0352	ppb	10:26:03
1	Sc 361.383	1806325.2	1806325.2	100.12	%			10:27:25
1	Y 371.029	1059354.7	1059354.7	100.19	%			10:27:25
1	Ag 328.068†	4398.9	-171.5	-0.7202	µg/L	-0.7202	ppb	10:27:27
1	As 188.979†	-12.8	5.7	1.9434	µg/L	1.9434	ppb	10:27:47
1	B 249.677†	4126.0	55.9	0.8673	µg/L	0.8673	ppb	10:27:27
1	Ba 233.527†	-124.3	20.4	0.0910	µg/L	0.0910	ppb	10:27:47
1	Be 313.107†	-698.4	394.1	0.1093	µg/L	0.1093	ppb	10:27:27
1	Cd 226.502†	-64.2	39.2	0.2652	µg/L	0.2652	ppb	10:27:47
1	Co 228.616†	-177.9	32.6	0.4308	µg/L	0.4308	ppb	10:27:47
1	Cr 267.716†	212.7	-20.7	-0.1666	µg/L	-0.1666	ppb	10:27:47
1	Cu 324.752†	2961.2	-78.4	-0.3410	µg/L	-0.3410	ppb	10:27:27
1	Mn 257.610†	244.5	59.5	0.0787	µg/L	0.0787	ppb	10:27:47
1	Mo 202.031†	-12.2	26.4	0.8620	µg/L	0.8620	ppb	10:27:47
1	Ni 231.604†	-79.6	16.4	0.2058	µg/L	0.2058	ppb	10:27:47
1	P 214.914†	-21.4	4.3	0.9939	µg/L	0.9939	ppb	10:27:47
1	Pb 220.353†	93.3	-10.3	-0.6182	µg/L	-0.6182	ppb	10:27:47
1	S 181.975 Axial†	95.5	6.5	5.4827	µg/L	5.4827	ppb	10:27:47
1	Sb 206.836†	70.6	-19.2	-2.4625	µg/L	-2.4625	ppb	10:27:47
1	Se 196.026†	27.2	21.0	8.26	µg/L	8.26	ppb	10:27:47
1	SiO2†	1772.8	31.6	3.3130	µg/L	3.3130	ppb	10:27:47
1	Si 251.611†	695.9	-72.0	-1.1503	µg/L	-1.1503	ppb	10:27:27
1	Sn 189.927†	9.8	7.9	0.5516	µg/L	0.5516	ppb	10:27:47
1	Ti 334.940†	991.0	166.8	0.1776	µg/L	0.1776	ppb	10:27:27
1	Tl 190.801†	-103.3	11.1	1.5149	µg/L	1.5149	ppb	10:27:47
1	U 409.014†	-420.2	-256.4	-16.169	µg/L	-16.169	ppb	10:27:27
1	V 292.402†	453.0	29.2	0.1483	µg/L	0.1483	ppb	10:27:27
1	Zn 213.857†	541.6	38.0	0.2259	µg/L	0.2259	ppb	10:27:47
2	Sc RADIAL	142818.3	142818.3	102	%			10:26:25
2	Al 396.153Radial†	-102.5	-22.0	-4.6648	µg/L	-4.6648	ppb	10:26:45
2	Ca 317.933Radial†	573.3	-9.1	-0.6188	µg/L	-0.6188	ppb	10:26:45
2	Fe 238.204 Radial†	110.9	-8.5	-0.6347	µg/L	-0.6347	ppb	10:26:45
2	K 766.490 Radial†	1687.2	161.2	63.862	µg/L	63.862	ppb	10:26:25
2	Mg 279.077 IEC†	188.6	12.6	5.8246	µg/L	5.8246	ppb	10:26:45
2	Na 589.592 Radial†	1002.2	30.6	4.6847	µg/L	4.6847	ppb	10:26:25
2	Sr 421.552†	-146.6	60.6	0.1430	µg/L	0.1430	ppb	10:26:25
2	Sc 361.383	1814818.2	1814818.2	100.59	%			10:27:49
2	Y 371.029	1063959.1	1063959.1	100.63	%			10:27:49
2	Ag 328.068†	4390.0	-201.0	-0.8229	µg/L	-0.8229	ppb	10:27:52
2	As 188.979†	-4.3	14.3	4.8359	µg/L	4.8359	ppb	10:28:12
2	B 249.677†	4308.2	217.8	3.3850	µg/L	3.3850	ppb	10:27:52
2	Ba 233.527†	-108.5	36.7	0.1631	µg/L	0.1631	ppb	10:28:12
2	Be 313.107†	-1008.5	89.1	0.0263	µg/L	0.0263	ppb	10:27:52
2	Cd 226.502†	-90.1	13.8	0.0933	µg/L	0.0933	ppb	10:28:12
2	Co 228.616†	-172.6	38.7	0.5117	µg/L	0.5117	ppb	10:28:12
2	Cr 267.716†	241.1	6.5	0.0544	µg/L	0.0544	ppb	10:28:12
2	Cu 324.752†	3110.8	56.4	0.2376	µg/L	0.2376	ppb	10:27:52
2	Mn 257.610†	185.1	-0.7	-0.0012	µg/L	-0.0012	ppb	10:28:12
2	Mo 202.031†	-16.1	22.5	0.7373	µg/L	0.7373	ppb	10:28:12
2	Ni 231.604†	-83.2	13.2	0.1649	µg/L	0.1649	ppb	10:28:12
2	P 214.914†	-11.2	14.6	3.3643	µg/L	3.3643	ppb	10:28:12
2	Pb 220.353†	102.7	-1.3	-0.0807	µg/L	-0.0807	ppb	10:28:12

2	S 181.975 Axial†	103.8	14.2	11.975 µg/L	11.975 ppb	10:28:12
2	Sb 206.836†	96.2	5.9	0.7677 µg/L	0.7677 ppb	10:28:12
2	Se 196.026†	20.8	14.5	5.71 µg/L	5.71 ppb	10:28:12
2	SiO2†	1717.4	-31.8	-3.3984 µg/L	-3.3984 ppb	10:28:12
2	Si 251.611†	740.6	-30.8	-0.4998 µg/L	-0.4998 ppb	10:27:52
2	Sn 189.927†	13.1	11.2	0.7737 µg/L	0.7737 ppb	10:28:12
2	Ti 334.940†	875.6	47.5	0.0476 µg/L	0.0476 ppb	10:27:52
2	Tl 190.801†	-113.0	1.9	0.2561 µg/L	0.2561 ppb	10:28:12
2	U 409.014†	-138.0	26.2	1.6406 µg/L	1.6406 ppb	10:27:52
2	V 292.402†	389.3	-36.2	-0.1786 µg/L	-0.1786 ppb	10:27:52
2	Zn 213.857†	534.3	28.2	0.1669 µg/L	0.1669 ppb	10:28:12
3	Sc RADIAL	140073.3	140073.3	100.0 %		10:26:47
3	Al 396.153Radial†	-42.9	35.6	7.4623 µg/L	7.4623 ppb	10:27:07
3	Ca 317.933Radial†	561.5	-9.9	-0.6724 µg/L	-0.6724 ppb	10:27:07
3	Fe 238.204 Radial†	131.4	14.1	1.0507 µg/L	1.0507 ppb	10:27:07
3	K 766.490 Radial†	1577.5	83.9	33.259 µg/L	33.259 ppb	10:26:47
3	Mg 279.077 IEC†	160.6	-11.8	-5.4397 µg/L	-5.4397 ppb	10:27:07
3	Na 589.592 Radial†	1138.5	186.1	28.821 µg/L	28.821 ppb	10:26:47
3	Sr 421.552†	-238.5	-34.1	-0.0803 µg/L	-0.0803 ppb	10:26:47
3	Sc 361.383	1801432.9	1801432.9	99.849 %		10:28:14
3	Y 371.029	1056501.4	1056501.4	99.925 %		10:28:14
3	Ag 328.068†	4278.5	-280.2	-1.1531 µg/L	-1.1531 ppb	10:28:16
3	As 188.979†	-13.5	5.0	1.6981 µg/L	1.6981 ppb	10:28:36
3	B 249.677†	4216.2	157.5	2.4477 µg/L	2.4477 ppb	10:28:16
3	Ba 233.527†	-133.7	10.6	0.0474 µg/L	0.0474 ppb	10:28:36
3	Be 313.107†	-1028.1	62.1	0.0170 µg/L	0.0170 ppb	10:28:16
3	Cd 226.502†	-90.6	12.6	0.0850 µg/L	0.0850 ppb	10:28:36
3	Co 228.616†	-185.7	24.3	0.3210 µg/L	0.3210 ppb	10:28:36
3	Cr 267.716†	246.4	13.6	0.1197 µg/L	0.1197 ppb	10:28:36
3	Cu 324.752†	2983.7	-48.0	-0.2030 µg/L	-0.2030 ppb	10:28:16
3	Mn 257.610†	209.1	24.6	0.0329 µg/L	0.0329 ppb	10:28:36
3	Mo 202.031†	-14.8	23.7	0.7753 µg/L	0.7753 ppb	10:28:36
3	Ni 231.604†	-104.2	-8.4	-0.1054 µg/L	-0.1054 ppb	10:28:36
3	P 214.914†	-1.5	24.2	5.6067 µg/L	5.6067 ppb	10:28:36
3	Pb 220.353†	90.7	-12.6	-0.7708 µg/L	-0.7708 ppb	10:28:36
3	S 181.975 Axial†	101.2	12.4	10.478 µg/L	10.478 ppb	10:28:36
3	Sb 206.836†	86.9	-2.7	-0.3424 µg/L	-0.3424 ppb	10:28:36
3	Se 196.026†	17.0	10.8	4.26 µg/L	4.26 ppb	10:28:36
3	SiO2†	1768.5	32.1	3.3679 µg/L	3.3679 ppb	10:28:36
3	Si 251.611†	1260.7	495.6	7.8002 µg/L	7.8002 ppb	10:28:16
3	Sn 189.927†	11.5	9.6	0.6680 µg/L	0.6680 ppb	10:28:36
3	Ti 334.940†	917.1	95.5	0.0997 µg/L	0.0997 ppb	10:28:16
3	Tl 190.801†	-97.8	16.4	2.2310 µg/L	2.2310 ppb	10:28:36
3	U 409.014†	-212.8	-49.8	-3.1540 µg/L	-3.1540 ppb	10:28:16
3	V 292.402†	387.5	-35.2	-0.1760 µg/L	-0.1760 ppb	10:28:16
3	Zn 213.857†	530.2	28.0	0.1681 µg/L	0.1681 ppb	10:28:36

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807525.4	100.19	%	0.375				0.37%
Sc RADIAL	140684.7	100	%	1.4				1.35%
Y 371.029	1059938.4	100.25	%	0.356				0.36%
Ag 328.068†	-217.6	-0.8988	µg/L	0.22619	-0.8988	ppb	0.22619	25.17%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.6	2.6206	µg/L	6.42222	2.6206	ppb	6.42222	245.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.3	2.8258	µg/L	1.74509	2.8258	ppb	1.74509	61.76%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	143.7	2.2333	µg/L	1.27245	2.2333	ppb	1.27245	56.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	22.6	0.1005	µg/L	0.05843	0.1005	ppb	0.05843	58.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	181.8	0.0509	µg/L	0.05080	0.0509	ppb	0.05080	99.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-5.0	-0.3389	µg/L	0.53188	-0.3389	ppb	0.53188	156.95%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	21.9	0.1479	µg/L	0.10171	0.1479	ppb	0.10171	68.79%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	31.8	0.4212	µg/L	0.09568	0.4212	ppb	0.09568	22.72%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -0.2      0.0025 µg/L       0.15007      0.0025 ppb        0.15007 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -23.3     -0.1021 µg/L       0.30215     -0.1021 ppb        0.30215 295.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.3      0.1717 µg/L       0.84503      0.1717 ppb        0.84503 492.06%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          75.8      30.014 µg/L       35.5819      30.014 ppb        35.5819 118.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             4.3      2.0209 µg/L       6.46146      2.0209 ppb        6.46146 319.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                27.8      0.0368 µg/L       0.04010      0.0368 ppb        0.04010 108.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                24.2      0.7916 µg/L       0.06391      0.7916 ppb        0.06391   8.07%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        130.5      20.202 µg/L       13.4657      20.202 ppb        13.4657  66.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.1      0.0884 µg/L       0.16910      0.0884 ppb        0.16910 191.25%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 14.4      3.3216 µg/L       2.30669      3.3216 ppb        2.30669  69.44%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -8.1     -0.4899 µg/L       0.36249     -0.4899 ppb        0.36249  73.99%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           11.1      9.3117 µg/L       3.39955      9.3117 ppb        3.39955  36.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -5.4     -0.6791 µg/L       1.64121     -0.6791 ppb        1.64121 241.69%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                15.4        6.08 µg/L         2.027        6.08 ppb          2.027  33.35%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      10.6      1.0942 µg/L       3.89080      1.0942 ppb        3.89080 355.59%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               131.0      2.0500 µg/L       4.99041      2.0500 ppb        4.99041 243.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 9.6      0.6644 µg/L       0.11114      0.6644 ppb        0.11114  16.73%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 3.9      0.0092 µg/L       0.11809      0.0092 ppb        0.11809 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               103.3      0.1083 µg/L       0.06541      0.1083 ppb        0.06541  60.41%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 9.8      1.3340 µg/L       0.99980      1.3340 ppb        0.99980  74.95%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -93.3     -5.8942 µg/L       9.21571     -5.8942 ppb        9.21571 156.35%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -14.1     -0.0688 µg/L       0.18804     -0.0688 ppb        0.18804 273.40%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                31.4      0.1870 µg/L       0.03374      0.1870 ppb        0.03374  18.04%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 4/5/2010 10:28:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141650.4	141650.4	101	%			10:29:14
1	Al 396.153Radial†	1036.5	1103.7	231.88	µg/L	231.88	ppb	10:29:16
1	Ca 317.933Radial†	3603.3	2992.2	203.80	µg/L	203.80	ppb	10:29:16
1	Fe 238.204 Radial†	1560.7	1426.2	106.51	µg/L	106.51	ppb	10:29:16
1	K 766.490 Radial†	1826.1	312.3	123.57	µg/L	123.57	ppb	10:29:14
1	Mg 279.077 IEC†	874.5	692.5	319.90	µg/L	319.90	ppb	10:29:16
1	Na 589.592 Radial†	2732.4	1749.8	271.13	µg/L	271.13	ppb	10:29:16
1	Sr 421.552†	2186.1	2366.5	5.5797	µg/L	5.5797	ppb	10:29:16
1	Sc 361.383	1814341.7	1814341.7	100.56	%			10:29:28
1	Y 371.029	1064064.3	1064064.3	100.64	%			10:29:28
1	Ag 328.068†	5622.7	1026.0	4.3223	µg/L	4.3223	ppb	10:29:30
1	As 188.979†	87.6	105.7	35.836	µg/L	35.836	ppb	10:29:50
1	B 249.677†	7343.1	3236.7	50.319	µg/L	50.319	ppb	10:29:30
1	Ba 233.527†	999.3	1138.3	5.0652	µg/L	5.0652	ppb	10:29:50
1	Be 313.107†	16066.6	17068.1	4.9590	µg/L	4.9590	ppb	10:29:30
1	Cd 226.502†	646.2	745.9	5.0326	µg/L	5.0326	ppb	10:29:50
1	Co 228.616†	185.3	394.5	5.2190	µg/L	5.2190	ppb	10:29:50
1	Cr 267.716†	839.1	601.2	5.1628	µg/L	5.1628	ppb	10:29:50
1	Cu 324.752†	5479.5	2412.6	10.159	µg/L	10.159	ppb	10:29:30
1	Mn 257.610†	8022.8	7793.0	10.325	µg/L	10.325	ppb	10:29:30
1	Mo 202.031†	281.7	318.7	10.434	µg/L	10.434	ppb	10:29:50
1	Ni 231.604†	303.7	397.9	4.9784	µg/L	4.9784	ppb	10:29:50
1	P 214.914†	630.3	652.4	150.78	µg/L	150.78	ppb	10:29:50
1	Pb 220.353†	271.2	166.2	10.231	µg/L	10.231	ppb	10:29:50
1	S 181.975 Axial†	205.7	115.7	97.385	µg/L	97.385	ppb	10:29:50
1	Sb 206.836†	154.6	64.1	8.3550	µg/L	8.3550	ppb	10:29:50
1	Se 196.026†	110.2	103.4	40.8	µg/L	40.8	ppb	10:29:50
1	SiO2†	3822.7	2062.2	217.92	µg/L	217.92	ppb	10:29:30
1	Si 251.611†	7510.5	6701.3	105.46	µg/L	105.46	ppb	10:29:30
1	Sn 189.927†	160.1	157.3	10.927	µg/L	10.927	ppb	10:29:50
1	Ti 334.940†	5734.4	4879.2	4.9689	µg/L	4.9689	ppb	10:29:30
1	Tl 190.801†	38.0	152.0	20.859	µg/L	20.859	ppb	10:29:50
1	U 409.014†	615.0	774.9	49.286	µg/L	49.286	ppb	10:29:30
1	V 292.402†	1571.6	1139.6	6.0534	µg/L	6.0534	ppb	10:29:30
1	Zn 213.857†	2274.8	1759.0	10.457	µg/L	10.457	ppb	10:29:50
2	Sc RADIAL	141759.5	141759.5	101	%			10:29:18
2	Al 396.153Radial†	796.2	865.4	181.72	µg/L	181.72	ppb	10:29:20
2	Ca 317.933Radial†	3683.3	3068.5	209.00	µg/L	209.00	ppb	10:29:20
2	Fe 238.204 Radial†	1485.2	1350.5	100.85	µg/L	100.85	ppb	10:29:20
2	K 766.490 Radial†	1933.5	417.0	165.07	µg/L	165.07	ppb	10:29:18
2	Mg 279.077 IEC†	921.2	737.9	340.89	µg/L	340.89	ppb	10:29:20
2	Na 589.592 Radial†	2783.2	1797.9	278.55	µg/L	278.55	ppb	10:29:20
2	Sr 421.552†	2129.2	2308.6	5.4432	µg/L	5.4432	ppb	10:29:20
2	Sc 361.383	1776563.5	1776563.5	98.471	%			10:29:52
2	Y 371.029	1041330.5	1041330.5	98.490	%			10:29:52
2	Ag 328.068†	5648.1	1170.6	4.9166	µg/L	4.9166	ppb	10:29:54
2	As 188.979†	73.8	93.5	31.726	µg/L	31.726	ppb	10:30:14
2	B 249.677†	7226.4	3273.5	50.889	µg/L	50.889	ppb	10:29:54
2	Ba 233.527†	1019.4	1179.8	5.2489	µg/L	5.2489	ppb	10:30:14
2	Be 313.107†	16021.3	17361.8	5.0486	µg/L	5.0486	ppb	10:29:54
2	Cd 226.502†	661.1	774.7	5.2281	µg/L	5.2281	ppb	10:30:14
2	Co 228.616†	198.3	411.7	5.4466	µg/L	5.4466	ppb	10:30:14
2	Cr 267.716†	776.3	555.1	4.7513	µg/L	4.7513	ppb	10:30:14
2	Cu 324.752†	5385.0	2432.5	10.254	µg/L	10.254	ppb	10:29:54
2	Mn 257.610†	8036.2	7976.3	10.567	µg/L	10.567	ppb	10:29:54
2	Mo 202.031†	269.0	311.7	10.207	µg/L	10.207	ppb	10:30:14
2	Ni 231.604†	339.1	440.3	5.5085	µg/L	5.5085	ppb	10:30:14
2	P 214.914†	631.8	667.3	154.21	µg/L	154.21	ppb	10:30:14
2	Pb 220.353†	260.3	160.9	9.8917	µg/L	9.8917	ppb	10:30:14

2	S 181.975 Axial†	213.7	128.1	107.82 µg/L	107.82 ppb	10:30:14
2	Sb 206.836†	134.3	46.7	6.1115 µg/L	6.1115 ppb	10:30:14
2	Se 196.026†	85.8	81.0	32.0 µg/L	32.0 ppb	10:30:14
2	SiO2†	3765.3	2084.6	220.32 µg/L	220.32 ppb	10:29:54
2	Si 251.611†	7495.9	6845.3	107.74 µg/L	107.74 ppb	10:29:54
2	Sn 189.927†	145.1	145.5	10.110 µg/L	10.110 ppb	10:30:14
2	Ti 334.940†	5701.4	4966.9	5.0513 µg/L	5.0513 ppb	10:29:54
2	Tl 190.801†	42.7	157.6	21.607 µg/L	21.607 ppb	10:30:14
2	U 409.014†	837.2	1013.6	64.273 µg/L	64.273 ppb	10:29:54
2	V 292.402†	1281.9	878.6	4.7076 µg/L	4.7076 ppb	10:29:54
2	Zn 213.857†	2244.8	1776.7	10.559 µg/L	10.559 ppb	10:30:14
3	Sc RADIAL	141499.9	141499.9	101 %		10:29:22
3	Al 396.153Radial†	902.8	972.4	204.30 µg/L	204.30 ppb	10:29:24
3	Ca 317.933Radial†	3625.9	3018.4	205.58 µg/L	205.58 ppb	10:29:24
3	Fe 238.204 Radial†	1528.3	1395.8	104.24 µg/L	104.24 ppb	10:29:24
3	K 766.490 Radial†	1924.1	411.1	162.76 µg/L	162.76 ppb	10:29:22
3	Mg 279.077 IEC†	884.8	703.6	325.00 µg/L	325.00 ppb	10:29:24
3	Na 589.592 Radial†	2796.7	1816.3	281.40 µg/L	281.40 ppb	10:29:24
3	Sr 421.552†	2078.5	2262.3	5.3339 µg/L	5.3339 ppb	10:29:24
3	Sc 361.383	1809314.5	1809314.5	100.29 %		10:30:16
3	Y 371.029	1060913.4	1060913.4	100.34 %		10:30:16
3	Ag 328.068†	5830.0	1248.2	5.2210 µg/L	5.2210 ppb	10:30:18
3	As 188.979†	82.3	100.6	34.129 µg/L	34.129 ppb	10:30:38
3	B 249.677†	7300.8	3214.9	49.979 µg/L	49.979 ppb	10:30:18
3	Ba 233.527†	972.1	1113.9	4.9559 µg/L	4.9559 ppb	10:30:38
3	Be 313.107†	16413.7	17458.6	5.0723 µg/L	5.0723 ppb	10:30:18
3	Cd 226.502†	657.5	759.0	5.1213 µg/L	5.1213 ppb	10:30:38
3	Co 228.616†	193.3	403.1	5.3320 µg/L	5.3320 ppb	10:30:38
3	Cr 267.716†	830.2	594.7	5.1050 µg/L	5.1050 ppb	10:30:38
3	Cu 324.752†	5532.4	2480.5	10.443 µg/L	10.443 ppb	10:30:18
3	Mn 257.610†	8096.9	7889.1	10.452 µg/L	10.452 ppb	10:30:18
3	Mo 202.031†	245.6	283.5	9.2820 µg/L	9.2820 ppb	10:30:38
3	Ni 231.604†	321.4	416.4	5.2097 µg/L	5.2097 ppb	10:30:38
3	P 214.914†	632.2	656.1	151.62 µg/L	151.62 ppb	10:30:38
3	Pb 220.353†	240.3	136.1	8.3755 µg/L	8.3755 ppb	10:30:38
3	S 181.975 Axial†	210.4	120.9	101.79 µg/L	101.79 ppb	10:30:38
3	Sb 206.836†	142.1	52.0	6.7786 µg/L	6.7786 ppb	10:30:38
3	Se 196.026†	92.7	86.3	34.1 µg/L	34.1 ppb	10:30:38
3	SiO2†	3995.7	2245.2	237.35 µg/L	237.35 ppb	10:30:18
3	Si 251.611†	7591.6	6803.0	107.09 µg/L	107.09 ppb	10:30:18
3	Sn 189.927†	145.0	142.7	9.9131 µg/L	9.9131 ppb	10:30:38
3	Ti 334.940†	5766.5	4927.0	5.0173 µg/L	5.0173 ppb	10:30:18
3	Tl 190.801†	41.5	155.7	21.346 µg/L	21.346 ppb	10:30:38
3	U 409.014†	624.1	785.7	49.910 µg/L	49.910 ppb	10:30:18
3	V 292.402†	1376.7	949.5	5.0570 µg/L	5.0570 ppb	10:30:18
3	Zn 213.857†	2245.7	1736.3	10.320 µg/L	10.320 ppb	10:30:38

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1800073.2	99.774	%	1.1371				1.14%
Sc RADIAL	141636.6	101	%	0.1				0.09%
Y 371.029	1055436.1	99.824	%	1.1649				1.17%
Ag 328.068†	1148.3	4.8200	µg/L	0.45709	4.8200	ppb	0.45709	9.48%
QC value within limits for Ag 328.068 Recovery = 96.40%								
Al 396.153Radial†	980.5	205.96	µg/L	25.124	205.96	ppb	25.124	12.20%
QC value within limits for Al 396.153Radial Recovery = 102.98%								
As 188.979†	99.9	33.897	µg/L	2.0651	33.897	ppb	2.0651	6.09%
QC value within limits for As 188.979 Recovery = 112.99%								
B 249.677†	3241.7	50.396	µg/L	0.4603	50.396	ppb	0.4603	0.91%
QC value within limits for B 249.677 Recovery = 100.79%								
Ba 233.527†	1144.0	5.0900	µg/L	0.14810	5.0900	ppb	0.14810	2.91%
QC value within limits for Ba 233.527 Recovery = 101.80%								
Be 313.107†	17296.2	5.0266	µg/L	0.05978	5.0266	ppb	0.05978	1.19%
QC value within limits for Be 313.107 Recovery = 100.53%								
Ca 317.933Radial†	3026.4	206.12	µg/L	2.642	206.12	ppb	2.642	1.28%
QC value within limits for Ca 317.933Radial Recovery = 103.06%								
Cd 226.502†	759.9	5.1273	µg/L	0.09792	5.1273	ppb	0.09792	1.91%
QC value within limits for Cd 226.502 Recovery = 102.55%								
Co 228.616†	403.1	5.3325	µg/L	0.11382	5.3325	ppb	0.11382	2.13%

```
   QC value within limits for Co 228.616  Recovery = 106.65%
Cr 267.716†              583.7      5.0064 µg/L       0.22276      5.0064 ppb        0.22276   4.45%
   QC value within limits for Cr 267.716  Recovery = 100.13%
Cu 324.752†             2441.9      10.285 µg/L        0.1448      10.285 ppb         0.1448   1.41%
   QC value within limits for Cu 324.752  Recovery = 102.85%
Fe 238.204 Radial†      1390.8      103.87 µg/L         2.845      103.87 ppb          2.845   2.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.87%
K 766.490 Radial†        380.1      150.47 µg/L        23.319      150.47 ppb         23.319  15.50%
   QC value within limits for K 766.490 Radial  Recovery = 100.31%
Mg 279.077 IEC†          711.3      328.59 µg/L        10.947      328.59 ppb         10.947   3.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.53%
Mn 257.610†             7886.1      10.448 µg/L        0.1212      10.448 ppb         0.1212   1.16%
   QC value within limits for Mn 257.610  Recovery = 104.48%
Mo 202.031†              304.6      9.9743 µg/L       0.61026      9.9743 ppb        0.61026   6.12%
   QC value within limits for Mo 202.031  Recovery = 99.74%
Na 589.592 Radial†      1788.0      277.03 µg/L         5.304      277.03 ppb          5.304   1.91%
   QC value within limits for Na 589.592 Radial  Recovery = 92.34%
Ni 231.604†              418.2      5.2322 µg/L       0.26577      5.2322 ppb        0.26577   5.08%
   QC value within limits for Ni 231.604  Recovery = 104.64%
P 214.914†               658.6      152.20 µg/L         1.789      152.20 ppb          1.789   1.18%
   QC value within limits for P 214.914  Recovery = 101.47%
Pb 220.353†              154.4      9.4994 µg/L       0.98805      9.4994 ppb        0.98805  10.40%
   QC value within limits for Pb 220.353  Recovery = 94.99%
S 181.975 Axial†         121.5      102.33 µg/L         5.237      102.33 ppb          5.237   5.12%
   QC value within limits for S 181.975 Axial  Recovery = 102.33%
Sb 206.836†               54.2      7.0817 µg/L       1.15204      7.0817 ppb        1.15204  16.27%
   QC value within limits for Sb 206.836  Recovery = 70.82%
Se 196.026†               90.2        35.6 µg/L          4.62        35.6 ppb           4.62  12.96%
   QC value within limits for Se 196.026  Recovery = 118.81%
SiO2†                   2130.7      225.20 µg/L        10.592      225.20 ppb         10.592   4.70%
   QC value within limits for SiO2  Recovery = 105.73%
Si 251.611†             6783.2      106.76 µg/L         1.174      106.76 ppb          1.174   1.10%
   QC value within limits for Si 251.611  Recovery = 106.76%
Sn 189.927†              148.5      10.317 µg/L        0.5376      10.317 ppb         0.5376   5.21%
   QC value within limits for Sn 189.927  Recovery = 103.17%
Sr 421.552†             2312.5      5.4523 µg/L       0.12318      5.4523 ppb        0.12318   2.26%
   QC value within limits for Sr 421.552  Recovery = 109.05%
Ti 334.940†             4924.4      5.0125 µg/L       0.04145      5.0125 ppb        0.04145   0.83%
   QC value within limits for Ti 334.940  Recovery = 100.25%
Tl 190.801†              155.1      21.271 µg/L        0.3801      21.271 ppb         0.3801   1.79%
   QC value within limits for Tl 190.801  Recovery = 106.35%
U 409.014†               858.1      54.490 µg/L        8.4787      54.490 ppb         8.4787  15.56%
   QC value within limits for U 409.014  Recovery = 108.98%
V 292.402†               989.2      5.2727 µg/L       0.69837      5.2727 ppb        0.69837  13.25%
   QC value within limits for V 292.402  Recovery = 105.45%
Zn 213.857†             1757.4      10.445 µg/L        0.1201      10.445 ppb         0.1201   1.15%
   QC value within limits for Zn 213.857  Recovery = 104.45%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 4/5/2010 10:30:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128118.6	128118.6	91.5	%			10:31:19
1	Al 396.153Radial†	2213795.6	2420782.5	509660	µg/L	509660	ppb	10:31:17
1	Ca 317.933Radial†	6606069.4	7222922.0	491950	µg/L	491950	ppb	10:31:17
1	Fe 238.204 Radial†	2362080.3	2582730.5	192880	µg/L	192880	ppb	10:31:17
1	K 766.490 Radial†	1496.6	142.7	-187.26	µg/L	-187.26	ppb	10:31:19
1	Mg 279.077 IEC†	972171.2	1062860.9	490600	µg/L	490600	ppb	10:31:17
1	Na 589.592 Radial†	1170.1	326.9	50.623	µg/L	50.623	ppb	10:31:19
1	Sr 421.552†	4658.8	5298.7	8.6462	µg/L	8.6462	ppb	10:31:19
1	Sc 361.383	1581772.1	1581772.1	87.674	%			10:31:32
1	Y 371.029	913048.3	913048.3	86.357	%			10:31:32
1	Ag 328.068†	6751.4	3135.4	-0.7645	µg/L	-0.7645	ppb	10:31:32
1	As 188.979†	-94.1	-88.8	13.191	µg/L	13.191	ppb	10:31:52
1	B 249.677†	4066.1	572.6	8.8918	µg/L	8.8918	ppb	10:31:32
1	Ba 233.527†	383.0	581.4	0.1203	µg/L	0.1203	ppb	10:31:52
1	Be 313.107†	-291.7	759.0	0.2135	µg/L	0.2135	ppb	10:31:32
1	Cd 226.502†	2322.1	2751.9	-1.6829	µg/L	-1.6829	ppb	10:31:52
1	Co 228.616†	65.4	284.9	-6.2907	µg/L	-6.2907	ppb	10:31:52
1	Cr 267.716†	227.8	26.6	0.9599	µg/L	0.9599	ppb	10:31:52
1	Cu 324.752†	-5602.2	-9426.0	1.9087	µg/L	1.9087	ppb	10:31:32
1	Mn 257.610†	15226.9	17182.9	2.8255	µg/L	2.8255	ppb	10:31:32
1	Mo 202.031†	-533.4	-569.8	-2.0372	µg/L	-2.0372	ppb	10:31:52
1	Ni 231.604†	109.0	220.2	2.7550	µg/L	2.7550	ppb	10:31:52
1	P 214.914†	152.0	199.0	28.356	µg/L	28.356	ppb	10:31:52
1	Pb 220.353†	-270.6	-412.1	0.0388	µg/L	0.0388	ppb	10:31:52
1	S 181.975 Axial†	175.6	111.3	93.501	µg/L	93.501	ppb	10:31:52
1	Sb 206.836†	130.3	58.9	1.5033	µg/L	1.5033	ppb	10:31:52
1	Se 196.026†	-137.9	-163.4	2.51	µg/L	2.51	ppb	10:31:52
1	SiO2†	1649.9	142.7	15.602	µg/L	15.602	ppb	10:31:52
1	Si 251.611†	499.7	-197.1	-2.8776	µg/L	-2.8776	ppb	10:31:52
1	Sn 189.927†	36.3	39.5	2.8247	µg/L	2.8247	ppb	10:31:52
1	Ti 334.940†	21726.4	23957.9	-2.5303	µg/L	-2.5303	ppb	10:31:32
1	Tl 190.801†	-162.0	-70.5	-9.1790	µg/L	-9.1790	ppb	10:31:52
1	U 409.014†	-433.0	-330.5	-42.174	µg/L	-42.174	ppb	10:31:32
1	V 292.402†	4095.4	4247.9	1.4397	µg/L	1.4397	ppb	10:31:32
1	Zn 213.857†	4191.7	4278.1	8.9566	µg/L	8.9566	ppb	10:31:52
2	Sc RADIAL	127837.7	127837.7	91.3	%			10:31:24
2	Al 396.153Radial†	2210404.0	2422384.5	510000	µg/L	510000	ppb	10:31:22
2	Ca 317.933Radial†	6599761.5	7231881.1	492560	µg/L	492560	ppb	10:31:22
2	Fe 238.204 Radial†	2358861.0	2584877.7	193040	µg/L	193040	ppb	10:31:22
2	K 766.490 Radial†	1627.9	290.2	-129.07	µg/L	-129.07	ppb	10:31:24
2	Mg 279.077 IEC†	971105.4	1064028.7	491140	µg/L	491140	ppb	10:31:22
2	Na 589.592 Radial†	1340.9	516.9	80.019	µg/L	80.019	ppb	10:31:24
2	Sr 421.552†	4691.9	5346.2	8.7534	µg/L	8.7534	ppb	10:31:24
2	Sc 361.383	1601726.0	1601726.0	88.780	%			10:31:55
2	Y 371.029	924331.0	924331.0	87.424	%			10:31:55
2	Ag 328.068†	6732.2	3017.9	-1.2361	µg/L	-1.2361	ppb	10:31:55
2	As 188.979†	-100.4	-94.5	11.292	µg/L	11.292	ppb	10:32:15
2	B 249.677†	4142.1	600.4	9.3234	µg/L	9.3234	ppb	10:31:55
2	Ba 233.527†	415.6	612.7	0.2573	µg/L	0.2573	ppb	10:32:15
2	Be 313.107†	-658.4	350.1	0.1024	µg/L	0.1024	ppb	10:31:55
2	Cd 226.502†	2287.7	2680.2	-2.1849	µg/L	-2.1849	ppb	10:32:15
2	Co 228.616†	80.1	300.6	-6.0911	µg/L	-6.0911	ppb	10:32:15
2	Cr 267.716†	216.7	10.9	0.8039	µg/L	0.8039	ppb	10:32:15
2	Cu 324.752†	-5526.1	-9260.6	2.6582	µg/L	2.6582	ppb	10:31:55
2	Mn 257.610†	15435.0	17201.0	2.8276	µg/L	2.8276	ppb	10:31:55
2	Mo 202.031†	-532.0	-560.7	-1.7223	µg/L	-1.7223	ppb	10:32:15
2	Ni 231.604†	77.9	183.6	2.2975	µg/L	2.2975	ppb	10:32:15
2	P 214.914†	142.5	186.2	25.349	µg/L	25.349	ppb	10:32:15
2	Pb 220.353†	-320.0	-463.9	-3.1465	µg/L	-3.1465	ppb	10:32:15

2	S 181.975 Axial†	177.0	110.4	92.750 µg/L	92.750 ppb	10:32:15
2	Sb 206.836†	126.2	52.5	0.6818 µg/L	0.6818 ppb	10:32:15
2	Se 196.026†	-144.5	-168.9	0.419 µg/L	0.419 ppb	10:32:15
2	SiO2†	1619.4	85.0	9.4740 µg/L	9.4740 ppb	10:32:15
2	Si 251.611†	519.4	-182.0	-2.6482 µg/L	-2.6482 ppb	10:32:15
2	Sn 189.927†	45.3	49.1	3.4897 µg/L	3.4897 ppb	10:32:15
2	Ti 334.940†	22275.7	24268.0	-2.2496 µg/L	-2.2496 ppb	10:31:55
2	Tl 190.801†	-159.0	-64.8	-8.4026 µg/L	-8.4026 ppb	10:32:15
2	U 409.014†	-99.2	51.7	-18.085 µg/L	-18.085 ppb	10:31:55
2	V 292.402†	4098.2	4192.9	1.1561 µg/L	1.1561 ppb	10:31:55
2	Zn 213.857†	4180.5	4205.9	8.5109 µg/L	8.5109 ppb	10:32:15
3	Sc RADIAL	129703.1	129703.1	92.6 %		10:31:28
3	Al 396.153Radial†	2204567.2	2381242.2	501340 µg/L	501340 ppb	10:31:26
3	Ca 317.933Radial†	6568361.1	7093946.8	483160 µg/L	483160 ppb	10:31:26
3	Fe 238.204 Radial†	2348182.8	2536166.2	189400 µg/L	189400 ppb	10:31:26
3	K 766.490 Radial†	1631.7	268.7	-133.18 µg/L	-133.18 ppb	10:31:28
3	Mg 279.077 IEC†	966514.2	1043764.2	481780 µg/L	481780 ppb	10:31:26
3	Na 589.592 Radial†	1406.4	566.5	87.719 µg/L	87.719 ppb	10:31:28
3	Sr 421.552†	4640.9	5217.1	8.5226 µg/L	8.5226 ppb	10:31:28
3	Sc 361.383	1627878.3	1627878.3	90.230 %		10:32:18
3	Y 371.029	938743.5	938743.5	88.787 %		10:32:18
3	Ag 328.068†	6471.5	2607.1	-2.6885 µg/L	-2.6885 ppb	10:32:18
3	As 188.979†	-94.2	-85.8	13.417 µg/L	13.417 ppb	10:32:38
3	B 249.677†	4197.3	586.7	9.1112 µg/L	9.1112 ppb	10:32:18
3	Ba 233.527†	414.2	603.6	0.2637 µg/L	0.2637 ppb	10:32:38
3	Be 313.107†	-313.0	744.8	0.2077 µg/L	0.2077 ppb	10:32:18
3	Cd 226.502†	2287.7	2638.8	-2.0823 µg/L	-2.0823 ppb	10:32:38
3	Co 228.616†	59.7	276.5	-6.2204 µg/L	-6.2204 ppb	10:32:38
3	Cr 267.716†	209.3	-1.3	0.7104 µg/L	0.7104 ppb	10:32:38
3	Cu 324.752†	-5671.6	-9321.9	1.5944 µg/L	1.5944 ppb	10:32:18
3	Mn 257.610†	15670.2	17182.3	3.1834 µg/L	3.1834 ppb	10:32:18
3	Mo 202.031†	-504.6	-520.7	-0.7299 µg/L	-0.7299 ppb	10:32:38
3	Ni 231.604†	88.9	194.5	2.4329 µg/L	2.4329 ppb	10:32:38
3	P 214.914†	123.4	162.4	20.381 µg/L	20.381 ppb	10:32:38
3	Pb 220.353†	-328.2	-467.2	-3.7410 µg/L	-3.7410 ppb	10:32:38
3	S 181.975 Axial†	164.9	93.8	78.776 µg/L	78.776 ppb	10:32:38
3	Sb 206.836†	159.1	86.7	5.2093 µg/L	5.2093 ppb	10:32:38
3	Se 196.026†	-150.6	-173.0	-2.48 µg/L	-2.48 ppb	10:32:38
3	SiO2†	1645.7	84.8	9.4396 µg/L	9.4396 ppb	10:32:38
3	Si 251.611†	506.5	-205.7	-3.0292 µg/L	-3.0292 ppb	10:32:38
3	Sn 189.927†	26.5	27.5	1.9892 µg/L	1.9892 ppb	10:32:38
3	Ti 334.940†	22768.4	24410.9	-1.5733 µg/L	-1.5733 ppb	10:32:18
3	Tl 190.801†	-138.4	-39.1	-4.8829 µg/L	-4.8829 ppb	10:32:38
3	U 409.014†	-530.1	-424.2	-47.679 µg/L	-47.679 ppb	10:32:18
3	V 292.402†	4198.6	4230.0	1.7250 µg/L	1.7250 ppb	10:32:18
3	Zn 213.857†	4221.9	4176.0	8.6627 µg/L	8.6627 ppb	10:32:38

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1603792.1	88.894	%	1.2816				1.44%
Sc RADIAL	128553.1	91.8	%	0.72				0.78%
Y 371.029	925374.3	87.523	%	1.2181				1.39%
Ag 328.068†	2920.1	-1.5630	µg/L	1.00280	-1.5630	ppb	1.00280	64.16%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2408136.4	507000	µg/L	4906.5	507000	ppb	4906.5	0.97%
QC value within limits for Al 396.153Radial Recovery = 101.40%								
As 188.979†	-89.7	12.634	µg/L	1.1672	12.634	ppb	1.1672	9.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	586.6	9.1088	µg/L	0.21580	9.1088	ppb	0.21580	2.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	599.2	0.2138	µg/L	0.08101	0.2138	ppb	0.08101	37.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	618.0	0.1745	µg/L	0.06254	0.1745	ppb	0.06254	35.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7182916.7	489220	µg/L	5256.7	489220	ppb	5256.7	1.07%
QC value within limits for Ca 317.933Radial Recovery = 97.84%								
Cd 226.502†	2690.3	-1.9834	µg/L	0.26521	-1.9834	ppb	0.26521	13.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	287.3	-6.2008	µg/L	0.10120	-6.2008	ppb	0.10120	1.63%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              12.1      0.8247 µg/L       0.12605      0.8247 ppb        0.12605  15.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -9336.2      2.0538 µg/L       0.54654      2.0538 ppb        0.54654  26.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2567924.8      191770 µg/L        2055.5      191770 ppb         2055.5   1.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.89%
K 766.490 Radial†        233.8     -149.84 µg/L        32.478     -149.84 ppb         32.478  21.68%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1056884.6      487840 µg/L        5251.7      487840 ppb         5251.7   1.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.57%
Mn 257.610†           17188.8      2.9455 µg/L       0.20606      2.9455 ppb        0.20606   7.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -550.4     -1.4964 µg/L       0.68228     -1.4964 ppb        0.68228  45.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       470.1      72.787 µg/L       19.5769      72.787 ppb        19.5769  26.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              199.4      2.4952 µg/L       0.23503      2.4952 ppb        0.23503   9.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               182.6      24.695 µg/L        4.0272      24.695 ppb         4.0272  16.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -447.7     -2.2829 µg/L       2.03252     -2.2829 ppb        2.03252  89.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         105.2      88.342 µg/L        8.2929      88.342 ppb         8.2929   9.39%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               66.0      2.4648 µg/L       2.41204      2.4648 ppb        2.41204  97.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -168.5       0.151 µg/L        2.5033       0.151 ppb         2.5033 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    104.2      11.505 µg/L        3.5481      11.505 ppb         3.5481  30.84%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            -195.0     -2.8517 µg/L       0.19180     -2.8517 ppb        0.19180   6.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               38.7      2.7679 µg/L       0.75190      2.7679 ppb        0.75190  27.17%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             5287.3      8.6407 µg/L       0.11552      8.6407 ppb        0.11552   1.34%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            24212.2     -2.1177 µg/L       0.49194     -2.1177 ppb        0.49194  23.23%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -58.1     -7.4882 µg/L       2.28939     -7.4882 ppb        2.28939  30.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -234.3     -35.979 µg/L       15.7394     -35.979 ppb        15.7394  43.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             4223.6      1.4403 µg/L       0.28444      1.4403 ppb        0.28444  19.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            4220.0      8.7101 µg/L       0.22657      8.7101 ppb        0.22657   2.60%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 4/5/2010 10:32:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128019.8	128019.8	91.4	%			10:33:20
1	Al 396.153Radial†	2214899.0	2423858.2	510290	µg/L	510290	ppb	10:33:18
1	Ca 317.933Radial†	6539945.8	7156137.6	487400	µg/L	487400	ppb	10:33:18
1	Fe 238.204 Radial†	2362815.2	2585528.2	193090	µg/L	193090	ppb	10:33:18
1	K 766.490 Radial†	14647.9	14535.5	5515.6	µg/L	5515.6	ppb	10:33:20
1	Mg 279.077 IEC†	974260.6	1065967.9	492040	µg/L	492040	ppb	10:33:20
1	Na 589.592 Radial†	32736.9	34871.7	5400.3	µg/L	5400.3	ppb	10:33:20
1	Sr 421.552†	200734.4	219869.6	514.74	µg/L	514.74	ppb	10:33:20
1	Sc 361.383	1596681.5	1596681.5	88.500	%			10:33:33
1	Y 371.029	922181.2	922181.2	87.221	%			10:33:33
1	Ag 328.068†	64143.4	67913.0	271.20	µg/L	271.20	ppb	10:33:33
1	As 188.979†	1228.9	1407.2	525.28	µg/L	525.28	ppb	10:33:35
1	B 249.677†	33489.8	33776.3	523.69	µg/L	523.69	ppb	10:33:33
1	Ba 233.527†	100868.2	114119.4	505.26	µg/L	505.26	ppb	10:33:33
1	Be 313.107†	749032.7	847453.0	245.64	µg/L	245.64	ppb	10:33:33
1	Cd 226.502†	65812.0	74466.9	483.20	µg/L	483.20	ppb	10:33:33
1	Co 228.616†	30517.4	34693.1	449.43	µg/L	449.43	ppb	10:33:35
1	Cr 267.716†	50564.5	56901.6	492.70	µg/L	492.70	ppb	10:33:35
1	Cu 324.752†	108957.7	120079.4	544.37	µg/L	544.37	ppb	10:33:33
1	Mn 257.610†	338390.3	382175.7	486.95	µg/L	486.95	ppb	10:33:33
1	Mo 202.031†	12995.7	14722.9	498.30	µg/L	498.30	ppb	10:33:35
1	Ni 231.604†	32630.8	36966.7	462.50	µg/L	462.50	ppb	10:33:35
1	P 214.914†	10002.4	11327.8	2595.9	µg/L	2595.9	ppb	10:33:35
1	Pb 220.353†	6487.9	7227.4	471.57	µg/L	471.57	ppb	10:33:35
1	S 181.975 Axial†	2976.8	3274.7	2758.9	µg/L	2758.9	ppb	10:33:35
1	Sb 206.836†	3581.5	3957.2	505.52	µg/L	505.52	ppb	10:33:35
1	Se 196.026†	5381.4	6074.5	2460	µg/L	2460	ppb	10:33:35
1	SiO2†	95028.9	105637.8	11166	µg/L	11166	ppb	10:33:33
1	Si 251.611†	294883.1	332432.9	5232.5	µg/L	5232.5	ppb	10:33:33
1	Sn 189.927†	6210.9	7016.0	488.46	µg/L	488.46	ppb	10:33:35
1	Ti 334.940†	461750.7	520927.2	507.28	µg/L	507.28	ppb	10:33:33
1	Tl 190.801†	2890.5	3380.4	469.95	µg/L	469.95	ppb	10:33:35
1	U 409.014†	7089.3	8173.8	526.30	µg/L	526.30	ppb	10:33:33
1	V 292.402†	91601.8	103081.2	520.84	µg/L	520.84	ppb	10:33:33
1	Zn 213.857†	77574.0	87150.9	500.68	µg/L	500.68	ppb	10:33:33
2	Sc RADIAL	126403.7	126403.7	90.2	%			10:33:24
2	Al 396.153Radial†	2203106.6	2441777.1	514060	µg/L	514060	ppb	10:33:22
2	Ca 317.933Radial†	6488979.1	7191150.9	489780	µg/L	489780	ppb	10:33:22
2	Fe 238.204 Radial†	2345597.7	2599503.8	194130	µg/L	194130	ppb	10:33:22
2	K 766.490 Radial†	14463.1	14535.7	5514.5	µg/L	5514.5	ppb	10:33:24
2	Mg 279.077 IEC†	957123.1	1060605.1	489570	µg/L	489570	ppb	10:33:24
2	Na 589.592 Radial†	32172.3	34703.9	5374.3	µg/L	5374.3	ppb	10:33:24
2	Sr 421.552†	197937.5	219578.3	514.03	µg/L	514.03	ppb	10:33:24
2	Sc 361.383	1581820.4	1581820.4	87.677	%			10:33:38
2	Y 371.029	914057.4	914057.4	86.452	%			10:33:38
2	Ag 328.068†	63616.7	67993.2	271.43	µg/L	271.43	ppb	10:33:38
2	As 188.979†	1284.1	1483.2	551.30	µg/L	551.30	ppb	10:33:40
2	B 249.677†	33289.7	33903.6	525.64	µg/L	525.64	ppb	10:33:38
2	Ba 233.527†	99713.8	113873.6	504.16	µg/L	504.16	ppb	10:33:38
2	Be 313.107†	739555.2	844594.9	244.81	µg/L	244.81	ppb	10:33:38
2	Cd 226.502†	64961.3	74195.3	481.25	µg/L	481.25	ppb	10:33:38
2	Co 228.616†	30729.7	35259.2	456.87	µg/L	456.87	ppb	10:33:40
2	Cr 267.716†	50663.4	57551.2	498.39	µg/L	498.39	ppb	10:33:40
2	Cu 324.752†	107715.1	119818.9	543.36	µg/L	543.36	ppb	10:33:38
2	Mn 257.610†	334418.8	381238.2	485.80	µg/L	485.80	ppb	10:33:38
2	Mo 202.031†	13147.6	15034.1	508.47	µg/L	508.47	ppb	10:33:40
2	Ni 231.604†	32935.7	37660.8	471.18	µg/L	471.18	ppb	10:33:40
2	P 214.914†	10097.2	11542.1	2645.6	µg/L	2645.6	ppb	10:33:40
2	Pb 220.353†	6531.5	7346.1	479.11	µg/L	479.11	ppb	10:33:40

2	S 181.975 Axial†	2995.8	3327.9	2803.8 µg/L	2803.8 ppb	10:33:40
2	Sb 206.836†	3745.1	4181.8	534.53 µg/L	534.53 ppb	10:33:40
2	Se 196.026†	5400.3	6153.2	2490 µg/L	2490 ppb	10:33:40
2	SiO2†	93970.9	105439.9	11145 µg/L	11145 ppb	10:33:38
2	Si 251.611†	291728.5	331965.3	5224.9 µg/L	5224.9 ppb	10:33:38
2	Sn 189.927†	6321.6	7208.2	501.79 µg/L	501.79 ppb	10:33:40
2	Ti 334.940†	457210.2	520650.3	507.26 µg/L	507.26 ppb	10:33:38
2	Tl 190.801†	2885.4	3405.2	473.28 µg/L	473.28 ppb	10:33:40
2	U 409.014†	6901.3	8034.6	517.25 µg/L	517.25 ppb	10:33:38
2	V 292.402†	90427.2	102714.0	518.95 µg/L	518.95 ppb	10:33:38
2	Zn 213.857†	76624.2	86891.1	499.00 µg/L	499.00 ppb	10:33:38
3	Sc RADIAL	128673.7	128673.7	91.8 %		10:33:28
3	Al 396.153Radial†	2211074.6	2407376.9	506820 µg/L	506820 ppb	10:33:26
3	Ca 317.933Radial†	6514056.0	7091580.2	483000 µg/L	483000 ppb	10:33:26
3	Fe 238.204 Radial†	2355764.0	2564711.1	191530 µg/L	191530 ppb	10:33:26
3	K 766.490 Radial†	14678.7	14487.6	5498.2 µg/L	5498.2 ppb	10:33:28
3	Mg 279.077 IEC†	977848.9	1064456.5	491350 µg/L	491350 ppb	10:33:28
3	Na 589.592 Radial†	32762.8	34717.8	5376.4 µg/L	5376.4 ppb	10:33:28
3	Sr 421.552†	201341.9	219414.6	513.70 µg/L	513.70 ppb	10:33:28
3	Sc 361.383	1602537.7	1602537.7	88.825 %		10:33:43
3	Y 371.029	925694.1	925694.1	87.553 %		10:33:43
3	Ag 328.068†	64236.0	67752.3	270.66 µg/L	270.66 ppb	10:33:43
3	As 188.979†	1257.5	1434.3	534.05 µg/L	534.05 ppb	10:33:45
3	B 249.677†	33647.4	33815.4	524.30 µg/L	524.30 ppb	10:33:43
3	Ba 233.527†	101063.2	113922.5	504.40 µg/L	504.40 ppb	10:33:43
3	Be 313.107†	751090.5	846676.9	245.41 µg/L	245.41 ppb	10:33:43
3	Cd 226.502†	66103.1	74522.9	483.74 µg/L	483.74 ppb	10:33:43
3	Co 228.616†	30595.5	34655.1	449.01 µg/L	449.01 ppb	10:33:45
3	Cr 267.716†	50288.4	56382.0	488.16 µg/L	488.16 ppb	10:33:45
3	Cu 324.752†	109381.3	120106.5	544.23 µg/L	544.23 ppb	10:33:43
3	Mn 257.610†	339181.7	381669.4	486.31 µg/L	486.31 ppb	10:33:43
3	Mo 202.031†	13013.7	14689.5	497.13 µg/L	497.13 ppb	10:33:45
3	Ni 231.604†	32496.9	36681.3	458.93 µg/L	458.93 ppb	10:33:45
3	P 214.914†	10072.5	11365.5	2604.9 µg/L	2604.9 ppb	10:33:45
3	Pb 220.353†	6417.3	7121.2	464.87 µg/L	464.87 ppb	10:33:45
3	S 181.975 Axial†	3006.9	3296.3	2777.1 µg/L	2777.1 ppb	10:33:45
3	Sb 206.836†	3648.9	4018.3	513.51 µg/L	513.51 ppb	10:33:45
3	Se 196.026†	5398.0	6071.0	2460 µg/L	2460 ppb	10:33:45
3	SiO2†	95329.6	105583.9	11160 µg/L	11160 ppb	10:33:43
3	Si 251.611†	295739.0	332178.9	5228.4 µg/L	5228.4 ppb	10:33:43
3	Sn 189.927†	6344.0	7140.3	497.08 µg/L	497.08 ppb	10:33:45
3	Ti 334.940†	463293.2	520757.1	507.05 µg/L	507.05 ppb	10:33:43
3	Tl 190.801†	2903.4	3383.0	470.31 µg/L	470.31 ppb	10:33:45
3	U 409.014†	7023.4	8070.4	519.96 µg/L	519.96 ppb	10:33:43
3	V 292.402†	92013.4	103166.3	521.41 µg/L	521.41 ppb	10:33:43
3	Zn 213.857†	77780.4	87063.0	500.33 µg/L	500.33 ppb	10:33:43

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1593679.9	88.334	%	0.5920				0.67%
Sc RADIAL	127699.1	91.2	%	0.83				0.92%
Y 371.029	920644.2	87.075	%	0.5645				0.65%
Ag 328.068†	67886.2	271.10	µg/L	0.393	271.10	ppb	0.393	0.15%
QC value within limits for Ag 328.068 Recovery = 108.44%								
Al 396.153Radial†	2424337.4	510390	µg/L	3622.0	510390	ppb	3622.0	0.71%
QC value within limits for Al 396.153Radial Recovery = 102.08%								
As 188.979†	1441.5	536.88	µg/L	13.237	536.88	ppb	13.237	2.47%
QC value within limits for As 188.979 Recovery = 107.38%								
B 249.677†	33831.8	524.54	µg/L	1.000	524.54	ppb	1.000	0.19%
QC value within limits for B 249.677 Recovery = 104.91%								
Ba 233.527†	113971.8	504.61	µg/L	0.579	504.61	ppb	0.579	0.11%
QC value within limits for Ba 233.527 Recovery = 100.92%								
Be 313.107†	846241.6	245.29	µg/L	0.429	245.29	ppb	0.429	0.18%
QC value within limits for Be 313.107 Recovery = 98.12%								
Ca 317.933Radial†	7146289.6	486730	µg/L	3440.2	486730	ppb	3440.2	0.71%
QC value within limits for Ca 317.933Radial Recovery = 97.35%								
Cd 226.502†	74395.1	482.73	µg/L	1.305	482.73	ppb	1.305	0.27%
QC value within limits for Cd 226.502 Recovery = 96.55%								
Co 228.616†	34869.1	451.77	µg/L	4.420	451.77	ppb	4.420	0.98%

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   QC value within limits for Co 228.616  Recovery = 90.35%
Cr 267.716†            56944.9      493.08 µg/L         5.125      493.08 ppb          5.125   1.04%
   QC value within limits for Cr 267.716  Recovery = 98.62%
Cu 324.752†           120001.6      543.99 µg/L         0.546      543.99 ppb          0.546   0.10%
   QC value within limits for Cu 324.752  Recovery = 108.80%
Fe 238.204 Radial†   2583247.7      192920 µg/L        1307.5      192920 ppb         1307.5   0.68%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.46%
K 766.490 Radial†      14519.6      5509.4 µg/L          9.72      5509.4 ppb           9.72   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 110.19%
Mg 279.077 IEC†      1063676.5      490990 µg/L        1277.3      490990 ppb         1277.3   0.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.20%
Mn 257.610†           381694.4      486.35 µg/L         0.575      486.35 ppb          0.575   0.12%
   QC value within limits for Mn 257.610  Recovery = 97.27%
Mo 202.031†            14815.5      501.30 µg/L         6.238      501.30 ppb          6.238   1.24%
   QC value within limits for Mo 202.031  Recovery = 100.26%
Na 589.592 Radial†     34764.5      5383.7 µg/L         14.43      5383.7 ppb          14.43   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 107.67%
Ni 231.604†            37102.9      464.20 µg/L         6.303      464.20 ppb          6.303   1.36%
   QC value within limits for Ni 231.604  Recovery = 92.84%
P 214.914†             11411.8      2615.5 µg/L         26.48      2615.5 ppb          26.48   1.01%
   QC value within limits for P 214.914  Recovery = 104.62%
Pb 220.353†             7231.6      471.85 µg/L         7.120      471.85 ppb          7.120   1.51%
   QC value within limits for Pb 220.353  Recovery = 94.37%
S 181.975 Axial†        3299.6      2779.9 µg/L         22.57      2779.9 ppb          22.57   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 111.20%
Sb 206.836†             4052.4      517.86 µg/L        14.982      517.86 ppb         14.982   2.89%
   QC value within limits for Sb 206.836  Recovery = 103.57%
Se 196.026†             6099.5        2470 µg/L         18.7        2470 ppb           18.7   0.76%
   QC value within limits for Se 196.026  Recovery = 98.82%
SiO2†                 105553.8       11157 µg/L         11.1       11157 ppb           11.1   0.10%
   QC value within limits for SiO2  Recovery = 104.32%
Si 251.611†           332192.4      5228.6 µg/L         3.80      5228.6 ppb           3.80   0.07%
   QC value within limits for Si 251.611  Recovery = 104.57%
Sn 189.927†             7121.5      495.78 µg/L         6.759      495.78 ppb          6.759   1.36%
   QC value within limits for Sn 189.927  Recovery = 99.16%
Sr 421.552†           219620.8      514.16 µg/L         0.530      514.16 ppb          0.530   0.10%
   QC value within limits for Sr 421.552  Recovery = 102.83%
Ti 334.940†           520778.2      507.19 µg/L         0.127      507.19 ppb          0.127   0.02%
   QC value within limits for Ti 334.940  Recovery = 101.44%
Tl 190.801†             3389.5      471.18 µg/L         1.829      471.18 ppb          1.829   0.39%
   QC value within limits for Tl 190.801  Recovery = 94.24%
U 409.014†              8093.0      521.17 µg/L         4.641      521.17 ppb          4.641   0.89%
   QC value within limits for U 409.014  Recovery = 104.23%
V 292.402†            102987.2      520.40 µg/L         1.288      520.40 ppb          1.288   0.25%
   QC value within limits for V 292.402  Recovery = 104.08%
Zn 213.857†            87035.0      500.01 µg/L         0.885      500.01 ppb          0.885   0.18%
   QC value within limits for Zn 213.857  Recovery = 100.00%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 4/5/2010 10:33:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	126559.3	126559.3	90.3	%			10:34:25
1	Al 396.153Radial†	2128657.4	2356365.3	496100	µg/L	496100	ppb	10:34:22
1	Ca 317.933Radial†	6314300.7	6988953.2	476010	µg/L	476010	ppb	10:34:22
1	Fe 238.204 Radial†	5465694.5	6050054.8	451810	µg/L	451810	ppb	10:34:22
1	K 766.490 Radial†	1793.1	491.1	-123.38	µg/L	-123.38	ppb	10:34:25
1	Mg 279.077 IEC†	925975.9	1024823.3	472810	µg/L	472810	ppb	10:34:22
1	Na 589.592 Radial†	2921252.7	3232686.2	501090	µg/L	501090	ppb	10:34:22
1	Sr 421.552†	4654.3	5356.4	8.9072	µg/L	8.9072	ppb	10:34:25
1	Sc 361.383	1546919.1	1546919.1	85.742	%			10:34:38
1	Y 371.029	889839.0	889839.0	84.162	%			10:34:38
1	Ag 328.068†	3005.5	-1059.9	1.4083	µg/L	1.4083	ppb	10:34:38
1	As 188.979†	-255.7	-279.7	6.6904	µg/L	6.6904	ppb	10:34:40
1	B 249.677†	4737.5	1460.2	22.664	µg/L	22.664	ppb	10:34:38
1	Ba 233.527†	794.9	1071.6	-1.0098	µg/L	-1.0098	ppb	10:34:40
1	Be 313.107†	-14682.0	-16031.7	0.3428	µg/L	0.3428	ppb	10:34:38
1	Cd 226.502†	5844.0	6919.2	-0.7482	µg/L	-0.7482	ppb	10:34:40
1	Co 228.616†	652.2	971.0	-10.720	µg/L	-10.720	ppb	10:34:40
1	Cr 267.716†	351.0	176.1	-1.5441	µg/L	-1.5441	ppb	10:34:40
1	Cu 324.752†	-15692.1	-21337.7	2.9748	µg/L	2.9748	ppb	10:34:40
1	Mn 257.610†	17073.7	19728.1	6.2222	µg/L	6.2222	ppb	10:34:38
1	Mo 202.031†	-894.4	-1004.5	-6.3291	µg/L	-6.3291	ppb	10:34:40
1	Ni 231.604†	193.6	321.7	4.0242	µg/L	4.0242	ppb	10:34:40
1	P 214.914†	900.7	1076.2	52.946	µg/L	52.946	ppb	10:34:40
1	Pb 220.353†	11.4	-90.1	-1.6997	µg/L	-1.6997	ppb	10:34:40
1	S 181.975 Axial†	192.8	136.0	114.13	µg/L	114.13	ppb	10:34:40
1	Sb 206.836†	124.5	55.5	-2.2629	µg/L	-2.2629	ppb	10:34:40
1	Se 196.026†	-394.4	-466.1	-11.0	µg/L	-11.0	ppb	10:34:40
1	SiO2†	1859.0	429.1	46.249	µg/L	46.249	ppb	10:34:40
1	Si 251.611†	-1930.6	-3018.7	-47.219	µg/L	-47.219	ppb	10:34:40
1	Sn 189.927†	106.6	122.4	8.5822	µg/L	8.5822	ppb	10:34:40
1	Ti 334.940†	23243.8	26285.9	-5.8854	µg/L	-5.8854	ppb	10:34:38
1	Tl 190.801†	-201.7	-121.0	-15.915	µg/L	-15.915	ppb	10:34:40
1	U 409.014†	224009.3	261422.7	16417	µg/L	16417	ppb	10:34:38
1	V 292.402†	7774.1	8643.6	7.8652	µg/L	7.8652	ppb	10:34:40
1	Zn 213.857†	8281.3	9155.3	10.683	µg/L	10.683	ppb	10:34:40
2	Sc RADIAL	125637.5	125637.5	89.7	%			10:34:29
2	Al 396.153Radial†	2139692.1	2385957.6	502330	µg/L	502330	ppb	10:34:27
2	Ca 317.933Radial†	6354290.4	7084825.6	482540	µg/L	482540	ppb	10:34:27
2	Fe 238.204 Radial†	5498978.2	6131557.8	457900	µg/L	457900	ppb	10:34:27
2	K 766.490 Radial†	1725.0	429.7	-152.02	µg/L	-152.02	ppb	10:34:29
2	Mg 279.077 IEC†	932671.5	1039809.6	479730	µg/L	479730	ppb	10:34:27
2	Na 589.592 Radial†	2940679.8	3278073.6	508130	µg/L	508130	ppb	10:34:27
2	Sr 421.552†	4574.3	5305.0	8.7348	µg/L	8.7348	ppb	10:34:29
2	Sc 361.383	1550512.3	1550512.3	85.941	%			10:34:42
2	Y 371.029	892357.6	892357.6	84.400	%			10:34:42
2	Ag 328.068†	3032.7	-1036.3	1.2903	µg/L	1.2903	ppb	10:34:42
2	As 188.979†	-211.5	-227.5	25.707	µg/L	25.707	ppb	10:34:44
2	B 249.677†	4893.9	1629.4	25.298	µg/L	25.298	ppb	10:34:42
2	Ba 233.527†	603.9	847.2	-2.0851	µg/L	-2.0851	ppb	10:34:44
2	Be 313.107†	-14522.2	-15806.1	0.4095	µg/L	0.4095	ppb	10:34:42
2	Cd 226.502†	5739.3	6781.5	-2.3191	µg/L	-2.3191	ppb	10:34:44
2	Co 228.616†	595.5	903.2	-11.935	µg/L	-11.935	ppb	10:34:44
2	Cr 267.716†	342.7	165.6	-1.5126	µg/L	-1.5126	ppb	10:34:44
2	Cu 324.752†	-15930.4	-21572.5	3.0692	µg/L	3.0692	ppb	10:34:44
2	Mn 257.610†	17146.9	19767.1	5.9836	µg/L	5.9836	ppb	10:34:42
2	Mo 202.031†	-828.5	-925.5	-3.3760	µg/L	-3.3760	ppb	10:34:44
2	Ni 231.604†	188.2	314.8	3.9390	µg/L	3.9390	ppb	10:34:44
2	P 214.914†	1023.7	1216.9	82.738	µg/L	82.738	ppb	10:34:44
2	Pb 220.353†	73.4	-18.1	2.9268	µg/L	2.9268	ppb	10:34:44

2	S 181.975 Axial†	158.3	95.2	79.867 µg/L	79.867 ppb	10:34:44
2	Sb 206.836†	173.2	111.9	4.9301 µg/L	4.9301 ppb	10:34:44
2	Se 196.026†	-374.2	-441.6	0.817 µg/L	0.817 ppb	10:34:44
2	SiO2†	1834.7	395.7	42.620 µg/L	42.620 ppb	10:34:44
2	Si 251.611†	-1956.2	-3043.3	-47.651 µg/L	-47.651 ppb	10:34:44
2	Sn 189.927†	124.7	143.2	10.027 µg/L	10.027 ppb	10:34:44
2	Ti 334.940†	23738.1	26798.3	-5.7543 µg/L	-5.7543 ppb	10:34:42
2	Tl 190.801†	-179.8	-95.0	-12.363 µg/L	-12.363 ppb	10:34:44
2	U 409.014†	224589.1	261491.9	16421 µg/L	16421 ppb	10:34:42
2	V 292.402†	7601.7	8422.0	6.1036 µg/L	6.1036 ppb	10:34:44
2	Zn 213.857†	8434.0	9310.7	11.011 µg/L	11.011 ppb	10:34:44
3	Sc RADIAL	125009.8	125009.8	89.2 %		10:34:33
3	Al 396.153Radial†	2147785.3	2407007.4	506760 µg/L	506760 ppb	10:34:31
3	Ca 317.933Radial†	6365764.1	7133261.2	485840 µg/L	485840 ppb	10:34:31
3	Fe 238.204 Radial†	5518715.6	6184465.3	461850 µg/L	461850 ppb	10:34:31
3	K 766.490 Radial†	1705.0	416.9	-159.53 µg/L	-159.53 ppb	10:34:33
3	Mg 279.077 IEC†	935614.4	1048329.5	483660 µg/L	483660 ppb	10:34:31
3	Na 589.592 Radial†	2945186.3	3299588.6	511460 µg/L	511460 ppb	10:34:31
3	Sr 421.552†	4533.1	5284.5	8.6605 µg/L	8.6605 ppb	10:34:33
3	Sc 361.383	1555977.3	1555977.3	86.244 %		10:34:47
3	Y 371.029	894540.6	894540.6	84.606 %		10:34:47
3	Ag 328.068†	3170.4	-889.1	1.7502 µg/L	1.7502 ppb	10:34:47
3	As 188.979†	-206.6	-220.9	28.849 µg/L	28.849 ppb	10:34:49
3	B 249.677†	4646.7	1322.7	20.528 µg/L	20.528 ppb	10:34:47
3	Ba 233.527†	637.3	883.5	-1.9741 µg/L	-1.9741 ppb	10:34:49
3	Be 313.107†	-14782.6	-16048.7	0.3304 µg/L	0.3304 ppb	10:34:47
3	Cd 226.502†	5726.3	6743.0	-2.9943 µg/L	-2.9943 ppb	10:34:49
3	Co 228.616†	615.1	923.5	-11.872 µg/L	-11.872 ppb	10:34:49
3	Cr 267.716†	615.1	480.0	1.3198 µg/L	1.3198 ppb	10:34:49
3	Cu 324.752†	-15376.1	-20864.6	6.6877 µg/L	6.6877 ppb	10:34:49
3	Mn 257.610†	17099.2	19641.7	5.6509 µg/L	5.6509 ppb	10:34:47
3	Mo 202.031†	-820.9	-913.3	-2.7493 µg/L	-2.7493 ppb	10:34:49
3	Ni 231.604†	272.9	412.4	5.1591 µg/L	5.1591 ppb	10:34:49
3	P 214.914†	953.1	1130.8	61.063 µg/L	61.063 ppb	10:34:49
3	Pb 220.353†	-35.1	-144.1	-4.6591 µg/L	-4.6591 ppb	10:34:49
3	S 181.975 Axial†	122.3	52.9	44.250 µg/L	44.250 ppb	10:34:49
3	Sb 206.836†	70.4	-8.1	-10.659 µg/L	-10.659 ppb	10:34:49
3	Se 196.026†	-357.0	-420.1	10.6 µg/L	10.6 ppb	10:34:49
3	SiO2†	2030.3	615.0	65.880 µg/L	65.880 ppb	10:34:49
3	Si 251.611†	-2018.3	-3107.2	-48.643 µg/L	-48.643 ppb	10:34:49
3	Sn 189.927†	86.3	98.2	6.9028 µg/L	6.9028 ppb	10:34:49
3	Ti 334.940†	23731.5	26693.7	-6.0852 µg/L	-6.0852 ppb	10:34:47
3	Tl 190.801†	-184.9	-100.1	-13.064 µg/L	-13.064 ppb	10:34:49
3	U 409.014†	224984.1	261032.0	16391 µg/L	16391 ppb	10:34:47
3	V 292.402†	7659.0	8457.3	5.8662 µg/L	5.8662 ppb	10:34:49
3	Zn 213.857†	8212.2	9019.0	8.8832 µg/L	8.8832 ppb	10:34:49

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1551136.2	85.976	%	0.2528				0.29%
Sc RADIAL	125735.5	89.8	%	0.56				0.62%
Y 371.029	892245.7	84.389	%	0.2225				0.26%
Ag 328.068†	-995.1	1.4829	µg/L	0.23886	1.4829	ppb	0.23886	16.11%
Al 396.153Radial†	2383110.1	501730	µg/L	5356.1	501730	ppb	5356.1	1.07%
QC value within limits for Al 396.153Radial Recovery = 100.35%								
As 188.979†	-242.7	20.416	µg/L	11.9898	20.416	ppb	11.9898	58.73%
B 249.677†	1470.8	22.830	µg/L	2.3893	22.830	ppb	2.3893	10.47%
Ba 233.527†	934.1	-1.6897	µg/L	0.59142	-1.6897	ppb	0.59142	35.00%
Be 313.107†	-15962.2	0.3609	µg/L	0.04251	0.3609	ppb	0.04251	11.78%
Ca 317.933Radial†	7069013.4	481460	µg/L	5002.1	481460	ppb	5002.1	1.04%
QC value within limits for Ca 317.933Radial Recovery = 96.29%								
Cd 226.502†	6814.5	-2.0205	µg/L	1.15241	-2.0205	ppb	1.15241	57.03%
Co 228.616†	932.6	-11.509	µg/L	0.6841	-11.509	ppb	0.6841	5.94%
Cr 267.716†	273.9	-0.5790	µg/L	1.64446	-0.5790	ppb	1.64446	284.03%
Cu 324.752†	-21258.2	4.2439	µg/L	2.11693	4.2439	ppb	2.11693	49.88%
Fe 238.204 Radial†	6122026.0	457190	µg/L	5056.6	457190	ppb	5056.6	1.11%
QC value within limits for Fe 238.204 Radial Recovery = 91.44%								
K 766.490 Radial†	445.9	-144.98	µg/L	19.077	-144.98	ppb	19.077	13.16%
Mg 279.077 IEC†	1037654.1	478730	µg/L	5490.6	478730	ppb	5490.6	1.15%

QC value within limits for Mg 279.077 IEC Recovery = 95.75%

Mn 257.610†	19712.3	5.9522 µg/L	0.28693	5.9522 ppb	0.28693	4.82%
Mo 202.031†	-947.8	-4.1515 µg/L	1.91175	-4.1515 ppb	1.91175	46.05%
Na 589.592 Radial†	3270116.1	506890 µg/L	5294.1	506890 ppb	5294.1	1.04%

QC value within limits for Na 589.592 Radial Recovery = 101.38%

Ni 231.604†	349.6	4.3741 µg/L	0.68113	4.3741 ppb	0.68113	15.57%
P 214.914†	1141.3	65.582 µg/L	15.4013	65.582 ppb	15.4013	23.48%
Pb 220.353†	-84.1	-1.1440 µg/L	3.82337	-1.1440 ppb	3.82337	334.21%
S 181.975 Axial†	94.7	79.414 µg/L	34.9395	79.414 ppb	34.9395	44.00%
Sb 206.836†	53.1	-2.6640 µg/L	7.80248	-2.6640 ppb	7.80248	292.88%
Se 196.026†	-442.6	0.161 µg/L	10.8059	0.161 ppb	10.8059	>999.9%
SiO2†	479.9	51.583 µg/L	12.5135	51.583 ppb	12.5135	24.26%
Si 251.611†	-3056.4	-47.838 µg/L	0.7304	-47.838 ppb	0.7304	1.53%
Sn 189.927†	121.3	8.5039 µg/L	1.56348	8.5039 ppb	1.56348	18.39%
Sr 421.552†	5315.3	8.7675 µg/L	0.12654	8.7675 ppb	0.12654	1.44%
Ti 334.940†	26592.6	-5.9083 µg/L	0.16664	-5.9083 ppb	0.16664	2.82%
Tl 190.801†	-105.3	-13.781 µg/L	1.8816	-13.781 ppb	1.8816	13.65%
U 409.014†	261315.5	16410 µg/L	16.3	16410 ppb	16.3	0.10%

QC value within limits for U 409.014 Recovery = 109.40%

V 292.402†	8507.6	6.6117 µg/L	1.09206	6.6117 ppb	1.09206	16.52%
Zn 213.857†	9161.7	10.192 µg/L	1.1457	10.192 ppb	1.1457	11.24%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 4/5/2010 10:34:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137041.1	137041.1	97.8	%			10:35:30
1	Al 396.153Radial†	2091.5	2216.6	10.244	µg/L	10.244	ppb	10:35:32
1	Ca 317.933Radial†	1536.0	998.8	68.025	µg/L	68.025	ppb	10:35:32
1	Fe 238.204 Radial†	-466.5	-594.2	-44.377	µg/L	-44.377	ppb	10:35:32
1	K 766.490 Radial†	729152.1	743896.6	294770	µg/L	294770	ppb	10:35:30
1	Mg 279.077 IEC†	-410.3	-591.9	-32.847	µg/L	-32.847	ppb	10:35:32
1	Na 589.592 Radial†	3206.4	2325.3	98.292	µg/L	98.292	ppb	10:35:32
1	Sr 421.552†	3999711.8	4088990.0	9643.7	µg/L	9643.7	ppb	10:35:28
1	Sc 361.383	1745097.4	1745097.4	96.727	%			10:35:54
1	Y 371.029	997842.0	997842.0	94.377	%			10:35:54
1	Ag 328.068†	-24011.8	-29389.6	-1.6157	µg/L	-1.6157	ppb	10:35:56
1	As 188.979†	28702.2	29692.0	10298	µg/L	10298	ppb	10:35:56
1	B 249.677†	314525.9	321104.5	4960.9	µg/L	4960.9	ppb	10:35:54
1	Ba 233.527†	3126133.6	3232068.9	14376	µg/L	14376	ppb	10:35:54
1	Be 313.107†	9652994.7	9980751.1	2891.0	µg/L	2891.0	ppb	10:35:50
1	Cd 226.502†	1393887.8	1441161.4	9744.7	µg/L	9744.7	ppb	10:35:54
1	Co 228.616†	690506.6	714084.2	9464.3	µg/L	9464.3	ppb	10:35:54
1	Cr 267.716†	2688558.7	2779308.4	24048	µg/L	24048	ppb	10:35:54
1	Cu 324.752†	4655201.0	4809700.5	20122	µg/L	20122	ppb	10:35:54
1	Mn 257.610†	6823928.3	7054670.5	9358.4	µg/L	9358.4	ppb	10:35:54
1	Mo 202.031†	290630.9	300504.6	9831.1	µg/L	9831.1	ppb	10:35:56
1	Ni 231.604†	756062.1	781743.7	9780.6	µg/L	9780.6	ppb	10:35:54
1	P 214.914†	64200.1	66398.4	15124	µg/L	15124	ppb	10:35:56
1	Pb 220.353†	374053.0	386607.7	23821	µg/L	23821	ppb	10:35:54
1	S 181.975 Axial†	60131.3	62077.3	52306	µg/L	52306	ppb	10:35:56
1	Sb 206.836†	76342.9	78836.7	9977.5	µg/L	9977.5	ppb	10:35:56
1	Se 196.026†	24244.9	25059.2	9870	µg/L	9870	ppb	10:35:56
1	SiO2†	922460.8	951938.4	100380	µg/L	100380	ppb	10:35:54
1	Si 251.611†	2889117.4	2986120.3	46891	µg/L	46891	ppb	10:35:54
1	Sn 189.927†	139315.0	144027.6	10024	µg/L	10024	ppb	10:35:56
1	Ti 334.940†	9511207.1	9832250.5	10091	µg/L	10091	ppb	10:35:50
1	Tl 190.801†	67486.0	69884.1	9695.8	µg/L	9695.8	ppb	10:35:56
1	U 409.014†	-9077.0	-9220.8	28.768	µg/L	28.768	ppb	10:35:56
1	V 292.402†	1875279.5	1938317.1	10241	µg/L	10241	ppb	10:35:54
1	Zn 213.857†	2352726.7	2431841.8	14447	µg/L	14447	ppb	10:35:54
2	Sc RADIAL	136238.0	136238.0	97.2	%			10:35:36
2	Al 396.153Radial†	2330.1	2474.6	66.653	µg/L	66.653	ppb	10:35:38
2	Ca 317.933Radial†	1811.3	1291.1	87.936	µg/L	87.936	ppb	10:35:38
2	Fe 238.204 Radial†	-254.9	-379.5	-28.338	µg/L	-28.338	ppb	10:35:38
2	K 766.490 Radial†	723379.4	742354.0	294150	µg/L	294150	ppb	10:35:36
2	Mg 279.077 IEC†	-266.5	-446.5	33.185	µg/L	33.185	ppb	10:35:38
2	Na 589.592 Radial†	3288.8	2429.3	114.95	µg/L	114.95	ppb	10:35:38
2	Sr 421.552†	4058247.0	4173281.4	9842.5	µg/L	9842.5	ppb	10:35:34
2	Sc 361.383	1743215.3	1743215.3	96.622	%			10:36:04
2	Y 371.029	995676.7	995676.7	94.172	%			10:36:04
2	Ag 328.068†	-23853.7	-29252.8	-0.9419	µg/L	-0.9419	ppb	10:36:06
2	As 188.979†	28504.8	29519.8	10240	µg/L	10240	ppb	10:36:06
2	B 249.677†	314697.3	321633.0	4969.1	µg/L	4969.1	ppb	10:36:04
2	Ba 233.527†	3124556.7	3233926.1	14384	µg/L	14384	ppb	10:36:04
2	Be 313.107†	9596946.2	9933517.7	2877.3	µg/L	2877.3	ppb	10:36:00
2	Cd 226.502†	1394309.9	1443154.1	9758.1	µg/L	9758.1	ppb	10:36:04
2	Co 228.616†	690666.8	715020.7	9476.7	µg/L	9476.7	ppb	10:36:04
2	Cr 267.716†	2690044.7	2783847.2	24087	µg/L	24087	ppb	10:36:04
2	Cu 324.752†	4658450.0	4818259.0	20158	µg/L	20158	ppb	10:36:04
2	Mn 257.610†	6824028.9	7062391.3	9368.6	µg/L	9368.6	ppb	10:36:04
2	Mo 202.031†	288983.5	299124.1	9785.9	µg/L	9785.9	ppb	10:36:06
2	Ni 231.604†	755753.2	782267.9	9787.1	µg/L	9787.1	ppb	10:36:04
2	P 214.914†	63999.8	66262.8	15093	µg/L	15093	ppb	10:36:06
2	Pb 220.353†	374105.8	387079.9	23849	µg/L	23849	ppb	10:36:04

2	S 181.975 Axial†	59808.2	61810.0	52081 µg/L	52081 ppb	10:36:06
2	Sb 206.836†	75810.5	78370.9	9916.1 µg/L	9916.1 ppb	10:36:06
2	Se 196.026†	24043.8	24878.2	9800 µg/L	9800 ppb	10:36:06
2	SiO2†	925226.3	955830.3	100800 µg/L	100800 ppb	10:36:04
2	Si 251.611†	2896126.6	2996599.3	47057 µg/L	47057 ppb	10:36:04
2	Sn 189.927†	138237.6	143068.1	9957.6 µg/L	9957.6 ppb	10:36:06
2	Ti 334.940†	9462409.3	9792363.1	10050 µg/L	10050 ppb	10:36:00
2	Tl 190.801†	67159.9	69621.9	9659.6 µg/L	9659.6 ppb	10:36:06
2	U 409.014†	-9085.7	-9240.0	28.141 µg/L	28.141 ppb	10:36:06
2	V 292.402†	1875085.9	1940209.9	10251 µg/L	10251 ppb	10:36:04
2	Zn 213.857†	2353882.7	2435664.2	14470 µg/L	14470 ppb	10:36:04
3	Sc RADIAL	137851.9	137851.9	98.4 %		10:35:43
3	Al 396.153Radial†	2181.4	2295.5	27.169 µg/L	27.169 ppb	10:35:45
3	Ca 317.933Radial†	1189.0	636.9	43.378 µg/L	43.378 ppb	10:35:45
3	Fe 238.204 Radial†	-552.2	-678.5	-50.673 µg/L	-50.673 ppb	10:35:45
3	K 766.490 Radial†	736719.2	747202.5	296080 µg/L	296080 ppb	10:35:43
3	Mg 279.077 IEC†	-281.6	-458.6	28.539 µg/L	28.539 ppb	10:35:45
3	Na 589.592 Radial†	3006.3	2102.7	62.614 µg/L	62.614 ppb	10:35:45
3	Sr 421.552†	4060800.1	4127022.4	9733.4 µg/L	9733.4 ppb	10:35:41
3	Sc 361.383	1752934.8	1752934.8	97.161 %		10:36:13
3	Y 371.029	1001396.2	1001396.2	94.713 %		10:36:13
3	Ag 328.068†	-24151.3	-29422.1	-1.6137 µg/L	-1.6137 ppb	10:36:15
3	As 188.979†	28800.2	29660.2	10288 µg/L	10288 ppb	10:36:15
3	B 249.677†	317129.0	322329.8	4979.9 µg/L	4979.9 ppb	10:36:13
3	Ba 233.527†	3143064.1	3235044.1	14389 µg/L	14389 ppb	10:36:13
3	Be 313.107†	9593258.2	9874649.9	2860.3 µg/L	2860.3 ppb	10:36:10
3	Cd 226.502†	1403189.2	1444291.5	9765.8 µg/L	9765.8 ppb	10:36:13
3	Co 228.616†	695082.1	715601.6	9484.4 µg/L	9484.4 ppb	10:36:13
3	Cr 267.716†	2703738.1	2782503.9	24075 µg/L	24075 ppb	10:36:13
3	Cu 324.752†	4685820.8	4819697.1	20164 µg/L	20164 ppb	10:36:13
3	Mn 257.610†	6866217.2	7066652.6	9374.3 µg/L	9374.3 ppb	10:36:13
3	Mo 202.031†	291726.8	300289.2	9824.0 µg/L	9824.0 ppb	10:36:15
3	Ni 231.604†	761256.4	783595.0	9803.7 µg/L	9803.7 ppb	10:36:13
3	P 214.914†	64499.6	66409.8	15127 µg/L	15127 ppb	10:36:15
3	Pb 220.353†	376414.3	387309.1	23863 µg/L	23863 ppb	10:36:13
3	S 181.975 Axial†	60499.1	62177.8	52391 µg/L	52391 ppb	10:36:15
3	Sb 206.836†	76694.5	78845.7	9978.2 µg/L	9978.2 ppb	10:36:15
3	Se 196.026†	24393.5	25100.1	9890 µg/L	9890 ppb	10:36:15
3	SiO2†	931438.5	956914.6	100910 µg/L	100910 ppb	10:36:13
3	Si 251.611†	2916872.0	3001331.5	47131 µg/L	47131 ppb	10:36:13
3	Sn 189.927†	139983.2	144071.4	10027 µg/L	10027 ppb	10:36:15
3	Ti 334.940†	9456296.8	9731772.1	9987.4 µg/L	9987.4 ppb	10:36:10
3	Tl 190.801†	68171.4	70277.5	9748.5 µg/L	9748.5 ppb	10:36:15
3	U 409.014†	-8744.7	-8836.8	53.587 µg/L	53.587 ppb	10:36:15
3	V 292.402†	1885383.9	1940048.7	10251 µg/L	10251 ppb	10:36:13
3	Zn 213.857†	2368680.6	2437386.7	14480 µg/L	14480 ppb	10:36:13

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1747082.5	96.837	%	0.2857				0.30%
Sc RADIAL	137043.7	97.8	%	0.58				0.59%
Y 371.029	998304.9	94.420	%	0.2731				0.29%
Ag 328.068†	-29354.8	-1.3904	µg/L	0.38842	-1.3904	ppb	0.38842	27.94%
Al 396.153Radial†	2328.9	34.689	µg/L	28.9466	34.689	ppb	28.9466	83.45%
As 188.979†	29624.0	10276	µg/L	30.9	10276	ppb	30.9	0.30%
QC value within limits for As 188.979 Recovery = 102.76%								
B 249.677†	321689.1	4970.0	µg/L	9.52	4970.0	ppb	9.52	0.19%
QC value within limits for B 249.677 Recovery = 99.40%								
Ba 233.527†	3233679.7	14383	µg/L	6.7	14383	ppb	6.7	0.05%
QC value within limits for Ba 233.527 Recovery = 95.88%								
Be 313.107†	9929639.6	2876.2	µg/L	15.39	2876.2	ppb	15.39	0.54%
QC value within limits for Be 313.107 Recovery = 95.87%								
Ca 317.933Radial†	975.6	66.446	µg/L	22.3211	66.446	ppb	22.3211	33.59%
Cd 226.502†	1442869.0	9756.2	µg/L	10.71	9756.2	ppb	10.71	0.11%
QC value within limits for Cd 226.502 Recovery = 97.56%								
Co 228.616†	714902.2	9475.1	µg/L	10.14	9475.1	ppb	10.14	0.11%
QC value within limits for Co 228.616 Recovery = 94.75%								
Cr 267.716†	2781886.5	24070	µg/L	20.2	24070	ppb	20.2	0.08%
QC value within limits for Cr 267.716 Recovery = 96.28%								

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Cu 324.752†          4815885.5       20148 µg/L          22.6       20148 ppb          22.6   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.74%
Fe 238.204 Radial†      -550.7     -41.129 µg/L       11.5159     -41.129 ppb       11.5159  28.00%
K 766.490 Radial†     744484.4      295000 µg/L         981.6      295000 ppb         981.6   0.33%
   QC value within limits for K 766.490 Radial  Recovery = 98.33%
Mg 279.077 IEC†         -499.0      9.6261 µg/L      36.85576      9.6261 ppb      36.85576 382.87%
Mn 257.610†          7061238.1      9367.1 µg/L          8.06      9367.1 ppb          8.06   0.09%
   QC value within limits for Mn 257.610  Recovery = 93.67%
Mo 202.031†           299972.6      9813.7 µg/L         24.29      9813.7 ppb         24.29   0.25%
   QC value within limits for Mo 202.031  Recovery = 98.14%
Na 589.592 Radial†      2285.8      91.953 µg/L       26.7387      91.953 ppb       26.7387  29.08%
Ni 231.604†           782535.6      9790.5 µg/L         11.94      9790.5 ppb         11.94   0.12%
   QC value within limits for Ni 231.604  Recovery = 97.90%
P 214.914†             66357.0       15115 µg/L          19.1       15115 ppb          19.1   0.13%
   QC value within limits for P 214.914  Recovery = 100.76%
Pb 220.353†           386998.9       23844 µg/L          21.9       23844 ppb          21.9   0.09%
   QC value within limits for Pb 220.353  Recovery = 95.38%
S 181.975 Axial†       62021.7       52259 µg/L         160.1       52259 ppb         160.1   0.31%
   QC value within limits for S 181.975 Axial  Recovery = 104.52%
Sb 206.836†            78684.4      9957.3 µg/L         35.64      9957.3 ppb         35.64   0.36%
   QC value within limits for Sb 206.836  Recovery = 99.57%
Se 196.026†            25012.5        9850 µg/L          46.5        9850 ppb          46.5   0.47%
   QC value within limits for Se 196.026  Recovery = 98.54%
SiO2†                 954894.4      100700 µg/L         277.6      100700 ppb         277.6   0.28%
   QC value within limits for SiO2  Recovery = 94.11%
Si 251.611†          2994683.7       47026 µg/L         122.9       47026 ppb         122.9   0.26%
   QC value within limits for Si 251.611  Recovery = 94.05%
Sn 189.927†           143722.4       10003 µg/L          39.3       10003 ppb          39.3   0.39%
   QC value within limits for Sn 189.927  Recovery = 100.03%
Sr 421.552†          4129764.6      9739.9 µg/L         99.56      9739.9 ppb         99.56   1.02%
   QC value within limits for Sr 421.552  Recovery = 97.40%
Ti 334.940†          9785461.9       10043 µg/L          52.0       10043 ppb          52.0   0.52%
   QC value within limits for Ti 334.940  Recovery = 100.43%
Tl 190.801†            69927.8      9701.3 µg/L         44.70      9701.3 ppb         44.70   0.46%
   QC value within limits for Tl 190.801  Recovery = 97.01%
U 409.014†             -9099.2      36.832 µg/L       14.5139      36.832 ppb       14.5139  39.41%
V 292.402†           1939525.2       10248 µg/L           5.4       10248 ppb           5.4   0.05%
   QC value within limits for V 292.402  Recovery = 102.48%
Zn 213.857†          2434964.2       14466 µg/L          16.8       14466 ppb          16.8   0.12%
   QC value within limits for Zn 213.857  Recovery = 96.44%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 10:36:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139383.4	139383.4	99.5	%			10:36:57
1	Al 396.153Radial†	23983.0	24183.6	5067.9	µg/L	5067.9	ppb	10:36:57
1	Ca 317.933Radial†	74884.5	74694.3	5087.4	µg/L	5087.4	ppb	10:36:57
1	Fe 238.204 Radial†	67324.3	67549.7	5044.6	µg/L	5044.6	ppb	10:36:57
1	K 766.490 Radial†	15793.3	14379.9	5693.8	µg/L	5693.8	ppb	10:36:57
1	Mg 279.077 IEC†	11375.8	11261.3	5207.8	µg/L	5207.8	ppb	10:36:57
1	Na 589.592 Radial†	66012.0	65395.6	10132	µg/L	10132	ppb	10:36:57
1	Sr 421.552†	209942.4	211215.7	498.11	µg/L	498.11	ppb	10:36:54
1	Sc 361.383	1775532.0	1775532.0	98.414	%			10:37:23
1	Y 371.029	1029238.8	1029238.8	97.346	%			10:37:23
1	Ag 328.068†	123713.3	121142.4	502.16	µg/L	502.16	ppb	10:37:23
1	As 188.979†	1429.2	1470.7	504.76	µg/L	504.76	ppb	10:37:43
1	B 249.677†	36189.7	32707.9	506.91	µg/L	506.91	ppb	10:37:23
1	Ba 233.527†	111189.9	113126.7	503.24	µg/L	503.24	ppb	10:37:23
1	Be 313.107†	1690082.4	1718417.5	497.92	µg/L	497.92	ppb	10:37:23
1	Cd 226.502†	73455.3	74742.7	504.85	µg/L	504.85	ppb	10:37:23
1	Co 228.616†	37411.0	38224.4	505.95	µg/L	505.95	ppb	10:37:23
1	Cr 267.716†	57380.8	58072.6	502.27	µg/L	502.27	ppb	10:37:23
1	Cu 324.752†	120937.5	119850.9	502.85	µg/L	502.85	ppb	10:37:23
1	Mn 257.610†	372256.9	378072.8	501.31	µg/L	501.31	ppb	10:37:23
1	Mo 202.031†	15240.8	15525.1	508.19	µg/L	508.19	ppb	10:37:43
1	Ni 231.604†	39405.2	40136.3	502.16	µg/L	502.16	ppb	10:37:23
1	P 214.914†	10778.6	10978.0	2530.9	µg/L	2530.9	ppb	10:37:43
1	Pb 220.353†	8349.3	8380.4	517.30	µg/L	517.30	ppb	10:37:43
1	S 181.975 Axial†	1311.1	1243.3	1050.2	µg/L	1050.2	ppb	10:37:43
1	Sb 206.836†	3923.4	3896.9	503.72	µg/L	503.72	ppb	10:37:43
1	Se 196.026†	1279.8	1294.3	512	µg/L	512	ppb	10:37:43
1	SiO2†	51119.4	50204.3	5294.7	µg/L	5294.7	ppb	10:37:23
1	Si 251.611†	156377.4	158131.1	2483.4	µg/L	2483.4	ppb	10:37:23
1	Sn 189.927†	7206.6	7320.9	509.48	µg/L	509.48	ppb	10:37:43
1	Ti 334.940†	478294.1	485181.0	497.67	µg/L	497.67	ppb	10:37:23
1	Tl 190.801†	3555.2	3726.8	516.38	µg/L	516.38	ppb	10:37:43
1	U 409.014†	7075.5	7352.9	494.46	µg/L	494.46	ppb	10:37:23
1	V 292.402†	95137.0	96247.3	505.57	µg/L	505.57	ppb	10:37:23
1	Zn 213.857†	83877.0	84726.1	502.00	µg/L	502.00	ppb	10:37:23
2	Sc RADIAL	141237.6	141237.6	101	%			10:37:01
2	Al 396.153Radial†	24351.7	24232.9	5078.4	µg/L	5078.4	ppb	10:37:01
2	Ca 317.933Radial†	76105.1	74916.9	5102.5	µg/L	5102.5	ppb	10:37:01
2	Fe 238.204 Radial†	68422.0	67750.2	5059.5	µg/L	5059.5	ppb	10:37:01
2	K 766.490 Radial†	15816.9	14194.9	5620.5	µg/L	5620.5	ppb	10:37:01
2	Mg 279.077 IEC†	11511.1	11245.3	5200.4	µg/L	5200.4	ppb	10:37:01
2	Na 589.592 Radial†	66852.4	65358.1	10126	µg/L	10126	ppb	10:37:01
2	Sr 421.552†	212339.4	210823.0	497.18	µg/L	497.18	ppb	10:36:59
2	Sc 361.383	1787375.4	1787375.4	99.070	%			10:37:47
2	Y 371.029	1037117.1	1037117.1	98.091	%			10:37:47
2	Ag 328.068†	124828.0	121434.6	503.37	µg/L	503.37	ppb	10:37:47
2	As 188.979†	1441.0	1473.1	505.57	µg/L	505.57	ppb	10:38:07
2	B 249.677†	36397.3	32673.8	506.38	µg/L	506.38	ppb	10:37:47
2	Ba 233.527†	111984.0	113179.7	503.48	µg/L	503.48	ppb	10:37:47
2	Be 313.107†	1706153.7	1723260.5	499.32	µg/L	499.32	ppb	10:37:47
2	Cd 226.502†	74191.2	74991.0	506.53	µg/L	506.53	ppb	10:37:47
2	Co 228.616†	37736.8	38301.3	506.97	µg/L	506.97	ppb	10:37:47
2	Cr 267.716†	57858.9	58168.8	503.11	µg/L	503.11	ppb	10:37:47
2	Cu 324.752†	122047.6	120157.1	504.13	µg/L	504.13	ppb	10:37:47
2	Mn 257.610†	375557.0	378897.5	502.41	µg/L	502.41	ppb	10:37:47
2	Mo 202.031†	15314.4	15496.7	507.27	µg/L	507.27	ppb	10:38:07
2	Ni 231.604†	39844.4	40314.3	504.38	µg/L	504.38	ppb	10:37:47
2	P 214.914†	10818.6	10945.8	2523.4	µg/L	2523.4	ppb	10:38:07
2	Pb 220.353†	8374.4	8349.6	515.41	µg/L	515.41	ppb	10:38:07

2	S 181.975 Axial†	1316.2	1239.6	1047.1 µg/L	1047.1 ppb	10:38:07
2	Sb 206.836†	3951.4	3898.7	503.93 µg/L	503.93 ppb	10:38:07
2	Se 196.026†	1293.2	1299.1	514 µg/L	514 ppb	10:38:07
2	SiO2†	51601.8	50347.1	5309.9 µg/L	5309.9 ppb	10:37:47
2	Si 251.611†	157616.5	158329.0	2486.6 µg/L	2486.6 ppb	10:37:47
2	Sn 189.927†	7228.2	7294.2	507.63 µg/L	507.63 ppb	10:38:07
2	Ti 334.940†	482143.4	485846.0	498.36 µg/L	498.36 ppb	10:37:47
2	Tl 190.801†	3577.4	3725.3	516.20 µg/L	516.20 ppb	10:38:07
2	U 409.014†	6994.8	7223.9	486.47 µg/L	486.47 ppb	10:37:47
2	V 292.402†	96271.3	96751.8	508.18 µg/L	508.18 ppb	10:37:47
2	Zn 213.857†	84512.0	84802.3	502.44 µg/L	502.44 ppb	10:37:47
3	Sc RADIAL	139619.7	139619.7	99.7 %		10:37:05
3	Al 396.153Radial†	23966.5	24126.3	5056.2 µg/L	5056.2 ppb	10:37:05
3	Ca 317.933Radial†	75181.7	74865.1	5099.0 µg/L	5099.0 ppb	10:37:05
3	Fe 238.204 Radial†	67379.8	67490.9	5040.2 µg/L	5040.2 ppb	10:37:05
3	K 766.490 Radial†	15656.1	14215.4	5628.6 µg/L	5628.6 ppb	10:37:05
3	Mg 279.077 IEC†	11320.1	11186.0	5172.9 µg/L	5172.9 ppb	10:37:05
3	Na 589.592 Radial†	66307.8	65580.0	10160 µg/L	10160 ppb	10:37:05
3	Sr 421.552†	212426.4	213350.9	503.14 µg/L	503.14 ppb	10:37:03
3	Sc 361.383	1796359.2	1796359.2	99.568 %		10:38:10
3	Y 371.029	1041972.3	1041972.3	98.551 %		10:38:10
3	Ag 328.068†	125764.0	121744.4	504.65 µg/L	504.65 ppb	10:38:10
3	As 188.979†	1434.8	1459.5	500.98 µg/L	500.98 ppb	10:38:30
3	B 249.677†	36503.8	32597.0	505.17 µg/L	505.17 ppb	10:38:10
3	Ba 233.527†	113116.0	113751.3	506.02 µg/L	506.02 ppb	10:38:10
3	Be 313.107†	1721963.8	1730526.4	501.43 µg/L	501.43 ppb	10:38:10
3	Cd 226.502†	75117.4	75546.7	510.29 µg/L	510.29 ppb	10:38:10
3	Co 228.616†	38112.7	38488.4	509.44 µg/L	509.44 ppb	10:38:10
3	Cr 267.716†	58452.0	58472.4	505.73 µg/L	505.73 ppb	10:38:10
3	Cu 324.752†	122851.6	120348.5	504.93 µg/L	504.93 ppb	10:38:10
3	Mn 257.610†	379092.5	380552.5	504.60 µg/L	504.60 ppb	10:38:10
3	Mo 202.031†	15195.9	15300.4	500.85 µg/L	500.85 ppb	10:38:30
3	Ni 231.604†	40229.0	40499.4	506.70 µg/L	506.70 ppb	10:38:10
3	P 214.914†	10704.5	10776.6	2484.3 µg/L	2484.3 ppb	10:38:30
3	Pb 220.353†	8282.2	8214.7	507.09 µg/L	507.09 ppb	10:38:30
3	S 181.975 Axial†	1291.3	1208.0	1020.5 µg/L	1020.5 ppb	10:38:30
3	Sb 206.836†	3926.1	3853.4	497.95 µg/L	497.95 ppb	10:38:30
3	Se 196.026†	1271.1	1270.5	503 µg/L	503 ppb	10:38:30
3	SiO2†	51964.0	50450.4	5321.1 µg/L	5321.1 ppb	10:38:10
3	Si 251.611†	159117.7	159041.0	2497.9 µg/L	2497.9 ppb	10:38:10
3	Sn 189.927†	7158.9	7188.1	500.28 µg/L	500.28 ppb	10:38:30
3	Ti 334.940†	486018.7	487304.3	499.85 µg/L	499.85 ppb	10:38:10
3	Tl 190.801†	3533.3	3662.9	507.69 µg/L	507.69 ppb	10:38:30
3	U 409.014†	7097.1	7291.2	490.73 µg/L	490.73 ppb	10:38:10
3	V 292.402†	96745.9	96742.4	508.08 µg/L	508.08 ppb	10:38:10
3	Zn 213.857†	85472.9	85340.8	505.64 µg/L	505.64 ppb	10:38:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786422.2	99.017	%	0.5790				0.58%
Sc RADIAL	140080.2	100.0	%	0.72				0.72%
Y 371.029	1036109.4	97.996	%	0.6078				0.62%
Ag 328.068†	121440.5	503.39	µg/L	1.245	503.39	ppb	1.245	0.25%
QC value within limits for Ag 328.068 Recovery = 100.68%								
Al 396.153Radial†	24180.9	5067.5	µg/L	11.08	5067.5	ppb	11.08	0.22%
QC value within limits for Al 396.153Radial Recovery = 101.35%								
As 188.979†	1467.8	503.77	µg/L	2.452	503.77	ppb	2.452	0.49%
QC value within limits for As 188.979 Recovery = 100.75%								
B 249.677†	32659.6	506.15	µg/L	0.889	506.15	ppb	0.889	0.18%
QC value within limits for B 249.677 Recovery = 101.23%								
Ba 233.527†	113352.6	504.25	µg/L	1.539	504.25	ppb	1.539	0.31%
QC value within limits for Ba 233.527 Recovery = 100.85%								
Be 313.107†	1724068.1	499.56	µg/L	1.765	499.56	ppb	1.765	0.35%
QC value within limits for Be 313.107 Recovery = 99.91%								
Ca 317.933Radial†	74825.4	5096.3	µg/L	7.93	5096.3	ppb	7.93	0.16%
QC value within limits for Ca 317.933Radial Recovery = 101.93%								
Cd 226.502†	75093.5	507.22	µg/L	2.784	507.22	ppb	2.784	0.55%
QC value within limits for Cd 226.502 Recovery = 101.44%								
Co 228.616†	38338.0	507.45	µg/L	1.798	507.45	ppb	1.798	0.35%

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   QC value within limits for Co 228.616  Recovery = 101.49%
Cr 267.716†            58237.9      503.70 µg/L         1.806      503.70 ppb          1.806   0.36%
   QC value within limits for Cr 267.716  Recovery = 100.74%
Cu 324.752†           120118.8      503.97 µg/L         1.048      503.97 ppb          1.048   0.21%
   QC value within limits for Cu 324.752  Recovery = 100.79%
Fe 238.204 Radial†     67596.9      5048.1 µg/L         10.15      5048.1 ppb          10.15   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.96%
K 766.490 Radial†      14263.4      5647.7 µg/L         40.19      5647.7 ppb          40.19   0.71%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 112.95%
Mg 279.077 IEC†        11230.9      5193.7 µg/L         18.41      5193.7 ppb          18.41   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.87%
Mn 257.610†           379174.3      502.77 µg/L         1.676      502.77 ppb          1.676   0.33%
   QC value within limits for Mn 257.610  Recovery = 100.55%
Mo 202.031†            15440.7      505.43 µg/L         4.001      505.43 ppb          4.001   0.79%
   QC value within limits for Mo 202.031  Recovery = 101.09%
Na 589.592 Radial†     65444.6       10139 µg/L          18.4       10139 ppb           18.4   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 101.39%
Ni 231.604†            40316.7      504.41 µg/L         2.272      504.41 ppb          2.272   0.45%
   QC value within limits for Ni 231.604  Recovery = 100.88%
P 214.914†             10900.2      2512.9 µg/L         25.04      2512.9 ppb          25.04   1.00%
   QC value within limits for P 214.914  Recovery = 100.51%
Pb 220.353†             8314.9      513.27 µg/L         5.432      513.27 ppb          5.432   1.06%
   QC value within limits for Pb 220.353  Recovery = 102.65%
S 181.975 Axial†        1230.3      1039.3 µg/L         16.35      1039.3 ppb          16.35   1.57%
   QC value within limits for S 181.975 Axial  Recovery = 103.93%
Sb 206.836†             3883.0      501.87 µg/L         3.396      501.87 ppb          3.396   0.68%
   QC value within limits for Sb 206.836  Recovery = 100.37%
Se 196.026†             1288.0         510 µg/L           6.0         510 ppb            6.0   1.19%
   QC value within limits for Se 196.026  Recovery = 101.93%
SiO2†                  50333.9      5308.6 µg/L         13.25      5308.6 ppb          13.25   0.25%
   QC value within limits for SiO2  Recovery = 99.27%
Si 251.611†           158500.4      2489.3 µg/L          7.63      2489.3 ppb           7.63   0.31%
   QC value within limits for Si 251.611  Recovery = 99.57%
Sn 189.927†             7267.7      505.80 µg/L         4.871      505.80 ppb          4.871   0.96%
   QC value within limits for Sn 189.927  Recovery = 101.16%
Sr 421.552†           211796.5      499.47 µg/L         3.208      499.47 ppb          3.208   0.64%
   QC value within limits for Sr 421.552  Recovery = 99.89%
Ti 334.940†           486110.4      498.63 µg/L         1.117      498.63 ppb          1.117   0.22%
   QC value within limits for Ti 334.940  Recovery = 99.73%
Tl 190.801†             3705.0      513.42 µg/L         4.965      513.42 ppb          4.965   0.97%
   QC value within limits for Tl 190.801  Recovery = 102.68%
U 409.014†              7289.3      490.55 µg/L         3.999      490.55 ppb          3.999   0.82%
   QC value within limits for U 409.014  Recovery = 98.11%
V 292.402†             96580.5      507.28 µg/L         1.474      507.28 ppb          1.474   0.29%
   QC value within limits for V 292.402  Recovery = 101.46%
Zn 213.857†            84956.4      503.36 µg/L         1.987      503.36 ppb          1.987   0.39%
   QC value within limits for Zn 213.857  Recovery = 100.67%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 10:38:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139909.9	139909.9	99.9	%			10:39:07
1	Al 396.153Radial†	-55.8	22.7	4.7099	µg/L	4.7099	ppb	10:39:27
1	Ca 317.933Radial†	668.4	97.8	6.6613	µg/L	6.6613	ppb	10:39:27
1	Fe 238.204 Radial†	168.4	51.3	3.8306	µg/L	3.8306	ppb	10:39:27
1	K 766.490 Radial†	2181.0	690.0	273.40	µg/L	273.40	ppb	10:39:07
1	Mg 279.077 IEC†	195.0	22.8	10.561	µg/L	10.561	ppb	10:39:27
1	Na 589.592 Radial†	1624.4	674.0	104.23	µg/L	104.23	ppb	10:39:07
1	Sr 421.552†	-97.8	106.5	0.2512	µg/L	0.2512	ppb	10:39:07
1	Sc 361.383	1822724.3	1822724.3	101.03	%			10:40:15
1	Y 371.029	1067929.9	1067929.9	101.01	%			10:40:15
1	Ag 328.068†	4558.5	-53.1	-0.2451	µg/L	-0.2451	ppb	10:40:17
1	As 188.979†	-17.1	1.6	0.5599	µg/L	0.5599	ppb	10:40:37
1	B 249.677†	4426.7	316.4	4.9210	µg/L	4.9210	ppb	10:40:17
1	Ba 233.527†	-125.1	20.7	0.0922	µg/L	0.0922	ppb	10:40:37
1	Be 313.107†	-581.3	516.4	0.1437	µg/L	0.1437	ppb	10:40:17
1	Cd 226.502†	-17.4	86.1	0.5819	µg/L	0.5819	ppb	10:40:37
1	Co 228.616†	-210.1	2.3	0.0304	µg/L	0.0304	ppb	10:40:37
1	Cr 267.716†	230.3	-5.3	-0.0307	µg/L	-0.0307	ppb	10:40:37
1	Cu 324.752†	3295.4	225.7	0.9289	µg/L	0.9289	ppb	10:40:17
1	Mn 257.610†	310.3	122.4	0.1620	µg/L	0.1620	ppb	10:40:37
1	Mo 202.031†	6.0	44.5	1.4552	µg/L	1.4552	ppb	10:40:37
1	Ni 231.604†	-50.2	46.2	0.5783	µg/L	0.5783	ppb	10:40:37
1	P 214.914†	-9.3	16.5	3.7864	µg/L	3.7864	ppb	10:40:37
1	Pb 220.353†	119.1	14.4	0.9040	µg/L	0.9040	ppb	10:40:37
1	S 181.975 Axial†	105.7	15.7	13.183	µg/L	13.183	ppb	10:40:37
1	Sb 206.836†	87.7	-2.9	-0.3534	µg/L	-0.3534	ppb	10:40:37
1	Se 196.026†	26.3	19.9	7.82	µg/L	7.82	ppb	10:40:37
1	SiO2†	1818.1	60.4	6.3488	µg/L	6.3488	ppb	10:40:37
1	Si 251.611†	861.5	85.7	1.3276	µg/L	1.3276	ppb	10:40:17
1	Sn 189.927†	11.7	9.7	0.6739	µg/L	0.6739	ppb	10:40:37
1	Ti 334.940†	1159.3	324.5	0.3406	µg/L	0.3406	ppb	10:40:17
1	Tl 190.801†	-101.6	13.7	1.8777	µg/L	1.8777	ppb	10:40:37
1	U 409.014†	-475.4	-307.2	-19.402	µg/L	-19.402	ppb	10:40:17
1	V 292.402†	369.8	-57.2	-0.2953	µg/L	-0.2953	ppb	10:40:17
1	Zn 213.857†	703.4	193.2	1.1494	µg/L	1.1494	ppb	10:40:37
2	Sc RADIAL	139104.0	139104.0	99.3	%			10:39:29
2	Al 396.153Radial†	-55.3	22.9	4.7868	µg/L	4.7868	ppb	10:39:49
2	Ca 317.933Radial†	656.3	89.5	6.0970	µg/L	6.0970	ppb	10:39:49
2	Fe 238.204 Radial†	153.3	37.1	2.7712	µg/L	2.7712	ppb	10:39:49
2	K 766.490 Radial†	2053.7	574.5	227.64	µg/L	227.64	ppb	10:39:29
2	Mg 279.077 IEC†	181.1	9.9	4.5998	µg/L	4.5998	ppb	10:39:49
2	Na 589.592 Radial†	1651.7	711.0	110.00	µg/L	110.00	ppb	10:39:29
2	Sr 421.552†	-28.2	176.1	0.4153	µg/L	0.4153	ppb	10:39:29
2	Sc 361.383	1814086.1	1814086.1	100.55	%			10:40:39
2	Y 371.029	1063810.2	1063810.2	100.62	%			10:40:39
2	Ag 328.068†	4519.4	-70.5	-0.3026	µg/L	-0.3026	ppb	10:40:41
2	As 188.979†	-16.7	1.9	0.6543	µg/L	0.6543	ppb	10:41:02
2	B 249.677†	4194.0	105.9	1.6449	µg/L	1.6449	ppb	10:40:41
2	Ba 233.527†	36.7	181.1	0.8048	µg/L	0.8048	ppb	10:41:02
2	Be 313.107†	-830.7	265.6	0.0742	µg/L	0.0742	ppb	10:40:41
2	Cd 226.502†	-39.0	64.5	0.4361	µg/L	0.4361	ppb	10:41:02
2	Co 228.616†	-158.3	52.9	0.7000	µg/L	0.7000	ppb	10:41:02
2	Cr 267.716†	280.5	45.7	0.4025	µg/L	0.4025	ppb	10:41:02
2	Cu 324.752†	3051.0	-1.8	-0.0141	µg/L	-0.0141	ppb	10:40:41
2	Mn 257.610†	250.3	64.2	0.0850	µg/L	0.0850	ppb	10:41:02
2	Mo 202.031†	-19.1	19.6	0.6409	µg/L	0.6409	ppb	10:41:02
2	Ni 231.604†	-77.8	18.5	0.2318	µg/L	0.2318	ppb	10:41:02
2	P 214.914†	-30.8	-4.9	-1.1366	µg/L	-1.1366	ppb	10:41:02
2	Pb 220.353†	140.7	36.5	2.2529	µg/L	2.2529	ppb	10:41:02

2	S 181.975 Axial†	114.2	24.6	20.708 µg/L	20.708 ppb	10:41:02
2	Sb 206.836†	82.1	-8.1	-1.0413 µg/L	-1.0413 ppb	10:41:02
2	Se 196.026†	31.3	24.9	9.81 µg/L	9.81 ppb	10:41:02
2	SiO2†	1765.7	17.0	1.7661 µg/L	1.7661 ppb	10:41:02
2	Si 251.611†	858.7	87.0	1.3574 µg/L	1.3574 ppb	10:40:41
2	Sn 189.927†	15.3	13.3	0.9228 µg/L	0.9228 ppb	10:41:02
2	Ti 334.940†	912.5	84.5	0.0902 µg/L	0.0902 ppb	10:40:41
2	Tl 190.801†	-111.6	3.3	0.4502 µg/L	0.4502 ppb	10:41:02
2	U 409.014†	-310.7	-145.6	-9.2038 µg/L	-9.2038 ppb	10:40:41
2	V 292.402†	384.0	-41.3	-0.2124 µg/L	-0.2124 ppb	10:40:41
2	Zn 213.857†	665.6	159.0	0.9477 µg/L	0.9477 ppb	10:41:02
3	Sc RADIAL	140352.9	140352.9	100 %		10:39:51
3	Al 396.153Radial†	-12.8	65.8	13.824 µg/L	13.824 ppb	10:40:11
3	Ca 317.933Radial†	842.6	269.6	18.359 µg/L	18.359 ppb	10:40:11
3	Fe 238.204 Radial†	290.3	172.4	12.876 µg/L	12.876 ppb	10:40:11
3	K 766.490 Radial†	2021.3	523.7	207.51 µg/L	207.51 ppb	10:39:51
3	Mg 279.077 IEC†	235.2	62.3	28.777 µg/L	28.777 ppb	10:40:11
3	Na 589.592 Radial†	1483.6	528.4	81.714 µg/L	81.714 ppb	10:39:51
3	Sr 421.552†	-224.6	-19.7	-0.0465 µg/L	-0.0465 ppb	10:39:51
3	Sc 361.383	1797177.6	1797177.6	99.613 %		10:41:04
3	Y 371.029	1054450.3	1054450.3	99.731 %		10:41:04
3	Ag 328.068†	4482.2	-65.5	-0.2803 µg/L	-0.2803 ppb	10:41:06
3	As 188.979†	-10.0	8.5	2.8805 µg/L	2.8805 ppb	10:41:26
3	B 249.677†	4185.2	136.3	2.1188 µg/L	2.1188 ppb	10:41:06
3	Ba 233.527†	-139.1	4.9	0.0218 µg/L	0.0218 ppb	10:41:26
3	Be 313.107†	-828.9	259.6	0.0717 µg/L	0.0717 ppb	10:41:06
3	Cd 226.502†	-11.5	91.8	0.6190 µg/L	0.6190 ppb	10:41:26
3	Co 228.616†	-203.6	5.9	0.0772 µg/L	0.0772 ppb	10:41:26
3	Cr 267.716†	250.1	17.9	0.1638 µg/L	0.1638 ppb	10:41:26
3	Cu 324.752†	3091.9	67.8	0.2766 µg/L	0.2766 ppb	10:41:06
3	Mn 257.610†	263.6	79.9	0.1048 µg/L	0.1048 ppb	10:41:26
3	Mo 202.031†	-21.8	16.7	0.5458 µg/L	0.5458 ppb	10:41:26
3	Ni 231.604†	-72.9	22.7	0.2843 µg/L	0.2843 ppb	10:41:26
3	P 214.914†	-18.9	6.8	1.5610 µg/L	1.5610 ppb	10:41:26
3	Pb 220.353†	128.4	25.5	1.5787 µg/L	1.5787 ppb	10:41:26
3	S 181.975 Axial†	101.9	13.4	11.251 µg/L	11.251 ppb	10:41:26
3	Sb 206.836†	70.7	-18.7	-2.4055 µg/L	-2.4055 ppb	10:41:26
3	Se 196.026†	9.9	3.8	1.49 µg/L	1.49 ppb	10:41:26
3	SiO2†	1766.7	34.5	3.6151 µg/L	3.6151 ppb	10:41:26
3	Si 251.611†	977.5	214.2	3.3608 µg/L	3.3608 ppb	10:41:06
3	Sn 189.927†	23.7	21.9	1.5170 µg/L	1.5170 ppb	10:41:26
3	Ti 334.940†	715.0	-105.2	-0.1052 µg/L	-0.1052 ppb	10:41:06
3	Tl 190.801†	-104.0	9.9	1.3480 µg/L	1.3480 ppb	10:41:26
3	U 409.014†	-346.8	-184.8	-11.650 µg/L	-11.650 ppb	10:41:06
3	V 292.402†	466.6	45.2	0.2316 µg/L	0.2316 ppb	10:41:06
3	Zn 213.857†	652.7	152.2	0.9057 µg/L	0.9057 ppb	10:41:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1811329.4	100.40	%	0.720				0.72%
Sc RADIAL	139788.9	99.8	%	0.45				0.45%
Y 371.029	1062063.4	100.45	%	0.653				0.65%
Ag 328.068†	-63.1	-0.2760	µg/L	0.02898	-0.2760	ppb	0.02898	10.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	37.1	7.7736	µg/L	5.23994	7.7736	ppb	5.23994	67.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.0	1.3649	µg/L	1.31341	1.3649	ppb	1.31341	96.23%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	186.2	2.8949	µg/L	1.77056	2.8949	ppb	1.77056	61.16%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	68.9	0.3062	µg/L	0.43321	0.3062	ppb	0.43321	141.46%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	347.2	0.0965	µg/L	0.04090	0.0965	ppb	0.04090	42.38%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	152.3	10.373	µg/L	6.9226	10.373	ppb	6.9226	66.74%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	80.8	0.5457	µg/L	0.09672	0.5457	ppb	0.09672	17.73%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.4	0.2692	µg/L	0.37385	0.2692	ppb	0.37385	138.88%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.4      0.1785 µg/L       0.21700      0.1785 ppb        0.21700 121.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              97.2      0.3971 µg/L       0.48288      0.3971 ppb        0.48288 121.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       86.9      6.4926 µg/L       5.55342      6.4926 ppb        5.55342  85.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       596.1      236.18 µg/L        33.767      236.18 ppb         33.767  14.30%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          31.7      14.646 µg/L       12.5959      14.646 ppb        12.5959  86.00%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              88.9      0.1173 µg/L       0.03997      0.1173 ppb        0.03997  34.08%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              26.9      0.8806 µg/L       0.49988      0.8806 ppb        0.49988  56.76%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      637.8      98.649 µg/L       14.9470      98.649 ppb        14.9470  15.15%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              29.2      0.3648 µg/L       0.18676      0.3648 ppb        0.18676  51.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                6.1      1.4036 µg/L       2.46530      1.4036 ppb        2.46530 175.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              25.4      1.5785 µg/L       0.67449      1.5785 ppb        0.67449  42.73%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         17.9      15.047 µg/L        4.9964      15.047 ppb         4.9964  33.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -9.9     -1.2667 µg/L       1.04446     -1.2667 ppb        1.04446  82.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              16.2        6.37 µg/L         4.348        6.37 ppb          4.348  68.22%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    37.3      3.9100 µg/L       2.30555      3.9100 ppb        2.30555  58.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             129.0      2.0153 µg/L       1.16537      2.0153 ppb        1.16537  57.83%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              15.0      1.0379 µg/L       0.43318      1.0379 ppb        0.43318  41.74%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              87.7      0.2067 µg/L       0.23409      0.2067 ppb        0.23409 113.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             101.2      0.1085 µg/L       0.22346      0.1085 ppb        0.22346 205.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               9.0      1.2253 µg/L       0.72161      1.2253 ppb        0.72161  58.89%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -212.6     -13.419 µg/L        5.3243     -13.419 ppb         5.3243  39.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -17.8     -0.0920 µg/L       0.28332     -0.0920 ppb        0.28332 307.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             168.2      1.0009 µg/L       0.13030      1.0009 ppb        0.13030  13.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

==========

Analysis Begun

Start Time: 4/5/2010 10:49:36 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 4/5/2010 9:54:36**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/5/2010 10:49:38**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139913.8	139913.8	99.9	%			10:50:08
1	Al 396.153Radial†	24335.8	24445.5	5123.4	µg/L	5123.4	ppb	10:50:10
1	Ca 317.933Radial†	76124.3	75650.4	5152.5	µg/L	5152.5	ppb	10:50:10
1	Fe 238.204 Radial†	68091.5	68061.4	5082.8	µg/L	5082.8	ppb	10:50:10

1	K 766.490 Radial†	14510.4	13035.1	5161.0 µg/L	5161.0 ppb	10:50:10
1	Mg 279.077 IEC†	11429.7	11271.9	5212.6 µg/L	5212.6 ppb	10:50:10
1	Na 589.592 Radial†	64869.2	63999.8	9915.9 µg/L	9915.9 ppb	10:50:08
1	Sr 421.552†	210128.9	210602.6	496.66 µg/L	496.66 ppb	10:50:08
1	Sc 361.383	1793135.3	1793135.3	99.389 %		10:50:37
1	Y 371.029	1039795.9	1039795.9	98.345 %		10:50:37
1	Ag 328.068†	125023.0	121226.0	502.50 µg/L	502.50 ppb	10:50:37
1	As 188.979†	1415.1	1442.4	495.14 µg/L	495.14 ppb	10:50:57
1	B 249.677†	35686.1	31840.2	493.41 µg/L	493.41 ppb	10:50:37
1	Ba 233.527†	111774.5	112605.9	500.92 µg/L	500.92 ppb	10:50:37
1	Be 313.107†	1706398.9	1717975.2	497.80 µg/L	497.80 ppb	10:50:37
1	Cd 226.502†	74086.4	74645.0	504.19 µg/L	504.19 ppb	10:50:37
1	Co 228.616†	37804.3	38246.8	506.24 µg/L	506.24 ppb	10:50:37
1	Cr 267.716†	57747.6	57869.2	500.50 µg/L	500.50 ppb	10:50:37
1	Cu 324.752†	121662.9	119374.4	500.87 µg/L	500.87 ppb	10:50:37
1	Mn 257.610†	376107.2	378233.4	501.52 µg/L	501.52 ppb	10:50:37
1	Mo 202.031†	15189.8	15321.7	501.54 µg/L	501.54 ppb	10:50:57
1	Ni 231.604†	39897.8	40238.8	503.44 µg/L	503.44 ppb	10:50:37
1	P 214.914†	10795.7	10887.8	2510.0 µg/L	2510.0 ppb	10:50:57
1	Pb 220.353†	8262.9	8210.2	506.81 µg/L	506.81 ppb	10:50:57
1	S 181.975 Axial†	1275.8	1194.7	1009.3 µg/L	1009.3 ppb	10:50:57
1	Sb 206.836†	3955.2	3889.8	502.71 µg/L	502.71 ppb	10:50:57
1	Se 196.026†	1278.3	1280.0	507 µg/L	507 ppb	10:50:57
1	SiO2†	51569.1	50146.9	5288.9 µg/L	5288.9 ppb	10:50:37
1	Si 251.611†	157499.0	157699.7	2476.8 µg/L	2476.8 ppb	10:50:37
1	Sn 189.927†	7167.7	7209.8	501.78 µg/L	501.78 ppb	10:50:57
1	Ti 334.940†	482524.4	484666.2	497.14 µg/L	497.14 ppb	10:50:37
1	Tl 190.801†	3542.3	3678.3	509.75 µg/L	509.75 ppb	10:50:57
1	U 409.014†	7309.8	7518.1	504.80 µg/L	504.80 ppb	10:50:37
1	V 292.402†	95824.9	95990.5	504.17 µg/L	504.17 ppb	10:50:37
1	Zn 213.857†	84530.8	84547.2	500.92 µg/L	500.92 ppb	10:50:37
2	Sc RADIAL	140341.7	140341.7	100 %		10:50:12
2	Al 396.153Radial†	23928.8	23965.0	5022.0 µg/L	5022.0 ppb	10:50:14
2	Ca 317.933Radial†	74480.6	73777.1	5024.9 µg/L	5024.9 ppb	10:50:14
2	Fe 238.204 Radial†	66810.1	66574.4	4971.7 µg/L	4971.7 ppb	10:50:14
2	K 766.490 Radial†	14217.3	12698.3	5027.6 µg/L	5027.6 ppb	10:50:14
2	Mg 279.077 IEC†	11311.0	11118.6	5141.9 µg/L	5141.9 ppb	10:50:14
2	Na 589.592 Radial†	65359.5	64291.2	9961.2 µg/L	9961.2 ppb	10:50:12
2	Sr 421.552†	211237.8	211067.9	497.76 µg/L	497.76 ppb	10:50:12
2	Sc 361.383	1774369.1	1774369.1	98.349 %		10:51:01
2	Y 371.029	1029276.4	1029276.4	97.350 %		10:51:01
2	Ag 328.068†	123578.9	121088.1	501.92 µg/L	501.92 ppb	10:51:01
2	As 188.979†	1412.6	1454.9	499.35 µg/L	499.35 ppb	10:51:21
2	B 249.677†	35412.9	31942.2	495.00 µg/L	495.00 ppb	10:51:01
2	Ba 233.527†	110497.4	112496.7	500.44 µg/L	500.44 ppb	10:51:01
2	Be 313.107†	1682989.4	1712331.0	496.16 µg/L	496.16 ppb	10:51:01
2	Cd 226.502†	73151.3	74482.6	503.10 µg/L	503.10 ppb	10:51:01
2	Co 228.616†	37344.3	38181.4	505.38 µg/L	505.38 ppb	10:51:01
2	Cr 267.716†	57138.9	57864.8	500.47 µg/L	500.47 ppb	10:51:01
2	Cu 324.752†	120116.3	119096.4	499.68 µg/L	499.68 ppb	10:51:01
2	Mn 257.610†	370927.0	376968.5	499.85 µg/L	499.85 ppb	10:51:01
2	Mo 202.031†	15145.9	15438.7	505.36 µg/L	505.36 ppb	10:51:21
2	Ni 231.604†	39443.9	40201.8	502.98 µg/L	502.98 ppb	10:51:01
2	P 214.914†	10729.6	10935.4	2521.1 µg/L	2521.1 ppb	10:51:21
2	Pb 220.353†	8260.4	8295.6	512.08 µg/L	512.08 ppb	10:51:21
2	S 181.975 Axial†	1287.9	1220.6	1031.1 µg/L	1031.1 ppb	10:51:21
2	Sb 206.836†	3928.5	3904.8	504.71 µg/L	504.71 ppb	10:51:21
2	Se 196.026†	1280.0	1295.4	512 µg/L	512 ppb	10:51:21
2	SiO2†	50796.5	49910.0	5263.7 µg/L	5263.7 ppb	10:51:01
2	Si 251.611†	155366.4	157207.3	2468.9 µg/L	2468.9 ppb	10:51:01
2	Sn 189.927†	7141.4	7259.3	505.21 µg/L	505.21 ppb	10:51:21
2	Ti 334.940†	476326.0	483498.4	495.95 µg/L	495.95 ppb	10:51:01
2	Tl 190.801†	3543.4	3717.2	515.05 µg/L	515.05 ppb	10:51:21
2	U 409.014†	6925.4	7205.0	485.08 µg/L	485.08 ppb	10:51:01
2	V 292.402†	94927.6	96097.8	504.77 µg/L	504.77 ppb	10:51:01
2	Zn 213.857†	83208.3	84102.0	498.28 µg/L	498.28 ppb	10:51:01
3	Sc RADIAL	137926.0	137926.0	98.5 %		10:50:16
3	Al 396.153Radial†	23743.5	24195.1	5070.7 µg/L	5070.7 ppb	10:50:18
3	Ca 317.933Radial†	74096.5	74689.2	5087.0 µg/L	5087.0 ppb	10:50:18
3	Fe 238.204 Radial†	66279.1	67203.1	5018.7 µg/L	5018.7 ppb	10:50:18
3	K 766.490 Radial†	14171.0	12899.8	5107.4 µg/L	5107.4 ppb	10:50:18

3	Mg 279.077 IEC†	11189.8	11193.2	5176.3 µg/L	5176.3 ppb	10:50:18
3	Na 589.592 Radial†	64370.5	64429.3	9982.5 µg/L	9982.5 ppb	10:50:16
3	Sr 421.552†	208116.7	211590.8	498.99 µg/L	498.99 ppb	10:50:16
3	Sc 361.383	1790832.9	1790832.9	99.262 %		10:51:24
3	Y 371.029	1039510.2	1039510.2	98.318 %		10:51:24
3	Ag 328.068†	124982.2	121346.7	502.99 µg/L	502.99 ppb	10:51:24
3	As 188.979†	1432.6	1461.8	501.68 µg/L	501.68 ppb	10:51:44
3	B 249.677†	35516.0	31715.1	491.47 µg/L	491.47 ppb	10:51:24
3	Ba 233.527†	111713.2	112688.6	501.29 µg/L	501.29 ppb	10:51:24
3	Be 313.107†	1700513.3	1714253.1	496.72 µg/L	496.72 ppb	10:51:24
3	Cd 226.502†	73950.4	74603.7	503.92 µg/L	503.92 ppb	10:51:24
3	Co 228.616†	37761.3	38252.5	506.32 µg/L	506.32 ppb	10:51:24
3	Cr 267.716†	57636.2	57831.7	500.18 µg/L	500.18 ppb	10:51:24
3	Cu 324.752†	121402.4	119269.2	500.42 µg/L	500.42 ppb	10:51:24
3	Mn 257.610†	375337.1	377944.0	501.14 µg/L	501.14 ppb	10:51:24
3	Mo 202.031†	15165.8	15317.2	501.39 µg/L	501.39 ppb	10:51:44
3	Ni 231.604†	39837.7	40229.9	503.33 µg/L	503.33 ppb	10:51:24
3	P 214.914†	10769.4	10875.2	2507.2 µg/L	2507.2 ppb	10:51:44
3	Pb 220.353†	8292.5	8250.7	509.30 µg/L	509.30 ppb	10:51:44
3	S 181.975 Axial†	1280.9	1201.5	1015.0 µg/L	1015.0 ppb	10:51:44
3	Sb 206.836†	3936.5	3876.1	500.96 µg/L	500.96 ppb	10:51:44
3	Se 196.026†	1299.1	1302.6	515 µg/L	515 ppb	10:51:44
3	SiO2†	51317.0	49959.6	5269.1 µg/L	5269.1 ppb	10:51:24
3	Si 251.611†	156975.7	157376.2	2471.7 µg/L	2471.7 ppb	10:51:24
3	Sn 189.927†	7161.2	7212.6	501.97 µg/L	501.97 ppb	10:51:44
3	Ti 334.940†	481658.8	484418.3	496.89 µg/L	496.89 ppb	10:51:24
3	Tl 190.801†	3540.4	3681.0	510.11 µg/L	510.11 ppb	10:51:44
3	U 409.014†	7215.7	7432.8	499.47 µg/L	499.47 ppb	10:51:24
3	V 292.402†	95838.7	96128.3	504.89 µg/L	504.89 ppb	10:51:24
3	Zn 213.857†	84238.2	84361.7	499.82 µg/L	499.82 ppb	10:51:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786112.4	99.000	%	0.5673				0.57%
Sc RADIAL	139393.8	99.5	%	0.92				0.92%
Y 371.029	1036194.2	98.004	%	0.5668				0.58%
Ag 328.068†	121220.3	502.47	µg/L	0.538	502.47	ppb	0.538	0.11%
QC value within limits for Ag 328.068 Recovery = 100.49%								
Al 396.153Radial†	24201.9	5072.0	µg/L	50.69	5072.0	ppb	50.69	1.00%
QC value within limits for Al 396.153Radial Recovery = 101.44%								
As 188.979†	1453.0	498.73	µg/L	3.315	498.73	ppb	3.315	0.66%
QC value within limits for As 188.979 Recovery = 99.75%								
B 249.677†	31832.5	493.29	µg/L	1.771	493.29	ppb	1.771	0.36%
QC value within limits for B 249.677 Recovery = 98.66%								
Ba 233.527†	112597.1	500.89	µg/L	0.427	500.89	ppb	0.427	0.09%
QC value within limits for Ba 233.527 Recovery = 100.18%								
Be 313.107†	1714853.1	496.89	µg/L	0.834	496.89	ppb	0.834	0.17%
QC value within limits for Be 313.107 Recovery = 99.38%								
Ca 317.933Radial†	74705.6	5088.1	µg/L	63.80	5088.1	ppb	63.80	1.25%
QC value within limits for Ca 317.933Radial Recovery = 101.76%								
Cd 226.502†	74577.1	503.74	µg/L	0.565	503.74	ppb	0.565	0.11%
QC value within limits for Cd 226.502 Recovery = 100.75%								
Co 228.616†	38226.9	505.98	µg/L	0.521	505.98	ppb	0.521	0.10%
QC value within limits for Co 228.616 Recovery = 101.20%								
Cr 267.716†	57855.2	500.38	µg/L	0.179	500.38	ppb	0.179	0.04%
QC value within limits for Cr 267.716 Recovery = 100.08%								
Cu 324.752†	119246.7	500.32	µg/L	0.605	500.32	ppb	0.605	0.12%
QC value within limits for Cu 324.752 Recovery = 100.06%								
Fe 238.204 Radial†	67279.6	5024.4	µg/L	55.74	5024.4	ppb	55.74	1.11%
QC value within limits for Fe 238.204 Radial Recovery = 100.49%								
K 766.490 Radial†	12877.8	5098.6	µg/L	67.14	5098.6	ppb	67.14	1.32%
QC value within limits for K 766.490 Radial Recovery = 101.97%								
Mg 279.077 IEC†	11194.5	5176.9	µg/L	35.31	5176.9	ppb	35.31	0.68%
QC value within limits for Mg 279.077 IEC Recovery = 103.54%								
Mn 257.610†	377715.3	500.84	µg/L	0.878	500.84	ppb	0.878	0.18%
QC value within limits for Mn 257.610 Recovery = 100.17%								
Mo 202.031†	15359.2	502.77	µg/L	2.250	502.77	ppb	2.250	0.45%
QC value within limits for Mo 202.031 Recovery = 100.55%								
Na 589.592 Radial†	64240.1	9953.2	µg/L	34.02	9953.2	ppb	34.02	0.34%

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   QC value within limits for Na 589.592 Radial  Recovery = 99.53%
Ni 231.604†            40223.5      503.25 µg/L        0.242      503.25 ppb          0.242   0.05%
   QC value within limits for Ni 231.604  Recovery = 100.65%
P 214.914†             10899.5      2512.8 µg/L         7.37      2512.8 ppb           7.37   0.29%
   QC value within limits for P 214.914  Recovery = 100.51%
Pb 220.353†             8252.2      509.40 µg/L        2.637      509.40 ppb          2.637   0.52%
   QC value within limits for Pb 220.353  Recovery = 101.88%
S 181.975 Axial†        1205.6      1018.5 µg/L        11.31      1018.5 ppb          11.31   1.11%
   QC value within limits for S 181.975 Axial  Recovery = 101.85%
Sb 206.836†             3890.2      502.79 µg/L        1.880      502.79 ppb          1.880   0.37%
   QC value within limits for Sb 206.836  Recovery = 100.56%
Se 196.026†             1292.7         511 µg/L          4.5         511 ppb            4.5   0.89%
   QC value within limits for Se 196.026  Recovery = 102.29%
SiO2†                  50005.5      5273.9 µg/L        13.29      5273.9 ppb          13.29   0.25%
   QC value within limits for SiO2  Recovery = 98.62%
Si 251.611†           157427.7      2472.4 µg/L         3.98      2472.4 ppb           3.98   0.16%
   QC value within limits for Si 251.611  Recovery = 98.90%
Sn 189.927†             7227.3      502.98 µg/L        1.927      502.98 ppb          1.927   0.38%
   QC value within limits for Sn 189.927  Recovery = 100.60%
Sr 421.552†           211087.1      497.80 µg/L        1.166      497.80 ppb          1.166   0.23%
   QC value within limits for Sr 421.552  Recovery = 99.56%
Ti 334.940†           484194.3      496.66 µg/L        0.627      496.66 ppb          0.627   0.13%
   QC value within limits for Ti 334.940  Recovery = 99.33%
Tl 190.801†             3692.2      511.63 µg/L        2.962      511.63 ppb          2.962   0.58%
   QC value within limits for Tl 190.801  Recovery = 102.33%
U 409.014†              7385.3      496.45 µg/L       10.200      496.45 ppb         10.200   2.05%
   QC value within limits for U 409.014  Recovery = 99.29%
V 292.402†             96072.2      504.61 µg/L        0.383      504.61 ppb          0.383   0.08%
   QC value within limits for V 292.402  Recovery = 100.92%
Zn 213.857†            84337.0      499.68 µg/L        1.328      499.68 ppb          1.328   0.27%
   QC value within limits for Zn 213.857  Recovery = 99.94%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 10:51:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141670.1	141670.1	101	%			10:52:20
1	Al 396.153Radial†	-83.7	-4.2	-0.9279	µg/L	-0.9279	ppb	10:52:40
1	Ca 317.933Radial†	599.3	21.2	1.4420	µg/L	1.4420	ppb	10:52:40
1	Fe 238.204 Radial†	137.4	18.5	1.3846	µg/L	1.3846	ppb	10:52:40
1	K 766.490 Radial†	1758.8	245.4	97.233	µg/L	97.233	ppb	10:52:20
1	Mg 279.077 IEC†	184.3	9.8	4.5283	µg/L	4.5283	ppb	10:52:40
1	Na 589.592 Radial†	1104.6	139.8	21.576	µg/L	21.576	ppb	10:52:20
1	Sr 421.552†	-36.3	168.6	0.3976	µg/L	0.3976	ppb	10:52:20
1	Sc 361.383	1813398.6	1813398.6	100.51	%			10:53:28
1	Y 371.029	1064259.3	1064259.3	100.66	%			10:53:28
1	Ag 328.068†	4348.3	-239.0	-1.0007	µg/L	-1.0007	ppb	10:53:30
1	As 188.979†	-15.0	3.6	1.2220	µg/L	1.2220	ppb	10:53:50
1	B 249.677†	4013.1	-72.5	-1.1296	µg/L	-1.1296	ppb	10:53:30
1	Ba 233.527†	-146.0	-0.7	-0.0036	µg/L	-0.0036	ppb	10:53:50
1	Be 313.107†	-909.5	186.9	0.0514	µg/L	0.0514	ppb	10:53:30
1	Cd 226.502†	-65.4	38.2	0.2586	µg/L	0.2586	ppb	10:53:50
1	Co 228.616†	-181.4	29.8	0.3948	µg/L	0.3948	ppb	10:53:50
1	Cr 267.716†	242.1	7.7	0.0733	µg/L	0.0733	ppb	10:53:50
1	Cu 324.752†	3041.7	-9.9	-0.0485	µg/L	-0.0485	ppb	10:53:30
1	Mn 257.610†	243.5	57.6	0.0762	µg/L	0.0762	ppb	10:53:50
1	Mo 202.031†	-14.2	24.4	0.7983	µg/L	0.7983	ppb	10:53:50
1	Ni 231.604†	-58.3	37.9	0.4745	µg/L	0.4745	ppb	10:53:50
1	P 214.914†	0.8	26.5	6.1321	µg/L	6.1321	ppb	10:53:50
1	Pb 220.353†	99.2	-4.8	-0.2869	µg/L	-0.2869	ppb	10:53:50
1	S 181.975 Axial†	102.5	13.1	10.998	µg/L	10.998	ppb	10:53:50
1	Sb 206.836†	75.3	-14.9	-1.9041	µg/L	-1.9041	ppb	10:53:50
1	Se 196.026†	27.7	21.5	8.44	µg/L	8.44	ppb	10:53:50
1	SiO2†	1765.5	17.4	1.8071	µg/L	1.8071	ppb	10:53:50
1	Si 251.611†	842.0	70.7	1.0963	µg/L	1.0963	ppb	10:53:30
1	Sn 189.927†	18.8	16.8	1.1641	µg/L	1.1641	ppb	10:53:50
1	Ti 334.940†	736.5	-90.2	-0.0892	µg/L	-0.0892	ppb	10:53:30
1	Tl 190.801†	-110.4	4.4	0.5942	µg/L	0.5942	ppb	10:53:50
1	U 409.014†	-310.6	-145.7	-9.2474	µg/L	-9.2474	ppb	10:53:30
1	V 292.402†	247.2	-177.3	-0.9167	µg/L	-0.9167	ppb	10:53:30
1	Zn 213.857†	582.2	76.3	0.4523	µg/L	0.4523	ppb	10:53:50
2	Sc RADIAL	141550.1	141550.1	101	%			10:52:42
2	Al 396.153Radial†	-103.9	-24.3	-5.1425	µg/L	-5.1425	ppb	10:53:02
2	Ca 317.933Radial†	612.8	35.0	2.3868	µg/L	2.3868	ppb	10:53:02
2	Fe 238.204 Radial†	136.7	17.9	1.3400	µg/L	1.3400	ppb	10:53:02
2	K 766.490 Radial†	1645.6	134.9	53.442	µg/L	53.442	ppb	10:52:42
2	Mg 279.077 IEC†	180.9	6.6	3.0454	µg/L	3.0454	ppb	10:53:02
2	Na 589.592 Radial†	1113.1	149.1	23.066	µg/L	23.066	ppb	10:52:42
2	Sr 421.552†	-129.3	76.5	0.1805	µg/L	0.1805	ppb	10:52:42
2	Sc 361.383	1826504.8	1826504.8	101.24	%			10:53:52
2	Y 371.029	1070413.5	1070413.5	101.24	%			10:53:52
2	Ag 328.068†	4552.2	-68.7	-0.3004	µg/L	-0.3004	ppb	10:53:54
2	As 188.979†	-7.7	11.0	3.7209	µg/L	3.7209	ppb	10:54:15
2	B 249.677†	4155.1	39.1	0.6079	µg/L	0.6079	ppb	10:53:54
2	Ba 233.527†	-156.7	-10.3	-0.0451	µg/L	-0.0451	ppb	10:54:15
2	Be 313.107†	-768.8	332.3	0.0902	µg/L	0.0902	ppb	10:53:54
2	Cd 226.502†	-86.9	17.5	0.1182	µg/L	0.1182	ppb	10:54:15
2	Co 228.616†	-197.2	15.5	0.2048	µg/L	0.2048	ppb	10:54:15
2	Cr 267.716†	231.2	-4.9	-0.0259	µg/L	-0.0259	ppb	10:54:15
2	Cu 324.752†	2973.2	-99.3	-0.4315	µg/L	-0.4315	ppb	10:53:54
2	Mn 257.610†	229.2	41.6	0.0551	µg/L	0.0551	ppb	10:54:15
2	Mo 202.031†	-14.9	23.8	0.7802	µg/L	0.7802	ppb	10:54:15
2	Ni 231.604†	-87.6	9.4	0.1172	µg/L	0.1172	ppb	10:54:15
2	P 214.914†	-16.9	9.0	2.0871	µg/L	2.0871	ppb	10:54:15
2	Pb 220.353†	114.8	9.9	0.6284	µg/L	0.6284	ppb	10:54:15

2	S 181.975 Axial†	96.9	6.8	5.6986 µg/L	5.6986 ppb	10:54:15
2	Sb 206.836†	77.0	-13.6	-1.7438 µg/L	-1.7438 ppb	10:54:15
2	Se 196.026†	13.2	6.9	2.71 µg/L	2.71 ppb	10:54:15
2	SiO2†	1765.2	4.6	0.4503 µg/L	0.4503 ppb	10:54:15
2	Si 251.611†	950.8	172.1	2.6998 µg/L	2.6998 ppb	10:53:54
2	Sn 189.927†	11.4	9.3	0.6478 µg/L	0.6478 ppb	10:54:15
2	Ti 334.940†	883.6	49.7	0.0592 µg/L	0.0592 ppb	10:53:54
2	Tl 190.801†	-117.7	-2.0	-0.2677 µg/L	-0.2677 ppb	10:54:15
2	U 409.014†	-489.5	-320.1	-20.174 µg/L	-20.174 ppb	10:53:54
2	V 292.402†	523.4	93.7	0.4799 µg/L	0.4799 ppb	10:53:54
2	Zn 213.857†	565.4	55.5	0.3309 µg/L	0.3309 ppb	10:54:15
3	Sc RADIAL	142279.1	142279.1	102 %		10:53:04
3	Al 396.153Radial†	-36.3	42.8	8.9841 µg/L	8.9841 ppb	10:53:24
3	Ca 317.933Radial†	638.4	57.1	3.8913 µg/L	3.8913 ppb	10:53:24
3	Fe 238.204 Radial†	130.1	10.8	0.8067 µg/L	0.8067 ppb	10:53:24
3	K 766.490 Radial†	1672.4	152.9	60.565 µg/L	60.565 ppb	10:53:04
3	Mg 279.077 IEC†	179.9	4.6	2.1596 µg/L	2.1596 ppb	10:53:24
3	Na 589.592 Radial†	1204.2	233.2	36.090 µg/L	36.090 ppb	10:53:04
3	Sr 421.552†	-216.4	-8.6	-0.0204 µg/L	-0.0204 ppb	10:53:04
3	Sc 361.383	1821134.7	1821134.7	100.94 %		10:54:17
3	Y 371.029	1067416.4	1067416.4	100.96 %		10:54:17
3	Ag 328.068†	4428.0	-178.4	-0.7477 µg/L	-0.7477 ppb	10:54:19
3	As 188.979†	-0.3	18.3	6.1862 µg/L	6.1862 ppb	10:54:39
3	B 249.677†	4120.7	17.2	0.2651 µg/L	0.2651 ppb	10:54:19
3	Ba 233.527†	-140.1	5.7	0.0253 µg/L	0.0253 ppb	10:54:39
3	Be 313.107†	-1101.7	0.3	-0.0027 µg/L	-0.0027 ppb	10:54:19
3	Cd 226.502†	-64.2	39.8	0.2688 µg/L	0.2688 ppb	10:54:39
3	Co 228.616†	-170.5	41.4	0.5478 µg/L	0.5478 ppb	10:54:39
3	Cr 267.716†	246.8	11.3	0.1049 µg/L	0.1049 ppb	10:54:39
3	Cu 324.752†	2931.1	-132.4	-0.5609 µg/L	-0.5609 ppb	10:54:19
3	Mn 257.610†	235.1	48.2	0.0638 µg/L	0.0638 ppb	10:54:39
3	Mo 202.031†	-18.0	20.8	0.6798 µg/L	0.6798 ppb	10:54:39
3	Ni 231.604†	-78.9	17.7	0.2221 µg/L	0.2221 ppb	10:54:39
3	P 214.914†	-27.0	-1.1	-0.2442 µg/L	-0.2442 ppb	10:54:39
3	Pb 220.353†	129.6	25.0	1.5464 µg/L	1.5464 ppb	10:54:39
3	S 181.975 Axial†	87.4	-2.3	-1.9536 µg/L	-1.9536 ppb	10:54:39
3	Sb 206.836†	68.5	-21.9	-2.8119 µg/L	-2.8119 ppb	10:54:39
3	Se 196.026†	13.2	6.9	2.72 µg/L	2.72 ppb	10:54:39
3	SiO2†	1743.9	-11.4	-1.2328 µg/L	-1.2328 ppb	10:54:39
3	Si 251.611†	890.2	114.8	1.8008 µg/L	1.8008 ppb	10:54:19
3	Sn 189.927†	4.0	2.0	0.1418 µg/L	0.1418 ppb	10:54:39
3	Ti 334.940†	863.5	32.4	0.0370 µg/L	0.0370 ppb	10:54:19
3	Tl 190.801†	-91.1	24.0	3.2706 µg/L	3.2706 ppb	10:54:39
3	U 409.014†	-314.6	-148.3	-9.3884 µg/L	-9.3884 ppb	10:54:19
3	V 292.402†	334.9	-91.5	-0.4730 µg/L	-0.4730 ppb	10:54:19
3	Zn 213.857†	586.6	78.2	0.4657 µg/L	0.4657 ppb	10:54:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1820346.0	100.90	%	0.365				0.36%
Sc RADIAL	141833.1	101	%	0.3				0.28%
Y 371.029	1067363.1	100.95	%	0.291				0.29%
Ag 328.068†	-162.1	-0.6829	µg/L	0.35465	-0.6829	ppb	0.35465	51.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.8	0.9712	µg/L	7.25229	0.9712	ppb	7.25229	746.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.0	3.7097	µg/L	2.48209	3.7097	ppb	2.48209	66.91%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-5.4	-0.0855	µg/L	0.92028	-0.0855	ppb	0.92028	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.8	-0.0078	µg/L	0.03539	-0.0078	ppb	0.03539	454.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	173.2	0.0463	µg/L	0.04666	0.0463	ppb	0.04666	100.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	37.8	2.5734	µg/L	1.23526	2.5734	ppb	1.23526	48.00%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	31.8	0.2152	µg/L	0.08414	0.2152	ppb	0.08414	39.10%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	28.9	0.3825	µg/L	0.17184	0.3825	ppb	0.17184	44.93%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.7      0.0508 µg/L       0.06822      0.0508 ppb        0.06822 134.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -80.5     -0.3470 µg/L       0.26645     -0.3470 ppb        0.26645  76.80%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         15.8      1.1771 µg/L       0.32152      1.1771 ppb        0.32152  27.31%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         177.7      70.413 µg/L       23.4978      70.413 ppb        23.4978  33.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             7.0      3.2444 µg/L       1.19683      3.2444 ppb        1.19683  36.89%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                49.1      0.0650 µg/L       0.01060      0.0650 ppb        0.01060  16.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                23.0      0.7528 µg/L       0.06383      0.7528 ppb        0.06383   8.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        174.0      26.911 µg/L        7.9840      26.911 ppb         7.9840  29.67%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                21.7      0.2713 µg/L       0.18366      0.2713 ppb        0.18366  67.70%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 11.5      2.6583 µg/L       3.22633      2.6583 ppb        3.22633 121.37%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                10.0      0.6293 µg/L       0.91663      0.6293 ppb        0.91663 145.66%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.8      4.9143 µg/L       6.51134      4.9143 ppb        6.51134 132.50%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -16.8     -2.1533 µg/L       0.57596     -2.1533 ppb        0.57596  26.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                11.8        4.62 µg/L         3.307        4.62 ppb          3.307  71.52%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       3.5      0.3415 µg/L       1.52287      0.3415 ppb        1.52287 445.90%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               119.2      1.8656 µg/L       0.80375      1.8656 ppb        0.80375  43.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 9.4      0.6512 µg/L       0.51119      0.6512 ppb        0.51119  78.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                78.8      0.1859 µg/L       0.20905      0.1859 ppb        0.20905 112.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -2.7      0.0023 µg/L       0.08007      0.0023 ppb        0.08007 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 8.8      1.1990 µg/L       1.84510      1.1990 ppb        1.84510 153.88%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -204.7     -12.937 µg/L        6.2683     -12.937 ppb         6.2683  48.45%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -58.3     -0.3033 µg/L       0.71357     -0.3033 ppb        0.71357 235.30%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                70.0      0.4163 µg/L       0.07427      0.4163 ppb        0.07427  17.84%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/5/2010 11:21:36**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141040.3	141040.3	101	%			11:22:09
1	Al 396.153Radial†	24409.0	24323.6	5097.8	µg/L	5097.8	ppb	11:22:09
1	Ca 317.933Radial†	76494.1	75408.8	5136.0	µg/L	5136.0	ppb	11:22:09
1	Fe 238.204 Radial†	68480.3	67903.0	5070.9	µg/L	5070.9	ppb	11:22:09
1	K 766.490 Radial†	14280.8	12691.1	5024.6	µg/L	5024.6	ppb	11:22:09
1	Mg 279.077 IEC†	11579.1	11328.8	5238.8	µg/L	5238.8	ppb	11:22:09
1	Na 589.592 Radial†	66009.6	64613.7	10011	µg/L	10011	ppb	11:22:09
1	Sr 421.552†	210495.4	209286.0	493.55	µg/L	493.55	ppb	11:22:07
1	Sc 361.383	1816427.9	1816427.9	100.68	%			11:22:22
1	Y 371.029	1053499.6	1053499.6	99.641	%			11:22:22
1	Ag 328.068†	126787.2	121365.2	503.06	µg/L	503.06	ppb	11:22:22
1	As 188.979†	1432.3	1441.2	494.75	µg/L	494.75	ppb	11:22:42
1	B 249.677†	36301.8	31991.4	495.75	µg/L	495.75	ppb	11:22:22
1	Ba 233.527†	113688.4	113064.7	502.97	µg/L	502.97	ppb	11:22:22
1	Be 313.107†	1728485.7	1717896.6	497.77	µg/L	497.77	ppb	11:22:22
1	Cd 226.502†	75741.0	75332.5	508.84	µg/L	508.84	ppb	11:22:22
1	Co 228.616†	38593.7	38543.2	510.16	µg/L	510.16	ppb	11:22:22
1	Cr 267.716†	58850.7	58219.8	503.55	µg/L	503.55	ppb	11:22:22
1	Cu 324.752†	123618.1	119746.6	502.41	µg/L	502.41	ppb	11:22:22
1	Mn 257.610†	382701.1	379930.1	503.77	µg/L	503.77	ppb	11:22:22
1	Mo 202.031†	15349.1	15283.9	500.31	µg/L	500.31	ppb	11:22:42
1	Ni 231.604†	40779.7	40600.1	507.96	µg/L	507.96	ppb	11:22:22
1	P 214.914†	10933.3	10885.1	2509.4	µg/L	2509.4	ppb	11:22:42
1	Pb 220.353†	8382.2	8222.1	507.55	µg/L	507.55	ppb	11:22:42
1	S 181.975 Axial†	1340.9	1242.9	1049.8	µg/L	1049.8	ppb	11:22:42
1	Sb 206.836†	3988.1	3871.5	500.30	µg/L	500.30	ppb	11:22:42
1	Se 196.026†	1298.4	1283.4	508	µg/L	508	ppb	11:22:42
1	SiO2†	52507.6	50413.7	5317.2	µg/L	5317.2	ppb	11:22:22
1	Si 251.611†	160362.8	158512.0	2489.6	µg/L	2489.6	ppb	11:22:22
1	Sn 189.927†	7264.7	7213.7	502.05	µg/L	502.05	ppb	11:22:42
1	Ti 334.940†	489360.0	485230.0	497.72	µg/L	497.72	ppb	11:22:22
1	Tl 190.801†	3577.9	3668.0	508.34	µg/L	508.34	ppb	11:22:42
1	U 409.014†	7028.1	7144.0	481.34	µg/L	481.34	ppb	11:22:22
1	V 292.402†	97527.7	96445.4	506.51	µg/L	506.51	ppb	11:22:22
1	Zn 213.857†	86086.0	85001.3	503.61	µg/L	503.61	ppb	11:22:22
2	Sc RADIAL	140362.8	140362.8	100	%			11:22:13
2	Al 396.153Radial†	23994.0	24026.5	5035.4	µg/L	5035.4	ppb	11:22:13
2	Ca 317.933Radial†	75703.7	74986.7	5107.3	µg/L	5107.3	ppb	11:22:13
2	Fe 238.204 Radial†	67887.7	67639.9	5051.3	µg/L	5051.3	ppb	11:22:13
2	K 766.490 Radial†	14188.6	12667.6	5015.4	µg/L	5015.4	ppb	11:22:13
2	Mg 279.077 IEC†	11412.1	11217.7	5187.4	µg/L	5187.4	ppb	11:22:13
2	Na 589.592 Radial†	65526.4	64447.9	9985.5	µg/L	9985.5	ppb	11:22:13
2	Sr 421.552†	212221.3	212017.8	500.00	µg/L	500.00	ppb	11:22:11
2	Sc 361.383	1822952.6	1822952.6	101.04	%			11:22:45
2	Y 371.029	1056667.8	1056667.8	99.940	%			11:22:45
2	Ag 328.068†	127363.5	121484.9	503.55	µg/L	503.55	ppb	11:22:45
2	As 188.979†	1413.7	1417.7	486.78	µg/L	486.78	ppb	11:23:05
2	B 249.677†	36625.3	32182.4	498.72	µg/L	498.72	ppb	11:22:45
2	Ba 233.527†	113738.1	112709.7	501.39	µg/L	501.39	ppb	11:22:45
2	Be 313.107†	1736282.8	1719468.5	498.22	µg/L	498.22	ppb	11:22:45
2	Cd 226.502†	75997.8	75317.4	508.74	µg/L	508.74	ppb	11:22:45
2	Co 228.616†	38755.6	38566.2	510.47	µg/L	510.47	ppb	11:22:45
2	Cr 267.716†	58889.6	58049.1	502.07	µg/L	502.07	ppb	11:22:45
2	Cu 324.752†	124191.5	119874.7	502.95	µg/L	502.95	ppb	11:22:45
2	Mn 257.610†	383492.8	379353.2	503.01	µg/L	503.01	ppb	11:22:45
2	Mo 202.031†	15289.1	15170.0	496.58	µg/L	496.58	ppb	11:23:05
2	Ni 231.604†	40792.4	40467.6	506.30	µg/L	506.30	ppb	11:22:45
2	P 214.914†	10865.3	10778.9	2484.8	µg/L	2484.8	ppb	11:23:05
2	Pb 220.353†	8356.5	8166.8	504.14	µg/L	504.14	ppb	11:23:05

2	S 181.975 Axial†	1317.5	1215.0	1026.3 µg/L	1026.3 ppb	11:23:05
2	Sb 206.836†	3989.8	3858.9	498.64 µg/L	498.64 ppb	11:23:05
2	Se 196.026†	1292.5	1273.0	504 µg/L	504 ppb	11:23:05
2	SiO2†	52617.3	50335.6	5309.1 µg/L	5309.1 ppb	11:22:45
2	Si 251.611†	161042.3	158614.5	2491.3 µg/L	2491.3 ppb	11:22:45
2	Sn 189.927†	7218.4	7142.0	497.08 µg/L	497.08 ppb	11:23:05
2	Ti 334.940†	491016.9	485130.1	497.62 µg/L	497.62 ppb	11:22:45
2	Tl 190.801†	3563.0	3640.5	504.59 µg/L	504.59 ppb	11:23:05
2	U 409.014†	7078.9	7169.2	482.92 µg/L	482.92 ppb	11:22:45
2	V 292.402†	97821.4	96389.4	506.18 µg/L	506.18 ppb	11:22:45
2	Zn 213.857†	86262.7	84870.1	502.83 µg/L	502.83 ppb	11:22:45
3	Sc RADIAL	143001.6	143001.6	102 %		11:22:17
3	Al 396.153Radial†	24644.0	24221.3	5076.1 µg/L	5076.1 ppb	11:22:17
3	Ca 317.933Radial†	78183.6	76021.9	5177.8 µg/L	5177.8 ppb	11:22:17
3	Fe 238.204 Radial†	69547.5	68015.6	5079.4 µg/L	5079.4 ppb	11:22:17
3	K 766.490 Radial†	14471.6	12683.5	5021.6 µg/L	5021.6 ppb	11:22:17
3	Mg 279.077 IEC†	11800.4	11388.0	5266.2 µg/L	5266.2 ppb	11:22:17
3	Na 589.592 Radial†	66551.9	64245.7	9954.1 µg/L	9954.1 ppb	11:22:17
3	Sr 421.552†	214170.2	210018.5	495.28 µg/L	495.28 ppb	11:22:15
3	Sc 361.383	1819175.6	1819175.6	100.83 %		11:23:08
3	Y 371.029	1054990.0	1054990.0	99.782 %		11:23:08
3	Ag 328.068†	126763.1	121151.2	502.18 µg/L	502.18 ppb	11:23:08
3	As 188.979†	1453.0	1459.5	500.95 µg/L	500.95 ppb	11:23:28
3	B 249.677†	36308.1	31943.1	495.01 µg/L	495.01 ppb	11:23:08
3	Ba 233.527†	113415.6	112623.6	501.00 µg/L	501.00 ppb	11:23:08
3	Be 313.107†	1728129.7	1714950.5	496.92 µg/L	496.92 ppb	11:23:08
3	Cd 226.502†	75536.4	75016.0	506.70 µg/L	506.70 ppb	11:23:08
3	Co 228.616†	38368.3	38261.8	506.44 µg/L	506.44 ppb	11:23:08
3	Cr 267.716†	58689.9	57972.0	501.40 µg/L	501.40 ppb	11:23:08
3	Cu 324.752†	123527.9	119471.7	501.27 µg/L	501.27 ppb	11:23:08
3	Mn 257.610†	381380.1	378046.0	501.27 µg/L	501.27 ppb	11:23:08
3	Mo 202.031†	15453.7	15364.7	502.95 µg/L	502.95 ppb	11:23:28
3	Ni 231.604†	40568.0	40328.9	504.56 µg/L	504.56 ppb	11:23:08
3	P 214.914†	10991.1	10926.0	2518.9 µg/L	2518.9 ppb	11:23:28
3	Pb 220.353†	8421.5	8248.5	509.18 µg/L	509.18 ppb	11:23:28
3	S 181.975 Axial†	1335.2	1235.2	1043.4 µg/L	1043.4 ppb	11:23:28
3	Sb 206.836†	3992.9	3870.3	500.21 µg/L	500.21 ppb	11:23:28
3	Se 196.026†	1303.1	1286.2	509 µg/L	509 ppb	11:23:28
3	SiO2†	52338.0	50166.7	5291.0 µg/L	5291.0 ppb	11:23:08
3	Si 251.611†	160206.1	158116.1	2483.3 µg/L	2483.3 ppb	11:23:08
3	Sn 189.927†	7300.5	7238.3	503.75 µg/L	503.75 ppb	11:23:28
3	Ti 334.940†	489632.7	484766.3	497.24 µg/L	497.24 ppb	11:23:08
3	Tl 190.801†	3611.4	3695.8	512.14 µg/L	512.14 ppb	11:23:28
3	U 409.014†	7124.9	7229.4	486.64 µg/L	486.64 ppb	11:23:08
3	V 292.402†	97408.0	96180.4	505.16 µg/L	505.16 ppb	11:23:08
3	Zn 213.857†	85808.4	84596.9	501.21 µg/L	501.21 ppb	11:23:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1819518.7	100.85	%	0.182				0.18%
Sc RADIAL	141468.2	101	%	1.0				0.97%
Y 371.029	1055052.4	99.788	%	0.1499				0.15%
Ag 328.068†	121333.8	502.93	µg/L	0.697	502.93	ppb	0.697	0.14%
QC value within limits for Ag 328.068 Recovery = 100.59%								
Al 396.153Radial†	24190.4	5069.8	µg/L	31.67	5069.8	ppb	31.67	0.62%
QC value within limits for Al 396.153Radial Recovery = 101.40%								
As 188.979†	1439.4	494.16	µg/L	7.101	494.16	ppb	7.101	1.44%
QC value within limits for As 188.979 Recovery = 98.83%								
B 249.677†	32039.0	496.50	µg/L	1.963	496.50	ppb	1.963	0.40%
QC value within limits for B 249.677 Recovery = 99.30%								
Ba 233.527†	112799.3	501.79	µg/L	1.040	501.79	ppb	1.040	0.21%
QC value within limits for Ba 233.527 Recovery = 100.36%								
Be 313.107†	1717438.5	497.64	µg/L	0.664	497.64	ppb	0.664	0.13%
QC value within limits for Be 313.107 Recovery = 99.53%								
Ca 317.933Radial†	75472.5	5140.4	µg/L	35.45	5140.4	ppb	35.45	0.69%
QC value within limits for Ca 317.933Radial Recovery = 102.81%								
Cd 226.502†	75222.0	508.09	µg/L	1.209	508.09	ppb	1.209	0.24%
QC value within limits for Cd 226.502 Recovery = 101.62%								
Co 228.616†	38457.0	509.02	µg/L	2.244	509.02	ppb	2.244	0.44%

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   QC value within limits for Co 228.616  Recovery = 101.80%
Cr 267.716†            58080.3      502.34 µg/L         1.099      502.34 ppb          1.099   0.22%
   QC value within limits for Cr 267.716  Recovery = 100.47%
Cu 324.752†           119697.7      502.21 µg/L         0.858      502.21 ppb          0.858   0.17%
   QC value within limits for Cu 324.752  Recovery = 100.44%
Fe 238.204 Radial†     67852.9      5067.2 µg/L         14.40      5067.2 ppb          14.40   0.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.34%
K 766.490 Radial†      12680.7      5020.5 µg/L          4.74      5020.5 ppb           4.74   0.09%
   QC value within limits for K 766.490 Radial  Recovery = 100.41%
Mg 279.077 IEC†        11311.5      5230.8 µg/L         39.99      5230.8 ppb          39.99   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.62%
Mn 257.610†           379109.8      502.69 µg/L         1.281      502.69 ppb          1.281   0.25%
   QC value within limits for Mn 257.610  Recovery = 100.54%
Mo 202.031†            15272.9      499.95 µg/L         3.200      499.95 ppb          3.200   0.64%
   QC value within limits for Mo 202.031  Recovery = 99.99%
Na 589.592 Radial†     64435.8      9983.6 µg/L         28.56      9983.6 ppb          28.56   0.29%
   QC value within limits for Na 589.592 Radial  Recovery = 99.84%
Ni 231.604†            40465.5      506.27 µg/L         1.697      506.27 ppb          1.697   0.34%
   QC value within limits for Ni 231.604  Recovery = 101.25%
P 214.914†             10863.3      2504.4 µg/L         17.56      2504.4 ppb          17.56   0.70%
   QC value within limits for P 214.914  Recovery = 100.17%
Pb 220.353†             8212.5      506.96 µg/L         2.574      506.96 ppb          2.574   0.51%
   QC value within limits for Pb 220.353  Recovery = 101.39%
S 181.975 Axial†        1231.0      1039.8 µg/L         12.13      1039.8 ppb          12.13   1.17%
   QC value within limits for S 181.975 Axial  Recovery = 103.98%
Sb 206.836†             3866.9      499.72 µg/L         0.933      499.72 ppb          0.933   0.19%
   QC value within limits for Sb 206.836  Recovery = 99.94%
Se 196.026†             1280.9         507 µg/L           2.7         507 ppb            2.7   0.54%
   QC value within limits for Se 196.026  Recovery = 101.36%
SiO2†                  50305.3      5305.8 µg/L         13.45      5305.8 ppb          13.45   0.25%
   QC value within limits for SiO2  Recovery = 99.22%
Si 251.611†           158414.2      2488.1 µg/L          4.21      2488.1 ppb           4.21   0.17%
   QC value within limits for Si 251.611  Recovery = 99.52%
Sn 189.927†             7198.0      500.96 µg/L         3.467      500.96 ppb          3.467   0.69%
   QC value within limits for Sn 189.927  Recovery = 100.19%
Sr 421.552†           210440.8      496.28 µg/L         3.335      496.28 ppb          3.335   0.67%
   QC value within limits for Sr 421.552  Recovery = 99.26%
Ti 334.940†           485042.1      497.53 µg/L         0.253      497.53 ppb          0.253   0.05%
   QC value within limits for Ti 334.940  Recovery = 99.51%
Tl 190.801†             3668.1      508.36 µg/L         3.777      508.36 ppb          3.777   0.74%
   QC value within limits for Tl 190.801  Recovery = 101.67%
U 409.014†              7180.9      483.63 µg/L         2.721      483.63 ppb          2.721   0.56%
   QC value within limits for U 409.014  Recovery = 96.73%
V 292.402†             96338.4      505.95 µg/L         0.705      505.95 ppb          0.705   0.14%
   QC value within limits for V 292.402  Recovery = 101.19%
Zn 213.857†            84822.7      502.55 µg/L         1.222      502.55 ppb          1.222   0.24%
   QC value within limits for Zn 213.857  Recovery = 100.51%
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 11:23:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141293.1	141293.1	101	%			11:24:06
1	Al 396.153Radial†	-45.2	33.8	7.0875	µg/L	7.0875	ppb	11:24:26
1	Ca 317.933Radial†	756.0	178.1	12.133	µg/L	12.133	ppb	11:24:26
1	Fe 238.204 Radial†	183.7	64.9	4.8434	µg/L	4.8434	ppb	11:24:26
1	K 766.490 Radial†	1708.7	200.4	79.382	µg/L	79.382	ppb	11:24:06
1	Mg 279.077 IEC†	206.5	32.3	14.933	µg/L	14.933	ppb	11:24:26
1	Na 589.592 Radial†	1047.2	85.8	13.224	µg/L	13.224	ppb	11:24:06
1	Sr 421.552†	-265.7	-59.0	-0.1392	µg/L	-0.1392	ppb	11:24:06
1	Sc 361.383	1793973.7	1793973.7	99.436	%			11:25:14
1	Y 371.029	1053310.8	1053310.8	99.623	%			11:25:14
1	Ag 328.068†	4289.1	-251.7	-1.0408	µg/L	-1.0408	ppb	11:25:16
1	As 188.979†	-4.9	13.7	4.6199	µg/L	4.6199	ppb	11:25:36
1	B 249.677†	4002.5	-40.0	-0.6228	µg/L	-0.6228	ppb	11:25:16
1	Ba 233.527†	-152.4	-8.7	-0.0386	µg/L	-0.0386	ppb	11:25:36
1	Be 313.107†	-860.3	226.6	0.0631	µg/L	0.0631	ppb	11:25:16
1	Cd 226.502†	-76.4	26.5	0.1788	µg/L	0.1788	ppb	11:25:36
1	Co 228.616†	-185.8	23.4	0.3095	µg/L	0.3095	ppb	11:25:36
1	Cr 267.716†	224.4	-7.5	-0.0584	µg/L	-0.0584	ppb	11:25:36
1	Cu 324.752†	3049.8	31.0	0.1242	µg/L	0.1242	ppb	11:25:16
1	Mn 257.610†	236.1	52.7	0.0693	µg/L	0.0693	ppb	11:25:36
1	Mo 202.031†	-24.7	13.8	0.4505	µg/L	0.4505	ppb	11:25:36
1	Ni 231.604†	-63.4	32.1	0.4021	µg/L	0.4021	ppb	11:25:36
1	P 214.914†	-13.8	11.8	2.7270	µg/L	2.7270	ppb	11:25:36
1	Pb 220.353†	76.5	-26.5	-1.6236	µg/L	-1.6236	ppb	11:25:36
1	S 181.975 Axial†	113.1	24.8	20.861	µg/L	20.861	ppb	11:25:36
1	Sb 206.836†	73.4	-15.9	-2.0389	µg/L	-2.0389	ppb	11:25:36
1	Se 196.026†	15.5	9.5	3.72	µg/L	3.72	ppb	11:25:36
1	SiO2†	1701.2	-28.2	-3.0134	µg/L	-3.0134	ppb	11:25:36
1	Si 251.611†	724.3	-38.6	-0.6193	µg/L	-0.6193	ppb	11:25:16
1	Sn 189.927†	12.5	10.7	0.7388	µg/L	0.7388	ppb	11:25:36
1	Ti 334.940†	700.7	-118.4	-0.1190	µg/L	-0.1190	ppb	11:25:16
1	Tl 190.801†	-117.6	-4.0	-0.5510	µg/L	-0.5510	ppb	11:25:36
1	U 409.014†	-293.2	-131.5	-8.2980	µg/L	-8.2980	ppb	11:25:16
1	V 292.402†	423.5	2.7	0.0124	µg/L	0.0124	ppb	11:25:16
1	Zn 213.857†	555.4	55.5	0.3283	µg/L	0.3283	ppb	11:25:36
2	Sc RADIAL	141208.0	141208.0	101	%			11:24:28
2	Al 396.153Radial†	-80.1	-1.0	-0.2395	µg/L	-0.2395	ppb	11:24:48
2	Ca 317.933Radial†	668.6	91.8	6.2554	µg/L	6.2554	ppb	11:24:48
2	Fe 238.204 Radial†	151.6	33.1	2.4698	µg/L	2.4698	ppb	11:24:48
2	K 766.490 Radial†	1653.5	146.6	58.099	µg/L	58.099	ppb	11:24:28
2	Mg 279.077 IEC†	171.1	-2.7	-1.2452	µg/L	-1.2452	ppb	11:24:48
2	Na 589.592 Radial†	1120.3	158.9	24.585	µg/L	24.585	ppb	11:24:28
2	Sr 421.552†	-172.5	33.3	0.0785	µg/L	0.0785	ppb	11:24:28
2	Sc 361.383	1798032.0	1798032.0	99.661	%			11:25:38
2	Y 371.029	1055630.4	1055630.4	99.842	%			11:25:38
2	Ag 328.068†	4410.8	-139.4	-0.5643	µg/L	-0.5643	ppb	11:25:40
2	As 188.979†	-0.7	17.8	6.0338	µg/L	6.0338	ppb	11:26:01
2	B 249.677†	4005.6	-45.9	-0.7141	µg/L	-0.7141	ppb	11:25:40
2	Ba 233.527†	-173.9	-30.0	-0.1330	µg/L	-0.1330	ppb	11:26:01
2	Be 313.107†	-589.5	500.2	0.1463	µg/L	0.1463	ppb	11:25:40
2	Cd 226.502†	-58.3	44.8	0.3028	µg/L	0.3028	ppb	11:26:01
2	Co 228.616†	-197.0	12.7	0.1672	µg/L	0.1672	ppb	11:26:01
2	Cr 267.716†	239.6	7.2	0.0584	µg/L	0.0584	ppb	11:26:01
2	Cu 324.752†	2931.5	-94.6	-0.3915	µg/L	-0.3915	ppb	11:25:40
2	Mn 257.610†	251.7	67.8	0.0900	µg/L	0.0900	ppb	11:26:01
2	Mo 202.031†	-15.2	23.3	0.7623	µg/L	0.7623	ppb	11:26:01
2	Ni 231.604†	-59.7	36.0	0.4499	µg/L	0.4499	ppb	11:26:01
2	P 214.914†	-4.0	21.7	5.0142	µg/L	5.0142	ppb	11:26:01
2	Pb 220.353†	87.7	-15.5	-0.9533	µg/L	-0.9533	ppb	11:26:01

2	S 181.975 Axial†	118.5	30.0	25.213 µg/L	25.213 ppb	11:26:01
2	Sb 206.836†	86.0	-3.4	-0.4255 µg/L	-0.4255 ppb	11:26:01
2	Se 196.026†	15.3	9.2	3.64 µg/L	3.64 ppb	11:26:01
2	SiO2†	1751.4	18.3	1.9044 µg/L	1.9044 ppb	11:26:01
2	Si 251.611†	779.4	15.0	0.2236 µg/L	0.2236 ppb	11:25:40
2	Sn 189.927†	9.4	7.6	0.5263 µg/L	0.5263 ppb	11:26:01
2	Ti 334.940†	648.1	-172.7	-0.1791 µg/L	-0.1791 ppb	11:25:40
2	Tl 190.801†	-110.6	3.3	0.4500 µg/L	0.4500 ppb	11:26:01
2	U 409.014†	-87.6	75.5	4.7647 µg/L	4.7647 ppb	11:25:40
2	V 292.402†	430.7	8.9	0.0575 µg/L	0.0575 ppb	11:25:40
2	Zn 213.857†	536.3	35.1	0.2068 µg/L	0.2068 ppb	11:26:01
3	Sc RADIAL	140558.5	140558.5	100 %		11:24:50
3	Al 396.153Radial†	-104.7	-25.8	-5.4846 µg/L	-5.4846 ppb	11:25:10
3	Ca 317.933Radial†	659.5	85.9	5.8477 µg/L	5.8477 ppb	11:25:10
3	Fe 238.204 Radial†	147.7	29.9	2.2317 µg/L	2.2317 ppb	11:25:10
3	K 766.490 Radial†	1800.1	300.4	119.02 µg/L	119.02 ppb	11:24:50
3	Mg 279.077 IEC†	183.8	10.7	4.9742 µg/L	4.9742 ppb	11:25:10
3	Na 589.592 Radial†	1201.3	244.8	37.847 µg/L	37.847 ppb	11:24:50
3	Sr 421.552†	-157.1	47.9	0.1129 µg/L	0.1129 ppb	11:24:50
3	Sc 361.383	1800005.3	1800005.3	99.770 %		11:26:03
3	Y 371.029	1056603.6	1056603.6	99.934 %		11:26:03
3	Ag 328.068†	4398.7	-156.4	-0.6614 µg/L	-0.6614 ppb	11:26:05
3	As 188.979†	-12.9	5.6	1.9114 µg/L	1.9114 ppb	11:26:25
3	B 249.677†	3886.0	-170.2	-2.6470 µg/L	-2.6470 ppb	11:26:05
3	Ba 233.527†	-172.1	-27.9	-0.1240 µg/L	-0.1240 ppb	11:26:25
3	Be 313.107†	-830.7	259.1	0.0711 µg/L	0.0711 ppb	11:26:05
3	Cd 226.502†	-92.8	10.4	0.0702 µg/L	0.0702 ppb	11:26:25
3	Co 228.616†	-192.2	17.7	0.2332 µg/L	0.2332 ppb	11:26:25
3	Cr 267.716†	225.4	-7.3	-0.0532 µg/L	-0.0532 ppb	11:26:25
3	Cu 324.752†	3072.5	43.5	0.1716 µg/L	0.1716 ppb	11:26:05
3	Mn 257.610†	219.6	35.4	0.0468 µg/L	0.0468 ppb	11:26:25
3	Mo 202.031†	-5.8	32.7	1.0701 µg/L	1.0701 ppb	11:26:25
3	Ni 231.604†	-59.0	36.7	0.4594 µg/L	0.4594 ppb	11:26:25
3	P 214.914†	-1.6	24.0	5.5473 µg/L	5.5473 ppb	11:26:25
3	Pb 220.353†	107.7	4.5	0.2875 µg/L	0.2875 ppb	11:26:25
3	S 181.975 Axial†	116.0	27.3	22.974 µg/L	22.974 ppb	11:26:25
3	Sb 206.836†	88.3	-1.2	-0.1451 µg/L	-0.1451 ppb	11:26:25
3	Se 196.026†	28.6	22.5	8.86 µg/L	8.86 ppb	11:26:25
3	SiO2†	1757.4	22.4	2.3373 µg/L	2.3373 ppb	11:26:25
3	Si 251.611†	758.0	-7.3	-0.1291 µg/L	-0.1291 ppb	11:26:05
3	Sn 189.927†	1.3	-0.6	-0.0409 µg/L	-0.0409 ppb	11:26:25
3	Ti 334.940†	605.0	-216.6	-0.2174 µg/L	-0.2174 ppb	11:26:05
3	Tl 190.801†	-112.0	2.0	0.2678 µg/L	0.2678 ppb	11:26:25
3	U 409.014†	-368.7	-206.1	-13.034 µg/L	-13.034 ppb	11:26:05
3	V 292.402†	338.2	-84.2	-0.4346 µg/L	-0.4346 ppb	11:26:05
3	Zn 213.857†	556.0	54.3	0.3205 µg/L	0.3205 ppb	11:26:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1797337.0	99.622	%	0.1705				0.17%
Sc RADIAL	141019.9	101	%	0.3				0.28%
Y 371.029	1055181.6	99.800	%	0.1600				0.16%
Ag 328.068†	-182.5	-0.7555	µg/L	0.25179	-0.7555	ppb	0.25179	33.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.3	0.4545	µg/L	6.31472	0.4545	ppb	6.31472	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	12.4	4.1884	µg/L	2.09482	4.1884	ppb	2.09482	50.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-85.3	-1.3280	µg/L	1.14326	-1.3280	ppb	1.14326	86.09%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-22.2	-0.0985	µg/L	0.05209	-0.0985	ppb	0.05209	52.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	328.6	0.0935	µg/L	0.04591	0.0935	ppb	0.04591	49.09%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	118.6	8.0786	µg/L	3.51690	8.0786	ppb	3.51690	43.53%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.2	0.1839	µg/L	0.11642	0.1839	ppb	0.11642	63.29%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.9	0.2366	µg/L	0.07122	0.2366	ppb	0.07122	30.10%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.5     -0.0177 µg/L      0.06601     -0.0177 ppb       0.06601 372.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -6.7     -0.0319 µg/L      0.31231     -0.0319 ppb       0.31231 979.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       42.6      3.1816 µg/L      1.44406      3.1816 ppb       1.44406  45.39%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       215.8      85.499 µg/L      30.9164      85.499 ppb       30.9164  36.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          13.4      6.2207 µg/L      8.16082      6.2207 ppb       8.16082 131.19%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              52.0      0.0687 µg/L      0.02163      0.0687 ppb       0.02163  31.49%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              23.3      0.7610 µg/L      0.30978      0.7610 ppb       0.30978  40.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      163.2      25.219 µg/L      12.3238      25.219 ppb       12.3238  48.87%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              34.9      0.4371 µg/L      0.03068      0.4371 ppb       0.03068   7.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               19.2      4.4295 µg/L      1.49832      4.4295 ppb       1.49832  33.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -12.5     -0.7631 µg/L      0.96966     -0.7631 ppb       0.96966 127.06%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         27.4      23.016 µg/L       2.1761      23.016 ppb        2.1761   9.45%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -6.8     -0.8698 µg/L      1.02211     -0.8698 ppb       1.02211 117.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              13.7       5.41 µg/L        2.992        5.41 ppb         2.992  55.36%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     4.1      0.4094 µg/L      2.97212      0.4094 ppb       2.97212 725.93%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -10.3     -0.1749 µg/L      0.42334     -0.1749 ppb       0.42334 242.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               5.9      0.4081 µg/L      0.40308      0.4081 ppb       0.40308  98.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               7.4      0.0174 µg/L      0.13673      0.0174 ppb       0.13673 785.52%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -169.2     -0.1718 µg/L      0.04956     -0.1718 ppb       0.04956  28.85%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.4      0.0556 µg/L      0.53317      0.0556 ppb       0.53317 959.22%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -87.4     -5.5223 µg/L      9.21810     -5.5223 ppb       9.21810 166.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -24.2     -0.1216 µg/L      0.27200     -0.1216 ppb       0.27200 223.77%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              48.3      0.2852 µg/L      0.06801      0.2852 ppb       0.06801  23.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 11:29:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136820.5	136820.5	97.7	%			11:30:02
1	Al 396.153Radial†	23381.9	24019.7	5033.7	µg/L	5033.7	ppb	11:30:02
1	Ca 317.933Radial†	73543.2	74730.7	5089.8	µg/L	5089.8	ppb	11:30:02
1	Fe 238.204 Radial†	65942.1	67402.0	5033.5	µg/L	5033.5	ppb	11:30:02
1	K 766.490 Radial†	13830.9	12667.9	5015.5	µg/L	5015.5	ppb	11:30:02
1	Mg 279.077 IEC†	10996.3	11086.9	5127.2	µg/L	5127.2	ppb	11:30:02
1	Na 589.592 Radial†	63933.4	64510.1	9995.1	µg/L	9995.1	ppb	11:30:02
1	Sr 421.552†	208111.8	213293.9	503.01	µg/L	503.01	ppb	11:30:00
1	Sc 361.383	1761858.7	1761858.7	97.656	%			11:30:29
1	Y 371.029	1023300.8	1023300.8	96.785	%			11:30:29
1	Ag 328.068†	123043.0	121431.6	503.36	µg/L	503.36	ppb	11:30:29
1	As 188.979†	1388.4	1440.3	494.45	µg/L	494.45	ppb	11:30:49
1	B 249.677†	34891.3	31663.7	490.67	µg/L	490.67	ppb	11:30:29
1	Ba 233.527†	109659.6	112436.6	500.17	µg/L	500.17	ppb	11:30:29
1	Be 313.107†	1663606.1	1704633.4	493.93	µg/L	493.93	ppb	11:30:29
1	Cd 226.502†	72443.0	74285.4	501.76	µg/L	501.76	ppb	11:30:29
1	Co 228.616†	37156.2	38258.5	506.40	µg/L	506.40	ppb	11:30:29
1	Cr 267.716†	56866.6	57998.5	501.62	µg/L	501.62	ppb	11:30:29
1	Cu 324.752†	119606.6	119441.7	501.14	µg/L	501.14	ppb	11:30:29
1	Mn 257.610†	369411.0	378094.1	501.34	µg/L	501.34	ppb	11:30:29
1	Mo 202.031†	14945.3	15342.7	502.23	µg/L	502.23	ppb	11:30:49
1	Ni 231.604†	39345.7	40386.1	505.28	µg/L	505.28	ppb	11:30:29
1	P 214.914†	10584.6	10864.3	2504.6	µg/L	2504.6	ppb	11:30:49
1	Pb 220.353†	8129.7	8221.4	507.50	µg/L	507.50	ppb	11:30:49
1	S 181.975 Axial†	1251.2	1192.3	1007.2	µg/L	1007.2	ppb	11:30:49
1	Sb 206.836†	3883.3	3886.8	502.34	µg/L	502.34	ppb	11:30:49
1	Se 196.026†	1258.6	1282.6	508	µg/L	508	ppb	11:30:49
1	SiO2†	50604.3	50080.0	5281.8	µg/L	5281.8	ppb	11:30:29
1	Si 251.611†	154407.4	157347.0	2471.2	µg/L	2471.2	ppb	11:30:29
1	Sn 189.927†	7042.6	7209.8	501.78	µg/L	501.78	ppb	11:30:49
1	Ti 334.940†	474109.2	484667.3	497.15	µg/L	497.15	ppb	11:30:29
1	Tl 190.801†	3462.4	3659.8	507.23	µg/L	507.23	ppb	11:30:49
1	U 409.014†	7134.3	7468.9	501.82	µg/L	501.82	ppb	11:30:29
1	V 292.402†	94537.5	96383.6	506.22	µg/L	506.22	ppb	11:30:29
1	Zn 213.857†	82762.2	84245.9	499.12	µg/L	499.12	ppb	11:30:29
2	Sc RADIAL	135237.7	135237.7	96.5	%			11:30:06
2	Al 396.153Radial†	23012.6	23917.3	5012.0	µg/L	5012.0	ppb	11:30:06
2	Ca 317.933Radial†	72368.9	74395.7	5067.0	µg/L	5067.0	ppb	11:30:06
2	Fe 238.204 Radial†	65011.4	67228.1	5020.5	µg/L	5020.5	ppb	11:30:06
2	K 766.490 Radial†	13826.8	12829.4	5079.5	µg/L	5079.5	ppb	11:30:06
2	Mg 279.077 IEC†	10869.4	11087.2	5127.4	µg/L	5127.4	ppb	11:30:06
2	Na 589.592 Radial†	63379.2	64702.1	10025	µg/L	10025	ppb	11:30:06
2	Sr 421.552†	206760.8	214388.3	505.59	µg/L	505.59	ppb	11:30:04
2	Sc 361.383	1755213.5	1755213.5	97.287	%			11:30:52
2	Y 371.029	1018804.5	1018804.5	96.359	%			11:30:52
2	Ag 328.068†	123276.3	122148.4	506.27	µg/L	506.27	ppb	11:30:52
2	As 188.979†	1380.0	1437.0	493.33	µg/L	493.33	ppb	11:31:12
2	B 249.677†	35110.1	32023.9	496.27	µg/L	496.27	ppb	11:30:52
2	Ba 233.527†	109680.5	112883.2	502.16	µg/L	502.16	ppb	11:30:52
2	Be 313.107†	1662352.6	1709794.5	495.42	µg/L	495.42	ppb	11:30:52
2	Cd 226.502†	72424.8	74547.5	503.54	µg/L	503.54	ppb	11:30:52
2	Co 228.616†	36976.6	38217.9	505.86	µg/L	505.86	ppb	11:30:52
2	Cr 267.716†	56640.8	57986.9	501.53	µg/L	501.53	ppb	11:30:52
2	Cu 324.752†	119400.5	119693.6	502.18	µg/L	502.18	ppb	11:30:52
2	Mn 257.610†	369192.4	379301.6	502.95	µg/L	502.95	ppb	11:30:52
2	Mo 202.031†	14979.7	15435.9	505.27	µg/L	505.27	ppb	11:31:12
2	Ni 231.604†	39164.5	40352.4	504.86	µg/L	504.86	ppb	11:30:52
2	P 214.914†	10589.4	10910.3	2515.2	µg/L	2515.2	ppb	11:31:12
2	Pb 220.353†	8151.8	8275.6	510.85	µg/L	510.85	ppb	11:31:12

2	S 181.975 Axial†	1255.2	1201.3	1014.9 µg/L	1014.9 ppb	11:31:12
2	Sb 206.836†	3899.6	3918.6	506.49 µg/L	506.49 ppb	11:31:12
2	Se 196.026†	1256.7	1285.6	509 µg/L	509 ppb	11:31:12
2	SiO2†	50502.9	50172.0	5291.5 µg/L	5291.5 ppb	11:30:52
2	Si 251.611†	154149.6	157680.6	2476.4 µg/L	2476.4 ppb	11:30:52
2	Sn 189.927†	7052.2	7247.0	504.36 µg/L	504.36 ppb	11:31:12
2	Ti 334.940†	473721.0	486106.4	498.63 µg/L	498.63 ppb	11:30:52
2	Tl 190.801†	3489.8	3701.4	512.92 µg/L	512.92 ppb	11:31:12
2	U 409.014†	6870.2	7225.1	486.41 µg/L	486.41 ppb	11:30:52
2	V 292.402†	94056.9	96256.2	505.58 µg/L	505.58 ppb	11:30:52
2	Zn 213.857†	82670.1	84472.1	500.47 µg/L	500.47 ppb	11:30:52
3	Sc RADIAL	136682.0	136682.0	97.6 %		11:30:10
3	Al 396.153Radial†	23255.0	23913.8	5011.8 µg/L	5011.8 ppb	11:30:10
3	Ca 317.933Radial†	72929.5	74178.0	5052.2 µg/L	5052.2 ppb	11:30:10
3	Fe 238.204 Radial†	65673.7	67195.3	5018.1 µg/L	5018.1 ppb	11:30:10
3	K 766.490 Radial†	13914.0	12767.5	5055.0 µg/L	5055.0 ppb	11:30:10
3	Mg 279.077 IEC†	10922.9	11023.0	5097.5 µg/L	5097.5 ppb	11:30:10
3	Na 589.592 Radial†	63890.3	64532.2	9998.5 µg/L	9998.5 ppb	11:30:10
3	Sr 421.552†	204882.1	210199.5	495.71 µg/L	495.71 ppb	11:30:08
3	Sc 361.383	1786609.6	1786609.6	99.028 %		11:31:15
3	Y 371.029	1036752.1	1036752.1	98.057 %		11:31:15
3	Ag 328.068†	125411.5	122077.8	506.02 µg/L	506.02 ppb	11:31:15
3	As 188.979†	1367.3	1399.2	480.54 µg/L	480.54 ppb	11:31:36
3	B 249.677†	35832.7	32119.5	497.75 µg/L	497.75 ppb	11:31:15
3	Ba 233.527†	111666.9	112908.0	502.27 µg/L	502.27 ppb	11:31:15
3	Be 313.107†	1695198.1	1712935.5	496.34 µg/L	496.34 ppb	11:31:15
3	Cd 226.502†	74018.8	74849.0	505.58 µg/L	505.58 ppb	11:31:15
3	Co 228.616†	37808.9	38390.5	508.15 µg/L	508.15 ppb	11:31:15
3	Cr 267.716†	57773.9	58108.0	502.57 µg/L	502.57 ppb	11:31:15
3	Cu 324.752†	121645.6	119804.0	502.66 µg/L	502.66 ppb	11:31:15
3	Mn 257.610†	375989.4	379496.6	503.20 µg/L	503.20 ppb	11:31:15
3	Mo 202.031†	14922.1	15107.2	494.52 µg/L	494.52 ppb	11:31:36
3	Ni 231.604†	40047.6	40536.7	507.16 µg/L	507.16 ppb	11:31:15
3	P 214.914†	10509.5	10638.3	2452.3 µg/L	2452.3 ppb	11:31:36
3	Pb 220.353†	8093.3	8069.3	498.12 µg/L	498.12 ppb	11:31:36
3	S 181.975 Axial†	1250.7	1174.0	991.82 µg/L	991.82 ppb	11:31:36
3	Sb 206.836†	3860.6	3808.8	492.14 µg/L	492.14 ppb	11:31:36
3	Se 196.026†	1237.7	1243.7	492 µg/L	492 ppb	11:31:36
3	SiO2†	51543.0	50310.1	5306.6 µg/L	5306.6 ppb	11:31:15
3	Si 251.611†	157269.9	158047.2	2482.4 µg/L	2482.4 ppb	11:31:15
3	Sn 189.927†	6987.1	7053.8	490.96 µg/L	490.96 ppb	11:31:36
3	Ti 334.940†	482315.1	486228.0	498.75 µg/L	498.75 ppb	11:31:15
3	Tl 190.801†	3458.2	3606.4	499.96 µg/L	499.96 ppb	11:31:36
3	U 409.014†	7182.1	7416.0	498.57 µg/L	498.57 ppb	11:31:15
3	V 292.402†	96118.6	96639.1	507.47 µg/L	507.47 ppb	11:31:15
3	Zn 213.857†	84371.3	84696.8	501.80 µg/L	501.80 ppb	11:31:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1767893.9	97.990	%	0.9171				0.94%
Sc RADIAL	136246.7	97.3	%	0.63				0.64%
Y 371.029	1026285.8	97.067	%	0.8833				0.91%
Ag 328.068†	121885.9	505.21	µg/L	1.611	505.21	ppb	1.611	0.32%
QC value within limits for Ag 328.068 Recovery = 101.04%								
Al 396.153Radial†	23950.3	5019.2	µg/L	12.60	5019.2	ppb	12.60	0.25%
QC value within limits for Al 396.153Radial Recovery = 100.38%								
As 188.979†	1425.5	489.44	µg/L	7.730	489.44	ppb	7.730	1.58%
QC value within limits for As 188.979 Recovery = 97.89%								
B 249.677†	31935.7	494.90	µg/L	3.736	494.90	ppb	3.736	0.75%
QC value within limits for B 249.677 Recovery = 98.98%								
Ba 233.527†	112742.6	501.53	µg/L	1.179	501.53	ppb	1.179	0.24%
QC value within limits for Ba 233.527 Recovery = 100.31%								
Be 313.107†	1709121.1	495.23	µg/L	1.213	495.23	ppb	1.213	0.25%
QC value within limits for Be 313.107 Recovery = 99.05%								
Ca 317.933Radial†	74434.8	5069.7	µg/L	18.96	5069.7	ppb	18.96	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.39%								
Cd 226.502†	74560.6	503.63	µg/L	1.907	503.63	ppb	1.907	0.38%
QC value within limits for Cd 226.502 Recovery = 100.73%								
Co 228.616†	38288.9	506.80	µg/L	1.195	506.80	ppb	1.195	0.24%

```
   QC value within limits for Co 228.616  Recovery = 101.36%
Cr 267.716†            58031.1      501.91 µg/L         0.576      501.91 ppb          0.576   0.11%
   QC value within limits for Cr 267.716  Recovery = 100.38%
Cu 324.752†           119646.4      501.99 µg/L         0.773      501.99 ppb          0.773   0.15%
   QC value within limits for Cu 324.752  Recovery = 100.40%
Fe 238.204 Radial†     67275.1      5024.1 µg/L          8.30      5024.1 ppb           8.30   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.48%
K 766.490 Radial†      12754.9      5050.0 µg/L         32.29      5050.0 ppb          32.29   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 101.00%
Mg 279.077 IEC†        11065.7      5117.4 µg/L         17.20      5117.4 ppb          17.20   0.34%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.35%
Mn 257.610†           378964.1      502.50 µg/L         1.008      502.50 ppb          1.008   0.20%
   QC value within limits for Mn 257.610  Recovery = 100.50%
Mo 202.031†            15295.3      500.67 µg/L         5.540      500.67 ppb          5.540   1.11%
   QC value within limits for Mo 202.031  Recovery = 100.13%
Na 589.592 Radial†     64581.5       10006 µg/L          16.3       10006 ppb           16.3   0.16%
   QC value within limits for Na 589.592 Radial  Recovery = 100.06%
Ni 231.604†            40425.1      505.77 µg/L         1.228      505.77 ppb          1.228   0.24%
   QC value within limits for Ni 231.604  Recovery = 101.15%
P 214.914†             10804.3      2490.7 µg/L         33.68      2490.7 ppb          33.68   1.35%
   QC value within limits for P 214.914  Recovery = 99.63%
Pb 220.353†             8188.8      505.49 µg/L         6.598      505.49 ppb          6.598   1.31%
   QC value within limits for Pb 220.353  Recovery = 101.10%
S 181.975 Axial†        1189.2      1004.6 µg/L         11.74      1004.6 ppb          11.74   1.17%
   QC value within limits for S 181.975 Axial  Recovery = 100.46%
Sb 206.836†             3871.4      500.32 µg/L         7.384      500.32 ppb          7.384   1.48%
   QC value within limits for Sb 206.836  Recovery = 100.06%
Se 196.026†             1270.6         503 µg/L           9.2         503 ppb            9.2   1.83%
   QC value within limits for Se 196.026  Recovery = 100.56%
SiO2†                  50187.3      5293.3 µg/L         12.47      5293.3 ppb          12.47   0.24%
   QC value within limits for SiO2  Recovery = 98.99%
Si 251.611†           157691.6      2476.7 µg/L          5.61      2476.7 ppb           5.61   0.23%
   QC value within limits for Si 251.611  Recovery = 99.07%
Sn 189.927†             7170.2      499.03 µg/L         7.107      499.03 ppb          7.107   1.42%
   QC value within limits for Sn 189.927  Recovery = 99.81%
Sr 421.552†           212627.3      501.43 µg/L         5.124      501.43 ppb          5.124   1.02%
   QC value within limits for Sr 421.552  Recovery = 100.29%
Ti 334.940†           485667.3      498.17 µg/L         0.894      498.17 ppb          0.894   0.18%
   QC value within limits for Ti 334.940  Recovery = 99.63%
Tl 190.801†             3655.9      506.70 µg/L         6.497      506.70 ppb          6.497   1.28%
   QC value within limits for Tl 190.801  Recovery = 101.34%
U 409.014†              7370.0      495.60 µg/L         8.123      495.60 ppb          8.123   1.64%
   QC value within limits for U 409.014  Recovery = 99.12%
V 292.402†             96426.3      506.43 µg/L         0.959      506.43 ppb          0.959   0.19%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†            84471.6      500.46 µg/L         1.341      500.46 ppb          1.341   0.27%
   QC value within limits for Zn 213.857  Recovery = 100.09%
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 11:31:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138159.9	138159.9	98.6	%			11:32:12
1	Al 396.153Radial†	-61.5	16.2	3.3756	µg/L	3.3756	ppb	11:32:32
1	Ca 317.933Radial†	624.1	61.4	4.1810	µg/L	4.1810	ppb	11:32:32
1	Fe 238.204 Radial†	140.2	24.8	1.8552	µg/L	1.8552	ppb	11:32:32
1	K 766.490 Radial†	1534.9	62.6	24.798	µg/L	24.798	ppb	11:32:12
1	Mg 279.077 IEC†	179.7	9.7	4.5034	µg/L	4.5034	ppb	11:32:32
1	Na 589.592 Radial†	1043.8	105.9	16.389	µg/L	16.389	ppb	11:32:12
1	Sr 421.552†	-179.3	22.7	0.0534	µg/L	0.0534	ppb	11:32:12
1	Sc 361.383	1781153.8	1781153.8	98.725	%			11:33:20
1	Y 371.029	1046438.9	1046438.9	98.973	%			11:33:20
1	Ag 328.068†	4305.8	-203.7	-0.8261	µg/L	-0.8261	ppb	11:33:22
1	As 188.979†	-14.7	3.7	1.2615	µg/L	1.2615	ppb	11:33:42
1	B 249.677†	4014.2	0.9	0.0135	µg/L	0.0135	ppb	11:33:22
1	Ba 233.527†	-154.2	-11.6	-0.0515	µg/L	-0.0515	ppb	11:33:42
1	Be 313.107†	-880.1	200.2	0.0595	µg/L	0.0595	ppb	11:33:22
1	Cd 226.502†	-65.4	37.1	0.2509	µg/L	0.2509	ppb	11:33:42
1	Co 228.616†	-204.8	2.9	0.0380	µg/L	0.0380	ppb	11:33:42
1	Cr 267.716†	266.8	37.0	0.3162	µg/L	0.3162	ppb	11:33:42
1	Cu 324.752†	3004.2	6.9	0.0333	µg/L	0.0333	ppb	11:33:22
1	Mn 257.610†	246.8	65.3	0.0864	µg/L	0.0864	ppb	11:33:42
1	Mo 202.031†	-18.2	20.2	0.6594	µg/L	0.6594	ppb	11:33:42
1	Ni 231.604†	-84.6	10.2	0.1272	µg/L	0.1272	ppb	11:33:42
1	P 214.914†	15.3	41.2	9.5223	µg/L	9.5223	ppb	11:33:42
1	Pb 220.353†	128.5	26.7	1.6394	µg/L	1.6394	ppb	11:33:42
1	S 181.975 Axial†	105.9	18.3	15.402	µg/L	15.402	ppb	11:33:42
1	Sb 206.836†	71.8	-17.0	-2.1882	µg/L	-2.1882	ppb	11:33:42
1	Se 196.026†	18.2	12.3	4.86	µg/L	4.86	ppb	11:33:42
1	SiO2†	1722.8	6.0	0.6150	µg/L	0.6150	ppb	11:33:42
1	Si 251.611†	862.6	106.7	1.6733	µg/L	1.6733	ppb	11:33:22
1	Sn 189.927†	1.7	-0.1	-0.0097	µg/L	-0.0097	ppb	11:33:42
1	Ti 334.940†	863.4	51.5	0.0505	µg/L	0.0505	ppb	11:33:22
1	Tl 190.801†	-111.9	1.0	0.1319	µg/L	0.1319	ppb	11:33:42
1	U 409.014†	-82.1	80.2	5.0710	µg/L	5.0710	ppb	11:33:22
1	V 292.402†	445.9	28.4	0.1587	µg/L	0.1587	ppb	11:33:22
1	Zn 213.857†	555.3	59.4	0.3540	µg/L	0.3540	ppb	11:33:42
2	Sc RADIAL	139520.5	139520.5	99.6	%			11:32:34
2	Al 396.153Radial†	-62.2	16.1	3.3819	µg/L	3.3819	ppb	11:32:54
2	Ca 317.933Radial†	618.3	49.3	3.3610	µg/L	3.3610	ppb	11:32:54
2	Fe 238.204 Radial†	116.3	-0.6	-0.0425	µg/L	-0.0425	ppb	11:32:54
2	K 766.490 Radial†	1507.1	19.4	7.7040	µg/L	7.7040	ppb	11:32:34
2	Mg 279.077 IEC†	162.8	-9.0	-4.1536	µg/L	-4.1536	ppb	11:32:54
2	Na 589.592 Radial†	902.2	-46.6	-7.2284	µg/L	-7.2284	ppb	11:32:34
2	Sr 421.552†	-170.6	33.2	0.0783	µg/L	0.0783	ppb	11:32:34
2	Sc 361.383	1778496.6	1778496.6	98.578	%			11:33:44
2	Y 371.029	1044974.2	1044974.2	98.834	%			11:33:44
2	Ag 328.068†	4406.6	-95.0	-0.3921	µg/L	-0.3921	ppb	11:33:46
2	As 188.979†	-16.8	1.5	0.5201	µg/L	0.5201	ppb	11:34:07
2	B 249.677†	4054.0	47.4	0.7352	µg/L	0.7352	ppb	11:33:46
2	Ba 233.527†	-128.3	14.4	0.0638	µg/L	0.0638	ppb	11:34:07
2	Be 313.107†	-889.2	189.7	0.0561	µg/L	0.0561	ppb	11:33:46
2	Cd 226.502†	-87.2	14.9	0.1006	µg/L	0.1006	ppb	11:34:07
2	Co 228.616†	-169.3	38.5	0.5098	µg/L	0.5098	ppb	11:34:07
2	Cr 267.716†	240.7	10.9	0.0915	µg/L	0.0915	ppb	11:34:07
2	Cu 324.752†	2937.7	-56.0	-0.2311	µg/L	-0.2311	ppb	11:33:46
2	Mn 257.610†	253.5	72.4	0.0962	µg/L	0.0962	ppb	11:34:07
2	Mo 202.031†	-33.8	4.2	0.1384	µg/L	0.1384	ppb	11:34:07
2	Ni 231.604†	-90.7	3.9	0.0487	µg/L	0.0487	ppb	11:34:07
2	P 214.914†	-2.7	23.0	5.3134	µg/L	5.3134	ppb	11:34:07
2	Pb 220.353†	131.4	29.8	1.8340	µg/L	1.8340	ppb	11:34:07

2	S 181.975 Axial†	114.8	27.6	23.201 µg/L	23.201 ppb	11:34:07
2	Sb 206.836†	68.7	-20.1	-2.5886 µg/L	-2.5886 ppb	11:34:07
2	Se 196.026†	18.4	12.5	4.94 µg/L	4.94 ppb	11:34:07
2	SiO2†	1743.1	29.2	3.0894 µg/L	3.0894 ppb	11:34:07
2	Si 251.611†	796.1	40.6	0.6399 µg/L	0.6399 ppb	11:33:46
2	Sn 189.927†	-2.6	-4.5	-0.3128 µg/L	-0.3128 ppb	11:34:07
2	Ti 334.940†	844.0	33.2	0.0330 µg/L	0.0330 ppb	11:33:46
2	Tl 190.801†	-114.1	-1.5	-0.2079 µg/L	-0.2079 ppb	11:34:07
2	U 409.014†	-102.8	59.1	3.6912 µg/L	3.6912 ppb	11:33:46
2	V 292.402†	292.6	-126.4	-0.6508 µg/L	-0.6508 ppb	11:33:46
2	Zn 213.857†	543.9	48.8	0.2911 µg/L	0.2911 ppb	11:34:07
3	Sc RADIAL	137468.8	137468.8	98.1 %		11:32:56
3	Al 396.153Radial†	-87.5	-10.6	-2.2710 µg/L	-2.2710 ppb	11:33:16
3	Ca 317.933Radial†	616.0	56.3	3.8368 µg/L	3.8368 ppb	11:33:16
3	Fe 238.204 Radial†	143.0	28.5	2.1256 µg/L	2.1256 ppb	11:33:16
3	K 766.490 Radial†	1510.4	45.4	17.993 µg/L	17.993 ppb	11:32:56
3	Mg 279.077 IEC†	199.4	30.8	14.227 µg/L	14.227 ppb	11:33:16
3	Na 589.592 Radial†	1098.6	167.1	25.880 µg/L	25.880 ppb	11:32:56
3	Sr 421.552†	-193.6	7.2	0.0170 µg/L	0.0170 ppb	11:32:56
3	Sc 361.383	1779132.2	1779132.2	98.613 %		11:34:09
3	Y 371.029	1044870.8	1044870.8	98.825 %		11:34:09
3	Ag 328.068†	4229.2	-276.5	-1.1269 µg/L	-1.1269 ppb	11:34:11
3	As 188.979†	-17.5	0.8	0.2907 µg/L	0.2907 ppb	11:34:31
3	B 249.677†	3990.5	-18.6	-0.2896 µg/L	-0.2896 ppb	11:34:11
3	Ba 233.527†	-154.2	-11.8	-0.0516 µg/L	-0.0516 ppb	11:34:31
3	Be 313.107†	-593.1	490.3	0.1402 µg/L	0.1402 ppb	11:34:11
3	Cd 226.502†	-73.3	29.1	0.1961 µg/L	0.1961 ppb	11:34:31
3	Co 228.616†	-185.1	22.6	0.2982 µg/L	0.2982 ppb	11:34:31
3	Cr 267.716†	239.5	9.7	0.0891 µg/L	0.0891 ppb	11:34:31
3	Cu 324.752†	2819.0	-177.5	-0.7467 µg/L	-0.7467 ppb	11:34:11
3	Mn 257.610†	209.3	27.5	0.0359 µg/L	0.0359 ppb	11:34:31
3	Mo 202.031†	-14.5	23.9	0.7807 µg/L	0.7807 ppb	11:34:31
3	Ni 231.604†	-105.7	-11.3	-0.1412 µg/L	-0.1412 ppb	11:34:31
3	P 214.914†	-8.3	17.3	3.9969 µg/L	3.9969 ppb	11:34:31
3	Pb 220.353†	108.5	6.6	0.4124 µg/L	0.4124 ppb	11:34:31
3	S 181.975 Axial†	100.0	12.5	10.490 µg/L	10.490 ppb	11:34:31
3	Sb 206.836†	62.3	-26.5	-3.4066 µg/L	-3.4066 ppb	11:34:31
3	Se 196.026†	28.1	22.3	8.80 µg/L	8.80 ppb	11:34:31
3	SiO2†	1743.7	29.1	3.0701 µg/L	3.0701 ppb	11:34:31
3	Si 251.611†	764.4	8.1	0.1206 µg/L	0.1206 ppb	11:34:11
3	Sn 189.927†	-4.6	-6.6	-0.4567 µg/L	-0.4567 ppb	11:34:31
3	Ti 334.940†	707.4	-105.6	-0.1070 µg/L	-0.1070 ppb	11:34:11
3	Tl 190.801†	-118.5	-5.9	-0.8018 µg/L	-0.8018 ppb	11:34:31
3	U 409.014†	-257.2	-97.5	-6.0915 µg/L	-6.0915 ppb	11:34:11
3	V 292.402†	616.0	201.4	1.0480 µg/L	1.0480 ppb	11:34:11
3	Zn 213.857†	551.8	56.6	0.3393 µg/L	0.3393 ppb	11:34:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1779594.2	98.639	%	0.0769				0.08%
Sc RADIAL	138383.1	98.8	%	0.75				0.75%
Y 371.029	1045428.0	98.877	%	0.0829				0.08%
Ag 328.068†	-191.7	-0.7817	µg/L	0.36941	-0.7817	ppb	0.36941	47.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.2	1.4955	µg/L	3.26187	1.4955	ppb	3.26187	218.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.0	0.6908	µg/L	0.50742	0.6908	ppb	0.50742	73.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	9.9	0.1530	µg/L	0.52644	0.1530	ppb	0.52644	343.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.0	-0.0131	µg/L	0.06661	-0.0131	ppb	0.06661	508.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	293.4	0.0853	µg/L	0.04758	0.0853	ppb	0.04758	55.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	55.7	3.7930	µg/L	0.41176	3.7930	ppb	0.41176	10.86%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.0	0.1825	µg/L	0.07603	0.1825	ppb	0.07603	41.65%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	21.3	0.2820	µg/L	0.23633	0.2820	ppb	0.23633	83.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.2      0.1656 µg/L       0.13041      0.1656 ppb        0.13041  78.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -75.6     -0.3148 µg/L       0.39666     -0.3148 ppb        0.39666 125.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       17.6      1.3128 µg/L       1.18141      1.3128 ppb        1.18141  89.99%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        42.5      16.832 µg/L        8.6058      16.832 ppb         8.6058  51.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          10.5      4.8589 µg/L       9.19547      4.8589 ppb        9.19547 189.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              55.1      0.0729 µg/L       0.03238      0.0729 ppb        0.03238  44.45%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              16.1      0.5262 µg/L       0.34124      0.5262 ppb        0.34124  64.85%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       75.4      11.680 µg/L       17.0493      11.680 ppb        17.0493 145.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.9      0.0115 µg/L       0.13797      0.0115 ppb        0.13797 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               27.2      6.2776 µg/L       2.88612      6.2776 ppb        2.88612  45.98%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              21.0      1.2953 µg/L       0.77073      1.2953 ppb        0.77073  59.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         19.4      16.364 µg/L        6.4098      16.364 ppb         6.4098  39.17%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -21.2     -2.7278 µg/L       0.62103     -2.7278 ppb        0.62103  22.77%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              15.7        6.20 µg/L         2.250        6.20 ppb          2.250  36.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    21.4      2.2582 µg/L       1.42305      2.2582 ppb        1.42305  63.02%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              51.8      0.8113 µg/L       0.79039      0.8113 ppb        0.79039  97.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -3.7     -0.2597 µg/L       0.22815     -0.2597 ppb        0.22815  87.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              21.0      0.0496 µg/L       0.03085      0.0496 ppb        0.03085  62.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -7.0     -0.0079 µg/L       0.08634     -0.0079 ppb        0.08634 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.1     -0.2926 µg/L       0.47261     -0.2926 ppb        0.47261 161.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               13.9      0.8902 µg/L       6.08556      0.8902 ppb        6.08556 683.60%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               34.5      0.1853 µg/L       0.84970      0.1853 ppb        0.84970 458.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              54.9      0.3281 µg/L       0.03289      0.3281 ppb        0.03289  10.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 11:52:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136406.2	136406.2	97.4	%			11:52:57
1	Al 396.153Radial†	23313.8	24022.4	5034.4	µg/L	5034.4	ppb	11:52:57
1	Ca 317.933Radial†	72574.7	73964.8	5037.7	µg/L	5037.7	ppb	11:52:57
1	Fe 238.204 Radial†	65230.3	66876.0	4994.3	µg/L	4994.3	ppb	11:52:57
1	K 766.490 Radial†	13928.2	12810.9	5072.2	µg/L	5072.2	ppb	11:52:57
1	Mg 279.077 IEC†	10849.4	10970.1	5073.3	µg/L	5073.3	ppb	11:52:57
1	Na 589.592 Radial†	63560.6	64326.0	9966.5	µg/L	9966.5	ppb	11:52:57
1	Sr 421.552†	209457.2	215322.9	507.79	µg/L	507.79	ppb	11:52:55
1	Sc 361.383	1772450.0	1772450.0	98.243	%			11:53:10
1	Y 371.029	1029159.8	1029159.8	97.339	%			11:53:10
1	Ag 328.068†	123371.7	121013.3	501.63	µg/L	501.63	ppb	11:53:10
1	As 188.979†	1363.6	1406.6	482.99	µg/L	482.99	ppb	11:53:30
1	B 249.677†	35057.5	31619.4	490.00	µg/L	490.00	ppb	11:53:10
1	Ba 233.527†	109674.1	111780.3	497.26	µg/L	497.26	ppb	11:53:10
1	Be 313.107†	1662161.0	1692982.8	490.56	µg/L	490.56	ppb	11:53:10
1	Cd 226.502†	72458.7	73858.1	498.88	µg/L	498.88	ppb	11:53:10
1	Co 228.616†	37051.9	37924.9	501.98	µg/L	501.98	ppb	11:53:10
1	Cr 267.716†	56912.9	57697.7	499.01	µg/L	499.01	ppb	11:53:10
1	Cu 324.752†	119955.7	119065.2	499.57	µg/L	499.57	ppb	11:53:10
1	Mn 257.610†	369739.3	376167.9	498.79	µg/L	498.79	ppb	11:53:10
1	Mo 202.031†	14945.8	15251.7	499.25	µg/L	499.25	ppb	11:53:30
1	Ni 231.604†	39204.9	40002.1	500.48	µg/L	500.48	ppb	11:53:10
1	P 214.914†	10533.6	10747.7	2477.7	µg/L	2477.7	ppb	11:53:30
1	Pb 220.353†	8092.8	8134.1	502.11	µg/L	502.11	ppb	11:53:30
1	S 181.975 Axial†	1246.7	1180.1	996.97	µg/L	996.97	ppb	11:53:30
1	Sb 206.836†	3881.5	3861.2	499.01	µg/L	499.01	ppb	11:53:30
1	Se 196.026†	1261.7	1278.2	506	µg/L	506	ppb	11:53:30
1	SiO2†	50814.8	49984.6	5271.9	µg/L	5271.9	ppb	11:53:10
1	Si 251.611†	154915.3	156919.1	2464.5	µg/L	2464.5	ppb	11:53:10
1	Sn 189.927†	6999.7	7123.1	495.75	µg/L	495.75	ppb	11:53:30
1	Ti 334.940†	474357.0	482018.6	494.42	µg/L	494.42	ppb	11:53:10
1	Tl 190.801†	3467.1	3643.4	504.96	µg/L	504.96	ppb	11:53:30
1	U 409.014†	7358.8	7653.8	513.30	µg/L	513.30	ppb	11:53:10
1	V 292.402†	94510.7	95778.0	503.06	µg/L	503.06	ppb	11:53:10
1	Zn 213.857†	82854.1	83833.1	496.69	µg/L	496.69	ppb	11:53:10
2	Sc RADIAL	137493.5	137493.5	98.1	%			11:53:01
2	Al 396.153Radial†	23368.5	23888.8	5006.2	µg/L	5006.2	ppb	11:53:01
2	Ca 317.933Radial†	73166.7	73978.6	5038.6	µg/L	5038.6	ppb	11:53:01
2	Fe 238.204 Radial†	65779.5	66905.9	4996.5	µg/L	4996.5	ppb	11:53:01
2	K 766.490 Radial†	13916.8	12686.1	5022.7	µg/L	5022.7	ppb	11:53:01
2	Mg 279.077 IEC†	10945.0	10979.5	5077.6	µg/L	5077.6	ppb	11:53:01
2	Na 589.592 Radial†	64104.8	64364.3	9972.5	µg/L	9972.5	ppb	11:53:01
2	Sr 421.552†	208104.5	212243.5	500.53	µg/L	500.53	ppb	11:52:59
2	Sc 361.383	1762317.1	1762317.1	97.681	%			11:53:33
2	Y 371.029	1024172.1	1024172.1	96.867	%			11:53:33
2	Ag 328.068†	122813.7	121164.0	502.22	µg/L	502.22	ppb	11:53:33
2	As 188.979†	1372.1	1423.3	488.62	µg/L	488.62	ppb	11:53:53
2	B 249.677†	34852.8	31615.0	489.94	µg/L	489.94	ppb	11:53:33
2	Ba 233.527†	108849.1	111577.6	496.35	µg/L	496.35	ppb	11:53:33
2	Be 313.107†	1649149.0	1689389.9	489.51	µg/L	489.51	ppb	11:53:33
2	Cd 226.502†	71871.9	73681.4	497.68	µg/L	497.68	ppb	11:53:33
2	Co 228.616†	36650.3	37730.6	499.41	µg/L	499.41	ppb	11:53:33
2	Cr 267.716†	56379.7	57484.9	497.18	µg/L	497.18	ppb	11:53:33
2	Cu 324.752†	118788.7	118572.6	497.49	µg/L	497.49	ppb	11:53:33
2	Mn 257.610†	366667.7	375187.3	497.49	µg/L	497.49	ppb	11:53:33
2	Mo 202.031†	14922.5	15315.3	501.33	µg/L	501.33	ppb	11:53:53
2	Ni 231.604†	38942.5	39962.9	499.99	µg/L	499.99	ppb	11:53:33
2	P 214.914†	10533.2	10809.0	2491.8	µg/L	2491.8	ppb	11:53:53
2	Pb 220.353†	8076.9	8165.1	504.04	µg/L	504.04	ppb	11:53:53

2	S 181.975 Axial†	1255.9	1196.8	1011.1 µg/L	1011.1 ppb	11:53:53
2	Sb 206.836†	3856.9	3858.7	498.76 µg/L	498.76 ppb	11:53:53
2	Se 196.026†	1242.7	1266.0	501 µg/L	501 ppb	11:53:53
2	SiO2†	50210.7	49663.6	5237.8 µg/L	5237.8 ppb	11:53:33
2	Si 251.611†	153979.2	156867.5	2463.7 µg/L	2463.7 ppb	11:53:33
2	Sn 189.927†	6986.3	7150.3	497.63 µg/L	497.63 ppb	11:53:53
2	Ti 334.940†	470900.5	481256.2	493.65 µg/L	493.65 ppb	11:53:33
2	Tl 190.801†	3449.9	3646.1	505.33 µg/L	505.33 ppb	11:53:53
2	U 409.014†	6983.1	7312.3	491.76 µg/L	491.76 ppb	11:53:33
2	V 292.402†	94029.1	95838.0	503.37 µg/L	503.37 ppb	11:53:33
2	Zn 213.857†	82143.5	83590.5	495.24 µg/L	495.24 ppb	11:53:33
3	Sc RADIAL	138379.3	138379.3	98.8 %		11:53:05
3	Al 396.153Radial†	23410.6	23779.0	4983.1 µg/L	4983.1 ppb	11:53:05
3	Ca 317.933Radial†	73615.3	73955.5	5037.0 µg/L	5037.0 ppb	11:53:05
3	Fe 238.204 Radial†	66155.3	66857.2	4992.8 µg/L	4992.8 ppb	11:53:05
3	K 766.490 Radial†	14062.6	12742.9	5045.3 µg/L	5045.3 ppb	11:53:05
3	Mg 279.077 IEC†	10984.3	10947.9	5063.0 µg/L	5063.0 ppb	11:53:05
3	Na 589.592 Radial†	64456.7	64302.4	9962.9 µg/L	9962.9 ppb	11:53:05
3	Sr 421.552†	211075.5	213893.9	504.42 µg/L	504.42 ppb	11:53:03
3	Sc 361.383	1773926.9	1773926.9	98.325 %		11:53:56
3	Y 371.029	1030484.0	1030484.0	97.464 %		11:53:56
3	Ag 328.068†	123843.7	121388.7	503.13 µg/L	503.13 ppb	11:53:56
3	As 188.979†	1369.1	1411.0	484.48 µg/L	484.48 ppb	11:54:16
3	B 249.677†	35237.3	31772.6	492.38 µg/L	492.38 ppb	11:53:56
3	Ba 233.527†	110079.9	112100.1	498.68 µg/L	498.68 ppb	11:53:56
3	Be 313.107†	1667071.7	1696568.6	491.59 µg/L	491.59 ppb	11:53:56
3	Cd 226.502†	72710.6	74052.8	500.20 µg/L	500.20 ppb	11:53:56
3	Co 228.616†	37053.9	37895.5	501.60 µg/L	501.60 ppb	11:53:56
3	Cr 267.716†	56941.0	57678.0	498.86 µg/L	498.86 ppb	11:53:56
3	Cu 324.752†	119958.3	118966.2	499.13 µg/L	499.13 ppb	11:53:56
3	Mn 257.610†	370604.0	376734.0	499.54 µg/L	499.54 ppb	11:53:56
3	Mo 202.031†	15013.3	15307.7	501.08 µg/L	501.08 ppb	11:54:16
3	Ni 231.604†	39324.7	40090.7	501.58 µg/L	501.58 ppb	11:53:56
3	P 214.914†	10576.2	10782.1	2485.6 µg/L	2485.6 ppb	11:54:16
3	Pb 220.353†	8159.7	8195.3	505.90 µg/L	505.90 ppb	11:54:16
3	S 181.975 Axial†	1240.8	1173.0	991.06 µg/L	991.06 ppb	11:54:16
3	Sb 206.836†	3890.0	3866.5	499.73 µg/L	499.73 ppb	11:54:16
3	Se 196.026†	1246.9	1262.0	499 µg/L	499 ppb	11:54:16
3	SiO2†	51031.8	50162.2	5290.6 µg/L	5290.6 ppb	11:53:56
3	Si 251.611†	155506.1	157388.8	2471.9 µg/L	2471.9 ppb	11:53:56
3	Sn 189.927†	7037.4	7155.4	498.00 µg/L	498.00 ppb	11:54:16
3	Ti 334.940†	475812.6	483097.0	495.55 µg/L	495.55 ppb	11:53:56
3	Tl 190.801†	3486.4	3660.1	507.26 µg/L	507.26 ppb	11:54:16
3	U 409.014†	6861.5	7141.7	481.01 µg/L	481.01 ppb	11:53:56
3	V 292.402†	94660.9	95850.6	503.43 µg/L	503.43 ppb	11:53:56
3	Zn 213.857†	83073.1	83985.6	497.59 µg/L	497.59 ppb	11:53:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769564.7	98.083	%	0.3503				0.36%
Sc RADIAL	137426.3	98.1	%	0.71				0.72%
Y 371.029	1027938.6	97.223	%	0.3148				0.32%
Ag 328.068†	121188.7	502.32	µg/L	0.756	502.32	ppb	0.756	0.15%
QC value within limits for Ag 328.068 Recovery = 100.46%								
Al 396.153Radial†	23896.8	5007.9	µg/L	25.71	5007.9	ppb	25.71	0.51%
QC value within limits for Al 396.153Radial Recovery = 100.16%								
As 188.979†	1413.6	485.36	µg/L	2.918	485.36	ppb	2.918	0.60%
QC value within limits for As 188.979 Recovery = 97.07%								
B 249.677†	31669.0	490.77	µg/L	1.393	490.77	ppb	1.393	0.28%
QC value within limits for B 249.677 Recovery = 98.15%								
Ba 233.527†	111819.3	497.43	µg/L	1.171	497.43	ppb	1.171	0.24%
QC value within limits for Ba 233.527 Recovery = 99.49%								
Be 313.107†	1692980.5	490.55	µg/L	1.038	490.55	ppb	1.038	0.21%
QC value within limits for Be 313.107 Recovery = 98.11%								
Ca 317.933Radial†	73966.3	5037.8	µg/L	0.79	5037.8	ppb	0.79	0.02%
QC value within limits for Ca 317.933Radial Recovery = 100.76%								
Cd 226.502†	73864.1	498.92	µg/L	1.256	498.92	ppb	1.256	0.25%
QC value within limits for Cd 226.502 Recovery = 99.78%								
Co 228.616†	37850.3	501.00	µg/L	1.386	501.00	ppb	1.386	0.28%

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   QC value within limits for Co 228.616  Recovery = 100.20%
Cr 267.716†            57620.2      498.35 µg/L        1.014      498.35 ppb         1.014   0.20%
   QC value within limits for Cr 267.716  Recovery = 99.67%
Cu 324.752†           118868.0      498.73 µg/L        1.096      498.73 ppb         1.096   0.22%
   QC value within limits for Cu 324.752  Recovery = 99.75%
Fe 238.204 Radial†     66879.7      4994.5 µg/L         1.83      4994.5 ppb          1.83   0.04%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.89%
K 766.490 Radial†      12746.7      5046.7 µg/L        24.75      5046.7 ppb         24.75   0.49%
   QC value within limits for K 766.490 Radial  Recovery = 100.93%
Mg 279.077 IEC†        10965.8      5071.3 µg/L         7.49      5071.3 ppb          7.49   0.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.43%
Mn 257.610†           376029.8      498.61 µg/L        1.038      498.61 ppb         1.038   0.21%
   QC value within limits for Mn 257.610  Recovery = 99.72%
Mo 202.031†            15291.6      500.55 µg/L        1.135      500.55 ppb         1.135   0.23%
   QC value within limits for Mo 202.031  Recovery = 100.11%
Na 589.592 Radial†     64330.9      9967.3 µg/L         4.85      9967.3 ppb          4.85   0.05%
   QC value within limits for Na 589.592 Radial  Recovery = 99.67%
Ni 231.604†            40018.5      500.68 µg/L        0.819      500.68 ppb         0.819   0.16%
   QC value within limits for Ni 231.604  Recovery = 100.14%
P 214.914†             10779.6      2485.0 µg/L         7.11      2485.0 ppb          7.11   0.29%
   QC value within limits for P 214.914  Recovery = 99.40%
Pb 220.353†             8164.8      504.01 µg/L        1.894      504.01 ppb         1.894   0.38%
   QC value within limits for Pb 220.353  Recovery = 100.80%
S 181.975 Axial†        1183.3      999.69 µg/L       10.271      999.69 ppb        10.271   1.03%
   QC value within limits for S 181.975 Axial  Recovery = 99.97%
Sb 206.836†             3862.2      499.17 µg/L        0.507      499.17 ppb         0.507   0.10%
   QC value within limits for Sb 206.836  Recovery = 99.83%
Se 196.026†             1268.7         502 µg/L          3.3         502 ppb           3.3   0.66%
   QC value within limits for Se 196.026  Recovery = 100.40%
SiO2†                  49936.8      5266.8 µg/L        26.77      5266.8 ppb         26.77   0.51%
   QC value within limits for SiO2  Recovery = 98.49%
Si 251.611†           157058.5      2466.7 µg/L         4.52      2466.7 ppb          4.52   0.18%
   QC value within limits for Si 251.611  Recovery = 98.67%
Sn 189.927†             7142.9      497.13 µg/L        1.207      497.13 ppb         1.207   0.24%
   QC value within limits for Sn 189.927  Recovery = 99.43%
Sr 421.552†           213820.1      504.25 µg/L        3.634      504.25 ppb         3.634   0.72%
   QC value within limits for Sr 421.552  Recovery = 100.85%
Ti 334.940†           482123.9      494.54 µg/L        0.953      494.54 ppb         0.953   0.19%
   QC value within limits for Ti 334.940  Recovery = 98.91%
Tl 190.801†             3649.9      505.85 µg/L        1.234      505.85 ppb         1.234   0.24%
   QC value within limits for Tl 190.801  Recovery = 101.17%
U 409.014†              7369.3      495.36 µg/L       16.441      495.36 ppb        16.441   3.32%
   QC value within limits for U 409.014  Recovery = 99.07%
V 292.402†             95822.2      503.28 µg/L        0.199      503.28 ppb         0.199   0.04%
   QC value within limits for V 292.402  Recovery = 100.66%
Zn 213.857†            83803.0      496.51 µg/L        1.184      496.51 ppb         1.184   0.24%
   QC value within limits for Zn 213.857  Recovery = 99.30%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 11:54:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139389.9	139389.9	99.5	%			11:54:54
1	Al 396.153Radial†	-84.0	-5.9	-1.2593	µg/L	-1.2593	ppb	11:55:14
1	Ca 317.933Radial†	644.5	76.3	5.1950	µg/L	5.1950	ppb	11:55:14
1	Fe 238.204 Radial†	160.6	44.1	3.2902	µg/L	3.2902	ppb	11:55:14
1	K 766.490 Radial†	1607.6	121.9	48.305	µg/L	48.305	ppb	11:54:54
1	Mg 279.077 IEC†	175.1	3.6	1.6593	µg/L	1.6593	ppb	11:55:14
1	Na 589.592 Radial†	1147.4	200.7	31.068	µg/L	31.068	ppb	11:54:54
1	Sr 421.552†	-289.7	-86.7	-0.2046	µg/L	-0.2046	ppb	11:54:54
1	Sc 361.383	1803679.3	1803679.3	99.974	%			11:56:02
1	Y 371.029	1059662.4	1059662.4	100.22	%			11:56:02
1	Ag 328.068†	4030.2	-533.9	-2.1911	µg/L	-2.1911	ppb	11:56:04
1	As 188.979†	-11.4	7.1	2.4097	µg/L	2.4097	ppb	11:56:24
1	B 249.677†	4005.8	-58.3	-0.9066	µg/L	-0.9066	ppb	11:56:04
1	Ba 233.527†	-141.6	2.9	0.0132	µg/L	0.0132	ppb	11:56:24
1	Be 313.107†	-854.4	237.1	0.0672	µg/L	0.0672	ppb	11:56:04
1	Cd 226.502†	-87.6	15.7	0.1061	µg/L	0.1061	ppb	11:56:24
1	Co 228.616†	-200.7	9.6	0.1266	µg/L	0.1266	ppb	11:56:24
1	Cr 267.716†	259.2	26.0	0.2290	µg/L	0.2290	ppb	11:56:24
1	Cu 324.752†	2917.7	-117.6	-0.4953	µg/L	-0.4953	ppb	11:56:04
1	Mn 257.610†	254.2	69.5	0.0921	µg/L	0.0921	ppb	11:56:24
1	Mo 202.031†	-24.6	14.0	0.4572	µg/L	0.4572	ppb	11:56:24
1	Ni 231.604†	-52.1	43.7	0.5473	µg/L	0.5473	ppb	11:56:24
1	P 214.914†	3.0	28.7	6.6281	µg/L	6.6281	ppb	11:56:24
1	Pb 220.353†	103.6	0.2	0.0141	µg/L	0.0141	ppb	11:56:24
1	S 181.975 Axial†	87.0	-1.9	-1.6322	µg/L	-1.6322	ppb	11:56:24
1	Sb 206.836†	75.3	-14.4	-1.8542	µg/L	-1.8542	ppb	11:56:24
1	Se 196.026†	25.6	19.4	7.65	µg/L	7.65	ppb	11:56:24
1	SiO2†	1766.5	27.9	2.9396	µg/L	2.9396	ppb	11:56:24
1	Si 251.611†	936.0	169.2	2.6606	µg/L	2.6606	ppb	11:56:04
1	Sn 189.927†	4.7	2.8	0.1940	µg/L	0.1940	ppb	11:56:24
1	Ti 334.940†	790.9	-31.9	-0.0308	µg/L	-0.0308	ppb	11:56:04
1	Tl 190.801†	-109.3	4.9	0.6728	µg/L	0.6728	ppb	11:56:24
1	U 409.014†	-240.1	-76.8	-4.8425	µg/L	-4.8425	ppb	11:56:04
1	V 292.402†	433.4	10.3	0.0553	µg/L	0.0553	ppb	11:56:04
1	Zn 213.857†	610.2	107.4	0.6379	µg/L	0.6379	ppb	11:56:24
2	Sc RADIAL	139282.4	139282.4	99.4	%			11:55:16
2	Al 396.153Radial†	-42.2	36.1	7.5894	µg/L	7.5894	ppb	11:55:36
2	Ca 317.933Radial†	638.7	70.9	4.8316	µg/L	4.8316	ppb	11:55:36
2	Fe 238.204 Radial†	158.2	41.9	3.1259	µg/L	3.1259	ppb	11:55:36
2	K 766.490 Radial†	1707.0	223.2	88.420	µg/L	88.420	ppb	11:55:16
2	Mg 279.077 IEC†	177.7	6.3	2.9217	µg/L	2.9217	ppb	11:55:36
2	Na 589.592 Radial†	1039.6	93.2	14.364	µg/L	14.364	ppb	11:55:16
2	Sr 421.552†	-106.1	97.7	0.2305	µg/L	0.2305	ppb	11:55:16
2	Sc 361.383	1821566.7	1821566.7	100.97	%			11:56:26
2	Y 371.029	1068824.4	1068824.4	101.09	%			11:56:26
2	Ag 328.068†	4339.7	-267.0	-1.1089	µg/L	-1.1089	ppb	11:56:28
2	As 188.979†	-18.8	-0.1	-0.0164	µg/L	-0.0164	ppb	11:56:49
2	B 249.677†	4055.1	-48.8	-0.7607	µg/L	-0.7607	ppb	11:56:28
2	Ba 233.527†	-123.2	22.5	0.0996	µg/L	0.0996	ppb	11:56:49
2	Be 313.107†	-844.8	255.0	0.0729	µg/L	0.0729	ppb	11:56:28
2	Cd 226.502†	-65.9	38.1	0.2575	µg/L	0.2575	ppb	11:56:49
2	Co 228.616†	-177.6	34.4	0.4555	µg/L	0.4555	ppb	11:56:49
2	Cr 267.716†	273.2	37.4	0.3256	µg/L	0.3256	ppb	11:56:49
2	Cu 324.752†	3023.7	-41.3	-0.1746	µg/L	-0.1746	ppb	11:56:28
2	Mn 257.610†	559.5	369.5	0.4900	µg/L	0.4900	ppb	11:56:49
2	Mo 202.031†	-27.6	11.2	0.3677	µg/L	0.3677	ppb	11:56:49
2	Ni 231.604†	-57.5	39.0	0.4875	µg/L	0.4875	ppb	11:56:49
2	P 214.914†	21.5	47.0	10.874	µg/L	10.874	ppb	11:56:49
2	Pb 220.353†	83.8	-20.4	-1.2522	µg/L	-1.2522	ppb	11:56:49

2	S 181.975 Axial†	95.6	5.8	4.8821 µg/L	4.8821 ppb	11:56:49
2	Sb 206.836†	69.7	-20.7	-2.6649 µg/L	-2.6649 ppb	11:56:49
2	Se 196.026†	22.8	16.4	6.45 µg/L	6.45 ppb	11:56:49
2	SiO2†	1841.3	84.6	8.9537 µg/L	8.9537 ppb	11:56:49
2	Si 251.611†	927.3	151.4	2.3842 µg/L	2.3842 ppb	11:56:28
2	Sn 189.927†	-2.1	-4.0	-0.2757 µg/L	-0.2757 ppb	11:56:49
2	Ti 334.940†	628.9	-200.1	-0.2043 µg/L	-0.2043 ppb	11:56:28
2	Tl 190.801†	-115.8	-0.5	-0.0731 µg/L	-0.0731 ppb	11:56:49
2	U 409.014†	-218.4	-53.0	-3.3981 µg/L	-3.3981 ppb	11:56:28
2	V 292.402†	237.2	-188.3	-0.9729 µg/L	-0.9729 ppb	11:56:28
2	Zn 213.857†	635.0	125.9	0.7484 µg/L	0.7484 ppb	11:56:49
3	Sc RADIAL	139340.4	139340.4	99.5 %		11:55:38
3	Al 396.153Radial†	-77.3	0.8	0.1277 µg/L	0.1277 ppb	11:55:58
3	Ca 317.933Radial†	597.0	28.7	1.9576 µg/L	1.9576 ppb	11:55:58
3	Fe 238.204 Radial†	155.3	38.9	2.9027 µg/L	2.9027 ppb	11:55:58
3	K 766.490 Radial†	1502.8	17.1	6.7800 µg/L	6.7800 ppb	11:55:38
3	Mg 279.077 IEC†	194.6	23.2	10.746 µg/L	10.746 ppb	11:55:58
3	Na 589.592 Radial†	1106.6	160.1	24.810 µg/L	24.810 ppb	11:55:38
3	Sr 421.552†	-124.6	79.2	0.1869 µg/L	0.1869 ppb	11:55:38
3	Sc 361.383	1797247.0	1797247.0	99.617 %		11:56:51
3	Y 371.029	1055174.4	1055174.4	99.799 %		11:56:51
3	Ag 328.068†	4221.6	-327.3	-1.3518 µg/L	-1.3518 ppb	11:56:53
3	As 188.979†	-9.7	8.8	2.9796 µg/L	2.9796 ppb	11:57:13
3	B 249.677†	3829.7	-220.7	-3.4338 µg/L	-3.4338 ppb	11:56:53
3	Ba 233.527†	-151.6	-7.6	-0.0339 µg/L	-0.0339 ppb	11:57:13
3	Be 313.107†	-753.4	335.5	0.0958 µg/L	0.0958 ppb	11:56:53
3	Cd 226.502†	-87.6	15.5	0.1044 µg/L	0.1044 ppb	11:57:13
3	Co 228.616†	-191.7	17.9	0.2362 µg/L	0.2362 ppb	11:57:13
3	Cr 267.716†	227.7	-4.6	-0.0368 µg/L	-0.0368 ppb	11:57:13
3	Cu 324.752†	2886.9	-138.1	-0.5806 µg/L	-0.5806 ppb	11:56:53
3	Mn 257.610†	271.2	87.5	0.1156 µg/L	0.1156 ppb	11:57:13
3	Mo 202.031†	-6.1	32.4	1.0600 µg/L	1.0600 ppb	11:57:13
3	Ni 231.604†	-73.4	22.2	0.2780 µg/L	0.2780 ppb	11:57:13
3	P 214.914†	3.6	29.3	6.7857 µg/L	6.7857 ppb	11:57:13
3	Pb 220.353†	60.8	-42.4	-2.6054 µg/L	-2.6054 ppb	11:57:13
3	S 181.975 Axial†	106.0	17.5	14.706 µg/L	14.706 ppb	11:57:13
3	Sb 206.836†	79.7	-9.8	-1.2426 µg/L	-1.2426 ppb	11:57:13
3	Se 196.026†	15.7	9.6	3.78 µg/L	3.78 ppb	11:57:13
3	SiO2†	1829.5	97.4	10.277 µg/L	10.277 ppb	11:57:13
3	Si 251.611†	1111.0	348.3	5.4721 µg/L	5.4721 ppb	11:56:53
3	Sn 189.927†	13.7	11.9	0.8234 µg/L	0.8234 ppb	11:57:13
3	Ti 334.940†	717.7	-102.5	-0.1043 µg/L	-0.1043 ppb	11:56:53
3	Tl 190.801†	-119.4	-5.6	-0.7640 µg/L	-0.7640 ppb	11:57:13
3	U 409.014†	-232.3	-69.9	-4.4392 µg/L	-4.4392 ppb	11:56:53
3	V 292.402†	319.0	-103.0	-0.5260 µg/L	-0.5260 ppb	11:56:53
3	Zn 213.857†	589.3	88.6	0.5275 µg/L	0.5275 ppb	11:57:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807497.7	100.19	%	0.698				0.70%
Sc RADIAL	139337.6	99.5	%	0.04				0.04%
Y 371.029	1061220.4	100.37	%	0.658				0.66%
Ag 328.068†	-376.1	-1.5506	µg/L	0.56784	-1.5506	ppb	0.56784	36.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.4	2.1526	µg/L	4.75922	2.1526	ppb	4.75922	221.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.3	1.7910	µg/L	1.59094	1.7910	ppb	1.59094	88.83%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-109.3	-1.7004	µg/L	1.50298	-1.7004	ppb	1.50298	88.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.0	0.0263	µg/L	0.06770	0.0263	ppb	0.06770	257.26%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	275.9	0.0786	µg/L	0.01517	0.0786	ppb	0.01517	19.29%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	58.7	3.9947	µg/L	1.77355	3.9947	ppb	1.77355	44.40%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.1	0.1560	µg/L	0.08793	0.1560	ppb	0.08793	56.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.6	0.2728	µg/L	0.16746	0.2728	ppb	0.16746	61.39%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.6      0.1726 µg/L       0.18768      0.1726 ppb        0.18768 108.74%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -99.0     -0.4168 µg/L       0.21408     -0.4168 ppb        0.21408  51.36%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       41.6      3.1063 µg/L       0.19449      3.1063 ppb        0.19449   6.26%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       120.7     47.835 µg/L       40.8218     47.835 ppb        40.8218  85.34%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          11.0      5.1091 µg/L       4.92266      5.1091 ppb        4.92266  96.35%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             175.5      0.2326 µg/L       0.22323      0.2326 ppb        0.22323  95.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              19.2      0.6283 µg/L       0.37654      0.6283 ppb        0.37654  59.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      151.3     23.414 µg/L        8.4391     23.414 ppb         8.4391  36.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              35.0      0.4376 µg/L       0.14140      0.4376 ppb        0.14140  32.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               35.0      8.0960 µg/L       2.40728      8.0960 ppb        2.40728  29.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -20.9     -1.2812 µg/L       1.30999     -1.2812 ppb        1.30999 102.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          7.1      5.9853 µg/L       8.22482      5.9853 ppb        8.22482 137.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -14.9     -1.9206 µg/L       0.71350     -1.9206 ppb        0.71350  37.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              15.1        5.96 µg/L         1.979        5.96 ppb          1.979  33.19%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    70.0      7.3902 µg/L       3.91074      7.3902 ppb        3.91074  52.92%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             222.9      3.5056 µg/L       1.70860      3.5056 ppb        1.70860  48.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.6      0.2472 µg/L       0.55145      0.2472 ppb        0.55145 223.04%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              30.1      0.0709 µg/L       0.23957      0.0709 ppb        0.23957 337.83%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -111.5     -0.1132 µg/L       0.08709     -0.1132 ppb        0.08709  76.96%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.4     -0.0548 µg/L       0.71858     -0.0548 ppb        0.71858 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -66.5     -4.2266 µg/L       0.74532     -4.2266 ppb        0.74532  17.63%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -93.6     -0.4812 µg/L       0.51557     -0.4812 ppb        0.51557 107.15%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             107.3      0.6379 µg/L       0.11045      0.6379 ppb        0.11045  17.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 12:16:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138173.1	138173.1	98.6	%			12:17:08
1	Al 396.153Radial†	23436.3	23840.5	4995.9	µg/L	4995.9	ppb	12:17:08
1	Ca 317.933Radial†	73829.7	74284.1	5059.4	µg/L	5059.4	ppb	12:17:08
1	Fe 238.204 Radial†	66677.7	67486.8	5039.9	µg/L	5039.9	ppb	12:17:08
1	K 766.490 Radial†	14215.5	12919.2	5115.1	µg/L	5115.1	ppb	12:17:08
1	Mg 279.077 IEC†	11111.0	11092.9	5130.0	µg/L	5130.0	ppb	12:17:08
1	Na 589.592 Radial†	64510.7	64454.5	9986.4	µg/L	9986.4	ppb	12:17:08
1	Sr 421.552†	208276.3	211374.6	498.48	µg/L	498.48	ppb	12:17:05
1	Sc 361.383	1771153.0	1771153.0	98.171	%			12:17:34
1	Y 371.029	1029832.2	1029832.2	97.402	%			12:17:34
1	Ag 328.068†	123736.1	121476.4	503.55	µg/L	503.55	ppb	12:17:34
1	As 188.979†	1382.2	1426.5	489.79	µg/L	489.79	ppb	12:17:54
1	B 249.677†	35147.2	31736.9	491.81	µg/L	491.81	ppb	12:17:34
1	Ba 233.527†	110394.8	112596.2	500.88	µg/L	500.88	ppb	12:17:34
1	Be 313.107†	1668216.9	1700390.5	492.70	µg/L	492.70	ppb	12:17:34
1	Cd 226.502†	72697.5	74155.4	500.88	µg/L	500.88	ppb	12:17:34
1	Co 228.616†	37260.4	38164.9	505.16	µg/L	505.16	ppb	12:17:34
1	Cr 267.716†	57133.8	57965.1	501.33	µg/L	501.33	ppb	12:17:34
1	Cu 324.752†	120539.2	119749.0	502.44	µg/L	502.44	ppb	12:17:34
1	Mn 257.610†	371828.3	378571.5	501.98	µg/L	501.98	ppb	12:17:34
1	Mo 202.031†	15099.0	15418.9	504.72	µg/L	504.72	ppb	12:17:54
1	Ni 231.604†	39340.9	40169.8	502.57	µg/L	502.57	ppb	12:17:34
1	P 214.914†	10642.4	10866.4	2505.0	µg/L	2505.0	ppb	12:17:54
1	Pb 220.353†	8192.1	8241.3	508.72	µg/L	508.72	ppb	12:17:54
1	S 181.975 Axial†	1246.0	1180.3	997.22	µg/L	997.22	ppb	12:17:54
1	Sb 206.836†	3907.2	3890.3	502.82	µg/L	502.82	ppb	12:17:54
1	Se 196.026†	1267.0	1284.5	508	µg/L	508	ppb	12:17:54
1	SiO2†	51163.3	50377.5	5313.3	µg/L	5313.3	ppb	12:17:34
1	Si 251.611†	156323.1	158468.6	2488.8	µg/L	2488.8	ppb	12:17:34
1	Sn 189.927†	7092.0	7222.2	502.64	µg/L	502.64	ppb	12:17:54
1	Ti 334.940†	477558.9	485633.6	498.13	µg/L	498.13	ppb	12:17:34
1	Tl 190.801†	3523.3	3703.2	513.18	µg/L	513.18	ppb	12:17:54
1	U 409.014†	7278.5	7577.4	508.67	µg/L	508.67	ppb	12:17:34
1	V 292.402†	95032.0	96379.4	506.23	µg/L	506.23	ppb	12:17:34
1	Zn 213.857†	83125.8	84171.6	498.69	µg/L	498.69	ppb	12:17:34
2	Sc RADIAL	136709.1	136709.1	97.6	%			12:17:12
2	Al 396.153Radial†	23297.2	23952.4	5019.6	µg/L	5019.6	ppb	12:17:12
2	Ca 317.933Radial†	72959.0	74193.5	5053.2	µg/L	5053.2	ppb	12:17:12
2	Fe 238.204 Radial†	65851.7	67364.3	5030.7	µg/L	5030.7	ppb	12:17:12
2	K 766.490 Radial†	13849.6	12698.6	5027.7	µg/L	5027.7	ppb	12:17:12
2	Mg 279.077 IEC†	10906.9	11004.4	5089.1	µg/L	5089.1	ppb	12:17:12
2	Na 589.592 Radial†	64040.2	64672.9	10020	µg/L	10020	ppb	12:17:12
2	Sr 421.552†	208577.2	213944.5	504.54	µg/L	504.54	ppb	12:17:10
2	Sc 361.383	1790471.7	1790471.7	99.242	%			12:17:58
2	Y 371.029	1040499.0	1040499.0	98.411	%			12:17:58
2	Ag 328.068†	125354.8	121747.5	504.66	µg/L	504.66	ppb	12:17:58
2	As 188.979†	1362.5	1391.5	477.93	µg/L	477.93	ppb	12:18:18
2	B 249.677†	35724.9	31932.7	494.85	µg/L	494.85	ppb	12:17:58
2	Ba 233.527†	111665.0	112662.7	501.18	µg/L	501.18	ppb	12:17:58
2	Be 313.107†	1689440.1	1703440.9	493.59	µg/L	493.59	ppb	12:17:58
2	Cd 226.502†	73727.4	74394.1	502.50	µg/L	502.50	ppb	12:17:58
2	Co 228.616†	37877.1	38376.8	507.96	µg/L	507.96	ppb	12:17:58
2	Cr 267.716†	57789.1	57997.4	501.61	µg/L	501.61	ppb	12:17:58
2	Cu 324.752†	121820.0	119714.7	502.29	µg/L	502.29	ppb	12:17:58
2	Mn 257.610†	376181.4	378871.2	502.38	µg/L	502.38	ppb	12:17:58
2	Mo 202.031†	15140.8	15295.0	500.67	µg/L	500.67	ppb	12:18:18
2	Ni 231.604†	39919.1	40320.1	504.45	µg/L	504.45	ppb	12:17:58
2	P 214.914†	10675.0	10782.2	2485.6	µg/L	2485.6	ppb	12:18:18
2	Pb 220.353†	8199.1	8158.3	503.61	µg/L	503.61	ppb	12:18:18

2	S 181.975 Axial†	1250.2	1170.9	989.23 µg/L	989.23 ppb	12:18:18
2	Sb 206.836†	3900.5	3840.6	496.34 µg/L	496.34 ppb	12:18:18
2	Se 196.026†	1261.8	1265.3	501 µg/L	501 ppb	12:18:18
2	SiO2†	51903.6	50561.1	5332.9 µg/L	5332.9 ppb	12:17:58
2	Si 251.611†	158711.3	159157.0	2499.8 µg/L	2499.8 ppb	12:17:58
2	Sn 189.927†	7069.7	7121.8	495.68 µg/L	495.68 ppb	12:18:18
2	Ti 334.940†	483377.5	486248.0	498.77 µg/L	498.77 ppb	12:17:58
2	Tl 190.801†	3525.8	3667.0	508.23 µg/L	508.23 ppb	12:18:18
2	U 409.014†	7276.7	7495.6	503.52 µg/L	503.52 ppb	12:17:58
2	V 292.402†	96108.6	96419.7	506.39 µg/L	506.39 ppb	12:17:58
2	Zn 213.857†	84041.9	84181.0	498.73 µg/L	498.73 ppb	12:17:58
3	Sc RADIAL	137430.0	137430.0	98.1 %		12:17:16
3	Al 396.153Radial†	23488.3	24022.0	5034.0 µg/L	5034.0 ppb	12:17:16
3	Ca 317.933Radial†	73707.4	74564.2	5078.5 µg/L	5078.5 ppb	12:17:16
3	Fe 238.204 Radial†	66294.6	67461.9	5038.0 µg/L	5038.0 ppb	12:17:16
3	K 766.490 Radial†	13997.9	12775.3	5058.1 µg/L	5058.1 ppb	12:17:16
3	Mg 279.077 IEC†	10912.3	10951.3	5064.7 µg/L	5064.7 ppb	12:17:16
3	Na 589.592 Radial†	64249.5	64542.0	10000 µg/L	10000 ppb	12:17:16
3	Sr 421.552†	206570.3	210777.5	497.07 µg/L	497.07 ppb	12:17:14
3	Sc 361.383	1791956.4	1791956.4	99.324 %		12:18:21
3	Y 371.029	1040969.8	1040969.8	98.456 %		12:18:21
3	Ag 328.068†	125471.1	121760.0	504.71 µg/L	504.71 ppb	12:18:21
3	As 188.979†	1389.7	1417.7	486.83 µg/L	486.83 ppb	12:18:41
3	B 249.677†	35714.4	31892.3	494.22 µg/L	494.22 ppb	12:18:21
3	Ba 233.527†	112011.5	112918.4	502.32 µg/L	502.32 ppb	12:18:21
3	Be 313.107†	1691084.9	1703686.5	493.66 µg/L	493.66 ppb	12:18:21
3	Cd 226.502†	73961.0	74567.8	503.67 µg/L	503.67 ppb	12:18:21
3	Co 228.616†	37900.0	38368.2	507.85 µg/L	507.85 ppb	12:18:21
3	Cr 267.716†	57873.2	58033.9	501.93 µg/L	501.93 ppb	12:18:21
3	Cu 324.752†	121881.7	119675.2	502.12 µg/L	502.12 ppb	12:18:21
3	Mn 257.610†	376942.5	379323.3	502.98 µg/L	502.98 ppb	12:18:21
3	Mo 202.031†	15340.9	15483.8	506.84 µg/L	506.84 ppb	12:18:41
3	Ni 231.604†	40041.2	40409.6	505.57 µg/L	505.57 ppb	12:18:21
3	P 214.914†	10860.3	10960.0	2526.7 µg/L	2526.7 ppb	12:18:41
3	Pb 220.353†	8326.6	8279.8	511.10 µg/L	511.10 ppb	12:18:41
3	S 181.975 Axial†	1272.4	1192.1	1007.2 µg/L	1007.2 ppb	12:18:41
3	Sb 206.836†	3964.4	3901.7	504.31 µg/L	504.31 ppb	12:18:41
3	Se 196.026†	1279.4	1281.9	507 µg/L	507 ppb	12:18:41
3	SiO2†	52183.1	50799.2	5357.8 µg/L	5357.8 ppb	12:18:21
3	Si 251.611†	159232.7	159549.5	2505.8 µg/L	2505.8 ppb	12:18:21
3	Sn 189.927†	7190.1	7237.1	503.67 µg/L	503.67 ppb	12:18:41
3	Ti 334.940†	483431.3	485898.6	498.41 µg/L	498.41 ppb	12:18:21
3	Tl 190.801†	3579.1	3717.8	515.16 µg/L	515.16 ppb	12:18:41
3	U 409.014†	7290.1	7503.1	504.01 µg/L	504.01 ppb	12:18:21
3	V 292.402†	96227.3	96459.0	506.66 µg/L	506.66 ppb	12:18:21
3	Zn 213.857†	84398.4	84469.8	500.45 µg/L	500.45 ppb	12:18:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1784527.0	98.912	%	0.6433				0.65%
Sc RADIAL	137437.4	98.1	%	0.52				0.53%
Y 371.029	1037100.3	98.090	%	0.5957				0.61%
Ag 328.068†	121661.3	504.31	µg/L	0.654	504.31	ppb	0.654	0.13%
QC value within limits for Ag 328.068 Recovery = 100.86%								
Al 396.153Radial†	23938.3	5016.5	µg/L	19.24	5016.5	ppb	19.24	0.38%
QC value within limits for Al 396.153Radial Recovery = 100.33%								
As 188.979†	1411.9	484.85	µg/L	6.176	484.85	ppb	6.176	1.27%
QC value within limits for As 188.979 Recovery = 96.97%								
B 249.677†	31854.0	493.63	µg/L	1.602	493.63	ppb	1.602	0.32%
QC value within limits for B 249.677 Recovery = 98.73%								
Ba 233.527†	112725.8	501.46	µg/L	0.757	501.46	ppb	0.757	0.15%
QC value within limits for Ba 233.527 Recovery = 100.29%								
Be 313.107†	1702506.0	493.32	µg/L	0.531	493.32	ppb	0.531	0.11%
QC value within limits for Be 313.107 Recovery = 98.66%								
Ca 317.933Radial†	74347.3	5063.7	µg/L	13.16	5063.7	ppb	13.16	0.26%
QC value within limits for Ca 317.933Radial Recovery = 101.27%								
Cd 226.502†	74372.4	502.35	µg/L	1.400	502.35	ppb	1.400	0.28%
QC value within limits for Cd 226.502 Recovery = 100.47%								
Co 228.616†	38303.3	506.99	µg/L	1.587	506.99	ppb	1.587	0.31%

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   QC value within limits for Co 228.616  Recovery = 101.40%
Cr 267.716†            57998.8      501.62 µg/L         0.300      501.62 ppb          0.300   0.06%
   QC value within limits for Cr 267.716  Recovery = 100.32%
Cu 324.752†           119713.0      502.28 µg/L         0.157      502.28 ppb          0.157   0.03%
   QC value within limits for Cu 324.752  Recovery = 100.46%
Fe 238.204 Radial†     67437.7      5036.2 µg/L          4.83      5036.2 ppb           4.83   0.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.72%
K 766.490 Radial†      12797.7      5066.9 µg/L         44.38      5066.9 ppb          44.38   0.88%
   QC value within limits for K 766.490 Radial  Recovery = 101.34%
Mg 279.077 IEC†        11016.2      5094.6 µg/L         33.02      5094.6 ppb          33.02   0.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.89%
Mn 257.610†           378922.0      502.44 µg/L         0.503      502.44 ppb          0.503   0.10%
   QC value within limits for Mn 257.610  Recovery = 100.49%
Mo 202.031†            15399.3      504.08 µg/L         3.137      504.08 ppb          3.137   0.62%
   QC value within limits for Mo 202.031  Recovery = 100.82%
Na 589.592 Radial†     64556.5       10002 µg/L          17.1       10002 ppb           17.1   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 100.02%
Ni 231.604†            40299.8      504.20 µg/L         1.516      504.20 ppb          1.516   0.30%
   QC value within limits for Ni 231.604  Recovery = 100.84%
P 214.914†             10869.5      2505.8 µg/L         20.57      2505.8 ppb          20.57   0.82%
   QC value within limits for P 214.914  Recovery = 100.23%
Pb 220.353†             8226.4      507.81 µg/L         3.830      507.81 ppb          3.830   0.75%
   QC value within limits for Pb 220.353  Recovery = 101.56%
S 181.975 Axial†        1181.1      997.87 µg/L         8.980      997.87 ppb          8.980   0.90%
   QC value within limits for S 181.975 Axial  Recovery = 99.79%
Sb 206.836†             3877.5      501.16 µg/L         4.237      501.16 ppb          4.237   0.85%
   QC value within limits for Sb 206.836  Recovery = 100.23%
Se 196.026†             1277.2         505 µg/L           4.1         505 ppb            4.1   0.81%
   QC value within limits for Se 196.026  Recovery = 101.08%
SiO2†                  50579.3      5334.7 µg/L         22.34      5334.7 ppb          22.34   0.42%
   QC value within limits for SiO2  Recovery = 99.76%
Si 251.611†           159058.4      2498.2 µg/L          8.62      2498.2 ppb           8.62   0.35%
   QC value within limits for Si 251.611  Recovery = 99.93%
Sn 189.927†             7193.7      500.66 µg/L         4.348      500.66 ppb          4.348   0.87%
   QC value within limits for Sn 189.927  Recovery = 100.13%
Sr 421.552†           212032.2      500.03 µg/L         3.969      500.03 ppb          3.969   0.79%
   QC value within limits for Sr 421.552  Recovery = 100.01%
Ti 334.940†           485926.7      498.44 µg/L         0.319      498.44 ppb          0.319   0.06%
   QC value within limits for Ti 334.940  Recovery = 99.69%
Tl 190.801†             3696.0      512.19 µg/L         3.570      512.19 ppb          3.570   0.70%
   QC value within limits for Tl 190.801  Recovery = 102.44%
U 409.014†              7525.4      505.40 µg/L         2.841      505.40 ppb          2.841   0.56%
   QC value within limits for U 409.014  Recovery = 101.08%
V 292.402†             96419.4      506.43 µg/L         0.219      506.43 ppb          0.219   0.04%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†            84274.1      499.29 µg/L         1.005      499.29 ppb          1.005   0.20%
   QC value within limits for Zn 213.857  Recovery = 99.86%
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 12:18:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140761.4	140761.4	100	%			12:19:18
1	Al 396.153Radial†	-73.7	5.2	1.0818	µg/L	1.0818	ppb	12:19:38
1	Ca 317.933Radial†	682.8	108.1	7.3604	µg/L	7.3604	ppb	12:19:38
1	Fe 238.204 Radial†	164.0	45.9	3.4255	µg/L	3.4255	ppb	12:19:38
1	K 766.490 Radial†	1670.2	168.5	66.774	µg/L	66.774	ppb	12:19:18
1	Mg 279.077 IEC†	159.2	-14.0	-6.4612	µg/L	-6.4612	ppb	12:19:38
1	Na 589.592 Radial†	1062.0	104.4	16.125	µg/L	16.125	ppb	12:19:18
1	Sr 421.552†	-212.6	-7.1	-0.0169	µg/L	-0.0169	ppb	12:19:18
1	Sc 361.383	1793257.1	1793257.1	99.396	%			12:20:26
1	Y 371.029	1054149.0	1054149.0	99.702	%			12:20:26
1	Ag 328.068†	4339.0	-199.8	-0.8254	µg/L	-0.8254	ppb	12:20:28
1	As 188.979†	-4.3	14.2	4.8058	µg/L	4.8058	ppb	12:20:48
1	B 249.677†	3947.0	-94.2	-1.4648	µg/L	-1.4648	ppb	12:20:28
1	Ba 233.527†	-155.4	-11.8	-0.0523	µg/L	-0.0523	ppb	12:20:48
1	Be 313.107†	-700.9	386.5	0.1098	µg/L	0.1098	ppb	12:20:28
1	Cd 226.502†	-69.6	33.4	0.2252	µg/L	0.2252	ppb	12:20:48
1	Co 228.616†	-201.5	7.5	0.0994	µg/L	0.0994	ppb	12:20:48
1	Cr 267.716†	296.8	65.3	0.5712	µg/L	0.5712	ppb	12:20:48
1	Cu 324.752†	2928.5	-89.9	-0.3813	µg/L	-0.3813	ppb	12:20:28
1	Mn 257.610†	255.1	71.9	0.0956	µg/L	0.0956	ppb	12:20:48
1	Mo 202.031†	-35.2	3.1	0.1021	µg/L	0.1021	ppb	12:20:48
1	Ni 231.604†	-76.5	18.9	0.2366	µg/L	0.2366	ppb	12:20:48
1	P 214.914†	10.1	35.8	8.2902	µg/L	8.2902	ppb	12:20:48
1	Pb 220.353†	120.7	17.9	1.1096	µg/L	1.1096	ppb	12:20:48
1	S 181.975 Axial†	96.2	7.8	6.6016	µg/L	6.6016	ppb	12:20:48
1	Sb 206.836†	100.6	11.5	1.4806	µg/L	1.4806	ppb	12:20:48
1	Se 196.026†	21.5	15.5	6.09	µg/L	6.09	ppb	12:20:48
1	SiO2†	1959.7	232.5	24.621	µg/L	24.621	ppb	12:20:48
1	Si 251.611†	1212.9	453.2	7.1445	µg/L	7.1445	ppb	12:20:28
1	Sn 189.927†	3.8	2.0	0.1355	µg/L	0.1355	ppb	12:20:48
1	Ti 334.940†	610.5	-208.8	-0.2110	µg/L	-0.2110	ppb	12:20:28
1	Tl 190.801†	-105.3	8.3	1.1328	µg/L	1.1328	ppb	12:20:48
1	U 409.014†	-274.2	-112.5	-7.0945	µg/L	-7.0945	ppb	12:20:28
1	V 292.402†	440.1	19.6	0.1000	µg/L	0.1000	ppb	12:20:28
1	Zn 213.857†	567.3	67.7	0.4026	µg/L	0.4026	ppb	12:20:48
2	Sc RADIAL	140927.4	140927.4	101	%			12:19:40
2	Al 396.153Radial†	-17.8	60.9	12.799	µg/L	12.799	ppb	12:20:00
2	Ca 317.933Radial†	745.5	169.6	11.554	µg/L	11.554	ppb	12:20:00
2	Fe 238.204 Radial†	572.5	451.8	33.741	µg/L	33.741	ppb	12:20:00
2	K 766.490 Radial†	1510.5	7.7	3.0501	µg/L	3.0501	ppb	12:19:40
2	Mg 279.077 IEC†	179.6	6.1	2.8107	µg/L	2.8107	ppb	12:20:00
2	Na 589.592 Radial†	1290.2	330.1	51.159	µg/L	51.159	ppb	12:19:40
2	Sr 421.552†	-200.2	5.5	0.0129	µg/L	0.0129	ppb	12:19:40
2	Sc 361.383	1797905.6	1797905.6	99.654	%			12:20:50
2	Y 371.029	1055651.2	1055651.2	99.844	%			12:20:50
2	Ag 328.068†	4546.9	-2.4	-0.0256	µg/L	-0.0256	ppb	12:20:52
2	As 188.979†	-15.2	3.3	1.1095	µg/L	1.1095	ppb	12:21:13
2	B 249.677†	3898.7	-152.9	-2.3781	µg/L	-2.3781	ppb	12:20:52
2	Ba 233.527†	-169.3	-25.4	-0.1128	µg/L	-0.1128	ppb	12:21:13
2	Be 313.107†	-804.8	284.1	0.0779	µg/L	0.0779	ppb	12:20:52
2	Cd 226.502†	-97.2	5.8	0.0361	µg/L	0.0361	ppb	12:21:13
2	Co 228.616†	-205.9	3.6	0.0462	µg/L	0.0462	ppb	12:21:13
2	Cr 267.716†	221.4	-11.0	-0.0830	µg/L	-0.0830	ppb	12:21:13
2	Cu 324.752†	2993.4	-32.3	-0.1422	µg/L	-0.1422	ppb	12:20:52
2	Mn 257.610†	242.6	58.7	0.0777	µg/L	0.0777	ppb	12:21:13
2	Mo 202.031†	-24.5	14.0	0.4601	µg/L	0.4601	ppb	12:21:13
2	Ni 231.604†	-62.9	32.8	0.4103	µg/L	0.4103	ppb	12:21:13
2	P 214.914†	4.7	30.4	7.0168	µg/L	7.0168	ppb	12:21:13
2	Pb 220.353†	100.3	-2.8	-0.1609	µg/L	-0.1609	ppb	12:21:13

2	S 181.975 Axial†	95.9	7.3	6.1755 µg/L	6.1755 ppb	12:21:13
2	Sb 206.836†	81.0	-8.4	-1.0806 µg/L	-1.0806 ppb	12:21:13
2	Se 196.026†	18.0	11.9	4.69 µg/L	4.69 ppb	12:21:13
2	SiO2†	1920.7	188.3	19.928 µg/L	19.928 ppb	12:21:13
2	Si 251.611†	1349.5	587.2	9.2535 µg/L	9.2535 ppb	12:20:52
2	Sn 189.927†	0.7	-1.2	-0.0837 µg/L	-0.0837 ppb	12:21:13
2	Ti 334.940†	868.6	48.7	0.0560 µg/L	0.0560 ppb	12:20:52
2	Tl 190.801†	-93.1	20.9	2.8555 µg/L	2.8555 ppb	12:21:13
2	U 409.014†	-392.1	-230.1	-14.511 µg/L	-14.511 ppb	12:20:52
2	V 292.402†	466.3	44.7	0.2229 µg/L	0.2229 ppb	12:20:52
2	Zn 213.857†	578.9	77.9	0.4592 µg/L	0.4592 ppb	12:21:13
3	Sc RADIAL	137308.2	137308.2	98.0 %		12:20:02
3	Al 396.153Radial†	-65.9	11.3	2.3545 µg/L	2.3545 ppb	12:20:22
3	Ca 317.933Radial†	664.5	106.5	7.2566 µg/L	7.2566 ppb	12:20:22
3	Fe 238.204 Radial†	190.2	76.7	5.7301 µg/L	5.7301 ppb	12:20:22
3	K 766.490 Radial†	1567.9	105.9	41.946 µg/L	41.946 ppb	12:20:02
3	Mg 279.077 IEC†	188.8	20.2	9.3189 µg/L	9.3189 ppb	12:20:22
3	Na 589.592 Radial†	1125.3	195.6	30.288 µg/L	30.288 ppb	12:20:02
3	Sr 421.552†	68.6	274.5	0.6472 µg/L	0.6472 ppb	12:20:02
3	Sc 361.383	1810912.5	1810912.5	100.37 %		12:21:15
3	Y 371.029	1062136.4	1062136.4	100.46 %		12:21:15
3	Ag 328.068†	4349.1	-232.3	-0.9622 µg/L	-0.9622 ppb	12:21:17
3	As 188.979†	-10.5	8.1	2.7398 µg/L	2.7398 ppb	12:21:37
3	B 249.677†	4079.2	-1.2	-0.0184 µg/L	-0.0184 ppb	12:21:17
3	Ba 233.527†	-145.3	-0.2	-0.0009 µg/L	-0.0009 ppb	12:21:37
3	Be 313.107†	-583.7	510.2	0.1456 µg/L	0.1456 ppb	12:21:17
3	Cd 226.502†	-84.1	19.5	0.1318 µg/L	0.1318 ppb	12:21:37
3	Co 228.616†	-201.2	9.8	0.1294 µg/L	0.1294 ppb	12:21:37
3	Cr 267.716†	247.4	13.3	0.1205 µg/L	0.1205 ppb	12:21:37
3	Cu 324.752†	2887.9	-159.0	-0.6698 µg/L	-0.6698 ppb	12:21:17
3	Mn 257.610†	215.0	29.5	0.0387 µg/L	0.0387 ppb	12:21:37
3	Mo 202.031†	-24.6	14.1	0.4603 µg/L	0.4603 ppb	12:21:37
3	Ni 231.604†	-37.9	58.2	0.7276 µg/L	0.7276 ppb	12:21:37
3	P 214.914†	4.2	29.9	6.9204 µg/L	6.9204 ppb	12:21:37
3	Pb 220.353†	90.3	-13.5	-0.8254 µg/L	-0.8254 ppb	12:21:37
3	S 181.975 Axial†	92.5	3.2	2.7332 µg/L	2.7332 ppb	12:21:37
3	Sb 206.836†	86.8	-3.3	-0.4176 µg/L	-0.4176 ppb	12:21:37
3	Se 196.026†	17.2	11.0	4.34 µg/L	4.34 ppb	12:21:37
3	SiO2†	1924.5	178.2	18.853 µg/L	18.853 ppb	12:21:37
3	Si 251.611†	1376.2	604.0	9.5169 µg/L	9.5169 ppb	12:21:17
3	Sn 189.927†	4.7	2.8	0.1960 µg/L	0.1960 ppb	12:21:37
3	Ti 334.940†	625.3	-200.0	-0.2031 µg/L	-0.2031 ppb	12:21:17
3	Tl 190.801†	-137.8	-23.0	-3.1476 µg/L	-3.1476 ppb	12:21:37
3	U 409.014†	-276.3	-111.9	-7.0712 µg/L	-7.0712 ppb	12:21:17
3	V 292.402†	387.3	-37.4	-0.1938 µg/L	-0.1938 ppb	12:21:17
3	Zn 213.857†	557.3	52.2	0.3067 µg/L	0.3067 ppb	12:21:37

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1800691.8	99.808	%	0.5072				0.51%
Sc RADIAL	139665.7	99.7	%	1.46				1.46%
Y 371.029	1057312.2	100.00	%	0.401				0.40%
Ag 328.068†	-144.8	-0.6044	µg/L	0.50591	-0.6044	ppb	0.50591	83.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	25.8	5.4118	µg/L	6.42909	5.4118	ppb	6.42909	118.80%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.5	2.8851	µg/L	1.85242	2.8851	ppb	1.85242	64.21%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-82.7	-1.2871	µg/L	1.18982	-1.2871	ppb	1.18982	92.44%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-12.4	-0.0553	µg/L	0.05604	-0.0553	ppb	0.05604	101.26%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	393.6	0.1111	µg/L	0.03389	0.1111	ppb	0.03389	30.50%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	128.1	8.7237	µg/L	2.45179	8.7237	ppb	2.45179	28.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.6	0.1310	µg/L	0.09458	0.1310	ppb	0.09458	72.20%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.0	0.0917	µg/L	0.04215	0.0917	ppb	0.04215	45.98%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              22.5      0.2029 µg/L       0.33475      0.2029 ppb        0.33475 164.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -93.7     -0.3978 µg/L       0.26421     -0.3978 ppb        0.26421  66.42%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      191.5      14.299 µg/L       16.8767      14.299 ppb        16.8767 118.03%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        94.0      37.256 µg/L       32.1195      37.256 ppb        32.1195  86.21%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           4.1      1.8895 µg/L       7.93033      1.8895 ppb        7.93033 419.71%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              53.4      0.0707 µg/L       0.02908      0.0707 ppb        0.02908  41.15%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.4      0.3408 µg/L       0.20677      0.3408 ppb        0.20677  60.67%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      210.0      32.524 µg/L       17.6236      32.524 ppb        17.6236  54.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              36.6      0.4582 µg/L       0.24899      0.4582 ppb        0.24899  54.34%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               32.1      7.4091 µg/L       0.76452      7.4091 ppb        0.76452  10.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.5      0.0411 µg/L       0.98319      0.0411 ppb        0.98319 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.1      5.1701 µg/L       2.12113      5.1701 ppb        2.12113  41.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.1     -0.0059 µg/L       1.32934     -0.0059 ppb        1.32934 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              12.8        5.04 µg/L         0.925        5.04 ppb          0.925  18.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   199.7      21.134 µg/L        3.0669      21.134 ppb         3.0669  14.51%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             548.1      8.6383 µg/L       1.30031      8.6383 ppb        1.30031  15.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.2      0.0826 µg/L       0.14718      0.0826 ppb        0.14718 178.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              90.9      0.2144 µg/L       0.37513      0.2144 ppb        0.37513 174.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -120.0     -0.1194 µg/L       0.15194     -0.1194 ppb        0.15194 127.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.1      0.2803 µg/L       3.09104      0.2803 ppb        3.09104 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -151.5     -9.5590 µg/L       4.28885     -9.5590 ppb        4.28885  44.87%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                9.0      0.0430 µg/L       0.21409      0.0430 ppb        0.21409 497.46%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              65.9      0.3895 µg/L       0.07706      0.3895 ppb        0.07706  19.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 12:41:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138943.7	138943.7	99.2	%			12:41:37
1	Al 396.153Radial†	23385.0	23657.0	4957.1	µg/L	4957.1	ppb	12:41:37
1	Ca 317.933Radial†	74173.8	74215.8	5054.8	µg/L	5054.8	ppb	12:41:37
1	Fe 238.204 Radial†	66887.9	67323.8	5027.7	µg/L	5027.7	ppb	12:41:37
1	K 766.490 Radial†	14097.2	12720.0	5036.2	µg/L	5036.2	ppb	12:41:37
1	Mg 279.077 IEC†	11043.2	10962.1	5069.7	µg/L	5069.7	ppb	12:41:37
1	Na 589.592 Radial†	64657.0	64239.3	9953.1	µg/L	9953.1	ppb	12:41:37
1	Sr 421.552†	211693.9	213649.4	503.85	µg/L	503.85	ppb	12:41:35
1	Sc 361.383	1787262.5	1787262.5	99.064	%			12:42:04
1	Y 371.029	1038840.9	1038840.9	98.254	%			12:42:04
1	Ag 328.068†	124468.7	121079.8	501.88	µg/L	501.88	ppb	12:42:04
1	As 188.979†	1396.1	1427.8	490.22	µg/L	490.22	ppb	12:42:24
1	B 249.677†	35476.1	31746.2	491.96	µg/L	491.96	ppb	12:42:04
1	Ba 233.527†	110950.2	112143.2	498.87	µg/L	498.87	ppb	12:42:04
1	Be 313.107†	1677200.9	1694142.7	490.89	µg/L	490.89	ppb	12:42:04
1	Cd 226.502†	73260.7	74056.4	500.22	µg/L	500.22	ppb	12:42:04
1	Co 228.616†	37543.3	38108.4	504.41	µg/L	504.41	ppb	12:42:04
1	Cr 267.716†	57568.9	57879.7	500.60	µg/L	500.60	ppb	12:42:04
1	Cu 324.752†	121037.2	119144.9	499.89	µg/L	499.89	ppb	12:42:04
1	Mn 257.610†	373450.2	376794.7	499.62	µg/L	499.62	ppb	12:42:04
1	Mo 202.031†	15337.0	15520.5	508.04	µg/L	508.04	ppb	12:42:24
1	Ni 231.604†	39650.9	40121.5	501.97	µg/L	501.97	ppb	12:42:04
1	P 214.914†	10862.9	10991.3	2534.0	µg/L	2534.0	ppb	12:42:24
1	Pb 220.353†	8349.5	8324.9	513.88	µg/L	513.88	ppb	12:42:24
1	S 181.975 Axial†	1278.6	1201.7	1015.3	µg/L	1015.3	ppb	12:42:24
1	Sb 206.836†	3947.3	3894.9	503.47	µg/L	503.47	ppb	12:42:24
1	Se 196.026†	1287.7	1293.7	512	µg/L	512	ppb	12:42:24
1	SiO2†	51490.8	50238.3	5298.4	µg/L	5298.4	ppb	12:42:04
1	Si 251.611†	157278.3	157997.6	2481.3	µg/L	2481.3	ppb	12:42:04
1	Sn 189.927†	7193.9	7260.0	505.25	µg/L	505.25	ppb	12:42:24
1	Ti 334.940†	480256.1	483971.6	496.44	µg/L	496.44	ppb	12:42:04
1	Tl 190.801†	3552.9	3700.7	512.80	µg/L	512.80	ppb	12:42:24
1	U 409.014†	7139.5	7370.3	495.42	µg/L	495.42	ppb	12:42:04
1	V 292.402†	95339.2	95817.0	503.34	µg/L	503.34	ppb	12:42:04
1	Zn 213.857†	83855.8	84145.3	498.54	µg/L	498.54	ppb	12:42:04
2	Sc RADIAL	141291.3	141291.3	101	%			12:41:41
2	Al 396.153Radial†	23752.9	23630.0	4951.4	µg/L	4951.4	ppb	12:41:41
2	Ca 317.933Radial†	75646.8	74433.7	5069.6	µg/L	5069.6	ppb	12:41:41
2	Fe 238.204 Radial†	68330.6	67633.8	5050.8	µg/L	5050.8	ppb	12:41:41
2	K 766.490 Radial†	14268.2	12653.4	5009.8	µg/L	5009.8	ppb	12:41:41
2	Mg 279.077 IEC†	11450.1	11180.6	5170.6	µg/L	5170.6	ppb	12:41:41
2	Na 589.592 Radial†	65910.3	64398.8	9977.9	µg/L	9977.9	ppb	12:41:41
2	Sr 421.552†	211423.7	209835.0	494.85	µg/L	494.85	ppb	12:41:39
2	Sc 361.383	1793839.4	1793839.4	99.428	%			12:42:27
2	Y 371.029	1042511.0	1042511.0	98.602	%			12:42:27
2	Ag 328.068†	125087.0	121241.0	502.53	µg/L	502.53	ppb	12:42:27
2	As 188.979†	1395.9	1422.5	488.43	µg/L	488.43	ppb	12:42:47
2	B 249.677†	35898.2	32039.5	496.51	µg/L	496.51	ppb	12:42:27
2	Ba 233.527†	111421.2	112206.3	499.15	µg/L	499.15	ppb	12:42:27
2	Be 313.107†	1687036.9	1697828.0	491.95	µg/L	491.95	ppb	12:42:27
2	Cd 226.502†	74020.0	74548.9	503.54	µg/L	503.54	ppb	12:42:27
2	Co 228.616†	37859.8	38287.8	506.78	µg/L	506.78	ppb	12:42:27
2	Cr 267.716†	57911.5	58011.3	501.75	µg/L	501.75	ppb	12:42:27
2	Cu 324.752†	121562.8	119225.6	500.23	µg/L	500.23	ppb	12:42:27
2	Mn 257.610†	375840.4	377816.5	500.97	µg/L	500.97	ppb	12:42:27
2	Mo 202.031†	15373.5	15500.4	507.39	µg/L	507.39	ppb	12:42:47
2	Ni 231.604†	40030.6	40356.6	504.91	µg/L	504.91	ppb	12:42:27
2	P 214.914†	10881.6	10969.9	2529.0	µg/L	2529.0	ppb	12:42:47
2	Pb 220.353†	8348.9	8293.4	511.95	µg/L	511.95	ppb	12:42:47

2	S 181.975 Axial†	1279.7	1198.2	1012.3 µg/L	1012.3 ppb	12:42:47
2	Sb 206.836†	3977.5	3910.6	505.48 µg/L	505.48 ppb	12:42:47
2	Se 196.026†	1301.1	1302.4	515 µg/L	515 ppb	12:42:47
2	SiO2†	51742.6	50301.0	5305.0 µg/L	5305.0 ppb	12:42:27
2	Si 251.611†	158432.1	158575.9	2490.5 µg/L	2490.5 ppb	12:42:27
2	Sn 189.927†	7228.0	7267.6	505.78 µg/L	505.78 ppb	12:42:47
2	Ti 334.940†	481660.7	483606.9	496.06 µg/L	496.06 ppb	12:42:27
2	Tl 190.801†	3584.9	3719.8	515.40 µg/L	515.40 ppb	12:42:47
2	U 409.014†	6924.3	7127.5	480.13 µg/L	480.13 ppb	12:42:27
2	V 292.402†	95806.2	95933.8	503.93 µg/L	503.93 ppb	12:42:27
2	Zn 213.857†	84371.3	84353.4	499.76 µg/L	499.76 ppb	12:42:27
3	Sc RADIAL	140960.0	140960.0	101 %		12:41:45
3	Al 396.153Radial†	23658.9	23591.9	4943.6 µg/L	4943.6 ppb	12:41:45
3	Ca 317.933Radial†	75426.6	74391.2	5066.7 µg/L	5066.7 ppb	12:41:45
3	Fe 238.204 Radial†	67958.0	67422.7	5035.1 µg/L	5035.1 ppb	12:41:45
3	K 766.490 Radial†	14351.0	12768.9	5055.5 µg/L	5055.5 ppb	12:41:45
3	Mg 279.077 IEC†	11270.8	11029.0	5100.5 µg/L	5100.5 ppb	12:41:45
3	Na 589.592 Radial†	65596.5	64240.5	9953.3 µg/L	9953.3 ppb	12:41:45
3	Sr 421.552†	211471.7	210375.5	496.12 µg/L	496.12 ppb	12:41:43
3	Sc 361.383	1802636.7	1802636.7	99.916 %		12:42:50
3	Y 371.029	1046785.0	1046785.0	99.006 %		12:42:50
3	Ag 328.068†	125848.1	121388.8	503.18 µg/L	503.18 ppb	12:42:50
3	As 188.979†	1381.4	1401.1	481.20 µg/L	481.20 ppb	12:43:10
3	B 249.677†	36130.3	32095.6	497.38 µg/L	497.38 ppb	12:42:50
3	Ba 233.527†	112457.4	112696.5	501.33 µg/L	501.33 ppb	12:42:50
3	Be 313.107†	1700233.2	1702754.8	493.39 µg/L	493.39 ppb	12:42:50
3	Cd 226.502†	74872.6	75038.9	506.86 µg/L	506.86 ppb	12:42:50
3	Co 228.616†	38226.2	38468.7	509.18 µg/L	509.18 ppb	12:42:50
3	Cr 267.716†	58249.2	58065.0	502.20 µg/L	502.20 ppb	12:42:50
3	Cu 324.752†	122344.5	119411.3	501.02 µg/L	501.02 ppb	12:42:50
3	Mn 257.610†	378788.4	378922.2	502.44 µg/L	502.44 ppb	12:42:50
3	Mo 202.031†	15294.8	15346.2	502.34 µg/L	502.34 ppb	12:43:10
3	Ni 231.604†	40405.7	40535.6	507.15 µg/L	507.15 ppb	12:42:50
3	P 214.914†	10816.0	10850.7	2501.4 µg/L	2501.4 ppb	12:43:10
3	Pb 220.353†	8301.3	8204.9	506.47 µg/L	506.47 ppb	12:43:10
3	S 181.975 Axial†	1290.2	1202.4	1015.8 µg/L	1015.8 ppb	12:43:10
3	Sb 206.836†	3940.4	3854.0	498.09 µg/L	498.09 ppb	12:43:10
3	Se 196.026†	1295.0	1289.9	510 µg/L	510 ppb	12:43:10
3	SiO2†	52249.6	50554.4	5332.1 µg/L	5332.1 ppb	12:42:50
3	Si 251.611†	159808.9	159176.3	2500.1 µg/L	2500.1 ppb	12:42:50
3	Sn 189.927†	7164.9	7169.1	498.95 µg/L	498.95 ppb	12:43:10
3	Ti 334.940†	485644.3	485229.7	497.72 µg/L	497.72 ppb	12:42:50
3	Tl 190.801†	3544.7	3662.0	507.52 µg/L	507.52 ppb	12:43:10
3	U 409.014†	7287.7	7457.2	501.07 µg/L	501.07 ppb	12:42:50
3	V 292.402†	96696.3	96354.4	506.07 µg/L	506.07 ppb	12:42:50
3	Zn 213.857†	84912.9	84481.4	500.51 µg/L	500.51 ppb	12:42:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1794579.6	99.469	%	0.4276				0.43%
Sc RADIAL	140398.3	100	%	0.9				0.90%
Y 371.029	1042712.3	98.621	%	0.3760				0.38%
Ag 328.068†	121236.5	502.53	µg/L	0.652	502.53	ppb	0.652	0.13%
QC value within limits for Ag 328.068 Recovery = 100.51%								
Al 396.153Radial†	23626.3	4950.7	µg/L	6.75	4950.7	ppb	6.75	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.01%								
As 188.979†	1417.1	486.61	µg/L	4.777	486.61	ppb	4.777	0.98%
QC value within limits for As 188.979 Recovery = 97.32%								
B 249.677†	31960.4	495.28	µg/L	2.910	495.28	ppb	2.910	0.59%
QC value within limits for B 249.677 Recovery = 99.06%								
Ba 233.527†	112348.7	499.78	µg/L	1.346	499.78	ppb	1.346	0.27%
QC value within limits for Ba 233.527 Recovery = 99.96%								
Be 313.107†	1698241.9	492.08	µg/L	1.253	492.08	ppb	1.253	0.25%
QC value within limits for Be 313.107 Recovery = 98.42%								
Ca 317.933Radial†	74346.9	5063.7	µg/L	7.87	5063.7	ppb	7.87	0.16%
QC value within limits for Ca 317.933Radial Recovery = 101.27%								
Cd 226.502†	74548.0	503.54	µg/L	3.321	503.54	ppb	3.321	0.66%
QC value within limits for Cd 226.502 Recovery = 100.71%								
Co 228.616†	38288.3	506.79	µg/L	2.384	506.79	ppb	2.384	0.47%

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   QC value within limits for Co 228.616  Recovery = 101.36%
Cr 267.716†            57985.3      501.51 µg/L         0.825      501.51 ppb          0.825   0.16%
   QC value within limits for Cr 267.716  Recovery = 100.30%
Cu 324.752†           119260.6      500.38 µg/L         0.577      500.38 ppb          0.577   0.12%
   QC value within limits for Cu 324.752  Recovery = 100.08%
Fe 238.204 Radial†     67460.1      5037.9 µg/L         11.82      5037.9 ppb          11.82   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.76%
K 766.490 Radial†      12714.1      5033.8 µg/L         22.98      5033.8 ppb          22.98   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 100.68%
Mg 279.077 IEC†        11057.2      5113.6 µg/L         51.68      5113.6 ppb          51.68   1.01%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.27%
Mn 257.610†           377844.5      501.01 µg/L         1.411      501.01 ppb          1.411   0.28%
   QC value within limits for Mn 257.610  Recovery = 100.20%
Mo 202.031†            15455.7      505.92 µg/L         3.118      505.92 ppb          3.118   0.62%
   QC value within limits for Mo 202.031  Recovery = 101.18%
Na 589.592 Radial†     64292.9      9961.4 µg/L         14.24      9961.4 ppb          14.24   0.14%
   QC value within limits for Na 589.592 Radial  Recovery = 99.61%
Ni 231.604†            40337.9      504.68 µg/L         2.598      504.68 ppb          2.598   0.51%
   QC value within limits for Ni 231.604  Recovery = 100.94%
P 214.914†             10937.3      2521.5 µg/L         17.53      2521.5 ppb          17.53   0.70%
   QC value within limits for P 214.914  Recovery = 100.86%
Pb 220.353†             8274.4      510.77 µg/L         3.842      510.77 ppb          3.842   0.75%
   QC value within limits for Pb 220.353  Recovery = 102.15%
S 181.975 Axial†        1200.8      1014.4 µg/L          1.89      1014.4 ppb           1.89   0.19%
   QC value within limits for S 181.975 Axial  Recovery = 101.44%
Sb 206.836†             3886.5      502.35 µg/L         3.823      502.35 ppb          3.823   0.76%
   QC value within limits for Sb 206.836  Recovery = 100.47%
Se 196.026†             1295.4         513 µg/L           2.5         513 ppb            2.5   0.49%
   QC value within limits for Se 196.026  Recovery = 102.51%
SiO2†                  50364.6      5311.8 µg/L         17.87      5311.8 ppb          17.87   0.34%
   QC value within limits for SiO2  Recovery = 99.33%
Si 251.611†           158583.3      2490.6 µg/L          9.35      2490.6 ppb           9.35   0.38%
   QC value within limits for Si 251.611  Recovery = 99.62%
Sn 189.927†             7232.2      503.33 µg/L         3.801      503.33 ppb          3.801   0.76%
   QC value within limits for Sn 189.927  Recovery = 100.67%
Sr 421.552†           211286.6      498.27 µg/L         4.868      498.27 ppb          4.868   0.98%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           484269.4      496.74 µg/L         0.872      496.74 ppb          0.872   0.18%
   QC value within limits for Ti 334.940  Recovery = 99.35%
Tl 190.801†             3694.2      511.90 µg/L         4.014      511.90 ppb          4.014   0.78%
   QC value within limits for Tl 190.801  Recovery = 102.38%
U 409.014†              7318.3      492.21 µg/L        10.834      492.21 ppb         10.834   2.20%
   QC value within limits for U 409.014  Recovery = 98.44%
V 292.402†             96035.1      504.45 µg/L         1.439      504.45 ppb          1.439   0.29%
   QC value within limits for V 292.402  Recovery = 100.89%
Zn 213.857†            84326.7      499.60 µg/L         0.995      499.60 ppb          0.995   0.20%
   QC value within limits for Zn 213.857  Recovery = 99.92%
All analyte(s) passed QC.
```

Sequence No.: 31 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/5/2010 12:43:18**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139295.5	139295.5	99.4	%			12:43:47
1	Al 396.153Radial†	-24.0	54.4	11.413	µg/L	11.413	ppb	12:44:07
1	Ca 317.933Radial†	708.0	140.6	9.5778	µg/L	9.5778	ppb	12:44:07
1	Fe 238.204 Radial†	178.6	62.3	4.6540	µg/L	4.6540	ppb	12:44:07
1	K 766.490 Radial†	1724.7	240.8	95.403	µg/L	95.403	ppb	12:43:47
1	Mg 279.077 IEC†	154.2	-17.4	-8.0256	µg/L	-8.0256	ppb	12:44:07
1	Na 589.592 Radial†	1146.9	201.0	31.071	µg/L	31.071	ppb	12:43:47
1	Sr 421.552†	-159.3	44.3	0.1044	µg/L	0.1044	ppb	12:43:47
1	Sc 361.383	1814807.9	1814807.9	100.59	%			12:45:09
1	Y 371.029	1064526.0	1064526.0	100.68	%			12:45:09
1	Ag 328.068†	4340.5	-250.2	-1.0252	µg/L	-1.0252	ppb	12:45:11
1	As 188.979†	-4.6	14.0	4.7451	µg/L	4.7451	ppb	12:45:31
1	B 249.677†	3969.3	-119.1	-1.8538	µg/L	-1.8538	ppb	12:45:11
1	Ba 233.527†	-20.5	124.2	0.5521	µg/L	0.5521	ppb	12:45:31
1	Be 313.107†	-903.9	193.2	0.0555	µg/L	0.0555	ppb	12:45:11
1	Cd 226.502†	-45.4	58.2	0.3932	µg/L	0.3932	ppb	12:45:31
1	Co 228.616†	-189.8	21.6	0.2862	µg/L	0.2862	ppb	12:45:31
1	Cr 267.716†	288.0	53.1	0.4609	µg/L	0.4609	ppb	12:45:31
1	Cu 324.752†	2935.8	-117.5	-0.4923	µg/L	-0.4923	ppb	12:45:11
1	Mn 257.610†	640.2	451.7	0.5996	µg/L	0.5996	ppb	12:45:31
1	Mo 202.031†	-13.9	24.8	0.8103	µg/L	0.8103	ppb	12:45:31
1	Ni 231.604†	-64.1	32.2	0.4024	µg/L	0.4024	ppb	12:45:31
1	P 214.914†	7.0	32.7	7.5584	µg/L	7.5584	ppb	12:45:31
1	Pb 220.353†	106.9	2.9	0.1807	µg/L	0.1807	ppb	12:45:31
1	S 181.975 Axial†	96.9	7.4	6.2672	µg/L	6.2672	ppb	12:45:31
1	Sb 206.836†	87.7	-2.6	-0.3244	µg/L	-0.3244	ppb	12:45:31
1	Se 196.026†	26.1	19.8	7.80	µg/L	7.80	ppb	12:45:31
1	SiO2†	1980.3	229.6	24.283	µg/L	24.283	ppb	12:45:31
1	Si 251.611†	2172.1	1392.3	21.940	µg/L	21.940	ppb	12:45:11
1	Sn 189.927†	10.1	8.1	0.5652	µg/L	0.5652	ppb	12:45:31
1	Ti 334.940†	1494.6	662.8	0.6822	µg/L	0.6822	ppb	12:45:11
1	Tl 190.801†	-118.2	-3.2	-0.4323	µg/L	-0.4323	ppb	12:45:31
1	U 409.014†	-188.8	-24.3	-1.5258	µg/L	-1.5258	ppb	12:45:11
1	V 292.402†	442.4	16.6	0.0943	µg/L	0.0943	ppb	12:45:11
1	Zn 213.857†	614.8	108.2	0.6437	µg/L	0.6437	ppb	12:45:31
2	Sc RADIAL	138151.7	138151.7	98.6	%			12:44:09
2	Al 396.153Radial†	-28.6	49.5	10.400	µg/L	10.400	ppb	12:44:29
2	Ca 317.933Radial†	742.9	181.9	12.386	µg/L	12.386	ppb	12:44:29
2	Fe 238.204 Radial†	502.8	392.6	29.316	µg/L	29.316	ppb	12:44:29
2	K 766.490 Radial†	1718.3	248.6	98.510	µg/L	98.510	ppb	12:44:09
2	Mg 279.077 IEC†	166.2	-4.0	-1.8376	µg/L	-1.8376	ppb	12:44:29
2	Na 589.592 Radial†	1104.7	167.7	25.905	µg/L	25.905	ppb	12:44:09
2	Sr 421.552†	-237.6	-36.5	-0.0861	µg/L	-0.0861	ppb	12:44:09
2	Sc 361.383	1813927.3	1813927.3	100.54	%			12:45:33
2	Y 371.029	1065006.3	1065006.3	100.73	%			12:45:33
2	Ag 328.068†	4086.9	-500.2	-2.0568	µg/L	-2.0568	ppb	12:45:35
2	As 188.979†	-20.8	-2.2	-0.7245	µg/L	-0.7245	ppb	12:45:56
2	B 249.677†	4066.5	-20.5	-0.3191	µg/L	-0.3191	ppb	12:45:35
2	Ba 233.527†	-100.7	44.4	0.1967	µg/L	0.1967	ppb	12:45:56
2	Be 313.107†	-633.5	461.7	0.1333	µg/L	0.1333	ppb	12:45:35
2	Cd 226.502†	-83.8	20.0	0.1325	µg/L	0.1325	ppb	12:45:56
2	Co 228.616†	-218.2	-6.7	-0.0897	µg/L	-0.0897	ppb	12:45:56
2	Cr 267.716†	249.0	14.5	0.1273	µg/L	0.1273	ppb	12:45:56
2	Cu 324.752†	2868.6	-183.0	-0.7626	µg/L	-0.7626	ppb	12:45:35
2	Mn 257.610†	225.9	40.0	0.0530	µg/L	0.0530	ppb	12:45:56
2	Mo 202.031†	-20.8	17.9	0.5857	µg/L	0.5857	ppb	12:45:56
2	Ni 231.604†	-73.9	22.4	0.2807	µg/L	0.2807	ppb	12:45:56
2	P 214.914†	7.4	33.1	7.6380	µg/L	7.6380	ppb	12:45:56
2	Pb 220.353†	90.2	-13.8	-0.8438	µg/L	-0.8438	ppb	12:45:56

2	S 181.975 Axial†	103.9	14.4	12.116 µg/L	12.116 ppb	12:45:56
2	Sb 206.836†	79.0	-11.2	-1.4372 µg/L	-1.4372 ppb	12:45:56
2	Se 196.026†	14.3	8.1	3.20 µg/L	3.20 ppb	12:45:56
2	SiO2†	1902.6	153.3	16.209 µg/L	16.209 ppb	12:45:56
2	Si 251.611†	1085.1	312.2	4.9121 µg/L	4.9121 ppb	12:45:35
2	Sn 189.927†	8.1	6.2	0.4318 µg/L	0.4318 ppb	12:45:56
2	Ti 334.940†	966.6	138.4	0.1433 µg/L	0.1433 ppb	12:45:35
2	Tl 190.801†	-96.1	18.7	2.5507 µg/L	2.5507 ppb	12:45:56
2	U 409.014†	-189.8	-25.4	-1.6406 µg/L	-1.6406 ppb	12:45:35
2	V 292.402†	317.1	-107.8	-0.5566 µg/L	-0.5566 ppb	12:45:35
2	Zn 213.857†	578.6	72.5	0.4285 µg/L	0.4285 ppb	12:45:56
3	Sc RADIAL	141342.2	141342.2	101 %		12:44:31
3	Al 396.153Radial†	-59.8	19.3	4.0212 µg/L	4.0212 ppb	12:44:51
3	Ca 317.933Radial†	684.0	106.5	7.2532 µg/L	7.2532 ppb	12:44:51
3	Fe 238.204 Radial†	177.9	59.0	4.4051 µg/L	4.4051 ppb	12:44:51
3	K 766.490 Radial†	1655.6	147.2	58.309 µg/L	58.309 ppb	12:44:31
3	Mg 279.077 IEC†	175.6	1.6	0.7607 µg/L	0.7607 ppb	12:44:51
3	Na 589.592 Radial†	1005.0	43.6	6.7004 µg/L	6.7004 ppb	12:44:31
3	Sr 421.552†	-148.4	57.4	0.1354 µg/L	0.1354 ppb	12:44:31
3	Sc 361.383	1826132.7	1826132.7	101.22 %		12:45:58
3	Y 371.029	1071945.3	1071945.3	101.39 %		12:45:58
3	Ag 328.068†	4453.8	-164.9	-0.6788 µg/L	-0.6788 ppb	12:46:00
3	As 188.979†	-27.7	-8.8	-2.9706 µg/L	-2.9706 ppb	12:46:20
3	B 249.677†	4032.4	-81.3	-1.2660 µg/L	-1.2660 ppb	12:46:00
3	Ba 233.527†	-117.7	28.3	0.1260 µg/L	0.1260 ppb	12:46:20
3	Be 313.107†	-753.2	347.6	0.0996 µg/L	0.0996 ppb	12:46:00
3	Cd 226.502†	-68.5	35.7	0.2410 µg/L	0.2410 ppb	12:46:20
3	Co 228.616†	-184.1	28.5	0.3763 µg/L	0.3763 ppb	12:46:20
3	Cr 267.716†	261.7	25.3	0.2219 µg/L	0.2219 ppb	12:46:20
3	Cu 324.752†	2902.4	-168.6	-0.7073 µg/L	-0.7073 ppb	12:46:00
3	Mn 257.610†	415.2	225.4	0.2990 µg/L	0.2990 ppb	12:46:20
3	Mo 202.031†	-17.0	21.8	0.7128 µg/L	0.7128 ppb	12:46:20
3	Ni 231.604†	-77.7	19.2	0.2398 µg/L	0.2398 ppb	12:46:20
3	P 214.914†	9.4	34.9	8.0864 µg/L	8.0864 ppb	12:46:20
3	Pb 220.353†	110.2	5.4	0.3368 µg/L	0.3368 ppb	12:46:20
3	S 181.975 Axial†	89.8	-0.2	-0.1722 µg/L	-0.1722 ppb	12:46:20
3	Sb 206.836†	88.9	-1.9	-0.2318 µg/L	-0.2318 ppb	12:46:20
3	Se 196.026†	27.2	20.7	8.15 µg/L	8.15 ppb	12:46:20
3	SiO2†	1966.3	203.5	21.525 µg/L	21.525 ppb	12:46:20
3	Si 251.611†	1407.5	623.6	9.8201 µg/L	9.8201 ppb	12:46:00
3	Sn 189.927†	9.5	7.5	0.5164 µg/L	0.5164 ppb	12:46:20
3	Ti 334.940†	647.9	-182.9	-0.1863 µg/L	-0.1863 ppb	12:46:00
3	Tl 190.801†	-112.6	3.0	0.4095 µg/L	0.4095 ppb	12:46:20
3	U 409.014†	-222.9	-56.9	-3.5823 µg/L	-3.5823 ppb	12:46:00
3	V 292.402†	444.1	15.5	0.0861 µg/L	0.0861 ppb	12:46:00
3	Zn 213.857†	601.9	91.7	0.5458 µg/L	0.5458 ppb	12:46:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1818289.3	100.78	%	0.377				0.37%
Sc RADIAL	139596.5	99.6	%	1.15				1.16%
Y 371.029	1067159.2	100.93	%	0.393				0.39%
Ag 328.068†	-305.1	-1.2536	µg/L	0.71682	-1.2536	ppb	0.71682	57.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	41.1	8.6113	µg/L	4.00722	8.6113	ppb	4.00722	46.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.0	0.3500	µg/L	3.96848	0.3500	ppb	3.96848	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-73.7	-1.1463	µg/L	0.77432	-1.1463	ppb	0.77432	67.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	65.6	0.2916	µg/L	0.22839	0.2916	ppb	0.22839	78.32%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	334.1	0.0961	µg/L	0.03900	0.0961	ppb	0.03900	40.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	143.0	9.7391	µg/L	2.57028	9.7391	ppb	2.57028	26.39%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	38.0	0.2556	µg/L	0.13096	0.2556	ppb	0.13096	51.24%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	14.5	0.1909	µg/L	0.24721	0.1909	ppb	0.24721	129.48%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              31.0      0.2701 µg/L       0.17191      0.2701 ppb        0.17191  63.66%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -156.4     -0.6540 µg/L       0.14282     -0.6540 ppb        0.14282  21.84%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      171.3      12.792 µg/L       14.3110      12.792 ppb        14.3110 111.88%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       212.2      84.074 µg/L       22.3671      84.074 ppb        22.3671  26.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -6.6     -3.0342 µg/L       4.51367     -3.0342 ppb        4.51367 148.76%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             239.1      0.3172 µg/L       0.27371      0.3172 ppb        0.27371  86.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              21.5      0.7029 µg/L       0.11261      0.7029 ppb        0.11261  16.02%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      137.4      21.225 µg/L       12.8415      21.225 ppb        12.8415  60.50%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              24.6      0.3076 µg/L       0.08459      0.3076 ppb        0.08459  27.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               33.6      7.7609 µg/L       0.28464      7.7609 ppb        0.28464   3.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -1.8     -0.1088 µg/L       0.64132     -0.1088 ppb        0.64132 589.57%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          7.2      6.0705 µg/L       6.14666      6.0705 ppb        6.14666 101.25%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -5.2     -0.6645 µg/L       0.67080     -0.6645 ppb        0.67080 100.95%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              16.2        6.38 µg/L         2.765        6.38 ppb          2.765  43.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   195.5      20.672 µg/L        4.1037      20.672 ppb         4.1037  19.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             776.0      12.224 µg/L        8.7650      12.224 ppb         8.7650  71.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.3      0.5044 µg/L       0.06747      0.5044 ppb        0.06747  13.37%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              21.7      0.0512 µg/L       0.11992      0.0512 ppb        0.11992 234.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             206.1      0.2130 µg/L       0.43842      0.2130 ppb        0.43842 205.79%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               6.2      0.8426 µg/L       1.53797      0.8426 ppb        1.53797 182.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -35.5     -2.2496 µg/L       1.15564     -2.2496 ppb        1.15564  51.37%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -25.2     -0.1254 µg/L       0.37347     -0.1254 ppb        0.37347 297.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              90.8      0.5394 µg/L       0.10772      0.5394 ppb        0.10772  19.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 13:02:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	134951.4	134951.4	96.3	%			13:03:24
1	Al 396.153Radial†	23289.9	24255.8	5083.2	µg/L	5083.2	ppb	13:03:24
1	Ca 317.933Radial†	72439.3	74627.7	5082.8	µg/L	5082.8	ppb	13:03:24
1	Fe 238.204 Radial†	67478.3	69931.9	5222.5	µg/L	5222.5	ppb	13:03:24
1	K 766.490 Radial†	13543.3	12565.5	4974.9	µg/L	4974.9	ppb	13:03:24
1	Mg 279.077 IEC†	10775.3	11013.4	5093.2	µg/L	5093.2	ppb	13:03:24
1	Na 589.592 Radial†	62921.0	64365.7	9972.8	µg/L	9972.8	ppb	13:03:24
1	Sr 421.552†	205304.6	213331.0	503.09	µg/L	503.09	ppb	13:03:22
1	Sc 361.383	1747605.0	1747605.0	96.866	%			13:03:37
1	Y 371.029	1016171.2	1016171.2	96.110	%			13:03:37
1	Ag 328.068†	122620.9	122023.4	505.79	µg/L	505.79	ppb	13:03:37
1	As 188.979†	1327.3	1388.8	477.11	µg/L	477.11	ppb	13:03:57
1	B 249.677†	34851.3	31913.8	494.56	µg/L	494.56	ppb	13:03:37
1	Ba 233.527†	109210.3	112888.6	502.18	µg/L	502.18	ppb	13:03:37
1	Be 313.107†	1644176.8	1698469.7	492.15	µg/L	492.15	ppb	13:03:37
1	Cd 226.502†	72177.9	74616.7	503.98	µg/L	503.98	ppb	13:03:37
1	Co 228.616†	36906.9	38311.4	507.09	µg/L	507.09	ppb	13:03:37
1	Cr 267.716†	56644.2	58243.8	503.75	µg/L	503.75	ppb	13:03:37
1	Cu 324.752†	119066.1	119882.6	503.02	µg/L	503.02	ppb	13:03:37
1	Mn 257.610†	367985.1	379707.4	503.48	µg/L	503.48	ppb	13:03:37
1	Mo 202.031†	14958.8	15481.4	506.77	µg/L	506.77	ppb	13:03:57
1	Ni 231.604†	38996.7	40354.4	504.88	µg/L	504.88	ppb	13:03:37
1	P 214.914†	10523.6	10889.8	2510.3	µg/L	2510.3	ppb	13:03:57
1	Pb 220.353†	8084.3	8242.5	508.80	µg/L	508.80	ppb	13:03:57
1	S 181.975 Axial†	1239.5	1190.7	1005.9	µg/L	1005.9	ppb	13:03:57
1	Sb 206.836†	3857.3	3892.4	503.08	µg/L	503.08	ppb	13:03:57
1	Se 196.026†	1236.0	1269.9	503	µg/L	503	ppb	13:03:57
1	SiO2†	50367.9	50258.6	5300.7	µg/L	5300.7	ppb	13:03:37
1	Si 251.611†	154270.2	158495.0	2489.2	µg/L	2489.2	ppb	13:03:37
1	Sn 189.927†	6951.6	7174.6	499.34	µg/L	499.34	ppb	13:03:57
1	Ti 334.940†	472854.0	487331.3	499.88	µg/L	499.88	ppb	13:03:37
1	Tl 190.801†	3479.8	3706.7	513.66	µg/L	513.66	ppb	13:03:57
1	U 409.014†	7164.5	7559.7	507.55	µg/L	507.55	ppb	13:03:37
1	V 292.402†	93886.7	96501.4	506.87	µg/L	506.87	ppb	13:03:37
1	Zn 213.857†	82263.2	84422.0	500.15	µg/L	500.15	ppb	13:03:37
2	Sc RADIAL	136378.3	136378.3	97.3	%			13:03:28
2	Al 396.153Radial†	23164.1	23873.6	5003.0	µg/L	5003.0	ppb	13:03:28
2	Ca 317.933Radial†	73120.8	74541.0	5076.9	µg/L	5076.9	ppb	13:03:28
2	Fe 238.204 Radial†	66011.8	67692.5	5055.2	µg/L	5055.2	ppb	13:03:28
2	K 766.490 Radial†	13942.8	12828.8	5079.2	µg/L	5079.2	ppb	13:03:28
2	Mg 279.077 IEC†	10946.2	11071.9	5120.2	µg/L	5120.2	ppb	13:03:28
2	Na 589.592 Radial†	63956.9	64746.4	10032	µg/L	10032	ppb	13:03:28
2	Sr 421.552†	206101.6	211919.9	499.77	µg/L	499.77	ppb	13:03:26
2	Sc 361.383	1771467.8	1771467.8	98.188	%			13:04:00
2	Y 371.029	1029278.3	1029278.3	97.350	%			13:04:00
2	Ag 328.068†	124739.5	122475.9	507.68	µg/L	507.68	ppb	13:04:00
2	As 188.979†	1335.0	1378.2	473.48	µg/L	473.48	ppb	13:04:20
2	B 249.677†	35593.5	32185.1	498.77	µg/L	498.77	ppb	13:04:00
2	Ba 233.527†	110782.0	112970.6	502.55	µg/L	502.55	ppb	13:04:00
2	Be 313.107†	1676433.8	1708457.1	495.04	µg/L	495.04	ppb	13:04:00
2	Cd 226.502†	73710.5	75173.8	507.77	µg/L	507.77	ppb	13:04:00
2	Co 228.616†	37538.3	38441.2	508.82	µg/L	508.82	ppb	13:04:00
2	Cr 267.716†	57589.1	58418.4	505.25	µg/L	505.25	ppb	13:04:00
2	Cu 324.752†	121161.9	120361.3	505.01	µg/L	505.01	ppb	13:04:00
2	Mn 257.610†	374378.3	381101.1	505.33	µg/L	505.33	ppb	13:04:00
2	Mo 202.031†	14962.8	15277.5	500.10	µg/L	500.10	ppb	13:04:20
2	Ni 231.604†	39677.3	40505.3	506.77	µg/L	506.77	ppb	13:04:00
2	P 214.914†	10538.1	10758.2	2480.0	µg/L	2480.0	ppb	13:04:20
2	Pb 220.353†	8094.8	8140.7	502.52	µg/L	502.52	ppb	13:04:20

2	S 181.975 Axial†	1234.8	1168.6	987.34 µg/L	987.34 ppb	13:04:20
2	Sb 206.836†	3877.6	3859.4	498.71 µg/L	498.71 ppb	13:04:20
2	Se 196.026†	1247.8	1264.7	500 µg/L	500 ppb	13:04:20
2	SiO2†	51515.2	50726.6	5350.5 µg/L	5350.5 ppb	13:04:00
2	Si 251.611†	157474.7	159613.2	2507.0 µg/L	2507.0 ppb	13:04:00
2	Sn 189.927†	6980.0	7106.9	494.65 µg/L	494.65 ppb	13:04:20
2	Ti 334.940†	480399.5	488440.2	501.01 µg/L	501.01 ppb	13:04:00
2	Tl 190.801†	3461.6	3639.8	504.55 µg/L	504.55 ppb	13:04:20
2	U 409.014†	7360.0	7659.1	514.00 µg/L	514.00 ppb	13:04:00
2	V 292.402†	95569.5	96909.6	508.95 µg/L	508.95 ppb	13:04:00
2	Zn 213.857†	83892.2	84937.1	503.23 µg/L	503.23 ppb	13:04:00
3	Sc RADIAL	136580.0	136580.0	97.5 %		13:03:32
3	Al 396.153Radial†	23330.5	24009.1	5031.4 µg/L	5031.4 ppb	13:03:32
3	Ca 317.933Radial†	73424.8	74741.9	5090.6 µg/L	5090.6 ppb	13:03:32
3	Fe 238.204 Radial†	66275.6	67863.0	5068.0 µg/L	5068.0 ppb	13:03:32
3	K 766.490 Radial†	13976.3	12842.0	5084.5 µg/L	5084.5 ppb	13:03:32
3	Mg 279.077 IEC†	10895.7	11003.5	5088.7 µg/L	5088.7 ppb	13:03:32
3	Na 589.592 Radial†	64278.6	64979.3	10068 µg/L	10068 ppb	13:03:32
3	Sr 421.552†	204269.4	209727.8	494.60 µg/L	494.60 ppb	13:03:30
3	Sc 361.383	1762008.4	1762008.4	97.664 %		13:04:23
3	Y 371.029	1024064.8	1024064.8	96.857 %		13:04:23
3	Ag 328.068†	124016.1	122417.3	507.42 µg/L	507.42 ppb	13:04:23
3	As 188.979†	1344.0	1394.7	479.06 µg/L	479.06 ppb	13:04:43
3	B 249.677†	35445.3	32228.0	499.43 µg/L	499.43 ppb	13:04:23
3	Ba 233.527†	110194.8	112975.1	502.57 µg/L	502.57 ppb	13:04:23
3	Be 313.107†	1665423.2	1706349.1	494.43 µg/L	494.43 ppb	13:04:23
3	Cd 226.502†	73240.4	75095.6	507.24 µg/L	507.24 ppb	13:04:23
3	Co 228.616†	37379.4	38483.8	509.38 µg/L	509.38 ppb	13:04:23
3	Cr 267.716†	57383.5	58522.8	506.16 µg/L	506.16 ppb	13:04:23
3	Cu 324.752†	120292.6	120133.7	504.04 µg/L	504.04 ppb	13:04:23
3	Mn 257.610†	372242.5	380961.2	505.15 µg/L	505.15 ppb	13:04:23
3	Mo 202.031†	14975.1	15371.8	503.18 µg/L	503.18 ppb	13:04:43
3	Ni 231.604†	39454.9	40494.5	506.64 µg/L	506.64 ppb	13:04:23
3	P 214.914†	10535.7	10813.4	2492.7 µg/L	2492.7 ppb	13:04:43
3	Pb 220.353†	8095.0	8185.1	505.27 µg/L	505.27 ppb	13:04:43
3	S 181.975 Axial†	1246.4	1187.3	1003.0 µg/L	1003.0 ppb	13:04:43
3	Sb 206.836†	3832.0	3833.9	495.46 µg/L	495.46 ppb	13:04:43
3	Se 196.026†	1246.8	1270.5	503 µg/L	503 ppb	13:04:43
3	SiO2†	51309.1	50797.2	5357.8 µg/L	5357.8 ppb	13:04:23
3	Si 251.611†	156783.5	159766.5	2509.4 µg/L	2509.4 ppb	13:04:23
3	Sn 189.927†	6968.1	7132.9	496.45 µg/L	496.45 ppb	13:04:43
3	Ti 334.940†	477556.5	488155.9	500.73 µg/L	500.73 ppb	13:04:23
3	Tl 190.801†	3456.2	3653.1	506.37 µg/L	506.37 ppb	13:04:43
3	U 409.014†	7095.8	7428.9	499.46 µg/L	499.46 ppb	13:04:23
3	V 292.402†	95062.9	96913.4	508.99 µg/L	508.99 ppb	13:04:23
3	Zn 213.857†	83296.3	84785.6	502.33 µg/L	502.33 ppb	13:04:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1760360.4	97.573	%	0.6660				0.68%
Sc RADIAL	135969.9	97.1	%	0.63				0.65%
Y 371.029	1023171.4	96.772	%	0.6241				0.64%
Ag 328.068†	122305.5	506.97	µg/L	1.022	506.97	ppb	1.022	0.20%
QC value within limits for Ag 328.068 Recovery = 101.39%								
Al 396.153Radial†	24046.2	5039.2	µg/L	40.64	5039.2	ppb	40.64	0.81%
QC value within limits for Al 396.153Radial Recovery = 100.78%								
As 188.979†	1387.2	476.55	µg/L	2.835	476.55	ppb	2.835	0.59%
QC value within limits for As 188.979 Recovery = 95.31%								
B 249.677†	32109.0	497.59	µg/L	2.645	497.59	ppb	2.645	0.53%
QC value within limits for B 249.677 Recovery = 99.52%								
Ba 233.527†	112944.8	502.43	µg/L	0.217	502.43	ppb	0.217	0.04%
QC value within limits for Ba 233.527 Recovery = 100.49%								
Be 313.107†	1704425.3	493.87	µg/L	1.525	493.87	ppb	1.525	0.31%
QC value within limits for Be 313.107 Recovery = 98.77%								
Ca 317.933Radial†	74636.9	5083.4	µg/L	6.86	5083.4	ppb	6.86	0.14%
QC value within limits for Ca 317.933Radial Recovery = 101.67%								
Cd 226.502†	74962.0	506.33	µg/L	2.049	506.33	ppb	2.049	0.40%
QC value within limits for Cd 226.502 Recovery = 101.27%								
Co 228.616†	38412.1	508.43	µg/L	1.193	508.43	ppb	1.193	0.23%

```
   QC value within limits for Co 228.616  Recovery = 101.69%
Cr 267.716†            58395.0      505.05 µg/L         1.219      505.05 ppb          1.219   0.24%
   QC value within limits for Cr 267.716  Recovery = 101.01%
Cu 324.752†           120125.9      504.02 µg/L         0.993      504.02 ppb          0.993   0.20%
   QC value within limits for Cu 324.752  Recovery = 100.80%
Fe 238.204 Radial†     68495.8      5115.2 µg/L         93.09      5115.2 ppb          93.09   1.82%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.30%
K 766.490 Radial†      12745.4      5046.2 µg/L         61.80      5046.2 ppb          61.80   1.22%
   QC value within limits for K 766.490 Radial  Recovery = 100.92%
Mg 279.077 IEC†        11029.6      5100.7 µg/L         17.03      5100.7 ppb          17.03   0.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.01%
Mn 257.610†           380589.9      504.65 µg/L         1.018      504.65 ppb          1.018   0.20%
   QC value within limits for Mn 257.610  Recovery = 100.93%
Mo 202.031†            15376.9      503.35 µg/L         3.340      503.35 ppb          3.340   0.66%
   QC value within limits for Mo 202.031  Recovery = 100.67%
Na 589.592 Radial†     64697.1       10024 µg/L          48.0       10024 ppb           48.0   0.48%
   QC value within limits for Na 589.592 Radial  Recovery = 100.24%
Ni 231.604†            40451.4      506.10 µg/L         1.053      506.10 ppb          1.053   0.21%
   QC value within limits for Ni 231.604  Recovery = 101.22%
P 214.914†             10820.5      2494.3 µg/L         15.23      2494.3 ppb          15.23   0.61%
   QC value within limits for P 214.914  Recovery = 99.77%
Pb 220.353†             8189.4      505.53 µg/L         3.148      505.53 ppb          3.148   0.62%
   QC value within limits for Pb 220.353  Recovery = 101.11%
S 181.975 Axial†        1182.2      998.77 µg/L        10.007      998.77 ppb         10.007   1.00%
   QC value within limits for S 181.975 Axial  Recovery = 99.88%
Sb 206.836†             3861.9      499.08 µg/L         3.825      499.08 ppb          3.825   0.77%
   QC value within limits for Sb 206.836  Recovery = 99.82%
Se 196.026†             1268.4         502 µg/L           1.3         502 ppb            1.3   0.25%
   QC value within limits for Se 196.026  Recovery = 100.39%
SiO2†                  50594.1      5336.3 µg/L         31.11      5336.3 ppb          31.11   0.58%
   QC value within limits for SiO2  Recovery = 99.79%
Si 251.611†           159291.6      2501.9 µg/L         11.00      2501.9 ppb          11.00   0.44%
   QC value within limits for Si 251.611  Recovery = 100.07%
Sn 189.927†             7138.1      496.81 µg/L         2.368      496.81 ppb          2.368   0.48%
   QC value within limits for Sn 189.927  Recovery = 99.36%
Sr 421.552†           211659.6      499.15 µg/L         4.282      499.15 ppb          4.282   0.86%
   QC value within limits for Sr 421.552  Recovery = 99.83%
Ti 334.940†           487975.8      500.54 µg/L         0.590      500.54 ppb          0.590   0.12%
   QC value within limits for Ti 334.940  Recovery = 100.11%
Tl 190.801†             3666.5      508.19 µg/L         4.821      508.19 ppb          4.821   0.95%
   QC value within limits for Tl 190.801  Recovery = 101.64%
U 409.014†              7549.2      507.00 µg/L         7.282      507.00 ppb          7.282   1.44%
   QC value within limits for U 409.014  Recovery = 101.40%
V 292.402†             96774.8      508.27 µg/L         1.211      508.27 ppb          1.211   0.24%
   QC value within limits for V 292.402  Recovery = 101.65%
Zn 213.857†            84714.9      501.90 µg/L         1.582      501.90 ppb          1.582   0.32%
   QC value within limits for Zn 213.857  Recovery = 100.38%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 13:04:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136290.1	136290.1	97.3	%			13:05:20
1	Al 396.153Radial†	-69.6	7.0	1.4282	µg/L	1.4282	ppb	13:05:40
1	Ca 317.933Radial†	692.3	140.1	9.5452	µg/L	9.5452	ppb	13:05:40
1	Fe 238.204 Radial†	192.6	80.7	6.0268	µg/L	6.0268	ppb	13:05:40
1	K 766.490 Radial†	1641.5	193.5	76.683	µg/L	76.683	ppb	13:05:20
1	Mg 279.077 IEC†	175.0	7.4	3.4314	µg/L	3.4314	ppb	13:05:40
1	Na 589.592 Radial†	1048.0	124.7	19.264	µg/L	19.264	ppb	13:05:20
1	Sr 421.552†	-137.5	63.2	0.1489	µg/L	0.1489	ppb	13:05:20
1	Sc 361.383	1782656.2	1782656.2	98.808	%			13:06:42
1	Y 371.029	1047247.8	1047247.8	99.050	%			13:06:42
1	Ag 328.068†	4249.4	-264.5	-1.0842	µg/L	-1.0842	ppb	13:06:44
1	As 188.979†	-22.1	-3.8	-1.2845	µg/L	-1.2845	ppb	13:07:04
1	B 249.677†	4129.8	114.4	1.7792	µg/L	1.7792	ppb	13:06:44
1	Ba 233.527†	-153.9	-11.2	-0.0495	µg/L	-0.0495	ppb	13:07:04
1	Be 313.107†	-783.7	298.6	0.0863	µg/L	0.0863	ppb	13:06:44
1	Cd 226.502†	-60.9	41.7	0.2814	µg/L	0.2814	ppb	13:07:04
1	Co 228.616†	-197.9	10.1	0.1327	µg/L	0.1327	ppb	13:07:04
1	Cr 267.716†	268.3	38.3	0.3322	µg/L	0.3322	ppb	13:07:04
1	Cu 324.752†	2855.2	-146.5	-0.6124	µg/L	-0.6124	ppb	13:06:44
1	Mn 257.610†	251.5	69.8	0.0924	µg/L	0.0924	ppb	13:07:04
1	Mo 202.031†	-10.5	27.9	0.9129	µg/L	0.9129	ppb	13:07:04
1	Ni 231.604†	-80.3	14.7	0.1834	µg/L	0.1834	ppb	13:07:04
1	P 214.914†	8.1	33.9	7.8275	µg/L	7.8275	ppb	13:07:04
1	Pb 220.353†	78.1	-24.4	-1.4965	µg/L	-1.4965	ppb	13:07:04
1	S 181.975 Axial†	97.0	9.3	7.8229	µg/L	7.8229	ppb	13:07:04
1	Sb 206.836†	91.7	3.1	0.4072	µg/L	0.4072	ppb	13:07:04
1	Se 196.026†	28.3	22.5	8.88	µg/L	8.88	ppb	13:07:04
1	SiO2†	1885.5	169.1	17.875	µg/L	17.875	ppb	13:07:04
1	Si 251.611†	1309.0	557.8	8.7808	µg/L	8.7808	ppb	13:06:44
1	Sn 189.927†	7.5	5.7	0.3950	µg/L	0.3950	ppb	13:07:04
1	Ti 334.940†	1019.9	209.2	0.2150	µg/L	0.2150	ppb	13:06:44
1	Tl 190.801†	-114.7	-1.8	-0.2448	µg/L	-0.2448	ppb	13:07:04
1	U 409.014†	-171.8	-10.6	-0.6689	µg/L	-0.6689	ppb	13:06:44
1	V 292.402†	411.2	-7.0	-0.0268	µg/L	-0.0268	ppb	13:06:44
1	Zn 213.857†	594.7	98.9	0.5892	µg/L	0.5892	ppb	13:07:04
2	Sc RADIAL	136851.1	136851.1	97.7	%			13:05:42
2	Al 396.153Radial†	-103.9	-27.8	-5.8900	µg/L	-5.8900	ppb	13:06:02
2	Ca 317.933Radial†	675.5	120.0	8.1746	µg/L	8.1746	ppb	13:06:02
2	Fe 238.204 Radial†	167.9	54.5	4.0720	µg/L	4.0720	ppb	13:06:02
2	K 766.490 Radial†	1638.3	183.3	72.608	µg/L	72.608	ppb	13:05:42
2	Mg 279.077 IEC†	187.9	19.9	9.2236	µg/L	9.2236	ppb	13:06:02
2	Na 589.592 Radial†	1294.8	372.9	57.744	µg/L	57.744	ppb	13:05:42
2	Sr 421.552†	-154.5	46.3	0.1092	µg/L	0.1092	ppb	13:05:42
2	Sc 361.383	1800370.9	1800370.9	99.790	%			13:07:07
2	Y 371.029	1056939.0	1056939.0	99.966	%			13:07:07
2	Ag 328.068†	4328.8	-227.3	-0.9428	µg/L	-0.9428	ppb	13:07:09
2	As 188.979†	-8.8	9.7	3.2929	µg/L	3.2929	ppb	13:07:29
2	B 249.677†	4165.2	108.8	1.6915	µg/L	1.6915	ppb	13:07:09
2	Ba 233.527†	-134.5	9.7	0.0431	µg/L	0.0431	ppb	13:07:29
2	Be 313.107†	-900.8	189.1	0.0532	µg/L	0.0532	ppb	13:07:09
2	Cd 226.502†	-87.7	15.4	0.1042	µg/L	0.1042	ppb	13:07:29
2	Co 228.616†	-202.1	7.8	0.1025	µg/L	0.1025	ppb	13:07:29
2	Cr 267.716†	263.2	30.5	0.2678	µg/L	0.2678	ppb	13:07:29
2	Cu 324.752†	2938.4	-91.6	-0.3863	µg/L	-0.3863	ppb	13:07:09
2	Mn 257.610†	356.5	172.5	0.2285	µg/L	0.2285	ppb	13:07:29
2	Mo 202.031†	-17.0	21.6	0.7059	µg/L	0.7059	ppb	13:07:29
2	Ni 231.604†	-43.4	52.4	0.6558	µg/L	0.6558	ppb	13:07:29
2	P 214.914†	3.0	28.7	6.6395	µg/L	6.6395	ppb	13:07:29
2	Pb 220.353†	108.5	5.3	0.3325	µg/L	0.3325	ppb	13:07:29

2	S 181.975 Axial†	90.0	1.3	1.0862 µg/L	1.0862 ppb	13:07:29
2	Sb 206.836†	98.1	8.6	1.1191 µg/L	1.1191 ppb	13:07:29
2	Se 196.026†	25.4	19.3	7.59 µg/L	7.59 ppb	13:07:29
2	SiO2†	1870.0	134.8	14.250 µg/L	14.250 ppb	13:07:29
2	Si 251.611†	1273.5	509.1	8.0160 µg/L	8.0160 ppb	13:07:09
2	Sn 189.927†	8.7	6.8	0.4730 µg/L	0.4730 ppb	13:07:29
2	Ti 334.940†	814.0	-7.3	-0.0060 µg/L	-0.0060 ppb	13:07:09
2	Tl 190.801†	-113.8	0.2	0.0291 µg/L	0.0291 ppb	13:07:29
2	U 409.014†	-242.9	-80.0	-5.0782 µg/L	-5.0782 ppb	13:07:09
2	V 292.402†	326.1	-96.5	-0.4955 µg/L	-0.4955 ppb	13:07:09
2	Zn 213.857†	622.6	120.9	0.7175 µg/L	0.7175 ppb	13:07:29
3	Sc RADIAL	134763.0	134763.0	96.2 %		13:06:04
3	Al 396.153Radial†	-98.1	-23.5	-4.9608 µg/L	-4.9608 ppb	13:06:24
3	Ca 317.933Radial†	689.2	145.0	9.8746 µg/L	9.8746 ppb	13:06:24
3	Fe 238.204 Radial†	163.4	52.6	3.9274 µg/L	3.9274 ppb	13:06:24
3	K 766.490 Radial†	1713.1	287.0	113.73 µg/L	113.73 ppb	13:06:04
3	Mg 279.077 IEC†	185.0	19.8	9.1679 µg/L	9.1679 ppb	13:06:24
3	Na 589.592 Radial†	1061.3	150.7	23.261 µg/L	23.261 ppb	13:06:04
3	Sr 421.552†	-202.2	-5.7	-0.0136 µg/L	-0.0136 ppb	13:06:04
3	Sc 361.383	1779169.5	1779169.5	98.615 %		13:07:31
3	Y 371.029	1045675.5	1045675.5	98.901 %		13:07:31
3	Ag 328.068†	4167.3	-339.4	-1.3915 µg/L	-1.3915 ppb	13:07:33
3	As 188.979†	-16.5	1.8	0.6281 µg/L	0.6281 ppb	13:07:53
3	B 249.677†	4105.7	98.2	1.5263 µg/L	1.5263 ppb	13:07:33
3	Ba 233.527†	-156.0	-13.7	-0.0604 µg/L	-0.0604 ppb	13:07:53
3	Be 313.107†	-846.5	233.3	0.0659 µg/L	0.0659 ppb	13:07:33
3	Cd 226.502†	-55.4	47.2	0.3186 µg/L	0.3186 ppb	13:07:53
3	Co 228.616†	-190.5	17.1	0.2261 µg/L	0.2261 ppb	13:07:53
3	Cr 267.716†	277.0	47.7	0.4170 µg/L	0.4170 ppb	13:07:53
3	Cu 324.752†	2979.0	-15.3	-0.0678 µg/L	-0.0678 ppb	13:07:33
3	Mn 257.610†	253.7	72.5	0.0958 µg/L	0.0958 ppb	13:07:53
3	Mo 202.031†	-27.2	10.9	0.3585 µg/L	0.3585 ppb	13:07:53
3	Ni 231.604†	-64.3	30.7	0.3841 µg/L	0.3841 ppb	13:07:53
3	P 214.914†	-3.9	21.8	5.0264 µg/L	5.0264 ppb	13:07:53
3	Pb 220.353†	85.7	-16.5	-1.0125 µg/L	-1.0125 ppb	13:07:53
3	S 181.975 Axial†	96.0	8.5	7.1344 µg/L	7.1344 ppb	13:07:53
3	Sb 206.836†	89.9	1.4	0.1833 µg/L	0.1833 ppb	13:07:53
3	Se 196.026†	24.3	18.4	7.26 µg/L	7.26 ppb	13:07:53
3	SiO2†	1922.0	209.9	22.217 µg/L	22.217 ppb	13:07:53
3	Si 251.611†	1301.3	552.6	8.7095 µg/L	8.7095 ppb	13:07:33
3	Sn 189.927†	0.2	-1.7	-0.1193 µg/L	-0.1193 ppb	13:07:53
3	Ti 334.940†	753.7	-58.7	-0.0586 µg/L	-0.0586 ppb	13:07:33
3	Tl 190.801†	-106.1	6.7	0.9126 µg/L	0.9126 ppb	13:07:53
3	U 409.014†	-250.6	-90.7	-5.7025 µg/L	-5.7025 ppb	13:07:33
3	V 292.402†	497.3	81.0	0.4213 µg/L	0.4213 ppb	13:07:33
3	Zn 213.857†	570.3	75.3	0.4464 µg/L	0.4464 ppb	13:07:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787398.9	99.071	%	0.6301				0.64%
Sc RADIAL	135968.1	97.1	%	0.77				0.79%
Y 371.029	1049954.1	99.305	%	0.5769				0.58%
Ag 328.068†	-277.1	-1.1395	µg/L	0.22941	-1.1395	ppb	0.22941	20.13%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.8	-3.1409	µg/L	3.98409	-3.1409	ppb	3.98409	126.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.6	0.8788	µg/L	2.29896	0.8788	ppb	2.29896	261.60%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	107.1	1.6657	µg/L	0.12840	1.6657	ppb	0.12840	7.71%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.0	-0.0222	µg/L	0.05687	-0.0222	ppb	0.05687	255.61%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	240.3	0.0685	µg/L	0.01668	0.0685	ppb	0.01668	24.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	135.0	9.1981	µg/L	0.90158	9.1981	ppb	0.90158	9.80%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	34.8	0.2347	µg/L	0.11455	0.2347	ppb	0.11455	48.80%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.6	0.1538	µg/L	0.06444	0.1538	ppb	0.06444	41.91%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              38.8      0.3390 µg/L       0.07485      0.3390 ppb        0.07485  22.08%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -84.5     -0.3555 µg/L       0.27361     -0.3555 ppb        0.27361  76.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       62.6      4.6754 µg/L       1.17256      4.6754 ppb        1.17256  25.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       221.3      87.675 µg/L       22.6597      87.675 ppb        22.6597  25.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          15.7      7.2743 µg/L       3.32818      7.2743 ppb        3.32818  45.75%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             104.9      0.1389 µg/L       0.07760      0.1389 ppb        0.07760  55.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              20.1      0.6591 µg/L       0.28014      0.6591 ppb        0.28014  42.50%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      216.1      33.423 µg/L       21.1576      33.423 ppb        21.1576  63.30%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              32.6      0.4078 µg/L       0.23709      0.4078 ppb        0.23709  58.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               28.1      6.4978 µg/L       1.40594      6.4978 ppb        1.40594  21.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -11.9     -0.7255 µg/L       0.94768     -0.7255 ppb        0.94768 130.63%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.4      5.3479 µg/L       3.70673      5.3479 ppb        3.70673  69.31%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.4      0.5698 µg/L       0.48864      0.5698 ppb        0.48864  85.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              20.1        7.91 µg/L         0.855        7.91 ppb          0.855  10.80%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   171.3      18.114 µg/L        3.9889      18.114 ppb         3.9889  22.02%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             539.8      8.5021 µg/L       0.42246      8.5021 ppb        0.42246   4.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.6      0.2496 µg/L       0.32182      0.2496 ppb        0.32182 128.96%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              34.6      0.0815 µg/L       0.08471      0.0815 ppb        0.08471 103.94%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              47.7      0.0501 µg/L       0.14519      0.0501 ppb        0.14519 289.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.7      0.2323 µg/L       0.60486      0.2323 ppb        0.60486 260.40%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -60.4     -3.8165 µg/L       2.74372     -3.8165 ppb        2.74372  71.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -7.5     -0.0337 µg/L       0.45841     -0.0337 ppb        0.45841 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              98.4      0.5844 µg/L       0.13562      0.5844 ppb        0.13562  23.21%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 13:19:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137686.1	137686.1	98.3	%			13:19:48
1	Al 396.153Radial†	23316.9	23803.1	4987.8	µg/L	4987.8	ppb	13:19:48
1	Ca 317.933Radial†	74157.5	74882.4	5100.2	µg/L	5100.2	ppb	13:19:48
1	Fe 238.204 Radial†	66808.5	67859.0	5067.7	µg/L	5067.7	ppb	13:19:48
1	K 766.490 Radial†	14132.5	12885.8	5101.8	µg/L	5101.8	ppb	13:19:48
1	Mg 279.077 IEC†	11014.2	11034.3	5103.1	µg/L	5103.1	ppb	13:19:48
1	Na 589.592 Radial†	64546.9	64722.7	10028	µg/L	10028	ppb	13:19:48
1	Sr 421.552†	206906.3	210727.7	496.95	µg/L	496.95	ppb	13:19:46
1	Sc 361.383	1764151.9	1764151.9	97.783	%			13:20:15
1	Y 371.029	1025388.3	1025388.3	96.982	%			13:20:15
1	Ag 328.068†	124481.4	122738.8	508.77	µg/L	508.77	ppb	13:20:15
1	As 188.979†	1356.8	1406.2	482.95	µg/L	482.95	ppb	13:20:35
1	B 249.677†	35498.9	32238.7	499.59	µg/L	499.59	ppb	13:20:15
1	Ba 233.527†	110006.0	112644.9	501.10	µg/L	501.10	ppb	13:20:15
1	Be 313.107†	1665582.9	1704440.6	493.88	µg/L	493.88	ppb	13:20:15
1	Cd 226.502†	73149.4	74911.4	505.99	µg/L	505.99	ppb	13:20:15
1	Co 228.616†	37552.7	38614.5	511.11	µg/L	511.11	ppb	13:20:15
1	Cr 267.716†	57324.6	58391.2	505.01	µg/L	505.01	ppb	13:20:15
1	Cu 324.752†	120503.1	120199.3	504.34	µg/L	504.34	ppb	13:20:15
1	Mn 257.610†	372460.1	380720.6	504.83	µg/L	504.83	ppb	13:20:15
1	Mo 202.031†	15163.3	15545.7	508.87	µg/L	508.87	ppb	13:20:35
1	Ni 231.604†	39504.5	40496.1	506.66	µg/L	506.66	ppb	13:20:15
1	P 214.914†	10657.2	10924.5	2518.4	µg/L	2518.4	ppb	13:20:35
1	Pb 220.353†	8249.2	8332.7	514.35	µg/L	514.35	ppb	13:20:35
1	S 181.975 Axial†	1263.9	1203.6	1016.9	µg/L	1016.9	ppb	13:20:35
1	Sb 206.836†	3896.7	3895.3	503.47	µg/L	503.47	ppb	13:20:35
1	Se 196.026†	1255.4	1277.8	506	µg/L	506	ppb	13:20:35
1	SiO2†	51270.6	50694.0	5346.7	µg/L	5346.7	ppb	13:20:15
1	Si 251.611†	156815.2	159603.8	2506.7	µg/L	2506.7	ppb	13:20:15
1	Sn 189.927†	7047.2	7205.1	501.46	µg/L	501.46	ppb	13:20:35
1	Ti 334.940†	478947.9	488984.7	501.57	µg/L	501.57	ppb	13:20:15
1	Tl 190.801†	3509.9	3703.8	513.29	µg/L	513.29	ppb	13:20:35
1	U 409.014†	7443.5	7775.6	521.38	µg/L	521.38	ppb	13:20:15
1	V 292.402†	95292.2	97029.7	509.66	µg/L	509.66	ppb	13:20:15
1	Zn 213.857†	83586.8	84979.1	503.48	µg/L	503.48	ppb	13:20:15
2	Sc RADIAL	135969.5	135969.5	97.1	%			13:19:52
2	Al 396.153Radial†	23142.4	23922.8	5013.1	µg/L	5013.1	ppb	13:19:52
2	Ca 317.933Radial†	73314.9	74966.9	5105.9	µg/L	5105.9	ppb	13:19:52
2	Fe 238.204 Radial†	66100.3	67987.6	5077.3	µg/L	5077.3	ppb	13:19:52
2	K 766.490 Radial†	13867.7	12794.5	5065.6	µg/L	5065.6	ppb	13:19:52
2	Mg 279.077 IEC†	10929.6	11088.6	5128.1	µg/L	5128.1	ppb	13:19:52
2	Na 589.592 Radial†	63867.1	64851.5	10048	µg/L	10048	ppb	13:19:52
2	Sr 421.552†	206242.2	212701.3	501.61	µg/L	501.61	ppb	13:19:50
2	Sc 361.383	1752479.1	1752479.1	97.136	%			13:20:38
2	Y 371.029	1020334.9	1020334.9	96.504	%			13:20:38
2	Ag 328.068†	123684.4	122766.2	508.86	µg/L	508.86	ppb	13:20:38
2	As 188.979†	1330.5	1388.3	476.91	µg/L	476.91	ppb	13:20:58
2	B 249.677†	35109.4	32079.5	497.12	µg/L	497.12	ppb	13:20:38
2	Ba 233.527†	109687.7	113066.5	502.98	µg/L	502.98	ppb	13:20:38
2	Be 313.107†	1653797.6	1703653.3	493.65	µg/L	493.65	ppb	13:20:38
2	Cd 226.502†	72583.7	74827.3	505.42	µg/L	505.42	ppb	13:20:38
2	Co 228.616†	37169.0	38475.2	509.27	µg/L	509.27	ppb	13:20:38
2	Cr 267.716†	56900.5	58345.1	504.61	µg/L	504.61	ppb	13:20:38
2	Cu 324.752†	119629.2	120120.5	504.01	µg/L	504.01	ppb	13:20:38
2	Mn 257.610†	370314.3	381048.7	505.26	µg/L	505.26	ppb	13:20:38
2	Mo 202.031†	15009.0	15490.1	507.05	µg/L	507.05	ppb	13:20:58
2	Ni 231.604†	39199.8	40451.5	506.10	µg/L	506.10	ppb	13:20:38
2	P 214.914†	10555.4	10892.3	2511.0	µg/L	2511.0	ppb	13:20:58
2	Pb 220.353†	8124.2	8260.3	509.89	µg/L	509.89	ppb	13:20:58

2	S 181.975 Axial†	1239.3	1187.0	1002.8 µg/L	1002.8 ppb	13:20:58
2	Sb 206.836†	3878.5	3903.1	504.46 µg/L	504.46 ppb	13:20:58
2	Se 196.026†	1243.7	1274.2	504 µg/L	504 ppb	13:20:58
2	SiO2†	50994.2	50758.8	5353.6 µg/L	5353.6 ppb	13:20:38
2	Si 251.611†	156234.2	160073.9	2514.1 µg/L	2514.1 ppb	13:20:38
2	Sn 189.927†	6997.5	7202.0	501.25 µg/L	501.25 ppb	13:20:58
2	Ti 334.940†	475750.2	488955.2	501.54 µg/L	501.54 ppb	13:20:38
2	Tl 190.801†	3489.7	3706.8	513.71 µg/L	513.71 ppb	13:20:58
2	U 409.014†	7342.0	7721.8	517.90 µg/L	517.90 ppb	13:20:38
2	V 292.402†	94395.8	96755.9	508.22 µg/L	508.22 ppb	13:20:38
2	Zn 213.857†	82925.5	84867.6	502.82 µg/L	502.82 ppb	13:20:38
3	Sc RADIAL	135910.8	135910.8	97.0 %		13:19:56
3	Al 396.153Radial†	23011.1	23797.7	4986.6 µg/L	4986.6 ppb	13:19:56
3	Ca 317.933Radial†	73016.0	74691.3	5087.2 µg/L	5087.2 ppb	13:19:56
3	Fe 238.204 Radial†	65816.6	67724.5	5057.6 µg/L	5057.6 ppb	13:19:56
3	K 766.490 Radial†	14014.9	12952.4	5128.2 µg/L	5128.2 ppb	13:19:56
3	Mg 279.077 IEC†	10852.5	11014.0	5093.7 µg/L	5093.7 ppb	13:19:56
3	Na 589.592 Radial†	64017.8	65035.2	10076 µg/L	10076 ppb	13:19:56
3	Sr 421.552†	207445.1	214032.9	504.75 µg/L	504.75 ppb	13:19:54
3	Sc 361.383	1757185.4	1757185.4	97.397 %		13:21:01
3	Y 371.029	1021114.7	1021114.7	96.578 %		13:21:01
3	Ag 328.068†	123757.2	122499.9	507.77 µg/L	507.77 ppb	13:21:01
3	As 188.979†	1359.9	1414.8	485.88 µg/L	485.88 ppb	13:21:21
3	B 249.677†	35071.9	31944.2	495.02 µg/L	495.02 ppb	13:21:01
3	Ba 233.527†	109828.9	112909.1	502.28 µg/L	502.28 ppb	13:21:01
3	Be 313.107†	1657683.2	1703082.7	493.48 µg/L	493.48 ppb	13:21:01
3	Cd 226.502†	72559.6	74602.4	503.91 µg/L	503.91 ppb	13:21:01
3	Co 228.616†	37343.2	38551.6	510.28 µg/L	510.28 ppb	13:21:01
3	Cr 267.716†	57083.6	58376.2	504.88 µg/L	504.88 ppb	13:21:01
3	Cu 324.752†	120203.7	120380.4	505.08 µg/L	505.08 ppb	13:21:01
3	Mn 257.610†	371130.2	380865.4	505.02 µg/L	505.02 ppb	13:21:01
3	Mo 202.031†	15160.4	15604.2	510.78 µg/L	510.78 ppb	13:21:21
3	Ni 231.604†	39383.3	40531.9	507.10 µg/L	507.10 ppb	13:21:01
3	P 214.914†	10656.5	10967.1	2528.2 µg/L	2528.2 ppb	13:21:21
3	Pb 220.353†	8194.0	8309.5	512.94 µg/L	512.94 ppb	13:21:21
3	S 181.975 Axial†	1261.5	1206.3	1019.2 µg/L	1019.2 ppb	13:21:21
3	Sb 206.836†	3887.7	3901.9	504.35 µg/L	504.35 ppb	13:21:21
3	Se 196.026†	1265.5	1293.2	512 µg/L	512 ppb	13:21:21
3	SiO2†	51195.4	50824.7	5360.4 µg/L	5360.4 ppb	13:21:01
3	Si 251.611†	156725.4	160147.5	2515.2 µg/L	2515.2 ppb	13:21:01
3	Sn 189.927†	7043.2	7229.6	503.16 µg/L	503.16 ppb	13:21:21
3	Ti 334.940†	476862.5	488785.4	501.37 µg/L	501.37 ppb	13:21:01
3	Tl 190.801†	3501.8	3709.6	514.09 µg/L	514.09 ppb	13:21:21
3	U 409.014†	7209.4	7565.4	508.05 µg/L	508.05 ppb	13:21:01
3	V 292.402†	94694.8	96802.7	508.50 µg/L	508.50 ppb	13:21:01
3	Zn 213.857†	83190.2	84910.8	503.07 µg/L	503.07 ppb	13:21:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1757938.8	97.438	%	0.3255				0.33%
Sc RADIAL	136522.1	97.5	%	0.72				0.74%
Y 371.029	1022279.3	96.688	%	0.2573				0.27%
Ag 328.068†	122668.3	508.47	µg/L	0.610	508.47	ppb	0.610	0.12%
QC value within limits for Ag 328.068 Recovery = 101.69%								
Al 396.153Radial†	23841.2	4995.8	µg/L	14.96	4995.8	ppb	14.96	0.30%
QC value within limits for Al 396.153Radial Recovery = 99.92%								
As 188.979†	1403.1	481.91	µg/L	4.574	481.91	ppb	4.574	0.95%
QC value within limits for As 188.979 Recovery = 96.38%								
B 249.677†	32087.5	497.25	µg/L	2.291	497.25	ppb	2.291	0.46%
QC value within limits for B 249.677 Recovery = 99.45%								
Ba 233.527†	112873.5	502.12	µg/L	0.946	502.12	ppb	0.946	0.19%
QC value within limits for Ba 233.527 Recovery = 100.42%								
Be 313.107†	1703725.5	493.67	µg/L	0.199	493.67	ppb	0.199	0.04%
QC value within limits for Be 313.107 Recovery = 98.73%								
Ca 317.933Radial†	74846.9	5097.7	µg/L	9.62	5097.7	ppb	9.62	0.19%
QC value within limits for Ca 317.933Radial Recovery = 101.95%								
Cd 226.502†	74780.4	505.11	µg/L	1.079	505.11	ppb	1.079	0.21%
QC value within limits for Cd 226.502 Recovery = 101.02%								
Co 228.616†	38547.1	510.22	µg/L	0.922	510.22	ppb	0.922	0.18%

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   QC value within limits for Co 228.616  Recovery = 102.04%
Cr 267.716†            58370.8      504.83 µg/L         0.204      504.83 ppb          0.204   0.04%
   QC value within limits for Cr 267.716  Recovery = 100.97%
Cu 324.752†           120233.4      504.47 µg/L         0.551      504.47 ppb          0.551   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.89%
Fe 238.204 Radial†     67857.1      5067.5 µg/L          9.82      5067.5 ppb           9.82   0.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.35%
K 766.490 Radial†      12877.5      5098.6 µg/L         31.42      5098.6 ppb          31.42   0.62%
   QC value within limits for K 766.490 Radial  Recovery = 101.97%
Mg 279.077 IEC†        11045.6      5108.3 µg/L         17.77      5108.3 ppb          17.77   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.17%
Mn 257.610†           380878.2      505.04 µg/L         0.218      505.04 ppb          0.218   0.04%
   QC value within limits for Mn 257.610  Recovery = 101.01%
Mo 202.031†            15546.7      508.90 µg/L         1.865      508.90 ppb          1.865   0.37%
   QC value within limits for Mo 202.031  Recovery = 101.78%
Na 589.592 Radial†     64869.8       10051 µg/L          24.3       10051 ppb           24.3   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 100.51%
Ni 231.604†            40493.2      506.62 µg/L         0.504      506.62 ppb          0.504   0.10%
   QC value within limits for Ni 231.604  Recovery = 101.32%
P 214.914†             10928.0      2519.2 µg/L          8.66      2519.2 ppb           8.66   0.34%
   QC value within limits for P 214.914  Recovery = 100.77%
Pb 220.353†             8300.9      512.39 µg/L         2.280      512.39 ppb          2.280   0.44%
   QC value within limits for Pb 220.353  Recovery = 102.48%
S 181.975 Axial†        1199.0      1012.9 µg/L          8.84      1012.9 ppb           8.84   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 101.29%
Sb 206.836†             3900.1      504.09 µg/L         0.541      504.09 ppb          0.541   0.11%
   QC value within limits for Sb 206.836  Recovery = 100.82%
Se 196.026†             1281.7         507 µg/L           4.0         507 ppb            4.0   0.78%
   QC value within limits for Se 196.026  Recovery = 101.44%
SiO2†                  50759.2      5353.6 µg/L          6.88      5353.6 ppb           6.88   0.13%
   QC value within limits for SiO2  Recovery = 100.11%
Si 251.611†           159941.7      2512.0 µg/L          4.64      2512.0 ppb           4.64   0.18%
   QC value within limits for Si 251.611  Recovery = 100.48%
Sn 189.927†             7212.2      501.96 µg/L         1.049      501.96 ppb          1.049   0.21%
   QC value within limits for Sn 189.927  Recovery = 100.39%
Sr 421.552†           212487.3      501.10 µg/L         3.922      501.10 ppb          3.922   0.78%
   QC value within limits for Sr 421.552  Recovery = 100.22%
Ti 334.940†           488908.4      501.50 µg/L         0.107      501.50 ppb          0.107   0.02%
   QC value within limits for Ti 334.940  Recovery = 100.30%
Tl 190.801†             3706.8      513.69 µg/L         0.398      513.69 ppb          0.398   0.08%
   QC value within limits for Tl 190.801  Recovery = 102.74%
U 409.014†              7687.6      515.78 µg/L         6.915      515.78 ppb          6.915   1.34%
   QC value within limits for U 409.014  Recovery = 103.16%
V 292.402†             96862.8      508.79 µg/L         0.765      508.79 ppb          0.765   0.15%
   QC value within limits for V 292.402  Recovery = 101.76%
Zn 213.857†            84919.2      503.12 µg/L         0.334      503.12 ppb          0.334   0.07%
   QC value within limits for Zn 213.857  Recovery = 100.62%
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 13:21:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136365.9	136365.9	97.3	%			13:21:58
1	Al 396.153Radial†	-72.1	4.4	0.9330	µg/L	0.9330	ppb	13:22:18
1	Ca 317.933Radial†	710.4	158.4	10.786	µg/L	10.786	ppb	13:22:18
1	Fe 238.204 Radial†	185.7	73.4	5.4841	µg/L	5.4841	ppb	13:22:18
1	K 766.490 Radial†	1496.4	43.5	17.215	µg/L	17.215	ppb	13:21:58
1	Mg 279.077 IEC†	179.8	12.2	5.6498	µg/L	5.6498	ppb	13:22:18
1	Na 589.592 Radial†	1238.6	319.9	49.578	µg/L	49.578	ppb	13:21:58
1	Sr 421.552†	-142.4	58.2	0.1373	µg/L	0.1373	ppb	13:21:58
1	Sc 361.383	1782820.6	1782820.6	98.818	%			13:23:20
1	Y 371.029	1046910.4	1046910.4	99.018	%			13:23:20
1	Ag 328.068†	4406.6	-105.9	-0.4491	µg/L	-0.4491	ppb	13:23:22
1	As 188.979†	-21.0	-2.7	-0.9151	µg/L	-0.9151	ppb	13:23:42
1	B 249.677†	4073.3	56.8	0.8834	µg/L	0.8834	ppb	13:23:22
1	Ba 233.527†	-120.0	23.1	0.1023	µg/L	0.1023	ppb	13:23:42
1	Be 313.107†	-879.3	201.9	0.0560	µg/L	0.0560	ppb	13:23:22
1	Cd 226.502†	-86.3	16.0	0.1078	µg/L	0.1078	ppb	13:23:42
1	Co 228.616†	-193.5	14.5	0.1920	µg/L	0.1920	ppb	13:23:42
1	Cr 267.716†	232.1	1.6	0.0206	µg/L	0.0206	ppb	13:23:42
1	Cu 324.752†	2948.4	-52.4	-0.2248	µg/L	-0.2248	ppb	13:23:22
1	Mn 257.610†	249.3	67.6	0.0894	µg/L	0.0894	ppb	13:23:42
1	Mo 202.031†	-36.3	1.9	0.0612	µg/L	0.0612	ppb	13:23:42
1	Ni 231.604†	-71.5	23.5	0.2943	µg/L	0.2943	ppb	13:23:42
1	P 214.914†	2.4	28.1	6.5138	µg/L	6.5138	ppb	13:23:42
1	Pb 220.353†	104.5	2.3	0.1466	µg/L	0.1466	ppb	13:23:42
1	S 181.975 Axial†	101.8	14.1	11.895	µg/L	11.895	ppb	13:23:42
1	Sb 206.836†	82.9	-5.8	-0.7459	µg/L	-0.7459	ppb	13:23:42
1	Se 196.026†	22.2	16.4	6.44	µg/L	6.44	ppb	13:23:42
1	SiO2†	1856.7	139.8	14.797	µg/L	14.797	ppb	13:23:42
1	Si 251.611†	1252.8	500.7	7.8907	µg/L	7.8907	ppb	13:23:22
1	Sn 189.927†	11.8	10.1	0.6995	µg/L	0.6995	ppb	13:23:42
1	Ti 334.940†	676.1	-138.8	-0.1394	µg/L	-0.1394	ppb	13:23:22
1	Tl 190.801†	-128.9	-16.2	-2.2162	µg/L	-2.2162	ppb	13:23:42
1	U 409.014†	-290.7	-130.8	-8.2823	µg/L	-8.2823	ppb	13:23:22
1	V 292.402†	334.4	-84.8	-0.4449	µg/L	-0.4449	ppb	13:23:22
1	Zn 213.857†	588.1	92.2	0.5479	µg/L	0.5479	ppb	13:23:42
2	Sc RADIAL	136466.1	136466.1	97.4	%			13:22:20
2	Al 396.153Radial†	-51.5	25.6	5.3864	µg/L	5.3864	ppb	13:22:40
2	Ca 317.933Radial†	690.1	137.0	9.3304	µg/L	9.3304	ppb	13:22:40
2	Fe 238.204 Radial†	194.0	81.9	6.1145	µg/L	6.1145	ppb	13:22:40
2	K 766.490 Radial†	1714.5	266.3	105.52	µg/L	105.52	ppb	13:22:20
2	Mg 279.077 IEC†	156.6	-11.7	-5.4114	µg/L	-5.4114	ppb	13:22:40
2	Na 589.592 Radial†	1009.5	83.8	12.901	µg/L	12.901	ppb	13:22:20
2	Sr 421.552†	-151.7	48.8	0.1149	µg/L	0.1149	ppb	13:22:20
2	Sc 361.383	1782019.7	1782019.7	98.773	%			13:23:44
2	Y 371.029	1046998.5	1046998.5	99.026	%			13:23:44
2	Ag 328.068†	4298.3	-213.5	-0.8812	µg/L	-0.8812	ppb	13:23:47
2	As 188.979†	-7.3	11.2	3.7928	µg/L	3.7928	ppb	13:24:07
2	B 249.677†	4202.2	189.2	2.9424	µg/L	2.9424	ppb	13:23:47
2	Ba 233.527†	-153.9	-11.3	-0.0501	µg/L	-0.0501	ppb	13:24:07
2	Be 313.107†	-724.1	358.6	0.1019	µg/L	0.1019	ppb	13:23:47
2	Cd 226.502†	-57.2	45.5	0.3068	µg/L	0.3068	ppb	13:24:07
2	Co 228.616†	-193.9	14.0	0.1851	µg/L	0.1851	ppb	13:24:07
2	Cr 267.716†	283.6	53.9	0.4715	µg/L	0.4715	ppb	13:24:07
2	Cu 324.752†	2861.1	-139.5	-0.5881	µg/L	-0.5881	ppb	13:23:47
2	Mn 257.610†	304.8	123.9	0.1645	µg/L	0.1645	ppb	13:24:07
2	Mo 202.031†	-31.6	6.5	0.2141	µg/L	0.2141	ppb	13:24:07
2	Ni 231.604†	-54.3	41.0	0.5126	µg/L	0.5126	ppb	13:24:07
2	P 214.914†	3.2	28.9	6.6884	µg/L	6.6884	ppb	13:24:07
2	Pb 220.353†	117.1	15.1	0.9372	µg/L	0.9372	ppb	13:24:07

2	S 181.975 Axial†	101.7	14.1	11.829 µg/L	11.829 ppb	13:24:07
2	Sb 206.836†	78.2	-10.5	-1.3618 µg/L	-1.3618 ppb	13:24:07
2	Se 196.026†	18.6	12.6	4.97 µg/L	4.97 ppb	13:24:07
2	SiO2†	1894.3	178.7	18.911 µg/L	18.911 ppb	13:24:07
2	Si 251.611†	1331.3	580.8	9.1530 µg/L	9.1530 ppb	13:23:47
2	Sn 189.927†	8.7	6.9	0.4812 µg/L	0.4812 ppb	13:24:07
2	Ti 334.940†	731.4	-82.6	-0.0816 µg/L	-0.0816 ppb	13:23:47
2	Tl 190.801†	-109.0	4.0	0.5399 µg/L	0.5399 ppb	13:24:07
2	U 409.014†	-264.9	-104.9	-6.6122 µg/L	-6.6122 ppb	13:23:47
2	V 292.402†	436.0	18.2	0.0935 µg/L	0.0935 ppb	13:23:47
2	Zn 213.857†	590.3	94.6	0.5614 µg/L	0.5614 ppb	13:24:07
3	Sc RADIAL	137955.3	137955.3	98.5 %		13:22:42
3	Al 396.153Radial†	-70.3	7.2	1.4865 µg/L	1.4865 ppb	13:23:02
3	Ca 317.933Radial†	685.5	124.6	8.4893 µg/L	8.4893 ppb	13:23:02
3	Fe 238.204 Radial†	230.4	116.7	8.7157 µg/L	8.7157 ppb	13:23:02
3	K 766.490 Radial†	1451.8	-19.5	-7.7271 µg/L	-7.7271 ppb	13:22:42
3	Mg 279.077 IEC†	174.1	4.3	2.0013 µg/L	2.0013 ppb	13:23:02
3	Na 589.592 Radial†	1037.1	100.7	15.611 µg/L	15.611 ppb	13:22:42
3	Sr 421.552†	-254.5	-54.0	-0.1273 µg/L	-0.1273 ppb	13:22:42
3	Sc 361.383	1782300.1	1782300.1	98.789 %		13:24:09
3	Y 371.029	1047376.2	1047376.2	99.062 %		13:24:09
3	Ag 328.068†	4223.0	-290.4	-1.2135 µg/L	-1.2135 ppb	13:24:11
3	As 188.979†	-17.7	0.6	0.2088 µg/L	0.2088 ppb	13:24:31
3	B 249.677†	4033.8	18.1	0.2811 µg/L	0.2811 ppb	13:24:11
3	Ba 233.527†	-156.8	-14.2	-0.0638 µg/L	-0.0638 ppb	13:24:31
3	Be 313.107†	-613.6	470.6	0.1332 µg/L	0.1332 ppb	13:24:11
3	Cd 226.502†	-76.8	25.6	0.1726 µg/L	0.1726 ppb	13:24:31
3	Co 228.616†	-205.6	2.2	0.0282 µg/L	0.0282 ppb	13:24:31
3	Cr 267.716†	280.8	51.0	0.4490 µg/L	0.4490 ppb	13:24:31
3	Cu 324.752†	2839.1	-162.2	-0.6856 µg/L	-0.6856 ppb	13:24:11
3	Mn 257.610†	230.8	49.0	0.0648 µg/L	0.0648 ppb	13:24:31
3	Mo 202.031†	-22.6	15.7	0.5131 µg/L	0.5131 ppb	13:24:31
3	Ni 231.604†	-61.1	34.0	0.4255 µg/L	0.4255 ppb	13:24:31
3	P 214.914†	10.7	36.5	8.4493 µg/L	8.4493 ppb	13:24:31
3	Pb 220.353†	119.2	17.2	1.0651 µg/L	1.0651 ppb	13:24:31
3	S 181.975 Axial†	88.3	0.5	0.4233 µg/L	0.4233 ppb	13:24:31
3	Sb 206.836†	75.7	-13.1	-1.6875 µg/L	-1.6875 ppb	13:24:31
3	Se 196.026†	28.9	23.1	9.09 µg/L	9.09 ppb	13:24:31
3	SiO2†	1947.0	231.8	24.527 µg/L	24.527 ppb	13:24:31
3	Si 251.611†	1312.9	562.0	8.8525 µg/L	8.8525 ppb	13:24:11
3	Sn 189.927†	6.2	4.4	0.3051 µg/L	0.3051 ppb	13:24:31
3	Ti 334.940†	636.8	-178.4	-0.1791 µg/L	-0.1791 ppb	13:24:11
3	Tl 190.801†	-114.6	-1.7	-0.2417 µg/L	-0.2417 ppb	13:24:31
3	U 409.014†	-323.8	-164.4	-10.433 µg/L	-10.433 ppb	13:24:11
3	V 292.402†	230.1	-190.3	-0.9870 µg/L	-0.9870 ppb	13:24:11
3	Zn 213.857†	593.7	98.0	0.5817 µg/L	0.5817 ppb	13:24:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1782380.1	98.793	%	0.0225				0.02%
Sc RADIAL	136929.1	97.7	%	0.64				0.65%
Y 371.029	1047095.0	99.035	%	0.0234				0.02%
Ag 328.068†	-203.3	-0.8480	µg/L	0.38329	-0.8480	ppb	0.38329	45.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.4	2.6020	µg/L	2.42724	2.6020	ppb	2.42724	93.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.0288	µg/L	2.45877	1.0288	ppb	2.45877	238.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	88.1	1.3690	µg/L	1.39550	1.3690	ppb	1.39550	101.94%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.8	-0.0039	µg/L	0.09218	-0.0039	ppb	0.09218	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	343.7	0.0970	µg/L	0.03883	0.0970	ppb	0.03883	40.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	140.0	9.5354	µg/L	1.16212	9.5354	ppb	1.16212	12.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	29.0	0.1957	µg/L	0.10147	0.1957	ppb	0.10147	51.84%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.2	0.1351	µg/L	0.09266	0.1351	ppb	0.09266	68.56%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                35.5      0.3137 µg/L       0.25407      0.3137 ppb        0.25407  80.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -118.0     -0.4995 µg/L       0.24283     -0.4995 ppb        0.24283  48.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         90.7      6.7714 µg/L       1.71300      6.7714 ppb        1.71300  25.30%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          96.8      38.335 µg/L       59.5038      38.335 ppb        59.5038 155.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.6      0.7465 µg/L       5.63634      0.7465 ppb        5.63634 755.00%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                80.1      0.1062 µg/L       0.05193      0.1062 ppb        0.05193  48.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.0      0.2628 µg/L       0.22982      0.2628 ppb        0.22982  87.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        168.1      26.030 µg/L       20.4379      26.030 ppb        20.4379  78.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                32.8      0.4108 µg/L       0.10989      0.4108 ppb        0.10989  26.75%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 31.2      7.2172 µg/L       1.07061      7.2172 ppb        1.07061  14.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                11.5      0.7163 µg/L       0.49748      0.7163 ppb        0.49748  69.45%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            9.6      8.0489 µg/L       6.60400      8.0489 ppb        6.60400  82.05%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -9.8     -1.2650 µg/L       0.47821     -1.2650 ppb        0.47821  37.80%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                17.4        6.83 µg/L         2.087        6.83 ppb          2.087  30.55%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     183.4      19.412 µg/L        4.8846      19.412 ppb         4.8846  25.16%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               547.8      8.6321 µg/L       0.65940      8.6321 ppb        0.65940   7.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.1      0.4953 µg/L       0.19755      0.4953 ppb        0.19755  39.89%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                17.7      0.0416 µg/L       0.14674      0.0416 ppb        0.14674 352.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -133.3     -0.1333 µg/L       0.04905     -0.1333 ppb        0.04905  36.79%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -4.6     -0.6393 µg/L       1.42042     -0.6393 ppb        1.42042 222.17%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -133.4     -8.4424 µg/L       1.91529     -8.4424 ppb        1.91529  22.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -85.7     -0.4461 µg/L       0.54029     -0.4461 ppb        0.54029 121.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                94.9      0.5636 µg/L       0.01701      0.5636 ppb        0.01701   3.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 13:42:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138868.1	138868.1	99.1	%			13:42:40
1	Al 396.153Radial†	23487.6	23773.3	4981.5	µg/L	4981.5	ppb	13:42:40
1	Ca 317.933Radial†	75424.0	75517.8	5143.4	µg/L	5143.4	ppb	13:42:40
1	Fe 238.204 Radial†	67898.0	68379.6	5106.5	µg/L	5106.5	ppb	13:42:40
1	K 766.490 Radial†	14175.3	12806.5	5070.4	µg/L	5070.4	ppb	13:42:40
1	Mg 279.077 IEC†	11283.4	11210.5	5184.4	µg/L	5184.4	ppb	13:42:40
1	Na 589.592 Radial†	65456.3	65081.1	10084	µg/L	10084	ppb	13:42:40
1	Sr 421.552†	210429.2	212489.7	501.11	µg/L	501.11	ppb	13:42:38
1	Sc 361.383	1775893.4	1775893.4	98.434	%			13:42:53
1	Y 371.029	1031368.5	1031368.5	97.548	%			13:42:53
1	Ag 328.068†	125135.3	122561.4	508.05	µg/L	508.05	ppb	13:42:53
1	As 188.979†	1378.8	1419.3	487.41	µg/L	487.41	ppb	13:43:13
1	B 249.677†	35663.8	32166.2	498.47	µg/L	498.47	ppb	13:42:53
1	Ba 233.527†	111225.1	113139.5	503.30	µg/L	503.30	ppb	13:42:53
1	Be 313.107†	1681396.6	1709244.1	495.27	µg/L	495.27	ppb	13:42:53
1	Cd 226.502†	74013.1	75294.2	508.58	µg/L	508.58	ppb	13:42:53
1	Co 228.616†	37812.5	38624.5	511.24	µg/L	511.24	ppb	13:42:53
1	Cr 267.716†	57862.3	58549.8	506.38	µg/L	506.38	ppb	13:42:53
1	Cu 324.752†	121487.7	120384.8	505.12	µg/L	505.12	ppb	13:42:53
1	Mn 257.610†	375718.7	381512.7	505.88	µg/L	505.88	ppb	13:42:53
1	Mo 202.031†	15276.5	15558.2	509.28	µg/L	509.28	ppb	13:43:13
1	Ni 231.604†	40071.0	40804.5	510.52	µg/L	510.52	ppb	13:42:53
1	P 214.914†	10828.2	11026.2	2541.9	µg/L	2541.9	ppb	13:43:13
1	Pb 220.353†	8330.9	8360.0	516.03	µg/L	516.03	ppb	13:43:13
1	S 181.975 Axial†	1291.9	1223.5	1033.6	µg/L	1033.6	ppb	13:43:13
1	Sb 206.836†	3958.8	3932.1	508.21	µg/L	508.21	ppb	13:43:13
1	Se 196.026†	1291.6	1306.0	517	µg/L	517	ppb	13:43:13
1	SiO2†	51494.3	50574.7	5334.0	µg/L	5334.0	ppb	13:42:53
1	Si 251.611†	157845.4	159590.1	2506.4	µg/L	2506.4	ppb	13:42:53
1	Sn 189.927†	7135.5	7247.2	504.38	µg/L	504.38	ppb	13:43:13
1	Ti 334.940†	481989.7	488836.5	501.42	µg/L	501.42	ppb	13:42:53
1	Tl 190.801†	3553.5	3724.4	516.11	µg/L	516.11	ppb	13:43:13
1	U 409.014†	7425.5	7707.1	517.12	µg/L	517.12	ppb	13:42:53
1	V 292.402†	96145.0	97251.7	510.81	µg/L	510.81	ppb	13:42:53
1	Zn 213.857†	84509.4	85351.2	505.67	µg/L	505.67	ppb	13:42:53
2	Sc RADIAL	139612.3	139612.3	99.7	%			13:42:44
2	Al 396.153Radial†	23648.5	23808.4	4989.0	µg/L	4989.0	ppb	13:42:44
2	Ca 317.933Radial†	75832.6	75522.2	5143.7	µg/L	5143.7	ppb	13:42:44
2	Fe 238.204 Radial†	68267.1	68384.9	5106.9	µg/L	5106.9	ppb	13:42:44
2	K 766.490 Radial†	14437.4	12993.3	5144.4	µg/L	5144.4	ppb	13:42:44
2	Mg 279.077 IEC†	11292.1	11158.5	5160.3	µg/L	5160.3	ppb	13:42:44
2	Na 589.592 Radial†	66006.1	65280.9	10114	µg/L	10114	ppb	13:42:44
2	Sr 421.552†	211606.2	212539.3	501.23	µg/L	501.23	ppb	13:42:42
2	Sc 361.383	1781666.4	1781666.4	98.754	%			13:43:16
2	Y 371.029	1034665.0	1034665.0	97.859	%			13:43:16
2	Ag 328.068†	125593.0	122613.0	508.25	µg/L	508.25	ppb	13:43:16
2	As 188.979†	1355.4	1391.1	477.86	µg/L	477.86	ppb	13:43:36
2	B 249.677†	35931.1	32319.5	500.85	µg/L	500.85	ppb	13:43:16
2	Ba 233.527†	111616.5	113169.7	503.44	µg/L	503.44	ppb	13:43:16
2	Be 313.107†	1689593.4	1712009.4	496.07	µg/L	496.07	ppb	13:43:16
2	Cd 226.502†	74469.7	75512.9	510.06	µg/L	510.06	ppb	13:43:16
2	Co 228.616†	37976.5	38666.1	511.79	µg/L	511.79	ppb	13:43:16
2	Cr 267.716†	57992.2	58490.9	505.88	µg/L	505.88	ppb	13:43:16
2	Cu 324.752†	121899.7	120402.1	505.18	µg/L	505.18	ppb	13:43:16
2	Mn 257.610†	377710.0	382292.4	506.91	µg/L	506.91	ppb	13:43:16
2	Mo 202.031†	15274.2	15505.5	507.56	µg/L	507.56	ppb	13:43:36
2	Ni 231.604†	40181.7	40784.8	510.27	µg/L	510.27	ppb	13:43:16
2	P 214.914†	10770.6	10932.3	2520.2	µg/L	2520.2	ppb	13:43:36
2	Pb 220.353†	8298.0	8299.3	512.30	µg/L	512.30	ppb	13:43:36

2	S 181.975 Axial†	1286.7	1214.1	1025.6 µg/L	1025.6 ppb	13:43:36
2	Sb 206.836†	3944.3	3904.4	504.62 µg/L	504.62 ppb	13:43:36
2	Se 196.026†	1273.9	1283.8	508 µg/L	508 ppb	13:43:36
2	SiO2†	51901.4	50817.4	5359.8 µg/L	5359.8 ppb	13:43:16
2	Si 251.611†	158596.2	159830.8	2510.3 µg/L	2510.3 ppb	13:43:16
2	Sn 189.927†	7127.6	7215.7	502.20 µg/L	502.20 ppb	13:43:36
2	Ti 334.940†	484094.0	489380.7	501.98 µg/L	501.98 ppb	13:43:16
2	Tl 190.801†	3543.0	3702.0	513.05 µg/L	513.05 ppb	13:43:36
2	U 409.014†	7333.4	7589.3	509.66 µg/L	509.66 ppb	13:43:16
2	V 292.402†	96333.2	97125.7	510.14 µg/L	510.14 ppb	13:43:16
2	Zn 213.857†	85170.2	85742.2	508.01 µg/L	508.01 ppb	13:43:16
3	Sc RADIAL	136976.7	136976.7	97.8 %		13:42:48
3	Al 396.153Radial†	23312.1	23921.0	5012.7 µg/L	5012.7 ppb	13:42:48
3	Ca 317.933Radial†	74113.5	75228.2	5123.7 µg/L	5123.7 ppb	13:42:48
3	Fe 238.204 Radial†	66715.2	68115.7	5086.8 µg/L	5086.8 ppb	13:42:48
3	K 766.490 Radial†	13997.4	12822.0	5076.5 µg/L	5076.5 ppb	13:42:48
3	Mg 279.077 IEC†	11063.2	11142.5	5152.9 µg/L	5152.9 ppb	13:42:48
3	Na 589.592 Radial†	64548.4	65064.4	10081 µg/L	10081 ppb	13:42:48
3	Sr 421.552†	209597.9	214570.8	506.02 µg/L	506.02 ppb	13:42:46
3	Sc 361.383	1785664.6	1785664.6	98.975 %		13:43:39
3	Y 371.029	1036641.5	1036641.5	98.046 %		13:43:39
3	Ag 328.068†	125968.4	122707.5	508.62 µg/L	508.62 ppb	13:43:39
3	As 188.979†	1360.8	1393.5	478.69 µg/L	478.69 ppb	13:43:59
3	B 249.677†	36252.1	32562.3	504.62 µg/L	504.62 ppb	13:43:39
3	Ba 233.527†	111992.7	113296.8	504.00 µg/L	504.00 ppb	13:43:39
3	Be 313.107†	1692953.9	1711573.9	495.94 µg/L	495.94 ppb	13:43:39
3	Cd 226.502†	74912.6	75791.6	511.94 µg/L	511.94 ppb	13:43:39
3	Co 228.616†	38083.8	38688.4	512.09 µg/L	512.09 ppb	13:43:39
3	Cr 267.716†	58350.7	58721.7	507.89 µg/L	507.89 ppb	13:43:39
3	Cu 324.752†	122386.3	120617.3	506.06 µg/L	506.06 ppb	13:43:39
3	Mn 257.610†	378964.0	382703.0	507.46 µg/L	507.46 ppb	13:43:39
3	Mo 202.031†	15289.5	15486.4	506.93 µg/L	506.93 ppb	13:43:59
3	Ni 231.604†	40287.6	40800.6	510.47 µg/L	510.47 ppb	13:43:39
3	P 214.914†	10789.0	10926.4	2518.8 µg/L	2518.8 ppb	13:43:59
3	Pb 220.353†	8306.9	8289.4	511.70 µg/L	511.70 ppb	13:43:59
3	S 181.975 Axial†	1274.4	1198.7	1012.7 µg/L	1012.7 ppb	13:43:59
3	Sb 206.836†	3942.3	3893.4	503.16 µg/L	503.16 ppb	13:43:59
3	Se 196.026†	1281.3	1288.4	510 µg/L	510 ppb	13:43:59
3	SiO2†	52125.0	50925.6	5371.2 µg/L	5371.2 ppb	13:43:39
3	Si 251.611†	159485.5	160369.7	2518.8 µg/L	2518.8 ppb	13:43:39
3	Sn 189.927†	7145.8	7217.9	502.35 µg/L	502.35 ppb	13:43:59
3	Ti 334.940†	484735.9	488931.6	501.53 µg/L	501.53 ppb	13:43:39
3	Tl 190.801†	3526.0	3676.8	509.62 µg/L	509.62 ppb	13:43:59
3	U 409.014†	7048.5	7284.9	490.50 µg/L	490.50 ppb	13:43:39
3	V 292.402†	96713.4	97291.5	510.99 µg/L	510.99 ppb	13:43:39
3	Zn 213.857†	85201.1	85580.3	507.04 µg/L	507.04 ppb	13:43:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1781074.8	98.721	%	0.2723				0.28%
Sc RADIAL	138485.7	98.9	%	0.97				0.98%
Y 371.029	1034225.0	97.818	%	0.2520				0.26%
Ag 328.068†	122627.3	508.31	µg/L	0.289	508.31	ppb	0.289	0.06%
QC value within limits for Ag 328.068 Recovery = 101.66%								
Al 396.153Radial†	23834.3	4994.4	µg/L	16.29	4994.4	ppb	16.29	0.33%
QC value within limits for Al 396.153Radial Recovery = 99.89%								
As 188.979†	1401.3	481.32	µg/L	5.288	481.32	ppb	5.288	1.10%
QC value within limits for As 188.979 Recovery = 96.26%								
B 249.677†	32349.3	501.31	µg/L	3.105	501.31	ppb	3.105	0.62%
QC value within limits for B 249.677 Recovery = 100.26%								
Ba 233.527†	113202.0	503.58	µg/L	0.371	503.58	ppb	0.371	0.07%
QC value within limits for Ba 233.527 Recovery = 100.72%								
Be 313.107†	1710942.5	495.76	µg/L	0.428	495.76	ppb	0.428	0.09%
QC value within limits for Be 313.107 Recovery = 99.15%								
Ca 317.933Radial†	75422.7	5137.0	µg/L	11.48	5137.0	ppb	11.48	0.22%
QC value within limits for Ca 317.933Radial Recovery = 102.74%								
Cd 226.502†	75532.9	510.19	µg/L	1.686	510.19	ppb	1.686	0.33%
QC value within limits for Cd 226.502 Recovery = 102.04%								
Co 228.616†	38659.7	511.70	µg/L	0.430	511.70	ppb	0.430	0.08%

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   QC value within limits for Co 228.616  Recovery = 102.34%
Cr 267.716†            58587.5      506.72 µg/L         1.047      506.72 ppb          1.047   0.21%
   QC value within limits for Cr 267.716  Recovery = 101.34%
Cu 324.752†           120468.1      505.45 µg/L         0.529      505.45 ppb          0.529   0.10%
   QC value within limits for Cu 324.752  Recovery = 101.09%
Fe 238.204 Radial†     68293.4      5100.1 µg/L         11.50      5100.1 ppb          11.50   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.00%
K 766.490 Radial†      12874.0      5097.1 µg/L         41.07      5097.1 ppb          41.07   0.81%
   QC value within limits for K 766.490 Radial  Recovery = 101.94%
Mg 279.077 IEC†        11170.5      5165.9 µg/L         16.44      5165.9 ppb          16.44   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.32%
Mn 257.610†           382169.4      506.75 µg/L         0.803      506.75 ppb          0.803   0.16%
   QC value within limits for Mn 257.610  Recovery = 101.35%
Mo 202.031†            15516.7      507.92 µg/L         1.216      507.92 ppb          1.216   0.24%
   QC value within limits for Mo 202.031  Recovery = 101.58%
Na 589.592 Radial†     65142.1       10093 µg/L          18.6       10093 ppb           18.6   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 100.93%
Ni 231.604†            40796.6      510.42 µg/L         0.131      510.42 ppb          0.131   0.03%
   QC value within limits for Ni 231.604  Recovery = 102.08%
P 214.914†             10961.6      2527.0 µg/L         12.95      2527.0 ppb          12.95   0.51%
   QC value within limits for P 214.914  Recovery = 101.08%
Pb 220.353†             8316.2      513.34 µg/L         2.346      513.34 ppb          2.346   0.46%
   QC value within limits for Pb 220.353  Recovery = 102.67%
S 181.975 Axial†        1212.1      1024.0 µg/L         10.53      1024.0 ppb          10.53   1.03%
   QC value within limits for S 181.975 Axial  Recovery = 102.40%
Sb 206.836†             3910.0      505.33 µg/L         2.599      505.33 ppb          2.599   0.51%
   QC value within limits for Sb 206.836  Recovery = 101.07%
Se 196.026†             1292.7         512 µg/L           4.6         512 ppb            4.6   0.91%
   QC value within limits for Se 196.026  Recovery = 102.31%
SiO2†                  50772.5      5355.0 µg/L         19.08      5355.0 ppb          19.08   0.36%
   QC value within limits for SiO2  Recovery = 100.14%
Si 251.611†           159930.2      2511.8 µg/L          6.31      2511.8 ppb           6.31   0.25%
   QC value within limits for Si 251.611  Recovery = 100.47%
Sn 189.927†             7226.9      502.98 µg/L         1.219      502.98 ppb          1.219   0.24%
   QC value within limits for Sn 189.927  Recovery = 100.60%
Sr 421.552†           213199.9      502.78 µg/L         2.801      502.78 ppb          2.801   0.56%
   QC value within limits for Sr 421.552  Recovery = 100.56%
Ti 334.940†           489049.6      501.64 µg/L         0.299      501.64 ppb          0.299   0.06%
   QC value within limits for Ti 334.940  Recovery = 100.33%
Tl 190.801†             3701.1      512.93 µg/L         3.248      512.93 ppb          3.248   0.63%
   QC value within limits for Tl 190.801  Recovery = 102.59%
U 409.014†              7527.1      505.76 µg/L        13.731      505.76 ppb         13.731   2.71%
   QC value within limits for U 409.014  Recovery = 101.15%
V 292.402†             97223.0      510.65 µg/L         0.450      510.65 ppb          0.450   0.09%
   QC value within limits for V 292.402  Recovery = 102.13%
Zn 213.857†            85557.9      506.91 µg/L         1.174      506.91 ppb          1.174   0.23%
   QC value within limits for Zn 213.857  Recovery = 101.38%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 13:44:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139226.4	139226.4	99.4	%			13:44:36
1	Al 396.153Radial†	-51.0	27.3	5.7217	µg/L	5.7217	ppb	13:44:56
1	Ca 317.933Radial†	696.1	129.0	8.7832	µg/L	8.7832	ppb	13:44:56
1	Fe 238.204 Radial†	190.7	74.6	5.5725	µg/L	5.5725	ppb	13:44:56
1	K 766.490 Radial†	1559.2	75.1	29.754	µg/L	29.754	ppb	13:44:36
1	Mg 279.077 IEC†	174.5	3.2	1.4746	µg/L	1.4746	ppb	13:44:56
1	Na 589.592 Radial†	1053.6	107.6	16.657	µg/L	16.657	ppb	13:44:36
1	Sr 421.552†	-234.3	-31.3	-0.0738	µg/L	-0.0738	ppb	13:44:36
1	Sc 361.383	1819640.9	1819640.9	100.86	%			13:45:44
1	Y 371.029	1068349.2	1068349.2	101.05	%			13:45:44
1	Ag 328.068†	4263.6	-337.9	-1.3898	µg/L	-1.3898	ppb	13:45:46
1	As 188.979†	-12.2	6.4	2.1762	µg/L	2.1762	ppb	13:46:06
1	B 249.677†	4095.1	-4.9	-0.0766	µg/L	-0.0766	ppb	13:45:46
1	Ba 233.527†	-142.3	3.4	0.0151	µg/L	0.0151	ppb	13:46:06
1	Be 313.107†	-394.6	700.5	0.2020	µg/L	0.2020	ppb	13:45:46
1	Cd 226.502†	-62.4	41.5	0.2802	µg/L	0.2802	ppb	13:46:06
1	Co 228.616†	-196.0	15.9	0.2104	µg/L	0.2104	ppb	13:46:06
1	Cr 267.716†	280.0	44.4	0.3870	µg/L	0.3870	ppb	13:46:06
1	Cu 324.752†	2971.8	-89.6	-0.3764	µg/L	-0.3764	ppb	13:45:46
1	Mn 257.610†	366.6	178.8	0.2371	µg/L	0.2371	ppb	13:46:06
1	Mo 202.031†	-27.1	11.7	0.3815	µg/L	0.3815	ppb	13:46:06
1	Ni 231.604†	-82.9	13.7	0.1718	µg/L	0.1718	ppb	13:46:06
1	P 214.914†	3.4	29.1	6.7214	µg/L	6.7214	ppb	13:46:06
1	Pb 220.353†	138.4	33.8	2.0844	µg/L	2.0844	ppb	13:46:06
1	S 181.975 Axial†	94.0	4.3	3.5941	µg/L	3.5941	ppb	13:46:06
1	Sb 206.836†	85.1	-5.3	-0.6907	µg/L	-0.6907	ppb	13:46:06
1	Se 196.026†	32.1	25.7	10.1	µg/L	10.1	ppb	13:46:06
1	SiO2†	1842.8	88.0	9.3085	µg/L	9.3085	ppb	13:46:06
1	Si 251.611†	996.9	221.4	3.4871	µg/L	3.4871	ppb	13:45:46
1	Sn 189.927†	-1.5	-3.4	-0.2330	µg/L	-0.2330	ppb	13:46:06
1	Ti 334.940†	1034.4	202.6	0.2093	µg/L	0.2093	ppb	13:45:46
1	Tl 190.801†	-117.8	-2.5	-0.3444	µg/L	-0.3444	ppb	13:46:06
1	U 409.014†	-215.4	-50.2	-3.1830	µg/L	-3.1830	ppb	13:45:46
1	V 292.402†	385.2	-41.3	-0.2113	µg/L	-0.2113	ppb	13:45:46
1	Zn 213.857†	650.8	142.2	0.8481	µg/L	0.8481	ppb	13:46:06
2	Sc RADIAL	138385.9	138385.9	98.8	%			13:44:58
2	Al 396.153Radial†	-38.8	39.3	8.2507	µg/L	8.2507	ppb	13:45:18
2	Ca 317.933Radial†	696.7	133.8	9.1147	µg/L	9.1147	ppb	13:45:18
2	Fe 238.204 Radial†	164.2	49.0	3.6558	µg/L	3.6558	ppb	13:45:18
2	K 766.490 Radial†	1544.7	70.0	27.726	µg/L	27.726	ppb	13:44:58
2	Mg 279.077 IEC†	172.3	2.0	0.9360	µg/L	0.9360	ppb	13:45:18
2	Na 589.592 Radial†	1096.0	157.0	24.315	µg/L	24.315	ppb	13:44:58
2	Sr 421.552†	-154.1	48.4	0.1142	µg/L	0.1142	ppb	13:44:58
2	Sc 361.383	1771732.9	1771732.9	98.203	%			13:46:08
2	Y 371.029	1041172.2	1041172.2	98.475	%			13:46:08
2	Ag 328.068†	4132.7	-356.8	-1.4850	µg/L	-1.4850	ppb	13:46:11
2	As 188.979†	-12.4	5.9	1.9960	µg/L	1.9960	ppb	13:46:31
2	B 249.677†	4083.0	92.6	1.4401	µg/L	1.4401	ppb	13:46:11
2	Ba 233.527†	-132.8	9.3	0.0414	µg/L	0.0414	ppb	13:46:31
2	Be 313.107†	-720.5	358.1	0.0973	µg/L	0.0973	ppb	13:46:11
2	Cd 226.502†	-73.4	28.6	0.1936	µg/L	0.1936	ppb	13:46:31
2	Co 228.616†	-203.4	3.2	0.0419	µg/L	0.0419	ppb	13:46:31
2	Cr 267.716†	255.0	26.5	0.2460	µg/L	0.2460	ppb	13:46:31
2	Cu 324.752†	2857.4	-126.5	-0.5460	µg/L	-0.5460	ppb	13:46:11
2	Mn 257.610†	231.1	50.7	0.0671	µg/L	0.0671	ppb	13:46:31
2	Mo 202.031†	-27.9	10.2	0.3337	µg/L	0.3337	ppb	13:46:31
2	Ni 231.604†	-29.5	65.9	0.8242	µg/L	0.8242	ppb	13:46:31
2	P 214.914†	24.4	50.5	11.690	µg/L	11.690	ppb	13:46:31
2	Pb 220.353†	105.7	4.2	0.2732	µg/L	0.2732	ppb	13:46:31

2	S 181.975 Axial†	88.8	1.5	1.2436 µg/L	1.2436 ppb	13:46:31
2	Sb 206.836†	75.0	-13.3	-1.7160 µg/L	-1.7160 ppb	13:46:31
2	Se 196.026†	19.1	13.2	5.20 µg/L	5.20 ppb	13:46:31
2	SiO2†	1753.8	46.8	4.9409 µg/L	4.9409 ppb	13:46:31
2	Si 251.611†	1093.8	346.8	5.4607 µg/L	5.4607 ppb	13:46:11
2	Sn 189.927†	8.4	6.7	0.4611 µg/L	0.4611 ppb	13:46:31
2	Ti 334.940†	753.6	-55.6	-0.0483 µg/L	-0.0483 ppb	13:46:11
2	Tl 190.801†	-105.7	6.7	0.9108 µg/L	0.9108 ppb	13:46:31
2	U 409.014†	-492.0	-337.7	-21.300 µg/L	-21.300 ppb	13:46:11
2	V 292.402†	446.9	31.9	0.1551 µg/L	0.1551 ppb	13:46:11
2	Zn 213.857†	623.7	132.1	0.7836 µg/L	0.7836 ppb	13:46:31
3	Sc RADIAL	139322.9	139322.9	99.5 %		13:45:20
3	Al 396.153Radial†	-83.3	-5.2	-1.1167 µg/L	-1.1167 ppb	13:45:40
3	Ca 317.933Radial†	719.2	151.7	10.332 µg/L	10.332 ppb	13:45:40
3	Fe 238.204 Radial†	177.6	61.3	4.5744 µg/L	4.5744 ppb	13:45:40
3	K 766.490 Radial†	1647.6	162.9	64.558 µg/L	64.558 ppb	13:45:20
3	Mg 279.077 IEC†	171.1	-0.4	-0.1669 µg/L	-0.1669 ppb	13:45:40
3	Na 589.592 Radial†	1163.3	217.2	33.612 µg/L	33.612 ppb	13:45:20
3	Sr 421.552†	-240.9	-37.7	-0.0890 µg/L	-0.0890 ppb	13:45:20
3	Sc 361.383	1757944.0	1757944.0	97.439 %		13:46:33
3	Y 371.029	1032464.3	1032464.3	97.651 %		13:46:33
3	Ag 328.068†	4147.0	-309.1	-1.2649 µg/L	-1.2649 ppb	13:46:35
3	As 188.979†	-16.2	2.0	0.6713 µg/L	0.6713 ppb	13:46:55
3	B 249.677†	4056.4	97.9	1.5216 µg/L	1.5216 ppb	13:46:35
3	Ba 233.527†	-147.1	-6.4	-0.0283 µg/L	-0.0283 ppb	13:46:55
3	Be 313.107†	-852.9	216.4	0.0628 µg/L	0.0628 ppb	13:46:35
3	Cd 226.502†	-99.0	1.8	0.0118 µg/L	0.0118 ppb	13:46:55
3	Co 228.616†	-185.8	19.6	0.2591 µg/L	0.2591 ppb	13:46:55
3	Cr 267.716†	282.6	56.8	0.4914 µg/L	0.4914 ppb	13:46:55
3	Cu 324.752†	2854.6	-106.5	-0.4443 µg/L	-0.4443 ppb	13:46:35
3	Mn 257.610†	372.3	197.4	0.2618 µg/L	0.2618 ppb	13:46:55
3	Mo 202.031†	-26.7	11.1	0.3643 µg/L	0.3643 ppb	13:46:55
3	Ni 231.604†	-49.6	45.0	0.5632 µg/L	0.5632 ppb	13:46:55
3	P 214.914†	-3.8	21.8	5.0402 µg/L	5.0402 ppb	13:46:55
3	Pb 220.353†	94.5	-6.5	-0.3967 µg/L	-0.3967 ppb	13:46:55
3	S 181.975 Axial†	97.8	11.5	9.6540 µg/L	9.6540 ppb	13:46:55
3	Sb 206.836†	68.1	-19.8	-2.5588 µg/L	-2.5588 ppb	13:46:55
3	Se 196.026†	11.5	5.6	2.23 µg/L	2.23 ppb	13:46:55
3	SiO2†	1811.7	120.2	12.718 µg/L	12.718 ppb	13:46:55
3	Si 251.611†	1099.6	361.4	5.6949 µg/L	5.6949 ppb	13:46:35
3	Sn 189.927†	1.3	-0.5	-0.0360 µg/L	-0.0360 ppb	13:46:55
3	Ti 334.940†	685.2	-119.8	-0.1230 µg/L	-0.1230 ppb	13:46:35
3	Tl 190.801†	-115.2	-4.0	-0.5460 µg/L	-0.5460 ppb	13:46:55
3	U 409.014†	-153.1	6.3	0.3983 µg/L	0.3983 ppb	13:46:35
3	V 292.402†	417.2	5.0	0.0315 µg/L	0.0315 ppb	13:46:35
3	Zn 213.857†	604.9	117.8	0.6996 µg/L	0.6996 ppb	13:46:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783105.9	98.833	%	1.7949				1.82%
Sc RADIAL	138978.4	99.2	%	0.37				0.37%
Y 371.029	1047328.6	99.057	%	1.7703				1.79%
Ag 328.068†	-334.6	-1.3799	µg/L	0.11039	-1.3799	ppb	0.11039	8.00%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	20.4	4.2852	µg/L	4.84606	4.2852	ppb	4.84606	113.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.8	1.6145	µg/L	0.82177	1.6145	ppb	0.82177	50.90%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	61.9	0.9617	µg/L	0.90009	0.9617	ppb	0.90009	93.59%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0094	µg/L	0.03520	0.0094	ppb	0.03520	373.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	425.0	0.1207	µg/L	0.07247	0.1207	ppb	0.07247	60.05%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	138.2	9.4101	µg/L	0.81571	9.4101	ppb	0.81571	8.67%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	24.0	0.1619	µg/L	0.13702	0.1619	ppb	0.13702	84.65%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.9	0.1705	µg/L	0.11396	0.1705	ppb	0.11396	66.85%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              42.6      0.3748 µg/L       0.12315      0.3748 ppb        0.12315  32.85%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -107.5     -0.4556 µg/L       0.08535     -0.4556 ppb        0.08535  18.73%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       61.6      4.6009 µg/L       0.95865      4.6009 ppb        0.95865  20.84%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       102.7      40.679 µg/L       20.7044      40.679 ppb        20.7044  50.90%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.6      0.7479 µg/L       0.83677      0.7479 ppb        0.83677 111.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             142.3      0.1887 µg/L       0.10597      0.1887 ppb        0.10597  56.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              11.0      0.3598 µg/L       0.02420      0.3598 ppb        0.02420   6.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      160.6      24.861 µg/L        8.4908      24.861 ppb         8.4908  34.15%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              41.5      0.5197 µg/L       0.32839      0.5197 ppb        0.32839  63.18%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               33.8      7.8172 µg/L       3.45772      7.8172 ppb        3.45772  44.23%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              10.5      0.6536 µg/L       1.28355      0.6536 ppb        1.28355 196.38%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          5.7      4.8306 µg/L       4.33939      4.8306 ppb        4.33939  89.83%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -12.8     -1.6552 µg/L       0.93557     -1.6552 ppb        0.93557  56.52%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              14.9        5.85 µg/L         3.985        5.85 ppb          3.985  68.14%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    85.0      8.9890 µg/L       3.89816      8.9890 ppb        3.89816  43.37%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             309.9      4.8809 µg/L       1.21272      4.8809 ppb        1.21272  24.85%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.9      0.0640 µg/L       0.35771      0.0640 ppb        0.35771 558.65%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -6.8     -0.0162 µg/L       0.11318     -0.0162 ppb        0.11318 697.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               9.1      0.0127 µg/L       0.17437      0.0127 ppb        0.17437 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.1      0.0068 µg/L       0.78935      0.0068 ppb        0.78935 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -127.2     -8.0284 µg/L      11.63259     -8.0284 ppb       11.63259 144.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -1.5     -0.0082 µg/L       0.18638     -0.0082 ppb        0.18638 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             130.7      0.7771 µg/L       0.07446      0.7771 ppb        0.07446   9.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 13:57:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	133703.0	133703.0	95.4	%			13:57:50
1	Al 396.153Radial†	22554.6	23711.1	4968.7	µg/L	4968.7	ppb	13:57:50
1	Ca 317.933Radial†	71572.3	74421.4	5068.8	µg/L	5068.8	ppb	13:57:50
1	Fe 238.204 Radial†	64614.0	67584.7	5047.2	µg/L	5047.2	ppb	13:57:50
1	K 766.490 Radial†	13703.0	12864.1	5093.2	µg/L	5093.2	ppb	13:57:50
1	Mg 279.077 IEC†	10634.0	10969.7	5073.1	µg/L	5073.1	ppb	13:57:50
1	Na 589.592 Radial†	62647.9	64689.5	10023	µg/L	10023	ppb	13:57:50
1	Sr 421.552†	204020.9	213976.0	504.62	µg/L	504.62	ppb	13:57:48
1	Sc 361.383	1743773.2	1743773.2	96.653	%			13:58:17
1	Y 371.029	1014215.8	1014215.8	95.925	%			13:58:17
1	Ag 328.068†	122275.7	121944.4	505.47	µg/L	505.47	ppb	13:58:17
1	As 188.979†	1308.4	1372.3	471.47	µg/L	471.47	ppb	13:58:37
1	B 249.677†	34648.9	31783.5	492.54	µg/L	492.54	ppb	13:58:17
1	Ba 233.527†	108512.8	112414.7	500.08	µg/L	500.08	ppb	13:58:17
1	Be 313.107†	1636416.4	1694170.4	490.90	µg/L	490.90	ppb	13:58:17
1	Cd 226.502†	71960.3	74555.4	503.59	µg/L	503.59	ppb	13:58:17
1	Co 228.616†	36701.4	38182.5	505.39	µg/L	505.39	ppb	13:58:17
1	Cr 267.716†	56620.4	58347.8	504.64	µg/L	504.64	ppb	13:58:17
1	Cu 324.752†	118678.8	119752.1	502.44	µg/L	502.44	ppb	13:58:17
1	Mn 257.610†	367167.6	379696.4	503.47	µg/L	503.47	ppb	13:58:17
1	Mo 202.031†	14791.7	15342.4	502.22	µg/L	502.22	ppb	13:58:37
1	Ni 231.604†	38977.5	40423.0	505.74	µg/L	505.74	ppb	13:58:17
1	P 214.914†	10359.5	10743.9	2476.6	µg/L	2476.6	ppb	13:58:37
1	Pb 220.353†	8017.2	8191.4	505.65	µg/L	505.65	ppb	13:58:37
1	S 181.975 Axial†	1223.5	1176.9	994.31	µg/L	994.31	ppb	13:58:37
1	Sb 206.836†	3797.9	3839.7	496.20	µg/L	496.20	ppb	13:58:37
1	Se 196.026†	1214.1	1250.0	495	µg/L	495	ppb	13:58:37
1	SiO2†	50299.0	50301.5	5305.4	µg/L	5305.4	ppb	13:58:17
1	Si 251.611†	153908.1	158470.3	2489.0	µg/L	2489.0	ppb	13:58:17
1	Sn 189.927†	6857.6	7093.2	493.69	µg/L	493.69	ppb	13:58:37
1	Ti 334.940†	471073.5	486561.9	499.09	µg/L	499.09	ppb	13:58:17
1	Tl 190.801†	3403.7	3635.8	503.99	µg/L	503.99	ppb	13:58:37
1	U 409.014†	7073.3	7481.6	502.67	µg/L	502.67	ppb	13:58:17
1	V 292.402†	93723.2	96545.2	507.07	µg/L	507.07	ppb	13:58:17
1	Zn 213.857†	82234.4	84578.9	501.10	µg/L	501.10	ppb	13:58:17
2	Sc RADIAL	134691.7	134691.7	96.1	%			13:57:54
2	Al 396.153Radial†	22697.4	23686.1	4963.4	µg/L	4963.4	ppb	13:57:54
2	Ca 317.933Radial†	72303.2	74631.1	5083.1	µg/L	5083.1	ppb	13:57:54
2	Fe 238.204 Radial†	64992.9	67481.9	5039.5	µg/L	5039.5	ppb	13:57:54
2	K 766.490 Radial†	13716.0	12772.2	5056.8	µg/L	5056.8	ppb	13:57:54
2	Mg 279.077 IEC†	10804.5	11065.3	5117.3	µg/L	5117.3	ppb	13:57:54
2	Na 589.592 Radial†	63263.3	64847.7	10047	µg/L	10047	ppb	13:57:54
2	Sr 421.552†	205498.8	213944.0	504.54	µg/L	504.54	ppb	13:57:52
2	Sc 361.383	1742582.1	1742582.1	96.587	%			13:58:40
2	Y 371.029	1013221.8	1013221.8	95.831	%			13:58:40
2	Ag 328.068†	122181.0	121932.9	505.40	µg/L	505.40	ppb	13:58:40
2	As 188.979†	1304.8	1369.5	470.51	µg/L	470.51	ppb	13:59:00
2	B 249.677†	34677.7	31837.8	493.37	µg/L	493.37	ppb	13:58:40
2	Ba 233.527†	108297.8	112268.9	499.43	µg/L	499.43	ppb	13:58:40
2	Be 313.107†	1631868.9	1690619.5	489.87	µg/L	489.87	ppb	13:58:40
2	Cd 226.502†	71599.4	74232.6	501.41	µg/L	501.41	ppb	13:58:40
2	Co 228.616†	36792.9	38303.2	506.99	µg/L	506.99	ppb	13:58:40
2	Cr 267.716†	56370.9	58129.4	502.76	µg/L	502.76	ppb	13:58:40
2	Cu 324.752†	118433.6	119582.1	501.73	µg/L	501.73	ppb	13:58:40
2	Mn 257.610†	366224.2	378979.3	502.52	µg/L	502.52	ppb	13:58:40
2	Mo 202.031†	14820.1	15382.3	503.52	µg/L	503.52	ppb	13:59:00
2	Ni 231.604†	38620.7	40081.2	501.47	µg/L	501.47	ppb	13:58:40
2	P 214.914†	10398.5	10791.6	2487.7	µg/L	2487.7	ppb	13:59:00
2	Pb 220.353†	8036.1	8216.6	507.21	µg/L	507.21	ppb	13:59:00

2	S 181.975 Axial†	1226.7	1181.2	997.92	µg/L	997.92 ppb	13:59:00
2	Sb 206.836†	3831.6	3877.3	501.10	µg/L	501.10 ppb	13:59:00
2	Se 196.026†	1231.1	1268.4	502	µg/L	502 ppb	13:59:00
2	SiO2†	50287.5	50325.2	5307.9	µg/L	5307.9 ppb	13:58:40
2	Si 251.611†	153946.6	158619.0	2491.3	µg/L	2491.3 ppb	13:58:40
2	Sn 189.927†	6883.9	7125.2	495.91	µg/L	495.91 ppb	13:59:00
2	Ti 334.940†	470431.4	486230.2	498.75	µg/L	498.75 ppb	13:58:40
2	Tl 190.801†	3432.7	3668.3	508.41	µg/L	508.41 ppb	13:59:00
2	U 409.014†	6980.0	7390.0	496.82	µg/L	496.82 ppb	13:58:40
2	V 292.402†	93426.2	96304.0	505.82	µg/L	505.82 ppb	13:58:40
2	Zn 213.857†	82093.8	84491.5	500.61	µg/L	500.61 ppb	13:58:40
3	Sc RADIAL	134130.1	134130.1	95.7	%		13:57:58
3	Al 396.153Radial†	22622.6	23706.8	4967.6	µg/L	4967.6 ppb	13:57:58
3	Ca 317.933Radial†	71792.8	74412.9	5068.2	µg/L	5068.2 ppb	13:57:58
3	Fe 238.204 Radial†	64808.3	67572.1	5046.2	µg/L	5046.2 ppb	13:57:58
3	K 766.490 Radial†	13921.3	13046.4	5165.5	µg/L	5165.5 ppb	13:57:58
3	Mg 279.077 IEC†	10554.7	10851.5	5018.6	µg/L	5018.6 ppb	13:57:58
3	Na 589.592 Radial†	63075.6	64927.2	10060	µg/L	10060 ppb	13:57:58
3	Sr 421.552†	203189.3	212426.8	500.96	µg/L	500.96 ppb	13:57:56
3	Sc 361.383	1726061.4	1726061.4	95.672	%		13:59:03
3	Y 371.029	1004355.7	1004355.7	94.993	%		13:59:03
3	Ag 328.068†	121072.6	121985.1	505.65	µg/L	505.65 ppb	13:59:03
3	As 188.979†	1299.5	1376.9	473.03	µg/L	473.03 ppb	13:59:23
3	B 249.677†	34411.0	31902.7	494.39	µg/L	494.39 ppb	13:59:03
3	Ba 233.527†	107291.4	112290.1	499.53	µg/L	499.53 ppb	13:59:03
3	Be 313.107†	1615885.3	1690083.8	489.72	µg/L	489.72 ppb	13:59:03
3	Cd 226.502†	70983.9	74298.8	501.85	µg/L	501.85 ppb	13:59:03
3	Co 228.616†	36389.1	38245.7	506.23	µg/L	506.23 ppb	13:59:03
3	Cr 267.716†	55852.9	58146.6	502.90	µg/L	502.90 ppb	13:59:03
3	Cu 324.752†	117224.5	119492.0	501.36	µg/L	501.36 ppb	13:59:03
3	Mn 257.610†	363073.5	379315.1	502.97	µg/L	502.97 ppb	13:59:03
3	Mo 202.031†	14813.3	15522.1	508.09	µg/L	508.09 ppb	13:59:23
3	Ni 231.604†	38500.5	40338.3	504.68	µg/L	504.68 ppb	13:59:03
3	P 214.914†	10383.8	10879.3	2508.0	µg/L	2508.0 ppb	13:59:23
3	Pb 220.353†	8017.5	8276.8	510.91	µg/L	510.91 ppb	13:59:23
3	S 181.975 Axial†	1232.7	1199.5	1013.4	µg/L	1013.4 ppb	13:59:23
3	Sb 206.836†	3802.7	3885.1	502.17	µg/L	502.17 ppb	13:59:23
3	Se 196.026†	1246.7	1296.9	513	µg/L	513 ppb	13:59:23
3	SiO2†	49983.7	50506.0	5326.8	µg/L	5326.8 ppb	13:59:03
3	Si 251.611†	152449.4	158579.6	2490.6	µg/L	2490.6 ppb	13:59:03
3	Sn 189.927†	6882.3	7191.8	500.54	µg/L	500.54 ppb	13:59:23
3	Ti 334.940†	466767.2	487061.9	499.61	µg/L	499.61 ppb	13:59:03
3	Tl 190.801†	3420.4	3689.5	511.32	µg/L	511.32 ppb	13:59:23
3	U 409.014†	7122.8	7608.4	510.68	µg/L	510.68 ppb	13:59:03
3	V 292.402†	92778.6	96552.9	507.17	µg/L	507.17 ppb	13:59:03
3	Zn 213.857†	81238.2	84410.7	500.10	µg/L	500.10 ppb	13:59:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1737472.2	96.304	%	0.5487				0.57%
Sc RADIAL	134174.9	95.8	%	0.35				0.37%
Y 371.029	1010597.8	95.583	%	0.5134				0.54%
Ag 328.068†	121954.1	505.51	µg/L	0.127	505.51	ppb	0.127	0.03%
QC value within limits for Ag 328.068 Recovery = 101.10%								
Al 396.153Radial†	23701.3	4966.6	µg/L	2.80	4966.6	ppb	2.80	0.06%
QC value within limits for Al 396.153Radial Recovery = 99.33%								
As 188.979†	1372.9	471.67	µg/L	1.272	471.67	ppb	1.272	0.27%
QC value within limits for As 188.979 Recovery = 94.33%								
B 249.677†	31841.3	493.43	µg/L	0.927	493.43	ppb	0.927	0.19%
QC value within limits for B 249.677 Recovery = 98.69%								
Ba 233.527†	112324.5	499.68	µg/L	0.350	499.68	ppb	0.350	0.07%
QC value within limits for Ba 233.527 Recovery = 99.94%								
Be 313.107†	1691624.6	490.16	µg/L	0.643	490.16	ppb	0.643	0.13%
QC value within limits for Be 313.107 Recovery = 98.03%								
Ca 317.933Radial†	74488.5	5073.3	µg/L	8.42	5073.3	ppb	8.42	0.17%
QC value within limits for Ca 317.933Radial Recovery = 101.47%								
Cd 226.502†	74362.2	502.28	µg/L	1.153	502.28	ppb	1.153	0.23%
QC value within limits for Cd 226.502 Recovery = 100.46%								
Co 228.616†	38243.8	506.20	µg/L	0.798	506.20	ppb	0.798	0.16%

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   QC value within limits for Co 228.616  Recovery = 101.24%
Cr 267.716†            58207.9      503.43 µg/L         1.051      503.43 ppb          1.051   0.21%
   QC value within limits for Cr 267.716  Recovery = 100.69%
Cu 324.752†           119608.7      501.84 µg/L         0.550      501.84 ppb          0.550   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.37%
Fe 238.204 Radial†     67546.2      5044.3 µg/L          4.19      5044.3 ppb           4.19   0.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.89%
K 766.490 Radial†      12894.2      5105.2 µg/L         55.31      5105.2 ppb          55.31   1.08%
   QC value within limits for K 766.490 Radial  Recovery = 102.10%
Mg 279.077 IEC†        10962.2      5069.7 µg/L         49.41      5069.7 ppb          49.41   0.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.39%
Mn 257.610†           379330.3      502.99 µg/L         0.477      502.99 ppb          0.477   0.09%
   QC value within limits for Mn 257.610  Recovery = 100.60%
Mo 202.031†            15415.6      504.61 µg/L         3.085      504.61 ppb          3.085   0.61%
   QC value within limits for Mo 202.031  Recovery = 100.92%
Na 589.592 Radial†     64821.5       10043 µg/L          18.7       10043 ppb           18.7   0.19%
   QC value within limits for Na 589.592 Radial  Recovery = 100.43%
Ni 231.604†            40280.8      503.96 µg/L         2.227      503.96 ppb          2.227   0.44%
   QC value within limits for Ni 231.604  Recovery = 100.79%
P 214.914†             10804.9      2490.8 µg/L         15.89      2490.8 ppb          15.89   0.64%
   QC value within limits for P 214.914  Recovery = 99.63%
Pb 220.353†             8228.3      507.92 µg/L         2.705      507.92 ppb          2.705   0.53%
   QC value within limits for Pb 220.353  Recovery = 101.58%
S 181.975 Axial†        1185.9      1001.9 µg/L         10.13      1001.9 ppb          10.13   1.01%
   QC value within limits for S 181.975 Axial  Recovery = 100.19%
Sb 206.836†             3867.4      499.82 µg/L         3.181      499.82 ppb          3.181   0.64%
   QC value within limits for Sb 206.836  Recovery = 99.96%
Se 196.026†             1271.8         503 µg/L           9.3         503 ppb            9.3   1.85%
   QC value within limits for Se 196.026  Recovery = 100.65%
SiO2†                  50377.6      5313.4 µg/L         11.71      5313.4 ppb          11.71   0.22%
   QC value within limits for SiO2  Recovery = 99.36%
Si 251.611†           158556.3      2490.3 µg/L          1.18      2490.3 ppb           1.18   0.05%
   QC value within limits for Si 251.611  Recovery = 99.61%
Sn 189.927†             7136.7      496.71 µg/L         3.492      496.71 ppb          3.492   0.70%
   QC value within limits for Sn 189.927  Recovery = 99.34%
Sr 421.552†           213448.9      503.37 µg/L         2.088      503.37 ppb          2.088   0.41%
   QC value within limits for Sr 421.552  Recovery = 100.67%
Ti 334.940†           486618.0      499.15 µg/L         0.431      499.15 ppb          0.431   0.09%
   QC value within limits for Ti 334.940  Recovery = 99.83%
Tl 190.801†             3664.5      507.91 µg/L         3.689      507.91 ppb          3.689   0.73%
   QC value within limits for Tl 190.801  Recovery = 101.58%
U 409.014†              7493.3      503.39 µg/L         6.957      503.39 ppb          6.957   1.38%
   QC value within limits for U 409.014  Recovery = 100.68%
V 292.402†             96467.4      506.69 µg/L         0.750      506.69 ppb          0.750   0.15%
   QC value within limits for V 292.402  Recovery = 101.34%
Zn 213.857†            84493.7      500.60 µg/L         0.498      500.60 ppb          0.498   0.10%
   QC value within limits for Zn 213.857  Recovery = 100.12%
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 13:59:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135574.4	135574.4	96.8	%			14:00:01
1	Al 396.153Radial†	-83.0	-7.2	-1.5401	µg/L	-1.5401	ppb	14:00:21
1	Ca 317.933Radial†	693.2	144.8	9.8636	µg/L	9.8636	ppb	14:00:21
1	Fe 238.204 Radial†	191.5	80.5	6.0144	µg/L	6.0144	ppb	14:00:21
1	K 766.490 Radial†	1712.5	275.8	109.29	µg/L	109.29	ppb	14:00:01
1	Mg 279.077 IEC†	176.7	10.1	4.6838	µg/L	4.6838	ppb	14:00:21
1	Na 589.592 Radial†	1100.1	184.3	28.465	µg/L	28.465	ppb	14:00:01
1	Sr 421.552†	-293.1	-98.3	-0.2320	µg/L	-0.2320	ppb	14:00:01
1	Sc 361.383	1778855.6	1778855.6	98.598	%			14:01:23
1	Y 371.029	1046359.8	1046359.8	98.966	%			14:01:23
1	Ag 328.068†	4331.1	-172.4	-0.7139	µg/L	-0.7139	ppb	14:01:25
1	As 188.979†	-19.9	-1.6	-0.5291	µg/L	-0.5291	ppb	14:01:45
1	B 249.677†	3922.3	-87.0	-1.3536	µg/L	-1.3536	ppb	14:01:25
1	Ba 233.527†	-134.6	8.1	0.0356	µg/L	0.0356	ppb	14:01:45
1	Be 313.107†	-633.3	449.4	0.1295	µg/L	0.1295	ppb	14:01:25
1	Cd 226.502†	-59.4	43.1	0.2906	µg/L	0.2906	ppb	14:01:45
1	Co 228.616†	-203.4	4.0	0.0526	µg/L	0.0526	ppb	14:01:45
1	Cr 267.716†	258.7	29.1	0.2538	µg/L	0.2538	ppb	14:01:45
1	Cu 324.752†	2699.6	-298.1	-1.2476	µg/L	-1.2476	ppb	14:01:25
1	Mn 257.610†	271.8	91.0	0.1205	µg/L	0.1205	ppb	14:01:45
1	Mo 202.031†	-25.3	12.9	0.4230	µg/L	0.4230	ppb	14:01:45
1	Ni 231.604†	-93.9	0.7	0.0087	µg/L	0.0087	ppb	14:01:45
1	P 214.914†	7.0	32.7	7.5828	µg/L	7.5828	ppb	14:01:45
1	Pb 220.353†	99.2	-2.8	-0.1693	µg/L	-0.1693	ppb	14:01:45
1	S 181.975 Axial†	98.0	10.5	8.8174	µg/L	8.8174	ppb	14:01:45
1	Sb 206.836†	83.8	-4.8	-0.6110	µg/L	-0.6110	ppb	14:01:45
1	Se 196.026†	22.7	16.9	6.66	µg/L	6.66	ppb	14:01:45
1	SiO2†	1775.8	61.9	6.5413	µg/L	6.5413	ppb	14:01:45
1	Si 251.611†	1040.8	288.6	4.5426	µg/L	4.5426	ppb	14:01:25
1	Sn 189.927†	6.4	4.6	0.3199	µg/L	0.3199	ppb	14:01:45
1	Ti 334.940†	847.7	36.7	0.0384	µg/L	0.0384	ppb	14:01:25
1	Tl 190.801†	-125.5	-13.0	-1.7798	µg/L	-1.7798	ppb	14:01:45
1	U 409.014†	-196.5	-35.9	-2.2928	µg/L	-2.2928	ppb	14:01:25
1	V 292.402†	338.4	-80.0	-0.4112	µg/L	-0.4112	ppb	14:01:25
1	Zn 213.857†	625.1	131.0	0.7824	µg/L	0.7824	ppb	14:01:45
2	Sc RADIAL	134733.3	134733.3	96.2	%			14:00:23
2	Al 396.153Radial†	-39.5	37.5	7.8516	µg/L	7.8516	ppb	14:00:43
2	Ca 317.933Radial†	699.8	156.2	10.641	µg/L	10.641	ppb	14:00:43
2	Fe 238.204 Radial†	178.2	67.9	5.0736	µg/L	5.0736	ppb	14:00:43
2	K 766.490 Radial†	1635.0	206.3	81.721	µg/L	81.721	ppb	14:00:23
2	Mg 279.077 IEC†	158.8	-7.4	-3.3889	µg/L	-3.3889	ppb	14:00:43
2	Na 589.592 Radial†	1064.6	154.4	23.863	µg/L	23.863	ppb	14:00:23
2	Sr 421.552†	-61.3	140.7	0.3318	µg/L	0.3318	ppb	14:00:23
2	Sc 361.383	1765177.1	1765177.1	97.840	%			14:01:47
2	Y 371.029	1038019.8	1038019.8	98.177	%			14:01:47
2	Ag 328.068†	4020.3	-456.1	-1.8816	µg/L	-1.8816	ppb	14:01:50
2	As 188.979†	-9.6	8.7	2.9530	µg/L	2.9530	ppb	14:02:10
2	B 249.677†	3934.2	-44.0	-0.6867	µg/L	-0.6867	ppb	14:01:50
2	Ba 233.527†	-146.2	-4.9	-0.0216	µg/L	-0.0216	ppb	14:02:10
2	Be 313.107†	-594.6	484.0	0.1374	µg/L	0.1374	ppb	14:01:50
2	Cd 226.502†	-68.1	33.8	0.2280	µg/L	0.2280	ppb	14:02:10
2	Co 228.616†	-168.4	38.2	0.5051	µg/L	0.5051	ppb	14:02:10
2	Cr 267.716†	284.7	57.8	0.5076	µg/L	0.5076	ppb	14:02:10
2	Cu 324.752†	2657.2	-320.2	-1.3463	µg/L	-1.3463	ppb	14:01:50
2	Mn 257.610†	270.9	92.1	0.1223	µg/L	0.1223	ppb	14:02:10
2	Mo 202.031†	-8.2	30.2	0.9892	µg/L	0.9892	ppb	14:02:10
2	Ni 231.604†	-73.9	20.4	0.2550	µg/L	0.2550	ppb	14:02:10
2	P 214.914†	15.6	41.6	9.6345	µg/L	9.6345	ppb	14:02:10
2	Pb 220.353†	120.8	20.0	1.2428	µg/L	1.2428	ppb	14:02:10

2	S 181.975 Axial†	81.8	-5.3	-4.4667 µg/L	-4.4667 ppb	14:02:10
2	Sb 206.836†	75.8	-12.3	-1.5777 µg/L	-1.5777 ppb	14:02:10
2	Se 196.026†	23.0	17.3	6.81 µg/L	6.81 ppb	14:02:10
2	SiO2†	1765.5	65.4	6.8983 µg/L	6.8983 ppb	14:02:10
2	Si 251.611†	1101.1	358.4	5.6378 µg/L	5.6378 ppb	14:01:50
2	Sn 189.927†	3.8	2.0	0.1412 µg/L	0.1412 ppb	14:02:10
2	Ti 334.940†	600.5	-209.2	-0.2106 µg/L	-0.2106 ppb	14:01:50
2	Tl 190.801†	-126.0	-14.5	-1.9884 µg/L	-1.9884 ppb	14:02:10
2	U 409.014†	-306.0	-149.4	-9.4405 µg/L	-9.4405 ppb	14:01:50
2	V 292.402†	368.5	-46.5	-0.2355 µg/L	-0.2355 ppb	14:01:50
2	Zn 213.857†	600.0	110.3	0.6574 µg/L	0.6574 ppb	14:02:10
3	Sc RADIAL	135503.7	135503.7	96.7 %		14:00:45
3	Al 396.153Radial†	-71.1	5.1	1.0435 µg/L	1.0435 ppb	14:01:05
3	Ca 317.933Radial†	695.1	147.2	10.028 µg/L	10.028 ppb	14:01:05
3	Fe 238.204 Radial†	184.9	73.8	5.5125 µg/L	5.5125 ppb	14:01:05
3	K 766.490 Radial†	1534.8	93.0	36.858 µg/L	36.858 ppb	14:00:45
3	Mg 279.077 IEC†	167.5	0.7	0.3304 µg/L	0.3304 ppb	14:01:05
3	Na 589.592 Radial†	1026.3	108.5	16.792 µg/L	16.792 ppb	14:00:45
3	Sr 421.552†	-99.8	101.3	0.2388 µg/L	0.2388 ppb	14:00:45
3	Sc 361.383	1748350.3	1748350.3	96.907 %		14:02:12
3	Y 371.029	1028758.9	1028758.9	97.301 %		14:02:12
3	Ag 328.068†	4039.9	-396.3	-1.6452 µg/L	-1.6452 ppb	14:02:14
3	As 188.979†	-6.8	11.6	3.9115 µg/L	3.9115 ppb	14:02:34
3	B 249.677†	3953.8	14.9	0.2309 µg/L	0.2309 ppb	14:02:14
3	Ba 233.527†	-150.2	-10.4	-0.0464 µg/L	-0.0464 ppb	14:02:34
3	Be 313.107†	-784.6	282.0	0.0766 µg/L	0.0766 ppb	14:02:14
3	Cd 226.502†	-83.8	16.9	0.1139 µg/L	0.1139 ppb	14:02:34
3	Co 228.616†	-201.8	2.0	0.0264 µg/L	0.0264 ppb	14:02:34
3	Cr 267.716†	250.7	25.5	0.2339 µg/L	0.2339 ppb	14:02:34
3	Cu 324.752†	2785.9	-161.3	-0.6875 µg/L	-0.6875 ppb	14:02:14
3	Mn 257.610†	262.9	86.6	0.1148 µg/L	0.1148 ppb	14:02:34
3	Mo 202.031†	-19.7	18.2	0.5964 µg/L	0.5964 ppb	14:02:34
3	Ni 231.604†	-68.5	25.2	0.3159 µg/L	0.3159 ppb	14:02:34
3	P 214.914†	12.0	38.1	8.8026 µg/L	8.8026 ppb	14:02:34
3	Pb 220.353†	83.1	-17.7	-1.0777 µg/L	-1.0777 ppb	14:02:34
3	S 181.975 Axial†	85.6	-0.6	-0.5013 µg/L	-0.5013 ppb	14:02:34
3	Sb 206.836†	86.8	-0.1	-0.0101 µg/L	-0.0101 ppb	14:02:34
3	Se 196.026†	18.1	12.6	4.93 µg/L	4.93 ppb	14:02:34
3	SiO2†	1796.2	114.5	12.114 µg/L	12.114 ppb	14:02:34
3	Si 251.611†	1204.1	475.5	7.4943 µg/L	7.4943 ppb	14:02:14
3	Sn 189.927†	-6.4	-8.5	-0.5904 µg/L	-0.5904 ppb	14:02:34
3	Ti 334.940†	589.4	-214.8	-0.2136 µg/L	-0.2136 ppb	14:02:14
3	Tl 190.801†	-113.1	-2.4	-0.3297 µg/L	-0.3297 ppb	14:02:34
3	U 409.014†	-414.8	-264.7	-16.715 µg/L	-16.715 ppb	14:02:14
3	V 292.402†	375.0	-36.3	-0.1924 µg/L	-0.1924 ppb	14:02:14
3	Zn 213.857†	607.1	123.5	0.7350 µg/L	0.7350 ppb	14:02:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1764127.6	97.781	%	0.8469				0.87%
Sc RADIAL	135270.5	96.6	%	0.33				0.34%
Y 371.029	1037712.8	98.148	%	0.8327				0.85%
Ag 328.068†	-341.6	-1.4136	µg/L	0.61735	-1.4136	ppb	0.61735	43.67%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.8	2.4517	µg/L	4.85162	2.4517	ppb	4.85162	197.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	2.1118	µg/L	2.33677	2.1118	ppb	2.33677	110.65%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-38.7	-0.6031	µg/L	0.79553	-0.6031	ppb	0.79553	131.90%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.4	-0.0108	µg/L	0.04202	-0.0108	ppb	0.04202	389.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	405.2	0.1145	µg/L	0.03302	0.1145	ppb	0.03302	28.84%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	149.4	10.177	µg/L	0.4097	10.177	ppb	0.4097	4.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	31.3	0.2108	µg/L	0.08956	0.2108	ppb	0.08956	42.48%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	14.7	0.1947	µg/L	0.26912	0.1947	ppb	0.26912	138.22%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                37.5      0.3318 µg/L       0.15263      0.3318 ppb        0.15263  46.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -259.9     -1.0938 µg/L       0.35532     -1.0938 ppb        0.35532  32.48%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         74.1      5.5335 µg/L       0.47078      5.5335 ppb        0.47078   8.51%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         191.7      75.956 µg/L       36.5584      75.956 ppb        36.5584  48.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.1      0.5418 µg/L       4.04048      0.5418 ppb        4.04048 745.79%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                89.9      0.1192 µg/L       0.00391      0.1192 ppb        0.00391   3.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                20.5      0.6695 µg/L       0.29007      0.6695 ppb        0.29007  43.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        149.1      23.040 µg/L        5.8796      23.040 ppb         5.8796  25.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                15.4      0.1932 µg/L       0.16265      0.1932 ppb        0.16265  84.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 37.5      8.6733 µg/L       1.03191      8.6733 ppb        1.03191  11.90%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -0.2     -0.0014 µg/L       1.16932     -0.0014 ppb        1.16932 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.5      1.2831 µg/L       6.81944      1.2831 ppb        6.81944 531.47%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -5.7     -0.7329 µg/L       0.79089     -0.7329 ppb        0.79089 107.91%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                15.6        6.14 µg/L         1.045        6.14 ppb          1.045  17.02%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      80.6      8.5179 µg/L       3.11940      8.5179 ppb        3.11940  36.62%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               374.2      5.8915 µg/L       1.49212      5.8915 ppb        1.49212  25.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.6     -0.0431 µg/L       0.48231     -0.0431 ppb        0.48231 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                47.9      0.1129 µg/L       0.30228      0.1129 ppb        0.30228 267.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -129.1     -0.1286 µg/L       0.14465     -0.1286 ppb        0.14465 112.49%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -10.0     -1.3660 µg/L       0.90351     -1.3660 ppb        0.90351  66.14%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -150.0     -9.4826 µg/L       7.21097     -9.4826 ppb        7.21097  76.04%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -54.3     -0.2797 µg/L       0.11589     -0.2797 ppb        0.11589  41.43%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               121.6      0.7249 µg/L       0.06310      0.7249 ppb        0.06310   8.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/5/2010 14:22:34 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/5/2010 14:22:36**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	132885.5	132885.5	94.9	%			14:23:09
1	Al 396.153Radial†	22345.1	23635.6	4952.5	µg/L	4952.5	ppb	14:23:09
1	Ca 317.933Radial†	71734.4	75053.7	5111.8	µg/L	5111.8	ppb	14:23:09
1	Fe 238.204 Radial†	64315.0	67686.0	5054.7	µg/L	5054.7	ppb	14:23:09
1	K 766.490 Radial†	13587.6	12830.8	5080.0	µg/L	5080.0	ppb	14:23:09
1	Mg 279.077 IEC†	10677.1	11083.8	5125.9	µg/L	5125.9	ppb	14:23:09
1	Na 589.592 Radial†	62424.8	64858.1	10049	µg/L	10049	ppb	14:23:07
1	Sr 421.552†	200382.6	211455.5	498.67	µg/L	498.67	ppb	14:23:07
1	Sc 361.383	1732899.2	1732899.2	96.051	%			14:23:36
1	Y 371.029	1007757.7	1007757.7	95.315	%			14:23:36
1	Ag 328.068†	122317.7	122782.0	508.93	µg/L	508.93	ppb	14:23:36
1	As 188.979†	1306.2	1378.4	473.58	µg/L	473.58	ppb	14:23:56
1	B 249.677†	35029.8	32405.0	502.18	µg/L	502.18	ppb	14:23:36
1	Ba 233.527†	108164.4	112756.4	501.60	µg/L	501.60	ppb	14:23:36
1	Be 313.107†	1634035.3	1702315.5	493.26	µg/L	493.26	ppb	14:23:36
1	Cd 226.502†	72105.4	75173.6	507.77	µg/L	507.77	ppb	14:23:36
1	Co 228.616†	36829.0	38553.7	510.30	µg/L	510.30	ppb	14:23:36
1	Cr 267.716†	56320.8	58403.4	505.12	µg/L	505.12	ppb	14:23:36
1	Cu 324.752†	118186.3	120009.8	503.53	µg/L	503.53	ppb	14:23:36
1	Mn 257.610†	366868.1	381768.3	506.22	µg/L	506.22	ppb	14:23:36
1	Mo 202.031†	14911.6	15563.3	509.44	µg/L	509.44	ppb	14:23:56
1	Ni 231.604†	39011.3	40711.3	509.35	µg/L	509.35	ppb	14:23:36
1	P 214.914†	10569.3	11029.6	2542.7	µg/L	2542.7	ppb	14:23:56
1	Pb 220.353†	8158.2	8390.2	517.89	µg/L	517.89	ppb	14:23:56
1	S 181.975 Axial†	1253.8	1216.4	1027.6	µg/L	1027.6	ppb	14:23:56
1	Sb 206.836†	3842.2	3910.5	505.44	µg/L	505.44	ppb	14:23:56
1	Se 196.026†	1245.9	1290.9	511	µg/L	511	ppb	14:23:56
1	SiO2†	50314.2	50643.9	5341.3	µg/L	5341.3	ppb	14:23:36
1	Si 251.611†	153524.0	159069.6	2498.2	µg/L	2498.2	ppb	14:23:36
1	Sn 189.927†	6969.7	7254.4	504.88	µg/L	504.88	ppb	14:23:56
1	Ti 334.940†	469489.4	487971.0	500.54	µg/L	500.54	ppb	14:23:36
1	Tl 190.801†	3468.9	3725.9	516.30	µg/L	516.30	ppb	14:23:56
1	U 409.014†	7108.4	7564.0	508.04	µg/L	508.04	ppb	14:23:36
1	V 292.402†	93611.4	97037.3	509.70	µg/L	509.70	ppb	14:23:36
1	Zn 213.857†	82380.6	85264.9	505.17	µg/L	505.17	ppb	14:23:36
2	Sc RADIAL	132723.7	132723.7	94.7	%			14:23:13
2	Al 396.153Radial†	22193.8	23504.7	4925.0	µg/L	4925.0	ppb	14:23:13
2	Ca 317.933Radial†	71807.3	75222.9	5123.4	µg/L	5123.4	ppb	14:23:13
2	Fe 238.204 Radial†	64276.1	67727.6	5057.9	µg/L	5057.9	ppb	14:23:13
2	K 766.490 Radial†	13580.5	12840.7	5083.9	µg/L	5083.9	ppb	14:23:13
2	Mg 279.077 IEC†	10679.9	11100.5	5133.6	µg/L	5133.6	ppb	14:23:13
2	Na 589.592 Radial†	63559.4	66135.9	10247	µg/L	10247	ppb	14:23:11
2	Sr 421.552†	204236.7	215781.2	508.87	µg/L	508.87	ppb	14:23:11
2	Sc 361.383	1743351.0	1743351.0	96.630	%			14:23:59
2	Y 371.029	1013100.9	1013100.9	95.820	%			14:23:59
2	Ag 328.068†	122408.3	122112.3	506.18	µg/L	506.18	ppb	14:23:59
2	As 188.979†	1324.5	1389.2	477.20	µg/L	477.20	ppb	14:24:19

2	B 249.677†	34925.8	32078.7	497.12 µg/L	497.12 ppb	14:23:59
2	Ba 233.527†	108263.9	112184.3	499.06 µg/L	499.06 ppb	14:23:59
2	Be 313.107†	1636644.6	1694816.6	491.09 µg/L	491.09 ppb	14:23:59
2	Cd 226.502†	72358.7	74985.7	506.50 µg/L	506.50 ppb	14:23:59
2	Co 228.616†	36909.0	38406.6	508.35 µg/L	508.35 ppb	14:23:59
2	Cr 267.716†	56448.5	58184.0	503.22 µg/L	503.22 ppb	14:23:59
2	Cu 324.752†	118571.9	119671.1	502.12 µg/L	502.12 ppb	14:23:59
2	Mn 257.610†	367015.5	379630.9	503.38 µg/L	503.38 ppb	14:23:59
2	Mo 202.031†	14934.2	15493.6	507.16 µg/L	507.16 ppb	14:24:19
2	Ni 231.604†	39044.9	40502.5	506.74 µg/L	506.74 ppb	14:23:59
2	P 214.914†	10550.7	10944.3	2523.0 µg/L	2523.0 ppb	14:24:19
2	Pb 220.353†	8108.5	8287.8	511.58 µg/L	511.58 ppb	14:24:19
2	S 181.975 Axial†	1247.4	1202.0	1015.4 µg/L	1015.4 ppb	14:24:19
2	Sb 206.836†	3852.0	3896.6	503.65 µg/L	503.65 ppb	14:24:19
2	Se 196.026†	1254.8	1292.4	511 µg/L	511 ppb	14:24:19
2	SiO2†	50377.4	50395.3	5315.1 µg/L	5315.1 ppb	14:23:59
2	Si 251.611†	154329.9	158945.4	2496.3 µg/L	2496.3 ppb	14:23:59
2	Sn 189.927†	6977.3	7218.7	502.40 µg/L	502.40 ppb	14:24:19
2	Ti 334.940†	470782.7	486378.9	498.90 µg/L	498.90 ppb	14:23:59
2	Tl 190.801†	3454.7	3689.5	511.32 µg/L	511.32 ppb	14:24:19
2	U 409.014†	7170.7	7584.1	509.22 µg/L	509.22 ppb	14:23:59
2	V 292.402†	93945.7	96799.0	508.44 µg/L	508.44 ppb	14:23:59
2	Zn 213.857†	82685.3	85066.1	504.00 µg/L	504.00 ppb	14:23:59
3	Sc RADIAL	133874.8	133874.8	95.6 %		14:23:17
3	Al 396.153Radial†	22497.2	23620.7	4949.4 µg/L	4949.4 ppb	14:23:17
3	Ca 317.933Radial†	72573.3	75372.7	5133.6 µg/L	5133.6 ppb	14:23:17
3	Fe 238.204 Radial†	64987.0	67888.1	5069.8 µg/L	5069.8 ppb	14:23:17
3	K 766.490 Radial†	13538.8	12673.9	5017.9 µg/L	5017.9 ppb	14:23:17
3	Mg 279.077 IEC†	10834.9	11165.7	5163.7 µg/L	5163.7 ppb	14:23:17
3	Na 589.592 Radial†	62004.9	63932.4	9905.6 µg/L	9905.6 ppb	14:23:15
3	Sr 421.552†	199556.0	209029.3	492.95 µg/L	492.95 ppb	14:23:15
3	Sc 361.383	1743392.2	1743392.2	96.632 %		14:24:22
3	Y 371.029	1012903.8	1012903.8	95.801 %		14:24:22
3	Ag 328.068†	122593.1	122300.6	506.97 µg/L	506.97 ppb	14:24:22
3	As 188.979†	1318.0	1382.5	474.96 µg/L	474.96 ppb	14:24:42
3	B 249.677†	35176.1	32336.9	501.12 µg/L	501.12 ppb	14:24:22
3	Ba 233.527†	108700.3	112633.3	501.05 µg/L	501.05 ppb	14:24:22
3	Be 313.107†	1639906.3	1698152.0	492.06 µg/L	492.06 ppb	14:24:22
3	Cd 226.502†	72606.8	75240.7	508.22 µg/L	508.22 ppb	14:24:22
3	Co 228.616†	37099.9	38603.2	510.96 µg/L	510.96 ppb	14:24:22
3	Cr 267.716†	56650.1	58391.3	505.01 µg/L	505.01 ppb	14:24:22
3	Cu 324.752†	118799.2	119903.5	503.09 µg/L	503.09 ppb	14:24:22
3	Mn 257.610†	368215.6	380864.0	505.02 µg/L	505.02 ppb	14:24:22
3	Mo 202.031†	14981.9	15542.6	508.77 µg/L	508.77 ppb	14:24:42
3	Ni 231.604†	39132.6	40592.3	507.86 µg/L	507.86 ppb	14:24:22
3	P 214.914†	10579.0	10973.3	2529.7 µg/L	2529.7 ppb	14:24:42
3	Pb 220.353†	8134.6	8314.7	513.24 µg/L	513.24 ppb	14:24:42
3	S 181.975 Axial†	1248.5	1203.1	1016.4 µg/L	1016.4 ppb	14:24:42
3	Sb 206.836†	3867.5	3912.6	505.71 µg/L	505.71 ppb	14:24:42
3	Se 196.026†	1250.4	1287.8	510 µg/L	510 ppb	14:24:42
3	SiO2†	50529.4	50551.4	5331.5 µg/L	5331.5 ppb	14:24:22
3	Si 251.611†	154955.1	159588.5	2506.4 µg/L	2506.4 ppb	14:24:22
3	Sn 189.927†	6999.8	7241.9	504.01 µg/L	504.01 ppb	14:24:42
3	Ti 334.940†	472323.8	487962.2	500.52 µg/L	500.52 ppb	14:24:22
3	Tl 190.801†	3481.4	3717.0	515.09 µg/L	515.09 ppb	14:24:42
3	U 409.014†	7189.9	7603.8	510.58 µg/L	510.58 ppb	14:24:22
3	V 292.402†	94312.2	97175.9	510.41 µg/L	510.41 ppb	14:24:22
3	Zn 213.857†	82968.9	85357.6	505.73 µg/L	505.73 ppb	14:24:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1739880.8	96.438	%	0.3351				0.35%
Sc RADIAL	133161.3	95.1	%	0.44				0.47%
Y 371.029	1011254.1	95.645	%	0.2865				0.30%
Ag 328.068†	122398.3	507.36	µg/L	1.418	507.36	ppb	1.418	0.28%
QC value within limits for Ag 328.068 Recovery = 101.47%								
Al 396.153Radial†	23587.0	4942.3	µg/L	15.04	4942.3	ppb	15.04	0.30%
QC value within limits for Al 396.153Radial Recovery = 98.85%								
As 188.979†	1383.4	475.25	µg/L	1.831	475.25	ppb	1.831	0.39%

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   QC value within limits for As 188.979  Recovery = 95.05%
B 249.677†            32273.5      500.14 µg/L        2.673      500.14 ppb          2.673   0.53%
   QC value within limits for B 249.677  Recovery = 100.03%
Ba 233.527†          112524.7      500.57 µg/L        1.339      500.57 ppb          1.339   0.27%
   QC value within limits for Ba 233.527  Recovery = 100.11%
Be 313.107†         1698428.0      492.14 µg/L        1.088      492.14 ppb          1.088   0.22%
   QC value within limits for Be 313.107  Recovery = 98.43%
Ca 317.933Radial†      75216.4      5122.9 µg/L        10.87      5122.9 ppb          10.87   0.21%
   QC value within limits for Ca 317.933Radial  Recovery = 102.46%
Cd 226.502†            75133.3      507.49 µg/L        0.893      507.49 ppb          0.893   0.18%
   QC value within limits for Cd 226.502  Recovery = 101.50%
Co 228.616†            38521.1      509.87 µg/L        1.354      509.87 ppb          1.354   0.27%
   QC value within limits for Co 228.616  Recovery = 101.97%
Cr 267.716†            58326.2      504.45 µg/L        1.067      504.45 ppb          1.067   0.21%
   QC value within limits for Cr 267.716  Recovery = 100.89%
Cu 324.752†           119861.5      502.91 µg/L        0.725      502.91 ppb          0.725   0.14%
   QC value within limits for Cu 324.752  Recovery = 100.58%
Fe 238.204 Radial†     67767.3      5060.8 µg/L         7.97      5060.8 ppb           7.97   0.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.22%
K 766.490 Radial†      12781.8      5060.6 µg/L        37.06      5060.6 ppb          37.06   0.73%
   QC value within limits for K 766.490 Radial  Recovery = 101.21%
Mg 279.077 IEC†        11116.6      5141.1 µg/L        19.99      5141.1 ppb          19.99   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.82%
Mn 257.610†           380754.4      504.87 µg/L        1.423      504.87 ppb          1.423   0.28%
   QC value within limits for Mn 257.610  Recovery = 100.97%
Mo 202.031†            15533.2      508.46 µg/L        1.172      508.46 ppb          1.172   0.23%
   QC value within limits for Mo 202.031  Recovery = 101.69%
Na 589.592 Radial†     64975.5       10067 µg/L        171.5       10067 ppb          171.5   1.70%
   QC value within limits for Na 589.592 Radial  Recovery = 100.67%
Ni 231.604†            40602.0      507.98 µg/L        1.310      507.98 ppb          1.310   0.26%
   QC value within limits for Ni 231.604  Recovery = 101.60%
P 214.914†             10982.4      2531.8 µg/L        10.03      2531.8 ppb          10.03   0.40%
   QC value within limits for P 214.914  Recovery = 101.27%
Pb 220.353†             8330.9      514.24 µg/L        3.272      514.24 ppb          3.272   0.64%
   QC value within limits for Pb 220.353  Recovery = 102.85%
S 181.975 Axial†        1207.2      1019.8 µg/L         6.75      1019.8 ppb           6.75   0.66%
   QC value within limits for S 181.975 Axial  Recovery = 101.98%
Sb 206.836†             3906.6      504.93 µg/L        1.119      504.93 ppb          1.119   0.22%
   QC value within limits for Sb 206.836  Recovery = 100.99%
Se 196.026†             1290.4         511 µg/L          0.9         511 ppb            0.9   0.18%
   QC value within limits for Se 196.026  Recovery = 102.12%
SiO2†                  50530.2      5329.3 µg/L        13.26      5329.3 ppb          13.26   0.25%
   QC value within limits for SiO2  Recovery = 99.66%
Si 251.611†           159201.2      2500.3 µg/L         5.37      2500.3 ppb           5.37   0.21%
   QC value within limits for Si 251.611  Recovery = 100.01%
Sn 189.927†             7238.3      503.76 µg/L        1.258      503.76 ppb          1.258   0.25%
   QC value within limits for Sn 189.927  Recovery = 100.75%
Sr 421.552†           212088.7      500.16 µg/L        8.066      500.16 ppb          8.066   1.61%
   QC value within limits for Sr 421.552  Recovery = 100.03%
Ti 334.940†           487437.4      499.99 µg/L        0.941      499.99 ppb          0.941   0.19%
   QC value within limits for Ti 334.940  Recovery = 100.00%
Tl 190.801†             3710.8      514.24 µg/L        2.600      514.24 ppb          2.600   0.51%
   QC value within limits for Tl 190.801  Recovery = 102.85%
U 409.014†              7584.0      509.28 µg/L        1.272      509.28 ppb          1.272   0.25%
   QC value within limits for U 409.014  Recovery = 101.86%
V 292.402†             97004.1      509.52 µg/L        1.001      509.52 ppb          1.001   0.20%
   QC value within limits for V 292.402  Recovery = 101.90%
Zn 213.857†            85229.5      504.97 µg/L        0.884      504.97 ppb          0.884   0.17%
   QC value within limits for Zn 213.857  Recovery = 100.99%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 14:24:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135447.7	135447.7	96.7	%			14:25:19
1	Al 396.153Radial†	-86.0	-10.4	-2.2186	µg/L	-2.2186	ppb	14:25:39
1	Ca 317.933Radial†	697.8	150.3	10.238	µg/L	10.238	ppb	14:25:39
1	Fe 238.204 Radial†	150.9	38.8	2.8969	µg/L	2.8969	ppb	14:25:39
1	K 766.490 Radial†	1666.4	229.8	91.043	µg/L	91.043	ppb	14:25:19
1	Mg 279.077 IEC†	178.6	12.3	5.6989	µg/L	5.6989	ppb	14:25:39
1	Na 589.592 Radial†	1111.1	196.7	30.416	µg/L	30.416	ppb	14:25:19
1	Sr 421.552†	-133.5	66.4	0.1564	µg/L	0.1564	ppb	14:25:19
1	Sc 361.383	1746370.5	1746370.5	96.797	%			14:26:41
1	Y 371.029	1025464.1	1025464.1	96.989	%			14:26:41
1	Ag 328.068†	4108.8	-320.4	-1.3071	µg/L	-1.3071	ppb	14:26:43
1	As 188.979†	-11.0	7.2	2.4383	µg/L	2.4383	ppb	14:27:03
1	B 249.677†	4122.1	193.3	3.0053	µg/L	3.0053	ppb	14:26:43
1	Ba 233.527†	-136.3	3.7	0.0171	µg/L	0.0171	ppb	14:27:03
1	Be 313.107†	-700.1	368.5	0.1064	µg/L	0.1064	ppb	14:26:43
1	Cd 226.502†	-98.5	1.6	0.0105	µg/L	0.0105	ppb	14:27:03
1	Co 228.616†	-178.9	25.5	0.3373	µg/L	0.3373	ppb	14:27:03
1	Cr 267.716†	260.2	35.6	0.3095	µg/L	0.3095	ppb	14:27:03
1	Cu 324.752†	2891.1	-49.3	-0.2065	µg/L	-0.2065	ppb	14:26:43
1	Mn 257.610†	232.7	55.7	0.0737	µg/L	0.0737	ppb	14:27:03
1	Mo 202.031†	-23.8	14.0	0.4585	µg/L	0.4585	ppb	14:27:03
1	Ni 231.604†	-84.2	9.0	0.1121	µg/L	0.1121	ppb	14:27:03
1	P 214.914†	12.4	38.5	8.9081	µg/L	8.9081	ppb	14:27:03
1	Pb 220.353†	111.4	11.6	0.7176	µg/L	0.7176	ppb	14:27:03
1	S 181.975 Axial†	91.7	5.8	4.8840	µg/L	4.8840	ppb	14:27:03
1	Sb 206.836†	91.1	4.4	0.5760	µg/L	0.5760	ppb	14:27:03
1	Se 196.026†	6.3	0.3	0.135	µg/L	0.135	ppb	14:27:03
1	SiO2†	1745.3	64.0	6.7572	µg/L	6.7572	ppb	14:27:03
1	Si 251.611†	870.2	132.0	2.0741	µg/L	2.0741	ppb	14:26:43
1	Sn 189.927†	4.4	2.6	0.1830	µg/L	0.1830	ppb	14:27:03
1	Ti 334.940†	598.9	-204.3	-0.2097	µg/L	-0.2097	ppb	14:26:43
1	Tl 190.801†	-119.5	-9.2	-1.2529	µg/L	-1.2529	ppb	14:27:03
1	U 409.014†	-175.8	-18.2	-1.1220	µg/L	-1.1220	ppb	14:26:43
1	V 292.402†	505.0	98.5	0.5155	µg/L	0.5155	ppb	14:26:43
1	Zn 213.857†	566.2	82.0	0.4885	µg/L	0.4885	ppb	14:27:03
2	Sc RADIAL	135362.8	135362.8	96.6	%			14:25:41
2	Al 396.153Radial†	-79.6	-3.8	-0.8200	µg/L	-0.8200	ppb	14:26:01
2	Ca 317.933Radial†	682.5	134.9	9.1897	µg/L	9.1897	ppb	14:26:01
2	Fe 238.204 Radial†	140.7	28.3	2.1142	µg/L	2.1142	ppb	14:26:01
2	K 766.490 Radial†	1467.3	24.8	9.8302	µg/L	9.8302	ppb	14:25:41
2	Mg 279.077 IEC†	172.6	6.1	2.8455	µg/L	2.8455	ppb	14:26:01
2	Na 589.592 Radial†	1058.4	142.9	22.146	µg/L	22.146	ppb	14:25:41
2	Sr 421.552†	-110.7	89.9	0.2121	µg/L	0.2121	ppb	14:25:41
2	Sc 361.383	1750118.2	1750118.2	97.005	%			14:27:06
2	Y 371.029	1029214.6	1029214.6	97.344	%			14:27:06
2	Ag 328.068†	4286.1	-146.7	-0.5984	µg/L	-0.5984	ppb	14:27:08
2	As 188.979†	-22.6	-4.7	-1.5853	µg/L	-1.5853	ppb	14:27:28
2	B 249.677†	4094.3	155.6	2.4193	µg/L	2.4193	ppb	14:27:08
2	Ba 233.527†	-168.4	-29.0	-0.1289	µg/L	-0.1289	ppb	14:27:28
2	Be 313.107†	-818.0	248.5	0.0727	µg/L	0.0727	ppb	14:27:08
2	Cd 226.502†	-95.7	4.7	0.0316	µg/L	0.0316	ppb	14:27:28
2	Co 228.616†	-196.5	7.7	0.1020	µg/L	0.1020	ppb	14:27:28
2	Cr 267.716†	273.7	48.9	0.4212	µg/L	0.4212	ppb	14:27:28
2	Cu 324.752†	2717.0	-235.2	-0.9816	µg/L	-0.9816	ppb	14:27:08
2	Mn 257.610†	235.1	57.7	0.0764	µg/L	0.0764	ppb	14:27:28
2	Mo 202.031†	-24.3	13.5	0.4412	µg/L	0.4412	ppb	14:27:28
2	Ni 231.604†	-80.6	12.8	0.1604	µg/L	0.1604	ppb	14:27:28
2	P 214.914†	12.2	38.2	8.8553	µg/L	8.8553	ppb	14:27:28
2	Pb 220.353†	120.1	20.3	1.2507	µg/L	1.2507	ppb	14:27:28

2	S 181.975 Axial†	84.5	-1.8	-1.5350 µg/L	-1.5350 ppb	14:27:28
2	Sb 206.836†	83.0	-4.2	-0.5406 µg/L	-0.5406 ppb	14:27:28
2	Se 196.026†	18.6	13.0	5.14 µg/L	5.14 ppb	14:27:28
2	SiO2†	1753.8	68.9	7.2716 µg/L	7.2716 ppb	14:27:28
2	Si 251.611†	881.5	141.6	2.2224 µg/L	2.2224 ppb	14:27:08
2	Sn 189.927†	12.9	11.5	0.7951 µg/L	0.7951 ppb	14:27:28
2	Ti 334.940†	781.5	-17.3	-0.0189 µg/L	-0.0189 ppb	14:27:08
2	Tl 190.801†	-108.7	2.3	0.3096 µg/L	0.3096 ppb	14:27:28
2	U 409.014†	-122.8	36.8	2.3187 µg/L	2.3187 ppb	14:27:08
2	V 292.402†	402.5	-8.3	-0.0354 µg/L	-0.0354 ppb	14:27:08
2	Zn 213.857†	560.6	74.9	0.4470 µg/L	0.4470 ppb	14:27:28
3	Sc RADIAL	133768.8	133768.8	95.5 %		14:26:03
3	Al 396.153Radial†	-64.1	11.4	2.3747 µg/L	2.3747 ppb	14:26:23
3	Ca 317.933Radial†	697.6	159.1	10.838 µg/L	10.838 ppb	14:26:23
3	Fe 238.204 Radial†	145.6	35.2	2.6306 µg/L	2.6306 ppb	14:26:23
3	K 766.490 Radial†	1455.8	30.8	12.207 µg/L	12.207 ppb	14:26:03
3	Mg 279.077 IEC†	166.8	2.2	1.0226 µg/L	1.0226 ppb	14:26:23
3	Na 589.592 Radial†	973.9	67.5	10.449 µg/L	10.449 ppb	14:26:03
3	Sr 421.552†	-191.0	4.5	0.0105 µg/L	0.0105 ppb	14:26:03
3	Sc 361.383	1764370.3	1764370.3	97.795 %		14:27:30
3	Y 371.029	1036609.8	1036609.8	98.043 %		14:27:30
3	Ag 328.068†	4248.4	-220.9	-0.8990 µg/L	-0.8990 ppb	14:27:32
3	As 188.979†	-8.0	10.4	3.5165 µg/L	3.5165 ppb	14:27:52
3	B 249.677†	4008.5	33.8	0.5262 µg/L	0.5262 ppb	14:27:32
3	Ba 233.527†	-168.9	-28.1	-0.1244 µg/L	-0.1244 ppb	14:27:52
3	Be 313.107†	-576.0	502.7	0.1446 µg/L	0.1446 ppb	14:27:32
3	Cd 226.502†	-75.3	26.4	0.1782 µg/L	0.1782 ppb	14:27:52
3	Co 228.616†	-225.0	-19.7	-0.2613 µg/L	-0.2613 ppb	14:27:52
3	Cr 267.716†	253.5	26.0	0.2283 µg/L	0.2283 ppb	14:27:52
3	Cu 324.752†	2805.8	-167.0	-0.7011 µg/L	-0.7011 ppb	14:27:32
3	Mn 257.610†	227.4	47.8	0.0634 µg/L	0.0634 ppb	14:27:52
3	Mo 202.031†	-20.3	17.9	0.5842 µg/L	0.5842 ppb	14:27:52
3	Ni 231.604†	-74.8	19.4	0.2426 µg/L	0.2426 ppb	14:27:52
3	P 214.914†	4.8	30.6	7.0853 µg/L	7.0853 ppb	14:27:52
3	Pb 220.353†	93.9	-7.4	-0.4525 µg/L	-0.4525 ppb	14:27:52
3	S 181.975 Axial†	94.3	7.5	6.2792 µg/L	6.2792 ppb	14:27:52
3	Sb 206.836†	92.1	4.5	0.5874 µg/L	0.5874 ppb	14:27:52
3	Se 196.026†	21.9	16.2	6.39 µg/L	6.39 ppb	14:27:52
3	SiO2†	1713.4	13.0	1.3488 µg/L	1.3488 ppb	14:27:52
3	Si 251.611†	899.6	152.8	2.3986 µg/L	2.3986 ppb	14:27:32
3	Sn 189.927†	9.5	7.8	0.5426 µg/L	0.5426 ppb	14:27:52
3	Ti 334.940†	987.2	186.5	0.1930 µg/L	0.1930 ppb	14:27:32
3	Tl 190.801†	-107.4	4.5	0.6235 µg/L	0.6235 ppb	14:27:52
3	U 409.014†	-212.1	-53.6	-3.3326 µg/L	-3.3326 ppb	14:27:32
3	V 292.402†	569.1	158.7	0.8269 µg/L	0.8269 ppb	14:27:32
3	Zn 213.857†	576.3	86.3	0.5140 µg/L	0.5140 ppb	14:27:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1753619.7	97.199	%	0.5264				0.54%
Sc RADIAL	134859.7	96.3	%	0.68				0.70%
Y 371.029	1030429.5	97.459	%	0.5364				0.55%
Ag 328.068†	-229.3	-0.9348	µg/L	0.35573	-0.9348	ppb	0.35573	38.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.9	-0.2213	µg/L	2.35444	-0.2213	ppb	2.35444	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.3	1.4565	µg/L	2.68891	1.4565	ppb	2.68891	184.62%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	127.6	1.9836	µg/L	1.29571	1.9836	ppb	1.29571	65.32%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-17.8	-0.0787	µg/L	0.08302	-0.0787	ppb	0.08302	105.44%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	373.2	0.1079	µg/L	0.03599	0.1079	ppb	0.03599	33.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	148.1	10.088	µg/L	0.8340	10.088	ppb	0.8340	8.27%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.9	0.0734	µg/L	0.09136	0.0734	ppb	0.09136	124.41%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.5	0.0593	µg/L	0.30156	0.0593	ppb	0.30156	508.21%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              36.9      0.3197 µg/L       0.09683      0.3197 ppb        0.09683  30.29%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -150.5     -0.6297 µg/L       0.39241     -0.6297 ppb        0.39241  62.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       34.1      2.5473 µg/L       0.39795      2.5473 ppb        0.39795  15.62%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        95.1      37.693 µg/L       46.2173      37.693 ppb        46.2173 122.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           6.9      3.1890 µg/L       2.35700      3.1890 ppb        2.35700  73.91%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              53.7      0.0712 µg/L       0.00685      0.0712 ppb        0.00685   9.63%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              15.1      0.4947 µg/L       0.07807      0.4947 ppb        0.07807  15.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      135.7      21.004 µg/L       10.0325      21.004 ppb        10.0325  47.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              13.7      0.1717 µg/L       0.06598      0.1717 ppb        0.06598  38.43%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               35.8      8.2829 µg/L       1.03751      8.2829 ppb        1.03751  12.53%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               8.2      0.5053 µg/L       0.87123      0.5053 ppb        0.87123 172.42%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.8      3.2094 µg/L       4.16755      3.2094 ppb        4.16755 129.85%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               1.6      0.2076 µg/L       0.64799      0.2076 ppb        0.64799 312.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               9.9        3.89 µg/L         3.309        3.89 ppb          3.309  85.13%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    48.6      5.1259 µg/L       3.28116      5.1259 ppb        3.28116  64.01%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             142.2      2.2317 µg/L       0.16244      2.2317 ppb        0.16244   7.28%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.3      0.5069 µg/L       0.30758      0.5069 ppb        0.30758  60.68%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              53.6      0.1263 µg/L       0.10411      0.1263 ppb        0.10411  82.42%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -11.7     -0.0119 µg/L       0.20144     -0.0119 ppb        0.20144 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.8     -0.1066 µg/L       1.00508     -0.1066 ppb        1.00508 942.93%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -11.7     -0.7119 µg/L       2.84786     -0.7119 ppb        2.84786 400.01%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               83.0      0.4357 µg/L       0.43668      0.4357 ppb        0.43668 100.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              81.1      0.4832 µg/L       0.03385      0.4832 ppb        0.03385   7.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 14:55:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	133793.1	133793.1	95.5	%			14:56:26
1	Al 396.153Radial†	22430.5	23565.3	4938.2	µg/L	4938.2	ppb	14:56:26
1	Ca 317.933Radial†	71723.2	74529.0	5076.1	µg/L	5076.1	ppb	14:56:26
1	Fe 238.204 Radial†	64182.6	67087.5	5010.0	µg/L	5010.0	ppb	14:56:26
1	K 766.490 Radial†	13696.8	12847.9	5086.8	µg/L	5086.8	ppb	14:56:26
1	Mg 279.077 IEC†	10745.8	11079.3	5123.7	µg/L	5123.7	ppb	14:56:26
1	Na 589.592 Radial†	63173.0	65195.1	10101	µg/L	10101	ppb	14:56:26
1	Sr 421.552†	204308.8	214133.5	504.99	µg/L	504.99	ppb	14:56:24
1	Sc 361.383	1765298.2	1765298.2	97.846	%			14:56:53
1	Y 371.029	1026485.4	1026485.4	97.086	%			14:56:53
1	Ag 328.068†	123719.2	121877.1	505.18	µg/L	505.18	ppb	14:56:53
1	As 188.979†	1297.6	1344.7	462.11	µg/L	462.11	ppb	14:57:13
1	B 249.677†	35380.8	32094.4	497.36	µg/L	497.36	ppb	14:56:53
1	Ba 233.527†	109483.7	112038.0	498.40	µg/L	498.40	ppb	14:56:53
1	Be 313.107†	1649103.9	1686492.8	488.67	µg/L	488.67	ppb	14:56:53
1	Cd 226.502†	73021.2	74731.8	504.78	µg/L	504.78	ppb	14:56:53
1	Co 228.616†	37388.6	38421.9	508.56	µg/L	508.56	ppb	14:56:53
1	Cr 267.716†	57069.9	58092.8	502.44	µg/L	502.44	ppb	14:56:53
1	Cu 324.752†	119466.9	119060.3	499.54	µg/L	499.54	ppb	14:56:53
1	Mn 257.610†	370659.1	378632.7	502.06	µg/L	502.06	ppb	14:56:53
1	Mo 202.031†	14894.8	15261.2	499.56	µg/L	499.56	ppb	14:57:13
1	Ni 231.604†	39408.6	40371.9	505.10	µg/L	505.10	ppb	14:56:53
1	P 214.914†	10459.1	10715.0	2470.0	µg/L	2470.0	ppb	14:57:13
1	Pb 220.353†	8079.2	8153.6	503.32	µg/L	503.32	ppb	14:57:13
1	S 181.975 Axial†	1247.4	1185.9	1001.9	µg/L	1001.9	ppb	14:57:13
1	Sb 206.836†	3840.0	3834.8	495.57	µg/L	495.57	ppb	14:57:13
1	Se 196.026†	1235.1	1256.1	497	µg/L	497	ppb	14:57:13
1	SiO2†	50957.4	50339.9	5309.6	µg/L	5309.6	ppb	14:56:53
1	Si 251.611†	155746.2	158407.2	2488.0	µg/L	2488.0	ppb	14:56:53
1	Sn 189.927†	6926.8	7077.4	492.59	µg/L	492.59	ppb	14:57:13
1	Ti 334.940†	474909.6	484539.5	497.02	µg/L	497.02	ppb	14:56:53
1	Tl 190.801†	3448.7	3638.9	504.37	µg/L	504.37	ppb	14:57:13
1	U 409.014†	7035.9	7354.2	494.60	µg/L	494.60	ppb	14:56:53
1	V 292.402†	94772.7	96435.5	506.47	µg/L	506.47	ppb	14:56:53
1	Zn 213.857†	83357.2	84689.0	501.77	µg/L	501.77	ppb	14:56:53
2	Sc RADIAL	134689.6	134689.6	96.1	%			14:56:30
2	Al 396.153Radial†	22494.5	23475.5	4918.8	µg/L	4918.8	ppb	14:56:30
2	Ca 317.933Radial†	72003.2	74320.3	5061.9	µg/L	5061.9	ppb	14:56:30
2	Fe 238.204 Radial†	64454.1	66922.5	4997.7	µg/L	4997.7	ppb	14:56:30
2	K 766.490 Radial†	13841.1	12902.6	5108.5	µg/L	5108.5	ppb	14:56:30
2	Mg 279.077 IEC†	10637.6	10891.9	5037.4	µg/L	5037.4	ppb	14:56:30
2	Na 589.592 Radial†	63583.5	65181.8	10099	µg/L	10099	ppb	14:56:30
2	Sr 421.552†	201922.7	210227.8	495.78	µg/L	495.78	ppb	14:56:28
2	Sc 361.383	1742212.2	1742212.2	96.567	%			14:57:16
2	Y 371.029	1013451.2	1013451.2	95.853	%			14:57:16
2	Ag 328.068†	122012.2	121785.0	504.79	µg/L	504.79	ppb	14:57:16
2	As 188.979†	1301.9	1366.7	469.56	µg/L	469.56	ppb	14:57:36
2	B 249.677†	34882.6	32057.6	496.80	µg/L	496.80	ppb	14:57:16
2	Ba 233.527†	107987.6	111971.4	498.11	µg/L	498.11	ppb	14:57:16
2	Be 313.107†	1623811.8	1682634.6	487.56	µg/L	487.56	ppb	14:57:16
2	Cd 226.502†	71816.9	74473.5	503.04	µg/L	503.04	ppb	14:57:16
2	Co 228.616†	36674.6	38188.8	505.47	µg/L	505.47	ppb	14:57:16
2	Cr 267.716†	56259.4	58026.4	501.87	µg/L	501.87	ppb	14:57:16
2	Cu 324.752†	118255.4	119423.6	501.06	µg/L	501.06	ppb	14:57:16
2	Mn 257.610†	365228.0	378028.2	501.26	µg/L	501.26	ppb	14:57:16
2	Mo 202.031†	14968.1	15538.8	508.64	µg/L	508.64	ppb	14:57:36
2	Ni 231.604†	38749.7	40223.3	503.24	µg/L	503.24	ppb	14:57:16
2	P 214.914†	10553.1	10954.0	2525.3	µg/L	2525.3	ppb	14:57:36
2	Pb 220.353†	8113.4	8298.4	512.25	µg/L	512.25	ppb	14:57:36

2	S 181.975 Axial†	1253.0	1208.6	1021.1 µg/L	1021.1 ppb	14:57:36
2	Sb 206.836†	3873.5	3921.5	506.89 µg/L	506.89 ppb	14:57:36
2	Se 196.026†	1261.0	1299.7	514 µg/L	514 ppb	14:57:36
2	SiO2†	50246.3	50293.6	5304.3 µg/L	5304.3 ppb	14:57:16
2	Si 251.611†	153726.7	158425.0	2488.1 µg/L	2488.1 ppb	14:57:16
2	Sn 189.927†	6981.9	7228.2	503.06 µg/L	503.06 ppb	14:57:36
2	Ti 334.940†	469138.7	484995.0	497.49 µg/L	497.49 ppb	14:57:16
2	Tl 190.801†	3459.3	3696.6	512.26 µg/L	512.26 ppb	14:57:36
2	U 409.014†	6968.6	7379.7	496.17 µg/L	496.17 ppb	14:57:16
2	V 292.402†	93382.2	96278.9	505.75 µg/L	505.75 ppb	14:57:16
2	Zn 213.857†	82058.5	84472.9	500.49 µg/L	500.49 ppb	14:57:16
3	Sc RADIAL	134604.9	134604.9	96.1 %		14:56:34
3	Al 396.153Radial†	22526.5	23523.5	4929.2 µg/L	4929.2 ppb	14:56:34
3	Ca 317.933Radial†	71773.5	74128.4	5048.8 µg/L	5048.8 ppb	14:56:34
3	Fe 238.204 Radial†	64420.6	66929.9	4998.3 µg/L	4998.3 ppb	14:56:34
3	K 766.490 Radial†	13879.0	12951.1	5127.7 µg/L	5127.7 ppb	14:56:34
3	Mg 279.077 IEC†	10624.6	10885.3	5034.2 µg/L	5034.2 ppb	14:56:34
3	Na 589.592 Radial†	63279.0	64906.5	10056 µg/L	10056 ppb	14:56:34
3	Sr 421.552†	202743.9	211214.6	498.10 µg/L	498.10 ppb	14:56:32
3	Sc 361.383	1754637.8	1754637.8	97.255 %		14:57:39
3	Y 371.029	1020489.9	1020489.9	96.519 %		14:57:39
3	Ag 328.068†	122946.0	121850.3	505.07 µg/L	505.07 ppb	14:57:39
3	As 188.979†	1311.4	1367.0	469.65 µg/L	469.65 ppb	14:57:59
3	B 249.677†	35123.6	32049.6	496.67 µg/L	496.67 ppb	14:57:39
3	Ba 233.527†	108888.2	112105.5	498.70 µg/L	498.70 ppb	14:57:39
3	Be 313.107†	1634927.6	1682156.2	487.42 µg/L	487.42 ppb	14:57:39
3	Cd 226.502†	72497.9	74647.1	504.21 µg/L	504.21 ppb	14:57:39
3	Co 228.616†	37076.9	38333.5	507.39 µg/L	507.39 ppb	14:57:39
3	Cr 267.716†	56675.3	58041.5	501.99 µg/L	501.99 ppb	14:57:39
3	Cu 324.752†	118752.1	119067.1	499.57 µg/L	499.57 ppb	14:57:39
3	Mn 257.610†	368200.0	378405.7	501.76 µg/L	501.76 ppb	14:57:39
3	Mo 202.031†	14911.8	15371.1	503.15 µg/L	503.15 ppb	14:57:59
3	Ni 231.604†	39141.9	40342.3	504.73 µg/L	504.73 ppb	14:57:39
3	P 214.914†	10489.0	10810.7	2492.2 µg/L	2492.2 ppb	14:57:59
3	Pb 220.353†	8083.4	8208.0	506.67 µg/L	506.67 ppb	14:57:59
3	S 181.975 Axial†	1248.1	1194.4	1009.0 µg/L	1009.0 ppb	14:57:59
3	Sb 206.836†	3847.1	3866.0	499.64 µg/L	499.64 ppb	14:57:59
3	Se 196.026†	1224.2	1252.6	496 µg/L	496 ppb	14:57:59
3	SiO2†	50393.8	50076.8	5281.6 µg/L	5281.6 ppb	14:57:39
3	Si 251.611†	154946.9	158552.4	2490.2 µg/L	2490.2 ppb	14:57:39
3	Sn 189.927†	6921.6	7115.1	495.21 µg/L	495.21 ppb	14:57:59
3	Ti 334.940†	472850.0	485370.6	497.87 µg/L	497.87 ppb	14:57:39
3	Tl 190.801†	3453.2	3664.9	507.93 µg/L	507.93 ppb	14:57:59
3	U 409.014†	7151.4	7516.6	504.80 µg/L	504.80 ppb	14:57:39
3	V 292.402†	94044.3	96275.0	505.68 µg/L	505.68 ppb	14:57:39
3	Zn 213.857†	82782.7	84615.8	501.33 µg/L	501.33 ppb	14:57:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1754049.4	97.223	%	0.6404				0.66%
Sc RADIAL	134362.5	95.9	%	0.35				0.37%
Y 371.029	1020142.1	96.486	%	0.6170				0.64%
Ag 328.068†	121837.5	505.01	µg/L	0.198	505.01	ppb	0.198	0.04%
QC value within limits for Ag 328.068 Recovery = 101.00%								
Al 396.153Radial†	23521.4	4928.7	µg/L	9.67	4928.7	ppb	9.67	0.20%
QC value within limits for Al 396.153Radial Recovery = 98.57%								
As 188.979†	1359.5	467.11	µg/L	4.325	467.11	ppb	4.325	0.93%
QC value within limits for As 188.979 Recovery = 93.42%								
B 249.677†	32067.2	496.94	µg/L	0.368	496.94	ppb	0.368	0.07%
QC value within limits for B 249.677 Recovery = 99.39%								
Ba 233.527†	112038.3	498.41	µg/L	0.297	498.41	ppb	0.297	0.06%
QC value within limits for Ba 233.527 Recovery = 99.68%								
Be 313.107†	1683761.2	487.88	µg/L	0.688	487.88	ppb	0.688	0.14%
QC value within limits for Be 313.107 Recovery = 97.58%								
Ca 317.933Radial†	74325.9	5062.3	µg/L	13.65	5062.3	ppb	13.65	0.27%
QC value within limits for Ca 317.933Radial Recovery = 101.25%								
Cd 226.502†	74617.5	504.01	µg/L	0.890	504.01	ppb	0.890	0.18%
QC value within limits for Cd 226.502 Recovery = 100.80%								
Co 228.616†	38314.7	507.14	µg/L	1.556	507.14	ppb	1.556	0.31%

```
   QC value within limits for Co 228.616  Recovery = 101.43%
Cr 267.716†            58053.6      502.10 µg/L         0.303      502.10 ppb          0.303   0.06%
   QC value within limits for Cr 267.716  Recovery = 100.42%
Cu 324.752†           119183.7      500.06 µg/L         0.865      500.06 ppb          0.865   0.17%
   QC value within limits for Cu 324.752  Recovery = 100.01%
Fe 238.204 Radial†     66980.0      5002.0 µg/L          6.96      5002.0 ppb           6.96   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.04%
K 766.490 Radial†      12900.5      5107.7 µg/L         20.47      5107.7 ppb          20.47   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 102.15%
Mg 279.077 IEC†        10952.2      5065.1 µg/L         50.76      5065.1 ppb          50.76   1.00%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.30%
Mn 257.610†           378355.5      501.69 µg/L         0.404      501.69 ppb          0.404   0.08%
   QC value within limits for Mn 257.610  Recovery = 100.34%
Mo 202.031†            15390.4      503.78 µg/L         4.570      503.78 ppb          4.570   0.91%
   QC value within limits for Mo 202.031  Recovery = 100.76%
Na 589.592 Radial†     65094.5       10086 µg/L          25.3       10086 ppb           25.3   0.25%
   QC value within limits for Na 589.592 Radial  Recovery = 100.86%
Ni 231.604†            40312.5      504.36 µg/L         0.984      504.36 ppb          0.984   0.20%
   QC value within limits for Ni 231.604  Recovery = 100.87%
P 214.914†             10826.6      2495.8 µg/L         27.82      2495.8 ppb          27.82   1.11%
   QC value within limits for P 214.914  Recovery = 99.83%
Pb 220.353†             8220.0      507.41 µg/L         4.513      507.41 ppb          4.513   0.89%
   QC value within limits for Pb 220.353  Recovery = 101.48%
S 181.975 Axial†        1196.3      1010.7 µg/L          9.69      1010.7 ppb           9.69   0.96%
   QC value within limits for S 181.975 Axial  Recovery = 101.07%
Sb 206.836†             3874.1      500.70 µg/L         5.735      500.70 ppb          5.735   1.15%
   QC value within limits for Sb 206.836  Recovery = 100.14%
Se 196.026†             1269.5         502 µg/L          10.3         502 ppb           10.3   2.06%
   QC value within limits for Se 196.026  Recovery = 100.46%
SiO2†                  50236.8      5298.5 µg/L         14.88      5298.5 ppb          14.88   0.28%
   QC value within limits for SiO2  Recovery = 99.08%
Si 251.611†           158461.6      2488.8 µg/L         1.26      2488.8 ppb           1.26   0.05%
   QC value within limits for Si 251.611  Recovery = 99.55%
Sn 189.927†             7140.2      496.95 µg/L         5.446      496.95 ppb          5.446   1.10%
   QC value within limits for Sn 189.927  Recovery = 99.39%
Sr 421.552†           211858.6      499.62 µg/L         4.790      499.62 ppb          4.790   0.96%
   QC value within limits for Sr 421.552  Recovery = 99.92%
Ti 334.940†           484968.3      497.46 µg/L         0.429      497.46 ppb          0.429   0.09%
   QC value within limits for Ti 334.940  Recovery = 99.49%
Tl 190.801†             3666.8      508.19 µg/L         3.950      508.19 ppb          3.950   0.78%
   QC value within limits for Tl 190.801  Recovery = 101.64%
U 409.014†              7416.8      498.52 µg/L         5.494      498.52 ppb          5.494   1.10%
   QC value within limits for U 409.014  Recovery = 99.70%
V 292.402†             96329.8      505.96 µg/L         0.437      505.96 ppb          0.437   0.09%
   QC value within limits for V 292.402  Recovery = 101.19%
Zn 213.857†            84592.5      501.20 µg/L         0.650      501.20 ppb          0.650   0.13%
   QC value within limits for Zn 213.857  Recovery = 100.24%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 14:58:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138044.4	138044.4	98.5	%			14:58:36
1	Al 396.153Radial†	-84.8	-7.5	-1.6153	µg/L	-1.6153	ppb	14:58:56
1	Ca 317.933Radial†	705.7	144.7	9.8564	µg/L	9.8564	ppb	14:58:56
1	Fe 238.204 Radial†	143.9	28.7	2.1458	µg/L	2.1458	ppb	14:58:56
1	K 766.490 Radial†	1582.5	112.1	44.418	µg/L	44.418	ppb	14:58:36
1	Mg 279.077 IEC†	198.0	28.5	13.174	µg/L	13.174	ppb	14:58:56
1	Na 589.592 Radial†	1559.9	630.6	97.707	µg/L	97.707	ppb	14:58:36
1	Sr 421.552†	-218.7	-17.4	-0.0412	µg/L	-0.0412	ppb	14:58:36
1	Sc 361.383	1793195.2	1793195.2	99.393	%			14:59:58
1	Y 371.029	1053635.4	1053635.4	99.654	%			14:59:58
1	Ag 328.068†	4087.3	-452.9	-1.8646	µg/L	-1.8646	ppb	15:00:00
1	As 188.979†	-19.6	-1.1	-0.3729	µg/L	-0.3729	ppb	15:00:20
1	B 249.677†	4109.6	69.6	1.0828	µg/L	1.0828	ppb	15:00:00
1	Ba 233.527†	-142.8	0.9	0.0039	µg/L	0.0039	ppb	15:00:20
1	Be 313.107†	-872.0	214.4	0.0606	µg/L	0.0606	ppb	15:00:00
1	Cd 226.502†	-107.9	-5.2	-0.0353	µg/L	-0.0353	ppb	15:00:20
1	Co 228.616†	-211.6	-2.6	-0.0342	µg/L	-0.0342	ppb	15:00:20
1	Cr 267.716†	281.2	49.7	0.4336	µg/L	0.4336	ppb	15:00:20
1	Cu 324.752†	2771.3	-247.9	-1.0403	µg/L	-1.0403	ppb	15:00:00
1	Mn 257.610†	228.2	44.9	0.0591	µg/L	0.0591	ppb	15:00:20
1	Mo 202.031†	-17.8	20.6	0.6752	µg/L	0.6752	ppb	15:00:20
1	Ni 231.604†	-82.3	13.1	0.1639	µg/L	0.1639	ppb	15:00:20
1	P 214.914†	23.7	49.5	11.467	µg/L	11.467	ppb	15:00:20
1	Pb 220.353†	104.1	1.2	0.0815	µg/L	0.0815	ppb	15:00:20
1	S 181.975 Axial†	98.7	10.4	8.7743	µg/L	8.7743	ppb	15:00:20
1	Sb 206.836†	81.2	-8.0	-1.0248	µg/L	-1.0248	ppb	15:00:20
1	Se 196.026†	14.5	8.4	3.32	µg/L	3.32	ppb	15:00:20
1	SiO2†	1760.2	31.9	3.3405	µg/L	3.3405	ppb	15:00:20
1	Si 251.611†	867.4	105.7	1.6508	µg/L	1.6508	ppb	15:00:00
1	Sn 189.927†	15.5	13.7	0.9464	µg/L	0.9464	ppb	15:00:20
1	Ti 334.940†	430.4	-390.0	-0.3995	µg/L	-0.3995	ppb	15:00:00
1	Tl 190.801†	-112.9	0.6	0.0819	µg/L	0.0819	ppb	15:00:20
1	U 409.014†	-242.6	-80.8	-5.1166	µg/L	-5.1166	ppb	15:00:00
1	V 292.402†	351.7	-69.4	-0.3542	µg/L	-0.3542	ppb	15:00:00
1	Zn 213.857†	586.1	86.7	0.5172	µg/L	0.5172	ppb	15:00:20
2	Sc RADIAL	137381.4	137381.4	98.1	%			14:58:58
2	Al 396.153Radial†	-89.4	-12.6	-2.6886	µg/L	-2.6886	ppb	14:59:18
2	Ca 317.933Radial†	702.2	144.6	9.8473	µg/L	9.8473	ppb	14:59:18
2	Fe 238.204 Radial†	160.7	46.5	3.4759	µg/L	3.4759	ppb	14:59:18
2	K 766.490 Radial†	1753.9	294.7	116.77	µg/L	116.77	ppb	14:58:58
2	Mg 279.077 IEC†	160.0	-9.3	-4.2864	µg/L	-4.2864	ppb	14:59:18
2	Na 589.592 Radial†	1439.6	515.5	79.810	µg/L	79.810	ppb	14:58:58
2	Sr 421.552†	-276.7	-77.7	-0.1834	µg/L	-0.1834	ppb	14:58:58
2	Sc 361.383	1785321.1	1785321.1	98.956	%			15:00:22
2	Y 371.029	1049355.3	1049355.3	99.249	%			15:00:22
2	Ag 328.068†	4310.0	-209.7	-0.8687	µg/L	-0.8687	ppb	15:00:25
2	As 188.979†	-18.2	0.2	0.0627	µg/L	0.0627	ppb	15:00:45
2	B 249.677†	4111.2	89.4	1.3899	µg/L	1.3899	ppb	15:00:25
2	Ba 233.527†	-132.8	10.3	0.0462	µg/L	0.0462	ppb	15:00:45
2	Be 313.107†	-503.9	582.5	0.1658	µg/L	0.1658	ppb	15:00:25
2	Cd 226.502†	-82.6	19.9	0.1341	µg/L	0.1341	ppb	15:00:45
2	Co 228.616†	-204.4	3.7	0.0489	µg/L	0.0489	ppb	15:00:45
2	Cr 267.716†	276.4	46.1	0.4066	µg/L	0.4066	ppb	15:00:45
2	Cu 324.752†	2998.7	-5.8	-0.0318	µg/L	-0.0318	ppb	15:00:25
2	Mn 257.610†	273.1	91.3	0.1213	µg/L	0.1213	ppb	15:00:45
2	Mo 202.031†	-14.2	24.2	0.7908	µg/L	0.7908	ppb	15:00:45
2	Ni 231.604†	-72.5	22.6	0.2827	µg/L	0.2827	ppb	15:00:45
2	P 214.914†	21.9	47.8	11.054	µg/L	11.054	ppb	15:00:45
2	Pb 220.353†	100.4	-1.9	-0.1109	µg/L	-0.1109	ppb	15:00:45

2	S 181.975 Axial†	111.6	23.8	20.067 µg/L	20.067 ppb		15:00:45
2	Sb 206.836†	73.8	-15.1	-1.9429 µg/L	-1.9429 ppb		15:00:45
2	Se 196.026†	10.5	4.5	1.76 µg/L	1.76 ppb		15:00:45
2	SiO2†	1741.5	20.8	2.1669 µg/L	2.1669 ppb		15:00:45
2	Si 251.611†	859.0	101.0	1.5766 µg/L	1.5766 ppb		15:00:25
2	Sn 189.927†	14.7	13.0	0.8983 µg/L	0.8983 ppb		15:00:45
2	Ti 334.940†	757.5	-57.6	-0.0547 µg/L	-0.0547 ppb		15:00:25
2	Tl 190.801†	-123.5	-10.5	-1.4322 µg/L	-1.4322 ppb		15:00:45
2	U 409.014†	-313.5	-153.4	-9.6734 µg/L	-9.6734 ppb		15:00:25
2	V 292.402†	449.5	31.0	0.1636 µg/L	0.1636 ppb		15:00:25
2	Zn 213.857†	555.8	58.6	0.3478 µg/L	0.3478 ppb		15:00:45
3	Sc RADIAL	138455.0	138455.0	98.8 %			14:59:20
3	Al 396.153Radial†	-78.6	-1.0	-0.2452 µg/L	-0.2452 ppb		14:59:40
3	Ca 317.933Radial†	693.8	130.5	8.8893 µg/L	8.8893 ppb		14:59:40
3	Fe 238.204 Radial†	133.6	17.9	1.3380 µg/L	1.3380 ppb		14:59:40
3	K 766.490 Radial†	1590.3	115.3	45.676 µg/L	45.676 ppb		14:59:20
3	Mg 279.077 IEC†	171.8	1.4	0.6697 µg/L	0.6697 ppb		14:59:40
3	Na 589.592 Radial†	1454.2	518.9	80.388 µg/L	80.388 ppb		14:59:20
3	Sr 421.552†	-186.5	15.8	0.0372 µg/L	0.0372 ppb		14:59:20
3	Sc 361.383	1770801.1	1770801.1	98.151 %			15:00:47
3	Y 371.029	1040334.6	1040334.6	98.396 %			15:00:47
3	Ag 328.068†	4238.3	-247.0	-1.0326 µg/L	-1.0326 ppb		15:00:49
3	As 188.979†	-20.0	-1.8	-0.6162 µg/L	-0.6162 ppb		15:01:09
3	B 249.677†	4030.2	41.0	0.6367 µg/L	0.6367 ppb		15:00:49
3	Ba 233.527†	-163.4	-21.9	-0.0974 µg/L	-0.0974 ppb		15:01:09
3	Be 313.107†	-721.7	356.5	0.0990 µg/L	0.0990 ppb		15:00:49
3	Cd 226.502†	-80.1	21.8	0.1474 µg/L	0.1474 ppb		15:01:09
3	Co 228.616†	-191.4	15.3	0.2019 µg/L	0.2019 ppb		15:01:09
3	Cr 267.716†	256.4	28.0	0.2531 µg/L	0.2531 ppb		15:01:09
3	Cu 324.752†	2743.9	-240.5	-1.0173 µg/L	-1.0173 ppb		15:00:49
3	Mn 257.610†	241.2	61.0	0.0809 µg/L	0.0809 ppb		15:01:09
3	Mo 202.031†	-17.0	21.2	0.6937 µg/L	0.6937 ppb		15:01:09
3	Ni 231.604†	-55.4	39.4	0.4935 µg/L	0.4935 ppb		15:01:09
3	P 214.914†	15.1	41.0	9.5028 µg/L	9.5028 ppb		15:01:09
3	Pb 220.353†	103.8	2.3	0.1543 µg/L	0.1543 ppb		15:01:09
3	S 181.975 Axial†	106.9	20.0	16.821 µg/L	16.821 ppb		15:01:09
3	Sb 206.836†	86.5	-1.6	-0.2020 µg/L	-0.2020 ppb		15:01:09
3	Se 196.026†	31.1	25.6	10.1 µg/L	10.1 ppb		15:01:09
3	SiO2†	1757.4	51.4	5.4209 µg/L	5.4209 ppb		15:01:09
3	Si 251.611†	971.0	222.3	3.4932 µg/L	3.4932 ppb		15:00:49
3	Sn 189.927†	8.1	6.4	0.4416 µg/L	0.4416 ppb		15:01:09
3	Ti 334.940†	788.6	-19.5	-0.0142 µg/L	-0.0142 ppb		15:00:49
3	Tl 190.801†	-110.6	1.6	0.2188 µg/L	0.2188 ppb		15:01:09
3	U 409.014†	-381.1	-224.9	-14.214 µg/L	-14.214 ppb		15:00:49
3	V 292.402†	353.3	-63.3	-0.3296 µg/L	-0.3296 ppb		15:00:49
3	Zn 213.857†	578.7	86.6	0.5146 µg/L	0.5146 ppb		15:01:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783105.8	98.833	%	0.6297				0.64%
Sc RADIAL	137960.3	98.5	%	0.39				0.39%
Y 371.029	1047775.1	99.099	%	0.6422				0.65%
Ag 328.068†	-303.2	-1.2553	µg/L	0.53400	-1.2553	ppb	0.53400	42.54%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.0	-1.5163	µg/L	1.22467	-1.5163	ppb	1.22467	80.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.9	-0.3088	µg/L	0.34395	-0.3088	ppb	0.34395	111.38%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	66.7	1.0365	µg/L	0.37874	1.0365	ppb	0.37874	36.54%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.6	-0.0158	µg/L	0.07377	-0.0158	ppb	0.07377	467.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	384.5	0.1085	µg/L	0.05326	0.1085	ppb	0.05326	49.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	139.9	9.5310	µg/L	0.55577	9.5310	ppb	0.55577	5.83%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	12.2	0.0821	µg/L	0.10186	0.0821	ppb	0.10186	124.08%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.5	0.0722	µg/L	0.11975	0.0722	ppb	0.11975	165.92%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                41.3      0.3644 µg/L       0.09736      0.3644 ppb        0.09736  26.72%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -164.7     -0.6965 µg/L       0.57577     -0.6965 ppb        0.57577  82.67%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         31.1      2.3199 µg/L       1.07956      2.3199 ppb        1.07956  46.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         174.1      68.954 µg/L       41.4138      68.954 ppb        41.4138  60.06%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            6.9      3.1857 µg/L       8.99780      3.1857 ppb        8.99780 282.45%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                65.7      0.0871 µg/L       0.03156      0.0871 ppb        0.03156  36.25%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                22.0      0.7199 µg/L       0.06207      0.7199 ppb        0.06207   8.62%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        555.0      85.968 µg/L       10.1699      85.968 ppb        10.1699  11.83%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                25.0      0.3134 µg/L       0.16695      0.3134 ppb        0.16695  53.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 46.1      10.675 µg/L        1.0358      10.675 ppb         1.0358   9.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.5      0.0416 µg/L       0.13704      0.0416 ppb        0.13704 329.04%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           18.1      15.221 µg/L        5.8140      15.221 ppb         5.8140  38.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -8.2     -1.0566 µg/L       0.87088     -1.0566 ppb        0.87088  82.42%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                12.8        5.05 µg/L         4.410        5.05 ppb          4.410  87.41%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      34.7      3.6428 µg/L       1.64796      3.6428 ppb        1.64796  45.24%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               143.0      2.2402 µg/L       1.08575      2.2402 ppb        1.08575  48.47%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                11.0      0.7621 µg/L       0.27860      0.7621 ppb        0.27860  36.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -26.4     -0.0624 µg/L       0.11181     -0.0624 ppb        0.11181 179.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -155.7     -0.1561 µg/L       0.21173     -0.1561 ppb        0.21173 135.64%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.7     -0.3772 µg/L       0.91625     -0.3772 ppb        0.91625 242.92%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -153.0     -9.6679 µg/L       4.54859     -9.6679 ppb        4.54859  47.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -33.9     -0.1734 µg/L       0.29211     -0.1734 ppb        0.29211 168.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                77.3      0.4599 µg/L       0.09708      0.4599 ppb        0.09708  21.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 23
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 15:16:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135738.0	135738.0	96.9	%			15:17:24
1	Al 396.153Radial†	22857.7	23669.6	4959.7	µg/L	4959.7	ppb	15:17:24
1	Ca 317.933Radial†	73024.7	74796.2	5094.3	µg/L	5094.3	ppb	15:17:24
1	Fe 238.204 Radial†	65755.8	67748.2	5059.4	µg/L	5059.4	ppb	15:17:24
1	K 766.490 Radial†	13910.2	12862.7	5092.7	µg/L	5092.7	ppb	15:17:24
1	Mg 279.077 IEC†	10881.8	11058.4	5114.2	µg/L	5114.2	ppb	15:17:24
1	Na 589.592 Radial†	64038.5	65140.6	10093	µg/L	10093	ppb	15:17:24
1	Sr 421.552†	204354.1	211115.0	497.87	µg/L	497.87	ppb	15:17:22
1	Sc 361.383	1764164.6	1764164.6	97.784	%			15:17:51
1	Y 371.029	1024554.1	1024554.1	96.903	%			15:17:51
1	Ag 328.068†	124127.5	122375.9	507.24	µg/L	507.24	ppb	15:17:51
1	As 188.979†	1328.6	1377.3	473.19	µg/L	473.19	ppb	15:18:11
1	B 249.677†	35379.1	32115.9	497.68	µg/L	497.68	ppb	15:17:51
1	Ba 233.527†	109997.1	112635.0	501.06	µg/L	501.06	ppb	15:17:51
1	Be 313.107†	1659256.4	1697958.5	491.99	µg/L	491.99	ppb	15:17:51
1	Cd 226.502†	73538.6	75308.9	508.68	µg/L	508.68	ppb	15:17:51
1	Co 228.616†	37673.5	38737.7	512.74	µg/L	512.74	ppb	15:17:51
1	Cr 267.716†	57414.4	58482.6	505.82	µg/L	505.82	ppb	15:17:51
1	Cu 324.752†	120081.7	119767.5	502.50	µg/L	502.50	ppb	15:17:51
1	Mn 257.610†	372787.6	381052.9	505.27	µg/L	505.27	ppb	15:17:51
1	Mo 202.031†	15151.5	15533.5	508.47	µg/L	508.47	ppb	15:18:11
1	Ni 231.604†	39621.1	40615.1	508.15	µg/L	508.15	ppb	15:17:51
1	P 214.914†	10707.2	10975.6	2530.3	µg/L	2530.3	ppb	15:18:11
1	Pb 220.353†	8241.7	8325.1	513.90	µg/L	513.90	ppb	15:18:11
1	S 181.975 Axial†	1276.8	1216.9	1028.0	µg/L	1028.0	ppb	15:18:11
1	Sb 206.836†	3922.3	3921.5	506.84	µg/L	506.84	ppb	15:18:11
1	Se 196.026†	1272.0	1294.7	512	µg/L	512	ppb	15:18:11
1	SiO2†	51556.6	50986.1	5377.6	µg/L	5377.6	ppb	15:17:51
1	Si 251.611†	157393.6	160194.2	2516.0	µg/L	2516.0	ppb	15:17:51
1	Sn 189.927†	7104.1	7263.2	505.49	µg/L	505.49	ppb	15:18:11
1	Ti 334.940†	477258.2	487253.2	499.81	µg/L	499.81	ppb	15:17:51
1	Tl 190.801†	3518.1	3712.1	514.40	µg/L	514.40	ppb	15:18:11
1	U 409.014†	6935.8	7256.4	488.58	µg/L	488.58	ppb	15:17:51
1	V 292.402†	95164.5	96898.4	508.96	µg/L	508.96	ppb	15:17:51
1	Zn 213.857†	83929.3	85328.7	505.56	µg/L	505.56	ppb	15:17:51
2	Sc RADIAL	136755.4	136755.4	97.6	%			15:17:28
2	Al 396.153Radial†	22930.5	23568.7	4938.5	µg/L	4938.5	ppb	15:17:28
2	Ca 317.933Radial†	73393.2	74613.0	5081.8	µg/L	5081.8	ppb	15:17:28
2	Fe 238.204 Radial†	65970.8	67463.6	5038.1	µg/L	5038.1	ppb	15:17:28
2	K 766.490 Radial†	14093.0	12943.2	5124.6	µg/L	5124.6	ppb	15:17:28
2	Mg 279.077 IEC†	10944.3	11038.9	5105.2	µg/L	5105.2	ppb	15:17:28
2	Na 589.592 Radial†	64185.6	64799.6	10040	µg/L	10040	ppb	15:17:28
2	Sr 421.552†	206740.5	211990.6	499.93	µg/L	499.93	ppb	15:17:26
2	Sc 361.383	1774867.6	1774867.6	98.377	%			15:18:14
2	Y 371.029	1031433.6	1031433.6	97.554	%			15:18:14
2	Ag 328.068†	124636.9	122128.2	506.22	µg/L	506.22	ppb	15:18:14
2	As 188.979†	1336.2	1376.8	473.00	µg/L	473.00	ppb	15:18:34
2	B 249.677†	35558.4	32080.0	497.13	µg/L	497.13	ppb	15:18:14
2	Ba 233.527†	110530.9	112499.2	500.46	µg/L	500.46	ppb	15:18:14
2	Be 313.107†	1664802.3	1693363.2	490.67	µg/L	490.67	ppb	15:18:14
2	Cd 226.502†	73953.2	75276.8	508.46	µg/L	508.46	ppb	15:18:14
2	Co 228.616†	37610.7	38441.5	508.82	µg/L	508.82	ppb	15:18:14
2	Cr 267.716†	57561.2	58277.7	504.04	µg/L	504.04	ppb	15:18:14
2	Cu 324.752†	120902.2	119861.0	502.90	µg/L	502.90	ppb	15:18:14
2	Mn 257.610†	374196.7	380186.2	504.12	µg/L	504.12	ppb	15:18:14
2	Mo 202.031†	15216.3	15506.0	507.57	µg/L	507.57	ppb	15:18:34
2	Ni 231.604†	39686.6	40437.3	505.92	µg/L	505.92	ppb	15:18:14
2	P 214.914†	10736.2	10939.1	2521.8	µg/L	2521.8	ppb	15:18:34
2	Pb 220.353†	8296.7	8330.2	514.20	µg/L	514.20	ppb	15:18:34

2	S 181.975 Axial†	1278.8	1211.0	1023.0 µg/L	1023.0 ppb	15:18:34
2	Sb 206.836†	3909.8	3884.6	502.09 µg/L	502.09 ppb	15:18:34
2	Se 196.026†	1253.0	1267.6	502 µg/L	502 ppb	15:18:34
2	SiO2†	51693.6	50807.4	5358.7 µg/L	5358.7 ppb	15:18:14
2	Si 251.611†	158586.7	160436.4	2519.8 µg/L	2519.8 ppb	15:18:14
2	Sn 189.927†	7100.7	7216.0	502.21 µg/L	502.21 ppb	15:18:34
2	Ti 334.940†	479020.6	486101.4	498.62 µg/L	498.62 ppb	15:18:14
2	Tl 190.801†	3527.6	3700.1	512.76 µg/L	512.76 ppb	15:18:34
2	U 409.014†	7098.9	7379.4	496.29 µg/L	496.29 ppb	15:18:14
2	V 292.402†	95557.7	96711.2	507.98 µg/L	507.98 ppb	15:18:14
2	Zn 213.857†	84077.4	84961.6	503.38 µg/L	503.38 ppb	15:18:14
3	Sc RADIAL	136723.7	136723.7	97.6 %		15:17:32
3	Al 396.153Radial†	22938.4	23582.2	4941.3 µg/L	4941.3 ppb	15:17:32
3	Ca 317.933Radial†	73950.6	75201.5	5121.9 µg/L	5121.9 ppb	15:17:32
3	Fe 238.204 Radial†	66451.5	67971.7	5076.1 µg/L	5076.1 ppb	15:17:32
3	K 766.490 Radial†	14098.3	12951.9	5128.0 µg/L	5128.0 ppb	15:17:32
3	Mg 279.077 IEC†	11022.8	11122.0	5143.5 µg/L	5143.5 ppb	15:17:32
3	Na 589.592 Radial†	64677.6	65318.9	10120 µg/L	10120 ppb	15:17:32
3	Sr 421.552†	206850.5	212152.3	500.31 µg/L	500.31 ppb	15:17:30
3	Sc 361.383	1765397.6	1765397.6	97.852 %		15:18:37
3	Y 371.029	1025865.3	1025865.3	97.027 %		15:18:37
3	Ag 328.068†	124053.7	122211.8	506.60 µg/L	506.60 ppb	15:18:37
3	As 188.979†	1331.9	1379.7	473.98 µg/L	473.98 ppb	15:18:57
3	B 249.677†	35495.2	32209.3	499.13 µg/L	499.13 ppb	15:18:37
3	Ba 233.527†	109878.0	112434.6	500.17 µg/L	500.17 ppb	15:18:37
3	Be 313.107†	1658745.9	1696251.6	491.51 µg/L	491.51 ppb	15:18:37
3	Cd 226.502†	73397.9	75112.6	507.35 µg/L	507.35 ppb	15:18:37
3	Co 228.616†	37638.2	38674.7	511.90 µg/L	511.90 ppb	15:18:37
3	Cr 267.716†	57256.1	58279.9	504.05 µg/L	504.05 ppb	15:18:37
3	Cu 324.752†	120344.3	119950.0	503.29 µg/L	503.29 ppb	15:18:37
3	Mn 257.610†	372836.8	380836.8	504.98 µg/L	504.98 ppb	15:18:37
3	Mo 202.031†	15173.4	15545.1	508.85 µg/L	508.85 ppb	15:18:57
3	Ni 231.604†	39743.3	40711.6	509.35 µg/L	509.35 ppb	15:18:37
3	P 214.914†	10695.7	10956.2	2525.7 µg/L	2525.7 ppb	15:18:57
3	Pb 220.353†	8232.5	8309.8	512.94 µg/L	512.94 ppb	15:18:57
3	S 181.975 Axial†	1266.8	1205.7	1018.6 µg/L	1018.6 ppb	15:18:57
3	Sb 206.836†	3901.0	3896.9	503.70 µg/L	503.70 ppb	15:18:57
3	Se 196.026†	1273.5	1295.3	513 µg/L	513 ppb	15:18:57
3	SiO2†	51559.7	50952.5	5374.0 µg/L	5374.0 ppb	15:18:37
3	Si 251.611†	158048.5	160751.1	2524.8 µg/L	2524.8 ppb	15:18:37
3	Sn 189.927†	7093.6	7247.5	504.40 µg/L	504.40 ppb	15:18:57
3	Ti 334.940†	477721.3	487385.6	499.93 µg/L	499.93 ppb	15:18:37
3	Tl 190.801†	3505.9	3697.2	512.36 µg/L	512.36 ppb	15:18:57
3	U 409.014†	7303.2	7626.9	511.96 µg/L	511.96 ppb	15:18:37
3	V 292.402†	95235.5	96903.0	508.99 µg/L	508.99 ppb	15:18:37
3	Zn 213.857†	83904.9	85243.8	505.04 µg/L	505.04 ppb	15:18:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1768143.2	98.004	%	0.3246				0.33%
Sc RADIAL	136405.7	97.4	%	0.41				0.42%
Y 371.029	1027284.3	97.161	%	0.3455				0.36%
Ag 328.068†	122238.7	506.69	µg/L	0.514	506.69	ppb	0.514	0.10%
QC value within limits for Ag 328.068 Recovery = 101.34%								
Al 396.153Radial†	23606.8	4946.5	µg/L	11.52	4946.5	ppb	11.52	0.23%
QC value within limits for Al 396.153Radial Recovery = 98.93%								
As 188.979†	1377.9	473.39	µg/L	0.523	473.39	ppb	0.523	0.11%
QC value within limits for As 188.979 Recovery = 94.68%								
B 249.677†	32135.0	497.98	µg/L	1.034	497.98	ppb	1.034	0.21%
QC value within limits for B 249.677 Recovery = 99.60%								
Ba 233.527†	112522.9	500.56	µg/L	0.455	500.56	ppb	0.455	0.09%
QC value within limits for Ba 233.527 Recovery = 100.11%								
Be 313.107†	1695857.7	491.39	µg/L	0.672	491.39	ppb	0.672	0.14%
QC value within limits for Be 313.107 Recovery = 98.28%								
Ca 317.933Radial†	74870.2	5099.3	µg/L	20.51	5099.3	ppb	20.51	0.40%
QC value within limits for Ca 317.933Radial Recovery = 101.99%								
Cd 226.502†	75232.8	508.17	µg/L	0.713	508.17	ppb	0.713	0.14%
QC value within limits for Cd 226.502 Recovery = 101.63%								
Co 228.616†	38618.0	511.15	µg/L	2.063	511.15	ppb	2.063	0.40%

```
   QC value within limits for Co 228.616  Recovery = 102.23%
Cr 267.716†            58346.7      504.64 µg/L         1.025      504.64 ppb          1.025   0.20%
   QC value within limits for Cr 267.716  Recovery = 100.93%
Cu 324.752†           119859.5      502.90 µg/L         0.393      502.90 ppb          0.393   0.08%
   QC value within limits for Cu 324.752  Recovery = 100.58%
Fe 238.204 Radial†     67727.8      5057.9 µg/L         19.02      5057.9 ppb          19.02   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.16%
K 766.490 Radial†      12919.2      5115.1 µg/L         19.49      5115.1 ppb          19.49   0.38%
   QC value within limits for K 766.490 Radial  Recovery = 102.30%
Mg 279.077 IEC†        11073.1      5121.0 µg/L         20.05      5121.0 ppb          20.05   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.42%
Mn 257.610†           380692.0      504.79 µg/L         0.598      504.79 ppb          0.598   0.12%
   QC value within limits for Mn 257.610  Recovery = 100.96%
Mo 202.031†            15528.2      508.29 µg/L         0.658      508.29 ppb          0.658   0.13%
   QC value within limits for Mo 202.031  Recovery = 101.66%
Na 589.592 Radial†     65086.4       10084 µg/L          40.9       10084 ppb           40.9   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 100.84%
Ni 231.604†            40588.0      507.81 µg/L         1.741      507.81 ppb          1.741   0.34%
   QC value within limits for Ni 231.604  Recovery = 101.56%
P 214.914†             10957.0      2525.9 µg/L          4.24      2525.9 ppb           4.24   0.17%
   QC value within limits for P 214.914  Recovery = 101.04%
Pb 220.353†             8321.7      513.68 µg/L         0.658      513.68 ppb          0.658   0.13%
   QC value within limits for Pb 220.353  Recovery = 102.74%
S 181.975 Axial†        1211.2      1023.2 µg/L          4.70      1023.2 ppb           4.70   0.46%
   QC value within limits for S 181.975 Axial  Recovery = 102.32%
Sb 206.836†             3901.0      504.21 µg/L         2.415      504.21 ppb          2.415   0.48%
   QC value within limits for Sb 206.836  Recovery = 100.84%
Se 196.026†             1285.9         509 µg/L           6.3         509 ppb            6.3   1.23%
   QC value within limits for Se 196.026  Recovery = 101.76%
SiO2†                  50915.3      5370.1 µg/L         10.01      5370.1 ppb          10.01   0.19%
   QC value within limits for SiO2  Recovery = 100.42%
Si 251.611†           160460.6      2520.2 µg/L          4.40      2520.2 ppb           4.40   0.17%
   QC value within limits for Si 251.611  Recovery = 100.81%
Sn 189.927†             7242.2      504.03 µg/L         1.671      504.03 ppb          1.671   0.33%
   QC value within limits for Sn 189.927  Recovery = 100.81%
Sr 421.552†           211752.6      499.37 µg/L         1.316      499.37 ppb          1.316   0.26%
   QC value within limits for Sr 421.552  Recovery = 99.87%
Ti 334.940†           486913.4      499.45 µg/L         0.723      499.45 ppb          0.723   0.14%
   QC value within limits for Ti 334.940  Recovery = 99.89%
Tl 190.801†             3703.1      513.17 µg/L         1.080      513.17 ppb          1.080   0.21%
   QC value within limits for Tl 190.801  Recovery = 102.63%
U 409.014†              7420.9      498.94 µg/L        11.913      498.94 ppb         11.913   2.39%
   QC value within limits for U 409.014  Recovery = 99.79%
V 292.402†             96837.5      508.64 µg/L         0.575      508.64 ppb          0.575   0.11%
   QC value within limits for V 292.402  Recovery = 101.73%
Zn 213.857†            85178.1      504.66 µg/L         1.137      504.66 ppb          1.137   0.23%
   QC value within limits for Zn 213.857  Recovery = 100.93%
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 15:19:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135119.4	135119.4	96.4	%			15:19:35
1	Al 396.153Radial†	-39.9	37.2	7.8015	µg/L	7.8015	ppb	15:19:55
1	Ca 317.933Radial†	710.5	165.2	11.249	µg/L	11.249	ppb	15:19:55
1	Fe 238.204 Radial†	246.5	138.2	10.324	µg/L	10.324	ppb	15:19:55
1	K 766.490 Radial†	1659.9	227.2	90.021	µg/L	90.021	ppb	15:19:35
1	Mg 279.077 IEC†	172.3	6.2	2.8460	µg/L	2.8460	ppb	15:19:55
1	Na 589.592 Radial†	1152.5	242.4	37.496	µg/L	37.496	ppb	15:19:35
1	Sr 421.552†	-253.5	-58.4	-0.1378	µg/L	-0.1378	ppb	15:19:35
1	Sc 361.383	1794052.2	1794052.2	99.440	%			15:20:57
1	Y 371.029	1054102.8	1054102.8	99.698	%			15:20:57
1	Ag 328.068†	4163.6	-378.1	-1.5752	µg/L	-1.5752	ppb	15:20:59
1	As 188.979†	-10.7	7.8	2.6457	µg/L	2.6457	ppb	15:21:19
1	B 249.677†	3919.6	-123.5	-1.9206	µg/L	-1.9206	ppb	15:20:59
1	Ba 233.527†	-182.6	-39.1	-0.1741	µg/L	-0.1741	ppb	15:21:19
1	Be 313.107†	-511.9	576.9	0.1619	µg/L	0.1619	ppb	15:20:59
1	Cd 226.502†	-61.9	41.1	0.2767	µg/L	0.2767	ppb	15:21:19
1	Co 228.616†	-193.6	15.6	0.2054	µg/L	0.2054	ppb	15:21:19
1	Cr 267.716†	254.1	22.3	0.2065	µg/L	0.2065	ppb	15:21:19
1	Cu 324.752†	2907.9	-111.8	-0.4804	µg/L	-0.4804	ppb	15:20:59
1	Mn 257.610†	293.9	110.8	0.1469	µg/L	0.1469	ppb	15:21:19
1	Mo 202.031†	-23.4	15.1	0.4926	µg/L	0.4926	ppb	15:21:19
1	Ni 231.604†	-64.9	30.6	0.3833	µg/L	0.3833	ppb	15:21:19
1	P 214.914†	12.3	38.1	8.8112	µg/L	8.8112	ppb	15:21:19
1	Pb 220.353†	108.6	5.7	0.3659	µg/L	0.3659	ppb	15:21:19
1	S 181.975 Axial†	93.4	5.0	4.1776	µg/L	4.1776	ppb	15:21:19
1	Sb 206.836†	96.3	7.1	0.9249	µg/L	0.9249	ppb	15:21:19
1	Se 196.026†	21.3	15.2	5.99	µg/L	5.99	ppb	15:21:19
1	SiO2†	1898.8	170.4	18.018	µg/L	18.018	ppb	15:21:19
1	Si 251.611†	1381.8	622.6	9.8044	µg/L	9.8044	ppb	15:20:59
1	Sn 189.927†	15.2	13.4	0.9327	µg/L	0.9327	ppb	15:21:19
1	Ti 334.940†	915.7	97.9	0.1077	µg/L	0.1077	ppb	15:20:59
1	Tl 190.801†	-120.9	-7.3	-0.9998	µg/L	-0.9998	ppb	15:21:19
1	U 409.014†	-437.0	-276.1	-17.451	µg/L	-17.451	ppb	15:20:59
1	V 292.402†	331.2	-90.2	-0.4743	µg/L	-0.4743	ppb	15:20:59
1	Zn 213.857†	592.6	93.0	0.5520	µg/L	0.5520	ppb	15:21:19
2	Sc RADIAL	136298.4	136298.4	97.3	%			15:19:57
2	Al 396.153Radial†	-106.9	-31.4	-6.6496	µg/L	-6.6496	ppb	15:20:17
2	Ca 317.933Radial†	687.7	135.4	9.2247	µg/L	9.2247	ppb	15:20:17
2	Fe 238.204 Radial†	157.7	44.8	3.3427	µg/L	3.3427	ppb	15:20:17
2	K 766.490 Radial†	1659.5	211.9	83.944	µg/L	83.944	ppb	15:19:57
2	Mg 279.077 IEC†	160.6	-7.3	-3.3644	µg/L	-3.3644	ppb	15:20:17
2	Na 589.592 Radial†	1195.7	276.4	42.774	µg/L	42.774	ppb	15:19:57
2	Sr 421.552†	-260.7	-63.5	-0.1499	µg/L	-0.1499	ppb	15:19:57
2	Sc 361.383	1785056.6	1785056.6	98.942	%			15:21:21
2	Y 371.029	1047607.7	1047607.7	99.084	%			15:21:21
2	Ag 328.068†	3952.2	-570.7	-2.3566	µg/L	-2.3566	ppb	15:21:24
2	As 188.979†	-10.3	8.2	2.7758	µg/L	2.7758	ppb	15:21:44
2	B 249.677†	4199.2	178.9	2.7816	µg/L	2.7816	ppb	15:21:24
2	Ba 233.527†	-158.6	-15.7	-0.0699	µg/L	-0.0699	ppb	15:21:44
2	Be 313.107†	-584.0	501.5	0.1413	µg/L	0.1413	ppb	15:21:24
2	Cd 226.502†	-107.7	-5.4	-0.0370	µg/L	-0.0370	ppb	15:21:44
2	Co 228.616†	-184.0	24.3	0.3214	µg/L	0.3214	ppb	15:21:44
2	Cr 267.716†	264.9	34.5	0.3087	µg/L	0.3087	ppb	15:21:44
2	Cu 324.752†	2729.2	-277.7	-1.1720	µg/L	-1.1720	ppb	15:21:24
2	Mn 257.610†	261.9	80.0	0.1062	µg/L	0.1062	ppb	15:21:44
2	Mo 202.031†	-8.4	30.1	0.9852	µg/L	0.9852	ppb	15:21:44
2	Ni 231.604†	-65.2	30.0	0.3752	µg/L	0.3752	ppb	15:21:44
2	P 214.914†	30.4	56.4	13.039	µg/L	13.039	ppb	15:21:44
2	Pb 220.353†	108.4	6.1	0.3854	µg/L	0.3854	ppb	15:21:44

2	S 181.975 Axial†	97.8	10.0	8.3828	µg/L	8.3828 ppb	15:21:44
2	Sb 206.836†	89.2	0.5	0.0710	µg/L	0.0710 ppb	15:21:44
2	Se 196.026†	24.3	18.4	7.22	µg/L	7.22 ppb	15:21:44
2	SiO2†	1931.2	212.8	22.501	µg/L	22.501 ppb	15:21:44
2	Si 251.611†	1430.8	679.1	10.694	µg/L	10.694 ppb	15:21:24
2	Sn 189.927†	3.7	1.8	0.1285	µg/L	0.1285 ppb	15:21:44
2	Ti 334.940†	863.8	50.0	0.0572	µg/L	0.0572 ppb	15:21:24
2	Tl 190.801†	-116.8	-3.8	-0.5237	µg/L	-0.5237 ppb	15:21:44
2	U 409.014†	-368.5	-209.1	-13.214	µg/L	-13.214 ppb	15:21:24
2	V 292.402†	355.1	-64.3	-0.3312	µg/L	-0.3312 ppb	15:21:24
2	Zn 213.857†	579.9	83.2	0.4946	µg/L	0.4946 ppb	15:21:44
3	Sc RADIAL	137345.7	137345.7	98.0	%		15:20:19
3	Al 396.153Radial†	-66.9	10.3	2.1413	µg/L	2.1413 ppb	15:20:39
3	Ca 317.933Radial†	721.0	164.0	11.171	µg/L	11.171 ppb	15:20:39
3	Fe 238.204 Radial†	215.7	102.7	7.6670	µg/L	7.6670 ppb	15:20:39
3	K 766.490 Radial†	1670.5	210.1	83.228	µg/L	83.228 ppb	15:20:19
3	Mg 279.077 IEC†	160.4	-8.8	-4.0827	µg/L	-4.0827 ppb	15:20:39
3	Na 589.592 Radial†	1300.4	373.9	57.888	µg/L	57.888 ppb	15:20:19
3	Sr 421.552†	-278.7	-79.8	-0.1883	µg/L	-0.1883 ppb	15:20:19
3	Sc 361.383	1761364.4	1761364.4	97.628	%		15:21:46
3	Y 371.029	1034927.3	1034927.3	97.884	%		15:21:46
3	Ag 328.068†	4077.7	-388.4	-1.6055	µg/L	-1.6055 ppb	15:21:48
3	As 188.979†	-16.6	1.6	0.5344	µg/L	0.5344 ppb	15:22:08
3	B 249.677†	3885.5	-85.3	-1.3272	µg/L	-1.3272 ppb	15:21:48
3	Ba 233.527†	-157.0	-16.3	-0.0727	µg/L	-0.0727 ppb	15:22:08
3	Be 313.107†	-835.4	236.0	0.0659	µg/L	0.0659 ppb	15:21:48
3	Cd 226.502†	-87.4	13.8	0.0927	µg/L	0.0927 ppb	15:22:08
3	Co 228.616†	-189.1	16.6	0.2194	µg/L	0.2194 ppb	15:22:08
3	Cr 267.716†	236.1	8.6	0.0811	µg/L	0.0811 ppb	15:22:08
3	Cu 324.752†	2885.9	-80.1	-0.3407	µg/L	-0.3407 ppb	15:21:48
3	Mn 257.610†	248.1	69.4	0.0922	µg/L	0.0922 ppb	15:22:08
3	Mo 202.031†	-25.6	12.3	0.4036	µg/L	0.4036 ppb	15:22:08
3	Ni 231.604†	-76.0	18.1	0.2263	µg/L	0.2263 ppb	15:22:08
3	P 214.914†	18.0	44.2	10.223	µg/L	10.223 ppb	15:22:08
3	Pb 220.353†	114.5	13.8	0.8550	µg/L	0.8550 ppb	15:22:08
3	S 181.975 Axial†	89.8	3.1	2.5869	µg/L	2.5869 ppb	15:22:08
3	Sb 206.836†	52.6	-35.9	-4.6212	µg/L	-4.6212 ppb	15:22:08
3	Se 196.026†	10.6	4.7	1.84	µg/L	1.84 ppb	15:22:08
3	SiO2†	1960.1	268.6	28.419	µg/L	28.419 ppb	15:22:08
3	Si 251.611†	1543.3	813.7	12.819	µg/L	12.819 ppb	15:21:48
3	Sn 189.927†	17.6	16.1	1.1189	µg/L	1.1189 ppb	15:22:08
3	Ti 334.940†	775.0	-29.1	-0.0260	µg/L	-0.0260 ppb	15:21:48
3	Tl 190.801†	-118.8	-7.4	-1.0096	µg/L	-1.0096 ppb	15:22:08
3	U 409.014†	-284.9	-128.5	-8.1345	µg/L	-8.1345 ppb	15:21:48
3	V 292.402†	330.4	-84.8	-0.4413	µg/L	-0.4413 ppb	15:21:48
3	Zn 213.857†	563.4	74.1	0.4403	µg/L	0.4403 ppb	15:22:08

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1780157.7	98.670	%	0.9359				0.95%
Sc RADIAL	136254.5	97.3	%	0.80				0.82%
Y 371.029	1045546.0	98.889	%	0.9224				0.93%
Ag 328.068†	-445.8	-1.8458	µg/L	0.44262	-1.8458	ppb	0.44262	23.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.4	1.0978	µg/L	7.28185	1.0978	ppb	7.28185	663.34%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.9	1.9853	µg/L	1.25818	1.9853	ppb	1.25818	63.37%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-9.9	-0.1554	µg/L	2.56077	-0.1554	ppb	2.56077	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-23.7	-0.1056	µg/L	0.05933	-0.1056	ppb	0.05933	56.20%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	438.2	0.1230	µg/L	0.05051	0.1230	ppb	0.05051	41.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	154.9	10.548	µg/L	1.1467	10.548	ppb	1.1467	10.87%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.5	0.1108	µg/L	0.15765	0.1108	ppb	0.15765	142.28%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.8	0.2487	µg/L	0.06332	0.2487	ppb	0.06332	25.45%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              21.8      0.1988 µg/L       0.11401      0.1988 ppb        0.11401  57.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -156.6     -0.6644 µg/L       0.44514     -0.6644 ppb        0.44514  67.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       95.2      7.1113 µg/L       3.52365      7.1113 ppb        3.52365  49.55%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       216.4      85.731 µg/L        3.7322      85.731 ppb         3.7322   4.35%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -3.3     -1.5337 µg/L       3.80990     -1.5337 ppb        3.80990 248.41%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              86.7      0.1151 µg/L       0.02841      0.1151 ppb        0.02841  24.68%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              19.2      0.6271 µg/L       0.31330      0.6271 ppb        0.31330  49.96%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      297.6      46.053 µg/L       10.5836      46.053 ppb        10.5836  22.98%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              26.2      0.3283 µg/L       0.08842      0.3283 ppb        0.08842  26.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               46.2      10.691 µg/L        2.1524      10.691 ppb         2.1524  20.13%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               8.5      0.5355 µg/L       0.27689      0.5355 ppb        0.27689  51.71%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.0      5.0491 µg/L       2.99464      5.0491 ppb        2.99464  59.31%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -9.4     -1.2084 µg/L       2.98620     -1.2084 ppb        2.98620 247.11%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              12.8        5.02 µg/L         2.819        5.02 ppb          2.819  56.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   217.3      22.979 µg/L        5.2170      22.979 ppb         5.2170  22.70%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             705.1      11.106 µg/L        1.5488      11.106 ppb         1.5488  13.95%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              10.5      0.7267 µg/L       0.52636      0.7267 ppb        0.52636  72.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -67.2     -0.1586 µg/L       0.02639     -0.1586 ppb        0.02639  16.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              39.6      0.0463 µg/L       0.06750      0.0463 ppb        0.06750 145.85%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -6.2     -0.8444 µg/L       0.27775     -0.8444 ppb        0.27775  32.89%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -204.6     -12.933 µg/L        4.6646     -12.933 ppb         4.6646  36.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -79.8     -0.4156 µg/L       0.07494     -0.4156 ppb        0.07494  18.03%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              83.4      0.4956 µg/L       0.05584      0.4956 ppb        0.05584  11.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 4/5/2010 15:42:54 Plasma On Time: 3/29/2010 18:07:58
Logged In Analyst: optima4 Technique: ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

Sequence No.: 1 Autosampler Location: 1
Sample ID: CCV Date Collected: 4/5/2010 15:42:57
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	133098.2	133098.2	95.0	%			15:43:30
1	Al 396.153Radial†	22310.8	23561.9	4937.2	µg/L	4937.2	ppb	15:43:30
1	Ca 317.933Radial†	71359.4	74538.2	5076.7	µg/L	5076.7	ppb	15:43:30
1	Fe 238.204 Radial†	64321.7	67584.7	5047.2	µg/L	5047.2	ppb	15:43:30
1	K 766.490 Radial†	13802.7	13034.3	5160.7	µg/L	5160.7	ppb	15:43:30
1	Mg 279.077 IEC†	10584.3	10968.1	5072.4	µg/L	5072.4	ppb	15:43:30
1	Na 589.592 Radial†	62503.8	64836.0	10046	µg/L	10046	ppb	15:43:30
1	Sr 421.552†	203729.3	214640.5	506.18	µg/L	506.18	ppb	15:43:28
1	Sc 361.383	1759748.6	1759748.6	97.539	%			15:43:57
1	Y 371.029	1022541.1	1022541.1	96.713	%			15:43:57
1	Ag 328.068†	123986.7	122550.1	507.93	µg/L	507.93	ppb	15:43:57
1	As 188.979†	1302.6	1354.0	465.30	µg/L	465.30	ppb	15:44:17
1	B 249.677†	35597.8	32430.9	502.58	µg/L	502.58	ppb	15:43:57
1	Ba 233.527†	109603.2	112513.4	500.52	µg/L	500.52	ppb	15:43:57
1	Be 313.107†	1653891.1	1696715.9	491.63	µg/L	491.63	ppb	15:43:57
1	Cd 226.502†	73821.0	75787.1	511.92	µg/L	511.92	ppb	15:43:57
1	Co 228.616†	37551.5	38709.3	512.36	µg/L	512.36	ppb	15:43:57
1	Cr 267.716†	57002.2	58207.4	503.45	µg/L	503.45	ppb	15:43:57
1	Cu 324.752†	119682.7	119666.6	502.07	µg/L	502.07	ppb	15:43:57
1	Mn 257.610†	371928.9	381129.1	505.37	µg/L	505.37	ppb	15:43:57
1	Mo 202.031†	15009.1	15426.4	504.96	µg/L	504.96	ppb	15:44:17
1	Ni 231.604†	39713.1	40811.1	510.60	µg/L	510.60	ppb	15:43:57
1	P 214.914†	10634.3	10928.3	2519.3	µg/L	2519.3	ppb	15:44:17
1	Pb 220.353†	8173.8	8276.6	510.91	µg/L	510.91	ppb	15:44:17
1	S 181.975 Axial†	1265.3	1208.3	1020.7	µg/L	1020.7	ppb	15:44:17
1	Sb 206.836†	3875.9	3883.9	501.98	µg/L	501.98	ppb	15:44:17
1	Se 196.026†	1254.0	1279.5	506	µg/L	506	ppb	15:44:17
1	SiO2†	51108.8	50659.4	5343.1	µg/L	5343.1	ppb	15:43:57
1	Si 251.611†	156396.8	159576.1	2506.3	µg/L	2506.3	ppb	15:43:57
1	Sn 189.927†	7025.5	7200.9	501.17	µg/L	501.17	ppb	15:44:17
1	Ti 334.940†	475896.4	487081.8	499.64	µg/L	499.64	ppb	15:43:57
1	Tl 190.801†	3474.4	3676.3	509.51	µg/L	509.51	ppb	15:44:17
1	U 409.014†	6737.3	7070.7	476.83	µg/L	476.83	ppb	15:43:57
1	V 292.402†	94824.6	96794.1	508.37	µg/L	508.37	ppb	15:43:57
1	Zn 213.857†	83913.0	85527.5	506.73	µg/L	506.73	ppb	15:43:57
2	Sc RADIAL	135909.6	135909.6	97.0	%			15:43:34
2	Al 396.153Radial†	22841.9	23623.5	4950.0	µg/L	4950.0	ppb	15:43:34
2	Ca 317.933Radial†	73611.7	75306.1	5129.0	µg/L	5129.0	ppb	15:43:34
2	Fe 238.204 Radial†	65897.2	67808.2	5063.9	µg/L	5063.9	ppb	15:43:34
2	K 766.490 Radial†	13984.3	12920.9	5115.7	µg/L	5115.7	ppb	15:43:34
2	Mg 279.077 IEC†	10995.0	11161.0	5161.6	µg/L	5161.6	ppb	15:43:34
2	Na 589.592 Radial†	64364.3	65393.0	10132	µg/L	10132	ppb	15:43:34
2	Sr 421.552†	203456.2	209923.1	495.06	µg/L	495.06	ppb	15:43:32
2	Sc 361.383	1751043.9	1751043.9	97.056	%			15:44:20
2	Y 371.029	1017854.7	1017854.7	96.269	%			15:44:20
2	Ag 328.068†	123125.9	122295.1	506.88	µg/L	506.88	ppb	15:44:20
2	As 188.979†	1326.5	1385.3	475.88	µg/L	475.88	ppb	15:44:40

2	B 249.677†	35241.1	32244.9	499.69 µg/L	499.69 ppb	15:44:20
2	Ba 233.527†	108697.6	112139.0	498.86 µg/L	498.86 ppb	15:44:20
2	Be 313.107†	1640185.8	1691024.1	489.98 µg/L	489.98 ppb	15:44:20
2	Cd 226.502†	72978.6	75295.4	508.59 µg/L	508.59 ppb	15:44:20
2	Co 228.616†	37280.3	38621.3	511.19 µg/L	511.19 ppb	15:44:20
2	Cr 267.716†	56788.5	58277.7	504.06 µg/L	504.06 ppb	15:44:20
2	Cu 324.752†	118955.9	119527.7	501.49 µg/L	501.49 ppb	15:44:20
2	Mn 257.610†	368785.8	379786.3	503.59 µg/L	503.59 ppb	15:44:20
2	Mo 202.031†	15070.2	15565.9	509.53 µg/L	509.53 ppb	15:44:40
2	Ni 231.604†	39249.9	40536.2	507.16 µg/L	507.16 ppb	15:44:20
2	P 214.914†	10673.2	11022.6	2541.1 µg/L	2541.1 ppb	15:44:40
2	Pb 220.353†	8193.4	8338.4	514.73 µg/L	514.73 ppb	15:44:40
2	S 181.975 Axial†	1261.3	1210.7	1022.8 µg/L	1022.8 ppb	15:44:40
2	Sb 206.836†	3892.0	3920.3	506.72 µg/L	506.72 ppb	15:44:40
2	Se 196.026†	1271.0	1303.4	516 µg/L	516 ppb	15:44:40
2	SiO2†	50633.7	50430.4	5318.7 µg/L	5318.7 ppb	15:44:20
2	Si 251.611†	155056.1	158991.9	2497.0 µg/L	2497.0 ppb	15:44:20
2	Sn 189.927†	7035.5	7246.9	504.36 µg/L	504.36 ppb	15:44:40
2	Ti 334.940†	472243.0	485743.1	498.26 µg/L	498.26 ppb	15:44:20
2	Tl 190.801†	3505.4	3726.0	516.27 µg/L	516.27 ppb	15:44:40
2	U 409.014†	6674.5	7040.3	474.90 µg/L	474.90 ppb	15:44:20
2	V 292.402†	94349.4	96787.8	508.38 µg/L	508.38 ppb	15:44:20
2	Zn 213.857†	83090.8	85108.0	504.25 µg/L	504.25 ppb	15:44:20
3	Sc RADIAL	133727.0	133727.0	95.5 %		15:43:38
3	Al 396.153Radial†	22511.9	23662.1	4958.0 µg/L	4958.0 ppb	15:43:38
3	Ca 317.933Radial†	72508.3	75388.6	5134.6 µg/L	5134.6 ppb	15:43:38
3	Fe 238.204 Radial†	65003.6	67980.7	5076.8 µg/L	5076.8 ppb	15:43:38
3	K 766.490 Radial†	13744.7	12905.2	5109.5 µg/L	5109.5 ppb	15:43:38
3	Mg 279.077 IEC†	10782.2	11123.1	5144.1 µg/L	5144.1 ppb	15:43:38
3	Na 589.592 Radial†	63336.6	65399.2	10133 µg/L	10133 ppb	15:43:38
3	Sr 421.552†	204462.4	214400.2	505.62 µg/L	505.62 ppb	15:43:36
3	Sc 361.383	1741792.1	1741792.1	96.543 %		15:44:43
3	Y 371.029	1012334.8	1012334.8	95.747 %		15:44:43
3	Ag 328.068†	122718.9	122547.4	507.96 µg/L	507.96 ppb	15:44:43
3	As 188.979†	1317.8	1383.5	475.30 µg/L	475.30 ppb	15:45:03
3	B 249.677†	35269.9	32467.5	503.15 µg/L	503.15 ppb	15:44:43
3	Ba 233.527†	108564.9	112596.4	500.89 µg/L	500.89 ppb	15:44:43
3	Be 313.107†	1636785.0	1696477.9	491.57 µg/L	491.57 ppb	15:44:43
3	Cd 226.502†	72741.5	75449.2	509.63 µg/L	509.63 ppb	15:44:43
3	Co 228.616†	37186.3	38728.0	512.61 µg/L	512.61 ppb	15:44:43
3	Cr 267.716†	56645.7	58440.5	505.45 µg/L	505.45 ppb	15:44:43
3	Cu 324.752†	118602.9	119813.1	502.70 µg/L	502.70 ppb	15:44:43
3	Mn 257.610†	368717.3	381733.6	506.17 µg/L	506.17 ppb	15:44:43
3	Mo 202.031†	15029.6	15606.3	510.85 µg/L	510.85 ppb	15:45:03
3	Ni 231.604†	39158.4	40656.3	508.66 µg/L	508.66 ppb	15:44:43
3	P 214.914†	10634.2	11040.6	2545.3 µg/L	2545.3 ppb	15:45:03
3	Pb 220.353†	8195.6	8385.5	517.62 µg/L	517.62 ppb	15:45:03
3	S 181.975 Axial†	1270.0	1226.5	1036.1 µg/L	1036.1 ppb	15:45:03
3	Sb 206.836†	3894.0	3943.7	509.75 µg/L	509.75 ppb	15:45:03
3	Se 196.026†	1257.1	1295.9	513 µg/L	513 ppb	15:45:03
3	SiO2†	50604.8	50677.5	5344.8 µg/L	5344.8 ppb	15:44:43
3	Si 251.611†	154855.5	159632.7	2507.1 µg/L	2507.1 ppb	15:44:43
3	Sn 189.927†	7013.8	7263.0	505.48 µg/L	505.48 ppb	15:45:03
3	Ti 334.940†	471508.6	487566.9	500.12 µg/L	500.12 ppb	15:44:43
3	Tl 190.801†	3476.1	3714.8	514.78 µg/L	514.78 ppb	15:45:03
3	U 409.014†	6981.4	7394.7	497.38 µg/L	497.38 ppb	15:44:43
3	V 292.402†	94174.0	97122.5	510.15 µg/L	510.15 ppb	15:44:43
3	Zn 213.857†	83052.8	85523.3	506.72 µg/L	506.72 ppb	15:44:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1750861.5	97.046	%	0.4977				0.51%
Sc RADIAL	134244.9	95.8	%	1.05				1.10%
Y 371.029	1017576.8	96.243	%	0.4832				0.50%
Ag 328.068†	122464.2	507.59	µg/L	0.614	507.59	ppb	0.614	0.12%
QC value within limits for Ag 328.068 Recovery = 101.52%								
Al 396.153Radial†	23615.8	4948.4	µg/L	10.51	4948.4	ppb	10.51	0.21%
QC value within limits for Al 396.153Radial Recovery = 98.97%								
As 188.979†	1374.3	472.16	µg/L	5.950	472.16	ppb	5.950	1.26%

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   QC value within limits for As 188.979  Recovery = 94.43%
B 249.677†            32381.1      501.81 µg/L        1.854      501.81 ppb          1.854   0.37%
   QC value within limits for B 249.677  Recovery = 100.36%
Ba 233.527†          112416.3      500.09 µg/L        1.083      500.09 ppb          1.083   0.22%
   QC value within limits for Ba 233.527  Recovery = 100.02%
Be 313.107†         1694739.3      491.06 µg/L        0.935      491.06 ppb          0.935   0.19%
   QC value within limits for Be 313.107  Recovery = 98.21%
Ca 317.933Radial†      75077.6      5113.5 µg/L       31.94      5113.5 ppb         31.94   0.62%
   QC value within limits for Ca 317.933Radial  Recovery = 102.27%
Cd 226.502†            75510.6      510.04 µg/L        1.702      510.04 ppb          1.702   0.33%
   QC value within limits for Cd 226.502  Recovery = 102.01%
Co 228.616†            38686.2      512.05 µg/L        0.755      512.05 ppb          0.755   0.15%
   QC value within limits for Co 228.616  Recovery = 102.41%
Cr 267.716†            58308.5      504.32 µg/L        1.026      504.32 ppb          1.026   0.20%
   QC value within limits for Cr 267.716  Recovery = 100.86%
Cu 324.752†           119669.1      502.09 µg/L        0.607      502.09 ppb          0.607   0.12%
   QC value within limits for Cu 324.752  Recovery = 100.42%
Fe 238.204 Radial†     67791.2      5062.6 µg/L       14.83      5062.6 ppb         14.83   0.29%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.25%
K 766.490 Radial†      12953.5      5128.6 µg/L       27.93      5128.6 ppb         27.93   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 102.57%
Mg 279.077 IEC†        11084.1      5126.0 µg/L       47.25      5126.0 ppb         47.25   0.92%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.52%
Mn 257.610†           380883.0      505.04 µg/L        1.323      505.04 ppb          1.323   0.26%
   QC value within limits for Mn 257.610  Recovery = 101.01%
Mo 202.031†            15532.8      508.45 µg/L        3.089      508.45 ppb          3.089   0.61%
   QC value within limits for Mo 202.031  Recovery = 101.69%
Na 589.592 Radial†     65209.4       10103 µg/L         50.1       10103 ppb           50.1   0.50%
   QC value within limits for Na 589.592 Radial  Recovery = 101.03%
Ni 231.604†            40667.9      508.81 µg/L        1.724      508.81 ppb          1.724   0.34%
   QC value within limits for Ni 231.604  Recovery = 101.76%
P 214.914†             10997.2      2535.2 µg/L       13.93      2535.2 ppb         13.93   0.55%
   QC value within limits for P 214.914  Recovery = 101.41%
Pb 220.353†             8333.5      514.42 µg/L        3.363      514.42 ppb          3.363   0.65%
   QC value within limits for Pb 220.353  Recovery = 102.88%
S 181.975 Axial†        1215.1      1026.5 µg/L        8.36      1026.5 ppb          8.36   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 102.65%
Sb 206.836†             3916.0      506.15 µg/L        3.917      506.15 ppb          3.917   0.77%
   QC value within limits for Sb 206.836  Recovery = 101.23%
Se 196.026†             1292.9         512 µg/L         4.8         512 ppb            4.8   0.94%
   QC value within limits for Se 196.026  Recovery = 102.31%
SiO2†                  50589.1      5335.5 µg/L       14.62      5335.5 ppb         14.62   0.27%
   QC value within limits for SiO2  Recovery = 99.78%
Si 251.611†           159400.2      2503.5 µg/L        5.61      2503.5 ppb          5.61   0.22%
   QC value within limits for Si 251.611  Recovery = 100.14%
Sn 189.927†             7237.0      503.67 µg/L        2.236      503.67 ppb          2.236   0.44%
   QC value within limits for Sn 189.927  Recovery = 100.73%
Sr 421.552†           212987.9      502.28 µg/L        6.266      502.28 ppb          6.266   1.25%
   QC value within limits for Sr 421.552  Recovery = 100.46%
Ti 334.940†           486797.3      499.34 µg/L        0.968      499.34 ppb          0.968   0.19%
   QC value within limits for Ti 334.940  Recovery = 99.87%
Tl 190.801†             3705.7      513.52 µg/L        3.555      513.52 ppb          3.555   0.69%
   QC value within limits for Tl 190.801  Recovery = 102.70%
U 409.014†              7168.6      483.04 µg/L       12.456      483.04 ppb         12.456   2.58%
   QC value within limits for U 409.014  Recovery = 96.61%
V 292.402†             96901.4      508.97 µg/L        1.024      508.97 ppb          1.024   0.20%
   QC value within limits for V 292.402  Recovery = 101.79%
Zn 213.857†            85386.2      505.90 µg/L        1.430      505.90 ppb          1.430   0.28%
   QC value within limits for Zn 213.857  Recovery = 101.18%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 15:45:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137482.7	137482.7	98.1	%			15:45:43
1	Al 396.153Radial†	-100.7	-24.1	-5.0958	µg/L	-5.0958	ppb	15:46:03
1	Ca 317.933Radial†	635.3	76.0	5.1731	µg/L	5.1731	ppb	15:46:03
1	Fe 238.204 Radial†	150.4	35.9	2.6831	µg/L	2.6831	ppb	15:46:03
1	K 766.490 Radial†	1592.5	129.0	51.094	µg/L	51.094	ppb	15:45:43
1	Mg 279.077 IEC†	152.3	-17.3	-7.9711	µg/L	-7.9711	ppb	15:46:03
1	Na 589.592 Radial†	1222.2	292.9	45.353	µg/L	45.353	ppb	15:45:43
1	Sr 421.552†	-150.5	51.1	0.1206	µg/L	0.1206	ppb	15:45:43
1	Sc 361.383	1772363.7	1772363.7	98.238	%			15:47:04
1	Y 371.029	1040302.4	1040302.4	98.393	%			15:47:04
1	Ag 328.068†	4076.6	-415.4	-1.7134	µg/L	-1.7134	ppb	15:47:07
1	As 188.979†	-19.8	-1.6	-0.5389	µg/L	-0.5389	ppb	15:47:27
1	B 249.677†	4006.5	13.2	0.2039	µg/L	0.2039	ppb	15:47:07
1	Ba 233.527†	-164.3	-22.7	-0.1008	µg/L	-0.1008	ppb	15:47:27
1	Be 313.107†	-716.7	362.2	0.1019	µg/L	0.1019	ppb	15:47:07
1	Cd 226.502†	-72.7	29.4	0.1984	µg/L	0.1984	ppb	15:47:27
1	Co 228.616†	-175.8	31.4	0.4147	µg/L	0.4147	ppb	15:47:27
1	Cr 267.716†	244.5	15.7	0.1438	µg/L	0.1438	ppb	15:47:27
1	Cu 324.752†	2811.8	-173.9	-0.7351	µg/L	-0.7351	ppb	15:47:07
1	Mn 257.610†	192.2	10.9	0.0148	µg/L	0.0148	ppb	15:47:27
1	Mo 202.031†	-24.6	13.5	0.4431	µg/L	0.4431	ppb	15:47:27
1	Ni 231.604†	-67.5	27.2	0.3401	µg/L	0.3401	ppb	15:47:27
1	P 214.914†	19.9	46.0	10.633	µg/L	10.633	ppb	15:47:27
1	Pb 220.353†	123.7	22.4	1.3877	µg/L	1.3877	ppb	15:47:27
1	S 181.975 Axial†	96.1	8.9	7.5101	µg/L	7.5101	ppb	15:47:27
1	Sb 206.836†	79.4	-8.8	-1.1363	µg/L	-1.1363	ppb	15:47:27
1	Se 196.026†	16.4	10.6	4.16	µg/L	4.16	ppb	15:47:27
1	SiO2†	1750.1	42.4	4.4782	µg/L	4.4782	ppb	15:47:27
1	Si 251.611†	784.8	31.9	0.4952	µg/L	0.4952	ppb	15:47:07
1	Sn 189.927†	4.6	2.8	0.1907	µg/L	0.1907	ppb	15:47:27
1	Ti 334.940†	774.1	-35.0	-0.0311	µg/L	-0.0311	ppb	15:47:07
1	Tl 190.801†	-119.8	-7.7	-1.0533	µg/L	-1.0533	ppb	15:47:27
1	U 409.014†	-316.6	-159.0	-10.034	µg/L	-10.034	ppb	15:47:07
1	V 292.402†	408.8	-7.1	-0.0385	µg/L	-0.0385	ppb	15:47:07
1	Zn 213.857†	552.3	59.2	0.3517	µg/L	0.3517	ppb	15:47:27
2	Sc RADIAL	137847.2	137847.2	98.4	%			15:46:05
2	Al 396.153Radial†	-81.9	-4.7	-1.0206	µg/L	-1.0206	ppb	15:46:25
2	Ca 317.933Radial†	627.0	65.8	4.4790	µg/L	4.4790	ppb	15:46:25
2	Fe 238.204 Radial†	143.1	28.1	2.1004	µg/L	2.1004	ppb	15:46:25
2	K 766.490 Radial†	1465.2	-4.7	-1.8903	µg/L	-1.8903	ppb	15:46:05
2	Mg 279.077 IEC†	173.0	3.3	1.5568	µg/L	1.5568	ppb	15:46:25
2	Na 589.592 Radial†	1236.5	304.1	47.146	µg/L	47.146	ppb	15:46:05
2	Sr 421.552†	-206.9	-5.8	-0.0136	µg/L	-0.0136	ppb	15:46:05
2	Sc 361.383	1766618.9	1766618.9	97.920	%			15:47:29
2	Y 371.029	1037725.2	1037725.2	98.149	%			15:47:29
2	Ag 328.068†	4183.1	-293.2	-1.2037	µg/L	-1.2037	ppb	15:47:31
2	As 188.979†	-21.3	-3.2	-1.0848	µg/L	-1.0848	ppb	15:47:51
2	B 249.677†	4133.4	156.0	2.4266	µg/L	2.4266	ppb	15:47:31
2	Ba 233.527†	-164.4	-23.3	-0.1038	µg/L	-0.1038	ppb	15:47:51
2	Be 313.107†	-575.1	504.4	0.1459	µg/L	0.1459	ppb	15:47:31
2	Cd 226.502†	-74.0	27.8	0.1880	µg/L	0.1880	ppb	15:47:51
2	Co 228.616†	-203.7	2.3	0.0303	µg/L	0.0303	ppb	15:47:51
2	Cr 267.716†	242.2	14.2	0.1230	µg/L	0.1230	ppb	15:47:51
2	Cu 324.752†	2826.5	-149.5	-0.6256	µg/L	-0.6256	ppb	15:47:31
2	Mn 257.610†	206.7	26.4	0.0349	µg/L	0.0349	ppb	15:47:51
2	Mo 202.031†	-22.5	15.6	0.5106	µg/L	0.5106	ppb	15:47:51
2	Ni 231.604†	-59.9	34.8	0.4349	µg/L	0.4349	ppb	15:47:51
2	P 214.914†	16.0	42.0	9.7148	µg/L	9.7148	ppb	15:47:51
2	Pb 220.353†	107.5	6.4	0.3937	µg/L	0.3937	ppb	15:47:51

2	S 181.975 Axial†	92.7	5.7	4.8364 µg/L	4.8364 ppb	15:47:51
2	Sb 206.836†	75.9	-12.2	-1.5651 µg/L	-1.5651 ppb	15:47:51
2	Se 196.026†	9.4	3.4	1.34 µg/L	1.34 ppb	15:47:51
2	SiO2†	1717.3	14.7	1.5425 µg/L	1.5425 ppb	15:47:51
2	Si 251.611†	958.9	212.2	3.3386 µg/L	3.3386 ppb	15:47:31
2	Sn 189.927†	3.7	1.9	0.1343 µg/L	0.1343 ppb	15:47:51
2	Ti 334.940†	689.3	-119.1	-0.1221 µg/L	-0.1221 ppb	15:47:31
2	Tl 190.801†	-113.8	-2.0	-0.2726 µg/L	-0.2726 ppb	15:47:51
2	U 409.014†	-170.0	-10.2	-0.6568 µg/L	-0.6568 ppb	15:47:31
2	V 292.402†	372.6	-42.7	-0.2160 µg/L	-0.2160 ppb	15:47:31
2	Zn 213.857†	529.8	38.1	0.2249 µg/L	0.2249 ppb	15:47:51
3	Sc RADIAL	135226.3	135226.3	96.5 %		15:46:27
3	Al 396.153Radial†	-80.7	-5.0	-1.0788 µg/L	-1.0788 ppb	15:46:47
3	Ca 317.933Radial†	635.8	87.3	5.9451 µg/L	5.9451 ppb	15:46:47
3	Fe 238.204 Radial†	138.2	25.9	1.9354 µg/L	1.9354 ppb	15:46:47
3	K 766.490 Radial†	1553.6	115.7	45.838 µg/L	45.838 ppb	15:46:27
3	Mg 279.077 IEC†	156.0	-10.8	-4.9889 µg/L	-4.9889 ppb	15:46:47
3	Na 589.592 Radial†	1091.9	178.7	27.664 µg/L	27.664 ppb	15:46:27
3	Sr 421.552†	-209.8	-12.8	-0.0303 µg/L	-0.0303 ppb	15:46:27
3	Sc 361.383	1780363.2	1780363.2	98.681 %		15:47:53
3	Y 371.029	1045882.5	1045882.5	98.920 %		15:47:53
3	Ag 328.068†	4206.0	-302.9	-1.2654 µg/L	-1.2654 ppb	15:47:55
3	As 188.979†	-13.8	4.6	1.5490 µg/L	1.5490 ppb	15:48:15
3	B 249.677†	4177.4	168.1	2.6137 µg/L	2.6137 ppb	15:47:55
3	Ba 233.527†	-192.0	-50.0	-0.2218 µg/L	-0.2218 ppb	15:48:15
3	Be 313.107†	-542.2	542.3	0.1495 µg/L	0.1495 ppb	15:47:55
3	Cd 226.502†	-89.5	12.7	0.0856 µg/L	0.0856 ppb	15:48:15
3	Co 228.616†	-188.0	19.8	0.2618 µg/L	0.2618 ppb	15:48:15
3	Cr 267.716†	266.3	36.7	0.3374 µg/L	0.3374 ppb	15:48:15
3	Cu 324.752†	2890.1	-107.4	-0.4697 µg/L	-0.4697 ppb	15:47:55
3	Mn 257.610†	241.7	60.2	0.0800 µg/L	0.0800 ppb	15:48:15
3	Mo 202.031†	-27.6	10.6	0.3472 µg/L	0.3472 ppb	15:48:15
3	Ni 231.604†	-75.2	19.7	0.2470 µg/L	0.2470 ppb	15:48:15
3	P 214.914†	24.9	50.9	11.780 µg/L	11.780 ppb	15:48:15
3	Pb 220.353†	118.9	17.1	1.0706 µg/L	1.0706 ppb	15:48:15
3	S 181.975 Axial†	93.7	6.0	5.0404 µg/L	5.0404 ppb	15:48:15
3	Sb 206.836†	72.2	-16.5	-2.1256 µg/L	-2.1256 ppb	15:48:15
3	Se 196.026†	0.8	-5.3	-2.13 µg/L	-2.13 ppb	15:48:15
3	SiO2†	1726.6	10.6	1.0944 µg/L	1.0944 ppb	15:48:15
3	Si 251.611†	890.9	135.8	2.1284 µg/L	2.1284 ppb	15:47:55
3	Sn 189.927†	18.8	17.2	1.1898 µg/L	1.1898 ppb	15:48:15
3	Ti 334.940†	831.1	19.2	0.0305 µg/L	0.0305 ppb	15:47:55
3	Tl 190.801†	-129.7	-17.2	-2.3405 µg/L	-2.3405 ppb	15:48:15
3	U 409.014†	-555.3	-399.3	-25.171 µg/L	-25.171 ppb	15:47:55
3	V 292.402†	510.9	94.5	0.4775 µg/L	0.4775 ppb	15:47:55
3	Zn 213.857†	554.3	58.7	0.3489 µg/L	0.3489 ppb	15:48:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1773115.3	98.280	%	0.3826				0.39%
Sc RADIAL	136852.1	97.7	%	1.01				1.04%
Y 371.029	1041303.4	98.487	%	0.3944				0.40%
Ag 328.068†	-337.2	-1.3942	µg/L	0.27817	-1.3942	ppb	0.27817	19.95%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-11.3	-2.3984	µg/L	2.33618	-2.3984	ppb	2.33618	97.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.0249	µg/L	1.39008	-0.0249	ppb	1.39008	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	112.5	1.7481	µg/L	1.34056	1.7481	ppb	1.34056	76.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-32.0	-0.1421	µg/L	0.06904	-0.1421	ppb	0.06904	48.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	469.6	0.1324	µg/L	0.02651	0.1324	ppb	0.02651	20.01%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	76.3	5.1991	µg/L	0.73339	5.1991	ppb	0.73339	14.11%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.3	0.1573	µg/L	0.06232	0.1573	ppb	0.06232	39.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.8	0.2356	µg/L	0.19354	0.2356	ppb	0.19354	82.13%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              22.2      0.2014 µg/L       0.11822      0.2014 ppb        0.11822  58.70%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -143.6     -0.6101 µg/L       0.13336     -0.6101 ppb        0.13336  21.86%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       30.0      2.2396 µg/L       0.39285      2.2396 ppb        0.39285  17.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        80.0      31.681 µg/L       29.1919      31.681 ppb        29.1919  92.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -8.3     -3.8011 µg/L       4.87373     -3.8011 ppb        4.87373 128.22%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              32.5      0.0433 µg/L       0.03339      0.0433 ppb        0.03339  77.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              13.3      0.4336 µg/L       0.08210      0.4336 ppb        0.08210  18.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      258.6      40.055 µg/L       10.7676      40.055 ppb        10.7676  26.88%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              27.2      0.3406 µg/L       0.09394      0.3406 ppb        0.09394  27.58%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               46.3      10.709 µg/L        1.0350      10.709 ppb         1.0350   9.66%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              15.3      0.9507 µg/L       0.50776      0.9507 ppb        0.50776  53.41%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.9      5.7956 µg/L       1.48827      5.7956 ppb        1.48827  25.68%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -12.5     -1.6090 µg/L       0.49608     -1.6090 ppb        0.49608  30.83%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.9        1.12 µg/L         3.148        1.12 ppb          3.148 280.27%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    22.6      2.3717 µg/L       1.83795      2.3717 ppb        1.83795  77.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             126.6      1.9874 µg/L       1.42694      1.9874 ppb        1.42694  71.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.3      0.5050 µg/L       0.59378      0.5050 ppb        0.59378 117.59%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              10.8      0.0255 µg/L       0.08273      0.0255 ppb        0.08273 323.94%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -45.0     -0.0409 µg/L       0.07673     -0.0409 ppb        0.07673 187.58%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -8.9     -1.2221 µg/L       1.04426     -1.2221 ppb        1.04426  85.44%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -189.5     -11.954 µg/L       12.3693     -11.954 ppb        12.3693 103.48%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               14.9      0.0743 µg/L       0.36030      0.0743 ppb        0.36030 484.73%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              52.0      0.3085 µg/L       0.07240      0.3085 ppb        0.07240  23.47%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 16:01:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137441.1	137441.1	98.1	%			16:02:25
1	Al 396.153Radial†	23126.1	23650.9	4956.1	µg/L	4956.1	ppb	16:02:25
1	Ca 317.933Radial†	74181.8	75041.7	5111.0	µg/L	5111.0	ppb	16:02:25
1	Fe 238.204 Radial†	66736.2	67906.6	5071.2	µg/L	5071.2	ppb	16:02:25
1	K 766.490 Radial†	14052.6	12829.9	5079.7	µg/L	5079.7	ppb	16:02:25
1	Mg 279.077 IEC†	11050.2	11091.0	5129.0	µg/L	5129.0	ppb	16:02:25
1	Na 589.592 Radial†	64869.6	65168.8	10097	µg/L	10097	ppb	16:02:25
1	Sr 421.552†	206264.5	210448.8	496.30	µg/L	496.30	ppb	16:02:23
1	Sc 361.383	1780080.9	1780080.9	98.666	%			16:02:38
1	Y 371.029	1034406.0	1034406.0	97.835	%			16:02:38
1	Ag 328.068†	125469.6	122601.1	508.16	µg/L	508.16	ppb	16:02:38
1	As 188.979†	1329.9	1366.4	469.48	µg/L	469.48	ppb	16:02:58
1	B 249.677†	35597.1	32013.3	496.09	µg/L	496.09	ppb	16:02:38
1	Ba 233.527†	110724.9	112366.8	499.87	µg/L	499.87	ppb	16:02:38
1	Be 313.107†	1670454.9	1694136.1	490.89	µg/L	490.89	ppb	16:02:38
1	Cd 226.502†	74260.9	75368.4	509.08	µg/L	509.08	ppb	16:02:38
1	Co 228.616†	37941.6	38664.9	511.77	µg/L	511.77	ppb	16:02:38
1	Cr 267.716†	57712.7	58259.9	503.89	µg/L	503.89	ppb	16:02:38
1	Cu 324.752†	120967.7	119567.4	501.67	µg/L	501.67	ppb	16:02:38
1	Mn 257.610†	375204.5	380093.6	504.00	µg/L	504.00	ppb	16:02:38
1	Mo 202.031†	15082.1	15324.6	501.64	µg/L	501.64	ppb	16:02:58
1	Ni 231.604†	39829.9	40464.4	506.26	µg/L	506.26	ppb	16:02:38
1	P 214.914†	10597.0	10766.0	2481.8	µg/L	2481.8	ppb	16:02:58
1	Pb 220.353†	8148.5	8155.2	503.42	µg/L	503.42	ppb	16:02:58
1	S 181.975 Axial†	1264.3	1192.4	1007.4	µg/L	1007.4	ppb	16:02:58
1	Sb 206.836†	3883.0	3845.8	497.00	µg/L	497.00	ppb	16:02:58
1	Se 196.026†	1257.4	1268.2	502	µg/L	502	ppb	16:02:58
1	SiO2†	51490.2	50447.4	5320.9	µg/L	5320.9	ppb	16:02:38
1	Si 251.611†	158107.4	159478.4	2504.8	µg/L	2504.8	ppb	16:02:38
1	Sn 189.927†	7030.7	7123.9	495.82	µg/L	495.82	ppb	16:02:58
1	Ti 334.940†	480453.7	486127.8	498.65	µg/L	498.65	ppb	16:02:38
1	Tl 190.801†	3466.3	3627.5	502.83	µg/L	502.83	ppb	16:02:58
1	U 409.014†	7072.1	7331.1	493.26	µg/L	493.26	ppb	16:02:38
1	V 292.402†	95963.2	96837.7	508.57	µg/L	508.57	ppb	16:02:38
1	Zn 213.857†	84574.9	85215.6	504.90	µg/L	504.90	ppb	16:02:38
2	Sc RADIAL	134965.6	134965.6	96.3	%			16:02:29
2	Al 396.153Radial†	22754.5	23697.5	4965.7	µg/L	4965.7	ppb	16:02:29
2	Ca 317.933Radial†	72687.3	74877.3	5099.8	µg/L	5099.8	ppb	16:02:29
2	Fe 238.204 Radial†	65298.6	67662.0	5052.9	µg/L	5052.9	ppb	16:02:29
2	K 766.490 Radial†	13754.4	12783.1	5061.1	µg/L	5061.1	ppb	16:02:29
2	Mg 279.077 IEC†	10815.0	11053.4	5111.8	µg/L	5111.8	ppb	16:02:29
2	Na 589.592 Radial†	63625.2	65089.8	10085	µg/L	10085	ppb	16:02:29
2	Sr 421.552†	206639.7	214694.4	506.31	µg/L	506.31	ppb	16:02:27
2	Sc 361.383	1758945.5	1758945.5	97.494	%			16:03:01
2	Y 371.029	1022598.2	1022598.2	96.718	%			16:03:01
2	Ag 328.068†	123736.9	122351.9	507.17	µg/L	507.17	ppb	16:03:01
2	As 188.979†	1321.2	1373.7	471.97	µg/L	471.97	ppb	16:03:21
2	B 249.677†	35279.4	32121.0	497.77	µg/L	497.77	ppb	16:03:01
2	Ba 233.527†	109636.5	112598.8	500.90	µg/L	500.90	ppb	16:03:01
2	Be 313.107†	1651699.1	1695241.7	491.21	µg/L	491.21	ppb	16:03:01
2	Cd 226.502†	73145.5	75128.8	507.46	µg/L	507.46	ppb	16:03:01
2	Co 228.616†	37353.2	38523.6	509.90	µg/L	509.90	ppb	16:03:01
2	Cr 267.716†	57231.1	58468.8	505.68	µg/L	505.68	ppb	16:03:01
2	Cu 324.752†	119889.7	119934.9	503.22	µg/L	503.22	ppb	16:03:01
2	Mn 257.610†	371557.8	380922.6	505.10	µg/L	505.10	ppb	16:03:01
2	Mo 202.031†	15021.1	15445.7	505.60	µg/L	505.60	ppb	16:03:21
2	Ni 231.604†	39481.4	40592.1	507.86	µg/L	507.86	ppb	16:03:01
2	P 214.914†	10590.2	10888.0	2510.0	µg/L	2510.0	ppb	16:03:21
2	Pb 220.353†	8140.1	8245.9	509.00	µg/L	509.00	ppb	16:03:21

2	S 181.975 Axial†	1241.5	1184.5	1000.7 µg/L	1000.7 ppb	16:03:21
2	Sb 206.836†	3875.1	3884.9	502.08 µg/L	502.08 ppb	16:03:21
2	Se 196.026†	1260.1	1286.3	509 µg/L	509 ppb	16:03:21
2	SiO2†	51107.0	50681.4	5345.4 µg/L	5345.4 ppb	16:03:01
2	Si 251.611†	156416.6	159669.7	2507.8 µg/L	2507.8 ppb	16:03:01
2	Sn 189.927†	7021.7	7200.3	501.13 µg/L	501.13 ppb	16:03:21
2	Ti 334.940†	475720.5	487124.2	499.66 µg/L	499.66 ppb	16:03:01
2	Tl 190.801†	3486.4	3690.3	511.43 µg/L	511.43 ppb	16:03:21
2	U 409.014†	7302.4	7653.4	513.61 µg/L	513.61 ppb	16:03:01
2	V 292.402†	94816.8	96830.5	508.60 µg/L	508.60 ppb	16:03:01
2	Zn 213.857†	83551.7	85196.1	504.77 µg/L	504.77 ppb	16:03:01
3	Sc RADIAL	135464.0	135464.0	96.7 %		16:02:33
3	Al 396.153Radial†	22756.1	23612.2	4947.9 µg/L	4947.9 ppb	16:02:33
3	Ca 317.933Radial†	73079.3	75005.1	5108.5 µg/L	5108.5 ppb	16:02:33
3	Fe 238.204 Radial†	65659.6	67786.0	5062.2 µg/L	5062.2 ppb	16:02:33
3	K 766.490 Radial†	13865.1	12845.1	5085.7 µg/L	5085.7 ppb	16:02:33
3	Mg 279.077 IEC†	10781.0	10977.0	5076.5 µg/L	5076.5 ppb	16:02:33
3	Na 589.592 Radial†	63870.7	65100.7	10087 µg/L	10087 ppb	16:02:33
3	Sr 421.552†	206746.3	214015.5	504.71 µg/L	504.71 ppb	16:02:31
3	Sc 361.383	1771677.5	1771677.5	98.200 %		16:03:24
3	Y 371.029	1029288.7	1029288.7	97.351 %		16:03:24
3	Ag 328.068†	124628.6	122347.9	507.15 µg/L	507.15 ppb	16:03:24
3	As 188.979†	1307.3	1349.9	463.90 µg/L	463.90 ppb	16:03:44
3	B 249.677†	35691.9	32281.0	500.25 µg/L	500.25 ppb	16:03:24
3	Ba 233.527†	110324.8	112491.6	500.42 µg/L	500.42 ppb	16:03:24
3	Be 313.107†	1664896.5	1696506.2	491.58 µg/L	491.58 ppb	16:03:24
3	Cd 226.502†	73762.1	75217.5	508.06 µg/L	508.06 ppb	16:03:24
3	Co 228.616†	37707.2	38608.7	511.03 µg/L	511.03 ppb	16:03:24
3	Cr 267.716†	57702.0	58526.5	506.18 µg/L	506.18 ppb	16:03:24
3	Cu 324.752†	120899.8	120079.8	503.82 µg/L	503.82 ppb	16:03:24
3	Mn 257.610†	374321.1	380997.8	505.20 µg/L	505.20 ppb	16:03:24
3	Mo 202.031†	15058.0	15372.6	503.21 µg/L	503.21 ppb	16:03:44
3	Ni 231.604†	39761.7	40586.5	507.79 µg/L	507.79 ppb	16:03:24
3	P 214.914†	10605.6	10825.7	2495.6 µg/L	2495.6 ppb	16:03:44
3	Pb 220.353†	8186.0	8232.6	508.18 µg/L	508.18 ppb	16:03:44
3	S 181.975 Axial†	1260.5	1194.7	1009.3 µg/L	1009.3 ppb	16:03:44
3	Sb 206.836†	3888.7	3870.2	500.14 µg/L	500.14 ppb	16:03:44
3	Se 196.026†	1265.5	1282.5	507 µg/L	507 ppb	16:03:44
3	SiO2†	51600.1	50806.9	5358.8 µg/L	5358.8 ppb	16:03:24
3	Si 251.611†	157675.1	159798.3	2509.9 µg/L	2509.9 ppb	16:03:24
3	Sn 189.927†	7027.2	7154.1	497.92 µg/L	497.92 ppb	16:03:44
3	Ti 334.940†	478799.9	486753.5	499.29 µg/L	499.29 ppb	16:03:24
3	Tl 190.801†	3497.8	3676.2	509.50 µg/L	509.50 ppb	16:03:44
3	U 409.014†	7275.0	7571.7	508.47 µg/L	508.47 ppb	16:03:24
3	V 292.402†	95572.1	96900.8	508.93 µg/L	508.93 ppb	16:03:24
3	Zn 213.857†	84120.5	85159.4	504.55 µg/L	504.55 ppb	16:03:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1770234.6	98.120	%	0.5898				0.60%
Sc RADIAL	135956.9	97.0	%	0.93				0.96%
Y 371.029	1028764.3	97.301	%	0.5600				0.58%
Ag 328.068†	122433.6	507.49	µg/L	0.580	507.49	ppb	0.580	0.11%
QC value within limits for Ag 328.068 Recovery = 101.50%								
Al 396.153Radial†	23653.5	4956.6	µg/L	8.93	4956.6	ppb	8.93	0.18%
QC value within limits for Al 396.153Radial Recovery = 99.13%								
As 188.979†	1363.3	468.45	µg/L	4.132	468.45	ppb	4.132	0.88%
QC value within limits for As 188.979 Recovery = 93.69%								
B 249.677†	32138.5	498.04	µg/L	2.095	498.04	ppb	2.095	0.42%
QC value within limits for B 249.677 Recovery = 99.61%								
Ba 233.527†	112485.7	500.39	µg/L	0.517	500.39	ppb	0.517	0.10%
QC value within limits for Ba 233.527 Recovery = 100.08%								
Be 313.107†	1695294.7	491.23	µg/L	0.346	491.23	ppb	0.346	0.07%
QC value within limits for Be 313.107 Recovery = 98.25%								
Ca 317.933Radial†	74974.7	5106.5	µg/L	5.88	5106.5	ppb	5.88	0.12%
QC value within limits for Ca 317.933Radial Recovery = 102.13%								
Cd 226.502†	75238.2	508.20	µg/L	0.818	508.20	ppb	0.818	0.16%
QC value within limits for Cd 226.502 Recovery = 101.64%								
Co 228.616†	38599.1	510.90	µg/L	0.940	510.90	ppb	0.940	0.18%

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   QC value within limits for Co 228.616  Recovery = 102.18%
Cr 267.716†            58418.4      505.25 µg/L         1.206      505.25 ppb          1.206   0.24%
   QC value within limits for Cr 267.716  Recovery = 101.05%
Cu 324.752†           119860.7      502.91 µg/L         1.110      502.91 ppb          1.110   0.22%
   QC value within limits for Cu 324.752  Recovery = 100.58%
Fe 238.204 Radial†     67784.8      5062.1 µg/L          9.13      5062.1 ppb           9.13   0.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.24%
K 766.490 Radial†      12819.4      5075.5 µg/L         12.81      5075.5 ppb          12.81   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 101.51%
Mg 279.077 IEC†        11040.4      5105.8 µg/L         26.80      5105.8 ppb          26.80   0.52%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.12%
Mn 257.610†           380671.3      504.76 µg/L         0.666      504.76 ppb          0.666   0.13%
   QC value within limits for Mn 257.610  Recovery = 100.95%
Mo 202.031†            15381.0      503.48 µg/L         1.994      503.48 ppb          1.994   0.40%
   QC value within limits for Mo 202.031  Recovery = 100.70%
Na 589.592 Radial†     65119.8       10090 µg/L           6.6       10090 ppb            6.6   0.07%
   QC value within limits for Na 589.592 Radial  Recovery = 100.90%
Ni 231.604†            40547.7      507.30 µg/L         0.902      507.30 ppb          0.902   0.18%
   QC value within limits for Ni 231.604  Recovery = 101.46%
P 214.914†             10826.6      2495.8 µg/L         14.12      2495.8 ppb          14.12   0.57%
   QC value within limits for P 214.914  Recovery = 99.83%
Pb 220.353†             8211.2      506.87 µg/L         3.010      506.87 ppb          3.010   0.59%
   QC value within limits for Pb 220.353  Recovery = 101.37%
S 181.975 Axial†        1190.5      1005.8 µg/L          4.51      1005.8 ppb           4.51   0.45%
   QC value within limits for S 181.975 Axial  Recovery = 100.58%
Sb 206.836†             3867.0      499.74 µg/L         2.565      499.74 ppb          2.565   0.51%
   QC value within limits for Sb 206.836  Recovery = 99.95%
Se 196.026†             1279.0         506 µg/L           3.8         506 ppb            3.8   0.75%
   QC value within limits for Se 196.026  Recovery = 101.22%
SiO2†                  50645.2      5341.7 µg/L         19.27      5341.7 ppb          19.27   0.36%
   QC value within limits for SiO2  Recovery = 99.89%
Si 251.611†           159648.8      2507.5 µg/L          2.52      2507.5 ppb           2.52   0.10%
   QC value within limits for Si 251.611  Recovery = 100.30%
Sn 189.927†             7159.5      498.29 µg/L         2.670      498.29 ppb          2.670   0.54%
   QC value within limits for Sn 189.927  Recovery = 99.66%
Sr 421.552†           213052.9      502.44 µg/L         5.379      502.44 ppb          5.379   1.07%
   QC value within limits for Sr 421.552  Recovery = 100.49%
Ti 334.940†           486668.5      499.20 µg/L         0.513      499.20 ppb          0.513   0.10%
   QC value within limits for Ti 334.940  Recovery = 99.84%
Tl 190.801†             3664.7      507.92 µg/L         4.515      507.92 ppb          4.515   0.89%
   QC value within limits for Tl 190.801  Recovery = 101.58%
U 409.014†              7518.7      505.12 µg/L        10.582      505.12 ppb         10.582   2.09%
   QC value within limits for U 409.014  Recovery = 101.02%
V 292.402†             96856.3      508.70 µg/L         0.203      508.70 ppb          0.203   0.04%
   QC value within limits for V 292.402  Recovery = 101.74%
Zn 213.857†            85190.4      504.74 µg/L         0.175      504.74 ppb          0.175   0.03%
   QC value within limits for Zn 213.857  Recovery = 100.95%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 16:03:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138669.5	138669.5	99.0	%			16:04:23
1	Al 396.153Radial†	-103.5	-26.0	-5.5000	µg/L	-5.5000	ppb	16:04:43
1	Ca 317.933Radial†	645.5	80.7	5.4983	µg/L	5.4983	ppb	16:04:43
1	Fe 238.204 Radial†	168.8	53.2	3.9737	µg/L	3.9737	ppb	16:04:43
1	K 766.490 Radial†	1571.9	94.2	37.333	µg/L	37.333	ppb	16:04:23
1	Mg 279.077 IEC†	184.4	13.9	6.4106	µg/L	6.4106	ppb	16:04:43
1	Na 589.592 Radial†	1228.0	288.1	44.623	µg/L	44.623	ppb	16:04:23
1	Sr 421.552†	-170.7	32.1	0.0756	µg/L	0.0756	ppb	16:04:23
1	Sc 361.383	1766148.8	1766148.8	97.894	%			16:05:30
1	Y 371.029	1037911.6	1037911.6	98.166	%			16:05:30
1	Ag 328.068†	4027.7	-450.8	-1.8544	µg/L	-1.8544	ppb	16:05:33
1	As 188.979†	-10.5	7.8	2.6473	µg/L	2.6473	ppb	16:05:53
1	B 249.677†	4122.5	146.0	2.2711	µg/L	2.2711	ppb	16:05:33
1	Ba 233.527†	-147.3	-6.0	-0.0264	µg/L	-0.0264	ppb	16:05:53
1	Be 313.107†	-668.8	408.6	0.1159	µg/L	0.1159	ppb	16:05:33
1	Cd 226.502†	-82.1	19.5	0.1319	µg/L	0.1319	ppb	16:05:53
1	Co 228.616†	-209.5	-3.7	-0.0494	µg/L	-0.0494	ppb	16:05:53
1	Cr 267.716†	267.6	40.2	0.3540	µg/L	0.3540	ppb	16:05:53
1	Cu 324.752†	2875.8	-98.5	-0.4178	µg/L	-0.4178	ppb	16:05:33
1	Mn 257.610†	251.2	71.9	0.0951	µg/L	0.0951	ppb	16:05:53
1	Mo 202.031†	-27.1	10.8	0.3551	µg/L	0.3551	ppb	16:05:53
1	Ni 231.604†	-36.0	59.1	0.7398	µg/L	0.7398	ppb	16:05:53
1	P 214.914†	4.1	29.9	6.9087	µg/L	6.9087	ppb	16:05:53
1	Pb 220.353†	110.7	9.6	0.5957	µg/L	0.5957	ppb	16:05:53
1	S 181.975 Axial†	92.6	5.7	4.7961	µg/L	4.7961	ppb	16:05:53
1	Sb 206.836†	79.3	-8.7	-1.1206	µg/L	-1.1206	ppb	16:05:53
1	Se 196.026†	7.7	1.8	0.688	µg/L	0.688	ppb	16:05:53
1	SiO2†	1754.6	53.2	5.6207	µg/L	5.6207	ppb	16:05:33
1	Si 251.611†	1245.9	505.6	7.9656	µg/L	7.9656	ppb	16:05:33
1	Sn 189.927†	8.5	6.8	0.4689	µg/L	0.4689	ppb	16:05:53
1	Ti 334.940†	599.9	-210.2	-0.2130	µg/L	-0.2130	ppb	16:05:33
1	Tl 190.801†	-115.4	-3.6	-0.4909	µg/L	-0.4909	ppb	16:05:53
1	U 409.014†	-286.7	-129.5	-8.1679	µg/L	-8.1679	ppb	16:05:33
1	V 292.402†	433.4	19.5	0.1005	µg/L	0.1005	ppb	16:05:33
1	Zn 213.857†	594.2	104.0	0.6157	µg/L	0.6157	ppb	16:05:53
2	Sc RADIAL	136792.5	136792.5	97.6	%			16:04:45
2	Al 396.153Radial†	-63.2	13.8	2.8629	µg/L	2.8629	ppb	16:05:05
2	Ca 317.933Radial†	639.2	83.2	5.6649	µg/L	5.6649	ppb	16:05:05
2	Fe 238.204 Radial†	130.1	15.9	1.1904	µg/L	1.1904	ppb	16:05:05
2	K 766.490 Radial†	1722.6	270.4	107.12	µg/L	107.12	ppb	16:04:45
2	Mg 279.077 IEC†	186.7	18.8	8.6918	µg/L	8.6918	ppb	16:05:05
2	Na 589.592 Radial†	1264.2	342.1	52.940	µg/L	52.940	ppb	16:04:45
2	Sr 421.552†	-266.4	-68.4	-0.1613	µg/L	-0.1613	ppb	16:04:45
2	Sc 361.383	1766912.1	1766912.1	97.936	%			16:05:55
2	Y 371.029	1038566.5	1038566.5	98.228	%			16:05:55
2	Ag 328.068†	4110.0	-368.6	-1.5328	µg/L	-1.5328	ppb	16:05:57
2	As 188.979†	-19.5	-1.4	-0.4633	µg/L	-0.4633	ppb	16:06:17
2	B 249.677†	4053.3	73.6	1.1446	µg/L	1.1446	ppb	16:05:57
2	Ba 233.527†	-168.8	-27.8	-0.1235	µg/L	-0.1235	ppb	16:06:17
2	Be 313.107†	-892.7	180.2	0.0470	µg/L	0.0470	ppb	16:05:57
2	Cd 226.502†	-84.5	17.1	0.1157	µg/L	0.1157	ppb	16:06:17
2	Co 228.616†	-194.7	11.5	0.1523	µg/L	0.1523	ppb	16:06:17
2	Cr 267.716†	276.5	49.2	0.4386	µg/L	0.4386	ppb	16:06:17
2	Cu 324.752†	2811.8	-165.0	-0.7040	µg/L	-0.7040	ppb	16:05:57
2	Mn 257.610†	223.0	42.9	0.0566	µg/L	0.0566	ppb	16:06:17
2	Mo 202.031†	-14.2	24.1	0.7879	µg/L	0.7879	ppb	16:06:17
2	Ni 231.604†	-50.9	43.9	0.5491	µg/L	0.5491	ppb	16:06:17
2	P 214.914†	31.6	57.9	13.409	µg/L	13.409	ppb	16:06:17
2	Pb 220.353†	118.9	17.9	1.1176	µg/L	1.1176	ppb	16:06:17

2	S 181.975 Axial†	97.0	10.2	8.5620	µg/L	8.5620 ppb	16:06:17
2	Sb 206.836†	76.1	-12.0	-1.5474	µg/L	-1.5474 ppb	16:06:17
2	Se 196.026†	17.1	11.3	4.43	µg/L	4.43 ppb	16:06:17
2	SiO2†	1896.7	197.6	20.894	µg/L	20.894 ppb	16:05:57
2	Si 251.611†	1284.2	544.3	8.5685	µg/L	8.5685 ppb	16:05:57
2	Sn 189.927†	8.9	7.2	0.4974	µg/L	0.4974 ppb	16:06:17
2	Ti 334.940†	629.3	-180.5	-0.1790	µg/L	-0.1790 ppb	16:05:57
2	Tl 190.801†	-109.6	2.4	0.3201	µg/L	0.3201 ppb	16:06:17
2	U 409.014†	-426.5	-272.2	-17.190	µg/L	-17.190 ppb	16:05:57
2	V 292.402†	368.9	-46.5	-0.2428	µg/L	-0.2428 ppb	16:05:57
2	Zn 213.857†	594.0	103.5	0.6150	µg/L	0.6150 ppb	16:06:17
3	Sc RADIAL	137687.6	137687.6	98.3	%		16:05:07
3	Al 396.153Radial†	-68.7	8.6	1.8049	µg/L	1.8049 ppb	16:05:27
3	Ca 317.933Radial†	610.6	49.8	3.3934	µg/L	3.3934 ppb	16:05:27
3	Fe 238.204 Radial†	138.9	24.1	1.7962	µg/L	1.7962 ppb	16:05:27
3	K 766.490 Radial†	1566.4	99.9	39.592	µg/L	39.592 ppb	16:05:07
3	Mg 279.077 IEC†	182.4	13.1	6.0767	µg/L	6.0767 ppb	16:05:27
3	Na 589.592 Radial†	1089.0	155.5	24.066	µg/L	24.066 ppb	16:05:07
3	Sr 421.552†	-228.5	-28.0	-0.0660	µg/L	-0.0660 ppb	16:05:07
3	Sc 361.383	1777266.9	1777266.9	98.510	%		16:06:19
3	Y 371.029	1044113.1	1044113.1	98.753	%		16:06:19
3	Ag 328.068†	4032.1	-472.1	-1.9340	µg/L	-1.9340 ppb	16:06:21
3	As 188.979†	-13.7	4.6	1.5704	µg/L	1.5704 ppb	16:06:41
3	B 249.677†	4267.3	266.7	4.1474	µg/L	4.1474 ppb	16:06:21
3	Ba 233.527†	-114.9	27.9	0.1244	µg/L	0.1244 ppb	16:06:41
3	Be 313.107†	-652.6	429.2	0.1231	µg/L	0.1231 ppb	16:06:21
3	Cd 226.502†	-64.0	38.4	0.2594	µg/L	0.2594 ppb	16:06:41
3	Co 228.616†	-202.7	4.5	0.0597	µg/L	0.0597 ppb	16:06:41
3	Cr 267.716†	247.2	17.7	0.1567	µg/L	0.1567 ppb	16:06:41
3	Cu 324.752†	2636.6	-359.6	-1.5068	µg/L	-1.5068 ppb	16:06:21
3	Mn 257.610†	219.2	37.8	0.0499	µg/L	0.0499 ppb	16:06:41
3	Mo 202.031†	-28.4	9.7	0.3182	µg/L	0.3182 ppb	16:06:41
3	Ni 231.604†	-62.6	32.4	0.4048	µg/L	0.4048 ppb	16:06:41
3	P 214.914†	1.4	27.1	6.2915	µg/L	6.2915 ppb	16:06:41
3	Pb 220.353†	123.5	21.9	1.3506	µg/L	1.3506 ppb	16:06:41
3	S 181.975 Axial†	89.9	2.3	1.9427	µg/L	1.9427 ppb	16:06:41
3	Sb 206.836†	84.9	-3.5	-0.4445	µg/L	-0.4445 ppb	16:06:41
3	Se 196.026†	21.6	15.7	6.20	µg/L	6.20 ppb	16:06:41
3	SiO2†	1839.5	128.3	13.559	µg/L	13.559 ppb	16:06:21
3	Si 251.611†	1443.3	698.1	10.997	µg/L	10.997 ppb	16:06:21
3	Sn 189.927†	17.1	15.5	1.0724	µg/L	1.0724 ppb	16:06:41
3	Ti 334.940†	832.9	22.5	0.0243	µg/L	0.0243 ppb	16:06:21
3	Tl 190.801†	-111.5	1.1	0.1536	µg/L	0.1536 ppb	16:06:41
3	U 409.014†	-224.1	-64.2	-4.0316	µg/L	-4.0316 ppb	16:06:21
3	V 292.402†	474.2	58.1	0.3023	µg/L	0.3023 ppb	16:06:21
3	Zn 213.857†	578.0	83.7	0.4985	µg/L	0.4985 ppb	16:06:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1770109.3	98.113	%	0.3442				0.35%
Sc RADIAL	137716.5	98.3	%	0.67				0.68%
Y 371.029	1040197.1	98.383	%	0.3223				0.33%
Ag 328.068†	-430.5	-1.7737	µg/L	0.21243	-1.7737	ppb	0.21243	11.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.2	-0.2774	µg/L	4.55371	-0.2774	ppb	4.55371	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.7	1.2515	µg/L	1.57964	1.2515	ppb	1.57964	126.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	162.1	2.5210	µg/L	1.51690	2.5210	ppb	1.51690	60.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.0	-0.0085	µg/L	0.12492	-0.0085	ppb	0.12492	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	339.3	0.0953	µg/L	0.04200	0.0953	ppb	0.04200	44.05%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	71.2	4.8522	µg/L	1.26614	4.8522	ppb	1.26614	26.09%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	25.0	0.1690	µg/L	0.07871	0.1690	ppb	0.07871	46.58%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.1	0.0542	µg/L	0.10096	0.0542	ppb	0.10096	186.36%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              35.7      0.3164 µg/L       0.14464      0.3164 ppb        0.14464  45.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -207.7     -0.8762 µg/L       0.56457     -0.8762 ppb        0.56457  64.43%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       31.1      2.3201 µg/L       1.46372      2.3201 ppb        1.46372  63.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       154.8     61.350 µg/L       39.6584     61.350 ppb        39.6584  64.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          15.3      7.0597 µg/L       1.42327      7.0597 ppb        1.42327  20.16%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              50.9      0.0672 µg/L       0.02437      0.0672 ppb        0.02437  36.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              14.9      0.4871 µg/L       0.26115      0.4871 ppb        0.26115  53.62%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      261.9     40.543 µg/L       14.8631     40.543 ppb        14.8631  36.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              45.1      0.5646 µg/L       0.16805      0.5646 ppb        0.16805  29.77%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               38.3      8.8697 µg/L       3.94313      8.8697 ppb        3.94313  44.46%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              16.5      1.0213 µg/L       0.38655      1.0213 ppb        0.38655  37.85%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.1      5.1003 µg/L       3.32013      5.1003 ppb        3.32013  65.10%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -8.1     -1.0375 µg/L       0.55609     -1.0375 ppb        0.55609  53.60%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               9.6        3.77 µg/L         2.814        3.77 ppb          2.814  74.60%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   126.4     13.358 µg/L        7.6387     13.358 ppb         7.6387  57.19%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             582.7      9.1772 µg/L       1.60491      9.1772 ppb        1.60491  17.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.8      0.6796 µg/L       0.34053      0.6796 ppb        0.34053  50.11%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -21.4     -0.0506 µg/L       0.11919     -0.0506 ppb        0.11919 235.59%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -122.7     -0.1226 µg/L       0.12835     -0.1226 ppb        0.12835 104.73%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.0     -0.0057 µg/L       0.42837     -0.0057 ppb        0.42837 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -155.3     -9.7965 µg/L       6.72862     -9.7965 ppb        6.72862  68.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               10.4      0.0533 µg/L       0.27557      0.0533 ppb        0.27557 516.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              97.1      0.5764 µg/L       0.06747      0.5764 ppb        0.06747  11.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 16:19:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137604.4	137604.4	98.2	%			16:19:33
1	Al 396.153Radial†	23265.4	23764.7	4979.8	µg/L	4979.8	ppb	16:19:33
1	Ca 317.933Radial†	73511.3	74269.3	5058.4	µg/L	5058.4	ppb	16:19:33
1	Fe 238.204 Radial†	66069.9	67147.4	5014.5	µg/L	5014.5	ppb	16:19:33
1	K 766.490 Radial†	14036.0	12796.0	5066.3	µg/L	5066.3	ppb	16:19:33
1	Mg 279.077 IEC†	10906.4	10931.2	5055.4	µg/L	5055.4	ppb	16:19:33
1	Na 589.592 Radial†	64505.4	64719.4	10028	µg/L	10028	ppb	16:19:33
1	Sr 421.552†	207110.0	211060.1	497.74	µg/L	497.74	ppb	16:19:31
1	Sc 361.383	1768540.2	1768540.2	98.026	%			16:20:00
1	Y 371.029	1028377.0	1028377.0	97.265	%			16:20:00
1	Ag 328.068†	123829.4	121757.8	504.71	µg/L	504.71	ppb	16:20:00
1	As 188.979†	1317.7	1362.8	468.24	µg/L	468.24	ppb	16:20:20
1	B 249.677†	35264.2	31909.1	494.48	µg/L	494.48	ppb	16:20:00
1	Ba 233.527†	109485.3	111834.5	497.50	µg/L	497.50	ppb	16:20:00
1	Be 313.107†	1653200.5	1687582.2	488.99	µg/L	488.99	ppb	16:20:00
1	Cd 226.502†	72662.3	74228.9	501.38	µg/L	501.38	ppb	16:20:00
1	Co 228.616†	37380.2	38343.2	507.52	µg/L	507.52	ppb	16:20:00
1	Cr 267.716†	57129.9	58047.1	502.04	µg/L	502.04	ppb	16:20:00
1	Cu 324.752†	120316.1	119702.8	502.24	µg/L	502.24	ppb	16:20:00
1	Mn 257.610†	371454.5	378749.6	502.22	µg/L	502.22	ppb	16:20:00
1	Mo 202.031†	15119.8	15462.8	506.15	µg/L	506.15	ppb	16:20:20
1	Ni 231.604†	39263.8	40150.3	502.33	µg/L	502.33	ppb	16:20:00
1	P 214.914†	10620.5	10860.0	2503.5	µg/L	2503.5	ppb	16:20:20
1	Pb 220.353†	8173.6	8234.7	508.32	µg/L	508.32	ppb	16:20:20
1	S 181.975 Axial†	1250.0	1186.2	1002.2	µg/L	1002.2	ppb	16:20:20
1	Sb 206.836†	3898.3	3887.0	502.40	µg/L	502.40	ppb	16:20:20
1	Se 196.026†	1268.6	1288.0	510	µg/L	510	ppb	16:20:20
1	SiO2†	50966.8	50254.0	5300.2	µg/L	5300.2	ppb	16:20:00
1	Si 251.611†	156067.0	158442.7	2488.4	µg/L	2488.4	ppb	16:20:00
1	Sn 189.927†	7007.5	7146.7	497.40	µg/L	497.40	ppb	16:20:20
1	Ti 334.940†	477326.7	486115.5	498.64	µg/L	498.64	ppb	16:20:00
1	Tl 190.801†	3498.3	3683.0	510.42	µg/L	510.42	ppb	16:20:20
1	U 409.014†	7242.2	7551.4	507.08	µg/L	507.08	ppb	16:20:00
1	V 292.402†	95032.7	96523.1	506.99	µg/L	506.99	ppb	16:20:00
1	Zn 213.857†	83237.5	84410.6	500.12	µg/L	500.12	ppb	16:20:00
2	Sc RADIAL	136557.4	136557.4	97.5	%			16:19:38
2	Al 396.153Radial†	23142.2	23820.0	4991.5	µg/L	4991.5	ppb	16:19:38
2	Ca 317.933Radial†	73311.9	74638.6	5083.6	µg/L	5083.6	ppb	16:19:38
2	Fe 238.204 Radial†	65802.5	67388.9	5032.6	µg/L	5032.6	ppb	16:19:38
2	K 766.490 Radial†	13986.7	12855.1	5089.7	µg/L	5089.7	ppb	16:19:38
2	Mg 279.077 IEC†	10870.2	10979.2	5077.5	µg/L	5077.5	ppb	16:19:38
2	Na 589.592 Radial†	64471.7	65188.4	10100	µg/L	10100	ppb	16:19:38
2	Sr 421.552†	207824.9	213410.1	503.28	µg/L	503.28	ppb	16:19:35
2	Sc 361.383	1770312.3	1770312.3	98.124	%			16:20:23
2	Y 371.029	1028774.0	1028774.0	97.302	%			16:20:23
2	Ag 328.068†	124018.0	121823.5	504.97	µg/L	504.97	ppb	16:20:23
2	As 188.979†	1309.7	1353.3	465.05	µg/L	465.05	ppb	16:20:44
2	B 249.677†	35386.0	31997.2	495.85	µg/L	495.85	ppb	16:20:23
2	Ba 233.527†	109903.8	112149.3	498.90	µg/L	498.90	ppb	16:20:23
2	Be 313.107†	1660911.2	1693752.2	490.78	µg/L	490.78	ppb	16:20:23
2	Cd 226.502†	73058.4	74558.3	503.61	µg/L	503.61	ppb	16:20:23
2	Co 228.616†	37412.7	38338.2	507.45	µg/L	507.45	ppb	16:20:23
2	Cr 267.716†	57285.7	58147.6	502.91	µg/L	502.91	ppb	16:20:23
2	Cu 324.752†	120681.1	119951.9	503.28	µg/L	503.28	ppb	16:20:23
2	Mn 257.610†	372727.2	379667.4	503.43	µg/L	503.43	ppb	16:20:23
2	Mo 202.031†	15100.6	15427.8	505.01	µg/L	505.01	ppb	16:20:44
2	Ni 231.604†	39607.6	40460.6	506.21	µg/L	506.21	ppb	16:20:23
2	P 214.914†	10592.3	10820.5	2494.4	µg/L	2494.4	ppb	16:20:44
2	Pb 220.353†	8161.3	8213.9	507.04	µg/L	507.04	ppb	16:20:44

2	S 181.975 Axial†	1250.6	1185.6	1001.6	µg/L	1001.6 ppb	16:20:44
2	Sb 206.836†	3870.4	3854.7	498.20	µg/L	498.20 ppb	16:20:44
2	Se 196.026†	1242.7	1260.3	499	µg/L	499 ppb	16:20:44
2	SiO2†	51359.5	50602.2	5337.1	µg/L	5337.1 ppb	16:20:23
2	Si 251.611†	157263.7	159502.8	2505.2	µg/L	2505.2 ppb	16:20:23
2	Sn 189.927†	7016.5	7148.7	497.55	µg/L	497.55 ppb	16:20:44
2	Ti 334.940†	478880.2	487211.3	499.76	µg/L	499.76 ppb	16:20:23
2	Tl 190.801†	3493.9	3675.0	509.33	µg/L	509.33 ppb	16:20:44
2	U 409.014†	7209.0	7510.2	504.45	µg/L	504.45 ppb	16:20:23
2	V 292.402†	95025.1	96418.4	506.44	µg/L	506.44 ppb	16:20:23
2	Zn 213.857†	83526.0	84619.7	501.34	µg/L	501.34 ppb	16:20:23
3	Sc RADIAL	137144.5	137144.5	97.9	%		16:19:42
3	Al 396.153Radial†	22973.1	23545.5	4933.7	µg/L	4933.7 ppb	16:19:42
3	Ca 317.933Radial†	73480.1	74488.4	5073.3	µg/L	5073.3 ppb	16:19:42
3	Fe 238.204 Radial†	65879.2	67178.2	5016.8	µg/L	5016.8 ppb	16:19:42
3	K 766.490 Radial†	14084.7	12893.7	5105.0	µg/L	5105.0 ppb	16:19:42
3	Mg 279.077 IEC†	10857.1	10918.0	5049.3	µg/L	5049.3 ppb	16:19:42
3	Na 589.592 Radial†	64306.1	64736.1	10030	µg/L	10030 ppb	16:19:42
3	Sr 421.552†	208207.9	212888.7	502.05	µg/L	502.05 ppb	16:19:40
3	Sc 361.383	1779849.1	1779849.1	98.653	%		16:20:47
3	Y 371.029	1034591.8	1034591.8	97.852	%		16:20:47
3	Ag 328.068†	124313.4	121445.7	503.44	µg/L	503.44 ppb	16:20:47
3	As 188.979†	1327.4	1364.1	468.69	µg/L	468.69 ppb	16:21:07
3	B 249.677†	35673.8	32095.8	497.38	µg/L	497.38 ppb	16:20:47
3	Ba 233.527†	110329.9	111980.9	498.15	µg/L	498.15 ppb	16:20:47
3	Be 313.107†	1665698.9	1689535.6	489.57	µg/L	489.57 ppb	16:20:47
3	Cd 226.502†	73406.5	74512.2	503.30	µg/L	503.30 ppb	16:20:47
3	Co 228.616†	37615.4	38339.3	507.46	µg/L	507.46 ppb	16:20:47
3	Cr 267.716†	57467.8	58019.3	501.78	µg/L	501.78 ppb	16:20:47
3	Cu 324.752†	121249.5	119869.1	502.95	µg/L	502.95 ppb	16:20:47
3	Mn 257.610†	374459.6	379388.1	503.06	µg/L	503.06 ppb	16:20:47
3	Mo 202.031†	15236.9	15483.5	506.83	µg/L	506.83 ppb	16:21:07
3	Ni 231.604†	39675.6	40313.2	504.37	µg/L	504.37 ppb	16:20:47
3	P 214.914†	10728.5	10900.7	2512.9	µg/L	2512.9 ppb	16:21:07
3	Pb 220.353†	8277.2	8286.8	511.51	µg/L	511.51 ppb	16:21:07
3	S 181.975 Axial†	1258.9	1187.2	1003.0	µg/L	1003.0 ppb	16:21:07
3	Sb 206.836†	3914.5	3878.2	501.28	µg/L	501.28 ppb	16:21:07
3	Se 196.026†	1277.8	1289.1	510	µg/L	510 ppb	16:21:07
3	SiO2†	51475.0	50438.7	5319.7	µg/L	5319.7 ppb	16:20:47
3	Si 251.611†	157709.2	159095.7	2498.7	µg/L	2498.7 ppb	16:20:47
3	Sn 189.927†	7070.0	7164.7	498.65	µg/L	498.65 ppb	16:21:07
3	Ti 334.940†	480948.0	486692.3	499.22	µg/L	499.22 ppb	16:20:47
3	Tl 190.801†	3530.2	3692.6	511.73	µg/L	511.73 ppb	16:21:07
3	U 409.014†	7575.9	7842.7	525.40	µg/L	525.40 ppb	16:20:47
3	V 292.402†	95409.2	96288.8	505.80	µg/L	505.80 ppb	16:20:47
3	Zn 213.857†	83974.9	84618.5	501.35	µg/L	501.35 ppb	16:20:47

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1772900.5	98.268	%	0.3371				0.34%
Sc RADIAL	137102.1	97.9	%	0.37				0.38%
Y 371.029	1030580.9	97.473	%	0.3291				0.34%
Ag 328.068†	121675.7	504.37	µg/L	0.818	504.37	ppb	0.818	0.16%
QC value within limits for Ag 328.068 Recovery = 100.87%								
Al 396.153Radial†	23710.1	4968.3	µg/L	30.60	4968.3	ppb	30.60	0.62%
QC value within limits for Al 396.153Radial Recovery = 99.37%								
As 188.979†	1360.1	467.33	µg/L	1.986	467.33	ppb	1.986	0.42%
QC value within limits for As 188.979 Recovery = 93.47%								
B 249.677†	32000.7	495.91	µg/L	1.452	495.91	ppb	1.452	0.29%
QC value within limits for B 249.677 Recovery = 99.18%								
Ba 233.527†	111988.3	498.18	µg/L	0.700	498.18	ppb	0.700	0.14%
QC value within limits for Ba 233.527 Recovery = 99.64%								
Be 313.107†	1690290.0	489.78	µg/L	0.912	489.78	ppb	0.912	0.19%
QC value within limits for Be 313.107 Recovery = 97.96%								
Ca 317.933Radial†	74465.4	5071.8	µg/L	12.65	5071.8	ppb	12.65	0.25%
QC value within limits for Ca 317.933Radial Recovery = 101.44%								
Cd 226.502†	74433.1	502.76	µg/L	1.206	502.76	ppb	1.206	0.24%
QC value within limits for Cd 226.502 Recovery = 100.55%								
Co 228.616†	38340.2	507.48	µg/L	0.035	507.48	ppb	0.035	0.01%

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   QC value within limits for Co 228.616  Recovery = 101.50%
Cr 267.716†            58071.4      502.24 µg/L         0.591      502.24 ppb          0.591   0.12%
   QC value within limits for Cr 267.716  Recovery = 100.45%
Cu 324.752†           119841.2      502.82 µg/L         0.533      502.82 ppb          0.533   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.56%
Fe 238.204 Radial†     67238.2      5021.3 µg/L          9.81      5021.3 ppb           9.81   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.43%
K 766.490 Radial†      12848.3      5087.0 µg/L         19.50      5087.0 ppb          19.50   0.38%
   QC value within limits for K 766.490 Radial  Recovery = 101.74%
Mg 279.077 IEC†        10942.8      5060.8 µg/L         14.84      5060.8 ppb          14.84   0.29%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.22%
Mn 257.610†           379268.4      502.90 µg/L         0.624      502.90 ppb          0.624   0.12%
   QC value within limits for Mn 257.610  Recovery = 100.58%
Mo 202.031†            15458.0      506.00 µg/L         0.921      506.00 ppb          0.921   0.18%
   QC value within limits for Mo 202.031  Recovery = 101.20%
Na 589.592 Radial†     64881.3       10053 µg/L          41.2       10053 ppb           41.2   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 100.53%
Ni 231.604†            40308.1      504.30 µg/L         1.942      504.30 ppb          1.942   0.39%
   QC value within limits for Ni 231.604  Recovery = 100.86%
P 214.914†             10860.4      2503.6 µg/L          9.27      2503.6 ppb           9.27   0.37%
   QC value within limits for P 214.914  Recovery = 100.14%
Pb 220.353†             8245.1      508.96 µg/L         2.303      508.96 ppb          2.303   0.45%
   QC value within limits for Pb 220.353  Recovery = 101.79%
S 181.975 Axial†        1186.3      1002.3 µg/L          0.67      1002.3 ppb           0.67   0.07%
   QC value within limits for S 181.975 Axial  Recovery = 100.23%
Sb 206.836†             3873.3      500.63 µg/L         2.176      500.63 ppb          2.176   0.43%
   QC value within limits for Sb 206.836  Recovery = 100.13%
Se 196.026†             1279.1         506 µg/L           6.4         506 ppb            6.4   1.27%
   QC value within limits for Se 196.026  Recovery = 101.23%
SiO2†                  50431.6      5319.0 µg/L         18.46      5319.0 ppb          18.46   0.35%
   QC value within limits for SiO2  Recovery = 99.47%
Si 251.611†           159013.7      2497.4 µg/L          8.44      2497.4 ppb           8.44   0.34%
   QC value within limits for Si 251.611  Recovery = 99.90%
Sn 189.927†             7153.4      497.87 µg/L         0.684      497.87 ppb          0.684   0.14%
   QC value within limits for Sn 189.927  Recovery = 99.57%
Sr 421.552†           212453.0      501.02 µg/L         2.911      501.02 ppb          2.911   0.58%
   QC value within limits for Sr 421.552  Recovery = 100.20%
Ti 334.940†           486673.0      499.21 µg/L         0.563      499.21 ppb          0.563   0.11%
   QC value within limits for Ti 334.940  Recovery = 99.84%
Tl 190.801†             3683.5      510.49 µg/L         1.204      510.49 ppb          1.204   0.24%
   QC value within limits for Tl 190.801  Recovery = 102.10%
U 409.014†              7634.8      512.31 µg/L        11.413      512.31 ppb         11.413   2.23%
   QC value within limits for U 409.014  Recovery = 102.46%
V 292.402†             96410.1      506.41 µg/L         0.599      506.41 ppb          0.599   0.12%
   QC value within limits for V 292.402  Recovery = 101.28%
Zn 213.857†            84549.6      500.94 µg/L         0.707      500.94 ppb          0.707   0.14%
   QC value within limits for Zn 213.857  Recovery = 100.19%
All analyte(s) passed QC.
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Sequence No.: 19
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 16:21:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138251.6	138251.6	98.7	%			16:21:45
1	Al 396.153Radial†	-76.1	1.4	0.2603	µg/L	0.2603	ppb	16:22:05
1	Ca 317.933Radial†	638.8	75.9	5.1685	µg/L	5.1685	ppb	16:22:05
1	Fe 238.204 Radial†	164.2	49.1	3.6651	µg/L	3.6651	ppb	16:22:05
1	K 766.490 Radial†	1623.8	151.6	60.082	µg/L	60.082	ppb	16:21:45
1	Mg 279.077 IEC†	151.8	-18.6	-8.5672	µg/L	-8.5672	ppb	16:22:05
1	Na 589.592 Radial†	1054.6	116.2	17.951	µg/L	17.951	ppb	16:21:45
1	Sr 421.552†	-259.4	-58.3	-0.1377	µg/L	-0.1377	ppb	16:21:45
1	Sc 361.383	1797116.6	1797116.6	99.610	%			16:23:07
1	Y 371.029	1055412.4	1055412.4	99.822	%			16:23:07
1	Ag 328.068†	4139.7	-409.3	-1.6708	µg/L	-1.6708	ppb	16:23:09
1	As 188.979†	-9.2	9.3	3.1606	µg/L	3.1606	ppb	16:23:29
1	B 249.677†	4020.4	-29.0	-0.4523	µg/L	-0.4523	ppb	16:23:09
1	Ba 233.527†	-161.3	-17.4	-0.0773	µg/L	-0.0773	ppb	16:23:29
1	Be 313.107†	-690.7	398.4	0.1178	µg/L	0.1178	ppb	16:23:09
1	Cd 226.502†	-75.1	27.9	0.1884	µg/L	0.1884	ppb	16:23:29
1	Co 228.616†	-196.0	13.5	0.1781	µg/L	0.1781	ppb	16:23:29
1	Cr 267.716†	221.7	-10.6	-0.0981	µg/L	-0.0981	ppb	16:23:29
1	Cu 324.752†	2959.3	-65.2	-0.2658	µg/L	-0.2658	ppb	16:23:09
1	Mn 257.610†	237.6	53.8	0.0717	µg/L	0.0717	ppb	16:23:29
1	Mo 202.031†	-13.6	24.9	0.8136	µg/L	0.8136	ppb	16:23:29
1	Ni 231.604†	-78.1	17.5	0.2187	µg/L	0.2187	ppb	16:23:29
1	P 214.914†	17.3	43.1	9.9565	µg/L	9.9565	ppb	16:23:29
1	Pb 220.353†	117.8	14.8	0.9054	µg/L	0.9054	ppb	16:23:29
1	S 181.975 Axial†	94.6	6.1	5.1324	µg/L	5.1324	ppb	16:23:29
1	Sb 206.836†	85.2	-4.2	-0.5338	µg/L	-0.5338	ppb	16:23:29
1	Se 196.026†	22.6	16.5	6.52	µg/L	6.52	ppb	16:23:29
1	SiO2†	1804.9	72.9	7.7028	µg/L	7.7028	ppb	16:23:29
1	Si 251.611†	1009.1	246.0	3.8706	µg/L	3.8706	ppb	16:23:09
1	Sn 189.927†	-3.7	-5.6	-0.3917	µg/L	-0.3917	ppb	16:23:29
1	Ti 334.940†	743.3	-76.8	-0.0813	µg/L	-0.0813	ppb	16:23:09
1	Tl 190.801†	-121.1	-7.3	-1.0070	µg/L	-1.0070	ppb	16:23:29
1	U 409.014†	-35.9	127.3	8.0078	µg/L	8.0078	ppb	16:23:09
1	V 292.402†	337.4	-84.5	-0.4247	µg/L	-0.4247	ppb	16:23:09
1	Zn 213.857†	592.1	91.4	0.5444	µg/L	0.5444	ppb	16:23:29
2	Sc RADIAL	136698.2	136698.2	97.6	%			16:22:07
2	Al 396.153Radial†	-58.6	18.5	3.8730	µg/L	3.8730	ppb	16:22:27
2	Ca 317.933Radial†	620.0	64.0	4.3571	µg/L	4.3571	ppb	16:22:27
2	Fe 238.204 Radial†	156.5	43.0	3.2137	µg/L	3.2137	ppb	16:22:27
2	K 766.490 Radial†	1517.1	61.0	24.162	µg/L	24.162	ppb	16:22:07
2	Mg 279.077 IEC†	168.9	0.6	0.2978	µg/L	0.2978	ppb	16:22:27
2	Na 589.592 Radial†	1201.3	278.6	43.163	µg/L	43.163	ppb	16:22:07
2	Sr 421.552†	-253.5	-55.3	-0.1306	µg/L	-0.1306	ppb	16:22:07
2	Sc 361.383	1792956.6	1792956.6	99.379	%			16:23:31
2	Y 371.029	1053819.1	1053819.1	99.671	%			16:23:31
2	Ag 328.068†	4119.4	-420.0	-1.7364	µg/L	-1.7364	ppb	16:23:33
2	As 188.979†	-5.8	12.7	4.2949	µg/L	4.2949	ppb	16:23:53
2	B 249.677†	4053.9	14.1	0.2183	µg/L	0.2183	ppb	16:23:33
2	Ba 233.527†	-173.8	-30.3	-0.1350	µg/L	-0.1350	ppb	16:23:53
2	Be 313.107†	-742.6	344.5	0.0976	µg/L	0.0976	ppb	16:23:33
2	Cd 226.502†	-68.1	34.9	0.2354	µg/L	0.2354	ppb	16:23:53
2	Co 228.616†	-201.0	8.0	0.1059	µg/L	0.1059	ppb	16:23:53
2	Cr 267.716†	253.1	21.5	0.1914	µg/L	0.1914	ppb	16:23:53
2	Cu 324.752†	2852.8	-165.5	-0.6976	µg/L	-0.6976	ppb	16:23:33
2	Mn 257.610†	232.7	49.4	0.0656	µg/L	0.0656	ppb	16:23:53
2	Mo 202.031†	-20.5	18.0	0.5873	µg/L	0.5873	ppb	16:23:53
2	Ni 231.604†	-69.7	25.8	0.3229	µg/L	0.3229	ppb	16:23:53
2	P 214.914†	26.1	52.0	12.017	µg/L	12.017	ppb	16:23:53
2	Pb 220.353†	115.7	12.9	0.8021	µg/L	0.8021	ppb	16:23:53

2	S 181.975 Axial†	87.6	-0.8	-0.6478 µg/L	-0.6478 ppb	16:23:53
2	Sb 206.836†	69.5	-19.8	-2.5479 µg/L	-2.5479 ppb	16:23:53
2	Se 196.026†	-0.7	-6.8	-2.70 µg/L	-2.70 ppb	16:23:53
2	SiO2†	1804.8	76.9	8.1330 µg/L	8.1330 ppb	16:23:53
2	Si 251.611†	1168.7	409.0	6.4425 µg/L	6.4425 ppb	16:23:33
2	Sn 189.927†	-0.4	-2.3	-0.1607 µg/L	-0.1607 ppb	16:23:53
2	Ti 334.940†	836.8	19.1	0.0225 µg/L	0.0225 ppb	16:23:33
2	Tl 190.801†	-123.7	-10.2	-1.3995 µg/L	-1.3995 ppb	16:23:53
2	U 409.014†	-275.2	-113.6	-7.2088 µg/L	-7.2088 ppb	16:23:33
2	V 292.402†	289.4	-132.0	-0.6823 µg/L	-0.6823 ppb	16:23:33
2	Zn 213.857†	580.1	80.7	0.4801 µg/L	0.4801 ppb	16:23:53
3	Sc RADIAL	135260.2	135260.2	96.6 %		16:22:29
3	Al 396.153Radial†	-92.4	-17.1	-3.6383 µg/L	-3.6383 ppb	16:22:49
3	Ca 317.933Radial†	627.0	78.0	5.3124 µg/L	5.3124 ppb	16:22:49
3	Fe 238.204 Radial†	161.8	50.3	3.7569 µg/L	3.7569 ppb	16:22:49
3	K 766.490 Radial†	1680.5	246.8	97.770 µg/L	97.770 ppb	16:22:29
3	Mg 279.077 IEC†	155.1	-11.9	-5.4573 µg/L	-5.4573 ppb	16:22:49
3	Na 589.592 Radial†	1122.8	210.4	32.526 µg/L	32.526 ppb	16:22:29
3	Sr 421.552†	-208.3	-11.2	-0.0265 µg/L	-0.0265 ppb	16:22:29
3	Sc 361.383	1800732.3	1800732.3	99.810 %		16:23:56
3	Y 371.029	1058680.1	1058680.1	100.13 %		16:23:56
3	Ag 328.068†	3878.2	-679.6	-2.7909 µg/L	-2.7909 ppb	16:23:58
3	As 188.979†	-18.1	0.4	0.1428 µg/L	0.1428 ppb	16:24:18
3	B 249.677†	3937.5	-120.2	-1.8691 µg/L	-1.8691 ppb	16:23:58
3	Ba 233.527†	-143.7	0.6	0.0026 µg/L	0.0026 ppb	16:24:18
3	Be 313.107†	-678.8	411.6	0.1182 µg/L	0.1182 ppb	16:23:58
3	Cd 226.502†	-84.4	18.8	0.1271 µg/L	0.1271 ppb	16:24:18
3	Co 228.616†	-207.7	2.2	0.0288 µg/L	0.0288 ppb	16:24:18
3	Cr 267.716†	248.8	16.0	0.1416 µg/L	0.1416 ppb	16:24:18
3	Cu 324.752†	2976.5	-54.0	-0.2282 µg/L	-0.2282 ppb	16:23:58
3	Mn 257.610†	227.4	43.1	0.0573 µg/L	0.0573 ppb	16:24:18
3	Mo 202.031†	-16.0	22.5	0.7372 µg/L	0.7372 ppb	16:24:18
3	Ni 231.604†	-61.6	34.2	0.4276 µg/L	0.4276 ppb	16:24:18
3	P 214.914†	15.7	41.5	9.5806 µg/L	9.5806 ppb	16:24:18
3	Pb 220.353†	92.3	-10.9	-0.6685 µg/L	-0.6685 ppb	16:24:18
3	S 181.975 Axial†	91.2	2.4	2.0512 µg/L	2.0512 ppb	16:24:18
3	Sb 206.836†	68.4	-21.2	-2.7306 µg/L	-2.7306 ppb	16:24:18
3	Se 196.026†	21.6	15.5	6.09 µg/L	6.09 ppb	16:24:18
3	SiO2†	1782.5	46.8	4.9392 µg/L	4.9392 ppb	16:24:18
3	Si 251.611†	1143.9	379.1	5.9689 µg/L	5.9689 ppb	16:23:58
3	Sn 189.927†	-0.8	-2.7	-0.1901 µg/L	-0.1901 ppb	16:24:18
3	Ti 334.940†	511.3	-310.7	-0.3171 µg/L	-0.3171 ppb	16:23:58
3	Tl 190.801†	-97.7	16.4	2.2354 µg/L	2.2354 ppb	16:24:18
3	U 409.014†	-218.9	-56.0	-3.5542 µg/L	-3.5542 ppb	16:23:58
3	V 292.402†	346.2	-76.4	-0.3900 µg/L	-0.3900 ppb	16:23:58
3	Zn 213.857†	583.5	81.6	0.4842 µg/L	0.4842 ppb	16:24:18

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1796935.2	99.600	%	0.2157				0.22%
Sc RADIAL	136736.7	97.6	%	1.07				1.09%
Y 371.029	1055970.5	99.875	%	0.2344				0.23%
Ag 328.068†	-502.9	-2.0660	µg/L	0.62861	-2.0660	ppb	0.62861	30.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.9	0.1650	µg/L	3.75658	0.1650	ppb	3.75658	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.5	2.5328	µg/L	2.14605	2.5328	ppb	2.14605	84.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-45.1	-0.7010	µg/L	1.06567	-0.7010	ppb	1.06567	152.02%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-15.7	-0.0699	µg/L	0.06910	-0.0699	ppb	0.06910	98.89%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	384.8	0.1112	µg/L	0.01176	0.1112	ppb	0.01176	10.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	72.6	4.9460	µg/L	0.51510	4.9460	ppb	0.51510	10.41%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.2	0.1837	µg/L	0.05431	0.1837	ppb	0.05431	29.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.9	0.1043	µg/L	0.07467	0.1043	ppb	0.07467	71.61%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.0      0.0783 µg/L       0.15482      0.0783 ppb        0.15482 197.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -94.9     -0.3972 µg/L       0.26085     -0.3972 ppb        0.26085  65.67%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         47.5      3.5452 µg/L       0.29075      3.5452 ppb        0.29075   8.20%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         153.1      60.671 µg/L       36.8077      60.671 ppb        36.8077  60.67%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -9.9     -4.5756 µg/L       4.49782     -4.5756 ppb        4.49782  98.30%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                48.8      0.0649 µg/L       0.00718      0.0649 ppb        0.00718  11.07%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                21.8      0.7127 µg/L       0.11510      0.7127 ppb        0.11510  16.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        201.7      31.213 µg/L       12.6571      31.213 ppb        12.6571  40.55%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                25.8      0.3231 µg/L       0.10444      0.3231 ppb        0.10444  32.33%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 45.5      10.518 µg/L        1.3118      10.518 ppb         1.3118  12.47%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 5.6      0.3463 µg/L       0.88039      0.3463 ppb        0.88039 254.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.6      2.1786 µg/L       2.89220      2.1786 ppb        2.89220 132.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -15.1     -1.9374 µg/L       1.21904     -1.9374 ppb        1.21904  62.92%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 8.4       3.30 µg/L         5.201        3.30 ppb          5.201 157.38%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      65.6      6.9250 µg/L       1.73317      6.9250 ppb        1.73317  25.03%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               344.7      5.4273 µg/L       1.36882      5.4273 ppb        1.36882  25.22%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.6     -0.2475 µg/L       0.12574     -0.2475 ppb        0.12574  50.80%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -41.6     -0.0982 µg/L       0.06221     -0.0982 ppb        0.06221  63.33%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -122.8     -0.1253 µg/L       0.17407     -0.1253 ppb        0.17407 138.93%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.4     -0.0570 µg/L       1.99496     -0.0570 ppb        1.99496 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -14.1     -0.9184 µg/L       7.94337     -0.9184 ppb        7.94337 864.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -97.6     -0.4990 µg/L       0.15971     -0.4990 ppb        0.15971  32.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                84.6      0.5029 µg/L       0.03599      0.5029 ppb        0.03599   7.16%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 16:37:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	134299.0	134299.0	95.9	%			16:37:48
1	Al 396.153Radial†	22539.9	23590.8	4943.4	µg/L	4943.4	ppb	16:37:48
1	Ca 317.933Radial†	71903.5	74434.2	5069.6	µg/L	5069.6	ppb	16:37:48
1	Fe 238.204 Radial†	64644.2	67315.8	5027.1	µg/L	5027.1	ppb	16:37:48
1	K 766.490 Radial†	13671.0	12767.0	5054.8	µg/L	5054.8	ppb	16:37:48
1	Mg 279.077 IEC†	10660.9	10948.4	5063.3	µg/L	5063.3	ppb	16:37:48
1	Na 589.592 Radial†	63306.0	65084.6	10084	µg/L	10084	ppb	16:37:48
1	Sr 421.552†	205476.3	214545.6	505.96	µg/L	505.96	ppb	16:37:46
1	Sc 361.383	1762859.8	1762859.8	97.711	%			16:38:15
1	Y 371.029	1025616.3	1025616.3	97.004	%			16:38:15
1	Ag 328.068†	123395.7	121721.0	504.56	µg/L	504.56	ppb	16:38:15
1	As 188.979†	1305.4	1354.6	465.43	µg/L	465.43	ppb	16:38:35
1	B 249.677†	35143.6	31901.6	494.37	µg/L	494.37	ppb	16:38:15
1	Ba 233.527†	109199.1	111901.6	497.80	µg/L	497.80	ppb	16:38:15
1	Be 313.107†	1647067.4	1686739.8	488.75	µg/L	488.75	ppb	16:38:15
1	Cd 226.502†	72599.6	74403.6	502.56	µg/L	502.56	ppb	16:38:15
1	Co 228.616†	37212.9	38294.9	506.88	µg/L	506.88	ppb	16:38:15
1	Cr 267.716†	56830.0	57927.9	501.01	µg/L	501.01	ppb	16:38:15
1	Cu 324.752†	119567.1	119331.7	500.69	µg/L	500.69	ppb	16:38:15
1	Mn 257.610†	369741.1	378217.2	501.51	µg/L	501.51	ppb	16:38:15
1	Mo 202.031†	14940.7	15329.3	501.79	µg/L	501.79	ppb	16:38:35
1	Ni 231.604†	39200.3	40214.4	503.13	µg/L	503.13	ppb	16:38:15
1	P 214.914†	10483.0	10754.2	2479.1	µg/L	2479.1	ppb	16:38:35
1	Pb 220.353†	8090.1	8176.1	504.70	µg/L	504.70	ppb	16:38:35
1	S 181.975 Axial†	1238.0	1178.1	995.28	µg/L	995.28	ppb	16:38:35
1	Sb 206.836†	3846.1	3846.5	497.12	µg/L	497.12	ppb	16:38:35
1	Se 196.026†	1250.7	1273.8	504	µg/L	504	ppb	16:38:35
1	SiO2†	50750.9	50200.6	5294.7	µg/L	5294.7	ppb	16:38:15
1	Si 251.611†	155479.4	158354.3	2487.1	µg/L	2487.1	ppb	16:38:15
1	Sn 189.927†	6943.7	7104.4	494.47	µg/L	494.47	ppb	16:38:35
1	Ti 334.940†	475046.0	485350.4	497.85	µg/L	497.85	ppb	16:38:15
1	Tl 190.801†	3445.5	3640.5	504.61	µg/L	504.61	ppb	16:38:35
1	U 409.014†	7234.1	7567.0	508.07	µg/L	508.07	ppb	16:38:15
1	V 292.402†	94774.3	96571.1	507.19	µg/L	507.19	ppb	16:38:15
1	Zn 213.857†	82846.3	84283.9	499.36	µg/L	499.36	ppb	16:38:15
2	Sc RADIAL	137458.8	137458.8	98.1	%			16:37:52
2	Al 396.153Radial†	23161.9	23684.3	4962.7	µg/L	4962.7	ppb	16:37:52
2	Ca 317.933Radial†	73735.6	74577.2	5079.4	µg/L	5079.4	ppb	16:37:52
2	Fe 238.204 Radial†	66292.7	67445.8	5036.8	µg/L	5036.8	ppb	16:37:52
2	K 766.490 Radial†	14026.1	12801.1	5068.3	µg/L	5068.3	ppb	16:37:52
2	Mg 279.077 IEC†	10894.8	10931.2	5055.5	µg/L	5055.5	ppb	16:37:52
2	Na 589.592 Radial†	64445.4	64727.8	10029	µg/L	10029	ppb	16:37:52
2	Sr 421.552†	205998.1	210150.1	495.59	µg/L	495.59	ppb	16:37:50
2	Sc 361.383	1741816.6	1741816.6	96.545	%			16:38:38
2	Y 371.029	1012847.4	1012847.4	95.796	%			16:38:38
2	Ag 328.068†	122256.6	122066.8	505.97	µg/L	505.97	ppb	16:38:38
2	As 188.979†	1323.8	1389.8	477.35	µg/L	477.35	ppb	16:38:58
2	B 249.677†	34721.3	31898.8	494.33	µg/L	494.33	ppb	16:38:38
2	Ba 233.527†	107587.0	111581.9	496.38	µg/L	496.38	ppb	16:38:38
2	Be 313.107†	1623113.4	1682293.1	487.47	µg/L	487.47	ppb	16:38:38
2	Cd 226.502†	71393.6	74052.0	500.18	µg/L	500.18	ppb	16:38:38
2	Co 228.616†	36629.0	38150.2	504.96	µg/L	504.96	ppb	16:38:38
2	Cr 267.716†	56033.9	57806.0	499.94	µg/L	499.94	ppb	16:38:38
2	Cu 324.752†	118002.7	119189.7	500.10	µg/L	500.10	ppb	16:38:38
2	Mn 257.610†	364470.7	377329.6	500.33	µg/L	500.33	ppb	16:38:38
2	Mo 202.031†	15046.1	15623.1	511.40	µg/L	511.40	ppb	16:38:58
2	Ni 231.604†	38541.8	40017.1	500.66	µg/L	500.66	ppb	16:38:38
2	P 214.914†	10569.3	10973.3	2529.7	µg/L	2529.7	ppb	16:38:58
2	Pb 220.353†	8110.9	8297.7	512.20	µg/L	512.20	ppb	16:38:58

2	S 181.975 Axial†	1245.8	1201.4	1015.0 µg/L	1015.0 ppb	16:38:58
2	Sb 206.836†	3885.7	3935.1	508.71 µg/L	508.71 ppb	16:38:58
2	Se 196.026†	1263.4	1302.5	515 µg/L	515 ppb	16:38:58
2	SiO2†	50053.9	50106.2	5284.3 µg/L	5284.3 ppb	16:38:38
2	Si 251.611†	153293.7	158012.8	2481.6 µg/L	2481.6 ppb	16:38:38
2	Sn 189.927†	6969.6	7217.2	502.29 µg/L	502.29 ppb	16:38:58
2	Ti 334.940†	468356.6	484295.1	496.76 µg/L	496.76 ppb	16:38:38
2	Tl 190.801†	3456.6	3694.6	511.97 µg/L	511.97 ppb	16:38:58
2	U 409.014†	7320.9	7746.2	519.25 µg/L	519.25 ppb	16:38:38
2	V 292.402†	93250.7	96164.7	505.19 µg/L	505.19 ppb	16:38:38
2	Zn 213.857†	81796.4	84220.7	499.00 µg/L	499.00 ppb	16:38:38
3	Sc RADIAL	135624.5	135624.5	96.8 %		16:37:56
3	Al 396.153Radial†	22686.3	23512.3	4926.9 µg/L	4926.9 ppb	16:37:56
3	Ca 317.933Radial†	72585.3	74405.4	5067.7 µg/L	5067.7 ppb	16:37:56
3	Fe 238.204 Radial†	65270.2	67303.3	5026.2 µg/L	5026.2 ppb	16:37:56
3	K 766.490 Radial†	13820.3	12781.9	5060.7 µg/L	5060.7 ppb	16:37:56
3	Mg 279.077 IEC†	10771.3	10953.7	5065.7 µg/L	5065.7 ppb	16:37:56
3	Na 589.592 Radial†	63778.2	64926.9	10060 µg/L	10060 ppb	16:37:56
3	Sr 421.552†	209035.9	216127.5	509.69 µg/L	509.69 ppb	16:37:54
3	Sc 361.383	1770882.7	1770882.7	98.156 %		16:39:01
3	Y 371.029	1029563.5	1029563.5	97.377 %		16:39:01
3	Ag 328.068†	124006.5	121771.1	504.76 µg/L	504.76 ppb	16:39:01
3	As 188.979†	1312.9	1356.2	465.98 µg/L	465.98 ppb	16:39:21
3	B 249.677†	35356.6	31955.7	495.21 µg/L	495.21 ppb	16:39:01
3	Ba 233.527†	109653.1	111857.8	497.60 µg/L	497.60 ppb	16:39:01
3	Be 313.107†	1656578.1	1688792.4	489.35 µg/L	489.35 ppb	16:39:01
3	Cd 226.502†	72927.7	74401.2	502.55 µg/L	502.55 ppb	16:39:01
3	Co 228.616†	37266.9	38177.3	505.32 µg/L	505.32 ppb	16:39:01
3	Cr 267.716†	57201.0	58042.4	501.99 µg/L	501.99 ppb	16:39:01
3	Cu 324.752†	119956.8	119174.4	500.03 µg/L	500.03 ppb	16:39:01
3	Mn 257.610†	371246.4	378036.4	501.27 µg/L	501.27 ppb	16:39:01
3	Mo 202.031†	15011.7	15332.3	501.88 µg/L	501.88 ppb	16:39:21
3	Ni 231.604†	39375.4	40211.0	503.09 µg/L	503.09 ppb	16:39:01
3	P 214.914†	10528.5	10751.9	2478.5 µg/L	2478.5 ppb	16:39:21
3	Pb 220.353†	8147.0	8196.6	505.96 µg/L	505.96 ppb	16:39:21
3	S 181.975 Axial†	1255.3	1190.0	1005.3 µg/L	1005.3 ppb	16:39:21
3	Sb 206.836†	3876.4	3859.5	498.78 µg/L	498.78 ppb	16:39:21
3	Se 196.026†	1249.1	1266.4	501 µg/L	501 ppb	16:39:21
3	SiO2†	51030.4	50250.0	5300.0 µg/L	5300.0 ppb	16:39:01
3	Si 251.611†	156527.4	158701.1	2492.6 µg/L	2492.6 ppb	16:39:01
3	Sn 189.927†	6968.3	7097.4	493.98 µg/L	493.98 ppb	16:39:21
3	Ti 334.940†	477306.2	485450.5	497.95 µg/L	497.95 ppb	16:39:01
3	Tl 190.801†	3451.0	3630.1	503.19 µg/L	503.19 ppb	16:39:21
3	U 409.014†	7309.5	7610.1	510.71 µg/L	510.71 ppb	16:39:01
3	V 292.402†	94957.8	96318.6	505.89 µg/L	505.89 ppb	16:39:01
3	Zn 213.857†	83187.1	84247.0	499.14 µg/L	499.14 ppb	16:39:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1758519.7	97.471	%	0.8320				0.85%
Sc RADIAL	135794.1	96.9	%	1.13				1.17%
Y 371.029	1022675.7	96.725	%	0.8264				0.85%
Ag 328.068†	121853.0	505.10	µg/L	0.761	505.10	ppb	0.761	0.15%
QC value within limits for Ag 328.068 Recovery = 101.02%								
Al 396.153Radial†	23595.8	4944.3	µg/L	17.91	4944.3	ppb	17.91	0.36%
QC value within limits for Al 396.153Radial Recovery = 98.89%								
As 188.979†	1366.8	469.59	µg/L	6.729	469.59	ppb	6.729	1.43%
QC value within limits for As 188.979 Recovery = 93.92%								
B 249.677†	31918.7	494.64	µg/L	0.500	494.64	ppb	0.500	0.10%
QC value within limits for B 249.677 Recovery = 98.93%								
Ba 233.527†	111780.4	497.26	µg/L	0.769	497.26	ppb	0.769	0.15%
QC value within limits for Ba 233.527 Recovery = 99.45%								
Be 313.107†	1685941.8	488.52	µg/L	0.961	488.52	ppb	0.961	0.20%
QC value within limits for Be 313.107 Recovery = 97.70%								
Ca 317.933Radial†	74472.2	5072.2	µg/L	6.27	5072.2	ppb	6.27	0.12%
QC value within limits for Ca 317.933Radial Recovery = 101.44%								
Cd 226.502†	74285.6	501.76	µg/L	1.369	501.76	ppb	1.369	0.27%
QC value within limits for Cd 226.502 Recovery = 100.35%								
Co 228.616†	38207.5	505.72	µg/L	1.018	505.72	ppb	1.018	0.20%

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   QC value within limits for Co 228.616  Recovery = 101.14%
Cr 267.716†            57925.4      500.98 µg/L         1.026      500.98 ppb          1.026   0.20%
   QC value within limits for Cr 267.716  Recovery = 100.20%
Cu 324.752†           119231.9      500.27 µg/L         0.360      500.27 ppb          0.360   0.07%
   QC value within limits for Cu 324.752  Recovery = 100.05%
Fe 238.204 Radial†     67355.0      5030.0 µg/L          5.89      5030.0 ppb           5.89   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.60%
K 766.490 Radial†      12783.3      5061.2 µg/L          6.79      5061.2 ppb           6.79   0.13%
   QC value within limits for K 766.490 Radial  Recovery = 101.22%
Mg 279.077 IEC†        10944.4      5061.5 µg/L          5.32      5061.5 ppb           5.32   0.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.23%
Mn 257.610†           377861.1      501.04 µg/L         0.622      501.04 ppb          0.622   0.12%
   QC value within limits for Mn 257.610  Recovery = 100.21%
Mo 202.031†            15428.2      505.02 µg/L         5.520      505.02 ppb          5.520   1.09%
   QC value within limits for Mo 202.031  Recovery = 101.00%
Na 589.592 Radial†     64913.1       10058 µg/L          27.7       10058 ppb           27.7   0.28%
   QC value within limits for Na 589.592 Radial  Recovery = 100.58%
Ni 231.604†            40147.5      502.30 µg/L         1.413      502.30 ppb          1.413   0.28%
   QC value within limits for Ni 231.604  Recovery = 100.46%
P 214.914†             10826.5      2495.8 µg/L         29.39      2495.8 ppb          29.39   1.18%
   QC value within limits for P 214.914  Recovery = 99.83%
Pb 220.353†             8223.5      507.62 µg/L         4.015      507.62 ppb          4.015   0.79%
   QC value within limits for Pb 220.353  Recovery = 101.52%
S 181.975 Axial†        1189.8      1005.2 µg/L          9.87      1005.2 ppb           9.87   0.98%
   QC value within limits for S 181.975 Axial  Recovery = 100.52%
Sb 206.836†             3880.3      501.54 µg/L         6.264      501.54 ppb          6.264   1.25%
   QC value within limits for Sb 206.836  Recovery = 100.31%
Se 196.026†             1280.9         507 µg/L           7.5         507 ppb            7.5   1.48%
   QC value within limits for Se 196.026  Recovery = 101.37%
SiO2†                  50185.6      5293.0 µg/L          7.95      5293.0 ppb           7.95   0.15%
   QC value within limits for SiO2  Recovery = 98.98%
Si 251.611†           158356.0      2487.1 µg/L          5.52      2487.1 ppb           5.52   0.22%
   QC value within limits for Si 251.611  Recovery = 99.48%
Sn 189.927†             7139.7      496.91 µg/L         4.661      496.91 ppb          4.661   0.94%
   QC value within limits for Sn 189.927  Recovery = 99.38%
Sr 421.552†           213607.7      503.75 µg/L         7.304      503.75 ppb          7.304   1.45%
   QC value within limits for Sr 421.552  Recovery = 100.75%
Ti 334.940†           485032.0      497.52 µg/L         0.659      497.52 ppb          0.659   0.13%
   QC value within limits for Ti 334.940  Recovery = 99.50%
Tl 190.801†             3655.1      506.59 µg/L         4.717      506.59 ppb          4.717   0.93%
   QC value within limits for Tl 190.801  Recovery = 101.32%
U 409.014†              7641.1      512.68 µg/L         5.844      512.68 ppb          5.844   1.14%
   QC value within limits for U 409.014  Recovery = 102.54%
V 292.402†             96351.5      506.09 µg/L         1.017      506.09 ppb          1.017   0.20%
   QC value within limits for V 292.402  Recovery = 101.22%
Zn 213.857†            84250.5      499.16 µg/L         0.182      499.16 ppb          0.182   0.04%
   QC value within limits for Zn 213.857  Recovery = 99.83%
All analyte(s) passed QC.
```

Sequence No.: 28 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 4/5/2010 16:39:29**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137942.2	137942.2	98.5	%			16:40:00
1	Al 396.153Radial†	-70.1	7.3	1.5274	µg/L	1.5274	ppb	16:40:20
1	Ca 317.933Radial†	599.6	37.5	2.5564	µg/L	2.5564	ppb	16:40:20
1	Fe 238.204 Radial†	134.7	19.5	1.4526	µg/L	1.4526	ppb	16:40:20
1	K 766.490 Radial†	1647.4	179.3	71.054	µg/L	71.054	ppb	16:40:00
1	Mg 279.077 IEC†	195.5	26.1	12.041	µg/L	12.041	ppb	16:40:20
1	Na 589.592 Radial†	1040.9	104.6	16.153	µg/L	16.153	ppb	16:40:00
1	Sr 421.552†	-212.6	-11.4	-0.0269	µg/L	-0.0269	ppb	16:40:00
1	Sc 361.383	1798118.0	1798118.0	99.666	%			16:41:21
1	Y 371.029	1057321.3	1057321.3	100.00	%			16:41:21
1	Ag 328.068†	3964.1	-587.8	-2.4126	µg/L	-2.4126	ppb	16:41:24
1	As 188.979†	-15.3	3.2	1.0699	µg/L	1.0699	ppb	16:41:44
1	B 249.677†	4000.1	-51.6	-0.8028	µg/L	-0.8028	ppb	16:41:24
1	Ba 233.527†	-134.6	9.4	0.0423	µg/L	0.0423	ppb	16:41:44
1	Be 313.107†	-535.2	554.7	0.1582	µg/L	0.1582	ppb	16:41:24
1	Cd 226.502†	-57.4	45.7	0.3090	µg/L	0.3090	ppb	16:41:44
1	Co 228.616†	-195.4	14.3	0.1890	µg/L	0.1890	ppb	16:41:44
1	Cr 267.716†	264.8	32.5	0.2878	µg/L	0.2878	ppb	16:41:44
1	Cu 324.752†	2812.6	-214.1	-0.9016	µg/L	-0.9016	ppb	16:41:24
1	Mn 257.610†	219.9	35.9	0.0471	µg/L	0.0471	ppb	16:41:44
1	Mo 202.031†	-29.7	8.8	0.2887	µg/L	0.2887	ppb	16:41:44
1	Ni 231.604†	-75.4	20.3	0.2539	µg/L	0.2539	ppb	16:41:44
1	P 214.914†	17.6	43.3	10.032	µg/L	10.032	ppb	16:41:44
1	Pb 220.353†	114.7	11.6	0.7236	µg/L	0.7236	ppb	16:41:44
1	S 181.975 Axial†	94.7	6.1	5.1206	µg/L	5.1206	ppb	16:41:44
1	Sb 206.836†	86.7	-2.7	-0.3466	µg/L	-0.3466	ppb	16:41:44
1	Se 196.026†	13.2	7.1	2.80	µg/L	2.80	ppb	16:41:44
1	SiO2†	1753.4	20.2	2.1268	µg/L	2.1268	ppb	16:41:44
1	Si 251.611†	1068.6	305.2	4.8084	µg/L	4.8084	ppb	16:41:24
1	Sn 189.927†	2.4	0.6	0.0398	µg/L	0.0398	ppb	16:41:44
1	Ti 334.940†	913.0	93.0	0.0979	µg/L	0.0979	ppb	16:41:24
1	Tl 190.801†	-106.5	7.5	1.0204	µg/L	1.0204	ppb	16:41:44
1	U 409.014†	-291.9	-129.5	-8.1577	µg/L	-8.1577	ppb	16:41:24
1	V 292.402†	480.1	58.4	0.3014	µg/L	0.3014	ppb	16:41:24
1	Zn 213.857†	595.7	94.7	0.5647	µg/L	0.5647	ppb	16:41:44
2	Sc RADIAL	135829.4	135829.4	97.0	%			16:40:22
2	Al 396.153Radial†	-81.3	-5.3	-1.1368	µg/L	-1.1368	ppb	16:40:42
2	Ca 317.933Radial†	621.2	69.3	4.7175	µg/L	4.7175	ppb	16:40:42
2	Fe 238.204 Radial†	157.1	44.8	3.3436	µg/L	3.3436	ppb	16:40:42
2	K 766.490 Radial†	1505.9	59.4	23.526	µg/L	23.526	ppb	16:40:22
2	Mg 279.077 IEC†	162.7	-4.6	-2.1319	µg/L	-2.1319	ppb	16:40:42
2	Na 589.592 Radial†	1108.8	191.1	29.596	µg/L	29.596	ppb	16:40:22
2	Sr 421.552†	-212.6	-14.8	-0.0349	µg/L	-0.0349	ppb	16:40:22
2	Sc 361.383	1790048.2	1790048.2	99.218	%			16:41:46
2	Y 371.029	1053046.8	1053046.8	99.598	%			16:41:46
2	Ag 328.068†	3895.9	-638.6	-2.6305	µg/L	-2.6305	ppb	16:41:48
2	As 188.979†	-15.3	3.1	1.0582	µg/L	1.0582	ppb	16:42:08
2	B 249.677†	3908.1	-126.3	-1.9638	µg/L	-1.9638	ppb	16:41:48
2	Ba 233.527†	-167.8	-24.6	-0.1094	µg/L	-0.1094	ppb	16:42:08
2	Be 313.107†	-639.8	446.9	0.1266	µg/L	0.1266	ppb	16:41:48
2	Cd 226.502†	-87.9	14.8	0.0997	µg/L	0.0997	ppb	16:42:08
2	Co 228.616†	-216.5	-7.9	-0.1050	µg/L	-0.1050	ppb	16:42:08
2	Cr 267.716†	233.6	2.2	0.0264	µg/L	0.0264	ppb	16:42:08
2	Cu 324.752†	2737.5	-277.1	-1.1663	µg/L	-1.1663	ppb	16:41:48
2	Mn 257.610†	246.1	63.3	0.0841	µg/L	0.0841	ppb	16:42:08
2	Mo 202.031†	-30.1	8.2	0.2692	µg/L	0.2692	ppb	16:42:08
2	Ni 231.604†	-68.8	26.6	0.3323	µg/L	0.3323	ppb	16:42:08
2	P 214.914†	23.9	49.8	11.533	µg/L	11.533	ppb	16:42:08
2	Pb 220.353†	118.7	16.2	1.0043	µg/L	1.0043	ppb	16:42:08

2	S 181.975 Axial†	93.8	5.6	4.7433 µg/L	4.7433 ppb	16:42:08
2	Sb 206.836†	85.9	-3.1	-0.3997 µg/L	-0.3997 ppb	16:42:08
2	Se 196.026†	14.2	8.1	3.20 µg/L	3.20 ppb	16:42:08
2	SiO2†	1805.8	81.0	8.5639 µg/L	8.5639 ppb	16:42:08
2	Si 251.611†	1082.0	323.5	5.0963 µg/L	5.0963 ppb	16:41:48
2	Sn 189.927†	4.0	2.1	0.1457 µg/L	0.1457 ppb	16:42:08
2	Ti 334.940†	649.2	-168.7	-0.1691 µg/L	-0.1691 ppb	16:41:48
2	Tl 190.801†	-112.0	1.4	0.1895 µg/L	0.1895 ppb	16:42:08
2	U 409.014†	-309.6	-148.7	-9.4054 µg/L	-9.4054 ppb	16:41:48
2	V 292.402†	339.9	-80.7	-0.4219 µg/L	-0.4219 ppb	16:41:48
2	Zn 213.857†	584.0	85.6	0.5096 µg/L	0.5096 ppb	16:42:08
3	Sc RADIAL	136159.2	136159.2	97.2 %		16:40:44
3	Al 396.153Radial†	-49.1	28.0	5.8522 µg/L	5.8522 ppb	16:41:04
3	Ca 317.933Radial†	630.3	77.1	5.2493 µg/L	5.2493 ppb	16:41:04
3	Fe 238.204 Radial†	158.5	45.8	3.4169 µg/L	3.4169 ppb	16:41:04
3	K 766.490 Radial†	1618.7	171.6	68.010 µg/L	68.010 ppb	16:40:44
3	Mg 279.077 IEC†	183.9	16.8	7.7589 µg/L	7.7589 ppb	16:41:04
3	Na 589.592 Radial†	982.5	58.3	8.9837 µg/L	8.9837 ppb	16:40:44
3	Sr 421.552†	-155.2	44.8	0.1056 µg/L	0.1056 ppb	16:40:44
3	Sc 361.383	1784965.0	1784965.0	98.936 %		16:42:10
3	Y 371.029	1049565.0	1049565.0	99.269 %		16:42:10
3	Ag 328.068†	4128.3	-392.5	-1.6080 µg/L	-1.6080 ppb	16:42:12
3	As 188.979†	-19.2	-0.9	-0.2935 µg/L	-0.2935 ppb	16:42:32
3	B 249.677†	4037.5	15.8	0.2442 µg/L	0.2442 ppb	16:42:12
3	Ba 233.527†	-169.4	-26.6	-0.1183 µg/L	-0.1183 ppb	16:42:32
3	Be 313.107†	-650.5	434.2	0.1261 µg/L	0.1261 ppb	16:42:12
3	Cd 226.502†	-44.5	58.4	0.3944 µg/L	0.3944 ppb	16:42:32
3	Co 228.616†	-180.7	27.7	0.3658 µg/L	0.3658 ppb	16:42:32
3	Cr 267.716†	228.4	-2.3	-0.0211 µg/L	-0.0211 ppb	16:42:32
3	Cu 324.752†	2905.1	-99.8	-0.4156 µg/L	-0.4156 ppb	16:42:12
3	Mn 257.610†	227.5	45.3	0.0597 µg/L	0.0597 ppb	16:42:32
3	Mo 202.031†	-9.6	28.8	0.9435 µg/L	0.9435 ppb	16:42:32
3	Ni 231.604†	-57.6	37.7	0.4718 µg/L	0.4718 ppb	16:42:32
3	P 214.914†	22.8	48.7	11.259 µg/L	11.259 ppb	16:42:32
3	Pb 220.353†	119.8	17.6	1.0864 µg/L	1.0864 ppb	16:42:32
3	S 181.975 Axial†	84.0	-4.0	-3.3925 µg/L	-3.3925 ppb	16:42:32
3	Sb 206.836†	89.3	0.6	0.0839 µg/L	0.0839 ppb	16:42:32
3	Se 196.026†	23.1	17.2	6.78 µg/L	6.78 ppb	16:42:32
3	SiO2†	1790.2	70.4	7.4259 µg/L	7.4259 ppb	16:42:32
3	Si 251.611†	1153.3	398.6	6.2742 µg/L	6.2742 ppb	16:42:12
3	Sn 189.927†	0.5	-1.4	-0.0955 µg/L	-0.0955 ppb	16:42:32
3	Ti 334.940†	676.4	-139.4	-0.1441 µg/L	-0.1441 ppb	16:42:12
3	Tl 190.801†	-115.1	-2.0	-0.2824 µg/L	-0.2824 ppb	16:42:32
3	U 409.014†	-143.9	18.0	1.1202 µg/L	1.1202 ppb	16:42:12
3	V 292.402†	377.5	-41.7	-0.2057 µg/L	-0.2057 ppb	16:42:12
3	Zn 213.857†	584.5	87.8	0.5213 µg/L	0.5213 ppb	16:42:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1791043.7	99.273	%	0.3676				0.37%
Sc RADIAL	136643.6	97.5	%	0.81				0.83%
Y 371.029	1053311.0	99.623	%	0.3674				0.37%
Ag 328.068†	-539.6	-2.2171	µg/L	0.53857	-2.2171	ppb	0.53857	24.29%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.0	2.0809	µg/L	3.52725	2.0809	ppb	3.52725	169.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.8	0.6116	µg/L	0.78382	0.6116	ppb	0.78382	128.17%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-54.0	-0.8408	µg/L	1.10448	-0.8408	ppb	1.10448	131.36%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-13.9	-0.0618	µg/L	0.09022	-0.0618	ppb	0.09022	146.01%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	478.6	0.1370	µg/L	0.01839	0.1370	ppb	0.01839	13.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	61.3	4.1744	µg/L	1.42623	4.1744	ppb	1.42623	34.17%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	39.6	0.2677	µg/L	0.15164	0.2677	ppb	0.15164	56.65%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.3	0.1499	µg/L	0.23781	0.1499	ppb	0.23781	158.65%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              10.8      0.0977 µg/L       0.16635      0.0977 ppb        0.16635 170.29%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -197.0     -0.8278 µg/L       0.38076     -0.8278 ppb        0.38076  46.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       36.7      2.7377 µg/L       1.11353      2.7377 ppb        1.11353  40.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       136.8      54.197 µg/L       26.6054      54.197 ppb        26.6054  49.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          12.7      5.8892 µg/L       7.26896      5.8892 ppb        7.26896 123.43%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              48.2      0.0637 µg/L       0.01878      0.0637 ppb        0.01878  29.51%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              15.3      0.5005 µg/L       0.38378      0.5005 ppb        0.38378  76.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      118.0      18.244 µg/L       10.4639      18.244 ppb        10.4639  57.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              28.2      0.3527 µg/L       0.11039      0.3527 ppb        0.11039  31.30%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               47.3      10.941 µg/L        0.7992      10.941 ppb         0.7992   7.30%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              15.2      0.9381 µg/L       0.19024      0.9381 ppb        0.19024  20.28%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.6      2.1571 µg/L       4.80982      2.1571 ppb        4.80982 222.98%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.8     -0.2208 µg/L       0.26524     -0.2208 ppb        0.26524 120.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              10.8        4.26 µg/L         2.187        4.26 ppb          2.187  51.32%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    57.2      6.0389 µg/L       3.43538      6.0389 ppb        3.43538  56.89%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             342.4      5.3930 µg/L       0.77662      5.3930 ppb        0.77662  14.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.4      0.0300 µg/L       0.12089      0.0300 ppb        0.12089 403.31%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               6.2      0.0146 µg/L       0.07893      0.0146 ppb        0.07893 539.76%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -71.7     -0.0718 µg/L       0.14746     -0.0718 ppb        0.14746 205.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.3      0.3091 µg/L       0.65961      0.3091 ppb        0.65961 213.37%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -86.8     -5.4810 µg/L       5.75076     -5.4810 ppb        5.75076 104.92%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -21.3     -0.1088 µg/L       0.37124     -0.1088 ppb        0.37124 341.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              89.4      0.5319 µg/L       0.02905      0.5319 ppb        0.02905   5.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 33
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 16:51:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	137355.8	137355.8	98.0	%			16:51:36
1	Al 396.153Radial†	22880.1	23414.6	4906.0	µg/L	4906.0	ppb	16:51:36
1	Ca 317.933Radial†	73465.8	74358.3	5064.5	µg/L	5064.5	ppb	16:51:36
1	Fe 238.204 Radial†	66113.6	67313.8	5026.9	µg/L	5026.9	ppb	16:51:36
1	K 766.490 Radial†	13798.9	12580.1	4980.7	µg/L	4980.7	ppb	16:51:36
1	Mg 279.077 IEC†	10888.3	10932.8	5056.2	µg/L	5056.2	ppb	16:51:36
1	Na 589.592 Radial†	64470.3	64802.5	10040	µg/L	10040	ppb	16:51:36
1	Sr 421.552†	206244.2	210558.6	496.56	µg/L	496.56	ppb	16:51:34
1	Sc 361.383	1752111.7	1752111.7	97.115	%			16:52:03
1	Y 371.029	1019584.4	1019584.4	96.433	%			16:52:03
1	Ag 328.068†	122797.2	121879.4	505.19	µg/L	505.19	ppb	16:52:03
1	As 188.979†	1318.6	1376.3	472.82	µg/L	472.82	ppb	16:52:23
1	B 249.677†	34713.1	31679.0	490.91	µg/L	490.91	ppb	16:52:03
1	Ba 233.527†	108160.2	111517.3	496.09	µg/L	496.09	ppb	16:52:03
1	Be 313.107†	1631065.2	1680602.7	486.97	µg/L	486.97	ppb	16:52:03
1	Cd 226.502†	71875.3	74113.5	500.60	µg/L	500.60	ppb	16:52:03
1	Co 228.616†	36789.0	38092.0	504.19	µg/L	504.19	ppb	16:52:03
1	Cr 267.716†	56587.7	58035.2	501.93	µg/L	501.93	ppb	16:52:03
1	Cu 324.752†	118690.0	119179.2	500.05	µg/L	500.05	ppb	16:52:03
1	Mn 257.610†	367234.6	377957.5	501.16	µg/L	501.16	ppb	16:52:03
1	Mo 202.031†	15075.9	15562.2	509.40	µg/L	509.40	ppb	16:52:23
1	Ni 231.604†	38933.2	40185.5	502.77	µg/L	502.77	ppb	16:52:03
1	P 214.914†	10611.3	10952.1	2524.8	µg/L	2524.8	ppb	16:52:23
1	Pb 220.353†	8167.7	8306.9	512.76	µg/L	512.76	ppb	16:52:23
1	S 181.975 Axial†	1254.0	1202.4	1015.8	µg/L	1015.8	ppb	16:52:23
1	Sb 206.836†	3885.0	3910.7	505.50	µg/L	505.50	ppb	16:52:23
1	Se 196.026†	1249.6	1280.6	507	µg/L	507	ppb	16:52:23
1	SiO2†	50526.9	50288.5	5303.7	µg/L	5303.7	ppb	16:52:03
1	Si 251.611†	154417.4	158236.9	2485.1	µg/L	2485.1	ppb	16:52:03
1	Sn 189.927†	7000.5	7206.5	501.55	µg/L	501.55	ppb	16:52:23
1	Ti 334.940†	471932.7	485127.0	497.62	µg/L	497.62	ppb	16:52:03
1	Tl 190.801†	3478.0	3695.6	512.13	µg/L	512.13	ppb	16:52:23
1	U 409.014†	7202.5	7579.8	508.77	µg/L	508.77	ppb	16:52:03
1	V 292.402†	93876.8	96241.9	505.57	µg/L	505.57	ppb	16:52:03
1	Zn 213.857†	82228.6	84167.9	498.67	µg/L	498.67	ppb	16:52:03
2	Sc RADIAL	137852.9	137852.9	98.4	%			16:51:40
2	Al 396.153Radial†	23111.3	23565.4	4938.1	µg/L	4938.1	ppb	16:51:40
2	Ca 317.933Radial†	73767.6	74394.9	5067.0	µg/L	5067.0	ppb	16:51:40
2	Fe 238.204 Radial†	66317.2	67277.5	5024.2	µg/L	5024.2	ppb	16:51:40
2	K 766.490 Radial†	14151.3	12887.5	5102.5	µg/L	5102.5	ppb	16:51:40
2	Mg 279.077 IEC†	10935.5	10940.7	5059.7	µg/L	5059.7	ppb	16:51:40
2	Na 589.592 Radial†	64562.9	64659.5	10018	µg/L	10018	ppb	16:51:40
2	Sr 421.552†	206421.6	209980.3	495.19	µg/L	495.19	ppb	16:51:38
2	Sc 361.383	1776733.8	1776733.8	98.480	%			16:52:26
2	Y 371.029	1032902.3	1032902.3	97.693	%			16:52:26
2	Ag 328.068†	124434.0	121789.1	504.80	µg/L	504.80	ppb	16:52:26
2	As 188.979†	1315.4	1354.2	465.34	µg/L	465.34	ppb	16:52:46
2	B 249.677†	35510.4	31993.2	495.79	µg/L	495.79	ppb	16:52:26
2	Ba 233.527†	109739.6	111577.7	496.36	µg/L	496.36	ppb	16:52:26
2	Be 313.107†	1659332.8	1686031.8	488.54	µg/L	488.54	ppb	16:52:26
2	Cd 226.502†	73406.4	74642.6	504.18	µg/L	504.18	ppb	16:52:26
2	Co 228.616†	37458.3	38246.7	506.24	µg/L	506.24	ppb	16:52:26
2	Cr 267.716†	57445.4	58098.7	502.50	µg/L	502.50	ppb	16:52:26
2	Cu 324.752†	120511.7	119335.4	500.68	µg/L	500.68	ppb	16:52:26
2	Mn 257.610†	372819.3	378388.0	501.74	µg/L	501.74	ppb	16:52:26
2	Mo 202.031†	15067.4	15338.5	502.09	µg/L	502.09	ppb	16:52:46
2	Ni 231.604†	39645.5	40353.2	504.87	µg/L	504.87	ppb	16:52:26
2	P 214.914†	10601.0	10790.3	2487.4	µg/L	2487.4	ppb	16:52:46
2	Pb 220.353†	8159.4	8181.9	505.07	µg/L	505.07	ppb	16:52:46

2	S 181.975 Axial†	1265.7	1196.3	1010.7 µg/L	1010.7 ppb	16:52:46
2	Sb 206.836†	3871.1	3841.2	496.41 µg/L	496.41 ppb	16:52:46
2	Se 196.026†	1244.2	1257.3	498 µg/L	498 ppb	16:52:46
2	SiO2†	51226.3	50277.8	5302.9 µg/L	5302.9 ppb	16:52:26
2	Si 251.611†	157027.6	158683.8	2492.3 µg/L	2492.3 ppb	16:52:26
2	Sn 189.927†	6964.6	7070.2	492.10 µg/L	492.10 ppb	16:52:46
2	Ti 334.940†	478755.5	485320.8	497.83 µg/L	497.83 ppb	16:52:26
2	Tl 190.801†	3477.5	3645.5	505.28 µg/L	505.28 ppb	16:52:46
2	U 409.014†	6916.8	7186.9	484.01 µg/L	484.01 ppb	16:52:26
2	V 292.402†	95292.6	96340.0	505.99 µg/L	505.99 ppb	16:52:26
2	Zn 213.857†	83762.7	84552.4	500.95 µg/L	500.95 ppb	16:52:26
3	Sc RADIAL	137437.1	137437.1	98.1 %		16:51:44
3	Al 396.153Radial†	22956.7	23478.9	4920.1 µg/L	4920.1 ppb	16:51:44
3	Ca 317.933Radial†	73406.7	74253.8	5057.4 µg/L	5057.4 ppb	16:51:44
3	Fe 238.204 Radial†	66060.4	67219.7	5019.9 µg/L	5019.9 ppb	16:51:44
3	K 766.490 Radial†	13890.5	12665.1	5014.4 µg/L	5014.4 ppb	16:51:44
3	Mg 279.077 IEC†	10871.5	10909.1	5045.0 µg/L	5045.0 ppb	16:51:44
3	Na 589.592 Radial†	64580.1	64875.6	10052 µg/L	10052 ppb	16:51:44
3	Sr 421.552†	209193.1	213440.2	503.35 µg/L	503.35 ppb	16:51:42
3	Sc 361.383	1788229.0	1788229.0	99.117 %		16:52:50
3	Y 371.029	1039209.1	1039209.1	98.289 %		16:52:50
3	Ag 328.068†	124379.2	120921.6	501.23 µg/L	501.23 ppb	16:52:50
3	As 188.979†	1310.9	1341.1	460.85 µg/L	460.85 ppb	16:53:10
3	B 249.677†	35624.4	31876.5	493.99 µg/L	493.99 ppb	16:52:50
3	Ba 233.527†	110273.6	111400.1	495.56 µg/L	495.56 ppb	16:52:50
3	Be 313.107†	1658855.5	1674719.0	485.26 µg/L	485.26 ppb	16:52:50
3	Cd 226.502†	73433.7	74190.9	501.13 µg/L	501.13 ppb	16:52:50
3	Co 228.616†	37523.8	38068.2	503.88 µg/L	503.88 ppb	16:52:50
3	Cr 267.716†	57525.0	57804.0	499.95 µg/L	499.95 ppb	16:52:50
3	Cu 324.752†	120901.5	118942.0	499.04 µg/L	499.04 ppb	16:52:50
3	Mn 257.610†	373498.7	376639.9	499.42 µg/L	499.42 ppb	16:52:50
3	Mo 202.031†	15019.9	15192.2	497.30 µg/L	497.30 ppb	16:53:10
3	Ni 231.604†	39570.8	40019.1	500.69 µg/L	500.69 ppb	16:52:50
3	P 214.914†	10580.5	10700.4	2466.7 µg/L	2466.7 ppb	16:53:10
3	Pb 220.353†	8141.0	8110.0	500.63 µg/L	500.63 ppb	16:53:10
3	S 181.975 Axial†	1242.0	1164.1	983.54 µg/L	983.54 ppb	16:53:10
3	Sb 206.836†	3881.2	3826.0	494.43 µg/L	494.43 ppb	16:53:10
3	Se 196.026†	1251.9	1256.9	497 µg/L	497 ppb	16:53:10
3	SiO2†	51622.9	50343.5	5310.0 µg/L	5310.0 ppb	16:52:50
3	Si 251.611†	157506.8	158142.3	2483.9 µg/L	2483.9 ppb	16:52:50
3	Sn 189.927†	6998.1	7058.5	491.27 µg/L	491.27 ppb	16:53:10
3	Ti 334.940†	479185.6	482629.6	495.06 µg/L	495.06 ppb	16:52:50
3	Tl 190.801†	3467.5	3612.7	500.76 µg/L	500.76 ppb	16:53:10
3	U 409.014†	7087.9	7314.4	491.93 µg/L	491.93 ppb	16:52:50
3	V 292.402†	95535.1	95962.6	503.98 µg/L	503.98 ppb	16:52:50
3	Zn 213.857†	83766.7	84009.7	497.74 µg/L	497.74 ppb	16:52:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1772358.1	98.238	%	1.0227				1.04%
Sc RADIAL	137548.6	98.2	%	0.19				0.19%
Y 371.029	1030565.3	97.472	%	0.9476				0.97%
Ag 328.068†	121530.0	503.74	µg/L	2.180	503.74	ppb	2.180	0.43%
QC value within limits for Ag 328.068 Recovery = 100.75%								
Al 396.153Radial†	23486.3	4921.4	µg/L	16.09	4921.4	ppb	16.09	0.33%
QC value within limits for Al 396.153Radial Recovery = 98.43%								
As 188.979†	1357.2	466.34	µg/L	6.044	466.34	ppb	6.044	1.30%
QC value within limits for As 188.979 Recovery = 93.27%								
B 249.677†	31849.6	493.56	µg/L	2.467	493.56	ppb	2.467	0.50%
QC value within limits for B 249.677 Recovery = 98.71%								
Ba 233.527†	111498.4	496.00	µg/L	0.403	496.00	ppb	0.403	0.08%
QC value within limits for Ba 233.527 Recovery = 99.20%								
Be 313.107†	1680451.2	486.92	µg/L	1.638	486.92	ppb	1.638	0.34%
QC value within limits for Be 313.107 Recovery = 97.38%								
Ca 317.933Radial†	74335.7	5062.9	µg/L	4.99	5062.9	ppb	4.99	0.10%
QC value within limits for Ca 317.933Radial Recovery = 101.26%								
Cd 226.502†	74315.7	501.97	µg/L	1.932	501.97	ppb	1.932	0.38%
QC value within limits for Cd 226.502 Recovery = 100.39%								
Co 228.616†	38135.6	504.77	µg/L	1.282	504.77	ppb	1.282	0.25%

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   QC value within limits for Co 228.616  Recovery = 100.95%
Cr 267.716†            57979.3      501.46 µg/L         1.342      501.46 ppb          1.342   0.27%
   QC value within limits for Cr 267.716  Recovery = 100.29%
Cu 324.752†           119152.2      499.92 µg/L         0.828      499.92 ppb          0.828   0.17%
   QC value within limits for Cu 324.752  Recovery = 99.98%
Fe 238.204 Radial†     67270.3      5023.7 µg/L          3.54      5023.7 ppb           3.54   0.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.47%
K 766.490 Radial†      12710.9      5032.6 µg/L         62.89      5032.6 ppb          62.89   1.25%
   QC value within limits for K 766.490 Radial  Recovery = 100.65%
Mg 279.077 IEC†        10927.5      5053.6 µg/L          7.69      5053.6 ppb           7.69   0.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.07%
Mn 257.610†           377661.8      500.77 µg/L         1.208      500.77 ppb          1.208   0.24%
   QC value within limits for Mn 257.610  Recovery = 100.15%
Mo 202.031†            15364.3      502.93 µg/L         6.095      502.93 ppb          6.095   1.21%
   QC value within limits for Mo 202.031  Recovery = 100.59%
Na 589.592 Radial†     64779.2       10037 µg/L          17.1       10037 ppb           17.1   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 100.37%
Ni 231.604†            40185.9      502.78 µg/L         2.091      502.78 ppb          2.091   0.42%
   QC value within limits for Ni 231.604  Recovery = 100.56%
P 214.914†             10814.3      2493.0 µg/L         29.49      2493.0 ppb          29.49   1.18%
   QC value within limits for P 214.914  Recovery = 99.72%
Pb 220.353†             8199.6      506.16 µg/L         6.139      506.16 ppb          6.139   1.21%
   QC value within limits for Pb 220.353  Recovery = 101.23%
S 181.975 Axial†        1187.6      1003.3 µg/L         17.33      1003.3 ppb          17.33   1.73%
   QC value within limits for S 181.975 Axial  Recovery = 100.33%
Sb 206.836†             3859.3      498.78 µg/L         5.907      498.78 ppb          5.907   1.18%
   QC value within limits for Sb 206.836  Recovery = 99.76%
Se 196.026†             1264.9         501 µg/L           5.4         501 ppb            5.4   1.07%
   QC value within limits for Se 196.026  Recovery = 100.11%
SiO2†                  50303.3      5305.6 µg/L         3.89      5305.6 ppb           3.89   0.07%
   QC value within limits for SiO2  Recovery = 99.22%
Si 251.611†           158354.3      2487.1 µg/L         4.57      2487.1 ppb           4.57   0.18%
   QC value within limits for Si 251.611  Recovery = 99.48%
Sn 189.927†             7111.8      494.97 µg/L         5.710      494.97 ppb          5.710   1.15%
   QC value within limits for Sn 189.927  Recovery = 98.99%
Sr 421.552†           211326.4      498.37 µg/L         4.371      498.37 ppb          4.371   0.88%
   QC value within limits for Sr 421.552  Recovery = 99.67%
Ti 334.940†           484359.1      496.84 µg/L         1.540      496.84 ppb          1.540   0.31%
   QC value within limits for Ti 334.940  Recovery = 99.37%
Tl 190.801†             3651.2      506.06 µg/L         5.722      506.06 ppb          5.722   1.13%
   QC value within limits for Tl 190.801  Recovery = 101.21%
U 409.014†              7360.4      494.91 µg/L        12.645      494.91 ppb         12.645   2.55%
   QC value within limits for U 409.014  Recovery = 98.98%
V 292.402†             96181.5      505.18 µg/L         1.059      505.18 ppb          1.059   0.21%
   QC value within limits for V 292.402  Recovery = 101.04%
Zn 213.857†            84243.3      499.12 µg/L         1.653      499.12 ppb          1.653   0.33%
   QC value within limits for Zn 213.857  Recovery = 99.82%
All analyte(s) passed QC.
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Sequence No.: 34
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 16:53:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138223.2	138223.2	98.7	%			16:53:49
1	Al 396.153Radial†	-56.4	21.4	4.4752	µg/L	4.4752	ppb	16:54:09
1	Ca 317.933Radial†	654.1	91.5	6.2324	µg/L	6.2324	ppb	16:54:09
1	Fe 238.204 Radial†	167.3	52.3	3.9024	µg/L	3.9024	ppb	16:54:09
1	K 766.490 Radial†	1634.3	162.6	64.439	µg/L	64.439	ppb	16:53:49
1	Mg 279.077 IEC†	168.5	-1.7	-0.7631	µg/L	-0.7631	ppb	16:54:09
1	Na 589.592 Radial†	1154.6	217.7	33.695	µg/L	33.695	ppb	16:53:49
1	Sr 421.552†	-280.4	-79.7	-0.1881	µg/L	-0.1881	ppb	16:53:49
1	Sc 361.383	1785502.9	1785502.9	98.966	%			16:55:11
1	Y 371.029	1050032.6	1050032.6	99.313	%			16:55:11
1	Ag 328.068†	3973.5	-550.1	-2.2464	µg/L	-2.2464	ppb	16:55:13
1	As 188.979†	-12.8	5.7	1.9179	µg/L	1.9179	ppb	16:55:33
1	B 249.677†	4095.0	72.6	1.1281	µg/L	1.1281	ppb	16:55:13
1	Ba 233.527†	-162.8	-20.0	-0.0885	µg/L	-0.0885	ppb	16:55:33
1	Be 313.107†	-582.9	502.8	0.1461	µg/L	0.1461	ppb	16:55:13
1	Cd 226.502†	-68.9	33.7	0.2277	µg/L	0.2277	ppb	16:55:33
1	Co 228.616†	-186.1	22.3	0.2943	µg/L	0.2943	ppb	16:55:33
1	Cr 267.716†	247.7	17.1	0.1468	µg/L	0.1468	ppb	16:55:33
1	Cu 324.752†	2720.8	-286.8	-1.1978	µg/L	-1.1978	ppb	16:55:13
1	Mn 257.610†	260.5	78.5	0.1041	µg/L	0.1041	ppb	16:55:33
1	Mo 202.031†	-17.5	20.9	0.6845	µg/L	0.6845	ppb	16:55:33
1	Ni 231.604†	-74.1	21.1	0.2636	µg/L	0.2636	ppb	16:55:33
1	P 214.914†	20.4	46.3	10.715	µg/L	10.715	ppb	16:55:33
1	Pb 220.353†	85.2	-17.3	-1.0646	µg/L	-1.0646	ppb	16:55:33
1	S 181.975 Axial†	93.1	5.2	4.3508	µg/L	4.3508	ppb	16:55:33
1	Sb 206.836†	88.2	-0.6	-0.0640	µg/L	-0.0640	ppb	16:55:33
1	Se 196.026†	21.9	16.0	6.32	µg/L	6.32	ppb	16:55:33
1	SiO2†	1721.7	0.6	0.0275	µg/L	0.0275	ppb	16:55:33
1	Si 251.611†	967.3	210.4	3.3013	µg/L	3.3013	ppb	16:55:13
1	Sn 189.927†	18.2	16.5	1.1446	µg/L	1.1446	ppb	16:55:33
1	Ti 334.940†	610.2	-206.4	-0.2125	µg/L	-0.2125	ppb	16:55:13
1	Tl 190.801†	-118.9	-5.9	-0.8070	µg/L	-0.8070	ppb	16:55:33
1	U 409.014†	-138.9	23.1	1.4741	µg/L	1.4741	ppb	16:55:13
1	V 292.402†	482.6	64.4	0.3423	µg/L	0.3423	ppb	16:55:13
1	Zn 213.857†	570.4	73.4	0.4369	µg/L	0.4369	ppb	16:55:33
2	Sc RADIAL	136695.8	136695.8	97.6	%			16:54:11
2	Al 396.153Radial†	-86.0	-9.6	-2.0285	µg/L	-2.0285	ppb	16:54:31
2	Ca 317.933Radial†	634.0	78.3	5.3338	µg/L	5.3338	ppb	16:54:31
2	Fe 238.204 Radial†	156.7	43.2	3.2290	µg/L	3.2290	ppb	16:54:31
2	K 766.490 Radial†	1547.2	91.9	36.407	µg/L	36.407	ppb	16:54:11
2	Mg 279.077 IEC†	154.9	-13.7	-6.3271	µg/L	-6.3271	ppb	16:54:31
2	Na 589.592 Radial†	1159.9	236.2	36.576	µg/L	36.576	ppb	16:54:11
2	Sr 421.552†	-103.4	98.6	0.2324	µg/L	0.2324	ppb	16:54:11
2	Sc 361.383	1779341.5	1779341.5	98.625	%			16:55:35
2	Y 371.029	1046540.2	1046540.2	98.983	%			16:55:35
2	Ag 328.068†	4365.1	-139.2	-0.5853	µg/L	-0.5853	ppb	16:55:37
2	As 188.979†	-10.4	8.0	2.7126	µg/L	2.7126	ppb	16:55:57
2	B 249.677†	4120.1	112.4	1.7472	µg/L	1.7472	ppb	16:55:37
2	Ba 233.527†	-167.6	-25.3	-0.1130	µg/L	-0.1130	ppb	16:55:57
2	Be 313.107†	-454.4	631.0	0.1807	µg/L	0.1807	ppb	16:55:37
2	Cd 226.502†	-91.1	11.0	0.0739	µg/L	0.0739	ppb	16:55:57
2	Co 228.616†	-202.6	4.9	0.0642	µg/L	0.0642	ppb	16:55:57
2	Cr 267.716†	251.4	21.7	0.1928	µg/L	0.1928	ppb	16:55:57
2	Cu 324.752†	2876.7	-119.3	-0.5041	µg/L	-0.5041	ppb	16:55:37
2	Mn 257.610†	262.5	81.4	0.1083	µg/L	0.1083	ppb	16:55:57
2	Mo 202.031†	-28.1	10.1	0.3305	µg/L	0.3305	ppb	16:55:57
2	Ni 231.604†	-99.9	-5.4	-0.0674	µg/L	-0.0674	ppb	16:55:57
2	P 214.914†	13.5	39.4	9.1117	µg/L	9.1117	ppb	16:55:57
2	Pb 220.353†	127.1	25.4	1.5689	µg/L	1.5689	ppb	16:55:57

2	S 181.975 Axial†	86.2	-1.5	-1.2596 µg/L	-1.2596 ppb	16:55:57
2	Sb 206.836†	73.6	-15.1	-1.9428 µg/L	-1.9428 ppb	16:55:57
2	Se 196.026†	10.3	4.3	1.68 µg/L	1.68 ppb	16:55:57
2	SiO2†	1760.5	46.0	4.8496 µg/L	4.8496 ppb	16:55:57
2	Si 251.611†	887.6	132.9	2.0864 µg/L	2.0864 ppb	16:55:37
2	Sn 189.927†	12.7	11.0	0.7645 µg/L	0.7645 ppb	16:55:57
2	Ti 334.940†	611.7	-202.7	-0.2048 µg/L	-0.2048 ppb	16:55:37
2	Tl 190.801†	-111.8	0.9	0.1144 µg/L	0.1144 ppb	16:55:57
2	U 409.014†	-268.6	-108.9	-6.9078 µg/L	-6.9078 ppb	16:55:37
2	V 292.402†	309.4	-109.5	-0.5680 µg/L	-0.5680 ppb	16:55:37
2	Zn 213.857†	561.5	66.3	0.3964 µg/L	0.3964 ppb	16:55:57
3	Sc RADIAL	137343.0	137343.0	98.0 %		16:54:33
3	Al 396.153Radial†	-97.0	-20.4	-4.3347 µg/L	-4.3347 ppb	16:54:53
3	Ca 317.933Radial†	647.9	89.4	6.0917 µg/L	6.0917 ppb	16:54:53
3	Fe 238.204 Radial†	153.5	39.3	2.9351 µg/L	2.9351 ppb	16:54:53
3	K 766.490 Radial†	1513.7	50.2	19.876 µg/L	19.876 ppb	16:54:33
3	Mg 279.077 IEC†	171.0	2.0	0.9310 µg/L	0.9310 ppb	16:54:53
3	Na 589.592 Radial†	1203.0	274.6	42.545 µg/L	42.545 ppb	16:54:33
3	Sr 421.552†	-134.5	67.3	0.1587 µg/L	0.1587 ppb	16:54:33
3	Sc 361.383	1772750.2	1772750.2	98.259 %		16:55:59
3	Y 371.029	1041540.1	1041540.1	98.510 %		16:55:59
3	Ag 328.068†	4382.0	-105.5	-0.4464 µg/L	-0.4464 ppb	16:56:01
3	As 188.979†	-23.1	-5.0	-1.6861 µg/L	-1.6861 ppb	16:56:21
3	B 249.677†	4089.6	96.9	1.5067 µg/L	1.5067 ppb	16:56:01
3	Ba 233.527†	-194.8	-53.7	-0.2385 µg/L	-0.2385 ppb	16:56:21
3	Be 313.107†	-864.9	211.6	0.0588 µg/L	0.0588 ppb	16:56:01
3	Cd 226.502†	-63.6	38.6	0.2610 µg/L	0.2610 ppb	16:56:21
3	Co 228.616†	-193.9	13.0	0.1715 µg/L	0.1715 ppb	16:56:21
3	Cr 267.716†	253.2	24.5	0.2185 µg/L	0.2185 ppb	16:56:21
3	Cu 324.752†	2646.2	-343.0	-1.4411 µg/L	-1.4411 ppb	16:56:01
3	Mn 257.610†	261.4	81.3	0.1078 µg/L	0.1078 ppb	16:56:21
3	Mo 202.031†	-9.7	28.7	0.9397 µg/L	0.9397 ppb	16:56:21
3	Ni 231.604†	-77.8	16.7	0.2090 µg/L	0.2090 ppb	16:56:21
3	P 214.914†	17.1	43.1	9.9718 µg/L	9.9718 ppb	16:56:21
3	Pb 220.353†	116.7	15.3	0.9501 µg/L	0.9501 ppb	16:56:21
3	S 181.975 Axial†	75.2	-12.3	-10.379 µg/L	-10.379 ppb	16:56:21
3	Sb 206.836†	78.1	-10.2	-1.3088 µg/L	-1.3088 ppb	16:56:21
3	Se 196.026†	24.0	18.3	7.21 µg/L	7.21 ppb	16:56:21
3	SiO2†	1767.3	59.5	6.2698 µg/L	6.2698 ppb	16:56:21
3	Si 251.611†	971.0	221.2	3.4732 µg/L	3.4732 ppb	16:56:01
3	Sn 189.927†	6.5	4.8	0.3314 µg/L	0.3314 ppb	16:56:21
3	Ti 334.940†	907.8	100.9	0.1070 µg/L	0.1070 ppb	16:56:01
3	Tl 190.801†	-119.8	-7.7	-1.0512 µg/L	-1.0512 ppb	16:56:21
3	U 409.014†	-288.9	-130.6	-8.2628 µg/L	-8.2628 ppb	16:56:01
3	V 292.402†	348.5	-68.6	-0.3507 µg/L	-0.3507 ppb	16:56:01
3	Zn 213.857†	555.5	62.3	0.3716 µg/L	0.3716 ppb	16:56:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1779198.2	98.617	%	0.3535				0.36%
Sc RADIAL	137420.7	98.1	%	0.55				0.56%
Y 371.029	1046037.6	98.935	%	0.4037				0.41%
Ag 328.068†	-265.0	-1.0927	µg/L	1.00151	-1.0927	ppb	1.00151	91.65%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.8	-0.6293	µg/L	4.56854	-0.6293	ppb	4.56854	725.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.9	0.9814	µg/L	2.34409	0.9814	ppb	2.34409	238.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	94.0	1.4607	µg/L	0.31210	1.4607	ppb	0.31210	21.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-33.0	-0.1467	µg/L	0.08050	-0.1467	ppb	0.08050	54.89%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	448.4	0.1285	µg/L	0.06283	0.1285	ppb	0.06283	48.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	86.4	5.8860	µg/L	0.48335	5.8860	ppb	0.48335	8.21%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.8	0.1875	µg/L	0.09979	0.1875	ppb	0.09979	53.22%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	13.4	0.1767	µg/L	0.11514	0.1767	ppb	0.11514	65.18%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              21.1      0.1860 µg/L       0.03631      0.1860 ppb        0.03631  19.52%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -249.7     -1.0477 µg/L       0.48617     -1.0477 ppb        0.48617  46.40%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       44.9      3.3555 µg/L       0.49591      3.3555 ppb        0.49591  14.78%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       101.6     40.241 µg/L       22.5277     40.241 ppb        22.5277  55.98%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -4.5     -2.0531 µg/L       3.79712     -2.0531 ppb        3.79712 184.95%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              80.4      0.1068 µg/L       0.00227      0.1068 ppb        0.00227   2.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              19.9      0.6516 µg/L       0.30593      0.6516 ppb        0.30593  46.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      242.8     37.605 µg/L        4.5141     37.605 ppb         4.5141  12.00%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              10.8      0.1351 µg/L       0.17747      0.1351 ppb        0.17747 131.37%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               42.9      9.9327 µg/L       0.80224      9.9327 ppb        0.80224   8.08%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               7.8      0.4848 µg/L       1.37700      0.4848 ppb        1.37700 284.04%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.9     -2.4294 µg/L       7.43446     -2.4294 ppb        7.43446 306.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -8.6     -1.1052 µg/L       0.95582     -1.1052 ppb        0.95582  86.49%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              12.9        5.07 µg/L         2.971        5.07 ppb          2.971  58.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    35.4      3.7156 µg/L       3.27204      3.7156 ppb        3.27204  88.06%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             188.2      2.9536 µg/L       0.75596      2.9536 ppb        0.75596  25.59%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              10.8      0.7468 µg/L       0.40688      0.7468 ppb        0.40688  54.48%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              28.7      0.0676 µg/L       0.22453      0.0676 ppb        0.22453 331.91%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -102.8     -0.1034 µg/L       0.18229     -0.1034 ppb        0.18229 176.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -4.2     -0.5813 µg/L       0.61473     -0.5813 ppb        0.61473 105.75%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -72.2     -4.5655 µg/L       5.27416     -4.5655 ppb        5.27416 115.52%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -37.9     -0.1921 µg/L       0.47542     -0.1921 ppb        0.47542 247.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              67.3      0.4017 µg/L       0.03300      0.4017 ppb        0.03300   8.22%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 35
Sample ID: 1202071964|965588|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 325
Date Collected: 4/5/2010 16:56:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202071964|965588|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135323.4	135323.4	96.6	%			16:57:01
1	Al 396.153Radial†	-80.3	-4.6	-0.9786	µg/L	-0.9786	ppb	16:57:21
1	Ca 317.933Radial†	817.7	275.1	18.738	µg/L	18.738	ppb	16:57:21
1	Fe 238.204 Radial†	904.6	819.1	61.173	µg/L	61.173	ppb	16:57:21
1	K 766.490 Radial†	1537.5	97.9	38.791	µg/L	38.791	ppb	16:57:01
1	Mg 279.077 IEC†	174.7	8.4	3.8262	µg/L	3.8262	ppb	16:57:21
1	Na 589.592 Radial†	1351.2	446.3	69.145	µg/L	69.145	ppb	16:57:01
1	Sr 421.552†	-216.8	-20.0	-0.0472	µg/L	-0.0472	ppb	16:57:01
1	Sc 361.383	1749096.3	1749096.3	96.948	%			16:58:23
1	Y 371.029	1025657.7	1025657.7	97.008	%			16:58:23
1	Ag 328.068†	4071.2	-365.8	-1.5008	µg/L	-1.5008	ppb	16:58:25
1	As 188.979†	-15.4	2.7	0.9188	µg/L	0.9188	ppb	16:58:45
1	B 249.677†	4176.7	243.0	3.7796	µg/L	3.7796	ppb	16:58:25
1	Ba 233.527†	-147.5	-7.6	-0.0342	µg/L	-0.0342	ppb	16:58:45
1	Be 313.107†	-659.6	411.3	0.1171	µg/L	0.1171	ppb	16:58:25
1	Cd 226.502†	-79.9	20.9	0.1351	µg/L	0.1351	ppb	16:58:45
1	Co 228.616†	-199.8	4.2	0.0520	µg/L	0.0520	ppb	16:58:45
1	Cr 267.716†	267.8	43.0	0.3792	µg/L	0.3792	ppb	16:58:45
1	Cu 324.752†	2781.1	-167.5	-0.6971	µg/L	-0.6971	ppb	16:58:25
1	Mn 257.610†	881.0	724.0	0.9601	µg/L	0.9601	ppb	16:58:45
1	Mo 202.031†	-32.2	5.4	0.1792	µg/L	0.1792	ppb	16:58:45
1	Ni 231.604†	-55.2	39.0	0.4878	µg/L	0.4878	ppb	16:58:45
1	P 214.914†	39.5	66.4	15.340	µg/L	15.340	ppb	16:58:45
1	Pb 220.353†	116.3	16.5	1.0180	µg/L	1.0180	ppb	16:58:45
1	S 181.975 Axial†	96.3	10.4	8.7390	µg/L	8.7390	ppb	16:58:45
1	Sb 206.836†	86.6	-0.4	-0.0574	µg/L	-0.0574	ppb	16:58:45
1	Se 196.026†	38.0	33.0	13.0	µg/L	13.0	ppb	16:58:45
1	SiO2†	2308.7	642.3	68.007	µg/L	68.007	ppb	16:58:25
1	Si 251.611†	2414.5	1723.5	27.172	µg/L	27.172	ppb	16:58:25
1	Sn 189.927†	10.0	8.4	0.5811	µg/L	0.5811	ppb	16:58:45
1	Ti 334.940†	782.7	-15.7	-0.0133	µg/L	-0.0133	ppb	16:58:25
1	Tl 190.801†	-123.2	-12.8	-1.7433	µg/L	-1.7433	ppb	16:58:45
1	U 409.014†	-261.4	-106.3	-6.6877	µg/L	-6.6877	ppb	16:58:25
1	V 292.402†	500.4	92.9	0.4740	µg/L	0.4740	ppb	16:58:25
1	Zn 213.857†	993.2	521.4	3.1048	µg/L	3.1048	ppb	16:58:45
2	Sc RADIAL	134524.9	134524.9	96.0	%			16:57:23
2	Al 396.153Radial†	-47.7	28.9	6.0931	µg/L	6.0931	ppb	16:57:43
2	Ca 317.933Radial†	800.8	262.5	17.879	µg/L	17.879	ppb	16:57:43
2	Fe 238.204 Radial†	906.2	826.4	61.718	µg/L	61.718	ppb	16:57:43
2	K 766.490 Radial†	1558.8	129.6	51.330	µg/L	51.330	ppb	16:57:23
2	Mg 279.077 IEC†	169.1	3.6	1.6018	µg/L	1.6018	ppb	16:57:43
2	Na 589.592 Radial†	1212.9	310.6	48.096	µg/L	48.096	ppb	16:57:23
2	Sr 421.552†	-162.8	34.9	0.0823	µg/L	0.0823	ppb	16:57:23
2	Sc 361.383	1738102.1	1738102.1	96.339	%			16:58:47
2	Y 371.029	1018848.9	1018848.9	96.364	%			16:58:47
2	Ag 328.068†	4350.0	-49.8	-0.2062	µg/L	-0.2062	ppb	16:58:49
2	As 188.979†	-9.4	8.8	3.0031	µg/L	3.0031	ppb	16:59:09
2	B 249.677†	4141.3	233.6	3.6326	µg/L	3.6326	ppb	16:58:49
2	Ba 233.527†	-120.7	19.2	0.0843	µg/L	0.0843	ppb	16:59:09
2	Be 313.107†	-709.2	355.5	0.1037	µg/L	0.1037	ppb	16:58:49
2	Cd 226.502†	-95.6	4.1	0.0215	µg/L	0.0215	ppb	16:59:09
2	Co 228.616†	-206.1	-3.7	-0.0518	µg/L	-0.0518	ppb	16:59:09
2	Cr 267.716†	230.8	6.4	0.0551	µg/L	0.0551	ppb	16:59:09
2	Cu 324.752†	2825.7	-103.0	-0.4199	µg/L	-0.4199	ppb	16:58:49
2	Mn 257.610†	877.3	725.9	0.9627	µg/L	0.9627	ppb	16:59:09
2	Mo 202.031†	-45.0	-8.1	-0.2630	µg/L	-0.2630	ppb	16:59:09
2	Ni 231.604†	-28.2	66.7	0.8342	µg/L	0.8342	ppb	16:59:09
2	P 214.914†	42.0	69.2	15.976	µg/L	15.976	ppb	16:59:09
2	Pb 220.353†	131.2	32.7	2.0106	µg/L	2.0106	ppb	16:59:09

2	S 181.975 Axial†	102.7	17.6	14.832 µg/L	14.832 ppb	16:59:09
2	Sb 206.836†	90.0	3.7	0.4676 µg/L	0.4676 ppb	16:59:09
2	Se 196.026†	13.3	7.7	3.04 µg/L	3.04 ppb	16:59:09
2	SiO2†	2186.1	530.0	56.153 µg/L	56.153 ppb	16:58:49
2	Si 251.611†	2572.7	1903.5	30.026 µg/L	30.026 ppb	16:58:49
2	Sn 189.927†	-11.9	-14.2	-0.9851 µg/L	-0.9851 ppb	16:59:09
2	Ti 334.940†	827.1	35.5	0.0358 µg/L	0.0358 ppb	16:58:49
2	Tl 190.801†	-147.9	-39.2	-5.3576 µg/L	-5.3576 ppb	16:59:09
2	U 409.014†	-120.9	37.9	2.3652 µg/L	2.3652 ppb	16:58:49
2	V 292.402†	345.1	-65.0	-0.3445 µg/L	-0.3445 ppb	16:58:49
2	Zn 213.857†	951.6	484.7	2.8832 µg/L	2.8832 ppb	16:59:09
3	Sc RADIAL	135025.4	135025.4	96.4 %		16:57:45
3	Al 396.153Radial†	-72.3	3.6	0.7135 µg/L	0.7135 ppb	16:58:05
3	Ca 317.933Radial†	788.6	246.8	16.808 µg/L	16.808 ppb	16:58:05
3	Fe 238.204 Radial†	904.4	821.0	61.315 µg/L	61.315 ppb	16:58:05
3	K 766.490 Radial†	1537.8	101.8	40.314 µg/L	40.314 ppb	16:57:45
3	Mg 279.077 IEC†	174.7	8.8	4.0091 µg/L	4.0091 ppb	16:58:05
3	Na 589.592 Radial†	1130.0	219.9	34.050 µg/L	34.050 ppb	16:57:45
3	Sr 421.552†	-77.5	124.1	0.2925 µg/L	0.2925 ppb	16:57:45
3	Sc 361.383	1748102.6	1748102.6	96.893 %		16:59:11
3	Y 371.029	1025546.1	1025546.1	96.997 %		16:59:11
3	Ag 328.068†	4336.6	-89.5	-0.3784 µg/L	-0.3784 ppb	16:59:13
3	As 188.979†	-16.2	1.8	0.6357 µg/L	0.6357 ppb	16:59:34
3	B 249.677†	4275.6	347.6	5.4058 µg/L	5.4058 ppb	16:59:13
3	Ba 233.527†	-118.2	22.6	0.0996 µg/L	0.0996 ppb	16:59:34
3	Be 313.107†	-647.5	423.4	0.1206 µg/L	0.1206 ppb	16:59:13
3	Cd 226.502†	-97.6	2.6	0.0118 µg/L	0.0118 ppb	16:59:34
3	Co 228.616†	-216.5	-13.2	-0.1772 µg/L	-0.1772 ppb	16:59:34
3	Cr 267.716†	256.2	31.2	0.2770 µg/L	0.2770 ppb	16:59:34
3	Cu 324.752†	2822.0	-123.7	-0.5140 µg/L	-0.5140 ppb	16:59:13
3	Mn 257.610†	876.2	719.6	0.9543 µg/L	0.9543 ppb	16:59:34
3	Mo 202.031†	-14.1	24.0	0.7873 µg/L	0.7873 ppb	16:59:34
3	Ni 231.604†	-25.3	69.8	0.8734 µg/L	0.8734 ppb	16:59:34
3	P 214.914†	13.4	39.5	9.0965 µg/L	9.0965 ppb	16:59:34
3	Pb 220.353†	102.5	2.3	0.1461 µg/L	0.1461 ppb	16:59:34
3	S 181.975 Axial†	103.4	17.8	14.951 µg/L	14.951 ppb	16:59:34
3	Sb 206.836†	82.0	-5.1	-0.6509 µg/L	-0.6509 ppb	16:59:34
3	Se 196.026†	22.0	16.5	6.53 µg/L	6.53 ppb	16:59:34
3	SiO2†	2200.6	532.1	56.320 µg/L	56.320 ppb	16:59:13
3	Si 251.611†	2551.0	1865.8	29.408 µg/L	29.408 ppb	16:59:13
3	Sn 189.927†	8.9	7.3	0.5090 µg/L	0.5090 ppb	16:59:34
3	Ti 334.940†	974.6	182.9	0.1907 µg/L	0.1907 ppb	16:59:13
3	Tl 190.801†	-126.8	-16.6	-2.2633 µg/L	-2.2633 ppb	16:59:34
3	U 409.014†	-264.4	-109.5	-6.9305 µg/L	-6.9305 ppb	16:59:13
3	V 292.402†	370.2	-41.2	-0.2153 µg/L	-0.2153 ppb	16:59:13
3	Zn 213.857†	974.9	503.1	2.9930 µg/L	2.9930 ppb	16:59:34

Mean Data: 1202071964|965588|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1745100.3	96.727	%	0.3371				0.35%
Sc RADIAL	134957.9	96.3	%	0.29				0.30%
Y 371.029	1023350.9	96.789	%	0.3688				0.38%
Ag 328.068†	-168.4	-0.6952	µg/L	0.70302	-0.6952	ppb	0.70302	101.13%
Al 396.153Radial†	9.3	1.9427	µg/L	3.69259	1.9427	ppb	3.69259	190.08%
As 188.979†	4.4	1.5192	µg/L	1.29286	1.5192	ppb	1.29286	85.10%
B 249.677†	274.7	4.2726	µg/L	0.98407	4.2726	ppb	0.98407	23.03%
Ba 233.527†	11.4	0.0499	µg/L	0.07324	0.0499	ppb	0.07324	146.73%
Be 313.107†	396.8	0.1138	µg/L	0.00891	0.1138	ppb	0.00891	7.83%
Ca 317.933Radial†	261.5	17.808	µg/L	0.9667	17.808	ppb	0.9667	5.43%
Cd 226.502†	9.2	0.0561	µg/L	0.06859	0.0561	ppb	0.06859	122.19%
Co 228.616†	-4.2	-0.0590	µg/L	0.11475	-0.0590	ppb	0.11475	194.50%
Cr 267.716†	26.9	0.2371	µg/L	0.16569	0.2371	ppb	0.16569	69.88%
Cu 324.752†	-131.4	-0.5437	µg/L	0.14096	-0.5437	ppb	0.14096	25.93%
Fe 238.204 Radial†	822.2	61.402	µg/L	0.2823	61.402	ppb	0.2823	0.46%
K 766.490 Radial†	109.8	43.479	µg/L	6.8422	43.479	ppb	6.8422	15.74%
Mg 279.077 IEC†	6.9	3.1457	µg/L	1.34021	3.1457	ppb	1.34021	42.60%
Mn 257.610†	723.2	0.9590	µg/L	0.00433	0.9590	ppb	0.00433	0.45%
Mo 202.031†	7.1	0.2345	µg/L	0.52729	0.2345	ppb	0.52729	224.85%
Na 589.592 Radial†	325.6	50.430	µg/L	17.6637	50.430	ppb	17.6637	35.03%

Ni 231.604†	58.5	0.7318	µg/L	0.21220	0.7318	ppb	0.21220 29.00%
P 214.914†	58.4	13.471	µg/L	3.8018	13.471	ppb	3.8018 28.22%
Pb 220.353†	17.2	1.0582	µg/L	0.93293	1.0582	ppb	0.93293 88.16%
S 181.975 Axial†	15.3	12.841	µg/L	3.5526	12.841	ppb	3.5526 27.67%
Sb 206.836†	-0.6	-0.0802	µg/L	0.55960	-0.0802	ppb	0.55960 697.70%
Se 196.026†	19.1	7.54	µg/L	5.069	7.54	ppb	5.069 67.25%
SiO2†	568.2	60.160	µg/L	6.7966	60.160	ppb	6.7966 11.30%
Si 251.611†	1830.9	28.868	µg/L	1.5016	28.868	ppb	1.5016 5.20%
Sn 189.927†	0.5	0.0350	µg/L	0.88414	0.0350	ppb	0.88414 >999.9%
Sr 421.552†	46.4	0.1092	µg/L	0.17147	0.1092	ppb	0.17147 157.05%
Ti 334.940†	67.6	0.0710	µg/L	0.10649	0.0710	ppb	0.10649 149.90%
Tl 190.801†	-22.9	-3.1214	µg/L	1.95401	-3.1214	ppb	1.95401 62.60%
U 409.014†	-59.3	-3.7510	µg/L	5.29816	-3.7510	ppb	5.29816 141.25%
V 292.402†	-4.4	-0.0286	µg/L	0.44003	-0.0286	ppb	0.44003 >999.9%
Zn 213.857†	503.1	2.9937	µg/L	0.11082	2.9937	ppb	0.11082 3.70%

Sequence No.: 36
Sample ID: 1202071965|965588|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 326
Date Collected: 4/5/2010 16:59:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202071965|965588|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137504.7	137504.7	98.2	%			17:00:14
1	Al 396.153Radial†	435821.6	444103.7	93473	µg/L	93473	ppb	17:00:14
1	Ca 317.933Radial†	1566092.6	1595000.0	108630	µg/L	108630	ppb	17:00:14
1	Fe 238.204 Radial†	2614570.6	2663668.0	198920	µg/L	198920	ppb	17:00:12
1	K 766.490 Radial†	112378.6	113000.2	44729	µg/L	44729	ppb	17:00:14
1	Mg 279.077 IEC†	86652.7	88111.3	40528	µg/L	40528	ppb	17:00:14
1	Na 589.592 Radial†	70795.0	71175.1	10993	µg/L	10993	ppb	17:00:14
1	Sr 421.552†	1047753.0	1067679.5	2517.2	µg/L	2517.2	ppb	17:00:12
1	Sc 361.383	1768702.7	1768702.7	98.035	%			17:00:29
1	Y 371.029	1105313.0	1105313.0	104.54	%			17:00:29
1	Ag 328.068†	81960.9	79038.5	333.55	µg/L	333.55	ppb	17:00:29
1	As 188.979†	2959.1	3037.0	1098.6	µg/L	1098.6	ppb	17:00:31
1	B 249.677†	104661.0	102693.6	1593.5	µg/L	1593.5	ppb	17:00:29
1	Ba 233.527†	470827.0	480408.3	2133.8	µg/L	2133.8	ppb	17:00:29
1	Be 313.107†	2849840.8	2908051.9	842.32	µg/L	842.32	ppb	17:00:29
1	Cd 226.502†	99935.3	102041.6	669.45	µg/L	669.45	ppb	17:00:29
1	Co 228.616†	76091.6	77827.0	1021.7	µg/L	1021.7	ppb	17:00:29
1	Cr 267.716†	301181.4	306984.7	2661.6	µg/L	2661.6	ppb	17:00:29
1	Cu 324.752†	474182.1	480650.0	2040.9	µg/L	2040.9	ppb	17:00:29
1	Mn 257.610†	4404934.8	4493038.1	5958.1	µg/L	5958.1	ppb	17:00:29
1	Mo 202.031†	16914.7	17292.3	574.58	µg/L	574.58	ppb	17:00:31
1	Ni 231.604†	118477.4	120948.0	1513.2	µg/L	1513.2	ppb	17:00:29
1	P 214.914†	37775.2	38558.0	8786.8	µg/L	8786.8	ppb	17:00:31
1	Pb 220.353†	14358.8	14543.1	903.10	µg/L	903.10	ppb	17:00:31
1	S 181.975 Axial†	5177.9	5192.7	4373.2	µg/L	4373.2	ppb	17:00:31
1	Sb 206.836†	10422.7	10541.9	1328.5	µg/L	1328.5	ppb	17:00:31
1	Se 196.026†	7843.9	7995.0	3220	µg/L	3220	ppb	17:00:31
1	SiO2†	686403.5	698422.0	73929	µg/L	73929	ppb	17:00:29
1	Si 251.611†	2150231.4	2192561.5	34559	µg/L	34559	ppb	17:00:29
1	Sn 189.927†	15562.8	15872.8	1121.1	µg/L	1121.1	ppb	17:00:31
1	Ti 334.940†	5683697.7	5796793.1	5952.5	µg/L	5952.5	ppb	17:00:29
1	Tl 190.801†	8827.4	9118.6	1325.0	µg/L	1325.0	ppb	17:00:31
1	U 409.014†	-3829.2	-3742.6	-165.00	µg/L	-165.00	ppb	17:00:29
1	V 292.402†	250893.2	255498.7	1314.8	µg/L	1314.8	ppb	17:00:29
1	Zn 213.857†	1069125.3	1090050.8	6480.9	µg/L	6480.9	ppb	17:00:29
2	Sc RADIAL	138292.6	138292.6	98.7	%			17:00:18
2	Al 396.153Radial†	439680.9	445483.4	93764	µg/L	93764	ppb	17:00:18
2	Ca 317.933Radial†	1578890.9	1598874.2	108900	µg/L	108900	ppb	17:00:18
2	Fe 238.204 Radial†	2678350.4	2713101.1	202610	µg/L	202610	ppb	17:00:16
2	K 766.490 Radial†	113025.6	113003.2	44731	µg/L	44731	ppb	17:00:18
2	Mg 279.077 IEC†	86994.2	87954.2	40452	µg/L	40452	ppb	17:00:18
2	Na 589.592 Radial†	71317.1	71293.0	11011	µg/L	11011	ppb	17:00:18
2	Sr 421.552†	1069307.5	1083432.8	2554.4	µg/L	2554.4	ppb	17:00:16
2	Sc 361.383	1777813.3	1777813.3	98.540	%			17:00:35
2	Y 371.029	1111647.7	1111647.7	105.14	%			17:00:35
2	Ag 328.068†	83517.4	80189.7	338.43	µg/L	338.43	ppb	17:00:35
2	As 188.979†	2902.8	2964.3	1075.2	µg/L	1075.2	ppb	17:00:37
2	B 249.677†	106983.5	104503.4	1621.6	µg/L	1621.6	ppb	17:00:35
2	Ba 233.527†	479787.3	487040.2	2163.2	µg/L	2163.2	ppb	17:00:35
2	Be 313.107†	2905368.3	2949505.0	854.32	µg/L	854.32	ppb	17:00:35
2	Cd 226.502†	102151.8	103768.6	680.74	µg/L	680.74	ppb	17:00:35
2	Co 228.616†	77311.0	78666.7	1032.6	µg/L	1032.6	ppb	17:00:35
2	Cr 267.716†	307168.6	311486.3	2700.6	µg/L	2700.6	ppb	17:00:35
2	Cu 324.752†	482799.8	486916.7	2067.6	µg/L	2067.6	ppb	17:00:35
2	Mn 257.610†	4488819.6	4555139.8	6040.5	µg/L	6040.5	ppb	17:00:35
2	Mo 202.031†	16870.2	17158.8	570.37	µg/L	570.37	ppb	17:00:37
2	Ni 231.604†	120519.8	122401.3	1531.4	µg/L	1531.4	ppb	17:00:35
2	P 214.914†	37419.5	37999.6	8654.8	µg/L	8654.8	ppb	17:00:37
2	Pb 220.353†	14289.2	14397.4	894.12	µg/L	894.12	ppb	17:00:37

2	S 181.975 Axial†	5033.4	5019.0	4227.0	µg/L	4227.0 ppb	17:00:37
2	Sb 206.836†	10189.9	10251.1	1290.3	µg/L	1290.3 ppb	17:00:37
2	Se 196.026†	7769.2	7878.2	3170	µg/L	3170 ppb	17:00:37
2	SiO2†	699942.7	708573.7	75005	µg/L	75005 ppb	17:00:35
2	Si 251.611†	2192269.9	2223982.8	35055	µg/L	35055 ppb	17:00:35
2	Sn 189.927†	15377.0	15603.0	1102.6	µg/L	1102.6 ppb	17:00:37
2	Ti 334.940†	5789266.3	5874215.1	6032.0	µg/L	6032.0 ppb	17:00:35
2	Tl 190.801†	8775.9	9020.2	1312.7	µg/L	1312.7 ppb	17:00:37
2	U 409.014†	-3921.5	-3816.2	-168.91	µg/L	-168.91 ppb	17:00:35
2	V 292.402†	255764.8	259130.9	1333.3	µg/L	1333.3 ppb	17:00:35
2	Zn 213.857†	1089625.8	1105266.3	6571.2	µg/L	6571.2 ppb	17:00:35
3	Sc RADIAL	136791.1	136791.1	97.6	%		17:00:23
3	Al 396.153Radial†	437598.7	448240.1	94344	µg/L	94344 ppb	17:00:23
3	Ca 317.933Radial†	1560844.0	1597948.6	108830	µg/L	108830 ppb	17:00:23
3	Fe 238.204 Radial†	2638914.5	2702496.0	201820	µg/L	201820 ppb	17:00:21
3	K 766.490 Radial†	111848.5	113054.6	44751	µg/L	44751 ppb	17:00:23
3	Mg 279.077 IEC†	85935.6	87837.5	40399	µg/L	40399 ppb	17:00:23
3	Na 589.592 Radial†	70423.4	71170.8	10992	µg/L	10992 ppb	17:00:23
3	Sr 421.552†	1057474.3	1083204.4	2553.8	µg/L	2553.8 ppb	17:00:21
3	Sc 361.383	1774464.6	1774464.6	98.354	%		17:00:41
3	Y 371.029	1109932.3	1109932.3	104.98	%		17:00:41
3	Ag 328.068†	83197.9	80024.7	337.76	µg/L	337.76 ppb	17:00:41
3	As 188.979†	2930.6	2998.2	1086.4	µg/L	1086.4 ppb	17:00:43
3	B 249.677†	106379.2	104093.9	1615.2	µg/L	1615.2 ppb	17:00:41
3	Ba 233.527†	478428.0	486577.0	2161.2	µg/L	2161.2 ppb	17:00:41
3	Be 313.107†	2894759.0	2944282.2	852.81	µg/L	852.81 ppb	17:00:41
3	Cd 226.502†	101599.2	103402.4	678.35	µg/L	678.35 ppb	17:00:41
3	Co 228.616†	77008.5	78507.2	1030.6	µg/L	1030.6 ppb	17:00:41
3	Cr 267.716†	306037.1	310924.1	2695.7	µg/L	2695.7 ppb	17:00:41
3	Cu 324.752†	481894.4	486920.7	2067.5	µg/L	2067.5 ppb	17:00:41
3	Mn 257.610†	4472044.8	4546680.8	6029.2	µg/L	6029.2 ppb	17:00:41
3	Mo 202.031†	16949.7	17271.8	574.03	µg/L	574.03 ppb	17:00:43
3	Ni 231.604†	120070.9	122175.6	1528.6	µg/L	1528.6 ppb	17:00:41
3	P 214.914†	37913.2	38573.2	8788.2	µg/L	8788.2 ppb	17:00:43
3	Pb 220.353†	14270.0	14405.3	894.67	µg/L	894.67 ppb	17:00:43
3	S 181.975 Axial†	5120.9	5117.6	4310.0	µg/L	4310.0 ppb	17:00:43
3	Sb 206.836†	10300.9	10383.5	1307.5	µg/L	1307.5 ppb	17:00:43
3	Se 196.026†	7939.5	8066.2	3250	µg/L	3250 ppb	17:00:43
3	SiO2†	697371.0	707299.4	74870	µg/L	74870 ppb	17:00:41
3	Si 251.611†	2182590.1	2218339.5	34966	µg/L	34966 ppb	17:00:41
3	Sn 189.927†	15561.7	15820.1	1117.7	µg/L	1117.7 ppb	17:00:43
3	Ti 334.940†	5776250.5	5872068.6	6029.8	µg/L	6029.8 ppb	17:00:41
3	Tl 190.801†	8923.6	9187.2	1335.4	µg/L	1335.4 ppb	17:00:43
3	U 409.014†	-3916.6	-3818.8	-169.00	µg/L	-169.00 ppb	17:00:41
3	V 292.402†	255154.3	259000.0	1332.7	µg/L	1332.7 ppb	17:00:41
3	Zn 213.857†	1084368.3	1102007.7	6551.9	µg/L	6551.9 ppb	17:00:41

Mean Data: 1202071965|965588|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1773660.2	98.310	%	0.2554				0.26%
Sc RADIAL	137529.5	98.2	%	0.54				0.55%
Y 371.029	1108964.3	104.89	%	0.310				0.30%
Ag 328.068†	79750.9	336.58	µg/L	2.645	336.58	ppb	2.645	0.79%
Al 396.153Radial†	445942.4	93861	µg/L	443.4	93861	ppb	443.4	0.47%
As 188.979†	2999.8	1086.7	µg/L	11.69	1086.7	ppb	11.69	1.08%
B 249.677†	103763.6	1610.1	µg/L	14.74	1610.1	ppb	14.74	0.92%
Ba 233.527†	484675.2	2152.7	µg/L	16.44	2152.7	ppb	16.44	0.76%
Be 313.107†	2933946.4	849.82	µg/L	6.539	849.82	ppb	6.539	0.77%
Ca 317.933Radial†	1597274.3	108790	µg/L	137.8	108790	ppb	137.8	0.13%
Cd 226.502†	103070.9	676.18	µg/L	5.950	676.18	ppb	5.950	0.88%
Co 228.616†	78333.6	1028.3	µg/L	5.82	1028.3	ppb	5.82	0.57%
Cr 267.716†	309798.4	2686.0	µg/L	21.28	2686.0	ppb	21.28	0.79%
Cu 324.752†	484829.2	2058.7	µg/L	15.41	2058.7	ppb	15.41	0.75%
Fe 238.204 Radial†	2693088.4	201120	µg/L	1943.5	201120	ppb	1943.5	0.97%
K 766.490 Radial†	113019.3	44737	µg/L	12.0	44737	ppb	12.0	0.03%
Mg 279.077 IEC†	87967.7	40459	µg/L	64.8	40459	ppb	64.8	0.16%
Mn 257.610†	4531619.5	6009.3	µg/L	44.67	6009.3	ppb	44.67	0.74%
Mo 202.031†	17241.0	572.99	µg/L	2.292	572.99	ppb	2.292	0.40%
Na 589.592 Radial†	71213.0	10999	µg/L	10.8	10999	ppb	10.8	0.10%

Ni 231.604†	121841.6	1524.4	µg/L	9.78	1524.4	ppb	9.78	0.64%
P 214.914†	38376.9	8743.3	µg/L	76.64	8743.3	ppb	76.64	0.88%
Pb 220.353†	14448.6	897.30	µg/L	5.031	897.30	ppb	5.031	0.56%
S 181.975 Axial†	5109.8	4303.4	µg/L	73.31	4303.4	ppb	73.31	1.70%
Sb 206.836†	10392.2	1308.8	µg/L	19.12	1308.8	ppb	19.12	1.46%
Se 196.026†	7979.8	3210	µg/L	37.2	3210	ppb	37.2	1.16%
SiO2†	704765.1	74601	µg/L	585.8	74601	ppb	585.8	0.79%
Si 251.611†	2211627.9	34860	µg/L	264.2	34860	ppb	264.2	0.76%
Sn 189.927†	15765.3	1113.8	µg/L	9.82	1113.8	ppb	9.82	0.88%
Sr 421.552†	1078105.6	2541.8	µg/L	21.30	2541.8	ppb	21.30	0.84%
Ti 334.940†	5847692.3	6004.8	µg/L	45.29	6004.8	ppb	45.29	0.75%
Tl 190.801†	9108.7	1324.4	µg/L	11.39	1324.4	ppb	11.39	0.86%
U 409.014†	-3792.5	-167.64	µg/L	2.281	-167.64	ppb	2.281	1.36%
Concentration less than lower limit for U 409.014.								
V 292.402†	257876.5	1327.0	µg/L	10.51	1327.0	ppb	10.51	0.79%
Zn 213.857†	1099108.3	6534.7	µg/L	47.59	6534.7	ppb	47.59	0.73%

Sequence No.: 37
Sample ID: 249244001|965588|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 327
Date Collected: 4/5/2010 17:00:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249244001|965588|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138437.6	138437.6	98.8	%			17:01:23
1	Al 396.153Radial†	231301.7	234146.1	49296	µg/L	49296	ppb	17:01:21
1	Ca 317.933Radial†	283809.2	286631.5	19522	µg/L	19522	ppb	17:01:23
1	Fe 238.204 Radial†	1106363.1	1119475.4	83602	µg/L	83602	ppb	17:01:21
1	K 766.490 Radial†	20014.8	18760.4	7418.0	µg/L	7418.0	ppb	17:01:23
1	Mg 279.077 IEC†	23542.1	23651.2	10849	µg/L	10849	ppb	17:01:23
1	Na 589.592 Radial†	8386.2	7534.0	1161.2	µg/L	1161.2	ppb	17:01:23
1	Sr 421.552†	57422.9	58314.0	137.38	µg/L	137.38	ppb	17:01:23
1	Sc 361.383	1785481.2	1785481.2	98.965	%			17:01:50
1	Y 371.029	1127076.0	1127076.0	106.60	%			17:01:50
1	Ag 328.068†	4022.5	-500.6	-2.3870	µg/L	-2.3870	ppb	17:01:50
1	As 188.979†	27.9	46.8	35.020	µg/L	35.020	ppb	17:02:10
1	B 249.677†	5254.7	1244.5	19.255	µg/L	19.255	ppb	17:01:50
1	Ba 233.527†	178869.9	180885.0	803.01	µg/L	803.01	ppb	17:01:50
1	Be 313.107†	21795.2	23114.8	6.6162	µg/L	6.6162	ppb	17:01:50
1	Cd 226.502†	1225.1	1341.3	0.2948	µg/L	0.2948	ppb	17:02:10
1	Co 228.616†	1931.5	2162.0	25.037	µg/L	25.037	ppb	17:02:10
1	Cr 267.716†	5618.7	5444.2	49.631	µg/L	49.631	ppb	17:02:10
1	Cu 324.752†	11279.4	8361.3	47.242	µg/L	47.242	ppb	17:01:50
1	Mn 257.610†	1495276.9	1510729.0	2003.4	µg/L	2003.4	ppb	17:01:50
1	Mo 202.031†	-33.9	4.3	3.6920	µg/L	3.6920	ppb	17:02:10
1	Ni 231.604†	3382.0	3513.3	43.955	µg/L	43.955	ppb	17:02:10
1	P 214.914†	4616.4	4690.4	1038.7	µg/L	1038.7	ppb	17:02:10
1	Pb 220.353†	2283.3	2203.7	138.86	µg/L	138.86	ppb	17:02:10
1	S 181.975 Axial†	506.8	423.2	355.98	µg/L	355.98	ppb	17:02:10
1	Sb 206.836†	68.2	-20.9	-4.5561	µg/L	-4.5561	ppb	17:02:10
1	Se 196.026†	-49.7	-56.4	6.53	µg/L	6.53	ppb	17:02:10
1	SiO2†	585569.2	589953.7	62475	µg/L	62475	ppb	17:01:50
1	Si 251.611†	1826618.8	1844953.6	29093	µg/L	29093	ppb	17:01:50
1	Sn 189.927†	33.8	32.3	9.1682	µg/L	9.1682	ppb	17:02:10
1	Ti 334.940†	1981068.4	2000962.3	2054.9	µg/L	2054.9	ppb	17:01:50
1	Tl 190.801†	-317.4	-206.5	-1.5546	µg/L	-1.5546	ppb	17:02:10
1	U 409.014†	-4288.2	-4169.7	-260.76	µg/L	-260.76	ppb	17:01:50
1	V 292.402†	25625.2	25469.9	121.31	µg/L	121.31	ppb	17:01:50
1	Zn 213.857†	41649.7	41582.3	240.85	µg/L	240.85	ppb	17:01:50
2	Sc RADIAL	136711.7	136711.7	97.6	%			17:01:27
2	Al 396.153Radial†	233873.2	239736.1	50473	µg/L	50473	ppb	17:01:25
2	Ca 317.933Radial†	281372.7	287760.5	19599	µg/L	19599	ppb	17:01:27
2	Fe 238.204 Radial†	1118387.0	1145930.7	85577	µg/L	85577	ppb	17:01:25
2	K 766.490 Radial†	19933.6	18932.8	7486.1	µg/L	7486.1	ppb	17:01:27
2	Mg 279.077 IEC†	23497.4	23906.1	10965	µg/L	10965	ppb	17:01:27
2	Na 589.592 Radial†	8227.1	7478.0	1152.5	µg/L	1152.5	ppb	17:01:27
2	Sr 421.552†	57049.7	58665.2	138.21	µg/L	138.21	ppb	17:01:27
2	Sc 361.383	1777147.1	1777147.1	98.503	%			17:02:13
2	Y 371.029	1122494.1	1122494.1	106.17	%			17:02:13
2	Ag 328.068†	3956.0	-549.0	-2.6000	µg/L	-2.6000	ppb	17:02:13
2	As 188.979†	10.3	29.0	29.458	µg/L	29.458	ppb	17:02:33
2	B 249.677†	5371.7	1388.2	21.490	µg/L	21.490	ppb	17:02:13
2	Ba 233.527†	178021.6	180871.3	802.93	µg/L	802.93	ppb	17:02:13
2	Be 313.107†	21732.3	23154.3	6.6259	µg/L	6.6259	ppb	17:02:13
2	Cd 226.502†	1187.1	1308.5	-0.1346	µg/L	-0.1346	ppb	17:02:33
2	Co 228.616†	1900.0	2139.2	24.632	µg/L	24.632	ppb	17:02:33
2	Cr 267.716†	5623.2	5475.5	49.973	µg/L	49.973	ppb	17:02:33
2	Cu 324.752†	11180.7	8314.5	47.333	µg/L	47.333	ppb	17:02:13
2	Mn 257.610†	1487872.8	1510297.9	2002.8	µg/L	2002.8	ppb	17:02:13
2	Mo 202.031†	-45.2	-7.3	3.3917	µg/L	3.3917	ppb	17:02:33
2	Ni 231.604†	3360.7	3507.7	43.885	µg/L	43.885	ppb	17:02:33
2	P 214.914†	4632.8	4728.9	1046.6	µg/L	1046.6	ppb	17:02:33
2	Pb 220.353†	2320.0	2251.8	141.83	µg/L	141.83	ppb	17:02:33

2	S 181.975 Axial†	499.9	418.5	352.10	µg/L	352.10 ppb	17:02:33
2	Sb 206.836†	82.5	-6.0	-2.6818	µg/L	-2.6818 ppb	17:02:33
2	Se 196.026†	-60.0	-67.1	3.01	µg/L	3.01 ppb	17:02:33
2	SiO2†	582827.5	589945.1	62474	µg/L	62474 ppb	17:02:13
2	Si 251.611†	1817226.3	1844074.0	29079	µg/L	29079 ppb	17:02:13
2	Sn 189.927†	36.1	34.8	9.3468	µg/L	9.3468 ppb	17:02:33
2	Ti 334.940†	1972757.0	2001912.1	2055.8	µg/L	2055.8 ppb	17:02:13
2	Tl 190.801†	-312.9	-203.4	-1.1142	µg/L	-1.1142 ppb	17:02:33
2	U 409.014†	-4358.3	-4261.2	-266.96	µg/L	-266.96 ppb	17:02:13
2	V 292.402†	25613.7	25579.7	121.66	µg/L	121.66 ppb	17:02:13
2	Zn 213.857†	41148.7	41271.1	238.80	µg/L	238.80 ppb	17:02:13
3	Sc RADIAL	137533.3	137533.3	98.2	%		17:01:31
3	Al 396.153Radial†	233412.2	237834.8	50073	µg/L	50073 ppb	17:01:29
3	Ca 317.933Radial†	281048.9	285708.1	19459	µg/L	19459 ppb	17:01:31
3	Fe 238.204 Radial†	1118454.5	1139152.9	85071	µg/L	85071 ppb	17:01:29
3	K 766.490 Radial†	20053.7	18933.1	7486.3	µg/L	7486.3 ppb	17:01:31
3	Mg 279.077 IEC†	23361.7	23624.0	10835	µg/L	10835 ppb	17:01:31
3	Na 589.592 Radial†	8276.2	7477.7	1152.4	µg/L	1152.4 ppb	17:01:31
3	Sr 421.552†	56979.7	58244.7	137.22	µg/L	137.22 ppb	17:01:31
3	Sc 361.383	1775719.4	1775719.4	98.424	%		17:02:36
3	Y 371.029	1123074.5	1123074.5	106.22	%		17:02:36
3	Ag 328.068†	3887.8	-615.1	-2.8620	µg/L	-2.8620 ppb	17:02:36
3	As 188.979†	2.7	21.3	26.743	µg/L	26.743 ppb	17:02:56
3	B 249.677†	5124.7	1141.6	17.655	µg/L	17.655 ppb	17:02:36
3	Ba 233.527†	178114.2	181110.8	804.00	µg/L	804.00 ppb	17:02:36
3	Be 313.107†	21766.7	23207.0	6.6410	µg/L	6.6410 ppb	17:02:36
3	Cd 226.502†	1205.3	1328.0	0.0502	µg/L	0.0502 ppb	17:02:56
3	Co 228.616†	1918.6	2159.6	24.930	µg/L	24.930 ppb	17:02:56
3	Cr 267.716†	5645.4	5502.6	50.192	µg/L	50.192 ppb	17:02:56
3	Cu 324.752†	11142.0	8284.3	47.129	µg/L	47.129 ppb	17:02:36
3	Mn 257.610†	1486659.9	1510280.0	2002.8	µg/L	2002.8 ppb	17:02:36
3	Mo 202.031†	-47.3	-9.5	3.2979	µg/L	3.2979 ppb	17:02:56
3	Ni 231.604†	3378.8	3528.8	44.149	µg/L	44.149 ppb	17:02:56
3	P 214.914†	4602.2	4701.5	1040.5	µg/L	1040.5 ppb	17:02:56
3	Pb 220.353†	2284.6	2217.7	139.72	µg/L	139.72 ppb	17:02:56
3	S 181.975 Axial†	499.1	418.2	351.82	µg/L	351.82 ppb	17:02:56
3	Sb 206.836†	78.5	-10.0	-3.1907	µg/L	-3.1907 ppb	17:02:56
3	Se 196.026†	-51.7	-58.6	6.15	µg/L	6.15 ppb	17:02:56
3	SiO2†	583212.6	590812.1	62566	µg/L	62566 ppb	17:02:36
3	Si 251.611†	1816931.3	1845257.6	29098	µg/L	29098 ppb	17:02:36
3	Sn 189.927†	28.0	26.6	8.7832	µg/L	8.7832 ppb	17:02:56
3	Ti 334.940†	1972263.8	2003021.3	2057.0	µg/L	2057.0 ppb	17:02:36
3	Tl 190.801†	-308.5	-199.2	-0.5295	µg/L	-0.5295 ppb	17:02:56
3	U 409.014†	-4363.9	-4270.4	-267.42	µg/L	-267.42 ppb	17:02:36
3	V 292.402†	25630.5	25617.7	121.91	µg/L	121.91 ppb	17:02:36
3	Zn 213.857†	41071.0	41225.6	238.58	µg/L	238.58 ppb	17:02:36

Mean Data: 249244001|965588|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1779449.2	98.631	%	0.2922				0.30%
Sc RADIAL	137560.9	98.2	%	0.62				0.63%
Y 371.029	1124214.9	106.33	%	0.236				0.22%
Ag 328.068†	-554.9	-2.6163	µg/L	0.23789	-2.6163	ppb	0.23789	9.09%
Al 396.153Radial†	237239.0	49947	µg/L	598.4	49947	ppb	598.4	1.20%
As 188.979†	32.4	30.407	µg/L	4.2190	30.407	ppb	4.2190	13.87%
B 249.677†	1258.1	19.467	µg/L	1.9268	19.467	ppb	1.9268	9.90%
Ba 233.527†	180955.7	803.31	µg/L	0.595	803.31	ppb	0.595	0.07%
Be 313.107†	23158.7	6.6277	µg/L	0.01248	6.6277	ppb	0.01248	0.19%
Ca 317.933Radial†	286700.0	19527	µg/L	70.0	19527	ppb	70.0	0.36%
Cd 226.502†	1325.9	0.0701	µg/L	0.21537	0.0701	ppb	0.21537	307.13%
Co 228.616†	2153.6	24.866	µg/L	0.2099	24.866	ppb	0.2099	0.84%
Cr 267.716†	5474.1	49.932	µg/L	0.2830	49.932	ppb	0.2830	0.57%
Cu 324.752†	8320.0	47.235	µg/L	0.1022	47.235	ppb	0.1022	0.22%
Fe 238.204 Radial†	1134853.0	84750	µg/L	1026.2	84750	ppb	1026.2	1.21%
K 766.490 Radial†	18875.4	7463.5	µg/L	39.35	7463.5	ppb	39.35	0.53%
Mg 279.077 IEC†	23727.1	10883	µg/L	71.3	10883	ppb	71.3	0.66%
Mn 257.610†	1510435.6	2003.0	µg/L	0.34	2003.0	ppb	0.34	0.02%
Mo 202.031†	-4.2	3.4606	µg/L	0.20587	3.4606	ppb	0.20587	5.95%
Na 589.592 Radial†	7496.6	1155.4	µg/L	5.06	1155.4	ppb	5.06	0.44%

Ni 231.604†	3516.6	43.997	µg/L	0.1369	43.997	ppb	0.1369	0.31%
P 214.914†	4707.0	1041.9	µg/L	4.11	1041.9	ppb	4.11	0.39%
Pb 220.353†	2224.4	140.14	µg/L	1.528	140.14	ppb	1.528	1.09%
S 181.975 Axial†	420.0	353.30	µg/L	2.325	353.30	ppb	2.325	0.66%
Sb 206.836†	-12.3	-3.4762	µg/L	0.96921	-3.4762	ppb	0.96921	27.88%
Se 196.026†	-60.7	5.23	µg/L	1.935	5.23	ppb	1.935	37.01%
SiO2†	590237.0	62505	µg/L	52.8	62505	ppb	52.8	0.08%
Si 251.611†	1844761.7	29090	µg/L	9.7	29090	ppb	9.7	0.03%
Sn 189.927†	31.2	9.0994	µg/L	0.28805	9.0994	ppb	0.28805	3.17%
Sr 421.552†	58408.0	137.60	µg/L	0.531	137.60	ppb	0.531	0.39%
Ti 334.940†	2001965.3	2055.9	µg/L	1.06	2055.9	ppb	1.06	0.05%
Tl 190.801†	-203.0	-1.0661	µg/L	0.51422	-1.0661	ppb	0.51422	48.23%
U 409.014†	-4233.8	-265.05	µg/L	3.716	-265.05	ppb	3.716	1.40%
Concentration less than lower limit for U 409.014.								
V 292.402†	25555.8	121.63	µg/L	0.303	121.63	ppb	0.303	0.25%
Zn 213.857†	41359.6	239.41	µg/L	1.252	239.41	ppb	1.252	0.52%

Sequence No.: 38
Sample ID: 1202071966|965588|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 328
Date Collected: 4/5/2010 17:03:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202071966|965588|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137828.5	137828.5	98.4	%			17:03:36
1	Al 396.153Radial†	273186.4	277753.4	58477	µg/L	58477	ppb	17:03:34
1	Ca 317.933Radial†	349902.1	355079.6	24184	µg/L	24184	ppb	17:03:36
1	Fe 238.204 Radial†	1457520.8	1481350.6	110630	µg/L	110630	ppb	17:03:34
1	K 766.490 Radial†	23057.0	21942.0	8675.7	µg/L	8675.7	ppb	17:03:36
1	Mg 279.077 IEC†	27594.2	27875.1	12776	µg/L	12776	ppb	17:03:36
1	Na 589.592 Radial†	8976.0	8171.0	1258.8	µg/L	1258.8	ppb	17:03:36
1	Sr 421.552†	82495.7	84055.5	198.05	µg/L	198.05	ppb	17:03:36
1	Sc 361.383	1775512.1	1775512.1	98.413	%			17:04:05
1	Y 371.029	1150779.7	1150779.7	108.84	%			17:04:05
1	Ag 328.068†	4030.0	-470.2	-4.5289	µg/L	-4.5289	ppb	17:04:05
1	As 188.979†	26.5	45.5	40.920	µg/L	40.920	ppb	17:04:26
1	B 249.677†	5273.7	1293.6	19.629	µg/L	19.629	ppb	17:04:05
1	Ba 233.527†	452140.7	459578.7	2041.5	µg/L	2041.5	ppb	17:04:05
1	Be 313.107†	28946.9	30505.5	8.6766	µg/L	8.6766	ppb	17:04:05
1	Cd 226.502†	1698.5	1829.2	0.7763	µg/L	0.7763	ppb	17:04:26
1	Co 228.616†	10252.2	10627.9	136.84	µg/L	136.84	ppb	17:04:26
1	Cr 267.716†	8638.0	8544.1	75.344	µg/L	75.344	ppb	17:04:26
1	Cu 324.752†	11943.7	9100.3	54.169	µg/L	54.169	ppb	17:04:05
1	Mn 257.610†	8225325.1	8357822.8	11086	µg/L	11086	ppb	17:04:03
1	Mo 202.031†	-12.2	26.2	5.5375	µg/L	5.5375	ppb	17:04:26
1	Ni 231.604†	7531.2	7748.5	96.944	µg/L	96.944	ppb	17:04:26
1	P 214.914†	6433.1	6562.6	1455.5	µg/L	1455.5	ppb	17:04:26
1	Pb 220.353†	4210.2	4174.7	260.32	µg/L	260.32	ppb	17:04:26
1	S 181.975 Axial†	476.5	395.2	332.50	µg/L	332.50	ppb	17:04:26
1	Sb 206.836†	93.1	4.9	-1.9061	µg/L	-1.9061	ppb	17:04:26
1	Se 196.026†	-59.3	-66.4	11.7	µg/L	11.7	ppb	17:04:26
1	SiO2†	537226.1	544153.0	57625	µg/L	57625	ppb	17:04:05
1	Si 251.611†	1676331.6	1702605.5	26848	µg/L	26848	ppb	17:04:05
1	Sn 189.927†	34.4	33.1	10.016	µg/L	10.016	ppb	17:04:26
1	Ti 334.940†	2194108.0	2228678.1	2288.8	µg/L	2288.8	ppb	17:04:05
1	Tl 190.801†	-573.3	-468.2	-11.521	µg/L	-11.521	ppb	17:04:26
1	U 409.014†	-8419.5	-8392.0	-469.97	µg/L	-469.97	ppb	17:04:05
1	V 292.402†	39730.5	39948.1	193.23	µg/L	193.23	ppb	17:04:05
1	Zn 213.857†	52189.4	52528.3	302.62	µg/L	302.62	ppb	17:04:05
2	Sc RADIAL	137623.5	137623.5	98.2	%			17:03:40
2	Al 396.153Radial†	273785.9	278777.1	58693	µg/L	58693	ppb	17:03:38
2	Ca 317.933Radial†	349818.9	355524.5	24214	µg/L	24214	ppb	17:03:40
2	Fe 238.204 Radial†	1459243.5	1485310.1	110920	µg/L	110920	ppb	17:03:38
2	K 766.490 Radial†	23032.3	21951.7	8679.4	µg/L	8679.4	ppb	17:03:40
2	Mg 279.077 IEC†	27580.6	27903.0	12789	µg/L	12789	ppb	17:03:40
2	Na 589.592 Radial†	9005.5	8214.6	1265.6	µg/L	1265.6	ppb	17:03:40
2	Sr 421.552†	82442.7	84126.5	198.22	µg/L	198.22	ppb	17:03:40
2	Sc 361.383	1765543.9	1765543.9	97.860	%			17:04:31
2	Y 371.029	1144231.3	1144231.3	108.22	%			17:04:31
2	Ag 328.068†	4195.8	-277.6	-3.7973	µg/L	-3.7973	ppb	17:04:31
2	As 188.979†	21.7	40.7	39.353	µg/L	39.353	ppb	17:04:51
2	B 249.677†	5164.8	1212.6	18.363	µg/L	18.363	ppb	17:04:31
2	Ba 233.527†	449263.9	459232.9	2039.9	µg/L	2039.9	ppb	17:04:31
2	Be 313.107†	28472.4	30186.7	8.5870	µg/L	8.5870	ppb	17:04:31
2	Cd 226.502†	1717.9	1858.8	0.9452	µg/L	0.9452	ppb	17:04:51
2	Co 228.616†	10333.7	10770.0	138.70	µg/L	138.70	ppb	17:04:51
2	Cr 267.716†	8653.2	8609.2	75.850	µg/L	75.850	ppb	17:04:51
2	Cu 324.752†	11770.2	8991.5	53.766	µg/L	53.766	ppb	17:04:31
2	Mn 257.610†	8358520.0	8541119.4	11329	µg/L	11329	ppb	17:04:28
2	Mo 202.031†	-23.3	14.7	5.1739	µg/L	5.1739	ppb	17:04:51
2	Ni 231.604†	7555.9	7817.1	97.801	µg/L	97.801	ppb	17:04:51
2	P 214.914†	6455.5	6622.4	1469.1	µg/L	1469.1	ppb	17:04:51
2	Pb 220.353†	4248.4	4237.9	264.21	µg/L	264.21	ppb	17:04:51

2	S 181.975 Axial†	475.9	397.3	334.27	µg/L	334.27 ppb	17:04:51
2	Sb 206.836†	85.3	-2.5	-2.8846	µg/L	-2.8846 ppb	17:04:51
2	Se 196.026†	-45.1	-52.3	17.4	µg/L	17.4 ppb	17:04:51
2	SiO2†	533748.6	543681.5	57575	µg/L	57575 ppb	17:04:31
2	Si 251.611†	1665048.8	1700693.1	26818	µg/L	26818 ppb	17:04:31
2	Sn 189.927†	13.5	12.0	8.5448	µg/L	8.5448 ppb	17:04:51
2	Ti 334.940†	2180634.4	2227497.5	2287.6	µg/L	2287.6 ppb	17:04:31
2	Tl 190.801†	-549.0	-446.7	-7.9766	µg/L	-7.9766 ppb	17:04:51
2	U 409.014†	-8231.5	-8248.1	-459.37	µg/L	-459.37 ppb	17:04:31
2	V 292.402†	39550.5	39992.2	193.43	µg/L	193.43 ppb	17:04:31
2	Zn 213.857†	51809.8	52439.7	302.04	µg/L	302.04 ppb	17:04:31
3	Sc RADIAL	136807.3	136807.3	97.7	%		17:03:44
3	Al 396.153Radial†	276916.4	283645.6	59718	µg/L	59718 ppb	17:03:42
3	Ca 317.933Radial†	347985.5	355771.6	24231	µg/L	24231 ppb	17:03:44
3	Fe 238.204 Radial†	1471911.7	1507145.0	112550	µg/L	112550 ppb	17:03:42
3	K 766.490 Radial†	22930.8	21987.7	8693.5	µg/L	8693.5 ppb	17:03:44
3	Mg 279.077 IEC†	27516.0	28004.4	12834	µg/L	12834 ppb	17:03:44
3	Na 589.592 Radial†	9005.3	8269.0	1274.0	µg/L	1274.0 ppb	17:03:44
3	Sr 421.552†	82270.0	84450.4	198.98	µg/L	198.98 ppb	17:03:44
3	Sc 361.383	1802023.7	1802023.7	99.882	%		17:04:56
3	Y 371.029	1167604.0	1167604.0	110.43	%		17:04:56
3	Ag 328.068†	4327.0	-233.1	-3.5768	µg/L	-3.5768 ppb	17:04:56
3	As 188.979†	19.5	38.1	38.818	µg/L	38.818 ppb	17:05:16
3	B 249.677†	5234.9	1175.9	17.803	µg/L	17.803 ppb	17:04:56
3	Ba 233.527†	460278.8	460967.2	2047.6	µg/L	2047.6 ppb	17:04:56
3	Be 313.107†	29426.4	30552.9	8.6881	µg/L	8.6881 ppb	17:04:56
3	Cd 226.502†	1724.9	1830.3	0.5802	µg/L	0.5802 ppb	17:05:16
3	Co 228.616†	10320.3	10542.8	135.62	µg/L	135.62 ppb	17:05:16
3	Cr 267.716†	8660.3	8437.3	74.486	µg/L	74.486 ppb	17:05:16
3	Cu 324.752†	12180.0	9158.3	54.687	µg/L	54.687 ppb	17:04:56
3	Mn 257.610†	8365797.9	8375497.2	11110	µg/L	11110 ppb	17:04:53
3	Mo 202.031†	-29.3	9.2	5.0584	µg/L	5.0584 ppb	17:05:16
3	Ni 231.604†	7578.4	7683.3	96.127	µg/L	96.127 ppb	17:05:16
3	P 214.914†	6448.6	6481.9	1435.8	µg/L	1435.8 ppb	17:05:16
3	Pb 220.353†	4218.3	4119.8	256.97	µg/L	256.97 ppb	17:05:16
3	S 181.975 Axial†	476.5	388.1	326.50	µg/L	326.50 ppb	17:05:16
3	Sb 206.836†	81.2	-8.4	-3.6459	µg/L	-3.6459 ppb	17:05:16
3	Se 196.026†	-56.5	-62.7	13.8	µg/L	13.8 ppb	17:05:16
3	SiO2†	547364.3	546272.0	57849	µg/L	57849 ppb	17:04:56
3	Si 251.611†	1707651.4	1708901.9	26947	µg/L	26947 ppb	17:04:56
3	Sn 189.927†	26.0	24.1	9.4036	µg/L	9.4036 ppb	17:05:16
3	Ti 334.940†	2230210.8	2232022.8	2292.2	µg/L	2292.2 ppb	17:04:56
3	Tl 190.801†	-562.7	-449.1	-8.7975	µg/L	-8.7975 ppb	17:05:16
3	U 409.014†	-8660.5	-8507.4	-477.49	µg/L	-477.49 ppb	17:04:56
3	V 292.402†	40494.5	40119.1	193.89	µg/L	193.89 ppb	17:04:56
3	Zn 213.857†	53213.7	52773.5	303.91	µg/L	303.91 ppb	17:04:56

Mean Data: 1202071966|965588|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1781026.6	98.718	%	1.0451				1.06%
Sc RADIAL	137419.8	98.1	%	0.39				0.39%
Y 371.029	1154205.0	109.17	%	1.140				1.04%
Ag 328.068†	-326.9	-3.9677	µg/L	0.49837	-3.9677	ppb	0.49837	12.56%
Al 396.153Radial†	280058.7	58962	µg/L	662.8	58962	ppb	662.8	1.12%
As 188.979†	41.4	39.697	µg/L	1.0928	39.697	ppb	1.0928	2.75%
B 249.677†	1227.4	18.598	µg/L	0.9357	18.598	ppb	0.9357	5.03%
Ba 233.527†	459926.3	2043.0	µg/L	4.07	2043.0	ppb	4.07	0.20%
Be 313.107†	30415.0	8.6506	µg/L	0.05535	8.6506	ppb	0.05535	0.64%
Ca 317.933Radial†	355458.5	24210	µg/L	23.9	24210	ppb	23.9	0.10%
Cd 226.502†	1839.4	0.7672	µg/L	0.18266	0.7672	ppb	0.18266	23.81%
Co 228.616†	10646.9	137.05	µg/L	1.553	137.05	ppb	1.553	1.13%
Cr 267.716†	8530.2	75.226	µg/L	0.6894	75.226	ppb	0.6894	0.92%
Cu 324.752†	9083.4	54.207	µg/L	0.4617	54.207	ppb	0.4617	0.85%
Fe 238.204 Radial†	1491268.6	111370	µg/L	1037.4	111370	ppb	1037.4	0.93%
K 766.490 Radial†	21960.5	8682.9	µg/L	9.38	8682.9	ppb	9.38	0.11%
Mg 279.077 IEC†	27927.5	12800	µg/L	30.5	12800	ppb	30.5	0.24%
Mn 257.610†	8424813.1	11175	µg/L	134.1	11175	ppb	134.1	1.20%
Concentration greater than upper limit for Mn 257.610.								
Mo 202.031†	16.7	5.2566	µg/L	0.25002	5.2566	ppb	0.25002	4.76%

Na 589.592 Radial†	8218.2	1266.1	µg/L	7.61	1266.1	ppb	7.61	0.60%
Ni 231.604†	7749.6	96.957	µg/L	0.8370	96.957	ppb	0.8370	0.86%
P 214.914†	6555.6	1453.5	µg/L	16.78	1453.5	ppb	16.78	1.15%
Pb 220.353†	4177.5	260.50	µg/L	3.622	260.50	ppb	3.622	1.39%
S 181.975 Axial†	393.6	331.09	µg/L	4.075	331.09	ppb	4.075	1.23%
Sb 206.836†	-2.0	-2.8122	µg/L	0.87215	-2.8122	ppb	0.87215	31.01%
Se 196.026†	-60.5	14.3	µg/L	2.87	14.3	ppb	2.87	20.05%
SiO2†	544702.1	57683	µg/L	146.1	57683	ppb	146.1	0.25%
Si 251.611†	1704066.8	26871	µg/L	67.7	26871	ppb	67.7	0.25%
Sn 189.927†	23.1	9.3216	µg/L	0.73927	9.3216	ppb	0.73927	7.93%
Sr 421.552†	84210.8	198.42	µg/L	0.496	198.42	ppb	0.496	0.25%
Ti 334.940†	2229399.5	2289.5	µg/L	2.41	2289.5	ppb	2.41	0.11%
Tl 190.801†	-454.7	-9.4316	µg/L	1.85514	-9.4316	ppb	1.85514	19.67%
U 409.014†	-8382.5	-468.94	µg/L	9.103	-468.94	ppb	9.103	1.94%
Concentration less than lower limit for U 409.014.								
V 292.402†	40019.8	193.51	µg/L	0.341	193.51	ppb	0.341	0.18%
Zn 213.857†	52580.5	302.86	µg/L	0.956	302.86	ppb	0.956	0.32%

Sequence No.: 39
Sample ID: 1202071967|965588|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 329
Date Collected: 4/5/2010 17:05:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202071967|965588|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136511.4	136511.4	97.4	%			17:05:57
1	Al 396.153Radial†	441783.5	453452.7	95445	µg/L	95445	ppb	17:05:55
1	Ca 317.933Radial†	389288.0	398929.9	27171	µg/L	27171	ppb	17:05:57
1	Fe 238.204 Radial†	1450411.1	1488346.9	111150	µg/L	111150	ppb	17:05:55
1	K 766.490 Radial†	41406.6	40999.2	16217	µg/L	16217	ppb	17:05:57
1	Mg 279.077 IEC†	43461.6	44429.4	20431	µg/L	20431	ppb	17:05:57
1	Na 589.592 Radial†	40798.3	40916.2	6327.9	µg/L	6327.9	ppb	17:05:57
1	Sr 421.552†	272728.6	280088.4	660.37	µg/L	660.37	ppb	17:05:55
1	Sc 361.383	1756135.8	1756135.8	97.339	%			17:06:24
1	Y 371.029	1133601.8	1133601.8	107.22	%			17:06:24
1	Ag 328.068†	124367.7	123203.0	510.64	µg/L	510.64	ppb	17:06:24
1	As 188.979†	1362.4	1418.2	511.46	µg/L	511.46	ppb	17:06:26
1	B 249.677†	36679.7	33617.5	520.94	µg/L	520.94	ppb	17:06:24
1	Ba 233.527†	281676.9	289523.1	1286.0	µg/L	1286.0	ppb	17:06:24
1	Be 313.107†	1694787.5	1742218.8	504.73	µg/L	504.73	ppb	17:06:24
1	Cd 226.502†	73601.0	75716.7	500.30	µg/L	500.30	ppb	17:06:24
1	Co 228.616†	39399.5	40687.0	533.77	µg/L	533.77	ppb	17:06:26
1	Cr 267.716†	64932.8	66475.0	578.22	µg/L	578.22	ppb	17:06:26
1	Cu 324.752†	135785.7	136462.3	587.99	µg/L	587.99	ppb	17:06:24
1	Mn 257.610†	1939654.7	1992504.8	2642.0	µg/L	2642.0	ppb	17:06:24
1	Mo 202.031†	14579.3	15016.5	496.10	µg/L	496.10	ppb	17:06:26
1	Ni 231.604†	43173.3	44449.7	556.12	µg/L	556.12	ppb	17:06:26
1	P 214.914†	8490.0	8747.8	1962.0	µg/L	1962.0	ppb	17:06:26
1	Pb 220.353†	10429.9	10611.6	660.85	µg/L	660.85	ppb	17:06:26
1	S 181.975 Axial†	6457.7	6545.3	5510.5	µg/L	5510.5	ppb	17:06:26
1	Sb 206.836†	3140.2	3136.4	402.64	µg/L	402.64	ppb	17:06:26
1	Se 196.026†	1200.2	1226.9	522	µg/L	522	ppb	17:06:26
1	SiO2†	632441.5	647994.9	68600	µg/L	68600	ppb	17:06:24
1	Si 251.611†	1970753.4	2023871.4	31904	µg/L	31904	ppb	17:06:24
1	Sn 189.927†	6776.5	6959.9	494.49	µg/L	494.49	ppb	17:06:26
1	Ti 334.940†	3297595.0	3386936.2	3477.4	µg/L	3477.4	ppb	17:06:24
1	Tl 190.801†	3099.3	3298.3	494.54	µg/L	494.54	ppb	17:06:26
1	U 409.014†	2742.7	2981.1	219.92	µg/L	219.92	ppb	17:06:24
1	V 292.402†	129089.3	132195.6	677.89	µg/L	677.89	ppb	17:06:24
1	Zn 213.857†	132971.7	136104.5	800.07	µg/L	800.07	ppb	17:06:24
2	Sc RADIAL	137922.2	137922.2	98.5	%			17:06:02
2	Al 396.153Radial†	444202.2	451272.1	94986	µg/L	94986	ppb	17:06:00
2	Ca 317.933Radial†	394604.2	400243.5	27260	µg/L	27260	ppb	17:06:02
2	Fe 238.204 Radial†	1459385.3	1482237.5	110690	µg/L	110690	ppb	17:06:00
2	K 766.490 Radial†	41851.2	41016.1	16224	µg/L	16224	ppb	17:06:02
2	Mg 279.077 IEC†	44106.0	44627.7	20523	µg/L	20523	ppb	17:06:02
2	Na 589.592 Radial†	41287.7	40985.0	6338.5	µg/L	6338.5	ppb	17:06:02
2	Sr 421.552†	275006.9	279539.8	659.07	µg/L	659.07	ppb	17:06:00
2	Sc 361.383	1766145.1	1766145.1	97.893	%			17:06:29
2	Y 371.029	1139602.5	1139602.5	107.78	%			17:06:29
2	Ag 328.068†	124908.9	123031.8	509.94	µg/L	509.94	ppb	17:06:29
2	As 188.979†	1385.9	1434.2	516.75	µg/L	516.75	ppb	17:06:31
2	B 249.677†	36917.4	33646.7	521.40	µg/L	521.40	ppb	17:06:29
2	Ba 233.527†	283449.3	289693.8	1286.8	µg/L	1286.8	ppb	17:06:29
2	Be 313.107†	1707397.7	1745232.9	505.60	µg/L	505.60	ppb	17:06:29
2	Cd 226.502†	74363.4	76067.1	502.72	µg/L	502.72	ppb	17:06:29
2	Co 228.616†	39451.6	40510.9	531.47	µg/L	531.47	ppb	17:06:31
2	Cr 267.716†	65211.5	66381.7	577.40	µg/L	577.40	ppb	17:06:31
2	Cu 324.752†	136934.9	136845.7	589.52	µg/L	589.52	ppb	17:06:29
2	Mn 257.610†	1954842.3	1996726.2	2647.6	µg/L	2647.6	ppb	17:06:29
2	Mo 202.031†	14597.2	14949.9	493.90	µg/L	493.90	ppb	17:06:31
2	Ni 231.604†	43487.9	44519.7	557.00	µg/L	557.00	ppb	17:06:31
2	P 214.914†	8536.6	8746.0	1961.9	µg/L	1961.9	ppb	17:06:31
2	Pb 220.353†	10318.7	10437.3	650.12	µg/L	650.12	ppb	17:06:31

2	S 181.975 Axial†	6425.1	6474.4	5450.8	µg/L	5450.8 ppb	17:06:31
2	Sb 206.836†	3196.8	3175.9	407.74	µg/L	407.74 ppb	17:06:31
2	Se 196.026†	1122.4	1140.4	488	µg/L	488 ppb	17:06:31
2	SiO2†	637119.4	649091.2	68716	µg/L	68716 ppb	17:06:29
2	Si 251.611†	1986128.0	2028102.8	31971	µg/L	31971 ppb	17:06:29
2	Sn 189.927†	6868.1	7014.0	498.27	µg/L	498.27 ppb	17:06:31
2	Ti 334.940†	3322047.7	3392715.7	3483.4	µg/L	3483.4 ppb	17:06:29
2	Tl 190.801†	3126.4	3308.0	495.94	µg/L	495.94 ppb	17:06:31
2	U 409.014†	2632.3	2852.3	211.96	µg/L	211.96 ppb	17:06:29
2	V 292.402†	129915.6	132288.2	678.38	µg/L	678.38 ppb	17:06:29
2	Zn 213.857†	133674.0	136047.7	799.76	µg/L	799.76 ppb	17:06:29
3	Sc RADIAL	137620.1	137620.1	98.2	%		17:06:06
3	Al 396.153Radial†	439975.2	447959.5	94289	µg/L	94289 ppb	17:06:04
3	Ca 317.933Radial†	392310.9	398788.8	27161	µg/L	27161 ppb	17:06:06
3	Fe 238.204 Radial†	1445579.0	1471436.7	109890	µg/L	109890 ppb	17:06:04
3	K 766.490 Radial†	41551.4	40804.2	16140	µg/L	16140 ppb	17:06:06
3	Mg 279.077 IEC†	43666.9	44279.1	20363	µg/L	20363 ppb	17:06:06
3	Na 589.592 Radial†	40941.5	40724.7	6298.3	µg/L	6298.3 ppb	17:06:06
3	Sr 421.552†	272762.7	277868.4	655.13	µg/L	655.13 ppb	17:06:04
3	Sc 361.383	1776324.0	1776324.0	98.458	%		17:06:34
3	Y 371.029	1146108.5	1146108.5	108.40	%		17:06:34
3	Ag 328.068†	125896.4	123303.6	511.06	µg/L	511.06 ppb	17:06:34
3	As 188.979†	1354.5	1394.3	503.07	µg/L	503.07 ppb	17:06:36
3	B 249.677†	36915.1	33428.3	518.00	µg/L	518.00 ppb	17:06:34
3	Ba 233.527†	285168.5	289780.7	1287.2	µg/L	1287.2 ppb	17:06:34
3	Be 313.107†	1717093.8	1745086.4	505.57	µg/L	505.57 ppb	17:06:34
3	Cd 226.502†	74599.6	75871.6	501.48	µg/L	501.48 ppb	17:06:34
3	Co 228.616†	39894.9	40730.3	534.41	µg/L	534.41 ppb	17:06:36
3	Cr 267.716†	65706.2	66502.4	578.41	µg/L	578.41 ppb	17:06:36
3	Cu 324.752†	137652.4	136772.8	589.11	µg/L	589.11 ppb	17:06:34
3	Mn 257.610†	1962850.9	1993417.2	2643.3	µg/L	2643.3 ppb	17:06:34
3	Mo 202.031†	14715.2	14984.3	495.00	µg/L	495.00 ppb	17:06:36
3	Ni 231.604†	43750.0	44531.3	557.14	µg/L	557.14 ppb	17:06:36
3	P 214.914†	8592.8	8753.1	1963.9	µg/L	1963.9 ppb	17:06:36
3	Pb 220.353†	10473.6	10534.2	656.06	µg/L	656.06 ppb	17:06:36
3	S 181.975 Axial†	6557.9	6571.7	5532.6	µg/L	5532.6 ppb	17:06:36
3	Sb 206.836†	3244.3	3205.4	411.57	µg/L	411.57 ppb	17:06:36
3	Se 196.026†	1140.2	1152.0	492	µg/L	492 ppb	17:06:36
3	SiO2†	639797.0	648081.3	68609	µg/L	68609 ppb	17:06:34
3	Si 251.611†	1994621.2	2025102.9	31924	µg/L	31924 ppb	17:06:34
3	Sn 189.927†	6965.0	7072.2	502.29	µg/L	502.29 ppb	17:06:36
3	Ti 334.940†	3338481.0	3389960.3	3480.5	µg/L	3480.5 ppb	17:06:34
3	Tl 190.801†	3216.3	3380.9	505.85	µg/L	505.85 ppb	17:06:36
3	U 409.014†	2839.6	3047.4	224.36	µg/L	224.36 ppb	17:06:34
3	V 292.402†	130463.8	132084.5	677.44	µg/L	677.44 ppb	17:06:34
3	Zn 213.857†	134536.0	136140.7	800.39	µg/L	800.39 ppb	17:06:34

Mean Data: 1202071967|965588|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1766201.6	97.896	%	0.5595				0.57%
Sc RADIAL	137351.3	98.0	%	0.53				0.54%
Y 371.029	1139770.9	107.80	%	0.592				0.55%
Ag 328.068†	123179.5	510.55	µg/L	0.568	510.55	ppb	0.568	0.11%
Al 396.153Radial†	450894.8	94907	µg/L	582.3	94907	ppb	582.3	0.61%
As 188.979†	1415.6	510.42	µg/L	6.897	510.42	ppb	6.897	1.35%
B 249.677†	33564.2	520.11	µg/L	1.848	520.11	ppb	1.848	0.36%
Ba 233.527†	289665.9	1286.7	µg/L	0.59	1286.7	ppb	0.59	0.05%
Be 313.107†	1744179.4	505.30	µg/L	0.492	505.30	ppb	0.492	0.10%
Ca 317.933Radial†	399320.7	27197	µg/L	54.6	27197	ppb	54.6	0.20%
Cd 226.502†	75885.2	501.50	µg/L	1.208	501.50	ppb	1.208	0.24%
Co 228.616†	40642.7	533.22	µg/L	1.549	533.22	ppb	1.549	0.29%
Cr 267.716†	66453.0	578.01	µg/L	0.536	578.01	ppb	0.536	0.09%
Cu 324.752†	136693.6	588.87	µg/L	0.792	588.87	ppb	0.792	0.13%
Fe 238.204 Radial†	1480673.7	110580	µg/L	639.5	110580	ppb	639.5	0.58%
K 766.490 Radial†	40939.8	16193	µg/L	46.5	16193	ppb	46.5	0.29%
Mg 279.077 IEC†	44445.4	20439	µg/L	80.4	20439	ppb	80.4	0.39%
Mn 257.610†	1994216.0	2644.3	µg/L	2.94	2644.3	ppb	2.94	0.11%
Mo 202.031†	14983.6	495.00	µg/L	1.098	495.00	ppb	1.098	0.22%
Na 589.592 Radial†	40875.3	6321.6	µg/L	20.87	6321.6	ppb	20.87	0.33%

Ni 231.604†	44500.2	556.75 µg/L	0.553	556.75 ppb	0.553	0.10%
P 214.914†	8749.0	1962.6 µg/L	1.15	1962.6 ppb	1.15	0.06%
Pb 220.353†	10527.7	655.68 µg/L	5.375	655.68 ppb	5.375	0.82%
S 181.975 Axial†	6530.5	5498.0 µg/L	42.32	5498.0 ppb	42.32	0.77%
Sb 206.836†	3172.6	407.32 µg/L	4.478	407.32 ppb	4.478	1.10%
Se 196.026†	1173.1	501 µg/L	18.7	501 ppb	18.7	3.73%
SiO2†	648389.1	68642 µg/L	64.6	68642 ppb	64.6	0.09%
Si 251.611†	2025692.4	31933 µg/L	34.3	31933 ppb	34.3	0.11%
Sn 189.927†	7015.4	498.35 µg/L	3.900	498.35 ppb	3.900	0.78%
Sr 421.552†	279165.5	658.19 µg/L	2.727	658.19 ppb	2.727	0.41%
Ti 334.940†	3389870.7	3480.4 µg/L	2.97	3480.4 ppb	2.97	0.09%
Tl 190.801†	3329.1	498.78 µg/L	6.162	498.78 ppb	6.162	1.24%
U 409.014†	2960.2	218.75 µg/L	6.284	218.75 ppb	6.284	2.87%
V 292.402†	132189.4	677.90 µg/L	0.472	677.90 ppb	0.472	0.07%
Zn 213.857†	136097.6	800.07 µg/L	0.314	800.07 ppb	0.314	0.04%

Sequence No.: 40
Sample ID: 1202071969|965588|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 330
Date Collected: 4/5/2010 17:06:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202071969|965588|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138126.1	138126.1	98.6	%			17:07:17
1	Al 396.153Radial†	536390.4	544107.0	114530	µg/L	114530	ppb	17:07:15
1	Ca 317.933Radial†	677361.5	686435.4	46752	µg/L	46752	ppb	17:07:17
1	Fe 238.204 Radial†	1600619.1	1623294.1	121230	µg/L	121230	ppb	17:07:15
1	K 766.490 Radial†	46382.5	45549.2	18012	µg/L	18012	ppb	17:07:17
1	Mg 279.077 IEC†	49355.8	49886.2	22942	µg/L	22942	ppb	17:07:17
1	Na 589.592 Radial†	42137.8	41785.3	6461.0	µg/L	6461.0	ppb	17:07:17
1	Sr 421.552†	286410.8	290693.7	685.23	µg/L	685.23	ppb	17:07:15
1	Sc 361.383	1783978.5	1783978.5	98.882	%			17:07:45
1	Y 371.029	1180430.0	1180430.0	111.65	%			17:07:45
1	Ag 328.068†	124756.8	121602.4	503.50	µg/L	503.50	ppb	17:07:45
1	As 188.979†	1365.0	1399.0	507.08	µg/L	507.08	ppb	17:07:47
1	B 249.677†	37169.5	33524.7	519.56	µg/L	519.56	ppb	17:07:45
1	Ba 233.527†	310359.6	314013.8	1394.8	µg/L	1394.8	ppb	17:07:45
1	Be 313.107†	1707257.4	1727655.8	500.52	µg/L	500.52	ppb	17:07:45
1	Cd 226.502†	74615.5	75562.7	498.20	µg/L	498.20	ppb	17:07:45
1	Co 228.616†	38790.9	39439.9	516.86	µg/L	516.86	ppb	17:07:47
1	Cr 267.716†	65053.4	65555.8	570.43	µg/L	570.43	ppb	17:07:47
1	Cu 324.752†	137688.1	136209.0	588.48	µg/L	588.48	ppb	17:07:45
1	Mn 257.610†	2383425.9	2410194.4	3196.0	µg/L	3196.0	ppb	17:07:45
1	Mo 202.031†	14408.7	14610.2	483.26	µg/L	483.26	ppb	17:07:47
1	Ni 231.604†	43491.2	44078.9	551.48	µg/L	551.48	ppb	17:07:47
1	P 214.914†	43092.1	43605.1	10023	µg/L	10023	ppb	17:07:47
1	Pb 220.353†	10167.9	10179.4	635.19	µg/L	635.19	ppb	17:07:47
1	S 181.975 Axial†	6462.4	6446.6	5427.3	µg/L	5427.3	ppb	17:07:47
1	Sb 206.836†	3032.9	2977.5	381.83	µg/L	381.83	ppb	17:07:47
1	Se 196.026†	1113.0	1119.4	483	µg/L	483	ppb	17:07:47
1	SiO2†	692485.3	698577.2	73957	µg/L	73957	ppb	17:07:45
1	Si 251.611†	2167859.0	2191607.3	34550	µg/L	34550	ppb	17:07:45
1	Sn 189.927†	6711.3	6785.3	482.68	µg/L	482.68	ppb	17:07:47
1	Ti 334.940†	3436497.9	3474536.8	3567.7	µg/L	3567.7	ppb	17:07:45
1	Tl 190.801†	3088.7	3237.9	488.76	µg/L	488.76	ppb	17:07:47
1	U 409.014†	3158.4	3357.5	246.31	µg/L	246.31	ppb	17:07:45
1	V 292.402†	132751.6	133829.6	685.06	µg/L	685.06	ppb	17:07:45
1	Zn 213.857†	137592.1	138645.0	814.35	µg/L	814.35	ppb	17:07:45
2	Sc RADIAL	137932.8	137932.8	98.5	%			17:07:21
2	Al 396.153Radial†	535690.1	544158.0	114540	µg/L	114540	ppb	17:07:19
2	Ca 317.933Radial†	678828.7	688888.3	46920	µg/L	46920	ppb	17:07:21
2	Fe 238.204 Radial†	1593596.8	1618436.7	120860	µg/L	120860	ppb	17:07:19
2	K 766.490 Radial†	46545.2	45780.3	18103	µg/L	18103	ppb	17:07:21
2	Mg 279.077 IEC†	49600.9	50205.3	23090	µg/L	23090	ppb	17:07:21
2	Na 589.592 Radial†	42223.0	41931.8	6483.6	µg/L	6483.6	ppb	17:07:21
2	Sr 421.552†	286377.8	291067.2	686.10	µg/L	686.10	ppb	17:07:19
2	Sc 361.383	1785651.4	1785651.4	98.975	%			17:07:51
2	Y 371.029	1181736.4	1181736.4	111.77	%			17:07:51
2	Ag 328.068†	125476.3	122211.2	506.01	µg/L	506.01	ppb	17:07:51
2	As 188.979†	1387.3	1420.2	514.24	µg/L	514.24	ppb	17:07:53
2	B 249.677†	37357.8	33679.7	521.94	µg/L	521.94	ppb	17:07:51
2	Ba 233.527†	311138.4	314506.7	1397.0	µg/L	1397.0	ppb	17:07:51
2	Be 313.107†	1712717.8	1731555.2	501.65	µg/L	501.65	ppb	17:07:51
2	Cd 226.502†	74987.1	75867.4	500.30	µg/L	500.30	ppb	17:07:51
2	Co 228.616†	39290.8	39908.2	523.07	µg/L	523.07	ppb	17:07:53
2	Cr 267.716†	65750.1	66198.1	575.97	µg/L	575.97	ppb	17:07:53
2	Cu 324.752†	137927.5	136320.5	588.90	µg/L	588.90	ppb	17:07:51
2	Mn 257.610†	2391514.8	2416108.9	3203.8	µg/L	3203.8	ppb	17:07:51
2	Mo 202.031†	14374.4	14562.0	481.67	µg/L	481.67	ppb	17:07:53
2	Ni 231.604†	43895.8	44446.6	556.08	µg/L	556.08	ppb	17:07:53
2	P 214.914†	43876.0	44356.2	10197	µg/L	10197	ppb	17:07:53
2	Pb 220.353†	10343.8	10347.5	645.54	µg/L	645.54	ppb	17:07:53

2	S 181.975 Axial†	6632.6	6612.4	5566.7	µg/L	5566.7 ppb	17:07:53
2	Sb 206.836†	3072.2	3014.3	386.49	µg/L	386.49 ppb	17:07:53
2	Se 196.026†	1170.0	1176.0	505	µg/L	505 ppb	17:07:53
2	SiO2†	693979.9	699431.2	74048	µg/L	74048 ppb	17:07:51
2	Si 251.611†	2172266.9	2194007.0	34587	µg/L	34587 ppb	17:07:51
2	Sn 189.927†	6872.3	6941.6	493.55	µg/L	493.55 ppb	17:07:53
2	Ti 334.940†	3444737.6	3479605.9	3572.9	µg/L	3572.9 ppb	17:07:51
2	Tl 190.801†	3078.5	3224.6	487.01	µg/L	487.01 ppb	17:07:53
2	U 409.014†	3249.4	3446.4	252.16	µg/L	252.16 ppb	17:07:51
2	V 292.402†	133214.9	134172.0	686.88	µg/L	686.88 ppb	17:07:51
2	Zn 213.857†	137871.9	138797.4	815.27	µg/L	815.27 ppb	17:07:51
3	Sc RADIAL	138639.2	138639.2	99.0	%		17:07:26
3	Al 396.153Radial†	532864.2	538530.3	113360	µg/L	113360 ppb	17:07:24
3	Ca 317.933Radial†	680063.0	686622.6	46765	µg/L	46765 ppb	17:07:26
3	Fe 238.204 Radial†	1585980.6	1602493.7	119670	µg/L	119670 ppb	17:07:24
3	K 766.490 Radial†	46375.8	45368.3	17940	µg/L	17940 ppb	17:07:26
3	Mg 279.077 IEC†	49691.8	50040.4	23014	µg/L	23014 ppb	17:07:26
3	Na 589.592 Radial†	42293.5	41784.5	6460.9	µg/L	6460.9 ppb	17:07:26
3	Sr 421.552†	285117.3	288311.5	679.61	µg/L	679.61 ppb	17:07:24
3	Sc 361.383	1789664.2	1789664.2	99.197	%		17:07:57
3	Y 371.029	1184439.9	1184439.9	112.03	%		17:07:57
3	Ag 328.068†	125765.4	122218.4	506.06	µg/L	506.06 ppb	17:07:57
3	As 188.979†	1337.0	1366.4	495.68	µg/L	495.68 ppb	17:07:59
3	B 249.677†	37547.4	33786.2	523.63	µg/L	523.63 ppb	17:07:57
3	Ba 233.527†	312557.4	315232.3	1400.2	µg/L	1400.2 ppb	17:07:57
3	Be 313.107†	1719637.4	1734650.8	502.55	µg/L	502.55 ppb	17:07:57
3	Cd 226.502†	75139.6	75851.3	500.31	µg/L	500.31 ppb	17:07:57
3	Co 228.616†	38844.6	39369.4	516.01	µg/L	516.01 ppb	17:07:59
3	Cr 267.716†	65120.2	65414.2	569.14	µg/L	569.14 ppb	17:07:59
3	Cu 324.752†	138473.8	136558.8	589.72	µg/L	589.72 ppb	17:07:57
3	Mn 257.610†	2402152.1	2421414.5	3210.9	µg/L	3210.9 ppb	17:07:57
3	Mo 202.031†	14283.1	14437.3	477.55	µg/L	477.55 ppb	17:07:59
3	Ni 231.604†	43357.9	43804.8	548.05	µg/L	548.05 ppb	17:07:59
3	P 214.914†	43262.8	43638.7	10032	µg/L	10032 ppb	17:07:59
3	Pb 220.353†	10236.3	10215.7	637.39	µg/L	637.39 ppb	17:07:59
3	S 181.975 Axial†	6483.2	6446.7	5427.4	µg/L	5427.4 ppb	17:07:59
3	Sb 206.836†	3025.6	2960.4	379.59	µg/L	379.59 ppb	17:07:59
3	Se 196.026†	1060.4	1062.8	460	µg/L	460 ppb	17:07:59
3	SiO2†	697124.4	701029.1	74217	µg/L	74217 ppb	17:07:57
3	Si 251.611†	2181718.6	2198614.2	34660	µg/L	34660 ppb	17:07:57
3	Sn 189.927†	6791.7	6844.8	486.85	µg/L	486.85 ppb	17:07:59
3	Ti 334.940†	3458434.4	3485609.9	3579.1	µg/L	3579.1 ppb	17:07:57
3	Tl 190.801†	3121.2	3260.7	492.06	µg/L	492.06 ppb	17:07:59
3	U 409.014†	3232.0	3421.6	250.95	µg/L	250.95 ppb	17:07:57
3	V 292.402†	133662.3	134321.2	687.70	µg/L	687.70 ppb	17:07:57
3	Zn 213.857†	138882.4	139503.8	819.65	µg/L	819.65 ppb	17:07:57

Mean Data: 1202071969|965588|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786431.4	99.018	%	0.1620				0.16%
Sc RADIAL	138232.7	98.7	%	0.26				0.26%
Y 371.029	1182202.1	111.81	%	0.193				0.17%
Ag 328.068†	122010.7	505.19	µg/L	1.466	505.19	ppb	1.466	0.29%
Al 396.153Radial†	542265.1	114140	µg/L	680.9	114140	ppb	680.9	0.60%
As 188.979†	1395.2	505.67	µg/L	9.362	505.67	ppb	9.362	1.85%
B 249.677†	33663.5	521.71	µg/L	2.045	521.71	ppb	2.045	0.39%
Ba 233.527†	314584.3	1397.3	µg/L	2.73	1397.3	ppb	2.73	0.20%
Be 313.107†	1731287.3	501.58	µg/L	1.016	501.58	ppb	1.016	0.20%
Ca 317.933Radial†	687315.5	46812	µg/L	93.0	46812	ppb	93.0	0.20%
Cd 226.502†	75760.4	499.60	µg/L	1.216	499.60	ppb	1.216	0.24%
Co 228.616†	39572.5	518.65	µg/L	3.857	518.65	ppb	3.857	0.74%
Cr 267.716†	65722.7	571.85	µg/L	3.625	571.85	ppb	3.625	0.63%
Cu 324.752†	136362.8	589.03	µg/L	0.631	589.03	ppb	0.631	0.11%
Fe 238.204 Radial†	1614741.5	120590	µg/L	812.6	120590	ppb	812.6	0.67%
K 766.490 Radial†	45565.9	18018	µg/L	81.7	18018	ppb	81.7	0.45%
Mg 279.077 IEC†	50044.0	23015	µg/L	73.8	23015	ppb	73.8	0.32%
Mn 257.610†	2415905.9	3203.6	µg/L	7.45	3203.6	ppb	7.45	0.23%
Mo 202.031†	14536.5	480.82	µg/L	2.949	480.82	ppb	2.949	0.61%
Na 589.592 Radial†	41833.9	6468.5	µg/L	13.08	6468.5	ppb	13.08	0.20%

Ni 231.604†	44110.1	551.87 µg/L	4.029	551.87 ppb	4.029	0.73%
P 214.914†	43866.7	10084 µg/L	98.1	10084 ppb	98.1	0.97%
Pb 220.353†	10247.5	639.37 µg/L	5.452	639.37 ppb	5.452	0.85%
S 181.975 Axial†	6501.9	5473.8 µg/L	80.48	5473.8 ppb	80.48	1.47%
Sb 206.836†	2984.0	382.64 µg/L	3.518	382.64 ppb	3.518	0.92%
Se 196.026†	1119.4	483 µg/L	22.5	483 ppb	22.5	4.66%
SiO2†	699679.2	74074 µg/L	131.9	74074 ppb	131.9	0.18%
Si 251.611†	2194742.8	34599 µg/L	56.2	34599 ppb	56.2	0.16%
Sn 189.927†	6857.2	487.70 µg/L	5.481	487.70 ppb	5.481	1.12%
Sr 421.552†	290024.1	683.65 µg/L	3.525	683.65 ppb	3.525	0.52%
Ti 334.940†	3479917.5	3573.2 µg/L	5.69	3573.2 ppb	5.69	0.16%
Tl 190.801†	3241.1	489.27 µg/L	2.565	489.27 ppb	2.565	0.52%
U 409.014†	3408.5	249.80 µg/L	3.088	249.80 ppb	3.088	1.24%
V 292.402†	134107.6	686.54 µg/L	1.351	686.54 ppb	1.351	0.20%
Zn 213.857†	138982.1	816.42 µg/L	2.832	816.42 ppb	2.832	0.35%

Sequence No.: 41
Sample ID: 1202071968|965588|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 331
Date Collected: 4/5/2010 17:08:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202071968|965588|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140015.3	140015.3	99.9	%			17:08:36
1	Al 396.153Radial†	48337.7	48443.1	10199	µg/L	10199	ppb	17:08:38
1	Ca 317.933Radial†	59020.6	58481.9	3983.1	µg/L	3983.1	ppb	17:08:38
1	Fe 238.204 Radial†	231968.6	231979.9	17324	µg/L	17324	ppb	17:08:36
1	K 766.490 Radial†	5319.8	3829.0	1514.0	µg/L	1514.0	ppb	17:08:38
1	Mg 279.077 IEC†	5012.4	4842.7	2221.2	µg/L	2221.2	ppb	17:08:38
1	Na 589.592 Radial†	2496.3	1545.1	238.16	µg/L	238.16	ppb	17:08:38
1	Sr 421.552†	11617.9	11828.8	27.867	µg/L	27.867	ppb	17:08:38
1	Sc 361.383	1808449.3	1808449.3	100.24	%			17:08:50
1	Y 371.029	1073484.1	1073484.1	101.53	%			17:08:50
1	Ag 328.068†	3953.0	-621.5	-2.6085	µg/L	-2.6085	ppb	17:08:52
1	As 188.979†	-9.5	9.1	7.0493	µg/L	7.0493	ppb	17:09:12
1	B 249.677†	4357.2	281.7	4.3592	µg/L	4.3592	ppb	17:08:52
1	Ba 233.527†	36927.8	36984.6	164.18	µg/L	164.18	ppb	17:08:52
1	Be 313.107†	4136.8	5218.7	1.4996	µg/L	1.4996	ppb	17:08:52
1	Cd 226.502†	196.5	299.4	0.2064	µg/L	0.2064	ppb	17:09:12
1	Co 228.616†	263.5	473.1	5.5185	µg/L	5.5185	ppb	17:09:12
1	Cr 267.716†	1382.0	1145.5	10.423	µg/L	10.423	ppb	17:09:12
1	Cu 324.752†	4423.4	1376.7	8.3125	µg/L	8.3125	ppb	17:08:52
1	Mn 257.610†	313924.6	312994.1	415.07	µg/L	415.07	ppb	17:08:52
1	Mo 202.031†	-45.9	-7.2	0.4989	µg/L	0.4989	ppb	17:09:12
1	Ni 231.604†	648.4	742.8	9.2931	µg/L	9.2931	ppb	17:09:12
1	P 214.914†	933.0	956.5	211.68	µg/L	211.68	ppb	17:09:12
1	Pb 220.353†	574.8	469.9	29.555	µg/L	29.555	ppb	17:09:12
1	S 181.975 Axial†	176.7	87.4	73.531	µg/L	73.531	ppb	17:09:12
1	Sb 206.836†	83.9	-6.0	-1.1671	µg/L	-1.1671	ppb	17:09:12
1	Se 196.026†	16.4	10.2	10.0	µg/L	10.0	ppb	17:09:12
1	SiO2†	121286.5	119259.2	12629	µg/L	12629	ppb	17:08:52
1	Si 251.611†	368724.6	367081.6	5788.5	µg/L	5788.5	ppb	17:08:50
1	Sn 189.927†	14.0	12.1	2.2103	µg/L	2.2103	ppb	17:09:12
1	Ti 334.940†	398402.5	396633.0	407.31	µg/L	407.31	ppb	17:08:50
1	Tl 190.801†	-162.3	-47.7	-1.1860	µg/L	-1.1860	ppb	17:09:12
1	U 409.014†	-799.8	-634.6	-39.625	µg/L	-39.625	ppb	17:08:52
1	V 292.402†	5490.4	5054.2	24.003	µg/L	24.003	ppb	17:08:52
1	Zn 213.857†	9872.1	9345.7	54.253	µg/L	54.253	ppb	17:09:12
2	Sc RADIAL	138797.0	138797.0	99.1	%			17:08:40
2	Al 396.153Radial†	48577.8	49109.9	10339	µg/L	10339	ppb	17:08:42
2	Ca 317.933Radial†	59381.7	59364.7	4043.3	µg/L	4043.3	ppb	17:08:42
2	Fe 238.204 Radial†	230170.3	232202.2	17341	µg/L	17341	ppb	17:08:40
2	K 766.490 Radial†	5524.1	4081.9	1614.2	µg/L	1614.2	ppb	17:08:42
2	Mg 279.077 IEC†	4987.7	4861.8	2230.0	µg/L	2230.0	ppb	17:08:42
2	Na 589.592 Radial†	2554.1	1625.4	250.52	µg/L	250.52	ppb	17:08:42
2	Sr 421.552†	11705.8	12019.6	28.316	µg/L	28.316	ppb	17:08:42
2	Sc 361.383	1818271.9	1818271.9	100.78	%			17:09:14
2	Y 371.029	1079606.8	1079606.8	102.11	%			17:09:14
2	Ag 328.068†	3987.6	-608.5	-2.5609	µg/L	-2.5609	ppb	17:09:16
2	As 188.979†	-5.9	12.7	8.2769	µg/L	8.2769	ppb	17:09:36
2	B 249.677†	4354.2	255.3	3.9498	µg/L	3.9498	ppb	17:09:16
2	Ba 233.527†	36149.5	36013.4	159.87	µg/L	159.87	ppb	17:09:16
2	Be 313.107†	4074.2	5134.2	1.4741	µg/L	1.4741	ppb	17:09:16
2	Cd 226.502†	200.1	301.9	0.2212	µg/L	0.2212	ppb	17:09:36
2	Co 228.616†	224.4	432.9	4.9815	µg/L	4.9815	ppb	17:09:36
2	Cr 267.716†	1358.8	1115.0	10.165	µg/L	10.165	ppb	17:09:36
2	Cu 324.752†	4378.9	1308.8	8.0276	µg/L	8.0276	ppb	17:09:16
2	Mn 257.610†	306960.0	304391.7	403.66	µg/L	403.66	ppb	17:09:16
2	Mo 202.031†	-38.8	0.0	0.7366	µg/L	0.7366	ppb	17:09:36
2	Ni 231.604†	640.3	731.3	9.1490	µg/L	9.1490	ppb	17:09:36
2	P 214.914†	935.0	953.5	211.01	µg/L	211.01	ppb	17:09:36
2	Pb 220.353†	549.3	441.6	27.825	µg/L	27.825	ppb	17:09:36

2	S 181.975 Axial†	171.8	81.6	68.622	µg/L	68.622 ppb	17:09:36
2	Sb 206.836†	78.3	-12.0	-1.9348	µg/L	-1.9348 ppb	17:09:36
2	Se 196.026†	5.3	-0.9	5.61	µg/L	5.61 ppb	17:09:36
2	SiO2†	118771.4	116110.0	12296	µg/L	12296 ppb	17:09:16
2	Si 251.611†	373179.1	369514.3	5826.8	µg/L	5826.8 ppb	17:09:14
2	Sn 189.927†	14.9	12.9	2.2760	µg/L	2.2760 ppb	17:09:36
2	Ti 334.940†	402302.7	398355.8	409.08	µg/L	409.08 ppb	17:09:14
2	Tl 190.801†	-143.9	-28.5	1.4206	µg/L	1.4206 ppb	17:09:36
2	U 409.014†	-861.2	-691.2	-43.287	µg/L	-43.287 ppb	17:09:16
2	V 292.402†	5473.9	5008.2	23.760	µg/L	23.760 ppb	17:09:16
2	Zn 213.857†	9786.7	9207.8	53.432	µg/L	53.432 ppb	17:09:36
3	Sc RADIAL	138669.9	138669.9	99.0	%		17:08:44
3	Al 396.153Radial†	47929.6	48500.0	10211	µg/L	10211 ppb	17:08:46
3	Ca 317.933Radial†	58267.4	58293.9	3970.3	µg/L	3970.3 ppb	17:08:46
3	Fe 238.204 Radial†	228979.1	231211.6	17267	µg/L	17267 ppb	17:08:44
3	K 766.490 Radial†	5314.7	3875.4	1532.4	µg/L	1532.4 ppb	17:08:46
3	Mg 279.077 IEC†	4904.6	4782.4	2193.4	µg/L	2193.4 ppb	17:08:46
3	Na 589.592 Radial†	2466.6	1539.4	237.26	µg/L	237.26 ppb	17:08:46
3	Sr 421.552†	11788.6	12114.1	28.540	µg/L	28.540 ppb	17:08:46
3	Sc 361.383	1783575.5	1783575.5	98.859	%		17:09:39
3	Y 371.029	1059866.4	1059866.4	100.24	%		17:09:39
3	Ag 328.068†	4028.3	-490.4	-2.0878	µg/L	-2.0878 ppb	17:09:41
3	As 188.979†	-3.9	14.6	8.9139	µg/L	8.9139 ppb	17:10:01
3	B 249.677†	4298.0	282.5	4.3718	µg/L	4.3718 ppb	17:09:41
3	Ba 233.527†	36769.4	37338.1	165.76	µg/L	165.76 ppb	17:09:41
3	Be 313.107†	3997.9	5135.7	1.4681	µg/L	1.4681 ppb	17:09:41
3	Cd 226.502†	181.8	287.3	0.1305	µg/L	0.1305 ppb	17:10:01
3	Co 228.616†	241.6	454.7	5.2785	µg/L	5.2785 ppb	17:10:01
3	Cr 267.716†	1317.2	1099.2	10.039	µg/L	10.039 ppb	17:10:01
3	Cu 324.752†	4328.7	1342.5	8.1395	µg/L	8.1395 ppb	17:09:41
3	Mn 257.610†	313075.4	316502.6	419.72	µg/L	419.72 ppb	17:09:41
3	Mo 202.031†	-24.8	13.5	1.1728	µg/L	1.1728 ppb	17:10:01
3	Ni 231.604†	657.4	760.9	9.5198	µg/L	9.5198 ppb	17:10:01
3	P 214.914†	963.8	1000.7	221.94	µg/L	221.94 ppb	17:10:01
3	Pb 220.353†	573.9	477.1	30.018	µg/L	30.018 ppb	17:10:01
3	S 181.975 Axial†	184.7	97.9	82.394	µg/L	82.394 ppb	17:10:01
3	Sb 206.836†	95.0	6.3	0.4412	µg/L	0.4412 ppb	17:10:01
3	Se 196.026†	-3.8	-10.0	2.00	µg/L	2.00 ppb	17:10:01
3	SiO2†	121134.4	120792.8	12792	µg/L	12792 ppb	17:09:41
3	Si 251.611†	364555.6	367994.5	5802.8	µg/L	5802.8 ppb	17:09:39
3	Sn 189.927†	6.7	4.9	1.7136	µg/L	1.7136 ppb	17:10:01
3	Ti 334.940†	393773.1	397493.1	408.20	µg/L	408.20 ppb	17:09:39
3	Tl 190.801†	-152.6	-40.0	-0.1117	µg/L	-0.1117 ppb	17:10:01
3	U 409.014†	-1178.9	-1029.1	-64.406	µg/L	-64.406 ppb	17:09:41
3	V 292.402†	5661.2	5303.3	25.288	µg/L	25.288 ppb	17:09:41
3	Zn 213.857†	9745.5	9354.9	54.313	µg/L	54.313 ppb	17:10:01

Mean Data: 1202071968|965588|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1803432.2	99.960	%	0.9913				0.99%
Sc RADIAL	139160.8	99.3	%	0.53				0.53%
Y 371.029	1070985.8	101.29	%	0.956				0.94%
Ag 328.068†	-573.5	-2.4191	µg/L	0.28790	-2.4191	ppb	0.28790	11.90%
Al 396.153Radial†	48684.3	10250	µg/L	77.8	10250	ppb	77.8	0.76%
As 188.979†	12.1	8.0800	µg/L	0.94775	8.0800	ppb	0.94775	11.73%
B 249.677†	273.1	4.2269	µg/L	0.24006	4.2269	ppb	0.24006	5.68%
Ba 233.527†	36778.7	163.27	µg/L	3.050	163.27	ppb	3.050	1.87%
Be 313.107†	5162.9	1.4806	µg/L	0.01675	1.4806	ppb	0.01675	1.13%
Ca 317.933Radial†	58713.5	3998.9	µg/L	38.94	3998.9	ppb	38.94	0.97%
Cd 226.502†	296.2	0.1860	µg/L	0.04869	0.1860	ppb	0.04869	26.17%
Co 228.616†	453.6	5.2595	µg/L	0.26902	5.2595	ppb	0.26902	5.11%
Cr 267.716†	1119.9	10.209	µg/L	0.1957	10.209	ppb	0.1957	1.92%
Cu 324.752†	1342.7	8.1599	µg/L	0.14355	8.1599	ppb	0.14355	1.76%
Fe 238.204 Radial†	231797.9	17310	µg/L	38.8	17310	ppb	38.8	0.22%
K 766.490 Radial†	3928.8	1553.5	µg/L	53.33	1553.5	ppb	53.33	3.43%
Mg 279.077 IEC†	4829.0	2214.9	µg/L	19.08	2214.9	ppb	19.08	0.86%
Mn 257.610†	311296.1	412.82	µg/L	8.267	412.82	ppb	8.267	2.00%
Mo 202.031†	2.1	0.8028	µg/L	0.34180	0.8028	ppb	0.34180	42.58%
Na 589.592 Radial†	1570.0	241.98	µg/L	7.409	241.98	ppb	7.409	3.06%

Ni 231.604†	745.0	9.3206	µg/L	0.18693	9.3206	ppb	0.18693	2.01%
P 214.914†	970.2	214.88	µg/L	6.125	214.88	ppb	6.125	2.85%
Pb 220.353†	462.9	29.132	µg/L	1.1556	29.132	ppb	1.1556	3.97%
S 181.975 Axial†	89.0	74.849	µg/L	6.9802	74.849	ppb	6.9802	9.33%
Sb 206.836†	-3.9	-0.8869	µg/L	1.21255	-0.8869	ppb	1.21255	136.72%
Se 196.026†	-0.2	5.87	µg/L	4.009	5.87	ppb	4.009	68.32%
SiO2†	118720.7	12572	µg/L	252.8	12572	ppb	252.8	2.01%
Si 251.611†	368196.8	5806.0	µg/L	19.38	5806.0	ppb	19.38	0.33%
Sn 189.927†	9.9	2.0666	µg/L	0.30749	2.0666	ppb	0.30749	14.88%
Sr 421.552†	11987.5	28.241	µg/L	0.3427	28.241	ppb	0.3427	1.21%
Ti 334.940†	397494.0	408.20	µg/L	0.886	408.20	ppb	0.886	0.22%
Tl 190.801†	-38.7	0.0410	µg/L	1.31002	0.0410	ppb	1.31002	>999.9%
U 409.014†	-785.0	-49.106	µg/L	13.3759	-49.106	ppb	13.3759	27.24%
V 292.402†	5121.9	24.351	µg/L	0.8211	24.351	ppb	0.8211	3.37%
Zn 213.857†	9302.8	54.000	µg/L	0.4921	54.000	ppb	0.4921	0.91%

Sequence No.: 42
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 17:10:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137055.7	137055.7	97.8	%			17:10:43
1	Al 396.153Radial†	22620.0	23199.8	4861.3	µg/L	4861.3	ppb	17:10:43
1	Ca 317.933Radial†	73231.8	74283.3	5059.4	µg/L	5059.4	ppb	17:10:43
1	Fe 238.204 Radial†	65715.4	67054.4	5007.6	µg/L	5007.6	ppb	17:10:43
1	K 766.490 Radial†	13911.8	12726.3	5038.7	µg/L	5038.7	ppb	17:10:43
1	Mg 279.077 IEC†	10914.8	10984.2	5079.7	µg/L	5079.7	ppb	17:10:43
1	Na 589.592 Radial†	64048.5	64515.4	9995.9	µg/L	9995.9	ppb	17:10:43
1	Sr 421.552†	206888.5	211677.9	499.20	µg/L	499.20	ppb	17:10:41
1	Sc 361.383	1780631.5	1780631.5	98.696	%			17:11:10
1	Y 371.029	1034955.9	1034955.9	97.887	%			17:11:10
1	Ag 328.068†	124044.4	121117.8	502.05	µg/L	502.05	ppb	17:11:10
1	As 188.979†	1275.2	1310.6	450.55	µg/L	450.55	ppb	17:11:30
1	B 249.677†	35291.1	31692.2	491.12	µg/L	491.12	ppb	17:11:10
1	Ba 233.527†	109275.6	110863.6	493.18	µg/L	493.18	ppb	17:11:10
1	Be 313.107†	1648732.5	1671603.2	484.37	µg/L	484.37	ppb	17:11:10
1	Cd 226.502†	73212.0	74282.5	501.75	µg/L	501.75	ppb	17:11:10
1	Co 228.616†	37312.8	38016.0	503.18	µg/L	503.18	ppb	17:11:10
1	Cr 267.716†	57368.8	57893.4	500.71	µg/L	500.71	ppb	17:11:10
1	Cu 324.752†	120151.9	118702.9	498.05	µg/L	498.05	ppb	17:11:10
1	Mn 257.610†	371743.2	376469.0	499.19	µg/L	499.19	ppb	17:11:10
1	Mo 202.031†	14969.7	15206.0	497.75	µg/L	497.75	ppb	17:11:30
1	Ni 231.604†	39431.1	40047.9	501.05	µg/L	501.05	ppb	17:11:10
1	P 214.914†	10531.7	10696.5	2465.7	µg/L	2465.7	ppb	17:11:30
1	Pb 220.353†	8083.6	8086.9	499.19	µg/L	499.19	ppb	17:11:30
1	S 181.975 Axial†	1261.8	1189.6	1004.9	µg/L	1004.9	ppb	17:11:30
1	Sb 206.836†	3859.2	3820.5	493.71	µg/L	493.71	ppb	17:11:30
1	Se 196.026†	1267.3	1277.9	506	µg/L	506	ppb	17:11:30
1	SiO2†	51149.4	50086.0	5282.8	µg/L	5282.8	ppb	17:11:10
1	Si 251.611†	156453.9	157753.6	2477.7	µg/L	2477.7	ppb	17:11:10
1	Sn 189.927†	6948.7	7038.6	489.89	µg/L	489.89	ppb	17:11:30
1	Ti 334.940†	476133.7	481600.2	494.00	µg/L	494.00	ppb	17:11:10
1	Tl 190.801†	3446.6	3606.4	499.90	µg/L	499.90	ppb	17:11:30
1	U 409.014†	7294.1	7553.8	507.01	µg/L	507.01	ppb	17:11:10
1	V 292.402†	95018.5	95850.4	503.42	µg/L	503.42	ppb	17:11:10
1	Zn 213.857†	83456.0	84055.5	498.01	µg/L	498.01	ppb	17:11:10
2	Sc RADIAL	135408.6	135408.6	96.7	%			17:10:47
2	Al 396.153Radial†	22517.3	23374.9	4898.1	µg/L	4898.1	ppb	17:10:47
2	Ca 317.933Radial†	72313.8	74244.0	5056.7	µg/L	5056.7	ppb	17:10:47
2	Fe 238.204 Radial†	64838.0	66963.7	5000.8	µg/L	5000.8	ppb	17:10:47
2	K 766.490 Radial†	13819.4	12803.7	5069.3	µg/L	5069.3	ppb	17:10:47
2	Mg 279.077 IEC†	10682.9	10880.0	5031.6	µg/L	5031.6	ppb	17:10:47
2	Na 589.592 Radial†	63233.4	64468.4	9988.6	µg/L	9988.6	ppb	17:10:47
2	Sr 421.552†	205022.8	212320.0	500.71	µg/L	500.71	ppb	17:10:45
2	Sc 361.383	1773415.5	1773415.5	98.296	%			17:11:33
2	Y 371.029	1031141.7	1031141.7	97.526	%			17:11:33
2	Ag 328.068†	123480.7	121055.8	501.78	µg/L	501.78	ppb	17:11:33
2	As 188.979†	1277.7	1318.4	453.19	µg/L	453.19	ppb	17:11:53
2	B 249.677†	35100.4	31643.6	490.37	µg/L	490.37	ppb	17:11:33
2	Ba 233.527†	108533.0	110558.7	491.82	µg/L	491.82	ppb	17:11:33
2	Be 313.107†	1637326.4	1666796.7	482.97	µg/L	482.97	ppb	17:11:33
2	Cd 226.502†	72551.1	73911.9	499.24	µg/L	499.24	ppb	17:11:33
2	Co 228.616†	37155.6	38009.9	503.10	µg/L	503.10	ppb	17:11:33
2	Cr 267.716†	56945.8	57699.6	499.03	µg/L	499.03	ppb	17:11:33
2	Cu 324.752†	119557.0	118593.0	497.59	µg/L	497.59	ppb	17:11:33
2	Mn 257.610†	369699.1	375922.1	498.47	µg/L	498.47	ppb	17:11:33
2	Mo 202.031†	14961.3	15259.2	499.49	µg/L	499.49	ppb	17:11:53
2	Ni 231.604†	39207.3	39982.7	500.23	µg/L	500.23	ppb	17:11:33
2	P 214.914†	10496.3	10703.9	2467.5	µg/L	2467.5	ppb	17:11:53
2	Pb 220.353†	8111.8	8149.0	503.01	µg/L	503.01	ppb	17:11:53

2	S 181.975 Axial†	1254.9	1187.7	1003.4 µg/L	1003.4 ppb		17:11:53
2	Sb 206.836†	3864.5	3841.8	496.50 µg/L	496.50 ppb		17:11:53
2	Se 196.026†	1250.8	1266.3	501 µg/L	501 ppb		17:11:53
2	SiO2†	50934.6	50078.3	5281.9 µg/L	5281.9 ppb		17:11:33
2	Si 251.611†	156181.0	158120.9	2483.5 µg/L	2483.5 ppb		17:11:33
2	Sn 189.927†	6932.1	7050.4	490.71 µg/L	490.71 ppb		17:11:53
2	Ti 334.940†	473748.0	481136.1	493.52 µg/L	493.52 ppb		17:11:33
2	Tl 190.801†	3451.9	3626.0	502.55 µg/L	502.55 ppb		17:11:53
2	U 409.014†	7314.8	7604.9	510.15 µg/L	510.15 ppb		17:11:33
2	V 292.402†	94350.7	95562.7	501.94 µg/L	501.94 ppb		17:11:33
2	Zn 213.857†	83141.9	84080.0	498.16 µg/L	498.16 ppb		17:11:33
3	Sc RADIAL	136034.8	136034.8	97.1 %			17:10:51
3	Al 396.153Radial†	22623.7	23377.2	4898.3 µg/L	4898.3 ppb		17:10:51
3	Ca 317.933Radial†	72562.4	74155.6	5050.7 µg/L	5050.7 ppb		17:10:51
3	Fe 238.204 Radial†	65104.3	66929.1	4998.2 µg/L	4998.2 ppb		17:10:51
3	K 766.490 Radial†	13892.9	12813.5	5073.2 µg/L	5073.2 ppb		17:10:51
3	Mg 279.077 IEC†	10800.7	10950.5	5064.3 µg/L	5064.3 ppb		17:10:51
3	Na 589.592 Radial†	63633.4	64579.1	10006 µg/L	10006 ppb		17:10:51
3	Sr 421.552†	202879.3	209135.9	493.20 µg/L	493.20 ppb		17:10:49
3	Sc 361.383	1767543.4	1767543.4	97.971 %			17:11:56
3	Y 371.029	1027715.0	1027715.0	97.202 %			17:11:56
3	Ag 328.068†	123605.9	121600.9	504.02 µg/L	504.02 ppb		17:11:56
3	As 188.979†	1298.3	1343.8	461.78 µg/L	461.78 ppb		17:12:16
3	B 249.677†	35304.7	31970.8	495.45 µg/L	495.45 ppb		17:11:56
3	Ba 233.527†	108988.9	111390.8	495.53 µg/L	495.53 ppb		17:11:56
3	Be 313.107†	1634588.3	1669535.7	483.77 µg/L	483.77 ppb		17:11:56
3	Cd 226.502†	72862.0	74474.5	503.05 µg/L	503.05 ppb		17:11:56
3	Co 228.616†	37221.5	38202.8	505.66 µg/L	505.66 ppb		17:11:56
3	Cr 267.716†	56873.2	57818.0	500.05 µg/L	500.05 ppb		17:11:56
3	Cu 324.752†	119352.8	118788.8	498.41 µg/L	498.41 ppb		17:11:56
3	Mn 257.610†	370060.0	377540.0	500.61 µg/L	500.61 ppb		17:11:56
3	Mo 202.031†	15077.9	15428.7	505.04 µg/L	505.04 ppb		17:12:16
3	Ni 231.604†	39389.7	40301.4	504.22 µg/L	504.22 ppb		17:11:56
3	P 214.914†	10642.6	10888.8	2510.2 µg/L	2510.2 ppb		17:12:16
3	Pb 220.353†	8197.6	8264.0	510.11 µg/L	510.11 ppb		17:12:16
3	S 181.975 Axial†	1254.0	1191.1	1006.3 µg/L	1006.3 ppb		17:12:16
3	Sb 206.836†	3915.3	3906.7	504.95 µg/L	504.95 ppb		17:12:16
3	Se 196.026†	1258.0	1277.9	506 µg/L	506 ppb		17:12:16
3	SiO2†	51109.0	50428.5	5318.7 µg/L	5318.7 ppb		17:11:56
3	Si 251.611†	156522.7	158997.6	2497.2 µg/L	2497.2 ppb		17:11:56
3	Sn 189.927†	7013.8	7157.1	498.12 µg/L	498.12 ppb		17:12:16
3	Ti 334.940†	473724.5	482713.3	495.14 µg/L	495.14 ppb		17:11:56
3	Tl 190.801†	3493.7	3680.3	510.00 µg/L	510.00 ppb		17:12:16
3	U 409.014†	7206.6	7519.2	504.83 µg/L	504.83 ppb		17:11:56
3	V 292.402†	94298.6	95828.4	503.38 µg/L	503.38 ppb		17:11:56
3	Zn 213.857†	83272.4	84494.2	500.61 µg/L	500.61 ppb		17:11:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1773863.5	98.321	%	0.3634				0.37%
Sc RADIAL	136166.4	97.2	%	0.59				0.61%
Y 371.029	1031270.8	97.538	%	0.3426				0.35%
Ag 328.068†	121258.2	502.62	µg/L	1.224	502.62	ppb	1.224	0.24%
QC value within limits for Ag 328.068 Recovery = 100.52%								
Al 396.153Radial†	23317.3	4885.9	µg/L	21.30	4885.9	ppb	21.30	0.44%
QC value within limits for Al 396.153Radial Recovery = 97.72%								
As 188.979†	1324.3	455.17	µg/L	5.872	455.17	ppb	5.872	1.29%
QC value within limits for As 188.979 Recovery = 91.03%								
B 249.677†	31768.8	492.31	µg/L	2.741	492.31	ppb	2.741	0.56%
QC value within limits for B 249.677 Recovery = 98.46%								
Ba 233.527†	110937.7	493.51	µg/L	1.873	493.51	ppb	1.873	0.38%
QC value within limits for Ba 233.527 Recovery = 98.70%								
Be 313.107†	1669311.9	483.70	µg/L	0.698	483.70	ppb	0.698	0.14%
QC value within limits for Be 313.107 Recovery = 96.74%								
Ca 317.933Radial†	74227.6	5055.6	µg/L	4.46	5055.6	ppb	4.46	0.09%
QC value within limits for Ca 317.933Radial Recovery = 101.11%								
Cd 226.502†	74223.0	501.34	µg/L	1.934	501.34	ppb	1.934	0.39%
QC value within limits for Cd 226.502 Recovery = 100.27%								
Co 228.616†	38076.2	503.98	µg/L	1.452	503.98	ppb	1.452	0.29%

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   QC value within limits for Co 228.616  Recovery = 100.80%
Cr 267.716†            57803.7      499.93 µg/L         0.847      499.93 ppb          0.847   0.17%
   QC value within limits for Cr 267.716  Recovery = 99.99%
Cu 324.752†           118694.9      498.02 µg/L         0.409      498.02 ppb          0.409   0.08%
   QC value within limits for Cu 324.752  Recovery = 99.60%
Fe 238.204 Radial†     66982.4      5002.2 µg/L          4.83      5002.2 ppb           4.83   0.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.04%
K 766.490 Radial†      12781.2      5060.4 µg/L         18.93      5060.4 ppb          18.93   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 101.21%
Mg 279.077 IEC†        10938.3      5058.6 µg/L         24.54      5058.6 ppb          24.54   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.17%
Mn 257.610†           376643.7      499.42 µg/L         1.091      499.42 ppb          1.091   0.22%
   QC value within limits for Mn 257.610  Recovery = 99.88%
Mo 202.031†            15298.0      500.76 µg/L         3.804      500.76 ppb          3.804   0.76%
   QC value within limits for Mo 202.031  Recovery = 100.15%
Na 589.592 Radial†     64521.0      9996.8 µg/L          8.61      9996.8 ppb           8.61   0.09%
   QC value within limits for Na 589.592 Radial  Recovery = 99.97%
Ni 231.604†            40110.7      501.83 µg/L         2.107      501.83 ppb          2.107   0.42%
   QC value within limits for Ni 231.604  Recovery = 100.37%
P 214.914†             10763.1      2481.1 µg/L         25.20      2481.1 ppb          25.20   1.02%
   QC value within limits for P 214.914  Recovery = 99.25%
Pb 220.353†             8166.6      504.10 µg/L         5.542      504.10 ppb          5.542   1.10%
   QC value within limits for Pb 220.353  Recovery = 100.82%
S 181.975 Axial†        1189.5      1004.9 µg/L          1.46      1004.9 ppb           1.46   0.15%
   QC value within limits for S 181.975 Axial  Recovery = 100.49%
Sb 206.836†             3856.3      498.39 µg/L         5.853      498.39 ppb          5.853   1.17%
   QC value within limits for Sb 206.836  Recovery = 99.68%
Se 196.026†             1274.0         504 µg/L           2.6         504 ppb            2.6   0.52%
   QC value within limits for Se 196.026  Recovery = 100.83%
SiO2†                  50197.6      5294.5 µg/L         21.01      5294.5 ppb          21.01   0.40%
   QC value within limits for SiO2  Recovery = 99.01%
Si 251.611†           158290.7      2486.1 µg/L         10.00      2486.1 ppb          10.00   0.40%
   QC value within limits for Si 251.611  Recovery = 99.45%
Sn 189.927†             7082.1      492.90 µg/L         4.531      492.90 ppb          4.531   0.92%
   QC value within limits for Sn 189.927  Recovery = 98.58%
Sr 421.552†           211044.6      497.70 µg/L         3.971      497.70 ppb          3.971   0.80%
   QC value within limits for Sr 421.552  Recovery = 99.54%
Ti 334.940†           481816.5      494.22 µg/L         0.832      494.22 ppb          0.832   0.17%
   QC value within limits for Ti 334.940  Recovery = 98.84%
Tl 190.801†             3637.6      504.15 µg/L         5.234      504.15 ppb          5.234   1.04%
   QC value within limits for Tl 190.801  Recovery = 100.83%
U 409.014†              7559.3      507.33 µg/L         2.674      507.33 ppb          2.674   0.53%
   QC value within limits for U 409.014  Recovery = 101.47%
V 292.402†             95747.2      502.91 µg/L         0.841      502.91 ppb          0.841   0.17%
   QC value within limits for V 292.402  Recovery = 100.58%
Zn 213.857†            84209.9      498.93 µg/L         1.460      498.93 ppb          1.460   0.29%
   QC value within limits for Zn 213.857  Recovery = 99.79%
All analyte(s) passed QC.
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Sequence No.: 43
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 17:12:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135450.1	135450.1	96.7	%			17:12:56
1	Al 396.153Radial†	-81.3	-5.6	-1.1704	µg/L	-1.1704	ppb	17:13:16
1	Ca 317.933Radial†	651.0	101.9	6.9409	µg/L	6.9409	ppb	17:13:16
1	Fe 238.204 Radial†	154.7	42.7	3.1915	µg/L	3.1915	ppb	17:13:16
1	K 766.490 Radial†	1676.0	239.7	94.966	µg/L	94.966	ppb	17:12:56
1	Mg 279.077 IEC†	178.2	11.9	5.4792	µg/L	5.4792	ppb	17:13:16
1	Na 589.592 Radial†	1291.3	383.1	59.295	µg/L	59.295	ppb	17:12:56
1	Sr 421.552†	-290.3	-95.8	-0.2260	µg/L	-0.2260	ppb	17:12:56
1	Sc 361.383	1794956.0	1794956.0	99.490	%			17:14:17
1	Y 371.029	1055741.9	1055741.9	99.853	%			17:14:17
1	Ag 328.068†	4009.1	-535.5	-2.2145	µg/L	-2.2145	ppb	17:14:20
1	As 188.979†	-8.5	10.0	3.3980	µg/L	3.3980	ppb	17:14:40
1	B 249.677†	4081.5	37.3	0.5797	µg/L	0.5797	ppb	17:14:20
1	Ba 233.527†	-146.2	-2.4	-0.0105	µg/L	-0.0105	ppb	17:14:40
1	Be 313.107†	-734.1	353.9	0.0970	µg/L	0.0970	ppb	17:14:20
1	Cd 226.502†	-62.2	40.8	0.2757	µg/L	0.2757	ppb	17:14:40
1	Co 228.616†	-195.2	14.1	0.1868	µg/L	0.1868	ppb	17:14:40
1	Cr 267.716†	241.0	9.0	0.0924	µg/L	0.0924	ppb	17:14:40
1	Cu 324.752†	2546.0	-477.0	-2.0094	µg/L	-2.0094	ppb	17:14:20
1	Mn 257.610†	264.1	80.8	0.1069	µg/L	0.1069	ppb	17:14:40
1	Mo 202.031†	-41.4	-3.0	-0.0975	µg/L	-0.0975	ppb	17:14:40
1	Ni 231.604†	-56.6	39.0	0.4885	µg/L	0.4885	ppb	17:14:40
1	P 214.914†	32.5	58.4	13.522	µg/L	13.522	ppb	17:14:40
1	Pb 220.353†	113.5	10.6	0.6652	µg/L	0.6652	ppb	17:14:40
1	S 181.975 Axial†	101.3	12.9	10.885	µg/L	10.885	ppb	17:14:40
1	Sb 206.836†	84.4	-4.9	-0.6354	µg/L	-0.6354	ppb	17:14:40
1	Se 196.026†	24.6	18.5	7.29	µg/L	7.29	ppb	17:14:40
1	SiO2†	1814.0	84.2	8.9180	µg/L	8.9180	ppb	17:14:40
1	Si 251.611†	1086.7	325.3	5.1291	µg/L	5.1291	ppb	17:14:20
1	Sn 189.927†	5.2	3.4	0.2336	µg/L	0.2336	ppb	17:14:40
1	Ti 334.940†	616.5	-203.3	-0.2017	µg/L	-0.2017	ppb	17:14:20
1	Tl 190.801†	-115.3	-1.7	-0.2289	µg/L	-0.2289	ppb	17:14:40
1	U 409.014†	-447.5	-286.4	-18.072	µg/L	-18.072	ppb	17:14:20
1	V 292.402†	423.9	2.8	0.0017	µg/L	0.0017	ppb	17:14:20
1	Zn 213.857†	574.2	74.2	0.4407	µg/L	0.4407	ppb	17:14:40
2	Sc RADIAL	135362.7	135362.7	96.6	%			17:13:18
2	Al 396.153Radial†	-46.9	30.0	6.3205	µg/L	6.3205	ppb	17:13:38
2	Ca 317.933Radial†	654.8	106.2	7.2354	µg/L	7.2354	ppb	17:13:38
2	Fe 238.204 Radial†	151.1	39.1	2.9172	µg/L	2.9172	ppb	17:13:38
2	K 766.490 Radial†	1651.4	215.3	85.296	µg/L	85.296	ppb	17:13:18
2	Mg 279.077 IEC†	170.5	4.0	1.8339	µg/L	1.8339	ppb	17:13:38
2	Na 589.592 Radial†	1255.5	346.8	53.686	µg/L	53.686	ppb	17:13:18
2	Sr 421.552†	-150.8	48.4	0.1141	µg/L	0.1141	ppb	17:13:18
2	Sc 361.383	1774661.2	1774661.2	98.365	%			17:14:42
2	Y 371.029	1043754.1	1043754.1	98.719	%			17:14:42
2	Ag 328.068†	3896.3	-604.2	-2.4602	µg/L	-2.4602	ppb	17:14:44
2	As 188.979†	-4.0	14.4	4.8871	µg/L	4.8871	ppb	17:15:04
2	B 249.677†	4029.4	31.2	0.4860	µg/L	0.4860	ppb	17:14:44
2	Ba 233.527†	-177.5	-35.9	-0.1598	µg/L	-0.1598	ppb	17:15:04
2	Be 313.107†	-792.2	286.3	0.0869	µg/L	0.0869	ppb	17:14:44
2	Cd 226.502†	-77.2	24.9	0.1682	µg/L	0.1682	ppb	17:15:04
2	Co 228.616†	-211.6	-4.8	-0.0637	µg/L	-0.0637	ppb	17:15:04
2	Cr 267.716†	248.2	19.1	0.1546	µg/L	0.1546	ppb	17:15:04
2	Cu 324.752†	2897.7	-90.3	-0.3665	µg/L	-0.3665	ppb	17:14:44
2	Mn 257.610†	262.2	81.9	0.1085	µg/L	0.1085	ppb	17:15:04
2	Mo 202.031†	-39.9	-2.0	-0.0657	µg/L	-0.0657	ppb	17:15:04
2	Ni 231.604†	-57.8	37.2	0.4651	µg/L	0.4651	ppb	17:15:04
2	P 214.914†	59.1	85.8	19.849	µg/L	19.849	ppb	17:15:04
2	Pb 220.353†	102.6	0.9	0.0457	µg/L	0.0457	ppb	17:15:04

2	S 181.975 Axial†	96.4	9.1	7.6787 µg/L	7.6787 ppb	17:15:04
2	Sb 206.836†	91.0	2.8	0.3568 µg/L	0.3568 ppb	17:15:04
2	Se 196.026†	17.8	11.9	4.71 µg/L	4.71 ppb	17:15:04
2	SiO2†	1849.9	141.5	14.983 µg/L	14.983 ppb	17:15:04
2	Si 251.611†	1481.3	738.9	11.650 µg/L	11.650 ppb	17:14:44
2	Sn 189.927†	8.2	6.5	0.4504 µg/L	0.4504 ppb	17:15:04
2	Ti 334.940†	738.0	-72.7	-0.0800 µg/L	-0.0800 ppb	17:14:44
2	Tl 190.801†	-119.7	-7.4	-1.0189 µg/L	-1.0189 ppb	17:15:04
2	U 409.014†	41.9	206.0	12.984 µg/L	12.984 ppb	17:14:44
2	V 292.402†	369.3	-47.7	-0.2389 µg/L	-0.2389 ppb	17:14:44
2	Zn 213.857†	596.7	103.6	0.6157 µg/L	0.6157 ppb	17:15:04
3	Sc RADIAL	135515.0	135515.0	96.7 %		17:13:40
3	Al 396.153Radial†	-57.3	19.3	4.0176 µg/L	4.0176 ppb	17:14:00
3	Ca 317.933Radial†	669.5	120.6	8.2159 µg/L	8.2159 ppb	17:14:00
3	Fe 238.204 Radial†	201.1	90.6	6.7657 µg/L	6.7657 ppb	17:14:00
3	K 766.490 Radial†	1663.9	226.3	89.668 µg/L	89.668 ppb	17:13:40
3	Mg 279.077 IEC†	173.9	7.3	3.3985 µg/L	3.3985 ppb	17:14:00
3	Na 589.592 Radial†	1133.8	219.6	33.959 µg/L	33.959 ppb	17:13:40
3	Sr 421.552†	-187.3	10.8	0.0255 µg/L	0.0255 ppb	17:13:40
3	Sc 361.383	1777960.9	1777960.9	98.548 %		17:15:06
3	Y 371.029	1045750.5	1045750.5	98.908 %		17:15:06
3	Ag 328.068†	3929.1	-578.2	-2.3935 µg/L	-2.3935 ppb	17:15:08
3	As 188.979†	-0.9	17.6	5.9683 µg/L	5.9683 ppb	17:15:28
3	B 249.677†	3990.0	-16.4	-0.2556 µg/L	-0.2556 ppb	17:15:08
3	Ba 233.527†	-160.6	-18.4	-0.0818 µg/L	-0.0818 ppb	17:15:28
3	Be 313.107†	-481.6	603.1	0.1695 µg/L	0.1695 ppb	17:15:08
3	Cd 226.502†	-105.6	-3.8	-0.0264 µg/L	-0.0264 ppb	17:15:28
3	Co 228.616†	-199.0	8.3	0.1096 µg/L	0.1096 ppb	17:15:28
3	Cr 267.716†	245.7	16.1	0.1528 µg/L	0.1528 ppb	17:15:28
3	Cu 324.752†	2883.7	-109.9	-0.4727 µg/L	-0.4727 ppb	17:15:08
3	Mn 257.610†	296.9	116.6	0.1545 µg/L	0.1545 ppb	17:15:28
3	Mo 202.031†	-13.2	25.2	0.8237 µg/L	0.8237 ppb	17:15:28
3	Ni 231.604†	-69.5	25.4	0.3178 µg/L	0.3178 ppb	17:15:28
3	P 214.914†	25.3	51.4	11.884 µg/L	11.884 ppb	17:15:28
3	Pb 220.353†	98.0	-4.0	-0.2302 µg/L	-0.2302 ppb	17:15:28
3	S 181.975 Axial†	85.9	-1.7	-1.4411 µg/L	-1.4411 ppb	17:15:28
3	Sb 206.836†	109.7	21.6	2.7982 µg/L	2.7982 ppb	17:15:28
3	Se 196.026†	15.6	9.7	3.80 µg/L	3.80 ppb	17:15:28
3	SiO2†	1857.8	146.1	15.448 µg/L	15.448 ppb	17:15:28
3	Si 251.611†	1351.3	604.2	9.5170 µg/L	9.5170 ppb	17:15:08
3	Sn 189.927†	1.2	-0.7	-0.0491 µg/L	-0.0491 ppb	17:15:28
3	Ti 334.940†	765.8	-46.0	-0.0402 µg/L	-0.0402 ppb	17:15:08
3	Tl 190.801†	-118.5	-5.9	-0.8121 µg/L	-0.8121 ppb	17:15:28
3	U 409.014†	-430.2	-273.1	-17.262 µg/L	-17.262 ppb	17:15:08
3	V 292.402†	333.8	-84.5	-0.4409 µg/L	-0.4409 ppb	17:15:08
3	Zn 213.857†	555.7	60.9	0.3611 µg/L	0.3611 ppb	17:15:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1782526.0	98.801	%	0.6036				0.61%
Sc RADIAL	135442.6	96.7	%	0.05				0.06%
Y 371.029	1048415.5	99.160	%	0.6075				0.61%
Ag 328.068†	-572.6	-2.3561	µg/L	0.12707	-2.3561	ppb	0.12707	5.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.6	3.0559	µg/L	3.83691	3.0559	ppb	3.83691	125.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	14.0	4.7512	µg/L	1.29055	4.7512	ppb	1.29055	27.16%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	17.4	0.2700	µg/L	0.45762	0.2700	ppb	0.45762	169.48%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-18.9	-0.0841	µg/L	0.07468	-0.0841	ppb	0.07468	88.84%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	414.4	0.1178	µg/L	0.04505	0.1178	ppb	0.04505	38.24%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	109.6	7.4641	µg/L	0.66752	7.4641	ppb	0.66752	8.94%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	20.6	0.1392	µg/L	0.15308	0.1392	ppb	0.15308	110.00%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.9	0.0776	µg/L	0.12830	0.0776	ppb	0.12830	165.43%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.7      0.1333 µg/L       0.03539      0.1333 ppb        0.03539  26.55%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -225.7     -0.9496 µg/L       0.91940     -0.9496 ppb        0.91940  96.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       57.5      4.2915 µg/L       2.14715      4.2915 ppb        2.14715  50.03%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       227.1      89.976 µg/L        4.8423      89.976 ppb         4.8423   5.38%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           7.7      3.5705 µg/L       1.82871      3.5705 ppb        1.82871  51.22%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              93.1      0.1233 µg/L       0.02699      0.1233 ppb        0.02699  21.89%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.7      0.2201 µg/L       0.52291      0.2201 ppb        0.52291 237.53%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      316.5      48.980 µg/L       13.3077      48.980 ppb        13.3077  27.17%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              33.9      0.4238 µg/L       0.09251      0.4238 ppb        0.09251  21.83%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               65.2      15.085 µg/L        4.2062      15.085 ppb         4.2062  27.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               2.5      0.1602 µg/L       0.45859      0.1602 ppb        0.45859 286.20%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.8      5.7076 µg/L       6.39517      5.7076 ppb        6.39517 112.05%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.5      0.8399 µg/L       1.76706      0.8399 ppb        1.76706 210.40%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              13.4        5.27 µg/L         1.807        5.27 ppb          1.807  34.31%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   123.9      13.116 µg/L        3.6433      13.116 ppb         3.6433  27.78%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             556.1      8.7652 µg/L       3.32463      8.7652 ppb        3.32463  37.93%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.1      0.2116 µg/L       0.25047      0.2116 ppb        0.25047 118.34%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -12.2     -0.0288 µg/L       0.17643     -0.0288 ppb        0.17643 612.43%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -107.3     -0.1073 µg/L       0.08414     -0.1073 ppb        0.08414  78.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -5.0     -0.6867 µg/L       0.40968     -0.6867 ppb        0.40968  59.66%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -117.9     -7.4502 µg/L      17.70079     -7.4502 ppb       17.70079 237.59%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -43.1     -0.2260 µg/L       0.22162     -0.2260 ppb        0.22162  98.05%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              79.5      0.4725 µg/L       0.13026      0.4725 ppb        0.13026  27.57%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 44
Sample ID: 249244002|965588|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 332
Date Collected: 4/5/2010 17:15:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249244002|965588|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136312.4	136312.4	97.3	%			17:16:12
1	Al 396.153Radial†	303272.3	311761.9	65637	µg/L	65637	ppb	17:16:12
1	Ca 317.933Radial†	553959.3	568751.5	38737	µg/L	38737	ppb	17:16:12
1	Fe 238.204 Radial†	1458640.1	1498977.2	111940	µg/L	111940	ppb	17:16:10
1	K 766.490 Radial†	25610.6	24827.1	9814.4	µg/L	9814.4	ppb	17:16:12
1	Mg 279.077 IEC†	33414.7	34169.0	15681	µg/L	15681	ppb	17:16:12
1	Na 589.592 Radial†	5077.4	4265.7	652.47	µg/L	652.47	ppb	17:16:12
1	Sr 421.552†	111323.5	114615.5	270.01	µg/L	270.01	ppb	17:16:12
1	Sc 361.383	1783667.4	1783667.4	98.865	%			17:16:39
1	Y 371.029	1162006.9	1162006.9	109.90	%			17:16:39
1	Ag 328.068†	4067.5	-450.9	-2.2251	µg/L	-2.2251	ppb	17:16:39
1	As 188.979†	33.9	52.8	43.639	µg/L	43.639	ppb	17:16:59
1	B 249.677†	5265.1	1260.4	19.435	µg/L	19.435	ppb	17:16:39
1	Ba 233.527†	245876.3	248844.7	1104.8	µg/L	1104.8	ppb	17:16:39
1	Be 313.107†	31372.7	32824.8	9.4227	µg/L	9.4227	ppb	17:16:39
1	Cd 226.502†	1631.2	1753.3	0.1077	µg/L	0.1077	ppb	17:16:59
1	Co 228.616†	3379.4	3628.5	43.258	µg/L	43.258	ppb	17:16:59
1	Cr 267.716†	8083.0	7942.7	71.968	µg/L	71.968	ppb	17:16:59
1	Cu 324.752†	12237.1	9341.5	55.595	µg/L	55.595	ppb	17:16:39
1	Mn 257.610†	2252613.8	2278300.3	3021.4	µg/L	3021.4	ppb	17:16:39
1	Mo 202.031†	-13.6	24.8	5.5964	µg/L	5.5964	ppb	17:16:59
1	Ni 231.604†	4845.9	4997.5	62.524	µg/L	62.524	ppb	17:16:59
1	P 214.914†	4915.5	4997.6	1094.1	µg/L	1094.1	ppb	17:16:59
1	Pb 220.353†	2539.3	2465.0	156.25	µg/L	156.25	ppb	17:16:59
1	S 181.975 Axial†	911.8	833.3	701.03	µg/L	701.03	ppb	17:16:59
1	Sb 206.836†	79.3	-9.5	-3.7522	µg/L	-3.7522	ppb	17:16:59
1	Se 196.026†	-63.6	-70.5	10.8	µg/L	10.8	ppb	17:16:59
1	SiO2†	611903.3	617191.9	65359	µg/L	65359	ppb	17:16:39
1	Si 251.611†	1907373.5	1928512.6	30410	µg/L	30410	ppb	17:16:39
1	Sn 189.927†	11.3	9.6	10.669	µg/L	10.669	ppb	17:16:59
1	Ti 334.940†	2856226.7	2888207.4	2966.2	µg/L	2966.2	ppb	17:16:39
1	Tl 190.801†	-417.4	-308.0	-3.1493	µg/L	-3.1493	ppb	17:16:59
1	U 409.014†	-4610.2	-4499.7	-276.10	µg/L	-276.10	ppb	17:16:39
1	V 292.402†	40627.6	40671.0	196.35	µg/L	196.35	ppb	17:16:39
1	Zn 213.857†	54993.5	55122.2	319.13	µg/L	319.13	ppb	17:16:39
2	Sc RADIAL	137336.5	137336.5	98.0	%			17:16:16
2	Al 396.153Radial†	307003.0	313243.5	65949	µg/L	65949	ppb	17:16:16
2	Ca 317.933Radial†	559504.2	570162.7	38833	µg/L	38833	ppb	17:16:16
2	Fe 238.204 Radial†	1445594.5	1474492.0	110110	µg/L	110110	ppb	17:16:14
2	K 766.490 Radial†	25751.2	24774.2	9793.3	µg/L	9793.3	ppb	17:16:16
2	Mg 279.077 IEC†	33807.0	34313.1	15749	µg/L	15749	ppb	17:16:16
2	Na 589.592 Radial†	4969.6	4116.9	629.42	µg/L	629.42	ppb	17:16:16
2	Sr 421.552†	112458.0	114919.6	270.73	µg/L	270.73	ppb	17:16:16
2	Sc 361.383	1773648.4	1773648.4	98.309	%			17:17:02
2	Y 371.029	1156158.0	1156158.0	109.35	%			17:17:02
2	Ag 328.068†	4231.0	-261.4	-1.4468	µg/L	-1.4468	ppb	17:17:02
2	As 188.979†	22.9	41.9	39.520	µg/L	39.520	ppb	17:17:22
2	B 249.677†	5423.6	1451.7	22.408	µg/L	22.408	ppb	17:17:02
2	Ba 233.527†	244157.4	248501.2	1103.3	µg/L	1103.3	ppb	17:17:02
2	Be 313.107†	31206.9	32835.3	9.4237	µg/L	9.4237	ppb	17:17:02
2	Cd 226.502†	1634.1	1765.6	0.3835	µg/L	0.3835	ppb	17:17:22
2	Co 228.616†	3388.6	3657.2	43.732	µg/L	43.732	ppb	17:17:22
2	Cr 267.716†	7990.1	7894.3	71.492	µg/L	71.492	ppb	17:17:22
2	Cu 324.752†	12197.7	9371.4	55.451	µg/L	55.451	ppb	17:17:02
2	Mn 257.610†	2237765.6	2276067.5	3018.4	µg/L	3018.4	ppb	17:17:02
2	Mo 202.031†	-12.1	26.3	5.5742	µg/L	5.5742	ppb	17:17:22
2	Ni 231.604†	4874.1	5053.9	63.230	µg/L	63.230	ppb	17:17:22
2	P 214.914†	4904.0	5014.0	1099.2	µg/L	1099.2	ppb	17:17:22
2	Pb 220.353†	2501.9	2441.5	154.89	µg/L	154.89	ppb	17:17:22

2	S 181.975 Axial†	914.1	840.9	707.41	µg/L	707.41 ppb	17:17:22
2	Sb 206.836†	77.1	-11.2	-3.9441	µg/L	-3.9441 ppb	17:17:22
2	Se 196.026†	-68.4	-75.7	8.08	µg/L	8.08 ppb	17:17:22
2	SiO2†	607328.0	616034.2	65237	µg/L	65237 ppb	17:17:02
2	Si 251.611†	1894498.1	1926314.0	30376	µg/L	30376 ppb	17:17:02
2	Sn 189.927†	19.2	17.6	11.225	µg/L	11.225 ppb	17:17:22
2	Ti 334.940†	2839509.0	2887521.8	2965.5	µg/L	2965.5 ppb	17:17:02
2	Tl 190.801†	-434.8	-328.0	-5.8984	µg/L	-5.8984 ppb	17:17:22
2	U 409.014†	-4689.8	-4607.1	-282.47	µg/L	-282.47 ppb	17:17:02
2	V 292.402†	40416.1	40688.0	196.62	µg/L	196.62 ppb	17:17:02
2	Zn 213.857†	54475.4	54909.3	318.05	µg/L	318.05 ppb	17:17:02
3	Sc RADIAL	137507.9	137507.9	98.2	%		17:16:20
3	Al 396.153Radial†	305513.5	311335.4	65547	µg/L	65547 ppb	17:16:20
3	Ca 317.933Radial†	557641.1	567552.8	38655	µg/L	38655 ppb	17:16:20
3	Fe 238.204 Radial†	1425265.9	1451942.2	108430	µg/L	108430 ppb	17:16:18
3	K 766.490 Radial†	25677.4	24666.4	9750.7	µg/L	9750.7 ppb	17:16:20
3	Mg 279.077 IEC†	33609.7	34069.1	15638	µg/L	15638 ppb	17:16:20
3	Na 589.592 Radial†	5252.5	4398.7	673.14	µg/L	673.14 ppb	17:16:20
3	Sr 421.552†	111987.0	114296.7	269.26	µg/L	269.26 ppb	17:16:20
3	Sc 361.383	1779632.6	1779632.6	98.641	%		17:17:25
3	Y 371.029	1158893.0	1158893.0	109.61	%		17:17:25
3	Ag 328.068†	3978.7	-531.6	-2.5339	µg/L	-2.5339 ppb	17:17:25
3	As 188.979†	19.7	38.5	38.001	µg/L	38.001 ppb	17:17:45
3	B 249.677†	5522.8	1533.8	23.685	µg/L	23.685 ppb	17:17:25
3	Ba 233.527†	244929.2	248448.4	1103.1	µg/L	1103.1 ppb	17:17:25
3	Be 313.107†	31334.6	32858.0	9.4307	µg/L	9.4307 ppb	17:17:25
3	Cd 226.502†	1655.3	1781.5	0.6681	µg/L	0.6681 ppb	17:17:45
3	Co 228.616†	3392.1	3649.1	43.713	µg/L	43.713 ppb	17:17:45
3	Cr 267.716†	8056.1	7933.9	71.777	µg/L	71.777 ppb	17:17:45
3	Cu 324.752†	12153.6	9285.0	54.842	µg/L	54.842 ppb	17:17:25
3	Mn 257.610†	2242688.3	2273403.9	3014.9	µg/L	3014.9 ppb	17:17:25
3	Mo 202.031†	-19.7	18.6	5.2556	µg/L	5.2556 ppb	17:17:45
3	Ni 231.604†	4868.0	5031.0	62.944	µg/L	62.944 ppb	17:17:45
3	P 214.914†	4908.4	5001.7	1097.4	µg/L	1097.4 ppb	17:17:45
3	Pb 220.353†	2514.4	2445.6	155.17	µg/L	155.17 ppb	17:17:45
3	S 181.975 Axial†	924.5	848.3	713.68	µg/L	713.68 ppb	17:17:45
3	Sb 206.836†	65.9	-22.9	-5.4379	µg/L	-5.4379 ppb	17:17:45
3	Se 196.026†	-65.1	-72.2	8.92	µg/L	8.92 ppb	17:17:45
3	SiO2†	609065.9	615718.7	65203	µg/L	65203 ppb	17:17:25
3	Si 251.611†	1900053.9	1925466.4	30362	µg/L	30362 ppb	17:17:25
3	Sn 189.927†	14.1	12.4	10.857	µg/L	10.857 ppb	17:17:45
3	Ti 334.940†	2848055.7	2886474.0	2964.5	µg/L	2964.5 ppb	17:17:25
3	Tl 190.801†	-418.8	-310.3	-3.5044	µg/L	-3.5044 ppb	17:17:45
3	U 409.014†	-4681.1	-4582.3	-280.54	µg/L	-280.54 ppb	17:17:25
3	V 292.402†	40564.8	40700.5	196.87	µg/L	196.87 ppb	17:17:25
3	Zn 213.857†	54791.9	55043.9	319.03	µg/L	319.03 ppb	17:17:25

Mean Data: 249244002|965588|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1778982.8	98.605	%	0.2794				0.28%
Sc RADIAL	137052.3	97.8	%	0.46				0.47%
Y 371.029	1159019.3	109.62	%	0.277				0.25%
Ag 328.068†	-414.7	-2.0686	µg/L	0.56019	-2.0686	ppb	0.56019	27.08%
Al 396.153Radial†	312113.6	65711	µg/L	210.8	65711	ppb	210.8	0.32%
As 188.979†	44.4	40.387	µg/L	2.9172	40.387	ppb	2.9172	7.22%
B 249.677†	1415.3	21.843	µg/L	2.1806	21.843	ppb	2.1806	9.98%
Ba 233.527†	248598.1	1103.7	µg/L	0.94	1103.7	ppb	0.94	0.08%
Be 313.107†	32839.4	9.4257	µg/L	0.00439	9.4257	ppb	0.00439	0.05%
Ca 317.933Radial†	568822.4	38742	µg/L	89.0	38742	ppb	89.0	0.23%
Cd 226.502†	1766.8	0.3864	µg/L	0.28022	0.3864	ppb	0.28022	72.51%
Co 228.616†	3644.9	43.568	µg/L	0.2681	43.568	ppb	0.2681	0.62%
Cr 267.716†	7923.6	71.745	µg/L	0.2397	71.745	ppb	0.2397	0.33%
Cu 324.752†	9332.6	55.296	µg/L	0.3998	55.296	ppb	0.3998	0.72%
Fe 238.204 Radial†	1475137.2	110160	µg/L	1756.8	110160	ppb	1756.8	1.59%
K 766.490 Radial†	24755.9	9786.1	µg/L	32.44	9786.1	ppb	32.44	0.33%
Mg 279.077 IEC†	34183.7	15689	µg/L	56.1	15689	ppb	56.1	0.36%
Mn 257.610†	2275923.9	3018.2	µg/L	3.25	3018.2	ppb	3.25	0.11%
Mo 202.031†	23.2	5.4754	µg/L	0.19066	5.4754	ppb	0.19066	3.48%
Na 589.592 Radial†	4260.4	651.68	µg/L	21.872	651.68	ppb	21.872	3.36%

Ni 231.604†	5027.4	62.899	µg/L	0.3549	62.899	ppb	0.3549	0.56%
P 214.914†	5004.5	1096.9	µg/L	2.60	1096.9	ppb	2.60	0.24%
Pb 220.353†	2450.7	155.44	µg/L	0.721	155.44	ppb	0.721	0.46%
S 181.975 Axial†	840.8	707.37	µg/L	6.324	707.37	ppb	6.324	0.89%
Sb 206.836†	-14.6	-4.3781	µg/L	0.92286	-4.3781	ppb	0.92286	21.08%
Se 196.026†	-72.8	9.27	µg/L	1.397	9.27	ppb	1.397	15.07%
SiO2†	616314.9	65266	µg/L	82.1	65266	ppb	82.1	0.13%
Si 251.611†	1926764.3	30383	µg/L	24.8	30383	ppb	24.8	0.08%
Sn 189.927†	13.2	10.917	µg/L	0.2832	10.917	ppb	0.2832	2.59%
Sr 421.552†	114610.6	270.00	µg/L	0.734	270.00	ppb	0.734	0.27%
Ti 334.940†	2887401.0	2965.4	µg/L	0.89	2965.4	ppb	0.89	0.03%
Tl 190.801†	-315.4	-4.1841	µg/L	1.49526	-4.1841	ppb	1.49526	35.74%
U 409.014†	-4563.0	-279.70	µg/L	3.267	-279.70	ppb	3.267	1.17%
Concentration less than lower limit for U 409.014.								
V 292.402†	40686.5	196.61	µg/L	0.260	196.61	ppb	0.260	0.13%
Zn 213.857†	55025.1	318.74	µg/L	0.596	318.74	ppb	0.596	0.19%

Sequence No.: 45
Sample ID: 249244003|965588|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 333
Date Collected: 4/5/2010 17:17:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249244003|965588|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139073.5	139073.5	99.3	%			17:18:25
1	Al 396.153Radial†	370013.8	372804.6	78489	µg/L	78489	ppb	17:18:23
1	Ca 317.933Radial†	300861.7	302495.6	20603	µg/L	20603	ppb	17:18:25
1	Fe 238.204 Radial†	1613282.2	1624990.5	121350	µg/L	121350	ppb	17:18:23
1	K 766.490 Radial†	27219.2	25925.0	10250	µg/L	10250	ppb	17:18:25
1	Mg 279.077 IEC†	40270.9	40393.6	18547	µg/L	18547	ppb	17:18:25
1	Na 589.592 Radial†	7044.8	6143.9	943.22	µg/L	943.22	ppb	17:18:25
1	Sr 421.552†	109489.2	110496.3	260.44	µg/L	260.44	ppb	17:18:25
1	Sc 361.383	1784333.2	1784333.2	98.901	%			17:18:52
1	Y 371.029	1130376.3	1130376.3	106.91	%			17:18:52
1	Ag 328.068†	3750.7	-772.8	-2.8850	µg/L	-2.8850	ppb	17:18:52
1	As 188.979†	19.3	38.1	41.085	µg/L	41.085	ppb	17:19:12
1	B 249.677†	5555.5	1552.0	23.938	µg/L	23.938	ppb	17:18:52
1	Ba 233.527†	276319.2	279533.0	1241.1	µg/L	1241.1	ppb	17:18:52
1	Be 313.107†	33967.8	35436.8	10.172	µg/L	10.172	ppb	17:18:52
1	Cd 226.502†	1754.5	1877.3	-0.0322	µg/L	-0.0322	ppb	17:19:12
1	Co 228.616†	4069.2	4324.7	52.118	µg/L	52.118	ppb	17:19:12
1	Cr 267.716†	12142.3	12043.9	107.75	µg/L	107.75	ppb	17:19:12
1	Cu 324.752†	18786.9	15959.5	84.709	µg/L	84.709	ppb	17:18:52
1	Mn 257.610†	2309054.1	2334517.4	3095.8	µg/L	3095.8	ppb	17:18:52
1	Mo 202.031†	-84.2	-46.6	3.6953	µg/L	3.6953	ppb	17:19:12
1	Ni 231.604†	6673.3	6843.3	85.618	µg/L	85.618	ppb	17:19:12
1	P 214.914†	4709.7	4787.7	1041.7	µg/L	1041.7	ppb	17:19:12
1	Pb 220.353†	2264.2	2185.9	139.92	µg/L	139.92	ppb	17:19:12
1	S 181.975 Axial†	752.9	672.4	565.62	µg/L	565.62	ppb	17:19:12
1	Sb 206.836†	73.0	-15.9	-5.3007	µg/L	-5.3007	ppb	17:19:12
1	Se 196.026†	-83.6	-90.7	6.06	µg/L	6.06	ppb	17:19:12
1	SiO2†	577683.6	582361.1	61671	µg/L	61671	ppb	17:18:52
1	Si 251.611†	1801225.5	1820465.7	28707	µg/L	28707	ppb	17:18:52
1	Sn 189.927†	-6.5	-8.5	10.278	µg/L	10.278	ppb	17:19:12
1	Ti 334.940†	3103010.2	3136654.1	3220.7	µg/L	3220.7	ppb	17:18:52
1	Tl 190.801†	-416.8	-307.1	-0.1433	µg/L	-0.1433	ppb	17:19:12
1	U 409.014†	-5003.5	-4895.7	-302.11	µg/L	-302.11	ppb	17:18:52
1	V 292.402†	45476.5	45558.4	220.56	µg/L	220.56	ppb	17:18:52
1	Zn 213.857†	55182.0	55292.0	319.50	µg/L	319.50	ppb	17:18:52
2	Sc RADIAL	137706.8	137706.8	98.3	%			17:18:29
2	Al 396.153Radial†	370486.5	376984.8	79369	µg/L	79369	ppb	17:18:27
2	Ca 317.933Radial†	297382.8	301964.4	20566	µg/L	20566	ppb	17:18:29
2	Fe 238.204 Radial†	1608748.7	1636507.7	122210	µg/L	122210	ppb	17:18:27
2	K 766.490 Radial†	26890.8	25863.0	10225	µg/L	10225	ppb	17:18:29
2	Mg 279.077 IEC†	39892.7	40411.5	18555	µg/L	18555	ppb	17:18:29
2	Na 589.592 Radial†	7111.5	6282.3	964.68	µg/L	964.68	ppb	17:18:29
2	Sr 421.552†	108529.3	110614.4	260.72	µg/L	260.72	ppb	17:18:29
2	Sc 361.383	1807727.4	1807727.4	100.20	%			17:19:15
2	Y 371.029	1144930.3	1144930.3	108.29	%			17:19:15
2	Ag 328.068†	3978.1	-594.9	-2.1679	µg/L	-2.1679	ppb	17:19:15
2	As 188.979†	6.8	25.4	36.969	µg/L	36.969	ppb	17:19:35
2	B 249.677†	5282.3	1206.7	18.569	µg/L	18.569	ppb	17:19:15
2	Ba 233.527†	280358.4	279948.5	1242.9	µg/L	1242.9	ppb	17:19:15
2	Be 313.107†	34485.0	35508.5	10.190	µg/L	10.190	ppb	17:19:15
2	Cd 226.502†	1727.5	1827.4	-0.4607	µg/L	-0.4607	ppb	17:19:35
2	Co 228.616†	4088.6	4290.8	51.626	µg/L	51.626	ppb	17:19:35
2	Cr 267.716†	12163.4	11906.1	106.60	µg/L	106.60	ppb	17:19:35
2	Cu 324.752†	19064.9	15991.1	84.959	µg/L	84.959	ppb	17:19:15
2	Mn 257.610†	2339479.3	2334668.4	3096.0	µg/L	3096.0	ppb	17:19:15
2	Mo 202.031†	-86.1	-47.4	3.7044	µg/L	3.7044	ppb	17:19:35
2	Ni 231.604†	6677.3	6760.0	84.575	µg/L	84.575	ppb	17:19:35
2	P 214.914†	4737.2	4753.5	1033.4	µg/L	1033.4	ppb	17:19:35
2	Pb 220.353†	2260.9	2153.0	137.92	µg/L	137.92	ppb	17:19:35

2	S 181.975 Axial†	730.3	640.0	538.38 µg/L	538.38 ppb	17:19:35
2	Sb 206.836†	73.2	-16.7	-5.4063 µg/L	-5.4063 ppb	17:19:35
2	Se 196.026†	-81.6	-87.6	7.60 µg/L	7.60 ppb	17:19:35
2	SiO2†	584804.6	581909.1	61623 µg/L	61623 ppb	17:19:15
2	Si 251.611†	1824107.8	1819733.7	28695 µg/L	28695 ppb	17:19:15
2	Sn 189.927†	-9.7	-11.6	10.048 µg/L	10.048 ppb	17:19:35
2	Ti 334.940†	3139575.4	3132544.2	3216.5 µg/L	3216.5 ppb	17:19:15
2	Tl 190.801†	-449.7	-334.5	-3.9171 µg/L	-3.9171 ppb	17:19:35
2	U 409.014†	-5198.7	-5025.0	-310.44 µg/L	-310.44 ppb	17:19:15
2	V 292.402†	46128.3	45613.8	220.75 µg/L	220.75 ppb	17:19:15
2	Zn 213.857†	55968.2	55354.5	319.80 µg/L	319.80 ppb	17:19:15
3	Sc RADIAL	139091.2	139091.2	99.3 %		17:18:33
3	Al 396.153Radial†	368219.6	370950.2	78098 µg/L	78098 ppb	17:18:31
3	Ca 317.933Radial†	300922.6	302518.6	20604 µg/L	20604 ppb	17:18:33
3	Fe 238.204 Radial†	1591812.2	1603160.0	119720 µg/L	119720 ppb	17:18:31
3	K 766.490 Radial†	27218.6	25920.8	10248 µg/L	10248 ppb	17:18:33
3	Mg 279.077 IEC†	40349.2	40467.4	18583 µg/L	18583 ppb	17:18:33
3	Na 589.592 Radial†	6946.1	6043.6	927.67 µg/L	927.67 ppb	17:18:33
3	Sr 421.552†	109559.3	110552.9	260.57 µg/L	260.57 ppb	17:18:33
3	Sc 361.383	1776711.3	1776711.3	98.479 %		17:19:38
3	Y 371.029	1124868.5	1124868.5	106.39 %		17:19:38
3	Ag 328.068†	3672.7	-835.7	-3.1221 µg/L	-3.1221 ppb	17:19:38
3	As 188.979†	11.2	30.0	37.992 µg/L	37.992 ppb	17:19:58
3	B 249.677†	5413.6	1432.0	22.070 µg/L	22.070 ppb	17:19:38
3	Ba 233.527†	274906.1	279296.6	1240.0 µg/L	1240.0 ppb	17:19:38
3	Be 313.107†	33820.8	35434.9	10.174 µg/L	10.174 ppb	17:19:38
3	Cd 226.502†	1730.8	1860.9	0.0282 µg/L	0.0282 ppb	17:19:58
3	Co 228.616†	4084.2	4357.6	52.637 µg/L	52.637 ppb	17:19:58
3	Cr 267.716†	12204.4	12159.7	108.69 µg/L	108.69 ppb	17:19:58
3	Cu 324.752†	18744.9	15998.3	84.644 µg/L	84.644 ppb	17:19:38
3	Mn 257.610†	2293572.3	2328812.0	3088.2 µg/L	3088.2 ppb	17:19:38
3	Mo 202.031†	-79.7	-42.4	3.7695 µg/L	3.7695 ppb	17:19:58
3	Ni 231.604†	6676.1	6875.1	86.016 µg/L	86.016 ppb	17:19:58
3	P 214.914†	4729.2	4827.9	1052.0 µg/L	1052.0 ppb	17:19:58
3	Pb 220.353†	2275.8	2207.5	141.26 µg/L	141.26 ppb	17:19:58
3	S 181.975 Axial†	735.1	657.6	553.18 µg/L	553.18 ppb	17:19:58
3	Sb 206.836†	63.9	-24.8	-6.4405 µg/L	-6.4405 ppb	17:19:58
3	Se 196.026†	-72.8	-80.0	9.72 µg/L	9.72 ppb	17:19:58
3	SiO2†	573796.7	580919.9	61518 µg/L	61518 ppb	17:19:38
3	Si 251.611†	1789633.1	1816507.1	28644 µg/L	28644 ppb	17:19:38
3	Sn 189.927†	-5.2	-7.1	10.350 µg/L	10.350 ppb	17:19:58
3	Ti 334.940†	3084285.5	3131099.5	3215.0 µg/L	3215.0 ppb	17:19:38
3	Tl 190.801†	-448.6	-341.2	-4.8809 µg/L	-4.8809 ppb	17:19:58
3	U 409.014†	-4817.0	-4728.0	-291.23 µg/L	-291.23 ppb	17:19:38
3	V 292.402†	45198.0	45472.9	220.31 µg/L	220.31 ppb	17:19:38
3	Zn 213.857†	54794.6	55137.9	318.74 µg/L	318.74 ppb	17:19:38

Mean Data: 249244003|965588|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1789590.6	99.193	%	0.8959				0.90%
Sc RADIAL	138623.8	99.0	%	0.57				0.57%
Y 371.029	1133391.7	107.20	%	0.980				0.91%
Ag 328.068†	-734.5	-2.7250	µg/L	0.49682	-2.7250	ppb	0.49682	18.23%
Al 396.153Radial†	373579.9	78652	µg/L	650.8	78652	ppb	650.8	0.83%
As 188.979†	31.1	38.682	µg/L	2.1429	38.682	ppb	2.1429	5.54%
B 249.677†	1396.9	21.526	µg/L	2.7255	21.526	ppb	2.7255	12.66%
Ba 233.527†	279592.7	1241.3	µg/L	1.45	1241.3	ppb	1.45	0.12%
Be 313.107†	35460.1	10.179	µg/L	0.0099	10.179	ppb	0.0099	0.10%
Ca 317.933Radial†	302326.2	20591	µg/L	21.4	20591	ppb	21.4	0.10%
Cd 226.502†	1855.2	-0.1549	µg/L	0.26652	-0.1549	ppb	0.26652	172.07%
Co 228.616†	4324.4	52.127	µg/L	0.5055	52.127	ppb	0.5055	0.97%
Cr 267.716†	12036.6	107.68	µg/L	1.049	107.68	ppb	1.049	0.97%
Cu 324.752†	15982.9	84.771	µg/L	0.1667	84.771	ppb	0.1667	0.20%
Fe 238.204 Radial†	1621552.8	121100	µg/L	1264.9	121100	ppb	1264.9	1.04%
K 766.490 Radial†	25902.9	10241	µg/L	13.9	10241	ppb	13.9	0.14%
Mg 279.077 IEC†	40424.2	18561	µg/L	18.7	18561	ppb	18.7	0.10%
Mn 257.610†	2332665.9	3093.3	µg/L	4.43	3093.3	ppb	4.43	0.14%
Mo 202.031†	-45.5	3.7231	µg/L	0.04045	3.7231	ppb	0.04045	1.09%
Na 589.592 Radial†	6156.6	945.19	µg/L	18.586	945.19	ppb	18.586	1.97%

Ni 231.604†	6826.1	85.403	µg/L	0.7439	85.403	ppb	0.7439	0.87%
P 214.914†	4789.7	1042.4	µg/L	9.33	1042.4	ppb	9.33	0.89%
Pb 220.353†	2182.1	139.70	µg/L	1.682	139.70	ppb	1.682	1.20%
S 181.975 Axial†	656.6	552.39	µg/L	13.637	552.39	ppb	13.637	2.47%
Sb 206.836†	-19.1	-5.7158	µg/L	0.62978	-5.7158	ppb	0.62978	11.02%
Se 196.026†	-86.1	7.79	µg/L	1.837	7.79	ppb	1.837	23.57%
SiO2†	581730.1	61604	µg/L	78.1	61604	ppb	78.1	0.13%
Si 251.611†	1818902.2	28682	µg/L	33.2	28682	ppb	33.2	0.12%
Sn 189.927†	-9.0	10.226	µg/L	0.1576	10.226	ppb	0.1576	1.54%
Sr 421.552†	110554.5	260.58	µg/L	0.139	260.58	ppb	0.139	0.05%
Ti 334.940†	3133432.6	3217.4	µg/L	2.96	3217.4	ppb	2.96	0.09%
Tl 190.801†	-327.6	-2.9804	µg/L	2.50382	-2.9804	ppb	2.50382	84.01%
U 409.014†	-4882.9	-301.26	µg/L	9.636	-301.26	ppb	9.636	3.20%
Concentration less than lower limit for U 409.014.								
V 292.402†	45548.4	220.54	µg/L	0.222	220.54	ppb	0.222	0.10%
Zn 213.857†	55261.4	319.35	µg/L	0.547	319.35	ppb	0.547	0.17%

Sequence No.: 46
Sample ID: 249244004|965588|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 334
Date Collected: 4/5/2010 17:20:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249244004|965588|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139589.1	139589.1	99.6	%			17:20:39
1	Al 396.153Radial†	434325.1	435971.5	91788	µg/L	91788	ppb	17:20:37
1	Ca 317.933Radial†	357097.3	357815.0	24370	µg/L	24370	ppb	17:20:39
1	Fe 238.204 Radial†	1746267.5	1752454.1	130870	µg/L	130870	ppb	17:20:37
1	K 766.490 Radial†	26010.3	24610.4	9724.8	µg/L	9724.8	ppb	17:20:39
1	Mg 279.077 IEC†	49206.4	49211.6	22610	µg/L	22610	ppb	17:20:39
1	Na 589.592 Radial†	11083.5	10171.0	1567.9	µg/L	1567.9	ppb	17:20:39
1	Sr 421.552†	131374.6	132053.3	311.25	µg/L	311.25	ppb	17:20:39
1	Sc 361.383	1787150.7	1787150.7	99.058	%			17:20:52
1	Y 371.029	1117269.8	1117269.8	105.67	%			17:20:52
1	Ag 328.068†	3934.8	-592.9	-1.5832	µg/L	-1.5832	ppb	17:20:52
1	As 188.979†	9.1	27.7	39.663	µg/L	39.663	ppb	17:21:12
1	B 249.677†	5239.9	1224.6	18.873	µg/L	18.873	ppb	17:20:52
1	Ba 233.527†	268845.6	271547.8	1205.5	µg/L	1205.5	ppb	17:20:52
1	Be 313.107†	33301.9	34710.5	9.9765	µg/L	9.9765	ppb	17:20:52
1	Cd 226.502†	1841.1	1962.0	-0.4663	µg/L	-0.4663	ppb	17:21:12
1	Co 228.616†	3500.4	3744.0	43.903	µg/L	43.903	ppb	17:21:12
1	Cr 267.716†	11619.2	11496.5	103.45	µg/L	103.45	ppb	17:21:12
1	Cu 324.752†	14220.8	11320.0	66.837	µg/L	66.837	ppb	17:20:52
1	Mn 257.610†	1790803.8	1807656.0	2396.7	µg/L	2396.7	ppb	17:20:52
1	Mo 202.031†	-200.7	-164.0	0.3191	µg/L	0.3191	ppb	17:21:12
1	Ni 231.604†	5833.9	5985.3	74.884	µg/L	74.884	ppb	17:21:12
1	P 214.914†	3793.8	3855.5	822.78	µg/L	822.78	ppb	17:21:12
1	Pb 220.353†	1788.2	1701.7	109.64	µg/L	109.64	ppb	17:21:12
1	S 181.975 Axial†	492.1	407.9	343.07	µg/L	343.07	ppb	17:21:12
1	Sb 206.836†	102.1	13.4	-1.6587	µg/L	-1.6587	ppb	17:21:12
1	Se 196.026†	-85.0	-91.9	8.94	µg/L	8.94	ppb	17:21:12
1	SiO2†	580930.7	584718.3	61921	µg/L	61921	ppb	17:20:52
1	Si 251.611†	1812249.2	1828723.1	28837	µg/L	28837	ppb	17:20:52
1	Sn 189.927†	-5.3	-7.2	7.9153	µg/L	7.9153	ppb	17:21:12
1	Ti 334.940†	2408088.5	2430174.9	2494.8	µg/L	2494.8	ppb	17:20:52
1	Tl 190.801†	-380.4	-269.7	-3.7981	µg/L	-3.7981	ppb	17:21:12
1	U 409.014†	-4226.4	-4103.3	-256.38	µg/L	-256.38	ppb	17:20:52
1	V 292.402†	52998.2	53079.2	259.18	µg/L	259.18	ppb	17:20:52
1	Zn 213.857†	41027.4	40914.7	232.54	µg/L	232.54	ppb	17:20:52
2	Sc RADIAL	137977.4	137977.4	98.5	%			17:20:44
2	Al 396.153Radial†	432151.6	438856.1	92395	µg/L	92395	ppb	17:20:42
2	Ca 317.933Radial†	353969.1	358824.9	24439	µg/L	24439	ppb	17:20:44
2	Fe 238.204 Radial†	1737354.1	1763874.8	131720	µg/L	131720	ppb	17:20:42
2	K 766.490 Radial†	25881.4	24784.5	9793.6	µg/L	9793.6	ppb	17:20:44
2	Mg 279.077 IEC†	48767.0	49342.2	22670	µg/L	22670	ppb	17:20:44
2	Na 589.592 Radial†	10724.6	9936.6	1531.5	µg/L	1531.5	ppb	17:20:44
2	Sr 421.552†	130264.3	132466.1	312.23	µg/L	312.23	ppb	17:20:44
2	Sc 361.383	1775132.8	1775132.8	98.391	%			17:21:15
2	Y 371.029	1110267.4	1110267.4	105.01	%			17:21:15
2	Ag 328.068†	3914.9	-586.2	-1.5391	µg/L	-1.5391	ppb	17:21:15
2	As 188.979†	-3.8	14.7	35.468	µg/L	35.468	ppb	17:21:35
2	B 249.677†	5303.8	1325.3	20.438	µg/L	20.438	ppb	17:21:15
2	Ba 233.527†	266901.4	271409.3	1204.9	µg/L	1204.9	ppb	17:21:15
2	Be 313.107†	33400.8	35038.6	10.070	µg/L	10.070	ppb	17:21:15
2	Cd 226.502†	1861.5	1995.3	-0.3308	µg/L	-0.3308	ppb	17:21:35
2	Co 228.616†	3488.7	3756.0	44.017	µg/L	44.017	ppb	17:21:35
2	Cr 267.716†	11573.0	11528.9	103.76	µg/L	103.76	ppb	17:21:35
2	Cu 324.752†	13983.3	11175.8	66.356	µg/L	66.356	ppb	17:21:15
2	Mn 257.610†	1777304.9	1806175.7	2394.7	µg/L	2394.7	ppb	17:21:15
2	Mo 202.031†	-186.8	-151.2	0.7728	µg/L	0.7728	ppb	17:21:35
2	Ni 231.604†	5809.4	6000.3	75.071	µg/L	75.071	ppb	17:21:35
2	P 214.914†	3794.7	3882.4	828.56	µg/L	828.56	ppb	17:21:35
2	Pb 220.353†	1738.9	1663.9	107.33	µg/L	107.33	ppb	17:21:35

2	S 181.975 Axial†	510.3	429.8	361.50	µg/L	361.50 ppb	17:21:35
2	Sb 206.836†	93.3	5.1	-2.7296	µg/L	-2.7296 ppb	17:21:35
2	Se 196.026†	-85.3	-92.9	8.85	µg/L	8.85 ppb	17:21:35
2	SiO2†	576426.6	584111.0	61856	µg/L	61856 ppb	17:21:15
2	Si 251.611†	1799158.6	1827804.4	28822	µg/L	28822 ppb	17:21:15
2	Sn 189.927†	-1.6	-3.5	8.1773	µg/L	8.1773 ppb	17:21:35
2	Ti 334.940†	2393043.6	2431342.3	2496.0	µg/L	2496.0 ppb	17:21:15
2	Tl 190.801†	-397.4	-289.7	-6.4960	µg/L	-6.4960 ppb	17:21:35
2	U 409.014†	-4265.3	-4171.7	-260.77	µg/L	-260.77 ppb	17:21:15
2	V 292.402†	53100.5	53545.3	261.51	µg/L	261.51 ppb	17:21:15
2	Zn 213.857†	40585.3	40745.8	231.45	µg/L	231.45 ppb	17:21:15
3	Sc RADIAL	140674.9	140674.9	100	%		17:20:48
3	Al 396.153Radial†	437852.3	436119.6	91819	µg/L	91819 ppb	17:20:46
3	Ca 317.933Radial†	360605.4	358542.2	24420	µg/L	24420 ppb	17:20:48
3	Fe 238.204 Radial†	1758539.2	1751147.4	130770	µg/L	130770 ppb	17:20:46
3	K 766.490 Radial†	26316.5	24713.8	9765.7	µg/L	9765.7 ppb	17:20:48
3	Mg 279.077 IEC†	49640.8	49263.0	22634	µg/L	22634 ppb	17:20:48
3	Na 589.592 Radial†	10949.3	9951.5	1533.8	µg/L	1533.8 ppb	17:20:48
3	Sr 421.552†	132631.2	132287.1	311.80	µg/L	311.80 ppb	17:20:48
3	Sc 361.383	1798055.4	1798055.4	99.662	%		17:21:38
3	Y 371.029	1124219.5	1124219.5	106.33	%		17:21:38
3	Ag 328.068†	3928.0	-623.8	-1.7039	µg/L	-1.7039 ppb	17:21:38
3	As 188.979†	17.3	36.0	42.429	µg/L	42.429 ppb	17:21:58
3	B 249.677†	5357.4	1310.5	20.207	µg/L	20.207 ppb	17:21:38
3	Ba 233.527†	270878.5	271941.6	1207.2	µg/L	1207.2 ppb	17:21:38
3	Be 313.107†	33286.9	34491.5	9.9120	µg/L	9.9120 ppb	17:21:38
3	Cd 226.502†	1868.6	1978.3	-0.3456	µg/L	-0.3456 ppb	17:21:58
3	Co 228.616†	3535.1	3757.4	44.087	µg/L	44.087 ppb	17:21:58
3	Cr 267.716†	11699.3	11505.8	103.53	µg/L	103.53 ppb	17:21:58
3	Cu 324.752†	14112.3	11124.0	66.001	µg/L	66.001 ppb	17:21:38
3	Mn 257.610†	1802888.7	1808817.8	2398.2	µg/L	2398.2 ppb	17:21:38
3	Mo 202.031†	-199.4	-161.5	0.3980	µg/L	0.3980 ppb	17:21:58
3	Ni 231.604†	5865.2	5981.0	74.829	µg/L	74.829 ppb	17:21:58
3	P 214.914†	3802.1	3840.7	819.42	µg/L	819.42 ppb	17:21:58
3	Pb 220.353†	1773.2	1675.7	108.05	µg/L	108.05 ppb	17:21:58
3	S 181.975 Axial†	512.4	425.2	357.67	µg/L	357.67 ppb	17:21:58
3	Sb 206.836†	92.1	2.7	-3.0327	µg/L	-3.0327 ppb	17:21:58
3	Se 196.026†	-75.9	-82.3	12.7	µg/L	12.7 ppb	17:21:58
3	SiO2†	585223.8	585469.2	62000	µg/L	62000 ppb	17:21:38
3	Si 251.611†	1823891.8	1829309.8	28846	µg/L	28846 ppb	17:21:38
3	Sn 189.927†	0.7	-1.2	8.3350	µg/L	8.3350 ppb	17:21:58
3	Ti 334.940†	2422157.1	2429547.9	2494.2	µg/L	2494.2 ppb	17:21:38
3	Tl 190.801†	-372.0	-259.0	-2.3324	µg/L	-2.3324 ppb	17:21:58
3	U 409.014†	-4304.9	-4156.1	-259.63	µg/L	-259.63 ppb	17:21:38
3	V 292.402†	53501.7	53259.9	260.13	µg/L	260.13 ppb	17:21:38
3	Zn 213.857†	41289.7	40926.7	232.62	µg/L	232.62 ppb	17:21:38

Mean Data: 249244004|965588|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786779.6	99.037	%	0.6355				0.64%
Sc RADIAL	139413.8	99.5	%	0.97				0.97%
Y 371.029	1117252.2	105.67	%	0.660				0.62%
Ag 328.068†	-601.0	-1.6087	µg/L	0.08530	-1.6087	ppb	0.08530	5.30%
Al 396.153Radial†	436982.4	92001	µg/L	342.0	92001	ppb	342.0	0.37%
As 188.979†	26.1	39.187	µg/L	3.5048	39.187	ppb	3.5048	8.94%
B 249.677†	1286.8	19.840	µg/L	0.8449	19.840	ppb	0.8449	4.26%
Ba 233.527†	271632.9	1205.9	µg/L	1.23	1205.9	ppb	1.23	0.10%
Be 313.107†	34746.8	9.9862	µg/L	0.07954	9.9862	ppb	0.07954	0.80%
Ca 317.933Radial†	358394.1	24410	µg/L	35.5	24410	ppb	35.5	0.15%
Cd 226.502†	1978.6	-0.3809	µg/L	0.07429	-0.3809	ppb	0.07429	19.51%
Co 228.616†	3752.5	44.003	µg/L	0.0927	44.003	ppb	0.0927	0.21%
Cr 267.716†	11510.4	103.58	µg/L	0.164	103.58	ppb	0.164	0.16%
Cu 324.752†	11206.6	66.398	µg/L	0.4195	66.398	ppb	0.4195	0.63%
Fe 238.204 Radial†	1755825.4	131120	µg/L	522.9	131120	ppb	522.9	0.40%
K 766.490 Radial†	24702.9	9761.4	µg/L	34.62	9761.4	ppb	34.62	0.35%
Mg 279.077 IEC†	49272.3	22638	µg/L	30.0	22638	ppb	30.0	0.13%
Mn 257.610†	1807549.8	2396.6	µg/L	1.76	2396.6	ppb	1.76	0.07%
Mo 202.031†	-158.9	0.4966	µg/L	0.24243	0.4966	ppb	0.24243	48.82%
Na 589.592 Radial†	10019.7	1544.4	µg/L	20.37	1544.4	ppb	20.37	1.32%

Ni 231.604†	5988.9	74.928	µg/L	0.1267	74.928	ppb	0.1267	0.17%
P 214.914†	3859.5	823.59	µg/L	4.620	823.59	ppb	4.620	0.56%
Pb 220.353†	1680.4	108.34	µg/L	1.184	108.34	ppb	1.184	1.09%
S 181.975 Axial†	420.9	354.08	µg/L	9.724	354.08	ppb	9.724	2.75%
Sb 206.836†	7.1	-2.4737	µg/L	0.72187	-2.4737	ppb	0.72187	29.18%
Se 196.026†	-89.0	10.2	µg/L	2.20	10.2	ppb	2.20	21.60%
SiO2†	584766.2	61926	µg/L	72.1	61926	ppb	72.1	0.12%
Si 251.611†	1828612.4	28835	µg/L	12.0	28835	ppb	12.0	0.04%
Sn 189.927†	-4.0	8.1425	µg/L	0.21197	8.1425	ppb	0.21197	2.60%
Sr 421.552†	132268.8	311.76	µg/L	0.488	311.76	ppb	0.488	0.16%
Ti 334.940†	2430355.0	2495.0	µg/L	0.93	2495.0	ppb	0.93	0.04%
Tl 190.801†	-272.8	-4.2088	µg/L	2.11200	-4.2088	ppb	2.11200	50.18%
U 409.014†	-4143.7	-258.93	µg/L	2.274	-258.93	ppb	2.274	0.88%
Concentration less than lower limit for U 409.014.								
V 292.402†	53294.8	260.27	µg/L	1.171	260.27	ppb	1.171	0.45%
Zn 213.857†	40862.4	232.20	µg/L	0.654	232.20	ppb	0.654	0.28%

Sequence No.: 47
Sample ID: 249244005|965588|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 335
Date Collected: 4/5/2010 17:22:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249244005|965588|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138099.3	138099.3	98.6	%			17:22:38
1	Al 396.153Radial†	127790.4	129713.8	27309	µg/L	27309	ppb	17:22:38
1	Ca 317.933Radial†	126298.4	127550.3	8687.3	µg/L	8687.3	ppb	17:22:38
1	Fe 238.204 Radial†	846644.2	858749.7	64131	µg/L	64131	ppb	17:22:36
1	K 766.490 Radial†	9992.4	8642.9	3416.4	µg/L	3416.4	ppb	17:22:38
1	Mg 279.077 IEC†	11541.3	11535.5	5271.5	µg/L	5271.5	ppb	17:22:38
1	Na 589.592 Radial†	7602.2	6759.4	1044.7	µg/L	1044.7	ppb	17:22:38
1	Sr 421.552†	32053.9	32721.2	77.104	µg/L	77.104	ppb	17:22:38
1	Sc 361.383	1767904.0	1767904.0	97.991	%			17:23:04
1	Y 371.029	1122696.0	1122696.0	106.19	%			17:23:04
1	Ag 328.068†	4232.5	-245.9	-1.5741	µg/L	-1.5741	ppb	17:23:06
1	As 188.979†	-16.3	2.0	15.308	µg/L	15.308	ppb	17:23:26
1	B 249.677†	4925.8	961.6	14.919	µg/L	14.919	ppb	17:23:06
1	Ba 233.527†	85662.7	87563.6	388.43	µg/L	388.43	ppb	17:23:06
1	Be 313.107†	13990.6	15369.2	4.3643	µg/L	4.3643	ppb	17:23:06
1	Cd 226.502†	824.4	944.6	-0.3481	µg/L	-0.3481	ppb	17:23:26
1	Co 228.616†	579.6	801.8	7.6487	µg/L	7.6487	ppb	17:23:26
1	Cr 267.716†	3159.5	2991.0	27.971	µg/L	27.971	ppb	17:23:06
1	Cu 324.752†	4864.2	1927.9	17.314	µg/L	17.314	ppb	17:23:06
1	Mn 257.610†	947482.9	966725.2	1282.0	µg/L	1282.0	ppb	17:23:04
1	Mo 202.031†	98.7	139.3	7.2110	µg/L	7.2110	ppb	17:23:26
1	Ni 231.604†	1794.7	1927.4	24.114	µg/L	24.114	ppb	17:23:26
1	P 214.914†	2269.9	2342.1	504.22	µg/L	504.22	ppb	17:23:26
1	Pb 220.353†	987.0	903.8	56.923	µg/L	56.923	ppb	17:23:26
1	S 181.975 Axial†	251.0	167.2	140.74	µg/L	140.74	ppb	17:23:26
1	Sb 206.836†	81.2	-6.9	-2.0741	µg/L	-2.0741	ppb	17:23:26
1	Se 196.026†	-50.7	-57.9	-0.839	µg/L	-0.839	ppb	17:23:26
1	SiO2†	393925.9	400263.8	42387	µg/L	42387	ppb	17:23:04
1	Si 251.611†	1229172.0	1253607.7	19768	µg/L	19768	ppb	17:23:04
1	Sn 189.927†	161.8	163.3	15.061	µg/L	15.061	ppb	17:23:26
1	Ti 334.940†	1057800.7	1078666.7	1107.8	µg/L	1107.8	ppb	17:23:04
1	Tl 190.801†	-245.3	-136.0	-3.7153	µg/L	-3.7153	ppb	17:23:26
1	U 409.014†	-4669.8	-4602.2	-292.60	µg/L	-292.60	ppb	17:23:06
1	V 292.402†	12730.7	12568.5	57.312	µg/L	57.312	ppb	17:23:06
1	Zn 213.857†	26277.2	26313.0	151.12	µg/L	151.12	ppb	17:23:06
2	Sc RADIAL	138987.4	138987.4	99.2	%			17:22:42
2	Al 396.153Radial†	128488.2	129588.9	27283	µg/L	27283	ppb	17:22:42
2	Ca 317.933Radial†	127125.7	127565.5	8688.4	µg/L	8688.4	ppb	17:22:42
2	Fe 238.204 Radial†	848408.4	855039.8	63854	µg/L	63854	ppb	17:22:40
2	K 766.490 Radial†	10209.8	8797.2	3477.6	µg/L	3477.6	ppb	17:22:42
2	Mg 279.077 IEC†	11580.7	11500.4	5255.5	µg/L	5255.5	ppb	17:22:42
2	Na 589.592 Radial†	7734.4	6843.5	1057.7	µg/L	1057.7	ppb	17:22:42
2	Sr 421.552†	32115.7	32575.7	76.761	µg/L	76.761	ppb	17:22:42
2	Sc 361.383	1755244.2	1755244.2	97.289	%			17:23:29
2	Y 371.029	1114292.0	1114292.0	105.39	%			17:23:29
2	Ag 328.068†	3802.2	-657.0	-3.2463	µg/L	-3.2463	ppb	17:23:31
2	As 188.979†	0.4	18.9	20.990	µg/L	20.990	ppb	17:23:51
2	B 249.677†	5000.4	1074.5	16.673	µg/L	16.673	ppb	17:23:31
2	Ba 233.527†	85670.9	88202.7	391.27	µg/L	391.27	ppb	17:23:31
2	Be 313.107†	14009.9	15492.0	4.4041	µg/L	4.4041	ppb	17:23:31
2	Cd 226.502†	845.6	972.5	-0.1302	µg/L	-0.1302	ppb	17:23:51
2	Co 228.616†	601.2	828.2	8.0149	µg/L	8.0149	ppb	17:23:51
2	Cr 267.716†	3123.4	2977.2	27.831	µg/L	27.831	ppb	17:23:31
2	Cu 324.752†	4768.3	1865.1	17.022	µg/L	17.022	ppb	17:23:31
2	Mn 257.610†	940913.4	966946.6	1282.3	µg/L	1282.3	ppb	17:23:29
2	Mo 202.031†	89.1	130.2	6.9014	µg/L	6.9014	ppb	17:23:51
2	Ni 231.604†	1827.6	1974.5	24.703	µg/L	24.703	ppb	17:23:51
2	P 214.914†	2263.5	2352.3	506.75	µg/L	506.75	ppb	17:23:51
2	Pb 220.353†	992.4	916.6	57.709	µg/L	57.709	ppb	17:23:51

2	S 181.975 Axial†	251.4	169.5	142.63 µg/L	142.63 ppb	17:23:51
2	Sb 206.836†	80.1	-7.4	-2.1376 µg/L	-2.1376 ppb	17:23:51
2	Se 196.026†	-41.9	-49.2	2.49 µg/L	2.49 ppb	17:23:51
2	SiO2†	390263.3	399398.6	42295 µg/L	42295 ppb	17:23:29
2	Si 251.611†	1220135.7	1253366.9	19764 µg/L	19764 ppb	17:23:29
2	Sn 189.927†	157.3	159.8	14.823 µg/L	14.823 ppb	17:23:51
2	Ti 334.940†	1050390.4	1078835.8	1107.9 µg/L	1107.9 ppb	17:23:29
2	Tl 190.801†	-260.5	-153.5	-6.1071 µg/L	-6.1071 ppb	17:23:51
2	U 409.014†	-4416.8	-4376.6	-278.33 µg/L	-278.33 ppb	17:23:31
2	V 292.402†	12509.7	12435.0	56.655 µg/L	56.655 ppb	17:23:31
2	Zn 213.857†	26346.1	26577.2	152.72 µg/L	152.72 ppb	17:23:31
3	Sc RADIAL	138494.6	138494.6	98.9 %		17:22:46
3	Al 396.153Radial†	128182.2	129740.1	27315 µg/L	27315 ppb	17:22:46
3	Ca 317.933Radial†	126786.3	127678.1	8696.0 µg/L	8696.0 ppb	17:22:46
3	Fe 238.204 Radial†	859002.0	868798.5	64881 µg/L	64881 ppb	17:22:44
3	K 766.490 Radial†	9999.8	8621.4	3407.9 µg/L	3407.9 ppb	17:22:46
3	Mg 279.077 IEC†	11519.2	11479.7	5245.1 µg/L	5245.1 ppb	17:22:46
3	Na 589.592 Radial†	7629.3	6764.8	1045.6 µg/L	1045.6 ppb	17:22:46
3	Sr 421.552†	32046.2	32620.6	76.866 µg/L	76.866 ppb	17:22:46
3	Sc 361.383	1793520.4	1793520.4	99.411 %		17:23:53
3	Y 371.029	1137998.2	1137998.2	107.63 %		17:23:53
3	Ag 328.068†	4199.8	-340.4	-1.9697 µg/L	-1.9697 ppb	17:23:55
3	As 188.979†	-0.9	17.7	20.782 µg/L	20.782 ppb	17:24:15
3	B 249.677†	4960.6	924.9	14.345 µg/L	14.345 ppb	17:23:55
3	Ba 233.527†	86194.7	86850.3	385.24 µg/L	385.24 ppb	17:23:55
3	Be 313.107†	14063.7	15238.8	4.3296 µg/L	4.3296 ppb	17:23:55
3	Cd 226.502†	828.9	937.2	-0.4773 µg/L	-0.4773 ppb	17:24:15
3	Co 228.616†	621.7	835.7	8.0543 µg/L	8.0543 ppb	17:24:15
3	Cr 267.716†	3167.2	2952.8	27.657 µg/L	27.657 ppb	17:23:55
3	Cu 324.752†	5000.1	1993.6	17.706 µg/L	17.706 ppb	17:23:55
3	Mn 257.610†	963440.9	968967.7	1285.0 µg/L	1285.0 ppb	17:23:53
3	Mo 202.031†	75.0	114.0	6.4137 µg/L	6.4137 ppb	17:24:15
3	Ni 231.604†	1803.8	1910.4	23.901 µg/L	23.901 ppb	17:24:15
3	P 214.914†	2278.7	2317.9	498.10 µg/L	498.10 ppb	17:24:15
3	Pb 220.353†	960.1	862.3	54.341 µg/L	54.341 ppb	17:24:15
3	S 181.975 Axial†	238.9	151.4	127.38 µg/L	127.38 ppb	17:24:15
3	Sb 206.836†	73.8	-15.4	-3.1962 µg/L	-3.1962 ppb	17:24:15
3	Se 196.026†	-41.0	-47.4	3.57 µg/L	3.57 ppb	17:24:15
3	SiO2†	400332.2	400966.4	42461 µg/L	42461 ppb	17:23:53
3	Si 251.611†	1250225.2	1256869.8	19819 µg/L	19819 ppb	17:23:53
3	Sn 189.927†	162.6	161.6	14.951 µg/L	14.951 ppb	17:24:15
3	Ti 334.940†	1074107.9	1079652.5	1108.8 µg/L	1108.8 ppb	17:23:53
3	Tl 190.801†	-262.3	-149.6	-5.5582 µg/L	-5.5582 ppb	17:24:15
3	U 409.014†	-4574.6	-4438.3	-282.48 µg/L	-282.48 ppb	17:23:55
3	V 292.402†	12668.7	12320.5	55.943 µg/L	55.943 ppb	17:23:55
3	Zn 213.857†	26654.1	26309.1	151.02 µg/L	151.02 ppb	17:23:55

Mean Data: 249244005|965588|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1772222.9	98.230	%	1.0808				1.10%
Sc RADIAL	138527.1	98.9	%	0.32				0.32%
Y 371.029	1124995.4	106.40	%	1.137				1.07%
Ag 328.068†	-414.4	-2.2634	µg/L	0.87393	-2.2634	ppb	0.87393	38.61%
Al 396.153Radial†	129680.9	27302	µg/L	17.0	27302	ppb	17.0	0.06%
As 188.979†	12.9	19.027	µg/L	3.2220	19.027	ppb	3.2220	16.93%
B 249.677†	987.0	15.312	µg/L	1.2128	15.312	ppb	1.2128	7.92%
Ba 233.527†	87538.9	388.31	µg/L	3.014	388.31	ppb	3.014	0.78%
Be 313.107†	15366.6	4.3660	µg/L	0.03729	4.3660	ppb	0.03729	0.85%
Ca 317.933Radial†	127597.9	8690.6	µg/L	4.75	8690.6	ppb	4.75	0.05%
Cd 226.502†	951.5	-0.3185	µg/L	0.17546	-0.3185	ppb	0.17546	55.08%
Co 228.616†	821.9	7.9060	µg/L	0.22367	7.9060	ppb	0.22367	2.83%
Cr 267.716†	2973.7	27.820	µg/L	0.1574	27.820	ppb	0.1574	0.57%
Cu 324.752†	1928.8	17.347	µg/L	0.3431	17.347	ppb	0.3431	1.98%
Fe 238.204 Radial†	860862.7	64289	µg/L	531.6	64289	ppb	531.6	0.83%
K 766.490 Radial†	8687.2	3434.0	µg/L	38.00	3434.0	ppb	38.00	1.11%
Mg 279.077 IEC†	11505.2	5257.3	µg/L	13.30	5257.3	ppb	13.30	0.25%
Mn 257.610†	967546.5	1283.1	µg/L	1.64	1283.1	ppb	1.64	0.13%
Mo 202.031†	127.8	6.8420	µg/L	0.40195	6.8420	ppb	0.40195	5.87%
Na 589.592 Radial†	6789.2	1049.3	µg/L	7.26	1049.3	ppb	7.26	0.69%

Ni 231.604†	1937.4	24.239	µg/L	0.4155	24.239	ppb	0.4155	1.71%
P 214.914†	2337.4	503.02	µg/L	4.446	503.02	ppb	4.446	0.88%
Pb 220.353†	894.2	56.324	µg/L	1.7623	56.324	ppb	1.7623	3.13%
S 181.975 Axial†	162.7	136.91	µg/L	8.313	136.91	ppb	8.313	6.07%
Sb 206.836†	-9.9	-2.4693	µg/L	0.63030	-2.4693	ppb	0.63030	25.53%
Se 196.026†	-51.5	1.74	µg/L	2.300	1.74	ppb	2.300	131.98%
SiO2†	400209.6	42381	µg/L	83.2	42381	ppb	83.2	0.20%
Si 251.611†	1254614.8	19784	µg/L	30.9	19784	ppb	30.9	0.16%
Sn 189.927†	161.6	14.945	µg/L	0.1190	14.945	ppb	0.1190	0.80%
Sr 421.552†	32639.1	76.910	µg/L	0.1757	76.910	ppb	0.1757	0.23%
Ti 334.940†	1079051.7	1108.2	µg/L	0.54	1108.2	ppb	0.54	0.05%
Tl 190.801†	-146.4	-5.1269	µg/L	1.25289	-5.1269	ppb	1.25289	24.44%
U 409.014†	-4472.4	-284.47	µg/L	7.337	-284.47	ppb	7.337	2.58%
Concentration less than lower limit for U 409.014.								
V 292.402†	12441.3	56.637	µg/L	0.6843	56.637	ppb	0.6843	1.21%
Zn 213.857†	26399.8	151.62	µg/L	0.956	151.62	ppb	0.956	0.63%

Sequence No.: 48
Sample ID: 249244006|965588|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 336
Date Collected: 4/5/2010 17:24:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 249244006|965588|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136637.6	136637.6	97.5	%			17:24:56
1	Al 396.153Radial†	120028.7	123142.7	25926	µg/L	25926	ppb	17:24:56
1	Ca 317.933Radial†	327730.4	335446.8	22847	µg/L	22847	ppb	17:24:56
1	Fe 238.204 Radial†	823670.5	844382.9	63058	µg/L	63058	ppb	17:24:54
1	K 766.490 Radial†	12722.8	11550.8	4566.2	µg/L	4566.2	ppb	17:24:56
1	Mg 279.077 IEC†	14589.6	14786.1	6773.3	µg/L	6773.3	ppb	17:24:56
1	Na 589.592 Radial†	6010.2	5209.6	803.47	µg/L	803.47	ppb	17:24:56
1	Sr 421.552†	25525.6	26375.6	62.027	µg/L	62.027	ppb	17:24:56
1	Sc 361.383	1774959.3	1774959.3	98.382	%			17:25:23
1	Y 371.029	1150047.0	1150047.0	108.77	%			17:25:23
1	Ag 328.068†	4112.6	-385.0	-2.3731	µg/L	-2.3731	ppb	17:25:23
1	As 188.979†	12.4	31.1	25.056	µg/L	25.056	ppb	17:25:43
1	B 249.677†	4559.3	569.1	8.7912	µg/L	8.7912	ppb	17:25:23
1	Ba 233.527†	80757.7	82230.5	364.75	µg/L	364.75	ppb	17:25:23
1	Be 313.107†	15633.1	16981.9	4.8445	µg/L	4.8445	ppb	17:25:23
1	Cd 226.502†	878.9	996.8	0.1217	µg/L	0.1217	ppb	17:25:43
1	Co 228.616†	1076.6	1304.6	14.335	µg/L	14.335	ppb	17:25:43
1	Cr 267.716†	4670.5	4514.1	40.926	µg/L	40.926	ppb	17:25:43
1	Cu 324.752†	7880.1	4973.6	29.977	µg/L	29.977	ppb	17:25:23
1	Mn 257.610†	1372559.9	1394950.3	1850.0	µg/L	1850.0	ppb	17:25:23
1	Mo 202.031†	104.9	145.2	7.3967	µg/L	7.3967	ppb	17:25:43
1	Ni 231.604†	2556.4	2694.4	33.710	µg/L	33.710	ppb	17:25:43
1	P 214.914†	3967.9	4058.8	901.55	µg/L	901.55	ppb	17:25:43
1	Pb 220.353†	1509.1	1430.5	89.531	µg/L	89.531	ppb	17:25:43
1	S 181.975 Axial†	353.0	269.9	227.09	µg/L	227.09	ppb	17:25:43
1	Sb 206.836†	79.6	-8.8	-2.4790	µg/L	-2.4790	ppb	17:25:43
1	Se 196.026†	-31.7	-38.3	6.53	µg/L	6.53	ppb	17:25:43
1	SiO2†	356828.8	360958.6	38225	µg/L	38225	ppb	17:25:23
1	Si 251.611†	1116918.0	1134521.4	17890	µg/L	17890	ppb	17:25:23
1	Sn 189.927†	44.4	43.3	7.4679	µg/L	7.4679	ppb	17:25:43
1	Ti 334.940†	1269202.4	1289254.6	1324.3	µg/L	1324.3	ppb	17:25:23
1	Tl 190.801†	-281.2	-171.6	-4.8182	µg/L	-4.8182	ppb	17:25:43
1	U 409.014†	-4016.9	-3919.6	-243.89	µg/L	-243.89	ppb	17:25:23
1	V 292.402†	16461.9	16309.5	76.701	µg/L	76.701	ppb	17:25:43
1	Zn 213.857†	38585.4	38717.1	225.16	µg/L	225.16	ppb	17:25:23
2	Sc RADIAL	137621.6	137621.6	98.2	%			17:25:00
2	Al 396.153Radial†	121340.1	123597.6	26021	µg/L	26021	ppb	17:25:00
2	Ca 317.933Radial†	330834.6	336204.1	22899	µg/L	22899	ppb	17:25:00
2	Fe 238.204 Radial†	837042.6	851956.4	63623	µg/L	63623	ppb	17:24:58
2	K 766.490 Radial†	12998.5	11738.1	4640.4	µg/L	4640.4	ppb	17:25:00
2	Mg 279.077 IEC†	14906.4	15001.7	6872.4	µg/L	6872.4	ppb	17:25:00
2	Na 589.592 Radial†	5961.1	5115.7	788.83	µg/L	788.83	ppb	17:25:00
2	Sr 421.552†	25920.8	26590.7	62.534	µg/L	62.534	ppb	17:25:00
2	Sc 361.383	1759090.3	1759090.3	97.502	%			17:25:46
2	Y 371.029	1141236.6	1141236.6	107.94	%			17:25:46
2	Ag 328.068†	4498.1	48.2	-0.5953	µg/L	-0.5953	ppb	17:25:46
2	As 188.979†	12.4	31.2	25.224	µg/L	25.224	ppb	17:26:06
2	B 249.677†	4628.4	681.8	10.543	µg/L	10.543	ppb	17:25:46
2	Ba 233.527†	79967.7	82160.8	364.43	µg/L	364.43	ppb	17:25:46
2	Be 313.107†	15376.0	16861.6	4.8100	µg/L	4.8100	ppb	17:25:46
2	Cd 226.502†	850.4	975.6	-0.0809	µg/L	-0.0809	ppb	17:26:06
2	Co 228.616†	1069.3	1307.0	14.336	µg/L	14.336	ppb	17:26:06
2	Cr 267.716†	4667.8	4554.2	41.292	µg/L	41.292	ppb	17:26:06
2	Cu 324.752†	7766.7	4929.5	29.878	µg/L	29.878	ppb	17:25:46
2	Mn 257.610†	1356447.9	1391011.3	1844.8	µg/L	1844.8	ppb	17:25:46
2	Mo 202.031†	112.7	154.2	7.7128	µg/L	7.7128	ppb	17:26:06
2	Ni 231.604†	2544.0	2705.1	33.844	µg/L	33.844	ppb	17:26:06
2	P 214.914†	3952.4	4079.3	905.94	µg/L	905.94	ppb	17:26:06
2	Pb 220.353†	1509.4	1444.6	90.386	µg/L	90.386	ppb	17:26:06

2	S 181.975 Axial†	351.1	271.1	228.13	µg/L	228.13 ppb	17:26:06
2	Sb 206.836†	82.2	-5.5	-2.0525	µg/L	-2.0525 ppb	17:26:06
2	Se 196.026†	-28.7	-35.6	7.80	µg/L	7.80 ppb	17:26:06
2	SiO2†	353486.9	360803.0	38208	µg/L	38208 ppb	17:25:46
2	Si 251.611†	1103827.8	1131337.4	17840	µg/L	17840 ppb	17:25:46
2	Sn 189.927†	51.4	50.8	7.9843	µg/L	7.9843 ppb	17:26:06
2	Ti 334.940†	1255601.6	1286943.3	1321.9	µg/L	1321.9 ppb	17:25:46
2	Tl 190.801†	-271.2	-163.9	-3.8046	µg/L	-3.8046 ppb	17:26:06
2	U 409.014†	-3962.6	-3900.7	-242.82	µg/L	-242.82 ppb	17:25:46
2	V 292.402†	16419.1	16416.5	77.203	µg/L	77.203 ppb	17:26:06
2	Zn 213.857†	38043.6	38515.2	223.90	µg/L	223.90 ppb	17:25:46
3	Sc RADIAL	137622.7	137622.7	98.2	%		17:25:04
3	Al 396.153Radial†	120558.1	122800.6	25854	µg/L	25854 ppb	17:25:04
3	Ca 317.933Radial†	330180.6	335535.7	22853	µg/L	22853 ppb	17:25:04
3	Fe 238.204 Radial†	834832.1	849699.7	63455	µg/L	63455 ppb	17:25:02
3	K 766.490 Radial†	12871.2	11608.4	4589.0	µg/L	4589.0 ppb	17:25:04
3	Mg 279.077 IEC†	14690.2	14781.4	6770.8	µg/L	6770.8 ppb	17:25:04
3	Na 589.592 Radial†	5944.0	5098.2	786.17	µg/L	786.17 ppb	17:25:04
3	Sr 421.552†	25719.1	26385.2	62.050	µg/L	62.050 ppb	17:25:04
3	Sc 361.383	1773594.1	1773594.1	98.306	%		17:26:09
3	Y 371.029	1149981.3	1149981.3	108.77	%		17:26:09
3	Ag 328.068†	4149.0	-344.6	-2.1843	µg/L	-2.1843 ppb	17:26:09
3	As 188.979†	8.5	27.2	23.843	µg/L	23.843 ppb	17:26:29
3	B 249.677†	4797.5	815.0	12.613	µg/L	12.613 ppb	17:26:09
3	Ba 233.527†	80866.3	82404.1	365.51	µg/L	365.51 ppb	17:26:09
3	Be 313.107†	15834.1	17198.6	4.9110	µg/L	4.9110 ppb	17:26:09
3	Cd 226.502†	888.3	1007.0	0.1492	µg/L	0.1492 ppb	17:26:29
3	Co 228.616†	1097.6	1326.8	14.608	µg/L	14.608 ppb	17:26:29
3	Cr 267.716†	4729.5	4577.8	41.482	µg/L	41.482 ppb	17:26:29
3	Cu 324.752†	7990.7	5092.2	30.541	µg/L	30.541 ppb	17:26:09
3	Mn 257.610†	1371488.3	1394934.1	1850.0	µg/L	1850.0 ppb	17:26:09
3	Mo 202.031†	116.8	157.4	7.8094	µg/L	7.8094 ppb	17:26:29
3	Ni 231.604†	2563.5	2703.6	33.825	µg/L	33.825 ppb	17:26:29
3	P 214.914†	4053.9	4149.4	922.22	µg/L	922.22 ppb	17:26:29
3	Pb 220.353†	1517.3	1439.9	90.088	µg/L	90.088 ppb	17:26:29
3	S 181.975 Axial†	349.9	267.0	224.66	µg/L	224.66 ppb	17:26:29
3	Sb 206.836†	65.9	-22.6	-4.2636	µg/L	-4.2636 ppb	17:26:29
3	Se 196.026†	-23.7	-30.2	9.87	µg/L	9.87 ppb	17:26:29
3	SiO2†	357473.0	361893.2	38323	µg/L	38323 ppb	17:26:09
3	Si 251.611†	1115920.1	1134380.2	17888	µg/L	17888 ppb	17:26:09
3	Sn 189.927†	70.8	70.1	9.3280	µg/L	9.3280 ppb	17:26:29
3	Ti 334.940†	1268195.5	1289223.2	1324.3	µg/L	1324.3 ppb	17:26:09
3	Tl 190.801†	-259.3	-149.5	-1.7998	µg/L	-1.7998 ppb	17:26:29
3	U 409.014†	-3821.9	-3724.4	-231.61	µg/L	-231.61 ppb	17:26:09
3	V 292.402†	16626.4	16489.6	77.608	µg/L	77.608 ppb	17:26:29
3	Zn 213.857†	38457.7	38617.3	224.52	µg/L	224.52 ppb	17:26:09

Mean Data: 249244006|965588|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769214.5	98.063	%	0.4875				0.50%
Sc RADIAL	137294.0	98.0	%	0.41				0.41%
Y 371.029	1147088.3	108.49	%	0.479				0.44%
Ag 328.068†	-227.1	-1.7175	µg/L	0.97651	-1.7175	ppb	0.97651	56.85%
Al 396.153Radial†	123180.3	25934	µg/L	84.2	25934	ppb	84.2	0.32%
As 188.979†	29.9	24.708	µg/L	0.7537	24.708	ppb	0.7537	3.05%
B 249.677†	688.6	10.649	µg/L	1.9132	10.649	ppb	1.9132	17.97%
Ba 233.527†	82265.1	364.90	µg/L	0.557	364.90	ppb	0.557	0.15%
Be 313.107†	17014.0	4.8551	µg/L	0.05134	4.8551	ppb	0.05134	1.06%
Ca 317.933Radial†	335728.9	22866	µg/L	28.2	22866	ppb	28.2	0.12%
Cd 226.502†	993.1	0.0633	µg/L	0.12566	0.0633	ppb	0.12566	198.46%
Co 228.616†	1312.8	14.426	µg/L	0.1574	14.426	ppb	0.1574	1.09%
Cr 267.716†	4548.7	41.233	µg/L	0.2825	41.233	ppb	0.2825	0.69%
Cu 324.752†	4998.5	30.132	µg/L	0.3575	30.132	ppb	0.3575	1.19%
Fe 238.204 Radial†	848679.7	63379	µg/L	290.4	63379	ppb	290.4	0.46%
K 766.490 Radial†	11632.4	4598.5	µg/L	38.01	4598.5	ppb	38.01	0.83%
Mg 279.077 IEC†	14856.4	6805.5	µg/L	57.93	6805.5	ppb	57.93	0.85%
Mn 257.610†	1393631.9	1848.3	µg/L	3.01	1848.3	ppb	3.01	0.16%
Mo 202.031†	152.3	7.6396	µg/L	0.21584	7.6396	ppb	0.21584	2.83%
Na 589.592 Radial†	5141.2	792.82	µg/L	9.313	792.82	ppb	9.313	1.17%

Ni 231.604†	2701.0	33.793	µg/L	0.0728	33.793	ppb	0.0728	0.22%
P 214.914†	4095.8	909.90	µg/L	10.894	909.90	ppb	10.894	1.20%
Pb 220.353†	1438.4	90.001	µg/L	0.4339	90.001	ppb	0.4339	0.48%
S 181.975 Axial†	269.3	226.62	µg/L	1.782	226.62	ppb	1.782	0.79%
Sb 206.836†	-12.3	-2.9317	µg/L	1.17298	-2.9317	ppb	1.17298	40.01%
Se 196.026†	-34.7	8.07	µg/L	1.688	8.07	ppb	1.688	20.92%
SiO2†	361218.3	38252	µg/L	62.4	38252	ppb	62.4	0.16%
Si 251.611†	1133413.0	17873	µg/L	28.4	17873	ppb	28.4	0.16%
Sn 189.927†	54.7	8.2600	µg/L	0.96022	8.2600	ppb	0.96022	11.62%
Sr 421.552†	26450.5	62.204	µg/L	0.2864	62.204	ppb	0.2864	0.46%
Ti 334.940†	1288473.7	1323.5	µg/L	1.36	1323.5	ppb	1.36	0.10%
Tl 190.801†	-161.7	-3.4742	µg/L	1.53612	-3.4742	ppb	1.53612	44.22%
U 409.014†	-3848.3	-239.44	µg/L	6.804	-239.44	ppb	6.804	2.84%
Concentration less than lower limit for U 409.014.								
V 292.402†	16405.2	77.171	µg/L	0.4542	77.171	ppb	0.4542	0.59%
Zn 213.857†	38616.5	224.53	µg/L	0.633	224.53	ppb	0.633	0.28%

Sequence No.: 49
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 4/5/2010 17:26:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137434.3	137434.3	98.1	%			17:27:10
1	Al 396.153Radial†	22772.8	23291.9	4880.6	µg/L	4880.6	ppb	17:27:10
1	Ca 317.933Radial†	73231.0	74076.2	5045.3	µg/L	5045.3	ppb	17:27:10
1	Fe 238.204 Radial†	65904.4	67062.0	5008.1	µg/L	5008.1	ppb	17:27:10
1	K 766.490 Radial†	13974.2	12750.7	5048.4	µg/L	5048.4	ppb	17:27:10
1	Mg 279.077 IEC†	10781.8	10817.9	5003.0	µg/L	5003.0	ppb	17:27:10
1	Na 589.592 Radial†	64015.4	64301.3	9962.7	µg/L	9962.7	ppb	17:27:10
1	Sr 421.552†	207090.5	211301.2	498.31	µg/L	498.31	ppb	17:27:08
1	Sc 361.383	1777803.3	1777803.3	98.540	%			17:27:23
1	Y 371.029	1034308.9	1034308.9	97.826	%			17:27:23
1	Ag 328.068†	123670.6	120938.4	501.30	µg/L	501.30	ppb	17:27:23
1	As 188.979†	1291.6	1329.3	456.87	µg/L	456.87	ppb	17:27:43
1	B 249.677†	35035.7	31489.8	487.98	µg/L	487.98	ppb	17:27:23
1	Ba 233.527†	109181.4	110944.2	493.54	µg/L	493.54	ppb	17:27:23
1	Be 313.107†	1641903.4	1667330.5	483.13	µg/L	483.13	ppb	17:27:23
1	Cd 226.502†	73069.7	74256.1	501.57	µg/L	501.57	ppb	17:27:23
1	Co 228.616†	37211.2	37973.0	502.61	µg/L	502.61	ppb	17:27:23
1	Cr 267.716†	57003.3	57614.9	498.30	µg/L	498.30	ppb	17:27:23
1	Cu 324.752†	119862.9	118603.3	497.63	µg/L	497.63	ppb	17:27:23
1	Mn 257.610†	370970.9	376284.5	498.95	µg/L	498.95	ppb	17:27:23
1	Mo 202.031†	15014.2	15275.3	500.02	µg/L	500.02	ppb	17:27:43
1	Ni 231.604†	39450.5	40131.1	502.09	µg/L	502.09	ppb	17:27:23
1	P 214.914†	10581.6	10764.1	2481.4	µg/L	2481.4	ppb	17:27:43
1	Pb 220.353†	8139.9	8157.1	503.52	µg/L	503.52	ppb	17:27:43
1	S 181.975 Axial†	1253.0	1182.6	999.10	µg/L	999.10	ppb	17:27:43
1	Sb 206.836†	3864.9	3832.4	495.32	µg/L	495.32	ppb	17:27:43
1	Se 196.026†	1239.8	1252.0	495	µg/L	495	ppb	17:27:43
1	SiO2†	50899.7	49915.0	5264.6	µg/L	5264.6	ppb	17:27:23
1	Si 251.611†	155782.0	157323.9	2470.9	µg/L	2470.9	ppb	17:27:23
1	Sn 189.927†	6968.1	7069.5	492.03	µg/L	492.03	ppb	17:27:43
1	Ti 334.940†	475655.5	481882.4	494.29	µg/L	494.29	ppb	17:27:23
1	Tl 190.801†	3477.9	3643.7	504.99	µg/L	504.99	ppb	17:27:43
1	U 409.014†	7267.7	7538.7	506.00	µg/L	506.00	ppb	17:27:23
1	V 292.402†	94668.3	95648.2	502.38	µg/L	502.38	ppb	17:27:23
1	Zn 213.857†	83290.6	84022.1	497.80	µg/L	497.80	ppb	17:27:23
2	Sc RADIAL	135899.1	135899.1	97.0	%			17:27:14
2	Al 396.153Radial†	22671.5	23449.7	4913.8	µg/L	4913.8	ppb	17:27:14
2	Ca 317.933Radial†	72365.0	74026.8	5041.9	µg/L	5041.9	ppb	17:27:14
2	Fe 238.204 Radial†	64973.2	66861.0	4993.1	µg/L	4993.1	ppb	17:27:14
2	K 766.490 Radial†	13791.6	12723.4	5037.5	µg/L	5037.5	ppb	17:27:14
2	Mg 279.077 IEC†	10644.0	10800.0	4994.7	µg/L	4994.7	ppb	17:27:14
2	Na 589.592 Radial†	63599.7	64609.9	10011	µg/L	10011	ppb	17:27:14
2	Sr 421.552†	206365.8	212938.8	502.17	µg/L	502.17	ppb	17:27:12
2	Sc 361.383	1769945.6	1769945.6	98.104	%			17:27:46
2	Y 371.029	1028630.4	1028630.4	97.289	%			17:27:46
2	Ag 328.068†	123368.7	121187.8	502.34	µg/L	502.34	ppb	17:27:46
2	As 188.979†	1276.0	1319.3	453.44	µg/L	453.44	ppb	17:28:06
2	B 249.677†	35110.0	31723.4	491.61	µg/L	491.61	ppb	17:27:46
2	Ba 233.527†	108539.0	110781.2	492.81	µg/L	492.81	ppb	17:27:46
2	Be 313.107†	1634007.9	1666679.6	482.94	µg/L	482.94	ppb	17:27:46
2	Cd 226.502†	72771.3	74281.1	501.74	µg/L	501.74	ppb	17:27:46
2	Co 228.616†	37005.3	37930.8	502.06	µg/L	502.06	ppb	17:27:46
2	Cr 267.716†	56615.2	57476.1	497.09	µg/L	497.09	ppb	17:27:46
2	Cu 324.752†	119311.6	118581.4	497.54	µg/L	497.54	ppb	17:27:46
2	Mn 257.610†	369325.0	376278.1	498.94	µg/L	498.94	ppb	17:27:46
2	Mo 202.031†	14943.0	15270.4	499.86	µg/L	499.86	ppb	17:28:06
2	Ni 231.604†	39125.9	39978.0	500.17	µg/L	500.17	ppb	17:27:46
2	P 214.914†	10473.4	10701.5	2466.9	µg/L	2466.9	ppb	17:28:06
2	Pb 220.353†	8085.2	8138.0	502.34	µg/L	502.34	ppb	17:28:06

2	S 181.975 Axial†	1238.2	1173.2	991.18 µg/L	991.18 ppb	17:28:06
2	Sb 206.836†	3863.8	3848.8	497.44 µg/L	497.44 ppb	17:28:06
2	Se 196.026†	1248.9	1266.9	501 µg/L	501 ppb	17:28:06
2	SiO2†	50662.2	49902.2	5263.2 µg/L	5263.2 ppb	17:27:46
2	Si 251.611†	155351.7	157587.1	2475.1 µg/L	2475.1 ppb	17:27:46
2	Sn 189.927†	6938.2	7070.4	492.10 µg/L	492.10 ppb	17:28:06
2	Ti 334.940†	473081.6	481401.7	493.80 µg/L	493.80 ppb	17:27:46
2	Tl 190.801†	3441.2	3622.0	502.03 µg/L	502.03 ppb	17:28:06
2	U 409.014†	7297.5	7601.9	510.02 µg/L	510.02 ppb	17:27:46
2	V 292.402†	94364.8	95765.3	502.99 µg/L	502.99 ppb	17:27:46
2	Zn 213.857†	82843.8	83941.9	497.34 µg/L	497.34 ppb	17:27:46
3	Sc RADIAL	135069.6	135069.6	96.4 %		17:27:18
3	Al 396.153Radial†	22481.3	23396.0	4902.7 µg/L	4902.7 ppb	17:27:18
3	Ca 317.933Radial†	71663.4	73757.2	5023.5 µg/L	5023.5 ppb	17:27:18
3	Fe 238.204 Radial†	64687.6	66976.1	5001.7 µg/L	5001.7 ppb	17:27:18
3	K 766.490 Radial†	13719.9	12736.3	5042.6 µg/L	5042.6 ppb	17:27:18
3	Mg 279.077 IEC†	10677.4	10902.1	5041.7 µg/L	5041.7 ppb	17:27:18
3	Na 589.592 Radial†	63244.1	64643.7	10016 µg/L	10016 ppb	17:27:18
3	Sr 421.552†	206489.1	214373.2	505.55 µg/L	505.55 ppb	17:27:16
3	Sc 361.383	1783229.0	1783229.0	98.840 %		17:28:09
3	Y 371.029	1037035.2	1037035.2	98.084 %		17:28:09
3	Ag 328.068†	124208.4	121100.6	501.97 µg/L	501.97 ppb	17:28:09
3	As 188.979†	1280.9	1314.5	451.83 µg/L	451.83 ppb	17:28:29
3	B 249.677†	35431.2	31781.8	492.51 µg/L	492.51 ppb	17:28:09
3	Ba 233.527†	109270.0	110696.7	492.44 µg/L	492.44 ppb	17:28:09
3	Be 313.107†	1645065.2	1665459.6	482.59 µg/L	482.59 ppb	17:28:09
3	Cd 226.502†	73506.8	74472.6	503.03 µg/L	503.03 ppb	17:28:09
3	Co 228.616†	37551.2	38202.1	505.64 µg/L	505.64 ppb	17:28:09
3	Cr 267.716†	57216.9	57655.0	498.65 µg/L	498.65 ppb	17:28:09
3	Cu 324.752†	119984.9	118356.7	496.60 µg/L	496.60 ppb	17:28:09
3	Mn 257.610†	372270.3	376453.7	499.17 µg/L	499.17 ppb	17:28:09
3	Mo 202.031†	14891.8	15105.2	494.45 µg/L	494.45 ppb	17:28:29
3	Ni 231.604†	39512.2	40071.7	501.35 µg/L	501.35 ppb	17:28:09
3	P 214.914†	10467.4	10615.9	2447.1 µg/L	2447.1 ppb	17:28:29
3	Pb 220.353†	8066.7	8057.9	497.40 µg/L	497.40 ppb	17:28:29
3	S 181.975 Axial†	1232.7	1158.3	978.57 µg/L	978.57 ppb	17:28:29
3	Sb 206.836†	3820.2	3775.3	487.85 µg/L	487.85 ppb	17:28:29
3	Se 196.026†	1250.9	1259.4	498 µg/L	498 ppb	17:28:29
3	SiO2†	51152.6	50013.7	5275.3 µg/L	5275.3 ppb	17:28:09
3	Si 251.611†	156853.9	157927.3	2480.5 µg/L	2480.5 ppb	17:28:09
3	Sn 189.927†	6902.2	6981.3	485.92 µg/L	485.92 ppb	17:28:29
3	Ti 334.940†	477150.2	481926.0	494.33 µg/L	494.33 ppb	17:28:09
3	Tl 190.801†	3421.7	3576.1	495.75 µg/L	495.75 ppb	17:28:29
3	U 409.014†	7259.4	7507.9	504.07 µg/L	504.07 ppb	17:28:09
3	V 292.402†	95004.8	95696.4	502.58 µg/L	502.58 ppb	17:28:09
3	Zn 213.857†	83971.1	84453.4	500.39 µg/L	500.39 ppb	17:28:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1776992.6	98.495	%	0.3702				0.38%
Sc RADIAL	136134.3	97.2	%	0.86				0.88%
Y 371.029	1033324.8	97.733	%	0.4056				0.41%
Ag 328.068†	121075.6	501.87	µg/L	0.524	501.87	ppb	0.524	0.10%
QC value within limits for Ag 328.068 Recovery = 100.37%								
Al 396.153Radial†	23379.2	4899.0	µg/L	16.93	4899.0	ppb	16.93	0.35%
QC value within limits for Al 396.153Radial Recovery = 97.98%								
As 188.979†	1321.0	454.05	µg/L	2.573	454.05	ppb	2.573	0.57%
QC value within limits for As 188.979 Recovery = 90.81%								
B 249.677†	31665.0	490.70	µg/L	2.400	490.70	ppb	2.400	0.49%
QC value within limits for B 249.677 Recovery = 98.14%								
Ba 233.527†	110807.4	492.93	µg/L	0.560	492.93	ppb	0.560	0.11%
QC value within limits for Ba 233.527 Recovery = 98.59%								
Be 313.107†	1666489.9	482.88	µg/L	0.276	482.88	ppb	0.276	0.06%
QC value within limits for Be 313.107 Recovery = 96.58%								
Ca 317.933Radial†	73953.4	5036.9	µg/L	11.70	5036.9	ppb	11.70	0.23%
QC value within limits for Ca 317.933Radial Recovery = 100.74%								
Cd 226.502†	74336.6	502.11	µg/L	0.801	502.11	ppb	0.801	0.16%
QC value within limits for Cd 226.502 Recovery = 100.42%								
Co 228.616†	38035.3	503.44	µg/L	1.930	503.44	ppb	1.930	0.38%

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   QC value within limits for Co 228.616  Recovery = 100.69%
Cr 267.716†            57582.0      498.01 µg/L         0.814      498.01 ppb          0.814   0.16%
   QC value within limits for Cr 267.716  Recovery = 99.60%
Cu 324.752†           118513.8      497.26 µg/L         0.571      497.26 ppb          0.571   0.11%
   QC value within limits for Cu 324.752  Recovery = 99.45%
Fe 238.204 Radial†     66966.4      5001.0 µg/L          7.53      5001.0 ppb           7.53   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.02%
K 766.490 Radial†      12736.8      5042.8 µg/L          5.42      5042.8 ppb           5.42   0.11%
   QC value within limits for K 766.490 Radial  Recovery = 100.86%
Mg 279.077 IEC†        10840.0      5013.1 µg/L         25.08      5013.1 ppb          25.08   0.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.26%
Mn 257.610†           376338.8      499.02 µg/L         0.131      499.02 ppb          0.131   0.03%
   QC value within limits for Mn 257.610  Recovery = 99.80%
Mo 202.031†            15216.9      498.11 µg/L         3.167      498.11 ppb          3.167   0.64%
   QC value within limits for Mo 202.031  Recovery = 99.62%
Na 589.592 Radial†     64518.3      9996.4 µg/L         29.25      9996.4 ppb          29.25   0.29%
   QC value within limits for Na 589.592 Radial  Recovery = 99.96%
Ni 231.604†            40060.3      501.20 µg/L         0.966      501.20 ppb          0.966   0.19%
   QC value within limits for Ni 231.604  Recovery = 100.24%
P 214.914†             10693.9      2465.2 µg/L         17.20      2465.2 ppb          17.20   0.70%
   QC value within limits for P 214.914  Recovery = 98.61%
Pb 220.353†             8117.7      501.09 µg/L         3.244      501.09 ppb          3.244   0.65%
   QC value within limits for Pb 220.353  Recovery = 100.22%
S 181.975 Axial†        1171.4      989.62 µg/L        10.354      989.62 ppb         10.354   1.05%
   QC value within limits for S 181.975 Axial  Recovery = 98.96%
Sb 206.836†             3818.8      493.54 µg/L         5.034      493.54 ppb          5.034   1.02%
   QC value within limits for Sb 206.836  Recovery = 98.71%
Se 196.026†             1259.4         498 µg/L           2.9         498 ppb            2.9   0.59%
   QC value within limits for Se 196.026  Recovery = 99.68%
SiO2†                  49943.6      5267.7 µg/L          6.60      5267.7 ppb           6.60   0.13%
   QC value within limits for SiO2  Recovery = 98.51%
Si 251.611†           157612.8      2475.5 µg/L          4.83      2475.5 ppb           4.83   0.20%
   QC value within limits for Si 251.611  Recovery = 99.02%
Sn 189.927†             7040.4      490.02 µg/L         3.549      490.02 ppb          3.549   0.72%
   QC value within limits for Sn 189.927  Recovery = 98.00%
Sr 421.552†           212871.1      502.01 µg/L         3.625      502.01 ppb          3.625   0.72%
   QC value within limits for Sr 421.552  Recovery = 100.40%
Ti 334.940†           481736.7      494.14 µg/L         0.298      494.14 ppb          0.298   0.06%
   QC value within limits for Ti 334.940  Recovery = 98.83%
Tl 190.801†             3614.0      500.92 µg/L         4.721      500.92 ppb          4.721   0.94%
   QC value within limits for Tl 190.801  Recovery = 100.18%
U 409.014†              7549.5      506.70 µg/L         3.037      506.70 ppb          3.037   0.60%
   QC value within limits for U 409.014  Recovery = 101.34%
V 292.402†             95703.3      502.65 µg/L         0.309      502.65 ppb          0.309   0.06%
   QC value within limits for V 292.402  Recovery = 100.53%
Zn 213.857†            84139.1      498.51 µg/L         1.641      498.51 ppb          1.641   0.33%
   QC value within limits for Zn 213.857  Recovery = 99.70%
All analyte(s) passed QC.
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Sequence No.: 50
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 4/5/2010 17:28:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136904.7	136904.7	97.7	%			17:29:09
1	Al 396.153Radial†	-106.0	-29.9	-6.3055	µg/L	-6.3055	ppb	17:29:29
1	Ca 317.933Radial†	640.7	84.1	5.7301	µg/L	5.7301	ppb	17:29:29
1	Fe 238.204 Radial†	166.6	53.2	3.9696	µg/L	3.9696	ppb	17:29:29
1	K 766.490 Radial†	1592.6	135.9	53.852	µg/L	53.852	ppb	17:29:09
1	Mg 279.077 IEC†	172.7	4.3	1.9741	µg/L	1.9741	ppb	17:29:29
1	Na 589.592 Radial†	1164.0	238.6	36.933	µg/L	36.933	ppb	17:29:09
1	Sr 421.552†	-155.5	45.3	0.1069	µg/L	0.1069	ppb	17:29:09
1	Sc 361.383	1790505.4	1790505.4	99.244	%			17:30:31
1	Y 371.029	1053608.0	1053608.0	99.651	%			17:30:31
1	Ag 328.068†	4173.1	-360.2	-1.4814	µg/L	-1.4814	ppb	17:30:33
1	As 188.979†	-12.0	6.5	2.2030	µg/L	2.2030	ppb	17:30:54
1	B 249.677†	3984.8	-49.9	-0.7780	µg/L	-0.7780	ppb	17:30:33
1	Ba 233.527†	-162.7	-19.4	-0.0861	µg/L	-0.0861	ppb	17:30:54
1	Be 313.107†	-601.3	485.9	0.1396	µg/L	0.1396	ppb	17:30:33
1	Cd 226.502†	-85.8	16.9	0.1143	µg/L	0.1143	ppb	17:30:54
1	Co 228.616†	-178.6	30.3	0.4007	µg/L	0.4007	ppb	17:30:54
1	Cr 267.716†	226.2	-5.3	-0.0424	µg/L	-0.0424	ppb	17:30:54
1	Cu 324.752†	2823.7	-190.9	-0.8008	µg/L	-0.8008	ppb	17:30:33
1	Mn 257.610†	288.4	105.9	0.1404	µg/L	0.1404	ppb	17:30:54
1	Mo 202.031†	-27.7	10.7	0.3505	µg/L	0.3505	ppb	17:30:54
1	Ni 231.604†	-63.4	32.0	0.4000	µg/L	0.4000	ppb	17:30:54
1	P 214.914†	43.4	69.4	16.046	µg/L	16.046	ppb	17:30:54
1	Pb 220.353†	89.8	-13.0	-0.7938	µg/L	-0.7938	ppb	17:30:54
1	S 181.975 Axial†	85.3	-3.0	-2.5004	µg/L	-2.5004	ppb	17:30:54
1	Sb 206.836†	64.3	-25.0	-3.2138	µg/L	-3.2138	ppb	17:30:54
1	Se 196.026†	20.4	14.4	5.66	µg/L	5.66	ppb	17:30:54
1	SiO2†	1717.6	-8.4	-0.8980	µg/L	-0.8980	ppb	17:30:54
1	Si 251.611†	1112.0	353.4	5.5708	µg/L	5.5708	ppb	17:30:33
1	Sn 189.927†	-2.6	-4.5	-0.3134	µg/L	-0.3134	ppb	17:30:54
1	Ti 334.940†	598.4	-220.0	-0.2244	µg/L	-0.2244	ppb	17:30:33
1	Tl 190.801†	-114.9	-1.5	-0.2054	µg/L	-0.2054	ppb	17:30:54
1	U 409.014†	-223.3	-61.7	-3.9000	µg/L	-3.9000	ppb	17:30:33
1	V 292.402†	392.0	-28.2	-0.1456	µg/L	-0.1456	ppb	17:30:33
1	Zn 213.857†	564.6	65.9	0.3909	µg/L	0.3909	ppb	17:30:54
2	Sc RADIAL	137422.4	137422.4	98.1	%			17:29:31
2	Al 396.153Radial†	-79.4	-2.4	-0.5235	µg/L	-0.5235	ppb	17:29:51
2	Ca 317.933Radial†	651.7	92.9	6.3264	µg/L	6.3264	ppb	17:29:51
2	Fe 238.204 Radial†	165.1	51.0	3.8070	µg/L	3.8070	ppb	17:29:51
2	K 766.490 Radial†	1641.3	179.4	71.092	µg/L	71.092	ppb	17:29:31
2	Mg 279.077 IEC†	174.3	5.2	2.4027	µg/L	2.4027	ppb	17:29:51
2	Na 589.592 Radial†	1206.1	277.1	42.885	µg/L	42.885	ppb	17:29:31
2	Sr 421.552†	-208.9	-8.5	-0.0200	µg/L	-0.0200	ppb	17:29:31
2	Sc 361.383	1783725.3	1783725.3	98.868	%			17:30:56
2	Y 371.029	1049520.1	1049520.1	99.264	%			17:30:56
2	Ag 328.068†	4139.0	-378.7	-1.5381	µg/L	-1.5381	ppb	17:30:58
2	As 188.979†	-8.4	10.0	3.3930	µg/L	3.3930	ppb	17:31:18
2	B 249.677†	3936.5	-83.6	-1.3008	µg/L	-1.3008	ppb	17:30:58
2	Ba 233.527†	-132.7	10.3	0.0460	µg/L	0.0460	ppb	17:31:18
2	Be 313.107†	-732.9	350.4	0.1040	µg/L	0.1040	ppb	17:30:58
2	Cd 226.502†	-64.2	38.4	0.2596	µg/L	0.2596	ppb	17:31:18
2	Co 228.616†	-188.2	19.9	0.2636	µg/L	0.2636	ppb	17:31:18
2	Cr 267.716†	215.9	-14.9	-0.1351	µg/L	-0.1351	ppb	17:31:18
2	Cu 324.752†	2700.5	-304.7	-1.2669	µg/L	-1.2669	ppb	17:30:58
2	Mn 257.610†	275.9	94.3	0.1250	µg/L	0.1250	ppb	17:31:18
2	Mo 202.031†	-23.5	14.8	0.4848	µg/L	0.4848	ppb	17:31:18
2	Ni 231.604†	-48.5	46.9	0.5865	µg/L	0.5865	ppb	17:31:18
2	P 214.914†	18.7	44.6	10.317	µg/L	10.317	ppb	17:31:18
2	Pb 220.353†	109.5	7.3	0.4435	µg/L	0.4435	ppb	17:31:18

2	S 181.975 Axial†	84.9	-3.0	-2.5608	µg/L	-2.5608 ppb	17:31:18
2	Sb 206.836†	75.0	-13.8	-1.7722	µg/L	-1.7722 ppb	17:31:18
2	Se 196.026†	28.7	22.9	9.04	µg/L	9.04 ppb	17:31:18
2	SiO2†	1786.0	67.4	7.1221	µg/L	7.1221 ppb	17:31:18
2	Si 251.611†	932.9	176.5	2.7782	µg/L	2.7782 ppb	17:30:58
2	Sn 189.927†	-0.3	-2.2	-0.1545	µg/L	-0.1545 ppb	17:31:18
2	Ti 334.940†	723.1	-91.6	-0.0974	µg/L	-0.0974 ppb	17:30:58
2	Tl 190.801†	-128.3	-15.5	-2.1132	µg/L	-2.1132 ppb	17:31:18
2	U 409.014†	-32.6	130.4	8.2400	µg/L	8.2400 ppb	17:30:58
2	V 292.402†	456.3	38.3	0.2080	µg/L	0.2080 ppb	17:30:58
2	Zn 213.857†	549.7	53.0	0.3132	µg/L	0.3132 ppb	17:31:18
3	Sc RADIAL	135539.0	135539.0	96.7	%		17:29:53
3	Al 396.153Radial†	-81.5	-5.7	-1.2163	µg/L	-1.2163 ppb	17:30:13
3	Ca 317.933Radial†	639.9	90.0	6.1294	µg/L	6.1294 ppb	17:30:13
3	Fe 238.204 Radial†	159.6	47.6	3.5551	µg/L	3.5551 ppb	17:30:13
3	K 766.490 Radial†	1483.7	39.8	15.747	µg/L	15.747 ppb	17:29:53
3	Mg 279.077 IEC†	178.1	11.6	5.3731	µg/L	5.3731 ppb	17:30:13
3	Na 589.592 Radial†	1194.0	281.6	43.643	µg/L	43.643 ppb	17:29:53
3	Sr 421.552†	-273.9	-78.6	-0.1854	µg/L	-0.1854 ppb	17:29:53
3	Sc 361.383	1786924.6	1786924.6	99.045	%		17:31:20
3	Y 371.029	1051272.3	1051272.3	99.430	%		17:31:20
3	Ag 328.068†	4162.9	-362.1	-1.4924	µg/L	-1.4924 ppb	17:31:22
3	As 188.979†	-14.1	4.3	1.4647	µg/L	1.4647 ppb	17:31:42
3	B 249.677†	4015.8	-10.6	-0.1649	µg/L	-0.1649 ppb	17:31:22
3	Ba 233.527†	-169.4	-26.5	-0.1179	µg/L	-0.1179 ppb	17:31:42
3	Be 313.107†	-502.7	584.1	0.1674	µg/L	0.1674 ppb	17:31:22
3	Cd 226.502†	-95.0	7.4	0.0501	µg/L	0.0501 ppb	17:31:42
3	Co 228.616†	-207.0	1.3	0.0164	µg/L	0.0164 ppb	17:31:42
3	Cr 267.716†	263.7	33.0	0.2898	µg/L	0.2898 ppb	17:31:42
3	Cu 324.752†	2641.2	-369.5	-1.5495	µg/L	-1.5495 ppb	17:31:22
3	Mn 257.610†	244.0	61.6	0.0816	µg/L	0.0816 ppb	17:31:42
3	Mo 202.031†	-30.3	8.0	0.2624	µg/L	0.2624 ppb	17:31:42
3	Ni 231.604†	-49.8	45.6	0.5709	µg/L	0.5709 ppb	17:31:42
3	P 214.914†	19.8	45.7	10.588	µg/L	10.588 ppb	17:31:42
3	Pb 220.353†	117.8	15.5	0.9562	µg/L	0.9562 ppb	17:31:42
3	S 181.975 Axial†	86.8	-1.3	-1.0977	µg/L	-1.0977 ppb	17:31:42
3	Sb 206.836†	93.4	4.6	0.5927	µg/L	0.5927 ppb	17:31:42
3	Se 196.026†	8.8	2.7	1.06	µg/L	1.06 ppb	17:31:42
3	SiO2†	1807.0	85.4	9.0215	µg/L	9.0215 ppb	17:31:42
3	Si 251.611†	1037.1	280.1	4.4084	µg/L	4.4084 ppb	17:31:22
3	Sn 189.927†	11.4	9.6	0.6633	µg/L	0.6633 ppb	17:31:42
3	Ti 334.940†	504.2	-314.0	-0.3205	µg/L	-0.3205 ppb	17:31:22
3	Tl 190.801†	-131.7	-18.7	-2.5537	µg/L	-2.5537 ppb	17:31:42
3	U 409.014†	-253.4	-92.5	-5.8483	µg/L	-5.8483 ppb	17:31:22
3	V 292.402†	376.5	-43.1	-0.2237	µg/L	-0.2237 ppb	17:31:22
3	Zn 213.857†	565.0	67.4	0.3996	µg/L	0.3996 ppb	17:31:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787051.8	99.052	%	0.1880				0.19%
Sc RADIAL	136622.0	97.5	%	0.69				0.71%
Y 371.029	1051466.8	99.449	%	0.1940				0.20%
Ag 328.068†	-367.0	-1.5039	µg/L	0.03006	-1.5039	ppb	0.03006	2.00%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-12.7	-2.6818	µg/L	3.15730	-2.6818	ppb	3.15730	117.73%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.0	2.3535	µg/L	0.97291	2.3535	ppb	0.97291	41.34%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-48.0	-0.7479	µg/L	0.56851	-0.7479	ppb	0.56851	76.02%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-11.9	-0.0527	µg/L	0.08692	-0.0527	ppb	0.08692	165.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	473.5	0.1370	µg/L	0.03181	0.1370	ppb	0.03181	23.22%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	89.0	6.0620	µg/L	0.30381	6.0620	ppb	0.30381	5.01%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	20.9	0.1413	µg/L	0.10736	0.1413	ppb	0.10736	75.97%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.2	0.2269	µg/L	0.19473	0.2269	ppb	0.19473	85.82%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                4.3      0.0374 µg/L       0.22343      0.0374 ppb        0.22343 596.95%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -288.4     -1.2057 µg/L       0.37809     -1.2057 ppb        0.37809  31.36%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        50.6      3.7772 µg/L       0.20888      3.7772 ppb        0.20888   5.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        118.4      46.897 µg/L       28.3205      46.897 ppb        28.3205  60.39%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            7.0      3.2500 µg/L       1.85113      3.2500 ppb        1.85113  56.96%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               87.3      0.1156 µg/L       0.03050      0.1156 ppb        0.03050  26.37%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               11.2      0.3659 µg/L       0.11200      0.3659 ppb        0.11200  30.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       265.8      41.154 µg/L        3.6745      41.154 ppb         3.6745   8.93%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               41.5      0.5191 µg/L       0.10346      0.5191 ppb        0.10346  19.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                53.2      12.317 µg/L        3.2325      12.317 ppb         3.2325  26.24%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                3.3      0.2019 µg/L       0.89967      0.2019 ppb        0.89967 445.49%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.4     -2.0530 µg/L       0.82787     -2.0530 ppb        0.82787  40.33%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -11.4     -1.4644 µg/L       1.92181     -1.4644 ppb        1.92181 131.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               13.3        5.25 µg/L         4.003        5.25 ppb          4.003  76.23%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     48.1      5.0819 µg/L       5.26504      5.0819 ppb        5.26504 103.60%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              270.0      4.2525 µg/L       1.40278      4.2525 ppb        1.40278  32.99%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                0.9      0.0651 µg/L       0.52410      0.0651 ppb        0.52410 804.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -13.9     -0.0328 µg/L       0.14659     -0.0328 ppb        0.14659 446.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -208.5     -0.2141 µg/L       0.11187     -0.2141 ppb        0.11187  52.26%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -11.9     -1.6241 µg/L       1.24822     -1.6241 ppb        1.24822  76.86%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -7.9     -0.5027 µg/L       7.63388     -0.5027 ppb        7.63388 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -11.0     -0.0538 µg/L       0.22999     -0.0538 ppb        0.22999 427.88%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               62.1      0.3679 µg/L       0.04758      0.3679 ppb        0.04758  12.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, May 13, 2010 20:48:03
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100506\Sample.247
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2215.4	2215.372	27.963	1.3
	Mg	24.0	28497.0	28496.998	360.156	1.3
	Co	58.9	43057.8	43057.794	293.314	0.7
	Rh	102.9	93901.4	93901.410	585.698	0.6
	In	114.9	113114.1	113114.058	460.706	0.4
	Pb	208.0	81352.8	81352.795	674.021	0.8
⌈>	Ba	137.9	105443.9	105443.938	697.378	0.7
⌊	Ba++	69.0	1312.7	0.012	0.000	2.0
⌈>	Ce	139.9	131287.2	131287.151	1189.318	0.9
⌊	CeO	155.9	1826.9	0.014	0.000	1.0
	Bkgd	220.0	12.4	12.400	2.945	23.8

Current Optimization File Data

Current Value	Description
0.92	Nebulizer Gas Flow
9.00	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.3	3486.4
Co	59	17	8.3	42946.5
In	115	17	9.5	104183.2

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	586	2080	0.639
Be	9.0	9.0	2052	2080	0.634
Mg	24.0	24.0	5684	2120	0.613
Mg	25.0	25.0	5922	2080	0.630
Mg	26.0	25.9	6176	2120	0.683
Co	58.9	59.0	14186	2170	0.628
Rh	102.9	102.9	24852	2230	0.692
In	114.9	114.8	27769	2260	0.685
Ce	139.9	139.9	33853	2280	0.746
Pb	206.0	206.0	49948	2426	0.753
Pb	207.0	207.1	50149	2385	0.692
Pb	208.0	208.0	50451	2430	0.711
U	238.1	238.1	57733	2470	0.705

Report Date/Time: Thursday, May 13, 2010 20:45:32

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, May 14, 2010 04:40:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\Blank.106

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		20	
>	Sc	45		ug/L		888205	
	Mn	55		ug/L		992	
	Ge	74		ug/L		250224	
	Cd	111		ug/L		36	
	Cd	114		ug/L		65	
>	In	115		ug/L		153968	
	Sb	121		ug/L		144	
	Sb	123		ug/L		108	
>	Lu	175		ug/L		233344	
	Tl	205		ug/L		1224	
	Pb	208		ug/L		516	
	U	238		ug/L		440	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	
Pb	208	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, May 14, 2010 04:45:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\Standard 1.107

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**10.000**	**ug/L**	2.860	3368	0.004
|>	Sc	45		**ug/L**		890223	890223.009
⌊	Mn	55	**10.000**	**ug/L**	1.006	60185	0.066
	Ge	74		**ug/L**		252681	2457.039
⌈	Cd	111	**10.000**	**ug/L**	1.726	9414	0.061
|	Cd	114		**ug/L**		22278	0.144
|>	In	115		**ug/L**		154467	154466.975
|	Sb	121	**10.000**	**ug/L**	0.709	32831	0.212
⌊	Sb	123		**ug/L**		25537	0.165
⌈>	Lu	175		**ug/L**		232078	232077.609
|	Tl	205	**10.000**	**ug/L**	0.759	92296	0.392
|	Pb	208	**10.000**	**ug/L**	1.098	147852	0.635
⌊	U	238	**10.000**	**ug/L**	1.249	163786	0.704

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, May 14, 2010 04:50:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\Standard 2.108

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**100.000**	**ug/L**	1.017	32925	0.038
| >	Sc	45		**ug/L**		874191	874190.561
⌊	Mn	55	**99.999**	**ug/L**	1.647	581582	0.664
	Ge	74		**ug/L**		245452	-4772.532
⌈	Cd	111	**100.050**	**ug/L**	0.327	96381	0.640
|	Cd	114		**ug/L**		219751	1.459
| >	In	115		**ug/L**		150616	150616.362
|	Sb	121	**100.033**	**ug/L**	0.245	329760	2.188
⌊	Sb	123		**ug/L**		258664	1.717
⌈ >	Lu	175		**ug/L**		227020	227019.595
|	Tl	205	**100.001**	**ug/L**	1.628	893096	3.929
|	Pb	208	**100.007**	**ug/L**	0.515	1451764	6.393
⌊	U	238	**99.964**	**ug/L**	0.655	1542913	6.795

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, May 14, 2010 04:55:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 1.109

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**53.054**	**ug/L**	2.452	17381	0.020
|>	Sc	45		**ug/L**		869387	869386.705
⌊	Mn	55	**53.140**	**ug/L**	1.508	307815	0.353
	Ge	74		**ug/L**		247143	-3080.777
⌈	Cd	111	**50.896**	**ug/L**	1.283	49465	0.325
|	Cd	114		**ug/L**		114009	0.750
|>	In	115		**ug/L**		151902	151902.348
|	Sb	121	**51.253**	**ug/L**	0.853	170470	1.121
⌊	Sb	123		**ug/L**		132043	0.869
⌈>	Lu	175		**ug/L**		226613	226612.978
|	Tl	205	**52.023**	**ug/L**	1.434	464334	2.044
|	Pb	208	**51.951**	**ug/L**	1.252	753005	3.321
⌊	U	238	**55.169**	**ug/L**	1.697	850094	3.750

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9	106.107				
|>	Sc	45		97.9			
⌊	Mn	55	106.280				
	Ge	74					
⌈	Cd	111	101.792				
|	Cd	114					
|>	In	115		98.7			
|	Sb	121	102.507				
⌊	Sb	123					
⌈>	Lu	175		97.1			
|	Tl	205	104.046				
|	Pb	208	103.902				
⌊	U	238	110.339				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	U	238	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, May 14, 2010 04:59:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 2.110

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.009**	**ug/L**	32.750	17	-0.000
|>	Sc	45		**ug/L**		888061	888060.530
⌊	Mn	55	**-0.015**	**ug/L**	43.891	903	-0.000
	Ge	74		**ug/L**		253522	3297.864
⌈	Cd	111	**-0.016**	**ug/L**	76.837	20	-0.000
|	Cd	114		**ug/L**		57	-0.000
|>	In	115		**ug/L**		155319	155318.590
|	Sb	121	**0.012**	**ug/L**	60.631	186	0.000
⌊	Sb	123		**ug/L**		151	0.000
⌈>	Lu	175		**ug/L**		229819	229819.214
|	Tl	205	**0.029**	**ug/L**	10.975	1465	0.001
|	Pb	208	**-0.009**	**ug/L**	61.112	371	-0.001
⌊	U	238	**-0.005**	**ug/L**	149.961	361	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.0			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		100.9			
	Sb	121					
	Sb	123					
>	Lu	175		98.5			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, May 14, 2010 05:04:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 3.111

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.616**	**ug/L**	4.800	228	0.000
>	Sc	45		**ug/L**		897802	897802.376
	Mn	55	**5.946**	**ug/L**	1.315	36456	0.039
	Ge	74		**ug/L**		253874	3649.772
	Cd	111	**1.120**	**ug/L**	2.174	1162	0.007
	Cd	114		**ug/L**		2543	0.016
>	In	115		**ug/L**		157134	157134.013
	Sb	121	**3.012**	**ug/L**	2.233	10499	0.066
	Sb	123		**ug/L**		8124	0.051
>	Lu	175		**ug/L**		234291	234291.201
	Tl	205	**1.076**	**ug/L**	2.509	11128	0.042
	Pb	208	**2.241**	**ug/L**	1.758	34079	0.143
	U	238	**0.327**	**ug/L**	1.312	5644	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	123.137				
|>	Sc	45		101.1			
⌊	Mn	55	118.912				
	Ge	74					
⌈	Cd	111	112.012				
|	Cd	114					
|>	In	115		102.1			
|	Sb	121	150.613				
⌊	Sb	123					
⌈>	Lu	175		100.4			
|	Tl	205	107.555				
|	Pb	208	112.062				
⌊	U	238	163.348				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Sb	121	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, May 14, 2010 05:09:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 4.112

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.062**	**ug/L**	11.220	35	0.000
|>	Sc	45		**ug/L**		768027	768026.687
⌊	Mn	55	**5.422**	**ug/L**	1.177	28516	0.036
	Ge	74		**ug/L**		217190	-33033.711
⌈	Cd	111	**0.282**	**ug/L**	35.664	284	0.002
|	Cd	114		**ug/L**		4887	0.035
|>	In	115		**ug/L**		139804	139803.871
|	Sb	121	**0.030**	**ug/L**	3.310	223	0.001
⌊	Sb	123		**ug/L**		176	0.001
⌈>	Lu	175		**ug/L**		212443	212442.791
|	Tl	205	**-0.072**	**ug/L**	1.226	517	-0.003
|	Pb	208	**0.189**	**ug/L**	3.679	3032	0.012
⌊	U	238	**-0.022**	**ug/L**	1.333	85	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		86.5			
⌊	Mn	55	93.476				
	Ge	74					
⌈	Cd	111	70.392				
|	Cd	114					
|>	In	115		90.8			
|	Sb	121	30.048				
⌊	Sb	123					
⌈>	Lu	175		91.0			
|	Tl	205					
|	Pb	208	94.326				
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, May 14, 2010 05:14:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 5.113

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.273**	**ug/L**	1.678	5411	0.007
>	Sc	45		**ug/L**		743420	743420.152
	Mn	55	**24.574**	**ug/L**	1.589	122159	0.163
	Ge	74		**ug/L**		212143	-38080.749
	Cd	111	**18.195**	**ug/L**	0.812	16025	0.116
	Cd	114		**ug/L**		41292	0.300
>	In	115		**ug/L**		137479	137478.538
	Sb	121	**19.238**	**ug/L**	0.674	57991	0.421
	Sb	123		**ug/L**		44722	0.325
>	Lu	175		**ug/L**		209886	209886.361
	Tl	205	**18.574**	**ug/L**	0.495	154270	0.730
	Pb	208	**18.899**	**ug/L**	0.690	254027	1.208
	U	238	**20.292**	**ug/L**	0.770	289883	1.379

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	96.364				
|>	Sc	45		83.7			
⌊	Mn	55	95.247				
	Ge	74					
⌈	Cd	111	89.193				
|	Cd	114					
|>	In	115		89.3			
|	Sb	121	95.711				
⌊	Sb	123					
⌈>	Lu	175		89.9			
|	Tl	205	92.869				
|	Pb	208	93.561				
⌊	U	238	101.462				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, May 14, 2010 05:19:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 6.114

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**50.422**	**ug/L**	1.305	15478	0.019
|>	Sc	45		**ug/L**		814562	814561.679
⌊	Mn	55	**54.091**	**ug/L**	2.104	293547	0.359
	Ge	74		**ug/L**		237732	-12492.596
⌈	Cd	111	**50.743**	**ug/L**	0.996	47875	0.324
|	Cd	114		**ug/L**		110716	0.750
|>	In	115		**ug/L**		147462	147461.811
|	Sb	121	**51.340**	**ug/L**	0.805	165765	1.123
⌊	Sb	123		**ug/L**		129235	0.876
⌈>	Lu	175		**ug/L**		219297	219296.562
|	Tl	205	**51.541**	**ug/L**	0.204	445242	2.025
|	Pb	208	**52.150**	**ug/L**	0.595	731529	3.334
⌊	U	238	**53.983**	**ug/L**	0.220	805078	3.669

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	100.845				
|>	Sc	45		91.7			
⌊	Mn	55	108.182				
	Ge	74					
⌈	Cd	111	101.485				
|	Cd	114					
|>	In	115		95.8			
|	Sb	121	102.681				
⌊	Sb	123					
⌈>	Lu	175		94.0			
|	Tl	205	103.083				
|	Pb	208	104.300				
⌊	U	238	107.966				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, May 14, 2010 05:23:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 7.115

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.005**	**ug/L**	505.055	20	0.000
>	Sc	45		**ug/L**		837066	837065.790
	Mn	55	**-0.017**	**ug/L**	15.116	841	-0.000
	Ge	74		**ug/L**		241132	-9092.461
	Cd	111	**-0.003**	**ug/L**	355.332	32	-0.000
	Cd	114		**ug/L**		62	-0.000
>	In	115		**ug/L**		148311	148310.656
	Sb	121	**0.027**	**ug/L**	17.182	226	0.001
	Sb	123		**ug/L**		175	0.000
>	Lu	175		**ug/L**		221371	221370.884
	Tl	205	**0.024**	**ug/L**	34.013	1366	0.001
	Pb	208	**-0.003**	**ug/L**	255.355	447	-0.000
	U	238	**-0.002**	**ug/L**	281.354	381	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		94.2			
⌊	Mn	55					
	Ge	74					
⌈	Cd	111					
|	Cd	114					
|>	In	115		96.3			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		94.9			
|	Tl	205					
|	Pb	208					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Friday, May 14, 2010 05:28:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 10.116

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**980.892**	**ug/L**	1.325	251419	0.369
|>	Sc	45		**ug/L**		680840	680839.851
⌊	Mn	55	**1030.702**	**ug/L**	1.605	4661517	6.846
	Ge	74		**ug/L**		200595	-49629.528
⌈	Cd	111	**980.572**	**ug/L**	2.214	790658	6.269
|	Cd	114		**ug/L**		1890327	14.989
|>	In	115		**ug/L**		126149	126148.752
|	Sb	121	**271.675**	**ug/L**	2.310	749660	5.944
⌊	Sb	123		**ug/L**		592210	4.695
⌈>	Lu	175		**ug/L**		200860	200859.922
|	Tl	205	**490.631**	**ug/L**	0.564	3872925	19.277
|	Pb	208	**5031.590**	**ug/L**	1.387	64600162	321.638
⌊	U	238	**5416.621**	**ug/L**	0.137	73950925	368.172

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	98.089				
>	Sc	45		76.7			
	Mn	55	103.070				
	Ge	74					
	Cd	111	98.057				
	Cd	114					
>	In	115		81.9			
	Sb	121	108.670				
	Sb	123					
>	Lu	175		86.1			
	Tl	205	98.126				
	Pb	208	100.632				
	U	238	108.332				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Friday, May 14, 2010 05:33:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 11.117

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**49.502**	**ug/L**	3.097	14672	0.019
|>	Sc	45		**ug/L**		786584	786583.962
⌊	Mn	55	**53.316**	**ug/L**	0.666	279432	0.354
	Ge	74		**ug/L**		230179	-20044.904
⌈	Cd	111	**49.923**	**ug/L**	1.200	46479	0.319
|	Cd	114		**ug/L**		108689	0.747
|>	In	115		**ug/L**		145520	145519.662
|	Sb	121	**50.706**	**ug/L**	1.387	161552	1.109
⌊	Sb	123		**ug/L**		126118	0.866
⌈>	Lu	175		**ug/L**		216021	216021.285
|	Tl	205	**51.542**	**ug/L**	1.319	438555	2.025
|	Pb	208	**52.051**	**ug/L**	0.832	719201	3.327
⌊	U	238	**53.015**	**ug/L**	0.143	778836	3.603

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	99.004				
>	Sc	45		88.6			
	Mn	55	106.632				
	Ge	74					
	Cd	111	99.847				
	Cd	114					
>	In	115		94.5			
	Sb	121	101.413				
	Sb	123					
>	Lu	175		92.6			
	Tl	205	103.083				
	Pb	208	104.101				
	U	238	106.031				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Friday, May 14, 2010 05:38:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 12.118

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.000**	**ug/L**	3075.021	18	-0.000
|>	Sc	45		**ug/L**		805332	805331.832
⌊	Mn	55	**0.007**	**ug/L**	117.583	939	0.000
	Ge	74		**ug/L**		233577	-16646.730
⌈	Cd	111	**0.002**	**ug/L**	749.914	36	0.000
|	Cd	114		**ug/L**		77	0.000
|>	In	115		**ug/L**		145235	145234.791
|	Sb	121	**0.037**	**ug/L**	4.900	253	0.001
⌊	Sb	123		**ug/L**		197	0.001
⌈>	Lu	175		**ug/L**		218181	218180.982
|	Tl	205	**0.118**	**ug/L**	2.724	2154	0.005
|	Pb	208	**0.079**	**ug/L**	54.619	1589	0.005
⌊	U	238	**0.082**	**ug/L**	40.784	1627	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.7			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		94.3			
	Sb	121					
	Sb	123					
>	Lu	175		93.5			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, May 14, 2010 06:21:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 8.127

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**48.684**	**ug/L**	1.728	16180	0.018
| >	Sc	45		**ug/L**		881742	881741.700
⌊	Mn	55	**49.654**	**ug/L**	0.855	291779	0.330
	Ge	74		**ug/L**		246395	-3828.836
⌈	Cd	111	**47.857**	**ug/L**	3.323	46475	0.306
|	Cd	114		**ug/L**		107570	0.708
| >	In	115		**ug/L**		151830	151829.841
|	Sb	121	**49.546**	**ug/L**	2.545	164676	1.084
⌊	Sb	123		**ug/L**		126659	0.834
⌈>	Lu	175		**ug/L**		229282	229282.292
|	Tl	205	**49.302**	**ug/L**	0.703	445347	1.937
|	Pb	208	**49.156**	**ug/L**	0.980	720942	3.142
⌊	U	238	**51.801**	**ug/L**	0.955	807712	3.521

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	97.367				
>	Sc	45		99.3			
	Mn	55	99.307				
	Ge	74					
	Cd	111	95.715				
	Cd	114					
>	In	115		98.6			
	Sb	121	99.092				
	Sb	123					
>	Lu	175		98.3			
	Tl	205	98.603				
	Pb	208	98.311				
	U	238	103.603				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, May 14, 2010 06:26:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 9.128

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.002**	**ug/L**	195.713	19	-0.000
|>	Sc	45		**ug/L**		889777	889777.337
⌊	Mn	55	**-0.021**	**ug/L**	17.707	870	-0.000
	Ge	74		**ug/L**		252294	2069.939
⌈	Cd	111	**-0.012**	**ug/L**	135.217	24	-0.000
|	Cd	114		**ug/L**		45	-0.000
|>	In	115		**ug/L**		155412	155412.450
|	Sb	121	**0.002**	**ug/L**	43.307	154	0.000
⌊	Sb	123		**ug/L**		126	0.000
⌈>	Lu	175		**ug/L**		235875	235875.368
|	Tl	205	**0.129**	**ug/L**	9.385	2433	0.005
|	Pb	208	**-0.010**	**ug/L**	25.400	369	-0.001
⌊	U	238	**-0.007**	**ug/L**	45.401	336	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.2			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		100.9			
	Sb	121					
	Sb	123					
>	Lu	175		101.1			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202071970
Sample Date/Time: Friday, May 14, 2010 06:31:07
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\1202071970.129

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.021**	**ug/L**	71.406	13	-0.000
|>	Sc	45		**ug/L**		910497	910497.257
⌊	Mn	55	**0.102**	**ug/L**	3.349	1636	0.001
	Ge	74		**ug/L**		252816	2592.199
⌈	Cd	111	**-0.020**	**ug/L**	17.998	16	-0.000
|	Cd	114		**ug/L**		29	-0.000
|>	In	115		**ug/L**		158909	158909.456
|	Sb	121	**-0.021**	**ug/L**	16.755	77	-0.000
⌊	Sb	123		**ug/L**		67	-0.000
⌈>	Lu	175		**ug/L**		242505	242504.507
|	Tl	205	**0.018**	**ug/L**	42.341	1445	0.001
|	Pb	208	**-0.009**	**ug/L**	9.191	393	-0.001
⌊	U	238	**-0.017**	**ug/L**	6.581	176	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.5			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		103.2			
	Sb	121					
	Sb	123					
>	Lu	175		103.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202071971
Sample Date/Time: Friday, May 14, 2010 06:35:56
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 965591|40|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\1202071971.130

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**23.097**	**ug/L**	2.286	7726	0.009
|>	Sc	45		**ug/L**		886402	886402.122
⌊	Mn	55	**163.464**	**ug/L**	0.784	963457	1.086
	Ge	74		**ug/L**		247109	-3114.766
⌈	Cd	111	**18.647**	**ug/L**	1.543	18219	0.119
|	Cd	114		**ug/L**		42209	0.276
|>	In	115		**ug/L**		152517	152517.434
|	Sb	121	**11.197**	**ug/L**	2.736	37497	0.245
⌊	Sb	123		**ug/L**		29075	0.190
⌈>	Lu	175		**ug/L**		231233	231233.349
|	Tl	205	**36.316**	**ug/L**	0.537	331150	1.427
|	Pb	208	**26.281**	**ug/L**	0.385	388975	1.680
⌊	U	238	**0.551**	**ug/L**	0.695	9099	0.037

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.8			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		99.1			
	Sb	121					
	Sb	123					
>	Lu	175		99.1			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 249244001
Sample Date/Time: Friday, May 14, 2010 06:40:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\249244001.131

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**2.265**	**ug/L**	4.585	810	0.001
|>	Sc	45		**ug/L**		925936	925935.641
⌊	Mn	55	**1858.716**	**ug/L**	1.217	11432343	12.346
	Ge	74		**ug/L**		240208	-10016.294
⌈	Cd	111	**0.918**	**ug/L**	7.142	941	0.006
|	Cd	114		**ug/L**		1055	0.006
|>	In	115		**ug/L**		154197	154196.740
|	Sb	121	**0.228**	**ug/L**	3.884	915	0.005
⌊	Sb	123		**ug/L**		738	0.004
⌈>	Lu	175		**ug/L**		245305	245304.996
|	Tl	205	**0.509**	**ug/L**	4.803	6196	0.020
|	Pb	208	**200.101**	**ug/L**	0.645	3138236	12.791
⌊	U	238	**2.436**	**ug/L**	0.190	41073	0.166

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		104.2			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		100.1			
	Sb	121					
	Sb	123					
>	Lu	175		105.1			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Cr 53 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202071972
Sample Date/Time: Friday, May 14, 2010 06:45:35
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\1202071972.132

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**2.579**	**ug/L**	2.225	941	0.001
|>	Sc	45		**ug/L**		947783	947782.988
⌊	Mn	55	**1241.366**	**ug/L**	0.742	7815786	8.246
	Ge	74		**ug/L**		240112	-10111.855
⌈	Cd	111	**1.175**	**ug/L**	2.153	1189	0.008
|	Cd	114		**ug/L**		675	0.004
|>	In	115		**ug/L**		153370	153370.007
|	Sb	121	**0.187**	**ug/L**	5.009	769	0.004
⌊	Sb	123		**ug/L**		593	0.003
⌈>	Lu	175		**ug/L**		249987	249987.324
|	Tl	205	**0.541**	**ug/L**	1.281	6630	0.021
|	Pb	208	**81.144**	**ug/L**	1.169	1297138	5.187
⌊	U	238	**3.011**	**ug/L**	0.418	51639	0.205

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		106.7			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		99.6			
	Sb	121					
	Sb	123					
>	Lu	175		107.1			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Cr 53 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202071973
Sample Date/Time: Friday, May 14, 2010 06:50:25
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\1202071973.133

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**24.139**	**ug/L**	2.949	8581	0.009
| >	Sc	45		**ug/L**		941962	941962.170
⌊	Mn	55	**813.450**	**ug/L**	0.831	5090493	5.403
	Ge	74		**ug/L**		240955	-9268.806
⌈	Cd	111	**5.636**	**ug/L**	2.830	5555	0.036
|	Cd	114		**ug/L**		10893	0.071
| >	In	115		**ug/L**		153215	153215.390
|	Sb	121	**31.480**	**ug/L**	2.517	105634	0.689
⌊	Sb	123		**ug/L**		81831	0.534
⌈>	Lu	175		**ug/L**		244714	244714.009
|	Tl	205	**46.427**	**ug/L**	0.718	447664	1.824
|	Pb	208	**150.425**	**ug/L**	0.390	2353605	9.616
⌊	U	238	**27.924**	**ug/L**	0.508	464936	1.898

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		106.1			
⌊	Mn	55					
	Ge	74					
⌈	Cd	111					
|	Cd	114					
|>	In	115		99.5			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		104.9			
|	Tl	205					
|	Pb	208					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202071975
Sample Date/Time: Friday, May 14, 2010 06:55:14
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\1202071975.134

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**23.598**	**ug/L**	1.717	8437	0.009
|>	Sc	45		**ug/L**		947424	947423.860
⌊	Mn	55	**854.843**	**ug/L**	0.251	5380598	5.678
	Ge	74		**ug/L**		242635	-7589.512
⌈	Cd	111	**5.594**	**ug/L**	3.162	5539	0.036
|	Cd	114		**ug/L**		10685	0.069
|>	In	115		**ug/L**		153879	153878.633
|	Sb	121	**24.501**	**ug/L**	1.402	82621	0.536
⌊	Sb	123		**ug/L**		64688	0.420
⌈>	Lu	175		**ug/L**		244366	244366.092
|	Tl	205	**43.808**	**ug/L**	0.732	421879	1.721
|	Pb	208	**155.212**	**ug/L**	0.540	2425033	9.922
⌊	U	238	**27.316**	**ug/L**	0.918	454162	1.857

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		106.7			
⌊	Mn	55					
	Ge	74					
⌈	Cd	111					
|	Cd	114					
|>	In	115		99.9			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		104.7			
|	Tl	205					
|	Pb	208					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202071974
Sample Date/Time: Friday, May 14, 2010 07:00:04
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 965591|2|rmj 10x KLP 5/17/10
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\1202071974.135

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.494**	ug/L	7.819	186	0.000
|>	Sc	45		ug/L		894377	894376.531
⌊	Mn	55	**392.940**	ug/L	0.152	2335333	2.610
	Ge	74		ug/L		243413	-6810.656
⌈	Cd	111	**0.168**	ug/L	22.145	197	0.001
|	Cd	114		ug/L		248	0.001
|>	In	115		ug/L		150193	150193.185
|	Sb	121	**0.045**	ug/L	12.212	287	0.001
⌊	Sb	123		ug/L		232	0.001
⌈>	Lu	175		ug/L		232681	232681.259
|	Tl	205	**0.165**	ug/L	3.186	2731	0.006
|	Pb	208	**42.910**	ug/L	0.313	638761	2.743
⌊	U	238	**0.497**	ug/L	3.707	8303	0.034

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.7			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		97.5			
	Sb	121					
	Sb	123					
>	Lu	175		99.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, May 14, 2010 07:04:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 8.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**49.949**	**ug/L**	2.049	16693	0.019
|>	Sc	45		**ug/L**		886718	886717.684
⌊	Mn	55	**50.169**	**ug/L**	0.730	296469	0.333
	Ge	74		**ug/L**		246808	-3416.007
⌈	Cd	111	**47.794**	**ug/L**	2.217	46609	0.306
|	Cd	114		**ug/L**		106184	0.696
|>	In	115		**ug/L**		152459	152458.860
|	Sb	121	**48.564**	**ug/L**	2.302	162073	1.062
⌊	Sb	123		**ug/L**		125499	0.823
⌈>	Lu	175		**ug/L**		230208	230208.395
|	Tl	205	**49.248**	**ug/L**	1.515	446621	1.935
|	Pb	208	**48.485**	**ug/L**	0.954	713969	3.099
⌊	U	238	**52.347**	**ug/L**	1.678	819544	3.558

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	99.899				
>	Sc	45		99.8			
	Mn	55	100.337				
	Ge	74					
	Cd	111	95.588				
	Cd	114					
>	In	115		99.0			
	Sb	121	97.128				
	Sb	123					
>	Lu	175		98.7			
	Tl	205	98.497				
	Pb	208	96.970				
	U	238	104.694				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, May 14, 2010 07:09:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 9.137

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.014**	**ug/L**	98.851	16	-0.000
|>	Sc	45		**ug/L**		902671	902670.621
⌊	Mn	55	**0.004**	**ug/L**	135.984	1032	0.000
	Ge	74		**ug/L**		255940	5715.481
⌈	Cd	111	**-0.013**	**ug/L**	12.345	24	-0.000
|	Cd	114		**ug/L**		32	-0.000
|>	In	115		**ug/L**		157724	157724.140
|	Sb	121	**-0.004**	**ug/L**	70.346	132	-0.000
⌊	Sb	123		**ug/L**		112	0.000
⌈>	Lu	175		**ug/L**		237851	237851.101
|	Tl	205	**0.053**	**ug/L**	33.582	1739	0.002
|	Pb	208	**-0.014**	**ug/L**	3.160	309	-0.001
⌊	U	238	**-0.011**	**ug/L**	7.535	278	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.6			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		102.4			
	Sb	121					
	Sb	123					
>	Lu	175		101.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 249244002
Sample Date/Time: Friday, May 14, 2010 07:14:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\249244002.138

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**3.029**	**ug/L**	2.254	1124	0.001
|>	Sc	45		**ug/L**		966734	966733.761
⌊	Mn	55	**1513.395**	**ug/L**	1.037	9718576	10.052
	Ge	74		**ug/L**		240713	-9511.584
⌈	Cd	111	**1.094**	**ug/L**	2.905	1107	0.007
|	Cd	114		**ug/L**		1279	0.008
|>	In	115		**ug/L**		153041	153040.586
|	Sb	121	**0.232**	**ug/L**	6.596	920	0.005
⌊	Sb	123		**ug/L**		731	0.004
⌈>	Lu	175		**ug/L**		246442	246441.697
|	Tl	205	**0.692**	**ug/L**	1.760	7989	0.027
|	Pb	208	**74.574**	**ug/L**	1.317	1175261	4.767
⌊	U	238	**4.689**	**ug/L**	0.526	79015	0.319

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		108.8			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		99.4			
	Sb	121					
	Sb	123					
>	Lu	175		105.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Cr 53 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 249244003
Sample Date/Time: Friday, May 14, 2010 07:19:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\249244003.139

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**2.942**	**ug/L**	0.942	1094	0.001
|>	Sc	45		**ug/L**		968069	968069.011
⌊	Mn	55	**1255.994**	**ug/L**	0.704	8077181	8.343
	Ge	74		**ug/L**		242276	-7947.894
⌈	Cd	111	**0.747**	**ug/L**	5.650	772	0.005
|	Cd	114		**ug/L**		561	0.003
|>	In	115		**ug/L**		154132	154131.961
|	Sb	121	**0.129**	**ug/L**	8.019	578	0.003
⌊	Sb	123		**ug/L**		459	0.002
⌈>	Lu	175		**ug/L**		246047	246047.243
|	Tl	205	**0.667**	**ug/L**	0.710	7739	0.026
|	Pb	208	**53.114**	**ug/L**	0.688	835928	3.395
⌊	U	238	**3.291**	**ug/L**	1.265	55510	0.224

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		109.0			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		100.1			
	Sb	121					
	Sb	123					
>	Lu	175		105.4			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Cr 53 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 249244004
Sample Date/Time: Friday, May 14, 2010 07:24:11
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\249244004.140

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**3.277**	**ug/L**	1.573	1229	0.001
| >	Sc	45		**ug/L**		978450	978450.165
⌊	Mn	55	**1168.855**	**ug/L**	0.654	7597479	7.764
	Ge	74		**ug/L**		237059	-13165.379
⌈	Cd	111	**0.729**	**ug/L**	3.681	748	0.005
|	Cd	114		**ug/L**		489	0.003
| >	In	115		**ug/L**		152721	152720.762
|	Sb	121	**0.102**	**ug/L**	4.108	482	0.002
⌊	Sb	123		**ug/L**		402	0.002
⌈>	Lu	175		**ug/L**		245117	245117.441
|	Tl	205	**0.673**	**ug/L**	1.834	7770	0.026
|	Pb	208	**51.618**	**ug/L**	0.210	809336	3.300
⌊	U	238	**3.643**	**ug/L**	0.792	61149	0.248

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		110.2			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		99.2			
	Sb	121					
	Sb	123					
>	Lu	175		105.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Cr 53 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 249244005
Sample Date/Time: Friday, May 14, 2010 07:29:00
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\249244005.141

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**1.467**	**ug/L**	3.609	531	0.001
|>	Sc	45		**ug/L**		923986	923985.752
⌊	Mn	55	**245.507**	**ug/L**	1.051	1507728	1.631
	Ge	74		**ug/L**		242857	-7366.943
⌈	Cd	111	**0.522**	**ug/L**	9.679	549	0.003
|	Cd	114		**ug/L**		199	0.001
|>	In	115		**ug/L**		153607	153607.278
|	Sb	121	**0.076**	**ug/L**	5.516	399	0.002
⌊	Sb	123		**ug/L**		317	0.001
⌈>	Lu	175		**ug/L**		242945	242944.790
|	Tl	205	**0.130**	**ug/L**	2.806	2520	0.005
|	Pb	208	**25.286**	**ug/L**	2.175	393142	1.616
⌊	U	238	**2.072**	**ug/L**	1.092	34676	0.141

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		104.0			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		99.8			
	Sb	121					
	Sb	123					
>	Lu	175		104.1			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 249244006
Sample Date/Time: Friday, May 14, 2010 07:33:50
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\249244006.142

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**1.702**	**ug/L**	4.757	624	0.001
|>	Sc	45		**ug/L**		940862	940861.825
⌊	Mn	55	**589.381**	**ug/L**	1.390	3684041	3.915
	Ge	74		**ug/L**		247145	-3079.375
⌈	Cd	111	**0.648**	**ug/L**	7.708	690	0.004
|	Cd	114		**ug/L**		467	0.003
|>	In	115		**ug/L**		157495	157495.151
|	Sb	121	**0.133**	**ug/L**	5.541	604	0.003
⌊	Sb	123		**ug/L**		460	0.002
⌈>	Lu	175		**ug/L**		250657	250656.728
|	Tl	205	**0.227**	**ug/L**	0.835	3551	0.009
|	Pb	208	**40.137**	**ug/L**	0.993	643665	2.566
⌊	U	238	**2.186**	**ug/L**	1.089	37720	0.149

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		105.9			
⌊	Mn	55					
	Ge	74					
⌈	Cd	111					
|	Cd	114					
|>	In	115		102.3			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		107.4			
|	Tl	205					
|	Pb	208					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, May 14, 2010 07:38:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 6.143

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**53.182**	**ug/L**	1.282	17826	0.020
|>	Sc	45		**ug/L**		889415	889414.677
⌊	Mn	55	**52.587**	**ug/L**	0.823	311646	0.349
	Ge	74		**ug/L**		245376	-4848.142
⌈	Cd	111	**50.405**	**ug/L**	2.057	48680	0.322
|	Cd	114		**ug/L**		111357	0.737
|>	In	115		**ug/L**		150977	150976.543
|	Sb	121	**50.587**	**ug/L**	1.861	167195	1.107
⌊	Sb	123		**ug/L**		129273	0.856
⌈>	Lu	175		**ug/L**		227903	227903.313
|	Tl	205	**52.195**	**ug/L**	1.178	468554	2.051
|	Pb	208	**51.813**	**ug/L**	1.854	755217	3.312
⌊	U	238	**55.845**	**ug/L**	0.584	865526	3.796

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	106.364				
>	Sc	45		100.1			
	Mn	55	105.173				
	Ge	74					
	Cd	111	100.811				
	Cd	114					
>	In	115		98.1			
	Sb	121	101.173				
	Sb	123					
>	Lu	175		97.7			
	Tl	205	104.391				
	Pb	208	103.626				
	U	238	111.689				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, May 14, 2010 07:43:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\bemncdsbpbtlu.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 7.144

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.026**	**ug/L**	48.128	12	-0.000
|>	Sc	45		**ug/L**		903779	903779.208
⌊	Mn	55	**0.009**	**ug/L**	164.280	1064	0.000
	Ge	74		**ug/L**		256622	6397.537
⌈	Cd	111	**-0.017**	**ug/L**	59.083	20	-0.000
|	Cd	114		**ug/L**		42	-0.000
|>	In	115		**ug/L**		155728	155727.791
|	Sb	121	**0.003**	**ug/L**	159.247	157	0.000
⌊	Sb	123		**ug/L**		123	0.000
⌈>	Lu	175		**ug/L**		237854	237853.785
|	Tl	205	**-0.008**	**ug/L**	17.735	1171	-0.000
|	Pb	208	**-0.009**	**ug/L**	87.998	394	-0.001
⌊	U	238	**-0.006**	**ug/L**	83.708	359	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.8			
	Mn	55					
	Ge	74					
	Cd	111					
	Cd	114					
>	In	115		101.1			
	Sb	121					
	Sb	123					
>	Lu	175		101.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Sunday, May 16, 2010 01:07:32
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100514\Sample.055
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2339.6	2339.592	19.090	0.8
	Mg	24.0	25603.9	25603.930	455.992	1.8
	Co	58.9	48892.5	48892.529	434.034	0.9
	Rh	102.9	98321.8	98321.812	869.656	0.9
	In	114.9	115666.6	115666.596	992.170	0.9
	Pb	208.0	70973.1	70973.077	667.426	0.9
⌈>	Ba	137.9	103925.4	103925.427	730.014	0.7
⌊	Ba++	69.0	2227.5	0.021	0.000	1.1
⌈>	Ce	139.9	131288.1	131288.140	839.689	0.6
⌊	CeO	155.9	2031.9	0.015	0.000	1.1
	Bkgd	220.0	15.3	15.300	2.707	17.7

Current Optimization File Data

Current Value	Description
0.89	Nebulizer Gas Flow
9.00	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	19	7.8	3385.4
Co	59	19	8.8	48064.4
In	115	19	10.3	112863.8

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.1	598	2080	0.553
Be	9.0	9.0	2058	2080	0.585
Mg	24.0	24.0	5692	2120	0.588
Mg	25.0	25.1	5917	2080	0.634
Mg	26.0	26.0	6173	2120	0.633
Co	58.9	58.9	14182	2170	0.597
Rh	102.9	102.9	24862	2230	0.671
In	114.9	115.0	27792	2260	0.657
Ce	139.9	140.0	33863	2280	0.719
Pb	206.0	206.0	49948	2426	0.704
Pb	207.0	207.0	50161	2385	0.699
Pb	208.0	207.9	50439	2430	0.730
U	238.1	238.1	57733	2470	0.721

Report Date/Time: Sunday, May 16, 2010 01:04:54

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, May 16, 2010 04:11:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\Blank.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		942086	
	Ni	60		ug/L		109	
>	Ge	74		ug/L		283312	
	As	75		ug/L		-102	
	Se	77		ug/L		4753	
	Se	82		ug/L		-9	
	Kr	83		ug/L		112	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, May 16, 2010 04:15:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\Standard 1.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		991747	991747.279
	Ni	60	10.000	ug/L	1.098	10832	0.011
>	Ge	74		ug/L		287112	287112.362
	As	75	10.000	ug/L	8.205	7895	0.028
	Se	77		ug/L		7878	0.011
	Se	82	10.000	ug/L	7.781	742	0.003
	Kr	83		ug/L		108	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, May 16, 2010 04:19:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\Standard 2.046

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		1001771	1001771.488
	Ni	60	100.028	ug/L	0.871	111524	0.111
>	Ge	74		ug/L		294695	294694.767
	As	75	100.026	ug/L	0.844	84172	0.286
	Se	77		ug/L		14124	0.031
	Se	82	99.992	ug/L	2.712	7644	0.026
	Kr	83		ug/L		131	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, May 16, 2010 04:24:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 1.047

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		1036682	1036682.167
	Ni	60	**52.148**	ug/L	0.640	60223	0.058
>	Ge	74		ug/L		304402	304402.428
	As	75	**52.409**	ug/L	0.202	45506	0.150
	Se	77		ug/L		12089	0.023
	Se	82	**51.766**	ug/L	0.819	4084	0.013
	Kr	83		ug/L		112	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
>	Sc	45		110.0			
	Ni	60	104.295				
>	Ge	74		107.4			
	As	75	104.817				
	Se	77					
	Se	82	103.532				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, May 16, 2010 04:28:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 2.048

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		1012465	1012464.880
⌊	Ni	60	-0.001	ug/L	1277.925	115	-0.000
⌈>	Ge	74		ug/L		303993	303993.148
|	As	75	0.197	ug/L	125.710	61	0.001
|	Se	77		ug/L		6179	0.004
|	Se	82	0.050	ug/L	220.074	-6	0.000
⌊	Kr	83		ug/L		115	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		107.5			
⌊	Ni	60					
⌈>	Ge	74		107.3			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, May 16, 2010 04:32:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 3.049

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		1050724	1050724.284
⌊	Ni	60	2.262	ug/L	2.911	2763	0.003
⌈>	Ge	74		ug/L		302509	302509.399
|	As	75	5.971	ug/L	2.618	5056	0.017
|	Se	77		ug/L		9377	0.014
|	Se	82	5.959	ug/L	8.667	459	0.002
⌊	Kr	83		ug/L		110	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		111.5			
⌊	Ni	60	113.097				
⌈>	Ge	74		106.8			
|	As	75	119.428				
|	Se	77					
|	Se	82	119.173				
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, May 16, 2010 04:36:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 4.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		941156	941155.889
⌊	Ni	60	3.171	ug/L	1.637	3427	0.004
⌈>	Ge	74		ug/L		273005	273005.495
|	As	75	0.499	ug/L	42.686	292	0.001
|	Se	77		ug/L		10785	0.023
|	Se	82	-0.888	ug/L	53.880	-72	-0.000
⌊	Kr	83		ug/L		216	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		99.9			
⌊	Ni	60	117.453				
⌈>	Ge	74		96.4			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, May 16, 2010 04:41:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 5.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		935370	935369.831
	Ni	60	21.509	ug/L	1.387	22474	0.024
>	Ge	74		ug/L		267472	267472.386
	As	75	21.227	ug/L	3.772	16137	0.061
	Se	77		ug/L		10962	0.024
	Se	82	20.110	ug/L	0.660	1389	0.005
	Kr	83		ug/L		223	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		99.3			
	Ni	60	94.753				
>	Ge	74		94.4			
	As	75	106.134				
	Se	77					
	Se	82	100.549				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, May 16, 2010 04:45:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 6.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		1011764	1011763.591
⌊	Ni	60	52.715	ug/L	0.673	59413	0.059
⌈>	Ge	74		ug/L		294249	294248.815
|	As	75	52.523	ug/L	0.429	44083	0.150
|	Se	77		ug/L		12831	0.027
|	Se	82	52.753	ug/L	1.724	4023	0.014
⌊	Kr	83		ug/L		108	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		107.4			
⌊	Ni	60	105.430				
⌈>	Ge	74		103.9			
|	As	75	105.046				
|	Se	77					
|	Se	82	105.506				
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, May 16, 2010 04:49:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 7.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		990825	990824.619
	Ni	60	0.018	ug/L	64.658	134	0.000
>	Ge	74		ug/L		298029	298029.447
	As	75	-0.174	ug/L	24.743	-256	-0.000
	Se	77		ug/L		7061	0.007
	Se	82	-0.050	ug/L	333.452	-13	-0.000
	Kr	83		ug/L		119	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		105.2			
	Ni	60					
>	Ge	74		105.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202071970
Sample Date/Time: Sunday, May 16, 2010 04:53:43
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\1202071970.054

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		1017107	1017107.470
	Ni	60	0.015	ug/L	30.592	134	0.000
>	Ge	74		ug/L		304370	304369.816
	As	75	0.213	ug/L	83.549	75	0.001
	Se	77		ug/L		5162	0.000
	Se	82	0.228	ug/L	127.538	8	0.000
	Kr	83		ug/L		95	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		108.0			
	Ni	60					
>	Ge	74		107.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202071971
Sample Date/Time: Sunday, May 16, 2010 04:57:58
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 965591|40|rmj
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\1202071971.055

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		1042566	1042565.673
	Ni	60	41.281	ug/L	1.133	47970	0.046
>	Ge	74		ug/L		303598	303598.017
	As	75	30.789	ug/L	2.703	26612	0.088
	Se	77		ug/L		11827	0.022
	Se	82	85.328	ug/L	2.600	6719	0.022
	Kr	83		ug/L		123	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		110.7			
	Ni	60					
>	Ge	74		107.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 249244001
Sample Date/Time: Sunday, May 16, 2010 05:02:14
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\249244001.056

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		1033058	1033057.995
	Ni	60	28.216	ug/L	0.596	32530	0.031
>	Ge	74		ug/L		290278	290278.179
	As	75	9.358	ug/L	1.669	7661	0.027
	Se	77		ug/L		4088	-0.003
	Se	82	0.385	ug/L	61.810	20	0.000
	Kr	83		ug/L		160	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		109.7			
	Ni	60					
>	Ge	74		102.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202071972
Sample Date/Time: Sunday, May 16, 2010 05:06:29
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\1202071972.057

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		1008775	1008775.367
⌊	Ni	60	30.410	ug/L	0.389	34223	0.034
⌈>	Ge	74		ug/L		280244	280244.344
|	As	75	7.403	ug/L	2.619	5832	0.021
|	Se	77		ug/L		3786	-0.003
|	Se	82	0.406	ug/L	59.246	21	0.000
⌊	Kr	83		ug/L		197	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		107.1			
⌊	Ni	60					
⌈>	Ge	74		98.9			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202071973
Sample Date/Time: Sunday, May 16, 2010 05:10:44
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\1202071973.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		1031685	1031684.708
	Ni	60	44.785	ug/L	1.357	51485	0.050
>	Ge	74		ug/L		289827	289827.114
	As	75	43.910	ug/L	0.988	36282	0.126
	Se	77		ug/L		4191	-0.002
	Se	82	8.962	ug/L	3.657	666	0.002
	Kr	83		ug/L		169	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		109.5			
	Ni	60					
>	Ge	74		102.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202071975
Sample Date/Time: Sunday, May 16, 2010 05:16:10
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\1202071975.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		1041628	1041628.368
⌊	Ni	60	52.326	ug/L	1.795	60713	0.058
⌈>	Ge	74		ug/L		288845	288845.075
|	As	75	42.840	ug/L	1.055	35277	0.122
|	Se	77		ug/L		4200	-0.002
|	Se	82	8.217	ug/L	4.350	607	0.002
⌊	Kr	83		ug/L		182	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		110.6			
⌊	Ni	60					
⌈>	Ge	74		102.0			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202071974
Sample Date/Time: Sunday, May 16, 2010 05:20:25
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 965591|10|rmj
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\1202071974.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		983478	983477.700
⌊	Ni	60	5.924	ug/L	1.420	6591	0.007
⌈>	Ge	74		ug/L		290319	290319.283
|	As	75	1.964	ug/L	17.089	1527	0.006
|	Se	77		ug/L		4910	0.000
|	Se	82	0.161	ug/L	107.978	3	0.000
⌊	Kr	83		ug/L		114	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		104.4			
⌊	Ni	60					
⌈>	Ge	74		102.5			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 249244002
Sample Date/Time: Sunday, May 16, 2010 05:24:41
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\249244002.061

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		1055789	1055789.338
	Ni	60	36.333	ug/L	1.409	42771	0.040
>	Ge	74		ug/L		289588	289587.555
	As	75	9.304	ug/L	3.527	7599	0.027
	Se	77		ug/L		3605	-0.004
	Se	82	0.299	ug/L	69.418	13	0.000
	Kr	83		ug/L		192	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		112.1			
	Ni	60					
>	Ge	74		102.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, May 16, 2010 05:28:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 6.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		1011370	1011370.418
⌊	Ni	60	51.449	ug/L	1.006	57971	0.057
⌈>	Ge	74		ug/L		294604	294603.645
|	As	75	52.254	ug/L	1.828	43913	0.149
|	Se	77		ug/L		10743	0.020
|	Se	82	52.222	ug/L	2.826	3987	0.014
⌊	Kr	83		ug/L		111	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		107.4			
⌊	Ni	60	102.898				
⌈>	Ge	74		104.0			
|	As	75	104.508				
|	Se	77					
|	Se	82	104.444				
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, May 16, 2010 05:33:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 7.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		994961	994960.817
⌊	Ni	60	0.026	ug/L	32.533	144	0.000
⌈>	Ge	74		ug/L		297896	297896.302
|	As	75	0.026	ug/L	564.739	-86	0.000
|	Se	77		ug/L		5496	0.002
|	Se	82	0.156	ug/L	61.432	3	0.000
⌊	Kr	83		ug/L		118	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		105.6			
⌊	Ni	60					
⌈>	Ge	74		105.1			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 249244003
Sample Date/Time: Sunday, May 16, 2010 05:37:24
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\249244003.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		1055793	1055792.718
	Ni	60	35.969	ug/L	0.144	42344	0.040
>	Ge	74		ug/L		289773	289773.159
	As	75	8.190	ug/L	2.181	6680	0.023
	Se	77		ug/L		3482	-0.005
	Se	82	-0.021	ug/L	2486.644	-11	-0.000
	Kr	83		ug/L		208	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		112.1			
	Ni	60					
>	Ge	74		102.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 249244004
Sample Date/Time: Sunday, May 16, 2010 05:41:40
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\249244004.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		1073870	1073869.641
	Ni	60	**37.780**	ug/L	0.988	45228	0.042
>	Ge	74		ug/L		288715	288714.672
	As	75	**10.284**	ug/L	3.395	8383	0.029
	Se	77		ug/L		3431	-0.005
	Se	82	**-0.271**	ug/L	148.443	-30	-0.000
	Kr	83		ug/L		230	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		114.0			
	Ni	60					
>	Ge	74		101.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 249244005
Sample Date/Time: Sunday, May 16, 2010 05:45:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\249244005.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		1009233	1009232.754
⌊	Ni	60	13.037	ug/L	1.271	14744	0.014
⌈>	Ge	74		ug/L		287181	287180.531
|	As	75	2.904	ug/L	8.633	2280	0.008
|	Se	77		ug/L		3380	-0.005
|	Se	82	0.192	ug/L	122.784	5	0.000
⌊	Kr	83		ug/L		154	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		107.1			
⌊	Ni	60					
⌈>	Ge	74		101.4			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 249244006
Sample Date/Time: Sunday, May 16, 2010 05:50:11
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 965591|2|rmj
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\249244006.067

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		998857	998857.055
⌊	Ni	60	**16.438**	ug/L	0.867	18371	0.018
⌈>	Ge	74		ug/L		284598	284597.711
|	As	75	**5.067**	ug/L	3.346	4021	0.014
|	Se	77		ug/L		3373	-0.005
|	Se	82	**0.106**	ug/L	20.409	-1	0.000
⌊	Kr	83		ug/L		176	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		106.0			
⌊	Ni	60					
⌈>	Ge	74		100.5			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, May 16, 2010 05:54:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 6.068

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		968577	968576.574
	Ni	60	52.110	ug/L	1.821	56216	0.058
>	Ge	74		ug/L		285879	285879.274
	As	75	52.979	ug/L	1.547	43203	0.151
	Se	77		ug/L		9817	0.018
	Se	82	52.317	ug/L	2.075	3876	0.014
	Kr	83		ug/L		120	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		102.8			
	Ni	60	104.220				
>	Ge	74		100.9			
	As	75	105.957				
	Se	77					
	Se	82	104.635				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, May 16, 2010 05:58:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asseni.mth
Dataset File: C:\elandata\Dataset\100515\QC Std 7.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		975584	975583.832
	Ni	60	0.024	ug/L	37.804	139	0.000
>	Ge	74		ug/L		293143	293142.797
	As	75	-0.138	ug/L	301.918	-220	-0.000
	Se	77		ug/L		5018	0.000
	Se	82	-0.090	ug/L	266.037	-16	-0.000
	Kr	83		ug/L		117	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		103.6			
	Ni	60					
>	Ge	74		103.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========
Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 03/31/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 033110S1.SIF Results Data Set Name: 033110S1

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 03/31/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0038	0.0038	08:38:47	No
2			0.0037	0.0037	08:39:22	No
Mean:			0.0037			
SD :			0.0000			
%RSD:			1.2670			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 03/31/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0015	0.0052	08:40:44	No
2			0.0015	0.0052	08:41:18	No
Mean:			0.0015			
SD :			0.0000			
%RSD:			0.2319			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.00753
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 03/31/2010
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0042	0.0079	08:42:42	No
2			0.0041	0.0078	08:43:16	No
Mean:			0.0041			
SD :			0.0001			
%RSD:			1.6231			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99912 Slope: 0.00834
Intercept : -0.00006

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 03/31/2010
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0170	0.0207	08:44:41	No
2			0.0169	0.0206	08:45:16	No
Mean:			0.0169			
SD :			0.0000			
%RSD:			0.2231			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99994 Slope: 0.00852
Intercept : -0.00010

==========
Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 03/31/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0421	0.0459	08:46:41	No
2			0.0421	0.0459	08:47:16	No
Mean:			0.0421			
SD :			0.0000			
%RSD:						

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99999 Slope: 0.00845
Intercept : -0.00006

==========
Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 03/31/2010
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0829	0.0866	08:48:43	No
2			0.0826	0.0864	08:49:18	No
Mean:			0.0828			
SD :			0.0002			
%RSD:			0.2412			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99995 Slope: 0.00830
Intercept : 0.00011

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0037	---	----	----	----
S0.2	0.0015	0.200	0.169	0.0000	0.2
S0.5	0.0041	0.500	0.487	0.0001	1.6
S2.0	0.0169	2.000	2.030	0.0000	0.2
S5.0	0.0421	5.000	5.065	0.0000	----
S10	0.0828	10.000	9.963	0.0002	0.2

Correlation Coefficient: 0.99995 Slope: 0.00830 Intercept: 0.0001

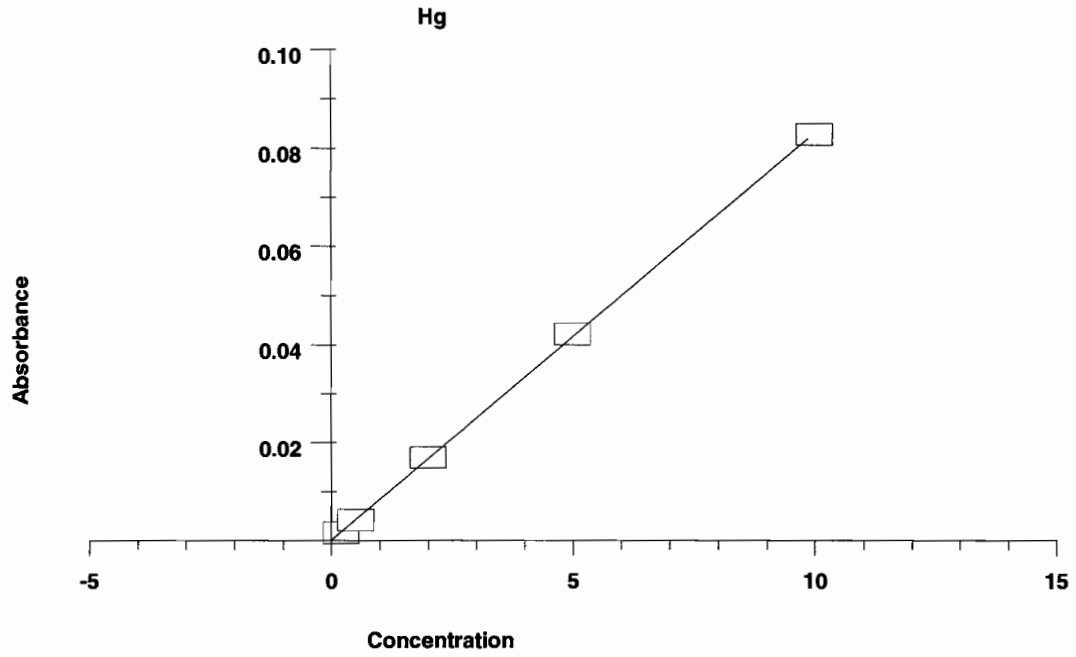

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 03/31/2010

Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.187	5.187	0.0431	0.0469	08:50:47	No
2	5.163	5.163	0.0429	0.0467	08:51:23	No
Mean:	5.175	5.175	0.0430			
SD :	0.0170	0.0170	0.0001			
%RSD:	0.3	0.3	0.3275			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 03/31/2010

Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.028	-0.028	-0.0001	0.0036	08:52:45	No
2	-0.046	-0.046	-0.0003	0.0035	08:53:20	No
Mean:	-0.037	-0.037	-0.0002			
SD :	0.0127	0.0127	0.0001			
%RSD:	34.4	34.4	53.2063			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 03/31/2010

Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.235	0.235	0.0021	0.0058	08:54:43	No
2	0.216	0.216	0.0019	0.0056	08:55:17	No
Mean:	0.226	0.226	0.0020			
SD :	0.0132	0.0132	0.0001			
%RSD:	5.9	5.9	5.5497			

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 03/31/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.169	5.169	0.0430	0.0467	08:56:41	No
2	5.177	5.177	0.0431	0.0468	08:57:16	No
Mean:	5.173	5.173	0.0430			
SD :	0.0058	0.0058	0.0000			
%RSD:	0.1	0.1	0.1122			

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 03/31/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.024	-0.024	-0.0001	0.0036	08:58:44	No
2	-0.029	-0.029	-0.0001	0.0036	08:59:18	No
Mean:	-0.027	-0.027	-0.0001			
SD :	0.0034	0.0034	0.0000			
%RSD:	12.7	12.7	24.7998			

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 03/31/2010
Sample ID: 1202081090|i||969290|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.022	-0.022	-0.0001	0.0037	09:00:44	No
2	-0.035	-0.035	-0.0002	0.0035	09:01:19	No
Mean:	-0.029	-0.029	-0.0001			
SD :	0.0091	0.0091	0.0001			
%RSD:	31.8	31.8	58.2431			

==========

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 03/31/2010
Sample ID: 1202081091|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.697	3.697	0.0308	0.0345	09:02:43	No
2	3.713	3.713	0.0309	0.0346	09:03:18	No
Mean:	3.705	3.705	0.0308			
SD :	0.0115	0.0115	0.0001			
%RSD:	0.3	0.3	0.3105			

==========

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 03/31/2010
Sample ID: 249244001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.323	0.323	0.0028	0.0065	09:04:45	No
2	0.310	0.310	0.0027	0.0064	09:05:20	No
Mean:	0.316	0.316	0.0027			
SD :	0.0090	0.0090	0.0001			
%RSD:	2.8	2.8	2.7306			

==========

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 03/31/2010
Sample ID: 249244002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.478	0.478	0.0041	0.0078	09:06:46	No
2	0.467	0.467	0.0040	0.0077	09:07:21	No
Mean:	0.473	0.473	0.0040			
SD :	0.0081	0.0081	0.0001			
%RSD:	1.7	1.7	1.6667			

Element: Hg Seq. No.: 16 AS Loc.: 16 Date: 03/31/2010
Sample ID: 249244003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.289	0.289	0.0025	0.0062	09:08:49	No
2	0.266	0.266	0.0023	0.0060	09:09:24	No
Mean:	0.278	0.278	0.0024			
SD :	0.0163	0.0163	0.0001			
%RSD:	5.9	5.9	5.6192			

Element: Hg Seq. No.: 17 AS Loc.: 17 Date: 03/31/2010
Sample ID: 249244004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.403	0.403	0.0035	0.0072	09:10:48	No
2	0.392	0.392	0.0034	0.0071	09:11:22	No
Mean:	0.398	0.398	0.0034			
SD :	0.0075	0.0075	0.0001			
%RSD:	1.9	1.9	1.8277			

Element: Hg Seq. No.: 18 AS Loc.: 18 Date: 03/31/2010
Sample ID: 249244005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.187	0.187	0.0017	0.0054	09:12:42	No
2	0.175	0.175	0.0016	0.0053	09:13:17	No
Mean:	0.181	0.181	0.0016			
SD :	0.0082	0.0082	0.0001			
%RSD:	4.5	4.5	4.2166			

Element: Hg Seq. No.: 19 AS Loc.: 19 Date: 03/31/2010
Sample ID: 249244006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.752	0.752	0.0063	0.0101	09:14:39	No
2	0.744	0.744	0.0063	0.0100	09:15:13	No
Mean:	0.748	0.748	0.0063			
SD :	0.0055	0.0055	0.0000			
%RSD:	0.7	0.7	0.7185			

Element: Hg Seq. No.: 20 AS Loc.: 20 Date: 03/31/2010
Sample ID: 249329001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.757	4.757	0.0396	0.0433	09:16:35	No
2	4.765	4.765	0.0396	0.0434	09:17:10	No
Mean:	4.761	4.761	0.0396			
SD :	0.0060	0.0060	0.0000			

```
%RSD:        0.1         0.1     0.1252

==========================================================================================
Element: Hg    Seq. No.: 21       AS Loc.: 21   Date: 03/31/2010
Sample ID: 249329002|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        4.051     4.051    0.0337     0.0374   09:18:32  No
 2        4.060     4.060    0.0338     0.0375   09:19:07  No
Mean:     4.056     4.056    0.0338
SD  :    0.0068    0.0068    0.0001
%RSD:       0.2        0.2    0.1665

==========================================================================================
Element: Hg    Seq. No.: 22       AS Loc.: 7   Date: 03/31/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        5.472     5.472    0.0455     0.0492   09:20:32  No
 2        5.464     5.464    0.0454     0.0492   09:21:07  No
Mean:     5.468     5.468    0.0455
SD  :    0.0061    0.0061    0.0001
%RSD:       0.1        0.1    0.1114
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 23       AS Loc.: 8   Date: 03/31/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.020    -0.020   -0.0001     0.0037   09:22:35  No
 2       -0.022    -0.022   -0.0001     0.0036   09:23:10  No
Mean:    -0.021    -0.021   -0.0001
SD  :    0.0015    0.0015    0.0000
%RSD:       6.8        6.8   17.3510
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 24       AS Loc.: 22   Date: 03/31/2010
Sample ID: 249329003|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        7.730     7.730    0.0643     0.0680   09:24:35  No
 2        7.757     7.757    0.0645     0.0682   09:25:10  No
Mean:     7.744     7.744    0.0644
SD  :    0.0190    0.0190    0.0002
%RSD:       0.2        0.2    0.2450

==========================================================================================
Element: Hg    Seq. No.: 25       AS Loc.: 23   Date: 03/31/2010
Sample ID: 249329004|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        8.932     8.932    0.0742     0.0780   09:26:34  No
 2        8.932     8.932    0.0742     0.0780   09:27:09  No
Mean:     8.932     8.932    0.0742
SD  :    0.0000    0.0000    0.0000
%RSD:

==========================================================================================
Element: Hg    Seq. No.: 26       AS Loc.: 24   Date: 03/31/2010
Sample ID: 249330001|i|||
```

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.205	1.205	0.0101	0.0138	09:28:33	No
2	1.208	1.208	0.0101	0.0139	09:29:08	No
Mean:	1.206	1.206	0.0101			
SD :	0.0019	0.0019	0.0000			
%RSD:	0.2	0.2	0.1572			

Element: Hg Seq. No.: 27 AS Loc.: 25 Date: 03/31/2010
Sample ID: 1202081092|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.248	1.248	0.0105	0.0142	09:30:32	No
2	1.236	1.236	0.0104	0.0141	09:31:07	No
Mean:	1.242	1.242	0.0104			
SD :	0.0085	0.0085	0.0001			
%RSD:	0.7	0.7	0.6753			

Element: Hg Seq. No.: 28 AS Loc.: 26 Date: 03/31/2010
Sample ID: 1202081093|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.509	3.509	0.0292	0.0329	09:32:32	No
2	3.500	3.500	0.0292	0.0329	09:33:06	No
Mean:	3.505	3.505	0.0292			
SD :	0.0057	0.0057	0.0000			
%RSD:	0.2	0.2	0.1622			

Element: Hg Seq. No.: 29 AS Loc.: 27 Date: 03/31/2010
Sample ID: 1202081095|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.695	3.695	0.0308	0.0345	09:34:32	No
2	3.688	3.688	0.0307	0.0344	09:35:06	No
Mean:	3.692	3.692	0.0307			
SD :	0.0054	0.0054	0.0000			
%RSD:	0.1	0.1	0.1458			

Element: Hg Seq. No.: 30 AS Loc.: 28 Date: 03/31/2010
Sample ID: 1202081094|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.160	0.160	0.0014	0.0052	09:36:32	No
2	0.155	0.155	0.0014	0.0051	09:37:07	No
Mean:	0.157	0.157	0.0014			
SD :	0.0036	0.0036	0.0000			
%RSD:	2.3	2.3	2.1296			

Element: Hg Seq. No.: 31 AS Loc.: 29 Date: 03/31/2010
Sample ID: 249330002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.159	1.159	0.0097	0.0134	09:38:33	No
2	1.140	1.140	0.0096	0.0133	09:39:08	No
Mean:	1.149	1.149	0.0096			
SD :	0.0133	0.0133	0.0001			

```
%RSD:       1.2        1.2    1.1418

==========================================================================================
Element: Hg    Seq. No.: 32       AS Loc.: 30   Date: 03/31/2010
Sample ID: 249330003|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        30.55     30.55    0.2536     0.2573   09:40:35  No
Sample absorbance is greater than that of the highest standard.
 2        30.46     30.46    0.2528     0.2566   09:41:09  No
Sample absorbance is greater than that of the highest standard.
Mean:     30.50     30.50    0.2532
SD  :    0.0631    0.0631    0.0005
%RSD:       0.2        0.2    0.2067
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 33       AS Loc.: 31   Date: 03/31/2010
Sample ID: 249330004|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1       111.6     111.6    0.9260     0.9298   09:42:37  No
Sample absorbance is greater than that of the highest standard.
 2       110.6     110.6    0.9182     0.9219   09:43:12  No
Sample absorbance is greater than that of the highest standard.
Mean:    111.1     111.1    0.9221
SD  :   0.6703    0.6703    0.0056
%RSD:       0.6        0.6    0.6032
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 34       AS Loc.: 7    Date: 03/31/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        5.348     5.348    0.0445     0.0482   09:44:39  No
 2        5.346     5.346    0.0445     0.0482   09:45:14  No
Mean:     5.347     5.347    0.0445
SD  :    0.0016    0.0016    0.0000
%RSD:
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 35       AS Loc.: 8    Date: 03/31/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1       -0.050    -0.050   -0.0003     0.0034   09:46:42  No
 2       -0.051    -0.051   -0.0003     0.0034   09:47:17  No
Mean:    -0.051    -0.051   -0.0003
SD  :    0.0007    0.0007    0.0000
%RSD:       1.4        1.4    1.8244
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 36       AS Loc.: 32   Date: 03/31/2010
Sample ID: 249330005|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        20.49     20.49    0.1702     0.1739   09:48:41  No
Sample absorbance is greater than that of the highest standard.
 2        20.50     20.50    0.1702     0.1739   09:49:17  No
```

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **965587.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202071965	Metals Soil LCS SRM ICP/Hg	UI062540-I	.515	g
MS	1202071967	Metals Spike Mix I	UI1268741-01	.25	mL
MS	1202071967	Metals Spike Mix II	UI1268744-06	.25	mL
MSD	1202071969	Metals Spike Mix I	UI1268741-01	.25	mL
MSD	1202071969	Metals Spike Mix II	UI1268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202071964 MB	25-MAR-2010 10:00:00	Soil	0.511	50	97.84736	<2
1202071965 LCS	25-MAR-2010 10:00:00	Soil	0.515	50	97.08738	<2
249244001	25-MAR-2010 10:00:00	Soil	0.511	50	97.84736	<2
1202071966 DUP (249244001)	25-MAR-2010 10:00:00	Soil	0.506	50	98.81423	<2
1202071967 MS (249244001)	25-MAR-2010 10:00:00	Soil	0.51	50	98.03922	<2
1202071969 MSD (249244001)	25-MAR-2010 10:00:00	Soil	0.548	50	91.24088	<2
1202071968 SDILT (249244001)	25-MAR-2010 10:00:00	Soil	0.511	50	97.84736	<2
249244002	25-MAR-2010 10:00:00	Soil	0.524	50	95.41985	<2
249244003	25-MAR-2010 10:00:00	Soil	0.547	50	91.40768	<2
249244004	25-MAR-2010 10:00:00	Soil	0.512	50	97.65625	<2
249244005	25-MAR-2010 10:00:00	Soil	0.519	50	96.33911	<2
249244006	25-MAR-2010 10:00:00	Soil	0.529	50	94.51796	<2

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL
1282566	Nitric Acid CONC.	1.25 mL

Comments:

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 965590.0 **Verified by:** _____

Analyst: Louis Hall

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: Sartorius Balance B-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202071970 MB	26-MAR-2010 10:00:00	0.524	50	95.41985	<2
1202071971 LCS	26-MAR-2010 10:00:00	0.519	50	96.33911	<2
249244001	26-MAR-2010 10:00:00	0.508	50	98.4252	<2
1202071972 DUP (249244001)	26-MAR-2010 10:00:00	0.501	50	99.8004	<2
1202071973 MS (249244001)	26-MAR-2010 10:00:00	0.508	50	98.4252	<2
1202071975 MSD (249244001)	26-MAR-2010 10:00:00	0.533	50	93.80863	<2
1202071974 SDILT (249244001)	26-MAR-2010 10:00:00	0.508	50	98.4252	<2
249244002	26-MAR-2010 10:00:00	0.528	50	94.69697	<2
249244003	26-MAR-2010 10:00:00	0.537	50	93.10987	<2
249244004	26-MAR-2010 10:00:00	0.514	50	97.27626	<2
249244005	26-MAR-2010 10:00:00	0.537	50	93.10987	<2
249244006	26-MAR-2010 10:00:00	0.52	50	96.15385	<2

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202071971	Metals Soil LCS SRM ICPMS	UI062540-MS	.519	g
MS	1202071973	ICP-MS Spike for soil products.	UI1286780-A	.5	mL
MS	1202071973	ICP-MS Spike for Soil Products	UI1286784-B	.5	mL
MSD	1202071975	ICP-MS Spike for soil products.	UI1286780-A	.5	mL
MSD	1202071975	ICP-MS Spike for Soil Products	UI1286784-B	.5	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1282566	5	mL

Comments:

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **969289.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202081091	Metals LCS Soil SRM	UI031809A	.206	g
MS	1202081093	Mercury soil working intermediate standard for MS	WHG100330-14	.3	mL
MSD	1202081095	Mercury soil working intermediate standard for MS	WHG100330-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202081090 MB	30-MAR-2010 13:15:00	Soil	0.506	30	59.28854	
1202081091 LCS	30-MAR-2010 13:15:00	Soil	0.206	30	145.63107	
249244001	30-MAR-2010 13:15:00	Soil	0.581	30	51.63511	
249244002	30-MAR-2010 13:15:00	Soil	0.55	30	54.54545	
249244003	30-MAR-2010 13:15:00	Soil	0.553	30	54.24955	
249244004	30-MAR-2010 13:15:00	Soil	0.553	30	54.24955	
249244005	30-MAR-2010 13:15:00	Soil	0.538	30	55.76208	
249244006	30-MAR-2010 13:15:00	Soil	0.526	30	57.03422	
249329001	30-MAR-2010 13:15:00	Soil	0.53	30	56.60377	
249329002	30-MAR-2010 13:15:00	Soil	0.556	30	53.95683	
249329003	30-MAR-2010 13:15:00	Soil	0.539	30	55.65863	
249329004	30-MAR-2010 13:15:00	Soil	0.571	30	52.5394	
249330001	30-MAR-2010 13:15:00	Soil	0.505	30	59.40594	
1202081092 DUP (249330001)	30-MAR-2010 13:15:00	Soil	0.5	30	60	
1202081093 MS (249330001)	30-MAR-2010 13:15:00	Soil	0.507	30	59.1716	
1202081095 MSD (249330001)	30-MAR-2010 13:15:00	Soil	0.536	30	55.97015	
1202081094 SDILT (249330001)	30-MAR-2010 13:15:00	Soil	0.505	30	59.40594	
249330002	30-MAR-2010 13:15:00	Soil	0.52	30	57.69231	
249330003	30-MAR-2010 13:15:00	Soil	0.524	30	57.25191	
249330004	30-MAR-2010 13:15:00	Soil	0.581	30	51.63511	
249330005	30-MAR-2010 13:15:00	Soil	0.503	30	59.64215	
249330006	30-MAR-2010 13:15:00	Soil	0.519	30	57.80347	
249330007	30-MAR-2010 13:15:00	Soil	0.586	30	51.19454	
249330008	30-MAR-2010 13:15:00	Soil	0.543	30	55.24862	

Reagent/Solvent Lot ID	Description	Amount

Comments:

Prep Logbook

Batch ID: **969289.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202081091	Metals LCS Soil SRM	UI031809A	.206	g
MS	1202081093	Mercury soil working intermediate standard for MS	WHG100330-14	.3	mL
MSD	1202081095	Mercury soil working intermediate standard for MS	WHG100330-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1

Reagent/Solvent Lot ID	Description	Amount
1255532-C	Hg reducing agent	2 mL
1274391-I	NITRIC ACID	.375 mL
1277235-A	Hydrochloric Acid Conc.	1.125 mL
1277238-C	5% KMnO4 solution	7.5 mL
WHG100330-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL
WHG100330-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL
WHG100330-09	Mercury Working 1st Source CAL S 2.0	300 uL
WHG100330-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL
WHG100330-11	Mercury Working 1st Source CAL S 10.0	1.5 mL
WHG100330-12	Mercury Working 2nd Source S 5.0/ICV	750 uL

Comments:

Sample 249330001 is a dry rocky brown soil.

Digestion Start Date: 30-MAR-10 13:15

Digestion End Date: 30-MAR-10 13:45

DER Report No.: 814381
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
06-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
965588	See Below		

Potentially affected work order(s)(SDG): 249244(10-2412)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202071967MS 2. Failed RPD for DUP: QC 1202071966DUP 3. Failed RPD for MS/MSD, or PS/PSD: QC 1202071969MSD 4. Failed Recovery for MSD/PSD: QC 1202071969MSD	1./4. The matrix spike and matrix spike duplicate recovery failed outside of the control limits for calcium,magnesium,manganese and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for barium,calcium,chromium,cobalt,iron,lead,manganese,vanadium and zinc due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for calcium due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:
Helen Camello 07-APR-10

Data Validator/Group Leader:
Christopher Louviere 08-APR-10

DER Report No.: 828178
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
17-MAY-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
965591	See Below		

Potentially affected work order(s)(SDG): 249244(10-2412)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202071973MS	The matrix spike failed outside of the control limits for Ni. The matrix spike duplicate % RPD failed outside of the control limits for Ni. These failures were due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Rose Jenkins 17-MAY-10

Data Validator/Group Leader:

Jamie Johnson 17-MAY-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 22-APR-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100310-49.16 **Opened:** 05-APR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 06-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100401-48 **Opened:** 02-APR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-APR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 16-APR-10 **Lot Number :** 1019463
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L

Analyte	Concentration	Analyte	Concentration
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100405-40 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100405-41 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI

Standard Logbook

Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100509-11 **Opened:** 09-MAY-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 09-MAY-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 09-MAY-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI1268741-01 **Opened:** 11-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI1268744-06 **Opened:** 11-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI1286780-A **Opened:** 16-MAR-10 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 16-MAR-10 **Lot Number :** 1017435
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI1286784-B **Opened:** 16-MAR-10 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 16-MAR-10 **Lot Number :** 1017435
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS100415-03 **Opened:** 15-APR-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100330-01 **Opened:** 30-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 30-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 31-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100330-02 **Opened:** 30-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 31-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100330-07 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Standard Logbook

Serial ID: WHG100330-08 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100330-09 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100330-10 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100330-11 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Standard Logbook

Serial ID: WHG100330-12 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100330-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100330-14 **Opened:** 30-MAR-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 30-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 06-APR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100405-42 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100405-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100405-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100405-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100405-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100405-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100405-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100405-43 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100405-44 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1296961
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100405-45 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100405-46 **Opened:** 05-APR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1296961
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100405-47 **Opened:** 05-APR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL &1%HNO3-1296961
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100515-04 **Opened:** 15-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 15-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 16-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1336568
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100515-04AB **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 15-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 16-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100515-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100515-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100515-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100515-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100515-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100515-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100515-04B **Opened:** 15-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 15-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 16-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1336588
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100515-06B **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 15-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 16-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100515-07B **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 15-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 16-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1336588
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100515-08B **Opened:** 15-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 15-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 16-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1336588
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-08
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Standard Logbook

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1277235-A **Opened:** 01-MAR-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 01-MAR-11
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Standard Logbook

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1282564 **Opened:** 09-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 09-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1282566 **Opened:** 09-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 09-MAR-10
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1296961 **Opened:** 05-APR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-APR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 11-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1302252 **Opened:** 15-APR-10 **Lot Number :** J 10027 L
Name: I-HNO3 **Received:** 15-APR-10
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1302255 **Opened:** 15-APR-10 **Lot Number :** J07033
Name: I-HCL **Received:** 15-APR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1336568 **Opened:** 10-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 10-MAY-10
Type: Reagent/Solvent **Expires:** 17-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1302255	I-HCL	36.5-38.0	80 mL	8 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2412

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	964817	**Method:**	SW9012A Cyanide and Total
Prep Batch :	964816	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
249244001	RE46-10-12927
249244002	RE46-10-12923
249244003	RE46-10-12924
249244004	RE46-10-12926
249244005	RE46-10-12928
249244006	RE46-10-12925
1202069934	Method Blank (MB)
1202069935	249247001(RE16-10-2985) Sample Duplicate (DUP)
1202069936	249247002(RE16-10-2984) Sample Duplicate (DUP)
1202069937	249247001(RE16-10-2985) Matrix Spike (MS)
1202069938	249247002(RE16-10-2984) Matrix Spike (MS)
1202069939	249247001(RE16-10-2985) Matrix Spike Duplicate (MSD)
1202069940	249247002(RE16-10-2984) Matrix Spike Duplicate (MSD)
1202069941	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 249247001 (RE16-10-2985) and 249247002 (RE16-10-2984).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202069936 (RE16-10-2984).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202069941 (LCS).

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nick Cole A. Elmore **Date:** 3.30.10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2412 GEL Work Order: 249244

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Nick Cole A. Elmore 3.30.10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 29, 2010

Client SDG: 10-2412

Client Sample ID:	RE46-10-12927	Project:	LANL01004
Sample ID:	249244001	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10 12:00		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	12%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	67.8	249	ug/kg	1	AXC2 03/23/10	1458	964817	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 29, 2010

Client SDG: 10-2412

Client Sample ID:	RE46-10-12923	Project:	LANL01004
Sample ID:	249244002	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10 12:00		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	15.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.4	273	ug/kg	1	AXC2 03/23/10	1459	964817	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 29, 2010

Client SDG: 10-2412

Client Sample ID:	RE46-10-12924	Project:	LANL01004
Sample ID:	249244003	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10 12:00		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	14.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.9	257	ug/kg	1	AXC2 03/23/10	1459	964817	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 29, 2010

Client SDG: 10-2412

Client Sample ID:	RE46-10-12926	Project:	LANL01004
Sample ID:	249244004	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10 12:00		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	15.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	68.1	250	ug/kg	1	AXC2 03/23/10	1500	964817	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 29, 2010

Client SDG: 10-2412

Client Sample ID:	RE46-10-12928	Project:	LANL01004
Sample ID:	249244005	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10 12:00		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	18.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.0	265	ug/kg	1	AXC2 03/23/10	1501	964817	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 29, 2010

Client SDG: 10-2412

Client Sample ID:	RE46-10-12925	Project:	LANL01004
Sample ID:	249244006	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10 12:00		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	13.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	78.4	288	ug/kg	1	AXC2 03/23/10	1502	964817	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: March 29, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 249244

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 964817										
QC1202069935 249247001 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	03/23/10 15:04
QC1202069936 249247002 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A				03/23/10 15:11
QC1202069941 LCS										
Cyanide, Total	67900			64000	ug/kg		94.3	(32%-157%)		03/23/10 14:46
QC1202069934 MB										
Cyanide, Total			U	250	ug/kg					03/23/10 14:45
QC1202069937 249247001 MS										
Cyanide, Total	5170 U	ND		5740	ug/kg		111	(26%-158%)		03/23/10 15:05
QC1202069938 249247002 MS										
Cyanide, Total	5690 U	ND		5090	ug/kg		89.5	(26%-158%)		03/23/10 15:12
QC1202069939 249247001 MSD										
Cyanide, Total	4990 U	ND		4840	ug/kg	17.0	97	(0%-30%)		03/23/10 15:06
QC1202069940 249247002 MSD										
Cyanide, Total	5480 U	ND		4320	ug/kg	16.3	78.9	(0%-30%)		03/23/10 15:13

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based

QC Summary

Workorder: 249244

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

	on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 29-MAR-2010 17:14

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2412

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**23-MAR-2010 14:40:14**	**OM_3-23-2010_14-29-45**	**163**	**150**	**109**	**(90%-110%)**	**Yes**
CCV	23-MAR-2010 14:54:31	OM_3-23-2010_14-29-45	105	100	105	(90%-110%)	Yes
CCV	23-MAR-2010 15:06:57	OM_3-23-2010_14-29-45	106	100	106	(90%-110%)	Yes
CCV	23-MAR-2010 15:19:20	OM_3-23-2010_14-29-45	107	100	107	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**23-MAR-2010 14:42:04**	**OM_3-23-2010_14-29-45**	**-0.99**	**10**	**Yes**
CCB	23-MAR-2010 14:56:22	OM_3-23-2010_14-29-45	-1.45	10	Yes
CCB	23-MAR-2010 15:08:47	OM_3-23-2010_14-29-45	-1.31	10	Yes
CCB	23-MAR-2010 15:21:10	OM_3-23-2010_14-29-45	-1.05	10	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **964816.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202069941	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202069937	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202069938	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202069939	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202069940	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202069934 MB	22-MAR-2010 15:32:00	Soil	0.5	25	50	>12
1202069941 LCS	22-MAR-2010 15:32:00	Soil	0.25	25	100	>12
249179001	22-MAR-2010 15:32:00	Soil	0.57	25	43.85965	>12
249179002	22-MAR-2010 15:32:00	Soil	0.53	25	47.16981	>12
249179003	22-MAR-2010 15:32:00	Soil	0.5	25	50	>12
249179004	22-MAR-2010 15:32:00	Soil	0.55	25	45.45455	>12
249179005	22-MAR-2010 15:32:00	Soil	0.53	25	47.16981	>12
249179006	22-MAR-2010 15:32:00	Soil	0.51	25	49.01961	>12
249179007	22-MAR-2010 15:32:00	Soil	0.51	25	49.01961	>12
249181003	22-MAR-2010 15:32:00	Solid	0.56	25	44.64286	>12
249244001	22-MAR-2010 15:32:00	Soil	0.57	25	43.85965	>12
249244002	22-MAR-2010 15:32:00	Soil	0.54	25	46.2963	>12
249244003	22-MAR-2010 15:32:00	Soil	0.57	25	43.85965	>12
249244004	22-MAR-2010 15:32:00	Soil	0.59	25	42.37288	>12
249244005	22-MAR-2010 15:32:00	Soil	0.58	25	43.10345	>12
249244006	22-MAR-2010 15:32:00	Soil	0.5	25	50	>12
249247001	22-MAR-2010 15:32:00	Soil	0.56	25	44.64286	>12
1202069935 DUP (249247001)	22-MAR-2010 15:32:00	Soil	0.56	25	44.64286	>12
1202069937 MS (249247001)	22-MAR-2010 15:32:00	Soil	0.55	25	45.45455	>12
1202069939 MSD (249247001)	22-MAR-2010 15:32:00	Soil	0.57	25	43.85965	>12
249247002	22-MAR-2010 15:32:00	Soil	0.52	25	48.07692	>12

Prep Logbook

Batch ID: **964816.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202069941	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202069937	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202069938	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202069939	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202069940	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202069936 DUP (249247002)	22-MAR-2010 15:32:00	Soil	0.55	25	45.45455	>12
1202069938 MS (249247002)	22-MAR-2010 15:32:00	Soil	0.53	25	47.16981	>12
1202069940 MSD (249247002)	22-MAR-2010 15:32:00	Soil	0.55	25	45.45455	>12
249247003	22-MAR-2010 15:32:00	Soil	0.56	25	44.64286	>12
249248002	22-MAR-2010 15:32:00	Soil	0.56	25	44.64286	>12
249248003	22-MAR-2010 15:32:00	Soil	0.51	25	49.01961	>12
249248004	22-MAR-2010 15:32:00	Soil	0.5	25	50	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100322-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/23/2010 14:33:05	OM_3-23-2010_14-29-45
150 ppb		1	axc2	3/23/2010 14:33:57	OM_3-23-2010_14-29-45
100 ppb		1	axc2	3/23/2010 14:34:49	OM_3-23-2010_14-29-45
50 ppb		1	axc2	3/23/2010 14:35:42	OM_3-23-2010_14-29-45
10 ppb		1	axc2	3/23/2010 14:36:35	OM_3-23-2010_14-29-45
CRDL 5.0 ppb		1	axc2	3/23/2010 14:37:29	OM_3-23-2010_14-29-45
ICAL-00		1	axc2	3/23/2010 14:38:23	OM_3-23-2010_14-29-45
ICV		1	axc2	3/23/2010 14:40:14	OM_3-23-2010_14-29-45
ICB		1	axc2	3/23/2010 14:42:04	OM_3-23-2010_14-29-45
CRDL		1	axc2	3/23/2010 14:43:54	OM_3-23-2010_14-29-45
1202069934	964817	1	axc2	3/23/2010 14:45:44	OM_3-23-2010_14-29-45
1202069941	964817	25	axc2	3/23/2010 14:46:38	OM_3-23-2010_14-29-45
249179001	964817	1	axc2	3/23/2010 14:47:30	OM_3-23-2010_14-29-45
249179002	964817	1	axc2	3/23/2010 14:48:24	OM_3-23-2010_14-29-45
249179003	964817	1	axc2	3/23/2010 14:49:17	OM_3-23-2010_14-29-45
249179004	964817	1	axc2	3/23/2010 14:50:09	OM_3-23-2010_14-29-45
249179005	964817	1	axc2	3/23/2010 14:51:02	OM_3-23-2010_14-29-45
249179006	964817	1	axc2	3/23/2010 14:51:55	OM_3-23-2010_14-29-45
249179007	964817	1	axc2	3/23/2010 14:52:47	OM_3-23-2010_14-29-45
249181003	964817	1	axc2	3/23/2010 14:53:39	OM_3-23-2010_14-29-45
CCV		1	axc2	3/23/2010 14:54:31	OM_3-23-2010_14-29-45
CCB		1	axc2	3/23/2010 14:56:22	OM_3-23-2010_14-29-45
249244001	964817	1	axc2	3/23/2010 14:58:10	OM_3-23-2010_14-29-45
249244002	964817	1	axc2	3/23/2010 14:59:02	OM_3-23-2010_14-29-45
249244003	964817	1	axc2	3/23/2010 14:59:54	OM_3-23-2010_14-29-45
249244004	964817	1	axc2	3/23/2010 15:00:46	OM_3-23-2010_14-29-45
249244005	964817	1	axc2	3/23/2010 15:01:38	OM_3-23-2010_14-29-45
249244006	964817	1	axc2	3/23/2010 15:02:31	OM_3-23-2010_14-29-45
249247001	964817	1	axc2	3/23/2010 15:03:25	OM_3-23-2010_14-29-45
1202069935	964817	1	axc2	3/23/2010 15:04:18	OM_3-23-2010_14-29-45
1202069937	964817	1	axc2	3/23/2010 15:05:11	OM_3-23-2010_14-29-45
1202069939	964817	1	axc2	3/23/2010 15:06:04	OM_3-23-2010_14-29-45
CCV		1	axc2	3/23/2010 15:06:57	OM_3-23-2010_14-29-45
CCB		1	axc2	3/23/2010 15:08:47	OM_3-23-2010_14-29-45
249247002	964817	1	axc2	3/23/2010 15:10:36	OM_3-23-2010_14-29-45
1202069936	964817	1	axc2	3/23/2010 15:11:29	OM_3-23-2010_14-29-45
1202069938	964817	1	axc2	3/23/2010 15:12:22	OM_3-23-2010_14-29-45
1202069940	964817	1	axc2	3/23/2010 15:13:15	OM_3-23-2010_14-29-45
249247003	964817	1	axc2	3/23/2010 15:14:07	OM_3-23-2010_14-29-45
249248002	964817	1	axc2	3/23/2010 15:15:00	OM_3-23-2010_14-29-45
249248003	964817	1	axc2	3/23/2010 15:15:52	OM_3-23-2010_14-29-45
249248004	964817	1	axc2	3/23/2010 15:16:44	OM_3-23-2010_14-29-45
1202073350	966121	1	axc2	3/23/2010 15:17:35	OM_3-23-2010_14-29-45
1202073352	966121	1	axc2	3/23/2010 15:18:27	OM_3-23-2010_14-29-45
CCV		1	axc2	3/23/2010 15:19:20	OM_3-23-2010_14-29-45
CCB		1	axc2	3/23/2010 15:21:10	OM_3-23-2010_14-29-45
249275003	966121	1	axc2	3/23/2010 15:23:00	OM_3-23-2010_14-29-45
1202073351	966121	1	axc2	3/23/2010 15:23:54	OM_3-23-2010_14-29-45
CCV		1	axc2	3/23/2010 15:24:46	OM_3-23-2010_14-29-45
CCB		1	axc2	3/23/2010 15:26:36	OM_3-23-2010_14-29-45

Author: axc2 Date : 3/23/2010

Original Run Filename: OM_3-23-2010_14-29-45.OMN created 3/23/2010 14:29:45
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-23-2010_14-29-45.OMN last modified 3/23/2010 15:27:41
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100323-01	1	S1	200	10.1	3/23/2010@14:33:05			200 ppb
WCN100323-02	1	S2	150	7.64	3/23/2010@14:33:57			150 ppb
WCN100323-03	1	S3	100	4.94	3/23/2010@14:34:49			100 ppb
WCN100323-04	1	S4	50.0	2.71	3/23/2010@14:35:42			50 ppb
WCN100323-05	1	S5	10.0	0.618	3/23/2010@14:36:35			10 ppb
WCN100323-06	1	S6	5.00	0.356	3/23/2010@14:37:29			CRDL 5.0 ppb
WCN100323-08	1	S7	0.00	0.0230	3/23/2010@14:38:23			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99976 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100323-07	1	S8	163	8.24	3/23/2010@14:40:14			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	8.7 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	8.7 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100323-08	1	S7	-0.990	0.0382	3/23/2010@14:42:04			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.990 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.990 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100323-06	1	S6	5.64	0.370	3/23/2010@14:43:54			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.64 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.64 > 2.50					
		Message	Pass					
		Action	None					
1202069934|964817|MB	1	1	-1.54	0.0106	3/23/2010@14:45:44			
1202069941||LCS	1	2	25.6	1.37	3/23/2010@14:46:38		25.00	
249179001	1	3	-0.934	0.0410	3/23/2010@14:47:30			
249179002	1	4	-0.613	0.0571	3/23/2010@14:48:24			
249179003	1	5	-0.862	0.0446	3/23/2010@14:49:17			
249179004	1	6	-0.660	0.0547	3/23/2010@14:50:09			
249179005	1	7	-0.909	0.0422	3/23/2010@14:51:02			
249179006	1	8	-0.846	0.0454	3/23/2010@14:51:55			
249179007	1	9	-1.29	0.0233	3/23/2010@14:52:47			
249181003	1	10	12.8	0.726	3/23/2010@14:53:39			
WCN100323-03	1	S3	105	5.35	3/23/2010@14:54:31			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.2 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100323-08	1	S7	-1.45	0.0150	3/23/2010@14:56:22			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.45 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.45 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249244001	1	11	0.570	0.116	3/23/2010@14:58:10			
249244002	1	12	0.108	0.0931	3/23/2010@14:59:02			
249244003	1	13	-0.849	0.0453	3/23/2010@14:59:54			
249244004	1	14	-0.511	0.0622	3/23/2010@15:00:46			
249244005	1	15	-0.877	0.0439	3/23/2010@15:01:38			
249244006	1	16	-0.621	0.0567	3/23/2010@15:02:31			
249247001	1	17	-0.981	0.0387	3/23/2010@15:03:25			
1202069935||DUP	1	18	-1.01	0.0371	3/23/2010@15:04:18			
1202069937||MS	1	19	111	5.64	3/23/2010@15:05:11			
1202069939||MSD	1	20	97.0	4.94	3/23/2010@15:06:04			
WCN100323-03	1	S3	106	5.39	3/23/2010@15:06:57			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	6.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	6.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100323-08	1	S7	-1.31	0.0222	3/23/2010@15:08:47			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.31 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.31 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249247002	1	21	-0.745	0.0505	3/23/2010@15:10:36			
1202069936||DUP	1	22	-0.477	0.0639	3/23/2010@15:11:29			
1202069938||MS	1	23	89.5	4.57	3/23/2010@15:12:22			
1202069940||MSD	1	24	78.9	4.04	3/23/2010@15:13:15			
249247003	1	25	-1.18	0.0285	3/23/2010@15:14:07			
249248002	1	26	-0.923	0.0416	3/23/2010@15:15:00			
249248003	1	27	-0.907	0.0424	3/23/2010@15:15:52			
249248004	1	28	-0.783	0.0486	3/23/2010@15:16:44			
1202073350|966121|MB	1	29	-1.73	0.00115	3/23/2010@15:17:35			
1202073352||LCS	1	30	-1.30	0.0228	3/23/2010@15:18:27			
WCN100323-03	1	S3	107	5.44	3/23/2010@15:19:20			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	7.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	7.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100323-08	1	S7	-1.05	0.0350	3/23/2010@15:21:10			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
Result:			-1.05 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.05 > -5.00					
Message			CCB Passed					
Action			Continue					
249275003	1	31	-1.07	0.0344	3/23/2010@15:23:00			
1202073351||DUP	1	32	-1.23	0.0264	3/23/2010@15:23:54			
WCN100323-03	1	S3	107	5.45	3/23/2010@15:24:46			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			7.1 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			7.1 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100323-08	1	S7	-1.26	0.0247	3/23/2010@15:26:36			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.26 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.26 > -5.00					
Message			CCB Passed					
Action			Continue					

Analyte Properties Table for OM_3-23-2010_14-29-45.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 3/23/2010

Channel 1: Current View

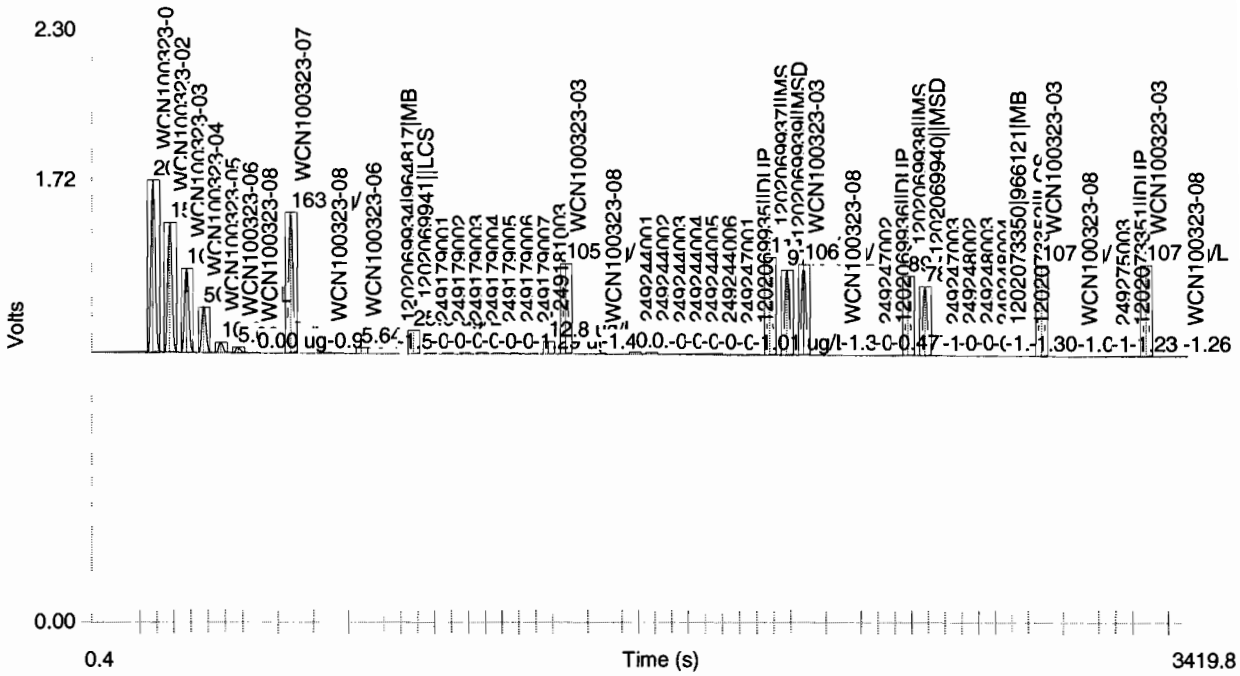

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.1	0.665	-0.1	3/23/2010	14:34:08
2	150	1	7.64	0.502	-0.7	3/23/2010	14:35:00
3	100	1	4.94	0.324	3.0	3/23/2010	14:35:52
4	50.0	1	2.71	0.177	-4.5	3/23/2010	14:36:45
5	10.0	1	0.618	0.0395	-4.7	3/23/2010	14:37:39
6	5.00	1	0.356	0.0224	-4.7	3/23/2010	14:38:32
7	0.00	1	0.0230	0.00126		3/23/2010	14:39:26

Figure 1: TCYANIDE

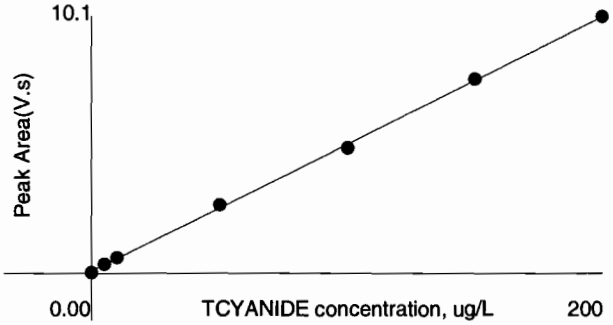

Area = 0.0500 * Conc + 0.0895
Conc = 20.0 * Area - 1.75
Correlation Coefficient (r) = 0.99976

No Weighting

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2412

Method/Analysis Information

Product:	**Dry Weight-Percent Moisture**
Analytical Method:	Dry Soil Prep
Analytical Batch Number:	964764

Sample ID	Client ID
249244001	RE46-10-12927
249244002	RE46-10-12923
249244003	RE46-10-12924
249244004	RE46-10-12926
249244005	RE46-10-12928
249244006	RE46-10-12925
1202069813	249179001(RE46-10-13437) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 249179001 (RE46-10-13437). The QC was from LANL work order 249179.

QC Information
All of the QC samples met the required acceptance limits.

CSU
Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	966602
Prep Batch Number:	964764

Sample ID	Client ID
249244001	RE46-10-12927
249244002	RE46-10-12923
249244003	RE46-10-12924
249244004	RE46-10-12926
249244005	RE46-10-12928
249244006	RE46-10-12925
1202074362	Method Blank (MB)
1202074363	249179001(RE46-10-13437) Sample Duplicate (DUP)
1202074364	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with

GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202074362 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249179001 (RE46-10-13437). The QC was from LANL work order 249179.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
Manual integration of alpha spectroscopy spectra 1202074364 (LCS) was performed to fully separate counts in Regions of Interest which would have been biased.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	972663
Prep Batch Number:	964764

Sample ID	Client ID
249244001	RE46-10-12927
249244002	RE46-10-12923
249244003	RE46-10-12924
249244004	RE46-10-12926
249244005	RE46-10-12928
249244006	RE46-10-12925
1202089356	Method Blank (MB)
1202089357	249244001(RE46-10-12927) Sample Duplicate (DUP)
1202089358	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202089356 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249244001 (RE46-10-12927). The QC was from LANL work order 249244.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were reprepped due to low recovery.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOTH**
Analytical Method:	DOE EML HASL-300, Th-01-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	966707
Prep Batch Number:	964764

Sample ID	Client ID
249244001	RE46-10-12927
249244003	RE46-10-12924
249244004	RE46-10-12926

249244005	RE46-10-12928
249244006	RE46-10-12925
1202074647	Method Blank (MB)
1202074648	249244001(RE46-10-12927) Sample Duplicate (DUP)
1202074649	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-038 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202074647 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249244001 (RE46-10-12927). The QC was from LANL work order 249244.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The Th-232 blank, 1202074647 (MB), result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The Th-232 blank, 1202074647 (MB), result is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOTH**
Analytical Method:	DOE EML HASL-300, Th-01-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	971616
Prep Batch Number:	964764

Sample ID	Client ID
249244002	RE46-10-12923
1202086868	Method Blank (MB)
1202086869	249244002(RE46-10-12923) Sample Duplicate (DUP)
1202086870	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-038 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202086868 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249244002 (RE46-10-12923). The QC was from LANL work order 249244.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 249244002 (RE46-10-12923) was reprepped due to low carrier/tracer yield. Sample 249244002 (RE46-10-12923) was reprepped due to high carrier/tracer yield.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Sample 1202086869 (RE46-10-12923) did not meet the client's yield requirement. However, GEL's standard tracer yield requirements are met, and the client's detection limits are met.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	966612

Prep Batch Number: 964764

Sample ID	Client ID
249244001	RE46-10-12927
249244002	RE46-10-12923
249244003	RE46-10-12924
249244004	RE46-10-12926
249244005	RE46-10-12928
249244006	RE46-10-12925
1202074380	Method Blank (MB)
1202074381	249244001(RE46-10-12927) Sample Duplicate (DUP)
1202074382	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202074380 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249244001 (RE46-10-12927). The QC was from LANL work order 249244.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U233/234 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	964804
Prep Batch Number:	964764

Sample ID	Client ID
249244001	RE46-10-12927
249244002	RE46-10-12923
249244003	RE46-10-12924
249244004	RE46-10-12926
249244005	RE46-10-12928
249244006	RE46-10-12925
1202069894	Method Blank (MB)
1202069895	249179001(RE46-10-13437) Sample Duplicate (DUP)
1202069896	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 19.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in July 2009, August 2009, October 2009, December 2009 and February 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 249179001 (RE46-10-13437). The QC was from LANL work order 249179.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The Method Blank, 1202069894 (MB), results for Bi-214, K-40, Ra-226 and Th-227 are greater than 1.65 times the CSU, but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The Method Blank, 1202069894 (MB), results for Bi-214, K-40, Ra-226 and Th-227 are greater the decision level, but less than the MDC.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample

UI	Data rejected due to high counting uncertainty.	Thorium-234	249244004	RE46-10-12926
UI	Data rejected due to interference.	Bismuth-211	249244001	RE46-10-12927
			249244002	RE46-10-12923
			249244003	RE46-10-12924
			249244004	RE46-10-12926
			249244005	RE46-10-12928
			249244006	RE46-10-12925
			1202069895	RE46-10-13437(249179001DUP)
		Cadmium-109	249244001	RE46-10-12927
			249244002	RE46-10-12923
			249244003	RE46-10-12924
			249244004	RE46-10-12926
			249244005	RE46-10-12928
			249244006	RE46-10-12925
			1202069895	RE46-10-13437(249179001DUP)
		Radium-224	249244001	RE46-10-12927
			249244002	RE46-10-12923
			249244003	RE46-10-12924
			249244004	RE46-10-12926
			249244005	RE46-10-12928
			249244006	RE46-10-12925
			1202069895	RE46-10-13437(249179001DUP)
UI	Data rejected due to low abundance.	Cesium-134	249244001	RE46-10-12927
			249244003	RE46-10-12924
			249244005	RE46-10-12928
			249244006	RE46-10-12925
		Strontium-85	249244001	RE46-10-12927
			249244002	RE46-10-12923
			249244005	RE46-10-12928
			249244006	RE46-10-12925

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: Sharon L Austin 4/8/2010

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2412 GEL Work Order: 249244

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Theresa L. Austin

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID:	RE46-10-12927	Project:	LANL01004
Sample ID:	249244001	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	12%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00188	0.0212	+/-0.00231	0.050	pCi/g		HAKB	03/26/10	1820	966602	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0129	0.0194	+/-0.00729	0.050	pCi/g		HAKB	04/07/10	2048	972663	3
Plutonium-239/240	U	-0.00593	0.0164	+/-0.00374	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.09	0.166	+/-0.124	0.100	pCi/g		HAKB	03/25/10	1758	966707	6
Thorium-230		1.17	0.209	+/-0.126	0.100	pCi/g						
Thorium-232		1.14	0.089	+/-0.124	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.877	0.102	+/-0.0845	0.100	pCi/g		HAKB	04/03/10	1616	966612	7
Uranium-235/236	U	0.0313	0.0622	+/-0.012	0.100	pCi/g						
Uranium-238		0.827	0.0716	+/-0.0808	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.252	0.312	+/-0.0905	0.200	pCi/g		MXR1	03/23/10	2240	964804	8
Bismuth-211	UI	3.31	0.276	+/-0.228		pCi/g						
Bismuth-214		1.19	0.083	+/-0.0803	0.200	pCi/g						
Cadmium-109	UI	3.34	1.03	+/-0.455		pCi/g						
Cerium-139	U	-0.0145	0.0385	+/-0.0121	0.050	pCi/g						
Cesium-134	UI	0.0806	0.0635	+/-0.0189	0.100	pCi/g						
Cesium-137	U	0.00809	0.0465	+/-0.0133	0.100	pCi/g						
Cobalt-60	U	0.0108	0.0466	+/-0.0138	0.100	pCi/g						
Europium-152	U	-0.0444	0.126	+/-0.0459	0.200	pCi/g						
Lanthanum-140	U	-0.0358	0.0902	+/-0.0287		pCi/g						
Lead-212		1.36	0.0751	+/-0.0911	0.100	pCi/g						
Lead-214		1.20	0.0974	+/-0.0892	0.100	pCi/g						
Mercury-203	U	0.0315	0.0519	+/-0.0143	0.100	pCi/g						
Potassium-40		24.2	0.358	+/-1.32	1.00	pCi/g						
Radium-223	U	0.293	0.843	+/-0.272		pCi/g						

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12927
Sample ID: 249244001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-224	UI	3.43	0.805	+/-0.489		pCi/g						
Radium-226		1.19	0.083	+/-0.0803		pCi/g						
Radium-228		1.28	0.167	+/-0.139	0.500	pCi/g						
Ruthenium-106	U	-0.22	0.361	+/-0.115	0.800	pCi/g						
Sodium-22	U	-0.0151	0.0488	+/-0.0155	0.080	pCi/g						
Strontium-85	UI	0.0916	0.0562	+/-0.0154		pCi/g						
Thallium-208		0.398	0.0439	+/-0.033	0.080	pCi/g						
Thorium-227	U	0.108	0.339	+/-0.0944		pCi/g						
Thorium-231	U	0.293	0.843	+/-0.272		pCi/g						
Thorium-234	U	0.275	2.60	+/-0.729	2.00	pCi/g						
Tin-113	U	-0.0202	0.0536	+/-0.016	0.100	pCi/g						
Uranium-235	U	-0.0226	0.271	+/-0.0818	0.500	pCi/g						
Yttrium-88	U	0.00689	0.0385	+/-0.0112	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, Pu-11-RC Modified
6	DOE EML HASL-300, Th-01-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.8	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	99.7	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	86.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12927
Sample ID: 249244001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID:	RE46-10-12923	Project:	LANL01004
Sample ID:	249244002	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	15.4%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0035	0.022	+/-0.00285	0.050	pCi/g		HAKB	03/26/10	1821	966602	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.000861	0.019	+/-0.00507	0.050	pCi/g		HAKB	04/07/10	2048	972663	3
Plutonium-239/240	U	0.012	0.016	+/-0.00478	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.32	0.0514	+/-0.116	0.100	pCi/g		HAKB	04/07/10	0718	971616	6
Thorium-230		1.16	0.0645	+/-0.103	0.100	pCi/g						
Thorium-232		1.31	0.0275	+/-0.115	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.908	0.103	+/-0.0875	0.100	pCi/g		HAKB	04/03/10	1616	966612	9
Uranium-235/236	U	0.0451	0.0628	+/-0.016	0.100	pCi/g						
Uranium-238		0.861	0.0723	+/-0.084	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.042	0.298	+/-0.0858	0.200	pCi/g		MXR1	03/23/10	2101	964804	10
Bismuth-211	UI	3.60	0.385	+/-0.311		pCi/g						
Bismuth-214		1.21	0.128	+/-0.105	0.200	pCi/g						
Cadmium-109	UI	2.25	1.41	+/-0.542		pCi/g						
Cerium-139	U	-0.041	0.0487	+/-0.0159	0.050	pCi/g						
Cesium-134	U	0.0953	0.0997	+/-0.0329	0.100	pCi/g						
Cesium-137		0.138	0.0673	+/-0.0375	0.100	pCi/g						
Cobalt-60	U	-0.000373	0.067	+/-0.0204	0.100	pCi/g						
Europium-152	U	-0.0409	0.176	+/-0.0534	0.200	pCi/g						
Lanthanum-140	U	0.00282	0.141	+/-0.0419		pCi/g						
Lead-212		1.52	0.0969	+/-0.0977	0.100	pCi/g						
Lead-214		1.31	0.129	+/-0.119	0.100	pCi/g						
Mercury-203	U	0.00252	0.0712	+/-0.0207	0.100	pCi/g						
Potassium-40		24.2	0.508	+/-1.42	1.00	pCi/g						
Radium-223	U	0.0826	1.13	+/-0.378		pCi/g						
Radium-224	UI	4.59	1.04	+/-0.620		pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12923
Sample ID: 249244002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-226		1.21	0.128	+/-0.105		pCi/g						
Radium-228		1.54	0.248	+/-0.189	0.500	pCi/g						
Ruthenium-106	U	-0.189	0.529	+/-0.165	0.800	pCi/g						
Sodium-22	U	-0.00328	0.0778	+/-0.0238	0.080	pCi/g						
Strontium-85	UI	0.0798	0.0739	+/-0.0212		pCi/g						
Thallium-208		0.479	0.0569	+/-0.0439	0.080	pCi/g						
Thorium-227	U	-0.151	0.415	+/-0.125		pCi/g						
Thorium-231	U	0.0826	1.13	+/-0.378		pCi/g						
Thorium-234	U	0.916	2.53	+/-0.713	2.00	pCi/g						
Tin-113	U	-0.0188	0.0744	+/-0.023	0.100	pCi/g						
Uranium-235	U	0.0671	0.352	+/-0.106	0.500	pCi/g						
Yttrium-88	U	-0.0233	0.0469	+/-0.017	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, Pu-11-RC Modified
6	DOE EML HASL-300, Th-01-RC Modified
7	DOE EML HASL-300, Th-01-RC Modified
8	DOE EML HASL-300, Th-01-RC Modified
9	DOE EML HASL-300, U-02-RC Modified
10	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.2	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	99.6	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	55.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	93.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12923
Sample ID: 249244002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID:	RE46-10-12924	Project:	LANL01004
Sample ID:	249244003	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	14.6%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00142	0.0214	+/-0.00146	0.050	pCi/g		HAKB	03/26/10	1821	966602	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0147	0.0203	+/-0.00568	0.050	pCi/g		HAKB	04/07/10	2048	972663	3
Plutonium-239/240	U	-0.0108	0.0171	+/-0.00453	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.50	0.151	+/-0.149	0.100	pCi/g		HAKB	03/25/10	1758	966707	6
Thorium-230		1.05	0.190	+/-0.115	0.100	pCi/g						
Thorium-232		1.36	0.0811	+/-0.137	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.915	0.108	+/-0.0888	0.100	pCi/g		HAKB	04/03/10	1616	966612	7
Uranium-235/236	U	0.0236	0.0657	+/-0.0107	0.100	pCi/g						
Uranium-238		0.908	0.0756	+/-0.0884	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.00986	0.185	+/-0.0604	0.200	pCi/g		MXR1	03/23/10	2107	964804	8
Bismuth-211	UI	4.05	0.350	+/-0.306		pCi/g						
Bismuth-214		1.26	0.115	+/-0.106	0.200	pCi/g						
Cadmium-109	UI	2.93	1.19	+/-0.499		pCi/g						
Cerium-139	U	0.0232	0.0508	+/-0.0152	0.050	pCi/g						
Cesium-134	UI	0.134	0.107	+/-0.035	0.100	pCi/g						
Cesium-137	U	-0.0481	0.0601	+/-0.0202	0.100	pCi/g						
Cobalt-60	U	-0.0101	0.0739	+/-0.0231	0.100	pCi/g						
Europium-152	U	-0.0196	0.160	+/-0.0508	0.200	pCi/g						
Lanthanum-140	U	-0.012	0.152	+/-0.0481		pCi/g						
Lead-212		1.69	0.0946	+/-0.101	0.100	pCi/g						
Lead-214		1.47	0.128	+/-0.118	0.100	pCi/g						
Mercury-203	U	0.0572	0.0726	+/-0.0206	0.100	pCi/g						
Potassium-40		25.3	0.589	+/-1.39	1.00	pCi/g						
Radium-223	U	0.488	1.12	+/-0.366		pCi/g						
Radium-224	UI	4.66	1.01	+/-0.653		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12924
Sample ID: 249244003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-226		1.26	0.115	+/-0.106		pCi/g						
Radium-228		1.69	0.220	+/-0.216	0.500	pCi/g						
Ruthenium-106	U	0.00897	0.549	+/-0.164	0.800	pCi/g						
Sodium-22	U	-0.0299	0.0649	+/-0.0215	0.080	pCi/g						
Strontium-85	U	-0.122	0.0741	+/-0.0257		pCi/g						
Thallium-208		0.525	0.0592	+/-0.0445	0.080	pCi/g						
Thorium-227	U	-0.00926	0.421	+/-0.125		pCi/g						
Thorium-231	U	0.488	1.12	+/-0.366		pCi/g						
Thorium-234		1.98	1.63	+/-0.728	2.00	pCi/g						
Tin-113	U	-0.00381	0.0731	+/-0.0224	0.100	pCi/g						
Uranium-235	U	0.166	0.340	+/-0.104	0.500	pCi/g						
Yttrium-88	U	-0.0271	0.0506	+/-0.0182	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, Pu-11-RC Modified
6	DOE EML HASL-300, Th-01-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.8	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	90.8	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	92.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	90.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12924
Sample ID: 249244003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12926
Sample ID: 249244004
Matrix: S
Collect Date: 10-MAR-10
Receive Date: 12-MAR-10
Collector: Client
Moisture: 15.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00767	0.0218	+/-0.004	0.050	pCi/g		HAKB	03/26/10	1821	966602	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00627	0.0217	+/-0.00725	0.050	pCi/g		HAKB	04/07/10	2048	972663	3
Plutonium-239/240	U	0.00363	0.0183	+/-0.00307	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.56	0.138	+/-0.150	0.100	pCi/g		HAKB	03/25/10	1758	966707	6
Thorium-230		1.09	0.173	+/-0.113	0.100	pCi/g						
Thorium-232		1.41	0.0739	+/-0.137	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.890	0.0973	+/-0.0849	0.100	pCi/g		HAKB	04/03/10	1616	966612	7
Uranium-235/236	U	0.0341	0.0595	+/-0.0137	0.100	pCi/g						
Uranium-238		0.908	0.0684	+/-0.0861	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0269	0.0731	+/-0.0247	0.200	pCi/g		MXR1	03/23/10	2108	964804	8
Bismuth-211	UI	4.31	0.309	+/-0.312		pCi/g						
Bismuth-214		1.20	0.113	+/-0.115	0.200	pCi/g						
Cadmium-109	UI	3.68	0.717	+/-0.395		pCi/g						
Cerium-139	U	-0.00629	0.0405	+/-0.0121	0.050	pCi/g						
Cesium-134	U	0.0729	0.0908	+/-0.0304	0.100	pCi/g						
Cesium-137	U	-0.00576	0.0842	+/-0.0242	0.100	pCi/g						
Cobalt-60	U	-0.0326	0.0632	+/-0.0214	0.100	pCi/g						
Europium-152	U	0.0101	0.153	+/-0.0479	0.200	pCi/g						
Lanthanum-140	U	-0.0366	0.131	+/-0.0421		pCi/g						
Lead-212		1.60	0.0796	+/-0.106	0.100	pCi/g						
Lead-214		1.57	0.109	+/-0.121	0.100	pCi/g						
Mercury-203	U	0.0213	0.0564	+/-0.0168	0.100	pCi/g						
Potassium-40		25.0	0.514	+/-1.36	1.00	pCi/g						
Radium-223	U	0.653	1.05	+/-0.325		pCi/g						
Radium-224	UI	4.94	0.854	+/-0.572		pCi/g						

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Report Date: April 8, 2010

Client Sample ID: RE46-10-12926
Sample ID: 249244004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-226		1.20	0.113	+/-0.115		pCi/g						
Radium-228		1.81	0.212	+/-0.182	0.500	pCi/g						
Ruthenium-106	U	-0.0377	0.539	+/-0.160	0.800	pCi/g						
Sodium-22	U	0.00768	0.0695	+/-0.0207	0.080	pCi/g						
Strontium-85	U	0.0504	0.0657	+/-0.0205		pCi/g						
Thallium-208		0.526	0.0537	+/-0.0489	0.080	pCi/g						
Thorium-227	U	-0.133	0.384	+/-0.122		pCi/g						
Thorium-231	U	0.653	1.05	+/-0.325		pCi/g						
Thorium-234	UI	0.819	0.740	+/-0.421	2.00	pCi/g						
Tin-113	U	-0.00251	0.0645	+/-0.0193	0.100	pCi/g						
Uranium-235	U	0.108	0.288	+/-0.0829	0.500	pCi/g						
Yttrium-88	U	-0.0122	0.0534	+/-0.0176	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, Pu-11-RC Modified
6	DOE EML HASL-300, Th-01-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.6	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	87.5	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	93.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	93.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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< Result is less than value reported

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Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12926
Sample ID: 249244004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
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C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID:	RE46-10-12928	Project:	LANL01004
Sample ID:	249244005	Client ID:	LANL010
Matrix:	S		
Collect Date:	10-MAR-10		
Receive Date:	12-MAR-10		
Collector:	Client		
Moisture:	18.5%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00098	0.0221	+/-0.00186	0.050	pCi/g		HAKB	03/26/10	1821	966602	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0128	0.0214	+/-0.00458	0.050	pCi/g		HAKB	04/07/10	2048	972663	3
Plutonium-239/240	U	0.000763	0.0181	+/-0.00284	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.46	0.138	+/-0.142	0.100	pCi/g		HAKB	03/25/10	1758	966707	6
Thorium-230		0.898	0.174	+/-0.0979	0.100	pCi/g						
Thorium-232		1.46	0.074	+/-0.140	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.785	0.0905	+/-0.0752	0.100	pCi/g		HAKB	04/03/10	1616	966612	7
Uranium-235/236	U	0.0159	0.0553	+/-0.0113	0.100	pCi/g						
Uranium-238		0.748	0.0636	+/-0.0726	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0062	0.0562	+/-0.0184	0.200	pCi/g		MXR1	03/23/10	2316	964804	8
Bismuth-211	UI	4.30	0.219	+/-0.282		pCi/g						
Bismuth-214		1.32	0.0835	+/-0.101	0.200	pCi/g						
Cadmium-109	UI	3.02	0.639	+/-0.316		pCi/g						
Cerium-139	U	-0.0101	0.0291	+/-0.00875	0.050	pCi/g						
Cesium-134	UI	0.145	0.0681	+/-0.0259	0.100	pCi/g						
Cesium-137	U	-0.0344	0.0569	+/-0.0179	0.100	pCi/g						
Cobalt-60	U	-0.0239	0.049	+/-0.0163	0.100	pCi/g						
Europium-152	U	-0.00308	0.109	+/-0.0344	0.200	pCi/g						
Lanthanum-140	U	0.0862	0.109	+/-0.0318		pCi/g						
Lead-212		2.08	0.0588	+/-0.126	0.100	pCi/g						
Lead-214		1.56	0.0798	+/-0.111	0.100	pCi/g						
Mercury-203	U	0.00524	0.0423	+/-0.0146	0.100	pCi/g						
Potassium-40		34.8	0.392	+/-1.64	1.00	pCi/g						
Radium-223	U	-0.344	0.692	+/-0.240		pCi/g						
Radium-224	UI	4.97	0.631	+/-0.561		pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12928
Sample ID: 249244005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-226		1.32	0.0835	+/-0.101		pCi/g						
Radium-228		2.03	0.177	+/-0.180	0.500	pCi/g						
Ruthenium-106	U	0.0647	0.388	+/-0.113	0.800	pCi/g						
Sodium-22	U	-0.00651	0.062	+/-0.0191	0.080	pCi/g						
Strontium-85	UI	0.0517	0.0475	+/-0.015		pCi/g						
Thallium-208		0.641	0.0442	+/-0.0473	0.080	pCi/g						
Thorium-227	U	-0.0497	0.272	+/-0.0845		pCi/g						
Thorium-231	U	-0.344	0.692	+/-0.240		pCi/g						
Thorium-234		1.60	0.565	+/-0.368	2.00	pCi/g						
Tin-113	U	-0.0325	0.0488	+/-0.0153	0.100	pCi/g						
Uranium-235	U	0.0671	0.208	+/-0.0616	0.500	pCi/g						
Yttrium-88	U	0.0127	0.0447	+/-0.0132	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, Pu-11-RC Modified
6	DOE EML HASL-300, Th-01-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	81.5	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	88.0	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	96.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	101	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12928
Sample ID: 249244005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12925
Sample ID: 249244006
Matrix: S
Collect Date: 10-MAR-10
Receive Date: 12-MAR-10
Collector: Client
Moisture: 13.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.000154	0.0225	+/-0.00154	0.050	pCi/g		HAKB	03/26/10	1821	966602	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0107	0.0205	+/-0.00408	0.050	pCi/g		HAKB	04/07/10	2048	972663	3
Plutonium-239/240	U	0.00378	0.0173	+/-0.00347	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.22	0.150	+/-0.127	0.100	pCi/g		HAKB	03/25/10	1758	966707	6
Thorium-230		0.878	0.188	+/-0.100	0.100	pCi/g						
Thorium-232		1.15	0.0802	+/-0.121	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.749	0.0979	+/-0.0741	0.100	pCi/g		HAKB	04/03/10	1616	966612	7
Uranium-235/236	U	0.0429	0.0598	+/-0.0139	0.100	pCi/g						
Uranium-238		0.788	0.0688	+/-0.077	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0395	0.200	+/-0.0614	0.200	pCi/g		MXR1	03/24/10	1106	964804	8
Bismuth-211	UI	3.81	0.284	+/-0.278		pCi/g						
Bismuth-214		0.908	0.100	+/-0.0935	0.200	pCi/g						
Cadmium-109	UI	2.33	0.915	+/-0.427		pCi/g						
Cerium-139	U	-0.0072	0.044	+/-0.0127	0.050	pCi/g						
Cesium-134	UI	0.133	0.0682	+/-0.027	0.100	pCi/g						
Cesium-137	U	0.0373	0.0564	+/-0.0159	0.100	pCi/g						
Cobalt-60	U	0.00783	0.0492	+/-0.0145	0.100	pCi/g						
Europium-152	U	0.0339	0.143	+/-0.0494	0.200	pCi/g						
Lanthanum-140	U	0.0172	0.0952	+/-0.0332		pCi/g						
Lead-212		1.57	0.0809	+/-0.114	0.100	pCi/g						
Lead-214		1.38	0.099	+/-0.108	0.100	pCi/g						
Mercury-203	U	0.0563	0.061	+/-0.0198	0.100	pCi/g						
Potassium-40		29.3	0.483	+/-1.51	1.00	pCi/g						
Radium-223	U	0.0584	0.883	+/-0.291		pCi/g						
Radium-224	UI	3.95	0.866	+/-0.561		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12925
Sample ID: 249244006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-226		0.908	0.100	+/-0.0935		pCi/g						
Radium-228		1.51	0.200	+/-0.167	0.500	pCi/g						
Ruthenium-106	U	-0.0608	0.421	+/-0.126	0.800	pCi/g						
Sodium-22	U	0.00826	0.0594	+/-0.0175	0.080	pCi/g						
Strontium-85	UI	0.124	0.0654	+/-0.020		pCi/g						
Thallium-208		0.513	0.0442	+/-0.0403	0.080	pCi/g						
Thorium-227	U	-0.159	0.358	+/-0.111		pCi/g						
Thorium-231	U	0.0584	0.883	+/-0.291		pCi/g						
Thorium-234	U	1.48	1.73	+/-0.737	2.00	pCi/g						
Tin-113	U	0.00649	0.0643	+/-0.0188	0.100	pCi/g						
Uranium-235	U	0.120	0.312	+/-0.0882	0.500	pCi/g						
Yttrium-88	U	0.0117	0.0422	+/-0.0121	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, Pu-11-RC Modified
6	DOE EML HASL-300, Th-01-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.2	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	89.1	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	94.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	96.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 8, 2010

Client Sample ID: RE46-10-12925
Sample ID: 249244006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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QC Summary

Report Date: April 8, 2010

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 249244

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 966602										
QC1202074363 249179001 DUP										
Americium-241		0.0509		0.0391	pCi/g	0.331		(0-1)	HAKB	03/26/1019:34
	TPU:	+/-0.00912		+/-0.00867						
	Yield:	85.1		84.9						
QC1202074364 LCS										
Americium-241	33.1			29.6	pCi/g		89.2	(75%-125%)		03/26/1019:34
	TPU:			+/-2.19						
	Yield:			101						
QC1202074362 MB										
Americium-241			U	0.00124	pCi/g					03/26/1018:21
	TPU:			+/-0.00343						
	Yield:			80.0						
Batch 966612										
QC1202074381 249244001 DUP										
Uranium-233/234		0.877		0.742	pCi/g	0.429		(0-1)	HAKB	04/03/1016:16
	TPU:	+/-0.0845		+/-0.0739						
	Yield:	97.9		95.4						
Uranium-235/236	U	0.0313		0.0739	pCi/g	0.694		(0-1)		
	TPU:	+/-0.012		+/-0.0187						
	Yield:	97.9		95.4						
Uranium-238		0.827		0.816	pCi/g	0.0353		(0-1)		
	TPU:	+/-0.0808		+/-0.0794						
	Yield:	97.9		95.4						
QC1202074382 LCS										
Uranium-233/234				5.45	pCi/g					04/03/1016:16
	TPU:			+/-0.512						
	Yield:			99.9						
Uranium-235/236				0.311	pCi/g					
	TPU:			+/-0.0858						
	Yield:			99.9						
Uranium-238	5.75			5.57	pCi/g		96.9	(75%-125%)		
	TPU:			+/-0.522						
	Yield:			99.9						
QC1202074380 MB										
Uranium-233/234			U	0.0102	pCi/g					04/03/1016:16
	TPU:			+/-0.00494						
	Yield:			99.5						
Uranium-235/236			U	0.00432	pCi/g					
	TPU:			+/-0.00433						
	Yield:			99.5						
Uranium-238			U	0.00	pCi/g					
	TPU:			+/-0.0035						
	Yield:			99.5						
Batch 966707										

QC Summary

Workorder: 249244

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 966707										
QC1202074648 249244001 DUP										
Thorium-228		1.09		1.33	pCi/g	0.457		(0-1)	HAKB	03/25/1017:58
	TPU:	+/-0.124		+/-0.132						
	Yield:	86.7		93.2						
Thorium-230		1.17		0.826	pCi/g	0.781		(0-1)		
	TPU:	+/-0.126		+/-0.0969						
	Yield:	86.7		93.2						
Thorium-232		1.14		1.05	pCi/g	0.202		(0-1)		
	TPU:	+/-0.124		+/-0.110						
	Yield:	86.7		93.2						
QC1202074649 LCS										
Thorium-228				1.35	pCi/g					03/25/1017:58
	TPU:			+/-0.185						
	Yield:			95.6						
Thorium-230	25.6			24.8	pCi/g		96.7	(75%-125%)		
	TPU:			+/-1.96						
	Yield:			95.6						
Thorium-232				1.37	pCi/g			(75%-125%)		
	TPU:			+/-0.183						
	Yield:			95.6						
QC1202074647 MB										
Thorium-228			U	0.00506	pCi/g					03/25/1017:58
	TPU:			+/-0.00595						
	Yield:			95.0						
Thorium-230			U	0.00584	pCi/g					
	TPU:			+/-0.00415						
	Yield:			95.0						
Thorium-232			U	0.00861	pCi/g					
	TPU:			+/-0.00472						
	Yield:			95.0						
Batch 971616										
QC1202086869 249244002 DUP										
Thorium-228		1.32		1.56	pCi/g	0.482		(0-1)	HAKB	04/07/1007:27
	TPU:	+/-0.116		+/-0.142						
	Yield:	55.6		49.4						
Thorium-230		1.16		1.29	pCi/g	0.288		(0-1)		
	TPU:	+/-0.103		+/-0.119						
	Yield:	55.6		49.4						
Thorium-232		1.31		1.55	pCi/g	0.477		(0-1)		
	TPU:	+/-0.115		+/-0.140						
	Yield:	55.6		49.4						
QC1202086870 LCS										
Thorium-228				1.28	pCi/g					04/07/1007:27
	TPU:			+/-0.196						
	Yield:			83.1						
Thorium-230	25.6			24.7	pCi/g		96.5	(75%-125%)		
	TPU:			+/-2.03						
	Yield:			83.1						
Thorium-232				1.44	pCi/g			(75%-125%)		
	TPU:			+/-0.205						

QC Summary

Workorder: 249244

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 971616										
	Yield:			83.1						
QC1202086868 MB										
Thorium-228			U	0.00328	pCi/g					04/07/1007:18
	TPU:			+/-0.00509						
	Yield:			91.9						
Thorium-230			U	0.0023	pCi/g					
	TPU:			+/-0.00417						
	Yield:			91.9						
Thorium-232			U	-0.004	pCi/g					
	TPU:			+/-0.00362						
	Yield:			91.9						
Batch 972663										
QC1202089357 249244001 DUP										
Plutonium-238	U	0.0129	U	0.00612	pCi/g	0.254		(0-1)	HAKB	04/07/1020:48
	TPU:	+/-0.00729		+/-0.006						
	Yield:	99.7		92.2						
Plutonium-239/240	U	-0.00593	U	-0.00238	pCi/g	0.294		(0-1)		
	TPU:	+/-0.00374		+/-0.0023						
	Yield:	99.7		92.2						
QC1202089358 LCS										
Plutonium-238				3.65	pCi/g			(75%-125%)		
	TPU:			+/-0.360						
	Yield:			86.6						
Plutonium-239/240	41.8			40.3	pCi/g		96.4	(75%-125%)		
	TPU:			+/-2.75						
	Yield:			86.6						
QC1202089356 MB										
Plutonium-238			U	0.0019	pCi/g					
	TPU:			+/-0.00191						
	Yield:			97.2						
Plutonium-239/240			U	-0.000994	pCi/g					
	TPU:			+/-0.0028						
	Yield:			97.2						
Rad Gamma Spec										
Batch 964804										
QC1202069895 249179001 DUP										
Americium-241	U	-0.0592	U	-0.186	pCi/g	0.243		(0-1)	MXR1	03/24/1013:15
	TPU:	+/-0.162		+/-0.0987						
Bismuth-211	UI	4.12	UI	3.96	pCi/g	0.120		(0-1)		
	TPU:	+/-0.376		+/-0.326						
Bismuth-214		1.20		1.49	pCi/g	0.612		(0-1)		
	TPU:	+/-0.121		+/-0.122						
Cadmium-109	UI	2.46	UI	3.45	pCi/g	0.376		(0-I)		
	TPU:	+/-0.793		+/-0.519						
Cerium-139	U	0.0114	U	-0.0431	pCi/g	0.686		(0-1)		
	TPU:	+/-0.0208		+/-0.0189						
Cesium-134	UI	0.176	U	0.102	pCi/g	0.542		(0-1)		
	TPU:	+/-0.0344		+/-0.0337						
Cesium-137	U	-0.0286	U	0.0479	pCi/g	0.818		(0-1)		

QC Summary

Workorder: 249244

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 964804										
	TPU:	+/-0.0243		+/-0.0225						
Cobalt-60	U	0.00468	U	0.00348	pCi/g	0.0117		(0-1)		
	TPU:	+/-0.0266		+/-0.0246						
Europium-152	U	0.100	U	0.067	pCi/g	0.110		(0-1)		
	TPU:	+/-0.0833		+/-0.0677						
Lanthanum-140	U	-0.0242	U	-0.131	pCi/g	0.517		(0-1)		
	TPU:	+/-0.0497		+/-0.0532						
Lead-212		2.06		1.78	pCi/g	0.516		(0-1)		
	TPU:	+/-0.145		+/-0.122						
Lead-214		1.50		1.44	pCi/g	0.112		(0-1)		
	TPU:	+/-0.142		+/-0.125						
Mercury-203	U	0.0709	U	0.0154	pCi/g	0.543		(0-1)		
	TPU:	+/-0.0282		+/-0.0229						
Potassium-40		35.5		34.2	pCi/g	0.157		(0-1)		
	TPU:	+/-2.05		+/-1.95						
Radium-223	U	0.829	U	0.671	pCi/g	0.0825		(0-1)		
	TPU:	+/-0.504		+/-0.459						
Radium-224	UI	5.59	UI	2.80	pCi/g	0.892		(0-1)		
	TPU:	+/-0.997		+/-0.567						
Radium-226		1.20		1.49	pCi/g	0.612		(0-1)		
	TPU:	+/-0.121		+/-0.122						
Radium-228		1.99		2.36	pCi/g	0.363		(0-1)		
	TPU:	+/-0.251		+/-0.259						
Ruthenium-106	U	0.0469	U	0.283	pCi/g	0.315		(0-1)		
	TPU:	+/-0.185		+/-0.189						
Sodium-22	U	0.0128	U	-0.0249	pCi/g	0.309		(0-1)		
	TPU:	+/-0.0318		+/-0.0291						
Strontium-85	U	0.0856	UI	0.0994	pCi/g	0.129		(0-1)		
	TPU:	+/-0.0284		+/-0.0248						
Thallium-208		0.653		0.567	pCi/g	0.406		(0-1)		
	TPU:	+/-0.0529		+/-0.0527						
Thorium-227	U	-0.111	U	-0.0914	pCi/g	0.0307		(0-1)		
	TPU:	+/-0.159		+/-0.153						
Thorium-231	U	0.829	U	0.671	pCi/g	0.0825		(0-1)		
	TPU:	+/-0.504		+/-0.459						
Thorium-234	U	0.563	U	1.68	pCi/g	0.261		(0-1)		
	TPU:	+/-1.28		+/-0.866						
Tin-113	U	-0.0362	U	0.0387	pCi/g	0.664		(0-1)		
	TPU:	+/-0.029		+/-0.0274						
Uranium-235	U	0.238	U	0.302	pCi/g	0.101		(0-1)		
	TPU:	+/-0.150		+/-0.163						
Yttrium-88	U	-0.0117	U	-0.039	pCi/g	0.394		(0-1)		
	TPU:	+/-0.0173		+/-0.0175						
QC1202069896 LCS										
Americium-241	16.3			15.0	pCi/g		91.9	(75%-125%)		03/24/1013:16
	TPU:			+/-0.676						
Bismuth-211				2.68	pCi/g					
	TPU:			+/-0.358						
Bismuth-214				1.06	pCi/g					
	TPU:			+/-0.153						
Cadmium-109				35.4	pCi/g					

QC Summary

Workorder: 249244

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 964804										
	TPU:			+/-1.96						
Cerium-139			U	-0.00575	pCi/g					
	TPU:			+/-0.0232						
Cesium-134			U	0.0979	pCi/g					
	TPU:			+/-0.047						
Cesium-137	5.68			6.10	pCi/g		107	(75%-125%)		
	TPU:			+/-0.307						
Cobalt-60	6.47			6.81	pCi/g		105	(75%-125%)		
	TPU:			+/-0.329						
Europium-152			U	0.0853	pCi/g					
	TPU:			+/-0.0964						
Lanthanum-140			U	0.00933	pCi/g					
	TPU:			+/-0.0431						
Lead-212				1.50	pCi/g					
	TPU:			+/-0.109						
Lead-214				0.971	pCi/g					
	TPU:			+/-0.133						
Mercury-203			U	-0.00742	pCi/g					
	TPU:			+/-0.033						
Potassium-40			U	0.752	pCi/g					
	TPU:			+/-0.365						
Radium-223			U	-0.753	pCi/g					
	TPU:			+/-0.616						
Radium-224				3.11	pCi/g					
	TPU:			+/-0.818						
Radium-226				1.06	pCi/g					
	TPU:			+/-0.153						
Radium-228				1.99	pCi/g					
	TPU:			+/-0.346						
Ruthenium-106			U	0.648	pCi/g					
	TPU:			+/-0.308						
Sodium-22			U	-0.0268	pCi/g					
	TPU:			+/-0.0255						
Strontium-85			U	-0.0753	pCi/g					
	TPU:			+/-0.0389						
Thallium-208				0.651	pCi/g					
	TPU:			+/-0.0737						
Thorium-227			U	-0.175	pCi/g					
	TPU:			+/-0.220						
Thorium-231			U	-0.753	pCi/g					
	TPU:			+/-0.616						
Thorium-234			U	-0.447	pCi/g					
	TPU:			+/-0.849						
Tin-113			U	0.0619	pCi/g					
	TPU:			+/-0.0441						
Uranium-235			U	0.184	pCi/g					
	TPU:			+/-0.161						
Yttrium-88			U	0.0775	pCi/g					
	TPU:			+/-0.0308						
QC1202069894 MB										
Americium-241			U	0.00063	pCi/g					03/24/1012:28

QC Summary

Workorder: 249244

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 964804										
	TPU:			+/-0.0163						
Bismuth-211			U	0.0558	pCi/g					
	TPU:			+/-0.041						
Bismuth-214			U	0.0457	pCi/g					
	TPU:			+/-0.0177						
Cadmium-109			U	-0.399	pCi/g					
	TPU:			+/-0.125						
Cerium-139			U	0.00497	pCi/g					
	TPU:			+/-0.00538						
Cesium-134			U	0.00476	pCi/g					
	TPU:			+/-0.00866						
Cesium-137			U	0.00318	pCi/g					
	TPU:			+/-0.00641						
Cobalt-60			U	-0.00717	pCi/g					
	TPU:			+/-0.0078						
Europium-152			U	0.0164	pCi/g					
	TPU:			+/-0.0195						
Lanthanum-140			U	-0.00599	pCi/g					
	TPU:			+/-0.0141						
Lead-212			U	-0.0157	pCi/g					
	TPU:			+/-0.0134						
Lead-214			U	0.000517	pCi/g					
	TPU:			+/-0.0161						
Mercury-203			U	0.00999	pCi/g					
	TPU:			+/-0.00697						
Potassium-40			U	0.272	pCi/g					
	TPU:			+/-0.0788						
Radium-223			U	-0.214	pCi/g					
	TPU:			+/-0.130						
Radium-224			U	-0.126	pCi/g					
	TPU:			+/-0.127						
Radium-226			U	0.0457	pCi/g					
	TPU:			+/-0.0177						
Radium-228			U	0.0277	pCi/g					
	TPU:			+/-0.027						
Ruthenium-106			U	-0.00461	pCi/g					
	TPU:			+/-0.066						
Sodium-22			U	-0.00271	pCi/g					
	TPU:			+/-0.00599						
Strontium-85			U	-0.0402	pCi/g					
	TPU:			+/-0.0135						
Thallium-208			U	-0.0143	pCi/g					
	TPU:			+/-0.00961						
Thorium-227			U	0.120	pCi/g					
	TPU:			+/-0.0469						
Thorium-231			U	-0.214	pCi/g					
	TPU:			+/-0.130						
Thorium-234			U	-0.227	pCi/g					
	TPU:			+/-0.223						
Tin-113			U	-0.00531	pCi/g					
	TPU:			+/-0.00882						

QC Summary

Workorder: 249244

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 964804										
Uranium-235			U	-0.000391	pCi/g					
	TPU:			+/-0.0427						
Yttrium-88			U	0.00495	pCi/g					
	TPU:			+/-0.00683						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

QC Summary

Workorder: **249244**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 966602 Product: Am Date: 3/29/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125%. Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time	✓		
Sample was correctly preserved if required	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
CC data entered into CC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 3/29/10

Secondary Review Performed By: [illegible] 3/30/10

4/1

LANL

Am/Cm Que Sheet

18-MAR-10

Batch #: 966602 Analyst: HAKB First Client Due Date: 01-APR-10 Internal Due Date26-MAR-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-96-2-VV Expiration Date: 3/9/11 Vol: 0.1

LCS Isotope(s): Am241/Cm244 LCS Code(s): SRM 0244-B / NA Expiration Date: 4/30/20 / NA Vol(s): 0.109g / NA

Spike Isotope(s): Am241/Cm244 Spike Code(s): NA / NA Expiration Date: NA / NA Vol(s): NA / NA

Prep Date: 3/22/10 Initials: HAKB Pipet ID: 4497063 Balance ID: 50410272 Witness: [illegible] 03/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/l)	Am/Cm Det #
248692009-2	RE46-10-13806	SAMPLE		.05 pCi/g	SOIL	LANL010	02-MAR-10	1	1	1.253	242
** 249179001-1	RE46-10-13437	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	2	2	1.250	243
04/8/10 ~~249179002-1~~	~~RE46-10-13436~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~09-MAR-10~~	~~3~~	~~3~~	~~1.257~~	~~244~~
249179003-1	RE46-10-13434	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	4	4	1.255	245
249179004-1	RE46-10-13438	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	5	5	1.252	246
249179005-1	RE46-10-13435	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	6	6	1.252	247
04/8/10 ~~249179006-1~~	~~RE46-10-13439~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~09-MAR-10~~	~~7~~	~~7~~	~~1.273~~	~~248~~
249179007-1	RE46-10-13463	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	8	8	1.256	249
249244001-1	RE46-10-12927	SAMPLE		.05 pCi/g	SOIL	LANL010	10-MAR-10	9	9	1.253	250
249244002-1	RE46-10-12923	SAMPLE		.05 pCi/g	SOIL	LANL010	10-MAR-10	10	10	1.254	251
249244003-1	RE46-10-12924	SAMPLE		.05 pCi/g	SOIL	LANL010	10-MAR-10	11	11	1.251	252
249244004-1	RE46-10-12926	SAMPLE		.05 pCi/g	SOIL	LANL010	10-MAR-10	12	12	1.259	253
249244005-1	RE46-10-12928	SAMPLE		.05 pCi/g	SOIL	LANL010	10-MAR-10	13	13	1.276	254
249244006-1	RE46-10-12925	SAMPLE		.05 pCi/g	SOIL	LANL010	10-MAR-10	14	14	1.292	255
1202074362-1	MB for batch 966602 LC4-10-13457(249179001)	MB		UCF pCi/g to pCi/SOIL		QC ACCOUNT	04/8/10	15	15	1.0	256
1202074363-2	~~RE46-10-13806(248692009DUP)~~ 03/9/10	DUP		.05 pCi/g	SOIL	QC ACCOUNT	~~02-MAR-10~~	16	16	1.258	237
1202074364-1	LCS for batch 966602	LCS		UCF pCi/g to pCi/SOIL		QC ACCOUNT	09-MAR-10	17	17	0.109	238

*SRM 0244-B Exp 4/30/20

** Included for QC purposes only 04/8/10

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [illegible] 3/19/10

Blank Correction Report

Batch ID 966602

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202074363	DUP	Americium-241	1.26 g	0.0391	0.00867	0.0209	.000984127	pCi/g	NO
1202074364	LCS	Americium-241	0.109 g	29.6	2.19	0.208	.011376147	pCi/g	NO
1202074362	MB	Americium-241	1.00 g	0.00124	0.00343	0.0284	.00124	pCi/g	YES
248692009	RE46-10-13806	Americium-241	1.25 g	-0.00204	0.002	0.0205	.000992	pCi/g	YES
249179003	RE46-10-13434	Americium-241	1.26 g	0.00376	0.00302	0.0232	.000984127	pCi/g	YES
249179004	RE46-10-13438	Americium-241	1.25 g	0.0103	0.00393	0.0214	.000992	pCi/g	NO
249179005	RE46-10-13435	Americium-241	1.25 g	0.0289	0.00924	0.0321	.000992	pCi/g	NO
249179007	RE46-10-13463	Americium-241	1.26 g	0.00878	0.00362	0.0214	.000984127	pCi/g	NO
249244001	RE46-10-12927	Americium-241	1.25 g	0.00188	0.00231	0.0212	.000992	pCi/g	YES
249244002	RE46-10-12923	Americium-241	1.25 g	0.0035	0.00285	0.022	.000992	pCi/g	YES
249244003	RE46-10-12924	Americium-241	1.25 g	-0.00142	0.00146	0.0214	.000992	pCi/g	YES
249244004	RE46-10-12926	Americium-241	1.26 g	-0.00767	0.004	0.0218	.000984127	pCi/g	YES
249244005	RE46-10-12928	Americium-241	1.27 g	-0.00098	0.00186	0.0221	.000976378	pCi/g	YES
249244006	RE46-10-12925	Americium-241	1.29 g	0.000154	0.00154	0.0225	.000961240	pCi/g	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966602	CHAMBER : 238	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202074364_AM	DETECTOR S/N : 79431	BKG FILE : B238.CNF;95
SAMPLE QTY : 0.109 G	AVERAGE %EFFICIENCY : 40.1819	BKG DATE : 25-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 26-MAR-2010 19:34:11	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W238.CNF;32
% YIELD : 123.102		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3148E+01 pCi/G	NOMINAL : 3.3148E+01 pCi/G
RESULTS : 2.8010E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5488.914	67.005	1930.000	1928.593	0.000	2.7707	99.94000	2.24E+01	1.62E+00	6.94E-02	1.70E-01	5.10E-01
AM243	5270.000	5270.427	62.530	810.000	808.560	1.440	1.2000	99.78000	9.40E+00	7.26E-01	3.01E-02	9.17E-02	3.31E-01
CM-242	6102.000	6039.739	98.104	5.000	5.000	0.000	4.0092	100.0000	5.93E-02	2.68E-02	1.00E-01	2.32E-01	2.65E-02
CM-3/4	5795.020	5750.941	58.249	5.000	4.280	0.720	4.8510	100.0000	4.97E-02	2.75E-02	1.21E-01	2.74E-01	2.73E-02
CM-5/6	5386.000	5385.922	0.000	126.000	126.000	0.000	6.1294	86.09000	1.70E+00	1.91E-01	1.78E-01	3.93E-01	1.51E-01
CM-247	4946.000	4898.138	87.067	26.000	25.280	0.720	6.3427	79.30000	3.70E-01	7.95E-02	2.00E-01	4.40E-01	7.54E-02
CM-248	5078.600	5064.100	37.934	50.000	50.000	0.000	11.0244	91.00000	6.38E-01	1.00E-01	3.03E-01	6.41E-01	9.02E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)
* BKG Sg of AM243 calculated as sqrt(BKG AREA).
* Corrections made to the following net area due to tracer impurity:
  AM-241

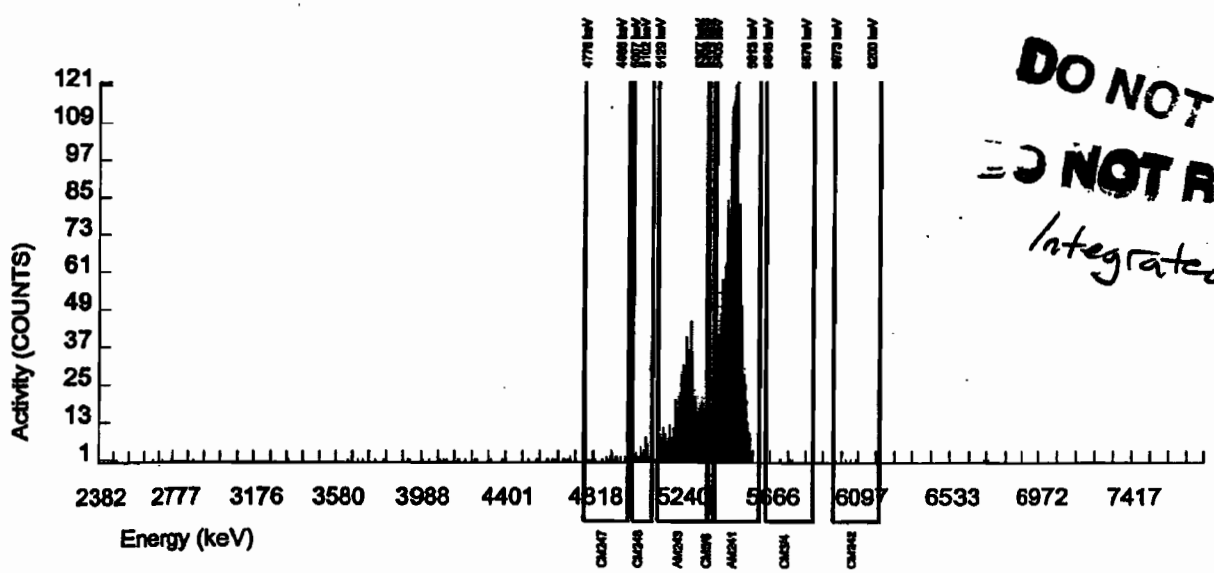

DO NOT REPORT
DO NOT REPORT
Integrated

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966602	CHAMBER : 243	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0249179001_AM	DETECTOR S/N : 79436	BKG FILE : B243.CNF;91
SAMPLE QTY : 1.250 G	AVERAGE %EFFICIENCY : 41.6202	BKG DATE : 21-MAR-2010
SAMPLE DATE : 9-MAR-2010 00:00:00.	COUNT DATE : 26-MAR-2010 18:20:38	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W243.CNF;30
% YIELD : 85.106		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3150E+01 pCi/G	NOMINAL : 3.3150E+01 pCi/G
RESULTS : 1.9364E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5496.611	38.451	37.000	35.993	0.000	2.7707	99.94000	5.09E-02	9.12E-03	8.45E-03	2.07E-02	8.48E-03
AM243	5270.000	5263.663	44.843	579.000	579.000	0.000	0.0000	99.78000	8.20E-01	6.39E-02	0.00E+00	3.84E-03	3.41E-02
CM-242	6102.000	6046.811	127.355	3.000	3.000	0.000	4.0092	100.0000	4.58E-03	2.66E-03	1.22E-02	2.83E-02	2.64E-03
CM-3/4	5795.020	5797.496	0.000	6.000	3.120	2.880	4.8510	100.0000	4.42E-03	4.03E-03	1.48E-02	3.34E-02	4.02E-03
CM-5/6	5386.000	5376.697	0.000	8.000	7.280	0.720	6.1294	86.09000	1.19E-02	4.85E-03	2.17E-02	4.79E-02	4.79E-03
CM-247	4946.000	4906.000	4.898	15.000	14.280	0.720	6.3427	79.30000	2.54E-02	7.22E-03	2.44E-02	5.36E-02	7.02E-03
CM-248	5078.600	5068.500	33.737	26.000	26.000	0.000	11.0244	91.00000	4.04E-02	8.35E-03	3.69E-02	7.81E-02	7.92E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

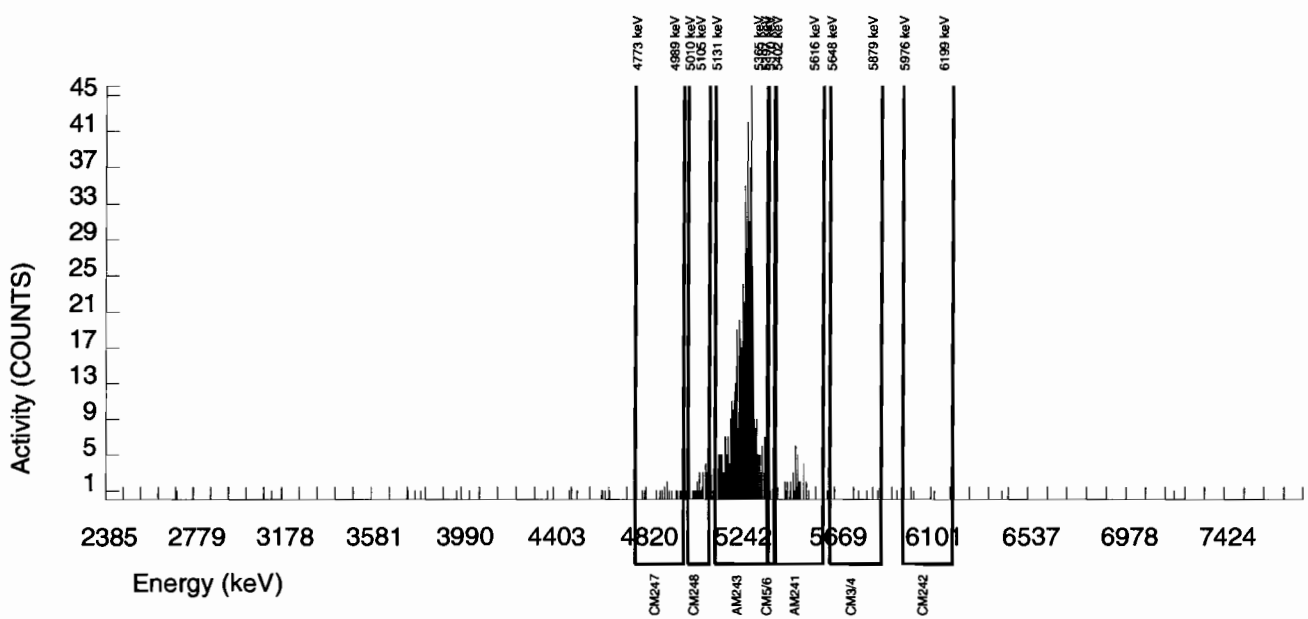

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966602	CHAMBER : 250	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0249244001_AM	DETECTOR S/N : 79443	BKG FILE : B250.CNF;91
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 40.2400	BKG DATE : 21-MAR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 26-MAR-2010 18:20:57	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W250.CNF;31
% YIELD : 85.787		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3150E+01 pCi/G	NOMINAL : 3.3150E+01 pCi/G
RESULTS : 1.9519E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5482.355	73.595	3.000	1.298	0.720	2.7707	99.94000	1.88E-03	2.31E-03	8.65E-03	2.12E-02	2.31E-03
AM243	5270.000	5267.406	64.080	565.000	564.280	0.720	0.8485	99.78000	8.18E-01	6.42E-02	2.65E-03	9.24E-03	3.45E-02
CM-242	6102.000	6035.597	29.438	2.000	2.000	0.000	4.0092	100.0000	3.11E-03	2.21E-03	1.25E-02	2.89E-02	2.20E-03
CM-3/4	5795.020	5771.923	63.783	3.000	3.000	0.000	4.8510	100.0000	4.35E-03	2.53E-03	1.51E-02	3.42E-02	2.51E-03
CM-5/6	5386.000	5384.524	19.012	3.000	3.000	0.000	6.1294	86.09000	5.04E-03	2.93E-03	2.22E-02	4.90E-02	2.91E-03
CM-247	4946.000	4937.626	11.806	8.000	8.000	0.000	6.3427	79.30000	1.46E-02	5.25E-03	2.50E-02	5.49E-02	5.16E-03
CM-248	5078.600	5060.624	37.615	26.000	26.000	0.000	11.0244	91.00000	4.13E-02	8.55E-03	3.78E-02	7.99E-02	8.10E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

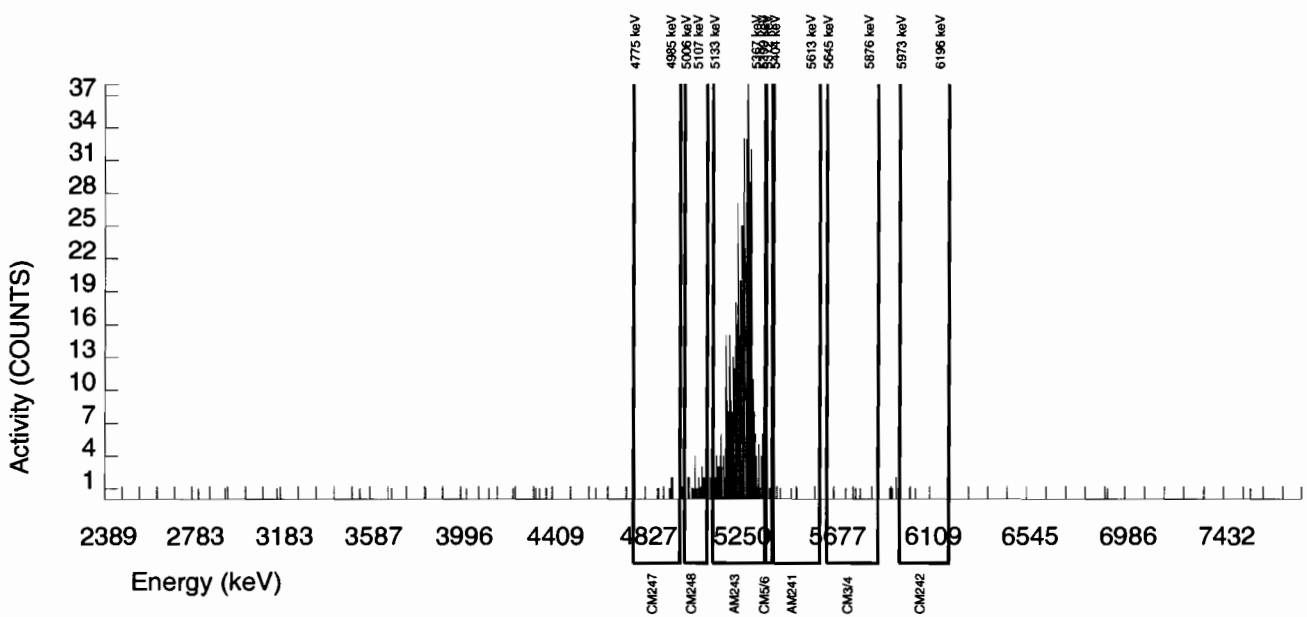

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966602	CHAMBER : 251	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0249244002_AM	DETECTOR S/N : 79444	BKG FILE : B251.CNF;91
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 40.4400	BKG DATE : 21-MAR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 26-MAR-2010 18:21:00	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W251.CNF;31
% YIELD : 82.246		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3150E+01 pCi/G	NOMINAL : 3.3150E+01 pCi/G
RESULTS : 1.8714E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5486.340	103.722	4.000	2.334	0.720	2.7707	99.94000	3.50E-03	2.85E-03	8.97E-03	2.20E-02	2.84E-03
AM243	5270.000	5270.360	66.307	548.000	543.680	4.320	2.0785	99.78000	8.17E-01	6.51E-02	6.74E-03	1.76E-02	3.53E-02
CM-242	6102.000	6060.860	14.817	5.000	5.000	0.000	4.0092	100.0000	8.06E-03	3.65E-03	1.30E-02	3.00E-02	3.61E-03
CM-3/4	5795.020	5719.554	0.000	6.000	5.280	0.720	4.8510	100.0000	7.93E-03	3.87E-03	1.57E-02	3.55E-02	3.84E-03
CM-5/6	5386.000	5380.539	6.123	5.000	5.000	0.000	6.1294	86.09000	8.71E-03	3.94E-03	2.30E-02	5.08E-02	3.90E-03
CM-247	4946.000	4895.550	4.939	9.000	5.400	3.600	6.3427	79.30000	1.02E-02	6.48E-03	2.59E-02	5.69E-02	6.44E-03
CM-248	5078.600	5063.722	79.335	21.000	21.000	0.000	11.0244	91.00000	3.46E-02	7.90E-03	3.92E-02	8.29E-02	7.55E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

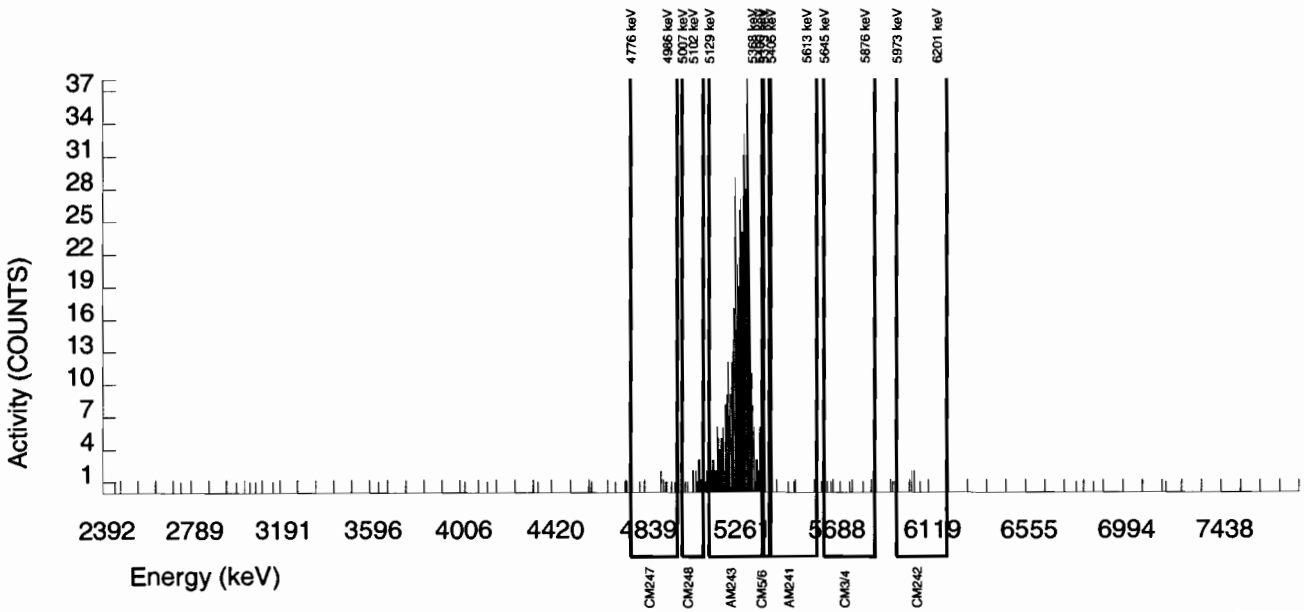

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966602	CHAMBER : 252	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0249244003_AM	DETECTOR S/N : 79445	BKG FILE : B252.CNF;91
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 39.1229	BKG DATE : 21-MAR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 26-MAR-2010 18:21:03	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W252.CNF;31
% YIELD : 87.767		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3150E+01 pCi/G	NOMINAL : 3.3150E+01 pCi/G
RESULTS : 1.9970E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5507.522	0.000	0.000	-0.977	0.000	2.7707	99.94000	-1.42E-03	1.46E-03	8.71E-03	2.14E-02	1.46E-03
AM243	5270.000	5267.109	53.469	562.000	561.280	0.720	0.8485	99.78000	8.19E-01	6.45E-02	2.67E-03	9.30E-03	3.46E-02
CM-242	6102.000	6048.903	64.213	3.000	3.000	0.000	4.0092	100.0000	4.70E-03	2.73E-03	1.26E-02	2.91E-02	2.71E-03
CM-3/4	5795.020	5783.201	14.818	2.000	2.000	0.000	4.8510	100.0000	2.92E-03	2.07E-03	1.52E-02	3.44E-02	2.06E-03
CM-5/6	5386.000	5379.642	0.000	4.000	4.000	0.000	6.1294	86.09000	6.77E-03	3.41E-03	2.24E-02	4.93E-02	3.38E-03
CM-247	4946.000	4903.635	29.431	13.000	13.000	0.000	6.3427	79.30000	2.39E-02	6.81E-03	2.51E-02	5.52E-02	6.62E-03
CM-248	5078.600	5066.864	78.554	26.000	26.000	0.000	11.0244	91.00000	4.16E-02	8.62E-03	3.81E-02	8.05E-02	8.16E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

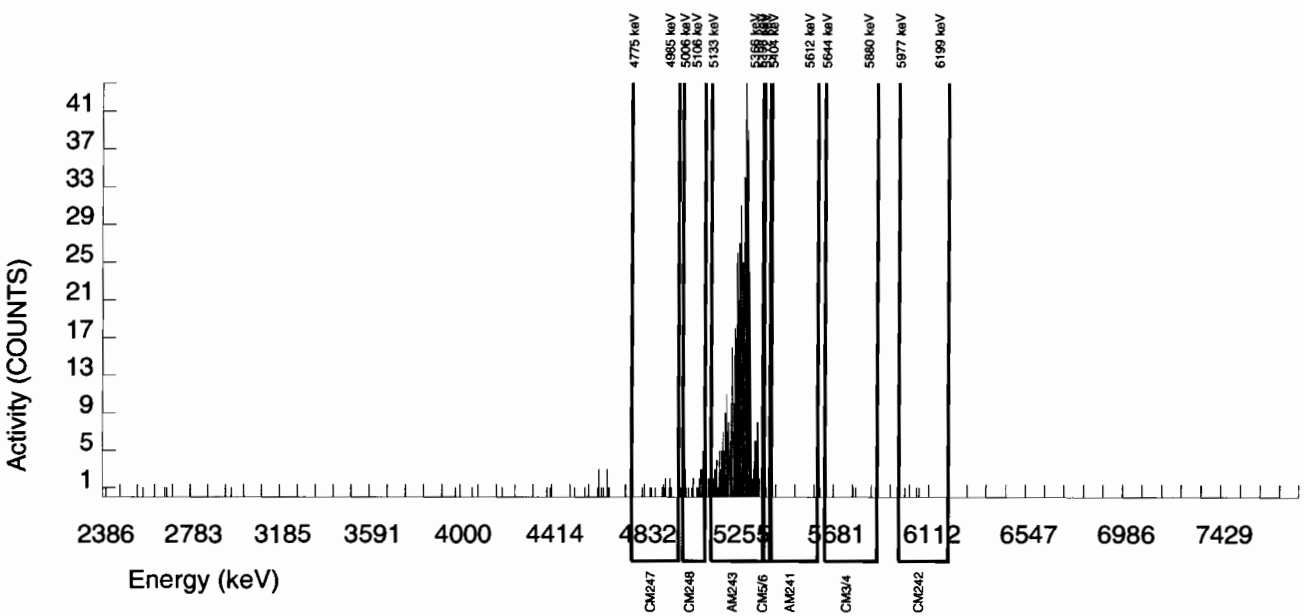

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966602	CHAMBER : 253	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0249244004_AM	DETECTOR S/N : 79446	BKG FILE : B253.CNF;93
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 39.9556	BKG DATE : 21-MAR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 26-MAR-2010 18:21:06	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W253.CNF;30
% YIELD : 83.611		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3150E+01 pCi/G	NOMINAL : 3.3150E+01 pCi/G
RESULTS : 1.9024E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5488.752	64.042	3.000	-5.150	7.200	2.7707	99.94000	-7.67E-03	4.00E-03	8.90E-03	2.18E-02	4.00E-03
AM243	5270.000	5265.417	56.116	554.000	546.080	7.920	2.8142	99.78000	8.14E-01	6.50E-02	9.05E-03	2.21E-02	3.53E-02
CM-242	6102.000	6066.196	44.337	2.000	2.000	0.000	4.0092	100.0000	3.20E-03	2.27E-03	1.29E-02	2.98E-02	2.26E-03
CM-3/4	5795.020	5761.982	83.748	6.000	-3.360	9.360	4.8510	100.0000	-5.01E-03	5.32E-03	1.56E-02	3.52E-02	5.32E-03
CM-5/6	5386.000	5379.638	0.000	2.000	1.280	0.720	6.1294	86.09000	2.21E-03	2.75E-03	2.28E-02	5.04E-02	2.74E-03
CM-247	4946.000	4873.919	0.000	19.000	10.360	8.640	6.3427	79.30000	1.94E-02	9.51E-03	2.57E-02	5.64E-02	9.42E-03
CM-248	5078.600	5069.642	0.000	24.000	21.120	2.880	11.0244	91.00000	3.45E-02	8.66E-03	3.89E-02	8.22E-02	8.35E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

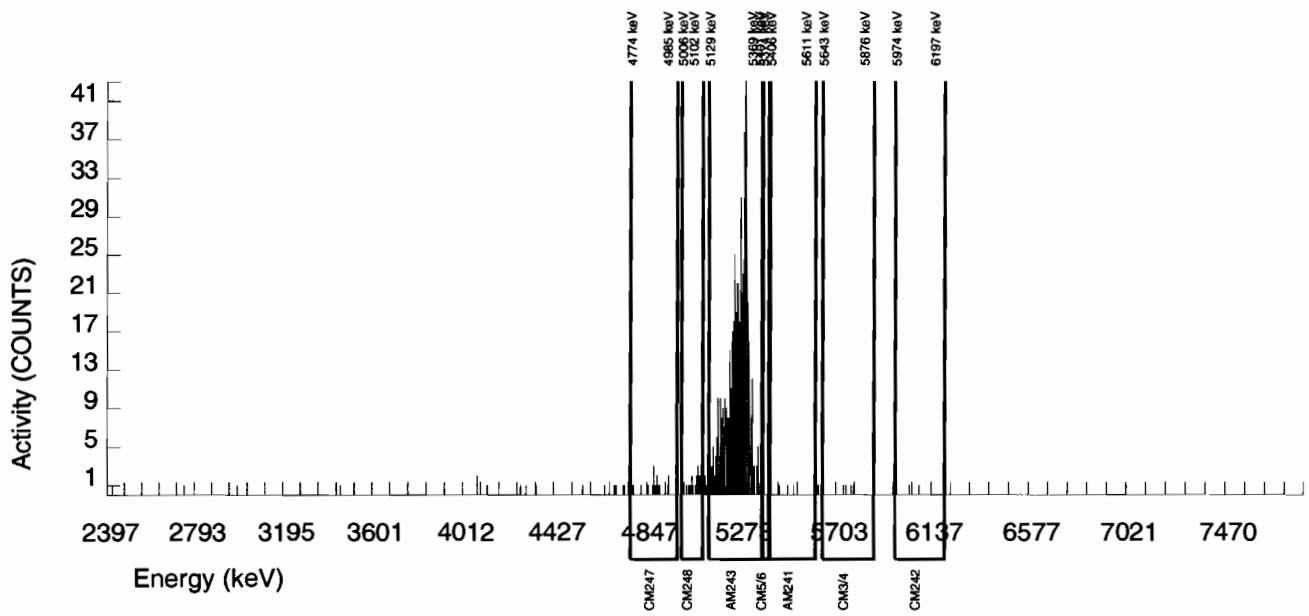

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966602	CHAMBER : 254	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0249244005_AM	DETECTOR S/N : 79447	BKG FILE : B254.CNF;91
SAMPLE QTY : 1.270 G	AVERAGE %EFFICIENCY : 40.1306	BKG DATE : 21-MAR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 26-MAR-2010 18:21:08	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W254.CNF;30
% YIELD : 81.533		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3150E+01 pCi/G	NOMINAL : 3.3150E+01 pCi/G
RESULTS : 1.8551E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5464.563	4.935	1.000	-0.651	0.720	2.7707	99.94000	-9.80E-04	1.86E-03	9.01E-03	2.21E-02	1.86E-03
AM243	5270.000	5270.174	51.195	537.000	534.840	2.160	1.4697	99.78000	8.07E-01	6.45E-02	4.78E-03	1.37E-02	3.50E-02
CM-242	6102.000	6045.364	64.161	2.000	2.000	0.000	4.0092	100.0000	3.24E-03	2.30E-03	1.30E-02	3.01E-02	2.29E-03
CM-3/4	5795.020	5735.157	78.967	2.000	2.000	0.000	4.8510	100.0000	3.02E-03	2.14E-03	1.58E-02	3.56E-02	2.13E-03
CM-5/6	5386.000	5380.522	0.000	8.000	7.280	0.720	6.1294	86.09000	1.27E-02	5.18E-03	2.31E-02	5.10E-02	5.10E-03
CM-247	4946.000	4895.072	93.773	17.000	14.120	2.880	6.3427	79.30000	2.68E-02	8.48E-03	2.60E-02	5.71E-02	8.29E-03
CM-248	5078.600	5065.877	0.000	32.000	29.840	2.160	11.0244	91.00000	4.94E-02	1.01E-02	3.94E-02	8.32E-02	9.58E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

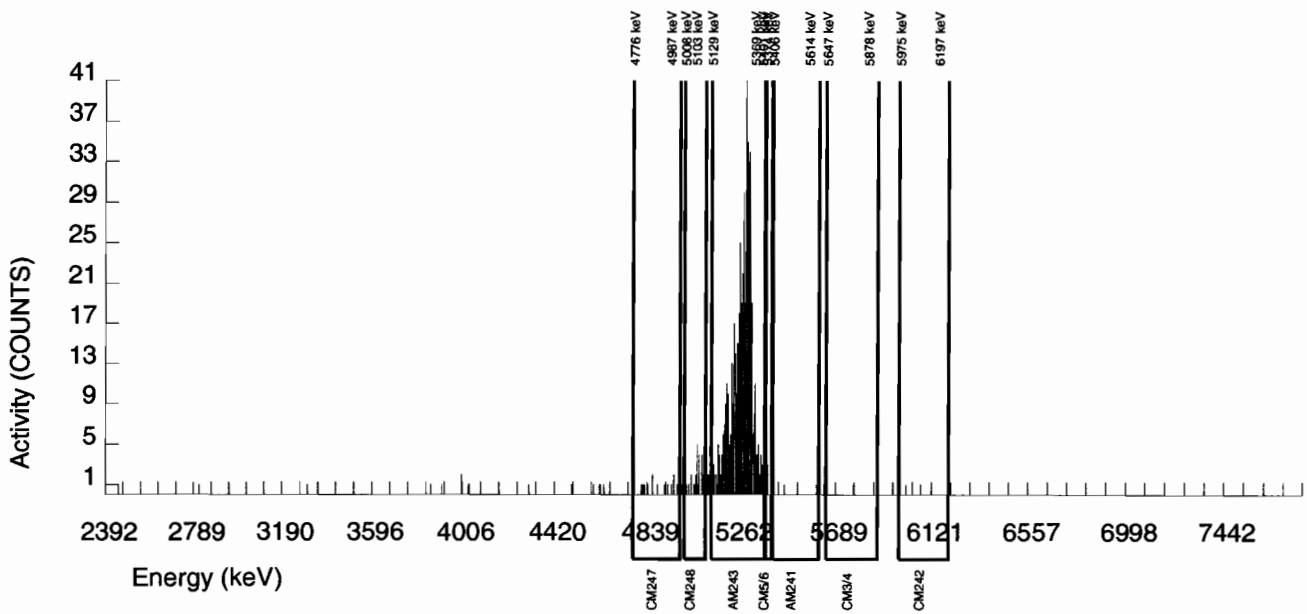

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966602	CHAMBER : 255	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0249244006_AM	DETECTOR S/N : 79448	BKG FILE : B255.CNF;91
SAMPLE QTY : 1.292 G	AVERAGE %EFFICIENCY : 40.4666	BKG DATE : 21-MAR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 26-MAR-2010 18:21:11	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W255.CNF;30
% YIELD : 78.159		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3150E+01 pCi/G	NOMINAL : 3.3150E+01 pCi/G
RESULTS : 1.7784E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5415.400	4.930	1.000	0.100	0.000	2.7707	99.94000	1.54E-04	1.54E-03	9.16E-03	2.25E-02	1.53E-03
AM243	5270.000	5263.634	32.346	517.000	517.000	0.000	0.0000	99.78000	7.93E-01	6.39E-02	0.00E+00	4.16E-03	3.49E-02
CM-242	6102.000	6011.183	4.930	3.000	3.000	0.000	4.0092	100.0000	4.94E-03	2.87E-03	1.32E-02	3.06E-02	2.85E-03
CM-3/4	5795.020	5777.769	0.000	6.000	6.000	0.000	4.8510	100.0000	9.20E-03	3.81E-03	1.60E-02	3.62E-02	3.76E-03
CM-5/6	5386.000	5386.015	0.000	2.000	2.000	0.000	6.1294	86.09000	3.56E-03	2.53E-03	2.35E-02	5.19E-02	2.52E-03
CM-247	4946.000	4921.378	22.122	16.000	16.000	0.000	6.3427	79.30000	3.09E-02	8.00E-03	2.64E-02	5.81E-02	7.72E-03
CM-248	5078.600	5065.851	71.418	19.000	19.000	0.000	11.0244	91.00000	3.20E-02	7.64E-03	4.00E-02	8.46E-02	7.33E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

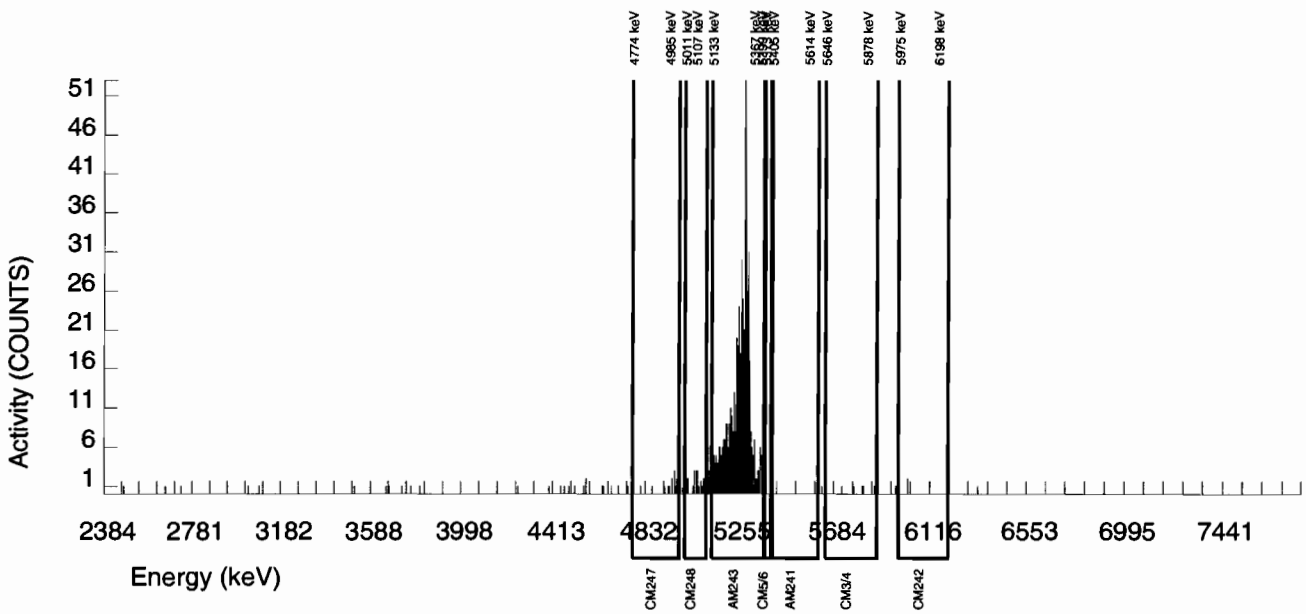

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966602	CHAMBER : 256	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202074362_AM	DETECTOR S/N : 79449	BKG FILE : B256.CNF;93
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 40.3572	BKG DATE : 21-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 26-MAR-2010 18:21:13	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W256.CNF;30
% YIELD : 80.014		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3148E+01 pCi/G	NOMINAL : 3.3148E+01 pCi/G
RESULTS : 1.8206E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5504.586	68.886	3.000	0.642	1.440	2.7707	99.94000	1.24E-03	3.43E-03	1.16E-02	2.84E-02	3.42E-03
AM243	5270.000	5258.881	53.254	530.000	527.840	2.160	1.4697	99.78000	1.02E+00	8.22E-02	6.16E-03	1.76E-02	4.48E-02
CM-242	6102.000	6043.537	68.886	3.000	3.000	0.000	4.0092	100.0000	5.94E-03	3.45E-03	1.68E-02	3.88E-02	3.43E-03
CM-3/4	5795.020	5736.360	98.409	2.000	0.560	1.440	4.8510	100.0000	1.09E-03	3.38E-03	2.03E-02	4.58E-02	3.38E-03
CM-5/6	5386.000	5370.960	0.000	3.000	3.000	0.000	6.1294	86.09000	6.75E-03	3.92E-03	2.98E-02	6.56E-02	3.90E-03
CM-247	4946.000	4935.247	44.284	13.000	12.280	0.720	6.3427	79.30000	3.00E-02	9.21E-03	3.34E-02	7.35E-02	8.98E-03
CM-248	5078.600	5061.462	0.000	28.000	28.000	0.000	11.0244	91.00000	5.96E-02	1.20E-02	5.06E-02	1.07E-01	1.13E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

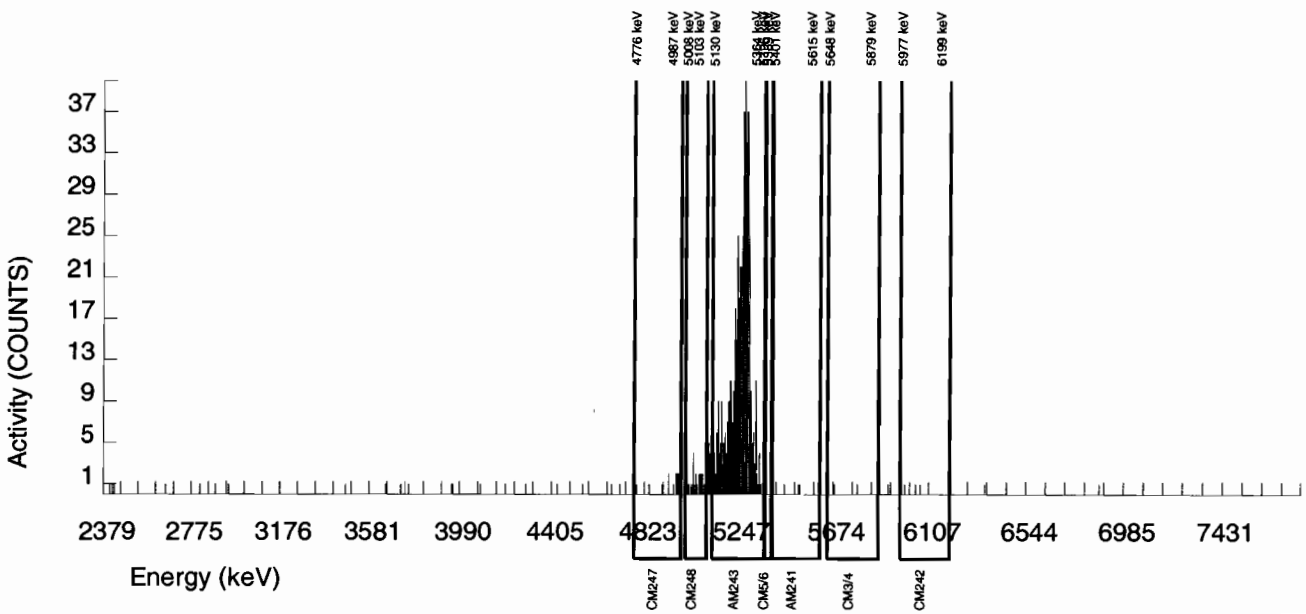

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966602	CHAMBER : 237	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202074363_AM	DETECTOR S/N : 79430	BKG FILE : B237.CNF;91
SAMPLE QTY : 1.258 G	AVERAGE %EFFICIENCY : 41.0426	BKG DATE : 21-MAR-2010
SAMPLE DATE : 9-MAR-2010 00:00:00.	COUNT DATE : 26-MAR-2010 19:34:10	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W237.CNF;30
% YIELD : 84.938		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3150E+01 pCi/G	NOMINAL : 3.3150E+01 pCi/G
RESULTS : 1.9326E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5498.581	145.569	32.000	27.409	3.600	2.7707	99.94000	3.91E-02	8.67E-03	8.53E-03	2.09E-02	8.27E-03
AM243	5270.000	5269.469	93.207	572.000	569.840	2.160	1.4697	99.78000	8.15E-01	6.39E-02	4.53E-03	1.29E-02	3.42E-02
CM-242	6102.000	6090.158	4.935	1.000	1.000	0.000	4.0092	100.0000	1.54E-03	1.54E-03	1.23E-02	2.85E-02	1.54E-03
CM-3/4	5795.020	5702.813	103.625	2.000	2.000	0.000	4.8510	100.0000	2.86E-03	2.03E-03	1.49E-02	3.37E-02	2.02E-03
CM-5/6	5386.000	5381.285	0.000	8.000	7.280	0.720	6.1294	86.09000	1.21E-02	4.90E-03	2.19E-02	4.83E-02	4.84E-03
CM-247	4946.000	4894.754	138.167	18.000	17.280	0.720	6.3427	79.30000	3.11E-02	8.01E-03	2.46E-02	5.41E-02	7.74E-03
CM-248	5078.600	5064.770	64.972	21.000	21.000	0.000	11.0244	91.00000	3.29E-02	7.51E-03	3.73E-02	7.88E-02	7.18E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

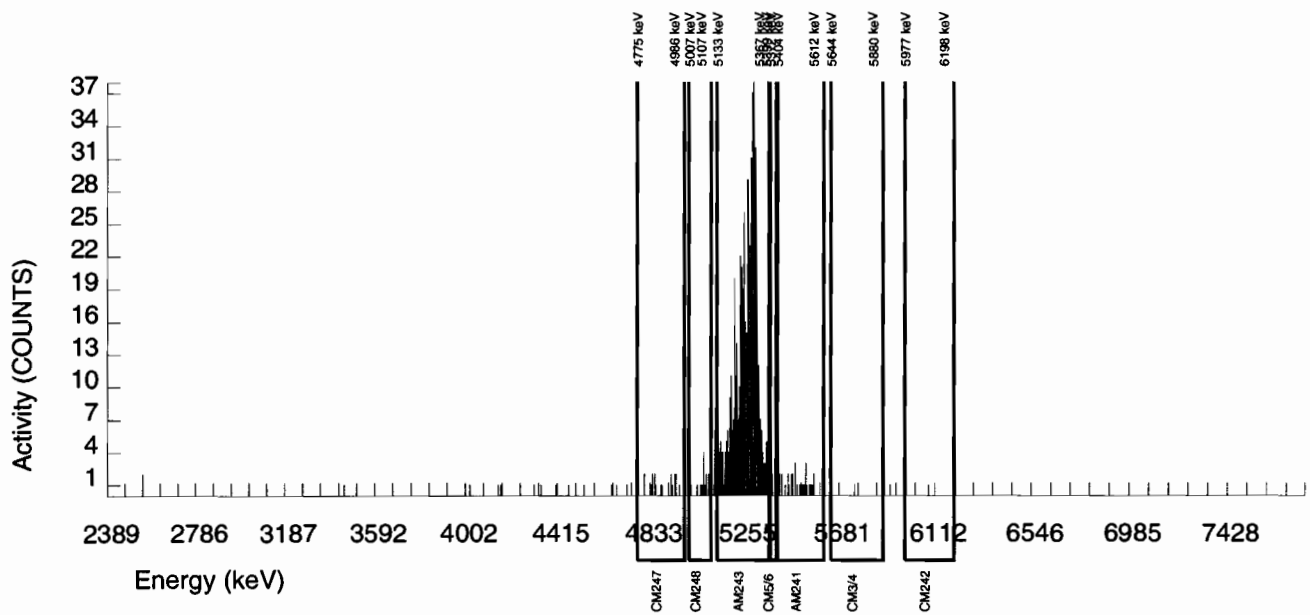

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966602	CHAMBER : 238	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202074364_AM	DETECTOR S/N : 79431	BKG FILE : B238.CNF;95
SAMPLE QTY : 0.109 G	AVERAGE %EFFICIENCY : 40.1819	BKG DATE : 25-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 26-MAR-2010 19:34:11	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W238.CNF;32
% YIELD : 100.722		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3148E+01 pCi/G	NOMINAL : 3.3148E+01 pCi/G
RESULTS : 2.2917E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5480.734	67.005	2089.000	2087.849	0.000	2.7707	99.94000	2.96E+01	2.19E+00	8.48E-02	2.08E-01	6.48E-01
AM243	5270.000	5253.587	62.530	663.000	661.560	1.440	1.2000	99.78000	9.40E+00	7.59E-01	3.68E-02	1.12E-01	3.66E-01
CM-242	6102.000	6039.739	98.104	5.000	5.000	0.000	4.0092	100.0000	7.25E-02	3.28E-02	1.23E-01	2.84E-01	3.24E-02
CM-3/4	5795.020	5750.941	58.249	5.000	4.280	0.720	4.8510	100.0000	6.07E-02	3.36E-02	1.48E-01	3.35E-01	3.33E-02
CM-5/6	5386.000	5480.734	67.005	2089.000	2087.849	0.000	6.1294	86.09000	3.44E+01	2.55E+00	2.18E-01	4.80E-01	7.53E-01
CM-247	4946.000	4898.138	87.067	26.000	25.280	0.720	6.3427	79.30000	4.52E-01	9.75E-02	2.45E-01	5.38E-01	9.21E-02
CM-248	5078.600	5064.100	37.934	50.000	50.000	0.000	11.0244	91.00000	7.79E-01	1.23E-01	3.71E-01	7.84E-01	1.10E-01

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

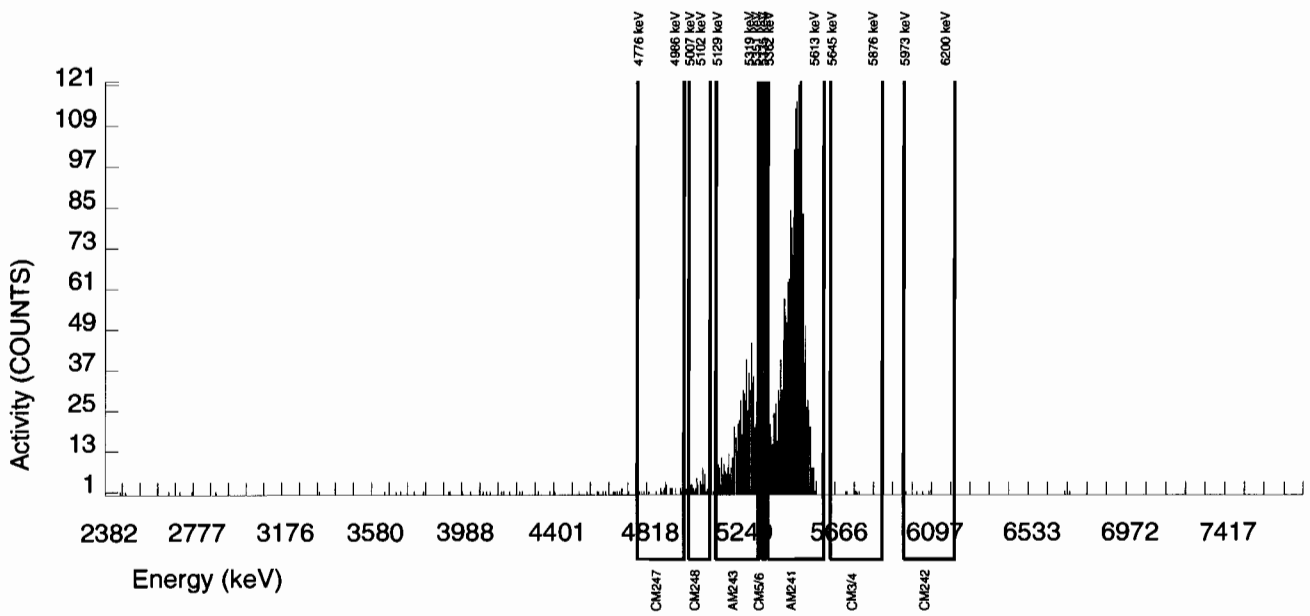

Radiochemistry Batch Checklist, Rev10

Batch# 966612 Product: U Date: 4/5/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 4/5/10

Secondary Review Performed By: [illegible] 4/6/10

4/8
LANL

Uranium Que Sheet

18-MAR-10

Batch #: 966612 **Analyst:** HAKB **First Client Due Date:** 08-APR-10 **Internal Due Date:** 28-MAR-10

Tracer Isotope: U-232/U-236 **Tracer Code:** 1283-H **Expiration Date:** 12/9/10 **Vol:** Ø.1 **Analyzed Sequentially with Pu**

LCS Isotope: U-238 **LCS Code:** SRM 0244-A **Expiration Date:** 10/31/20 **Vol:** Ø.110 **Pu-236 ID:** NA

Spike Isotope: U-238 **Spike Code:** NA **Expiration Date:** NA **Vol:** NA **Vol.:**

Prep Date: 3/22/10 **Initials:** HAKB **Pipet ID:** 4497063 **Balance ID:** 50410272 **Witness:** 03/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) (1/f)	U Det #
249179001-1	RE46-10-13437	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	1	1	0.505	136
249179002-1	RE46-10-13436	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	2	2	0.515	137
249179003-1	RE46-10-13434	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	3	3	0.542	138
249179004-1	RE46-10-13438	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	4	4	0.515	139
249179005-1	RE46-10-13435	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	5	5	0.505	140
249179006-1	RE46-10-13439	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	6	6	0.523	141
249179007-1	RE46-10-13463	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	7	7	0.515	142
249244001-1	RE46-10-12927	SAMPLE		.1 pCi/g	SOIL	LANL010	10-MAR-10	8	8	0.503	143
249244002-1	RE46-10-12923	SAMPLE		.1 pCi/g	SOIL	LANL010	10-MAR-10	9	9	0.510	144
249244003-1	RE46-10-12924	SAMPLE		.1 pCi/g	SOIL	LANL010	10-MAR-10	10	10	0.500	145
249244004-1	RE46-10-12926	SAMPLE		.1 pCi/g	SOIL	LANL010	10-MAR-10	11	11	0.542	146
249244005-1	RE46-10-12928	SAMPLE		.1 pCi/g	SOIL	LANL010	10-MAR-10	12	12	0.518	147
249244006-1	RE46-10-12925	SAMPLE		.1 pCi/g	SOIL	LANL010	10-MAR-10	13	13	0.510	148
1202074380-1	MB for batch 966612	MB		.1 pCi/g	SOIL	QC ACCOUNT		14	14	1	149
1202074381-1	RE46-10-12927(249244001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	10-MAR-10	15	15	0.504	150
1202074382-1	LCS for batch 966612	LCS		.1 pCi/g	SOIL	QC ACCOUNT		16	16	0.110	151

* SRM 0244-A Exp 10/31/20

Choose SOP used: GL-RAD-A-011 **Solid Sample Dissolution by:** LEACH or DIGESTION (Circle One) **Data Reviewed By:** JoLM 4/5/10

Blank Correction Report

Batch ID 966612

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202074381	DUP	Uranium-233/234	0.504 g	0.742	0.0739	0.0992	.020238095	pCi/g	NO
		Uranium-235/236	0.504 g	0.0739	0.0187	0.0606	.008571429	pCi/g	NO
		Uranium-238	0.504 g	0.816	0.0794	0.0697	0	pCi/g	NO
1202074382	LCS	Uranium-233/234	0.110 g	5.45	0.512	0.443	.092727273	pCi/g	NO
		Uranium-235/236	0.110 g	0.311	0.0858	0.270	.039272727	pCi/g	NO
		Uranium-238	0.110 g	5.57	0.522	0.311	0	pCi/g	NO
1202074380	MB	Uranium-233/234	1.00 g	0.0102	0.00494	0.0493	.0102	pCi/g	YES
		Uranium-235/236	1.00 g	0.00432	0.00433	0.0301	.00432	pCi/g	YES
		Uranium-238	1.00 g	0.00	0.0035	0.0346	0	pCi/g	NO
249179001	RE46-10-13437	Uranium-233/234	0.505 g	3.54	0.278	0.101	.020198020	pCi/g	NO
		Uranium-235/236	0.505 g	0.177	0.0313	0.0616	.008554455	pCi/g	NO
		Uranium-238	0.505 g	1.01	0.0942	0.0709	0	pCi/g	NO
249179002	RE46-10-13436	Uranium-233/234	0.515 g	1.86	0.157	0.103	.019805825	pCi/g	NO
		Uranium-235/236	0.515 g	0.346	0.0467	0.0627	.008388350	pCi/g	NO
		Uranium-238	0.515 g	0.913	0.0875	0.0721	0	pCi/g	NO
249179003	RE46-10-13434	Uranium-233/234	0.542 g	0.968	0.0909	0.0965	.018819188	pCi/g	NO
		Uranium-235/236	0.542 g	0.0423	0.0137	0.0589	.007970480	pCi/g	NO
		Uranium-238	0.542 g	0.821	0.0796	0.0678	0	pCi/g	NO
249179004	RE46-10-13438	Uranium-233/234	0.515 g	0.871	0.0841	0.101	.019805825	pCi/g	NO
		Uranium-235/236	0.515 g	0.0574	0.0176	0.0616	.008388350	pCi/g	NO
		Uranium-238	0.515 g	0.886	0.0851	0.0708	0	pCi/g	NO
249179005	RE46-10-13435	Uranium-233/234	0.505 g	1.71	0.144	0.0964	.020198020	pCi/g	NO
		Uranium-235/236	0.505 g	0.110	0.0229	0.0589	.008554455	pCi/g	NO
		Uranium-238	0.505 g	0.957	0.0894	0.0677	0	pCi/g	NO
249179006	RE46-10-13439	Uranium-233/234	0.523 g	1.72	0.146	0.0975	.019502868	pCi/g	NO
		Uranium-235/236	0.523 g	0.107	0.0243	0.0595	.008260038	pCi/g	NO
		Uranium-238	0.523 g	0.968	0.0909	0.0685	0	pCi/g	NO
249179007	RE46-10-13463	Uranium-233/234	0.515 g	1.22	0.109	0.0968	.019805825	pCi/g	NO
		Uranium-235/236	0.515 g	0.0679	0.0187	0.0591	.008388350	pCi/g	NO
		Uranium-238	0.515 g	0.975	0.0909	0.0681	0	pCi/g	NO
249244001	RE46-10-12927	Uranium-233/234	0.503 g	0.877	0.0845	0.102	.020278330	pCi/g	NO
		Uranium-235/236	0.503 g	0.0313	0.012	0.0622	.008588469	pCi/g	YES
		Uranium-238	0.503 g	0.827	0.0808	0.0716	0	pCi/g	NO
249244002	RE46-10-12923	Uranium-233/234	0.510 g	0.908	0.0875	0.103	.02	pCi/g	NO
		Uranium-235/236	0.510 g	0.0451	0.016	0.0628	.008470588	pCi/g	NO
		Uranium-238	0.510 g	0.861	0.084	0.0723	0	pCi/g	NO
249244003	RE46-10-12924	Uranium-233/234	0.500 g	0.915	0.0888	0.108	.0204	pCi/g	NO
		Uranium-235/236	0.500 g	0.0236	0.0107	0.0657	.00864	pCi/g	YES
		Uranium-238	0.500 g	0.908	0.0884	0.0756	0	pCi/g	NO
249244004	RE46-10-12926	Uranium-233/234	0.542 g	0.890	0.0849	0.0973	.018819188	pCi/g	NO
		Uranium-235/236	0.542 g	0.0341	0.0137	0.0595	.007970480	pCi/g	YES

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
249244004	RE46-10-12926	Uranium-238	0.542 g	0.908	0.0861	0.0684	0	pCi/g	NO
249244005	RE46-10-12928	Uranium-233/234	0.518 g	0.785	0.0752	0.0905	.019691120	pCi/g	NO
		Uranium-235/236	0.518 g	0.0159	0.0113	0.0553	.008339768	pCi/g	YES
		Uranium-238	0.518 g	0.748	0.0726	0.0636	0	pCi/g	NO
249244006	RE46-10-12925	Uranium-233/234	0.510 g	0.749	0.0741	0.0979	.02	pCi/g	NO
		Uranium-235/236	0.510 g	0.0429	0.0139	0.0598	.008470588	pCi/g	NO
		Uranium-238	0.510 g	0.788	0.077	0.0688	0	pCi/g	NO

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966612	CHAMBER : 143	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0249244001_UU	DETECTOR S/N : 65882	BKG FILE : B143.CNF;408
SAMPLE QTY : 0.503 G	AVERAGE %EFFICIENCY : 25.3082	BKG DATE : 28-MAR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 3-APR-2010 16:16:24	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W143.CNF;116
% YIELD : 97.948		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5011E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4087E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5293.237	41.634	1115.000	1115.000	0.000	0.0000	100.0000	4.03E+00	3.14E-01	0.00E+00	9.79E-03	1.21E-01
U-3/4	4763.020	4741.808	72.923	244.000	242.870	0.000	5.4790	100.0000	8.77E-01	8.45E-02	4.60E-02	1.02E-01	5.63E-02
U-235	4391.000	4382.020	64.291	7.000	7.000	0.000	2.4127	80.90000	3.13E-02	1.20E-02	2.51E-02	6.22E-02	1.18E-02
U-238	4184.730	4175.329	53.480	229.000	229.000	0.000	3.6781	100.0000	8.27E-01	8.08E-02	3.09E-02	7.16E-02	5.47E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

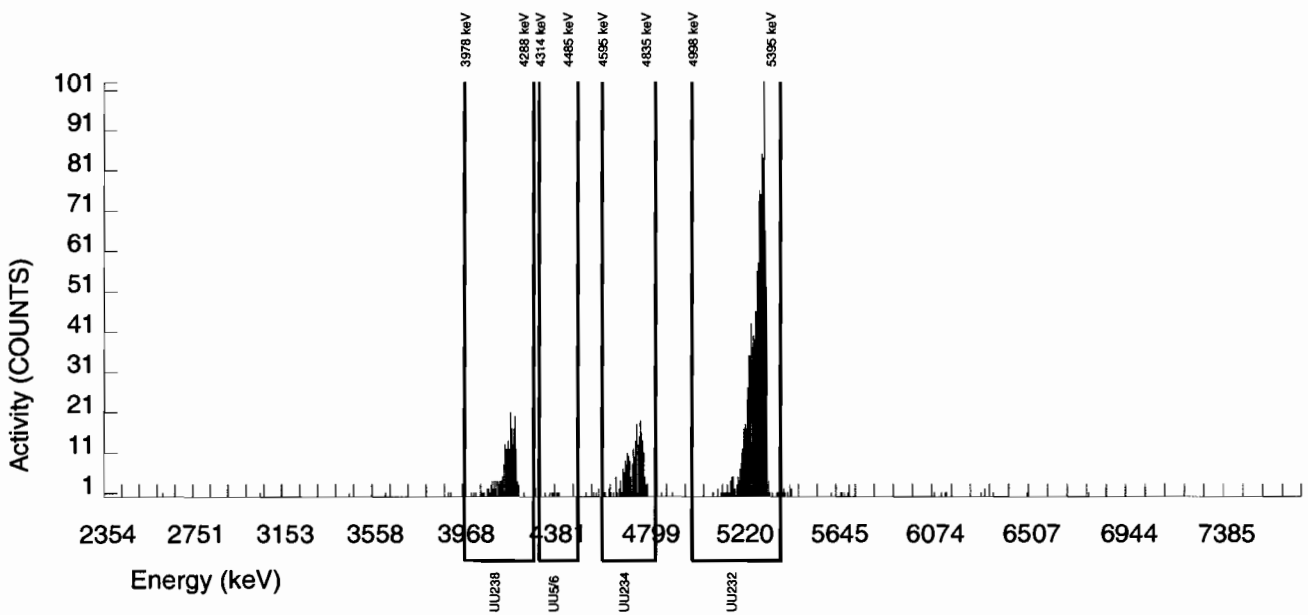

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966612	CHAMBER : 144	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0249244002_UU	DETECTOR S/N : 75551	BKG FILE : B144.CNF;407
SAMPLE QTY : 0.510 G	AVERAGE %EFFICIENCY : 25.8806	BKG DATE : 28-MAR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 3-APR-2010 16:16:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W144.CNF;110
% YIELD : 93.548		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5011E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.2107E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5298.449	31.130	1099.000	1089.000	10.000	3.1623	100.0000	3.98E+00	3.11E-01	2.68E-02	6.36E-02	1.22E-01
U-3/4	4763.020	4748.777	73.636	252.000	248.896	2.000	5.4790	100.0000	9.08E-01	8.75E-02	4.65E-02	1.03E-01	5.80E-02
U-235	4391.000	4398.560	27.028	11.000	10.000	1.000	2.4127	80.90000	4.51E-02	1.60E-02	2.53E-02	6.28E-02	1.56E-02
U-238	4184.730	4184.743	35.024	238.000	236.000	2.000	3.6781	100.0000	8.61E-01	8.40E-02	3.12E-02	7.23E-02	5.65E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

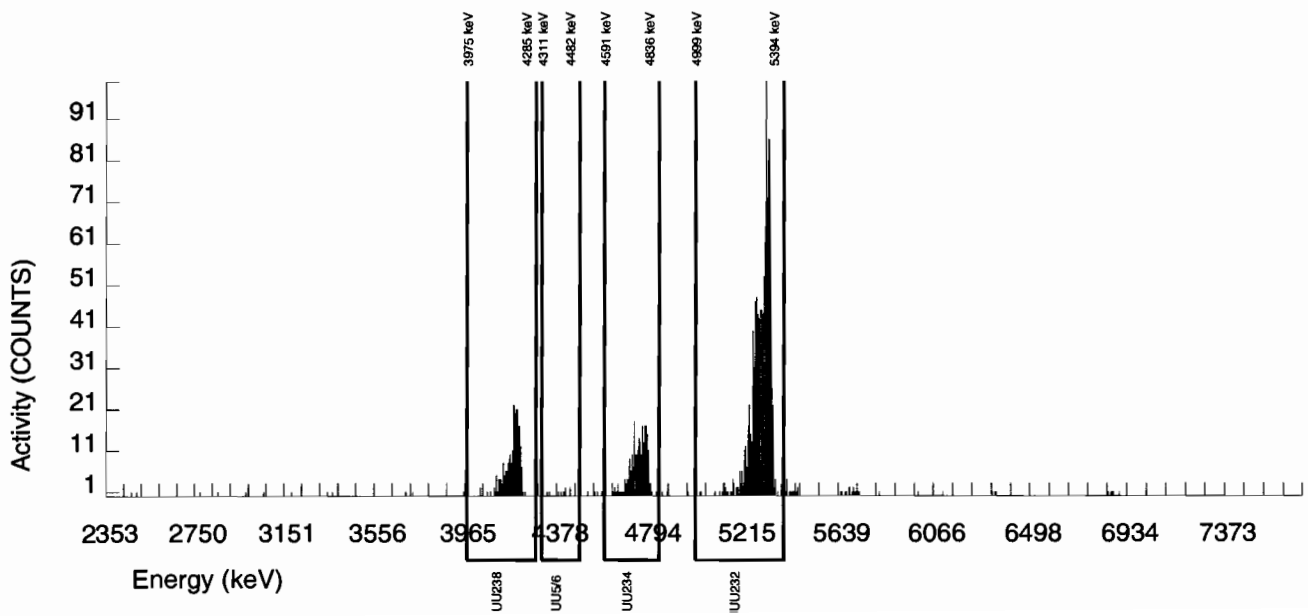

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966612	CHAMBER : 145	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0249244003_UU	DETECTOR S/N : 72526	BKG FILE : B145.CNF;405
SAMPLE QTY : 0.500 G	AVERAGE %EFFICIENCY : 26.0296	BKG DATE : 28-MAR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 3-APR-2010 16:16:28	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W145.CNF;115
% YIELD : 90.706		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5011E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.0828E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5293.347	30.474	1074.000	1062.000	12.000	3.4641	100.0000	4.06E+00	3.19E-01	3.07E-02	7.18E-02	1.26E-01
U-3/4	4763.020	4749.569	41.462	241.000	239.924	0.000	5.4790	100.0000	9.15E-01	8.88E-02	4.86E-02	1.08E-01	5.91E-02
U-235	4391.000	4398.197	4.959	5.000	5.000	0.000	2.4127	80.90000	2.36E-02	1.07E-02	2.65E-02	6.57E-02	1.05E-02
U-238	4184.730	4177.327	77.417	239.000	238.000	1.000	3.6781	100.0000	9.08E-01	8.84E-02	3.26E-02	7.56E-02	5.91E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

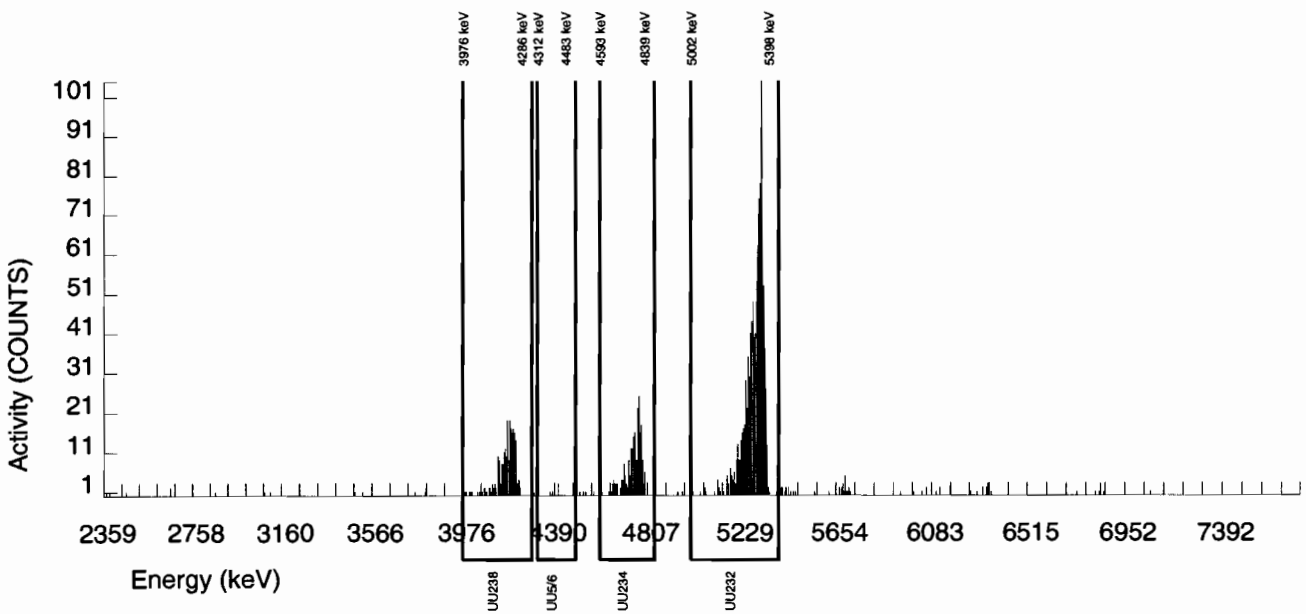

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966612	CHAMBER : 146	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0249244004_UU	DETECTOR S/N : 72527	BKG FILE : B146.CNF;410
SAMPLE QTY : 0.542 G	AVERAGE %EFFICIENCY : 25.8212	BKG DATE : 28-MAR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 3-APR-2010 16:16:32	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W146.CNF;117
% YIELD : 93.246		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5011E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.1971E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5300.761	60.078	1086.000	1083.000	3.000	1.7321	100.0000	3.74E+00	2.93E-01	1.39E-02	3.72E-02	1.14E-01
U-3/4	4763.020	4747.885	41.516	260.000	257.903	1.000	5.4790	100.0000	8.90E-01	8.49E-02	4.40E-02	9.73E-02	5.56E-02
U-235	4391.000	4389.909	0.000	9.000	8.000	1.000	2.4127	80.90000	3.41E-02	1.37E-02	2.39E-02	5.95E-02	1.35E-02
U-238	4184.730	4184.592	41.884	263.000	263.000	0.000	3.6781	100.0000	9.08E-01	8.61E-02	2.95E-02	6.84E-02	5.60E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

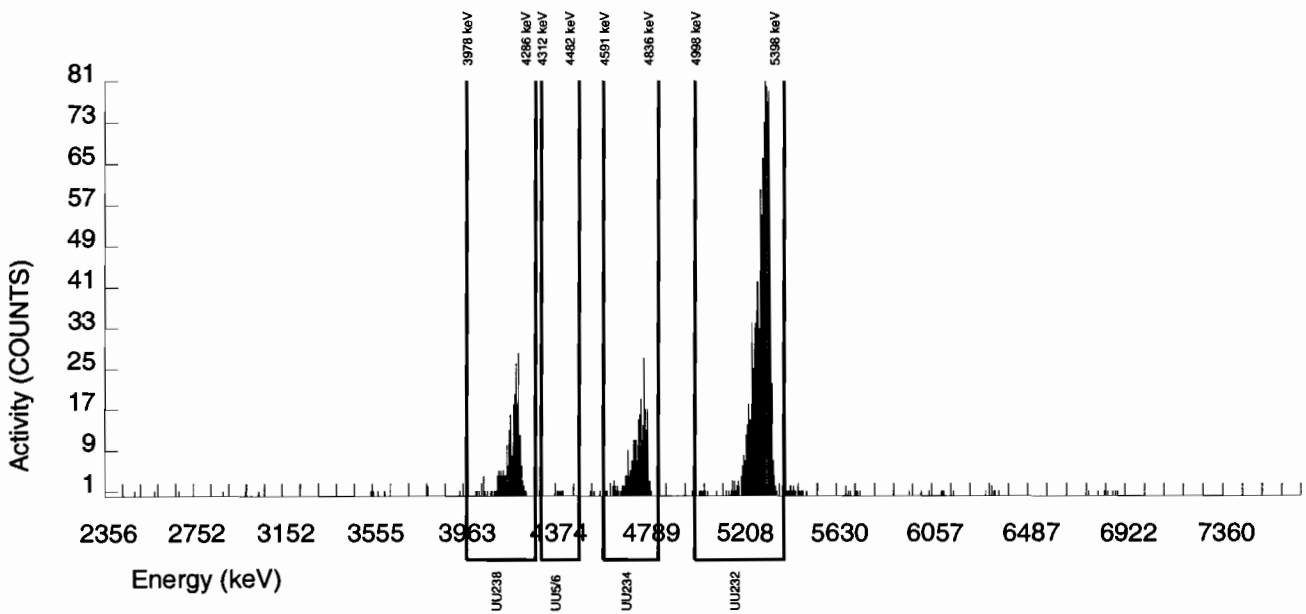

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966612	CHAMBER : 147	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0249244005_UU	DETECTOR S/N : 75550	BKG FILE : B147.CNF;410
SAMPLE QTY : 0.518 G	AVERAGE %EFFICIENCY : 26.7529	BKG DATE : 28-MAR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 3-APR-2010 16:16:34	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W147.CNF;116
% YIELD : 101.301		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5011E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.5596E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5299.635	55.446	1222.000	1219.000	3.000	1.7321	100.0000	3.91E+00	3.01E-01	1.29E-02	3.46E-02	1.12E-01
U-3/4	4763.020	4755.679	52.106	246.000	244.765	0.000	5.4790	100.0000	7.85E-01	7.52E-02	4.09E-02	9.05E-02	5.02E-02
U-235	4391.000	4399.724	7.245	6.000	4.000	2.000	2.4127	80.90000	1.59E-02	1.13E-02	2.23E-02	5.53E-02	1.12E-02
U-238	4184.730	4185.911	49.910	234.000	233.000	1.000	3.6781	100.0000	7.48E-01	7.26E-02	2.75E-02	6.36E-02	4.92E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

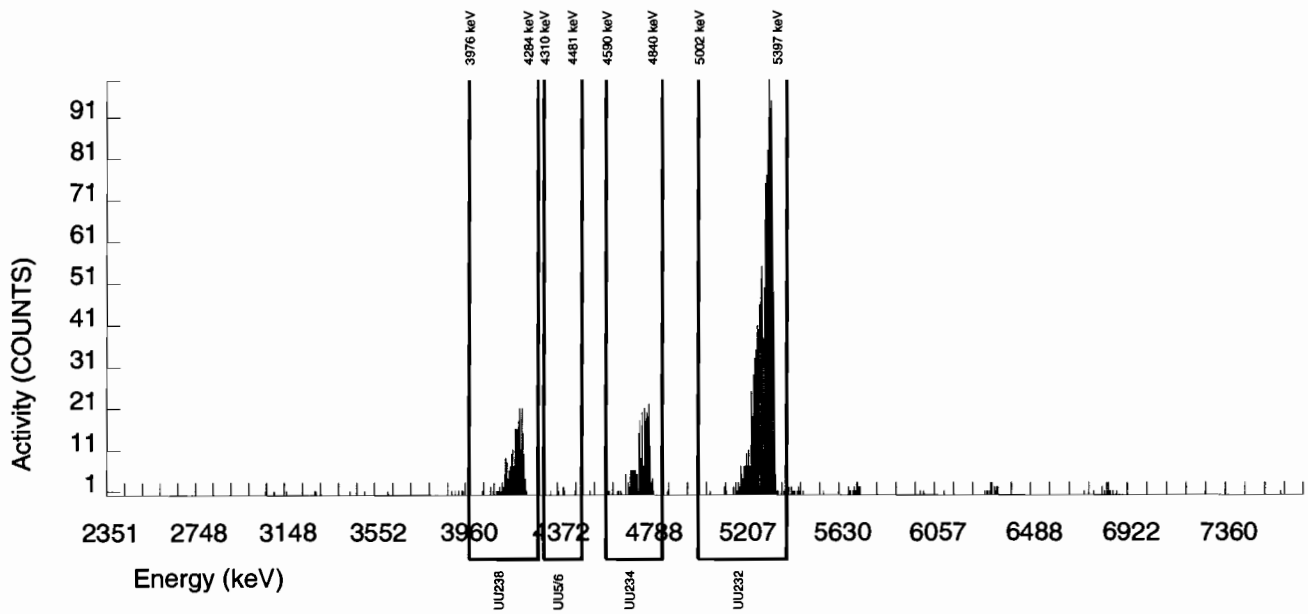

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966612	CHAMBER : 148	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0249244006_UU	DETECTOR S/N : 74429	BKG FILE : B148.CNF;409
SAMPLE QTY : 0.510 G	AVERAGE %EFFICIENCY : 26.4937	BKG DATE : 28-MAR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 3-APR-2010 16:16:37	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W148.CNF;131
% YIELD : 96.083		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5011E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3248E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5304.416	41.164	1151.000	1145.000	6.000	2.4495	100.0000	3.98E+00	3.09E-01	1.98E-02	4.89E-02	1.18E-01
U-3/4	4763.020	4754.979	61.479	217.000	215.840	0.000	5.4790	100.0000	7.49E-01	7.41E-02	4.42E-02	9.79E-02	5.10E-02
U-235	4391.000	4421.699	9.476	10.000	10.000	0.000	2.4127	80.90000	4.29E-02	1.39E-02	2.41E-02	5.98E-02	1.36E-02
U-238	4184.730	4190.476	21.634	227.000	227.000	0.000	3.6781	100.0000	7.88E-01	7.70E-02	2.97E-02	6.88E-02	5.23E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

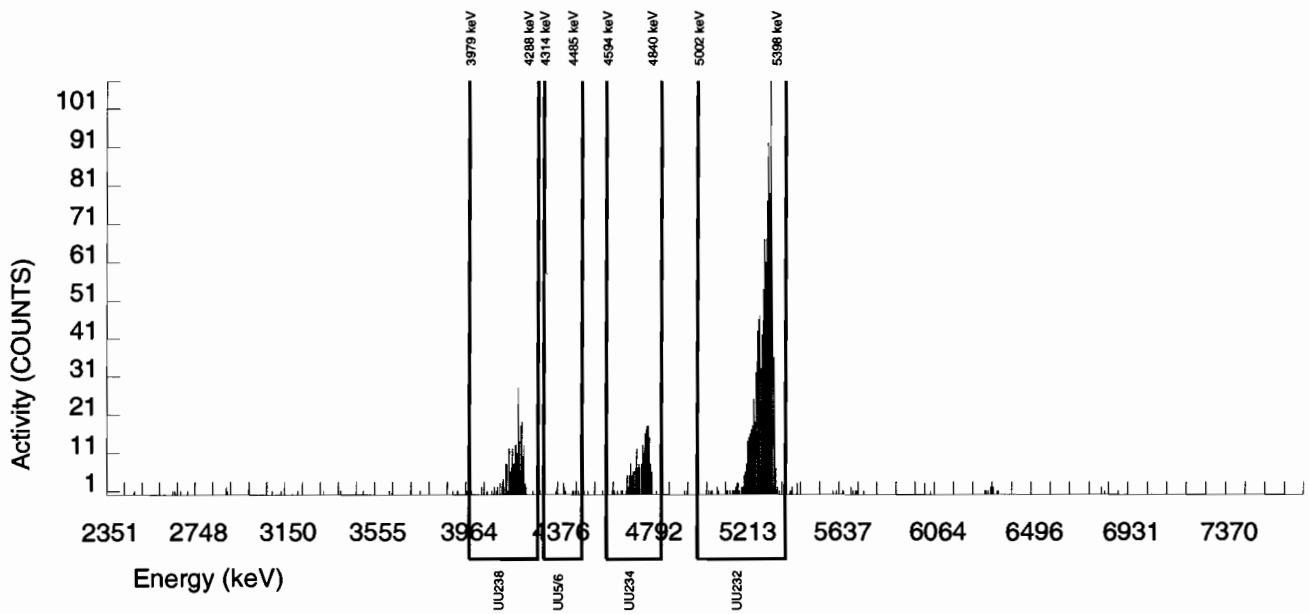

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966612	CHAMBER : 149	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202074380_UU	DETECTOR S/N : 33449	BKG FILE : B149.CNF;413
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 25.9295	BKG DATE : 28-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 3-APR-2010 16:16:39	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W149.CNF;116
% YIELD : 99.459		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4996E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4753E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5288.960	67.355	1168.000	1160.000	8.000	2.8284	100.0000	2.03E+00	1.57E-01	1.15E-02	2.77E-02	5.99E-02
U-3/4	4763.020	4724.044	11.422	8.000	5.825	1.000	5.4790	100.0000	1.02E-02	4.94E-03	2.23E-02	4.93E-02	4.89E-03
U-235	4391.000	4430.767	0.000	3.000	2.000	1.000	2.4127	80.90000	4.32E-03	4.33E-03	1.21E-02	3.01E-02	4.32E-03
U-238	4184.730	4181.568	148.179	2.000	0.000	2.000	3.6781	100.0000	0.00E+00	3.50E-03	1.49E-02	3.46E-02	3.49E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

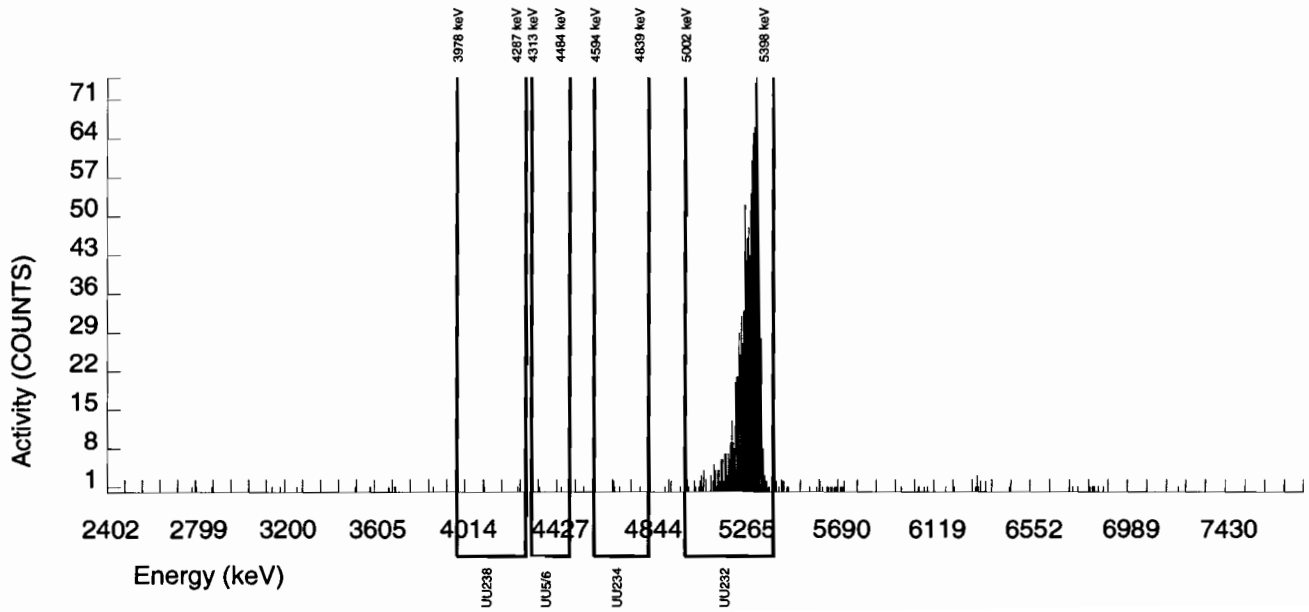

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966612	CHAMBER : 150	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202074381_UU	DETECTOR S/N : 75552	BKG FILE : B150.CNF;414
SAMPLE QTY : 0.504 G	AVERAGE %EFFICIENCY : 26.6394	BKG DATE : 28-MAR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 3-APR-2010 16:16:41	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W150.CNF;124
% YIELD : 95.390		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5011E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.2936E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.819	57.523	1152.000	1143.000	9.000	3.0000	100.0000	4.02E+00	3.13E-01	2.45E-02	5.86E-02	1.20E-01
U-3/4	4763.020	4750.987	57.750	213.000	210.842	1.000	5.4790	100.0000	7.42E-01	7.39E-02	4.48E-02	9.92E-02	5.13E-02
U-235	4391.000	4401.485	29.582	17.000	17.000	0.000	2.4127	80.90000	7.39E-02	1.87E-02	2.44E-02	6.06E-02	1.79E-02
U-238	4184.730	4185.961	69.378	232.000	232.000	0.000	3.6781	100.0000	8.16E-01	7.94E-02	3.01E-02	6.97E-02	5.36E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

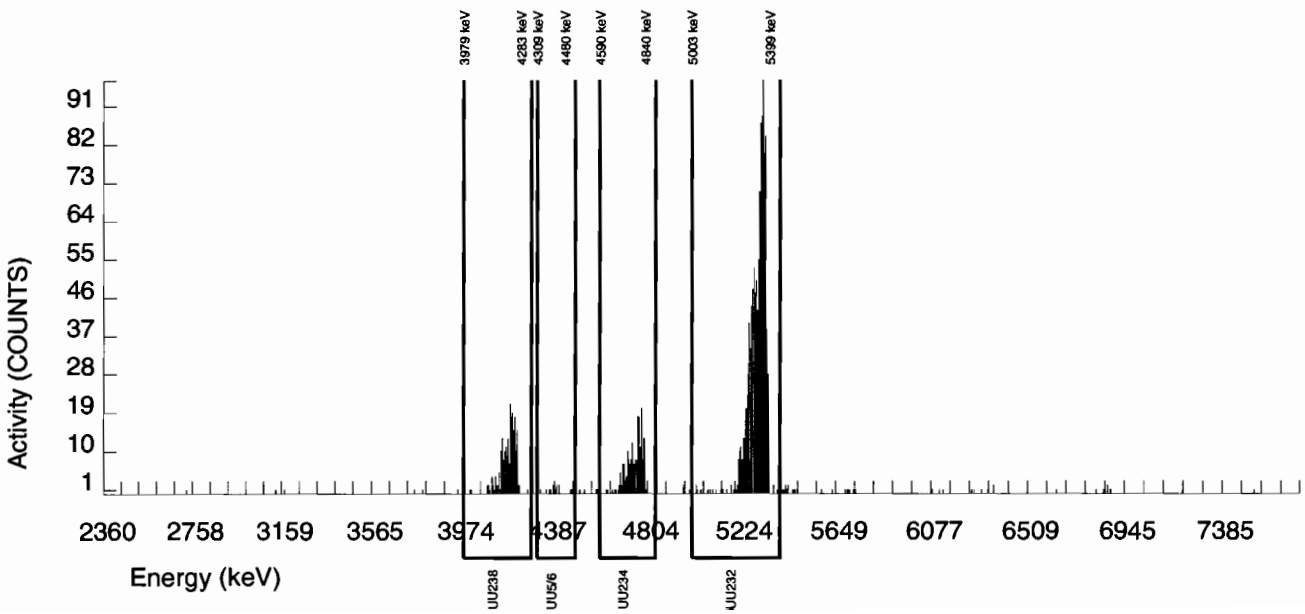

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966612	CHAMBER : 151	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202074382_UU	DETECTOR S/N : 75556	BKG FILE : B151.CNF;409
SAMPLE QTY : 0.110 G	AVERAGE %EFFICIENCY : 26.1124	BKG DATE : 28-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 3-APR-2010 16:16:43	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W151.CNF;122
% YIELD : 99.870		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4996E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4937E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5304.810	41.770	1175.000	1173.000	2.000	1.4142	100.0000	1.84E+01	1.52E+00	5.17E-02	1.46E-01	5.39E-01
U-3/4	4763.020	4759.558	42.911	348.000	346.811	0.000	5.4790	100.0000	5.45E+00	5.12E-01	2.00E-01	4.43E-01	2.92E-01
U-235	4391.000	4389.654	66.554	17.000	16.000	1.000	2.4127	80.90000	3.11E-01	8.58E-02	1.09E-01	2.70E-01	8.23E-02
U-238	4184.730	4186.318	42.840	355.000	355.000	0.000	3.6781	100.0000	5.57E+00	5.22E-01	1.34E-01	3.11E-01	2.96E-01

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

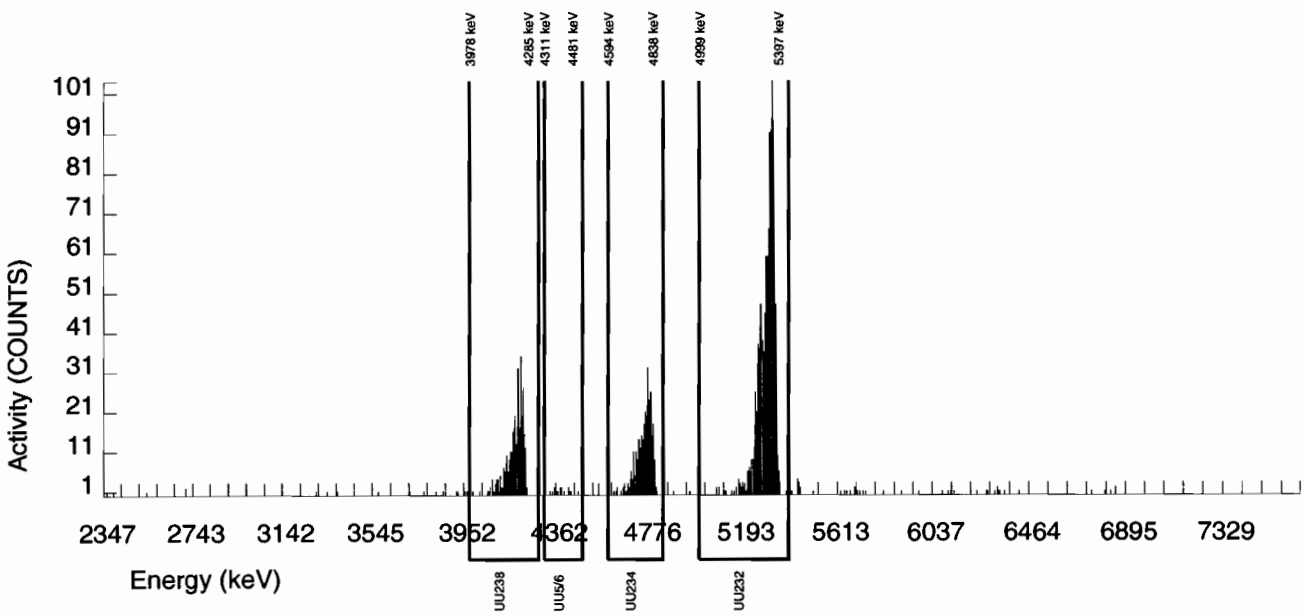

Radiochemistry Batch Checklist, Rev10

Batch# 966707 Product: TN Date: 3/26/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 3/26/10

Secondary Review Performed By: [illegible] 3/27/10

4/9

LANL

Thorium Que Sheet

18-MAR-10

Batch #: 966707 **Analyst:** HAKB **First Client Due Date:** 09-APR-10 **Internal Due Date:** 29-MAR-10

Tracer Isotope: Th-229 **Tracer Code:** 0934-L **Expiration Date:** 3/9/11 **Vol:** 0.1

LCS Isotope: Th-230 **LCS Code:** SRM 0244-A **Expiration Date:** 10/31/20 **Vol:** 0.107 g

Spike Isotope: Th-230 **Spike Code:** NA **Expiration Date:** NA **Vol:** NA

Prep Date: 3/22/10 **Initials:** HAKB **Pipet ID:** 4497063 **Balance ID:** 5041027 2 **Witness:** [illegible] 03/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/ Dry Aliquot (g/l/f)	Th Det #
249244001-1	RE46-10-12927	SAMPLE		.1 pCi/g	SOIL	LANL010	10-MAR-10	1	1	0.252	188
~~249244002-1~~	~~RE46-10-12923~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~10-MAR-10~~	~~2~~	~~2~~	~~0.254~~	~~189~~
249244003-1	RE46-10-12924	SAMPLE		.1 pCi/g	SOIL	LANL010	10-MAR-10	3	3	0.270	190
249244004-1	RE46-10-12926	SAMPLE		.1 pCi/g	SOIL	LANL010	10-MAR-10	4	4	0.284	191
249244005-1	RE46-10-12928	SAMPLE		.1 pCi/g	SOIL	LANL010	10-MAR-10	5	5	0.278	192
249244006-1	RE46-10-12925	SAMPLE		.1 pCi/g	SOIL	LANL010	10-MAR-10	6	6	0.261	193
1202074647-1	MB for batch 966707	MB		.1 pCi/g	SOIL	QC ACCOUNT		7	7		194
1202074648-1	RE46-10-12927(249244001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	10-MAR-10	8	8	0.284	195
1202074649-1	LCS for batch 966707	LCS		.1 pCi/g	SOIL	QC ACCOUNT		9	9	0.107	196

*SRM 0244-A Exp 10/31/20

Data Reviewed By: [illegible] 3/26/10

GEL Laboratories LLC, Radiochemistry Division

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Choose SOP Used: GL-RAD-A-032, GL-RAD-A-038, GL-RAD-A-043

Blank Correction Report

Batch ID 966707

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202074648	DUP	Thorium-228	0.284 g	1.33	0.132	0.134	.017816901	pCi/g	NO
		Thorium-230	0.284 g	0.826	0.0969	0.168	.020563380	pCi/g	NO
		Thorium-232	0.284 g	1.05	0.110	0.0717	.030316901	pCi/g	NO
1202074649	LCS	Thorium-228	0.107 g	1.35	0.185	0.355	.047289720	pCi/g	NO
		Thorium-230	0.107 g	24.8	1.96	0.446	.054579439	pCi/g	NO
		Thorium-232	0.107 g	1.37	0.183	0.190	.080467290	pCi/g	NO
1202074647	MB	Thorium-228	1.00 g	0.00506	0.00595	0.0395	.00506	pCi/g	YES
		Thorium-230	1.00 g	0.00584	0.00415	0.0496	.00584	pCi/g	YES
		Thorium-232	1.00 g	0.00861	0.00472	0.0211	.00861	pCi/g	YES
249244001	RE46-10-12927	Thorium-228	0.252 g	1.09	0.124	0.166	.020079365	pCi/g	NO
		Thorium-230	0.252 g	1.17	0.126	0.209	.023174603	pCi/g	NO
		Thorium-232	0.252 g	1.14	0.124	0.089	.034166667	pCi/g	NO
249244003	RE46-10-12924	Thorium-228	0.270 g	1.50	0.149	0.151	.018740741	pCi/g	NO
		Thorium-230	0.270 g	1.05	0.115	0.190	.021629630	pCi/g	NO
		Thorium-232	0.270 g	1.36	0.137	0.0811	.031888889	pCi/g	NO
249244004	RE46-10-12926	Thorium-228	0.284 g	1.56	0.150	0.138	.017816901	pCi/g	NO
		Thorium-230	0.284 g	1.09	0.113	0.173	.020563380	pCi/g	NO
		Thorium-232	0.284 g	1.41	0.137	0.0739	.030316901	pCi/g	NO
249244005	RE46-10-12928	Thorium-228	0.278 g	1.46	0.142	0.138	.018201439	pCi/g	NO
		Thorium-230	0.278 g	0.898	0.0979	0.174	.021007194	pCi/g	NO
		Thorium-232	0.278 g	1.46	0.140	0.074	.030971223	pCi/g	NO
249244006	RE46-10-12925	Thorium-228	0.261 g	1.22	0.127	0.150	.019386973	pCi/g	NO
		Thorium-230	0.261 g	0.878	0.100	0.188	.022375479	pCi/g	NO
		Thorium-232	0.261 g	1.15	0.121	0.0802	.032988506	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966707	CHAMBER : 188	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0249244001_TH	DETECTOR S/N : 68621	BKG FILE : B188.CNF;164
SAMPLE QTY : 0.252 G	AVERAGE %EFFICIENCY : 27.1964	BKG DATE : 21-MAR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 25-MAR-2010 17:58:06	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W188.CNF;60
% YIELD : 86.743		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.9176E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5955.741	108.927	11.000	4.000	7.000	2.0641	57.44000	9.59E-02	1.02E-01	6.33E-02	1.62E-01	1.02E-01
TH-228	5363.000	5405.606	27.604	149.000	141.813	7.000	4.1318	99.94000	1.09E+00	1.24E-01	7.29E-02	1.66E-01	9.62E-02
TH229	4900.000	4896.999	39.178	523.000	519.000	4.000	2.0000	99.52000	3.95E+00	3.31E-01	3.54E-02	9.15E-02	1.75E-01
TH-230	4671.390	4664.566	16.960	160.000	154.571	0.000	5.3214	99.70000	1.17E+00	1.26E-01	9.41E-02	2.09E-01	9.45E-02
TH-232	3972.000	4000.189	35.536	152.000	150.797	1.000	1.9427	100.0000	1.14E+00	1.24E-01	3.42E-02	8.90E-02	9.37E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

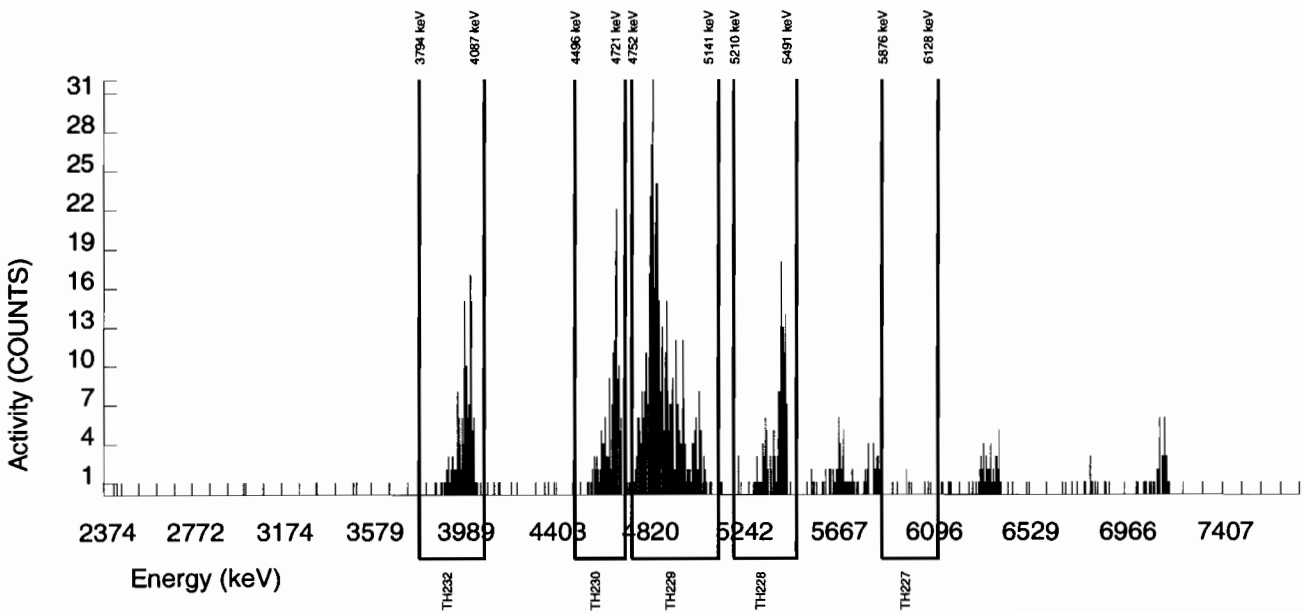

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966707
SAMPLE ID : S0249244003_TH
SAMPLE QTY : 0.270 G
SAMPLE DATE : 10-MAR-2010 00:00:00
ANALYST : HAKB
% YIELD : 92.140

CHAMBER : 190
DETECTOR S/N : 68623
AVERAGE %EFFICIENCY : 26.2446
COUNT DATE : 25-MAR-2010 17:58:12
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B190.CNF;164
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W190.CNF;59
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 2.0369E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6021.535	182.724	14.000	3.000	11.000	2.0641	57.44000	6.55E-02	1.09E-01	5.77E-02	1.48E-01	1.09E-01
TH-228	5363.000	5403.269	39.038	219.000	213.808	5.000	4.1318	99.94000	1.50E+00	1.49E-01	6.64E-02	1.51E-01	1.05E-01
TH229	4900.000	4899.425	54.510	537.000	532.000	5.000	2.2361	99.52000	3.69E+00	3.07E-01	3.61E-02	9.09E-02	1.61E-01
TH-230	4671.390	4665.183	60.496	161.000	151.435	4.000	5.3214	99.70000	1.05E+00	1.15E-01	8.57E-02	1.90E-01	8.74E-02
TH-232	3972.000	4003.541	31.377	200.000	196.792	3.000	1.9427	100.0000	1.36E+00	1.37E-01	3.12E-02	8.11E-02	9.82E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

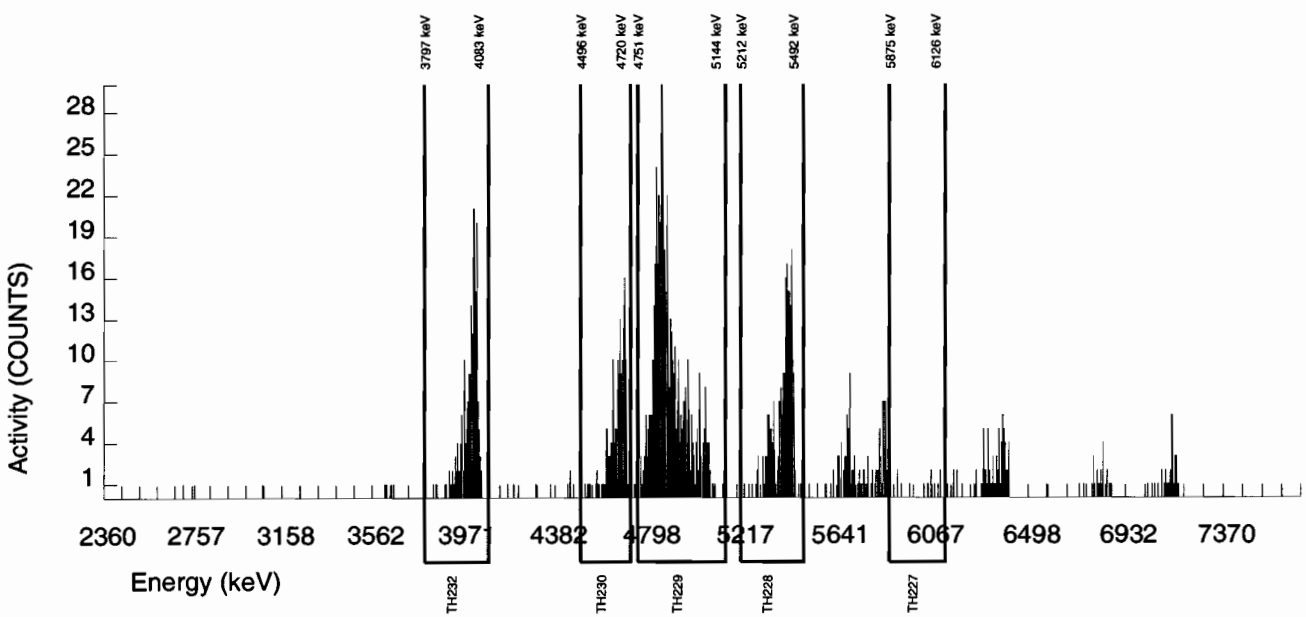

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966707	CHAMBER : 191	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0249244004_TH	DETECTOR S/N : 68624	BKG FILE : B191.CNF;166
SAMPLE QTY : 0.284 G	AVERAGE %EFFICIENCY : 27.0816	BKG DATE : 21-MAR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 25-MAR-2010 17:58:14	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W191.CNF;58
% YIELD : 93.153		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 2.0593E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6010.609	5.779	18.000	12.000	6.000	2.0641	57.44000	2.39E-01	9.89E-02	5.26E-02	1.35E-01	9.74E-02
TH-228	5363.000	5405.740	40.271	250.000	243.800	6.000	4.1318	99.94000	1.56E+00	1.50E-01	6.05E-02	1.38E-01	1.02E-01
TH229	4900.000	4893.351	53.353	559.000	555.000	4.000	2.0000	99.52000	3.51E+00	2.88E-01	2.94E-02	7.59E-02	1.50E-01
TH-230	4671.390	4658.224	21.089	180.000	173.194	1.000	5.3214	99.70000	1.09E+00	1.13E-01	7.81E-02	1.73E-01	8.35E-02
TH-232	3972.000	3992.559	26.834	225.000	224.783	0.000	1.9427	100.0000	1.41E+00	1.37E-01	2.84E-02	7.39E-02	9.43E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

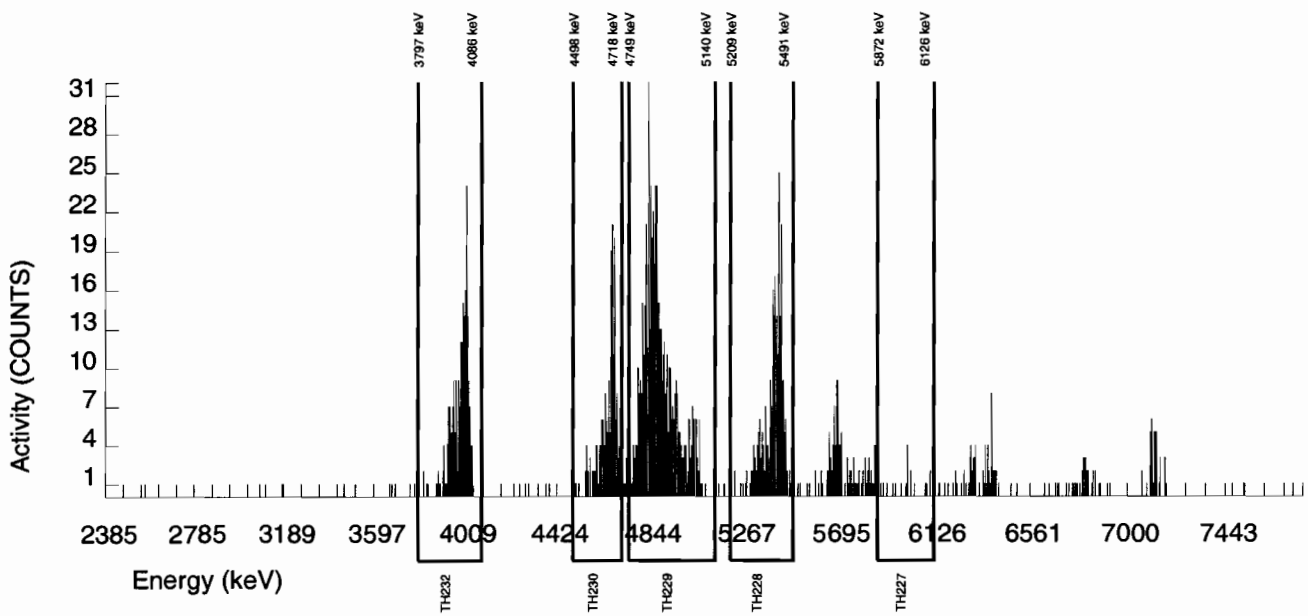

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966707	CHAMBER : 192	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0249244005_TH	DETECTOR S/N : 74430	BKG FILE : B192.CNF;164
SAMPLE QTY : 0.278 G	AVERAGE %EFFICIENCY : 26.7164	BKG DATE : 21-MAR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 25-MAR-2010 17:58:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W192.CNF;64
% YIELD : 96.298		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 2.1288E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6003.805	6.176	9.000	2.000	7.000	2.0641	57.44000	3.98E-02	7.97E-02	5.27E-02	1.35E-01	7.97E-02
TH-228	5363.000	5404.755	37.336	233.000	227.796	5.000	4.1318	99.94000	1.46E+00	1.42E-01	6.06E-02	1.38E-01	9.87E-02
TH229	4900.000	4898.057	103.960	567.000	566.000	1.000	1.0000	99.52000	3.58E+00	2.92E-01	1.47E-02	4.66E-02	1.51E-01
TH-230	4671.390	4662.833	80.187	148.000	142.079	0.000	5.3214	99.70000	8.98E-01	9.79E-02	7.82E-02	1.74E-01	7.53E-02
TH-232	3972.000	4001.691	38.599	232.000	231.779	0.000	1.9427	100.0000	1.46E+00	1.40E-01	2.85E-02	7.40E-02	9.59E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

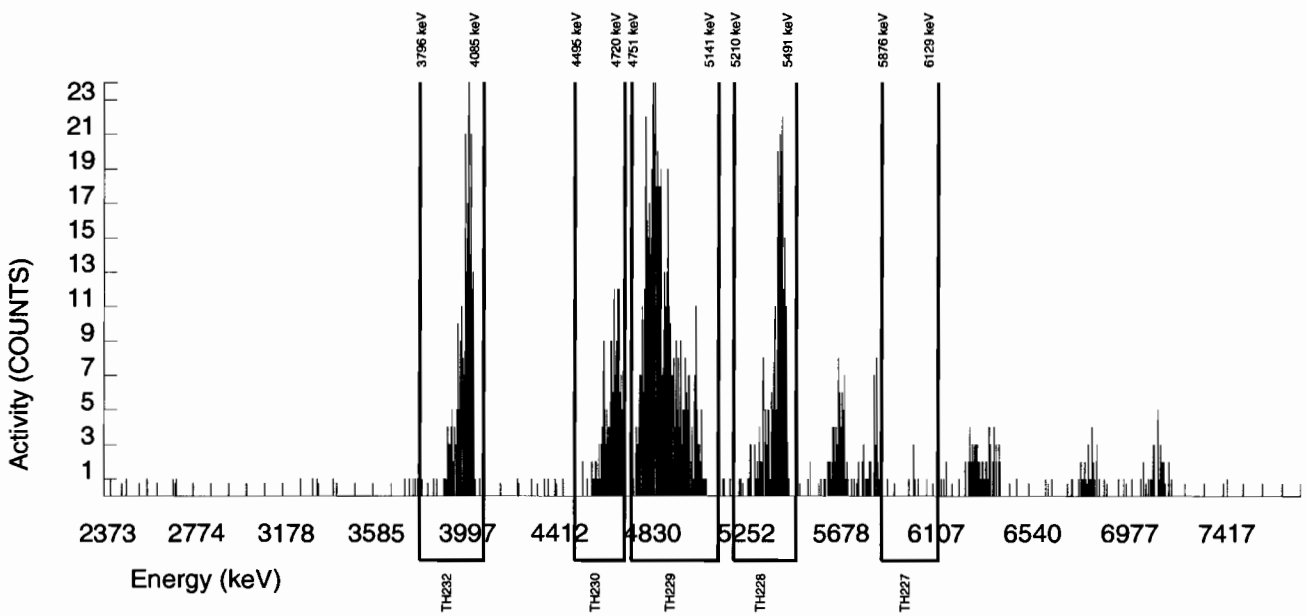

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966707
SAMPLE ID : S0249244006_TH
SAMPLE QTY : 0.261 G
SAMPLE DATE : 10-MAR-2010 00:00:00
ANALYST : HAKB
% YIELD : 94.128

CHAMBER : 193
DETECTOR S/N : 68627
AVERAGE %EFFICIENCY : 26.8495
COUNT DATE : 25-MAR-2010 17:58:20
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B193.CNF;166
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W193.CNF;56
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 2.0808E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5985.514	0.000	11.000	7.000	4.000	2.0641	57.44000	1.51E-01	8.43E-02	5.71E-02	1.46E-01	8.37E-02
TH-228	5363.000	5403.912	50.084	180.000	175.799	4.000	4.1318	99.94000	1.22E+00	1.27E-01	6.57E-02	1.50E-01	9.41E-02
TH229	4900.000	4898.146	73.657	558.000	556.000	2.000	1.4142	99.52000	3.82E+00	3.13E-01	2.26E-02	6.37E-02	1.62E-01
TH-230	4671.390	4664.869	29.242	137.000	128.184	3.000	5.3214	99.70000	8.78E-01	1.00E-01	8.48E-02	1.88E-01	7.93E-02
TH-232	3972.000	3998.558	43.109	171.000	168.783	2.000	1.9427	100.0000	1.15E+00	1.21E-01	3.09E-02	8.02E-02	8.98E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

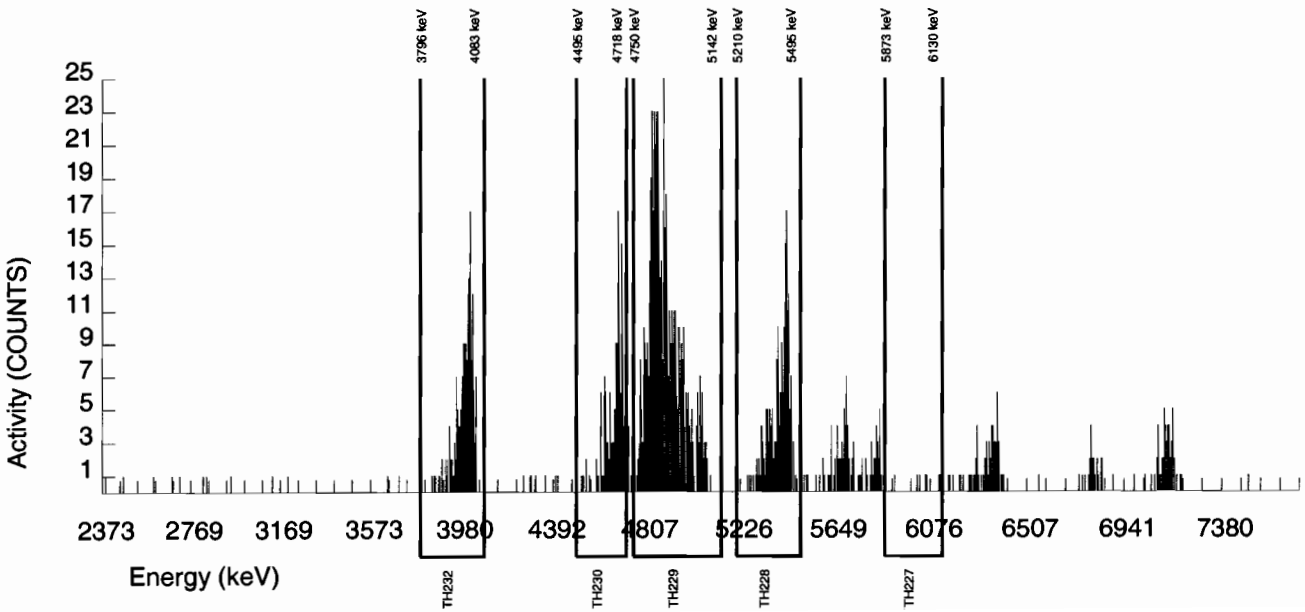

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966707
SAMPLE ID : S1202074647_TH
SAMPLE QTY : 1.000 G
SAMPLE DATE : 22-MAR-2010 00:00:00
ANALYST : HAKB
% YIELD : 94.989

CHAMBER : 194
DETECTOR S/N : 68635
AVERAGE %EFFICIENCY : 26.3668
COUNT DATE : 25-MAR-2010 17:58:22
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B194.CNF;164
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W194.CNF;57
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 2.0998E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5905.990	0.000	9.000	6.000	3.000	2.0641	57.44000	2.19E-02	1.27E-02	1.50E-02	3.86E-02	1.26E-02
TH-228	5363.000	5399.659	4.923	7.000	2.801	4.000	4.1318	99.94000	5.06E-03	5.95E-03	1.73E-02	3.95E-02	5.94E-03
TH229	4900.000	4901.896	85.344	555.000	551.000	4.000	2.0000	99.52000	9.96E-01	8.12E-02	8.41E-03	2.17E-02	4.27E-02
TH-230	4671.390	4654.938	31.847	10.000	3.236	1.000	5.3214	99.70000	5.84E-03	4.15E-03	2.23E-02	4.96E-02	4.13E-03
TH-232	3972.000	3950.737	177.238	6.000	4.785	1.000	1.9427	100.0000	8.61E-03	4.72E-03	8.13E-03	2.11E-02	4.68E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

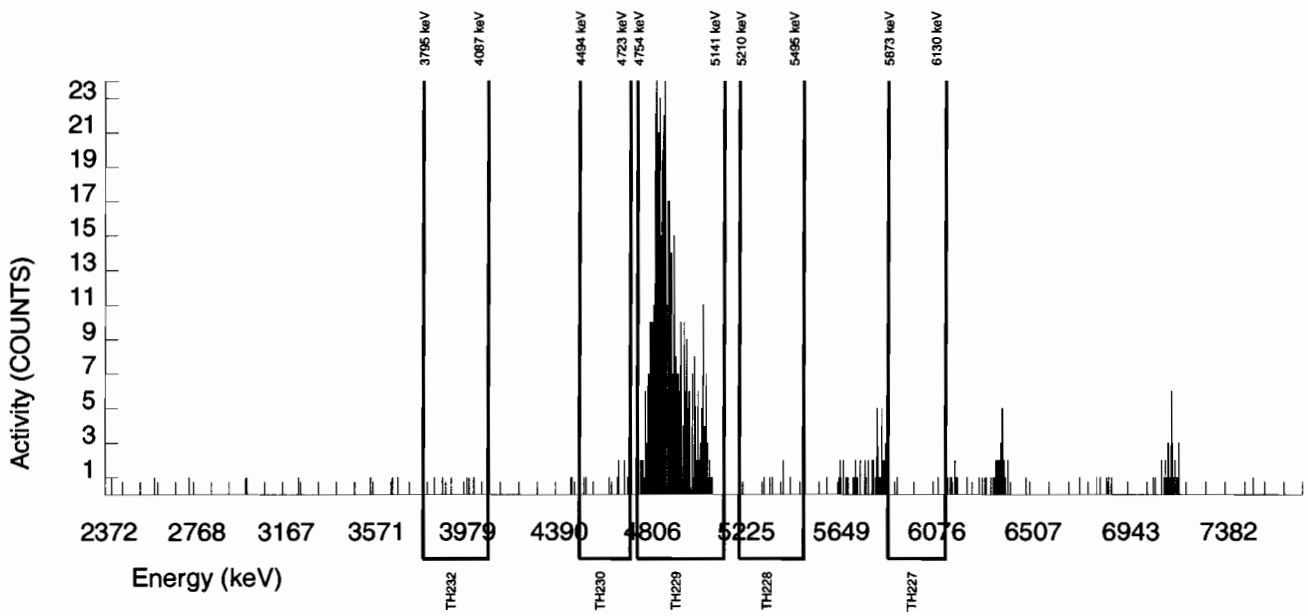

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966707	CHAMBER : 195	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S1202074648_TH	DETECTOR S/N : 68636	BKG FILE : B195.CNF;171
SAMPLE QTY : 0.284 G	AVERAGE %EFFICIENCY : 27.9072	BKG DATE : 21-MAR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 25-MAR-2010 17:58:25	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W195.CNF;56
% YIELD : 93.166		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 2.0595E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5958.689	0.000	13.000	9.000	4.000	2.0641	57.44000	1.74E-01	8.05E-02	5.10E-02	1.31E-01	7.96E-02
TH-228	5363.000	5401.146	112.203	221.000	213.794	7.000	4.1318	99.94000	1.33E+00	1.32E-01	5.87E-02	1.34E-01	9.36E-02
TH229	4900.000	4896.002	100.505	586.000	572.000	14.000	3.7417	99.52000	3.51E+00	2.88E-01	5.34E-02	1.23E-01	1.50E-01
TH-230	4671.390	4663.832	68.717	154.000	135.017	13.000	5.3214	99.70000	8.26E-01	9.69E-02	7.57E-02	1.68E-01	7.76E-02
TH-232	3972.000	3996.142	69.292	176.000	171.777	4.000	1.9427	100.0000	1.05E+00	1.10E-01	2.76E-02	7.17E-02	8.18E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

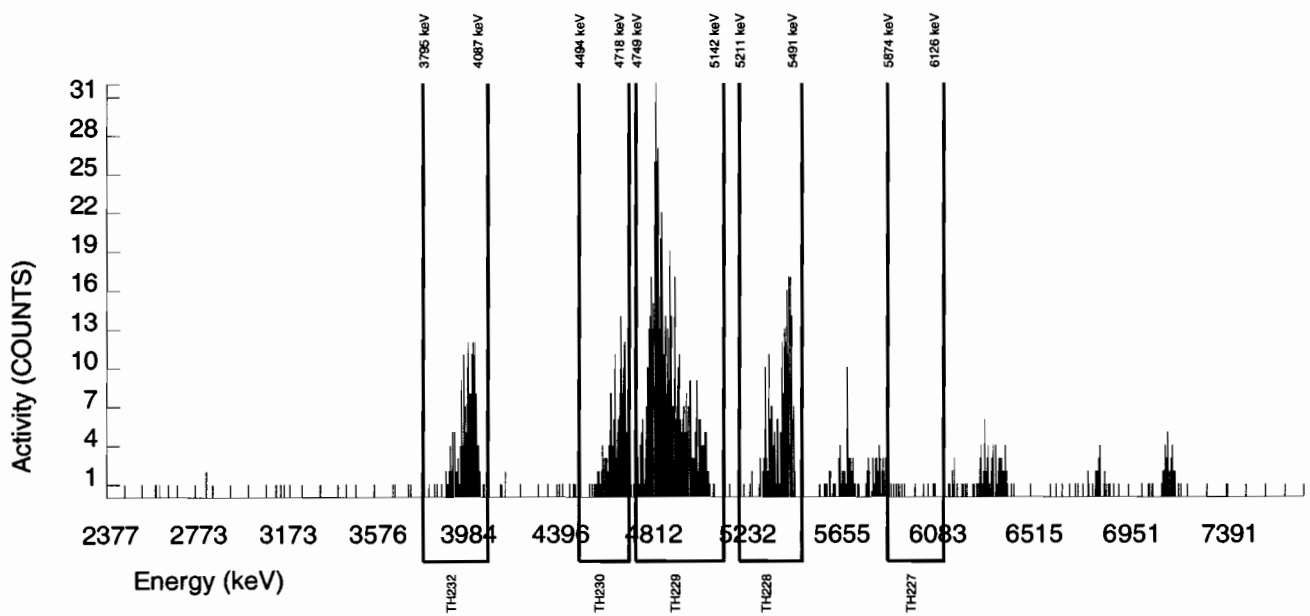

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 966707	CHAMBER : 196	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S1202074649_TH	DETECTOR S/N : 68637	BKG FILE : B196.CNF;165
SAMPLE QTY : 0.107 G	AVERAGE %EFFICIENCY : 27.2054	BKG DATE : 21-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 25-MAR-2010 17:58:27	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W196.CNF;57
% YIELD : 95.570		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 2.1127E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6013.338	0.000	45.000	38.000	7.000	2.0641	57.44000	1.25E+00	2.54E-01	1.35E-01	3.47E-01	2.37E-01
TH-228	5363.000	5404.343	21.340	87.000	82.794	4.000	4.1318	99.94000	1.35E+00	1.85E-01	1.56E-01	3.55E-01	1.55E-01
TH229	4900.000	4905.006	69.741	573.000	572.000	1.000	1.0000	99.52000	9.31E+00	7.99E-01	3.78E-02	1.20E-01	3.90E-01
TH-230	4671.390	4668.314	43.824	1533.000	1526.017	1.000	5.3214	99.70000	2.48E+01	1.96E+00	2.01E-01	4.46E-01	6.35E-01
TH-232	3972.000	4003.087	79.670	86.000	84.777	1.000	1.9427	100.0000	1.37E+00	1.83E-01	7.32E-02	1.90E-01	1.51E-01

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

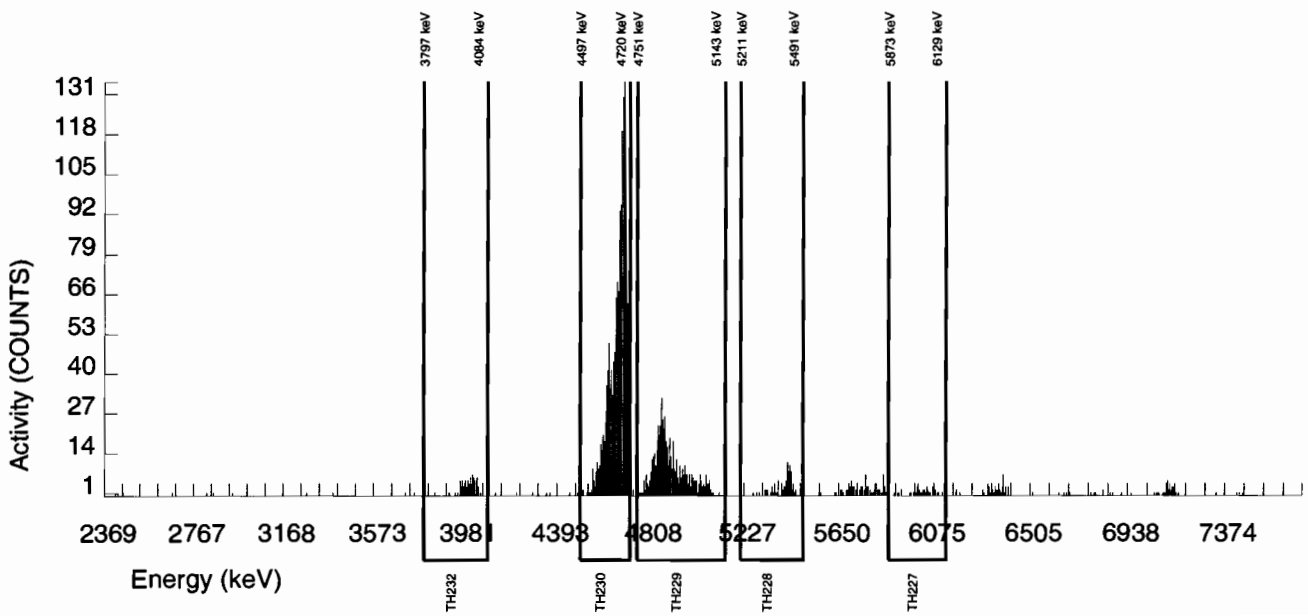

Radiochemistry Batch Checklist, Rev10

Batch# 971616 Product: Th Date: 4/8/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		case narrative
Method blank is less than the RDL/ LLD. (If rad samples. < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 4/8/10

Secondary Review Performed By: [signature] 4/8/10

4/9
LANL

Thorium Que Sheet

02-APR-10

Batch #: 971616 **Analyst:** HAKB **First Client Due Date:** 09-APR-10 **Internal Due Date:** 03-APR-10

Tracer Isotope: Th-229 **Tracer Code:** 0934-L **Expiration Date:** 3/9/11 **Vol:** 0.1
LCS Isotope: Th-230 **LCS Code:** SPM 0244-A **Expiration Date:** 10/31/20 **Vol:** 0.1090
Spike Isotope: Th-230 **Spike Code:** NA **Expiration Date:** NA **Vol:** NA
Prep Date: 4/2/10 **Initials:** HAKB **Pipet ID:** 1642319 **Balance ID:** 19350208 **Witness:** KM 4-2-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Th Det #
249244002-3	RE46-10-12923	SAMPLE		.1 pCi/g	SOIL	LANL010	10-MAR-10	1		1.260	183
1202086868-1	MB for batch 971616	MB		UCF pCi/g to pCi/g	SOIL	QC ACCOUNT		2		1	184
1202086869-3	RE46-10-12923(249244002DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	10-MAR-10	3		1.264	185
1202086870-1	LCS for batch 971616	LCS		UCF pCi/g to pCi/g	SOIL	QC ACCOUNT		4		0.109	186

4/8/10

Data Reviewed By: 4/8/10
GEL Laboratories LLC, Radiochemistry Division

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Choose SOP Used: GL-RAD-A-032 GL-RAD-A-038 GL-RAD-A-043

Blank Correction Report

Batch ID 971616

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202086869	DUP	Thorium-228	1.26 g	1.56	0.142	0.0591	.002603175	pCi/g	NO
		Thorium-230	1.26 g	1.29	0.119	0.0742	.001825397	pCi/g	NO
		Thorium-232	1.26 g	1.55	0.140	0.0317	-.00317460	pCi/g	NO
1202086870	LCS	Thorium-228	0.109 g	1.28	0.196	0.424	.030091743	pCi/g	NO
		Thorium-230	0.109 g	24.7	2.03	0.532	.021100917	pCi/g	NO
		Thorium-232	0.109 g	1.44	0.205	0.227	-.03669725	pCi/g	NO
1202086868	MB	Thorium-228	1.00 g	0.00328	0.00509	0.0397	.00328	pCi/g	YES
		Thorium-230	1.00 g	0.0023	0.00417	0.0498	.0023	pCi/g	YES
		Thorium-232	1.00 g	-0.004	0.00362	0.0212	-.004	pCi/g	NO
249244002	RE46-10-12923	Thorium-228	1.26 g	1.32	0.116	0.0514	.002603175	pCi/g	NO
		Thorium-230	1.26 g	1.16	0.103	0.0645	.001825397	pCi/g	NO
		Thorium-232	1.26 g	1.31	0.115	0.0275	-.00317460	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971616	CHAMBER : 183	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0249244002_TH	DETECTOR S/N : 74441	BKG FILE : B183.CNF;186
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 27.4921	BKG DATE : 4-APR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 7-APR-2010 07:18:24	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W183.CNF;58
% YIELD : 55.553		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.2281E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6017.960	4.973	32.000	29.000	3.000	2.0641	57.44000	3.42E-01	7.46E-02	1.96E-02	5.02E-02	6.98E-02
TH-228	5363.000	5366.074	76.535	552.000	545.880	6.000	4.1318	99.94000	1.32E+00	1.16E-01	2.25E-02	5.14E-02	5.69E-02
TH229	4900.000	4877.404	0.000	336.000	336.000	0.000	0.0000	99.52000	7.90E-01	7.46E-02	0.00E+00	6.37E-03	4.31E-02
TH-230	4671.390	4626.371	111.014	498.000	494.485	0.000	5.3214	99.70000	1.16E+00	1.03E-01	2.91E-02	6.45E-02	5.22E-02
TH-232	3972.000	3960.592	124.997	561.000	559.869	1.000	1.9427	100.0000	1.31E+00	1.15E-01	1.06E-02	2.75E-02	5.55E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

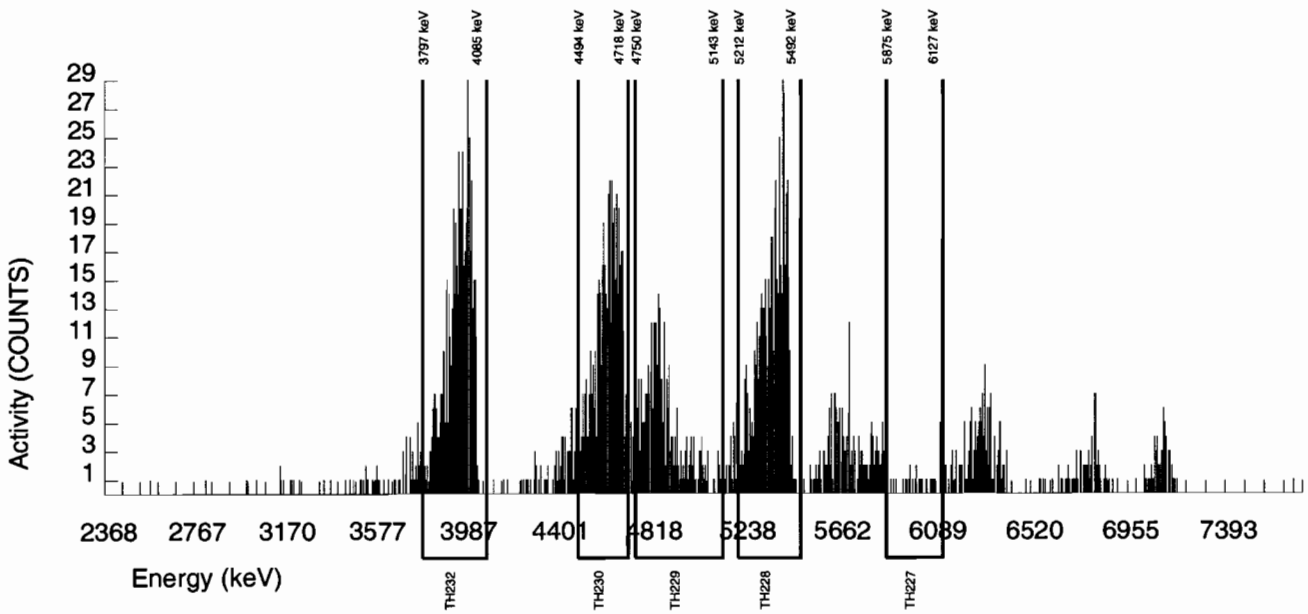

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971616	CHAMBER : 184	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S1202086868_TH	DETECTOR S/N : 74442	BKG FILE : B184.CNF;188
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 27.1043	BKG DATE : 4-APR-2010
SAMPLE DATE : 2-APR-2010 00:00:00.	COUNT DATE : 7-APR-2010 07:18:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W184.CNF;58
% YIELD : 91.902		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 2.0316E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5984.396	0.000	20.000	9.000	11.000	2.0641	57.44000	3.49E-02	2.18E-02	1.51E-02	3.88E-02	2.16E-02
TH-228	5363.000	5402.908	130.669	5.000	1.805	3.000	4.1318	99.94000	3.28E-03	5.09E-03	1.74E-02	3.97E-02	5.08E-03
TH229	4900.000	4909.317	115.253	549.000	548.000	1.000	1.0000	99.52000	9.96E-01	8.10E-02	4.23E-03	1.34E-02	4.26E-02
TH-230	4671.390	4674.311	70.151	9.000	1.268	2.000	5.3214	99.70000	2.30E-03	4.17E-03	2.25E-02	4.98E-02	4.16E-03
TH-232	3972.000	4031.866	5.026	1.000	-2.214	3.000	1.9427	100.0000	-4.00E-03	3.62E-03	8.17E-03	2.12E-02	3.62E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

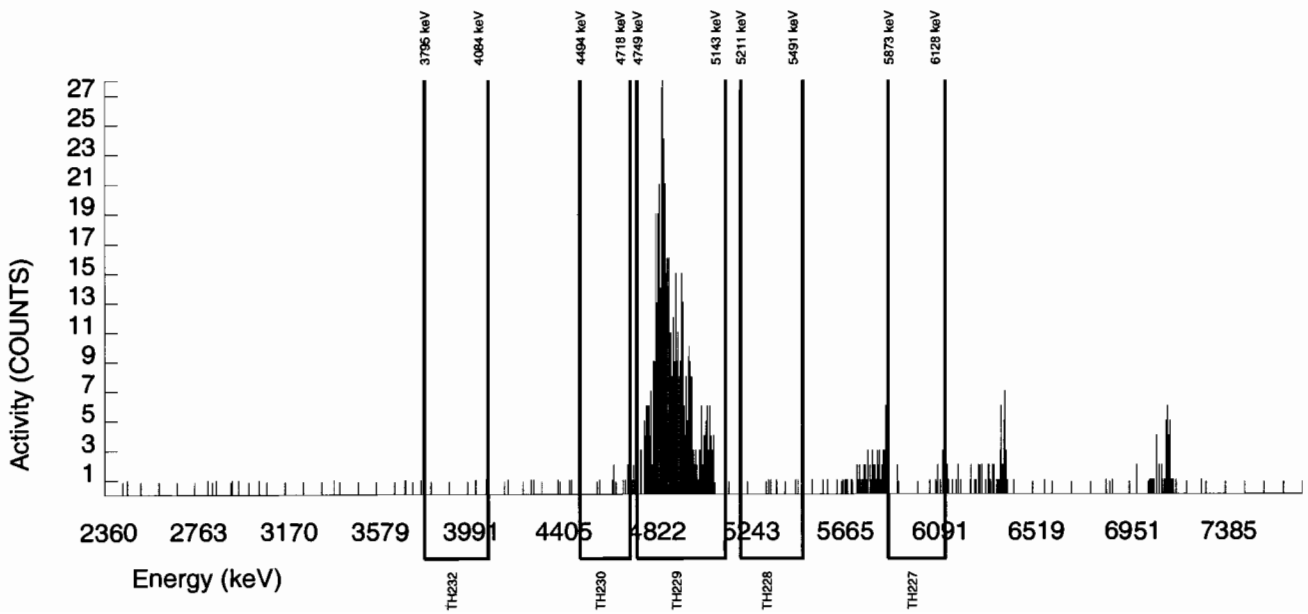

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971616
SAMPLE ID : S1202086869_TH
SAMPLE QTY : 1.264 G
SAMPLE DATE : 10-MAR-2010 00:00:00
ANALYST : HAKB
% YIELD : 49.359

CHAMBER : 185
DETECTOR S/N : 68615
AVERAGE %EFFICIENCY : 26.7982
COUNT DATE : 7-APR-2010 07:27:27
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_TH
BKG FILE : B185.CNF;168
BKG DATE : 4-APR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W185.CNF;58
CAL DATE : 22-MAR-2010

TRACER
ID : 0934-L
NUCLIDE : TH229
NOMINAL : 2.2106E+00 dpm
RESULTS : 1.0911E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : TH-230
NOMINAL : 2.5618E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6007.037	174.233	26.000	21.000	5.000	2.0641	57.44000	2.85E-01	7.90E-02	2.25E-02	5.78E-02	7.56E-02
TH-228	5363.000	5365.608	92.540	569.000	563.896	5.000	4.1318	99.94000	1.56E+00	1.42E-01	2.59E-02	5.91E-02	6.64E-02
TH229	4900.000	4871.203	124.875	292.000	291.000	1.000	1.0000	99.52000	7.88E-01	7.83E-02	6.30E-03	1.99E-02	4.63E-02
TH-230	4671.390	4634.014	97.390	480.000	476.956	0.000	5.3214	99.70000	1.29E+00	1.19E-01	3.35E-02	7.42E-02	5.90E-02
TH-232	3972.000	3952.876	100.759	578.000	576.886	1.000	1.9427	100.0000	1.55E+00	1.40E-01	1.22E-02	3.17E-02	6.48E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

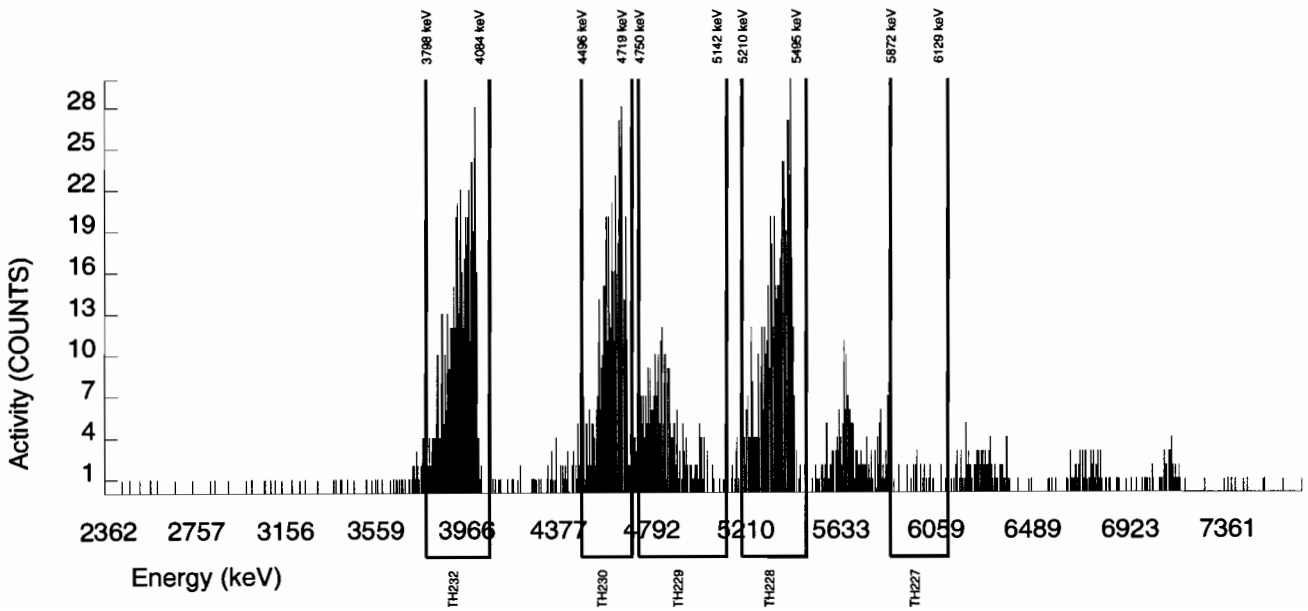

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971616	CHAMBER : 186	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S1202086870_TH	DETECTOR S/N : 68616	BKG FILE : B186.CNF;168
SAMPLE QTY : 0.109 G	AVERAGE %EFFICIENCY : 25.7712	BKG DATE : 4-APR-2010
SAMPLE DATE : 2-APR-2010 00:00:00.	COUNT DATE : 7-APR-2010 07:27:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W186.CNF;59
% YIELD : 83.074		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.8364E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6002.712	103.903	49.000	38.000	11.000	2.0641	57.44000	1.58E+00	3.43E-01	1.61E-01	4.14E-01	3.21E-01
TH-228	5363.000	5382.762	99.407	71.000	65.832	5.000	4.1318	99.94000	1.28E+00	1.96E-01	1.86E-01	4.24E-01	1.69E-01
TH229	4900.000	4888.272	109.873	475.000	471.000	4.000	2.0000	99.52000	9.14E+00	8.25E-01	9.02E-02	2.33E-01	4.24E-01
TH-230	4671.390	4650.416	83.854	1279.000	1274.073	0.000	5.3214	99.70000	2.47E+01	2.03E+00	2.40E-01	5.32E-01	6.91E-01
TH-232	3972.000	3987.711	7.780	77.000	74.816	2.000	1.9427	100.0000	1.44E+00	2.05E-01	8.72E-02	2.27E-01	1.71E-01

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

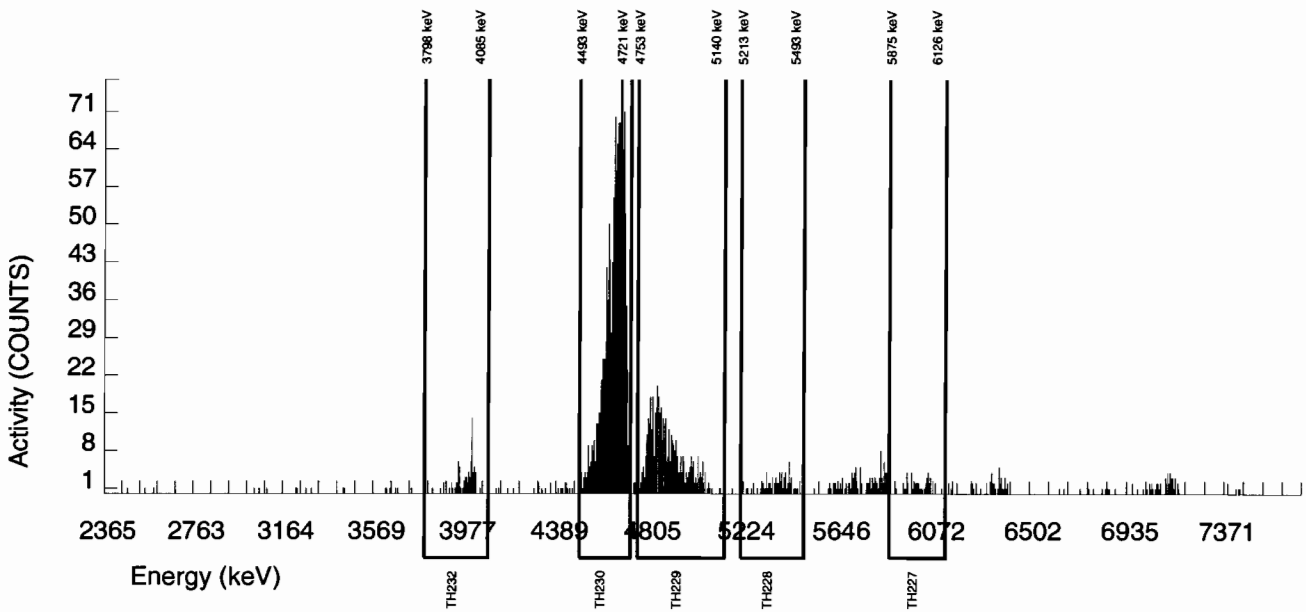

Radiochemistry Batch Checklist, Rev10

Batch# 972663 Product: PU Date: 4/5/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA.
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 4/8/10

Secondary Review Performed By: [signature] 4/8/10

4/8 4/8

UAM

Plutonium Que Sheet

07-APR-10

Batch #: 972663 Analyst: HAKB First Client Due Date:08-APR-10 Internal Due Date:02-APR-10

Tracer Isotope(s): ~~Pu-242/Pu-238~~ Pu 236 Tracer Code: 1430-D Expiration Date: 3/17/11 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: SRM 0244-B Expiration Date: 4/30/20 Vol: 0.104

Spike Isotope(s): Pu-239/Pu-238 Spike Code: NA Expiration Date: NA Vol: NA

Prep Date: 4/7/10 Initials: HAKB Pipet ID: 1642319 Balance ID: 19350208 Witness: 04/07/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) l / f)	Pu Det #
249179001-3	RE46-10-13437	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	1	1	1.251	13
249179002-3	RE46-10-13436	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	2	2	1.254	14
249179003-3	RE46-10-13434	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	3	3	1.257	16
249179004-3	RE46-10-13438	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	4	4	1.255	17
249179005-3	RE46-10-13435	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	5	5	1.254	18
249179006-3	RE46-10-13439	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	6	6	1.256	19
249179007-3	RE46-10-13463	SAMPLE		.05 pCi/g	SOIL	LANL010	09-MAR-10	7	7	1.253	20
249244001-3	RE46-10-12927	SAMPLE		.05 pCi/g	SOIL	LANL010	10-MAR-10	8	8	1.251	22
249244002-3	RE46-10-12923	SAMPLE		.05 pCi/g	SOIL	LANL010	10-MAR-10	9	9	1.251	23
249244003-3	RE46-10-12924	SAMPLE		.05 pCi/g	SOIL	LANL010	10-MAR-10	10	10	1.253	24
249244004-3	RE46-10-12926	SAMPLE		.05 pCi/g	SOIL	LANL010	10-MAR-10	11	11	1.250	25
249244005-3	RE46-10-12928	SAMPLE		.05 pCi/g	SOIL	LANL010	10-MAR-10	12	12	1.254	26
249244006-3	RE46-10-12925	SAMPLE		.05 pCi/g	SOIL	LANL010	10-MAR-10	13	13	1.251	27
1202089356-1	MB for batch 972663	MB		UCF pCi/g to pCi/g	SOIL	QC ACCOUNT		14	14	1.00	28
1202089357-3	RE46-10-12927(249244001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	10-MAR-10	15	15	1.257	29
1202089358-1	LCS for batch 972663	LCS		UCF pCi/g to pCi/g	SOIL	QC ACCOUNT		16	16	0.104	30

*SRM 0244-B exp: 4/30/20

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 04/8/10

GEL Laboratories LLC, , Radiochemistry Division

4/8/10

Blank Correction Report

Batch ID 972663

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202089357	DUP	Plutonium-238	1.26 g	0.00612	0.006	0.021	.001507937	pCi/g	YES
		Plutonium-239/240	1.26 g	-0.00238	0.0023	0.0177	-.00078889	pCi/g	NO
1202089358	LCS	Plutonium-238	0.104 g	3.65	0.360	0.249	.018269231	pCi/g	NO
		Plutonium-239/240	0.104 g	40.3	2.75	0.210	-.00955769	pCi/g	NO
1202089356	MB	Plutonium-238	1.00 g	0.0019	0.00191	0.0255	.0019	pCi/g	YES
		Plutonium-239/240	1.00 g	-0.000994	0.0028	0.0215	-.000994	pCi/g	NO
249179001	RE46-10-13437	Plutonium-238	1.25 g	0.0138	0.00628	0.0191	.00152	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0102	0.00709	0.0162	-.0007952	pCi/g	NO
249179002	RE46-10-13436	Plutonium-238	1.25 g	-0.00769	0.00937	0.0192	.00152	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00767	0.00704	0.0162	-.0007952	pCi/g	NO
249179003	RE46-10-13434	Plutonium-238	1.26 g	-0.00243	0.00521	0.0203	.001507937	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00794	0.00392	0.0172	-.00078889	pCi/g	NO
249179004	RE46-10-13438	Plutonium-238	1.26 g	0.0105	0.00609	0.0226	.001507937	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00459	0.00439	0.0191	-.00078889	pCi/g	NO
249179005	RE46-10-13435	Plutonium-238	1.25 g	0.000653	0.00435	0.020	.00152	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00668	0.00401	0.0169	-.0007952	pCi/g	NO
249179006	RE46-10-13439	Plutonium-238	1.26 g	0.00546	0.0066	0.0216	.001507937	pCi/g	YES
		Plutonium-239/240	1.26 g	-0.00168	0.00334	0.0182	-.00078889	pCi/g	NO
249179007	RE46-10-13463	Plutonium-238	1.25 g	-0.00588	0.00492	0.0191	.00152	pCi/g	YES
		Plutonium-239/240	1.25 g	0.000682	0.00253	0.0161	-.0007952	pCi/g	NO
249244001	RE46-10-12927	Plutonium-238	1.25 g	0.0129	0.00729	0.0194	.00152	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00593	0.00374	0.0164	-.0007952	pCi/g	YES
249244002	RE46-10-12923	Plutonium-238	1.25 g	-0.000861	0.00507	0.019	.00152	pCi/g	YES
		Plutonium-239/240	1.25 g	0.012	0.00478	0.016	-.0007952	pCi/g	NO
249244003	RE46-10-12924	Plutonium-238	1.25 g	0.0147	0.00568	0.0203	.00152	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.0108	0.00453	0.0171	-.0007952	pCi/g	YES
249244004	RE46-10-12926	Plutonium-238	1.25 g	0.00627	0.00725	0.0217	.00152	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00363	0.00307	0.0183	-.0007952	pCi/g	NO
249244005	RE46-10-12928	Plutonium-238	1.25 g	0.0128	0.00458	0.0214	.00152	pCi/g	NO
		Plutonium-239/240	1.25 g	0.000763	0.00284	0.0181	-.0007952	pCi/g	NO
249244006	RE46-10-12925	Plutonium-238	1.25 g	0.0107	0.00408	0.0205	.00152	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00378	0.00347	0.0173	-.0007952	pCi/g	NO

4/8/10

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 972663	CHAMBER : 022	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0249244001_PU	DETECTOR S/N : 72530	BKG FILE : B022.CNF;1123
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 32.7372	BKG DATE : 4-APR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 7-APR-2010 20:48:51	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 45639.82	EFF FILE : W022.CNF;322
% YIELD : 99.748		CAL DATE : 6-APR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-D	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9577E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9502E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5771.272	51.613	732.000	720.590	11.410	3.3779	100.0000	1.06E+00	7.22E-02	1.07E-02	2.53E-02	4.02E-02
PU-238	5499.000	5451.778	8.231	18.000	8.872	9.128	2.4495	99.90000	1.29E-02	7.29E-03	7.76E-03	1.94E-02	7.25E-03
PU-9/0	5155.000	5135.075	149.083	2.000	-4.085	6.085	1.9732	99.90000	-5.93E-03	3.74E-03	6.25E-03	1.64E-02	3.74E-03
PU242	4890.000	4842.381	282.636	7.000	4.718	2.282	*******	100.0000	6.84E-03	4.30E-03	3.94E-01	7.93E-01	4.28E-03
PU-244	4589.000	4487.824	4.969	1.000	-0.521	1.521	6.4609	99.90000	-7.56E-04	2.13E-03	2.05E-02	4.49E-02	2.13E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

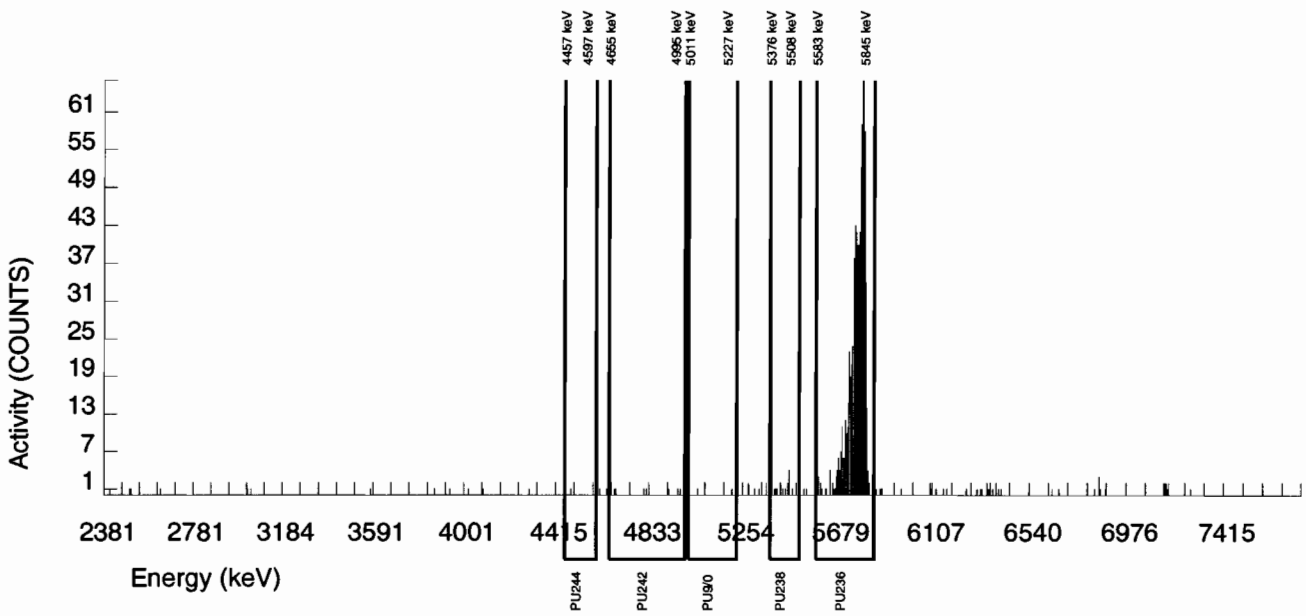

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 972663	CHAMBER : 023	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0249244002_PU	DETECTOR S/N : 78264	BKG FILE : B023.CNF;1123
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 33.5602	BKG DATE : 4-APR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 7-APR-2010 20:48:51	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 45641.74	EFF FILE : W023.CNF;305
% YIELD : 99.619		CAL DATE : 6-APR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-D	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9577E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9464E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5768.320	55.450	753.000	737.786	15.214	3.9005	100.0000	1.06E+00	7.18E-02	1.21E-02	2.79E-02	3.99E-02
PU-238	5499.000	5456.743	7.313	7.000	-0.607	7.607	2.4495	99.90000	-8.61E-04	5.07E-03	7.58E-03	1.90E-02	5.07E-03
PU-9/0	5155.000	5156.643	19.832	10.000	8.479	1.521	1.9732	99.90000	1.20E-02	4.78E-03	6.10E-03	1.60E-02	4.73E-03
PU242	4890.000	4694.754	24.894	3.000	0.718	2.282	*******	100.0000	1.02E-03	3.08E-03	3.85E-01	7.74E-01	3.08E-03
PU-244	4589.000	4524.200	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.42E-03	2.00E-02	4.38E-02	1.42E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

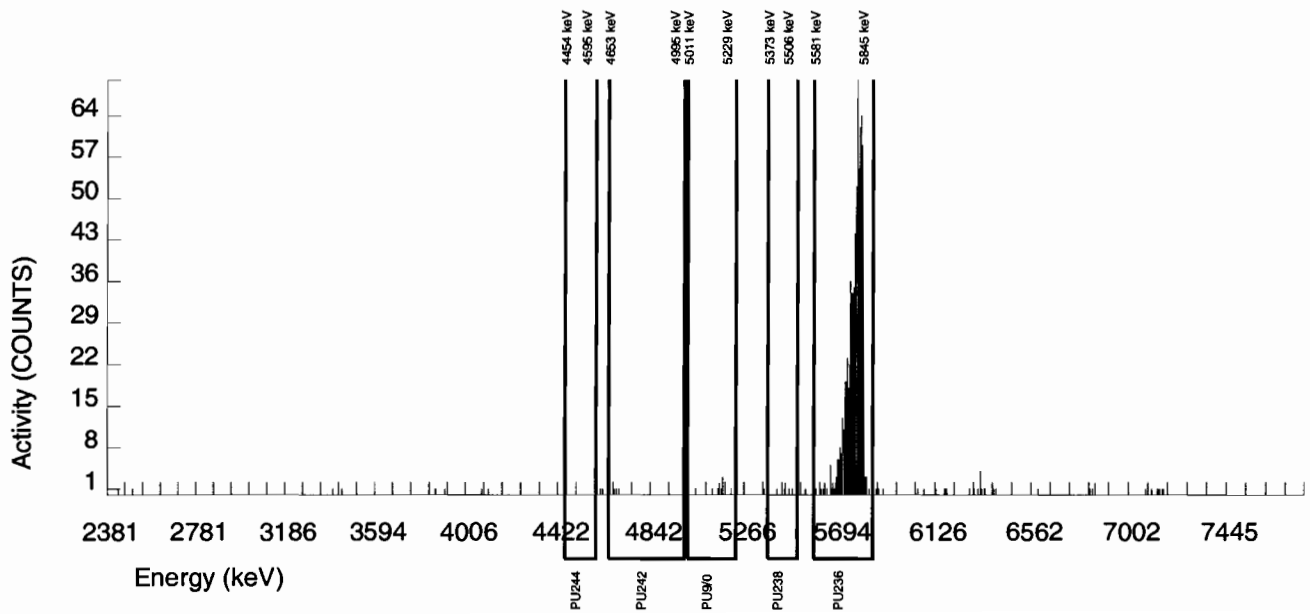

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 972663	CHAMBER : 024	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0249244003_PU	DETECTOR S/N : 76542	BKG FILE : B024.CNF;1116
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 34.4047	BKG DATE : 4-APR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 7-APR-2010 20:48:51	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 45643.83	EFF FILE : W024.CNF;305
% YIELD : 90.796		CAL DATE : 6-APR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-D	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9577E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6855E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5780.632	42.259	697.000	689.393	7.607	2.7581	100.0000	1.06E+00	7.28E-02	9.11E-03	2.23E-02	4.09E-02
PU-238	5499.000	5448.215	17.424	12.000	9.718	2.282	2.4495	99.90000	1.47E-02	5.68E-03	8.10E-03	2.03E-02	5.62E-03
PU-9/0	5155.000	5173.378	69.694	2.000	-7.129	9.129	1.9732	99.90000	-1.08E-02	4.53E-03	6.52E-03	1.71E-02	4.53E-03
PU242	4890.000	4782.685	109.520	3.000	2.239	0.761	*******	100.0000	3.39E-03	2.87E-03	4.12E-01	8.27E-01	2.86E-03
PU-244	4589.000	4514.283	29.869	2.000	1.239	0.761	6.4609	99.90000	1.88E-03	2.43E-03	2.14E-02	4.68E-02	2.43E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

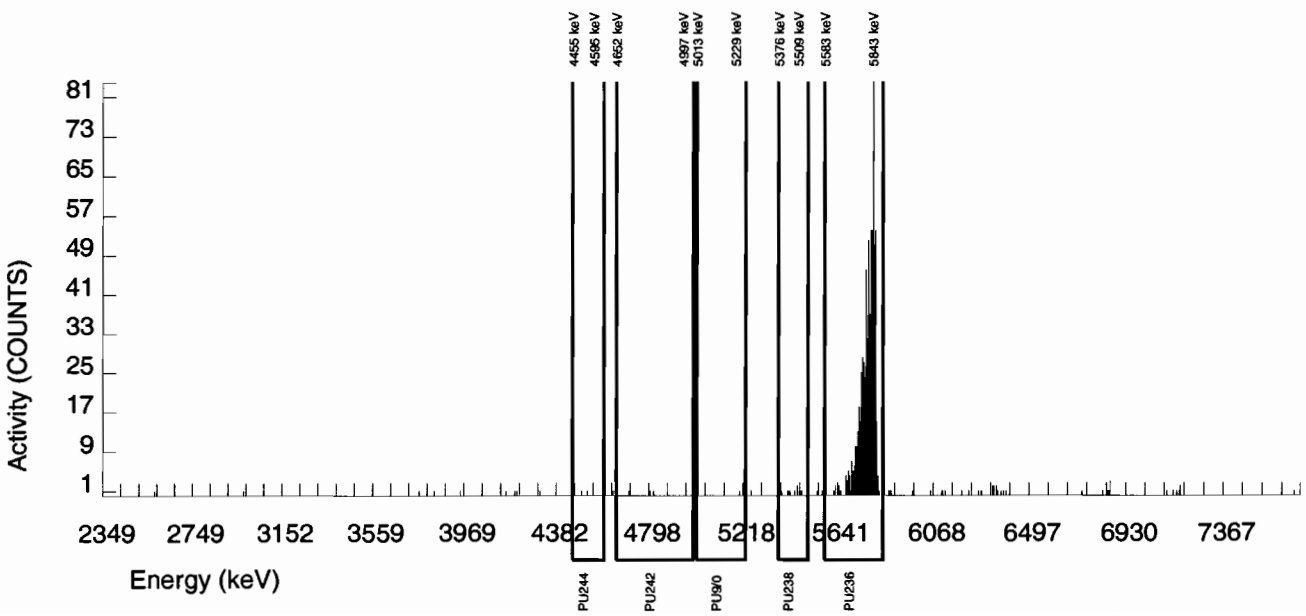

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 972663	CHAMBER : 025	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0249244004_PU	DETECTOR S/N : 45-149AA5	BKG FILE : B025.CNF;1127
SAMPLE QTY : 1.250 G	AVERAGE %EFFICIENCY : 33.4600	BKG DATE : 4-APR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 7-APR-2010 20:48:52	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 45666.62	EFF FILE : W025.CNF;332
% YIELD : 87.454		CAL DATE : 5-APR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-D	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9577E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.5866E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5763.828	59.632	656.000	646.106	9.894	3.1455	100.0000	1.07E+00	7.48E-02	1.11E-02	2.66E-02	4.25E-02
PU-238	5499.000	5444.783	25.566	13.000	3.867	9.133	2.4495	99.90000	6.27E-03	7.25E-03	8.66E-03	2.17E-02	7.24E-03
PU-9/0	5155.000	5169.500	7.152	3.000	2.239	0.761	1.9732	99.90000	3.63E-03	3.07E-03	6.98E-03	1.83E-02	3.06E-03
PU242	4890.000	4947.614	4.870	1.000	-0.522	1.522	*******	100.0000	-8.45E-04	2.38E-03	4.40E-01	8.85E-01	2.38E-03
PU-244	4589.000	4526.858	0.000	0.000	-1.522	1.522	6.4609	99.90000	-2.47E-03	2.38E-03	2.28E-02	5.01E-02	2.38E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

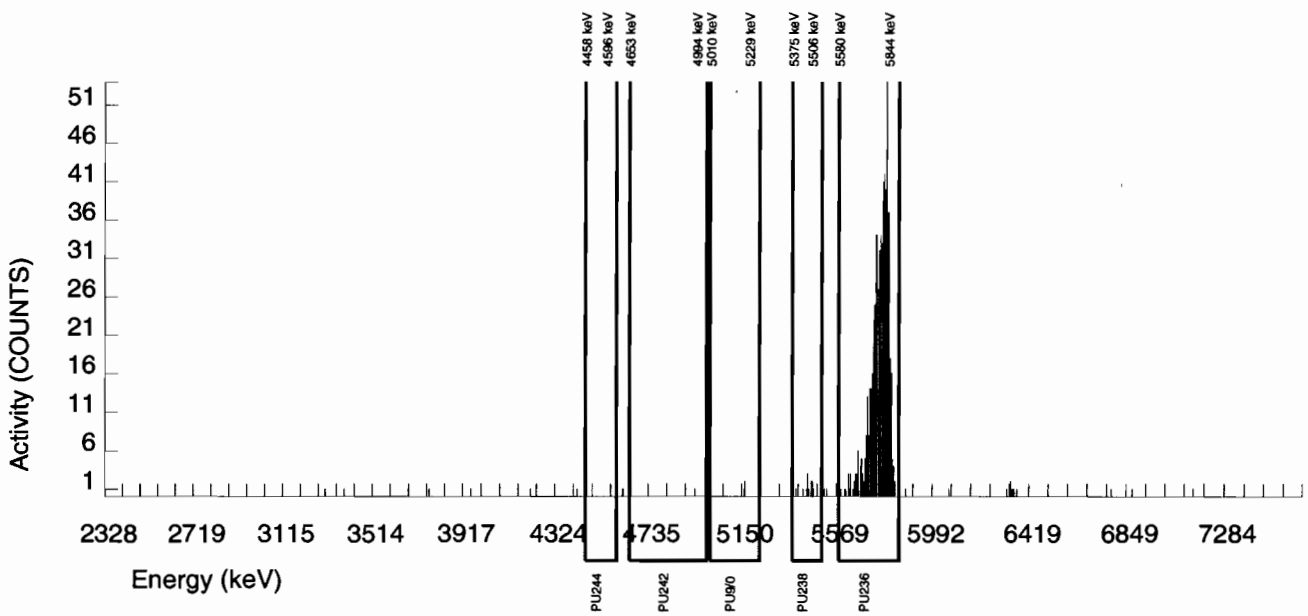

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 972663	CHAMBER : 026	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0249244005_PU	DETECTOR S/N : 78204	BKG FILE : B026.CNF;1128
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 33.6184	BKG DATE : 4-APR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 7-APR-2010 20:48:52	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 45668.59	EFF FILE : W026.CNF;306
% YIELD : 87.999		CAL DATE : 5-APR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-D	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9577E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6027E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5768.720	29.352	654.000	653.239	0.761	0.8724	100.0000	1.06E+00	7.37E-02	3.04E-03	1.04E-02	4.16E-02
PU-238	5499.000	5443.303	7.220	8.000	8.000	0.000	2.4495	99.90000	1.28E-02	4.58E-03	8.54E-03	2.14E-02	4.52E-03
PU-9/0	5155.000	5160.277	44.240	2.000	0.478	1.522	1.9732	99.90000	7.63E-04	2.84E-03	6.88E-03	1.81E-02	2.84E-03
PU242	4890.000	4783.327	181.876	5.000	3.478	1.522	*******	100.0000	5.55E-03	3.97E-03	4.34E-01	8.72E-01	3.96E-03
PU-244	4589.000	4532.364	103.227	2.000	2.000	0.000	6.4609	99.90000	3.19E-03	2.27E-03	2.25E-02	4.94E-02	2.26E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

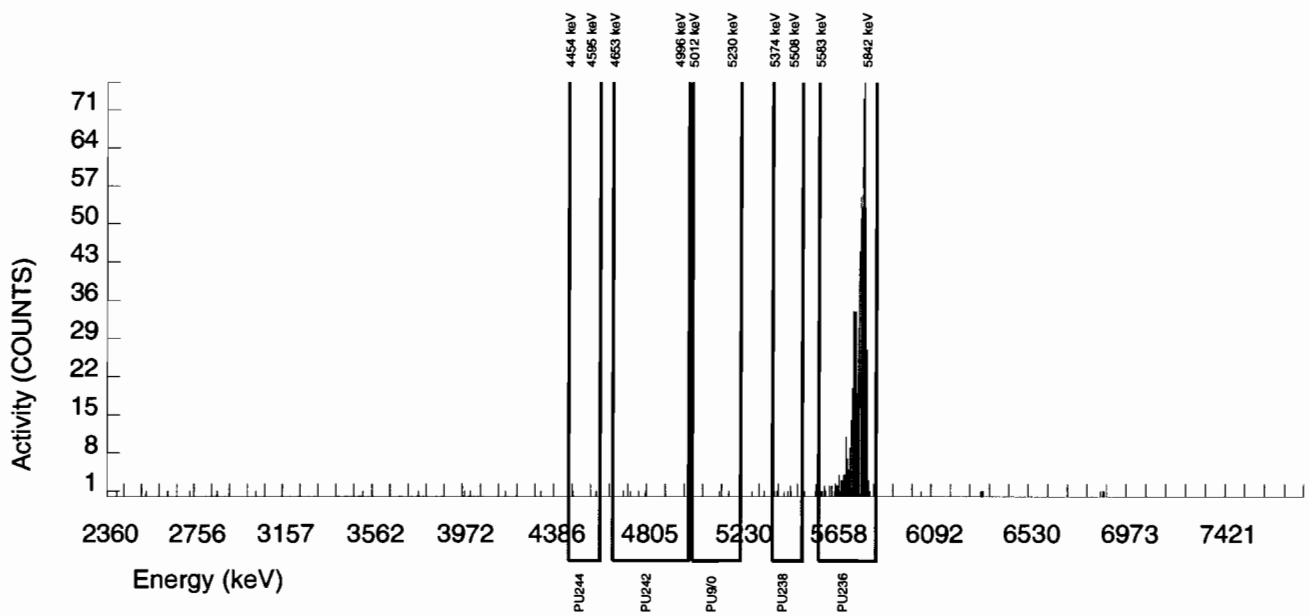

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 972663	CHAMBER : 027	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0249244006_PU	DETECTOR S/N : 42484	BKG FILE : B027.CNF;1134
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 34.8109	BKG DATE : 4-APR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 7-APR-2010 20:48:52	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 45670.68	EFF FILE : W027.CNF;333
% YIELD : 89.143		CAL DATE : 5-APR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-D	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9577E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6366E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5773.480	25.066	686.000	685.239	0.761	0.8725	100.0000	1.06E+00	7.28E-02	2.90E-03	9.94E-03	4.07E-02
PU-238	5499.000	5446.281	4.978	7.000	7.000	0.000	2.4495	99.90000	1.07E-02	4.08E-03	8.16E-03	2.05E-02	4.04E-03
PU-9/0	5155.000	5095.808	199.102	4.000	2.478	1.522	1.9732	99.90000	3.78E-03	3.47E-03	6.57E-03	1.73E-02	3.47E-03
PU242	4890.000	4667.973	19.910	2.000	-1.045	3.045	*******	100.0000	-1.59E-03	3.17E-03	4.15E-01	8.34E-01	3.17E-03
PU-244	4589.000	4526.268	0.000	1.000	-0.522	1.522	6.4609	99.90000	-7.97E-04	2.24E-03	2.15E-02	4.72E-02	2.24E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

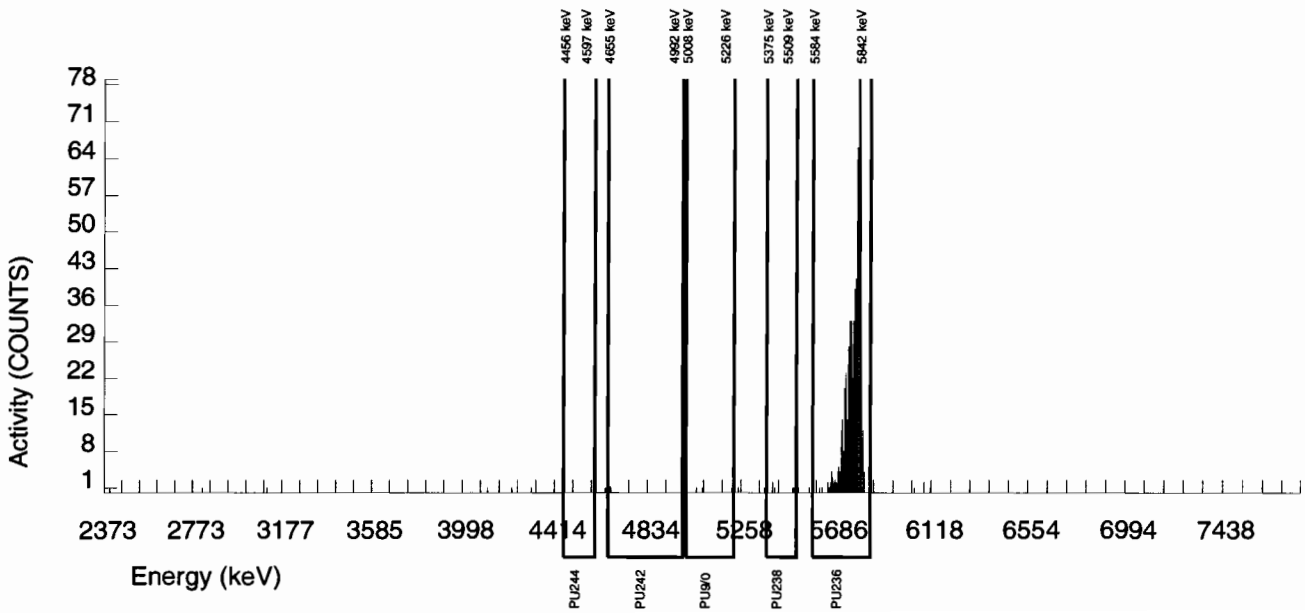

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 972663	CHAMBER : 028	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202089356_PU	DETECTOR S/N : 78792	BKG FILE : B028.CNF;1138
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 32.0400	BKG DATE : 4-APR-2010
SAMPLE DATE : 7-APR-2010 00:00:00.	COUNT DATE : 7-APR-2010 20:48:52	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 45672.82	EFF FILE : W028.CNF;325
% YIELD : 97.165		CAL DATE : 5-APR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-D	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9032E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8209E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5768.982	28.005	689.000	687.478	1.522	1.2339	100.0000	1.31E+00	8.94E-02	5.12E-03	1.54E-02	5.00E-02
PU-238	5499.000	5478.657	4.956	1.000	1.000	0.000	2.4495	99.90000	1.90E-03	1.91E-03	1.02E-02	2.55E-02	1.90E-03
PU-9/0	5155.000	5052.819	4.956	1.000	-0.522	1.522	1.9732	99.90000	-9.94E-04	2.80E-03	8.20E-03	2.15E-02	2.80E-03
PU242	4890.000	4716.850	84.248	3.000	0.716	2.284	*******	100.0000	1.36E-03	4.14E-03	5.17E-01	1.04E+00	4.14E-03
PU-244	4589.000	4526.281	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.91E-03	2.68E-02	5.88E-02	1.90E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

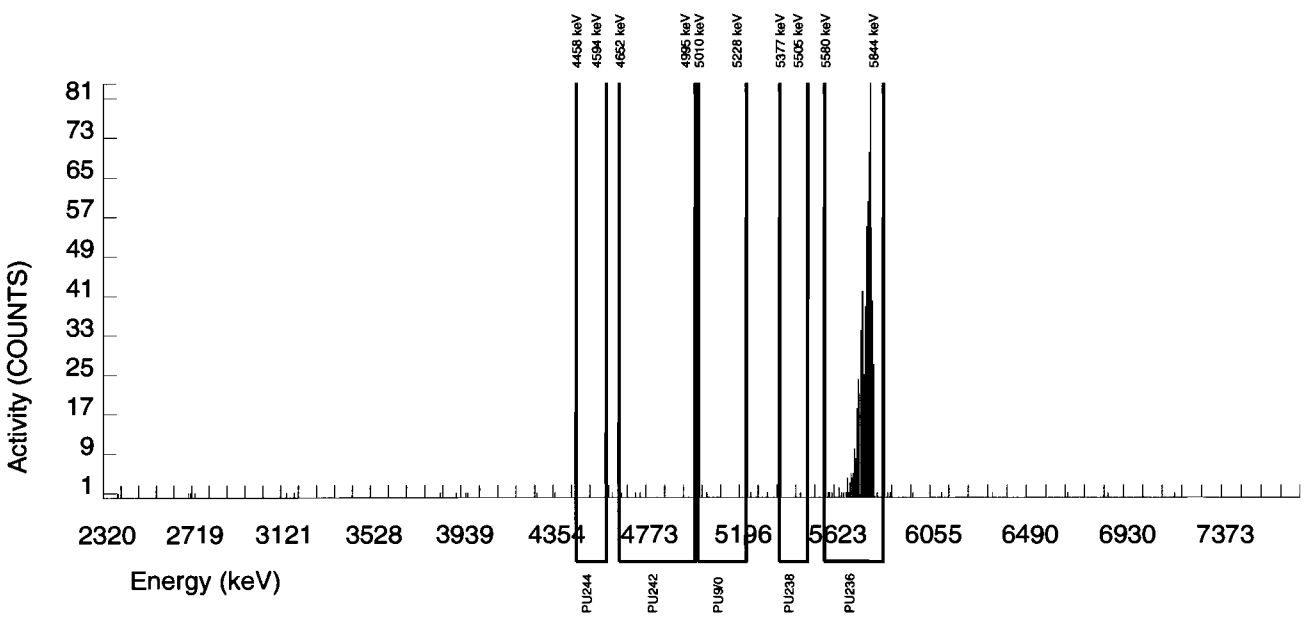

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 972663	CHAMBER : 029	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202089357_PU	DETECTOR S/N : 33454	BKG FILE : B029.CNF;1129
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 32.6592	BKG DATE : 4-APR-2010
SAMPLE DATE : 10-MAR-2010 00:00:00	COUNT DATE : 7-APR-2010 20:48:52	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 45675.36	EFF FILE : W029.CNF;324
% YIELD : 92.182		CAL DATE : 5-APR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-D	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9577E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7264E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5761.611	45.926	674.000	664.865	9.135	3.0224	100.0000	1.06E+00	7.36E-02	1.03E-02	2.49E-02	4.16E-02
PU-238	5499.000	5441.849	70.750	10.000	3.910	6.090	2.4495	99.90000	6.12E-03	6.00E-03	8.37E-03	2.10E-02	5.99E-03
PU-9/0	5155.000	5118.821	0.000	0.000	-1.523	1.523	1.9732	99.90000	-2.38E-03	2.30E-03	6.74E-03	1.77E-02	2.30E-03
PU242	4890.000	4917.043	4.879	1.000	-2.045	3.045	*******	100.0000	-3.20E-03	2.85E-03	4.25E-01	8.55E-01	2.85E-03
PU-244	4589.000	4541.617	14.638	2.000	1.239	0.761	6.4609	99.90000	1.94E-03	2.52E-03	2.21E-02	4.84E-02	2.51E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

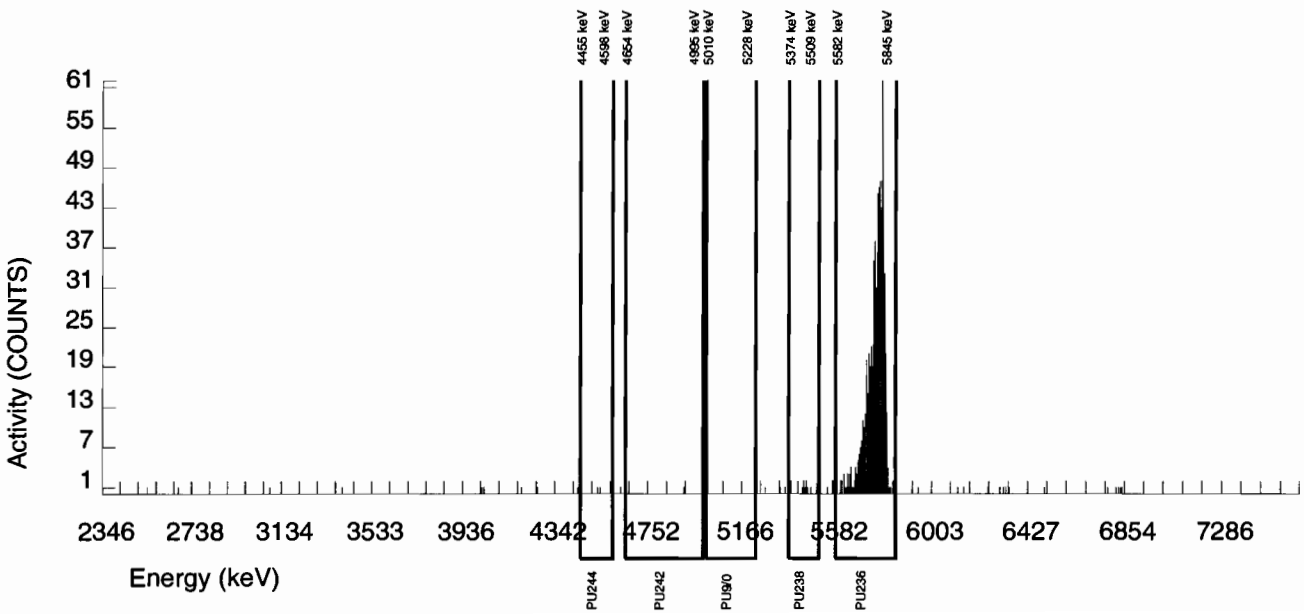

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 972663	CHAMBER : 030	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202089358_PU	DETECTOR S/N : 33447	BKG FILE : B030.CNF;1126
SAMPLE QTY : 0.104 G	AVERAGE %EFFICIENCY : 35.4676	BKG DATE : 4-APR-2010
SAMPLE DATE : 7-APR-2010 00:00:00.	COUNT DATE : 7-APR-2010 20:48:52	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 45677.94	EFF FILE : W030.CNF;309
% YIELD : 86.574		CAL DATE : 5-APR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-D	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9032E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.5134E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5767.960	54.108	685.000	678.148	6.852	2.6176	100.0000	1.26E+01	9.50E-01	1.06E-01	2.62E-01	4.87E-01
PU-238	5499.000	5470.438	0.000	206.000	196.864	9.136	2.4495	99.90000	3.65E+00	3.60E-01	9.92E-02	2.49E-01	2.71E-01
PU-9/0	5155.000	5153.502	36.900	2173.000	2172.239	0.761	1.9732	99.90000	4.03E+01	2.75E+00	7.99E-02	2.10E-01	8.65E-01
PU242	4890.000	4900.412	0.000	47.000	44.716	2.284	*******	100.0000	8.29E-01	1.40E-01	5.04E+00	1.01E+01	1.29E-01
PU-244	4589.000	4493.276	44.375	2.000	0.477	1.523	6.4609	99.90000	8.85E-03	3.30E-02	2.62E-01	5.73E-01	3.30E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

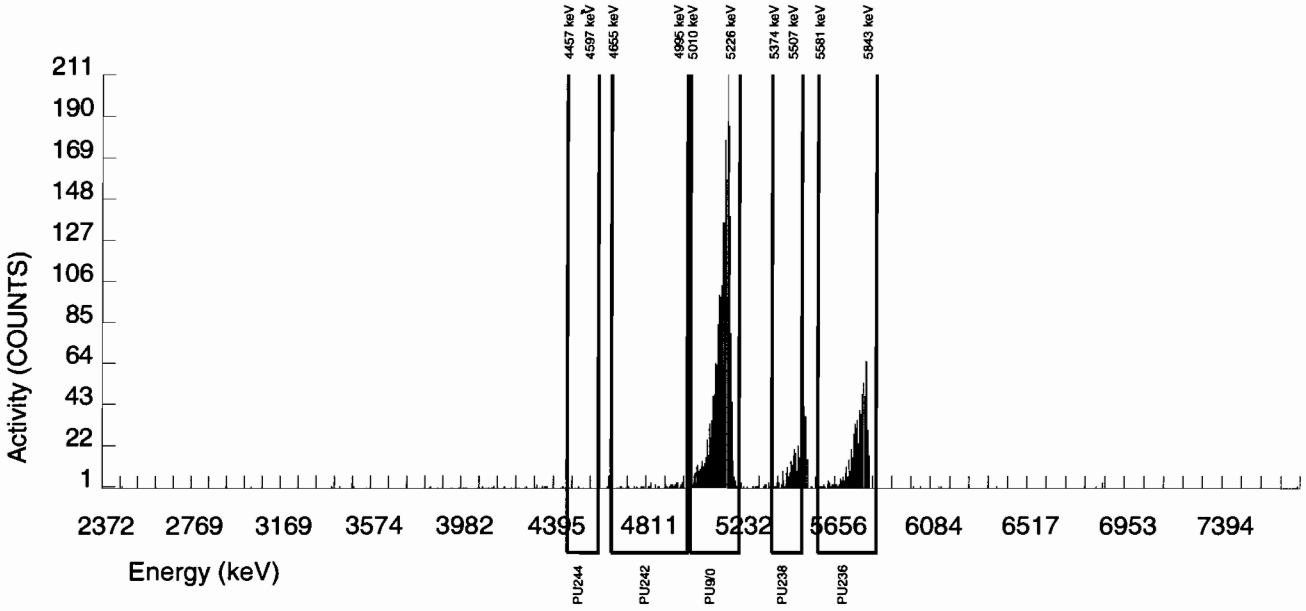

Radiochemistry Batch Checklist, Rev10

Batch# 964804 Product: Gamma Solid LANL Date: 03/25/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 3/25/10

Secondary Review Performed By: KDat 3/26/10

4/8

Gamma Spec Que Sheet

LG - 3/22/10

03/16/2010

Batch #:964804 Analyst: MXR1 First Client DueDate 04/02/2010 Internal Due Date: 03/23/2010

Gamma Spike Isotope: Mixed Gamma Spike Code: Na Expiration Date: Na Vol: n/a Nominal Concentration: Na

Gamma LCS Isotope: Mixed Gamma LCS Code: 1032-A Expiration Date: 12/2/10 Vol: 1.0mL Nominal Concentration: Cs137-5.683 Co60-6.471 Am241-16.29

Initials: MS Prep Date: 3/15/10 Library: SOLID Witness: Na

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Wet/Dry Aliquot (1/F)	Detector	Sealing Date/Time (if Applicable)
249179001-1	RE46-10-13437	SAMPLE		LANL010	SOIL	09-MAR-10 12:00:00 RF	can	125.58	15	3/15/10
249179002-1	RE46-10-13436	SAMPLE		LANL010	SOIL	09-MAR-10 12:00:00 "		139.91	15	
249179003-1	RE46-10-13434	SAMPLE		LANL010	SOIL	09-MAR-10 12:00:00 "		127.91	7	
249179004-1	RE46-10-13438	SAMPLE		LANL010	SOIL	09-MAR-10 12:00:00 "		133.43	25	
249179005-1	RE46-10-13435	SAMPLE		LANL010	SOIL	09-MAR-10 12:00:00 "		128.40	5	
249179006-1	RE46-10-13439	SAMPLE		LANL010	SOIL	09-MAR-10 12:00:00 "		132.47	22	
249179007-1	RE46-10-13463	SAMPLE		LANL010	SOIL	09-MAR-10 12:00:00 "		144.38	29	
249244001-1	RE46-10-12927	SAMPLE		LANL010	SOIL	10-MAR-10 12:00:00 "		156.21	15	
249244002-1	RE46-10-12923	SAMPLE		LANL010	SOIL	10-MAR-10 12:00:00 "		138.27	6	
249244003-1	RE46-10-12924	SAMPLE		LANL010	SOIL	10-MAR-10 12:00:00 "		116.52	7	
249244004-1	RE46-10-12926	SAMPLE		LANL010	SOIL	10-MAR-10 12:00:00 "		122.15	25	
249244005-1	RE46-10-12928	SAMPLE		LANL010	SOIL	10-MAR-10 12:00:00 "		124.20	25	
249244006-1	RE46-10-12925	SAMPLE		LANL010	SOIL	10-MAR-10 12:00:00 RF		142.48	22	
249245001-1	RE16-10-2800	SAMPLE		LANL010	SOIL	09-MAR-10 12:00:00 RF		125.14	18	
249245002-1	RE16-10-2799	SAMPLE		LANL010	SOIL	09-MAR-10 12:00:00 RF		144.80	11	
249247001-1	RE16-10-2985	SAMPLE		LANL010	SOIL	09-MAR-10 12:00:00 RF		150.56	29	
249247002-1	RE16-10-2984	SAMPLE		LANL010	SOIL	09-MAR-10 12:00:00 RF		117.37	17	
249247003-1	RE16-10-2982	SAMPLE		LANL010	SOIL	09-MAR-10 12:00:00 RF		126.80	4	
1202069894-1	MB	MB		QC ACCOUNT	SOIL	3/15/10 RF		156.21	20	
1202069895-1	DUP RE46-10-13437(249179001)	DUP		QC ACCOUNT	SOIL	09-MAR-10 12:00:00 RF		125.58	6	
1202069896-1	LCS	LCS		QC ACCOUNT	SOIL	3/15/10 RF	—	151.73	7	—

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: [signature] 3/25/10

✓ no history
✓ daily

[signature] 3/26/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
964804	249179001	SAMPLE	23-MAR-10		Americium-241	-0.05919	0.5558	0.200
					Cerium-139	0.01136	0.0678	0.050
					Europium-152	0.1003	0.2258	0.200
					Sodium-22	0.01281	0.1049	0.080
					Thorium-234	0.5634	4.443	2.00
					Uranium-235	0.2383	0.5048	0.500
964804	249179002	SAMPLE	23-MAR-10		Americium-241	-0.3759	0.498	0.200
					Cerium-139	-0.03965	0.06179	0.050
					Cesium-134	0.07726	0.1061	0.100
					Europium-152	0.03876	0.2032	0.200
					Sodium-22	-0.01374	0.08452	0.080
					Thorium-234	1.631	4.201	2.00
964804	249179003	SAMPLE	23-MAR-10		Sodium-22	0.02964	0.08786	0.080
964804	249179004	SAMPLE	23-MAR-10					
964804	249179005	SAMPLE	23-MAR-10		Cerium-139	-0.02492	0.0571	0.050
					Sodium-22	-0.02142	0.1005	0.080
964804	249179006	SAMPLE	23-MAR-10		Americium-241	0.08863	0.2187	0.200
964804	249179007	SAMPLE	23-MAR-10		Americium-241	0.1278	0.3005	0.200
					Cerium-139	-0.00931	0.05703	0.050
					Thorium-234	2.138	2.525	2.00
964804	249244001	SAMPLE	23-MAR-10		Americium-241	-0.2522	0.312	0.200
					Thorium-234	0.2747	2.596	2.00
964804	249244002	SAMPLE	23-MAR-10		Americium-241	-0.04204	0.2977	0.200
					Thorium-234	0.9161	2.531	2.00
964804	249244003	SAMPLE	23-MAR-10		Cerium-139	0.02316	0.05082	0.050
964804	249244004	SAMPLE	23-MAR-10					
964804	249244005	SAMPLE	23-MAR-10					
964804	249244006	SAMPLE	24-MAR-10					
964804	249245001	SAMPLE	24-MAR-10		Americium-241	-0.1035	0.2702	0.200
					Thorium-234	0.2237	2.446	2.00
964804	249245002	SAMPLE	24-MAR-10					
964804	249247001	SAMPLE	24-MAR-10		Americium-241	-0.1295	0.2524	0.200
					Thorium-234	0.1008	2.26	2.00
964804	249247002	SAMPLE	24-MAR-10		Sodium-22	0.03316	0.09215	0.080
964804	249247003	SAMPLE	24-MAR-10		Americium-241	-0.0344	0.3443	0.200
					Thorium-234	-0.2944	2.896	2.00
964804	1202069894	MB	24-MAR-10					
964804	1202069895	DUP	24-MAR-10		Americium-241	-0.1855	0.3255	0.200
					Cerium-139	-0.04312	0.058	0.050
					Cesium-134	0.1021	0.1154	0.100
					Europium-152	0.06699	0.2054	0.200
					Sodium-22	-0.02485	0.09134	0.080
					Thorium-234	1.683	3.014	2.00

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
964804	1202069896	LCS	24-MAR-10		Cerium-139	-0.00575	0.07766	0.050
					Cesium-134	0.09792	0.1684	0.100
					Europium-152	0.0853	0.3144	0.200
					Mercury-203	-0.00742	0.114	0.100
					Ruthenium-106	0.6476	1.124	0.800
					Thorium-234	-0.4472	2.725	2.00
					Tin-113	0.06194	0.1548	0.100
					Uranium-235	0.1842	0.5583	0.500
					Yttrium-88	0.07752	0.1223	0.100

Gamma Review Report based on Result > MDA for Batch:964804

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249179001	09-MAR-10 12:00	23-MAR-10 16:44	14.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.991	0.2507	pCi/g	0.2884	N	911.1	3	2.097	IDENTIFIED	11.04	☐	
Annihilation Rad.		0.2021	0.04086	pCi/g	0.05996	N	510.8	1	1.814	IDENTIFIED	19.75	☐	
Bismuth-211	int	4.123	0.3756	pCi/g	0.4676	Y	351.9	2	1.412	IDENTIFIED	7.636	☐ ui	
Bismuth-212	HE	2.331	0.6534	pCi/g	1.525	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214		1.197	0.1207	pCi/g	0.1529	0.200	609.5	3	1.526	IDENTIFIED	8.769	☐	
Cadmium-109	int	2.462	0.793	pCi/g	2.152	Y	87.36	3	1.231	IDENTIFIED	31.61	☐ ui	
Cerium-143		524.5	92.6	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1758	0.03438	pCi/g	0.1108	0.100	0	6	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		10.75	1.589	pCi/g	3.92	N		0				☐	
Iodine-133	HE	1808	1798	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212		2.055	0.1448	pCi/g	0.1307	0.100	238.8	2	1.3	IDENTIFIED	3.733	☐	
Lead-214		1.496	0.1424	pCi/g	0.17	0.100	351.9	2	1.412	IDENTIFIED	7.636	☐	
Neptunium-237	HE	0.7192	0.2436	pCi/g	0.6065	N	87.36	3	1.231	IDENTIFIED	31.61	☐	
Niobium-95m	la nr	0.5725	0.104	pCi/g	0.3368	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40		35.48	2.053	pCi/g	0.72	1.00	1460	1	2.045	IDENTIFIED	3.053	☐	
Radium-224	int	5.586	0.9973	pCi/g	1.4	Y	241.8	1	2.04	IDENTIFIED	16.98	☐ ui	
Radium-226		1.197	0.1207	pCi/g	0.1529	Y	609.5	3	1.526	IDENTIFIED	8.769	☐	
Radium-228		1.991	0.2507	pCi/g	0.2884	0.500	911.1	3	2.097	IDENTIFIED	11.04	☐	
Sodium-24	HE	1.74E+05	1.65E+05	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208		0.6525	0.05287	pCi/g	0.07268	0.080	583.4	1	1.647	IDENTIFIED	6.69	☐	
Thorium-228	nr	2.055	0.1448	pCi/g	0.1307	N	238.8	2	1.3	IDENTIFIED	3.733	☐	
Thorium-230	nr	1.197	0.1165	pCi/g	0.1529	N	609.5	3	1.526	IDENTIFIED	8.769	☐	
Thorium-232	nr	1.991	0.2507	pCi/g	0.2884	N	911.1	3	2.097	IDENTIFIED	11.04	☐	
Tin-126	HE	0.241	0.07762	pCi/g	0.2121	N	87.36	3	1.231	IDENTIFIED	31.61	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249179002	09-MAR-10 12:00	23-MAR-10 18:49	14.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	2.026	0.1929	pCi/g	0.2414	N	911	3	1.592	IDENTIFIED	7.345	☐	
Annihilation Rad.		0.1849	0.04064	pCi/g	0.05522	N	510.9	1	1.552	IDENTIFIED	21.55	☐	
Bismuth-211	int	4.309	0.3532	pCi/g	0.4101	Y	352	2	1.367	IDENTIFIED	6.521	☐ ui	
Bismuth-212	HE	2.411	0.5726	pCi/g	1.406	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214		1.26	0.1123	pCi/g	0.1294	0.200	609.3	3	1.463	IDENTIFIED	7.39	☐	
Cadmium-109	la	2.239	0.6999	pCi/g	2.223	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Cerium-143		673.8	102.9	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma		9.637	1.34	pCi/g	3.208	N		0				☐	
Iodine-133	HE	846.6	1799	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212		1.778	0.1258	pCi/g	0.1163	0.100	238.8	2	1.263	IDENTIFIED	3.795	☐	

Lead-214 ✔		1.564	0.1353	pCi/g	0.1491	0.100	352	2	1.367	IDENTIFIED	6.521	☐		
Neptunium-237	HE	1.157	0.3305	pCi/g	0.5767	N	86.23	2	1.428	IDENTIFIED	25.85	☐		
Niobium-95m	HE	0.3404	0.09194	pCi/g	0.2989	N	0	6	0	NOT_IDENTI	0	☐		
Potassium-40 ✔		32.13	1.84	pCi/g	0.53	1.00	1460	1	2.013	IDENTIFIED	2.938	☐		
Radium-224	int	5.15	0.878	pCi/g	1.246	Y	241.7	1	2.04	IDENTIFIED	16.13	☐	ui	
Radium-226 ✔		1.26	0.1123	pCi/g	0.1294	Y	609.3	3	1.463	IDENTIFIED	7.39	☐		
Radium-228 ✔		2.026	0.1929	pCi/g	0.2414	0.500	911	3	1.592	IDENTIFIED	7.345	☐		
Strontium-85	la	0.1175	0.02764	pCi/g	0.09174	Y	0	6	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔		0.5097	0.05112	pCi/g	0.06854	0.080	583.3	1	1.78	IDENTIFIED	8.927	☐		
Thorium-228	nr	1.778	0.1258	pCi/g	0.1163	N	238.8	2	1.263	IDENTIFIED	3.795	☐		
Thorium-230	nr	1.26	0.1072	pCi/g	0.1294	N	609.3	3	1.463	IDENTIFIED	7.39	☐		
Thorium-232	nr	2.026	0.1929	pCi/g	0.2414	N	911	3	1.592	IDENTIFIED	7.345	☐		
Tin-126	HE	0.3879	0.103	pCi/g	0.2073	N	86.23	2	1.428	IDENTIFIED	25.85	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249179003	09-MAR-10 12:00	23-MAR-10 19:03	14.3	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.644	0.1987	pCi/g	0.242	N	911.5	3	1.929	IDENTIFIED	10.5	☐		
Annihilation Rad.	—	0.1591	0.03329	pCi/g	0.0509	N	511.1	1	1.161	IDENTIFIED	20.44	☐		
Bismuth-211	int	3.726	0.2882	pCi/g	0.3368	Y	352.1	2	1.275	IDENTIFIED	6.303	☐	ui	
Bismuth-212	la nr	2.924	0.5614	pCi/g	1.319	N	0	4	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔		1.251	0.1088	pCi/g	0.1139	0.200	609.7	3	1.608	IDENTIFIED	6.973	☐		
Cadmium-109	int	2.03	0.4998	pCi/g	1.2	Y	87.16	3	1.09	IDENTIFIED	24.18	☐	ui	
Cerium-143	—	286.7	61.37	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐		
Gross Gamma	—	9.621	1.3	pCi/g	3.216	N		0				☐		
Iodine-135	HE	1.59E+14	5.00E+14	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐		
Lead-212 ✔		1.956	0.1126	pCi/g	0.0969	0.100	238.8	2	1.184	IDENTIFIED	3.161	☐		
Lead-214 ✔		1.352	0.1111	pCi/g	0.1255	0.100	352.1	2	1.275	IDENTIFIED	6.303	☐		
Neptunium-237	HE	0.5928	0.1586	pCi/g	0.3803	N	87.16	3	1.09	IDENTIFIED	24.18	☐		
Potassium-40 ✔		32.02	1.703	pCi/g	0.596	1.00	1461	1	2.058	IDENTIFIED	3.137	☐		
Radium-224	int	5.014	0.663	pCi/g	1.039	Y	241.8	1	1.693	IDENTIFIED	12.53	☐	ui	
Radium-226 ✔		1.251	0.1088	pCi/g	0.1139	Y	609.7	3	1.608	IDENTIFIED	6.973	☐		
Radium-228 ✔		1.644	0.1987	pCi/g	0.242	0.500	911.5	3	1.929	IDENTIFIED	10.5	☐		
Strontium-85	la	0.1091	0.02224	pCi/g	0.07815	Y	0	4	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔		0.5647	0.05117	pCi/g	0.0644	0.080	583.5	1	1.193	IDENTIFIED	7.698	☐		
Thorium-228	nr	1.956	0.1126	pCi/g	0.0969	N	238.8	2	1.184	IDENTIFIED	3.161	☐		
Thorium-230	nr	1.251	0.1037	pCi/g	0.1139	N	609.7	3	1.608	IDENTIFIED	6.973	☐		
Thorium-232	nr	1.644	0.1987	pCi/g	0.242	N	911.5	3	1.929	IDENTIFIED	10.5	☐		
Tin-126	HE	0.1987	0.04892	pCi/g	0.1177	N	87.16	3	1.09	IDENTIFIED	24.18	☐		
Total Uranium	—	3.6804	1.58E-06	ug/g	2.784	N		0				☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249179004	09-MAR-10 12:00	23-MAR-10 19:04	14.3	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	2.324	0.2356	pCi/g	0.2302	N	911.4	3	1.745	IDENTIFIED	8.088	☐		

Annihilation Rad.	—	0.1402	0.03055	pCi/g	0.0495	N	511	1	1.327	IDENTIFIED	21.17	☐		
Bismuth-211	int	4.451	0.3088	pCi/g	0.3559	Y	352	2	1.137	IDENTIFIED	4.525	☐	ui	
Bismuth-212	la nr	2.37	0.4784	pCi/g	1.367	N	0	6	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.488	0.1218	pCi/g	0.1142	0.200	609.3	3	1.219	IDENTIFIED	5.504	☐		
Cadmium-109	int	3.997	0.399	pCi/g	0.7984	Y	87.16	3	1.049	IDENTIFIED	8.429	☐	ui	
Cerium-143	—	237.3	53.33	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1374	0.04565	pCi/g	0.1017	0.100	0	6	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Europium-155	HE	0.1497	0.05591	pCi/g	0.1313	N	105.4	1	1.441	IDENTIFIED	36.89	☐		
Gross Gamma	—	11	1.312	pCi/g	3.434	N		0				☐		
Iodine-135	HE	5.99E+14	4.73E+14	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Lead-210	nr	1.148	0.2835	pCi/g	0.5724	N	46.41	1	0.9091	IDENTIFIED	24.15	☐		
Lead-212	✓	2.117	0.1344	pCi/g	0.08605	0.100	238.7	2	0.9439	IDENTIFIED	2.774	☐		
Lead-214	✓	1.615	0.1206	pCi/g	0.1183	0.100	352	2	1.137	IDENTIFIED	4.525	☐		
Neptunium-237	int nr	1.167	0.169	pCi/g	0.2316	N	87.16	3	1.049	IDENTIFIED	8.429	☐		
Niobium-95	HE	0.09129	0.0263	pCi/g	0.08795	N	0	6	0	NOT_IDENTI	0	☐		
Potassium-40	✓	33.65	1.712	pCi/g	0.4968	1.00	1461	1	1.867	IDENTIFIED	2.784	☐		
Radium-224	int	5.548	0.7497	pCi/g	0.9234	Y	241.5	1	1.749	IDENTIFIED	12.45	☐	ui	
Radium-226	✓	1.488	0.1218	pCi/g	0.1142	Y	609.3	3	1.219	IDENTIFIED	5.504	☐		
Radium-228	✓	2.324	0.2356	pCi/g	0.2302	0.500	911.4	3	1.745	IDENTIFIED	8.088	☐		
Technetium-99m	HE	6.10E+14	1.54E+15	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.5991	0.05802	pCi/g	0.05998	0.080	583.1	1	1.247	IDENTIFIED	7.88	☐		
Thorium-228	nr	2.117	0.1344	pCi/g	0.08605	N	238.7	2	0.9439	IDENTIFIED	2.774	☐		
Thorium-230	nr	1.488	0.1153	pCi/g	0.1142	N	609.3	3	1.219	IDENTIFIED	5.504	☐		
Thorium-232	nr	2.324	0.2356	pCi/g	0.2302	N	911.4	3	1.745	IDENTIFIED	8.088	☐		
Thorium-234	✓	1.964	0.4982	pCi/g	0.7764	2.00	63.55	2	0.9918	IDENTIFIED	23.52	☐		
Tin-126	int nr	0.3912	0.03905	pCi/g	0.07798	N	87.16	3	1.049	IDENTIFIED	8.429	☐		
Total Uranium	—	5.8275	1.48E-06	ug/g	1.1574	N		0				☐		
Uranium-238	nr	1.964	0.4982	pCi/g	0.7764	N	63.55	2	0.9918	IDENTIFIED	23.52	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249179005	09-MAR-10 12:00	23-MAR-10 20:12	14.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	2.345	0.2321	pCi/g	0.2539	N	910.9	3	2.039	IDENTIFIED	7.596	☐		
Annihilation Rad.		0.1704	0.04438	pCi/g	0.05464	N	510.4	1	2.031	IDENTIFIED	25.85	☐		
Bismuth-211	int	4.381	0.3206	pCi/g	0.3577	Y	351.5	2	1.226	IDENTIFIED	6.157	☐	ui	
Bismuth-212	la nr	3.069	0.5539	pCi/g	1.461	N	0	6	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.368	0.1093	pCi/g	0.1401	0.200	608.9	3	1.399	IDENTIFIED	6.786	☐		
Cadmium-109	int	2.976	0.4379	pCi/g	1.369	Y	86.85	3	0.9533	IDENTIFIED	14.21	☐	ui	
Cerium-143	—	804.6	114.8	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1299	0.05166	pCi/g	0.1194	0.100	0	6	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	—	11.22	1.597	pCi/g	5.273	N		0				☐		
Iodine-135	HE	3.35E+14	5.98E+14	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Lead-210	HE	1.519	0.4516	pCi/g	0.9975	N	45.99	1	1.067	IDENTIFIED	29.48	☐		
Lead-212	✓	1.85	0.1297	pCi/g	0.1706	0.100	238.3	2	1.276	IDENTIFIED	4.451	☐		
Lead-214	✓	1.59	0.1243	pCi/g	0.1301	0.100	351.5	2	1.226	IDENTIFIED	6.157	☐		

Neptunium-237	int nr	0.8689	0.157	pCi/g	0.3981	N	86.85	3	0.9533	IDENTIFIED	14.21	☐	
Niobium-95m	la nr	1.033	0.1113	pCi/g	0.3526	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	✔	33.39	1.459	pCi/g	0.605	1.00	1460	1	2.14	IDENTIFIED	3.068	☐	
Radium-224	int	3.078	0.506	pCi/g	1.828	Y	241.5	1	1.628	IDENTIFIED	15.7	☐	ui
Radium-226	✔	1.368	0.1093	pCi/g	0.1401	Y	608.9	3	1.399	IDENTIFIED	6.786	☐	
Radium-228	✔	2.345	0.2321	pCi/g	0.2539	0.500	910.9	3	2.039	IDENTIFIED	7.596	☐	
Sodium-24	HE	46470	1.82E+05	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208	✔	0.6544	0.05152	pCi/g	0.0743	0.080	582.8	1	1.478	IDENTIFIED	6.965	☐	
Thorium-228	nr	1.85	0.1297	pCi/g	0.1706	N	238.3	2	1.276	IDENTIFIED	4.451	☐	
Thorium-230	nr	1.368	0.1032	pCi/g	0.1401	N	608.9	3	1.399	IDENTIFIED	6.786	☐	
Thorium-232	nr	2.345	0.2321	pCi/g	0.2539	N	910.9	3	2.039	IDENTIFIED	7.596	☐	
Thorium-234	✔	1.478	0.5202	pCi/g	1.26	2.00	62.79	2	1.051	IDENTIFIED	34.01	☐	
Tin-126	int nr	0.2912	0.04286	pCi/g	0.1338	N	86.85	3	0.9533	IDENTIFIED	14.21	☐	
Total Uranium		4.5165	1.55E-06	ug/g	1.8779	N		0				☐	
Uranium-238	HE	1.478	0.5202	pCi/g	1.26	N	62.79	2	1.051	IDENTIFIED	34.01	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249179006	09-MAR-10 12:00	23-MAR-10 20:33	14.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	2.011	0.1971	pCi/g	0.2024	N	911.3	3	1.995	IDENTIFIED	7.085	☐	
Annihilation Rad.	HE	0.08765	0.03238	pCi/g	0.0422	N	511.1	1	2.051	IDENTIFIED	36.6	☐	
Bismuth-211	int	3.726	0.2928	pCi/g	0.306	Y	352.1	2	1.271	IDENTIFIED	5.287	☐	ui
Bismuth-212	HE	1.509	0.4157	pCi/g	1.006	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.076	0.08552	pCi/g	0.09863	0.200	609.4	3	1.884	IDENTIFIED	5.398	☐	
Cadmium-109	int	2.985	0.4595	pCi/g	1.226	Y	87.34	3	1.101	IDENTIFIED	14.65	☐	ui
Cerium-141	HE	0.1339	0.04334	pCi/g	0.09494	N	144.2	2	1.684	IDENTIFIED	32.05	☐	
Cerium-143	—	527.9	83.41	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1018	0.03005	pCi/g	0.0735	0.100	0	6	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Cesium-135	HE	0.3078	0.08784	pCi/g	0.2701	N	0	6	0	NOT_IDENTI	0	☐	
Gross Gamma		9.793	1.391	pCi/g	2.972	N		0				☐	
Lead-212	✔	1.718	0.1247	pCi/g	0.09039	0.100	238.7	2	1.157	IDENTIFIED	2.968	☐	
Lead-214	✔	1.352	0.1126	pCi/g	0.111	0.100	352.1	2	1.271	IDENTIFIED	5.287	☐	
Neptunium-237	int nr	0.8717	0.1623	pCi/g	0.3854	N	87.34	3	1.101	IDENTIFIED	14.65	☐	
Potassium-40	✔	32.94	1.675	pCi/g	0.4461	1.00	1461	1	2.663	IDENTIFIED	2.209	☐	
Radium-224	int	4.305	0.6049	pCi/g	0.9677	Y	241.6	1	1.732	IDENTIFIED	12.57	☐	ui
Radium-226	✔	1.076	0.08552	pCi/g	0.09863	Y	609.4	3	1.884	IDENTIFIED	5.398	☐	
Radium-228	✔	2.011	0.1971	pCi/g	0.2024	0.500	911.3	3	1.995	IDENTIFIED	7.085	☐	
Strontium-85	la	0.1124	0.02155	pCi/g	0.06894	Y	0	6	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Technetium-99m	HE	2.77E+15	2.34E+15	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208	✔	0.5127	0.04625	pCi/g	0.04879	0.080	583.4	1	1.59	IDENTIFIED	7.213	☐	
Thorium-228	nr	1.718	0.1247	pCi/g	0.09039	N	238.7	2	1.157	IDENTIFIED	2.968	☐	
Thorium-230	nr	1.076	0.08068	pCi/g	0.09863	N	609.4	3	1.884	IDENTIFIED	5.398	☐	
Thorium-232	nr	2.011	0.1971	pCi/g	0.2024	N	911.3	3	1.995	IDENTIFIED	7.085	☐	
Tin-126	int nr	0.2921	0.04496	pCi/g	0.1205	N	87.34	3	1.101	IDENTIFIED	14.65	☐	
Total Uranium		5.2329	2.56E-06	ug/g	2.7876	N		0				☐	
Uranium-235	✔	0.434	0.1439	pCi/g	0.3152	0.500	144.2	2	1.684	IDENTIFIED	32.05	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249179007	09-MAR-10 12:00	23-MAR-10 20:44	14.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.972	0.2042	pCi/g	0.222	N	911	3	1.58	IDENTIFIED	7.014	☐	
Annihilation Rad.		0.138	0.03258	pCi/g	0.04787	N	510.7	1	1.377	IDENTIFIED	23.17	☐	
Bismuth-211	int	4.131	0.2839	pCi/g	0.3963	Y	351.9	2	1.136	IDENTIFIED	4.93	☐ ui	
Bismuth-212	nr	2.019	0.4748	pCi/g	0.8193	N	727.5	1	1.595	IDENTIFIED	22.59	☐	
Bismuth-214	✔	1.317	0.1035	pCi/g	0.1107	0.200	609.2	3	1.439	IDENTIFIED	6.024	☐	
Cadmium-109	int	3.971	0.5629	pCi/g	1.36	Y	87.27	3	1.263	IDENTIFIED	13.38	☐ ui	
Cerium-143	—	813.6	109.4	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1138	0.0409	pCi/g	0.09356	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	—	10.79	1.458	pCi/g	4.115	N		0				☐	
Iodine-133	HE	369.4	1718	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Iodine-135	HE	3.50E+13	5.23E+14	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212	✔	1.879	0.1105	pCi/g	0.1016	0.100	238.6	2	1.141	IDENTIFIED	3.118	☐	
Lead-214	✔	1.499	0.111	pCi/g	0.1452	0.100	351.9	2	1.136	IDENTIFIED	4.93	☐	
Neptunium-237	int nr	1.16	0.2045	pCi/g	0.4035	N	87.27	3	1.263	IDENTIFIED	13.38	☐	
Niobium-95	HE	0.09293	0.02475	pCi/g	0.08301	N	0	7	0	NOT_IDENTI	0	☐	
Niobium-95m	—	0.5024	0.08687	pCi/g	0.2863	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40	✔	33.73	2.041	pCi/g	0.555	1.00	1461	1	1.894	IDENTIFIED	2.65	☐	
Radium-224	int	6.147	0.7431	pCi/g	1.088	Y	241.4	1	1.863	IDENTIFIED	11.25	☐ ui	
Radium-226	✔	1.317	0.1035	pCi/g	0.1107	Y	609.2	3	1.439	IDENTIFIED	6.024	☐	
Radium-228	✔	1.972	0.2042	pCi/g	0.222	0.500	911	3	1.58	IDENTIFIED	7.014	☐	
Technetium-99m	HE	1.17E+15	2.73E+15	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-208	✔	0.5834	0.04694	pCi/g	0.06308	0.080	583.2	1	1.317	IDENTIFIED	6.542	☐	
Thorium-228	nr	1.879	0.1105	pCi/g	0.1016	N	238.6	2	1.141	IDENTIFIED	3.118	☐	
Thorium-230	nr	1.317	0.09749	pCi/g	0.1107	N	609.2	3	1.439	IDENTIFIED	6.024	☐	
Thorium-232	nr	1.972	0.2042	pCi/g	0.222	N	911	3	1.58	IDENTIFIED	7.014	☐	
Tin-126	int nr	0.3886	0.05509	pCi/g	0.1337	N	87.27	3	1.263	IDENTIFIED	13.38	☐	
Total Uranium		6.3858	2.99E-06	ug/g	3.7598	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249244001	10-MAR-10 12:00	23-MAR-10 22:40	13.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.277	0.1386	pCi/g	0.1672	N	911	3	2.027	IDENTIFIED	9.006	☐	
Annihilation Rad.	—	0.1241	0.03081	pCi/g	0.03583	N	511	1	2.512	IDENTIFIED	24.44	☐	
Bismuth-211	int	3.308	0.2282	pCi/g	0.276	Y	352	2	1.537	IDENTIFIED	4.788	☐ ui	
Bismuth-212	HE	0.9328	0.3098	pCi/g	0.7579	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.188	0.0803	pCi/g	0.08301	0.200	609.4	3	1.736	IDENTIFIED	4.572	☐	
Cadmium-109	int	3.335	0.4554	pCi/g	1.032	Y	87.41	3	1.508	IDENTIFIED	12.18	☐ ui	
Cerium-143	—	356.4	49.36	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.08055	0.0189	pCi/g	0.06351	0.100	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.2587	0.06707	pCi/g	0.2184	N	0	8	0	NOT_IDENTI	0	☐	
Gross Gamma	—	7.872	1.005	pCi/g	2.329	N		0				☐	

Iodine-133	HE	173.7	574.9	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Iodine-135	HE	2.22E+13	3.99E+13	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212		1.364	0.09113	pCi/g	0.07512	0.100	238.8	2	1.398	IDENTIFIED	2.992	☐	
Lead-214		1.201	0.08921	pCi/g	0.09736	0.100	352	2	1.537	IDENTIFIED	4.788	☐	
Neptunium-237	int nr	0.975	0.1679	pCi/g	0.31	N	87.41	3	1.508	IDENTIFIED	12.18	☐	
Niobium-95m	la nr	0.3326	0.05853	pCi/g	0.1889	N	0	8	0	NOT_IDENTI	0	☐	
Potassium-40		24.16	1.323	pCi/g	0.3578	1.00	1461	1	2.093	IDENTIFIED	2.418	☐	
Radium-224	int	3.427	0.4887	pCi/g	0.8047	Y	241.7	1	1.761	IDENTIFIED	13.15	☐	ui
Radium-226		1.188	0.0803	pCi/g	0.08301	Y	609.4	3	1.736	IDENTIFIED	4.572	☐	
Radium-228		1.277	0.1386	pCi/g	0.1672	0.500	911	3	2.027	IDENTIFIED	9.006	☐	
Strontium-85	la	0.09157	0.01535	pCi/g	0.05622	Y	0	8	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208		0.3975	0.03298	pCi/g	0.04391	0.080	583.3	1	1.581	IDENTIFIED	6.923	☐	
Thorium-228	nr	1.364	0.09113	pCi/g	0.07512	N	238.8	2	1.398	IDENTIFIED	2.992	☐	
Thorium-230	nr	1.188	0.07393	pCi/g	0.08301	N	609.4	3	1.736	IDENTIFIED	4.572	☐	
Thorium-232	nr	1.277	0.1386	pCi/g	0.1672	N	911	3	2.027	IDENTIFIED	9.006	☐	
Tin-126	int nr	0.3268	0.04463	pCi/g	0.1019	N	87.41	3	1.508	IDENTIFIED	12.18	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249244002	10-MAR-10 12:00	23-MAR-10 21:01	13.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.539	0.189	pCi/g	0.2477	N	911.5	3	1.616	IDENTIFIED	10.69	☐	
Annihilation Rad.		0.1365	0.03471	pCi/g	0.04887	N	511.1	1	2.078	IDENTIFIED	25.05	☐	
Barium-137m	HE	0.1309	0.0355	pCi/g	0.06367	N	662.1	2	1.68	IDENTIFIED	26.82	☐	
Bismuth-211	int	3.603	0.3113	pCi/g	0.3845	Y	352	2	1.305	IDENTIFIED	7.259	☐	ui
Bismuth-212	la nr	2.15	0.4228	pCi/g	1.259	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214		1.21	0.105	pCi/g	0.1281	0.200	609.5	3	1.471	IDENTIFIED	7.121	☐	
Cadmium-109	int	2.254	0.5418	pCi/g	1.411	Y	87.05	3	1.09	IDENTIFIED	23.39	☐	ui
Cerium-143		192.9	40.62	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-137		0.1382	0.0375	pCi/g	0.06726	0.100	662.1	2	1.68	IDENTIFIED	26.82	☐	
Gross Gamma		8.165	1.199	pCi/g	3.068	N		0				☐	
Iodine-135	HE	4.98E+11	4.12E+13	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-212		1.524	0.09771	pCi/g	0.09685	0.100	238.7	2	1.196	IDENTIFIED	3.84	☐	
Lead-214		1.308	0.1186	pCi/g	0.1293	0.100	352	2	1.305	IDENTIFIED	7.259	☐	
Neptunium-237	HE	0.6593	0.1729	pCi/g	0.4334	N	87.05	3	1.09	IDENTIFIED	23.39	☐	
Potassium-40		24.16	1.417	pCi/g	0.508	1.00	1461	1	2.175	IDENTIFIED	3.49	☐	
Radium-224	int	4.586	0.6202	pCi/g	1.038	Y	241.8	1	1.654	IDENTIFIED	12.72	☐	ui
Radium-226		1.21	0.105	pCi/g	0.1281	Y	609.5	3	1.471	IDENTIFIED	7.121	☐	
Radium-228		1.539	0.189	pCi/g	0.2477	0.500	911.5	3	1.616	IDENTIFIED	10.69	☐	
Sodium-24	HE	74150	50100	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Strontium-85	la	0.07984	0.02123	pCi/g	0.07385	Y	0	5	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208		0.4792	0.04391	pCi/g	0.05691	0.080	583.2	1	1.502	IDENTIFIED	7.944	☐	
Thorium-228	nr	1.524	0.09771	pCi/g	0.09685	N	238.7	2	1.196	IDENTIFIED	3.84	☐	
Thorium-230	nr	1.21	0.1	pCi/g	0.1281	N	609.5	3	1.471	IDENTIFIED	7.121	☐	
Thorium-232	nr	1.539	0.189	pCi/g	0.2477	N	911.5	3	1.616	IDENTIFIED	10.69	☐	
Tin-126	HE	0.2209	0.0531	pCi/g	0.1468	N	87.05	3	1.09	IDENTIFIED	23.39	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249244003	10-MAR-10 12:00	23-MAR-10 21:07	13.4	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.686	0.2158	pCi/g	0.2203	N	911.7	3	1.434	IDENTIFIED	11.31	☐	
Bismuth-211	int	4.047	0.306	pCi/g	0.3504	Y	352.1	2	1.239	IDENTIFIED	6.088	☐ ui	
Bismuth-212	HE	1.718	0.3866	pCi/g	1.222	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.257	0.1063	pCi/g	0.115	0.200	609.6	3	1.53	IDENTIFIED	6.672	☐	
Cadmium-109	int	2.926	0.4986	pCi/g	1.189	Y	87.27	3	1.232	IDENTIFIED	16.39	☐ ui	
Cerium-143	—	205	42.12	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1342	0.03503	pCi/g	0.1066	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	—	8.723	1.296	pCi/g	3.29	N		0				☐	
Iodine-133	HE	80.88	822.6	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Iodine-135	HE	5.82E+13	4.64E+13	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.691	0.101	pCi/g	0.09463	0.100	238.7	2	1.187	IDENTIFIED	3.547	☐	
Lead-214 ✔		1.469	0.1182	pCi/g	0.1275	0.100	352.1	2	1.239	IDENTIFIED	6.088	☐	
Neptunium-237	int nr	0.8557	0.1712	pCi/g	0.3166	N	87.27	3	1.232	IDENTIFIED	16.39	☐	
Potassium-40 ✔		25.26	1.387	pCi/g	0.5885	1.00	1461	1	1.752	IDENTIFIED	3.422	☐	
Radium-224	int	4.656	0.6532	pCi/g	1.014	Y	241.8	1	1.828	IDENTIFIED	13.38	☐ ui	
Radium-226 ✔		1.257	0.1063	pCi/g	0.115	Y	609.6	3	1.53	IDENTIFIED	6.672	☐	
Radium-228 ✔		1.686	0.2158	pCi/g	0.2203	0.500	911.7	3	1.434	IDENTIFIED	11.31	☐	
Sodium-24	HE	8397	50600	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	1.62E+14	1.62E+14	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-208 ✔		0.5251	0.0445	pCi/g	0.05916	0.080	583.3	1	1.225	IDENTIFIED	7.001	☐	
Thorium-228	nr	1.691	0.101	pCi/g	0.09463	N	238.7	2	1.187	IDENTIFIED	3.547	☐	
Thorium-230	nr	1.257	0.101	pCi/g	0.115	N	609.6	3	1.53	IDENTIFIED	6.672	☐	
Thorium-232	nr	1.686	0.2158	pCi/g	0.2203	N	911.7	3	1.434	IDENTIFIED	11.31	☐	
Thorium-234 ✔		1.976	0.7275	pCi/g	1.63	2.00	63.37	2	1.29	IDENTIFIED	35.73	☐	
Tin-126	int nr	0.2868	0.04887	pCi/g	0.1168	N	87.27	3	1.232	IDENTIFIED	16.39	☐	
Total Uranium		5.9553	2.17E-06	ug/g	2.4268	N		0				☐	
Uranium-238	HE	1.976	0.7275	pCi/g	1.63	N	63.37	2	1.29	IDENTIFIED	35.73	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249244004	10-MAR-10 12:00	23-MAR-10 21:08	13.4	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.806	0.1823	pCi/g	0.2124	N	911.2	3	1.68	IDENTIFIED	8.038	☐	
Annihilation Rad.	—	0.1412	0.03429	pCi/g	0.04565	N	511.2	1	2.187	IDENTIFIED	23.73	☐	
Bismuth-211	int	4.312	0.3124	pCi/g	0.3094	Y	351.9	2	1.112	IDENTIFIED	4.985	☐ ui	
Bismuth-212	HE	1.792	0.5465	pCi/g	1.303	N	0	3	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.198	0.1153	pCi/g	0.1131	0.200	609.3	3	1.474	IDENTIFIED	7.476	☐	
Cadmium-109	int	3.682	0.3945	pCi/g	0.7167	Y	87.22	3	1.095	IDENTIFIED	9.28	☐ ui	
Cerium-143		159.4	34.67	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Gross Gamma	—	8.838	1.214	pCi/g	3.163	N		0				☐	
Iodine-135	HE	8.26E+13	4.65E+13	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Lead-210	HE	0.9981	0.272	pCi/g	0.5446	N	46.45	1	0.9103	IDENTIFIED	26.76	☐	
Lead-212 ✔		1.6	0.106	pCi/g	0.07959	0.100	238.7	2	1.039	IDENTIFIED	3.358	☐	

Lead-214		1.565	0.1213	pCi/g	0.1088	0.100	351.9	2	1.112	IDENTIFIED	4.985	☐	
Neptunium-237	int nr	1.077	0.1614	pCi/g	0.2082	N	87.22	3	1.095	IDENTIFIED	9.28	☐	
Potassium-40		25.04	1.358	pCi/g	0.5137	1.00	1461	1	2.208	IDENTIFIED	3.359	☐	
Radium-224	int	4.94	0.5723	pCi/g	0.8541	Y	241.7	1	1.582	IDENTIFIED	10.32	☐	ui
Radium-226		1.198	0.1153	pCi/g	0.1131	Y	609.3	3	1.474	IDENTIFIED	7.476	☐	
Radium-228		1.806	0.1823	pCi/g	0.2124	0.500	911.2	3	1.68	IDENTIFIED	8.038	☐	
Thallium-208		0.5261	0.0489	pCi/g	0.05371	0.080	583.1	1	1.341	IDENTIFIED	7.395	☐	
Thorium-228	nr	1.6	0.106	pCi/g	0.07959	N	238.7	2	1.039	IDENTIFIED	3.358	☐	
Thorium-230	nr	1.198	0.1108	pCi/g	0.1131	N	609.3	3	1.474	IDENTIFIED	7.476	☐	
Thorium-232	nr	1.806	0.1823	pCi/g	0.2124	N	911.2	3	1.68	IDENTIFIED	8.038	☐	
Thorium-234		0.819	0.421	pCi/g	0.7398	2.00	63.35	2	0.7534	IDENTIFIED	50.52	☑	ui
Tin-126	int nr	0.3609	0.03866	pCi/g	0.0701	N	87.22	3	1.095	IDENTIFIED	9.28	☐	
Total Uranium		2.4866	1.25E-06	ug/g	1.1031	N		0				☐	
Uranium-238	HE	0.819	0.421	pCi/g	0.7398	N	63.35	2	0.7534	IDENTIFIED	50.52	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249244005	10-MAR-10 12:00	23-MAR-10 23:16	13.5	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	2.025	0.1798	pCi/g	0.1772	N	911.2	3	1.518	IDENTIFIED	6.443	☐		
Annihilation Rad.	HE	0.06709	0.02759	pCi/g	0.03418	N	510.7	1	1.401	IDENTIFIED	40.8	☐		
Bismuth-211	int	4.295	0.2823	pCi/g	0.2193	Y	351.9	2	1.211	IDENTIFIED	3.943	☐	ui	
Bismuth-212	la nr	2.269	0.3462	pCi/g	0.9568	N	0	5	0	FAIL_ABUND	0	☐		
Bismuth-214		1.322	0.1005	pCi/g	0.08348	0.200	609.3	3	1.392	IDENTIFIED	4.596	☐		
Cadmium-109	int	3.023	0.3158	pCi/g	0.6388	Y	87.03	3	0.9856	IDENTIFIED	8.974	☐	ui	
Cerium-143		182.1	30.53	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1454	0.02585	pCi/g	0.06814	0.100	0	5	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma		10.96	1.287	pCi/g	3.398	N		0				☐		
Iodine-135	HE	7.71E+12	4.85E+13	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		
Lead-210	nr	1.26	0.258	pCi/g	0.413	N	46.38	1	0.9791	IDENTIFIED	19.83	☐		
Lead-212		2.083	0.1264	pCi/g	0.05877	0.100	238.6	2	0.9845	IDENTIFIED	2.045	☐		
Lead-214		1.559	0.1111	pCi/g	0.0798	0.100	351.9	2	1.211	IDENTIFIED	3.943	☐		
Neptunium-237	int nr	0.8839	0.1308	pCi/g	0.1621	N	87.03	3	0.9856	IDENTIFIED	8.974	☐		
Potassium-40		34.81	1.64	pCi/g	0.3916	1.00	1461	1	2.034	IDENTIFIED	2.016	☐		
Radium-224	int	4.97	0.5612	pCi/g	0.6307	Y	241.6	1	1.757	IDENTIFIED	9.991	☐	ui	
Radium-226		1.322	0.1005	pCi/g	0.08348	Y	609.3	3	1.392	IDENTIFIED	4.596	☐		
Radium-228		2.025	0.1798	pCi/g	0.1772	0.500	911.2	3	1.518	IDENTIFIED	6.443	☐		
Strontium-85	la	0.05168	0.01497	pCi/g	0.04749	Y	0	5	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208		0.641	0.04728	pCi/g	0.04415	0.080	583.2	1	1.304	IDENTIFIED	4.763	☐		
Thorium-228	nr	2.083	0.1264	pCi/g	0.05877	N	238.6	2	0.9845	IDENTIFIED	2.045	☐		
Thorium-230	nr	1.322	0.09421	pCi/g	0.08348	N	609.3	3	1.392	IDENTIFIED	4.596	☐		
Thorium-232	nr	2.025	0.1798	pCi/g	0.1772	N	911.2	3	1.518	IDENTIFIED	6.443	☐		
Thorium-234		1.6	0.3684	pCi/g	0.5646	2.00	63.15	2	1.091	IDENTIFIED	20.97	☐		
Tin-126	int nr	0.2962	0.03095	pCi/g	0.06273	N	87.03	3	0.9856	IDENTIFIED	8.974	☐		
Total Uranium		4.7923	1.10E-06	ug/g	0.84179	N		0				☐		
Uranium-238	nr	1.6	0.3684	pCi/g	0.5646	N	63.15	2	1.091	IDENTIFIED	20.97	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249244006	10-MAR-10 12:00	24-MAR-10 11:06	14	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.508	0.1672	pCi/g	0.1997	N	911.4	3	1.802	IDENTIFIED	8.778	☐	
Annihilation Rad.		0.09799	0.0274	pCi/g	0.03696	N	511.5	1	2.124	IDENTIFIED	27.51	☐	
Bismuth-207	HE	0.08119	0.02228	pCi/g	0.08093	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-211	int	3.811	0.2782	pCi/g	0.2843	Y	352	2	1.372	IDENTIFIED	4.418	☐ ui	
Bismuth-212	HE	1.602	0.4062	pCi/g	0.943	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	0.9075	0.09345	pCi/g	0.1	0.200	609.4	3	1.799	IDENTIFIED	8.486	☐	
Cadmium-109	int	2.332	0.4272	pCi/g	0.9149	Y	87.05	3	1.052	IDENTIFIED	17.71	☐ ui	
Cerium-143	—	413	65.11	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.133	0.02697	pCi/g	0.06819	0.100	0	8	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.2791	0.07999	pCi/g	0.2489	N	0	8	0	NOT_IDENTI	0	☐	
Gross Gamma	—	8.681	1.135	pCi/g	2.298	N		0				☐	
Iodine-133	HE	645.9	949.6	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212	✔	1.573	0.114	pCi/g	0.08093	0.100	238.7	2	1.202	IDENTIFIED	2.941	☐	
Lead-214	✔	1.383	0.1079	pCi/g	0.09903	0.100	352	2	1.372	IDENTIFIED	4.418	☐	
Neptunium-237	int nr	0.6812	0.1438	pCi/g	0.3525	N	87.05	3	1.052	IDENTIFIED	17.71	☐	
Niobium-95	HE	0.08959	0.01944	pCi/g	0.06371	N	0	8	0	NOT_IDENTI	0	☐	
Potassium-40	✔	29.29	1.505	pCi/g	0.483	1.00	1461	1	2.489	IDENTIFIED	2.329	☐	
Radium-224	int	3.953	0.5614	pCi/g	0.8664	Y	241.7	1	1.886	IDENTIFIED	12.74	☐ ui	
Radium-226	✔	0.9075	0.09345	pCi/g	0.1	Y	609.4	3	1.799	IDENTIFIED	8.486	☐	
Radium-228	✔	1.508	0.1672	pCi/g	0.1997	0.500	911.4	3	1.802	IDENTIFIED	8.778	☐	
Strontium-85	la	0.1236	0.02002	pCi/g	0.06544	Y	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✔	0.5127	0.04031	pCi/g	0.04418	0.080	583	1	1.718	IDENTIFIED	5.699	☐	
Thorium-228	nr	1.573	0.114	pCi/g	0.08093	N	238.7	2	1.202	IDENTIFIED	2.941	☐	
Thorium-230	nr	0.9074	0.09033	pCi/g	0.1	N	609.4	3	1.799	IDENTIFIED	8.486	☐	
Thorium-232	nr	1.508	0.1672	pCi/g	0.1997	N	911.4	3	1.802	IDENTIFIED	8.778	☐	
Tin-126	int nr	0.2283	0.04183	pCi/g	0.1181	N	87.05	3	1.052	IDENTIFIED	17.71	☐	
Total Uranium		4.4443	2.19E-06	ug/g	2.575	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249245001	09-MAR-10 12:00	24-MAR-10 11:25	15	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.477	0.1669	pCi/g	0.1855	N	910.8	3	2.279	IDENTIFIED	9.045	☐	
Annihilation Rad.		0.1289	0.0302	pCi/g	0.03762	N	510.9	1	2.025	IDENTIFIED	23.19	☐	
Bismuth-211	int	3.027	0.1918	pCi/g	0.264	Y	352	2	1.295	IDENTIFIED	5.463	☐ ui	
Bismuth-212	nr	1.754	0.3272	pCi/g	0.6153	N	727	1	1.825	IDENTIFIED	17.58	☐	
Bismuth-214	✔	0.7902	0.07337	pCi/g	0.0935	0.200	608.9	3	1.698	IDENTIFIED	8.127	☐	
Cadmium-109	int	1.607	0.4737	pCi/g	1.04	Y	86.93	3	1.071	IDENTIFIED	29.12	☐ ui	
Cerium-143	—	512.1	84.02	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Gross Gamma	—	8.36	1.074	pCi/g	1.932	N		0				☐	
Iodine-135	HE	2.59E+15	2.15E+15	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Lead-212	✔	1.318	0.06514	pCi/g	0.06998	0.100	238.7	2	1.22	IDENTIFIED	3.382	☐	

Lead-214 ✓		1.099	0.07591	pCi/g	0.0883	0.100	352	2	1.295	IDENTIFIED	5.463	☐	
Neptunium-237	HE	0.4688	0.1467	pCi/g	0.3759	N	86.93	3	1.071	IDENTIFIED	29.12	☐	
Potassium-40 ✓		38.1	1.67	pCi/g	0.4265	1.00	1460	1	2.271	IDENTIFIED	2.191	☐	
Radium-224	int	2.947	0.3952	pCi/g	0.749	Y	241.8	1	1.546	IDENTIFIED	13.12	☐ ui	
Radium-226 ✓		0.7902	0.07337	pCi/g	0.0935	Y	608.9	3	1.698	IDENTIFIED	8.127	☐	
Radium-228 ✓		1.477	0.1669	pCi/g	0.1855	0.500	910.8	3	2.279	IDENTIFIED	9.045	☐	
Strontium-85	la	0.08364	0.01828	pCi/g	0.06083	Y	0	4	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m		6.52E+15	0	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Thallium-208 ✓		0.3271	0.03312	pCi/g	0.0447	0.080	583	1	1.355	IDENTIFIED	9.337	☐	
Thorium-228	nr	1.318	0.06514	pCi/g	0.06998	N	238.7	2	1.22	IDENTIFIED	3.382	☐	
Thorium-230	nr	0.7901	0.07035	pCi/g	0.09349	N	608.9	3	1.698	IDENTIFIED	8.127	☐	
Thorium-232	nr	1.477	0.1669	pCi/g	0.1855	N	910.8	3	2.279	IDENTIFIED	9.045	☐	
Tin-126	HE	0.1571	0.04631	pCi/g	0.1277	N	86.93	3	1.071	IDENTIFIED	29.12	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249245002	09-MAR-10 12:00	24-MAR-10 11:16	15	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.172	0.1483	pCi/g	0.4189	N	0	8	0	FAIL_ABUND	0	☐	
Annihilation Rad.	HE	0.05585	0.02884	pCi/g	0.03907	N	511.2	1	1.79	IDENTIFIED	51.37	☐	
Bismuth-211	int	2.561	0.234	pCi/g	0.2374	Y	352.1	2	1.126	IDENTIFIED	6.346	☐ ui	
Bismuth-212	HE	1.514	0.4179	pCi/g	1.025	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓		0.7913	0.08206	pCi/g	0.08254	0.200	609.6	3	1.186	IDENTIFIED	8.682	☐	
Cadmium-109	int	1.922	0.3067	pCi/g	0.8819	Y	87.15	3	0.907	IDENTIFIED	15.26	☐ ui	
Cerium-143 —		120.6	54.7	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.09536	0.02137	pCi/g	0.08063	0.100	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		7.426	1.099	pCi/g	1.921	N		0				☐	
Lead-212 ✓		1.23	0.09718	pCi/g	0.06855	0.100	238.7	2	0.9523	IDENTIFIED	3.617	☐	
Lead-214 ✓		0.9294	0.0887	pCi/g	0.08634	0.100	352.1	2	1.126	IDENTIFIED	6.346	☐	
Neptunium-237	int nr	0.5606	0.1071	pCi/g	0.2954	N	87.15	3	0.907	IDENTIFIED	15.26	☐	
Potassium-40 ✓		31.32	1.587	pCi/g	0.3764	1.00	1462	1	1.968	IDENTIFIED	2.642	☐	
Radium-224	int	3.587	0.5766	pCi/g	0.7349	Y	241.6	1	1.825	IDENTIFIED	14.61	☐ ui	
Radium-226 ✓		0.7913	0.08206	pCi/g	0.08254	Y	609.6	3	1.186	IDENTIFIED	8.682	☐	
Radium-228	LA	1.172	0.1483	pCi/g	0.4189	0.500	0	8	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Sodium-24	HE	3.05E+05	2.28E+05	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	2.67E+15	9.01E+15	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Thallium-208 ✓		0.3866	0.03818	pCi/g	0.04708	0.080	583.6	1	1.449	IDENTIFIED	8.271	☐	
Thorium-228	nr	1.23	0.09718	pCi/g	0.06855	N	238.7	2	0.9523	IDENTIFIED	3.617	☐	
Thorium-230	nr	0.7913	0.07936	pCi/g	0.08254	N	609.6	3	1.186	IDENTIFIED	8.682	☐	
Thorium-232	nr	1.172	0.1483	pCi/g	0.4189	N	0	8	0	FAIL_ABUND	0	☐	
Thorium-234 ✓		1.574	0.6356	pCi/g	1.29	2.00	62.88	2	1.105	IDENTIFIED	39.38	☐	
Tin-126	int nr	0.1879	0.02999	pCi/g	0.08651	N	87.15	3	0.907	IDENTIFIED	15.26	☐	
Total Uranium		4.655	1.89E-06	ug/g	1.9204	N		0				☐	
Uranium-238	HE	1.574	0.6356	pCi/g	1.29	N	62.88	2	1.105	IDENTIFIED	39.38	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249247001	09-MAR-10 12:00	24-MAR-10 11:19	15	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.265	0.1549	pCi/g	0.221	N	911.1	3	1.547	IDENTIFIED	9.59	☐		
Annihilation Rad.		0.1045	0.02973	pCi/g	0.04435	N	510.6	1	1.935	IDENTIFIED	28.08	☐		
Bismuth-211	int	2.33	0.1953	pCi/g	0.317	Y	351.8	2	1.232	IDENTIFIED	6.883	☐	ui	
Bismuth-212	HE	1.081	0.3467	pCi/g	0.982	N	0	5	0	FAIL_ABUND	0	☐		
Bismuth-214		0.8317	0.07259	pCi/g	0.1055	0.200	609.1	3	1.319	IDENTIFIED	7.119	☐		
Cadmium-109	int	1.722	0.3977	pCi/g	1.391	Y	87.23	3	1.209	IDENTIFIED	22.61	☐	ui	
Cerium-143		611.3	97.38	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		
Gross Gamma		6.892	1.032	pCi/g	2.468	N		0				☐		
Iodine-135	HE	4.04E+15	2.28E+15	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		
Lead-212		1.092	0.07175	pCi/g	0.08515	0.100	238.5	2	1.129	IDENTIFIED	4.275	☐		
Lead-214		0.8455	0.07462	pCi/g	0.1082	0.100	351.8	2	1.232	IDENTIFIED	6.883	☐		
Neptunium-237	HE	0.5025	0.1274	pCi/g	0.3947	N	87.23	3	1.209	IDENTIFIED	22.61	☐		
Niobium-95m	la nr	0.4711	0.07187	pCi/g	0.2441	N	0	5	0	NOT_IDENTI	0	☐		
Potassium-40		29.33	1.778	pCi/g	0.4073	1.00	1461	1	1.79	IDENTIFIED	2.68	☐		
Radium-224	int	3.114	0.5973	pCi/g	0.9117	Y	241.6	1	2.065	IDENTIFIED	18.66	☐	ui	
Radium-226		0.8317	0.07259	pCi/g	0.1055	Y	609.1	3	1.319	IDENTIFIED	7.119	☐		
Radium-228		1.265	0.1549	pCi/g	0.221	0.500	911.1	3	1.547	IDENTIFIED	9.59	☐		
Strontium-85	la	0.08915	0.02048	pCi/g	0.06885	Y	0	5	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208		0.3729	0.0388	pCi/g	0.05053	0.080	583.2	1	1.418	IDENTIFIED	9.292	☐		
Thorium-228	nr	1.092	0.07175	pCi/g	0.08515	N	238.5	2	1.129	IDENTIFIED	4.275	☐		
Thorium-230	nr	0.8317	0.0692	pCi/g	0.1055	N	609.1	3	1.319	IDENTIFIED	7.119	☐		
Thorium-232	nr	1.265	0.1549	pCi/g	0.221	N	911.1	3	1.547	IDENTIFIED	9.59	☐		
Tin-126	HE	0.1684	0.03888	pCi/g	0.1358	N	87.23	3	1.209	IDENTIFIED	22.61	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249247002	09-MAR-10 12:00	24-MAR-10 12:07	15	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.251	0.2053	pCi/g	0.2782	N	911.1	3	1.617	IDENTIFIED	15.34	☐		
Annihilation Rad.	HE	0.1018	0.03639	pCi/g	0.0502	N	510.9	1	1.931	IDENTIFIED	35.46	☐		
Bismuth-211	int	2.794	0.2626	pCi/g	0.3472	Y	352.1	2	1.244	IDENTIFIED	8.162	☐	ui	
Bismuth-214		0.999	0.111	pCi/g	0.1248	0.200	609.2	3	1.485	IDENTIFIED	9.871	☐		
Cadmium-109	int	2.158	0.4104	pCi/g	0.9549	Y	87.4	3	1.101	IDENTIFIED	18.38	☐	ui	
Cerium-143		244.1	76.14	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐		
Gross Gamma		6.538	1.129	pCi/g	2.761	N		0				☐		
Iodine-133	HE	324.5	2820	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐		
Iodine-135	HE	2.87E+15	3.18E+15	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐		
Lead-212		1.112	0.07948	pCi/g	0.09732	0.100	238.8	2	1.029	IDENTIFIED	5.044	☐		
Lead-214		1.014	0.09934	pCi/g	0.1263	0.100	352.1	2	1.244	IDENTIFIED	8.162	☐		
Neptunium-237	int nr	0.6296	0.1367	pCi/g	0.3227	N	87.4	3	1.101	IDENTIFIED	18.38	☐		
Potassium-40		22.84	1.408	pCi/g	0.428	1.00	1461	1	1.852	IDENTIFIED	4.278	☐		
Radium-224	int	3.451	0.541	pCi/g	1.044	Y	241.7	1	1.821	IDENTIFIED	15.01	☐	ui	
Radium-226		0.999	0.111	pCi/g	0.1248	Y	609.2	3	1.485	IDENTIFIED	9.871	☐		
Radium-228		1.251	0.2053	pCi/g	0.2782	0.500	911.1	3	1.617	IDENTIFIED	15.34	☐		

Technetium-99m		5.36E+15	0	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐
Thallium-208		0.395	0.04626	pCi/g	0.06284	0.080	583.2	1	1.1	IDENTIFIED	10.72	☐
Thorium-228	nr	1.112	0.07948	pCi/g	0.09732	N	238.8	2	1.029	IDENTIFIED	5.044	☐
Thorium-230	nr	0.999	0.1079	pCi/g	0.1248	N	609.2	3	1.485	IDENTIFIED	9.871	☐
Thorium-232	nr	1.251	0.2053	pCi/g	0.2782	N	911.1	3	1.617	IDENTIFIED	15.34	☐
Thorium-234		1.193	0.5347	pCi/g	0.9161	2.00	63.26	2	1.137	IDENTIFIED	43.8	☐
Tin-126	int nr	0.211	0.04012	pCi/g	0.09323	N	87.4	3	1.101	IDENTIFIED	18.38	☐
Total Uranium		3.5502	1.59E-06	ug/g	1.3656	N		0				☐
Uranium-238	HE	1.193	0.5347	pCi/g	0.9161	N	63.26	2	1.137	IDENTIFIED	43.8	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249247003	09-MAR-10 12:00	24-MAR-10 12:23	15	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.372	0.1598	pCi/g	0.2057	N	912.1	3	1.661	IDENTIFIED	10.19	☐	
Annihilation Rad.		0.1121	0.02878	pCi/g	0.0449	N	511.1	1	1.526	IDENTIFIED	25.53	☐	
Bismuth-211	int	3.017	0.2283	pCi/g	0.3243	Y	352.1	2	1.155	IDENTIFIED	6.773	☐ ui	
Bismuth-212	la nr	2.711	0.4879	pCi/g	1.211	N	0	3	0	FAIL_ABUND	0	☐	
Bismuth-214		1.001	0.08195	pCi/g	0.1034	0.200	609.8	3	1.614	IDENTIFIED	7.303	☐	
Cadmium-109	int	2.534	0.5395	pCi/g	1.448	Y	87.23	3	1.282	IDENTIFIED	20.43	☐ ui	
Cerium-143		275.2	71.58	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Gross Gamma		7.469	1.184	pCi/g	2.442	N		0				☐	
Lead-212		1.49	0.08089	pCi/g	0.08039	0.100	238.8	2	1.123	IDENTIFIED	3.62	☐	
Lead-214		1.095	0.08818	pCi/g	0.1104	0.100	352.1	2	1.155	IDENTIFIED	6.773	☐	
Neptunium-237	int nr	0.7393	0.1754	pCi/g	0.2663	N	87.23	3	1.282	IDENTIFIED	20.43	☐	
Potassium-40		24.75	1.205	pCi/g	0.5599	1.00	1462	1	1.857	IDENTIFIED	3.329	☐	
Radium-224	int	3.661	0.6095	pCi/g	0.8618	Y	241.7	1	1.865	IDENTIFIED	16.31	☐ ui	
Radium-226		1.001	0.08195	pCi/g	0.1034	Y	609.8	3	1.614	IDENTIFIED	7.303	☐	
Radium-228		1.372	0.1598	pCi/g	0.2057	0.500	912.1	3	1.661	IDENTIFIED	10.19	☐	
Technetium-99m		7.42E+15	0	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Thallium-208		0.453	0.03684	pCi/g	0.05506	0.080	583.7	1	1.384	IDENTIFIED	7.504	☐	
Thorium-228	nr	1.49	0.08089	pCi/g	0.08039	N	238.8	2	1.123	IDENTIFIED	3.62	☐	
Thorium-230	nr	1.001	0.07759	pCi/g	0.1034	N	609.8	3	1.614	IDENTIFIED	7.303	☐	
Thorium-232	nr	1.372	0.1598	pCi/g	0.2057	N	912.1	3	1.661	IDENTIFIED	10.19	☐	
Tin-126	int nr	0.2478	0.05275	pCi/g	0.142	N	87.23	3	1.282	IDENTIFIED	20.43	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202069894		24-MAR-10 12:28	0	MB	LOAD	1		GEL	N	RGSP

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202069895	09-MAR-10 12:00	24-MAR-10 13:15	15.1	DUP	LOAD	1		LANL01004!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	2.361	0.2587	pCi/g	0.2592	N	911.7	3	1.72	IDENTIFIED	9.148	☐	
Annihilation Rad.		0.1472	0.04078	pCi/g	0.05964	N	511.2	1	1.5	IDENTIFIED	27.36	☐	
Bismuth-211	int	3.955	0.3257	pCi/g	0.3981	Y	352	2	1.292	IDENTIFIED	6.771	☐ ui	
Bismuth-212	la nr	3.298	0.6254	pCi/g	1.628	N	0	6	0	FAIL_ABUND	0	☐	

Bismuth-214		1.494	0.1219	pCi/g	0.1342	0.200	609.4	3	1.402	IDENTIFIED	6.478	☐	
Cadmium-109	int	3.449	0.5193	pCi/g	1.559	Y	87.22	3	1.193	IDENTIFIED	14.01	☐	ui
Cerium-143		628	115.8	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma		11.05	1.628	pCi/g	4.541	N		0				☐	
Iodine-135	HE	1.41E+15	3.59E+15	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212		1.78	0.1215	pCi/g	0.1446	0.100	238.7	2	1.063	IDENTIFIED	4.502	☐	
Lead-214		1.436	0.1247	pCi/g	0.1448	0.100	352	2	1.292	IDENTIFIED	6.771	☐	
Neptunium-237	int nr	1.006	0.1846	pCi/g	0.5065	N	87.22	3	1.193	IDENTIFIED	14.01	☐	
Potassium-40		34.22	1.95	pCi/g	0.8868	1.00	1461	1	2.255	IDENTIFIED	3.204	☐	
Radium-224	int	2.795	0.5673	pCi/g	1.807	Y	241.8	1	1.606	IDENTIFIED	19.77	☐	ui
Radium-226		1.494	0.1219	pCi/g	0.1342	Y	609.4	3	1.402	IDENTIFIED	6.478	☐	
Radium-228		2.361	0.2587	pCi/g	0.2592	0.500	911.7	3	1.72	IDENTIFIED	9.148	☐	
Sodium-24	HE	2.46E+05	3.96E+05	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Strontium-85	la	0.09937	0.02477	pCi/g	0.08549	Y	0	6	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Technetium-99m		1.09E+16	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208		0.5668	0.0527	pCi/g	0.0768	0.080	583.4	1	1.523	IDENTIFIED	8.1	☐	
Thorium-228	nr	1.78	0.1215	pCi/g	0.1446	N	238.7	2	1.063	IDENTIFIED	4.502	☐	
Thorium-230	nr	1.494	0.1154	pCi/g	0.1342	N	609.4	3	1.402	IDENTIFIED	6.478	☐	
Thorium-232	nr	2.361	0.2587	pCi/g	0.2592	N	911.7	3	1.72	IDENTIFIED	9.148	☐	
Tin-126	int nr	0.3372	0.05077	pCi/g	0.1532	N	87.22	3	1.193	IDENTIFIED	14.01	☐	
Total Uranium		5.1461	2.58E-06	ug/g	4.4874	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202069896		24-MAR-10 13:16	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228		1.989	0.3461	pCi/g	0.6096	N	911.9	3	1.77	IDENTIFIED	16.33	☐	
Americium-241		14.98	0.676	pCi/g	0.4273	0.200	59.47	1	0.9923	IDENTIFIED	2.159	☐	
Barium-137m		5.778	0.2899	pCi/g	0.1118	N	661.9	2	1.591	IDENTIFIED	2.364	☐	
Bismuth-211		2.675	0.3578	pCi/g	0.6449	Y	352.1	2	1.402	IDENTIFIED	12.6	☐	
Bismuth-214		1.063	0.1531	pCi/g	0.2191	0.200	609.5	3	1.349	IDENTIFIED	13.43	☐	
Cadmium-109		35.39	1.961	pCi/g	1.962	Y	88.02	2	1.06	IDENTIFIED	2.919	☐	
Cesium-137		6.104	0.3067	pCi/g	0.1181	0.100	661.9	2	1.591	IDENTIFIED	2.364	☐	
Cobalt-57		0.2123	0.03312	pCi/g	0.06652	N	122.2	1	0.8732	IDENTIFIED	15	☐	
Cobalt-60		6.81	0.329	pCi/g	0.09919	0.100	1333	1	2.07	IDENTIFIED	2.563	☐	
Gross Gamma		30.16	2.993	pCi/g	4.587	N		0				☐	
Iodine-133	HE	20.43	65.9	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Iodine-135	HE	2.69E+08	3.07E+09	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Lead-212		1.495	0.1091	pCi/g	0.1687	0.100	238.7	2	1.191	IDENTIFIED	5.492	☐	
Lead-214		0.9709	0.1326	pCi/g	0.2382	0.100	352.1	2	1.402	IDENTIFIED	12.6	☐	
Neptunium-237		4.65	0.5989	pCi/g	1.078	N	0	4	0	NOT_IDENTI	0	☐	
Radium-224		3.109	0.8184	pCi/g	1.808	Y	241.9	1	1.512	IDENTIFIED	25.98	☐	
Radium-226		1.063	0.1531	pCi/g	0.2191	Y	609.5	3	1.349	IDENTIFIED	13.43	☐	
Radium-228		1.989	0.3461	pCi/g	0.6096	0.500	911.9	3	1.77	IDENTIFIED	16.33	☐	
Sodium-24	HE	654.5	960	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Thallium-208		0.6507	0.07369	pCi/g	0.1157	0.080	583.3	1	1.69	IDENTIFIED	10.27	☐	
Thorium-228		1.495	0.1091	pCi/g	0.1687	N	238.7	2	1.191	IDENTIFIED	5.492	☐	

Thorium-230	**1.063**	0.1505	pCi/g	**0.2191**	**N**	609.5	3	1.349	IDENTIFIED	13.43	☐
Thorium-232	**1.989**	0.3461	pCi/g	**0.6096**	**N**	911.9	3	1.77	IDENTIFIED	16.33	☐
Tin-126	**3.489**	0.1933	pCi/g	**0.1939**	**N**	88.02	2	1.06	IDENTIFIED	2.919	☐

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
964804	249247002	SAMPLE	24-MAR-10	Iodine-135	2.87E+15	3.18E+15	pCi/g	0	N
				Lead-212	1.112	0.07948	pCi/g	0.04869	0.100
				Lead-214	1.014	0.09934	pCi/g	0.0632	0.100
				Potassium-40	22.84	1.408	pCi/g	0.2141	1.00
				Radium-224	3.451	0.541	pCi/g	0.5223	Y
				Radium-226	0.999	0.111	pCi/g	0.06243	Y
				Radium-228	1.251	0.2053	pCi/g	0.1392	0.500
				Strontium-85	0.06969	0.02227	pCi/g	0.03828	Y
				Technetium-99m	5.36E+15	0	pCi/g	0	N
				Thallium-208	0.395	0.04626	pCi/g	0.03144	0.080
				Thorium-234	1.193	0.5347	pCi/g	0.4583	2.00
964804	249247003	SAMPLE	24-MAR-10	Bismuth-211	3.017	0.2283	pCi/g	0.1623	Y
				Bismuth-214	1.001	0.08195	pCi/g	0.05174	0.200
				Cadmium-109	2.534	0.5395	pCi/g	0.7242	Y
				Cerium-143	275.2	71.58	pCi/g	0	N
				Cesium-134	0.05118	0.02397	pCi/g	0.04352	0.100
				Gross Gamma	7.469	1.184	pCi/g	1.176	N
				Lead-212	1.49	0.08089	pCi/g	0.04022	0.100
				Lead-214	1.095	0.08818	pCi/g	0.05526	0.100
				Potassium-40	24.75	1.205	pCi/g	0.2801	1.00
				Radium-224	3.661	0.6095	pCi/g	0.4312	Y
				Radium-226	1.001	0.08195	pCi/g	0.05174	Y
				Radium-228	1.372	0.1598	pCi/g	0.1029	0.500
				Strontium-85	0.0613	0.02038	pCi/g	0.0338	Y
				Technetium-99m	7.42E+15	0	pCi/g	0	N
				Tellurium-125m	7.939	4.393	pCi/g	7.824	N
				Thallium-208	0.453	0.03684	pCi/g	0.02755	0.080
				Yttrium-88	0.03095	0.01471	pCi/g	0.02938	0.100
964804	1202069894	MB	24-MAR-10	Bismuth-214	0.04572	0.01768	pCi/g	0.03347	0.200
				Potassium-40	0.2721	0.07881	pCi/g	0.1741	1.00
				Radium-226	0.04572	0.01768	pCi/g	0.03347	Y
				Thorium-227	0.1201	0.04686	pCi/g	0.09186	Y
964804	1202069895	DUP	24-MAR-10	Bismuth-211	3.955	0.3257	pCi/g	0.1992	Y
				Bismuth-214	1.494	0.1219	pCi/g	0.06714	0.200
				Cadmium-109	3.449	0.5193	pCi/g	0.7801	Y
				Cerium-143	628	115.8	pCi/g	0	N
				Cesium-134	0.1021	0.03366	pCi/g	0.05775	0.100

03/26/10

03/26/10

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 18:45:13.31

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*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249179001.CNF;1
Sample date       : 9-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 16:44:43
Sample ID         : G249179001           Sample quantity  : 1.25580E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.36  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 964804                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	9	75.01*	187	450	1.09	148.95	145	14	2.59E-02	20.7	3.18E+00
2	9	77.31*	518	454	1.27	153.55	145	14	7.19E-02	8.7	
3	0	87.36	133	547	1.23	173.64	171	8	1.84E-02	31.6	
4	0	128.64	148	401	2.31	256.19	251	11	2.05E-02	27.5	
5	0	185.84*	459	519	1.32	370.59	363	16	6.38E-02	12.3	
6	0	209.98	116	431	1.19	418.88	413	13	1.61E-02	38.2	
7	3	238.80*	1233	237	1.30	476.50	471	19	1.71E-01	3.7	5.26E-01
8	3	241.85*	312	289	2.04	482.60	471	19	4.34E-02	17.0	
9	0	270.23	125	165	1.16	539.36	535	9	1.74E-02	20.5	
10	0	277.43	76	205	1.36	553.76	548	11	1.05E-02	38.5	
11	0	295.38*	305	250	1.43	589.66	584	12	4.24E-02	12.1	
12	0	300.47*	99	201	0.99	599.83	595	11	1.38E-02	30.5	
13	0	328.43	78	166	1.46	655.76	652	9	1.09E-02	31.8	
14	0	338.52	292	146	1.60	675.94	670	12	4.06E-02	10.1	
15	0	351.94*	560	256	1.41	702.79	696	15	7.77E-02	7.6	
16	0	463.42	74	111	1.76	925.74	920	10	1.03E-02	29.4	
17	0	510.85*	164	124	1.81	1020.60	1014	17	2.27E-02	19.8	
18	0	583.38*	406	62	1.65	1165.67	1160	13	5.64E-02	6.7	
19	0	609.46*	386	158	1.53	1217.84	1211	14	5.36E-02	8.8	
20	0	727.34*	95	107	1.53	1453.62	1446	17	1.32E-02	27.3	
21	3	768.05	52	66	2.09	1535.05	1529	26	7.27E-03	33.0	1.74E+00
22	3	772.66	67	55	2.53	1544.26	1529	26	9.37E-03	28.9	
23	0	794.78	76	33	0.78	1588.51	1583	11	1.05E-02	19.0	
24	0	911.06*	257	90	2.10	1821.12	1811	19	3.57E-02	11.0	
25	8	964.59	42	40	2.46	1928.17	1924	19	5.79E-03	31.2	1.55E+00
26	8	968.86	144	54	2.14	1936.72	1924	19	2.00E-02	13.8	
27	0	1120.21	100	77	1.47	2239.49	2234	14	1.39E-02	21.4	
28	0	1460.31*	1223	27	2.04	2919.89	2909	20	1.70E-01	3.1	
29	0	1764.04	83	3	2.25	3527.57	3521	12	1.16E-02	11.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 18:45:16

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249179001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 9-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 16:44:43
Sample ID : G249179001 Sample quantity : 125.58 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.36 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.548E+01	4.105E+00	7.205E-01	7.080E-02	49.250
CD-109	+	88.03	*	2.462E+00	1.586E+00	2.070E+00	2.570E-01	1.189
SN-126		64.28		3.174E-01	9.199E-01	1.536E+00	2.601E-01	0.207
	+	86.94		1.002E+00	7.621E-01	8.390E-01	3.548E-01	1.194
	+	87.57	*	2.410E-01	1.552E-01	2.040E-01	2.525E-02	1.181
TL-208	+	277.37		9.259E-01	7.240E-01	7.833E-01	1.108E-01	1.182
	+	583.19	*	6.525E-01	1.057E-01	7.177E-02	6.564E-03	9.091
		860.56		6.247E-01	4.081E-01	7.309E-01	7.145E-02	0.855
BI-211		72.87		8.684E+00	5.857E+00	8.889E+00	1.018E+00	0.977
	+	351.06	*	4.123E+00	7.512E-01	4.584E-01	4.565E-02	8.993
PB-212	+	74.82		1.670E+00	7.343E-01	8.693E-01	1.310E-01	1.921
	+	77.11		2.580E+00	5.402E-01	4.849E-01	5.620E-02	5.321
	+	238.63	*	2.055E+00	2.895E-01	1.274E-01	1.522E-02	16.127
	+	300.09		2.566E+00	1.595E+00	1.527E+00	1.859E-01	1.680
BI-214	+	609.32	*	1.197E+00	2.414E-01	1.511E-01	1.505E-02	7.924
	+	1120.29		1.632E+00	7.217E-01	6.484E-01	7.021E-02	2.517
	+	1764.49		1.902E+00	4.754E-01	3.185E-01	2.792E-02	5.973
PB-214	+	74.82		2.960E+00	1.291E+00	1.541E+00	2.153E-01	1.921
	+	77.11		4.548E+00	1.024E+00	8.548E-01	1.216E-01	5.321
	+	242.00		3.159E+00	1.143E+00	7.746E-01	9.650E-02	4.078
	+	295.22		1.396E+00	3.803E-01	3.003E-01	3.742E-02	4.651
	+	351.93	*	1.496E+00	2.848E-01	1.667E-01	1.895E-02	8.976
RA-224	+	240.99	*	5.586E+00	1.995E+00	1.365E+00	1.506E-01	4.091
RA-226	+	609.32	*	1.197E+00	2.414E-01	1.511E-01	1.505E-02	7.924
	+	1120.29		1.632E+00	7.217E-01	6.484E-01	7.021E-02	2.517
	+	1764.49		1.902E+00	4.754E-01	3.185E-01	2.792E-02	5.973
AC-228	+	338.32		2.402E+00	1.120E+00	5.037E-01	2.115E-01	4.768
	+	911.20	*	1.991E+00	5.013E-01	2.866E-01	3.471E-02	6.947
	+	968.97		1.932E+00	7.132E-01	4.906E-01	1.205E-01	3.938
RA-228	+	338.32		2.402E+00	1.120E+00	5.037E-01	2.115E-01	4.768
	+	911.20	*	1.991E+00	5.013E-01	2.866E-01	3.471E-02	6.947
	+	968.97		1.932E+00	7.132E-01	4.906E-01	1.205E-01	3.938
TH-228	+	74.82		1.670E+00	7.163E-01	8.693E-01	1.005E-01	1.921
	+	77.11		2.580E+00	5.402E-01	4.849E-01	5.620E-02	5.321

Sample ID : G249179001 Acquisition date : 23-MAR-2010 16:44:43

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	2.055E+00	2.895E-01	1.274E-01	1.522E-02	16.127
	+	300.09		2.566E+00	2.222E+00	1.527E+00	9.396E-01	1.680
TH-230	+	609.32	*	1.197E+00	2.330E-01	1.511E-01	1.277E-02	7.924
	+	1120.29		1.632E+00	7.134E-01	6.484E-01	5.515E-02	2.517
	+	1764.49		1.902E+00	4.754E-01	3.185E-01	2.792E-02	5.973
TH-232	+	338.32		2.402E+00	5.419E-01	5.037E-01	4.966E-02	4.768
	+	911.20	*	1.991E+00	5.013E-01	2.866E-01	3.471E-02	6.947
	+	968.97		1.932E+00	7.132E-01	4.906E-01	1.205E-01	3.938
NP-237	+	86.48	*	7.192E-01	4.872E-01	5.832E-01	1.417E-01	1.233
		95.86		-5.933E+00	2.126E+00	2.181E+00	5.460E-01	-2.720
ANH-511	+	511.00	*	2.021E-01	8.173E-02	5.910E-02	5.106E-03	3.420

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.543E-01	4.177E-01	6.636E-01	6.168E-02	-0.233
NA-22		1274.54	*	1.281E-02	6.366E-02	1.048E-01	9.518E-03	0.122
NA-24		1368.63	*	1.738E-01	6.366E-02	Half-Life too short		
SC-46		889.28	*	-4.270E-02	5.151E-02	7.866E-02	7.310E-03	-0.543
	+	1120.55		2.740E-01	1.198E-01	1.657E-01	1.409E-02	1.653
V-48		944.13		-2.114E-01	9.990E-01	1.610E+00	1.488E-01	-0.131
		983.53	*	6.749E-03	9.193E-02	1.519E-01	1.389E-02	0.044
		1312.11		-2.429E-02	1.060E-01	1.665E-01	1.570E-02	-0.146
CR-51		320.08	*	-3.274E-01	4.907E-01	7.846E-01	8.327E-02	-0.417
MN-54		834.85	*	1.316E-02	4.977E-02	8.407E-02	7.629E-03	0.157
CO-56		846.77	*	-3.581E-02	4.864E-02	7.517E-02	6.860E-03	-0.476
		1037.84		8.146E-02	3.688E-01	6.167E-01	5.783E-02	0.132
		1238.28		6.760E-02	1.306E-01	2.192E-01	1.970E-02	0.308
		1771.35		-1.175E+00	4.187E-01	3.447E-01	3.011E-02	-3.409
CO-57		122.06	*	-1.002E-02	3.572E-02	5.470E-02	5.510E-03	-0.183
		136.47		-1.954E-01	2.822E-01	4.431E-01	4.708E-02	-0.441
CO-58		810.76	*	1.100E-02	4.965E-02	8.387E-02	7.540E-03	0.131
FE-59		1099.45	*	2.105E-02	1.299E-01	2.147E-01	2.003E-02	0.098
		1291.59		9.461E-02	1.672E-01	2.848E-01	2.942E-02	0.332
CO-60		1173.23		3.299E-02	6.064E-02	1.031E-01	8.389E-03	0.320
		1332.49	*	4.683E-03	5.309E-02	8.642E-02	8.308E-03	0.054
ZN-65		1115.54	*	-3.813E-02	1.428E-01	1.925E-01	1.645E-02	-0.198
SE-75		121.12		-7.735E-02	1.804E-01	2.842E-01	3.481E-02	-0.272
		136.00		-5.097E-02	5.407E-02	8.387E-02	8.491E-03	-0.608
		264.66	*	1.241E-02	6.618E-02	9.749E-02	1.069E-02	0.127
		279.54		1.233E-01	1.597E-01	2.431E-01	2.691E-02	0.507
		400.66		2.278E-02	3.323E-01	5.485E-01	6.009E-02	0.042
SR-85		514.00	*	8.561E-02	5.678E-02	8.950E-02	7.732E-03	0.957
Y-88		898.04		-1.188E-02	5.338E-02	8.642E-02	8.092E-03	-0.137
		1836.06	*	-1.167E-02	3.457E-02	5.210E-02	4.388E-03	-0.224
Y-91		1204.77	*	1.637E+01	2.769E+01	4.720E+01	3.978E+00	0.347
NB-94		702.65	*	3.831E-03	4.073E-02	6.860E-02	5.792E-03	0.056
		871.09		1.734E-02	4.573E-02	7.600E-02	7.010E-03	0.228

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	1.373E-02	6.426E-02	9.413E-02	8.247E-03	0.146
NB-95M		235.69	*	5.725E-01	2.081E-01	3.283E-01	3.956E-02	1.744
ZR-95		724.19		9.640E-02	1.389E-01	2.129E-01	1.977E-02	0.453
		756.73	*	2.010E-02	9.391E-02	1.589E-01	1.527E-02	0.126
MO-99		140.51		-3.401E+01	2.750E+01	3.974E+01	9.670E+00	-0.856
		181.07		5.880E+00	2.250E+01	3.190E+01	6.341E+00	0.184
		366.42		-3.748E+01	9.796E+01	1.578E+02	1.446E+01	-0.237
		739.50	*	-1.535E+00	1.232E+01	2.035E+01	3.209E+00	-0.075
		777.92		1.136E+01	3.611E+01	5.386E+01	4.750E+00	0.211
TC-99M		140.51	*	-5.820E+09	3.611E+01	Half-Life too short		
RU-103		497.08	*	-3.401E-02	4.879E-02	7.485E-02	1.046E-02	-0.454
	+	610.33		1.216E+01	2.907E+00	3.361E+00	5.463E-01	3.617
RH-106		621.93	*	4.692E-02	3.703E-01	6.021E-01	7.897E-02	0.078
		1050.41		-3.583E-01	3.379E+00	5.473E+00	4.863E-01	-0.065
RU-106		621.93	*	4.692E-02	3.703E-01	6.021E-01	5.060E-02	0.078
		1050.41		-3.583E-01	3.379E+00	5.473E+00	4.863E-01	-0.065
AG-108M		433.94	*	8.793E-03	3.770E-02	6.267E-02	5.539E-03	0.140
		614.28		3.731E-02	4.990E-02	7.477E-02	6.522E-03	0.499
		722.91		1.043E-02	5.094E-02	7.503E-02	6.623E-03	0.139
AG-110M		657.76	*	1.397E-02	4.349E-02	7.460E-02	6.348E-03	0.187
		677.62		1.610E-01	3.941E-01	6.791E-01	5.817E-02	0.237
		706.68		3.186E-01	2.649E-01	4.773E-01	4.160E-02	0.668
		763.94		-2.135E-02	2.344E-01	3.329E-01	2.991E-02	-0.064
		884.68		-2.707E-02	6.357E-02	1.010E-01	9.630E-03	-0.268
		937.49		-4.839E-02	1.470E-01	2.236E-01	2.136E-02	-0.216
		1384.29		4.356E-02	1.941E-01	3.328E-01	3.276E-02	0.131
		1505.03		2.511E-02	3.665E-01	6.144E-01	5.871E-02	0.041
SN-113		391.69	*	-3.615E-02	5.793E-02	9.161E-02	7.956E-03	-0.395
CD-115		260.90		3.339E+01	1.371E+02	2.319E+02	2.541E+01	0.144
		492.35		2.191E+01	3.817E+01	6.447E+01	5.570E+00	0.340
		527.90	*	4.218E+00	1.050E+01	1.754E+01	1.514E+00	0.240
SN-117M		156.02		-1.457E+00	3.101E+00	4.903E+00	5.110E-01	-0.297
		158.56	*	4.692E-02	7.288E-02	1.202E-01	1.260E-02	0.390
TE-123M		159.00	*	2.170E-02	3.937E-02	6.472E-02	6.820E-03	0.335
SB-124		602.73		-1.250E-02	6.047E-02	8.218E-02	6.965E-03	-0.152
		645.85		-2.795E-02	6.355E-01	1.016E+00	8.959E-02	-0.027
		722.78		9.899E-02	5.060E-01	7.445E-01	6.512E-02	0.133
		1690.97	*	-1.077E-01	8.459E-02	9.686E-02	9.123E-03	-1.112
SB-125		427.87	*	1.305E-02	1.143E-01	1.888E-01	1.643E-02	0.069
	+	463.37		8.150E-01	4.849E-01	6.995E-01	6.481E-02	1.165
		600.60		-4.251E-02	2.542E-01	3.932E-01	3.589E-02	-0.108
		635.95		-2.681E-02	3.451E-01	5.508E-01	4.994E-02	-0.049
TE-125M		109.28	*	-5.138E+00	1.333E+01	2.140E+01	2.542E+00	-0.240
I-126		388.63		-2.627E-02	2.118E-01	3.461E-01	2.945E-02	-0.076
		666.33	*	9.024E-02	2.648E-01	4.543E-01	3.747E-02	0.199
		753.82		2.183E+00	2.130E+00	3.807E+00	3.314E-01	0.573
SB-126		414.70		-4.829E-02	9.766E-02	1.554E-01	1.321E-02	-0.311
		666.50		3.319E-02	9.086E-02	1.561E-01	1.288E-02	0.213
		695.00		3.847E-02	9.118E-02	1.571E-01	1.320E-02	0.245

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		697.00		8.264E-02	3.067E-01	5.232E-01	4.401E-02	0.158
		720.70	*	-1.506E-01	2.065E-01	2.733E-01	2.333E-02	-0.551
		856.80		-1.305E+00	6.407E-01	8.677E-01	7.954E-02	-1.505
SB-127		252.40		-1.585E+00	4.639E+00	7.568E+00	3.180E+00	-0.209
		473.00		1.035E+00	1.761E+00	2.980E+00	3.736E-01	0.347
		685.70	*	-1.800E-01	1.436E+00	2.384E+00	2.599E-01	-0.075
		783.70		2.149E-01	3.700E+00	6.181E+00	7.587E-01	0.035
I-131		80.19		-7.405E+00	7.185E+00	9.782E+00	1.154E+00	-0.757
		284.31		6.930E-01	1.799E+00	2.979E+00	3.310E-01	0.233
		364.49	*	-1.315E-01	1.384E-01	2.144E-01	2.068E-02	-0.613
		636.99		8.062E-01	1.845E+00	3.068E+00	2.713E-01	0.263
TE-132		49.72		-5.045E+01	4.763E+01	7.478E+01	1.125E+01	-0.675
		111.76		-1.930E+01	3.794E+01	6.052E+01	7.294E+00	-0.319
		116.30		2.093E+00	3.255E+01	5.310E+01	6.358E+00	0.039
		228.16	*	3.459E-01	7.885E-01	1.346E+00	2.300E-01	0.257
BA-133		81.00		-3.253E-01	1.720E-01	2.120E-01	3.708E-02	-1.534
	+	276.40		8.557E-01	6.714E-01	8.286E-01	1.290E-01	1.033
		302.85		2.513E-01	2.106E-01	3.250E-01	4.676E-02	0.773
		356.01	*	-2.865E-03	6.443E-02	9.201E-02	1.243E-02	-0.031
		383.85		7.584E-02	3.999E-01	6.654E-01	8.285E-02	0.114
I-133		529.87	*	1.808E-03	3.999E-01	Half-Life too short		
		875.33		1.581E-02	3.999E-01	Half-Life too short		
		1298.22		-2.093E-01	3.999E-01	Half-Life too short		
CS-134		563.25		1.778E-01	4.652E-01	7.728E-01	6.695E-02	0.230
		569.33		5.566E-02	2.560E-01	4.202E-01	3.649E-02	0.132
		604.72		-1.498E-02	5.406E-02	7.297E-02	6.195E-03	-0.205
	+	795.86	*	1.758E-01	6.877E-02	1.099E-01	9.852E-03	1.599
		801.95		2.329E-01	5.360E-01	8.704E-01	7.814E-02	0.268
		1365.19		6.538E-01	1.509E+00	2.650E+00	2.647E-01	0.247
CS-135		268.22	*	2.868E-01	2.421E-01	3.741E-01	4.489E-02	0.767
I-135		546.56		5.329E+08	2.421E-01	Half-Life too short		
		836.80		3.981E+09	2.421E-01	Half-Life too short		
		1038.76		-6.848E+08	2.421E-01	Half-Life too short		
		1131.51		-5.833E+08	2.421E-01	Half-Life too short		
		1260.41	*	-5.771E+08	2.421E-01	Half-Life too short		
		1457.56		1.362E+11	2.421E-01	Half-Life too short		
		1678.03		-1.800E+08	2.421E-01	Half-Life too short		
		1791.20		2.079E+09	2.421E-01	Half-Life too short		
CS-136		153.25		4.173E-01	1.138E+00	1.860E+00	2.189E-01	0.224
		176.60		-3.488E-01	6.708E-01	1.051E+00	1.207E-01	-0.332
		273.65		-2.243E-02	1.055E+00	1.026E+00	1.174E-01	-0.022
		340.55		7.989E-01	2.413E-01	3.908E-01	3.946E-02	2.044
		818.51		-1.051E-02	8.633E-02	1.417E-01	1.277E-02	-0.074
		1048.07	*	9.039E-04	1.346E-01	2.203E-01	2.038E-02	0.004
		1235.36		8.763E-01	8.149E-01	1.410E+00	1.669E-01	0.621
BA-137M		661.66	*	-2.709E-02	4.597E-02	7.392E-02	6.077E-03	-0.366
CS-137		661.66	*	-2.862E-02	4.856E-02	7.809E-02	6.434E-03	-0.366
CE-139		165.86	*	1.136E-02	4.159E-02	6.578E-02	7.022E-03	0.173
BA-140		162.66		-3.609E-01	1.073E+00	1.702E+00	1.883E-01	-0.212

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		304.85		1.788E-02	1.846E+00	2.669E+00	7.974E-01	0.007
		423.72		8.873E-01	2.428E+00	4.042E+00	1.329E+00	0.220
		537.26	*	-5.298E-02	3.246E-01	5.190E-01	1.760E-01	-0.102
LA-140	+	328.76		7.605E-01	4.907E-01	7.191E-01	7.541E-02	1.058
		487.02		-1.007E-01	1.710E-01	2.666E-01	2.445E-02	-0.378
		815.77		-1.054E-01	3.807E-01	6.165E-01	6.144E-02	-0.171
		1596.21	*	-2.421E-02	9.931E-02	1.622E-01	1.521E-02	-0.149
CE-141		145.44	*	1.398E-01	8.931E-02	1.506E-01	1.557E-02	0.928
CE-143		57.36		-1.470E-03	8.931E-02	Half-Life too short		
		293.27	*	5.245E-04	8.931E-02	Half-Life too short		
		664.57		4.449E-04	8.931E-02	Half-Life too short		
		721.93		-3.704E-05	8.931E-02	Half-Life too short		
CE-144		80.12		-3.593E+00	4.211E+00	5.801E+00	6.818E-01	-0.619
		133.52	*	9.574E-02	3.045E-01	4.308E-01	6.952E-02	0.222
PM-144		476.78		-4.253E-03	8.318E-02	1.352E-01	1.267E-02	-0.031
		618.01		-6.418E-03	4.076E-02	6.286E-02	5.447E-03	-0.102
		696.49	*	3.392E-03	4.158E-02	7.000E-02	5.889E-03	0.048
PR-144		696.51	*	2.601E-01	3.111E+00	5.238E+00	4.405E-01	0.050
		1489.16		-1.109E+01	1.454E+01	2.110E+01	2.021E+00	-0.525
PM-146		453.88	*	1.662E-02	5.339E-02	8.902E-02	9.414E-03	0.187
		633.25		3.201E-01	1.752E+00	2.852E+00	1.088E+00	0.112
		735.93		-3.421E-02	2.029E-01	2.982E-01	8.357E-02	-0.115
		747.24		-1.067E-01	1.171E-01	1.787E-01	2.611E-02	-0.597
ND-147		91.11		3.244E-01	4.703E-01	6.908E-01	8.554E-02	0.470
		319.41		-1.436E+00	4.250E+00	6.929E+00	7.097E-01	-0.207
		531.02	*	1.404E-01	6.542E-01	1.078E+00	1.612E-01	0.130
PM-149		285.90	*	7.428E+00	9.001E+01	1.507E+02	2.533E+01	0.049
EU-152		121.78		-3.357E-02	1.027E-01	1.569E-01	1.756E-02	-0.214
		244.70		7.575E-01	4.927E-01	7.742E-01	8.534E-02	0.978
		344.28	*	1.003E-01	1.667E-01	2.213E-01	2.253E-02	0.453
		778.90		1.111E-01	3.239E-01	4.849E-01	4.278E-02	0.229
	+	964.08		6.018E-01	3.796E-01	6.888E-01	6.335E-02	0.874
		1085.87		-7.071E-01	5.146E-01	7.184E-01	6.255E-02	-0.984
		1112.07		-2.274E-02	4.444E-01	6.866E-01	5.875E-02	-0.033
		1408.01		-7.338E-02	2.258E-01	3.617E-01	3.485E-02	-0.203
GD-153		69.67		-2.455E+00	3.080E+00	4.526E+00	5.166E-01	-0.542
		97.43	*	-2.628E-01	1.317E-01	1.952E-01	2.155E-02	-1.346
		103.18		-2.953E-03	1.562E-01	2.548E-01	2.694E-02	-0.012
EU-154		123.07		4.032E-02	7.786E-02	1.136E-01	1.418E-02	0.355
		723.31		1.776E-04	2.370E-01	3.413E-01	3.218E-02	0.001
		873.19		2.583E-01	3.703E-01	6.448E-01	7.960E-02	0.401
		996.26		-4.144E-02	4.417E-01	7.183E-01	1.272E-01	-0.058
		1004.73		-6.139E-02	2.837E-01	4.562E-01	5.463E-02	-0.135
		1274.44	*	2.387E-02	1.824E-01	2.983E-01	3.498E-02	0.080
EU-155	+	86.55		2.922E-01	1.882E-01	2.708E-01	3.340E-02	1.079
		105.31	*	2.746E-02	1.474E-01	2.422E-01	2.552E-02	0.113
TB-160	+	86.79		7.686E-01	4.950E-01	7.051E-01	8.669E-02	1.090
		197.04		3.010E-01	7.780E-01	1.263E+00	1.377E-01	0.238
		215.65		-4.580E-01	1.152E+00	1.653E+00	1.818E-01	-0.277

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		298.57		5.223E-01	2.419E-01	2.927E-01	3.096E-02	1.785
		879.36	*	-4.714E-02	1.812E-01	2.927E-01	2.709E-02	-0.161
		962.29		9.237E-01	8.012E-01	1.266E+00	1.165E-01	0.730
		966.15		1.210E+00	3.445E-01	6.468E-01	5.945E-02	1.871
		1177.93		1.672E-01	4.619E-01	7.745E-01	6.338E-02	0.216
		1271.85		5.474E-01	1.025E+00	1.735E+00	1.571E-01	0.315
HO-166M		80.57		-8.648E-01	4.730E-01	6.073E-01	7.155E-02	-1.424
	+	184.41		3.923E-01	1.053E-01	1.068E-01	1.155E-02	3.674
		280.46		-4.527E-02	1.218E-01	1.718E-01	1.856E-02	-0.263
		410.95		4.774E-01	3.302E-01	5.818E-01	4.939E-02	0.820
		711.68	*	-8.737E-02	7.743E-02	1.179E-01	1.001E-02	-0.741
		752.31		2.150E-01	3.278E-01	5.736E-01	4.988E-02	0.375
		810.29		4.001E-03	7.636E-02	1.273E-01	1.142E-02	0.031
TA-182		67.75		-2.792E-01	1.932E-01	2.937E-01	3.352E-02	-0.951
		100.11		-1.319E-01	2.507E-01	4.013E-01	4.331E-02	-0.329
		152.43		3.653E-01	4.822E-01	7.983E-01	8.255E-02	0.458
		222.11		1.487E-01	4.637E-01	7.900E-01	8.705E-02	0.188
	+	1121.30		7.605E-01	3.324E-01	4.564E-01	3.879E-02	1.666
		1189.05		-2.075E-01	3.870E-01	5.948E-01	4.928E-02	-0.349
		1221.41	*	9.184E-02	2.731E-01	4.546E-01	3.902E-02	0.202
		1231.02		-2.408E-02	7.146E-01	1.154E+00	1.001E-01	-0.021
IR-192	+	295.96		1.024E+00	2.709E-01	3.487E-01	3.719E-02	2.936
		308.46		-2.927E-02	1.232E-01	2.022E-01	2.117E-02	-0.145
		316.51	*	7.109E-03	4.512E-02	7.554E-02	7.789E-03	0.094
		468.07		1.283E-02	9.430E-02	1.348E-01	1.247E-02	0.095
HG-203		70.83		1.748E+00	2.412E+00	3.582E+00	6.349E-01	0.488
		72.87		2.133E+00	1.465E+00	2.183E+00	3.770E-01	0.977
		279.20	*	7.086E-02	5.635E-02	8.780E-02	9.648E-03	0.807
BI-207		72.81		4.333E-01	3.346E-01	5.058E-01	5.793E-02	0.857
	+	74.97		4.812E-01	2.064E-01	3.450E-01	3.971E-02	1.395
		569.70		2.225E-02	3.907E-02	6.572E-02	5.629E-03	0.339
		1063.66	*	4.650E-03	6.862E-02	1.129E-01	9.957E-03	0.041
		1770.23		-3.540E+00	9.977E-01	6.932E-01	6.059E-02	-5.107
PB-210		46.54	*	1.232E+01	1.314E+01	2.221E+01	2.734E+00	0.555
PB-211		404.85	*	-9.727E-01	1.075E+00	1.494E+00	7.226E-01	-0.651
		427.09		-6.763E-01	1.986E+00	3.143E+00	1.454E+00	-0.215
		832.01		-2.408E-01	1.291E+00	2.099E+00	1.090E+00	-0.115
BI-212	+	727.33	*	2.331E+00	1.307E+00	1.511E+00	1.877E-01	1.543
		785.37		7.994E-01	3.991E+00	6.736E+00	5.964E-01	0.119
		1620.50		3.116E+00	2.910E+00	5.521E+00	5.139E-01	0.564
RN-219	+	271.23		9.191E-01	3.932E-01	5.983E-01	7.312E-02	1.536
		401.81	*	4.265E-01	5.242E-01	8.970E-01	1.326E-01	0.476
RA-223		81.07		-7.320E-01	3.775E-01	4.804E-01	5.676E-02	-1.524
		83.79		3.458E-01	2.233E-01	3.121E-01	3.752E-02	1.108
		94.87		1.042E+00	7.342E-01	1.236E+00	1.399E-01	0.843
		144.24		8.293E-01	9.986E-01	1.636E+00	1.807E-01	0.507
		154.21		3.034E-01	5.476E-01	9.001E-01	9.969E-02	0.337
	+	269.46		7.141E-01	3.031E-01	4.599E-01	5.074E-02	1.553
		323.87	*	8.294E-01	1.007E+00	1.519E+00	2.756E-01	0.546

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		9.531E+00	2.296E+00	3.057E+00	3.970E-01	3.118
AC-227		79.69		2.020E+00	2.173E+00	3.213E+00	6.099E-01	0.629
		235.96		1.095E+00	2.864E-01	4.414E-01	5.485E-02	2.480
		256.23	*	-1.106E-01	3.185E-01	5.240E-01	7.252E-02	-0.211
	+	299.98		2.822E+00	1.766E+00	2.269E+00	3.198E-01	1.244
		304.50		1.243E-01	2.344E+00	3.400E+00	5.976E-01	0.037
		334.37		6.015E-01	3.048E+00	3.529E+00	5.772E-01	0.170
TH-227		79.80		-1.513E-01	2.838E+00	4.083E+00	9.468E-01	-0.037
		235.96		1.095E+00	2.839E-01	4.414E-01	5.272E-02	2.480
		256.23	*	-1.106E-01	3.186E-01	5.240E-01	7.972E-02	-0.211
	+	299.98		2.822E+00	1.766E+00	2.269E+00	3.198E-01	1.244
		304.50		1.243E-01	2.344E+00	3.400E+00	5.976E-01	0.037
		334.37		6.015E-01	3.048E+00	3.529E+00	5.772E-01	0.170
TH-229		85.43		8.266E-01	3.604E-01	5.480E-01	6.667E-02	1.508
	+	88.47		3.716E-01	2.393E-01	3.404E-01	4.196E-02	1.092
		193.51	*	6.714E-01	8.168E-01	1.251E+00	1.361E-01	0.537
	+	210.85		2.747E+00	2.121E+00	2.248E+00	2.468E-01	1.222
PA-231		283.69	*	3.981E-01	1.956E+00	3.116E+00	4.970E-01	0.128
	+	301.36		1.813E+00	1.132E+00	1.442E+00	1.959E-01	1.257
TH-231		81.07		-7.320E-01	3.775E-01	4.804E-01	5.676E-02	-1.524
		83.79		3.458E-01	2.233E-01	3.121E-01	3.752E-02	1.108
		94.87		1.042E+00	7.342E-01	1.236E+00	1.399E-01	0.843
		144.24		8.293E-01	9.986E-01	1.636E+00	1.807E-01	0.507
		154.21		3.034E-01	5.476E-01	9.001E-01	9.969E-02	0.337
	+	269.46		7.141E-01	3.031E-01	4.599E-01	5.074E-02	1.553
		323.87	*	8.294E-01	1.007E+00	1.519E+00	2.756E-01	0.546
	+	338.28		9.531E+00	2.296E+00	3.057E+00	3.970E-01	3.118
PA-233	+	300.13		1.277E+00	8.049E-01	1.025E+00	1.643E-01	1.246
		311.90	*	2.404E-02	8.325E-02	1.404E-01	1.485E-02	0.171
		340.48		3.803E+00	1.388E+00	1.779E+00	4.362E-01	2.138
PA-234		94.67		6.504E-01	2.795E-01	4.616E-01	6.661E-02	1.409
		98.44		2.385E-03	1.291E-01	2.112E-01	1.187E-01	0.011
		111.00		-2.542E-02	2.518E-01	4.087E-01	5.425E-02	-0.062
		131.20		2.584E-01	1.661E-01	2.515E-01	2.524E-02	1.028
		569.50		1.096E-01	3.517E-01	5.812E-01	4.978E-02	0.189
		733.00		1.586E-01	5.267E-01	7.817E-01	1.735E-01	0.203
		880.51		-6.240E-02	3.607E-01	5.871E-01	5.437E-02	-0.106
		883.24		-2.377E-02	3.647E-01	5.986E-01	4.029E-01	-0.040
		926.50		-6.967E-02	2.094E-01	3.326E-01	8.484E-02	-0.209
		946.00	*	-4.398E-02	3.636E-01	5.913E-01	1.127E-01	-0.074
		949.00		2.916E-01	5.468E-01	9.422E-01	8.701E-02	0.309
PA-234M		766.42		2.954E+00	1.777E+01	2.581E+01	1.310E+01	0.114
		1001.03	*	2.310E+00	5.912E+00	9.975E+00	1.034E+00	0.232
TH-234		63.29	*	5.634E-01	2.556E+00	4.255E+00	8.437E-01	0.132
		92.59		3.019E+00	1.372E+00	1.904E+00	4.459E-01	1.586
U-235		89.96		-6.156E+00	2.339E+00	2.115E+00	5.501E-01	-2.911
		93.35		1.771E+00	9.249E-01	1.403E+00	3.414E-01	1.262
		143.76	*	2.383E-01	3.005E-01	4.887E-01	8.697E-02	0.488
		163.33		1.092E-01	6.218E-01	9.811E-01	1.863E-01	0.111

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	185.72		4.937E-01	1.325E-01	1.391E-01	1.506E-02	3.549
		205.31		4.481E-01	7.946E-01	1.127E+00	2.183E-01	0.398
U-238		63.29	*	5.634E-01	2.556E+00	4.255E+00	8.437E-01	0.132
		92.59		3.019E+00	1.227E+00	1.904E+00	2.213E-01	1.586
NP-239		99.53		-1.475E-01	2.343E-01	3.734E-01	4.048E-02	-0.395
		103.37		5.900E-02	1.411E-01	2.337E-01	2.468E-02	0.253
		106.12		-5.984E-02	1.182E-01	1.890E-01	1.967E-02	-0.317
		117.23	*	-1.737E-01	5.542E-01	8.904E-01	8.986E-02	-0.195
		228.18		1.235E-01	2.845E-01	4.863E-01	5.364E-02	0.254
	+	277.60		4.232E-01	3.287E-01	4.107E-01	4.447E-02	1.030
AM-241		59.54	*	-5.919E-02	3.234E-01	5.318E-01	6.242E-02	-0.111
CM-247	+	278.00		1.797E+00	1.396E+00	1.722E+00	1.864E-01	1.044
		287.50		1.609E-01	1.645E+00	2.685E+00	2.879E-01	0.060
		402.40	*	1.940E-02	4.852E-02	8.159E-02	6.900E-03	0.238
CF-249		252.80		-6.063E-01	1.204E+00	1.967E+00	2.163E-01	-0.308
		333.37		1.551E-01	3.714E-01	3.807E-01	3.793E-02	0.408
		388.16	*	-3.370E-03	5.302E-02	8.697E-02	7.414E-03	-0.039
CF-251		177.52	*	1.256E-01	1.827E-01	3.007E-01	3.236E-02	0.418
		227.38		1.397E-01	4.689E-01	7.977E-01	8.799E-02	0.175
		285.41		1.736E+00	2.831E+00	4.849E+00	5.211E-01	0.358

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249179001       *
* Acquisition date : 23-MAR-2010 16:44:43 Detector SN#    :                 *
* Detector ID      : GAM15                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.36     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  9-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249179001           Analyst initials: MXR1            *
* Batch Number     : 964804               Sample Quantity : 1.2558E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.548E+01	4.023E+00	7.200E-01	0.000E+00
CD-109	2.462E+00	1.554E+00	2.152E+00	0.000E+00
SN-126	2.410E-01	1.521E-01	2.121E-01	0.000E+00
TL-208	6.525E-01	1.036E-01	7.268E-02	0.000E+00
BI-211	4.123E+00	7.362E-01	4.676E-01	0.000E+00
PB-212	2.055E+00	2.837E-01	1.307E-01	0.000E+00
BI-214	1.197E+00	2.366E-01	1.529E-01	0.000E+00
PB-214	1.496E+00	2.791E-01	1.700E-01	0.000E+00
RA-224	5.586E+00	1.955E+00	1.400E+00	0.000E+00
RA-226	1.197E+00	2.366E-01	1.529E-01	0.000E+00
AC-228	1.991E+00	4.913E-01	2.884E-01	0.000E+00
RA-228	1.991E+00	4.913E-01	2.884E-01	0.000E+00
TH-228	2.055E+00	2.837E-01	1.307E-01	0.000E+00
TH-230	1.197E+00	2.284E-01	1.529E-01	0.000E+00
TH-232	1.991E+00	4.913E-01	2.884E-01	0.000E+00
NP-237	7.192E-01	4.774E-01	6.065E-01	0.000E+00
ANH-511	2.021E-01	8.009E-02	5.996E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-1.543E-01	4.094E-01	6.739E-01	0.000E+00	NOT IDENT.
NA-22	1.281E-02	6.239E-02	1.049E-01	0.000E+00	NOT IDENT.
NA-24	0.000E+00	3.234E+05	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-4.270E-02	5.048E-02	7.918E-02	0.000E+00	FAIL ABUN
V-48	6.749E-03	9.009E-02	1.527E-01	0.000E+00	NOT IDENT.
CR-51	-3.274E-01	4.809E-01	8.014E-01	0.000E+00	NOT IDENT.
MN-54	1.316E-02	4.877E-02	8.469E-02	0.000E+00	NOT IDENT.
CO-56	-3.581E-02	4.767E-02	7.572E-02	0.000E+00	NOT IDENT.
CO-57	-1.002E-02	3.500E-02	5.662E-02	0.000E+00	NOT IDENT.
CO-58	1.100E-02	4.866E-02	8.453E-02	0.000E+00	NOT IDENT.

FE-59	2.105E-02	1.273E-01	2.154E-01	0.000E+00	NOT IDENT.
CO-60	4.683E-03	5.203E-02	8.648E-02	0.000E+00	NOT IDENT.
ZN-65	-3.813E-02	1.399E-01	1.931E-01	0.000E+00	NOT IDENT.
SE-75	1.241E-02	6.486E-02	9.983E-02	0.000E+00	NOT IDENT.
SR-85	8.561E-02	5.565E-02	9.080E-02	0.000E+00	NOT IDENT.
Y-88	-1.167E-02	3.388E-02	5.189E-02	0.000E+00	NOT IDENT.
Y-91	1.637E+01	2.713E+01	4.730E+01	0.000E+00	NOT IDENT.
NB-94	3.831E-03	3.991E-02	6.928E-02	0.000E+00	NOT IDENT.
NB-95	1.373E-02	6.297E-02	9.495E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.039E-01	3.368E-01	0.000E+00	NOT IDENT.
ZR-95	2.010E-02	9.203E-02	1.603E-01	0.000E+00	NOT IDENT.
MO-99	-1.535E+00	1.207E+01	2.054E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.681E+15	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-3.401E-02	4.782E-02	7.597E-02	0.000E+00	FAIL ABUN
RH-106	4.692E-02	3.629E-01	6.092E-01	0.000E+00	NOT IDENT.
RU-106	4.692E-02	3.629E-01	6.092E-01	0.000E+00	NOT IDENT.
AG-108M	8.793E-03	3.694E-02	6.373E-02	0.000E+00	NOT IDENT.
AG-110M	1.397E-02	4.262E-02	7.541E-02	0.000E+00	NOT IDENT.
SN-113	-3.615E-02	5.677E-02	9.330E-02	0.000E+00	NOT IDENT.
CD-115	4.218E+00	1.029E+01	1.779E+01	0.000E+00	NOT IDENT.
SN-117M	4.692E-02	7.142E-02	1.239E-01	0.000E+00	NOT IDENT.
TE-123M	2.170E-02	3.859E-02	6.675E-02	0.000E+00	NOT IDENT.
SB-124	-1.077E-01	8.290E-02	9.658E-02	0.000E+00	NOT IDENT.
SB-125	1.305E-02	1.120E-01	1.920E-01	0.000E+00	FAIL ABUN
TE-125M	-5.138E+00	1.307E+01	2.219E+01	0.000E+00	NOT IDENT.
I-126	9.024E-02	2.595E-01	4.592E-01	0.000E+00	NOT IDENT.
SB-126	-1.506E-01	2.024E-01	2.759E-01	0.000E+00	NOT IDENT.
SB-127	-1.800E-01	1.407E+00	2.409E+00	0.000E+00	NOT IDENT.
I-131	-1.315E-01	1.356E-01	2.186E-01	0.000E+00	NOT IDENT.
TE-132	3.459E-01	7.727E-01	1.381E+00	0.000E+00	NOT IDENT.
BA-133	-2.865E-03	6.314E-02	9.383E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	3.523E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.739E-02	1.108E-01	0.000E+00	FAIL ABUN
CS-135	2.868E-01	2.372E-01	3.831E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.495E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	9.039E-04	1.319E-01	2.213E-01	0.000E+00	NOT IDENT.
BA-137M	-2.709E-02	4.505E-02	7.473E-02	0.000E+00	NOT IDENT.
CS-137	-2.862E-02	4.759E-02	7.894E-02	0.000E+00	NOT IDENT.
CE-139	1.136E-02	4.076E-02	6.780E-02	0.000E+00	NOT IDENT.
BA-140	-5.298E-02	3.181E-01	5.262E-01	0.000E+00	NOT IDENT.
LA-140	-2.421E-02	9.732E-02	1.619E-01	0.000E+00	FAIL ABUN
CE-141	1.398E-01	8.753E-02	1.555E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.815E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	9.574E-02	2.984E-01	4.454E-01	0.000E+00	NOT IDENT.
PM-144	3.392E-03	4.075E-02	7.071E-02	0.000E+00	NOT IDENT.
PR-144	2.601E-01	3.048E+00	5.291E+00	0.000E+00	NOT IDENT.
PM-146	1.662E-02	5.232E-02	9.047E-02	0.000E+00	NOT IDENT.
ND-147	1.404E-01	6.411E-01	1.093E+00	0.000E+00	NOT IDENT.
PM-149	7.428E+00	8.821E+01	1.541E+02	0.000E+00	NOT IDENT.
EU-152	1.003E-01	1.633E-01	2.258E-01	0.000E+00	FAIL ABUN
GD-153	-2.628E-01	1.291E-01	2.027E-01	0.000E+00	NOT IDENT.
EU-154	2.387E-02	1.788E-01	2.987E-01	0.000E+00	NOT IDENT.
EU-155	2.746E-02	1.445E-01	2.512E-01	0.000E+00	FAIL ABUN
TB-160	-4.714E-02	1.775E-01	2.947E-01	0.000E+00	FAIL ABUN
HO-166M	-8.737E-02	7.588E-02	1.191E-01	0.000E+00	FAIL ABUN
TA-182	9.184E-02	2.677E-01	4.554E-01	0.000E+00	FAIL ABUN
IR-192	7.109E-03	4.422E-02	7.716E-02	0.000E+00	FAIL ABUN
HG-203	7.086E-02	5.522E-02	8.984E-02	0.000E+00	NOT IDENT.
BI-207	4.650E-03	6.725E-02	1.133E-01	0.000E+00	FAIL ABUN
PB-210	1.232E+01	1.287E+01	2.329E+01	0.000E+00	NOT IDENT.
PB-211	-9.727E-01	1.054E+00	1.521E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.281E+00	1.525E+00	0.000E+00	FAIL ABUN
RN-219	4.265E-01	5.137E-01	9.132E-01	0.000E+00	FAIL ABUN
RA-223	8.294E-01	9.870E-01	1.551E+00	0.000E+00	FAIL ABUN
AC-227	-1.106E-01	3.121E-01	5.369E-01	0.000E+00	FAIL ABUN
TH-227	-1.106E-01	3.122E-01	5.369E-01	0.000E+00	FAIL ABUN
TH-229	6.714E-01	8.005E-01	1.287E+00	0.000E+00	FAIL ABUN
PA-231	3.981E-01	1.917E+00	3.188E+00	0.000E+00	FAIL ABUN
TH-231	8.294E-01	9.870E-01	1.551E+00	0.000E+00	FAIL ABUN
PA-233	2.404E-02	8.159E-02	1.434E-01	0.000E+00	FAIL ABUN
PA-234	-4.398E-02	3.563E-01	5.946E-01	0.000E+00	NOT IDENT.
PA-234M	2.310E+00	5.793E+00	1.002E+01	0.000E+00	NOT IDENT.
TH-234	5.634E-01	2.505E+00	4.443E+00	0.000E+00	NOT IDENT.
U-235	2.383E-01	2.945E-01	5.048E-01	0.000E+00	FAIL ABUN
U-238	5.634E-01	2.505E+00	4.443E+00	0.000E+00	NOT IDENT.
NP-239	-1.737E-01	5.431E-01	9.221E-01	0.000E+00	FAIL ABUN
AM-241	-5.919E-02	3.169E-01	5.558E-01	0.000E+00	NOT IDENT.
CM-247	1.940E-02	4.755E-02	8.307E-02	0.000E+00	FAIL ABUN

CF-249	-3.370E-03	5.196E-02	8.859E-02	0.000E+00 NOT IDENT.
CF-251	1.256E-01	1.790E-01	3.097E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 18:45:14.30

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249179001.CNF;1
Sample date       : 9-MAR-2010 12:00:00. Acquisition date : 23-MAR-2010 16:44:43
Sample ID         : G249179001           Sample quantity  : 1.25580E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.36  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 964804               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1223	10.66*	9.664E-01	3.548E+01	3.548E+01	11.57
CD-109	88.03	133	3.70*	4.449E+00	2.410E+00	2.462E+00	64.41
SN-126	64.28	------	9.60	1.941E+00	------ Line Not Found		------
	86.94	133	8.90	4.449E+00	1.002E+00	1.002E+00	76.06
	87.57	133	37.00*	4.449E+00	2.410E-01	2.410E-01	64.41
TL-208	277.37	76	6.60	3.704E+00	9.259E-01	9.259E-01	78.20
	583.19	406	85.00*	2.190E+00	6.525E-01	6.525E-01	16.21
	860.56	------	12.50	1.576E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	3.001E+00	------ Line Not Found		------
	351.06	560	12.92*	3.141E+00	4.123E+00	4.123E+00	18.22
PB-212	74.82	187	10.28	3.251E+00	1.670E+00	1.670E+00	43.97
	77.11	518	17.10	3.507E+00	2.580E+00	2.580E+00	20.94
	238.63	1233	43.60*	4.114E+00	2.055E+00	2.055E+00	14.09
	300.09	99	3.30	3.504E+00	2.566E+00	2.566E+00	62.16
BI-214	609.32	386	45.49*	2.117E+00	1.197E+00	1.197E+00	20.17
	1120.29	100	14.92	1.226E+00	1.632E+00	1.632E+00	44.22
	1764.49	83	15.30	8.555E-01	1.902E+00	1.902E+00	24.99
PB-214	74.82	187	5.80	3.251E+00	2.960E+00	2.960E+00	43.61
	77.11	518	9.70	3.507E+00	4.548E+00	4.548E+00	22.50
	242.00	312	7.25	4.077E+00	3.159E+00	3.159E+00	36.18
	295.22	305	18.42	3.546E+00	1.396E+00	1.396E+00	27.23
	351.93	560	35.60*	3.141E+00	1.496E+00	1.496E+00	19.04
RA-224	240.99	312	4.10*	4.077E+00	5.586E+00	5.586E+00	35.71
RA-226	609.32	386	45.49*	2.117E+00	1.197E+00	1.197E+00	20.17
	1120.29	100	14.92	1.226E+00	1.632E+00	1.632E+00	44.22
	1764.49	83	15.30	8.555E-01	1.902E+00	1.902E+00	24.99
AC-228	338.32	292	11.27	3.226E+00	2.402E+00	2.402E+00	46.64
	911.20	257	25.80*	1.494E+00	1.991E+00	1.991E+00	25.18
	968.97	144	15.80	1.410E+00	1.932E+00	1.932E+00	36.92
RA-228	338.32	292	11.27	3.226E+00	2.402E+00	2.402E+00	46.64
	911.20	257	25.80*	1.494E+00	1.991E+00	1.991E+00	25.18
	968.97	144	15.80	1.410E+00	1.932E+00	1.932E+00	36.92

Sample ID : G249179001 Acquisition date : 23-MAR-2010 16:44:43

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	187	10.28	3.251E+00	1.670E+00	1.670E+00	42.90
	77.11	518	17.10	3.507E+00	2.580E+00	2.580E+00	20.94
	238.63	1233	43.60*	4.114E+00	2.055E+00	2.055E+00	14.09
	300.09	99	3.30	3.504E+00	2.566E+00	2.566E+00	86.61
TH-230	609.32	386	45.49*	2.117E+00	1.197E+00	1.197E+00	19.47
	1120.29	100	14.92	1.226E+00	1.632E+00	1.632E+00	43.71
	1764.49	83	15.30	8.555E-01	1.902E+00	1.902E+00	24.99
TH-232	338.32	292	11.27	3.226E+00	2.402E+00	2.402E+00	22.56
	911.20	257	25.80*	1.494E+00	1.991E+00	1.991E+00	25.18
	968.97	144	15.80	1.410E+00	1.932E+00	1.932E+00	36.92
NP-237	86.48	133	12.40*	4.449E+00	7.192E-01	7.192E-01	67.73
	95.86	------	2.68	5.004E+00	------ Line Not Found		------
ANH-511	511.00	164	100.00*	2.419E+00	2.021E-01	2.021E-01	40.44

Flag: "*" = Keyline

Sample ID : G249179001 Acquisition date : 23-MAR-2010 16:44:43

Total number of lines in spectrum 29
Number of unidentified lines 3
Number of lines tentatively identified by NID 26 89.66%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.548E+01	3.548E+01	0.411E+01	11.57	
CD-109	461.40D	1.02	2.410E+00	2.462E+00	1.586E+00	64.41	
SN-126	2.30E+05Y	1.00	2.410E-01	2.410E-01	1.552E-01	64.41	
TL-208	1.41E+10Y	1.00	6.525E-01	6.525E-01	1.057E-01	16.21	
BI-211	7.04E+08Y	1.00	4.123E+00	4.123E+00	0.751E+00	18.22	
PB-212	1.41E+10Y	1.00	2.055E+00	2.055E+00	0.290E+00	14.09	
BI-214	1600.00Y	1.00	1.197E+00	1.197E+00	0.241E+00	20.17	
PB-214	1600.00Y	1.00	1.496E+00	1.496E+00	0.285E+00	19.04	
RA-224	1.41E+10Y	1.00	5.586E+00	5.586E+00	1.995E+00	35.71	
RA-226	1600.00Y	1.00	1.197E+00	1.197E+00	0.241E+00	20.17	
AC-228	1.41E+10Y	1.00	1.991E+00	1.991E+00	0.501E+00	25.18	
RA-228	1.41E+10Y	1.00	1.991E+00	1.991E+00	0.501E+00	25.18	
TH-228	1.41E+10Y	1.00	2.055E+00	2.055E+00	0.290E+00	14.09	
TH-230	7.54E+04Y	1.00	1.197E+00	1.197E+00	0.233E+00	19.47	
TH-232	1.41E+10Y	1.00	1.991E+00	1.991E+00	0.501E+00	25.18	
NP-237	2.14E+06Y	1.00	7.192E-01	7.192E-01	4.872E-01	67.73	
ANH-511	1.00E+09Y	1.00	2.021E-01	2.021E-01	0.817E-01	40.44	
	Total Activity :		6.459E+01	6.464E+01			

Grand Total Activity : 6.459E+01 6.464E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249179001 Acquisition date : 23-MAR-2010 16:44:43

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.64	148	401	2.31	256.19	251	11	2.05E-02	54.9	5.63E+00	
0	185.84	459	519	1.32	370.59	363	16	6.38E-02	24.6	4.86E+00	T
0	209.98	116	431	1.19	418.88	413	13	1.61E-02	76.4	4.49E+00	T
0	270.23	125	165	1.16	539.36	535	9	1.74E-02	41.0	3.77E+00	T
0	328.43	78	166	1.46	655.76	652	9	1.09E-02	63.7	3.29E+00	T
0	463.42	74	111	1.76	925.74	920	10	1.03E-02	58.8	2.59E+00	T
0	727.34	95	107	1.53	1453.62	1446	17	1.32E-02	54.7	1.83E+00	T
3	768.05	52	66	2.09	1535.05	1529	26	7.27E-03	66.0	1.75E+00	
3	772.66	67	55	2.53	1544.26	1529	26	9.37E-03	57.9	1.74E+00	
0	794.78	76	33	0.78	1588.51	1583	11	1.05E-02	38.1	1.69E+00	T
8	964.59	42	40	2.46	1928.17	1924	19	5.79E-03	62.4	1.42E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 18:45:18.57

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249179001.CNF;1   *
* Acquisition date : 23-MAR-2010 16:44:43  Detector SN#    :                 *
* Detector ID      : GAM15                 Sensitivity     : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000         *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000        *
* Elapsed real time: 0 02:00:01.36         Half life ratio : 8.00000         *
*****************************************************************************
*                                                                            *
*                                SAMPLE DATA                                 *
*                                                                            *
* Sample date      : 9-MAR-2010 12:00:00.  Nuclide Library : SOLID           *
* Sample ID        : G249179001            Analyst initials: MXR1            *
* Batch Number     : 964804                Sample Quantity : 1.25580E+02 GRAM *
*****************************************************************************
*                                                                            *
*                                  QC DATA                                   *
*                                                                            *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                 *
* MSD ID           :                       MSD Isotope     :                 *
* LCS ID           : 1032-A                LCS Isotope     :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.548E+01	4.105E+00	7.205E-01	7.080E-02	49.250
CD-109	2.462E+00	1.586E+00	2.070E+00	2.570E-01	1.189
SN-126	2.410E-01	1.552E-01	2.040E-01	2.525E-02	1.181
TL-208	6.525E-01	1.057E-01	7.177E-02	6.564E-03	9.091
BI-211	4.123E+00	7.512E-01	4.584E-01	4.565E-02	8.993
PB-212	2.055E+00	2.895E-01	1.274E-01	1.522E-02	16.127
BI-214	1.197E+00	2.414E-01	1.511E-01	1.505E-02	7.924
PB-214	1.496E+00	2.848E-01	1.667E-01	1.895E-02	8.976
RA-224	5.586E+00	1.995E+00	1.365E+00	1.506E-01	4.091
RA-226	1.197E+00	2.414E-01	1.511E-01	1.505E-02	7.924
AC-228	1.991E+00	5.013E-01	2.866E-01	3.471E-02	6.947
RA-228	1.991E+00	5.013E-01	2.866E-01	3.471E-02	6.947
TH-228	2.055E+00	2.895E-01	1.274E-01	1.522E-02	16.127
TH-230	1.197E+00	2.330E-01	1.511E-01	1.277E-02	7.924
TH-232	1.991E+00	5.013E-01	2.866E-01	3.471E-02	6.947
NP-237	7.192E-01	4.872E-01	5.832E-01	1.417E-01	1.233
ANH-511	2.021E-01	8.173E-02	5.910E-02	5.106E-03	3.420

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.543E-01		4.177E-01	6.636E-01	6.168E-02	-0.233

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	1.281E-02		6.366E-02	1.048E-01	9.518E-03	0.122
NA-24	1.738E-01		1.650E-01	Half-Life too short		
SC-46	-4.270E-02		5.151E-02	7.866E-02	7.310E-03	-0.543
V-48	6.749E-03		9.193E-02	1.519E-01	1.389E-02	0.044
CR-51	-3.274E-01		4.907E-01	7.846E-01	8.327E-02	-0.417
MN-54	1.316E-02		4.977E-02	8.407E-02	7.629E-03	0.157
CO-56	-3.581E-02		4.864E-02	7.517E-02	6.860E-03	-0.476
CO-57	-1.002E-02		3.572E-02	5.470E-02	5.510E-03	-0.183
CO-58	1.100E-02		4.965E-02	8.387E-02	7.540E-03	0.131
FE-59	2.105E-02		1.299E-01	2.147E-01	2.003E-02	0.098
CO-60	4.683E-03		5.309E-02	8.642E-02	8.308E-03	0.054
ZN-65	-3.813E-02		1.428E-01	1.925E-01	1.645E-02	-0.198
SE-75	1.241E-02		6.618E-02	9.749E-02	1.069E-02	0.127
SR-85	8.561E-02		5.678E-02	8.950E-02	7.732E-03	0.957
Y-88	-1.167E-02		3.457E-02	5.210E-02	4.388E-03	-0.224
Y-91	1.637E+01		2.769E+01	4.720E+01	3.978E+00	0.347
NB-94	3.831E-03		4.073E-02	6.860E-02	5.792E-03	0.056
NB-95	1.373E-02		6.426E-02	9.413E-02	8.247E-03	0.146
NB-95M	5.725E-01		2.081E-01	3.283E-01	3.956E-02	1.744
ZR-95	2.010E-02		9.391E-02	1.589E-01	1.527E-02	0.126
MO-99	-1.535E+00		1.232E+01	2.035E+01	3.209E+00	-0.075
TC-99M	-5.820E+09		2.388E+09	Half-Life too short		
RU-103	-3.401E-02		4.879E-02	7.485E-02	1.046E-02	-0.454
RH-106	4.692E-02		3.703E-01	6.021E-01	7.897E-02	0.078
RU-106	4.692E-02		3.703E-01	6.021E-01	5.060E-02	0.078
AG-108M	8.793E-03		3.770E-02	6.267E-02	5.539E-03	0.140
AG-110M	1.397E-02		4.349E-02	7.460E-02	6.348E-03	0.187
SN-113	-3.615E-02		5.793E-02	9.161E-02	7.956E-03	-0.395
CD-115	4.218E+00		1.050E+01	1.754E+01	1.514E+00	0.240
SN-117M	4.692E-02		7.288E-02	1.202E-01	1.260E-02	0.390
TE-123M	2.170E-02		3.937E-02	6.472E-02	6.820E-03	0.335
SB-124	-1.077E-01		8.459E-02	9.686E-02	9.123E-03	-1.112
SB-125	1.305E-02		1.143E-01	1.888E-01	1.643E-02	0.069
TE-125M	-5.138E+00		1.333E+01	2.140E+01	2.542E+00	-0.240
I-126	9.024E-02		2.648E-01	4.543E-01	3.747E-02	0.199
SB-126	-1.506E-01		2.065E-01	2.733E-01	2.333E-02	-0.551
SB-127	-1.800E-01		1.436E+00	2.384E+00	2.599E-01	-0.075
I-131	-1.315E-01		1.384E-01	2.144E-01	2.068E-02	-0.613
TE-132	3.459E-01		7.885E-01	1.346E+00	2.300E-01	0.257
BA-133	-2.865E-03		6.443E-02	9.201E-02	1.243E-02	-0.031
I-133	1.808E-03		1.798E-03	Half-Life too short		
CS-134	1.758E-01	+	6.877E-02	1.099E-01	9.852E-03	1.599
CS-135	2.868E-01		2.421E-01	3.741E-01	4.489E-02	0.767
I-135	-5.771E+08		4.334E+08	Half-Life too short		
CS-136	9.039E-04		1.346E-01	2.203E-01	2.038E-02	0.004
BA-137M	-2.709E-02		4.597E-02	7.392E-02	6.077E-03	-0.366
CS-137	-2.862E-02		4.856E-02	7.809E-02	6.434E-03	-0.366
CE-139	1.136E-02		4.159E-02	6.578E-02	7.022E-03	0.173

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-140	-5.298E-02		3.246E-01	5.190E-01	1.760E-01	-0.102
LA-140	-2.421E-02		9.931E-02	1.622E-01	1.521E-02	-0.149
CE-141	1.398E-01		8.931E-02	1.506E-01	1.557E-02	0.928
CE-143	5.245E-04		9.260E-05	Half-Life too short		
CE-144	9.574E-02		3.045E-01	4.308E-01	6.952E-02	0.222
PM-144	3.392E-03		4.158E-02	7.000E-02	5.889E-03	0.048
PR-144	2.601E-01		3.111E+00	5.238E+00	4.405E-01	0.050
PM-146	1.662E-02		5.339E-02	8.902E-02	9.414E-03	0.187
ND-147	1.404E-01		6.542E-01	1.078E+00	1.612E-01	0.130
PM-149	7.428E+00		9.001E+01	1.507E+02	2.533E+01	0.049
EU-152	1.003E-01		1.667E-01	2.213E-01	2.253E-02	0.453
GD-153	-2.628E-01		1.317E-01	1.952E-01	2.155E-02	-1.346
EU-154	2.387E-02		1.824E-01	2.983E-01	3.498E-02	0.080
EU-155	2.746E-02		1.474E-01	2.422E-01	2.552E-02	0.113
TB-160	-4.714E-02		1.812E-01	2.927E-01	2.709E-02	-0.161
HO-166M	-8.737E-02		7.743E-02	1.179E-01	1.001E-02	-0.741
TA-182	9.184E-02		2.731E-01	4.546E-01	3.902E-02	0.202
IR-192	7.109E-03		4.512E-02	7.554E-02	7.789E-03	0.094
HG-203	7.086E-02		5.635E-02	8.780E-02	9.648E-03	0.807
BI-207	4.650E-03		6.862E-02	1.129E-01	9.957E-03	0.041
PB-210	1.232E+01		1.314E+01	2.221E+01	2.734E+00	0.555
PB-211	-9.727E-01		1.075E+00	1.494E+00	7.226E-01	-0.651
BI-212	2.331E+00	+	1.307E+00	1.511E+00	1.877E-01	1.543
RN-219	4.265E-01		5.242E-01	8.970E-01	1.326E-01	0.476
RA-223	8.294E-01		1.007E+00	1.519E+00	2.756E-01	0.546
AC-227	-1.106E-01		3.185E-01	5.240E-01	7.252E-02	-0.211
TH-227	-1.106E-01		3.186E-01	5.240E-01	7.972E-02	-0.211
TH-229	6.714E-01		8.168E-01	1.251E+00	1.361E-01	0.537
PA-231	3.981E-01		1.956E+00	3.116E+00	4.970E-01	0.128
TH-231	8.294E-01		1.007E+00	1.519E+00	2.756E-01	0.546
PA-233	2.404E-02		8.325E-02	1.404E-01	1.485E-02	0.171
PA-234	-4.398E-02		3.636E-01	5.913E-01	1.127E-01	-0.074
PA-234M	2.310E+00		5.912E+00	9.975E+00	1.034E+00	0.232
TH-234	5.634E-01		2.556E+00	4.255E+00	8.437E-01	0.132
U-235	2.383E-01		3.005E-01	4.887E-01	8.697E-02	0.488
U-238	5.634E-01		2.556E+00	4.255E+00	8.437E-01	0.132
NP-239	-1.737E-01		5.542E-01	8.904E-01	8.986E-02	-0.195
AM-241	-5.919E-02		3.234E-01	5.318E-01	6.242E-02	-0.111
CM-247	1.940E-02		4.852E-02	8.159E-02	6.900E-03	0.238
CF-249	-3.370E-03		5.302E-02	8.697E-02	7.414E-03	-0.039
CF-251	1.256E-01		1.827E-01	3.007E-01	3.236E-02	0.418

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249179001            *
* Acquisition date : 23-MAR-2010 16:44:43 Detector SN#    :                 *
* Detector ID      : GAM15                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.36     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  9-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249179001           Analyst initials: MXR1            *
* Batch Number     : 964804               Sample Quantity : 1.2558E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.548E+01	4.023E+00	3.602E-01	2.053E+00
CD-109	2.462E+00	1.554E+00	1.077E+00	7.930E-01
SN-126	2.410E-01	1.521E-01	1.061E-01	7.762E-02
TL-208	6.525E-01	1.036E-01	3.636E-02	5.287E-02
BI-211	4.123E+00	7.362E-01	2.339E-01	3.756E-01
PB-212	2.055E+00	2.837E-01	6.538E-02	1.448E-01
BI-214	1.197E+00	2.366E-01	7.648E-02	1.207E-01
PB-214	1.496E+00	2.791E-01	8.506E-02	1.424E-01
RA-224	5.586E+00	1.955E+00	7.004E-01	9.973E-01
RA-226	1.197E+00	2.366E-01	7.648E-02	1.207E-01
AC-228	1.991E+00	4.913E-01	1.443E-01	2.507E-01
RA-228	1.991E+00	4.913E-01	1.443E-01	2.507E-01
TH-228	2.055E+00	2.837E-01	6.538E-02	1.448E-01
TH-230	1.197E+00	2.284E-01	7.648E-02	1.165E-01
TH-232	1.991E+00	4.913E-01	1.443E-01	2.507E-01
NP-237	7.192E-01	4.774E-01	3.034E-01	2.436E-01
ANH-511	2.021E-01	8.009E-02	3.000E-02	4.086E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.543E-01	4.094E-01	3.372E-01	2.089E-01	NOT IDENT.
NA-22	1.281E-02	6.239E-02	5.249E-02	3.183E-02	NOT IDENT.
NA-24	1.738E+05	3.234E+05	0.000E+00	1.650E+05	SHORT HLIF
SC-46	-4.270E-02	5.048E-02	3.961E-02	2.575E-02	FAIL ABUN
V-48	6.749E-03	9.009E-02	7.639E-02	4.596E-02	NOT IDENT.
CR-51	-3.274E-01	4.809E-01	4.009E-01	2.453E-01	NOT IDENT.
MN-54	1.316E-02	4.877E-02	4.237E-02	2.488E-02	NOT IDENT.
CO-56	-3.581E-02	4.767E-02	3.788E-02	2.432E-02	NOT IDENT.
CO-57	-1.002E-02	3.500E-02	2.833E-02	1.786E-02	NOT IDENT.
CO-58	1.100E-02	4.866E-02	4.229E-02	2.483E-02	NOT IDENT.

FE-59	2.105E-02	1.273E-01	1.078E-01	6.494E-02	NOT IDENT.
CO-60	4.683E-03	5.203E-02	4.326E-02	2.655E-02	NOT IDENT.
ZN-65	-3.813E-02	1.399E-01	9.663E-02	7.140E-02	NOT IDENT.
SE-75	1.241E-02	6.486E-02	4.994E-02	3.309E-02	NOT IDENT.
SR-85	8.561E-02	5.565E-02	4.542E-02	2.839E-02	NOT IDENT.
Y-88	-1.167E-02	3.388E-02	2.596E-02	1.729E-02	NOT IDENT.
Y-91	1.637E+01	2.713E+01	2.366E+01	1.384E+01	NOT IDENT.
NB-94	3.831E-03	3.991E-02	3.466E-02	2.036E-02	NOT IDENT.
NB-95	1.373E-02	6.297E-02	4.750E-02	3.213E-02	NOT IDENT.
NB-95M	5.725E-01	2.039E-01	1.685E-01	1.040E-01	NOT IDENT.
ZR-95	2.010E-02	9.203E-02	8.020E-02	4.695E-02	NOT IDENT.
MO-99	-1.535E+00	1.207E+01	1.028E+01	6.159E+00	NOT IDENT.
TC-99M	-5.820E+15	4.681E+15	0.000E+00	2.388E+15	SHORT HLIF
RU-103	-3.401E-02	4.782E-02	3.801E-02	2.440E-02	FAIL ABUN
RH-106	4.692E-02	3.629E-01	3.048E-01	1.851E-01	NOT IDENT.
RU-106	4.692E-02	3.629E-01	3.048E-01	1.851E-01	NOT IDENT.
AG-108M	8.793E-03	3.694E-02	3.188E-02	1.885E-02	NOT IDENT.
AG-110M	1.397E-02	4.262E-02	3.773E-02	2.174E-02	NOT IDENT.
SN-113	-3.615E-02	5.677E-02	4.668E-02	2.897E-02	NOT IDENT.
CD-115	4.218E+00	1.029E+01	8.902E+00	5.249E+00	NOT IDENT.
SN-117M	4.692E-02	7.142E-02	6.200E-02	3.644E-02	NOT IDENT.
TE-123M	2.170E-02	3.859E-02	3.339E-02	1.969E-02	NOT IDENT.
SB-124	-1.077E-01	8.290E-02	4.832E-02	4.229E-02	NOT IDENT.
SB-125	1.305E-02	1.120E-01	9.606E-02	5.716E-02	FAIL ABUN
TE-125M	-5.138E+00	1.307E+01	1.110E+01	6.667E+00	NOT IDENT.
I-126	9.024E-02	2.595E-01	2.297E-01	1.324E-01	NOT IDENT.
SB-126	-1.506E-01	2.024E-01	1.381E-01	1.033E-01	NOT IDENT.
SB-127	-1.800E-01	1.407E+00	1.205E+00	7.181E-01	NOT IDENT.
I-131	-1.315E-01	1.356E-01	1.094E-01	6.918E-02	NOT IDENT.
TE-132	3.459E-01	7.727E-01	6.909E-01	3.942E-01	NOT IDENT.
BA-133	-2.865E-03	6.314E-02	4.695E-02	3.222E-02	FAIL ABUN
I-133	1.808E+03	3.523E+03	0.000E+00	1.798E+03	SHORT HLIF
CS-134	1.758E-01	6.739E-02	5.544E-02	3.438E-02	FAIL ABUN
CS-135	2.868E-01	2.372E-01	1.916E-01	1.210E-01	NOT IDENT.
I-135	-5.771E+14	8.495E+14	0.000E+00	4.334E+14	SHORT HLIF
CS-136	9.039E-04	1.319E-01	1.107E-01	6.730E-02	NOT IDENT.
BA-137M	-2.709E-02	4.505E-02	3.739E-02	2.298E-02	NOT IDENT.
CS-137	-2.862E-02	4.759E-02	3.949E-02	2.428E-02	NOT IDENT.
CE-139	1.136E-02	4.076E-02	3.392E-02	2.080E-02	NOT IDENT.
BA-140	-5.298E-02	3.181E-01	2.632E-01	1.623E-01	NOT IDENT.
LA-140	-2.421E-02	9.732E-02	8.099E-02	4.965E-02	FAIL ABUN
CE-141	1.398E-01	8.753E-02	7.779E-02	4.466E-02	NOT IDENT.
CE-143	5.245E+02	1.815E+02	0.000E+00	9.260E+01	SHORT HLIF
CE-144	9.574E-02	2.984E-01	2.228E-01	1.523E-01	NOT IDENT.
PM-144	3.392E-03	4.075E-02	3.537E-02	2.079E-02	NOT IDENT.
PR-144	2.601E-01	3.048E+00	2.647E+00	1.555E+00	NOT IDENT.
PM-146	1.662E-02	5.232E-02	4.526E-02	2.669E-02	NOT IDENT.
ND-147	1.404E-01	6.411E-01	5.468E-01	3.271E-01	NOT IDENT.
PM-149	7.428E+00	8.821E+01	7.712E+01	4.501E+01	NOT IDENT.
EU-152	1.003E-01	1.633E-01	1.130E-01	8.334E-02	FAIL ABUN
GD-153	-2.628E-01	1.291E-01	1.014E-01	6.587E-02	NOT IDENT.
EU-154	2.387E-02	1.788E-01	1.494E-01	9.120E-02	NOT IDENT.
EU-155	2.746E-02	1.445E-01	1.257E-01	7.372E-02	FAIL ABUN
TB-160	-4.714E-02	1.775E-01	1.474E-01	9.058E-02	FAIL ABUN
HO-166M	-8.737E-02	7.588E-02	5.957E-02	3.872E-02	FAIL ABUN
TA-182	9.184E-02	2.677E-01	2.279E-01	1.366E-01	FAIL ABUN
IR-192	7.109E-03	4.422E-02	3.860E-02	2.256E-02	FAIL ABUN
HG-203	7.086E-02	5.522E-02	4.495E-02	2.818E-02	NOT IDENT.
BI-207	4.650E-03	6.725E-02	5.668E-02	3.431E-02	FAIL ABUN
PB-210	1.232E+01	1.287E+01	1.165E+01	6.568E+00	NOT IDENT.
PB-211	-9.727E-01	1.054E+00	7.609E-01	5.376E-01	NOT IDENT.
BI-212	2.331E+00	1.281E+00	7.629E-01	6.534E-01	FAIL ABUN
RN-219	4.265E-01	5.137E-01	4.569E-01	2.621E-01	FAIL ABUN
RA-223	8.294E-01	9.870E-01	7.758E-01	5.035E-01	FAIL ABUN
AC-227	-1.106E-01	3.121E-01	2.686E-01	1.593E-01	FAIL ABUN
TH-227	-1.106E-01	3.122E-01	2.686E-01	1.593E-01	FAIL ABUN
TH-229	6.714E-01	8.005E-01	6.438E-01	4.084E-01	FAIL ABUN
PA-231	3.981E-01	1.917E+00	1.595E+00	9.781E-01	FAIL ABUN
TH-231	8.294E-01	9.870E-01	7.758E-01	5.035E-01	FAIL ABUN
PA-233	2.404E-02	8.159E-02	7.174E-02	4.163E-02	FAIL ABUN
PA-234	-4.398E-02	3.563E-01	2.975E-01	1.818E-01	NOT IDENT.
PA-234M	2.310E+00	5.793E+00	5.014E+00	2.956E+00	NOT IDENT.
TH-234	5.634E-01	2.505E+00	2.223E+00	1.278E+00	NOT IDENT.
U-235	2.383E-01	2.945E-01	2.525E-01	1.502E-01	FAIL ABUN
U-238	5.634E-01	2.505E+00	2.223E+00	1.278E+00	NOT IDENT.
NP-239	-1.737E-01	5.431E-01	4.613E-01	2.771E-01	FAIL ABUN
AM-241	-5.919E-02	3.169E-01	2.781E-01	1.617E-01	NOT IDENT.
CM-247	1.940E-02	4.755E-02	4.156E-02	2.426E-02	FAIL ABUN

CF-249	-3.370E-03	5.196E-02	4.432E-02	2.651E-02	NOT IDENT.
CF-251	1.256E-01	1.790E-01	1.549E-01	9.135E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	267.2981
49.72	326.1428
57.36	0.0000
59.54	364.3091
63.29	374.1568
63.29	374.1568
64.28	366.8679
67.75	431.6031
69.67	440.3145
70.83	401.2561
72.81	449.8516
72.87	449.8871
72.87	449.8871
74.82	430.8047
74.82	430.8047
74.82	430.8047
74.97	430.8908
77.11	432.0961
77.11	432.0961
77.11	432.0961
79.69	458.7008
79.80	493.9323
80.12	494.1322
80.19	494.1756
80.57	537.6143
81.00	550.7129
81.07	550.7612
81.07	550.7612
83.79	405.6367
83.79	405.6367
85.43	444.2802
86.48	518.9872
86.55	519.0324
86.79	519.1798
86.94	562.8179
87.57	588.0573
88.03	589.3912
88.47	665.6350
89.96	932.2418
91.11	651.5079
92.59	469.1805
92.59	469.1805
93.35	490.9489
94.67	494.3112
94.87	529.0137
94.87	529.0137
95.86	708.8636
97.43	519.3278
98.44	391.2139
99.53	415.2105
100.11	407.2902
103.18	391.2072
103.37	371.7755
105.31	377.7002
106.12	402.7482
109.28	390.6618
111.00	372.7263
111.76	396.8520
116.30	364.3434
117.23	374.0629
121.12	347.2687
121.78	340.9151
122.06	342.2060
123.07	316.9118
131.20	331.2118
133.52	321.7661
136.00	378.7269

136.47	373.5837
140.51	455.9059
140.51	0.0000
143.76	378.1749
144.24	374.0593
144.24	374.0593
145.44	357.3366
152.43	345.5124
153.25	361.9091
154.21	361.1259
154.21	361.1259
156.02	396.2263
158.56	332.1531
159.00	333.3549
162.66	356.0749
163.33	338.8911
165.86	316.7294
176.60	347.9764
177.52	313.0712
181.07	333.0940
184.41	316.9345
185.72	317.2477
193.51	306.8550
197.04	310.9886
205.31	299.6011
210.85	328.6782
215.65	310.1902
222.11	270.4117
227.38	262.2551
228.16	254.1907
228.18	254.1941
235.69	265.5118
235.96	265.5578
235.96	265.5578
238.63	270.5991
238.63	270.5991
240.99	271.0060
242.00	271.1807
244.70	214.8592
252.40	212.8076
252.80	215.6359
256.23	210.5257
256.23	210.5257
260.90	212.0522
264.66	203.5201
268.22	208.6226
269.46	191.6370
269.46	191.6370
271.23	210.5530
273.65	210.8524
276.40	208.8436
277.37	189.9166
277.60	167.5053
278.00	175.3714
279.20	178.6283
279.54	184.9320
280.46	194.4387
283.69	184.9786
284.31	180.2001
285.41	181.1508
285.90	194.4150
287.50	191.0225
293.27	0.0000
295.22	199.2283
295.96	161.3464
298.57	161.5809
299.98	161.7054
299.98	161.7054
300.09	161.7158
300.09	161.7158
300.13	161.7200
301.36	177.6934
302.85	168.3121
304.50	173.2309
304.50	173.2309
304.85	173.2641
308.46	177.7444
311.90	165.6276

316.51	170.8339
319.41	189.3600
320.08	198.0789
323.87	173.4236
323.87	173.4236
328.76	218.2975
333.37	145.2319
334.37	151.7651
334.37	151.7651
338.28	173.7449
338.28	173.7449
338.32	173.7493
338.32	173.7493
338.32	173.7493
340.48	150.6179
340.55	150.6227
344.28	153.3395
351.06	179.7459
351.93	179.8223
356.01	164.8421
364.49	159.2967
366.42	141.7289
383.85	152.8270
388.16	149.1559
388.63	151.1762
391.69	152.3855
400.66	141.0103
401.81	122.0715
402.40	133.1136
404.85	169.3321
410.95	124.5828
414.70	154.9813
423.72	124.2747
427.09	130.5275
427.87	117.4132
433.94	115.6908
453.88	109.5052
463.37	111.3048
468.07	104.6551
473.00	101.0828
476.78	112.6005
477.60	121.9367
487.02	119.2844
492.35	103.9441
497.08	108.3012
511.00	105.7449
514.00	106.5645
527.90	84.2949
529.87	0.0000
531.02	88.6143
537.26	100.4504
546.56	0.0000
563.25	94.9992
569.33	98.4148
569.50	96.2820
569.70	89.8693
583.19	92.4458
600.60	118.9590
602.73	117.2412
604.72	126.3452
609.32	109.5490
609.32	109.5490
609.32	109.5490
610.33	103.0782
614.28	79.6748
618.01	85.8186
621.93	72.9803
621.93	72.9803
633.25	76.5352
635.95	84.2620
636.99	77.7239
645.85	87.8301
657.76	85.4127
661.66	105.7489
661.66	105.7489
664.57	0.0000
666.33	88.4082
666.50	88.4141

677.62	82.2551
685.70	90.8023
695.00	81.7713
696.49	83.6682
696.51	83.6682
697.00	79.9619
702.65	83.8257
706.68	70.8743
711.68	102.7356
720.70	99.5391
721.93	0.0000
722.78	75.5029
722.91	75.5062
723.31	81.9429
724.19	91.6071
727.33	75.0700
733.00	72.5113
735.93	80.4363
739.50	80.9924
747.24	82.1201
752.31	63.3359
753.82	63.3632
756.73	83.2949
763.94	86.1786
765.81	95.9861
766.42	102.5112
777.92	53.8725
778.90	52.2545
783.70	77.2625
785.37	78.2530
795.86	68.9136
801.95	61.3607
810.29	73.9953
810.76	70.1603
815.77	68.3320
818.51	65.4945
832.01	79.2690
834.85	83.1988
836.80	0.0000
846.77	74.7316
856.80	115.8042
860.56	61.3683
871.09	61.5388
873.19	60.5948
875.33	0.0000
879.36	71.4613
880.51	67.5653
883.24	64.6733
884.68	70.5791
889.28	78.5156
898.04	69.8386
911.20	63.1654
911.20	63.1654
911.20	63.1654
926.50	57.4643
937.49	63.5833
944.13	54.7314
946.00	56.7472
949.00	51.8085
962.29	68.5407
964.08	72.0000
966.15	72.0352
968.97	61.7871
968.97	61.7871
968.97	61.7871
983.53	65.3055
996.26	57.4418
1001.03	51.4534
1004.73	68.6641
1037.84	48.8438
1038.76	0.0000
1048.07	61.1987
1050.41	63.2740
1050.41	63.2740
1063.66	59.3688
1085.87	75.0971
1099.45	72.2274
1112.07	70.7741

1115.54	76.3298
1120.29	72.8539
1120.29	72.8539
1120.29	72.8539
1120.55	78.7832
1121.30	72.8711
1131.51	0.0000
1173.23	61.8520
1177.93	58.7663
1189.05	66.2659
1204.77	59.0944
1221.41	75.1804
1231.02	96.5468
1235.36	83.8893
1238.28	92.4375
1260.41	0.0000
1271.85	56.6921
1274.44	63.1412
1274.54	61.0032
1291.59	46.1739
1298.22	0.0000
1312.11	49.5938
1332.49	40.0472
1365.19	27.0712
1368.63	0.0000
1384.29	29.9777
1408.01	34.8140
1457.56	0.0000
1460.82	28.4985
1489.16	24.8230
1505.03	28.7214
1596.21	21.3923
1620.50	13.6680
1678.03	0.0000
1690.97	18.7621
1764.49	8.9906
1764.49	8.9906
1764.49	8.9906
1770.23	77.9864
1771.35	54.0000
1791.20	0.0000
1836.06	11.1086

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249179001

Total Uranium Activity	1.7863E+00	ug/g
Total Uranium Counting Unc.	7.4523E+00	ug/g
Total Uranium Tpu	3.8022E-06	ug/g
Total Uranium Mda	6.6146E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 964804                    SAMPLE ID  : G249179001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM15            *
*   SAMPLE DATE   :  9-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 16:44:43.89    SAMPLE ALQT:  125.580 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.075E+01
GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.589E+00
GROSS GAMMA MDA    (pCi/GRAM  )   : 3.920E+00
GROSS GAMMA DLC    (pCi/GRAM  )   : 1.908E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 02:40:39.02

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244001.CNF;1
Sample date       : 10-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 22:40:15
Sample ID         : G249244001           Sample quantity  : 1.56210E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:02.57  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 964804                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	4	75.07*	519	938	1.64	149.06	143	16	3.61E-02	13.0	2.93E+00
2	4	77.21*	893	843	1.49	153.35	143	16	6.20E-02	7.3	
3	4	87.41	448	779	1.51	173.74	165	26	3.11E-02	12.2	1.70E+00
4	4	89.90	259	661	1.33	178.73	165	26	1.80E-02	18.9	
5	4	92.91*	449	782	1.72	184.73	165	26	3.12E-02	13.9	
6	0	129.27	119	648	1.27	257.45	254	8	8.28E-03	38.0	
7	0	185.98*	263	787	1.47	370.88	365	11	1.82E-02	22.7	
8	0	209.44	217	580	0.92	417.79	413	10	1.51E-02	21.9	
9	2	238.77*	2036	435	1.40	476.45	468	21	1.41E-01	3.0	1.43E+00
10	2	241.73*	477	570	1.76	482.36	468	21	3.31E-02	13.1	
11	0	270.54	202	533	1.18	539.98	534	13	1.40E-02	24.6	
12	0	295.32*	751	454	1.34	589.54	583	13	5.21E-02	7.1	
13	0	300.60*	155	329	1.18	600.11	596	10	1.08E-02	24.9	
14	0	328.12	118	385	1.82	655.14	649	11	8.17E-03	33.7	
15	0	338.38	411	394	1.34	675.65	670	12	2.85E-02	10.8	
16	0	351.98*	1117	395	1.54	702.85	697	12	7.76E-02	4.8	
17	0	409.93	120	330	1.36	818.76	811	15	8.36E-03	34.1	
18	0	463.19	143	194	1.44	925.27	921	10	9.95E-03	20.0	
19	0	510.98*	250	392	2.51	1020.87	1012	23	1.74E-02	24.4	
20	0	583.26*	616	228	1.58	1165.43	1160	14	4.28E-02	6.9	
21	0	609.42*	952	211	1.74	1217.76	1211	12	6.61E-02	4.6	
22	0	727.68*	95	176	1.66	1454.29	1445	14	6.58E-03	32.6	
23	0	767.65	123	208	2.15	1534.24	1526	18	8.58E-03	28.8	
24	0	794.08	73	137	1.79	1587.12	1581	13	5.10E-03	34.8	
25	0	860.16*	98	127	1.13	1719.30	1713	16	6.79E-03	28.4	
26	0	911.04*	410	166	2.03	1821.07	1813	17	2.85E-02	9.0	
27	0	969.11	284	101	2.06	1937.23	1932	11	1.97E-02	9.2	
28	0	1120.02	229	96	1.63	2239.10	2231	16	1.59E-02	11.6	
29	0	1238.14	139	124	2.42	2475.41	2467	16	9.67E-03	19.8	
30	0	1460.66*	2071	64	2.09	2920.58	2912	19	1.44E-01	2.4	
31	0	1729.26	42	12	1.65	3457.98	3452	12	2.92E-03	22.6	
32	0	1764.37*	158	19	2.51	3528.23	3520	15	1.10E-02	10.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 02:40:42

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 10-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 22:40:15
Sample ID : G249244001 Sample quantity : 156.21 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:00:02.57 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	2.416E+01	2.646E+00	3.547E-01	3.485E-02	68.114
CD-109	+	88.03	*	3.335E+00	9.109E-01	9.495E-01	1.179E-01	3.512
SN-126		64.28		8.212E-02	5.291E-01	8.589E-01	1.454E-01	0.096
	+	86.94		1.358E+00	6.630E-01	3.940E-01	1.666E-01	3.448
	+	87.57	*	3.268E-01	8.925E-02	9.375E-02	1.160E-02	3.485
TL-208		277.37		5.847E-01	3.246E-01	5.129E-01	7.253E-02	1.140
	+	583.19	*	3.975E-01	6.596E-02	4.243E-02	3.880E-03	9.369
	+	860.56		5.962E-01	3.431E-01	2.896E-01	2.831E-02	2.059
BI-211		72.87		7.449E+00	3.169E+00	4.765E+00	5.457E-01	1.563
	+	351.06	*	3.308E+00	4.565E-01	2.631E-01	2.620E-02	12.575
PB-212	+	74.82		1.863E+00	5.604E-01	4.858E-01	7.319E-02	3.836
	+	77.11		1.794E+00	3.343E-01	2.710E-01	3.141E-02	6.620
	+	238.63	*	1.364E+00	1.823E-01	7.088E-02	8.469E-03	19.243
	+	300.09		1.612E+00	8.266E-01	8.618E-01	1.049E-01	1.871
BI-214	+	609.32	*	1.188E+00	1.606E-01	8.030E-02	8.001E-03	14.788
	+	1120.29		1.503E+00	3.857E-01	3.246E-01	3.515E-02	4.632
	+	1764.49		1.451E+00	3.420E-01	1.785E-01	1.565E-02	8.131
PB-214	+	74.82		3.303E+00	9.757E-01	8.611E-01	1.203E-01	3.836
	+	77.11		3.163E+00	6.444E-01	4.777E-01	6.796E-02	6.620
	+	242.00		1.938E+00	5.640E-01	4.309E-01	5.368E-02	4.498
	+	295.22		1.381E+00	2.611E-01	1.631E-01	2.032E-02	8.469
	+	351.93	*	1.201E+00	1.784E-01	9.281E-02	1.055E-02	12.936
RA-224	+	240.99	*	3.427E+00	9.773E-01	7.595E-01	8.377E-02	4.512
RA-226	+	609.32	*	1.188E+00	1.606E-01	8.030E-02	8.001E-03	14.788
	+	1120.29		1.503E+00	3.857E-01	3.246E-01	3.515E-02	4.632
	+	1764.49		1.451E+00	3.420E-01	1.785E-01	1.565E-02	8.131
AC-228	+	338.32		1.358E+00	6.417E-01	2.871E-01	1.206E-01	4.730
	+	911.20	*	1.277E+00	2.772E-01	1.635E-01	1.981E-02	7.808
	+	968.97		1.533E+00	4.701E-01	3.273E-01	8.040E-02	4.684
RA-228	+	338.32		1.358E+00	6.417E-01	2.871E-01	1.206E-01	4.730
	+	911.20	*	1.277E+00	2.772E-01	1.635E-01	1.981E-02	7.808
	+	968.97		1.533E+00	4.701E-01	3.273E-01	8.040E-02	4.684
TH-228	+	74.82		1.863E+00	5.307E-01	4.858E-01	5.618E-02	3.836
	+	77.11		1.794E+00	3.343E-01	2.710E-01	3.141E-02	6.620

Sample ID : G249244001 Acquisition date : 23-MAR-2010 22:40:15

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	1.364E+00	1.823E-01	7.088E-02	8.469E-03	19.243
	+	300.09		1.612E+00	1.276E+00	8.618E-01	5.302E-01	1.871
TH-230	+	609.32	*	1.188E+00	1.479E-01	8.030E-02	6.786E-03	14.788
	+	1120.29		1.503E+00	3.723E-01	3.245E-01	2.761E-02	4.632
	+	1764.49		1.451E+00	3.420E-01	1.785E-01	1.565E-02	8.131
TH-232	+	338.32		1.358E+00	3.233E-01	2.871E-01	2.831E-02	4.730
	+	911.20	*	1.277E+00	2.772E-01	1.635E-01	1.981E-02	7.808
	+	968.97		1.533E+00	4.701E-01	3.273E-01	8.040E-02	4.684
U-235	+	89.96		1.936E+00	8.896E-01	9.630E-01	2.505E-01	2.011
	+	93.35		1.992E+00	7.359E-01	5.708E-01	1.389E-01	3.490
		143.76	*	-2.262E-02	1.636E-01	2.523E-01	4.490E-02	-0.090
		163.33		-6.556E-02	3.608E-01	5.467E-01	1.038E-01	-0.120
	+	185.72		1.136E-01	5.306E-02	5.026E-02	5.439E-03	2.261
		205.31		-1.050E-01	4.558E-01	6.122E-01	1.186E-01	-0.171
NP-237	+	86.48	*	9.750E-01	3.357E-01	2.851E-01	6.925E-02	3.420
		95.86		7.895E-01	7.947E-01	1.146E+00	2.868E-01	0.689
ANH-511	+	511.00	*	1.241E-01	6.162E-02	3.450E-02	2.981E-03	3.599

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-4.139E-02	2.240E-01	3.619E-01	3.363E-02	-0.114
NA-22		1274.54	*	-1.506E-02	3.105E-02	4.821E-02	4.379E-03	-0.312
NA-24		1368.63	*	-3.210E-02	3.105E-02	Half-Life too short		
SC-46		889.28	*	-1.131E-02	2.555E-02	4.089E-02	3.800E-03	-0.277
	+	1120.55		2.509E-01	6.213E-02	8.804E-02	7.487E-03	2.850
V-48		944.13		-2.538E-01	5.928E-01	9.479E-01	8.764E-02	-0.268
		983.53	*	-1.848E-02	4.699E-02	7.506E-02	6.862E-03	-0.246
		1312.11		1.805E-02	5.497E-02	9.096E-02	8.572E-03	0.198
CR-51		320.08	*	6.410E-02	2.676E-01	4.366E-01	4.634E-02	0.147
MN-54		834.85	*	-8.849E-03	2.540E-02	4.122E-02	3.741E-03	-0.215
CO-56		846.77	*	-5.367E-03	2.704E-02	4.424E-02	4.037E-03	-0.121
		1037.84		-4.608E-02	2.150E-01	3.466E-01	3.250E-02	-0.133
	+	1238.28		2.531E-01	1.027E-01	1.290E-01	1.159E-02	1.961
		1771.35		-1.013E+00	2.532E-01	1.991E-01	1.739E-02	-5.087
CO-57		122.06	*	-5.567E-03	1.993E-02	3.112E-02	3.135E-03	-0.179
		136.47		-9.825E-03	1.564E-01	2.529E-01	2.687E-02	-0.039
CO-58		810.76	*	-4.100E-02	2.667E-02	3.954E-02	3.555E-03	-1.037
FE-59		1099.45	*	-9.081E-02	6.595E-02	9.636E-02	8.990E-03	-0.942
		1291.59		-6.588E-02	9.020E-02	1.369E-01	1.414E-02	-0.481
CO-60		1173.23		1.712E-02	3.375E-02	5.654E-02	4.602E-03	0.303
		1332.49	*	1.083E-02	2.762E-02	4.603E-02	4.425E-03	0.235
ZN-65		1115.54	*	3.062E-02	6.958E-02	1.013E-01	8.657E-03	0.302
SE-75		121.12		-3.260E-02	1.032E-01	1.610E-01	1.972E-02	-0.202
		136.00		-3.865E-03	3.005E-02	4.848E-02	4.908E-03	-0.080
		264.66	*	-5.317E-04	3.642E-02	5.295E-02	5.807E-03	-0.010
		279.54		9.974E-02	8.230E-02	1.414E-01	1.566E-02	0.705
		400.66		1.037E-01	1.803E-01	3.032E-01	3.322E-02	0.342

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SR-85		514.00	*	9.157E-02	3.070E-02	5.413E-02	4.677E-03	1.692
Y-88		898.04		-4.200E-04	2.885E-02	4.758E-02	4.455E-03	-0.009
		1836.06	*	6.887E-03	2.247E-02	3.840E-02	3.234E-03	0.179
Y-91		1204.77	*	-9.360E-01	1.484E+01	2.397E+01	2.021E+00	-0.039
NB-94		702.65	*	-8.429E-03	2.372E-02	3.896E-02	3.289E-03	-0.216
		871.09		-4.971E-03	2.496E-02	3.808E-02	3.513E-03	-0.131
NB-95		765.81	*	4.860E-02	3.467E-02	5.436E-02	4.763E-03	0.894
NB-95M		235.69	*	3.326E-01	1.171E-01	1.782E-01	2.147E-02	1.866
ZR-95		724.19		3.923E-03	7.226E-02	1.045E-01	9.703E-03	0.038
		756.73	*	9.504E-03	4.834E-02	8.143E-02	7.826E-03	0.117
MO-99		140.51		-1.564E+01	1.241E+01	1.756E+01	4.272E+00	-0.891
		181.07		-6.555E+00	1.056E+01	1.428E+01	2.838E+00	-0.459
		366.42		3.469E+01	4.691E+01	7.963E+01	7.297E+00	0.436
		739.50	*	-8.530E-01	5.578E+00	9.224E+00	1.454E+00	-0.092
		777.92		-3.248E+00	1.683E+01	2.707E+01	2.387E+00	-0.120
TC-99M		140.51	*	-4.456E+08	1.683E+01	Half-Life too short		
RU-103		497.08	*	-1.286E-02	2.787E-02	4.419E-02	6.177E-03	-0.291
	+	610.33		1.191E+01	2.221E+00	2.004E+00	3.258E-01	5.942
RH-106		621.93	*	-2.201E-01	2.318E-01	3.494E-01	4.583E-02	-0.630
		1050.41		-3.919E-01	1.772E+00	2.853E+00	2.535E-01	-0.137
RU-106		621.93	*	-2.201E-01	2.307E-01	3.494E-01	2.936E-02	-0.630
		1050.41		-3.919E-01	1.772E+00	2.853E+00	2.535E-01	-0.137
AG-108M		433.94	*	-2.215E-02	2.164E-02	3.359E-02	2.968E-03	-0.659
		614.28		-9.149E-03	2.944E-02	3.981E-02	3.472E-03	-0.230
		722.91		-2.173E-03	2.903E-02	4.155E-02	3.668E-03	-0.052
AG-110M		657.76	*	-2.346E-02	2.381E-02	3.774E-02	3.212E-03	-0.621
		677.62		-4.220E-02	1.974E-01	3.267E-01	2.798E-02	-0.129
		706.68		-7.697E-02	1.530E-01	2.492E-01	2.172E-02	-0.309
		763.94		1.328E-01	1.251E-01	1.937E-01	1.741E-02	0.686
		884.68		1.462E-02	3.234E-02	5.500E-02	5.243E-03	0.266
		937.49		-5.477E-02	9.274E-02	1.339E-01	1.279E-02	-0.409
		1384.29		1.427E-02	1.200E-01	2.023E-01	1.991E-02	0.071
		1505.03		-3.139E-01	2.194E-01	3.134E-01	2.995E-02	-1.002
SN-113		391.69	*	-2.017E-02	3.206E-02	5.124E-02	4.450E-03	-0.394
CD-115		260.90		1.598E+01	6.126E+01	1.034E+02	1.132E+01	0.155
		492.35		-3.110E+00	1.642E+01	2.647E+01	2.287E+00	-0.117
		527.90	*	-3.710E+00	4.957E+00	7.700E+00	6.646E-01	-0.482
SN-117M		156.02		-1.146E+00	1.624E+00	2.558E+00	2.666E-01	-0.448
		158.56	*	-1.444E-02	3.911E-02	6.229E-02	6.531E-03	-0.232
TE-123M		159.00	*	-2.170E-03	2.180E-02	3.503E-02	3.691E-03	-0.062
SB-124		602.73		-2.284E-03	3.103E-02	4.284E-02	3.631E-03	-0.053
		645.85		-6.650E-02	3.362E-01	5.330E-01	4.698E-02	-0.125
		722.78		-1.405E-02	2.865E-01	4.110E-01	3.595E-02	-0.034
		1690.97	*	-5.451E-03	4.841E-02	7.859E-02	7.402E-03	-0.069
SB-125		427.87	*	3.882E-02	6.591E-02	1.108E-01	9.641E-03	0.351
	+	463.37		6.341E-01	2.608E-01	3.810E-01	3.530E-02	1.664
		600.60		-4.895E-02	1.305E-01	1.998E-01	1.824E-02	-0.245
		635.95		1.245E-01	1.932E-01	3.216E-01	2.916E-02	0.387
TE-125M		109.28	*	-4.785E+00	7.267E+00	1.160E+01	1.377E+00	-0.413

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-126		388.63		1.218E-01	1.106E-01	1.898E-01	1.615E-02	0.642
		666.33	*	4.683E-03	1.428E-01	2.399E-01	1.979E-02	0.020
		753.82		2.985E-01	1.130E+00	1.911E+00	1.663E-01	0.156
SB-126		414.70		4.070E-04	5.413E-02	7.696E-02	6.542E-03	0.005
		666.50		3.812E-03	4.894E-02	8.240E-02	6.796E-03	0.046
		695.00		4.230E-02	5.174E-02	8.978E-02	7.544E-03	0.471
		697.00		6.664E-02	1.820E-01	3.097E-01	2.606E-02	0.215
		720.70	*	3.354E-02	1.043E-01	1.540E-01	1.314E-02	0.218
		856.80		1.334E-01	3.465E-01	5.095E-01	4.670E-02	0.262
SB-127		252.40		-1.407E+00	2.437E+00	3.887E+00	1.631E+00	-0.362
		473.00		4.378E-01	8.341E-01	1.394E+00	1.724E-01	0.314
		685.70	*	-4.574E-01	6.564E-01	1.054E+00	1.127E-01	-0.434
		783.70		1.081E+00	1.840E+00	3.150E+00	3.811E-01	0.343
I-131		80.19		4.370E+00	4.845E+00	5.294E+00	6.241E-01	0.825
		284.31		-2.072E-01	9.368E-01	1.550E+00	1.721E-01	-0.134
		364.49	*	-4.602E-03	7.192E-02	1.184E-01	1.142E-02	-0.039
		636.99		8.815E-01	9.709E-01	1.637E+00	1.447E-01	0.538
TE-132		49.72		-6.940E+00	2.220E+01	3.653E+01	5.445E+00	-0.190
		111.76		-9.099E+00	1.769E+01	2.835E+01	3.370E+00	-0.321
		116.30		1.104E+01	1.551E+01	2.565E+01	3.028E+00	0.430
		228.16	*	1.981E-01	3.940E-01	6.696E-01	1.136E-01	0.296
BA-133		81.00		6.442E-02	1.131E-01	1.212E-01	2.120E-02	0.531
		276.40		5.088E-01	3.085E-01	4.666E-01	7.264E-02	1.090
		302.85		1.391E-01	1.174E-01	1.773E-01	2.551E-02	0.785
		356.01	*	3.320E-03	3.608E-02	5.197E-02	7.023E-03	0.064
		383.85		-1.367E-01	2.107E-01	3.360E-01	4.184E-02	-0.407
I-133		529.87	*	1.737E-04	2.107E-01	Half-Life too short		
		875.33		1.798E-04	2.107E-01	Half-Life too short		
		1298.22		-3.557E-03	2.107E-01	Half-Life too short		
CS-134		563.25		5.627E-02	2.474E-01	4.051E-01	3.509E-02	0.139
		569.33		-5.089E-02	1.387E-01	2.195E-01	1.907E-02	-0.232
		604.72		1.634E-02	2.657E-02	3.859E-02	3.276E-03	0.423
		795.86	*	8.055E-02	3.780E-02	6.189E-02	5.547E-03	1.302
		801.95		-5.762E-01	3.340E-01	4.440E-01	3.986E-02	-1.298
		1365.19		-3.973E-01	8.104E-01	1.292E+00	1.290E-01	-0.308
CS-135		268.22	*	2.587E-01	1.341E-01	2.067E-01	2.481E-02	1.251
I-135		546.56		6.820E+07	1.341E-01	Half-Life too short		
		836.80		1.010E+08	1.341E-01	Half-Life too short		
		1038.76		-8.083E+07	1.341E-01	Half-Life too short		
		1131.51		6.697E+06	1.341E-01	Half-Life too short		
		1260.41	*	2.218E+07	1.341E-01	Half-Life too short		
		1457.56		1.283E+10	1.341E-01	Half-Life too short		
		1678.03		-9.186E+06	1.341E-01	Half-Life too short		
		1791.20		-9.118E+07	1.341E-01	Half-Life too short		
CS-136		153.25		1.048E+00	6.144E-01	1.018E+00	1.197E-01	1.029
		176.60		3.058E-01	3.506E-01	5.749E-01	6.598E-02	0.532
		273.65		-6.641E-01	4.271E-01	5.666E-01	6.488E-02	-1.172
		340.55		4.024E-01	1.351E-01	2.036E-01	2.055E-02	1.976
		818.51		-3.623E-02	4.539E-02	7.122E-02	6.417E-03	-0.509

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1048.07	*	-1.452E-02	6.825E-02	1.100E-01	1.017E-02	-0.132
		1235.36		4.583E-01	4.823E-01	7.143E-01	8.452E-02	0.642
BA-137M		661.66	*	7.661E-03	2.508E-02	4.271E-02	3.511E-03	0.179
CS-137		661.66	*	8.093E-03	2.650E-02	4.512E-02	3.717E-03	0.179
CE-139		165.86	*	-1.446E-02	2.420E-02	3.600E-02	3.843E-03	-0.402
BA-140		162.66		3.057E-02	5.787E-01	9.331E-01	1.032E-01	0.033
		304.85		-7.982E-02	9.857E-01	1.417E+00	4.235E-01	-0.056
		423.72		9.045E-02	1.268E+00	2.086E+00	6.858E-01	0.043
		537.26	*	-7.652E-02	1.701E-01	2.655E-01	9.005E-02	-0.288
LA-140	+	328.76		4.408E-01	3.004E-01	3.684E-01	3.863E-02	1.197
		487.02		5.742E-02	8.841E-02	1.485E-01	1.362E-02	0.387
		815.77		1.040E-01	1.857E-01	3.192E-01	3.181E-02	0.326
		1596.21	*	-3.582E-02	5.748E-02	8.965E-02	8.405E-03	-0.400
CE-141		145.44	*	5.166E-02	4.684E-02	7.750E-02	8.010E-03	0.667
CE-143		57.36		-7.751E-05	4.684E-02	Half-Life too short		
		293.27	*	3.564E-04	4.684E-02	Half-Life too short		
		664.57		3.689E-04	4.684E-02	Half-Life too short		
		721.93		8.562E-05	4.684E-02	Half-Life too short		
CE-144		80.12		3.107E+00	3.017E+00	3.316E+00	3.897E-01	0.937
		133.52	*	-1.076E-01	1.833E-01	2.431E-01	3.923E-02	-0.443
PM-144		476.78		-5.199E-03	4.547E-02	7.371E-02	6.909E-03	-0.071
		618.01		8.555E-03	2.287E-02	3.756E-02	3.255E-03	0.228
		696.49	*	2.195E-02	2.526E-02	4.390E-02	3.693E-03	0.500
PR-144		696.51	*	1.437E+00	1.895E+00	3.279E+00	2.758E-01	0.438
		1489.16		9.608E-01	8.455E+00	1.423E+01	1.363E+00	0.068
PM-146		453.88	*	5.540E-03	3.078E-02	5.072E-02	5.363E-03	0.109
		633.25		-6.647E-01	1.016E+00	1.514E+00	5.775E-01	-0.439
		735.93		-2.357E-02	9.874E-02	1.622E-01	4.545E-02	-0.145
		747.24		2.761E-02	6.590E-02	1.123E-01	1.641E-02	0.246
ND-147	+	91.11		5.657E-01	2.257E-01	3.594E-01	4.450E-02	1.574
		319.41		-9.701E-01	2.204E+00	3.594E+00	3.681E-01	-0.270
		531.02	*	9.649E-03	3.534E-01	5.740E-01	8.583E-02	0.017
PM-149		285.90	*	-1.068E+01	4.046E+01	6.679E+01	1.123E+01	-0.160
EU-152		121.78		-9.903E-03	5.736E-02	8.987E-02	1.005E-02	-0.110
		244.70		3.372E-01	2.811E-01	4.276E-01	4.713E-02	0.789
		344.28	*	-4.436E-02	9.173E-02	1.204E-01	1.225E-02	-0.368
		778.90		7.234E-02	1.802E-01	3.064E-01	2.703E-02	0.236
		964.08		3.662E-01	2.366E-01	3.718E-01	3.420E-02	0.985
		1085.87		1.800E-03	2.729E-01	4.457E-01	3.881E-02	0.004
		1112.07		-2.685E-03	2.545E-01	3.549E-01	3.037E-02	-0.008
		1408.01		7.929E-02	1.239E-01	2.176E-01	2.097E-02	0.364
GD-153		69.67		6.033E-03	1.757E+00	2.544E+00	2.904E-01	0.002
		97.43	*	2.476E-02	6.880E-02	9.993E-02	1.103E-02	0.248
		103.18		-8.552E-02	8.478E-02	1.338E-01	1.415E-02	-0.639
EU-154		123.07		1.960E-02	3.912E-02	6.432E-02	8.026E-03	0.305
		723.31		-1.846E-02	1.311E-01	1.866E-01	1.760E-02	-0.099
		873.19		1.147E-01	1.836E-01	3.152E-01	3.891E-02	0.364
		996.26		-2.681E-01	2.567E-01	3.835E-01	6.792E-02	-0.699
		1004.73		-2.334E-02	1.475E-01	2.392E-01	2.865E-02	-0.098

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1274.44	*	-5.394E-03	8.503E-02	1.367E-01	1.603E-02	-0.039
EU-155	+	86.55		3.959E-01	1.083E-01	1.440E-01	1.777E-02	2.749
		105.31	*	6.461E-02	8.103E-02	1.346E-01	1.418E-02	0.480
TB-160	+	86.79		1.035E+00	2.827E-01	3.732E-01	4.589E-02	2.773
		197.04		-2.463E-01	4.239E-01	6.639E-01	7.239E-02	-0.371
		215.65		-2.337E-01	5.906E-01	9.281E-01	1.021E-01	-0.252
		298.57		3.019E-01	1.335E-01	1.534E-01	1.623E-02	1.968
		879.36	*	-9.637E-02	9.478E-02	1.453E-01	1.345E-02	-0.663
		962.29		3.612E-01	4.228E-01	6.378E-01	5.868E-02	0.566
		966.15		8.683E-01	2.028E-01	3.415E-01	3.138E-02	2.543
		1177.93		-1.841E-01	2.716E-01	4.211E-01	3.446E-02	-0.437
		1271.85		-3.681E-01	4.929E-01	7.469E-01	6.760E-02	-0.493
HO-166M		80.57		2.978E-01	3.201E-01	3.506E-01	4.130E-02	0.850
		184.41		1.228E-01	3.352E-02	4.929E-02	5.330E-03	2.492
		280.46		-9.888E-03	6.426E-02	1.067E-01	1.152E-02	-0.093
	+	410.95		4.567E-01	3.142E-01	3.249E-01	2.758E-02	1.406
		711.68	*	1.054E-02	4.270E-02	7.229E-02	6.138E-03	0.146
		752.31		1.248E-01	1.828E-01	3.160E-01	2.748E-02	0.395
		810.29		-4.878E-02	4.064E-02	6.200E-02	5.560E-03	-0.787
TA-182		67.75		-1.126E-01	1.109E-01	1.710E-01	1.952E-02	-0.658
		100.11		-1.679E-02	1.294E-01	2.106E-01	2.274E-02	-0.080
		152.43		3.332E-01	2.677E-01	4.432E-01	4.584E-02	0.752
		222.11		-2.741E-03	2.664E-01	4.484E-01	4.942E-02	-0.006
	+	1121.30		6.976E-01	1.727E-01	2.416E-01	2.054E-02	2.887
		1189.05		1.055E-01	2.338E-01	3.898E-01	3.229E-02	0.271
		1221.41	*	1.357E-01	1.385E-01	2.376E-01	2.040E-02	0.571
		1231.02		4.112E-01	3.724E-01	5.673E-01	4.920E-02	0.725
IR-192	+	295.96		1.006E+00	1.788E-01	2.033E-01	2.169E-02	4.947
		308.46		-1.371E-03	6.886E-02	1.144E-01	1.198E-02	-0.012
		316.51	*	-6.397E-03	2.505E-02	4.119E-02	4.247E-03	-0.155
		468.07		-1.104E-02	5.126E-02	7.114E-02	6.579E-03	-0.155
HG-203		70.83		-2.800E-01	1.301E+00	1.868E+00	3.310E-01	-0.150
		72.87		1.810E+00	8.049E-01	1.158E+00	2.000E-01	1.563
		279.20	*	3.146E-02	2.867E-02	4.918E-02	5.404E-03	0.640
BI-207		72.81		3.837E-01	1.804E-01	2.713E-01	3.107E-02	1.414
	+	74.97		5.370E-01	1.528E-01	1.950E-01	2.245E-02	2.753
		569.70		-5.977E-03	2.148E-02	3.416E-02	2.926E-03	-0.175
		1063.66	*	2.534E-02	3.709E-02	6.330E-02	5.585E-03	0.400
		1770.23		-6.046E-02	2.755E-01	3.634E-01	3.177E-02	-0.166
PB-210		46.54	*	4.804E+00	7.349E+00	1.202E+01	1.480E+00	0.400
PB-211		404.85	*	-2.823E-01	5.968E-01	8.005E-01	3.872E-01	-0.353
		427.09		-7.083E-02	1.112E+00	1.816E+00	8.399E-01	-0.039
		832.01		-1.135E-01	6.532E-01	1.067E+00	5.539E-01	-0.106
BI-212	+	727.33	*	9.328E-01	6.196E-01	7.367E-01	9.154E-02	1.266
		785.37		9.727E-01	2.251E+00	3.752E+00	3.322E-01	0.259
		1620.50		9.474E-01	1.551E+00	2.735E+00	2.546E-01	0.346
RN-219	+	271.23		5.946E-01	3.020E-01	3.322E-01	4.060E-02	1.790
		401.81	*	7.274E-03	3.248E-01	4.851E-01	7.169E-02	0.015
RA-223		81.07		1.424E-01	2.552E-01	2.741E-01	3.239E-02	0.519

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		83.79		9.278E-02	1.239E-01	1.624E-01	1.952E-02	0.571
		94.87		1.877E+00	4.400E-01	6.424E-01	7.273E-02	2.922
		144.24		2.623E-01	5.452E-01	8.542E-01	9.436E-02	0.307
		154.21		2.838E-01	2.990E-01	4.925E-01	5.454E-02	0.576
	+	269.46		4.620E-01	2.334E-01	2.549E-01	2.813E-02	1.813
		323.87	*	2.929E-01	5.441E-01	8.022E-01	1.456E-01	0.365
	+	338.28		5.389E+00	1.361E+00	1.649E+00	2.141E-01	3.269
AC-227		79.69		2.687E+00	1.438E+00	1.783E+00	3.385E-01	1.507
		235.96		7.091E-01	1.671E-01	2.418E-01	3.005E-02	2.932
		256.23	*	1.076E-01	1.887E-01	3.208E-01	4.439E-02	0.336
	+	299.98		1.774E+00	9.179E-01	1.197E+00	1.688E-01	1.481
		304.50		6.567E-02	1.304E+00	1.888E+00	3.320E-01	0.035
		334.37		9.262E-01	1.679E+00	2.181E+00	3.567E-01	0.425
TH-227		79.80		3.262E+00	2.144E+00	2.292E+00	5.315E-01	1.423
		235.96		7.091E-01	1.653E-01	2.418E-01	2.888E-02	2.932
		256.23	*	1.076E-01	1.888E-01	3.208E-01	4.879E-02	0.336
	+	299.98		1.774E+00	9.179E-01	1.197E+00	1.688E-01	1.481
		304.50		6.567E-02	1.304E+00	1.888E+00	3.320E-01	0.035
		334.37		9.262E-01	1.679E+00	2.181E+00	3.567E-01	0.425
TH-229		85.43		5.999E-01	1.795E-01	2.912E-01	3.543E-02	2.060
	+	88.47		5.037E-01	1.376E-01	1.861E-01	2.294E-02	2.707
		193.51	*	1.993E-01	4.073E-01	6.606E-01	7.188E-02	0.302
	+	210.85		2.071E+00	9.334E-01	1.183E+00	1.299E-01	1.751
PA-231		283.69	*	-2.387E-01	1.067E+00	1.765E+00	2.814E-01	-0.135
	+	301.36		1.139E+00	5.882E-01	7.685E-01	1.044E-01	1.483
TH-231		81.07		1.424E-01	2.552E-01	2.741E-01	3.239E-02	0.519
		83.79		9.278E-02	1.239E-01	1.624E-01	1.952E-02	0.571
		94.87		1.877E+00	4.400E-01	6.424E-01	7.273E-02	2.922
		144.24		2.623E-01	5.452E-01	8.542E-01	9.436E-02	0.307
		154.21		2.838E-01	2.990E-01	4.925E-01	5.454E-02	0.576
	+	269.46		4.620E-01	2.334E-01	2.549E-01	2.813E-02	1.813
		323.87	*	2.929E-01	5.441E-01	8.022E-01	1.456E-01	0.365
	+	338.28		5.389E+00	1.361E+00	1.649E+00	2.141E-01	3.269
PA-233	+	300.13		8.026E-01	4.199E-01	5.409E-01	8.673E-02	1.484
		311.90	*	-6.503E-03	4.730E-02	7.820E-02	8.273E-03	-0.083
		340.48		2.038E+00	7.838E-01	9.625E-01	2.360E-01	2.117
PA-234		94.67		7.758E-01	1.808E-01	2.400E-01	3.463E-02	3.233
		98.44		3.531E-02	7.802E-02	1.101E-01	6.186E-02	0.321
		111.00		-1.198E-03	1.392E-01	2.269E-01	3.012E-02	-0.005
		131.20		1.245E-01	9.244E-02	1.365E-01	1.370E-02	0.912
		569.50		-1.735E-02	1.891E-01	3.040E-01	2.604E-02	-0.057
		733.00		1.314E-01	2.874E-01	4.271E-01	9.476E-02	0.308
		880.51		-3.873E-02	1.940E-01	3.164E-01	2.930E-02	-0.122
		883.24		1.694E-01	2.191E-01	3.276E-01	2.205E-01	0.517
		926.50		-1.055E-01	1.183E-01	1.773E-01	4.522E-02	-0.595
		946.00	*	2.028E-02	2.131E-01	3.528E-01	6.723E-02	0.057
		949.00		1.127E-01	3.212E-01	5.399E-01	4.986E-02	0.209
PA-234M	+	766.42		2.654E+01	2.037E+01	1.541E+01	7.825E+00	1.722
		1001.03	*	9.884E-01	3.328E+00	5.339E+00	5.537E-01	0.185

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	2.747E-01	1.459E+00	2.369E+00	4.698E-01	0.116
	+	92.59		2.637E+00	9.577E-01	1.007E+00	2.359E-01	2.619
U-238		63.29	*	2.747E-01	1.459E+00	2.369E+00	4.698E-01	0.116
	+	92.59		2.637E+00	7.936E-01	1.007E+00	1.171E-01	2.619
NP-239		99.53		-5.465E-02	1.252E-01	1.948E-01	2.112E-02	-0.281
		103.37		3.040E-03	7.553E-02	1.235E-01	1.304E-02	0.025
		106.12		4.841E-02	6.441E-02	1.069E-01	1.113E-02	0.453
		117.23	*	1.071E-01	3.040E-01	4.991E-01	5.038E-02	0.215
		228.18		8.415E-02	1.659E-01	2.824E-01	3.116E-02	0.298
		277.60		2.244E-01	1.467E-01	2.336E-01	2.529E-02	0.961
AM-241		59.54	*	-2.522E-01	1.810E-01	2.843E-01	3.337E-02	-0.887
CM-247		278.00		8.778E-01	6.019E-01	9.880E-01	1.069E-01	0.888
		287.50		9.040E-02	9.592E-01	1.516E+00	1.625E-01	0.060
		402.40	*	-1.497E-02	3.144E-02	4.337E-02	3.668E-03	-0.345
CF-249		252.80		-4.060E-01	7.098E-01	1.165E+00	1.281E-01	-0.348
		333.37		1.785E-01	2.196E-01	2.290E-01	2.282E-02	0.779
		388.16	*	3.577E-02	2.918E-02	5.022E-02	4.281E-03	0.712
CF-251		177.52	*	6.728E-02	1.002E-01	1.637E-01	1.761E-02	0.411
		227.38		1.190E-01	2.707E-01	4.604E-01	5.079E-02	0.258
		285.41		-3.510E-01	1.587E+00	2.626E+00	2.822E-01	-0.134

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244001       *
* Acquisition date : 23-MAR-2010 22:40:15 Detector SN#    :                 *
* Detector ID      : GAM15                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:02.57     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 10-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249244001           Analyst initials: MXR1            *
* Batch Number     : 964804               Sample Quantity : 1.5621E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.416E+01	2.593E+00	3.578E-01	0.000E+00
CD-109	3.335E+00	8.926E-01	1.032E+00	0.000E+00
SN-126	3.268E-01	8.747E-02	1.019E-01	0.000E+00
TL-208	3.975E-01	6.464E-02	4.391E-02	0.000E+00
BI-211	3.308E+00	4.474E-01	2.760E-01	0.000E+00
PB-212	1.364E+00	1.786E-01	7.512E-02	0.000E+00
BI-214	1.188E+00	1.574E-01	8.301E-02	0.000E+00
PB-214	1.201E+00	1.748E-01	9.736E-02	0.000E+00
RA-224	3.427E+00	9.578E-01	8.047E-01	0.000E+00
RA-226	1.188E+00	1.574E-01	8.301E-02	0.000E+00
AC-228	1.277E+00	2.716E-01	1.672E-01	0.000E+00
RA-228	1.277E+00	2.716E-01	1.672E-01	0.000E+00
TH-228	1.364E+00	1.786E-01	7.512E-02	0.000E+00
TH-230	1.188E+00	1.449E-01	8.301E-02	0.000E+00
TH-232	1.277E+00	2.716E-01	1.672E-01	0.000E+00
U-235	-2.262E-02	1.603E-01	2.709E-01	0.000E+00
NP-237	9.750E-01	3.290E-01	3.100E-01	0.000E+00
ANH-511	1.241E-01	6.039E-02	3.583E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-4.139E-02	2.196E-01	3.765E-01	0.000E+00	NOT IDENT.
NA-22	-1.506E-02	3.043E-02	4.882E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.574E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-1.131E-02	2.504E-02	4.183E-02	0.000E+00	FAIL ABUN
V-48	-1.848E-02	4.605E-02	7.657E-02	0.000E+00	NOT IDENT.
CR-51	6.410E-02	2.622E-01	4.592E-01	0.000E+00	NOT IDENT.
MN-54	-8.849E-03	2.489E-02	4.224E-02	0.000E+00	NOT IDENT.
CO-56	-5.367E-03	2.650E-02	4.532E-02	0.000E+00	FAIL ABUN
CO-57	-5.567E-03	1.953E-02	3.355E-02	0.000E+00	NOT IDENT.

CO-58	-4.100E-02	2.614E-02	4.056E-02	0.000E+00	NOT IDENT.
FE-59	-9.081E-02	6.463E-02	9.799E-02	0.000E+00	NOT IDENT.
CO-60	1.083E-02	2.707E-02	4.656E-02	0.000E+00	NOT IDENT.
ZN-65	3.062E-02	6.819E-02	1.030E-01	0.000E+00	NOT IDENT.
SE-75	-5.317E-04	3.569E-02	5.597E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.008E-02	5.622E-02	0.000E+00	NOT IDENT.
Y-88	6.887E-03	2.202E-02	3.848E-02	0.000E+00	NOT IDENT.
Y-91	-9.360E-01	1.455E+01	2.431E+01	0.000E+00	NOT IDENT.
NB-94	-8.429E-03	2.325E-02	4.012E-02	0.000E+00	NOT IDENT.
NB-95	4.860E-02	3.398E-02	5.584E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.147E-01	1.889E-01	0.000E+00	NOT IDENT.
ZR-95	9.504E-03	4.737E-02	8.368E-02	0.000E+00	NOT IDENT.
MO-99	-8.530E-01	5.467E+00	9.484E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.498E+14	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.286E-02	2.732E-02	4.593E-02	0.000E+00	FAIL ABUN
RH-106	-2.201E-01	2.272E-01	3.610E-01	0.000E+00	NOT IDENT.
RU-106	-2.201E-01	2.261E-01	3.610E-01	0.000E+00	NOT IDENT.
AG-108M	-2.215E-02	2.121E-02	3.504E-02	0.000E+00	NOT IDENT.
AG-110M	-2.346E-02	2.333E-02	3.894E-02	0.000E+00	NOT IDENT.
SN-113	-2.017E-02	3.142E-02	5.360E-02	0.000E+00	NOT IDENT.
CD-115	-3.710E+00	4.858E+00	7.991E+00	0.000E+00	NOT IDENT.
SN-117M	-1.444E-02	3.833E-02	6.671E-02	0.000E+00	NOT IDENT.
TE-123M	-2.170E-03	2.137E-02	3.751E-02	0.000E+00	NOT IDENT.
SB-124	-5.451E-03	4.744E-02	7.894E-02	0.000E+00	NOT IDENT.
SB-125	3.882E-02	6.460E-02	1.156E-01	0.000E+00	FAIL ABUN
TE-125M	-4.785E+00	7.122E+00	1.254E+01	0.000E+00	NOT IDENT.
I-126	4.683E-03	1.399E-01	2.474E-01	0.000E+00	NOT IDENT.
SB-126	3.354E-02	1.022E-01	1.584E-01	0.000E+00	NOT IDENT.
SB-127	-4.574E-01	6.433E-01	1.086E+00	0.000E+00	NOT IDENT.
I-131	-4.602E-03	7.048E-02	1.241E-01	0.000E+00	NOT IDENT.
TE-132	1.981E-01	3.862E-01	7.104E-01	0.000E+00	NOT IDENT.
BA-133	3.320E-03	3.536E-02	5.451E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.127E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	3.705E-02	6.351E-02	0.000E+00	NOT IDENT.
CS-135	0.000E+00	1.315E-01	2.184E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	7.822E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.452E-02	6.689E-02	1.120E-01	0.000E+00	NOT IDENT.
BA-137M	7.661E-03	2.458E-02	4.405E-02	0.000E+00	NOT IDENT.
CS-137	8.093E-03	2.597E-02	4.653E-02	0.000E+00	NOT IDENT.
CE-139	-1.446E-02	2.371E-02	3.851E-02	0.000E+00	NOT IDENT.
BA-140	-7.652E-02	1.667E-01	2.754E-01	0.000E+00	NOT IDENT.
LA-140	-3.582E-02	5.633E-02	9.021E-02	0.000E+00	FAIL ABUN
CE-141	5.166E-02	4.591E-02	8.318E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	9.674E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.076E-01	1.796E-01	2.615E-01	0.000E+00	NOT IDENT.
PM-144	2.195E-02	2.476E-02	4.522E-02	0.000E+00	NOT IDENT.
PR-144	1.437E+00	1.857E+00	3.377E+00	0.000E+00	NOT IDENT.
PM-146	5.540E-03	3.016E-02	5.285E-02	0.000E+00	NOT IDENT.
ND-147	9.649E-03	3.463E-01	5.955E-01	0.000E+00	FAIL ABUN
PM-149	-1.068E+01	3.965E+01	7.045E+01	0.000E+00	NOT IDENT.
EU-152	-4.436E-02	8.989E-02	1.264E-01	0.000E+00	NOT IDENT.
GD-153	2.476E-02	6.743E-02	1.083E-01	0.000E+00	NOT IDENT.
EU-154	-5.394E-03	8.333E-02	1.384E-01	0.000E+00	NOT IDENT.
EU-155	6.461E-02	7.941E-02	1.457E-01	0.000E+00	FAIL ABUN
TB-160	-9.637E-02	9.288E-02	1.487E-01	0.000E+00	FAIL ABUN
HO-166M	1.054E-02	4.185E-02	7.441E-02	0.000E+00	FAIL ABUN
TA-182	1.357E-01	1.357E-01	2.409E-01	0.000E+00	FAIL ABUN
IR-192	-6.397E-03	2.455E-02	4.334E-02	0.000E+00	FAIL ABUN
HG-203	3.146E-02	2.810E-02	5.190E-02	0.000E+00	NOT IDENT.
BI-207	2.534E-02	3.634E-02	6.444E-02	0.000E+00	FAIL ABUN
PB-210	4.804E+00	7.202E+00	1.327E+01	0.000E+00	NOT IDENT.
PB-211	-2.823E-01	5.849E-01	8.367E-01	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.072E-01	7.579E-01	0.000E+00	FAIL ABUN
RN-219	7.274E-03	3.183E-01	5.071E-01	0.000E+00	FAIL ABUN
RA-223	2.929E-01	5.332E-01	8.434E-01	0.000E+00	FAIL ABUN
AC-227	1.076E-01	1.849E-01	3.393E-01	0.000E+00	FAIL ABUN
TH-227	1.076E-01	1.851E-01	3.393E-01	0.000E+00	FAIL ABUN
TH-229	1.993E-01	3.991E-01	7.040E-01	0.000E+00	FAIL ABUN
PA-231	-2.387E-01	1.045E+00	1.862E+00	0.000E+00	FAIL ABUN
TH-231	2.929E-01	5.332E-01	8.434E-01	0.000E+00	FAIL ABUN
PA-233	-6.503E-03	4.636E-02	8.230E-02	0.000E+00	FAIL ABUN
PA-234	2.028E-02	2.088E-01	3.603E-01	0.000E+00	NOT IDENT.
PA-234M	9.884E-01	3.261E+00	5.444E+00	0.000E+00	FAIL ABUN
TH-234	2.747E-01	1.429E+00	2.596E+00	0.000E+00	FAIL ABUN
U-238	2.747E-01	1.429E+00	2.596E+00	0.000E+00	FAIL ABUN
NP-239	1.071E-01	2.979E-01	5.386E-01	0.000E+00	NOT IDENT.
AM-241	-2.522E-01	1.773E-01	3.120E-01	0.000E+00	NOT IDENT.
CM-247	-1.497E-02	3.081E-02	4.534E-02	0.000E+00	NOT IDENT.

CF-249	3.577E-02	2.860E-02	5.255E-02	0.000E+00 NOT IDENT.
CF-251	6.728E-02	9.819E-02	1.748E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 02:40:40.34

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244001.CNF;1
Sample date      : 10-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 22:40:15
Sample ID        : G249244001           Sample quantity  : 1.56210E+02 GRAM
Detector name    : GAM15                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:02.57  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 964804               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	2071	10.66*	9.662E-01	2.416E+01	2.416E+01	10.95
CD-109	88.03	448	3.70*	4.453E+00	3.268E+00	3.335E+00	27.32
SN-126	64.28	------	9.60	1.941E+00	------ Line Not Found		------
	86.94	448	8.90	4.453E+00	1.358E+00	1.358E+00	48.81
	87.57	448	37.00*	4.453E+00	3.268E-01	3.268E-01	27.32
TL-208	277.37	------	6.60	3.705E+00	------ Line Not Found		------
	583.19	616	85.00*	2.190E+00	3.975E-01	3.975E-01	16.59
	860.56	98	12.50	1.576E+00	5.962E-01	5.962E-01	57.56
BI-211	72.87	------	1.23	3.001E+00	------ Line Not Found		------
	351.06	1117	12.92*	3.141E+00	3.308E+00	3.308E+00	13.80
PB-212	74.82	519	10.28	3.257E+00	1.863E+00	1.863E+00	30.07
	77.11	893	17.10	3.496E+00	1.794E+00	1.794E+00	18.63
	238.63	2036	43.60*	4.114E+00	1.364E+00	1.364E+00	13.36
	300.09	155	3.30	3.503E+00	1.613E+00	1.612E+00	51.26
BI-214	609.32	952	45.49*	2.117E+00	1.188E+00	1.188E+00	13.52
	1120.29	229	14.92	1.227E+00	1.503E+00	1.503E+00	25.65
	1764.49	158	15.30	8.554E-01	1.451E+00	1.451E+00	23.56
PB-214	74.82	519	5.80	3.257E+00	3.303E+00	3.303E+00	29.54
	77.11	893	9.70	3.496E+00	3.163E+00	3.163E+00	20.38
	242.00	477	7.25	4.079E+00	1.938E+00	1.938E+00	29.10
	295.22	751	18.42	3.546E+00	1.381E+00	1.381E+00	18.91
	351.93	1117	35.60*	3.141E+00	1.201E+00	1.201E+00	14.86
RA-224	240.99	477	4.10*	4.079E+00	3.427E+00	3.427E+00	28.52
RA-226	609.32	952	45.49*	2.117E+00	1.188E+00	1.188E+00	13.52
	1120.29	229	14.92	1.227E+00	1.503E+00	1.503E+00	25.65
	1764.49	158	15.30	8.554E-01	1.451E+00	1.451E+00	23.56
AC-228	338.32	411	11.27	3.227E+00	1.358E+00	1.358E+00	47.25
	911.20	410	25.80*	1.494E+00	1.277E+00	1.277E+00	21.71
	968.97	284	15.80	1.409E+00	1.533E+00	1.533E+00	30.67
RA-228	338.32	411	11.27	3.227E+00	1.358E+00	1.358E+00	47.25
	911.20	410	25.80*	1.494E+00	1.277E+00	1.277E+00	21.71
	968.97	284	15.80	1.409E+00	1.533E+00	1.533E+00	30.67

Sample ID : G249244001 Acquisition date : 23-MAR-2010 22:40:15

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	519	10.28	3.257E+00	1.863E+00	1.863E+00	28.48
	77.11	893	17.10	3.496E+00	1.794E+00	1.794E+00	18.63
	238.63	2036	43.60*	4.114E+00	1.364E+00	1.364E+00	13.36
	300.09	155	3.30	3.503E+00	1.613E+00	1.612E+00	79.15
TH-230	609.32	952	45.49*	2.117E+00	1.188E+00	1.188E+00	12.45
	1120.29	229	14.92	1.227E+00	1.503E+00	1.503E+00	24.76
	1764.49	158	15.30	8.554E-01	1.451E+00	1.451E+00	23.56
TH-232	338.32	411	11.27	3.227E+00	1.358E+00	1.358E+00	23.81
	911.20	410	25.80*	1.494E+00	1.277E+00	1.277E+00	21.71
	968.97	284	15.80	1.409E+00	1.533E+00	1.533E+00	30.67
U-235	89.96	259	3.47	4.638E+00	1.936E+00	1.936E+00	45.94
	93.35	449	5.60	4.835E+00	1.992E+00	1.992E+00	36.94
	143.76	------	10.96*	5.506E+00	------	Line Not Found	------
	163.33	------	5.08	5.224E+00	------	Line Not Found	------
	185.72	263	57.20	4.857E+00	1.136E-01	1.136E-01	46.69
	205.31	------	5.01	4.560E+00	------	Line Not Found	------
NP-237	86.48	448	12.40*	4.453E+00	9.750E-01	9.750E-01	34.43
	95.86	------	2.68	5.004E+00	------	Line Not Found	------
ANH-511	511.00	250	100.00*	2.419E+00	1.241E-01	1.241E-01	49.64

Flag: "*" = Keyline

Sample ID : G249244001 Acquisition date : 23-MAR-2010 22:40:15

Total number of lines in spectrum 32
Number of unidentified lines 3
Number of lines tentatively identified by NID 29 90.63%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	2.416E+01	2.416E+01	0.265E+01	10.95	
CD-109	461.40D	1.02	3.268E+00	3.335E+00	0.911E+00	27.32	
SN-126	2.30E+05Y	1.00	3.268E-01	3.268E-01	0.893E-01	27.32	
TL-208	1.41E+10Y	1.00	3.975E-01	3.975E-01	0.660E-01	16.59	
BI-211	7.04E+08Y	1.00	3.308E+00	3.308E+00	0.456E+00	13.80	
PB-212	1.41E+10Y	1.00	1.364E+00	1.364E+00	0.182E+00	13.36	
BI-214	1600.00Y	1.00	1.188E+00	1.188E+00	0.161E+00	13.52	
PB-214	1600.00Y	1.00	1.201E+00	1.201E+00	0.178E+00	14.86	
RA-224	1.41E+10Y	1.00	3.427E+00	3.427E+00	0.977E+00	28.52	
RA-226	1600.00Y	1.00	1.188E+00	1.188E+00	0.161E+00	13.52	
AC-228	1.41E+10Y	1.00	1.277E+00	1.277E+00	0.277E+00	21.71	
RA-228	1.41E+10Y	1.00	1.277E+00	1.277E+00	0.277E+00	21.71	
TH-228	1.41E+10Y	1.00	1.364E+00	1.364E+00	0.182E+00	13.36	
TH-230	7.54E+04Y	1.00	1.188E+00	1.188E+00	0.148E+00	12.45	
TH-232	1.41E+10Y	1.00	1.277E+00	1.277E+00	0.277E+00	21.71	
U-235	7.04E+08Y	1.00	1.136E-01	1.136E-01	0.531E-01	46.69	K
NP-237	2.14E+06Y	1.00	9.750E-01	9.750E-01	3.357E-01	34.43	
ANH-511	1.00E+09Y	1.00	1.241E-01	1.241E-01	0.616E-01	49.64	
		Total Activity :	4.742E+01	4.749E+01			

Grand Total Activity : 4.742E+01 4.749E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249244001 Acquisition date : 23-MAR-2010 22:40:15

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.27	119	648	1.27	257.45	254	8	8.28E-03	76.0	5.63E+00	
0	209.44	217	580	0.92	417.79	413	10	1.51E-02	43.7	4.50E+00	T
0	270.54	202	533	1.18	539.98	534	13	1.40E-02	49.3	3.77E+00	T
0	328.12	118	385	1.82	655.14	649	11	8.17E-03	67.3	3.30E+00	T
0	409.93	120	330	1.36	818.76	811	15	8.36E-03	68.3	2.83E+00	T
0	463.19	143	194	1.44	925.27	921	10	9.95E-03	40.1	2.60E+00	T
0	727.68	95	176	1.66	1454.29	1445	14	6.58E-03	65.2	1.83E+00	T
0	767.65	123	208	2.15	1534.24	1526	18	8.58E-03	57.5	1.75E+00	T
0	794.08	73	137	1.79	1587.12	1581	13	5.10E-03	69.6	1.70E+00	
0	1238.14	139	124	2.42	2475.41	2467	16	9.67E-03	39.6	1.12E+00	T
0	1729.26	42	12	1.65	3457.98	3452	12	2.92E-03	45.2	8.64E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 02:40:44.81

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244001.CNF;1 *
* Acquisition date  : 23-MAR-2010 22:40:15  Detector SN#     :             *
* Detector ID       : GAM15                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 04:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 04:00:02.57          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 10-MAR-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G249244001            Analyst initials: MXR1         *
* Batch Number      : 964804                Sample Quantity : 1.56210E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.416E+01	2.646E+00	3.547E-01	3.485E-02	68.114
CD-109	3.335E+00	9.109E-01	9.495E-01	1.179E-01	3.512
SN-126	3.268E-01	8.925E-02	9.375E-02	1.160E-02	3.485
TL-208	3.975E-01	6.596E-02	4.243E-02	3.880E-03	9.369
BI-211	3.308E+00	4.565E-01	2.631E-01	2.620E-02	12.575
PB-212	1.364E+00	1.823E-01	7.088E-02	8.469E-03	19.243
BI-214	1.188E+00	1.606E-01	8.030E-02	8.001E-03	14.788
PB-214	1.201E+00	1.784E-01	9.281E-02	1.055E-02	12.936
RA-224	3.427E+00	9.773E-01	7.595E-01	8.377E-02	4.512
RA-226	1.188E+00	1.606E-01	8.030E-02	8.001E-03	14.788
AC-228	1.277E+00	2.772E-01	1.635E-01	1.981E-02	7.808
RA-228	1.277E+00	2.772E-01	1.635E-01	1.981E-02	7.808
TH-228	1.364E+00	1.823E-01	7.088E-02	8.469E-03	19.243
TH-230	1.188E+00	1.479E-01	8.030E-02	6.786E-03	14.788
TH-232	1.277E+00	2.772E-01	1.635E-01	1.981E-02	7.808
U-235	1.136E-01	5.306E-02	2.523E-01	4.490E-02	0.450
NP-237	9.750E-01	3.357E-01	2.851E-01	6.925E-02	3.420
ANH-511	1.241E-01	6.162E-02	3.450E-02	2.981E-03	3.599

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-4.139E-02		2.240E-01	3.619E-01	3.363E-02	-0.114
NA-22	-1.506E-02		3.105E-02	4.821E-02	4.379E-03	-0.312
NA-24	-3.210E-02		3.864E-02	Half-Life too short		
SC-46	-1.131E-02		2.555E-02	4.089E-02	3.800E-03	-0.277
V-48	-1.848E-02		4.699E-02	7.506E-02	6.862E-03	-0.246
CR-51	6.410E-02		2.676E-01	4.366E-01	4.634E-02	0.147
MN-54	-8.849E-03		2.540E-02	4.122E-02	3.741E-03	-0.215
CO-56	-5.367E-03		2.704E-02	4.424E-02	4.037E-03	-0.121
CO-57	-5.567E-03		1.993E-02	3.112E-02	3.135E-03	-0.179
CO-58	-4.100E-02		2.667E-02	3.954E-02	3.555E-03	-1.037
FE-59	-9.081E-02		6.595E-02	9.636E-02	8.990E-03	-0.942
CO-60	1.083E-02		2.762E-02	4.603E-02	4.425E-03	0.235
ZN-65	3.062E-02		6.958E-02	1.013E-01	8.657E-03	0.302
SE-75	-5.317E-04		3.642E-02	5.295E-02	5.807E-03	-0.010
SR-85	9.157E-02		3.070E-02	5.413E-02	4.677E-03	1.692
Y-88	6.887E-03		2.247E-02	3.840E-02	3.234E-03	0.179
Y-91	-9.360E-01		1.484E+01	2.397E+01	2.021E+00	-0.039
NB-94	-8.429E-03		2.372E-02	3.896E-02	3.289E-03	-0.216
NB-95	4.860E-02		3.467E-02	5.436E-02	4.763E-03	0.894
NB-95M	3.326E-01		1.171E-01	1.782E-01	2.147E-02	1.866
ZR-95	9.504E-03		4.834E-02	8.143E-02	7.826E-03	0.117
MO-99	-8.530E-01		5.578E+00	9.224E+00	1.454E+00	-0.092
TC-99M	-4.456E+08		1.785E+08	Half-Life too short		
RU-103	-1.286E-02		2.787E-02	4.419E-02	6.177E-03	-0.291
RH-106	-2.201E-01		2.318E-01	3.494E-01	4.583E-02	-0.630
RU-106	-2.201E-01		2.307E-01	3.494E-01	2.936E-02	-0.630
AG-108M	-2.215E-02		2.164E-02	3.359E-02	2.968E-03	-0.659
AG-110M	-2.346E-02		2.381E-02	3.774E-02	3.212E-03	-0.621
SN-113	-2.017E-02		3.206E-02	5.124E-02	4.450E-03	-0.394
CD-115	-3.710E+00		4.957E+00	7.700E+00	6.646E-01	-0.482
SN-117M	-1.444E-02		3.911E-02	6.229E-02	6.531E-03	-0.232
TE-123M	-2.170E-03		2.180E-02	3.503E-02	3.691E-03	-0.062
SB-124	-5.451E-03		4.841E-02	7.859E-02	7.402E-03	-0.069
SB-125	3.882E-02		6.591E-02	1.108E-01	9.641E-03	0.351
TE-125M	-4.785E+00		7.267E+00	1.160E+01	1.377E+00	-0.413
I-126	4.683E-03		1.428E-01	2.399E-01	1.979E-02	0.020
SB-126	3.354E-02		1.043E-01	1.540E-01	1.314E-02	0.218
SB-127	-4.574E-01		6.564E-01	1.054E+00	1.127E-01	-0.434
I-131	-4.602E-03		7.192E-02	1.184E-01	1.142E-02	-0.039
TE-132	1.981E-01		3.940E-01	6.696E-01	1.136E-01	0.296
BA-133	3.320E-03		3.608E-02	5.197E-02	7.023E-03	0.064
I-133	1.737E-04		5.749E-04	Half-Life too short		
CS-134	8.055E-02		3.780E-02	6.189E-02	5.547E-03	1.302
CS-135	2.587E-01		1.341E-01	2.067E-01	2.481E-02	1.251
I-135	2.218E+07		3.991E+07	Half-Life too short		
CS-136	-1.452E-02		6.825E-02	1.100E-01	1.017E-02	-0.132
BA-137M	7.661E-03		2.508E-02	4.271E-02	3.511E-03	0.179
CS-137	8.093E-03		2.650E-02	4.512E-02	3.717E-03	0.179

Sample ID : G249244001 Acquisition date : 23-MAR-2010 22:40:15

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-139	-1.446E-02		2.420E-02	3.600E-02	3.843E-03	-0.402
BA-140	-7.652E-02		1.701E-01	2.655E-01	9.005E-02	-0.288
LA-140	-3.582E-02		5.748E-02	8.965E-02	8.405E-03	-0.400
CE-141	5.166E-02		4.684E-02	7.750E-02	8.010E-03	0.667
CE-143	3.564E-04		4.936E-05	Half-Life too short		
CE-144	-1.076E-01		1.833E-01	2.431E-01	3.923E-02	-0.443
PM-144	2.195E-02		2.526E-02	4.390E-02	3.693E-03	0.500
PR-144	1.437E+00		1.895E+00	3.279E+00	2.758E-01	0.438
PM-146	5.540E-03		3.078E-02	5.072E-02	5.363E-03	0.109
ND-147	9.649E-03		3.534E-01	5.740E-01	8.583E-02	0.017
PM-149	-1.068E+01		4.046E+01	6.679E+01	1.123E+01	-0.160
EU-152	-4.436E-02		9.173E-02	1.204E-01	1.225E-02	-0.368
GD-153	2.476E-02		6.880E-02	9.993E-02	1.103E-02	0.248
EU-154	-5.394E-03		8.503E-02	1.367E-01	1.603E-02	-0.039
EU-155	6.461E-02		8.103E-02	1.346E-01	1.418E-02	0.480
TB-160	-9.637E-02		9.478E-02	1.453E-01	1.345E-02	-0.663
HO-166M	1.054E-02		4.270E-02	7.229E-02	6.138E-03	0.146
TA-182	1.357E-01		1.385E-01	2.376E-01	2.040E-02	0.571
IR-192	-6.397E-03		2.505E-02	4.119E-02	4.247E-03	-0.155
HG-203	3.146E-02		2.867E-02	4.918E-02	5.404E-03	0.640
BI-207	2.534E-02		3.709E-02	6.330E-02	5.585E-03	0.400
PB-210	4.804E+00		7.349E+00	1.202E+01	1.480E+00	0.400
PB-211	-2.823E-01		5.968E-01	8.005E-01	3.872E-01	-0.353
BI-212	9.328E-01	+	6.196E-01	7.367E-01	9.154E-02	1.266
RN-219	7.274E-03		3.248E-01	4.851E-01	7.169E-02	0.015
RA-223	2.929E-01		5.441E-01	8.022E-01	1.456E-01	0.365
AC-227	1.076E-01		1.887E-01	3.208E-01	4.439E-02	0.336
TH-227	1.076E-01		1.888E-01	3.208E-01	4.879E-02	0.336
TH-229	1.993E-01		4.073E-01	6.606E-01	7.188E-02	0.302
PA-231	-2.387E-01		1.067E+00	1.765E+00	2.814E-01	-0.135
TH-231	2.929E-01		5.441E-01	8.022E-01	1.456E-01	0.365
PA-233	-6.503E-03		4.730E-02	7.820E-02	8.273E-03	-0.083
PA-234	2.028E-02		2.131E-01	3.528E-01	6.723E-02	0.057
PA-234M	9.884E-01		3.328E+00	5.339E+00	5.537E-01	0.185
TH-234	2.747E-01		1.459E+00	2.369E+00	4.698E-01	0.116
U-238	2.747E-01		1.459E+00	2.369E+00	4.698E-01	0.116
NP-239	1.071E-01		3.040E-01	4.991E-01	5.038E-02	0.215
AM-241	-2.522E-01		1.810E-01	2.843E-01	3.337E-02	-0.887
CM-247	-1.497E-02		3.144E-02	4.337E-02	3.668E-03	-0.345
CF-249	3.577E-02		2.918E-02	5.022E-02	4.281E-03	0.712
CF-251	6.728E-02		1.002E-01	1.637E-01	1.761E-02	0.411

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249244001            *
* Acquisition date : 23-MAR-2010 22:40:15 Detector SN#    :                 *
* Detector ID      : GAM15                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:02.57     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 10-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249244001           Analyst initials: MXR1            *
* Batch Number     : 964804               Sample Quantity : 1.5621E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.416E+01	2.593E+00	1.790E-01	1.323E+00
CD-109	3.335E+00	8.926E-01	5.163E-01	4.554E-01
SN-126	3.268E-01	8.747E-02	5.099E-02	4.463E-02
TL-208	3.975E-01	6.464E-02	2.197E-02	3.298E-02
BI-211	3.308E+00	4.474E-01	1.381E-01	2.282E-01
PB-212	1.364E+00	1.786E-01	3.758E-02	9.113E-02
BI-214	1.188E+00	1.574E-01	4.153E-02	8.030E-02
PB-214	1.201E+00	1.748E-01	4.871E-02	8.921E-02
RA-224	3.427E+00	9.578E-01	4.026E-01	4.887E-01
RA-226	1.188E+00	1.574E-01	4.153E-02	8.030E-02
AC-228	1.277E+00	2.716E-01	8.364E-02	1.386E-01
RA-228	1.277E+00	2.716E-01	8.364E-02	1.386E-01
TH-228	1.364E+00	1.786E-01	3.758E-02	9.113E-02
TH-230	1.188E+00	1.449E-01	4.153E-02	7.393E-02
TH-232	1.277E+00	2.716E-01	8.364E-02	1.386E-01
U-235	-2.262E-02	1.603E-01	1.355E-01	8.179E-02
NP-237	9.750E-01	3.290E-01	1.551E-01	1.679E-01
ANH-511	1.241E-01	6.039E-02	1.793E-02	3.081E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-4.139E-02	2.196E-01	1.884E-01	1.120E-01	NOT IDENT.
NA-22	-1.506E-02	3.043E-02	2.443E-02	1.552E-02	NOT IDENT.
NA-24	-3.210E+04	7.574E+04	0.000E+00	3.864E+04	SHORT HLIF
SC-46	-1.131E-02	2.504E-02	2.093E-02	1.278E-02	FAIL ABUN
V-48	-1.848E-02	4.605E-02	3.831E-02	2.349E-02	NOT IDENT.
CR-51	6.410E-02	2.622E-01	2.297E-01	1.338E-01	NOT IDENT.
MN-54	-8.849E-03	2.489E-02	2.113E-02	1.270E-02	NOT IDENT.
CO-56	-5.367E-03	2.650E-02	2.267E-02	1.352E-02	FAIL ABUN
CO-57	-5.567E-03	1.953E-02	1.679E-02	9.964E-03	NOT IDENT.

CO-58	-4.100E-02	2.614E-02	2.029E-02	1.334E-02	NOT IDENT.
FE-59	-9.081E-02	6.463E-02	4.902E-02	3.298E-02	NOT IDENT.
CO-60	1.083E-02	2.707E-02	2.329E-02	1.381E-02	NOT IDENT.
ZN-65	3.062E-02	6.819E-02	5.153E-02	3.479E-02	NOT IDENT.
SE-75	-5.317E-04	3.569E-02	2.800E-02	1.821E-02	NOT IDENT.
SR-85	9.157E-02	3.008E-02	2.813E-02	1.535E-02	NOT IDENT.
Y-88	6.887E-03	2.202E-02	1.925E-02	1.123E-02	NOT IDENT.
Y-91	-9.360E-01	1.455E+01	1.216E+01	7.422E+00	NOT IDENT.
NB-94	-8.429E-03	2.325E-02	2.007E-02	1.186E-02	NOT IDENT.
NB-95	4.860E-02	3.398E-02	2.794E-02	1.734E-02	NOT IDENT.
NB-95M	3.326E-01	1.147E-01	9.453E-02	5.853E-02	NOT IDENT.
ZR-95	9.504E-03	4.737E-02	4.186E-02	2.417E-02	NOT IDENT.
MO-99	-8.530E-01	5.467E+00	4.745E+00	2.789E+00	NOT IDENT.
TC-99M	-4.456E+14	3.498E+14	0.000E+00	1.785E+14	SHORT HLIF
RU-103	-1.286E-02	2.732E-02	2.298E-02	1.394E-02	FAIL ABUN
RH-106	-2.201E-01	2.272E-01	1.806E-01	1.159E-01	NOT IDENT.
RU-106	-2.201E-01	2.261E-01	1.806E-01	1.154E-01	NOT IDENT.
AG-108M	-2.215E-02	2.121E-02	1.753E-02	1.082E-02	NOT IDENT.
AG-110M	-2.346E-02	2.333E-02	1.948E-02	1.190E-02	NOT IDENT.
SN-113	-2.017E-02	3.142E-02	2.682E-02	1.603E-02	NOT IDENT.
CD-115	-3.710E+00	4.858E+00	3.998E+00	2.479E+00	NOT IDENT.
SN-117M	-1.444E-02	3.833E-02	3.338E-02	1.955E-02	NOT IDENT.
TE-123M	-2.170E-03	2.137E-02	1.877E-02	1.090E-02	NOT IDENT.
SB-124	-5.451E-03	4.744E-02	3.950E-02	2.421E-02	NOT IDENT.
SB-125	3.882E-02	6.460E-02	5.783E-02	3.296E-02	FAIL ABUN
TE-125M	-4.785E+00	7.122E+00	6.273E+00	3.634E+00	NOT IDENT.
I-126	4.683E-03	1.399E-01	1.238E-01	7.140E-02	NOT IDENT.
SB-126	3.354E-02	1.022E-01	7.926E-02	5.214E-02	NOT IDENT.
SB-127	-4.574E-01	6.433E-01	5.432E-01	3.282E-01	NOT IDENT.
I-131	-4.602E-03	7.048E-02	6.209E-02	3.596E-02	NOT IDENT.
TE-132	1.981E-01	3.862E-01	3.554E-01	1.970E-01	NOT IDENT.
BA-133	3.320E-03	3.536E-02	2.727E-02	1.804E-02	NOT IDENT.
I-133	1.737E+02	1.127E+03	0.000E+00	5.749E+02	SHORT HLIF
CS-134	8.055E-02	3.705E-02	3.177E-02	1.890E-02	NOT IDENT.
CS-135	2.587E-01	1.315E-01	1.093E-01	6.707E-02	NOT IDENT.
I-135	2.218E+13	7.822E+13	0.000E+00	3.991E+13	SHORT HLIF
CS-136	-1.452E-02	6.689E-02	5.602E-02	3.413E-02	NOT IDENT.
BA-137M	7.661E-03	2.458E-02	2.204E-02	1.254E-02	NOT IDENT.
CS-137	8.093E-03	2.597E-02	2.328E-02	1.325E-02	NOT IDENT.
CE-139	-1.446E-02	2.371E-02	1.927E-02	1.210E-02	NOT IDENT.
BA-140	-7.652E-02	1.667E-01	1.378E-01	8.505E-02	NOT IDENT.
LA-140	-3.582E-02	5.633E-02	4.513E-02	2.874E-02	FAIL ABUN
CE-141	5.166E-02	4.591E-02	4.161E-02	2.342E-02	NOT IDENT.
CE-143	3.564E+02	9.674E+01	0.000E+00	4.936E+01	SHORT HLIF
CE-144	-1.076E-01	1.796E-01	1.308E-01	9.164E-02	NOT IDENT.
PM-144	2.195E-02	2.476E-02	2.262E-02	1.263E-02	NOT IDENT.
PR-144	1.437E+00	1.857E+00	1.690E+00	9.476E-01	NOT IDENT.
PM-146	5.540E-03	3.016E-02	2.644E-02	1.539E-02	NOT IDENT.
ND-147	9.649E-03	3.463E-01	2.979E-01	1.767E-01	FAIL ABUN
PM-149	-1.068E+01	3.965E+01	3.524E+01	2.023E+01	NOT IDENT.
EU-152	-4.436E-02	8.989E-02	6.323E-02	4.586E-02	NOT IDENT.
GD-153	2.476E-02	6.743E-02	5.420E-02	3.440E-02	NOT IDENT.
EU-154	-5.394E-03	8.333E-02	6.926E-02	4.252E-02	NOT IDENT.
EU-155	6.461E-02	7.941E-02	7.287E-02	4.051E-02	FAIL ABUN
TB-160	-9.637E-02	9.288E-02	7.440E-02	4.739E-02	FAIL ABUN
HO-166M	1.054E-02	4.185E-02	3.723E-02	2.135E-02	FAIL ABUN
TA-182	1.357E-01	1.357E-01	1.205E-01	6.926E-02	FAIL ABUN
IR-192	-6.397E-03	2.455E-02	2.168E-02	1.253E-02	FAIL ABUN
HG-203	3.146E-02	2.810E-02	2.597E-02	1.434E-02	NOT IDENT.
BI-207	2.534E-02	3.634E-02	3.224E-02	1.854E-02	FAIL ABUN
PB-210	4.804E+00	7.202E+00	6.637E+00	3.675E+00	NOT IDENT.
PB-211	-2.823E-01	5.849E-01	4.186E-01	2.984E-01	NOT IDENT.
BI-212	9.328E-01	6.072E-01	3.792E-01	3.098E-01	FAIL ABUN
RN-219	7.274E-03	3.183E-01	2.537E-01	1.624E-01	FAIL ABUN
RA-223	2.929E-01	5.332E-01	4.220E-01	2.720E-01	FAIL ABUN
AC-227	1.076E-01	1.849E-01	1.698E-01	9.436E-02	FAIL ABUN
TH-227	1.076E-01	1.851E-01	1.698E-01	9.442E-02	FAIL ABUN
TH-229	1.993E-01	3.991E-01	3.522E-01	2.036E-01	FAIL ABUN
PA-231	-2.387E-01	1.045E+00	9.315E-01	5.334E-01	FAIL ABUN
TH-231	2.929E-01	5.332E-01	4.220E-01	2.720E-01	FAIL ABUN
PA-233	-6.503E-03	4.636E-02	4.117E-02	2.365E-02	FAIL ABUN
PA-234	2.028E-02	2.088E-01	1.802E-01	1.065E-01	NOT IDENT.
PA-234M	9.884E-01	3.261E+00	2.724E+00	1.664E+00	FAIL ABUN
TH-234	2.747E-01	1.429E+00	1.299E+00	7.293E-01	FAIL ABUN
U-238	2.747E-01	1.429E+00	1.299E+00	7.293E-01	FAIL ABUN
NP-239	1.071E-01	2.979E-01	2.695E-01	1.520E-01	NOT IDENT.
AM-241	-2.522E-01	1.773E-01	1.561E-01	9.048E-02	NOT IDENT.
CM-247	-1.497E-02	3.081E-02	2.268E-02	1.572E-02	NOT IDENT.

CF-249	3.577E-02	2.860E-02	2.629E-02	1.459E-02	NOT IDENT.
CF-251	6.728E-02	9.819E-02	8.744E-02	5.010E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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```

ENERGY	MDA COUNTS
46.54	522.2300
49.72	571.9454
57.36	0.0000
59.54	730.5612
63.29	723.8907
63.29	723.8907
64.28	732.7575
67.75	821.9138
69.67	766.5416
70.83	791.4540
72.81	761.8965
72.87	761.9567
72.87	761.9567
74.82	832.8230
74.82	832.8230
74.82	832.8230
74.97	832.9894
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77.11	835.3194
77.11	835.3194
79.69	780.4839
79.80	751.2886
80.12	751.5927
80.19	751.6586
80.57	720.0192
81.00	752.4274
81.07	752.4934
81.07	752.4934
83.79	797.2167
83.79	797.2167
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86.55	767.6683
86.79	767.8863
86.94	768.0287
87.57	768.6100
88.03	769.0345
88.47	769.4385
89.96	770.7989
91.11	771.8424
92.59	773.1738
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93.35	773.8539
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94.87	608.7727
94.87	608.7727
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97.43	613.8066
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116.30	669.3510
117.23	667.8950
121.12	673.6176
121.78	668.8215
122.06	678.4294
123.07	652.8971
131.20	665.8033
133.52	728.2075
136.00	692.7414

136.47	684.5497
140.51	757.3578
140.51	0.0000
143.76	706.1401
144.24	669.0318
144.24	669.0318
145.44	672.9482
152.43	650.1230
153.25	631.1866
154.21	654.3385
154.21	654.3385
156.02	723.3559
158.56	683.7811
159.00	671.0391
162.66	675.2396
163.33	684.2993
165.86	665.0228
176.60	576.3016
177.52	592.0891
181.07	673.2377
184.41	602.5068
185.72	625.6522
193.51	575.9091
197.04	615.2893
205.31	627.9065
210.85	532.7889
215.65	598.5468
222.11	574.3980
227.38	539.9905
228.16	538.4470
228.18	538.4542
235.69	558.4903
235.96	558.5871
235.96	558.5871
238.63	518.2661
238.63	518.2661
240.99	519.0455
242.00	519.3800
244.70	466.5515
252.40	454.2979
252.80	458.1107
256.23	422.9063
256.23	422.9063
260.90	410.1537
264.66	391.5044
268.22	373.6523
269.46	387.9480
269.46	387.9480
271.23	397.7112
273.65	538.8449
276.40	378.5779
277.37	385.0507
277.60	399.8659
278.00	402.8062
279.20	404.2640
279.54	393.9991
280.46	433.7238
283.69	395.8777
284.31	381.8776
285.41	384.0019
285.90	389.7738
287.50	379.0275
293.27	0.0000
295.22	363.6707
295.96	317.9474
298.57	318.4095
299.98	318.6548
299.98	318.6548
300.09	318.6753
300.09	318.6753
300.13	318.6835
301.36	317.3096
302.85	335.0363
304.50	332.1583
304.50	332.1583
304.85	332.2220
308.46	340.1990
311.90	345.6161

316.51	342.6276
319.41	344.1161
320.08	330.1314
323.87	330.7894
323.87	330.7894
328.76	384.7573
333.37	309.8281
334.37	343.8932
334.37	343.8932
338.28	349.4312
338.28	349.4312
338.32	349.4399
338.32	349.4399
338.32	349.4399
340.48	359.5396
340.55	359.5508
344.28	364.1204
351.06	366.3300
351.93	344.9851
356.01	316.6275
364.49	274.3443
366.42	256.8836
383.85	281.8367
388.16	245.6100
388.63	243.6721
391.69	285.8474
400.66	247.0181
401.81	268.7288
402.40	281.9073
404.85	263.8509
410.95	229.4064
414.70	226.4337
423.72	239.4562
427.09	249.9247
427.87	231.7898
433.94	263.8562
453.88	231.2914
463.37	199.3213
468.07	200.7319
473.00	186.6938
476.78	209.7055
477.60	214.9393
487.02	184.6315
492.35	204.7699
497.08	214.5196
511.00	223.0065
514.00	223.2613
527.90	206.5226
529.87	0.0000
531.02	180.3933
537.26	185.0403
546.56	0.0000
563.25	171.8526
569.33	191.4810
569.50	181.8660
569.70	188.2977
583.19	199.9409
600.60	197.0634
602.73	191.1934
604.72	173.2734
609.32	191.6204
609.32	191.6204
609.32	191.6204
610.33	162.7551
614.28	195.5654
618.01	166.4398
621.93	196.0664
621.93	196.0664
633.25	166.1906
635.95	149.9207
636.99	144.5007
645.85	156.9963
657.76	184.6017
661.66	173.7960
661.66	173.7960
664.57	0.0000
666.33	180.5001
666.50	180.5121

677.62	140.4806
685.70	160.2939
695.00	171.9056
696.49	175.7032
696.51	179.4218
697.00	189.6770
702.65	185.3479
706.68	192.1066
711.68	161.5751
720.70	150.9141
721.93	0.0000
722.78	157.4316
722.91	157.4385
723.31	157.4590
724.19	170.3571
727.33	162.4729
733.00	132.1318
735.93	146.7610
739.50	146.9165
747.24	134.0350
752.31	125.7266
753.82	139.9665
756.73	140.0869
763.94	133.3329
765.81	154.5539
766.42	150.9193
777.92	144.4019
778.90	136.2154
783.70	143.0786
785.37	144.7074
795.86	116.4968
801.95	182.8037
810.29	148.9516
810.76	154.7372
815.77	95.2798
818.51	130.0259
832.01	124.7037
834.85	146.0816
836.80	0.0000
846.77	131.9935
856.80	126.7868
860.56	104.2288
871.09	115.2632
873.19	95.7789
875.33	0.0000
879.36	132.1545
880.51	120.4425
883.24	91.1306
884.68	99.0068
889.28	112.8662
898.04	122.9553
911.20	127.3177
911.20	127.3177
911.20	127.3177
926.50	114.9286
937.49	147.0365
944.13	128.3701
946.00	116.4811
949.00	117.5655
962.29	130.2274
964.08	126.8571
966.15	120.0586
968.97	170.2006
968.97	170.2006
968.97	170.2006
983.53	119.5593
996.26	129.9999
1001.03	95.8446
1004.73	113.0937
1037.84	111.9336
1038.76	0.0000
1048.07	108.1178
1050.41	109.1987
1050.41	109.1987
1063.66	98.2656
1085.87	105.9589
1099.45	140.3275
1112.07	115.2961

1115.54	102.9565
1120.29	112.9828
1120.29	112.9828
1120.29	112.9828
1120.55	112.9917
1121.30	131.5234
1131.51	0.0000
1173.23	122.6558
1177.93	146.9157
1189.05	130.4281
1204.77	120.2993
1221.41	111.1823
1231.02	103.6703
1235.36	154.7325
1238.28	119.0000
1260.41	0.0000
1271.85	100.5482
1274.44	87.7556
1274.54	99.5315
1291.59	105.2336
1298.22	0.0000
1312.11	79.7813
1332.49	63.8590
1365.19	59.7433
1368.63	0.0000
1384.29	74.0074
1408.01	52.6914
1457.56	0.0000
1460.82	42.7478
1489.16	41.0534
1505.03	80.4199
1596.21	49.5912
1620.50	31.2411
1678.03	0.0000
1690.97	26.6619
1764.49	17.4817
1764.49	17.4817
1764.49	17.4817
1770.23	17.4969
1771.35	14.0000
1791.20	0.0000
1836.06	23.2270

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249244001

Total Uranium Activity	8.0662E-01	ug/g
Total Uranium Counting Unc.	4.2531E+00	ug/g
Total Uranium Tpu	2.1699E-06	ug/g
Total Uranium Mda	3.8642E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 964804                    SAMPLE ID  : G249244001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM15            *
*   SAMPLE DATE   : 10-MAR-2010 12:00:00.00   COUNT TIME :    0 04:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 22:40:15.51    SAMPLE ALQT:  156.210 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 7.872E+00
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.005E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 2.329E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.141E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 23:01:53.61

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244002.CNF;1
Sample date       : 10-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 21:01:20
Sample ID         : G249244002           Sample quantity  : 1.38270E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.21  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 964804               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	1	74.81*	321	347	1.10	149.20	142	19	4.45E-02	11.4	1.71E+00
2	1	77.15	605	312	1.09	153.88	142	19	8.40E-02	6.5	
3	0	87.05*	156	421	1.09	173.65	171	7	2.16E-02	23.4	
4	0	92.83*	177	349	1.50	185.22	182	8	2.46E-02	20.8	
5	0	186.46*	193	350	1.30	372.38	368	12	2.67E-02	21.5	
6	0	209.29	139	203	1.24	418.02	414	9	1.92E-02	20.4	
7	4	238.73*	1026	175	1.20	476.88	469	25	1.42E-01	3.8	1.15E+00
8	4	241.80	288	201	1.65	483.01	469	25	3.99E-02	12.7	
9	0	269.86	94	296	1.91	539.10	532	13	1.30E-02	39.1	
10	1	295.41*	344	150	1.43	590.18	585	21	4.77E-02	8.4	2.81E+00
11	1	300.43	83	145	1.46	600.21	585	21	1.16E-02	28.5	
12	0	328.45	46	101	1.04	656.25	653	7	6.45E-03	39.2	
13	0	338.28*	215	125	1.06	675.89	671	9	2.98E-02	11.9	
14	0	352.03*	539	221	1.31	703.38	698	13	7.49E-02	7.3	
15	0	463.88	70	106	1.46	927.03	920	13	9.65E-03	32.9	
16	0	511.14*	119	106	2.08	1021.52	1014	17	1.65E-02	25.1	
17	0	583.18*	319	67	1.50	1165.57	1157	13	4.43E-02	7.9	
18	0	609.52*	415	96	1.47	1218.25	1212	14	5.77E-02	7.1	
19	0	662.12	83	91	1.68	1323.44	1315	14	1.15E-02	26.8	
20	0	727.47	93	50	1.53	1454.11	1448	13	1.29E-02	18.7	
21	0	787.35	39	60	3.16	1573.88	1567	15	5.39E-03	47.4	
22	0	795.28	43	48	0.62	1589.73	1585	11	6.02E-03	34.2	
23	0	862.50	85	50	5.16	1724.18	1714	22	1.18E-02	24.6	
24	0	911.45*	210	55	1.62	1822.09	1815	16	2.91E-02	10.7	
25	0	970.06*	106	101	1.89	1939.31	1931	18	1.47E-02	26.1	
26	0	1120.99	67	75	1.65	2241.24	2234	16	9.26E-03	32.8	
27	0	1460.85*	886	9	2.17	2921.20	2912	19	1.23E-01	3.5	
28	0	1764.68	72	15	1.46	3529.24	3522	15	1.00E-02	16.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 23:01:55

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 10-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 21:01:20
Sample ID : G249244002 Sample quantity : 138.27 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA6 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.21 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	2.416E+01	2.834E+00	5.064E-01	4.774E-02	47.717
CD-109	+	88.03	*	2.254E+00	1.084E+00	1.332E+00	1.482E-01	1.693
SN-126		64.28		-1.306E-01	5.327E-01	8.630E-01	1.336E-01	-0.151
	+	86.94		9.185E-01	5.770E-01	5.989E-01	2.511E-01	1.534
	+	87.57	*	2.209E-01	1.062E-01	1.385E-01	1.534E-02	1.595
BA-137M	+	661.66	*	1.309E-01	7.099E-02	6.245E-02	5.054E-03	2.095
CS-137	+	661.66	*	1.382E-01	7.500E-02	6.598E-02	5.351E-03	2.095
TL-208		277.37		6.905E-01	4.201E-01	7.359E-01	9.577E-02	0.938
	+	583.19	*	4.792E-01	8.782E-02	5.568E-02	5.084E-03	8.606
		860.56		5.699E-01	3.359E-01	6.149E-01	5.978E-02	0.927
BI-211		72.87		5.042E+00	3.114E+00	5.360E+00	5.152E-01	0.941
	+	351.06	*	3.603E+00	6.227E-01	3.726E-01	3.497E-02	9.671
PB-212	+	74.82		2.051E+00	5.466E-01	5.404E-01	7.445E-02	3.796
	+	77.11		2.199E+00	3.583E-01	3.082E-01	3.065E-02	7.135
	+	238.63	*	1.524E+00	1.954E-01	9.313E-02	9.559E-03	16.368
	+	300.09		1.935E+00	1.125E+00	1.280E+00	1.420E-01	1.511
BI-214	+	609.32	*	1.210E+00	2.100E-01	1.255E-01	1.245E-02	9.641
	+	1120.29		1.029E+00	6.842E-01	5.525E-01	5.968E-02	1.862
	+	1764.49		1.550E+00	5.323E-01	3.122E-01	2.691E-02	4.964
PB-214	+	74.82		3.636E+00	9.469E-01	9.578E-01	1.204E-01	3.796
	+	77.11		3.876E+00	7.079E-01	5.433E-01	7.020E-02	7.135
	+	242.00		2.593E+00	7.174E-01	5.668E-01	6.162E-02	4.576
	+	295.22		1.414E+00	2.873E-01	2.261E-01	2.568E-02	6.254
	+	351.93	*	1.308E+00	2.372E-01	1.253E-01	1.363E-02	10.437
RA-224	+	240.99	*	4.586E+00	1.240E+00	9.986E-01	9.183E-02	4.592
RA-226	+	609.32	*	1.210E+00	2.100E-01	1.255E-01	1.245E-02	9.641
	+	1120.29		1.029E+00	6.842E-01	5.525E-01	5.968E-02	1.862
	+	1764.49		1.550E+00	5.323E-01	3.122E-01	2.691E-02	4.964
AC-228	+	338.32		1.596E+00	7.677E-01	4.275E-01	1.788E-01	3.733
	+	911.20	*	1.539E+00	3.780E-01	2.446E-01	2.953E-02	6.294
	+	968.97		1.347E+00	7.771E-01	5.089E-01	1.249E-01	2.646
RA-228	+	338.32		1.596E+00	7.677E-01	4.275E-01	1.788E-01	3.733
	+	911.20	*	1.539E+00	3.780E-01	2.446E-01	2.953E-02	6.294
	+	968.97		1.347E+00	7.771E-01	5.089E-01	1.249E-01	2.646

Sample ID : G249244002 Acquisition date : 23-MAR-2010 21:01:20

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	74.82		2.051E+00	5.094E-01	5.404E-01	5.309E-02	3.796
	+	77.11		2.199E+00	3.583E-01	3.082E-01	3.065E-02	7.135
	+	238.63	*	1.524E+00	1.954E-01	9.313E-02	9.559E-03	16.368
	+	300.09		1.935E+00	1.621E+00	1.280E+00	7.850E-01	1.511
TH-230	+	609.32	*	1.210E+00	2.000E-01	1.255E-01	1.054E-02	9.641
	+	1120.29		1.029E+00	6.807E-01	5.525E-01	4.680E-02	1.862
	+	1764.49		1.550E+00	5.323E-01	3.122E-01	2.691E-02	4.964
TH-232	+	338.32		1.596E+00	4.061E-01	4.275E-01	3.881E-02	3.733
	+	911.20	*	1.539E+00	3.780E-01	2.446E-01	2.953E-02	6.294
	+	968.97		1.347E+00	7.771E-01	5.089E-01	1.249E-01	2.646
NP-237	+	86.48	*	6.593E-01	3.457E-01	4.090E-01	9.672E-02	1.612
		95.86		-5.143E-01	9.653E-01	1.346E+00	3.302E-01	-0.382
ANH-511	+	511.00	*	1.365E-01	6.942E-02	4.770E-02	4.139E-03	2.862

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.914E-01	3.287E-01	5.751E-01	5.371E-02	0.333
NA-22		1274.54	*	-3.278E-03	4.759E-02	7.735E-02	6.796E-03	-0.042
NA-24		1368.63	*	7.415E-02	4.759E-02	Half-Life too short		
SC-46		889.28	*	5.694E-03	4.135E-02	6.759E-02	6.246E-03	0.084
	+	1120.55		1.716E-01	1.135E-01	1.336E-01	1.131E-02	1.284
V-48		944.13		-9.710E-01	9.491E-01	1.437E+00	1.322E-01	-0.676
		983.53	*	-3.194E-02	6.357E-02	1.003E-01	9.130E-03	-0.318
		1312.11		-1.956E-02	7.398E-02	1.165E-01	1.050E-02	-0.168
CR-51		320.08	*	-1.913E-01	3.653E-01	5.780E-01	5.564E-02	-0.331
MN-54		834.85	*	-1.989E-02	4.329E-02	6.712E-02	6.049E-03	-0.296
CO-56		846.77	*	7.856E-03	3.879E-02	6.411E-02	5.811E-03	0.123
		1037.84		-1.082E-01	2.917E-01	4.652E-01	4.345E-02	-0.233
		1238.28		2.314E-01	1.073E-01	2.015E-01	1.772E-02	1.148
		1771.35		2.216E-02	2.118E-01	3.112E-01	2.675E-02	0.071
CO-57		122.06	*	8.156E-03	2.506E-02	4.093E-02	3.446E-03	0.199
		136.47		7.544E-03	2.104E-01	3.371E-01	3.027E-02	0.022
CO-58		810.76	*	-1.259E-02	3.929E-02	6.158E-02	5.493E-03	-0.204
FE-59		1099.45	*	-6.783E-02	8.707E-02	1.311E-01	1.218E-02	-0.518
		1291.59		9.968E-02	1.246E-01	2.223E-01	2.228E-02	0.448
CO-60		1173.23		9.920E-04	4.895E-02	8.090E-02	6.559E-03	0.012
		1332.49	*	-3.732E-04	4.069E-02	6.668E-02	6.099E-03	-0.006
ZN-65		1115.54	*	-1.144E-01	1.281E-01	1.607E-01	1.368E-02	-0.712
SE-75		121.12		6.098E-02	1.304E-01	2.142E-01	2.346E-02	0.285
		136.00		-1.475E-02	4.046E-02	6.358E-02	5.332E-03	-0.232
		264.66	*	-1.322E-02	5.220E-02	7.458E-02	6.960E-03	-0.177
		279.54		-2.330E-02	1.185E-01	1.938E-01	1.864E-02	-0.120
		400.66		-1.292E-01	2.645E-01	4.111E-01	4.517E-02	-0.314
SR-85		514.00	*	7.984E-02	4.247E-02	7.209E-02	6.254E-03	1.108
Y-88		898.04		7.599E-03	4.325E-02	7.093E-02	6.607E-03	0.107
		1836.06	*	-2.328E-02	3.398E-02	4.699E-02	3.928E-03	-0.495
Y-91		1204.77	*	1.061E+00	2.514E+01	4.153E+01	3.455E+00	0.026

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94		702.65	*	-8.019E-03	3.699E-02	5.962E-02	4.968E-03	-0.135
		871.09		1.642E-02	3.974E-02	5.888E-02	5.398E-03	0.279
NB-95		765.81	*	8.231E-02	4.624E-02	8.508E-02	7.383E-03	0.967
NB-95M		235.69	*	6.328E-02	1.412E-01	2.131E-01	2.208E-02	0.297
ZR-95		724.19		3.016E-03	9.871E-02	1.404E-01	1.291E-02	0.021
		756.73	*	3.928E-03	7.255E-02	1.190E-01	1.134E-02	0.033
MO-99		140.51		-1.607E+00	1.436E+01	2.280E+01	5.390E+00	-0.070
		181.07		2.488E+00	1.256E+01	1.996E+01	3.751E+00	0.125
		366.42		6.299E+01	6.846E+01	1.176E+02	1.034E+01	0.536
		739.50	*	-2.191E+00	7.847E+00	1.245E+01	1.957E+00	-0.176
		777.92		-1.982E+01	2.559E+01	3.847E+01	3.362E+00	-0.515
TC-99M		140.51	*	-3.492E+07	2.559E+01	Half-Life too short		
RU-103		497.08	*	-8.955E-03	3.927E-02	6.312E-02	8.841E-03	-0.142
	+	610.33		1.211E+01	2.614E+00	3.029E+00	4.916E-01	3.997
RH-106		621.93	*	-1.886E-01	3.296E-01	5.180E-01	6.772E-02	-0.364
		1050.41		1.042E+00	2.690E+00	4.645E+00	4.109E-01	0.224
RU-106		621.93	*	-1.886E-01	3.290E-01	5.180E-01	4.319E-02	-0.364
		1050.41		1.042E+00	2.690E+00	4.645E+00	4.109E-01	0.224
AG-108M		433.94	*	-1.524E-02	3.236E-02	5.003E-02	4.445E-03	-0.305
		614.28		2.110E-02	4.155E-02	6.311E-02	5.471E-03	0.334
		722.91		-4.352E-02	4.244E-02	5.087E-02	4.441E-03	-0.855
AG-110M		657.76	*	-6.342E-03	4.107E-02	5.756E-02	4.831E-03	-0.110
		677.62		-2.522E-01	3.043E-01	4.591E-01	3.879E-02	-0.549
		706.68		-1.343E-01	2.264E-01	3.516E-01	3.028E-02	-0.382
		763.94		-1.528E-01	1.825E-01	2.751E-01	2.449E-02	-0.555
		884.68		-2.539E-02	5.225E-02	7.953E-02	7.541E-03	-0.319
		937.49		-3.471E-03	1.200E-01	2.010E-01	1.910E-02	-0.017
		1384.29		-2.054E-01	1.728E-01	2.274E-01	2.139E-02	-0.903
		1505.03		-1.275E-01	3.068E-01	4.611E-01	4.231E-02	-0.276
SN-113		391.69	*	-1.881E-02	4.607E-02	7.223E-02	6.300E-03	-0.260
CD-115		260.90		-2.537E+01	8.167E+01	1.332E+02	1.236E+01	-0.190
		492.35		1.003E+00	2.226E+01	3.759E+01	3.265E+00	0.027
		527.90	*	1.095E+00	6.951E+00	1.124E+01	9.731E-01	0.097
SN-117M		156.02		-8.009E-01	2.084E+00	3.242E+00	2.720E-01	-0.247
		158.56	*	-1.038E-02	5.220E-02	8.199E-02	6.891E-03	-0.127
TE-123M		159.00	*	-3.749E-03	2.930E-02	4.618E-02	3.908E-03	-0.081
SB-124		602.73		-1.681E-02	4.338E-02	6.285E-02	5.302E-03	-0.267
		645.85		-2.725E-01	4.873E-01	7.631E-01	6.653E-02	-0.357
		722.78		-4.544E-01	4.160E-01	4.915E-01	4.251E-02	-0.925
		1690.97	*	2.530E-02	8.298E-02	1.453E-01	1.337E-02	0.174
SB-125		427.87	*	-7.032E-02	9.998E-02	1.518E-01	1.328E-02	-0.463
	+	463.37		7.070E-01	4.702E-01	5.603E-01	5.217E-02	1.262
		600.60		-1.495E-03	1.824E-01	3.026E-01	2.752E-02	-0.005
		635.95		1.004E-01	2.840E-01	4.832E-01	4.343E-02	0.208
TE-125M		109.28	*	-9.547E+00	9.548E+00	1.446E+01	1.556E+00	-0.660
I-126		388.63		1.725E-01	1.641E-01	2.833E-01	2.407E-02	0.609
		666.33	*	2.983E-01	2.145E-01	3.584E-01	2.910E-02	0.832
		753.82		1.145E+00	1.674E+00	2.904E+00	2.502E-01	0.394
SB-126		414.70		-1.794E-02	7.475E-02	1.183E-01	1.011E-02	-0.152

---- Non-Identified Nuclides ----

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		666.50		9.989E-02	7.313E-02	1.219E-01	9.901E-03	0.819
		695.00		9.218E-03	7.678E-02	1.274E-01	1.056E-02	0.072
		697.00		2.786E-01	2.678E-01	4.741E-01	3.936E-02	0.588
		720.70	*	2.665E-03	1.436E-01	2.041E-01	1.722E-02	0.013
		856.80		-3.308E-02	4.970E-01	6.854E-01	6.242E-02	-0.048
SB-127		252.40		3.360E+00	3.419E+00	5.486E+00	2.279E+00	0.612
		473.00		-1.395E+00	1.303E+00	1.870E+00	2.314E-01	-0.746
		685.70	*	6.235E-01	1.041E+00	1.794E+00	1.898E-01	0.348
		783.70		3.273E+00	3.334E+00	5.211E+00	6.260E-01	0.628
I-131		80.19		-3.323E+00	4.089E+00	5.714E+00	5.867E-01	-0.582
		284.31		-6.179E-02	1.328E+00	2.188E+00	2.125E-01	-0.028
		364.49	*	1.567E-02	1.092E-01	1.792E-01	1.660E-02	0.087
		636.99		2.257E-01	1.401E+00	2.348E+00	2.056E-01	0.096
TE-132		49.72		-7.802E+00	1.607E+01	2.629E+01	2.959E+00	-0.297
		111.76		9.967E+00	2.316E+01	3.750E+01	4.016E+00	0.266
		116.30		-1.218E+00	1.926E+01	3.098E+01	3.264E+00	-0.039
		228.16	*	-1.167E-01	5.121E-01	8.466E-01	1.335E-01	-0.138
BA-133		81.00		-1.733E-01	1.069E-01	1.378E-01	2.276E-02	-1.258
		276.40		3.722E-01	4.053E-01	6.747E-01	9.813E-02	0.552
		302.85		9.603E-02	1.586E-01	2.396E-01	3.237E-02	0.401
		356.01	*	-1.875E-02	4.928E-02	6.752E-02	8.878E-03	-0.278
		383.85		-2.552E-01	3.316E-01	5.064E-01	6.274E-02	-0.504
I-133		529.87	*	-2.424E-04	3.316E-01	Half-Life too short		
		875.33		-1.397E-02	3.316E-01	Half-Life too short		
		1298.22		-3.870E-02	3.316E-01	Half-Life too short		
CS-134		563.25		1.389E-01	3.895E-01	6.660E-01	5.771E-02	0.209
		569.33		-6.061E-04	2.126E-01	3.489E-01	3.029E-02	-0.002
		604.72		8.639E-04	3.833E-02	5.535E-02	4.675E-03	0.016
	+	795.86	*	9.529E-02	6.572E-02	9.819E-02	8.729E-03	0.970
		801.95		7.728E-02	4.962E-01	7.300E-01	6.502E-02	0.106
		1365.19		-2.709E-02	1.134E+00	1.839E+00	1.757E-01	-0.015
CS-135		268.22	*	2.872E-01	1.754E-01	3.089E-01	3.262E-02	0.930
I-135		546.56		-1.208E+08	1.754E-01	Half-Life too short		
		836.80		4.924E+07	1.754E-01	Half-Life too short		
		1038.76		-2.794E+07	1.754E-01	Half-Life too short		
		1131.51		-3.270E+07	1.754E-01	Half-Life too short		
		1260.41	*	4.975E+05	1.754E-01	Half-Life too short		
		1457.56		6.945E+09	1.754E-01	Half-Life too short		
		1678.03		-5.634E+07	1.754E-01	Half-Life too short		
		1791.20		-9.313E+07	1.754E-01	Half-Life too short		
CS-136		153.25		4.928E-01	7.981E-01	1.304E+00	1.312E-01	0.378
		176.60		-1.190E-01	4.509E-01	7.558E-01	7.159E-02	-0.157
		273.65		-5.295E-01	5.949E-01	8.068E-01	8.058E-02	-0.656
		340.55		3.751E-01	1.744E-01	2.829E-01	2.650E-02	1.326
		818.51		-3.997E-02	7.251E-02	1.107E-01	9.897E-03	-0.361
		1048.07	*	3.372E-02	1.005E-01	1.730E-01	1.593E-02	0.195
		1235.36		4.575E-01	6.253E-01	1.083E+00	1.267E-01	0.422
CE-139		165.86	*	-4.104E-02	3.171E-02	4.653E-02	3.935E-03	-0.882
BA-140		162.66		7.120E-01	7.800E-01	1.287E+00	1.161E-01	0.553

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		304.85		6.930E-01	1.309E+00	1.955E+00	5.761E-01	0.354
		423.72		-4.977E-01	1.926E+00	3.027E+00	9.954E-01	-0.164
		537.26	*	5.855E-02	2.402E-01	4.081E-01	1.384E-01	0.143
LA-140	+	328.76		3.892E-01	3.070E-01	5.015E-01	4.822E-02	0.776
		487.02		-3.656E-02	1.255E-01	2.067E-01	1.905E-02	-0.177
		815.77		6.053E-02	2.969E-01	4.920E-01	4.872E-02	0.123
		1596.21	*	2.817E-03	8.389E-02	1.408E-01	1.275E-02	0.020
CE-141		145.44	*	-3.356E-02	6.446E-02	9.805E-02	8.335E-03	-0.342
CE-143		57.36		2.398E-04	6.446E-02	Half-Life too short		
		293.27	*	1.929E-04	6.446E-02	Half-Life too short		
		664.57		1.003E-03	6.446E-02	Half-Life too short		
		721.93		-3.482E-04	6.446E-02	Half-Life too short		
CE-144		80.12		-2.111E+00	2.558E+00	3.572E+00	3.652E-01	-0.591
		133.52	*	-9.739E-03	1.987E-01	3.175E-01	4.801E-02	-0.031
PM-144		476.78		6.012E-03	6.740E-02	1.144E-01	1.077E-02	0.053
		618.01		-2.600E-02	3.460E-02	5.191E-02	4.468E-03	-0.501
		696.49	*	2.290E-02	3.802E-02	6.533E-02	5.423E-03	0.350
PR-144		696.51	*	1.712E+00	2.843E+00	4.885E+00	4.054E-01	0.350
		1489.16		3.647E+00	1.468E+01	2.464E+01	2.263E+00	0.148
PM-146		453.88	*	1.664E-02	4.524E-02	7.445E-02	7.904E-03	0.223
		633.25		3.352E-01	1.488E+00	2.498E+00	9.522E-01	0.134
		735.93		4.840E-02	1.494E-01	2.507E-01	7.018E-02	0.193
		747.24		-1.214E-04	9.609E-02	1.569E-01	2.285E-02	-0.001
ND-147		91.11		3.297E-01	3.381E-01	4.145E-01	4.653E-02	0.795
		319.41		-2.245E+00	3.150E+00	4.921E+00	4.531E-01	-0.456
		531.02	*	-1.232E-01	4.677E-01	7.651E-01	1.145E-01	-0.161
PM-149		285.90	*	-3.778E+01	5.595E+01	8.821E+01	1.405E+01	-0.428
EU-152		121.78		7.156E-02	7.180E-02	1.204E-01	1.172E-02	0.594
		244.70		2.659E-02	3.292E-01	5.506E-01	5.075E-02	0.048
		344.28	*	-4.089E-02	1.068E-01	1.700E-01	1.617E-02	-0.241
		778.90		-2.664E-01	2.935E-01	4.190E-01	3.664E-02	-0.636
		964.08		1.442E-01	3.946E-01	6.023E-01	5.513E-02	0.239
		1085.87		1.641E-01	4.336E-01	7.453E-01	6.462E-02	0.220
		1112.07		-2.435E-02	3.695E-01	5.800E-01	4.942E-02	-0.042
		1408.01		2.302E-01	1.636E-01	3.219E-01	2.961E-02	0.715
GD-153		69.67		1.789E-01	1.890E+00	2.805E+00	2.638E-01	0.064
		97.43	*	1.602E-02	8.846E-02	1.298E-01	1.281E-02	0.123
		103.18		1.843E-02	1.093E-01	1.786E-01	1.672E-02	0.103
EU-154		123.07		-1.608E-02	5.191E-02	8.220E-02	9.194E-03	-0.196
		723.31		-1.145E-01	1.901E-01	2.457E-01	2.295E-02	-0.466
		873.19		9.174E-03	3.040E-01	4.785E-01	5.888E-02	0.019
		996.26		-2.313E-01	3.387E-01	5.180E-01	9.163E-02	-0.447
		1004.73		-2.721E-02	2.190E-01	3.612E-01	4.314E-02	-0.075
		1274.44	*	7.069E-03	1.351E-01	2.225E-01	2.559E-02	0.032
EU-155	+	86.55		2.677E-01	1.287E-01	1.840E-01	2.027E-02	1.455
		105.31	*	1.468E-01	1.047E-01	1.786E-01	1.662E-02	0.822
TB-160	+	86.79		6.990E-01	3.360E-01	4.819E-01	5.290E-02	1.451
		197.04		9.098E-02	5.813E-01	9.552E-01	8.420E-02	0.095
		215.65		-1.065E-01	7.617E-01	1.270E+00	1.143E-01	-0.084

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		298.57		1.967E-01	1.198E-01	2.117E-01	1.966E-02	0.929
		879.36	*	6.834E-03	1.410E-01	2.286E-01	2.103E-02	0.030
		962.29		1.490E-02	6.640E-01	9.828E-01	9.001E-02	0.015
		966.15		6.338E-01	3.007E-01	5.127E-01	4.690E-02	1.236
		1177.93		-1.046E-01	3.823E-01	6.130E-01	4.990E-02	-0.171
		1271.85		3.578E-01	7.806E-01	1.340E+00	1.174E-01	0.267
HO-166M		80.57		-3.401E-01	2.879E-01	3.927E-01	4.033E-02	-0.866
		184.41		3.628E-02	4.223E-02	6.625E-02	5.745E-03	0.548
		280.46		-8.127E-02	9.158E-02	1.435E-01	1.336E-02	-0.566
		410.95		2.518E-01	2.869E-01	4.816E-01	4.109E-02	0.523
		711.68	*	-6.201E-03	6.666E-02	1.084E-01	9.092E-03	-0.057
		752.31		3.103E-01	2.704E-01	4.874E-01	4.195E-02	0.637
		810.29		-3.196E-02	6.152E-02	9.429E-02	8.390E-03	-0.339
TA-182		67.75		-1.801E-03	1.129E-01	1.846E-01	1.717E-02	-0.010
		100.11		-2.387E-02	1.693E-01	2.732E-01	2.626E-02	-0.087
		152.43		2.821E-01	3.528E-01	5.814E-01	4.865E-02	0.485
		222.11		2.513E-02	3.622E-01	6.086E-01	5.514E-02	0.041
	+	1121.30		4.772E-01	3.156E-01	3.730E-01	3.157E-02	1.279
		1189.05		1.383E-01	3.528E-01	6.014E-01	4.940E-02	0.230
		1221.41	*	7.659E-02	2.022E-01	3.444E-01	2.903E-02	0.222
		1231.02		-5.895E-01	4.832E-01	6.865E-01	5.830E-02	-0.859
IR-192	+	295.96		1.029E+00	1.982E-01	2.986E-01	2.794E-02	3.446
		308.46		1.782E-03	9.787E-02	1.610E-01	1.497E-02	0.011
		316.51	*	3.661E-03	3.575E-02	5.901E-02	5.453E-03	0.062
		468.07		5.573E-02	7.333E-02	1.110E-01	1.032E-02	0.502
HG-203		70.83		3.378E-01	1.387E+00	2.071E+00	3.424E-01	0.163
		72.87		1.223E+00	7.718E-01	1.300E+00	2.095E-01	0.941
		279.20	*	2.522E-03	4.142E-02	6.868E-02	6.536E-03	0.037
BI-207		72.81		2.690E-01	1.783E-01	3.064E-01	2.943E-02	0.878
	+	74.97		5.912E-01	1.466E-01	2.196E-01	2.145E-02	2.692
		569.70		1.521E-05	3.308E-02	5.429E-02	4.648E-03	0.000
		1063.66	*	1.184E-02	5.640E-02	9.569E-02	8.405E-03	0.124
		1770.23		-4.760E-01	5.883E-01	6.312E-01	5.428E-02	-0.754
PB-210		46.54	*	3.141E-01	4.679E+00	7.765E+00	7.470E-01	0.040
PB-211		404.85	*	-6.729E-03	7.657E-01	1.235E+00	5.973E-01	-0.005
		427.09		-1.300E+00	1.760E+00	2.497E+00	1.155E+00	-0.521
		832.01		3.627E-01	1.095E+00	1.803E+00	9.359E-01	0.201
BI-212	+	727.33	*	2.150E+00	8.456E-01	1.237E+00	1.529E-01	1.737
		785.37		3.056E+00	4.059E+00	6.221E+00	5.460E-01	0.491
		1620.50		9.522E-01	2.482E+00	4.386E+00	3.954E-01	0.217
RN-219	+	271.23		6.163E-01	4.870E-01	4.923E-01	5.336E-02	1.252
		401.81	*	7.702E-02	4.214E-01	6.892E-01	1.020E-01	0.112
RA-223		81.07		-3.878E-01	2.369E-01	3.127E-01	3.228E-02	-1.240
		83.79		1.694E-01	1.355E-01	2.087E-01	2.216E-02	0.811
		94.87		5.513E-01	4.634E-01	7.138E-01	7.242E-02	0.772
		144.24		6.314E-02	7.033E-01	1.103E+00	1.034E-01	0.057
		154.21		-1.579E-01	3.952E-01	6.150E-01	5.673E-02	-0.257
	+	269.46		4.788E-01	3.776E-01	3.881E-01	3.673E-02	1.234
		323.87	*	8.262E-02	7.558E-01	1.095E+00	1.929E-01	0.075

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		6.334E+00	1.698E+00	2.521E+00	3.126E-01	2.513
AC-227		79.69		-4.110E-01	1.246E+00	1.791E+00	3.236E-01	-0.229
		235.96		2.728E-01	1.796E-01	2.842E-01	3.069E-02	0.960
		256.23	*	-1.506E-01	2.494E-01	3.991E-01	4.998E-02	-0.377
	+	299.98		2.128E+00	1.247E+00	1.715E+00	2.259E-01	1.241
		304.50		5.647E-01	1.742E+00	2.582E+00	4.358E-01	0.219
		334.37		9.570E-01	2.050E+00	3.043E+00	4.828E-01	0.314
TH-227		79.80		-5.342E-01	1.643E+00	2.361E+00	5.299E-01	-0.226
		235.96		2.728E-01	1.793E-01	2.842E-01	2.911E-02	0.960
		256.23	*	-1.506E-01	2.496E-01	3.991E-01	5.597E-02	-0.377
	+	299.98		2.128E+00	1.247E+00	1.715E+00	2.259E-01	1.241
		304.50		5.647E-01	1.742E+00	2.582E+00	4.358E-01	0.219
		334.37		9.570E-01	2.050E+00	3.043E+00	4.828E-01	0.314
TH-229		85.43		2.854E-01	2.319E-01	3.558E-01	3.846E-02	0.802
	+	88.47		3.406E-01	1.637E-01	2.313E-01	2.556E-02	1.473
		193.51	*	3.273E-01	5.581E-01	9.229E-01	8.100E-02	0.355
		210.85		1.058E+00	1.025E+00	1.604E+00	1.437E-01	0.660
PA-231		283.69	*	5.292E-01	1.477E+00	2.486E+00	3.730E-01	0.213
	+	301.36		1.367E+00	7.995E-01	1.107E+00	1.398E-01	1.236
TH-231		81.07		-3.878E-01	2.369E-01	3.127E-01	3.228E-02	-1.240
		83.79		1.694E-01	1.355E-01	2.087E-01	2.216E-02	0.811
		94.87		5.513E-01	4.634E-01	7.138E-01	7.242E-02	0.772
		144.24		6.314E-02	7.033E-01	1.103E+00	1.034E-01	0.057
		154.21		-1.579E-01	3.952E-01	6.150E-01	5.673E-02	-0.257
	+	269.46		4.788E-01	3.776E-01	3.881E-01	3.673E-02	1.234
		323.87	*	8.262E-02	7.558E-01	1.095E+00	1.929E-01	0.075
	+	338.28		6.334E+00	1.698E+00	2.521E+00	3.126E-01	2.513
PA-233	+	300.13		9.631E-01	5.691E-01	7.795E-01	1.187E-01	1.236
		311.90	*	5.365E-02	6.732E-02	1.155E-01	1.094E-02	0.465
		340.48		1.803E+00	9.327E-01	1.359E+00	3.293E-01	1.327
PA-234		94.67		2.844E-01	1.743E-01	2.697E-01	3.648E-02	1.054
		98.44		3.677E-02	9.095E-02	1.466E-01	8.209E-02	0.251
		111.00		1.634E-01	1.803E-01	3.015E-01	3.700E-02	0.542
		131.20		-7.783E-02	1.092E-01	1.689E-01	1.408E-02	-0.461
		569.50		-1.243E-02	2.927E-01	4.787E-01	4.099E-02	-0.026
		733.00		-1.771E-01	4.665E-01	6.246E-01	1.383E-01	-0.284
		880.51		1.193E-02	2.854E-01	4.623E-01	4.256E-02	0.026
		883.24		-2.327E-01	3.498E-01	4.626E-01	3.114E-01	-0.503
		926.50		-5.675E-02	1.774E-01	2.728E-01	6.955E-02	-0.208
		946.00	*	1.238E-01	3.356E-01	5.801E-01	1.104E-01	0.213
		949.00		3.334E-01	4.890E-01	8.680E-01	7.977E-02	0.384
PA-234M		766.42		2.357E+01	1.726E+01	2.329E+01	1.182E+01	1.012
		1001.03	*	3.890E-02	4.695E+00	7.886E+00	8.149E-01	0.005
TH-234		63.29	*	9.161E-01	1.427E+00	2.374E+00	4.413E-01	0.386
	+	92.59		2.072E+00	9.839E-01	1.241E+00	2.835E-01	1.670
U-235		89.96		4.934E-01	1.160E+00	1.370E+00	3.488E-01	0.360
	+	93.35		1.565E+00	7.507E-01	9.210E-01	2.191E-01	1.699
		143.76	*	6.713E-02	2.113E-01	3.348E-01	5.627E-02	0.201
		163.33		2.102E-01	4.601E-01	7.428E-01	1.327E-01	0.283

Sample ID : G249244002 Acquisition date : 23-MAR-2010 21:01:20

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	185.72		1.837E-01	8.045E-02	9.149E-02	7.947E-03	2.008
		205.31		4.005E-01	5.617E-01	8.615E-01	1.575E-01	0.465
U-238		63.29	*	9.161E-01	1.427E+00	2.374E+00	4.413E-01	0.386
	+	92.59		2.072E+00	8.892E-01	1.241E+00	1.294E-01	1.670
NP-239		99.53		7.522E-02	1.569E-01	2.601E-01	2.514E-02	0.289
		103.37		1.367E-02	9.974E-02	1.627E-01	1.522E-02	0.084
		106.12		2.341E-02	8.299E-02	1.361E-01	1.246E-02	0.172
		117.23	*	-2.478E-01	3.964E-01	6.191E-01	5.316E-02	-0.400
		228.18		-4.566E-02	2.208E-01	3.656E-01	3.330E-02	-0.125
		277.60		2.652E-01	1.923E-01	3.371E-01	3.139E-02	0.787
AM-241		59.54	*	-4.204E-02	1.715E-01	2.790E-01	2.649E-02	-0.151
CM-247		278.00		1.154E+00	8.151E-01	1.431E+00	1.333E-01	0.807
		287.50		1.576E-01	1.307E+00	2.170E+00	2.021E-01	0.073
		402.40	*	-7.868E-03	3.867E-02	6.147E-02	5.224E-03	-0.128
CF-249		252.80		6.878E-01	9.467E-01	1.632E+00	1.510E-01	0.421
		333.37		1.446E-01	2.602E-01	3.331E-01	3.037E-02	0.434
		388.16	*	5.793E-02	4.340E-02	7.601E-02	6.464E-03	0.762
CF-251		177.52	*	-2.296E-02	1.308E-01	2.200E-01	1.890E-02	-0.104
		227.38		-2.331E-01	3.657E-01	5.922E-01	5.391E-02	-0.394
		285.41		-1.068E+00	2.288E+00	3.673E+00	3.420E-01	-0.291

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244002      *
* Acquisition date : 23-MAR-2010 21:01:20 Detector SN#    :                 *
* Detector ID        : GAM06               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.21      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 10-MAR-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G249244002          Analyst initials: MXR1          *
* Batch Number       : 964804              Sample Quantity : 1.3827E+02 GRAM *
* Recovery           :    1.00000          Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.416E+01	2.777E+00	5.080E-01	0.000E+00
CD-109	2.254E+00	1.062E+00	1.411E+00	0.000E+00
SN-126	2.209E-01	1.041E-01	1.468E-01	0.000E+00
BA-137M	1.309E-01	6.957E-02	6.367E-02	0.000E+00
CS-137	1.382E-01	7.350E-02	6.726E-02	0.000E+00
TL-208	4.792E-01	8.606E-02	5.691E-02	0.000E+00
BI-211	3.603E+00	6.102E-01	3.845E-01	0.000E+00
PB-212	1.524E+00	1.915E-01	9.685E-02	0.000E+00
BI-214	1.210E+00	2.058E-01	1.281E-01	0.000E+00
PB-214	1.308E+00	2.325E-01	1.293E-01	0.000E+00
RA-224	4.586E+00	1.216E+00	1.038E+00	0.000E+00
RA-226	1.210E+00	2.058E-01	1.281E-01	0.000E+00
AC-228	1.539E+00	3.705E-01	2.477E-01	0.000E+00
RA-228	1.539E+00	3.705E-01	2.477E-01	0.000E+00
TH-228	1.524E+00	1.915E-01	9.685E-02	0.000E+00
TH-230	1.210E+00	1.960E-01	1.281E-01	0.000E+00
TH-232	1.539E+00	3.705E-01	2.477E-01	0.000E+00
NP-237	6.593E-01	3.388E-01	4.334E-01	0.000E+00
ANH-511	1.365E-01	6.803E-02	4.887E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.914E-01	3.221E-01	5.900E-01	0.000E+00	NOT IDENT.
NA-22	-3.278E-03	4.664E-02	7.781E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	9.820E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	5.694E-03	4.052E-02	6.849E-02	0.000E+00	FAIL ABUN
V-48	-3.194E-02	6.230E-02	1.015E-01	0.000E+00	NOT IDENT.
CR-51	-1.913E-01	3.580E-01	5.976E-01	0.000E+00	NOT IDENT.
MN-54	-1.989E-02	4.242E-02	6.811E-02	0.000E+00	NOT IDENT.
CO-56	7.856E-03	3.802E-02	6.503E-02	0.000E+00	NOT IDENT.

CO-57	8.156E-03	2.456E-02	4.310E-02	0.000E+00	NOT IDENT.
CO-58	-1.259E-02	3.851E-02	6.252E-02	0.000E+00	NOT IDENT.
FE-59	-6.783E-02	8.532E-02	1.322E-01	0.000E+00	NOT IDENT.
CO-60	-3.732E-04	3.988E-02	6.702E-02	0.000E+00	NOT IDENT.
ZN-65	-1.144E-01	1.256E-01	1.621E-01	0.000E+00	NOT IDENT.
SE-75	-1.322E-02	5.116E-02	7.740E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.162E-02	7.385E-02	0.000E+00	NOT IDENT.
Y-88	-2.328E-02	3.330E-02	4.692E-02	0.000E+00	NOT IDENT.
Y-91	1.061E+00	2.464E+01	4.183E+01	0.000E+00	NOT IDENT.
NB-94	-8.019E-03	3.625E-02	6.070E-02	0.000E+00	NOT IDENT.
NB-95	8.231E-02	4.531E-02	8.648E-02	0.000E+00	NOT IDENT.
NB-95M	6.328E-02	1.384E-01	2.217E-01	0.000E+00	NOT IDENT.
ZR-95	3.928E-03	7.110E-02	1.210E-01	0.000E+00	NOT IDENT.
MO-99	-2.191E+00	7.690E+00	1.267E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.058E+14	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-8.955E-03	3.849E-02	6.471E-02	0.000E+00	FAIL ABUN
RH-106	-1.886E-01	3.230E-01	5.287E-01	0.000E+00	NOT IDENT.
RU-106	-1.886E-01	3.225E-01	5.287E-01	0.000E+00	NOT IDENT.
AG-108M	-1.524E-02	3.171E-02	5.142E-02	0.000E+00	NOT IDENT.
AG-110M	-6.342E-03	4.025E-02	5.869E-02	0.000E+00	NOT IDENT.
SN-113	-1.881E-02	4.515E-02	7.439E-02	0.000E+00	NOT IDENT.
CD-115	1.095E+00	6.812E+00	1.151E+01	0.000E+00	NOT IDENT.
SN-117M	-1.038E-02	5.116E-02	8.592E-02	0.000E+00	NOT IDENT.
TE-123M	-3.749E-03	2.872E-02	4.840E-02	0.000E+00	NOT IDENT.
SB-124	2.530E-02	8.132E-02	1.453E-01	0.000E+00	NOT IDENT.
SB-125	-7.032E-02	9.798E-02	1.561E-01	0.000E+00	FAIL ABUN
TE-125M	-9.547E+00	9.357E+00	1.526E+01	0.000E+00	NOT IDENT.
I-126	2.983E-01	2.102E-01	3.653E-01	0.000E+00	NOT IDENT.
SB-126	2.665E-03	1.408E-01	2.077E-01	0.000E+00	NOT IDENT.
SB-127	6.235E-01	1.020E+00	1.827E+00	0.000E+00	NOT IDENT.
I-131	1.567E-02	1.070E-01	1.848E-01	0.000E+00	NOT IDENT.
TE-132	-1.167E-01	5.018E-01	8.811E-01	0.000E+00	NOT IDENT.
BA-133	-1.875E-02	4.829E-02	6.967E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.390E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	9.529E-02	6.440E-02	9.973E-02	0.000E+00	FAIL ABUN
CS-135	2.872E-01	1.719E-01	3.205E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.083E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.372E-02	9.854E-02	1.747E-01	0.000E+00	NOT IDENT.
CE-139	-4.104E-02	3.108E-02	4.872E-02	0.000E+00	NOT IDENT.
BA-140	5.855E-02	2.353E-01	4.178E-01	0.000E+00	NOT IDENT.
LA-140	2.817E-03	8.221E-02	1.410E-01	0.000E+00	FAIL ABUN
CE-141	-3.356E-02	6.317E-02	1.029E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.961E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-9.739E-03	1.947E-01	3.338E-01	0.000E+00	NOT IDENT.
PM-144	2.290E-02	3.726E-02	6.653E-02	0.000E+00	NOT IDENT.
PR-144	1.712E+00	2.786E+00	4.975E+00	0.000E+00	NOT IDENT.
PM-146	1.664E-02	4.434E-02	7.646E-02	0.000E+00	NOT IDENT.
ND-147	-1.232E-01	4.583E-01	7.834E-01	0.000E+00	NOT IDENT.
PM-149	-3.778E+01	5.483E+01	9.142E+01	0.000E+00	NOT IDENT.
EU-152	-4.089E-02	1.047E-01	1.755E-01	0.000E+00	NOT IDENT.
GD-153	1.602E-02	8.669E-02	1.373E-01	0.000E+00	NOT IDENT.
EU-154	7.069E-03	1.324E-01	2.239E-01	0.000E+00	NOT IDENT.
EU-155	1.468E-01	1.026E-01	1.886E-01	0.000E+00	FAIL ABUN
TB-160	6.834E-03	1.382E-01	2.317E-01	0.000E+00	FAIL ABUN
HO-166M	-6.201E-03	6.533E-02	1.104E-01	0.000E+00	NOT IDENT.
TA-182	7.659E-02	1.981E-01	3.468E-01	0.000E+00	FAIL ABUN
IR-192	3.661E-03	3.504E-02	6.103E-02	0.000E+00	FAIL ABUN
HG-203	2.522E-03	4.059E-02	7.120E-02	0.000E+00	NOT IDENT.
BI-207	1.184E-02	5.527E-02	9.662E-02	0.000E+00	FAIL ABUN
PB-210	3.141E-01	4.585E+00	8.323E+00	0.000E+00	NOT IDENT.
PB-211	-6.729E-03	7.504E-01	1.271E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	8.287E-01	1.259E+00	0.000E+00	FAIL ABUN
RN-219	7.702E-02	4.130E-01	7.096E-01	0.000E+00	FAIL ABUN
RA-223	8.262E-02	7.406E-01	1.132E+00	0.000E+00	FAIL ABUN
AC-227	-1.506E-01	2.444E-01	4.145E-01	0.000E+00	FAIL ABUN
TH-227	-1.506E-01	2.446E-01	4.145E-01	0.000E+00	FAIL ABUN
TH-229	3.273E-01	5.470E-01	9.636E-01	0.000E+00	FAIL ABUN
PA-231	5.292E-01	1.448E+00	2.576E+00	0.000E+00	FAIL ABUN
TH-231	8.262E-02	7.406E-01	1.132E+00	0.000E+00	FAIL ABUN
PA-233	5.365E-02	6.597E-02	1.195E-01	0.000E+00	FAIL ABUN
PA-234	1.238E-01	3.289E-01	5.872E-01	0.000E+00	NOT IDENT.
PA-234M	3.890E-02	4.601E+00	7.973E+00	0.000E+00	NOT IDENT.
TH-234	9.161E-01	1.398E+00	2.531E+00	0.000E+00	FAIL ABUN
U-235	6.713E-02	2.071E-01	3.515E-01	0.000E+00	FAIL ABUN
U-238	9.161E-01	1.398E+00	2.531E+00	0.000E+00	FAIL ABUN
NP-239	-2.478E-01	3.885E-01	6.524E-01	0.000E+00	NOT IDENT.
AM-241	-4.204E-02	1.681E-01	2.977E-01	0.000E+00	NOT IDENT.
CM-247	-7.868E-03	3.789E-02	6.328E-02	0.000E+00	NOT IDENT.

CF-249	5.793E-02	4.253E-02	7.831E-02	0.000E+00	NOT IDENT.
CF-251	-2.296E-02	1.282E-01	2.301E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 23:01:54.50

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244002.CNF;1
Sample date      : 10-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 21:01:20
Sample ID        : G249244002           Sample quantity  : 1.38270E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:01.21  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 964804               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	886	10.66*	9.338E-01	2.416E+01	2.416E+01	11.73
CD-109	88.03	156	3.70*	5.165E+00	2.209E+00	2.254E+00	48.07
SN-126	64.28	------	9.60	2.842E+00	------	Line Not Found	------
	86.94	156	8.90	5.165E+00	9.185E-01	9.185E-01	62.82
	87.57	156	37.00*	5.165E+00	2.209E-01	2.209E-01	48.07
BA-137M	661.66	83	89.90*	1.911E+00	1.307E-01	1.309E-01	54.25
CS-137	661.66	83	85.10*	1.911E+00	1.381E-01	1.382E-01	54.26
TL-208	277.37	------	6.60	3.754E+00	------	Line Not Found	------
	583.19	319	85.00*	2.126E+00	4.792E-01	4.792E-01	18.32
	860.56	------	12.50	1.511E+00	------	Line Not Found	------
BI-211	72.87	------	1.23	3.914E+00	------	Line Not Found	------
	351.06	539	12.92*	3.143E+00	3.603E+00	3.603E+00	17.28
PB-212	74.82	321	10.28	4.127E+00	2.051E+00	2.051E+00	26.64
	77.11	605	17.10	4.366E+00	2.199E+00	2.199E+00	16.29
	238.63	1026	43.60*	4.191E+00	1.524E+00	1.524E+00	12.82
	300.09	83	3.30	3.538E+00	1.935E+00	1.935E+00	58.16
BI-214	609.32	415	45.49*	2.050E+00	1.210E+00	1.210E+00	17.36
	1120.29	67	14.92	1.179E+00	1.029E+00	1.029E+00	66.49
	1764.49	72	15.30	8.244E-01	1.550E+00	1.550E+00	34.35
PB-214	74.82	321	5.80	4.127E+00	3.636E+00	3.636E+00	26.04
	77.11	605	9.70	4.366E+00	3.876E+00	3.876E+00	18.26
	242.00	288	7.25	4.152E+00	2.593E+00	2.593E+00	27.66
	295.22	344	18.42	3.582E+00	1.414E+00	1.414E+00	20.31
	351.93	539	35.60*	3.143E+00	1.308E+00	1.308E+00	18.14
RA-224	240.99	288	4.10*	4.152E+00	4.586E+00	4.586E+00	27.05
RA-226	609.32	415	45.49*	2.050E+00	1.210E+00	1.210E+00	17.36
	1120.29	67	14.92	1.179E+00	1.029E+00	1.029E+00	66.49
	1764.49	72	15.30	8.244E-01	1.550E+00	1.550E+00	34.35
AC-228	338.32	215	11.27	3.238E+00	1.596E+00	1.596E+00	48.10
	911.20	210	25.80*	1.433E+00	1.539E+00	1.539E+00	24.56
	968.97	106	15.80	1.351E+00	1.347E+00	1.347E+00	57.70
RA-228	338.32	215	11.27	3.238E+00	1.596E+00	1.596E+00	48.10

Sample ID : G249244002 Acquisition date : 23-MAR-2010 21:01:20

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	210	25.80*	1.433E+00	1.539E+00	1.539E+00	24.56
	968.97	106	15.80	1.351E+00	1.347E+00	1.347E+00	57.70
TH-228	74.82	321	10.28	4.127E+00	2.051E+00	2.051E+00	24.83
	77.11	605	17.10	4.366E+00	2.199E+00	2.199E+00	16.29
	238.63	1026	43.60*	4.191E+00	1.524E+00	1.524E+00	12.82
	300.09	83	3.30	3.538E+00	1.935E+00	1.935E+00	83.78
TH-230	609.32	415	45.49*	2.050E+00	1.210E+00	1.210E+00	16.54
	1120.29	67	14.92	1.179E+00	1.029E+00	1.029E+00	66.15
	1764.49	72	15.30	8.244E-01	1.550E+00	1.550E+00	34.35
TH-232	338.32	215	11.27	3.238E+00	1.596E+00	1.596E+00	25.44
	911.20	210	25.80*	1.433E+00	1.539E+00	1.539E+00	24.56
	968.97	106	15.80	1.351E+00	1.347E+00	1.347E+00	57.70
NP-237	86.48	156	12.40*	5.165E+00	6.593E-01	6.593E-01	52.44
	95.86	------	2.68	5.611E+00	------ Line Not Found		------
ANH-511	511.00	119	100.00*	2.364E+00	1.365E-01	1.365E-01	50.85

Flag: "*" = Keyline

Sample ID : G249244002 Acquisition date : 23-MAR-2010 21:01:20

Total number of lines in spectrum 28
Number of unidentified lines 3
Number of lines tentatively identified by NID 25 89.29%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	2.416E+01	2.416E+01	0.283E+01	11.73	
CD-109	461.40D	1.02	2.209E+00	2.254E+00	1.084E+00	48.07	
SN-126	2.30E+05Y	1.00	2.209E-01	2.209E-01	1.062E-01	48.07	
BA-137M	30.08Y	1.00	1.307E-01	1.309E-01	0.710E-01	54.25	
CS-137	30.08Y	1.00	1.381E-01	1.382E-01	0.750E-01	54.26	
TL-208	1.41E+10Y	1.00	4.792E-01	4.792E-01	0.878E-01	18.32	
BI-211	7.04E+08Y	1.00	3.603E+00	3.603E+00	0.623E+00	17.28	
PB-212	1.41E+10Y	1.00	1.524E+00	1.524E+00	0.195E+00	12.82	
BI-214	1600.00Y	1.00	1.210E+00	1.210E+00	0.210E+00	17.36	
PB-214	1600.00Y	1.00	1.308E+00	1.308E+00	0.237E+00	18.14	
RA-224	1.41E+10Y	1.00	4.586E+00	4.586E+00	1.240E+00	27.05	
RA-226	1600.00Y	1.00	1.210E+00	1.210E+00	0.210E+00	17.36	
AC-228	1.41E+10Y	1.00	1.539E+00	1.539E+00	0.378E+00	24.56	
RA-228	1.41E+10Y	1.00	1.539E+00	1.539E+00	0.378E+00	24.56	
TH-228	1.41E+10Y	1.00	1.524E+00	1.524E+00	0.195E+00	12.82	
TH-230	7.54E+04Y	1.00	1.210E+00	1.210E+00	0.200E+00	16.54	
TH-232	1.41E+10Y	1.00	1.539E+00	1.539E+00	0.378E+00	24.56	
NP-237	2.14E+06Y	1.00	6.593E-01	6.593E-01	3.457E-01	52.44	
ANH-511	1.00E+09Y	1.00	1.365E-01	1.365E-01	0.694E-01	50.85	
			---	---			
	Total Activity :		4.893E+01	4.897E+01			

Grand Total Activity : 4.893E+01 4.897E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249244002 Acquisition date : 23-MAR-2010 21:01:20

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.83	177	349	1.50	185.22	182	8	2.46E-02	41.6	5.48E+00	T
0	186.46	193	350	1.30	372.38	368	12	2.67E-02	42.9	4.97E+00	T
0	209.29	139	203	1.24	418.02	414	9	1.92E-02	40.8	4.60E+00	
0	269.86	94	296	1.91	539.10	532	13	1.30E-02	78.3	3.83E+00	T
0	328.45	46	101	1.04	656.25	653	7	6.45E-03	78.3	3.31E+00	T
0	463.88	70	106	1.46	927.03	920	13	9.65E-03	65.8	2.55E+00	T
0	727.47	93	50	1.53	1454.11	1448	13	1.29E-02	37.3	1.76E+00	T
0	787.35	39	60	3.16	1573.88	1567	15	5.39E-03	94.7	1.64E+00	
0	795.28	43	48	0.62	1589.73	1585	11	6.02E-03	68.4	1.63E+00	T
0	862.50	85	50	5.16	1724.18	1714	22	1.18E-02	49.2	1.51E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 23:01:57.91

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244002.CNF;1  *
* Acquisition date : 23-MAR-2010 21:01:20  Detector SN#    :                *
* Detector ID      : GAM06                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.21         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 10-MAR-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G249244002            Analyst initials: MXR1           *
* Batch Number     : 964804                Sample Quantity : 1.38270E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04.7MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.416E+01	2.834E+00	5.064E-01	4.774E-02	47.717
CD-109	2.254E+00	1.084E+00	1.332E+00	1.482E-01	1.693
SN-126	2.209E-01	1.062E-01	1.385E-01	1.534E-02	1.595
BA-137M	1.309E-01	7.099E-02	6.245E-02	5.054E-03	2.095
CS-137	1.382E-01	7.500E-02	6.598E-02	5.351E-03	2.095
TL-208	4.792E-01	8.782E-02	5.568E-02	5.084E-03	8.606
BI-211	3.603E+00	6.227E-01	3.726E-01	3.497E-02	9.671
PB-212	1.524E+00	1.954E-01	9.313E-02	9.559E-03	16.368
BI-214	1.210E+00	2.100E-01	1.255E-01	1.245E-02	9.641
PB-214	1.308E+00	2.372E-01	1.253E-01	1.363E-02	10.437
RA-224	4.586E+00	1.240E+00	9.986E-01	9.183E-02	4.592
RA-226	1.210E+00	2.100E-01	1.255E-01	1.245E-02	9.641
AC-228	1.539E+00	3.780E-01	2.446E-01	2.953E-02	6.294
RA-228	1.539E+00	3.780E-01	2.446E-01	2.953E-02	6.294
TH-228	1.524E+00	1.954E-01	9.313E-02	9.559E-03	16.368
TH-230	1.210E+00	2.000E-01	1.255E-01	1.054E-02	9.641
TH-232	1.539E+00	3.780E-01	2.446E-01	2.953E-02	6.294
NP-237	6.593E-01	3.457E-01	4.090E-01	9.672E-02	1.612

Sample ID : G249244002 Acquisition date : 23-MAR-2010 21:01:20

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	1.365E-01	6.942E-02	4.770E-02	4.139E-03	2.862

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.914E-01		3.287E-01	5.751E-01	5.371E-02	0.333
NA-22	-3.278E-03		4.759E-02	7.735E-02	6.796E-03	-0.042
NA-24	7.415E-02		5.010E-02	Half-Life too short		
SC-46	5.694E-03		4.135E-02	6.759E-02	6.246E-03	0.084
V-48	-3.194E-02		6.357E-02	1.003E-01	9.130E-03	-0.318
CR-51	-1.913E-01		3.653E-01	5.780E-01	5.564E-02	-0.331
MN-54	-1.989E-02		4.329E-02	6.712E-02	6.049E-03	-0.296
CO-56	7.856E-03		3.879E-02	6.411E-02	5.811E-03	0.123
CO-57	8.156E-03		2.506E-02	4.093E-02	3.446E-03	0.199
CO-58	-1.259E-02		3.929E-02	6.158E-02	5.493E-03	-0.204
FE-59	-6.783E-02		8.707E-02	1.311E-01	1.218E-02	-0.518
CO-60	-3.732E-04		4.069E-02	6.668E-02	6.099E-03	-0.006
ZN-65	-1.144E-01		1.281E-01	1.607E-01	1.368E-02	-0.712
SE-75	-1.322E-02		5.220E-02	7.458E-02	6.960E-03	-0.177
SR-85	7.984E-02		4.247E-02	7.209E-02	6.254E-03	1.108
Y-88	-2.328E-02		3.398E-02	4.699E-02	3.928E-03	-0.495
Y-91	1.061E+00		2.514E+01	4.153E+01	3.455E+00	0.026
NB-94	-8.019E-03		3.699E-02	5.962E-02	4.968E-03	-0.135
NB-95	8.231E-02		4.624E-02	8.508E-02	7.383E-03	0.967
NB-95M	6.328E-02		1.412E-01	2.131E-01	2.208E-02	0.297
ZR-95	3.928E-03		7.255E-02	1.190E-01	1.134E-02	0.033
MO-99	-2.191E+00		7.847E+00	1.245E+01	1.957E+00	-0.176
TC-99M	-3.492E+07		1.560E+08	Half-Life too short		
RU-103	-8.955E-03		3.927E-02	6.312E-02	8.841E-03	-0.142
RH-106	-1.886E-01		3.296E-01	5.180E-01	6.772E-02	-0.364
RU-106	-1.886E-01		3.290E-01	5.180E-01	4.319E-02	-0.364
AG-108M	-1.524E-02		3.236E-02	5.003E-02	4.445E-03	-0.305
AG-110M	-6.342E-03		4.107E-02	5.756E-02	4.831E-03	-0.110
SN-113	-1.881E-02		4.607E-02	7.223E-02	6.300E-03	-0.260
CD-115	1.095E+00		6.951E+00	1.124E+01	9.731E-01	0.097
SN-117M	-1.038E-02		5.220E-02	8.199E-02	6.891E-03	-0.127
TE-123M	-3.749E-03		2.930E-02	4.618E-02	3.908E-03	-0.081
SB-124	2.530E-02		8.298E-02	1.453E-01	1.337E-02	0.174
SB-125	-7.032E-02		9.998E-02	1.518E-01	1.328E-02	-0.463
TE-125M	-9.547E+00		9.548E+00	1.446E+01	1.556E+00	-0.660
I-126	2.983E-01		2.145E-01	3.584E-01	2.910E-02	0.832
SB-126	2.665E-03		1.436E-01	2.041E-01	1.722E-02	0.013
SB-127	6.235E-01		1.041E+00	1.794E+00	1.898E-01	0.348
I-131	1.567E-02		1.092E-01	1.792E-01	1.660E-02	0.087
TE-132	-1.167E-01		5.121E-01	8.466E-01	1.335E-01	-0.138
BA-133	-1.875E-02		4.928E-02	6.752E-02	8.878E-03	-0.278
I-133	-2.424E-04		7.089E-04	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-134	9.529E-02	+	6.572E-02	9.819E-02	8.729E-03	0.970
CS-135	2.872E-01		1.754E-01	3.089E-01	3.262E-02	0.930
I-135	4.975E+05		4.124E+07	Half-Life too short		
CS-136	3.372E-02		1.005E-01	1.730E-01	1.593E-02	0.195
CE-139	-4.104E-02		3.171E-02	4.653E-02	3.935E-03	-0.882
BA-140	5.855E-02		2.402E-01	4.081E-01	1.384E-01	0.143
LA-140	2.817E-03		8.389E-02	1.408E-01	1.275E-02	0.020
CE-141	-3.356E-02		6.446E-02	9.805E-02	8.335E-03	-0.342
CE-143	1.929E-04		4.062E-05	Half-Life too short		
CE-144	-9.739E-03		1.987E-01	3.175E-01	4.801E-02	-0.031
PM-144	2.290E-02		3.802E-02	6.533E-02	5.423E-03	0.350
PR-144	1.712E+00		2.843E+00	4.885E+00	4.054E-01	0.350
PM-146	1.664E-02		4.524E-02	7.445E-02	7.904E-03	0.223
ND-147	-1.232E-01		4.677E-01	7.651E-01	1.145E-01	-0.161
PM-149	-3.778E+01		5.595E+01	8.821E+01	1.405E+01	-0.428
EU-152	-4.089E-02		1.068E-01	1.700E-01	1.617E-02	-0.241
GD-153	1.602E-02		8.846E-02	1.298E-01	1.281E-02	0.123
EU-154	7.069E-03		1.351E-01	2.225E-01	2.559E-02	0.032
EU-155	1.468E-01		1.047E-01	1.786E-01	1.662E-02	0.822
TB-160	6.834E-03		1.410E-01	2.286E-01	2.103E-02	0.030
HO-166M	-6.201E-03		6.666E-02	1.084E-01	9.092E-03	-0.057
TA-182	7.659E-02		2.022E-01	3.444E-01	2.903E-02	0.222
IR-192	3.661E-03		3.575E-02	5.901E-02	5.453E-03	0.062
HG-203	2.522E-03		4.142E-02	6.868E-02	6.536E-03	0.037
BI-207	1.184E-02		5.640E-02	9.569E-02	8.405E-03	0.124
PB-210	3.141E-01		4.679E+00	7.765E+00	7.470E-01	0.040
PB-211	-6.729E-03		7.657E-01	1.235E+00	5.973E-01	-0.005
BI-212	2.150E+00	+	8.456E-01	1.237E+00	1.529E-01	1.737
RN-219	7.702E-02		4.214E-01	6.892E-01	1.020E-01	0.112
RA-223	8.262E-02		7.558E-01	1.095E+00	1.929E-01	0.075
AC-227	-1.506E-01		2.494E-01	3.991E-01	4.998E-02	-0.377
TH-227	-1.506E-01		2.496E-01	3.991E-01	5.597E-02	-0.377
TH-229	3.273E-01		5.581E-01	9.229E-01	8.100E-02	0.355
PA-231	5.292E-01		1.477E+00	2.486E+00	3.730E-01	0.213
TH-231	8.262E-02		7.558E-01	1.095E+00	1.929E-01	0.075
PA-233	5.365E-02		6.732E-02	1.155E-01	1.094E-02	0.465
PA-234	1.238E-01		3.356E-01	5.801E-01	1.104E-01	0.213
PA-234M	3.890E-02		4.695E+00	7.886E+00	8.149E-01	0.005
TH-234	9.161E-01		1.427E+00	2.374E+00	4.413E-01	0.386
U-235	6.713E-02		2.113E-01	3.348E-01	5.627E-02	0.201
U-238	9.161E-01		1.427E+00	2.374E+00	4.413E-01	0.386
NP-239	-2.478E-01		3.964E-01	6.191E-01	5.316E-02	-0.400
AM-241	-4.204E-02		1.715E-01	2.790E-01	2.649E-02	-0.151
CM-247	-7.868E-03		3.867E-02	6.147E-02	5.224E-03	-0.128
CF-249	5.793E-02		4.340E-02	7.601E-02	6.464E-03	0.762
CF-251	-2.296E-02		1.308E-01	2.200E-01	1.890E-02	-0.104

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249244002            *
* Acquisition date : 23-MAR-2010 21:01:20 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.21     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 10-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249244002           Analyst initials: MXR1            *
* Batch Number     : 964804               Sample Quantity : 1.3827E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.416E+01	2.777E+00	2.542E-01	1.417E+00
CD-109	2.254E+00	1.062E+00	7.058E-01	5.418E-01
SN-126	2.209E-01	1.041E-01	7.343E-02	5.310E-02
BA-137M	1.309E-01	6.957E-02	3.185E-02	3.550E-02
CS-137	1.382E-01	7.350E-02	3.365E-02	3.750E-02
TL-208	4.792E-01	8.606E-02	2.847E-02	4.391E-02
BI-211	3.603E+00	6.102E-01	1.924E-01	3.113E-01
PB-212	1.524E+00	1.915E-01	4.845E-02	9.771E-02
BI-214	1.210E+00	2.058E-01	6.409E-02	1.050E-01
PB-214	1.308E+00	2.325E-01	6.469E-02	1.186E-01
RA-224	4.586E+00	1.216E+00	5.194E-01	6.202E-01
RA-226	1.210E+00	2.058E-01	6.409E-02	1.050E-01
AC-228	1.539E+00	3.705E-01	1.239E-01	1.890E-01
RA-228	1.539E+00	3.705E-01	1.239E-01	1.890E-01
TH-228	1.524E+00	1.915E-01	4.845E-02	9.771E-02
TH-230	1.210E+00	1.960E-01	6.409E-02	1.000E-01
TH-232	1.539E+00	3.705E-01	1.239E-01	1.890E-01
NP-237	6.593E-01	3.388E-01	2.169E-01	1.729E-01
ANH-511	1.365E-01	6.803E-02	2.445E-02	3.471E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.914E-01	3.221E-01	2.952E-01	1.643E-01	NOT IDENT.
NA-22	-3.278E-03	4.664E-02	3.893E-02	2.379E-02	NOT IDENT.
NA-24	7.415E+04	9.820E+04	0.000E+00	5.010E+04	SHORT HLIF
SC-46	5.694E-03	4.052E-02	3.427E-02	2.067E-02	FAIL ABUN
V-48	-3.194E-02	6.230E-02	5.077E-02	3.178E-02	NOT IDENT.
CR-51	-1.913E-01	3.580E-01	2.990E-01	1.827E-01	NOT IDENT.
MN-54	-1.989E-02	4.242E-02	3.407E-02	2.164E-02	NOT IDENT.
CO-56	7.856E-03	3.802E-02	3.254E-02	1.940E-02	NOT IDENT.

CO-57	8.156E-03	2.456E-02	2.156E-02	1.253E-02	NOT IDENT.
CO-58	-1.259E-02	3.851E-02	3.128E-02	1.965E-02	NOT IDENT.
FE-59	-6.783E-02	8.532E-02	6.616E-02	4.353E-02	NOT IDENT.
CO-60	-3.732E-04	3.988E-02	3.353E-02	2.035E-02	NOT IDENT.
ZN-65	-1.144E-01	1.256E-01	8.112E-02	6.406E-02	NOT IDENT.
SE-75	-1.322E-02	5.116E-02	3.872E-02	2.610E-02	NOT IDENT.
SR-85	7.984E-02	4.162E-02	3.695E-02	2.123E-02	NOT IDENT.
Y-88	-2.328E-02	3.330E-02	2.348E-02	1.699E-02	NOT IDENT.
Y-91	1.061E+00	2.464E+01	2.093E+01	1.257E+01	NOT IDENT.
NB-94	-8.019E-03	3.625E-02	3.037E-02	1.850E-02	NOT IDENT.
NB-95	8.231E-02	4.531E-02	4.327E-02	2.312E-02	NOT IDENT.
NB-95M	6.328E-02	1.384E-01	1.109E-01	7.060E-02	NOT IDENT.
ZR-95	3.928E-03	7.110E-02	6.053E-02	3.627E-02	NOT IDENT.
MO-99	-2.191E+00	7.690E+00	6.338E+00	3.923E+00	NOT IDENT.
TC-99M	-3.492E+13	3.058E+14	0.000E+00	1.560E+14	SHORT HLIF
RU-103	-8.955E-03	3.849E-02	3.238E-02	1.964E-02	FAIL ABUN
RH-106	-1.886E-01	3.230E-01	2.645E-01	1.648E-01	NOT IDENT.
RU-106	-1.886E-01	3.225E-01	2.645E-01	1.645E-01	NOT IDENT.
AG-108M	-1.524E-02	3.171E-02	2.573E-02	1.618E-02	NOT IDENT.
AG-110M	-6.342E-03	4.025E-02	2.936E-02	2.054E-02	NOT IDENT.
SN-113	-1.881E-02	4.515E-02	3.722E-02	2.303E-02	NOT IDENT.
CD-115	1.095E+00	6.812E+00	5.757E+00	3.476E+00	NOT IDENT.
SN-117M	-1.038E-02	5.116E-02	4.299E-02	2.610E-02	NOT IDENT.
TE-123M	-3.749E-03	2.872E-02	2.421E-02	1.465E-02	NOT IDENT.
SB-124	2.530E-02	8.132E-02	7.270E-02	4.149E-02	NOT IDENT.
SB-125	-7.032E-02	9.798E-02	7.808E-02	4.999E-02	FAIL ABUN
TE-125M	-9.547E+00	9.357E+00	7.634E+00	4.774E+00	NOT IDENT.
I-126	2.983E-01	2.102E-01	1.827E-01	1.073E-01	NOT IDENT.
SB-126	2.665E-03	1.408E-01	1.039E-01	7.182E-02	NOT IDENT.
SB-127	6.235E-01	1.020E+00	9.142E-01	5.205E-01	NOT IDENT.
I-131	1.567E-02	1.070E-01	9.247E-02	5.462E-02	NOT IDENT.
TE-132	-1.167E-01	5.018E-01	4.408E-01	2.560E-01	NOT IDENT.
BA-133	-1.875E-02	4.829E-02	3.486E-02	2.464E-02	NOT IDENT.
I-133	-2.424E+02	1.390E+03	0.000E+00	7.089E+02	SHORT HLIF
CS-134	9.529E-02	6.440E-02	4.990E-02	3.286E-02	FAIL ABUN
CS-135	2.872E-01	1.719E-01	1.603E-01	8.769E-02	NOT IDENT.
I-135	4.975E+11	8.083E+13	0.000E+00	4.124E+13	SHORT HLIF
CS-136	3.372E-02	9.854E-02	8.742E-02	5.027E-02	NOT IDENT.
CE-139	-4.104E-02	3.108E-02	2.437E-02	1.586E-02	NOT IDENT.
BA-140	5.855E-02	2.353E-01	2.090E-01	1.201E-01	NOT IDENT.
LA-140	2.817E-03	8.221E-02	7.052E-02	4.194E-02	FAIL ABUN
CE-141	-3.356E-02	6.317E-02	5.149E-02	3.223E-02	NOT IDENT.
CE-143	1.929E+02	7.961E+01	0.000E+00	4.062E+01	SHORT HLIF
CE-144	-9.739E-03	1.947E-01	1.670E-01	9.936E-02	NOT IDENT.
PM-144	2.290E-02	3.726E-02	3.329E-02	1.901E-02	NOT IDENT.
PR-144	1.712E+00	2.786E+00	2.489E+00	1.421E+00	NOT IDENT.
PM-146	1.664E-02	4.434E-02	3.825E-02	2.262E-02	NOT IDENT.
ND-147	-1.232E-01	4.583E-01	3.919E-01	2.339E-01	NOT IDENT.
PM-149	-3.778E+01	5.483E+01	4.573E+01	2.797E+01	NOT IDENT.
EU-152	-4.089E-02	1.047E-01	8.780E-02	5.341E-02	NOT IDENT.
GD-153	1.602E-02	8.669E-02	6.868E-02	4.423E-02	NOT IDENT.
EU-154	7.069E-03	1.324E-01	1.120E-01	6.754E-02	NOT IDENT.
EU-155	1.468E-01	1.026E-01	9.434E-02	5.234E-02	FAIL ABUN
TB-160	6.834E-03	1.382E-01	1.159E-01	7.050E-02	FAIL ABUN
HO-166M	-6.201E-03	6.533E-02	5.522E-02	3.333E-02	NOT IDENT.
TA-182	7.659E-02	1.981E-01	1.735E-01	1.011E-01	FAIL ABUN
IR-192	3.661E-03	3.504E-02	3.053E-02	1.788E-02	FAIL ABUN
HG-203	2.522E-03	4.059E-02	3.562E-02	2.071E-02	NOT IDENT.
BI-207	1.184E-02	5.527E-02	4.834E-02	2.820E-02	FAIL ABUN
PB-210	3.141E-01	4.585E+00	4.164E+00	2.340E+00	NOT IDENT.
PB-211	-6.729E-03	7.504E-01	6.359E-01	3.828E-01	NOT IDENT.
BI-212	2.150E+00	8.287E-01	6.299E-01	4.228E-01	FAIL ABUN
RN-219	7.702E-02	4.130E-01	3.550E-01	2.107E-01	FAIL ABUN
RA-223	8.262E-02	7.406E-01	5.662E-01	3.779E-01	FAIL ABUN
AC-227	-1.506E-01	2.444E-01	2.073E-01	1.247E-01	FAIL ABUN
TH-227	-1.506E-01	2.446E-01	2.073E-01	1.248E-01	FAIL ABUN
TH-229	3.273E-01	5.470E-01	4.821E-01	2.791E-01	FAIL ABUN
PA-231	5.292E-01	1.448E+00	1.289E+00	7.385E-01	FAIL ABUN
TH-231	8.262E-02	7.406E-01	5.662E-01	3.779E-01	FAIL ABUN
PA-233	5.365E-02	6.597E-02	5.977E-02	3.366E-02	FAIL ABUN
PA-234	1.238E-01	3.289E-01	2.938E-01	1.678E-01	NOT IDENT.
PA-234M	3.890E-02	4.601E+00	3.989E+00	2.347E+00	NOT IDENT.
TH-234	9.161E-01	1.398E+00	1.266E+00	7.133E-01	FAIL ABUN
U-235	6.713E-02	2.071E-01	1.758E-01	1.057E-01	FAIL ABUN
U-238	9.161E-01	1.398E+00	1.266E+00	7.133E-01	FAIL ABUN
NP-239	-2.478E-01	3.885E-01	3.264E-01	1.982E-01	NOT IDENT.
AM-241	-4.204E-02	1.681E-01	1.490E-01	8.575E-02	NOT IDENT.
CM-247	-7.868E-03	3.789E-02	3.166E-02	1.933E-02	NOT IDENT.

CF-249	5.793E-02	4.253E-02	3.918E-02	2.170E-02	NOT IDENT.
CF-251	-2.296E-02	1.282E-01	1.151E-01	6.539E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	262.2941
49.72	287.2246
57.36	0.0000
59.54	309.4333
63.29	301.7040
63.29	301.7040
64.28	341.3385
67.75	324.5873
69.67	329.5014
70.83	318.5304
72.81	328.4023
72.87	328.4478
72.87	328.4478
74.82	329.8804
74.82	329.8804
74.82	329.8804
74.97	329.9899
77.11	331.5404
77.11	331.5404
77.11	331.5404
79.69	315.7563
79.80	315.8296
80.12	346.2884
80.19	346.3391
80.57	373.8619
81.00	409.0457
81.07	409.1055
81.07	409.1055
83.79	330.6604
83.79	330.6604
85.43	360.8168
86.48	424.3993
86.55	422.9282
86.79	423.1304
86.94	474.3770
87.57	445.2882
88.03	399.5889
88.47	369.1736
89.96	370.2576
91.11	371.0889
92.59	361.8116
92.59	361.8116
93.35	362.3385
94.67	256.8684
94.87	256.9653
94.87	256.9653
95.86	285.5298
97.43	255.0693
98.44	263.3844
99.53	251.3440
100.11	268.3841
103.18	271.9808
103.37	272.0726
105.31	237.0304
106.12	264.9193
109.28	281.2896
111.00	238.3020
111.76	245.0282
116.30	249.0434
117.23	265.6191
121.12	237.9551
121.78	219.7149
122.06	240.4879
123.07	260.4921
131.20	292.4775
133.52	252.5200
136.00	267.8987

136.47	255.8488
140.51	259.5934
140.51	0.0000
143.76	249.5603
144.24	250.8546
144.24	250.8546
145.44	271.5614
152.43	232.1002
153.25	236.9136
154.21	255.4704
154.21	255.4704
156.02	244.6576
158.56	248.9284
159.00	246.7763
162.66	229.5087
163.33	237.7872
165.86	276.7789
176.60	242.0853
177.52	246.7624
181.07	254.9070
184.41	264.4574
185.72	269.1381
193.51	213.4934
197.04	221.8245
205.31	219.8735
210.85	215.3428
215.65	224.5484
222.11	213.1017
227.38	217.0545
228.16	204.1747
228.18	203.2457
235.69	213.4281
235.96	202.9614
235.96	202.9614
238.63	181.8284
238.63	181.8284
240.99	182.2495
242.00	182.4291
244.70	182.9077
252.40	138.4310
252.80	143.2594
256.23	163.8415
256.23	163.8415
260.90	163.5902
264.66	166.8595
268.22	161.7787
269.46	161.9596
269.46	161.9596
271.23	181.8385
273.65	216.4986
276.40	169.5156
277.37	145.5237
277.60	156.2988
278.00	154.4005
279.20	181.9528
279.54	182.9853
280.46	187.0509
283.69	140.4361
284.31	152.3038
285.41	162.2834
285.90	164.3193
287.50	153.7077
293.27	0.0000
295.22	139.8403
295.96	139.9286
298.57	140.2341
299.98	140.3976
299.98	140.3976
300.09	140.4105
300.09	140.4105
300.13	140.4148
301.36	130.7896
302.85	126.1589
304.50	113.5376
304.50	113.5376
304.85	107.1722
308.46	133.3572
311.90	120.6592

316.51	131.1981
319.41	144.6496
320.08	136.6294
323.87	129.9336
323.87	129.9336
328.76	157.9422
333.37	133.6195
334.37	129.3567
334.37	129.3567
338.28	152.7348
338.28	152.7348
338.32	152.7393
338.32	152.7393
338.32	152.7393
340.48	143.1188
340.55	133.2545
344.28	143.3204
351.06	144.2531
351.93	123.3979
356.01	119.8160
364.49	119.2968
366.42	102.6954
383.85	135.7813
388.16	93.6262
388.63	96.8486
391.69	110.9158
400.66	111.5854
401.81	99.8598
402.40	105.2704
404.85	109.7446
410.95	108.0261
414.70	111.5388
423.72	106.7419
427.09	112.4299
427.87	113.5770
433.94	106.3380
453.88	87.6756
463.37	80.3639
468.07	66.2622
473.00	103.2740
476.78	90.9025
477.60	83.7420
487.02	85.1037
492.35	79.0062
497.08	75.5764
511.00	79.8367
514.00	67.4059
527.90	61.1257
529.87	0.0000
531.02	66.7951
537.26	68.8782
546.56	0.0000
563.25	81.1394
569.33	77.6057
569.50	77.6137
569.70	77.6197
583.19	63.5352
600.60	76.8984
602.73	85.2262
604.72	75.4475
609.32	85.9102
609.32	85.9102
609.32	85.9102
610.33	85.9515
614.28	69.3431
618.01	81.8530
621.93	77.6895
621.93	77.6895
633.25	65.4117
635.95	63.5385
636.99	64.5466
645.85	68.7388
657.76	67.4675
661.66	72.2016
661.66	72.2016
664.57	0.0000
666.33	41.2974
666.50	41.3015

677.62	65.7454
685.70	60.9806
695.00	72.2689
696.49	69.3024
696.51	69.3032
697.00	62.2861
702.65	78.5503
706.68	76.6680
711.68	71.7766
720.70	52.4311
721.93	0.0000
722.78	67.7132
722.91	67.7165
723.31	62.6483
724.19	55.8956
727.33	49.8637
733.00	68.0013
735.93	53.1058
739.50	55.2300
747.24	52.3273
752.31	40.0978
753.82	48.3517
756.73	55.6189
763.94	84.7046
765.81	51.6882
766.42	51.7004
777.92	70.6347
778.90	71.5866
783.70	57.2612
785.37	59.0352
795.86	71.4814
801.95	56.9205
810.29	56.8028
810.76	52.6050
815.77	44.2723
818.51	58.0360
832.01	54.0904
834.85	75.3820
836.80	0.0000
846.77	43.7237
856.80	48.1663
860.56	45.0167
871.09	39.4507
873.19	46.6584
875.33	0.0000
879.36	44.2442
880.51	43.1826
883.24	57.2726
884.68	51.8965
889.28	46.5672
898.04	45.6248
911.20	51.2915
911.20	51.2915
911.20	51.2915
926.50	43.8838
937.49	54.1433
944.13	69.9017
946.00	50.6181
949.00	46.0632
962.29	61.8679
964.08	71.4284
966.15	65.1235
968.97	74.1927
968.97	74.1927
968.97	74.1927
983.53	43.7976
996.26	43.9793
1001.03	39.3613
1004.73	46.9137
1037.84	40.7709
1038.76	0.0000
1048.07	39.9509
1050.41	41.8838
1050.41	41.8838
1063.66	44.9212
1085.87	46.1875
1099.45	46.3750
1112.07	57.0223

1115.54	78.2175
1120.29	59.2998
1120.29	59.2998
1120.29	59.2998
1120.55	59.3047
1121.30	59.3171
1131.51	0.0000
1173.23	51.3271
1177.93	53.3716
1189.05	54.5300
1204.77	63.7292
1221.41	47.0172
1231.02	63.1871
1235.36	65.2698
1238.28	49.2413
1260.41	0.0000
1271.85	38.5319
1274.44	40.5876
1274.54	41.6023
1291.59	27.5197
1298.22	0.0000
1312.11	30.7397
1332.49	24.7207
1365.19	18.6936
1368.63	0.0000
1384.29	35.4775
1408.01	9.4453
1457.56	0.0000
1460.82	15.9424
1489.16	20.3274
1505.03	24.6967
1596.21	19.7256
1620.50	15.1083
1678.03	0.0000
1690.97	12.4595
1764.49	9.7290
1764.49	9.7290
1764.49	9.7290
1770.23	10.2272
1771.35	6.8198
1791.20	0.0000
1836.06	13.8140

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249244002

Total Uranium Activity	2.7565E+00	ug/g
Total Uranium Counting Unc.	4.1604E+00	ug/g
Total Uranium Tpu	2.1227E-06	ug/g
Total Uranium Mda	3.7673E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID     : 964804                    SAMPLE ID  : G249244002          *
*   ANALYST      : MXR1                      DETECTOR   : GAM06               *
*   SAMPLE DATE  : 10-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 23-MAR-2010 21:01:20.89   SAMPLE ALQT:  138.270 GRAM      *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.165E+00
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.199E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.068E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.488E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 23:08:13.51

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244003.CNF;1
Sample date       : 10-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 21:07:35
Sample ID         : G249244003           Sample quantity  : 1.16520E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.22  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 964804               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.37*	109	447	1.29	126.40	123	8	1.52E-02	35.7	
2	1	74.78*	432	449	1.11	149.20	143	15	6.00E-02	9.6	4.00E+00
3	1	77.18	712	335	1.02	154.00	143	15	9.89E-02	5.7	
4	0	84.02*	99	370	1.24	167.70	165	7	1.37E-02	34.1	
5	0	87.27*	225	401	1.23	174.18	171	7	3.13E-02	16.4	
6	6	90.08	131	173	0.91	179.81	178	12	1.82E-02	15.3	1.70E+00
7	6	93.06*	206	456	1.43	185.77	178	12	2.86E-02	21.1	
8	0	99.53	74	285	1.30	198.70	195	8	1.02E-02	41.5	
9	0	128.74	84	306	1.41	257.12	253	9	1.17E-02	39.1	
10	0	186.10*	156	253	0.98	371.82	368	9	2.17E-02	20.9	
11	0	209.28	88	208	1.56	418.16	414	8	1.22E-02	30.5	
12	4	238.75*	1123	141	1.19	477.09	469	20	1.56E-01	3.5	1.93E+00
13	4	241.76*	288	178	1.83	483.12	469	20	4.00E-02	13.4	
14	0	270.11	94	166	1.49	539.80	535	10	1.31E-02	27.6	
15	0	295.34	364	207	1.16	590.25	584	12	5.06E-02	9.5	
16	0	300.28	89	129	1.20	600.12	596	9	1.23E-02	25.5	
17	0	327.77	97	191	1.19	655.10	648	14	1.35E-02	31.9	
18	0	338.34*	233	142	1.10	676.24	671	10	3.24E-02	11.8	
19	0	352.06*	597	175	1.24	703.67	698	12	8.30E-02	6.1	
20	0	463.17	87	70	1.54	925.85	922	10	1.21E-02	20.9	
21	0	583.33*	343	50	1.23	1166.15	1159	12	4.76E-02	7.0	
22	0	609.61*	424	89	1.53	1218.70	1212	12	5.89E-02	6.7	
23	0	727.70*	73	45	1.38	1454.84	1450	10	1.02E-02	21.6	
24	0	768.75	38	40	1.34	1536.93	1533	8	5.26E-03	34.0	
25	0	795.63	60	54	0.65	1590.68	1585	13	8.39E-03	25.7	
26	0	911.67*	229	82	1.43	1822.73	1815	16	3.18E-02	11.3	
27	0	969.74*	113	94	1.32	1938.86	1932	15	1.57E-02	22.0	
28	0	1121.30	84	74	0.85	2241.95	2233	19	1.17E-02	27.0	
29	0	1238.27	46	39	1.57	2475.87	2470	11	6.45E-03	29.7	
30	0	1378.39	38	13	1.50	2756.09	2750	10	5.29E-03	23.8	
31	0	1461.23*	944	15	1.75	2921.77	2915	15	1.31E-01	3.4	
32	0	1765.06*	71	4	1.97	3529.38	3522	14	9.86E-03	14.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 23:08:15

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244003.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 10-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 21:07:35
Sample ID : G249244003 Sample quantity : 116.52 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA7 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.22 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	2.526E+01	2.773E+00	5.906E-01	5.071E-02	42.765
CD-109	+	88.03	*	2.926E+00	9.972E-01	1.159E+00	1.092E-01	2.524
SN-126	+	64.28		7.616E-01	5.553E-01	6.079E-01	8.816E-02	1.253
	+	86.94		1.192E+00	6.306E-01	4.827E-01	2.004E-01	2.470
	+	87.57	*	2.868E-01	9.773E-02	1.139E-01	1.067E-02	2.519
TL-208		277.37		3.279E-01	4.150E-01	7.125E-01	8.863E-02	0.460
	+	583.19	*	5.251E-01	8.901E-02	5.881E-02	5.619E-03	8.929
		860.56		3.761E-01	3.698E-01	6.470E-01	6.324E-02	0.581
BI-211		72.87		2.806E+00	3.015E+00	4.598E+00	3.629E-01	0.610
	+	351.06	*	4.047E+00	6.121E-01	3.465E-01	3.109E-02	11.679
PB-212	+	74.82		2.229E+00	5.130E-01	4.591E-01	5.798E-02	4.855
	+	77.11		2.143E+00	3.007E-01	2.685E-01	2.216E-02	7.980
	+	238.63	*	1.691E+00	2.020E-01	9.322E-02	8.962E-03	18.140
	+	300.09		2.083E+00	1.087E+00	1.180E+00	1.237E-01	1.765
BI-214	+	609.32	*	1.257E+00	2.126E-01	1.143E-01	1.188E-02	10.993
	+	1120.29		1.290E+00	7.101E-01	4.820E-01	5.199E-02	2.676
	+	1764.49		1.521E+00	4.510E-01	2.723E-01	2.239E-02	5.587
PB-214	+	74.82		3.951E+00	8.816E-01	8.138E-01	9.197E-02	4.855
	+	77.11		3.777E+00	6.148E-01	4.734E-01	5.523E-02	7.980
	+	242.00		2.633E+00	7.544E-01	5.671E-01	5.815E-02	4.643
	+	295.22		1.517E+00	3.305E-01	2.337E-01	2.511E-02	6.492
	+	351.93	*	1.469E+00	2.365E-01	1.260E-01	1.327E-02	11.654
RA-224	+	240.99	*	4.656E+00	1.306E+00	9.994E-01	8.452E-02	4.659
RA-226	+	609.32	*	1.257E+00	2.126E-01	1.143E-01	1.188E-02	10.993
	+	1120.29		1.290E+00	7.101E-01	4.820E-01	5.199E-02	2.676
	+	1764.49		1.521E+00	4.510E-01	2.723E-01	2.239E-02	5.587
AC-228	+	338.32		1.760E+00	8.439E-01	4.004E-01	1.670E-01	4.395
	+	911.20	*	1.686E+00	4.316E-01	2.200E-01	2.637E-02	7.665
	+	968.97		1.434E+00	7.212E-01	5.343E-01	1.310E-01	2.684
RA-228	+	338.32		1.760E+00	8.439E-01	4.004E-01	1.670E-01	4.395
	+	911.20	*	1.686E+00	4.316E-01	2.200E-01	2.637E-02	7.665
	+	968.97		1.434E+00	7.212E-01	5.343E-01	1.310E-01	2.684
TH-228	+	74.82		2.229E+00	4.657E-01	4.591E-01	3.735E-02	4.855
	+	77.11		2.143E+00	3.007E-01	2.685E-01	2.216E-02	7.980

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	1.691E+00	2.020E-01	9.322E-02	8.962E-03	18.140
	+	300.09		2.083E+00	1.661E+00	1.180E+00	7.223E-01	1.765
TH-229	+	85.43		3.231E-01	2.225E-01	2.620E-01	2.389E-02	1.233
	+	88.47		4.421E-01	1.507E-01	1.748E-01	1.642E-02	2.529
		193.51	*	-4.035E-01	5.210E-01	8.477E-01	6.921E-02	-0.476
		210.85		7.862E-01	1.005E+00	1.546E+00	1.283E-01	0.509
TH-230	+	609.32	*	1.257E+00	2.020E-01	1.143E-01	1.024E-02	10.993
	+	1120.29		1.290E+00	7.048E-01	4.820E-01	4.073E-02	2.676
	+	1764.49		1.521E+00	4.510E-01	2.723E-01	2.239E-02	5.587
TH-232	+	338.32		1.760E+00	4.431E-01	4.004E-01	3.427E-02	4.395
	+	911.20	*	1.686E+00	4.316E-01	2.200E-01	2.637E-02	7.665
	+	968.97		1.434E+00	7.212E-01	5.343E-01	1.310E-01	2.684
TH-234	+	63.29	*	1.976E+00	1.455E+00	1.584E+00	2.818E-01	1.247
	+	92.59		2.232E+00	1.065E+00	8.898E-01	1.984E-01	2.509
U-235	+	89.96		1.749E+00	6.896E-01	1.202E+00	2.987E-01	1.455
	+	93.35		1.686E+00	8.128E-01	6.707E-01	1.562E-01	2.514
		143.76	*	1.663E-01	2.073E-01	3.329E-01	5.580E-02	0.500
		163.33		-8.848E-02	4.527E-01	7.098E-01	1.252E-01	-0.125
	+	185.72		1.515E-01	6.455E-02	6.340E-02	5.133E-03	2.389
		205.31		-8.169E-02	5.677E-01	8.254E-01	1.484E-01	-0.099
NP-237	+	86.48	*	8.557E-01	3.424E-01	3.088E-01	7.075E-02	2.771
		95.86		-5.366E-01	1.196E+00	1.303E+00	3.144E-01	-0.412
U-238	+	63.29	*	1.976E+00	1.455E+00	1.584E+00	2.818E-01	1.247
	+	92.59		2.232E+00	9.638E-01	8.898E-01	8.141E-02	2.509

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.782E-01	3.298E-01	5.516E-01	5.205E-02	0.323
NA-22		1274.54	*	-2.994E-02	4.309E-02	6.503E-02	5.338E-03	-0.460
NA-24		1368.63	*	8.397E-03	4.309E-02	Half-Life too short		
SC-46		889.28	*	-2.839E-02	4.292E-02	6.345E-02	5.814E-03	-0.447
	+	1120.55		2.151E-01	1.175E-01	1.276E-01	1.079E-02	1.685
V-48		944.13		-9.566E-01	9.642E-01	1.389E+00	1.263E-01	-0.688
		983.53	*	-1.664E-02	6.916E-02	1.083E-01	9.746E-03	-0.154
		1312.11		-8.726E-03	7.444E-02	1.209E-01	9.910E-03	-0.072
CR-51		320.08	*	-2.529E-01	3.778E-01	5.705E-01	5.151E-02	-0.443
MN-54		834.85	*	-2.621E-03	3.870E-02	6.271E-02	5.756E-03	-0.042
CO-56		846.77	*	3.468E-02	3.762E-02	6.706E-02	6.157E-03	0.517
		1037.84		3.182E-01	3.341E-01	6.065E-01	5.622E-02	0.525
	+	1238.28		1.946E-01	1.170E-01	1.870E-01	1.580E-02	1.041
		1771.35		1.142E-01	1.757E-01	3.158E-01	2.594E-02	0.362
CO-57		122.06	*	3.118E-02	2.463E-02	4.175E-02	3.592E-03	0.747
		136.47		-3.990E-02	1.992E-01	3.154E-01	2.836E-02	-0.127
CO-58		810.76	*	-4.339E-02	3.660E-02	5.104E-02	4.689E-03	-0.850
FE-59		1099.45	*	2.065E-02	9.605E-02	1.638E-01	1.517E-02	0.126
		1291.59		-7.909E-02	1.293E-01	1.979E-01	1.864E-02	-0.400
CO-60		1173.23		5.186E-03	4.842E-02	8.134E-02	6.619E-03	0.064

Sample ID : G249244003 Acquisition date : 23-MAR-2010 21:07:35

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1332.49	*	-1.012E-02	4.619E-02	7.412E-02	6.072E-03	-0.137
ZN-65		1115.54	*	4.378E-02	1.068E-01	1.623E-01	1.377E-02	0.270
SE-75		121.12		-1.569E-02	1.286E-01	2.056E-01	2.276E-02	-0.076
		136.00		-1.116E-02	3.882E-02	6.119E-02	5.146E-03	-0.182
		264.66	*	2.318E-02	5.249E-02	7.920E-02	6.765E-03	0.293
		279.54		1.164E-01	1.191E-01	2.035E-01	1.795E-02	0.572
		400.66		1.513E-01	2.800E-01	4.700E-01	5.125E-02	0.322
SR-85		514.00	*	-1.216E-01	5.136E-02	7.357E-02	6.542E-03	-1.652
Y-88		898.04		-1.240E-02	4.473E-02	7.043E-02	6.477E-03	-0.176
		1836.06	*	-2.710E-02	3.630E-02	5.091E-02	4.132E-03	-0.532
Y-91		1204.77	*	2.396E+01	2.349E+01	4.229E+01	3.453E+00	0.567
NB-94		702.65	*	2.640E-03	3.469E-02	5.768E-02	5.179E-03	0.046
		871.09		-2.506E-02	4.097E-02	6.259E-02	5.743E-03	-0.400
NB-95		765.81	*	-2.198E-02	5.603E-02	7.656E-02	6.980E-03	-0.287
NB-95M		235.69	*	1.498E-02	1.379E-01	2.046E-01	1.990E-02	0.073
ZR-95		724.19		6.231E-02	1.001E-01	1.542E-01	1.501E-02	0.404
		756.73	*	1.932E-02	7.661E-02	1.287E-01	1.281E-02	0.150
MO-99		140.51		7.386E+00	1.468E+01	2.358E+01	5.571E+00	0.313
		181.07		-6.730E+00	1.164E+01	1.765E+01	3.272E+00	-0.381
		366.42		-1.259E+01	6.629E+01	1.067E+02	9.035E+00	-0.118
		739.50	*	2.670E+00	9.344E+00	1.572E+01	2.516E+00	0.170
		777.92		-3.622E+01	2.525E+01	3.512E+01	3.208E+00	-1.031
TC-99M		140.51	*	1.623E+08	2.525E+01	Half-Life too short		
RU-103		497.08	*	1.083E-02	4.152E-02	6.780E-02	9.565E-03	0.160
	+	610.33		1.258E+01	2.672E+00	3.071E+00	5.074E-01	4.097
RH-106		621.93	*	8.969E-03	3.273E-01	5.464E-01	7.358E-02	0.016
		1050.41		-7.600E-01	2.636E+00	4.292E+00	3.768E-01	-0.177
RU-106		621.93	*	8.969E-03	3.273E-01	5.464E-01	4.884E-02	0.016
		1050.41		-7.600E-01	2.636E+00	4.292E+00	3.768E-01	-0.177
AG-108M		433.94	*	-1.398E-02	3.198E-02	4.981E-02	4.415E-03	-0.281
		614.28		-1.572E-02	4.060E-02	5.605E-02	5.169E-03	-0.281
		722.91		1.044E-02	4.260E-02	6.279E-02	5.837E-03	0.166
AG-110M		657.76	*	1.066E-02	3.522E-02	5.993E-02	5.460E-03	0.178
		677.62		-8.820E-03	3.484E-01	5.758E-01	5.265E-02	-0.015
		706.68		-1.698E-02	2.168E-01	3.554E-01	3.280E-02	-0.048
		763.94		8.212E-02	1.940E-01	2.902E-01	2.710E-02	0.283
		884.68		-2.292E-03	5.292E-02	8.555E-02	8.066E-03	-0.027
		937.49		-3.905E-02	1.304E-01	2.045E-01	1.922E-02	-0.191
		1384.29		1.680E-01	1.658E-01	2.892E-01	2.459E-02	0.581
		1505.03		-9.944E-02	2.735E-01	4.174E-01	3.489E-02	-0.238
SN-113		391.69	*	-3.811E-03	4.481E-02	7.232E-02	6.217E-03	-0.053
CD-115		260.90		2.497E+01	8.304E+01	1.403E+02	1.192E+01	0.178
		492.35		-9.959E-01	2.338E+01	3.725E+01	3.291E+00	-0.027
		527.90	*	-2.842E+00	6.905E+00	1.126E+01	1.004E+00	-0.252
SN-117M		156.02		-5.330E-02	2.093E+00	3.321E+00	2.675E-01	-0.016
		158.56	*	-1.555E-02	4.973E-02	7.759E-02	6.221E-03	-0.200
TE-123M		159.00	*	-2.786E-02	2.906E-02	4.365E-02	3.522E-03	-0.638
SB-124		602.73		-4.006E-02	4.479E-02	5.793E-02	5.191E-03	-0.692
		645.85		-7.324E-03	4.715E-01	7.823E-01	7.332E-02	-0.009

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		722.78		1.116E-01	4.202E-01	6.209E-01	5.724E-02	0.180
		1690.97	*	-1.738E-02	8.732E-02	1.354E-01	1.176E-02	-0.128
SB-125		427.87	*	-2.031E-04	9.903E-02	1.599E-01	1.393E-02	-0.001
	+	463.37		8.996E-01	3.861E-01	5.858E-01	5.487E-02	1.536
		600.60		-1.047E-01	1.845E-01	2.938E-01	2.814E-02	-0.356
		635.95		1.571E-01	2.683E-01	4.683E-01	4.491E-02	0.335
TE-125M		109.28	*	4.295E+00	8.992E+00	1.474E+01	1.550E+00	0.291
I-126		388.63		6.841E-02	1.602E-01	2.680E-01	2.236E-02	0.255
		666.33	*	1.684E-01	2.093E-01	3.688E-01	3.269E-02	0.457
		753.82		8.074E-01	1.822E+00	3.107E+00	2.826E-01	0.260
SB-126		414.70		2.717E-02	6.956E-02	1.159E-01	9.818E-03	0.235
		666.50		7.460E-02	7.056E-02	1.266E-01	1.122E-02	0.589
		695.00		4.267E-02	7.885E-02	1.357E-01	1.215E-02	0.314
		697.00		-4.309E-02	2.715E-01	4.430E-01	3.971E-02	-0.097
		720.70	*	9.850E-02	1.319E-01	2.216E-01	2.000E-02	0.444
		856.80		-7.402E-01	5.334E-01	7.514E-01	6.898E-02	-0.985
SB-127		252.40		-5.148E-01	3.107E+00	5.118E+00	2.117E+00	-0.101
		473.00		-3.452E-01	1.275E+00	1.997E+00	2.484E-01	-0.173
		685.70	*	-4.288E-01	9.830E-01	1.560E+00	1.736E-01	-0.275
		783.70		1.800E+00	2.814E+00	4.854E+00	5.965E-01	0.371
I-131		80.19		7.407E-01	4.396E+00	5.127E+00	4.406E-01	0.144
		284.31		-6.127E-01	1.262E+00	2.026E+00	1.811E-01	-0.302
		364.49	*	8.561E-03	1.027E-01	1.686E-01	1.507E-02	0.051
		636.99		5.808E-01	1.318E+00	2.275E+00	2.134E-01	0.255
TE-132		49.72		-6.684E+00	7.087E+00	1.129E+01	1.127E+00	-0.592
		111.76		-1.390E+01	2.232E+01	3.470E+01	3.661E+00	-0.401
		116.30		-9.618E+00	1.920E+01	3.015E+01	3.173E+00	-0.319
		228.16	*	-2.397E-01	5.173E-01	8.454E-01	1.300E-01	-0.284
BA-133		81.00		1.316E-02	1.055E-01	1.225E-01	1.902E-02	0.107
		276.40		-4.585E-02	3.878E-01	6.392E-01	8.970E-02	-0.072
		302.85		6.492E-02	1.551E-01	2.323E-01	3.026E-02	0.279
		356.01	*	-3.391E-03	5.161E-02	7.279E-02	9.377E-03	-0.047
		383.85		2.297E-01	3.300E-01	5.591E-01	6.852E-02	0.411
I-133		529.87	*	8.088E-05	3.300E-01	Half-Life too short		
		875.33		-1.514E-02	3.300E-01	Half-Life too short		
		1298.22		1.408E-02	3.300E-01	Half-Life too short		
CS-134		563.25		2.803E-01	3.762E-01	6.639E-01	6.005E-02	0.422
		569.33		-8.390E-02	2.000E-01	3.237E-01	2.940E-02	-0.259
		604.72		-6.703E-03	3.975E-02	5.659E-02	5.081E-03	-0.118
	+	795.86	*	1.342E-01	7.006E-02	1.063E-01	9.794E-03	1.263
		801.95		3.247E-01	4.622E-01	7.166E-01	6.598E-02	0.453
		1365.19		-8.312E-01	1.215E+00	1.778E+00	1.539E-01	-0.467
CS-135		268.22	*	2.392E-03	1.779E-01	2.600E-01	2.564E-02	0.009
I-135		546.56		-7.232E+07	1.779E-01	Half-Life too short		
		836.80		4.580E+06	1.779E-01	Half-Life too short		
		1038.76		2.372E+08	1.779E-01	Half-Life too short		
		1131.51		6.836E+07	1.779E-01	Half-Life too short		
		1260.41	*	5.818E+07	1.779E-01	Half-Life too short		
		1457.56		3.910E+09	1.779E-01	Half-Life too short		

---- Non-Identified Nuclides ----

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		1678.03		7.379E+06	1.779E-01	Half-Life too short		
		1791.20		-4.339E+07	1.779E-01	Half-Life too short		
CS-136		153.25		-1.604E-01	8.317E-01	1.310E+00	1.288E-01	-0.122
		176.60		-1.070E-01	4.435E-01	7.446E-01	6.671E-02	-0.144
		273.65		-5.782E-01	5.713E-01	7.667E-01	7.079E-02	-0.754
		340.55		4.427E-01	1.715E-01	2.859E-01	2.540E-02	1.549
		818.51		-1.264E-02	7.334E-02	1.177E-01	1.081E-02	-0.107
		1048.07	*	1.200E-02	9.638E-02	1.637E-01	1.497E-02	0.073
		1235.36		1.784E-01	6.046E-01	8.955E-01	1.025E-01	0.199
BA-137M		661.66	*	-4.555E-02	3.828E-02	5.667E-02	5.015E-03	-0.804
CS-137		661.66	*	-4.812E-02	4.044E-02	5.986E-02	5.307E-03	-0.804
CE-139		165.86	*	2.316E-02	3.035E-02	4.987E-02	3.945E-03	0.464
BA-140		162.66		3.359E-01	7.447E-01	1.208E+00	1.036E-01	0.278
		304.85		5.403E-01	1.367E+00	2.034E+00	5.950E-01	0.266
		423.72		8.261E-01	1.943E+00	3.207E+00	1.054E+00	0.258
		537.26	*	1.136E-01	2.567E-01	4.408E-01	1.498E-01	0.258
LA-140	+	328.76		8.246E-01	5.309E-01	5.383E-01	4.881E-02	1.532
		487.02		1.348E-02	1.465E-01	2.362E-01	2.206E-02	0.057
		815.77		3.065E-02	2.969E-01	4.904E-01	4.966E-02	0.062
		1596.21	*	-1.195E-02	9.612E-02	1.530E-01	1.280E-02	-0.078
CE-141		145.44	*	-1.464E-02	6.048E-02	9.525E-02	7.974E-03	-0.154
CE-143		57.36		2.968E-05	6.048E-02	Half-Life too short		
		293.27	*	2.050E-04	6.048E-02	Half-Life too short		
		664.57		1.835E-04	6.048E-02	Half-Life too short		
		721.93		3.553E-04	6.048E-02	Half-Life too short		
CE-144		80.12		4.049E-01	2.747E+00	3.198E+00	2.732E-01	0.127
		133.52	*	-5.427E-02	2.187E-01	3.063E-01	4.641E-02	-0.177
PM-144		476.78		1.296E-02	6.893E-02	1.122E-01	1.067E-02	0.116
		618.01		3.276E-02	3.313E-02	5.929E-02	5.440E-03	0.553
		696.49	*	-5.362E-03	3.850E-02	6.292E-02	5.640E-03	-0.085
PR-144		696.51	*	-4.149E-01	2.877E+00	4.701E+00	4.213E-01	-0.088
		1489.16		2.890E+00	1.127E+01	1.929E+01	1.611E+00	0.150
PM-146		453.88	*	2.158E-02	4.440E-02	7.408E-02	7.884E-03	0.291
		633.25		1.382E-01	1.433E+00	2.402E+00	9.192E-01	0.058
		735.93		1.839E-01	1.731E-01	2.964E-01	8.349E-02	0.620
		747.24		4.877E-02	1.021E-01	1.748E-01	2.598E-02	0.279
ND-147	+	91.11		5.076E-01	1.634E-01	4.132E-01	4.091E-02	1.228
		319.41		-5.426E-01	3.001E+00	4.878E+00	4.184E-01	-0.111
		531.02	*	-2.268E-02	5.612E-01	9.335E-01	1.412E-01	-0.024
PM-149		285.90	*	-1.723E+01	5.403E+01	8.765E+01	1.357E+01	-0.197
EU-152		121.78		8.743E-02	7.095E-02	1.200E-01	1.186E-02	0.729
		244.70		-3.759E-02	3.527E-01	5.141E-01	4.353E-02	-0.073
		344.28	*	-1.956E-02	1.015E-01	1.582E-01	1.433E-02	-0.124
		778.90		-1.824E-01	2.763E-01	4.232E-01	3.866E-02	-0.431
		964.08		5.138E-01	3.834E-01	6.155E-01	5.570E-02	0.835
		1085.87		-1.925E-01	4.160E-01	6.634E-01	5.722E-02	-0.290
		1112.07		1.481E-02	3.573E-01	5.564E-01	4.727E-02	0.027
		1408.01		1.306E-01	1.950E-01	3.473E-01	2.879E-02	0.376
GD-153		69.67		6.755E-01	1.598E+00	2.397E+00	1.836E-01	0.282

---- Non-Identified Nuclides ----

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		97.43	*	-8.121E-02	1.134E-01	1.206E-01	1.078E-02	-0.674
		103.18		-1.020E-01	1.141E-01	1.550E-01	1.360E-02	-0.658
EU-154		123.07		1.870E-02	5.096E-02	8.328E-02	9.426E-03	0.224
		723.31		4.820E-02	1.931E-01	2.848E-01	2.810E-02	0.169
		873.19		1.511E-01	3.169E-01	5.382E-01	6.621E-02	0.281
		996.26		-8.029E-02	3.789E-01	5.946E-01	1.049E-01	-0.135
		1004.73		-5.810E-02	2.371E-01	3.709E-01	4.405E-02	-0.157
		1274.44	*	-1.362E-01	1.285E-01	1.839E-01	2.034E-02	-0.741
EU-155	+	86.55		3.475E-01	1.185E-01	1.746E-01	1.629E-02	1.990
		105.31	*	8.284E-02	9.681E-02	1.625E-01	1.435E-02	0.510
TB-160	+	86.79		9.074E-01	3.092E-01	4.559E-01	4.229E-02	1.990
		197.04		1.662E-01	5.543E-01	9.476E-01	7.765E-02	0.175
		215.65		2.370E-02	7.142E-01	1.202E+00	1.002E-01	0.020
		298.57		1.910E-01	1.674E-01	2.028E-01	1.734E-02	0.942
		879.36	*	-2.049E-02	1.578E-01	2.530E-01	2.320E-02	-0.081
		962.29		1.436E-01	6.409E-01	9.602E-01	8.693E-02	0.150
		966.15		5.943E-01	2.956E-01	4.908E-01	4.439E-02	1.211
		1177.93		2.208E-01	3.790E-01	6.635E-01	5.402E-02	0.333
		1271.85		-4.379E-01	7.055E-01	1.078E+00	8.840E-02	-0.406
HO-166M		80.57		1.251E-01	2.962E-01	3.525E-01	3.028E-02	0.355
		184.41		8.497E-02	3.728E-02	6.187E-02	5.001E-03	1.373
		280.46		-1.803E-02	9.352E-02	1.509E-01	1.281E-02	-0.120
		410.95		1.167E-01	2.541E-01	4.248E-01	3.589E-02	0.275
		711.68	*	2.675E-02	6.036E-02	1.036E-01	9.323E-03	0.258
		752.31		-2.542E-01	3.053E-01	4.624E-01	4.205E-02	-0.550
		810.29		-3.585E-02	5.441E-02	8.187E-02	7.505E-03	-0.438
TA-182		67.75		3.028E-02	1.006E-01	1.503E-01	1.133E-02	0.201
	+	100.11		2.557E-01	2.134E-01	2.745E-01	2.431E-02	0.931
		152.43		1.512E-01	3.614E-01	5.862E-01	4.752E-02	0.258
		222.11		-1.114E-01	3.496E-01	5.776E-01	4.835E-02	-0.193
	+	1121.30		5.981E-01	3.268E-01	3.551E-01	2.999E-02	1.684
		1189.05		1.373E-01	3.312E-01	5.708E-01	4.654E-02	0.241
		1221.41	*	-9.817E-02	2.105E-01	3.336E-01	2.729E-02	-0.294
		1231.02		-4.193E-02	5.200E-01	7.638E-01	6.251E-02	-0.055
IR-192	+	295.96		1.104E+00	2.297E-01	3.093E-01	2.663E-02	3.568
		308.46		-7.870E-02	1.005E-01	1.561E-01	1.345E-02	-0.504
		316.51	*	-1.727E-04	3.491E-02	5.744E-02	4.937E-03	-0.003
		468.07		-1.744E-02	7.777E-02	1.060E-01	9.925E-03	-0.164
HG-203		70.83		-2.480E-01	1.229E+00	1.790E+00	2.794E-01	-0.139
		72.87		6.809E-01	7.368E-01	1.116E+00	1.689E-01	0.610
		279.20	*	5.721E-02	4.124E-02	7.160E-02	6.237E-03	0.799
BI-207		72.81		1.529E-01	1.733E-01	2.638E-01	2.081E-02	0.580
	+	74.97		6.424E-01	1.340E-01	2.051E-01	1.654E-02	3.132
		569.70		-1.905E-02	3.081E-02	4.898E-02	4.392E-03	-0.389
		1063.66	*	3.701E-02	5.636E-02	1.001E-01	8.731E-03	0.370
		1770.23		7.670E-02	5.018E-01	7.519E-01	6.177E-02	0.102
PB-210		46.54	*	7.922E-01	1.824E+00	3.064E+00	2.848E-01	0.259
PB-211		404.85	*	-4.498E-01	8.054E-01	1.205E+00	5.825E-01	-0.373
		427.09		-1.960E-01	1.735E+00	2.776E+00	1.284E+00	-0.071

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		832.01		-4.794E-01	1.064E+00	1.608E+00	8.352E-01	-0.298
BI-212	+	727.33	*	1.718E+00	7.733E-01	1.217E+00	1.553E-01	1.411
		785.37		2.464E+00	3.597E+00	6.138E+00	5.612E-01	0.401
		1620.50		1.185E+00	2.678E+00	4.644E+00	3.880E-01	0.255
RN-219	+	271.23		6.246E-01	3.505E-01	4.703E-01	4.774E-02	1.328
		401.81	*	4.774E-01	4.507E-01	7.739E-01	1.141E-01	0.617
RA-223		81.07		3.167E-02	2.391E-01	2.779E-01	2.401E-02	0.114
	+	83.79		1.923E-01	1.324E-01	1.884E-01	1.682E-02	1.021
		94.87		7.166E-01	5.913E-01	7.389E-01	6.682E-02	0.970
		144.24		6.586E-01	6.847E-01	1.113E+00	1.032E-01	0.592
		154.21		-3.308E-02	4.047E-01	6.407E-01	5.738E-02	-0.052
	+	269.46		4.853E-01	2.711E-01	3.574E-01	3.099E-02	1.358
		323.87	*	4.877E-01	7.318E-01	1.110E+00	1.921E-01	0.440
	+	338.28		6.983E+00	1.855E+00	2.666E+00	3.207E-01	2.619
AC-227		79.69		6.478E-02	1.208E+00	1.605E+00	2.757E-01	0.040
		235.96		9.075E-03	1.759E-01	2.600E-01	2.650E-02	0.035
		256.23	*	-9.261E-03	2.496E-01	4.148E-01	4.961E-02	-0.022
	+	299.98		2.291E+00	1.206E+00	1.711E+00	2.166E-01	1.339
		304.50		8.568E-01	1.812E+00	2.722E+00	4.491E-01	0.315
		334.37		2.097E-01	2.163E+00	2.651E+00	4.125E-01	0.079
TH-227		79.80		3.652E-02	1.592E+00	2.111E+00	4.588E-01	0.017
		235.96		9.075E-03	1.759E-01	2.600E-01	2.496E-02	0.035
		256.23	*	-9.261E-03	2.496E-01	4.148E-01	5.610E-02	-0.022
	+	299.98		2.291E+00	1.206E+00	1.711E+00	2.166E-01	1.339
		304.50		8.568E-01	1.812E+00	2.722E+00	4.491E-01	0.315
		334.37		2.097E-01	2.163E+00	2.651E+00	4.125E-01	0.079
PA-231		283.69	*	-1.162E+00	1.459E+00	2.284E+00	3.316E-01	-0.508
	+	301.36		1.472E+00	7.729E-01	1.074E+00	1.301E-01	1.370
TH-231		81.07		3.167E-02	2.391E-01	2.779E-01	2.401E-02	0.114
	+	83.79		1.923E-01	1.324E-01	1.884E-01	1.682E-02	1.021
		94.87		7.166E-01	5.913E-01	7.389E-01	6.682E-02	0.970
		144.24		6.586E-01	6.847E-01	1.113E+00	1.032E-01	0.592
		154.21		-3.308E-02	4.047E-01	6.407E-01	5.738E-02	-0.052
	+	269.46		4.853E-01	2.711E-01	3.574E-01	3.099E-02	1.358
		323.87	*	4.877E-01	7.318E-01	1.110E+00	1.921E-01	0.440
	+	338.28		6.983E+00	1.855E+00	2.666E+00	3.207E-01	2.619
PA-233	+	300.13		1.037E+00	5.515E-01	7.724E-01	1.142E-01	1.342
		311.90	*	4.718E-02	6.928E-02	1.161E-01	1.024E-02	0.407
		340.48		2.019E+00	9.425E-01	1.371E+00	3.295E-01	1.473
PA-234		94.67		4.447E-01	1.937E-01	2.811E-01	3.571E-02	1.582
	+	98.44		1.309E-01	1.309E-01	1.413E-01	7.892E-02	0.926
		111.00		-2.213E-01	1.815E-01	2.713E-01	3.285E-02	-0.816
		131.20		1.392E-01	1.109E-01	1.700E-01	1.432E-02	0.819
		569.50		-1.356E-01	2.745E-01	4.413E-01	3.958E-02	-0.307
		733.00		-3.687E-01	5.168E-01	6.642E-01	1.486E-01	-0.555
		880.51		8.626E-02	3.142E-01	5.243E-01	4.808E-02	0.165
		883.24		-9.828E-02	3.263E-01	5.025E-01	3.382E-01	-0.196
		926.50		-1.082E-02	1.800E-01	2.893E-01	7.363E-02	-0.037
		946.00	*	-8.886E-03	3.332E-01	5.368E-01	1.019E-01	-0.017

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		949.00		1.050E-01	5.135E-01	8.461E-01	7.684E-02	0.124
PA-234M		766.42		2.766E+00	1.530E+01	2.225E+01	1.131E+01	0.124
		1001.03	*	-9.063E-01	5.325E+00	8.488E+00	8.704E-01	-0.107
NP-239	+	99.53		2.374E-01	1.981E-01	2.583E-01	2.292E-02	0.919
		103.37		-6.589E-02	1.037E-01	1.435E-01	1.259E-02	-0.459
		106.12		1.986E-02	7.869E-02	1.288E-01	1.123E-02	0.154
		117.23	*	3.133E-03	3.766E-01	6.070E-01	5.222E-02	0.005
		228.18		-1.009E-01	2.230E-01	3.652E-01	3.069E-02	-0.276
		277.60		2.788E-01	1.912E-01	3.330E-01	2.827E-02	0.837
AM-241		59.54	*	9.863E-03	1.208E-01	1.798E-01	1.425E-02	0.055
CM-247		278.00		1.403E+00	8.250E-01	1.448E+00	1.229E-01	0.969
		287.50		5.655E-01	1.268E+00	2.150E+00	1.832E-01	0.263
		402.40	*	5.883E-02	4.022E-02	7.119E-02	5.976E-03	0.826
CF-249		252.80		-2.176E-01	9.471E-01	1.558E+00	1.322E-01	-0.140
		333.37		7.401E-02	2.574E-01	2.802E-01	2.400E-02	0.264
		388.16	*	1.708E-02	4.239E-02	7.079E-02	5.908E-03	0.241
CF-251		177.52	*	6.181E-02	1.255E-01	2.172E-01	1.742E-02	0.285
		227.38		-3.882E-01	3.742E-01	5.939E-01	4.988E-02	-0.654
		285.41		-4.104E-01	2.174E+00	3.559E+00	3.029E-01	-0.115
ANH-511		511.00	*	4.283E-02	5.029E-02	9.137E-02	8.119E-03	0.469

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244003      *
* Acquisition date : 23-MAR-2010 21:07:35 Detector SN#    :                 *
* Detector ID        : GAM07               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.22      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 10-MAR-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G249244003           Analyst initials: MXR1          *
* Batch Number       : 964804               Sample Quantity : 1.1652E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.526E+01	2.718E+00	5.885E-01	0.000E+00
CD-109	2.926E+00	9.773E-01	1.189E+00	0.000E+00
SN-126	2.868E-01	9.578E-02	1.168E-01	0.000E+00
TL-208	5.251E-01	8.723E-02	5.916E-02	0.000E+00
BI-211	4.047E+00	5.998E-01	3.504E-01	0.000E+00
PB-212	1.691E+00	1.980E-01	9.463E-02	0.000E+00
BI-214	1.257E+00	2.083E-01	1.150E-01	0.000E+00
PB-214	1.469E+00	2.317E-01	1.275E-01	0.000E+00
RA-224	4.656E+00	1.280E+00	1.014E+00	0.000E+00
RA-226	1.257E+00	2.083E-01	1.150E-01	0.000E+00
AC-228	1.686E+00	4.230E-01	2.203E-01	0.000E+00
RA-228	1.686E+00	4.230E-01	2.203E-01	0.000E+00
TH-228	1.691E+00	1.980E-01	9.463E-02	0.000E+00
TH-229	-4.035E-01	5.105E-01	8.624E-01	0.000E+00
TH-230	1.257E+00	1.979E-01	1.150E-01	0.000E+00
TH-232	1.686E+00	4.230E-01	2.203E-01	0.000E+00
TH-234	1.976E+00	1.426E+00	1.630E+00	0.000E+00
U-235	1.663E-01	2.031E-01	3.397E-01	0.000E+00
NP-237	8.557E-01	3.356E-01	3.166E-01	0.000E+00
U-238	1.976E+00	1.426E+00	1.630E+00	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.782E-01	3.232E-01	5.561E-01	0.000E+00	NOT IDENT.
NA-22	-2.994E-02	4.223E-02	6.489E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	9.918E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.839E-02	4.206E-02	6.355E-02	0.000E+00	FAIL ABUN
V-48	-1.664E-02	6.778E-02	1.083E-01	0.000E+00	NOT IDENT.
CR-51	-2.529E-01	3.702E-01	5.775E-01	0.000E+00	NOT IDENT.
MN-54	-2.621E-03	3.792E-02	6.285E-02	0.000E+00	NOT IDENT.

CO-56	3.468E-02	3.686E-02	6.721E-02	0.000E+00	FAIL ABUN
CO-57	3.118E-02	2.413E-02	4.267E-02	0.000E+00	NOT IDENT.
CO-58	-4.339E-02	3.587E-02	5.117E-02	0.000E+00	NOT IDENT.
FE-59	2.065E-02	9.413E-02	1.637E-01	0.000E+00	NOT IDENT.
CO-60	-1.012E-02	4.527E-02	7.393E-02	0.000E+00	NOT IDENT.
ZN-65	4.378E-02	1.047E-01	1.622E-01	0.000E+00	NOT IDENT.
SE-75	2.318E-02	5.144E-02	8.032E-02	0.000E+00	NOT IDENT.
SR-85	-1.216E-01	5.033E-02	7.411E-02	0.000E+00	NOT IDENT.
Y-88	-2.710E-02	3.558E-02	5.061E-02	0.000E+00	NOT IDENT.
Y-91	2.396E+01	2.302E+01	4.222E+01	0.000E+00	NOT IDENT.
NB-94	2.640E-03	3.400E-02	5.791E-02	0.000E+00	NOT IDENT.
NB-95	-2.198E-02	5.491E-02	7.681E-02	0.000E+00	NOT IDENT.
NB-95M	1.498E-02	1.352E-01	2.078E-01	0.000E+00	NOT IDENT.
ZR-95	1.932E-02	7.508E-02	1.291E-01	0.000E+00	NOT IDENT.
MO-99	2.670E+00	9.157E+00	1.578E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.166E+14	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.083E-02	4.069E-02	6.831E-02	0.000E+00	FAIL ABUN
RH-106	8.969E-03	3.207E-01	5.494E-01	0.000E+00	NOT IDENT.
RU-106	8.969E-03	3.207E-01	5.494E-01	0.000E+00	NOT IDENT.
AG-108M	-1.398E-02	3.134E-02	5.026E-02	0.000E+00	NOT IDENT.
AG-110M	1.066E-02	3.451E-02	6.021E-02	0.000E+00	NOT IDENT.
SN-113	-3.811E-03	4.391E-02	7.305E-02	0.000E+00	NOT IDENT.
CD-115	-2.842E+00	6.767E+00	1.133E+01	0.000E+00	NOT IDENT.
SN-117M	-1.555E-02	4.873E-02	7.909E-02	0.000E+00	NOT IDENT.
TE-123M	-2.786E-02	2.848E-02	4.450E-02	0.000E+00	NOT IDENT.
SB-124	-1.738E-02	8.557E-02	1.347E-01	0.000E+00	NOT IDENT.
SB-125	-2.031E-04	9.705E-02	1.614E-01	0.000E+00	FAIL ABUN
TE-125M	4.295E+00	8.812E+00	1.508E+01	0.000E+00	NOT IDENT.
I-126	1.684E-01	2.051E-01	3.705E-01	0.000E+00	NOT IDENT.
SB-126	9.850E-02	1.293E-01	2.224E-01	0.000E+00	NOT IDENT.
SB-127	-4.288E-01	9.634E-01	1.566E+00	0.000E+00	NOT IDENT.
I-131	8.561E-03	1.007E-01	1.704E-01	0.000E+00	NOT IDENT.
TE-132	-2.397E-01	5.070E-01	8.586E-01	0.000E+00	NOT IDENT.
BA-133	-3.391E-03	5.058E-02	7.360E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.612E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.866E-02	1.066E-01	0.000E+00	FAIL ABUN
CS-135	2.392E-03	1.743E-01	2.637E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	9.095E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.200E-02	9.445E-02	1.637E-01	0.000E+00	NOT IDENT.
BA-137M	-4.555E-02	3.752E-02	5.693E-02	0.000E+00	NOT IDENT.
CS-137	-4.812E-02	3.963E-02	6.014E-02	0.000E+00	NOT IDENT.
CE-139	2.316E-02	2.974E-02	5.082E-02	0.000E+00	NOT IDENT.
BA-140	1.136E-01	2.515E-01	4.438E-01	0.000E+00	NOT IDENT.
LA-140	-1.195E-02	9.419E-02	1.524E-01	0.000E+00	FAIL ABUN
CE-141	-1.464E-02	5.927E-02	9.717E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	8.255E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-5.427E-02	2.143E-01	3.127E-01	0.000E+00	NOT IDENT.
PM-144	-5.362E-03	3.773E-02	6.319E-02	0.000E+00	NOT IDENT.
PR-144	-4.149E-01	2.820E+00	4.721E+00	0.000E+00	NOT IDENT.
PM-146	2.158E-02	4.351E-02	7.471E-02	0.000E+00	NOT IDENT.
ND-147	-2.268E-02	5.500E-01	9.400E-01	0.000E+00	FAIL ABUN
PM-149	-1.723E+01	5.295E+01	8.882E+01	0.000E+00	NOT IDENT.
EU-152	-1.956E-02	9.946E-02	1.600E-01	0.000E+00	NOT IDENT.
GD-153	-8.121E-02	1.112E-01	1.235E-01	0.000E+00	NOT IDENT.
EU-154	-1.362E-01	1.259E-01	1.835E-01	0.000E+00	NOT IDENT.
EU-155	8.284E-02	9.488E-02	1.663E-01	0.000E+00	FAIL ABUN
TB-160	-2.049E-02	1.546E-01	2.535E-01	0.000E+00	FAIL ABUN
HO-166M	2.675E-02	5.916E-02	1.040E-01	0.000E+00	NOT IDENT.
TA-182	-9.817E-02	2.063E-01	3.331E-01	0.000E+00	FAIL ABUN
IR-192	-1.727E-04	3.421E-02	5.814E-02	0.000E+00	FAIL ABUN
HG-203	5.721E-02	4.042E-02	7.257E-02	0.000E+00	NOT IDENT.
BI-207	3.701E-02	5.524E-02	1.000E-01	0.000E+00	FAIL ABUN
PB-210	7.922E-01	1.788E+00	3.161E+00	0.000E+00	NOT IDENT.
PB-211	-4.498E-01	7.893E-01	1.216E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.578E-01	1.222E+00	0.000E+00	FAIL ABUN
RN-219	4.774E-01	4.417E-01	7.815E-01	0.000E+00	FAIL ABUN
RA-223	4.877E-01	7.171E-01	1.123E+00	0.000E+00	FAIL ABUN
AC-227	-9.261E-03	2.446E-01	4.208E-01	0.000E+00	FAIL ABUN
TH-227	-9.261E-03	2.446E-01	4.208E-01	0.000E+00	FAIL ABUN
PA-231	-1.162E+00	1.430E+00	2.315E+00	0.000E+00	FAIL ABUN
TH-231	4.877E-01	7.171E-01	1.123E+00	0.000E+00	FAIL ABUN
PA-233	4.718E-02	6.790E-02	1.175E-01	0.000E+00	FAIL ABUN
PA-234	-8.886E-03	3.265E-01	5.374E-01	0.000E+00	FAIL ABUN
PA-234M	-9.063E-01	5.218E+00	8.492E+00	0.000E+00	NOT IDENT.
NP-239	3.133E-03	3.691E-01	6.206E-01	0.000E+00	FAIL ABUN
AM-241	9.863E-03	1.184E-01	1.851E-01	0.000E+00	NOT IDENT.
CM-247	5.883E-02	3.941E-02	7.189E-02	0.000E+00	NOT IDENT.
CF-249	1.708E-02	4.155E-02	7.152E-02	0.000E+00	NOT IDENT.

CF-251	6.181E-02	1.230E-01	2.212E-01	0.000E+00 NOT IDENT.
ANH-511	4.283E-02	4.929E-02	9.204E-02	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 23:08:14.31

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244003.CNF;1
Sample date       : 10-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 21:07:35
Sample ID         : G249244003           Sample quantity  : 1.16520E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.22  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 964804               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	944	10.66*	1.129E+00	2.526E+01	2.526E+01	10.98
CD-109	88.03	225	3.70*	6.837E+00	2.868E+00	2.926E+00	34.08
SN-126	64.28	109	9.60	4.808E+00	7.616E-01	7.616E-01	72.91
	86.94	225	8.90	6.837E+00	1.192E+00	1.192E+00	52.89
	87.57	225	37.00*	6.837E+00	2.868E-01	2.868E-01	34.08
TL-208	277.37	------	6.60	4.401E+00	------ Line Not Found		------
	583.19	343	85.00*	2.476E+00	5.251E-01	5.251E-01	16.95
	860.56	------	12.50	1.783E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	5.899E+00	------ Line Not Found		------
	351.06	597	12.92*	3.680E+00	4.047E+00	4.047E+00	15.12
PB-212	74.82	432	10.28	6.070E+00	2.229E+00	2.229E+00	23.02
	77.11	712	17.10	6.262E+00	2.143E+00	2.143E+00	14.03
	238.63	1123	43.60*	4.908E+00	1.691E+00	1.691E+00	11.95
	300.09	89	3.30	4.149E+00	2.083E+00	2.083E+00	52.16
BI-214	609.32	424	45.49*	2.388E+00	1.257E+00	1.257E+00	16.91
	1120.29	84	14.92	1.413E+00	1.290E+00	1.290E+00	55.06
	1764.49	71	15.30	9.831E-01	1.521E+00	1.521E+00	29.65
PB-214	74.82	432	5.80	6.070E+00	3.951E+00	3.951E+00	22.32
	77.11	712	9.70	6.262E+00	3.777E+00	3.777E+00	16.28
	242.00	288	7.25	4.865E+00	2.633E+00	2.633E+00	28.65
	295.22	364	18.42	4.201E+00	1.517E+00	1.517E+00	21.78
	351.93	597	35.60*	3.680E+00	1.469E+00	1.469E+00	16.10
RA-224	240.99	288	4.10*	4.865E+00	4.656E+00	4.656E+00	28.06
RA-226	609.32	424	45.49*	2.388E+00	1.257E+00	1.257E+00	16.91
	1120.29	84	14.92	1.413E+00	1.290E+00	1.290E+00	55.06
	1764.49	71	15.30	9.831E-01	1.521E+00	1.521E+00	29.65
AC-228	338.32	233	11.27	3.793E+00	1.760E+00	1.760E+00	47.96
	911.20	229	25.80*	1.695E+00	1.686E+00	1.686E+00	25.59
	968.97	113	15.80	1.605E+00	1.434E+00	1.434E+00	50.29
RA-228	338.32	233	11.27	3.793E+00	1.760E+00	1.760E+00	47.96
	911.20	229	25.80*	1.695E+00	1.686E+00	1.686E+00	25.59
	968.97	113	15.80	1.605E+00	1.434E+00	1.434E+00	50.29

Sample ID : G249244003 Acquisition date : 23-MAR-2010 21:07:35

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	432	10.28	6.070E+00	2.229E+00	2.229E+00	20.89
	77.11	712	17.10	6.262E+00	2.143E+00	2.143E+00	14.03
	238.63	1123	43.60*	4.908E+00	1.691E+00	1.691E+00	11.95
	300.09	89	3.30	4.149E+00	2.083E+00	2.083E+00	79.73
TH-229	85.43	99	14.70	6.690E+00	3.231E-01	3.231E-01	68.87
	88.47	225	24.00	6.837E+00	4.421E-01	4.421E-01	34.08
	193.51	------	4.41*	5.668E+00	------ Line Not Found		------
	210.85	------	2.80	5.354E+00	------ Line Not Found		------
TH-230	609.32	424	45.49*	2.388E+00	1.257E+00	1.257E+00	16.07
	1120.29	84	14.92	1.413E+00	1.290E+00	1.290E+00	54.65
	1764.49	71	15.30	9.831E-01	1.521E+00	1.521E+00	29.65
TH-232	338.32	233	11.27	3.793E+00	1.760E+00	1.760E+00	25.18
	911.20	229	25.80*	1.695E+00	1.686E+00	1.686E+00	25.59
	968.97	113	15.80	1.605E+00	1.434E+00	1.434E+00	50.29
TH-234	63.29	109	3.70*	4.808E+00	1.976E+00	1.976E+00	73.64
	92.59	206	4.23	7.025E+00	2.232E+00	2.232E+00	47.73
U-235	89.96	131	3.47	6.940E+00	1.749E+00	1.749E+00	39.43
	93.35	206	5.60	7.025E+00	1.686E+00	1.686E+00	48.21
	143.76	------	10.96*	6.691E+00	------ Line Not Found		------
	163.33	------	5.08	6.279E+00	------ Line Not Found		------
	185.72	156	57.20	5.812E+00	1.515E-01	1.515E-01	42.62
	205.31	------	5.01	5.451E+00	------ Line Not Found		------
NP-237	86.48	225	12.40*	6.837E+00	8.557E-01	8.557E-01	40.01
	95.86	------	2.68	7.087E+00	------ Line Not Found		------
U-238	63.29	109	3.70*	4.808E+00	1.976E+00	1.976E+00	73.64
	92.59	206	4.23	7.025E+00	2.232E+00	2.232E+00	43.18

Flag: "*" = Keyline

Sample ID : G249244003 Acquisition date : 23-MAR-2010 21:07:35

Total number of lines in spectrum 32
Number of unidentified lines 4
Number of lines tentatively identified by NID 28 87.50%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	2.526E+01	2.526E+01	0.277E+01	10.98	
CD-109	461.40D	1.02	2.868E+00	2.926E+00	0.997E+00	34.08	
SN-126	2.30E+05Y	1.00	2.868E-01	2.868E-01	0.977E-01	34.08	
TL-208	1.41E+10Y	1.00	5.251E-01	5.251E-01	0.890E-01	16.95	
BI-211	7.04E+08Y	1.00	4.047E+00	4.047E+00	0.612E+00	15.12	
PB-212	1.41E+10Y	1.00	1.691E+00	1.691E+00	0.202E+00	11.95	
BI-214	1600.00Y	1.00	1.257E+00	1.257E+00	0.213E+00	16.91	
PB-214	1600.00Y	1.00	1.469E+00	1.469E+00	0.236E+00	16.10	
RA-224	1.41E+10Y	1.00	4.656E+00	4.656E+00	1.306E+00	28.06	
RA-226	1600.00Y	1.00	1.257E+00	1.257E+00	0.213E+00	16.91	
AC-228	1.41E+10Y	1.00	1.686E+00	1.686E+00	0.432E+00	25.59	
RA-228	1.41E+10Y	1.00	1.686E+00	1.686E+00	0.432E+00	25.59	
TH-228	1.41E+10Y	1.00	1.691E+00	1.691E+00	0.202E+00	11.95	
TH-229	7340.00Y	1.00	4.421E-01	4.421E-01	1.507E-01	34.08	K
TH-230	7.54E+04Y	1.00	1.257E+00	1.257E+00	0.202E+00	16.07	
TH-232	1.41E+10Y	1.00	1.686E+00	1.686E+00	0.432E+00	25.59	
TH-234	4.47E+09Y	1.00	1.976E+00	1.976E+00	1.455E+00	73.64	
U-235	7.04E+08Y	1.00	1.515E-01	1.515E-01	0.645E-01	42.62	K
NP-237	2.14E+06Y	1.00	8.557E-01	8.557E-01	3.424E-01	40.01	
U-238	4.47E+09Y	1.00	1.976E+00	1.976E+00	1.455E+00	73.64	
	Total Activity :		5.672E+01	5.678E+01			

Grand Total Activity : 5.672E+01 5.678E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249244003 Acquisition date : 23-MAR-2010 21:07:35

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	99.53	74	285	1.30	198.70	195	8	1.02E-02	83.0	7.14E+00	T
0	128.74	84	306	1.41	257.12	253	9	1.17E-02	78.2	6.97E+00	
0	209.28	88	208	1.56	418.16	414	8	1.22E-02	61.0	5.38E+00	
0	270.11	94	166	1.49	539.80	535	10	1.31E-02	55.2	4.49E+00	T
0	327.77	97	191	1.19	655.10	648	14	1.35E-02	63.7	3.88E+00	T
0	463.17	87	70	1.54	925.85	922	10	1.21E-02	41.9	2.98E+00	T
0	727.70	73	45	1.38	1454.84	1450	10	1.02E-02	43.2	2.06E+00	T
0	768.75	38	40	1.34	1536.93	1533	8	5.26E-03	68.1	1.97E+00	
0	795.63	60	54	0.65	1590.68	1585	13	8.39E-03	51.4	1.91E+00	T
0	1238.27	46	39	1.57	2475.87	2470	11	6.45E-03	59.5	1.30E+00	T
0	1378.39	38	13	1.50	2756.09	2750	10	5.29E-03	47.6	1.18E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 23:08:17.56

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                 DETECTOR DATA                               *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244003.CNF;1   *
* Acquisition date  : 23-MAR-2010 21:07:35  Detector SN#     :                *
* Detector ID       : GAM07                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.22          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 10-MAR-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID         : G249244003            Analyst initials: MXR1            *
* Batch Number      : 964804                Sample Quantity : 1.16520E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58.0MS Isotope      :                  *
* MSD ID           :                      MSD Isotope     :                  *
* LCS ID           : 1032-A               LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.526E+01	2.773E+00	5.906E-01	5.071E-02	42.765
CD-109	2.926E+00	9.972E-01	1.159E+00	1.092E-01	2.524
SN-126	2.868E-01	9.773E-02	1.139E-01	1.067E-02	2.519
TL-208	5.251E-01	8.901E-02	5.881E-02	5.619E-03	8.929
BI-211	4.047E+00	6.121E-01	3.465E-01	3.109E-02	11.679
PB-212	1.691E+00	2.020E-01	9.322E-02	8.962E-03	18.140
BI-214	1.257E+00	2.126E-01	1.143E-01	1.188E-02	10.993
PB-214	1.469E+00	2.365E-01	1.260E-01	1.327E-02	11.654
RA-224	4.656E+00	1.306E+00	9.994E-01	8.452E-02	4.659
RA-226	1.257E+00	2.126E-01	1.143E-01	1.188E-02	10.993
AC-228	1.686E+00	4.316E-01	2.200E-01	2.637E-02	7.665
RA-228	1.686E+00	4.316E-01	2.200E-01	2.637E-02	7.665
TH-228	1.691E+00	2.020E-01	9.322E-02	8.962E-03	18.140
TH-229	4.421E-01	1.507E-01	8.477E-01	6.921E-02	0.522
TH-230	1.257E+00	2.020E-01	1.143E-01	1.024E-02	10.993
TH-232	1.686E+00	4.316E-01	2.200E-01	2.637E-02	7.665
TH-234	1.976E+00	1.455E+00	1.584E+00	2.818E-01	1.247
U-235	1.515E-01	6.455E-02	3.329E-01	5.580E-02	0.455

Sample ID : G249244003 Acquisition date : 23-MAR-2010 21:07:35

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	8.557E-01	3.424E-01	3.088E-01	7.075E-02	2.771
U-238	1.976E+00	1.455E+00	1.584E+00	2.818E-01	1.247

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.782E-01		3.298E-01	5.516E-01	5.205E-02	0.323
NA-22	-2.994E-02		4.309E-02	6.503E-02	5.338E-03	-0.460
NA-24	8.397E-03		5.060E-02	Half-Life too short		
SC-46	-2.839E-02		4.292E-02	6.345E-02	5.814E-03	-0.447
V-48	-1.664E-02		6.916E-02	1.083E-01	9.746E-03	-0.154
CR-51	-2.529E-01		3.778E-01	5.705E-01	5.151E-02	-0.443
MN-54	-2.621E-03		3.870E-02	6.271E-02	5.756E-03	-0.042
CO-56	3.468E-02		3.762E-02	6.706E-02	6.157E-03	0.517
CO-57	3.118E-02		2.463E-02	4.175E-02	3.592E-03	0.747
CO-58	-4.339E-02		3.660E-02	5.104E-02	4.689E-03	-0.850
FE-59	2.065E-02		9.605E-02	1.638E-01	1.517E-02	0.126
CO-60	-1.012E-02		4.619E-02	7.412E-02	6.072E-03	-0.137
ZN-65	4.378E-02		1.068E-01	1.623E-01	1.377E-02	0.270
SE-75	2.318E-02		5.249E-02	7.920E-02	6.765E-03	0.293
SR-85	-1.216E-01		5.136E-02	7.357E-02	6.542E-03	-1.652
Y-88	-2.710E-02		3.630E-02	5.091E-02	4.132E-03	-0.532
Y-91	2.396E+01		2.349E+01	4.229E+01	3.453E+00	0.567
NB-94	2.640E-03		3.469E-02	5.768E-02	5.179E-03	0.046
NB-95	-2.198E-02		5.603E-02	7.656E-02	6.980E-03	-0.287
NB-95M	1.498E-02		1.379E-01	2.046E-01	1.990E-02	0.073
ZR-95	1.932E-02		7.661E-02	1.287E-01	1.281E-02	0.150
MO-99	2.670E+00		9.344E+00	1.572E+01	2.516E+00	0.170
TC-99M	1.623E+08		1.615E+08	Half-Life too short		
RU-103	1.083E-02		4.152E-02	6.780E-02	9.565E-03	0.160
RH-106	8.969E-03		3.273E-01	5.464E-01	7.358E-02	0.016
RU-106	8.969E-03		3.273E-01	5.464E-01	4.884E-02	0.016
AG-108M	-1.398E-02		3.198E-02	4.981E-02	4.415E-03	-0.281
AG-110M	1.066E-02		3.522E-02	5.993E-02	5.460E-03	0.178
SN-113	-3.811E-03		4.481E-02	7.232E-02	6.217E-03	-0.053
CD-115	-2.842E+00		6.905E+00	1.126E+01	1.004E+00	-0.252
SN-117M	-1.555E-02		4.973E-02	7.759E-02	6.221E-03	-0.200
TE-123M	-2.786E-02		2.906E-02	4.365E-02	3.522E-03	-0.638
SB-124	-1.738E-02		8.732E-02	1.354E-01	1.176E-02	-0.128
SB-125	-2.031E-04		9.903E-02	1.599E-01	1.393E-02	-0.001
TE-125M	4.295E+00		8.992E+00	1.474E+01	1.550E+00	0.291
I-126	1.684E-01		2.093E-01	3.688E-01	3.269E-02	0.457
SB-126	9.850E-02		1.319E-01	2.216E-01	2.000E-02	0.444
SB-127	-4.288E-01		9.830E-01	1.560E+00	1.736E-01	-0.275
I-131	8.561E-03		1.027E-01	1.686E-01	1.507E-02	0.051
TE-132	-2.397E-01		5.173E-01	8.454E-01	1.300E-01	-0.284
BA-133	-3.391E-03		5.161E-02	7.279E-02	9.377E-03	-0.047

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	8.088E-05		8.226E-04	Half-Life too short		
CS-134	1.342E-01	+	7.006E-02	1.063E-01	9.794E-03	1.263
CS-135	2.392E-03		1.779E-01	2.600E-01	2.564E-02	0.009
I-135	5.818E+07		4.640E+07	Half-Life too short		
CS-136	1.200E-02		9.638E-02	1.637E-01	1.497E-02	0.073
BA-137M	-4.555E-02		3.828E-02	5.667E-02	5.015E-03	-0.804
CS-137	-4.812E-02		4.044E-02	5.986E-02	5.307E-03	-0.804
CE-139	2.316E-02		3.035E-02	4.987E-02	3.945E-03	0.464
BA-140	1.136E-01		2.567E-01	4.408E-01	1.498E-01	0.258
LA-140	-1.195E-02		9.612E-02	1.530E-01	1.280E-02	-0.078
CE-141	-1.464E-02		6.048E-02	9.525E-02	7.974E-03	-0.154
CE-143	2.050E-04		4.212E-05	Half-Life too short		
CE-144	-5.427E-02		2.187E-01	3.063E-01	4.641E-02	-0.177
PM-144	-5.362E-03		3.850E-02	6.292E-02	5.640E-03	-0.085
PR-144	-4.149E-01		2.877E+00	4.701E+00	4.213E-01	-0.088
PM-146	2.158E-02		4.440E-02	7.408E-02	7.884E-03	0.291
ND-147	-2.268E-02		5.612E-01	9.335E-01	1.412E-01	-0.024
PM-149	-1.723E+01		5.403E+01	8.765E+01	1.357E+01	-0.197
EU-152	-1.956E-02		1.015E-01	1.582E-01	1.433E-02	-0.124
GD-153	-8.121E-02		1.134E-01	1.206E-01	1.078E-02	-0.674
EU-154	-1.362E-01		1.285E-01	1.839E-01	2.034E-02	-0.741
EU-155	8.284E-02		9.681E-02	1.625E-01	1.435E-02	0.510
TB-160	-2.049E-02		1.578E-01	2.530E-01	2.320E-02	-0.081
HO-166M	2.675E-02		6.036E-02	1.036E-01	9.323E-03	0.258
TA-182	-9.817E-02		2.105E-01	3.336E-01	2.729E-02	-0.294
IR-192	-1.727E-04		3.491E-02	5.744E-02	4.937E-03	-0.003
HG-203	5.721E-02		4.124E-02	7.160E-02	6.237E-03	0.799
BI-207	3.701E-02		5.636E-02	1.001E-01	8.731E-03	0.370
PB-210	7.922E-01		1.824E+00	3.064E+00	2.848E-01	0.259
PB-211	-4.498E-01		8.054E-01	1.205E+00	5.825E-01	-0.373
BI-212	1.718E+00	+	7.733E-01	1.217E+00	1.553E-01	1.411
RN-219	4.774E-01		4.507E-01	7.739E-01	1.141E-01	0.617
RA-223	4.877E-01		7.318E-01	1.110E+00	1.921E-01	0.440
AC-227	-9.261E-03		2.496E-01	4.148E-01	4.961E-02	-0.022
TH-227	-9.261E-03		2.496E-01	4.148E-01	5.610E-02	-0.022
PA-231	-1.162E+00		1.459E+00	2.284E+00	3.316E-01	-0.508
TH-231	4.877E-01		7.318E-01	1.110E+00	1.921E-01	0.440
PA-233	4.718E-02		6.928E-02	1.161E-01	1.024E-02	0.407
PA-234	-8.886E-03		3.332E-01	5.368E-01	1.019E-01	-0.017
PA-234M	-9.063E-01		5.325E+00	8.488E+00	8.704E-01	-0.107
NP-239	3.133E-03		3.766E-01	6.070E-01	5.222E-02	0.005
AM-241	9.863E-03		1.208E-01	1.798E-01	1.425E-02	0.055
CM-247	5.883E-02		4.022E-02	7.119E-02	5.976E-03	0.826
CF-249	1.708E-02		4.239E-02	7.079E-02	5.908E-03	0.241
CF-251	6.181E-02		1.255E-01	2.172E-01	1.742E-02	0.285
ANH-511	4.283E-02		5.029E-02	9.137E-02	8.119E-03	0.469

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249244003            *
* Acquisition date : 23-MAR-2010 21:07:35 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.22     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 10-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249244003           Analyst initials: MXR1            *
* Batch Number     : 964804               Sample Quantity : 1.1652E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.526E+01	2.718E+00	2.944E-01	1.387E+00
CD-109	2.926E+00	9.773E-01	5.947E-01	4.986E-01
SN-126	2.868E-01	9.578E-02	5.842E-02	4.887E-02
TL-208	5.251E-01	8.723E-02	2.960E-02	4.450E-02
BI-211	4.047E+00	5.998E-01	1.753E-01	3.060E-01
PB-212	1.691E+00	1.980E-01	4.735E-02	1.010E-01
BI-214	1.257E+00	2.083E-01	5.751E-02	1.063E-01
PB-214	1.469E+00	2.317E-01	6.376E-02	1.182E-01
RA-224	4.656E+00	1.280E+00	5.075E-01	6.532E-01
RA-226	1.257E+00	2.083E-01	5.751E-02	1.063E-01
AC-228	1.686E+00	4.230E-01	1.102E-01	2.158E-01
RA-228	1.686E+00	4.230E-01	1.102E-01	2.158E-01
TH-228	1.691E+00	1.980E-01	4.735E-02	1.010E-01
TH-229	-4.035E-01	5.105E-01	4.315E-01	2.605E-01
TH-230	1.257E+00	1.979E-01	5.751E-02	1.010E-01
TH-232	1.686E+00	4.230E-01	1.102E-01	2.158E-01
TH-234	1.976E+00	1.426E+00	8.153E-01	7.275E-01
U-235	1.663E-01	2.031E-01	1.700E-01	1.036E-01
NP-237	8.557E-01	3.356E-01	1.584E-01	1.712E-01
U-238	1.976E+00	1.426E+00	8.153E-01	7.275E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.782E-01	3.232E-01	2.782E-01	1.649E-01	NOT IDENT.
NA-22	-2.994E-02	4.223E-02	3.246E-02	2.154E-02	NOT IDENT.
NA-24	8.397E+03	9.918E+04	0.000E+00	5.060E+04	SHORT HLIF
SC-46	-2.839E-02	4.206E-02	3.179E-02	2.146E-02	FAIL ABUN
V-48	-1.664E-02	6.778E-02	5.420E-02	3.458E-02	NOT IDENT.
CR-51	-2.529E-01	3.702E-01	2.889E-01	1.889E-01	NOT IDENT.
MN-54	-2.621E-03	3.792E-02	3.144E-02	1.935E-02	NOT IDENT.

CO-56	3.468E-02	3.686E-02	3.362E-02	1.881E-02	FAIL ABUN
CO-57	3.118E-02	2.413E-02	2.135E-02	1.231E-02	NOT IDENT.
CO-58	-4.339E-02	3.587E-02	2.560E-02	1.830E-02	NOT IDENT.
FE-59	2.065E-02	9.413E-02	8.189E-02	4.802E-02	NOT IDENT.
CO-60	-1.012E-02	4.527E-02	3.699E-02	2.310E-02	NOT IDENT.
ZN-65	4.378E-02	1.047E-01	8.113E-02	5.342E-02	NOT IDENT.
SE-75	2.318E-02	5.144E-02	4.018E-02	2.624E-02	NOT IDENT.
SR-85	-1.216E-01	5.033E-02	3.708E-02	2.568E-02	NOT IDENT.
Y-88	-2.710E-02	3.558E-02	2.532E-02	1.815E-02	NOT IDENT.
Y-91	2.396E+01	2.302E+01	2.112E+01	1.175E+01	NOT IDENT.
NB-94	2.640E-03	3.400E-02	2.897E-02	1.735E-02	NOT IDENT.
NB-95	-2.198E-02	5.491E-02	3.843E-02	2.802E-02	NOT IDENT.
NB-95M	1.498E-02	1.352E-01	1.039E-01	6.897E-02	NOT IDENT.
ZR-95	1.932E-02	7.508E-02	6.458E-02	3.831E-02	NOT IDENT.
MO-99	2.670E+00	9.157E+00	7.893E+00	4.672E+00	NOT IDENT.
TC-99M	1.623E+14	3.166E+14	0.000E+00	1.615E+14	SHORT HLIF
RU-103	1.083E-02	4.069E-02	3.418E-02	2.076E-02	FAIL ABUN
RH-106	8.969E-03	3.207E-01	2.748E-01	1.636E-01	NOT IDENT.
RU-106	8.969E-03	3.207E-01	2.748E-01	1.636E-01	NOT IDENT.
AG-108M	-1.398E-02	3.134E-02	2.514E-02	1.599E-02	NOT IDENT.
AG-110M	1.066E-02	3.451E-02	3.012E-02	1.761E-02	NOT IDENT.
SN-113	-3.811E-03	4.391E-02	3.655E-02	2.240E-02	NOT IDENT.
CD-115	-2.842E+00	6.767E+00	5.671E+00	3.452E+00	NOT IDENT.
SN-117M	-1.555E-02	4.873E-02	3.957E-02	2.486E-02	NOT IDENT.
TE-123M	-2.786E-02	2.848E-02	2.226E-02	1.453E-02	NOT IDENT.
SB-124	-1.738E-02	8.557E-02	6.740E-02	4.366E-02	NOT IDENT.
SB-125	-2.031E-04	9.705E-02	8.074E-02	4.951E-02	FAIL ABUN
TE-125M	4.295E+00	8.812E+00	7.545E+00	4.496E+00	NOT IDENT.
I-126	1.684E-01	2.051E-01	1.853E-01	1.046E-01	NOT IDENT.
SB-126	9.850E-02	1.293E-01	1.113E-01	6.596E-02	NOT IDENT.
SB-127	-4.288E-01	9.634E-01	7.836E-01	4.915E-01	NOT IDENT.
I-131	8.561E-03	1.007E-01	8.526E-02	5.136E-02	NOT IDENT.
TE-132	-2.397E-01	5.070E-01	4.296E-01	2.587E-01	NOT IDENT.
BA-133	-3.391E-03	5.058E-02	3.682E-02	2.581E-02	NOT IDENT.
I-133	8.088E+01	1.612E+03	0.000E+00	8.226E+02	SHORT HLIF
CS-134	1.342E-01	6.866E-02	5.333E-02	3.503E-02	FAIL ABUN
CS-135	2.392E-03	1.743E-01	1.319E-01	8.893E-02	NOT IDENT.
I-135	5.818E+13	9.095E+13	0.000E+00	4.640E+13	SHORT HLIF
CS-136	1.200E-02	9.445E-02	8.192E-02	4.819E-02	NOT IDENT.
BA-137M	-4.555E-02	3.752E-02	2.848E-02	1.914E-02	NOT IDENT.
CS-137	-4.812E-02	3.963E-02	3.009E-02	2.022E-02	NOT IDENT.
CE-139	2.316E-02	2.974E-02	2.542E-02	1.517E-02	NOT IDENT.
BA-140	1.136E-01	2.515E-01	2.220E-01	1.283E-01	NOT IDENT.
LA-140	-1.195E-02	9.419E-02	7.623E-02	4.806E-02	FAIL ABUN
CE-141	-1.464E-02	5.927E-02	4.862E-02	3.024E-02	NOT IDENT.
CE-143	2.050E+02	8.255E+01	0.000E+00	4.212E+01	SHORT HLIF
CE-144	-5.427E-02	2.143E-01	1.565E-01	1.094E-01	NOT IDENT.
PM-144	-5.362E-03	3.773E-02	3.161E-02	1.925E-02	NOT IDENT.
PR-144	-4.149E-01	2.820E+00	2.362E+00	1.439E+00	NOT IDENT.
PM-146	2.158E-02	4.351E-02	3.738E-02	2.220E-02	NOT IDENT.
ND-147	-2.268E-02	5.500E-01	4.703E-01	2.806E-01	FAIL ABUN
PM-149	-1.723E+01	5.295E+01	4.444E+01	2.702E+01	NOT IDENT.
EU-152	-1.956E-02	9.946E-02	8.004E-02	5.075E-02	NOT IDENT.
GD-153	-8.121E-02	1.112E-01	6.179E-02	5.672E-02	NOT IDENT.
EU-154	-1.362E-01	1.259E-01	9.180E-02	6.423E-02	NOT IDENT.
EU-155	8.284E-02	9.488E-02	8.319E-02	4.841E-02	FAIL ABUN
TB-160	-2.049E-02	1.546E-01	1.268E-01	7.888E-02	FAIL ABUN
HO-166M	2.675E-02	5.916E-02	5.201E-02	3.018E-02	NOT IDENT.
TA-182	-9.817E-02	2.063E-01	1.666E-01	1.052E-01	FAIL ABUN
IR-192	-1.727E-04	3.421E-02	2.909E-02	1.746E-02	FAIL ABUN
HG-203	5.721E-02	4.042E-02	3.631E-02	2.062E-02	NOT IDENT.
BI-207	3.701E-02	5.524E-02	5.005E-02	2.818E-02	FAIL ABUN
PB-210	7.922E-01	1.788E+00	1.581E+00	9.122E-01	NOT IDENT.
PB-211	-4.498E-01	7.893E-01	6.085E-01	4.027E-01	NOT IDENT.
BI-212	1.718E+00	7.578E-01	6.113E-01	3.866E-01	FAIL ABUN
RN-219	4.774E-01	4.417E-01	3.910E-01	2.253E-01	FAIL ABUN
RA-223	4.877E-01	7.171E-01	5.618E-01	3.659E-01	FAIL ABUN
AC-227	-9.261E-03	2.446E-01	2.105E-01	1.248E-01	FAIL ABUN
TH-227	-9.261E-03	2.446E-01	2.105E-01	1.248E-01	FAIL ABUN
PA-231	-1.162E+00	1.430E+00	1.158E+00	7.295E-01	FAIL ABUN
TH-231	4.877E-01	7.171E-01	5.618E-01	3.659E-01	FAIL ABUN
PA-233	4.718E-02	6.790E-02	5.878E-02	3.464E-02	FAIL ABUN
PA-234	-8.886E-03	3.265E-01	2.688E-01	1.666E-01	FAIL ABUN
PA-234M	-9.063E-01	5.218E+00	4.248E+00	2.662E+00	NOT IDENT.
NP-239	3.133E-03	3.691E-01	3.105E-01	1.883E-01	FAIL ABUN
AM-241	9.863E-03	1.184E-01	9.258E-02	6.039E-02	NOT IDENT.
CM-247	5.883E-02	3.941E-02	3.597E-02	2.011E-02	NOT IDENT.
CF-249	1.708E-02	4.155E-02	3.578E-02	2.120E-02	NOT IDENT.

CF-251	6.181E-02	1.230E-01	1.107E-01	6.273E-02	NOT IDENT.
ANH-511	4.283E-02	4.929E-02	4.605E-02	2.515E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                    GAMMA SPECTROSCOPY BACKGROUND REPORT                   *
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```

ENERGY	MDA COUNTS
46.54	257.0497
49.72	306.7365
57.36	0.0000
59.54	331.3332
63.29	352.3622
63.29	352.3622
64.28	368.8850
67.75	398.4688
69.67	404.5916
70.83	437.0086
72.81	432.7998
72.87	432.8547
72.87	432.8547
74.82	366.1754
74.82	366.1754
74.82	366.1754
74.97	366.2865
77.11	367.8602
77.11	367.8602
77.11	367.8602
79.69	323.0043
79.80	323.0739
80.12	314.1252
80.19	314.1676
80.57	299.1351
81.00	314.6580
81.07	314.7004
81.07	314.7004
83.79	351.6504
83.79	351.6504
85.43	301.8985
86.48	302.4862
86.55	302.5251
86.79	302.6566
86.94	383.0612
87.57	371.1310
88.03	371.4423
88.47	371.7407
89.96	372.7405
91.11	309.7001
92.59	310.5109
92.59	310.5109
93.35	310.9254
94.67	279.7992
94.87	303.9169
94.87	303.9169
95.86	304.4364
97.43	305.2549
98.44	286.8647
99.53	240.0188
100.11	214.9622
103.18	273.2484
103.37	265.3880
105.31	228.4976
106.12	252.2079
109.28	234.2269
111.00	286.3357
111.76	271.6422
116.30	259.4824
117.23	230.6135
121.12	245.0180
121.78	208.1951
122.06	209.3711
123.07	235.8896
131.20	187.2614
133.52	241.0634
136.00	240.2139

136.47	229.2395
140.51	234.9597
140.51	0.0000
143.76	216.8659
144.24	208.0083
144.24	208.0083
145.44	246.6201
152.43	245.4214
153.25	268.4217
154.21	252.8010
154.21	252.8010
156.02	231.6852
158.56	220.9613
159.00	250.8618
162.66	211.7056
163.33	237.2089
165.86	206.7393
176.60	226.2854
177.52	205.4498
181.07	224.4868
184.41	191.1077
185.72	198.4695
193.51	231.4168
197.04	220.6234
205.31	228.6680
210.85	199.3892
215.65	189.1904
222.11	201.4211
227.38	229.2456
228.16	207.2126
228.18	207.2178
235.69	205.6962
235.96	223.6377
235.96	223.6377
238.63	177.4814
238.63	177.4814
240.99	177.8641
242.00	178.0279
244.70	162.3059
252.40	155.0988
252.80	157.9921
256.23	151.8237
256.23	151.8237
260.90	154.3445
264.66	154.4565
268.22	156.4564
269.46	147.7917
269.46	147.7917
271.23	155.3146
273.65	198.7721
276.40	185.3262
277.37	161.3226
277.60	140.0970
278.00	139.1770
279.20	139.3132
279.54	148.0623
280.46	169.4778
283.69	152.4459
284.31	141.8363
285.41	140.0164
285.90	145.9076
287.50	136.3556
293.27	0.0000
295.22	145.8166
295.96	145.9006
298.57	121.8317
299.98	116.4579
299.98	116.4579
300.09	116.4669
300.09	116.4669
300.13	116.4705
301.36	138.6365
302.85	121.4479
304.50	118.4436
304.50	118.4436
304.85	118.4747
308.46	142.5630
311.90	115.1415

316.51	124.5041
319.41	121.7785
320.08	135.8195
323.87	110.5617
323.87	110.5617
328.76	114.5740
333.37	96.8057
334.37	104.9474
334.37	104.9474
338.28	130.5393
338.28	130.5393
338.32	130.5432
338.32	130.5432
338.32	130.5432
340.48	116.7557
340.55	116.7627
344.28	116.1394
351.06	121.5022
351.93	121.5748
356.01	116.3838
364.49	104.0715
366.42	110.3960
383.85	109.5806
388.16	101.5128
388.63	99.4502
391.69	98.5956
400.66	106.5388
401.81	96.0599
402.40	85.5360
404.85	118.4514
410.95	94.4824
414.70	86.1873
423.72	95.2171
427.09	110.4182
427.87	99.7434
433.94	101.1788
453.88	80.5773
463.37	84.2951
468.07	84.2965
473.00	88.0493
476.78	81.6150
477.60	73.9284
487.02	95.3800
492.35	76.7459
497.08	76.9396
511.00	89.8608
514.00	211.5014
527.90	82.4865
529.87	0.0000
531.02	83.5255
537.26	72.8594
546.56	0.0000
563.25	68.2603
569.33	78.6375
569.50	78.6437
569.70	79.5773
583.19	68.2917
600.60	83.5548
602.73	86.1412
604.72	81.5166
609.32	68.8064
609.32	68.8064
609.32	68.8064
610.33	51.8646
614.28	73.9998
618.01	56.7759
621.93	68.2506
621.93	68.2506
633.25	60.9734
635.95	52.4608
636.99	52.4850
645.85	57.4790
657.76	59.7007
661.66	85.8407
661.66	85.8407
664.57	0.0000
666.33	57.9858
666.50	53.1577

677.62	73.7976
685.70	64.3033
695.00	69.4417
696.49	79.2697
696.51	79.2697
697.00	78.3066
702.65	64.7528
706.68	63.8765
711.68	52.1887
720.70	44.4716
721.93	0.0000
722.78	56.0469
722.91	56.0496
723.31	56.0593
724.19	51.1306
727.33	67.3774
733.00	84.4106
735.93	55.6760
739.50	69.6924
747.24	52.9262
752.31	75.0421
753.82	60.0688
756.73	59.1340
763.94	58.6267
765.81	82.1352
766.42	77.1252
777.92	74.7660
778.90	64.6859
783.70	56.7027
785.37	57.7501
795.86	49.8386
801.95	44.1733
810.29	46.0118
810.76	53.1781
815.77	45.0796
818.51	55.3790
832.01	57.7090
834.85	56.7349
836.80	0.0000
846.77	34.1843
856.80	89.3993
860.56	66.6156
871.09	67.9025
873.19	49.1343
875.33	0.0000
879.36	57.6184
880.51	50.3051
883.24	55.5970
884.68	49.3270
889.28	54.6597
898.04	53.7667
911.20	41.2956
911.20	41.2956
911.20	41.2956
926.50	43.6326
937.49	61.9450
944.13	66.3579
946.00	50.3345
949.00	52.5267
962.29	61.5151
964.08	50.2658
966.15	62.8735
968.97	81.9876
968.97	81.9876
968.97	81.9876
983.53	45.5161
996.26	46.7835
1001.03	50.1205
1004.73	52.3594
1037.84	40.3978
1038.76	0.0000
1048.07	39.6004
1050.41	47.9206
1050.41	47.9206
1063.66	41.6327
1085.87	52.1423
1099.45	47.6714
1112.07	51.2811

1115.54	46.6820
1120.29	46.0731
1120.29	46.0731
1120.29	46.0731
1120.55	46.0751
1121.30	46.0850
1131.51	0.0000
1173.23	51.5171
1177.93	45.8516
1189.05	49.8206
1204.77	47.1418
1221.41	62.8101
1231.02	50.8572
1235.36	51.5384
1238.28	53.3797
1260.41	0.0000
1271.85	42.0919
1274.44	47.9971
1274.54	41.1404
1291.59	44.2676
1298.22	0.0000
1312.11	31.6393
1332.49	39.7477
1365.19	27.0406
1368.63	0.0000
1384.29	15.0909
1408.01	22.2560
1457.56	0.0000
1460.82	22.5264
1489.16	12.3652
1505.03	20.6812
1596.21	26.3611
1620.50	16.9564
1678.03	0.0000
1690.97	16.1255
1764.49	7.4785
1764.49	7.4785
1764.49	7.4785
1770.23	9.8262
1771.35	3.2761
1791.20	0.0000
1836.06	16.1083

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249244003

Total Uranium Activity	5.9553E+00	ug/g
Total Uranium Counting Unc.	4.2433E+00	ug/g
Total Uranium Tpu	2.1650E-06	ug/g
Total Uranium Mda	2.4268E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 964804                    SAMPLE ID  : G249244003       *
*   ANALYST       : MXR1                      DETECTOR   : GAM07            *
*   SAMPLE DATE   : 10-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 21:07:35.05    SAMPLE ALQT:  116.520 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.723E+00
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.296E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.290E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.595E+00
```

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 23:08:55.46

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244004.CNF;1
Sample date       : 10-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 21:08:19
Sample ID         : G249244004           Sample quantity  : 1.22150E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.77  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 964804                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.45*	127	317	0.91	92.47	89	7	1.76E-02	26.8	
2	0	63.35*	96	652	0.75	126.25	122	9	1.34E-02	50.5	
3	2	74.84*	744	433	0.95	149.25	143	18	1.03E-01	5.8	1.48E+00
4	2	77.10*	1163	333	0.86	153.76	143	18	1.62E-01	3.8	
5	3	87.22	409	375	1.10	173.99	164	29	5.68E-02	9.3	3.02E+00
6	3	89.89	290	360	1.10	179.33	164	29	4.03E-02	12.2	
7	3	92.79*	320	342	1.11	185.13	164	29	4.45E-02	12.3	
8	0	129.07	96	313	0.91	257.69	254	8	1.34E-02	33.5	
9	0	185.96*	253	238	1.24	371.46	367	9	3.51E-02	13.3	
10	0	209.29	86	338	0.97	418.12	413	11	1.19E-02	43.0	
11	4	238.66*	1212	148	1.04	476.85	471	17	1.68E-01	3.4	1.28E+00
12	4	241.72	348	204	1.58	482.98	471	17	4.84E-02	10.3	
13	0	270.01	113	178	1.25	539.54	536	10	1.58E-02	23.7	
14	0	295.31*	414	194	1.02	590.14	585	11	5.76E-02	8.3	
15	0	300.41	42	149	1.72	600.34	596	8	5.87E-03	52.2	
16	0	328.80	118	173	1.12	657.11	651	13	1.64E-02	24.8	
17	0	338.22*	205	217	1.08	675.95	670	12	2.85E-02	16.2	
18	0	351.94	704	143	1.11	703.39	699	11	9.78E-02	5.0	
19	0	462.68	100	82	1.95	924.86	919	11	1.39E-02	20.2	
20	0	511.23*	129	110	2.19	1021.97	1014	17	1.79E-02	23.7	
21	0	583.11*	363	73	1.34	1165.72	1159	14	5.05E-02	7.4	
22	0	609.33*	426	120	1.47	1218.15	1211	15	5.91E-02	7.5	
23	0	727.39	80	100	1.65	1454.27	1446	15	1.11E-02	29.7	
24	0	767.89	66	50	1.56	1535.26	1530	10	9.13E-03	23.6	
25	0	795.24	34	46	1.19	1589.97	1584	10	4.74E-03	41.3	
26	0	860.67*	45	69	1.61	1720.83	1716	15	6.25E-03	43.9	
27	0	911.17*	254	37	1.68	1821.82	1816	13	3.53E-02	8.0	
28	0	969.57*	105	107	1.75	1938.63	1930	14	1.46E-02	23.6	
29	0	1120.31	102	52	1.59	2240.11	2233	16	1.41E-02	18.7	
30	0	1407.48	32	2	1.47	2814.49	2810	9	4.41E-03	19.7	
31	0	1460.78*	963	14	2.21	2921.09	2911	17	1.34E-01	3.4	
32	0	1729.93	32	0	1.84	3459.44	3454	11	4.44E-03	17.7	
33	0	1764.48*	60	22	1.66	3528.55	3523	14	8.29E-03	21.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-MAR-2010 23:08:57

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244004.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 10-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 21:08:19
Sample ID : G249244004 Sample quantity : 122.15 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA25 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.77 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	2.504E+01	2.717E+00	5.146E-01	4.383E-02	48.666
CD-109	+	88.03	*	3.682E+00	7.890E-01	6.930E-01	7.447E-02	5.314
SN-126	+	64.28		3.157E-01	3.229E-01	2.750E-01	4.381E-02	1.148
	+	86.94		1.500E+00	6.867E-01	2.810E-01	1.176E-01	5.340
	+	87.57	*	3.609E-01	7.732E-02	6.777E-02	7.267E-03	5.325
TL-208		277.37		-1.209E-01	3.607E-01	5.592E-01	8.037E-02	-0.216
	+	583.19	*	5.261E-01	9.780E-02	5.317E-02	5.989E-03	9.894
	+	860.56		6.267E-01	5.539E-01	5.019E-01	5.244E-02	1.249
PB-210	+	46.54	*	9.981E-01	5.439E-01	5.225E-01	5.351E-02	1.910
BI-211		72.87		1.299E+00	1.521E+00	2.467E+00	2.490E-01	0.527
	+	351.06	*	4.312E+00	6.249E-01	3.043E-01	3.207E-02	14.168
PB-212	+	74.82		2.294E+00	4.170E-01	2.761E-01	3.883E-02	8.309
	+	77.11		2.166E+00	2.773E-01	1.673E-01	1.714E-02	12.945
	+	238.63	*	1.600E+00	2.120E-01	7.791E-02	8.901E-03	20.534
	+	300.09		8.863E-01	9.327E-01	1.106E+00	1.388E-01	0.801
BI-214	+	609.32	*	1.198E+00	2.305E-01	1.120E-01	1.356E-02	10.697
	+	1120.29		1.496E+00	5.839E-01	4.816E-01	5.250E-02	3.107
	+	1764.49		1.273E+00	5.625E-01	4.496E-01	3.704E-02	2.832
PB-214	+	74.82		4.066E+00	7.027E-01	4.893E-01	6.307E-02	8.309
	+	77.11		3.818E+00	5.815E-01	2.949E-01	3.880E-02	12.945
	+	242.00		2.794E+00	6.673E-01	4.747E-01	5.704E-02	5.885
	+	295.22		1.536E+00	3.213E-01	1.907E-01	2.444E-02	8.055
	+	351.93	*	1.565E+00	2.427E-01	1.070E-01	1.271E-02	14.627
RA-224	+	240.99	*	4.940E+00	1.145E+00	8.361E-01	8.786E-02	5.908
RA-226	+	609.32	*	1.198E+00	2.305E-01	1.120E-01	1.356E-02	10.697
	+	1120.29		1.496E+00	5.839E-01	4.816E-01	5.250E-02	3.107
	+	1764.49		1.273E+00	5.625E-01	4.496E-01	3.704E-02	2.832
AC-228	+	338.32		1.392E+00	7.395E-01	3.504E-01	1.476E-01	3.971
	+	911.20	*	1.806E+00	3.647E-01	2.115E-01	2.585E-02	8.539
	+	968.97		1.285E+00	6.834E-01	4.764E-01	1.173E-01	2.698
RA-228	+	338.32		1.392E+00	7.395E-01	3.504E-01	1.476E-01	3.971
	+	911.20	*	1.806E+00	3.647E-01	2.115E-01	2.585E-02	8.539
	+	968.97		1.285E+00	6.834E-01	4.764E-01	1.173E-01	2.698
TH-228	+	74.82		2.294E+00	3.533E-01	2.761E-01	2.824E-02	8.309

Sample ID : G249244004 Acquisition date : 23-MAR-2010 21:08:19

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		2.166E+00	2.773E-01	1.673E-01	1.714E-02	12.945
	+	238.63	*	1.600E+00	2.120E-01	7.791E-02	8.901E-03	20.534
	+	300.09		8.863E-01	1.075E+00	1.106E+00	6.813E-01	0.801
TH-230	+	609.32	*	1.198E+00	2.217E-01	1.120E-01	1.221E-02	10.697
	+	1120.29		1.496E+00	5.753E-01	4.816E-01	4.141E-02	3.107
	+	1764.49		1.273E+00	5.625E-01	4.496E-01	3.704E-02	2.832
TH-232	+	338.32		1.392E+00	4.735E-01	3.504E-01	3.653E-02	3.971
	+	911.20	*	1.806E+00	3.647E-01	2.115E-01	2.585E-02	8.539
	+	968.97		1.285E+00	6.834E-01	4.764E-01	1.173E-01	2.698
TH-234	+	63.29	*	8.190E-01	8.420E-01	7.124E-01	1.352E-01	1.150
	+	92.59		2.517E+00	8.505E-01	6.094E-01	1.408E-01	4.130
U-235	+	89.96		2.754E+00	9.729E-01	7.305E-01	1.861E-01	3.769
	+	93.35		1.901E+00	6.552E-01	4.620E-01	1.113E-01	4.115
		143.76	*	1.081E-01	1.658E-01	2.800E-01	5.143E-02	0.386
		163.33		3.002E-02	3.668E-01	5.976E-01	1.090E-01	0.050
	+	185.72		2.118E-01	5.955E-02	5.372E-02	5.030E-03	3.943
		205.31		3.154E-02	4.858E-01	6.913E-01	1.295E-01	0.046
NP-237	+	86.48	*	1.077E+00	3.228E-01	2.013E-01	4.735E-02	5.351
		95.86		3.800E-01	6.056E-01	9.547E-01	2.389E-01	0.398
U-238	+	63.29	*	8.190E-01	8.420E-01	7.124E-01	1.352E-01	1.150
	+	92.59		2.517E+00	6.793E-01	6.094E-01	6.696E-02	4.130
ANH-511	+	511.00	*	1.412E-01	6.858E-02	4.511E-02	4.643E-03	3.131

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.636E-01	3.054E-01	5.177E-01	5.480E-02	0.316
NA-22		1274.54	*	7.675E-03	4.135E-02	6.948E-02	5.697E-03	0.110
NA-24		1368.63	*	-1.365E-01	4.135E-02	Half-Life too short		
SC-46		889.28	*	-4.827E-02	4.425E-02	6.372E-02	6.102E-03	-0.758
	+	1120.55		2.495E-01	9.592E-02	1.328E-01	1.142E-02	1.879
V-48		944.13		-4.989E-01	8.459E-01	1.275E+00	1.196E-01	-0.391
		983.53	*	-9.881E-03	7.366E-02	1.170E-01	1.084E-02	-0.084
		1312.11		-1.092E-02	7.641E-02	1.231E-01	1.003E-02	-0.089
CR-51		320.08	*	-2.629E-01	3.121E-01	4.964E-01	5.510E-02	-0.530
MN-54		834.85	*	1.299E-02	4.148E-02	6.965E-02	7.068E-03	0.186
CO-56		846.77	*	2.789E-02	4.027E-02	7.002E-02	7.026E-03	0.398
		1037.84		1.547E-01	3.359E-01	5.856E-01	5.552E-02	0.264
		1238.28		2.941E-02	9.271E-02	1.569E-01	1.331E-02	0.187
		1771.35		2.634E-02	2.986E-01	4.501E-01	3.705E-02	0.059
CO-57		122.06	*	5.342E-03	1.782E-02	3.045E-02	3.927E-03	0.175
		136.47		1.412E-02	1.596E-01	2.682E-01	3.287E-02	0.053
CO-58		810.76	*	1.152E-02	4.064E-02	6.843E-02	7.100E-03	0.168
FE-59		1099.45	*	-1.649E-02	8.672E-02	1.418E-01	1.335E-02	-0.116
		1291.59		3.366E-02	1.282E-01	2.165E-01	2.034E-02	0.155
CO-60		1173.23		7.079E-03	5.031E-02	8.442E-02	6.949E-03	0.084
		1332.49	*	-3.263E-02	4.288E-02	6.319E-02	5.132E-03	-0.516
ZN-65		1115.54	*	3.686E-02	9.824E-02	1.485E-01	1.283E-02	0.248

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SE-75		121.12		3.175E-02	9.200E-02	1.575E-01	2.299E-02	0.202
		136.00		3.788E-03	3.056E-02	5.147E-02	6.107E-03	0.074
		264.66	*	-1.847E-03	3.808E-02	6.043E-02	6.623E-03	-0.031
		279.54		-4.753E-02	1.000E-01	1.533E-01	1.750E-02	-0.310
		400.66		2.425E-02	2.559E-01	4.259E-01	4.915E-02	0.057
SR-85		514.00	*	5.038E-02	4.096E-02	6.489E-02	6.695E-03	0.776
Y-88		898.04		-3.531E-02	4.831E-02	7.290E-02	6.933E-03	-0.484
		1836.06	*	-1.215E-02	3.527E-02	5.369E-02	4.388E-03	-0.226
Y-91		1204.77	*	-1.009E+01	2.251E+01	3.536E+01	2.910E+00	-0.285
NB-94		702.65	*	9.677E-03	3.721E-02	6.307E-02	6.926E-03	0.153
		871.09		-1.361E-03	3.337E-02	5.415E-02	5.297E-03	-0.025
NB-95		765.81	*	4.752E-02	5.326E-02	8.315E-02	8.882E-03	0.572
NB-95M		235.69	*	1.133E-01	1.084E-01	1.667E-01	1.913E-02	0.680
ZR-95		724.19		-4.424E-02	1.111E-01	1.524E-01	1.750E-02	-0.290
		756.73	*	1.633E-02	7.621E-02	1.281E-01	1.470E-02	0.127
MO-99		140.51		-2.887E+00	1.113E+01	1.798E+01	4.479E+00	-0.161
		181.07		-5.467E+00	9.941E+00	1.393E+01	2.659E+00	-0.393
		366.42		-9.944E+00	5.607E+01	9.230E+01	9.046E+00	-0.108
		739.50	*	-4.067E+00	8.257E+00	1.302E+01	2.222E+00	-0.312
		777.92		-1.294E+01	2.599E+01	4.093E+01	4.341E+00	-0.316
TC-99M		140.51	*	-6.351E+07	2.599E+01	Half-Life too short		
RU-103		497.08	*	-2.892E-03	3.836E-02	6.189E-02	9.271E-03	-0.047
	+	610.33		1.199E+01	2.775E+00	2.924E+00	5.163E-01	4.101
RH-106		621.93	*	-3.765E-02	3.207E-01	5.343E-01	7.949E-02	-0.070
		1050.41		-2.192E+00	2.832E+00	4.392E+00	3.949E-01	-0.499
RU-106		621.93	*	-3.765E-02	3.206E-01	5.343E-01	5.851E-02	-0.070
		1050.41		-2.192E+00	2.832E+00	4.392E+00	3.949E-01	-0.499
AG-108M		433.94	*	-8.977E-03	2.949E-02	4.738E-02	4.655E-03	-0.189
		614.28		-1.877E-02	4.064E-02	5.651E-02	6.297E-03	-0.332
		722.91		7.472E-03	4.093E-02	6.030E-02	6.708E-03	0.124
AG-110M		657.76	*	-8.216E-02	4.239E-02	5.916E-02	6.667E-03	-1.389
		677.62		-6.355E-02	3.248E-01	5.334E-01	5.998E-02	-0.119
		706.68		9.437E-03	2.362E-01	3.938E-01	4.397E-02	0.024
		763.94		1.669E-01	1.861E-01	2.938E-01	3.198E-02	0.568
		884.68		2.763E-03	5.007E-02	8.198E-02	8.098E-03	0.034
		937.49		-1.711E-01	1.267E-01	1.746E-01	1.691E-02	-0.980
		1384.29		-7.387E-02	1.747E-01	2.685E-01	2.264E-02	-0.275
		1505.03		-2.928E-01	3.420E-01	4.828E-01	4.003E-02	-0.606
SN-113		391.69	*	-2.507E-03	3.853E-02	6.357E-02	5.937E-03	-0.039
CD-115		260.90		-5.247E+01	7.271E+01	1.100E+02	1.195E+01	-0.477
		492.35		-8.551E-01	2.114E+01	3.423E+01	3.471E+00	-0.025
		527.90	*	-1.864E+00	6.419E+00	1.009E+01	1.051E+00	-0.185
SN-117M		156.02		-1.444E+00	1.645E+00	2.603E+00	2.596E-01	-0.555
		158.56	*	-1.519E-02	3.900E-02	6.333E-02	6.149E-03	-0.240
TE-123M		159.00	*	-1.846E-03	2.183E-02	3.601E-02	3.497E-03	-0.051
SB-124		602.73		1.133E-02	4.272E-02	6.451E-02	7.012E-03	0.176
		645.85		9.194E-02	4.399E-01	7.506E-01	8.576E-02	0.122
		722.78		7.353E-02	4.030E-01	5.937E-01	6.568E-02	0.124
		1690.97	*	8.676E-02	7.370E-02	1.480E-01	1.283E-02	0.586

Sample ID : G249244004 Acquisition date : 23-MAR-2010 21:08:19

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-125		427.87	*	-3.317E-02	8.671E-02	1.385E-01	1.337E-02	-0.239
	+	463.37		9.598E-01	4.003E-01	5.672E-01	5.925E-02	1.692
		600.60		1.080E-01	1.793E-01	3.146E-01	3.577E-02	0.343
		635.95		1.207E-01	2.910E-01	5.029E-01	5.812E-02	0.240
TE-125M		109.28	*	4.525E+00	6.657E+00	1.157E+01	1.550E+00	0.391
I-126		388.63		4.204E-03	1.336E-01	2.221E-01	2.040E-02	0.019
		666.33	*	-3.211E-01	2.472E-01	3.718E-01	4.116E-02	-0.864
		753.82		1.660E+00	1.743E+00	3.094E+00	3.327E-01	0.537
SB-126		414.70		-3.905E-02	6.536E-02	1.017E-01	9.523E-03	-0.384
		666.50		-6.085E-02	8.009E-02	1.261E-01	1.396E-02	-0.482
		695.00		1.655E-02	7.184E-02	1.218E-01	1.340E-02	0.136
		697.00		1.450E-02	2.522E-01	4.217E-01	4.639E-02	0.034
		720.70	*	1.133E-01	1.457E-01	2.294E-01	2.504E-02	0.494
		856.80		4.347E-01	4.749E-01	7.549E-01	7.498E-02	0.576
SB-127		252.40		2.484E+00	3.038E+00	4.802E+00	2.011E+00	0.517
		473.00		-4.775E-01	1.108E+00	1.738E+00	2.313E-01	-0.275
		685.70	*	1.033E+00	1.005E+00	1.797E+00	2.314E-01	0.575
		783.70		2.792E-01	2.978E+00	4.940E+00	6.610E-01	0.057
I-131		80.19		1.420E+00	2.543E+00	3.323E+00	3.459E-01	0.427
		284.31		-2.057E-01	1.202E+00	1.880E+00	2.154E-01	-0.109
		364.49	*	2.936E-02	8.591E-02	1.466E-01	1.502E-02	0.200
		636.99		1.287E+00	1.478E+00	2.624E+00	2.988E-01	0.490
TE-132		49.72		1.387E+00	1.857E+00	2.879E+00	3.250E-01	0.482
		111.76		1.369E+00	1.602E+01	2.727E+01	3.707E+00	0.050
		116.30		7.954E+00	1.336E+01	2.314E+01	3.210E+00	0.344
		228.16	*	3.987E-02	4.436E-01	7.187E-01	1.183E-01	0.055
BA-133		81.00		1.264E-02	6.099E-02	7.778E-02	1.290E-02	0.162
		276.40		3.074E-01	3.201E-01	5.330E-01	8.401E-02	0.577
		302.85		-8.897E-03	1.343E-01	1.996E-01	2.937E-02	-0.045
		356.01	*	-1.788E-02	4.480E-02	6.349E-02	8.855E-03	-0.282
		383.85		-1.245E-01	2.628E-01	4.208E-01	5.438E-02	-0.296
I-133		529.87	*	-3.105E-04	2.628E-01	Half-Life too short		
		875.33		3.363E-02	2.628E-01	Half-Life too short		
		1298.22		-5.188E-02	2.628E-01	Half-Life too short		
CS-134		563.25		3.203E-01	3.634E-01	6.242E-01	6.695E-02	0.513
		569.33		1.333E-01	2.032E-01	3.429E-01	3.700E-02	0.389
		604.72		3.953E-03	3.788E-02	5.626E-02	6.130E-03	0.070
	+	795.86	*	7.289E-02	6.072E-02	9.021E-02	9.497E-03	0.808
		801.95		-1.539E-01	4.326E-01	6.500E-01	6.805E-02	-0.237
		1365.19		6.063E-01	1.169E+00	2.054E+00	1.764E-01	0.295
CS-135		268.22	*	1.421E-01	1.524E-01	2.312E-01	2.791E-02	0.615
I-135		546.56		-1.679E+08	1.524E-01	Half-Life too short		
		836.80		3.826E+08	1.524E-01	Half-Life too short		
		1038.76		-1.896E+07	1.524E-01	Half-Life too short		
		1131.51		5.888E+06	1.524E-01	Half-Life too short		
		1260.41	*	8.257E+07	1.524E-01	Half-Life too short		
		1457.56		7.859E+09	1.524E-01	Half-Life too short		
		1678.03		-1.548E+07	1.524E-01	Half-Life too short		
		1791.20		-8.931E+07	1.524E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-136		153.25		8.725E-01	6.401E-01	1.113E+00	1.299E-01	0.784
		176.60		7.266E-03	3.853E-01	6.341E-01	6.340E-02	0.011
		273.65		1.312E-01	4.597E-01	6.642E-01	7.737E-02	0.198
		340.55		2.008E-01	1.378E-01	2.237E-01	2.383E-02	0.898
		818.51		-4.034E-02	7.242E-02	1.121E-01	1.155E-02	-0.360
		1048.07	*	5.035E-02	1.073E-01	1.871E-01	1.749E-02	0.269
		1235.36		1.165E-01	5.507E-01	9.245E-01	1.061E-01	0.126
BA-137M		661.66	*	-5.454E-03	4.585E-02	7.903E-02	8.755E-03	-0.069
CS-137		661.66	*	-5.761E-03	4.843E-02	8.349E-02	9.259E-03	-0.069
CE-139		165.86	*	-6.292E-03	2.423E-02	3.951E-02	3.523E-03	-0.159
BA-140		162.66		4.938E-02	6.178E-01	1.007E+00	9.878E-02	0.049
		304.85		-3.577E-01	1.117E+00	1.708E+00	5.130E-01	-0.209
		423.72		1.768E+00	1.731E+00	2.892E+00	9.579E-01	0.612
		537.26	*	1.107E-01	2.507E-01	4.143E-01	1.427E-01	0.267
LA-140	+	328.76		9.017E-01	4.587E-01	5.031E-01	5.534E-02	1.792
		487.02		4.229E-02	1.244E-01	2.076E-01	2.190E-02	0.204
		815.77		5.892E-02	3.094E-01	5.168E-01	5.775E-02	0.114
		1596.21	*	-3.662E-02	8.411E-02	1.312E-01	1.091E-02	-0.279
CE-141		145.44	*	-2.875E-02	4.879E-02	7.906E-02	8.793E-03	-0.364
CE-143		57.36		1.103E-04	4.879E-02	Half-Life too short		
		293.27	*	1.594E-04	4.879E-02	Half-Life too short		
		664.57		-2.851E-04	4.879E-02	Half-Life too short		
		721.93		5.731E-04	4.879E-02	Half-Life too short		
CE-144		80.12		8.345E-01	1.586E+00	2.069E+00	2.146E-01	0.403
		133.52	*	1.991E-02	1.588E-01	2.559E-01	4.461E-02	0.078
PM-144		476.78		-4.179E-02	6.464E-02	9.967E-02	1.061E-02	-0.419
		618.01		1.437E-02	3.284E-02	5.698E-02	6.339E-03	0.252
		696.49	*	1.355E-02	3.555E-02	6.089E-02	6.700E-03	0.222
PR-144		696.51	*	1.013E+00	2.658E+00	4.553E+00	5.009E-01	0.222
		1489.16		8.793E-01	1.358E+01	2.220E+01	1.839E+00	0.040
PM-146		453.88	*	2.945E-02	4.027E-02	6.931E-02	8.009E-03	0.425
		633.25		-9.923E-01	1.544E+00	2.380E+00	9.236E-01	-0.417
		735.93		-2.493E-02	1.545E-01	2.520E-01	7.255E-02	-0.099
		747.24		-3.548E-02	9.932E-02	1.587E-01	2.533E-02	-0.224
ND-147	+	91.11		7.991E-01	2.159E-01	2.872E-01	3.298E-02	2.782
		319.41		-4.891E-01	2.574E+00	4.286E+00	4.605E-01	-0.114
		531.02	*	4.090E-02	4.784E-01	7.778E-01	1.250E-01	0.053
PM-149		285.90	*	-3.259E+01	5.287E+01	7.982E+01	1.361E+01	-0.408
EU-152		121.78		2.500E-02	4.997E-02	8.606E-02	1.185E-02	0.291
		244.70		1.002E-01	3.076E-01	4.503E-01	4.763E-02	0.222
		344.28	*	1.014E-02	9.577E-02	1.501E-01	1.612E-02	0.068
		778.90		-2.884E-02	2.871E-01	4.689E-01	4.969E-02	-0.061
		964.08		4.118E-01	3.803E-01	5.936E-01	5.537E-02	0.694
		1085.87		-2.355E-01	4.371E-01	6.928E-01	6.100E-02	-0.340
		1112.07		2.822E-01	3.169E-01	5.412E-01	4.682E-02	0.521
	+	1408.01		4.051E-01	1.630E-01	3.721E-01	3.057E-02	1.089
GD-153		69.67		-6.016E-01	8.406E-01	1.168E+00	1.168E-01	-0.515
		97.43	*	-3.241E-02	5.952E-02	8.826E-02	9.939E-03	-0.367
		103.18		-3.219E-02	7.217E-02	1.206E-01	1.401E-02	-0.267

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-154		123.07		9.246E-04	3.720E-02	6.281E-02	9.294E-03	0.015
		723.31		-2.561E-02	1.954E-01	2.768E-01	3.213E-02	-0.093
		873.19		3.743E-02	2.768E-01	4.575E-01	5.831E-02	0.082
		996.26		-2.566E-01	3.677E-01	5.383E-01	9.568E-02	-0.477
		1004.73		6.643E-02	2.546E-01	4.191E-01	5.056E-02	0.158
		1274.44	*	1.955E-02	1.170E-01	1.962E-01	2.169E-02	0.100
EU-155	+	86.55		4.373E-01	9.385E-02	1.264E-01	1.358E-02	3.460
		105.31	*	5.178E-02	7.184E-02	1.254E-01	1.482E-02	0.413
TB-160	+	86.79		1.142E+00	2.446E-01	3.390E-01	3.622E-02	3.368
		197.04		-1.711E-01	4.878E-01	7.638E-01	7.343E-02	-0.224
		215.65		2.992E-01	6.223E-01	1.033E+00	1.034E-01	0.290
		298.57		1.246E-01	1.369E-01	1.680E-01	1.848E-02	0.742
		879.36	*	-4.883E-02	1.348E-01	2.105E-01	2.040E-02	-0.232
		962.29		-1.653E-01	6.926E-01	9.343E-01	8.720E-02	-0.177
		966.15		7.419E-01	3.017E-01	5.101E-01	4.755E-02	1.454
		1177.93		-1.118E-01	3.909E-01	6.306E-01	5.191E-02	-0.177
		1271.85		-2.227E-01	6.505E-01	1.023E+00	8.383E-02	-0.218
HO-166M		80.57		8.156E-02	1.738E-01	2.258E-01	2.346E-02	0.361
		184.41		5.633E-02	3.279E-02	5.476E-02	5.111E-03	1.029
		280.46		-9.885E-02	8.183E-02	1.181E-01	1.317E-02	-0.837
		410.95		3.369E-01	2.389E-01	4.267E-01	3.975E-02	0.790
		711.68	*	-1.065E-02	6.401E-02	1.049E-01	1.148E-02	-0.102
		752.31		-1.132E-01	2.940E-01	4.695E-01	5.052E-02	-0.241
		810.29		8.543E-03	6.408E-02	1.065E-01	1.103E-02	0.080
TA-182		67.75		1.558E-02	4.476E-02	7.182E-02	7.145E-03	0.217
		100.11		1.290E-04	1.157E-01	1.949E-01	2.226E-02	0.001
		152.43		2.684E-03	2.872E-01	4.776E-01	4.935E-02	0.006
		222.11		2.487E-01	3.059E-01	5.143E-01	5.216E-02	0.484
	+	1121.30		6.939E-01	2.668E-01	3.694E-01	3.174E-02	1.878
		1189.05		1.816E-01	3.222E-01	5.602E-01	4.611E-02	0.324
		1221.41	*	1.755E-01	2.206E-01	3.873E-01	3.185E-02	0.453
		1231.02		-3.588E-01	5.154E-01	7.958E-01	6.541E-02	-0.451
IR-192	+	295.96		1.117E+00	2.225E-01	2.883E-01	3.195E-02	3.875
		308.46		1.979E-02	7.967E-02	1.366E-01	1.493E-02	0.145
		316.51	*	-4.790E-03	2.971E-02	4.962E-02	5.359E-03	-0.097
		468.07		4.024E-02	6.568E-02	1.049E-01	1.098E-02	0.384
HG-203		70.83		-1.723E-01	6.427E-01	9.149E-01	1.542E-01	-0.188
		72.87		3.152E-01	3.712E-01	5.985E-01	9.815E-02	0.527
		279.20	*	2.128E-02	3.359E-02	5.532E-02	6.268E-03	0.385
BI-207		72.81		5.409E-02	8.660E-02	1.395E-01	1.408E-02	0.388
	+	74.97		6.610E-01	1.015E-01	1.369E-01	1.392E-02	4.828
		569.70		1.890E-02	3.144E-02	5.286E-02	5.655E-03	0.358
		1063.66	*	2.672E-02	6.062E-02	1.051E-01	9.384E-03	0.254
		1770.23		2.717E-02	6.596E-01	9.746E-01	8.024E-02	0.028
PB-211		404.85	*	8.992E-02	7.295E-01	1.213E+00	5.885E-01	0.074
		427.09		-1.077E+00	1.557E+00	2.295E+00	1.066E+00	-0.469
		832.01		-8.282E-01	1.170E+00	1.654E+00	8.622E-01	-0.501
BI-212	+	727.33	*	1.792E+00	1.093E+00	1.294E+00	1.827E-01	1.385
		785.37		4.317E+00	3.562E+00	6.374E+00	6.725E-01	0.677

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		1.205E+00	2.386E+00	4.291E+00	3.567E-01	0.281
RN-219	+	271.23		6.667E-01	3.264E-01	4.139E-01	5.113E-02	1.611
		401.81	*	8.041E-02	4.173E-01	6.983E-01	1.063E-01	0.115
RA-223		81.07		2.328E-02	1.381E-01	1.757E-01	1.830E-02	0.132
		83.79		2.173E-01	7.758E-02	1.288E-01	1.357E-02	1.687
		94.87		3.337E-01	2.840E-01	5.022E-01	5.582E-02	0.664
		144.24		2.644E-01	5.464E-01	9.212E-01	1.097E-01	0.287
		154.21		3.853E-01	3.183E-01	5.522E-01	5.999E-02	0.698
	+	269.46		5.180E-01	2.521E-01	3.140E-01	3.498E-02	1.650
		323.87	*	6.526E-01	6.497E-01	1.026E+00	1.893E-01	0.636
	+	338.28		5.522E+00	1.936E+00	2.345E+00	3.146E-01	2.355
AC-227		79.69		-5.242E-02	7.046E-01	1.010E+00	1.834E-01	-0.052
		235.96		1.966E-01	1.368E-01	2.141E-01	2.544E-02	0.918
		256.23	*	-1.331E-01	2.444E-01	3.764E-01	5.150E-02	-0.354
	+	299.98		9.749E-01	1.028E+00	1.436E+00	2.070E-01	0.679
		304.50		-1.999E-01	1.525E+00	2.252E+00	4.019E-01	-0.089
		334.37		4.590E-01	2.322E+00	2.573E+00	4.297E-01	0.178
TH-227		79.80		3.740E-01	1.039E+00	1.338E+00	3.013E-01	0.280
		235.96		1.966E-01	1.367E-01	2.141E-01	2.435E-02	0.918
		256.23	*	-1.331E-01	2.445E-01	3.764E-01	5.672E-02	-0.354
	+	299.98		9.749E-01	1.028E+00	1.436E+00	2.070E-01	0.679
		304.50		-1.999E-01	1.525E+00	2.252E+00	4.019E-01	-0.089
		334.37		4.590E-01	2.322E+00	2.573E+00	4.297E-01	0.178
TH-229		85.43		3.058E-01	1.275E-01	2.109E-01	2.239E-02	1.450
	+	88.47		5.564E-01	1.192E-01	1.472E-01	1.585E-02	3.781
		193.51	*	-2.552E-01	4.307E-01	6.796E-01	6.481E-02	-0.375
		210.85		1.296E+00	8.552E-01	1.348E+00	1.336E-01	0.961
PA-231		283.69	*	2.985E-01	1.364E+00	2.188E+00	3.544E-01	0.136
	+	301.36		6.263E-01	6.602E-01	9.331E-01	1.299E-01	0.671
TH-231		81.07		2.328E-02	1.381E-01	1.757E-01	1.830E-02	0.132
		83.79		2.173E-01	7.758E-02	1.288E-01	1.357E-02	1.687
		94.87		3.337E-01	2.840E-01	5.022E-01	5.582E-02	0.664
		144.24		2.644E-01	5.464E-01	9.212E-01	1.097E-01	0.287
		154.21		3.853E-01	3.183E-01	5.522E-01	5.999E-02	0.698
	+	269.46		5.180E-01	2.521E-01	3.140E-01	3.498E-02	1.650
		323.87	*	6.526E-01	6.497E-01	1.026E+00	1.893E-01	0.636
	+	338.28		5.522E+00	1.936E+00	2.345E+00	3.146E-01	2.355
PA-233	+	300.13		4.411E-01	4.665E-01	6.526E-01	1.065E-01	0.676
		311.90	*	-3.698E-02	5.513E-02	8.898E-02	9.828E-03	-0.416
		340.48		1.108E+00	7.015E-01	1.076E+00	2.663E-01	1.030
PA-234		94.67		1.740E-01	1.071E-01	1.885E-01	2.684E-02	0.923
		98.44		5.854E-02	7.120E-02	1.012E-01	5.697E-02	0.578
		111.00		1.640E-02	1.290E-01	2.200E-01	3.253E-02	0.075
		131.20		-1.326E-02	8.808E-02	1.317E-01	1.607E-02	-0.101
		569.50		1.766E-01	2.799E-01	4.715E-01	5.043E-02	0.375
		733.00		3.458E-01	4.517E-01	6.984E-01	1.617E-01	0.495
		880.51		-8.146E-02	2.750E-01	4.328E-01	4.188E-02	-0.188
		883.24		2.119E-01	3.137E-01	4.914E-01	3.310E-01	0.431
		926.50		2.908E-02	1.730E-01	2.853E-01	7.293E-02	0.102

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	-4.822E-02	3.133E-01	4.979E-01	9.521E-02	-0.097
		949.00		4.267E-01	4.623E-01	8.156E-01	7.642E-02	0.523
PA-234M	+	766.42		3.231E+01	2.249E+01	2.385E+01	1.219E+01	1.355
		1001.03	*	1.822E+00	5.444E+00	8.990E+00	9.416E-01	0.203
NP-239		99.53		8.604E-02	1.065E-01	1.845E-01	2.101E-02	0.466
		103.37		-4.009E-02	6.622E-02	1.098E-01	1.276E-02	-0.365
		106.12		4.653E-02	5.816E-02	1.017E-01	1.199E-02	0.458
		117.23	*	-3.513E-01	2.794E-01	4.394E-01	5.511E-02	-0.800
		228.18		1.700E-02	1.914E-01	3.101E-01	3.182E-02	0.055
		277.60		-5.331E-02	1.650E-01	2.562E-01	2.853E-02	-0.208
AM-241		59.54	*	-2.694E-02	4.940E-02	7.036E-02	7.311E-03	-0.383
CM-247		278.00		9.018E-02	6.826E-01	1.091E+00	1.216E-01	0.083
		287.50		1.073E+00	1.189E+00	1.979E+00	2.197E-01	0.542
		402.40	*	6.954E-03	3.812E-02	6.377E-02	5.877E-03	0.109
CF-249		252.80		1.059E+00	8.663E-01	1.475E+00	1.582E-01	0.718
		333.37		-1.409E-02	2.413E-01	2.574E-01	2.707E-02	-0.055
		388.16	*	1.830E-02	3.490E-02	5.998E-02	5.516E-03	0.305
CF-251		177.52	*	5.823E-02	1.069E-01	1.802E-01	1.654E-02	0.323
		227.38		2.058E-02	3.082E-01	4.989E-01	5.112E-02	0.041
		285.41		-1.499E+00	2.134E+00	3.210E+00	3.569E-01	-0.467

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244004     *
* Acquisition date : 23-MAR-2010 21:08:19 Detector SN#    :                *
* Detector ID        : GAM25               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.77      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 10-MAR-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G249244004           Analyst initials: MXR1         *
* Batch Number       : 964804               Sample Quantity : 1.2215E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.504E+01	2.662E+00	5.137E-01	0.000E+00
CD-109	3.682E+00	7.732E-01	7.167E-01	0.000E+00
SN-126	3.609E-01	7.578E-02	7.010E-02	0.000E+00
TL-208	5.261E-01	9.584E-02	5.371E-02	0.000E+00
PB-210	9.981E-01	5.331E-01	5.446E-01	0.000E+00
BI-211	4.312E+00	6.124E-01	3.094E-01	0.000E+00
PB-212	1.600E+00	2.078E-01	7.959E-02	0.000E+00
BI-214	1.198E+00	2.259E-01	1.131E-01	0.000E+00
PB-214	1.565E+00	2.378E-01	1.088E-01	0.000E+00
RA-224	4.940E+00	1.122E+00	8.541E-01	0.000E+00
RA-226	1.198E+00	2.259E-01	1.131E-01	0.000E+00
AC-228	1.806E+00	3.574E-01	2.124E-01	0.000E+00
RA-228	1.806E+00	3.574E-01	2.124E-01	0.000E+00
TH-228	1.600E+00	2.078E-01	7.959E-02	0.000E+00
TH-230	1.198E+00	2.173E-01	1.131E-01	0.000E+00
TH-232	1.806E+00	3.574E-01	2.124E-01	0.000E+00
TH-234	8.190E-01	8.252E-01	7.398E-01	0.000E+00
U-235	1.081E-01	1.625E-01	2.878E-01	0.000E+00
NP-237	1.077E+00	3.164E-01	2.082E-01	0.000E+00
U-238	8.190E-01	8.252E-01	7.398E-01	0.000E+00
ANH-511	1.412E-01	6.720E-02	4.565E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.636E-01	2.993E-01	5.243E-01	0.000E+00	NOT IDENT.
NA-22	7.675E-03	4.052E-02	6.948E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.123E+05	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-4.827E-02	4.337E-02	6.402E-02	0.000E+00	FAIL ABUN
V-48	-9.881E-03	7.219E-02	1.174E-01	0.000E+00	NOT IDENT.
CR-51	-2.629E-01	3.059E-01	5.053E-01	0.000E+00	NOT IDENT.

MN-54	1.299E-02	4.065E-02	7.004E-02	0.000E+00	NOT IDENT.
CO-56	2.789E-02	3.946E-02	7.039E-02	0.000E+00	NOT IDENT.
CO-57	5.342E-03	1.747E-02	3.137E-02	0.000E+00	NOT IDENT.
CO-58	1.152E-02	3.983E-02	6.883E-02	0.000E+00	NOT IDENT.
FE-59	-1.649E-02	8.498E-02	1.420E-01	0.000E+00	NOT IDENT.
CO-60	-3.263E-02	4.202E-02	6.316E-02	0.000E+00	NOT IDENT.
ZN-65	3.686E-02	9.628E-02	1.488E-01	0.000E+00	NOT IDENT.
SE-75	-1.847E-03	3.731E-02	6.165E-02	0.000E+00	NOT IDENT.
SR-85	5.038E-02	4.014E-02	6.566E-02	0.000E+00	NOT IDENT.
Y-88	-1.215E-02	3.456E-02	5.344E-02	0.000E+00	NOT IDENT.
Y-91	-1.009E+01	2.206E+01	3.539E+01	0.000E+00	NOT IDENT.
NB-94	9.677E-03	3.647E-02	6.356E-02	0.000E+00	NOT IDENT.
NB-95	4.752E-02	5.220E-02	8.370E-02	0.000E+00	NOT IDENT.
NB-95M	1.133E-01	1.062E-01	1.703E-01	0.000E+00	NOT IDENT.
ZR-95	1.633E-02	7.469E-02	1.290E-01	0.000E+00	NOT IDENT.
MO-99	-4.067E+00	8.092E+00	1.311E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.400E+14	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.892E-03	3.760E-02	6.265E-02	0.000E+00	FAIL ABUN
RH-106	-3.765E-02	3.143E-01	5.393E-01	0.000E+00	NOT IDENT.
RU-106	-3.765E-02	3.142E-01	5.393E-01	0.000E+00	NOT IDENT.
AG-108M	-8.977E-03	2.890E-02	4.804E-02	0.000E+00	NOT IDENT.
AG-110M	-8.216E-02	4.154E-02	5.967E-02	0.000E+00	NOT IDENT.
SN-113	-2.507E-03	3.776E-02	6.454E-02	0.000E+00	NOT IDENT.
CD-115	-1.864E+00	6.291E+00	1.020E+01	0.000E+00	NOT IDENT.
SN-117M	-1.519E-02	3.822E-02	6.503E-02	0.000E+00	NOT IDENT.
TE-123M	-1.846E-03	2.139E-02	3.698E-02	0.000E+00	NOT IDENT.
SB-124	8.676E-02	7.223E-02	1.475E-01	0.000E+00	NOT IDENT.
SB-125	-3.317E-02	8.497E-02	1.405E-01	0.000E+00	FAIL ABUN
TE-125M	4.525E+00	6.523E+00	1.194E+01	0.000E+00	NOT IDENT.
I-126	-3.211E-01	2.423E-01	3.749E-01	0.000E+00	NOT IDENT.
SB-126	1.133E-01	1.428E-01	2.311E-01	0.000E+00	NOT IDENT.
SB-127	1.033E+00	9.850E-01	1.811E+00	0.000E+00	NOT IDENT.
I-131	2.936E-02	8.419E-02	1.489E-01	0.000E+00	NOT IDENT.
TE-132	3.987E-02	4.348E-01	7.346E-01	0.000E+00	NOT IDENT.
BA-133	-1.788E-02	4.390E-02	6.454E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.384E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.289E-02	5.951E-02	9.077E-02	0.000E+00	FAIL ABUN
CS-135	1.421E-01	1.493E-01	2.359E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	9.114E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.035E-02	1.052E-01	1.876E-01	0.000E+00	NOT IDENT.
BA-137M	-5.454E-03	4.493E-02	7.971E-02	0.000E+00	NOT IDENT.
CS-137	-5.761E-03	4.746E-02	8.420E-02	0.000E+00	NOT IDENT.
CE-139	-6.292E-03	2.374E-02	4.054E-02	0.000E+00	NOT IDENT.
BA-140	1.107E-01	2.457E-01	4.189E-01	0.000E+00	NOT IDENT.
LA-140	-3.662E-02	8.243E-02	1.308E-01	0.000E+00	FAIL ABUN
CE-141	-2.875E-02	4.782E-02	8.127E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	6.795E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.991E-02	1.556E-01	2.633E-01	0.000E+00	NOT IDENT.
PM-144	1.355E-02	3.484E-02	6.137E-02	0.000E+00	NOT IDENT.
PR-144	1.013E+00	2.605E+00	4.589E+00	0.000E+00	NOT IDENT.
PM-146	2.945E-02	3.947E-02	7.024E-02	0.000E+00	NOT IDENT.
ND-147	4.090E-02	4.688E-01	7.867E-01	0.000E+00	FAIL ABUN
PM-149	-3.259E+01	5.182E+01	8.136E+01	0.000E+00	NOT IDENT.
EU-152	1.014E-02	9.385E-02	1.527E-01	0.000E+00	FAIL ABUN
GD-153	-3.241E-02	5.833E-02	9.117E-02	0.000E+00	NOT IDENT.
EU-154	1.955E-02	1.147E-01	1.962E-01	0.000E+00	NOT IDENT.
EU-155	5.178E-02	7.040E-02	1.294E-01	0.000E+00	FAIL ABUN
TB-160	-4.883E-02	1.321E-01	2.115E-01	0.000E+00	FAIL ABUN
HO-166M	-1.065E-02	6.273E-02	1.057E-01	0.000E+00	NOT IDENT.
TA-182	1.755E-01	2.162E-01	3.875E-01	0.000E+00	FAIL ABUN
IR-192	-4.790E-03	2.912E-02	5.051E-02	0.000E+00	FAIL ABUN
HG-203	2.128E-02	3.292E-02	5.640E-02	0.000E+00	NOT IDENT.
BI-207	2.672E-02	5.941E-02	1.054E-01	0.000E+00	FAIL ABUN
PB-211	8.992E-02	7.149E-01	1.231E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.071E+00	1.303E+00	0.000E+00	FAIL ABUN
RN-219	8.041E-02	4.090E-01	7.087E-01	0.000E+00	FAIL ABUN
RA-223	6.526E-01	6.367E-01	1.045E+00	0.000E+00	FAIL ABUN
AC-227	-1.331E-01	2.395E-01	3.842E-01	0.000E+00	FAIL ABUN
TH-227	-1.331E-01	2.396E-01	3.842E-01	0.000E+00	FAIL ABUN
TH-229	-2.552E-01	4.221E-01	6.961E-01	0.000E+00	FAIL ABUN
PA-231	2.985E-01	1.336E+00	2.230E+00	0.000E+00	FAIL ABUN
TH-231	6.526E-01	6.367E-01	1.045E+00	0.000E+00	FAIL ABUN
PA-233	-3.698E-02	5.403E-02	9.060E-02	0.000E+00	FAIL ABUN
PA-234	-4.822E-02	3.070E-01	4.998E-01	0.000E+00	NOT IDENT.
PA-234M	1.822E+00	5.335E+00	9.018E+00	0.000E+00	FAIL ABUN
NP-239	-3.513E-01	2.738E-01	4.528E-01	0.000E+00	NOT IDENT.
AM-241	-2.694E-02	4.841E-02	7.312E-02	0.000E+00	NOT IDENT.
CM-247	6.954E-03	3.736E-02	6.472E-02	0.000E+00	NOT IDENT.

CF-249	1.830E-02	3.420E-02	6.090E-02	0.000E+00 NOT IDENT.
CF-251	5.823E-02	1.047E-01	1.848E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 23:08:56.38

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244004.CNF;1
Sample date       : 10-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 21:08:19
Sample ID         : G249244004           Sample quantity  : 1.22150E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.77  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 964804                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	963	10.66*	1.108E+00	2.504E+01	2.504E+01	10.85
CD-109	88.03	409	3.70*	9.405E+00	3.609E+00	3.682E+00	21.43
SN-126	64.28	96	9.60	9.779E+00	3.157E-01	3.157E-01	102.29
	86.94	409	8.90	9.405E+00	1.500E+00	1.500E+00	45.77
	87.57	409	37.00*	9.405E+00	3.609E-01	3.609E-01	21.43
TL-208	277.37	------	6.60	4.738E+00	------ Line Not Found		------
	583.19	363	85.00*	2.497E+00	5.261E-01	5.261E-01	18.59
	860.56	45	12.50	1.765E+00	6.267E-01	6.267E-01	88.38
PB-210	46.54	127	4.25*	9.184E+00	9.970E-01	9.981E-01	54.50
BI-211	72.87	------	1.23	9.724E+00	------ Line Not Found		------
	351.06	704	12.92*	3.885E+00	4.312E+00	4.312E+00	14.49
PB-212	74.82	744	10.28	9.693E+00	2.294E+00	2.294E+00	18.18
	77.11	1163	17.10	9.652E+00	2.166E+00	2.166E+00	12.80
	238.63	1212	43.60*	5.338E+00	1.600E+00	1.600E+00	13.25
	300.09	42	3.30	4.438E+00	8.863E-01	8.863E-01	105.24
BI-214	609.32	426	45.49*	2.401E+00	1.198E+00	1.198E+00	19.24
	1120.29	102	14.92	1.398E+00	1.496E+00	1.496E+00	39.02
	1764.49	60	15.30	9.412E-01	1.273E+00	1.273E+00	44.18
PB-214	74.82	744	5.80	9.693E+00	4.065E+00	4.066E+00	17.28
	77.11	1163	9.70	9.652E+00	3.818E+00	3.818E+00	15.23
	242.00	348	7.25	5.286E+00	2.794E+00	2.794E+00	23.89
	295.22	414	18.42	4.501E+00	1.536E+00	1.536E+00	20.92
	351.93	704	35.60*	3.885E+00	1.565E+00	1.565E+00	15.51
RA-224	240.99	348	4.10*	5.286E+00	4.940E+00	4.940E+00	23.17
RA-226	609.32	426	45.49*	2.401E+00	1.198E+00	1.198E+00	19.24
	1120.29	102	14.92	1.398E+00	1.496E+00	1.496E+00	39.02
	1764.49	60	15.30	9.412E-01	1.273E+00	1.273E+00	44.18
AC-228	338.32	205	11.27	4.019E+00	1.392E+00	1.392E+00	53.14
	911.20	254	25.80*	1.678E+00	1.806E+00	1.806E+00	20.19
	968.97	105	15.80	1.588E+00	1.285E+00	1.285E+00	53.17
RA-228	338.32	205	11.27	4.019E+00	1.392E+00	1.392E+00	53.14
	911.20	254	25.80*	1.678E+00	1.806E+00	1.806E+00	20.19

Sample ID : G249244004 Acquisition date : 23-MAR-2010 21:08:19

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	105	15.80	1.588E+00	1.285E+00	1.285E+00	53.17
TH-228	74.82	744	10.28	9.693E+00	2.294E+00	2.294E+00	15.40
	77.11	1163	17.10	9.652E+00	2.166E+00	2.166E+00	12.80
	238.63	1212	43.60*	5.338E+00	1.600E+00	1.600E+00	13.25
	300.09	42	3.30	4.438E+00	8.863E-01	8.863E-01	121.29
TH-230	609.32	426	45.49*	2.401E+00	1.198E+00	1.198E+00	18.50
	1120.29	102	14.92	1.398E+00	1.496E+00	1.496E+00	38.44
	1764.49	60	15.30	9.412E-01	1.273E+00	1.273E+00	44.18
TH-232	338.32	205	11.27	4.019E+00	1.392E+00	1.392E+00	34.03
	911.20	254	25.80*	1.678E+00	1.806E+00	1.806E+00	20.19
	968.97	105	15.80	1.588E+00	1.285E+00	1.285E+00	53.17
TH-234	63.29	96	3.70*	9.779E+00	8.190E-01	8.190E-01	102.81
	92.59	320	4.23	9.240E+00	2.517E+00	2.517E+00	33.79
U-235	89.96	290	3.47	9.327E+00	2.754E+00	2.754E+00	35.33
	93.35	320	5.60	9.240E+00	1.901E+00	1.901E+00	34.46
	143.76	------	10.96*	7.568E+00	------ Line Not Found		------
	163.33	------	5.08	6.998E+00	------ Line Not Found		------
	185.72	253	57.20	6.416E+00	2.118E-01	2.118E-01	28.11
	205.31	------	5.01	5.979E+00	------ Line Not Found		------
NP-237	86.48	409	12.40*	9.405E+00	1.077E+00	1.077E+00	29.98
	95.86	------	2.68	9.143E+00	------ Line Not Found		------
U-238	63.29	96	3.70*	9.779E+00	8.190E-01	8.190E-01	102.81
	92.59	320	4.23	9.240E+00	2.517E+00	2.517E+00	26.99
ANH-511	511.00	129	100.00*	2.806E+00	1.412E-01	1.412E-01	48.56

Flag: "*" = Keyline

Sample ID : G249244004 Acquisition date : 23-MAR-2010 21:08:19

Total number of lines in spectrum	33	
Number of unidentified lines	3	
Number of lines tentatively identified by NID	30	90.91%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	2.504E+01	2.504E+01	0.272E+01	10.85	
CD-109	461.40D	1.02	3.609E+00	3.682E+00	0.789E+00	21.43	
SN-126	2.30E+05Y	1.00	3.609E-01	3.609E-01	0.773E-01	21.43	
TL-208	1.41E+10Y	1.00	5.261E-01	5.261E-01	0.978E-01	18.59	
PB-210	22.20Y	1.00	9.970E-01	9.981E-01	5.439E-01	54.50	
BI-211	7.04E+08Y	1.00	4.312E+00	4.312E+00	0.625E+00	14.49	
PB-212	1.41E+10Y	1.00	1.600E+00	1.600E+00	0.212E+00	13.25	
BI-214	1600.00Y	1.00	1.198E+00	1.198E+00	0.231E+00	19.24	
PB-214	1600.00Y	1.00	1.565E+00	1.565E+00	0.243E+00	15.51	
RA-224	1.41E+10Y	1.00	4.940E+00	4.940E+00	1.145E+00	23.17	
RA-226	1600.00Y	1.00	1.198E+00	1.198E+00	0.231E+00	19.24	
AC-228	1.41E+10Y	1.00	1.806E+00	1.806E+00	0.365E+00	20.19	
RA-228	1.41E+10Y	1.00	1.806E+00	1.806E+00	0.365E+00	20.19	
TH-228	1.41E+10Y	1.00	1.600E+00	1.600E+00	0.212E+00	13.25	
TH-230	7.54E+04Y	1.00	1.198E+00	1.198E+00	0.222E+00	18.50	
TH-232	1.41E+10Y	1.00	1.806E+00	1.806E+00	0.365E+00	20.19	
TH-234	4.47E+09Y	1.00	8.190E-01	8.190E-01	8.420E-01	102.81	
U-235	7.04E+08Y	1.00	2.118E-01	2.118E-01	0.595E-01	28.11	K
NP-237	2.14E+06Y	1.00	1.077E+00	1.077E+00	0.323E+00	29.98	
U-238	4.47E+09Y	1.00	8.190E-01	8.190E-01	8.420E-01	102.81	
ANH-511	1.00E+09Y	1.00	1.412E-01	1.412E-01	0.686E-01	48.56	
		Total Activity :	5.663E+01	5.671E+01			

Grand Total Activity : 5.663E+01 5.671E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249244004 Acquisition date : 23-MAR-2010 21:08:19

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.07	96	313	0.91	257.69	254	8	1.34E-02	66.9	8.03E+00	
0	209.29	86	338	0.97	418.12	413	11	1.19E-02	86.1	5.90E+00	
0	270.01	113	178	1.25	539.54	536	10	1.58E-02	47.4	4.84E+00	T
0	328.80	118	173	1.12	657.11	651	13	1.64E-02	49.7	4.12E+00	T
0	462.68	100	82	1.95	924.86	919	11	1.39E-02	40.4	3.06E+00	T
0	727.39	80	100	1.65	1454.27	1446	15	1.11E-02	59.3	2.05E+00	T
0	767.89	66	50	1.56	1535.26	1530	10	9.13E-03	47.2	1.95E+00	T
0	795.24	34	46	1.19	1589.97	1584	10	4.74E-03	82.6	1.89E+00	T
0	1407.48	32	2	1.47	2814.49	2810	9	4.41E-03	39.4	1.14E+00	T
0	1729.93	32	0	1.84	3459.44	3454	11	4.44E-03	35.4	9.57E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-MAR-2010 23:09:00.08

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244004.CNF;1 *
* Acquisition date  : 23-MAR-2010 21:08:19  Detector SN#     :             *
* Detector ID       : GAM25                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.77          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 10-MAR-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G249244004            Analyst initials: MXR1         *
* Batch Number      : 964804                Sample Quantity : 1.22150E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 7-OCT-2009 09:38:43.34MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.504E+01	2.717E+00	5.146E-01	4.383E-02	48.666
CD-109	3.682E+00	7.890E-01	6.930E-01	7.447E-02	5.314
SN-126	3.609E-01	7.732E-02	6.777E-02	7.267E-03	5.325
TL-208	5.261E-01	9.780E-02	5.317E-02	5.989E-03	9.894
PB-210	9.981E-01	5.439E-01	5.225E-01	5.351E-02	1.910
BI-211	4.312E+00	6.249E-01	3.043E-01	3.207E-02	14.168
PB-212	1.600E+00	2.120E-01	7.791E-02	8.901E-03	20.534
BI-214	1.198E+00	2.305E-01	1.120E-01	1.356E-02	10.697
PB-214	1.565E+00	2.427E-01	1.070E-01	1.271E-02	14.627
RA-224	4.940E+00	1.145E+00	8.361E-01	8.786E-02	5.908
RA-226	1.198E+00	2.305E-01	1.120E-01	1.356E-02	10.697
AC-228	1.806E+00	3.647E-01	2.115E-01	2.585E-02	8.539
RA-228	1.806E+00	3.647E-01	2.115E-01	2.585E-02	8.539
TH-228	1.600E+00	2.120E-01	7.791E-02	8.901E-03	20.534
TH-230	1.198E+00	2.217E-01	1.120E-01	1.221E-02	10.697
TH-232	1.806E+00	3.647E-01	2.115E-01	2.585E-02	8.539
TH-234	8.190E-01	8.420E-01	7.124E-01	1.352E-01	1.150
U-235	2.118E-01	5.955E-02	2.800E-01	5.143E-02	0.757

Sample ID : G249244004 Acquisition date : 23-MAR-2010 21:08:19

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	1.077E+00	3.228E-01	2.013E-01	4.735E-02	5.351
U-238	8.190E-01	8.420E-01	7.124E-01	1.352E-01	1.150
ANH-511	1.412E-01	6.858E-02	4.511E-02	4.643E-03	3.131

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.636E-01		3.054E-01	5.177E-01	5.480E-02	0.316
NA-22	7.675E-03		4.135E-02	6.948E-02	5.697E-03	0.110
NA-24	-1.365E-01		5.727E-02	Half-Life too short		
SC-46	-4.827E-02		4.425E-02	6.372E-02	6.102E-03	-0.758
V-48	-9.881E-03		7.366E-02	1.170E-01	1.084E-02	-0.084
CR-51	-2.629E-01		3.121E-01	4.964E-01	5.510E-02	-0.530
MN-54	1.299E-02		4.148E-02	6.965E-02	7.068E-03	0.186
CO-56	2.789E-02		4.027E-02	7.002E-02	7.026E-03	0.398
CO-57	5.342E-03		1.782E-02	3.045E-02	3.927E-03	0.175
CO-58	1.152E-02		4.064E-02	6.843E-02	7.100E-03	0.168
FE-59	-1.649E-02		8.672E-02	1.418E-01	1.335E-02	-0.116
CO-60	-3.263E-02		4.288E-02	6.319E-02	5.132E-03	-0.516
ZN-65	3.686E-02		9.824E-02	1.485E-01	1.283E-02	0.248
SE-75	-1.847E-03		3.808E-02	6.043E-02	6.623E-03	-0.031
SR-85	5.038E-02		4.096E-02	6.489E-02	6.695E-03	0.776
Y-88	-1.215E-02		3.527E-02	5.369E-02	4.388E-03	-0.226
Y-91	-1.009E+01		2.251E+01	3.536E+01	2.910E+00	-0.285
NB-94	9.677E-03		3.721E-02	6.307E-02	6.926E-03	0.153
NB-95	4.752E-02		5.326E-02	8.315E-02	8.882E-03	0.572
NB-95M	1.133E-01		1.084E-01	1.667E-01	1.913E-02	0.680
ZR-95	1.633E-02		7.621E-02	1.281E-01	1.470E-02	0.127
MO-99	-4.067E+00		8.257E+00	1.302E+01	2.222E+00	-0.312
TC-99M	-6.351E+07		1.224E+08	Half-Life too short		
RU-103	-2.892E-03		3.836E-02	6.189E-02	9.271E-03	-0.047
RH-106	-3.765E-02		3.207E-01	5.343E-01	7.949E-02	-0.070
RU-106	-3.765E-02		3.206E-01	5.343E-01	5.851E-02	-0.070
AG-108M	-8.977E-03		2.949E-02	4.738E-02	4.655E-03	-0.189
AG-110M	-8.216E-02		4.239E-02	5.916E-02	6.667E-03	-1.389
SN-113	-2.507E-03		3.853E-02	6.357E-02	5.937E-03	-0.039
CD-115	-1.864E+00		6.419E+00	1.009E+01	1.051E+00	-0.185
SN-117M	-1.519E-02		3.900E-02	6.333E-02	6.149E-03	-0.240
TE-123M	-1.846E-03		2.183E-02	3.601E-02	3.497E-03	-0.051
SB-124	8.676E-02		7.370E-02	1.480E-01	1.283E-02	0.586
SB-125	-3.317E-02		8.671E-02	1.385E-01	1.337E-02	-0.239
TE-125M	4.525E+00		6.657E+00	1.157E+01	1.550E+00	0.391
I-126	-3.211E-01		2.472E-01	3.718E-01	4.116E-02	-0.864
SB-126	1.133E-01		1.457E-01	2.294E-01	2.504E-02	0.494
SB-127	1.033E+00		1.005E+00	1.797E+00	2.314E-01	0.575
I-131	2.936E-02		8.591E-02	1.466E-01	1.502E-02	0.200
TE-132	3.987E-02		4.436E-01	7.187E-01	1.183E-01	0.055

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-133	-1.788E-02		4.480E-02	6.349E-02	8.855E-03	-0.282
I-133	-3.105E-04		7.061E-04	Half-Life too short		
CS-134	7.289E-02	+	6.072E-02	9.021E-02	9.497E-03	0.808
CS-135	1.421E-01		1.524E-01	2.312E-01	2.791E-02	0.615
I-135	8.257E+07		4.650E+07	Half-Life too short		
CS-136	5.035E-02		1.073E-01	1.871E-01	1.749E-02	0.269
BA-137M	-5.454E-03		4.585E-02	7.903E-02	8.755E-03	-0.069
CS-137	-5.761E-03		4.843E-02	8.349E-02	9.259E-03	-0.069
CE-139	-6.292E-03		2.423E-02	3.951E-02	3.523E-03	-0.159
BA-140	1.107E-01		2.507E-01	4.143E-01	1.427E-01	0.267
LA-140	-3.662E-02		8.411E-02	1.312E-01	1.091E-02	-0.279
CE-141	-2.875E-02		4.879E-02	7.906E-02	8.793E-03	-0.364
CE-143	1.594E-04		3.467E-05	Half-Life too short		
CE-144	1.991E-02		1.588E-01	2.559E-01	4.461E-02	0.078
PM-144	1.355E-02		3.555E-02	6.089E-02	6.700E-03	0.222
PR-144	1.013E+00		2.658E+00	4.553E+00	5.009E-01	0.222
PM-146	2.945E-02		4.027E-02	6.931E-02	8.009E-03	0.425
ND-147	4.090E-02		4.784E-01	7.778E-01	1.250E-01	0.053
PM-149	-3.259E+01		5.287E+01	7.982E+01	1.361E+01	-0.408
EU-152	1.014E-02		9.577E-02	1.501E-01	1.612E-02	0.068
GD-153	-3.241E-02		5.952E-02	8.826E-02	9.939E-03	-0.367
EU-154	1.955E-02		1.170E-01	1.962E-01	2.169E-02	0.100
EU-155	5.178E-02		7.184E-02	1.254E-01	1.482E-02	0.413
TB-160	-4.883E-02		1.348E-01	2.105E-01	2.040E-02	-0.232
HO-166M	-1.065E-02		6.401E-02	1.049E-01	1.148E-02	-0.102
TA-182	1.755E-01		2.206E-01	3.873E-01	3.185E-02	0.453
IR-192	-4.790E-03		2.971E-02	4.962E-02	5.359E-03	-0.097
HG-203	2.128E-02		3.359E-02	5.532E-02	6.268E-03	0.385
BI-207	2.672E-02		6.062E-02	1.051E-01	9.384E-03	0.254
PB-211	8.992E-02		7.295E-01	1.213E+00	5.885E-01	0.074
BI-212	1.792E+00	+	1.093E+00	1.294E+00	1.827E-01	1.385
RN-219	8.041E-02		4.173E-01	6.983E-01	1.063E-01	0.115
RA-223	6.526E-01		6.497E-01	1.026E+00	1.893E-01	0.636
AC-227	-1.331E-01		2.444E-01	3.764E-01	5.150E-02	-0.354
TH-227	-1.331E-01		2.445E-01	3.764E-01	5.672E-02	-0.354
TH-229	-2.552E-01		4.307E-01	6.796E-01	6.481E-02	-0.375
PA-231	2.985E-01		1.364E+00	2.188E+00	3.544E-01	0.136
TH-231	6.526E-01		6.497E-01	1.026E+00	1.893E-01	0.636
PA-233	-3.698E-02		5.513E-02	8.898E-02	9.828E-03	-0.416
PA-234	-4.822E-02		3.133E-01	4.979E-01	9.521E-02	-0.097
PA-234M	1.822E+00		5.444E+00	8.990E+00	9.416E-01	0.203
NP-239	-3.513E-01		2.794E-01	4.394E-01	5.511E-02	-0.800
AM-241	-2.694E-02		4.940E-02	7.036E-02	7.311E-03	-0.383
CM-247	6.954E-03		3.812E-02	6.377E-02	5.877E-03	0.109
CF-249	1.830E-02		3.490E-02	5.998E-02	5.516E-03	0.305
CF-251	5.823E-02		1.069E-01	1.802E-01	1.654E-02	0.323

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249244004            *
* Acquisition date : 23-MAR-2010 21:08:19 Detector SN#    :                 *
* Detector ID      : GAM25                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.77     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 10-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249244004           Analyst initials: MXR1            *
* Batch Number     : 964804               Sample Quantity : 1.2215E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.504E+01	2.662E+00	2.570E-01	1.358E+00
CD-109	3.682E+00	7.732E-01	3.586E-01	3.945E-01
SN-126	3.609E-01	7.578E-02	3.507E-02	3.866E-02
TL-208	5.261E-01	9.584E-02	2.687E-02	4.890E-02
PB-210	9.981E-01	5.331E-01	2.725E-01	2.720E-01
BI-211	4.312E+00	6.124E-01	1.548E-01	3.124E-01
PB-212	1.600E+00	2.078E-01	3.982E-02	1.060E-01
BI-214	1.198E+00	2.259E-01	5.658E-02	1.153E-01
PB-214	1.565E+00	2.378E-01	5.441E-02	1.213E-01
RA-224	4.940E+00	1.122E+00	4.273E-01	5.723E-01
RA-226	1.198E+00	2.259E-01	5.658E-02	1.153E-01
AC-228	1.806E+00	3.574E-01	1.063E-01	1.823E-01
RA-228	1.806E+00	3.574E-01	1.063E-01	1.823E-01
TH-228	1.600E+00	2.078E-01	3.982E-02	1.060E-01
TH-230	1.198E+00	2.173E-01	5.658E-02	1.108E-01
TH-232	1.806E+00	3.574E-01	1.063E-01	1.823E-01
TH-234	8.190E-01	8.252E-01	3.701E-01	4.210E-01
U-235	1.081E-01	1.625E-01	1.440E-01	8.289E-02
NP-237	1.077E+00	3.164E-01	1.042E-01	1.614E-01
U-238	8.190E-01	8.252E-01	3.701E-01	4.210E-01
ANH-511	1.412E-01	6.720E-02	2.284E-02	3.429E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.636E-01	2.993E-01	2.623E-01	1.527E-01	NOT IDENT.
NA-22	7.675E-03	4.052E-02	3.476E-02	2.068E-02	NOT IDENT.
NA-24	-1.365E+05	1.123E+05	0.000E+00	5.727E+04	SHORT HLIF
SC-46	-4.827E-02	4.337E-02	3.203E-02	2.213E-02	FAIL ABUN
V-48	-9.881E-03	7.219E-02	5.872E-02	3.683E-02	NOT IDENT.
CR-51	-2.629E-01	3.059E-01	2.528E-01	1.561E-01	NOT IDENT.

MN-54	1.299E-02	4.065E-02	3.504E-02	2.074E-02	NOT IDENT.
CO-56	2.789E-02	3.946E-02	3.522E-02	2.014E-02	NOT IDENT.
CO-57	5.342E-03	1.747E-02	1.569E-02	8.911E-03	NOT IDENT.
CO-58	1.152E-02	3.983E-02	3.444E-02	2.032E-02	NOT IDENT.
FE-59	-1.649E-02	8.498E-02	7.106E-02	4.336E-02	NOT IDENT.
CO-60	-3.263E-02	4.202E-02	3.160E-02	2.144E-02	NOT IDENT.
ZN-65	3.686E-02	9.628E-02	7.445E-02	4.912E-02	NOT IDENT.
SE-75	-1.847E-03	3.731E-02	3.084E-02	1.904E-02	NOT IDENT.
SR-85	5.038E-02	4.014E-02	3.285E-02	2.048E-02	NOT IDENT.
Y-88	-1.215E-02	3.456E-02	2.673E-02	1.763E-02	NOT IDENT.
Y-91	-1.009E+01	2.206E+01	1.770E+01	1.125E+01	NOT IDENT.
NB-94	9.677E-03	3.647E-02	3.180E-02	1.861E-02	NOT IDENT.
NB-95	4.752E-02	5.220E-02	4.187E-02	2.663E-02	NOT IDENT.
NB-95M	1.133E-01	1.062E-01	8.519E-02	5.419E-02	NOT IDENT.
ZR-95	1.633E-02	7.469E-02	6.454E-02	3.810E-02	NOT IDENT.
MO-99	-4.067E+00	8.092E+00	6.560E+00	4.129E+00	NOT IDENT.
TC-99M	-6.351E+13	2.400E+14	0.000E+00	1.224E+14	SHORT HLIF
RU-103	-2.892E-03	3.760E-02	3.134E-02	1.918E-02	FAIL ABUN
RH-106	-3.765E-02	3.143E-01	2.698E-01	1.603E-01	NOT IDENT.
RU-106	-3.765E-02	3.142E-01	2.698E-01	1.603E-01	NOT IDENT.
AG-108M	-8.977E-03	2.890E-02	2.404E-02	1.475E-02	NOT IDENT.
AG-110M	-8.216E-02	4.154E-02	2.985E-02	2.120E-02	NOT IDENT.
SN-113	-2.507E-03	3.776E-02	3.229E-02	1.926E-02	NOT IDENT.
CD-115	-1.864E+00	6.291E+00	5.104E+00	3.210E+00	NOT IDENT.
SN-117M	-1.519E-02	3.822E-02	3.254E-02	1.950E-02	NOT IDENT.
TE-123M	-1.846E-03	2.139E-02	1.850E-02	1.091E-02	NOT IDENT.
SB-124	8.676E-02	7.223E-02	7.379E-02	3.685E-02	NOT IDENT.
SB-125	-3.317E-02	8.497E-02	7.028E-02	4.335E-02	FAIL ABUN
TE-125M	4.525E+00	6.523E+00	5.971E+00	3.328E+00	NOT IDENT.
I-126	-3.211E-01	2.423E-01	1.876E-01	1.236E-01	NOT IDENT.
SB-126	1.133E-01	1.428E-01	1.156E-01	7.287E-02	NOT IDENT.
SB-127	1.033E+00	9.850E-01	9.062E-01	5.026E-01	NOT IDENT.
I-131	2.936E-02	8.419E-02	7.452E-02	4.295E-02	NOT IDENT.
TE-132	3.987E-02	4.348E-01	3.675E-01	2.218E-01	NOT IDENT.
BA-133	-1.788E-02	4.390E-02	3.229E-02	2.240E-02	NOT IDENT.
I-133	-3.105E+02	1.384E+03	0.000E+00	7.061E+02	SHORT HLIF
CS-134	7.289E-02	5.951E-02	4.541E-02	3.036E-02	FAIL ABUN
CS-135	1.421E-01	1.493E-01	1.180E-01	7.620E-02	NOT IDENT.
I-135	8.257E+13	9.114E+13	0.000E+00	4.650E+13	SHORT HLIF
CS-136	5.035E-02	1.052E-01	9.385E-02	5.365E-02	NOT IDENT.
BA-137M	-5.454E-03	4.493E-02	3.988E-02	2.292E-02	NOT IDENT.
CS-137	-5.761E-03	4.746E-02	4.213E-02	2.422E-02	NOT IDENT.
CE-139	-6.292E-03	2.374E-02	2.028E-02	1.211E-02	NOT IDENT.
BA-140	1.107E-01	2.457E-01	2.096E-01	1.253E-01	NOT IDENT.
LA-140	-3.662E-02	8.243E-02	6.543E-02	4.205E-02	FAIL ABUN
CE-141	-2.875E-02	4.782E-02	4.066E-02	2.440E-02	NOT IDENT.
CE-143	1.594E+02	6.795E+01	0.000E+00	3.467E+01	SHORT HLIF
CE-144	1.991E-02	1.556E-01	1.317E-01	7.938E-02	NOT IDENT.
PM-144	1.355E-02	3.484E-02	3.070E-02	1.777E-02	NOT IDENT.
PR-144	1.013E+00	2.605E+00	2.296E+00	1.329E+00	NOT IDENT.
PM-146	2.945E-02	3.947E-02	3.514E-02	2.014E-02	NOT IDENT.
ND-147	4.090E-02	4.688E-01	3.936E-01	2.392E-01	FAIL ABUN
PM-149	-3.259E+01	5.182E+01	4.071E+01	2.644E+01	NOT IDENT.
EU-152	1.014E-02	9.385E-02	7.638E-02	4.788E-02	FAIL ABUN
GD-153	-3.241E-02	5.833E-02	4.561E-02	2.976E-02	NOT IDENT.
EU-154	1.955E-02	1.147E-01	9.814E-02	5.850E-02	NOT IDENT.
EU-155	5.178E-02	7.040E-02	6.473E-02	3.592E-02	FAIL ABUN
TB-160	-4.883E-02	1.321E-01	1.058E-01	6.738E-02	FAIL ABUN
HO-166M	-1.065E-02	6.273E-02	5.287E-02	3.201E-02	NOT IDENT.
TA-182	1.755E-01	2.162E-01	1.939E-01	1.103E-01	FAIL ABUN
IR-192	-4.790E-03	2.912E-02	2.527E-02	1.486E-02	FAIL ABUN
HG-203	2.128E-02	3.292E-02	2.822E-02	1.679E-02	NOT IDENT.
BI-207	2.672E-02	5.941E-02	5.273E-02	3.031E-02	FAIL ABUN
PB-211	8.992E-02	7.149E-01	6.160E-01	3.648E-01	NOT IDENT.
BI-212	1.792E+00	1.071E+00	6.520E-01	5.465E-01	FAIL ABUN
RN-219	8.041E-02	4.090E-01	3.546E-01	2.086E-01	FAIL ABUN
RA-223	6.526E-01	6.367E-01	5.226E-01	3.249E-01	FAIL ABUN
AC-227	-1.331E-01	2.395E-01	1.922E-01	1.222E-01	FAIL ABUN
TH-227	-1.331E-01	2.396E-01	1.922E-01	1.223E-01	FAIL ABUN
TH-229	-2.552E-01	4.221E-01	3.483E-01	2.153E-01	FAIL ABUN
PA-231	2.985E-01	1.336E+00	1.116E+00	6.818E-01	FAIL ABUN
TH-231	6.526E-01	6.367E-01	5.226E-01	3.249E-01	FAIL ABUN
PA-233	-3.698E-02	5.403E-02	4.533E-02	2.756E-02	FAIL ABUN
PA-234	-4.822E-02	3.070E-01	2.501E-01	1.566E-01	NOT IDENT.
PA-234M	1.822E+00	5.335E+00	4.512E+00	2.722E+00	FAIL ABUN
NP-239	-3.513E-01	2.738E-01	2.265E-01	1.397E-01	NOT IDENT.
AM-241	-2.694E-02	4.841E-02	3.658E-02	2.470E-02	NOT IDENT.
CM-247	6.954E-03	3.736E-02	3.238E-02	1.906E-02	NOT IDENT.

CF-249	1.830E-02	3.420E-02	3.047E-02	1.745E-02	NOT IDENT.
CF-251	5.823E-02	1.047E-01	9.245E-02	5.344E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	203.5233
49.72	206.0949
57.36	0.0000
59.54	327.1319
63.29	325.3222
63.29	325.3222
64.28	326.5045
67.75	329.4194
69.67	378.3354
70.83	361.0761
72.81	368.2053
72.87	368.2791
72.87	368.2791
74.82	370.6500
74.82	370.6500
74.82	370.6500
74.97	370.8309
77.11	373.3969
77.11	373.3969
77.11	373.3969
79.69	324.9622
79.80	299.3248
80.12	299.6219
80.19	299.6862
80.57	297.6185
81.00	300.4355
81.07	300.4998
81.07	300.4998
83.79	268.7796
83.79	268.7796
85.43	270.0938
86.48	270.9280
86.55	270.9834
86.79	271.1714
86.94	271.2923
87.57	271.7891
88.03	272.1500
88.47	272.4957
89.96	273.6572
91.11	274.5485
92.59	278.1910
92.59	278.1910
93.35	278.7771
94.67	279.7899
94.87	279.9424
94.87	279.9424
95.86	237.7066
97.43	265.3767
98.44	215.1645
99.53	223.8713
100.11	248.0829
103.18	251.7790
103.37	256.1999
105.31	233.2727
106.12	236.3451
109.28	232.0925
111.00	240.9523
111.76	240.5165
116.30	191.6543
117.23	236.5301
121.12	198.2737
121.78	184.1933
122.06	200.4922
123.07	213.5613
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133.52	224.5266
136.00	225.1329

136.47	224.4256
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140.51	0.0000
143.76	217.3990
144.24	214.7798
144.24	214.7798
145.44	253.0575
152.43	243.0859
153.25	200.3278
154.21	203.5699
154.21	203.5699
156.02	231.2354
158.56	205.2176
159.00	197.6312
162.66	203.8230
163.33	205.0439
165.86	215.7770
176.60	210.8154
177.52	187.1255
181.07	190.2458
184.41	165.4792
185.72	190.6793
193.51	194.0815
197.04	201.3417
205.31	202.3125
210.85	170.7671
215.65	166.6480
222.11	164.9660
227.38	170.4900
228.16	174.9924
228.18	174.9974
235.69	139.1341
235.96	139.1833
235.96	139.1833
238.63	161.0399
238.63	161.0399
240.99	161.5394
242.00	161.7532
244.70	144.1004
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252.80	129.4203
256.23	180.3987
256.23	180.3987
260.90	155.5223
264.66	130.1962
268.22	122.7986
269.46	116.1487
269.46	116.1487
271.23	130.0869
273.65	137.3267
276.40	126.2901
277.37	162.0645
277.60	162.1075
278.00	146.0789
279.20	126.7019
279.54	153.2536
280.46	174.1821
283.69	138.9380
284.31	143.6702
285.41	163.5734
285.90	164.8231
287.50	130.2383
293.27	0.0000
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295.96	122.5562
298.57	113.0195
299.98	128.7574
299.98	128.7574
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300.09	128.7730
300.13	128.7797
301.36	136.0383
302.85	129.1618
304.50	120.8594
304.50	120.8594
304.85	128.0171
308.46	110.6664
311.90	126.2989

316.51	120.6115
319.41	117.3662
320.08	132.8060
323.87	107.3867
323.87	107.3867
328.76	134.9041
333.37	117.2168
334.37	117.3340
334.37	117.3340
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338.28	123.3125
338.32	123.3166
338.32	123.3166
338.32	123.3166
340.48	115.0957
340.55	115.1033
344.28	118.4863
351.06	114.7932
351.93	107.2422
356.01	125.8216
364.49	88.7030
366.42	100.2064
383.85	102.7648
388.16	83.8750
388.63	91.6268
391.69	90.9062
400.66	117.9296
401.81	119.0215
402.40	118.1050
404.85	118.3524
410.95	87.5034
414.70	100.5992
423.72	74.5239
427.09	106.6131
427.87	98.7039
433.94	103.1965
453.88	76.3321
463.37	83.6544
468.07	71.3318
473.00	81.5772
476.78	96.3050
477.60	75.6399
487.02	78.2501
492.35	74.3639
497.08	81.9728
511.00	78.5375
514.00	73.1714
527.90	73.0137
529.87	0.0000
531.02	66.7113
537.26	72.3959
546.56	0.0000
563.25	63.7473
569.33	69.5119
569.50	69.5196
569.70	69.5273
583.19	62.3284
600.60	73.8000
602.73	76.5996
604.72	81.2021
609.32	73.2856
609.32	73.2856
609.32	73.2856
610.33	73.3291
614.28	84.6950
618.01	70.9370
621.93	75.6585
621.93	75.6585
633.25	84.4194
635.95	72.6044
636.99	68.9703
645.85	53.6089
657.76	125.6232
661.66	82.0660
661.66	82.0660
664.57	0.0000
666.33	122.4831
666.50	104.7293

677.62	73.3840
685.70	55.7533
695.00	67.4292
696.49	68.4334
696.51	68.4352
697.00	72.2557
702.65	80.1015
706.68	82.1829
711.68	72.8179
720.70	51.3411
721.93	0.0000
722.78	57.8218
722.91	57.8262
723.31	67.4775
724.19	81.9744
727.33	74.3794
733.00	56.5118
735.93	67.9150
739.50	68.0381
747.24	64.4016
752.31	71.4120
753.82	53.8452
756.73	64.7077
763.94	54.1151
765.81	70.5784
766.42	72.2412
777.92	75.2894
778.90	69.3796
783.70	77.4877
785.37	58.6601
795.86	36.6380
801.95	55.6736
810.29	59.3572
810.76	54.3388
815.77	52.4481
818.51	62.6145
832.01	72.1510
834.85	66.1394
836.80	0.0000
846.77	46.0360
856.80	39.3927
860.56	60.0452
871.09	44.4676
873.19	43.4735
875.33	0.0000
879.36	47.7430
880.51	46.7281
883.24	36.3868
884.68	46.8127
889.28	70.8804
898.04	72.1939
911.20	41.0338
911.20	41.0338
911.20	41.0338
926.50	41.2975
937.49	73.3967
944.13	52.2647
946.00	49.1019
949.00	38.4750
962.29	75.2158
964.08	62.7240
966.15	64.5703
968.97	70.0297
968.97	70.0297
968.97	70.0297
983.53	54.1809
996.26	51.1848
1001.03	54.5532
1004.73	59.0019
1037.84	49.7922
1038.76	0.0000
1048.07	49.0578
1050.41	63.9238
1050.41	63.9238
1063.66	54.9284
1085.87	61.9448
1099.45	45.2695
1112.07	35.3676

1115.54	42.2772
1120.29	49.4059
1120.29	49.4059
1120.29	49.4059
1120.55	49.4102
1121.30	49.4229
1131.51	0.0000
1173.23	59.0218
1177.93	62.0208
1189.05	48.6348
1204.77	57.6892
1221.41	58.0037
1231.02	72.9762
1235.36	62.2156
1238.28	62.2745
1260.41	0.0000
1271.85	35.9663
1274.44	32.9960
1274.54	32.9960
1291.59	38.1979
1298.22	0.0000
1312.11	35.4045
1332.49	37.6594
1365.19	18.4995
1368.63	0.0000
1384.29	34.1051
1408.01	26.0142
1457.56	0.0000
1460.82	18.1055
1489.16	20.2231
1505.03	36.3450
1596.21	24.3986
1620.50	14.1629
1678.03	0.0000
1690.97	5.7646
1764.49	20.5320
1764.49	20.5320
1764.49	20.5320
1770.23	15.4193
1771.35	11.9958
1791.20	0.0000
1836.06	12.9197

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249244004

Total Uranium Activity	2.4866E+00	ug/g
Total Uranium Counting Unc.	2.4560E+00	ug/g
Total Uranium Tpu	1.2531E-06	ug/g
Total Uranium Mda	1.1031E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 964804                    SAMPLE ID  : G249244004       *
*   ANALYST       : MXR1                      DETECTOR   : GAM25            *
*   SAMPLE DATE   : 10-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 21:08:19.61    SAMPLE ALQT:  122.150 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.838E+00
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.214E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.163E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.531E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 03:16:22.64

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244005.CNF;1
Sample date       : 10-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 23:16:02
Sample ID         : G249244005           Sample quantity  : 1.24200E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:03.97  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 964804               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.38*	325	1056	0.98	92.32	88	9	2.26E-02	19.8	
2	0	53.01*	131	859	0.74	105.58	102	7	9.09E-03	39.1	
3	0	63.15*	383	1617	1.09	125.87	121	10	2.66E-02	21.0	
4	3	74.82*	1697	829	0.87	149.20	143	22	1.18E-01	3.6	3.72E+00
5	3	77.09*	2758	901	0.92	153.74	143	22	1.92E-01	2.6	
6	0	84.14*	297	817	1.28	167.84	165	6	2.07E-02	16.7	
7	0	87.03	682	1131	0.99	173.61	171	7	4.74E-02	9.0	
8	0	89.80	391	801	1.01	179.14	178	5	2.72E-02	12.1	
9	0	93.02*	947	1058	1.55	185.60	182	9	6.58E-02	7.4	
10	0	105.43	97	610	1.10	210.41	208	6	6.75E-03	41.3	
11	0	129.05	176	797	0.85	257.65	254	8	1.22E-02	28.8	
12	0	154.34	71	566	1.02	308.21	304	7	4.92E-03	57.1	
13	0	185.90*	480	548	1.21	371.35	367	8	3.33E-02	10.2	
14	0	209.24	291	542	0.89	418.01	414	9	2.02E-02	15.6	
15	6	238.63*	3208	355	0.98	476.80	472	16	2.23E-01	2.0	2.40E+00
16	6	241.55	713	527	1.76	482.63	472	16	4.95E-02	10.0	
17	0	270.25	225	490	1.14	540.03	533	11	1.56E-02	20.2	
18	0	277.38	110	365	0.81	554.28	550	8	7.63E-03	31.6	
19	0	295.25*	816	384	1.06	590.03	585	10	5.67E-02	5.8	
20	0	299.81	184	303	1.16	599.15	595	8	1.28E-02	18.0	
21	0	328.46	90	398	0.93	656.44	650	10	6.27E-03	42.7	
22	0	338.31*	465	454	1.17	676.14	671	11	3.23E-02	10.3	
23	0	351.93	1427	407	1.21	703.37	697	13	9.91E-02	3.9	
24	0	409.96	85	260	0.80	819.43	815	9	5.92E-03	35.9	
25	0	462.76	191	210	1.69	925.02	919	12	1.32E-02	16.9	
26	0	510.73*	125	403	1.40	1020.96	1013	15	8.66E-03	40.8	
27	0	583.16*	900	200	1.30	1165.81	1160	13	6.25E-02	4.8	
28	0	609.34*	955	225	1.39	1218.18	1213	12	6.63E-02	4.6	
29	0	727.42	205	150	1.45	1454.32	1449	11	1.43E-02	13.5	
30	0	794.79	139	98	1.50	1589.07	1583	13	9.62E-03	17.0	
31	0	860.50*	90	120	1.53	1720.47	1714	12	6.25E-03	27.2	
32	0	911.23*	580	155	1.52	1821.94	1814	16	4.03E-02	6.4	
33	5	964.70	112	129	2.89	1928.88	1920	43	7.75E-03	27.5	1.31E+00
34	5	968.91*	374	85	1.80	1937.31	1920	43	2.60E-02	7.2	
35	0	1120.71	202	156	1.37	2240.90	2233	16	1.40E-02	15.5	
36	0	1378.13	64	55	1.39	2755.79	2750	14	4.47E-03	27.6	
37	0	1408.67*	25	36	0.97	2816.87	2812	10	1.77E-03	51.1	
38	0	1460.76*	2722	47	2.03	2921.06	2910	18	1.89E-01	2.0	

Sample ID : G249244005 Acquisition date : 23-MAR-2010 23:16:02

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1588.18	56	46	2.49	3175.91	3170	14	3.86E-03	29.1	
40	0	1622.64	32	55	4.62	3244.84	3233	22	2.22E-03	61.7	
41	0	1730.54	44	18	0.65	3460.65	3452	19	3.08E-03	27.8	
42	0	1764.63*	133	37	2.15	3528.85	3518	21	9.27E-03	14.9	
43	0	1847.32	33	13	0.83	3694.24	3685	17	2.32E-03	29.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 03:16:25

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244005.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 10-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 23:16:02
Sample ID : G249244005 Sample quantity : 124.20 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA25 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:00:03.97 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.481E+01	3.280E+00	3.920E-01	3.339E-02	88.796
CD-109	+	88.03	*	3.023E+00	6.317E-01	6.157E-01	6.617E-02	4.910
SN-126	+	64.28		6.168E-01	2.767E-01	2.092E-01	3.333E-02	2.949
	+	86.94		1.232E+00	5.607E-01	2.506E-01	1.049E-01	4.913
	+	87.57	*	2.962E-01	6.189E-02	6.046E-02	6.483E-03	4.900
EU-155	+	86.55		3.590E-01	7.513E-02	6.345E-02	6.816E-03	5.657
	+	105.31	*	7.928E-02	6.620E-02	8.837E-02	1.044E-02	0.897
TL-208	+	277.37		5.310E-01	3.444E-01	3.914E-01	5.626E-02	1.357
	+	583.19	*	6.410E-01	9.456E-02	4.364E-02	4.915E-03	14.689
	+	860.56		6.163E-01	3.410E-01	3.311E-01	3.460E-02	1.861
PB-210	+	46.54	*	1.260E+00	5.161E-01	3.948E-01	4.043E-02	3.190
BI-211		72.87		1.759E+00	1.225E+00	1.835E+00	1.852E-01	0.958
	+	351.06	*	4.295E+00	5.647E-01	2.153E-01	2.269E-02	19.949
PB-212	+	74.82		2.573E+00	4.055E-01	2.028E-01	2.852E-02	12.690
	+	77.11		2.525E+00	2.907E-01	1.229E-01	1.259E-02	20.550
	+	238.63	*	2.083E+00	2.528E-01	5.740E-02	6.558E-03	36.288
	+	300.09		1.895E+00	7.209E-01	8.534E-01	1.071E-01	2.221
BI-214	+	609.32	*	1.322E+00	2.009E-01	8.257E-02	9.998E-03	16.007
	+	1120.29		1.466E+00	4.815E-01	3.730E-01	4.067E-02	3.931
	+	1764.49		1.400E+00	4.321E-01	2.211E-01	1.822E-02	6.333
PB-214	+	74.82		4.560E+00	6.712E-01	3.594E-01	4.632E-02	12.690
	+	77.11		4.452E+00	6.304E-01	2.166E-01	2.849E-02	20.550
	+	242.00		2.811E+00	6.552E-01	3.497E-01	4.203E-02	8.036
	+	295.22		1.488E+00	2.578E-01	1.422E-01	1.822E-02	10.464
	+	351.93	*	1.559E+00	2.222E-01	7.834E-02	9.305E-03	19.898
RA-224	+	240.99	*	4.970E+00	1.122E+00	6.160E-01	6.474E-02	8.068
RA-226	+	609.32	*	1.322E+00	2.009E-01	8.257E-02	9.998E-03	16.007
	+	1120.29		1.466E+00	4.815E-01	3.730E-01	4.067E-02	3.931
	+	1764.49		1.400E+00	4.321E-01	2.211E-01	1.822E-02	6.333
AC-228	+	338.32		1.551E+00	7.269E-01	2.557E-01	1.077E-01	6.066
	+	911.20	*	2.025E+00	3.596E-01	1.762E-01	2.154E-02	11.489
	+	968.97		2.250E+00	6.425E-01	3.061E-01	7.535E-02	7.351
RA-228	+	338.32		1.551E+00	7.269E-01	2.557E-01	1.077E-01	6.066
	+	911.20	*	2.025E+00	3.596E-01	1.762E-01	2.154E-02	11.489

Sample ID : G249244005 Acquisition date : 23-MAR-2010 23:16:02

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		2.250E+00	6.425E-01	3.061E-01	7.535E-02	7.351
TH-228	+	74.82		2.573E+00	3.204E-01	2.028E-01	2.074E-02	12.690
	+	77.11		2.525E+00	2.907E-01	1.229E-01	1.259E-02	20.550
	+	238.63	*	2.083E+00	2.528E-01	5.740E-02	6.558E-03	36.288
	+	300.09		1.895E+00	1.351E+00	8.534E-01	5.257E-01	2.221
TH-229	+	85.43		3.223E-01	1.128E-01	1.312E-01	1.392E-02	2.458
	+	88.47		2.639E-01	6.977E-02	9.320E-02	1.004E-02	2.832
		193.51	*	-1.378E-01	3.300E-01	5.307E-01	5.062E-02	-0.260
		210.85		7.241E-01	6.388E-01	9.654E-01	9.568E-02	0.750
TH-230	+	609.32	*	1.322E+00	1.884E-01	8.257E-02	8.998E-03	16.007
	+	1120.29		1.466E+00	4.714E-01	3.730E-01	3.207E-02	3.931
	+	1764.49		1.400E+00	4.321E-01	2.211E-01	1.822E-02	6.333
TH-232	+	338.32		1.551E+00	3.573E-01	2.557E-01	2.665E-02	6.066
	+	911.20	*	2.025E+00	3.596E-01	1.762E-01	2.154E-02	11.489
	+	968.97		2.250E+00	6.425E-01	3.061E-01	7.535E-02	7.351
TH-234	+	63.29	*	1.600E+00	7.367E-01	5.419E-01	1.029E-01	2.953
	+	92.59		3.664E+00	1.007E+00	4.407E-01	1.018E-01	8.315
U-235	+	89.96		1.825E+00	6.403E-01	6.184E-01	1.576E-01	2.952
	+	93.35		2.768E+00	7.835E-01	3.263E-01	7.864E-02	8.482
		143.76	*	6.705E-02	1.233E-01	2.019E-01	3.708E-02	0.332
		163.33		-9.439E-02	2.745E-01	4.278E-01	7.802E-02	-0.221
	+	185.72		1.977E-01	4.425E-02	4.073E-02	3.814E-03	4.853
		205.31		-2.350E-02	3.572E-01	4.915E-01	9.207E-02	-0.048
NP-237	+	86.48	*	8.839E-01	2.616E-01	1.562E-01	3.674E-02	5.659
		95.86		3.863E-02	4.370E-01	6.771E-01	1.694E-01	0.057
U-238	+	63.29	*	1.600E+00	7.367E-01	5.419E-01	1.029E-01	2.953
	+	92.59		3.664E+00	6.777E-01	4.407E-01	4.842E-02	8.315
ANH-511	+	511.00	*	6.709E-02	5.518E-02	3.372E-02	3.471E-03	1.989

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-9.447E-02	2.408E-01	3.843E-01	4.068E-02	-0.246
NA-22		1274.54	*	-6.507E-03	3.811E-02	6.196E-02	5.081E-03	-0.105
NA-24		1368.63	*	-4.919E-02	3.811E-02	Half-Life too short		
SC-46		889.28	*	-1.104E-02	3.267E-02	5.198E-02	4.978E-03	-0.212
	+	1120.55		2.447E-01	7.869E-02	9.956E-02	8.559E-03	2.458
V-48		944.13		-4.938E-01	6.714E-01	1.028E+00	9.641E-02	-0.481
		983.53	*	-9.501E-03	6.536E-02	8.943E-02	8.287E-03	-0.106
		1312.11		4.422E-03	6.161E-02	1.015E-01	8.275E-03	0.044
CR-51		320.08	*	6.672E-02	2.278E-01	3.883E-01	4.309E-02	0.172
MN-54		834.85	*	4.612E-03	3.130E-02	5.164E-02	5.240E-03	0.089
CO-56		846.77	*	1.464E-04	2.931E-02	4.792E-02	4.808E-03	0.003
		1037.84		-3.839E-02	2.353E-01	3.904E-01	3.701E-02	-0.098
		1238.28		1.893E-01	7.932E-02	1.430E-01	1.213E-02	1.323
		1771.35		-2.116E-01	2.058E-01	2.306E-01	1.898E-02	-0.918
CO-57		122.06	*	1.078E-02	1.358E-02	2.332E-02	3.007E-03	0.462
		136.47		-5.604E-02	1.148E-01	1.890E-01	2.316E-02	-0.296

Sample ID : G249244005 Acquisition date : 23-MAR-2010 23:16:02

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-58		810.76	*	-1.425E-02	2.982E-02	4.739E-02	4.917E-03	-0.301
FE-59		1099.45	*	-4.455E-02	7.230E-02	1.158E-01	1.090E-02	-0.385
		1291.59		2.211E-02	9.850E-02	1.643E-01	1.543E-02	0.135
CO-60		1173.23		9.505E-03	3.822E-02	6.424E-02	5.288E-03	0.148
		1332.49	*	-2.385E-02	3.258E-02	4.903E-02	3.982E-03	-0.486
ZN-65		1115.54	*	-1.299E-01	8.757E-02	1.081E-01	9.334E-03	-1.202
SE-75		121.12		1.030E-02	7.017E-02	1.189E-01	1.736E-02	0.087
		136.00		-1.937E-02	2.184E-02	3.537E-02	4.197E-03	-0.548
		264.66	*	-1.318E-02	3.374E-02	4.664E-02	5.111E-03	-0.283
		279.54		-1.894E-02	8.344E-02	1.159E-01	1.322E-02	-0.164
		400.66		6.909E-02	1.832E-01	3.077E-01	3.552E-02	0.225
SR-85		514.00	*	5.168E-02	2.995E-02	4.687E-02	4.835E-03	1.103
Y-88		898.04		-2.376E-03	3.403E-02	5.507E-02	5.237E-03	-0.043
		1836.06	*	1.273E-02	2.641E-02	4.487E-02	3.667E-03	0.284
Y-91		1204.77	*	-1.054E+01	1.894E+01	2.967E+01	2.442E+00	-0.355
NB-94		702.65	*	-4.436E-03	2.664E-02	4.393E-02	4.824E-03	-0.101
		871.09		-6.106E-03	2.727E-02	4.378E-02	4.282E-03	-0.139
NB-95		765.81	*	4.942E-02	3.493E-02	6.101E-02	6.517E-03	0.810
NB-95M		235.69	*	4.705E-03	8.666E-02	1.244E-01	1.428E-02	0.038
ZR-95		724.19		1.688E-02	7.590E-02	1.112E-01	1.277E-02	0.152
		756.73	*	4.121E-02	5.459E-02	9.376E-02	1.076E-02	0.440
MO-99		140.51		-7.427E+00	8.965E+00	1.373E+01	3.419E+00	-0.541
		181.07		-7.768E+00	8.340E+00	1.154E+01	2.203E+00	-0.673
		366.42		-2.602E+01	4.511E+01	7.317E+01	7.171E+00	-0.356
		739.50	*	7.887E-01	6.020E+00	1.004E+01	1.714E+00	0.079
		777.92		-1.202E+01	1.809E+01	2.849E+01	3.021E+00	-0.422
TC-99M		140.51	*	-2.252E+08	1.809E+01	Half-Life too short		
RU-103		497.08	*	-8.872E-03	2.822E-02	4.497E-02	6.736E-03	-0.197
	+	610.33		1.326E+01	2.639E+00	2.158E+00	3.811E-01	6.143
RH-106		621.93	*	6.468E-02	2.251E-01	3.841E-01	5.714E-02	0.168
		1050.41		5.688E-01	2.013E+00	3.429E+00	3.083E-01	0.166
RU-106		621.93	*	6.468E-02	2.251E-01	3.841E-01	4.206E-02	0.168
		1050.41		5.688E-01	2.013E+00	3.429E+00	3.083E-01	0.166
AG-108M		433.94	*	-9.256E-03	2.034E-02	3.262E-02	3.204E-03	-0.284
		614.28		8.201E-03	2.727E-02	4.092E-02	4.560E-03	0.200
		722.91		-1.851E-02	3.080E-02	4.195E-02	4.667E-03	-0.441
AG-110M		657.76	*	-4.560E-02	2.872E-02	4.339E-02	4.890E-03	-1.051
		677.62		-2.029E-01	2.427E-01	3.849E-01	4.328E-02	-0.527
		706.68		-7.239E-02	1.609E-01	2.605E-01	2.908E-02	-0.278
		763.94		-1.055E-01	1.336E-01	2.105E-01	2.291E-02	-0.501
		884.68		-2.164E-02	4.003E-02	6.273E-02	6.196E-03	-0.345
		937.49		-1.240E-01	9.473E-02	1.388E-01	1.344E-02	-0.893
		1384.29		-8.327E-02	1.401E-01	1.787E-01	1.507E-02	-0.466
		1505.03		-1.356E-01	2.044E-01	3.044E-01	2.523E-02	-0.446
SN-113		391.69	*	-3.247E-02	3.060E-02	4.798E-02	4.481E-03	-0.677
CD-115		260.90		5.297E+01	5.588E+01	9.218E+01	1.001E+01	0.575
		492.35		5.944E+00	1.678E+01	2.778E+01	2.816E+00	0.214
		527.90	*	2.376E+00	5.032E+00	8.336E+00	8.688E-01	0.285
SN-117M		156.02		-4.029E-01	1.346E+00	1.974E+00	1.969E-01	-0.204

Sample ID : G249244005 Acquisition date : 23-MAR-2010 23:16:02

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		158.56	*	9.496E-03	2.983E-02	4.991E-02	4.846E-03	0.190
TE-123M		159.00	*	6.665E-03	1.668E-02	2.796E-02	2.715E-03	0.238
SB-124		602.73		-1.322E-02	2.935E-02	4.552E-02	4.948E-03	-0.290
		645.85		-3.800E-01	3.610E-01	5.654E-01	6.460E-02	-0.672
		722.78		-1.805E-01	3.038E-01	4.141E-01	4.581E-02	-0.436
		1690.97	*	5.938E-02	5.576E-02	1.044E-01	9.043E-03	0.569
SB-125		427.87	*	2.826E-02	6.370E-02	1.070E-01	1.033E-02	0.264
	+	463.37		8.983E-01	3.169E-01	3.929E-01	4.104E-02	2.287
		600.60		-9.826E-03	1.287E-01	2.163E-01	2.459E-02	-0.045
		635.95		-1.973E-02	2.055E-01	3.431E-01	3.966E-02	-0.057
TE-125M		109.28	*	-5.599E-01	5.468E+00	8.334E+00	1.117E+00	-0.067
I-126		388.63		8.255E-02	1.081E-01	1.849E-01	1.697E-02	0.447
		666.33	*	-1.117E-01	1.701E-01	2.746E-01	3.040E-02	-0.407
		753.82		1.816E+00	1.319E+00	2.320E+00	2.495E-01	0.782
SB-126		414.70		2.877E-02	5.415E-02	7.956E-02	7.446E-03	0.362
		666.50		-4.830E-03	5.604E-02	9.326E-02	1.032E-02	-0.052
		695.00		-4.022E-02	5.565E-02	8.882E-02	9.774E-03	-0.453
		697.00		7.794E-02	1.910E-01	3.243E-01	3.567E-02	0.240
		720.70	*	-9.209E-03	1.019E-01	1.527E-01	1.666E-02	-0.060
		856.80		-7.511E-02	3.831E-01	5.308E-01	5.272E-02	-0.142
SB-127		252.40		3.995E-01	2.152E+00	3.457E+00	1.448E+00	0.116
		473.00		-3.315E-01	8.986E-01	1.436E+00	1.915E-01	-0.231
		685.70	*	-8.644E-02	7.862E-01	1.303E+00	1.682E-01	-0.066
		783.70		2.524E+00	2.072E+00	3.600E+00	4.828E-01	0.701
I-131		80.19		-7.623E-01	1.802E+00	2.552E+00	2.657E-01	-0.299
		284.31		-5.807E-01	8.566E-01	1.308E+00	1.499E-01	-0.444
		364.49	*	2.812E-02	6.772E-02	1.149E-01	1.178E-02	0.245
		636.99		-6.971E-01	1.049E+00	1.694E+00	1.929E-01	-0.411
TE-132		49.72		-1.177E-02	1.668E+00	2.180E+00	2.468E-01	-0.005
		111.76		-3.314E+00	1.231E+01	2.071E+01	2.821E+00	-0.160
		116.30		4.912E+00	1.068E+01	1.828E+01	2.540E+00	0.269
		228.16	*	-6.414E-02	3.354E-01	5.365E-01	8.846E-02	-0.120
BA-133		81.00		-4.330E-02	4.328E-02	5.913E-02	9.803E-03	-0.732
	+	276.40		4.907E-01	3.198E-01	4.259E-01	6.713E-02	1.152
		302.85		-2.600E-02	1.010E-01	1.488E-01	2.189E-02	-0.175
		356.01	*	-3.126E-02	3.200E-02	4.380E-02	6.109E-03	-0.714
		383.85		-1.401E-01	2.084E-01	3.344E-01	4.322E-02	-0.419
I-133		529.87	*	-6.832E-04	2.084E-01	Half-Life too short		
		875.33		-1.765E-02	2.084E-01	Half-Life too short		
		1298.22		-9.922E-03	2.084E-01	Half-Life too short		
CS-134		563.25		2.408E-01	2.678E-01	4.499E-01	4.825E-02	0.535
		569.33		3.542E-02	1.461E-01	2.375E-01	2.563E-02	0.149
		604.72		-1.363E-02	2.878E-02	4.085E-02	4.450E-03	-0.334
	+	795.86	*	1.454E-01	5.171E-02	6.764E-02	7.121E-03	2.150
		801.95		-3.215E-01	3.590E-01	4.685E-01	4.904E-02	-0.686
		1365.19		2.261E-02	8.820E-01	1.444E+00	1.240E-01	0.016
CS-135		268.22	*	1.179E-01	1.052E-01	1.735E-01	2.095E-02	0.679
I-135		546.56		-1.683E+08	1.052E-01	Half-Life too short		
		836.80		7.101E+06	1.052E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1038.76		-5.254E+07	1.052E-01	Half-Life too short		
		1131.51		4.874E+07	1.052E-01	Half-Life too short		
		1260.41	*	7.714E+06	1.052E-01	Half-Life too short		
		1457.56		1.476E+10	1.052E-01	Half-Life too short		
		1678.03		8.504E+07	1.052E-01	Half-Life too short		
		1791.20		1.138E+08	1.052E-01	Half-Life too short		
CS-136	+	153.25		5.246E-01	6.021E-01	8.022E-01	9.361E-02	0.654
		176.60		6.650E-02	2.831E-01	4.689E-01	4.688E-02	0.142
		273.65		-1.466E-01	4.448E-01	4.760E-01	5.546E-02	-0.308
		340.55		2.386E-01	1.058E-01	1.693E-01	1.804E-02	1.409
		818.51		-1.369E-02	5.148E-02	8.290E-02	8.537E-03	-0.165
		1048.07	*	-1.658E-02	8.026E-02	1.328E-01	1.241E-02	-0.125
		1235.36		6.147E-02	4.808E-01	7.979E-01	9.154E-02	0.077
BA-137M		661.66	*	-3.253E-02	3.393E-02	5.331E-02	5.905E-03	-0.610
CS-137		661.66	*	-3.437E-02	3.584E-02	5.631E-02	6.245E-03	-0.610
CE-139		165.86	*	-1.005E-02	1.750E-02	2.832E-02	2.525E-03	-0.355
BA-140		162.66		6.883E-02	4.613E-01	7.318E-01	7.181E-02	0.094
		304.85		-1.063E-01	8.015E-01	1.304E+00	3.916E-01	-0.081
		423.72		-1.295E-01	1.265E+00	2.071E+00	6.860E-01	-0.063
		537.26	*	-1.326E-01	1.833E-01	2.733E-01	9.411E-02	-0.485
LA-140	+	328.76		3.407E-01	2.931E-01	3.591E-01	3.950E-02	0.949
		487.02		6.279E-03	9.027E-02	1.474E-01	1.555E-02	0.043
		815.77		3.666E-02	2.222E-01	3.684E-01	4.117E-02	0.099
		1596.21	*	8.622E-02	6.364E-02	1.092E-01	9.077E-03	0.790
CE-141		145.44	*	2.558E-03	3.569E-02	5.963E-02	6.633E-03	0.043
CE-143		57.36		-2.366E-05	3.569E-02	Half-Life too short		
		293.27	*	1.821E-04	3.569E-02	Half-Life too short		
		664.57		-2.098E-04	3.569E-02	Half-Life too short		
		721.93		-7.114E-05	3.569E-02	Half-Life too short		
CE-144		80.12		-5.418E-01	1.112E+00	1.571E+00	1.629E-01	-0.345
		133.52	*	-1.321E-02	1.149E-01	1.834E-01	3.197E-02	-0.072
PM-144		476.78		2.370E-02	4.835E-02	8.063E-02	8.585E-03	0.294
		618.01		-8.052E-03	2.296E-02	3.788E-02	4.214E-03	-0.213
		696.49	*	-3.756E-03	2.689E-02	4.444E-02	4.889E-03	-0.085
PR-144		696.51	*	-2.897E-01	2.010E+00	3.322E+00	3.654E-01	-0.087
		1489.16		-3.991E+00	8.910E+00	1.360E+01	1.126E+00	-0.294
PM-146		453.88	*	2.383E-02	3.194E-02	5.392E-02	6.231E-03	0.442
		633.25		1.160E+00	1.139E+00	1.857E+00	7.205E-01	0.625
		735.93		5.397E-02	1.066E-01	1.801E-01	5.184E-02	0.300
		747.24		2.253E-02	7.320E-02	1.231E-01	1.965E-02	0.183
ND-147	+	91.11		5.341E-01	1.425E-01	2.170E-01	2.492E-02	2.461
		319.41		2.054E-01	1.912E+00	3.237E+00	3.478E-01	0.063
		531.02	*	-2.030E-01	3.688E-01	5.732E-01	9.212E-02	-0.354
PM-149		285.90	*	4.935E+00	3.654E+01	5.815E+01	9.914E+00	0.085
EU-152		121.78		3.463E-02	3.880E-02	6.670E-02	9.180E-03	0.519
		244.70		-2.294E-01	2.269E-01	3.030E-01	3.205E-02	-0.757
		344.28	*	-3.084E-03	6.874E-02	1.067E-01	1.145E-02	-0.029
		778.90		2.680E-02	1.935E-01	3.215E-01	3.407E-02	0.083
	+	964.08		7.232E-01	4.032E-01	4.494E-01	4.192E-02	1.609

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1085.87		9.110E-02	3.237E-01	5.494E-01	4.837E-02	0.166
		1112.07		2.498E-01	2.695E-01	4.427E-01	3.830E-02	0.564
	+	1408.01		1.599E-01	1.639E-01	2.520E-01	2.070E-02	0.635
GD-153		69.67		-2.799E-01	6.395E-01	9.006E-01	9.005E-02	-0.311
		97.43	*	-5.948E-02	4.548E-02	6.476E-02	7.293E-03	-0.918
		103.18		-1.529E-02	5.770E-02	8.774E-02	1.019E-02	-0.174
EU-154		123.07		1.107E-02	2.784E-02	4.741E-02	7.016E-03	0.234
		723.31		-1.195E-01	1.452E-01	1.936E-01	2.247E-02	-0.617
		873.19		2.020E-02	2.124E-01	3.485E-01	4.441E-02	0.058
		996.26		1.297E-01	3.040E-01	5.014E-01	8.911E-02	0.259
		1004.73		-7.051E-02	1.781E-01	2.782E-01	3.356E-02	-0.253
		1274.44	*	-1.347E-02	1.075E-01	1.753E-01	1.938E-02	-0.077
TB-160	+	86.79		9.384E-01	1.961E-01	2.472E-01	2.641E-02	3.796
		197.04		7.634E-02	3.651E-01	5.679E-01	5.460E-02	0.134
		215.65		-1.401E-01	4.629E-01	7.409E-01	7.416E-02	-0.189
	+	298.57		2.628E-01	9.868E-02	1.323E-01	1.456E-02	1.986
		879.36	*	3.537E-02	1.063E-01	1.770E-01	1.715E-02	0.200
		962.29		7.985E-01	4.792E-01	7.527E-01	7.025E-02	1.061
	+	966.15		4.976E-01	2.774E-01	4.020E-01	3.747E-02	1.238
		1177.93		7.233E-02	3.026E-01	5.081E-01	4.182E-02	0.142
		1271.85		-3.465E-01	6.021E-01	9.510E-01	7.791E-02	-0.364
HO-166M		80.57		-7.998E-02	1.222E-01	1.713E-01	1.780E-02	-0.467
	+	184.41		1.571E-01	3.515E-02	4.199E-02	3.919E-03	3.741
		280.46		3.818E-02	6.179E-02	8.999E-02	1.004E-02	0.424
	+	410.95		3.375E-01	2.445E-01	3.231E-01	3.010E-02	1.045
		711.68	*	2.774E-02	4.343E-02	7.466E-02	8.175E-03	0.372
		752.31		-1.081E-01	2.192E-01	3.517E-01	3.785E-02	-0.307
		810.29		-2.696E-02	4.587E-02	7.232E-02	7.494E-03	-0.373
TA-182		67.75		1.806E-02	3.437E-02	5.508E-02	5.480E-03	0.328
		100.11		1.149E-01	8.791E-02	1.493E-01	1.705E-02	0.769
		152.43		4.422E-02	2.289E-01	3.436E-01	3.550E-02	0.129
		222.11		1.327E-01	2.225E-01	3.667E-01	3.719E-02	0.362
	+	1121.30		6.804E-01	2.188E-01	2.781E-01	2.390E-02	2.446
		1189.05		-3.197E-01	2.579E-01	3.929E-01	3.234E-02	-0.814
		1221.41	*	-5.914E-02	1.770E-01	2.869E-01	2.360E-02	-0.206
		1231.02		-5.418E-01	4.233E-01	6.461E-01	5.311E-02	-0.838
IR-192	+	295.96		1.084E+00	1.744E-01	2.039E-01	2.259E-02	5.314
		308.46		-1.970E-02	5.972E-02	9.953E-02	1.088E-02	-0.198
		316.51	*	8.990E-03	2.150E-02	3.684E-02	3.979E-03	0.244
		468.07		1.197E-02	5.283E-02	7.674E-02	8.033E-03	0.156
HG-203		70.83		-4.564E-01	5.037E-01	6.895E-01	1.162E-01	-0.662
		72.87		4.276E-01	3.030E-01	4.461E-01	7.316E-02	0.958
		279.20	*	5.244E-03	2.912E-02	4.140E-02	4.691E-03	0.127
BI-207		72.81		8.016E-02	6.975E-02	1.040E-01	1.049E-02	0.771
	+	74.97		7.415E-01	9.193E-02	1.027E-01	1.044E-02	7.223
		569.70		2.816E-03	2.258E-02	3.646E-02	3.900E-03	0.077
		1063.66	*	1.004E-02	4.318E-02	7.323E-02	6.536E-03	0.137
		1770.23		-2.909E-01	4.122E-01	5.075E-01	4.178E-02	-0.573
PB-211		404.85	*	-4.028E-01	6.395E-01	8.483E-01	4.115E-01	-0.475

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.09		4.131E-01	1.090E+00	1.798E+00	8.348E-01	0.230
		832.01		-3.809E-02	8.311E-01	1.357E+00	7.075E-01	-0.028
BI-212	+	727.33	*	2.269E+00	6.923E-01	9.487E-01	1.340E-01	2.392
		785.37		9.602E-01	2.540E+00	4.266E+00	4.502E-01	0.225
		1620.50		8.062E-01	2.154E+00	3.708E+00	3.082E-01	0.217
RN-219	+	271.23		6.512E-01	2.746E-01	3.030E-01	3.743E-02	2.150
		401.81	*	1.270E-01	2.935E-01	4.935E-01	7.513E-02	0.257
RA-223		81.07		-1.038E-01	9.730E-02	1.337E-01	1.392E-02	-0.777
	+	83.79		1.918E-01	6.713E-02	9.370E-02	9.873E-03	2.047
		94.87		5.780E-01	2.266E-01	3.648E-01	4.054E-02	1.585
		144.24		3.452E-01	4.134E-01	6.826E-01	8.125E-02	0.506
	+	154.21		2.592E-01	2.973E-01	3.955E-01	4.297E-02	0.655
	+	269.46		5.060E-01	2.117E-01	2.407E-01	2.682E-02	2.102
		323.87	*	-3.437E-01	4.808E-01	6.789E-01	1.252E-01	-0.506
	+	338.28		6.155E+00	1.510E+00	1.750E+00	2.349E-01	3.516
AC-227		79.69		-4.820E-01	5.549E-01	7.641E-01	1.388E-01	-0.631
		235.96		6.608E-02	1.083E-01	1.591E-01	1.890E-02	0.415
		256.23	*	-4.973E-02	1.690E-01	2.663E-01	3.644E-02	-0.187
	+	299.98		2.085E+00	8.066E-01	1.122E+00	1.618E-01	1.857
		304.50		1.501E-01	1.091E+00	1.726E+00	3.081E-01	0.087
		334.37		-2.663E-01	1.308E+00	1.914E+00	3.196E-01	-0.139
TH-227		79.80		-5.878E-01	7.367E-01	1.013E+00	2.282E-01	-0.580
		235.96		6.608E-02	1.082E-01	1.591E-01	1.810E-02	0.415
		256.23	*	-4.973E-02	1.691E-01	2.663E-01	4.013E-02	-0.187
	+	299.98		2.085E+00	8.066E-01	1.122E+00	1.618E-01	1.857
		304.50		1.501E-01	1.091E+00	1.726E+00	3.081E-01	0.087
		334.37		-2.663E-01	1.308E+00	1.914E+00	3.196E-01	-0.139
PA-231		283.69	*	-3.436E-01	9.583E-01	1.489E+00	2.411E-01	-0.231
		301.36		1.148E+00	4.526E-01	7.122E-01	9.915E-02	1.612
TH-231		81.07		-1.038E-01	9.730E-02	1.337E-01	1.392E-02	-0.777
	+	83.79		1.918E-01	6.713E-02	9.370E-02	9.873E-03	2.047
		94.87		5.780E-01	2.266E-01	3.648E-01	4.054E-02	1.585
		144.24		3.452E-01	4.134E-01	6.826E-01	8.125E-02	0.506
	+	154.21		2.592E-01	2.973E-01	3.955E-01	4.297E-02	0.655
	+	269.46		5.060E-01	2.117E-01	2.407E-01	2.682E-02	2.102
		323.87	*	-3.437E-01	4.808E-01	6.789E-01	1.252E-01	-0.506
	+	338.28		6.155E+00	1.510E+00	1.750E+00	2.349E-01	3.516
PA-233	+	300.13		9.433E-01	3.720E-01	5.088E-01	8.304E-02	1.854
		311.90	*	-1.263E-02	4.078E-02	6.797E-02	7.507E-03	-0.186
		340.48		1.298E+00	5.807E-01	8.082E-01	2.001E-01	1.606
PA-234		94.67		3.158E-01	9.244E-02	1.400E-01	1.993E-02	2.256
		98.44		6.286E-02	5.670E-02	7.637E-02	4.297E-02	0.823
		111.00		-1.685E-02	9.513E-02	1.606E-01	2.375E-02	-0.105
		131.20		3.985E-02	6.608E-02	1.017E-01	1.242E-02	0.392
		569.50		3.792E-02	2.011E-01	3.260E-01	3.486E-02	0.116
		733.00		1.361E-01	3.132E-01	4.648E-01	1.076E-01	0.293
		880.51		7.276E-02	2.236E-01	3.718E-01	3.598E-02	0.196
		883.24		4.773E-02	2.304E-01	3.765E-01	2.536E-01	0.127
		926.50		-5.430E-02	1.360E-01	2.129E-01	5.442E-02	-0.255

Sample ID : G249244005 Acquisition date : 23-MAR-2010 23:16:02

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	-2.272E-01	2.549E-01	3.812E-01	7.290E-02	-0.596
		949.00		5.104E-01	3.699E-01	6.456E-01	6.049E-02	0.791
PA-234M		766.42		1.756E+01	1.300E+01	1.692E+01	8.653E+00	1.038
		1001.03	*	8.977E-01	3.986E+00	6.352E+00	6.654E-01	0.141
NP-239		99.53		1.405E-01	8.275E-02	1.409E-01	1.605E-02	0.997
		103.37		4.807E-03	5.260E-02	8.109E-02	9.424E-03	0.059
	+	106.12		6.326E-02	5.282E-02	7.689E-02	9.069E-03	0.823
		117.23	*	-2.370E-01	2.131E-01	3.453E-01	4.331E-02	-0.686
		228.18		-2.602E-02	1.407E-01	2.252E-01	2.311E-02	-0.116
	+	277.60		2.427E-01	1.558E-01	2.145E-01	2.388E-02	1.132
AM-241		59.54	*	-6.204E-03	3.688E-02	5.390E-02	5.600E-03	-0.115
CM-247	+	278.00		1.031E+00	6.618E-01	9.018E-01	1.005E-01	1.143
		287.50		4.911E-01	8.300E-01	1.345E+00	1.493E-01	0.365
		402.40	*	1.317E-03	2.705E-02	4.484E-02	4.132E-03	0.029
CF-249		252.80		2.221E-01	6.392E-01	1.036E+00	1.111E-01	0.214
		333.37		1.039E-03	1.471E-01	2.033E-01	2.138E-02	0.005
		388.16	*	2.196E-02	2.841E-02	4.858E-02	4.468E-03	0.452
CF-251		177.52	*	4.519E-02	8.059E-02	1.347E-01	1.236E-02	0.335
		227.38		-2.665E-02	2.321E-01	3.726E-01	3.818E-02	-0.072
		285.41		-9.409E-01	1.481E+00	2.269E+00	2.523E-01	-0.415

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
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*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244005      *
* Acquisition date : 23-MAR-2010 23:16:02 Detector SN#    :                 *
* Detector ID        : GAM25               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 04:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 04:00:03.97      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 10-MAR-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G249244005          Analyst initials: MXR1          *
* Batch Number       : 964804              Sample Quantity : 1.2420E+02 GRAM *
* Recovery           :    1.00000          Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.481E+01	3.215E+00	3.916E-01	0.000E+00
CD-109	3.023E+00	6.190E-01	6.388E-01	0.000E+00
SN-126	2.962E-01	6.066E-02	6.273E-02	0.000E+00
EU-155	7.928E-02	6.487E-02	9.148E-02	0.000E+00
TL-208	6.410E-01	9.267E-02	4.415E-02	0.000E+00
PB-210	1.260E+00	5.057E-01	4.130E-01	0.000E+00
BI-211	4.295E+00	5.534E-01	2.193E-01	0.000E+00
PB-212	2.083E+00	2.477E-01	5.877E-02	0.000E+00
BI-214	1.322E+00	1.969E-01	8.348E-02	0.000E+00
PB-214	1.559E+00	2.178E-01	7.980E-02	0.000E+00
RA-224	4.970E+00	1.100E+00	6.307E-01	0.000E+00
RA-226	1.322E+00	1.969E-01	8.348E-02	0.000E+00
AC-228	2.025E+00	3.524E-01	1.772E-01	0.000E+00
RA-228	2.025E+00	3.524E-01	1.772E-01	0.000E+00
TH-228	2.083E+00	2.477E-01	5.877E-02	0.000E+00
TH-229	-1.378E-01	3.234E-01	5.450E-01	0.000E+00
TH-230	1.322E+00	1.847E-01	8.348E-02	0.000E+00
TH-232	2.025E+00	3.524E-01	1.772E-01	0.000E+00
TH-234	1.600E+00	7.220E-01	5.646E-01	0.000E+00
U-235	6.705E-02	1.208E-01	2.081E-01	0.000E+00
NP-237	8.839E-01	2.564E-01	1.621E-01	0.000E+00
U-238	1.600E+00	7.220E-01	5.646E-01	0.000E+00
ANH-511	6.709E-02	5.407E-02	3.418E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-9.447E-02	2.360E-01	3.898E-01	0.000E+00	NOT IDENT.
NA-22	-6.507E-03	3.735E-02	6.201E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	9.086E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-1.104E-02	3.202E-02	5.228E-02	0.000E+00	FAIL ABUN

V-48	-9.501E-03	6.405E-02	8.982E-02	0.000E+00	NOT IDENT.
CR-51	6.672E-02	2.233E-01	3.960E-01	0.000E+00	NOT IDENT.
MN-54	4.612E-03	3.067E-02	5.199E-02	0.000E+00	NOT IDENT.
CO-56	1.464E-04	2.872E-02	4.823E-02	0.000E+00	NOT IDENT.
CO-57	1.078E-02	1.331E-02	2.409E-02	0.000E+00	NOT IDENT.
CO-58	-1.425E-02	2.923E-02	4.773E-02	0.000E+00	NOT IDENT.
FE-59	-4.455E-02	7.085E-02	1.161E-01	0.000E+00	NOT IDENT.
CO-60	-2.385E-02	3.193E-02	4.903E-02	0.000E+00	NOT IDENT.
ZN-65	-1.299E-01	8.582E-02	1.084E-01	0.000E+00	NOT IDENT.
SE-75	-1.318E-02	3.306E-02	4.769E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	2.935E-02	4.749E-02	0.000E+00	NOT IDENT.
Y-88	1.273E-02	2.588E-02	4.467E-02	0.000E+00	NOT IDENT.
Y-91	-1.054E+01	1.856E+01	2.972E+01	0.000E+00	NOT IDENT.
NB-94	-4.436E-03	2.611E-02	4.433E-02	0.000E+00	NOT IDENT.
NB-95	4.942E-02	3.423E-02	6.149E-02	0.000E+00	NOT IDENT.
NB-95M	4.705E-03	8.493E-02	1.274E-01	0.000E+00	NOT IDENT.
ZR-95	4.121E-02	5.350E-02	9.452E-02	0.000E+00	NOT IDENT.
MO-99	7.887E-01	5.900E+00	1.013E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.676E+14	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-8.872E-03	2.766E-02	4.560E-02	0.000E+00	FAIL ABUN
RH-106	6.468E-02	2.206E-01	3.882E-01	0.000E+00	NOT IDENT.
RU-106	6.468E-02	2.206E-01	3.882E-01	0.000E+00	NOT IDENT.
AG-108M	-9.256E-03	1.994E-02	3.313E-02	0.000E+00	NOT IDENT.
AG-110M	-4.560E-02	2.814E-02	4.383E-02	0.000E+00	NOT IDENT.
SN-113	-3.247E-02	2.999E-02	4.880E-02	0.000E+00	NOT IDENT.
CD-115	2.376E+00	4.932E+00	8.445E+00	0.000E+00	NOT IDENT.
SN-117M	9.496E-03	2.923E-02	5.139E-02	0.000E+00	NOT IDENT.
TE-123M	6.665E-03	1.634E-02	2.878E-02	0.000E+00	NOT IDENT.
SB-124	5.938E-02	5.464E-02	1.040E-01	0.000E+00	NOT IDENT.
SB-125	2.826E-02	6.243E-02	1.087E-01	0.000E+00	FAIL ABUN
TE-125M	-5.599E-01	5.358E+00	8.622E+00	0.000E+00	NOT IDENT.
I-126	-1.117E-01	1.667E-01	2.773E-01	0.000E+00	NOT IDENT.
SB-126	-9.209E-03	9.988E-02	1.540E-01	0.000E+00	NOT IDENT.
SB-127	-8.644E-02	7.705E-01	1.315E+00	0.000E+00	NOT IDENT.
I-131	2.812E-02	6.637E-02	1.170E-01	0.000E+00	NOT IDENT.
TE-132	-6.414E-02	3.287E-01	5.497E-01	0.000E+00	NOT IDENT.
BA-133	-3.126E-02	3.136E-02	4.461E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.208E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.067E-02	6.814E-02	0.000E+00	FAIL ABUN
CS-135	1.179E-01	1.031E-01	1.774E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	9.504E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.658E-02	7.865E-02	1.332E-01	0.000E+00	FAIL ABUN
BA-137M	-3.253E-02	3.325E-02	5.384E-02	0.000E+00	NOT IDENT.
CS-137	-3.437E-02	3.513E-02	5.687E-02	0.000E+00	NOT IDENT.
CE-139	-1.005E-02	1.715E-02	2.914E-02	0.000E+00	NOT IDENT.
BA-140	-1.326E-01	1.796E-01	2.768E-01	0.000E+00	NOT IDENT.
LA-140	8.622E-02	6.237E-02	1.089E-01	0.000E+00	FAIL ABUN
CE-141	2.558E-03	3.498E-02	6.147E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.984E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.321E-02	1.126E-01	1.892E-01	0.000E+00	NOT IDENT.
PM-144	-3.756E-03	2.635E-02	4.485E-02	0.000E+00	NOT IDENT.
PR-144	-2.897E-01	1.970E+00	3.352E+00	0.000E+00	NOT IDENT.
PM-146	2.383E-02	3.130E-02	5.474E-02	0.000E+00	NOT IDENT.
ND-147	-2.030E-01	3.614E-01	5.806E-01	0.000E+00	FAIL ABUN
PM-149	4.935E+00	3.581E+01	5.940E+01	0.000E+00	NOT IDENT.
EU-152	-3.084E-03	6.736E-02	1.087E-01	0.000E+00	FAIL ABUN
GD-153	-5.948E-02	4.457E-02	6.711E-02	0.000E+00	NOT IDENT.
EU-154	-1.347E-02	1.054E-01	1.754E-01	0.000E+00	NOT IDENT.
TB-160	3.537E-02	1.042E-01	1.780E-01	0.000E+00	FAIL ABUN
HO-166M	2.774E-02	4.256E-02	7.532E-02	0.000E+00	FAIL ABUN
TA-182	-5.914E-02	1.734E-01	2.873E-01	0.000E+00	FAIL ABUN
IR-192	8.990E-03	2.107E-02	3.758E-02	0.000E+00	FAIL ABUN
HG-203	5.244E-03	2.853E-02	4.230E-02	0.000E+00	NOT IDENT.
BI-207	1.004E-02	4.232E-02	7.347E-02	0.000E+00	FAIL ABUN
PB-211	-4.028E-01	6.267E-01	8.625E-01	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.785E-01	9.568E-01	0.000E+00	FAIL ABUN
RN-219	1.270E-01	2.876E-01	5.018E-01	0.000E+00	FAIL ABUN
RA-223	-3.437E-01	4.711E-01	6.923E-01	0.000E+00	FAIL ABUN
AC-227	-4.973E-02	1.656E-01	2.724E-01	0.000E+00	FAIL ABUN
TH-227	-4.973E-02	1.657E-01	2.724E-01	0.000E+00	FAIL ABUN
PA-231	-3.436E-01	9.391E-01	1.521E+00	0.000E+00	NOT IDENT.
TH-231	-3.437E-01	4.711E-01	6.923E-01	0.000E+00	FAIL ABUN
PA-233	-1.263E-02	3.997E-02	6.935E-02	0.000E+00	FAIL ABUN
PA-234	-2.272E-01	2.498E-01	3.831E-01	0.000E+00	NOT IDENT.
PA-234M	8.977E-01	3.907E+00	6.379E+00	0.000E+00	NOT IDENT.
NP-239	-2.370E-01	2.089E-01	3.569E-01	0.000E+00	FAIL ABUN
AM-241	-6.204E-03	3.615E-02	5.621E-02	0.000E+00	NOT IDENT.
CM-247	1.317E-03	2.651E-02	4.559E-02	0.000E+00	FAIL ABUN

CF-249	2.196E-02	2.785E-02	4.942E-02	0.000E+00 NOT IDENT.
CF-251	4.519E-02	7.898E-02	1.385E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 03:16:23.50

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244005.CNF;1
Sample date       : 10-MAR-2010 12:00:00 Acquisition date : 23-MAR-2010 23:16:02
Sample ID         : G249244005           Sample quantity  : 1.24200E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:03.97  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 964804                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	2722	10.66*	1.108E+00	3.481E+01	3.481E+01	9.42
CD-109	88.03	682	3.70*	9.410E+00	2.962E+00	3.023E+00	20.89
SN-126	64.28	383	9.60	9.778E+00	6.168E-01	6.168E-01	44.86
	86.94	682	8.90	9.410E+00	1.232E+00	1.232E+00	45.53
	87.57	682	37.00*	9.410E+00	2.962E-01	2.962E-01	20.89
EU-155	86.55	682	30.70	9.410E+00	3.570E-01	3.590E-01	20.93
	105.31	97	21.10*	8.829E+00	7.885E-02	7.928E-02	83.50
TL-208	277.37	110	6.60	4.738E+00	5.310E-01	5.310E-01	64.85
	583.19	900	85.00*	2.496E+00	6.410E-01	6.410E-01	14.75
	860.56	90	12.50	1.765E+00	6.163E-01	6.163E-01	55.32
PB-210	46.54	325	4.25*	9.178E+00	1.258E+00	1.260E+00	40.97
BI-211	72.87	------	1.23	9.724E+00	------ Line Not Found		------
	351.06	1427	12.92*	3.886E+00	4.295E+00	4.295E+00	13.15
PB-212	74.82	1697	10.28	9.694E+00	2.573E+00	2.573E+00	15.76
	77.11	2758	17.10	9.652E+00	2.525E+00	2.525E+00	11.51
	238.63	3208	43.60*	5.339E+00	2.083E+00	2.083E+00	12.14
	300.09	184	3.30	4.446E+00	1.895E+00	1.895E+00	38.04
BI-214	609.32	955	45.49*	2.401E+00	1.322E+00	1.322E+00	15.20
	1120.29	202	14.92	1.397E+00	1.466E+00	1.466E+00	32.84
	1764.49	133	15.30	9.412E-01	1.400E+00	1.400E+00	30.86
PB-214	74.82	1697	5.80	9.694E+00	4.560E+00	4.560E+00	14.72
	77.11	2758	9.70	9.652E+00	4.452E+00	4.452E+00	14.16
	242.00	713	7.25	5.289E+00	2.811E+00	2.811E+00	23.31
	295.22	816	18.42	4.502E+00	1.488E+00	1.488E+00	17.33
	351.93	1427	35.60*	3.886E+00	1.559E+00	1.559E+00	14.26
RA-224	240.99	713	4.10*	5.289E+00	4.970E+00	4.970E+00	22.58
RA-226	609.32	955	45.49*	2.401E+00	1.322E+00	1.322E+00	15.20
	1120.29	202	14.92	1.397E+00	1.466E+00	1.466E+00	32.84
	1764.49	133	15.30	9.412E-01	1.400E+00	1.400E+00	30.86
AC-228	338.32	465	11.27	4.018E+00	1.551E+00	1.551E+00	46.87
	911.20	580	25.80*	1.678E+00	2.025E+00	2.025E+00	17.76
	968.97	374	15.80	1.589E+00	2.250E+00	2.250E+00	28.55

Sample ID : G249244005 Acquisition date : 23-MAR-2010 23:16:02

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	465	11.27	4.018E+00	1.551E+00	1.551E+00	46.87
	911.20	580	25.80*	1.678E+00	2.025E+00	2.025E+00	17.76
	968.97	374	15.80	1.589E+00	2.250E+00	2.250E+00	28.55
TH-228	74.82	1697	10.28	9.694E+00	2.573E+00	2.573E+00	12.45
	77.11	2758	17.10	9.652E+00	2.525E+00	2.525E+00	11.51
	238.63	3208	43.60*	5.339E+00	2.083E+00	2.083E+00	12.14
	300.09	184	3.30	4.446E+00	1.895E+00	1.895E+00	71.30
TH-229	85.43	297	14.70	9.488E+00	3.223E-01	3.223E-01	35.00
	88.47	391	24.00	9.330E+00	2.639E-01	2.639E-01	26.44
	193.51	------	4.41*	6.239E+00	------ Line Not Found		------
	210.85	------	2.80	5.863E+00	------ Line Not Found		------
TH-230	609.32	955	45.49*	2.401E+00	1.322E+00	1.322E+00	14.26
	1120.29	202	14.92	1.397E+00	1.466E+00	1.466E+00	32.15
	1764.49	133	15.30	9.412E-01	1.400E+00	1.400E+00	30.86
TH-232	338.32	465	11.27	4.018E+00	1.551E+00	1.551E+00	23.04
	911.20	580	25.80*	1.678E+00	2.025E+00	2.025E+00	17.76
	968.97	374	15.80	1.589E+00	2.250E+00	2.250E+00	28.55
TH-234	63.29	383	3.70*	9.778E+00	1.600E+00	1.600E+00	46.03
	92.59	947	4.23	9.232E+00	3.664E+00	3.664E+00	27.49
U-235	89.96	391	3.47	9.330E+00	1.825E+00	1.825E+00	35.08
	93.35	947	5.60	9.232E+00	2.768E+00	2.768E+00	28.31
	143.76	------	10.96*	7.568E+00	------ Line Not Found		------
	163.33	------	5.08	6.998E+00	------ Line Not Found		------
	185.72	480	57.20	6.417E+00	1.977E-01	1.977E-01	22.38
	205.31	------	5.01	5.979E+00	------ Line Not Found		------
NP-237	86.48	682	12.40*	9.410E+00	8.839E-01	8.839E-01	29.60
	95.86	------	2.68	9.143E+00	------ Line Not Found		------
U-238	63.29	383	3.70*	9.778E+00	1.600E+00	1.600E+00	46.03
	92.59	947	4.23	9.232E+00	3.664E+00	3.664E+00	18.50
ANH-511	511.00	125	100.00*	2.808E+00	6.709E-02	6.709E-02	82.24

Flag: "*" = Keyline

Sample ID : G249244005 Acquisition date : 23-MAR-2010 23:16:02

Total number of lines in spectrum 43
Number of unidentified lines 8
Number of lines tentatively identified by NID 35 81.40%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.481E+01	3.481E+01	0.328E+01	9.42	
CD-109	461.40D	1.02	2.962E+00	3.023E+00	0.632E+00	20.89	
SN-126	2.30E+05Y	1.00	2.962E-01	2.962E-01	0.619E-01	20.89	
EU-155	4.75Y	1.01	7.885E-02	7.928E-02	6.620E-02	83.50	
TL-208	1.41E+10Y	1.00	6.410E-01	6.410E-01	0.946E-01	14.75	
PB-210	22.20Y	1.00	1.258E+00	1.260E+00	0.516E+00	40.97	
BI-211	7.04E+08Y	1.00	4.295E+00	4.295E+00	0.565E+00	13.15	
PB-212	1.41E+10Y	1.00	2.083E+00	2.083E+00	0.253E+00	12.14	
BI-214	1600.00Y	1.00	1.322E+00	1.322E+00	0.201E+00	15.20	
PB-214	1600.00Y	1.00	1.559E+00	1.559E+00	0.222E+00	14.26	
RA-224	1.41E+10Y	1.00	4.970E+00	4.970E+00	1.122E+00	22.58	
RA-226	1600.00Y	1.00	1.322E+00	1.322E+00	0.201E+00	15.20	
AC-228	1.41E+10Y	1.00	2.025E+00	2.025E+00	0.360E+00	17.76	
RA-228	1.41E+10Y	1.00	2.025E+00	2.025E+00	0.360E+00	17.76	
TH-228	1.41E+10Y	1.00	2.083E+00	2.083E+00	0.253E+00	12.14	
TH-229	7340.00Y	1.00	2.639E-01	2.639E-01	0.698E-01	26.44	K
TH-230	7.54E+04Y	1.00	1.322E+00	1.322E+00	0.188E+00	14.26	
TH-232	1.41E+10Y	1.00	2.025E+00	2.025E+00	0.360E+00	17.76	
TH-234	4.47E+09Y	1.00	1.600E+00	1.600E+00	0.737E+00	46.03	
U-235	7.04E+08Y	1.00	1.977E-01	1.977E-01	0.442E-01	22.38	K
NP-237	2.14E+06Y	1.00	8.839E-01	8.839E-01	2.616E-01	29.60	
U-238	4.47E+09Y	1.00	1.600E+00	1.600E+00	0.737E+00	46.03	
ANH-511	1.00E+09Y	1.00	6.709E-02	6.709E-02	5.518E-02	82.24	
		Total Activity :	6.969E+01	6.975E+01			

Grand Total Activity : 6.969E+01 6.975E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249244005 Acquisition date : 23-MAR-2010 23:16:02

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	53.01	131	859	0.74	105.58	102	7	9.09E-03	78.3	9.56E+00	
0	129.05	176	797	0.85	257.65	254	8	1.22E-02	57.5	8.04E+00	
0	154.34	71	566	1.02	308.21	304	7	4.92E-03	****	7.25E+00	T
0	209.24	291	542	0.89	418.01	414	9	2.02E-02	31.2	5.90E+00	
0	270.25	225	490	1.14	540.03	533	11	1.56E-02	40.3	4.84E+00	T
0	328.46	90	398	0.93	656.44	650	10	6.27E-03	85.3	4.12E+00	T
0	409.96	85	260	0.80	819.43	815	9	5.92E-03	71.9	3.41E+00	T
0	462.76	191	210	1.69	925.02	919	12	1.32E-02	33.7	3.06E+00	T
0	727.42	205	150	1.45	1454.32	1449	11	1.43E-02	27.1	2.05E+00	T
0	794.79	139	98	1.50	1589.07	1583	13	9.62E-03	34.0	1.89E+00	T
5	964.70	112	129	2.89	1928.88	1920	43	7.75E-03	55.0	1.60E+00	T
0	1378.13	64	55	1.39	2755.79	2750	14	4.47E-03	55.2	1.17E+00	
0	1408.67	25	36	0.97	2816.87	2812	10	1.77E-03	****	1.14E+00	T
0	1588.18	56	46	2.49	3175.91	3170	14	3.86E-03	58.2	1.03E+00	
0	1622.64	32	55	4.62	3244.84	3233	22	2.22E-03	****	1.01E+00	
0	1730.54	44	18	0.65	3460.65	3452	19	3.08E-03	55.6	9.57E-01	
0	1847.32	33	13	0.83	3694.24	3685	17	2.32E-03	59.9	9.05E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 03:16:27.15

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                 DETECTOR DATA                               *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244005.CNF;1    *
* Acquisition date : 23-MAR-2010 23:16:02  Detector SN#    :                  *
* Detector ID      : GAM25                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 04:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 04:00:03.97         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 10-MAR-2010 12:00:00  Nuclide Library : SOLID             *
* Sample ID        : G249244005            Analyst initials: MXR1              *
* Batch Number     : 964804                Sample Quantity : 1.24200E+02 GRAM  *
*******************************************************************************
*                                                                             *
*                                    QC DATA                                  *
*                                                                             *
* CALIB. DATE/TIME : 7-OCT-2009 09:38:43.34MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.481E+01	3.280E+00	3.920E-01	3.339E-02	88.796
CD-109	3.023E+00	6.317E-01	6.157E-01	6.617E-02	4.910
SN-126	2.962E-01	6.189E-02	6.046E-02	6.483E-03	4.900
EU-155	7.928E-02	6.620E-02	8.837E-02	1.044E-02	0.897
TL-208	6.410E-01	9.456E-02	4.364E-02	4.915E-03	14.689
PB-210	1.260E+00	5.161E-01	3.948E-01	4.043E-02	3.190
BI-211	4.295E+00	5.647E-01	2.153E-01	2.269E-02	19.949
PB-212	2.083E+00	2.528E-01	5.740E-02	6.558E-03	36.288
BI-214	1.322E+00	2.009E-01	8.257E-02	9.998E-03	16.007
PB-214	1.559E+00	2.222E-01	7.834E-02	9.305E-03	19.898
RA-224	4.970E+00	1.122E+00	6.160E-01	6.474E-02	8.068
RA-226	1.322E+00	2.009E-01	8.257E-02	9.998E-03	16.007
AC-228	2.025E+00	3.596E-01	1.762E-01	2.154E-02	11.489
RA-228	2.025E+00	3.596E-01	1.762E-01	2.154E-02	11.489
TH-228	2.083E+00	2.528E-01	5.740E-02	6.558E-03	36.288
TH-229	2.639E-01	6.977E-02	5.307E-01	5.062E-02	0.497
TH-230	1.322E+00	1.884E-01	8.257E-02	8.998E-03	16.007
TH-232	2.025E+00	3.596E-01	1.762E-01	2.154E-02	11.489

Sample ID : G249244005 Acquisition date : 23-MAR-2010 23:16:02

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234	1.600E+00	7.367E-01	5.419E-01	1.029E-01	2.953
U-235	1.977E-01	4.425E-02	2.019E-01	3.708E-02	0.979
NP-237	8.839E-01	2.616E-01	1.562E-01	3.674E-02	5.659
U-238	1.600E+00	7.367E-01	5.419E-01	1.029E-01	2.953
ANH-511	6.709E-02	5.518E-02	3.372E-02	3.471E-03	1.989

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-9.447E-02		2.408E-01	3.843E-01	4.068E-02	-0.246
NA-22	-6.507E-03		3.811E-02	6.196E-02	5.081E-03	-0.105
NA-24	-4.919E-02		4.635E-02	Half-Life too short		
SC-46	-1.104E-02		3.267E-02	5.198E-02	4.978E-03	-0.212
V-48	-9.501E-03		6.536E-02	8.943E-02	8.287E-03	-0.106
CR-51	6.672E-02		2.278E-01	3.883E-01	4.309E-02	0.172
MN-54	4.612E-03		3.130E-02	5.164E-02	5.240E-03	0.089
CO-56	1.464E-04		2.931E-02	4.792E-02	4.808E-03	0.003
CO-57	1.078E-02		1.358E-02	2.332E-02	3.007E-03	0.462
CO-58	-1.425E-02		2.982E-02	4.739E-02	4.917E-03	-0.301
FE-59	-4.455E-02		7.230E-02	1.158E-01	1.090E-02	-0.385
CO-60	-2.385E-02		3.258E-02	4.903E-02	3.982E-03	-0.486
ZN-65	-1.299E-01		8.757E-02	1.081E-01	9.334E-03	-1.202
SE-75	-1.318E-02		3.374E-02	4.664E-02	5.111E-03	-0.283
SR-85	5.168E-02		2.995E-02	4.687E-02	4.835E-03	1.103
Y-88	1.273E-02		2.641E-02	4.487E-02	3.667E-03	0.284
Y-91	-1.054E+01		1.894E+01	2.967E+01	2.442E+00	-0.355
NB-94	-4.436E-03		2.664E-02	4.393E-02	4.824E-03	-0.101
NB-95	4.942E-02		3.493E-02	6.101E-02	6.517E-03	0.810
NB-95M	4.705E-03		8.666E-02	1.244E-01	1.428E-02	0.038
ZR-95	4.121E-02		5.459E-02	9.376E-02	1.076E-02	0.440
MO-99	7.887E-01		6.020E+00	1.004E+01	1.714E+00	0.079
TC-99M	-2.252E+08		1.365E+08	Half-Life too short		
RU-103	-8.872E-03		2.822E-02	4.497E-02	6.736E-03	-0.197
RH-106	6.468E-02		2.251E-01	3.841E-01	5.714E-02	0.168
RU-106	6.468E-02		2.251E-01	3.841E-01	4.206E-02	0.168
AG-108M	-9.256E-03		2.034E-02	3.262E-02	3.204E-03	-0.284
AG-110M	-4.560E-02		2.872E-02	4.339E-02	4.890E-03	-1.051
SN-113	-3.247E-02		3.060E-02	4.798E-02	4.481E-03	-0.677
CD-115	2.376E+00		5.032E+00	8.336E+00	8.688E-01	0.285
SN-117M	9.496E-03		2.983E-02	4.991E-02	4.846E-03	0.190
TE-123M	6.665E-03		1.668E-02	2.796E-02	2.715E-03	0.238
SB-124	5.938E-02		5.576E-02	1.044E-01	9.043E-03	0.569
SB-125	2.826E-02		6.370E-02	1.070E-01	1.033E-02	0.264
TE-125M	-5.599E-01		5.468E+00	8.334E+00	1.117E+00	-0.067
I-126	-1.117E-01		1.701E-01	2.746E-01	3.040E-02	-0.407
SB-126	-9.209E-03		1.019E-01	1.527E-01	1.666E-02	-0.060
SB-127	-8.644E-02		7.862E-01	1.303E+00	1.682E-01	-0.066

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-131	2.812E-02		6.772E-02	1.149E-01	1.178E-02	0.245
TE-132	-6.414E-02		3.354E-01	5.365E-01	8.846E-02	-0.120
BA-133	-3.126E-02		3.200E-02	4.380E-02	6.109E-03	-0.714
I-133	-6.832E-04		6.164E-04	Half-Life too short		
CS-134	1.454E-01	+	5.171E-02	6.764E-02	7.121E-03	2.150
CS-135	1.179E-01		1.052E-01	1.735E-01	2.095E-02	0.679
I-135	7.714E+06		4.849E+07	Half-Life too short		
CS-136	-1.658E-02		8.026E-02	1.328E-01	1.241E-02	-0.125
BA-137M	-3.253E-02		3.393E-02	5.331E-02	5.905E-03	-0.610
CS-137	-3.437E-02		3.584E-02	5.631E-02	6.245E-03	-0.610
CE-139	-1.005E-02		1.750E-02	2.832E-02	2.525E-03	-0.355
BA-140	-1.326E-01		1.833E-01	2.733E-01	9.411E-02	-0.485
LA-140	8.622E-02		6.364E-02	1.092E-01	9.077E-03	0.790
CE-141	2.558E-03		3.569E-02	5.963E-02	6.633E-03	0.043
CE-143	1.821E-04		3.053E-05	Half-Life too short		
CE-144	-1.321E-02		1.149E-01	1.834E-01	3.197E-02	-0.072
PM-144	-3.756E-03		2.689E-02	4.444E-02	4.889E-03	-0.085
PR-144	-2.897E-01		2.010E+00	3.322E+00	3.654E-01	-0.087
PM-146	2.383E-02		3.194E-02	5.392E-02	6.231E-03	0.442
ND-147	-2.030E-01		3.688E-01	5.732E-01	9.212E-02	-0.354
PM-149	4.935E+00		3.654E+01	5.815E+01	9.914E+00	0.085
EU-152	-3.084E-03		6.874E-02	1.067E-01	1.145E-02	-0.029
GD-153	-5.948E-02		4.548E-02	6.476E-02	7.293E-03	-0.918
EU-154	-1.347E-02		1.075E-01	1.753E-01	1.938E-02	-0.077
TB-160	3.537E-02		1.063E-01	1.770E-01	1.715E-02	0.200
HO-166M	2.774E-02		4.343E-02	7.466E-02	8.175E-03	0.372
TA-182	-5.914E-02		1.770E-01	2.869E-01	2.360E-02	-0.206
IR-192	8.990E-03		2.150E-02	3.684E-02	3.979E-03	0.244
HG-203	5.244E-03		2.912E-02	4.140E-02	4.691E-03	0.127
BI-207	1.004E-02		4.318E-02	7.323E-02	6.536E-03	0.137
PB-211	-4.028E-01		6.395E-01	8.483E-01	4.115E-01	-0.475
BI-212	2.269E+00	+	6.923E-01	9.487E-01	1.340E-01	2.392
RN-219	1.270E-01		2.935E-01	4.935E-01	7.513E-02	0.257
RA-223	-3.437E-01		4.808E-01	6.789E-01	1.252E-01	-0.506
AC-227	-4.973E-02		1.690E-01	2.663E-01	3.644E-02	-0.187
TH-227	-4.973E-02		1.691E-01	2.663E-01	4.013E-02	-0.187
PA-231	-3.436E-01		9.583E-01	1.489E+00	2.411E-01	-0.231
TH-231	-3.437E-01		4.808E-01	6.789E-01	1.252E-01	-0.506
PA-233	-1.263E-02		4.078E-02	6.797E-02	7.507E-03	-0.186
PA-234	-2.272E-01		2.549E-01	3.812E-01	7.290E-02	-0.596
PA-234M	8.977E-01		3.986E+00	6.352E+00	6.654E-01	0.141
NP-239	-2.370E-01		2.131E-01	3.453E-01	4.331E-02	-0.686
AM-241	-6.204E-03		3.688E-02	5.390E-02	5.600E-03	-0.115
CM-247	1.317E-03		2.705E-02	4.484E-02	4.132E-03	0.029
CF-249	2.196E-02		2.841E-02	4.858E-02	4.468E-03	0.452
CF-251	4.519E-02		8.059E-02	1.347E-01	1.236E-02	0.335

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249244005            *
* Acquisition date : 23-MAR-2010 23:16:02 Detector SN#    :                 *
* Detector ID      : GAM25                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:03.97     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 10-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249244005           Analyst initials: MXR1            *
* Batch Number     : 964804               Sample Quantity : 1.2420E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.481E+01	3.215E+00	1.959E-01	1.640E+00
CD-109	3.023E+00	6.190E-01	3.196E-01	3.158E-01
SN-126	2.962E-01	6.066E-02	3.138E-02	3.095E-02
EU-155	7.928E-02	6.487E-02	4.577E-02	3.310E-02
TL-208	6.410E-01	9.267E-02	2.209E-02	4.728E-02
PB-210	1.260E+00	5.057E-01	2.066E-01	2.580E-01
BI-211	4.295E+00	5.534E-01	1.097E-01	2.823E-01
PB-212	2.083E+00	2.477E-01	2.940E-02	1.264E-01
BI-214	1.322E+00	1.969E-01	4.177E-02	1.005E-01
PB-214	1.559E+00	2.178E-01	3.992E-02	1.111E-01
RA-224	4.970E+00	1.100E+00	3.155E-01	5.612E-01
RA-226	1.322E+00	1.969E-01	4.177E-02	1.005E-01
AC-228	2.025E+00	3.524E-01	8.865E-02	1.798E-01
RA-228	2.025E+00	3.524E-01	8.865E-02	1.798E-01
TH-228	2.083E+00	2.477E-01	2.940E-02	1.264E-01
TH-229	-1.378E-01	3.234E-01	2.727E-01	1.650E-01
TH-230	1.322E+00	1.847E-01	4.176E-02	9.421E-02
TH-232	2.025E+00	3.524E-01	8.865E-02	1.798E-01
TH-234	1.600E+00	7.220E-01	2.825E-01	3.684E-01
U-235	6.705E-02	1.208E-01	1.041E-01	6.163E-02
NP-237	8.839E-01	2.564E-01	8.109E-02	1.308E-01
U-238	1.600E+00	7.220E-01	2.825E-01	3.684E-01
ANH-511	6.709E-02	5.407E-02	1.710E-02	2.759E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-9.447E-02	2.360E-01	1.950E-01	1.204E-01	NOT IDENT.
NA-22	-6.507E-03	3.735E-02	3.102E-02	1.906E-02	NOT IDENT.
NA-24	-4.919E+04	9.086E+04	0.000E+00	4.635E+04	SHORT HLIF
SC-46	-1.104E-02	3.202E-02	2.616E-02	1.634E-02	FAIL ABUN

V-48	-9.501E-03	6.405E-02	4.494E-02	3.268E-02	NOT IDENT.
CR-51	6.672E-02	2.233E-01	1.981E-01	1.139E-01	NOT IDENT.
MN-54	4.612E-03	3.067E-02	2.601E-02	1.565E-02	NOT IDENT.
CO-56	1.464E-04	2.872E-02	2.413E-02	1.465E-02	NOT IDENT.
CO-57	1.078E-02	1.331E-02	1.205E-02	6.789E-03	NOT IDENT.
CO-58	-1.425E-02	2.923E-02	2.388E-02	1.491E-02	NOT IDENT.
FE-59	-4.455E-02	7.085E-02	5.809E-02	3.615E-02	NOT IDENT.
CO-60	-2.385E-02	3.193E-02	2.453E-02	1.629E-02	NOT IDENT.
ZN-65	-1.299E-01	8.582E-02	5.421E-02	4.378E-02	NOT IDENT.
SE-75	-1.318E-02	3.306E-02	2.386E-02	1.687E-02	NOT IDENT.
SR-85	5.168E-02	2.935E-02	2.376E-02	1.497E-02	NOT IDENT.
Y-88	1.273E-02	2.588E-02	2.235E-02	1.320E-02	NOT IDENT.
Y-91	-1.054E+01	1.856E+01	1.487E+01	9.468E+00	NOT IDENT.
NB-94	-4.436E-03	2.611E-02	2.218E-02	1.332E-02	NOT IDENT.
NB-95	4.942E-02	3.423E-02	3.076E-02	1.747E-02	NOT IDENT.
NB-95M	4.705E-03	8.493E-02	6.375E-02	4.333E-02	NOT IDENT.
ZR-95	4.121E-02	5.350E-02	4.729E-02	2.730E-02	NOT IDENT.
MO-99	7.887E-01	5.900E+00	5.067E+00	3.010E+00	NOT IDENT.
TC-99M	-2.252E+14	2.676E+14	0.000E+00	1.365E+14	SHORT HLIF
RU-103	-8.872E-03	2.766E-02	2.281E-02	1.411E-02	FAIL ABUN
RH-106	6.468E-02	2.206E-01	1.942E-01	1.126E-01	NOT IDENT.
RU-106	6.468E-02	2.206E-01	1.942E-01	1.125E-01	NOT IDENT.
AG-108M	-9.256E-03	1.994E-02	1.657E-02	1.017E-02	NOT IDENT.
AG-110M	-4.560E-02	2.814E-02	2.193E-02	1.436E-02	NOT IDENT.
SN-113	-3.247E-02	2.999E-02	2.441E-02	1.530E-02	NOT IDENT.
CD-115	2.376E+00	4.932E+00	4.225E+00	2.516E+00	NOT IDENT.
SN-117M	9.496E-03	2.923E-02	2.571E-02	1.491E-02	NOT IDENT.
TE-123M	6.665E-03	1.634E-02	1.440E-02	8.338E-03	NOT IDENT.
SB-124	5.938E-02	5.464E-02	5.205E-02	2.788E-02	NOT IDENT.
SB-125	2.826E-02	6.243E-02	5.436E-02	3.185E-02	FAIL ABUN
TE-125M	-5.599E-01	5.358E+00	4.314E+00	2.734E+00	NOT IDENT.
I-126	-1.117E-01	1.667E-01	1.387E-01	8.504E-02	NOT IDENT.
SB-126	-9.209E-03	9.988E-02	7.704E-02	5.096E-02	NOT IDENT.
SB-127	-8.644E-02	7.705E-01	6.580E-01	3.931E-01	NOT IDENT.
I-131	2.812E-02	6.637E-02	5.852E-02	3.386E-02	NOT IDENT.
TE-132	-6.414E-02	3.287E-01	2.750E-01	1.677E-01	NOT IDENT.
BA-133	-3.126E-02	3.136E-02	2.232E-02	1.600E-02	FAIL ABUN
I-133	-6.832E+02	1.208E+03	0.000E+00	6.164E+02	SHORT HLIF
CS-134	1.454E-01	5.067E-02	3.409E-02	2.585E-02	FAIL ABUN
CS-135	1.179E-01	1.031E-01	8.876E-02	5.260E-02	NOT IDENT.
I-135	7.714E+12	9.504E+13	0.000E+00	4.849E+13	SHORT HLIF
CS-136	-1.658E-02	7.865E-02	6.666E-02	4.013E-02	FAIL ABUN
BA-137M	-3.253E-02	3.325E-02	2.693E-02	1.696E-02	NOT IDENT.
CS-137	-3.437E-02	3.513E-02	2.845E-02	1.792E-02	NOT IDENT.
CE-139	-1.005E-02	1.715E-02	1.458E-02	8.749E-03	NOT IDENT.
BA-140	-1.326E-01	1.796E-01	1.385E-01	9.164E-02	NOT IDENT.
LA-140	8.622E-02	6.237E-02	5.449E-02	3.182E-02	FAIL ABUN
CE-141	2.558E-03	3.498E-02	3.075E-02	1.785E-02	NOT IDENT.
CE-143	1.821E+02	5.984E+01	0.000E+00	3.053E+01	SHORT HLIF
CE-144	-1.321E-02	1.126E-01	9.466E-02	5.747E-02	NOT IDENT.
PM-144	-3.756E-03	2.635E-02	2.244E-02	1.345E-02	NOT IDENT.
PR-144	-2.897E-01	1.970E+00	1.677E+00	1.005E+00	NOT IDENT.
PM-146	2.383E-02	3.130E-02	2.739E-02	1.597E-02	NOT IDENT.
ND-147	-2.030E-01	3.614E-01	2.905E-01	1.844E-01	FAIL ABUN
PM-149	4.935E+00	3.581E+01	2.972E+01	1.827E+01	NOT IDENT.
EU-152	-3.084E-03	6.736E-02	5.438E-02	3.437E-02	FAIL ABUN
GD-153	-5.948E-02	4.457E-02	3.357E-02	2.274E-02	NOT IDENT.
EU-154	-1.347E-02	1.054E-01	8.776E-02	5.375E-02	NOT IDENT.
TB-160	3.537E-02	1.042E-01	8.907E-02	5.317E-02	FAIL ABUN
HO-166M	2.774E-02	4.256E-02	3.768E-02	2.172E-02	FAIL ABUN
TA-182	-5.914E-02	1.734E-01	1.438E-01	8.849E-02	FAIL ABUN
IR-192	8.990E-03	2.107E-02	1.880E-02	1.075E-02	FAIL ABUN
HG-203	5.244E-03	2.853E-02	2.116E-02	1.456E-02	NOT IDENT.
BI-207	1.004E-02	4.232E-02	3.676E-02	2.159E-02	FAIL ABUN
PB-211	-4.028E-01	6.267E-01	4.315E-01	3.197E-01	NOT IDENT.
BI-212	2.269E+00	6.785E-01	4.787E-01	3.462E-01	FAIL ABUN
RN-219	1.270E-01	2.876E-01	2.511E-01	1.467E-01	FAIL ABUN
RA-223	-3.437E-01	4.711E-01	3.464E-01	2.404E-01	FAIL ABUN
AC-227	-4.973E-02	1.656E-01	1.363E-01	8.451E-02	FAIL ABUN
TH-227	-4.973E-02	1.657E-01	1.363E-01	8.453E-02	FAIL ABUN
PA-231	-3.436E-01	9.391E-01	7.609E-01	4.791E-01	NOT IDENT.
TH-231	-3.437E-01	4.711E-01	3.464E-01	2.404E-01	FAIL ABUN
PA-233	-1.263E-02	3.997E-02	3.469E-02	2.039E-02	FAIL ABUN
PA-234	-2.272E-01	2.498E-01	1.917E-01	1.275E-01	NOT IDENT.
PA-234M	8.977E-01	3.907E+00	3.191E+00	1.993E+00	NOT IDENT.
NP-239	-2.370E-01	2.089E-01	1.786E-01	1.066E-01	FAIL ABUN
AM-241	-6.204E-03	3.615E-02	2.812E-02	1.844E-02	NOT IDENT.
CM-247	1.317E-03	2.651E-02	2.281E-02	1.353E-02	FAIL ABUN

CF-249	2.196E-02	2.785E-02	2.473E-02	1.421E-02 NOT IDENT.
CF-251	4.519E-02	7.898E-02	6.928E-02	4.030E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	480.5707
49.72	540.4587
57.36	0.0000
59.54	733.7960
63.29	778.4903
63.29	778.4903
64.28	781.3196
67.75	801.5098
69.67	867.2132
70.83	898.7827
72.81	821.3811
72.87	821.5457
72.87	821.5457
74.82	826.8345
74.82	826.8345
74.82	826.8345
74.97	827.2381
77.11	832.9623
77.11	832.9623
77.11	832.9623
79.69	839.7539
79.80	840.0406
80.12	840.8743
80.19	841.0549
80.57	842.0425
81.00	843.1577
81.07	843.3382
81.07	843.3382
83.79	632.8538
83.79	632.8538
85.43	672.7792
86.48	674.8571
86.55	674.9951
86.79	892.4005
86.94	892.7982
87.57	894.4332
88.03	888.1985
88.47	889.3270
89.96	811.0205
91.11	608.9985
92.59	601.4941
92.59	601.4941
93.35	575.1347
94.67	523.0307
94.87	534.6647
94.87	534.6647
95.86	551.2770
97.43	632.3329
98.44	516.0554
99.53	510.7330
100.11	514.9213
103.18	527.1891
103.37	513.2595
105.31	543.4390
106.12	545.4117
109.28	566.7070
111.00	554.6284
111.76	567.9349
116.30	495.9942
117.23	544.1971
121.12	489.8526
121.78	451.0488
122.06	465.7173
123.07	481.1888
131.20	510.4250
133.52	495.5070
136.00	503.0748

136.47	498.0022
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140.51	0.0000
143.76	495.9710
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144.24	484.1965
145.44	527.8326
152.43	506.7480
153.25	507.5291
154.21	460.9131
154.21	460.9131
156.02	478.3681
158.56	461.7395
159.00	459.2020
162.66	438.8535
163.33	465.7427
165.86	469.8053
176.60	457.5993
177.52	448.3008
181.07	508.8322
184.41	446.3384
185.72	453.3705
193.51	456.9642
197.04	416.1062
205.31	434.4229
210.85	430.0801
215.65	409.7206
222.11	378.1363
227.38	405.7231
228.16	399.6741
228.18	399.6854
235.69	414.1284
235.96	414.2751
235.96	414.2751
238.63	361.5182
238.63	361.5182
240.99	362.6395
242.00	363.1195
244.70	354.4538
252.40	336.7670
252.80	334.7076
256.23	346.2310
256.23	346.2310
260.90	298.6480
264.66	339.6423
268.22	309.2705
269.46	309.7298
269.46	309.7298
271.23	316.6589
273.65	336.4503
276.40	311.7069
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277.60	303.5205
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279.54	335.3143
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283.69	298.7167
284.31	303.5612
285.41	317.8661
285.90	280.8957
287.50	280.2449
293.27	0.0000
295.22	281.5039
295.96	246.5210
298.57	247.2302
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299.98	316.9414
300.09	316.9797
300.09	316.9797
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301.36	281.9960
302.85	305.1625
304.50	276.0807
304.50	276.0807
304.85	285.4984
308.46	273.0962
311.90	270.5125

316.51	244.8232
319.41	254.5943
320.08	256.5776
323.87	296.0391
323.87	296.0391
328.76	307.7272
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334.37	300.6683
334.37	300.6683
338.28	271.4715
338.28	271.4715
338.32	271.4805
338.32	271.4805
338.32	271.4805
340.48	265.6055
340.55	265.6230
344.28	256.7204
351.06	237.5995
351.93	237.7979
356.01	269.6177
364.49	225.5322
366.42	257.1333
383.85	264.1151
388.16	231.3794
388.63	227.6203
391.69	255.3109
400.66	243.6562
401.81	239.0186
402.40	250.8511
404.85	281.6982
410.95	220.2334
414.70	186.2072
423.72	220.5908
427.09	203.2623
427.87	199.4019
433.94	203.3872
453.88	207.6233
463.37	173.2549
468.07	184.3652
473.00	205.4920
476.78	193.6456
477.60	219.6666
487.02	176.3236
492.35	170.7227
497.08	186.0153
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514.00	159.9561
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529.87	0.0000
531.02	172.1582
537.26	176.1273
546.56	0.0000
563.25	150.5754
569.33	162.1944
569.50	162.2123
569.70	162.2303
583.19	173.6290
600.60	176.4000
602.73	190.3726
604.72	204.5091
609.32	164.6665
609.32	164.6665
609.32	164.6665
610.33	149.3741
614.28	143.6790
618.01	160.9724
621.93	145.8477
621.93	145.8477
633.25	133.9700
635.95	162.6706
636.99	176.5641
645.85	171.9183
657.76	219.6079
661.66	185.5811
661.66	185.5811
664.57	0.0000
666.33	215.9816
666.50	190.7569

677.62	177.8150
685.70	169.1497
695.00	184.2432
696.49	175.8358
696.51	175.8403
697.00	162.5752
702.65	180.2283
706.68	166.2771
711.68	123.5988
720.70	130.6449
721.93	0.0000
722.78	147.7668
722.91	147.7780
723.31	162.2674
724.19	146.2680
727.33	123.6438
733.00	124.3260
735.93	119.3364
739.50	127.3284
747.24	130.7547
752.31	162.3890
753.82	125.3125
756.73	128.4350
763.94	193.8305
765.81	159.5399
766.42	154.6619
777.92	140.6722
778.90	125.8745
783.70	125.1725
785.37	150.1300
795.86	111.5794
801.95	137.4342
810.29	137.8295
810.76	134.8408
815.77	111.9566
818.51	121.1895
832.01	154.4641
834.85	161.7872
836.80	0.0000
846.77	116.6246
856.80	128.4546
860.56	108.0813
871.09	125.1298
873.19	107.6486
875.33	0.0000
879.36	108.9785
880.51	115.2628
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884.68	133.1563
889.28	139.6760
898.04	132.8787
911.20	117.8406
911.20	117.8406
911.20	117.8406
926.50	114.3624
937.49	157.4307
944.13	131.1950
946.00	140.9010
949.00	102.6000
962.29	116.4054
964.08	119.3548
966.15	119.4551
968.97	119.5892
968.97	119.5892
968.97	119.5892
983.53	128.2281
996.26	120.8832
1001.03	121.1082
1004.73	131.1152
1037.84	113.4156
1038.76	0.0000
1048.07	126.8097
1050.41	112.0983
1050.41	112.0983
1063.66	121.9596
1085.87	122.9511
1099.45	133.9224
1112.07	114.9448

1115.54	169.1088
1120.29	122.5647
1120.29	122.5647
1120.29	122.5647
1120.55	122.5752
1121.30	122.6067
1131.51	0.0000
1173.23	140.2976
1177.93	141.4850
1189.05	164.3858
1204.77	163.2898
1221.41	185.8085
1231.02	204.1362
1235.36	198.4973
1238.28	143.3303
1260.41	0.0000
1271.85	125.8821
1274.44	121.9851
1274.54	123.9849
1291.59	95.4948
1298.22	0.0000
1312.11	90.0285
1332.49	82.4436
1365.19	51.3875
1368.63	0.0000
1384.29	65.5527
1408.01	60.3529
1457.56	0.0000
1460.82	43.4531
1489.16	40.4461
1505.03	50.2416
1596.21	26.2754
1620.50	53.8192
1678.03	0.0000
1690.97	19.2153
1764.49	20.5320
1764.49	20.5320
1764.49	20.5320
1770.23	27.4121
1771.35	29.1326
1791.20	0.0000
1836.06	20.8704

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249244005

Total Uranium Activity	4.7923E+00	ug/g
Total Uranium Counting Unc.	2.1487E+00	ug/g
Total Uranium Tpu	1.0963E-06	ug/g
Total Uranium Mda	8.4179E-01	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 964804                    SAMPLE ID  : G249244005       *
*   ANALYST       : MXR1                      DETECTOR   : GAM25            *
*   SAMPLE DATE   : 10-MAR-2010 12:00:00.00   COUNT TIME :    0 04:00:00.00 *
*   ANALYSIS DATE: 23-MAR-2010 23:16:02.44    SAMPLE ALQT:  124.200 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.096E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.287E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.398E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.664E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:07:50.43

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244006.CNF;1
Sample date       : 10-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 11:06:17
Sample ID         : G249244006           Sample quantity  : 1.42480E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.24  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 964804                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.13*	89	563	1.41	126.52	123	8	1.24E-02	49.2	
2	4	74.74	538	621	1.15	149.71	143	22	7.48E-02	8.6	2.89E+00
3	4	77.06*	764	557	1.10	154.34	143	22	1.06E-01	6.5	
4	0	87.05	239	570	1.05	174.31	172	7	3.33E-02	17.7	
5	3	89.94	172	355	0.84	180.08	178	13	2.39E-02	18.0	1.51E+00
6	3	92.74*	302	636	1.42	185.67	178	13	4.19E-02	17.2	
7	0	186.20*	310	632	1.42	372.41	367	13	4.31E-02	18.4	
8	0	209.99	184	584	1.36	419.95	413	13	2.55E-02	28.1	
9	3	238.68*	1746	271	1.20	477.28	472	18	2.43E-01	2.9	1.18E+00
10	3	241.74	410	412	1.89	483.39	472	18	5.69E-02	12.7	
11	0	270.26	172	312	1.57	540.38	536	10	2.39E-02	20.7	
12	0	277.47	92	334	1.33	554.79	551	10	1.28E-02	38.8	
13	0	295.22*	617	324	1.32	590.27	584	12	8.56E-02	7.2	
14	0	300.10	128	311	1.83	600.01	596	12	1.78E-02	28.9	
15	0	327.92	157	345	1.50	655.60	648	15	2.18E-02	27.0	
16	0	338.38*	357	306	1.49	676.50	670	13	4.96E-02	11.6	
17	0	352.01*	1009	229	1.37	703.74	698	12	1.40E-01	4.4	
18	0	463.08	100	149	1.27	925.72	922	10	1.39E-02	24.8	
19	0	511.50*	160	247	2.12	1022.51	1015	17	2.22E-02	27.5	
20	0	582.97*	650	127	1.72	1165.35	1156	16	9.03E-02	5.7	
21	0	609.45*	597	323	1.80	1218.28	1209	19	8.29E-02	8.5	
22	0	727.30*	136	170	1.58	1453.86	1446	17	1.88E-02	24.4	
23	0	768.48	75	107	0.75	1536.19	1530	11	1.04E-02	29.1	
24	0	795.08	119	81	2.31	1589.35	1581	17	1.66E-02	19.5	
25	0	861.45	105	82	1.87	1722.06	1716	15	1.46E-02	21.8	
26	0	911.44*	412	149	1.80	1822.00	1814	18	5.72E-02	8.8	
27	0	969.46*	218	171	2.04	1938.00	1932	16	3.02E-02	16.2	
28	0	1120.72*	133	157	1.90	2240.46	2231	18	1.85E-02	24.3	
29	0	1461.00*	2262	75	2.49	2921.03	2910	21	3.14E-01	2.3	
30	0	1588.49	50	50	1.54	3176.06	3166	20	6.94E-03	37.5	
31	0	1730.55	86	0	2.37	3460.27	3449	24	1.19E-02	10.8	
32	0	1764.80*	124	12	3.85	3528.79	3519	17	1.73E-02	12.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 13:07:53

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244006.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 10-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 11:06:17
Sample ID : G249244006 Sample quantity : 142.48 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.24 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	2.929E+01	3.010E+00	4.808E-01	4.405E-02	60.910
CD-109	+	88.03	*	2.332E+00	8.544E-01	8.583E-01	8.145E-02	2.717
SN-126	+	64.28		5.686E-01	5.651E-01	6.162E-01	8.949E-02	0.923
	+	86.94		9.491E-01	5.181E-01	4.604E-01	1.911E-01	2.062
	+	87.57	*	2.283E-01	8.366E-02	1.108E-01	1.046E-02	2.061
TL-208	+	277.37		5.933E-01	4.708E-01	5.338E-01	8.879E-02	1.111
	+	583.19	*	5.127E-01	8.062E-02	4.310E-02	4.669E-03	11.895
	+	860.56		7.586E-01	3.422E-01	3.297E-01	3.841E-02	2.301
BI-211		72.87		7.003E+00	2.589E+00	4.471E+00	3.579E-01	1.566
	+	351.06	*	3.811E+00	5.565E-01	2.744E-01	3.202E-02	13.887
PB-212	+	74.82		2.241E+00	4.807E-01	4.369E-01	5.549E-02	5.128
	+	77.11		1.824E+00	2.828E-01	2.517E-01	2.105E-02	7.249
	+	238.63	*	1.573E+00	2.280E-01	7.748E-02	1.026E-02	20.298
	+	300.09		1.725E+00	1.029E+00	9.376E-01	1.375E-01	1.840
BI-214	+	609.32	*	9.075E-01	1.869E-01	9.769E-02	1.140E-02	9.289
	+	1120.29		1.004E+00	4.999E-01	3.774E-01	4.188E-02	2.661
	+	1764.49		1.249E+00	3.276E-01	2.272E-01	1.893E-02	5.496
PB-214	+	74.82		3.971E+00	8.221E-01	7.745E-01	8.815E-02	5.128
	+	77.11		3.216E+00	5.647E-01	4.437E-01	5.211E-02	7.249
	+	242.00		2.235E+00	6.481E-01	4.705E-01	6.507E-02	4.751
	+	295.22		1.477E+00	3.070E-01	1.912E-01	2.868E-02	7.727
	+	351.93	*	1.383E+00	2.159E-01	9.558E-02	1.230E-02	14.469
RA-224	+	240.99	*	3.953E+00	1.123E+00	8.296E-01	1.039E-01	4.765
RA-226	+	609.32	*	9.075E-01	1.869E-01	9.769E-02	1.140E-02	9.289
	+	1120.29		1.004E+00	4.999E-01	3.774E-01	4.188E-02	2.661
	+	1764.49		1.249E+00	3.276E-01	2.272E-01	1.893E-02	5.496
AC-228	+	338.32		1.510E+00	7.315E-01	3.212E-01	1.366E-01	4.699
	+	911.20	*	1.508E+00	3.345E-01	1.967E-01	2.664E-02	7.668
	+	968.97		1.370E+00	5.609E-01	4.129E-01	1.038E-01	3.319
RA-228	+	338.32		1.510E+00	7.315E-01	3.212E-01	1.366E-01	4.699
	+	911.20	*	1.508E+00	3.345E-01	1.967E-01	2.664E-02	7.668
	+	968.97		1.370E+00	5.609E-01	4.129E-01	1.038E-01	3.319
TH-228	+	74.82		2.241E+00	4.292E-01	4.369E-01	3.603E-02	5.128
	+	77.11		1.824E+00	2.828E-01	2.517E-01	2.105E-02	7.249

Sample ID : G249244006 Acquisition date : 24-MAR-2010 11:06:17

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	1.573E+00	2.280E-01	7.748E-02	1.026E-02	20.298
	+	300.09		1.725E+00	1.463E+00	9.376E-01	5.819E-01	1.840
TH-230	+	609.32	*	9.074E-01	1.807E-01	9.769E-02	1.017E-02	9.289
	+	1120.29		1.004E+00	4.953E-01	3.774E-01	3.337E-02	2.661
	+	1764.49		1.249E+00	3.276E-01	2.272E-01	1.893E-02	5.496
TH-232	+	338.32		1.510E+00	3.942E-01	3.212E-01	3.820E-02	4.699
	+	911.20	*	1.508E+00	3.345E-01	1.967E-01	2.664E-02	7.668
	+	968.97		1.370E+00	5.609E-01	4.129E-01	1.038E-01	3.319
TH-234	+	63.29	*	1.475E+00	1.474E+00	1.612E+00	2.868E-01	0.915
	+	92.59		2.389E+00	9.786E-01	7.393E-01	1.647E-01	3.232
U-235	+	89.96		1.698E+00	7.436E-01	1.167E+00	2.902E-01	1.455
	+	93.35		1.805E+00	7.493E-01	5.559E-01	1.293E-01	3.247
		143.76	*	1.202E-01	1.764E-01	2.956E-01	5.053E-02	0.407
		163.33		1.189E-01	3.709E-01	6.246E-01	1.155E-01	0.190
	+	185.72		1.879E-01	7.187E-02	5.570E-02	5.832E-03	3.373
		205.31		6.059E-03	4.678E-01	6.734E-01	1.312E-01	0.009
NP-237	+	86.48	*	6.812E-01	2.876E-01	3.306E-01	7.585E-02	2.061
		95.86		-4.041E-01	8.254E-01	1.150E+00	2.769E-01	-0.351
U-238	+	63.29	*	1.475E+00	1.474E+00	1.612E+00	2.868E-01	0.915
	+	92.59		2.389E+00	8.496E-01	7.393E-01	6.725E-02	3.232
ANH-511	+	511.00	*	9.799E-02	5.480E-02	3.595E-02	3.602E-03	2.726

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.023E-01	2.534E-01	4.183E-01	4.365E-02	0.245
NA-22		1274.54	*	8.263E-03	3.503E-02	5.892E-02	5.078E-03	0.140
NA-24		1368.63	*	-1.907E-01	3.503E-02	Half-Life too short		
SC-46		889.28	*	-5.469E-04	3.040E-02	5.037E-02	5.638E-03	-0.011
	+	1120.55		1.682E-01	8.299E-02	9.957E-02	8.802E-03	1.690
V-48		944.13		-2.952E-01	6.960E-01	1.115E+00	1.209E-01	-0.265
		983.53	*	4.027E-02	5.153E-02	8.900E-02	9.334E-03	0.452
		1312.11		2.065E-02	6.097E-02	1.032E-01	9.090E-03	0.200
CR-51		320.08	*	1.437E-01	3.106E-01	4.844E-01	6.270E-02	0.297
MN-54		834.85	*	1.492E-02	2.949E-02	5.055E-02	5.615E-03	0.295
CO-56		846.77	*	-1.552E-03	3.102E-02	5.153E-02	5.737E-03	-0.030
		1037.84		-1.900E-02	2.291E-01	3.719E-01	3.832E-02	-0.051
		1238.28		9.648E-02	7.930E-02	1.366E-01	1.184E-02	0.706
		1771.35		1.008E-01	1.933E-01	2.969E-01	2.467E-02	0.339
CO-57		122.06	*	-5.099E-03	2.202E-02	3.459E-02	2.853E-03	-0.147
		136.47		-4.139E-02	1.683E-01	2.822E-01	2.615E-02	-0.147
CO-58		810.76	*	7.317E-03	2.995E-02	5.084E-02	5.629E-03	0.144
FE-59		1099.45	*	-4.902E-03	7.486E-02	1.211E-01	1.186E-02	-0.040
		1291.59		-5.412E-02	9.822E-02	1.555E-01	1.533E-02	-0.348
CO-60		1173.23		-1.657E-02	3.600E-02	5.830E-02	4.689E-03	-0.284
		1332.49	*	7.827E-03	2.896E-02	4.884E-02	4.355E-03	0.160
ZN-65		1115.54	*	8.535E-02	8.926E-02	1.333E-01	1.189E-02	0.640
SE-75		121.12		2.743E-02	1.124E-01	1.800E-01	1.943E-02	0.152

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		136.00		-1.525E-02	3.207E-02	5.336E-02	4.631E-03	-0.286
		264.66	*	7.306E-03	4.254E-02	6.029E-02	8.115E-03	0.121
		279.54		1.279E-01	1.120E-01	1.645E-01	2.335E-02	0.778
		400.66		-5.995E-02	2.089E-01	3.380E-01	3.948E-02	-0.177
SR-85		514.00	*	1.236E-01	4.004E-02	6.367E-02	6.389E-03	1.941
Y-88		898.04		-2.881E-02	3.264E-02	5.061E-02	5.687E-03	-0.569
		1836.06	*	1.173E-02	2.413E-02	4.227E-02	3.417E-03	0.278
Y-91		1204.77	*	1.131E+00	1.670E+01	2.791E+01	2.295E+00	0.041
NB-94		702.65	*	2.208E-04	2.794E-02	4.564E-02	4.890E-03	0.005
		871.09		1.399E-02	2.904E-02	4.691E-02	5.241E-03	0.298
NB-95		765.81	*	8.959E-02	3.888E-02	6.252E-02	6.837E-03	1.433
NB-95M		235.69	*	1.268E-01	1.223E-01	1.808E-01	2.393E-02	0.701
ZR-95		724.19		1.314E-01	8.457E-02	1.312E-01	1.494E-02	1.001
		756.73	*	1.330E-02	5.661E-02	9.311E-02	1.083E-02	0.143
MO-99		140.51		-1.003E+01	1.417E+01	2.305E+01	5.486E+00	-0.435
		181.07		3.335E+00	1.250E+01	1.840E+01	3.611E+00	0.181
		366.42		-2.894E+01	6.217E+01	1.005E+02	1.066E+01	-0.288
		739.50	*	5.166E+00	7.544E+00	1.269E+01	2.167E+00	0.407
		777.92		-1.187E+01	2.170E+01	3.372E+01	3.699E+00	-0.352
TC-99M		140.51	*	-9.512E+08	2.170E+01	Half-Life too short		
RU-103		497.08	*	1.086E-02	3.237E-02	5.302E-02	7.861E-03	0.205
	+	610.33		9.177E+00	2.228E+00	2.096E+00	3.637E-01	4.379
RH-106		621.93	*	-6.083E-02	2.527E-01	4.113E-01	5.968E-02	-0.148
		1050.41		1.100E+00	2.043E+00	3.454E+00	3.372E-01	0.319
RU-106		621.93	*	-6.083E-02	2.526E-01	4.113E-01	4.296E-02	-0.148
		1050.41		1.100E+00	2.043E+00	3.454E+00	3.372E-01	0.319
AG-108M		433.94	*	-9.989E-03	2.440E-02	3.888E-02	3.826E-03	-0.257
		614.28		-3.609E-03	3.329E-02	4.691E-02	4.999E-03	-0.077
		722.91		6.584E-03	3.278E-02	4.654E-02	5.127E-03	0.141
AG-110M		657.76	*	-2.143E-02	2.950E-02	4.633E-02	4.980E-03	-0.463
		677.62		-7.185E-02	2.410E-01	3.872E-01	4.189E-02	-0.186
		706.68		1.253E-02	1.764E-01	2.890E-01	3.159E-02	0.043
		763.94		6.238E-02	1.471E-01	2.114E-01	2.350E-02	0.295
		884.68		-2.297E-02	3.943E-02	6.278E-02	7.159E-03	-0.366
		937.49		3.063E-02	9.322E-02	1.569E-01	1.749E-02	0.195
		1384.29		-2.365E-01	1.336E-01	1.804E-01	1.653E-02	-1.311
		1505.03		5.495E-02	2.138E-01	3.571E-01	3.176E-02	0.154
SN-113		391.69	*	6.490E-03	3.750E-02	6.217E-02	5.937E-03	0.104
CD-115		260.90		3.041E+01	8.239E+01	1.346E+02	1.788E+01	0.226
		492.35		-9.966E+00	2.187E+01	3.426E+01	3.401E+00	-0.291
		527.90	*	-2.873E-02	6.454E+00	1.081E+01	1.092E+00	-0.003
SN-117M		156.02		6.927E-01	1.811E+00	3.069E+00	2.877E-01	0.226
		158.56	*	2.972E-02	4.437E-02	7.567E-02	7.176E-03	0.393
TE-123M		159.00	*	1.219E-02	2.402E-02	4.079E-02	3.896E-03	0.299
SB-124		602.73		3.205E-02	3.619E-02	5.470E-02	5.682E-03	0.586
		645.85		-6.275E-02	3.759E-01	6.122E-01	6.685E-02	-0.102
		722.78		3.853E-02	3.235E-01	4.560E-01	4.993E-02	0.085
		1690.97	*	-3.143E-02	5.881E-02	9.065E-02	8.083E-03	-0.347
SB-125		427.87	*	-1.536E-02	7.340E-02	1.185E-01	1.149E-02	-0.130

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	463.37		5.522E-01	2.794E-01	4.114E-01	4.256E-02	1.342
		600.60		2.100E-01	1.593E-01	2.554E-01	2.787E-02	0.822
		635.95		1.130E-01	2.204E-01	3.731E-01	4.129E-02	0.303
TE-125M		109.28	*	-3.525E+00	8.690E+00	1.345E+01	1.383E+00	-0.262
I-126		388.63		-3.128E-02	1.309E-01	2.130E-01	2.017E-02	-0.147
		666.33	*	-2.350E-01	1.731E-01	2.586E-01	2.732E-02	-0.909
		753.82		-1.474E-01	1.338E+00	2.154E+00	2.347E-01	-0.068
SB-126		414.70		-9.491E-02	5.971E-02	8.870E-02	8.395E-03	-1.070
		666.50		-7.603E-02	5.942E-02	8.938E-02	9.444E-03	-0.851
		695.00		9.971E-03	6.148E-02	1.014E-01	1.083E-02	0.098
		697.00		9.305E-02	2.132E-01	3.563E-01	3.810E-02	0.261
		720.70	*	-1.077E-01	1.256E-01	1.599E-01	1.724E-02	-0.674
		856.80		7.057E-02	3.873E-01	5.612E-01	6.257E-02	0.126
SB-127		252.40		1.029E+00	2.973E+00	4.817E+00	2.050E+00	0.214
		473.00		8.280E-01	1.044E+00	1.754E+00	2.339E-01	0.472
		685.70	*	1.792E-01	8.606E-01	1.425E+00	1.808E-01	0.126
		783.70		4.299E+00	2.372E+00	4.132E+00	5.720E-01	1.041
I-131		80.19		2.963E-01	3.219E+00	5.269E+00	4.584E-01	0.056
		284.31		-1.526E+00	1.284E+00	1.834E+00	2.591E-01	-0.832
		364.49	*	-4.102E-02	8.680E-02	1.403E-01	1.554E-02	-0.292
		636.99		1.021E+00	1.137E+00	1.961E+00	2.135E-01	0.521
TE-132		49.72		-9.002E+00	9.948E+00	1.606E+01	1.639E+00	-0.560
		111.76		1.406E+01	2.329E+01	3.789E+01	3.962E+00	0.371
		116.30		-2.075E+00	1.956E+01	3.099E+01	3.226E+00	-0.067
		228.16	*	-8.177E-02	5.049E-01	8.163E-01	1.446E-01	-0.100
BA-133		81.00		-2.509E-02	8.124E-02	1.167E-01	1.817E-02	-0.215
	+	276.40		5.483E-01	4.365E-01	5.465E-01	9.744E-02	1.003
		302.85		7.303E-02	1.289E-01	1.940E-01	3.201E-02	0.376
		356.01	*	-2.069E-02	3.843E-02	5.311E-02	7.820E-03	-0.390
		383.85		6.910E-02	2.306E-01	3.853E-01	5.091E-02	0.179
I-133		529.87	*	6.459E-04	2.306E-01	Half-Life too short		
		875.33		-1.921E-02	2.306E-01	Half-Life too short		
		1298.22		-2.441E-02	2.306E-01	Half-Life too short		
CS-134		563.25		2.601E-01	2.930E-01	5.081E-01	5.242E-02	0.512
		569.33		-1.249E-01	1.639E-01	2.551E-01	2.645E-02	-0.490
		604.72		-7.690E-03	3.359E-02	4.702E-02	4.896E-03	-0.164
	+	795.86	*	1.330E-01	5.395E-02	6.697E-02	7.413E-03	1.987
		801.95		-3.571E-01	3.868E-01	4.755E-01	5.265E-02	-0.751
		1365.19		4.505E-01	1.016E+00	1.731E+00	1.613E-01	0.260
CS-135		268.22	*	2.791E-01	1.600E-01	2.389E-01	3.455E-02	1.168
I-135		546.56		-5.068E+08	1.600E-01	Half-Life too short		
		836.80		1.125E+09	1.600E-01	Half-Life too short		
		1038.76		1.457E+07	1.600E-01	Half-Life too short		
		1131.51		2.874E+08	1.600E-01	Half-Life too short		
		1260.41	*	-2.433E+08	1.600E-01	Half-Life too short		
		1457.56		5.994E+10	1.600E-01	Half-Life too short		
		1678.03		-2.988E+08	1.600E-01	Half-Life too short		
		1791.20		-8.519E+08	1.600E-01	Half-Life too short		
CS-136		153.25		1.766E-01	6.895E-01	1.165E+00	1.259E-01	0.152

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		176.60		2.260E-02	3.893E-01	6.475E-01	7.073E-02	0.035
		273.65		8.404E-02	6.453E-01	6.535E-01	9.313E-02	0.129
		340.55		5.136E-01	1.564E-01	2.435E-01	2.931E-02	2.109
		818.51		-1.976E-02	5.503E-02	8.986E-02	9.956E-03	-0.220
		1048.07	*	-1.898E-02	7.893E-02	1.265E-01	1.279E-02	-0.150
		1235.36		3.822E-01	4.759E-01	8.187E-01	9.497E-02	0.467
BA-137M		661.66	*	3.526E-02	3.016E-02	5.223E-02	5.507E-03	0.675
CS-137		661.66	*	3.725E-02	3.187E-02	5.517E-02	5.826E-03	0.675
CE-139		165.86	*	-7.199E-03	2.530E-02	4.179E-02	4.098E-03	-0.172
BA-140		162.66		2.428E-01	6.462E-01	1.092E+00	1.112E-01	0.222
		304.85		2.722E-01	1.135E+00	1.680E+00	5.195E-01	0.162
		423.72		8.580E-01	1.518E+00	2.506E+00	8.306E-01	0.342
		537.26	*	-1.371E-01	1.981E-01	3.093E-01	1.062E-01	-0.443
LA-140	+	328.76		7.742E-01	4.300E-01	4.330E-01	5.473E-02	1.788
		487.02		3.502E-02	1.038E-01	1.706E-01	1.768E-02	0.205
		815.77		2.406E-02	2.400E-01	4.038E-01	4.794E-02	0.060
		1596.21	*	1.724E-02	6.641E-02	9.491E-02	8.320E-03	0.182
CE-141		145.44	*	6.050E-02	5.207E-02	9.025E-02	8.216E-03	0.670
CE-143		57.36		1.081E-04	5.207E-02	Half-Life too short		
		293.27	*	4.130E-04	5.207E-02	Half-Life too short		
		664.57		4.545E-05	5.207E-02	Half-Life too short		
		721.93		-2.462E-04	5.207E-02	Half-Life too short		
CE-144		80.12		2.354E-01	1.919E+00	3.145E+00	2.719E-01	0.075
		133.52	*	-1.687E-01	1.613E-01	2.602E-01	3.966E-02	-0.648
PM-144		476.78		-8.232E-04	5.219E-02	8.426E-02	8.849E-03	-0.010
		618.01		2.133E-02	2.895E-02	4.498E-02	4.783E-03	0.474
		696.49	*	1.948E-02	2.894E-02	4.891E-02	5.231E-03	0.398
PR-144		696.51	*	1.466E+00	2.165E+00	3.660E+00	3.913E-01	0.401
		1489.16		3.645E+00	9.660E+00	1.637E+01	1.458E+00	0.223
PM-146		453.88	*	8.883E-03	3.498E-02	5.752E-02	6.614E-03	0.154
		633.25		2.650E-01	1.131E+00	1.882E+00	7.274E-01	0.141
		735.93		1.027E-02	1.345E-01	1.962E-01	5.647E-02	0.052
		747.24		-2.705E-02	7.439E-02	1.175E-01	1.883E-02	-0.230
ND-147	+	91.11		5.112E-01	1.912E-01	3.931E-01	3.886E-02	1.300
		319.41		5.625E-01	2.524E+00	4.156E+00	5.260E-01	0.135
		531.02	*	2.063E-01	4.086E-01	7.002E-01	1.110E-01	0.295
PM-149		285.90	*	8.530E+00	5.669E+01	9.107E+01	1.723E+01	0.094
EU-152		121.78		7.932E-03	6.267E-02	9.986E-02	9.562E-03	0.079
		244.70		2.193E-01	3.171E-01	4.637E-01	5.872E-02	0.473
		344.28	*	3.392E-02	9.883E-02	1.378E-01	1.656E-02	0.246
		778.90		-1.299E-01	2.091E-01	3.230E-01	3.544E-02	-0.402
		964.08		4.032E-01	2.895E-01	4.462E-01	4.761E-02	0.904
		1085.87		-2.414E-01	3.279E-01	5.045E-01	4.700E-02	-0.479
		1112.07		4.452E-02	3.040E-01	4.252E-01	3.810E-02	0.105
		1408.01		1.276E-01	1.552E-01	2.706E-01	2.419E-02	0.472
GD-153		69.67		4.032E-01	1.502E+00	2.237E+00	1.736E-01	0.180
		97.43	*	-8.199E-02	7.996E-02	1.086E-01	9.548E-03	-0.755
		103.18		-1.795E-02	9.482E-02	1.511E-01	1.291E-02	-0.119
EU-154		123.07		-3.899E-02	4.573E-02	6.970E-02	7.723E-03	-0.559

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		723.31		9.026E-02	1.490E-01	2.187E-01	2.516E-02	0.413
		873.19		-1.533E-01	2.280E-01	3.607E-01	4.999E-02	-0.425
		996.26		-9.958E-02	2.939E-01	4.702E-01	8.648E-02	-0.212
		1004.73		1.463E-01	1.748E-01	3.005E-01	3.879E-02	0.487
		1274.44	*	2.629E-02	9.954E-02	1.677E-01	1.907E-02	0.157
EU-155	+	86.55		2.767E-01	1.015E-01	1.504E-01	1.415E-02	1.839
		105.31	*	1.898E-05	9.119E-02	1.461E-01	1.254E-02	0.000
TB-160	+	86.79		7.264E-01	2.662E-01	3.935E-01	3.680E-02	1.846
		197.04		-1.814E-01	5.174E-01	8.249E-01	8.970E-02	-0.220
		215.65		-2.720E-01	7.388E-01	1.037E+00	1.198E-01	-0.262
		298.57		2.587E-01	1.432E-01	1.656E-01	2.219E-02	1.563
		879.36	*	5.429E-02	1.178E-01	1.902E-01	2.127E-02	0.285
		962.29		3.041E-01	5.210E-01	7.639E-01	8.164E-02	0.398
		966.15		1.084E+00	2.595E-01	4.198E-01	4.472E-02	2.583
		1177.93		-3.512E-02	2.803E-01	4.638E-01	3.742E-02	-0.076
		1271.85		-4.073E-01	5.492E-01	8.573E-01	7.368E-02	-0.475
HO-166M		80.57		-1.992E-02	2.080E-01	3.385E-01	2.941E-02	-0.059
		184.41		9.440E-02	3.762E-02	5.903E-02	6.154E-03	1.599
		280.46		2.626E-02	8.404E-02	1.193E-01	1.666E-02	0.220
		410.95		3.598E-01	2.053E-01	3.587E-01	3.385E-02	1.003
		711.68	*	2.432E-02	5.130E-02	8.580E-02	9.224E-03	0.283
		752.31		6.260E-02	2.117E-01	3.498E-01	3.810E-02	0.179
		810.29		-5.421E-03	4.594E-02	7.631E-02	8.436E-03	-0.071
TA-182		67.75		-9.879E-02	9.365E-02	1.403E-01	1.070E-02	-0.704
		100.11		1.755E-01	1.530E-01	2.547E-01	2.207E-02	0.689
		152.43		1.154E-01	2.926E-01	4.967E-01	4.583E-02	0.232
		222.11		-2.130E-01	3.132E-01	4.963E-01	5.857E-02	-0.429
	+	1121.30		4.673E-01	2.305E-01	2.753E-01	2.431E-02	1.697
		1189.05		1.300E-01	2.465E-01	4.233E-01	3.443E-02	0.307
		1221.41	*	1.017E-01	1.616E-01	2.778E-01	2.310E-02	0.366
		1231.02		-4.045E-01	4.136E-01	6.474E-01	5.418E-02	-0.625
IR-192	+	295.96		1.081E+00	2.135E-01	2.370E-01	3.207E-02	4.559
		308.46		2.319E-02	7.992E-02	1.323E-01	1.731E-02	0.175
		316.51	*	-1.909E-02	2.767E-02	4.477E-02	5.722E-03	-0.426
		468.07		-2.314E-02	6.086E-02	8.228E-02	8.517E-03	-0.281
HG-203		70.83		3.240E-01	1.150E+00	1.711E+00	2.679E-01	0.189
		72.87		1.714E+00	6.712E-01	1.094E+00	1.663E-01	1.566
		279.20	*	5.631E-02	3.963E-02	5.861E-02	8.287E-03	0.961
BI-207		72.81		3.724E-01	1.477E-01	2.548E-01	2.038E-02	1.462
	+	74.97		6.457E-01	1.235E-01	1.845E-01	1.508E-02	3.500
		569.70		-1.264E-02	2.512E-02	3.971E-02	4.079E-03	-0.318
		1063.66	*	8.119E-02	4.455E-02	8.000E-02	7.680E-03	1.015
		1770.23		9.580E-01	4.705E-01	8.455E-01	7.028E-02	1.133
PB-210		46.54	*	-6.804E-01	2.471E+00	4.015E+00	3.698E-01	-0.169
PB-211		404.85	*	-4.919E-01	6.566E-01	9.652E-01	4.685E-01	-0.510
		427.09		-1.328E-01	1.246E+00	2.021E+00	9.385E-01	-0.066
		832.01		-1.627E-01	8.104E-01	1.329E+00	6.956E-01	-0.122
BI-212	+	727.33	*	1.602E+00	8.124E-01	9.244E-01	1.300E-01	1.733
		785.37		3.836E+00	2.699E+00	4.510E+00	4.957E-01	0.851

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		7.721E-01	1.957E+00	3.377E+00	2.944E-01	0.229
RN-219	+	271.23		6.682E-01	2.937E-01	3.851E-01	5.689E-02	1.735
		401.81	*	1.734E-01	3.293E-01	5.525E-01	8.466E-02	0.314
RA-223		81.07		-6.360E-02	1.837E-01	2.636E-01	2.303E-02	-0.241
		83.79		1.666E-01	1.333E-01	1.646E-01	1.484E-02	1.012
		94.87		7.632E-01	4.000E-01	6.170E-01	5.517E-02	1.237
		144.24		7.773E-01	5.896E-01	1.005E+00	9.929E-02	0.774
		154.21		1.934E-01	3.328E-01	5.670E-01	5.709E-02	0.341
	+	269.46		5.192E-01	2.266E-01	2.984E-01	4.098E-02	1.740
		323.87	*	5.837E-02	5.818E-01	8.509E-01	1.663E-01	0.069
	+	338.28		5.990E+00	1.644E+00	1.927E+00	2.811E-01	3.109
AC-227		79.69		-1.789E-02	9.569E-01	1.562E+00	2.690E-01	-0.011
		235.96		5.145E-01	1.739E-01	2.582E-01	3.508E-02	1.993
		256.23	*	-1.588E-01	2.210E-01	3.430E-01	5.343E-02	-0.463
	+	299.98		1.898E+00	1.140E+00	1.308E+00	2.131E-01	1.451
		304.50		-1.190E-01	1.482E+00	2.158E+00	4.168E-01	-0.055
		334.37		8.321E-01	2.221E+00	2.257E+00	4.000E-01	0.369
TH-227		79.80		2.785E-02	1.263E+00	2.064E+00	4.494E-01	0.013
		235.96		5.145E-01	1.731E-01	2.582E-01	3.394E-02	1.993
		256.23	*	-1.588E-01	2.213E-01	3.430E-01	5.766E-02	-0.463
	+	299.98		1.898E+00	1.140E+00	1.308E+00	2.131E-01	1.451
		304.50		-1.190E-01	1.482E+00	2.158E+00	4.168E-01	-0.055
		334.37		8.321E-01	2.221E+00	2.257E+00	4.000E-01	0.369
TH-229		85.43		3.413E-01	1.892E-01	2.887E-01	2.655E-02	1.182
	+	88.47		3.520E-01	1.290E-01	1.891E-01	1.786E-02	1.862
		193.51	*	-1.335E-01	4.676E-01	7.362E-01	7.912E-02	-0.181
	+	210.85		2.409E+00	1.383E+00	1.419E+00	1.615E-01	1.698
PA-231		283.69	*	-1.617E+00	1.447E+00	1.956E+00	3.558E-01	-0.827
	+	301.36		1.219E+00	7.310E-01	8.395E-01	1.329E-01	1.452
TH-231		81.07		-6.360E-02	1.837E-01	2.636E-01	2.303E-02	-0.241
		83.79		1.666E-01	1.333E-01	1.646E-01	1.484E-02	1.012
		94.87		7.632E-01	4.000E-01	6.170E-01	5.517E-02	1.237
		144.24		7.773E-01	5.896E-01	1.005E+00	9.929E-02	0.774
		154.21		1.934E-01	3.328E-01	5.670E-01	5.709E-02	0.341
	+	269.46		5.192E-01	2.266E-01	2.984E-01	4.098E-02	1.740
		323.87	*	5.837E-02	5.818E-01	8.509E-01	1.663E-01	0.069
	+	338.28		5.990E+00	1.644E+00	1.927E+00	2.811E-01	3.109
PA-233	+	300.13		8.588E-01	5.200E-01	5.942E-01	1.069E-01	1.445
		311.90	*	3.182E-02	5.327E-02	9.120E-02	1.195E-02	0.349
		340.48		2.583E+00	9.249E-01	1.122E+00	2.847E-01	2.302
PA-234		94.67		3.763E-01	1.534E-01	2.338E-01	2.954E-02	1.610
		98.44		6.623E-02	8.502E-02	1.271E-01	7.092E-02	0.521
		111.00		2.657E-02	1.660E-01	2.622E-01	3.119E-02	0.101
		131.20		2.109E-02	8.843E-02	1.509E-01	1.278E-02	0.140
		569.50		-1.418E-01	2.246E-01	3.523E-01	3.619E-02	-0.403
		733.00		-7.727E-02	3.593E-01	4.897E-01	1.133E-01	-0.158
		880.51		1.597E-01	2.383E-01	3.889E-01	4.349E-02	0.411
		883.24		-1.015E-01	2.446E-01	3.790E-01	2.562E-01	-0.268
		926.50		-1.803E-01	1.508E-01	2.164E-01	5.666E-02	-0.833

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	-2.397E-02	2.552E-01	4.182E-01	8.312E-02	-0.057
		949.00		1.691E-01	3.720E-01	6.299E-01	6.806E-02	0.268
PA-234M		766.42		1.674E+01	1.381E+01	1.688E+01	8.639E+00	0.992
		1001.03	*	9.803E-01	4.000E+00	6.546E+00	7.501E-01	0.150
NP-239		99.53		1.359E-01	1.404E-01	2.327E-01	2.022E-02	0.584
		103.37		-2.905E-02	8.722E-02	1.382E-01	1.180E-02	-0.210
		106.12		-1.648E-02	7.272E-02	1.155E-01	9.763E-03	-0.143
		117.23	*	-2.053E-01	3.466E-01	5.377E-01	4.443E-02	-0.382
		228.18		-3.179E-02	1.920E-01	3.104E-01	3.734E-02	-0.102
	+	277.60		2.712E-01	2.138E-01	2.729E-01	3.804E-02	0.994
AM-241		59.54	*	3.951E-02	1.228E-01	1.857E-01	1.452E-02	0.213
CM-247	+	278.00		1.152E+00	9.078E-01	1.141E+00	1.593E-01	1.009
		287.50		5.194E-01	1.109E+00	1.803E+00	2.480E-01	0.288
		402.40	*	1.088E-02	3.026E-02	5.049E-02	4.736E-03	0.216
CF-249		252.80		3.778E-01	8.012E-01	1.317E+00	1.708E-01	0.287
		333.37		5.362E-02	2.323E-01	2.325E-01	2.814E-02	0.231
		388.16	*	-8.809E-03	3.334E-02	5.418E-02	5.144E-03	-0.163
CF-251		177.52	*	-5.348E-03	1.093E-01	1.811E-01	1.845E-02	-0.030
		227.38		-9.225E-02	3.149E-01	5.067E-01	6.080E-02	-0.182
		285.41		-7.086E-01	1.940E+00	3.044E+00	4.207E-01	-0.233

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244006      *
* Acquisition date : 24-MAR-2010 11:06:17 Detector SN#     :               *
* Detector ID        : GAM22               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:02.24      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 10-MAR-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G249244006           Analyst initials: MXR1         *
* Batch Number       : 964804               Sample Quantity : 1.4248E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.929E+01	2.950E+00	4.830E-01	0.000E+00
CD-109	2.332E+00	8.373E-01	9.149E-01	0.000E+00
SN-126	2.283E-01	8.199E-02	1.181E-01	0.000E+00
TL-208	5.127E-01	7.901E-02	4.418E-02	0.000E+00
BI-211	3.811E+00	5.454E-01	2.843E-01	0.000E+00
PB-212	1.573E+00	2.234E-01	8.093E-02	0.000E+00
BI-214	9.075E-01	1.832E-01	1.000E-01	0.000E+00
PB-214	1.383E+00	2.116E-01	9.903E-02	0.000E+00
RA-224	3.953E+00	1.100E+00	8.664E-01	0.000E+00
RA-226	9.075E-01	1.832E-01	1.000E-01	0.000E+00
AC-228	1.508E+00	3.278E-01	1.997E-01	0.000E+00
RA-228	1.508E+00	3.278E-01	1.997E-01	0.000E+00
TH-228	1.573E+00	2.234E-01	8.093E-02	0.000E+00
TH-230	9.074E-01	1.770E-01	1.000E-01	0.000E+00
TH-232	1.508E+00	3.278E-01	1.997E-01	0.000E+00
TH-234	1.475E+00	1.445E+00	1.729E+00	0.000E+00
U-235	1.202E-01	1.729E-01	3.121E-01	0.000E+00
NP-237	6.812E-01	2.819E-01	3.525E-01	0.000E+00
U-238	1.475E+00	1.445E+00	1.729E+00	0.000E+00
ANH-511	9.799E-02	5.371E-02	3.696E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.023E-01	2.483E-01	4.307E-01	0.000E+00	NOT IDENT.
NA-22	8.263E-03	3.433E-02	5.937E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.704E+05	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-5.469E-04	2.979E-02	5.116E-02	0.000E+00	FAIL ABUN
V-48	4.027E-02	5.049E-02	9.020E-02	0.000E+00	NOT IDENT.
CR-51	1.437E-01	3.043E-01	5.029E-01	0.000E+00	NOT IDENT.
MN-54	1.492E-02	2.890E-02	5.141E-02	0.000E+00	NOT IDENT.

CO-56	-1.552E-03	3.040E-02	5.240E-02	0.000E+00	NOT IDENT.
CO-57	-5.099E-03	2.158E-02	3.663E-02	0.000E+00	NOT IDENT.
CO-58	7.317E-03	2.935E-02	5.174E-02	0.000E+00	NOT IDENT.
FE-59	-4.902E-03	7.336E-02	1.224E-01	0.000E+00	NOT IDENT.
CO-60	7.827E-03	2.838E-02	4.916E-02	0.000E+00	NOT IDENT.
ZN-65	8.535E-02	8.747E-02	1.347E-01	0.000E+00	NOT IDENT.
SE-75	7.306E-03	4.169E-02	6.284E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.924E-02	6.544E-02	0.000E+00	NOT IDENT.
Y-88	1.173E-02	2.365E-02	4.224E-02	0.000E+00	NOT IDENT.
Y-91	1.131E+00	1.637E+01	2.816E+01	0.000E+00	NOT IDENT.
NB-94	2.208E-04	2.738E-02	4.659E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	3.810E-02	6.371E-02	0.000E+00	NOT IDENT.
NB-95M	1.268E-01	1.198E-01	1.890E-01	0.000E+00	NOT IDENT.
ZR-95	1.330E-02	5.548E-02	9.490E-02	0.000E+00	NOT IDENT.
MO-99	5.166E+00	7.393E+00	1.294E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.323E+15	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.086E-02	3.172E-02	5.454E-02	0.000E+00	FAIL ABUN
RH-106	-6.083E-02	2.477E-01	4.210E-01	0.000E+00	NOT IDENT.
RU-106	-6.083E-02	2.476E-01	4.210E-01	0.000E+00	NOT IDENT.
AG-108M	-9.989E-03	2.391E-02	4.010E-02	0.000E+00	NOT IDENT.
AG-110M	-2.143E-02	2.891E-02	4.737E-02	0.000E+00	NOT IDENT.
SN-113	6.490E-03	3.675E-02	6.427E-02	0.000E+00	NOT IDENT.
CD-115	-2.873E-02	6.325E+00	1.111E+01	0.000E+00	NOT IDENT.
SN-117M	2.972E-02	4.348E-02	7.971E-02	0.000E+00	NOT IDENT.
TE-123M	1.219E-02	2.354E-02	4.297E-02	0.000E+00	NOT IDENT.
SB-124	-3.143E-02	5.763E-02	9.077E-02	0.000E+00	NOT IDENT.
SB-125	-1.536E-02	7.194E-02	1.222E-01	0.000E+00	FAIL ABUN
TE-125M	-3.525E+00	8.516E+00	1.428E+01	0.000E+00	NOT IDENT.
I-126	-2.350E-01	1.696E-01	2.643E-01	0.000E+00	NOT IDENT.
SB-126	-1.077E-01	1.231E-01	1.631E-01	0.000E+00	NOT IDENT.
SB-127	1.792E-01	8.434E-01	1.456E+00	0.000E+00	NOT IDENT.
I-131	-4.102E-02	8.506E-02	1.453E-01	0.000E+00	NOT IDENT.
TE-132	-8.177E-02	4.948E-01	8.535E-01	0.000E+00	NOT IDENT.
BA-133	-2.069E-02	3.766E-02	5.502E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.861E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.287E-02	6.819E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.568E-01	2.489E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.629E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.898E-02	7.735E-02	1.281E-01	0.000E+00	NOT IDENT.
BA-137M	3.526E-02	2.956E-02	5.339E-02	0.000E+00	NOT IDENT.
CS-137	3.725E-02	3.123E-02	5.640E-02	0.000E+00	NOT IDENT.
CE-139	-7.199E-03	2.480E-02	4.398E-02	0.000E+00	NOT IDENT.
BA-140	-1.371E-01	1.941E-01	3.176E-01	0.000E+00	NOT IDENT.
LA-140	1.724E-02	6.508E-02	9.515E-02	0.000E+00	FAIL ABUN
CE-141	6.050E-02	5.103E-02	9.524E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.276E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.687E-01	1.581E-01	2.751E-01	0.000E+00	NOT IDENT.
PM-144	1.948E-02	2.836E-02	4.994E-02	0.000E+00	NOT IDENT.
PR-144	1.466E+00	2.122E+00	3.737E+00	0.000E+00	NOT IDENT.
PM-146	8.883E-03	3.428E-02	5.927E-02	0.000E+00	NOT IDENT.
ND-147	2.063E-01	4.004E-01	7.192E-01	0.000E+00	FAIL ABUN
PM-149	8.530E+00	5.556E+01	9.478E+01	0.000E+00	NOT IDENT.
EU-152	3.392E-02	9.685E-02	1.429E-01	0.000E+00	NOT IDENT.
GD-153	-8.199E-02	7.836E-02	1.155E-01	0.000E+00	NOT IDENT.
EU-154	2.629E-02	9.755E-02	1.690E-01	0.000E+00	NOT IDENT.
EU-155	1.898E-05	8.937E-02	1.552E-01	0.000E+00	FAIL ABUN
TB-160	5.429E-02	1.154E-01	1.932E-01	0.000E+00	FAIL ABUN
HO-166M	2.432E-02	5.028E-02	8.757E-02	0.000E+00	NOT IDENT.
TA-182	1.017E-01	1.584E-01	2.802E-01	0.000E+00	FAIL ABUN
IR-192	-1.909E-02	2.712E-02	4.649E-02	0.000E+00	FAIL ABUN
HG-203	5.631E-02	3.884E-02	6.102E-02	0.000E+00	NOT IDENT.
BI-207	0.000E+00	4.366E-02	8.093E-02	0.000E+00	FAIL ABUN
PB-210	-6.804E-01	2.422E+00	4.334E+00	0.000E+00	NOT IDENT.
PB-211	-4.919E-01	6.435E-01	9.971E-01	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.962E-01	9.430E-01	0.000E+00	FAIL ABUN
RN-219	1.734E-01	3.227E-01	5.708E-01	0.000E+00	FAIL ABUN
RA-223	5.837E-02	5.702E-01	8.832E-01	0.000E+00	FAIL ABUN
AC-227	-1.588E-01	2.166E-01	3.578E-01	0.000E+00	FAIL ABUN
TH-227	-1.588E-01	2.168E-01	3.578E-01	0.000E+00	FAIL ABUN
TH-229	-1.335E-01	4.582E-01	7.723E-01	0.000E+00	FAIL ABUN
PA-231	-1.617E+00	1.418E+00	2.036E+00	0.000E+00	FAIL ABUN
TH-231	5.837E-02	5.702E-01	8.832E-01	0.000E+00	FAIL ABUN
PA-233	3.182E-02	5.220E-02	9.474E-02	0.000E+00	FAIL ABUN
PA-234	-2.397E-02	2.501E-01	4.242E-01	0.000E+00	NOT IDENT.
PA-234M	9.803E-01	3.920E+00	6.631E+00	0.000E+00	NOT IDENT.
NP-239	-2.053E-01	3.396E-01	5.699E-01	0.000E+00	FAIL ABUN
AM-241	3.951E-02	1.203E-01	1.995E-01	0.000E+00	NOT IDENT.
CM-247	1.088E-02	2.965E-02	5.217E-02	0.000E+00	FAIL ABUN

CF-249	-8.809E-03	3.267E-02	5.602E-02	0.000E+00 NOT IDENT.
CF-251	-5.348E-03	1.071E-01	1.903E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:07:51.47

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244006.CNF;1
Sample date       : 10-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 11:06:17
Sample ID         : G249244006           Sample quantity  : 1.42480E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.24  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 964804               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	2262	10.66*	1.909E+00	2.929E+01	2.929E+01	10.28
CD-109	88.03	239	3.70*	7.467E+00	2.283E+00	2.332E+00	36.65
SN-126	64.28	89	9.60	4.306E+00	5.686E-01	5.686E-01	99.39
	86.94	239	8.90	7.467E+00	9.491E-01	9.491E-01	54.58
	87.57	239	37.00*	7.467E+00	2.283E-01	2.283E-01	36.65
TL-208	277.37	92	6.60	6.180E+00	5.933E-01	5.933E-01	79.35
	583.19	650	85.00*	3.932E+00	5.127E-01	5.127E-01	15.72
	860.56	105	12.50	2.920E+00	7.586E-01	7.586E-01	45.11
BI-211	72.87	------	1.23	5.897E+00	------	Line Not Found	------
	351.06	1009	12.92*	5.401E+00	3.811E+00	3.811E+00	14.60
PB-212	74.82	538	10.28	6.156E+00	2.241E+00	2.241E+00	21.45
	77.11	764	17.10	6.455E+00	1.824E+00	1.824E+00	15.50
	238.63	1746	43.60*	6.709E+00	1.573E+00	1.573E+00	14.50
	300.09	128	3.30	5.916E+00	1.725E+00	1.725E+00	59.65
BI-214	609.32	597	45.49*	3.810E+00	9.074E-01	9.075E-01	20.60
	1120.29	133	14.92	2.345E+00	1.004E+00	1.004E+00	49.78
	1764.49	124	15.30	1.716E+00	1.249E+00	1.249E+00	26.23
PB-214	74.82	538	5.80	6.156E+00	3.971E+00	3.971E+00	20.70
	77.11	764	9.70	6.455E+00	3.216E+00	3.216E+00	17.56
	242.00	410	7.25	6.664E+00	2.235E+00	2.235E+00	28.99
	295.22	617	18.42	5.970E+00	1.477E+00	1.477E+00	20.78
	351.93	1009	35.60*	5.401E+00	1.383E+00	1.383E+00	15.61
RA-224	240.99	410	4.10*	6.664E+00	3.953E+00	3.953E+00	28.41
RA-226	609.32	597	45.49*	3.810E+00	9.074E-01	9.075E-01	20.60
	1120.29	133	14.92	2.345E+00	1.004E+00	1.004E+00	49.78
	1764.49	124	15.30	1.716E+00	1.249E+00	1.249E+00	26.23
AC-228	338.32	357	11.27	5.525E+00	1.510E+00	1.510E+00	48.45
	911.20	412	25.80*	2.788E+00	1.508E+00	1.508E+00	22.17
	968.97	218	15.80	2.648E+00	1.370E+00	1.370E+00	40.93
RA-228	338.32	357	11.27	5.525E+00	1.510E+00	1.510E+00	48.45
	911.20	412	25.80*	2.788E+00	1.508E+00	1.508E+00	22.17
	968.97	218	15.80	2.648E+00	1.370E+00	1.370E+00	40.93

Sample ID : G249244006 Acquisition date : 24-MAR-2010 11:06:17

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	538	10.28	6.156E+00	2.241E+00	2.241E+00	19.16
	77.11	764	17.10	6.455E+00	1.824E+00	1.824E+00	15.50
	238.63	1746	43.60*	6.709E+00	1.573E+00	1.573E+00	14.50
	300.09	128	3.30	5.916E+00	1.725E+00	1.725E+00	84.82
TH-230	609.32	597	45.49*	3.810E+00	9.074E-01	9.074E-01	19.91
	1120.29	133	14.92	2.345E+00	1.004E+00	1.004E+00	49.33
	1764.49	124	15.30	1.716E+00	1.249E+00	1.249E+00	26.23
TH-232	338.32	357	11.27	5.525E+00	1.510E+00	1.510E+00	26.11
	911.20	412	25.80*	2.788E+00	1.508E+00	1.508E+00	22.17
	968.97	218	15.80	2.648E+00	1.370E+00	1.370E+00	40.93
TH-234	63.29	89	3.70*	4.306E+00	1.475E+00	1.475E+00	99.93
	92.59	302	4.23	7.862E+00	2.389E+00	2.389E+00	40.96
U-235	89.96	172	3.47	7.682E+00	1.698E+00	1.698E+00	43.80
	93.35	302	5.60	7.862E+00	1.805E+00	1.805E+00	41.52
	143.76	------	10.96*	8.364E+00	------ Line Not Found		------
	163.33	------	5.08	8.031E+00	------ Line Not Found		------
	185.72	310	57.20	7.601E+00	1.879E-01	1.879E-01	38.25
	205.31	------	5.01	7.253E+00	------ Line Not Found		------
NP-237	86.48	239	12.40*	7.467E+00	6.812E-01	6.812E-01	42.22
	95.86	------	2.68	8.032E+00	------ Line Not Found		------
U-238	63.29	89	3.70*	4.306E+00	1.475E+00	1.475E+00	99.93
	92.59	302	4.23	7.862E+00	2.389E+00	2.389E+00	35.56
ANH-511	511.00	160	100.00*	4.295E+00	9.799E-02	9.799E-02	55.93

Flag: "*" = Keyline

Sample ID : G249244006 Acquisition date : 24-MAR-2010 11:06:17

Total number of lines in spectrum 32
Number of unidentified lines 3
Number of lines tentatively identified by NID 29 90.63%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	2.929E+01	2.929E+01	0.301E+01	10.28	
CD-109	461.40D	1.02	2.283E+00	2.332E+00	0.854E+00	36.65	
SN-126	2.30E+05Y	1.00	2.283E-01	2.283E-01	0.837E-01	36.65	
TL-208	1.41E+10Y	1.00	5.127E-01	5.127E-01	0.806E-01	15.72	
BI-211	7.04E+08Y	1.00	3.811E+00	3.811E+00	0.556E+00	14.60	
PB-212	1.41E+10Y	1.00	1.573E+00	1.573E+00	0.228E+00	14.50	
BI-214	1600.00Y	1.00	9.074E-01	9.075E-01	1.869E-01	20.60	
PB-214	1600.00Y	1.00	1.383E+00	1.383E+00	0.216E+00	15.61	
RA-224	1.41E+10Y	1.00	3.953E+00	3.953E+00	1.123E+00	28.41	
RA-226	1600.00Y	1.00	9.074E-01	9.075E-01	1.869E-01	20.60	
AC-228	1.41E+10Y	1.00	1.508E+00	1.508E+00	0.334E+00	22.17	
RA-228	1.41E+10Y	1.00	1.508E+00	1.508E+00	0.334E+00	22.17	
TH-228	1.41E+10Y	1.00	1.573E+00	1.573E+00	0.228E+00	14.50	
TH-230	7.54E+04Y	1.00	9.074E-01	9.074E-01	1.807E-01	19.91	
TH-232	1.41E+10Y	1.00	1.508E+00	1.508E+00	0.334E+00	22.17	
TH-234	4.47E+09Y	1.00	1.475E+00	1.475E+00	1.474E+00	99.93	
U-235	7.04E+08Y	1.00	1.879E-01	1.879E-01	0.719E-01	38.25	K
NP-237	2.14E+06Y	1.00	6.812E-01	6.812E-01	2.876E-01	42.22	
U-238	4.47E+09Y	1.00	1.475E+00	1.475E+00	1.474E+00	99.93	
ANH-511	1.00E+09Y	1.00	9.799E-02	9.799E-02	5.480E-02	55.93	
			---	---			
	Total Activity :		5.577E+01	5.582E+01			

Grand Total Activity : 5.577E+01 5.582E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249244006 Acquisition date : 24-MAR-2010 11:06:17

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.99	184	584	1.36	419.95	413	13	2.55E-02	56.3	7.17E+00	T
0	270.26	172	312	1.57	540.38	536	10	2.39E-02	41.4	6.27E+00	T
0	327.92	157	345	1.50	655.60	648	15	2.18E-02	54.1	5.63E+00	T
0	463.08	100	149	1.27	925.72	922	10	1.39E-02	49.5	4.58E+00	T
0	727.30	136	170	1.58	1453.86	1446	17	1.88E-02	48.7	3.34E+00	T
0	768.48	75	107	0.75	1536.19	1530	11	1.04E-02	58.2	3.20E+00	
0	795.08	119	81	2.31	1589.35	1581	17	1.66E-02	39.0	3.12E+00	T
0	1588.49	50	50	1.54	3176.06	3166	20	6.94E-03	74.9	1.81E+00	
0	1730.55	86	0	2.37	3460.27	3449	24	1.19E-02	21.6	1.73E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:07:55.04

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249244006.CNF;1  *
* Acquisition date : 24-MAR-2010 11:06:17  Detector SN#    :                *
* Detector ID      : GAM22                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:02.24         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 10-MAR-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G249244006            Analyst initials: MXR1           *
* Batch Number     : 964804                Sample Quantity : 1.42480E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.929E+01	3.010E+00	4.808E-01	4.405E-02	60.910
CD-109	2.332E+00	8.544E-01	8.583E-01	8.145E-02	2.717
SN-126	2.283E-01	8.366E-02	1.108E-01	1.046E-02	2.061
TL-208	5.127E-01	8.062E-02	4.310E-02	4.669E-03	11.895
BI-211	3.811E+00	5.565E-01	2.744E-01	3.202E-02	13.887
PB-212	1.573E+00	2.280E-01	7.748E-02	1.026E-02	20.298
BI-214	9.075E-01	1.869E-01	9.769E-02	1.140E-02	9.289
PB-214	1.383E+00	2.159E-01	9.558E-02	1.230E-02	14.469
RA-224	3.953E+00	1.123E+00	8.296E-01	1.039E-01	4.765
RA-226	9.075E-01	1.869E-01	9.769E-02	1.140E-02	9.289
AC-228	1.508E+00	3.345E-01	1.967E-01	2.664E-02	7.668
RA-228	1.508E+00	3.345E-01	1.967E-01	2.664E-02	7.668
TH-228	1.573E+00	2.280E-01	7.748E-02	1.026E-02	20.298
TH-230	9.074E-01	1.807E-01	9.769E-02	1.017E-02	9.289
TH-232	1.508E+00	3.345E-01	1.967E-01	2.664E-02	7.668
TH-234	1.475E+00	1.474E+00	1.612E+00	2.868E-01	0.915
U-235	1.879E-01	7.187E-02	2.956E-01	5.053E-02	0.636
NP-237	6.812E-01	2.876E-01	3.306E-01	7.585E-02	2.061

Sample ID : G249244006 Acquisition date : 24-MAR-2010 11:06:17

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-238	1.475E+00	1.474E+00	1.612E+00	2.868E-01	0.915
ANH-511	9.799E-02	5.480E-02	3.595E-02	3.602E-03	2.726

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.023E-01		2.534E-01	4.183E-01	4.365E-02	0.245
NA-22	8.263E-03		3.503E-02	5.892E-02	5.078E-03	0.140
NA-24	-1.907E-01		8.694E-02	Half-Life too short		
SC-46	-5.469E-04		3.040E-02	5.037E-02	5.638E-03	-0.011
V-48	4.027E-02		5.153E-02	8.900E-02	9.334E-03	0.452
CR-51	1.437E-01		3.106E-01	4.844E-01	6.270E-02	0.297
MN-54	1.492E-02		2.949E-02	5.055E-02	5.615E-03	0.295
CO-56	-1.552E-03		3.102E-02	5.153E-02	5.737E-03	-0.030
CO-57	-5.099E-03		2.202E-02	3.459E-02	2.853E-03	-0.147
CO-58	7.317E-03		2.995E-02	5.084E-02	5.629E-03	0.144
FE-59	-4.902E-03		7.486E-02	1.211E-01	1.186E-02	-0.040
CO-60	7.827E-03		2.896E-02	4.884E-02	4.355E-03	0.160
ZN-65	8.535E-02		8.926E-02	1.333E-01	1.189E-02	0.640
SE-75	7.306E-03		4.254E-02	6.029E-02	8.115E-03	0.121
SR-85	1.236E-01		4.004E-02	6.367E-02	6.389E-03	1.941
Y-88	1.173E-02		2.413E-02	4.227E-02	3.417E-03	0.278
Y-91	1.131E+00		1.670E+01	2.791E+01	2.295E+00	0.041
NB-94	2.208E-04		2.794E-02	4.564E-02	4.890E-03	0.005
NB-95	8.959E-02		3.888E-02	6.252E-02	6.837E-03	1.433
NB-95M	1.268E-01		1.223E-01	1.808E-01	2.393E-02	0.701
ZR-95	1.330E-02		5.661E-02	9.311E-02	1.083E-02	0.143
MO-99	5.166E+00		7.544E+00	1.269E+01	2.167E+00	0.407
TC-99M	-9.512E+08		6.751E+08	Half-Life too short		
RU-103	1.086E-02		3.237E-02	5.302E-02	7.861E-03	0.205
RH-106	-6.083E-02		2.527E-01	4.113E-01	5.968E-02	-0.148
RU-106	-6.083E-02		2.526E-01	4.113E-01	4.296E-02	-0.148
AG-108M	-9.989E-03		2.440E-02	3.888E-02	3.826E-03	-0.257
AG-110M	-2.143E-02		2.950E-02	4.633E-02	4.980E-03	-0.463
SN-113	6.490E-03		3.750E-02	6.217E-02	5.937E-03	0.104
CD-115	-2.873E-02		6.454E+00	1.081E+01	1.092E+00	-0.003
SN-117M	2.972E-02		4.437E-02	7.567E-02	7.176E-03	0.393
TE-123M	1.219E-02		2.402E-02	4.079E-02	3.896E-03	0.299
SB-124	-3.143E-02		5.881E-02	9.065E-02	8.083E-03	-0.347
SB-125	-1.536E-02		7.340E-02	1.185E-01	1.149E-02	-0.130
TE-125M	-3.525E+00		8.690E+00	1.345E+01	1.383E+00	-0.262
I-126	-2.350E-01		1.731E-01	2.586E-01	2.732E-02	-0.909
SB-126	-1.077E-01		1.256E-01	1.599E-01	1.724E-02	-0.674
SB-127	1.792E-01		8.606E-01	1.425E+00	1.808E-01	0.126
I-131	-4.102E-02		8.680E-02	1.403E-01	1.554E-02	-0.292
TE-132	-8.177E-02		5.049E-01	8.163E-01	1.446E-01	-0.100
BA-133	-2.069E-02		3.843E-02	5.311E-02	7.820E-03	-0.390

Sample ID : G249244006 Acquisition date : 24-MAR-2010 11:06:17

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	6.459E-04		9.496E-04	Half-Life too short		
CS-134	1.330E-01	+	5.395E-02	6.697E-02	7.413E-03	1.987
CS-135	2.791E-01		1.600E-01	2.389E-01	3.455E-02	1.168
I-135	-2.433E+08		1.341E+08	Half-Life too short		
CS-136	-1.898E-02		7.893E-02	1.265E-01	1.279E-02	-0.150
BA-137M	3.526E-02		3.016E-02	5.223E-02	5.507E-03	0.675
CS-137	3.725E-02		3.187E-02	5.517E-02	5.826E-03	0.675
CE-139	-7.199E-03		2.530E-02	4.179E-02	4.098E-03	-0.172
BA-140	-1.371E-01		1.981E-01	3.093E-01	1.062E-01	-0.443
LA-140	1.724E-02		6.641E-02	9.491E-02	8.320E-03	0.182
CE-141	6.050E-02		5.207E-02	9.025E-02	8.216E-03	0.670
CE-143	4.130E-04		6.511E-05	Half-Life too short		
CE-144	-1.687E-01		1.613E-01	2.602E-01	3.966E-02	-0.648
PM-144	1.948E-02		2.894E-02	4.891E-02	5.231E-03	0.398
PR-144	1.466E+00		2.165E+00	3.660E+00	3.913E-01	0.401
PM-146	8.883E-03		3.498E-02	5.752E-02	6.614E-03	0.154
ND-147	2.063E-01		4.086E-01	7.002E-01	1.110E-01	0.295
PM-149	8.530E+00		5.669E+01	9.107E+01	1.723E+01	0.094
EU-152	3.392E-02		9.883E-02	1.378E-01	1.656E-02	0.246
GD-153	-8.199E-02		7.996E-02	1.086E-01	9.548E-03	-0.755
EU-154	2.629E-02		9.954E-02	1.677E-01	1.907E-02	0.157
EU-155	1.898E-05		9.119E-02	1.461E-01	1.254E-02	0.000
TB-160	5.429E-02		1.178E-01	1.902E-01	2.127E-02	0.285
HO-166M	2.432E-02		5.130E-02	8.580E-02	9.224E-03	0.283
TA-182	1.017E-01		1.616E-01	2.778E-01	2.310E-02	0.366
IR-192	-1.909E-02		2.767E-02	4.477E-02	5.722E-03	-0.426
HG-203	5.631E-02		3.963E-02	5.861E-02	8.287E-03	0.961
BI-207	8.119E-02		4.455E-02	8.000E-02	7.680E-03	1.015
PB-210	-6.804E-01		2.471E+00	4.015E+00	3.698E-01	-0.169
PB-211	-4.919E-01		6.566E-01	9.652E-01	4.685E-01	-0.510
BI-212	1.602E+00	+	8.124E-01	9.244E-01	1.300E-01	1.733
RN-219	1.734E-01		3.293E-01	5.525E-01	8.466E-02	0.314
RA-223	5.837E-02		5.818E-01	8.509E-01	1.663E-01	0.069
AC-227	-1.588E-01		2.210E-01	3.430E-01	5.343E-02	-0.463
TH-227	-1.588E-01		2.213E-01	3.430E-01	5.766E-02	-0.463
TH-229	-1.335E-01		4.676E-01	7.362E-01	7.912E-02	-0.181
PA-231	-1.617E+00		1.447E+00	1.956E+00	3.558E-01	-0.827
TH-231	5.837E-02		5.818E-01	8.509E-01	1.663E-01	0.069
PA-233	3.182E-02		5.327E-02	9.120E-02	1.195E-02	0.349
PA-234	-2.397E-02		2.552E-01	4.182E-01	8.312E-02	-0.057
PA-234M	9.803E-01		4.000E+00	6.546E+00	7.501E-01	0.150
NP-239	-2.053E-01		3.466E-01	5.377E-01	4.443E-02	-0.382
AM-241	3.951E-02		1.228E-01	1.857E-01	1.452E-02	0.213
CM-247	1.088E-02		3.026E-02	5.049E-02	4.736E-03	0.216
CF-249	-8.809E-03		3.334E-02	5.418E-02	5.144E-03	-0.163
CF-251	-5.348E-03		1.093E-01	1.811E-01	1.845E-02	-0.030

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249244006            *
* Acquisition date : 24-MAR-2010 11:06:17 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.24     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 10-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249244006           Analyst initials: MXR1            *
* Batch Number     : 964804               Sample Quantity : 1.4248E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.929E+01	2.950E+00	2.416E-01	1.505E+00
CD-109	2.332E+00	8.373E-01	4.577E-01	4.272E-01
SN-126	2.283E-01	8.199E-02	5.910E-02	4.183E-02
TL-208	5.127E-01	7.901E-02	2.210E-02	4.031E-02
BI-211	3.811E+00	5.454E-01	1.423E-01	2.782E-01
PB-212	1.573E+00	2.234E-01	4.049E-02	1.140E-01
BI-214	9.075E-01	1.832E-01	5.005E-02	9.345E-02
PB-214	1.383E+00	2.116E-01	4.955E-02	1.079E-01
RA-224	3.953E+00	1.100E+00	4.335E-01	5.614E-01
RA-226	9.075E-01	1.832E-01	5.005E-02	9.345E-02
AC-228	1.508E+00	3.278E-01	9.990E-02	1.672E-01
RA-228	1.508E+00	3.278E-01	9.990E-02	1.672E-01
TH-228	1.573E+00	2.234E-01	4.049E-02	1.140E-01
TH-230	9.074E-01	1.770E-01	5.005E-02	9.033E-02
TH-232	1.508E+00	3.278E-01	9.990E-02	1.672E-01
TH-234	1.475E+00	1.445E+00	8.652E-01	7.371E-01
U-235	1.202E-01	1.729E-01	1.561E-01	8.821E-02
NP-237	6.812E-01	2.819E-01	1.764E-01	1.438E-01
U-238	1.475E+00	1.445E+00	8.652E-01	7.371E-01
ANH-511	9.799E-02	5.371E-02	1.849E-02	2.740E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.023E-01	2.483E-01	2.155E-01	1.267E-01	NOT IDENT.
NA-22	8.263E-03	3.433E-02	2.970E-02	1.752E-02	NOT IDENT.
NA-24	-1.907E+05	1.704E+05	0.000E+00	8.694E+04	SHORT HLIF
SC-46	-5.469E-04	2.979E-02	2.559E-02	1.520E-02	FAIL ABUN
V-48	4.027E-02	5.049E-02	4.513E-02	2.576E-02	NOT IDENT.
CR-51	1.437E-01	3.043E-01	2.516E-01	1.553E-01	NOT IDENT.
MN-54	1.492E-02	2.890E-02	2.572E-02	1.474E-02	NOT IDENT.

CO-56	-1.552E-03	3.040E-02	2.621E-02	1.551E-02	NOT IDENT.
CO-57	-5.099E-03	2.158E-02	1.833E-02	1.101E-02	NOT IDENT.
CO-58	7.317E-03	2.935E-02	2.589E-02	1.497E-02	NOT IDENT.
FE-59	-4.902E-03	7.336E-02	6.122E-02	3.743E-02	NOT IDENT.
CO-60	7.827E-03	2.838E-02	2.460E-02	1.448E-02	NOT IDENT.
ZN-65	8.535E-02	8.747E-02	6.741E-02	4.463E-02	NOT IDENT.
SE-75	7.306E-03	4.169E-02	3.144E-02	2.127E-02	NOT IDENT.
SR-85	1.236E-01	3.924E-02	3.274E-02	2.002E-02	NOT IDENT.
Y-88	1.173E-02	2.365E-02	2.113E-02	1.207E-02	NOT IDENT.
Y-91	1.131E+00	1.637E+01	1.409E+01	8.352E+00	NOT IDENT.
NB-94	2.208E-04	2.738E-02	2.331E-02	1.397E-02	NOT IDENT.
NB-95	8.959E-02	3.810E-02	3.187E-02	1.944E-02	NOT IDENT.
NB-95M	1.268E-01	1.198E-01	9.453E-02	6.115E-02	NOT IDENT.
ZR-95	1.330E-02	5.548E-02	4.748E-02	2.830E-02	NOT IDENT.
MO-99	5.166E+00	7.393E+00	6.473E+00	3.772E+00	NOT IDENT.
TC-99M	-9.512E+14	1.323E+15	0.000E+00	6.751E+14	SHORT HLIF
RU-103	1.086E-02	3.172E-02	2.729E-02	1.618E-02	FAIL ABUN
RH-106	-6.083E-02	2.477E-01	2.106E-01	1.264E-01	NOT IDENT.
RU-106	-6.083E-02	2.476E-01	2.106E-01	1.263E-01	NOT IDENT.
AG-108M	-9.989E-03	2.391E-02	2.006E-02	1.220E-02	NOT IDENT.
AG-110M	-2.143E-02	2.891E-02	2.370E-02	1.475E-02	NOT IDENT.
SN-113	6.490E-03	3.675E-02	3.215E-02	1.875E-02	NOT IDENT.
CD-115	-2.873E-02	6.325E+00	5.557E+00	3.227E+00	NOT IDENT.
SN-117M	2.972E-02	4.348E-02	3.988E-02	2.219E-02	NOT IDENT.
TE-123M	1.219E-02	2.354E-02	2.150E-02	1.201E-02	NOT IDENT.
SB-124	-3.143E-02	5.763E-02	4.541E-02	2.940E-02	NOT IDENT.
SB-125	-1.536E-02	7.194E-02	6.115E-02	3.670E-02	FAIL ABUN
TE-125M	-3.525E+00	8.516E+00	7.143E+00	4.345E+00	NOT IDENT.
I-126	-2.350E-01	1.696E-01	1.322E-01	8.655E-02	NOT IDENT.
SB-126	-1.077E-01	1.231E-01	8.161E-02	6.282E-02	NOT IDENT.
SB-127	1.792E-01	8.434E-01	7.283E-01	4.303E-01	NOT IDENT.
I-131	-4.102E-02	8.506E-02	7.268E-02	4.340E-02	NOT IDENT.
TE-132	-8.177E-02	4.948E-01	4.270E-01	2.525E-01	NOT IDENT.
BA-133	-2.069E-02	3.766E-02	2.753E-02	1.921E-02	FAIL ABUN
I-133	6.459E+02	1.861E+03	0.000E+00	9.496E+02	SHORT HLIF
CS-134	1.330E-01	5.287E-02	3.411E-02	2.697E-02	FAIL ABUN
CS-135	2.791E-01	1.568E-01	1.245E-01	7.999E-02	NOT IDENT.
I-135	-2.433E+14	2.629E+14	0.000E+00	1.341E+14	SHORT HLIF
CS-136	-1.898E-02	7.735E-02	6.406E-02	3.947E-02	NOT IDENT.
BA-137M	3.526E-02	2.956E-02	2.671E-02	1.508E-02	NOT IDENT.
CS-137	3.725E-02	3.123E-02	2.822E-02	1.593E-02	NOT IDENT.
CE-139	-7.199E-03	2.480E-02	2.200E-02	1.265E-02	NOT IDENT.
BA-140	-1.371E-01	1.941E-01	1.589E-01	9.903E-02	NOT IDENT.
LA-140	1.724E-02	6.508E-02	4.761E-02	3.321E-02	FAIL ABUN
CE-141	6.050E-02	5.103E-02	4.765E-02	2.603E-02	NOT IDENT.
CE-143	4.130E+02	1.276E+02	0.000E+00	6.511E+01	SHORT HLIF
CE-144	-1.687E-01	1.581E-01	1.376E-01	8.064E-02	NOT IDENT.
PM-144	1.948E-02	2.836E-02	2.499E-02	1.447E-02	NOT IDENT.
PR-144	1.466E+00	2.122E+00	1.870E+00	1.083E+00	NOT IDENT.
PM-146	8.883E-03	3.428E-02	2.965E-02	1.749E-02	NOT IDENT.
ND-147	2.063E-01	4.004E-01	3.598E-01	2.043E-01	FAIL ABUN
PM-149	8.530E+00	5.556E+01	4.742E+01	2.834E+01	NOT IDENT.
EU-152	3.392E-02	9.685E-02	7.147E-02	4.941E-02	NOT IDENT.
GD-153	-8.199E-02	7.836E-02	5.779E-02	3.998E-02	NOT IDENT.
EU-154	2.629E-02	9.755E-02	8.454E-02	4.977E-02	NOT IDENT.
EU-155	1.898E-05	8.937E-02	7.766E-02	4.560E-02	FAIL ABUN
TB-160	5.429E-02	1.154E-01	9.666E-02	5.890E-02	FAIL ABUN
HO-166M	2.432E-02	5.028E-02	4.381E-02	2.565E-02	NOT IDENT.
TA-182	1.017E-01	1.584E-01	1.402E-01	8.081E-02	FAIL ABUN
IR-192	-1.909E-02	2.712E-02	2.326E-02	1.383E-02	FAIL ABUN
HG-203	5.631E-02	3.884E-02	3.053E-02	1.982E-02	NOT IDENT.
BI-207	8.119E-02	4.366E-02	4.049E-02	2.228E-02	FAIL ABUN
PB-210	-6.804E-01	2.422E+00	2.168E+00	1.236E+00	NOT IDENT.
PB-211	-4.919E-01	6.435E-01	4.988E-01	3.283E-01	NOT IDENT.
BI-212	1.602E+00	7.962E-01	4.718E-01	4.062E-01	FAIL ABUN
RN-219	1.734E-01	3.227E-01	2.856E-01	1.647E-01	FAIL ABUN
RA-223	5.837E-02	5.702E-01	4.419E-01	2.909E-01	FAIL ABUN
AC-227	-1.588E-01	2.166E-01	1.790E-01	1.105E-01	FAIL ABUN
TH-227	-1.588E-01	2.168E-01	1.790E-01	1.106E-01	FAIL ABUN
TH-229	-1.335E-01	4.582E-01	3.864E-01	2.338E-01	FAIL ABUN
PA-231	-1.617E+00	1.418E+00	1.019E+00	7.236E-01	FAIL ABUN
TH-231	5.837E-02	5.702E-01	4.419E-01	2.909E-01	FAIL ABUN
PA-233	3.182E-02	5.220E-02	4.740E-02	2.663E-02	FAIL ABUN
PA-234	-2.397E-02	2.501E-01	2.122E-01	1.276E-01	NOT IDENT.
PA-234M	9.803E-01	3.920E+00	3.317E+00	2.000E+00	NOT IDENT.
NP-239	-2.053E-01	3.396E-01	2.851E-01	1.733E-01	FAIL ABUN
AM-241	3.951E-02	1.203E-01	9.981E-02	6.140E-02	NOT IDENT.
CM-247	1.088E-02	2.965E-02	2.610E-02	1.513E-02	FAIL ABUN

CF-249	-8.809E-03	3.267E-02	2.803E-02	1.667E-02	NOT IDENT.
CF-251	-5.348E-03	1.071E-01	9.521E-02	5.466E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	312.5576
49.72	341.9584
57.36	0.0000
59.54	372.7403
63.29	445.1237
63.29	445.1237
64.28	474.5320
67.75	522.9272
69.67	509.2583
70.83	527.7817
72.81	507.8222
72.87	507.9277
72.87	507.9277
74.82	511.2914
74.82	511.2914
74.82	511.2914
74.97	511.5488
77.11	515.1854
77.11	515.1854
77.11	515.1854
79.69	519.5065
79.80	519.6893
80.12	520.2194
80.19	520.3353
80.57	520.9632
81.00	522.7045
81.07	522.8206
81.07	522.8206
83.79	443.0328
83.79	443.0328
85.43	492.2924
86.48	616.5315
86.55	616.6601
86.79	621.8254
86.94	622.1087
87.57	631.1676
88.03	366.5781
88.47	367.0560
89.96	645.1622
91.11	400.1902
92.59	401.8926
92.59	401.8926
93.35	402.7620
94.67	391.3803
94.87	391.5991
94.87	391.5991
95.86	441.1610
97.43	470.6681
98.44	409.0399
99.53	415.6908
100.11	418.5195
103.18	443.9217
103.37	455.1372
105.31	439.7620
106.12	447.3245
109.28	466.5549
111.00	441.6588
111.76	446.9828
116.30	422.4185
117.23	424.4932
121.12	383.5968
121.78	391.0844
122.06	412.0547
123.07	439.5468
131.20	444.0723
133.52	432.1379
136.00	419.2939

136.47	417.0374
140.51	478.9810
140.51	0.0000
143.76	431.5134
144.24	405.6719
144.24	405.6719
145.44	415.7334
152.43	427.9375
153.25	446.1284
154.21	433.1001
154.21	433.1001
156.02	424.4062
158.56	411.5491
159.00	408.1588
162.66	411.8740
163.33	414.2585
165.86	428.4376
176.60	383.7337
177.52	396.8618
181.07	392.2828
184.41	402.2778
185.72	391.6291
193.51	408.0577
197.04	434.6462
205.31	398.1337
210.85	378.7132
215.65	401.0499
222.11	416.1718
227.38	391.1924
228.16	385.3706
228.18	385.3819
235.69	382.2340
235.96	389.1132
235.96	389.1132
238.63	342.3392
238.63	342.3392
240.99	343.4244
242.00	343.8866
244.70	320.4078
252.40	288.3466
252.80	282.0350
256.23	331.9271
256.23	331.9271
260.90	286.0350
264.66	277.9783
268.22	279.1972
269.46	295.4478
269.46	295.4478
271.23	317.2324
273.65	300.4841
276.40	301.4761
277.37	316.0282
277.60	309.6732
278.00	309.8221
279.20	293.5840
279.54	293.7008
280.46	290.4552
283.69	338.3617
284.31	342.6553
285.41	310.2894
285.90	294.7754
287.50	294.1983
293.27	0.0000
295.22	294.5352
295.96	222.2197
298.57	222.8716
299.98	223.2216
299.98	223.2216
300.09	223.2515
300.09	223.2515
300.13	270.3426
301.36	270.7119
302.85	260.4939
304.50	264.0228
304.50	264.0228
304.85	247.3308
308.46	254.4408
311.90	248.3127

316.51	261.6004
319.41	233.6664
320.08	226.1429
323.87	241.5158
323.87	241.5158
328.76	253.7084
333.37	221.8673
334.37	222.0911
334.37	222.0911
338.28	266.6173
338.28	266.6173
338.32	266.6310
338.32	266.6310
338.32	266.6310
340.48	263.0866
340.55	271.0318
344.28	248.1775
351.06	245.0359
351.93	225.0479
356.01	233.3417
364.49	237.5098
366.42	246.7213
383.85	195.2277
388.16	232.7974
388.63	231.8993
391.69	228.5415
400.66	225.3262
401.81	199.3728
402.40	204.5116
404.85	254.4179
410.95	185.7276
414.70	248.4290
423.72	188.7640
427.09	199.5818
427.87	196.6214
433.94	203.8104
453.88	188.1663
463.37	177.9114
468.07	180.6810
473.00	150.4218
476.78	174.3893
477.60	162.7209
487.02	159.5553
492.35	177.4992
497.08	168.3373
511.00	159.0575
514.00	172.2195
527.90	171.1227
529.87	0.0000
531.02	150.1710
537.26	167.5671
546.56	0.0000
563.25	156.2820
569.33	174.9669
569.50	170.2306
569.70	165.4968
583.19	138.1494
600.60	145.4773
602.73	164.8112
604.72	211.6859
609.32	191.1072
609.32	191.1072
609.32	191.1072
610.33	191.2268
614.28	174.3610
618.01	145.5573
621.93	157.1973
621.93	157.1973
633.25	140.4515
635.95	140.6768
636.99	128.8654
645.85	138.4995
657.76	179.5790
661.66	145.7935
661.66	145.7935
664.57	0.0000
666.33	186.5018
666.50	186.5206

677.62	137.9728
685.70	137.5681
695.00	162.8495
696.49	153.7567
696.51	153.7598
697.00	159.9514
702.65	162.4971
706.68	157.6941
711.68	148.8135
720.70	142.4051
721.93	0.0000
722.78	126.5232
722.91	126.5307
723.31	121.2104
724.19	123.0482
727.33	126.0786
733.00	145.1118
735.93	138.1553
739.50	123.7305
747.24	124.2203
752.31	117.1539
753.82	128.8605
756.73	124.8204
763.94	129.2150
765.81	103.8334
766.42	134.8399
777.92	135.7617
778.90	136.8984
783.70	103.9861
785.37	112.0104
795.86	91.6614
801.95	122.3666
810.29	121.9238
810.76	114.5039
815.77	116.6404
818.51	124.2654
832.01	138.2124
834.85	127.0969
836.80	0.0000
846.77	122.1140
856.80	109.8342
860.56	96.6838
871.09	107.1895
873.19	127.4058
875.33	0.0000
879.36	102.7793
880.51	97.0653
883.24	126.0473
884.68	122.2760
889.28	109.0155
898.04	125.8944
911.20	133.4259
911.20	133.4259
911.20	133.4259
926.50	134.2955
937.49	121.1275
944.13	124.4246
946.00	125.5095
949.00	113.7907
962.29	141.0257
964.08	141.1271
966.15	139.5020
968.97	199.0164
968.97	199.0164
968.97	199.0164
983.53	85.2920
996.26	119.0042
1001.03	107.1036
1004.73	101.1876
1037.84	92.2412
1038.76	0.0000
1048.07	102.8878
1050.41	96.7998
1050.41	96.7998
1063.66	85.8948
1085.87	125.2065
1099.45	116.3889
1112.07	119.8160

1115.54	118.1172
1120.29	116.2036
1120.29	116.2036
1120.29	116.2036
1120.55	116.2151
1121.30	88.7695
1131.51	0.0000
1173.23	128.0479
1177.93	118.8248
1189.05	115.4845
1204.77	120.8531
1221.41	130.1313
1231.02	180.4497
1235.36	161.4836
1238.28	148.1677
1260.41	0.0000
1271.85	102.1161
1274.44	94.4128
1274.54	94.4157
1291.59	99.8179
1298.22	0.0000
1312.11	77.8018
1332.49	59.4598
1365.19	61.0484
1368.63	0.0000
1384.29	91.5860
1408.01	62.8325
1457.56	0.0000
1460.82	63.7823
1489.16	39.3997
1505.03	45.8195
1596.21	27.3102
1620.50	44.8466
1678.03	0.0000
1690.97	35.9301
1764.49	23.7207
1764.49	23.7207
1764.49	23.7207
1770.23	23.1588
1771.35	23.1651
1791.20	0.0000
1836.06	21.1020

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249244006

Total Uranium Activity	4.4443E+00	ug/g
Total Uranium Counting Unc.	4.2985E+00	ug/g
Total Uranium Tpu	2.1931E-06	ug/g
Total Uranium Mda	2.5750E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 964804                    SAMPLE ID  : G249244006         *
*   ANALYST       : MXR1                      DETECTOR   : GAM22              *
*   SAMPLE DATE   : 10-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 24-MAR-2010 11:06:17.88    SAMPLE ALQT:  142.480 GRAM      *
*                                                                             *
*******************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.681E+00
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.135E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 2.298E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 1.120E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 14:29:21.13

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202069894.CNF;1
Sample date       : 15-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 12:28:13
Sample ID         : G1202069894          Sample quantity  : 1.56210E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:31.51  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 964804                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
No peaks were found
```

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 14:29:24

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202069894.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 15-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 12:28:13
Sample ID : G1202069894 Sample quantity : 156.21 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA20 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:31.51 0.4%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.104E-01	1.384E-01	2.454E-01	2.385E-02	0.450
NA-22		1274.54	*	-2.710E-03	1.198E-02	1.789E-02	1.482E-03	-0.151
NA-24		1368.63	*	-2.406E-04	1.198E-02	Half-Life too short		
K-40		1460.82	*	2.721E-01	1.576E-01	3.449E-01	3.008E-02	0.789
SC-46		889.28	*	-4.464E-03	1.494E-02	2.331E-02	2.324E-03	-0.191
		1120.55		4.833E-03	1.570E-02	2.722E-02	2.328E-03	0.178
V-48		944.13		-1.414E-01	2.631E-01	3.846E-01	3.752E-02	-0.368
		983.53	*	8.990E-03	1.983E-02	3.552E-02	3.395E-03	0.253
		1312.11		4.599E-03	2.130E-02	3.625E-02	3.024E-03	0.127
CR-51		320.08	*	2.252E-02	1.335E-01	2.251E-01	2.255E-02	0.100
MN-54		834.85	*	9.444E-03	1.354E-02	2.500E-02	2.525E-03	0.378
CO-56		846.77	*	3.798E-03	1.342E-02	2.340E-02	2.359E-03	0.162
		1037.84		-4.102E-02	1.204E-01	1.838E-01	1.771E-02	-0.223
		1238.28		-3.866E-03	2.496E-02	3.881E-02	3.284E-03	-0.100
		1771.35		-4.729E-03	1.049E-01	1.705E-01	1.398E-02	-0.028
CO-57		122.06	*	-4.172E-03	9.690E-03	1.496E-02	1.248E-03	-0.279
		136.47		-2.569E-02	6.803E-02	1.044E-01	9.438E-03	-0.246
CO-58		810.76	*	5.609E-03	1.593E-02	2.787E-02	2.830E-03	0.201
FE-59		1099.45	*	3.126E-03	3.072E-02	5.110E-02	4.819E-03	0.061
		1291.59		9.659E-03	3.420E-02	5.948E-02	5.656E-03	0.162
CO-60		1173.23		9.108E-04	1.447E-02	2.380E-02	1.914E-03	0.038
		1332.49	*	-7.170E-03	1.560E-02	2.194E-02	1.838E-03	-0.327
ZN-65		1115.54	*	1.121E-02	2.979E-02	5.228E-02	4.500E-03	0.214
SE-75		121.12		2.039E-02	4.896E-02	8.148E-02	8.861E-03	0.250
		136.00		-8.353E-03	1.318E-02	1.965E-02	1.660E-03	-0.425
		264.66	*	-1.740E-02	1.688E-02	2.505E-02	2.481E-03	-0.695
		279.54		4.483E-02	4.098E-02	7.505E-02	7.685E-03	0.597
		400.66		3.387E-04	9.296E-02	1.524E-01	1.668E-02	0.002
SR-85		514.00	*	-4.015E-02	2.708E-02	3.820E-02	3.567E-03	-1.051
Y-88		898.04		1.764E-02	1.689E-02	3.229E-02	3.222E-03	0.546
		1836.06	*	4.949E-03	1.365E-02	2.512E-02	2.027E-03	0.197
Y-91		1204.77	*	-2.472E+00	6.431E+00	9.419E+00	7.648E-01	-0.262
NB-94		702.65	*	3.915E-03	1.494E-02	2.587E-02	2.618E-03	0.151
		871.09		2.494E-03	1.467E-02	2.493E-02	2.499E-03	0.100

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	8.251E-03	1.561E-02	2.799E-02	2.844E-03	0.295
NB-95M		235.69	*	-5.517E-02	4.637E-02	6.943E-02	7.472E-03	-0.795
ZR-95		724.19		-7.643E-03	3.302E-02	5.330E-02	5.739E-03	-0.143
		756.73	*	-2.101E-02	2.432E-02	3.374E-02	3.690E-03	-0.623
MO-99		140.51		-1.495E+00	2.161E+00	2.988E+00	7.073E-01	-0.500
		181.07		-3.258E-01	1.589E+00	2.456E+00	4.651E-01	-0.133
		366.42		-1.595E+00	9.558E+00	1.541E+01	1.370E+00	-0.104
		739.50	*	-7.070E-01	1.291E+00	1.971E+00	3.281E-01	-0.359
		777.92		-1.084E+00	3.313E+00	5.204E+00	5.287E-01	-0.208
TC-99M		140.51	*	-2.025E+03	3.313E+00	Half-Life too short		
RU-103		497.08	*	-2.899E-03	1.623E-02	2.563E-02	3.677E-03	-0.113
		610.33		6.767E-01	3.352E-01	6.323E-01	1.077E-01	1.070
RH-106		621.93	*	-4.612E-03	1.319E-01	2.094E-01	2.957E-02	-0.022
		1050.41		-4.012E-01	9.891E-01	1.480E+00	1.351E-01	-0.271
RU-106		621.93	*	-4.612E-03	1.319E-01	2.094E-01	2.073E-02	-0.022
		1050.41		-4.012E-01	9.891E-01	1.480E+00	1.351E-01	-0.271
AG-108M		433.94	*	-7.199E-03	1.214E-02	1.814E-02	1.635E-03	-0.397
		614.28		-1.655E-02	1.607E-02	2.137E-02	2.162E-03	-0.775
		722.91		-4.241E-03	1.365E-02	2.167E-02	2.250E-03	-0.196
CD-109		88.03	*	-3.986E-01	2.490E-01	3.441E-01	3.254E-02	-1.158
AG-110M		657.76	*	-4.120E-03	1.221E-02	1.940E-02	1.988E-03	-0.212
		677.62		2.633E-02	1.145E-01	1.992E-01	2.048E-02	0.132
		706.68		-2.234E-02	8.754E-02	1.414E-01	1.461E-02	-0.158
		763.94		1.598E-02	6.220E-02	1.077E-01	1.117E-02	0.148
		884.68		1.359E-02	2.043E-02	3.732E-02	3.816E-03	0.364
		937.49		-2.400E-02	3.711E-02	5.187E-02	5.219E-03	-0.463
		1384.29		4.758E-02	6.571E-02	1.258E-01	1.091E-02	0.378
		1505.03		2.640E-02	1.203E-01	2.105E-01	1.785E-02	0.125
SN-113		391.69	*	-5.310E-03	1.764E-02	2.785E-02	2.402E-03	-0.191
CD-115		260.90		3.595E+00	9.526E+00	1.650E+01	1.623E+00	0.218
		492.35		-1.015E+00	3.113E+00	4.822E+00	4.432E-01	-0.211
		527.90	*	4.482E-02	7.522E-01	1.225E+00	1.155E-01	0.037
SN-117M		156.02		-2.531E-01	5.783E-01	8.751E-01	7.524E-02	-0.289
		158.56	*	-8.801E-03	1.607E-02	2.416E-02	2.085E-03	-0.364
TE-123M		159.00	*	-4.630E-03	1.076E-02	1.638E-02	1.424E-03	-0.283
SB-124		602.73		1.462E-02	1.573E-02	2.832E-02	2.781E-03	0.516
		645.85		-1.012E-01	1.793E-01	2.754E-01	2.869E-02	-0.367
		722.78		-3.708E-02	1.290E-01	2.058E-01	2.122E-02	-0.180
		1690.97	*	2.628E-02	3.868E-02	7.400E-02	6.446E-03	0.355
SB-125		427.87	*	3.423E-03	3.662E-02	6.052E-02	5.354E-03	0.057
		463.37		-7.686E-03	1.007E-01	1.618E-01	1.554E-02	-0.048
		600.60		-3.025E-02	8.455E-02	1.285E-01	1.333E-02	-0.235
		635.95		-1.966E-02	1.061E-01	1.741E-01	1.839E-02	-0.113
TE-125M		109.28	*	7.374E-01	3.226E+00	5.309E+00	5.503E-01	0.139
I-126		388.63		-7.588E-03	5.126E-02	8.261E-02	6.958E-03	-0.092
		666.33	*	-4.768E-02	6.046E-02	8.832E-02	8.874E-03	-0.540
		753.82		1.622E-01	4.472E-01	7.949E-01	8.078E-02	0.204
SB-126		414.70		1.901E-02	2.126E-02	3.864E-02	3.311E-03	0.492
		666.50		-1.614E-02	2.046E-02	2.989E-02	3.003E-03	-0.540

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		695.00		2.933E-02	2.646E-02	4.982E-02	5.035E-03	0.589
		697.00		6.755E-02	9.348E-02	1.694E-01	1.713E-02	0.399
		720.70	*	-2.041E-03	4.194E-02	6.970E-02	7.068E-03	-0.029
		856.80		-5.376E-03	1.308E-01	2.150E-01	2.162E-02	-0.025
SN-126		64.28		-4.861E-02	1.668E-01	2.571E-01	3.723E-02	-0.189
		86.94		-1.357E-01	1.146E-01	1.432E-01	5.946E-02	-0.947
		87.57	*	-3.299E-02	2.409E-02	3.418E-02	3.214E-03	-0.965
SB-127		252.40		-5.816E-01	6.303E-01	8.737E-01	3.619E-01	-0.666
		473.00		-1.770E-01	2.897E-01	4.334E-01	5.134E-02	-0.408
		685.70	*	6.676E-02	1.854E-01	3.278E-01	3.687E-02	0.204
		783.70		-1.409E-01	4.462E-01	6.993E-01	8.600E-02	-0.201
I-131		80.19		-4.479E-01	7.677E-01	1.185E+00	1.019E-01	-0.378
		284.31		-9.780E-02	3.681E-01	5.968E-01	6.139E-02	-0.164
		364.49	*	-6.117E-04	2.933E-02	4.817E-02	4.502E-03	-0.013
		636.99		6.321E-02	3.929E-01	6.772E-01	7.014E-02	0.093
TE-132		49.72		-1.025E+00	1.173E+00	1.775E+00	1.590E-01	-0.577
		111.76		-3.239E+00	3.908E+00	5.470E+00	5.189E-01	-0.592
		116.30		-1.426E+00	3.188E+00	4.917E+00	4.637E-01	-0.290
		228.16	*	-6.435E-02	7.786E-02	1.194E-01	1.844E-02	-0.539
BA-133		81.00		-9.145E-03	2.443E-02	3.837E-02	5.962E-03	-0.238
		276.40		-2.320E-02	1.414E-01	2.322E-01	3.472E-02	-0.100
		302.85		-1.015E-02	5.395E-02	8.782E-02	1.218E-02	-0.116
		356.01	*	-1.488E-03	1.732E-02	2.828E-02	3.751E-03	-0.053
		383.85		2.859E-02	1.162E-01	1.965E-01	2.429E-02	0.146
I-133		529.87	*	-3.028E-05	1.162E-01	Half-Life too short		
		875.33		1.930E-04	1.162E-01	Half-Life too short		
		1298.22		2.299E-04	1.162E-01	Half-Life too short		
CS-134		563.25		9.305E-02	1.453E-01	2.556E-01	2.479E-02	0.364
		569.33		-1.995E-02	9.735E-02	1.411E-01	1.378E-02	-0.141
		604.72		-1.109E-02	1.674E-02	2.438E-02	2.400E-03	-0.455
		795.86	*	4.764E-03	1.732E-02	3.010E-02	3.072E-03	0.158
		801.95		1.014E-01	1.647E-01	2.986E-01	3.042E-02	0.339
		1365.19		-7.728E-02	4.644E-01	7.475E-01	6.593E-02	-0.103
CS-135		268.22	*	5.751E-02	5.898E-02	1.071E-01	1.187E-02	0.537
I-135		546.56		-1.874E+03	5.898E-02	Half-Life too short		
		836.80		-8.623E+03	5.898E-02	Half-Life too short		
		1038.76		-4.110E+03	5.898E-02	Half-Life too short		
		1131.51		-1.691E+03	5.898E-02	Half-Life too short		
		1260.41	*	-1.725E+03	5.898E-02	Half-Life too short		
		1457.56		-1.253E+04	5.898E-02	Half-Life too short		
		1678.03		3.843E+02	5.898E-02	Half-Life too short		
		1791.20		6.208E+03	5.898E-02	Half-Life too short		
CS-136		153.25		-4.608E-02	2.155E-01	3.351E-01	3.423E-02	-0.138
		176.60		-3.889E-03	1.394E-01	2.200E-01	2.142E-02	-0.018
		273.65		2.047E-02	1.398E-01	2.368E-01	2.500E-02	0.086
		340.55		-3.557E-02	4.443E-02	6.690E-02	6.445E-03	-0.532
		818.51		-9.540E-03	2.424E-02	3.770E-02	3.819E-03	-0.253
		1048.07	*	3.045E-03	3.067E-02	5.111E-02	4.847E-03	0.060
		1235.36		4.459E-02	1.202E-01	2.111E-01	2.418E-02	0.211

---- Non-Identified Nuclides ----

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BA-137M		661.66	*	3.008E-03	1.214E-02	2.124E-02	2.131E-03	0.142
CS-137		661.66	*	3.178E-03	1.283E-02	2.244E-02	2.255E-03	0.142
CE-139		165.86	*	4.972E-03	1.076E-02	1.784E-02	1.558E-03	0.279
BA-140		162.66		3.603E-02	2.511E-01	3.853E-01	3.569E-02	0.094
		304.85		4.661E-01	4.188E-01	7.327E-01	2.171E-01	0.636
		423.72		9.866E-02	5.803E-01	9.674E-01	3.183E-01	0.102
		537.26	*	-5.733E-02	9.173E-02	1.185E-01	4.045E-02	-0.484
LA-140		328.76		3.589E-02	8.464E-02	1.463E-01	1.456E-02	0.245
		487.02		-1.276E-02	4.045E-02	6.235E-02	6.022E-03	-0.205
		815.77		6.997E-02	1.027E-01	1.877E-01	2.066E-02	0.373
		1596.21	*	-5.989E-03	2.825E-02	4.438E-02	3.747E-03	-0.135
CE-141		145.44	*	-1.922E-02	2.512E-02	3.529E-02	3.047E-03	-0.545
CE-143		57.36		-2.947E+00	1.332E+01	2.143E+01	1.978E+00	-0.138
		293.27	*	1.803E-01	2.899E+00	4.855E+00	1.065E+00	0.037
		664.57		-6.069E-01	2.390E+01	4.003E+01	1.218E+01	-0.015
		721.93		1.275E+01	2.921E+01	5.173E+01	1.474E+01	0.247
CE-144		80.12		-4.144E-01	6.615E-01	1.016E+00	8.707E-02	-0.408
		133.52	*	3.307E-02	6.150E-02	1.039E-01	1.573E-02	0.318
PM-144		476.78		1.035E-02	3.197E-02	5.378E-02	5.263E-03	0.192
		618.01		-6.189E-04	1.292E-02	2.048E-02	2.067E-03	-0.030
		696.49	*	1.548E-02	1.601E-02	2.972E-02	3.004E-03	0.521
PR-144		696.51	*	1.152E+00	1.194E+00	2.217E+00	2.240E-01	0.520
		1489.16		-8.744E-01	5.212E+00	8.310E+00	7.044E-01	-0.105
PM-146		453.88	*	6.673E-03	1.740E-02	2.973E-02	3.217E-03	0.224
		633.25		-3.347E-01	6.102E-01	8.572E-01	3.301E-01	-0.390
		735.93		-6.402E-02	6.275E-02	8.285E-02	2.364E-02	-0.773
		747.24		-1.184E-02	4.164E-02	6.656E-02	1.035E-02	-0.178
ND-147		91.11		3.107E-03	7.494E-02	1.220E-01	1.207E-02	0.025
		319.41		4.464E-02	9.616E-01	1.602E+00	1.541E-01	0.028
		531.02	*	-1.565E-01	1.486E-01	1.888E-01	2.914E-02	-0.829
PM-149		285.90	*	5.305E+00	6.414E+00	1.144E+01	1.863E+00	0.464
EU-152		121.78		-2.053E-03	2.758E-02	4.401E-02	4.253E-03	-0.047
		244.70		-5.072E-02	1.287E-01	2.082E-01	2.019E-02	-0.244
		344.28	*	1.635E-02	3.899E-02	6.731E-02	6.565E-03	0.243
		778.90		1.376E-02	1.002E-01	1.707E-01	1.734E-02	0.081
		964.08		-9.246E-03	1.098E-01	1.778E-01	1.718E-02	-0.052
		1085.87		1.030E-01	1.158E-01	2.281E-01	2.019E-02	0.452
		1112.07		5.962E-02	1.009E-01	1.851E-01	1.598E-02	0.322
		1408.01		2.941E-02	6.644E-02	1.228E-01	1.037E-02	0.240
GD-153		69.67		-7.205E-02	4.299E-01	6.934E-01	5.304E-02	-0.104
		97.43	*	2.848E-03	2.930E-02	4.784E-02	4.243E-03	0.060
		103.18		2.246E-02	3.602E-02	6.147E-02	5.317E-03	0.365
EU-154		123.07		-1.239E-03	1.895E-02	3.025E-02	3.369E-03	-0.041
		723.31		-3.220E-02	6.288E-02	9.625E-02	1.049E-02	-0.335
		873.19		-5.257E-02	1.282E-01	1.978E-01	2.560E-02	-0.266
		996.26		2.044E-02	1.454E-01	2.444E-01	4.378E-02	0.084
		1004.73		-1.765E-02	8.370E-02	1.315E-01	1.611E-02	-0.134
		1274.44	*	-8.686E-03	3.376E-02	4.978E-02	5.535E-03	-0.175
EU-155		86.55		-7.511E-03	2.762E-02	4.384E-02	4.105E-03	-0.171

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		105.31	*	1.412E-02	3.593E-02	6.007E-02	5.220E-03	0.235
TB-160		86.79		-7.574E-02	7.216E-02	1.060E-01	9.872E-03	-0.714
		197.04		1.205E-01	2.196E-01	3.680E-01	3.368E-02	0.327
		215.65		-1.493E-01	2.604E-01	4.161E-01	3.907E-02	-0.359
		298.57		2.278E-02	3.693E-02	6.542E-02	6.429E-03	0.348
		879.36	*	1.482E-02	5.291E-02	9.171E-02	9.170E-03	0.162
		962.29		1.643E-02	1.837E-01	3.067E-01	2.966E-02	0.054
		966.15		-3.725E-02	7.600E-02	1.144E-01	1.104E-02	-0.326
		1177.93		-6.975E-02	1.109E-01	1.508E-01	1.214E-02	-0.463
		1271.85		-1.373E-01	1.933E-01	2.351E-01	1.944E-02	-0.584
HO-166M		80.57		-2.645E-02	7.137E-02	1.124E-01	9.678E-03	-0.235
		184.41		-6.030E-03	1.515E-02	2.690E-02	2.416E-03	-0.224
		280.46		-2.853E-03	3.383E-02	5.595E-02	5.568E-03	-0.051
		410.95		-8.019E-02	9.654E-02	1.397E-01	1.192E-02	-0.574
		711.68	*	2.325E-03	2.721E-02	4.610E-02	4.670E-03	0.050
		752.31		-3.676E-02	1.033E-01	1.618E-01	1.645E-02	-0.227
		810.29		1.485E-02	2.445E-02	4.436E-02	4.497E-03	0.335
TA-182		67.75		-7.749E-03	2.918E-02	4.579E-02	3.442E-03	-0.169
		100.11		2.019E-02	5.770E-02	9.624E-02	8.428E-03	0.210
		152.43		6.451E-02	1.117E-01	1.884E-01	1.612E-02	0.342
		222.11		-9.556E-03	1.201E-01	2.009E-01	1.902E-02	-0.048
		1121.30		1.283E-02	4.173E-02	7.257E-02	6.203E-03	0.177
		1189.05		6.562E-02	9.854E-02	1.821E-01	1.471E-02	0.360
		1221.41	*	-2.997E-02	5.791E-02	8.104E-02	6.612E-03	-0.370
		1231.02		8.480E-03	1.476E-01	2.415E-01	1.976E-02	0.035
IR-192		295.96		-5.158E-03	3.750E-02	6.133E-02	6.074E-03	-0.084
		308.46		-8.111E-03	3.512E-02	5.679E-02	5.553E-03	-0.143
		316.51	*	3.007E-03	1.402E-02	2.374E-02	2.296E-03	0.127
		468.07		7.957E-03	2.423E-02	4.122E-02	3.963E-03	0.193
HG-203		70.83		-5.832E-02	3.086E-01	4.963E-01	7.744E-02	-0.117
		72.87		-2.121E-02	1.824E-01	2.953E-01	4.472E-02	-0.072
		279.20	*	9.990E-03	1.394E-02	2.478E-02	2.515E-03	0.403
BI-207		72.81		-7.639E-03	4.564E-02	7.354E-02	5.804E-03	-0.104
		74.97		-8.682E-03	2.955E-02	4.622E-02	3.733E-03	-0.188
		569.70		-5.974E-03	1.582E-02	2.248E-02	2.172E-03	-0.266
		1063.66	*	3.223E-03	2.044E-02	3.440E-02	3.106E-03	0.094
		1770.23		-9.670E-02	2.610E-01	3.892E-01	3.193E-02	-0.248
TL-208		277.37		5.288E-02	1.487E-01	2.563E-01	3.454E-02	0.206
		583.19	*	-1.426E-02	1.922E-02	2.978E-02	3.059E-03	-0.479
		860.56		-6.151E-02	1.149E-01	1.721E-01	1.824E-02	-0.357
PB-210		46.54	*	-9.956E-02	8.459E-01	1.373E+00	1.262E-01	-0.072
BI-211		72.87		-9.259E-02	7.962E-01	1.289E+00	1.018E-01	-0.072
		351.06	*	5.577E-02	8.203E-02	1.450E-01	1.390E-02	0.385
PB-211		404.85	*	-6.235E-02	3.122E-01	4.969E-01	2.403E-01	-0.125
		427.09		4.986E-02	6.144E-01	1.013E+00	4.689E-01	0.049
		832.01		-5.554E-02	3.987E-01	6.445E-01	3.359E-01	-0.086
BI-212		727.33	*	-5.916E-02	1.869E-01	2.962E-01	4.016E-02	-0.200
		785.37		-1.238E+00	1.185E+00	1.582E+00	1.606E-01	-0.783
		1620.50		-2.026E-01	1.044E+00	1.641E+00	1.382E-01	-0.123

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PB-212		74.82		-2.788E-02	1.030E-01	1.614E-01	2.039E-02	-0.173
		77.11		-3.582E-02	5.906E-02	8.924E-02	7.380E-03	-0.401
		238.63	*	-1.574E-02	2.683E-02	4.309E-02	4.601E-03	-0.365
		300.09		-2.220E-01	2.962E-01	4.500E-01	5.191E-02	-0.493
BI-214		609.32	*	4.572E-02	3.537E-02	6.472E-02	7.230E-03	0.706
		1120.29		1.686E-02	9.908E-02	1.670E-01	1.815E-02	0.101
		1764.49		-2.491E-03	1.247E-01	2.153E-01	1.768E-02	-0.012
PB-214		74.82		-4.941E-02	1.825E-01	2.861E-01	3.235E-02	-0.173
		77.11		-6.315E-02	1.042E-01	1.573E-01	1.837E-02	-0.401
		242.00		-1.688E-01	1.448E-01	2.166E-01	2.443E-02	-0.779
		295.22		-1.173E-02	5.518E-02	8.957E-02	1.058E-02	-0.131
		351.93	*	5.172E-04	3.222E-02	4.978E-02	5.498E-03	0.010
RN-219		271.23		2.603E-03	8.777E-02	1.470E-01	1.671E-02	0.018
		401.81	*	4.015E-03	1.643E-01	2.699E-01	3.988E-02	0.015
RA-223		81.07		-2.108E-02	5.532E-02	8.691E-02	7.531E-03	-0.243
		83.79		2.631E-02	3.885E-02	6.129E-02	5.493E-03	0.429
		94.87		-1.900E-01	1.814E-01	2.709E-01	2.437E-02	-0.702
		144.24		-4.726E-03	2.902E-01	4.365E-01	4.139E-02	-0.011
		154.21		-8.523E-02	1.281E-01	1.880E-01	1.768E-02	-0.453
		269.46		1.961E-02	6.901E-02	1.184E-01	1.190E-02	0.166
		323.87	*	-2.144E-01	2.590E-01	3.841E-01	6.845E-02	-0.558
		338.28		4.739E-01	3.946E-01	7.215E-01	9.104E-02	0.657
RA-224		240.99	*	-1.255E-01	2.544E-01	4.092E-01	3.956E-02	-0.307
RA-226		609.32	*	4.572E-02	3.537E-02	6.472E-02	7.230E-03	0.706
		1120.29		1.686E-02	9.908E-02	1.670E-01	1.815E-02	0.101
		1764.49		-2.491E-03	1.247E-01	2.153E-01	1.768E-02	-0.012
AC-227		79.69		-3.767E-01	3.410E-01	4.897E-01	8.416E-02	-0.769
		235.96		-4.698E-02	5.752E-02	8.950E-02	1.001E-02	-0.525
		256.23	*	1.201E-01	9.341E-02	1.736E-01	2.243E-02	0.692
		299.98		-1.604E-01	3.159E-01	4.940E-01	6.691E-02	-0.325
		304.50		8.130E-01	6.453E-01	1.182E+00	2.027E-01	0.688
		334.37		-5.677E-01	7.746E-01	1.118E+00	1.793E-01	-0.508
TH-227		79.80		-4.565E-01	4.526E-01	6.521E-01	1.418E-01	-0.700
		235.96		-4.698E-02	5.750E-02	8.950E-02	9.530E-03	-0.525
		256.23	*	1.201E-01	9.372E-02	1.736E-01	2.496E-02	0.692
		299.98		-1.604E-01	3.159E-01	4.940E-01	6.691E-02	-0.325
		304.50		8.130E-01	6.453E-01	1.182E+00	2.027E-01	0.688
		334.37		-5.677E-01	7.746E-01	1.118E+00	1.793E-01	-0.508
AC-228		338.32		1.186E-01	1.101E-01	1.816E-01	7.604E-02	0.653
		911.20	*	2.765E-02	5.407E-02	9.700E-02	1.219E-02	0.285
		968.97		6.791E-02	1.076E-01	1.919E-01	4.747E-02	0.354
RA-228		338.32		1.186E-01	1.101E-01	1.816E-01	7.604E-02	0.653
		911.20	*	2.765E-02	5.407E-02	9.700E-02	1.219E-02	0.285
		968.97		6.791E-02	1.076E-01	1.919E-01	4.747E-02	0.354
TH-228		74.82		-2.788E-02	1.030E-01	1.614E-01	1.315E-02	-0.173
		77.11		-3.582E-02	5.906E-02	8.924E-02	7.380E-03	-0.401
		238.63	*	-1.574E-02	2.683E-02	4.309E-02	4.601E-03	-0.365
		300.09		-2.220E-01	3.251E-01	4.500E-01	2.763E-01	-0.493
TH-229		85.43		2.469E-02	6.484E-02	9.997E-02	9.147E-03	0.247

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		88.47		-6.806E-03	3.476E-02	5.551E-02	5.229E-03	-0.123
		193.51	*	-1.065E-02	1.940E-01	3.273E-01	2.980E-02	-0.033
		210.85		2.956E-02	3.236E-01	5.506E-01	5.138E-02	0.054
TH-230		609.32	*	4.572E-02	3.529E-02	6.472E-02	6.373E-03	0.706
		1120.29		1.686E-02	9.907E-02	1.670E-01	1.429E-02	0.101
		1764.49		-2.491E-03	1.247E-01	2.153E-01	1.768E-02	-0.012
PA-231		283.69	*	-5.864E-01	5.760E-01	8.437E-01	1.299E-01	-0.695
		301.36		-1.676E-01	2.069E-01	3.107E-01	4.045E-02	-0.539
TH-231		81.07		-2.108E-02	5.532E-02	8.691E-02	7.531E-03	-0.243
		83.79		2.631E-02	3.885E-02	6.129E-02	5.493E-03	0.429
		94.87		-1.900E-01	1.814E-01	2.709E-01	2.437E-02	-0.702
		144.24		-4.726E-03	2.902E-01	4.365E-01	4.139E-02	-0.011
		154.21		-8.523E-02	1.281E-01	1.880E-01	1.768E-02	-0.453
		269.46		1.961E-02	6.901E-02	1.184E-01	1.190E-02	0.166
		323.87	*	-2.144E-01	2.590E-01	3.841E-01	6.845E-02	-0.558
		338.28		4.739E-01	3.946E-01	7.215E-01	9.104E-02	0.657
TH-232		338.32		1.186E-01	9.884E-02	1.816E-01	1.701E-02	0.653
		911.20	*	2.765E-02	5.407E-02	9.700E-02	1.219E-02	0.285
		968.97		6.791E-02	1.076E-01	1.919E-01	4.747E-02	0.354
PA-233		300.13		-1.099E-01	1.480E-01	2.242E-01	3.488E-02	-0.490
		311.90	*	-1.231E-02	2.489E-02	3.891E-02	3.861E-03	-0.316
		340.48		-1.983E-01	2.589E-01	3.854E-01	9.378E-02	-0.514
PA-234		94.67		-2.704E-02	6.793E-02	1.071E-01	1.357E-02	-0.253
		98.44		7.276E-03	3.193E-02	5.229E-02	2.919E-02	0.139
		111.00		1.108E-02	6.501E-02	1.064E-01	1.274E-02	0.104
		131.20		-8.083E-03	3.243E-02	5.050E-02	4.220E-03	-0.160
		569.50		-2.494E-02	1.352E-01	1.967E-01	1.900E-02	-0.127
		733.00		7.596E-02	1.418E-01	2.551E-01	5.826E-02	0.298
		880.51		-3.203E-02	1.154E-01	1.813E-01	1.812E-02	-0.177
		883.24		-2.049E-02	1.244E-01	1.987E-01	1.340E-01	-0.103
		926.50		-3.624E-02	7.156E-02	1.056E-01	2.715E-02	-0.343
		946.00	*	4.148E-02	1.128E-01	1.981E-01	3.826E-02	0.209
		949.00		1.037E-01	1.745E-01	3.170E-01	3.086E-02	0.327
PA-234M		766.42		5.660E-01	4.422E+00	7.500E+00	3.826E+00	0.075
		1001.03	*	-3.020E-01	2.063E+00	3.407E+00	3.645E-01	-0.089
TH-234		63.29	*	-2.267E-01	4.465E-01	6.753E-01	1.200E-01	-0.336
		92.59		-1.827E-01	3.093E-01	5.247E-01	1.169E-01	-0.348
U-235		89.96		-8.497E-01	3.887E-01	4.343E-01	1.080E-01	-1.957
		93.35		-1.405E-01	2.356E-01	3.986E-01	9.278E-02	-0.352
		143.76	*	-3.912E-04	8.545E-02	1.285E-01	2.168E-02	-0.003
		163.33		-3.049E-02	1.844E-01	2.745E-01	4.938E-02	-0.111
		185.72		-8.265E-03	1.989E-02	3.514E-02	3.162E-03	-0.235
		205.31		-1.243E-01	1.881E-01	2.879E-01	5.314E-02	-0.432
NP-237		86.48	*	-1.383E-02	6.859E-02	1.095E-01	2.510E-02	-0.126
		95.86		-1.611E+00	5.724E-01	4.932E-01	1.189E-01	-3.266
U-238		63.29	*	-2.267E-01	4.465E-01	6.753E-01	1.200E-01	-0.336
		92.59		-1.827E-01	3.070E-01	5.247E-01	4.789E-02	-0.348
NP-239		99.53		1.319E-02	5.652E-02	9.333E-02	8.193E-03	0.141
		103.37		4.686E-03	3.411E-02	5.582E-02	4.826E-03	0.084

Sample ID : G1202069894 Acquisition date : 24-MAR-2010 12:28:13

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		106.12		5.512E-03	2.914E-02	4.786E-02	4.100E-03	0.115
		117.23	*	-7.182E-02	1.507E-01	2.318E-01	1.942E-02	-0.310
		228.18		-6.872E-02	7.741E-02	1.185E-01	1.130E-02	-0.580
		277.60		1.637E-02	6.914E-02	1.179E-01	1.173E-02	0.139
AM-241		59.54	*	6.297E-04	3.268E-02	5.386E-02	4.214E-03	0.012
CM-247		278.00		1.921E-01	2.931E-01	5.180E-01	5.154E-02	0.371
		287.50		3.347E-01	5.174E-01	9.120E-01	9.038E-02	0.367
		402.40	*	3.391E-03	1.522E-02	2.560E-02	2.164E-03	0.132
CF-249		252.80		-2.896E-01	3.554E-01	5.431E-01	5.308E-02	-0.533
		333.37		-9.708E-02	8.080E-02	1.093E-01	1.032E-02	-0.888
		388.16	*	-2.722E-03	1.553E-02	2.491E-02	2.100E-03	-0.109
CF-251		177.52	*	8.884E-03	4.732E-02	7.635E-02	6.785E-03	0.116
		227.38		-6.223E-02	1.243E-01	1.988E-01	1.894E-02	-0.313
		285.41		6.852E-01	8.771E-01	1.567E+00	1.555E-01	0.437
ANH-511		511.00	*	-2.666E-02	2.694E-02	5.002E-02	4.661E-03	-0.533

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202069894      *
* Acquisition date : 24-MAR-2010 12:28:13 Detector SN#    :                 *
* Detector ID      : GAM20                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:31.51     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 15-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202069894          Analyst initials: MXR1            *
* Batch Number     : 964804               Sample Quantity : 1.5621E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)	
BE-7	1.104E-01	1.356E-01	2.554E-01	0.000E+00 NOT IDENT.
NA-22	-2.710E-03	1.174E-02	1.811E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	5.116E+02	0.000E+00	0.000E+00 SHORT HLIF
K-40	2.721E-01	1.545E-01	3.479E-01	0.000E+00 NOT IDENT.
SC-46	-4.464E-03	1.464E-02	2.385E-02	0.000E+00 NOT IDENT.
V-48	8.990E-03	1.944E-02	3.623E-02	0.000E+00 NOT IDENT.
CR-51	2.252E-02	1.308E-01	2.367E-01	0.000E+00 NOT IDENT.
MN-54	9.444E-03	1.327E-02	2.562E-02	0.000E+00 NOT IDENT.
CO-56	3.798E-03	1.315E-02	2.398E-02	0.000E+00 NOT IDENT.
CO-57	-4.172E-03	9.496E-03	1.613E-02	0.000E+00 NOT IDENT.
CO-58	5.609E-03	1.561E-02	2.859E-02	0.000E+00 NOT IDENT.
FE-59	3.126E-03	3.011E-02	5.197E-02	0.000E+00 NOT IDENT.
CO-60	-7.170E-03	1.528E-02	2.219E-02	0.000E+00 NOT IDENT.
ZN-65	1.121E-02	2.919E-02	5.314E-02	0.000E+00 NOT IDENT.
SE-75	-1.740E-02	1.654E-02	2.648E-02	0.000E+00 NOT IDENT.
SR-85	-4.015E-02	2.654E-02	3.967E-02	0.000E+00 NOT IDENT.
Y-88	4.949E-03	1.338E-02	2.517E-02	0.000E+00 NOT IDENT.
Y-91	-2.472E+00	6.303E+00	9.554E+00	0.000E+00 NOT IDENT.
NB-94	3.915E-03	1.464E-02	2.664E-02	0.000E+00 NOT IDENT.
NB-95	8.251E-03	1.530E-02	2.875E-02	0.000E+00 NOT IDENT.
NB-95M	-5.517E-02	4.545E-02	7.361E-02	0.000E+00 NOT IDENT.
ZR-95	-2.101E-02	2.384E-02	3.467E-02	0.000E+00 NOT IDENT.
MO-99	-7.070E-01	1.265E+00	2.026E+00	0.000E+00 NOT IDENT.
TC-99M	0.000E+00	2.856E+09	0.000E+00	0.000E+00 SHORT HLIF
RU-103	-2.899E-03	1.591E-02	2.664E-02	0.000E+00 NOT IDENT.
RH-106	-4.612E-03	1.293E-01	2.164E-01	0.000E+00 NOT IDENT.

RU-106	-4.612E-03	1.293E-01	2.164E-01	0.000E+00	NOT IDENT.
AG-108M	-7.199E-03	1.189E-02	1.892E-02	0.000E+00	NOT IDENT.
CD-109	-3.986E-01	2.440E-01	3.740E-01	0.000E+00	NOT IDENT.
AG-110M	-4.120E-03	1.196E-02	2.001E-02	0.000E+00	NOT IDENT.
SN-113	-5.310E-03	1.729E-02	2.913E-02	0.000E+00	NOT IDENT.
CD-115	4.482E-02	7.372E-01	1.272E+00	0.000E+00	NOT IDENT.
SN-117M	-8.801E-03	1.575E-02	2.587E-02	0.000E+00	NOT IDENT.
TE-123M	-4.630E-03	1.055E-02	1.755E-02	0.000E+00	NOT IDENT.
SB-124	2.628E-02	3.790E-02	7.433E-02	0.000E+00	NOT IDENT.
SB-125	3.423E-03	3.589E-02	6.316E-02	0.000E+00	NOT IDENT.
TE-125M	7.374E-01	3.162E+00	5.740E+00	0.000E+00	NOT IDENT.
I-126	-4.768E-02	5.925E-02	9.108E-02	0.000E+00	NOT IDENT.
SB-126	-2.041E-03	4.110E-02	7.172E-02	0.000E+00	NOT IDENT.
SN-126	-3.299E-02	2.361E-02	3.715E-02	0.000E+00	NOT IDENT.
SB-127	6.676E-02	1.817E-01	3.377E-01	0.000E+00	NOT IDENT.
I-131	-6.117E-04	2.874E-02	5.048E-02	0.000E+00	NOT IDENT.
TE-132	-6.435E-02	7.630E-02	1.266E-01	0.000E+00	NOT IDENT.
BA-133	-1.488E-03	1.697E-02	2.965E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.447E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	4.764E-03	1.698E-02	3.089E-02	0.000E+00	NOT IDENT.
CS-135	5.751E-02	5.780E-02	1.132E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.816E+09	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.045E-03	3.006E-02	5.205E-02	0.000E+00	NOT IDENT.
BA-137M	3.008E-03	1.190E-02	2.190E-02	0.000E+00	NOT IDENT.
CS-137	3.178E-03	1.257E-02	2.314E-02	0.000E+00	NOT IDENT.
CE-139	4.972E-03	1.054E-02	1.909E-02	0.000E+00	NOT IDENT.
BA-140	-5.733E-02	8.990E-02	1.229E-01	0.000E+00	NOT IDENT.
LA-140	-5.989E-03	2.769E-02	4.465E-02	0.000E+00	NOT IDENT.
CE-141	-1.922E-02	2.462E-02	3.788E-02	0.000E+00	NOT IDENT.
CE-143	1.803E-01	2.842E+00	5.118E+00	0.000E+00	NOT IDENT.
CE-144	3.307E-02	6.027E-02	1.117E-01	0.000E+00	NOT IDENT.
PM-144	1.548E-02	1.569E-02	3.061E-02	0.000E+00	NOT IDENT.
PR-144	1.152E+00	1.170E+00	2.283E+00	0.000E+00	NOT IDENT.
PM-146	6.673E-03	1.705E-02	3.098E-02	0.000E+00	NOT IDENT.
ND-147	-1.565E-01	1.457E-01	1.958E-01	0.000E+00	NOT IDENT.
PM-149	5.305E+00	6.286E+00	1.207E+01	0.000E+00	NOT IDENT.
EU-152	1.635E-02	3.821E-02	7.065E-02	0.000E+00	NOT IDENT.
GD-153	2.848E-03	2.871E-02	5.187E-02	0.000E+00	NOT IDENT.
EU-154	-8.686E-03	3.309E-02	5.041E-02	0.000E+00	NOT IDENT.
EU-155	1.412E-02	3.521E-02	6.500E-02	0.000E+00	NOT IDENT.
TB-160	1.482E-02	5.185E-02	9.385E-02	0.000E+00	NOT IDENT.
HO-166M	2.325E-03	2.667E-02	4.746E-02	0.000E+00	NOT IDENT.
TA-182	-2.997E-02	5.675E-02	8.217E-02	0.000E+00	NOT IDENT.
IR-192	3.007E-03	1.374E-02	2.498E-02	0.000E+00	NOT IDENT.
HG-203	9.990E-03	1.367E-02	2.615E-02	0.000E+00	NOT IDENT.
BI-207	3.223E-03	2.003E-02	3.501E-02	0.000E+00	NOT IDENT.
TL-208	-1.426E-02	1.884E-02	3.082E-02	0.000E+00	NOT IDENT.
PB-210	-9.956E-02	8.290E-01	1.516E+00	0.000E+00	NOT IDENT.
BI-211	5.577E-02	8.039E-02	1.522E-01	0.000E+00	NOT IDENT.
PB-211	-6.235E-02	3.060E-01	5.193E-01	0.000E+00	NOT IDENT.
BI-212	-5.916E-02	1.831E-01	3.047E-01	0.000E+00	NOT IDENT.
PB-212	-1.574E-02	2.630E-02	4.567E-02	0.000E+00	NOT IDENT.
BI-214	4.572E-02	3.466E-02	6.690E-02	0.000E+00	NOT IDENT.
PB-214	5.172E-04	3.158E-02	5.223E-02	0.000E+00	NOT IDENT.
RN-219	4.015E-03	1.610E-01	2.821E-01	0.000E+00	NOT IDENT.
RA-223	-2.144E-01	2.539E-01	4.038E-01	0.000E+00	NOT IDENT.
RA-224	-1.255E-01	2.493E-01	4.336E-01	0.000E+00	NOT IDENT.
RA-226	4.572E-02	3.466E-02	6.690E-02	0.000E+00	NOT IDENT.
AC-227	1.201E-01	9.154E-02	1.836E-01	0.000E+00	NOT IDENT.
TH-227	1.201E-01	9.185E-02	1.836E-01	0.000E+00	NOT IDENT.
AC-228	2.765E-02	5.298E-02	9.916E-02	0.000E+00	NOT IDENT.
RA-228	2.765E-02	5.298E-02	9.916E-02	0.000E+00	NOT IDENT.
TH-228	-1.574E-02	2.630E-02	4.567E-02	0.000E+00	NOT IDENT.
TH-229	-1.065E-02	1.901E-01	3.487E-01	0.000E+00	NOT IDENT.
TH-230	4.572E-02	3.458E-02	6.690E-02	0.000E+00	NOT IDENT.
PA-231	-5.864E-01	5.645E-01	8.902E-01	0.000E+00	NOT IDENT.
TH-231	-2.144E-01	2.539E-01	4.038E-01	0.000E+00	NOT IDENT.
TH-232	2.765E-02	5.298E-02	9.916E-02	0.000E+00	NOT IDENT.
PA-233	-1.231E-02	2.439E-02	4.095E-02	0.000E+00	NOT IDENT.
PA-234	4.148E-02	1.105E-01	2.023E-01	0.000E+00	NOT IDENT.
PA-234M	-3.020E-01	2.022E+00	3.474E+00	0.000E+00	NOT IDENT.
TH-234	-2.267E-01	4.376E-01	7.399E-01	0.000E+00	NOT IDENT.
U-235	-3.912E-04	8.375E-02	1.379E-01	0.000E+00	NOT IDENT.
NP-237	-1.383E-02	6.722E-02	1.191E-01	0.000E+00	NOT IDENT.
U-238	-2.267E-01	4.376E-01	7.399E-01	0.000E+00	NOT IDENT.
NP-239	-7.182E-02	1.477E-01	2.502E-01	0.000E+00	NOT IDENT.
AM-241	6.297E-04	3.203E-02	5.910E-02	0.000E+00	NOT IDENT.
CM-247	3.391E-03	1.491E-02	2.676E-02	0.000E+00	NOT IDENT.

CF-249	-2.722E-03	1.522E-02	2.606E-02	0.000E+00 NOT IDENT.
CF-251	8.884E-03	4.637E-02	8.154E-02	0.000E+00 NOT IDENT.
ANH-511	-2.666E-02	2.640E-02	5.196E-02	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 14:29:22.25

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202069894.CNF;1
Sample date       : 15-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 12:28:13
Sample ID         : G1202069894          Sample quantity  : 1.56210E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:31.51  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 964804                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202069894 Acquisition date : 24-MAR-2010 12:28:13

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

None

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 14:29:27.02

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202069894.CNF;1  *
* Acquisition date : 24-MAR-2010 12:28:13  Detector SN#    :                *
* Detector ID      : GAM20                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:31.51         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 15-MAR-2010 00:00:00  Nuclide Library : SOLID          *
* Sample ID        : G1202069894           Analyst initials: MXR1           *
* Batch Number     : 964804                Sample Quantity : 1.56210E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11.7MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.104E-01		1.384E-01	2.454E-01	2.385E-02	0.450
NA-22	-2.710E-03		1.198E-02	1.789E-02	1.482E-03	-0.151
NA-24	-2.406E-04		2.610E-04	Half-Life too short		
K-40	2.721E-01		1.576E-01	3.449E-01	3.008E-02	0.789
SC-46	-4.464E-03		1.494E-02	2.331E-02	2.324E-03	-0.191
V-48	8.990E-03		1.983E-02	3.552E-02	3.395E-03	0.253
CR-51	2.252E-02		1.335E-01	2.251E-01	2.255E-02	0.100
MN-54	9.444E-03		1.354E-02	2.500E-02	2.525E-03	0.378
CO-56	3.798E-03		1.342E-02	2.340E-02	2.359E-03	0.162
CO-57	-4.172E-03		9.690E-03	1.496E-02	1.248E-03	-0.279
CO-58	5.609E-03		1.593E-02	2.787E-02	2.830E-03	0.201
FE-59	3.126E-03		3.072E-02	5.110E-02	4.819E-03	0.061
CO-60	-7.170E-03		1.560E-02	2.194E-02	1.838E-03	-0.327
ZN-65	1.121E-02		2.979E-02	5.228E-02	4.500E-03	0.214
SE-75	-1.740E-02		1.688E-02	2.505E-02	2.481E-03	-0.695
SR-85	-4.015E-02		2.708E-02	3.820E-02	3.567E-03	-1.051
Y-88	4.949E-03		1.365E-02	2.512E-02	2.027E-03	0.197

Sample ID : G1202069894 Acquisition date : 24-MAR-2010 12:28:13

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	-2.472E+00		6.431E+00	9.419E+00	7.648E-01	-0.262
NB-94	3.915E-03		1.494E-02	2.587E-02	2.618E-03	0.151
NB-95	8.251E-03		1.561E-02	2.799E-02	2.844E-03	0.295
NB-95M	-5.517E-02		4.637E-02	6.943E-02	7.472E-03	-0.795
ZR-95	-2.101E-02		2.432E-02	3.374E-02	3.690E-03	-0.623
MO-99	-7.070E-01		1.291E+00	1.971E+00	3.281E-01	-0.359
TC-99M	-2.025E+03		1.457E+03	Half-Life too short		
RU-103	-2.899E-03		1.623E-02	2.563E-02	3.677E-03	-0.113
RH-106	-4.612E-03		1.319E-01	2.094E-01	2.957E-02	-0.022
RU-106	-4.612E-03		1.319E-01	2.094E-01	2.073E-02	-0.022
AG-108M	-7.199E-03		1.214E-02	1.814E-02	1.635E-03	-0.397
CD-109	-3.986E-01		2.490E-01	3.441E-01	3.254E-02	-1.158
AG-110M	-4.120E-03		1.221E-02	1.940E-02	1.988E-03	-0.212
SN-113	-5.310E-03		1.764E-02	2.785E-02	2.402E-03	-0.191
CD-115	4.482E-02		7.522E-01	1.225E+00	1.155E-01	0.037
SN-117M	-8.801E-03		1.607E-02	2.416E-02	2.085E-03	-0.364
TE-123M	-4.630E-03		1.076E-02	1.638E-02	1.424E-03	-0.283
SB-124	2.628E-02		3.868E-02	7.400E-02	6.446E-03	0.355
SB-125	3.423E-03		3.662E-02	6.052E-02	5.354E-03	0.057
TE-125M	7.374E-01		3.226E+00	5.309E+00	5.503E-01	0.139
I-126	-4.768E-02		6.046E-02	8.832E-02	8.874E-03	-0.540
SB-126	-2.041E-03		4.194E-02	6.970E-02	7.068E-03	-0.029
SN-126	-3.299E-02		2.409E-02	3.418E-02	3.214E-03	-0.965
SB-127	6.676E-02		1.854E-01	3.278E-01	3.687E-02	0.204
I-131	-6.117E-04		2.933E-02	4.817E-02	4.502E-03	-0.013
TE-132	-6.435E-02		7.786E-02	1.194E-01	1.844E-02	-0.539
BA-133	-1.488E-03		1.732E-02	2.828E-02	3.751E-03	-0.053
I-133	-3.028E-05		1.248E-05	Half-Life too short		
CS-134	4.764E-03		1.732E-02	3.010E-02	3.072E-03	0.158
CS-135	5.751E-02		5.898E-02	1.071E-01	1.187E-02	0.537
I-135	-1.725E+03		9.267E+02	Half-Life too short		
CS-136	3.045E-03		3.067E-02	5.111E-02	4.847E-03	0.060
BA-137M	3.008E-03		1.214E-02	2.124E-02	2.131E-03	0.142
CS-137	3.178E-03		1.283E-02	2.244E-02	2.255E-03	0.142
CE-139	4.972E-03		1.076E-02	1.784E-02	1.558E-03	0.279
BA-140	-5.733E-02		9.173E-02	1.185E-01	4.045E-02	-0.484
LA-140	-5.989E-03		2.825E-02	4.438E-02	3.747E-03	-0.135
CE-141	-1.922E-02		2.512E-02	3.529E-02	3.047E-03	-0.545
CE-143	1.803E-01		2.899E+00	4.855E+00	1.065E+00	0.037
CE-144	3.307E-02		6.150E-02	1.039E-01	1.573E-02	0.318
PM-144	1.548E-02		1.601E-02	2.972E-02	3.004E-03	0.521
PR-144	1.152E+00		1.194E+00	2.217E+00	2.240E-01	0.520
PM-146	6.673E-03		1.740E-02	2.973E-02	3.217E-03	0.224
ND-147	-1.565E-01		1.486E-01	1.888E-01	2.914E-02	-0.829
PM-149	5.305E+00		6.414E+00	1.144E+01	1.863E+00	0.464
EU-152	1.635E-02		3.899E-02	6.731E-02	6.565E-03	0.243
GD-153	2.848E-03		2.930E-02	4.784E-02	4.243E-03	0.060
EU-154	-8.686E-03		3.376E-02	4.978E-02	5.535E-03	-0.175

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	1.412E-02		3.593E-02	6.007E-02	5.220E-03	0.235
TB-160	1.482E-02		5.291E-02	9.171E-02	9.170E-03	0.162
HO-166M	2.325E-03		2.721E-02	4.610E-02	4.670E-03	0.050
TA-182	-2.997E-02		5.791E-02	8.104E-02	6.612E-03	-0.370
IR-192	3.007E-03		1.402E-02	2.374E-02	2.296E-03	0.127
HG-203	9.990E-03		1.394E-02	2.478E-02	2.515E-03	0.403
BI-207	3.223E-03		2.044E-02	3.440E-02	3.106E-03	0.094
TL-208	-1.426E-02		1.922E-02	2.978E-02	3.059E-03	-0.479
PB-210	-9.956E-02		8.459E-01	1.373E+00	1.262E-01	-0.072
BI-211	5.577E-02		8.203E-02	1.450E-01	1.390E-02	0.385
PB-211	-6.235E-02		3.122E-01	4.969E-01	2.403E-01	-0.125
BI-212	-5.916E-02		1.869E-01	2.962E-01	4.016E-02	-0.200
PB-212	-1.574E-02		2.683E-02	4.309E-02	4.601E-03	-0.365
BI-214	4.572E-02		3.537E-02	6.472E-02	7.230E-03	0.706
PB-214	5.172E-04		3.222E-02	4.978E-02	5.498E-03	0.010
RN-219	4.015E-03		1.643E-01	2.699E-01	3.988E-02	0.015
RA-223	-2.144E-01		2.590E-01	3.841E-01	6.845E-02	-0.558
RA-224	-1.255E-01		2.544E-01	4.092E-01	3.956E-02	-0.307
RA-226	4.572E-02		3.537E-02	6.472E-02	7.230E-03	0.706
AC-227	1.201E-01		9.341E-02	1.736E-01	2.243E-02	0.692
TH-227	1.201E-01		9.372E-02	1.736E-01	2.496E-02	0.692
AC-228	2.765E-02		5.407E-02	9.700E-02	1.219E-02	0.285
RA-228	2.765E-02		5.407E-02	9.700E-02	1.219E-02	0.285
TH-228	-1.574E-02		2.683E-02	4.309E-02	4.601E-03	-0.365
TH-229	-1.065E-02		1.940E-01	3.273E-01	2.980E-02	-0.033
TH-230	4.572E-02		3.529E-02	6.472E-02	6.373E-03	0.706
PA-231	-5.864E-01		5.760E-01	8.437E-01	1.299E-01	-0.695
TH-231	-2.144E-01		2.590E-01	3.841E-01	6.845E-02	-0.558
TH-232	2.765E-02		5.407E-02	9.700E-02	1.219E-02	0.285
PA-233	-1.231E-02		2.489E-02	3.891E-02	3.861E-03	-0.316
PA-234	4.148E-02		1.128E-01	1.981E-01	3.826E-02	0.209
PA-234M	-3.020E-01		2.063E+00	3.407E+00	3.645E-01	-0.089
TH-234	-2.267E-01		4.465E-01	6.753E-01	1.200E-01	-0.336
U-235	-3.912E-04		8.545E-02	1.285E-01	2.168E-02	-0.003
NP-237	-1.383E-02		6.859E-02	1.095E-01	2.510E-02	-0.126
U-238	-2.267E-01		4.465E-01	6.753E-01	1.200E-01	-0.336
NP-239	-7.182E-02		1.507E-01	2.318E-01	1.942E-02	-0.310
AM-241	6.297E-04		3.268E-02	5.386E-02	4.214E-03	0.012
CM-247	3.391E-03		1.522E-02	2.560E-02	2.164E-03	0.132
CF-249	-2.722E-03		1.553E-02	2.491E-02	2.100E-03	-0.109
CF-251	8.884E-03		4.732E-02	7.635E-02	6.785E-03	0.116
ANH-511	-2.666E-02		2.694E-02	5.002E-02	4.661E-03	-0.533

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202069894          *
* Acquisition date : 24-MAR-2010 12:28:13 Detector SN#    :                *
* Detector ID      : GAM20                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:31.51     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 15-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202069894          Analyst initials: MXR1           *
* Batch Number     : 964804               Sample Quantity : 1.5621E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act Error	DLC (pCi/GRAM)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	1.104E-01	1.356E-01	1.278E-01	6.918E-02 NOT IDENT.
NA-22	-2.710E-03	1.174E-02	9.062E-03	5.990E-03 NOT IDENT.
NA-24	-2.406E+02	5.116E+02	0.000E+00	2.610E+02 SHORT HLIF
K-40	2.721E-01	1.545E-01	1.741E-01	7.881E-02 NOT IDENT.
SC-46	-4.464E-03	1.464E-02	1.193E-02	7.469E-03 NOT IDENT.
V-48	8.990E-03	1.944E-02	1.813E-02	9.917E-03 NOT IDENT.
CR-51	2.252E-02	1.308E-01	1.184E-01	6.674E-02 NOT IDENT.
MN-54	9.444E-03	1.327E-02	1.282E-02	6.772E-03 NOT IDENT.
CO-56	3.798E-03	1.315E-02	1.199E-02	6.710E-03 NOT IDENT.
CO-57	-4.172E-03	9.496E-03	8.067E-03	4.845E-03 NOT IDENT.
CO-58	5.609E-03	1.561E-02	1.430E-02	7.967E-03 NOT IDENT.
FE-59	3.126E-03	3.011E-02	2.600E-02	1.536E-02 NOT IDENT.
CO-60	-7.170E-03	1.528E-02	1.110E-02	7.798E-03 NOT IDENT.
ZN-65	1.121E-02	2.919E-02	2.659E-02	1.489E-02 NOT IDENT.
SE-75	-1.740E-02	1.654E-02	1.325E-02	8.438E-03 NOT IDENT.
SR-85	-4.015E-02	2.654E-02	1.985E-02	1.354E-02 NOT IDENT.
Y-88	4.949E-03	1.338E-02	1.259E-02	6.826E-03 NOT IDENT.
Y-91	-2.472E+00	6.303E+00	4.780E+00	3.216E+00 NOT IDENT.
NB-94	3.915E-03	1.464E-02	1.333E-02	7.471E-03 NOT IDENT.
NB-95	8.251E-03	1.530E-02	1.438E-02	7.806E-03 NOT IDENT.
NB-95M	-5.517E-02	4.545E-02	3.683E-02	2.319E-02 NOT IDENT.
ZR-95	-2.101E-02	2.384E-02	1.734E-02	1.216E-02 NOT IDENT.
MO-99	-7.070E-01	1.265E+00	1.014E+00	6.456E-01 NOT IDENT.
TC-99M	-2.025E+09	2.856E+09	0.000E+00	1.457E+09 SHORT HLIF
RU-103	-2.899E-03	1.591E-02	1.333E-02	8.116E-03 NOT IDENT.
RH-106	-4.612E-03	1.293E-01	1.082E-01	6.595E-02 NOT IDENT.

RU-106	-4.612E-03	1.293E-01	1.082E-01	6.595E-02	NOT IDENT.
AG-108M	-7.199E-03	1.189E-02	9.466E-03	6.068E-03	NOT IDENT.
CD-109	-3.986E-01	2.440E-01	1.871E-01	1.245E-01	NOT IDENT.
AG-110M	-4.120E-03	1.196E-02	1.001E-02	6.104E-03	NOT IDENT.
SN-113	-5.310E-03	1.729E-02	1.457E-02	8.822E-03	NOT IDENT.
CD-115	4.482E-02	7.372E-01	6.362E-01	3.761E-01	NOT IDENT.
SN-117M	-8.801E-03	1.575E-02	1.294E-02	8.037E-03	NOT IDENT.
TE-123M	-4.630E-03	1.055E-02	8.778E-03	5.382E-03	NOT IDENT.
SB-124	2.628E-02	3.790E-02	3.719E-02	1.934E-02	NOT IDENT.
SB-125	3.423E-03	3.589E-02	3.160E-02	1.831E-02	NOT IDENT.
TE-125M	7.374E-01	3.162E+00	2.871E+00	1.613E+00	NOT IDENT.
I-126	-4.768E-02	5.925E-02	4.556E-02	3.023E-02	NOT IDENT.
SB-126	-2.041E-03	4.110E-02	3.588E-02	2.097E-02	NOT IDENT.
SN-126	-3.299E-02	2.361E-02	1.859E-02	1.205E-02	NOT IDENT.
SB-127	6.676E-02	1.817E-01	1.690E-01	9.271E-02	NOT IDENT.
I-131	-6.117E-04	2.874E-02	2.526E-02	1.466E-02	NOT IDENT.
TE-132	-6.435E-02	7.630E-02	6.336E-02	3.893E-02	NOT IDENT.
BA-133	-1.488E-03	1.697E-02	1.484E-02	8.661E-03	NOT IDENT.
I-133	-3.028E+01	2.447E+01	0.000E+00	1.248E+01	SHORT HLIF
CS-134	4.764E-03	1.698E-02	1.545E-02	8.662E-03	NOT IDENT.
CS-135	5.751E-02	5.780E-02	5.661E-02	2.949E-02	NOT IDENT.
I-135	-1.725E+09	1.816E+09	0.000E+00	9.267E+08	SHORT HLIF
CS-136	3.045E-03	3.006E-02	2.604E-02	1.534E-02	NOT IDENT.
BA-137M	3.008E-03	1.190E-02	1.096E-02	6.070E-03	NOT IDENT.
CS-137	3.178E-03	1.257E-02	1.158E-02	6.413E-03	NOT IDENT.
CE-139	4.972E-03	1.054E-02	9.550E-03	5.379E-03	NOT IDENT.
BA-140	-5.733E-02	8.990E-02	6.148E-02	4.587E-02	NOT IDENT.
LA-140	-5.989E-03	2.769E-02	2.234E-02	1.413E-02	NOT IDENT.
CE-141	-1.922E-02	2.462E-02	1.895E-02	1.256E-02	NOT IDENT.
CE-143	1.803E-01	2.842E+00	2.561E+00	1.450E+00	NOT IDENT.
CE-144	3.307E-02	6.027E-02	5.589E-02	3.075E-02	NOT IDENT.
PM-144	1.548E-02	1.569E-02	1.531E-02	8.004E-03	NOT IDENT.
PR-144	1.152E+00	1.170E+00	1.142E+00	5.970E-01	NOT IDENT.
PM-146	6.673E-03	1.705E-02	1.550E-02	8.701E-03	NOT IDENT.
ND-147	-1.565E-01	1.457E-01	9.798E-02	7.431E-02	NOT IDENT.
PM-149	5.305E+00	6.286E+00	6.038E+00	3.207E+00	NOT IDENT.
EU-152	1.635E-02	3.821E-02	3.535E-02	1.949E-02	NOT IDENT.
GD-153	2.848E-03	2.871E-02	2.595E-02	1.465E-02	NOT IDENT.
EU-154	-8.686E-03	3.309E-02	2.522E-02	1.688E-02	NOT IDENT.
EU-155	1.412E-02	3.521E-02	3.252E-02	1.796E-02	NOT IDENT.
TB-160	1.482E-02	5.185E-02	4.695E-02	2.646E-02	NOT IDENT.
HO-166M	2.325E-03	2.667E-02	2.374E-02	1.361E-02	NOT IDENT.
TA-182	-2.997E-02	5.675E-02	4.111E-02	2.895E-02	NOT IDENT.
IR-192	3.007E-03	1.374E-02	1.250E-02	7.008E-03	NOT IDENT.
HG-203	9.990E-03	1.367E-02	1.308E-02	6.972E-03	NOT IDENT.
BI-207	3.223E-03	2.003E-02	1.752E-02	1.022E-02	NOT IDENT.
TL-208	-1.426E-02	1.884E-02	1.542E-02	9.610E-03	NOT IDENT.
PB-210	-9.956E-02	8.290E-01	7.585E-01	4.229E-01	NOT IDENT.
BI-211	5.577E-02	8.039E-02	7.613E-02	4.101E-02	NOT IDENT.
PB-211	-6.235E-02	3.060E-01	2.598E-01	1.561E-01	NOT IDENT.
BI-212	-5.916E-02	1.831E-01	1.524E-01	9.343E-02	NOT IDENT.
PB-212	-1.574E-02	2.630E-02	2.285E-02	1.342E-02	NOT IDENT.
BI-214	4.572E-02	3.466E-02	3.347E-02	1.768E-02	NOT IDENT.
PB-214	5.172E-04	3.158E-02	2.613E-02	1.611E-02	NOT IDENT.
RN-219	4.015E-03	1.610E-01	1.412E-01	8.213E-02	NOT IDENT.
RA-223	-2.144E-01	2.539E-01	2.020E-01	1.295E-01	NOT IDENT.
RA-224	-1.255E-01	2.493E-01	2.169E-01	1.272E-01	NOT IDENT.
RA-226	4.572E-02	3.466E-02	3.347E-02	1.768E-02	NOT IDENT.
AC-227	1.201E-01	9.154E-02	9.186E-02	4.671E-02	NOT IDENT.
TH-227	1.201E-01	9.185E-02	9.186E-02	4.686E-02	NOT IDENT.
AC-228	2.765E-02	5.298E-02	4.961E-02	2.703E-02	NOT IDENT.
RA-228	2.765E-02	5.298E-02	4.961E-02	2.703E-02	NOT IDENT.
TH-228	-1.574E-02	2.630E-02	2.285E-02	1.342E-02	NOT IDENT.
TH-229	-1.065E-02	1.901E-01	1.745E-01	9.700E-02	NOT IDENT.
TH-230	4.572E-02	3.458E-02	3.347E-02	1.764E-02	NOT IDENT.
PA-231	-5.864E-01	5.645E-01	4.453E-01	2.880E-01	NOT IDENT.
TH-231	-2.144E-01	2.539E-01	2.020E-01	1.295E-01	NOT IDENT.
TH-232	2.765E-02	5.298E-02	4.961E-02	2.703E-02	NOT IDENT.
PA-233	-1.231E-02	2.439E-02	2.049E-02	1.245E-02	NOT IDENT.
PA-234	4.148E-02	1.105E-01	1.012E-01	5.640E-02	NOT IDENT.
PA-234M	-3.020E-01	2.022E+00	1.738E+00	1.032E+00	NOT IDENT.
TH-234	-2.267E-01	4.376E-01	3.702E-01	2.233E-01	NOT IDENT.
U-235	-3.912E-04	8.375E-02	6.901E-02	4.273E-02	NOT IDENT.
NP-237	-1.383E-02	6.722E-02	5.956E-02	3.429E-02	NOT IDENT.
U-238	-2.267E-01	4.376E-01	3.702E-01	2.233E-01	NOT IDENT.
NP-239	-7.182E-02	1.477E-01	1.252E-01	7.537E-02	NOT IDENT.
AM-241	6.297E-04	3.203E-02	2.957E-02	1.634E-02	NOT IDENT.
CM-247	3.391E-03	1.491E-02	1.339E-02	7.609E-03	NOT IDENT.

CF-249	-2.722E-03	1.522E-02	1.304E-02	7.765E-03	NOT IDENT.
CF-251	8.884E-03	4.637E-02	4.079E-02	2.366E-02	NOT IDENT.
ANH-511	-2.666E-02	2.640E-02	2.599E-02	1.347E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.54	55.4385
49.72	70.5016
57.36	49.7100
59.54	48.9165
63.29	71.3671
63.29	71.3671
64.28	68.4728
67.75	67.8768
69.67	68.1000
70.83	68.2329
72.81	71.5231
72.87	71.5303
72.87	71.5303
74.82	77.9092
74.82	77.9092
74.82	77.9092
74.97	77.9281
77.11	80.2538
77.11	80.2538
77.11	80.2538
79.69	82.6465
79.80	81.6275
80.12	76.4992
80.19	76.5075
80.57	70.3457
81.00	67.2868
81.07	67.2941
81.07	67.2941
83.79	60.2966
83.79	60.2966
85.43	65.6561
86.48	75.1523
86.55	75.1604
86.79	89.8064
86.94	97.1380
87.57	97.2279
88.03	103.5706
88.47	74.3256
89.96	177.2992
91.11	138.7112
92.59	90.5631
92.59	90.5631
93.35	94.8775
94.67	130.9629
94.87	132.0559
94.87	132.0559
95.86	204.1751
97.43	75.2739
98.44	70.0696
99.53	68.0472
100.11	62.7802
103.18	55.5592
103.37	64.1229
105.31	61.0722
106.12	65.4271
109.28	66.7709
111.00	65.8375
111.76	75.6236
116.30	76.0512
117.23	77.2254
121.12	66.6607
121.78	71.0878
122.06	78.7698
123.07	66.8156
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136.00	62.2532

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140.51	0.0000
143.76	58.2963
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144.24	60.5698
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153.25	55.4814
154.21	56.6696
154.21	56.6696
156.02	56.7739
158.56	72.8568
159.00	71.7498
162.66	59.4379
163.33	64.0522
165.86	53.8910
176.60	57.9208
177.52	52.1732
181.07	59.3241
184.41	47.2541
185.72	56.0713
193.51	61.7547
197.04	56.6353
205.31	59.7112
210.85	59.9883
215.65	62.0232
222.11	50.6013
227.38	52.6280
228.16	57.2000
228.18	58.1089
235.69	81.2809
235.96	73.0762
235.96	73.0762
238.63	58.5806
238.63	58.5806
240.99	72.4400
242.00	79.8367
244.70	61.6087
252.40	54.5626
252.80	52.7287
256.23	30.6037
256.23	30.6037
260.90	44.6646
264.66	56.9138
268.22	36.4792
269.46	44.9363
269.46	44.9363
271.23	45.9293
273.65	43.1903
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277.37	44.2425
277.60	47.0741
278.00	42.3784
279.20	40.5277
279.54	34.8811
280.46	49.0527
283.69	54.8326
284.31	49.1808
285.41	38.8060
285.90	37.8723
287.50	43.5995
293.27	45.6709
295.22	40.9660
295.96	37.1731
298.57	31.5080
299.98	43.9610
299.98	43.9610
300.09	48.7424
300.09	48.7424
300.13	48.7440
301.36	47.8264
302.85	44.0424
304.50	29.7124
304.50	29.7124
304.85	32.5951
308.46	40.3581
311.90	42.3726

316.51	43.4619
319.41	41.6051
320.08	41.6228
323.87	48.5123
323.87	48.5123
328.76	36.0069
333.37	54.6499
334.37	50.7773
334.37	50.7773
338.28	33.2784
338.28	33.2784
338.32	33.2794
338.32	33.2794
338.32	33.2794
340.48	53.9040
340.55	53.9056
344.28	34.3800
351.06	32.5443
351.93	32.5609
356.01	39.5612
364.49	35.7786
366.42	34.8227
383.85	30.1387
388.16	32.2236
388.63	36.2609
391.69	36.3214
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401.81	32.4604
402.40	31.4560
404.85	39.6248
410.95	37.7131
414.70	21.4467
423.72	28.7285
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427.87	28.7891
433.94	34.0338
453.88	26.0384
463.37	25.1115
468.07	22.0215
473.00	43.0952
476.78	36.8537
477.60	27.3878
487.02	26.4500
492.35	34.9996
497.08	31.8864
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514.00	121.0212
527.90	19.3958
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531.02	25.8962
537.26	24.8839
546.56	0.0000
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569.50	23.0303
569.70	27.4193
583.19	31.9825
600.60	34.4266
602.73	20.0067
604.72	42.2699
609.32	24.5157
609.32	24.5157
609.32	24.5157
610.33	15.6073
614.28	35.7285
618.01	21.2445
621.93	22.3969
621.93	22.3969
633.25	24.7433
635.95	21.6164
636.99	20.7241
645.85	23.5054
657.76	19.0697
661.66	14.5504
661.66	14.5504
664.57	16.3865
666.33	23.6850
666.50	23.6863

677.62	16.4646
685.70	16.5129
695.00	20.2496
696.49	22.1021
696.51	22.1021
697.00	24.8689
702.65	24.9190
706.68	24.9539
711.68	24.9981
720.70	20.4327
721.93	15.7956
722.78	19.5178
722.91	19.5188
723.31	21.3806
724.19	21.3867
727.33	19.5486
733.00	13.9904
735.93	27.0749
739.50	25.2380
747.24	23.4302
752.31	18.7759
753.82	11.2711
756.73	19.7439
763.94	17.9062
765.81	16.9743
766.42	19.8075
777.92	17.9888
778.90	16.1002
783.70	16.1255
785.37	22.7777
795.86	15.2367
801.95	15.2664
810.29	14.3500
810.76	17.2226
815.77	14.3749
818.51	22.0606
832.01	18.3010
834.85	11.5688
836.80	0.0000
846.77	11.6112
856.80	15.5289
860.56	20.4048
871.09	16.5709
873.19	22.4334
875.33	0.0000
879.36	13.6804
880.51	17.5948
883.24	18.5876
884.68	12.7232
889.28	16.6605
898.04	10.8083
911.20	11.8359
911.20	11.8359
911.20	11.8359
926.50	17.8321
937.49	13.9128
944.13	15.9305
946.00	10.9578
949.00	10.9672
962.29	15.0110
964.08	18.0220
966.15	22.0392
968.97	15.0385
968.97	15.0385
968.97	15.0385
983.53	9.0593
996.26	14.1412
1001.03	10.1138
1004.73	15.1857
1037.84	16.3414
1038.76	0.0000
1048.07	12.2889
1050.41	15.3699
1050.41	15.3699
1063.66	12.3381
1085.87	4.1361
1099.45	11.4130
1112.07	7.2857

1115.54	9.3757
1120.29	10.4297
1120.29	10.4297
1120.29	10.4297
1120.55	9.3872
1121.30	8.3457
1131.51	0.0000
1173.23	9.5080
1177.93	12.6914
1189.05	7.4228
1204.77	11.7074
1221.41	11.7530
1231.02	10.7080
1235.36	7.5031
1238.28	10.7256
1260.41	0.0000
1271.85	8.6461
1274.44	6.4884
1274.54	6.4884
1291.59	5.4275
1298.22	0.0000
1312.11	6.5423
1332.49	10.9521
1365.19	8.2720
1368.63	0.0000
1384.29	6.4594
1408.01	5.5642
1457.56	0.0000
1460.82	1.8748
1489.16	7.5413
1505.03	7.5648
1596.21	8.6602
1620.50	7.7327
1678.03	0.0000
1690.97	4.8952
1764.49	5.9504
1764.49	5.9504
1764.49	5.9504
1770.23	9.9272
1771.35	5.9575
1791.20	0.0000
1836.06	3.0116

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202069894

Total Uranium Activity	-6.7473E-01	ug/g
Total Uranium Counting Unc.	1.3024E+00	ug/g
Total Uranium Tpu	6.6450E-07	ug/g
Total Uranium Mda	1.1017E+00	ug/g

THERE ARE NO PEAKS !

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 15:16:16.84

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202069895.CNF;1
Sample date       : 9-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 13:15:49
Sample ID         : G1202069895          Sample quantity  : 1.25580E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.40  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 964804                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	74.85*	387	449	1.04	149.27	145	15	5.37E-02	10.1	8.41E-01
2	3	77.09	561	411	0.97	153.75	145	15	7.80E-02	7.2	
3	5	87.22*	216	325	1.19	173.99	171	20	3.00E-02	14.0	1.72E+00
4	5	89.82	188	432	1.16	179.20	171	20	2.61E-02	19.7	
5	5	92.77*	219	413	1.21	185.09	171	20	3.04E-02	18.0	
6	0	129.06	106	388	1.46	257.63	254	9	1.48E-02	34.8	
7	0	143.95*	63	343	1.12	287.39	284	8	8.77E-03	53.4	
8	0	186.15*	370	383	1.16	371.76	367	10	5.13E-02	11.6	
9	0	209.45	174	329	1.11	418.35	413	12	2.42E-02	22.1	
10	0	238.72*	1088	419	1.06	476.86	473	8	1.51E-01	4.5	
11	0	241.76	159	277	1.61	482.93	481	7	2.21E-02	19.8	
12	0	270.65	105	203	1.10	540.68	536	10	1.46E-02	27.2	
13	0	295.23*	405	201	1.16	589.82	583	12	5.63E-02	8.7	
14	0	300.00	109	202	1.14	599.36	595	11	1.51E-02	27.0	
15	0	328.86	97	184	1.66	657.06	652	12	1.35E-02	29.7	
16	0	338.59*	237	251	1.36	676.51	670	14	3.29E-02	15.8	
17	0	352.04*	537	186	1.29	703.41	697	12	7.46E-02	6.8	
18	0	463.17	79	72	1.33	925.60	921	9	1.09E-02	22.5	
19	0	511.15*	116	143	1.50	1021.55	1015	15	1.62E-02	27.4	
20	0	583.44*	343	108	1.52	1166.10	1160	11	4.76E-02	8.1	
21	0	609.44*	466	94	1.40	1218.08	1212	14	6.47E-02	6.5	
22	0	727.51	130	86	1.47	1454.20	1447	15	1.80E-02	17.9	
23	0	795.19	42	46	0.96	1589.56	1585	9	5.85E-03	32.7	
24	0	860.98	64	80	1.50	1721.14	1713	16	8.90E-03	33.6	
25	0	911.70*	292	69	1.72	1822.58	1813	19	4.05E-02	9.1	
26	0	935.87	47	60	4.77	1870.93	1859	19	6.53E-03	42.5	
27	2	964.65*	71	50	2.00	1928.49	1922	25	9.82E-03	22.2	1.49E+00
28	2	969.27*	149	38	2.01	1937.74	1922	25	2.07E-02	12.2	
29	0	1120.53	106	51	2.05	2240.30	2234	15	1.47E-02	17.8	
30	0	1238.55	29	54	1.34	2476.42	2472	9	4.10E-03	48.5	
31	0	1460.81*	1140	33	2.26	2921.13	2912	17	1.58E-01	3.2	
32	0	1730.23*	29	5	1.20	3460.27	3453	18	4.08E-03	26.3	
33	0	1764.49	74	0	2.97	3528.85	3520	17	1.03E-02	11.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 15:16:20

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202069895.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 9-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 13:15:49
Sample ID : G1202069895 Sample quantity : 125.58 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA6 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.40 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.422E+01	3.901E+00	8.874E-01	8.366E-02	38.565
CD-109	+	88.03	*	3.449E+00	1.039E+00	1.500E+00	1.669E-01	2.300
SN-126		64.28		3.960E-02	6.305E-01	1.036E+00	1.603E-01	0.038
	+	86.94		1.402E+00	7.069E-01	6.914E-01	2.898E-01	2.028
	+	87.57	*	3.372E-01	1.015E-01	1.473E-01	1.632E-02	2.289
CE-141	+	145.44	*	9.439E-02	1.011E-01	1.244E-01	1.057E-02	0.759
TL-208		277.37		2.612E-01	4.625E-01	7.845E-01	1.021E-01	0.333
	+	583.19	*	5.668E-01	1.054E-01	7.584E-02	6.924E-03	7.473
	+	860.56		1.014E+00	6.890E-01	5.649E-01	5.492E-02	1.795
BI-211		72.87		8.159E+00	4.264E+00	6.686E+00	6.426E-01	1.220
	+	351.06	*	3.955E+00	6.515E-01	3.903E-01	3.663E-02	10.135
PB-212	+	74.82		2.724E+00	6.645E-01	6.702E-01	9.233E-02	4.064
	+	77.11		2.251E+00	3.952E-01	3.823E-01	3.801E-02	5.890
	+	238.63	*	1.780E+00	2.430E-01	1.410E-01	1.447E-02	12.624
	+	300.09		2.779E+00	1.534E+00	1.401E+00	1.553E-01	1.984
BI-214	+	609.32	*	1.494E+00	2.439E-01	1.326E-01	1.316E-02	11.270
	+	1120.29		1.796E+00	6.681E-01	5.983E-01	6.463E-02	3.002
	+	1764.49		1.754E+00	4.348E-01	3.074E-01	2.650E-02	5.704
PB-214	+	74.82		4.828E+00	1.146E+00	1.188E+00	1.494E-01	4.064
	+	77.11		3.969E+00	7.698E-01	6.739E-01	8.706E-02	5.890
	+	242.00		1.581E+00	6.481E-01	7.365E-01	8.008E-02	2.146
	+	295.22		1.834E+00	3.802E-01	2.558E-01	2.904E-02	7.172
	+	351.93	*	1.436E+00	2.493E-01	1.419E-01	1.544E-02	10.113
RA-224	+	240.99	*	2.795E+00	1.135E+00	1.763E+00	1.621E-01	1.586
RA-226	+	609.32	*	1.494E+00	2.439E-01	1.326E-01	1.316E-02	11.270
	+	1120.29		1.796E+00	6.681E-01	5.983E-01	6.463E-02	3.002
	+	1764.49		1.754E+00	4.348E-01	3.074E-01	2.650E-02	5.704
AC-228	+	338.32		1.941E+00	1.017E+00	4.517E-01	1.889E-01	4.297
	+	911.20	*	2.361E+00	5.175E-01	2.576E-01	3.110E-02	9.166
	+	968.97		2.088E+00	7.222E-01	4.203E-01	1.032E-01	4.968
RA-228	+	338.32		1.941E+00	1.017E+00	4.517E-01	1.889E-01	4.297
	+	911.20	*	2.361E+00	5.175E-01	2.576E-01	3.110E-02	9.166
	+	968.97		2.088E+00	7.222E-01	4.203E-01	1.032E-01	4.968
TH-228	+	74.82		2.724E+00	6.102E-01	6.702E-01	6.585E-02	4.064

Sample ID : G1202069895 Acquisition date : 24-MAR-2010 13:15:49

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		2.251E+00	3.952E-01	3.823E-01	3.801E-02	5.890
	+	238.63	*	1.780E+00	2.430E-01	1.410E-01	1.447E-02	12.624
	+	300.09		2.779E+00	2.272E+00	1.401E+00	8.588E-01	1.984
TH-230	+	609.32	*	1.494E+00	2.308E-01	1.326E-01	1.114E-02	11.270
	+	1120.29		1.796E+00	6.572E-01	5.983E-01	5.068E-02	3.002
	+	1764.49		1.754E+00	4.348E-01	3.074E-01	2.650E-02	5.704
TH-232	+	338.32		1.941E+00	6.374E-01	4.517E-01	4.100E-02	4.297
	+	911.20	*	2.361E+00	5.175E-01	2.576E-01	3.110E-02	9.166
	+	968.97		2.088E+00	7.222E-01	4.203E-01	1.032E-01	4.968
U-235	+	89.96		3.041E+00	1.426E+00	1.533E+00	3.905E-01	1.983
	+	93.35		2.135E+00	9.208E-01	9.241E-01	2.198E-01	2.311
	+	143.76	*	3.015E-01	3.259E-01	3.785E-01	6.362E-02	0.796
		163.33		5.233E-01	5.414E-01	8.830E-01	1.578E-01	0.593
	+	185.72		3.880E-01	9.600E-02	8.198E-02	7.121E-03	4.733
		205.31		-2.428E-01	6.608E-01	9.575E-01	1.751E-01	-0.254
NP-237	+	86.48	*	1.006E+00	3.692E-01	4.870E-01	1.152E-01	2.066
		95.86		-5.298E-01	1.173E+00	1.653E+00	4.055E-01	-0.321
ANH-511	+	511.00	*	1.472E-01	8.157E-02	5.878E-02	5.101E-03	2.504

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	6.470E-02	3.688E-01	6.294E-01	5.878E-02	0.103
NA-22		1274.54	*	-2.485E-02	5.829E-02	9.122E-02	8.015E-03	-0.272
NA-24		1368.63	*	2.463E-01	5.829E-02	Half-Life too short		
SC-46		889.28	*	-4.223E-03	4.868E-02	7.772E-02	7.182E-03	-0.054
	+	1120.55		3.037E-01	1.111E-01	1.607E-01	1.361E-02	1.890
V-48		944.13		-4.638E-01	1.106E+00	1.691E+00	1.556E-01	-0.274
		983.53	*	-3.209E-02	8.186E-02	1.315E-01	1.196E-02	-0.244
		1312.11		4.041E-03	9.967E-02	1.636E-01	1.476E-02	0.025
CR-51		320.08	*	-3.631E-01	4.740E-01	7.408E-01	7.132E-02	-0.490
MN-54		834.85	*	-3.167E-02	5.163E-02	7.916E-02	7.134E-03	-0.400
CO-56		846.77	*	-4.032E-02	4.597E-02	6.700E-02	6.073E-03	-0.602
		1037.84		7.752E-02	4.279E-01	7.236E-01	6.757E-02	0.107
	+	1238.28		1.404E-01	1.367E-01	2.229E-01	1.960E-02	0.630
		1771.35		8.551E-02	2.502E-01	3.954E-01	3.399E-02	0.216
CO-57		122.06	*	3.002E-02	3.141E-02	5.238E-02	4.411E-03	0.573
		136.47		-9.961E-02	2.488E-01	3.905E-01	3.506E-02	-0.255
CO-58		810.76	*	-5.275E-04	4.663E-02	7.560E-02	6.744E-03	-0.007
FE-59		1099.45	*	3.572E-02	1.091E-01	1.867E-01	1.735E-02	0.191
		1291.59		-1.388E-02	1.538E-01	2.491E-01	2.496E-02	-0.056
CO-60		1173.23		5.646E-02	5.790E-02	1.033E-01	8.379E-03	0.546
		1332.49	*	3.482E-03	4.928E-02	8.148E-02	7.453E-03	0.043
ZN-65		1115.54	*	3.779E-02	1.310E-01	1.935E-01	1.646E-02	0.195
SE-75		121.12		5.560E-02	1.654E-01	2.698E-01	2.955E-02	0.206
		136.00		-1.092E-02	4.763E-02	7.540E-02	6.324E-03	-0.145
		264.66	*	-4.440E-02	5.873E-02	8.567E-02	7.995E-03	-0.518
		279.54		-5.853E-02	1.316E-01	2.122E-01	2.041E-02	-0.276

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.66		7.045E-02	3.301E-01	5.403E-01	5.937E-02	0.130
SR-85		514.00	*	9.937E-02	4.954E-02	8.427E-02	7.311E-03	1.179
Y-88		898.04		-2.319E-02	5.202E-02	7.980E-02	7.433E-03	-0.291
		1836.06	*	-3.903E-02	3.494E-02	3.965E-02	3.314E-03	-0.984
Y-91		1204.77	*	-2.942E+00	2.980E+01	4.864E+01	4.046E+00	-0.060
NB-94		702.65	*	-1.126E-02	4.161E-02	6.678E-02	5.565E-03	-0.169
		871.09		-1.764E-02	3.931E-02	6.017E-02	5.516E-03	-0.293
NB-95		765.81	*	4.832E-03	5.443E-02	8.936E-02	7.754E-03	0.054
NB-95M		235.69	*	1.016E-01	1.735E-01	2.631E-01	2.726E-02	0.386
ZR-95		724.19		8.571E-02	1.308E-01	1.986E-01	1.827E-02	0.431
		756.73	*	7.805E-02	9.099E-02	1.586E-01	1.512E-02	0.492
MO-99		140.51		7.414E+00	2.881E+01	4.148E+01	9.805E+00	0.179
		181.07		6.574E+00	2.327E+01	3.528E+01	6.631E+00	0.186
		366.42		1.422E+00	1.192E+02	1.938E+02	1.704E+01	0.007
		739.50	*	9.531E+00	1.517E+01	2.599E+01	4.084E+00	0.367
		777.92		-2.396E+01	4.517E+01	6.995E+01	6.114E+00	-0.342
TC-99M		140.51	*	1.086E+10	4.517E+01	Half-Life too short		
RU-103		497.08	*	-1.359E-02	4.692E-02	7.533E-02	1.055E-02	-0.180
	+	610.33		1.541E+01	3.200E+00	3.558E+00	5.776E-01	4.330
RH-106		621.93	*	2.826E-01	3.787E-01	6.602E-01	8.632E-02	0.428
		1050.41		-1.247E+00	2.996E+00	4.770E+00	4.219E-01	-0.261
RU-106		621.93	*	2.826E-01	3.776E-01	6.602E-01	5.505E-02	0.428
		1050.41		-1.247E+00	2.996E+00	4.770E+00	4.219E-01	-0.261
AG-108M		433.94	*	-3.464E-02	3.830E-02	5.724E-02	5.086E-03	-0.605
		614.28		2.657E-02	4.550E-02	6.966E-02	6.039E-03	0.381
		722.91		2.212E-02	5.308E-02	7.878E-02	6.878E-03	0.281
AG-110M		657.76	*	-4.895E-02	4.179E-02	6.165E-02	5.173E-03	-0.794
		677.62		-3.246E-02	3.899E-01	6.372E-01	5.384E-02	-0.051
		706.68		1.674E-01	2.624E-01	4.516E-01	3.889E-02	0.371
		763.94		-2.436E-01	2.088E-01	3.047E-01	2.712E-02	-0.800
		884.68		3.292E-02	6.060E-02	1.029E-01	9.757E-03	0.320
		937.49		6.263E-02	1.426E-01	2.192E-01	2.084E-02	0.286
		1384.29		-9.013E-02	2.145E-01	3.298E-01	3.102E-02	-0.273
		1505.03		-4.941E-02	3.190E-01	5.014E-01	4.600E-02	-0.099
SN-113		391.69	*	3.865E-02	5.472E-02	9.248E-02	8.066E-03	0.418
CD-115		260.90		9.468E+01	1.668E+02	2.842E+02	2.638E+01	0.333
		492.35		2.145E+01	4.380E+01	7.612E+01	6.611E+00	0.282
		527.90	*	6.321E+00	1.462E+01	2.428E+01	2.103E+00	0.260
SN-117M		156.02		-8.790E-01	2.804E+00	4.387E+00	3.680E-01	-0.200
		158.56	*	1.054E-02	6.752E-02	1.079E-01	9.069E-03	0.098
TE-123M		159.00	*	1.575E-02	3.471E-02	5.619E-02	4.754E-03	0.280
SB-124		602.73		1.888E-02	4.683E-02	7.349E-02	6.200E-03	0.257
		645.85		-2.277E-01	5.946E-01	9.504E-01	8.286E-02	-0.240
		722.78		2.268E-01	5.331E-01	7.921E-01	6.850E-02	0.286
		1690.97	*	-1.810E-02	9.057E-02	1.447E-01	1.331E-02	-0.125
SB-125		427.87	*	-3.437E-02	1.135E-01	1.784E-01	1.561E-02	-0.193
	+	463.37		8.824E-01	4.047E-01	6.431E-01	5.988E-02	1.372
		600.60		-1.746E-02	2.048E-01	3.377E-01	3.071E-02	-0.052
		635.95		-2.006E-01	3.334E-01	5.234E-01	4.703E-02	-0.383

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-125M		109.28	*	-2.003E+00	1.169E+01	1.859E+01	2.001E+00	-0.108
I-126		388.63		-4.973E-02	2.068E-01	3.292E-01	2.797E-02	-0.151
		666.33	*	-2.303E-01	2.790E-01	4.286E-01	3.480E-02	-0.537
		753.82		1.409E+00	2.347E+00	4.012E+00	3.456E-01	0.351
SB-126		414.70		-2.985E-02	9.477E-02	1.493E-01	1.276E-02	-0.200
		666.50		-7.406E-02	9.610E-02	1.484E-01	1.206E-02	-0.499
		695.00		2.364E-02	9.820E-02	1.643E-01	1.362E-02	0.144
		697.00		-1.055E-01	3.403E-01	5.450E-01	4.524E-02	-0.194
		720.70	*	1.114E-02	2.166E-01	3.088E-01	2.605E-02	0.036
		856.80		2.437E-01	6.574E-01	9.625E-01	8.767E-02	0.253
SB-127		252.40		1.304E+00	4.991E+00	8.360E+00	3.483E+00	0.156
		473.00		-1.205E+00	1.943E+00	2.932E+00	3.750E-01	-0.411
		685.70	*	-2.426E-01	1.669E+00	2.713E+00	3.001E-01	-0.089
		783.70		2.075E+00	4.097E+00	6.960E+00	8.659E-01	0.298
I-131		80.19		2.132E+00	5.565E+00	8.308E+00	8.540E-01	0.257
		284.31		-3.787E-01	1.781E+00	2.906E+00	2.825E-01	-0.130
		364.49	*	4.740E-02	1.390E-01	2.309E-01	2.141E-02	0.205
		636.99		-2.534E-01	1.890E+00	3.091E+00	2.710E-01	-0.082
TE-132		49.72		-2.356E+01	2.597E+01	4.156E+01	4.854E+00	-0.567
		111.76		-3.147E+01	3.940E+01	6.036E+01	6.733E+00	-0.521
		116.30		-4.724E+00	3.300E+01	5.288E+01	5.812E+00	-0.089
		228.16	*	-1.340E-01	8.463E-01	1.405E+00	2.259E-01	-0.095
BA-133		81.00		-1.777E-01	1.263E-01	1.676E-01	2.769E-02	-1.060
		276.40		2.969E-01	4.590E-01	7.286E-01	1.060E-01	0.407
		302.85		2.873E-03	1.924E-01	2.778E-01	3.754E-02	0.010
		356.01	*	1.763E-02	5.448E-02	7.988E-02	1.050E-02	0.221
		383.85		-2.421E-01	3.610E-01	5.557E-01	6.884E-02	-0.436
I-133		529.87	*	-4.759E-03	3.610E-01	Half-Life too short		
		875.33		6.519E-02	3.610E-01	Half-Life too short		
		1298.22		-1.475E-01	3.610E-01	Half-Life too short		
CS-134		563.25		-6.989E-03	4.215E-01	7.022E-01	6.085E-02	-0.010
		569.33		1.189E-01	2.413E-01	4.101E-01	3.560E-02	0.290
		604.72		8.526E-04	4.226E-02	6.101E-02	5.154E-03	0.014
	+	795.86	*	1.021E-01	6.733E-02	1.145E-01	1.018E-02	0.891
		801.95		-8.139E-02	5.095E-01	7.717E-01	6.872E-02	-0.105
		1365.19		4.551E-01	1.513E+00	2.564E+00	2.449E-01	0.177
CS-135		268.22	*	1.173E-01	2.128E-01	3.212E-01	3.392E-02	0.365
I-135		546.56		3.052E+09	2.128E-01	Half-Life too short		
		836.80		1.674E+10	2.128E-01	Half-Life too short		
		1038.76		1.985E+10	2.128E-01	Half-Life too short		
		1131.51		8.671E+09	2.128E-01	Half-Life too short		
		1260.41	*	1.408E+09	2.128E-01	Half-Life too short		
		1457.56		7.153E+11	2.128E-01	Half-Life too short		
		1678.03		2.099E+09	2.128E-01	Half-Life too short		
		1791.20		9.337E+08	2.128E-01	Half-Life too short		
CS-136		153.25		3.363E-01	1.024E+00	1.651E+00	1.661E-01	0.204
		176.60		-2.334E-01	5.842E-01	9.743E-01	9.229E-02	-0.240
		273.65		-5.923E-01	7.116E-01	9.696E-01	9.685E-02	-0.611
		340.55		5.314E-01	2.299E-01	3.711E-01	3.477E-02	1.432

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		818.51		-2.052E-02	9.389E-02	1.491E-01	1.333E-02	-0.138
		1048.07	*	-7.073E-02	1.287E-01	2.021E-01	1.861E-02	-0.350
		1235.36		-1.582E-01	9.301E-01	1.285E+00	1.503E-01	-0.123
BA-137M		661.66	*	4.529E-02	4.251E-02	7.564E-02	6.121E-03	0.599
CS-137		661.66	*	4.785E-02	4.491E-02	7.991E-02	6.480E-03	0.599
CE-139		165.86	*	-4.312E-02	3.779E-02	5.627E-02	4.759E-03	-0.766
BA-140		162.66		6.374E-01	1.009E+00	1.643E+00	1.483E-01	0.388
		304.85		1.046E+00	1.820E+00	2.706E+00	7.974E-01	0.386
		423.72		-3.189E-01	2.431E+00	3.870E+00	1.273E+00	-0.082
		537.26	*	6.064E-02	3.204E-01	5.423E-01	1.839E-01	0.112
LA-140	+	328.76		9.850E-01	5.936E-01	7.024E-01	6.754E-02	1.402
		487.02		-2.279E-02	1.505E-01	2.506E-01	2.309E-02	-0.091
		815.77		8.491E-02	4.123E-01	6.816E-01	6.750E-02	0.125
		1596.21	*	-1.305E-01	1.064E-01	1.416E-01	1.283E-02	-0.921
CE-143		57.36		-2.104E-04	1.064E-01	Half-Life too short		
		293.27	*	6.280E-04	1.064E-01	Half-Life too short		
		664.57		1.019E-03	1.064E-01	Half-Life too short		
		721.93		6.485E-04	1.064E-01	Half-Life too short		
CE-144		80.12		1.145E+00	3.025E+00	4.516E+00	4.618E-01	0.254
		133.52	*	7.789E-02	2.632E-01	3.814E-01	5.767E-02	0.204
PM-144		476.78		-4.698E-02	7.489E-02	1.206E-01	1.136E-02	-0.390
		618.01		-9.877E-03	4.098E-02	6.479E-02	5.577E-03	-0.152
		696.49	*	-2.155E-02	4.496E-02	7.104E-02	5.897E-03	-0.303
PR-144		696.51	*	-1.618E+00	3.364E+00	5.315E+00	4.411E-01	-0.304
		1489.16		5.430E+00	1.136E+01	2.024E+01	1.859E+00	0.268
PM-146		453.88	*	2.702E-02	5.309E-02	8.802E-02	9.345E-03	0.307
		633.25		6.899E-01	1.670E+00	2.821E+00	1.075E+00	0.245
		735.93		-2.038E-02	1.847E-01	2.907E-01	8.139E-02	-0.070
		747.24		8.832E-02	1.249E-01	2.149E-01	3.129E-02	0.411
ND-147	+	91.11		9.807E-01	4.022E-01	5.982E-01	6.715E-02	1.639
		319.41		-4.167E-01	4.140E+00	6.747E+00	6.213E-01	-0.062
		531.02	*	-2.210E-01	6.705E-01	1.095E+00	1.639E-01	-0.202
PM-149		285.90	*	-5.179E+00	1.092E+02	1.798E+02	2.865E+01	-0.029
EU-152		121.78		1.073E-01	8.981E-02	1.507E-01	1.467E-02	0.712
		244.70		2.615E-01	4.136E-01	6.316E-01	5.821E-02	0.414
		344.28	*	6.699E-02	1.355E-01	2.013E-01	1.915E-02	0.333
		778.90		3.572E-03	3.124E-01	5.092E-01	4.453E-02	0.007
	+	964.08		1.064E+00	4.823E-01	7.387E-01	6.761E-02	1.440
		1085.87		1.768E-01	4.632E-01	7.972E-01	6.911E-02	0.222
		1112.07		6.637E-02	4.112E-01	6.608E-01	5.630E-02	0.100
		1408.01		1.740E-01	2.551E-01	4.465E-01	4.107E-02	0.390
GD-153		69.67		-2.042E+00	2.235E+00	3.378E+00	3.177E-01	-0.605
		97.43	*	-4.136E-02	1.095E-01	1.555E-01	1.534E-02	-0.266
		103.18		-1.700E-01	1.315E-01	2.001E-01	1.874E-02	-0.850
EU-154		123.07		3.864E-02	6.433E-02	1.058E-01	1.184E-02	0.365
		723.31		9.861E-02	2.405E-01	3.567E-01	3.331E-02	0.276
		873.19		-2.185E-02	3.359E-01	5.382E-01	6.622E-02	-0.041
		996.26		-6.323E-03	4.388E-01	7.323E-01	1.295E-01	-0.009
		1004.73		2.539E-02	2.724E-01	4.585E-01	5.477E-02	0.055

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1274.44	*	-2.697E-02	1.610E-01	2.591E-01	2.980E-02	-0.104
EU-155	+	86.55		4.089E-01	1.232E-01	2.185E-01	2.407E-02	1.871
		105.31	*	1.379E-01	1.234E-01	2.080E-01	1.936E-02	0.663
TB-160	+	86.79		1.084E+00	3.264E-01	5.780E-01	6.345E-02	1.876
		197.04		1.565E-02	6.745E-01	1.105E+00	9.737E-02	0.014
		215.65		6.498E-01	9.420E-01	1.518E+00	1.367E-01	0.428
	+	298.57		3.911E-01	2.146E-01	2.534E-01	2.354E-02	1.544
		879.36	*	-1.003E-01	1.728E-01	2.611E-01	2.403E-02	-0.384
		962.29		9.631E-01	7.140E-01	1.208E+00	1.106E-01	0.797
		966.15		1.329E+00	3.328E-01	6.435E-01	5.887E-02	2.066
		1177.93		-4.724E-03	4.814E-01	7.931E-01	6.456E-02	-0.006
		1271.85		-3.579E-01	9.439E-01	1.485E+00	1.301E-01	-0.241
HO-166M		80.57		-1.480E-02	3.345E-01	4.895E-01	5.028E-02	-0.030
		184.41		1.940E-01	5.639E-02	9.279E-02	8.046E-03	2.091
		280.46		-1.114E-01	1.044E-01	1.619E-01	1.507E-02	-0.688
		410.95		7.669E-02	3.336E-01	5.393E-01	4.602E-02	0.142
		711.68	*	-5.548E-02	7.573E-02	1.162E-01	9.743E-03	-0.477
		752.31		3.392E-02	3.497E-01	5.756E-01	4.954E-02	0.059
		810.29		-1.606E-02	7.150E-02	1.135E-01	1.010E-02	-0.142
TA-182		67.75		6.034E-02	1.363E-01	2.266E-01	2.107E-02	0.266
		100.11		2.543E-01	2.056E-01	3.483E-01	3.348E-02	0.730
		152.43		-1.113E-01	4.170E-01	6.547E-01	5.479E-02	-0.170
		222.11		1.499E-01	4.250E-01	7.223E-01	6.544E-02	0.208
	+	1121.30		8.414E-01	3.078E-01	4.385E-01	3.711E-02	1.919
		1189.05		-2.407E-01	3.859E-01	5.969E-01	4.903E-02	-0.403
		1221.41	*	-2.340E-01	2.800E-01	4.274E-01	3.603E-02	-0.548
		1231.02		1.175E-02	6.580E-01	1.032E+00	8.768E-02	0.011
IR-192	+	295.96		1.356E+00	2.671E-01	3.565E-01	3.335E-02	3.803
		308.46		-8.084E-02	1.216E-01	1.920E-01	1.785E-02	-0.421
		316.51	*	3.482E-02	4.180E-02	7.167E-02	6.623E-03	0.486
		468.07		1.904E-02	9.202E-02	1.309E-01	1.217E-02	0.145
HG-203		70.83		9.122E-02	1.782E+00	2.636E+00	4.358E-01	0.035
		72.87		2.030E+00	1.092E+00	1.663E+00	2.679E-01	1.220
		279.20	*	1.536E-02	4.580E-02	7.699E-02	7.328E-03	0.199
BI-207		72.81		4.319E-01	2.439E-01	3.814E-01	3.664E-02	1.132
	+	74.97		7.851E-01	1.756E-01	2.783E-01	2.718E-02	2.821
		569.70		1.470E-02	3.677E-02	6.212E-02	5.319E-03	0.237
		1063.66	*	-1.003E-03	7.131E-02	1.184E-01	1.040E-02	-0.008
		1770.23		-9.767E-02	5.943E-01	8.133E-01	6.994E-02	-0.120
PB-210		46.54	*	3.399E+00	5.267E+00	8.926E+00	8.586E-01	0.381
PB-211		404.85	*	-3.056E-01	9.820E-01	1.536E+00	7.429E-01	-0.199
		427.09		-2.933E-01	1.874E+00	2.970E+00	1.374E+00	-0.099
		832.01		9.688E-01	1.394E+00	2.240E+00	1.163E+00	0.432
BI-212	+	727.33	*	3.298E+00	1.251E+00	1.613E+00	1.993E-01	2.045
		785.37		7.024E-01	3.609E+00	5.980E+00	5.248E-01	0.117
		1620.50		3.325E+00	2.911E+00	5.612E+00	5.059E-01	0.592
RN-219	+	271.23		7.620E-01	4.230E-01	5.442E-01	5.899E-02	1.400
		401.81	*	9.460E-02	5.368E-01	8.760E-01	1.297E-01	0.108
RA-223		81.07		-4.060E-01	2.811E-01	3.792E-01	3.914E-02	-1.071

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		83.79		2.431E-01	1.573E-01	2.436E-01	2.587E-02	0.998
		94.87		1.226E+00	5.763E-01	9.064E-01	9.197E-02	1.352
	+	144.24		1.010E+00	1.083E+00	1.437E+00	1.346E-01	0.703
		154.21		6.530E-01	4.724E-01	7.909E-01	7.295E-02	0.826
	+	269.46		5.921E-01	3.272E-01	4.193E-01	3.967E-02	1.412
		323.87	*	6.705E-01	9.185E-01	1.382E+00	2.435E-01	0.485
	+	338.28		7.701E+00	2.612E+00	2.982E+00	3.698E-01	2.583
AC-227		79.69		2.607E-01	1.527E+00	2.258E+00	4.080E-01	0.115
		235.96		2.721E-01	2.169E-01	3.377E-01	3.647E-02	0.806
		256.23	*	-9.142E-02	3.064E-01	5.012E-01	6.276E-02	-0.182
	+	299.98		3.057E+00	1.701E+00	2.015E+00	2.653E-01	1.517
		304.50		1.863E+00	2.188E+00	3.332E+00	5.624E-01	0.559
		334.37		1.403E+00	2.987E+00	3.296E+00	5.229E-01	0.426
TH-227		79.80		3.434E-01	2.012E+00	2.975E+00	6.678E-01	0.115
		235.96		2.721E-01	2.167E-01	3.377E-01	3.458E-02	0.806
		256.23	*	-9.142E-02	3.065E-01	5.012E-01	7.029E-02	-0.182
	+	299.98		3.057E+00	1.701E+00	2.015E+00	2.653E-01	1.517
		304.50		1.863E+00	2.188E+00	3.332E+00	5.624E-01	0.559
		334.37		1.403E+00	2.987E+00	3.296E+00	5.229E-01	0.426
TH-229		85.43		5.268E-01	2.756E-01	4.280E-01	4.626E-02	1.231
	+	88.47		5.199E-01	1.565E-01	2.807E-01	3.102E-02	1.852
		193.51	*	-4.028E-01	6.341E-01	1.026E+00	9.006E-02	-0.392
	+	210.85		4.039E+00	1.824E+00	1.985E+00	1.778E-01	2.035
PA-231		283.69	*	-5.800E-01	1.729E+00	2.799E+00	4.200E-01	-0.207
	+	301.36		1.964E+00	1.091E+00	1.297E+00	1.638E-01	1.515
TH-231		81.07		-4.060E-01	2.811E-01	3.792E-01	3.914E-02	-1.071
		83.79		2.431E-01	1.573E-01	2.436E-01	2.587E-02	0.998
		94.87		1.226E+00	5.763E-01	9.064E-01	9.197E-02	1.352
	+	144.24		1.010E+00	1.083E+00	1.437E+00	1.346E-01	0.703
		154.21		6.530E-01	4.724E-01	7.909E-01	7.295E-02	0.826
	+	269.46		5.921E-01	3.272E-01	4.193E-01	3.967E-02	1.412
		323.87	*	6.705E-01	9.185E-01	1.382E+00	2.435E-01	0.485
	+	338.28		7.701E+00	2.612E+00	2.982E+00	3.698E-01	2.583
PA-233	+	300.13		1.383E+00	7.771E-01	9.125E-01	1.389E-01	1.516
		311.90	*	1.822E-02	7.930E-02	1.319E-01	1.249E-02	0.138
		340.48		2.856E+00	1.173E+00	1.622E+00	3.930E-01	1.761
PA-234		94.67		5.650E-01	2.218E-01	3.422E-01	4.628E-02	1.651
		98.44		-7.502E-03	1.136E-01	1.753E-01	9.815E-02	-0.043
		111.00		-6.816E-02	2.126E-01	3.386E-01	4.155E-02	-0.201
		131.20		6.979E-02	1.395E-01	2.047E-01	1.706E-02	0.341
		569.50		1.553E-01	3.319E-01	5.632E-01	4.823E-02	0.276
		733.00		-1.496E-01	5.230E-01	7.112E-01	1.575E-01	-0.210
		880.51		-2.708E-01	3.565E-01	5.278E-01	4.859E-02	-0.513
		883.24		1.697E-01	3.600E-01	5.788E-01	3.896E-01	0.293
		926.50		-8.932E-02	2.681E-01	3.512E-01	8.952E-02	-0.254
		946.00	*	-1.638E-02	3.662E-01	6.118E-01	1.165E-01	-0.027
		949.00		2.092E-02	5.629E-01	9.473E-01	8.705E-02	0.022
PA-234M		766.42		1.777E+01	1.672E+01	2.520E+01	1.279E+01	0.705
		1001.03	*	-7.486E-01	6.135E+00	1.018E+01	1.052E+00	-0.074

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	1.683E+00	1.731E+00	2.886E+00	5.365E-01	0.583
	+	92.59		2.827E+00	1.204E+00	1.566E+00	3.579E-01	1.805
U-238		63.29	*	1.683E+00	1.731E+00	2.886E+00	5.365E-01	0.583
	+	92.59		2.827E+00	1.058E+00	1.566E+00	1.634E-01	1.805
NP-239		99.53		2.507E-01	1.893E-01	3.215E-01	3.107E-02	0.780
		103.37		-1.608E-01	1.194E-01	1.811E-01	1.694E-02	-0.888
		106.12		6.033E-02	1.013E-01	1.679E-01	1.537E-02	0.359
		117.23	*	3.335E-01	4.677E-01	7.760E-01	6.664E-02	0.430
		228.18		-8.661E-02	2.563E-01	4.220E-01	3.844E-02	-0.205
		277.60		9.854E-02	2.117E-01	3.580E-01	3.334E-02	0.275
AM-241		59.54	*	-1.855E-01	1.973E-01	3.115E-01	2.957E-02	-0.596
CM-247		278.00		8.702E-01	9.032E-01	1.559E+00	1.452E-01	0.558
		287.50		1.231E+00	1.489E+00	2.557E+00	2.381E-01	0.481
		402.40	*	3.956E-02	4.889E-02	8.274E-02	7.032E-03	0.478
CF-249		252.80		5.312E-01	1.094E+00	1.862E+00	1.723E-01	0.285
		333.37		4.261E-02	3.295E-01	3.463E-01	3.157E-02	0.123
		388.16	*	3.777E-03	4.951E-02	8.054E-02	6.849E-03	0.047
CF-251		177.52	*	-1.935E-02	1.526E-01	2.574E-01	2.211E-02	-0.075
		227.38		-7.186E-02	4.139E-01	6.869E-01	6.253E-02	-0.105
		285.41		-6.387E-01	2.634E+00	4.290E+00	3.995E-01	-0.149

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202069895    *
* Acquisition date : 24-MAR-2010 13:15:49 Detector SN#     :               *
* Detector ID        : GAM06               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.40      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        :  9-MAR-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202069895         Analyst initials: MXR1          *
* Batch Number       : 964804              Sample Quantity : 1.2558E+02 GRAM *
* Recovery           :    1.00000          Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.422E+01	3.823E+00	8.868E-01	0.000E+00
CD-109	3.449E+00	1.018E+00	1.559E+00	0.000E+00
SN-126	3.372E-01	9.950E-02	1.532E-01	0.000E+00
CE-141	9.439E-02	9.909E-02	1.284E-01	0.000E+00
TL-208	5.668E-01	1.033E-01	7.680E-02	0.000E+00
BI-211	3.955E+00	6.385E-01	3.981E-01	0.000E+00
PB-212	1.780E+00	2.382E-01	1.446E-01	0.000E+00
BI-214	1.494E+00	2.390E-01	1.342E-01	0.000E+00
PB-214	1.436E+00	2.444E-01	1.448E-01	0.000E+00
RA-224	2.795E+00	1.112E+00	1.807E+00	0.000E+00
RA-226	1.494E+00	2.390E-01	1.342E-01	0.000E+00
AC-228	2.361E+00	5.071E-01	2.592E-01	0.000E+00
RA-228	2.361E+00	5.071E-01	2.592E-01	0.000E+00
TH-228	1.780E+00	2.382E-01	1.446E-01	0.000E+00
TH-230	1.494E+00	2.262E-01	1.342E-01	0.000E+00
TH-232	2.361E+00	5.071E-01	2.592E-01	0.000E+00
U-235	3.015E-01	3.193E-01	3.909E-01	0.000E+00
NP-237	1.006E+00	3.618E-01	5.065E-01	0.000E+00
ANH-511	1.472E-01	7.993E-02	5.964E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	6.470E-02	3.615E-01	6.392E-01	0.000E+00	NOT IDENT.
NA-22	-2.485E-02	5.712E-02	9.134E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.751E+05	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-4.223E-03	4.771E-02	7.823E-02	0.000E+00	FAIL ABUN
V-48	-3.209E-02	8.023E-02	1.321E-01	0.000E+00	NOT IDENT.
CR-51	-3.631E-01	4.645E-01	7.566E-01	0.000E+00	NOT IDENT.
MN-54	-3.167E-02	5.060E-02	7.975E-02	0.000E+00	NOT IDENT.
CO-56	-4.032E-02	4.505E-02	6.748E-02	0.000E+00	FAIL ABUN

CO-57	3.002E-02	3.078E-02	5.422E-02	0.000E+00	NOT IDENT.
CO-58	-5.275E-04	4.570E-02	7.619E-02	0.000E+00	NOT IDENT.
FE-59	3.572E-02	1.070E-01	1.873E-01	0.000E+00	NOT IDENT.
CO-60	3.482E-03	4.830E-02	8.153E-02	0.000E+00	NOT IDENT.
ZN-65	3.779E-02	1.284E-01	1.941E-01	0.000E+00	NOT IDENT.
SE-75	-4.440E-02	5.755E-02	8.773E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.855E-02	8.549E-02	0.000E+00	NOT IDENT.
Y-88	-3.903E-02	3.424E-02	3.949E-02	0.000E+00	NOT IDENT.
Y-91	-2.942E+00	2.920E+01	4.874E+01	0.000E+00	NOT IDENT.
NB-94	-1.126E-02	4.078E-02	6.745E-02	0.000E+00	NOT IDENT.
NB-95	4.832E-03	5.334E-02	9.014E-02	0.000E+00	NOT IDENT.
NB-95M	1.016E-01	1.700E-01	2.698E-01	0.000E+00	NOT IDENT.
ZR-95	7.805E-02	8.917E-02	1.600E-01	0.000E+00	NOT IDENT.
MO-99	9.531E+00	1.486E+01	2.623E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.138E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.359E-02	4.599E-02	7.646E-02	0.000E+00	FAIL ABUN
RH-106	2.826E-01	3.711E-01	6.679E-01	0.000E+00	NOT IDENT.
RU-106	2.826E-01	3.701E-01	6.679E-01	0.000E+00	NOT IDENT.
AG-108M	-3.464E-02	3.754E-02	5.821E-02	0.000E+00	NOT IDENT.
AG-110M	-4.895E-02	4.096E-02	6.232E-02	0.000E+00	NOT IDENT.
SN-113	3.865E-02	5.362E-02	9.418E-02	0.000E+00	NOT IDENT.
CD-115	6.321E+00	1.432E+01	2.462E+01	0.000E+00	NOT IDENT.
SN-117M	1.054E-02	6.617E-02	1.113E-01	0.000E+00	NOT IDENT.
TE-123M	1.575E-02	3.401E-02	5.795E-02	0.000E+00	NOT IDENT.
SB-124	-1.810E-02	8.876E-02	1.443E-01	0.000E+00	NOT IDENT.
SB-125	-3.437E-02	1.112E-01	1.814E-01	0.000E+00	FAIL ABUN
TE-125M	-2.003E+00	1.146E+01	1.927E+01	0.000E+00	NOT IDENT.
I-126	-2.303E-01	2.734E-01	4.332E-01	0.000E+00	NOT IDENT.
SB-126	1.114E-02	2.123E-01	3.118E-01	0.000E+00	NOT IDENT.
SB-127	-2.426E-01	1.636E+00	2.741E+00	0.000E+00	NOT IDENT.
I-131	4.740E-02	1.362E-01	2.354E-01	0.000E+00	NOT IDENT.
TE-132	-1.340E-01	8.294E-01	1.442E+00	0.000E+00	NOT IDENT.
BA-133	1.763E-02	5.339E-02	8.146E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.845E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.021E-01	6.598E-02	1.154E-01	0.000E+00	FAIL ABUN
CS-135	1.173E-01	2.086E-01	3.289E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	7.041E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-7.073E-02	1.261E-01	2.029E-01	0.000E+00	NOT IDENT.
BA-137M	4.529E-02	4.166E-02	7.646E-02	0.000E+00	NOT IDENT.
CS-137	4.785E-02	4.401E-02	8.077E-02	0.000E+00	NOT IDENT.
CE-139	-4.312E-02	3.704E-02	5.800E-02	0.000E+00	NOT IDENT.
BA-140	6.064E-02	3.140E-01	5.498E-01	0.000E+00	NOT IDENT.
LA-140	-1.305E-01	1.043E-01	1.414E-01	0.000E+00	FAIL ABUN
CE-143	0.000E+00	2.269E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	7.789E-02	2.579E-01	3.942E-01	0.000E+00	NOT IDENT.
PM-144	-2.155E-02	4.406E-02	7.176E-02	0.000E+00	NOT IDENT.
PR-144	-1.618E+00	3.297E+00	5.369E+00	0.000E+00	NOT IDENT.
PM-146	2.702E-02	5.203E-02	8.946E-02	0.000E+00	NOT IDENT.
ND-147	-2.210E-01	6.571E-01	1.110E+00	0.000E+00	FAIL ABUN
PM-149	-5.179E+00	1.070E+02	1.839E+02	0.000E+00	NOT IDENT.
EU-152	6.699E-02	1.328E-01	2.054E-01	0.000E+00	FAIL ABUN
GD-153	-4.136E-02	1.073E-01	1.614E-01	0.000E+00	NOT IDENT.
EU-154	-2.697E-02	1.578E-01	2.595E-01	0.000E+00	NOT IDENT.
EU-155	1.379E-01	1.209E-01	2.157E-01	0.000E+00	FAIL ABUN
TB-160	-1.003E-01	1.693E-01	2.629E-01	0.000E+00	FAIL ABUN
HO-166M	-5.548E-02	7.421E-02	1.173E-01	0.000E+00	NOT IDENT.
TA-182	-2.340E-01	2.744E-01	4.282E-01	0.000E+00	FAIL ABUN
IR-192	3.482E-02	4.097E-02	7.321E-02	0.000E+00	FAIL ABUN
HG-203	1.536E-02	4.488E-02	7.879E-02	0.000E+00	NOT IDENT.
BI-207	-1.003E-03	6.989E-02	1.189E-01	0.000E+00	FAIL ABUN
PB-210	3.399E+00	5.162E+00	9.360E+00	0.000E+00	NOT IDENT.
PB-211	-3.056E-01	9.623E-01	1.563E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.226E+00	1.628E+00	0.000E+00	FAIL ABUN
RN-219	9.460E-02	5.260E-01	8.918E-01	0.000E+00	FAIL ABUN
RA-223	6.705E-01	9.001E-01	1.411E+00	0.000E+00	FAIL ABUN
AC-227	-9.142E-02	3.003E-01	5.134E-01	0.000E+00	FAIL ABUN
TH-227	-9.142E-02	3.003E-01	5.134E-01	0.000E+00	FAIL ABUN
TH-229	-4.028E-01	6.214E-01	1.056E+00	0.000E+00	FAIL ABUN
PA-231	-5.800E-01	1.694E+00	2.863E+00	0.000E+00	FAIL ABUN
TH-231	6.705E-01	9.001E-01	1.411E+00	0.000E+00	FAIL ABUN
PA-233	1.822E-02	7.771E-02	1.347E-01	0.000E+00	FAIL ABUN
PA-234	-1.638E-02	3.589E-01	6.153E-01	0.000E+00	NOT IDENT.
PA-234M	-7.486E-01	6.012E+00	1.023E+01	0.000E+00	NOT IDENT.
TH-234	1.683E+00	1.697E+00	3.014E+00	0.000E+00	FAIL ABUN
U-238	1.683E+00	1.697E+00	3.014E+00	0.000E+00	FAIL ABUN
NP-239	3.335E-01	4.584E-01	8.036E-01	0.000E+00	NOT IDENT.
AM-241	-1.855E-01	1.934E-01	3.255E-01	0.000E+00	NOT IDENT.
CM-247	3.956E-02	4.791E-02	8.423E-02	0.000E+00	NOT IDENT.

CF-249	3.777E-03	4.852E-02	8.203E-02	0.000E+00 NOT IDENT.
CF-251	-1.935E-02	1.496E-01	2.651E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 15:16:18.30

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202069895.CNF;1
Sample date       : 9-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 13:15:49
Sample ID         : G1202069895          Sample quantity  : 1.25580E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.40  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 964804                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1140	10.66*	9.338E-01	3.422E+01	3.422E+01	11.40
CD-109	88.03	216	3.70*	5.176E+00	3.372E+00	3.449E+00	30.11
SN-126	64.28	------	9.60	2.842E+00	------ Line Not Found		------
	86.94	216	8.90	5.176E+00	1.402E+00	1.402E+00	50.43
	87.57	216	37.00*	5.176E+00	3.372E-01	3.372E-01	30.11
CE-141	145.44	63	48.29*	5.715E+00	6.842E-02	9.439E-02	107.12
TL-208	277.37	------	6.60	3.754E+00	------ Line Not Found		------
	583.19	343	85.00*	2.125E+00	5.668E-01	5.668E-01	18.60
	860.56	64	12.50	1.511E+00	1.014E+00	1.014E+00	67.96
BI-211	72.87	------	1.23	3.914E+00	------ Line Not Found		------
	351.06	537	12.92*	3.143E+00	3.955E+00	3.955E+00	16.47
PB-212	74.82	387	10.28	4.131E+00	2.724E+00	2.724E+00	24.39
	77.11	561	17.10	4.359E+00	2.251E+00	2.251E+00	17.55
	238.63	1088	43.60*	4.191E+00	1.780E+00	1.780E+00	13.65
	300.09	109	3.30	3.541E+00	2.779E+00	2.779E+00	55.20
BI-214	609.32	466	45.49*	2.050E+00	1.494E+00	1.494E+00	16.32
	1120.29	106	14.92	1.179E+00	1.796E+00	1.796E+00	37.20
	1764.49	74	15.30	8.244E-01	1.754E+00	1.754E+00	24.80
PB-214	74.82	387	5.80	4.131E+00	4.828E+00	4.828E+00	23.73
	77.11	561	9.70	4.359E+00	3.969E+00	3.969E+00	19.39
	242.00	159	7.25	4.153E+00	1.581E+00	1.581E+00	41.00
	295.22	405	18.42	3.584E+00	1.834E+00	1.834E+00	20.73
	351.93	537	35.60*	3.143E+00	1.435E+00	1.436E+00	17.37
RA-224	240.99	159	4.10*	4.153E+00	2.795E+00	2.795E+00	40.59
RA-226	609.32	466	45.49*	2.050E+00	1.494E+00	1.494E+00	16.32
	1120.29	106	14.92	1.179E+00	1.796E+00	1.796E+00	37.20
	1764.49	74	15.30	8.244E-01	1.754E+00	1.754E+00	24.80
AC-228	338.32	237	11.27	3.236E+00	1.941E+00	1.941E+00	52.39
	911.20	292	25.80*	1.432E+00	2.361E+00	2.361E+00	21.92
	968.97	149	15.80	1.352E+00	2.088E+00	2.088E+00	34.59
RA-228	338.32	237	11.27	3.236E+00	1.941E+00	1.941E+00	52.39
	911.20	292	25.80*	1.432E+00	2.361E+00	2.361E+00	21.92

Sample ID : G1202069895 Acquisition date : 24-MAR-2010 13:15:49

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	149	15.80	1.352E+00	2.088E+00	2.088E+00	34.59
TH-228	74.82	387	10.28	4.131E+00	2.724E+00	2.724E+00	22.40
	77.11	561	17.10	4.359E+00	2.251E+00	2.251E+00	17.55
	238.63	1088	43.60*	4.191E+00	1.780E+00	1.780E+00	13.65
	300.09	109	3.30	3.541E+00	2.779E+00	2.779E+00	81.75
TH-230	609.32	466	45.49*	2.050E+00	1.494E+00	1.494E+00	15.44
	1120.29	106	14.92	1.179E+00	1.796E+00	1.796E+00	36.59
	1764.49	74	15.30	8.244E-01	1.754E+00	1.754E+00	24.80
TH-232	338.32	237	11.27	3.236E+00	1.941E+00	1.941E+00	32.85
	911.20	292	25.80*	1.432E+00	2.361E+00	2.361E+00	21.92
	968.97	149	15.80	1.352E+00	2.088E+00	2.088E+00	34.59
U-235	89.96	188	3.47	5.330E+00	3.041E+00	3.041E+00	46.91
	93.35	219	5.60	5.480E+00	2.135E+00	2.135E+00	43.12
	143.76	63	10.96*	5.715E+00	3.015E-01	3.015E-01	108.10
	163.33	------	5.08	5.383E+00	------ Line Not Found		------
	185.72	370	57.20	4.979E+00	3.880E-01	3.880E-01	24.74
	205.31	------	5.01	4.664E+00	------ Line Not Found		------
NP-237	86.48	216	12.40*	5.176E+00	1.006E+00	1.006E+00	36.69
	95.86	------	2.68	5.611E+00	------ Line Not Found		------
ANH-511	511.00	116	100.00*	2.364E+00	1.472E-01	1.472E-01	55.41

Flag: "*" = Keyline

Sample ID : G1202069895 Acquisition date : 24-MAR-2010 13:15:49

Total number of lines in spectrum 33
Number of unidentified lines 3
Number of lines tentatively identified by NID 30 90.91%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.422E+01	3.422E+01	0.390E+01	11.40	
CD-109	461.40D	1.02	3.372E+00	3.449E+00	1.039E+00	30.11	
SN-126	2.30E+05Y	1.00	3.372E-01	3.372E-01	1.015E-01	30.11	
CE-141	32.51D	1.38	6.842E-02	9.439E-02	10.11E-02	107.12	
TL-208	1.41E+10Y	1.00	5.668E-01	5.668E-01	1.054E-01	18.60	
BI-211	7.04E+08Y	1.00	3.955E+00	3.955E+00	0.651E+00	16.47	
PB-212	1.41E+10Y	1.00	1.780E+00	1.780E+00	0.243E+00	13.65	
BI-214	1600.00Y	1.00	1.494E+00	1.494E+00	0.244E+00	16.32	
PB-214	1600.00Y	1.00	1.435E+00	1.436E+00	0.249E+00	17.37	
RA-224	1.41E+10Y	1.00	2.795E+00	2.795E+00	1.135E+00	40.59	
RA-226	1600.00Y	1.00	1.494E+00	1.494E+00	0.244E+00	16.32	
AC-228	1.41E+10Y	1.00	2.361E+00	2.361E+00	0.517E+00	21.92	
RA-228	1.41E+10Y	1.00	2.361E+00	2.361E+00	0.517E+00	21.92	
TH-228	1.41E+10Y	1.00	1.780E+00	1.780E+00	0.243E+00	13.65	
TH-230	7.54E+04Y	1.00	1.494E+00	1.494E+00	0.231E+00	15.44	
TH-232	1.41E+10Y	1.00	2.361E+00	2.361E+00	0.517E+00	21.92	
U-235	7.04E+08Y	1.00	3.015E-01	3.015E-01	3.259E-01	108.10	
NP-237	2.14E+06Y	1.00	1.006E+00	1.006E+00	0.369E+00	36.69	
ANH-511	1.00E+09Y	1.00	1.472E-01	1.472E-01	0.816E-01	55.41	
		Total Activity :	6.333E+01	6.344E+01			

Grand Total Activity : 6.333E+01 6.344E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202069895 Acquisition date : 24-MAR-2010 13:15:49

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.06	106	388	1.46	257.63	254	9	1.48E-02	69.6	5.91E+00	
0	209.45	174	329	1.11	418.35	413	12	2.42E-02	44.3	4.60E+00	T
0	270.65	105	203	1.10	540.68	536	10	1.46E-02	54.4	3.82E+00	T
0	328.86	97	184	1.66	657.06	652	12	1.35E-02	59.5	3.31E+00	T
0	463.17	79	72	1.33	925.60	921	9	1.09E-02	44.9	2.55E+00	T
0	727.51	130	86	1.47	1454.20	1447	15	1.80E-02	35.9	1.76E+00	T
0	795.19	42	46	0.96	1589.56	1585	9	5.85E-03	65.4	1.63E+00	T
0	935.87	47	60	4.77	1870.93	1859	19	6.53E-03	85.1	1.40E+00	
2	964.65	71	50	2.00	1928.49	1922	25	9.82E-03	44.4	1.36E+00	T
0	1238.55	29	54	1.34	2476.42	2472	9	4.10E-03	97.0	1.07E+00	T
0	1730.23	29	5	1.20	3460.27	3453	18	4.08E-03	52.6	8.33E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 15:16:22.09

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*******************************************************************************
*                            GEL Laboratories LLC                             *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202069895.CNF;1   *
* Acquisition date : 24-MAR-2010 13:15:49  Detector SN#    :                  *
* Detector ID      : GAM06                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:01.40         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date      : 9-MAR-2010 12:00:00.  Nuclide Library : SOLID            *
* Sample ID        : G1202069895           Analyst initials: MXR1             *
* Batch Number     : 964804                Sample Quantity : 1.25580E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04.7MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.422E+01	3.901E+00	8.874E-01	8.366E-02	38.565
CD-109	3.449E+00	1.039E+00	1.500E+00	1.669E-01	2.300
SN-126	3.372E-01	1.015E-01	1.473E-01	1.632E-02	2.289
CE-141	9.439E-02	1.011E-01	1.244E-01	1.057E-02	0.759
TL-208	5.668E-01	1.054E-01	7.584E-02	6.924E-03	7.473
BI-211	3.955E+00	6.515E-01	3.903E-01	3.663E-02	10.135
PB-212	1.780E+00	2.430E-01	1.410E-01	1.447E-02	12.624
BI-214	1.494E+00	2.439E-01	1.326E-01	1.316E-02	11.270
PB-214	1.436E+00	2.493E-01	1.419E-01	1.544E-02	10.113
RA-224	2.795E+00	1.135E+00	1.763E+00	1.621E-01	1.586
RA-226	1.494E+00	2.439E-01	1.326E-01	1.316E-02	11.270
AC-228	2.361E+00	5.175E-01	2.576E-01	3.110E-02	9.166
RA-228	2.361E+00	5.175E-01	2.576E-01	3.110E-02	9.166
TH-228	1.780E+00	2.430E-01	1.410E-01	1.447E-02	12.624
TH-230	1.494E+00	2.308E-01	1.326E-01	1.114E-02	11.270
TH-232	2.361E+00	5.175E-01	2.576E-01	3.110E-02	9.166
U-235	3.015E-01	3.259E-01	3.785E-01	6.362E-02	0.796
NP-237	1.006E+00	3.692E-01	4.870E-01	1.152E-01	2.066

Sample ID : G1202069895 Acquisition date : 24-MAR-2010 13:15:49

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	1.472E-01	8.157E-02	5.878E-02	5.101E-03	2.504

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	6.470E-02		3.688E-01	6.294E-01	5.878E-02	0.103
NA-22	-2.485E-02		5.829E-02	9.122E-02	8.015E-03	-0.272
NA-24	2.463E-01		3.955E-01	Half-Life too short		
SC-46	-4.223E-03		4.868E-02	7.772E-02	7.182E-03	-0.054
V-48	-3.209E-02		8.186E-02	1.315E-01	1.196E-02	-0.244
CR-51	-3.631E-01		4.740E-01	7.408E-01	7.132E-02	-0.490
MN-54	-3.167E-02		5.163E-02	7.916E-02	7.134E-03	-0.400
CO-56	-4.032E-02		4.597E-02	6.700E-02	6.073E-03	-0.602
CO-57	3.002E-02		3.141E-02	5.238E-02	4.411E-03	0.573
CO-58	-5.275E-04		4.663E-02	7.560E-02	6.744E-03	-0.007
FE-59	3.572E-02		1.091E-01	1.867E-01	1.735E-02	0.191
CO-60	3.482E-03		4.928E-02	8.148E-02	7.453E-03	0.043
ZN-65	3.779E-02		1.310E-01	1.935E-01	1.646E-02	0.195
SE-75	-4.440E-02		5.873E-02	8.567E-02	7.995E-03	-0.518
SR-85	9.937E-02		4.954E-02	8.427E-02	7.311E-03	1.179
Y-88	-3.903E-02		3.494E-02	3.965E-02	3.314E-03	-0.984
Y-91	-2.942E+00		2.980E+01	4.864E+01	4.046E+00	-0.060
NB-94	-1.126E-02		4.161E-02	6.678E-02	5.565E-03	-0.169
NB-95	4.832E-03		5.443E-02	8.936E-02	7.754E-03	0.054
NB-95M	1.016E-01		1.735E-01	2.631E-01	2.726E-02	0.386
ZR-95	7.805E-02		9.099E-02	1.586E-01	1.512E-02	0.492
MO-99	9.531E+00		1.517E+01	2.599E+01	4.084E+00	0.367
TC-99M	1.086E+10		2.111E+10	Half-Life too short		
RU-103	-1.359E-02		4.692E-02	7.533E-02	1.055E-02	-0.180
RH-106	2.826E-01		3.787E-01	6.602E-01	8.632E-02	0.428
RU-106	2.826E-01		3.776E-01	6.602E-01	5.505E-02	0.428
AG-108M	-3.464E-02		3.830E-02	5.724E-02	5.086E-03	-0.605
AG-110M	-4.895E-02		4.179E-02	6.165E-02	5.173E-03	-0.794
SN-113	3.865E-02		5.472E-02	9.248E-02	8.066E-03	0.418
CD-115	6.321E+00		1.462E+01	2.428E+01	2.103E+00	0.260
SN-117M	1.054E-02		6.752E-02	1.079E-01	9.069E-03	0.098
TE-123M	1.575E-02		3.471E-02	5.619E-02	4.754E-03	0.280
SB-124	-1.810E-02		9.057E-02	1.447E-01	1.331E-02	-0.125
SB-125	-3.437E-02		1.135E-01	1.784E-01	1.561E-02	-0.193
TE-125M	-2.003E+00		1.169E+01	1.859E+01	2.001E+00	-0.108
I-126	-2.303E-01		2.790E-01	4.286E-01	3.480E-02	-0.537
SB-126	1.114E-02		2.166E-01	3.088E-01	2.605E-02	0.036
SB-127	-2.426E-01		1.669E+00	2.713E+00	3.001E-01	-0.089
I-131	4.740E-02		1.390E-01	2.309E-01	2.141E-02	0.205
TE-132	-1.340E-01		8.463E-01	1.405E+00	2.259E-01	-0.095
BA-133	1.763E-02		5.448E-02	7.988E-02	1.050E-02	0.221
I-133	-4.759E-03		3.492E-03	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-134	1.021E-01	+	6.733E-02	1.145E-01	1.018E-02	0.891
CS-135	1.173E-01		2.128E-01	3.212E-01	3.392E-02	0.365
I-135	1.408E+09		3.592E+09	Half-Life too short		
CS-136	-7.073E-02		1.287E-01	2.021E-01	1.861E-02	-0.350
BA-137M	4.529E-02		4.251E-02	7.564E-02	6.121E-03	0.599
CS-137	4.785E-02		4.491E-02	7.991E-02	6.480E-03	0.599
CE-139	-4.312E-02		3.779E-02	5.627E-02	4.759E-03	-0.766
BA-140	6.064E-02		3.204E-01	5.423E-01	1.839E-01	0.112
LA-140	-1.305E-01		1.064E-01	1.416E-01	1.283E-02	-0.921
CE-143	6.280E-04		1.158E-04	Half-Life too short		
CE-144	7.789E-02		2.632E-01	3.814E-01	5.767E-02	0.204
PM-144	-2.155E-02		4.496E-02	7.104E-02	5.897E-03	-0.303
PR-144	-1.618E+00		3.364E+00	5.315E+00	4.411E-01	-0.304
PM-146	2.702E-02		5.309E-02	8.802E-02	9.345E-03	0.307
ND-147	-2.210E-01		6.705E-01	1.095E+00	1.639E-01	-0.202
PM-149	-5.179E+00		1.092E+02	1.798E+02	2.865E+01	-0.029
EU-152	6.699E-02		1.355E-01	2.013E-01	1.915E-02	0.333
GD-153	-4.136E-02		1.095E-01	1.555E-01	1.534E-02	-0.266
EU-154	-2.697E-02		1.610E-01	2.591E-01	2.980E-02	-0.104
EU-155	1.379E-01		1.234E-01	2.080E-01	1.936E-02	0.663
TB-160	-1.003E-01		1.728E-01	2.611E-01	2.403E-02	-0.384
HO-166M	-5.548E-02		7.573E-02	1.162E-01	9.743E-03	-0.477
TA-182	-2.340E-01		2.800E-01	4.274E-01	3.603E-02	-0.548
IR-192	3.482E-02		4.180E-02	7.167E-02	6.623E-03	0.486
HG-203	1.536E-02		4.580E-02	7.699E-02	7.328E-03	0.199
BI-207	-1.003E-03		7.131E-02	1.184E-01	1.040E-02	-0.008
PB-210	3.399E+00		5.267E+00	8.926E+00	8.586E-01	0.381
PB-211	-3.056E-01		9.820E-01	1.536E+00	7.429E-01	-0.199
BI-212	3.298E+00	+	1.251E+00	1.613E+00	1.993E-01	2.045
RN-219	9.460E-02		5.368E-01	8.760E-01	1.297E-01	0.108
RA-223	6.705E-01		9.185E-01	1.382E+00	2.435E-01	0.485
AC-227	-9.142E-02		3.064E-01	5.012E-01	6.276E-02	-0.182
TH-227	-9.142E-02		3.065E-01	5.012E-01	7.029E-02	-0.182
TH-229	-4.028E-01		6.341E-01	1.026E+00	9.006E-02	-0.392
PA-231	-5.800E-01		1.729E+00	2.799E+00	4.200E-01	-0.207
TH-231	6.705E-01		9.185E-01	1.382E+00	2.435E-01	0.485
PA-233	1.822E-02		7.930E-02	1.319E-01	1.249E-02	0.138
PA-234	-1.638E-02		3.662E-01	6.118E-01	1.165E-01	-0.027
PA-234M	-7.486E-01		6.135E+00	1.018E+01	1.052E+00	-0.074
TH-234	1.683E+00		1.731E+00	2.886E+00	5.365E-01	0.583
U-238	1.683E+00		1.731E+00	2.886E+00	5.365E-01	0.583
NP-239	3.335E-01		4.677E-01	7.760E-01	6.664E-02	0.430
AM-241	-1.855E-01		1.973E-01	3.115E-01	2.957E-02	-0.596
CM-247	3.956E-02		4.889E-02	8.274E-02	7.032E-03	0.478
CF-249	3.777E-03		4.951E-02	8.054E-02	6.849E-03	0.047
CF-251	-1.935E-02		1.526E-01	2.574E-01	2.211E-02	-0.075

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202069895          *
* Acquisition date : 24-MAR-2010 13:15:49 Detector SN#    :                *
* Detector ID      : GAM06                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.40     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  9-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202069895          Analyst initials: MXR1           *
* Batch Number     : 964804               Sample Quantity : 1.2558E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.422E+01	3.823E+00	4.437E-01	1.950E+00
CD-109	3.449E+00	1.018E+00	7.801E-01	5.193E-01
SN-126	3.372E-01	9.950E-02	7.664E-02	5.077E-02
CE-141	9.439E-02	9.909E-02	6.426E-02	5.056E-02
TL-208	5.668E-01	1.033E-01	3.842E-02	5.270E-02
BI-211	3.955E+00	6.385E-01	1.992E-01	3.257E-01
PB-212	1.780E+00	2.382E-01	7.233E-02	1.215E-01
BI-214	1.494E+00	2.390E-01	6.714E-02	1.219E-01
PB-214	1.436E+00	2.444E-01	7.243E-02	1.247E-01
RA-224	2.795E+00	1.112E+00	9.043E-01	5.673E-01
RA-226	1.494E+00	2.390E-01	6.714E-02	1.219E-01
AC-228	2.361E+00	5.071E-01	1.297E-01	2.587E-01
RA-228	2.361E+00	5.071E-01	1.297E-01	2.587E-01
TH-228	1.780E+00	2.382E-01	7.233E-02	1.215E-01
TH-230	1.494E+00	2.262E-01	6.714E-02	1.154E-01
TH-232	2.361E+00	5.071E-01	1.297E-01	2.587E-01
U-235	3.015E-01	3.193E-01	1.955E-01	1.629E-01
NP-237	1.006E+00	3.618E-01	2.534E-01	1.846E-01
ANH-511	1.472E-01	7.993E-02	2.984E-02	4.078E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	6.470E-02	3.615E-01	3.198E-01	1.844E-01	NOT IDENT.
NA-22	-2.485E-02	5.712E-02	4.570E-02	2.914E-02	NOT IDENT.
NA-24	2.463E+05	7.751E+05	0.000E+00	3.955E+05	SHORT HLIF
SC-46	-4.223E-03	4.771E-02	3.914E-02	2.434E-02	FAIL ABUN
V-48	-3.209E-02	8.023E-02	6.611E-02	4.093E-02	NOT IDENT.
CR-51	-3.631E-01	4.645E-01	3.785E-01	2.370E-01	NOT IDENT.
MN-54	-3.167E-02	5.060E-02	3.990E-02	2.582E-02	NOT IDENT.
CO-56	-4.032E-02	4.505E-02	3.376E-02	2.298E-02	FAIL ABUN

CO-57	3.002E-02	3.078E-02	2.713E-02	1.571E-02	NOT IDENT.
CO-58	-5.275E-04	4.570E-02	3.812E-02	2.331E-02	NOT IDENT.
FE-59	3.572E-02	1.070E-01	9.371E-02	5.457E-02	NOT IDENT.
CO-60	3.482E-03	4.830E-02	4.079E-02	2.464E-02	NOT IDENT.
ZN-65	3.779E-02	1.284E-01	9.712E-02	6.549E-02	NOT IDENT.
SE-75	-4.440E-02	5.755E-02	4.389E-02	2.936E-02	NOT IDENT.
SR-85	9.937E-02	4.855E-02	4.277E-02	2.477E-02	NOT IDENT.
Y-88	-3.903E-02	3.424E-02	1.976E-02	1.747E-02	NOT IDENT.
Y-91	-2.942E+00	2.920E+01	2.438E+01	1.490E+01	NOT IDENT.
NB-94	-1.126E-02	4.078E-02	3.374E-02	2.081E-02	NOT IDENT.
NB-95	4.832E-03	5.334E-02	4.510E-02	2.721E-02	NOT IDENT.
NB-95M	1.016E-01	1.700E-01	1.350E-01	8.675E-02	NOT IDENT.
ZR-95	7.805E-02	8.917E-02	8.006E-02	4.549E-02	NOT IDENT.
MO-99	9.531E+00	1.486E+01	1.312E+01	7.583E+00	NOT IDENT.
TC-99M	1.086E+16	4.138E+16	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.359E-02	4.599E-02	3.825E-02	2.346E-02	FAIL ABUN
RH-106	2.826E-01	3.711E-01	3.342E-01	1.894E-01	NOT IDENT.
RU-106	2.826E-01	3.701E-01	3.342E-01	1.888E-01	NOT IDENT.
AG-108M	-3.464E-02	3.754E-02	2.912E-02	1.915E-02	NOT IDENT.
AG-110M	-4.895E-02	4.096E-02	3.118E-02	2.090E-02	NOT IDENT.
SN-113	3.865E-02	5.362E-02	4.712E-02	2.736E-02	NOT IDENT.
CD-115	6.321E+00	1.432E+01	1.232E+01	7.308E+00	NOT IDENT.
SN-117M	1.054E-02	6.617E-02	5.567E-02	3.376E-02	NOT IDENT.
TE-123M	1.575E-02	3.401E-02	2.899E-02	1.735E-02	NOT IDENT.
SB-124	-1.810E-02	8.876E-02	7.219E-02	4.529E-02	NOT IDENT.
SB-125	-3.437E-02	1.112E-01	9.076E-02	5.675E-02	FAIL ABUN
TE-125M	-2.003E+00	1.146E+01	9.641E+00	5.845E+00	NOT IDENT.
I-126	-2.303E-01	2.734E-01	2.167E-01	1.395E-01	NOT IDENT.
SB-126	1.114E-02	2.123E-01	1.560E-01	1.083E-01	NOT IDENT.
SB-127	-2.426E-01	1.636E+00	1.371E+00	8.347E-01	NOT IDENT.
I-131	4.740E-02	1.362E-01	1.177E-01	6.950E-02	NOT IDENT.
TE-132	-1.340E-01	8.294E-01	7.212E-01	4.232E-01	NOT IDENT.
BA-133	1.763E-02	5.339E-02	4.075E-02	2.724E-02	NOT IDENT.
I-133	-4.759E+03	6.845E+03	0.000E+00	3.492E+03	SHORT HLIF
CS-134	1.021E-01	6.598E-02	5.775E-02	3.366E-02	FAIL ABUN
CS-135	1.173E-01	2.086E-01	1.645E-01	1.064E-01	NOT IDENT.
I-135	1.408E+15	7.041E+15	0.000E+00	3.592E+15	SHORT HLIF
CS-136	-7.073E-02	1.261E-01	1.015E-01	6.433E-02	NOT IDENT.
BA-137M	4.529E-02	4.166E-02	3.825E-02	2.125E-02	NOT IDENT.
CS-137	4.785E-02	4.401E-02	4.041E-02	2.245E-02	NOT IDENT.
CE-139	-4.312E-02	3.704E-02	2.902E-02	1.890E-02	NOT IDENT.
BA-140	6.064E-02	3.140E-01	2.751E-01	1.602E-01	NOT IDENT.
LA-140	-1.305E-01	1.043E-01	7.072E-02	5.321E-02	FAIL ABUN
CE-143	6.280E+02	2.269E+02	0.000E+00	1.158E+02	SHORT HLIF
CE-144	7.789E-02	2.579E-01	1.972E-01	1.316E-01	NOT IDENT.
PM-144	-2.155E-02	4.406E-02	3.590E-02	2.248E-02	NOT IDENT.
PR-144	-1.618E+00	3.297E+00	2.686E+00	1.682E+00	NOT IDENT.
PM-146	2.702E-02	5.203E-02	4.476E-02	2.655E-02	NOT IDENT.
ND-147	-2.210E-01	6.571E-01	5.554E-01	3.353E-01	FAIL ABUN
PM-149	-5.179E+00	1.070E+02	9.200E+01	5.459E+01	NOT IDENT.
EU-152	6.699E-02	1.328E-01	1.028E-01	6.773E-02	FAIL ABUN
GD-153	-4.136E-02	1.073E-01	8.077E-02	5.473E-02	NOT IDENT.
EU-154	-2.697E-02	1.578E-01	1.298E-01	8.052E-02	NOT IDENT.
EU-155	1.379E-01	1.209E-01	1.079E-01	6.168E-02	FAIL ABUN
TB-160	-1.003E-01	1.693E-01	1.315E-01	8.639E-02	FAIL ABUN
HO-166M	-5.548E-02	7.421E-02	5.870E-02	3.786E-02	NOT IDENT.
TA-182	-2.340E-01	2.744E-01	2.142E-01	1.400E-01	FAIL ABUN
IR-192	3.482E-02	4.097E-02	3.663E-02	2.090E-02	FAIL ABUN
HG-203	1.536E-02	4.488E-02	3.942E-02	2.290E-02	NOT IDENT.
BI-207	-1.003E-03	6.989E-02	5.948E-02	3.566E-02	FAIL ABUN
PB-210	3.399E+00	5.162E+00	4.683E+00	2.634E+00	NOT IDENT.
PB-211	-3.056E-01	9.623E-01	7.821E-01	4.910E-01	NOT IDENT.
BI-212	3.298E+00	1.226E+00	8.145E-01	6.254E-01	FAIL ABUN
RN-219	9.460E-02	5.260E-01	4.462E-01	2.684E-01	FAIL ABUN
RA-223	6.705E-01	9.001E-01	7.060E-01	4.592E-01	FAIL ABUN
AC-227	-9.142E-02	3.003E-01	2.569E-01	1.532E-01	FAIL ABUN
TH-227	-9.142E-02	3.003E-01	2.569E-01	1.532E-01	FAIL ABUN
TH-229	-4.028E-01	6.214E-01	5.281E-01	3.170E-01	FAIL ABUN
PA-231	-5.800E-01	1.694E+00	1.433E+00	8.644E-01	FAIL ABUN
TH-231	6.705E-01	9.001E-01	7.060E-01	4.592E-01	FAIL ABUN
PA-233	1.822E-02	7.771E-02	6.740E-02	3.965E-02	FAIL ABUN
PA-234	-1.638E-02	3.589E-01	3.078E-01	1.831E-01	NOT IDENT.
PA-234M	-7.486E-01	6.012E+00	5.116E+00	3.067E+00	NOT IDENT.
TH-234	1.683E+00	1.697E+00	1.508E+00	8.657E-01	FAIL ABUN
U-238	1.683E+00	1.697E+00	1.508E+00	8.657E-01	FAIL ABUN
NP-239	3.335E-01	4.584E-01	4.021E-01	2.339E-01	NOT IDENT.
AM-241	-1.855E-01	1.934E-01	1.629E-01	9.866E-02	NOT IDENT.
CM-247	3.956E-02	4.791E-02	4.214E-02	2.444E-02	NOT IDENT.

CF-249	3.777E-03	4.852E-02	4.104E-02	2.476E-02	NOT IDENT.
CF-251	-1.935E-02	1.496E-01	1.326E-01	7.631E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	259.5135
49.72	306.8719
57.36	0.0000
59.54	354.5991
63.29	357.0002
63.29	357.0002
64.28	389.9622
67.75	371.6574
69.67	452.7320
70.83	419.2749
72.81	404.7980
72.87	404.8540
72.87	404.8540
74.82	418.5794
74.82	418.5794
74.82	418.5794
74.97	418.7183
77.11	420.6857
77.11	420.6857
77.11	420.6857
79.69	379.2097
79.80	379.2978
80.12	367.4589
80.19	367.5127
80.57	392.0252
81.00	469.6451
81.07	469.7137
81.07	469.7137
83.79	358.0885
83.79	358.0885
85.43	392.9234
86.48	496.4093
86.55	520.9985
86.79	521.2476
86.94	521.4058
87.57	415.6023
88.03	415.9823
88.47	416.3457
89.96	417.5682
91.11	418.5058
92.59	419.7014
92.59	419.7014
93.35	420.3127
94.67	297.3446
94.87	297.4568
94.87	297.4568
95.86	346.3804
97.43	331.7466
98.44	337.3829
99.53	277.5257
100.11	280.9646
103.18	354.2075
103.37	354.3271
105.31	282.5318
106.12	317.9031
109.28	317.5162
111.00	307.7622
111.76	316.7177
116.30	293.2458
117.23	272.0977
121.12	315.1003
121.78	280.6259
122.06	292.7206
123.07	305.1790
131.20	284.7516
133.52	279.1011
136.00	296.8007

136.47	302.5690
140.51	283.6506
140.51	0.0000
143.76	291.1537
144.24	291.3513
144.24	291.3513
145.44	317.7606
152.43	288.9875
153.25	277.9178
154.21	254.3299
154.21	254.3299
156.02	305.2503
158.56	281.0482
159.00	266.2888
162.66	273.3345
163.33	253.9476
165.86	313.8372
176.60	283.4598
177.52	275.8451
181.07	277.5654
184.41	300.0027
185.72	283.0222
193.51	273.0253
197.04	244.3677
205.31	278.1181
210.85	216.8077
215.65	218.4132
222.11	230.7057
227.38	219.8492
228.16	220.9561
228.18	228.4183
235.69	254.0096
235.96	255.5811
235.96	255.5811
238.63	343.6838
238.63	343.6838
240.99	468.3717
242.00	254.0774
244.70	174.3783
252.40	174.7095
252.80	163.3158
256.23	197.3763
256.23	197.3763
260.90	179.9493
264.66	198.2744
268.22	178.2472
269.46	172.2397
269.46	172.2397
271.23	174.0676
273.65	213.3835
276.40	171.7461
277.37	173.8471
277.60	176.8130
278.00	167.1044
279.20	169.2357
279.54	186.8994
280.46	202.7201
283.69	171.8624
284.31	171.9559
285.41	173.1023
285.90	170.2230
287.50	150.7518
293.27	0.0000
295.22	147.5762
295.96	134.9666
298.57	135.2612
299.98	138.6053
299.98	138.6053
300.09	138.6180
300.09	138.6180
300.13	138.6223
301.36	159.4995
302.85	164.4857
304.50	137.5244
304.50	137.5244
304.85	142.3631
308.46	176.4727
311.90	149.8185

316.51	130.1889
319.41	155.7765
320.08	177.1122
323.87	146.1753
323.87	146.1753
328.76	151.8283
333.37	134.9830
334.37	118.7134
334.37	118.7134
338.28	140.6228
338.28	140.6228
338.32	140.6269
338.32	140.6269
338.32	140.6269
340.48	143.1188
340.55	159.5764
344.28	131.9785
351.06	130.5739
351.93	130.6566
356.01	111.4955
364.49	116.1574
366.42	125.7495
383.85	131.5381
388.16	122.3524
388.63	127.7124
391.69	108.7828
400.66	128.7524
401.81	134.2201
402.40	121.3833
404.85	150.6299
410.95	133.9524
414.70	123.4507
423.72	115.4555
427.09	109.1553
427.87	114.6691
433.94	128.2633
453.88	97.6639
463.37	105.3660
468.07	91.3343
473.00	98.7838
476.78	101.7028
477.60	89.1447
487.02	82.3877
492.35	82.6387
497.08	85.5926
511.00	100.0253
514.00	72.0017
527.90	79.6487
529.87	0.0000
531.02	91.8433
537.26	85.6323
546.56	0.0000
563.25	83.0264
569.33	75.7129
569.50	75.7207
569.70	73.8334
583.19	97.2088
600.60	80.7434
602.73	70.1054
604.72	75.4475
609.32	79.1532
609.32	79.1532
609.32	79.1532
610.33	79.1913
614.28	67.7305
618.01	87.2380
621.93	67.0072
621.93	67.0072
633.25	64.4354
635.95	84.0663
636.99	76.2823
645.85	78.5586
657.76	87.8723
661.66	61.3219
661.66	61.3219
664.57	0.0000
666.33	95.1492
666.50	95.1586

677.62	77.6991
685.70	80.9743
695.00	79.2951
696.49	94.4119
696.51	94.4131
697.00	87.4014
702.65	82.5786
706.68	68.5977
711.68	83.9078
720.70	81.1836
721.93	0.0000
722.78	71.0989
722.91	71.1023
723.31	71.1143
724.19	71.1399
727.33	77.3396
733.00	69.7013
735.93	69.2190
739.50	61.3667
747.24	63.6136
752.31	70.9423
753.82	67.8981
756.73	59.7389
763.94	94.0015
765.81	81.6674
766.42	63.0745
777.92	74.7896
778.90	61.3105
783.70	56.2201
785.37	56.2570
795.86	57.5338
801.95	59.4170
810.29	59.9585
810.76	55.7613
815.77	59.0297
818.51	63.3120
832.01	60.4540
834.85	89.1844
836.80	0.0000
846.77	59.7201
856.80	53.5181
860.56	58.9504
871.09	50.5686
873.19	50.6065
875.33	0.0000
879.36	59.3519
880.51	63.6944
883.24	44.3052
884.68	46.4906
889.28	54.1479
898.04	59.7467
911.20	46.9263
911.20	46.9263
911.20	46.9263
926.50	60.3402
937.49	42.4757
944.13	56.2893
946.00	54.2994
949.00	58.0397
962.29	42.8316
964.08	41.6666
966.15	41.6949
968.97	41.7334
968.97	41.7334
968.97	41.7334
983.53	50.3207
996.26	53.3366
1001.03	59.9792
1004.73	57.2347
1037.84	62.5786
1038.76	0.0000
1048.07	54.2191
1050.41	50.4509
1050.41	50.4509
1063.66	62.1250
1085.87	43.3008
1099.45	45.4089
1112.07	55.8586

1115.54	56.5829
1120.29	57.3555
1120.29	57.3555
1120.29	57.3555
1120.55	57.3603
1121.30	57.3723
1131.51	0.0000
1173.23	48.3660
1177.93	64.2436
1189.05	63.4531
1204.77	72.6911
1221.41	89.0326
1231.02	69.8067
1235.36	86.0700
1238.28	55.2708
1260.41	0.0000
1271.85	53.7419
1274.44	49.7198
1274.54	54.7932
1291.59	41.7891
1298.22	0.0000
1312.11	36.8877
1332.49	29.8709
1365.19	24.9248
1368.63	0.0000
1384.29	37.5645
1408.01	30.4349
1457.56	0.0000
1460.82	40.3874
1489.16	8.5589
1505.03	20.4017
1596.21	30.0580
1620.50	12.2755
1678.03	0.0000
1690.97	14.3764
1764.49	7.7832
1764.49	7.7832
1764.49	7.7832
1770.23	5.1136
1771.35	6.8198
1791.20	0.0000
1836.06	13.8140

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202069895

Total Uranium Activity	5.1461E+00	ug/g
Total Uranium Counting Unc.	5.0503E+00	ug/g
Total Uranium Tpu	2.5767E-06	ug/g
Total Uranium Mda	4.4874E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 964804                    SAMPLE ID  : G1202069895        *
*   ANALYST       : MXR1                      DETECTOR   : GAM06              *
*   SAMPLE DATE   :  9-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 24-MAR-2010 13:15:49.67    SAMPLE ALQT:  125.580 GRAM      *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.105E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.628E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.541E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.208E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 14:16:57.96

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202069896.CNF;1
Sample date       : 15-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 13:16:28
Sample ID         : G1202069896          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.38  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 964804               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.47	4612	1263	0.99	118.60	113	12	1.28E+00	2.2	
2	3	74.94*	220	404	0.96	149.54	142	17	6.11E-02	15.9	1.26E+00
3	3	77.17	402	439	1.12	153.99	142	17	1.12E-01	10.1	
4	6	88.02*	1791	383	1.06	175.69	171	20	4.98E-01	2.9	3.12E+00
5	6	89.96	95	347	1.17	179.56	171	20	2.65E-02	49.8	
6	6	92.96*	171	427	1.69	185.57	171	20	4.75E-02	27.3	
7	0	122.19	254	367	0.87	244.02	240	9	7.04E-02	15.0	
8	0	185.93*	81	299	1.11	371.47	368	8	2.25E-02	39.3	
9	2	238.74*	647	212	1.19	477.08	471	18	1.80E-01	5.5	6.30E-01
10	2	241.94*	125	271	1.51	483.48	471	18	3.48E-02	26.0	
11	0	295.51	172	279	1.22	590.59	585	11	4.77E-02	20.4	
12	0	299.99	51	185	1.48	599.55	596	8	1.41E-02	48.6	
13	0	338.81*	104	225	1.08	677.18	672	10	2.88E-02	29.0	
14	0	352.14*	257	223	1.40	703.84	699	10	7.14E-02	12.6	
15	0	583.27*	277	104	1.69	1166.02	1158	16	7.69E-02	10.3	
16	0	609.54*	233	148	1.35	1218.56	1211	16	6.49E-02	13.4	
17	0	661.94	2341	144	1.59	1323.34	1315	16	6.50E-01	2.4	
18	0	729.06*	70	91	1.40	1457.56	1452	14	1.93E-02	32.0	
19	0	768.63	45	54	1.38	1536.70	1533	8	1.26E-02	31.8	
20	0	911.86*	176	127	1.77	1823.11	1816	16	4.88E-02	16.3	
21	0	969.51*	53	128	1.81	1938.40	1932	12	1.48E-02	45.0	
22	0	1173.73	1882	72	2.00	2346.80	2339	18	5.23E-01	2.5	
23	0	1333.02	1669	33	2.07	2665.36	2658	16	4.64E-01	2.6	
24	0	1461.30*	18	12	1.19	2921.89	2916	12	5.08E-03	48.3	
25	0	1765.99*	26	8	2.33	3531.23	3524	16	7.31E-03	32.5	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 14:17:00

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202069896.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 15-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 13:16:28
Sample ID : G1202069896 Sample quantity : 151.73 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA7 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.38 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	7.524E-01	7.295E-01	8.204E-01	7.046E-02	0.917
CO-57	+	122.06	*	2.123E-01	6.624E-02	6.206E-02	5.340E-03	3.421
		136.47		3.456E-01	3.225E-01	5.395E-01	4.852E-02	0.641
CO-60	+	1173.23		6.893E+00	6.618E-01	1.299E-01	1.057E-02	53.070
	+	1332.49	*	6.810E+00	6.581E-01	9.822E-02	8.046E-03	69.332
CD-109	+	88.03	*	3.539E+01	3.922E+00	1.817E+00	1.711E-01	19.483
SN-126		64.28		-1.355E-01	6.549E-01	9.675E-01	1.403E-01	-0.140
	+	86.94		1.450E+01	6.083E+00	8.808E-01	3.656E-01	16.465
	+	87.57	*	3.489E+00	3.866E-01	1.795E-01	1.681E-02	19.440
BA-137M	+	661.66	*	5.778E+00	5.798E-01	1.087E-01	9.618E-03	53.169
CS-137	+	661.66	*	6.104E+00	6.134E-01	1.148E-01	1.018E-02	53.169
TL-208		277.37		2.599E-01	6.747E-01	1.138E+00	1.416E-01	0.228
	+	583.19	*	6.507E-01	1.474E-01	1.121E-01	1.071E-02	5.804
		860.56		-7.789E-02	6.768E-01	1.093E+00	1.068E-01	-0.071
BI-211		72.87		4.964E+00	4.012E+00	6.834E+00	5.394E-01	0.726
	+	351.06	*	2.675E+00	7.156E-01	6.172E-01	5.537E-02	4.335
PB-212	+	74.82		1.739E+00	5.960E-01	7.309E-01	9.229E-02	2.379
	+	77.11		1.857E+00	4.047E-01	4.274E-01	3.528E-02	4.344
	+	238.63	*	1.495E+00	2.183E-01	1.599E-01	1.537E-02	9.352
	+	300.09		1.834E+00	1.791E+00	2.318E+00	2.430E-01	0.791
BI-214	+	609.32	*	1.063E+00	3.062E-01	2.126E-01	2.209E-02	5.001
		1120.29		9.364E-01	6.597E-01	1.189E+00	1.283E-01	0.787
	+	1764.49		8.660E-01	5.669E-01	5.175E-01	4.256E-02	1.673
PB-214	+	74.82		3.082E+00	1.042E+00	1.295E+00	1.464E-01	2.379
	+	77.11		3.274E+00	7.629E-01	7.535E-01	8.792E-02	4.344
	+	242.00		1.758E+00	9.313E-01	9.728E-01	9.975E-02	1.807
	+	295.22		1.097E+00	4.626E-01	4.145E-01	4.453E-02	2.648
	+	351.93	*	9.709E-01	2.652E-01	2.280E-01	2.400E-02	4.259
RA-224	+	240.99	*	3.109E+00	1.637E+00	1.714E+00	1.450E-01	1.814
RA-226	+	609.32	*	1.063E+00	3.062E-01	2.126E-01	2.209E-02	5.001
		1120.29		9.364E-01	6.597E-01	1.189E+00	1.283E-01	0.787
	+	1764.49		8.660E-01	5.669E-01	5.175E-01	4.256E-02	1.673
AC-228	+	338.32		1.203E+00	8.603E-01	6.849E-01	2.856E-01	1.757
	+	911.20	*	1.989E+00	6.921E-01	5.977E-01	7.164E-02	3.328

Sample ID : G1202069896 Acquisition date : 24-MAR-2010 13:16:28

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		1.038E+00	9.677E-01	9.414E-01	2.308E-01	1.103
RA-228	+	338.32		1.203E+00	8.603E-01	6.849E-01	2.856E-01	1.757
	+	911.20	*	1.989E+00	6.921E-01	5.977E-01	7.164E-02	3.328
	+	968.97		1.038E+00	9.677E-01	9.414E-01	2.308E-01	1.103
TH-228	+	74.82		1.739E+00	5.718E-01	7.309E-01	5.946E-02	2.379
	+	77.11		1.857E+00	4.047E-01	4.274E-01	3.528E-02	4.344
	+	238.63	*	1.495E+00	2.183E-01	1.599E-01	1.537E-02	9.352
	+	300.09		1.834E+00	2.105E+00	2.318E+00	1.419E+00	0.791
TH-230	+	609.32	*	1.063E+00	3.010E-01	2.126E-01	1.903E-02	5.001
		1120.29		9.364E-01	6.567E-01	1.189E+00	1.005E-01	0.787
	+	1764.49		8.660E-01	5.669E-01	5.175E-01	4.256E-02	1.673
TH-232	+	338.32		1.203E+00	7.064E-01	6.849E-01	5.863E-02	1.757
	+	911.20	*	1.989E+00	6.921E-01	5.977E-01	7.164E-02	3.328
	+	968.97		1.038E+00	9.677E-01	9.414E-01	2.308E-01	1.103
U-235	+	89.96		1.958E+00	2.009E+00	1.894E+00	4.707E-01	1.034
	+	93.35		2.150E+00	1.278E+00	1.161E+00	2.703E-01	1.853
		143.76	*	1.842E-01	3.215E-01	5.229E-01	8.762E-02	0.352
		163.33		-3.186E-01	7.110E-01	1.098E+00	1.936E-01	-0.290
	+	185.72		1.205E-01	9.527E-02	1.123E-01	9.093E-03	1.073
		205.31		-4.059E-01	8.026E-01	1.314E+00	2.362E-01	-0.309
AM-241	+	59.54	*	1.498E+01	1.352E+00	3.920E-01	3.108E-02	38.200

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	4.129E-02	6.465E-01	1.041E+00	9.818E-02	0.040
NA-22		1274.54	*	-2.677E-02	5.096E-02	7.713E-02	6.332E-03	-0.347
NA-24		1368.63	*	6.545E-04	5.096E-02	Half-Life too short		
SC-46		889.28	*	3.684E-02	9.472E-02	1.576E-01	1.444E-02	0.234
		1120.55		1.612E-01	1.054E-01	1.920E-01	1.622E-02	0.840
V-48		944.13		5.007E-01	1.905E+00	3.130E+00	2.846E-01	0.160
		983.53	*	7.305E-02	1.364E-01	2.281E-01	2.053E-02	0.320
		1312.11		-4.834E-03	8.067E-02	1.318E-01	1.080E-02	-0.037
CR-51		320.08	*	4.693E-01	5.884E-01	1.006E+00	9.087E-02	0.466
MN-54		834.85	*	1.994E-02	8.213E-02	1.362E-01	1.250E-02	0.146
CO-56		846.77	*	1.573E-02	8.776E-02	1.448E-01	1.329E-02	0.109
		1037.84		-3.946E-01	7.266E-01	1.175E+00	1.089E-01	-0.336
		1238.28		6.646E-02	1.028E-01	1.824E-01	1.542E-02	0.364
		1771.35		-3.264E-01	4.154E-01	4.432E-01	3.640E-02	-0.737
CO-58		810.76	*	-9.529E-03	7.782E-02	1.260E-01	1.158E-02	-0.076
FE-59		1099.45	*	-1.633E-01	1.938E-01	3.038E-01	2.814E-02	-0.537
		1291.59		-2.036E-02	1.189E-01	1.903E-01	1.792E-02	-0.107
ZN-65		1115.54	*	-1.663E-01	1.973E-01	3.093E-01	2.624E-02	-0.538
SE-75	+	121.12		1.090E+00	3.484E-01	4.489E-01	4.969E-02	2.428
		136.00		8.059E-02	5.973E-02	1.011E-01	8.499E-03	0.797
		264.66	*	-2.430E-02	7.508E-02	1.228E-01	1.048E-02	-0.198
		279.54		-2.090E-02	1.970E-01	3.242E-01	2.860E-02	-0.064
		400.66		-3.916E-01	5.157E-01	7.971E-01	8.692E-02	-0.491

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SR-85		514.00	*	-7.530E-02	7.785E-02	1.245E-01	1.107E-02	-0.605
Y-88		898.04		-1.924E-02	9.976E-02	1.596E-01	1.468E-02	-0.121
		1836.06	*	7.752E-02	6.158E-02	1.222E-01	9.916E-03	0.634
Y-91		1204.77	*	-1.621E+01	2.564E+01	3.911E+01	3.194E+00	-0.415
NB-94		702.65	*	2.183E-02	6.672E-02	1.126E-01	1.011E-02	0.194
		871.09		5.030E-02	8.196E-02	1.388E-01	1.273E-02	0.362
NB-95		765.81	*	2.917E-02	9.016E-02	1.330E-01	1.212E-02	0.219
NB-95M		235.69	*	1.514E-02	2.296E-01	3.396E-01	3.303E-02	0.045
ZR-95		724.19		-1.108E-01	1.891E-01	2.526E-01	2.458E-02	-0.438
		756.73	*	3.362E-02	1.394E-01	2.330E-01	2.321E-02	0.144
MO-99		140.51		-3.237E+00	8.592E+00	1.340E+01	3.166E+00	-0.242
		181.07		-2.510E+00	7.172E+00	1.108E+01	2.053E+00	-0.227
		366.42		-4.824E+01	4.768E+01	7.290E+01	6.175E+00	-0.662
		739.50	*	-2.403E+00	6.010E+00	9.571E+00	1.532E+00	-0.251
		777.92		1.169E+00	1.785E+01	2.942E+01	2.687E+00	0.040
TC-99M		140.51	*	-4.532E+03	1.785E+01	Half-Life too short		
RU-103		497.08	*	-1.194E-02	7.591E-02	1.200E-01	1.693E-02	-0.099
	+	610.33		9.943E+00	3.136E+00	3.462E+00	5.720E-01	2.872
RH-106		621.93	*	6.476E-01	6.195E-01	1.091E+00	1.469E-01	0.593
		1050.41		-1.095E+00	5.661E+00	9.363E+00	8.221E-01	-0.117
RU-106		621.93	*	6.476E-01	6.160E-01	1.091E+00	9.753E-02	0.593
		1050.41		-1.095E+00	5.661E+00	9.363E+00	8.221E-01	-0.117
AG-108M		433.94	*	3.805E-02	6.520E-02	1.085E-01	9.622E-03	0.351
		614.28		7.720E-03	7.410E-02	1.085E-01	1.000E-02	0.071
		722.91		-4.361E-02	8.325E-02	1.121E-01	1.042E-02	-0.389
AG-110M		657.76	*	5.912E-02	7.871E-02	1.212E-01	1.104E-02	0.488
		677.62		1.004E-01	5.944E-01	9.962E-01	9.109E-02	0.101
		706.68		-7.694E-02	4.262E-01	6.950E-01	6.413E-02	-0.111
		763.94		-7.118E-02	3.685E-01	5.131E-01	4.791E-02	-0.139
		884.68		-4.697E-02	1.234E-01	1.950E-01	1.838E-02	-0.241
		937.49		-2.796E-02	2.846E-01	4.570E-01	4.295E-02	-0.061
		1384.29		-1.992E-01	2.274E-01	3.182E-01	2.706E-02	-0.626
		1505.03		-1.431E-01	3.806E-01	5.755E-01	4.811E-02	-0.249
SN-113		391.69	*	6.194E-02	8.817E-02	1.486E-01	1.277E-02	0.417
CD-115		260.90		-5.328E+00	4.188E+01	6.923E+01	5.882E+00	-0.077
		492.35		-2.086E+00	1.422E+01	2.253E+01	1.990E+00	-0.093
		527.90	*	-1.598E+00	3.863E+00	6.332E+00	5.649E-01	-0.252
SN-117M		156.02		1.732E+00	2.589E+00	4.249E+00	3.423E-01	0.408
		158.56	*	-1.484E-02	6.349E-02	9.952E-02	7.979E-03	-0.149
TE-123M		159.00	*	-1.837E-02	4.297E-02	6.663E-02	5.376E-03	-0.276
SB-124		602.73		4.004E-02	7.362E-02	1.124E-01	1.007E-02	0.356
		645.85		2.014E-01	8.790E-01	1.484E+00	1.391E-01	0.136
		722.78		-3.528E-01	7.876E-01	1.071E+00	9.872E-02	-0.330
		1690.97	*	-4.390E-02	1.045E-01	1.509E-01	1.311E-02	-0.291
SB-125		427.87	*	-7.113E-02	1.947E-01	3.075E-01	2.679E-02	-0.231
		463.37		1.256E+00	6.194E-01	1.086E+00	1.017E-01	1.157
		600.60		-5.427E-02	3.243E-01	5.352E-01	5.126E-02	-0.101
		635.95		3.913E-01	5.261E-01	9.170E-01	8.795E-02	0.427
TE-125M		109.28	*	-7.039E+00	1.301E+01	2.044E+01	2.148E+00	-0.344

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-126		388.63		1.444E-01	2.458E-01	4.124E-01	3.441E-02	0.350
		666.33	*	1.429E-01	3.352E-01	5.039E-01	4.467E-02	0.284
		753.82		1.239E+00	2.637E+00	4.481E+00	4.076E-01	0.276
SB-126		414.70		3.834E-03	1.124E-01	1.822E-01	1.544E-02	0.021
		666.50		4.012E-02	1.129E-01	1.685E-01	1.494E-02	0.238
		695.00		-3.449E-02	1.063E-01	1.714E-01	1.535E-02	-0.201
		697.00		-1.261E-02	3.620E-01	5.967E-01	5.349E-02	-0.021
		720.70	*	1.853E-02	1.996E-01	3.314E-01	2.991E-02	0.056
		856.80		-3.580E-01	7.942E-01	1.250E+00	1.148E-01	-0.286
SB-127		252.40		2.714E+00	2.990E+00	4.831E+00	1.987E+00	0.562
		473.00		-7.005E-01	1.373E+00	2.131E+00	2.479E-01	-0.329
		685.70	*	1.743E-01	9.239E-01	1.550E+00	1.584E-01	0.112
		783.70		3.519E-01	2.528E+00	4.186E+00	4.803E-01	0.084
I-131		80.19		9.637E-01	4.100E+00	6.058E+00	5.193E-01	0.159
		284.31		2.378E-01	1.694E+00	2.824E+00	2.519E-01	0.084
		364.49	*	2.236E-02	1.442E-01	2.372E-01	2.116E-02	0.094
		636.99		-5.122E-01	1.910E+00	3.117E+00	2.917E-01	-0.164
TE-132		49.72		3.664E+00	7.597E+00	1.279E+01	1.156E+00	0.286
		111.76		1.609E+00	1.432E+01	2.325E+01	2.246E+00	0.069
		116.30		6.823E+00	1.289E+01	2.126E+01	2.048E+00	0.321
		228.16	*	8.448E-02	3.802E-01	6.429E-01	9.501E-02	0.131
BA-133		81.00		-2.598E-01	1.553E-01	2.011E-01	3.121E-02	-1.292
		276.40		2.486E-02	6.319E-01	1.050E+00	1.474E-01	0.024
		302.85		-2.693E-01	3.114E-01	4.213E-01	5.488E-02	-0.639
		356.01	*	-4.835E-02	9.639E-02	1.326E-01	1.708E-02	-0.365
		383.85		1.310E-01	5.717E-01	9.419E-01	1.154E-01	0.139
I-133		529.87	*	2.043E-05	5.717E-01	Half-Life too short		
		875.33		-1.455E-03	5.717E-01	Half-Life too short		
		1298.22		-8.407E-04	5.717E-01	Half-Life too short		
CS-134		563.25		-5.400E-01	6.641E-01	1.050E+00	9.493E-02	-0.514
		569.33		9.663E-04	3.807E-01	6.381E-01	5.794E-02	0.002
		604.72		-6.319E-04	7.085E-02	1.027E-01	9.222E-03	-0.006
		795.86	*	9.792E-02	9.392E-02	1.645E-01	1.515E-02	0.595
		801.95		-8.884E-01	8.460E-01	1.267E+00	1.166E-01	-0.701
		1365.19		2.488E-01	1.564E+00	2.641E+00	2.286E-01	0.094
CS-135		268.22	*	-3.181E-02	2.974E-01	4.917E-01	4.848E-02	-0.065
I-135		546.56		3.598E+02	2.974E-01	Half-Life too short		
		836.80		2.982E+04	2.974E-01	Half-Life too short		
		1038.76		-2.986E+04	2.974E-01	Half-Life too short		
		1131.51		-3.566E+03	2.974E-01	Half-Life too short		
		1260.41	*	2.689E+02	2.974E-01	Half-Life too short		
		1457.56		2.307E+04	2.974E-01	Half-Life too short		
		1678.03		5.542E+02	2.974E-01	Half-Life too short		
		1791.20		-7.436E+03	2.974E-01	Half-Life too short		
CS-136		153.25		2.905E-01	1.016E+00	1.638E+00	1.610E-01	0.177
		176.60		2.521E-01	5.741E-01	9.912E-01	8.877E-02	0.254
		273.65		-4.593E-01	7.091E-01	1.140E+00	1.052E-01	-0.403
		340.55		3.184E-01	2.317E-01	3.619E-01	3.214E-02	0.880
		818.51		6.758E-02	1.257E-01	2.129E-01	1.953E-02	0.317

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1048.07	*	-4.708E-02	1.872E-01	3.086E-01	2.821E-02	-0.153
		1235.36		5.598E-01	5.071E-01	9.394E-01	1.075E-01	0.596
CE-139		165.86	*	-5.746E-03	4.638E-02	7.298E-02	5.772E-03	-0.079
BA-140		162.66		2.031E-01	9.367E-01	1.502E+00	1.289E-01	0.135
		304.85		1.103E+00	2.132E+00	3.162E+00	9.249E-01	0.349
		423.72		-2.902E-01	3.014E+00	4.841E+00	1.591E+00	-0.060
		537.26	*	-2.434E-01	3.896E-01	6.146E-01	2.089E-01	-0.396
LA-140		328.76		2.515E-01	4.113E-01	6.953E-01	6.305E-02	0.362
		487.02		1.021E-01	2.170E-01	3.576E-01	3.339E-02	0.286
		815.77		-2.816E-01	5.296E-01	8.294E-01	8.399E-02	-0.340
		1596.21	*	9.327E-03	8.619E-02	1.428E-01	1.195E-02	0.065
CE-141		145.44	*	2.040E-03	8.812E-02	1.407E-01	1.178E-02	0.015
CE-143		57.36		5.800E+02	1.477E+02	2.272E+02	2.116E+01	2.553
		293.27	*	2.455E+01	1.704E+01	2.577E+01	5.505E+00	0.953
		664.57		4.429E+03	1.370E+03	7.092E+02	2.131E+02	6.245
		721.93		5.410E+00	1.585E+02	2.471E+02	6.946E+01	0.022
CE-144		80.12		8.562E-01	3.541E+00	5.233E+00	4.471E-01	0.164
		133.52	*	-3.851E-01	3.162E-01	4.675E-01	7.085E-02	-0.824
PM-144		476.78		4.412E-02	1.378E-01	2.252E-01	2.142E-02	0.196
		618.01		-1.353E-02	6.620E-02	1.059E-01	9.717E-03	-0.128
		696.49	*	-2.345E-02	6.290E-02	1.010E-01	9.053E-03	-0.232
PR-144		696.51	*	-1.715E+00	4.696E+00	7.547E+00	6.763E-01	-0.227
		1489.16		1.967E+00	1.668E+01	2.786E+01	2.327E+00	0.071
PM-146		453.88	*	6.703E-02	9.915E-02	1.650E-01	1.756E-02	0.406
		633.25		-1.351E-01	2.779E+00	4.608E+00	1.763E+00	-0.029
		735.93		1.205E-02	3.185E-01	4.562E-01	1.285E-01	0.026
		747.24		-4.954E-03	1.940E-01	3.184E-01	4.732E-02	-0.016
ND-147	+	91.11		4.457E-01	4.460E-01	4.378E-01	4.334E-02	1.018
		319.41		-1.356E+00	4.384E+00	7.089E+00	6.080E-01	-0.191
		531.02	*	6.136E-01	7.555E-01	1.326E+00	2.006E-01	0.463
PM-149		285.90	*	-2.102E+01	2.969E+01	4.712E+01	7.288E+00	-0.446
EU-152	+	121.78		6.194E-01	1.956E-01	2.588E-01	2.558E-02	2.394
		244.70		-3.261E-01	6.389E-01	9.071E-01	7.681E-02	-0.359
		344.28	*	8.530E-02	1.928E-01	3.007E-01	2.725E-02	0.284
		778.90		1.941E-02	5.063E-01	8.326E-01	7.605E-02	0.023
		964.08		-5.655E-01	8.187E-01	1.066E+00	9.648E-02	-0.530
		1085.87		-3.102E-01	8.324E-01	1.353E+00	1.167E-01	-0.229
		1112.07		5.045E-01	6.589E-01	1.158E+00	9.834E-02	0.436
		1408.01		1.514E-01	2.287E-01	4.164E-01	3.452E-02	0.364
GD-153		69.67		5.055E-01	2.431E+00	3.614E+00	2.769E-01	0.140
		97.43	*	-2.464E-02	1.257E-01	1.800E-01	1.610E-02	-0.137
		103.18		-3.865E-02	1.559E-01	2.497E-01	2.191E-02	-0.155
EU-154	+	123.07		4.378E-01	1.404E-01	1.829E-01	2.070E-02	2.394
		723.31		-5.779E-02	3.620E-01	5.081E-01	5.014E-02	-0.114
		873.19		-6.310E-01	6.970E-01	1.052E+00	1.294E-01	-0.600
		996.26		4.806E-01	8.633E-01	1.440E+00	2.541E-01	0.334
		1004.73		-2.083E-01	5.156E-01	8.025E-01	9.531E-02	-0.259
		1274.44	*	-6.447E-02	1.433E-01	2.195E-01	2.429E-02	-0.294
EU-155	+	86.55		4.221E+00	4.707E-01	4.200E-01	3.919E-02	10.049

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		105.31	*	4.554E-02	1.527E-01	2.504E-01	2.212E-02	0.182
TB-160	+	86.79		1.064E+01	1.179E+00	1.182E+00	1.097E-01	8.998
		197.04		-4.730E-01	8.445E-01	1.390E+00	1.139E-01	-0.340
		215.65		1.390E-01	1.242E+00	2.097E+00	1.748E-01	0.066
	+	298.57		2.448E-01	2.386E-01	3.366E-01	2.878E-02	0.727
		879.36	*	3.007E-01	3.275E-01	5.633E-01	5.166E-02	0.534
		962.29		-3.096E-01	1.381E+00	1.977E+00	1.790E-01	-0.157
		966.15		8.156E-02	5.372E-01	7.573E-01	6.849E-02	0.108
		1177.93		1.998E+00	8.147E-01	1.433E+00	1.167E-01	1.395
		1271.85		6.594E-01	7.925E-01	1.463E+00	1.199E-01	0.451
HO-166M		80.57		-8.506E-02	3.992E-01	5.769E-01	4.954E-02	-0.147
		184.41		1.419E-01	6.091E-02	1.006E-01	8.133E-03	1.410
		280.46		-4.497E-02	1.585E-01	2.585E-01	2.196E-02	-0.174
		410.95		4.640E-02	5.084E-01	8.274E-01	6.991E-02	0.056
		711.68	*	4.050E-02	1.148E-01	1.943E-01	1.750E-02	0.208
		752.31		9.790E-02	5.278E-01	8.799E-01	8.001E-02	0.111
		810.29		-2.913E-02	1.263E-01	2.029E-01	1.860E-02	-0.144
TA-182		67.75		-3.396E-02	1.357E-01	2.216E-01	1.670E-02	-0.153
		100.11		-1.311E-01	2.395E-01	3.783E-01	3.350E-02	-0.347
		152.43		2.899E-01	5.294E-01	8.640E-01	7.004E-02	0.336
		222.11		5.078E-01	5.936E-01	1.029E+00	8.613E-02	0.494
		1121.30		3.290E-01	2.942E-01	5.251E-01	4.435E-02	0.627
		1189.05		2.857E-01	4.353E-01	7.711E-01	6.287E-02	0.371
		1221.41	*	-4.941E-02	2.458E-01	3.978E-01	3.254E-02	-0.124
		1231.02		-2.378E-01	5.002E-01	7.726E-01	6.323E-02	-0.308
IR-192	+	295.96		7.701E-01	3.208E-01	4.053E-01	3.489E-02	1.900
		308.46		-1.279E-01	1.790E-01	2.841E-01	2.447E-02	-0.450
		316.51	*	-2.586E-02	6.162E-02	9.905E-02	8.513E-03	-0.261
		468.07		-1.294E-01	1.487E-01	2.259E-01	2.115E-02	-0.573
HG-203		70.83		8.381E-01	1.754E+00	2.631E+00	4.106E-01	0.319
		72.87		1.137E+00	9.309E-01	1.566E+00	2.371E-01	0.726
		279.20	*	-7.417E-03	6.591E-02	1.084E-01	9.446E-03	-0.068
BI-207		72.81		2.753E-01	2.305E-01	3.923E-01	3.094E-02	0.702
	+	74.97		5.010E-01	1.646E-01	2.673E-01	2.156E-02	1.874
		569.70		1.420E-02	5.719E-02	9.733E-02	8.728E-03	0.146
		1063.66	*	-8.124E-02	1.180E-01	1.875E-01	1.636E-02	-0.433
		1770.23		-3.974E-01	8.503E-01	1.043E+00	8.568E-02	-0.381
PB-210		46.54	*	-2.567E+00	3.793E+00	6.218E+00	5.781E-01	-0.413
PB-211		404.85	*	-1.406E+00	1.633E+00	2.275E+00	1.100E+00	-0.618
		427.09		-5.156E-01	3.237E+00	5.166E+00	2.389E+00	-0.100
		832.01		-1.489E+00	2.333E+00	3.412E+00	1.773E+00	-0.436
BI-212		727.33	*	1.362E+00	1.209E+00	1.894E+00	2.416E-01	0.719
		785.37		6.066E+00	6.301E+00	1.099E+01	1.005E+00	0.552
		1620.50		4.787E+00	3.299E+00	6.733E+00	5.626E-01	0.711
RN-219		271.23		7.998E-01	4.514E-01	7.939E-01	8.059E-02	1.007
		401.81	*	8.839E-01	8.104E-01	1.380E+00	2.034E-01	0.641
RA-223		81.07		-5.850E-01	3.441E-01	4.565E-01	3.944E-02	-1.281
		83.79		1.426E-01	2.030E-01	3.053E-01	2.727E-02	0.467
		94.87		8.952E-01	6.580E-01	1.021E+00	9.237E-02	0.876

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		144.24		1.579E-01	1.083E+00	1.734E+00	1.607E-01	0.091
		154.21		1.149E-02	6.157E-01	9.798E-01	8.774E-02	0.012
		269.46		2.116E-01	3.474E-01	5.914E-01	5.128E-02	0.358
		323.87	*	-7.529E-01	1.232E+00	1.949E+00	3.373E-01	-0.386
	+	338.28		4.774E+00	2.832E+00	3.671E+00	4.416E-01	1.300
AC-227		79.69		8.463E-01	1.775E+00	2.646E+00	4.544E-01	0.320
		235.96		1.470E-01	2.949E-01	4.462E-01	4.547E-02	0.329
		256.23	*	-1.745E-01	4.401E-01	7.180E-01	8.587E-02	-0.243
	+	299.98		2.017E+00	1.975E+00	2.821E+00	3.571E-01	0.715
		304.50		1.206E+00	3.419E+00	5.064E+00	8.356E-01	0.238
		334.37		-8.876E-01	3.646E+00	5.142E+00	8.000E-01	-0.173
TH-227		79.80		1.142E+00	2.346E+00	3.492E+00	7.590E-01	0.327
		235.96		1.470E-01	2.948E-01	4.462E-01	4.282E-02	0.329
		256.23	*	-1.745E-01	4.402E-01	7.180E-01	9.711E-02	-0.243
	+	299.98		2.017E+00	1.975E+00	2.821E+00	3.571E-01	0.715
		304.50		1.206E+00	3.419E+00	5.064E+00	8.356E-01	0.238
		334.37		-8.876E-01	3.646E+00	5.142E+00	8.000E-01	-0.173
TH-229		85.43		5.184E-01	3.493E-01	5.374E-01	4.900E-02	0.965
	+	88.47		5.378E+00	5.960E-01	6.476E-01	6.081E-02	8.305
		193.51	*	4.135E-01	8.154E-01	1.407E+00	1.148E-01	0.294
		210.85		2.164E-01	1.534E+00	2.590E+00	2.150E-01	0.084
PA-231		283.69	*	-2.439E-02	2.688E+00	4.450E+00	6.460E-01	-0.005
	+	301.36		1.296E+00	1.268E+00	1.854E+00	2.245E-01	0.699
TH-231		81.07		-5.850E-01	3.441E-01	4.565E-01	3.944E-02	-1.281
		83.79		1.426E-01	2.030E-01	3.053E-01	2.727E-02	0.467
		94.87		8.952E-01	6.580E-01	1.021E+00	9.237E-02	0.876
		144.24		1.579E-01	1.083E+00	1.734E+00	1.607E-01	0.091
		154.21		1.149E-02	6.157E-01	9.798E-01	8.774E-02	0.012
		269.46		2.116E-01	3.474E-01	5.914E-01	5.128E-02	0.358
		323.87	*	-7.529E-01	1.232E+00	1.949E+00	3.373E-01	-0.386
	+	338.28		4.774E+00	2.832E+00	3.671E+00	4.416E-01	1.300
PA-233	+	300.13		9.128E-01	8.966E-01	1.281E+00	1.895E-01	0.713
		311.90	*	8.892E-02	1.277E-01	2.167E-01	1.912E-02	0.410
		340.48		1.822E+00	1.402E+00	2.104E+00	5.059E-01	0.866
PA-234		94.67		4.591E-01	2.474E-01	3.858E-01	4.901E-02	1.190
		98.44		1.078E-01	1.398E-01	2.039E-01	1.139E-01	0.528
		111.00		-1.043E-01	2.635E-01	4.170E-01	5.049E-02	-0.250
		131.20		2.191E-02	1.631E-01	2.632E-01	2.217E-02	0.083
		569.50		-4.107E-02	5.246E-01	8.747E-01	7.844E-02	-0.047
		733.00		3.679E-02	8.168E-01	1.171E+00	2.620E-01	0.031
		880.51		5.282E-01	6.851E-01	1.170E+00	1.072E-01	0.452
		883.24		-3.548E-01	7.659E-01	1.142E+00	7.685E-01	-0.311
		926.50		1.972E-01	4.788E-01	7.912E-01	2.014E-01	0.249
		946.00	*	-4.577E-01	8.439E-01	1.308E+00	2.483E-01	-0.350
		949.00		4.347E-01	1.192E+00	1.970E+00	1.789E-01	0.221
PA-234M		766.42		2.120E+01	2.809E+01	3.999E+01	2.032E+01	0.530
		1001.03	*	5.803E-01	1.089E+01	1.770E+01	1.815E+00	0.033
TH-234		63.29	*	-4.472E-01	1.699E+00	2.504E+00	4.454E-01	-0.179
	+	92.59		2.847E+00	1.680E+00	1.639E+00	3.653E-01	1.737

Sample ID : G1202069896 Acquisition date : 24-MAR-2010 13:16:28

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237		86.48	*	4.650E+00	1.198E+00	9.973E-01	2.285E-01	4.662
		95.86		5.102E-01	1.333E+00	1.970E+00	4.753E-01	0.259
U-238		63.29	*	-4.472E-01	1.699E+00	2.504E+00	4.454E-01	-0.179
	+	92.59		2.847E+00	1.578E+00	1.639E+00	1.499E-01	1.737
NP-239		99.53		-1.379E-02	2.266E-01	3.668E-01	3.254E-02	-0.038
		103.37		-1.862E-02	1.446E-01	2.329E-01	2.043E-02	-0.080
		106.12		1.934E-02	1.211E-01	1.974E-01	1.721E-02	0.098
		117.23	*	3.563E-02	6.463E-01	9.939E-01	8.551E-02	0.036
		228.18		8.040E-02	3.773E-01	6.379E-01	5.361E-02	0.126
		277.60		4.537E-02	3.121E-01	5.200E-01	4.414E-02	0.087
CM-247		278.00		6.592E-02	1.343E+00	2.227E+00	1.890E-01	0.030
		287.50		7.485E-01	2.263E+00	3.805E+00	3.241E-01	0.197
		402.40	*	7.632E-02	7.343E-02	1.258E-01	1.056E-02	0.607
CF-249		252.80		1.767E+00	1.670E+00	2.910E+00	2.470E-01	0.607
		333.37		-2.112E-02	3.655E-01	5.233E-01	4.483E-02	-0.040
		388.16	*	4.560E-02	7.738E-02	1.299E-01	1.084E-02	0.351
CF-251		177.52	*	5.703E-02	1.988E-01	3.413E-01	2.737E-02	0.167
		227.38		2.285E-01	6.186E-01	1.053E+00	8.841E-02	0.217
		285.41		-2.423E+00	4.050E+00	6.498E+00	5.530E-01	-0.373
ANH-511		511.00	*	4.340E-02	7.592E-02	1.333E-01	1.185E-02	0.325

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202069896    *
* Acquisition date : 24-MAR-2010 13:16:28 Detector SN#    :                *
* Detector ID      : GAM07                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:01.38     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 15-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202069896          Analyst initials: MXR1            *
* Batch Number     : 964804               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	7.524E-01	7.150E-01	8.265E-01	0.000E+00
CO-57	2.123E-01	6.492E-02	6.652E-02	0.000E+00
CO-60	6.810E+00	6.449E-01	9.919E-02	0.000E+00
CD-109	3.539E+01	3.844E+00	1.962E+00	0.000E+00
SN-126	3.489E+00	3.789E-01	1.939E-01	0.000E+00
BA-137M	5.778E+00	5.682E-01	1.118E-01	0.000E+00
CS-137	6.104E+00	6.011E-01	1.181E-01	0.000E+00
TL-208	6.507E-01	1.444E-01	1.157E-01	0.000E+00
BI-211	2.675E+00	7.013E-01	6.449E-01	0.000E+00
PB-212	1.495E+00	2.139E-01	1.687E-01	0.000E+00
BI-214	1.063E+00	3.001E-01	2.191E-01	0.000E+00
PB-214	9.709E-01	2.599E-01	2.382E-01	0.000E+00
RA-224	3.109E+00	1.604E+00	1.808E+00	0.000E+00
RA-226	1.063E+00	3.001E-01	2.191E-01	0.000E+00
AC-228	1.989E+00	6.783E-01	6.096E-01	0.000E+00
RA-228	1.989E+00	6.783E-01	6.096E-01	0.000E+00
TH-228	1.495E+00	2.139E-01	1.687E-01	0.000E+00
TH-230	1.063E+00	2.950E-01	2.191E-01	0.000E+00
TH-232	1.989E+00	6.783E-01	6.096E-01	0.000E+00
U-235	1.842E-01	3.150E-01	5.583E-01	0.000E+00
AM-241	1.498E+01	1.325E+00	4.273E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	4.129E-02	6.336E-01	1.079E+00	0.000E+00	NOT IDENT.
NA-22	-2.677E-02	4.994E-02	7.798E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.882E+03	0.000E+00	0.000E+00	SHORT HLIF
SC-46	3.684E-02	9.282E-02	1.609E-01	0.000E+00	NOT IDENT.
V-48	7.305E-02	1.336E-01	2.322E-01	0.000E+00	NOT IDENT.
CR-51	4.693E-01	5.766E-01	1.054E+00	0.000E+00	NOT IDENT.

MN-54	1.994E-02	8.049E-02	1.392E-01	0.000E+00	NOT IDENT.
CO-56	1.573E-02	8.600E-02	1.479E-01	0.000E+00	NOT IDENT.
CO-58	-9.529E-03	7.626E-02	1.289E-01	0.000E+00	NOT IDENT.
FE-59	-1.633E-01	1.900E-01	3.083E-01	0.000E+00	NOT IDENT.
ZN-65	-1.663E-01	1.934E-01	3.138E-01	0.000E+00	NOT IDENT.
SE-75	-2.430E-02	7.358E-02	1.292E-01	0.000E+00	FAIL ABUN
SR-85	-7.530E-02	7.629E-02	1.289E-01	0.000E+00	NOT IDENT.
Y-88	7.752E-02	6.035E-02	1.223E-01	0.000E+00	NOT IDENT.
Y-91	-1.621E+01	2.512E+01	3.960E+01	0.000E+00	NOT IDENT.
NB-94	2.183E-02	6.539E-02	1.156E-01	0.000E+00	NOT IDENT.
NB-95	2.917E-02	8.835E-02	1.363E-01	0.000E+00	NOT IDENT.
NB-95M	1.514E-02	2.250E-01	3.583E-01	0.000E+00	NOT IDENT.
ZR-95	3.362E-02	1.366E-01	2.388E-01	0.000E+00	NOT IDENT.
MO-99	-2.403E+00	5.889E+00	9.815E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.177E+10	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.194E-02	7.439E-02	1.243E-01	0.000E+00	FAIL ABUN
RH-106	6.476E-01	6.071E-01	1.124E+00	0.000E+00	NOT IDENT.
RU-106	6.476E-01	6.037E-01	1.124E+00	0.000E+00	NOT IDENT.
AG-108M	3.805E-02	6.390E-02	1.128E-01	0.000E+00	NOT IDENT.
AG-110M	5.912E-02	7.714E-02	1.247E-01	0.000E+00	NOT IDENT.
SN-113	6.194E-02	8.641E-02	1.548E-01	0.000E+00	NOT IDENT.
CD-115	-1.598E+00	3.786E+00	6.549E+00	0.000E+00	NOT IDENT.
SN-117M	-1.484E-02	6.222E-02	1.060E-01	0.000E+00	NOT IDENT.
TE-123M	-1.837E-02	4.211E-02	7.098E-02	0.000E+00	NOT IDENT.
SB-124	-4.390E-02	1.024E-01	1.515E-01	0.000E+00	NOT IDENT.
SB-125	-7.113E-02	1.908E-01	3.197E-01	0.000E+00	NOT IDENT.
TE-125M	-7.039E+00	1.275E+01	2.197E+01	0.000E+00	NOT IDENT.
I-126	1.429E-01	3.285E-01	5.181E-01	0.000E+00	NOT IDENT.
SB-126	1.853E-02	1.956E-01	3.401E-01	0.000E+00	NOT IDENT.
SB-127	1.743E-01	9.054E-01	1.592E+00	0.000E+00	NOT IDENT.
I-131	2.236E-02	1.413E-01	2.477E-01	0.000E+00	NOT IDENT.
TE-132	8.448E-02	3.726E-01	6.789E-01	0.000E+00	NOT IDENT.
BA-133	-4.835E-02	9.446E-02	1.385E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.292E+02	0.000E+00	0.000E+00	SHORT HLIF
CS-134	9.792E-02	9.205E-02	1.684E-01	0.000E+00	NOT IDENT.
CS-135	-3.181E-02	2.914E-01	5.172E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.011E+09	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.708E-02	1.835E-01	3.136E-01	0.000E+00	NOT IDENT.
CE-139	-5.746E-03	4.545E-02	7.766E-02	0.000E+00	NOT IDENT.
BA-140	-2.434E-01	3.818E-01	6.354E-01	0.000E+00	NOT IDENT.
LA-140	9.327E-03	8.447E-02	1.436E-01	0.000E+00	NOT IDENT.
CE-141	2.040E-03	8.635E-02	1.502E-01	0.000E+00	NOT IDENT.
CE-143	2.455E+01	1.670E+01	2.705E+01	0.000E+00	NOT IDENT.
CE-144	-3.851E-01	3.098E-01	5.000E-01	0.000E+00	NOT IDENT.
PM-144	-2.345E-02	6.164E-02	1.037E-01	0.000E+00	NOT IDENT.
PR-144	-1.715E+00	4.602E+00	7.751E+00	0.000E+00	NOT IDENT.
PM-146	6.703E-02	9.717E-02	1.713E-01	0.000E+00	NOT IDENT.
ND-147	6.136E-01	7.404E-01	1.371E+00	0.000E+00	FAIL ABUN
PM-149	-2.102E+01	2.910E+01	4.948E+01	0.000E+00	NOT IDENT.
EU-152	8.530E-02	1.889E-01	3.144E-01	0.000E+00	FAIL ABUN
GD-153	-2.464E-02	1.232E-01	1.940E-01	0.000E+00	NOT IDENT.
EU-154	-6.447E-02	1.404E-01	2.219E-01	0.000E+00	FAIL ABUN
EU-155	4.554E-02	1.496E-01	2.694E-01	0.000E+00	FAIL ABUN
TB-160	3.007E-01	3.209E-01	5.751E-01	0.000E+00	FAIL ABUN
HO-166M	4.050E-02	1.125E-01	1.995E-01	0.000E+00	NOT IDENT.
TA-182	-4.941E-02	2.409E-01	4.027E-01	0.000E+00	NOT IDENT.
IR-192	-2.586E-02	6.038E-02	1.038E-01	0.000E+00	FAIL ABUN
HG-203	-7.417E-03	6.460E-02	1.140E-01	0.000E+00	NOT IDENT.
BI-207	-8.124E-02	1.156E-01	1.905E-01	0.000E+00	FAIL ABUN
PB-210	-2.567E+00	3.717E+00	6.815E+00	0.000E+00	NOT IDENT.
PB-211	-1.406E+00	1.601E+00	2.369E+00	0.000E+00	NOT IDENT.
BI-212	1.362E+00	1.184E+00	1.943E+00	0.000E+00	NOT IDENT.
RN-219	8.839E-01	7.942E-01	1.437E+00	0.000E+00	NOT IDENT.
RA-223	-7.529E-01	1.208E+00	2.040E+00	0.000E+00	FAIL ABUN
AC-227	-1.745E-01	4.313E-01	7.561E-01	0.000E+00	FAIL ABUN
TH-227	-1.745E-01	4.314E-01	7.561E-01	0.000E+00	FAIL ABUN
TH-229	4.135E-01	7.991E-01	1.491E+00	0.000E+00	FAIL ABUN
PA-231	-2.439E-02	2.635E+00	4.675E+00	0.000E+00	FAIL ABUN
TH-231	-7.529E-01	1.208E+00	2.040E+00	0.000E+00	FAIL ABUN
PA-233	8.892E-02	1.251E-01	2.271E-01	0.000E+00	FAIL ABUN
PA-234	-4.577E-01	8.270E-01	1.333E+00	0.000E+00	NOT IDENT.
PA-234M	5.803E-01	1.067E+01	1.801E+01	0.000E+00	NOT IDENT.
TH-234	-4.472E-01	1.665E+00	2.725E+00	0.000E+00	FAIL ABUN
NP-237	0.000E+00	1.174E+00	1.078E+00	0.000E+00	NOT IDENT.
U-238	-4.472E-01	1.665E+00	2.725E+00	0.000E+00	FAIL ABUN
NP-239	3.563E-02	6.334E-01	1.066E+00	0.000E+00	NOT IDENT.
CM-247	7.632E-02	7.197E-02	1.310E-01	0.000E+00	NOT IDENT.
CF-249	4.560E-02	7.583E-02	1.354E-01	0.000E+00	NOT IDENT.

CF-251	5.703E-02	1.949E-01	3.626E-01	0.000E+00 NOT IDENT.
ANH-511	4.340E-02	7.440E-02	1.380E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 14:16:59.02

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202069896.CNF;1
Sample date       : 15-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 13:16:28
Sample ID         : G1202069896          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.38  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 964804                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	18	10.66*	1.129E+00	7.524E-01	7.524E-01	96.96
CO-57	122.06	254	85.60*	7.072E+00	2.072E-01	2.123E-01	31.20
	136.47	------	10.68	6.835E+00	------ Line Not Found		------
CO-60	1173.23	1882	99.85	1.358E+00	6.869E+00	6.893E+00	9.60
	1332.49	1669	99.98*	1.217E+00	6.786E+00	6.810E+00	9.66
CD-109	88.03	1791	3.70*	6.867E+00	3.489E+01	3.539E+01	11.08
SN-126	64.28	------	9.60	4.930E+00	------ Line Not Found		------
	86.94	1791	8.90	6.867E+00	1.450E+01	1.450E+01	41.94
	87.57	1791	37.00*	6.867E+00	3.489E+00	3.489E+00	11.08
BA-137M	661.66	2341	89.90*	2.231E+00	5.775E+00	5.778E+00	10.03
CS-137	661.66	2341	85.10*	2.231E+00	6.101E+00	6.104E+00	10.05
TL-208	277.37	------	6.60	4.401E+00	------ Line Not Found		------
	583.19	277	85.00*	2.476E+00	6.507E-01	6.507E-01	22.65
	860.56	------	12.50	1.783E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	5.899E+00	------ Line Not Found		------
	351.06	257	12.92*	3.679E+00	2.675E+00	2.675E+00	26.75
PB-212	74.82	220	10.28	6.084E+00	1.739E+00	1.739E+00	34.27
	77.11	402	17.10	6.262E+00	1.857E+00	1.857E+00	21.80
	238.63	647	43.60*	4.909E+00	1.495E+00	1.495E+00	14.60
	300.09	51	3.30	4.152E+00	1.834E+00	1.834E+00	97.66
BI-214	609.32	233	45.49*	2.389E+00	1.063E+00	1.063E+00	28.80
	1120.29	------	14.92	1.414E+00	------ Line Not Found		------
	1764.49	26	15.30	9.828E-01	8.660E-01	8.660E-01	65.46
PB-214	74.82	220	5.80	6.084E+00	3.082E+00	3.082E+00	33.81
	77.11	402	9.70	6.262E+00	3.274E+00	3.274E+00	23.30
	242.00	125	7.25	4.862E+00	1.758E+00	1.758E+00	52.97
	295.22	172	18.42	4.199E+00	1.097E+00	1.097E+00	42.15
	351.93	257	35.60*	3.679E+00	9.709E-01	9.709E-01	27.31
RA-224	240.99	125	4.10*	4.862E+00	3.109E+00	3.109E+00	52.65
RA-226	609.32	233	45.49*	2.389E+00	1.063E+00	1.063E+00	28.80
	1120.29	------	14.92	1.414E+00	------ Line Not Found		------
	1764.49	26	15.30	9.828E-01	8.660E-01	8.660E-01	65.46

Sample ID : G1202069896 Acquisition date : 24-MAR-2010 13:16:28

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
AC-228	338.32	104	11.27	3.789E+00	1.203E+00	1.203E+00	71.50
	911.20	176	25.80*	1.695E+00	1.989E+00	1.989E+00	34.80
	968.97	53	15.80	1.606E+00	1.038E+00	1.038E+00	93.21
RA-228	338.32	104	11.27	3.789E+00	1.203E+00	1.203E+00	71.50
	911.20	176	25.80*	1.695E+00	1.989E+00	1.989E+00	34.80
	968.97	53	15.80	1.606E+00	1.038E+00	1.038E+00	93.21
TH-228	74.82	220	10.28	6.084E+00	1.739E+00	1.739E+00	32.88
	77.11	402	17.10	6.262E+00	1.857E+00	1.857E+00	21.80
	238.63	647	43.60*	4.909E+00	1.495E+00	1.495E+00	14.60
	300.09	51	3.30	4.152E+00	1.834E+00	1.834E+00	114.78
TH-230	609.32	233	45.49*	2.389E+00	1.063E+00	1.063E+00	28.31
	1120.29	------	14.92	1.414E+00	------ Line Not Found		------
	1764.49	26	15.30	9.828E-01	8.660E-01	8.660E-01	65.46
TH-232	338.32	104	11.27	3.789E+00	1.203E+00	1.203E+00	58.71
	911.20	176	25.80*	1.695E+00	1.989E+00	1.989E+00	34.80
	968.97	53	15.80	1.606E+00	1.038E+00	1.038E+00	93.21
U-235	89.96	95	3.47	6.936E+00	1.958E+00	1.958E+00	102.62
	93.35	171	5.60	7.023E+00	2.150E+00	2.150E+00	59.42
	143.76	------	10.96*	6.691E+00	------ Line Not Found		------
	163.33	------	5.08	6.279E+00	------ Line Not Found		------
	185.72	81	57.20	5.815E+00	1.205E-01	1.205E-01	79.07
	205.31	------	5.01	5.451E+00	------ Line Not Found		------
AM-241	59.54	4612	35.90*	4.244E+00	1.498E+01	1.498E+01	9.03

Flag: "*" = Keyline

Sample ID : G1202069896 Acquisition date : 24-MAR-2010 13:16:28

Total number of lines in spectrum 25
Number of unidentified lines 2
Number of lines tentatively identified by NID 23 92.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	7.524E-01	7.524E-01	7.295E-01	96.96	
CO-57	271.74D	1.02	2.072E-01	2.123E-01	0.662E-01	31.20	
CO-60	5.27Y	1.00	6.786E+00	6.810E+00	0.658E+00	9.66	
CD-109	461.40D	1.01	3.489E+01	3.539E+01	0.392E+01	11.08	
SN-126	2.30E+05Y	1.00	3.489E+00	3.489E+00	0.387E+00	11.08	
BA-137M	30.08Y	1.00	5.775E+00	5.778E+00	0.580E+00	10.03	
CS-137	30.08Y	1.00	6.101E+00	6.104E+00	0.613E+00	10.05	
TL-208	1.41E+10Y	1.00	6.507E-01	6.507E-01	1.474E-01	22.65	
BI-211	7.04E+08Y	1.00	2.675E+00	2.675E+00	0.716E+00	26.75	
PB-212	1.41E+10Y	1.00	1.495E+00	1.495E+00	0.218E+00	14.60	
BI-214	1600.00Y	1.00	1.063E+00	1.063E+00	0.306E+00	28.80	
PB-214	1600.00Y	1.00	9.709E-01	9.709E-01	2.652E-01	27.31	
RA-224	1.41E+10Y	1.00	3.109E+00	3.109E+00	1.637E+00	52.65	
RA-226	1600.00Y	1.00	1.063E+00	1.063E+00	0.306E+00	28.80	
AC-228	1.41E+10Y	1.00	1.989E+00	1.989E+00	0.692E+00	34.80	
RA-228	1.41E+10Y	1.00	1.989E+00	1.989E+00	0.692E+00	34.80	
TH-228	1.41E+10Y	1.00	1.495E+00	1.495E+00	0.218E+00	14.60	
TH-230	7.54E+04Y	1.00	1.063E+00	1.063E+00	0.301E+00	28.31	
TH-232	1.41E+10Y	1.00	1.989E+00	1.989E+00	0.692E+00	34.80	
U-235	7.04E+08Y	1.00	1.205E-01	1.205E-01	0.953E-01	79.07	K
AM-241	432.60Y	1.00	1.498E+01	1.498E+01	0.135E+01	9.03	
	Total Activity :		9.264E+01	9.319E+01			

Grand Total Activity : 9.264E+01 9.319E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202069896 Acquisition date : 24-MAR-2010 13:16:28

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	729.06	70	91	1.40	1457.56	1452	14	1.93E-02	64.1	2.06E+00	
0	768.63	45	54	1.38	1536.70	1533	8	1.26E-02	63.6	1.97E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 14:17:02.70

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202069896.CNF;1 *
* Acquisition date : 24-MAR-2010 13:16:28  Detector SN#     :              *
* Detector ID      : GAM07                 Sensitivity      : 5.00000      *
* Geometry         : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 01:00:01.38         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 15-MAR-2010 00:00:00  Nuclide Library : SOLID          *
* Sample ID        : G1202069896           Analyst initials: MXR1           *
* Batch Number     : 964804                Sample Quantity : 1.51730E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58.0MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	7.524E-01	7.295E-01	8.204E-01	7.046E-02	0.917
CO-57	2.123E-01	6.624E-02	6.206E-02	5.340E-03	3.421
CO-60	6.810E+00	6.581E-01	9.822E-02	8.046E-03	69.332
CD-109	3.539E+01	3.922E+00	1.817E+00	1.711E-01	19.483
SN-126	3.489E+00	3.866E-01	1.795E-01	1.681E-02	19.440
BA-137M	5.778E+00	5.798E-01	1.087E-01	9.618E-03	53.169
CS-137	6.104E+00	6.134E-01	1.148E-01	1.018E-02	53.169
TL-208	6.507E-01	1.474E-01	1.121E-01	1.071E-02	5.804
BI-211	2.675E+00	7.156E-01	6.172E-01	5.537E-02	4.335
PB-212	1.495E+00	2.183E-01	1.599E-01	1.537E-02	9.352
BI-214	1.063E+00	3.062E-01	2.126E-01	2.209E-02	5.001
PB-214	9.709E-01	2.652E-01	2.280E-01	2.400E-02	4.259
RA-224	3.109E+00	1.637E+00	1.714E+00	1.450E-01	1.814
RA-226	1.063E+00	3.062E-01	2.126E-01	2.209E-02	5.001
AC-228	1.989E+00	6.921E-01	5.977E-01	7.164E-02	3.328
RA-228	1.989E+00	6.921E-01	5.977E-01	7.164E-02	3.328
TH-228	1.495E+00	2.183E-01	1.599E-01	1.537E-02	9.352
TH-230	1.063E+00	3.010E-01	2.126E-01	1.903E-02	5.001

Sample ID : G1202069896 Acquisition date : 24-MAR-2010 13:16:28

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.989E+00	6.921E-01	5.977E-01	7.164E-02	3.328
U-235	1.205E-01	9.527E-02	5.229E-01	8.762E-02	0.230
AM-241	1.498E+01	1.352E+00	3.920E-01	3.108E-02	38.200

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.129E-02		6.465E-01	1.041E+00	9.818E-02	0.040
NA-22	-2.677E-02		5.096E-02	7.713E-02	6.332E-03	-0.347
NA-24	6.545E-04		9.600E-04	Half-Life too short		
SC-46	3.684E-02		9.472E-02	1.576E-01	1.444E-02	0.234
V-48	7.305E-02		1.364E-01	2.281E-01	2.053E-02	0.320
CR-51	4.693E-01		5.884E-01	1.006E+00	9.087E-02	0.466
MN-54	1.994E-02		8.213E-02	1.362E-01	1.250E-02	0.146
CO-56	1.573E-02		8.776E-02	1.448E-01	1.329E-02	0.109
CO-58	-9.529E-03		7.782E-02	1.260E-01	1.158E-02	-0.076
FE-59	-1.633E-01		1.938E-01	3.038E-01	2.814E-02	-0.537
ZN-65	-1.663E-01		1.973E-01	3.093E-01	2.624E-02	-0.538
SE-75	-2.430E-02		7.508E-02	1.228E-01	1.048E-02	-0.198
SR-85	-7.530E-02		7.785E-02	1.245E-01	1.107E-02	-0.605
Y-88	7.752E-02		6.158E-02	1.222E-01	9.916E-03	0.634
Y-91	-1.621E+01		2.564E+01	3.911E+01	3.194E+00	-0.415
NB-94	2.183E-02		6.672E-02	1.126E-01	1.011E-02	0.194
NB-95	2.917E-02		9.016E-02	1.330E-01	1.212E-02	0.219
NB-95M	1.514E-02		2.296E-01	3.396E-01	3.303E-02	0.045
ZR-95	3.362E-02		1.394E-01	2.330E-01	2.321E-02	0.144
MO-99	-2.403E+00		6.010E+00	9.571E+00	1.532E+00	-0.251
TC-99M	-4.532E+03		6.006E+03	Half-Life too short		
RU-103	-1.194E-02		7.591E-02	1.200E-01	1.693E-02	-0.099
RH-106	6.476E-01		6.195E-01	1.091E+00	1.469E-01	0.593
RU-106	6.476E-01		6.160E-01	1.091E+00	9.753E-02	0.593
AG-108M	3.805E-02		6.520E-02	1.085E-01	9.622E-03	0.351
AG-110M	5.912E-02		7.871E-02	1.212E-01	1.104E-02	0.488
SN-113	6.194E-02		8.817E-02	1.486E-01	1.277E-02	0.417
CD-115	-1.598E+00		3.863E+00	6.332E+00	5.649E-01	-0.252
SN-117M	-1.484E-02		6.349E-02	9.952E-02	7.979E-03	-0.149
TE-123M	-1.837E-02		4.297E-02	6.663E-02	5.376E-03	-0.276
SB-124	-4.390E-02		1.045E-01	1.509E-01	1.311E-02	-0.291
SB-125	-7.113E-02		1.947E-01	3.075E-01	2.679E-02	-0.231
TE-125M	-7.039E+00		1.301E+01	2.044E+01	2.148E+00	-0.344
I-126	1.429E-01		3.352E-01	5.039E-01	4.467E-02	0.284
SB-126	1.853E-02		1.996E-01	3.314E-01	2.991E-02	0.056
SB-127	1.743E-01		9.239E-01	1.550E+00	1.584E-01	0.112
I-131	2.236E-02		1.442E-01	2.372E-01	2.116E-02	0.094
TE-132	8.448E-02		3.802E-01	6.429E-01	9.501E-02	0.131
BA-133	-4.835E-02		9.639E-02	1.326E-01	1.708E-02	-0.365
I-133	2.043E-05		6.590E-05	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-134	9.792E-02		9.392E-02	1.645E-01	1.515E-02	0.595
CS-135	-3.181E-02		2.974E-01	4.917E-01	4.848E-02	-0.065
I-135	2.689E+02		3.067E+03	Half-Life too short		
CS-136	-4.708E-02		1.872E-01	3.086E-01	2.821E-02	-0.153
CE-139	-5.746E-03		4.638E-02	7.298E-02	5.772E-03	-0.079
BA-140	-2.434E-01		3.896E-01	6.146E-01	2.089E-01	-0.396
LA-140	9.327E-03		8.619E-02	1.428E-01	1.195E-02	0.065
CE-141	2.040E-03		8.812E-02	1.407E-01	1.178E-02	0.015
CE-143	2.455E+01		1.704E+01	2.577E+01	5.505E+00	0.953
CE-144	-3.851E-01		3.162E-01	4.675E-01	7.085E-02	-0.824
PM-144	-2.345E-02		6.290E-02	1.010E-01	9.053E-03	-0.232
PR-144	-1.715E+00		4.696E+00	7.547E+00	6.763E-01	-0.227
PM-146	6.703E-02		9.915E-02	1.650E-01	1.756E-02	0.406
ND-147	6.136E-01		7.555E-01	1.326E+00	2.006E-01	0.463
PM-149	-2.102E+01		2.969E+01	4.712E+01	7.288E+00	-0.446
EU-152	8.530E-02		1.928E-01	3.007E-01	2.725E-02	0.284
GD-153	-2.464E-02		1.257E-01	1.800E-01	1.610E-02	-0.137
EU-154	-6.447E-02		1.433E-01	2.195E-01	2.429E-02	-0.294
EU-155	4.554E-02		1.527E-01	2.504E-01	2.212E-02	0.182
TB-160	3.007E-01		3.275E-01	5.633E-01	5.166E-02	0.534
HO-166M	4.050E-02		1.148E-01	1.943E-01	1.750E-02	0.208
TA-182	-4.941E-02		2.458E-01	3.978E-01	3.254E-02	-0.124
IR-192	-2.586E-02		6.162E-02	9.905E-02	8.513E-03	-0.261
HG-203	-7.417E-03		6.591E-02	1.084E-01	9.446E-03	-0.068
BI-207	-8.124E-02		1.180E-01	1.875E-01	1.636E-02	-0.433
PB-210	-2.567E+00		3.793E+00	6.218E+00	5.781E-01	-0.413
PB-211	-1.406E+00		1.633E+00	2.275E+00	1.100E+00	-0.618
BI-212	1.362E+00		1.209E+00	1.894E+00	2.416E-01	0.719
RN-219	8.839E-01		8.104E-01	1.380E+00	2.034E-01	0.641
RA-223	-7.529E-01		1.232E+00	1.949E+00	3.373E-01	-0.386
AC-227	-1.745E-01		4.401E-01	7.180E-01	8.587E-02	-0.243
TH-227	-1.745E-01		4.402E-01	7.180E-01	9.711E-02	-0.243
TH-229	4.135E-01		8.154E-01	1.407E+00	1.148E-01	0.294
PA-231	-2.439E-02		2.688E+00	4.450E+00	6.460E-01	-0.005
TH-231	-7.529E-01		1.232E+00	1.949E+00	3.373E-01	-0.386
PA-233	8.892E-02		1.277E-01	2.167E-01	1.912E-02	0.410
PA-234	-4.577E-01		8.439E-01	1.308E+00	2.483E-01	-0.350
PA-234M	5.803E-01		1.089E+01	1.770E+01	1.815E+00	0.033
TH-234	-4.472E-01		1.699E+00	2.504E+00	4.454E-01	-0.179
NP-237	4.650E+00		1.198E+00	9.973E-01	2.285E-01	4.662
U-238	-4.472E-01		1.699E+00	2.504E+00	4.454E-01	-0.179
NP-239	3.563E-02		6.463E-01	9.939E-01	8.551E-02	0.036
CM-247	7.632E-02		7.343E-02	1.258E-01	1.056E-02	0.607
CF-249	4.560E-02		7.738E-02	1.299E-01	1.084E-02	0.351
CF-251	5.703E-02		1.988E-01	3.413E-01	2.737E-02	0.167
ANH-511	4.340E-02		7.592E-02	1.333E-01	1.185E-02	0.325

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202069896          *
* Acquisition date : 24-MAR-2010 13:16:28 Detector SN#    :                *
* Detector ID      : GAM07                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:01.38     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 15-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202069896          Analyst initials: MXR1           *
* Batch Number     : 964804               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	7.524E-01	7.150E-01	4.135E-01	3.648E-01
CO-57	2.123E-01	6.492E-02	3.328E-02	3.312E-02
CO-60	6.810E+00	6.449E-01	4.962E-02	3.290E-01
CD-109	3.539E+01	3.844E+00	9.816E-01	1.961E+00
SN-126	3.489E+00	3.789E-01	9.698E-02	1.933E-01
BA-137M	5.778E+00	5.682E-01	5.592E-02	2.899E-01
CS-137	6.104E+00	6.011E-01	5.907E-02	3.067E-01
TL-208	6.507E-01	1.444E-01	5.787E-02	7.369E-02
BI-211	2.675E+00	7.013E-01	3.226E-01	3.578E-01
PB-212	1.495E+00	2.139E-01	8.439E-02	1.091E-01
BI-214	1.063E+00	3.001E-01	1.096E-01	1.531E-01
PB-214	9.709E-01	2.599E-01	1.192E-01	1.326E-01
RA-224	3.109E+00	1.604E+00	9.045E-01	8.184E-01
RA-226	1.063E+00	3.001E-01	1.096E-01	1.531E-01
AC-228	1.989E+00	6.783E-01	3.050E-01	3.461E-01
RA-228	1.989E+00	6.783E-01	3.050E-01	3.461E-01
TH-228	1.495E+00	2.139E-01	8.439E-02	1.091E-01
TH-230	1.063E+00	2.950E-01	1.096E-01	1.505E-01
TH-232	1.989E+00	6.783E-01	3.050E-01	3.461E-01
U-235	1.842E-01	3.150E-01	2.793E-01	1.607E-01
AM-241	1.498E+01	1.325E+00	2.138E-01	6.760E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	4.129E-02	6.336E-01	5.398E-01	3.233E-01	NOT IDENT.
NA-22	-2.677E-02	4.994E-02	3.902E-02	2.548E-02	NOT IDENT.
NA-24	6.545E+02	1.882E+03	0.000E+00	9.600E+02	SHORT HLIF
SC-46	3.684E-02	9.282E-02	8.048E-02	4.736E-02	NOT IDENT.
V-48	7.305E-02	1.336E-01	1.161E-01	6.818E-02	NOT IDENT.
CR-51	4.693E-01	5.766E-01	5.273E-01	2.942E-01	NOT IDENT.

MN-54	1.994E-02	8.049E-02	6.965E-02	4.106E-02	NOT IDENT.
CO-56	1.573E-02	8.600E-02	7.402E-02	4.388E-02	NOT IDENT.
CO-58	-9.529E-03	7.626E-02	6.450E-02	3.891E-02	NOT IDENT.
FE-59	-1.633E-01	1.900E-01	1.543E-01	9.692E-02	NOT IDENT.
ZN-65	-1.663E-01	1.934E-01	1.570E-01	9.865E-02	NOT IDENT.
SE-75	-2.430E-02	7.358E-02	6.462E-02	3.754E-02	FAIL ABUN
SR-85	-7.530E-02	7.629E-02	6.449E-02	3.892E-02	NOT IDENT.
Y-88	7.752E-02	6.035E-02	6.120E-02	3.079E-02	NOT IDENT.
Y-91	-1.621E+01	2.512E+01	1.981E+01	1.282E+01	NOT IDENT.
NB-94	2.183E-02	6.539E-02	5.785E-02	3.336E-02	NOT IDENT.
NB-95	2.917E-02	8.835E-02	6.818E-02	4.508E-02	NOT IDENT.
NB-95M	1.514E-02	2.250E-01	1.793E-01	1.148E-01	NOT IDENT.
ZR-95	3.362E-02	1.366E-01	1.195E-01	6.971E-02	NOT IDENT.
MO-99	-2.403E+00	5.889E+00	4.910E+00	3.005E+00	NOT IDENT.
TC-99M	-4.532E+09	1.177E+10	0.000E+00	6.006E+09	SHORT HLIF
RU-103	-1.194E-02	7.439E-02	6.221E-02	3.795E-02	FAIL ABUN
RH-106	6.476E-01	6.071E-01	5.624E-01	3.097E-01	NOT IDENT.
RU-106	6.476E-01	6.037E-01	5.624E-01	3.080E-01	NOT IDENT.
AG-108M	3.805E-02	6.390E-02	5.645E-02	3.260E-02	NOT IDENT.
AG-110M	5.912E-02	7.714E-02	6.237E-02	3.936E-02	NOT IDENT.
SN-113	6.194E-02	8.641E-02	7.745E-02	4.409E-02	NOT IDENT.
CD-115	-1.598E+00	3.786E+00	3.276E+00	1.931E+00	NOT IDENT.
SN-117M	-1.484E-02	6.222E-02	5.304E-02	3.174E-02	NOT IDENT.
TE-123M	-1.837E-02	4.211E-02	3.551E-02	2.149E-02	NOT IDENT.
SB-124	-4.390E-02	1.024E-01	7.578E-02	5.227E-02	NOT IDENT.
SB-125	-7.113E-02	1.908E-01	1.599E-01	9.733E-02	NOT IDENT.
TE-125M	-7.039E+00	1.275E+01	1.099E+01	6.503E+00	NOT IDENT.
I-126	1.429E-01	3.285E-01	2.592E-01	1.676E-01	NOT IDENT.
SB-126	1.853E-02	1.956E-01	1.701E-01	9.980E-02	NOT IDENT.
SB-127	1.743E-01	9.054E-01	7.965E-01	4.620E-01	NOT IDENT.
I-131	2.236E-02	1.413E-01	1.239E-01	7.209E-02	NOT IDENT.
TE-132	8.448E-02	3.726E-01	3.396E-01	1.901E-01	NOT IDENT.
BA-133	-4.835E-02	9.446E-02	6.929E-02	4.819E-02	NOT IDENT.
I-133	2.043E+01	1.292E+02	0.000E+00	6.590E+01	SHORT HLIF
CS-134	9.792E-02	9.205E-02	8.423E-02	4.696E-02	NOT IDENT.
CS-135	-3.181E-02	2.914E-01	2.587E-01	1.487E-01	NOT IDENT.
I-135	2.689E+08	6.011E+09	0.000E+00	3.067E+09	SHORT HLIF
CS-136	-4.708E-02	1.835E-01	1.569E-01	9.361E-02	NOT IDENT.
CE-139	-5.746E-03	4.545E-02	3.885E-02	2.319E-02	NOT IDENT.
BA-140	-2.434E-01	3.818E-01	3.179E-01	1.948E-01	NOT IDENT.
LA-140	9.327E-03	8.447E-02	7.182E-02	4.310E-02	NOT IDENT.
CE-141	2.040E-03	8.635E-02	7.512E-02	4.406E-02	NOT IDENT.
CE-143	2.455E+01	1.670E+01	1.353E+01	8.521E+00	NOT IDENT.
CE-144	-3.851E-01	3.098E-01	2.502E-01	1.581E-01	NOT IDENT.
PM-144	-2.345E-02	6.164E-02	5.190E-02	3.145E-02	NOT IDENT.
PR-144	-1.715E+00	4.602E+00	3.878E+00	2.348E+00	NOT IDENT.
PM-146	6.703E-02	9.717E-02	8.570E-02	4.958E-02	NOT IDENT.
ND-147	6.136E-01	7.404E-01	6.861E-01	3.777E-01	FAIL ABUN
PM-149	-2.102E+01	2.910E+01	2.476E+01	1.485E+01	NOT IDENT.
EU-152	8.530E-02	1.889E-01	1.573E-01	9.638E-02	FAIL ABUN
GD-153	-2.464E-02	1.232E-01	9.704E-02	6.287E-02	NOT IDENT.
EU-154	-6.447E-02	1.404E-01	1.110E-01	7.163E-02	FAIL ABUN
EU-155	4.554E-02	1.496E-01	1.348E-01	7.634E-02	FAIL ABUN
TB-160	3.007E-01	3.209E-01	2.877E-01	1.637E-01	FAIL ABUN
HO-166M	4.050E-02	1.125E-01	9.981E-02	5.741E-02	NOT IDENT.
TA-182	-4.941E-02	2.409E-01	2.015E-01	1.229E-01	NOT IDENT.
IR-192	-2.586E-02	6.038E-02	5.191E-02	3.081E-02	FAIL ABUN
HG-203	-7.417E-03	6.460E-02	5.701E-02	3.296E-02	NOT IDENT.
BI-207	-8.124E-02	1.156E-01	9.531E-02	5.900E-02	FAIL ABUN
PB-210	-2.567E+00	3.717E+00	3.410E+00	1.897E+00	NOT IDENT.
PB-211	-1.406E+00	1.601E+00	1.185E+00	8.167E-01	NOT IDENT.
BI-212	1.362E+00	1.184E+00	9.722E-01	6.043E-01	NOT IDENT.
RN-219	8.839E-01	7.942E-01	7.189E-01	4.052E-01	NOT IDENT.
RA-223	-7.529E-01	1.208E+00	1.021E+00	6.161E-01	FAIL ABUN
AC-227	-1.745E-01	4.313E-01	3.783E-01	2.200E-01	FAIL ABUN
TH-227	-1.745E-01	4.314E-01	3.783E-01	2.201E-01	FAIL ABUN
TH-229	4.135E-01	7.991E-01	7.461E-01	4.077E-01	FAIL ABUN
PA-231	-2.439E-02	2.635E+00	2.339E+00	1.344E+00	FAIL ABUN
TH-231	-7.529E-01	1.208E+00	1.021E+00	6.161E-01	FAIL ABUN
PA-233	8.892E-02	1.251E-01	1.136E-01	6.385E-02	FAIL ABUN
PA-234	-4.577E-01	8.270E-01	6.668E-01	4.220E-01	NOT IDENT.
PA-234M	5.803E-01	1.067E+01	9.011E+00	5.444E+00	NOT IDENT.
TH-234	-4.472E-01	1.665E+00	1.363E+00	8.494E-01	FAIL ABUN
NP-237	4.650E+00	1.174E+00	5.392E-01	5.989E-01	NOT IDENT.
U-238	-4.472E-01	1.665E+00	1.363E+00	8.494E-01	FAIL ABUN
NP-239	3.563E-02	6.334E-01	5.335E-01	3.232E-01	NOT IDENT.
CM-247	7.632E-02	7.197E-02	6.554E-02	3.672E-02	NOT IDENT.
CF-249	4.560E-02	7.583E-02	6.776E-02	3.869E-02	NOT IDENT.

CF-251	5.703E-02	1.949E-01	1.814E-01	9.942E-02	NOT IDENT.
ANH-511	4.340E-02	7.440E-02	6.905E-02	3.796E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	590.3669
49.72	718.8839
57.36	895.9355
59.54	677.2626
63.29	369.5386
63.29	369.5386
64.28	389.5426
67.75	417.3019
69.67	412.0564
70.83	404.0833
72.81	391.7239
72.87	391.7736
72.87	391.7736
74.82	393.3367
74.82	393.3367
74.82	393.3367
74.97	393.4561
77.11	395.1465
77.11	395.1465
77.11	395.1465
79.69	350.4292
79.80	350.5047
80.12	364.4462
80.19	364.4954
80.57	390.7070
81.00	490.3165
81.07	490.3827
81.07	490.3827
83.79	428.4299
83.79	428.4299
85.43	431.2836
86.48	540.1539
86.55	540.2233
86.79	540.4583
86.94	540.6105
87.57	390.7184
88.03	391.0462
88.47	391.3604
89.96	392.4129
91.11	393.2206
92.59	394.2500
92.59	394.2500
93.35	394.7762
94.67	242.7362
94.87	245.9533
94.87	245.9533
95.86	244.8045
97.43	256.4770
98.44	218.1432
99.53	256.8622
100.11	269.7565
103.18	266.8938
103.37	265.9177
105.31	256.1299
106.12	255.4004
109.28	256.6870
111.00	249.8734
111.76	242.6528
116.30	240.0212
117.23	259.8462
121.12	258.0856
121.78	253.9762
122.06	254.0805
123.07	245.7184
131.20	250.7867
133.52	288.1677
136.00	213.5234

136.47	229.2395
140.51	267.4065
140.51	0.0000
143.76	244.9573
144.24	258.6049
144.24	258.6049
145.44	255.6290
152.43	230.6507
153.25	244.5367
154.21	245.9685
154.21	245.9685
156.02	207.7178
158.56	224.3959
159.00	233.6794
162.66	220.9102
163.33	252.1784
165.86	232.1486
176.60	225.4083
177.52	223.8876
181.07	247.9933
184.41	218.0044
185.72	264.0353
193.51	212.6533
197.04	252.9097
205.31	263.2214
210.85	276.5251
215.65	259.5656
222.11	229.0131
227.38	233.8675
228.16	235.8894
228.18	235.8952
235.69	263.8277
235.96	256.4379
235.96	256.4379
238.63	221.3847
238.63	221.3847
240.99	221.8620
242.00	222.0664
244.70	232.9390
252.40	186.3077
252.80	179.7514
256.23	206.8598
256.23	206.8598
260.90	191.5014
264.66	195.9380
268.22	242.5458
269.46	231.2844
269.46	231.2844
271.23	199.9099
273.65	245.5760
276.40	205.5962
277.37	191.2687
277.60	198.0682
278.00	204.8995
279.20	215.7420
279.54	214.8355
280.46	216.9316
283.69	202.9375
284.31	196.2392
285.41	212.9415
285.90	213.0251
287.50	187.9759
293.27	194.1224
295.22	194.4221
295.96	194.5341
298.57	188.6426
299.98	207.7356
299.98	207.7356
300.09	190.4391
300.09	190.4391
300.13	190.4450
301.36	198.5023
302.85	231.8552
304.50	183.1928
304.50	183.1928
304.85	183.2409
308.46	210.8744
311.90	182.6383

316.51	184.2661
319.41	180.6713
320.08	152.7969
323.87	199.2915
323.87	199.2915
328.76	175.8812
333.37	164.5696
334.37	184.0616
334.37	184.0616
338.28	161.9092
338.28	161.9092
338.32	161.9141
338.32	161.9141
338.32	161.9141
340.48	167.0255
340.55	167.0355
344.28	151.7555
351.06	163.3643
351.93	168.5701
356.01	188.5090
364.49	167.9570
366.42	181.5859
383.85	150.2820
388.16	141.2807
388.63	148.6519
391.69	154.1867
400.66	185.6519
401.81	134.0616
402.40	134.1120
404.85	188.2531
410.95	169.8560
414.70	155.3500
423.72	161.5481
427.09	162.9473
427.87	170.5291
433.94	157.1501
453.88	170.9545
463.37	137.9375
468.07	194.2771
473.00	174.9980
476.78	138.9661
477.60	144.5466
487.02	128.6521
492.35	133.4711
497.08	132.6929
511.00	152.7634
514.00	201.6014
527.90	118.7443
529.87	0.0000
531.02	95.3280
537.26	123.8609
546.56	0.0000
563.25	115.3046
569.33	113.7930
569.50	113.8020
569.70	101.7849
583.19	105.2313
600.60	103.2700
602.73	89.2736
604.72	108.1663
609.32	100.8532
609.32	100.8532
609.32	100.8532
610.33	100.9003
614.28	97.6167
618.01	115.6546
621.93	88.1570
621.93	88.1570
633.25	100.0345
635.95	85.8450
636.99	103.0614
645.85	89.0925
657.76	93.0818
661.66	89.6987
661.66	89.6987
664.57	75.6464
666.33	78.9252
666.50	78.9312

677.62	90.3049
685.70	86.7120
695.00	94.8710
696.49	93.9492
696.51	93.9492
697.00	89.0738
702.65	98.1104
706.68	108.0986
711.68	82.7142
720.70	85.9783
721.93	92.6949
722.78	100.5547
722.91	100.5597
723.31	89.0354
724.19	100.6118
727.33	87.5246
733.00	82.7555
735.93	81.1941
739.50	94.5825
747.24	89.8748
752.31	81.0455
753.82	81.0929
756.73	91.2066
763.94	100.5029
765.81	92.1926
766.42	90.5383
777.92	87.9006
778.90	81.8681
783.70	86.0667
785.37	75.9869
795.86	79.3349
801.95	110.0936
810.29	95.0911
810.76	89.9938
815.77	101.4291
818.51	92.2983
832.01	111.2959
834.85	105.2174
836.80	0.0000
846.77	103.5889
856.80	113.3084
860.56	115.5365
871.09	95.0635
873.19	123.3584
875.33	0.0000
879.36	96.3799
880.51	95.3700
883.24	122.7329
884.68	120.6938
889.28	107.2170
898.04	115.9673
911.20	129.1812
911.20	129.1812
911.20	129.1812
926.50	121.3198
937.49	122.8220
944.13	126.2940
946.00	143.5069
949.00	118.9890
962.29	138.4089
964.08	143.6165
966.15	131.1362
968.97	107.8784
968.97	107.8784
968.97	107.8784
983.53	92.1158
996.26	90.3030
1001.03	95.8826
1004.73	105.8096
1037.84	116.6027
1038.76	0.0000
1048.07	101.3033
1050.41	92.1549
1050.41	92.1549
1063.66	98.9933
1085.87	85.6623
1099.45	108.4290
1112.07	75.9836

1115.54	111.7417
1120.29	78.9824
1120.29	78.9824
1120.29	78.9824
1120.55	76.1649
1121.30	81.8245
1131.51	0.0000
1173.23	58.1952
1177.93	50.7642
1189.05	35.4493
1204.77	37.5210
1221.41	36.7197
1231.02	29.0613
1235.36	23.2754
1238.28	29.1162
1260.41	0.0000
1271.85	15.6621
1274.44	23.5088
1274.54	24.4883
1291.59	16.7233
1298.22	0.0000
1312.11	21.7520
1332.49	26.8297
1365.19	15.0226
1368.63	0.0000
1384.29	27.1637
1408.01	12.1396
1457.56	0.0000
1460.82	18.4307
1489.16	12.3652
1505.03	17.5790
1596.21	12.6533
1620.50	5.2989
1678.03	0.0000
1690.97	11.8254
1764.49	11.4515
1764.49	11.4515
1764.49	11.4515
1770.23	14.7393
1771.35	16.3806
1791.20	0.0000
1836.06	8.5279

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202069896

Total Uranium Activity	-1.2453E+00	ug/g
Total Uranium Counting Unc.	4.9548E+00	ug/g
Total Uranium Tpu	2.5280E-06	ug/g
Total Uranium Mda	4.0575E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 964804                    SAMPLE ID  : G1202069896      *
*   ANALYST       : MXR1                      DETECTOR   : GAM07            *
*   SAMPLE DATE   : 15-MAR-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 13:16:28.45    SAMPLE ALQT:  151.730 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 3.016E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 2.993E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.587E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.230E+00
```

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W022.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:21 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.300933 through 0.333065

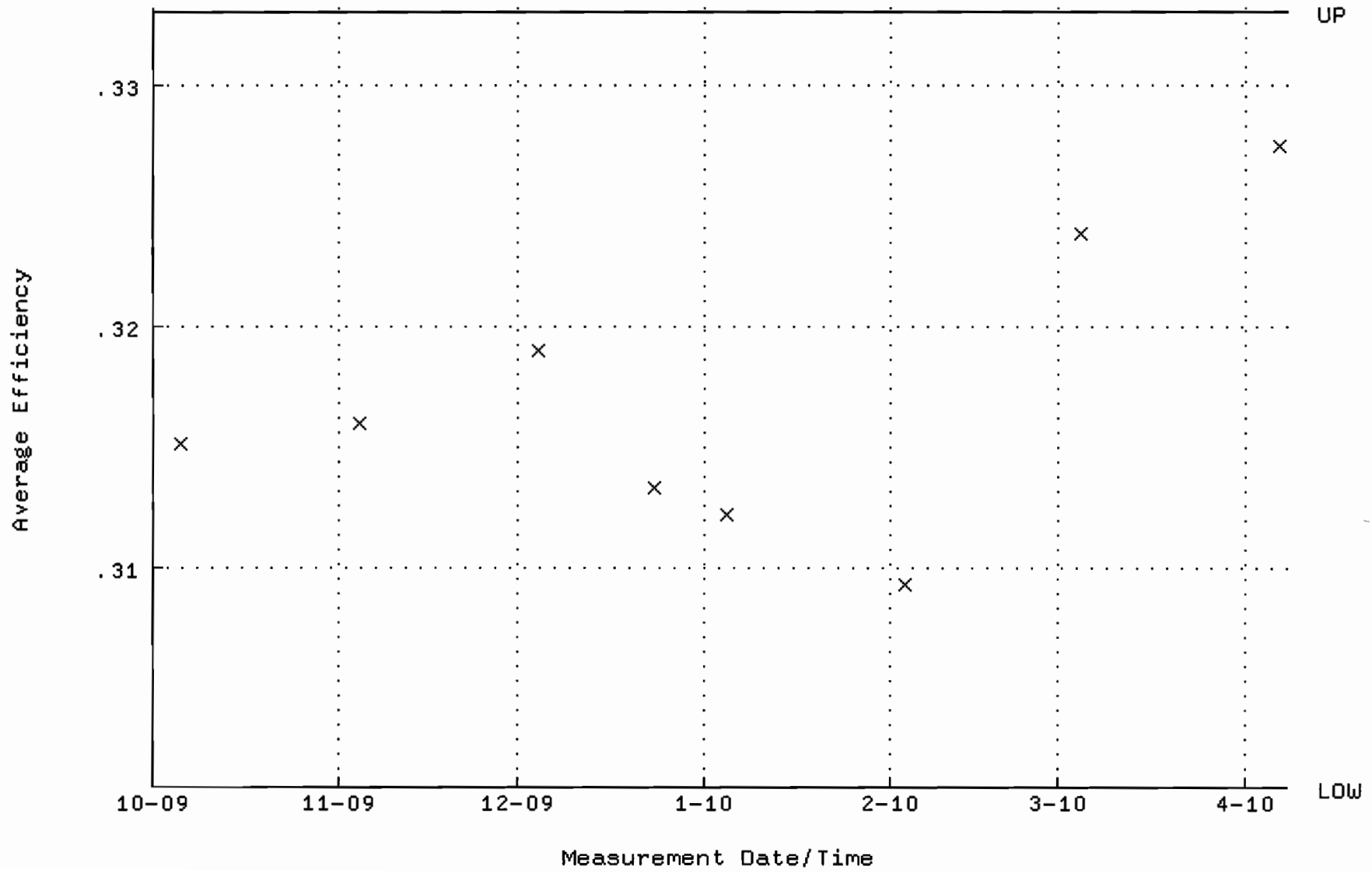

QA filename : DKA100:[ENV_ALPHA.QA.W]W022.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:21 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 88.2129 through 95.4761

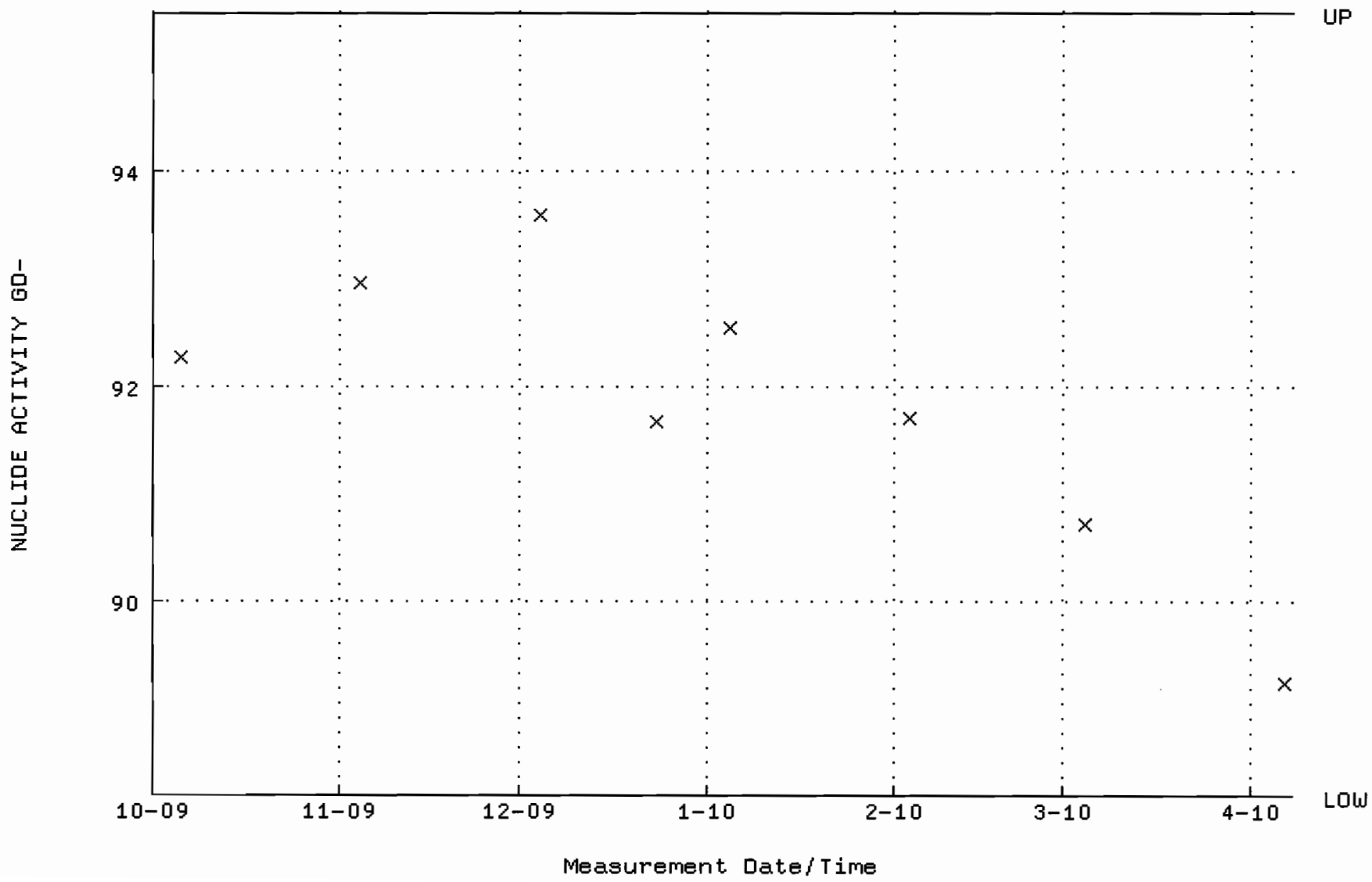

QA filename : DKA100:[ENV_ALPHA.QA.B]B022.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:07 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

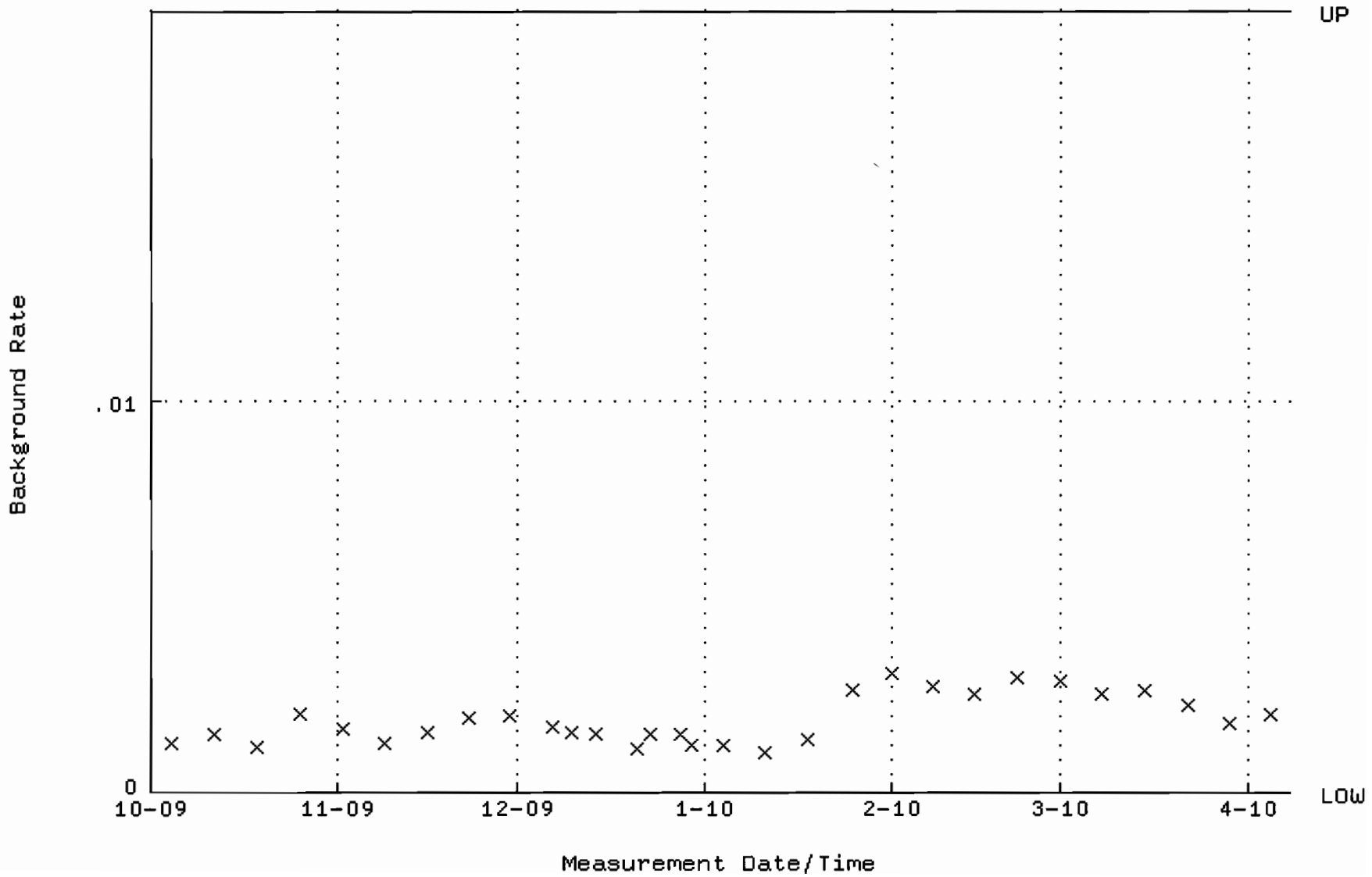

QA filename : DKA100:[ENV_ALPHA.QA.W]W023.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:21 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

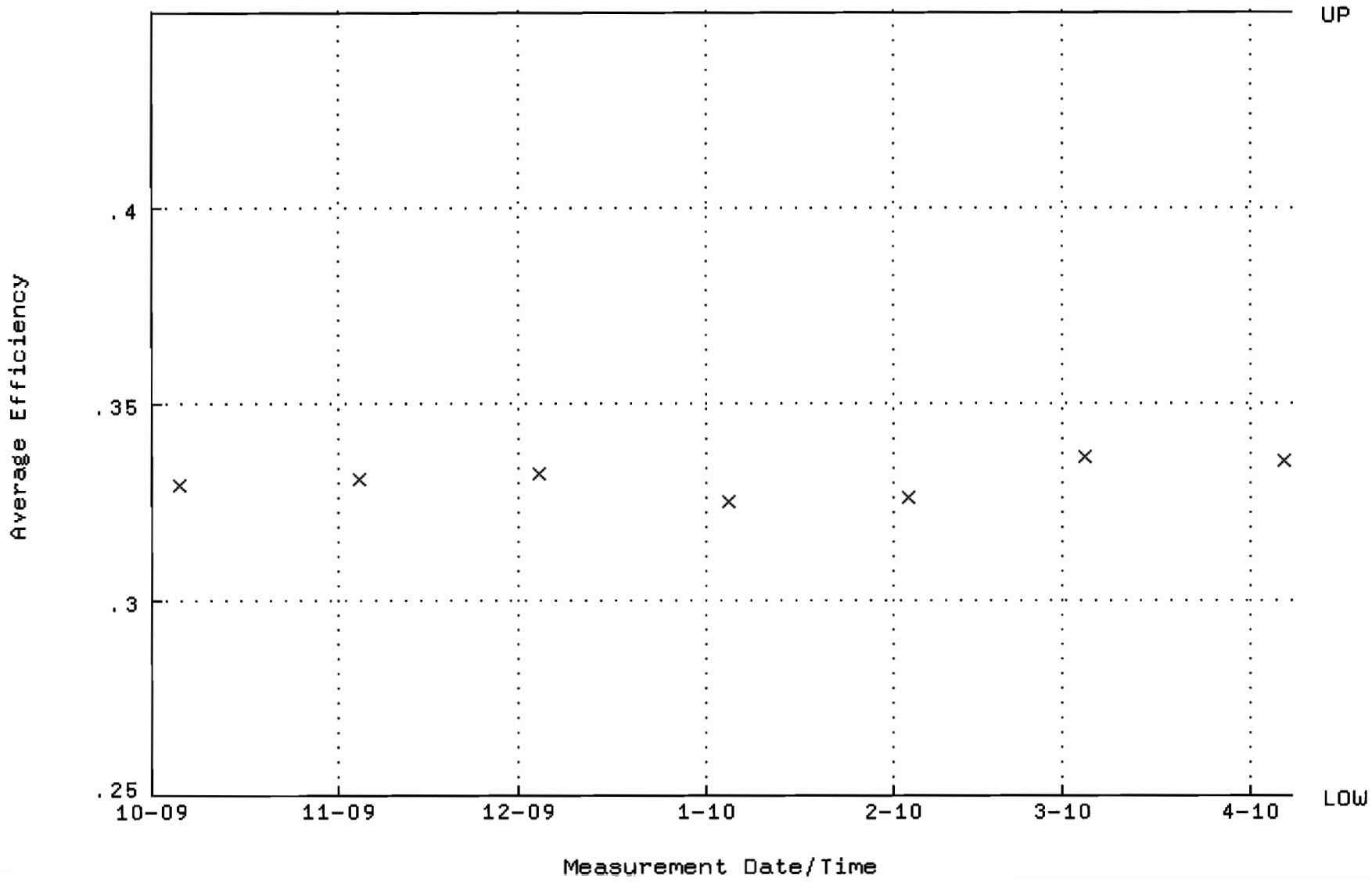

QA filename : DKA100:[ENV_ALPHA.QA.W]W023.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:21 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

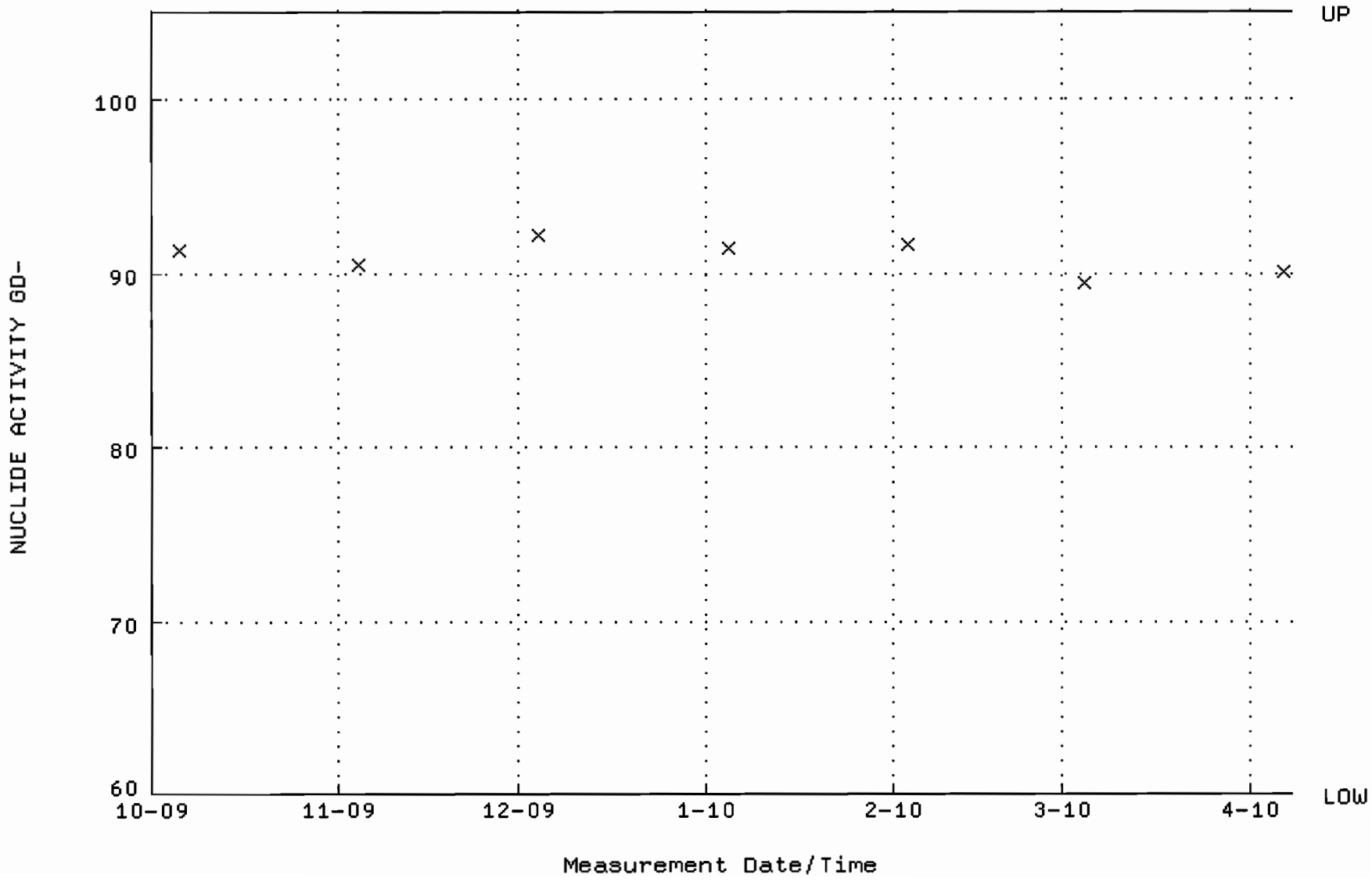

QA filename : DKA100:[ENV_ALPHA.QA.B]B023.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:07 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

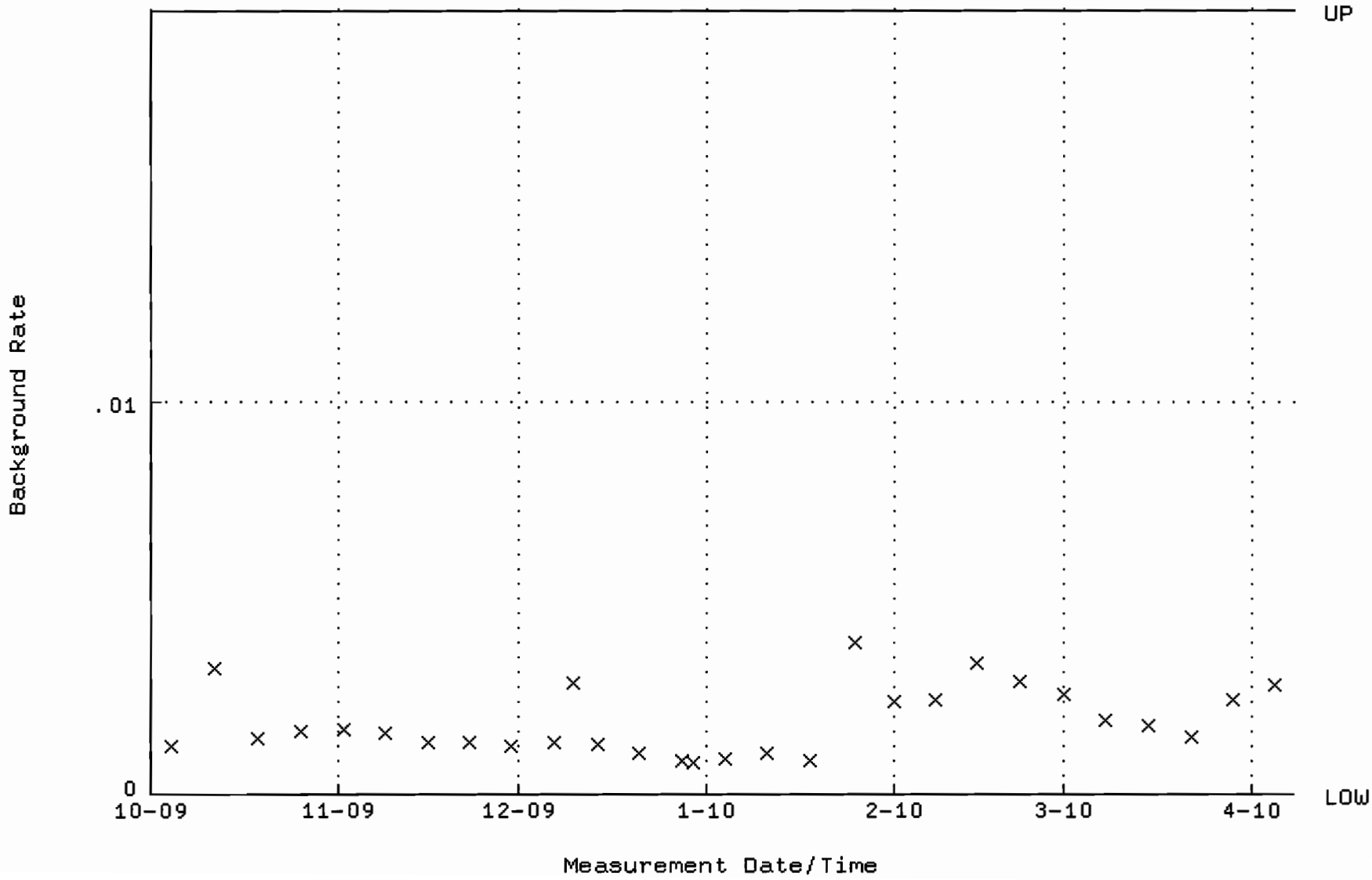

QA filename : DKA100:[ENV_ALPHA.QA.W]W024.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:21 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.311974 through 0.354132

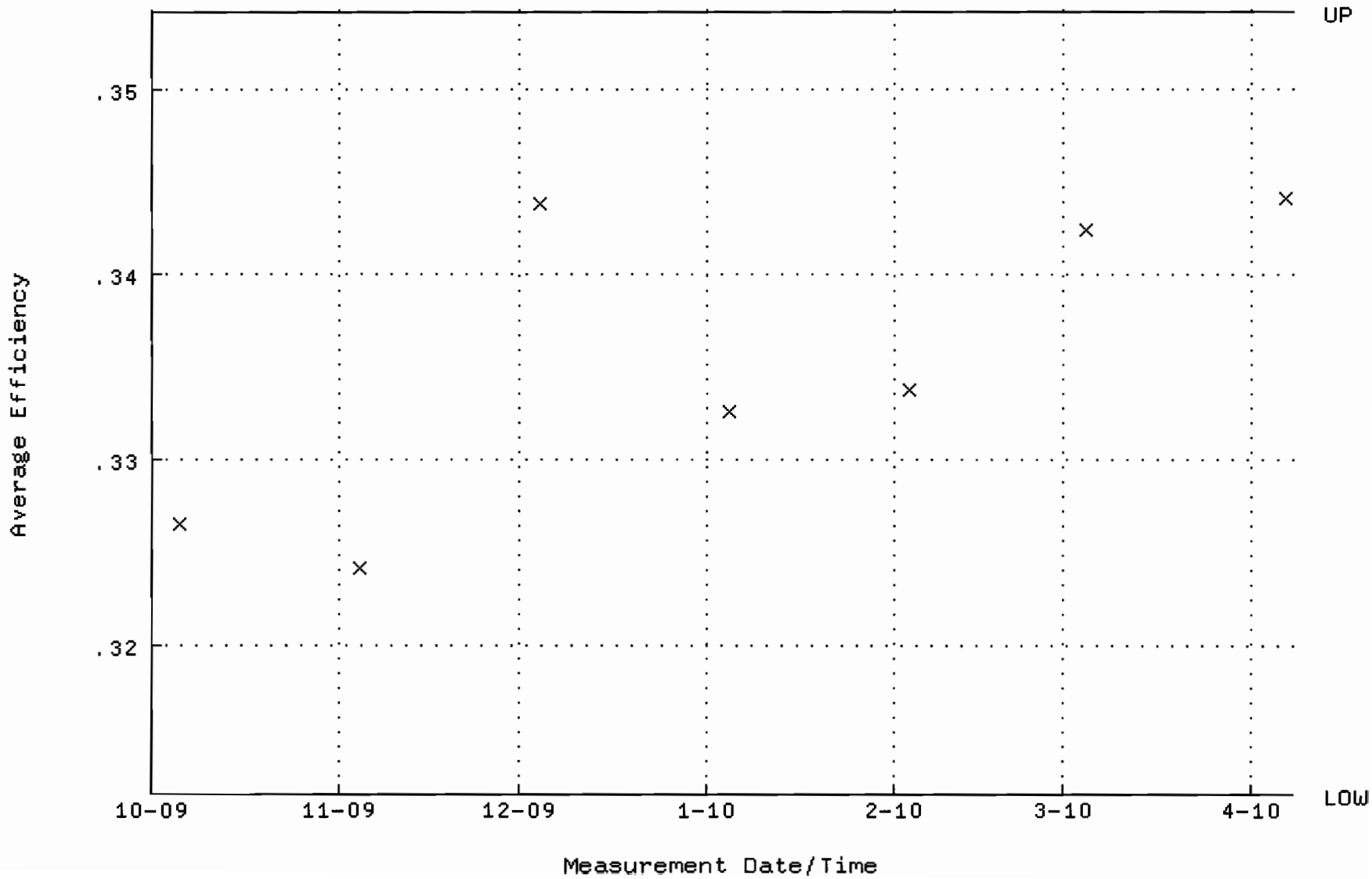

QA filename : DKA100:[ENV_ALPHA.QA.W]W024.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:21 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 84.2237 through 94.2686

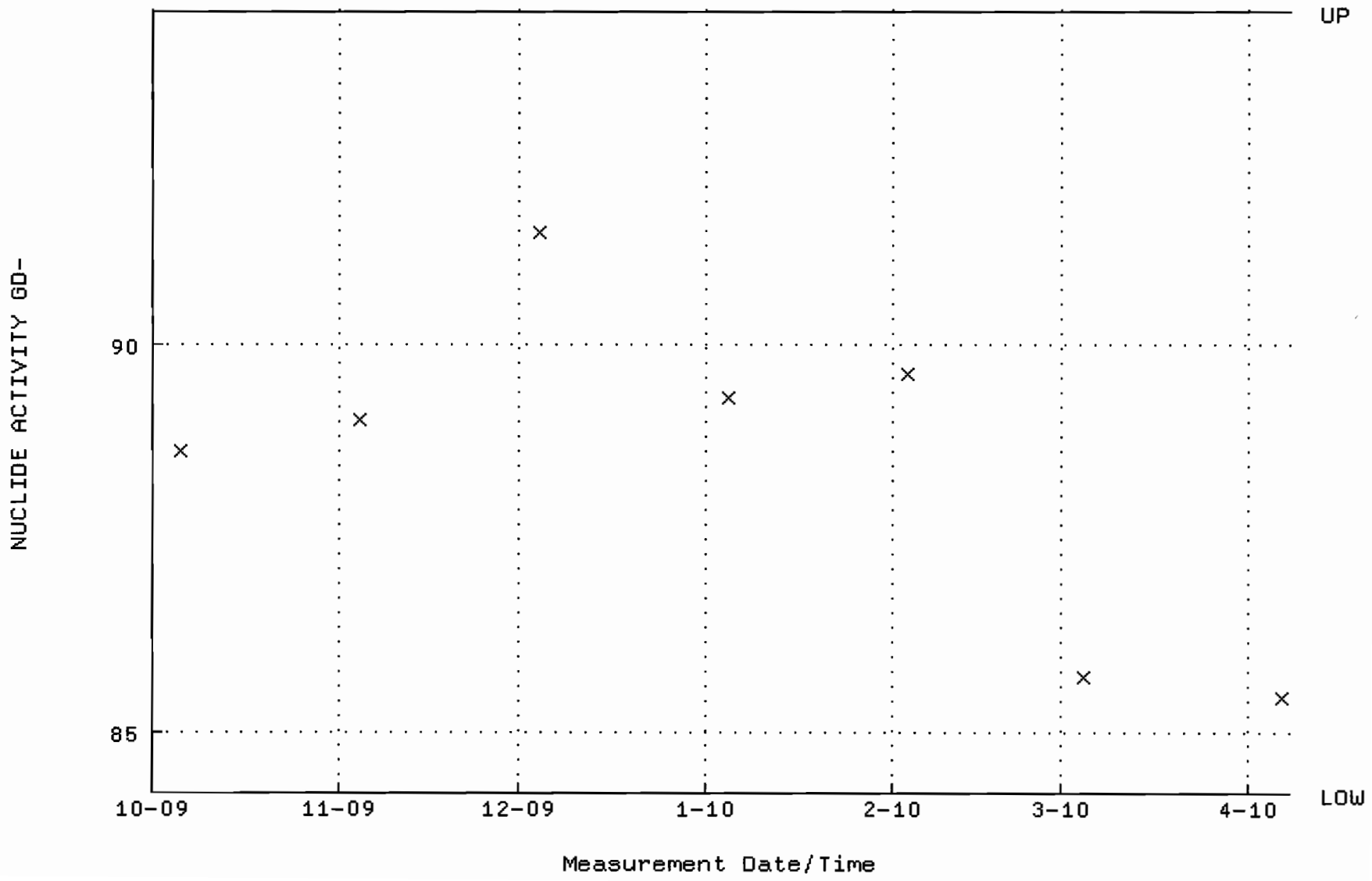

QA filename : DKA100:[ENV_ALPHA.QA.B]B024.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:07 through 7-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

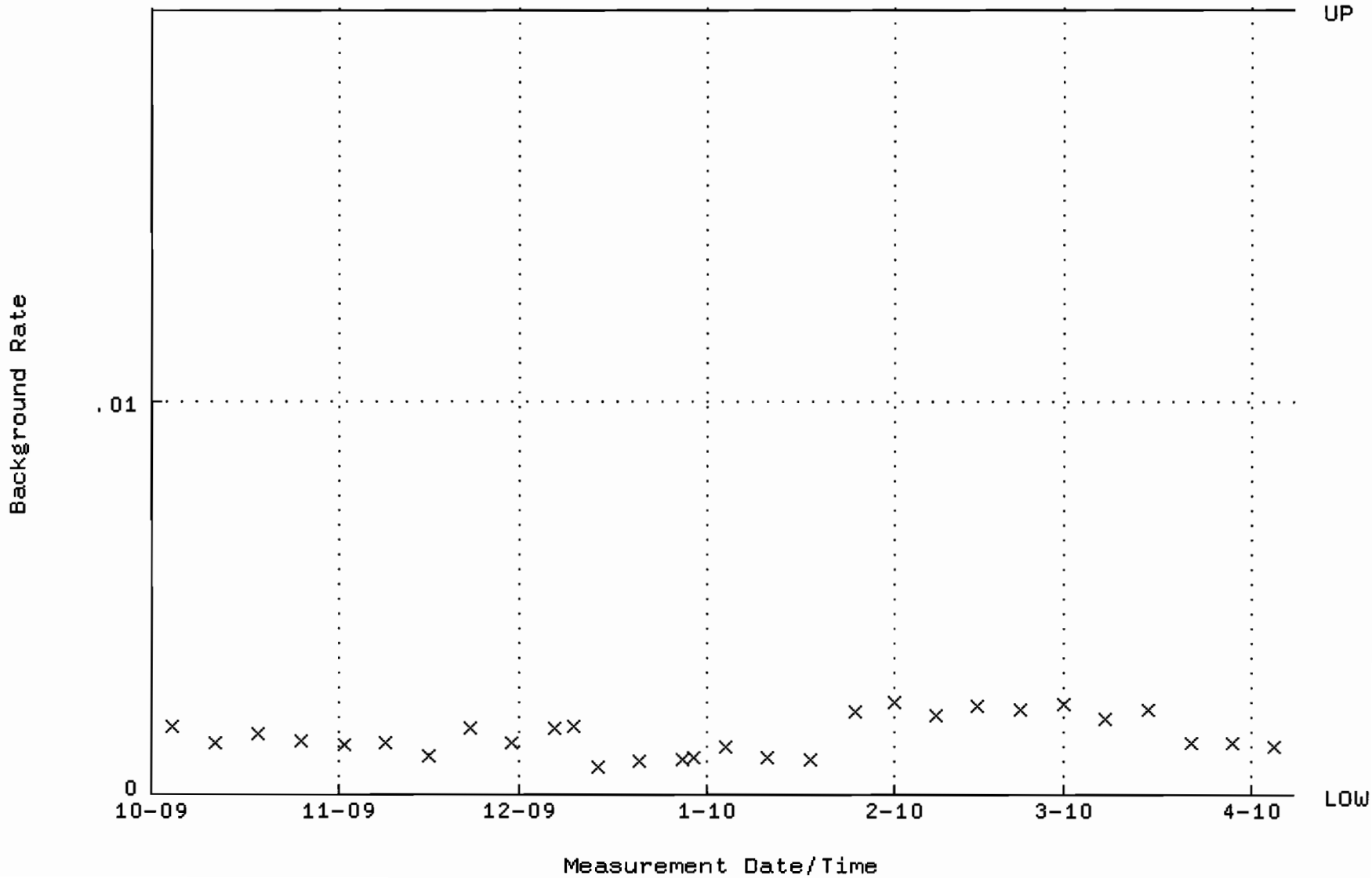

QA filename : DKA100:[ENV_ALPHA.QA.W]W025.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:24 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

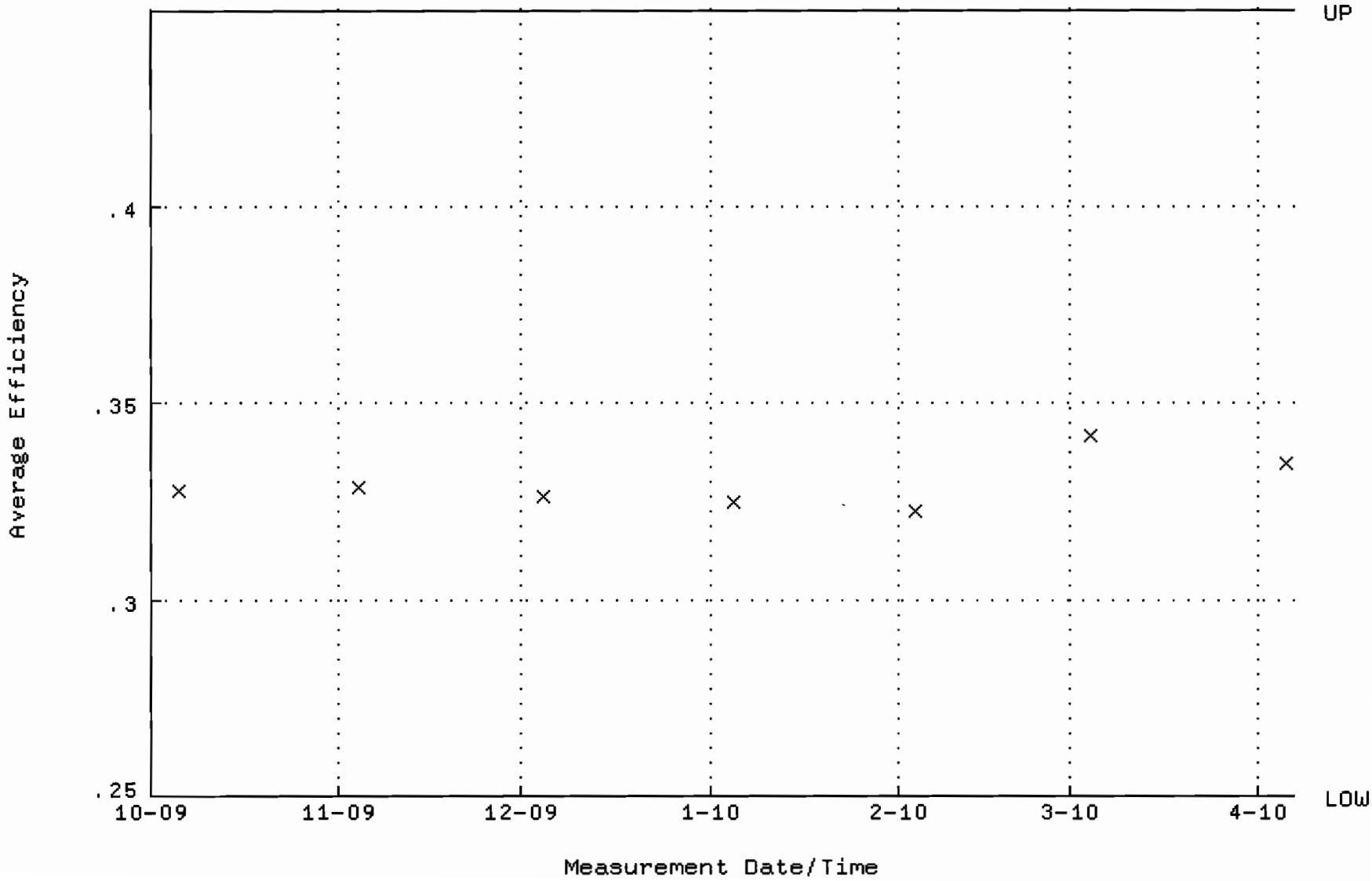

QA filename : DKA100:[ENV_ALPHA.QA.W]W025.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:24 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

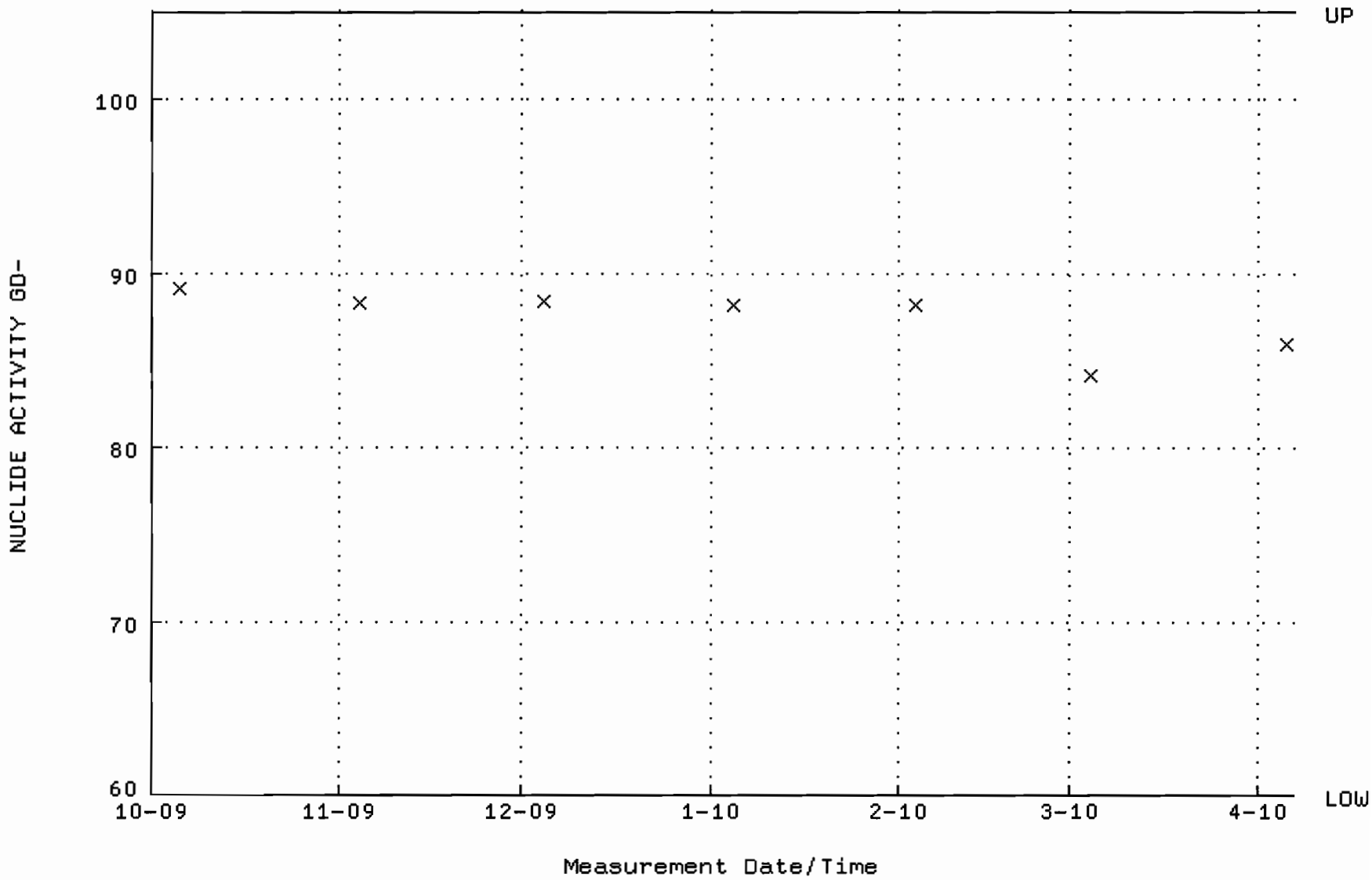

QA filename : DKA100:[ENV_ALPHA.QA.B]B025.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:09 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

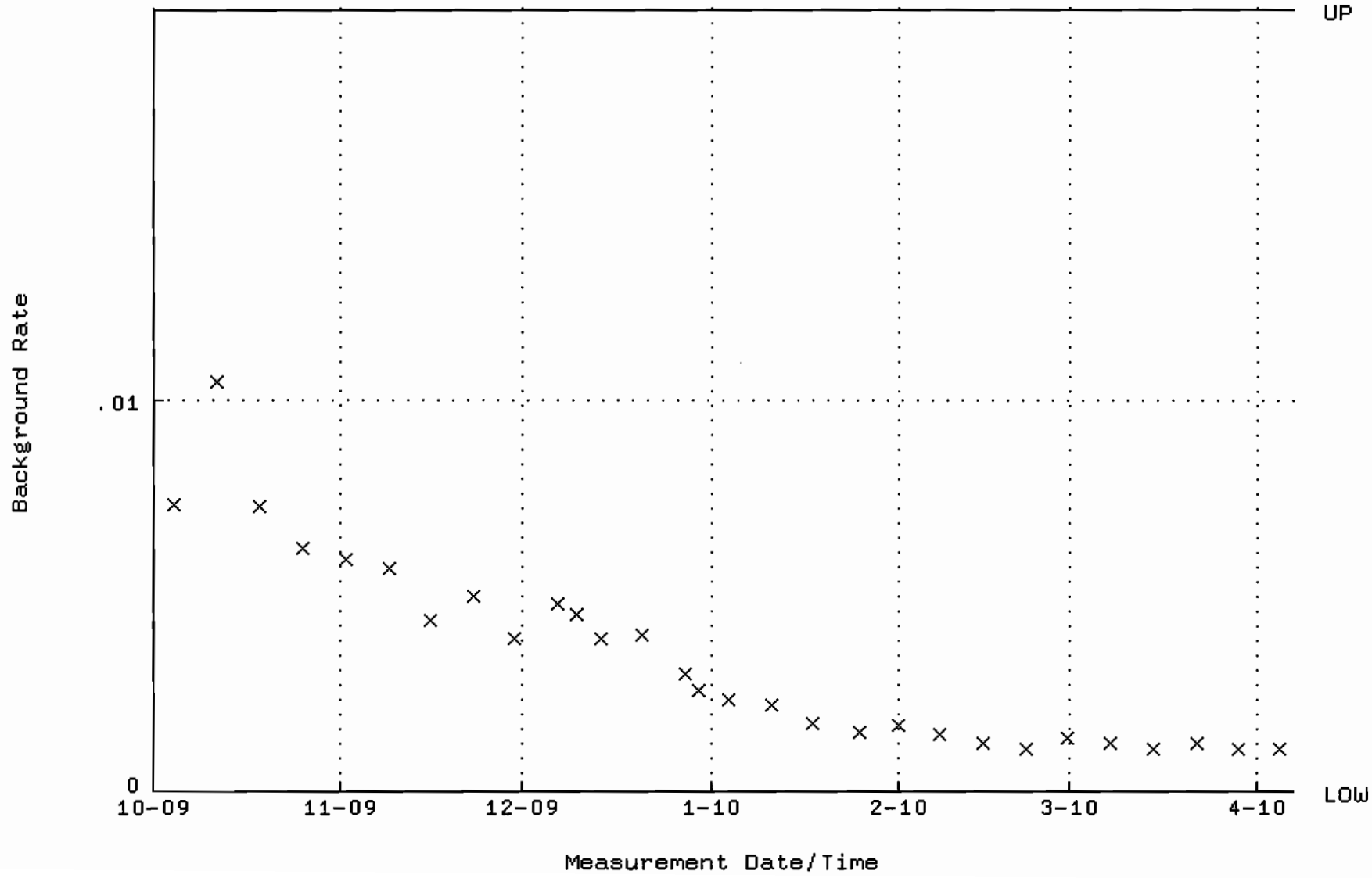

QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:24 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.335335 through 0.337557

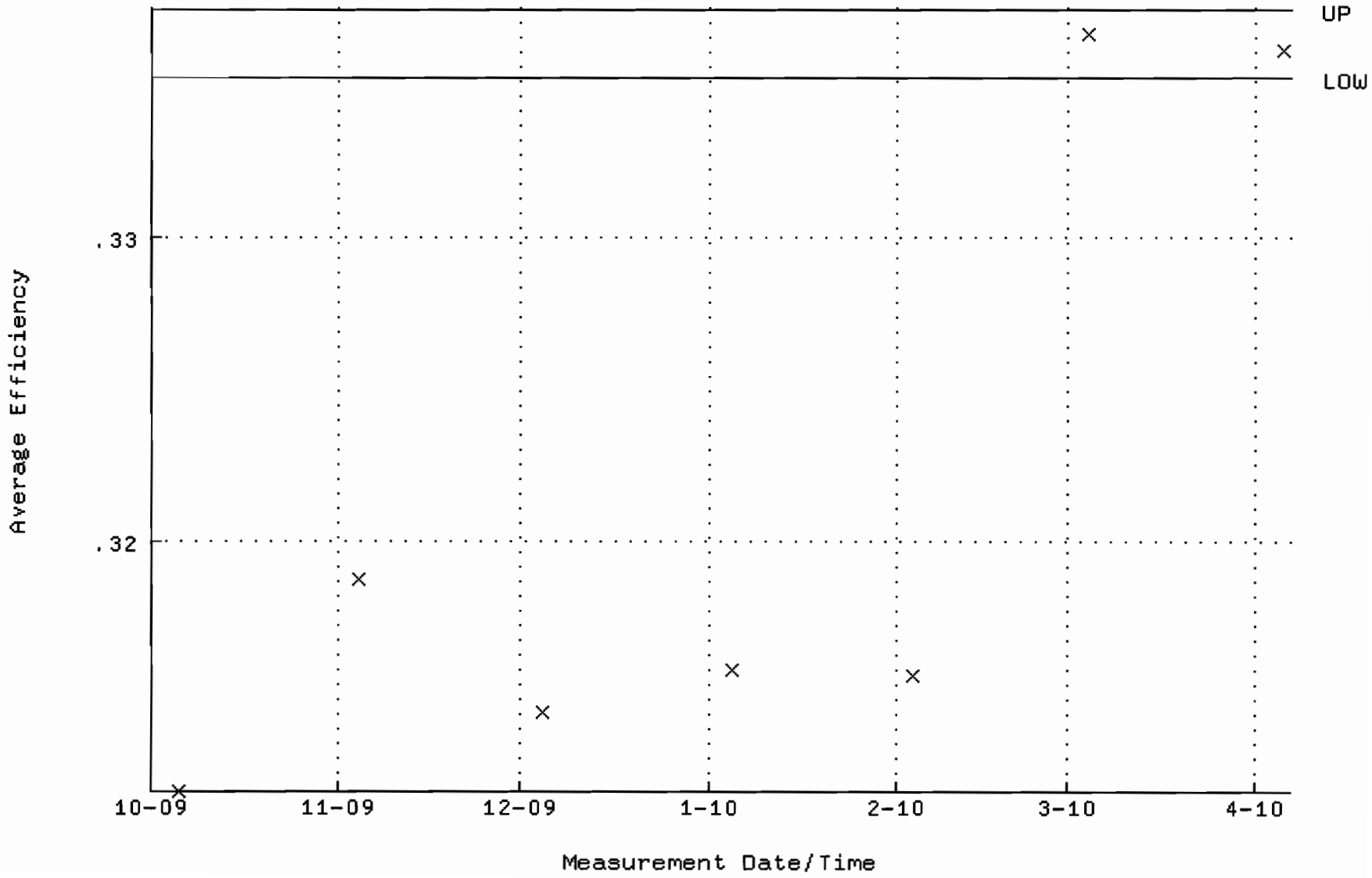

QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:24 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 88.8822 through 89.5284

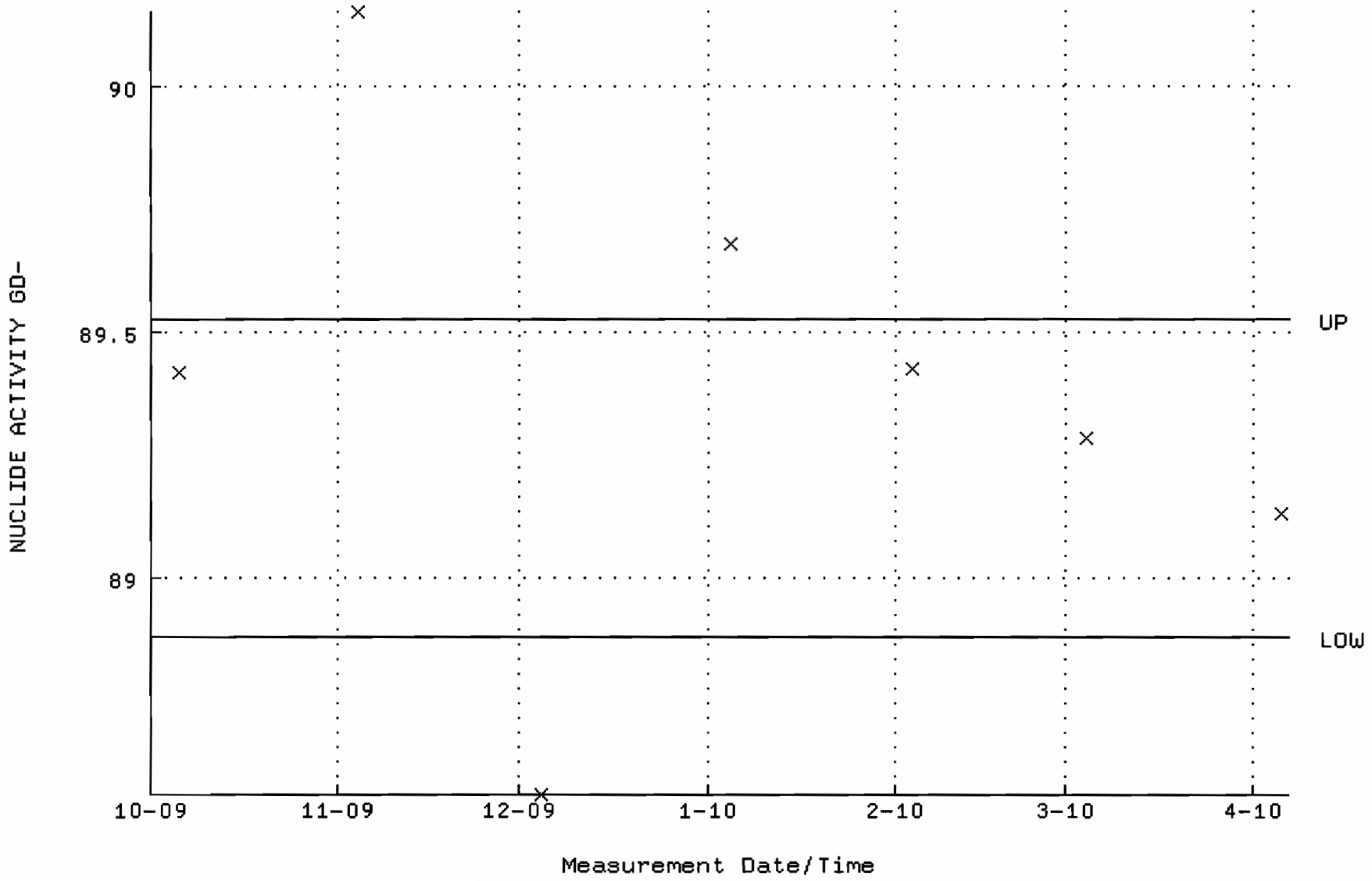

QA filename : DKA100:[ENV_ALPHA.QA.B]B026.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:09 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

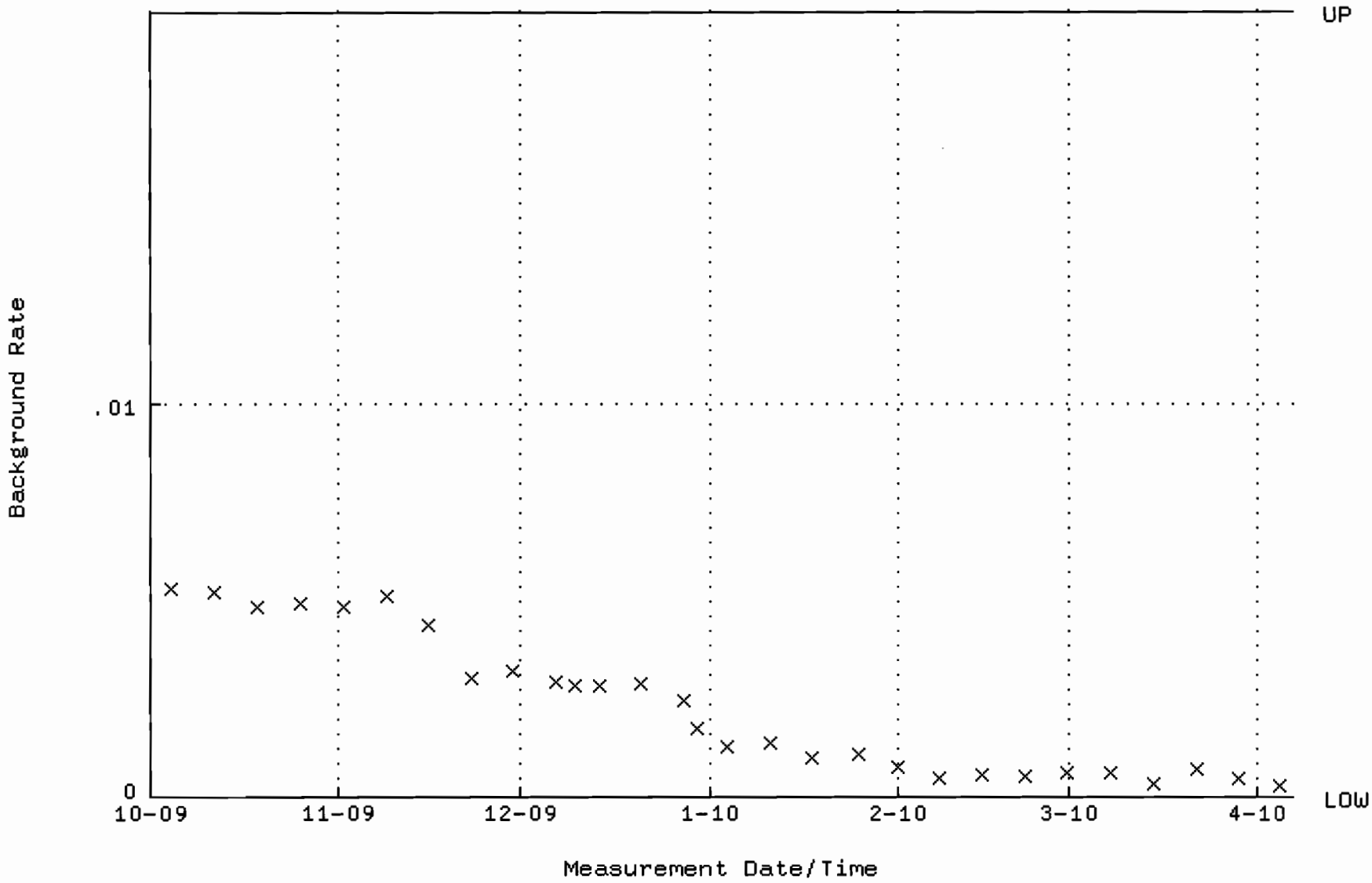

QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:24 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.332595 through 0.357705

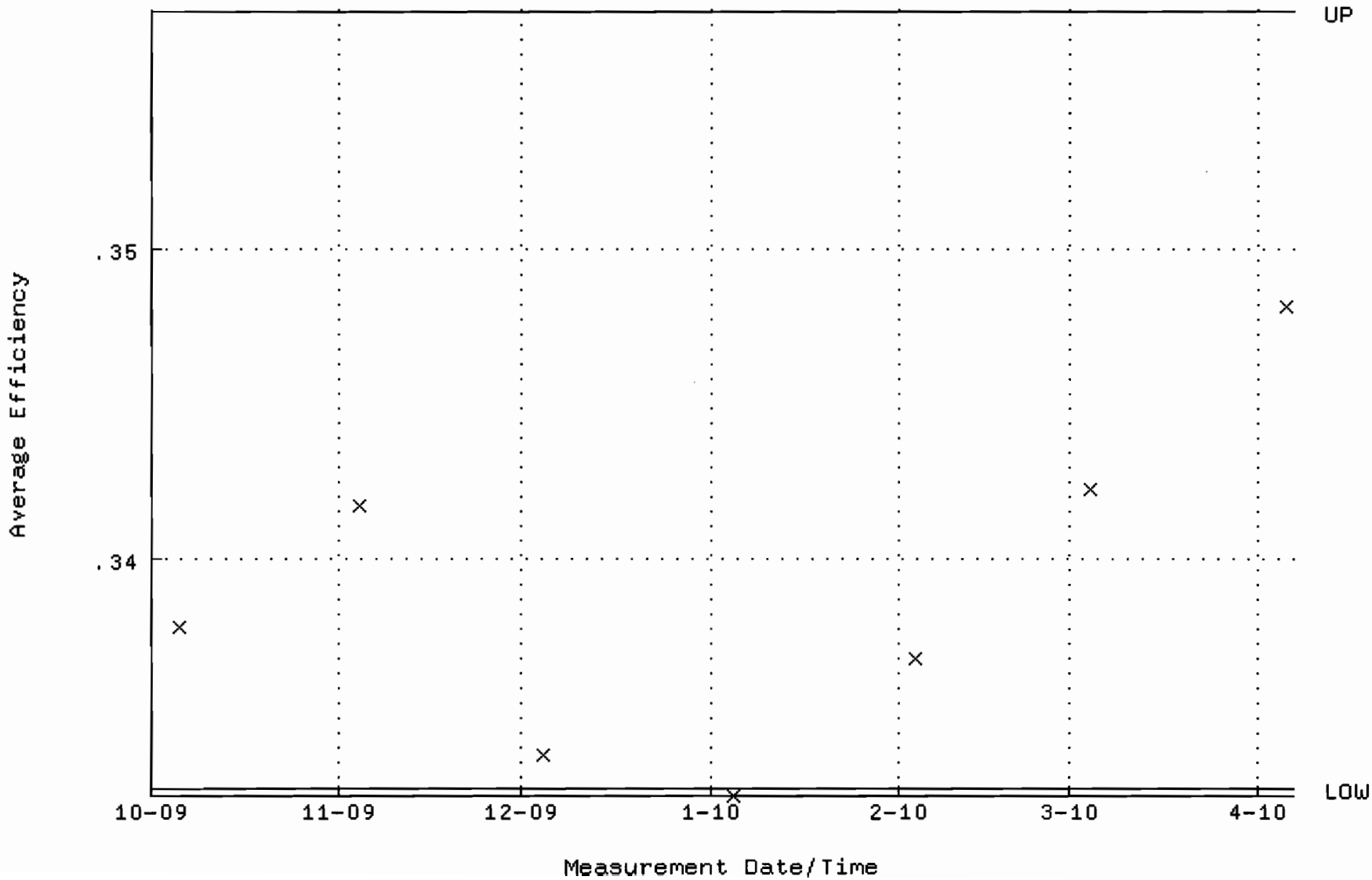

QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:24 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 81.7923 through 84.1589

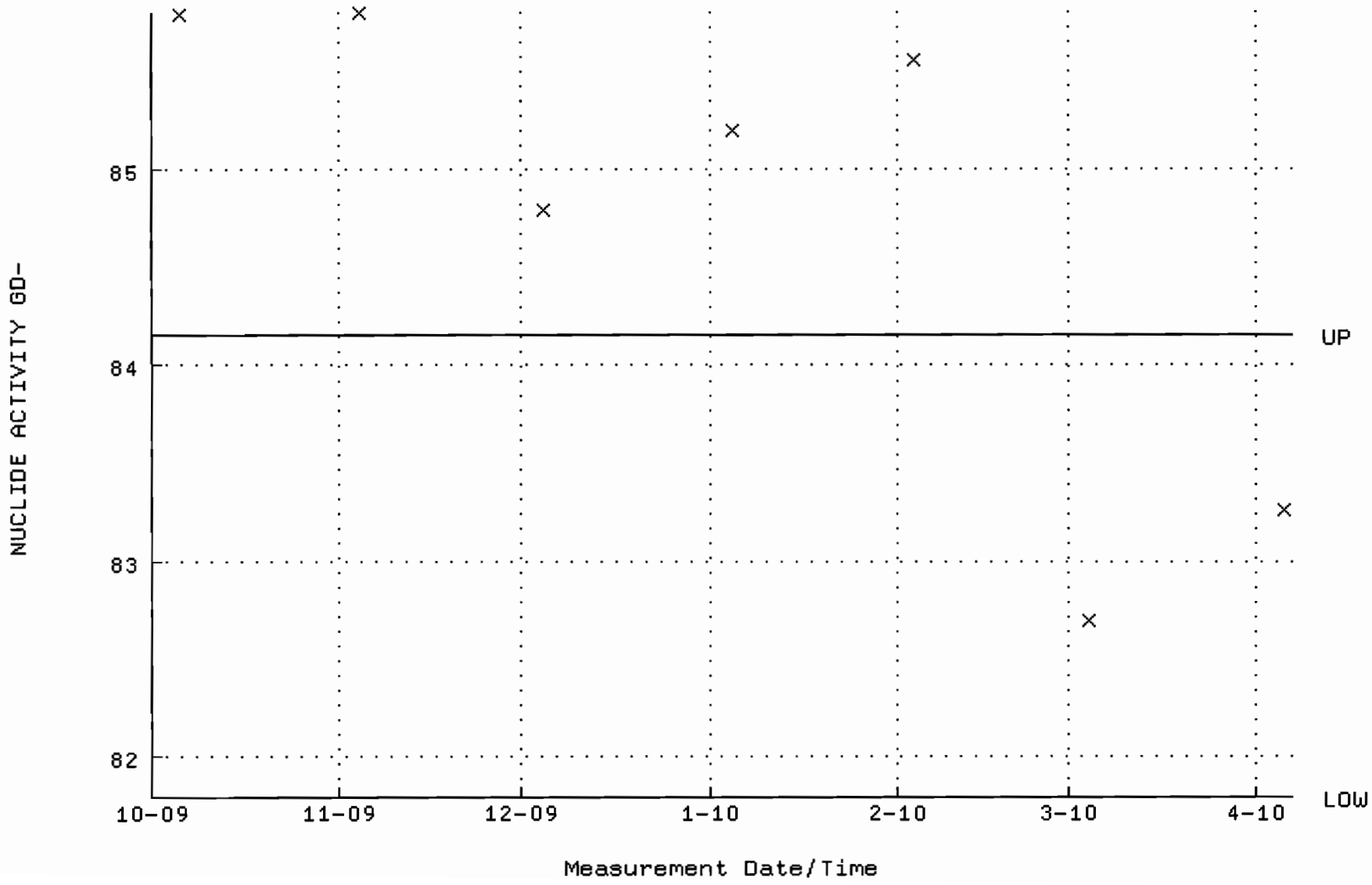

QA filename : DKA100:[ENV_ALPHA.QA.B]B027.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:09 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

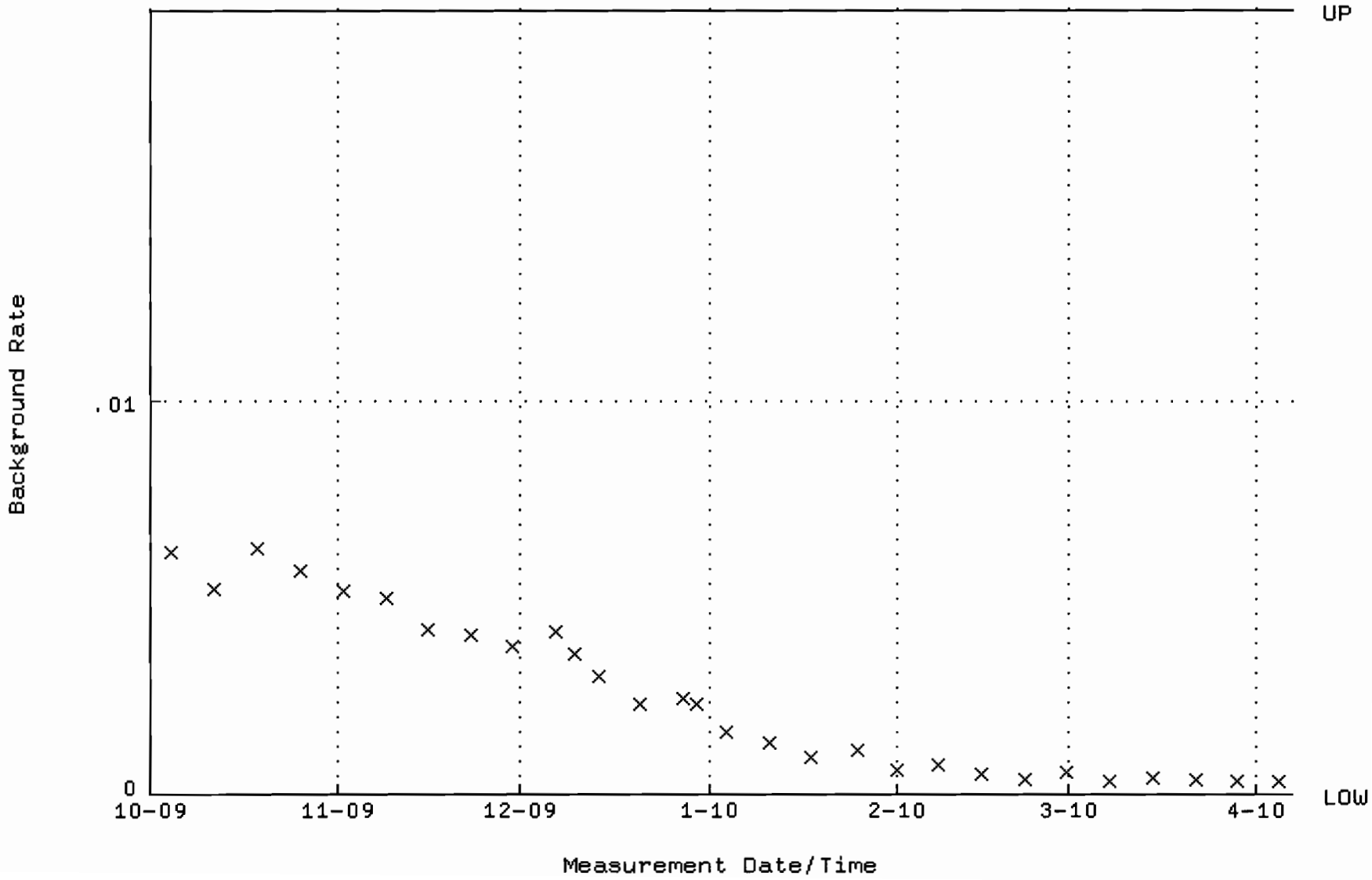

QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:24 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.308027 through 0.328053

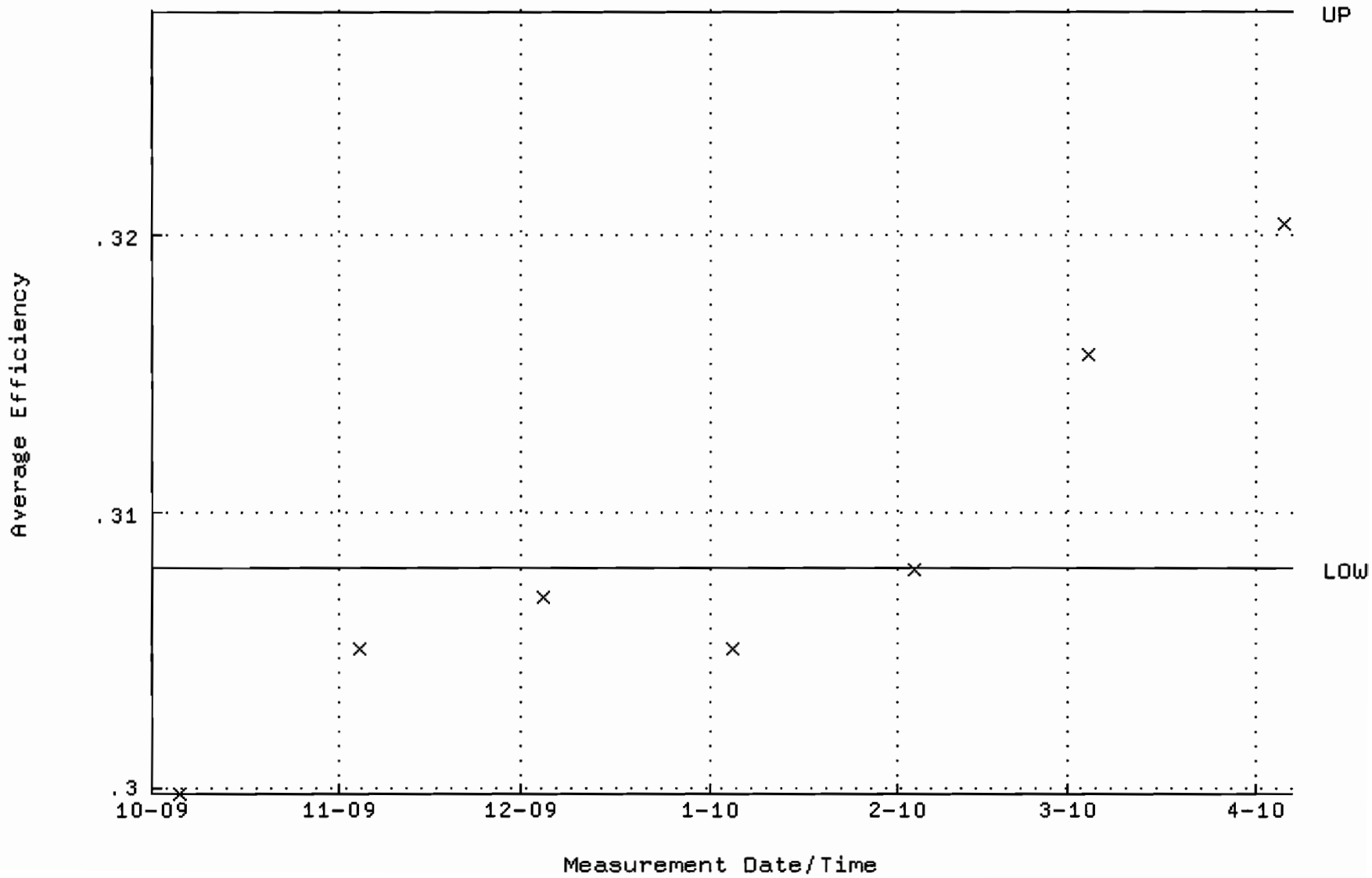

QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:24 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 84.9691 through 88.7067

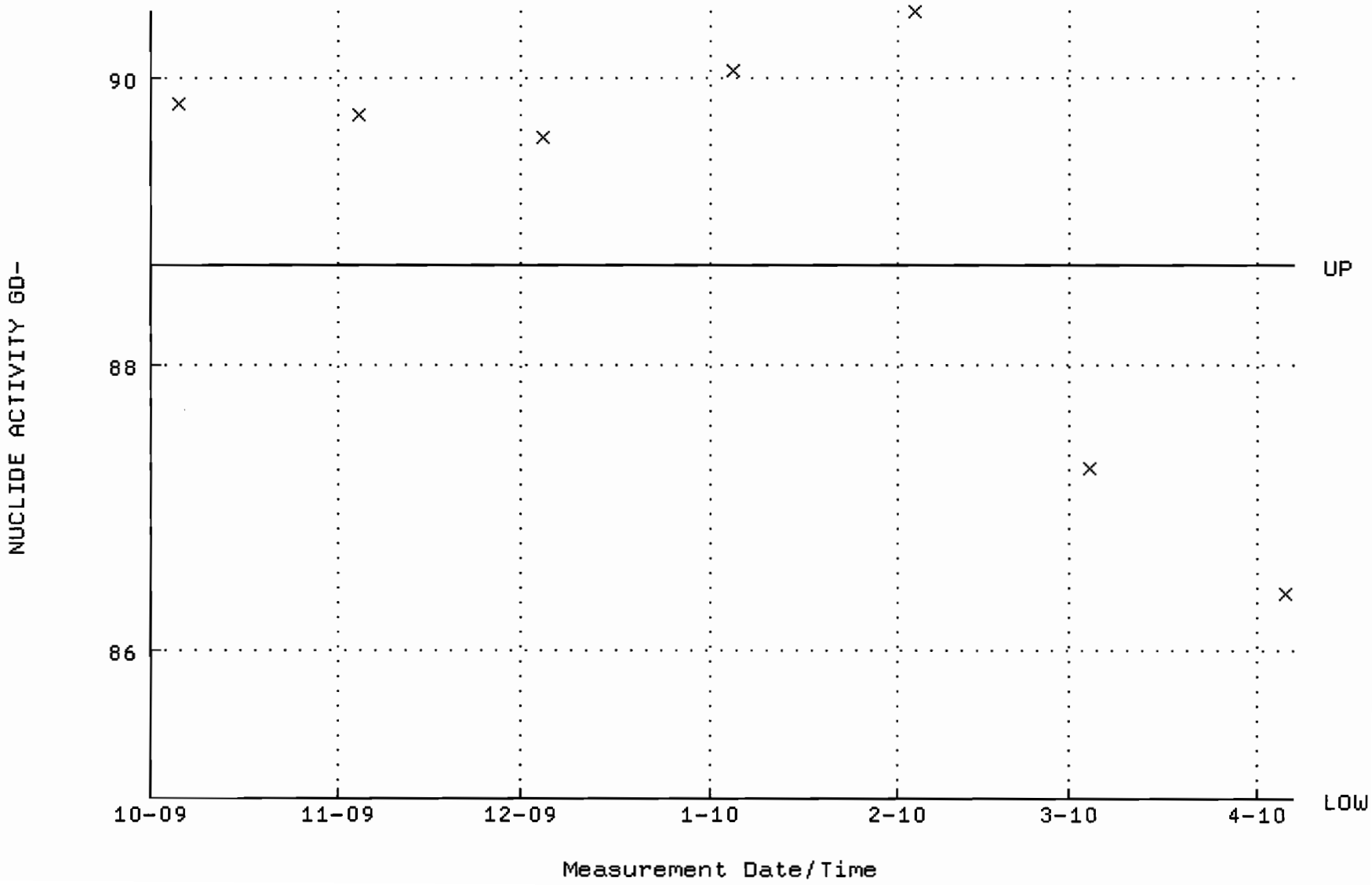

QA filename : DKA100:[ENV_ALPHA.QA.B]B028.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:09 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

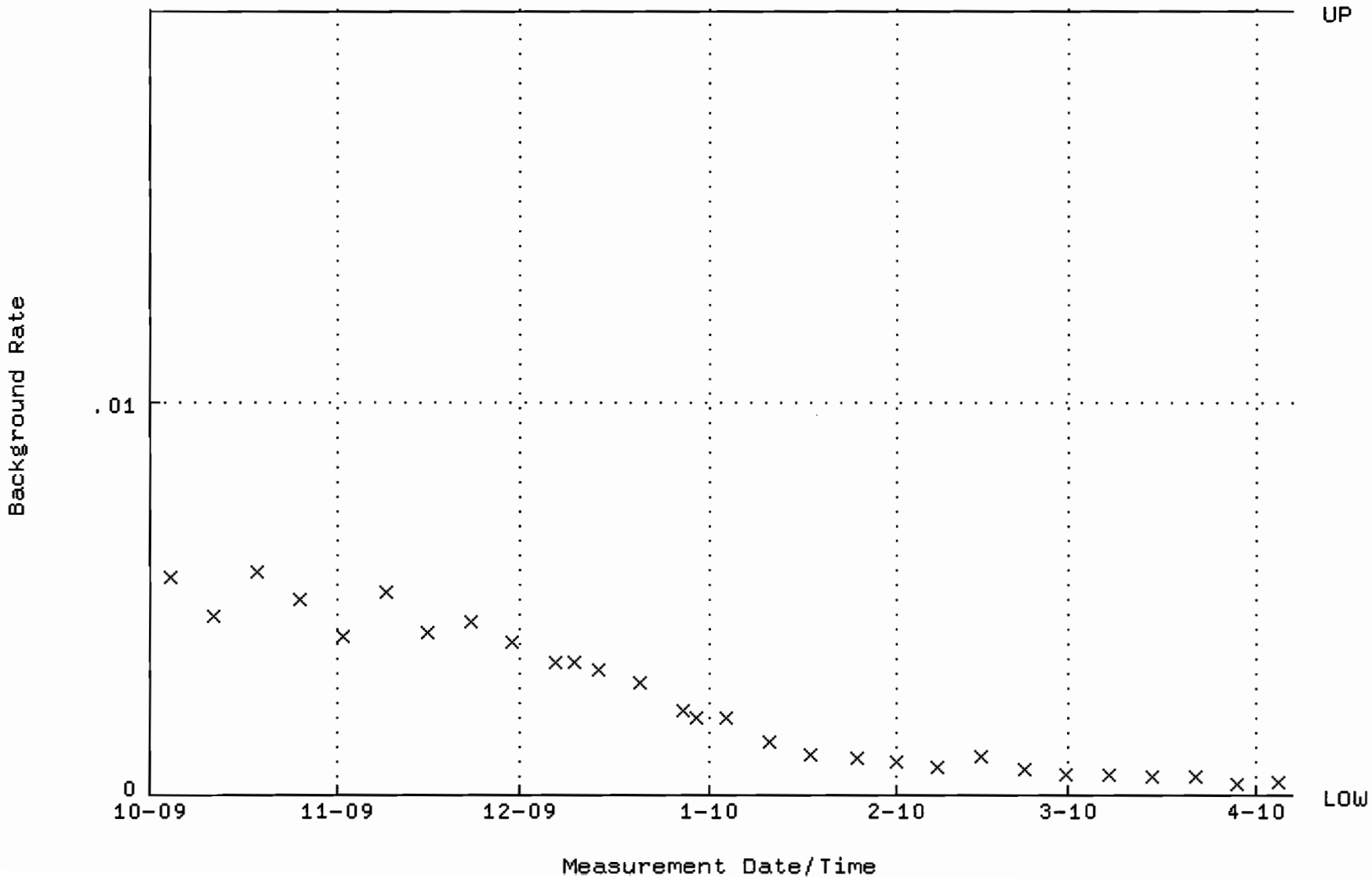

QA filename : DKA100:[ENV_ALPHA.QA.W]W029.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:24 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

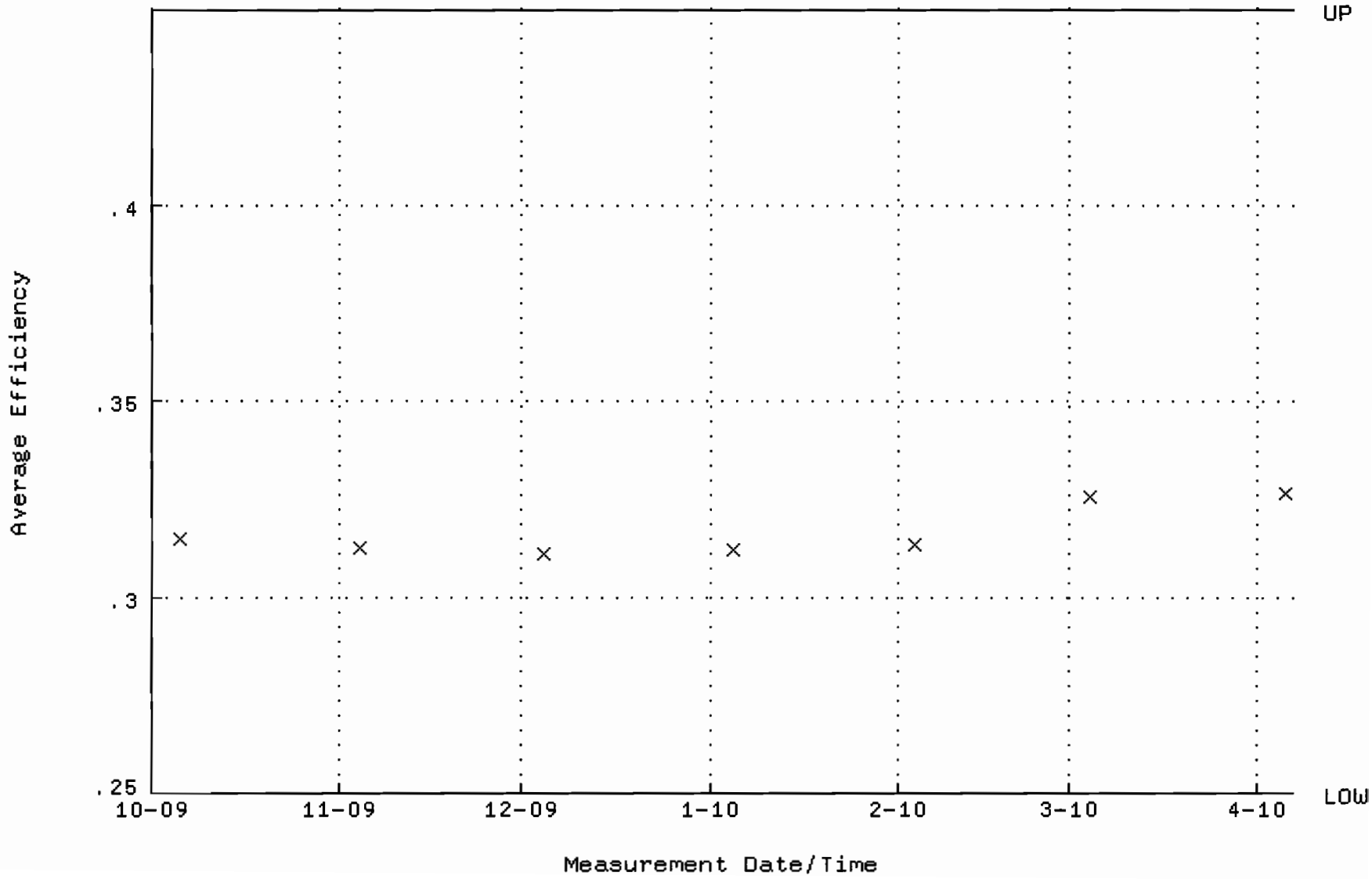

QA filename : DKA100:[ENV_ALPHA.QA.W]W029.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:24 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

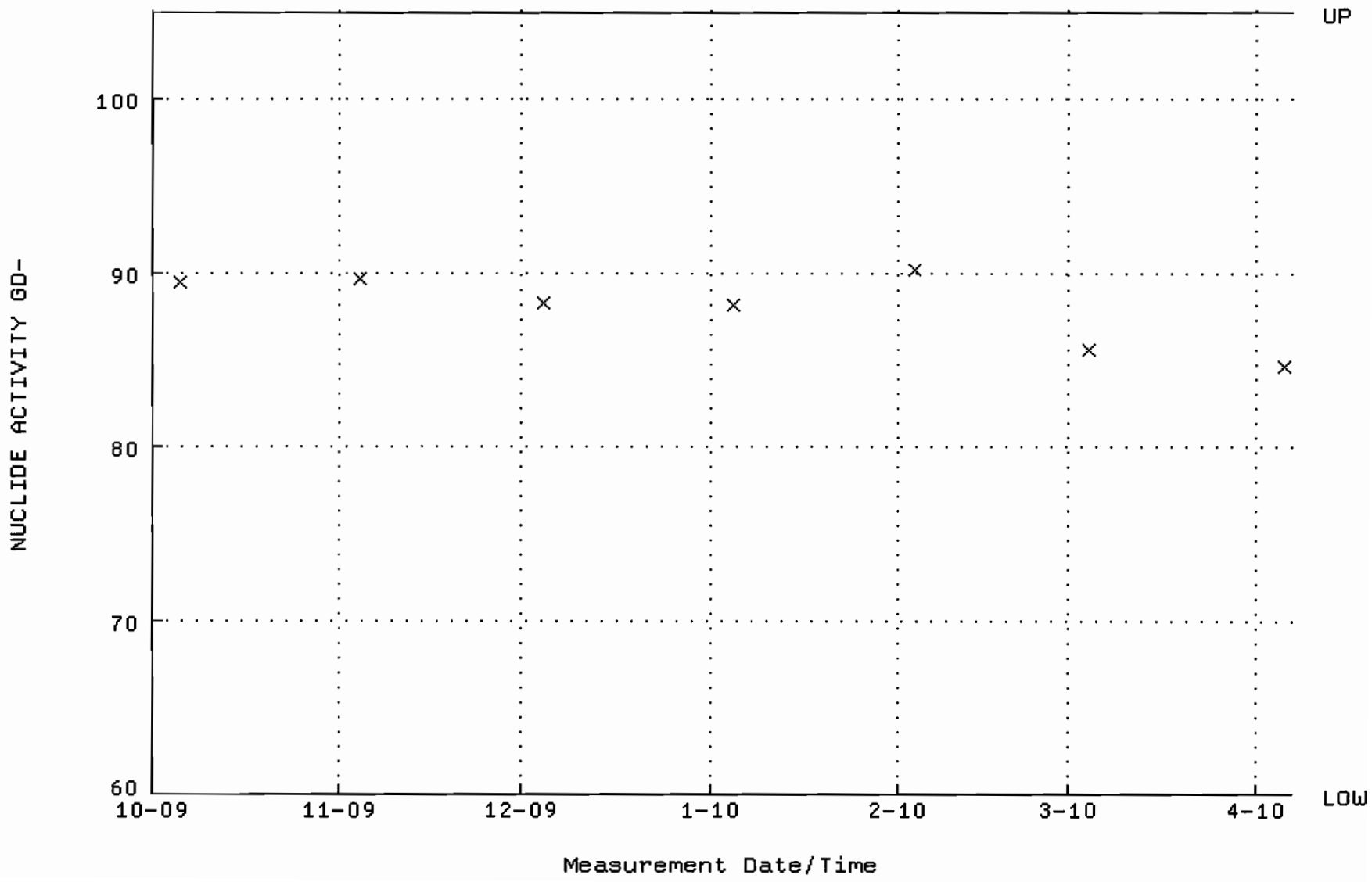

QA filename : DKA100:[ENV_ALPHA.QA.B]B029.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:09 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

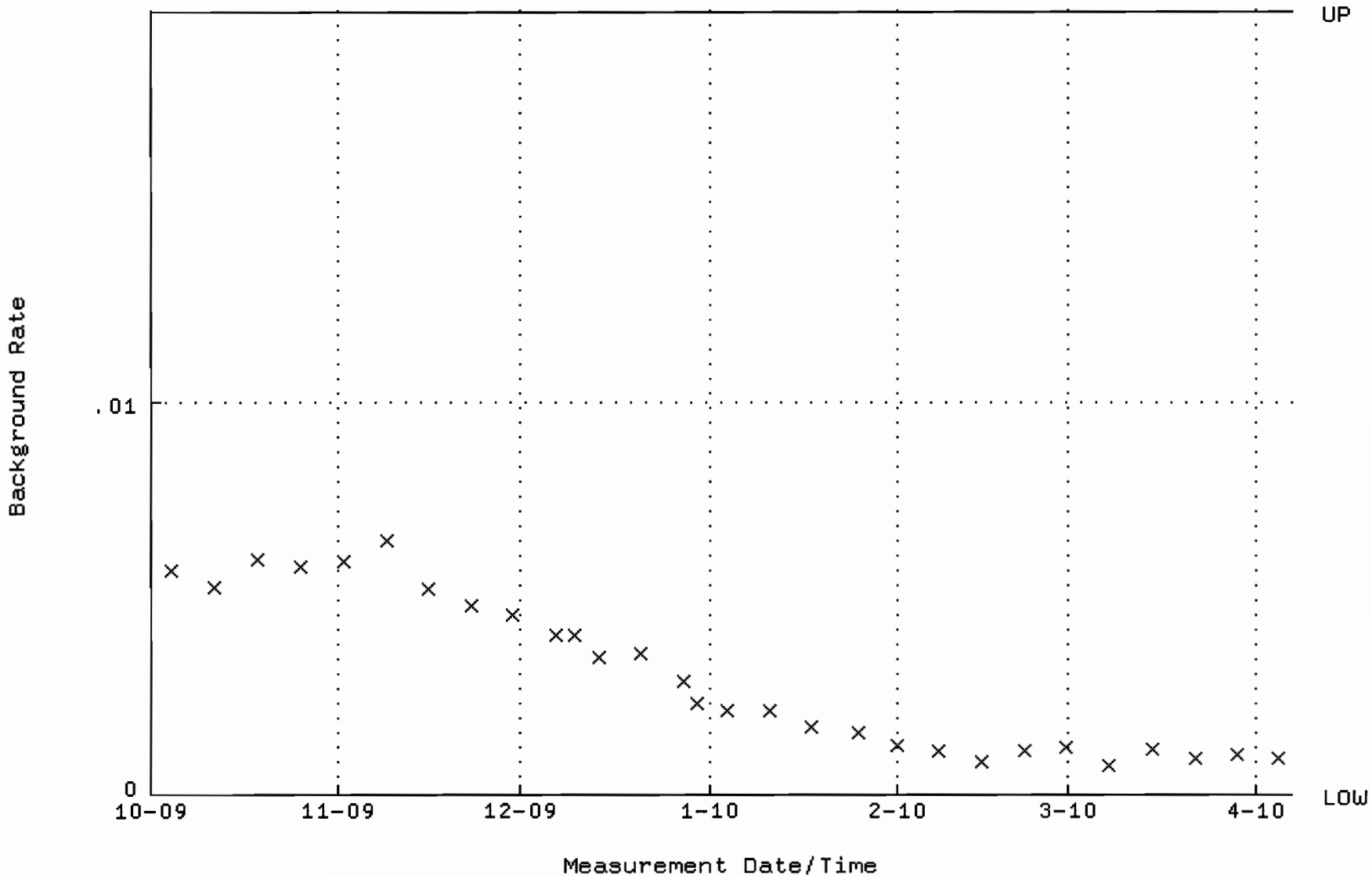

QA filename : DKA100:[ENV_ALPHA.QA.W]W030.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-OCT-2009 13:55:24 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

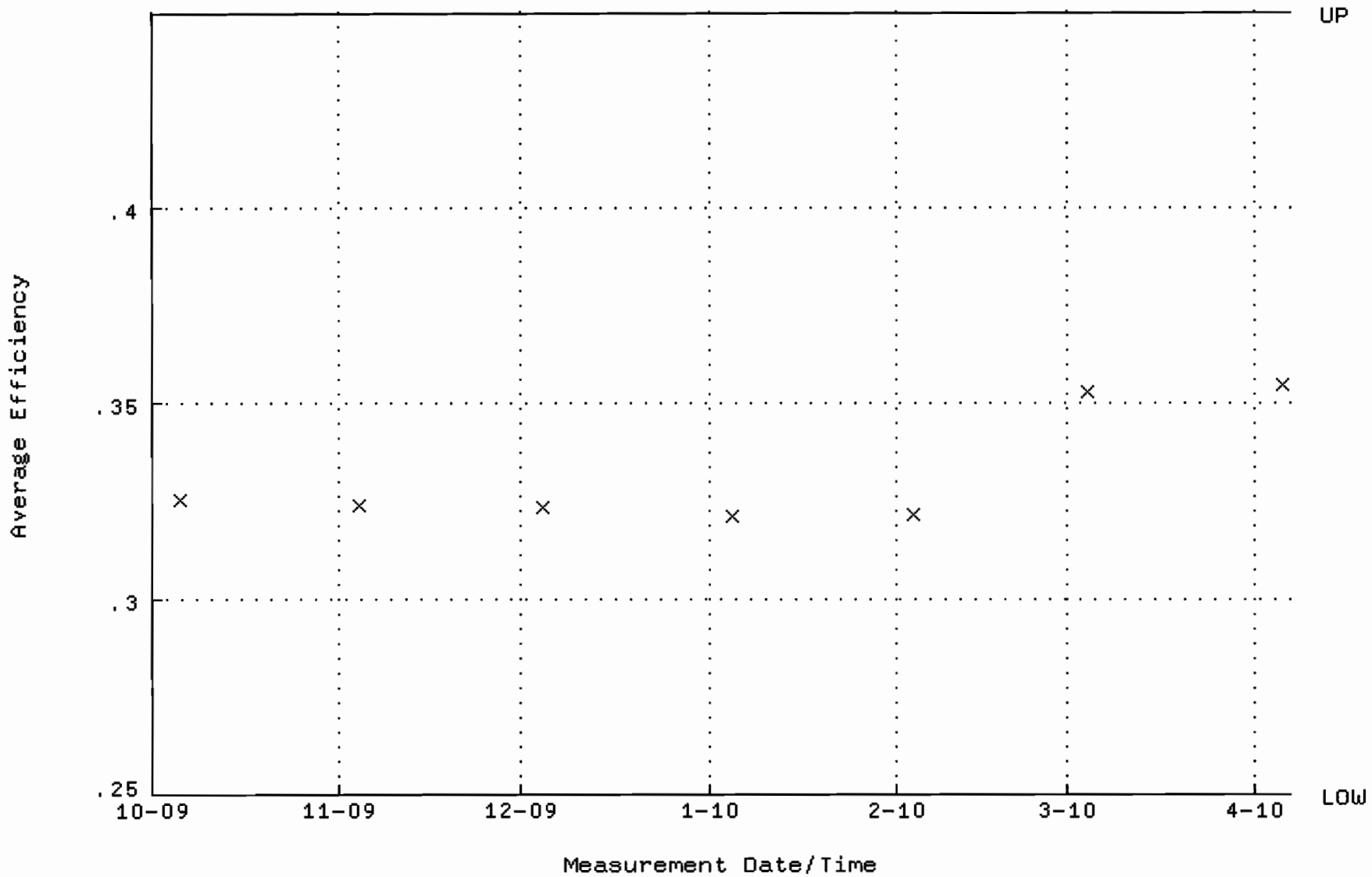

QA filename : DKA100:[ENV_ALPHA.QA.W]W030.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-OCT-2009 13:55:24 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

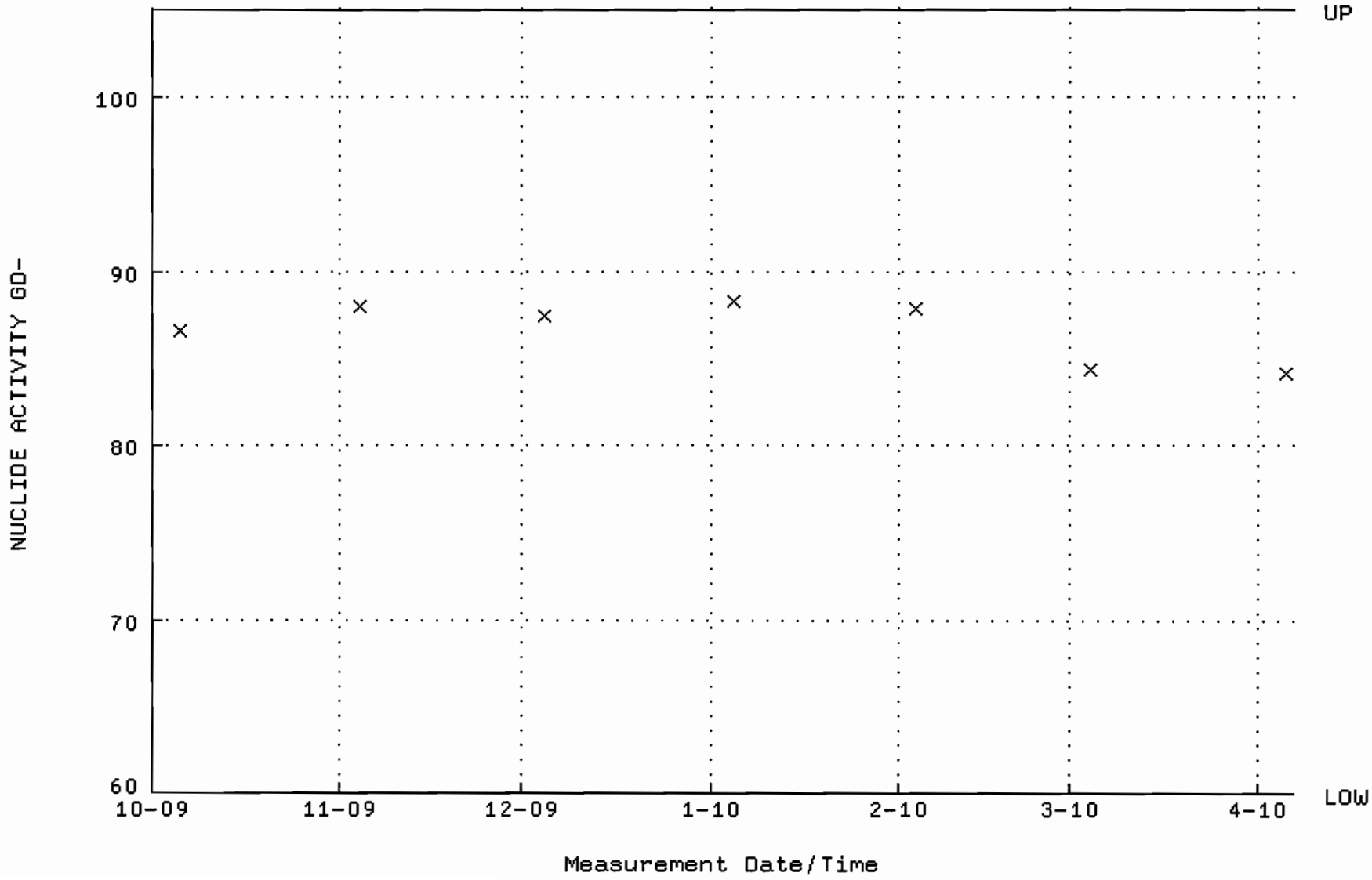

QA filename : DKA100:[ENV_ALPHA.QA.B]B030.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 4-OCT-2009 12:27:09 through 6-APR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

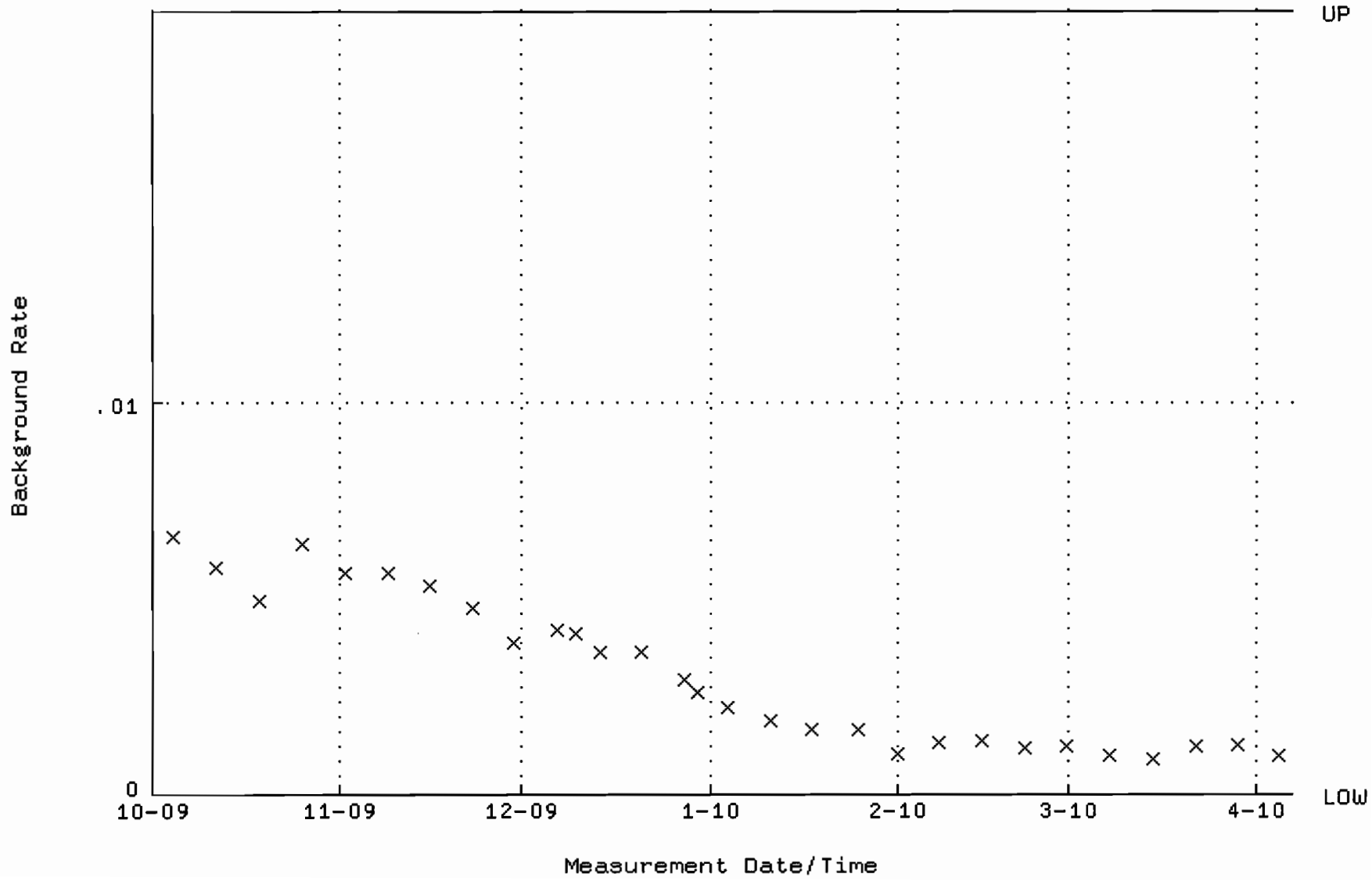

QA filename : DKA100:[ENV_ALPHA.QA.W]W143.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:03:57 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.235497 through 0.253401

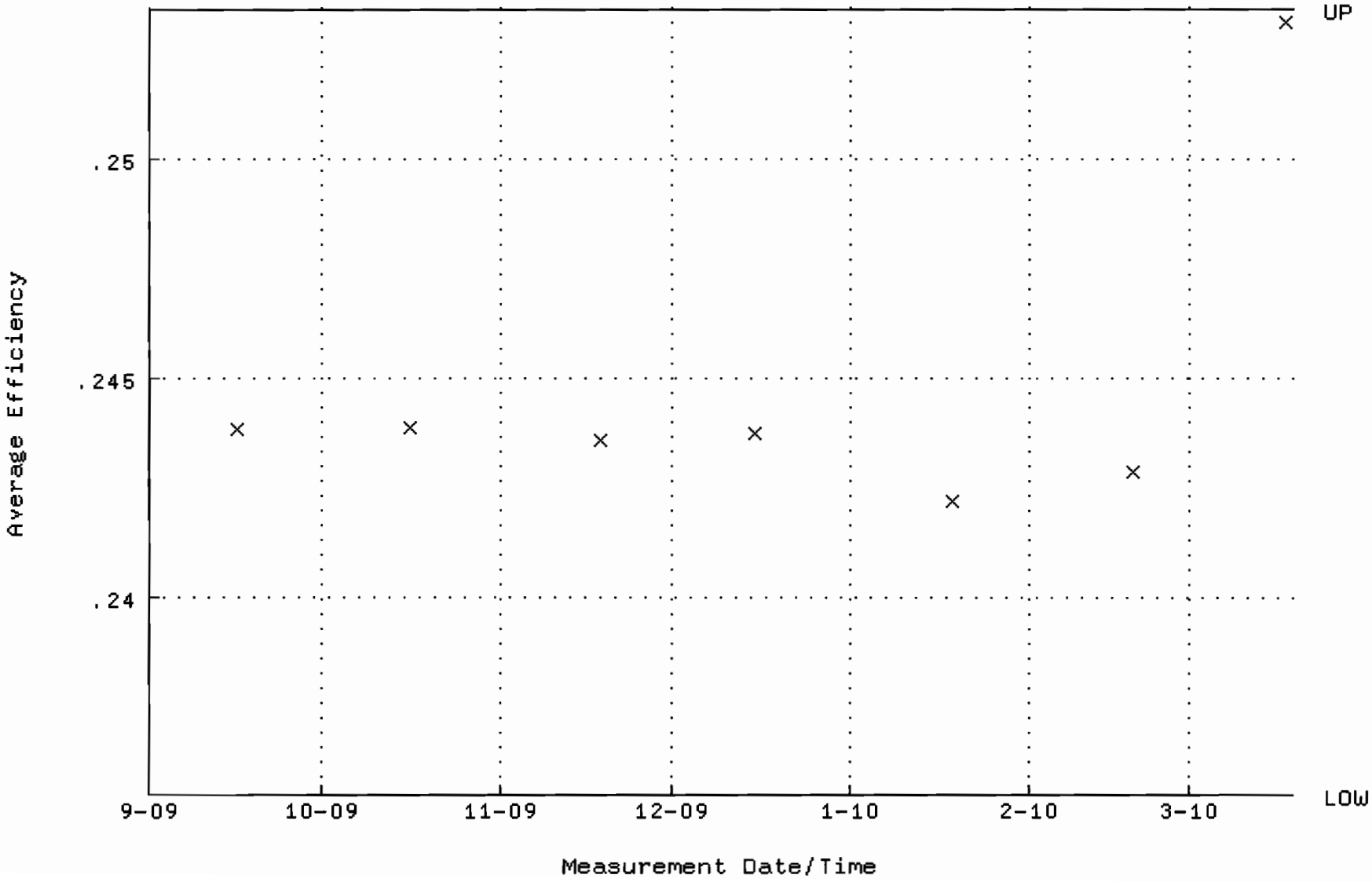

QA filename : DKA100:[ENV_ALPHA.QA.W]W143.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:03:57 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 86.4493 through 92.5939

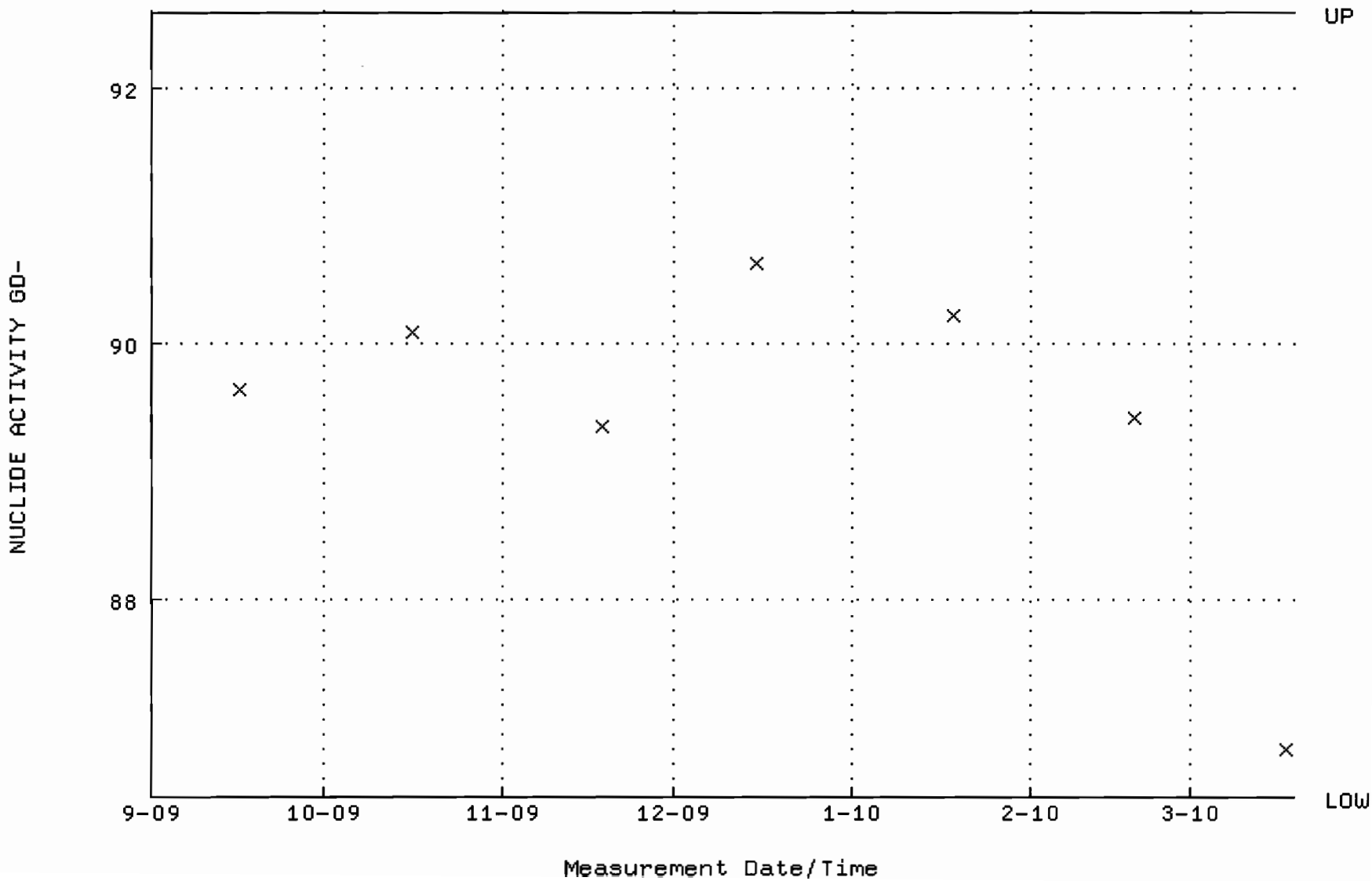

QA filename : DKA100:[ENV_ALPHA.QA.B]B143.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:18 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

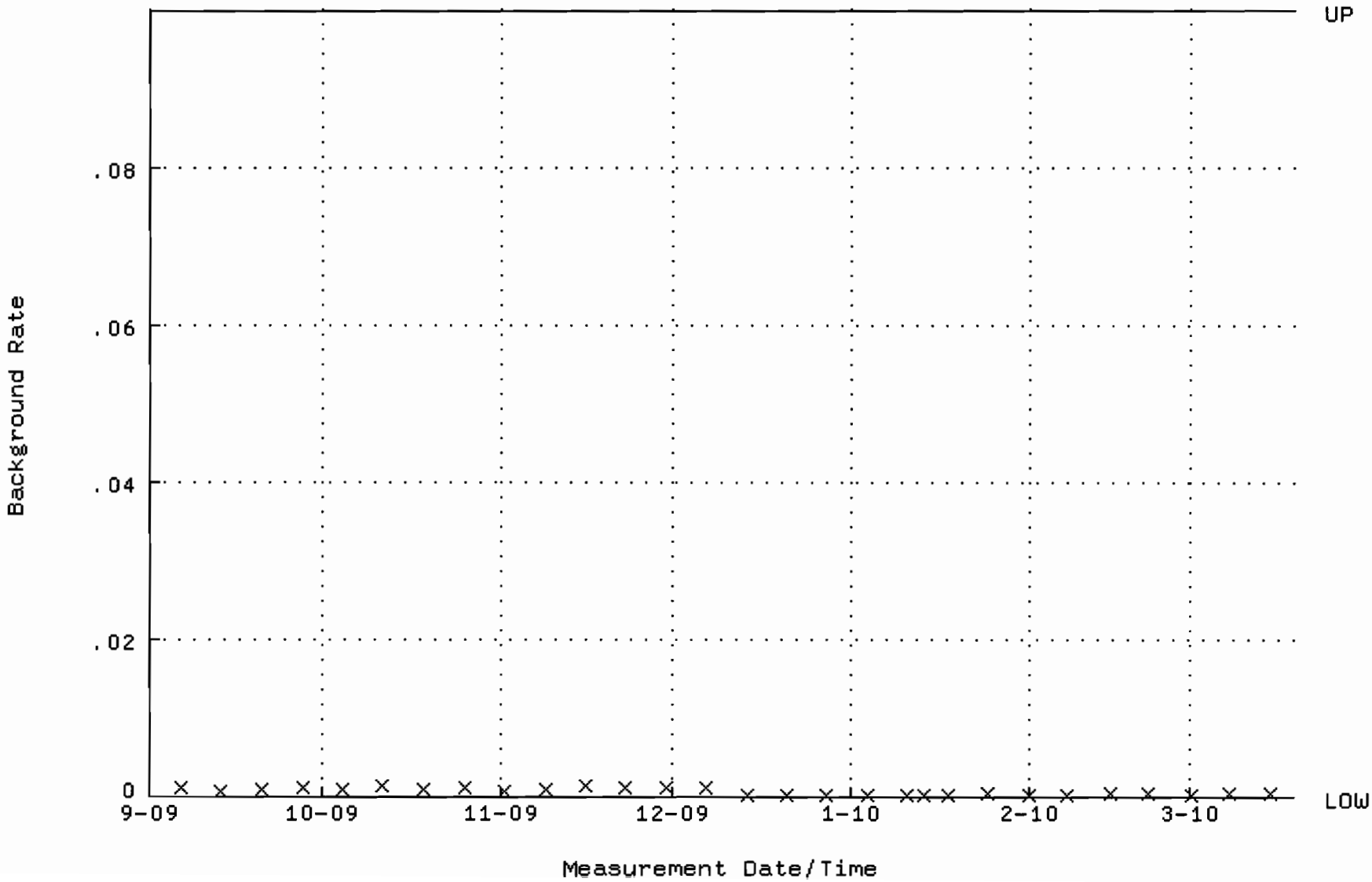

QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:04:02 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.237368 through 0.264286

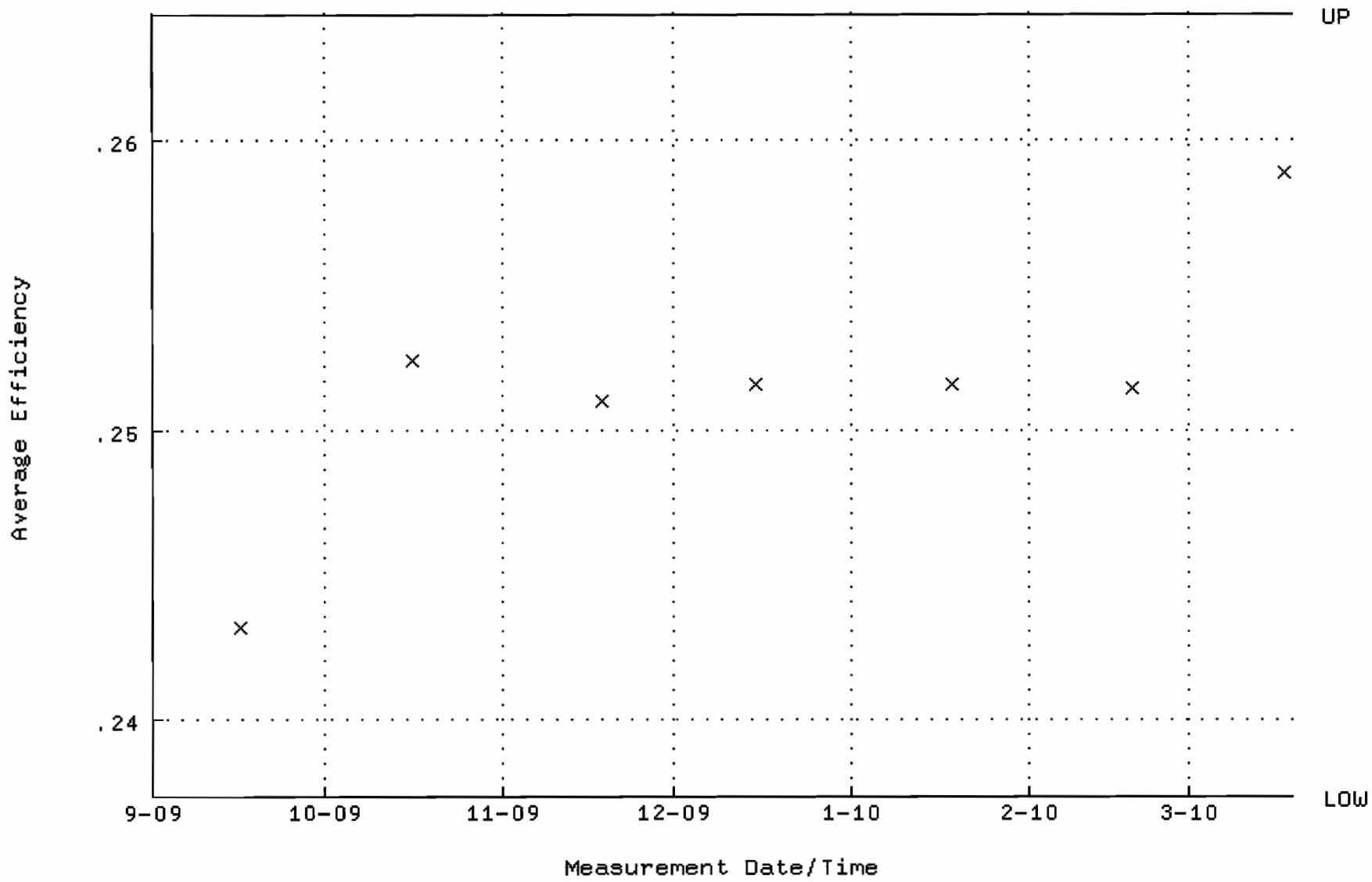

QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:04:02 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 84.3705 through 92.6214

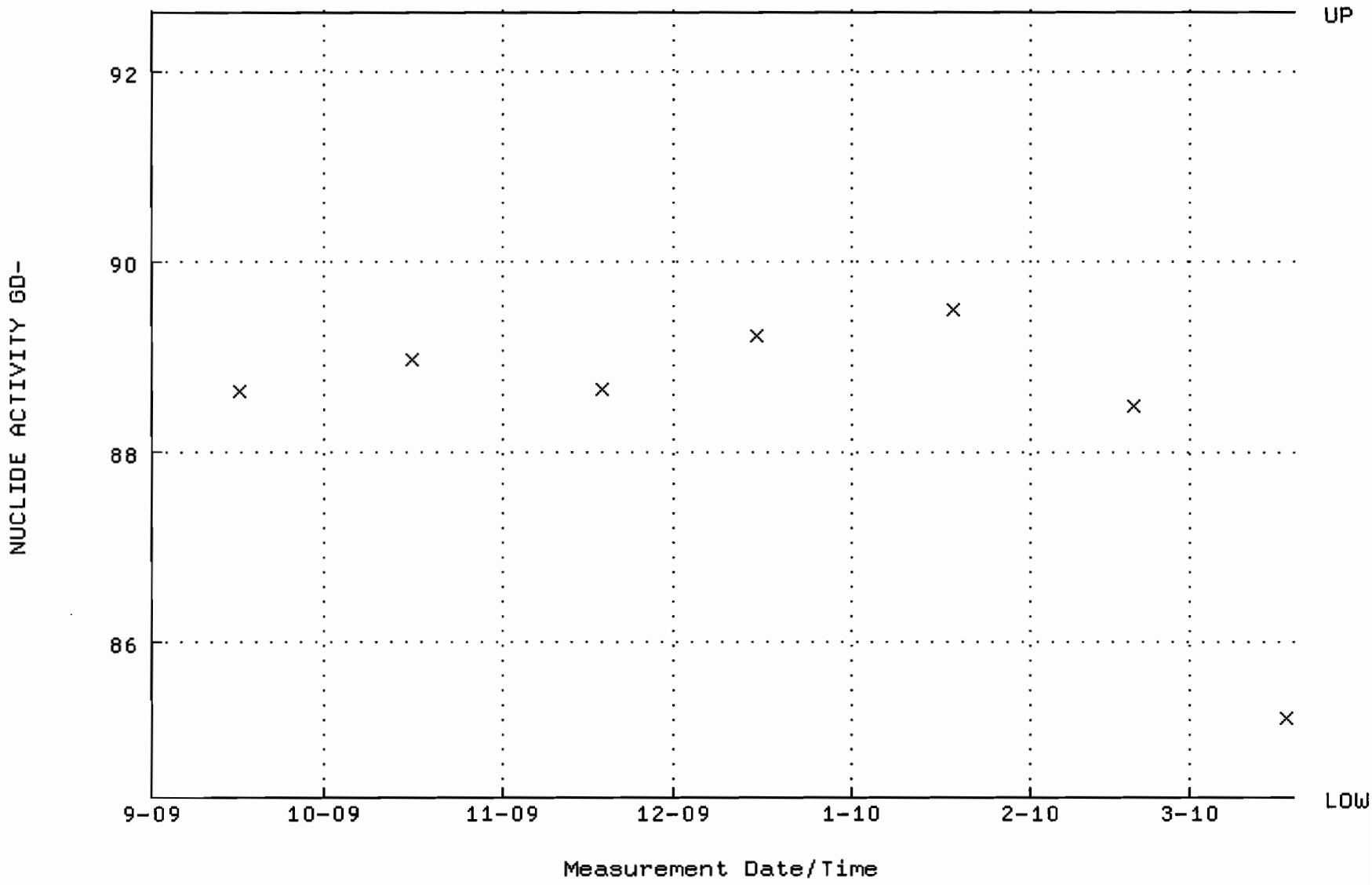

QA filename : DKA100:[ENV_ALPHA.QA.B]B144.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:22 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

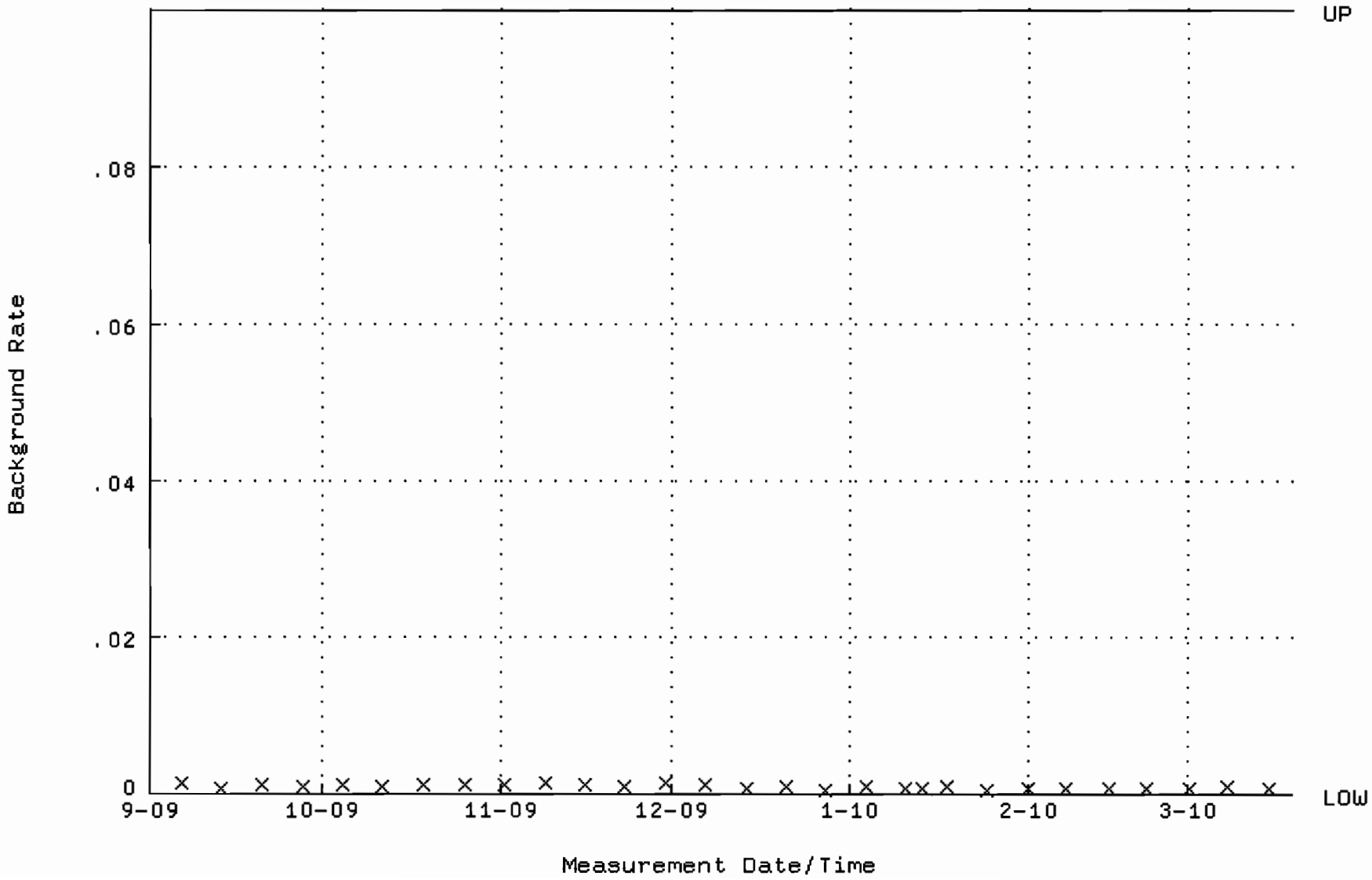

QA filename : DKA100:[ENV_ALPHA.QA.W]W145.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:04:08 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.240306 through 0.262496

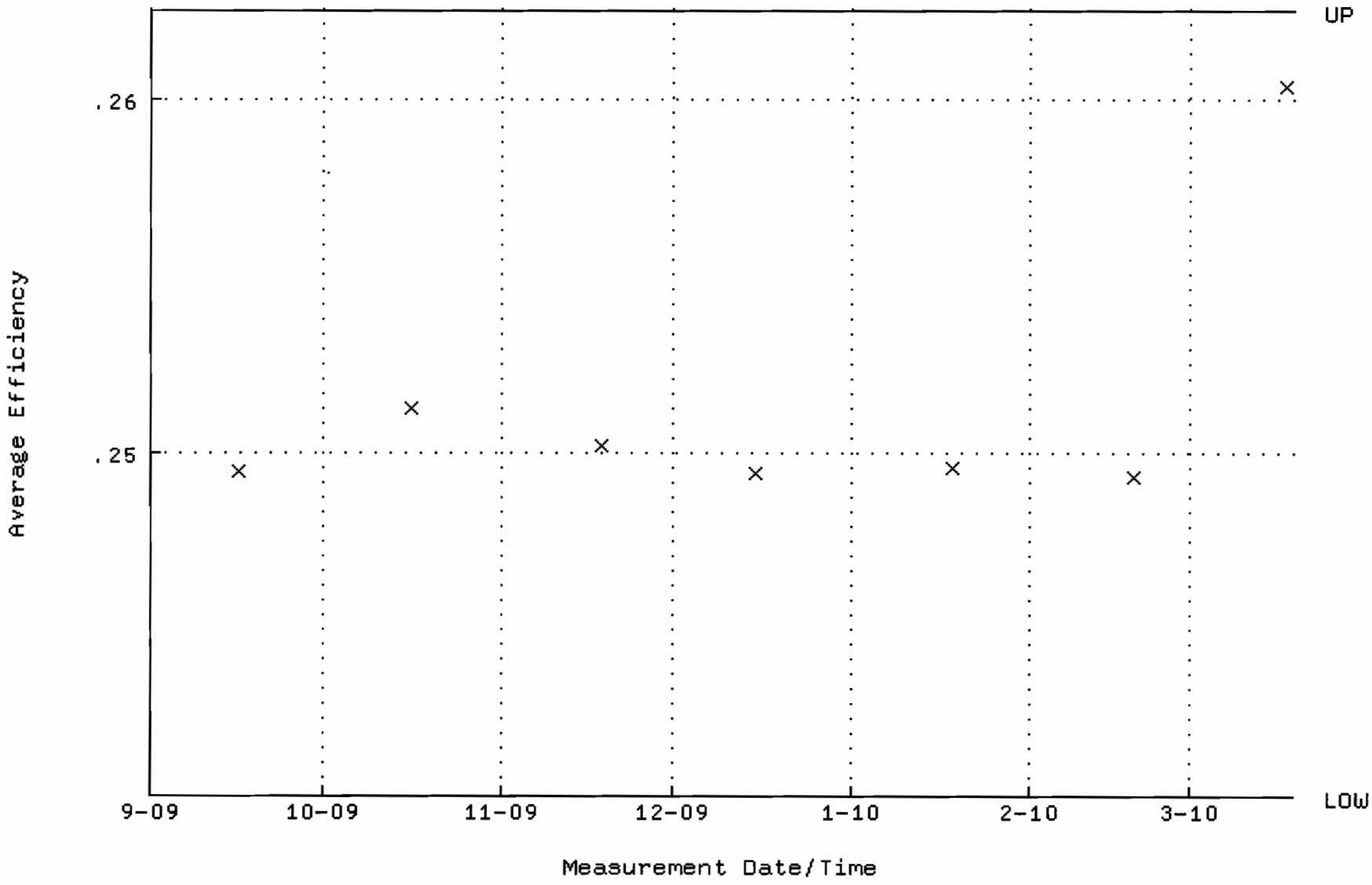

QA filename : DKA100:[ENV_ALPHA.QA.W]W145.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:04:08 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 85.7312 through 92.6692

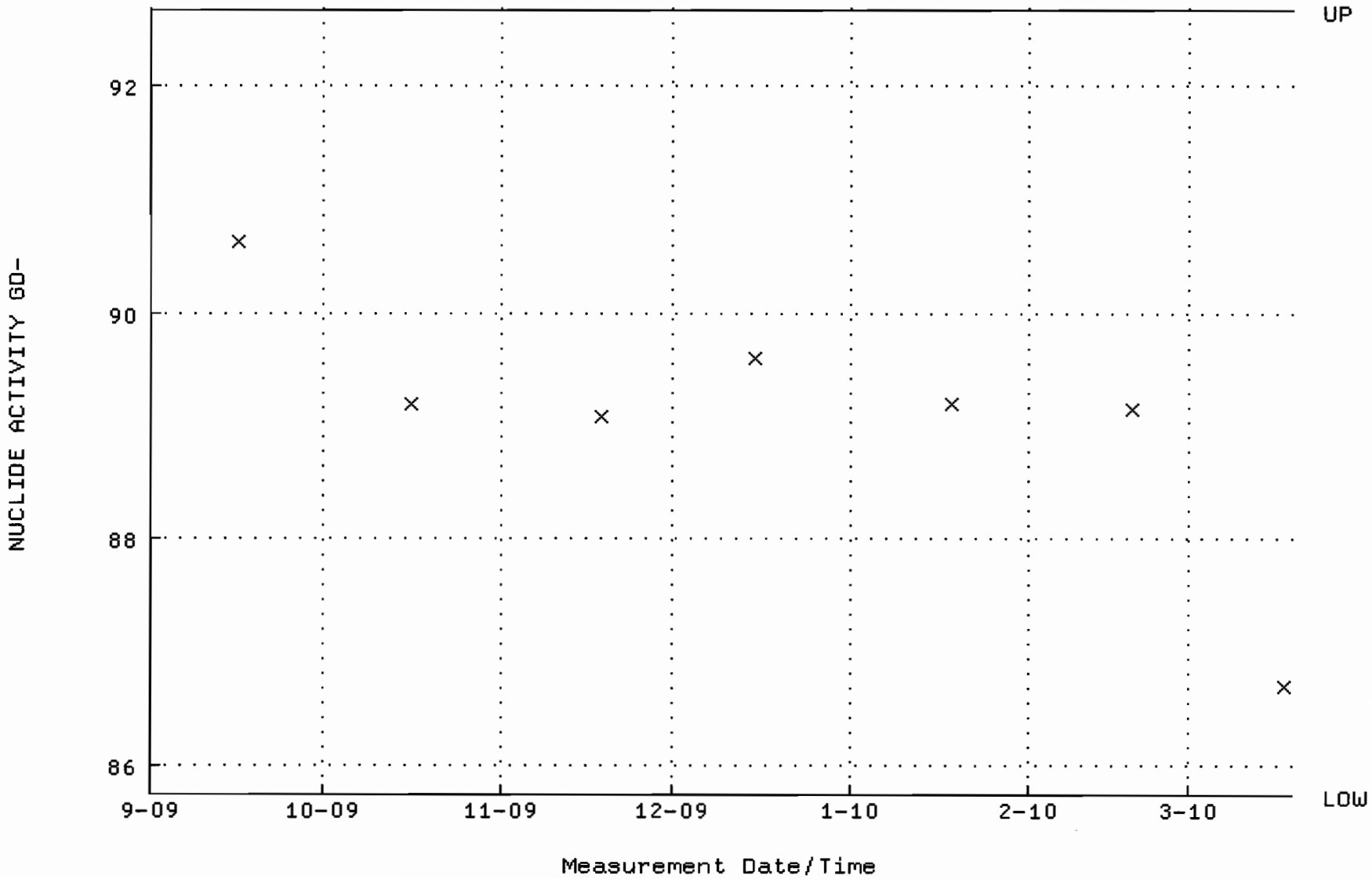

QA filename : DKA100:[ENV_ALPHA.QA.B]B145.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:26 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

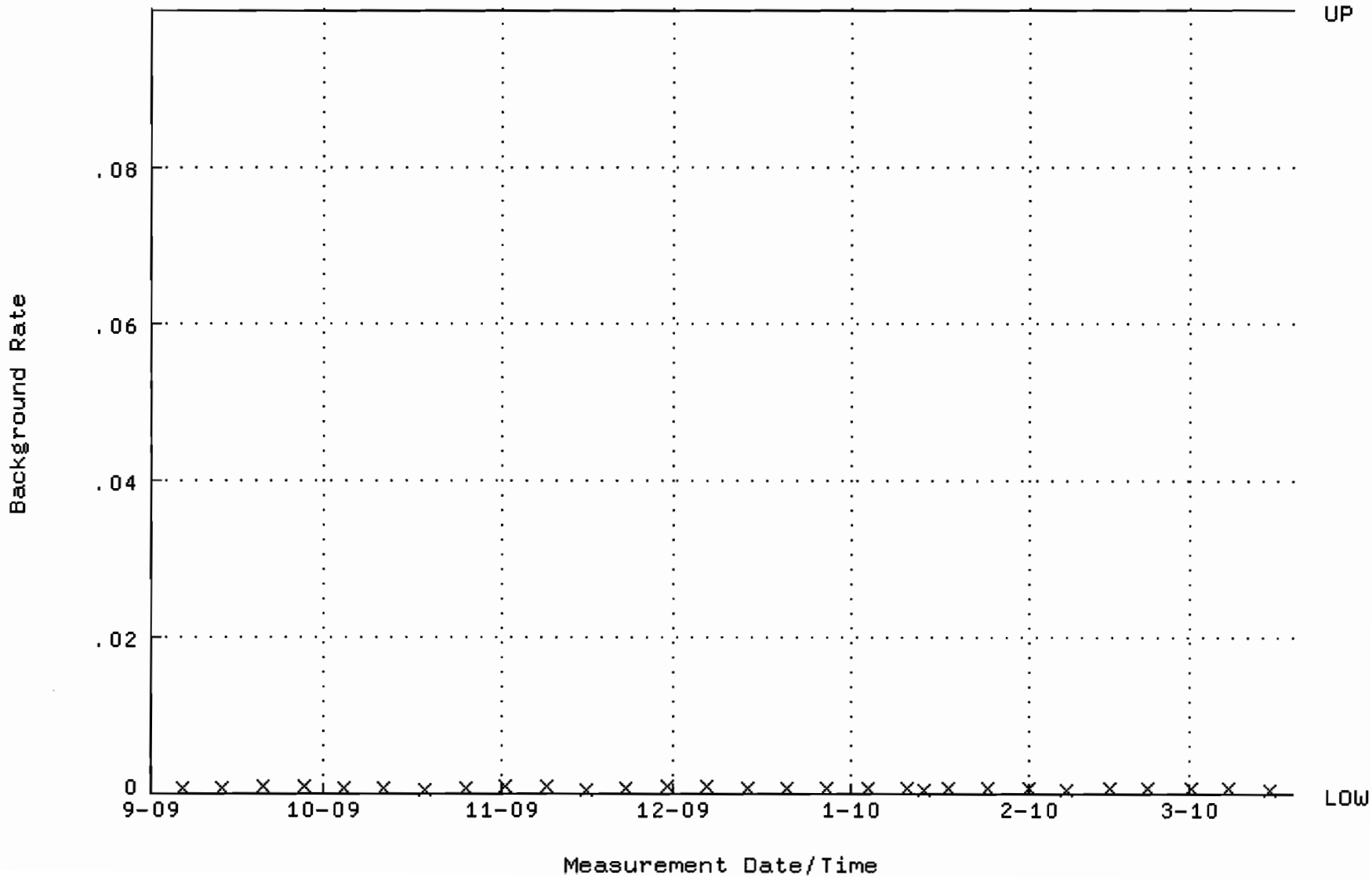

QA filename : DKA100:[ENV_ALPHA.QA.W]W146.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:04:13 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 4.713000E-02 through 0.423864

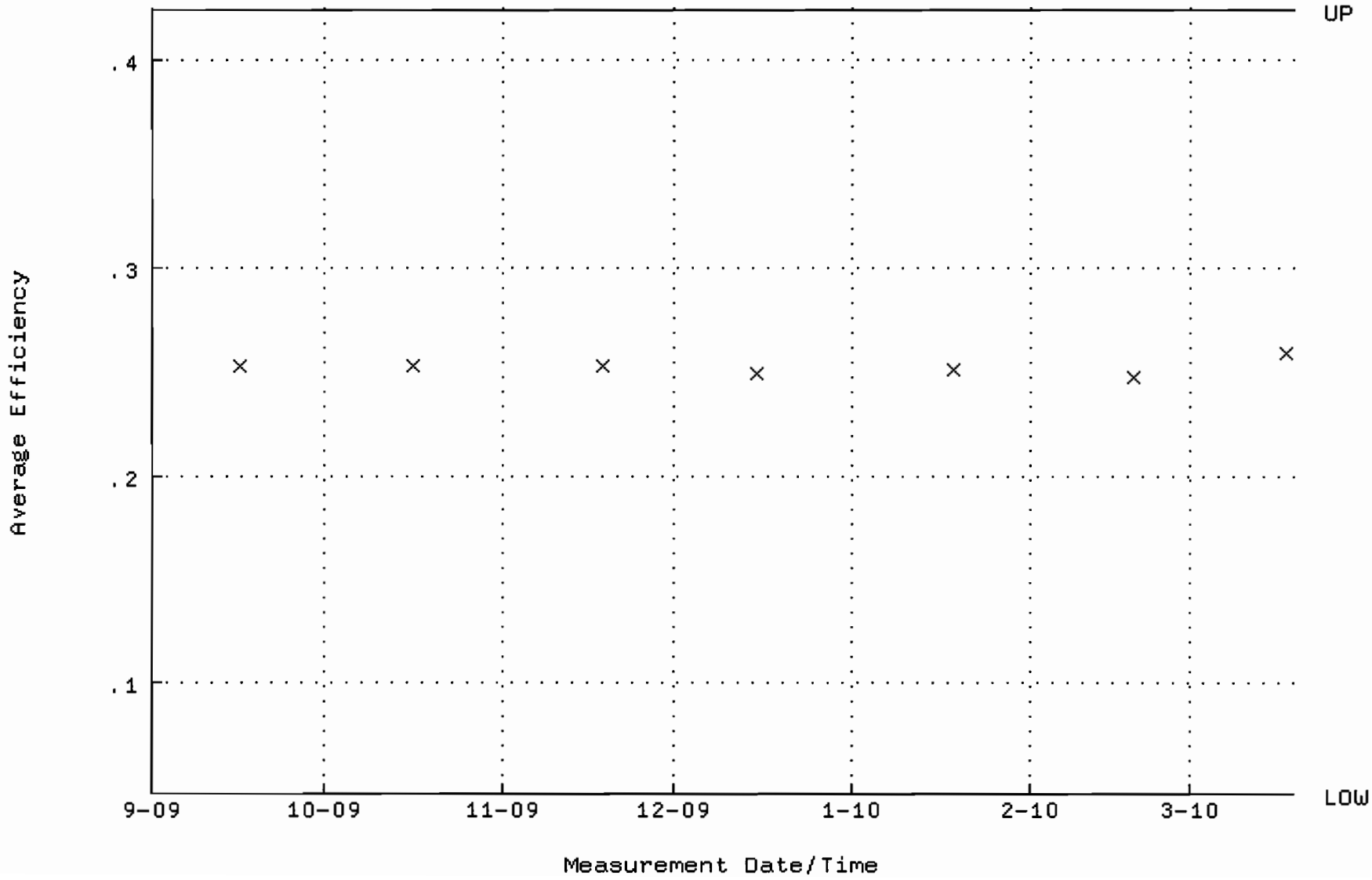

QA filename : DKA100:[ENV_ALPHA.QA.W]W146.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:04:13 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 57.4058 through 116.767

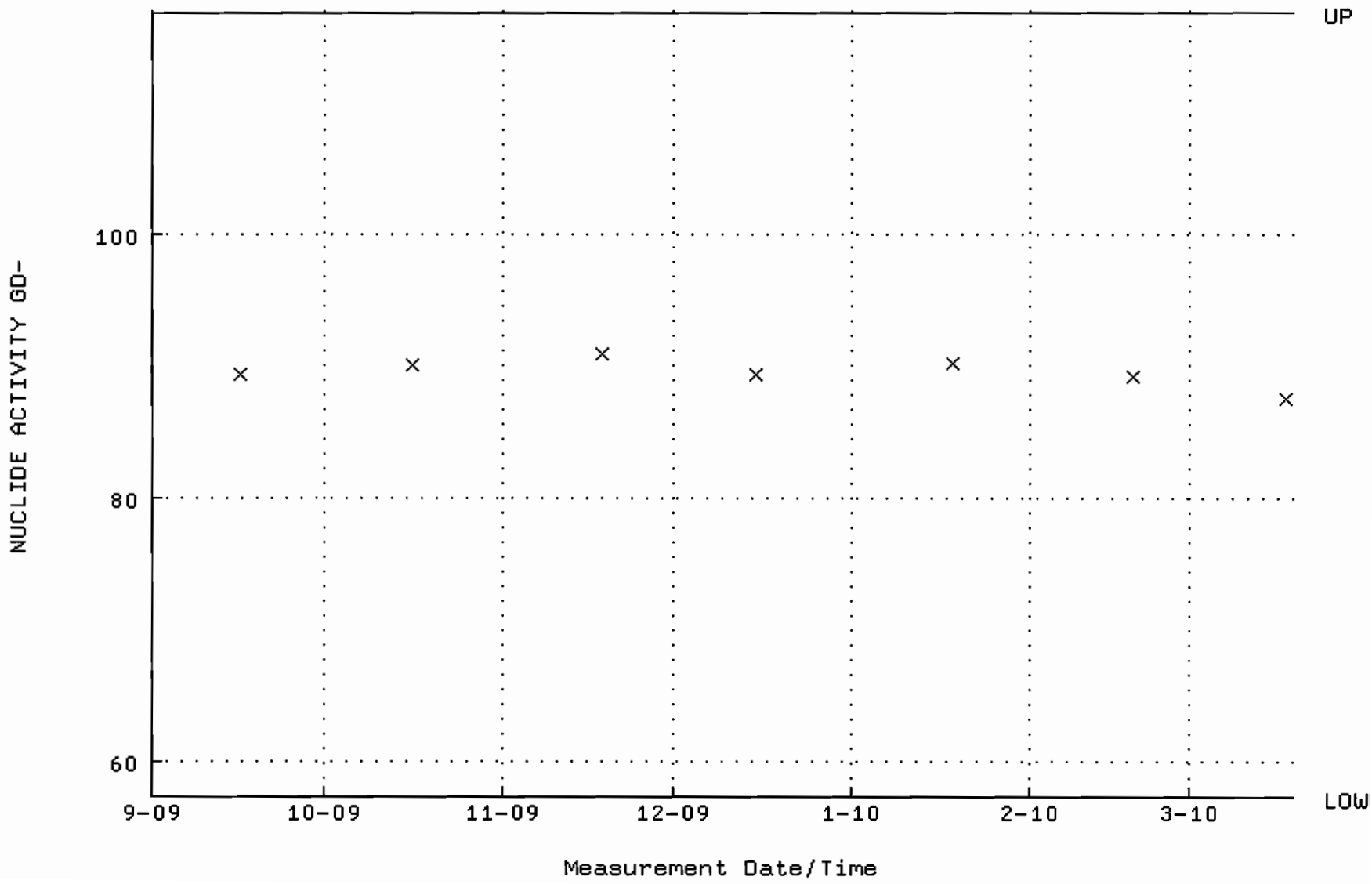

QA filename : DKA100:[ENV_ALPHA.QA.B]B146.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:30 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

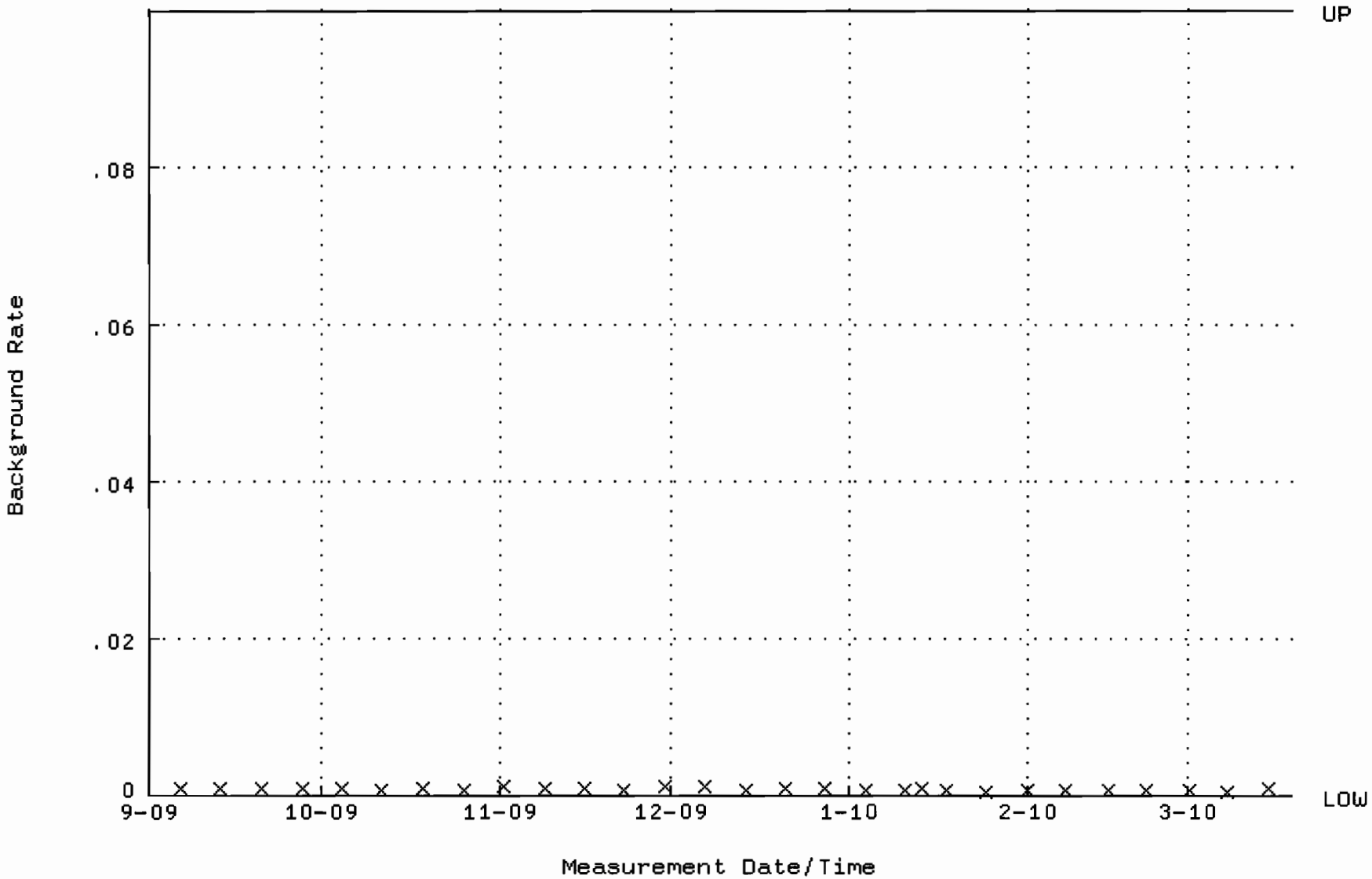

QA filename : DKA100:[ENV_ALPHA.QA.W]W147.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:04:19 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.225419 through 0.271751

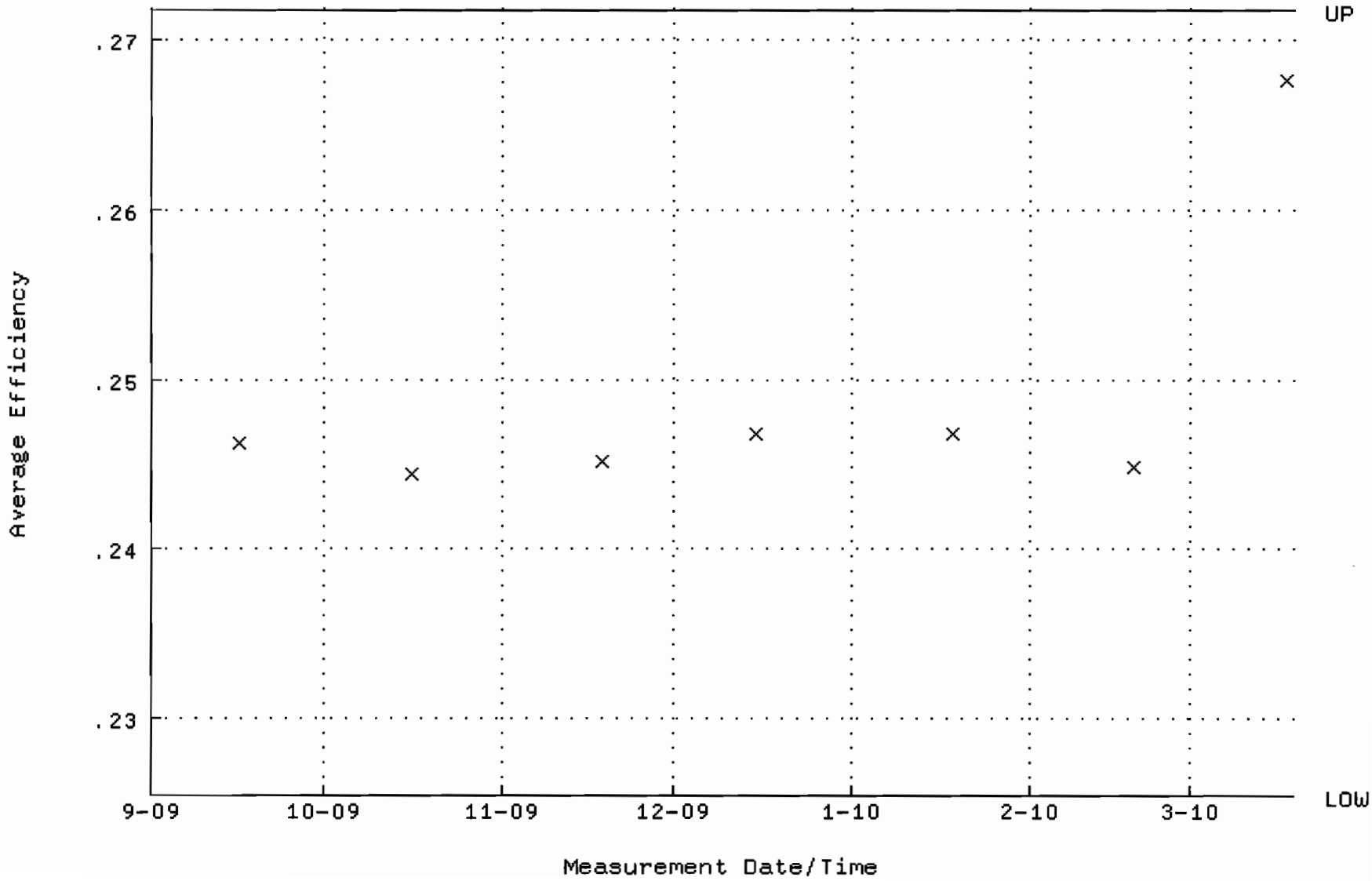

QA filename : DKA100:[ENV_ALPHA.QA.W]W147.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:04:19 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 85.1511 through 90.5851

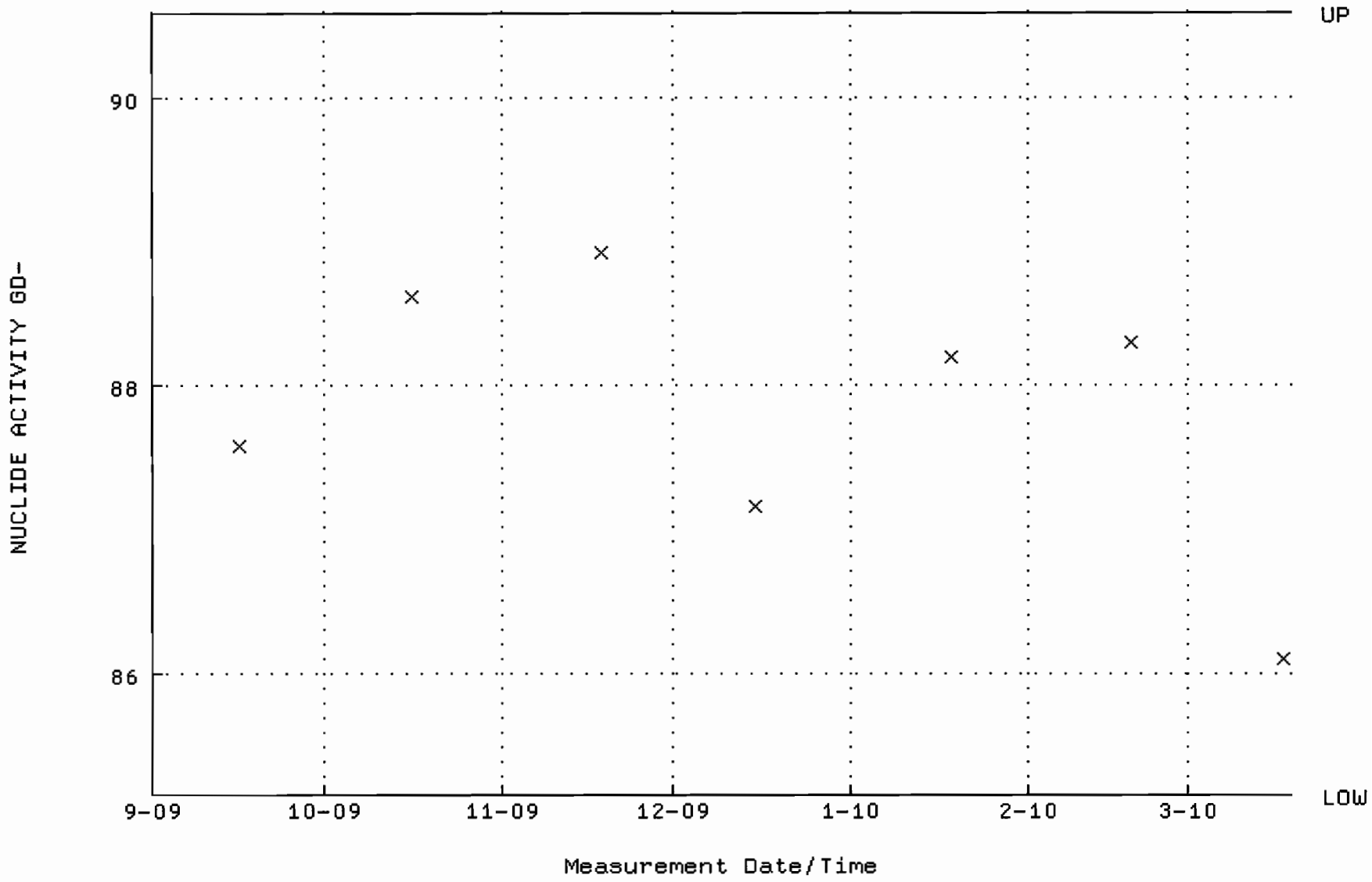

QA filename : DKA100:[ENV_ALPHA.QA.B]B147.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:34 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

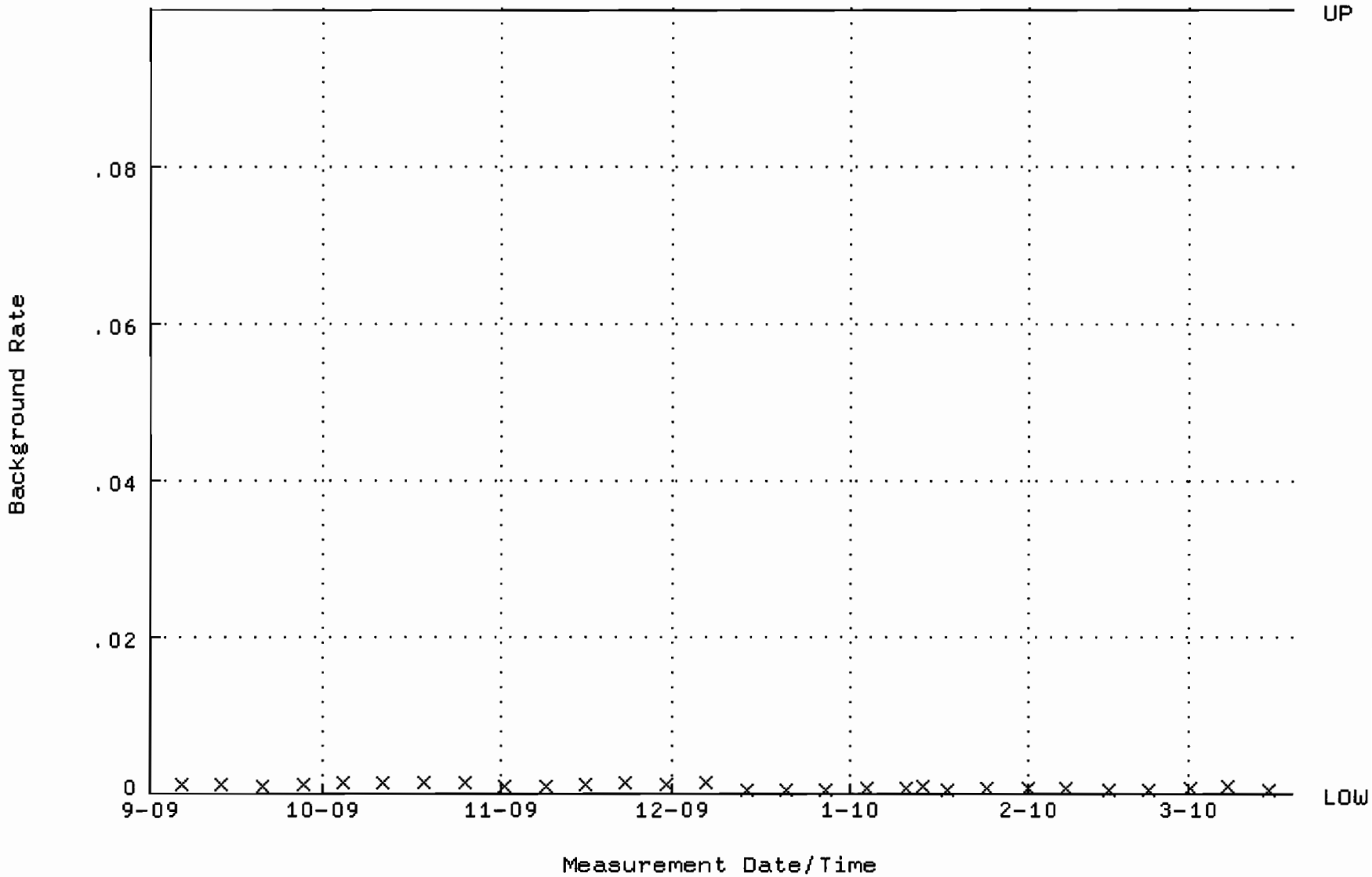

QA filename : DKA100:[ENV_ALPHA.QA.W]W148.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:04:24 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.231959 through 0.268393

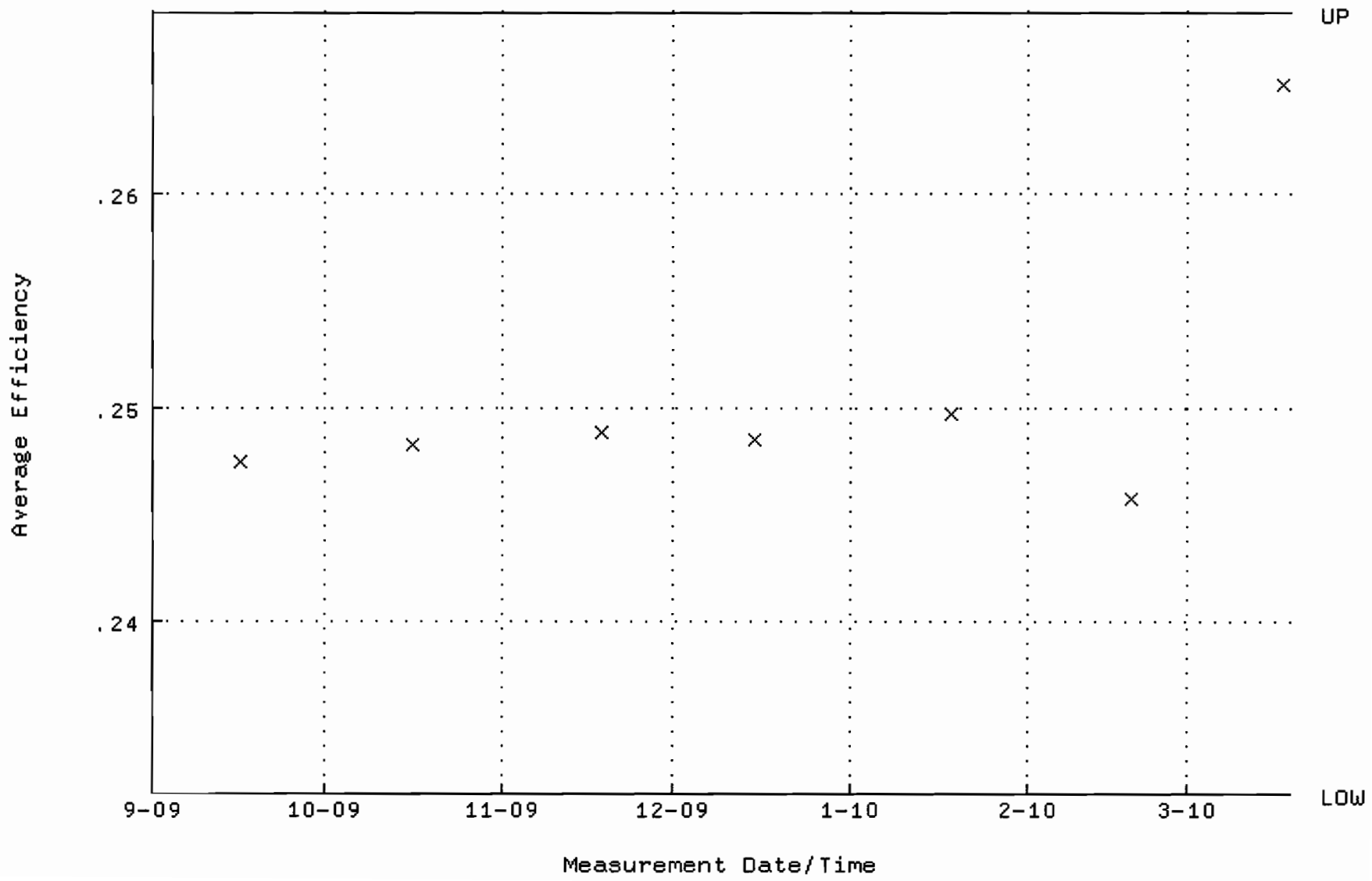

QA filename : DKA100:[ENV_ALPHA.QA.W]W148.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:04:24 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 81.9014 through 96.4918

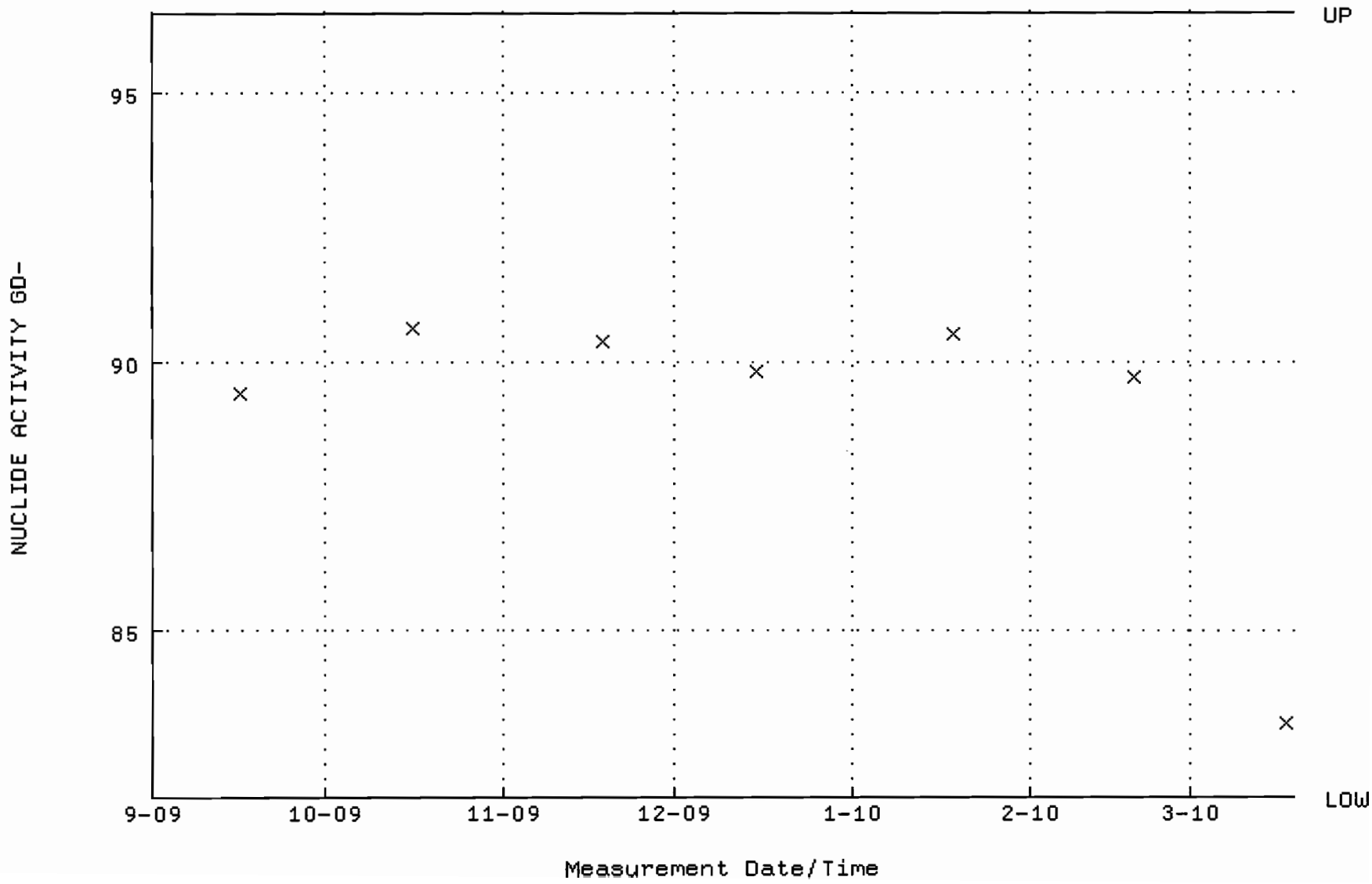

QA filename : DKA100:[ENV_ALPHA.QA.B]B148.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:38 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

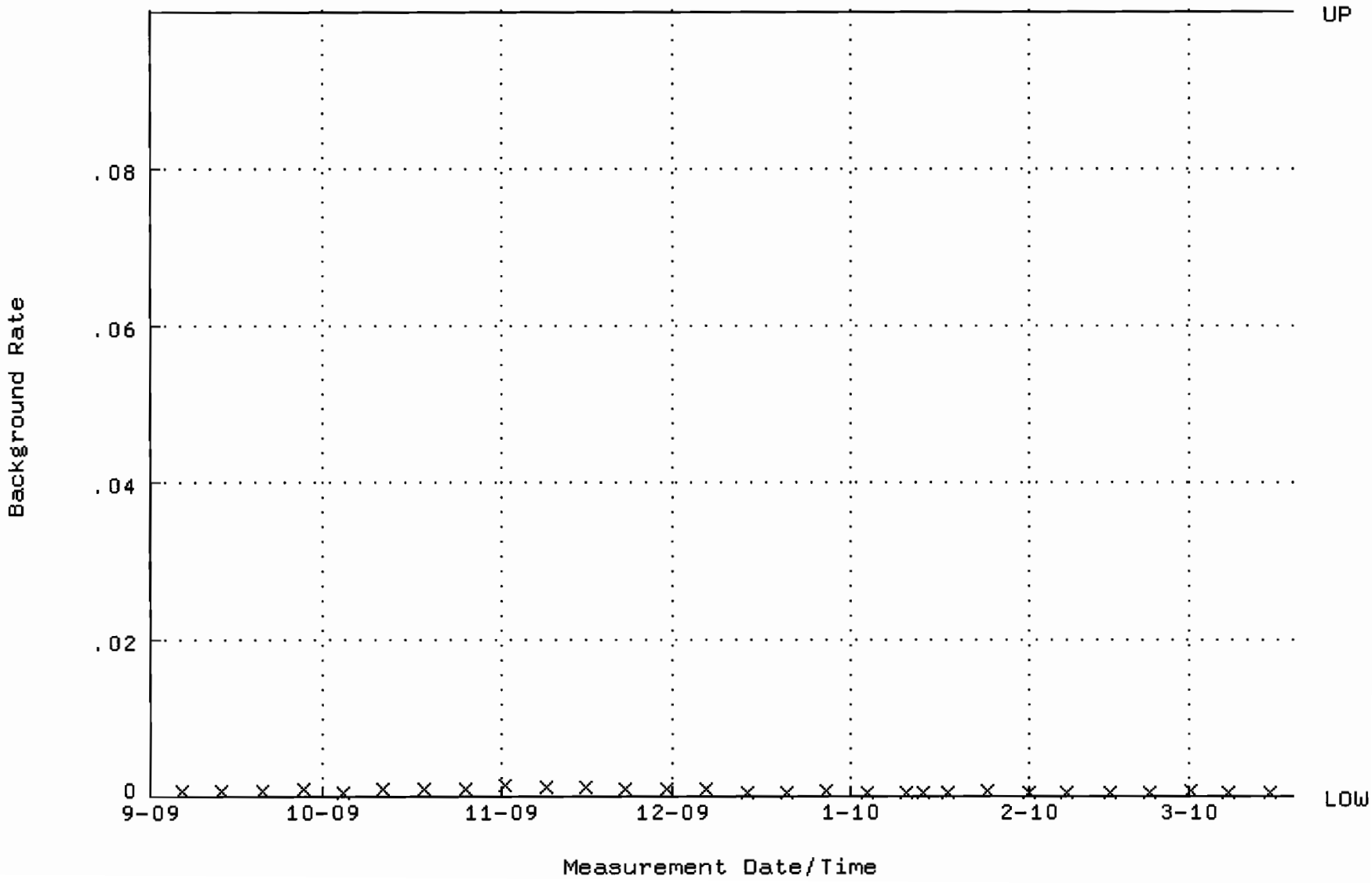

QA filename : DKA100:[ENV_ALPHA.QA.W]W149.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:20 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.232775 through 0.262555

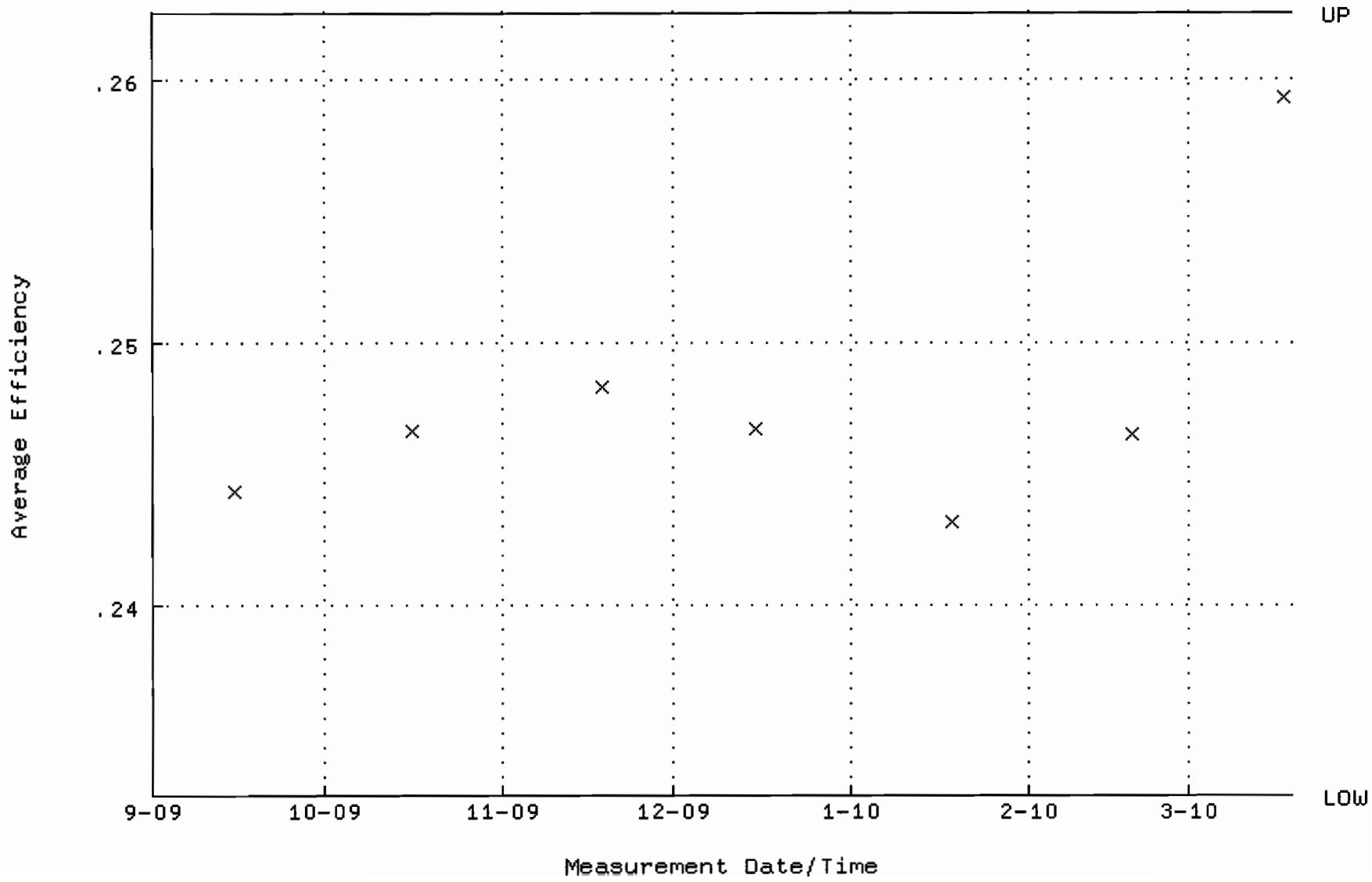

QA filename : DKA100:[ENV_ALPHA.QA.W]W149.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:20 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5753 through 92.6757

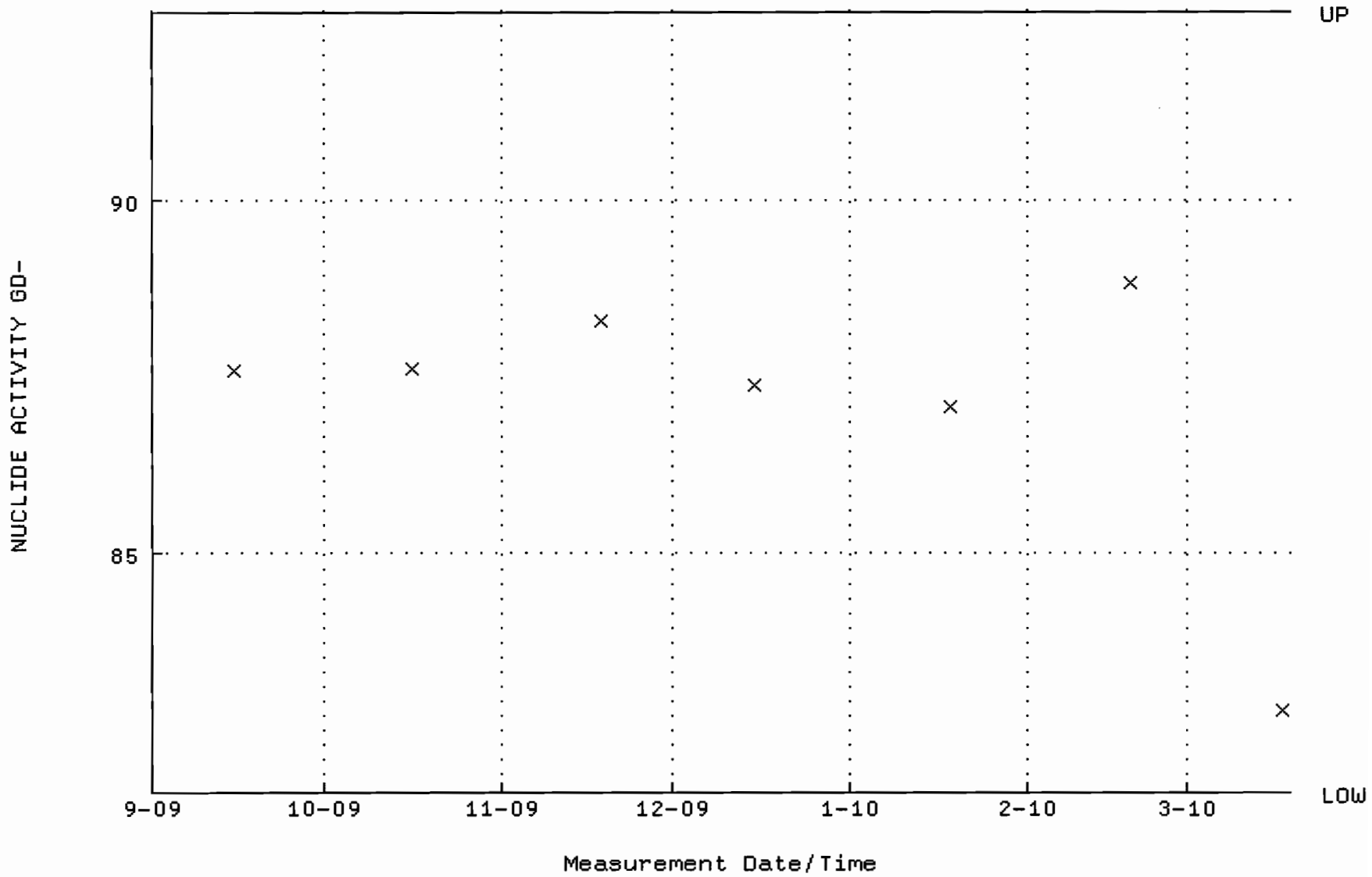

QA filename : DKA100:[ENV_ALPHA.QA.B]B149.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:42 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

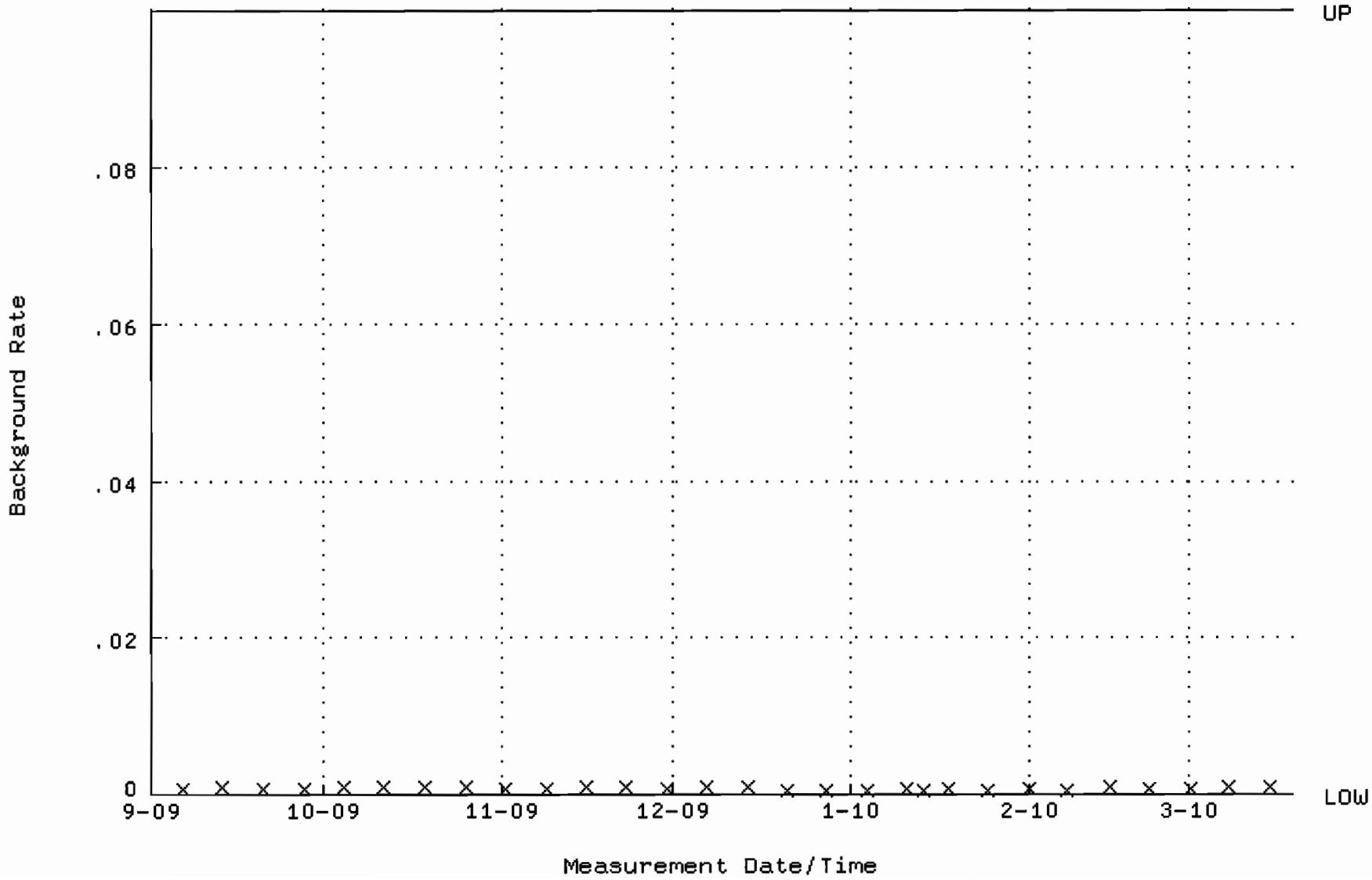

QA filename : DKA100:[ENV_ALPHA.QA.W]W150.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:25 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.230847 through 0.270601

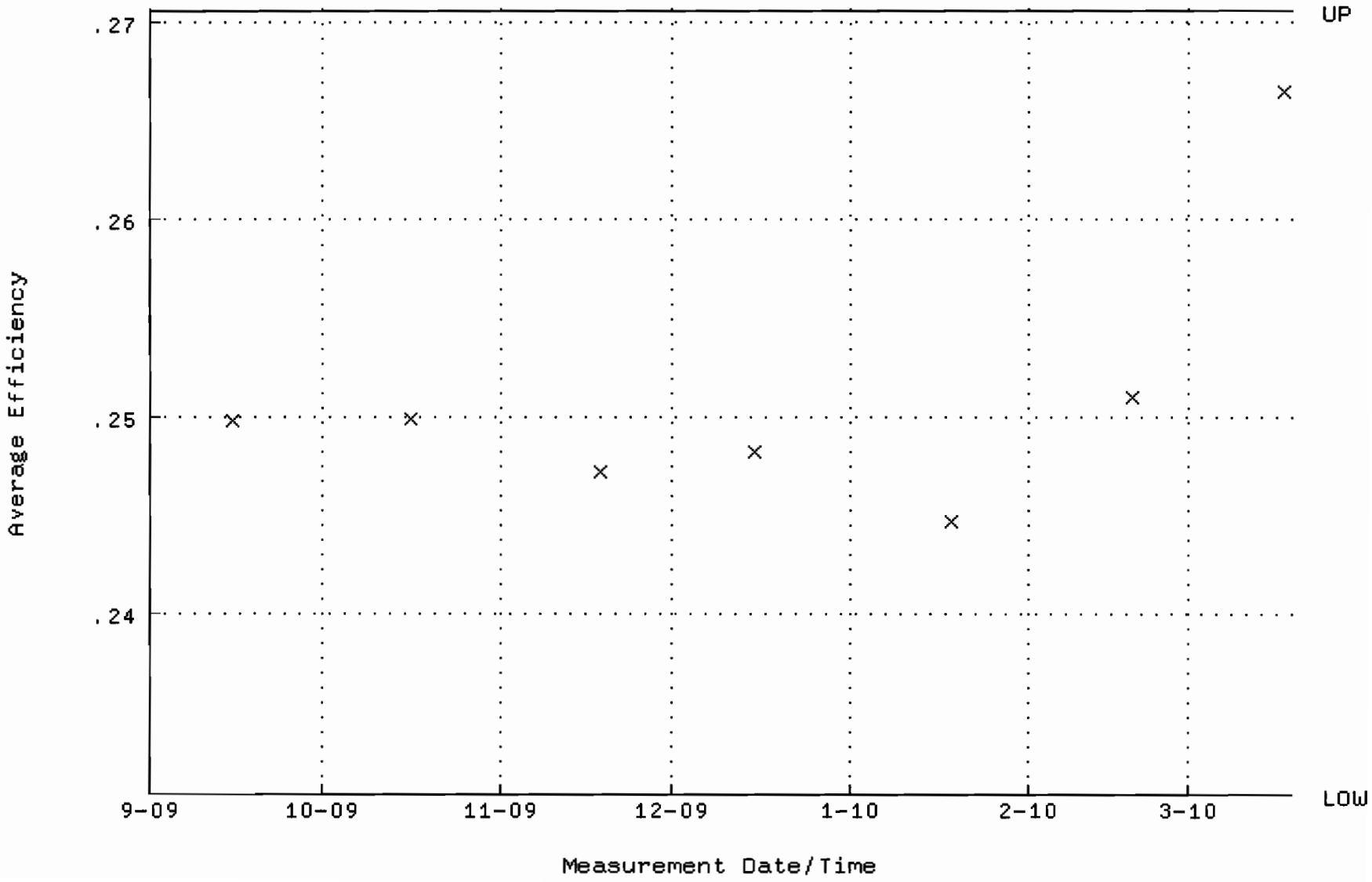

QA filename : DKA100:[ENV_ALPHA.QA.W]W150.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:25 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 82.2504 through 95.1354

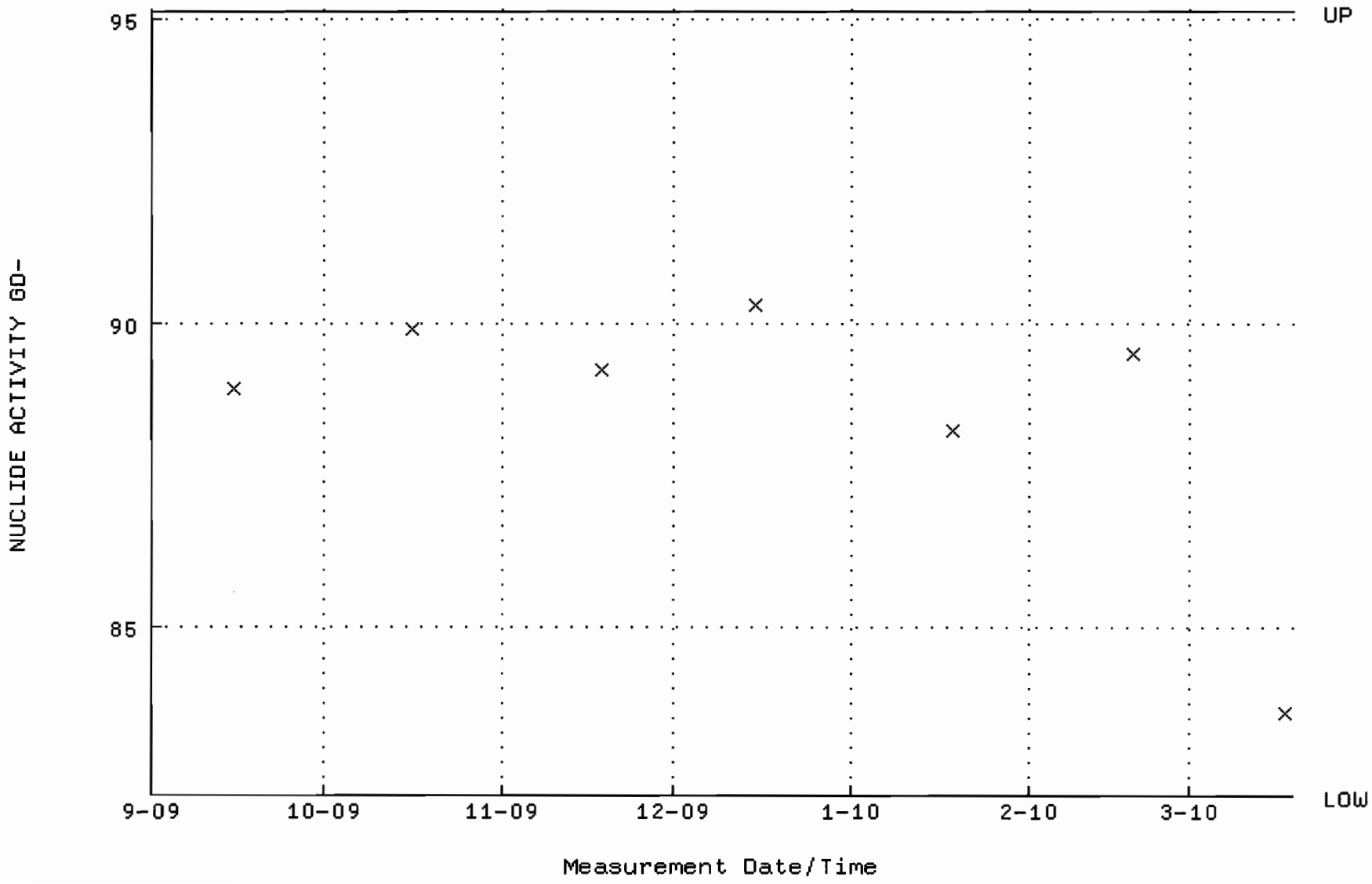

QA filename : DKA100:[ENV_ALPHA.QA.B]B150.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:46 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

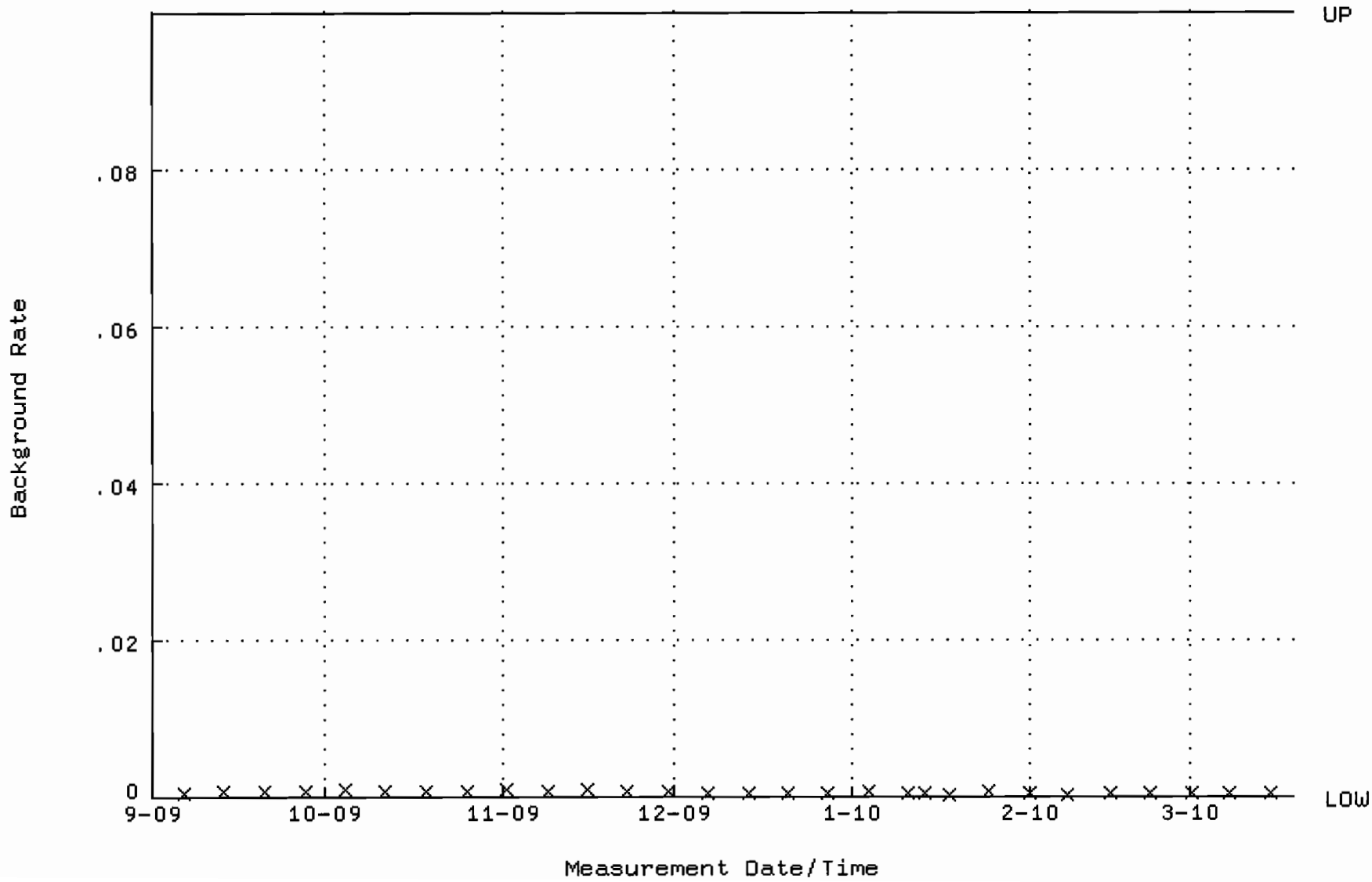

QA filename : DKA100:[ENV_ALPHA.QA.W]W151.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:30 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.229470 through 0.264472

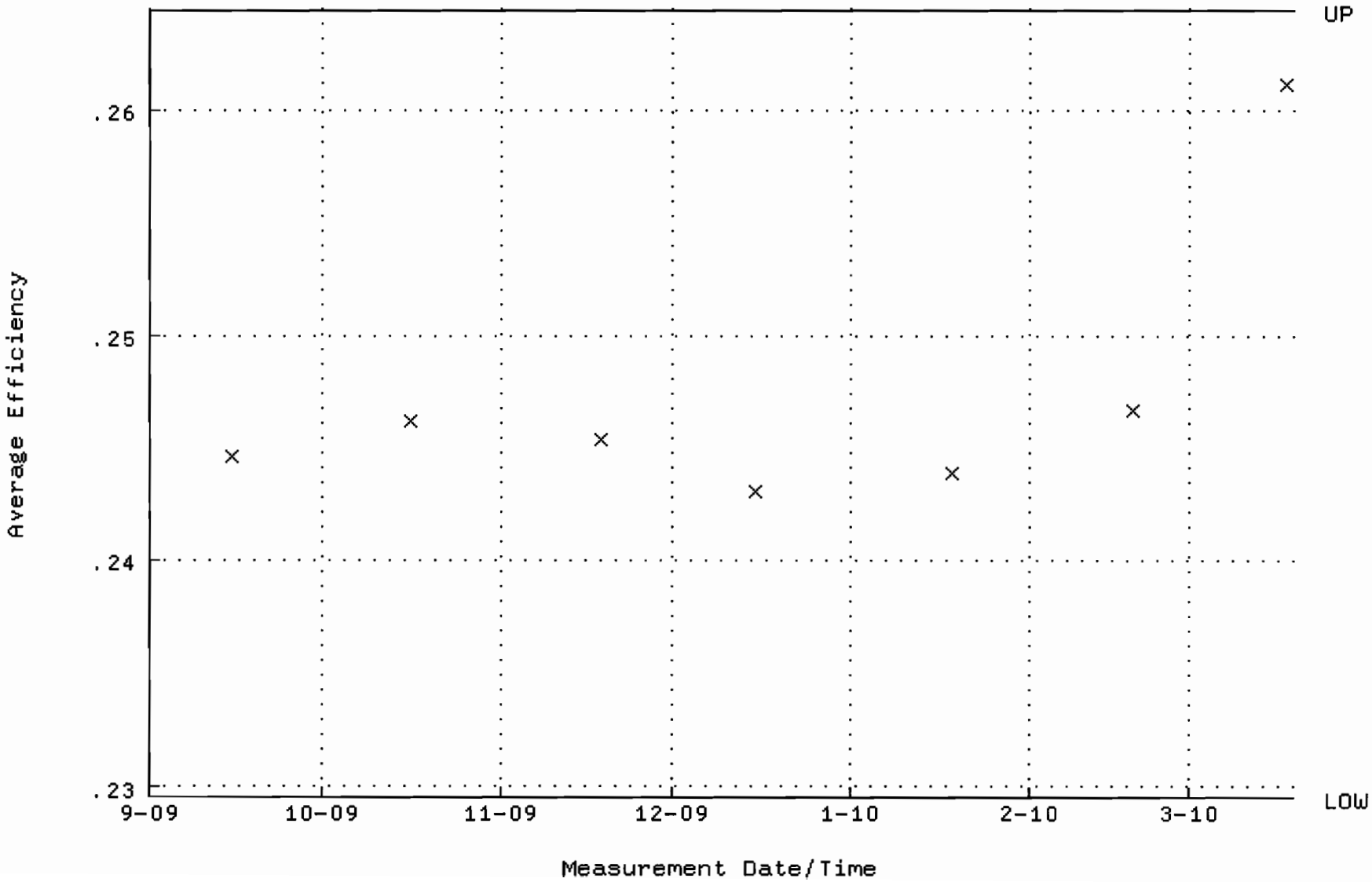

QA filename : DKA100:[ENV_ALPHA.QA.W]W151.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:30 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 84.8674 through 94.1592

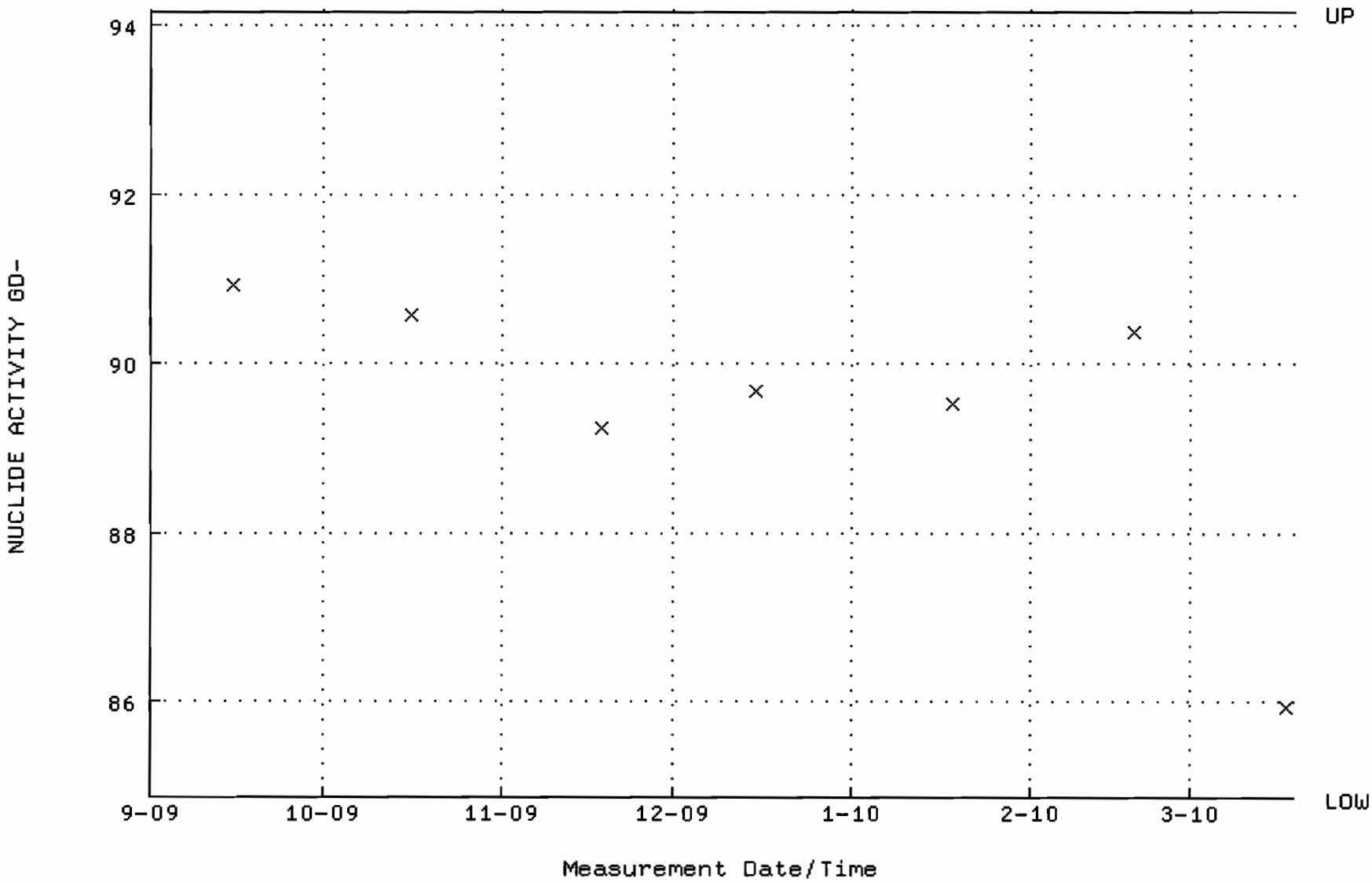

QA filename : DKA100:[ENV_ALPHA.QA.B]B151.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:51 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

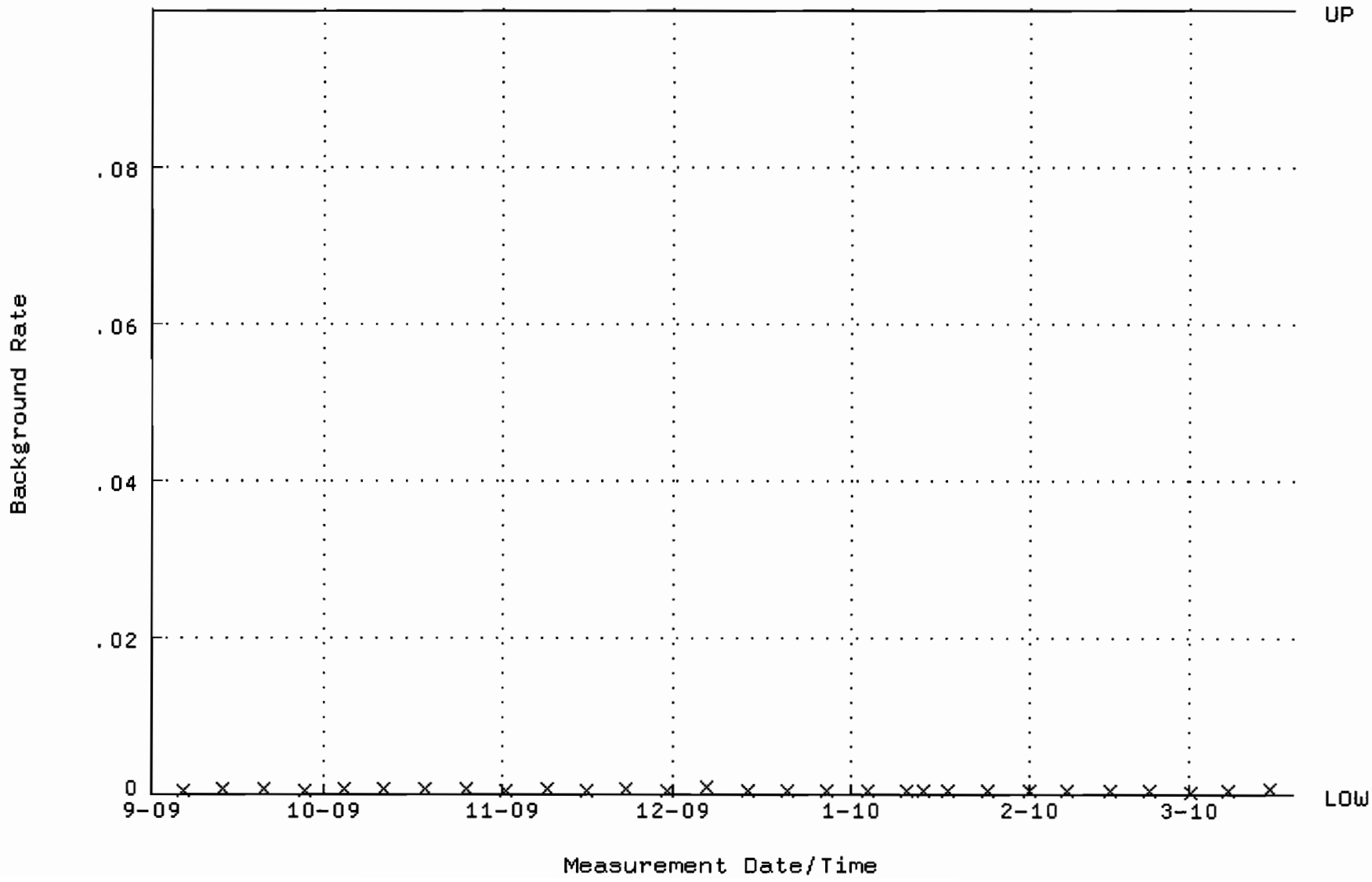

QA filename : DKA100:[ENV_ALPHA.QA.W]W183.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:39 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.248129 through 0.277879

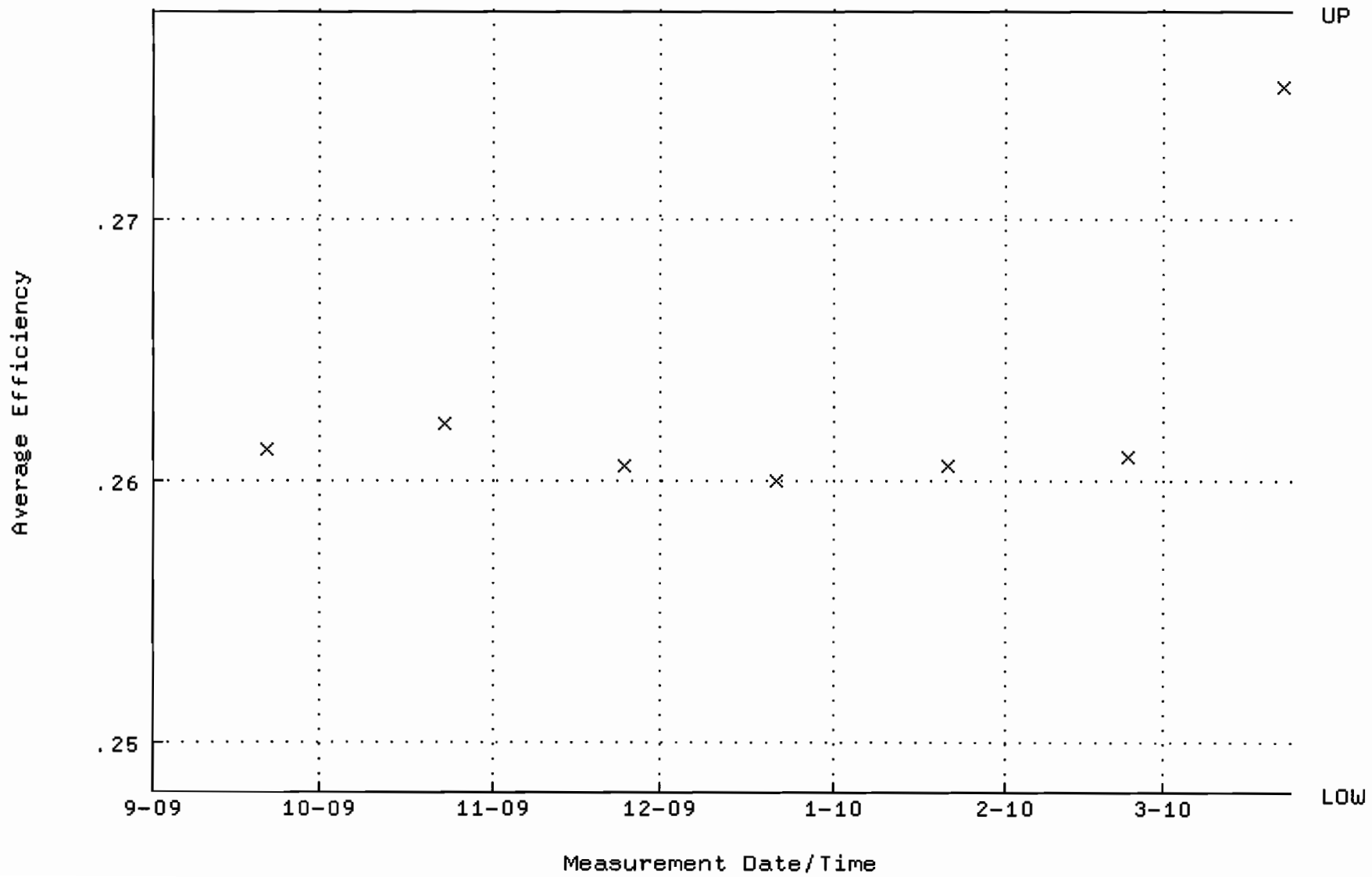

QA filename : DKA100:[ENV_ALPHA.QA.W]W183.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:39 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 87.2429 through 95.2093

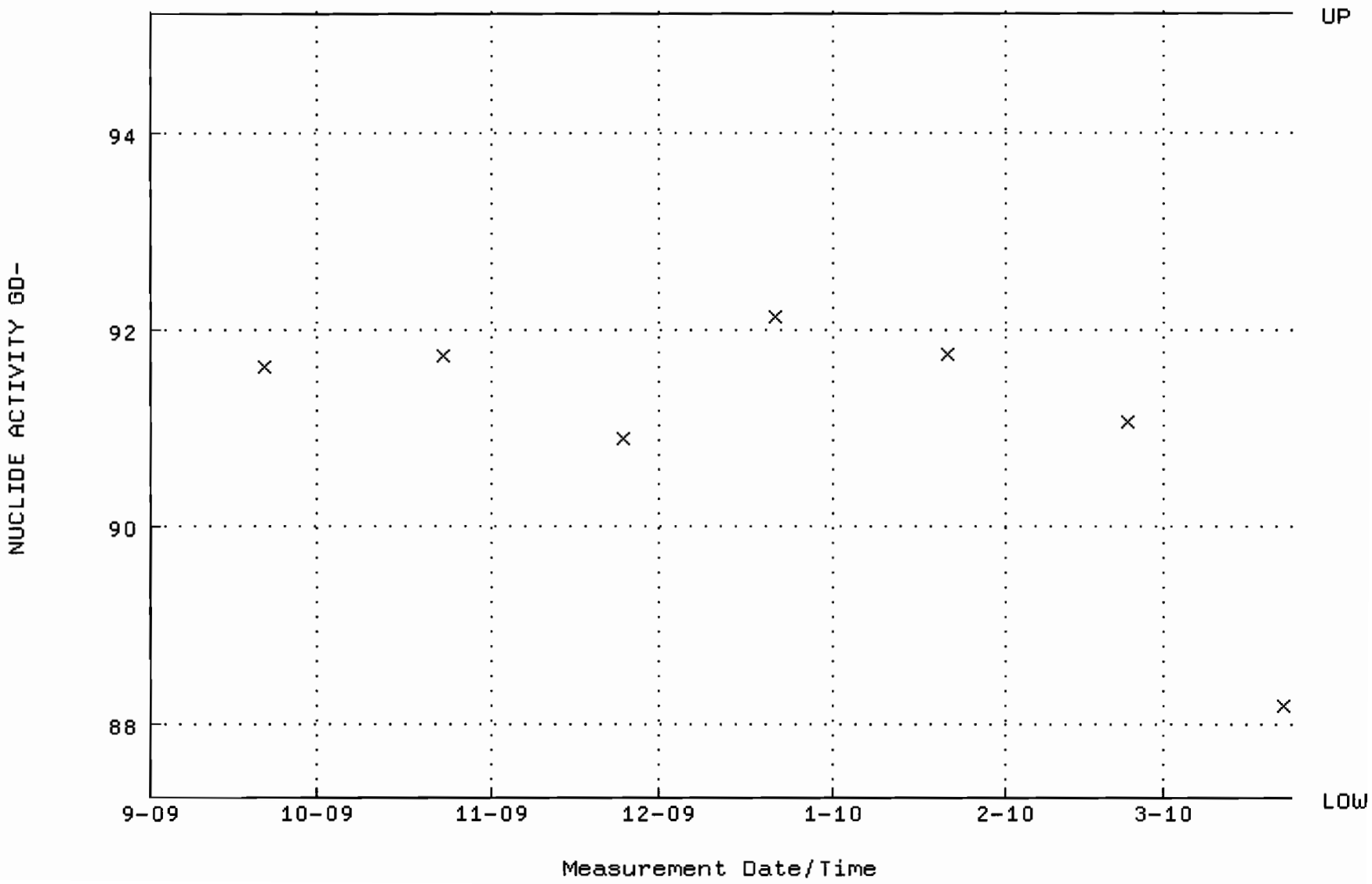

QA filename : DKA100:[ENV_ALPHA.QA.B]B183.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:53 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

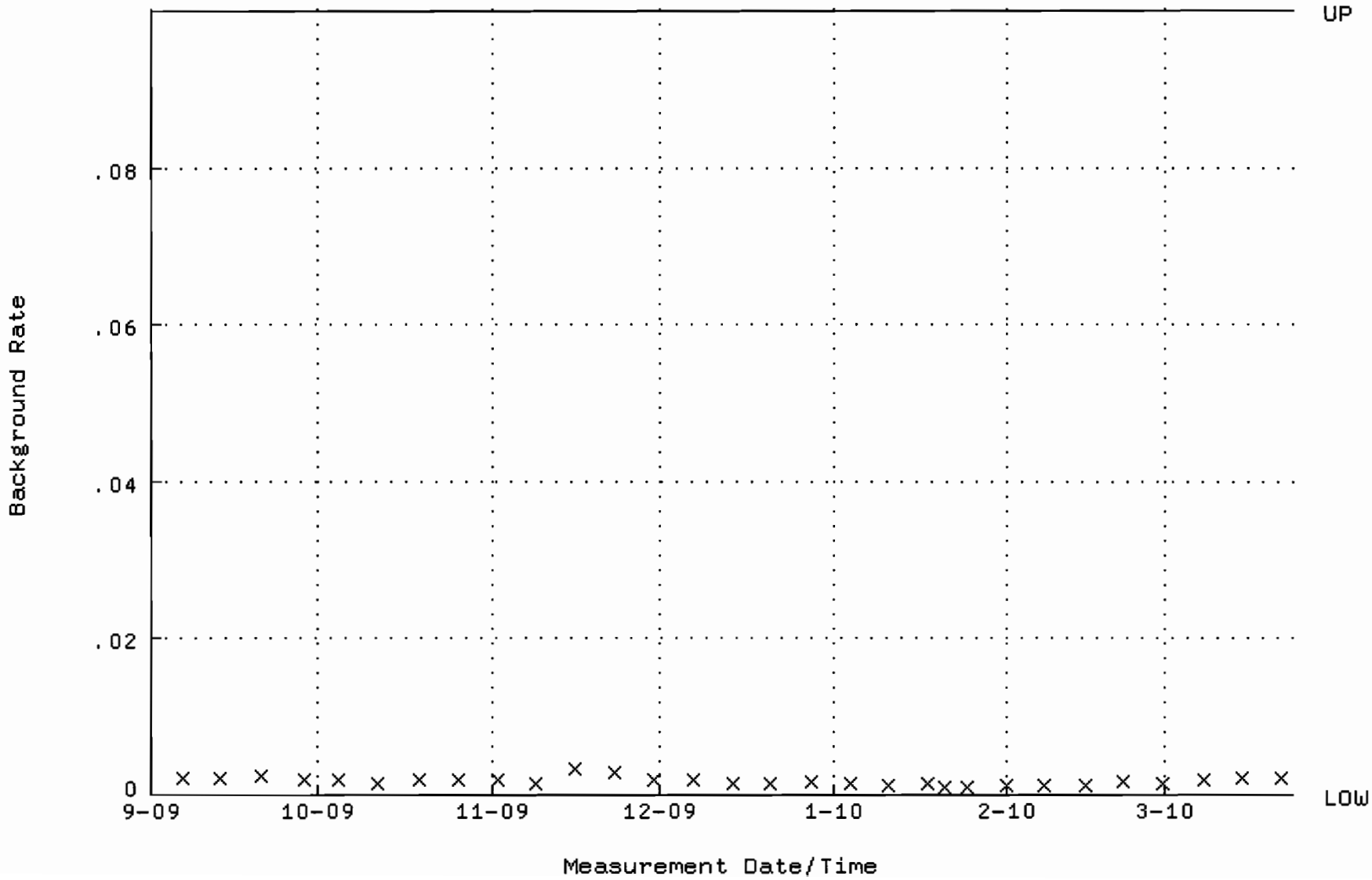

QA filename : DKA100:[ENV_ALPHA.QA.W]W184.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:45 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.251367 through 0.271367

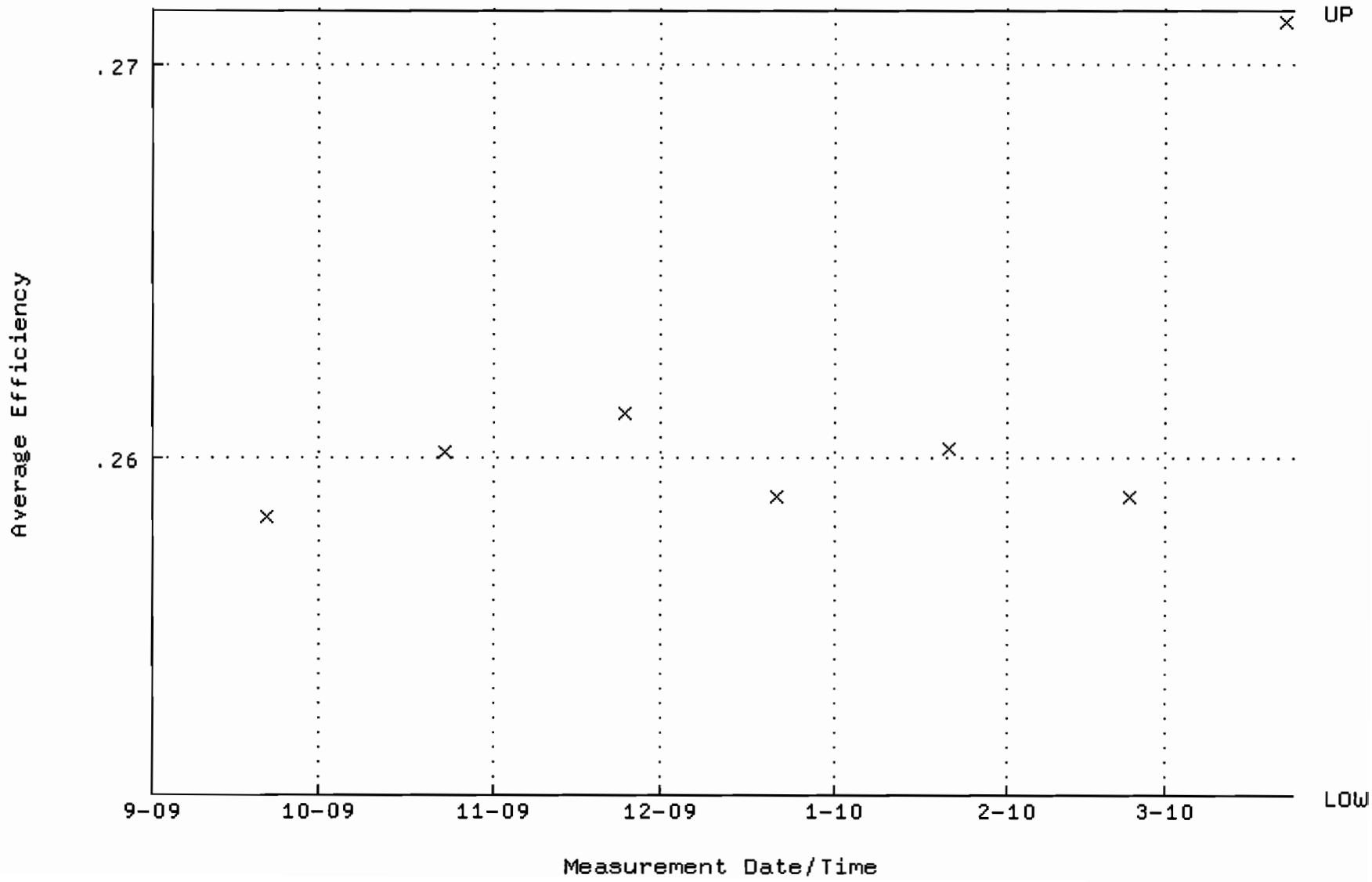

QA filename : DKA100:[ENV_ALPHA.QA.W]W184.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:45 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.4139 through 94.4049

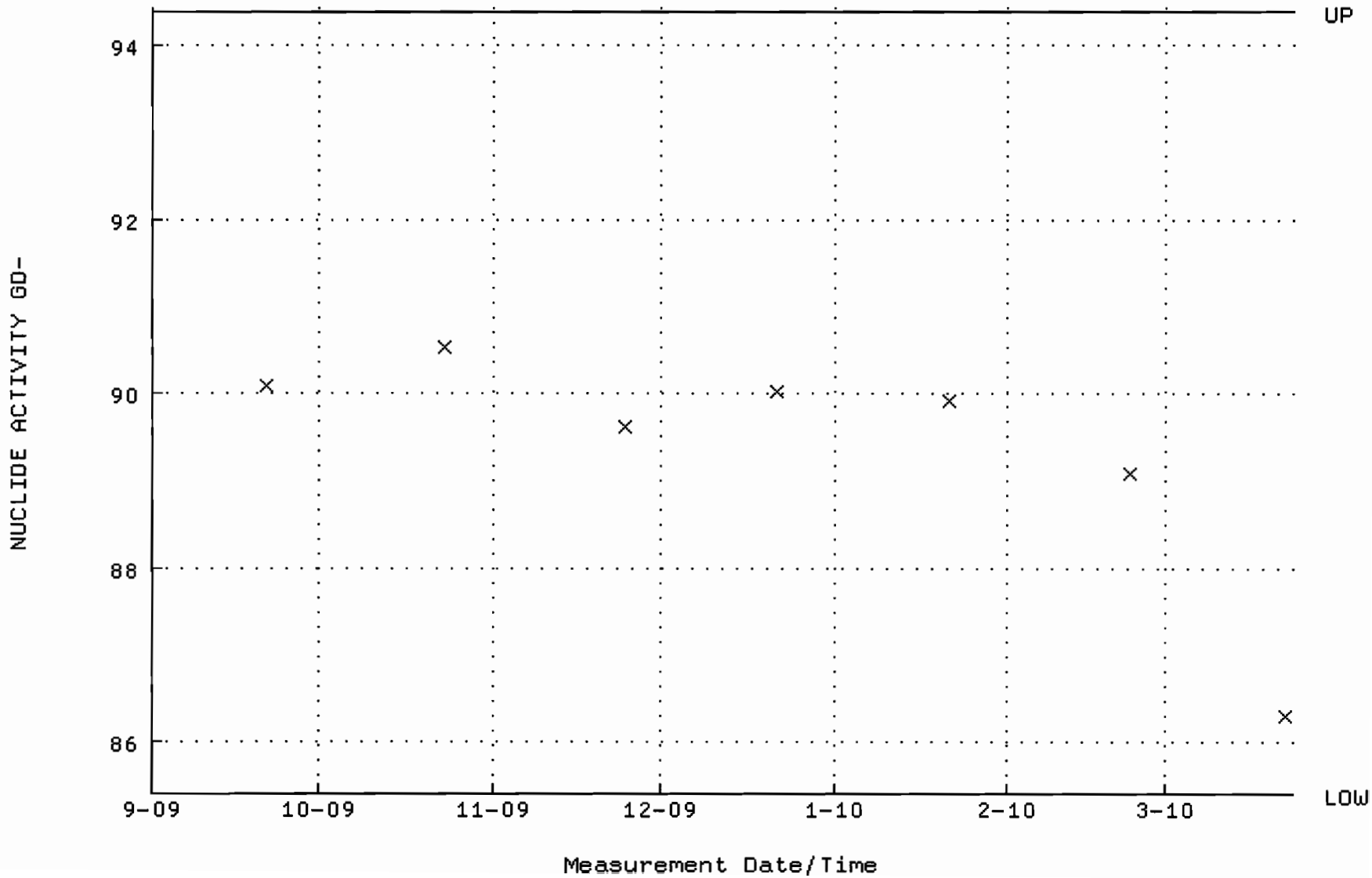

QA filename : DKA100:[ENV_ALPHA.QA.B]B184.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:57 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

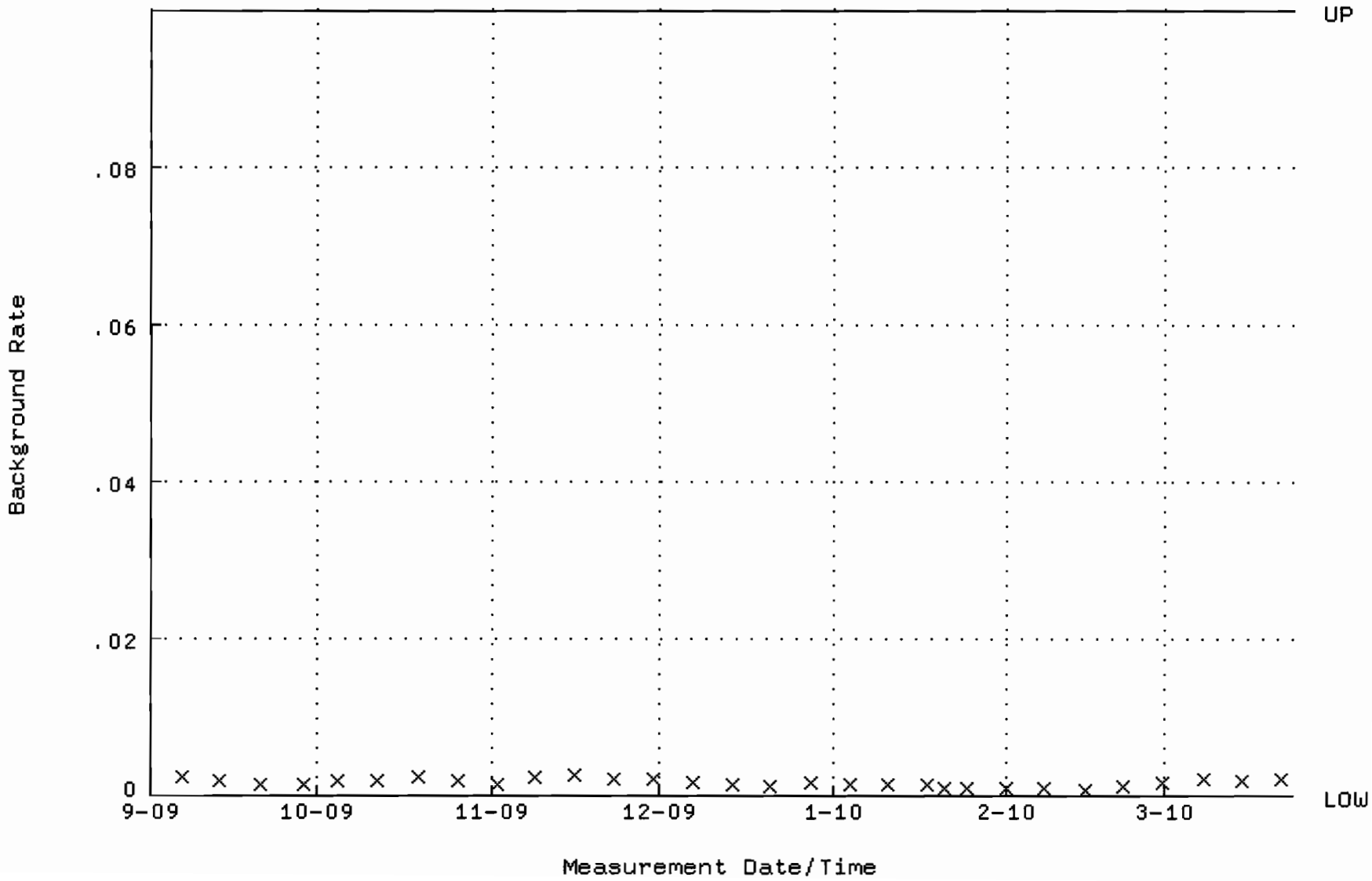

QA filename : DKA100:[ENV_ALPHA.QA.W]W185.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:51 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.249628 through 0.269628

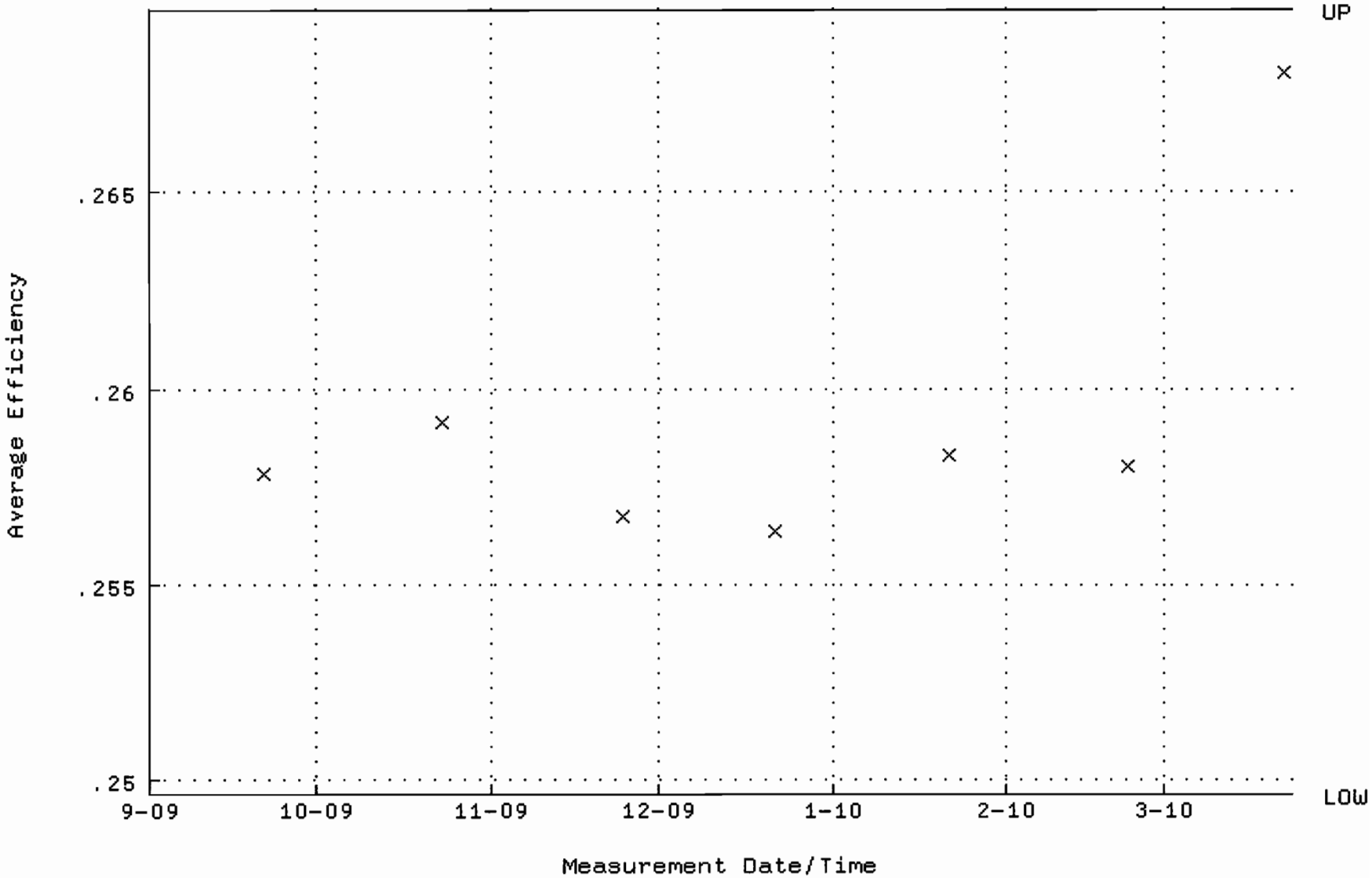

QA filename : DKA100:[ENV_ALPHA.QA.W]W185.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:51 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 84.3502 through 93.2292

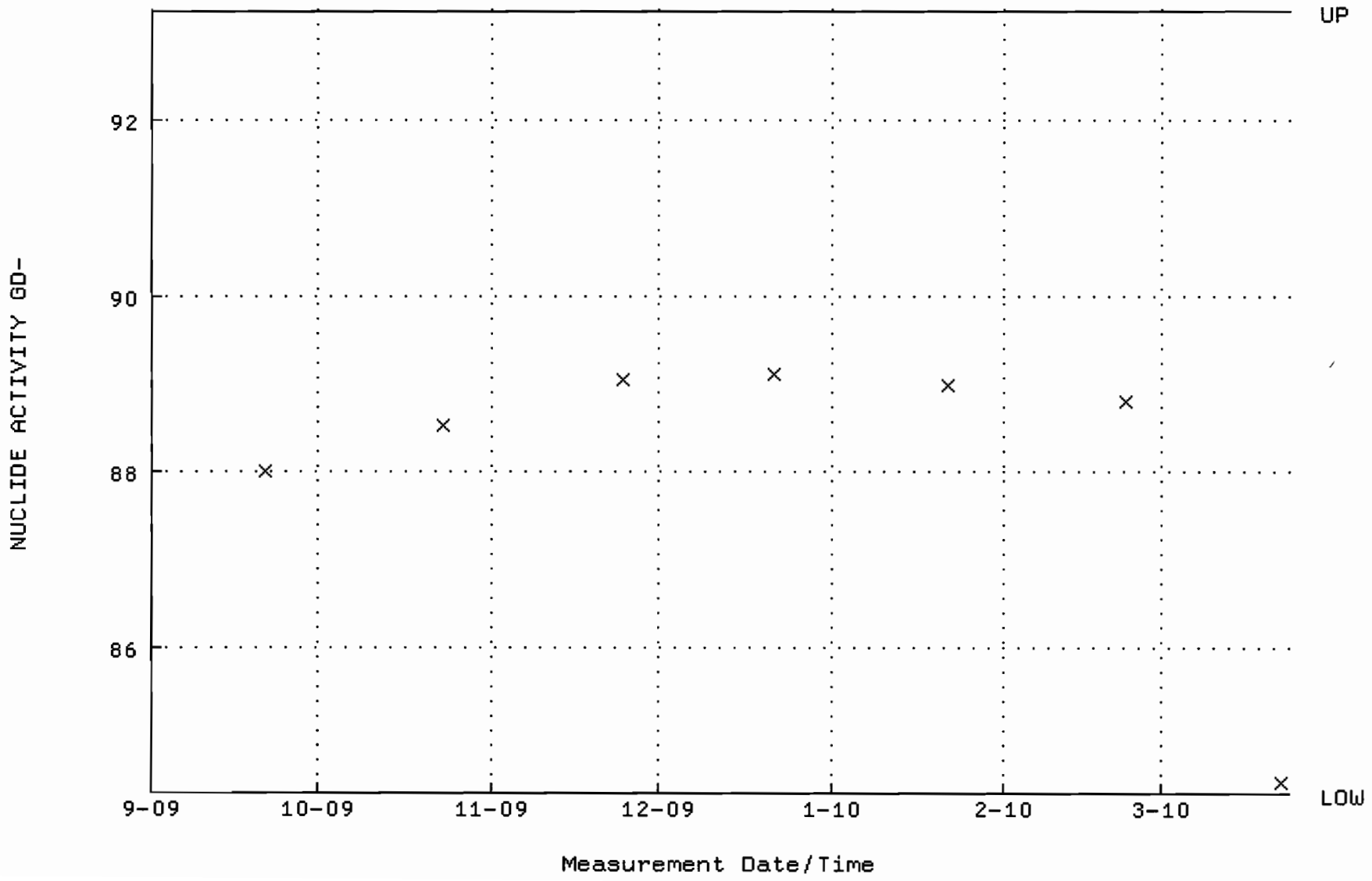

QA filename : DKA100:[ENV_ALPHA.QA.B]B185.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:02 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

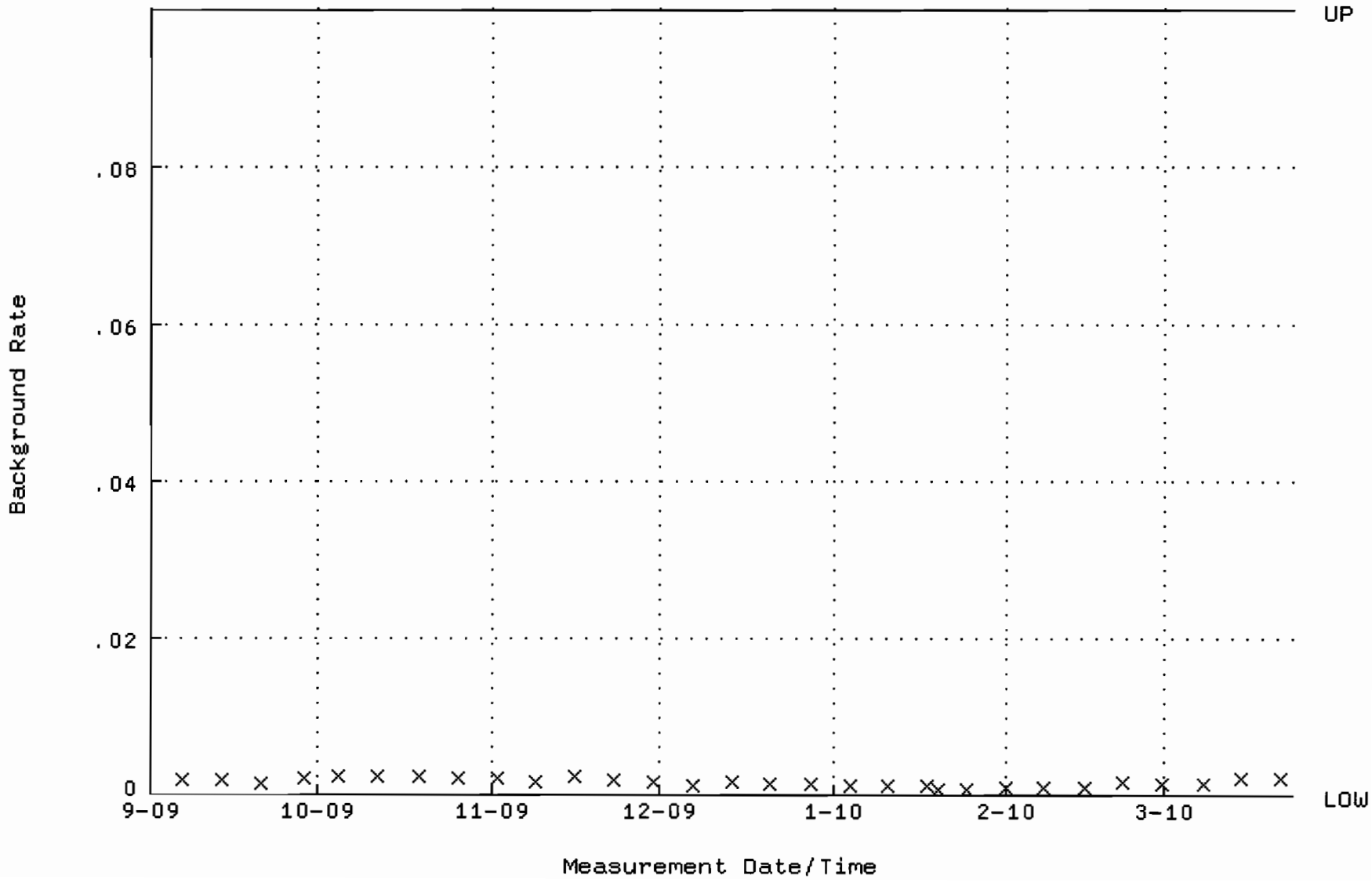

QA filename : DKA100:[ENV_ALPHA.QA.W]W186.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:57 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.242649 through 0.262649

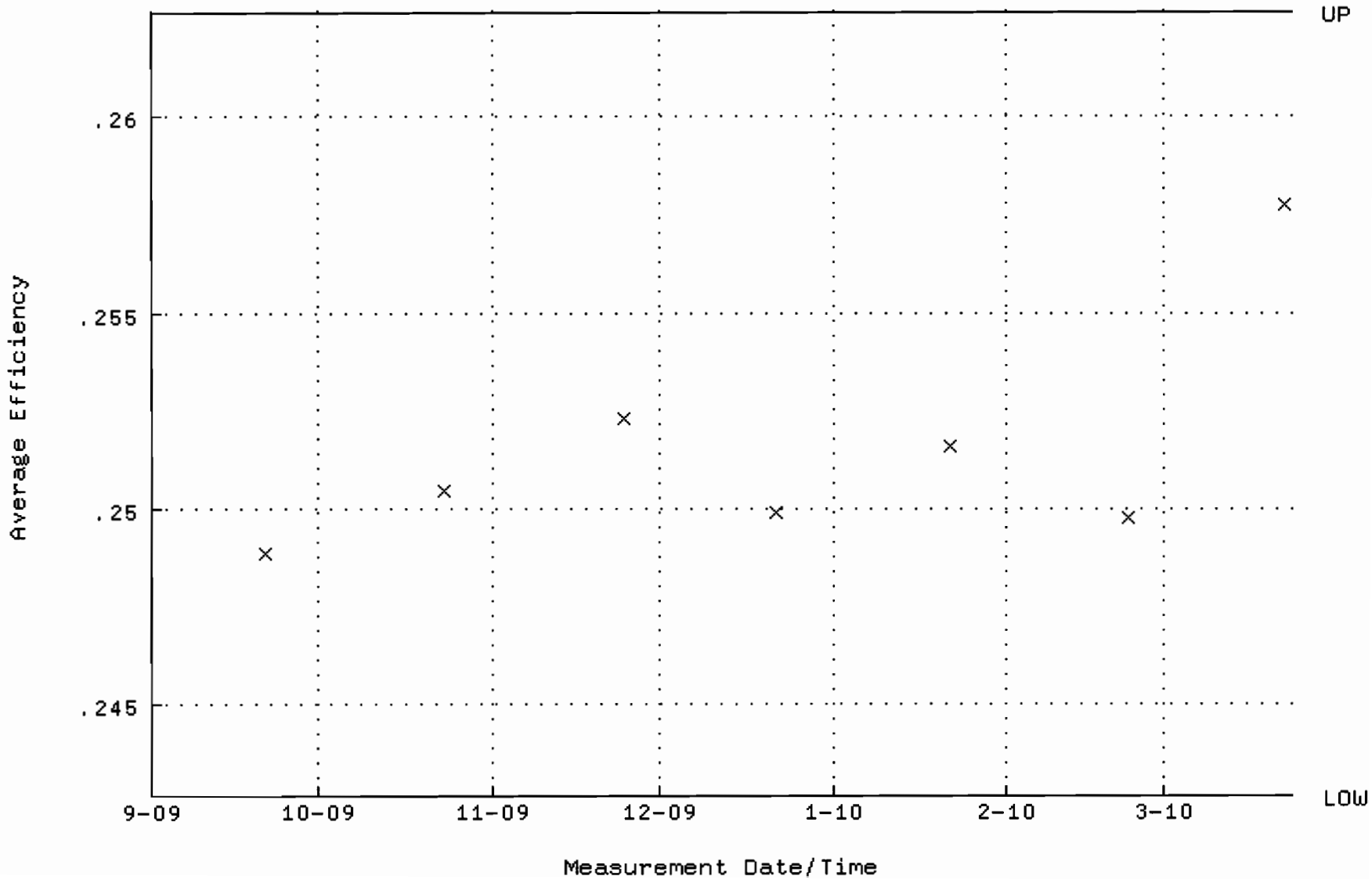

QA filename : DKA100:[ENV_ALPHA.QA.W]W186.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:57 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 82.6495 through 91.3495

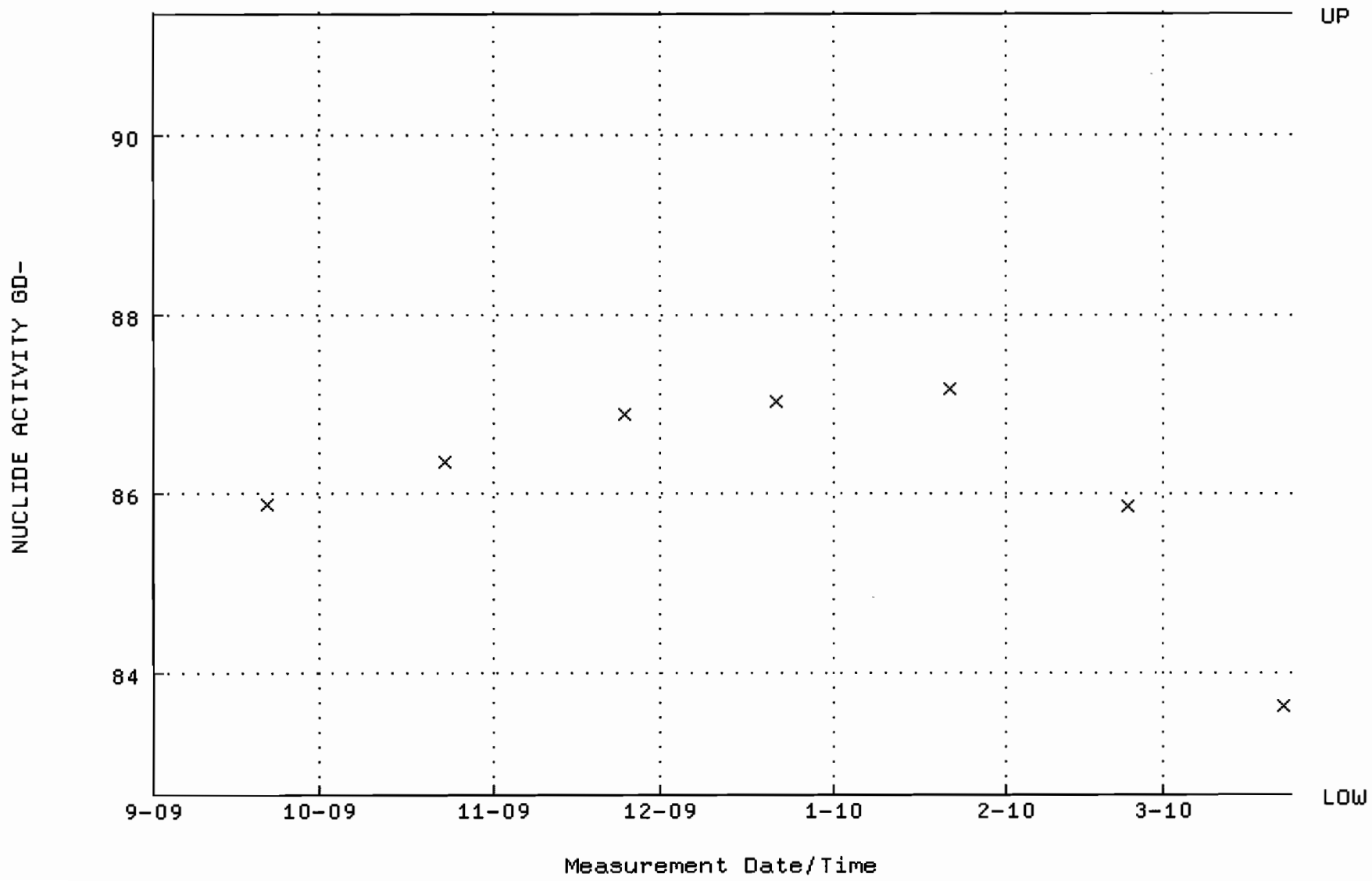

QA filename : DKA100:[ENV_ALPHA.QA.B]B186.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:06 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

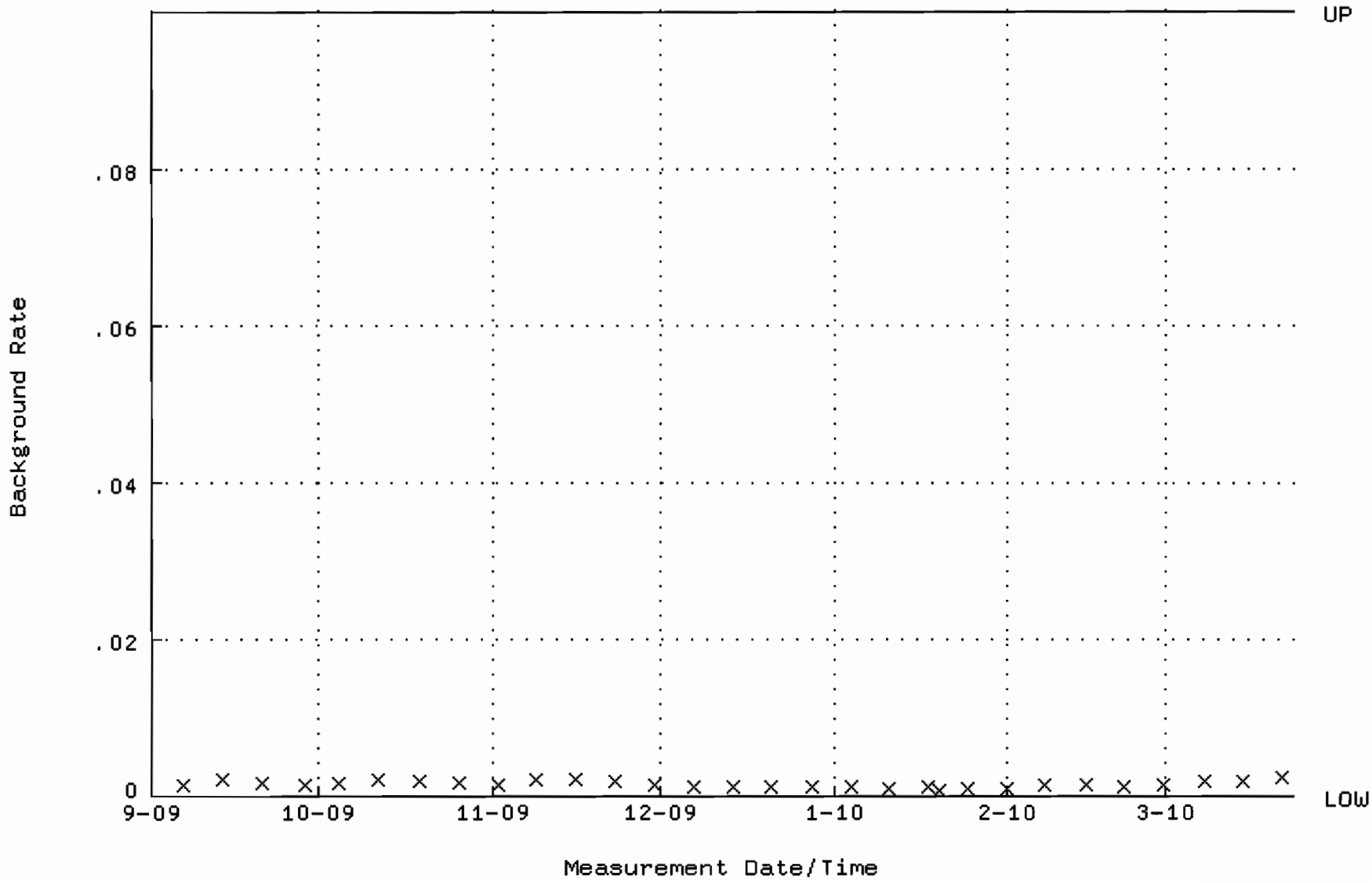

QA filename : DKA100:[ENV_ALPHA.QA.W]W188.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:08 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.244952 through 0.275096

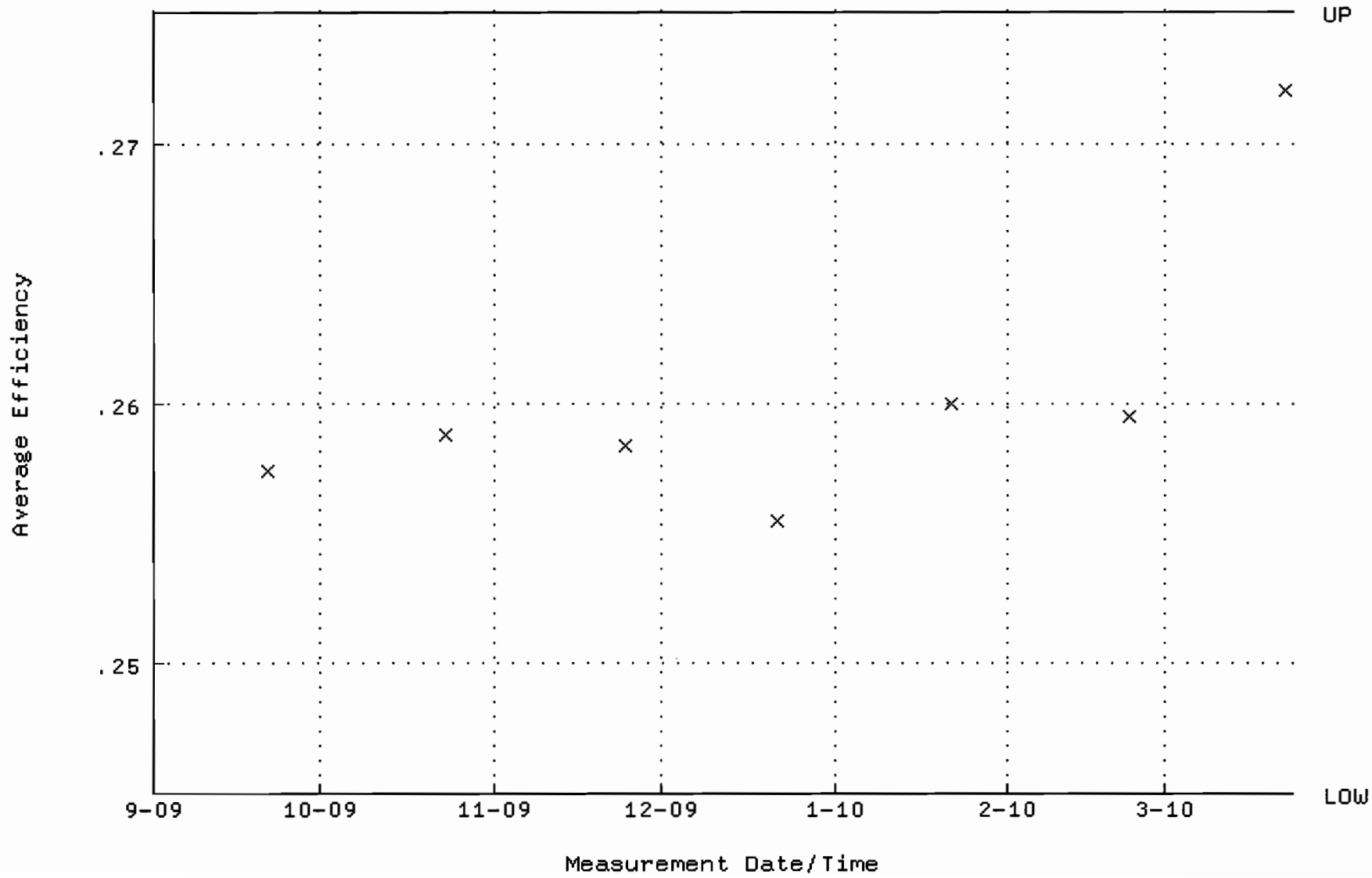

QA filename : DKA100:[ENV_ALPHA.QA.W]W188.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:08 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 80.6166 through 93.4442

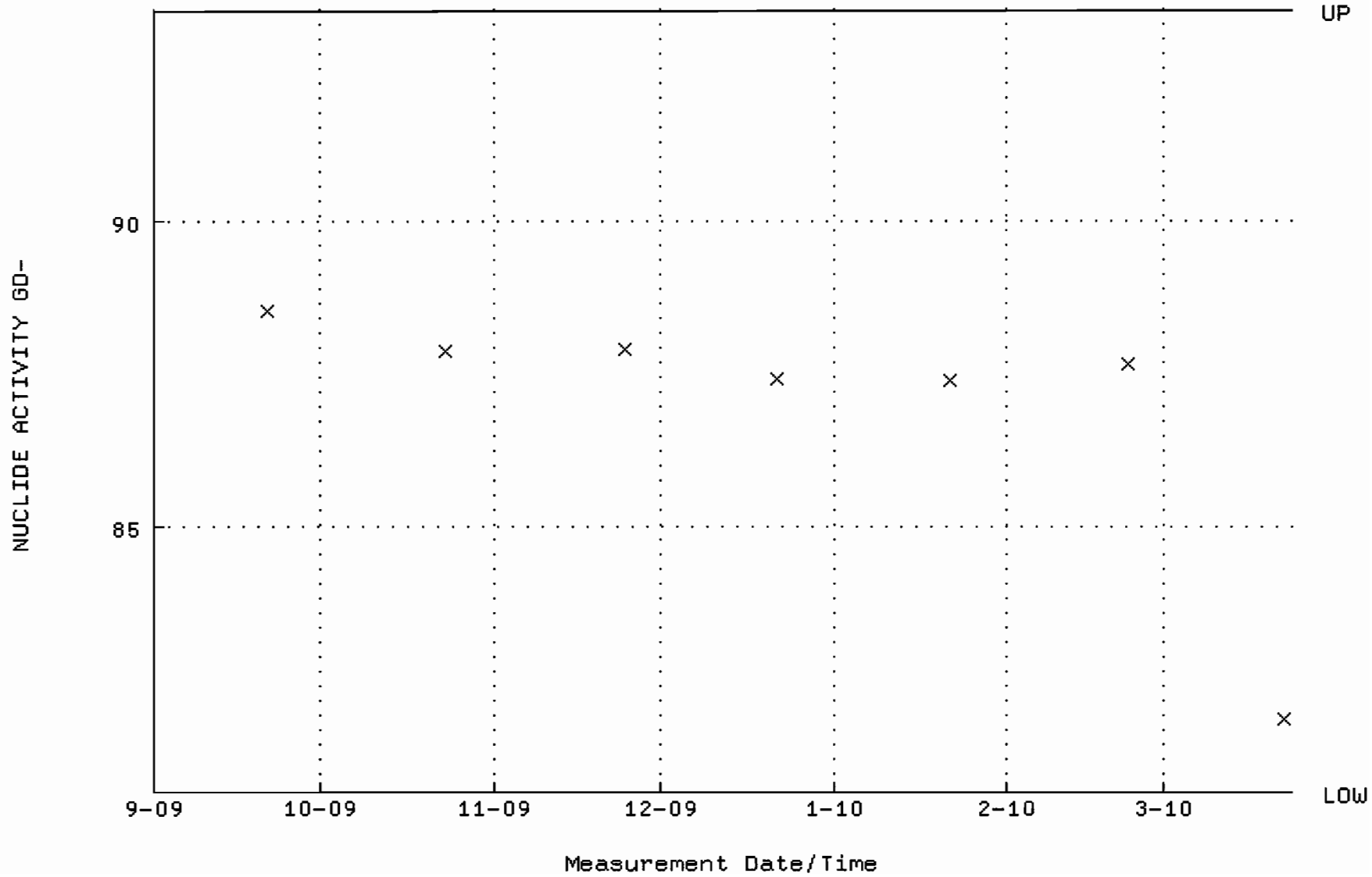

QA filename : DKA100:[ENV_ALPHA.QA.B]B188.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:15 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

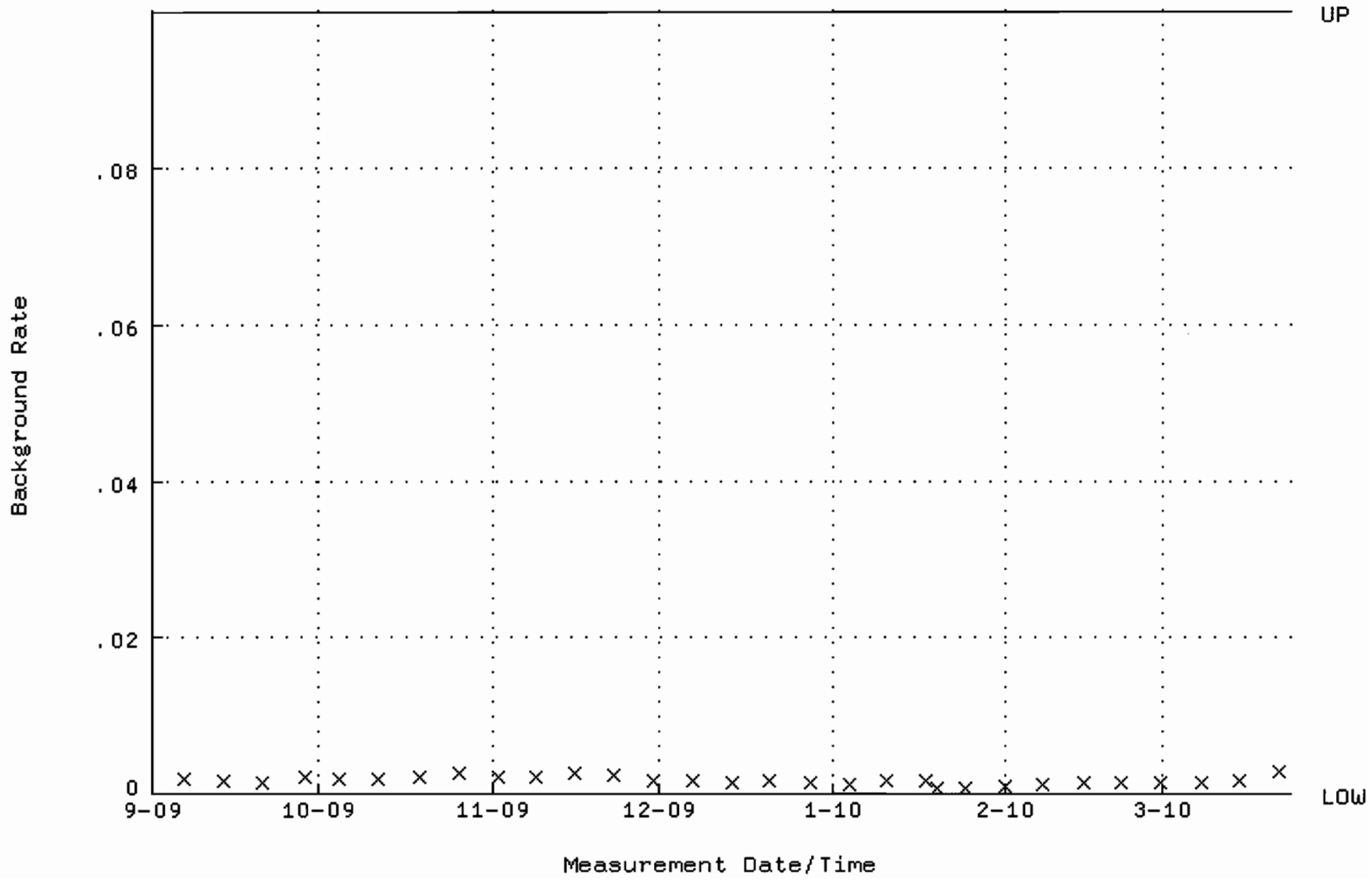

QA filename : DKA100:[ENV_ALPHA.QA.W]W190.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:22 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.253504 through 0.273504

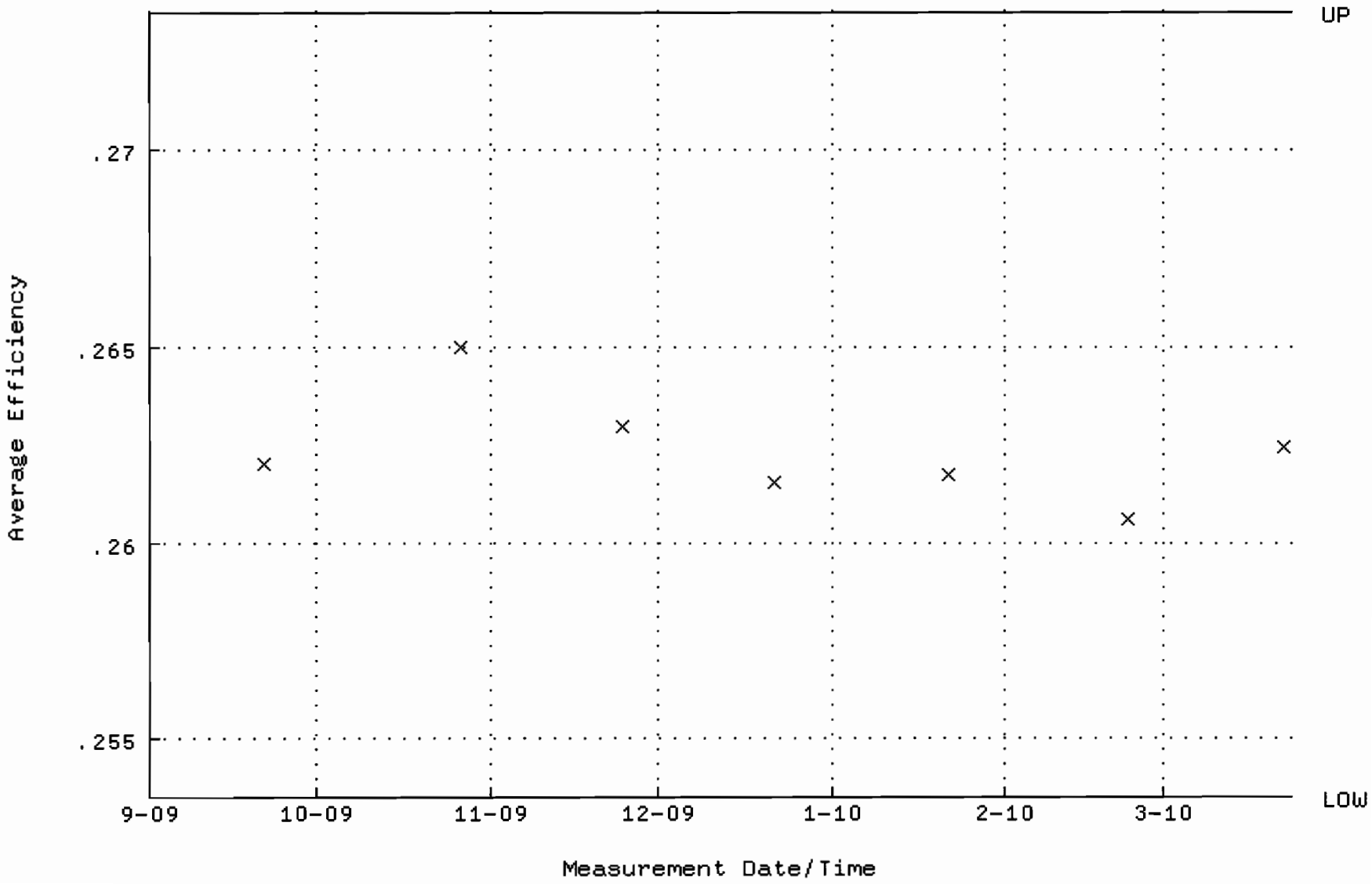

QA filename : DKA100:[ENV_ALPHA.QA.W]W190.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:22 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 81.1176 through 89.6562

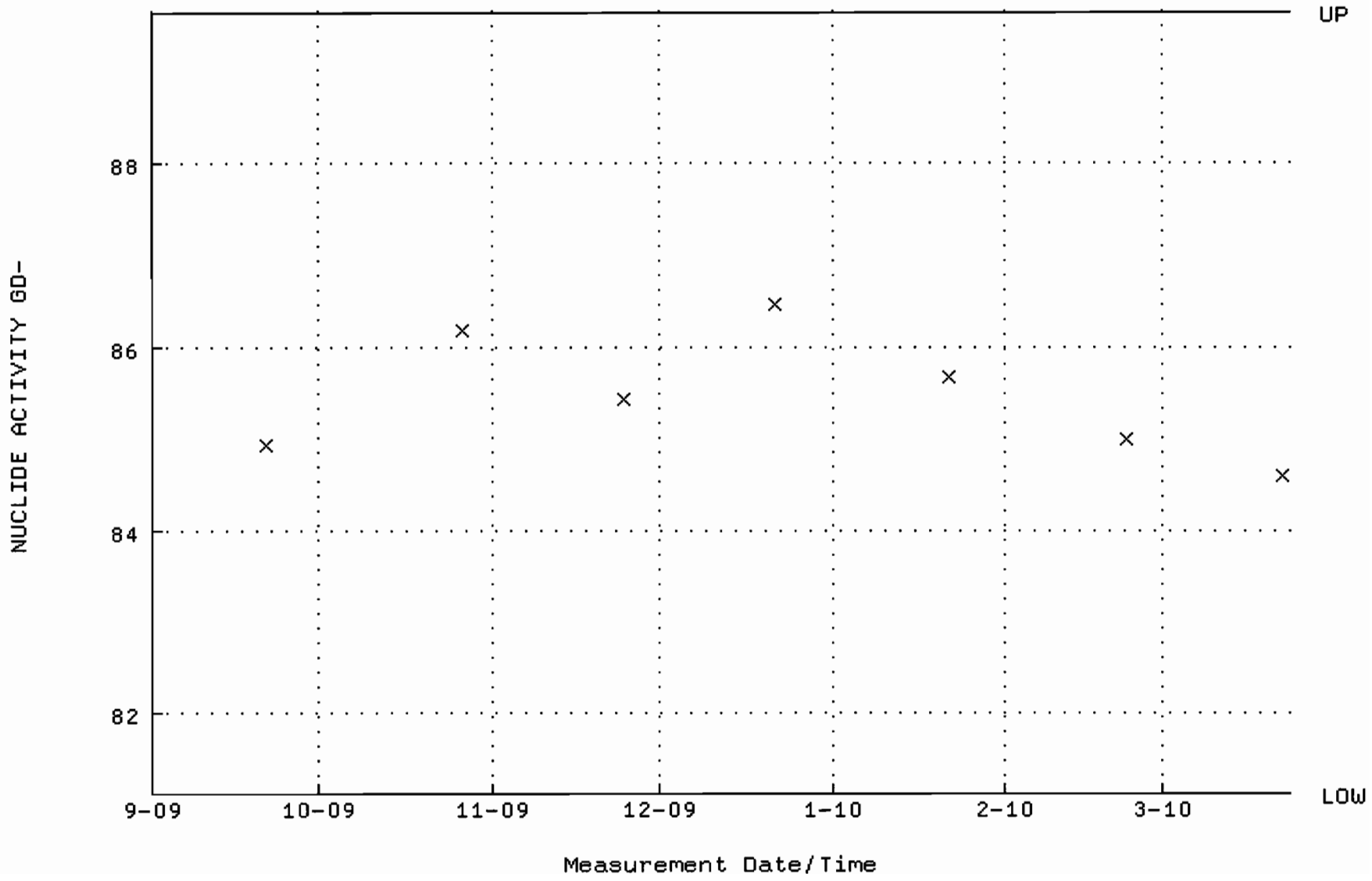

QA filename : DKA100:[ENV_ALPHA.QA.B]B190.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:24 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

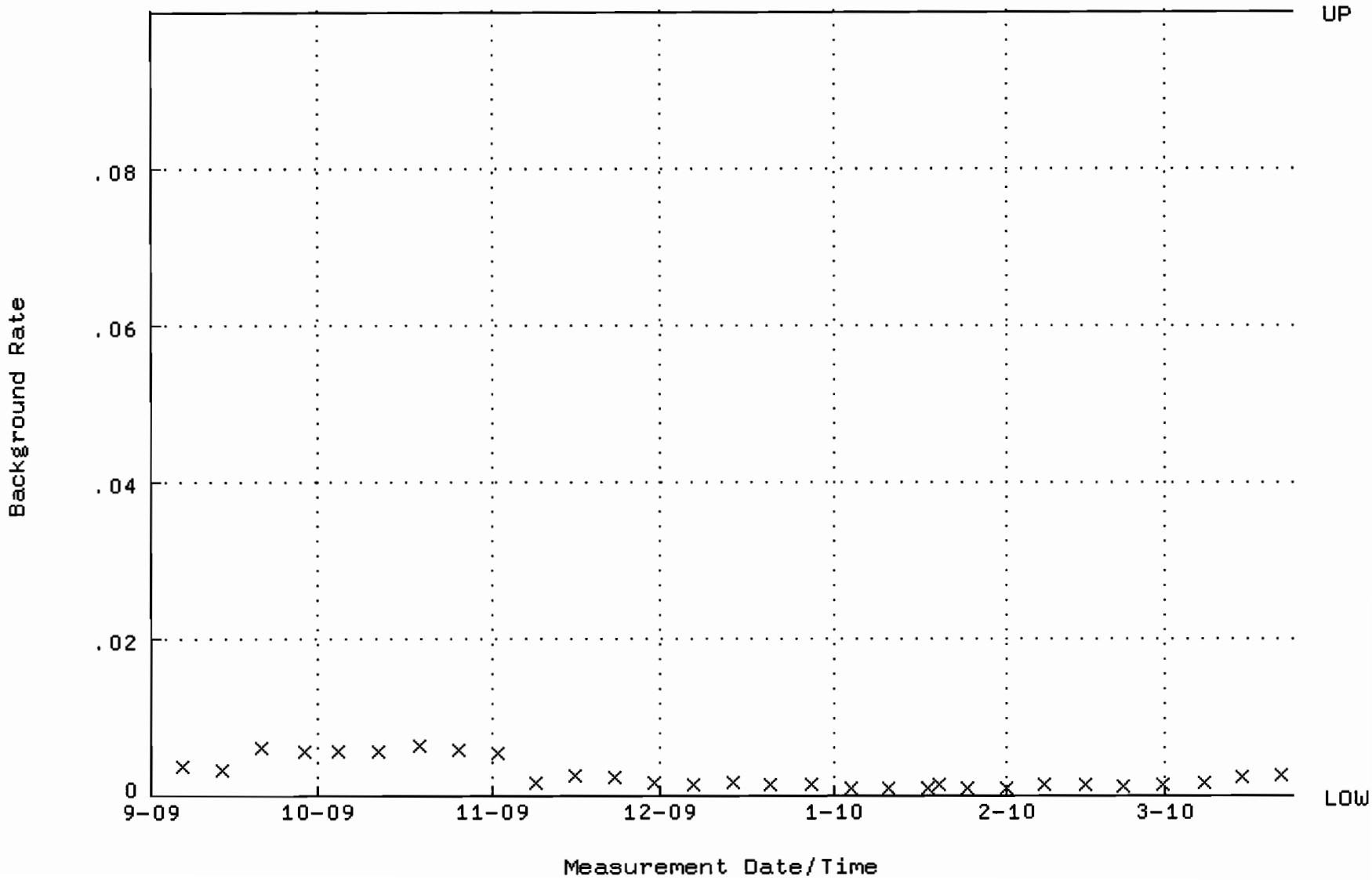

QA filename : DKA100:[ENV_ALPHA.QA.W]W191.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:28 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.252993 through 0.272993

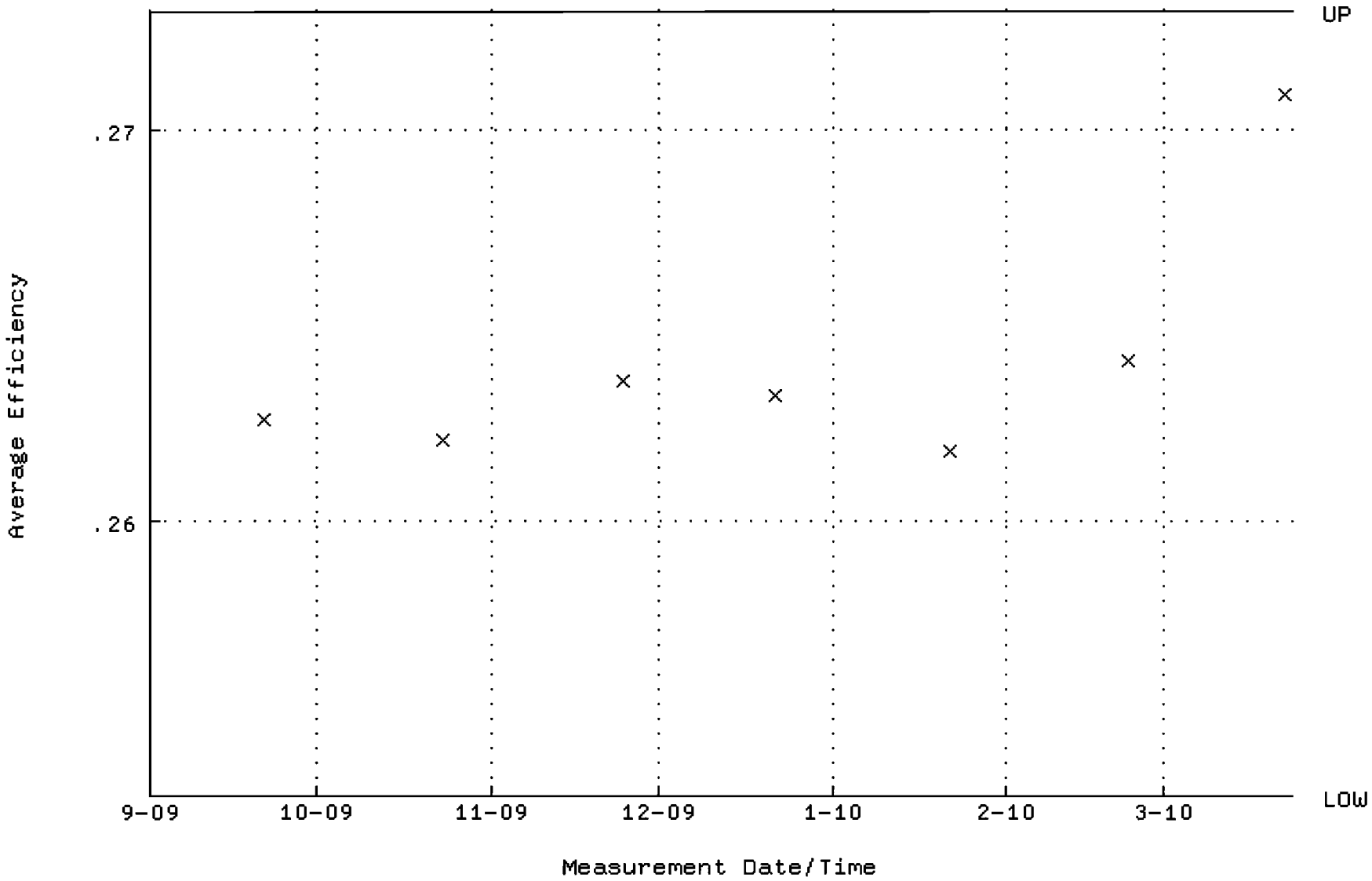

QA filename : DKA100:[ENV_ALPHA.QA.W]W191.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:28 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.1712 through 94.1366

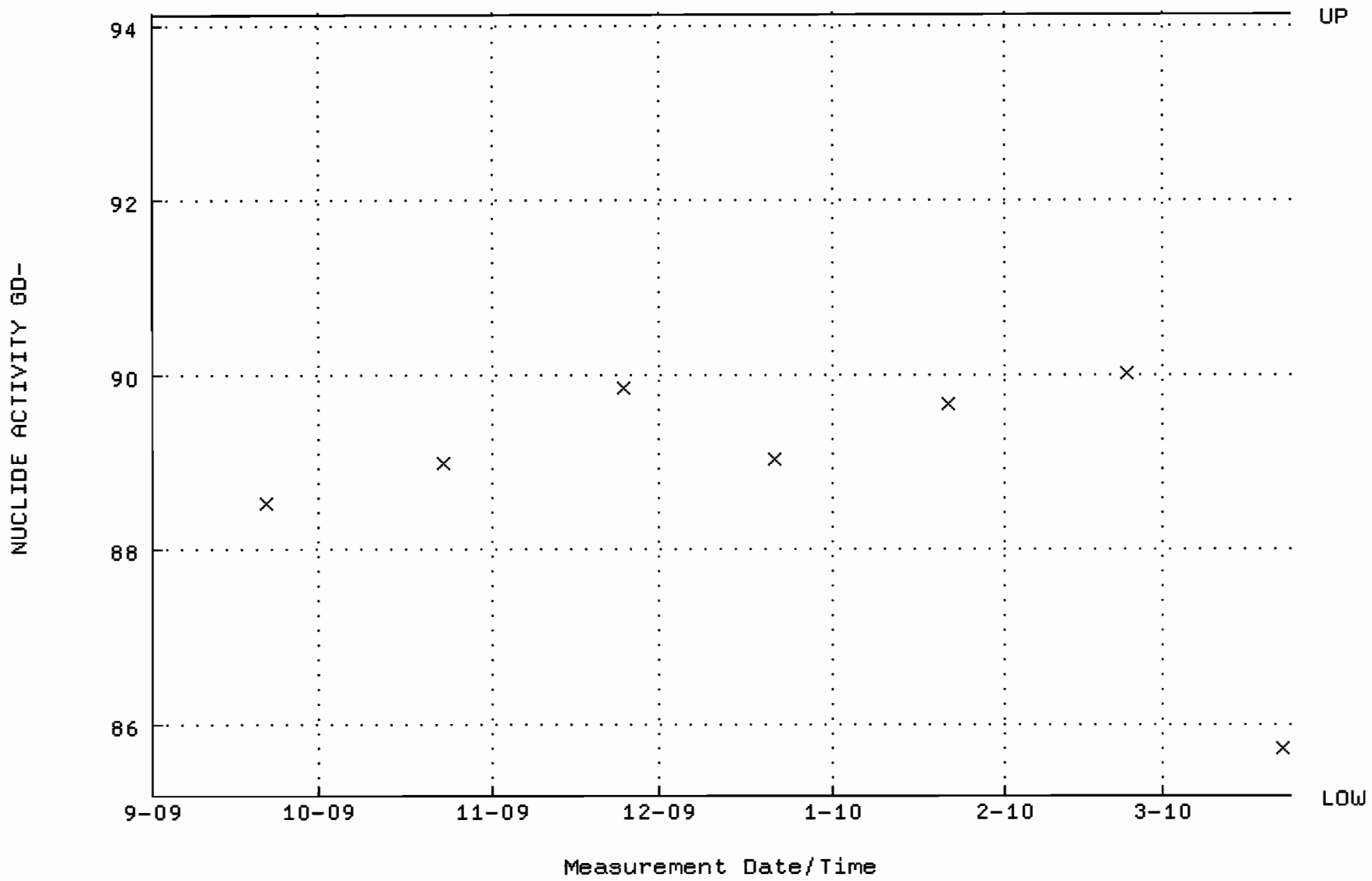

QA filename : DKA100:[ENV_ALPHA.QA.B]B191.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:28 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

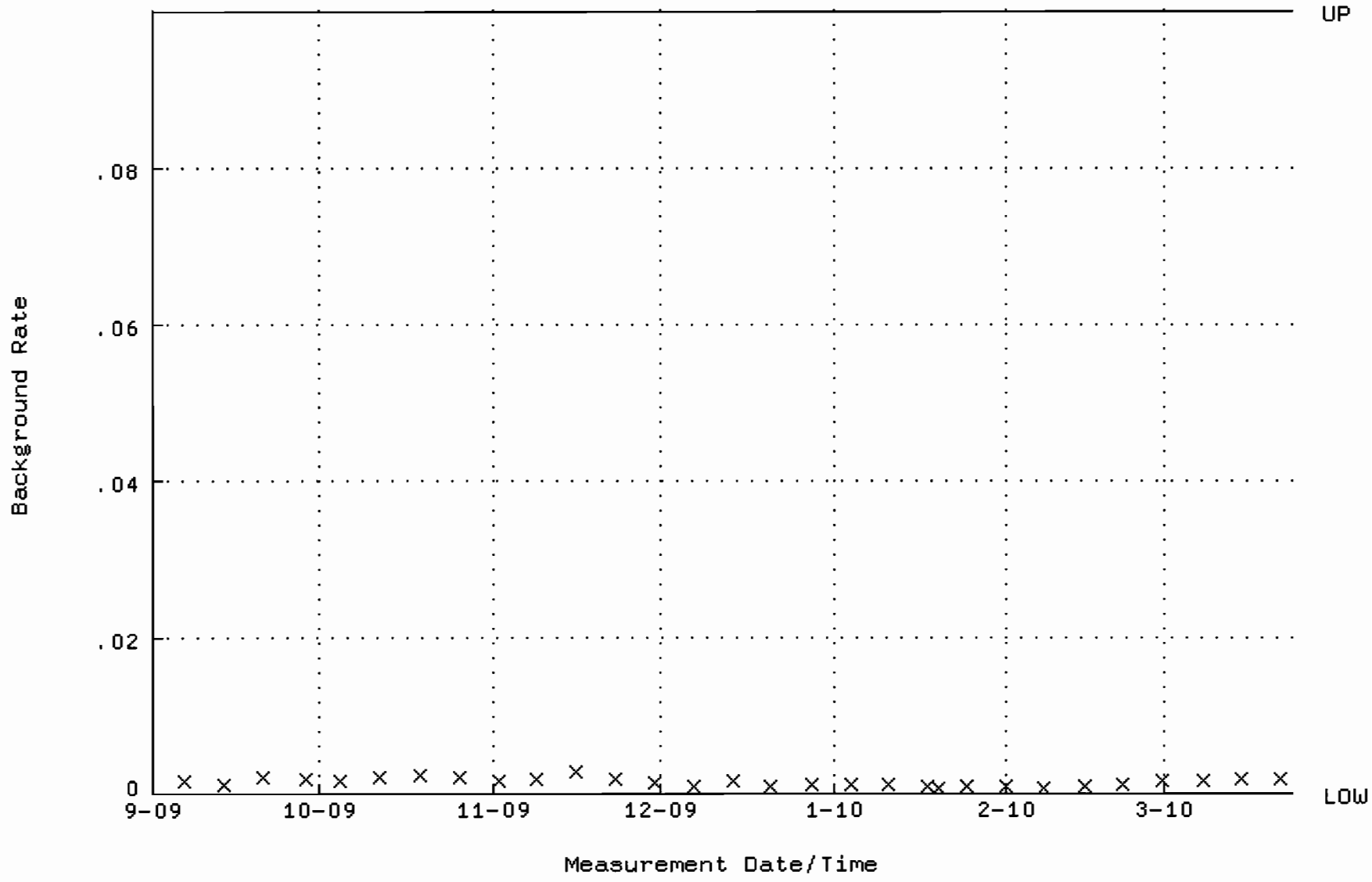

QA filename : DKA100:[ENV_ALPHA.QA.W]W192.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:34 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.243319 through 0.271265

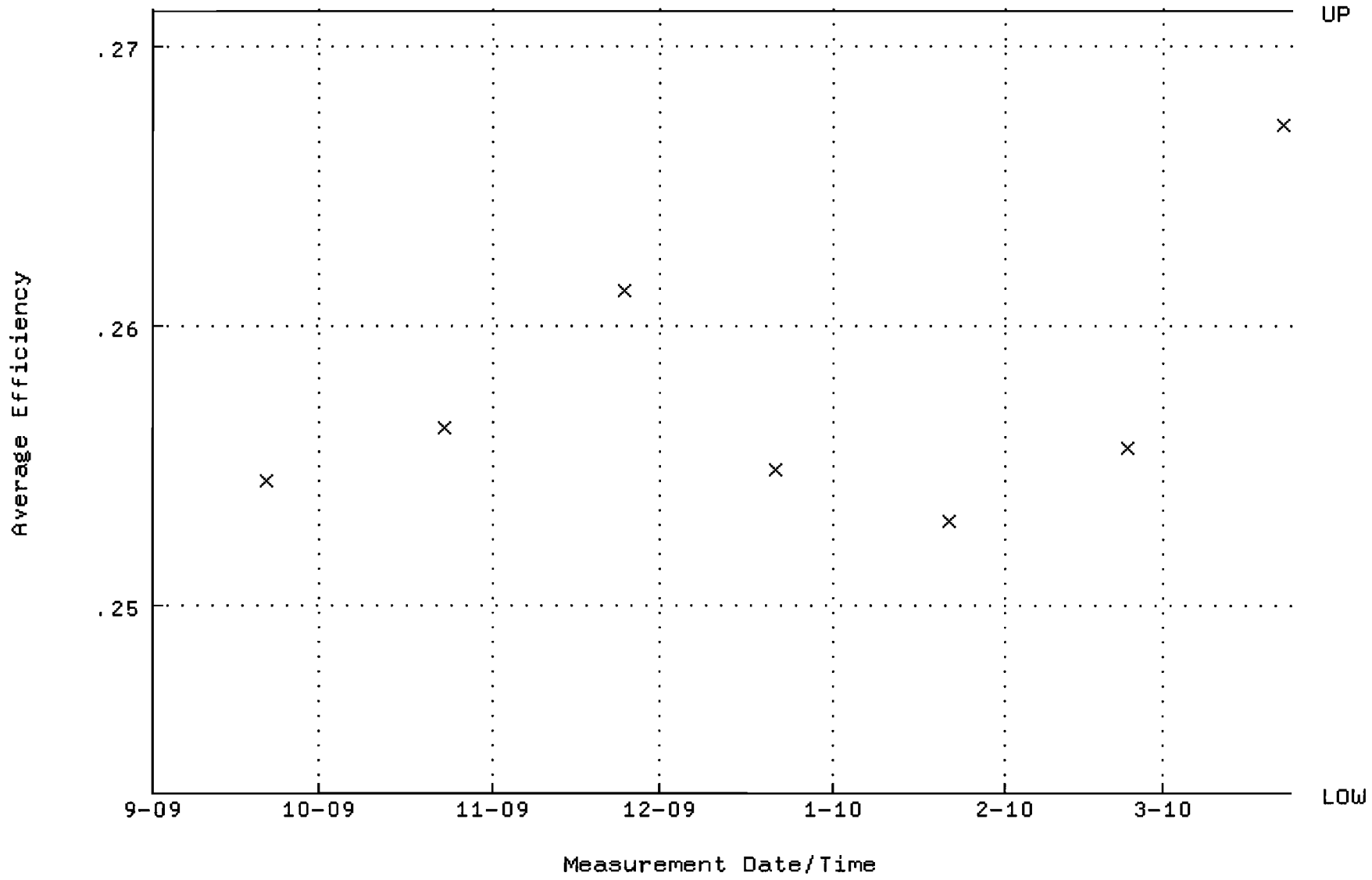

QA filename : DKA100:[ENV_ALPHA.QA.W]W192.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:34 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 82.9587 through 94.0515

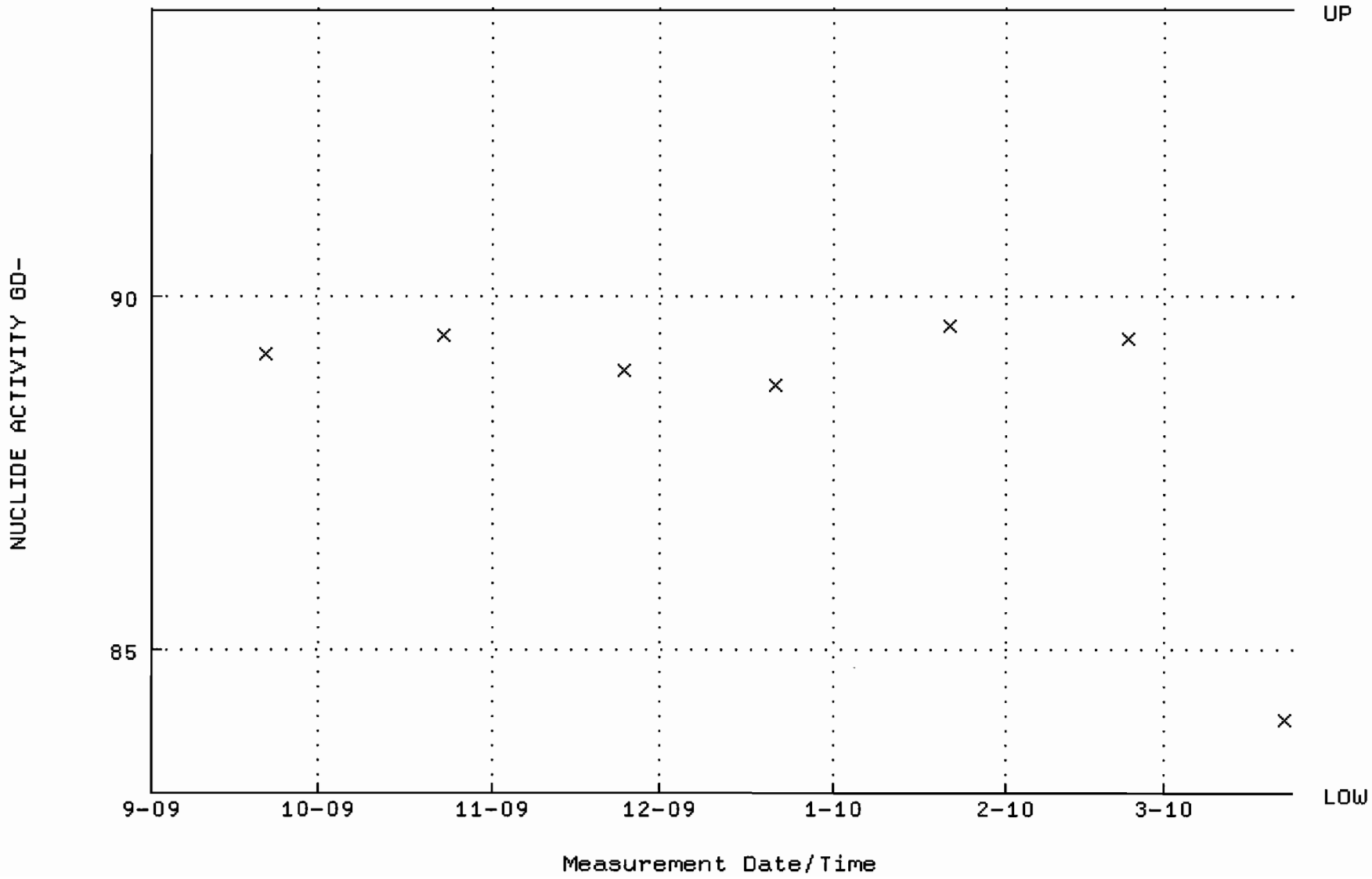

QA filename : DKA100:[ENV_ALPHA.QA.B]B192.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:32 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

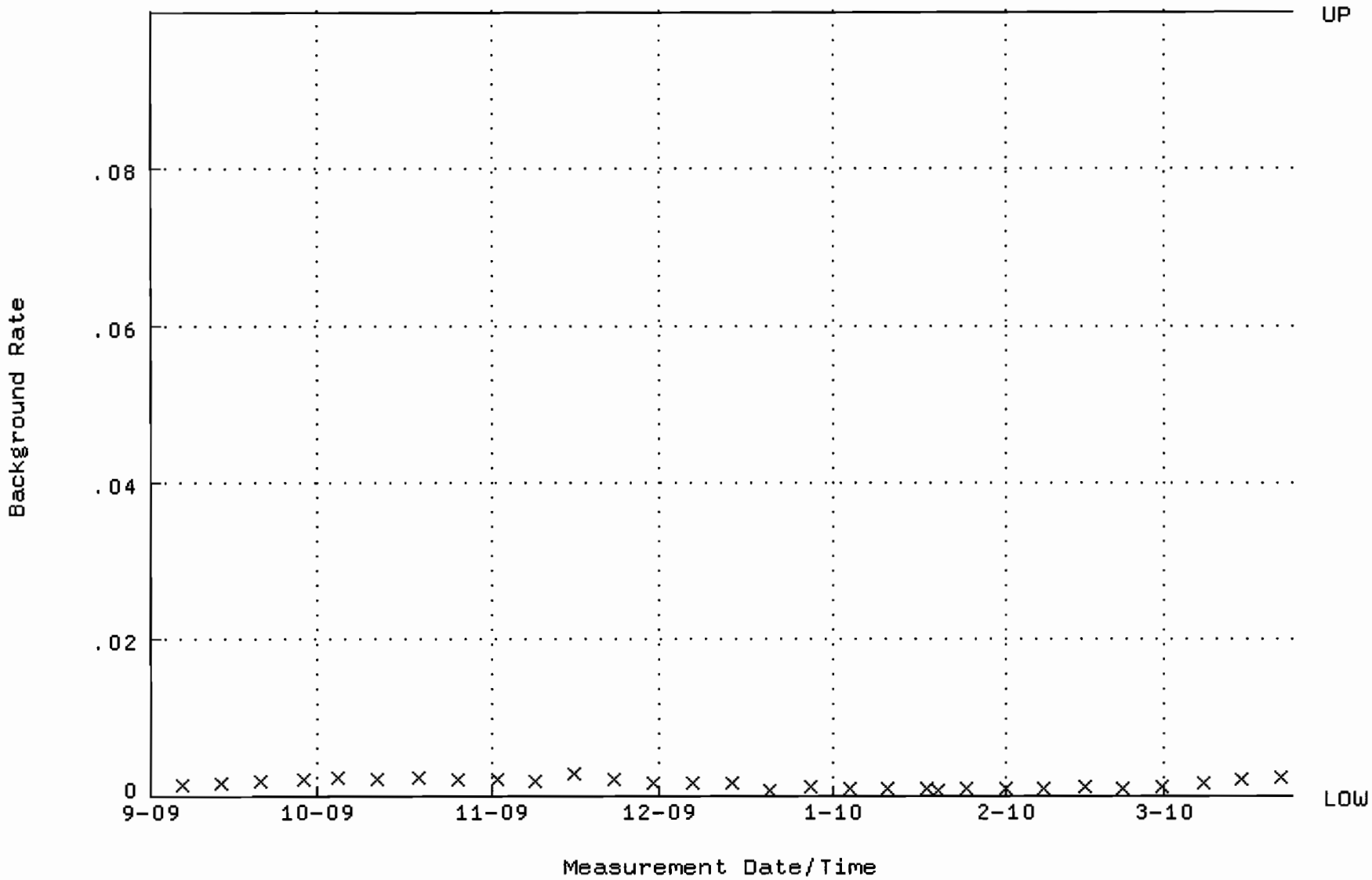

QA filename : DKA100:[ENV_ALPHA.QA.W]W193.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:40 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250400 through 0.272904

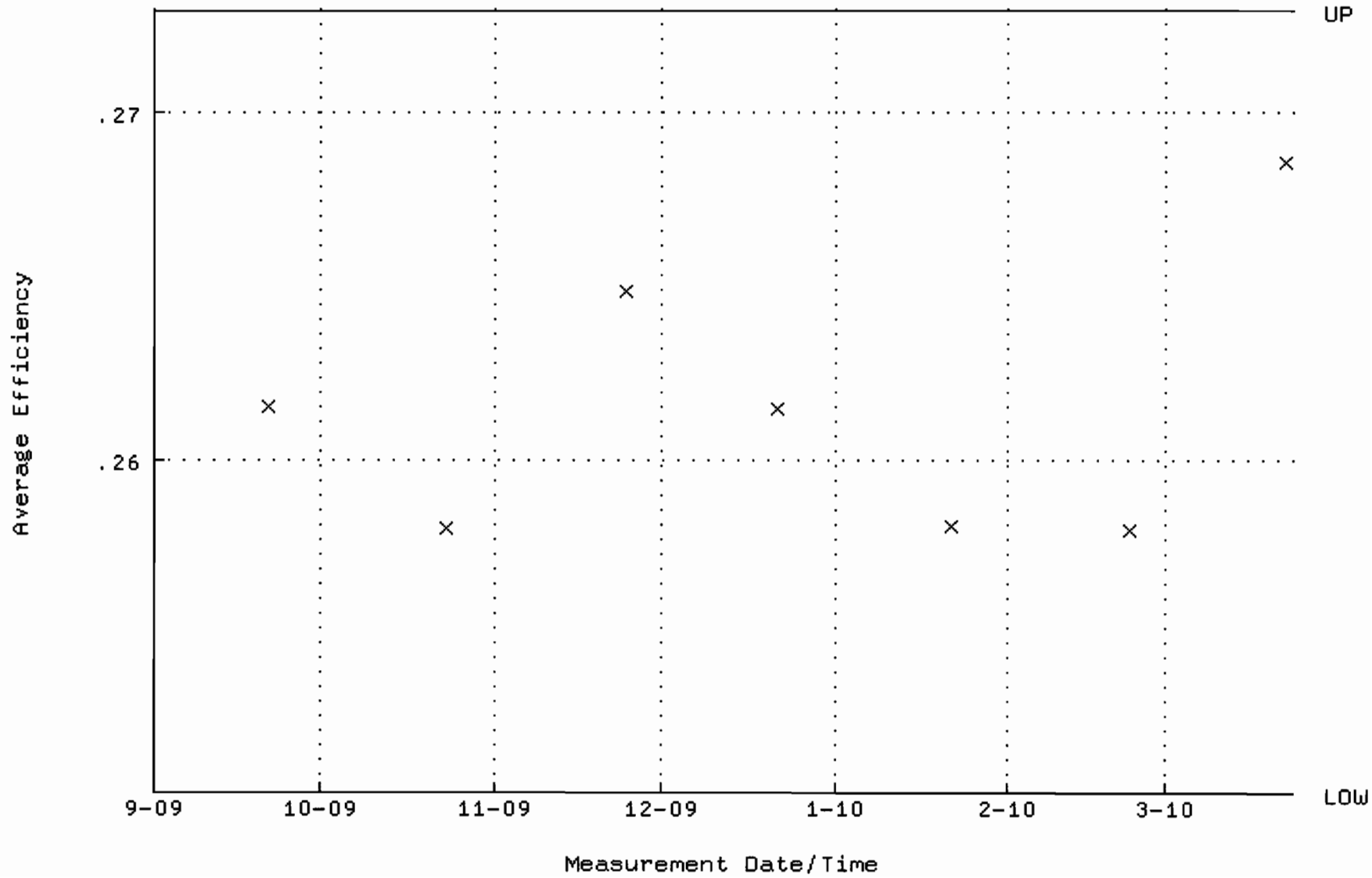

QA filename : DKA100:[ENV_ALPHA.QA.W]W193.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:40 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.1081 through 93.4501

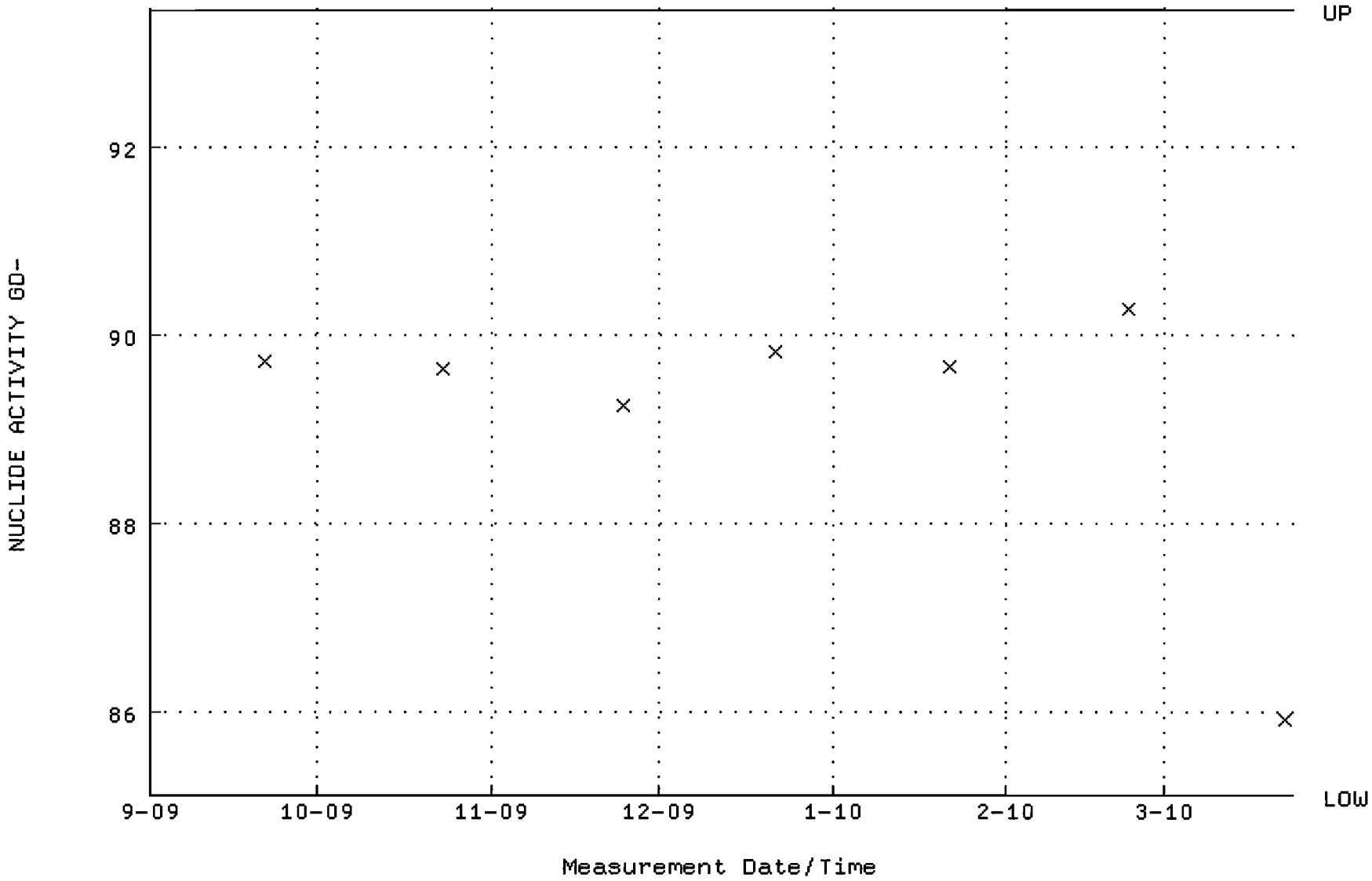

QA filename : DKA100:[ENV_ALPHA.QA.B]B193.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:36 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

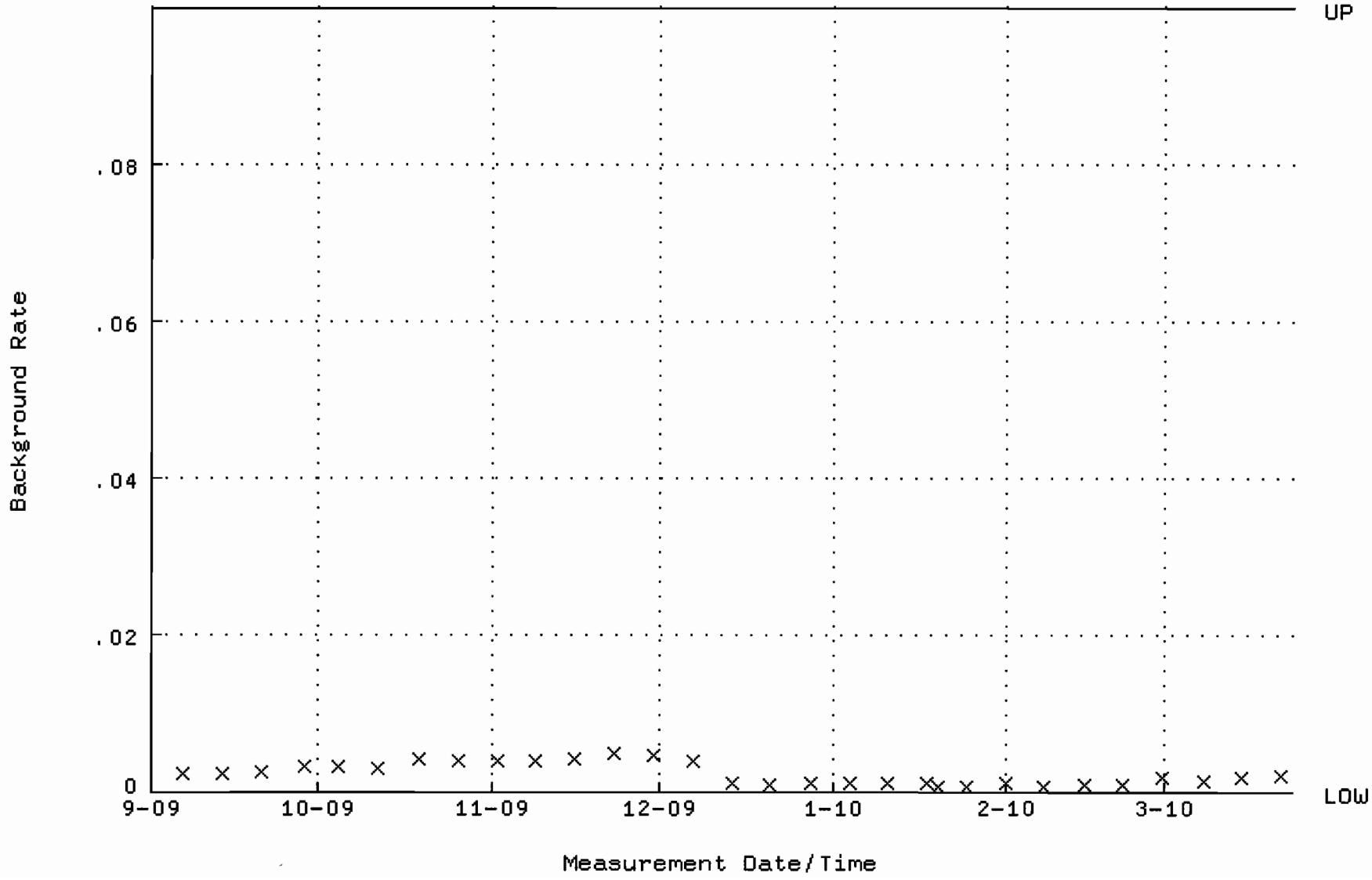

QA filename : DKA100:[ENV_ALPHA.QA.W]W194.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:45 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.246760 through 0.266760

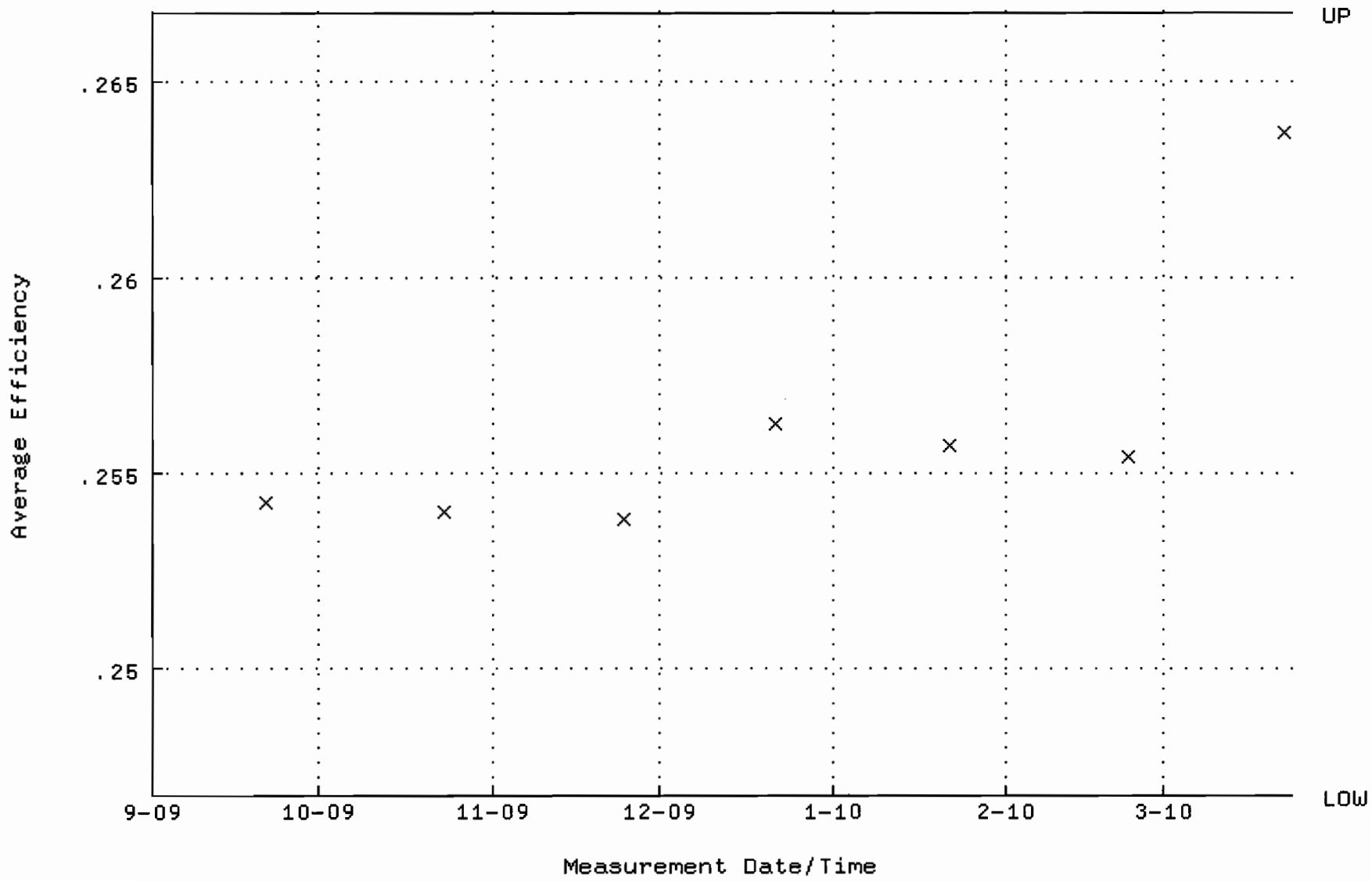

QA filename : DKA100:[ENV_ALPHA.QA.W]W194.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:45 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 86.0376 through 95.0942

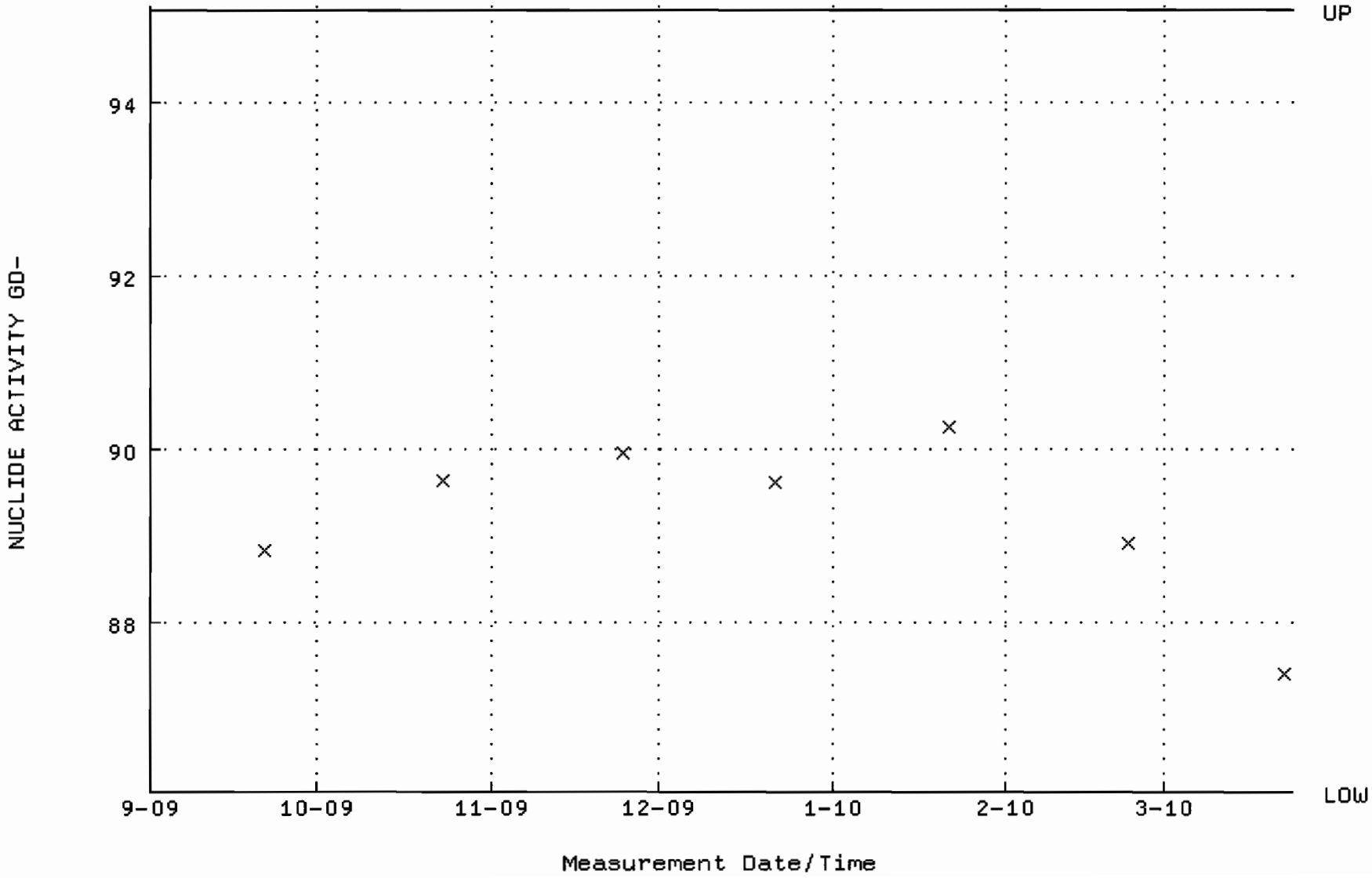

QA filename : DKA100:[ENV_ALPHA.QA.B]B194.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:41 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

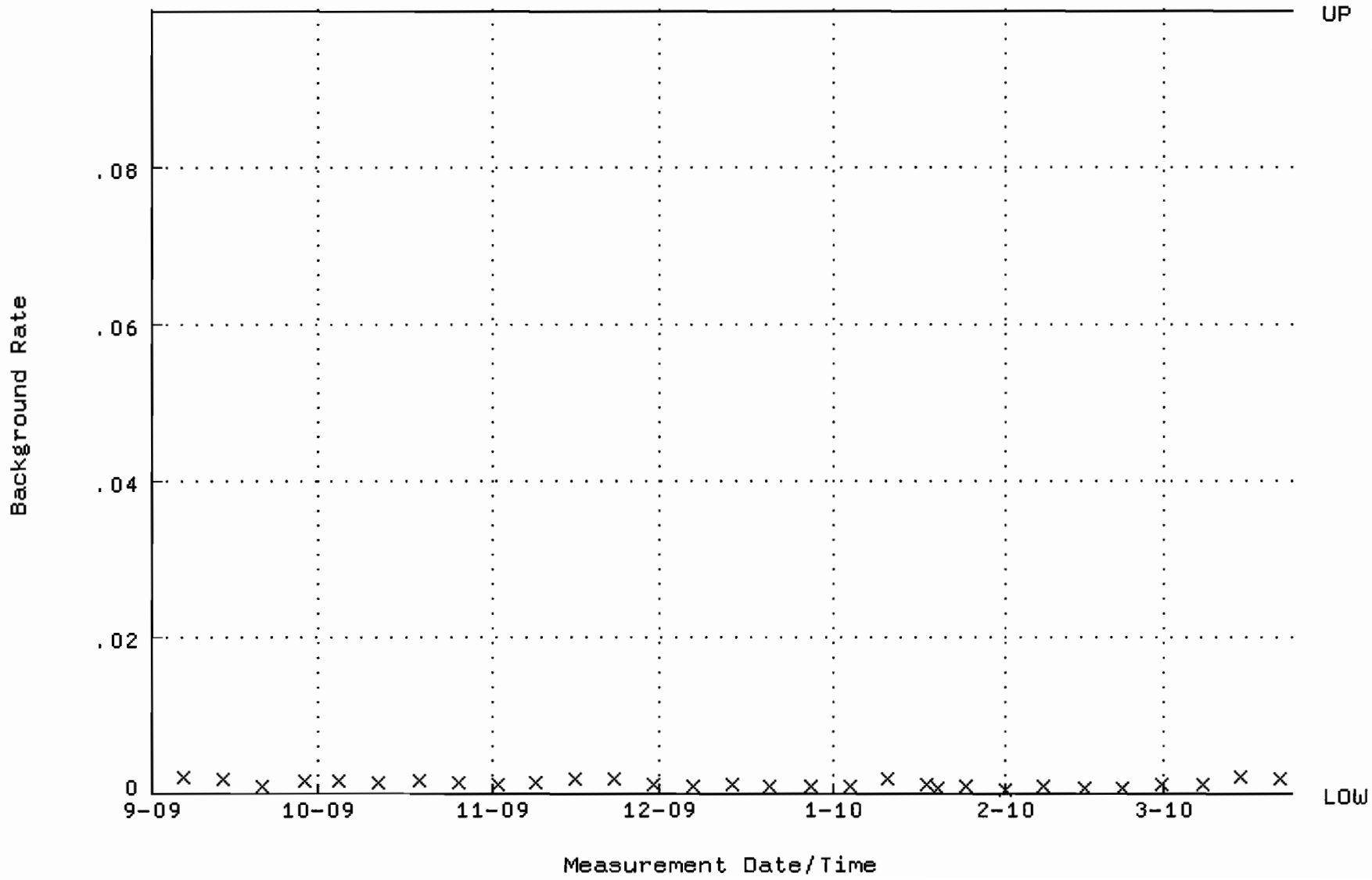

QA filename : DKA100:[ENV_ALPHA.QA.W]W195.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:51 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.237531 through 0.281633

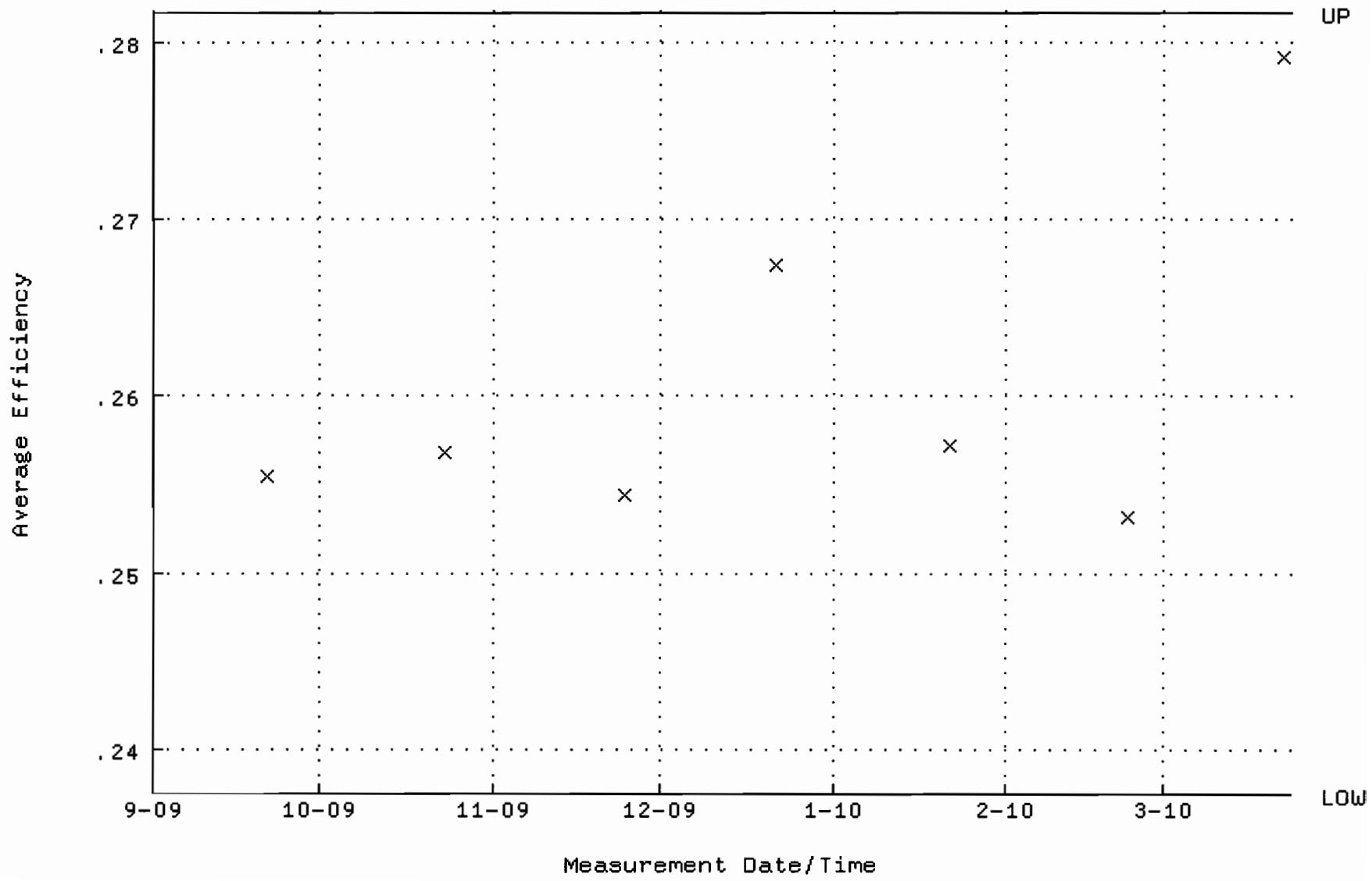

QA filename : DKA100:[ENV_ALPHA.QA.W]W195.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:51 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.6297 through 91.3753

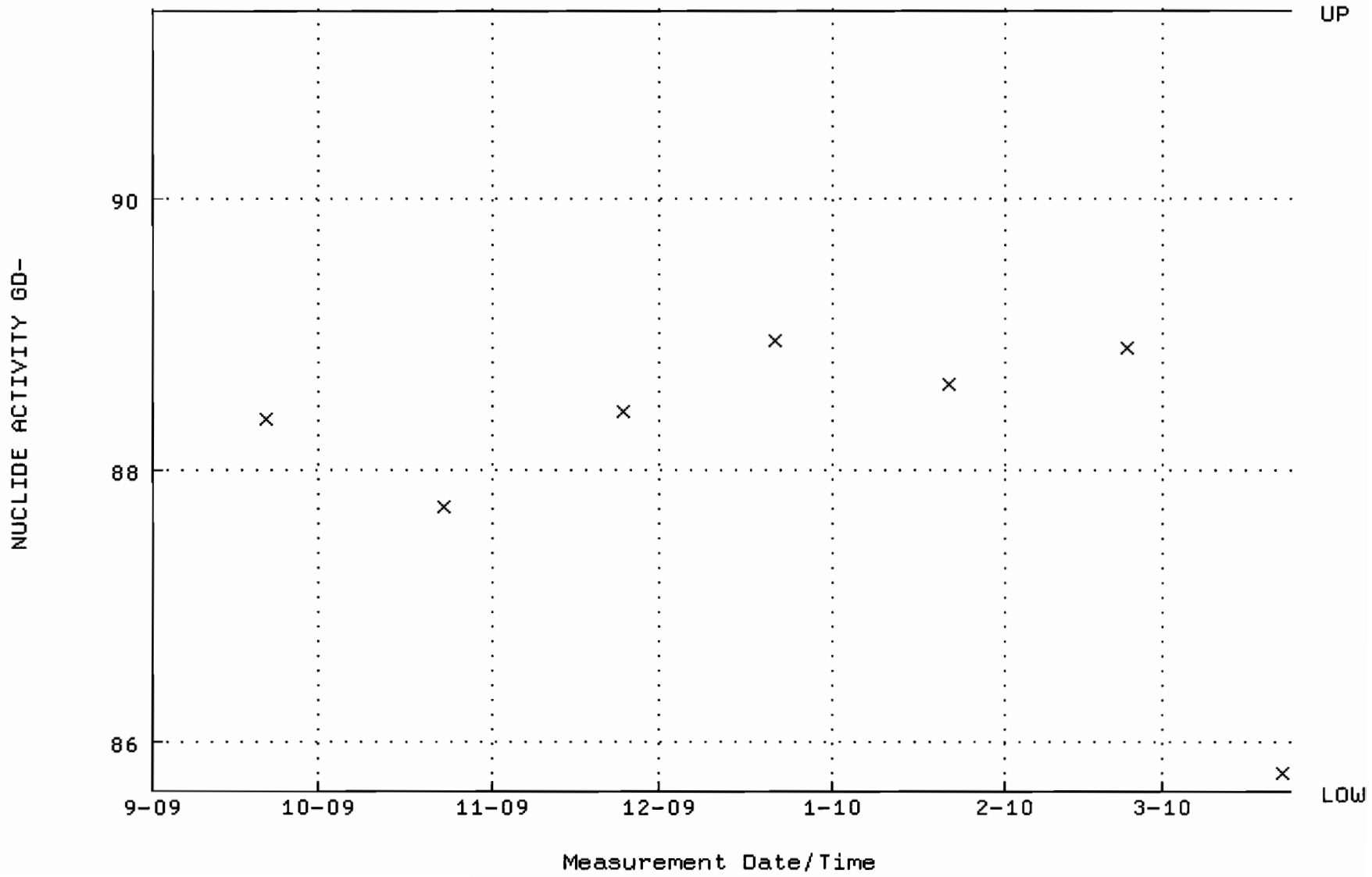

QA filename : DKA100:[ENV_ALPHA.QA.B]B195.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:44 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

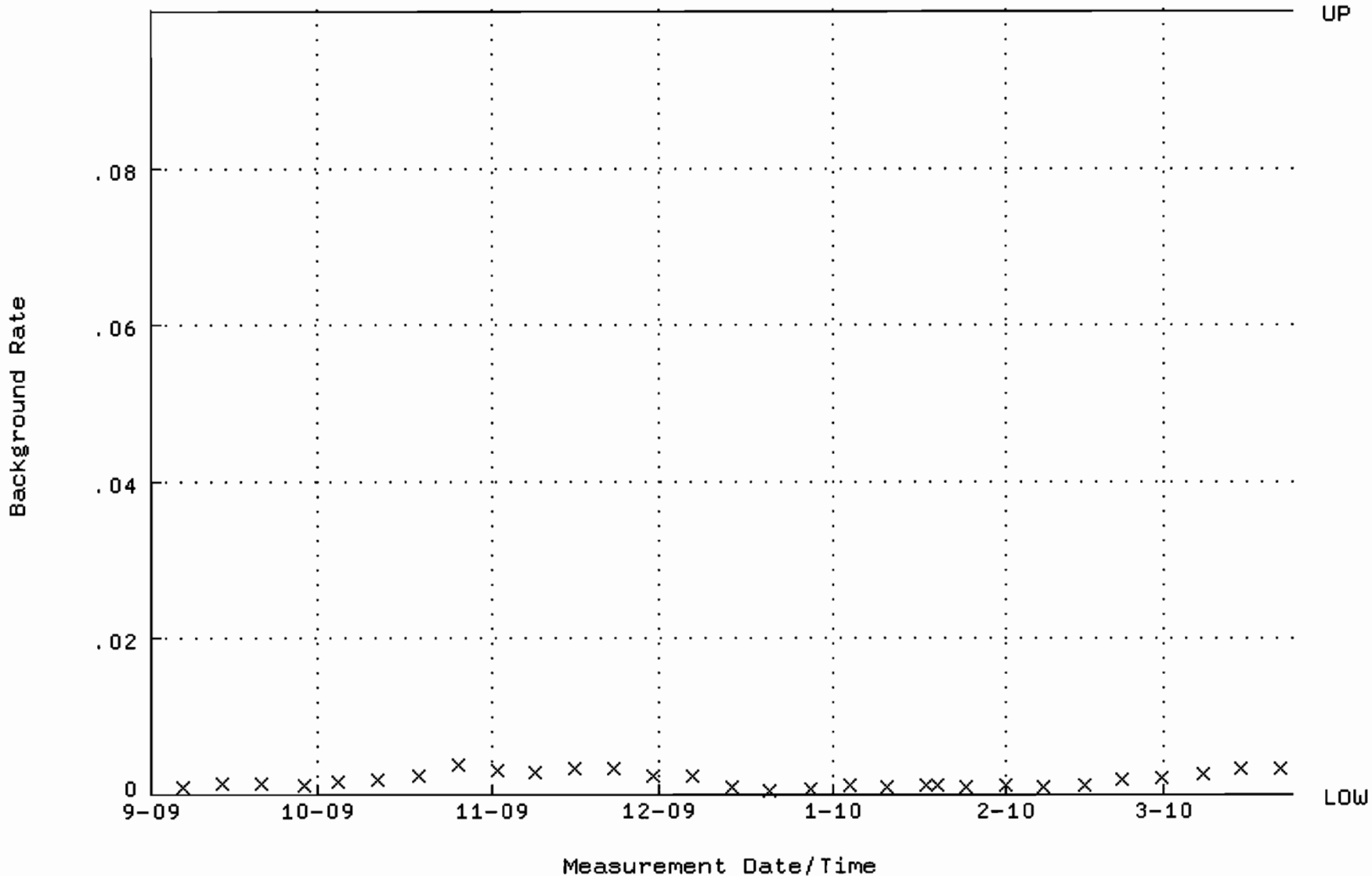

QA filename : DKA100:[ENV_ALPHA.QA.W]W196.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:58 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.239610 through 0.275328

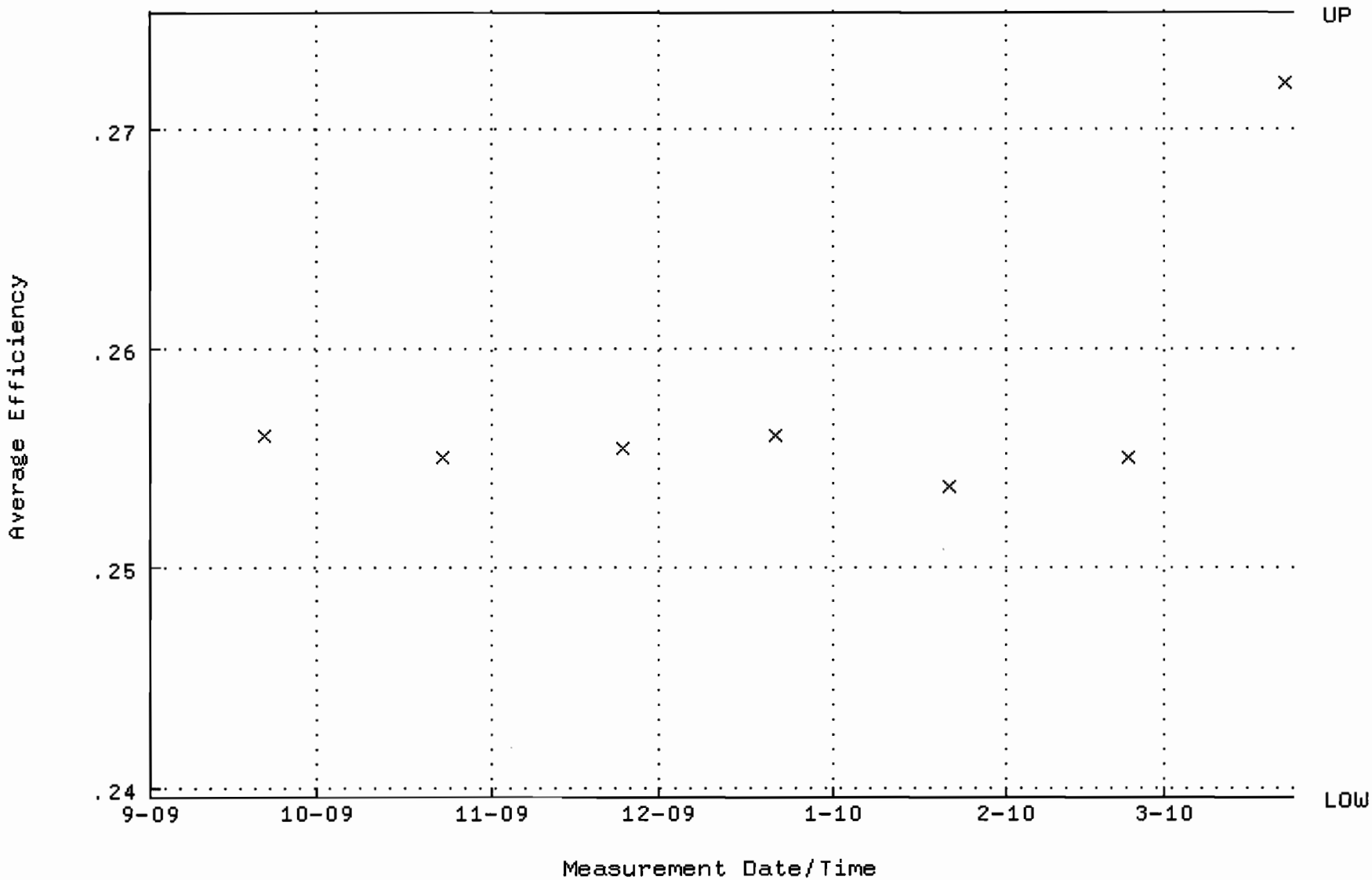

QA filename : DKA100:[ENV_ALPHA.QA.W]W196.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:58 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 82.5782 through 95.2754

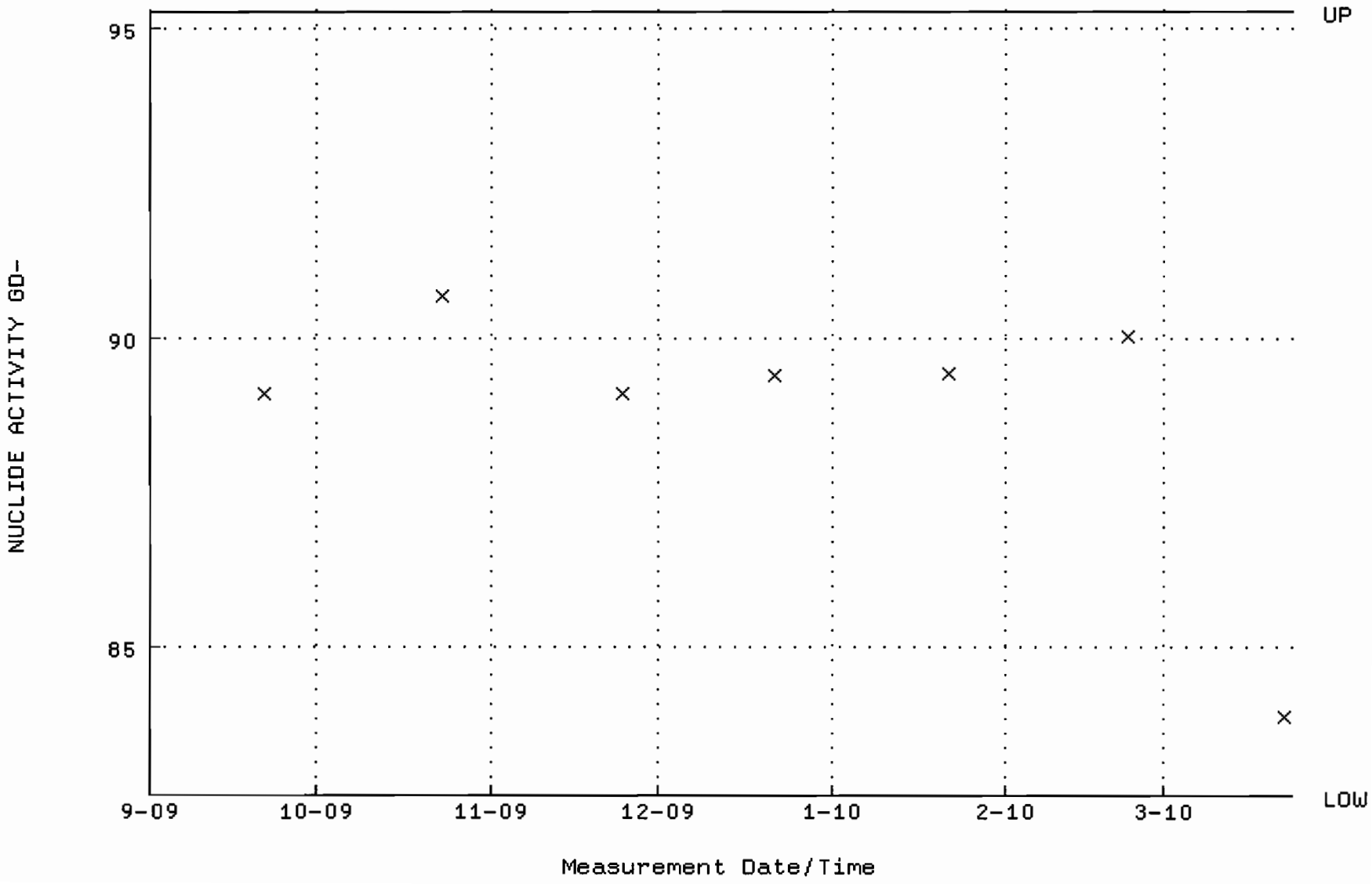

QA filename : DKA100:[ENV_ALPHA.QA.B]B196.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:48 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

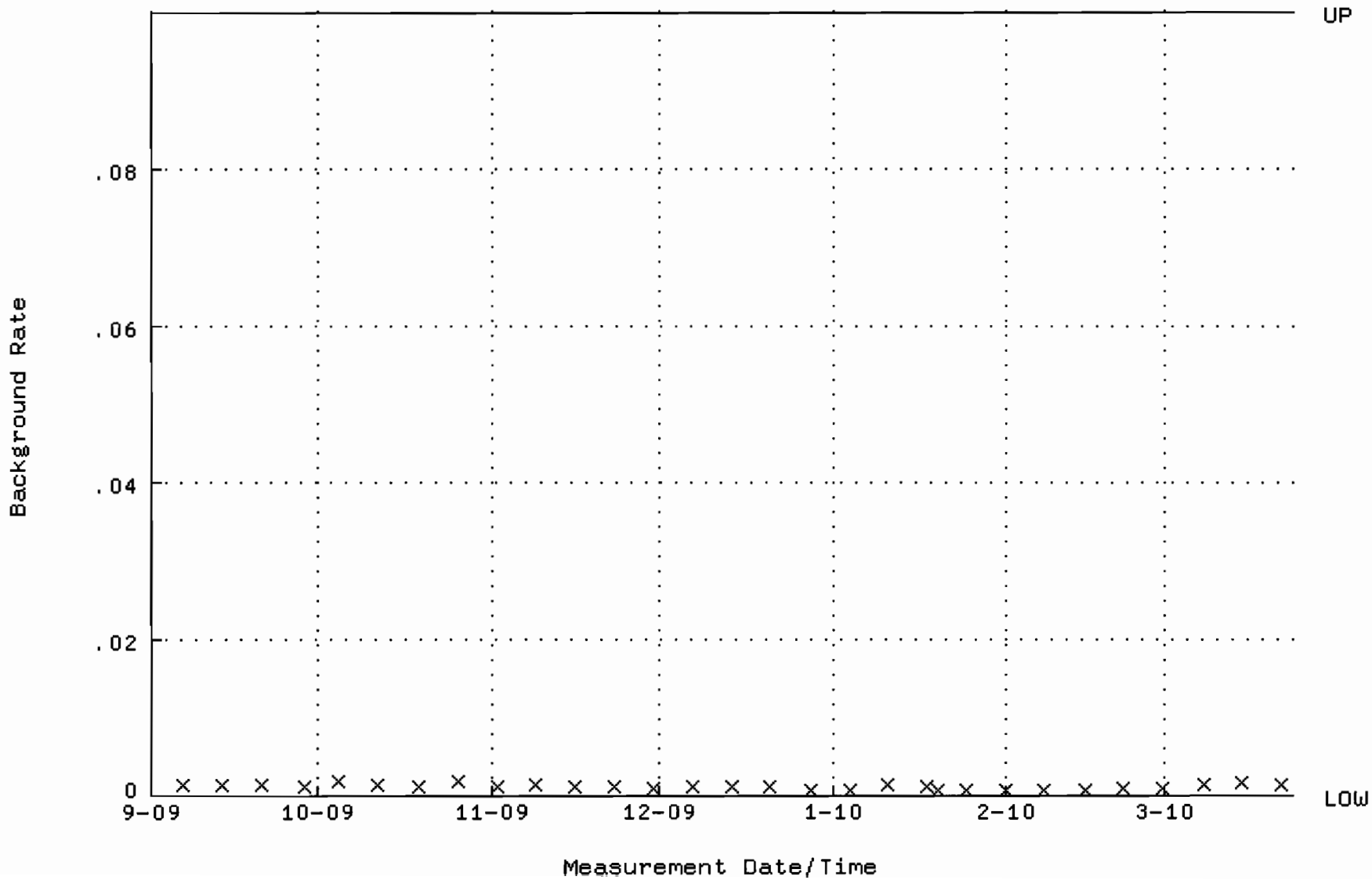

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:58 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.385327 through 0.415351

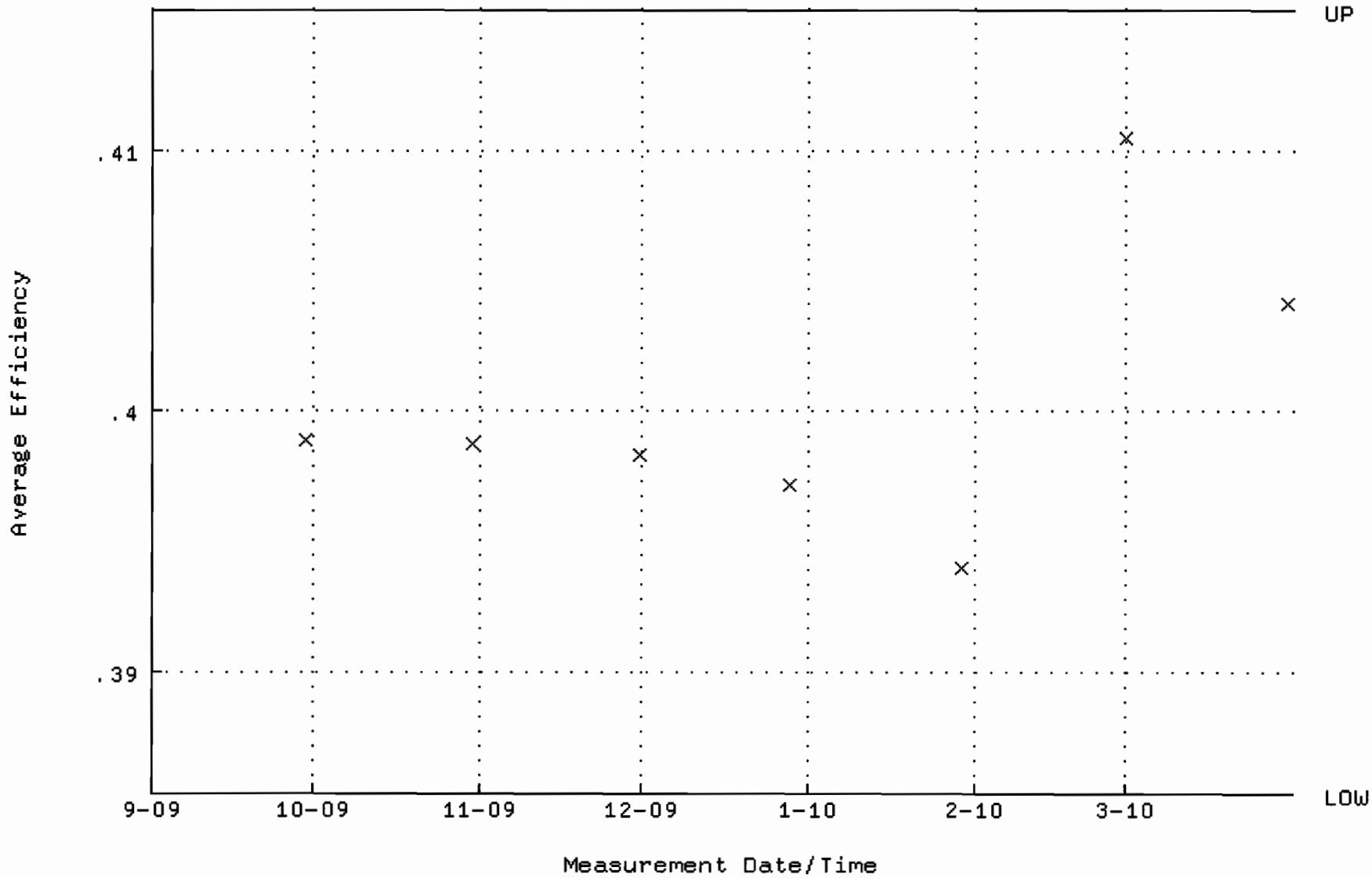

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:58 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5268 through 85.6787

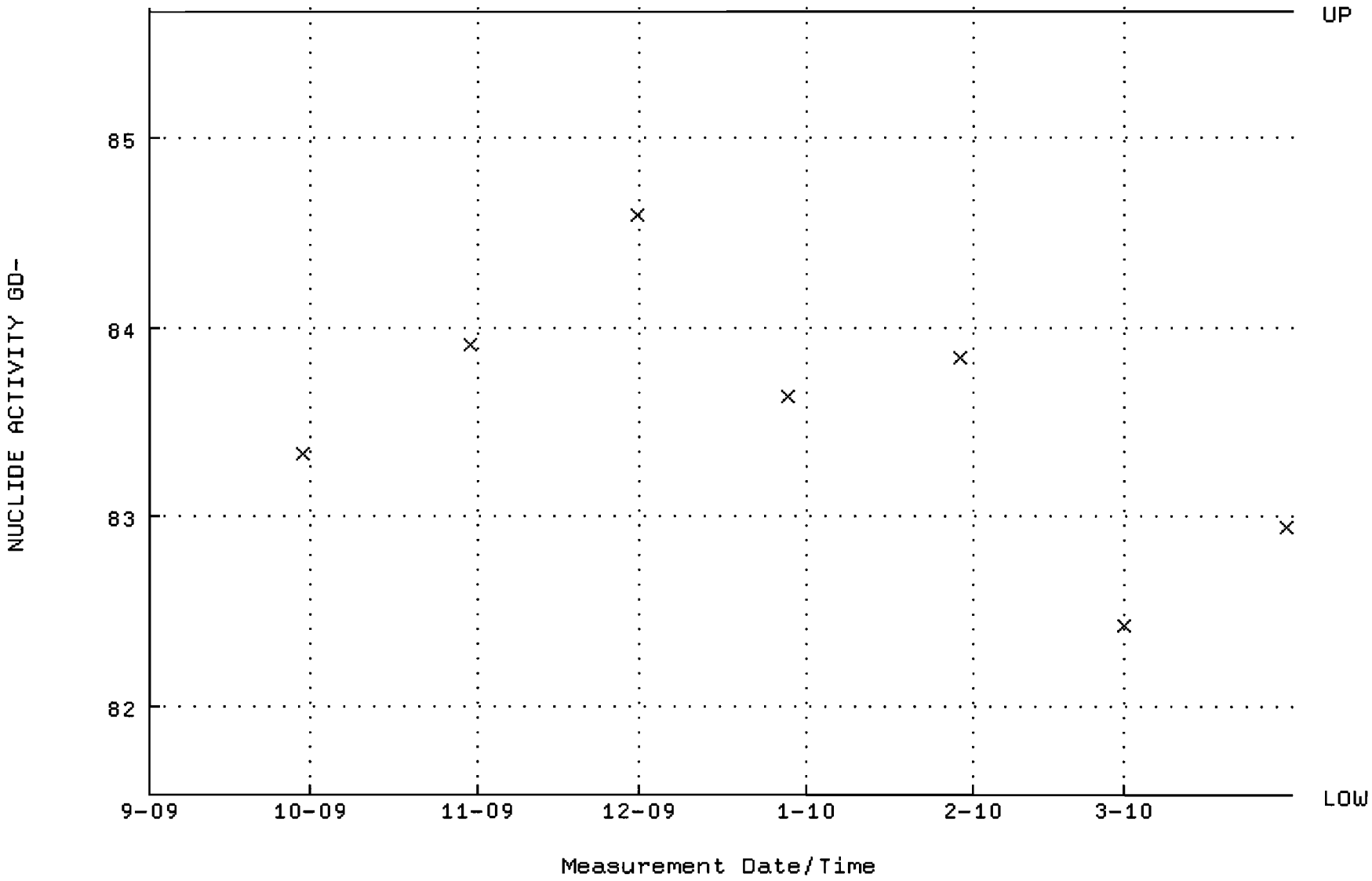

QA filename : DKA100:[ENV_ALPHA.QA.B]B237.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:30 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

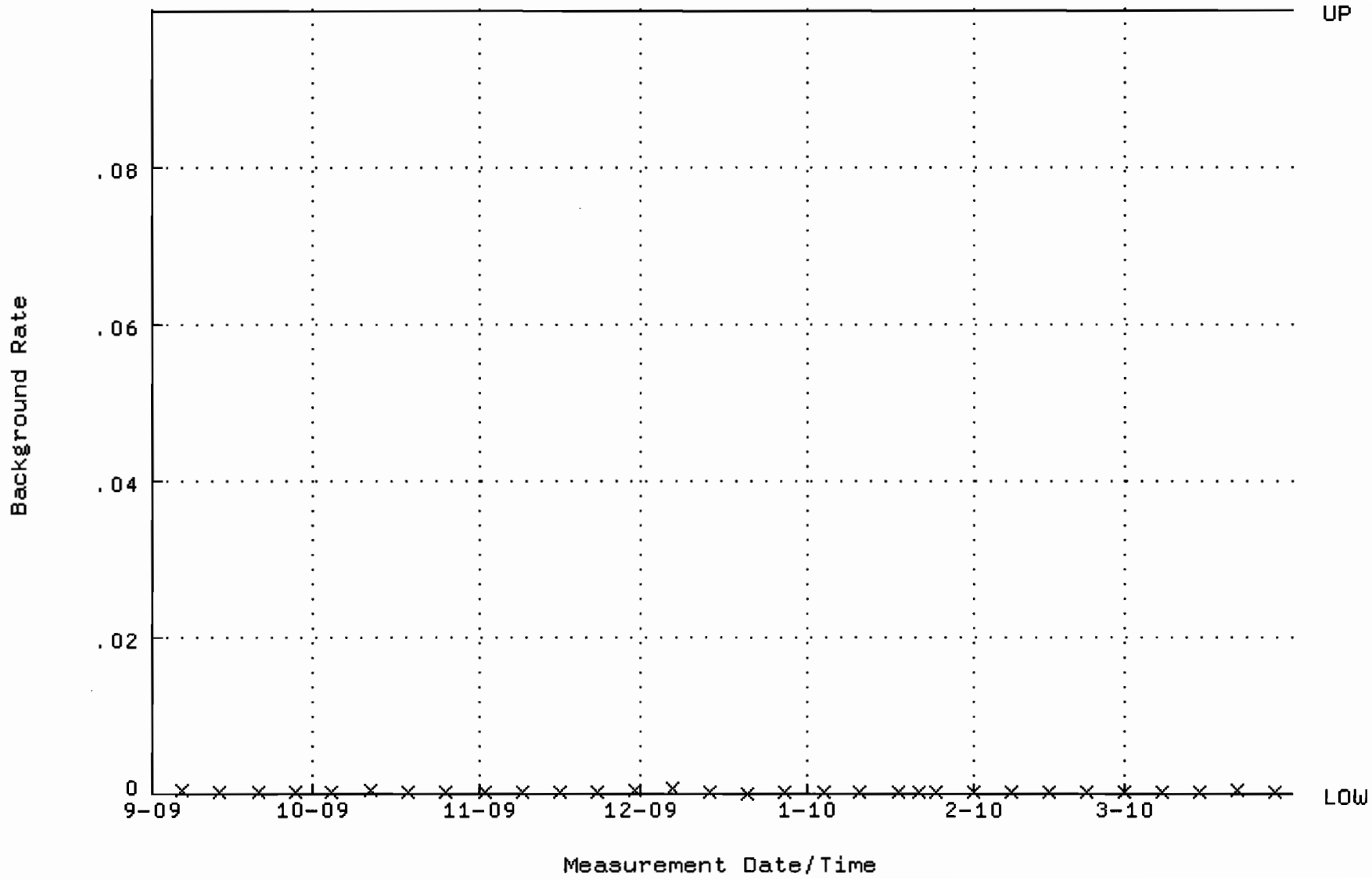

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:04 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.389351 through 0.404525

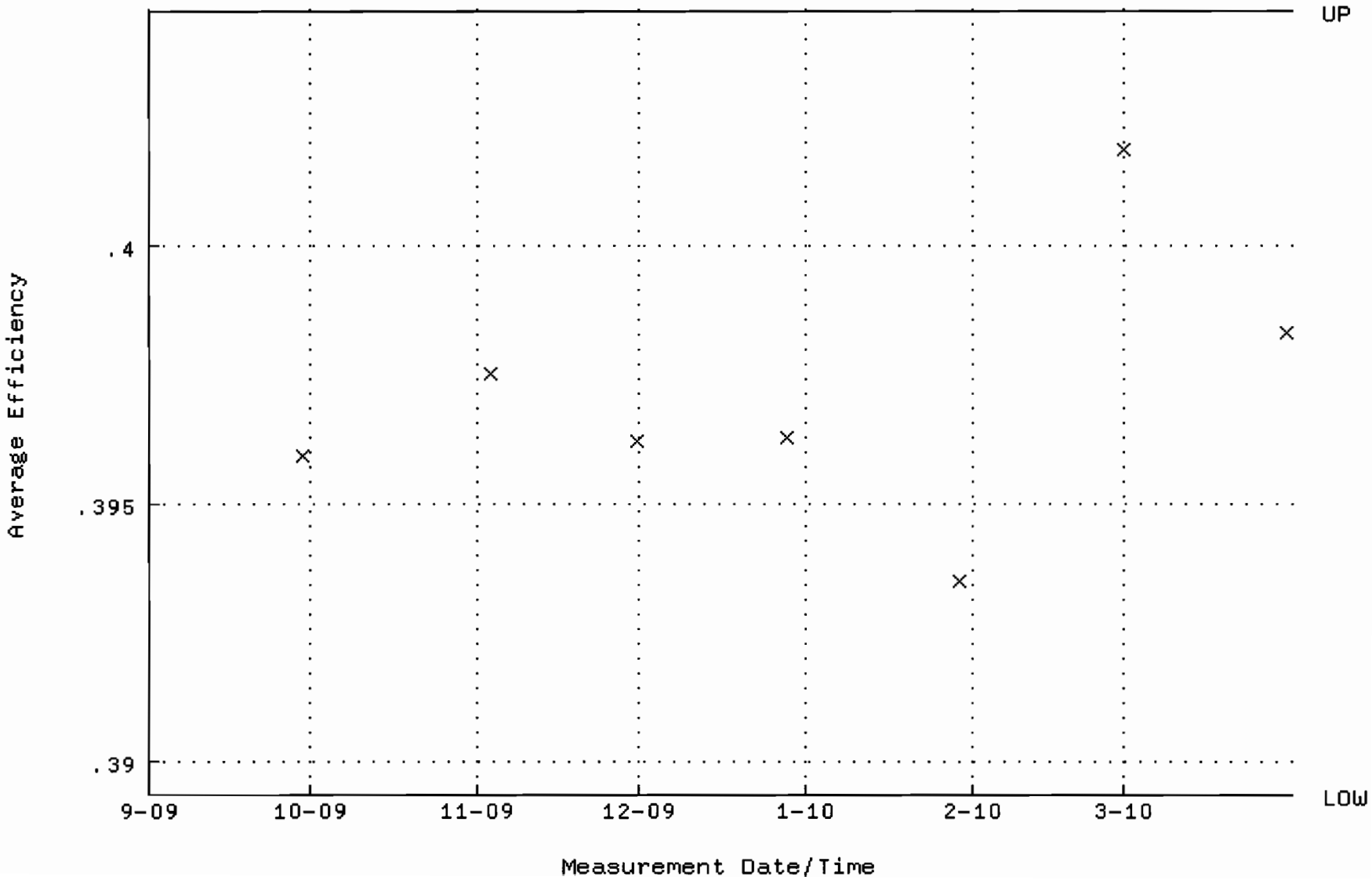

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:04 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 82.7118 through 85.8726

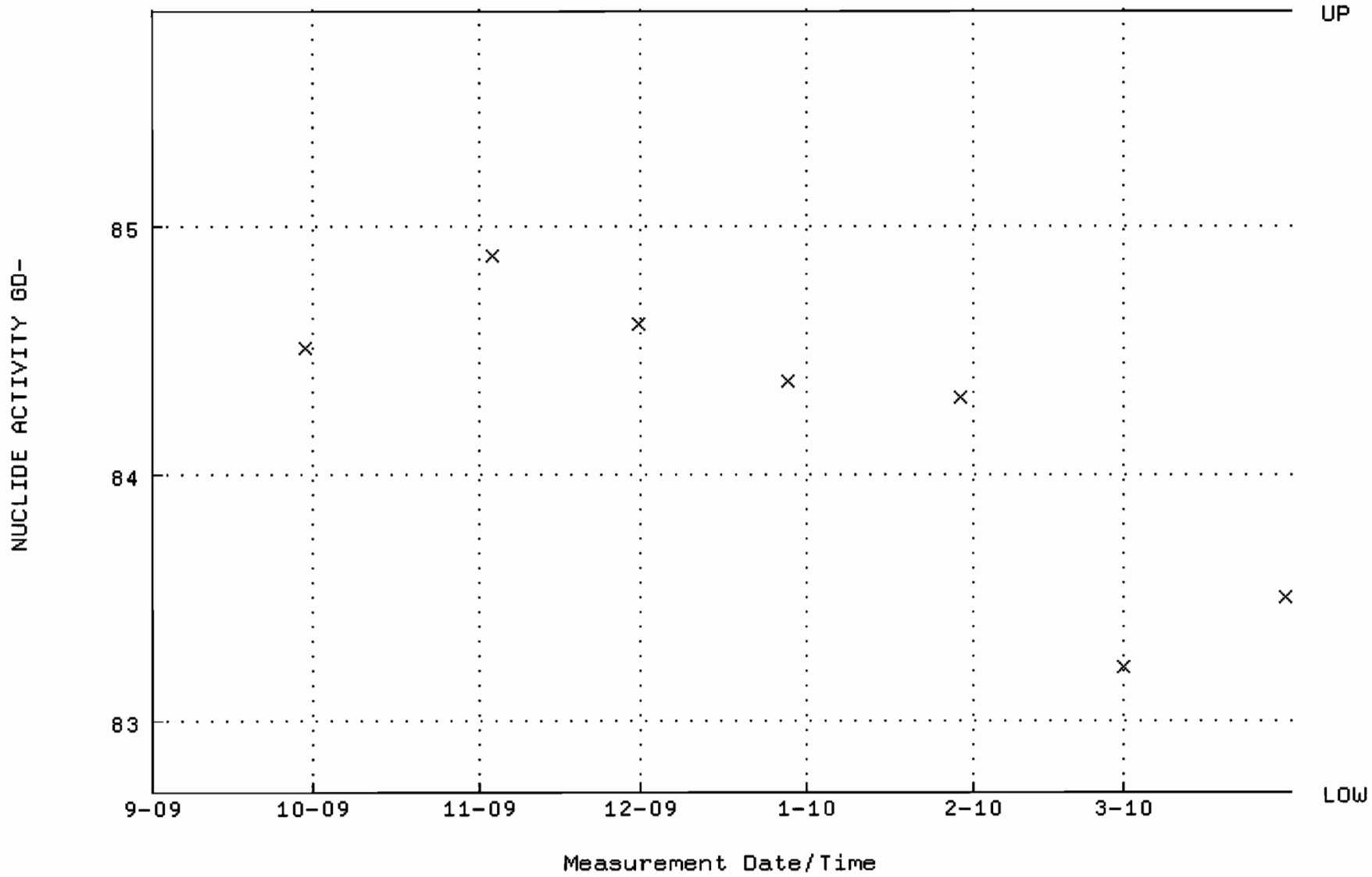

QA filename : DKA100:[ENV_ALPHA.QA.B]B238.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:34 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

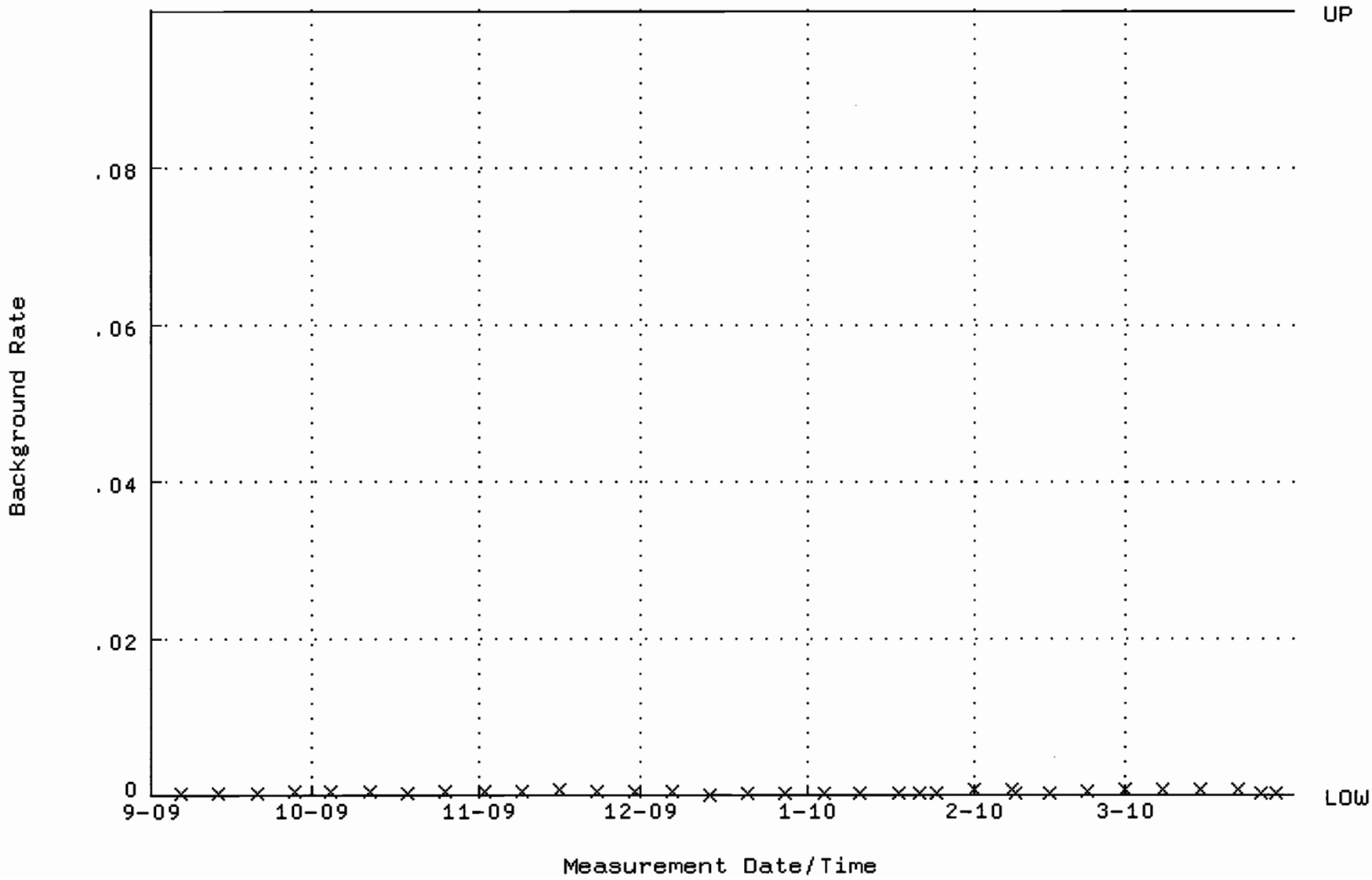

QA filename : DKA100:[ENV_ALPHA.QA.W]W250.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:40:12 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.383673 through 0.415835

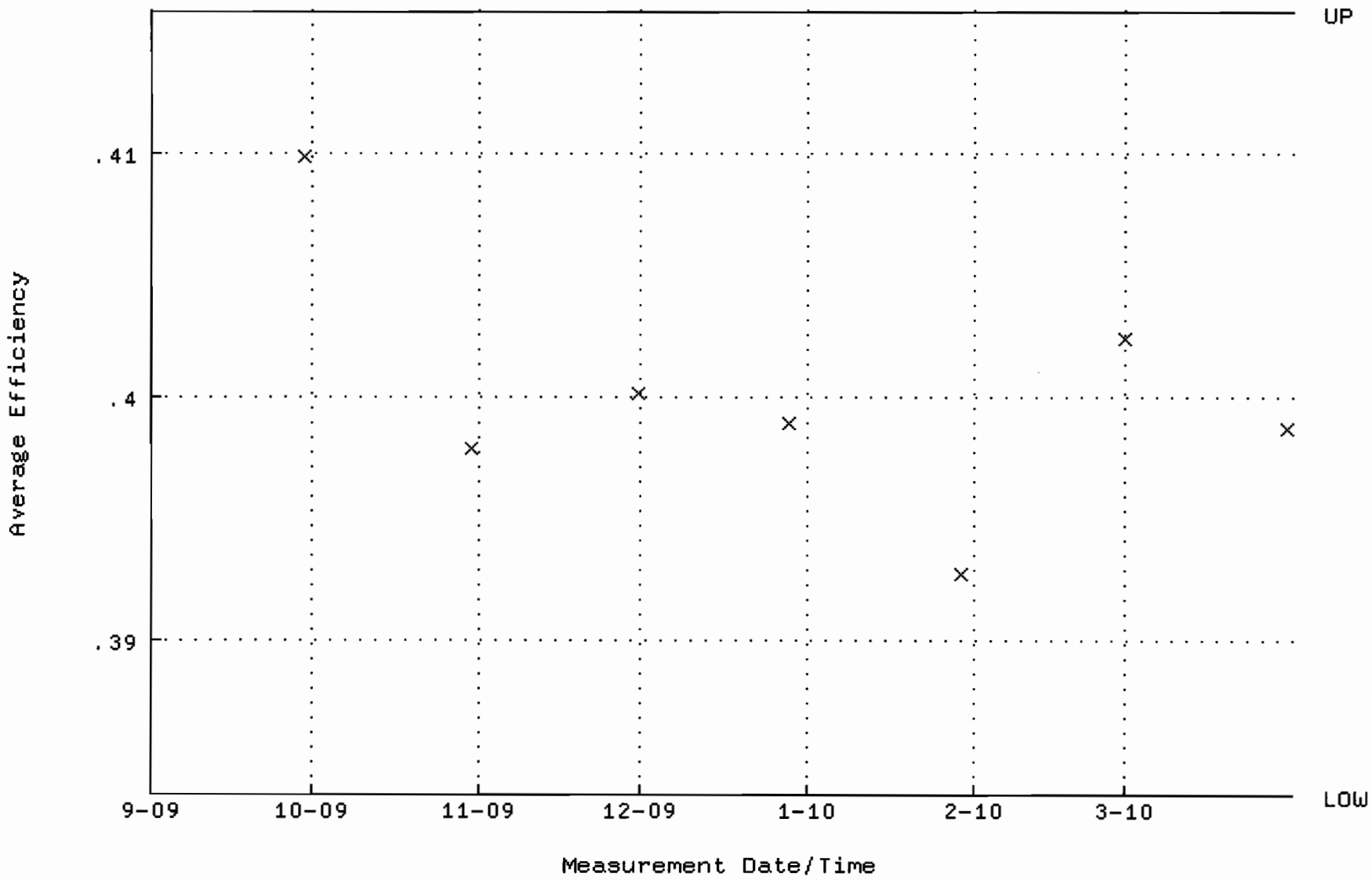

QA filename : DKA100:[ENV_ALPHA.QA.W]W250.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:40:12 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 80.1497 through 85.4585

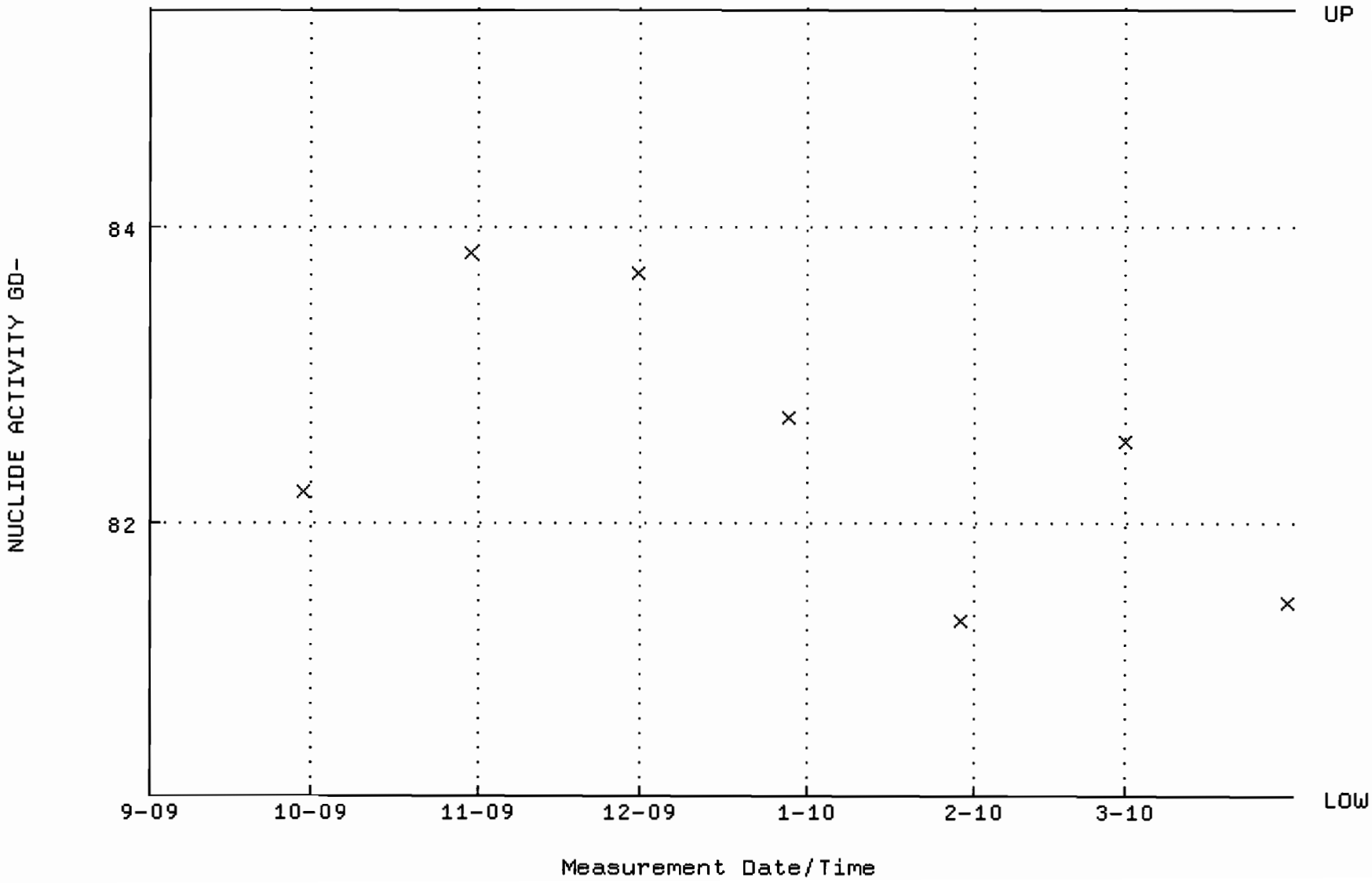

QA filename : DKA100:[ENV_ALPHA.QA.B]B250.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:30 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

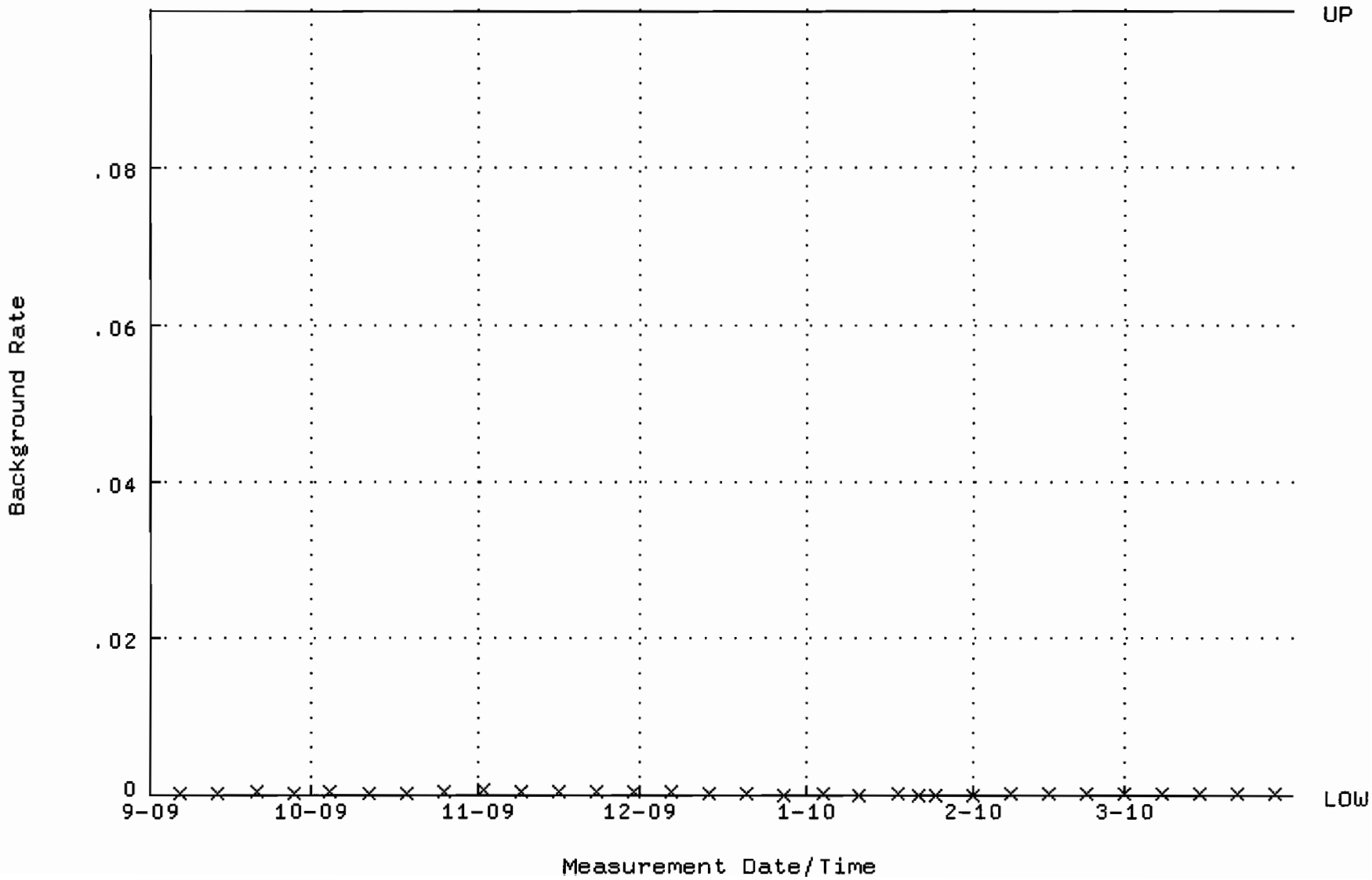

QA filename : DKA100:[ENV_ALPHA.QA.W]W251.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:40:16 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.374659 through 0.409089

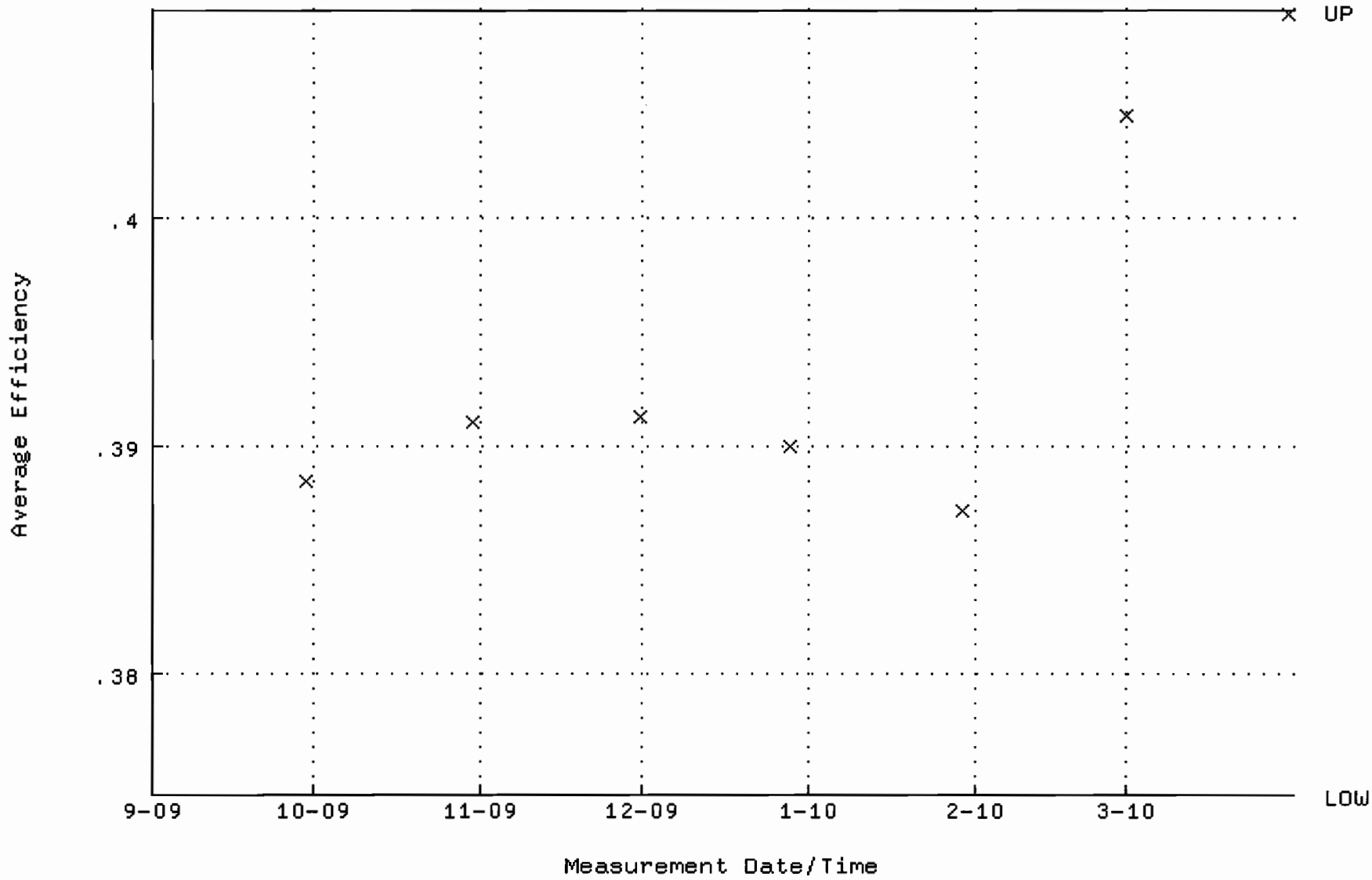

QA filename : DKA100:[ENV_ALPHA.QA.W]W251.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:40:16 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.4582 through 90.3490

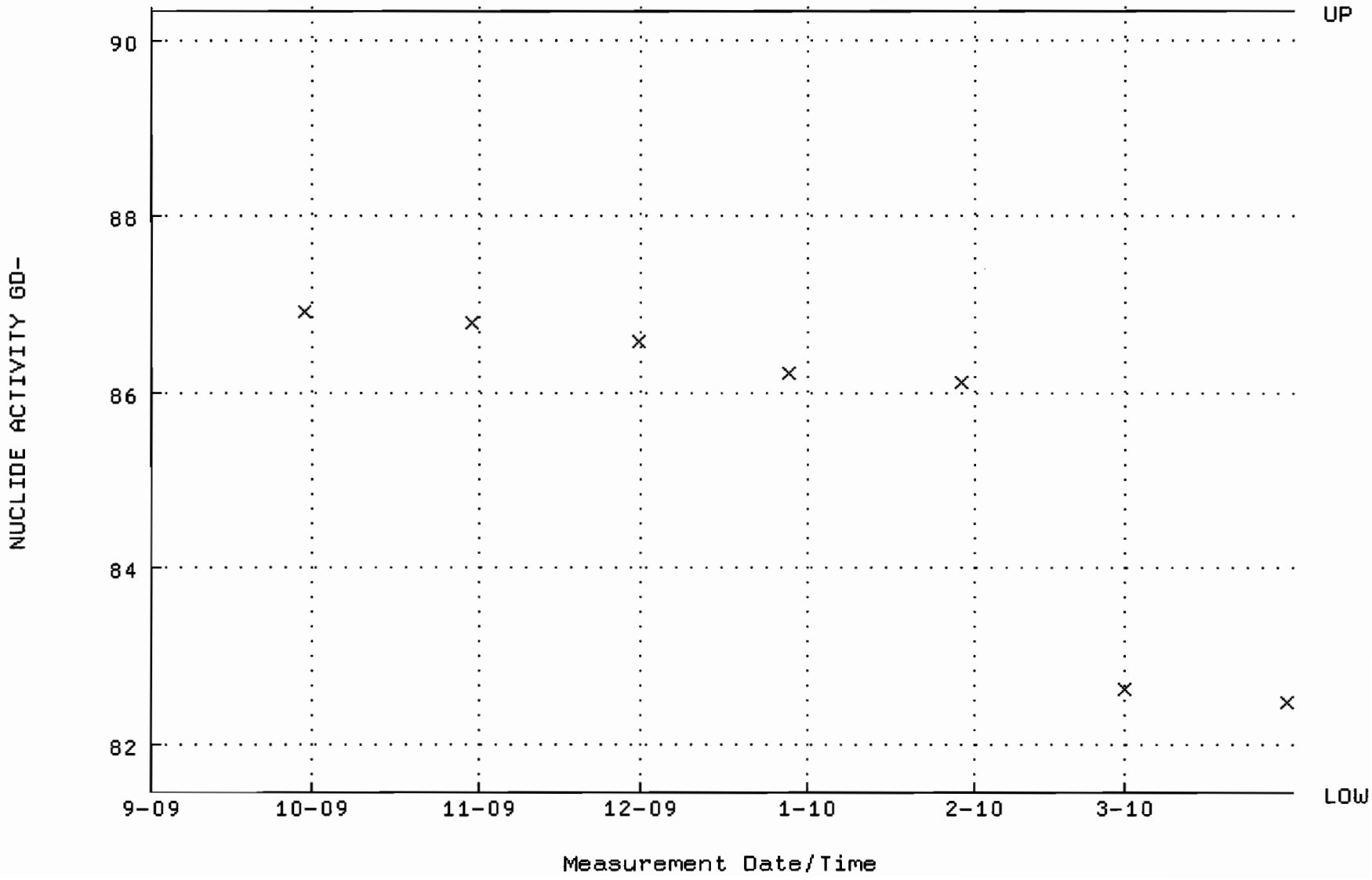

QA filename : DKA100:[ENV_ALPHA.QA.B]B251.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:35 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

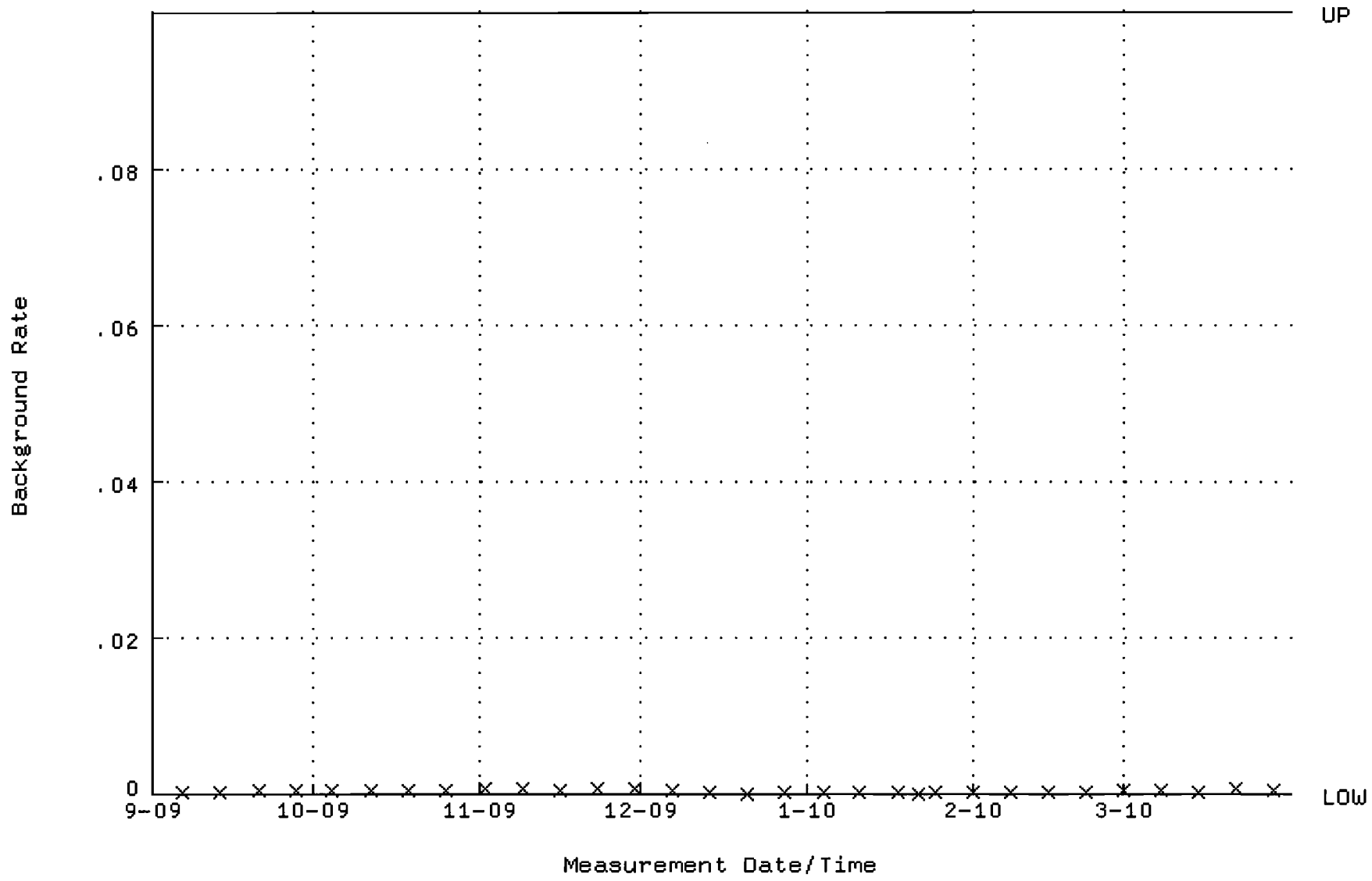

QA filename : DKA100:[ENV_ALPHA.QA.W]W252.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:40:23 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.364281 through 0.395267

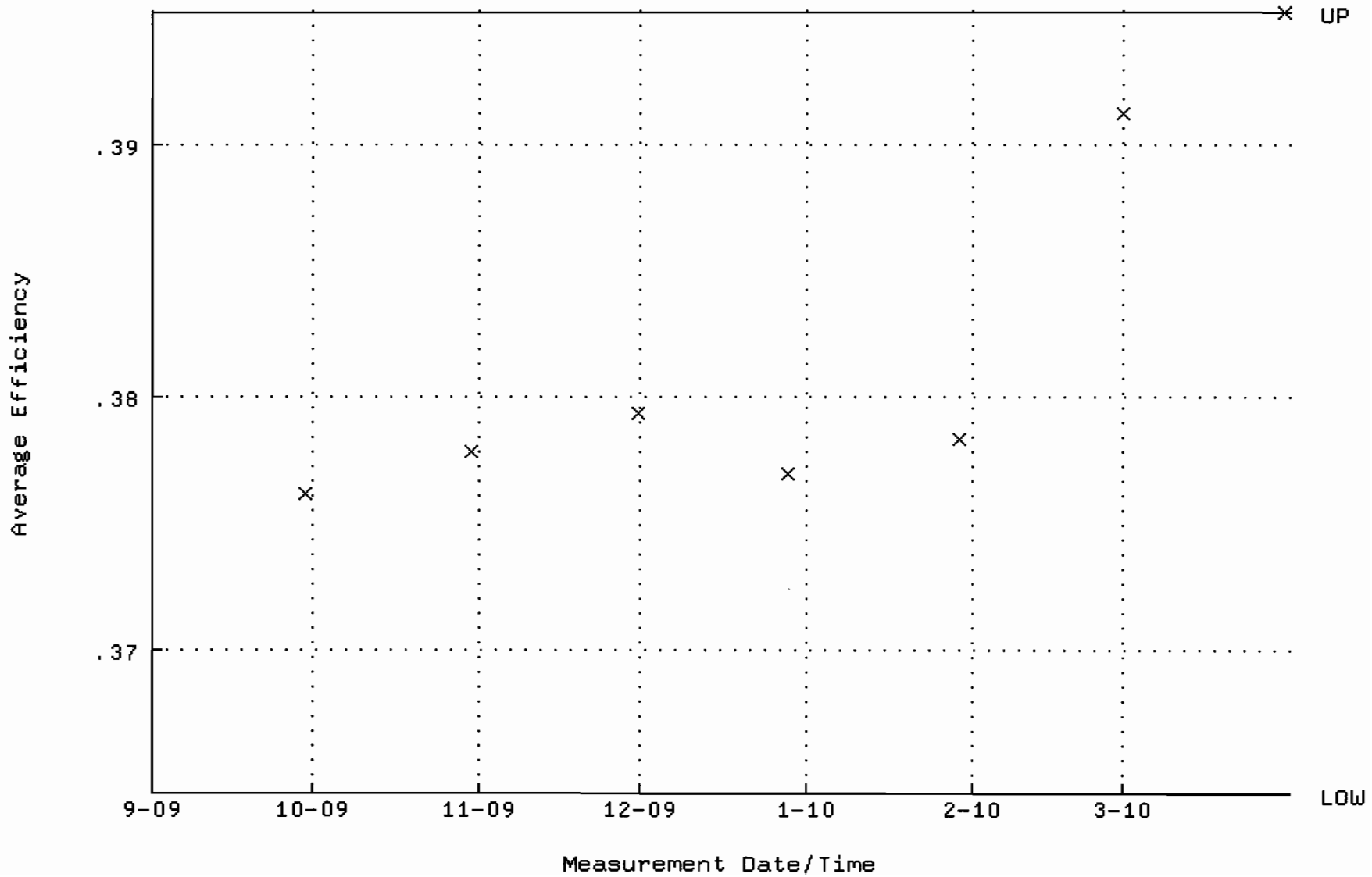

QA filename : DKA100:[ENV_ALPHA.QA.W]W252.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:40:23 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 79.9099 through 90.3785

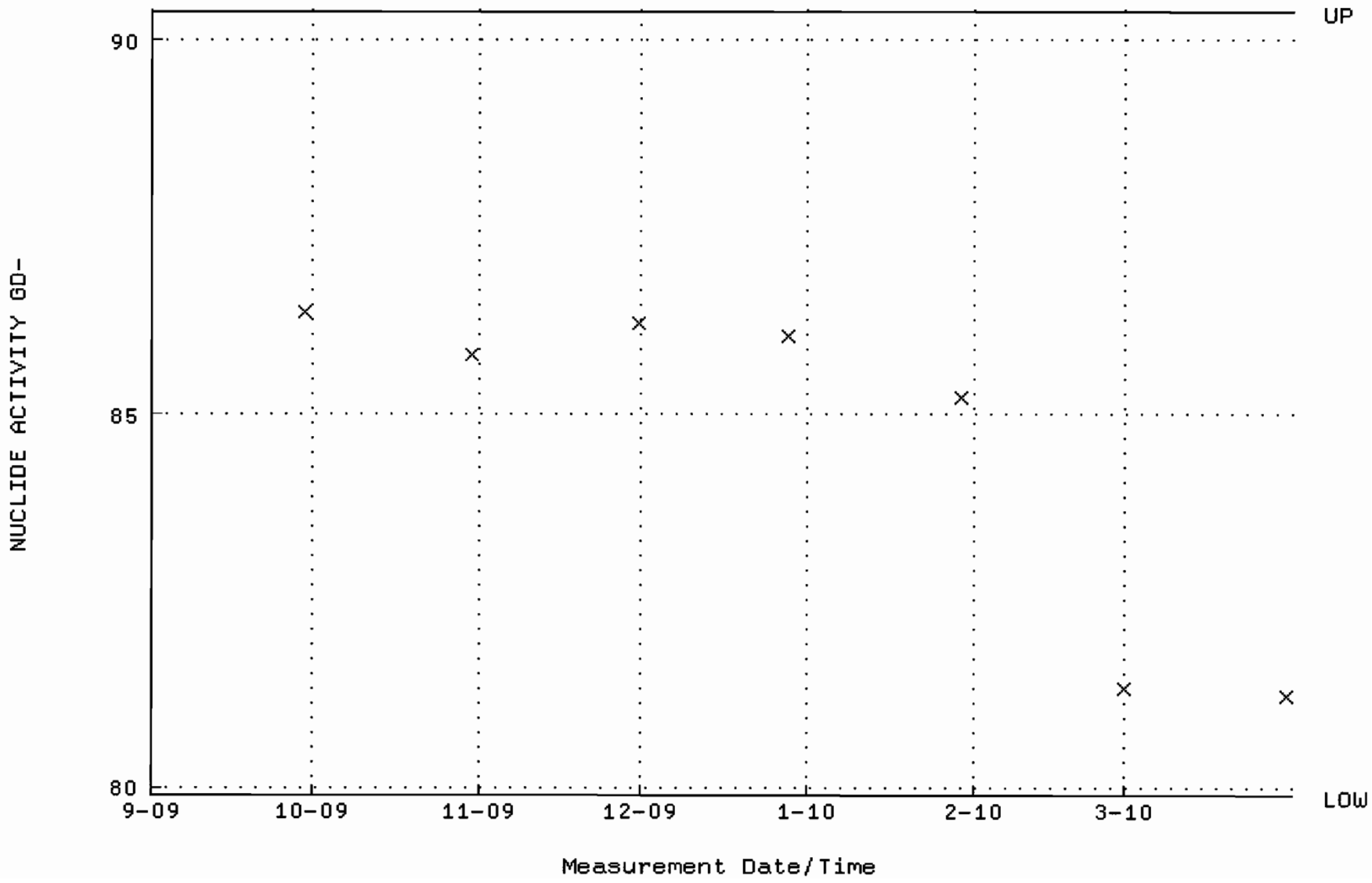

QA filename : DKA100:[ENV_ALPHA.QA.B]B252.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:40 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

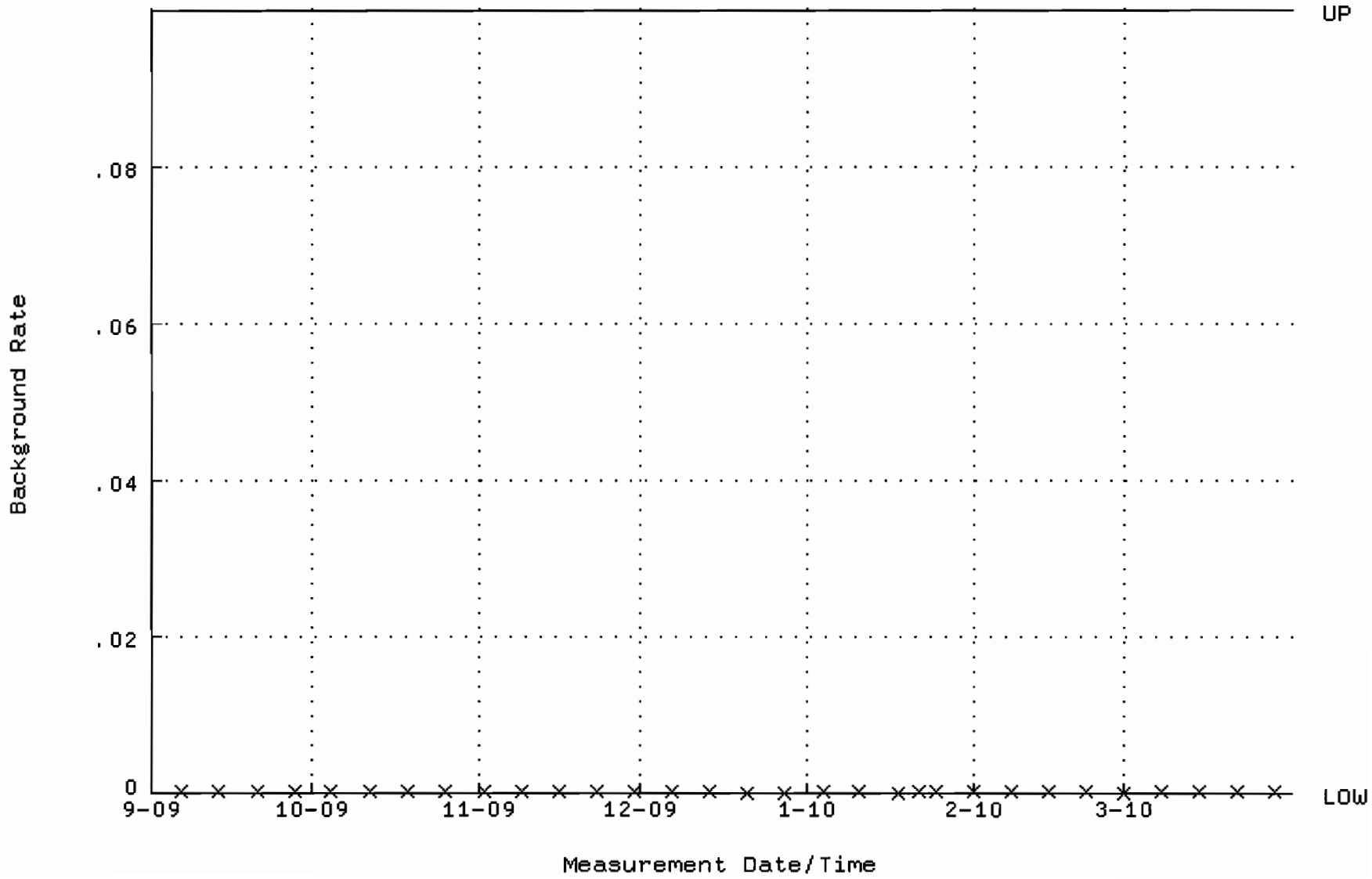

QA filename : DKA100:[ENV_ALPHA.QA.W]W253.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:40:28 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.366220 through 0.404308

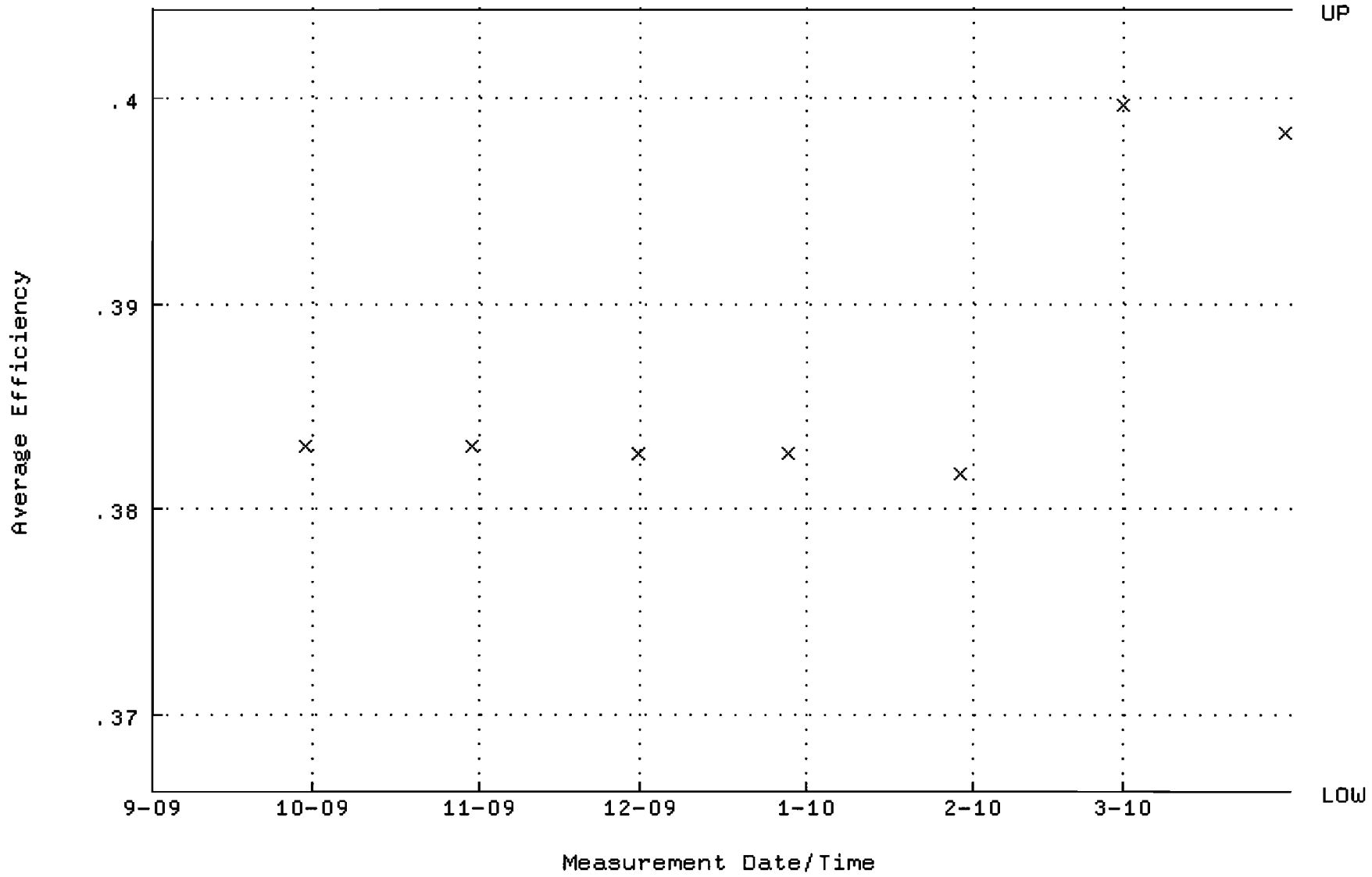

QA filename : DKA100:[ENV_ALPHA.QA.W]W253.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:40:28 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 83.1439 through 93.5297

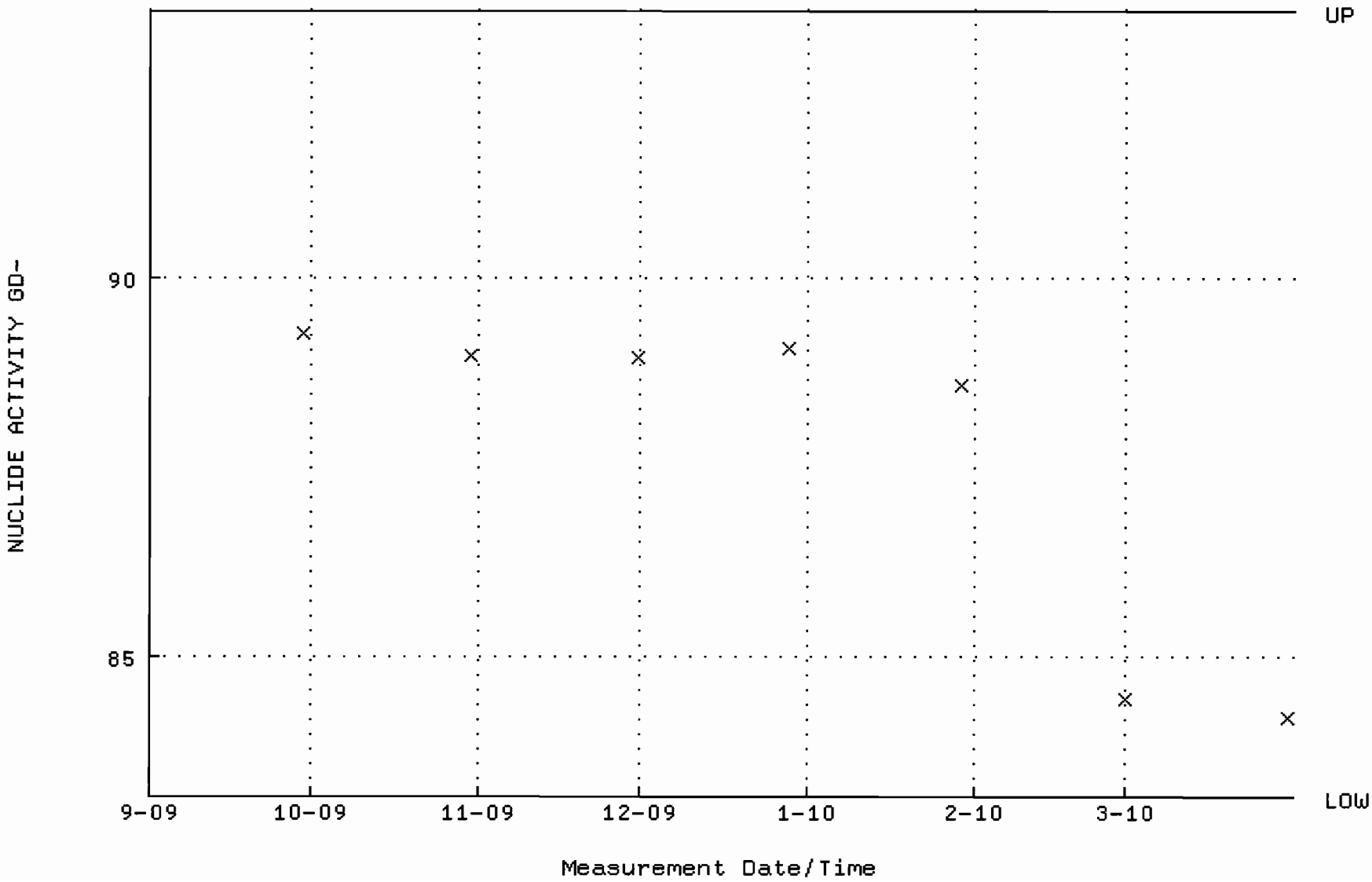

QA filename : DKA100:[ENV_ALPHA.QA.B]B253.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:45 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

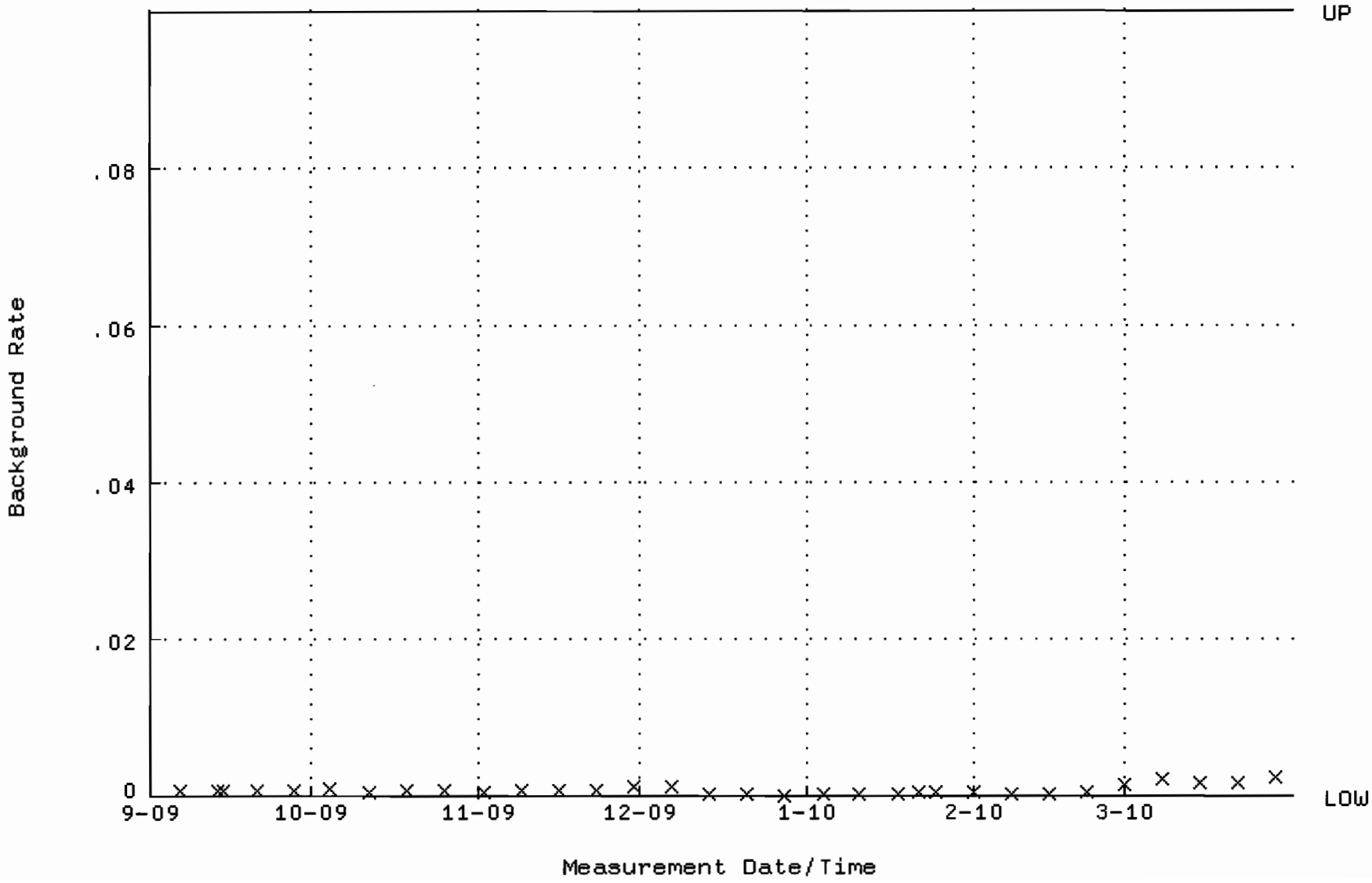

QA filename : DKA100:[ENV_ALPHA.QA.W]W254.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:40:33 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.382017 through 0.406169

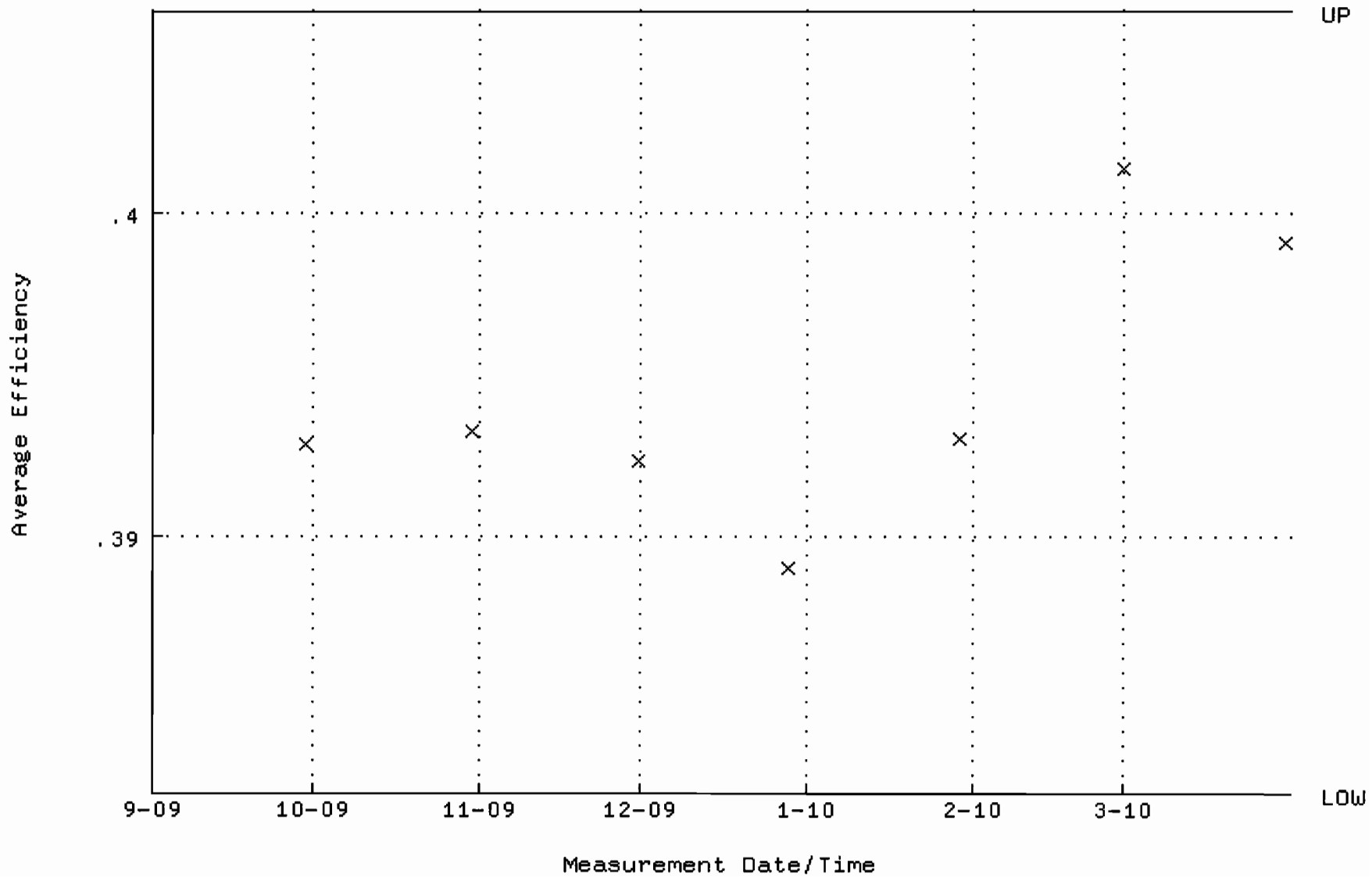

QA filename : DKA100:[ENV_ALPHA.QA.W]W254.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:40:33 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.7478 through 90.1974

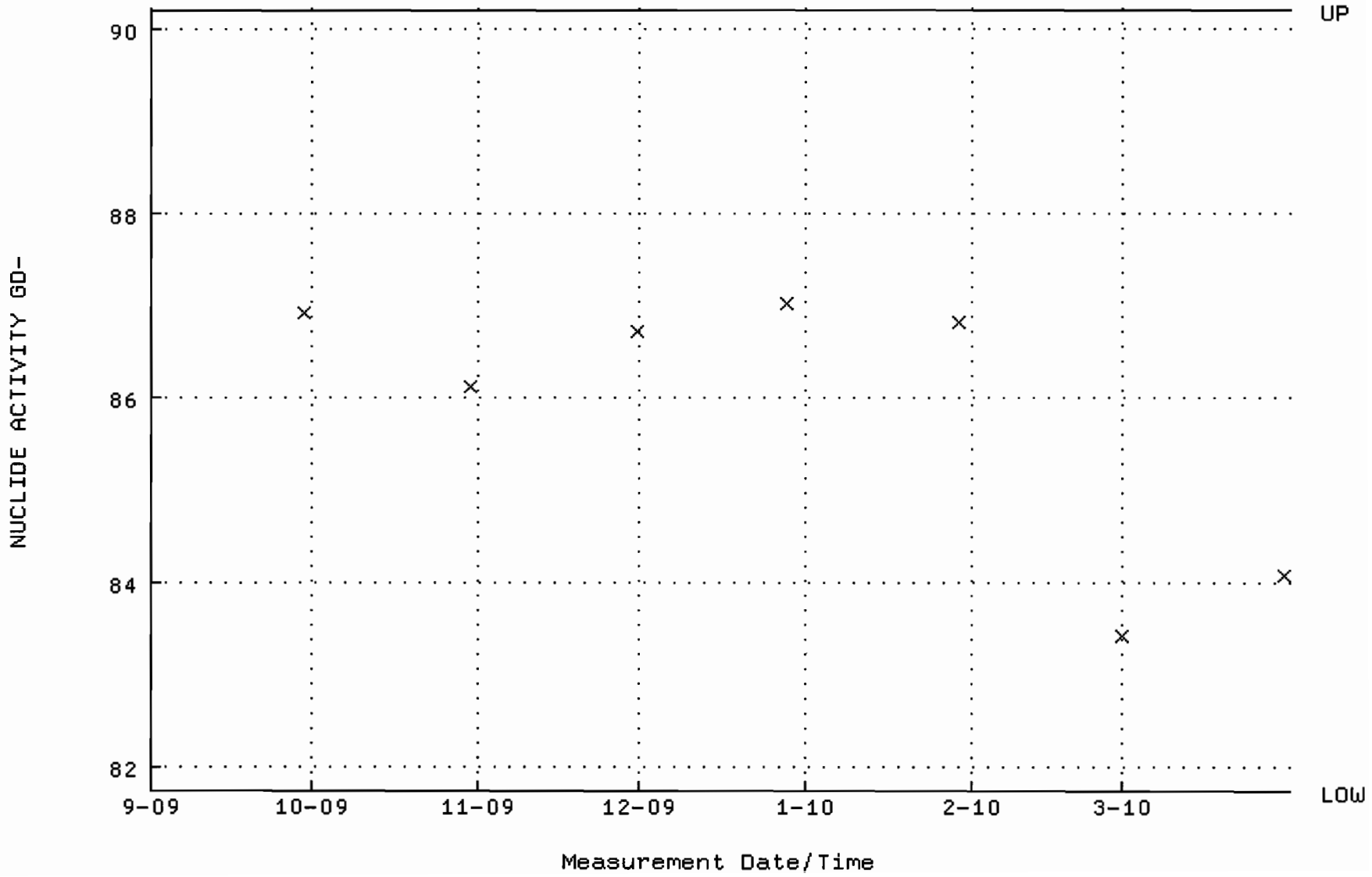

QA filename : DKA100:[ENV_ALPHA.QA.B]B254.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:50 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

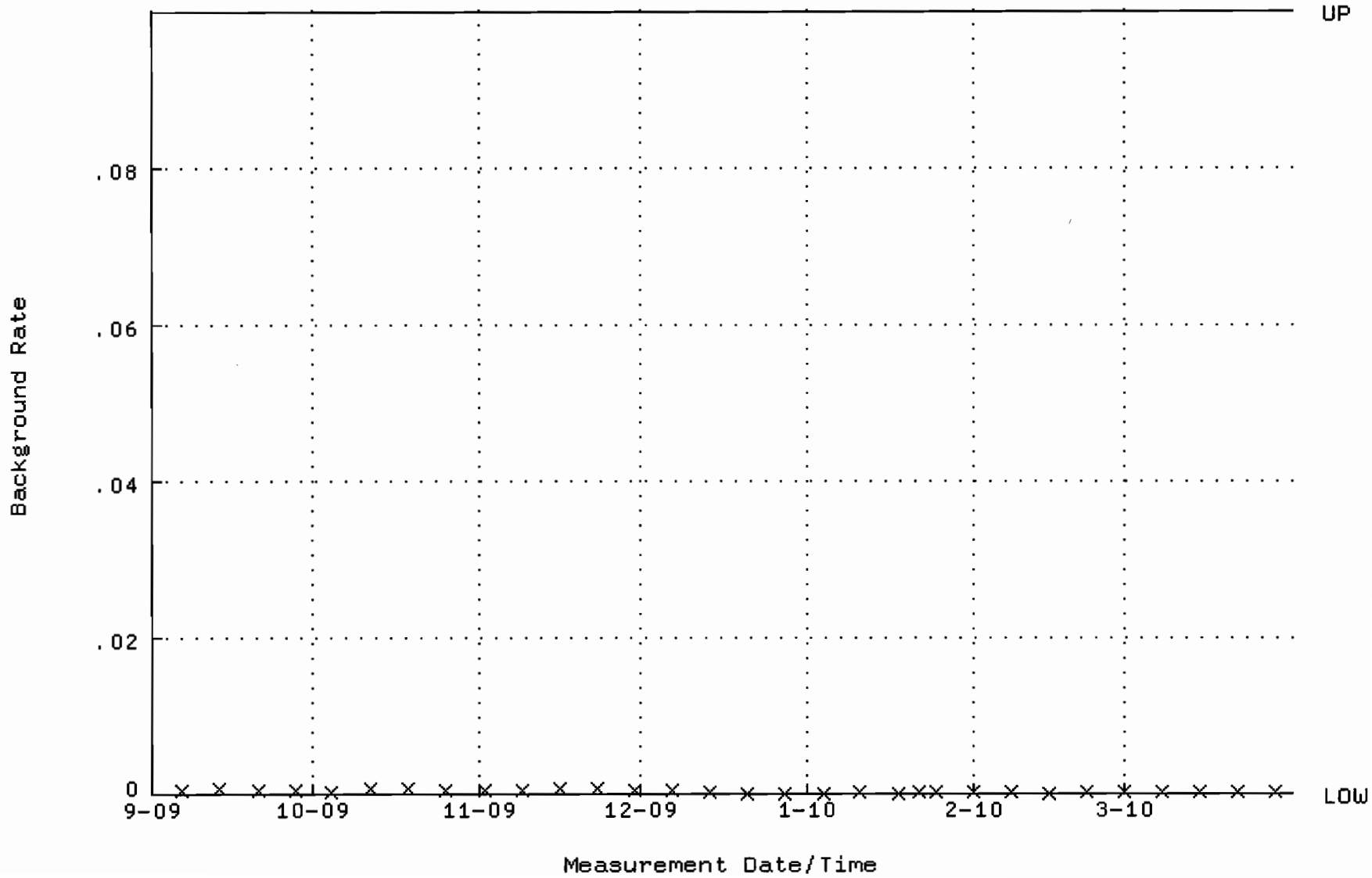

QA filename : DKA100:[ENV_ALPHA.QA.W]W255.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:40:38 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.355725 through 0.416521

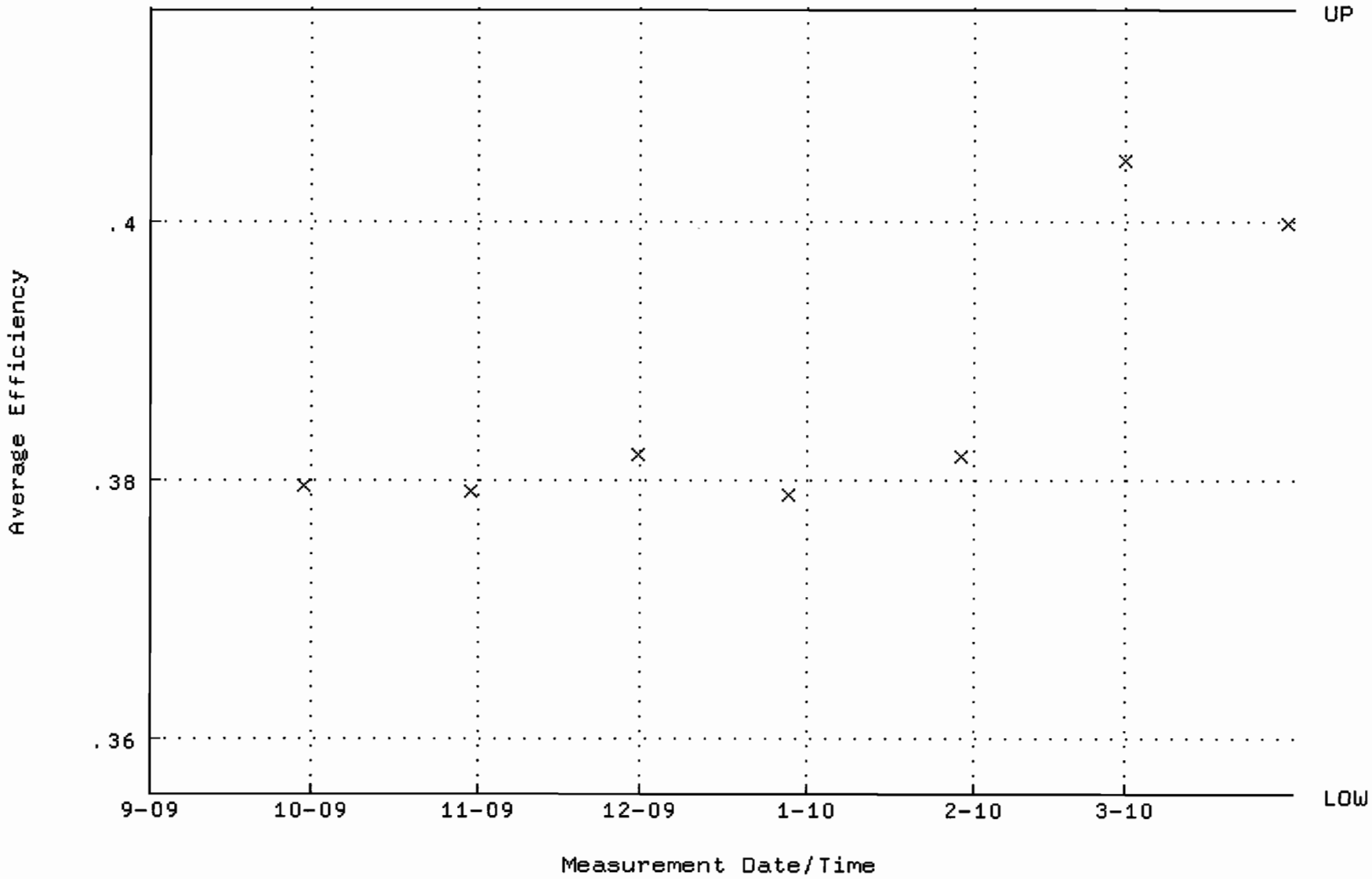

QA filename : DKA100:[ENV_ALPHA.QA.W]W255.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:40:38 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 75.7467 through 89.2374

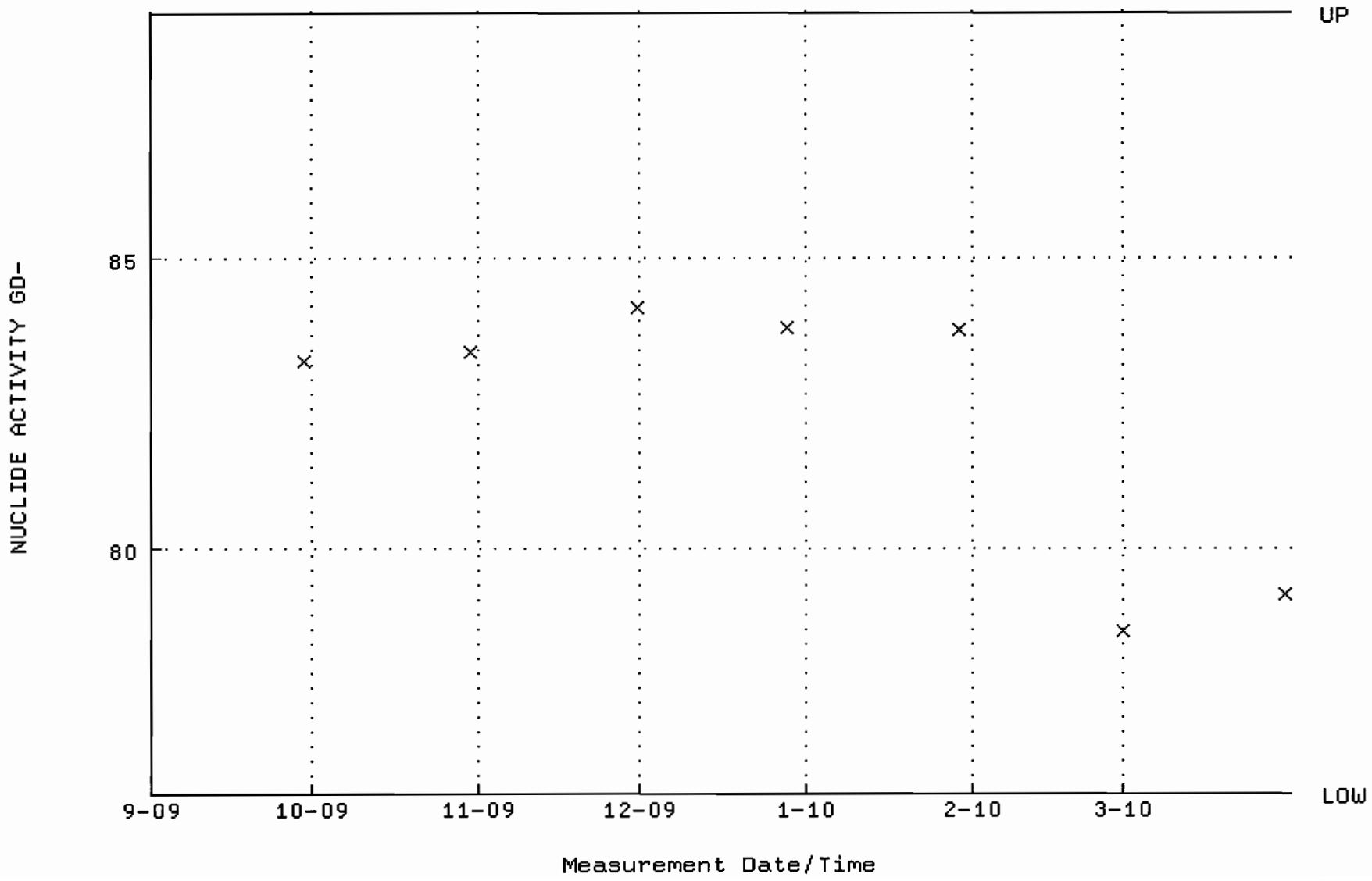

QA filename : DKA100:[ENV_ALPHA.QA.B]B255.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:54 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

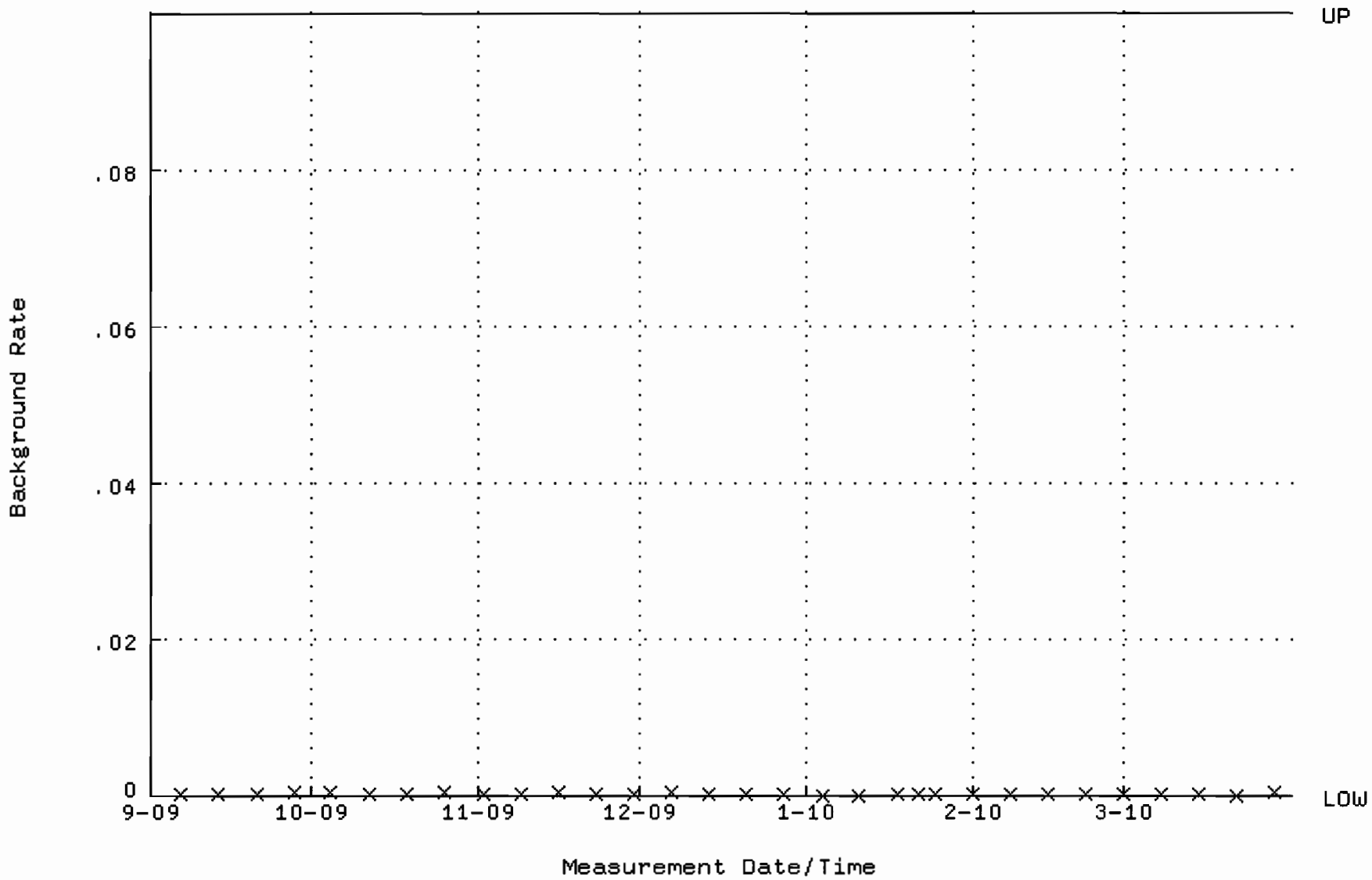

QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:40:43 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.355610 through 0.410626

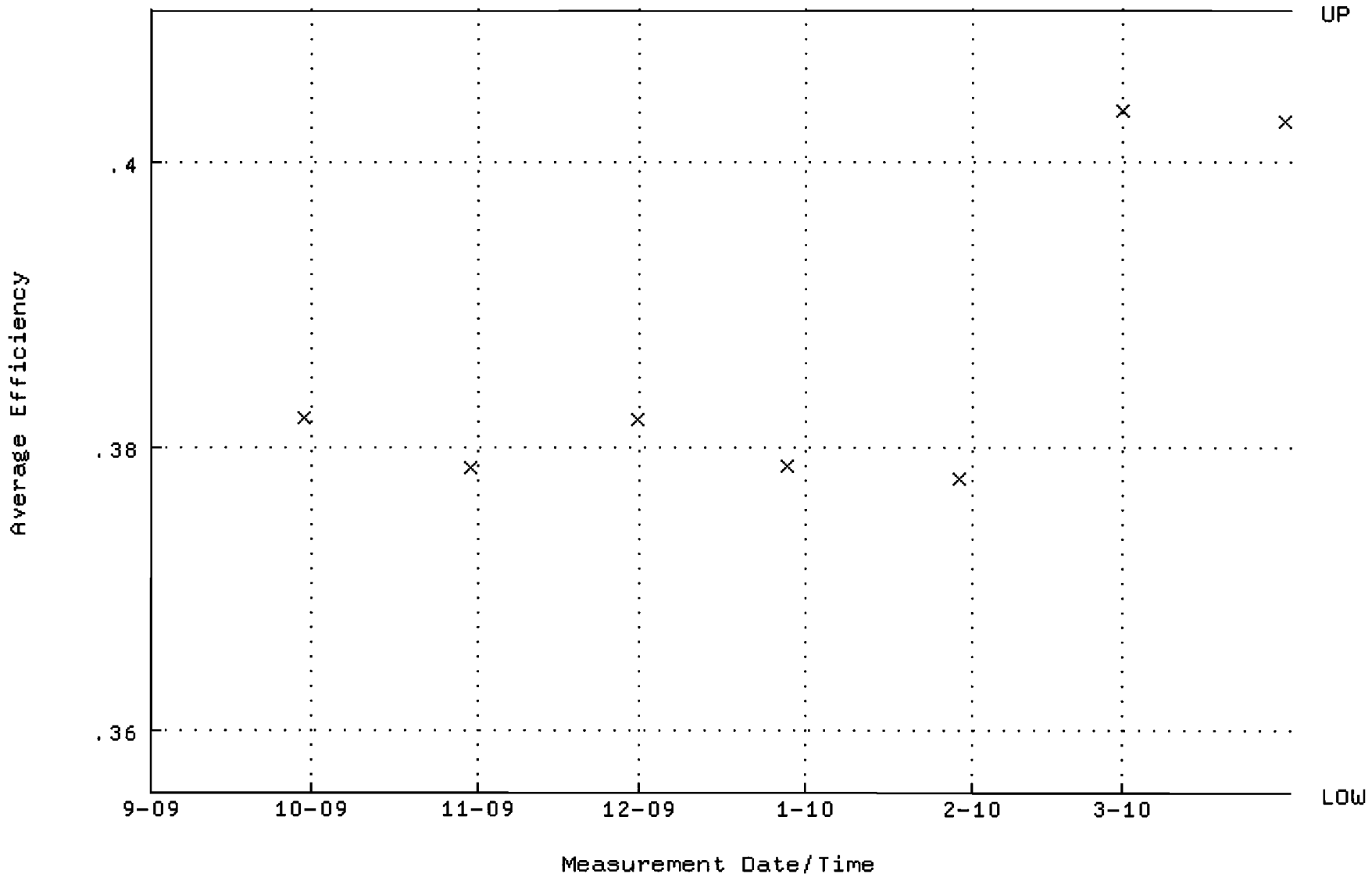

QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:40:43 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 78.3575 through 89.6335

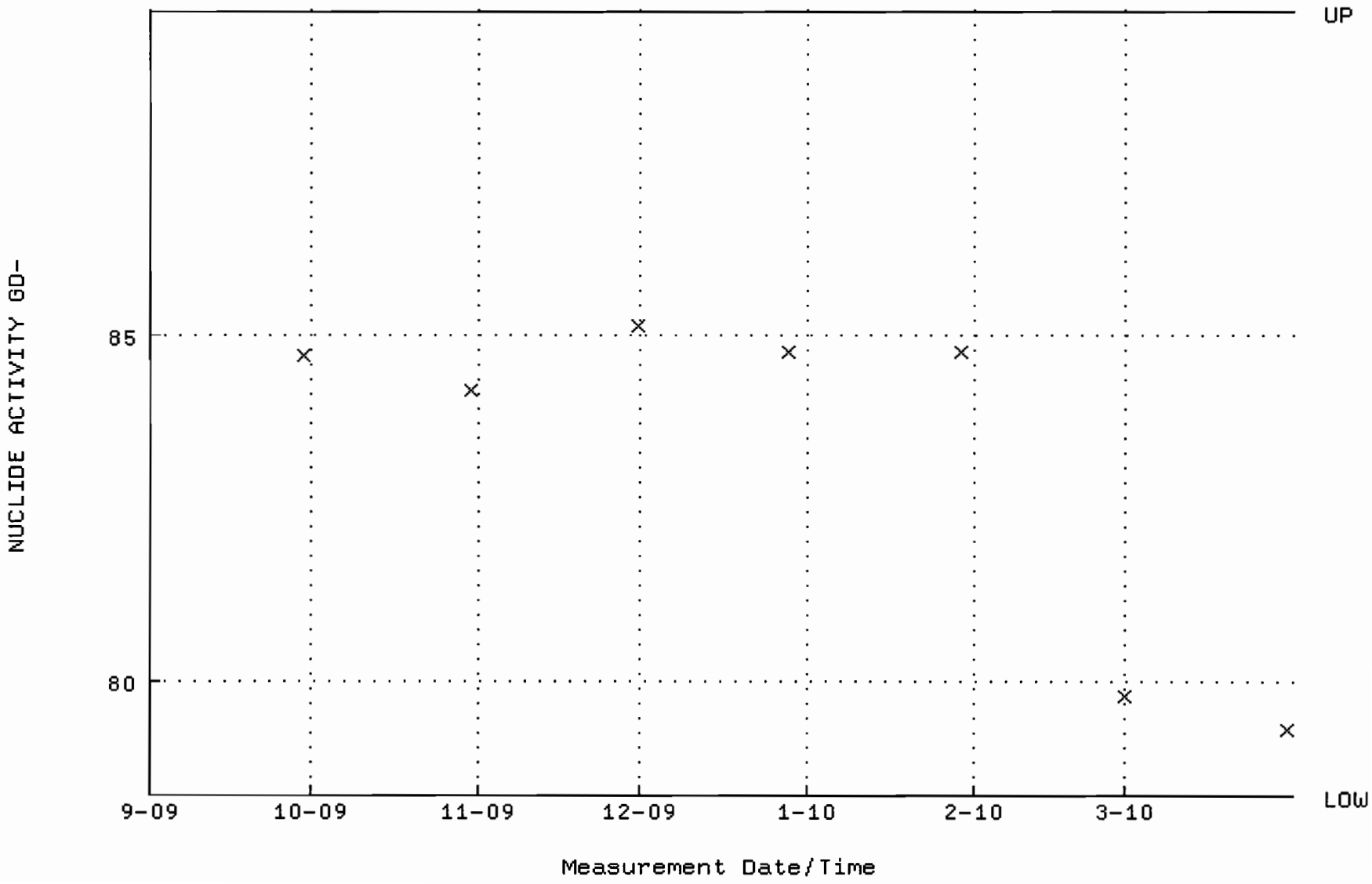

QA filename : DKA100:[ENV_ALPHA.QA.B]B256.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:59 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

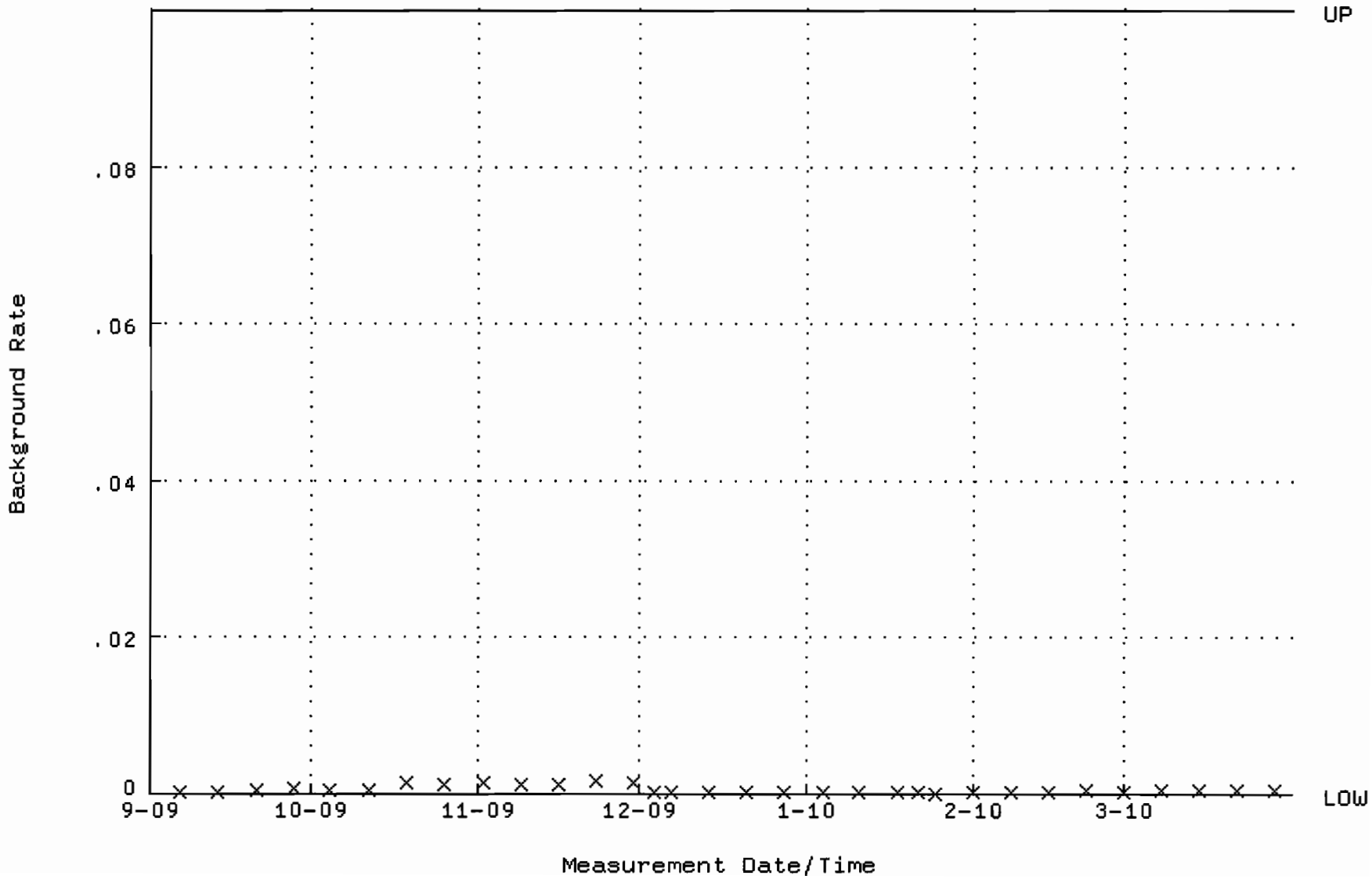

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM06_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:40:19 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

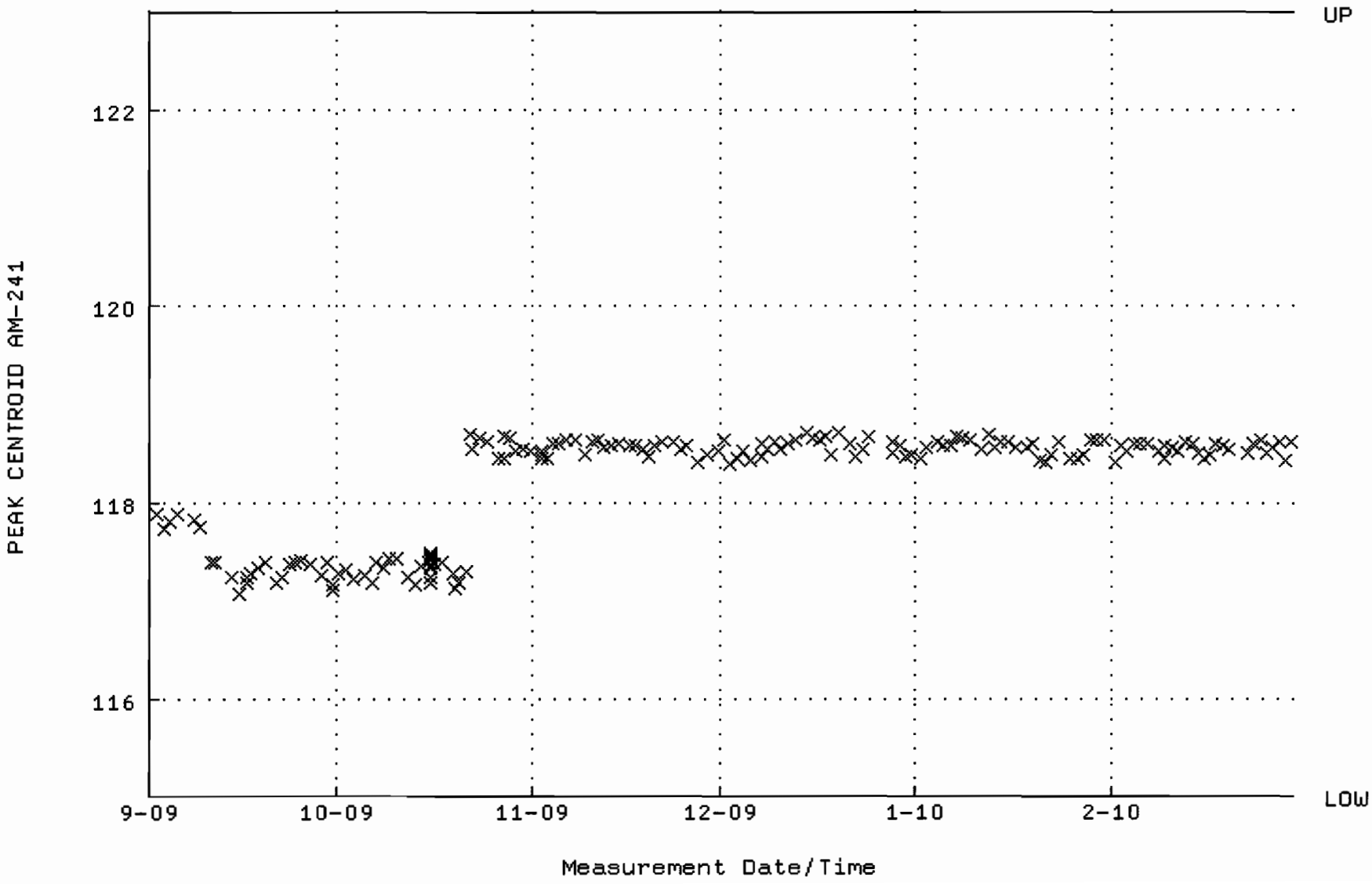

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM06.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:39:28 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.52603 +- 1.215987E-02 (0.80 %)

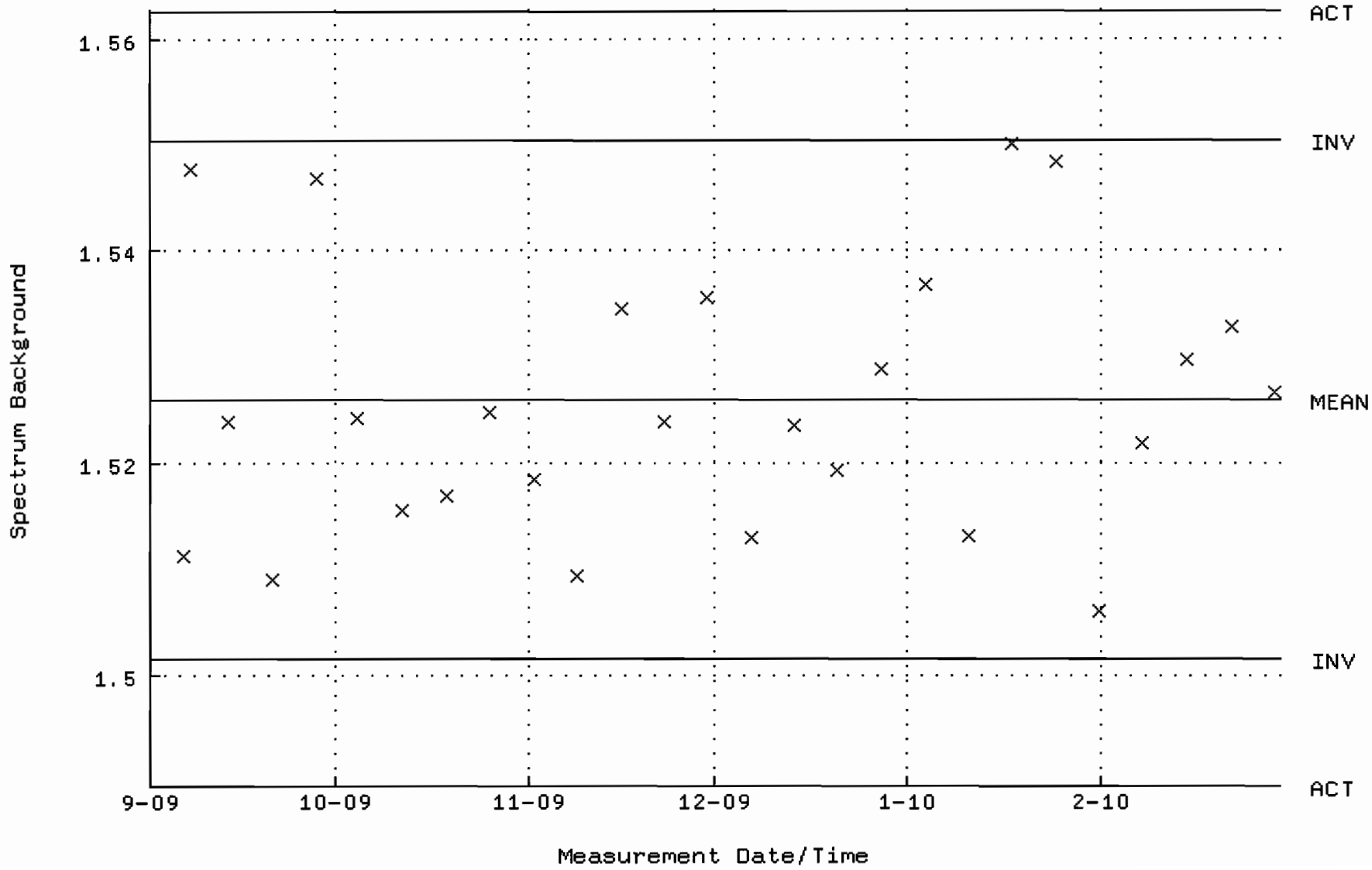

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM07_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:09:02 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

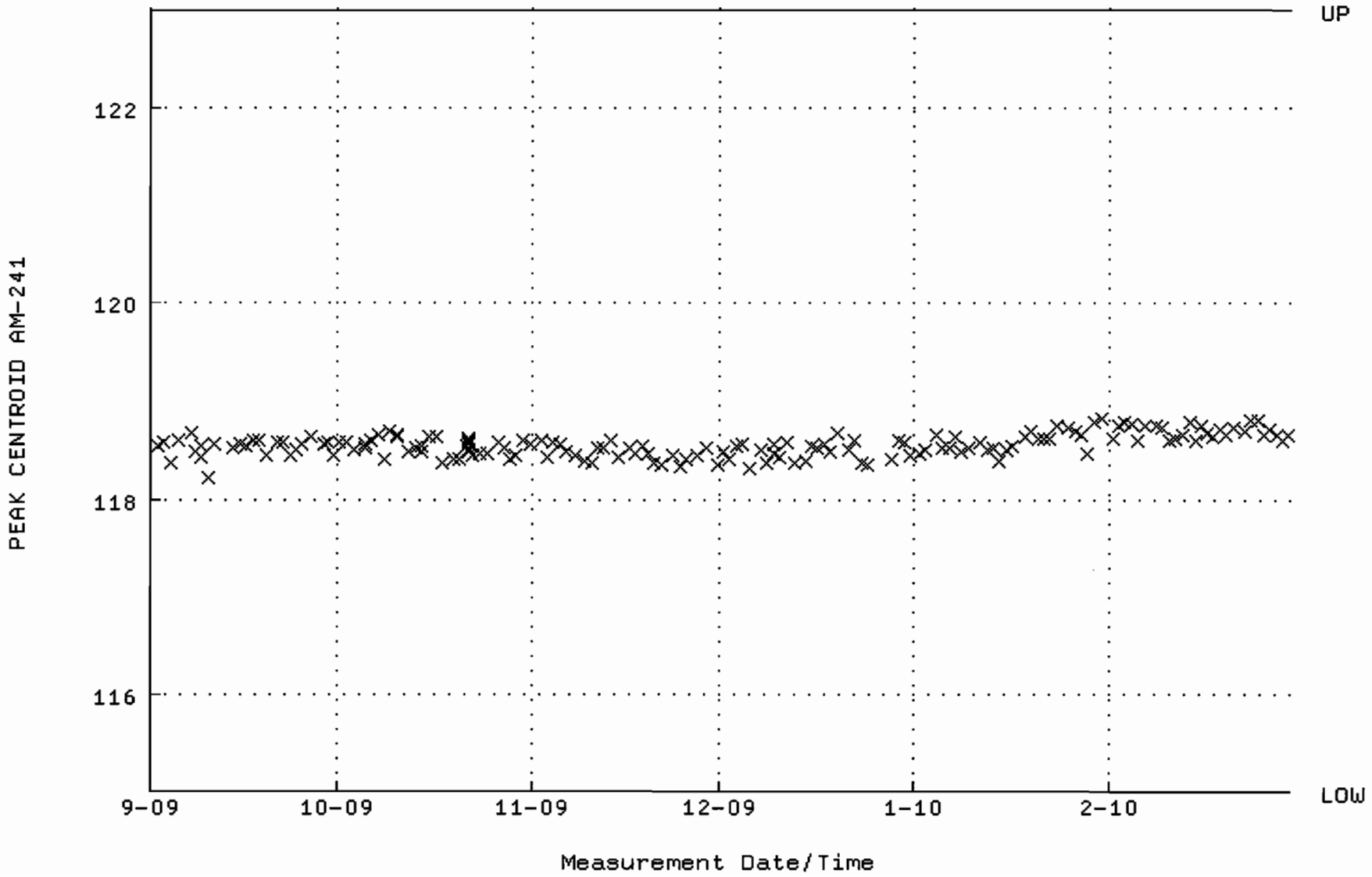

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM07.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:39:54 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.51715 +- 2.726376E-02 (1.80 %)

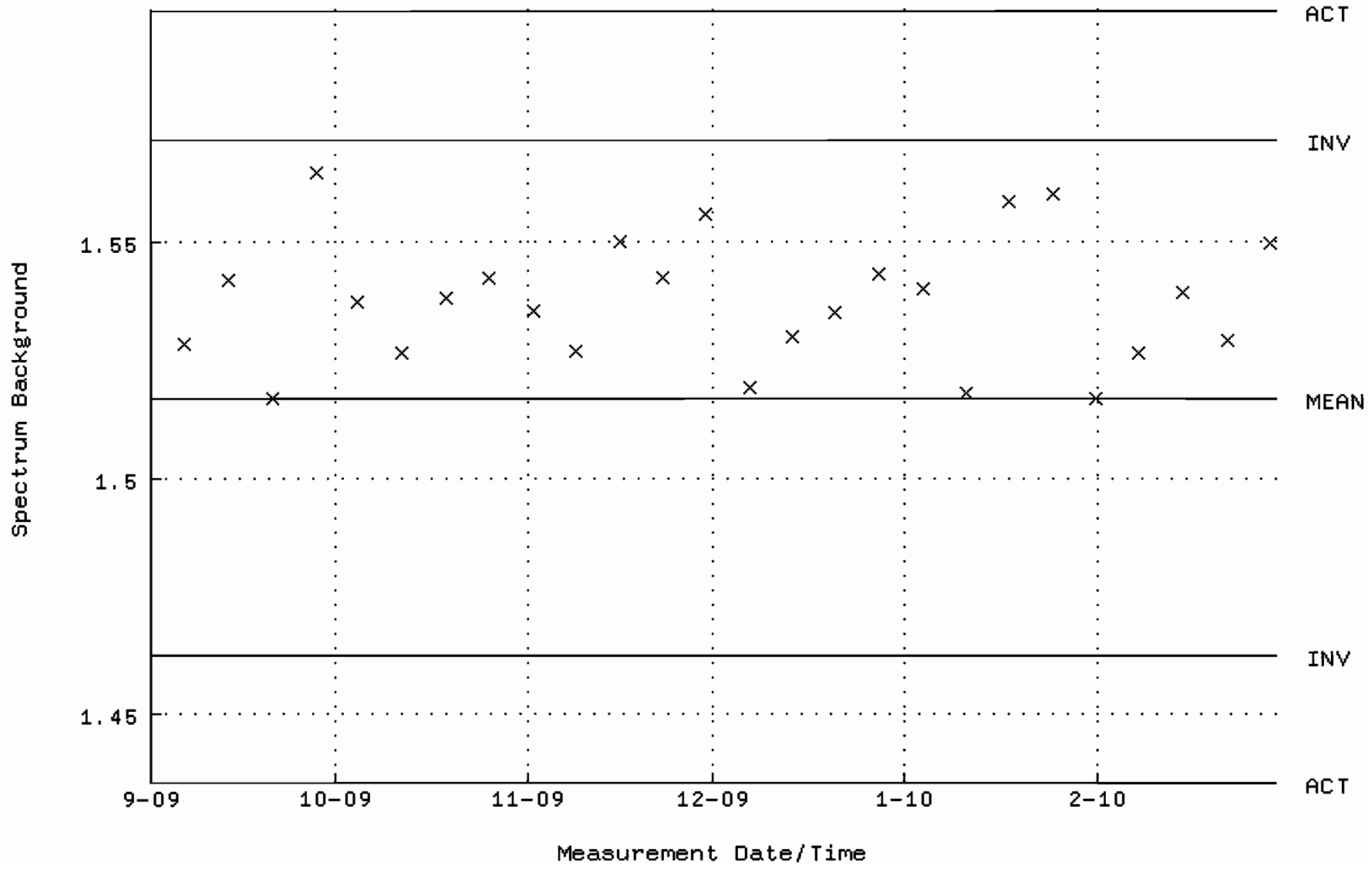

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:32:23 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

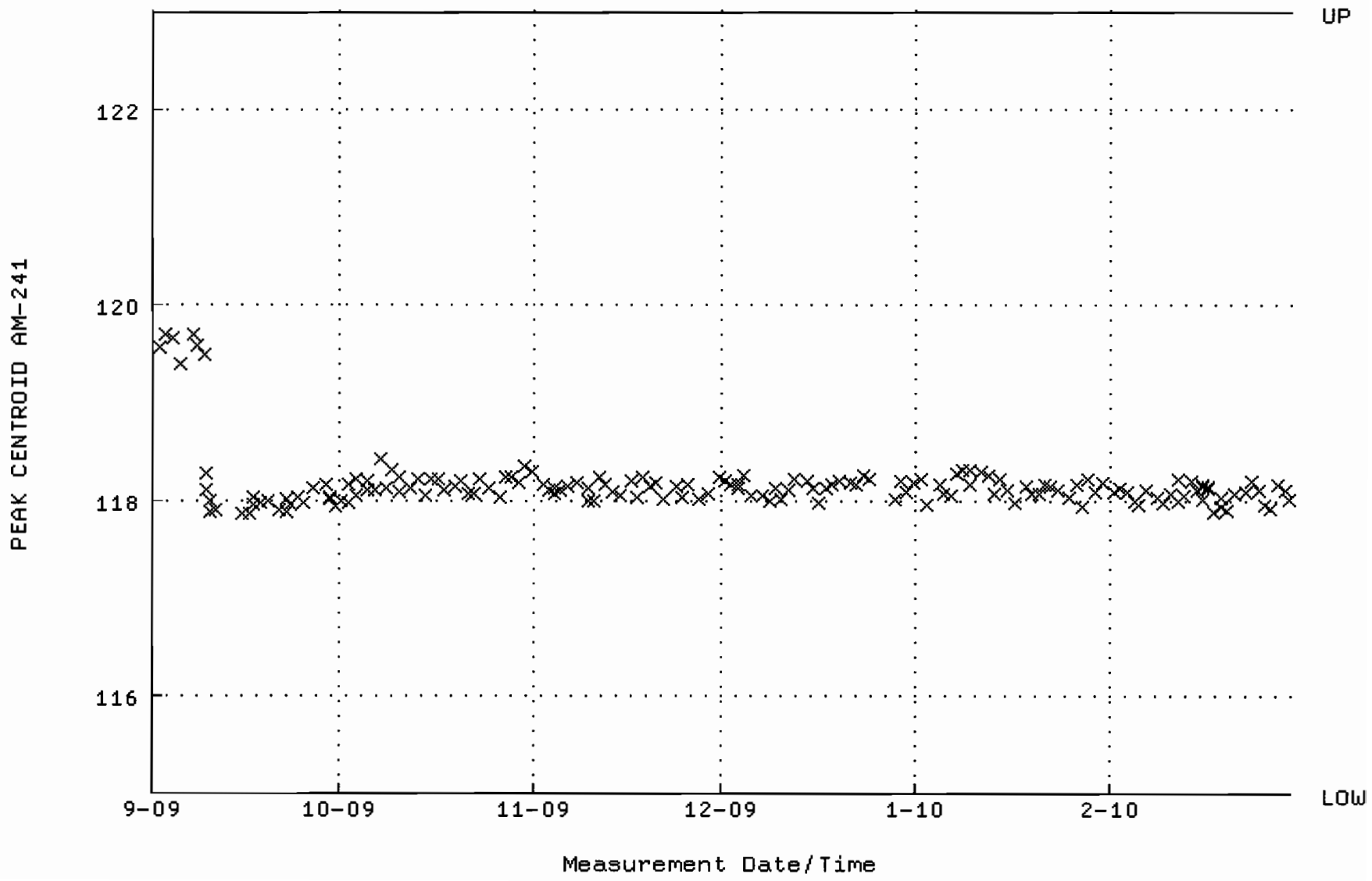

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:43:44 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)

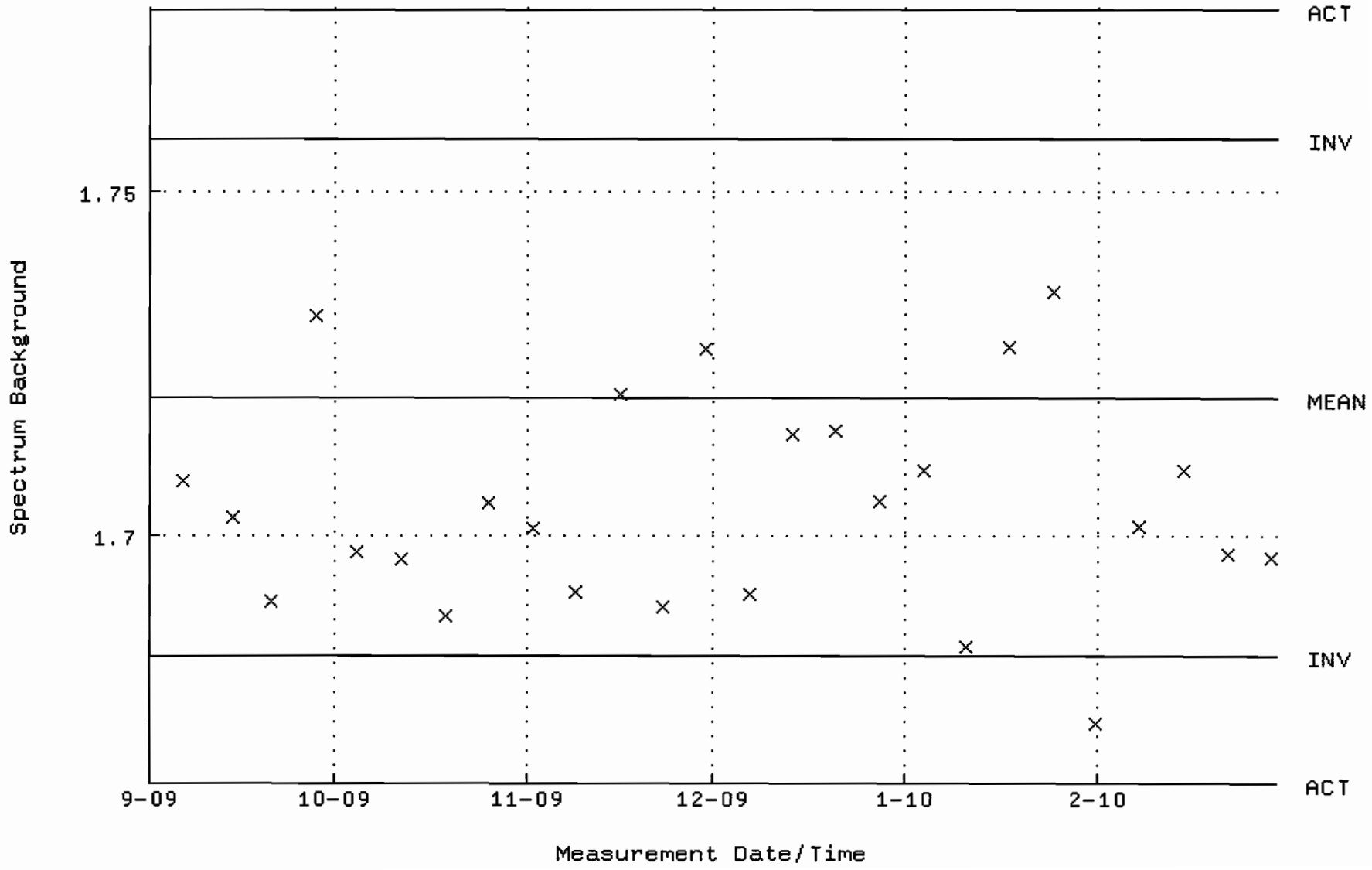

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM20_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:53:11 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

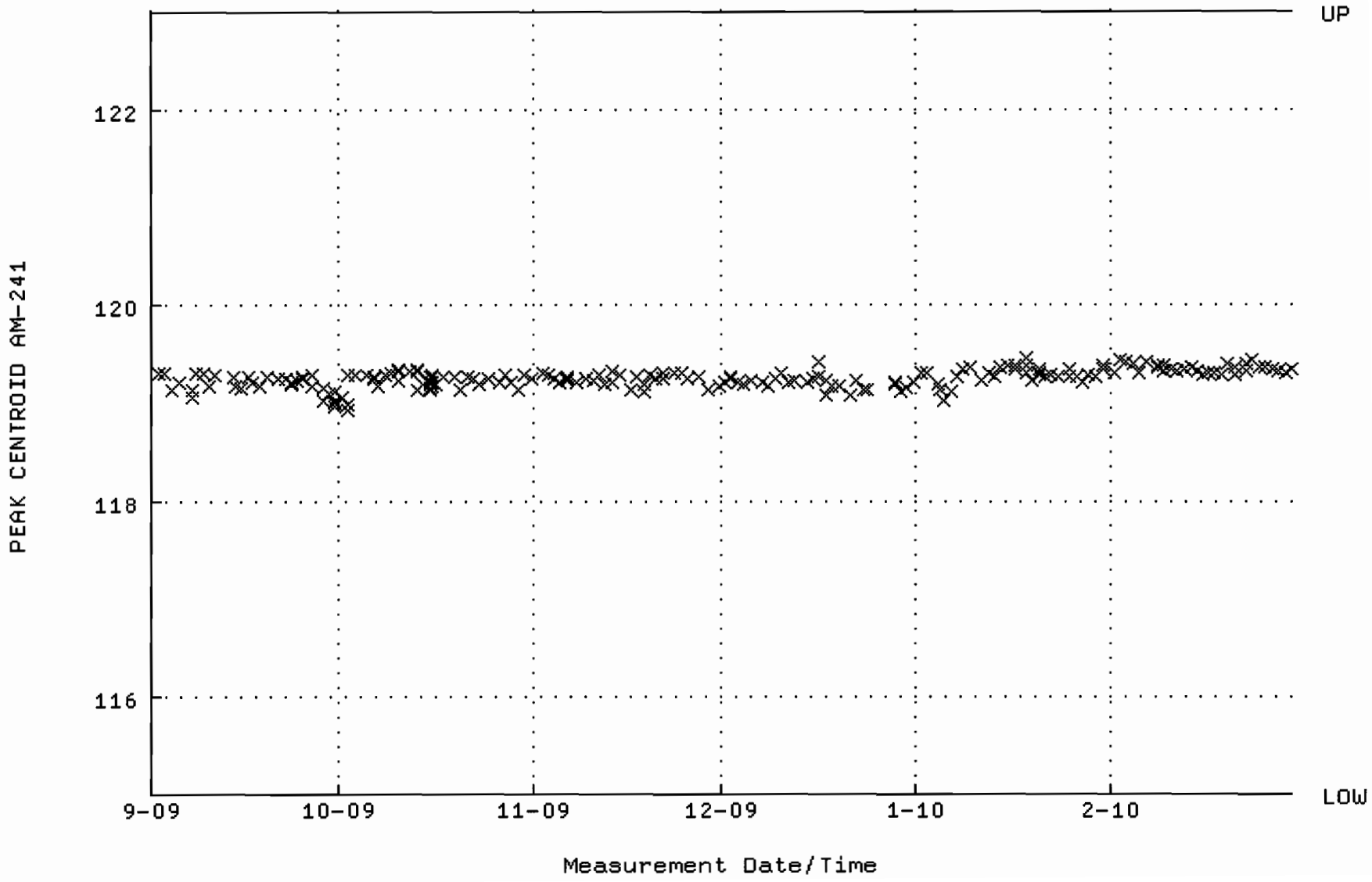

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM20.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:46:04 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.48527 +- 2.388665E-02 (1.61 %)

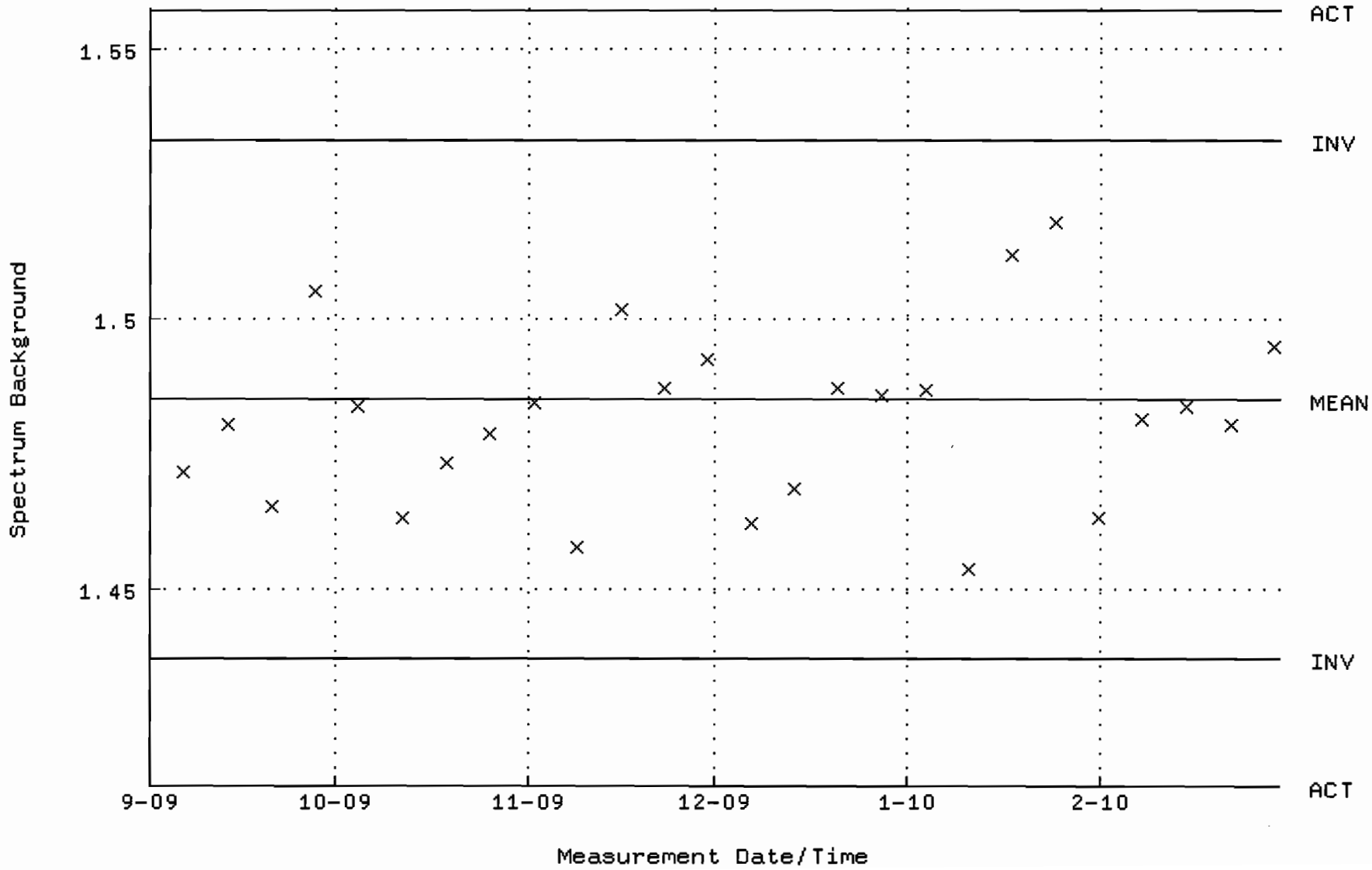

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

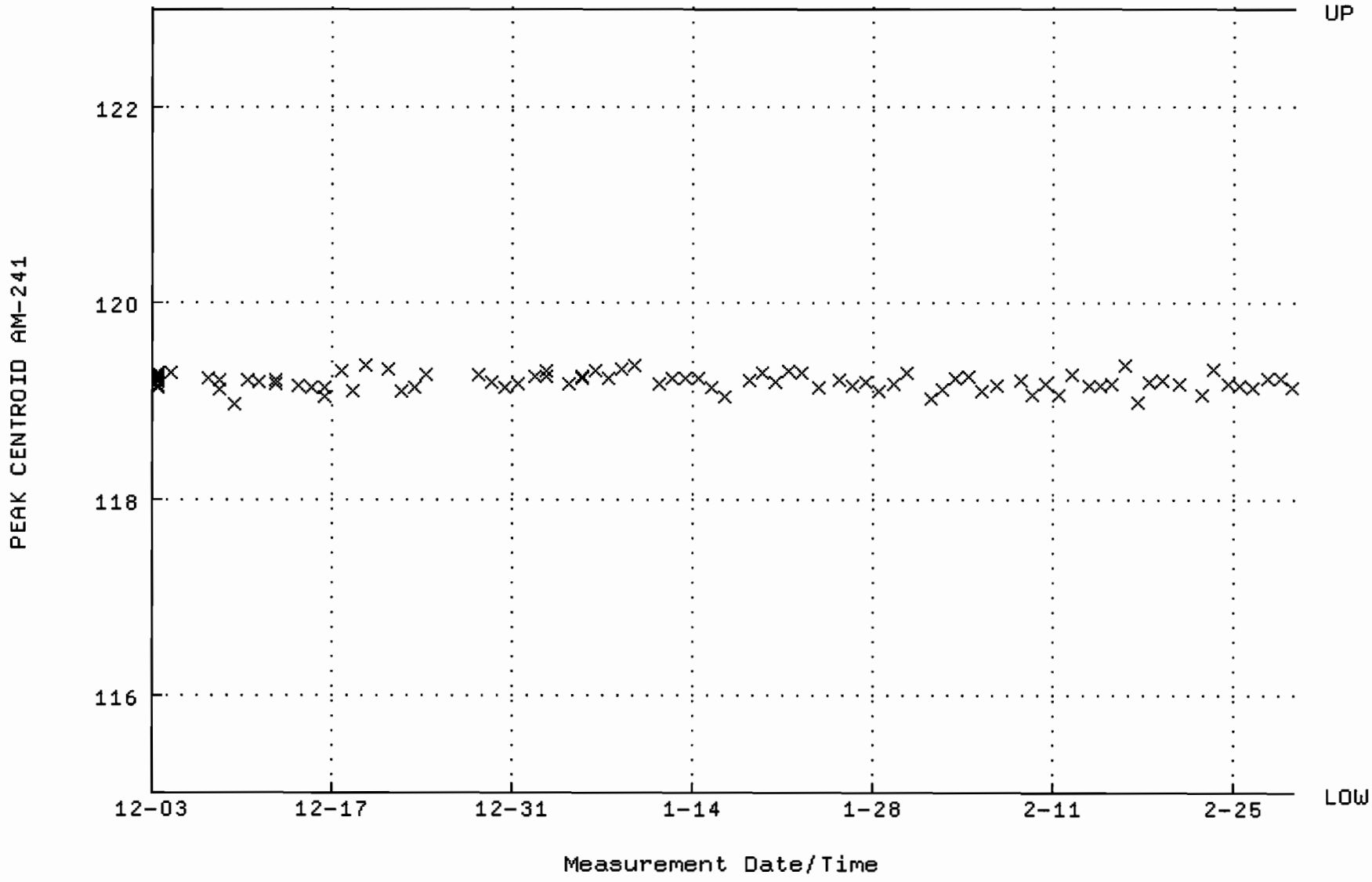

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

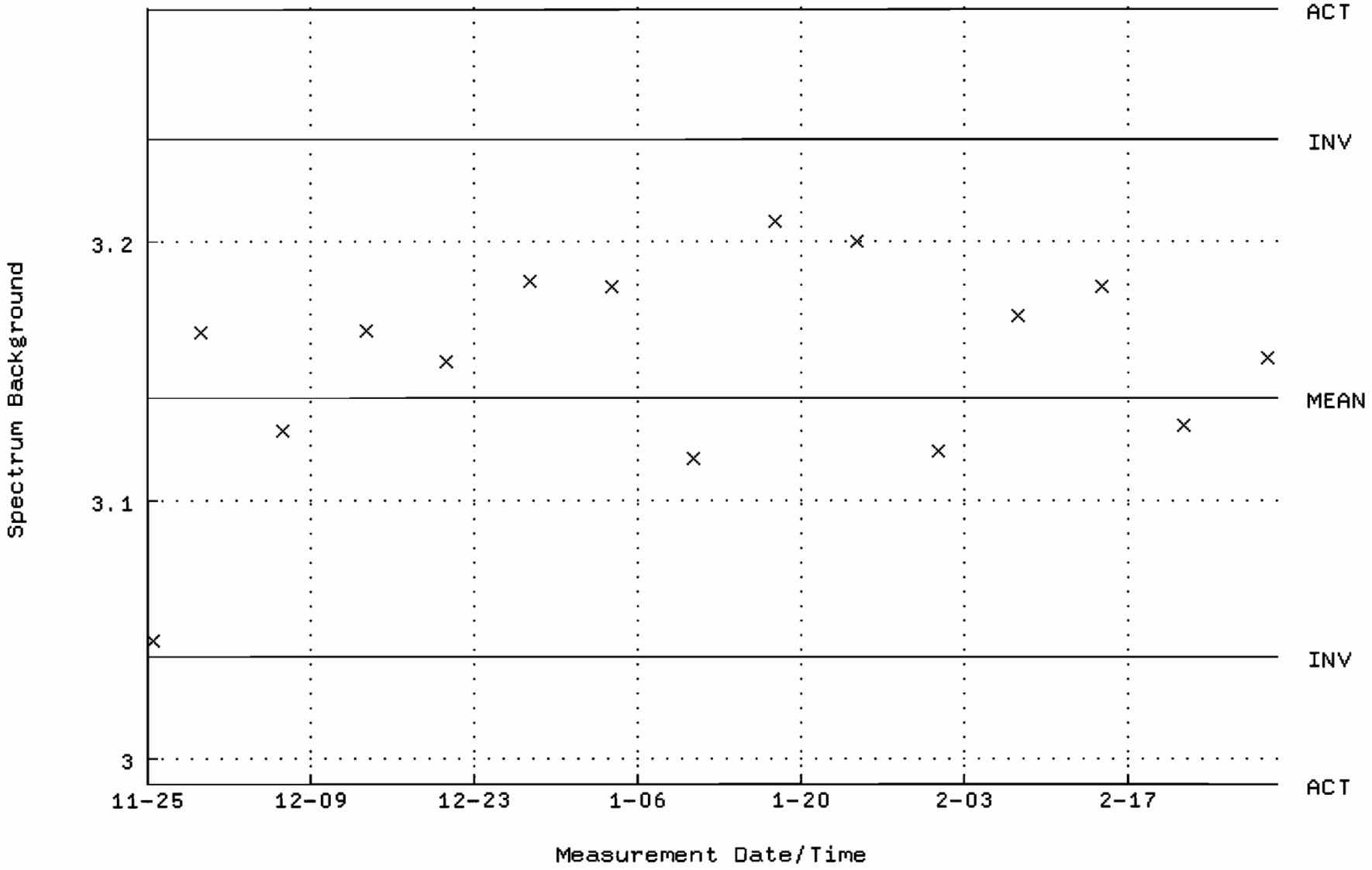

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM25_2LMB.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 9-SEP-2009 16:18:34 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

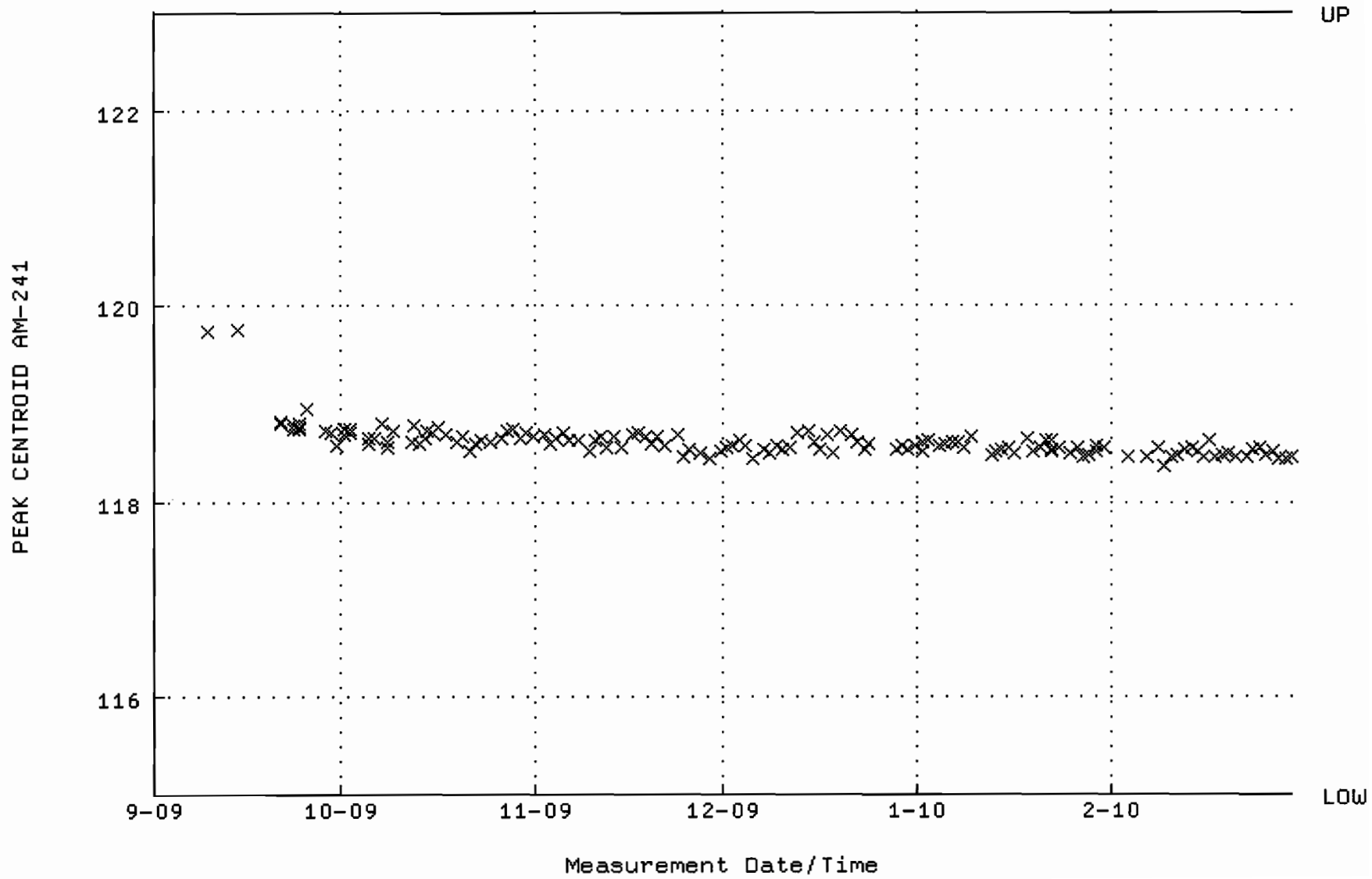

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM25.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:47:27 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.62502 +- 9.370414E-03 (0.58 %)

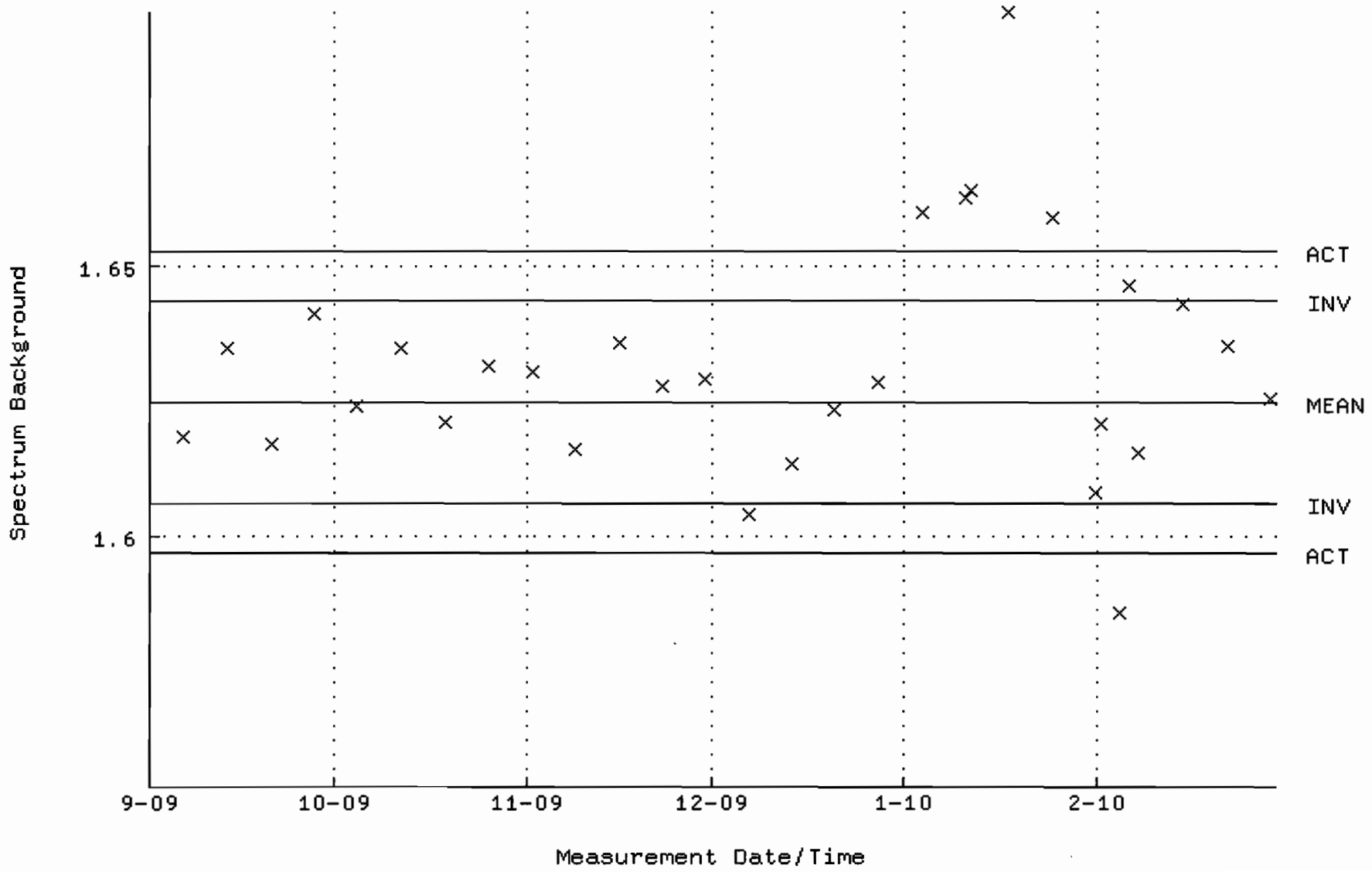

STANDARDS DATA

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

Tel 404•352•8677
Fax 404•352•2837

www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- Ver. JAR-1
	Mixed Gamma N2	2510	pCi/L	- Ver. JAR-3
	Mixed Gamma N3	2413	pCi/L	- Ver. JAR-5

Mean Value (Counting) =	2485.67	**100.00**	**Pass**
Stdev =	64.065		**Rule 3 (Pass/Fail)**

Certificate Value =	2485.68018	pCi/L
Lower Limit =	2357.536524	pCi/L
Upper Limit =	2613.796809	pCi/L
Rule 1 (Pass/Fail)	**Pass**	
Two sigma =	128.1301422	
10 % of Mean =	248.56666667	
Rule 2 (Pass/Fail)	**Pass**	

M. Stamps 12/2/09 initial/date 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result	
	Mixed Gamma N1	1572	pCi/L - VER-JAR-5
	Mixed Gamma N2	1495	pCi/L - VER-JAR-2
	Mixed Gamma N3	1501	pCi/L - VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**
Stdev =	42.829	**Rule 3 (Pass/Fail)**	
Certificate Value =	1545.8378	pCi/L	
Lower Limit =	1437.008431	pCi/L	
Upper Limit =	1608.324902	pCi/L	
Rule 1 (Pass/Fail)	**Pass**		
Two sigma =	85.65823564		
10 % of Mean =	152.26666667		
Rule 2 (Pass/Fail)	**Pass**		

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATE 4/14/2000 Jeff C Neff 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 bottles of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM-1	TRM-2	TRM-3	TRM-4
U-238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U-234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th-230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra-226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb-210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 2216794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID (LAB USE)
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHR	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking (LAB USE) / SMO USE
Date Entered (mm/dd/yy)
Entered By
QC Limits

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL on behalf of Hank Mistaer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. WESTON	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
[illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 7 2 6 7 9 4 1
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept. _____
P.O. Box 5800 MS 0154

Location: Tech Area VI; Building N/A; Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID (LAB USE)
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking (LAB USE) Date Entered (mm/dd/yy): Entered by:

Turnaround Time ☒Normal ☐Rush Required Report Date

QC Limits

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized rad materials being sent to GEL on behalf of Hank Hinkaer
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	[signature]	DEP	Weston / 7577 / 845-0867

1. Relinquished by	[signature]	Org. WESTON	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) | 1st Copy To Accompany Samples, Return to SMO (Blue) | 2nd Copy SMO Suspense Copy (Yellow) | 3rd Copy Field Copy (Pink)

0934

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 • U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

72858-278

Th-229 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Th-229
ACTIVITY (dps):	3.842 E3
HALF-LIFE:	7340 years
CALIBRATION DATE:	May 2, 2006 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	3.5%

Impurities: Th-228 5.7 dps
Th-230 24 dps
Th-232 1.5 dps

5.05657 grams 0.5M HNO_3 solution.

P O NUMBER 2724RD, Item 1

SOURCE PREPARED BY: M Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 05-02-2006

RECEIVED 5/5/06 MLK

RCS-041-110

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0934
Prepared By:	Daniel Roy
Carrier Conc:	0.05M HNO3
Reference Date:	05/02/2006
Ampoule Mass (g):	5.05657 g
Uncertainty:	+/- 3.5 %
LogBook No:	RC-S-041-110

A Solution Material Info	
Isotope:	Thorium-229
Prepared By:	Daniel Roy
Prep Date:	04/23/2008
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	0934-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8973 g
Density(g/mL):	1.0143
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8973 g) * (3842 dps) * (60 dpm/dps) / (5.05657 g * 100 mL) = 2232.5917 dpm/mL
(4.8973 g) * (3842 dps) * (60 dpm/dps) / (1.0143 g/mL)/ (5.05657 g * 100 mL) = 2201.0332 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
04/23/2008	Daniel Roy	2.5898	250	0934-B	22.8009 dpm/ml	04/23/2008	04/23/2009
09/25/2008	Daniel Roy	2.6237	250	0934-C	23.0994 dpm/ml	09/25/2008	09/25/2009
12/16/2008	Daniel Roy	2.6547	250	0934-D	23.3723 dpm/ml	12/16/2008	12/16/2009
01/09/2009	Daniel Roy	2.5399	250	0934-E	22.3616 dpm/ml	01/09/2009	01/09/2010
04/03/2009	Mary Aders	2.5434	250	0934-F	22.3924 dpm/ml	04/03/2009	04/03/2010
04/22/2009	Mary Aders	2.5138	250	0934-G	22.1318 dpm/ml	04/28/2009	04/28/2010
07/31/2009	Mary Aders	2.579	250	0934-H	22.7059 dpm/mL	07/31/2009	07/31/2010
09/16/2009	Mary Aders	2.5029	250	0934-I	22.0359 dpm/mL	09/16/2009	09/16/2010
10/21/2009	Mary Aders	2.4847	250	0934-J	21.8756 dpm/mL	10/21/2009	10/21/2010
12/02/2009	Ashley Drochter	5.0356	500	0934-K	22.167 dpm/mL	12/02/2009	12/02/2010
03/09/2010	Ashley Drochter	5.0236	500	0934-L	22.1142 dpm/mL	03/09/2010	03/09/2011

Verification for Th-229 Standard 0934-L

A.DROCHTER	Isotope	Value	Uncertainty
3/15/2010	0934-L	0.958	0.1630
	0934-L	1.020	0.2040
	0934-L	0.978	0.1550

Mean Value (Counting) =	0.985	98.95	**Pass**
Stdev =	0.031643851		**Rule 3 (Pass/Fail)**

Target =	0.996
Lower Limit =	0.92204563
Upper Limit =	1.048621036
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.063287703
10 % of Mean =	0.098533333
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard 0934-L using 0.1 mL for each source. Each standard was combined with 0.1 mL of Th-230 standard A2796-J and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Two mL of 49% HF was added to precipitate neodymium(and Thorium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Th-229 were calculated by comparison to Th-230 certified values.

3/18/10

3/18/10

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Khan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	03/09/2010
Expiration Date:	03/09/2011
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Tara Sides	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/14/2009	09/14/2010
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/09/2010	Ashley Drochter	.011	1000	445-96-2-VV	22.7878 dpm/mL	03/09/2010	03/09/2011
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
03/23/2010	Ashley Drochter	.0163	1000	445-96-2-WW	33.7674 dpm/mL	03/23/2010	03/23/2011
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-VV*

A.Drochter 3/15/2010	Isotope	Value	Uncertainty
	445-96-2-VV #1	1.040	0.1630
	445-96-2-VV #2	0.964	0.1480
	445-96-2-VV #3	0.970	0.1550

Mean Value (Counting) =	0.991	96.72	**Pass**
Stdev =	0.042253205		**Rule 3 (Pass/Fail)**

Target =	1.025
Lower Limit =	0.906826923
Upper Limit =	1.075839743
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.08450641
10 % of Mean =	0.099133333
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-VV*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

3/15/10

3/16/10

1430

NATIONAL PHYSICAL LABORATORY

Teddington Middlesex UK TW11 0LW Telephone +44 20 8977 3222

Certificate of Calibration

UKAS CALIBRATION 0478

PLUTONIUM-236 SOLUTION
R37-02

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

FOR:	GEL Laboratories LLC 2040 Savage Road Charleston, SC 29407 USA
FOR THE ATTENTION OF:	Mr Tim Winters
NPL PRODUCT CODE:	R37-02
IDENTIFICATION:	A09881
DESCRIPTION:	An aqueous solution of ^{236}Pu also containing 2 mol dm^{-3} of nitric acid. The solution is contained in a flame sealed ampoule of type Q and nominal volume 5 ml (squat) as defined in BS 795:1983.
DATE(S) OF CALIBRATION:	26 June 2009 to 1 July 2009
INTENDED USE:	Calibration of instruments for response to ^{236}Pu
STORAGE:	The material may be stored at room temperature in a suitably sealed container. Flame-sealed glass ampoules are recommended for long-term storage. Regulatory conditions may apply to the manner in which this material is stored.

RECEIVED 11 JUN 2010

MEASUREMENTS

The samples were prepared by gravimetric dilution of a ^{236}Pu solution, which had been previously standardised using liquid scintillation counting. The accuracy of the dilution factor was checked using liquid scintillation counting.

Reference: 2009100356

Date of Issue: 4 November 2009

Checked by:

Signed:

Name: Dr Arvic Harms

(Authorised Signatory)

for Managing Director

RESULTS

Principal radionuclide:	^{236}Pu
Reference time:	2009-07-01 12:00 UTC
Activity concentration of principal radionuclide:	170.8 Bq g^{-1}
Expanded uncertainty:	±0.6 Bq g^{-1} (±0.36 %)
Contaminants present:	^{226}Ra, ^{232}U, ^{228}Th, ^{237}Np
Activity concentration of ^{226}Ra:	11.0 mBq g^{-1}
Expanded uncertainty:	±4.0 mBq g^{-1} (±36 %)
Activity concentration of ^{232}U:	0.67 Bq g^{-1}
Expanded uncertainty:	±0.12 Bq g^{-1} (±18 %)
Activity concentration of ^{228}Th:	11.38 mBq g^{-1}
Expanded uncertainty:	±0.46 mBq g^{-1} (±4 %)
Activity concentration of ^{237}Np:	5.00 mBq g^{-1}
Expanded uncertainty:	±0.34 mBq g^{-1} (±8 %)
Sample Mass:	4.97 g ± 0.02 g

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

NOTES

[1]. The reported reference time is stated consistent with the format given in ISO 8601:2004. UTC is the abbreviation for Universal Time, Coordinated. The date is stated in the format YYYY-MM-DD such that 2008-09-01 represents 1 September 2008.

[2]. The recommended half life of ^{236}Pu is 1044 (6) days and is taken from the evaluations published in *Nuclear Data Sheets*.

[3]. The recommended half life of ^{226}Ra is 5.844 (50) × 10^5 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[4]. The recommended half life of ^{232}U is 25800 (800) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[5]. The recommended half life of ^{237}Np is 7.83 (6) × 10^8 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[6]. The recommended half life of ^{228}Th is 698.60 (46) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1430
Prepared By:	Ashley Drochter
Carrier Conc:	2 M HNO3
Reference Date:	07/01/2009
Ampoule Mass (g):	4.97 g
Uncertainty:	+/- .36 %
LogBook No:	RC-S-051-149

A Solution Material Info	
Isotope:	Plutonium-236
Prepared By:	Ashley Drochter
Prep Date:	01/27/2010
Verification Date:	01/27/2010
Expiration Date:	01/27/2011
Primary Code:	1430-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8051 g
Density(g/mL):	1.0610
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (100 mL) = 492.4266 dpm/mL
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (1.0610 g/mL) / (100 mL) = 464.1156 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/27/2010	Bethany Fiem	33.0429	200	1430-B	76.6786262 dpm/mL	01/27/2010	01/27/2011
03/04/2010	Ashley Drochter	15.2331	200	1430-C	35.3496 dpm/mL	03/04/2010	03/04/2011
03/17/2010	Ashley Drochter	15.0683	200	1430-D	34.9672 dpm/mL	03/17/2010	03/17/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-236 Standard 1430-D

	Isotope	Value	Uncertainty
A. Drochter	1430-C	1.240	0.2040
3/23/2010	1430-C	1.260	0.2130
	1430-C	1.360	0.2280
Mean Value (Counting) =	1.287	97.11088	Pass
Stdev =	0.064291005		
Target =	1.32		
Lower Limit =	1.158084657		
Upper Limit =	1.415248677		
Rule 1 Pass/Fail	Pass	Pass	Pass
Two sigma =	0.12858201		
10 % of Mean =	0.128666667		
Rule 2 (Pass/Fail)	Pass		

The analyst prepared three standard verification sources for standard 1430-D using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. After approximately ten minutes, two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-236 were calculated by comparison to Pu-239 certified values.

3/23/10

3/23/10

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-05

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter AD 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 964804**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249179001	SAMPLE	MXR1	GAM15	23-MAR-10 16:44	DONE	CAN	03-FEB-10 00:00
249179002	SAMPLE	MXR1	GAM15	23-MAR-10 18:49	DONE	CAN	03-FEB-10 00:00
249179003	SAMPLE	MXR1	GAM07	23-MAR-10 19:03	DONE	CAN	20-JUL-09 00:00
249179004	SAMPLE	MXR1	GAM25	23-MAR-10 19:04	DONE	CAN	07-OCT-09 00:00
249179005	SAMPLE	MXR1	GAM05	23-MAR-10 20:12	DONE	CAN	11-JUN-09 00:00
249179006	SAMPLE	MXR1	GAM22	23-MAR-10 20:33	DONE	CAN	02-DEC-09 00:00
249179007	SAMPLE	MXR1	GAM29	23-MAR-10 20:44	DONE	CAN	23-FEB-10 00:00
249244002	SAMPLE	MXR1	GAM06	23-MAR-10 21:01	DONE	CAN	16-FEB-10 00:00
249244003	SAMPLE	MXR1	GAM07	23-MAR-10 21:07	DONE	CAN	20-JUL-09 00:00
249244004	SAMPLE	MXR1	GAM25	23-MAR-10 21:08	DONE	CAN	07-OCT-09 00:00
249244001	SAMPLE	MXR1	GAM15	23-MAR-10 22:40	DONE	CAN	03-FEB-10 00:00
249244005	SAMPLE	MXR1	GAM25	23-MAR-10 23:16	DONE	CAN	07-OCT-09 00:00
249244006	SAMPLE	MXR1	GAM22	24-MAR-10 11:06	DONE	CAN	02-DEC-09 00:00
249245002	SAMPLE	MXR1	GAM11	24-MAR-10 11:16	DONE	CAN	18-NOV-09 00:00
249247001	SAMPLE	MXR1	GAM29	24-MAR-10 11:19	DONE	CAN	23-FEB-10 00:00
249245001	SAMPLE	MXR1	GAM18	24-MAR-10 11:25	DONE	CAN	23-APR-09 00:00
249247002	SAMPLE	MXR1	GAM17	24-MAR-10 12:07	DONE	CAN	06-JAN-10 00:00
249247003	SAMPLE	MXR1	GAM04	24-MAR-10 12:23	DONE	CAN	05-MAY-09 00:00
1202069894	MB	MXR1	GAM20	24-MAR-10 12:28	DONE	CAN	26-AUG-09 00:00
1202069895	DUP	MXR1	GAM06	24-MAR-10 13:15	DONE	CAN	16-FEB-10 00:00
1202069896	LCS	MXR1	GAM07	24-MAR-10 13:16	DONE	CAN	20-JUL-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 966602**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248692009	SAMPLE	HAKB	1242	26-MAR-10 18:20	DONE		
249179001	SAMPLE	HAKB	1243	26-MAR-10 18:20	DUSE		
249179002	SAMPLE	HAKB	1244	26-MAR-10 18:20	DUSE		
249179003	SAMPLE	HAKB	1245	26-MAR-10 18:20	DONE		
249179004	SAMPLE	HAKB	1246	26-MAR-10 18:20	DONE		
249179005	SAMPLE	HAKB	1247	26-MAR-10 18:20	DONE		
249179006	SAMPLE	HAKB	1248	26-MAR-10 18:20	DUSE		
249179007	SAMPLE	HAKB	1249	26-MAR-10 18:20	DONE		
249244001	SAMPLE	HAKB	1250	26-MAR-10 18:20	DONE		
249244002	SAMPLE	HAKB	1251	26-MAR-10 18:21	DONE		
249244003	SAMPLE	HAKB	1252	26-MAR-10 18:21	DONE		
249244004	SAMPLE	HAKB	1253	26-MAR-10 18:21	DONE		
249244005	SAMPLE	HAKB	1254	26-MAR-10 18:21	DONE		
249244006	SAMPLE	HAKB	1255	26-MAR-10 18:21	DONE		
1202074362	MB	HAKB	1256	26-MAR-10 18:21	DONE		
1202074363	DUP	HAKB	1237	26-MAR-10 19:34	DONE		
1202074364	LCS	HAKB	1238	26-MAR-10 19:34	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 966612**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249179001	SAMPLE	HAKB	1136	03-APR-10 16:16	DONE		
249179002	SAMPLE	HAKB	1137	03-APR-10 16:16	DONE		
249179003	SAMPLE	HAKB	1138	03-APR-10 16:16	DONE		
249179004	SAMPLE	HAKB	1139	03-APR-10 16:16	DONE		
249179005	SAMPLE	HAKB	1140	03-APR-10 16:16	DONE		
249179006	SAMPLE	HAKB	1141	03-APR-10 16:16	DONE		
249179007	SAMPLE	HAKB	1142	03-APR-10 16:16	DONE		
249244001	SAMPLE	HAKB	1143	03-APR-10 16:16	DONE		
249244002	SAMPLE	HAKB	1144	03-APR-10 16:16	DONE		
249244003	SAMPLE	HAKB	1145	03-APR-10 16:16	DONE		
249244004	SAMPLE	HAKB	1146	03-APR-10 16:16	DONE		
249244005	SAMPLE	HAKB	1147	03-APR-10 16:16	DONE		
249244006	SAMPLE	HAKB	1148	03-APR-10 16:16	DONE		
1202074380	MB	HAKB	1149	03-APR-10 16:16	DONE		
1202074381	DUP	HAKB	1150	03-APR-10 16:16	DONE		
1202074382	LCS	HAKB	1151	03-APR-10 16:16	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 966707**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249244001	SAMPLE	HAKB	1188	25-MAR-10 17:58	DONE		
249244002	SAMPLE	HAKB	1189	25-MAR-10 17:58	DUSE		
249244003	SAMPLE	HAKB	1190	25-MAR-10 17:58	DONE		
249244004	SAMPLE	HAKB	1191	25-MAR-10 17:58	DONE		
249244005	SAMPLE	HAKB	1192	25-MAR-10 17:58	DONE		
249244006	SAMPLE	HAKB	1193	25-MAR-10 17:58	DONE		
1202074647	MB	HAKB	1194	25-MAR-10 17:58	DONE		
1202074648	DUP	HAKB	1195	25-MAR-10 17:58	DONE		
1202074649	LCS	HAKB	1196	25-MAR-10 17:58	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 971616**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249244002	SAMPLE	HAKB	1183	07-APR-10 07:18	DONE		
1202086868	MB	HAKB	1184	07-APR-10 07:18	DONE		
1202086869	DUP	HAKB	1185	07-APR-10 07:27	DONE		
1202086870	LCS	HAKB	1186	07-APR-10 07:27	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 972663**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249179001	SAMPLE	HAKB	1013	07-APR-10 20:48	DONE		
249179002	SAMPLE	HAKB	1014	07-APR-10 20:48	DONE		
249179003	SAMPLE	HAKB	1016	07-APR-10 20:48	DONE		
249179004	SAMPLE	HAKB	1017	07-APR-10 20:48	DONE		
249179005	SAMPLE	HAKB	1018	07-APR-10 20:48	DONE		
249179006	SAMPLE	HAKB	1019	07-APR-10 20:48	DONE		
249179007	SAMPLE	HAKB	1020	07-APR-10 20:48	DONE		
249244001	SAMPLE	HAKB	1022	07-APR-10 20:48	DONE		
249244002	SAMPLE	HAKB	1023	07-APR-10 20:48	DONE		
249244003	SAMPLE	HAKB	1024	07-APR-10 20:48	DONE		
249244004	SAMPLE	HAKB	1025	07-APR-10 20:48	DONE		
249244005	SAMPLE	HAKB	1026	07-APR-10 20:48	DONE		
249244006	SAMPLE	HAKB	1027	07-APR-10 20:48	DONE		
1202089356	MB	HAKB	1028	07-APR-10 20:48	DONE		
1202089357	DUP	HAKB	1029	07-APR-10 20:48	DONE		
1202089358	LCS	HAKB	1030	07-APR-10 20:48	DONE		

Wednesday, March 10, 2010

REQUEST NUMBER: 10-2398

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2398
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/10/2010
TURNAROUND/REPORT DUE: 4/9/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	SW-846:8260B	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	

Wednesday, March 10, 2010

REQUEST NUMBER: 10-2398

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13462	S	3/9/2010	
		2	RE46-10-13462	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	SW-846:8270C	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	

Final Page of REQUEST NUMBER 10-2398

Wednesday, March 10, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2398C

REQUEST NUMBER: 10-2398

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/9/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13437	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13437	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13436	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13436	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13434	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13434	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13438	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13438	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13435	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13435	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13439	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13439	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13462	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13462	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13463	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13463	1	AMBER GLASS	8270C+8082	Ice	S

Relinquished By: **Date** 3/10/10 **Time** 3:00 **Received By:** **Date** **Time**

Printed Name Signature Printed Name Signature

Printed Name Signature Printed Name Signature

Printed Name Signature Printed Name Signature

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2659 **EVENT NAME:** SMWU 46-003(b), 46-003(d),46-003(e)

SAMPLE ID: RE46-10-13437 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-09-10	MEDIA:	ALLH	QBT 3
TIME COLLECTED (HH:MM)		1505	SUB-MEDIA:	SOIL	OIC
PRS ID:	46-003(d)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611598		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	12 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	13 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA ~~COMPOSITE TIME INTERVAL:~~ ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ BOREHOLE DIRECTION:

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	

SAMPLE DESC: tuff, Pinkish-gray 7.5YR 6/3, moist

SAMPLE COMMENTS: 5' below base of line/tank

LOCATION DESC: 3d-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm Samples < MDA
α = 8 cpm
β = 1017

COLLECTED BY (PRINT) J. Trujillo **REVIEWED BY (PRINT)** M. Shu

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Trujillo	3-9-10 1700	(Printed Name) Sherri Sherwood	3-9-10 1700
(Signature)		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2659 **EVENT NAME:** SMWU 46-003(b), 46-003(d),46-003(e)

SAMPLE ID: RE46-10-13436 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-09-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1420	SUB-MEDIA:	SOIL	OK
PRS ID:	46-003(d)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611598		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	7 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	8 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA ~~COMPOSITE TIME INTERVAL:~~ ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: BOREHOLE DIRECTION:

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+NO3+CL04+CN	1 LITER POLY	Ice	Y	

SAMPLE DESC: tuff, pinkish-gray 7.5YR 6/3, sl. moist

SAMPLE COMMENTS: Base of line/tank

LOCATION DESC: 3d-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm Samples < MDA

α = 8 dpm
β = 1017

COLLECTED BY (PRINT) J. [illegible] **REVIEWED BY (PRINT)** M. Shendo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [illegible] (Signature)	3-9-10 1700	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	3/9/10 1700
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2659 **EVENT NAME:** SMWU 46-003(b), 46-003(d),46-003(e)

SAMPLE ID: RE46-10-13435 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-09-10	MEDIA:	ALLH	QBT 3
TIME COLLECTED (HH:MM)		1515	SUB-MEDIA:	SOIL	OK
PRS ID:	46-003(d)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611597		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	9 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	10 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	

SAMPLE DESC: tuff, Pinkish-gray 7.5YR 6/3, moist

SAMPLE COMMENTS: 5' below base of line/tank

LOCATION DESC: 3d-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0ppm Samples < MDA

α = 8 dpm
β = 1017

COLLECTED BY (PRINT) J. Jack **REVIEWED BY (PRINT)** M Stanley

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)	3-9-10	(Printed Name) Sherri Sherwood	3-9-10
(Signature)	1700	(Signature) Sherri Sherwood	1700
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2659 **EVENT NAME:** SMWU 46-003(b), 46-003(d),46-003(e)

SAMPLE ID: RE46-10-13439 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-09-10	MEDIA:	ALLH	QBT 3
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	SOIL	OK
PRS ID:	46-003(d)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611599		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	9 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	10 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	

SAMPLE DESC: tuff, ~~QBT 3, 7.5YR~~ tuff 7.5YR 6/3, sl. moist JLS 3-9-10

SAMPLE COMMENTS: 5' below base of line/tank

LOCATION DESC: 3d-3

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0ppm
α = 8
β = 1017 dpm
Samples LMDA

COLLECTED BY (PRINT) J. Jul

REVIEWED BY (PRINT) M. Sherwood

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jul (Signature)	3-9-10 1700	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	3-9-10 1700
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2659 **EVENT NAME:** SMWU 46-003(b), 46-003(d),46-003(e)

SAMPLE ID: RE46-10-13438 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-09-10	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		1410	SUB-MEDIA:	SOIL	
PRS ID:	46-003(d)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611599		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	4 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	5 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA ~~COMPOSITE TIME INTERVAL:~~ ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	

SAMPLE DESC: fill, brn, (7.5YR 4/3), clayey sand, moist

SAMPLE COMMENTS: Base of line/tank

LOCATION DESC: 3d-3

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.1

Samples 3-9-10 ~~Background~~ < MDA

α = 8 dpm
β = 1017

COLLECTED BY (PRINT) J. Jack **REVIEWED BY (PRINT)** M. Shenda

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jack	3-9-10	(Printed Name) Sheri Sherwood	3/9/10
(Signature)	1700	(Signature) Sheri Sherwood	1700
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2659 **EVENT NAME:** SMWU 46-003(b), 46-003(d),46-003(e)

SAMPLE ID: RE46-10-13463 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-09-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1430	SUB-MEDIA:	SOIL	
PRS ID:	46-003(d)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK 46-611598		FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	4 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	5 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		Met+NO3+CL04+CN	1 LITER POLY	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	

SAMPLE DESC: QC Sample of RE46-10-13434

SAMPLE COMMENTS:

LOCATION DESC: 3d-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm

α = 8 dpm
β = 1017

Samples < MDA

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** M. Shenda

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-9-10	(Printed Name) Sherri Sherwood	3-9-10
(Signature)	1700	(Signature) Sherri Sherwood	1700
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2659 **EVENT NAME:** SMWU 46-003(b), 46-003(d),46-003(e)

SAMPLE ID: RE46-10-13434 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-09-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1430	SUB-MEDIA:	SOIL	
PRS ID:	46-003(d)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611597	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	4 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	5 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	

SAMPLE DESC: Fill, brn 7.5YR, clayey Sand, v. moist

SAMPLE COMMENTS: Base of line/tank

LOCATION DESC: 3d-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm samples < MDA
α 8 dpm
β = 1017

COLLECTED BY (PRINT) J. [illegible] **REVIEWED BY (PRINT)** M. Shenlo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [illegible]	3-9-10	(Printed Name) Sherri Sherwood	3-9-10
(Signature)	1700	(Signature) Sherri Sherwood	1700
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2659 **EVENT NAME:** SMWU 46-003(b), 46-003(d),46-003(e)

SAMPLE ID: RE46-10-13462 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-09-10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1430	SUB-MEDIA:	OTHER	
PRS ID:	46-003(d)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK 46-611598		FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	4 Ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	5 Ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	2 JJ 3-9-10	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13434

SAMPLE COMMENTS:

LOCATION DESC: 3d-1

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) T. Jordan **REVIEWED BY (PRINT)** M. Shendo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [illegible]	3-9-10	(Printed Name) Sherri Sherwood	3-9-10
(Signature) [illegible]	1700	(Signature) Sherri Sherwood	1700
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2398 VALIDATION DATE: 7/30/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV %Ds were >20% for acetone, 2-butanone, 2-hexanone and trichlorotrifluoroethane. In the CCV associated with sample RE46-10-13437, the %D was >20% for 1,2-dichloroethane. In the CCV associated with all the other samples, the %Ds were >20% for dichlorodifluoromethane; acetone; 2,2-dichloropropane; carbon tetrachloride; 2-hexanone; tert-butylbenzene and n-butylbenzene. The acetone results for samples -13436, -13434 and -13439 were detects and, thus, were qualified J,V7c. All the other associated sample results were NDs and, thus, were qualified UJ,V7c.

Reviewed by: Mary Donivan Level: I Date: 08/02/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 7/30/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☐	☒	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180001	**Date Received:**	03/11/2010 09:00	**%Moisture:**	18.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13437	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	967390	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/23/2010 15:04	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/23/2010 14:30	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032310V9\9E211.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.22	ug/kg	0.416	1.22	
74-87-3	Chloromethane	U	1.22	ug/kg	0.367	1.22	
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.367	1.22	
74-83-9	Bromomethane	U	1.22	ug/kg	0.367	1.22	
75-00-3	Chloroethane	U	1.22	ug/kg	0.367	1.22	
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.367	1.22	
67-64-1	Acetone	U	6.12	ug/kg	2.03	6.12	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.367	1.22	
74-88-4	Iodomethane	U	6.12	ug/kg	1.96	6.12	
75-09-2	Methylene chloride	U	6.12	ug/kg	2.45	6.12	
75-15-0	Carbon disulfide	U	6.12	ug/kg	1.53	6.12	
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.367	1.22	
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.367	1.22	
78-93-3	2-Butanone	U	6.12	ug/kg	1.84	6.12	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.367	1.22	
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.367	1.22	
67-66-3	Chloroform	U	1.22	ug/kg	0.367	1.22	
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.404	1.22	
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.367	1.22	
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.367	1.22	
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.367	1.22	
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.367	1.22	UJ,V7c
71-43-2	Benzene	U	1.22	ug/kg	0.367	1.22	
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.404	1.22	
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.367	1.22	
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.367	1.22	
74-95-3	Dibromomethane	U	1.22	ug/kg	0.367	1.22	
108-10-1	4-Methyl-2-pentanone	U	6.12	ug/kg	1.53	6.12	
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.367	1.22	
108-88-3	Toluene	U	1.22	ug/kg	0.367	1.22	
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.367	1.22	
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.367	1.22	
591-78-6	2-Hexanone	U	6.12	ug/kg	1.84	6.12	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.367	1.22	
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.367	1.22	
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.367	1.22	
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.367	1.22	
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.367	1.22	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180001	**Date Received:**	03/11/2010 09:00	**%Moisture:**	18.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13437	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	967390	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/23/2010 15:04	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/23/2010 14:30	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	032310V9\9E211.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.22	ug/kg	0.367	1.22	
179601-23-1	m,p-Xylenes	U	2.45	ug/kg	0.367	2.45	
95-47-6	o-Xylene	U	1.22	ug/kg	0.367	1.22	
100-42-5	Styrene	U	1.22	ug/kg	0.367	1.22	
75-25-2	Bromoform	U	1.22	ug/kg	0.367	1.22	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.367	1.22	
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.367	1.22	
108-86-1	Bromobenzene	U	1.22	ug/kg	0.367	1.22	
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.367	1.22	
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.367	1.22	
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.367	1.22	
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.367	1.22	
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.367	1.22	
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.367	1.22	
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.367	1.22	
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.367	1.22	
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.367	1.22	
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.367	1.22	
106-46-7	1,4-Dichlorobenzene	U	1.22	ug/kg	0.367	1.22	
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.367	1.22	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.367	1.22	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.12	ug/kg	1.96	6.12	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.367	1.22	
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.367	1.22	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180002	**Date Received:**	03/11/2010 09:00	**%Moisture:**	16.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13436	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	967390	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/19/2010 19:11	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/18/2010 18:31	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031910V9\9D512.D	**Column:**	DB-624		

CAS No.	Parmname	Quallfier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.20	ug/kg	0.409	1.20	UJ,V7c
74-87-3	Chloromethane	U	1.20	ug/kg	0.360	1.20	
75-01-4	Vinyl chloride	U	1.20	ug/kg	0.360	1.20	
74-83-9	Bromomethane	U	1.20	ug/kg	0.360	1.20	
75-00-3	Chloroethane	U	1.20	ug/kg	0.360	1.20	
75-69-4	Trichlorofluoromethane	U	1.20	ug/kg	0.360	1.20	
67-64-1	Acetone		125	ug/kg	1.99	6.01	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.20	ug/kg	0.360	1.20	
74-88-4	Iodomethane	U	6.01	ug/kg	1.92	6.01	
75-09-2	Methylene chloride	U	6.01	ug/kg	2.40	6.01	
75-15-0	Carbon disulfide	U	6.01	ug/kg	1.50	6.01	
156-60-5	trans-1,2-Dichloroethylene	U	1.20	ug/kg	0.360	1.20	
75-34-3	1,1-Dichloroethane	U	1.20	ug/kg	0.360	1.20	
78-93-3	2-Butanone	U	6.01	ug/kg	1.80	6.01	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.20	ug/kg	0.360	1.20	
594-20-7	2,2-Dichloropropane	U	1.20	ug/kg	0.360	1.20	UJ,V7c
67-66-3	Chloroform	U	1.20	ug/kg	0.360	1.20	
74-97-5	Bromochloromethane	U	1.20	ug/kg	0.396	1.20	
71-55-6	1,1,1-Trichloroethane	U	1.20	ug/kg	0.360	1.20	
563-58-6	1,1-Dichloropropene	U	1.20	ug/kg	0.360	1.20	
56-23-5	Carbon tetrachloride	U	1.20	ug/kg	0.360	1.20	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.20	ug/kg	0.360	1.20	
71-43-2	Benzene	U	1.20	ug/kg	0.360	1.20	
79-01-6	Trichloroethylene		1.39	ug/kg	0.396	1.20	
78-87-5	1,2-Dichloropropane	U	1.20	ug/kg	0.360	1.20	
75-27-4	Bromodichloromethane	U	1.20	ug/kg	0.360	1.20	
74-95-3	Dibromomethane	U	1.20	ug/kg	0.360	1.20	
108-10-1	4-Methyl-2-pentanone	U	6.01	ug/kg	1.50	6.01	
10061-01-5	cis-1,3-Dichloropropylene	U	1.20	ug/kg	0.360	1.20	
108-88-3	Toluene	U	1.20	ug/kg	0.360	1.20	
10061-02-6	trans-1,3-Dichloropropylene	U	1.20	ug/kg	0.360	1.20	
79-00-5	1,1,2-Trichloroethane	U	1.20	ug/kg	0.360	1.20	
591-78-6	2-Hexanone	U	6.01	ug/kg	1.80	6.01	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.20	ug/kg	0.360	1.20	
127-18-4	Tetrachloroethylene	J	0.817	ug/kg	0.360	1.20	
124-48-1	Dibromochloromethane	U	1.20	ug/kg	0.360	1.20	
106-93-4	1,2-Dibromoethane	U	1.20	ug/kg	0.360	1.20	
108-90-7	Chlorobenzene	U	1.20	ug/kg	0.360	1.20	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180002**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13436**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 19:11**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:31**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D512.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.20	ug/kg	0.360	1.20	
179601-23-1	m,p-Xylenes	U	2.40	ug/kg	0.360	2.40	
95-47-6	o-Xylene	U	1.20	ug/kg	0.360	1.20	
100-42-5	Styrene	U	1.20	ug/kg	0.360	1.20	
75-25-2	Bromoform	U	1.20	ug/kg	0.360	1.20	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.20	ug/kg	0.360	1.20	
96-18-4	1,2,3-Trichloropropane	U	1.20	ug/kg	0.360	1.20	
108-86-1	Bromobenzene	U	1.20	ug/kg	0.360	1.20	
103-65-1	n-Propylbenzene	U	1.20	ug/kg	0.360	1.20	
95-49-8	2-Chlorotoluene	U	1.20	ug/kg	0.360	1.20	
98-82-8	Isopropylbenzene	U	1.20	ug/kg	0.360	1.20	
108-67-8	1,3,5-Trimethylbenzene	U	1.20	ug/kg	0.360	1.20	
106-43-4	4-Chlorotoluene	U	1.20	ug/kg	0.360	1.20	
98-06-6	tert-Butylbenzene	U	1.20	ug/kg	0.360	1.20	UJ,V7c
95-63-6	1,2,4-Trimethylbenzene	U	1.20	ug/kg	0.360	1.20	
135-98-8	sec-Butylbenzene	U	1.20	ug/kg	0.360	1.20	
99-87-6	4-Isopropyltoluene	U	1.20	ug/kg	0.360	1.20	
541-73-1	1,3-Dichlorobenzene	U	1.20	ug/kg	0.360	1.20	
106-46-7	1,4-Dichlorobenzene	J	0.937	ug/kg	0.360	1.20	
104-51-8	n-Butylbenzene	U	1.20	ug/kg	0.360	1.20	UJ,V7c
96-12-8	1,2-Dibromo-3-chloropropane	U	1.20	ug/kg	0.360	1.20	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.01	ug/kg	1.92	6.01	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.20	ug/kg	0.360	1.20	
95-50-1	1,2-Dichlorobenzene	U	1.20	ug/kg	0.360	1.20	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Flt	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180003	**Date Received:**	03/11/2010 09:00	**%Moisture:**	15.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13434	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	967390	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/19/2010 19:40	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/18/2010 18:33	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031910V9\9D513.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.400	1.18	UJ,V7c
74-87-3	Chloromethane	U	1.18	ug/kg	0.353	1.18	
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.353	1.18	
74-83-9	Bromomethane	U	1.18	ug/kg	0.353	1.18	
75-00-3	Chloroethane	U	1.18	ug/kg	0.353	1.18	
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.353	1.18	
67-64-1	Acetone		95.4	ug/kg	1.95	5.89	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.353	1.18	
74-88-4	Iodomethane	U	5.89	ug/kg	1.88	5.89	
75-09-2	Methylene chloride	U	5.89	ug/kg	2.35	5.89	
75-15-0	Carbon disulfide	U	5.89	ug/kg	1.47	5.89	
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.353	1.18	
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.353	1.18	
78-93-3	2-Butanone	U	5.89	ug/kg	1.77	5.89	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.18	ug/kg	0.353	1.18	
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.353	1.18	UJ,V7c
67-66-3	Chloroform	U	1.18	ug/kg	0.353	1.18	
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.389	1.18	
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.353	1.18	
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.353	1.18	
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.353	1.18	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.353	1.18	
71-43-2	Benzene	U	1.18	ug/kg	0.353	1.18	
79-01-6	Trichloroethylene	U	1.18	ug/kg	0.389	1.18	
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.353	1.18	
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.353	1.18	
74-95-3	Dibromomethane	U	1.18	ug/kg	0.353	1.18	
108-10-1	4-Methyl-2-pentanone	U	5.89	ug/kg	1.47	5.89	
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.353	1.18	
108-88-3	Toluene	U	1.18	ug/kg	0.353	1.18	
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.353	1.18	
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.353	1.18	
591-78-6	2-Hexanone	U	5.89	ug/kg	1.77	5.89	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.353	1.18	
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.353	1.18	
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.353	1.18	
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.353	1.18	
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.353	1.18	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180003	**Date Received:**	03/11/2010 09:00	**%Moisture:**	15.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13434	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	967390	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/19/2010 19:40	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/18/2010 18:33	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031910V9\9D513.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.353	1.18	
179601-23-1	m,p-Xylenes	U	2.35	ug/kg	0.353	2.35	
95-47-6	o-Xylene	U	1.18	ug/kg	0.353	1.18	
100-42-5	Styrene	U	1.18	ug/kg	0.353	1.18	
75-25-2	Bromoform	U	1.18	ug/kg	0.353	1.18	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.353	1.18	
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.353	1.18	
108-86-1	Bromobenzene	U	1.18	ug/kg	0.353	1.18	
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.353	1.18	
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.353	1.18	
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.353	1.18	
108-67-8	1,3,5-Trimethylbenzene	U	1.18	ug/kg	0.353	1.18	
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.353	1.18	
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.353	1.18	UJ,V7c
95-63-6	1,2,4-Trimethylbenzene	U	1.18	ug/kg	0.353	1.18	
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.353	1.18	
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.353	1.18	
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.353	1.18	
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.353	1.18	
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.353	1.18	UJ,V7c
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.353	1.18	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.89	ug/kg	1.88	5.89	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.353	1.18	
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.353	1.18	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

ETM
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180004	**Date Received:**	03/11/2010 09:00	**%Moisture:**	16
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13438	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	967390	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/19/2010 20:09	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/18/2010 18:34	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031910V9\9D514.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.19	ug/kg	0.405	1.19	UJ,V7c
74-87-3	Chloromethane	U	1.19	ug/kg	0.357	1.19	
75-01-4	Vinyl chloride	U	1.19	ug/kg	0.357	1.19	
74-83-9	Bromomethane	U	1.19	ug/kg	0.357	1.19	
75-00-3	Chloroethane	U	1.19	ug/kg	0.357	1.19	
75-69-4	Trichlorofluoromethane	U	1.19	ug/kg	0.357	1.19	
67-64-1	Acetone	U	5.96	ug/kg	1.98	5.96	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.19	ug/kg	0.357	1.19	
74-88-4	Iodomethane	U	5.96	ug/kg	1.91	5.96	
75-09-2	Methylene chloride	U	5.96	ug/kg	2.38	5.96	
75-15-0	Carbon disulfide	U	5.96	ug/kg	1.49	5.96	
156-60-5	trans-1,2-Dichloroethylene	U	1.19	ug/kg	0.357	1.19	
75-34-3	1,1-Dichloroethane	U	1.19	ug/kg	0.357	1.19	
78-93-3	2-Butanone	U	5.96	ug/kg	1.79	5.96	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.19	ug/kg	0.357	1.19	
594-20-7	2,2-Dichloropropane	U	1.19	ug/kg	0.357	1.19	UJ,V7c
67-66-3	Chloroform	U	1.19	ug/kg	0.357	1.19	
74-97-5	Bromochloromethane	U	1.19	ug/kg	0.393	1.19	
71-55-6	1,1,1-Trichloroethane	U	1.19	ug/kg	0.357	1.19	
563-58-6	1,1-Dichloropropene	U	1.19	ug/kg	0.357	1.19	
56-23-5	Carbon tetrachloride	U	1.19	ug/kg	0.357	1.19	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.19	ug/kg	0.357	1.19	
71-43-2	Benzene	U	1.19	ug/kg	0.357	1.19	
79-01-6	Trichloroethylene	U	1.19	ug/kg	0.393	1.19	
78-87-5	1,2-Dichloropropane	U	1.19	ug/kg	0.357	1.19	
75-27-4	Bromodichloromethane	U	1.19	ug/kg	0.357	1.19	
74-95-3	Dibromomethane	U	1.19	ug/kg	0.357	1.19	
108-10-1	4-Methyl-2-pentanone	U	5.96	ug/kg	1.49	5.96	
10061-01-5	cis-1,3-Dichloropropylene	U	1.19	ug/kg	0.357	1.19	
108-88-3	Toluene	U	1.19	ug/kg	0.357	1.19	
10061-02-6	trans-1,3-Dichloropropylene	U	1.19	ug/kg	0.357	1.19	
79-00-5	1,1,2-Trichloroethane	U	1.19	ug/kg	0.357	1.19	
591-78-6	2-Hexanone	U	5.96	ug/kg	1.79	5.96	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.19	ug/kg	0.357	1.19	
127-18-4	Tetrachloroethylene	U	1.19	ug/kg	0.357	1.19	
124-48-1	Dibromochloromethane	U	1.19	ug/kg	0.357	1.19	
106-93-4	1,2-Dibromoethane	U	1.19	ug/kg	0.357	1.19	
108-90-7	Chlorobenzene	U	1.19	ug/kg	0.357	1.19	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180004	**Date Received:**	03/11/2010 09:00	**%Moisture:**	16
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13438	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	967390	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/19/2010 20:09	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/18/2010 18:34	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031910V9\9D514.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.19	ug/kg	0.357	1.19	
179601-23-1	m,p-Xylenes	U	2.38	ug/kg	0.357	2.38	
95-47-6	o-Xylene	U	1.19	ug/kg	0.357	1.19	
100-42-5	Styrene	U	1.19	ug/kg	0.357	1.19	
75-25-2	Bromoform	U	1.19	ug/kg	0.357	1.19	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.19	ug/kg	0.357	1.19	
96-18-4	1,2,3-Trichloropropane	U	1.19	ug/kg	0.357	1.19	
108-86-1	Bromobenzene	U	1.19	ug/kg	0.357	1.19	
103-65-1	n-Propylbenzene	U	1.19	ug/kg	0.357	1.19	
95-49-8	2-Chlorotoluene	U	1.19	ug/kg	0.357	1.19	
98-82-8	Isopropylbenzene	U	1.19	ug/kg	0.357	1.19	
108-67-8	1,3,5-Trimethylbenzene	U	1.19	ug/kg	0.357	1.19	
106-43-4	4-Chlorotoluene	U	1.19	ug/kg	0.357	1.19	
98-06-6	tert-Butylbenzene	U	1.19	ug/kg	0.357	1.19	UJ,V7c
95-63-6	1,2,4-Trimethylbenzene	U	1.19	ug/kg	0.357	1.19	
135-98-8	sec-Butylbenzene	U	1.19	ug/kg	0.357	1.19	
99-87-6	4-Isopropyltoluene	U	1.19	ug/kg	0.357	1.19	
541-73-1	1,3-Dichlorobenzene	U	1.19	ug/kg	0.357	1.19	
106-46-7	1,4-Dichlorobenzene	U	1.19	ug/kg	0.357	1.19	
104-51-8	n-Butylbenzene	U	1.19	ug/kg	0.357	1.19	UJ,V7c
96-12-8	1,2-Dibromo-3-chloropropane	U	1.19	ug/kg	0.357	1.19	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.96	ug/kg	1.91	5.96	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.19	ug/kg	0.357	1.19	
95-50-1	1,2-Dichlorobenzene	U	1.19	ug/kg	0.357	1.19	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180005	**Date Received:**	03/11/2010 09:00	**%Moisture:**	17.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13435	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	967390	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/19/2010 20:38	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/18/2010 18:40	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031910V9\9D515.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.22	ug/kg	0.414	1.22	UJ,V7c
74-87-3	Chloromethane	U	1.22	ug/kg	0.365	1.22	
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.365	1.22	
74-83-9	Bromomethane	U	1.22	ug/kg	0.365	1.22	
75-00-3	Chloroethane	U	1.22	ug/kg	0.365	1.22	
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.365	1.22	
67-64-1	Acetone	U	6.09	ug/kg	2.02	6.09	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.365	1.22	
74-88-4	Iodomethane	U	6.09	ug/kg	1.95	6.09	
75-09-2	Methylene chloride	U	6.09	ug/kg	2.44	6.09	
75-15-0	Carbon disulfide	U	6.09	ug/kg	1.52	6.09	
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.365	1.22	
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.365	1.22	
78-93-3	2-Butanone	U	6.09	ug/kg	1.83	6.09	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.365	1.22	
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.365	1.22	UJ,V7c
67-66-3	Chloroform	U	1.22	ug/kg	0.365	1.22	
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.402	1.22	
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.365	1.22	
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.365	1.22	
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.365	1.22	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.365	1.22	
71-43-2	Benzene	U	1.22	ug/kg	0.365	1.22	
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.402	1.22	
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.365	1.22	
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.365	1.22	
74-95-3	Dibromomethane	U	1.22	ug/kg	0.365	1.22	
108-10-1	4-Methyl-2-pentanone	U	6.09	ug/kg	1.52	6.09	
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.365	1.22	
108-88-3	Toluene	U	1.22	ug/kg	0.365	1.22	
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.365	1.22	
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.365	1.22	
591-78-6	2-Hexanone	U	6.09	ug/kg	1.83	6.09	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.365	1.22	
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.365	1.22	
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.365	1.22	
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.365	1.22	
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.365	1.22	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180005	**Date Received:**	03/11/2010 09:00	**%Moisture:**	17.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13435	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	967390	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/19/2010 20:38	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/18/2010 18:40	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031910V9\9D515.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.22	ug/kg	0.365	1.22	
179601-23-1	m,p-Xylenes	U	2.44	ug/kg	0.365	2.44	
95-47-6	o-Xylene	U	1.22	ug/kg	0.365	1.22	
100-42-5	Styrene	U	1.22	ug/kg	0.365	1.22	
75-25-2	Bromoform	U	1.22	ug/kg	0.365	1.22	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.365	1.22	
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.365	1.22	
108-86-1	Bromobenzene	U	1.22	ug/kg	0.365	1.22	
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.365	1.22	
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.365	1.22	
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.365	1.22	
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.365	1.22	
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.365	1.22	
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.365	1.22	UJ,V7c
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.365	1.22	
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.365	1.22	
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.365	1.22	
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22	
106-46-7	1,4-Dichlorobenzene		1.89	ug/kg	0.365	1.22	
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.365	1.22	UJ,V7c
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.365	1.22	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.09	ug/kg	1.95	6.09	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.365	1.22	
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.54	6.54	ug/kg	0	J

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180006	**Date Received:**	03/11/2010 09:00	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13439	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	967390	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/19/2010 21:06	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/18/2010 18:42	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031910V9\9D516.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.390	1.15	UJ,V7c
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15	
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15	
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15	
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15	
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15	
67-64-1	Acetone		13.8	ug/kg	1.90	5.73	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15	
74-88-4	Iodomethane	U	5.73	ug/kg	1.83	5.73	
75-09-2	Methylene chloride	U	5.73	ug/kg	2.29	5.73	
75-15-0	Carbon disulfide	U	5.73	ug/kg	1.43	5.73	
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15	
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15	
78-93-3	2-Butanone	U	5.73	ug/kg	1.72	5.73	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15	
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15	UJ,V7c
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15	
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.378	1.15	
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15	
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15	
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15	
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15	
79-01-6	Trichloroethylene	J	0.654	ug/kg	0.378	1.15	
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15	
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15	
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15	
108-10-1	4-Methyl-2-pentanone	U	5.73	ug/kg	1.43	5.73	
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15	
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15	
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15	
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15	
591-78-6	2-Hexanone	U	5.73	ug/kg	1.72	5.73	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15	
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.344	1.15	
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15	
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15	
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15	

ETM
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180006	**Date Received:**	03/11/2010 09:00	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13439	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	967390	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/19/2010 21:06	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/18/2010 18:42	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031910V9\9D516.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.344	1.15	
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29	
95-47-6	o-Xylene	U	1.15	ug/kg	0.344	1.15	
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15	
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15	
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15	
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15	
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.344	1.15	
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15	
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.344	1.15	
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15	
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15	
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15	UJ,V7c
95-63-6	1,2,4-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15	
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.344	1.15	
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.344	1.15	
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15	
106-46-7	1,4-Dichlorobenzene	J	0.619	ug/kg	0.344	1.15	
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.344	1.15	UJ,V7c
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.73	ug/kg	1.83	5.73	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15	
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.55	6.9	ug/kg	0	J

ETM
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	Date Collected:	03/09/2010 12:00	Matrix:	S
Lab Sample ID:	249180007	Date Received:	03/11/2010 09:00		
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13462	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	967390	Inst:	VOA9.I	Dilution:	1
Run Date:	03/19/2010 17:43	Analyst:	RXY1	Purge Vol:	5 mL
Prep Date:	03/18/2010 18:44	Aliquot:	5 g	Final Volume:	5 mL
Data File:	031910V9\9D509.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00	UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00	
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00	
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00	
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	UJ,V7c
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00	
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00	

ETM
7/30/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180007**	**Date Received:**	**03/11/2010 09:00**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13462**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 17:43**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:44**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D509.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00	
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00	
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00	UJ,V7c
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00	UJ,V7c
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00	
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

ETM
7/30/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180008	**Date Received:**	03/11/2010 09:00	**%Moisture:**	15.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13463	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	967390	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/19/2010 21:35	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/18/2010 18:46	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031910V9\9D517.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.402	1.18	UJ,V7c
74-87-3	Chloromethane	U	1.18	ug/kg	0.355	1.18	
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.355	1.18	
74-83-9	Bromomethane	U	1.18	ug/kg	0.355	1.18	
75-00-3	Chloroethane	U	1.18	ug/kg	0.355	1.18	
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.355	1.18	
67-64-1	Acetone	U	5.91	ug/kg	1.96	5.91	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.355	1.18	
74-88-4	Iodomethane	U	5.91	ug/kg	1.89	5.91	
75-09-2	Methylene chloride	U	5.91	ug/kg	2.36	5.91	
75-15-0	Carbon disulfide	U	5.91	ug/kg	1.48	5.91	
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.355	1.18	
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.355	1.18	
78-93-3	2-Butanone	U	5.91	ug/kg	1.77	5.91	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.18	ug/kg	0.355	1.18	
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.355	1.18	UJ,V7c
67-66-3	Chloroform	U	1.18	ug/kg	0.355	1.18	
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.390	1.18	
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.355	1.18	
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.355	1.18	
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.355	1.18	UJ,V7c
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.355	1.18	
71-43-2	Benzene	U	1.18	ug/kg	0.355	1.18	
79-01-6	Trichloroethylene	U	1.18	ug/kg	0.390	1.18	
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.355	1.18	
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.355	1.18	
74-95-3	Dibromomethane	U	1.18	ug/kg	0.355	1.18	
108-10-1	4-Methyl-2-pentanone	U	5.91	ug/kg	1.48	5.91	
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.355	1.18	
108-88-3	Toluene	U	1.18	ug/kg	0.355	1.18	
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.355	1.18	
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.355	1.18	
591-78-6	2-Hexanone	U	5.91	ug/kg	1.77	5.91	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.355	1.18	
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.355	1.18	
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.355	1.18	
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.355	1.18	
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.355	1.18	

ETM
7/30/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180008	**Date Received:**	03/11/2010 09:00	**%Moisture:**	15.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13463	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	967390	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/19/2010 21:35	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/18/2010 18:46	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031910V9\9D517.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.355	1.18	
179601-23-1	m,p-Xylenes	U	2.36	ug/kg	0.355	2.36	
95-47-6	o-Xylene	U	1.18	ug/kg	0.355	1.18	
100-42-5	Styrene	U	1.18	ug/kg	0.355	1.18	
75-25-2	Bromoform	U	1.18	ug/kg	0.355	1.18	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.355	1.18	
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.355	1.18	
108-86-1	Bromobenzene	U	1.18	ug/kg	0.355	1.18	
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.355	1.18	
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.355	1.18	
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.355	1.18	
108-67-8	1,3,5-Trimethylbenzene	U	1.18	ug/kg	0.355	1.18	
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.355	1.18	
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.355	1.18	UJ,V7c
95-63-6	1,2,4-Trimethylbenzene	U	1.18	ug/kg	0.355	1.18	
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.355	1.18	
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.355	1.18	
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.355	1.18	
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.355	1.18	
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.355	1.18	UJ,V7c
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.355	1.18	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.91	ug/kg	1.89	5.91	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.355	1.18	
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.355	1.18	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

ETM
7/30/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2398 VALIDATION DATE: 7/30/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV and/or CCV %Ds was >20% for 4-nitrophenol; pyridine; benzyl alcohol; bis(2-chloroisopropyl)ether; 2,4-dimethylphenol; 3-nitroaniline; 2-methyl-4,6-dinitrophenol and p-nitroaniline. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The LCS %R was < the laboratory's LAL but ≥10% for benzyl alcohol. The associated sample results were NDs and, thus, were qualified UJ,SV12a.
3. It should be noted that the MS/MSD analyses were performed on a LANL sample from a different RN and the raw data for the parent sample was not provided in the data package. However, MS/MSD analyses are not required for this method and, thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 08/02/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 7/30/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180003	**Date Received:**	03/11/2010 09:00	**%Moisture:**	15.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13434	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 23:18	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.13 g	**Final Volume:**	1 mL
Data File:	s2c2625.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	391	ug/kg	78.2	391	
108-95-2	Phenol	U	391	ug/kg	78.2	391	
95-57-8	2-Chlorophenol	U	391	ug/kg	78.2	391	
106-46-7	1,4-Dichlorobenzene	U	391	ug/kg	78.2	391	
621-64-7	N-Nitrosodipropylamine	U	391	ug/kg	78.2	391	
59-50-7	4-Chloro-3-methylphenol	U	391	ug/kg	78.2	391	
83-32-9	Acenaphthene	U	39.1	ug/kg	12.9	39.1	
121-14-2	2,4-Dinitrotoluene	U	391	ug/kg	39.1	391	
100-02-7	4-Nitrophenol	U	391	ug/kg	129	391	UJ,SV7c
87-86-5	Pentachlorophenol	U	391	ug/kg	97.7	391	
129-00-0	Pyrene	U	39.1	ug/kg	11.7	39.1	
110-86-1	Pyridine	U	391	ug/kg	78.2	391	UJ,SV7c
62-53-3	Aniline	U	391	ug/kg	117	391	
111-44-4	bis(2-Chloroethyl) ether	U	391	ug/kg	78.2	391	
541-73-1	1,3-Dichlorobenzene	U	391	ug/kg	78.2	391	
100-51-6	Benzyl alcohol	U	391	ug/kg	117	391	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	391	ug/kg	78.2	391	
108-60-1	bis(2-Chloroisopropyl)ether	U	391	ug/kg	78.2	391	UJ,SV7c
95-48-7	o-Cresol	U	391	ug/kg	78.2	391	
65794-96-9	m,p-Cresols	U	391	ug/kg	117	391	
67-72-1	Hexachloroethane	U	391	ug/kg	78.2	391	
98-95-3	Nitrobenzene	U	391	ug/kg	78.2	391	
78-59-1	Isophorone	U	391	ug/kg	78.2	391	
88-75-5	2-Nitrophenol	U	391	ug/kg	78.2	391	
105-67-9	2,4-Dimethylphenol	U	391	ug/kg	137	391	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	391	ug/kg	78.2	391	
120-83-2	2,4-Dichlorophenol	U	391	ug/kg	78.2	391	
65-85-0	Benzoic acid	U	782	ug/kg	195	782	
91-20-3	Naphthalene	U	39.1	ug/kg	11.7	39.1	
106-47-8	4-Chloroaniline	U	391	ug/kg	78.2	391	
87-68-3	Hexachlorobutadiene	U	391	ug/kg	78.2	391	
91-57-6	2-Methylnaphthalene	U	39.1	ug/kg	7.82	39.1	
77-47-4	Hexachlorocyclopentadiene	U	391	ug/kg	78.2	391	
88-06-2	2,4,6-Trichlorophenol	U	391	ug/kg	78.2	391	
95-95-4	2,4,5-Trichlorophenol	U	391	ug/kg	78.2	391	
91-58-7	2-Chloronaphthalene	U	39.1	ug/kg	12.9	39.1	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	391	ug/kg	78.2	391	
99-09-2	3-Nitroaniline	U	391	ug/kg	78.2	391	UJ,SV7c

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180003	**Date Received:**	03/11/2010 09:00	**%Moisture:**	15.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13434	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 23:18	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.13 g	**Final Volume:**	1 mL
Data File:	s2c2625.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	391	ug/kg	78.2	391	
606-20-2	2,6-Dinitrotoluene	U	391	ug/kg	39.1	391	
208-96-8	Acenaphthylene	U	39.1	ug/kg	11.7	39.1	
51-28-5	2,4-Dinitrophenol	U	782	ug/kg	148	782	
132-64-9	Dibenzofuran	U	391	ug/kg	78.2	391	
84-66-2	Diethylphthalate	U	391	ug/kg	78.2	391	
86-73-7	Fluorene	U	39.1	ug/kg	11.7	39.1	
7005-72-3	4-Chlorophenylphenylether	U	391	ug/kg	78.2	391	
534-52-1	2-Methyl-4,6-dinitrophenol	U	391	ug/kg	78.2	391	UJ,SV7c
100-01-6	4-Nitroaniline	U	391	ug/kg	117	391	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	391	ug/kg	78.2	391	
122-66-7	Azobenzene	U	391	ug/kg	78.2	391	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	391	ug/kg	78.2	391	
118-74-1	Hexachlorobenzene	U	391	ug/kg	78.2	391	
85-01-8	Phenanthrene	U	39.1	ug/kg	11.7	39.1	
120-12-7	Anthracene	U	39.1	ug/kg	7.82	39.1	
84-74-2	Di-n-butylphthalate	U	391	ug/kg	78.2	391	
206-44-0	Fluoranthene	U	39.1	ug/kg	11.7	39.1	
85-68-7	Butylbenzylphthalate	U	391	ug/kg	78.2	391	
56-55-3	Benzo(a)anthracene	U	39.1	ug/kg	11.7	39.1	
91-94-1	3,3'-Dichlorobenzidine	U	391	ug/kg	117	391	
218-01-9	Chrysene	U	39.1	ug/kg	11.7	39.1	
117-81-7	bis(2-Ethylhexyl)phthalate	U	391	ug/kg	78.2	391	
117-84-0	Di-n-octylphthalate	U	391	ug/kg	78.2	391	
205-99-2	Benzo(b)fluoranthene	U	39.1	ug/kg	11.7	39.1	
207-08-9	Benzo(k)fluoranthene	U	39.1	ug/kg	11.7	39.1	
50-32-8	Benzo(a)pyrene	U	39.1	ug/kg	11.7	39.1	
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.1	ug/kg	11.7	39.1	
53-70-3	Dibenzo(a,h)anthracene	U	39.1	ug/kg	11.7	39.1	
191-24-2	Benzo(ghi)perylene	U	39.1	ug/kg	11.7	39.1	
120-82-1	1,2,4-Trichlorobenzene	U	391	ug/kg	78.2	391	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.84	212	ug/kg		JA

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180005	**Date Received:**	03/11/2010 09:00	**%Moisture:**	17.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13435	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 23:58	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	s2c2627.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	404	ug/kg	80.7	404	
108-95-2	Phenol	U	404	ug/kg	80.7	404	
95-57-8	2-Chlorophenol	U	404	ug/kg	80.7	404	
106-46-7	1,4-Dichlorobenzene	U	404	ug/kg	80.7	404	
621-64-7	N-Nitrosodipropylamine	U	404	ug/kg	80.7	404	
59-50-7	4-Chloro-3-methylphenol	U	404	ug/kg	80.7	404	
83-32-9	Acenaphthene	U	40.4	ug/kg	13.3	40.4	
121-14-2	2,4-Dinitrotoluene	U	404	ug/kg	40.4	404	
100-02-7	4-Nitrophenol	U	404	ug/kg	133	404	UJ,SV7c
87-86-5	Pentachlorophenol	U	404	ug/kg	101	404	
129-00-0	Pyrene		77.4	ug/kg	12.1	40.4	
110-86-1	Pyridine	U	404	ug/kg	80.7	404	UJ,SV7c
62-53-3	Aniline	U	404	ug/kg	121	404	
111-44-4	bis(2-Chloroethyl) ether	U	404	ug/kg	80.7	404	
541-73-1	1,3-Dichlorobenzene	U	404	ug/kg	80.7	404	
100-51-6	Benzyl alcohol	U	404	ug/kg	121	404	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	404	ug/kg	80.7	404	
108-60-1	bis(2-Chloroisopropyl)ether	U	404	ug/kg	80.7	404	UJ,SV7c
95-48-7	o-Cresol	U	404	ug/kg	80.7	404	
65794-96-9	m,p-Cresols	U	404	ug/kg	121	404	
67-72-1	Hexachloroethane	U	404	ug/kg	80.7	404	
98-95-3	Nitrobenzene	U	404	ug/kg	80.7	404	
78-59-1	Isophorone	U	404	ug/kg	80.7	404	
88-75-5	2-Nitrophenol	U	404	ug/kg	80.7	404	
105-67-9	2,4-Dimethylphenol	U	404	ug/kg	141	404	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	404	ug/kg	80.7	404	
120-83-2	2,4-Dichlorophenol	U	404	ug/kg	80.7	404	
65-85-0	Benzoic acid	U	807	ug/kg	202	807	
91-20-3	Naphthalene	U	40.4	ug/kg	12.1	40.4	
106-47-8	4-Chloroaniline	U	404	ug/kg	80.7	404	
87-68-3	Hexachlorobutadiene	U	404	ug/kg	80.7	404	
91-57-6	2-Methylnaphthalene	U	40.4	ug/kg	8.07	40.4	
77-47-4	Hexachlorocyclopentadiene	U	404	ug/kg	80.7	404	
88-06-2	2,4,6-Trichlorophenol	U	404	ug/kg	80.7	404	
95-95-4	2,4,5-Trichlorophenol	U	404	ug/kg	80.7	404	
91-58-7	2-Chloronaphthalene	U	40.4	ug/kg	13.3	40.4	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	404	ug/kg	80.7	404	
99-09-2	3-Nitroaniline	U	404	ug/kg	80.7	404	UJ,SV7c

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180005	**Date Received:**	03/11/2010 09:00	**%Moisture:**	17.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13435	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 23:58	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	s2c2627.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	404	ug/kg	80.7	404	
606-20-2	2,6-Dinitrotoluene	U	404	ug/kg	40.4	404	
208-96-8	Acenaphthylene	U	40.4	ug/kg	12.1	40.4	
51-28-5	2,4-Dinitrophenol	U	807	ug/kg	153	807	
132-64-9	Dibenzofuran	U	404	ug/kg	80.7	404	
84-66-2	Diethylphthalate	U	404	ug/kg	80.7	404	
86-73-7	Fluorene	U	40.4	ug/kg	12.1	40.4	
7005-72-3	4-Chlorophenylphenylether	U	404	ug/kg	80.7	404	
534-52-1	2-Methyl-4,6-dinitrophenol	U	404	ug/kg	80.7	404	UJ,SV7c
100-01-6	4-Nitroaniline	U	404	ug/kg	121	404	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	404	ug/kg	80.7	404	
122-66-7	Azobenzene	U	404	ug/kg	80.7	404	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	404	ug/kg	80.7	404	
118-74-1	Hexachlorobenzene	U	404	ug/kg	80.7	404	
85-01-8	Phenanthrene	J	32.0	ug/kg	12.1	40.4	
120-12-7	Anthracene	J	12.5	ug/kg	8.07	40.4	
84-74-2	Di-n-butylphthalate	U	404	ug/kg	80.7	404	
206-44-0	Fluoranthene		91.1	ug/kg	12.1	40.4	
85-68-7	Butylbenzylphthalate	U	404	ug/kg	80.7	404	
56-55-3	Benzo(a)anthracene	U	40.4	ug/kg	12.1	40.4	
91-94-1	3,3'-Dichlorobenzidine	U	404	ug/kg	121	404	
218-01-9	Chrysene		66.4	ug/kg	12.1	40.4	
117-81-7	bis(2-Ethylhexyl)phthalate	U	404	ug/kg	80.7	404	
117-84-0	Di-n-octylphthalate	U	404	ug/kg	80.7	404	
205-99-2	Benzo(b)fluoranthene		116	ug/kg	12.1	40.4	
207-08-9	Benzo(k)fluoranthene	U	40.4	ug/kg	12.1	40.4	
50-32-8	Benzo(a)pyrene		63.0	ug/kg	12.1	40.4	
193-39-5	Indeno(1,2,3-cd)pyrene	J	28.8	ug/kg	12.1	40.4	
53-70-3	Dibenzo(a,h)anthracene	U	40.4	ug/kg	12.1	40.4	
191-24-2	Benzo(ghi)perylene	J	32.6	ug/kg	12.1	40.4	
120-82-1	1,2,4-Trichlorobenzene	U	404	ug/kg	80.7	404	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	426	ug/kg		JA
	Unknown	8.1	171	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180005	**Date Received:**	03/11/2010 09:00	**%Moisture:**	17.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13435	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 23:58	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	s2c2627.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.2	175	ug/kg		J
	Unknown	8.38	184	ug/kg		J
	Unknown	8.43	263	ug/kg		J
	Unknown	8.67	286	ug/kg		J
4452-45-3	1,14-Docosanediol	10.03	302	ug/kg	81	NJ
55044-36-5	1H-Indene, 5-butyl-6-hexyloctahydro-	10.07	388	ug/kg	92	NJ
	Unknown	10.12	424	ug/kg		J
	Unknown	10.16	453	ug/kg		J
	Unknown	10.25	596	ug/kg		J
	Unknown	10.43	683	ug/kg		J
2097-85-0	Cholestan-3-one, 4,4-dimethyl-, (5.alpha	10.55	621	ug/kg	91	NJ
	Unknown	10.66	606	ug/kg		J
601-53-6	Cholestan-3-one, (5.beta.)-	10.84	609	ug/kg	95	NJ
	Unknown	11.12	439	ug/kg		J
	Unknown	11.57	234	ug/kg		J
	Unknown	11.64	277	ug/kg		J
	Unknown	11.75	213	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180002	**Date Received:**	03/11/2010 09:00	**%Moisture:**	16.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13436	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 22:58	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.15 g	**Final Volume:**	1 mL
Data File:	s2c2624.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	398	ug/kg	79.7	398	
108-95-2	Phenol	U	398	ug/kg	79.7	398	
95-57-8	2-Chlorophenol	U	398	ug/kg	79.7	398	
106-46-7	1,4-Dichlorobenzene	U	398	ug/kg	79.7	398	
621-64-7	N-Nitrosodipropylamine	U	398	ug/kg	79.7	398	
59-50-7	4-Chloro-3-methylphenol	U	398	ug/kg	79.7	398	
83-32-9	Acenaphthene	U	39.8	ug/kg	13.2	39.8	
121-14-2	2,4-Dinitrotoluene	U	398	ug/kg	39.8	398	
100-02-7	4-Nitrophenol	U	398	ug/kg	132	398	UJ,SV7c
87-86-5	Pentachlorophenol	U	398	ug/kg	99.6	398	
129-00-0	Pyrene		46.6	ug/kg	12.0	39.8	
110-86-1	Pyridine	U	398	ug/kg	79.7	398	UJ,SV7c
62-53-3	Aniline	U	398	ug/kg	120	398	
111-44-4	bis(2-Chloroethyl) ether	U	398	ug/kg	79.7	398	
541-73-1	1,3-Dichlorobenzene	U	398	ug/kg	79.7	398	
100-51-6	Benzyl alcohol	U	398	ug/kg	120	398	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	398	ug/kg	79.7	398	
108-60-1	bis(2-Chloroisopropyl)ether	U	398	ug/kg	79.7	398	UJ,SV7c
95-48-7	o-Cresol	U	398	ug/kg	79.7	398	
65794-96-9	m,p-Cresols	U	398	ug/kg	120	398	
67-72-1	Hexachloroethane	U	398	ug/kg	79.7	398	
98-95-3	Nitrobenzene	U	398	ug/kg	79.7	398	
78-59-1	Isophorone	U	398	ug/kg	79.7	398	
88-75-5	2-Nitrophenol	U	398	ug/kg	79.7	398	
105-67-9	2,4-Dimethylphenol	U	398	ug/kg	139	398	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	398	ug/kg	79.7	398	
120-83-2	2,4-Dichlorophenol	U	398	ug/kg	79.7	398	
65-85-0	Benzoic acid	U	797	ug/kg	199	797	
91-20-3	Naphthalene	U	39.8	ug/kg	12.0	39.8	
106-47-8	4-Chloroaniline	U	398	ug/kg	79.7	398	
87-68-3	Hexachlorobutadiene	U	398	ug/kg	79.7	398	
91-57-6	2-Methylnaphthalene	U	39.8	ug/kg	7.97	39.8	
77-47-4	Hexachlorocyclopentadiene	U	398	ug/kg	79.7	398	
88-06-2	2,4,6-Trichlorophenol	U	398	ug/kg	79.7	398	
95-95-4	2,4,5-Trichlorophenol	U	398	ug/kg	79.7	398	
91-58-7	2-Chloronaphthalene	U	39.8	ug/kg	13.2	39.8	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	398	ug/kg	79.7	398	
99-09-2	3-Nitroaniline	U	398	ug/kg	79.7	398	UJ,SV7c

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180002	**Date Received:**	03/11/2010 09:00	**%Moisture:**	16.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13436	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 22:58	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.15 g	**Final Volume:**	1 mL
Data File:	s2c2624.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	398	ug/kg	79.7	398	
606-20-2	2,6-Dinitrotoluene	U	398	ug/kg	39.8	398	
208-96-8	Acenaphthylene	U	39.8	ug/kg	12.0	39.8	
51-28-5	2,4-Dinitrophenol	U	797	ug/kg	151	797	
132-64-9	Dibenzofuran	U	398	ug/kg	79.7	398	
84-66-2	Diethylphthalate	U	398	ug/kg	79.7	398	
86-73-7	Fluorene	U	39.8	ug/kg	12.0	39.8	
7005-72-3	4-Chlorophenylphenylether	U	398	ug/kg	79.7	398	
534-52-1	2-Methyl-4,6-dinitrophenol	U	398	ug/kg	79.7	398	UJ,SV7c
100-01-6	4-Nitroaniline	U	398	ug/kg	120	398	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	398	ug/kg	79.7	398	
122-66-7	Azobenzene	U	398	ug/kg	79.7	398	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	398	ug/kg	79.7	398	
118-74-1	Hexachlorobenzene	U	398	ug/kg	79.7	398	
85-01-8	Phenanthrene		45.7	ug/kg	12.0	39.8	
120-12-7	Anthracene	J	25.0	ug/kg	7.97	39.8	
84-74-2	Di-n-butylphthalate	U	398	ug/kg	79.7	398	
206-44-0	Fluoranthene		63.8	ug/kg	12.0	39.8	
85-68-7	Butylbenzylphthalate	U	398	ug/kg	79.7	398	
56-55-3	Benzo(a)anthracene	U	39.8	ug/kg	12.0	39.8	
91-94-1	3,3'-Dichlorobenzidine	U	398	ug/kg	120	398	
218-01-9	Chrysene		58.6	ug/kg	12.0	39.8	
117-81-7	bis(2-Ethylhexyl)phthalate	J	160	ug/kg	79.7	398	
117-84-0	Di-n-octylphthalate	U	398	ug/kg	79.7	398	
205-99-2	Benzo(b)fluoranthene		93.6	ug/kg	12.0	39.8	
207-08-9	Benzo(k)fluoranthene	U	39.8	ug/kg	12.0	39.8	
50-32-8	Benzo(a)pyrene	J	38.1	ug/kg	12.0	39.8	
193-39-5	Indeno(1,2,3-cd)pyrene	J	24.4	ug/kg	12.0	39.8	
53-70-3	Dibenzo(a,h)anthracene	U	39.8	ug/kg	12.0	39.8	
191-24-2	Benzo(ghi)perylene	J	26.9	ug/kg	12.0	39.8	
120-82-1	1,2,4-Trichlorobenzene	U	398	ug/kg	79.7	398	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	436	ug/kg		JA
	Unknown	7.49	241	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180002	**Date Received:**	03/11/2010 09:00	**%Moisture:**	16.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13436	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 22:58	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.15 g	**Final Volume:**	1 mL
Data File:	s2c2624.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
19780-11-1	2-Dodecen-1-yl(-)succinic anhydride	7.55	253	ug/kg	92	NJ
	Unknown	7.69	310	ug/kg		J
629-78-7	Heptadecane	7.9	340	ug/kg	80	NJ
	Unknown	8.1	374	ug/kg		J
	Unknown	8.13	246	ug/kg		J
	Unknown	8.24	256	ug/kg		J
	Unknown	8.31	431	ug/kg		J
	Unknown	8.34	266	ug/kg		J
	Unknown	8.38	255	ug/kg		J
	Unknown	8.68	570	ug/kg		J
	Unknown	8.72	247	ug/kg		J
	Unknown	8.8	282	ug/kg		J
	Unknown	8.89	416	ug/kg		J
	Unknown	8.98	236	ug/kg		J
	Unknown	9.09	459	ug/kg		J
55044-36-5	1H-Indene, 5-butyl-6-hexyloctahydro-	9.18	275	ug/kg	86	NJ
	Unknown	9.34	1300	ug/kg		J
	Unknown	9.42	707	ug/kg		J
601-53-6	Cholestan-3-one, (5.beta.)-	10.84	907	ug/kg	99	NJ
	Unknown	11.58	1280	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180001	**Date Received:**	03/11/2010 09:00	**%Moisture:**	18.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13437	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 22:38	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s2c2623.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	408	ug/kg	81.6	408	
108-95-2	Phenol	U	408	ug/kg	81.6	408	
95-57-8	2-Chlorophenol	U	408	ug/kg	81.6	408	
106-46-7	1,4-Dichlorobenzene	U	408	ug/kg	81.6	408	
621-64-7	N-Nitrosodipropylamine	U	408	ug/kg	81.6	408	
59-50-7	4-Chloro-3-methylphenol	U	408	ug/kg	81.6	408	
83-32-9	Acenaphthene	U	40.8	ug/kg	13.5	40.8	
121-14-2	2,4-Dinitrotoluene	U	408	ug/kg	40.8	408	
100-02-7	4-Nitrophenol	U	408	ug/kg	135	408	UJ,SV7c
87-86-5	Pentachlorophenol	U	408	ug/kg	102	408	
129-00-0	Pyrene		63.4	ug/kg	12.2	40.8	
110-86-1	Pyridine	U	408	ug/kg	81.6	408	UJ,SV7c
62-53-3	Aniline	U	408	ug/kg	122	408	
111-44-4	bis(2-Chloroethyl) ether	U	408	ug/kg	81.6	408	
541-73-1	1,3-Dichlorobenzene	U	408	ug/kg	81.6	408	
100-51-6	Benzyl alcohol	U	408	ug/kg	122	408	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	408	ug/kg	81.6	408	
108-60-1	bis(2-Chloroisopropyl)ether	U	408	ug/kg	81.6	408	UJ,SV7c
95-48-7	o-Cresol	U	408	ug/kg	81.6	408	
65794-96-9	m,p-Cresols	U	408	ug/kg	122	408	
67-72-1	Hexachloroethane	U	408	ug/kg	81.6	408	
98-95-3	Nitrobenzene	U	408	ug/kg	81.6	408	
78-59-1	Isophorone	U	408	ug/kg	81.6	408	
88-75-5	2-Nitrophenol	U	408	ug/kg	81.6	408	
105-67-9	2,4-Dimethylphenol	U	408	ug/kg	143	408	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	408	ug/kg	81.6	408	
120-83-2	2,4-Dichlorophenol	U	408	ug/kg	81.6	408	
65-85-0	Benzoic acid	U	816	ug/kg	204	816	
91-20-3	Naphthalene	U	40.8	ug/kg	12.2	40.8	
106-47-8	4-Chloroaniline	U	408	ug/kg	81.6	408	
87-68-3	Hexachlorobutadiene	U	408	ug/kg	81.6	408	
91-57-6	2-Methylnaphthalene	U	40.8	ug/kg	8.16	40.8	
77-47-4	Hexachlorocyclopentadiene	U	408	ug/kg	81.6	408	
88-06-2	2,4,6-Trichlorophenol	U	408	ug/kg	81.6	408	
95-95-4	2,4,5-Trichlorophenol	U	408	ug/kg	81.6	408	
91-58-7	2-Chloronaphthalene	U	40.8	ug/kg	13.5	40.8	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	408	ug/kg	81.6	408	
99-09-2	3-Nitroaniline	U	408	ug/kg	81.6	408	UJ,SV7c

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180001**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13437**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 22:38**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2623.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	408	ug/kg	81.6	408	
606-20-2	2,6-Dinitrotoluene	U	408	ug/kg	40.8	408	
208-96-8	Acenaphthylene	U	40.8	ug/kg	12.2	40.8	
51-28-5	2,4-Dinitrophenol	U	816	ug/kg	155	816	
132-64-9	Dibenzofuran	U	408	ug/kg	81.6	408	
84-66-2	Diethylphthalate	U	408	ug/kg	81.6	408	
86-73-7	Fluorene	U	40.8	ug/kg	12.2	40.8	
7005-72-3	4-Chlorophenylphenylether	U	408	ug/kg	81.6	408	
534-52-1	2-Methyl-4,6-dinitrophenol	U	408	ug/kg	81.6	408	UJ,SV7c
100-01-6	4-Nitroaniline	U	408	ug/kg	122	408	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	408	ug/kg	81.6	408	
122-66-7	Azobenzene	U	408	ug/kg	81.6	408	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	408	ug/kg	81.6	408	
118-74-1	Hexachlorobenzene	U	408	ug/kg	81.6	408	
85-01-8	Phenanthrene	J	40.3	ug/kg	12.2	40.8	
120-12-7	Anthracene	J	15.4	ug/kg	8.16	40.8	
84-74-2	Di-n-butylphthalate	U	408	ug/kg	81.6	408	
206-44-0	Fluoranthene		84.6	ug/kg	12.2	40.8	
85-68-7	Butylbenzylphthalate	U	408	ug/kg	81.6	408	
56-55-3	Benzo(a)anthracene	U	40.8	ug/kg	12.2	40.8	
91-94-1	3,3'-Dichlorobenzidine	U	408	ug/kg	122	408	
218-01-9	Chrysene	U	40.8	ug/kg	12.2	40.8	
117-81-7	bis(2-Ethylhexyl)phthalate	U	408	ug/kg	81.6	408	
117-84-0	Di-n-octylphthalate	U	408	ug/kg	81.6	408	
205-99-2	Benzo(b)fluoranthene		88.1	ug/kg	12.2	40.8	
207-08-9	Benzo(k)fluoranthene	U	40.8	ug/kg	12.2	40.8	
50-32-8	Benzo(a)pyrene	U	40.8	ug/kg	12.2	40.8	
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.8	ug/kg	12.2	40.8	
53-70-3	Dibenzo(a,h)anthracene	U	40.8	ug/kg	12.2	40.8	
191-24-2	Benzo(ghi)perylene	U	40.8	ug/kg	12.2	40.8	
120-82-1	1,2,4-Trichlorobenzene	U	408	ug/kg	81.6	408	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
55044-36-5	1H-Indene, 5-butyl-6-hexyloctahydro-	7.94	669	ug/kg	93	NJ
1000130-82-4	Z-8-Methyl-9-tetradecen-1-ol acetate	8.09	992	ug/kg	86	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180001	**Date Received:**	03/11/2010 09:00	**%Moisture:**	18.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13437	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 22:38	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s2c2623.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.19	476	ug/kg		J
	Unknown	8.31	477	ug/kg		J
	Unknown	8.42	534	ug/kg		J
	Unknown	8.45	481	ug/kg		J
	Unknown	8.67	1070	ug/kg		J
	Unknown	8.71	510	ug/kg		J
309735-29-3	1,2-Benzisothiazole, 3-(hexahydro-1H-aze	8.76	713	ug/kg	91	NJ
	Unknown	8.81	516	ug/kg		J
	Unknown	8.84	514	ug/kg		J
	Unknown	8.9	803	ug/kg		J
	Unknown	8.92	467	ug/kg		J
	Unknown	8.98	743	ug/kg		J
1000215-78-2	Sclareoloxide	9.03	737	ug/kg	86	NJ
1000130-78-5	11,12-Dibromo-tetradecan-1-ol acetate	9.1	925	ug/kg	89	NJ
	Unknown	9.2	1260	ug/kg		J
	Unknown	9.25	1270	ug/kg		J
	Unknown	9.33	1070	ug/kg		J
	Unknown	9.44	1050	ug/kg		J
	Unknown	9.6	1260	ug/kg		J
	Unknown	9.66	795	ug/kg		J
	Unknown	9.74	1100	ug/kg		J
1041-25-4	Oxiranepentanoic acid, 3-undecyl-, methy	9.87	1250	ug/kg	90	NJ
	Unknown	10.12	656	ug/kg		J
	Unknown	10.16	713	ug/kg		J
	Unknown	10.25	1750	ug/kg		J
	Unknown	10.44	984	ug/kg		J
	Unknown	10.56	823	ug/kg		J
	Unknown	10.66	877	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180004	**Date Received:**	03/11/2010 09:00	**%Moisture:**	16
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13438	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 23:38	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s2c2626.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	397	ug/kg	79.4	397	
108-95-2	Phenol	U	397	ug/kg	79.4	397	
95-57-8	2-Chlorophenol	U	397	ug/kg	79.4	397	
106-46-7	1,4-Dichlorobenzene	U	397	ug/kg	79.4	397	
621-64-7	N-Nitrosodipropylamine	U	397	ug/kg	79.4	397	
59-50-7	4-Chloro-3-methylphenol	U	397	ug/kg	79.4	397	
83-32-9	Acenaphthene	U	39.7	ug/kg	13.1	39.7	
121-14-2	2,4-Dinitrotoluene	U	397	ug/kg	39.7	397	
100-02-7	4-Nitrophenol	U	397	ug/kg	131	397	UJ,SV7c
87-86-5	Pentachlorophenol	U	397	ug/kg	99.2	397	
129-00-0	Pyrene	U	39.7	ug/kg	11.9	39.7	
110-86-1	Pyridine	U	397	ug/kg	79.4	397	UJ,SV7c
62-53-3	Aniline	U	397	ug/kg	119	397	
111-44-4	bis(2-Chloroethyl) ether	U	397	ug/kg	79.4	397	
541-73-1	1,3-Dichlorobenzene	U	397	ug/kg	79.4	397	
100-51-6	Benzyl alcohol	U	397	ug/kg	119	397	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	397	ug/kg	79.4	397	
108-60-1	bis(2-Chloroisopropyl)ether	U	397	ug/kg	79.4	397	UJ,SV7c
95-48-7	o-Cresol	U	397	ug/kg	79.4	397	
65794-96-9	m,p-Cresols	U	397	ug/kg	119	397	
67-72-1	Hexachloroethane	U	397	ug/kg	79.4	397	
98-95-3	Nitrobenzene	U	397	ug/kg	79.4	397	
78-59-1	Isophorone	U	397	ug/kg	79.4	397	
88-75-5	2-Nitrophenol	U	397	ug/kg	79.4	397	
105-67-9	2,4-Dimethylphenol	U	397	ug/kg	139	397	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	397	ug/kg	79.4	397	
120-83-2	2,4-Dichlorophenol	U	397	ug/kg	79.4	397	
65-85-0	Benzoic acid	U	794	ug/kg	198	794	
91-20-3	Naphthalene	U	39.7	ug/kg	11.9	39.7	
106-47-8	4-Chloroaniline	U	397	ug/kg	79.4	397	
87-68-3	Hexachlorobutadiene	U	397	ug/kg	79.4	397	
91-57-6	2-Methylnaphthalene	U	39.7	ug/kg	7.94	39.7	
77-47-4	Hexachlorocyclopentadiene	U	397	ug/kg	79.4	397	
88-06-2	2,4,6-Trichlorophenol	U	397	ug/kg	79.4	397	
95-95-4	2,4,5-Trichlorophenol	U	397	ug/kg	79.4	397	
91-58-7	2-Chloronaphthalene	U	39.7	ug/kg	13.1	39.7	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	397	ug/kg	79.4	397	
99-09-2	3-Nitroaniline	U	397	ug/kg	79.4	397	UJ,SV7c

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180004	**Date Received:**	03/11/2010 09:00	**%Moisture:**	16
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13438	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 23:38	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s2c2626.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	397	ug/kg	79.4	397	
606-20-2	2,6-Dinitrotoluene	U	397	ug/kg	39.7	397	
208-96-8	Acenaphthylene	U	39.7	ug/kg	11.9	39.7	
51-28-5	2,4-Dinitrophenol	U	794	ug/kg	151	794	
132-64-9	Dibenzofuran	U	397	ug/kg	79.4	397	
84-66-2	Diethylphthalate	U	397	ug/kg	79.4	397	
86-73-7	Fluorene	U	39.7	ug/kg	11.9	39.7	
7005-72-3	4-Chlorophenylphenylether	U	397	ug/kg	79.4	397	
534-52-1	2-Methyl-4,6-dinitrophenol	U	397	ug/kg	79.4	397	UJ,SV7c
100-01-6	4-Nitroaniline	U	397	ug/kg	119	397	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	397	ug/kg	79.4	397	
122-66-7	Azobenzene	U	397	ug/kg	79.4	397	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	397	ug/kg	79.4	397	
118-74-1	Hexachlorobenzene	U	397	ug/kg	79.4	397	
85-01-8	Phenanthrene	U	39.7	ug/kg	11.9	39.7	
120-12-7	Anthracene	U	39.7	ug/kg	7.94	39.7	
84-74-2	Di-n-butylphthalate	U	397	ug/kg	79.4	397	
206-44-0	Fluoranthene	U	39.7	ug/kg	11.9	39.7	
85-68-7	Butylbenzylphthalate	U	397	ug/kg	79.4	397	
56-55-3	Benzo(a)anthracene	U	39.7	ug/kg	11.9	39.7	
91-94-1	3,3'-Dichlorobenzidine	U	397	ug/kg	119	397	
218-01-9	Chrysene	U	39.7	ug/kg	11.9	39.7	
117-81-7	bis(2-Ethylhexyl)phthalate	U	397	ug/kg	79.4	397	
117-84-0	Di-n-octylphthalate	U	397	ug/kg	79.4	397	
205-99-2	Benzo(b)fluoranthene	U	39.7	ug/kg	11.9	39.7	
207-08-9	Benzo(k)fluoranthene	U	39.7	ug/kg	11.9	39.7	
50-32-8	Benzo(a)pyrene	U	39.7	ug/kg	11.9	39.7	
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.7	ug/kg	11.9	39.7	
53-70-3	Dibenzo(a,h)anthracene	U	39.7	ug/kg	11.9	39.7	
191-24-2	Benzo(ghi)perylene	U	39.7	ug/kg	11.9	39.7	
120-82-1	1,2,4-Trichlorobenzene	U	397	ug/kg	79.4	397	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.84	410	ug/kg		JA

ETM
7/30/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180006	**Date Received:**	03/11/2010 09:00	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13439	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/27/2010 00:18	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	s2c2628.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	380	ug/kg	76.0	380	
108-95-2	Phenol	U	380	ug/kg	76.0	380	
95-57-8	2-Chlorophenol	U	380	ug/kg	76.0	380	
106-46-7	1,4-Dichlorobenzene	U	380	ug/kg	76.0	380	
621-64-7	N-Nitrosodipropylamine	U	380	ug/kg	76.0	380	
59-50-7	4-Chloro-3-methylphenol	U	380	ug/kg	76.0	380	
83-32-9	Acenaphthene	U	38.0	ug/kg	12.5	38.0	
121-14-2	2,4-Dinitrotoluene	U	380	ug/kg	38.0	380	
100-02-7	4-Nitrophenol	U	380	ug/kg	125	380	UJ,SV7c
87-86-5	Pentachlorophenol	U	380	ug/kg	95.0	380	
129-00-0	Pyrene	U	38.0	ug/kg	11.4	38.0	
110-86-1	Pyridine	U	380	ug/kg	76.0	380	UJ.SV7c
62-53-3	Aniline	U	380	ug/kg	114	380	
111-44-4	bis(2-Chloroethyl) ether	U	380	ug/kg	76.0	380	
541-73-1	1,3-Dichlorobenzene	U	380	ug/kg	76.0	380	
100-51-6	Benzyl alcohol	U	380	ug/kg	114	380	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	380	ug/kg	76.0	380	
108-60-1	bis(2-Chloroisopropyl)ether	U	380	ug/kg	76.0	380	UJ,SV7c
95-48-7	o-Cresol	U	380	ug/kg	76.0	380	
65794-96-9	m,p-Cresols	U	380	ug/kg	114	380	
67-72-1	Hexachloroethane	U	380	ug/kg	76.0	380	
98-95-3	Nitrobenzene	U	380	ug/kg	76.0	380	
78-59-1	Isophorone	U	380	ug/kg	76.0	380	
88-75-5	2-Nitrophenol	U	380	ug/kg	76.0	380	
105-67-9	2,4-Dimethylphenol	U	380	ug/kg	133	380	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	380	ug/kg	76.0	380	
120-83-2	2,4-Dichlorophenol	U	380	ug/kg	76.0	380	
65-85-0	Benzoic acid	U	760	ug/kg	190	760	
91-20-3	Naphthalene	U	38.0	ug/kg	11.4	38.0	
106-47-8	4-Chloroaniline	U	380	ug/kg	76.0	380	
87-68-3	Hexachlorobutadiene	U	380	ug/kg	76.0	380	
91-57-6	2-Methylnaphthalene	U	38.0	ug/kg	7.60	38.0	
77-47-4	Hexachlorocyclopentadiene	U	380	ug/kg	76.0	380	
88-06-2	2,4,6-Trichlorophenol	U	380	ug/kg	76.0	380	
95-95-4	2,4,5-Trichlorophenol	U	380	ug/kg	76.0	380	
91-58-7	2-Chloronaphthalene	U	38.0	ug/kg	12.5	38.0	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	380	ug/kg	76.0	380	
99-09-2	3-Nitroaniline	U	380	ug/kg	76.0	380	UJ,SV7c

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180006	**Date Received:**	03/11/2010 09:00	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13439	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/27/2010 00:18	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	s2c2628.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	380	ug/kg	76.0	380	
606-20-2	2,6-Dinitrotoluene	U	380	ug/kg	38.0	380	
208-96-8	Acenaphthylene	U	38.0	ug/kg	11.4	38.0	
51-28-5	2,4-Dinitrophenol	U	760	ug/kg	144	760	
132-64-9	Dibenzofuran	U	380	ug/kg	76.0	380	
84-66-2	Diethylphthalate	U	380	ug/kg	76.0	380	
86-73-7	Fluorene	U	38.0	ug/kg	11.4	38.0	
7005-72-3	4-Chlorophenylphenylether	U	380	ug/kg	76.0	380	
534-52-1	2-Methyl-4,6-dinitrophenol	U	380	ug/kg	76.0	380	UJ,SV7c
100-01-6	4-Nitroaniline	U	380	ug/kg	114	380	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	380	ug/kg	76.0	380	
122-66-7	Azobenzene	U	380	ug/kg	76.0	380	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	380	ug/kg	76.0	380	
118-74-1	Hexachlorobenzene	U	380	ug/kg	76.0	380	
85-01-8	Phenanthrene	U	38.0	ug/kg	11.4	38.0	
120-12-7	Anthracene	U	38.0	ug/kg	7.60	38.0	
84-74-2	Di-n-butylphthalate	U	380	ug/kg	76.0	380	
206-44-0	Fluoranthene	U	38.0	ug/kg	11.4	38.0	
85-68-7	Butylbenzylphthalate	U	380	ug/kg	76.0	380	
56-55-3	Benzo(a)anthracene	U	38.0	ug/kg	11.4	38.0	
91-94-1	3,3'-Dichlorobenzidine	U	380	ug/kg	114	380	
218-01-9	Chrysene	U	38.0	ug/kg	11.4	38.0	
117-81-7	bis(2-Ethylhexyl)phthalate	U	380	ug/kg	76.0	380	
117-84-0	Di-n-octylphthalate	U	380	ug/kg	76.0	380	
205-99-2	Benzo(b)fluoranthene	U	38.0	ug/kg	11.4	38.0	
207-08-9	Benzo(k)fluoranthene	U	38.0	ug/kg	11.4	38.0	
50-32-8	Benzo(a)pyrene	U	38.0	ug/kg	11.4	38.0	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.0	ug/kg	11.4	38.0	
53-70-3	Dibenzo(a,h)anthracene	U	38.0	ug/kg	11.4	38.0	
191-24-2	Benzo(ghi)perylene	U	38.0	ug/kg	11.4	38.0	
120-82-1	1,2,4-Trichlorobenzene	U	380	ug/kg	76.0	380	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	7.97	426	ug/kg		J
	Unknown	8.1	2890	ug/kg		J

ETM
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180006	**Date Received:**	03/11/2010 09:00	**%Moisture:**	12.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13439	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/27/2010 00:18	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	s2c2628.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.13	1620	ug/kg		J
	Unknown	8.24	729	ug/kg		J
	Unknown	8.31	820	ug/kg		J
	Unknown	8.34	1500	ug/kg		J
	Unknown	8.38	1570	ug/kg		J
	Unknown	8.49	235	ug/kg		J
	Unknown	8.65	389	ug/kg		J
	Unknown	8.68	481	ug/kg		J
	Unknown	8.72	315	ug/kg		J
	Unknown	8.76	619	ug/kg		J
	Unknown	8.81	367	ug/kg		J
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	8.89	1470	ug/kg	96	NJ
309735-29-3	1,2-Benzisothiazole, 3-(hexahydro-1H-aze	9.02	239	ug/kg	94	NJ
	Unknown	9.07	375	ug/kg		J
	Unknown	9.19	410	ug/kg		J
	Unknown	9.27	517	ug/kg		J
	Unknown	9.37	1110	ug/kg		J
	Unknown	9.44	939	ug/kg		J
	Unknown	9.56	1230	ug/kg		J
	Unknown	9.79	1340	ug/kg		J
	Unknown	9.86	1890	ug/kg		J
	Unknown	9.91	706	ug/kg		J
	Unknown	9.99	960	ug/kg		J
	Unknown	10.12	592	ug/kg		J
	Unknown	10.31	482	ug/kg		J
	Unknown	10.54	987	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180008	**Date Received:**	03/11/2010 09:00	**%Moisture:**	15.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13463	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/27/2010 00:38	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s2c2629.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	394	ug/kg	78.7	394	
108-95-2	Phenol	U	394	ug/kg	78.7	394	
95-57-8	2-Chlorophenol	U	394	ug/kg	78.7	394	
106-46-7	1,4-Dichlorobenzene	U	394	ug/kg	78.7	394	
621-64-7	N-Nitrosodipropylamine	U	394	ug/kg	78.7	394	
59-50-7	4-Chloro-3-methylphenol	U	394	ug/kg	78.7	394	
83-32-9	Acenaphthene	U	39.4	ug/kg	13.0	39.4	
121-14-2	2,4-Dinitrotoluene	U	394	ug/kg	39.4	394	
100-02-7	4-Nitrophenol	U	394	ug/kg	130	394	UJ,SV7c
87-86-5	Pentachlorophenol	U	394	ug/kg	98.4	394	
129-00-0	Pyrene	U	39.4	ug/kg	11.8	39.4	
110-86-1	Pyridine	U	394	ug/kg	78.7	394	UJ,SV7c
62-53-3	Aniline	U	394	ug/kg	118	394	
111-44-4	bis(2-Chloroethyl) ether	U	394	ug/kg	78.7	394	
541-73-1	1,3-Dichlorobenzene	U	394	ug/kg	78.7	394	
100-51-6	Benzyl alcohol	U	394	ug/kg	118	394	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	394	ug/kg	78.7	394	
108-60-1	bis(2-Chloroisopropyl)ether	U	394	ug/kg	78.7	394	UJ,SV7c
95-48-7	o-Cresol	U	394	ug/kg	78.7	394	
65794-96-9	m,p-Cresols	U	394	ug/kg	118	394	
67-72-1	Hexachloroethane	U	394	ug/kg	78.7	394	
98-95-3	Nitrobenzene	U	394	ug/kg	78.7	394	
78-59-1	Isophorone	U	394	ug/kg	78.7	394	
88-75-5	2-Nitrophenol	U	394	ug/kg	78.7	394	
105-67-9	2,4-Dimethylphenol	U	394	ug/kg	138	394	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	394	ug/kg	78.7	394	
120-83-2	2,4-Dichlorophenol	U	394	ug/kg	78.7	394	
65-85-0	Benzoic acid	U	787	ug/kg	197	787	
91-20-3	Naphthalene	U	39.4	ug/kg	11.8	39.4	
106-47-8	4-Chloroaniline	U	394	ug/kg	78.7	394	
87-68-3	Hexachlorobutadiene	U	394	ug/kg	78.7	394	
91-57-6	2-Methylnaphthalene	U	39.4	ug/kg	7.87	39.4	
77-47-4	Hexachlorocyclopentadiene	U	394	ug/kg	78.7	394	
88-06-2	2,4,6-Trichlorophenol	U	394	ug/kg	78.7	394	
95-95-4	2,4,5-Trichlorophenol	U	394	ug/kg	78.7	394	
91-58-7	2-Chloronaphthalene	U	39.4	ug/kg	13.0	39.4	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	394	ug/kg	78.7	394	
99-09-2	3-Nitroaniline	U	394	ug/kg	78.7	394	UJ,SV7c

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180008	**Date Received:**	03/11/2010 09:00	**%Moisture:**	15.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13463	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966675	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/27/2010 00:38	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/18/2010 22:34	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s2c2629.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	394	ug/kg	78.7	394	
606-20-2	2,6-Dinitrotoluene	U	394	ug/kg	39.4	394	
208-96-8	Acenaphthylene	U	39.4	ug/kg	11.8	39.4	
51-28-5	2,4-Dinitrophenol	U	787	ug/kg	150	787	
132-64-9	Dibenzofuran	U	394	ug/kg	78.7	394	
84-66-2	Diethylphthalate	U	394	ug/kg	78.7	394	
86-73-7	Fluorene	U	39.4	ug/kg	11.8	39.4	
7005-72-3	4-Chlorophenylphenylether	U	394	ug/kg	78.7	394	
534-52-1	2-Methyl-4,6-dinitrophenol	U	394	ug/kg	78.7	394	UJ,SV7c
100-01-6	4-Nitroaniline	U	394	ug/kg	118	394	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	394	ug/kg	78.7	394	
122-66-7	Azobenzene	U	394	ug/kg	78.7	394	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	394	ug/kg	78.7	394	
118-74-1	Hexachlorobenzene	U	394	ug/kg	78.7	394	
85-01-8	Phenanthrene	U	39.4	ug/kg	11.8	39.4	
120-12-7	Anthracene	U	39.4	ug/kg	7.87	39.4	
84-74-2	Di-n-butylphthalate	U	394	ug/kg	78.7	394	
206-44-0	Fluoranthene	U	39.4	ug/kg	11.8	39.4	
85-68-7	Butylbenzylphthalate	U	394	ug/kg	78.7	394	
56-55-3	Benzo(a)anthracene	U	39.4	ug/kg	11.8	39.4	
91-94-1	3,3'-Dichlorobenzidine	U	394	ug/kg	118	394	
218-01-9	Chrysene	U	39.4	ug/kg	11.8	39.4	
117-81-7	bis(2-Ethylhexyl)phthalate	U	394	ug/kg	78.7	394	
117-84-0	Di-n-octylphthalate	U	394	ug/kg	78.7	394	
205-99-2	Benzo(b)fluoranthene	U	39.4	ug/kg	11.8	39.4	
207-08-9	Benzo(k)fluoranthene	U	39.4	ug/kg	11.8	39.4	
50-32-8	Benzo(a)pyrene	U	39.4	ug/kg	11.8	39.4	
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.4	ug/kg	11.8	39.4	
53-70-3	Dibenzo(a,h)anthracene	U	39.4	ug/kg	11.8	39.4	
191-24-2	Benzo(ghi)perylene	U	39.4	ug/kg	11.8	39.4	
120-82-1	1,2,4-Trichlorobenzene	U	394	ug/kg	78.7	394	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	393	ug/kg		JA

ETM
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DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2398 VALIDATION DATE: 7/30/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from a different RN and the raw data for the parent sample was not provided in the data package. However, MS/MSD analyses are not required for this method and, thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 08/02/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 7/30/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180003**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**15.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13434**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 14:12**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	035b3501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.92	ug/kg	1.30	3.92	1
11104–28–2	Aroclor–1221	U	3.92	ug/kg	1.30	3.92	1
11141–16–5	Aroclor–1232	U	3.92	ug/kg	1.30	3.92	1
53469–21–9	Aroclor–1242	U	3.92	ug/kg	1.30	3.92	1
12672–29–6	Aroclor–1248	U	3.92	ug/kg	1.30	3.92	1
11097–69–1	Aroclor–1254	P	5.10	ug/kg	1.30	3.92	1
11096–82–5	Aroclor–1260		9.10	ug/kg	1.30	3.92	1

ETM
7/30/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180005	**Date Received:**	03/11/2010 09:00	**%Moisture:**	17.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13435	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967400	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/23/2010 14:37	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 11:11	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	037f3701.d	**Column:**	1 CLP1	**Level:**	LOW
	037b3701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.05	ug/kg	1.35	4.05	1
11104–28–2	Aroclor–1221	U	4.05	ug/kg	1.35	4.05	1
11141–16–5	Aroclor–1232	U	4.05	ug/kg	1.35	4.05	1
53469–21–9	Aroclor–1242	U	4.05	ug/kg	1.35	4.05	1
12672–29–6	Aroclor–1248	U	4.05	ug/kg	1.35	4.05	1
11097–69–1	Aroclor–1254		25.7	ug/kg	1.35	4.05	1
11096–82–5	Aroclor–1260		16.8	ug/kg	1.35	4.05	1

ETM
7/30/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180002**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13436**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968935**	**Inst:**	**ECD1A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 11:56**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 20:20**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**036f3601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	036b3601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	40.0	ug/kg	13.3	40.0	1
11104–28–2	Aroclor–1221	U	40.0	ug/kg	13.3	40.0	1
11141–16–5	Aroclor–1232	U	40.0	ug/kg	13.3	40.0	1
53469–21–9	Aroclor–1242	U	40.0	ug/kg	13.3	40.0	1
12672–29–6	Aroclor–1248	U	40.0	ug/kg	13.3	40.0	1
11097–69–1	Aroclor–1254		230	ug/kg	13.3	40.0	1
11096–82–5	Aroclor–1260		129	ug/kg	13.3	40.0	1

ETM
7/30/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180001**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13437**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:46**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**033f3301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	033b3301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.08	ug/kg	1.36	4.08	1
11104–28–2	Aroclor–1221	U	4.08	ug/kg	1.36	4.08	1
11141–16–5	Aroclor–1232	U	4.08	ug/kg	1.36	4.08	1
53469–21–9	Aroclor–1242	U	4.08	ug/kg	1.36	4.08	1
12672–29–6	Aroclor–1248	U	4.08	ug/kg	1.36	4.08	1
11097–69–1	Aroclor–1254		27.9	ug/kg	1.36	4.08	1
11096–82–5	Aroclor–1260		16.4	ug/kg	1.36	4.08	1

ETM
7/30/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180004**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13438**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 14:24**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**036f3601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	036b3601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.96	ug/kg	1.32	3.96	1
11104–28–2	Aroclor–1221	U	3.96	ug/kg	1.32	3.96	1
11141–16–5	Aroclor–1232	U	3.96	ug/kg	1.32	3.96	1
53469–21–9	Aroclor–1242	U	3.96	ug/kg	1.32	3.96	1
12672–29–6	Aroclor–1248	U	3.96	ug/kg	1.32	3.96	1
11097–69–1	Aroclor–1254		23.6	ug/kg	1.32	3.96	1
11096–82–5	Aroclor–1260		11.5	ug/kg	1.32	3.96	1

ETM
7/30/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180006**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13439**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 14:50**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**038f3801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	038b3801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.82	ug/kg	1.27	3.82	1
11104-28-2	Aroclor-1221	U	3.82	ug/kg	1.27	3.82	1
11141-16-5	Aroclor-1232	U	3.82	ug/kg	1.27	3.82	1
53469-21-9	Aroclor-1242	U	3.82	ug/kg	1.27	3.82	1
12672-29-6	Aroclor-1248	U	3.82	ug/kg	1.27	3.82	1
11097-69-1	Aroclor-1254		64.7	ug/kg	1.27	3.82	1
11096-82-5	Aroclor-1260		40.3	ug/kg	1.27	3.82	1

ETM
7/30/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180008	**Date Received:**	03/11/2010 09:00	**%Moisture:**	15.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–13463	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967400	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/23/2010 15:02	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 11:11	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	039f3901.d	**Column:**	1 CLP1	**Level:**	LOW
	039b3901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.93	ug/kg	1.31	3.93	1
11104–28–2	Aroclor–1221	U	3.93	ug/kg	1.31	3.93	1
11141–16–5	Aroclor–1232	U	3.93	ug/kg	1.31	3.93	1
53469–21–9	Aroclor–1242	U	3.93	ug/kg	1.31	3.93	1
12672–29–6	Aroclor–1248	U	3.93	ug/kg	1.31	3.93	1
11097–69–1	Aroclor–1254	P	4.50	ug/kg	1.31	3.93	1
11096–82–5	Aroclor–1260		10.0	ug/kg	1.31	3.93	1

ETM
7/30/10

Wednesday, March 10, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2398C

REQUEST NUMBER: 10-2398

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/9/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

249180%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13437	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13437	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13436	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13436	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13434	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13434	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13438	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13438	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13435	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13435	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13439	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13439	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13462	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13462	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13463	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13463	1	AMBER GLASS	8270C+8082	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/10/10	3:00	Greg Tyler		3-11-10	0900
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Wednesday, March 10, 2010

REQUEST NUMBER: 10-2398

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-2398
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/10/2010
TURNAROUND/REPORT DUE: 4/9/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	SW-846:8260B	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	

Wednesday, March 10, 2010

REQUEST NUMBER: 10-2398

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13462	S	3/9/2010	
		2	RE46-10-13462	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	SW-846:8270C	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	

Final Page of REQUEST NUMBER 10-2398

GEL Laboratories LLC

a member of The GEL Group Inc

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

March 17, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 249180
SDG: 10-2398

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 11, 2010, and analyzed for GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2398
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 249180
SDG: 10-2398

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 249180
SDG # : 10-2398

March 17, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 11, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. Please see attached e-mail for discrepancies. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
249180001	RE46-10-13437
249180002	RE46-10-13436
249180003	RE46-10-13434
249180004	RE46-10-13438
249180005	RE46-10-13435
249180006	RE46-10-13439
249180007	RE46-10-13462
249180008	RE46-10-13463

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 17 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Wednesday, March 10, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2398C

REQUEST NUMBER: 10-2398

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/9/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

249180%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13437	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13437	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13436	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13436	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13434	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13434	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13438	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13438	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13435	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13435	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13439	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13439	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-13462	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13462	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13463	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13463	1	AMBER GLASS	8270C+8082	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/10/10	3:00	Greg Tyler		3-11-10	0900
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Wednesday, March 10, 2010

REQUEST NUMBER: 10-2398

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2398
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/10/2010
TURNAROUND/REPORT DUE: 4/9/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	SW-846:8260B	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	

Wednesday, March 10, 2010

REQUEST NUMBER: 10-2398

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13462	S	3/9/2010	
		2	RE46-10-13462	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	SW-846:8270C	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	

Final Page of REQUEST NUMBER 10-2398

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2398**
Received By: Greg Tyler	**Date Received: 3/11/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **0-4, 6C 14C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?			X	Sample ID's affected: **RE46-10-13462** **The lab only rec'd (1) 40ML vial 8260B Trip Blank instead of (2) as indicated on COC.**
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:
7209 7850 4447 1C
7209 7850 4436 1C
7209 7850 4458 2C
7209 7850 4414 2C
7209 7850 4506 3C
7209 7850 4469 4C
7209 7850 4517 6C
7209 7850 4425 14C

PM (or PMA) review: Initials _____ Date 3/12/10

Subject: Sample Receipt for 3/11/10
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Fri, 12 Mar 2010 11:01:31 -0500
To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Keith,

RN 10-2392: the lab rec'd (1) 40ml 8260B container each for samples CAPA-10-12838, 12899 and 12901 instead of (2), a 1L amber glass SVOA container for sample CAPA-10-12902 instead of (3) and (2) 1L amber glass SVOA/HEXP/PEST container each for sample CAPA-10-12899 instead of (3) as indicated on the COC.

RN10-2401: the lab rec'd (2) 1L amber glass PCB/PEST/HEXP/SVOA container each for sample CAPA-10-12894 instead of (3) each, a 1L amber glass PCB/SVOA/PEST container each for sample CAPA-10-12898 instead of (3) each, (2) 1L amber glass SVOA containers for sample CAPA-10-12897 instead of (3) and a 40ml vial 8260B container for sample CAPA-10-12896 instead of (2) as indicated on the COC.

RN10-2398: the lab rec'd (1) 40ml vial 8260B container for sample RE46-10-13462 instead of (2) as indicated on the COC.

RN10-2393 and 2402: the Gross A/B containers were preserved prior to analysis.

RN10-2402: the CN container was rec'd at a pH of 2. The analysis will be canceled.

Thanks,
Dionne

--
Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10MAR10
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWMO

1°

FedEx Express

2 of 3
MPS# 0263 7209 7850 4447
Mstr# 7209 7850 4436 0201

THU - 11MAR A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10MAR10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWMO

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1 of 3
MPS# 0263 7209 7850 4436
MASTER

THU - 11MAR A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10MAR10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWMO

2°

FedEx Express

3 of 3
MPS# 0263 7209 7850 4458
Mstr# 7209 7850 4436 0201

THU - 11MAR A1
PRIORITY OVERNIGHT

XX CHSA

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SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10MAR10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWMO

2°

FedEx Express

2 of 3
MPS# 0263 7209 7850 4414
Mstr# 7209 7850 4403 0201

THU - 11MAR A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10MAR10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

3°

FedEx Express

1 of 2
TRK# 0201 7209 7850 4506
** MASTER **

THU - 11MAR A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10MAR10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

4°

FedEx Express

TRK# 0201 7209 7850 4469

THU - 11MAR A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10MAR10
ACTWGT: 24.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

6°

FedEx Express

2 of 2
MPS# 0262 7209 7850 4517
Mstr# 7209 7850 4506 0201

THU - 11MAR A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

14°

FedEx Express

3 of 3
MPS# 0263 7209 7850 4425
Mstr# 7209 7850 4403 0201

THU - 11MAR A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2398

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	967390
Prep Batch Number:	967388

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
249180001	RE46-10-13437
249180002	RE46-10-13436
249180003	RE46-10-13434
249180004	RE46-10-13438
249180005	RE46-10-13435
249180006	RE46-10-13439
249180007	RE46-10-13462
249180008	RE46-10-13463
1202076340	Method Blank (MB)
1202076343	Laboratory Control Sample (LCS)
1202076344	Laboratory Control Sample (LCS)
1202078894	Method Blank (MB)
1202078895	Laboratory Control Sample (LCS)
1202078896	Laboratory Control Sample (LCS)
1202076341	249180004(RE46-10-13438) Post Spike (PS)
1202076342	249180004(RE46-10-13438) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
Samples 249180 001, 002, 003, 004, 005, 006 and 008 in this SDG were analyzed on an "dry weight" basis.
Samples 249180 007 in this SDG were analyzed on a "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the

last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 249180004 (RE46-10-13438) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Sample 249180001 (RE46-10-13437) was re-analyzed due to unacceptable recoveries in the initial analysis.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
A Data Exception Document was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG. Tentatively identified compounds (TIC) were required for this sample delivery group/work order. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA9.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2398 GEL Work Order: 249180

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

DL Indicates that sample is diluted.
RA Indicates that sample is re-analyzed without re-extraction.
RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 07 APR 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180001**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13437**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 15:04**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 14:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V9\9E211.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.22	ug/kg	0.416	1.22
74-87-3	Chloromethane	U	1.22	ug/kg	0.367	1.22
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.367	1.22
74-83-9	Bromomethane	U	1.22	ug/kg	0.367	1.22
75-00-3	Chloroethane	U	1.22	ug/kg	0.367	1.22
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.367	1.22
67-64-1	Acetone	U	6.12	ug/kg	2.03	6.12
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.367	1.22
74-88-4	Iodomethane	U	6.12	ug/kg	1.96	6.12
75-09-2	Methylene chloride	U	6.12	ug/kg	2.45	6.12
75-15-0	Carbon disulfide	U	6.12	ug/kg	1.53	6.12
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.367	1.22
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.367	1.22
78-93-3	2-Butanone	U	6.12	ug/kg	1.84	6.12
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.367	1.22
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.367	1.22
67-66-3	Chloroform	U	1.22	ug/kg	0.367	1.22
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.404	1.22
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.367	1.22
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.367	1.22
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.367	1.22
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.367	1.22
71-43-2	Benzene	U	1.22	ug/kg	0.367	1.22
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.404	1.22
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.367	1.22
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.367	1.22
74-95-3	Dibromomethane	U	1.22	ug/kg	0.367	1.22
108-10-1	4-Methyl-2-pentanone	U	6.12	ug/kg	1.53	6.12
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.367	1.22
108-88-3	Toluene	U	1.22	ug/kg	0.367	1.22
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.367	1.22
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.367	1.22
591-78-6	2-Hexanone	U	6.12	ug/kg	1.84	6.12
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.367	1.22
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.367	1.22
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.367	1.22
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.367	1.22
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.367	1.22

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180001**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13437**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 15:04**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 14:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V9\9E211.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.22	ug/kg	0.367	1.22
179601-23-1	m,p-Xylenes	U	2.45	ug/kg	0.367	2.45
95-47-6	o-Xylene	U	1.22	ug/kg	0.367	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.367	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.367	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.367	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.367	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.367	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.367	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.367	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.367	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.367	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.367	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.367	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.367	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.367	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.367	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.367	1.22
106-46-7	1,4-Dichlorobenzene	U	1.22	ug/kg	0.367	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.367	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.367	1.22
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.12	ug/kg	1.96	6.12
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.367	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.367	1.22

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180002**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13436**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 19:11**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:31**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D512.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.20	ug/kg	0.409	1.20
74-87-3	Chloromethane	U	1.20	ug/kg	0.360	1.20
75-01-4	Vinyl chloride	U	1.20	ug/kg	0.360	1.20
74-83-9	Bromomethane	U	1.20	ug/kg	0.360	1.20
75-00-3	Chloroethane	U	1.20	ug/kg	0.360	1.20
75-69-4	Trichlorofluoromethane	U	1.20	ug/kg	0.360	1.20
67-64-1	Acetone		125	ug/kg	1.99	6.01
75-35-4	1,1-Dichloroethylene	U	1.20	ug/kg	0.360	1.20
74-88-4	Iodomethane	U	6.01	ug/kg	1.92	6.01
75-09-2	Methylene chloride	U	6.01	ug/kg	2.40	6.01
75-15-0	Carbon disulfide	U	6.01	ug/kg	1.50	6.01
156-60-5	trans-1,2-Dichloroethylene	U	1.20	ug/kg	0.360	1.20
75-34-3	1,1-Dichloroethane	U	1.20	ug/kg	0.360	1.20
78-93-3	2-Butanone	U	6.01	ug/kg	1.80	6.01
156-59-2	cis-1,2-Dichloroethylene	U	1.20	ug/kg	0.360	1.20
594-20-7	2,2-Dichloropropane	U	1.20	ug/kg	0.360	1.20
67-66-3	Chloroform	U	1.20	ug/kg	0.360	1.20
74-97-5	Bromochloromethane	U	1.20	ug/kg	0.396	1.20
71-55-6	1,1,1-Trichloroethane	U	1.20	ug/kg	0.360	1.20
563-58-6	1,1-Dichloropropene	U	1.20	ug/kg	0.360	1.20
56-23-5	Carbon tetrachloride	U	1.20	ug/kg	0.360	1.20
107-06-2	1,2-Dichloroethane	U	1.20	ug/kg	0.360	1.20
71-43-2	Benzene	U	1.20	ug/kg	0.360	1.20
79-01-6	Trichloroethylene		1.39	ug/kg	0.396	1.20
78-87-5	1,2-Dichloropropane	U	1.20	ug/kg	0.360	1.20
75-27-4	Bromodichloromethane	U	1.20	ug/kg	0.360	1.20
74-95-3	Dibromomethane	U	1.20	ug/kg	0.360	1.20
108-10-1	4-Methyl-2-pentanone	U	6.01	ug/kg	1.50	6.01
10061-01-5	cis-1,3-Dichloropropylene	U	1.20	ug/kg	0.360	1.20
108-88-3	Toluene	U	1.20	ug/kg	0.360	1.20
10061-02-6	trans-1,3-Dichloropropylene	U	1.20	ug/kg	0.360	1.20
79-00-5	1,1,2-Trichloroethane	U	1.20	ug/kg	0.360	1.20
591-78-6	2-Hexanone	U	6.01	ug/kg	1.80	6.01
142-28-9	1,3-Dichloropropane	U	1.20	ug/kg	0.360	1.20
127-18-4	Tetrachloroethylene	J	0.817	ug/kg	0.360	1.20
124-48-1	Dibromochloromethane	U	1.20	ug/kg	0.360	1.20
106-93-4	1,2-Dibromoethane	U	1.20	ug/kg	0.360	1.20
108-90-7	Chlorobenzene	U	1.20	ug/kg	0.360	1.20

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180002**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13436**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 19:11**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:31**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D512.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.20	ug/kg	0.360	1.20
179601-23-1	m,p-Xylenes	U	2.40	ug/kg	0.360	2.40
95-47-6	o-Xylene	U	1.20	ug/kg	0.360	1.20
100-42-5	Styrene	U	1.20	ug/kg	0.360	1.20
75-25-2	Bromoform	U	1.20	ug/kg	0.360	1.20
79-34-5	1,1,2,2-Tetrachloroethane	U	1.20	ug/kg	0.360	1.20
96-18-4	1,2,3-Trichloropropane	U	1.20	ug/kg	0.360	1.20
108-86-1	Bromobenzene	U	1.20	ug/kg	0.360	1.20
103-65-1	n-Propylbenzene	U	1.20	ug/kg	0.360	1.20
95-49-8	2-Chlorotoluene	U	1.20	ug/kg	0.360	1.20
98-82-8	Isopropylbenzene	U	1.20	ug/kg	0.360	1.20
108-67-8	1,3,5-Trimethylbenzene	U	1.20	ug/kg	0.360	1.20
106-43-4	4-Chlorotoluene	U	1.20	ug/kg	0.360	1.20
98-06-6	tert-Butylbenzene	U	1.20	ug/kg	0.360	1.20
95-63-6	1,2,4-Trimethylbenzene	U	1.20	ug/kg	0.360	1.20
135-98-8	sec-Butylbenzene	U	1.20	ug/kg	0.360	1.20
99-87-6	4-Isopropyltoluene	U	1.20	ug/kg	0.360	1.20
541-73-1	1,3-Dichlorobenzene	U	1.20	ug/kg	0.360	1.20
106-46-7	1,4-Dichlorobenzene	J	0.937	ug/kg	0.360	1.20
104-51-8	n-Butylbenzene	U	1.20	ug/kg	0.360	1.20
96-12-8	1,2-Dibromo-3-chloropropane	U	1.20	ug/kg	0.360	1.20
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.01	ug/kg	1.92	6.01
630-20-6	1,1,1,2-Tetrachloroethane	U	1.20	ug/kg	0.360	1.20
95-50-1	1,2-Dichlorobenzene	U	1.20	ug/kg	0.360	1.20

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180003**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**15.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13434**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 19:40**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:33**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D513.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.400	1.18
74-87-3	Chloromethane	U	1.18	ug/kg	0.353	1.18
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.353	1.18
74-83-9	Bromomethane	U	1.18	ug/kg	0.353	1.18
75-00-3	Chloroethane	U	1.18	ug/kg	0.353	1.18
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.353	1.18
67-64-1	Acetone		95.4	ug/kg	1.95	5.89
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.353	1.18
74-88-4	Iodomethane	U	5.89	ug/kg	1.88	5.89
75-09-2	Methylene chloride	U	5.89	ug/kg	2.35	5.89
75-15-0	Carbon disulfide	U	5.89	ug/kg	1.47	5.89
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.353	1.18
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.353	1.18
78-93-3	2-Butanone	U	5.89	ug/kg	1.77	5.89
156-59-2	cis-1,2-Dichloroethylene	U	1.18	ug/kg	0.353	1.18
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.353	1.18
67-66-3	Chloroform	U	1.18	ug/kg	0.353	1.18
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.389	1.18
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.353	1.18
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.353	1.18
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.353	1.18
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.353	1.18
71-43-2	Benzene	U	1.18	ug/kg	0.353	1.18
79-01-6	Trichloroethylene	U	1.18	ug/kg	0.389	1.18
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.353	1.18
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.353	1.18
74-95-3	Dibromomethane	U	1.18	ug/kg	0.353	1.18
108-10-1	4-Methyl-2-pentanone	U	5.89	ug/kg	1.47	5.89
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.353	1.18
108-88-3	Toluene	U	1.18	ug/kg	0.353	1.18
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.353	1.18
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.353	1.18
591-78-6	2-Hexanone	U	5.89	ug/kg	1.77	5.89
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.353	1.18
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.353	1.18
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.353	1.18
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.353	1.18
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.353	1.18

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180003**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**15.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13434**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 19:40**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:33**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D513.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.353	1.18
179601-23-1	m,p-Xylenes	U	2.35	ug/kg	0.353	2.35
95-47-6	o-Xylene	U	1.18	ug/kg	0.353	1.18
100-42-5	Styrene	U	1.18	ug/kg	0.353	1.18
75-25-2	Bromoform	U	1.18	ug/kg	0.353	1.18
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.353	1.18
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.353	1.18
108-86-1	Bromobenzene	U	1.18	ug/kg	0.353	1.18
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.353	1.18
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.353	1.18
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.353	1.18
108-67-8	1,3,5-Trimethylbenzene	U	1.18	ug/kg	0.353	1.18
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.353	1.18
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.353	1.18
95-63-6	1,2,4-Trimethylbenzene	U	1.18	ug/kg	0.353	1.18
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.353	1.18
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.353	1.18
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.353	1.18
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.353	1.18
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.353	1.18
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.353	1.18
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.89	ug/kg	1.88	5.89
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.353	1.18
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.353	1.18

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180004**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13438**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 20:09**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:34**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D514.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.19	ug/kg	0.405	1.19
74-87-3	Chloromethane	U	1.19	ug/kg	0.357	1.19
75-01-4	Vinyl chloride	U	1.19	ug/kg	0.357	1.19
74-83-9	Bromomethane	U	1.19	ug/kg	0.357	1.19
75-00-3	Chloroethane	U	1.19	ug/kg	0.357	1.19
75-69-4	Trichlorofluoromethane	U	1.19	ug/kg	0.357	1.19
67-64-1	Acetone	U	5.96	ug/kg	1.98	5.96
75-35-4	1,1-Dichloroethylene	U	1.19	ug/kg	0.357	1.19
74-88-4	Iodomethane	U	5.96	ug/kg	1.91	5.96
75-09-2	Methylene chloride	U	5.96	ug/kg	2.38	5.96
75-15-0	Carbon disulfide	U	5.96	ug/kg	1.49	5.96
156-60-5	trans-1,2-Dichloroethylene	U	1.19	ug/kg	0.357	1.19
75-34-3	1,1-Dichloroethane	U	1.19	ug/kg	0.357	1.19
78-93-3	2-Butanone	U	5.96	ug/kg	1.79	5.96
156-59-2	cis-1,2-Dichloroethylene	U	1.19	ug/kg	0.357	1.19
594-20-7	2,2-Dichloropropane	U	1.19	ug/kg	0.357	1.19
67-66-3	Chloroform	U	1.19	ug/kg	0.357	1.19
74-97-5	Bromochloromethane	U	1.19	ug/kg	0.393	1.19
71-55-6	1,1,1-Trichloroethane	U	1.19	ug/kg	0.357	1.19
563-58-6	1,1-Dichloropropene	U	1.19	ug/kg	0.357	1.19
56-23-5	Carbon tetrachloride	U	1.19	ug/kg	0.357	1.19
107-06-2	1,2-Dichloroethane	U	1.19	ug/kg	0.357	1.19
71-43-2	Benzene	U	1.19	ug/kg	0.357	1.19
79-01-6	Trichloroethylene	U	1.19	ug/kg	0.393	1.19
78-87-5	1,2-Dichloropropane	U	1.19	ug/kg	0.357	1.19
75-27-4	Bromodichloromethane	U	1.19	ug/kg	0.357	1.19
74-95-3	Dibromomethane	U	1.19	ug/kg	0.357	1.19
108-10-1	4-Methyl-2-pentanone	U	5.96	ug/kg	1.49	5.96
10061-01-5	cis-1,3-Dichloropropylene	U	1.19	ug/kg	0.357	1.19
108-88-3	Toluene	U	1.19	ug/kg	0.357	1.19
10061-02-6	trans-1,3-Dichloropropylene	U	1.19	ug/kg	0.357	1.19
79-00-5	1,1,2-Trichloroethane	U	1.19	ug/kg	0.357	1.19
591-78-6	2-Hexanone	U	5.96	ug/kg	1.79	5.96
142-28-9	1,3-Dichloropropane	U	1.19	ug/kg	0.357	1.19
127-18-4	Tetrachloroethylene	U	1.19	ug/kg	0.357	1.19
124-48-1	Dibromochloromethane	U	1.19	ug/kg	0.357	1.19
106-93-4	1,2-Dibromoethane	U	1.19	ug/kg	0.357	1.19
108-90-7	Chlorobenzene	U	1.19	ug/kg	0.357	1.19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180004**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13438**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 20:09**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:34**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D514.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.19	ug/kg	0.357	1.19
179601-23-1	m,p-Xylenes	U	2.38	ug/kg	0.357	2.38
95-47-6	o-Xylene	U	1.19	ug/kg	0.357	1.19
100-42-5	Styrene	U	1.19	ug/kg	0.357	1.19
75-25-2	Bromoform	U	1.19	ug/kg	0.357	1.19
79-34-5	1,1,2,2-Tetrachloroethane	U	1.19	ug/kg	0.357	1.19
96-18-4	1,2,3-Trichloropropane	U	1.19	ug/kg	0.357	1.19
108-86-1	Bromobenzene	U	1.19	ug/kg	0.357	1.19
103-65-1	n-Propylbenzene	U	1.19	ug/kg	0.357	1.19
95-49-8	2-Chlorotoluene	U	1.19	ug/kg	0.357	1.19
98-82-8	Isopropylbenzene	U	1.19	ug/kg	0.357	1.19
108-67-8	1,3,5-Trimethylbenzene	U	1.19	ug/kg	0.357	1.19
106-43-4	4-Chlorotoluene	U	1.19	ug/kg	0.357	1.19
98-06-6	tert-Butylbenzene	U	1.19	ug/kg	0.357	1.19
95-63-6	1,2,4-Trimethylbenzene	U	1.19	ug/kg	0.357	1.19
135-98-8	sec-Butylbenzene	U	1.19	ug/kg	0.357	1.19
99-87-6	4-Isopropyltoluene	U	1.19	ug/kg	0.357	1.19
541-73-1	1,3-Dichlorobenzene	U	1.19	ug/kg	0.357	1.19
106-46-7	1,4-Dichlorobenzene	U	1.19	ug/kg	0.357	1.19
104-51-8	n-Butylbenzene	U	1.19	ug/kg	0.357	1.19
96-12-8	1,2-Dibromo-3-chloropropane	U	1.19	ug/kg	0.357	1.19
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.96	ug/kg	1.91	5.96
630-20-6	1,1,1,2-Tetrachloroethane	U	1.19	ug/kg	0.357	1.19
95-50-1	1,2-Dichlorobenzene	U	1.19	ug/kg	0.357	1.19

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180005**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**17.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13435**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 20:38**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:40**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D515.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.22	ug/kg	0.414	1.22
74-87-3	Chloromethane	U	1.22	ug/kg	0.365	1.22
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.365	1.22
74-83-9	Bromomethane	U	1.22	ug/kg	0.365	1.22
75-00-3	Chloroethane	U	1.22	ug/kg	0.365	1.22
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.365	1.22
67-64-1	Acetone	U	6.09	ug/kg	2.02	6.09
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
74-88-4	Iodomethane	U	6.09	ug/kg	1.95	6.09
75-09-2	Methylene chloride	U	6.09	ug/kg	2.44	6.09
75-15-0	Carbon disulfide	U	6.09	ug/kg	1.52	6.09
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.365	1.22
78-93-3	2-Butanone	U	6.09	ug/kg	1.83	6.09
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.365	1.22
67-66-3	Chloroform	U	1.22	ug/kg	0.365	1.22
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.402	1.22
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.365	1.22
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.365	1.22
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.365	1.22
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.365	1.22
71-43-2	Benzene	U	1.22	ug/kg	0.365	1.22
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.402	1.22
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.365	1.22
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.365	1.22
74-95-3	Dibromomethane	U	1.22	ug/kg	0.365	1.22
108-10-1	4-Methyl-2-pentanone	U	6.09	ug/kg	1.52	6.09
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.365	1.22
108-88-3	Toluene	U	1.22	ug/kg	0.365	1.22
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.365	1.22
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.365	1.22
591-78-6	2-Hexanone	U	6.09	ug/kg	1.83	6.09
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.365	1.22
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.365	1.22
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.365	1.22
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.365	1.22
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.365	1.22

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180005**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**17.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13435**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 20:38**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:40**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D515.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.22	ug/kg	0.365	1.22
179601-23-1	m,p-Xylenes	U	2.44	ug/kg	0.365	2.44
95-47-6	o-Xylene	U	1.22	ug/kg	0.365	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.365	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.365	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.365	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.365	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.365	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.365	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.365	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.365	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.365	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.365	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.365	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.365	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.365	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.365	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22
106-46-7	1,4-Dichlorobenzene		1.89	ug/kg	0.365	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.365	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.365	1.22
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.09	ug/kg	1.95	6.09
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.365	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.54	6.54	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180006**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13439**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 21:06**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:42**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D516.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.390	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15
67-64-1	Acetone		13.8	ug/kg	1.90	5.73
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.73	ug/kg	1.83	5.73
75-09-2	Methylene chloride	U	5.73	ug/kg	2.29	5.73
75-15-0	Carbon disulfide	U	5.73	ug/kg	1.43	5.73
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15
78-93-3	2-Butanone	U	5.73	ug/kg	1.72	5.73
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.378	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15
79-01-6	Trichloroethylene	J	0.654	ug/kg	0.378	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15
108-10-1	4-Methyl-2-pentanone	U	5.73	ug/kg	1.43	5.73
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15
591-78-6	2-Hexanone	U	5.73	ug/kg	1.72	5.73
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.344	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180006**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13439**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 21:06**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:42**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D516.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.344	1.15
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29
95-47-6	o-Xylene	U	1.15	ug/kg	0.344	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.344	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.344	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15
95-63-6	1,2,4-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.344	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.344	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
106-46-7	1,4-Dichlorobenzene	J	0.619	ug/kg	0.344	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.344	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.73	ug/kg	1.83	5.73
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.55	6.9	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180007**	**Date Received:**	**03/11/2010 09:00**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13462**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 17:43**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:44**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D509.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180007**	**Date Received:**	**03/11/2010 09:00**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13462**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.1**	**Dilution:**	**1**
Run Date:	**03/19/2010 17:43**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:44**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D509.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180008**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13463**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 21:35**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:46**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D517.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.402	1.18
74-87-3	Chloromethane	U	1.18	ug/kg	0.355	1.18
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.355	1.18
74-83-9	Bromomethane	U	1.18	ug/kg	0.355	1.18
75-00-3	Chloroethane	U	1.18	ug/kg	0.355	1.18
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.355	1.18
67-64-1	Acetone	U	5.91	ug/kg	1.96	5.91
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.355	1.18
74-88-4	Iodomethane	U	5.91	ug/kg	1.89	5.91
75-09-2	Methylene chloride	U	5.91	ug/kg	2.36	5.91
75-15-0	Carbon disulfide	U	5.91	ug/kg	1.48	5.91
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.355	1.18
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.355	1.18
78-93-3	2-Butanone	U	5.91	ug/kg	1.77	5.91
156-59-2	cis-1,2-Dichloroethylene	U	1.18	ug/kg	0.355	1.18
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.355	1.18
67-66-3	Chloroform	U	1.18	ug/kg	0.355	1.18
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.390	1.18
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.355	1.18
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.355	1.18
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.355	1.18
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.355	1.18
71-43-2	Benzene	U	1.18	ug/kg	0.355	1.18
79-01-6	Trichloroethylene	U	1.18	ug/kg	0.390	1.18
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.355	1.18
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.355	1.18
74-95-3	Dibromomethane	U	1.18	ug/kg	0.355	1.18
108-10-1	4-Methyl-2-pentanone	U	5.91	ug/kg	1.48	5.91
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.355	1.18
108-88-3	Toluene	U	1.18	ug/kg	0.355	1.18
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.355	1.18
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.355	1.18
591-78-6	2-Hexanone	U	5.91	ug/kg	1.77	5.91
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.355	1.18
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.355	1.18
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.355	1.18
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.355	1.18
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.355	1.18

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180008**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13463**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 21:35**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:46**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D517.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.355	1.18
179601-23-1	m,p-Xylenes	U	2.36	ug/kg	0.355	2.36
95-47-6	o-Xylene	U	1.18	ug/kg	0.355	1.18
100-42-5	Styrene	U	1.18	ug/kg	0.355	1.18
75-25-2	Bromoform	U	1.18	ug/kg	0.355	1.18
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.355	1.18
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.355	1.18
108-86-1	Bromobenzene	U	1.18	ug/kg	0.355	1.18
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.355	1.18
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.355	1.18
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.355	1.18
108-67-8	1,3,5-Trimethylbenzene	U	1.18	ug/kg	0.355	1.18
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.355	1.18
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.355	1.18
95-63-6	1,2,4-Trimethylbenzene	U	1.18	ug/kg	0.355	1.18
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.355	1.18
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.355	1.18
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.355	1.18
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.355	1.18
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.355	1.18
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.355	1.18
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.91	ug/kg	1.89	5.91
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.355	1.18
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.355	1.18

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-2398

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202076343	LCS for batch 967388	92	99	100
1202076344	LCS for batch 967388	90	99	99
1202076340	MB for batch 967388	91	93	94
249180007	RE46-10-13462	99	100	102
249180002	RE46-10-13436	101	101	105
249180003	RE46-10-13434	100	99	102
249180004	RE46-10-13438	102	101	101
249180005	RE46-10-13435	117	115	116
249180006	RE46-10-13439	107	108	115
249180008	RE46-10-13463	103	102	103
1202076341	RE46-10-13438PS	96	102	102
1202076342	RE46-10-13438PSD	95	100	99
1202078895	LCS for batch 967388	90	100	101
1202078896	LCS for batch 967388	87	101	99
1202078894	MB for batch 967388	88	101	102
249180001	RE46-10-13437	84	105	115

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(66%-134%)
TOL	= Toluene-d8	(71%-128%)
BFB	= Bromofluorobenzene	(65%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: RE46-10-13438PS
Lab Sample ID: 1202076341
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 16
Analysis Date: 03/19/2010 23:56
Prep Batch ID: 967388
Batch ID: 967390
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	43.8	88	39-148
74-87-3	PS	Chloromethane	50.0	0.00	U	40.1	80	42-131
75-01-4	PS	Vinyl chloride	50.0	0.00	U	45.9	92	50-127
74-83-9	PS	Bromomethane	50.0	0.00	U	43.7	87	26-135
75-00-3	PS	Chloroethane	50.0	0.00	U	43.6	87	54-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	43.7	87	55-138
67-64-1	PS	Acetone	250	0.00	U	111	44	20-144
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	40.3	81	55-128
74-88-4	PS	Iodomethane	250	0.00	U	192	77	47-132
75-09-2	PS	Methylene chloride	50.0	0.00	U	45.0	90	56-123
75-15-0	PS	Carbon disulfide	250	0.00	U	204	81	53-133
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	40.8	82	57-119
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	43.2	86	62-125
78-93-3	PS	2-Butanone	250	0.00	U	121	49	30-150
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	42.0	84	60-124
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	37.2	74	56-129
67-66-3	PS	Chloroform	50.0	0.00	U	42.1	84	62-120
74-97-5	PS	Bromochloromethane	50.0	0.00	U	41.3	83	51-135
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	43.8	88	58-129
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	41.6	83	59-126
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	43.7	87	55-132
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	40.4	81	54-121

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: RE46-10-13438PS
Lab Sample ID: 1202076341
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 16
Analysis Date: 03/19/2010 23:56
Prep Batch ID: 967388
Batch ID: 967390

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	40.9	82	58-120
79-01-6	PS	Trichloroethylene	50.0	0.00	U	41.6	83	54-130
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	41.4	83	59-121
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	43.5	87	57-130
74-95-3	PS	Dibromomethane	50.0	0.00	U	41.0	82	57-124
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	202	81	40-137
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	41.7	83	50-131
108-88-3	PS	Toluene	50.0	0.00	U	39.6	79	54-119
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	42.3	85	47-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	42.2	84	60-130
591-78-6	PS	2-Hexanone	250	0.00	U	138	55	30-139
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	41.0	82	59-125
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	40.1	80	50-126
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	44.0	88	54-131
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	41.7	83	55-127
108-90-7	PS	Chlorobenzene	50.0	0.00	U	41.6	83	50-130
100-41-4	PS	Ethylbenzene	50.0	0.00	U	40.1	80	50-121
179601-23-1	PS	m,p-Xylenes	100	0.00	U	79.6	80	47-125
95-47-6	PS	o-Xylene	50.0	0.00	U	40.7	81	51-127
100-42-5	PS	Styrene	50.0	0.00	U	41.6	83	41-136
75-25-2	PS	Bromoform	50.0	0.00	U	45.4	91	48-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	42.1	84	52-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: RE46-10-13438PS
Lab Sample ID: 1202076341
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 16
Analysis Date: 03/19/2010 23:56
Prep Batch ID 967388
Batch ID: 967390

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	40.0	80	56-139
108-86-1	PS	Bromobenzene	50.0	0.00	U	40.8	82	54-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	40.9	82	46-127
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	40.6	81	47-130
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	42.3	85	42-126
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	41.4	83	44-132
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	40.7	81	46-127
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	42.0	84	48-136
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	40.8	82	42-132
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	39.9	80	47-130
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	39.9	80	36-142
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	39.1	78	41-130
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	38.4	77	41-126
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	39.7	79	37-136
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	38.2	76	42-143
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	43.2	86	58-127
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	39.5	79	42-128

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: RE46-10-13438PSD
Lab Sample ID: 1202076342
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 16
Analysis Date: 03/20/2010 00:24
Prep Batch ID: 967388
Batch ID: 967390
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	44.0	88	39-148	1	0-19
74-87-3	PSD	Chloromethane	50.0	0.00	U	40.8	82	42-131	2	0-23
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	47.2	94	50-127	3	0-23
74-83-9	PSD	Bromomethane	50.0	0.00	U	44.9	90	26-135	3	0-22
75-00-3	PSD	Chloroethane	50.0	0.00	U	44.9	90	54-128	3	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	44.1	88	55-138	1	0-21
67-64-1	PSD	Acetone	250	0.00	U	115	46	20-144	3	0-22
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	41.3	83	55-128	2	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	196	78	47-132	2	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	46.1	92	56-123	2	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	206	82	53-133	1	0-22
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	41.8	84	57-119	3	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	43.8	88	62-125	1	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	121	48	30-150	0	0-21
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	42.9	86	60-124	2	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	38.2	76	56-129	3	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	42.9	86	62-120	2	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	41.8	84	51-135	1	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	44.3	89	58-129	1	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	41.8	84	59-126	0	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	44.0	88	55-132	1	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	41.0	82	54-121	1	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: RE46-10-13438PSD
Lab Sample ID: 1202076342
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 16
Analysis Date: 03/20/2010 00:24
Prep Batch ID 967388
Batch ID: 967390
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	41.9	84	58-120	3	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	42.5	85	54-130	2	0-23
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	42.4	85	59-121	3	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	44.3	89	57-130	2	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	41.8	84	57-124	2	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	212	85	40-137	5	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	42.3	85	50-131	1	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	40.3	81	54-119	2	0-23
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	43.1	86	47-133	2	0-24
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	42.8	86	60-130	2	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	140	56	30-139	1	0-21
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	41.6	83	59-125	2	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	39.7	79	50-126	1	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	45.2	90	54-131	3	0-23
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	43.1	86	55-127	3	0-23
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	41.6	83	50-130	0	0-24
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	40.4	81	50-121	1	0-24
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	81.2	81	47-125	2	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	40.7	81	51-127	0	0-24
100-42-5	PSD	Styrene	50.0	0.00	U	42.3	85	41-136	2	0-24
75-25-2	PSD	Bromoform	50.0	0.00	U	47.0	94	48-143	4	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	43.1	86	52-129	2	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: RE46-10-13438PSD
Lab Sample ID: 1202076342
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 16
Analysis Date: 03/20/2010 00:24
Dilution: 1
Prep Batch ID 967388
Batch ID: 967390

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	41.1	82	56-139	3	0-34
108-86-1	PSD	Bromobenzene	50.0	0.00	U	41.3	83	54-125	1	0-22
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	40.3	81	46-127	2	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	41.3	83	47-130	2	0-24
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	41.8	84	42-126	1	0-22
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	41.0	82	44-132	1	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	40.4	81	46-127	1	0-26
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	41.8	84	48-136	0	0-24
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	39.9	80	42-132	2	0-26
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	39.5	79	47-130	1	0-27
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	39.0	78	36-142	2	0-27
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	39.0	78	41-130	0	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	38.3	77	41-126	0	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	38.7	77	37-136	3	0-29
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	40.6	81	42-143	6	0-21
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	43.8	88	58-127	1	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	39.5	79	42-128	0	0-24

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: LCS for batch 967388
Lab Sample ID: 1202076343
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/19/2010 14:44
Dilution: 1
Prep Batch ID: 967388
Batch ID: 967390

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	50.4	101	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	40.7	81	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	48.0	96	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	44.6	89	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	47.4	95	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	47.7	95	73-143
67-64-1	LCS	Acetone	250	0.0	253	101	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	44.0	88	71-129
74-88-4	LCS	Iodomethane	250	0.0	201	80	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	46.6	93	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	223	89	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	44.0	88	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	44.3	89	73-120
78-93-3	LCS	2-Butanone	250	0.0	232	93	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	44.5	89	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	46.3	93	73-134
67-66-3	LCS	Chloroform	50.0	0.0	42.5	85	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	42.5	85	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	45.5	91	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	46.6	93	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	46.1	92	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	40.4	81	65-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: LCS for batch 967388
Lab Sample ID: 1202076343
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/19/2010 14:44
Dilution: 1
Prep Batch ID: 967388
Batch ID: 967390

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	44.1	88	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	46.0	92	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	44.9	90	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	43.8	88	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	42.9	86	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	272	109	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	46.9	94	78-127
108-88-3	LCS	Toluene	50.0	0.0	42.9	86	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	47.5	95	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	45.8	92	75-120
591-78-6	LCS	2-Hexanone	250	0.0	234	94	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	43.2	86	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	45.4	91	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	46.8	94	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	47.0	94	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	45.1	90	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	44.1	88	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	90.6	91	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	44.5	89	76-122
100-42-5	LCS	Styrene	50.0	0.0	46.2	92	75-125
75-25-2	LCS	Bromoform	50.0	0.0	50.6	101	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	48.5	97	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 967388 **Matrix:** SOIL

Lab Sample ID: 1202076343

Instrument: VOA9.I **Analysis Date:** 03/19/2010 14:44 **Dilution:** 1

Analyst: RXY1 **Prep Batch ID** 967388

Purge Vol: 5 mL **Batch ID:** 967390

CAS No	Parmname		Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	46.1	92	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	43.6	87	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	46.2	92	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	45.4	91	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	46.8	94	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	46.1	92	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	45.5	91	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	49.0	98	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	45.6	91	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	47.2	94	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	48.2	96	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	44.3	89	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	43.8	88	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	48.4	97	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	49.5	99	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	44.1	88	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	44.2	88	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2398**
Client ID: **LCS for batch 967388**
Lab Sample ID: **1202076344**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **03/19/2010 15:44**
Dilution: **1**
Prep Batch ID: **967388**
Batch ID: **967390**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	222	89	67-140

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 967388 **Matrix:** SOIL

Lab Sample ID: 1202078895

Instrument: VOA9.I **Analysis Date:** 03/23/2010 10:54 **Dilution:** 1

Analyst: RXY1 **Prep Batch ID** 967388

Purge Vol: 5 mL **Batch ID:** 967390

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	58.4	117	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	43.8	88	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	51.5	103	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	48.1	96	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	49.8	100	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	48.7	97	73-143
67-64-1	LCS	Acetone	250	0.0	290	116	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	43.4	87	71-129
74-88-4	LCS	Iodomethane	250	0.0	206	83	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	47.8	96	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	228	91	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	44.8	90	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	45.1	90	73-120
78-93-3	LCS	2-Butanone	250	0.0	244	98	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	45.4	91	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	48.7	97	73-134
67-66-3	LCS	Chloroform	50.0	0.0	42.9	86	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	42.7	85	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	46.8	94	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	47.5	95	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	47.1	94	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	38.7	77	65-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: LCS for batch 967388
Lab Sample ID: 1202078895
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 10:54
Dilution: 1
Prep Batch ID: 967388
Batch ID: 967390

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	44.8	90	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	45.4	91	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	44.6	89	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	43.6	87	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	42.3	85	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	259	104	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	47.0	94	78-127
108-88-3	LCS	Toluene	50.0	0.0	44.0	88	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	49.3	99	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	45.9	92	75-120
591-78-6	LCS	2-Hexanone	250	0.0	252	101	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	43.3	87	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	48.1	96	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	47.1	94	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	45.8	92	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	46.3	93	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	44.7	89	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	94.6	95	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	47.4	95	76-122
100-42-5	LCS	Styrene	50.0	0.0	48.1	96	75-125
75-25-2	LCS	Bromoform	50.0	0.0	49.8	100	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	46.8	94	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 967388 **Matrix:** SOIL

Lab Sample ID: 1202078895

Instrument: VOA9.I **Analysis Date:** 03/23/2010 10:54 **Dilution:** 1

Analyst: RXY1 **Prep Batch ID** 967388

Purge Vol: 5 mL **Batch ID:** 967390

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	45.2	90	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	44.7	89	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	47.2	94	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	47.6	95	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	48.1	96	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	47.3	95	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	46.4	93	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	50.7	101	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	46.5	93	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	48.3	97	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	49.7	99	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	46.0	92	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	45.6	91	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	49.9	100	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	46.2	92	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	46.6	93	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	45.1	90	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: LCS for batch 967388
Lab Sample ID: 1202078896
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 11:49
Dilution: 1
Prep Batch ID: 967388
Batch ID: 967390

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	260	104	67-140

Method Blank Summary

SDG Number:	10-2398	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 967388	Instrument ID:	VOA9.I	Data File:	031910V9\9D507B.D
Lab Sample ID:	1202076340	Prep Date:	03/19/2010 14:02	Analyzed:	03/19/10 16:44
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 967388	1202076343	031910V9\9D503L.D	03/19/10	1444
02	LCS for batch 967388	1202076344	031910V9\9D505L.D	03/19/10	1544
03	RE46-10-13462	249180007	031910V9\9D509.D	03/19/10	1743
04	RE46-10-13436	249180002	031910V9\9D512.D	03/19/10	1911
05	RE46-10-13434	249180003	031910V9\9D513.D	03/19/10	1940
06	RE46-10-13438	249180004	031910V9\9D514.D	03/19/10	2009
07	RE46-10-13435	249180005	031910V9\9D515.D	03/19/10	2038
08	RE46-10-13439	249180006	031910V9\9D516.D	03/19/10	2106
09	RE46-10-13463	249180008	031910V9\9D517.D	03/19/10	2135
10	RE46-10-13438PS	1202076341	031910V9\9D522.D	03/19/10	2356
11	RE46-10-13438PSD	1202076342	031910V9\9D523.D	03/20/10	0024

Method Blank Summary

SDG Number:	10-2398	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 967388	Instrument ID:	VOA9.I	Data File:	032310V9\9E207B.D
Lab Sample ID:	1202078894	Prep Date:	03/23/2010 10:02	Analyzed:	03/23/10 13:12
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 967388	1202078895	032310V9\9E202L.D	03/23/10	1054
02 LCS for batch 967388	1202078896	032310V9\9E204L.D	03/23/10	1149
03 RE46-10-13437	249180001	032310V9\9E211.D	03/23/10	1504

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2398

Instrument ID: VOA9.I **Injection Date/Time:** 18-MAR-10 15:47

Column Description: DB-624 **Lab File ID** 031810V9\9D414.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	26.7
75	30.0 - 60.0% of mass 95	52
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	57.2
175	5.0 -9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	97.9
177	5.0 - 9.0% of mass 176	6.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W9VM100318-06	031810V9\9D415.D	18-MAR-10 16:15
ICALMIX[A]	W9VM100318-07	031810V9\9D416.D	18-MAR-10 16:44
ICALMIX[A]	W9VM100318-08	031810V9\9D417.D	18-MAR-10 17:13
ICALMIX[A]	W9VM100318-09	031810V9\9D418.D	18-MAR-10 17:42
ICALMIX[A]	W9VM100318-10	031810V9\9D419.D	18-MAR-10 18:11
ICALMIX[A]	W9VM100318-11	031810V9\9D420.D	18-MAR-10 18:40
ICALMIX[A]	W9VM100318-12	031810V9\9D421.D	18-MAR-10 19:09
ICALMIX[A]	W9VM100318-13	031810V9\9D422.D	18-MAR-10 19:38
ICALMIX[B]	W9VM100318-14	031810V9\9D424.D	18-MAR-10 20:35
ICALMIX[B]	W9VM100318-15	031810V9\9D425.D	18-MAR-10 21:03
ICALMIX[B]	W9VM100318-16	031810V9\9D426.D	18-MAR-10 21:32
ICALMIX[B]	W9VM100318-17	031810V9\9D427.D	18-MAR-10 22:00
ICALMIX[B]	W9VM100318-18	031810V9\9D428.D	18-MAR-10 22:28
ICALMIX[B]	W9VM100318-19	031810V9\9D429.D	18-MAR-10 22:56
ICALMIX[B]	W9VM100318-20	031810V9\9D430.D	18-MAR-10 23:24
ICVMIX[B]01	W9VM100318-21	031810V9\9D432.D	19-MAR-10 00:19
ICVMIX[A]02	W9VM100318-22	031810V9\9D433.D	19-MAR-10 00:47

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2398

Instrument ID: VOA9.I **Injection Date/Time:** 19-MAR-10 13:44

Column Description: DB-624 **Lab File ID** 031910V9\9D501BFB.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	27.9
75	30.0 - 60.0% of mass 95	53.3
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	53
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	97
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]01	W9VM100319-01	031910V9\9D501.D	19-MAR-10 13:44
BLK01LCS	1202076343	031910V9\9D503L.D	19-MAR-10 14:44
CCVMIX[B]02	W9VM100319-04	031910V9\9D504.D	19-MAR-10 15:13
BLK01SLCS	1202076344	031910V9\9D505L.D	19-MAR-10 15:44
BLK01	1202076340	031910V9\9D507B.D	19-MAR-10 16:44
RE46-10-13462	249180007	031910V9\9D509.D	19-MAR-10 17:43
RE46-10-13436	249180002	031910V9\9D512.D	19-MAR-10 19:11
RE46-10-13434	249180003	031910V9\9D513.D	19-MAR-10 19:40
RE46-10-13438	249180004	031910V9\9D514.D	19-MAR-10 20:09
RE46-10-13435	249180005	031910V9\9D515.D	19-MAR-10 20:38
RE46-10-13439	249180006	031910V9\9D516.D	19-MAR-10 21:06
RE46-10-13463	249180008	031910V9\9D517.D	19-MAR-10 21:35
RE46-10-13438MS	1202076341	031910V9\9D522.D	19-MAR-10 23:56
RE46-10-13438MSD	1202076342	031910V9\9D523.D	20-MAR-10 00:24

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2398

Instrument ID: VOA9.I **Injection Date/Time:** 23-MAR-10 10:54

Column Description: DB-624 **Lab File ID** 032310V9\9E202BFB.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	25.3
75	30.0 - 60.0% of mass 95	49.6
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	52.4
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	98
177	5.0 - 9.0% of mass 176	6.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]03	W9VM100323-02	032310V9\9E202.D	23-MAR-10 10:54
BLK02LCS	1202078895	032310V9\9E202L.D	23-MAR-10 10:54
CCVMIX[B]04	W9VM100323-03	032310V9\9E203.D	23-MAR-10 11:21
BLK02SLCS	1202078896	032310V9\9E204L.D	23-MAR-10 11:49
BLK02	1202078894	032310V9\9E207B.D	23-MAR-10 13:12
RE46-10-13437	249180001	032310V9\9E211.D	23-MAR-10 15:04

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA9.I

GC Column: DB-624

Client SDG: 10-2398

STD Analysis Time: 19-MAR-10 13:44

Data File: C:\msdchem\1\DATA\031910V9\9D501.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	RT	#	Area	RT	#	Area	RT	#
12 Hour STD	1007460	10.8		716012	13.9		332860	16.4	
Upper Limit	2014920	11.3		1432024	14.4		665720	16.9	
Lower Limit	503730	10.3		358006	13.4		166430	15.9	
Sample ID									
BLK01LCS	1216795	10.8		850850	13.9		394364	16.4	
BLK01SLCS	1254224	10.8		874699	13.9		396019	16.4	
BLK01	1210808	10.8		845122	13.9		381408	16.4	
RE46-10-13462	1005424	10.8		705326	13.9		319310	16.4	
RE46-10-13436	861710	10.8		602022	13.9		255194	16.4	
RE46-10-13434	822216	10.8		579412	13.9		245778	16.4	
RE46-10-13438	805345	10.8		567841	13.9		243548	16.4	
RE46-10-13435	789978	10.8		545411	13.9		223992	16.4	
RE46-10-13439	776089	10.8		539728	13.9		213614	16.4	
RE46-10-13463	746789	10.8		522298	13.9		221171	16.4	
RE46-10-13438MS	927163	10.8		657546	13.9		300538	16.4	
RE46-10-13438MSD	953349	10.8		670297	13.9		310832	16.4	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA9.I

GC Column: DB-624

Client SDG: 10-2398

STD Analysis Time: 23-MAR-10 10:54

Data File: C:\msdchem\1\DATA\032310V9\9E202.D

	Fluorobenzene			Chlorobenzene-d5			1.4-Dichlorobenzene-d4		
	Area	# RT	#	Area	# RT	#	Area	# RT	#
12 Hour STD	1354101	10.8		927883	13.9		430388	16.4	
Upper Limit	2708202	11.3		1855766	14.4		860776	16.9	
Lower Limit	677051	10.3		463942	13.4		215194	15.9	
Sample ID									
BLK02LCS	1354101	10.8		927883	13.9		430388	16.4	
BLK02SLCS	1398084	10.8		939711	13.9		425508	16.4	
BLK02	1408378	10.8		947954	13.9		414085	16.4	
RE46-10-13437	1228512	10.8		767511	13.9		272089	16.4	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180007**	**Date Received:**	**03/11/2010 09:00**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13462**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 17:43**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:44**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D509.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180007**	**Date Received:**	**03/11/2010 09:00**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13462**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 17:43**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:44**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D509.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D509.D
Acq On : 19 Mar 2010 5:43 pm
Operator : RXY1
InstName : VOA9
Sample : |249180007|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 20 11:55:21 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.787	10.775	1.000	96	1005424	50.00	ug/L	0.01
41) Chlorobenzene-d5	13.941	13.941	1.000	117	705326	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	319328	50.00	ug/L	0.00
82) B Fluorobenzene	10.787	10.775	1.000	96	1005424	50.00	ug/L	0.01
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	705326	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	319310	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.967	65	379059	49.67	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 99.34%					
43) Toluene-d8	12.412	12.412	0.890	98	909002	50.21	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 100.42%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	384557	50.87	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 101.74%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	5.294	5.308	0.491	50	502	N.D.		
4) Vinyl chloride	5.574	5.546	0.517	62	734	N.D.		
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	0.000	7.099	0.000		0	N.D.		
9) Acetone	7.502	7.490	0.695	43	9323	Below Cal		80
10) 1,1-Dichloroethylene	0.000	7.502	0.000		0	N.D.		
11) Iodomethane	0.000	7.763	0.000		0	N.D.		
12) Acetonitrile	8.083	7.858	0.749	41	860	N.D.		
13) Methyl acetate	0.000	7.882	0.000		0	N.D.		
14) Carbon disulfide	7.893	7.906	0.732	76	1221	N.D.		
15) Methylene chloride	8.083	8.083	0.749	84	4296	Below Cal		96
16) tert-Butyl methyl ether	0.000	8.368	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.427	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.854	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.913	0.000		0	N.D.		
20) 2-Butanone	9.506	9.483	0.881	43	975	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.554	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	0.000	9.850	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	0.000	10.230	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	10.289	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.514	0.000		0	N.D.		
31) Benzene	10.538	10.538	0.977	78	648	N.D.		
32) Cyclohexene	0.000	10.645	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.846	0.000		0m	N.D.	d	
34) Trichloroethylene	0.000	11.167	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.416	0.000		0	N.D.		
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D509.D
Acq On : 19 Mar 2010 5:43 pm
Operator : RXY1
InstName : VOA9
Sample : |249180007|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 20 11:55:21 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.665	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	12.103	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.186	0.000		0	N.D.	
44) Toluene	12.495	12.483	0.896	91	1980	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.637	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.	
47) 2-Hexanone	13.040	13.028	0.935	43	425	N.D.	
48) 1,3-Dichloropropane	0.000	13.052	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	13.088	0.000		0	N.D.	
50) Dibromochloromethane	0.000	13.325	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.503	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.977	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	14.024	0.000		0	N.D.	
54) Ethylbenzene	14.131	14.024	1.014	91	882	N.D.	
55) m,p-Xylenes	14.131	14.131	1.014	106	184	N.D.	
56) o-Xylene	0.000	14.570	0.000		0	N.D.	
57) Styrene	0.000	14.570	0.000		0	N.D.	
59) Bromoform	0.000	14.855	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.926	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.198	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.	
64) Bromobenzene	0.000	15.353	0.000		0	N.D.	
65) n-Propylbenzene	15.341	15.353	0.937	91	682	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.495	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.507	0.000		0	N.D.	
68) 4-Chlorotoluene	15.613	15.614	0.954	91	424	N.D.	
69) tert-Butylbenzene	0.000	15.874	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	16.005	15.910	0.978	105	438	N.D.	
71) sec-Butylbenzene	16.100	16.112	0.983	105	203	N.D.	
72) 4-Isopropyltoluene	16.230	16.230	0.991	119	233	N.D.	
73) 1,3-Dichlorobenzene	16.313	16.313	0.996	146	216	N.D.	
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	213	N.D.	
75) n-Butylbenzene	16.704	16.693	1.020	91	200	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.859	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.922	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	19.088	0.000		0	N.D.	
80) Naphthalene	19.349	19.349	1.182	128	907	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.717	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.	
85) Acrolein	0.000	7.313	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.550	0.000		0	N.D.	
88) Allyl chloride	0.000	7.929	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.060	0.000		0	N.D.	
90) Acrylonitrile	0.000	8.332	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.866	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	9.008	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.	
94) Ethyl acetate	9.506	9.483	0.881	43	975	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D509.D
Acq On : 19 Mar 2010 5:43 pm
Operator : RXY1
InstName : VOA9
Sample : |249180007|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 20 11:55:21 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	0.000	9.578	0.000		0	N.D.		
96)	Methacrylonitrile	9.874	9.744	0.915	41	186	N.D.		
97)	Tetrahydrofuran	9.886	9.874	0.916	42	705	N.D.		
98)	Isobutyl alcohol	0.000	10.159	0.000		0	N.D.		
99)	Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.		
100)	Methyl methacrylate	0.000	11.368	0.000		0	N.D.		
101)	1,4-Dioxane	0.000	11.487	0.000		0	N.D.		
102)	2-Nitropropane	0.000	11.854	0.000		0	N.D.		
104)	Ethyl methacrylate	0.000	12.613	0.000		0	N.D.		
106)	1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d	
107)	cis-1,4-Dichloro-2-butene	0.000	14.961	0.000		0	N.D.		
108)	Cyclohexanone	0.000	15.092	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000	15.246	0.000		0	N.D.		
110)	Pentachloroethane	0.000	15.957	0.000		0	N.D.		
111)	Benzyl chloride	16.526	16.527	1.009	91	208	N.D.		
112)	bis(2-Chloroisopropyl)...	16.942	16.918	1.035	45	491	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D509.D
Acq On : 19 Mar 2010 5:43 pm
Operator : RXY1
InstName : VOA9
Sample : |249180007|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 20 11:55:21 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

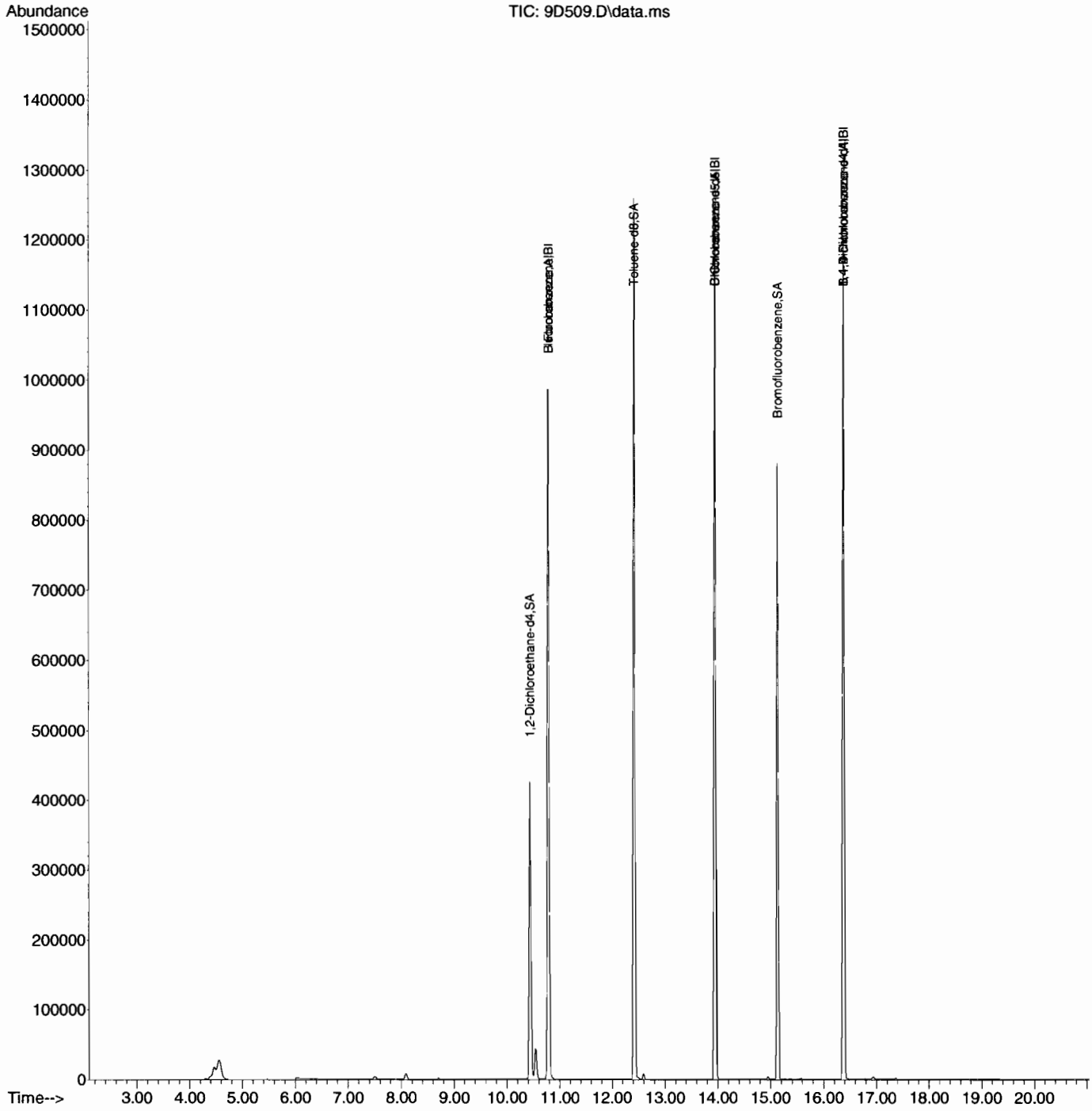

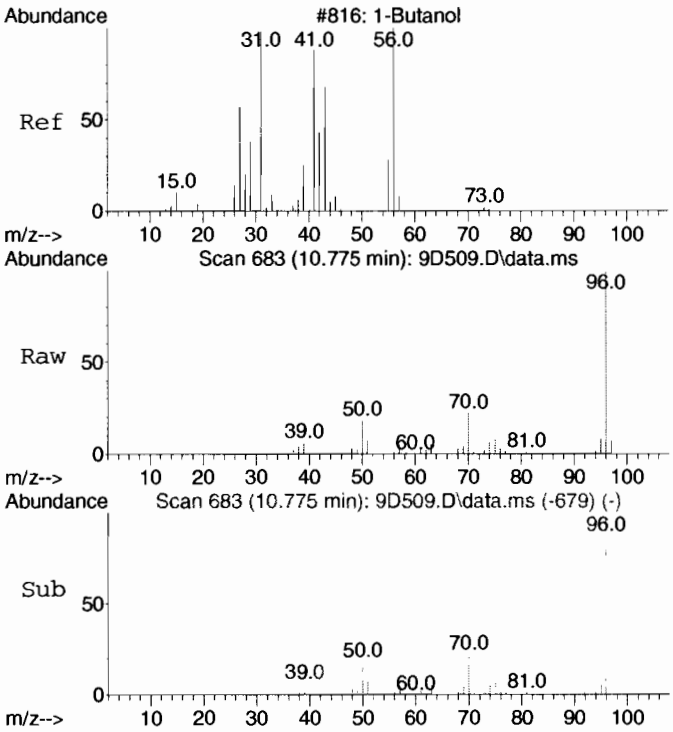

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 41.61 ug/L
RT: 10.775 min Scan# 683
Delta R.T. -0.071 min
Lab File: 9D509.D
Acq: 19 Mar 2010 5:43 pm

Tgt Ion: 56 Resp: 7913

Ion	Ratio	Lower	Upper
56	100		
41	0.0	33.0	93.0#
43	0.0	25.0	85.0#

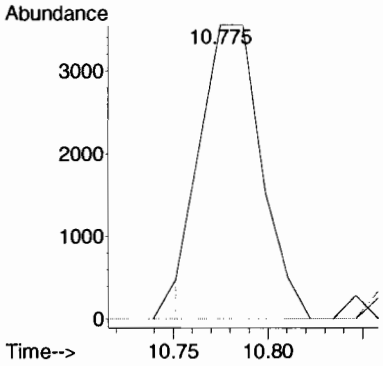

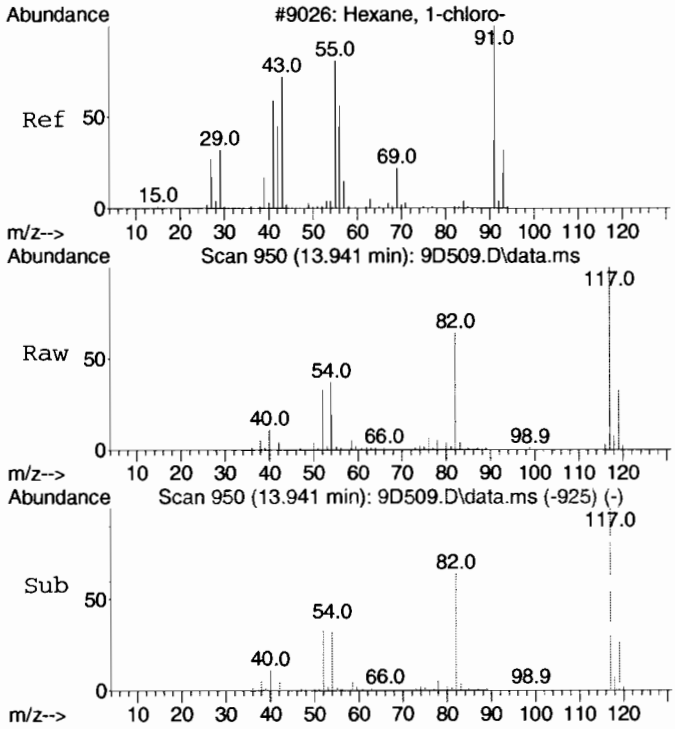

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.79 ug/L
RT: 13.941 min Scan# 950
Delta R.T. 0.118 min
Lab File: 9D509.D
Acq: 19 Mar 2010 5:43 pm

Tgt Ion: 55 Resp: 10920

Ion	Ratio	Lower	Upper
55	100		
91	12.4	74.8	134.8#
56	57.5	31.8	91.8

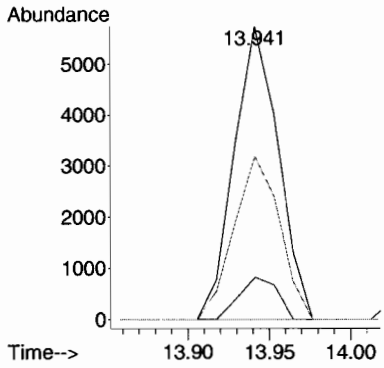

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D509.D
Acq On : 19 Mar 2010 5:43 pm
Operator : RXY1
Sample : |249180007|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D509.D
Acq On    : 19 Mar 2010   5:43 pm
Operator  : RXY1
Sample    : |249180007|967390|1|VOA|1|VOA8260BS|
Misc      : LANL 5.0g n/a SOIL
ALS Vial  : 9   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library   : C:\Database\NIST05.L
TIC Integration Parameters: default.P

                                                    |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-----------------------------------------------------------------------------
```

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180002**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13436**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 19:11**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:31**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D512.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.20	ug/kg	0.409	1.20
74-87-3	Chloromethane	U	1.20	ug/kg	0.360	1.20
75-01-4	Vinyl chloride	U	1.20	ug/kg	0.360	1.20
74-83-9	Bromomethane	U	1.20	ug/kg	0.360	1.20
75-00-3	Chloroethane	U	1.20	ug/kg	0.360	1.20
75-69-4	Trichlorofluoromethane	U	1.20	ug/kg	0.360	1.20
67-64-1	Acetone		125	ug/kg	1.99	6.01
75-35-4	1,1-Dichloroethylene	U	1.20	ug/kg	0.360	1.20
74-88-4	Iodomethane	U	6.01	ug/kg	1.92	6.01
75-09-2	Methylene chloride	U	6.01	ug/kg	2.40	6.01
75-15-0	Carbon disulfide	U	6.01	ug/kg	1.50	6.01
156-60-5	trans-1,2-Dichloroethylene	U	1.20	ug/kg	0.360	1.20
75-34-3	1,1-Dichloroethane	U	1.20	ug/kg	0.360	1.20
78-93-3	2-Butanone	U	6.01	ug/kg	1.80	6.01
156-59-2	cis-1,2-Dichloroethylene	U	1.20	ug/kg	0.360	1.20
594-20-7	2,2-Dichloropropane	U	1.20	ug/kg	0.360	1.20
67-66-3	Chloroform	U	1.20	ug/kg	0.360	1.20
74-97-5	Bromochloromethane	U	1.20	ug/kg	0.396	1.20
71-55-6	1,1,1-Trichloroethane	U	1.20	ug/kg	0.360	1.20
563-58-6	1,1-Dichloropropene	U	1.20	ug/kg	0.360	1.20
56-23-5	Carbon tetrachloride	U	1.20	ug/kg	0.360	1.20
107-06-2	1,2-Dichloroethane	U	1.20	ug/kg	0.360	1.20
71-43-2	Benzene	U	1.20	ug/kg	0.360	1.20
79-01-6	Trichloroethylene		1.39	ug/kg	0.396	1.20
78-87-5	1,2-Dichloropropane	U	1.20	ug/kg	0.360	1.20
75-27-4	Bromodichloromethane	U	1.20	ug/kg	0.360	1.20
74-95-3	Dibromomethane	U	1.20	ug/kg	0.360	1.20
108-10-1	4-Methyl-2-pentanone	U	6.01	ug/kg	1.50	6.01
10061-01-5	cis-1,3-Dichloropropylene	U	1.20	ug/kg	0.360	1.20
108-88-3	Toluene	U	1.20	ug/kg	0.360	1.20
10061-02-6	trans-1,3-Dichloropropylene	U	1.20	ug/kg	0.360	1.20
79-00-5	1,1,2-Trichloroethane	U	1.20	ug/kg	0.360	1.20
591-78-6	2-Hexanone	U	6.01	ug/kg	1.80	6.01
142-28-9	1,3-Dichloropropane	U	1.20	ug/kg	0.360	1.20
127-18-4	Tetrachloroethylene	J	0.817	ug/kg	0.360	1.20
124-48-1	Dibromochloromethane	U	1.20	ug/kg	0.360	1.20
106-93-4	1,2-Dibromoethane	U	1.20	ug/kg	0.360	1.20
108-90-7	Chlorobenzene	U	1.20	ug/kg	0.360	1.20

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180002**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13436**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 19:11**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:31**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D512.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.20	ug/kg	0.360	1.20
179601-23-1	m,p-Xylenes	U	2.40	ug/kg	0.360	2.40
95-47-6	o-Xylene	U	1.20	ug/kg	0.360	1.20
100-42-5	Styrene	U	1.20	ug/kg	0.360	1.20
75-25-2	Bromoform	U	1.20	ug/kg	0.360	1.20
79-34-5	1,1,2,2-Tetrachloroethane	U	1.20	ug/kg	0.360	1.20
96-18-4	1,2,3-Trichloropropane	U	1.20	ug/kg	0.360	1.20
108-86-1	Bromobenzene	U	1.20	ug/kg	0.360	1.20
103-65-1	n-Propylbenzene	U	1.20	ug/kg	0.360	1.20
95-49-8	2-Chlorotoluene	U	1.20	ug/kg	0.360	1.20
98-82-8	Isopropylbenzene	U	1.20	ug/kg	0.360	1.20
108-67-8	1,3,5-Trimethylbenzene	U	1.20	ug/kg	0.360	1.20
106-43-4	4-Chlorotoluene	U	1.20	ug/kg	0.360	1.20
98-06-6	tert-Butylbenzene	U	1.20	ug/kg	0.360	1.20
95-63-6	1,2,4-Trimethylbenzene	U	1.20	ug/kg	0.360	1.20
135-98-8	sec-Butylbenzene	U	1.20	ug/kg	0.360	1.20
99-87-6	4-Isopropyltoluene	U	1.20	ug/kg	0.360	1.20
541-73-1	1,3-Dichlorobenzene	U	1.20	ug/kg	0.360	1.20
106-46-7	1,4-Dichlorobenzene	J	0.937	ug/kg	0.360	1.20
104-51-8	n-Butylbenzene	U	1.20	ug/kg	0.360	1.20
96-12-8	1,2-Dibromo-3-chloropropane	U	1.20	ug/kg	0.360	1.20
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.01	ug/kg	1.92	6.01
630-20-6	1,1,1,2-Tetrachloroethane	U	1.20	ug/kg	0.360	1.20
95-50-1	1,2-Dichlorobenzene	U	1.20	ug/kg	0.360	1.20

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D512.D
Acq On : 19 Mar 2010 7:11 pm
Operator : RXY1
InstName : VOA9
Sample : |249180002|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 23 08:43:48 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.787	10.775	1.000	96	861710	50.00	ug/L	0.01
41) Chlorobenzene-d5	13.941	13.941	1.000	117	602022	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	255177	50.00	ug/L	0.00
82) B Fluorobenzene	10.787	10.775	1.000	96	861710	50.00	ug/L	0.01
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	602022	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	255194	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.967	65	331310	50.66	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 101.32%					
43) Toluene-d8	12.412	12.412	0.890	98	777132	50.29	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 100.58%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	316164	52.34	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 104.68%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	0.000	5.308	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.546	0.000		0	N.D.		
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	0.000	7.099	0.000		0	N.D.		
9) Acetone	7.490	7.490	0.694	43	363131	104.11	ug/L	86
10) 1,1-Dichloroethylene	0.000	7.502	0.000		0	N.D.		
11) Iodomethane	0.000	7.763	0.000		0	N.D.		
12) Acetonitrile	8.083	7.858	0.749	41	581	N.D.		
13) Methyl acetate	0.000	7.882	0.000		0	N.D.		
14) Carbon disulfide	7.894	7.906	0.732	76	187	N.D.		
15) Methylene chloride	8.083	8.083	0.749	84	4165	Below Cal		86
16) tert-Butyl methyl ether	0.000	8.368	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.427	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.854	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.913	0.000		0	N.D.		
20) 2-Butanone	9.494	9.483	0.880	43	908	N.D.		
21) cis-1,2-Dichloroethylene	9.554	9.554	0.886	61	2225	N.D.		
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	0.000	9.850	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	10.147	10.135	0.941	97	236	N.D.		
26) Cyclohexane	0.000	10.230	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	10.289	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.514	0.000		0	N.D.		
31) Benzene	10.538	10.538	0.977	78	238	N.D.		
32) Cyclohexene	0.000	10.645	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.846	0.000		0m	N.D. d		
34) Trichloroethylene	11.166	11.167	1.035	95	5092	1.16	ug/L	99
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.416	0.000		0	N.D.		
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D512.D
Acq On : 19 Mar 2010 7:11 pm
Operator : RXY1
InstName : VOA9
Sample : |249180002|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 23 08:43:48 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	0.000	11.665	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	12.103	0.000		0	N.D.		
42) 4-Methyl-2-pentanone	12.186	12.186	0.874	58	206	N.D.		
44) Toluene	12.483	12.483	0.895	91	2444	N.D.		
45) trans-1,3-Dichloroprop...	0.000	12.637	0.000		0	N.D.		
46) 1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.		
47) 2-Hexanone	0.000	13.028	0.000		0	N.D.		
48) 1,3-Dichloropropane	0.000	13.052	0.000		0	N.D.		
49) Tetrachloroethylene	13.088	13.088	0.939	164	1654	0.68	ug/L	96
50) Dibromochloromethane	0.000	13.325	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	13.503	0.000		0	N.D.		
52) Chlorobenzene	0.000	13.977	0.000		0	N.D.		
53) 1,1,1,2-Tetrachloroethane	0.000	14.024	0.000		0	N.D.		
54) Ethylbenzene	14.143	14.024	1.014	91	1007	N.D.		
55) m,p-Xylenes	14.143	14.131	1.014	106	196	N.D.		
56) o-Xylene	0.000	14.570	0.000		0	N.D.		
57) Styrene	0.000	14.570	0.000		0	N.D.		
59) Bromoform	0.000	14.855	0.000		0	N.D.		
60) Isopropylbenzene	0.000	14.926	0.000		0	N.D.		
62) 1,1,2,2-Tetrachloroethane	0.000	15.198	0.000		0	N.D.		
63) 1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.		
64) Bromobenzene	0.000	15.353	0.000		0	N.D.		
65) n-Propylbenzene	0.000	15.353	0.000		0	N.D.		
66) 1,3,5-Trimethylbenzene	0.000	15.495	0.000		0	N.D.		
67) 2-Chlorotoluene	0.000	15.507	0.000		0	N.D.		
68) 4-Chlorotoluene	0.000	15.614	0.000		0	N.D.		
69) tert-Butylbenzene	0.000	15.874	0.000		0	N.D.		
70) 1,2,4-Trimethylbenzene	0.000	15.910	0.000		0	N.D.		
71) sec-Butylbenzene	0.000	16.112	0.000		0	N.D.		
72) 4-Isopropyltoluene	0.000	16.230	0.000		0	N.D.		
73) 1,3-Dichlorobenzene	0.000	16.313	0.000		0m	N.D.	d	
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	5833	0.78	ug/L #	62
75) n-Butylbenzene	0.000	16.693	0.000		0	N.D.		
76) 1,2-Dichlorobenzene	0.000	16.859	0.000		0	N.D.		
77) 1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	0.000	18.922	0.000		0	N.D.		
79) Hexachlorobutadiene	0.000	19.088	0.000		0	N.D.		
80) Naphthalene	19.349	19.349	1.182	128	665	N.D.		
81) 1,2,3-Trichlorobenzene	0.000	19.717	0.000		0	N.D.		
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.		
85) Acrolein	0.000	7.313	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.		
87) Isopropyl Alcohol	7.573	7.550	0.702	45	249	N.D.		
88) Allyl chloride	0.000	7.929	0.000		0	N.D.		
89) tert-Butyl Alcohol	0.000	8.060	0.000		0	N.D.		
90) Acrylonitrile	0.000	8.332	0.000		0	N.D.		
91) Isopropyl ether	0.000	8.866	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	0.000	9.008	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.		
94) Ethyl acetate	9.494	9.483	0.880	43	908	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D512.D
Acq On : 19 Mar 2010 7:11 pm
Operator : RXY1
InstName : VOA9
Sample : |249180002|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 23 08:43:48 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.578	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.744	0.000		0	N.D.	
97) Tetrahydrofuran	9.886	9.874	0.916	42	484	N.D.	
98) Isobutyl alcohol	10.230	10.159	0.948	41	185	N.D.	
99) Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.368	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.487	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.854	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.613	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.949	14.961	0.913	53	192	N.D.	
108) Cyclohexanone	0.000	15.092	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.246	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.957	0.000		0	N.D.	
111) Benzyl chloride	16.372	16.527	1.000	91	817	N.D.	
112) bis(2-Chloroisopropyl)...	16.942	16.918	1.035	45	2701	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D512.D
Acq On : 19 Mar 2010 7:11 pm
Operator : RXY1
InstName : VOA9
Sample : |249180002|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 23 08:43:48 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

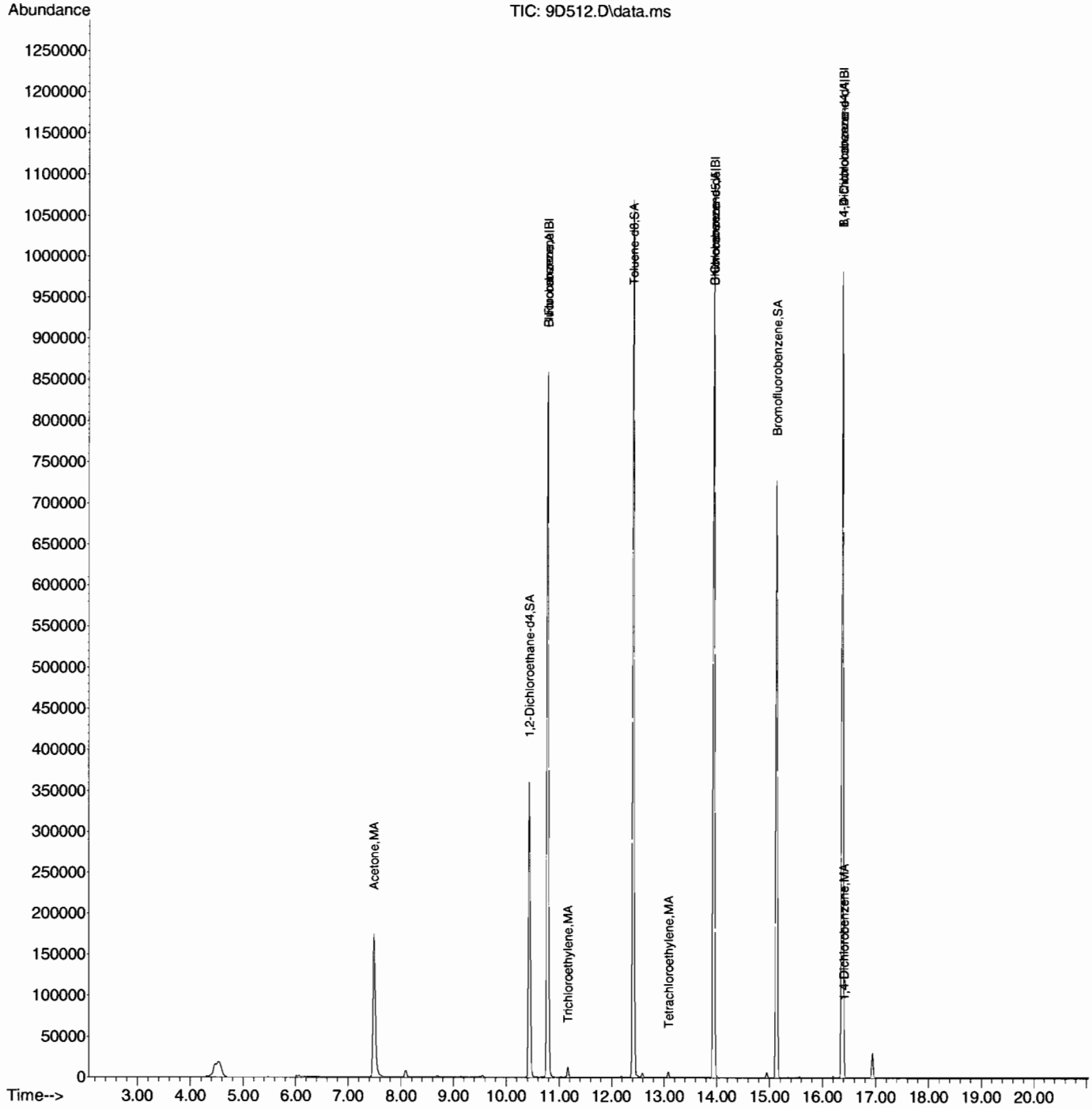

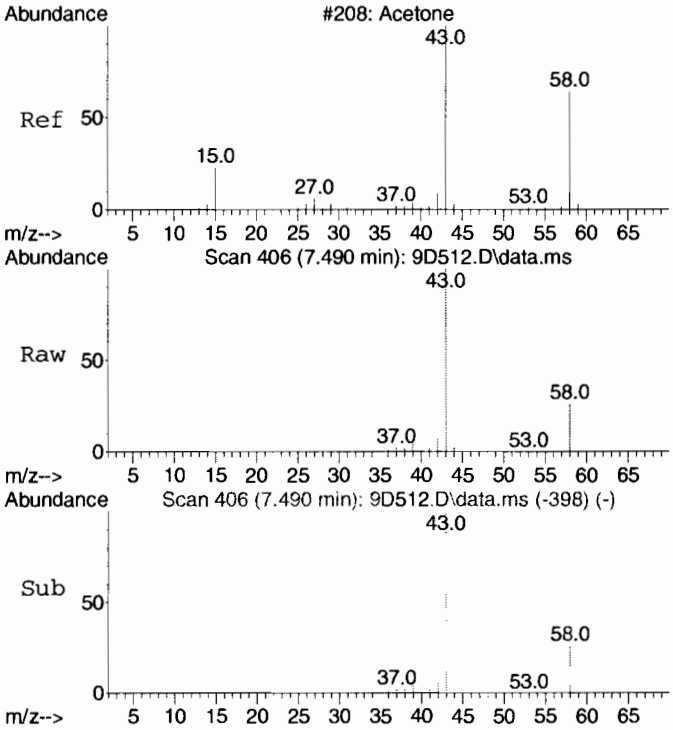

#9
Acetone
Concen: 104.11 ug/L
RT: 7.490 min Scan# 406
Delta R.T. 0.000 min
Lab File: 9D512.D
Acq: 19 Mar 2010 7:11 pm

Tgt Ion: 43 Resp: 363131

Ion	Ratio	Lower	Upper
43	100		
58	25.3	3.2	63.2

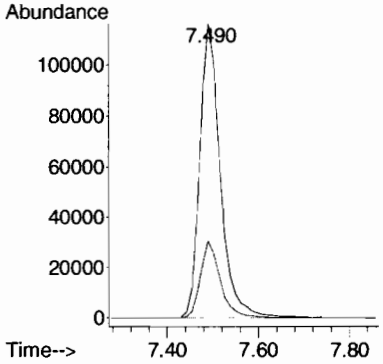

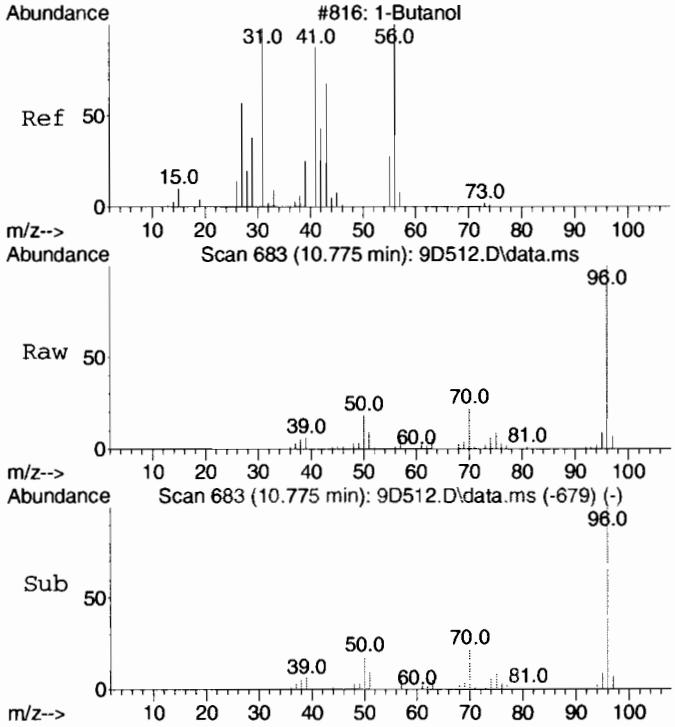

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 42.70 ug/L
RT: 10.775 min Scan# 683
Delta R.T. -0.071 min
Lab File: 9D512.D
Acq: 19 Mar 2010 7:11 pm

Tgt Ion: 56 Resp: 6960

Ion	Ratio	Lower	Upper
56	100		
41	0.0	33.0	93.0#
43	0.0	25.0	85.0#

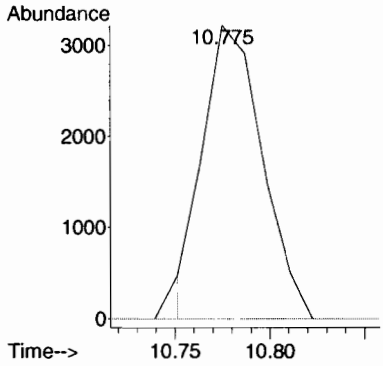

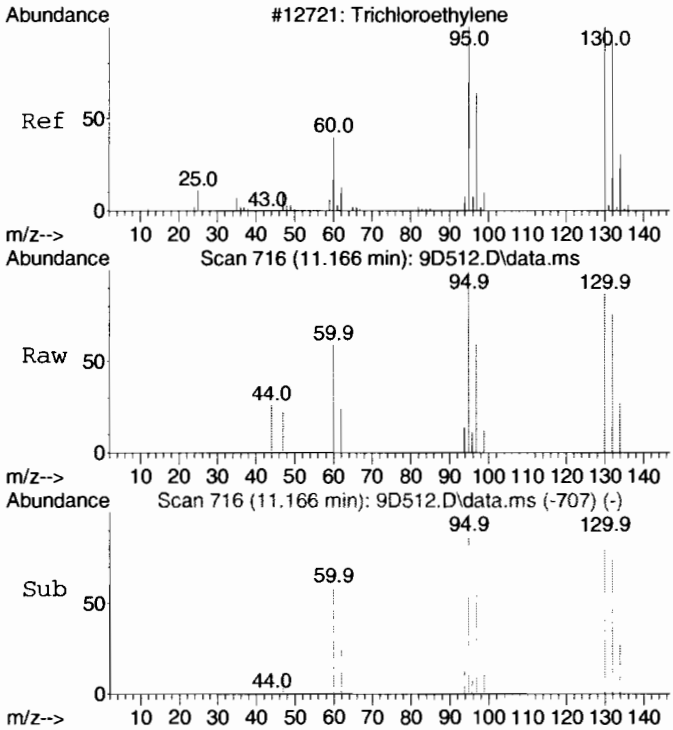

#34
Trichloroethylene
Concen: 1.16 ug/L
RT: 11.166 min Scan# 716
Delta R.T. -0.001 min
Lab File: 9D512.D
Acq: 19 Mar 2010 7:11 pm

Tgt Ion: 95 Resp: 5092

Ion	Ratio	Lower	Upper
95	100		
130	91.5	59.3	119.3
97	65.8	35.8	95.8

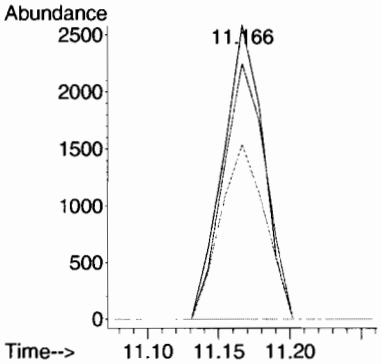

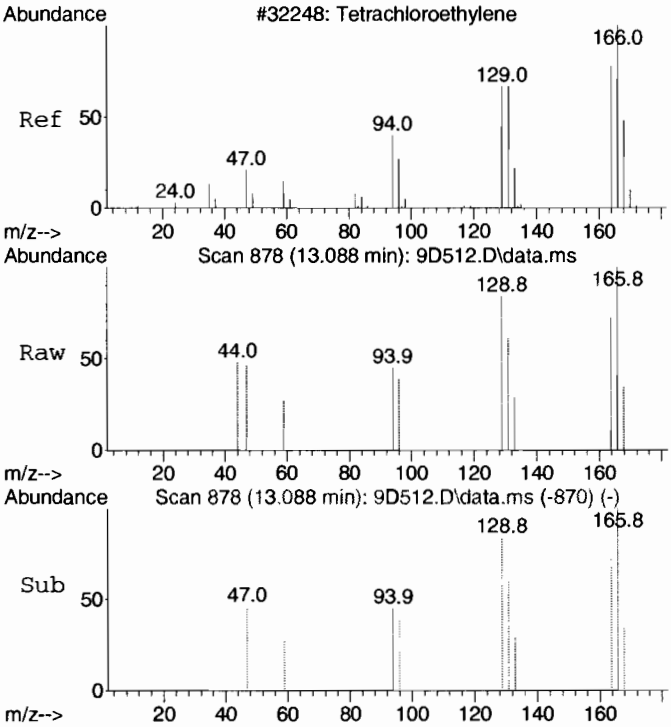

#49
Tetrachloroethylene
Concen: 0.68 ug/L
RT: 13.088 min Scan# 878
Delta R.T. -0.000 min
Lab File: 9D512.D
Acq: 19 Mar 2010 7:11 pm

Tgt Ion:164 Resp: 1654

Ion	Ratio	Lower	Upper
164	100		
129	118.5	80.0	140.0
131	107.0	77.4	137.4

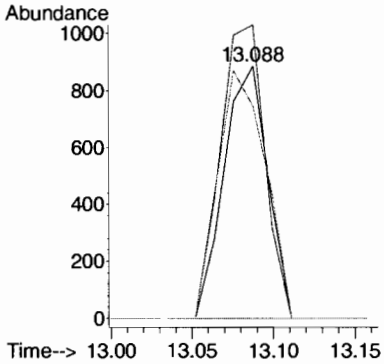

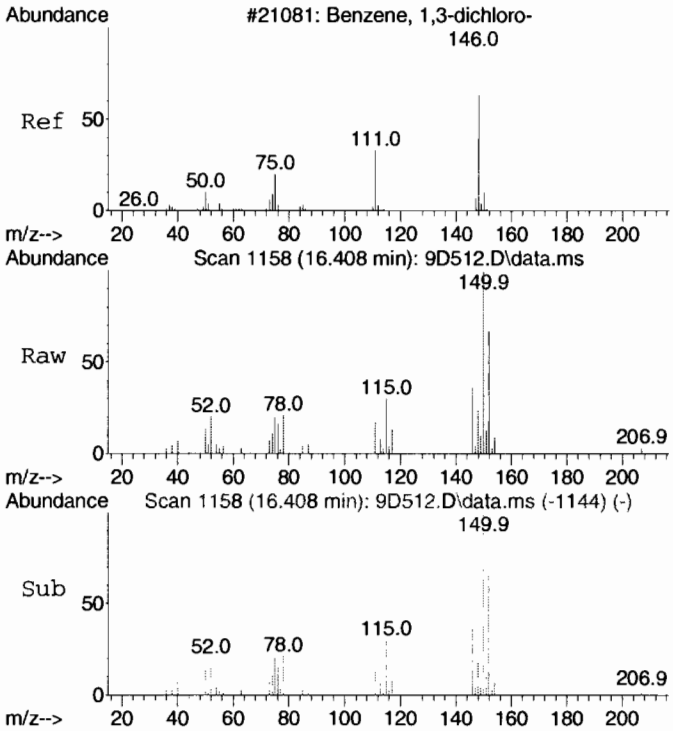

#73 BEFORE analyst DELETION
1,3-Dichlorobenzene
Concen: 0.78 ug/L
RT: 16.408 min Scan# 1158
Delta R.T. 0.095 min
Lab File: 9D512.D
Acq: 19 Mar 2010 7:11 pm

Tgt Ion:146 Resp: 5834

Ion	Ratio	Lower	Upper
146	100		
148	76.1	35.3	95.3
111	108.9	17.9	77.9#

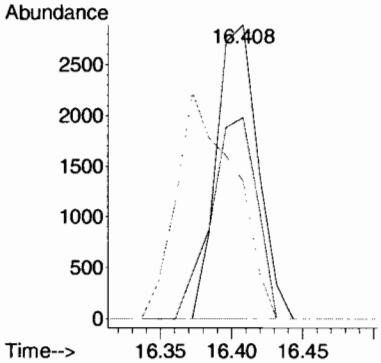

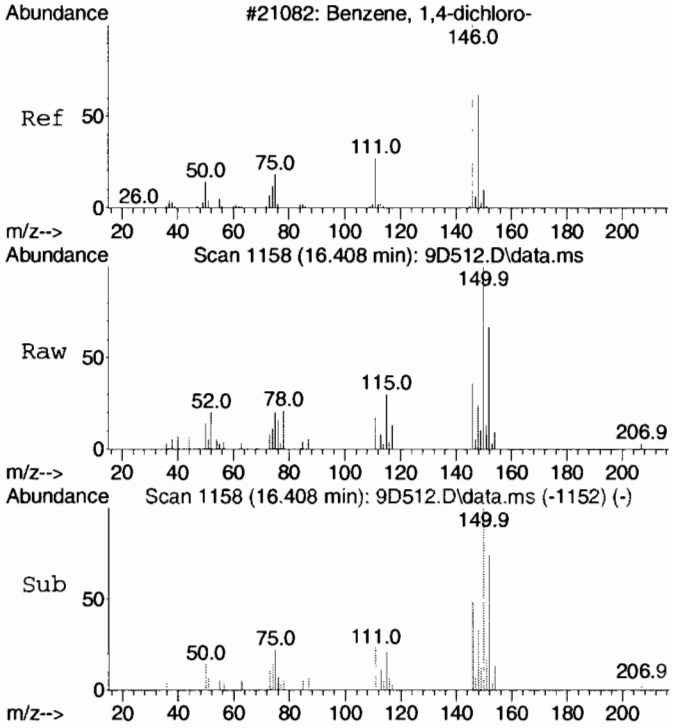

#74
1,4-Dichlorobenzene
Concen: 0.78 ug/L
RT: 16.408 min Scan# 1158
Delta R.T. -0.000 min
Lab File: 9D512.D
Acq: 19 Mar 2010 7:11 pm

Tgt Ion:146 Resp: 5833

Ion	Ratio	Lower	Upper
146	100		
148	76.1	34.7	94.7
111	0.0	16.9	76.9#

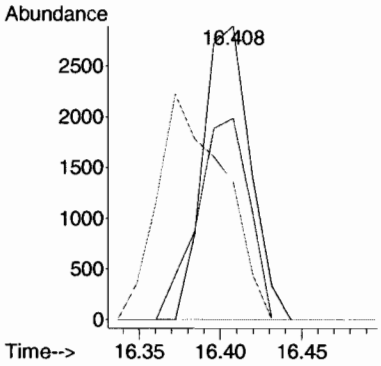

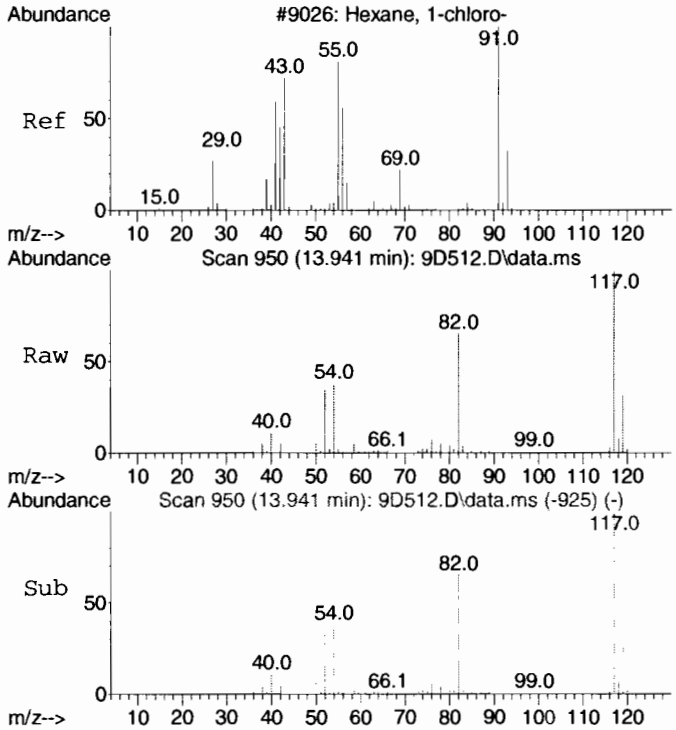

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.92 ug/L
RT: 13.941 min Scan# 950
Delta R.T. 0.118 min
Lab File: 9D512.D
Acq: 19 Mar 2010 7:11 pm

Tgt Ion: 55 Resp: 9379

Ion	Ratio	Lower	Upper
55	100		
91	12.9	74.8	134.8#
56	61.0	31.8	91.8

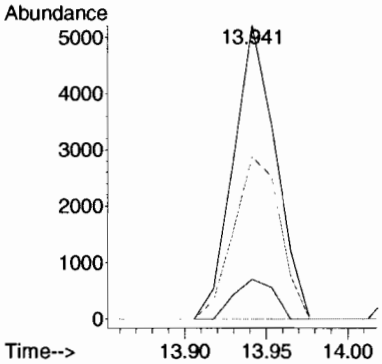

Library Search Compound Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D512.D
Acq On    : 19 Mar 2010   7:11 pm
Operator  : RXY1
Sample    : |249180002|967390|1|VOA|1|VOA8260BS|
Misc      : LANL 5.0g n/a SOIL
ALS Vial  : 12   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P
```

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D512.D
Acq On : 19 Mar 2010 7:11 pm
Operator : RXY1
Sample : |249180002|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180003**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**15.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13434**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 19:40**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:33**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D513.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.400	1.18
74-87-3	Chloromethane	U	1.18	ug/kg	0.353	1.18
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.353	1.18
74-83-9	Bromomethane	U	1.18	ug/kg	0.353	1.18
75-00-3	Chloroethane	U	1.18	ug/kg	0.353	1.18
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.353	1.18
67-64-1	Acetone		95.4	ug/kg	1.95	5.89
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.353	1.18
74-88-4	Iodomethane	U	5.89	ug/kg	1.88	5.89
75-09-2	Methylene chloride	U	5.89	ug/kg	2.35	5.89
75-15-0	Carbon disulfide	U	5.89	ug/kg	1.47	5.89
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.353	1.18
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.353	1.18
78-93-3	2-Butanone	U	5.89	ug/kg	1.77	5.89
156-59-2	cis-1,2-Dichloroethylene	U	1.18	ug/kg	0.353	1.18
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.353	1.18
67-66-3	Chloroform	U	1.18	ug/kg	0.353	1.18
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.389	1.18
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.353	1.18
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.353	1.18
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.353	1.18
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.353	1.18
71-43-2	Benzene	U	1.18	ug/kg	0.353	1.18
79-01-6	Trichloroethylene	U	1.18	ug/kg	0.389	1.18
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.353	1.18
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.353	1.18
74-95-3	Dibromomethane	U	1.18	ug/kg	0.353	1.18
108-10-1	4-Methyl-2-pentanone	U	5.89	ug/kg	1.47	5.89
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.353	1.18
108-88-3	Toluene	U	1.18	ug/kg	0.353	1.18
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.353	1.18
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.353	1.18
591-78-6	2-Hexanone	U	5.89	ug/kg	1.77	5.89
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.353	1.18
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.353	1.18
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.353	1.18
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.353	1.18
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.353	1.18

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180003**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**15.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Clieut ID:	**RE46-10-13434**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 19:40**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:33**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D513.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.353	1.18
179601-23-1	m,p-Xylenes	U	2.35	ug/kg	0.353	2.35
95-47-6	o-Xylene	U	1.18	ug/kg	0.353	1.18
100-42-5	Styrene	U	1.18	ug/kg	0.353	1.18
75-25-2	Bromoform	U	1.18	ug/kg	0.353	1.18
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.353	1.18
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.353	1.18
108-86-1	Bromobenzene	U	1.18	ug/kg	0.353	1.18
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.353	1.18
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.353	1.18
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.353	1.18
108-67-8	1,3,5-Trimethylbenzene	U	1.18	ug/kg	0.353	1.18
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.353	1.18
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.353	1.18
95-63-6	1,2,4-Trimethylbenzene	U	1.18	ug/kg	0.353	1.18
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.353	1.18
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.353	1.18
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.353	1.18
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.353	1.18
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.353	1.18
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.353	1.18
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.89	ug/kg	1.88	5.89
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.353	1.18
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.353	1.18

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D513.D
Acq On : 19 Mar 2010 7:40 pm
Operator : RXY1
InstName : VOA9
Sample : |249180003|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 23 08:45:14 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.775	10.775	1.000	96	822216	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.942	13.941	1.000	117	579412	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.373	16.372	1.000	152	245763	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	822216	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.942	13.942	1.000	117	579412	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.373	16.372	1.000	152	245778	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	311634	49.94	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 99.88%					
43) Toluene-d8	12.412	12.412	0.890	98	737580	49.60	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 99.20%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	297177	51.08	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 102.16%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	0.000	5.308	0.000		0	N.D.		
4) Vinyl chloride	5.546	5.546	0.515	62	266	N.D.		
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	0.000	7.099	0.000		0	N.D.		
9) Acetone	7.491	7.490	0.695	43	278445	81.05	ug/L	87
10) 1,1-Dichloroethylene	0.000	7.502	0.000		0	N.D.		
11) Iodomethane	0.000	7.763	0.000		0	N.D.		
12) Acetonitrile	0.000	7.858	0.000		0	N.D.		
13) Methyl acetate	0.000	7.882	0.000		0	N.D.		
14) Carbon disulfide	7.894	7.906	0.733	76	361	N.D.		
15) Methylene chloride	8.083	8.083	0.750	84	5393	Below Cal		86
16) tert-Butyl methyl ether	0.000	8.368	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.427	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.854	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.913	0.000		0	N.D.		
20) 2-Butanone	0.000	9.483	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.554	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	0.000	9.850	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	0.000	10.230	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	10.289	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.514	0.000		0	N.D.		
31) Benzene	10.526	10.538	0.977	78	189	N.D.		
32) Cyclohexene	0.000	10.645	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.846	0.000		0m	N.D.	d	
34) Trichloroethylene	11.167	11.167	1.036	95	240	N.D.		
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.416	0.000		0	N.D.		
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D513.D
Acq On : 19 Mar 2010 7:40 pm
Operator : RXY1
InstName : VOA9
Sample : |249180003|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 23 08:45:14 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.665	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	12.103	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.186	0.000		0	N.D.	
44) Toluene	12.483	12.483	0.895	91	1686	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.637	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.	
47) 2-Hexanone	0.000	13.028	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	13.052	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	13.088	0.000		0	N.D.	
50) Dibromochloromethane	0.000	13.325	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.503	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.977	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	14.024	0.000		0	N.D.	
54) Ethylbenzene	14.025	14.024	1.006	91	185	N.D.	
55) m,p-Xylenes	0.000	14.131	0.000		0	N.D.	
56) o-Xylene	0.000	14.570	0.000		0	N.D.	
57) Styrene	0.000	14.570	0.000		0	N.D.	
59) Bromoform	0.000	14.855	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.926	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.198	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.	
64) Bromobenzene	0.000	15.353	0.000		0	N.D.	
65) n-Propylbenzene	15.353	15.353	0.938	91	199	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.495	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.507	0.000		0	N.D.	
68) 4-Chlorotoluene	15.602	15.614	0.953	91	181	N.D.	
69) tert-Butylbenzene	0.000	15.874	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	15.910	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	16.112	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	16.230	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	16.408	16.313	1.002	146	388	N.D.	
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	388	N.D.	
75) n-Butylbenzene	0.000	16.693	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.859	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.922	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	19.088	0.000		0	N.D.	
80) Naphthalene	19.349	19.349	1.182	128	428	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.717	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.	
85) Acrolein	0.000	7.313	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.550	0.000		0	N.D.	
88) Allyl chloride	0.000	7.929	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.060	0.000		0	N.D.	
90) Acrylonitrile	0.000	8.332	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.866	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	9.008	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.	
94) Ethyl acetate	0.000	9.483	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D513.D
Acq On : 19 Mar 2010 7:40 pm
Operator : RXY1
InstName : VOA9
Sample : |249180003|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 23 08:45:14 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	0.000	9.578	0.000		0	N.D.		
96)	Methacrylonitrile	0.000	9.744	0.000		0	N.D.		
97)	Tetrahydrofuran	9.874	9.874	0.916	42	178	N.D.		
98)	Isobutyl alcohol	0.000	10.159	0.000		0	N.D.		
99)	Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.		
100)	Methyl methacrylate	0.000	11.368	0.000		0	N.D.		
101)	1,4-Dioxane	0.000	11.487	0.000		0	N.D.		
102)	2-Nitropropane	0.000	11.854	0.000		0	N.D.		
104)	Ethyl methacrylate	0.000	12.613	0.000		0	N.D.		
106)	1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d	
107)	cis-1,4-Dichloro-2-butene	0.000	14.961	0.000		0	N.D.		
108)	Cyclohexanone	0.000	15.092	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000	15.246	0.000		0	N.D.		
110)	Pentachloroethane	0.000	15.957	0.000		0	N.D.		
111)	Benzyl chloride	16.373	16.527	1.000	91	848	N.D.		
112)	bis(2-Chloroisopropyl)...	16.942	16.918	1.035	45	2999	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D513.D
Acq On : 19 Mar 2010 7:40 pm
Operator : RXY1
InstName : VOA9
Sample : |249180003|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 23 08:45:14 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

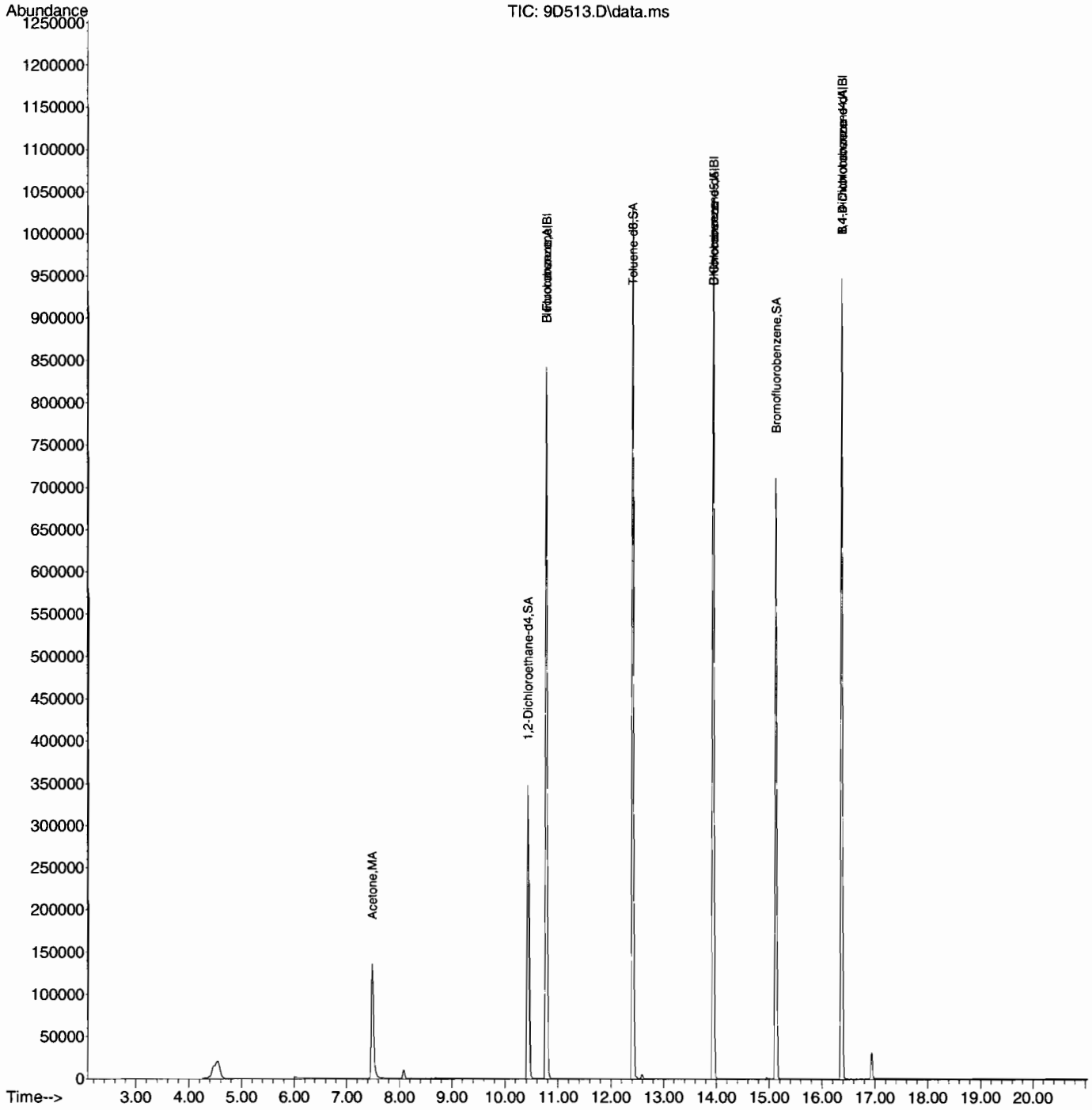

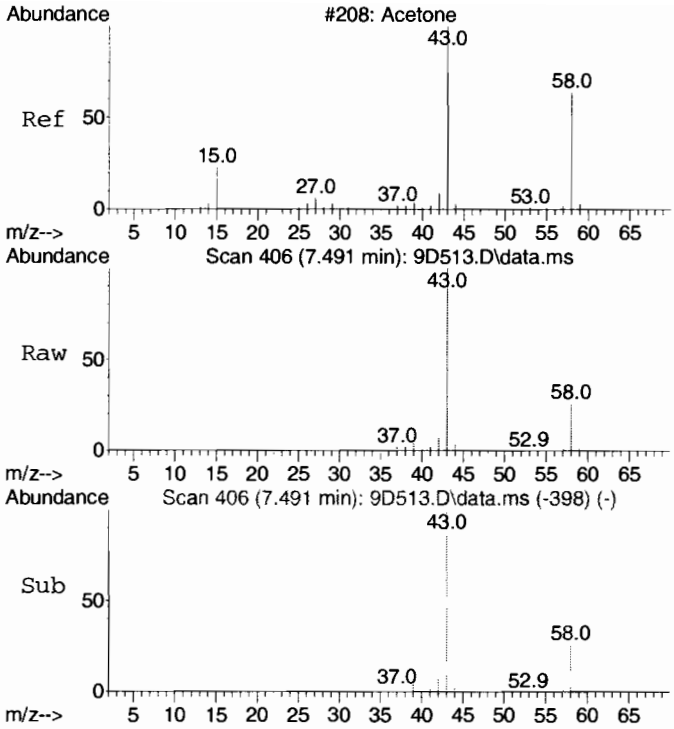

#9
Acetone
Concen: 81.05 ug/L
RT: 7.491 min Scan# 406
Delta R.T. 0.001 min
Lab File: 9D513.D
Acq: 19 Mar 2010 7:40 pm

Tgt Ion: 43 Resp: 278445

Ion	Ratio	Lower	Upper
43	100		
58	25.8	3.2	63.2

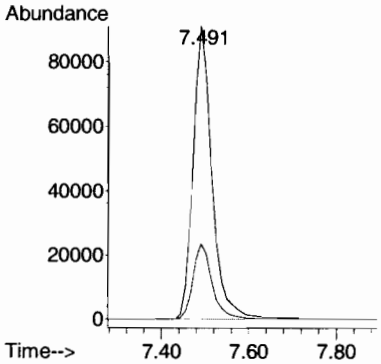

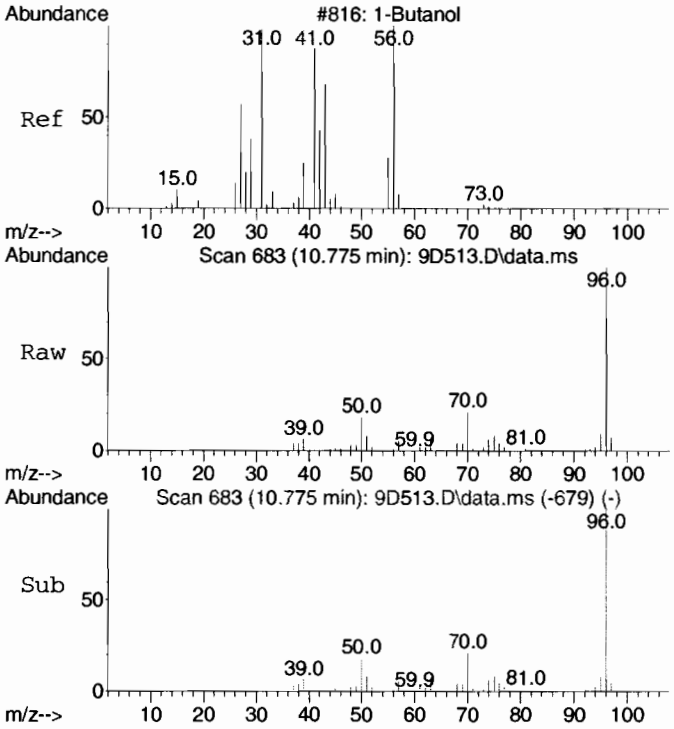

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 42.39 ug/L
RT: 10.775 min Scan# 683
Delta R.T. -0.071 min
Lab File: 9D513.D
Acq: 19 Mar 2010 7:40 pm

Tgt Ion: 56 Resp: 6593

Ion	Ratio	Lower	Upper
56	100		
41	0.0	33.0	93.0#
43	0.0	25.0	85.0#

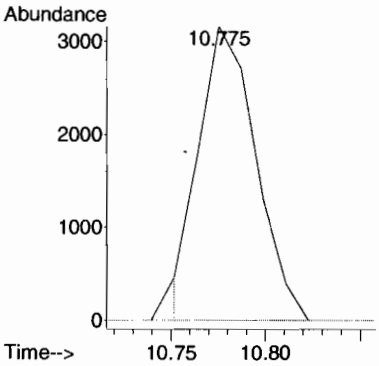

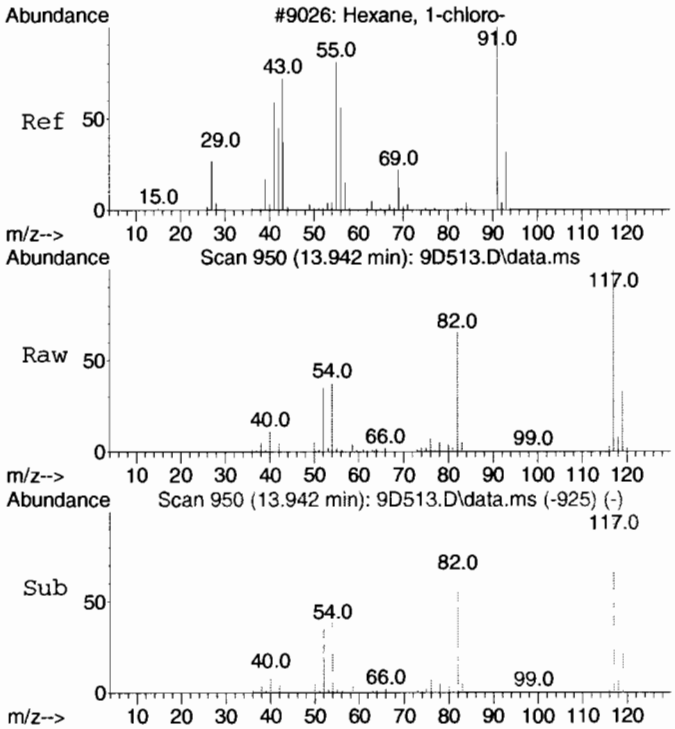

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.95 ug/L
RT: 13.942 min Scan# 950
Delta R.T. 0.119 min
Lab File: 9D513.D
Acq: 19 Mar 2010 7:40 pm

Tgt Ion: 55 Resp: 9186

Ion	Ratio	Lower	Upper
55	100		
91	11.9	74.8	134.8#
56	61.8	31.8	91.8

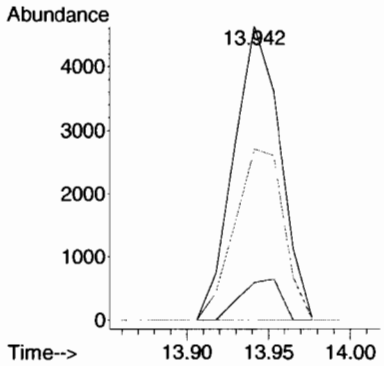

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D513.D
Acq On : 19 Mar 2010 7:40 pm
Operator : RXY1
Sample : |249180003|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D513.D
Acq On    : 19 Mar 2010   7:40 pm
Operator  : RXY1
Sample    : |249180003|967390|1|VOA|1|VOA8260BS|
Misc      : LANL 5.0g n/a SOIL
ALS Vial  : 13   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P

                                                  |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response  |#    RT     Resp  Conc|
-------------------------------------------------------------------------
```

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180004**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13438**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 20:09**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:34**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D514.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Uuits	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.19	ug/kg	0.405	1.19
74-87-3	Chloromethane	U	1.19	ug/kg	0.357	1.19
75-01-4	Vinyl chloride	U	1.19	ug/kg	0.357	1.19
74-83-9	Bromomethane	U	1.19	ug/kg	0.357	1.19
75-00-3	Chloroethane	U	1.19	ug/kg	0.357	1.19
75-69-4	Trichlorofluoromethane	U	1.19	ug/kg	0.357	1.19
67-64-1	Acetone	U	5.96	ug/kg	1.98	5.96
75-35-4	1,1-Dichloroethylene	U	1.19	ug/kg	0.357	1.19
74-88-4	Iodomethane	U	5.96	ug/kg	1.91	5.96
75-09-2	Methylene chloride	U	5.96	ug/kg	2.38	5.96
75-15-0	Carbon disulfide	U	5.96	ug/kg	1.49	5.96
156-60-5	trans-1,2-Dichloroethylene	U	1.19	ug/kg	0.357	1.19
75-34-3	1,1-Dichloroethane	U	1.19	ug/kg	0.357	1.19
78-93-3	2-Butanone	U	5.96	ug/kg	1.79	5.96
156-59-2	cis-1,2-Dichloroethylene	U	1.19	ug/kg	0.357	1.19
594-20-7	2,2-Dichloropropane	U	1.19	ug/kg	0.357	1.19
67-66-3	Chloroform	U	1.19	ug/kg	0.357	1.19
74-97-5	Bromochloromethane	U	1.19	ug/kg	0.393	1.19
71-55-6	1,1,1-Trichloroethane	U	1.19	ug/kg	0.357	1.19
563-58-6	1,1-Dichloropropene	U	1.19	ug/kg	0.357	1.19
56-23-5	Carbon tetrachloride	U	1.19	ug/kg	0.357	1.19
107-06-2	1,2-Dichloroethane	U	1.19	ug/kg	0.357	1.19
71-43-2	Benzene	U	1.19	ug/kg	0.357	1.19
79-01-6	Trichloroethylene	U	1.19	ug/kg	0.393	1.19
78-87-5	1,2-Dichloropropane	U	1.19	ug/kg	0.357	1.19
75-27-4	Bromodichloromethane	U	1.19	ug/kg	0.357	1.19
74-95-3	Dibromomethane	U	1.19	ug/kg	0.357	1.19
108-10-1	4-Methyl-2-pentanone	U	5.96	ug/kg	1.49	5.96
10061-01-5	cis-1,3-Dichloropropylene	U	1.19	ug/kg	0.357	1.19
108-88-3	Toluene	U	1.19	ug/kg	0.357	1.19
10061-02-6	trans-1,3-Dichloropropylene	U	1.19	ug/kg	0.357	1.19
79-00-5	1,1,2-Trichloroethane	U	1.19	ug/kg	0.357	1.19
591-78-6	2-Hexanone	U	5.96	ug/kg	1.79	5.96
142-28-9	1,3-Dichloropropane	U	1.19	ug/kg	0.357	1.19
127-18-4	Tetrachloroethylene	U	1.19	ug/kg	0.357	1.19
124-48-1	Dibromochloromethane	U	1.19	ug/kg	0.357	1.19
106-93-4	1,2-Dibromoethane	U	1.19	ug/kg	0.357	1.19
108-90-7	Chlorobenzene	U	1.19	ug/kg	0.357	1.19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180004**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13438**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 20:09**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:34**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D514.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.19	ug/kg	0.357	1.19
179601-23-1	m,p-Xylenes	U	2.38	ug/kg	0.357	2.38
95-47-6	o-Xylene	U	1.19	ug/kg	0.357	1.19
100-42-5	Styrene	U	1.19	ug/kg	0.357	1.19
75-25-2	Bromoform	U	1.19	ug/kg	0.357	1.19
79-34-5	1,1,2,2-Tetrachloroethane	U	1.19	ug/kg	0.357	1.19
96-18-4	1,2,3-Trichloropropane	U	1.19	ug/kg	0.357	1.19
108-86-1	Bromobenzene	U	1.19	ug/kg	0.357	1.19
103-65-1	n-Propylbenzene	U	1.19	ug/kg	0.357	1.19
95-49-8	2-Chlorotoluene	U	1.19	ug/kg	0.357	1.19
98-82-8	Isopropylbenzene	U	1.19	ug/kg	0.357	1.19
108-67-8	1,3,5-Trimethylbenzene	U	1.19	ug/kg	0.357	1.19
106-43-4	4-Chlorotoluene	U	1.19	ug/kg	0.357	1.19
98-06-6	tert-Butylbenzene	U	1.19	ug/kg	0.357	1.19
95-63-6	1,2,4-Trimethylbenzene	U	1.19	ug/kg	0.357	1.19
135-98-8	sec-Butylbenzene	U	1.19	ug/kg	0.357	1.19
99-87-6	4-Isopropyltoluene	U	1.19	ug/kg	0.357	1.19
541-73-1	1,3-Dichlorobenzene	U	1.19	ug/kg	0.357	1.19
106-46-7	1,4-Dichlorobenzene	U	1.19	ug/kg	0.357	1.19
104-51-8	n-Butylbenzene	U	1.19	ug/kg	0.357	1.19
96-12-8	1,2-Dibromo-3-chloropropane	U	1.19	ug/kg	0.357	1.19
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.96	ug/kg	1.91	5.96
630-20-6	1,1,1,2-Tetrachloroethane	U	1.19	ug/kg	0.357	1.19
95-50-1	1,2-Dichlorobenzene	U	1.19	ug/kg	0.357	1.19

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D514.D
Acq On : 19 Mar 2010 8:09 pm
Operator : RXY1
InstName : VOA9
Sample : |249180004|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 23 08:45:47 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.775	10.775	1.000	96	805345	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.942	13.941	1.000	117	567841	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.373	16.372	1.000	152	243563	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	805345	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.942	13.942	1.000	117	567841	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.373	16.372	1.000	152	243548	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	313096	51.22	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery =		102.44%			
43) Toluene-d8	12.412	12.412	0.890	98	732407	50.25	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery =		100.50%			
61) Bromofluorobenzene	15.127	15.127	0.924	95	291589	50.57	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery =		101.14%			

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	0.000	5.308	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.546	0.000		0	N.D.		
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	0.000	7.099	0.000		0	N.D.		
9) Acetone	7.502	7.490	0.696	43	2647	Below Cal	#	41
10) 1,1-Dichloroethylene	0.000	7.502	0.000		0	N.D.		
11) Iodomethane	0.000	7.763	0.000		0	N.D.		
12) Acetonitrile	8.083	7.858	0.750	41	192	N.D.		
13) Methyl acetate	0.000	7.882	0.000		0	N.D.		
14) Carbon disulfide	7.894	7.906	0.733	76	180	N.D.		
15) Methylene chloride	8.083	8.083	0.750	84	5238	Below Cal		90
16) tert-Butyl methyl ether	0.000	8.368	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.427	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.854	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.913	0.000		0	N.D.		
20) 2-Butanone	0.000	9.483	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.554	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	0.000	9.850	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	0.000	10.230	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	10.289	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.514	0.000		0	N.D.		
31) Benzene	0.000	10.538	0.000		0	N.D.		
32) Cyclohexene	10.787	10.645	1.001	67	179	N.D.		
33) n-Butyl alcohol	0.000	10.846	0.000		0m	N.D.	d	
34) Trichloroethylene	0.000	11.167	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.416	0.000		0	N.D.		
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D514.D
Acq On : 19 Mar 2010 8:09 pm
Operator : RXY1
InstName : VOA9
Sample : |249180004|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 23 08:45:47 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.665	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	12.103	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.186	0.000		0	N.D.	
44) Toluene	12.495	12.483	0.896	91	2269	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.637	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.	
47) 2-Hexanone	0.000	13.028	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	13.052	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	13.088	0.000		0	N.D.	
50) Dibromochloromethane	0.000	13.325	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.503	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.977	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	14.024	0.000		0	N.D.	
54) Ethylbenzene	14.131	14.024	1.014	91	848	N.D.	
55) m,p-Xylenes	14.131	14.131	1.014	106	221	N.D.	
56) o-Xylene	0.000	14.570	0.000		0	N.D.	
57) Styrene	0.000	14.570	0.000		0	N.D.	
59) Bromoform	0.000	14.855	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.926	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.198	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.	
64) Bromobenzene	0.000	15.353	0.000		0	N.D.	
65) n-Propylbenzene	0.000	15.353	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.495	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.507	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.614	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.874	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	15.910	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	16.112	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	16.230	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	16.313	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	16.408	0.000		0	N.D.	
75) n-Butylbenzene	0.000	16.693	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.859	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.922	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	19.088	0.000		0	N.D.	
80) Naphthalene	19.337	19.349	1.181	128	180	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.717	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.	
85) Acrolein	0.000	7.313	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.550	0.000		0	N.D.	
88) Allyl chloride	0.000	7.929	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.060	0.000		0	N.D.	
90) Acrylonitrile	0.000	8.332	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.866	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	9.008	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.	
94) Ethyl acetate	0.000	9.483	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D514.D
Acq On : 19 Mar 2010 8:09 pm
Operator : RXY1
InstName : VOA9
Sample : |249180004|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 23 08:45:47 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	0.000	9.578	0.000		0	N.D.		
96)	Methacrylonitrile	0.000	9.744	0.000		0	N.D.		
97)	Tetrahydrofuran	0.000	9.874	0.000		0	N.D.		
98)	Isobutyl alcohol	0.000	10.159	0.000		0	N.D.		
99)	Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.		
100)	Methyl methacrylate	0.000	11.368	0.000		0	N.D.		
101)	1,4-Dioxane	0.000	11.487	0.000		0	N.D.		
102)	2-Nitropropane	0.000	11.854	0.000		0	N.D.		
104)	Ethyl methacrylate	0.000	12.613	0.000		0	N.D.		
106)	1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d	
107)	cis-1,4-Dichloro-2-butene	0.000	14.961	0.000		0	N.D.		
108)	Cyclohexanone	0.000	15.092	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000	15.246	0.000		0	N.D.		
110)	Pentachloroethane	0.000	15.957	0.000		0	N.D.		
111)	Benzyl chloride	16.373	16.527	1.000	91	723	N.D.		
112)	bis(2-Chloroisopropyl)...	0.000	16.918	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D514.D
Acq On : 19 Mar 2010 8:09 pm
Operator : RXY1
InstName : VOA9
Sample : |249180004|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 23 08:45:47 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

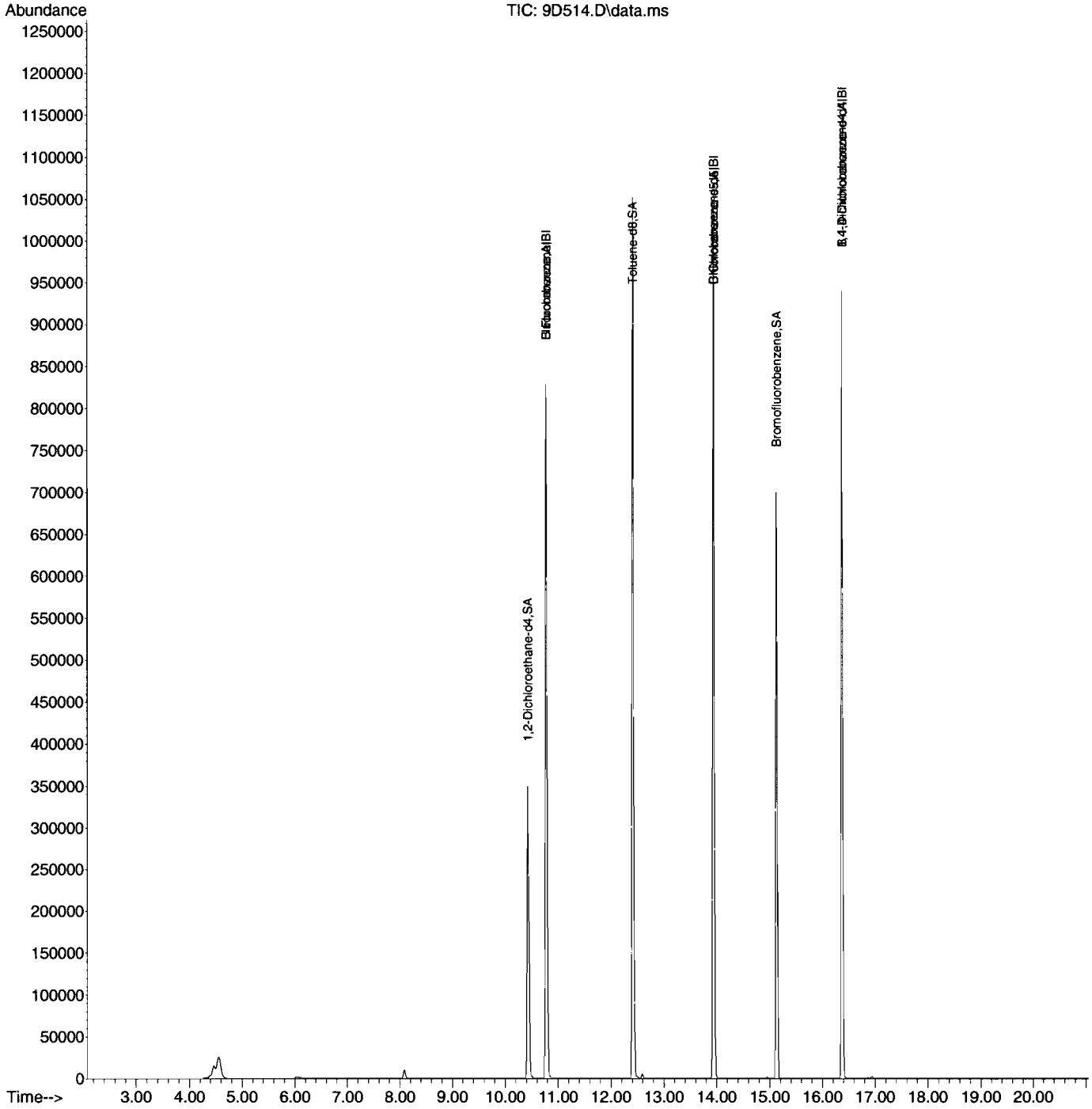

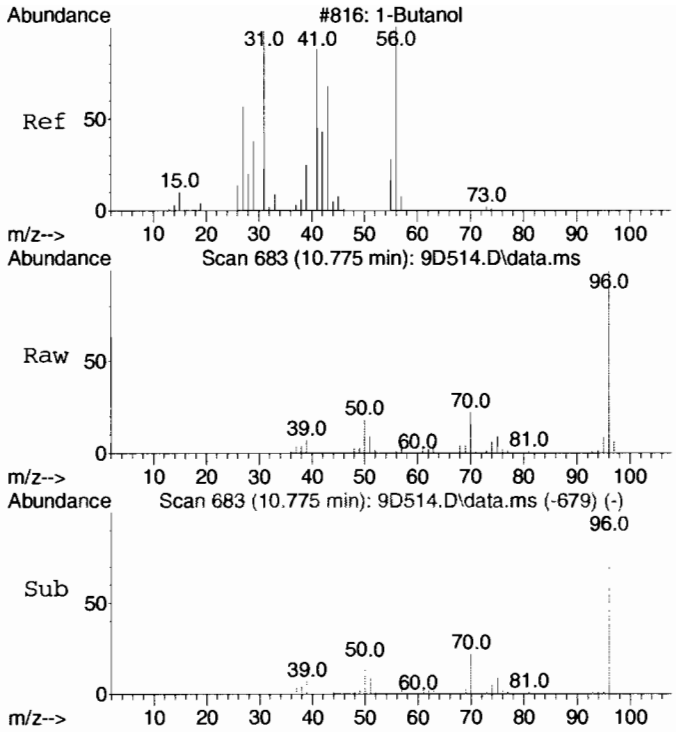

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 45.16 ug/L
RT: 10.775 min Scan# 683
Delta R.T. -0.071 min
Lab File: 9D514.D
Acq: 19 Mar 2010 8:09 pm

Tgt Ion: 56 Resp: 6880

Ion	Ratio	Lower	Upper
56	100		
41	0.0	33.0	93.0#
43	0.0	25.0	85.0#

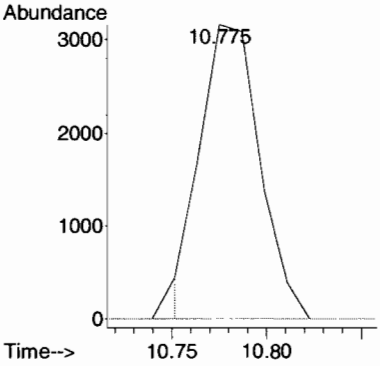

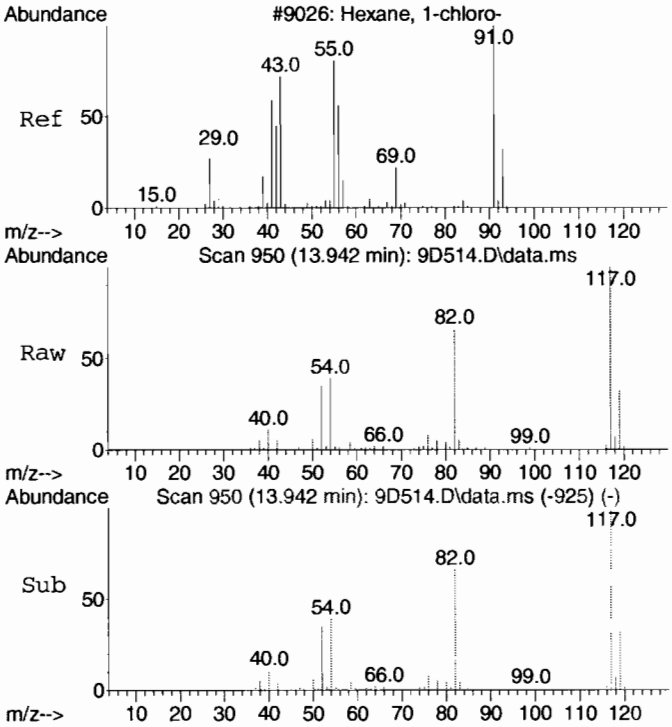

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.01 ug/L
RT: 13.942 min Scan# 950
Delta R.T. 0.119 min
Lab File: 9D514.D
Acq: 19 Mar 2010 8:09 pm

Tgt Ion: 55 Resp: 9374

Ion	Ratio	Lower	Upper
55	100		
91	11.5	74.8	134.8#
56	56.6	31.8	91.8

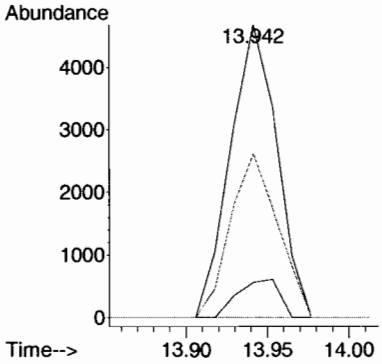

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D514.D
Acq On : 19 Mar 2010 8:09 pm
Operator : RXY1
Sample : |249180004|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D514.D
Acq On    : 19 Mar 2010   8:09 pm
Operator  : RXY1
Sample    : |249180004|967390|1|VOA|1|VOA8260BS|
Misc      : LANL 5.0g n/a SOIL
ALS Vial  : 14   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library   : C:\Database\NIST05.L
TIC Integration Parameters: default.P

                                                  |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-----------------------------------------------------------------------------
```

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180005**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**17.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13435**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 20:38**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:40**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D515.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.22	ug/kg	0.414	1.22
74-87-3	Chloromethane	U	1.22	ug/kg	0.365	1.22
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.365	1.22
74-83-9	Bromomethane	U	1.22	ug/kg	0.365	1.22
75-00-3	Chloroethane	U	1.22	ug/kg	0.365	1.22
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.365	1.22
67-64-1	Acetone	U	6.09	ug/kg	2.02	6.09
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
74-88-4	Iodomethane	U	6.09	ug/kg	1.95	6.09
75-09-2	Methylene chloride	U	6.09	ug/kg	2.44	6.09
75-15-0	Carbon disulfide	U	6.09	ug/kg	1.52	6.09
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.365	1.22
78-93-3	2-Butanone	U	6.09	ug/kg	1.83	6.09
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.365	1.22
67-66-3	Chloroform	U	1.22	ug/kg	0.365	1.22
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.402	1.22
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.365	1.22
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.365	1.22
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.365	1.22
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.365	1.22
71-43-2	Benzene	U	1.22	ug/kg	0.365	1.22
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.402	1.22
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.365	1.22
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.365	1.22
74-95-3	Dibromomethane	U	1.22	ug/kg	0.365	1.22
108-10-1	4-Methyl-2-pentanone	U	6.09	ug/kg	1.52	6.09
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.365	1.22
108-88-3	Toluene	U	1.22	ug/kg	0.365	1.22
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.365	1.22
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.365	1.22
591-78-6	2-Hexanone	U	6.09	ug/kg	1.83	6.09
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.365	1.22
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.365	1.22
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.365	1.22
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.365	1.22
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.365	1.22

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180005**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**17.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13435**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 20:38**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:40**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D515.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.22	ug/kg	0.365	1.22
179601-23-1	m,p-Xylenes	U	2.44	ug/kg	0.365	2.44
95-47-6	o-Xylene	U	1.22	ug/kg	0.365	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.365	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.365	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.365	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.365	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.365	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.365	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.365	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.365	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.365	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.365	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.365	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.365	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.365	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.365	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22
106-46-7	1,4-Dichlorobenzene		1.89	ug/kg	0.365	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.365	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.365	1.22
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.09	ug/kg	1.95	6.09
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.365	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.54	6.54	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D515.D
Acq On : 19 Mar 2010 8:38 pm
Operator : RXY1
InstName : VOA9
Sample : |249180005|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 23 08:46:30 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.775	10.775	1.000	96	789978	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.942	13.941	1.000	117	545411	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.373	16.372	1.000	152	224007	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	789978	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.942	13.942	1.000	117	545411	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.373	16.372	1.000	152	223992	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	349698	58.33	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery =		116.66%			
43) Toluene-d8	12.412	12.412	0.890	98	802521	57.33	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery =		114.66%			
61) Bromofluorobenzene	15.127	15.127	0.924	95	308446	58.17	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery =		116.34%			

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	0.000	5.308	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.546	0.000		0	N.D.		
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	0.000	7.099	0.000		0	N.D.		
9) Acetone	7.502	7.490	0.696	43	1620	Below Cal	#	41
10) 1,1-Dichloroethylene	0.000	7.502	0.000		0	N.D.		
11) Iodomethane	0.000	7.763	0.000		0	N.D.		
12) Acetonitrile	0.000	7.858	0.000		0	N.D.		
13) Methyl acetate	0.000	7.882	0.000		0	N.D.		
14) Carbon disulfide	7.894	7.906	0.733	76	604	N.D.		
15) Methylene chloride	8.083	8.083	0.750	84	4546	Below Cal		96
16) tert-Butyl methyl ether	0.000	8.368	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.427	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.854	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.913	0.000		0	N.D.		
20) 2-Butanone	0.000	9.483	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.554	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	0.000	9.850	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	0.000	10.230	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	10.289	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.514	0.000		0	N.D.		
31) Benzene	0.000	10.538	0.000		0	N.D.		
32) Cyclohexene	0.000	10.645	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.846	0.000		0m	N.D.	d	
34) Trichloroethylene	11.167	11.167	1.036	95	545	N.D.		
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.416	0.000		0	N.D.		
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D515.D
Acq On : 19 Mar 2010 8:38 pm
Operator : RXY1
InstName : VOA9
Sample : |249180005|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 23 08:46:30 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	0.000	11.665	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	12.103	0.000		0	N.D.		
42) 4-Methyl-2-pentanone	0.000	12.186	0.000		0	N.D.		
44) Toluene	12.495	12.483	0.896	91	1644	N.D.		
45) trans-1,3-Dichloroprop...	0.000	12.637	0.000		0	N.D.		
46) 1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.		
47) 2-Hexanone	0.000	13.028	0.000		0	N.D.		
48) 1,3-Dichloropropane	0.000	13.052	0.000		0	N.D.		
49) Tetrachloroethylene	0.000	13.088	0.000		0	N.D.		
50) Dibromochloromethane	0.000	13.325	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	13.503	0.000		0	N.D.		
52) Chlorobenzene	0.000	13.977	0.000		0	N.D.		
53) 1,1,1,2-Tetrachloroethane	0.000	14.024	0.000		0	N.D.		
54) Ethylbenzene	14.025	14.024	1.006	91	205	N.D.		
55) m,p-Xylenes	0.000	14.131	0.000		0	N.D.		
56) o-Xylene	0.000	14.570	0.000		0	N.D.		
57) Styrene	0.000	14.570	0.000		0	N.D.		
59) Bromoform	0.000	14.855	0.000		0	N.D.		
60) Isopropylbenzene	0.000	14.926	0.000		0	N.D.		
62) 1,1,2,2-Tetrachloroethane	0.000	15.198	0.000		0	N.D.		
63) 1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.		
64) Bromobenzene	0.000	15.353	0.000		0	N.D.		
65) n-Propylbenzene	0.000	15.353	0.000		0	N.D.		
66) 1,3,5-Trimethylbenzene	0.000	15.495	0.000		0	N.D.		
67) 2-Chlorotoluene	0.000	15.507	0.000		0	N.D.		
68) 4-Chlorotoluene	0.000	15.614	0.000		0	N.D.		
69) tert-Butylbenzene	0.000	15.874	0.000		0	N.D.		
70) 1,2,4-Trimethylbenzene	0.000	15.910	0.000		0	N.D.		
71) sec-Butylbenzene	0.000	16.112	0.000		0	N.D.		
72) 4-Isopropyltoluene	0.000	16.230	0.000		0	N.D.		
73) 1,3-Dichlorobenzene	0.000	16.313	0.000		0m	N.D.	d	
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	10141	1.55	ug/L #	70
75) n-Butylbenzene	0.000	16.693	0.000		0	N.D.		
76) 1,2-Dichlorobenzene	0.000	16.859	0.000		0	N.D.		
77) 1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	0.000	18.922	0.000		0	N.D.		
79) Hexachlorobutadiene	0.000	19.088	0.000		0	N.D.		
80) Naphthalene	19.337	19.349	1.181	128	417	N.D.		
81) 1,2,3-Trichlorobenzene	0.000	19.717	0.000		0	N.D.		
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.		
85) Acrolein	0.000	7.313	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	7.550	0.000		0	N.D.		
88) Allyl chloride	0.000	7.929	0.000		0	N.D.		
89) tert-Butyl Alcohol	0.000	8.060	0.000		0	N.D.		
90) Acrylonitrile	0.000	8.332	0.000		0	N.D.		
91) Isopropyl ether	0.000	8.866	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	0.000	9.008	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.		
94) Ethyl acetate	0.000	9.483	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D515.D
Acq On : 19 Mar 2010 8:38 pm
Operator : RXY1
InstName : VOA9
Sample : |249180005|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 23 08:46:30 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	0.000	9.578	0.000		0	N.D.		
96)	Methacrylonitrile	0.000	9.744	0.000		0	N.D.		
97)	Tetrahydrofuran	0.000	9.874	0.000		0	N.D.		
98)	Isobutyl alcohol	0.000	10.159	0.000		0	N.D.		
99)	Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.		
100)	Methyl methacrylate	0.000	11.368	0.000		0	N.D.		
101)	1,4-Dioxane	0.000	11.487	0.000		0	N.D.		
102)	2-Nitropropane	0.000	11.854	0.000		0	N.D.		
104)	Ethyl methacrylate	0.000	12.613	0.000		0	N.D.		
106)	1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d	
107)	cis-1,4-Dichloro-2-butene	0.000	14.961	0.000		0	N.D.		
108)	Cyclohexanone	0.000	15.092	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000	15.246	0.000		0	N.D.		
110)	Pentachloroethane	0.000	15.957	0.000		0	N.D.		
111)	Benzyl chloride	16.373	16.527	1.000	91	646	N.D.		
112)	bis(2-Chloroisopropyl)...	16.942	16.918	1.035	45	2220	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D515.D
Acq On : 19 Mar 2010 8:38 pm
Operator : RXY1
InstName : VOA9
Sample : |249180005|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 23 08:46:30 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

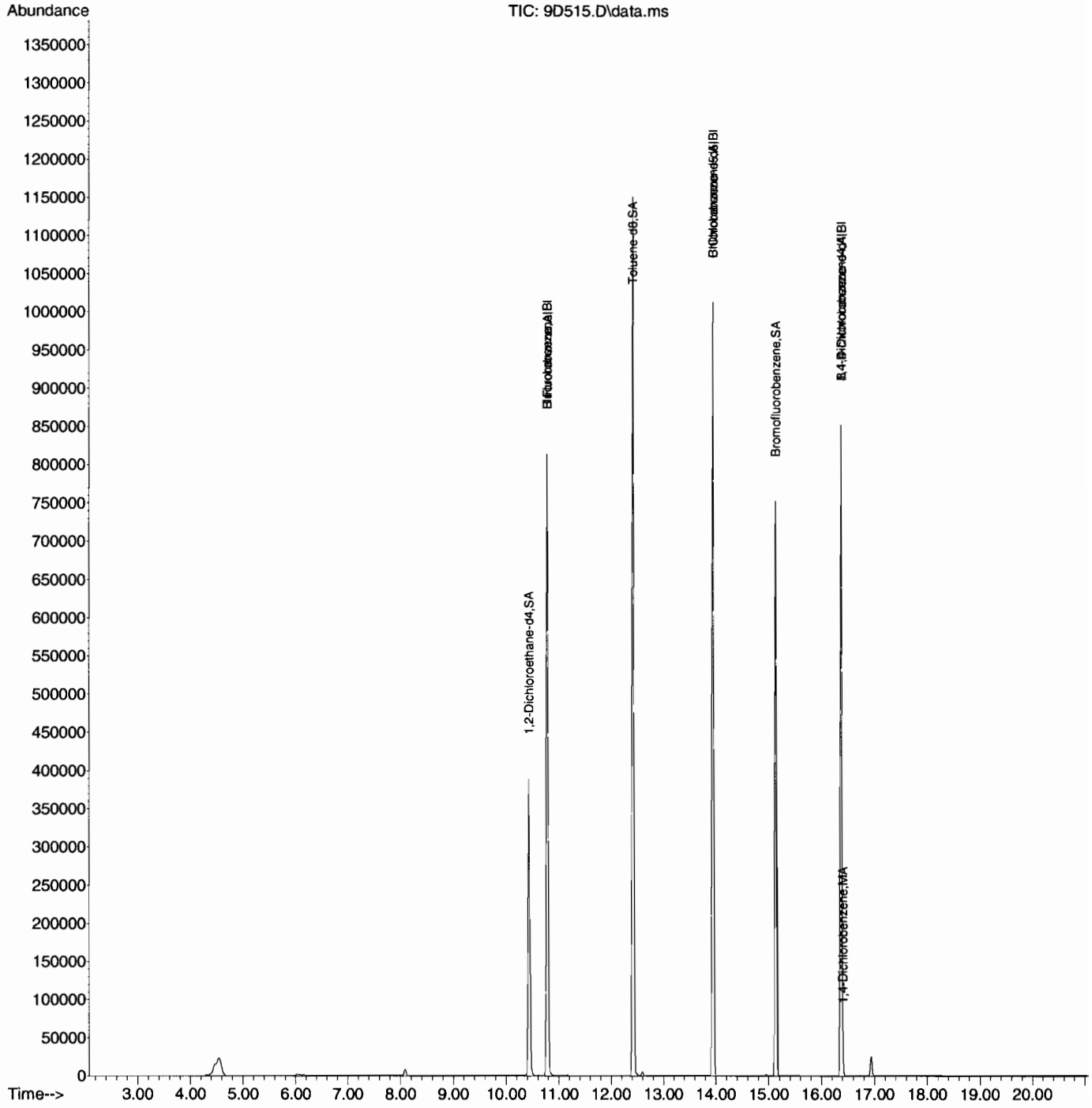

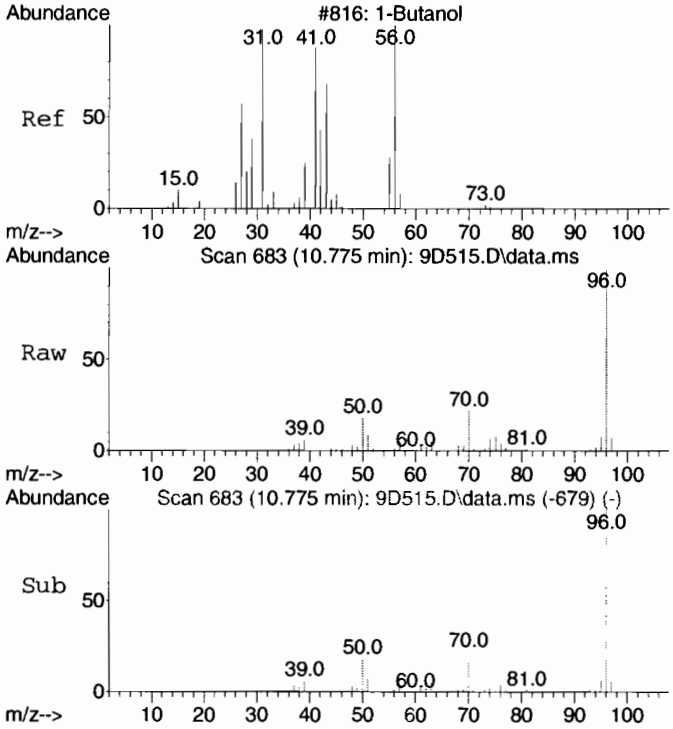

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 44.03 ug/L
RT: 10.775 min Scan# 683
Delta R.T. -0.071 min
Lab File: 9D515.D
Acq: 19 Mar 2010 8:38 pm

Tgt Ion: 56 Resp: 6579

Ion	Ratio	Lower	Upper
56	100		
41	0.0	33.0	93.0#
43	0.0	25.0	85.0#

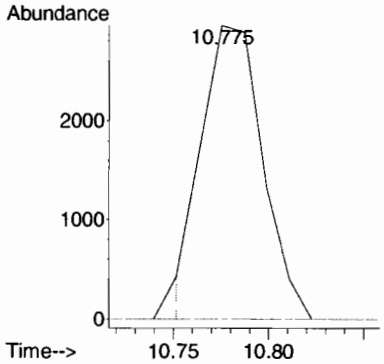

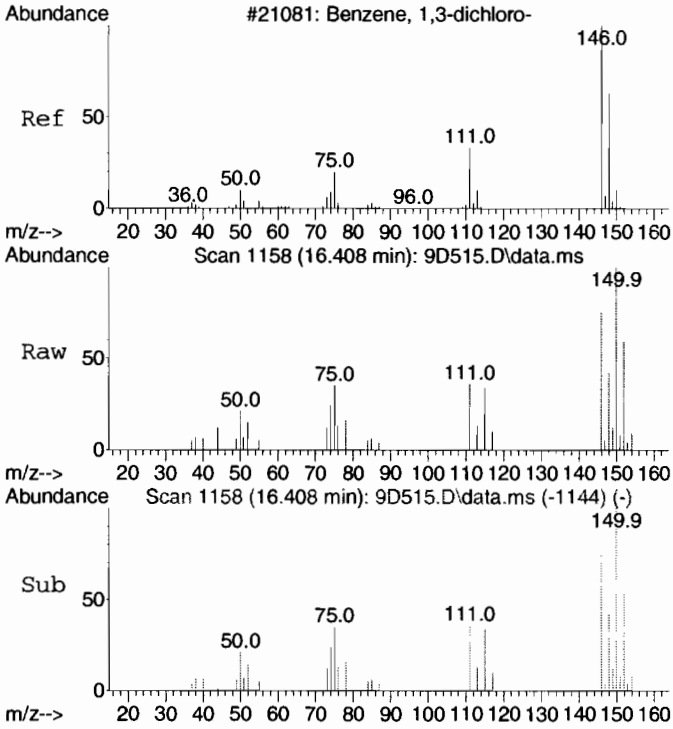

#73 BEFORE analyst DELETION
1,3-Dichlorobenzene
Concen: 1.54 ug/L
RT: 16.408 min Scan# 1158
Delta R.T. 0.095 min
Lab File: 9D515.D
Acq: 19 Mar 2010 8:38 pm

Tgt Ion:146 Resp: 10142

Ion	Ratio	Lower	Upper
146	100		
148	64.0	35.3	95.3
111	81.6	17.9	77.9#

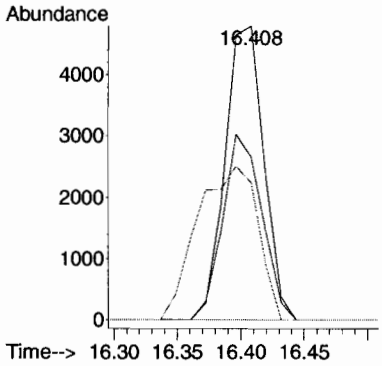

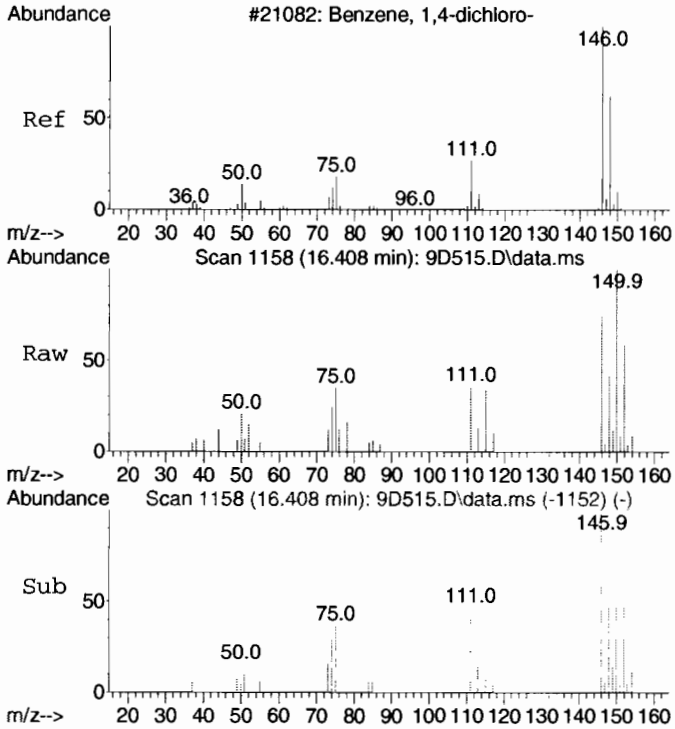

#74
1,4-Dichlorobenzene
Concen: 1.55 ug/L
RT: 16.408 min Scan# 1158
Delta R.T. 0.000 min
Lab File: 9D515.D
Acq: 19 Mar 2010 8:38 pm

Tgt Ion:146 Resp: 10141

Ion	Ratio	Lower	Upper
146	100		
148	64.0	34.7	94.7
111	0.0	16.9	76.9#

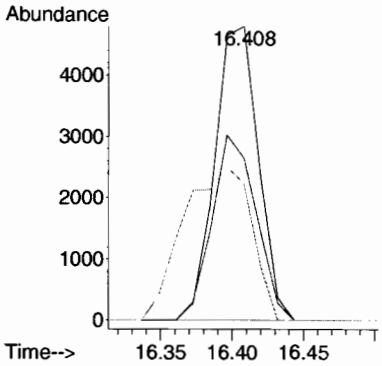

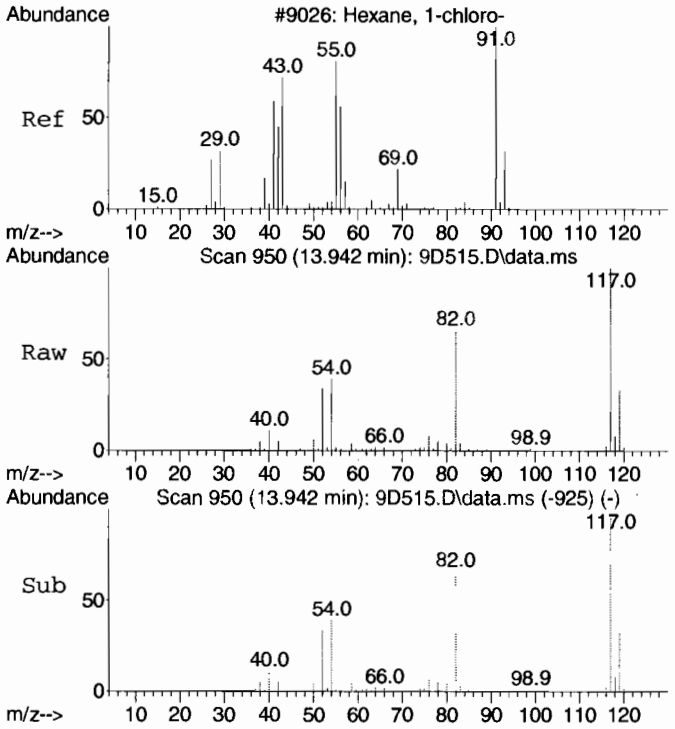

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.06 ug/L
RT: 13.942 min Scan# 950
Delta R.T. 0.119 min
Lab File: 9D515.D
Acq: 19 Mar 2010 8:38 pm

Tgt Ion: 55 Resp: 8830

Ion	Ratio	Lower	Upper
55	100		
91	12.8	74.8	134.8#
56	61.9	31.8	91.8

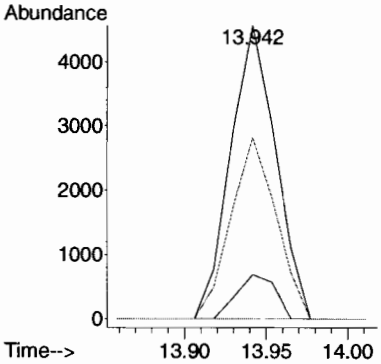

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D515.D
Acq On : 19 Mar 2010 8:38 pm
Operator : RXY1
Sample : |249180005|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.538	5.37 ug/L	200037	Fluorobenzene	10.775

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hydrazine, methyl-	46	CH6N2	000060-34-4	4
2	Formic acid	46	CH2O2	000064-18-6	4
3	Ethene, fluoro-	46	C2H3F	000075-02-5	3
4	Formic acid	46	CH2O2	000064-18-6	3
5	Hydrazine, methyl-	46	CH6N2	000060-34-4	3

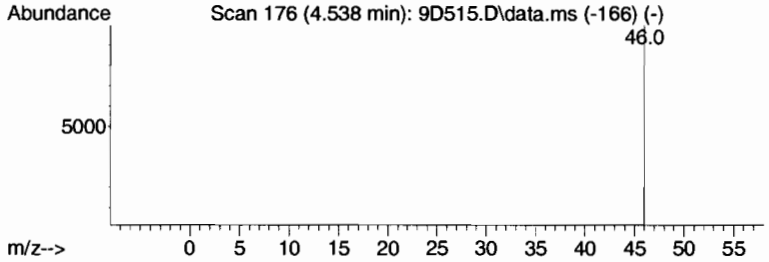

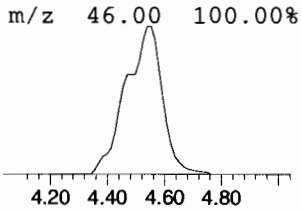

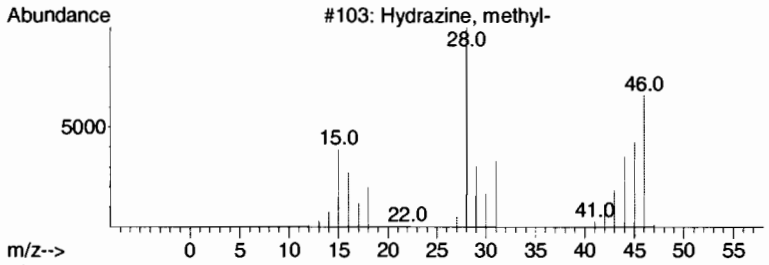

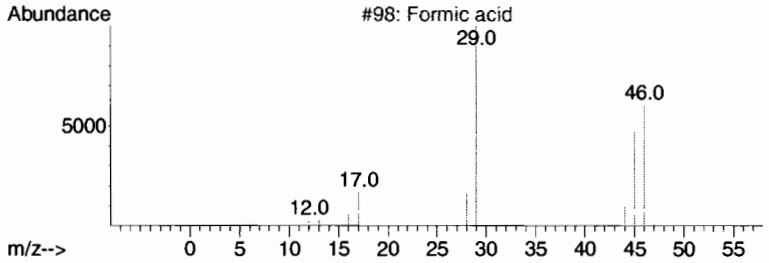

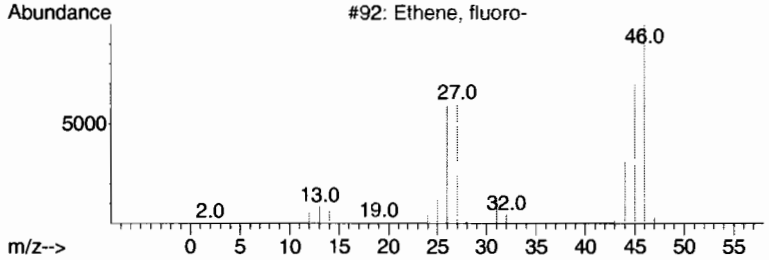

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D515.D
Acq On : 19 Mar 2010 8:38 pm
Operator : RXY1
Sample : |249180005|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown hydroca...	4.538	5.4	ug/L	200037	1	10.775	1861660	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180006**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13439**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 21:06**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:42**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D516.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.390	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.344	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.344	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.344	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.344	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.344	1.15
67-64-1	Acetone		13.8	ug/kg	1.90	5.73
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
74-88-4	Iodomethane	U	5.73	ug/kg	1.83	5.73
75-09-2	Methylene chloride	U	5.73	ug/kg	2.29	5.73
75-15-0	Carbon disulfide	U	5.73	ug/kg	1.43	5.73
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.344	1.15
78-93-3	2-Butanone	U	5.73	ug/kg	1.72	5.73
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.344	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.344	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.378	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.344	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.344	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.344	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.344	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.344	1.15
79-01-6	Trichloroethylene	J	0.654	ug/kg	0.378	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.344	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.344	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.344	1.15
108-10-1	4-Methyl-2-pentanone	U	5.73	ug/kg	1.43	5.73
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.344	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.344	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.344	1.15
591-78-6	2-Hexanone	U	5.73	ug/kg	1.72	5.73
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.344	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.344	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.344	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.344	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.344	1.15

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180006**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13439**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 21:06**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:42**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D516.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.344	1.15
179601-23-1	m,p-Xylenes	U	2.29	ug/kg	0.344	2.29
95-47-6	o-Xylene	U	1.15	ug/kg	0.344	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.344	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.344	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.344	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.344	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.344	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.344	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.344	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.344	1.15
95-63-6	1,2,4-Trimethylbenzene	U	1.15	ug/kg	0.344	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.344	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.344	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15
106-46-7	1,4-Dichlorobenzene	J	0.619	ug/kg	0.344	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.344	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.344	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.73	ug/kg	1.83	5.73
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.344	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.344	1.15

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.55	6.9	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D516.D
Acq On : 19 Mar 2010 9:06 pm
Operator : RXY1
InstName : VOA9
Sample : |249180006|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 23 08:47:20 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.787	10.775	1.000	96	776089	50.00	ug/L	0.01
41) Chlorobenzene-d5	13.941	13.941	1.000	117	539728	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	213601	50.00	ug/L	0.00
82) B Fluorobenzene	10.787	10.775	1.000	96	776089	50.00	ug/L	0.01
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	539728	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	213614	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.967	65	315765	53.61	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery =		107.22%			
43) Toluene-d8	12.412	12.412	0.890	98	745419	53.81	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery =		107.62%			
61) Bromofluorobenzene	15.127	15.127	0.924	95	289765	57.30	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery =		114.60%			

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	0.000	5.308	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.546	0.000		0	N.D.		
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	0.000	7.099	0.000		0	N.D.		
9) Acetone	7.490	7.490	0.694	43	70649	12.06	ug/L	85
10) 1,1-Dichloroethylene	0.000	7.502	0.000		0	N.D.		
11) Iodomethane	0.000	7.763	0.000		0	N.D.		
12) Acetonitrile	0.000	7.858	0.000		0	N.D.		
13) Methyl acetate	0.000	7.882	0.000		0	N.D.		
14) Carbon disulfide	7.905	7.906	0.733	76	825	N.D.		
15) Methylene chloride	8.095	8.083	0.750	84	4385	Below Cal		98
16) tert-Butyl methyl ether	0.000	8.368	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.427	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.854	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.913	0.000		0	N.D.		
20) 2-Butanone	0.000	9.483	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.554	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	0.000	9.850	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	10.135	10.135	0.940	97	1314	N.D.		
26) Cyclohexane	0.000	10.230	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	10.289	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.514	0.000		0	N.D.		
31) Benzene	10.538	10.538	0.977	78	405	N.D.		
32) Cyclohexene	0.000	10.645	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.846	0.000		0m	N.D. d		
34) Trichloroethylene	11.166	11.167	1.035	95	2259	0.57	ug/L	79
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.416	0.000		0	N.D.		
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D516.D
Acq On : 19 Mar 2010 9:06 pm
Operator : RXY1
InstName : VOA9
Sample : |249180006|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 23 08:47:20 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	0.000	11.665	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	12.103	0.000		0	N.D.		
42) 4-Methyl-2-pentanone	0.000	12.186	0.000		0	N.D.		
44) Toluene	12.495	12.483	0.896	91	2167	N.D.		
45) trans-1,3-Dichloroprop...	0.000	12.637	0.000		0	N.D.		
46) 1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.		
47) 2-Hexanone	0.000	13.028	0.000		0	N.D.		
48) 1,3-Dichloropropane	0.000	13.052	0.000		0	N.D.		
49) Tetrachloroethylene	13.076	13.088	0.938	164	191	N.D.		
50) Dibromochloromethane	0.000	13.325	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	13.503	0.000		0	N.D.		
52) Chlorobenzene	0.000	13.977	0.000		0	N.D.		
53) 1,1,1,2-Tetrachloroethane	0.000	14.024	0.000		0	N.D.		
54) Ethylbenzene	14.024	14.024	1.006	91	425	N.D.		
55) m,p-Xylenes	14.131	14.131	1.014	106	181	N.D.		
56) o-Xylene	0.000	14.570	0.000		0	N.D.		
57) Styrene	0.000	14.570	0.000		0	N.D.		
59) Bromoform	0.000	14.855	0.000		0	N.D.		
60) Isopropylbenzene	0.000	14.926	0.000		0	N.D.		
62) 1,1,2,2-Tetrachloroethane	0.000	15.198	0.000		0	N.D.		
63) 1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.		
64) Bromobenzene	0.000	15.353	0.000		0	N.D.		
65) n-Propylbenzene	0.000	15.353	0.000		0	N.D.		
66) 1,3,5-Trimethylbenzene	0.000	15.495	0.000		0	N.D.		
67) 2-Chlorotoluene	0.000	15.507	0.000		0	N.D.		
68) 4-Chlorotoluene	0.000	15.614	0.000		0	N.D.		
69) tert-Butylbenzene	0.000	15.874	0.000		0	N.D.		
70) 1,2,4-Trimethylbenzene	0.000	15.910	0.000		0	N.D.		
71) sec-Butylbenzene	0.000	16.112	0.000		0	N.D.		
72) 4-Isopropyltoluene	0.000	16.230	0.000		0	N.D.		
73) 1,3-Dichlorobenzene	0.000	16.313	0.000		0m	N.D.	d	
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	3369	0.54	ug/L #	66
75) n-Butylbenzene	0.000	16.693	0.000		0	N.D.		
76) 1,2-Dichlorobenzene	0.000	16.859	0.000		0	N.D.		
77) 1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	0.000	18.922	0.000		0	N.D.		
79) Hexachlorobutadiene	0.000	19.088	0.000		0	N.D.		
80) Naphthalene	19.349	19.349	1.182	128	224	N.D.		
81) 1,2,3-Trichlorobenzene	0.000	19.717	0.000		0	N.D.		
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.		
85) Acrolein	0.000	7.313	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	7.550	0.000		0	N.D.		
88) Allyl chloride	0.000	7.929	0.000		0	N.D.		
89) tert-Butyl Alcohol	0.000	8.060	0.000		0	N.D.		
90) Acrylonitrile	0.000	8.332	0.000		0	N.D.		
91) Isopropyl ether	0.000	8.866	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	0.000	9.008	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.		
94) Ethyl acetate	0.000	9.483	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D516.D
Acq On : 19 Mar 2010 9:06 pm
Operator : RXY1
InstName : VOA9
Sample : |249180006|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 23 08:47:20 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.578	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.744	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	9.874	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	10.159	0.000		0	N.D.	
99) Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.368	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.487	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.854	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.613	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.961	0.000		0	N.D.	
108) Cyclohexanone	0.000	15.092	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.246	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.957	0.000		0	N.D.	
111) Benzyl chloride	16.372	16.527	1.000	91	538	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.918	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D516.D
Acq On : 19 Mar 2010 9:06 pm
Operator : RXY1
InstName : VOA9
Sample : |249180006|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 23 08:47:20 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

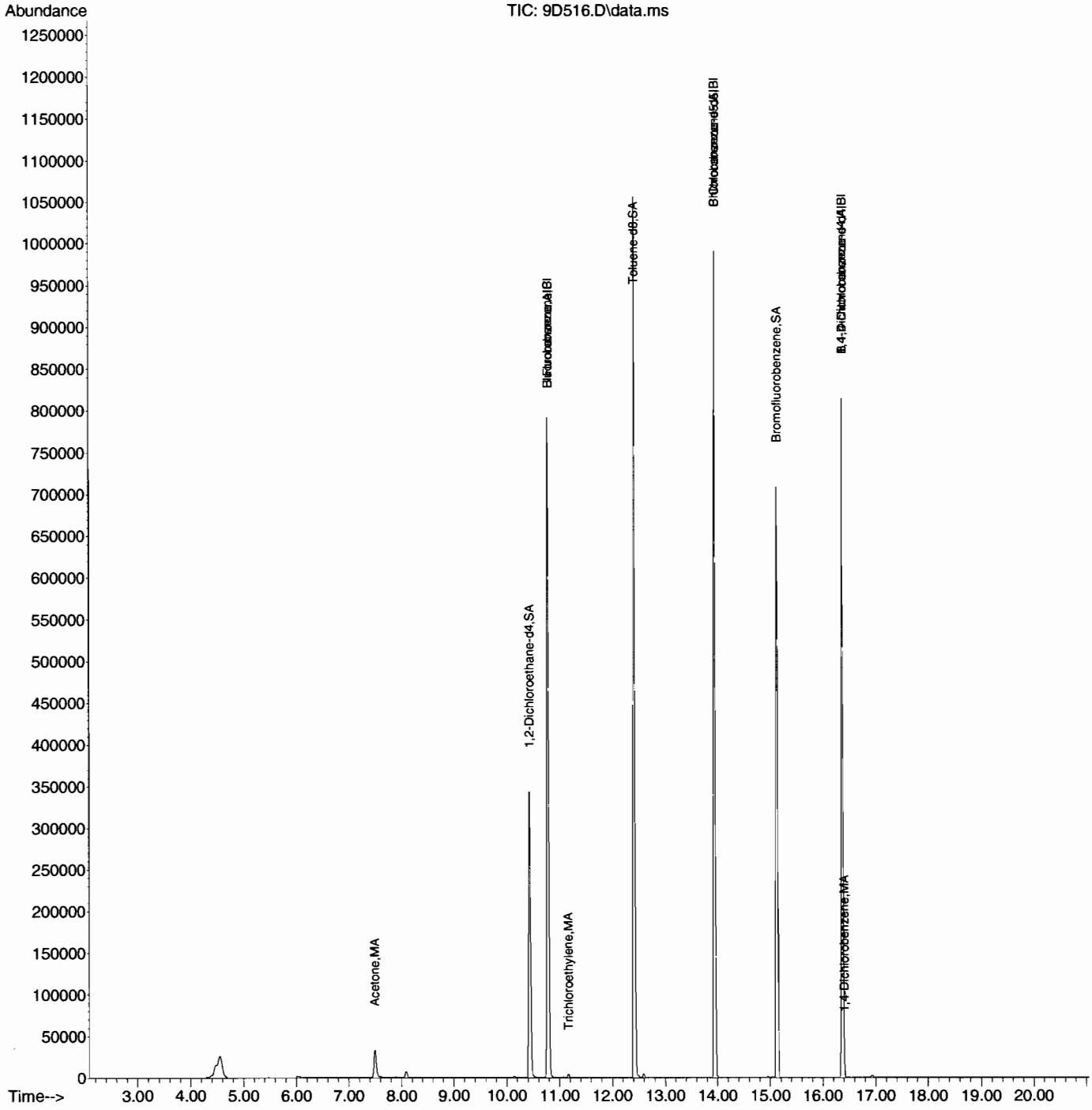

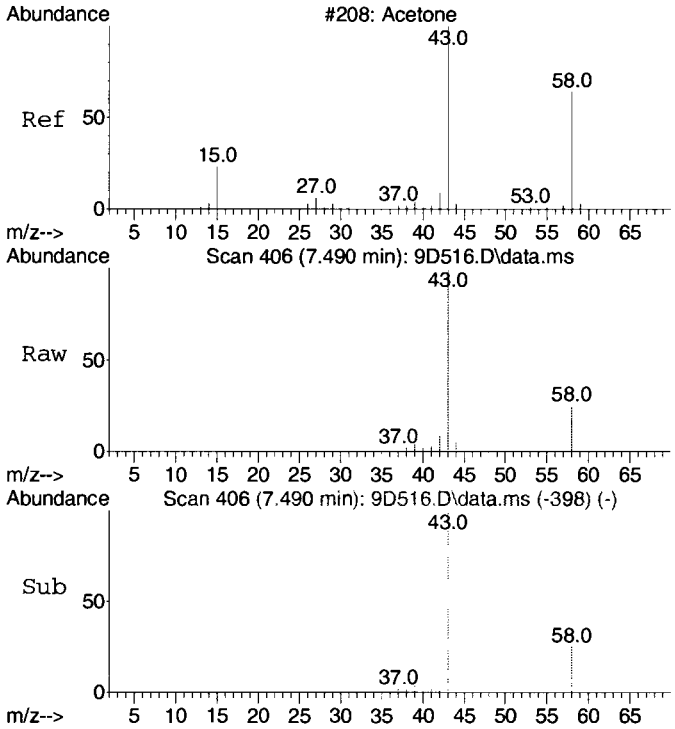

#9
Acetone
Concen: 12.06 ug/L
RT: 7.490 min Scan# 406
Delta R.T. 0.000 min
Lab File: 9D516.D
Acq: 19 Mar 2010 9:06 pm

Tgt Ion: 43 Resp: 70649

Ion	Ratio	Lower	Upper
43	100		
58	24.9	3.2	63.2

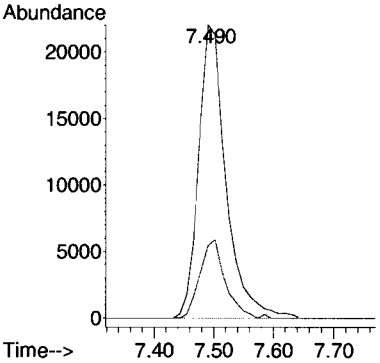

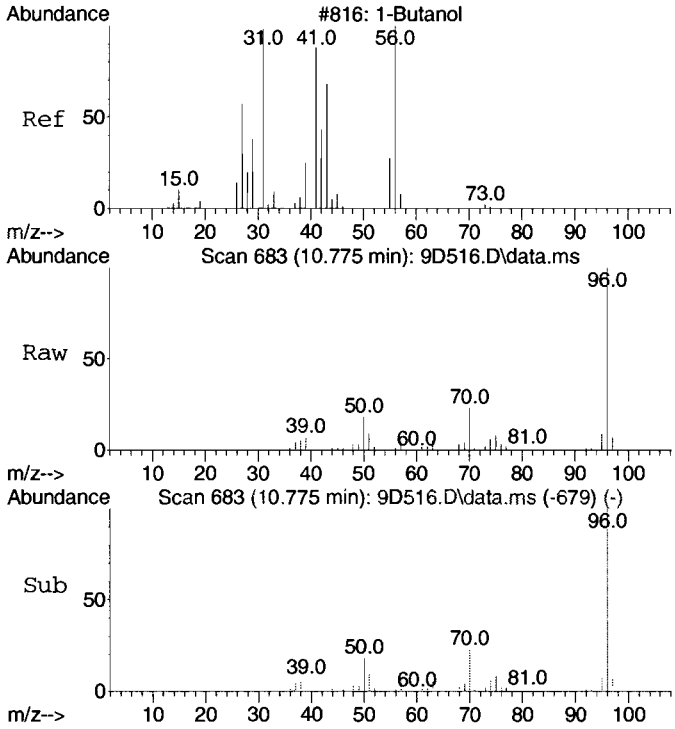

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 42.16 ug/L
RT: 10.775 min Scan# 683
Delta R.T. -0.071 min
Lab File: 9D516.D
Acq: 19 Mar 2010 9:06 pm

Tgt Ion: 56 Resp: 6189

Ion	Ratio	Lower	Upper
56	100		
41	0.0	33.0	93.0#
43	0.0	25.0	85.0#

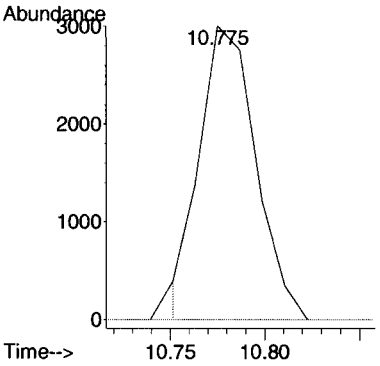

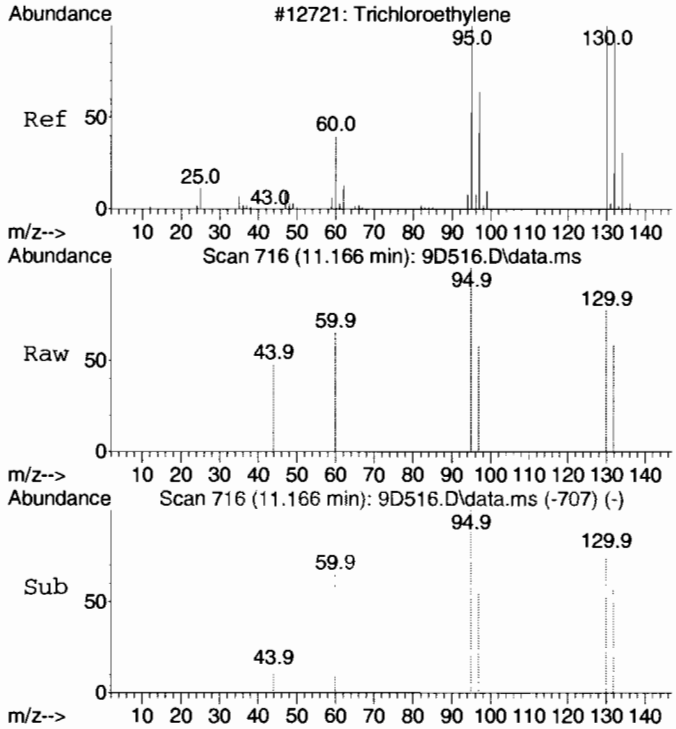

#34
Trichloroethylene
Concen: 0.57 ug/L
RT: 11.166 min Scan# 716
Delta R.T. -0.001 min
Lab File: 9D516.D
Acq: 19 Mar 2010 9:06 pm

Tgt Ion: 95 Resp: 2259

Ion	Ratio	Lower	Upper
95	100		
130	68.6	59.3	119.3
97	50.0	35.8	95.8

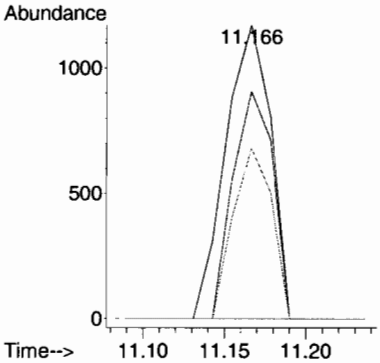

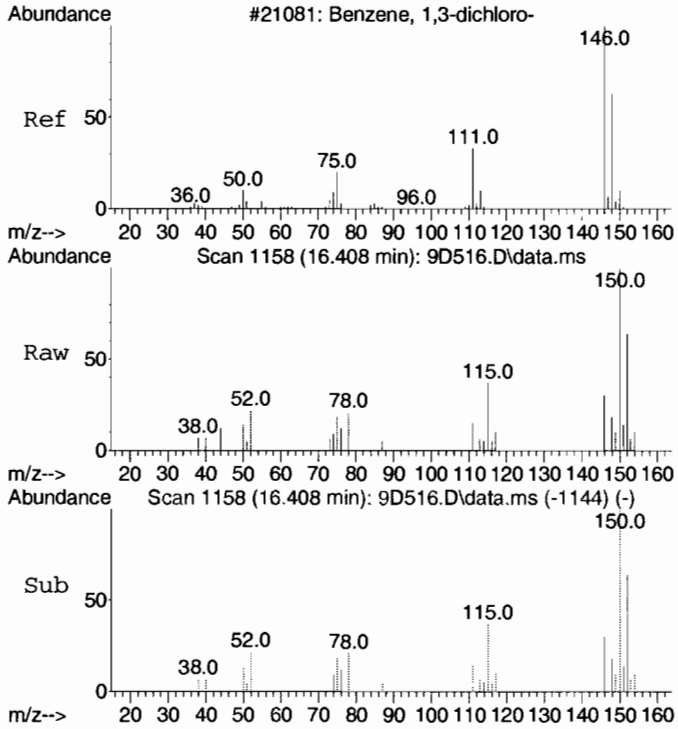

#73 BEFORE analyst DELETION
1,3-Dichlorobenzene
Concen: 0.54 ug/L
RT: 16.408 min Scan# 1158
Delta R.T. 0.095 min
Lab File: 9D516.D
Acq: 19 Mar 2010 9:06 pm

Tgt Ion:146 Resp: 3369

Ion	Ratio	Lower	Upper
146	100		
148	70.3	35.3	95.3
111	141.9	17.9	77.9#

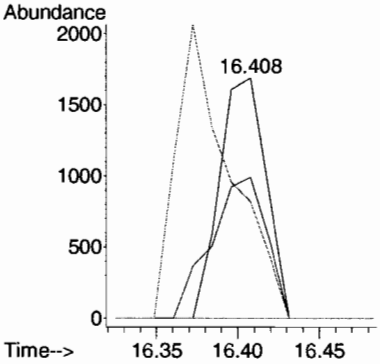

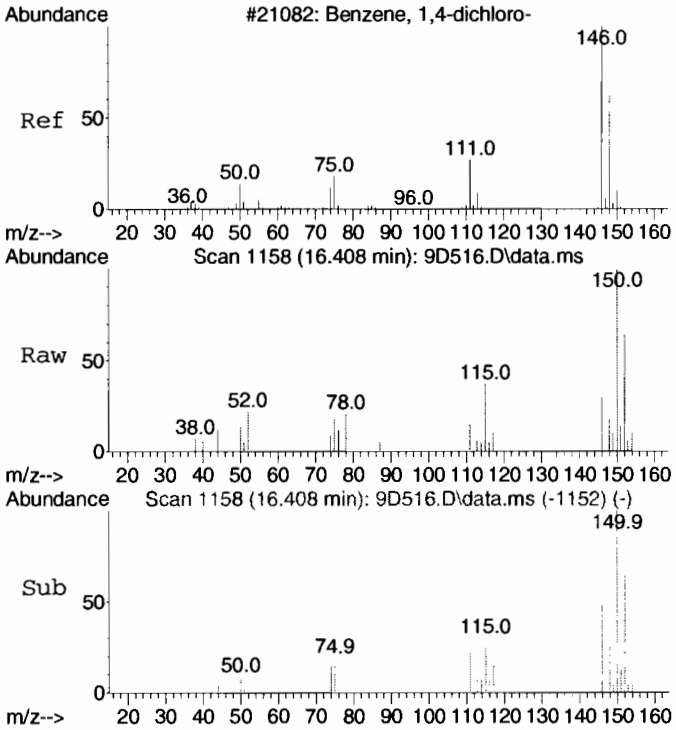

#74
1,4-Dichlorobenzene
Concen: 0.54 ug/L
RT: 16.408 min Scan# 1158
Delta R.T. -0.000 min
Lab File: 9D516.D
Acq: 19 Mar 2010 9:06 pm

Tgt Ion:146 Resp: 3369

Ion	Ratio	Lower	Upper
146	100		
148	70.3	34.7	94.7
111	0.0	16.9	76.9#

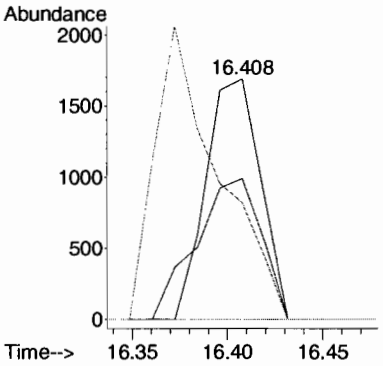

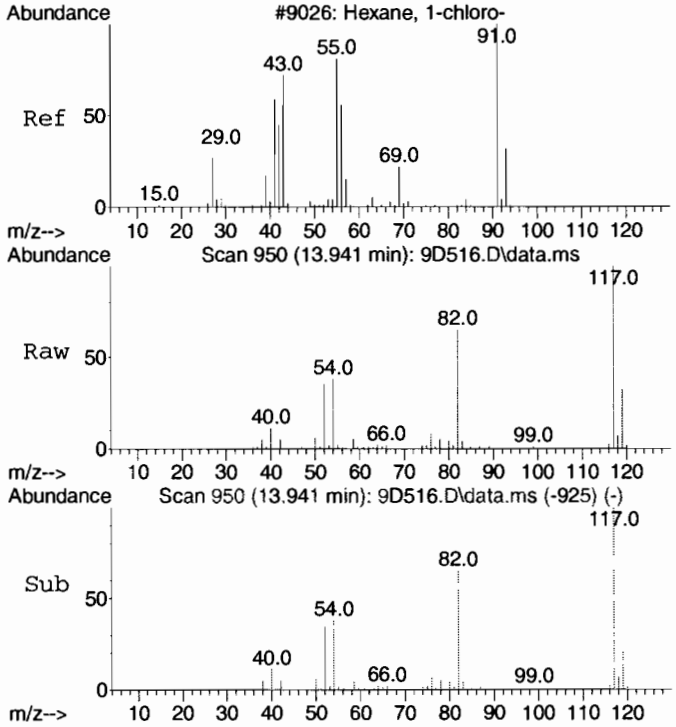

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.07 ug/L
RT: 13.941 min Scan# 950
Delta R.T. 0.118 min
Lab File: 9D516.D
Acq: 19 Mar 2010 9:06 pm

Tgt Ion: 55 Resp: 8481

Ion	Ratio	Lower	Upper
55	100		
91	14.3	74.8	134.8#
56	60.3	31.8	91.8

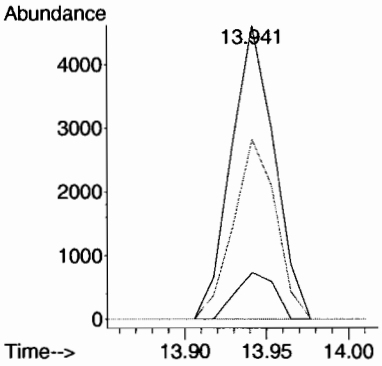

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D516.D
Acq On : 19 Mar 2010 9:06 pm
Operator : RXY1
Sample : |249180006|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.552	6.02 ug/L	221553	Fluorobenzene	10.787

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hydrazine, methyl-	46	CH6N2	000060-34-4	4
2	Formic acid	46	CH2O2	000064-18-6	4
3	Ethene, fluoro-	46	C2H3F	000075-02-5	3
4	Formic acid	46	CH2O2	000064-18-6	3
5	Hydrazine, methyl-	46	CH6N2	000060-34-4	3

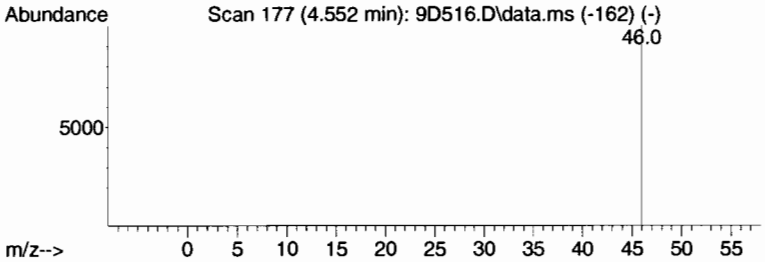

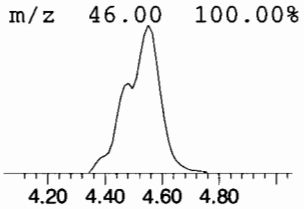

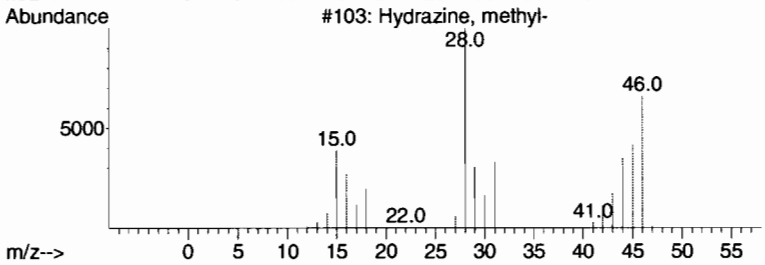

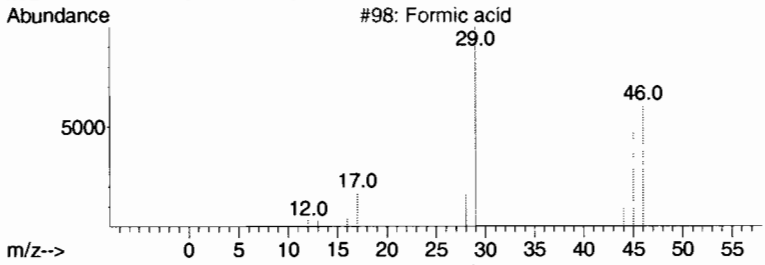

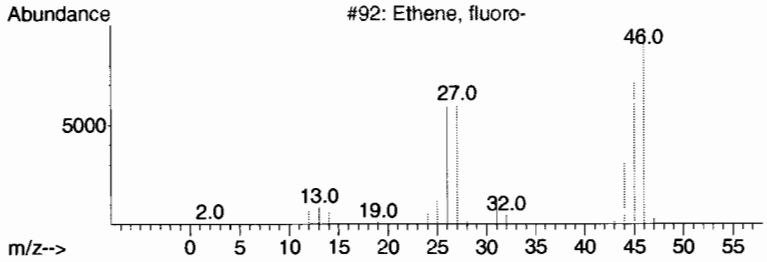

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D516.D
Acq On : 19 Mar 2010 9:06 pm
Operator : RXY1
Sample : |249180006|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown hydroca...	4.552	6.0	ug/L	221553	1	10.787	1840710	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180008	**Date Received:**	03/11/2010 09:00	**%Moisture:**	15.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13463	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	967390	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/19/2010 21:35	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/18/2010 18:46	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031910V9\9D517.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.402	1.18
74-87-3	Chloromethane	U	1.18	ug/kg	0.355	1.18
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.355	1.18
74-83-9	Bromomethane	U	1.18	ug/kg	0.355	1.18
75-00-3	Chloroethane	U	1.18	ug/kg	0.355	1.18
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.355	1.18
67-64-1	Acetone	U	5.91	ug/kg	1.96	5.91
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.355	1.18
74-88-4	Iodomethane	U	5.91	ug/kg	1.89	5.91
75-09-2	Methylene chloride	U	5.91	ug/kg	2.36	5.91
75-15-0	Carbon disulfide	U	5.91	ug/kg	1.48	5.91
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.355	1.18
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.355	1.18
78-93-3	2-Butanone	U	5.91	ug/kg	1.77	5.91
156-59-2	cis-1,2-Dichloroethylene	U	1.18	ug/kg	0.355	1.18
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.355	1.18
67-66-3	Chloroform	U	1.18	ug/kg	0.355	1.18
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.390	1.18
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.355	1.18
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.355	1.18
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.355	1.18
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.355	1.18
71-43-2	Benzene	U	1.18	ug/kg	0.355	1.18
79-01-6	Trichloroethylene	U	1.18	ug/kg	0.390	1.18
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.355	1.18
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.355	1.18
74-95-3	Dibromomethane	U	1.18	ug/kg	0.355	1.18
108-10-1	4-Methyl-2-pentanone	U	5.91	ug/kg	1.48	5.91
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.355	1.18
108-88-3	Toluene	U	1.18	ug/kg	0.355	1.18
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.355	1.18
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.355	1.18
591-78-6	2-Hexanone	U	5.91	ug/kg	1.77	5.91
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.355	1.18
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.355	1.18
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.355	1.18
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.355	1.18
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.355	1.18

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180008	**Date Received:**	03/11/2010 09:00	**%Moisture:**	15.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13463	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	967390	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	03/19/2010 21:35	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	03/18/2010 18:46	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031910V9\9D517.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.355	1.18
179601-23-1	m,p-Xylenes	U	2.36	ug/kg	0.355	2.36
95-47-6	o-Xylene	U	1.18	ug/kg	0.355	1.18
100-42-5	Styrene	U	1.18	ug/kg	0.355	1.18
75-25-2	Bromoform	U	1.18	ug/kg	0.355	1.18
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.355	1.18
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.355	1.18
108-86-1	Bromobenzene	U	1.18	ug/kg	0.355	1.18
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.355	1.18
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.355	1.18
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.355	1.18
108-67-8	1,3,5-Trimethylbenzene	U	1.18	ug/kg	0.355	1.18
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.355	1.18
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.355	1.18
95-63-6	1,2,4-Trimethylbenzene	U	1.18	ug/kg	0.355	1.18
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.355	1.18
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.355	1.18
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.355	1.18
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.355	1.18
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.355	1.18
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.355	1.18
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.91	ug/kg	1.89	5.91
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.355	1.18
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.355	1.18

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D517.D
Acq On : 19 Mar 2010 9:35 pm
Operator : RXY1
InstName : VOA9
Sample : |249180008|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 23 08:47:54 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.775	10.775	1.000	96	746789	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.942	13.941	1.000	117	522298	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	221185	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	746789	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.942	13.942	1.000	117	522298	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	221171	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	291109	51.36	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 102.72%					
43) Toluene-d8	12.412	12.412	0.890	98	685308	51.12	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 102.24%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	268924	51.36	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 102.72%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	0.000	5.308	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.546	0.000		0	N.D.		
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	0.000	7.099	0.000		0	N.D.		
9) Acetone	7.514	7.490	0.697	43	1431	Below Cal	#	41
10) 1,1-Dichloroethylene	0.000	7.502	0.000		0	N.D.		
11) Iodomethane	0.000	7.763	0.000		0	N.D.		
12) Acetonitrile	0.000	7.858	0.000		0	N.D.		
13) Methyl acetate	0.000	7.882	0.000		0	N.D.		
14) Carbon disulfide	7.906	7.906	0.734	76	624	N.D.		
15) Methylene chloride	8.083	8.083	0.750	84	4676	Below Cal		93
16) tert-Butyl methyl ether	0.000	8.368	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.427	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.854	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.913	0.000		0	N.D.		
20) 2-Butanone	0.000	9.483	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.554	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	0.000	9.850	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	0.000	10.230	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	10.289	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.514	0.000		0	N.D.		
31) Benzene	0.000	10.538	0.000		0	N.D.		
32) Cyclohexene	0.000	10.645	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.846	0.000		0m	N.D.	d	
34) Trichloroethylene	0.000	11.167	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.416	0.000		0	N.D.		
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D517.D
Acq On : 19 Mar 2010 9:35 pm
Operator : RXY1
InstName : VOA9
Sample : |249180008|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 23 08:47:54 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.665	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	12.103	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.186	0.000		0	N.D.	
44) Toluene	12.483	12.483	0.895	91	1057	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.637	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.	
47) 2-Hexanone	0.000	13.028	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	13.052	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	13.088	0.000		0	N.D.	
50) Dibromochloromethane	0.000	13.325	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.503	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.977	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	14.024	0.000		0	N.D.	
54) Ethylbenzene	14.025	14.024	1.006	91	185	N.D.	
55) m,p-Xylenes	0.000	14.131	0.000		0	N.D.	
56) o-Xylene	0.000	14.570	0.000		0	N.D.	
57) Styrene	0.000	14.570	0.000		0	N.D.	
59) Bromoform	0.000	14.855	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.926	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.198	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.	
64) Bromobenzene	0.000	15.353	0.000		0	N.D.	
65) n-Propylbenzene	0.000	15.353	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.495	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.507	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.614	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.874	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	15.910	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	16.112	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	16.230	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	16.313	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	16.408	0.000		0	N.D.	
75) n-Butylbenzene	0.000	16.693	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.859	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.922	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	19.088	0.000		0	N.D.	
80) Naphthalene	0.000	19.349	0.000		0	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.717	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.	
85) Acrolein	0.000	7.313	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.550	0.000		0	N.D.	
88) Allyl chloride	0.000	7.929	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.060	0.000		0	N.D.	
90) Acrylonitrile	0.000	8.332	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.866	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	9.008	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.	
94) Ethyl acetate	0.000	9.483	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D517.D
Acq On : 19 Mar 2010 9:35 pm
Operator : RXY1
InstName : VOA9
Sample : |249180008|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 23 08:47:54 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	0.000	9.578	0.000		0	N.D.		
96)	Methacrylonitrile	0.000	9.744	0.000		0	N.D.		
97)	Tetrahydrofuran	9.874	9.874	0.916	42	179	N.D.		
98)	Isobutyl alcohol	0.000	10.159	0.000		0	N.D.		
99)	Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.		
100)	Methyl methacrylate	0.000	11.368	0.000		0	N.D.		
101)	1,4-Dioxane	0.000	11.487	0.000		0	N.D.		
102)	2-Nitropropane	0.000	11.854	0.000		0	N.D.		
104)	Ethyl methacrylate	0.000	12.613	0.000		0	N.D.		
106)	1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d	
107)	cis-1,4-Dichloro-2-butene	0.000	14.961	0.000		0	N.D.		
108)	Cyclohexanone	0.000	15.092	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000	15.246	0.000		0	N.D.		
110)	Pentachloroethane	0.000	15.957	0.000		0	N.D.		
111)	Benzyl chloride	16.372	16.527	1.000	91	608	N.D.		
112)	bis(2-Chloroisopropyl)...	16.930	16.918	1.034	45	2273	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D517.D
Acq On : 19 Mar 2010 9:35 pm
Operator : RXY1
InstName : VOA9
Sample : |249180008|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 23 08:47:54 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

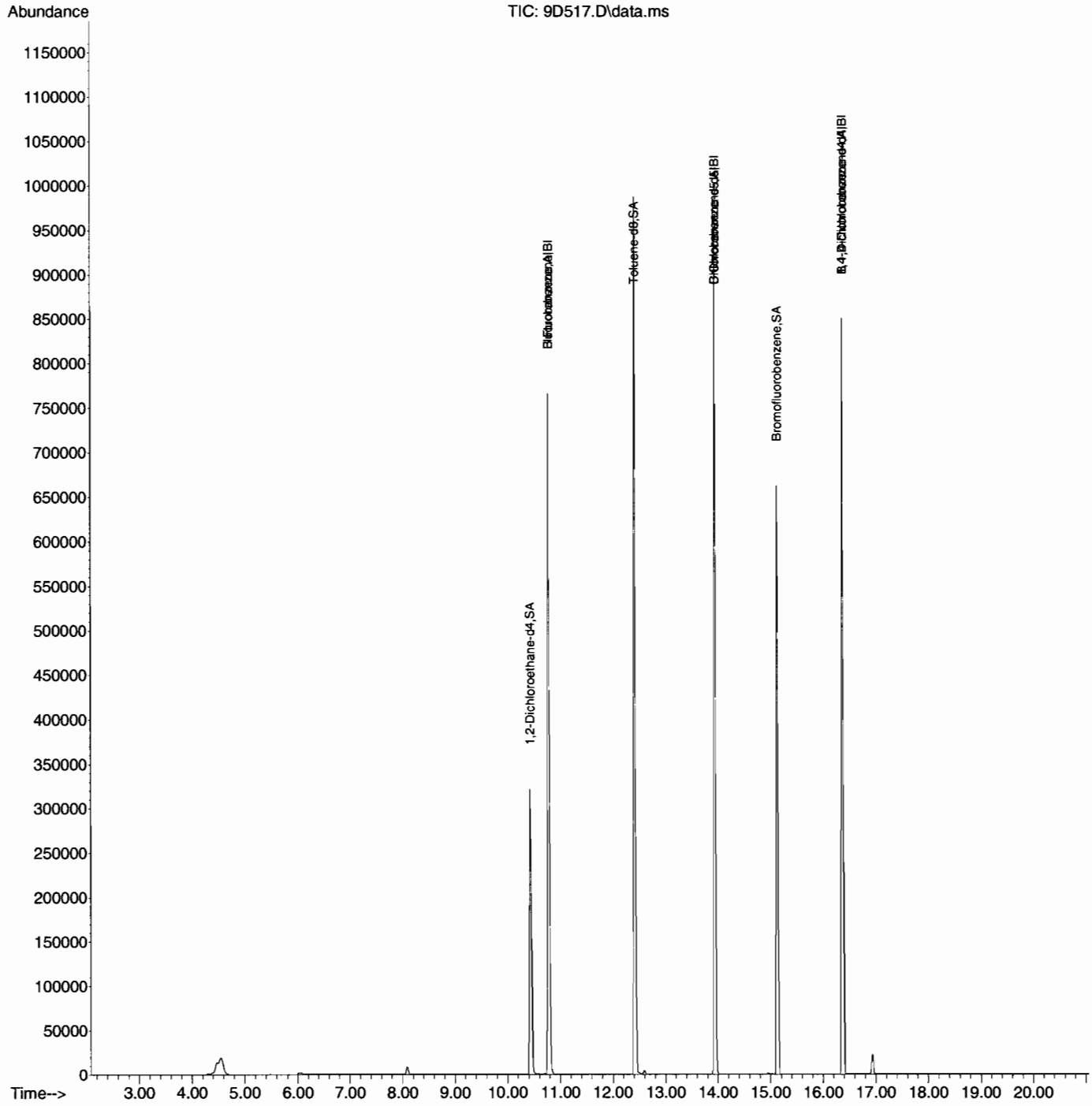

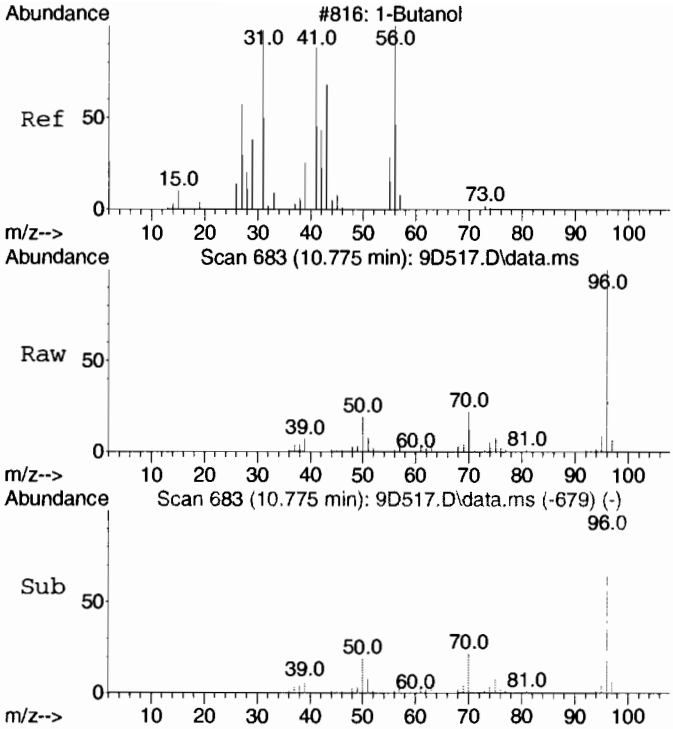

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 44.45 ug/L
RT: 10.775 min Scan# 683
Delta R.T. -0.071 min
Lab File: 9D517.D
Acq: 19 Mar 2010 9:35 pm

Tgt Ion: 56 Resp: 6279

Ion	Ratio	Lower	Upper
56	100		
41	0.0	33.0	93.0#
43	0.0	25.0	85.0#

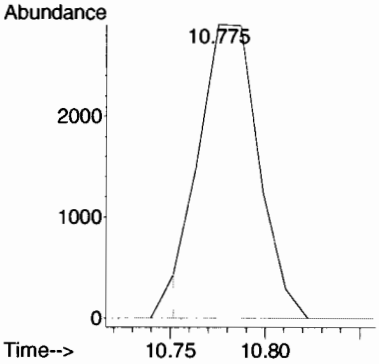

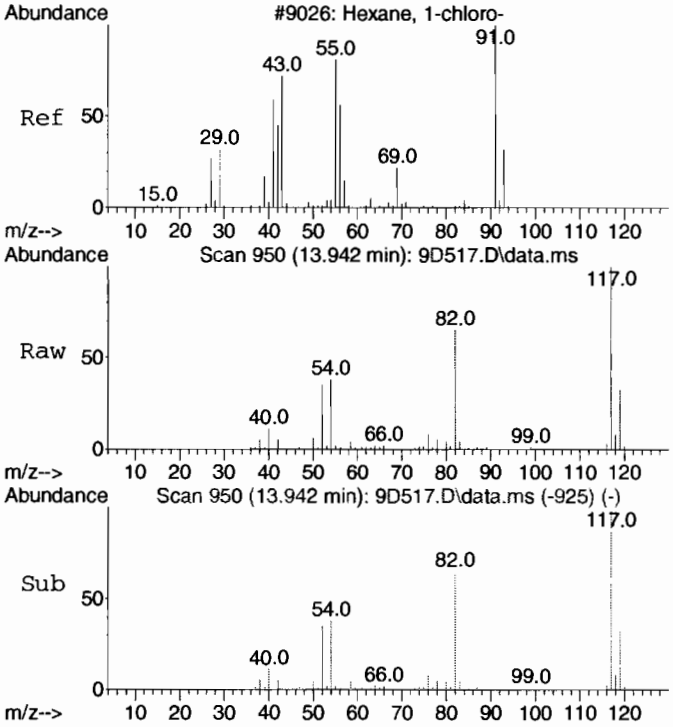

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.90 ug/L
RT: 13.942 min Scan# 950
Delta R.T. 0.119 min
Lab File: 9D517.D
Acq: 19 Mar 2010 9:35 pm

Tgt Ion: 55 Resp: 8029

Ion	Ratio	Lower	Upper
55	100		
91	15.1	74.8	134.8#
56	60.6	31.8	91.8

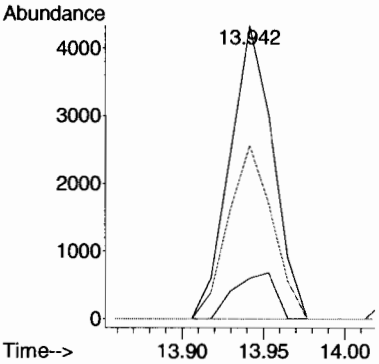

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D517.D
Acq On : 19 Mar 2010 9:35 pm
Operator : RXY1
Sample : |249180008|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D517.D
Acq On : 19 Mar 2010 9:35 pm
Operator : RXY1
Sample : |249180008|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180001**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13437**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 15:04**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 14:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V9\9E211.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.22	ug/kg	0.416	1.22
74-87-3	Chloromethane	U	1.22	ug/kg	0.367	1.22
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.367	1.22
74-83-9	Bromomethane	U	1.22	ug/kg	0.367	1.22
75-00-3	Chloroethane	U	1.22	ug/kg	0.367	1.22
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.367	1.22
67-64-1	Acetone	U	6.12	ug/kg	2.03	6.12
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.367	1.22
74-88-4	Iodomethane	U	6.12	ug/kg	1.96	6.12
75-09-2	Methylene chloride	U	6.12	ug/kg	2.45	6.12
75-15-0	Carbon disulfide	U	6.12	ug/kg	1.53	6.12
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.367	1.22
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.367	1.22
78-93-3	2-Butanone	U	6.12	ug/kg	1.84	6.12
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.367	1.22
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.367	1.22
67-66-3	Chloroform	U	1.22	ug/kg	0.367	1.22
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.404	1.22
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.367	1.22
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.367	1.22
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.367	1.22
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.367	1.22
71-43-2	Benzene	U	1.22	ug/kg	0.367	1.22
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.404	1.22
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.367	1.22
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.367	1.22
74-95-3	Dibromomethane	U	1.22	ug/kg	0.367	1.22
108-10-1	4-Methyl-2-pentanone	U	6.12	ug/kg	1.53	6.12
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.367	1.22
108-88-3	Toluene	U	1.22	ug/kg	0.367	1.22
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.367	1.22
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.367	1.22
591-78-6	2-Hexanone	U	6.12	ug/kg	1.84	6.12
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.367	1.22
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.367	1.22
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.367	1.22
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.367	1.22
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.367	1.22

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180001**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13437**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 15:04**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 14:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V9\9E211.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.22	ug/kg	0.367	1.22
179601-23-1	m,p-Xylenes	U	2.45	ug/kg	0.367	2.45
95-47-6	o-Xylene	U	1.22	ug/kg	0.367	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.367	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.367	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.367	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.367	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.367	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.367	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.367	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.367	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.367	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.367	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.367	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.367	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.367	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.367	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.367	1.22
106-46-7	1,4-Dichlorobenzene	U	1.22	ug/kg	0.367	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.367	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.367	1.22
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.12	ug/kg	1.96	6.12
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.367	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.367	1.22

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E211.D
Acq On : 23 Mar 2010 3:04 pm
Operator : RXY1
InstName : VOA9
Sample : |249180001|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 23 15:40:40 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.775	10.775	1.000	96	1228512	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.941	13.941	1.000	117	767511	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	272110	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	1228512	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	767511	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	272089	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	393224	42.17	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 84.34%					
43) Toluene-d8	12.412	12.412	0.890	98	1037621	52.67	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 105.34%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	368948	57.28	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 114.56%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	5.294	5.308	0.491	50	234	N.D.		
4) Vinyl chloride	5.560	5.546	0.516	62	239	N.D.		
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	0.000	7.099	0.000		0	N.D.		
9) Acetone	7.502	7.490	0.696	43	2775	Below Cal		87
10) 1,1-Dichloroethylene	0.000	7.502	0.000		0	N.D.		
11) Iodomethane	0.000	7.763	0.000		0	N.D.		
12) Acetonitrile	8.071	7.858	0.749	41	588	N.D.		
13) Methyl acetate	0.000	7.882	0.000		0	N.D.		
14) Carbon disulfide	7.882	7.906	0.731	76	1068	N.D.		
15) Methylene chloride	8.095	8.083	0.751	84	8857	Below Cal		96
16) tert-Butyl methyl ether	0.000	8.368	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.427	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.854	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.913	0.000		0	N.D.		
20) 2-Butanone	9.483	9.483	0.880	43	618	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.554	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	0.000	9.850	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	0.000	10.230	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	10.289	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.514	0.000		0	N.D.		
31) Benzene	10.526	10.538	0.977	78	438	N.D.		
32) Cyclohexene	0.000	10.645	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.846	0.000		0m	N.D.	d	
34) Trichloroethylene	11.166	11.167	1.036	95	1420	N.D.		
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.416	0.000		0	N.D.		
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E211.D
Acq On : 23 Mar 2010 3:04 pm
Operator : RXY1
InstName : VOA9
Sample : |249180001|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 23 15:40:40 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.665	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	12.103	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.186	0.000		0	N.D.	
44) Toluene	12.483	12.483	0.895	91	2570	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.637	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.	
47) 2-Hexanone	13.028	13.028	0.935	43	401	N.D.	
48) 1,3-Dichloropropane	0.000	13.052	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	13.088	0.000		0	N.D.	
50) Dibromochloromethane	0.000	13.325	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.503	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.977	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	14.024	0.000		0	N.D.	
54) Ethylbenzene	14.131	14.024	1.014	91	871	N.D.	
55) m,p-Xylenes	14.143	14.131	1.014	106	206	N.D.	
56) o-Xylene	0.000	14.570	0.000		0	N.D.	
57) Styrene	0.000	14.570	0.000		0	N.D.	
59) Bromoform	0.000	14.855	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.926	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.198	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.	
64) Bromobenzene	0.000	15.353	0.000		0	N.D.	
65) n-Propylbenzene	15.353	15.353	0.938	91	216	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.495	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.507	0.000		0	N.D.	
68) 4-Chlorotoluene	15.613	15.614	0.954	91	181	N.D.	
69) tert-Butylbenzene	0.000	15.874	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.910	15.910	0.972	105	195	N.D.	
71) sec-Butylbenzene	0.000	16.112	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	16.230	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	16.313	0.000		0m	N.D.	d
74) 1,4-Dichlorobenzene	0.000	16.408	0.000		0m	N.D.	d
75) n-Butylbenzene	0.000	16.693	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.859	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.922	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	19.088	0.000		0	N.D.	
80) Naphthalene	19.349	19.349	1.182	128	1167	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.717	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.	
85) Acrolein	0.000	7.313	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.550	0.000		0	N.D.	
88) Allyl chloride	8.071	7.929	0.749	41	402	N.D.	
89) tert-Butyl Alcohol	0.000	8.060	0.000		0	N.D.	
90) Acrylonitrile	0.000	8.332	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.866	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	9.008	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.	
94) Ethyl acetate	9.483	9.483	0.880	43	618	N.D.	

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Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	0.000	9.578	0.000		0	N.D.		
96)	Methacrylonitrile	9.874	9.744	0.916	41	189	N.D.		
97)	Tetrahydrofuran	9.874	9.874	0.916	42	627	N.D.		
98)	Isobutyl alcohol	0.000	10.159	0.000		0	N.D.		
99)	Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.		
100)	Methyl methacrylate	0.000	11.368	0.000		0	N.D.		
101)	1,4-Dioxane	11.487	11.487	1.066	88	182	N.D.		
102)	2-Nitropropane	0.000	11.854	0.000		0	N.D.		
104)	Ethyl methacrylate	0.000	12.613	0.000		0	N.D.		
106)	1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d	
107)	cis-1,4-Dichloro-2-butene	0.000	14.961	0.000		0	N.D.		
108)	Cyclohexanone	0.000	15.092	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000	15.246	0.000		0	N.D.		
110)	Pentachloroethane	0.000	15.957	0.000		0	N.D.		
111)	Benzyl chloride	16.527	16.527	1.009	91	213	N.D.		
112)	bis(2-Chloroisopropyl)...	0.000	16.918	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

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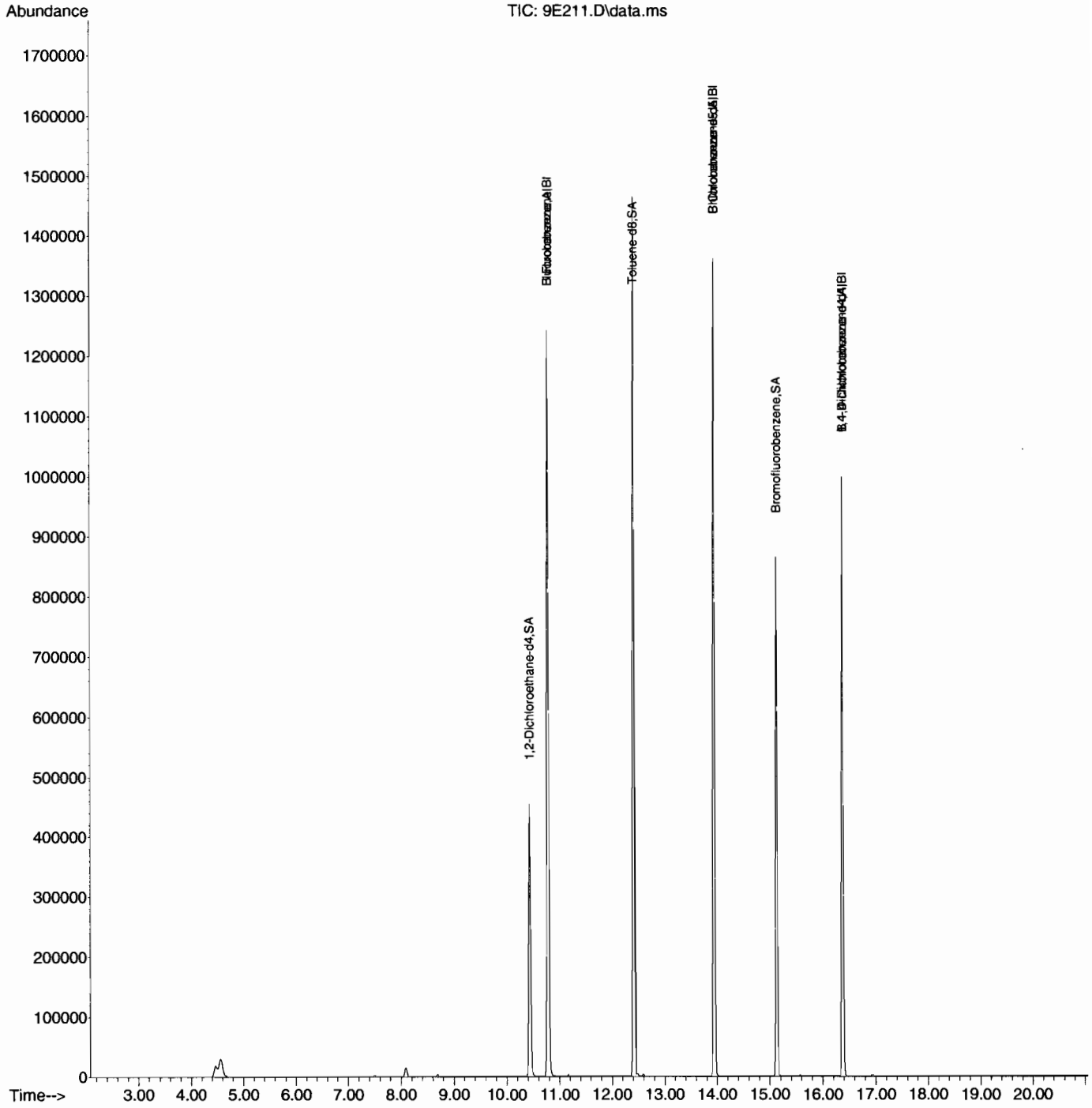

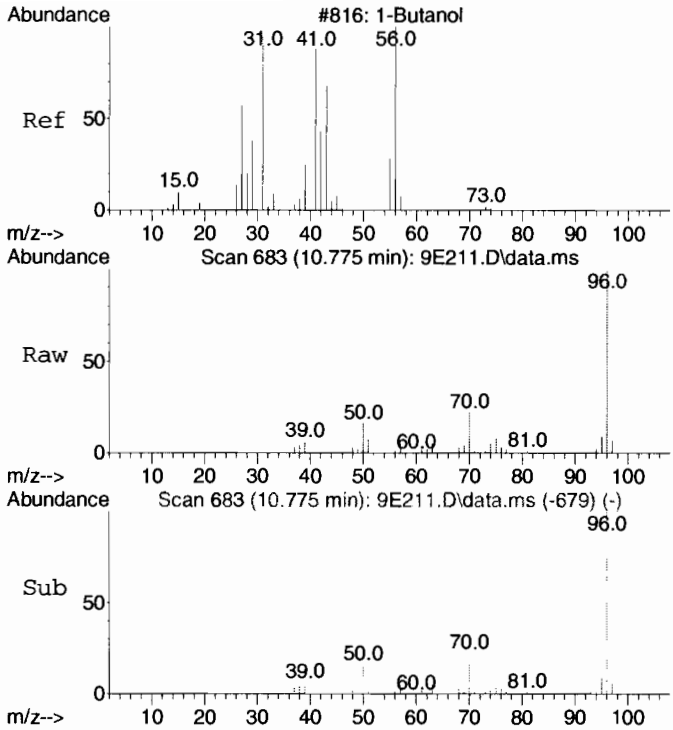

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 36.23 ug/L
RT: 10.775 min Scan# 683
Delta R.T. -0.071 min
Lab File: 9E211.D
Acq: 23 Mar 2010 3:04 pm

Tgt Ion: 56 Resp: 8420

Ion	Ratio	Lower	Upper
56	100		
41	0.0	33.0	93.0#
43	0.0	25.0	85.0#

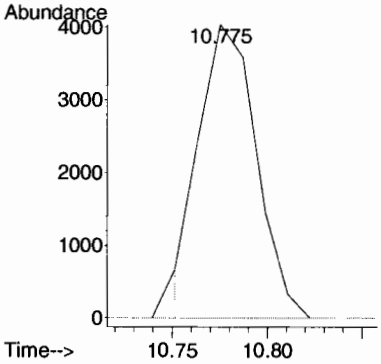

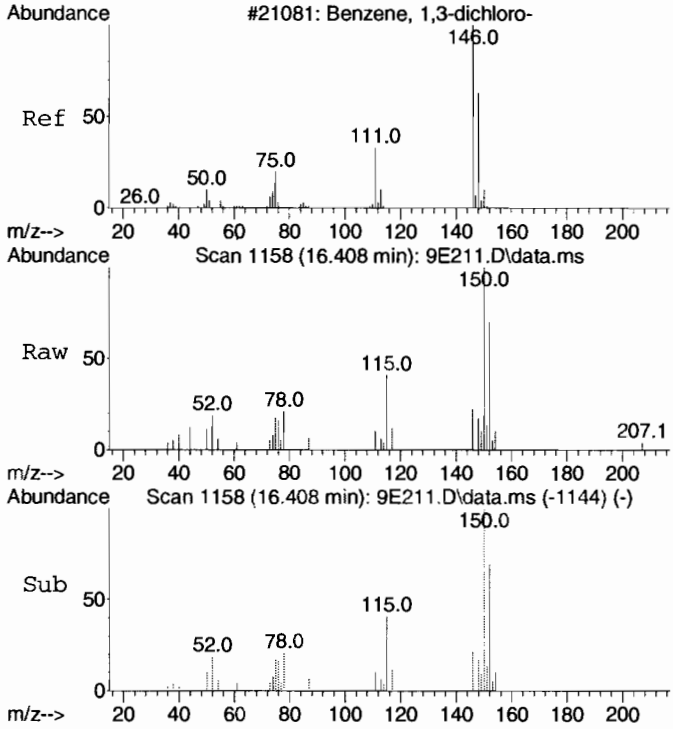

#73 BEFORE analyst DELETION
1,3-Dichlorobenzene
Concen: 0.33 ug/L
RT: 16.408 min Scan# 1158
Delta R.T. 0.095 min
Lab File: 9E211.D
Acq: 23 Mar 2010 3:04 pm

Tgt Ion:146 Resp: 2673

Ion	Ratio	Lower	Upper
146	100		
148	106.0	35.3	95.3#
111	198.1	17.9	77.9#

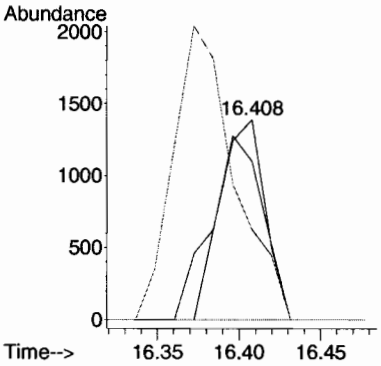

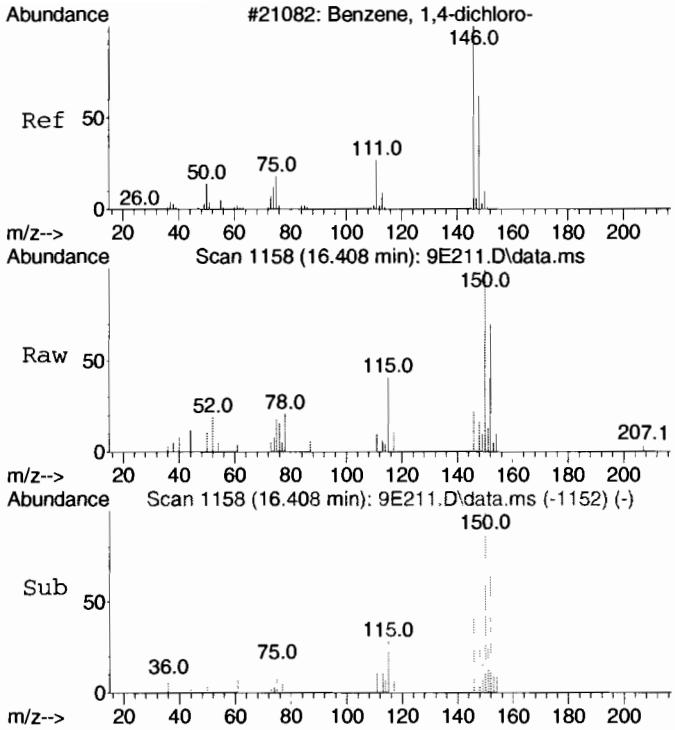

#74 BEFORE analyst DELETION
1,4-Dichlorobenzene
Concen: 0.34 ug/L
RT: 16.408 min Scan# 1158
Delta R.T. -0.000 min
Lab File: 9E211.D
Acq: 23 Mar 2010 3:04 pm

Tgt Ion:146 Resp: 2673

Ion	Ratio	Lower	Upper
146	100		
148	106.0	34.7	94.7#
111	0.0	16.9	76.9#

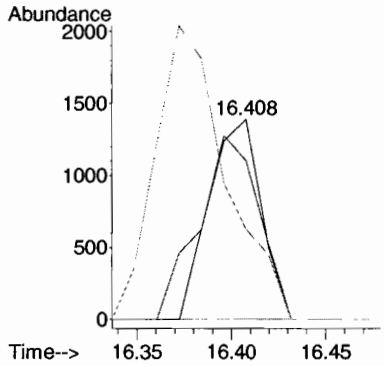

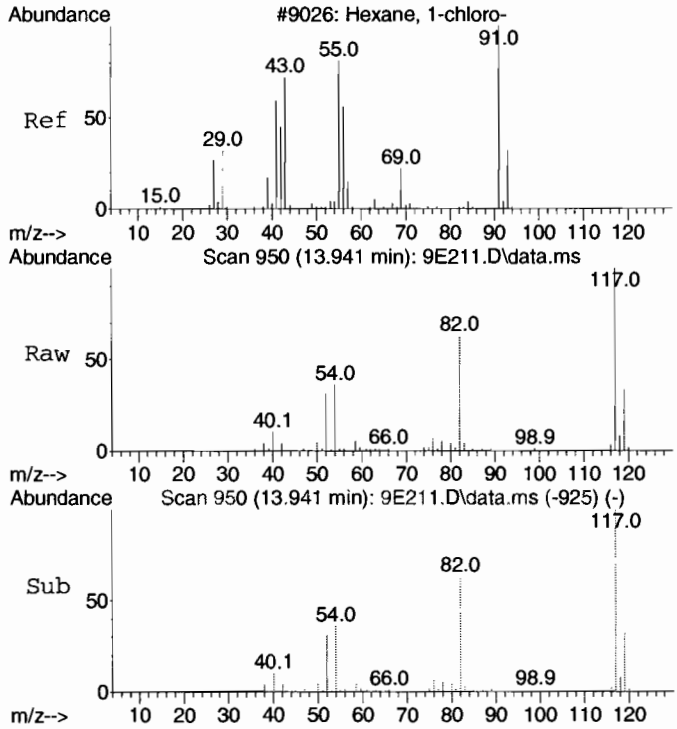

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.17 ug/L
RT: 13.941 min Scan# 950
Delta R.T. 0.118 min
Lab File: 9E211.D
Acq: 23 Mar 2010 3:04 pm

Tgt Ion: 55 Resp: 11323

Ion	Ratio	Lower	Upper
55	100		
91	15.6	74.8	134.8#
56	59.6	31.8	91.8

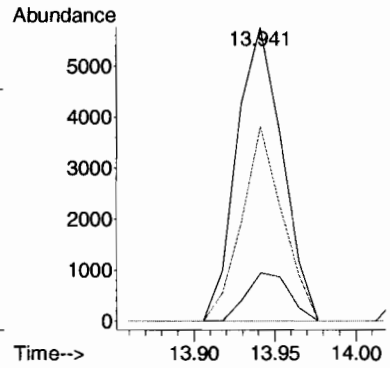

Library Search Compound Report
GEL Laboratories, LLC

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Data File : 9E211.D
Acq On : 23 Mar 2010 3:04 pm
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Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

```
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Data File : 9E211.D
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Operator  : RXY1
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Misc      : LANL 5.0g n/a SOIL
ALS Vial  : 11   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P

                                                  |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-----------------------------------------------------------------------------
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Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA9
GEL Laboratories, LLC
Method File : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Last Update : Fri Mar 19 08:59:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\031810V9\9D415.D

Injection Date	Mix	Calibration File
18 Mar 2010 4:15 pm	A	C:\msdchem\1\DATA\031810V9\9D415.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\031810V9\9D424.D

Injection Date	Mix	Calibration File
18 Mar 2010 4:44 pm	A	C:\msdchem\1\DATA\031810V9\9D416.D
18 Mar 2010 8:35 pm	B	C:\msdchem\1\DATA\031810V9\9D424.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\031810V9\9D425.D

Injection Date	Mix	Calibration File
18 Mar 2010 5:13 pm	A	C:\msdchem\1\DATA\031810V9\9D417.D
18 Mar 2010 9:03 pm	B	C:\msdchem\1\DATA\031810V9\9D425.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\031810V9\9D426.D

Injection Date	Mix	Calibration File
18 Mar 2010 5:42 pm	A	C:\msdchem\1\DATA\031810V9\9D418.D
18 Mar 2010 9:32 pm	B	C:\msdchem\1\DATA\031810V9\9D426.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\031810V9\9D427.D

Injection Date	Mix	Calibration File
18 Mar 2010 6:11 pm	A	C:\msdchem\1\DATA\031810V9\9D419.D
18 Mar 2010 10:00 pm	B	C:\msdchem\1\DATA\031810V9\9D427.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\031810V9\9D428.D

Injection Date	Mix	Calibration File
18 Mar 2010 6:40 pm	A	C:\msdchem\1\DATA\031810V9\9D420.D
18 Mar 2010 10:28 pm	B	C:\msdchem\1\DATA\031810V9\9D428.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\031810V9\9D429.D

Injection Date	Mix	Calibration File
18 Mar 2010 7:09 pm	A	C:\msdchem\1\DATA\031810V9\9D421.D
18 Mar 2010 10:56 pm	B	C:\msdchem\1\DATA\031810V9\9D429.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\031810V9\9D430.D

Injection Date	Mix	Calibration File
18 Mar 2010 7:38 pm	A	C:\msdchem\1\DATA\031810V9\9D422.D
18 Mar 2010 11:24 pm	B	C:\msdchem\1\DATA\031810V9\9D430.D

VOA9-8260-031810.M Fri Apr 02 09:02:20 2010

Response Factor Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Last Update : Fri Mar 19 08:59:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane 0.0021 | 0.1344 | 0.00	149327	1919 310831	4071	14362	28522	61702		LINR		0.9988
3)MPA Chloromethane	0.4120517	0.4712742 0.3768994	0.4424786	0.4516150	0.4024231	0.3951660	0.4217	AVRG		8.0766
4)MCA Vinyl chloride	0.2895469	0.2987588 0.2780623	0.2789071	0.2817620	0.2802476	0.2762361	0.2834	AVRG		2.8316
5)MA Bromomethane	0.2101730	0.1866341 0.1991642	0.2036681	0.1972152	0.1993577	0.1985130	0.1992	AVRG		3.5648
6)MA Chloroethane	0.2115322	0.1749888 0.2093785	0.1974889	0.2101261	0.2027615	0.2017931	0.2012	AVRG		6.2781
7)MA Trichlorofluoromethane	0.3404280	0.2973160 0.3222833	0.3538196	0.3451400	0.3348090	0.3314431	0.3322	AVRG		5.5308
8)MA Ethyl ether	0.2968919	0.3166390 0.2895621	0.3035694	0.2915923	0.2841173	0.2730420	0.2936	AVRG		4.7636
9)MA Acetone 0.0478 | 0.1794 | 0.00	1107116	45810 2082982	53619	125492	226725	405537		LINR		0.9948
10)MCA 1,1-Dichloroethylene	0.4665505	0.5236781 0.4244218	0.4928920	0.4981029	0.4797522	0.4832455	0.4812	AVRG		6.3887
11)MA Iodomethane	0.3179348	0.3719284 0.2686598	0.3497146	0.3593303	0.3381013	0.3289556	0.3335	AVRG		10.1643
12)MA Acetonitrile	0.0481267	0.0584904 0.0415332	0.0548614	0.0525264	0.0498356	0.0475844	0.0504	AVRG		10.9201
13)MA Methyl acetate	0.2693319	0.3267797 0.2261303	0.2931928	0.2884646	0.2768377	0.2630861	0.2777	AVRG		11.1077
14)MA Carbon disulfide	0.6675113	0.8444908 0.5580675	0.7958408	0.7850785	0.7447498	0.7180754	0.7305	AVRG		13.0220
15)MA Methylene chloride 0.0126 | 0.2541 | 0.00	300782	594943	15911	33682	60196	117345		LINR		0.9978
16)MA tert-Butyl methyl ether	0.7884413	0.7814722 0.6981018	0.7957265	0.7970439	0.7593261	0.7563686	0.7681	AVRG		4.5438

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle	0.4478414	0.5250694 0.4007142	0.4620778	0.4735219	0.4485765	0.4477366	0.4579	AVRG		8.1390
18)MA Vinyl acetate	0.7107425	0.6601034 0.6078196	0.7349582	0.7167073	0.7596726	0.7100188	0.7000	AVRG		7.2296
19)MPA 1,1-Dichloroethane	0.5587498	0.5788645 0.5039349	0.5669606	0.5896882	0.5524872	0.5485754	0.5570	AVRG		4.9469
20)MA 2-Butanone	0.2627998	0.2926785 0.2278665	0.2606473	0.2737673	0.2466760	0.2375635	0.2574	AVRG		8.5884
21)MA cis-1,2-Dichloroethylene	0.5258032	0.5256362 0.4728481	0.5219369	0.5424622	0.5185206	0.5269020	0.5192	AVRG		4.1921
22)MA 2,2-Dichloropropane	0.3500446	0.4055761 0.3126483	0.3517235	0.3602010	0.3544920	0.3452196	0.3543	AVRG		7.7355
23)MA Bromochloromethane	0.1216235	0.1265010 0.1090371	0.1290007	0.1299436	0.1242624	0.1181658	0.1226	AVRG		5.9305
24)MCA Chloroform	0.4729207	0.5108992 0.4113423	0.4978735	0.5085215	0.4840069	0.4689137	0.4792	AVRG		7.1207
25)MA 1,1,1-Trichloroethane	0.3687254	0.3753293 0.3273487	0.3625847	0.3708121	0.3783233	0.3710479	0.3649	AVRG		4.7361
26)MA Cyclohexane	0.5450356	0.5934984 0.5059284	0.5584132	0.5380444	0.5431927	0.5487327	0.5475	AVRG		4.7617
27)MA 1,1-Dichloropropene	0.3290592	0.3997020 0.2877138	0.3279595	0.3426156	0.3320485	0.3353153	0.3363	AVRG		9.8319
28)MA Carbon tetrachloride	0.3041122	0.3302423 0.2734578	0.2927355	0.3108677	0.3052338	0.3066467	0.3033	AVRG		5.7116
29)SA 1,2-Dichloroethane-d4	0.3734501	0.3861707 0.3599518	0.3910090	0.3891120	0.3801883	0.3764882	0.3795	AVRG		2.8415
30)MA 1,2-Dichloroethane	0.4845369	0.5402186 0.4192474	0.5183437	0.5281072	0.4888745	0.4780072	0.4939	AVRG		8.2041
31)MA Benzene	0.9436244	1.1058919 0.8281032	1.0409884	1.0440095	0.9863394	0.9637097	0.9875	AVRG		9.0545

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene	0.5020190	0.5445984 0.4485677	0.4980913	0.5092275	0.4966342	0.5002850	0.4999	AVRG		5.6214
33)MA n-Butyl alcohol	0.0082092 0.0113694	0.0094141 0.0101800	0.0072959	0.0093285	0.0097156	0.0101496	0.0095	AVRG	#	13.2376
34)MA Trichloroethylene	0.2519720	0.2775808 0.2238709	0.2559326	0.2713113	0.2542028	0.2502826	0.2550	AVRG		6.7500
35)MCA 1,2-Dichloropropane	0.3211550	0.3422999 0.2873955	0.3199838	0.3367752	0.3082171	0.3098360	0.3180	AVRG		5.8218
36)MA Methylcyclohexane	0.3901954	0.4347409 0.3496213	0.4043691	0.4013726	0.3955397	0.4031416	0.3970	AVRG		6.3630
37)MA Dibromomethane	0.1711642	0.1791110 0.1543128	0.1721189	0.1742601	0.1635626	0.1658174	0.1686	AVRG		4.8344
38)MA Bromodichloromethane	0.3800687	0.3904269 0.3393420	0.3545545	0.3860656	0.3613957	0.3646203	0.3681	AVRG		4.9999
39)MA 2-Chloroethylvinyl ether	0.1856276	0.1479985 0.1675712	0.1606152	0.2107679	0.1814181	0.1758405	0.1757	AVRG		11.4357
40)MA cis-1,3-Dichloropropylen	0.4440386	0.4067613 0.4006070	0.3904319	0.4156634	0.4167017	0.4249550	0.4142	AVRG		4.2045
42)MA 4-Methyl-2-pentanone	0.1914772	0.1701169 0.1726448	0.1743206	0.1838633	0.1798545	0.1800122	0.1789	AVRG		4.0963
43)SA Toluene-d8	1.2835723	1.2852894 1.2889948	1.2979357	1.2855113	1.2624162	1.2794251	1.2833	AVRG		0.8457
44)MCA Toluene	1.3602422	1.8686699 1.1785185	1.5837527	1.5244981	1.4359426	1.4021442	1.4791	AVRG		14.5276
45)MA trans-1,3-Dichloropropy1	0.5957197	0.5312630 0.5331454	0.5237604	0.5563112	0.5468346	0.5614192	0.5498	AVRG		4.4516
46)MA 1,1,2-Trichloroethane	0.2864509	0.2888996 0.2525739	0.2704519	0.2860737	0.2734942	0.2760172	0.2763	AVRG		4.5841
47)MA 2-Hexanone	0.5196011	0.5331562 0.4303084	0.5064437	0.5561928	0.4927807	0.4872368	0.5037	AVRG		7.9665

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane	0.5615789	0.6450018 0.4854013	0.6143381	0.5928234	0.5701504	0.5584500	0.5754	AVRG		8.7675
49)MA Tetrachloroethylene	0.1916193	0.2281280 0.1709383	0.2131062	0.2159354	0.2015810	0.2004034	0.2031	AVRG		9.1387
50)MA Dibromochloromethane	0.3630869	0.3194660 0.3293661	0.3002552	0.3256939	0.3198811	0.3348009	0.3275	AVRG		5.8353
51)MA 1,2-Dibromoethane	0.3359387	0.3380370 0.3007086	0.3092978	0.3212095	0.3049738	0.3132578	0.3176	AVRG		4.6333
52)MPA Chlorobenzene	0.8741407	0.9912766 0.7666128	0.9162511	0.9199677	0.8746065	0.8771313	0.8886	AVRG		7.6478
53)MA 1,1,1,2-Tetrachloroethan	0.3190071	0.3039298 0.2791432	0.3074140	0.3214907	0.3127177	0.3155679	0.3085	AVRG		4.6431
54)MCA Ethylbenzene	1.5144863	1.8617329 1.2644776	1.7008556	1.7267581	1.6195733	1.6102229	1.6140	AVRG		11.6940
55)MA m,p-Xylenes	0.5548287	0.6433760 0.4785705	0.5924661	0.5957020	0.5886744	0.5812649	0.5764	AVRG		8.7683
56)MA o-Xylene	0.5826258	0.6636452 0.5066425	0.6024319	0.6122857	0.5966562	0.6003589	0.5949	AVRG		7.8411
57)MA Styrene	0.9891097	0.9602044 0.8351015	0.8876912	1.0208757	0.9959356	1.0196882	0.9584	AVRG		7.4048
59)MPA Bromoform	0.4174495	0.3253033 0.3879514	0.3161922	0.3614811	0.3545746	0.3766844	0.3628	AVRG		9.7187
60)MA Isopropylbenzene	3.1168005	3.4470623 2.6879647	3.2272743	3.3849676	3.2412455	3.2422374	3.1925	AVRG		7.7594
61)SA Bromofluorobenzene	1.1926123	1.1805192 1.2051761	1.2015271	1.1695322	1.1644962	1.1716801	1.1836	AVRG		1.3721
62)MPA 1,1,2,2-Tetrachloroethan	0.9838480	1.0780634 0.8809333	0.9509164	0.9741060	0.9320720	0.9597603	0.9657	AVRG		6.2127
63)MA 1,2,3-Trichloropropane	0.2496302	0.2977405 0.2217852	0.2285717	0.2421309	0.2257436	0.2309208	0.2424	AVRG		10.8387

Response Factor Report VOA9
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene	0.6942035	0.8200321 0.5998297	0.7488890	0.7538991	0.7087334	0.6926980	0.7169	AVRG		9.5122
65)MA n-Propylbenzene	3.8598203	4.5240357 3.2480300	4.1925521	4.3572023	4.2390988	4.0937167	4.0735	AVRG		10.2819
66)MA 1,3,5-Trimethylbenzene	2.6599071	2.8892661 2.2542846	2.7053434	2.8742285	2.7670295	2.7874389	2.7054	AVRG		7.9624
67)MA 2-Chlorotoluene	0.7535549	0.8700188 0.6699195	0.8285220	0.8521985	0.8098623	0.7789167	0.7947	AVRG		8.5752
68)MA 4-Chlorotoluene	2.6480292	3.0438980 2.3070927	2.8120855	2.8324388	2.7023171	2.6868826	2.7190	AVRG		8.2664
69)MA tert-Butylbenzene	0.5133845	0.5226030 0.4717807	0.5008730	0.5272054	0.5160215	0.5235884	0.5108	AVRG		3.7718
70)MA 1,2,4-Trimethylbenzene	2.8225735	2.9353598 2.4203613	2.9267344	3.0852043	2.9869239	2.9266828	2.8720	AVRG		7.4555
71)MA sec-Butylbenzene	3.5433195	4.0118660 3.0708942	3.6961973	3.8449352	3.7634873	3.7699714	3.6715	AVRG		8.1850
72)MA 4-Isopropyltoluene	2.8287417	2.8805456 2.4924653	2.7670650	2.9136793	2.9435893	2.9227596	2.8213	AVRG		5.5748
73)MA 1,3-Dichlorobenzene	1.4072419	1.6769703 1.2426680	1.4964871	1.5193995	1.5046853	1.4456293	1.4704	AVRG		8.9273
74)MA 1,4-Dichlorobenzene	1.3998728	1.6976813 1.2218414	1.5352144	1.5222686	1.4258695	1.4112021	1.4591	AVRG		10.0841
75)MA n-Butylbenzene	3.0958995	3.1762617 2.6693683	3.1283584	3.2795265	3.2616732	3.2559294	3.1239	AVRG		6.8005
76)MA 1,2-Dichlorobenzene	1.4343985	1.5484996 1.2518997	1.5300508	1.5161249	1.4523245	1.4254607	1.4513	AVRG		6.9231
77)MA 1,2-Dibromo-3-chloroprop -0.0015 | 0.1521 | 0.00	59410	582 116461	1172	3935	9251	19656		LINR		0.9977
78)MA 1,2,4-Trichlorobenzene	0.9196630	0.9217185 0.8093473	0.8795936	0.9106105	0.9029299	0.9314725	0.8965	AVRG		4.6703

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene		0.4092374	0.4114775	0.4359541	0.4232656	0.4236203				
	0.4171111	0.3764255					0.4139	AVRG		4.5320
80)MA Naphthalene		2.4859461	2.3090341	2.3851952	2.5340709	2.6588818				
	2.7108632	2.3426319					2.4895	AVRG		6.2382
81)MA 1,2,3-Trichlorobenzene		0.8317112	0.8167425	0.8669496	0.8228523	0.8392577				
	0.8385672	0.7269796					0.8204	AVRG		5.3886
83)B Chlorotrifluoroethylene		0.0693397	0.0800795	0.0920268	0.0727330	0.1020500				
	0.0782915	0.0971192					0.0845	AVRG		14.8899
84)B 2-Chloro-1,1,1-trifluoro		0.2144030	0.2260909	0.2220513	0.2018859	0.2109580				
	0.2122209	0.2063493					0.2134	AVRG		3.9506
85)B Acrolein		0.0493030	0.0538629	0.0528653	0.0534173	0.0640229				
	0.0535021	0.0580606					0.0550	AVRG		8.5863
86)B Trichlorotrifluoroethane		0.0926059	0.0932133	0.0942187	0.0940609	0.0979076				
	0.0748173	0.0812333					0.0897	AVRG		9.3335
87)B Isopropyl Alcohol		0.0252098	0.0227194	0.0234091	0.0222381	0.0252378				
	0.0235999	0.0231502					0.0237	AVRG		4.9197
88)B Allyl chloride		0.5188750	0.5243242	0.5050315	0.5077527	0.5449555				
	0.4171357	0.4383678					0.4938	AVRG		9.5880
89)B tert-Butyl Alcohol		0.0352415	0.0340146	0.0344995	0.0320719	0.0376516				
	0.0337790	0.0330817					0.0343	AVRG		5.1765
90)B Acrylonitrile		0.1303426	0.1279567	0.1225688	0.1229624	0.1408351				
	0.1151114	0.1240221					0.1263	AVRG		6.3509
91)B Isopropyl ether		1.2248979	1.3148830	1.2618340	1.2391498	1.3258316				
	1.2553254	1.2082684					1.2615	AVRG		3.5005
92)B 2-Chloro-1,3-butadiene		0.3828327	0.4174087	0.4205823	0.4372690	0.4995936				
	0.4182148	0.4695041					0.4351	AVRG		8.8469
93)B Ethyl tert-butyl ether		1.0119302	1.0223851	1.0514426	1.0227670	1.1154229				
	1.0567478	1.0400390					1.0458	AVRG		3.3257
94)B Ethyl acetate		0.3758145	0.3445791	0.3323869	0.3213830	0.3700175				
	0.2914100	0.2882504					0.3320	AVRG		10.4331

Response Factor Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Last Update : Fri Mar 19 08:59:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile	0.0466844	0.0512057 0.0488949	0.0492601	0.0481138	0.0477636	0.0550616	0.0496	AVRG		5.6520
96)B Methacrylonitrile	0.1874712	0.2094961 0.1842053	0.2077265	0.2034933	0.2004072	0.2295140	0.2032	AVRG		7.4331
97)B Tetrahydrofuran	0.0976262	0.1161308 0.1035943	0.1086039	0.1074921	0.1053073	0.1229553	0.1088	AVRG		7.6889
98)B Isobutyl alcohol	0.0128926	0.0137127 0.0116896	0.0132212	0.0128955	0.0127603	0.0146387	0.0131	AVRG		6.9220
99)B Methyl tert-amyl ether	0.7691415	0.6914773 0.7443536	0.7180940	0.7264643	0.7185699	0.8101957	0.7398	AVRG		5.3140
100)B Methyl methacrylate	0.1561904	0.1550274 0.1488426	0.1630352	0.1615335	0.1618532	0.1860541	0.1618	AVRG		7.2918
101)B 1,4-Dioxane	0.0024461	0.0030969 0.0024977	0.0023671	0.0024114	0.0024549	0.0026420	0.0026	AVRG	#	9.8602
102)B 2-Nitropropane -0.0032 | 0.0981 | 0.00	558093	8581 1167741	17486	44218	101463	239692		LINR		0.9992
104)B Ethyl methacrylate	0.4246111	0.4198968 0.3806667	0.4390819	0.4571025	0.4511158	0.5047694	0.4396	AVRG		8.6979
106)B 1-Chlorohexane	0.9707222	0.8969558 0.9677945	0.9252551	0.9680744	0.9694601	1.0042067	0.9575	AVRG		3.6734
107)B cis-1,4-Dichloro-2-buten	0.3702177	0.3321008 0.3578202	0.3551552	0.3522064	0.3700453	0.4137344	0.3645	AVRG		6.9232
108)B Cyclohexanone	0.0359783	0.0309253 0.0390447	0.0300413	0.0336010	0.0338675	0.0394991	0.0347	AVRG		10.6118
109)B trans-1,4-Dichloro-2-but	0.3421290	0.3375894 0.3315345	0.3334192	0.3452397	0.3479834	0.3890433	0.3467	AVRG		5.6557
110)B Pentachloroethane	0.2901875	0.2742996 0.2508367	0.3254091	0.2986907	0.3190641	0.3080368	0.2952	AVRG		8.8429
111)B Benzyl chloride	1.2382863	1.0836213 1.0978074	1.1502359	1.2368760	1.2770757	1.4288379	1.2161	AVRG		9.8322

Response Factor Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Last Update : Fri Mar 19 08:59:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
12)B bis(2-Chloroisopropyl)et		0.6449783	0.6666371	0.6034990	0.5890720	0.6973494				
	0.6018420	0.5856541					0.6270	AVRG		6.8835

(#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-2398

Instrument ID: VOA9.I **Injection Date** 19-MAR-10 00:19

Data File: 031810V9\9D432.D **Init. Cal. Date(s)** 18-MAR-10 16:15 - 18-MAR-10 23:2

Lab Sample ID W9VM100318-21 **Quant Type** ISTD **Method:** 031810V9\VOA9-8260-031810.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.3795	0.34169		.01		-9.96311	30		Averaged
S	Toluene-d8	1.2833	1.31632		.01		2.57305	30		Averaged
S	Bromofluorobenzene	1.1836	1.21501		.01		2.65377	30		Averaged
	Chlorotrifluoroethylene	0.0845	0.08749		.01		3.53846	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.2134	0.22401		.01		4.97188	30		Averaged
	Acrolein	0.055	0.04938		.01		-10.21818	30		Averaged
	Trichlorotrifluoroethane	0.0897	0.07114		.01		-20.69119	30		Averaged
	Isopropyl Alcohol	0.0237	0.02315		.01		-2.32068	40		Averaged
	Allyl chloride	0.4938	0.44321		.01		-10.24504	30		Averaged
	tert-Butyl Alcohol	0.0343	0.03301		.01		-3.76093	40		Averaged
	Acrylonitrile	0.1263	0.10593		.01		-16.12827	30		Averaged
	Isopropyl ether	1.2615	1.2958		.01		2.71899	30		Averaged
	2-Chloro-1,3-butadiene	0.4351	0.44473		.01		2.21328	30		Averaged
	Ethyl tert-butyl ether	1.0458	1.09522		.01		4.72557	30		Averaged
	Ethyl acetate	0.332	0.23619		.01		-28.85843	40		Averaged
	Propionitrile	0.0496	0.03983		.01		-19.69758	30		Averaged
	Methacrylonitrile	0.2032	0.1631		.01		-19.73425	30		Averaged
	Tetrahydrofuran	0.1088	0.08397		.01		-22.82169	30		Averaged
	Isobutyl alcohol	0.0131	0.00938		.01		-28.39695	40		Averaged
	Methyl tert-amyl ether	0.7398	0.77513		.01		4.77562	30		Averaged
	Methyl methacrylate	0.1618	0.13541		.01		-16.31026	30		Averaged
	1,4-Dioxane	0.0026	0.00195		.01		-25	40		Averaged
	2-Nitropropane	250	192.77	250			-22.892	30		Linear
	Ethyl methacrylate	0.4396	0.3706		.01		-15.69609	30		Averaged
	1-Chlorohexane	0.9575	1.01264		.01		5.75875	30		Averaged
	cis-1,4-Dichloro-2-butene	0.3645	0.32333		.01		-11.29492	30		Averaged
	Cyclohexanone	0.0347	0.02352		.01		-32.21902	40		Averaged
	trans-1,4-Dichloro-2-butene	0.3467	0.30269		.01		-12.69397	30		Averaged
	Pentachloroethane	0.2952	0.24563		.01		-16.79201	30		Averaged
	Benzyl chloride	1.2161	0.98367		.01		-19.11274	30		Averaged
	bis(2-Chloroisopropyl)ether	0.627	0.49746		.01		-20.66029	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031810V9\
Data File : 9D432.D
Acq On : 19 Mar 2010 12:19 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100318-21|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]0304-08A/0226-02B
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 19 09:23:10 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.775	10.775	1.000	96	1238483	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.942	13.941	1.000	117	855951	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.373	16.372	1.000	152	389570	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	1238483	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.942	13.942	1.000	117	855911	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.373	16.372	1.000	152	389591	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	423177	45.02	ug/L	0.00
43) Toluene-d8	12.412	12.412	0.890	98	1126709	51.29	ug/L	0.00
61) Bromofluorobenzene	15.127	15.127	0.924	95	473332	51.32	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	5.308	5.308	0.493		0m	N.D.	d	
4) Vinyl chloride	5.560	5.546	0.516		0m	N.D.	d	
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	0.000	7.099	0.000		0	N.D.		
9) Acetone	7.562	7.490	0.702		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.479	7.502	0.694		0m	N.D.	d	
11) Iodomethane	0.000	7.763	0.000		0	N.D.		
12) Acetonitrile	7.941	7.858	0.737		0m	N.D.	d	
13) Methyl acetate	7.882	7.882	0.731		0m	N.D.	d	
14) Carbon disulfide	7.941	7.906	0.737		0m	N.D.	d	
15) Methylene chloride	8.083	8.083	0.750		0m	N.D.	d	
16) tert-Butyl methyl ether	8.368	8.368	0.777		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	8.427	0.000		0	N.D.		
18) Vinyl acetate	8.866	8.854	0.823		0m	N.D.	d	
19) 1,1-Dichloroethane	9.008	8.913	0.836		0m	N.D.	d	
20) 2-Butanone	9.483	9.483	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.483	9.554	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	9.862	9.850	0.915		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	10.171	10.230	0.944		0m	N.D.	d	
27) 1,1-Dichloropropene	0.000	10.289	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.526	10.514	0.977		0m	N.D.	d	
31) Benzene	10.526	10.538	0.977		0m	N.D.	d	
32) Cyclohexene	0.000	10.645	0.000		0	N.D.		
33) n-Butyl alcohol	10.858	10.846	1.008		0m	N.D.	d	
34) Trichloroethylene	11.178	11.167	1.037		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	11.368	11.416	1.055		0m	N.D.	d	
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.665	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	11.866	11.866	1.101		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	0.000	12.103	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031810V9\
Data File : 9D432.D
Acq On : 19 Mar 2010 12:19 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100318-21|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]0304-08A/0226-02B
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 19 09:23:10 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42)	4-Methyl-2-pentanone	0.000	12.186	0.000		0	N.D.			
44)	Toluene	12.483	12.483	0.895		0m	N.D.	d		
45)	trans-1,3-Dichloroprop...	0.000	12.637	0.000		0	N.D.			
46)	1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.			
47)	2-Hexanone	13.028	13.028	0.935		0m	N.D.	d		
48)	1,3-Dichloropropane	13.088	13.052	0.939		0m	N.D.	d		
49)	Tetrachloroethylene	13.076	13.088	0.938		0m	N.D.	d		
50)	Dibromochloromethane	0.000	13.325	0.000		0	N.D.			
51)	1,2-Dibromoethane	0.000	13.503	0.000		0	N.D.			
52)	Chlorobenzene	13.977	13.977	1.003		0m	N.D.	d		
53)	1,1,1,2-Tetrachloroethane	0.000	14.024	0.000		0	N.D.			
54)	Ethylbenzene	14.131	14.024	1.014		0m	N.D.	d		
55)	m,p-Xylenes	14.131	14.131	1.014		0m	N.D.	d		
56)	o-Xylene	0.000	14.570	0.000		0	N.D.			
57)	Styrene	0.000	14.570	0.000		0	N.D.			
59)	Bromoform	0.000	14.855	0.000		0	N.D.			
60)	Isopropylbenzene	14.926	14.926	0.912		0m	N.D.	d		
62)	1,1,2,2-Tetrachloroethane	15.246	15.198	0.931		0m	N.D.	d		
63)	1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.			
64)	Bromobenzene	0.000	15.353	0.000		0	N.D.			
65)	n-Propylbenzene	15.341	15.353	0.937		0m	N.D.	d		
66)	1,3,5-Trimethylbenzene	15.495	15.495	0.946		0m	N.D.	d		
67)	2-Chlorotoluene	15.507	15.507	0.947		0m	N.D.	d		
68)	4-Chlorotoluene	15.614	15.614	0.954		0m	N.D.	d		
69)	tert-Butylbenzene	15.957	15.874	0.975		0m	N.D.	d		
70)	1,2,4-Trimethylbenzene	15.910	15.910	0.972		0m	N.D.	d		
71)	sec-Butylbenzene	16.100	16.112	0.983		0m	N.D.	d		
72)	4-Isopropyltoluene	16.218	16.230	0.991		0m	N.D.	d		
73)	1,3-Dichlorobenzene	16.313	16.313	0.996		0m	N.D.	d		
74)	1,4-Dichlorobenzene	16.396	16.408	1.001		0m	N.D.	d		
75)	n-Butylbenzene	0.000	16.693	0.000		0	N.D.			
76)	1,2-Dichlorobenzene	0.000	16.859	0.000		0	N.D.			
77)	1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.			
78)	1,2,4-Trichlorobenzene	0.000	18.922	0.000		0	N.D.			
79)	Hexachlorobutadiene	0.000	19.088	0.000		0	N.D.			
80)	Naphthalene	19.349	19.349	1.182		0m	N.D.	d		
81)	1,2,3-Trichlorobenzene	0.000	19.717	0.000		0	N.D.			
83)	Chlorotrifluoroethylene	4.860	4.860	0.451	116	325073	155.28	ug/L		99
84)	2-Chloro-1,1,1-trifluo...	5.714	5.700	0.530	118	832293	157.44	ug/L	#	98
85)	Acrolein	7.313	7.313	0.679	56	305805	224.45	ug/L		99
86)	Trichlorotrifluoroethane	7.467	7.467	0.693	85	440549	198.23	ug/L		96
87)	Isopropyl Alcohol	7.562	7.550	0.702	45	1433842	2447.44	ug/L		92
88)	Allyl chloride	7.941	7.929	0.737	41	2744564	224.40	ug/L		94
89)	tert-Butyl Alcohol	8.060	8.060	0.748	59	2043976	2403.41	ug/L		92
90)	Acrylonitrile	8.344	8.332	0.774	53	655943	209.74	ug/L		96
91)	Isopropyl ether	8.866	8.866	0.823	45	1604825	51.36	ug/L		97
92)	2-Chloro-1,3-butadiene	9.020	9.008	0.837	53	550786	51.11	ug/L		96
93)	Ethyl tert-butyl ether	9.281	9.269	0.861	59	1356416	52.36	ug/L		100
94)	Ethyl acetate	9.483	9.483	0.880	43	1462599	177.87	ug/L		94
95)	Propionitrile	9.578	9.578	0.889	54	246668	200.90	ug/L		99
96)	Methacrylonitrile	9.755	9.744	0.905	41	1009990	200.68	ug/L		98
97)	Tetrahydrofuran	9.874	9.874	0.916	42	519977	192.92	ug/L		95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031810V9\
Data File : 9D432.D
Acq On : 19 Mar 2010 12:19 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100318-21|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]0304-08A/0226-02B
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 19 09:23:10 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98)	Isobutyl alcohol	10.171	10.159	0.944	41	580879	1788.02	ug/L	90
99)	Methyl tert-amyl ether	10.538	10.526	0.978	73	959981	52.39	ug/L	97
100)	Methyl methacrylate	11.368	11.368	1.055	69	838497	209.23	ug/L	87
101)	1,4-Dioxane	11.487	11.487	1.066	88	120451	1899.95	ug/L	96
102)	2-Nitropropane	11.866	11.854	1.101	43	464663	192.77	ug/L	98
104)	Ethyl methacrylate	12.613	12.613	0.905	69	1586003	210.76	ug/L	91
106)	1-Chlorohexane	13.823	13.823	0.844	55	394516	52.88	ug/L	98
107)	cis-1,4-Dichloro-2-butene	14.961	14.961	0.914	53	629828	221.78	ug/L	98
108)	Cyclohexanone	15.104	15.092	0.923	42	229033	846.89	ug/L	87
109)	trans-1,4-Dichloro-2-b...	15.246	15.246	0.931	53	589628	218.26	ug/L	94
110)	Pentachloroethane	15.957	15.957	0.975	167	478480	208.01	ug/L	90
111)	Benzyl chloride	16.527	16.527	1.009	91	1916149	202.22	ug/L	97
112)	bis(2-Chloroisopropyl)...	16.918	16.918	1.033	45	969024	198.35	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031810V9\
Data File : 9D432.D
Acq On : 19 Mar 2010 12:19 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100318-21|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]0304-08A/0226-02B
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 19 09:23:10 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

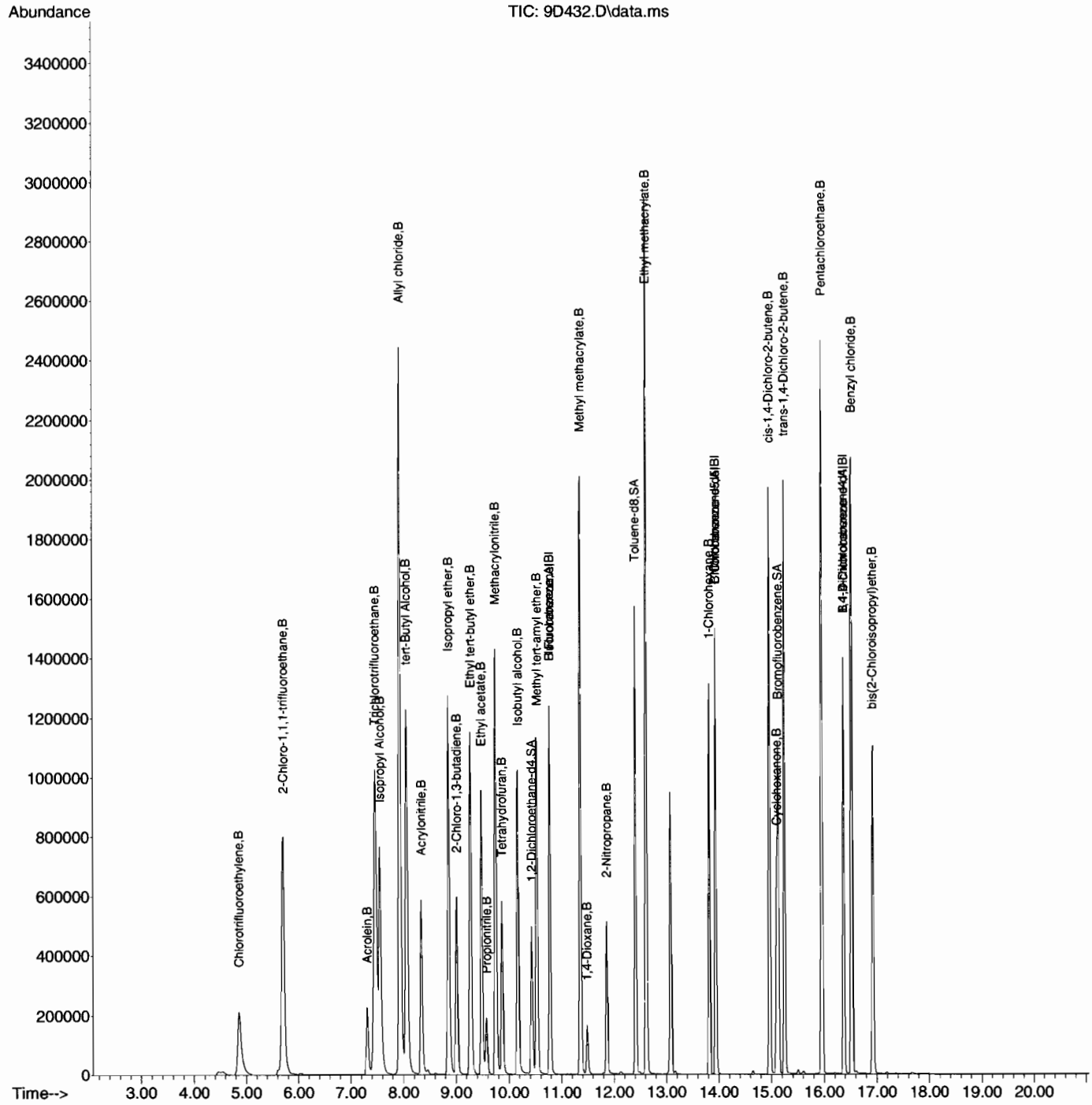

Continuing Calibration Summary

Client SDG: 10-2398

Instrument ID: VOA9.I **Injection Date** 19-MAR-10 00:47

Data File: 031810V9\9D433.D **Init. Cal. Date(s)** 18-MAR-10 16:15 - 18-MAR-10 23:2

Lab Sample ID W9VM100318-22 **Quant Type** ISTD **Method:** 031810V9\VOA9-8260-031810.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.3795	0.33422		.01		-11.93149	30		Averaged	
S	Toluene-d8	1.2833	1.30108		.01		1.38549	30		Averaged	
S	Bromofluorobenzene	1.1836	1.19106		.01		0.63028	30		Averaged	
	Dichlorodifluoromethane	50	50.41	50			0.82	30		Linear	
	Chloromethane	0.4217	0.36233		.1		-14.07873	30		Averaged	spcc
	Vinyl chloride	0.2834	0.27963		.01		-1.33028	20		Averaged	ccc
	Bromomethane	0.1992	0.19573		.01		-1.74197	30		Averaged	
	Chloroethane	0.2012	0.20408		.01		1.43141	30		Averaged	
	Trichlorofluoromethane	0.3322	0.29639		.01		-10.77965	30		Averaged	
	Ethyl ether	0.2936	0.27399		.01		-6.67916	30		Averaged	
	Acetone	250	184.52	250			-26.192	40		Linear	
	1,1-Dichloroethylene	0.4812	0.40535		.01		-15.76268	20		Averaged	ccc
	Iodomethane	0.3335	0.28407		.01		-14.82159	30		Averaged	
	Acetonitrile	0.0504	0.04151		.01		-17.63889	30		Averaged	
	Methyl acetate	0.2777	0.23001		.01		-17.17321	40		Averaged	
	Carbon disulfide	0.7305	0.62817		.01		-14.00821	30		Averaged	
	Methylene chloride	50	51.75	50			3.5	30		Linear	
	tert-Butyl methyl ether	0.7681	0.71053		.01		-7.49512	30		Averaged	
	trans-1,2-Dichloroethylene	0.4579	0.41214		.01		-9.99345	30		Averaged	
	Vinyl acetate	0.7	0.59755		.01		-14.63571	40		Averaged	
	1,1-Dichloroethane	0.557	0.5257		.1		-5.61939	30		Averaged	spcc
	2-Butanone	0.2574	0.18365		.01		-28.6519	40		Averaged	
	cis-1,2-Dichloroethylene	0.5192	0.48844		.01		-5.9245	30		Averaged	
	2,2-Dichloropropane	0.3543	0.2996		.01		-15.43889	30		Averaged	
	Bromochloromethane	0.1226	0.11398		.01		-7.031	30		Averaged	
	Chloroform	0.4792	0.42619		.01		-11.06219	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3649	0.32092		.01		-12.05262	30		Averaged	
	Cyclohexane	0.5475	0.51259		.01		-6.37626	30		Averaged	
	1,1-Dichloropropene	0.3363	0.29849		.01		-11.24294	30		Averaged	
	Carbon tetrachloride	0.3033	0.26048		.01		-14.11803	30		Averaged	
	1,2-Dichloroethane	0.4939	0.42021		.01		-14.92002	30		Averaged	
	Benzene	0.9875	0.90124		.01		-8.73519	30		Averaged	
	Cyclohexene	0.4999	0.4486		.01		-10.26205	30		Averaged	
	n-Butyl alcohol	0.0095	0.00953		.01		0.31579	40		Averaged	
	Trichloroethylene	0.255	0.23109		.01		-9.37647	30		Averaged	
	1,2-Dichloropropane	0.318	0.30955		.01		-2.65723	20		Averaged	ccc
	Methylcyclohexane	0.397	0.36386		.01		-8.34761	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Dat** 19-MAR-10 00:47

Data File: 031810V9\9D433.D **Init. Cal. Date(s)** 18-MAR-10 16:15 18-MAR-10 23:2

Lab Sample ID W9VM100318-22 **Quant Type** ISTD **Method:** 031810V9\VOA9-8260-031810.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1686	0.15204		.01		-9.82206	30		Averaged	
Bromodichloromethane	0.3681	0.34328		.01		-6.74273	30		Averaged	
2-Chloroethylvinyl ether	0.1757	0.13999		.01		-20.32442	30		Averaged	
cis-1,3-Dichloropropylene	0.4142	0.40023		.01		-3.37277	30		Averaged	
4-Methyl-2-pentanone	0.1789	0.17568		.01		-1.79989	40		Averaged	
Toluene	1.4791	1.31303		.01		-11.22777	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.5498	0.5431		.01		-1.21862	30		Averaged	
1,1,2-Trichloroethane	0.2763	0.26833		.01		-2.88455	30		Averaged	
2-Hexanone	0.5037	0.35747		.01		-29.03117	40		Averaged	
1,3-Dichloropropane	0.5754	0.53689		.01		-6.69274	30		Averaged	
Tetrachloroethylene	0.2031	0.18152		.01		-10.62531	30		Averaged	
Dibromochloromethane	0.3275	0.32585		.01		-0.50382	30		Averaged	
1,2-Dibromoethane	0.3176	0.30681		.01		-3.39736	30		Averaged	
Chlorobenzene	0.8886	0.84421		.3		-4.9955	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3085	0.29605		.01		-4.03566	30		Averaged	
Ethylbenzene	1.614	1.42459		.01		-11.73544	20		Averaged	ccc
m,p-Xylenes	0.5764	0.53468		.01		-7.23803	30		Averaged	
o-Xylene	0.5949	0.56188		.01		-5.55051	30		Averaged	
Styrene	0.9584	0.93929		.01		-1.99395	30		Averaged	
Bromoform	0.3628	0.36932		.1		1.79713	30		Averaged	spcc
Isopropylbenzene	3.1925	2.98089		.01		-6.62835	30		Averaged	
1,1,2,2-Tetrachloroethane	0.9657	0.90738		.3		-6.03914	30		Averaged	spcc
1,2,3-Trichloropropane	0.2424	0.21765		.01		-10.2104	30		Averaged	
Bromobenzene	0.7169	0.6691		.01		-6.6676	30		Averaged	
n-Propylbenzene	4.0735	3.64386		.01		-10.5472	30		Averaged	
1,3,5-Trimethylbenzene	2.7054	2.51429		.01		-7.06402	30		Averaged	
2-Chlorotoluene	0.7947	0.74791		.01		-5.88776	30		Averaged	
4-Chlorotoluene	2.719	2.51643		.01		-7.45017	30		Averaged	
tert-Butylbenzene	0.5108	0.4986		.01		-2.38841	30		Averaged	
1,2,4-Trimethylbenzene	2.872	2.67732		.01		-6.77855	30		Averaged	
sec-Butylbenzene	3.6715	3.38452		.01		-7.81642	30		Averaged	
4-Isopropyltoluene	2.8213	2.66029		.01		-5.70694	30		Averaged	
1,3-Dichlorobenzene	1.4704	1.33647		.01		-9.10841	30		Averaged	
1,4-Dichlorobenzene	1.4591	1.32736		.01		-9.02885	30		Averaged	
n-Butylbenzene	3.1239	2.88699		.01		-7.58379	30		Averaged	
1,2-Dichlorobenzene	1.4513	1.34143		.01		-7.57045	30		Averaged	
1,2-Dibromo-3-chloropropane	50	42.7	50			-14.6	30		Linear	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Dat** 19-MAR-10 00:47

Data File: 031810V9\9D433.D **Init. Cal. Date(s)** 18-MAR-10 16:15 18-MAR-10 23:2

Lab Sample ID W9VM100318-22 **Quant Type** ISTD **Method:** 031810V9\VOA9-8260-031810.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8965	0.8108		.01		-9.5594	30		Averaged
Hexachlorobutadiene	0.4139	0.38984		.01		-5.813	30		Averaged
Naphthalene	2.4895	2.30762		.01		-7.30588	30		Averaged
1,2,3-Trichlorobenzene	0.8204	0.7559		.01		-7.86202	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031810V9\
Data File : 9D433.D
Acq On : 19 Mar 2010 12:47 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100318-22|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A]0305-01C/0316-01
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 19 09:23:12 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.775	10.775	1.000	96	1278320	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.941	13.941	1.000	117	883830	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	410014	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	1278320	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	883830	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	409988	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	427244	44.04	ug/L	0.00
43) Toluene-d8	12.412	12.412	0.890	98	1149934	50.69	ug/L	0.00
61) Bromofluorobenzene	15.127	15.127	0.924	95	488351	50.31	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.958	4.944	0.460	85	175893	50.41	ug/L	100
3) Chloromethane	5.308	5.308	0.493	50	463168	42.96	ug/L	98
4) Vinyl chloride	5.560	5.546	0.516	62	357461	49.34	ug/L	99
5) Bromomethane	6.186	6.186	0.574	94	250205	49.12	ug/L	99
6) Chloroethane	6.340	6.340	0.588	64	260881	50.73	ug/L	100
7) Trichlorofluoromethane	6.779	6.767	0.629	101	378884	44.61	ug/L	100
8) Ethyl ether	7.099	7.099	0.659	59	350242	46.65	ug/L	94
9) Acetone	7.490	7.490	0.695	43	907580	184.52	ug/L	95
10) 1,1-Dichloroethylene	7.514	7.502	0.697	61	518168	42.12	ug/L	99
11) Iodomethane	7.775	7.763	0.722	142	1815675	212.94	ug/L	97
12) Acetonitrile	7.858	7.858	0.729	41	1326553	1029.03	ug/L	100
13) Methyl acetate	7.882	7.882	0.731	43	1470129	207.07	ug/L	98
14) Carbon disulfide	7.906	7.906	0.734	76	4014989	214.97	ug/L	99
15) Methylene chloride	8.083	8.083	0.750	84	352331	51.75	ug/L	94
16) tert-Butyl methyl ether	8.368	8.368	0.777	73	908282	46.25	ug/L	99
17) trans-1,2-Dichloroethy...	8.427	8.427	0.782	61	526849	45.00	ug/L	97
18) Vinyl acetate	8.854	8.854	0.822	43	3819305	213.41	ug/L	97
19) 1,1-Dichloroethane	8.913	8.913	0.827	63	672019	47.19	ug/L	99
20) 2-Butanone	9.483	9.483	0.880	43	1173798	178.35	ug/L	96
21) cis-1,2-Dichloroethylene	9.554	9.554	0.887	61	624386	47.04	ug/L	98
22) 2,2-Dichloropropane	9.578	9.578	0.889	77	382984	42.28	ug/L	94
23) Bromochloromethane	9.827	9.827	0.912	128	145707	46.47	ug/L	94
24) Chloroform	9.850	9.850	0.914	83	544806	44.47	ug/L	95
25) 1,1,1-Trichloroethane	10.135	10.135	0.941	97	410241	43.98	ug/L	99
26) Cyclohexane	10.230	10.230	0.949	56	655254	46.81	ug/L	97
27) 1,1-Dichloropropene	10.289	10.289	0.955	75	381568	44.37	ug/L	98
28) Carbon tetrachloride	10.325	10.325	0.958	117	332980	42.94	ug/L	99
30) 1,2-Dichloroethane	10.514	10.514	0.976	62	537167	42.54	ug/L	99
31) Benzene	10.538	10.538	0.978	78	1152070	45.63	ug/L	98
32) Cyclohexene	10.645	10.645	0.988	67	573458	44.87	ug/L	97
33) n-Butyl alcohol	10.846	10.846	1.007	56	1218393	5038.81	ug/L	93
34) Trichloroethylene	11.167	11.167	1.036	95	295411	45.31	ug/L	99
35) 1,2-Dichloropropane	11.416	11.416	1.059	63	395706	48.68	ug/L	98
36) Methylcyclohexane	11.416	11.416	1.059	83	465125	45.83	ug/L	96
37) Dibromomethane	11.558	11.558	1.073	93	194350	45.08	ug/L	99
38) Bromodichloromethane	11.653	11.665	1.081	83	438823	46.63	ug/L	99
39) 2-Chloroethylvinyl ether	11.866	11.866	1.101	63	894746	199.20	ug/L	98
40) cis-1,3-Dichloropropylene	12.103	12.103	1.123	75	511616	48.32	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031810V9\
Data File : 9D433.D
Acq On : 19 Mar 2010 12:47 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100318-22|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A]0305-01C/0316-01
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 19 09:23:12 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42)	4-Methyl-2-pentanone	12.186	12.186	0.874	58	776354	245.50	ug/L		86
44)	Toluene	12.483	12.483	0.895	91	1160498	44.39	ug/L		97
45)	trans-1,3-Dichloroprop...	12.637	12.637	0.906	75	480010	49.39	ug/L		99
46)	1,1,2-Trichloroethane	12.862	12.862	0.923	83	237157	48.56	ug/L		100
47)	2-Hexanone	13.028	13.028	0.935	43	1579721	177.43	ug/L		94
48)	1,3-Dichloropropane	13.052	13.052	0.936	76	474522	46.65	ug/L		87
49)	Tetrachloroethylene	13.076	13.088	0.938	164	160433	44.69	ug/L		98
50)	Dibromochloromethane	13.325	13.325	0.956	129	288000	49.75	ug/L		100
51)	1,2-Dibromoethane	13.503	13.503	0.969	107	271171	48.30	ug/L		100
52)	Chlorobenzene	13.977	13.977	1.003	112	746140	47.50	ug/L		99
53)	1,1,1,2-Tetrachloroethane	14.024	14.024	1.006	131	261656	47.99	ug/L		99
54)	Ethylbenzene	14.024	14.024	1.006	91	1259095	44.13	ug/L		98
55)	m,p-Xylenes	14.131	14.131	1.014	106	945127	92.76	ug/L		94
56)	o-Xylene	14.570	14.570	1.045	106	496604	47.22	ug/L		93
57)	Styrene	14.570	14.570	1.045	104	830173	49.00	ug/L		98
59)	Bromoform	14.855	14.855	0.907	173	151427	50.90	ug/L		100
60)	Isopropylbenzene	14.926	14.926	0.912	105	1222208	46.69	ug/L		98
62)	1,1,2,2-Tetrachloroethane	15.198	15.198	0.928	83	372039	46.98	ug/L		100
63)	1,2,3-Trichloropropane	15.293	15.293	0.934	110	89241	44.90	ug/L	#	91
64)	Bromobenzene	15.353	15.353	0.938	156	274339	46.67	ug/L		100
65)	n-Propylbenzene	15.353	15.353	0.938	91	1494035	44.73	ug/L		98
66)	1,3,5-Trimethylbenzene	15.495	15.495	0.946	105	1030896	46.47	ug/L		97
67)	2-Chlorotoluene	15.507	15.507	0.947	126	306652	47.06	ug/L		95
68)	4-Chlorotoluene	15.614	15.614	0.954	91	1031772	46.28	ug/L		99
69)	tert-Butylbenzene	15.874	15.874	0.970	134	204435	48.81	ug/L		90
70)	1,2,4-Trimethylbenzene	15.910	15.910	0.972	105	1097737	46.61	ug/L		96
71)	sec-Butylbenzene	16.112	16.112	0.984	105	1387700	46.09	ug/L		98
72)	4-Isopropyltoluene	16.230	16.230	0.991	119	1090757	47.15	ug/L		99
73)	1,3-Dichlorobenzene	16.313	16.313	0.996	146	547970	45.44	ug/L		100
74)	1,4-Dichlorobenzene	16.408	16.408	1.002	146	544237	45.48	ug/L		100
75)	n-Butylbenzene	16.693	16.693	1.020	91	1183708	46.21	ug/L		97
76)	1,2-Dichlorobenzene	16.859	16.859	1.030	146	550004	46.22	ug/L		99
77)	1,2-Dibromo-3-chloropr...	17.784	17.784	1.086	157	52670	42.70	ug/L		95
78)	1,2,4-Trichlorobenzene	18.922	18.922	1.156	180	332441	45.22	ug/L		100
79)	Hexachlorobutadiene	19.088	19.088	1.166	225	159838	47.10	ug/L		99
80)	Naphthalene	19.349	19.349	1.182	128	946156	46.35	ug/L		99
81)	1,2,3-Trichlorobenzene	19.717	19.717	1.204	180	309931	46.07	ug/L		99
83)	Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.			
85)	Acrolein	7.313	7.313	0.679		0m	N.D.	d		
86)	Trichlorotrifluoroethane	7.455	7.467	0.692		0m	N.D.	d		
87)	Isopropyl Alcohol	7.479	7.550	0.694		0m	N.D.	d		
88)	Allyl chloride	7.858	7.929	0.729		0m	N.D.	d		
89)	tert-Butyl Alcohol	8.072	8.060	0.749		0m	N.D.	d		
90)	Acrylonitrile	8.368	8.332	0.777		0m	N.D.	d		
91)	Isopropyl ether	8.854	8.866	0.822		0m	N.D.	d		
92)	2-Chloro-1,3-butadiene	9.008	9.008	0.836		0m	N.D.	d		
93)	Ethyl tert-butyl ether	9.281	9.269	0.861		0m	N.D.	d		
94)	Ethyl acetate	9.483	9.483	0.880		0m	N.D.	d		
95)	Propionitrile	9.578	9.578	0.889		0m	N.D.	d		
96)	Methacrylonitrile	9.744	9.744	0.904		0m	N.D.	d		
97)	Tetrahydrofuran	9.874	9.874	0.916		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031810V9\
Data File : 9D433.D
Acq On : 19 Mar 2010 12:47 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100318-22|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A]0305-01C/0316-01
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 19 09:23:12 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98) Isobutyl alcohol	10.230	10.159	0.949		0m	N.D.	d
99) Methyl tert-amyl ether	10.538	10.526	0.978		0m	N.D.	d
100) Methyl methacrylate	11.416	11.368	1.059		0m	N.D.	d
101) 1,4-Dioxane	11.499	11.487	1.067		0m	N.D.	d
102) 2-Nitropropane	11.866	11.854	1.101		0m	N.D.	d
104) Ethyl methacrylate	12.625	12.613	0.906		0m	N.D.	d
106) 1-Chlorohexane	13.811	13.823	0.844		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.926	14.961	0.912		0m	N.D.	d
108) Cyclohexanone	15.104	15.092	0.923		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.246	15.246	0.931		0m	N.D.	d
110) Pentachloroethane	15.957	15.957	0.975		0m	N.D.	d
111) Benzyl chloride	16.527	16.527	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.930	16.918	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\031810V9\
Data File : 9D433.D
Acq On    : 19 Mar 2010  12:47 am
Operator  : RXY1
InstName  : VOA9
Sample    : |W9VM100318-22|ICV|1|VOA|1|VOA8260BL|
Misc      : GEL 5ml n/a MIX[A]0305-01C/0316-01
ALS Vial  : 33   Sample Multiplier: 1

Quant Time: Mar 19 09:23:12 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE
```

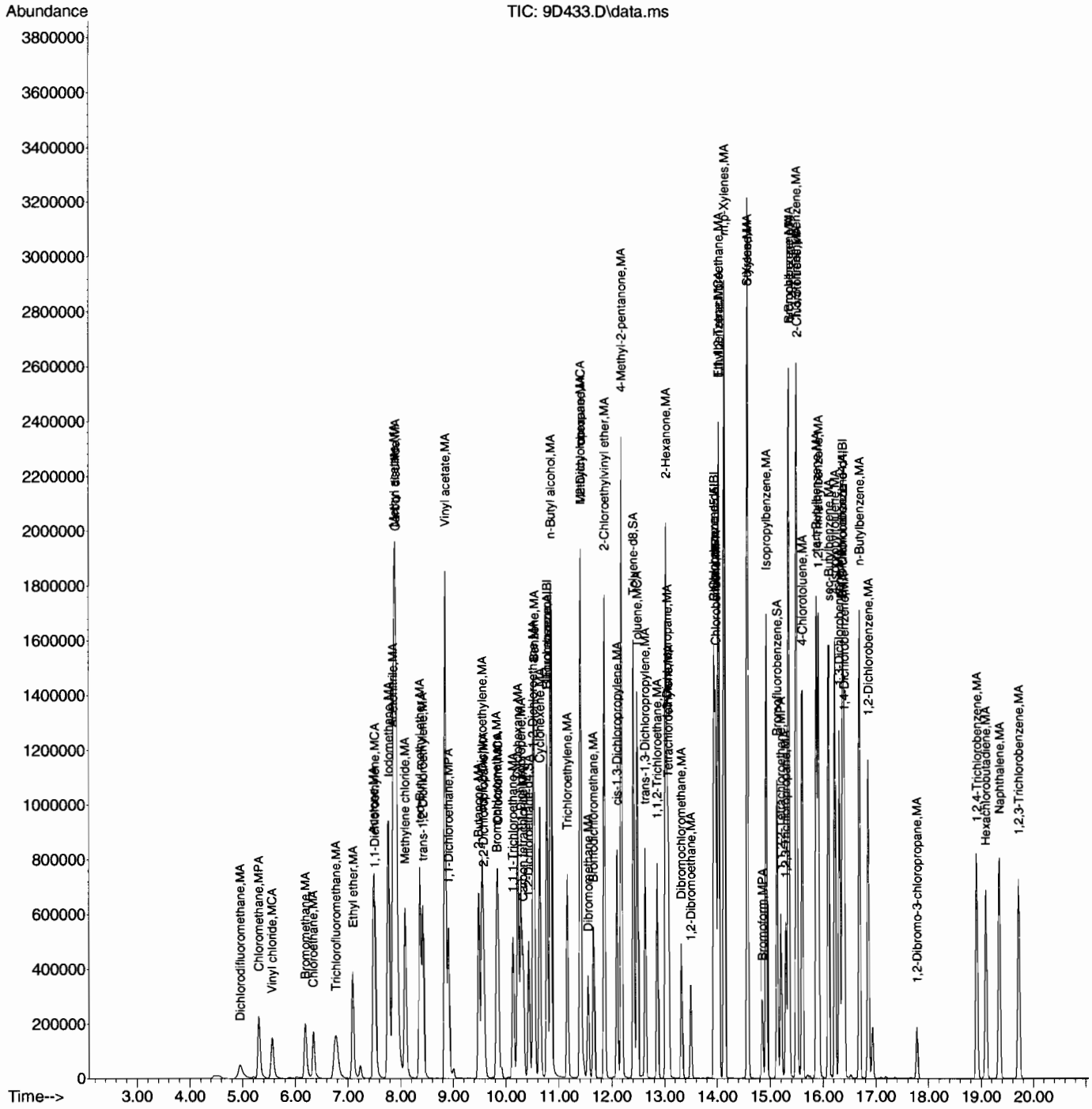

Continuing Calibration Summary

Client SDG: 10-2398

Instrument ID: VOA9.I **Injection Dat** 19-MAR-10 13:44

Data File: 031910V9\9D501.D **Init. Cal. Date(s)** 18-MAR-10 16:15 - 18-MAR-10 23:2

Lab Sample ID W9VM100319-01 **Quant Type** ISTD **Method:** 031810V9\VOA9-8260-031810.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.3795	0.35907		.01		-5.3834	30		Averaged	
S	Toluene-d8	1.2833	1.29094		.01		0.59534	30		Averaged	
S	Bromofluorobenzene	1.1836	1.18773		.01		0.34894	30		Averaged	
	Dichlorodifluoromethane	50	65.53	50			31.06	30	*	Linear	
	Chloromethane	0.4217	0.42615		.1		1.05525	30		Averaged	spcc
	Vinyl chloride	0.2834	0.31279		.01		10.3705	20		Averaged	ccc
	Bromomethane	0.1992	0.21311		.01		6.98293	30		Averaged	
	Chloroethane	0.2012	0.21883		.01		8.76243	30		Averaged	
	Trichlorofluoromethane	0.3322	0.37774		.01		13.70861	30		Averaged	
	Ethyl ether	0.2936	0.26387		.01		-10.12602	30		Averaged	
	Acetone	250	332.05	250			32.82	40		Linear	
	1,1-Dichloroethylene	0.4812	0.57472		.01		19.43475	20		Averaged	ccc
	Iodomethane	0.3335	0.35634		.01		6.84858	30		Averaged	
	Acetonitrile	0.0504	0.04919		.01		-2.40079	30		Averaged	
	Methyl acetate	0.2777	0.27506		.01		-0.95067	40		Averaged	
	Carbon disulfide	0.7305	0.81501		.01		11.56879	30		Averaged	
	Methylene chloride	50	56.95	50			13.9	30		Linear	
	tert-Butyl methyl ether	0.7681	0.79358		.01		3.31728	30		Averaged	
	trans-1,2-Dichloroethylene	0.4579	0.51329		.01		12.09653	30		Averaged	
	Vinyl acetate	0.7	0.68887		.01		-1.59	40		Averaged	
	1,1-Dichloroethane	0.557	0.62048		.1		11.39677	30		Averaged	spcc
	2-Butanone	0.2574	0.30994		.01		20.41181	40		Averaged	
	cis-1,2-Dichloroethylene	0.5192	0.57395		.01		10.54507	30		Averaged	
	2,2-Dichloropropane	0.3543	0.43994		.01		24.17161	30		Averaged	
	Bromochloromethane	0.1226	0.12713		.01		3.69494	30		Averaged	
	Chloroform	0.4792	0.51488		.01		7.44574	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3649	0.43723		.01		19.82187	30		Averaged	
	Cyclohexane	0.5475	0.6644		.01		21.3516	30		Averaged	
	1,1-Dichloropropene	0.3363	0.39567		.01		17.65388	30		Averaged	
	Carbon tetrachloride	0.3033	0.37107		.01		22.34421	30		Averaged	
	1,2-Dichloroethane	0.4939	0.49255		.01		-0.27333	30		Averaged	
	Benzene	0.9875	1.05094		.01		6.4243	30		Averaged	
	Cyclohexene	0.4999	0.61118		.01		22.26045	30		Averaged	
	n-Butyl alcohol	0.0095	0.012		.01		26.31579	40		Averaged	
	Trichloroethylene	0.255	0.28998		.01		13.71765	30		Averaged	
	1,2-Dichloropropane	0.318	0.32921		.01		3.52516	20		Averaged	ccc
	Methylcyclohexane	0.397	0.4912		.01		23.72796	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA9.1 **Injection Date** 19-MAR-10 13:44

Data File: 031910V9\9D501.D **Init. Cal. Date(s)** 18-MAR-10 16:15 18-MAR-10 23:2

Lab Sample ID W9VM100319-01 **Quant Type** ISTD **Method:** 031810V9\VOA9-8260-031810.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1686	0.17477		.01		3.65955	30		Averaged	
Bromodichloromethane	0.3681	0.39765		.01		8.02771	30		Averaged	
2-Chloroethylvinyl ether	0.1757	0.16807		.01		-4.34263	30		Averaged	
cis-1,3-Dichloropropylene	0.4142	0.46702		.01		12.75229	30		Averaged	
4-Methyl-2-pentanone	0.1789	0.20935		.01		17.02068	40		Averaged	
Toluene	1.4791	1.55276		.01		4.98006	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.5498	0.62577		.01		13.81775	30		Averaged	
1,1,2-Trichloroethane	0.2763	0.29132		.01		5.43612	30		Averaged	
2-Hexanone	0.5037	0.62132		.01		23.3512	40		Averaged	
1,3-Dichloropropane	0.5754	0.56499		.01		-1.80918	30		Averaged	
Tetrachloroethylene	0.2031	0.23629		.01		16.3417	30		Averaged	
Dibromochloromethane	0.3275	0.36487		.01		11.41069	30		Averaged	
1,2-Dibromoethane	0.3176	0.33906		.01		6.75693	30		Averaged	
Chlorobenzene	0.8886	0.95042		.3		6.95701	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3085	0.33447		.01		8.41815	30		Averaged	
Ethylbenzene	1.614	1.73372		.01		7.4176	20		Averaged	ccc
m,p-Xylenes	0.5764	0.63029		.01		9.34941	30		Averaged	
o-Xylene	0.5949	0.6401		.01		7.59792	30		Averaged	
Styrene	0.9584	1.05894		.01		10.4904	30		Averaged	
Bromoform	0.3628	0.42844		.1		18.09261	30		Averaged	spcc
Isopropylbenzene	3.1925	3.74402		.01		17.27549	30		Averaged	
1,1,2,2-Tetrachloroethane	0.9657	1.03801		.3		7.48783	30		Averaged	spcc
1,2,3-Trichloropropane	0.2424	0.25411		.01		4.83086	30		Averaged	
Bromobenzene	0.7169	0.73762		.01		2.89022	30		Averaged	
n-Propylbenzene	4.0735	4.6229		.01		13.48717	30		Averaged	
1,3,5-Trimethylbenzene	2.7054	3.07514		.01		13.66674	30		Averaged	
2-Chlorotoluene	0.7947	0.85294		.01		7.32855	30		Averaged	
4-Chlorotoluene	2.719	2.99567		.01		10.17543	30		Averaged	
tert-Butylbenzene	0.5108	0.62423		.01		22.20634	30		Averaged	
1,2,4-Trimethylbenzene	2.872	3.21308		.01		11.87604	30		Averaged	
sec-Butylbenzene	3.6715	4.31755		.01		17.59635	30		Averaged	
4-Isopropyltoluene	2.8213	3.37734		.01		19.70864	30		Averaged	
1,3-Dichlorobenzene	1.4704	1.57837		.01		7.3429	30		Averaged	
1,4-Dichlorobenzene	1.4591	1.54613		.01		5.96464	30		Averaged	
n-Butylbenzene	3.1239	3.77371		.01		20.80124	30		Averaged	
1,2-Dichlorobenzene	1.4513	1.53755		.01		5.94295	30		Averaged	
1,2-Dibromo-3-chloropropane	50	56.26	50			12.52	30		Linear	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Date** 19-MAR-10 13:44

Data File: 031910V9\9D501.D **Init. Cal. Date(s)** 18-MAR-10 16:15 18-MAR-10 23:2

Lab Sample ID W9VM100319-01 **Quant Type** ISTD **Method:** 031810V9\VOA9-8260-031810.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8965	1.02884		.01		14.76185	30		Averaged
Hexachlorobutadiene	0.4139	0.49864		.01		20.47354	30		Averaged
Naphthalene	2.4895	2.92354		.01		17.43483	30		Averaged
1,2,3-Trichlorobenzene	0.8204	0.90856		.01		10.74598	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D501.D
Acq On : 19 Mar 2010 1:44 pm
Operator : RXY1
InstName : VOA9
Sample : |W9VM100319-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A]0314-07A/0315-07A
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 19 14:03:51 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.775	10.775	1.000	96	1007460	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.941	13.941	1.000	117	716012	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	332881	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	1007460	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	716012	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	332860	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	361751	47.31	ug/L	0.00
43) Toluene-d8	12.412	12.412	0.890	98	924327	50.30	ug/L	0.00
61) Bromofluorobenzene	15.127	15.127	0.924	95	395372	50.17	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.958	4.944	0.460	85	179558	65.53	ug/L	100
3) Chloromethane	5.308	5.308	0.493	50	429327	50.53	ug/L	98
4) Vinyl chloride	5.560	5.546	0.516	62	315127	55.19	ug/L	98
5) Bromomethane	6.186	6.186	0.574	94	214703	53.48	ug/L	98
6) Chloroethane	6.340	6.340	0.588	64	220466	54.39	ug/L	99
7) Trichlorofluoromethane	6.767	6.767	0.628	101	380559	56.86	ug/L	100
8) Ethyl ether	7.099	7.099	0.659	59	265840	44.93	ug/L	89
9) Acetone	7.490	7.490	0.695	43	1248719	332.05	ug/L	90
10) 1,1-Dichloroethylene	7.502	7.502	0.696	61	579007	59.71	ug/L	98
11) Iodomethane	7.763	7.763	0.720	142	1794990	267.11	ug/L	94
12) Acetonitrile	7.858	7.858	0.729	41	1238808	1219.33	ug/L	98
13) Methyl acetate	7.882	7.882	0.731	43	1385564	247.63	ug/L	97
14) Carbon disulfide	7.905	7.906	0.734	76	4105466	278.91	ug/L	99
15) Methylene chloride	8.083	8.083	0.750	84	304329	56.95	ug/L	95
16) tert-Butyl methyl ether	8.368	8.368	0.777	73	799503	51.66	ug/L	98
17) trans-1,2-Dichloroethy...	8.427	8.427	0.782	61	517120	56.04	ug/L	98
18) Vinyl acetate	8.854	8.854	0.822	43	3470067	246.03	ug/L	96
19) 1,1-Dichloroethane	8.913	8.913	0.827	63	625108	55.69	ug/L	99
20) 2-Butanone	9.483	9.483	0.880	43	1561242	300.99	ug/L	94
21) cis-1,2-Dichloroethylene	9.554	9.554	0.887	61	578230	55.28	ug/L	97
22) 2,2-Dichloropropane	9.577	9.578	0.889	77	443221	62.09	ug/L	91
23) Bromochloromethane	9.826	9.827	0.912	128	128074	51.83	ug/L	94
24) Chloroform	9.850	9.850	0.914	83	518725	53.72	ug/L	97
25) 1,1,1-Trichloroethane	10.135	10.135	0.941	97	440490	59.91	ug/L	99
26) Cyclohexane	10.230	10.230	0.949	56	669354	60.67	ug/L	99
27) 1,1-Dichloropropene	10.289	10.289	0.955	75	398623	58.82	ug/L	91
28) Carbon tetrachloride	10.336	10.325	0.959	117	373835	61.17	ug/L	99
30) 1,2-Dichloroethane	10.514	10.514	0.976	62	496225	49.86	ug/L	98
31) Benzene	10.538	10.538	0.978	78	1058778	53.21	ug/L	96
32) Cyclohexene	10.645	10.645	0.988	67	615737	61.13	ug/L	96
33) n-Butyl alcohol	10.846	10.846	1.007	56	1208845	6343.41	ug/L	87
34) Trichloroethylene	11.166	11.167	1.036	95	292147	56.85	ug/L	99
35) 1,2-Dichloropropane	11.416	11.416	1.059	63	331667	51.77	ug/L	100
36) Methylcyclohexane	11.416	11.416	1.059	83	494867	61.86	ug/L	97
37) Dibromomethane	11.558	11.558	1.073	93	176070	51.82	ug/L	98
38) Bromodichloromethane	11.665	11.665	1.083	83	400616	54.02	ug/L	100
39) 2-Chloroethylvinyl ether	11.866	11.866	1.101	63	846631	239.16	ug/L	99
40) cis-1,3-Dichloropropylene	12.103	12.103	1.123	75	470505	56.38	ug/L	92

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D501.D
Acq On : 19 Mar 2010 1:44 pm
Operator : RXY1
InstName : VOA9
Sample : |W9VM100319-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A]0314-07A/0315-07A
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 19 14:03:51 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	12.186	12.186	0.874	58	749475	292.55	ug/L #	76
44) Toluene	12.495	12.483	0.896	91	1111797	52.49	ug/L	96
45) trans-1,3-Dichloroprop...	12.637	12.637	0.906	75	448062	56.91	ug/L	95
46) 1,1,2-Trichloroethane	12.862	12.862	0.923	83	208588	52.72	ug/L	99
47) 2-Hexanone	13.028	13.028	0.935	43	2224358	308.39	ug/L	91
48) 1,3-Dichloropropane	13.052	13.052	0.936	76	404539	49.10	ug/L	84
49) Tetrachloroethylene	13.088	13.088	0.939	164	169190	58.17	ug/L	98
50) Dibromochloromethane	13.325	13.325	0.956	129	261253	55.70	ug/L	100
51) 1,2-Dibromoethane	13.503	13.503	0.969	107	242771	53.37	ug/L	99
52) Chlorobenzene	13.977	13.977	1.003	112	680514	53.48	ug/L	99
53) 1,1,1,2-Tetrachloroethane	14.024	14.024	1.006	131	239487	54.22	ug/L	98
54) Ethylbenzene	14.024	14.024	1.006	91	1241366	53.71	ug/L	97
55) m,p-Xylenes	14.131	14.131	1.014	106	902586	109.35	ug/L	89
56) o-Xylene	14.570	14.570	1.045	106	458320	53.79	ug/L	88
57) Styrene	14.570	14.570	1.045	104	758215	55.25	ug/L	94
59) Bromoform	14.854	14.855	0.907	173	142619	59.05	ug/L	99
60) Isopropylbenzene	14.926	14.926	0.912	105	1246314	58.64	ug/L	97
62) 1,1,2,2-Tetrachloroethane	15.198	15.198	0.928	83	345533	53.75	ug/L	100
63) 1,2,3-Trichloropropane	15.293	15.293	0.934	110	84588	52.42	ug/L #	94
64) Bromobenzene	15.353	15.353	0.938	156	245539	51.45	ug/L	98
65) n-Propylbenzene	15.353	15.353	0.938	91	1538875	56.74	ug/L	97
66) 1,3,5-Trimethylbenzene	15.495	15.495	0.946	105	1023655	56.83	ug/L	95
67) 2-Chlorotoluene	15.507	15.507	0.947	126	283928	53.66	ug/L	90
68) 4-Chlorotoluene	15.613	15.614	0.954	91	997201	55.09	ug/L	98
69) tert-Butylbenzene	15.874	15.874	0.970	134	207794	61.11	ug/L	91
70) 1,2,4-Trimethylbenzene	15.922	15.910	0.972	105	1069573	55.94	ug/L	95
71) sec-Butylbenzene	16.111	16.112	0.984	105	1437232	58.80	ug/L	98
72) 4-Isopropyltoluene	16.230	16.230	0.991	119	1124253	59.86	ug/L	98
73) 1,3-Dichlorobenzene	16.313	16.313	0.996	146	525410	53.67	ug/L	99
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	514677	52.98	ug/L	99
75) n-Butylbenzene	16.693	16.693	1.020	91	1256198	60.40	ug/L	97
76) 1,2-Dichlorobenzene	16.859	16.859	1.030	146	511821	52.97	ug/L	98
77) 1,2-Dibromo-3-chloropr...	17.784	17.784	1.086	157	56485	56.26	ug/L	96
78) 1,2,4-Trichlorobenzene	18.922	18.922	1.156	180	342480	57.38	ug/L	100
79) Hexachlorobutadiene	19.100	19.088	1.167	225	165987	60.24	ug/L	100
80) Naphthalene	19.349	19.349	1.182	128	973190	58.72	ug/L	100
81) 1,2,3-Trichlorobenzene	19.716	19.717	1.204	180	302442	55.37	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.		
85) Acrolein	7.241	7.313	0.672		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.		
87) Isopropyl Alcohol	7.490	7.550	0.695		0m	N.D.	d	
88) Allyl chloride	7.858	7.929	0.729		0m	N.D.	d	
89) tert-Butyl Alcohol	8.083	8.060	0.750		0m	N.D.	d	
90) Acrylonitrile	8.368	8.332	0.777		0m	N.D.	d	
91) Isopropyl ether	8.854	8.866	0.822		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	9.008	9.008	0.836		0m	N.D.	d	
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.		
94) Ethyl acetate	9.483	9.483	0.880		0m	N.D.	d	
95) Propionitrile	9.483	9.578	0.880		0m	N.D.	d	
96) Methacrylonitrile	9.838	9.744	0.913		0m	N.D.	d	
97) Tetrahydrofuran	9.838	9.874	0.913		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D501.D
Acq On : 19 Mar 2010 1:44 pm
Operator : RXY1
InstName : VOA9
Sample : |W9VM100319-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A]0314-07A/0315-07A
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 19 14:03:51 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	10.230	10.159	0.949		0m	N.D.	d
99)	Methyl tert-amyl ether	10.538	10.526	0.978		0m	N.D.	d
100)	Methyl methacrylate	11.416	11.368	1.059		0m	N.D.	d
101)	1,4-Dioxane	11.487	11.487	1.066		0m	N.D.	d
102)	2-Nitropropane	11.866	11.854	1.101		0m	N.D.	d
104)	Ethyl methacrylate	12.566	12.613	0.901		0m	N.D.	d
106)	1-Chlorohexane	13.941	13.823	0.852		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.926	14.961	0.912		0m	N.D.	d
108)	Cyclohexanone	14.926	15.092	0.912		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	15.353	15.246	0.938		0m	N.D.	d
110)	Pentachloroethane	15.969	15.957	0.975		0m	N.D.	d
111)	Benzyl chloride	16.538	16.527	1.010		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.930	16.918	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D501.D
Acq On : 19 Mar 2010 1:44 pm
Operator : RXY1
InstName : VOA9
Sample : |W9VM100319-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A]0314-07A/0315-07A
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 19 14:03:51 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

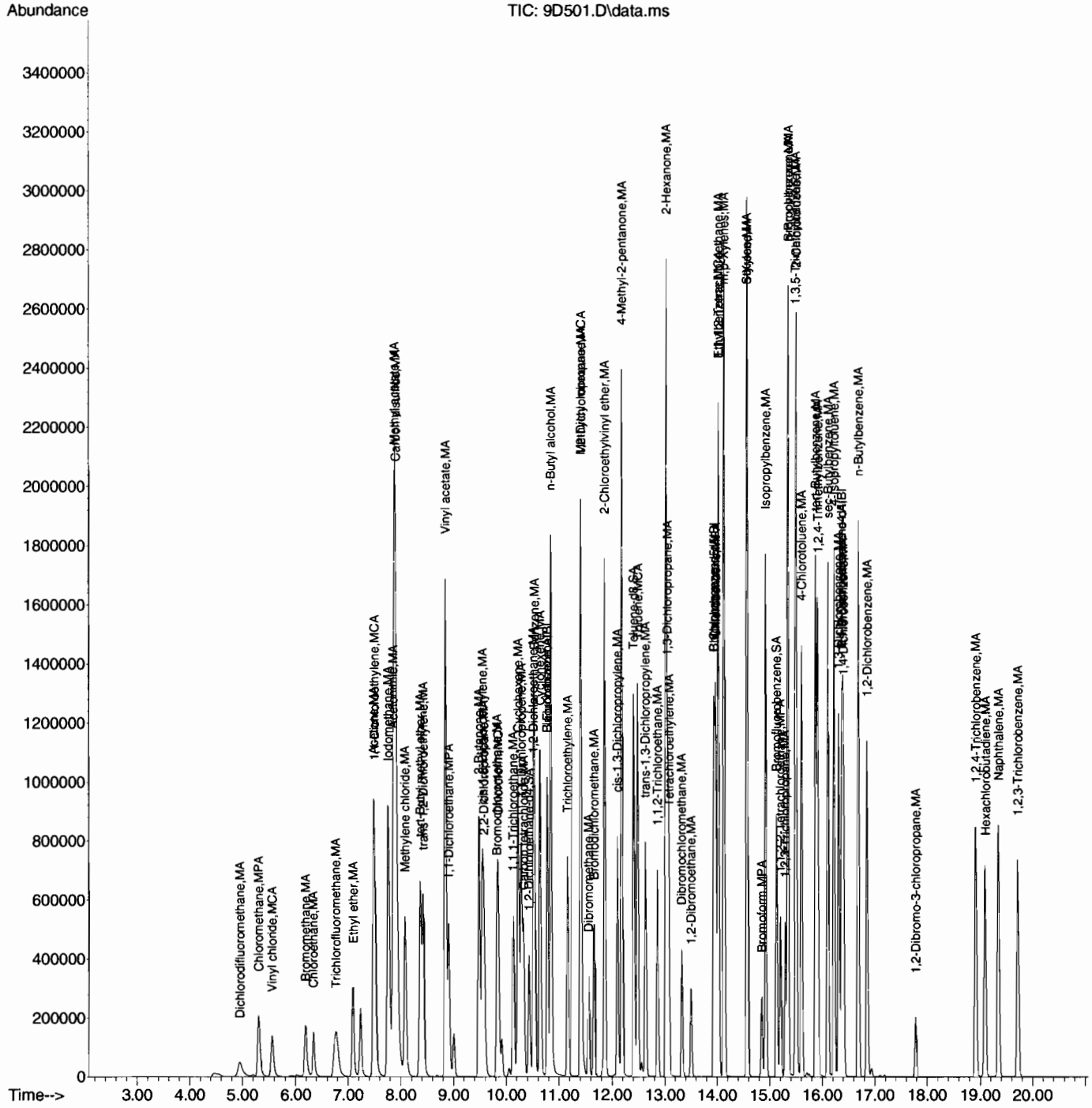

Continuing Calibration Summary

Client SDG: 10-2398

Instrument ID: VOA9.I **Injection Date** 19-MAR-10 15:13

Data File: 031910V9\9D504.D **Init. Cal. Date(s)** 18-MAR-10 16:15 - 18-MAR-10 23:2

Lab Sample ID W9VM100319-04 **Quant Type** ISTD **Method:** 031810V9\VOA9-8260-031810.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.3795	0.34565		.01		-8.91963	30		Averaged
S	Toluene-d8	1.2833	1.29138		.01		0.62963	30		Averaged
S	Bromofluorobenzene	1.1836	1.17703		.01		-0.55509	30		Averaged
	Acrolein	0.055	0.05931		.01		7.83636	30		Averaged
	Trichlorotrifluoroethane	0.0897	0.07762		.01		-13.46711	30		Averaged
	Allyl chloride	0.4938	0.4598		.01		-6.88538	30		Averaged
	Acrylonitrile	0.1263	0.12127		.01		-3.98258	30		Averaged
	2-Chloro-1,3-butadiene	0.4351	0.48662		.01		11.84096	30		Averaged
	Ethyl acetate	0.332	0.28369		.01		-14.5512	40		Averaged
	Propionitrile	0.0496	0.04625		.01		-6.75403	30		Averaged
	Methacrylonitrile	0.2032	0.18804		.01		-7.46063	30		Averaged
	Tetrahydrofuran	0.1088	0.10097		.01		-7.19669	30		Averaged
	Isobutyl alcohol	0.0131	0.01201		.01		-8.32061	40		Averaged
	Methyl methacrylate	0.1618	0.15303		.01		-5.42027	30		Averaged
	1,4-Dioxane	0.0026	0.00235		.01		-9.61538	40		Averaged
	2-Nitropropane	250	242.45	250			-3.02	30		Linear
	Ethyl methacrylate	0.4396	0.40429		.01		-8.0323	30		Averaged
	cis-1,4-Dichloro-2-butene	0.3645	0.39061		.01		7.16324	30		Averaged
	Cyclohexanone	0.0347	0.02929		.01		-15.59078	40		Averaged
	trans-1,4-Dichloro-2-butene	0.3467	0.36343		.01		4.8255	30		Averaged
	Pentachloroethane	0.2952	0.31248		.01		5.85366	30		Averaged
	Benzyl chloride	1.2161	1.39383		.01		14.61475	30		Averaged
	bis(2-Chloroisopropyl)ether	0.627	0.63516		.01		1.30144	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D504.D
Acq On : 19 Mar 2010 3:13 pm
Operator : RXY1
InstName : VOA9
Sample : |W9VM100319-04|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]UVM100304-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 19 15:34:02 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.787	10.775	1.000	96	1252194	50.00	ug/L	0.01
41) Chlorobenzene-d5	13.941	13.941	1.000	117	865397	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	395576	50.00	ug/L	0.00
82) B Fluorobenzene	10.787	10.775	1.000	96	1252194	50.00	ug/L	0.01
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	865397	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	395598	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.967	65	432827	45.54	ug/L	0.00
43) Toluene-d8	12.412	12.412	0.890	98	1117555	50.31	ug/L	0.00
61) Bromofluorobenzene	15.127	15.127	0.924	95	465604	49.72	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	5.294	5.308	0.491		0m	N.D.	d	
4) Vinyl chloride	5.546	5.546	0.514		0m	N.D.	d	
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	0.000	7.099	0.000		0	N.D.		
9) Acetone	7.479	7.490	0.693		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.479	7.502	0.693		0m	N.D.	d	
11) Iodomethane	7.751	7.763	0.719		0m	N.D.	d	
12) Acetonitrile	7.941	7.858	0.736		0m	N.D.	d	
13) Methyl acetate	7.882	7.882	0.731		0m	N.D.	d	
14) Carbon disulfide	7.941	7.906	0.736		0m	N.D.	d	
15) Methylene chloride	8.095	8.083	0.750		0m	N.D.	d	
16) tert-Butyl methyl ether	8.368	8.368	0.776		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.427	8.427	0.781		0m	N.D.	d	
18) Vinyl acetate	8.854	8.854	0.821		0m	N.D.	d	
19) 1,1-Dichloroethane	8.913	8.913	0.826		0m	N.D.	d	
20) 2-Butanone	9.494	9.483	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.494	9.554	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	9.577	9.578	0.888		0m	N.D.	d	
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	9.862	9.850	0.914		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	10.170	10.230	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.301	10.289	0.955		0m	N.D.	d	
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.514	10.514	0.975		0m	N.D.	d	
31) Benzene	10.538	10.538	0.977		0m	N.D.	d	
32) Cyclohexene	10.645	10.645	0.987		0m	N.D.	d	
33) n-Butyl alcohol	10.858	10.846	1.007		0m	N.D.	d	
34) Trichloroethylene	11.167	11.167	1.035		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	11.368	11.416	1.054		0m	N.D.	d	
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		
38) Bromodichloromethane	11.653	11.665	1.080		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.866	11.866	1.100		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	12.103	12.103	1.122		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D504.D
Acq On : 19 Mar 2010 3:13 pm
Operator : RXY1
InstName : VOA9
Sample : |W9VM100319-04|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]UVM100304-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 19 15:34:02 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	12.198	12.186	0.875		0m	N.D.	d	
44) Toluene	12.495	12.483	0.896		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	12.637	12.637	0.906		0m	N.D.	d	
46) 1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.		
47) 2-Hexanone	13.028	13.028	0.935		0m	N.D.	d	
48) 1,3-Dichloropropane	13.099	13.052	0.940		0m	N.D.	d	
49) Tetrachloroethylene	13.088	13.088	0.939		0m	N.D.	d	
50) Dibromochloromethane	0.000	13.325	0.000		0	N.D.		
51) 1,2-Dibromoethane	13.503	13.503	0.969		0m	N.D.	d	
52) Chlorobenzene	13.977	13.977	1.003		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	14.024	14.024	1.006		0m	N.D.	d	
54) Ethylbenzene	14.024	14.024	1.006		0m	N.D.	d	
55) m,p-Xylenes	14.131	14.131	1.014		0m	N.D.	d	
56) o-Xylene	14.570	14.570	1.045		0m	N.D.	d	
57) Styrene	14.582	14.570	1.046		0m	N.D.	d	
59) Bromoform	0.000	14.855	0.000		0	N.D.		
60) Isopropylbenzene	14.926	14.926	0.912		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	15.246	15.198	0.931		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.		
64) Bromobenzene	15.353	15.353	0.938		0m	N.D.	d	
65) n-Propylbenzene	15.353	15.353	0.938		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	15.495	15.495	0.946		0m	N.D.	d	
67) 2-Chlorotoluene	15.507	15.507	0.947		0m	N.D.	d	
68) 4-Chlorotoluene	15.613	15.614	0.954		0m	N.D.	d	
69) tert-Butylbenzene	15.957	15.874	0.975		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	15.922	15.910	0.972		0m	N.D.	d	
71) sec-Butylbenzene	16.112	16.112	0.984		0m	N.D.	d	
72) 4-Isopropyltoluene	16.230	16.230	0.991		0m	N.D.	d	
73) 1,3-Dichlorobenzene	16.313	16.313	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	16.408	16.408	1.002		0m	N.D.	d	
75) n-Butylbenzene	16.693	16.693	1.020		0m	N.D.	d	
76) 1,2-Dichlorobenzene	16.859	16.859	1.030		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	18.910	18.922	1.155		0m	N.D.	d	
79) Hexachlorobutadiene	19.100	19.088	1.167		0m	N.D.	d	
80) Naphthalene	19.349	19.349	1.182		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	19.717	19.717	1.204		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.		
85) Acrolein	7.313	7.313	0.678	56	371360	269.58	ug/L	100
86) Trichlorotrifluoroethane	7.479	7.467	0.693	85	485946	216.26	ug/L	96
87) Isopropyl Alcohol	0.000	7.550	0.000		0m	N.D.	d	
88) Allyl chloride	7.941	7.929	0.736	41	2878774	232.80	ug/L	94
89) tert-Butyl Alcohol	8.071	8.060	0.748	59	1034	N.D.		
90) Acrylonitrile	8.344	8.332	0.774	53	759237	240.12	ug/L	97
91) Isopropyl ether	0.000	8.866	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	9.020	9.008	0.836	53	609342	55.93	ug/L	94
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.		
94) Ethyl acetate	9.494	9.483	0.880	43	1776201	213.64	ug/L	94
95) Propionitrile	9.577	9.578	0.888	54	289561	233.25	ug/L	98
96) Methacrylonitrile	9.755	9.744	0.904	41	1177307	231.36	ug/L	98
97) Tetrahydrofuran	9.874	9.874	0.915	42	632168	231.97	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D504.D
Acq On : 19 Mar 2010 3:13 pm
Operator : RXY1
InstName : VOA9
Sample : |W9VM100319-04|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]UVM100304-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 19 15:34:02 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98)	Isobutyl alcohol	10.170	10.159	0.943	41	752245	2290.15	ug/L	91
99)	Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.		
100)	Methyl methacrylate	11.368	11.368	1.054	69	958126	236.46	ug/L	85
101)	1,4-Dioxane	11.499	11.487	1.066	88	146899	2291.76	ug/L	99
102)	2-Nitropropane	11.866	11.854	1.100	43	591904	242.45	ug/L	98
104)	Ethyl methacrylate	12.625	12.613	0.906	69	1749367	229.92	ug/L	89
106)	1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d	
107)	cis-1,4-Dichloro-2-butene	14.961	14.961	0.914	53	772629	267.93	ug/L	98
108)	Cyclohexanone	15.104	15.092	0.922	42	289705	1054.97	ug/L	86
109)	trans-1,4-Dichloro-2-b...	15.246	15.246	0.931	53	718852	262.06	ug/L	93
110)	Pentachloroethane	15.957	15.957	0.975	167	618079	264.62	ug/L	94
111)	Benzyl chloride	16.527	16.527	1.009	91	2756975	286.53	ug/L	98
112)	bis(2-Chloroisopropyl)...	16.930	16.918	1.034	45	1256347	253.25	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D504.D
Acq On : 19 Mar 2010 3:13 pm
Operator : RXY1
InstName : VOA9
Sample : |W9VM100319-04|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]UVM100304-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 19 15:34:02 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

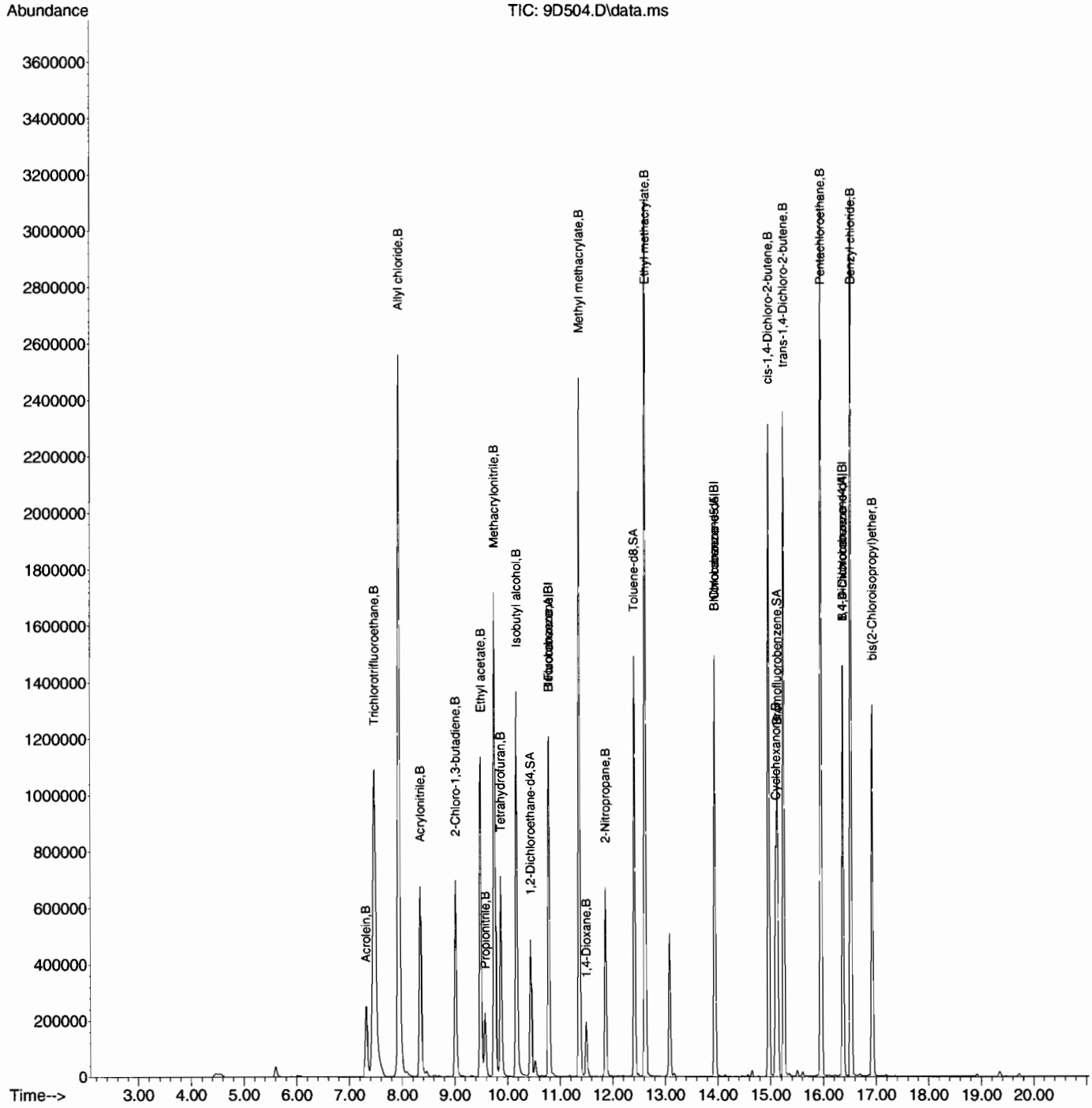

Continuing Calibration Summary

Client SDG: 10-2398

Instrument ID: VOA9.I **Injection Date** 23-MAR-10 10:54

Data File: 032310V9\9E202.D **Init. Cal. Date(s)** 18-MAR-10 16:15 - 18-MAR-10 23:2

Lab Sample ID W9VM100323-02 **Quant Type** ISTD **Method:** 031810V9\VOA9-8260-031810.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.3795	0.34195		.01		-9.8946	30		Averaged	
S	Toluene-d8	1.2833	1.28276		.01		-0.04208	30		Averaged	
S	Bromofluorobenzene	1.1836	1.19401		.01		0.87952	30		Averaged	
	Dichlorodifluoromethane	50	58.41	50			16.82	30		Linear	
	Chloromethane	0.4217	0.36926		.1		-12.43538	30		Averaged	spcc
	Vinyl chloride	0.2834	0.292		.01		3.03458	20		Averaged	ccc
	Bromomethane	0.1992	0.19164		.01		-3.79518	30		Averaged	
	Chloroethane	0.2012	0.20026		.01		-0.4672	30		Averaged	
	Trichlorofluoromethane	0.3322	0.32343		.01		-2.63998	30		Averaged	
	Ethyl ether	0.2936	0.24369		.01		-16.99932	30		Averaged	
	Acetone	250	290.01	250			16.004	40		Linear	
	1,1-Dichloroethylene	0.4812	0.41798		.01		-13.13799	20		Averaged	ccc
	Iodomethane	0.3335	0.27523		.01		-17.47226	30		Averaged	
	Acetonitrile	0.0504	0.03858		.01		-23.45238	30		Averaged	
	Methyl acetate	0.2777	0.21501		.01		-22.57472	40		Averaged	
	Carbon disulfide	0.7305	0.66488		.01		-8.98289	30		Averaged	
	Methylene chloride	50	47.76	50			-4.48	30		Linear	
	tert-Butyl methyl ether	0.7681	0.66673		.01		-13.1975	30		Averaged	
	trans-1,2-Dichloroethylene	0.4579	0.41032		.01		-10.39092	30		Averaged	
	Vinyl acetate	0.7	0.63505		.01		-9.27857	40		Averaged	
	1,1-Dichloroethane	0.557	0.50191		.1		-9.89048	30		Averaged	spcc
	2-Butanone	0.2574	0.25137		.01		-2.34266	40		Averaged	
	cis-1,2-Dichloroethylene	0.5192	0.47126		.01		-9.23344	30		Averaged	
	2,2-Dichloropropane	0.3543	0.34495		.01		-2.63901	30		Averaged	
	Bromochloromethane	0.1226	0.10467		.01		-14.6248	30		Averaged	
	Chloroform	0.4792	0.41072		.01		-14.29048	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3649	0.34135		.01		-6.45382	30		Averaged	
	Cyclohexane	0.5475	0.55287		.01		0.98082	30		Averaged	
	1,1-Dichloropropene	0.3363	0.31937		.01		-5.0342	30		Averaged	
	Carbon tetrachloride	0.3033	0.28563		.01		-5.82591	30		Averaged	
	1,2-Dichloroethane	0.4939	0.38237		.01		-22.58149	30		Averaged	
	Benzene	0.9875	0.88393		.01		-10.4881	30		Averaged	
	Cyclohexene	0.4999	0.48566		.01		-2.84857	30		Averaged	
	n-Butyl alcohol	0.0095	0.00949		.01		-0.10526	40		Averaged	
	Trichloroethylene	0.255	0.23137		.01		-9.26667	30		Averaged	
	1,2-Dichloropropane	0.318	0.28382		.01		-10.74843	20		Averaged	ccc
	Methylcyclohexane	0.397	0.39889		.01		0.47607	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Date** 23-MAR-10 10:54

Data File: 032310V9\9E202.D **Init. Cal. Date(s)** 18-MAR-10 16:15 18-MAR-10 23:2

Lab Sample ID W9VM100323-02 **Quant Type** ISTD **Method:** 031810V9\VOA9-8260-031810.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1686	0.14259		.01		-15.42705	30		Averaged	
Bromodichloromethane	0.3681	0.32101		.01		-12.79272	30		Averaged	
2-Chloroethylvinyl ether	0.1757	0.13599		.01		-22.60102	30		Averaged	
cis-1,3-Dichloropropylene	0.4142	0.3893		.01		-6.01159	30		Averaged	
4-Methyl-2-pentanone	0.1789	0.1854		.01		3.63331	40		Averaged	
Toluene	1.4791	1.30119		.01		-12.02826	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.5498	0.54166		.01		-1.48054	30		Averaged	
1,1,2-Trichloroethane	0.2763	0.25368		.01		-8.18675	30		Averaged	
2-Hexanone	0.5037	0.50759		.01		0.77229	40		Averaged	
1,3-Dichloropropane	0.5754	0.4985		.01		-13.36462	30		Averaged	
Tetrachloroethylene	0.2031	0.19528		.01		-3.85032	30		Averaged	
Dibromochloromethane	0.3275	0.30873		.01		-5.7313	30		Averaged	
1,2-Dibromoethane	0.3176	0.29115		.01		-8.32809	30		Averaged	
Chlorobenzene	0.8886	0.82197		.3		-7.49831	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3085	0.2874		.01		-6.83955	30		Averaged	
Ethylbenzene	1.614	1.44373		.01		-10.54957	20		Averaged	ccc
m,p-Xylenes	0.5764	0.54521		.01		-5.41117	30		Averaged	
o-Xylene	0.5949	0.5637		.01		-5.24458	30		Averaged	
Styrene	0.9584	0.92099		.01		-3.90338	30		Averaged	
Bromoform	0.3628	0.36097		.1		-0.50441	30		Averaged	spcc
Isopropylbenzene	3.1925	3.07404		.01		-3.71057	30		Averaged	
1,1,2,2-Tetrachloroethane	0.9657	0.9037		.3		-6.42021	30		Averaged	spcc
1,2,3-Trichloropropane	0.2424	0.21911		.01		-9.60809	30		Averaged	
Bromobenzene	0.7169	0.64136		.01		-10.53703	30		Averaged	
n-Propylbenzene	4.0735	3.84434		.01		-5.62563	30		Averaged	
1,3,5-Trimethylbenzene	2.7054	2.55685		.01		-5.49087	30		Averaged	
2-Chlorotoluene	0.7947	0.75593		.01		-4.87857	30		Averaged	
4-Chlorotoluene	2.719	2.52537		.01		-7.12137	30		Averaged	
tert-Butylbenzene	0.5108	0.51786		.01		1.38215	30		Averaged	
1,2,4-Trimethylbenzene	2.872	2.67085		.01		-7.00383	30		Averaged	
sec-Butylbenzene	3.6715	3.54998		.01		-3.30982	30		Averaged	
4-Isopropyltoluene	2.8213	2.80346		.01		-0.63233	30		Averaged	
1,3-Dichlorobenzene	1.4704	1.35151		.01		-8.08555	30		Averaged	
1,4-Dichlorobenzene	1.4591	1.33022		.01		-8.83284	30		Averaged	
n-Butylbenzene	3.1239	3.1156		.01		-0.26569	30		Averaged	
1,2-Dichlorobenzene	1.4513	1.30755		.01		-9.90491	30		Averaged	
1,2-Dibromo-3-chloropropane	50	46.16	50			-7.68	30		Linear	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Dat** 23-MAR-10 10:54

Data File: 032310V9\9E202.D **Init. Cal. Date(s)** 18-MAR-10 16:15 18-MAR-10 23:2

Lab Sample ID W9VM100323-02 **Quant Type** ISTD **Method:** 031810V9\VOA9-8260-031810.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8965	0.85886		.01		-4.19855	30		Averaged
Hexachlorobutadiene	0.4139	0.39272		.01		-5.11718	30		Averaged
Naphthalene	2.4895	2.19005		.01		-12.02852	30		Averaged
1,2,3-Trichlorobenzene	0.8204	0.73999		.01		-9.80132	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E202.D
Acq On : 23 Mar 2010 10:54 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100323-02|CCV|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[A]0305-01D/0318-01 SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 23 11:21:38 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.775	10.775	1.000	96	1354101	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.941	13.941	1.000	117	927883	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	430364	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	1354101	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	927883	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	430388	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	463038	45.06	ug/L	0.00
43) Toluene-d8	12.412	12.412	0.890	98	1190251	49.98	ug/L	0.00
61) Bromofluorobenzene	15.127	15.127	0.924	95	513861	50.44	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.958	4.944	0.460	85	215412	58.41	ug/L	98
3) Chloromethane	5.322	5.308	0.494	50	500010	43.78	ug/L	99
4) Vinyl chloride	5.574	5.546	0.517	62	395394	51.52	ug/L	100
5) Bromomethane	6.198	6.186	0.575	94	259498	48.09	ug/L	99
6) Chloroethane	6.352	6.340	0.590	64	271178	49.78	ug/L	100
7) Trichlorofluoromethane	6.779	6.767	0.629	101	437960	48.68	ug/L	100
8) Ethyl ether	7.099	7.099	0.659	59	329982	41.50	ug/L	94
9) Acetone	7.490	7.490	0.695	43	1474064	290.01	ug/L	95
10) 1,1-Dichloroethylene	7.514	7.502	0.697	61	565988	43.43	ug/L	99
11) Iodomethane	7.775	7.763	0.722	142	1863461	206.31	ug/L	97
12) Acetonitrile	7.858	7.858	0.729	41	1305951	956.36	ug/L	99
13) Methyl acetate	7.882	7.882	0.731	43	1455746	193.57	ug/L	98
14) Carbon disulfide	7.906	7.906	0.734	76	4501587	227.53	ug/L	99
15) Methylene chloride	8.083	8.083	0.750	84	345760	47.76	ug/L	96
16) tert-Butyl methyl ether	8.368	8.368	0.777	73	902820	43.40	ug/L	100
17) trans-1,2-Dichloroethy...	8.427	8.427	0.782	61	555615	44.80	ug/L	100
18) Vinyl acetate	8.854	8.854	0.822	43	4299581	226.80	ug/L	98
19) 1,1-Dichloroethane	8.913	8.913	0.827	63	679643	45.05	ug/L	100
20) 2-Butanone	9.495	9.483	0.881	43	1701913	244.12	ug/L	96
21) cis-1,2-Dichloroethylene	9.554	9.554	0.887	61	638128	45.39	ug/L	98
22) 2,2-Dichloropropane	9.578	9.578	0.889	77	467092	48.68	ug/L	97
23) Bromochloromethane	9.827	9.827	0.912	128	141736	42.67	ug/L	94
24) Chloroform	9.862	9.850	0.915	83	556155	42.85	ug/L	97
25) 1,1,1-Trichloroethane	10.135	10.135	0.941	97	462220	46.78	ug/L	100
26) Cyclohexane	10.230	10.230	0.949	56	748647	50.49	ug/L	100
27) 1,1-Dichloropropene	10.289	10.289	0.955	75	432455	47.48	ug/L	98
28) Carbon tetrachloride	10.325	10.325	0.958	117	386768	47.08	ug/L	99
30) 1,2-Dichloroethane	10.514	10.514	0.976	62	517772	38.71	ug/L	100
31) Benzene	10.538	10.538	0.978	78	1196927	44.75	ug/L	99
32) Cyclohexene	10.645	10.645	0.988	67	657629	48.57	ug/L	98
33) n-Butyl alcohol	10.846	10.846	1.007	56	1285453	5018.63	ug/L	92
34) Trichloroethylene	11.167	11.167	1.036	95	313299	45.36	ug/L	98
35) 1,2-Dichloropropane	11.416	11.416	1.059	63	384320	44.63	ug/L	100
36) Methylcyclohexane	11.416	11.416	1.059	83	540141	50.24	ug/L	97
37) Dibromomethane	11.558	11.558	1.073	93	193078	42.28	ug/L	99
38) Bromodichloromethane	11.665	11.665	1.083	83	434681	43.61	ug/L	99
39) 2-Chloroethylvinyl ether	11.866	11.866	1.101	63	920710	193.50	ug/L	99
40) cis-1,3-Dichloropropylene	12.103	12.103	1.123	75	527147	47.00	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E202.D
Acq On : 23 Mar 2010 10:54 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100323-02|CCV|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[A]0305-01D/0318-01 SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 23 11:21:38 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42) 4-Methyl-2-pentanone	12.186	12.186	0.874	58	860157	259.09	ug/L		86
44) Toluene	12.483	12.483	0.895	91	1207351	43.99	ug/L		97
45) trans-1,3-Dichloroprop...	12.637	12.637	0.906	75	502593	49.26	ug/L		99
46) 1,1,2-Trichloroethane	12.862	12.862	0.923	83	235383	45.91	ug/L		98
47) 2-Hexanone	13.028	13.028	0.935	43	2354907	251.94	ug/L		95
48) 1,3-Dichloropropane	13.052	13.052	0.936	76	462546	43.32	ug/L		95
49) Tetrachloroethylene	13.076	13.088	0.938	164	181198	48.07	ug/L		99
50) Dibromochloromethane	13.325	13.325	0.956	129	286467	47.13	ug/L		100
51) 1,2-Dibromoethane	13.503	13.503	0.969	107	270153	45.83	ug/L		99
52) Chlorobenzene	13.977	13.977	1.003	112	762696	46.25	ug/L		100
53) 1,1,1,2-Tetrachloroethane	14.025	14.024	1.006	131	266672	46.58	ug/L		99
54) Ethylbenzene	14.025	14.024	1.006	91	1339613	44.72	ug/L		99
55) m,p-Xylenes	14.131	14.131	1.014	106	1011783	94.59	ug/L		94
56) o-Xylene	14.570	14.570	1.045	106	523050	47.37	ug/L		95
57) Styrene	14.570	14.570	1.045	104	854567	48.05	ug/L		98
59) Bromoform	14.855	14.855	0.907	173	155350	49.75	ug/L		99
60) Isopropylbenzene	14.926	14.926	0.912	105	1322955	48.14	ug/L		98
62) 1,1,2,2-Tetrachloroethane	15.198	15.198	0.928	83	388918	46.79	ug/L		99
63) 1,2,3-Trichloropropane	15.293	15.293	0.934	110	94297	45.20	ug/L	#	98
64) Bromobenzene	15.353	15.353	0.938	156	276017	44.73	ug/L		98
65) n-Propylbenzene	15.353	15.353	0.938	91	1654467	47.19	ug/L		98
66) 1,3,5-Trimethylbenzene	15.495	15.495	0.946	105	1100377	47.26	ug/L		98
67) 2-Chlorotoluene	15.507	15.507	0.947	126	325327	47.56	ug/L		97
68) 4-Chlorotoluene	15.614	15.614	0.954	91	1086828	46.44	ug/L		99
69) tert-Butylbenzene	15.874	15.874	0.970	134	222869	50.69	ug/L		94
70) 1,2,4-Trimethylbenzene	15.910	15.910	0.972	105	1149439	46.50	ug/L		96
71) sec-Butylbenzene	16.112	16.112	0.984	105	1527783	48.34	ug/L		99
72) 4-Isopropyltoluene	16.230	16.230	0.991	119	1206510	49.68	ug/L		100
73) 1,3-Dichlorobenzene	16.313	16.313	0.996	146	581641	45.96	ug/L		100
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	572479	45.58	ug/L		99
75) n-Butylbenzene	16.693	16.693	1.020	91	1340842	49.87	ug/L		98
76) 1,2-Dichlorobenzene	16.859	16.859	1.030	146	562723	45.05	ug/L		99
77) 1,2-Dibromo-3-chloropr...	17.784	17.784	1.086	157	59814	46.16	ug/L		97
78) 1,2,4-Trichlorobenzene	18.922	18.922	1.156	180	369621	47.90	ug/L		99
79) Hexachlorobutadiene	19.100	19.088	1.167	225	169012	47.44	ug/L		99
80) Naphthalene	19.349	19.349	1.182	128	942517	43.99	ug/L		99
81) 1,2,3-Trichlorobenzene	19.717	19.717	1.204	180	318464	45.10	ug/L		99
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.			
85) Acrolein	7.241	7.313	0.672		0m	N.D.	d		
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.			
87) Isopropyl Alcohol	7.490	7.550	0.695		0m	N.D.	d		
88) Allyl chloride	7.858	7.929	0.729		0m	N.D.	d		
89) tert-Butyl Alcohol	8.060	8.060	0.748		0m	N.D.	d		
90) Acrylonitrile	8.368	8.332	0.777		0m	N.D.	d		
91) Isopropyl ether	8.854	8.866	0.822		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	9.008	9.008	0.836		0m	N.D.	d		
93) Ethyl tert-butyl ether	9.269	9.269	0.860		0m	N.D.	d		
94) Ethyl acetate	9.495	9.483	0.881		0m	N.D.	d		
95) Propionitrile	9.483	9.578	0.880		0m	N.D.	d		
96) Methacrylonitrile	9.838	9.744	0.913		0m	N.D.	d		
97) Tetrahydrofuran	9.862	9.874	0.915		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E202.D
Acq On : 23 Mar 2010 10:54 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100323-02|CCV|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[A]0305-01D/0318-01 SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 23 11:21:38 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	10.123	10.159	0.939		0m	N.D.	d
99)	Methyl tert-amyl ether	10.538	10.526	0.978		0m	N.D.	d
100)	Methyl methacrylate	11.416	11.368	1.059		0m	N.D.	d
101)	1,4-Dioxane	11.499	11.487	1.067		0m	N.D.	d
102)	2-Nitropropane	11.866	11.854	1.101		0m	N.D.	d
104)	Ethyl methacrylate	0.000	12.613	0.000		0	N.D.	
106)	1-Chlorohexane	13.941	13.823	0.852		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.926	14.961	0.912		0m	N.D.	d
108)	Cyclohexanone	14.926	15.092	0.912		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	15.341	15.246	0.937		0m	N.D.	d
110)	Pentachloroethane	15.957	15.957	0.975		0m	N.D.	d
111)	Benzyl chloride	16.491	16.527	1.007		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.930	16.918	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E202.D
Acq On : 23 Mar 2010 10:54 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100323-02|CCV|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[A]0305-01D/0318-01 SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 23 11:21:38 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

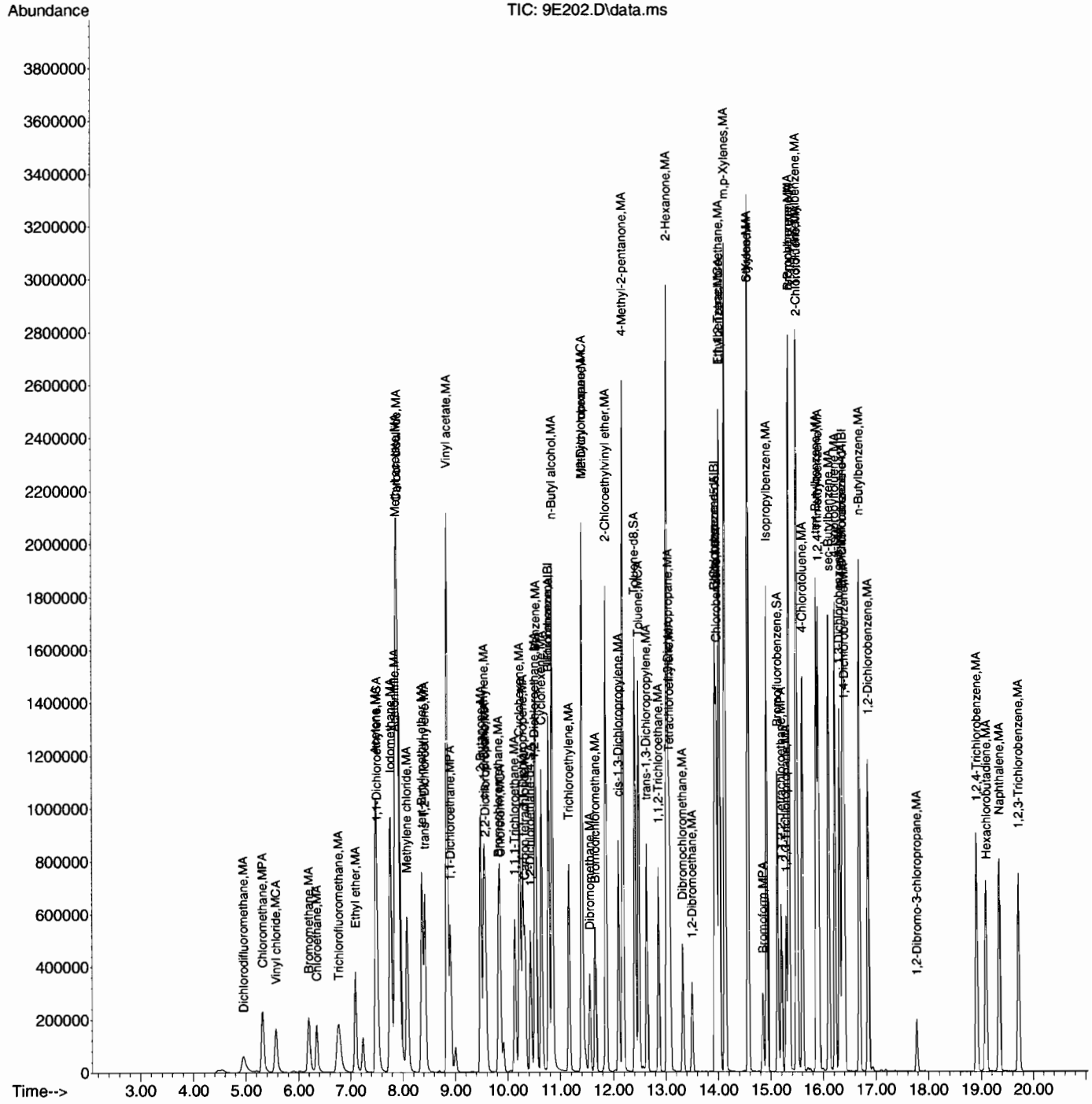

Continuing Calibration Summary

Client SDG: 10-2398

Instrument ID: VOA9.I **Injection Date** 23-MAR-10 11:21

Data File: 032310V9\9E203.D **Init. Cal. Date(s)** 18-MAR-10 16:15 - 18-MAR-10 23:2

Lab Sample ID W9VM100323-03 **Quant Type** ISTD **Method:** 031810V9\VOA9-8260-031810.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.3795	0.31929		.01		-15.86561	30		Averaged
S	Toluene-d8	1.2833	1.31405		.01		2.39617	30		Averaged
S	Bromofluorobenzene	1.1836	1.18662		.01		0.25515	30		Averaged
	Acrolein	0.055	0.06599		.01		19.98182	30		Averaged
	Trichlorotrifluoroethane	0.0897	0.0925		.01		3.12152	30		Averaged
	Allyl chloride	0.4938	0.5458		.01		10.53058	30		Averaged
	Acrylonitrile	0.1263	0.11655		.01		-7.71971	30		Averaged
	2-Chloro-1,3-butadiene	0.4351	0.57088		.01		31.20662	30	*	Averaged
	Ethyl acetate	0.332	0.25799		.01		-22.29217	40		Averaged
	Propionitrile	0.0496	0.04249		.01		-14.33468	30		Averaged
	Methacrylonitrile	0.2032	0.17672		.01		-13.0315	30		Averaged
	Tetrahydrofuran	0.1088	0.09003		.01		-17.25184	30		Averaged
	Isobutyl alcohol	0.0131	0.00971		.01		-25.87786	40		Averaged
	Methyl methacrylate	0.1618	0.15126		.01		-6.51422	30		Averaged
	1,4-Dioxane	0.0026	0.00206		.01		-20.76923	40		Averaged
	2-Nitropropane	250	217.16	250			-13.136	30		Linear
	Ethyl methacrylate	0.4396	0.42172		.01		-4.06733	30		Averaged
	cis-1,4-Dichloro-2-butene	0.3645	0.39661		.01		8.80933	30		Averaged
	Cyclohexanone	0.0347	0.02692		.01		-22.42075	40		Averaged
	trans-1,4-Dichloro-2-butene	0.3467	0.37209		.01		7.32333	30		Averaged
	Pentachloroethane	0.2952	0.39906		.01		35.18293	30	*	Averaged
	Benzyl chloride	1.2161	1.57399		.01		29.42932	30		Averaged
	bis(2-Chloroisopropyl)ether	0.627	0.53229		.01		-15.10526	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E203.D
Acq On : 23 Mar 2010 11:21 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100323-03|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]UVM100304-08B
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 23 11:45:28 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.775	10.775	1.000	96	1402014	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.941	13.941	1.000	117	939641	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	419327	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	1402014	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	939641	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	419350	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	447643	42.07	ug/L	0.00
43) Toluene-d8	12.412	12.412	0.890	98	1234739	51.20	ug/L	0.00
61) Bromofluorobenzene	15.127	15.127	0.924	95	497580	50.13	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	5.294	5.308	0.491		0m	N.D.	d	
4) Vinyl chloride	5.560	5.546	0.516		0m	N.D.	d	
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	7.087	7.099	0.658		0m	N.D.	d	
9) Acetone	7.479	7.490	0.694		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.467	7.502	0.693		0m	N.D.	d	
11) Iodomethane	7.751	7.763	0.719		0m	N.D.	d	
12) Acetonitrile	7.941	7.858	0.737		0m	N.D.	d	
13) Methyl acetate	7.882	7.882	0.731		0m	N.D.	d	
14) Carbon disulfide	7.941	7.906	0.737		0m	N.D.	d	
15) Methylene chloride	8.083	8.083	0.750		0m	N.D.	d	
16) tert-Butyl methyl ether	8.356	8.368	0.775		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.415	8.427	0.781		0m	N.D.	d	
18) Vinyl acetate	8.854	8.854	0.822		0m	N.D.	d	
19) 1,1-Dichloroethane	8.913	8.913	0.827		0m	N.D.	d	
20) 2-Butanone	9.483	9.483	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.483	9.554	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	9.850	9.850	0.914		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	10.159	10.230	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.277	10.289	0.954		0m	N.D.	d	
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.514	10.514	0.976		0m	N.D.	d	
31) Benzene	10.538	10.538	0.978		0m	N.D.	d	
32) Cyclohexene	10.645	10.645	0.988		0m	N.D.	d	
33) n-Butyl alcohol	10.846	10.846	1.007		0m	N.D.	d	
34) Trichloroethylene	11.167	11.167	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	11.416	11.416	1.059		0m	N.D.	d	
36) Methylcyclohexane	11.368	11.416	1.055		0m	N.D.	d	
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		
38) Bromodichloromethane	11.665	11.665	1.083		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	12.103	12.103	1.123		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E203.D
Acq On : 23 Mar 2010 11:21 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100323-03|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]UVM100304-08B
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 23 11:45:28 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42)	4-Methyl-2-pentanone	12.175	12.186	0.873		0m	N.D.	d	
44)	Toluene	12.483	12.483	0.895		0m	N.D.	d	
45)	trans-1,3-Dichloroprop...	12.637	12.637	0.906		0m	N.D.	d	
46)	1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.		
47)	2-Hexanone	13.028	13.028	0.935		0m	N.D.	d	
48)	1,3-Dichloropropane	13.088	13.052	0.939		0m	N.D.	d	
49)	Tetrachloroethylene	13.076	13.088	0.938		0m	N.D.	d	
50)	Dibromochloromethane	0.000	13.325	0.000		0	N.D.		
51)	1,2-Dibromoethane	13.503	13.503	0.969		0m	N.D.	d	
52)	Chlorobenzene	13.977	13.977	1.003		0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane	14.036	14.024	1.007		0m	N.D.	d	
54)	Ethylbenzene	14.024	14.024	1.006		0m	N.D.	d	
55)	m,p-Xylenes	14.131	14.131	1.014		0m	N.D.	d	
56)	o-Xylene	14.570	14.570	1.045		0m	N.D.	d	
57)	Styrene	14.570	14.570	1.045		0m	N.D.	d	
59)	Bromoform	0.000	14.855	0.000		0	N.D.		
60)	Isopropylbenzene	14.926	14.926	0.912		0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane	15.246	15.198	0.931		0m	N.D.	d	
63)	1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.		
64)	Bromobenzene	15.353	15.353	0.938		0m	N.D.	d	
65)	n-Propylbenzene	15.353	15.353	0.938		0m	N.D.	d	
66)	1,3,5-Trimethylbenzene	15.495	15.495	0.946		0m	N.D.	d	
67)	2-Chlorotoluene	15.507	15.507	0.947		0m	N.D.	d	
68)	4-Chlorotoluene	15.614	15.614	0.954		0m	N.D.	d	
69)	tert-Butylbenzene	15.886	15.874	0.970		0m	N.D.	d	
70)	1,2,4-Trimethylbenzene	15.910	15.910	0.972		0m	N.D.	d	
71)	sec-Butylbenzene	16.112	16.112	0.984		0m	N.D.	d	
72)	4-Isopropyltoluene	16.230	16.230	0.991		0m	N.D.	d	
73)	1,3-Dichlorobenzene	16.313	16.313	0.996		0m	N.D.	d	
74)	1,4-Dichlorobenzene	16.396	16.408	1.001		0m	N.D.	d	
75)	n-Butylbenzene	16.693	16.693	1.020		0m	N.D.	d	
76)	1,2-Dichlorobenzene	16.859	16.859	1.030		0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...	17.784	17.784	1.086		0m	N.D.	d	
78)	1,2,4-Trichlorobenzene	18.922	18.922	1.156		0m	N.D.	d	
79)	Hexachlorobutadiene	19.100	19.088	1.167		0m	N.D.	d	
80)	Naphthalene	19.349	19.349	1.182		0m	N.D.	d	
81)	1,2,3-Trichlorobenzene	19.717	19.717	1.204		0m	N.D.	d	
83)	Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.		
85)	Acrolein	7.313	7.313	0.679	56	462627	299.95	ug/L	99
86)	Trichlorotrifluoroethane	7.467	7.467	0.693	85	648408	257.73	ug/L	97
87)	Isopropyl Alcohol	0.000	7.550	0.000		0m	N.D.	d	
88)	Allyl chloride	7.941	7.929	0.737	41	3826078	276.34	ug/L	96
89)	tert-Butyl Alcohol	0.000	8.060	0.000		0	N.D.		
90)	Acrylonitrile	8.344	8.332	0.774	53	817056	230.79	ug/L	97
91)	Isopropyl ether	9.008	8.866	0.836	45	283	N.D.		
92)	2-Chloro-1,3-butadiene	9.008	9.008	0.836	53	800385	65.61	ug/L	97
93)	Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.		
94)	Ethyl acetate	9.483	9.483	0.880	43	1808514	194.28	ug/L	95
95)	Propionitrile	9.578	9.578	0.889	54	297844	214.29	ug/L	98
96)	Methacrylonitrile	9.755	9.744	0.905	41	1238809	217.43	ug/L	99
97)	Tetrahydrofuran	9.874	9.874	0.916	42	631130	206.84	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E203.D
Acq On : 23 Mar 2010 11:21 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100323-03|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]UVM100304-08B
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 23 11:45:28 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98)	Isobutyl alcohol	10.159	10.159	0.943	41	680956	1851.58	ug/L	92
99)	Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.		
100)	Methyl methacrylate	11.368	11.368	1.055	69	1060350	233.73	ug/L	89
101)	1,4-Dioxane	11.487	11.487	1.066	88	144369	2011.61	ug/L	96
102)	2-Nitropropane	11.854	11.854	1.100	43	593143	217.16	ug/L	98
104)	Ethyl methacrylate	12.613	12.613	0.905	69	1981335	239.83	ug/L	92
106)	1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d	
107)	cis-1,4-Dichloro-2-butene	14.961	14.961	0.914	53	831597	272.05	ug/L	97
108)	Cyclohexanone	15.092	15.092	0.922	42	282253	969.62	ug/L	90
109)	trans-1,4-Dichloro-2-b...	15.246	15.246	0.931	53	780190	268.31	ug/L	96
110)	Pentachloroethane	15.957	15.957	0.975	167	836724	337.93	ug/L	95
111)	Benzyl chloride	16.527	16.527	1.009	91	3300258	323.57	ug/L	99
112)	bis(2-Chloroisopropyl)...	16.918	16.918	1.033	45	1116086	212.24	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E203.D
Acq On : 23 Mar 2010 11:21 am
Operator : RXY1
InstName : VOA9
Sample : |W9VM100323-03|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[B]UVM100304-08B
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 23 11:45:28 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

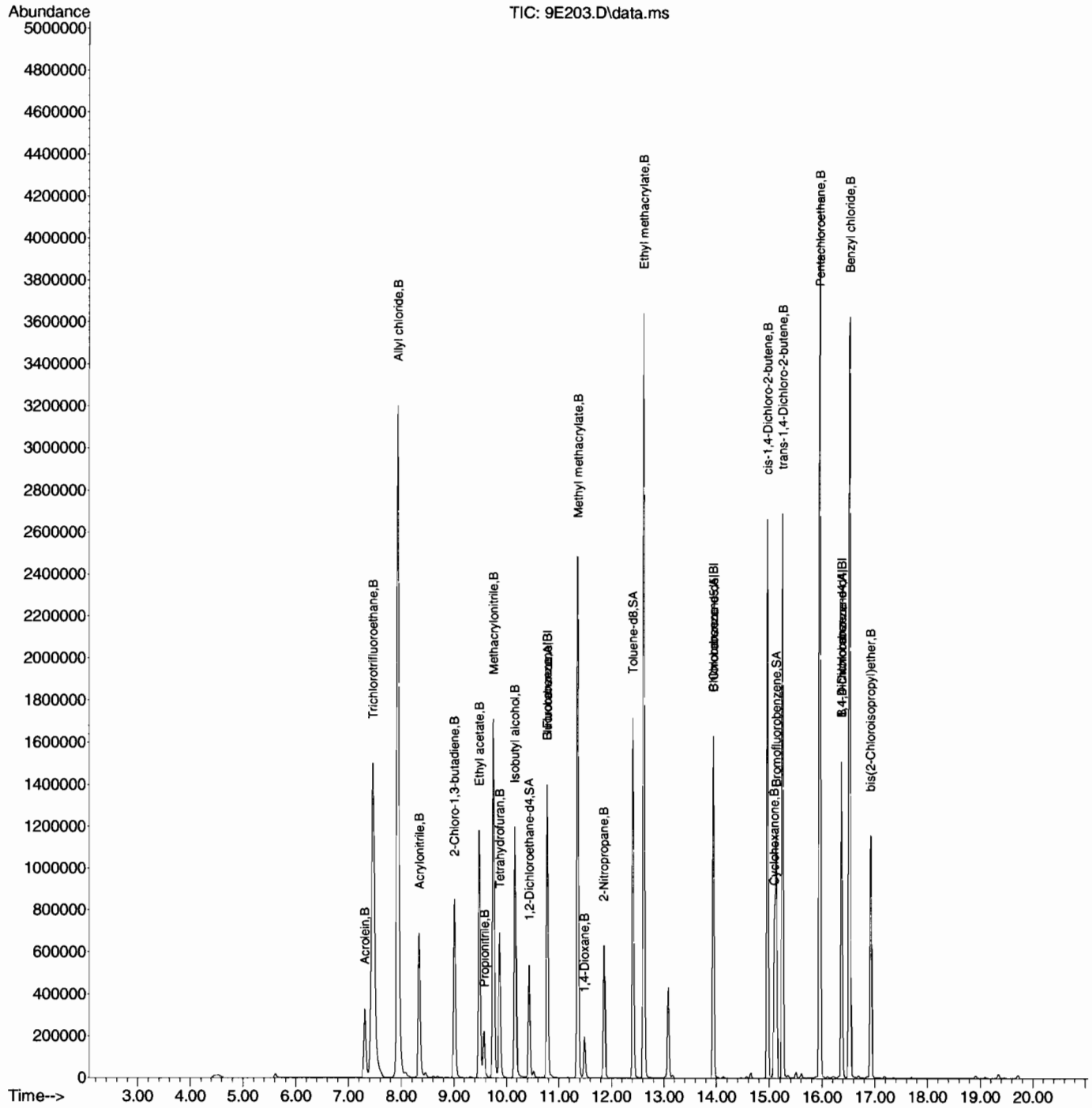

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031810V9\
Data File : 9D414.D
Acq On : 18 Mar 2010 3:47 pm
Operator : RXY1
Sample : |UVM100217-02|BFB|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a
ALS Vial : 14 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Title : Volatile Organics 8260B SubList :
Last Update : Fri Mar 19 08:59:19 2010

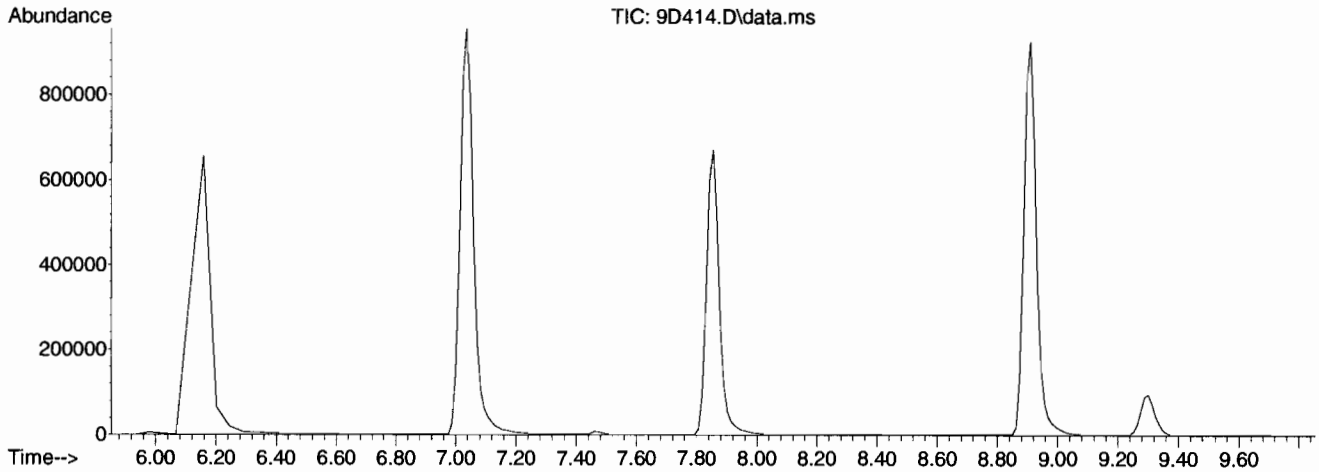

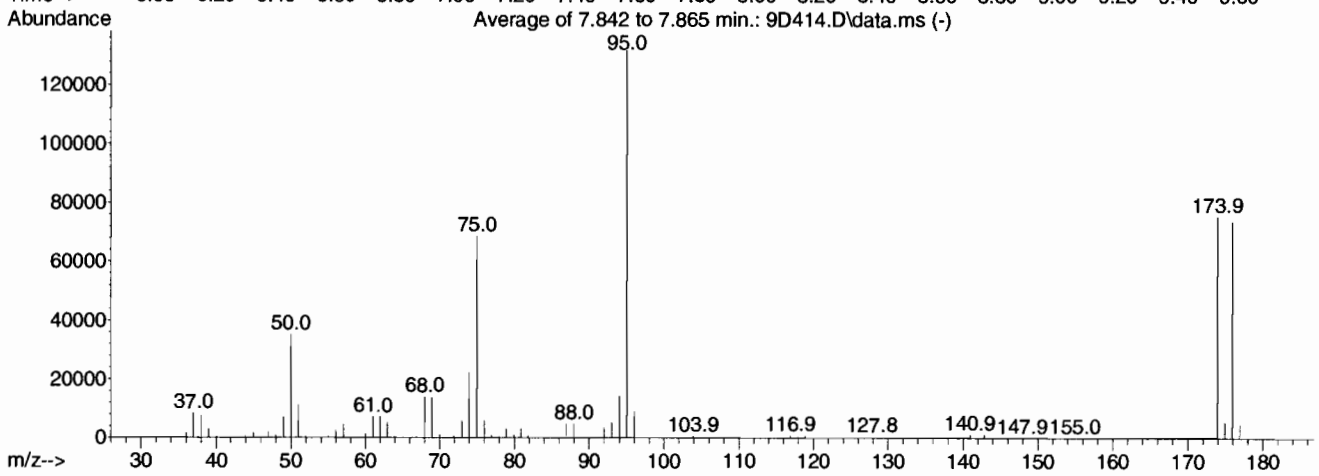

AutoFind: Scans 223, 224, 225; Background Corrected with Scan 216

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.7	35224	PASS
75	95	30	60	52.0	68571	PASS
95	95	100	100	100.0	131816	PASS
96	95	5	9	6.8	9025	PASS
173	174	0.00	2	0.5	356	PASS
174	95	50	100	57.2	75387	PASS
175	174	5	9	7.2	5424	PASS
176	174	95	101	97.9	73813	PASS
177	176	5	9	6.4	4721	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D501BFB.D
Acq On : 19 Mar 2010 1:44 pm
Operator : RXY1
Sample : |W9VM100319-01|BFB|1|VOA|1|VOA8260BL|
Misc : GEL 5ml n/a MIX[A]0314-07A/0315-07A
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Title : Volatile Organics 8260B SubList :
Last Update : Fri Mar 19 08:59:19 2010

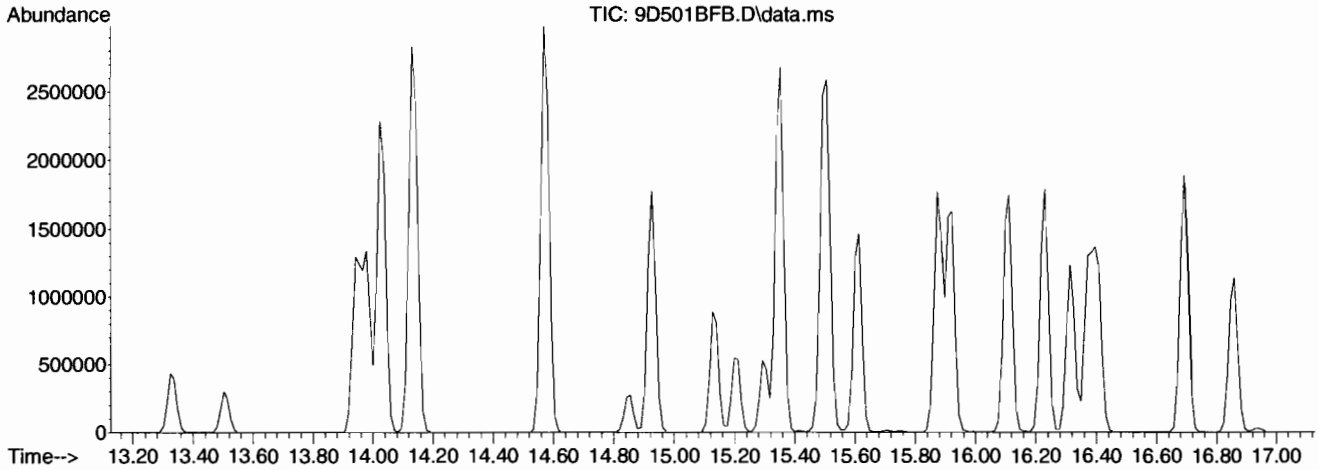

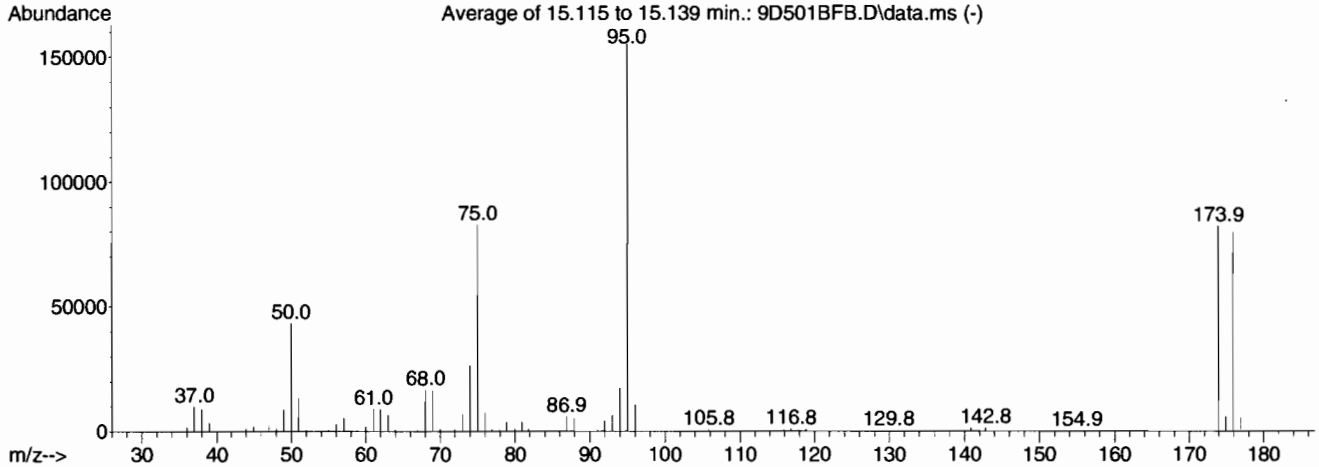

AutoFind: Scans 1049, 1050, 1051; Background Corrected with Scan 1044

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	27.9	43347	PASS
75	95	30	60	53.3	82803	PASS
95	95	100	100	100.0	155224	PASS
96	95	5	9	6.9	10637	PASS
173	174	0.00	2	0.5	376	PASS
174	95	50	100	53.0	82195	PASS
175	174	5	9	7.1	5830	PASS
176	174	95	101	97.0	79709	PASS
177	176	5	9	6.7	5305	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E202BFB.D
Acq On : 23 Mar 2010 10:54 am
Operator : RXY1
Sample : |W9VM100323-02|BFB|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[A]0305-01D/0318-01 SOIL
ALS Vial : 2 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Title : Volatile Organics 8260B SubList :
Last Update : Fri Mar 19 08:59:19 2010

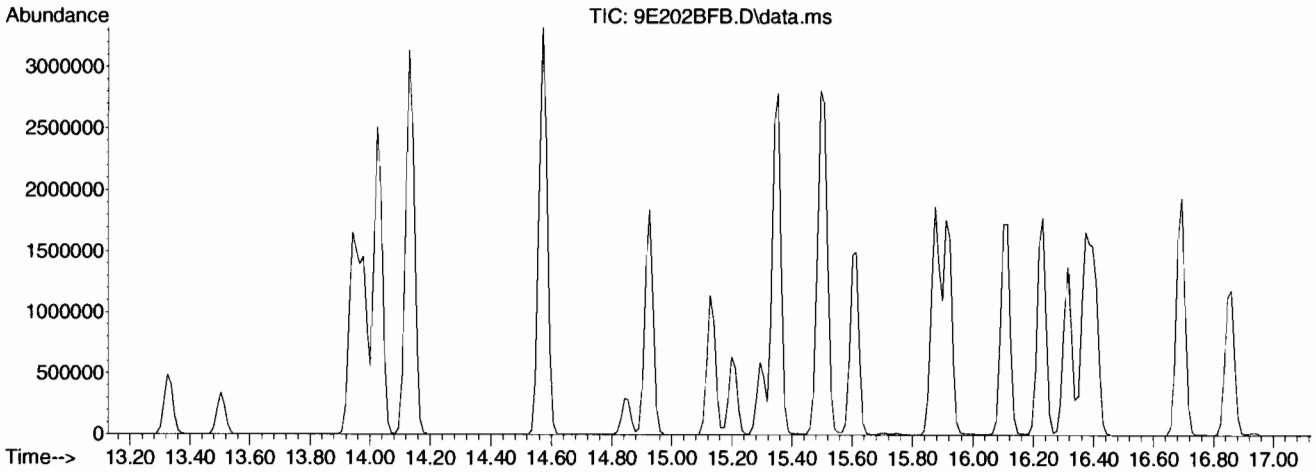

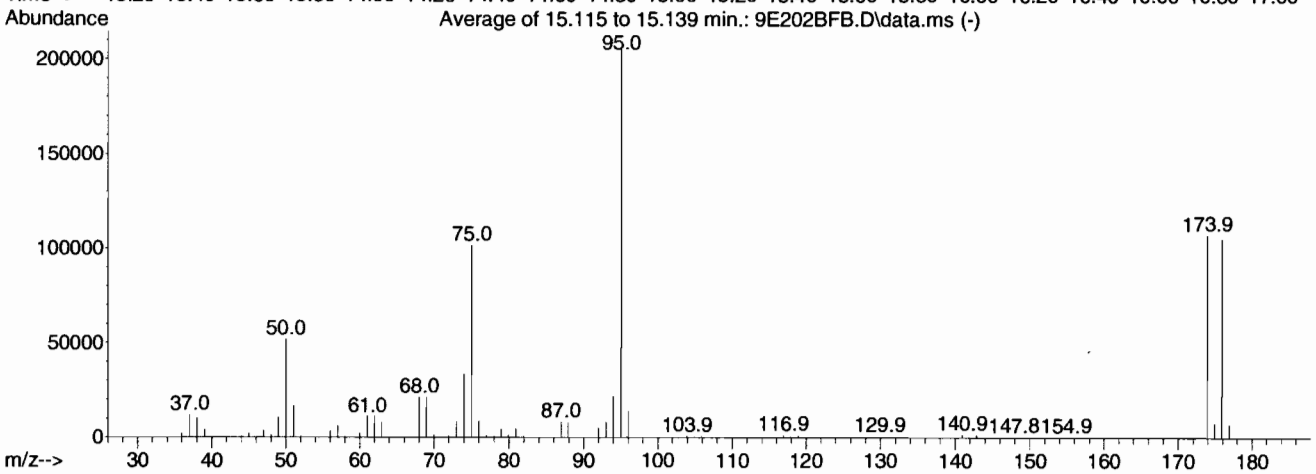

Spectrum Information: Average of 15.115 to 15.139 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.3	51760	PASS
75	95	30	60	49.6	101547	PASS
95	95	100	100	100.0	204757	PASS
96	95	5	9	6.8	14013	PASS
173	174	0.00	2	0.6	597	PASS
174	95	50	100	52.4	107304	PASS
175	174	5	9	7.1	7656	PASS
176	174	95	101	98.0	105184	PASS
177	176	5	9	6.6	6994	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076340**				
Client Sample:	**QC for batch 967388**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 967388**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 16:44**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/19/2010 14:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D507B.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076340**				
Client Sample:	**QC for batch 967388**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 967388**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 16:44**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/19/2010 14:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D507B.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D507B.D
Acq On : 19 Mar 2010 4:44 pm
Operator : RXY1
InstName : VOA9
Sample : |1202076340|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 20 11:15:52 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.787	10.775	1.000	96	1210808	50.00	ug/L	0.01
41) Chlorobenzene-d5	13.941	13.941	1.000	117	845122	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	381432	50.00	ug/L	0.00
82) B Fluorobenzene	10.787	10.775	1.000	96	1210808	50.00	ug/L	0.01
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	845122	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	381408	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.967	65	418052	45.49	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 90.98%					
43) Toluene-d8	12.412	12.412	0.890	98	1012734	46.69	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 93.38%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	426521	47.24	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 94.48%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	5.294	5.308	0.491	50	767	N.D.		
4) Vinyl chloride	5.546	5.546	0.514	62	536	N.D.		
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	0.000	7.099	0.000		0	N.D.		
9) Acetone	7.490	7.490	0.694	43	2804	Below Cal	#	41
10) 1,1-Dichloroethylene	0.000	7.502	0.000		0	N.D.		
11) Iodomethane	0.000	7.763	0.000		0	N.D.		
12) Acetonitrile	7.917	7.858	0.734	41	1277	N.D.		
13) Methyl acetate	0.000	7.882	0.000		0	N.D.		
14) Carbon disulfide	7.894	7.906	0.732	76	1592	N.D.		
15) Methylene chloride	8.095	8.083	0.750	84	3011	Below Cal		94
16) tert-Butyl methyl ether	0.000	8.368	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.427	0.000		0	N.D.		
18) Vinyl acetate	8.854	8.854	0.821	43	436	N.D.		
19) 1,1-Dichloroethane	0.000	8.913	0.000		0	N.D.		
20) 2-Butanone	9.495	9.483	0.880	43	1077	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.554	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	0.000	9.850	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	10.242	10.230	0.949	56	182	N.D.		
27) 1,1-Dichloropropene	0.000	10.289	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.514	0.000		0	N.D.		
31) Benzene	10.538	10.538	0.977	78	254	N.D.		
32) Cyclohexene	0.000	10.645	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.846	0.000		0m	N.D.	d	
34) Trichloroethylene	0.000	11.167	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.416	0.000		0	N.D.		
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D507B.D
Acq On : 19 Mar 2010 4:44 pm
Operator : RXY1
InstName : VOA9
Sample : |1202076340|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 20 11:15:52 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.665	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	12.103	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.186	0.000		0	N.D.	
44) Toluene	12.495	12.483	0.896	91	1656	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.637	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.	
47) 2-Hexanone	13.028	13.028	0.935	43	445	N.D.	
48) 1,3-Dichloropropane	0.000	13.052	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	13.088	0.000		0	N.D.	
50) Dibromochloromethane	0.000	13.325	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.503	0.000		0	N.D.	
52) Chlorobenzene	13.977	13.977	1.003	112	372	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	14.024	0.000		0	N.D.	
54) Ethylbenzene	14.131	14.024	1.014	91	1352	N.D.	
55) m,p-Xylenes	14.131	14.131	1.014	106	464	N.D.	
56) o-Xylene	0.000	14.570	0.000		0	N.D.	
57) Styrene	14.570	14.570	1.045	104	199	N.D.	
59) Bromoform	0.000	14.855	0.000		0	N.D.	
60) Isopropylbenzene	14.926	14.926	0.912	105	396	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.198	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.	
64) Bromobenzene	0.000	15.353	0.000		0	N.D.	
65) n-Propylbenzene	15.353	15.353	0.938	91	698	N.D.	
66) 1,3,5-Trimethylbenzene	15.495	15.495	0.946	105	395	N.D.	
67) 2-Chlorotoluene	0.000	15.507	0.000		0	N.D.	
68) 4-Chlorotoluene	15.602	15.614	0.953	91	618	N.D.	
69) tert-Butylbenzene	0.000	15.874	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.922	15.910	0.972	105	191	N.D.	
71) sec-Butylbenzene	16.112	16.112	0.984	105	473	N.D.	
72) 4-Isopropyltoluene	16.230	16.230	0.991	119	311	N.D.	
73) 1,3-Dichlorobenzene	16.313	16.313	0.996	146	180	N.D.	
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	455	N.D.	
75) n-Butylbenzene	16.693	16.693	1.020	91	647	N.D.	
76) 1,2-Dichlorobenzene	16.859	16.859	1.030	146	178	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.922	18.922	1.156	180	190	N.D.	
79) Hexachlorobutadiene	0.000	19.088	0.000		0	N.D.	
80) Naphthalene	19.349	19.349	1.182	128	1859	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.717	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.	
85) Acrolein	0.000	7.313	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.550	0.000		0	N.D.	
88) Allyl chloride	7.917	7.929	0.734	41	1277	N.D.	
89) tert-Butyl Alcohol	0.000	8.060	0.000		0	N.D.	
90) Acrylonitrile	0.000	8.332	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.866	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	9.008	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.	
94) Ethyl acetate	9.495	9.483	0.880	43	1077	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D507B.D
Acq On : 19 Mar 2010 4:44 pm
Operator : RXY1
InstName : VOA9
Sample : |1202076340|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 20 11:15:52 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95) Propionitrile	0.000	9.578	0.000		0	N.D.		
96) Methacrylonitrile	9.874	9.744	0.915	41	411	N.D.		
97) Tetrahydrofuran	9.886	9.874	0.916	42	1116	N.D.		
98) Isobutyl alcohol	0.000	10.159	0.000		0	N.D.		
99) Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.		
100) Methyl methacrylate	0.000	11.368	0.000		0	N.D.		
101) 1,4-Dioxane	11.499	11.487	1.066	88	222	N.D.		
102) 2-Nitropropane	0.000	11.854	0.000		0	N.D.		
104) Ethyl methacrylate	12.625	12.613	0.906	69	201	N.D.		
106) 1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d	
107) cis-1,4-Dichloro-2-butene	14.973	14.961	0.915	53	416	N.D.		
108) Cyclohexanone	0.000	15.092	0.000		0	N.D.		
109) trans-1,4-Dichloro-2-b...	15.258	15.246	0.932	53	431	N.D.		
110) Pentachloroethane	0.000	15.957	0.000		0	N.D.		
111) Benzyl chloride	16.515	16.527	1.009	91	2013	N.D.		
112) bis(2-Chloroisopropyl)...	16.930	16.918	1.034	45	5796	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D507B.D
Acq On : 19 Mar 2010 4:44 pm
Operator : RXY1
InstName : VOA9
Sample : |1202076340|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 20 11:15:52 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

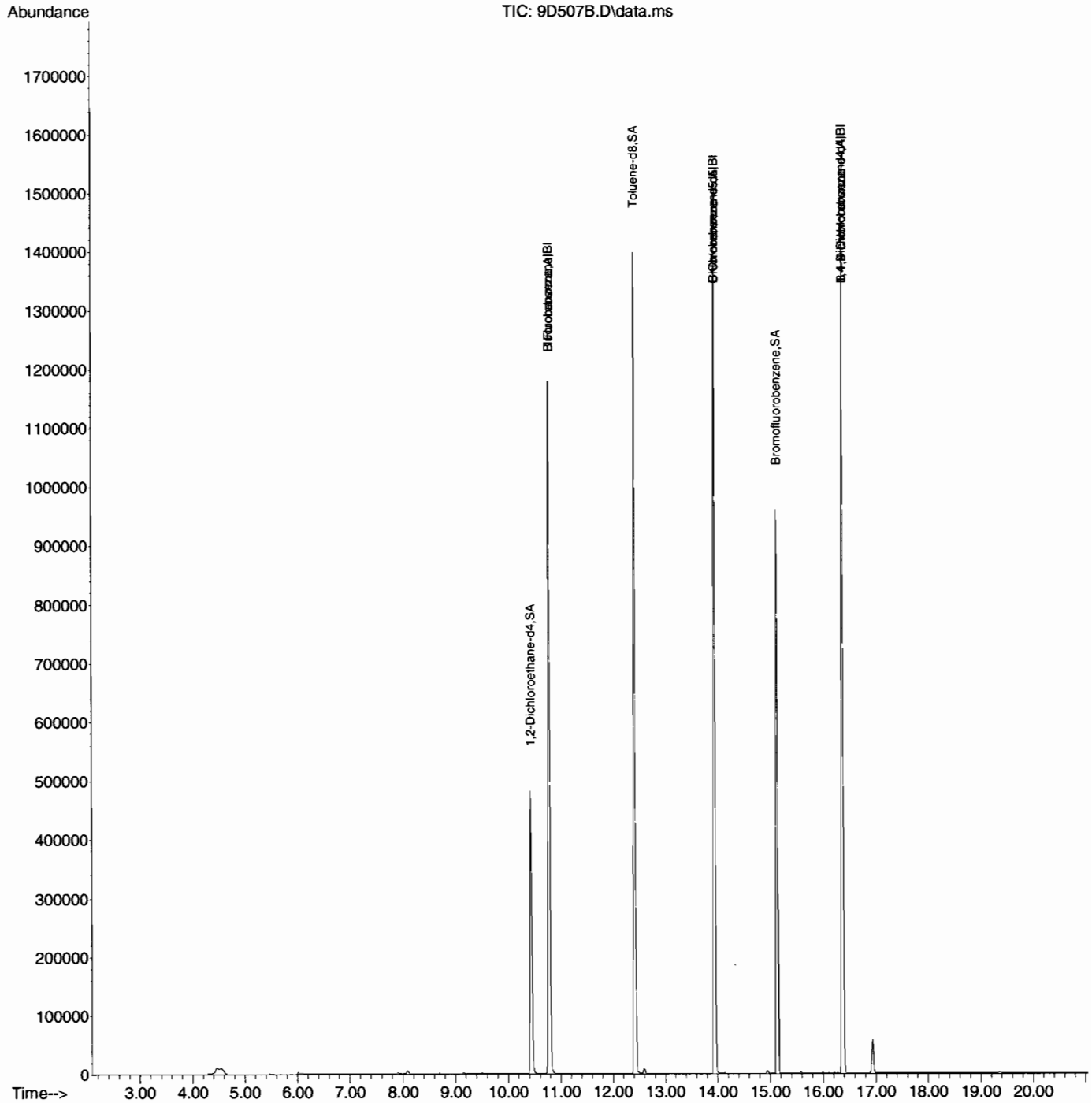

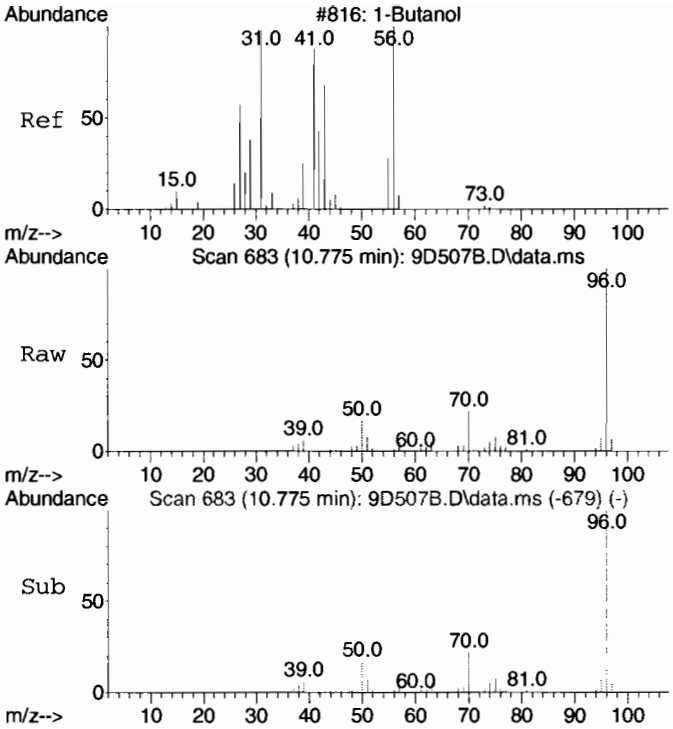

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 37.06 ug/L
RT: 10.775 min Scan# 683
Delta R.T. -0.071 min
Lab File: 9D507B.D
Acq: 19 Mar 2010 4:44 pm

Tgt Ion: 56 Resp: 8488

Ion	Ratio	Lower	Upper
56	100		
41	0.0	33.0	93.0#
43	0.0	25.0	85.0#

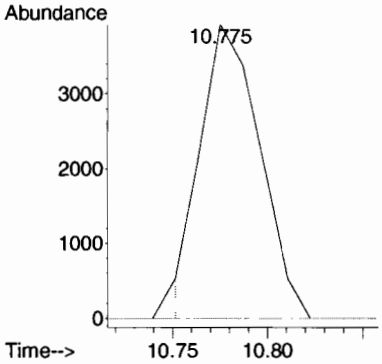

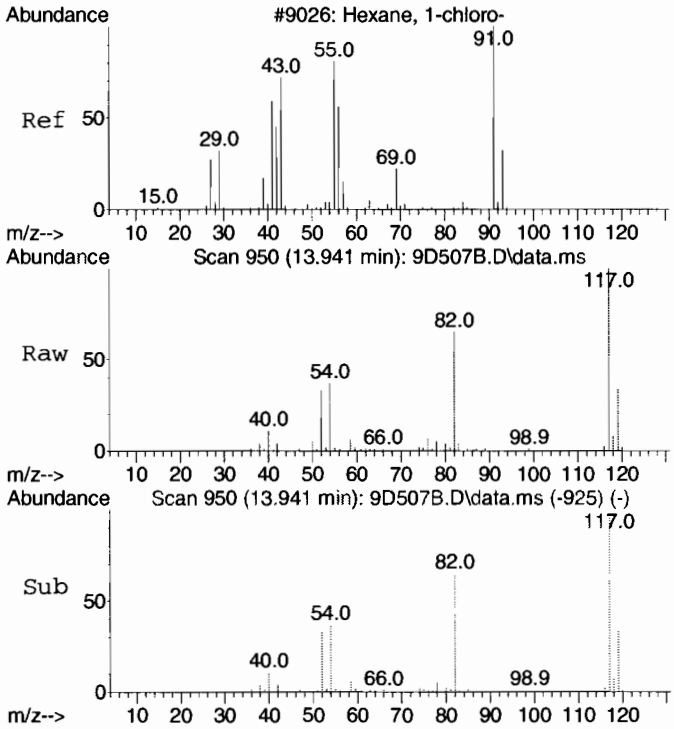

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.80 ug/L
RT: 13.941 min Scan# 950
Delta R.T. 0.118 min
Lab File: 9D507B.D
Acq: 19 Mar 2010 4:44 pm

Tgt Ion: 55 Resp: 13153

Ion	Ratio	Lower	Upper
55	100		
91	14.4	74.8	134.8#
56	58.7	31.8	91.8

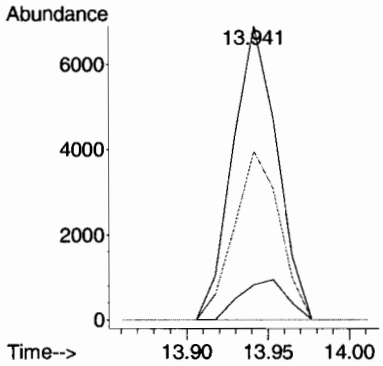

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D507B.D
Acq On : 19 Mar 2010 4:44 pm
Operator : RXY1
Sample : |1202076340|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D507B.D
Acq On : 19 Mar 2010 4:44 pm
Operator : RXY1
Sample : |1202076340|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202078894**				
Client Sample:	**QC for batch 967388**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 967388**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:12**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 10:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V9\9E207B.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202078894**				
Client Sample:	**QC for batch 967388**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 967388**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:12**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 10:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V9\9E207B.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.93	11.2	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E207B.D
Acq On : 23 Mar 2010 1:12 pm
Operator : RXY1
InstName : VOA9
Sample : |1202078894|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 23 13:34:49 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.775	10.775	1.000	96	1408378	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.942	13.941	1.000	117	947954	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.373	16.372	1.000	152	414066	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	1408378	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.942	13.942	1.000	117	947954	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.373	16.372	1.000	152	414085	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	467954	43.78	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 87.56%					
43) Toluene-d8	12.412	12.412	0.890	98	1225335	50.36	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 100.72%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	500145	51.02	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 102.04%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	5.294	5.308	0.491	50	797	N.D.		
4) Vinyl chloride	5.560	5.546	0.516	62	540	N.D.		
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	0.000	7.099	0.000		0	N.D.		
9) Acetone	7.502	7.490	0.696	43	3582	Below Cal		67
10) 1,1-Dichloroethylene	0.000	7.502	0.000		0	N.D.		
11) Iodomethane	7.763	7.763	0.720	142	185	N.D.		
12) Acetonitrile	7.858	7.858	0.729	41	2064	N.D.		
13) Methyl acetate	7.870	7.882	0.730	43	221	N.D.		
14) Carbon disulfide	7.882	7.906	0.731	76	2651	N.D.		
15) Methylene chloride	8.095	8.083	0.751	84	5621	Below Cal		89
16) tert-Butyl methyl ether	0.000	8.368	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.427	0.000		0	N.D.		
18) Vinyl acetate	8.854	8.854	0.822	43	1382	N.D.		
19) 1,1-Dichloroethane	0.000	8.913	0.000		0	N.D.		
20) 2-Butanone	9.495	9.483	0.881	43	1850	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.554	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	0.000	9.850	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	10.218	10.230	0.948	56	189	N.D.		
27) 1,1-Dichloropropene	0.000	10.289	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.514	0.000		0	N.D.		
31) Benzene	10.538	10.538	0.978	78	771	N.D.		
32) Cyclohexene	0.000	10.645	0.000		0	N.D.		
33) n-Butyl alcohol	10.858	10.846	1.008	56	1382	N.D.		
34) Trichloroethylene	0.000	11.167	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.416	0.000		0	N.D.		
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E207B.D
Acq On : 23 Mar 2010 1:12 pm
Operator : RXY1
InstName : VOA9
Sample : |1202078894|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 23 13:34:49 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	11.665	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	12.103	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.186	0.000		0	N.D.	
44) Toluene	12.483	12.483	0.895	91	3823	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.637	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.	
47) 2-Hexanone	13.028	13.028	0.935	43	1658	N.D.	
48) 1,3-Dichloropropane	0.000	13.052	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	13.088	0.000		0	N.D.	
50) Dibromochloromethane	0.000	13.325	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.503	0.000		0	N.D.	
52) Chlorobenzene	13.977	13.977	1.003	112	878	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	14.024	0.000		0	N.D.	
54) Ethylbenzene	14.131	14.024	1.014	91	1915	N.D.	
55) m,p-Xylenes	14.131	14.131	1.014	106	637	N.D.	
56) o-Xylene	14.570	14.570	1.045	106	179	N.D.	
57) Styrene	14.570	14.570	1.045	104	618	N.D.	
59) Bromoform	0.000	14.855	0.000		0	N.D.	
60) Isopropylbenzene	14.926	14.926	0.912	105	529	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.198	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.	
64) Bromobenzene	0.000	15.353	0.000		0	N.D.	
65) n-Propylbenzene	15.353	15.353	0.938	91	1228	N.D.	
66) 1,3,5-Trimethylbenzene	15.483	15.495	0.946	105	806	N.D.	
67) 2-Chlorotoluene	15.614	15.507	0.954	126	437	N.D.	
68) 4-Chlorotoluene	15.602	15.614	0.953	91	1615	N.D.	
69) tert-Butylbenzene	0.000	15.874	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.922	15.910	0.972	105	695	N.D.	
71) sec-Butylbenzene	16.112	16.112	0.984	105	774	N.D.	
72) 4-Isopropyltoluene	16.230	16.230	0.991	119	508	N.D.	
73) 1,3-Dichlorobenzene	16.313	16.313	0.996	146	1047	N.D.	
74) 1,4-Dichlorobenzene	16.396	16.408	1.001	146	1230	N.D.	
75) n-Butylbenzene	16.681	16.693	1.019	91	1339	N.D.	
76) 1,2-Dichlorobenzene	16.859	16.859	1.030	146	647	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.910	18.922	1.155	180	1057	N.D.	
79) Hexachlorobutadiene	0.000	19.088	0.000		0	N.D.	
80) Naphthalene	19.349	19.349	1.182	128	5278	N.D.	
81) 1,2,3-Trichlorobenzene	19.717	19.717	1.204	180	1902	N.D.	
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.	
85) Acrolein	0.000	7.313	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.550	0.000		0	N.D.	
88) Allyl chloride	7.858	7.929	0.729	41	2064	N.D.	
89) tert-Butyl Alcohol	0.000	8.060	0.000		0	N.D.	
90) Acrylonitrile	0.000	8.332	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.866	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	9.008	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.	
94) Ethyl acetate	9.495	9.483	0.881	43	1850	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E207B.D
Acq On : 23 Mar 2010 1:12 pm
Operator : RXY1
InstName : VOA9
Sample : |1202078894|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 23 13:34:49 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	9.578	0.000		0	N.D.	
96) Methacrylonitrile	9.886	9.744	0.917	41	413	N.D.	
97) Tetrahydrofuran	9.874	9.874	0.916	42	1002	N.D.	
98) Isobutyl alcohol	10.230	10.159	0.949	41	182	N.D.	
99) Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.368	0.000		0	N.D.	
101) 1,4-Dioxane	11.499	11.487	1.067	88	633	N.D.	
102) 2-Nitropropane	0.000	11.854	0.000		0	N.D.	
104) Ethyl methacrylate	12.613	12.613	0.905	69	197	N.D.	
106) 1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.961	0.000		0	N.D.	
108) Cyclohexanone	0.000	15.092	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	15.246	15.246	0.931	53	183	N.D.	
110) Pentachloroethane	0.000	15.957	0.000		0	N.D.	
111) Benzyl chloride	16.527	16.527	1.009	91	1860	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.918	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E207B.D
Acq On : 23 Mar 2010 1:12 pm
Operator : RXY1
InstName : VOA9
Sample : |1202078894|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 23 13:34:49 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

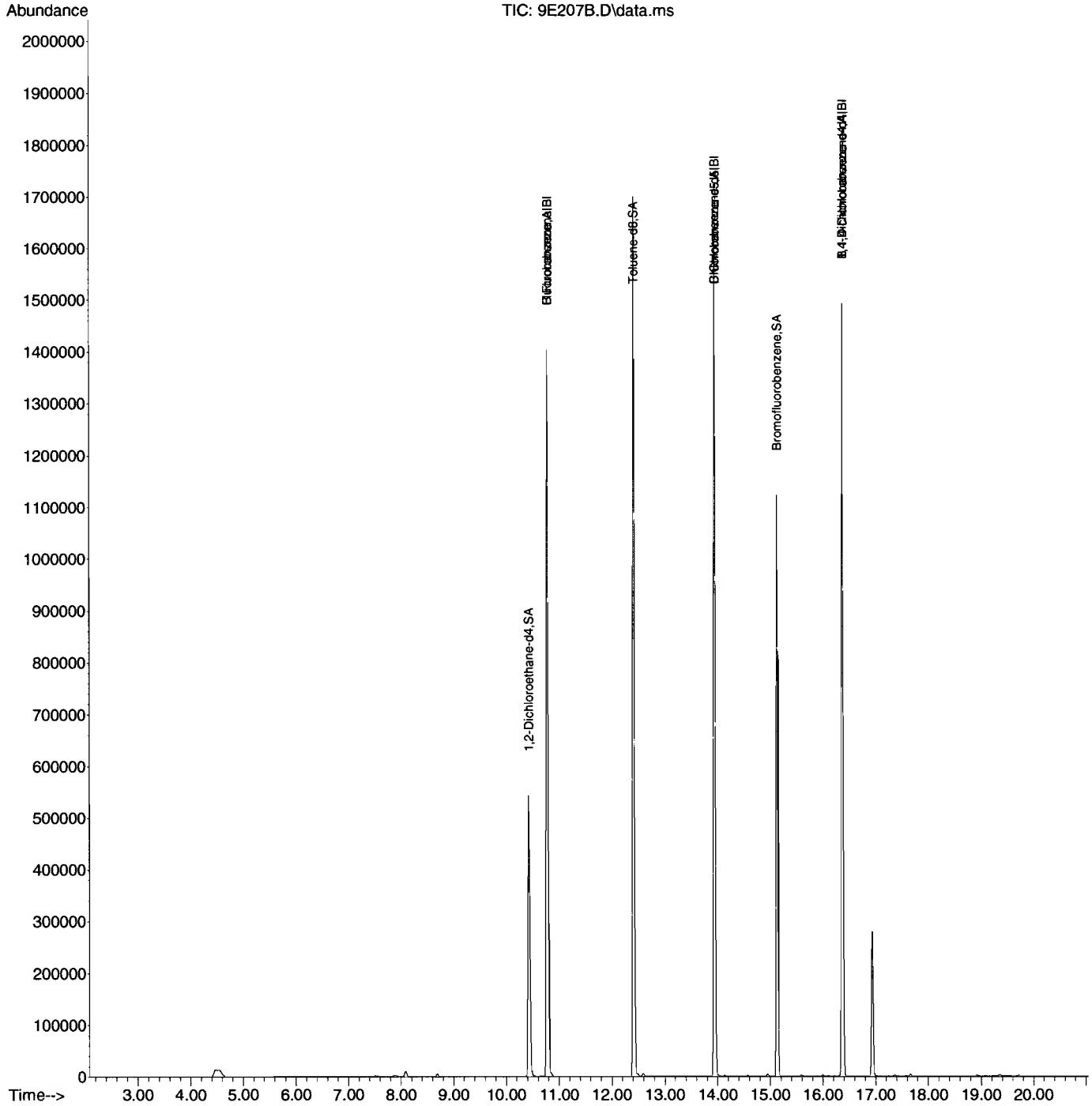

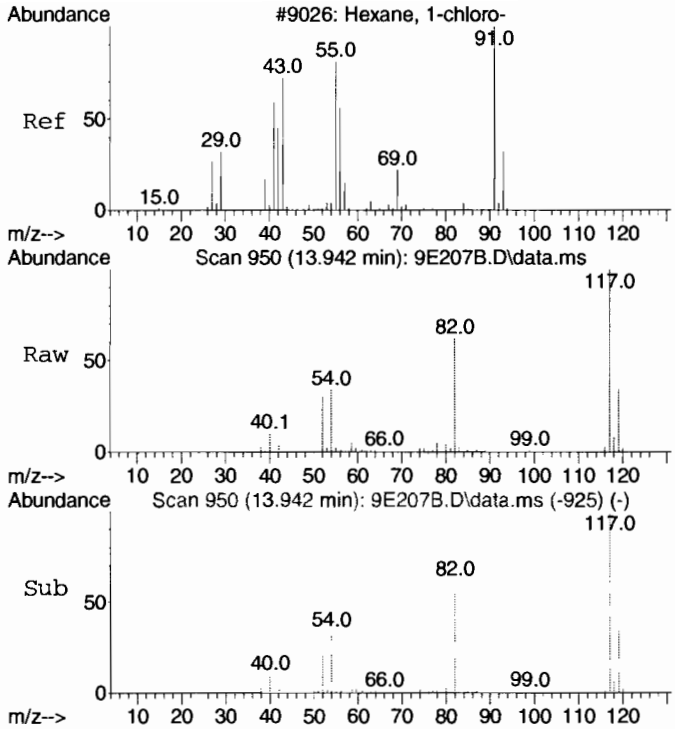

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.77 ug/L
RT: 13.942 min Scan# 950
Delta R.T. 0.119 min
Lab File: 9E207B.D
Acq: 23 Mar 2010 1:12 pm

Tgt Ion: 55 Resp: 14015

Ion	Ratio	Lower	Upper
55	100		
91	13.9	74.8	134.8#
56	64.8	31.8	91.8

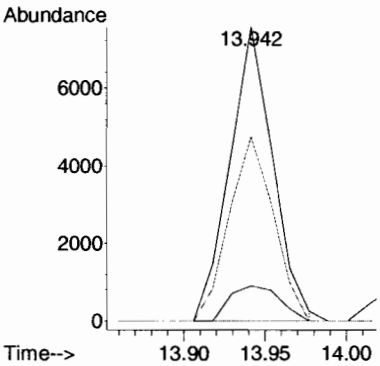

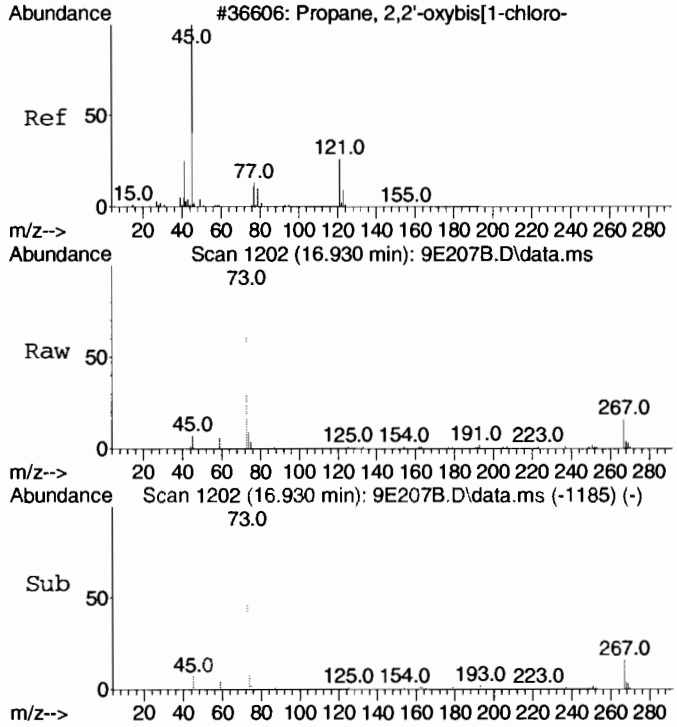

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 4.52 ug/L
RT: 16.930 min Scan# 1202
Delta R.T. 0.012 min
Lab File: 9E207B.D
Acq: 23 Mar 2010 1:12 pm

Tgt Ion: 45 Resp: 23456

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	46.4

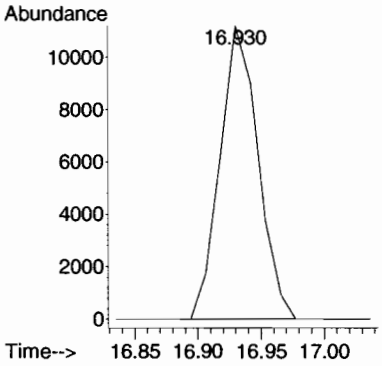

Library Search Compound Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E207B.D
Acq On    : 23 Mar 2010   1:12 pm
Operator  : RXY1
Sample    : |1202078894|967390|1|VOA|1|VOA8260BS|
Misc      : GEL 5g n/a SOIL
ALS Vial  : 7   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P
```

****

Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.930	11.17 ug/L	654667	B 1,4-Dichlorobenzene-d4	16.372

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	38
2	Tetrasiloxane, 1,1,3,3,5,5,7,7-o...	282	C8H26O3Si4	001000-05-1	38
3	Benzeneacetic acid, 3-methoxy-4-...	268	C13H20O4Si	015964-84-8	9
4	1,5-Heptadiene, 1,5-bis(trimethy...	252	C14H28Si2	1000153-97-1	9
5	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	9

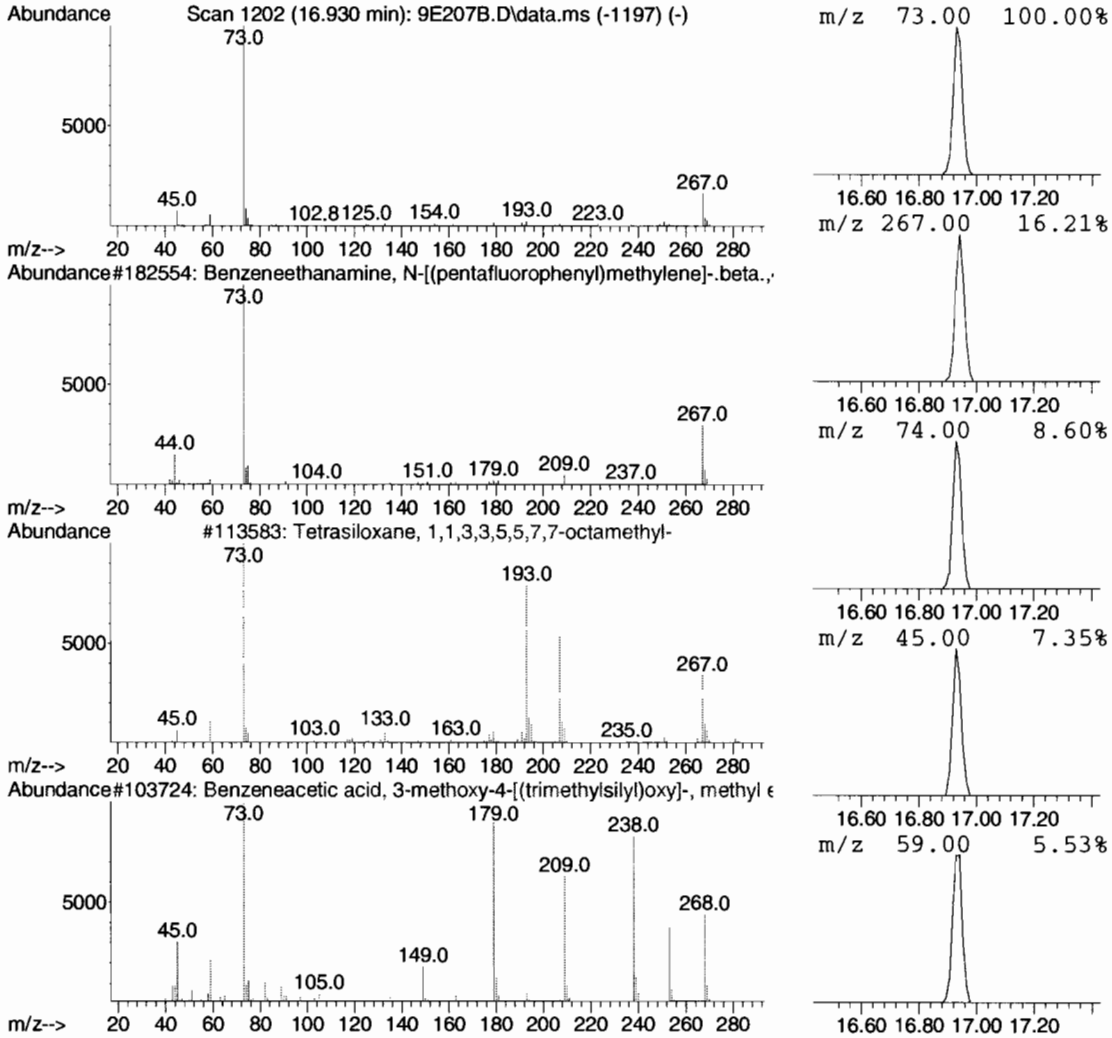

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E207B.D
Acq On : 23 Mar 2010 1:12 pm
Operator : RXY1
Sample : |1202078894|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown siloxane	16.930	11.2	ug/L	654667	6	16.372	2930440	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076343**				
Client Sample:	**QC for batch 967388**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967388**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 14:44**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/19/2010 14:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D503L.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		50.4	ug/kg	0.340	1.00
74-87-3	Chloromethane		40.7	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		48.0	ug/kg	0.300	1.00
74-83-9	Bromomethane		44.6	ug/kg	0.300	1.00
75-00-3	Chloroethane		47.4	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		47.7	ug/kg	0.300	1.00
67-64-1	Acetone		253	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		44.0	ug/kg	0.300	1.00
74-88-4	Iodomethane		201	ug/kg	1.60	5.00
75-09-2	Methylene chloride		46.6	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		223	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		44.0	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		44.3	ug/kg	0.300	1.00
78-93-3	2-Butanone		232	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		44.5	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		46.3	ug/kg	0.300	1.00
67-66-3	Chloroform		42.5	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		42.5	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		45.5	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		46.6	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		46.1	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		40.4	ug/kg	0.300	1.00
71-43-2	Benzene		44.1	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		46.0	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		44.9	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		43.8	ug/kg	0.300	1.00
74-95-3	Dibromomethane		42.9	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		272	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		46.9	ug/kg	0.300	1.00
108-88-3	Toluene		42.9	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		47.5	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		45.8	ug/kg	0.300	1.00
591-78-6	2-Hexanone		234	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		43.2	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		45.4	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		46.8	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		47.0	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		45.1	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076343**				
Client Sample:	**QC for batch 967388**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967388**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 14:44**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/19/2010 14:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D503L.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		44.1	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		90.6	ug/kg	0.300	2.00
95-47-6	o-Xylene		44.5	ug/kg	0.300	1.00
100-42-5	Styrene		46.2	ug/kg	0.300	1.00
75-25-2	Bromoform		50.6	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		48.5	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		46.1	ug/kg	0.300	1.00
108-86-1	Bromobenzene		43.6	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		46.2	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		45.4	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		46.8	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		46.1	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		45.5	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		49.0	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		45.6	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		47.2	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		48.2	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		44.3	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		43.8	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		48.4	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		49.5	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		44.1	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		44.2	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D503L.D
Acq On : 19 Mar 2010 2:44 pm
Operator : RXY1
InstName : VOA9
Sample : |1202076343|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[A]0305-01C/0318-01 SOIL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 19 15:20:22 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.787	10.775	1.000	96	1216795	50.00	ug/L	0.01
41) Chlorobenzene-d5	13.941	13.941	1.000	117	850850	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	394385	50.00	ug/L	0.00
82) B Fluorobenzene	10.787	10.775	1.000	96	1216795	50.00	ug/L	0.01
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	850850	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	394364	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.967	65	425496	46.07	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 92.14%					
43) Toluene-d8	12.412	12.412	0.890	98	1085161	49.69	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 99.38%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	466336	49.95	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 99.90%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.958	4.944	0.460	85	167267	50.36	ug/L	98
3) Chloromethane	5.308	5.308	0.492	50	417609	40.69	ug/L	97
4) Vinyl chloride	5.560	5.546	0.515	62	331276	48.04	ug/L	100
5) Bromomethane	6.186	6.186	0.573	94	216036	44.55	ug/L	98
6) Chloroethane	6.340	6.340	0.588	64	232244	47.44	ug/L	100
7) Trichlorofluoromethane	6.779	6.767	0.628	101	385956	47.74	ug/L	100
8) Ethyl ether	7.099	7.099	0.658	59	302251	42.30	ug/L	91
9) Acetone	7.490	7.490	0.694	43	1162262	252.84	ug/L	93
10) 1,1-Dichloroethylene	7.514	7.502	0.697	61	515246	44.00	ug/L	98
11) Iodomethane	7.775	7.763	0.721	142	1628434	200.63	ug/L	96
12) Acetonitrile	7.870	7.858	0.730	41	1383927	1127.82	ug/L	99
13) Methyl acetate	7.882	7.882	0.731	43	1512535	223.82	ug/L	97
14) Carbon disulfide	7.905	7.906	0.733	76	3962178	222.86	ug/L	99
15) Methylene chloride	8.095	8.083	0.750	84	303616	46.61	ug/L	93
16) tert-Butyl methyl ether	8.380	8.368	0.777	73	818777	43.80	ug/L	100
17) trans-1,2-Dichloroethy...	8.427	8.427	0.781	61	490398	44.00	ug/L	98
18) Vinyl acetate	8.854	8.854	0.821	43	4075044	239.21	ug/L	96
19) 1,1-Dichloroethane	8.913	8.913	0.826	63	600500	44.30	ug/L	99
20) 2-Butanone	9.494	9.483	0.880	43	1455551	232.34	ug/L	94
21) cis-1,2-Dichloroethylene	9.554	9.554	0.886	61	561905	44.47	ug/L	98
22) 2,2-Dichloropropane	9.577	9.578	0.888	77	399494	46.34	ug/L	93
23) Bromochloromethane	9.826	9.827	0.911	128	126827	42.49	ug/L	91
24) Chloroform	9.862	9.850	0.914	83	495296	42.47	ug/L	97
25) 1,1,1-Trichloroethane	10.135	10.135	0.940	97	403956	45.49	ug/L	100
26) Cyclohexane	10.230	10.230	0.948	56	665956	49.98	ug/L	98
27) 1,1-Dichloropropene	10.289	10.289	0.954	75	381063	46.55	ug/L	94
28) Carbon tetrachloride	10.336	10.325	0.958	117	340183	46.08	ug/L	98
30) 1,2-Dichloroethane	10.514	10.514	0.975	62	485888	40.42	ug/L	99
31) Benzene	10.538	10.538	0.977	78	1059936	44.10	ug/L	98
32) Cyclohexene	10.645	10.645	0.987	67	586463	48.21	ug/L	96
33) n-Butyl alcohol	10.858	10.846	1.007	56	1467571	6376.20	ug/L	91
34) Trichloroethylene	11.166	11.167	1.035	95	285450	45.99	ug/L	97
35) 1,2-Dichloropropane	11.416	11.416	1.058	63	347121	44.86	ug/L	100
36) Methylcyclohexane	11.416	11.416	1.058	83	470597	48.71	ug/L	96
37) Dibromomethane	11.558	11.558	1.071	93	176173	42.93	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D503L.D
Acq On : 19 Mar 2010 2:44 pm
Operator : RXY1
InstName : VOA9
Sample : |1202076343|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[A]0305-01C/0318-01 SOIL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 19 15:20:22 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	11.665	11.665	1.081	83	392116	43.78	ug/L	100
39) 2-Chloroethylvinyl ether	11.866	11.866	1.100	63	992739	232.19	ug/L	98
40) cis-1,3-Dichloropropylene	12.103	12.103	1.122	75	472324	46.86	ug/L	95
42) 4-Methyl-2-pentanone	12.186	12.186	0.874	58	827737	271.90	ug/L #	83
44) Toluene	12.495	12.483	0.896	91	1079514	42.89	ug/L	96
45) trans-1,3-Dichloroprop...	12.637	12.637	0.906	75	444771	47.54	ug/L	96
46) 1,1,2-Trichloroethane	12.862	12.862	0.923	83	215459	45.83	ug/L	99
47) 2-Hexanone	13.028	13.028	0.935	43	2003537	233.76	ug/L	92
48) 1,3-Dichloropropane	13.052	13.052	0.936	76	422997	43.20	ug/L	95
49) Tetrachloroethylene	13.088	13.088	0.939	164	156836	45.38	ug/L	96
50) Dibromochloromethane	13.325	13.325	0.956	129	260754	46.79	ug/L	100
51) 1,2-Dibromoethane	13.503	13.503	0.969	107	253799	46.96	ug/L	100
52) Chlorobenzene	13.977	13.977	1.003	112	681455	45.07	ug/L	99
53) 1,1,1,2-Tetrachloroethane	14.024	14.024	1.006	131	231578	44.12	ug/L	99
54) Ethylbenzene	14.024	14.024	1.006	91	1210319	44.07	ug/L	97
55) m,p-Xylenes	14.131	14.131	1.014	106	888522	90.58	ug/L	90
56) o-Xylene	14.570	14.570	1.045	106	450114	44.46	ug/L	90
57) Styrene	14.570	14.570	1.045	104	752636	46.15	ug/L	96
59) Bromoform	14.855	14.855	0.907	173	144828	50.61	ug/L	100
60) Isopropylbenzene	14.926	14.926	0.912	105	1177446	46.76	ug/L	98
62) 1,1,2,2-Tetrachloroethane	15.198	15.198	0.928	83	369336	48.49	ug/L	98
63) 1,2,3-Trichloropropane	15.293	15.293	0.934	110	88157	46.12	ug/L #	94
64) Bromobenzene	15.353	15.353	0.938	156	246249	43.55	ug/L	98
65) n-Propylbenzene	15.353	15.353	0.938	91	1484154	46.19	ug/L	96
66) 1,3,5-Trimethylbenzene	15.495	15.495	0.946	105	984386	46.13	ug/L	96
67) 2-Chlorotoluene	15.507	15.507	0.947	126	284470	45.38	ug/L	93
68) 4-Chlorotoluene	15.613	15.614	0.954	91	975143	45.47	ug/L	98
69) tert-Butylbenzene	15.874	15.874	0.970	134	197362	48.99	ug/L	93
70) 1,2,4-Trimethylbenzene	15.922	15.910	0.972	105	1031987	45.56	ug/L	95
71) sec-Butylbenzene	16.111	16.112	0.984	105	1367682	47.23	ug/L	98
72) 4-Isopropyltoluene	16.230	16.230	0.991	119	1073545	48.24	ug/L	99
73) 1,3-Dichlorobenzene	16.313	16.313	0.996	146	513968	44.31	ug/L	99
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	503492	43.75	ug/L	100
75) n-Butylbenzene	16.693	16.693	1.020	91	1191870	48.37	ug/L	97
76) 1,2-Dichlorobenzene	16.859	16.859	1.030	146	506349	44.23	ug/L	98
77) 1,2-Dibromo-3-chloropr...	17.784	17.784	1.086	157	58768	49.46	ug/L	96
78) 1,2,4-Trichlorobenzene	18.922	18.922	1.156	180	345730	48.89	ug/L	99
79) Hexachlorobutadiene	19.100	19.088	1.167	225	157551	48.26	ug/L	99
80) Naphthalene	19.349	19.349	1.182	128	1001537	51.00	ug/L	100
81) 1,2,3-Trichlorobenzene	19.716	19.717	1.204	180	311395	48.12	ug/L	100
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.		
85) Acrolein	7.253	7.313	0.672		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.		
87) Isopropyl Alcohol	7.490	7.550	0.694		0m	N.D.	d	
88) Allyl chloride	7.870	7.929	0.730		0m	N.D.	d	
89) tert-Butyl Alcohol	8.071	8.060	0.748		0m	N.D.	d	
90) Acrylonitrile	8.368	8.332	0.776		0m	N.D.	d	
91) Isopropyl ether	8.854	8.866	0.821		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	9.008	9.008	0.835		0m	N.D.	d	
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.		
94) Ethyl acetate	9.494	9.483	0.880		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D503L.D
Acq On : 19 Mar 2010 2:44 pm
Operator : RXY1
InstName : VOA9
Sample : |1202076343|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[A]0305-01C/0318-01 SOIL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 19 15:20:22 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	9.494	9.578	0.880		0m	N.D.	d
96) Methacrylonitrile	9.826	9.744	0.911		0m	N.D.	d
97) Tetrahydrofuran	9.850	9.874	0.913		0m	N.D.	d
98) Isobutyl alcohol	10.230	10.159	0.948		0m	N.D.	d
99) Methyl tert-amyl ether	10.538	10.526	0.977		0m	N.D.	d
100) Methyl methacrylate	11.416	11.368	1.058		0m	N.D.	d
101) 1,4-Dioxane	11.499	11.487	1.066		0m	N.D.	d
102) 2-Nitropropane	11.866	11.854	1.100		0m	N.D.	d
104) Ethyl methacrylate	12.625	12.613	0.906		0m	N.D.	d
106) 1-Chlorohexane	13.941	13.823	0.852		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.926	14.961	0.912		0m	N.D.	d
108) Cyclohexanone	14.926	15.092	0.912		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.341	15.246	0.937		0m	N.D.	d
110) Pentachloroethane	15.969	15.957	0.975		0m	N.D.	d
111) Benzyl chloride	16.515	16.527	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.930	16.918	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D503L.D
Acq On : 19 Mar 2010 2:44 pm
Operator : RXY1
InstName : VOA9
Sample : |1202076343|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[A]0305-01C/0318-01 SOIL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 19 15:20:22 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

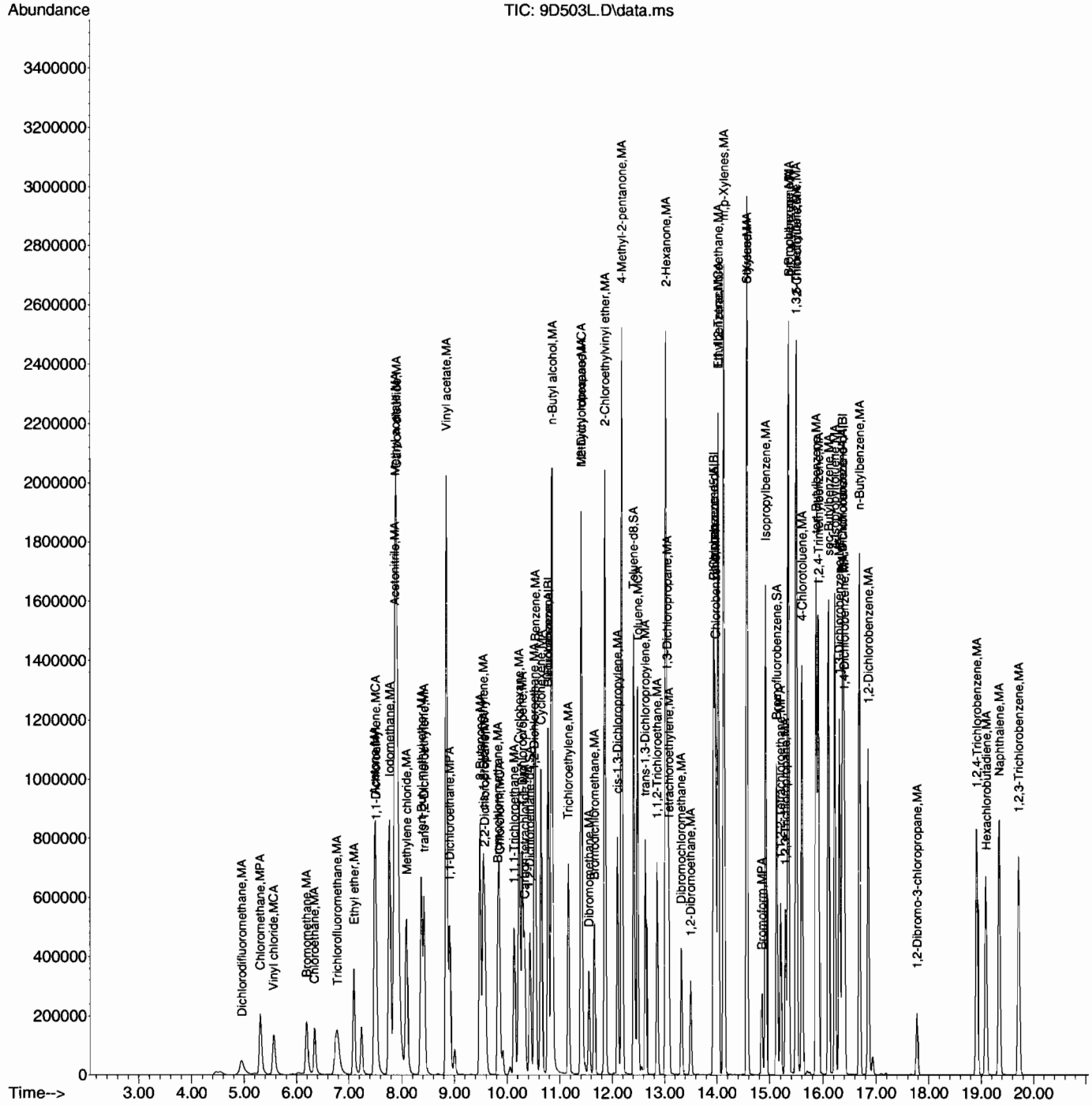

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076344**				
Client Sample:	**QC for batch 967388**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967388**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 15:44**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/19/2010 14:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D505L.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076344**				
Client Sample:	**QC for batch 967388**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967388**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 15:44**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/19/2010 14:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D505L.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		222	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D505L.D
Acq On : 19 Mar 2010 3:44 pm
Operator : RXY1
InstName : VOA9
Sample : |1202076344|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[B]UVM100304-08A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 20 11:10:16 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.787	10.775	1.000	96	1254224	50.00	ug/L	0.01
41) Chlorobenzene-d5	13.941	13.941	1.000	117	874699	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	396041	50.00	ug/L	0.00
82) B Fluorobenzene	10.787	10.775	1.000	96	1254224	50.00	ug/L	0.01
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	874699	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	396019	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.967	65	428615	45.03	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 90.06%					
43) Toluene-d8	12.412	12.412	0.890	98	1111869	49.53	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 99.06%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	461948	49.27	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 98.54%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	5.294	5.308	0.491		0m	N.D.	d	
4) Vinyl chloride	5.546	5.546	0.514		0m	N.D.	d	
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	0.000	7.099	0.000		0	N.D.		
9) Acetone	7.478	7.490	0.693		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.467	7.502	0.692		0m	N.D.	d	
11) Iodomethane	7.739	7.763	0.717		0m	N.D.	d	
12) Acetonitrile	7.941	7.858	0.736		0m	N.D.	d	
13) Methyl acetate	7.882	7.882	0.731		0m	N.D.	d	
14) Carbon disulfide	7.941	7.906	0.736		0m	N.D.	d	
15) Methylene chloride	8.083	8.083	0.749		0m	N.D.	d	
16) tert-Butyl methyl ether	8.368	8.368	0.776		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	8.427	0.000		0	N.D.		
18) Vinyl acetate	8.854	8.854	0.821		0m	N.D.	d	
19) 1,1-Dichloroethane	9.020	8.913	0.836		0m	N.D.	d	
20) 2-Butanone	9.494	9.483	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.494	9.554	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	9.862	9.850	0.914		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	10.170	10.230	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	0.000	10.289	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.514	0.000		0	N.D.		
31) Benzene	10.538	10.538	0.977		0m	N.D.	d	
32) Cyclohexene	10.657	10.645	0.988		0m	N.D.	d	
33) n-Butyl alcohol	10.858	10.846	1.007		0m	N.D.	d	
34) Trichloroethylene	11.166	11.167	1.035		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	11.368	11.416	1.054		0m	N.D.	d	
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D505L.D
Acq On : 19 Mar 2010 3:44 pm
Operator : RXY1
InstName : VOA9
Sample : |1202076344|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[B]UVM100304-08A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 20 11:10:16 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	0.000	11.665	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	11.866	11.866	1.100		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	12.103	12.103	1.122		0m	N.D.	d	
42) 4-Methyl-2-pentanone	12.186	12.186	0.874		0m	N.D.	d	
44) Toluene	12.483	12.483	0.895		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	12.637	12.637	0.906		0m	N.D.	d	
46) 1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.		
47) 2-Hexanone	13.028	13.028	0.935		0m	N.D.	d	
48) 1,3-Dichloropropane	13.099	13.052	0.940		0m	N.D.	d	
49) Tetrachloroethylene	13.088	13.088	0.939		0m	N.D.	d	
50) Dibromochloromethane	0.000	13.325	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	13.503	0.000		0	N.D.		
52) Chlorobenzene	13.977	13.977	1.003		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	14.024	14.024	1.006		0m	N.D.	d	
54) Ethylbenzene	14.024	14.024	1.006		0m	N.D.	d	
55) m,p-Xylenes	14.131	14.131	1.014		0m	N.D.	d	
56) o-Xylene	14.570	14.570	1.045		0m	N.D.	d	
57) Styrene	14.570	14.570	1.045		0m	N.D.	d	
59) Bromoform	0.000	14.855	0.000		0	N.D.		
60) Isopropylbenzene	14.926	14.926	0.912		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	15.258	15.198	0.932		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.		
64) Bromobenzene	15.353	15.353	0.938		0m	N.D.	d	
65) n-Propylbenzene	15.353	15.353	0.938		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	15.495	15.495	0.946		0m	N.D.	d	
67) 2-Chlorotoluene	15.613	15.507	0.954		0m	N.D.	d	
68) 4-Chlorotoluene	15.613	15.614	0.954		0m	N.D.	d	
69) tert-Butylbenzene	15.957	15.874	0.975		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	15.922	15.910	0.972		0m	N.D.	d	
71) sec-Butylbenzene	16.111	16.112	0.984		0m	N.D.	d	
72) 4-Isopropyltoluene	16.230	16.230	0.991		0m	N.D.	d	
73) 1,3-Dichlorobenzene	16.313	16.313	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	16.408	16.408	1.002		0m	N.D.	d	
75) n-Butylbenzene	0.000	16.693	0.000		0	N.D.		
76) 1,2-Dichlorobenzene	16.859	16.859	1.030		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	18.922	18.922	1.156		0m	N.D.	d	
79) Hexachlorobutadiene	0.000	19.088	0.000		0	N.D.		
80) Naphthalene	19.337	19.349	1.181		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	19.716	19.717	1.204		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.		
85) Acrolein	7.312	7.313	0.678	56	375658	272.26	ug/L	100
86) Trichlorotrifluoroethane	7.467	7.467	0.692	85	499743	222.04	ug/L	95
87) Isopropyl Alcohol	0.000	7.550	0.000		0m	N.D.	d	
88) Allyl chloride	7.941	7.929	0.736	41	2943183	237.62	ug/L	94
89) tert-Butyl Alcohol	8.060	8.060	0.747	59	806	N.D.		
90) Acrylonitrile	8.344	8.332	0.774	53	774747	244.62	ug/L	97
91) Isopropyl ether	8.866	8.866	0.822	45	218	N.D.		
92) 2-Chloro-1,3-butadiene	9.020	9.008	0.836	53	626529	57.41	ug/L	95
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.		
94) Ethyl acetate	9.494	9.483	0.880	43	1783047	214.12	ug/L	94

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D505L.D
Acq On : 19 Mar 2010 3:44 pm
Operator : RXY1
InstName : VOA9
Sample : |1202076344|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[B]UVM100304-08A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 20 11:10:16 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	9.577	9.578	0.888	54	295485	237.64	ug/L	98
96)	Methacrylonitrile	9.755	9.744	0.904	41	1187598	233.01	ug/L	98
97)	Tetrahydrofuran	9.874	9.874	0.915	42	632705	231.80	ug/L	95
98)	Isobutyl alcohol	10.170	10.159	0.943	41	753331	2289.74	ug/L	92
99)	Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.		
100)	Methyl methacrylate	11.368	11.368	1.054	69	972204	239.55	ug/L	85
101)	1,4-Dioxane	11.499	11.487	1.066	88	153291	2387.61	ug/L	99
102)	2-Nitropropane	11.866	11.854	1.100	43	592038	242.11	ug/L	98
104)	Ethyl methacrylate	12.625	12.613	0.906	69	1775354	230.85	ug/L	89
106)	1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d	
107)	cis-1,4-Dichloro-2-butene	14.961	14.961	0.914	53	774801	268.40	ug/L	98
108)	Cyclohexanone	15.104	15.092	0.923	42	302343	1099.82	ug/L	86
109)	trans-1,4-Dichloro-2-b...	15.246	15.246	0.931	53	727335	264.87	ug/L	93
110)	Pentachloroethane	15.957	15.957	0.975	167	569365	243.50	ug/L	93
111)	Benzyl chloride	16.527	16.527	1.009	91	2726572	283.07	ug/L	98
112)	bis(2-Chloroisopropyl)...	16.930	16.918	1.034	45	1238845	249.46	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D505L.D
Acq On : 19 Mar 2010 3:44 pm
Operator : RXY1
InstName : VOA9
Sample : |1202076344|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[B]UVM100304-08A SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 20 11:10:16 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

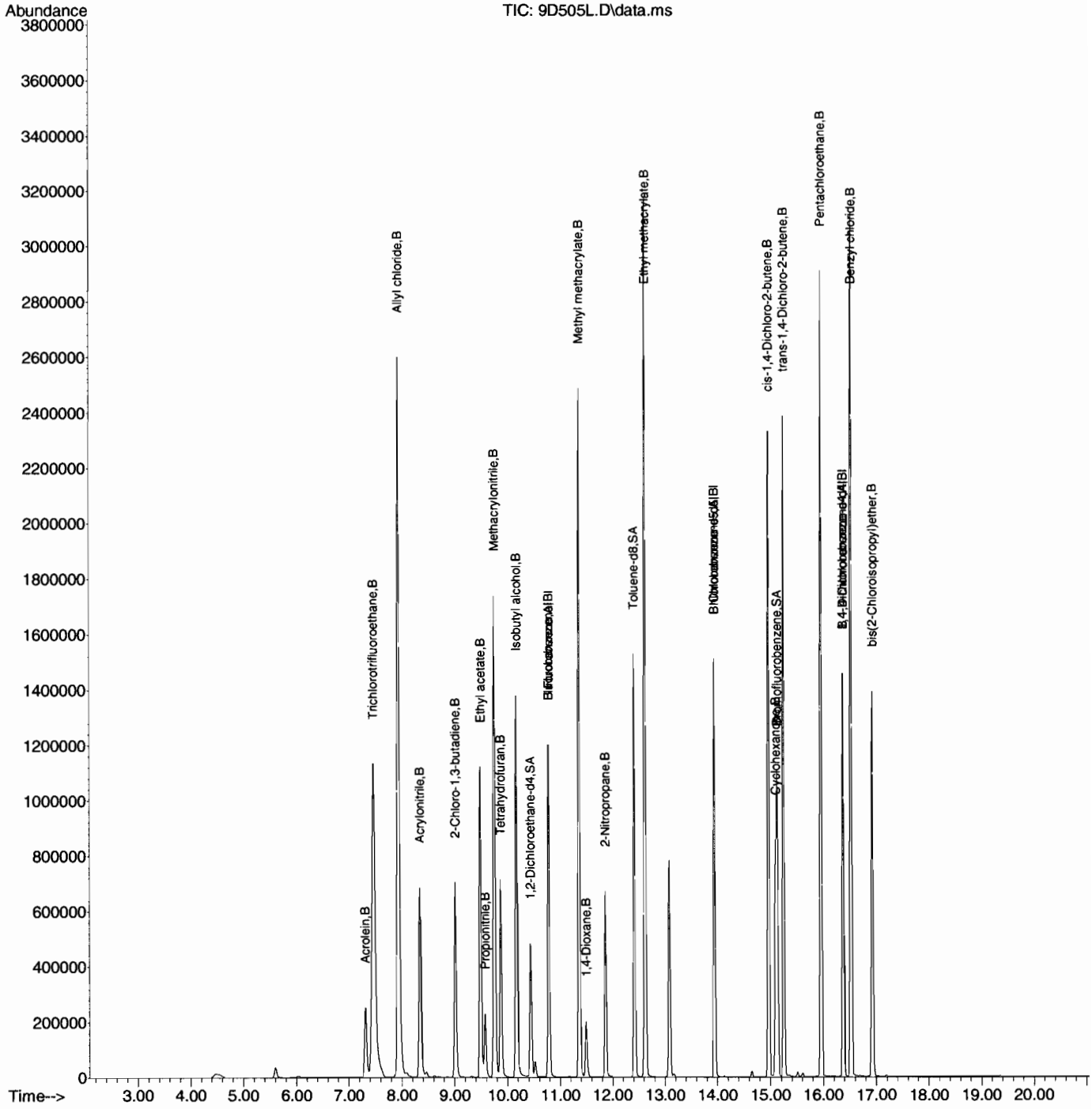

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202078895**				
Client Sample:	**QC for batch 967388**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967388**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 10:54**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 10:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V9\9E202L.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		58.4	ug/kg	0.340	1.00
74-87-3	Chloromethane		43.8	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		51.5	ug/kg	0.300	1.00
74-83-9	Bromomethane		48.1	ug/kg	0.300	1.00
75-00-3	Chloroethane		49.8	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		48.7	ug/kg	0.300	1.00
67-64-1	Acetone		290	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		43.4	ug/kg	0.300	1.00
74-88-4	Iodomethane		206	ug/kg	1.60	5.00
75-09-2	Methylene chloride		47.8	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		228	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		44.8	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		45.1	ug/kg	0.300	1.00
78-93-3	2-Butanone		244	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		45.4	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		48.7	ug/kg	0.300	1.00
67-66-3	Chloroform		42.9	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		42.7	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		46.8	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		47.5	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		47.1	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		38.7	ug/kg	0.300	1.00
71-43-2	Benzene		44.8	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		45.4	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		44.6	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		43.6	ug/kg	0.300	1.00
74-95-3	Dibromomethane		42.3	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		259	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		47.0	ug/kg	0.300	1.00
108-88-3	Toluene		44.0	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		49.3	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		45.9	ug/kg	0.300	1.00
591-78-6	2-Hexanone		252	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		43.3	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		48.1	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		47.1	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		45.8	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		46.3	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202078895**				
Client Sample:	**QC for batch 967388**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967388**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 10:54**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 10:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V9\9E202L.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		44.7	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		94.6	ug/kg	0.300	2.00
95-47-6	o-Xylene		47.4	ug/kg	0.300	1.00
100-42-5	Styrene		48.1	ug/kg	0.300	1.00
75-25-2	Bromoform		49.8	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		46.8	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		45.2	ug/kg	0.300	1.00
108-86-1	Bromobenzene		44.7	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		47.2	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		47.6	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		48.1	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		47.3	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		46.4	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		50.7	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		46.5	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		48.3	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		49.7	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		46.0	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		45.6	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		49.9	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		46.2	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		46.6	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		45.1	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E202L.D
Acq On : 23 Mar 2010 10:54 am
Operator : RXY1
InstName : VOA9
Sample : |1202078895|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[A]0305-01D/0318-01 SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 23 11:21:38 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.775	10.775	1.000	96	1354101	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.941	13.941	1.000	117	927883	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	430364	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	1354101	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	927883	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	430388	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	463038	45.06	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 90.12%					
43) Toluene-d8	12.412	12.412	0.890	98	1190251	49.98	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 99.96%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	513861	50.44	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 100.88%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.958	4.944	0.460	85	215412	58.41	ug/L	98
3) Chloromethane	5.322	5.308	0.494	50	500010	43.78	ug/L	99
4) Vinyl chloride	5.574	5.546	0.517	62	395394	51.52	ug/L	100
5) Bromomethane	6.198	6.186	0.575	94	259498	48.09	ug/L	99
6) Chloroethane	6.352	6.340	0.590	64	271178	49.78	ug/L	100
7) Trichlorofluoromethane	6.779	6.767	0.629	101	437960	48.68	ug/L	100
8) Ethyl ether	7.099	7.099	0.659	59	329982	41.50	ug/L	94
9) Acetone	7.490	7.490	0.695	43	1474064	290.01	ug/L	95
10) 1,1-Dichloroethylene	7.514	7.502	0.697	61	565988	43.43	ug/L	99
11) Iodomethane	7.775	7.763	0.722	142	1863461	206.31	ug/L	97
12) Acetonitrile	7.858	7.858	0.729	41	1305951	956.36	ug/L	99
13) Methyl acetate	7.882	7.882	0.731	43	1455746	193.57	ug/L	98
14) Carbon disulfide	7.906	7.906	0.734	76	4501587	227.53	ug/L	99
15) Methylene chloride	8.083	8.083	0.750	84	345760	47.76	ug/L	96
16) tert-Butyl methyl ether	8.368	8.368	0.777	73	902820	43.40	ug/L	100
17) trans-1,2-Dichloroethy...	8.427	8.427	0.782	61	555615	44.80	ug/L	100
18) Vinyl acetate	8.854	8.854	0.822	43	4299581	226.80	ug/L	98
19) 1,1-Dichloroethane	8.913	8.913	0.827	63	679643	45.05	ug/L	100
20) 2-Butanone	9.495	9.483	0.881	43	1701913	244.12	ug/L	96
21) cis-1,2-Dichloroethylene	9.554	9.554	0.887	61	638128	45.39	ug/L	98
22) 2,2-Dichloropropane	9.578	9.578	0.889	77	467092	48.68	ug/L	97
23) Bromochloromethane	9.827	9.827	0.912	128	141736	42.67	ug/L	94
24) Chloroform	9.862	9.850	0.915	83	556155	42.85	ug/L	97
25) 1,1,1-Trichloroethane	10.135	10.135	0.941	97	462220	46.78	ug/L	100
26) Cyclohexane	10.230	10.230	0.949	56	748647	50.49	ug/L	100
27) 1,1-Dichloropropene	10.289	10.289	0.955	75	432455	47.48	ug/L	98
28) Carbon tetrachloride	10.325	10.325	0.958	117	386768	47.08	ug/L	99
30) 1,2-Dichloroethane	10.514	10.514	0.976	62	517772	38.71	ug/L	100
31) Benzene	10.538	10.538	0.978	78	1196927	44.75	ug/L	99
32) Cyclohexene	10.645	10.645	0.988	67	657629	48.57	ug/L	98
33) n-Butyl alcohol	10.846	10.846	1.007	56	1285453	5018.63	ug/L	92
34) Trichloroethylene	11.167	11.167	1.036	95	313299	45.36	ug/L	98
35) 1,2-Dichloropropane	11.416	11.416	1.059	63	384320	44.63	ug/L	100
36) Methylcyclohexane	11.416	11.416	1.059	83	540141	50.24	ug/L	97
37) Dibromomethane	11.558	11.558	1.073	93	193078	42.28	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E202L.D
Acq On : 23 Mar 2010 10:54 am
Operator : RXY1
InstName : VOA9
Sample : |1202078895|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[A]0305-01D/0318-01 SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 23 11:21:38 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38) Bromodichloromethane	11.665	11.665	1.083	83	434681	43.61	ug/L		99
39) 2-Chloroethylvinyl ether	11.866	11.866	1.101	63	920710	193.50	ug/L		99
40) cis-1,3-Dichloropropylene	12.103	12.103	1.123	75	527147	47.00	ug/L		97
42) 4-Methyl-2-pentanone	12.186	12.186	0.874	58	860157	259.09	ug/L		86
44) Toluene	12.483	12.483	0.895	91	1207351	43.99	ug/L		97
45) trans-1,3-Dichloroprop...	12.637	12.637	0.906	75	502593	49.26	ug/L		99
46) 1,1,2-Trichloroethane	12.862	12.862	0.923	83	235383	45.91	ug/L		98
47) 2-Hexanone	13.028	13.028	0.935	43	2354907	251.94	ug/L		95
48) 1,3-Dichloropropane	13.052	13.052	0.936	76	462546	43.32	ug/L		95
49) Tetrachloroethylene	13.076	13.088	0.938	164	181198	48.07	ug/L		99
50) Dibromochloromethane	13.325	13.325	0.956	129	286467	47.13	ug/L		100
51) 1,2-Dibromoethane	13.503	13.503	0.969	107	270153	45.83	ug/L		99
52) Chlorobenzene	13.977	13.977	1.003	112	762696	46.25	ug/L		100
53) 1,1,1,2-Tetrachloroethane	14.025	14.024	1.006	131	266672	46.58	ug/L		99
54) Ethylbenzene	14.025	14.024	1.006	91	1339613	44.72	ug/L		99
55) m,p-Xylenes	14.131	14.131	1.014	106	1011783	94.59	ug/L		94
56) o-Xylene	14.570	14.570	1.045	106	523050	47.37	ug/L		95
57) Styrene	14.570	14.570	1.045	104	854567	48.05	ug/L		98
59) Bromoform	14.855	14.855	0.907	173	155350	49.75	ug/L		99
60) Isopropylbenzene	14.926	14.926	0.912	105	1322955	48.14	ug/L		98
62) 1,1,2,2-Tetrachloroethane	15.198	15.198	0.928	83	388918	46.79	ug/L		99
63) 1,2,3-Trichloropropane	15.293	15.293	0.934	110	94297	45.20	ug/L	#	98
64) Bromobenzene	15.353	15.353	0.938	156	276017	44.73	ug/L		98
65) n-Propylbenzene	15.353	15.353	0.938	91	1654467	47.19	ug/L		98
66) 1,3,5-Trimethylbenzene	15.495	15.495	0.946	105	1100377	47.26	ug/L		98
67) 2-Chlorotoluene	15.507	15.507	0.947	126	325327	47.56	ug/L		97
68) 4-Chlorotoluene	15.614	15.614	0.954	91	1086828	46.44	ug/L		99
69) tert-Butylbenzene	15.874	15.874	0.970	134	222869	50.69	ug/L		94
70) 1,2,4-Trimethylbenzene	15.910	15.910	0.972	105	1149439	46.50	ug/L		96
71) sec-Butylbenzene	16.112	16.112	0.984	105	1527783	48.34	ug/L		99
72) 4-Isopropyltoluene	16.230	16.230	0.991	119	1206510	49.68	ug/L		100
73) 1,3-Dichlorobenzene	16.313	16.313	0.996	146	581641	45.96	ug/L		100
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	572479	45.58	ug/L		99
75) n-Butylbenzene	16.693	16.693	1.020	91	1340842	49.87	ug/L		98
76) 1,2-Dichlorobenzene	16.859	16.859	1.030	146	562723	45.05	ug/L		99
77) 1,2-Dibromo-3-chloropr...	17.784	17.784	1.086	157	59814	46.16	ug/L		97
78) 1,2,4-Trichlorobenzene	18.922	18.922	1.156	180	369621	47.90	ug/L		99
79) Hexachlorobutadiene	19.100	19.088	1.167	225	169012	47.44	ug/L		99
80) Naphthalene	19.349	19.349	1.182	128	942517	43.99	ug/L		99
81) 1,2,3-Trichlorobenzene	19.717	19.717	1.204	180	318464	45.10	ug/L		99
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.			
85) Acrolein	7.241	7.313	0.672		0m	N.D.	d		
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.			
87) Isopropyl Alcohol	7.490	7.550	0.695		0m	N.D.	d		
88) Allyl chloride	7.858	7.929	0.729		0m	N.D.	d		
89) tert-Butyl Alcohol	8.060	8.060	0.748		0m	N.D.	d		
90) Acrylonitrile	8.368	8.332	0.777		0m	N.D.	d		
91) Isopropyl ether	8.854	8.866	0.822		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	9.008	9.008	0.836		0m	N.D.	d		
93) Ethyl tert-butyl ether	9.269	9.269	0.860		0m	N.D.	d		
94) Ethyl acetate	9.495	9.483	0.881		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E202L.D
Acq On : 23 Mar 2010 10:54 am
Operator : RXY1
InstName : VOA9
Sample : |1202078895|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[A]0305-01D/0318-01 SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 23 11:21:38 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	9.483	9.578	0.880		0m	N.D.	d
96)	Methacrylonitrile	9.838	9.744	0.913		0m	N.D.	d
97)	Tetrahydrofuran	9.862	9.874	0.915		0m	N.D.	d
98)	Isobutyl alcohol	10.123	10.159	0.939		0m	N.D.	d
99)	Methyl tert-amyl ether	10.538	10.526	0.978		0m	N.D.	d
100)	Methyl methacrylate	11.416	11.368	1.059		0m	N.D.	d
101)	1,4-Dioxane	11.499	11.487	1.067		0m	N.D.	d
102)	2-Nitropropane	11.866	11.854	1.101		0m	N.D.	d
104)	Ethyl methacrylate	0.000	12.613	0.000		0	N.D.	
106)	1-Chlorohexane	13.941	13.823	0.852		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.926	14.961	0.912		0m	N.D.	d
108)	Cyclohexanone	14.926	15.092	0.912		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	15.341	15.246	0.937		0m	N.D.	d
110)	Pentachloroethane	15.957	15.957	0.975		0m	N.D.	d
111)	Benzyl chloride	16.491	16.527	1.007		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.930	16.918	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E202L.D
Acq On    : 23 Mar 2010  10:54 am
Operator  : RXY1
InstName  : VOA9
Sample    : |1202078895|967390|1|VOA|1|VOA8260BS|
Misc      : GEL 5g n/a MIX[A]0305-01D/0318-01 SOIL
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 23 11:21:38 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE
```

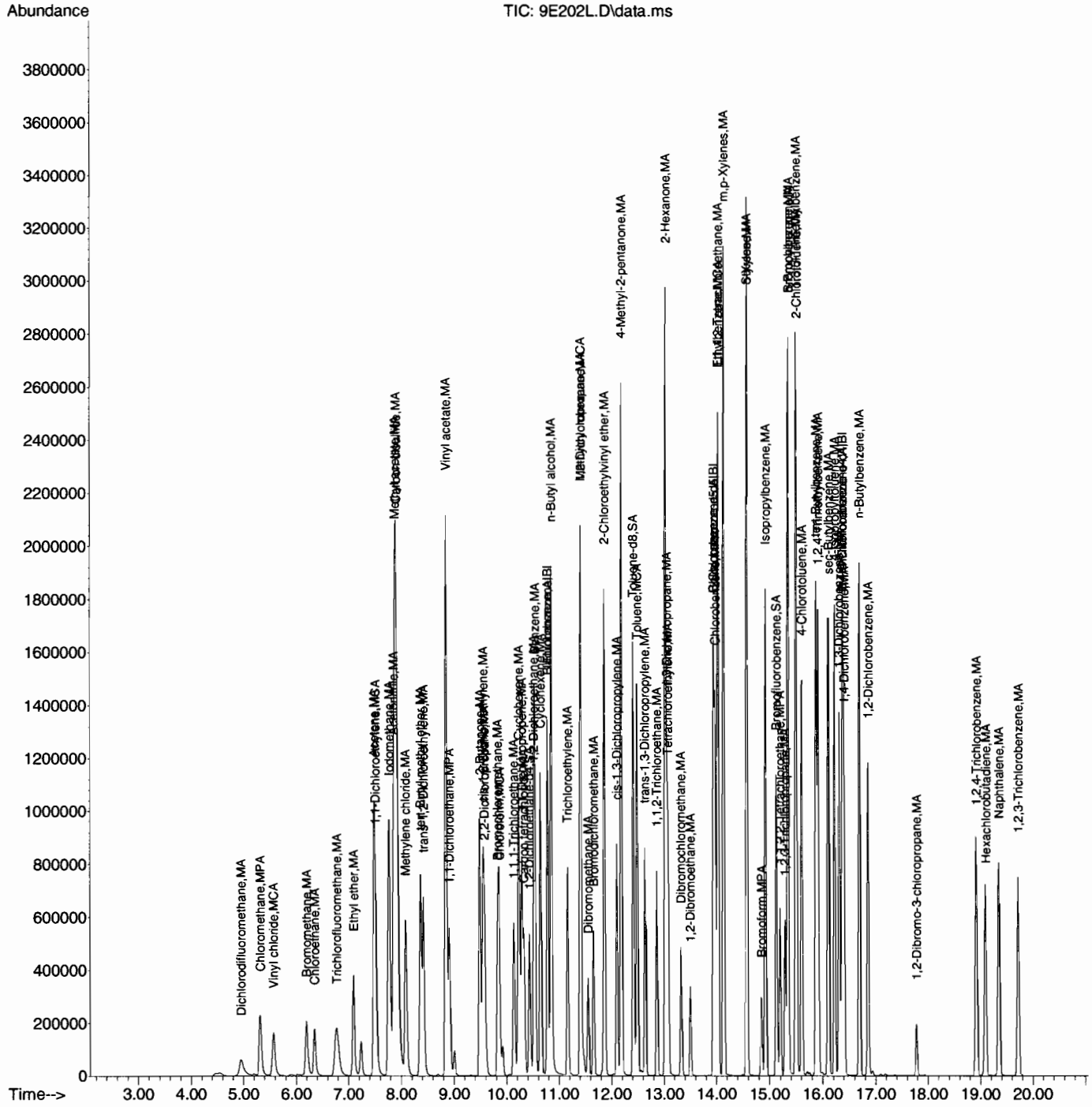

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202078896**				
Client Sample:	**QC for batch 967388**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967388**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 11:49**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 10:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V9\9E204L.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202078896**				
Client Sample:	**QC for batch 967388**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967388**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 11:49**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/23/2010 10:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**032310V9\9E204L.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		260	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E204L.D
Acq On : 23 Mar 2010 11:49 am
Operator : RXY1
InstName : VOA9
Sample : |1202078896|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[B]UVM100304-08B SOIL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 23 12:26:40 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.775	10.775	1.000	96	1398084	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.942	13.941	1.000	117	939711	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.373	16.372	1.000	152	425535	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	1398084	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.942	13.942	1.000	117	939711	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.373	16.372	1.000	152	425508	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	462193	43.56	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 87.12%					
43) Toluene-d8	12.412	12.412	0.890	98	1220038	50.58	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 101.16%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	496317	49.27	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 98.54%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.944	0.000		0	N.D.		
3) Chloromethane	5.294	5.308	0.491		0m	N.D.	d	
4) Vinyl chloride	5.560	5.546	0.516		0m	N.D.	d	
5) Bromomethane	0.000	6.186	0.000		0	N.D.		
6) Chloroethane	0.000	6.340	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.767	0.000		0	N.D.		
8) Ethyl ether	0.000	7.099	0.000		0	N.D.		
9) Acetone	7.490	7.490	0.695		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.479	7.502	0.694		0m	N.D.	d	
11) Iodomethane	7.751	7.763	0.719		0m	N.D.	d	
12) Acetonitrile	7.941	7.858	0.737		0m	N.D.	d	
13) Methyl acetate	7.882	7.882	0.731		0m	N.D.	d	
14) Carbon disulfide	7.941	7.906	0.737		0m	N.D.	d	
15) Methylene chloride	8.083	8.083	0.750		0m	N.D.	d	
16) tert-Butyl methyl ether	0.000	8.368	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.427	0.000		0	N.D.		
18) Vinyl acetate	8.854	8.854	0.822		0m	N.D.	d	
19) 1,1-Dichloroethane	9.008	8.913	0.836		0m	N.D.	d	
20) 2-Butanone	9.483	9.483	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.483	9.554	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	9.578	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.827	0.000		0	N.D.		
24) Chloroform	9.862	9.850	0.915		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	10.135	0.000		0	N.D.		
26) Cyclohexane	10.171	10.230	0.944		0m	N.D.	d	
27) 1,1-Dichloropropene	0.000	10.289	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.325	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.514	0.000		0	N.D.		
31) Benzene	10.538	10.538	0.978		0m	N.D.	d	
32) Cyclohexene	0.000	10.645	0.000		0	N.D.		
33) n-Butyl alcohol	10.858	10.846	1.008		0m	N.D.	d	
34) Trichloroethylene	11.167	11.167	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	11.416	0.000		0	N.D.		
36) Methylcyclohexane	11.356	11.416	1.054		0m	N.D.	d	
37) Dibromomethane	0.000	11.558	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E204L.D
Acq On : 23 Mar 2010 11:49 am
Operator : RXY1
InstName : VOA9
Sample : |1202078896|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[B]UVM100304-08B SOIL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 23 12:26:40 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	0.000	11.665	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	12.103	0.000		0	N.D.		
42) 4-Methyl-2-pentanone	12.186	12.186	0.874		0m	N.D.	d	
44) Toluene	12.495	12.483	0.896		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	12.625	12.637	0.906		0m	N.D.	d	
46) 1,1,2-Trichloroethane	0.000	12.862	0.000		0	N.D.		
47) 2-Hexanone	13.028	13.028	0.935		0m	N.D.	d	
48) 1,3-Dichloropropane	13.088	13.052	0.939		0m	N.D.	d	
49) Tetrachloroethylene	13.076	13.088	0.938		0m	N.D.	d	
50) Dibromochloromethane	0.000	13.325	0.000		0	N.D.		
51) 1,2-Dibromoethane	13.491	13.503	0.968		0m	N.D.	d	
52) Chlorobenzene	13.977	13.977	1.003		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	0.000	14.024	0.000		0	N.D.		
54) Ethylbenzene	14.025	14.024	1.006		0m	N.D.	d	
55) m,p-Xylenes	14.131	14.131	1.014		0m	N.D.	d	
56) o-Xylene	0.000	14.570	0.000		0	N.D.		
57) Styrene	14.570	14.570	1.045		0m	N.D.	d	
59) Bromoform	0.000	14.855	0.000		0	N.D.		
60) Isopropylbenzene	14.926	14.926	0.912		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	15.246	15.198	0.931		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	15.293	0.000		0	N.D.		
64) Bromobenzene	15.353	15.353	0.938		0m	N.D.	d	
65) n-Propylbenzene	15.341	15.353	0.937		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	15.495	15.495	0.946		0m	N.D.	d	
67) 2-Chlorotoluene	15.507	15.507	0.947		0m	N.D.	d	
68) 4-Chlorotoluene	15.614	15.614	0.954		0m	N.D.	d	
69) tert-Butylbenzene	15.957	15.874	0.975		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	15.910	15.910	0.972		0m	N.D.	d	
71) sec-Butylbenzene	16.112	16.112	0.984		0m	N.D.	d	
72) 4-Isopropyltoluene	16.218	16.230	0.991		0m	N.D.	d	
73) 1,3-Dichlorobenzene	16.313	16.313	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	16.396	16.408	1.001		0m	N.D.	d	
75) n-Butylbenzene	0.000	16.693	0.000		0	N.D.		
76) 1,2-Dichlorobenzene	16.859	16.859	1.030		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	0.000	17.784	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	18.910	18.922	1.155		0m	N.D.	d	
79) Hexachlorobutadiene	0.000	19.088	0.000		0	N.D.		
80) Naphthalene	19.349	19.349	1.182		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	19.728	19.717	1.205		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.		
85) Acrolein	7.313	7.313	0.679	56	478913	311.38	ug/L	100
86) Trichlorotrifluoroethane	7.467	7.467	0.693	85	653381	260.44	ug/L	98
87) Isopropyl Alcohol	0.000	7.550	0.000		0m	N.D.	d	
88) Allyl chloride	7.941	7.929	0.737	41	3616494	261.93	ug/L	96
89) tert-Butyl Alcohol	0.000	8.060	0.000		0	N.D.		
90) Acrylonitrile	8.344	8.332	0.774	53	858224	243.10	ug/L	98
91) Isopropyl ether	9.008	8.866	0.836	45	437	N.D.		
92) 2-Chloro-1,3-butadiene	9.008	9.008	0.836	53	770419	63.33	ug/L	97
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.		
94) Ethyl acetate	9.483	9.483	0.880	43	1894414	204.08	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E204L.D
Acq On : 23 Mar 2010 11:49 am
Operator : RXY1
InstName : VOA9
Sample : |1202078896|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[B]UVM100304-08B SOIL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 23 12:26:40 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	9.578	9.578	0.889	54	316415	228.29	ug/L	100
96)	Methacrylonitrile	9.744	9.744	0.904	41	1261767	222.08	ug/L	98
97)	Tetrahydrofuran	9.874	9.874	0.916	42	689414	226.58	ug/L	96
98)	Isobutyl alcohol	10.159	10.159	0.943	41	765334	2086.86	ug/L	92
99)	Methyl tert-amyl ether	0.000	10.526	0.000		0	N.D.		
100)	Methyl methacrylate	11.368	11.368	1.055	69	1068010	236.08	ug/L	90
101)	1,4-Dioxane	11.487	11.487	1.066	88	161963	2263.11	ug/L	96
102)	2-Nitropropane	11.854	11.854	1.100	43	612154	224.70	ug/L	97
104)	Ethyl methacrylate	12.613	12.613	0.905	69	1937074	234.45	ug/L	92
106)	1-Chlorohexane	0.000	13.823	0.000		0m	N.D.	d	
107)	cis-1,4-Dichloro-2-butene	14.961	14.961	0.914	53	843367	271.91	ug/L	97
108)	Cyclohexanone	15.104	15.092	0.923	42	315341	1067.61	ug/L	90
109)	trans-1,4-Dichloro-2-b...	15.246	15.246	0.931	53	785875	266.35	ug/L	97
110)	Pentachloroethane	15.957	15.957	0.975	167	738749	294.05	ug/L	94
111)	Benzyl chloride	16.527	16.527	1.009	91	3241215	313.18	ug/L	99
112)	bis(2-Chloroisopropyl)...	16.918	16.918	1.033	45	1228164	230.17	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\032310V9\
Data File : 9E204L.D
Acq On : 23 Mar 2010 11:49 am
Operator : RXY1
InstName : VOA9
Sample : |1202078896|967390|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a MIX[B]UVM100304-08B SOIL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 23 12:26:40 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

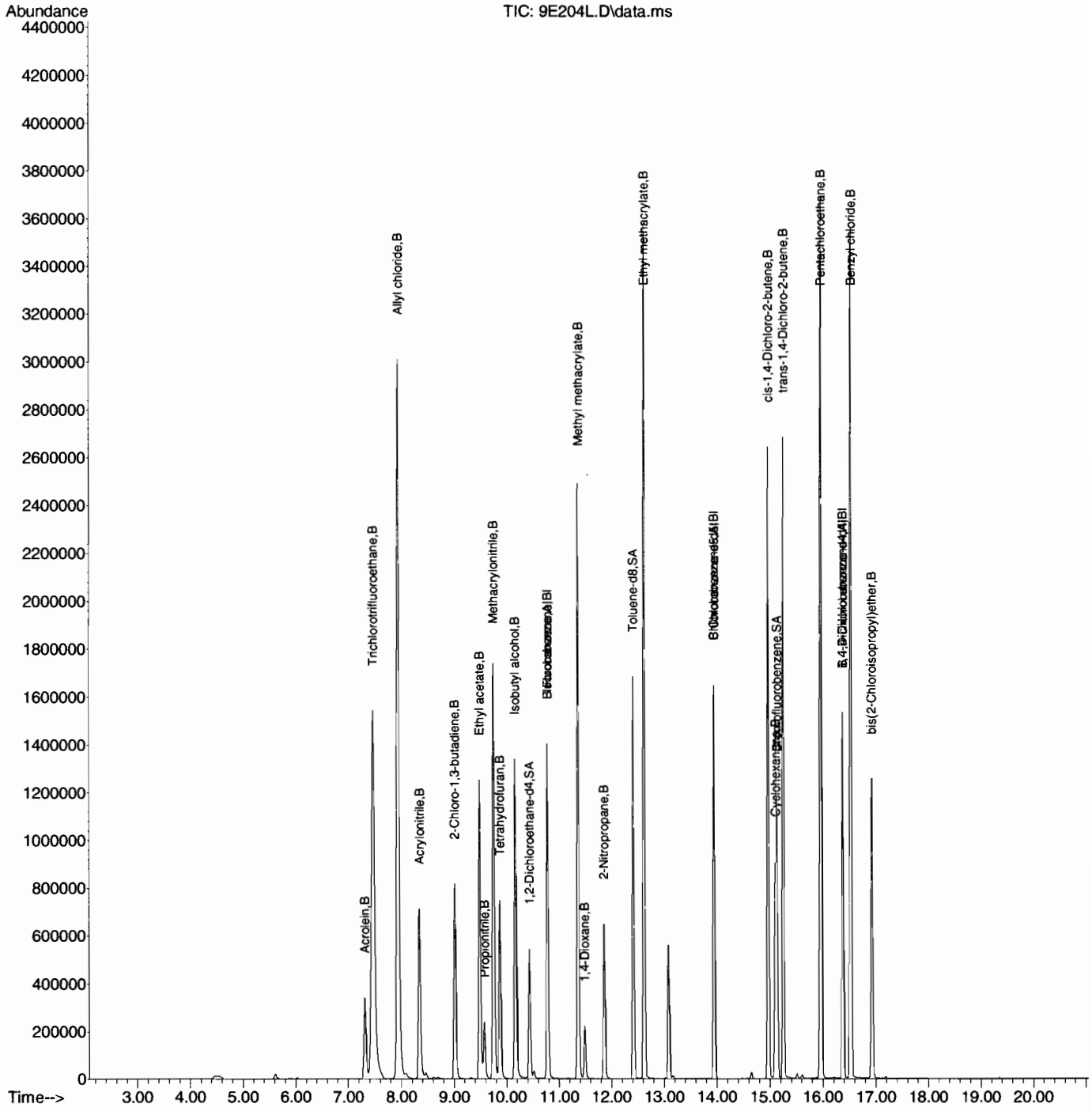

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202076341**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16**
Client Sample:	**QC for batch 967388**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13438PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 23:56**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:36**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D522.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		52.2	ug/kg	0.405	1.19
74-87-3	Chloromethane		47.7	ug/kg	0.357	1.19
75-01-4	Vinyl chloride		54.7	ug/kg	0.357	1.19
74-83-9	Bromomethane		52.1	ug/kg	0.357	1.19
75-00-3	Chloroethane		52.0	ug/kg	0.357	1.19
75-69-4	Trichlorofluoromethane		52.0	ug/kg	0.357	1.19
67-64-1	Acetone		132	ug/kg	1.98	5.96
75-35-4	1,1-Dichloroethylene		48.0	ug/kg	0.357	1.19
74-88-4	Iodomethane		228	ug/kg	1.91	5.96
75-09-2	Methylene chloride		53.6	ug/kg	2.38	5.96
75-15-0	Carbon disulfide		243	ug/kg	1.49	5.96
156-60-5	trans-1,2-Dichloroethylene		48.6	ug/kg	0.357	1.19
75-34-3	1,1-Dichloroethane		51.5	ug/kg	0.357	1.19
78-93-3	2-Butanone		145	ug/kg	1.79	5.96
156-59-2	cis-1,2-Dichloroethylene		50.0	ug/kg	0.357	1.19
594-20-7	2,2-Dichloropropane		44.4	ug/kg	0.357	1.19
67-66-3	Chloroform		50.1	ug/kg	0.357	1.19
74-97-5	Bromochloromethane		49.2	ug/kg	0.393	1.19
71-55-6	1,1,1-Trichloroethane		52.1	ug/kg	0.357	1.19
563-58-6	1,1-Dichloropropene		49.6	ug/kg	0.357	1.19
56-23-5	Carbon tetrachloride		52.0	ug/kg	0.357	1.19
107-06-2	1,2-Dichloroethane		48.2	ug/kg	0.357	1.19
71-43-2	Benzene		48.7	ug/kg	0.357	1.19
79-01-6	Trichloroethylene		49.5	ug/kg	0.393	1.19
78-87-5	1,2-Dichloropropane		49.3	ug/kg	0.357	1.19
75-27-4	Bromodichloromethane		51.8	ug/kg	0.357	1.19
74-95-3	Dibromomethane		48.8	ug/kg	0.357	1.19
108-10-1	4-Methyl-2-pentanone		241	ug/kg	1.49	5.96
10061-01-5	cis-1,3-Dichloropropylene		49.7	ug/kg	0.357	1.19
108-88-3	Toluene		47.2	ug/kg	0.357	1.19
10061-02-6	trans-1,3-Dichloropropylene		50.3	ug/kg	0.357	1.19
79-00-5	1,1,2-Trichloroethane		50.2	ug/kg	0.357	1.19
591-78-6	2-Hexanone		165	ug/kg	1.79	5.96
142-28-9	1,3-Dichloropropane		48.8	ug/kg	0.357	1.19
127-18-4	Tetrachloroethylene		47.8	ug/kg	0.357	1.19
124-48-1	Dibromochloromethane		52.4	ug/kg	0.357	1.19
106-93-4	1,2-Dibromoethane		49.6	ug/kg	0.357	1.19
108-90-7	Chlorobenzene		49.6	ug/kg	0.357	1.19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202076341**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16**
Client Sample:	**QC for batch 967388**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13438PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/19/2010 23:56**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:36**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D522.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		47.7	ug/kg	0.357	1.19
179601-23-1	m,p-Xylenes		94.9	ug/kg	0.357	2.38
95-47-6	o-Xylene		48.4	ug/kg	0.357	1.19
100-42-5	Styrene		49.6	ug/kg	0.357	1.19
75-25-2	Bromoform		54.1	ug/kg	0.357	1.19
79-34-5	1,1,2,2-Tetrachloroethane		50.2	ug/kg	0.357	1.19
96-18-4	1,2,3-Trichloropropane		47.6	ug/kg	0.357	1.19
108-86-1	Bromobenzene		48.5	ug/kg	0.357	1.19
103-65-1	n-Propylbenzene		48.7	ug/kg	0.357	1.19
95-49-8	2-Chlorotoluene		48.3	ug/kg	0.357	1.19
98-82-8	Isopropylbenzene		50.4	ug/kg	0.357	1.19
108-67-8	1,3,5-Trimethylbenzene		49.3	ug/kg	0.357	1.19
106-43-4	4-Chlorotoluene		48.5	ug/kg	0.357	1.19
98-06-6	tert-Butylbenzene		50.0	ug/kg	0.357	1.19
95-63-6	1,2,4-Trimethylbenzene		48.6	ug/kg	0.357	1.19
135-98-8	sec-Butylbenzene		47.5	ug/kg	0.357	1.19
99-87-6	4-Isopropyltoluene		47.5	ug/kg	0.357	1.19
541-73-1	1,3-Dichlorobenzene		46.6	ug/kg	0.357	1.19
106-46-7	1,4-Dichlorobenzene		45.8	ug/kg	0.357	1.19
104-51-8	n-Butylbenzene		47.3	ug/kg	0.357	1.19
96-12-8	1,2-Dibromo-3-chloropropane		45.5	ug/kg	0.357	1.19
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.96	ug/kg	1.91	5.96
630-20-6	1,1,1,2-Tetrachloroethane		51.5	ug/kg	0.357	1.19
95-50-1	1,2-Dichlorobenzene		47.1	ug/kg	0.357	1.19

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D522.D
Acq On : 19 Mar 2010 11:56 pm
Operator : RXY1
InstName : VOA9
Sample : |1202076341|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a MIX[A] MS 249180004 SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 20 12:04:04 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.775	10.775	1.000	96	927163	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.941	13.941	1.000	117	657546	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	300557	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	927163	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	657546	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	300538	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	337553	47.97	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 95.94%					
43) Toluene-d8	12.412	12.412	0.890	98	858344	50.86	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 101.72%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	364402	51.22	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 102.44%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.944	4.944	0.459	85	111142	43.82	ug/L	100
3) Chloromethane	5.308	5.308	0.493	50	313436	40.08	ug/L	99
4) Vinyl chloride	5.574	5.546	0.517	62	241237	45.91	ug/L	99
5) Bromomethane	6.198	6.186	0.575	94	161496	43.71	ug/L	99
6) Chloroethane	6.352	6.340	0.590	64	162709	43.62	ug/L	99
7) Trichlorofluoromethane	6.767	6.767	0.628	101	268904	43.66	ug/L	100
8) Ethyl ether	7.099	7.099	0.659	59	208792	38.35	ug/L	89
9) Acetone	7.490	7.490	0.695	43	413648	111.00	ug/L	88
10) 1,1-Dichloroethylene	7.514	7.502	0.697	61	359496	40.29	ug/L	97
11) Iodomethane	7.775	7.763	0.722	142	1185986	191.77	ug/L	93
12) Acetonitrile	7.858	7.858	0.729	41	828668	886.28	ug/L	98
13) Methyl acetate	7.882	7.882	0.731	43	1025798	199.21	ug/L	97
14) Carbon disulfide	7.905	7.906	0.734	76	2759767	203.72	ug/L	98
15) Methylene chloride	8.083	8.083	0.750	84	223822	45.01	ug/L	93
16) tert-Butyl methyl ether	8.368	8.368	0.777	73	574767	40.36	ug/L	98
17) trans-1,2-Dichloroethy...	8.427	8.427	0.782	61	346130	40.76	ug/L	97
18) Vinyl acetate	8.854	8.854	0.822	43	43806	3.37	ug/L	92
19) 1,1-Dichloroethane	8.913	8.913	0.827	63	446651	43.24	ug/L	100
20) 2-Butanone	9.495	9.483	0.881	43	579116	121.32	ug/L	93
21) cis-1,2-Dichloroethylene	9.554	9.554	0.887	61	403888	41.95	ug/L	99
22) 2,2-Dichloropropane	9.578	9.578	0.889	77	244641	37.24	ug/L	86
23) Bromochloromethane	9.827	9.827	0.912	128	93957	41.31	ug/L	95
24) Chloroform	9.862	9.850	0.915	83	373882	42.07	ug/L	94
25) 1,1,1-Trichloroethane	10.135	10.135	0.941	97	296111	43.76	ug/L	98
26) Cyclohexane	10.230	10.230	0.949	56	418059	41.17	ug/L	99
27) 1,1-Dichloropropene	10.289	10.289	0.955	75	259528	41.61	ug/L	90
28) Carbon tetrachloride	10.325	10.325	0.958	117	245497	43.65	ug/L	99
30) 1,2-Dichloroethane	10.514	10.514	0.976	62	370356	40.44	ug/L	98
31) Benzene	10.538	10.538	0.978	78	748178	40.86	ug/L	96
32) Cyclohexene	10.645	10.645	0.988	67	387073	41.75	ug/L	97
33) n-Butyl alcohol	10.846	10.846	1.007	56	650673	3710.11	ug/L	83
34) Trichloroethylene	11.167	11.167	1.036	95	196505	41.55	ug/L	98
35) 1,2-Dichloropropane	11.416	11.416	1.059	63	243832	41.36	ug/L	100
36) Methylcyclohexane	11.416	11.416	1.059	83	294993	40.07	ug/L	96
37) Dibromomethane	11.558	11.558	1.073	93	128040	40.95	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D522.D
Acq On : 19 Mar 2010 11:56 pm
Operator : RXY1
InstName : VOA9
Sample : |1202076341|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a MIX[A] MS 249180004 SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 20 12:04:04 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38) Bromodichloromethane	11.665	11.665	1.083	83	296580	43.45	ug/L		100
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.			
40) cis-1,3-Dichloropropylene	12.103	12.103	1.123	75	320263	41.70	ug/L		91
42) 4-Methyl-2-pentanone	12.186	12.186	0.874	58	476145	202.38	ug/L	#	72
44) Toluene	12.495	12.483	0.896	91	770667	39.62	ug/L		95
45) trans-1,3-Dichloroprop...	12.637	12.637	0.906	75	305636	42.27	ug/L		94
46) 1,1,2-Trichloroethane	12.862	12.862	0.923	83	153266	42.18	ug/L		98
47) 2-Hexanone	13.028	13.028	0.935	43	916052	138.30	ug/L		86
48) 1,3-Dichloropropane	13.052	13.052	0.936	76	310104	40.98	ug/L		87
49) Tetrachloroethylene	13.088	13.088	0.939	164	107208	40.14	ug/L		98
50) Dibromochloromethane	13.325	13.325	0.956	129	189602	44.02	ug/L		100
51) 1,2-Dibromoethane	13.503	13.503	0.969	107	174034	41.66	ug/L		100
52) Chlorobenzene	13.977	13.977	1.003	112	486566	41.64	ug/L		99
53) 1,1,1,2-Tetrachloroethane	14.024	14.024	1.006	131	175351	43.23	ug/L		98
54) Ethylbenzene	14.024	14.024	1.006	91	850796	40.08	ug/L		97
55) m,p-Xylenes	14.131	14.131	1.014	106	603673	79.64	ug/L		85
56) o-Xylene	14.570	14.570	1.045	106	318032	40.65	ug/L		87
57) Styrene	14.570	14.570	1.045	104	524727	41.63	ug/L		95
59) Bromoform	14.855	14.855	0.907	173	99015	45.40	ug/L		99
60) Isopropylbenzene	14.926	14.926	0.912	105	811558	42.29	ug/L		96
62) 1,1,2,2-Tetrachloroethane	15.198	15.198	0.928	83	244420	42.11	ug/L		100
63) 1,2,3-Trichloropropane	15.293	15.293	0.934	110	58236	39.97	ug/L	#	92
64) Bromobenzene	15.353	15.353	0.938	156	175598	40.75	ug/L		98
65) n-Propylbenzene	15.353	15.353	0.938	91	1000630	40.86	ug/L		96
66) 1,3,5-Trimethylbenzene	15.495	15.495	0.946	105	672910	41.38	ug/L		94
67) 2-Chlorotoluene	15.507	15.507	0.947	126	193905	40.59	ug/L		88
68) 4-Chlorotoluene	15.613	15.614	0.954	91	665517	40.72	ug/L		98
69) tert-Butylbenzene	15.874	15.874	0.970	134	128850	41.97	ug/L	#	87
70) 1,2,4-Trimethylbenzene	15.910	15.910	0.972	105	703955	40.78	ug/L		93
71) sec-Butylbenzene	16.112	16.112	0.984	105	880581	39.90	ug/L		97
72) 4-Isopropyltoluene	16.230	16.230	0.991	119	676008	39.86	ug/L		98
73) 1,3-Dichlorobenzene	16.313	16.313	0.996	146	345477	39.09	ug/L		99
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	337179	38.44	ug/L		100
75) n-Butylbenzene	16.693	16.693	1.020	91	746142	39.73	ug/L		95
76) 1,2-Dichlorobenzene	16.859	16.859	1.030	146	344550	39.50	ug/L		99
77) 1,2-Dibromo-3-chloropr...	17.784	17.784	1.086	157	34529	38.24	ug/L		94
78) 1,2,4-Trichlorobenzene	18.922	18.922	1.156	180	187741	34.84	ug/L		99
79) Hexachlorobutadiene	19.088	19.088	1.166	225	82321	33.09	ug/L		97
80) Naphthalene	19.349	19.349	1.182	128	545807	36.47	ug/L		99
81) 1,2,3-Trichlorobenzene	19.717	19.717	1.204	180	169274	34.32	ug/L		99
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.			
85) Acrolein	0.000	7.313	0.000		0	N.D.			
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.			
87) Isopropyl Alcohol	7.550	7.550	0.701		0m	N.D.	d		
88) Allyl chloride	7.858	7.929	0.729		0m	N.D.	d		
89) tert-Butyl Alcohol	0.000	8.060	0.000		0	N.D.			
90) Acrylonitrile	8.368	8.332	0.777		0m	N.D.	d		
91) Isopropyl ether	8.854	8.866	0.822		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	0.000	9.008	0.000		0	N.D.			
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.			
94) Ethyl acetate	9.495	9.483	0.881		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D522.D
Acq On : 19 Mar 2010 11:56 pm
Operator : RXY1
InstName : VOA9
Sample : |1202076341|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a MIX[A] MS 249180004 SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 20 12:04:04 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	9.483	9.578	0.880		0m	N.D.	d
96)	Methacrylonitrile	9.850	9.744	0.914		0m	N.D.	d
97)	Tetrahydrofuran	9.874	9.874	0.916		0m	N.D.	d
98)	Isobutyl alcohol	10.135	10.159	0.941		0m	N.D.	d
99)	Methyl tert-amyl ether	10.538	10.526	0.978		0m	N.D.	d
100)	Methyl methacrylate	11.416	11.368	1.059		0m	N.D.	d
101)	1,4-Dioxane	11.558	11.487	1.073		0m	N.D.	d
102)	2-Nitropropane	0.000	11.854	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	12.613	0.000		0	N.D.	
106)	1-Chlorohexane	13.941	13.823	0.852		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.926	14.961	0.912		0m	N.D.	d
108)	Cyclohexanone	14.914	15.092	0.911		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	15.341	15.246	0.937		0m	N.D.	d
110)	Pentachloroethane	15.969	15.957	0.975		0m	N.D.	d
111)	Benzyl chloride	16.527	16.527	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.930	16.918	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D522.D
Acq On : 19 Mar 2010 11:56 pm
Operator : RXY1
InstName : VOA9
Sample : |1202076341|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a MIX[A] MS 249180004 SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 20 12:04:04 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

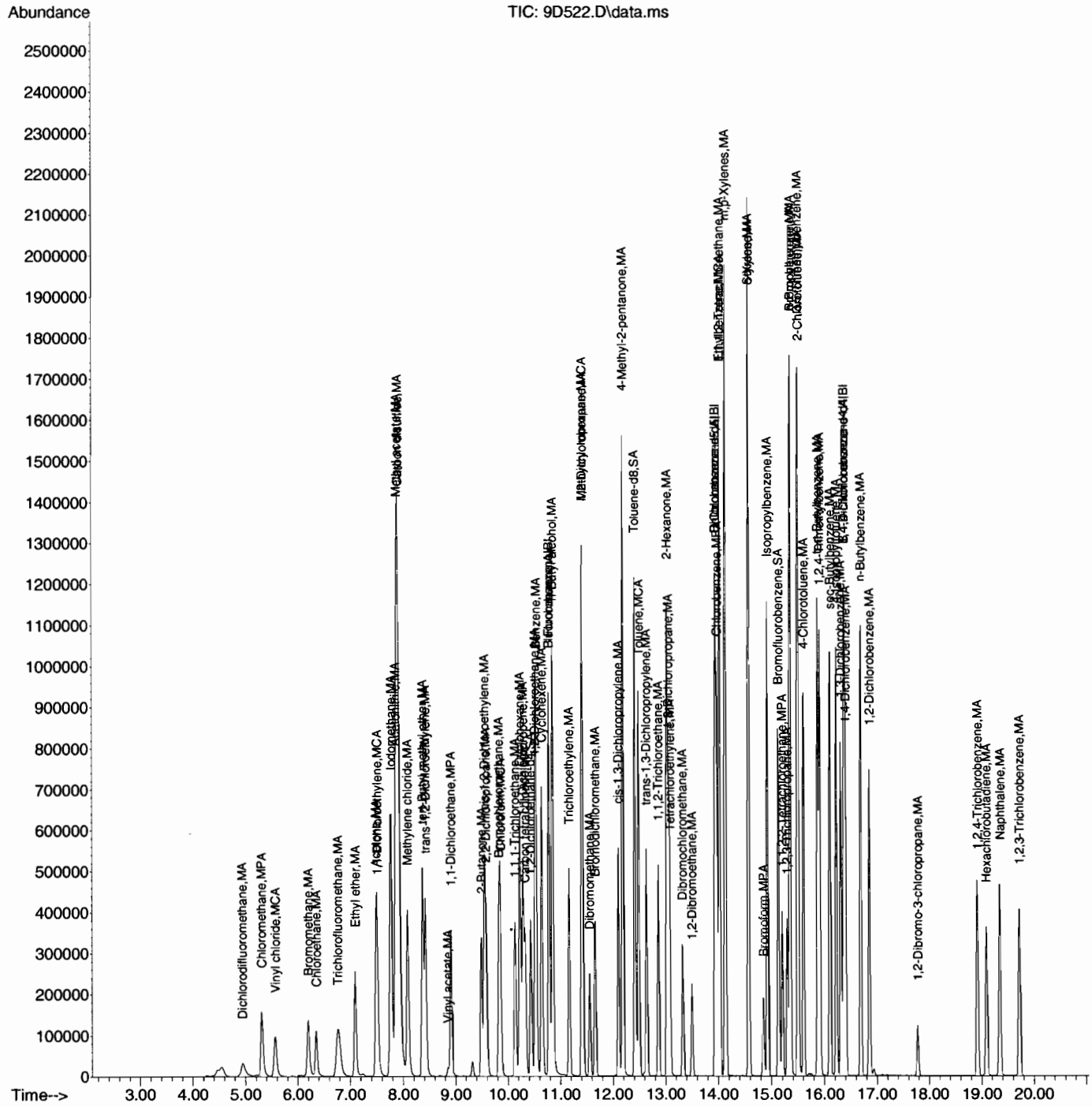

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202076342**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16**
Client Sample:	**QC for batch 967388**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13438PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 00:24**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:38**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D523.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		52.5	ug/kg	0.405	1.19
74-87-3	Chloromethane		48.6	ug/kg	0.357	1.19
75-01-4	Vinyl chloride		56.2	ug/kg	0.357	1.19
74-83-9	Bromomethane		53.5	ug/kg	0.357	1.19
75-00-3	Chloroethane		53.5	ug/kg	0.357	1.19
75-69-4	Trichlorofluoromethane		52.5	ug/kg	0.357	1.19
67-64-1	Acetone		137	ug/kg	1.98	5.96
75-35-4	1,1-Dichloroethylene		49.2	ug/kg	0.357	1.19
74-88-4	Iodomethane		233	ug/kg	1.91	5.96
75-09-2	Methylene chloride		54.9	ug/kg	2.38	5.96
75-15-0	Carbon disulfide		245	ug/kg	1.49	5.96
156-60-5	trans-1,2-Dichloroethylene		49.8	ug/kg	0.357	1.19
75-34-3	1,1-Dichloroethane		52.1	ug/kg	0.357	1.19
78-93-3	2-Butanone		144	ug/kg	1.79	5.96
156-59-2	cis-1,2-Dichloroethylene		51.1	ug/kg	0.357	1.19
594-20-7	2,2-Dichloropropane		45.5	ug/kg	0.357	1.19
67-66-3	Chloroform		51.1	ug/kg	0.357	1.19
74-97-5	Bromochloromethane		49.8	ug/kg	0.393	1.19
71-55-6	1,1,1-Trichloroethane		52.7	ug/kg	0.357	1.19
563-58-6	1,1-Dichloropropene		49.8	ug/kg	0.357	1.19
56-23-5	Carbon tetrachloride		52.4	ug/kg	0.357	1.19
107-06-2	1,2-Dichloroethane		48.9	ug/kg	0.357	1.19
71-43-2	Benzene		49.9	ug/kg	0.357	1.19
79-01-6	Trichloroethylene		50.6	ug/kg	0.393	1.19
78-87-5	1,2-Dichloropropane		50.5	ug/kg	0.357	1.19
75-27-4	Bromodichloromethane		52.7	ug/kg	0.357	1.19
74-95-3	Dibromomethane		49.7	ug/kg	0.357	1.19
108-10-1	4-Methyl-2-pentanone		253	ug/kg	1.49	5.96
10061-01-5	cis-1,3-Dichloropropylene		50.4	ug/kg	0.357	1.19
108-88-3	Toluene		48.0	ug/kg	0.357	1.19
10061-02-6	trans-1,3-Dichloropropylene		51.4	ug/kg	0.357	1.19
79-00-5	1,1,2-Trichloroethane		51.0	ug/kg	0.357	1.19
591-78-6	2-Hexanone		166	ug/kg	1.79	5.96
142-28-9	1,3-Dichloropropane		49.6	ug/kg	0.357	1.19
127-18-4	Tetrachloroethylene		47.3	ug/kg	0.357	1.19
124-48-1	Dibromochloromethane		53.8	ug/kg	0.357	1.19
106-93-4	1,2-Dibromoethane		51.3	ug/kg	0.357	1.19
108-90-7	Chlorobenzene		49.5	ug/kg	0.357	1.19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202076342**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16**
Client Sample:	**QC for batch 967388**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-13438PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**967390**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**03/20/2010 00:24**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/18/2010 18:38**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031910V9\9D523.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		48.1	ug/kg	0.357	1.19
179601-23-1	m,p-Xylenes		96.7	ug/kg	0.357	2.38
95-47-6	o-Xylene		48.4	ug/kg	0.357	1.19
100-42-5	Styrene		50.4	ug/kg	0.357	1.19
75-25-2	Bromoform		56.0	ug/kg	0.357	1.19
79-34-5	1,1,2,2-Tetrachloroethane		51.3	ug/kg	0.357	1.19
96-18-4	1,2,3-Trichloropropane		49.0	ug/kg	0.357	1.19
108-86-1	Bromobenzene		49.2	ug/kg	0.357	1.19
103-65-1	n-Propylbenzene		47.9	ug/kg	0.357	1.19
95-49-8	2-Chlorotoluene		49.2	ug/kg	0.357	1.19
98-82-8	Isopropylbenzene		49.8	ug/kg	0.357	1.19
108-67-8	1,3,5-Trimethylbenzene		48.8	ug/kg	0.357	1.19
106-43-4	4-Chlorotoluene		48.1	ug/kg	0.357	1.19
98-06-6	tert-Butylbenzene		49.8	ug/kg	0.357	1.19
95-63-6	1,2,4-Trimethylbenzene		47.6	ug/kg	0.357	1.19
135-98-8	sec-Butylbenzene		47.1	ug/kg	0.357	1.19
99-87-6	4-Isopropyltoluene		46.5	ug/kg	0.357	1.19
541-73-1	1,3-Dichlorobenzene		46.4	ug/kg	0.357	1.19
106-46-7	1,4-Dichlorobenzene		45.6	ug/kg	0.357	1.19
104-51-8	n-Butylbenzene		46.0	ug/kg	0.357	1.19
96-12-8	1,2-Dibromo-3-chloropropane		48.4	ug/kg	0.357	1.19
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.96	ug/kg	1.91	5.96
630-20-6	1,1,1,2-Tetrachloroethane		52.1	ug/kg	0.357	1.19
95-50-1	1,2-Dichlorobenzene		47.0	ug/kg	0.357	1.19

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D523.D
Acq On : 20 Mar 2010 12:24 am
Operator : RXY1
InstName : VOA9
Sample : |1202076342|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a MIX[A] MSD 249180004 SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 20 12:04:09 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.775	10.775	1.000	96	953349	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.941	13.941	1.000	117	670297	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	310815	50.00	ug/L	0.00
82) B Fluorobenzene	10.775	10.775	1.000	96	953349	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.941	13.942	1.000	117	670297	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.372	16.372	1.000	152	310832	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.431	10.431	0.968	65	343096	47.42	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 94.84%					
43) Toluene-d8	12.412	12.412	0.890	98	863392	50.19	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 100.38%					
61) Bromofluorobenzene	15.127	15.127	0.924	95	365210	49.63	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 99.26%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.958	4.944	0.460	85	114854	44.04	ug/L	99
3) Chloromethane	5.308	5.308	0.493	50	328139	40.81	ug/L	98
4) Vinyl chloride	5.574	5.546	0.517	62	255143	47.22	ug/L	99
5) Bromomethane	6.198	6.186	0.575	94	170560	44.90	ug/L	98
6) Chloroethane	6.352	6.340	0.590	64	172331	44.93	ug/L	100
7) Trichlorofluoromethane	6.779	6.767	0.629	101	279331	44.10	ug/L	100
8) Ethyl ether	7.099	7.099	0.659	59	224996	40.19	ug/L	90
9) Acetone	7.490	7.490	0.695	43	438013	114.71	ug/L	89
10) 1,1-Dichloroethylene	7.514	7.502	0.697	61	378743	41.28	ug/L	98
11) Iodomethane	7.775	7.763	0.722	142	1245763	195.90	ug/L	94
12) Acetonitrile	7.858	7.858	0.729	41	879790	915.11	ug/L	98
13) Methyl acetate	7.882	7.882	0.731	43	1080300	204.03	ug/L	96
14) Carbon disulfide	7.905	7.906	0.734	76	2864923	205.68	ug/L	98
15) Methylene chloride	8.095	8.083	0.751	84	235298	46.08	ug/L	93
16) tert-Butyl methyl ether	8.368	8.368	0.777	73	608166	41.53	ug/L	99
17) trans-1,2-Dichloroethy...	8.427	8.427	0.782	61	365170	41.82	ug/L	98
18) Vinyl acetate	8.854	8.854	0.822	43	77009	5.77	ug/L	93
19) 1,1-Dichloroethane	8.913	8.913	0.827	63	464835	43.77	ug/L	100
20) 2-Butanone	9.495	9.483	0.881	43	593987	121.01	ug/L	94
21) cis-1,2-Dichloroethylene	9.554	9.554	0.887	61	424412	42.88	ug/L	98
22) 2,2-Dichloropropane	9.578	9.578	0.889	77	257969	38.19	ug/L	91
23) Bromochloromethane	9.827	9.827	0.912	128	97767	41.81	ug/L	92
24) Chloroform	9.862	9.850	0.915	83	391658	42.86	ug/L	95
25) 1,1,1-Trichloroethane	10.135	10.135	0.941	97	307912	44.26	ug/L	98
26) Cyclohexane	10.230	10.230	0.949	56	432028	41.38	ug/L	99
27) 1,1-Dichloropropene	10.289	10.289	0.955	75	267924	41.78	ug/L	92
28) Carbon tetrachloride	10.325	10.325	0.958	117	254349	43.98	ug/L	99
30) 1,2-Dichloroethane	10.514	10.514	0.976	62	386326	41.02	ug/L	99
31) Benzene	10.538	10.538	0.978	78	788989	41.90	ug/L	97
32) Cyclohexene	10.645	10.645	0.988	67	404195	42.40	ug/L	97
33) n-Butyl alcohol	10.846	10.846	1.007	56	684367	3795.05	ug/L	85
34) Trichloroethylene	11.167	11.167	1.036	95	206575	42.48	ug/L	98
35) 1,2-Dichloropropane	11.416	11.416	1.059	63	257154	42.42	ug/L	98
36) Methylcyclohexane	11.416	11.416	1.059	83	305455	40.35	ug/L	97
37) Dibromomethane	11.558	11.558	1.073	93	134222	41.75	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D523.D
Acq On : 20 Mar 2010 12:24 am
Operator : RXY1
InstName : VOA9
Sample : |1202076342|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a MIX[A] MSD 249180004 SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 20 12:04:09 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38) Bromodichloromethane	11.665	11.665	1.083	83	310670	44.27	ug/L		100
39) 2-Chloroethylvinyl ether	0.000	11.866	0.000		0	N.D.			
40) cis-1,3-Dichloropropylene	12.103	12.103	1.123	75	333882	42.28	ug/L		94
42) 4-Methyl-2-pentanone	12.186	12.186	0.874	58	508613	212.07	ug/L	#	74
44) Toluene	12.483	12.483	0.895	91	799452	40.32	ug/L		96
45) trans-1,3-Dichloroprop...	12.637	12.637	0.906	75	317789	43.12	ug/L		95
46) 1,1,2-Trichloroethane	12.862	12.862	0.923	83	158648	42.83	ug/L		99
47) 2-Hexanone	13.028	13.028	0.935	43	942741	139.62	ug/L		87
48) 1,3-Dichloropropane	13.052	13.052	0.936	76	321013	41.62	ug/L		86
49) Tetrachloroethylene	13.076	13.088	0.938	164	108001	39.67	ug/L		97
50) Dibromochloromethane	13.325	13.325	0.956	129	198336	45.17	ug/L		99
51) 1,2-Dibromoethane	13.503	13.503	0.969	107	183410	43.07	ug/L		99
52) Chlorobenzene	13.977	13.977	1.003	112	495139	41.57	ug/L		99
53) 1,1,1,2-Tetrachloroethane	14.024	14.024	1.006	131	180932	43.75	ug/L		98
54) Ethylbenzene	14.024	14.024	1.006	91	873346	40.36	ug/L		96
55) m,p-Xylenes	14.131	14.131	1.014	106	627482	81.20	ug/L		86
56) o-Xylene	14.570	14.570	1.045	106	324271	40.66	ug/L		84
57) Styrene	14.570	14.570	1.045	104	543992	42.34	ug/L		95
59) Bromoform	14.855	14.855	0.907	173	106100	47.04	ug/L		98
60) Isopropylbenzene	14.926	14.926	0.912	105	829861	41.82	ug/L		97
62) 1,1,2,2-Tetrachloroethane	15.198	15.198	0.928	83	258648	43.09	ug/L		99
63) 1,2,3-Trichloropropane	15.293	15.293	0.934	110	61968	41.13	ug/L	#	92
64) Bromobenzene	15.353	15.353	0.938	156	184106	41.31	ug/L		99
65) n-Propylbenzene	15.353	15.353	0.938	91	1019118	40.25	ug/L		96
66) 1,3,5-Trimethylbenzene	15.495	15.495	0.946	105	689436	41.00	ug/L		94
67) 2-Chlorotoluene	15.507	15.507	0.947	126	203906	41.28	ug/L		91
68) 4-Chlorotoluene	15.614	15.614	0.954	91	683040	40.41	ug/L		98
69) tert-Butylbenzene	15.874	15.874	0.970	134	132656	41.78	ug/L	#	87
70) 1,2,4-Trimethylbenzene	15.910	15.910	0.972	105	712755	39.92	ug/L		94
71) sec-Butylbenzene	16.112	16.112	0.984	105	901450	39.50	ug/L		97
72) 4-Isopropyltoluene	16.230	16.230	0.991	119	684294	39.02	ug/L		98
73) 1,3-Dichlorobenzene	16.313	16.313	0.996	146	356075	38.95	ug/L		99
74) 1,4-Dichlorobenzene	16.408	16.408	1.002	146	347506	38.31	ug/L		99
75) n-Butylbenzene	16.693	16.693	1.020	91	750740	38.66	ug/L		95
76) 1,2-Dichlorobenzene	16.859	16.859	1.030	146	356264	39.49	ug/L		98
77) 1,2-Dibromo-3-chloropr...	17.784	17.784	1.086	157	37944	40.61	ug/L		98
78) 1,2,4-Trichlorobenzene	18.922	18.922	1.156	180	193349	34.70	ug/L		98
79) Hexachlorobutadiene	19.088	19.088	1.166	225	81889	31.83	ug/L		100
80) Naphthalene	19.349	19.349	1.182	128	583930	37.73	ug/L		99
81) 1,2,3-Trichlorobenzene	19.717	19.717	1.204	180	176557	34.62	ug/L		100
83) Chlorotrifluoroethylene	0.000	4.860	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.700	0.000		0	N.D.			
85) Acrolein	0.000	7.313	0.000		0	N.D.			
86) Trichlorotrifluoroethane	0.000	7.467	0.000		0	N.D.			
87) Isopropyl Alcohol	7.562	7.550	0.702		0m	N.D.	d		
88) Allyl chloride	7.858	7.929	0.729		0m	N.D.	d		
89) tert-Butyl Alcohol	0.000	8.060	0.000		0	N.D.			
90) Acrylonitrile	8.380	8.332	0.778		0m	N.D.	d		
91) Isopropyl ether	8.866	8.866	0.823		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	0.000	9.008	0.000		0	N.D.			
93) Ethyl tert-butyl ether	0.000	9.269	0.000		0	N.D.			
94) Ethyl acetate	9.495	9.483	0.881		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D523.D
Acq On : 20 Mar 2010 12:24 am
Operator : RXY1
InstName : VOA9
Sample : |1202076342|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a MIX[A] MSD 249180004 SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 20 12:04:09 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	9.483	9.578	0.880		0m	N.D.	d
96)	Methacrylonitrile	9.850	9.744	0.914		0m	N.D.	d
97)	Tetrahydrofuran	9.862	9.874	0.915		0m	N.D.	d
98)	Isobutyl alcohol	10.230	10.159	0.949		0m	N.D.	d
99)	Methyl tert-amyl ether	10.538	10.526	0.978		0m	N.D.	d
100)	Methyl methacrylate	11.416	11.368	1.059		0m	N.D.	d
101)	1,4-Dioxane	11.558	11.487	1.073		0m	N.D.	d
102)	2-Nitropropane	0.000	11.854	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	12.613	0.000		0	N.D.	
106)	1-Chlorohexane	13.941	13.823	0.852		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.926	14.961	0.912		0m	N.D.	d
108)	Cyclohexanone	14.926	15.092	0.912		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	15.341	15.246	0.937		0m	N.D.	d
110)	Pentachloroethane	15.957	15.957	0.975		0m	N.D.	d
111)	Benzyl chloride	16.527	16.527	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.930	16.918	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031910V9\
Data File : 9D523.D
Acq On : 20 Mar 2010 12:24 am
Operator : RXY1
InstName : VOA9
Sample : |1202076342|967390|1|VOA|1|VOA8260BS|
Misc : LANL 5.0g n/a MIX[A] MSD 249180004 SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 20 12:04:09 2010
Quant Method : C:\msdchem\1\DATA\031810V9\VOA9-8260-031810.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Mar 19 08:59:19 2010
Response via : Initial Calibration
Integrator: RTE

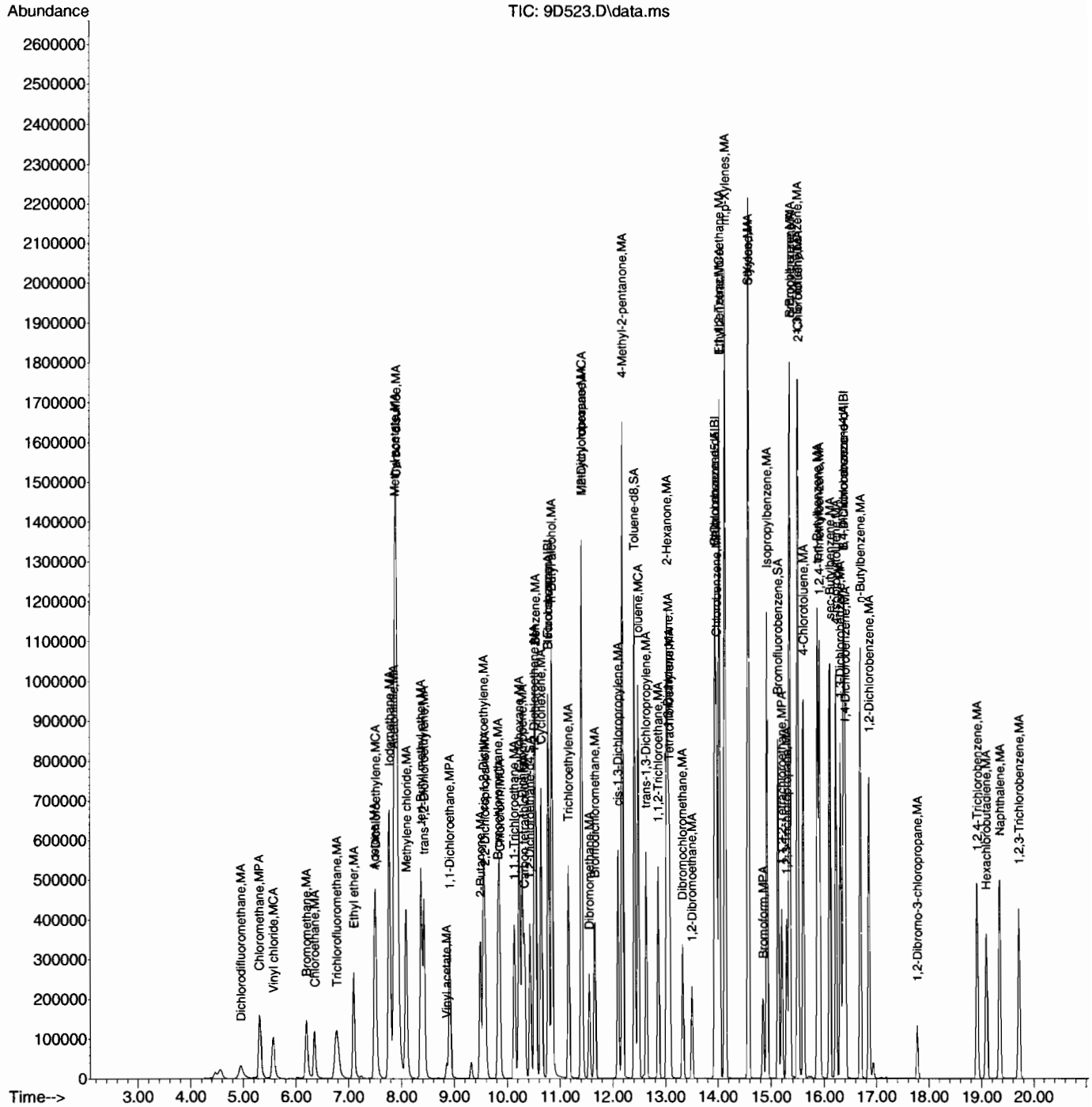

Miscellaneous

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **967388** Verified by:

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Analyst: Ramona Yarbrough
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 14
Instrument: Sartorius Balance B-001

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
249180002	18-MAR-2010 18:31:00	Soil	5	5	1	
249180003	18-MAR-2010 18:33:00	Soil	5	5	1	
249180004	18-MAR-2010 18:34:00	Soil	5	5	1	
1202076341 PS (249180004)	18-MAR-2010 18:36:00	Soil	5	5	1	
1202076342 PSD (249180004)	18-MAR-2010 18:38:00	Soil	5	5	1	
249180005	18-MAR-2010 18:40:00	Soil	5	5	1	
249180006	18-MAR-2010 18:42:00	Soil	5	5	1	
249180007	18-MAR-2010 18:44:00	Misc Solid	5	5	1	
249180008	18-MAR-2010 18:46:00	Soil	5	5	1	
249250001	18-MAR-2010 19:02:00	Misc Solid	5	5	1	
249250003	18-MAR-2010 19:03:00	Soil	5	5	1	
249250004	18-MAR-2010 19:04:00	Soil	5	5	1	
1202076343 LCS	19-MAR-2010 14:00:00	Soil	5	5	1	
1202076344 LCS	19-MAR-2010 14:01:00	Soil	5	5	1	
1202076340 MB	19-MAR-2010 14:02:00	Soil	5	5	1	
1202078895 LCS	23-MAR-2010 10:00:00	Soil	5	5	1	
1202078896 LCS	23-MAR-2010 10:01:00	Soil	5	5	1	
1202078894 MB	23-MAR-2010 10:02:00	Soil	5	5	1	
249180001	23-MAR-2010 14:30:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

Date: 3/18/2010 Method 8260/624 Operator: RXY1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 Daily Instrument Readings:

Multiplier Voltage: 1588

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/18/2010

(See pg. 79 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 031810V9

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
IS	UVM100217-01	1	1	1	
SS	UVM100217-02	1	1	1	
BFB	UVM100217-02				1

Purge Amount

5	Water Purge Vol:
N/A	Soil Purge Wt.
X	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3/18/2010 8:59	9D401.D	W9VM100318-01	--------	CCV	5ml	1	--------	1	w / s	RXY1	N/A	X	MIX[A]UVM100314-07A/UVM100315-07A
3/18/2010 9:27	9D402.D	W9VM100318-02	--------	CCV	5ml	1	--------	2	w	RXY1	N/A	X	MIX[A]UVM100305-01C/IVM100316-01
3/18/2010 9:55	9D403.D	W9VM100318-03	--------	LCS	5g	1	--------	3	s	RXY1	N/A	X	MIX[A]UVM100305-01C/IVM100316-01 SOIL
3/18/2010 10:24	9D404.D	W9VM100318-04	--------	CCV	5ml	1	--------	4	w	RXY1	N/A	X	MIX[B]UVM100304-06
3/18/2010 10:52	9D405.D	W9VM100318-05	--------	LCS	5g	1	--------	5	s	RXY1	N/A	X	MIX[B]UVM100304-08A SOIL
3/18/2010 11:20	9D406.D	1202----------	--------	BLANK	5ml	1	--------	6	w	RXY1	N/A	X	
3/18/2010 11:49	9D407.D	1202----------	--------	BLANK	5g	1	--------	7	s	RXY1	N/A	X	SOIL
3/18/2010 12:18	9D408.D	248990012	SNLS	966369	5ml	1	pH2	8	w	RXY1	N	X	High SS
3/18/2010 12:48	9D409.D	248990025	SNLS	966369	5ml	1	pH2	9	w	RXY1	N	X	High SS
3/18/2010 13:18	9D410.D	248990038	SNLS	966369	5ml	1	pH2	10	w	RXY1	N	X	High SS
3/18/2010 14:14	9D411.D	1202----------	GEL	BLANK	5ml	1	n/a	11	w	RXY1	N/A	X	Instrument blank
3/18/2010 14:42	9D412.D	1202----------	GEL	BLANK	5ml	1	n/a	12	w	RXY1	N/A	X	Instrument blank
3/18/2010 15:20	9D413.D	1202----------	GEL	BLANK	5ml	1	n/a	13	w	RXY1	N/A	X	Instrument blank
3/18/2010 15:47	9D414.D	UVM100217-02	--------	BFB	5ml	1	n/a	14	w	RXY1	N/A	O	
3/18/2010 16:15	9D415.D	W9VM100318-06	GEL	ICAL	5ml	1	n/a	15	w	RXY1	N/A	O	MIX[A]UVM100314-01A/UVM100315-01A
3/18/2010 16:44	9D416.D	W9VM100318-07	GEL	ICAL	5ml	1	n/a	16	w	RXY1	N/A	O	MIX[A]UVM100314-02A/UVM100315-02A
3/18/2010 17:13	9D417.D	W9VM100318-08	GEL	ICAL	5ml	1	n/a	17	w	RXY1	N/A	O	MIX[A]UVM100314-03A/UVM100315-03A
3/18/2010 17:42	9D418.D	W9VM100318-09	GEL	ICAL	5ml	1	n/a	18	w	RXY1	N/A	O	MIX[A]UVM100314-04A/UVM100315-04A
3/18/2010 18:11	9D419.D	W9VM100318-10	GEL	ICAL	5ml	1	n/a	19	w	RXY1	N/A	O	MIX[A]UVM100314-05A/UVM100315-05A
3/18/2010 18:40	9D420.D	W9VM100318-11	GEL	ICAL	5ml	1	n/a	20	w	RXY1	N/A	O	MIX[A]UVM100314-06A/UVM100315-06A
3/18/2010 19:09	9D421.D	W9VM100318-12	GEL	ICAL	5ml	1	n/a	21	w	RXY1	N/A	O	MIX[A]UVM100314-07A/UVM100315-07A
3/18/2010 19:38	9D422.D	W9VM100318-13	GEL	ICAL	5ml	1	n/a	22	w	RXY1	N/A	O	MIX[A]UVM100314-08A/UVM100315-08A
3/18/2010 20:07	9D423.D	1202----------	GEL	BLANK	5ml	1	n/a	23	w	RXY1	N/A	X	Instrument blank
3/18/2010 20:35	9D424.D	W9VM100318-14	GEL	ICAL	5ml	1	n/a	24	w	RXY1	N/A	O	MIX[B]UVM100304-01/UVM100227-01C
3/18/2010 21:03	9D425.D	W9VM100318-15	GEL	ICAL	5ml	1	n/a	25	w	RXY1	N/A	O	MIX[B]UVM100304-02/UVM100227-02C
3/18/2010 21:32	9D426.D	W9VM100318-16	GEL	ICAL	5ml	1	n/a	26	w	RXY1	N/A	O	MIX[B]UVM100304-03/UVM100227-03C
3/18/2010 22:00	9D427.D	W9VM100318-17	GEL	ICAL	5ml	1	n/a	27	w	RXY1	N/A	O	MIX[B]UVM100304-04/UVM100227-04C
3/18/2010 22:28	9D428.D	W9VM100318-18	GEL	ICAL	5ml	1	n/a	28	w	RXY1	N/A	O	MIX[B]UVM100304-05/UVM100227-05C
3/18/2010 22:56	9D429.D	W9VM100318-19	GEL	ICAL	5ml	1	n/a	29	w	RXY1	N/A	O	MIX[B]UVM100304-06/UVM100227-06C
3/18/2010 23:24	9D430.D	W9VM100318-20	GEL	ICAL	5ml	1	n/a	30	w	RXY1	N/A	O	MIX[B]UVM100304-07/UVM100227-07C
3/18/2010 23:51	9D431.D	1202----------	GEL	BLANK	5ml	1	n/a	31	w	RXY1	N/A	X	Instrument blank
3/19/2010 0:19	9D432.D	W9VM100318-21	GEL	ICV	5ml	1	n/a	32	w	RXY1	N/A	O	MIX[B]UVM100304-08A/UVM100226-02B
3/19/2010 0:47	9D433.D	W9VM100318-22	GEL	ICV	5ml	1	n/a	33	w	RXY1	N/A	O	MIX[A]UVM100305-01C/IVM100316-01
3/19/2010 1:15	9D434.D	W9VM100318-23	GEL	ICV	5ml	1	n/a	34	w	RXY1	N/A	X	MIX[A]UVM100226-01B/IVM100316-01
3/19/2010 1:43	9D435.D	1202----------	GEL	BLANK	5ml	1	n/a	35	w	RXY1	N/A	X	Instrument blank

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

Date: 3/19/2010 Method 8260/624 Operator: RXY1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 Daily Instrument Readings:

Multiplier Voltage: 1588

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/18/2010

(See pg. 79 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 031910V9

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W9VM100319-01		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100217-02	1	1	1	
LCS/MS	W9VM100319-02/03			5+5	
BFB	UVM100217-02				1
SHORT	W9VM100319-04/05		5	5	
N/A					

Purge Amount

5	Water Purge Vol:
5.0g	Soil Purge Wt.
X	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3/19/2010	**13:44**	9D501.D	W9VM100319-01	--------	BFB/CCV	5ml	1	--------	1	w / s	RXY1	N/A	O	MIX[A]UVM100314-07A/UVM100315-07A
3/19/2010	14:14	9D502.D	W9VM100319-02	--------	LCS	5ml	1	--------	2	w	RXY1	N/A	O	MIX[A]UVM100305-01C/IVM100318-01
3/19/2010	14:44	9D503.D	W9VM100319-03	--------	LCS	5g	1	--------	3	s	RXY1	N/A	O	MIX[A]UVM100305-01C/IVM100318-01 SOIL
3/19/2010	15:13	9D504.D	W9VM100319-04	--------	CCV	5ml	1	--------	4	w	RXY1	N/A	O	MIX[B]UVM100304-08A
3/19/2010	15:44	9D505.D	W9VM100319-05	--------	LCS	5g	1	--------	5	s	RXY1	N/A	O	MIX[B]UVM100304-08A SOIL
3/19/2010	16:14	9D506.D	1202----------	GEL	BLANK	5ml	1	n/a	6	w	RXY1	N/A	O	
3/19/2010	16:44	9D507.D	1202----------	GEL	BLANK	5g	1	n/a	7	s	RXY1	N/A	O	SOIL
3/19/2010	17:13	9D508.D	249250002	LANL	967393	5ml	1	pH2	8	w	RXY1	N	O	
3/19/2010	17:43	9D509.D	249180007	LANL	967390	5.0g	1	n/a	9	s	RXY1	N/A	O	SOIL
3/19/2010	18:13	9D510.D	249250001	LANL	967390	5.0g	1	n/a	10	s	RXY1	N/A	O	SOIL
3/19/2010	18:42	9D511.D	249180001	LANL	967390	5.0g	1	n/a	11	s	RXY1	N/A	X	SOIL: Low level Toluene: Report 9E211
3/19/2010	19:11	9D512.D	249180002	LANL	967390	5.0g	1	n/a	12	s	RXY1	N/A	O	SOIL
3/19/2010	19:40	9D513.D	249180003	LANL	967390	5.0g	1	n/a	13	s	RXY1	N/A	O	SOIL
3/19/2010	20:09	9D514.D	249180004	LANL	967390	5.0g	1	n/a	14	s	RXY1	N/A	O	SOIL
3/19/2010	20:38	9D515.D	249180005	LANL	967390	5.0g	1	n/a	15	s	RXY1	N/A	O	SOIL
3/19/2010	21:06	9D516.D	249180006	LANL	967390	5.0g	1	n/a	16	s	RXY1	N/A	O	SOIL
3/19/2010	21:35	9D517.D	249180008	LANL	967390	5.0g	1	n/a	17	s	RXY1	N/A	O	SOIL
3/19/2010	22:03	9D518.D	249250003	LANL	967390	5.0g	1	n/a	18	s	RXY1	N/A	O	SOIL
3/19/2010	22:31	9D519.D	249250004	LANL	967390	5.0g	1	n/a	19	s	RXY1	N/A	O	SOIL
3/19/2010	23:00	9D520.D	1202076346	LANL	967393	5ml	1	pH2	20	w	RXY1	N	O	MIX[A] MS 249250002
3/19/2010	23:28	9D521.D	1202076347	LANL	967393	5ml	1	pH2	21	w	RXY1	N	O	MIX[A] MSD 249250002
3/19/2010	23:56	9D522.D	1202076341	LANL	967390	5.0g	1	n/a	22	s	RXY1	N/A	O	MIX[A] MS 249180004 SOIL
3/20/2010	0:24	9D523.D	1202076342	LANL	967390	5.0g	1	n/a	23	s	RXY1	N/A	O	MIX[A] MSD 249180004 SOIL
3/20/2010	0:52	9D524.D	1202073456	GWSD	966186	5ml	1	pH2	24	w	RXY1	N	O	MIX[A] MS 249436002 (624)
3/20/2010	1:20	9D525.D	1202073448	MENR	966182	5ml	1	pH2	25	w	RXY1	N	O	MIX[A] MS 249352001 (624)
3/20/2010	1:48	9D526.D	1202----------	GEL	BLANK	5ml	1	n/a	26	w	RXY1	N/A	X	Instrument blank
3/20/2010	2:16	9D527.D	1202----------	GEL	BLANK	5ml	1	n/a	27	w	RXY1	N/A	X	Instrument blank
3/20/2010	2:44	9D528.D	249436001	GWSD	966186	5ml	1	pH2	28	w	RXY1	N	O	624
3/20/2010	3:11	9D529.D	249436002	GWSD	966186	5ml	1	pH2	29	w	RXY1	N	O	624
3/20/2010	3:39	9D530.D	1202073455	GWSD	966186	5ml	1	pH2	30	w	RXY1	N	O	(624 Dup)
3/20/2010	4:07	9D531.D	249352001	MENR	966182	5ml	1	pH2	31	w	RXY1	N	O	624
3/20/2010	4:35	9D532.D	1202073447	MENR	966182	5ml	1	pH2	32	w	RXY1	N	O	(624 Dup)
3/20/2010	5:03	9D533.D	1202----------	GEL	BLANK	5ml	1	n/a	33	w	RXY1	N/A	X	Instrument blank
3/20/2010	5:31	9D534.D	1202----------	GEL	BLANK	5ml	1	n/a	34	w	RXY1	N/A	X	Instrument blank

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

Date: 3/23/2010 Method 8260/624 Operator: RXY1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 Daily Instrument Readings:

Multiplier Voltage: 1588

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/18/2010

(See pg. 79 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 032310V9

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W9VM100323-02		5+5		
IS	UVM100311-01	1	1	1	
SS	UVM100311-02	1	1	1	
LCS/MS	W9VM100323-02/05			5+5	
BFB	UVM100311-02				1
SHORT	W9VM100323-03/04		5	5	
N/A					

Purge Amount

5	Water Purge Vol:
5.0g	Soil Purge Wt.
X	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3/23/2010	10:26	9E201.D	W9VM100323-01	--------	CCV	5ml	1	--------	1	w	RXY1	N/A	X	MIX[A]UVM100305-01D/IVM100318-01
3/23/2010	**10:54**	9E202.D	W9VM100323-02	--------	BFB/CCV/LCS	5g	1	--------	2	s	RXY1	N/A	O	MIX[A]UVM100305-01D/IVM100318-01 SOIL
3/23/2010	11:21	9E203.D	W9VM100323-03	--------	CCV	5ml	1	--------	3	w	RXY1	N/A	O	MIX[B]UVM100304-08B
3/23/2010	11:49	9E204.D	W9VM100323-04	--------	LCS	5g	1	--------	4	s	RXY1	N/A	O	MIX[B]UVM100304-08B SOIL
3/23/2010	12:17	9E205.D	W9VM100323-05	--------	LCS	5ml	1	--------	5	w	RXY1	N/A	O	MIX[A]UVM100305-01D/IVM100318-01
3/23/2010	12:45	9E206.D	1202----------	--------	BLANK	5ml	1	--------	6	w	RXY1	N/A	X	CO - Use 9E208
3/23/2010	13:12	9E207.D	1202----------	--------	BLANK	5g	1	--------	7	s	RXY1	N/A	O	SOIL
3/23/2010	13:41	9E208.D	1202----------	--------	BLANK	5ml	1	--------	8	w	RXY1	N/A	O	
3/23/2010	14:08	9E209.D	249180001	LANL	967390	5.0g	1	n/a	9	s	RXY1	N/A	X	SOIL: Bad purge - Report 9E211
3/23/2010	14:36	9E210.D	249074004	LANL	965707	5.0g	1	n/a	10	s	RXY1	N/A	O	SOIL
3/23/2010	15:04	9E211.D	249180001	LANL	967390	5.0g	1	n/a	11	s	RXY1	N/A	O	SOIL
3/23/2010	15:32	9E212.D	249074005	LANL	965707	5.0g	1	n/a	12	s	RXY1	N/A	O	SOIL
3/23/2010	16:00	9E213.D	249074008	LANL	965707	5.0g	1	n/a	13	s	RXY1	N/A	O	SOIL
3/23/2010	16:28	9E214.D	249074011	LANL	965707	5.0g	1	n/a	14	s	RXY1	N/A	O	SOIL
3/23/2010	16:56	9E215.D	249074014	LANL	965707	5.0g	1	n/a	15	s	RXY1	N/A	O	SOIL
3/23/2010	17:24	9E216.D	249074015	LANL	965707	5.0g	1	n/a	16	s	RXY1	N/A	O	SOIL
3/23/2010	17:51	9E217.D	249074018	LANL	965707	5.0g	1	n/a	17	s	RXY1	N/A	O	SOIL
3/23/2010	18:19	9E218.D	249235006	BJCO	968316	5ml	1	pH2	18	w	RXY1	N	O	
3/23/2010	18:47	9E219.D	249232007	BJCO	968316	5ml	1	pH2	19	w	RXY1	N	O	
3/23/2010	19:15	9E220.D	249232009	BJCO	968316	5ml	1	pH2	20	w	RXY1	N	O	
3/23/2010	19:42	9E221.D	249232002	BJCO	968316	5ml	1	pH2	21	w	RXY1	N	O	
3/23/2010	20:10	9E222.D	249235001	BJCO	968316	5ml	1	pH2	22	w	RXY1	N	X	Low level Toluene hit: Report 9E408
3/23/2010	20:38	9E223.D	249277001	SCEG	968316	5ml	1	pH2	23	w	RXY1	N	O	
3/23/2010	21:06	9E224.D	249277002	SCEG	968316	5ml	1	pH2	24	w	RXY1	N	O	
3/23/2010	21:34	9E225.D	1202078757	BJCO	968316	5ml	1	pH2	25	w	RXY1	N	O	MIX[A] MS 249235001
3/23/2010	22:02	9E226.D	1202078758	BJCO	968316	5ml	1	pH2	26	w	RXY1	N	O	MIX[A] MSD 249235001
3/23/2010	22:29	9E227.D	1202----------	GEL	BLANK	5ml	1	n/a	27	w	RXY1	N/A	X	Instrument blank
3/23/2010	22:57	9E228.D	1202----------	GEL	BLANK	5ml	1	n/a	28	w	RXY1	N/A	X	Instrument blank

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2398

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	966675
Prep Batch Number:	966672

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
249180001	RE46-10-13437
249180002	RE46-10-13436
249180003	RE46-10-13434
249180004	RE46-10-13438
249180005	RE46-10-13435
249180006	RE46-10-13439
249180008	RE46-10-13463
1202074566	Method Blank (MB)
1202074567	Laboratory Control Sample (LCS)
1202074568	249250003(RE16-10-2917) Matrix Spike (MS)
1202074569	249250003(RE16-10-2917) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS(1202074567) recovered Benzyl alcohol at 20%. The limits are 27%-108%. The LCS failure represented less than 5% of the total requested spike analyte list. That satisfied the acceptance criteria for the client and the data results have been reported. Please note that Benzyl alcohol is known to be a poor responder as stated in the Method (EPA 8270). This may account for the low recovery of the analyte in the LCS (as well as the zero recoveries in the MS and MSD).

QC Sample Designation
The non-SDG sample 249250003 (RE16-10-2917) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
The MS(1202074568) and the MSD(1202074569) both recovered 4-Nitrophenol at 0% (limits are 15%-110%) and Benzyl alcohol 0% (limits are 19%-112%). Since the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported. Please note that 4-Nitrophenol and Benzyl alcohol are designated as poor responders in the analytical method (EPA 8270). This may account for the zero recoveries of the analyte in the MS and MSD (as well as the low recovery for Benzyl alcohol in the LCS).

Matrix Spike Duplicate (MSD) Recovery Statement
The MS(1202074568) and the MSD(1202074569) both recovered 4-Nitrophenol at 0% (limits are 15%-110%) and Benzyl alcohol 0% (limits are 19%-112%). Since the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported. Please note that 4-Nitrophenol and Benzyl alcohol are designated as poor responders in the analytical method (EPA 8270). This may account for the zero recoveries of the analyte in the MS and MSD (as well as the low recovery for Benzyl alcohol in the LCS).

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD value for Benzoic acid is at 32.9% (limit: 30.00%). Since Benzoic acid was individually within the acceptance limits for the MS and MSD, the data results have been reported un-qualified for the RPD failures.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 811794. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD2.I	Agilent 5975 Mass Spectrometer	HP7890A/HP5975C	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Beachum **Date:** 4-6-10

Roadmap for LANL 10-2398 SVOA

This roadmap was analyzed by ANN00964 on 03-30-2010, 16:13.
This roadmap was reviewed by bar00895 on 03-31-2010, 09:16.
This roadmap was packaged by CHA01131 on 04-01-2010, 14:30.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD2.i/s032610.b/s2c2623.d	249180001	26-MAR-2010	22:38	10-2398.sub	RE46-10-13437	1	966675	
☐	N	/chem/MSD2.i/s032610.b/s2c2624.d	249180002	26-MAR-2010	22:58	10-2398.sub	RE46-10-13436	1	966675	
☐	N	/chem/MSD2.i/s032610.b/s2c2625.d	249180003	26-MAR-2010	23:18	10-2398.sub	RE46-10-13434	1	966675	
☐	N	/chem/MSD2.i/s032610.b/s2c2626.d	249180004	26-MAR-2010	23:38	10-2398.sub	RE46-10-13438	1	966675	
☐	N	/chem/MSD2.i/s032610.b/s2c2627.d	249180005	26-MAR-2010	23:58	10-2398.sub	RE46-10-13435	1	966675	
☐	N	/chem/MSD2.i/s032610.b/s2c2628.d	249180006	27-MAR-2010	00:18	10-2398.sub	RE46-10-13439	1	966675	
☐	N	/chem/MSD2.i/s032610.b/s2c2629.d	249180008	27-MAR-2010	00:38	10-2398.sub	RE46-10-13463	1	966675	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD2.i/s032610.b/s2c2608.d	1202074566	mb	26-MAR-2010	17:36	10-2398.sub	SBLK01	1	966675	
☐	N	/chem/MSD2.i/s032610.b/s2c2609.d	1202074567	lcs	26-MAR-2010	17:56	10-2398.sub	SBLK01LCS	1	966675	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180003**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**15.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13434**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 23:18**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2625.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	391	ug/kg	78.2	391
108-95-2	Phenol	U	391	ug/kg	78.2	391
95-57-8	2-Chlorophenol	U	391	ug/kg	78.2	391
106-46-7	1,4-Dichlorobenzene	U	391	ug/kg	78.2	391
621-64-7	N-Nitrosodipropylamine	U	391	ug/kg	78.2	391
59-50-7	4-Chloro-3-methylphenol	U	391	ug/kg	78.2	391
83-32-9	Acenaphthene	U	39.1	ug/kg	12.9	39.1
121-14-2	2,4-Dinitrotoluene	U	391	ug/kg	39.1	391
100-02-7	4-Nitrophenol	U	391	ug/kg	129	391
87-86-5	Pentachlorophenol	U	391	ug/kg	97.7	391
129-00-0	Pyrene	U	39.1	ug/kg	11.7	39.1
110-86-1	Pyridine	U	391	ug/kg	78.2	391
62-53-3	Aniline	U	391	ug/kg	117	391
111-44-4	bis(2-Chloroethyl) ether	U	391	ug/kg	78.2	391
541-73-1	1,3-Dichlorobenzene	U	391	ug/kg	78.2	391
100-51-6	Benzyl alcohol	U	391	ug/kg	117	391
95-50-1	1,2-Dichlorobenzene	U	391	ug/kg	78.2	391
108-60-1	bis(2-Chloroisopropyl)ether	U	391	ug/kg	78.2	391
95-48-7	o-Cresol	U	391	ug/kg	78.2	391
65794-96-9	m,p-Cresols	U	391	ug/kg	117	391
67-72-1	Hexachloroethane	U	391	ug/kg	78.2	391
98-95-3	Nitrobenzene	U	391	ug/kg	78.2	391
78-59-1	Isophorone	U	391	ug/kg	78.2	391
88-75-5	2-Nitrophenol	U	391	ug/kg	78.2	391
105-67-9	2,4-Dimethylphenol	U	391	ug/kg	137	391
111-91-1	bis(2-Chloroethoxy)methane	U	391	ug/kg	78.2	391
120-83-2	2,4-Dichlorophenol	U	391	ug/kg	78.2	391
65-85-0	Benzoic acid	U	782	ug/kg	195	782
91-20-3	Naphthalene	U	39.1	ug/kg	11.7	39.1
106-47-8	4-Chloroaniline	U	391	ug/kg	78.2	391
87-68-3	Hexachlorobutadiene	U	391	ug/kg	78.2	391
91-57-6	2-Methylnaphthalene	U	39.1	ug/kg	7.82	39.1
77-47-4	Hexachlorocyclopentadiene	U	391	ug/kg	78.2	391
88-06-2	2,4,6-Trichlorophenol	U	391	ug/kg	78.2	391
95-95-4	2,4,5-Trichlorophenol	U	391	ug/kg	78.2	391
91-58-7	2-Chloronaphthalene	U	39.1	ug/kg	12.9	39.1
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	391	ug/kg	78.2	391
99-09-2	3-Nitroaniline	U	391	ug/kg	78.2	391

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180003**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**15.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13434**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 23:18**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2625.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	391	ug/kg	78.2	391
606-20-2	2,6-Dinitrotoluene	U	391	ug/kg	39.1	391
208-96-8	Acenaphthylene	U	39.1	ug/kg	11.7	39.1
51-28-5	2,4-Dinitrophenol	U	782	ug/kg	148	782
132-64-9	Dibenzofuran	U	391	ug/kg	78.2	391
84-66-2	Diethylphthalate	U	391	ug/kg	78.2	391
86-73-7	Fluorene	U	39.1	ug/kg	11.7	39.1
7005-72-3	4-Chlorophenylphenylether	U	391	ug/kg	78.2	391
534-52-1	2-Methyl-4,6-dinitrophenol	U	391	ug/kg	78.2	391
100-01-6	4-Nitroaniline	U	391	ug/kg	117	391
	p-Nitroaniline					
122-39-4	Diphenylamine	U	391	ug/kg	78.2	391
122-66-7	Azobenzene	U	391	ug/kg	78.2	391
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	391	ug/kg	78.2	391
118-74-1	Hexachlorobenzene	U	391	ug/kg	78.2	391
85-01-8	Phenanthrene	U	39.1	ug/kg	11.7	39.1
120-12-7	Anthracene	U	39.1	ug/kg	7.82	39.1
84-74-2	Di-n-butylphthalate	U	391	ug/kg	78.2	391
206-44-0	Fluoranthene	U	39.1	ug/kg	11.7	39.1
85-68-7	Butylbenzylphthalate	U	391	ug/kg	78.2	391
56-55-3	Benzo(a)anthracene	U	39.1	ug/kg	11.7	39.1
91-94-1	3,3'-Dichlorobenzidine	U	391	ug/kg	117	391
218-01-9	Chrysene	U	39.1	ug/kg	11.7	39.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	391	ug/kg	78.2	391
117-84-0	Di-n-octylphthalate	U	391	ug/kg	78.2	391
205-99-2	Benzo(b)fluoranthene	U	39.1	ug/kg	11.7	39.1
207-08-9	Benzo(k)fluoranthene	U	39.1	ug/kg	11.7	39.1
50-32-8	Benzo(a)pyrene	U	39.1	ug/kg	11.7	39.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.1	ug/kg	11.7	39.1
53-70-3	Dibenzo(a,h)anthracene	U	39.1	ug/kg	11.7	39.1
191-24-2	Benzo(ghi)perylene	U	39.1	ug/kg	11.7	39.1
120-82-1	1,2,4-Trichlorobenzene	U	391	ug/kg	78.2	391

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.84	212	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180005**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**17.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13435**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.1**	**Dilution:**	**1**
Run Date:	**03/26/2010 23:58**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2627.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	404	ug/kg	80.7	404
108-95-2	Phenol	U	404	ug/kg	80.7	404
95-57-8	2-Chlorophenol	U	404	ug/kg	80.7	404
106-46-7	1,4-Dichlorobenzene	U	404	ug/kg	80.7	404
621-64-7	N-Nitrosodipropylamine	U	404	ug/kg	80.7	404
59-50-7	4-Chloro-3-methylphenol	U	404	ug/kg	80.7	404
83-32-9	Acenaphthene	U	40.4	ug/kg	13.3	40.4
121-14-2	2,4-Dinitrotoluene	U	404	ug/kg	40.4	404
100-02-7	4-Nitrophenol	U	404	ug/kg	133	404
87-86-5	Pentachlorophenol	U	404	ug/kg	101	404
129-00-0	Pyrene		77.4	ug/kg	12.1	40.4
110-86-1	Pyridine	U	404	ug/kg	80.7	404
62-53-3	Aniline	U	404	ug/kg	121	404
111-44-4	bis(2-Chloroethyl) ether	U	404	ug/kg	80.7	404
541-73-1	1,3-Dichlorobenzene	U	404	ug/kg	80.7	404
100-51-6	Benzyl alcohol	U	404	ug/kg	121	404
95-50-1	1,2-Dichlorobenzene	U	404	ug/kg	80.7	404
108-60-1	bis(2-Chloroisopropyl)ether	U	404	ug/kg	80.7	404
95-48-7	o-Cresol	U	404	ug/kg	80.7	404
65794-96-9	m,p-Cresols	U	404	ug/kg	121	404
67-72-1	Hexachloroethane	U	404	ug/kg	80.7	404
98-95-3	Nitrobenzene	U	404	ug/kg	80.7	404
78-59-1	Isophorone	U	404	ug/kg	80.7	404
88-75-5	2-Nitrophenol	U	404	ug/kg	80.7	404
105-67-9	2,4-Dimethylphenol	U	404	ug/kg	141	404
111-91-1	bis(2-Chloroethoxy)methane	U	404	ug/kg	80.7	404
120-83-2	2,4-Dichlorophenol	U	404	ug/kg	80.7	404
65-85-0	Benzoic acid	U	807	ug/kg	202	807
91-20-3	Naphthalene	U	40.4	ug/kg	12.1	40.4
106-47-8	4-Chloroaniline	U	404	ug/kg	80.7	404
87-68-3	Hexachlorobutadiene	U	404	ug/kg	80.7	404
91-57-6	2-Methylnaphthalene	U	40.4	ug/kg	8.07	40.4
77-47-4	Hexachlorocyclopentadiene	U	404	ug/kg	80.7	404
88-06-2	2,4,6-Trichlorophenol	U	404	ug/kg	80.7	404
95-95-4	2,4,5-Trichlorophenol	U	404	ug/kg	80.7	404
91-58-7	2-Chloronaphthalene	U	40.4	ug/kg	13.3	40.4
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	404	ug/kg	80.7	404
99-09-2	3-Nitroaniline	U	404	ug/kg	80.7	404

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	Date Collected:	03/09/2010 12:00	Matrix:	S
Lab Sample ID:	249180005	Date Received:	03/11/2010 09:00	%Moisture:	17.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13435	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966675	Inst:	MSD2.I	Dilution:	1
Run Date:	03/26/2010 23:58	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/18/2010 22:34	Aliquot:	30.17 g	Final Volume:	1 mL
Data File:	s2c2627.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	404	ug/kg	80.7	404
606-20-2	2,6-Dinitrotoluene	U	404	ug/kg	40.4	404
208-96-8	Acenaphthylene	U	40.4	ug/kg	12.1	40.4
51-28-5	2,4-Dinitrophenol	U	807	ug/kg	153	807
132-64-9	Dibenzofuran	U	404	ug/kg	80.7	404
84-66-2	Diethylphthalate	U	404	ug/kg	80.7	404
86-73-7	Fluorene	U	40.4	ug/kg	12.1	40.4
7005-72-3	4-Chlorophenylphenylether	U	404	ug/kg	80.7	404
534-52-1	2-Methyl-4,6-dinitrophenol	U	404	ug/kg	80.7	404
100-01-6	4-Nitroaniline	U	404	ug/kg	121	404
	p-Nitroaniline					
122-39-4	Diphenylamine	U	404	ug/kg	80.7	404
122-66-7	Azobenzene	U	404	ug/kg	80.7	404
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	404	ug/kg	80.7	404
118-74-1	Hexachlorobenzene	U	404	ug/kg	80.7	404
85-01-8	Phenanthrene	J	32.0	ug/kg	12.1	40.4
120-12-7	Anthracene	J	12.5	ug/kg	8.07	40.4
84-74-2	Di-n-butylphthalate	U	404	ug/kg	80.7	404
206-44-0	Fluoranthene		91.1	ug/kg	12.1	40.4
85-68-7	Butylbenzylphthalate	U	404	ug/kg	80.7	404
56-55-3	Benzo(a)anthracene	U	40.4	ug/kg	12.1	40.4
91-94-1	3,3'-Dichlorobenzidine	U	404	ug/kg	121	404
218-01-9	Chrysene		66.4	ug/kg	12.1	40.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	404	ug/kg	80.7	404
117-84-0	Di-n-octylphthalate	U	404	ug/kg	80.7	404
205-99-2	Benzo(b)fluoranthene		116	ug/kg	12.1	40.4
207-08-9	Benzo(k)fluoranthene	U	40.4	ug/kg	12.1	40.4
50-32-8	Benzo(a)pyrene		63.0	ug/kg	12.1	40.4
193-39-5	Indeno(1,2,3-cd)pyrene	J	28.8	ug/kg	12.1	40.4
53-70-3	Dibenzo(a,h)anthracene	U	40.4	ug/kg	12.1	40.4
191-24-2	Benzo(ghi)perylene	J	32.6	ug/kg	12.1	40.4
120-82-1	1,2,4-Trichlorobenzene	U	404	ug/kg	80.7	404

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	426	ug/kg		JA
	Unknown	8.1	171	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180005**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**17.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13435**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 23:58**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2627.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.2	175	ug/kg		J
	Unknown	8.38	184	ug/kg		J
	Unknown	8.43	263	ug/kg		J
	Unknown	8.67	286	ug/kg		J
4452-45-3	1,14-Docosanediol	10.03	302	ug/kg	81	NJ
55044-36-5	1H-Indene, 5-butyl-6-hexyloctahydro-	10.07	388	ug/kg	92	NJ
	Unknown	10.12	424	ug/kg		J
	Unknown	10.16	453	ug/kg		J
	Unknown	10.25	596	ug/kg		J
	Unknown	10.43	683	ug/kg		J
2097-85-0	Cholestan-3-one, 4,4-dimethyl-, (5.alpha	10.55	621	ug/kg	91	NJ
	Unknown	10.66	606	ug/kg		J
601-53-6	Cholestan-3-one, (5.beta.)-	10.84	609	ug/kg	95	NJ
	Unknown	11.12	439	ug/kg		J
	Unknown	11.57	234	ug/kg		J
	Unknown	11.64	277	ug/kg		J
	Unknown	11.75	213	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180002**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13436**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 22:58**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2624.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	398	ug/kg	79.7	398
108-95-2	Phenol	U	398	ug/kg	79.7	398
95-57-8	2-Chlorophenol	U	398	ug/kg	79.7	398
106-46-7	1,4-Dichlorobenzene	U	398	ug/kg	79.7	398
621-64-7	N-Nitrosodipropylamine	U	398	ug/kg	79.7	398
59-50-7	4-Chloro-3-methylphenol	U	398	ug/kg	79.7	398
83-32-9	Acenaphthene	U	39.8	ug/kg	13.2	39.8
121-14-2	2,4-Dinitrotoluene	U	398	ug/kg	39.8	398
100-02-7	4-Nitrophenol	U	398	ug/kg	132	398
87-86-5	Pentachlorophenol	U	398	ug/kg	99.6	398
129-00-0	Pyrene		46.6	ug/kg	12.0	39.8
110-86-1	Pyridine	U	398	ug/kg	79.7	398
62-53-3	Aniline	U	398	ug/kg	120	398
111-44-4	bis(2-Chloroethyl) ether	U	398	ug/kg	79.7	398
541-73-1	1,3-Dichlorobenzene	U	398	ug/kg	79.7	398
100-51-6	Benzyl alcohol	U	398	ug/kg	120	398
95-50-1	1,2-Dichlorobenzene	U	398	ug/kg	79.7	398
108-60-1	bis(2-Chloroisopropyl)ether	U	398	ug/kg	79.7	398
95-48-7	o-Cresol	U	398	ug/kg	79.7	398
65794-96-9	m,p-Cresols	U	398	ug/kg	120	398
67-72-1	Hexachloroethane	U	398	ug/kg	79.7	398
98-95-3	Nitrobenzene	U	398	ug/kg	79.7	398
78-59-1	Isophorone	U	398	ug/kg	79.7	398
88-75-5	2-Nitrophenol	U	398	ug/kg	79.7	398
105-67-9	2,4-Dimethylphenol	U	398	ug/kg	139	398
111-91-1	bis(2-Chloroethoxy)methane	U	398	ug/kg	79.7	398
120-83-2	2,4-Dichlorophenol	U	398	ug/kg	79.7	398
65-85-0	Benzoic acid	U	797	ug/kg	199	797
91-20-3	Naphthalene	U	39.8	ug/kg	12.0	39.8
106-47-8	4-Chloroaniline	U	398	ug/kg	79.7	398
87-68-3	Hexachlorobutadiene	U	398	ug/kg	79.7	398
91-57-6	2-Methylnaphthalene	U	39.8	ug/kg	7.97	39.8
77-47-4	Hexachlorocyclopentadiene	U	398	ug/kg	79.7	398
88-06-2	2,4,6-Trichlorophenol	U	398	ug/kg	79.7	398
95-95-4	2,4,5-Trichlorophenol	U	398	ug/kg	79.7	398
91-58-7	2-Chloronaphthalene	U	39.8	ug/kg	13.2	39.8
88-74-4	2-Nitroaniline	U	398	ug/kg	79.7	398
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	398	ug/kg	79.7	398

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180002**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13436**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 22:58**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2624.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	398	ug/kg	79.7	398
606-20-2	2,6-Dinitrotoluene	U	398	ug/kg	39.8	398
208-96-8	Acenaphthylene	U	39.8	ug/kg	12.0	39.8
51-28-5	2,4-Dinitrophenol	U	797	ug/kg	151	797
132-64-9	Dibenzofuran	U	398	ug/kg	79.7	398
84-66-2	Diethylphthalate	U	398	ug/kg	79.7	398
86-73-7	Fluorene	U	39.8	ug/kg	12.0	39.8
7005-72-3	4-Chlorophenylphenylether	U	398	ug/kg	79.7	398
534-52-1	2-Methyl-4,6-dinitrophenol	U	398	ug/kg	79.7	398
100-01-6	4-Nitroaniline	U	398	ug/kg	120	398
	p-Nitroaniline					
122-39-4	Diphenylamine	U	398	ug/kg	79.7	398
122-66-7	Azobenzene	U	398	ug/kg	79.7	398
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	398	ug/kg	79.7	398
118-74-1	Hexachlorobenzene	U	398	ug/kg	79.7	398
85-01-8	Phenanthrene		45.7	ug/kg	12.0	39.8
120-12-7	Anthracene	J	25.0	ug/kg	7.97	39.8
84-74-2	Di-n-butylphthalate	U	398	ug/kg	79.7	398
206-44-0	Fluoranthene		63.8	ug/kg	12.0	39.8
85-68-7	Butylbenzylphthalate	U	398	ug/kg	79.7	398
56-55-3	Benzo(a)anthracene	U	39.8	ug/kg	12.0	39.8
91-94-1	3,3'-Dichlorobenzidine	U	398	ug/kg	120	398
218-01-9	Chrysene		58.6	ug/kg	12.0	39.8
117-81-7	bis(2-Ethylhexyl)phthalate	J	160	ug/kg	79.7	398
117-84-0	Di-n-octylphthalate	U	398	ug/kg	79.7	398
205-99-2	Benzo(b)fluoranthene		93.6	ug/kg	12.0	39.8
207-08-9	Benzo(k)fluoranthene	U	39.8	ug/kg	12.0	39.8
50-32-8	Benzo(a)pyrene	J	38.1	ug/kg	12.0	39.8
193-39-5	Indeno(1,2,3-cd)pyrene	J	24.4	ug/kg	12.0	39.8
53-70-3	Dibenzo(a,h)anthracene	U	39.8	ug/kg	12.0	39.8
191-24-2	Benzo(ghi)perylene	J	26.9	ug/kg	12.0	39.8
120-82-1	1,2,4-Trichlorobenzene	U	398	ug/kg	79.7	398

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	436	ug/kg		JA
	Unknown	7.49	241	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180002**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13436**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 22:58**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2624.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
19780-11-1	2-Dodecen-1-yl(-)succinic anhydride	7.55	253	ug/kg	92	NJ
	Unknown	7.69	310	ug/kg		J
629-78-7	Heptadecane	7.9	340	ug/kg	80	NJ
	Unknown	8.1	374	ug/kg		J
	Unknown	8.13	246	ug/kg		J
	Unknown	8.24	256	ug/kg		J
	Unknown	8.31	431	ug/kg		J
	Unknown	8.34	266	ug/kg		J
	Unknown	8.38	255	ug/kg		J
	Unknown	8.68	570	ug/kg		J
	Unknown	8.72	247	ug/kg		J
	Unknown	8.8	282	ug/kg		J
	Unknown	8.89	416	ug/kg		J
	Unknown	8.98	236	ug/kg		J
	Unknown	9.09	459	ug/kg		J
55044-36-5	1H-Indene, 5-butyl-6-hexyloctahydro-	9.18	275	ug/kg	86	NJ
	Unknown	9.34	1300	ug/kg		J
	Unknown	9.42	707	ug/kg		J
601-53-6	Cholestan-3-one, (5.beta.)-	10.84	907	ug/kg	99	NJ
	Unknown	11.58	1280	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	Date Collected:	03/09/2010 12:00	Matrix:	S
Lab Sample ID:	249180001	Date Received:	03/11/2010 09:00	%Moisture:	18.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13437	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966675	Inst:	MSD2.I	Dilution:	1
Run Date:	03/26/2010 22:38	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/18/2010 22:34	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s2c2623.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	408	ug/kg	81.6	408
108-95-2	Phenol	U	408	ug/kg	81.6	408
95-57-8	2-Chlorophenol	U	408	ug/kg	81.6	408
106-46-7	1,4-Dichlorobenzene	U	408	ug/kg	81.6	408
621-64-7	N-Nitrosodipropylamine	U	408	ug/kg	81.6	408
59-50-7	4-Chloro-3-methylphenol	U	408	ug/kg	81.6	408
83-32-9	Acenaphthene	U	40.8	ug/kg	13.5	40.8
121-14-2	2,4-Dinitrotoluene	U	408	ug/kg	40.8	408
100-02-7	4-Nitrophenol	U	408	ug/kg	135	408
87-86-5	Pentachlorophenol	U	408	ug/kg	102	408
129-00-0	Pyrene		63.4	ug/kg	12.2	40.8
110-86-1	Pyridine	U	408	ug/kg	81.6	408
62-53-3	Aniline	U	408	ug/kg	122	408
111-44-4	bis(2-Chloroethyl) ether	U	408	ug/kg	81.6	408
541-73-1	1,3-Dichlorobenzene	U	408	ug/kg	81.6	408
100-51-6	Benzyl alcohol	U	408	ug/kg	122	408
95-50-1	1,2-Dichlorobenzene	U	408	ug/kg	81.6	408
108-60-1	bis(2-Chloroisopropyl)ether	U	408	ug/kg	81.6	408
95-48-7	o-Cresol	U	408	ug/kg	81.6	408
65794-96-9	m,p-Cresols	U	408	ug/kg	122	408
67-72-1	Hexachloroethane	U	408	ug/kg	81.6	408
98-95-3	Nitrobenzene	U	408	ug/kg	81.6	408
78-59-1	Isophorone	U	408	ug/kg	81.6	408
88-75-5	2-Nitrophenol	U	408	ug/kg	81.6	408
105-67-9	2,4-Dimethylphenol	U	408	ug/kg	143	408
111-91-1	bis(2-Chloroethoxy)methane	U	408	ug/kg	81.6	408
120-83-2	2,4-Dichlorophenol	U	408	ug/kg	81.6	408
65-85-0	Benzoic acid	U	816	ug/kg	204	816
91-20-3	Naphthalene	U	40.8	ug/kg	12.2	40.8
106-47-8	4-Chloroaniline	U	408	ug/kg	81.6	408
87-68-3	Hexachlorobutadiene	U	408	ug/kg	81.6	408
91-57-6	2-Methylnaphthalene	U	40.8	ug/kg	8.16	40.8
77-47-4	Hexachlorocyclopentadiene	U	408	ug/kg	81.6	408
88-06-2	2,4,6-Trichlorophenol	U	408	ug/kg	81.6	408
95-95-4	2,4,5-Trichlorophenol	U	408	ug/kg	81.6	408
91-58-7	2-Chloronaphthalene	U	40.8	ug/kg	13.5	40.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	408	ug/kg	81.6	408
99-09-2	3-Nitroaniline	U	408	ug/kg	81.6	408

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180001**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13437**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**I**
Run Date:	**03/26/2010 22:38**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2623.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	408	ug/kg	81.6	408
606-20-2	2,6-Dinitrotoluene	U	408	ug/kg	40.8	408
208-96-8	Acenaphthylene	U	40.8	ug/kg	12.2	40.8
51-28-5	2,4-Dinitrophenol	U	816	ug/kg	155	816
132-64-9	Dibenzofuran	U	408	ug/kg	81.6	408
84-66-2	Diethylphthalate	U	408	ug/kg	81.6	408
86-73-7	Fluorene	U	40.8	ug/kg	12.2	40.8
7005-72-3	4-Chlorophenylphenylether	U	408	ug/kg	81.6	408
534-52-1	2-Methyl-4,6-dinitrophenol	U	408	ug/kg	81.6	408
100-01-6	4-Nitroaniline	U	408	ug/kg	122	408
	p-Nitroaniline					
122-39-4	Diphenylamine	U	408	ug/kg	81.6	408
122-66-7	Azobenzene	U	408	ug/kg	81.6	408
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	408	ug/kg	81.6	408
118-74-1	Hexachlorobenzene	U	408	ug/kg	81.6	408
85-01-8	Phenanthrene	J	40.3	ug/kg	12.2	40.8
120-12-7	Anthracene	J	15.4	ug/kg	8.16	40.8
84-74-2	Di-n-butylphthalate	U	408	ug/kg	81.6	408
206-44-0	Fluoranthene		84.6	ug/kg	12.2	40.8
85-68-7	Butylbenzylphthalate	U	408	ug/kg	81.6	408
56-55-3	Benzo(a)anthracene	U	40.8	ug/kg	12.2	40.8
91-94-1	3,3'-Dichlorobenzidine	U	408	ug/kg	122	408
218-01-9	Chrysene	U	40.8	ug/kg	12.2	40.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	408	ug/kg	81.6	408
117-84-0	Di-n-octylphthalate	U	408	ug/kg	81.6	408
205-99-2	Benzo(b)fluoranthene		88.1	ug/kg	12.2	40.8
207-08-9	Benzo(k)fluoranthene	U	40.8	ug/kg	12.2	40.8
50-32-8	Benzo(a)pyrene	U	40.8	ug/kg	12.2	40.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.8	ug/kg	12.2	40.8
53-70-3	Dibenzo(a,h)anthracene	U	40.8	ug/kg	12.2	40.8
191-24-2	Benzo(ghi)perylene	U	40.8	ug/kg	12.2	40.8
120-82-1	1,2,4-Trichlorobenzene	U	408	ug/kg	81.6	408

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
55044-36-5	1H-Indene, 5-butyl-6-hexyloctahydro-	7.94	669	ug/kg	93	NJ
1000130-82-4	Z-8-Methyl-9-tetradecen-1-ol acetate	8.09	992	ug/kg	86	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180001**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13437**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 22:38**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2623.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.19	476	ug/kg		J
	Unknown	8.31	477	ug/kg		J
	Unknown	8.42	534	ug/kg		J
	Unknown	8.45	481	ug/kg		J
	Unknown	8.67	1070	ug/kg		J
	Unknown	8.71	510	ug/kg		J
309735-29-3	1,2-Benzisothiazole, 3-(hexahydro-1H-aze	8.76	713	ug/kg	91	NJ
	Unknown	8.81	516	ug/kg		J
	Unknown	8.84	514	ug/kg		J
	Unknown	8.9	803	ug/kg		J
	Unknown	8.92	467	ug/kg		J
	Unknown	8.98	743	ug/kg		J
1000215-78-2	Sclareoloxide	9.03	737	ug/kg	86	NJ
1000130-78-5	11,12-Dibromo-tetradecan-1-ol acetate	9.1	925	ug/kg	89	NJ
	Unknown	9.2	1260	ug/kg		J
	Unknown	9.25	1270	ug/kg		J
	Unknown	9.33	1070	ug/kg		J
	Unknown	9.44	1050	ug/kg		J
	Unknown	9.6	1260	ug/kg		J
	Unknown	9.66	795	ug/kg		J
	Unknown	9.74	1100	ug/kg		J
1041-25-4	Oxiranepentanoic acid, 3-undecyl-, methy	9.87	1250	ug/kg	90	NJ
	Unknown	10.12	656	ug/kg		J
	Unknown	10.16	713	ug/kg		J
	Unknown	10.25	1750	ug/kg		J
	Unknown	10.44	984	ug/kg		J
	Unknown	10.56	823	ug/kg		J
	Unknown	10.66	877	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180004**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13438**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 23:38**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2626.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	397	ug/kg	79.4	397
108-95-2	Phenol	U	397	ug/kg	79.4	397
95-57-8	2-Chlorophenol	U	397	ug/kg	79.4	397
106-46-7	1,4-Dichlorobenzene	U	397	ug/kg	79.4	397
621-64-7	N-Nitrosodipropylamine	U	397	ug/kg	79.4	397
59-50-7	4-Chloro-3-methylphenol	U	397	ug/kg	79.4	397
83-32-9	Acenaphthene	U	39.7	ug/kg	13.1	39.7
121-14-2	2,4-Dinitrotoluene	U	397	ug/kg	39.7	397
100-02-7	4-Nitrophenol	U	397	ug/kg	131	397
87-86-5	Pentachlorophenol	U	397	ug/kg	99.2	397
129-00-0	Pyrene	U	39.7	ug/kg	11.9	39.7
110-86-1	Pyridine	U	397	ug/kg	79.4	397
62-53-3	Aniline	U	397	ug/kg	119	397
111-44-4	bis(2-Chloroethyl) ether	U	397	ug/kg	79.4	397
541-73-1	1,3-Dichlorobenzene	U	397	ug/kg	79.4	397
100-51-6	Benzyl alcohol	U	397	ug/kg	119	397
95-50-1	1,2-Dichlorobenzene	U	397	ug/kg	79.4	397
108-60-1	bis(2-Chloroisopropyl)ether	U	397	ug/kg	79.4	397
95-48-7	o-Cresol	U	397	ug/kg	79.4	397
65794-96-9	m,p-Cresols	U	397	ug/kg	119	397
67-72-1	Hexachloroethane	U	397	ug/kg	79.4	397
98-95-3	Nitrobenzene	U	397	ug/kg	79.4	397
78-59-1	Isophorone	U	397	ug/kg	79.4	397
88-75-5	2-Nitrophenol	U	397	ug/kg	79.4	397
105-67-9	2,4-Dimethylphenol	U	397	ug/kg	139	397
111-91-1	bis(2-Chloroethoxy)methane	U	397	ug/kg	79.4	397
120-83-2	2,4-Dichlorophenol	U	397	ug/kg	79.4	397
65-85-0	Benzoic acid	U	794	ug/kg	198	794
91-20-3	Naphthalene	U	39.7	ug/kg	11.9	39.7
106-47-8	4-Chloroaniline	U	397	ug/kg	79.4	397
87-68-3	Hexachlorobutadiene	U	397	ug/kg	79.4	397
91-57-6	2-Methylnaphthalene	U	39.7	ug/kg	7.94	39.7
77-47-4	Hexachlorocyclopentadiene	U	397	ug/kg	79.4	397
88-06-2	2,4,6-Trichlorophenol	U	397	ug/kg	79.4	397
95-95-4	2,4,5-Trichlorophenol	U	397	ug/kg	79.4	397
91-58-7	2-Chloronaphthalene	U	39.7	ug/kg	13.1	39.7
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	397	ug/kg	79.4	397
99-09-2	3-Nitroaniline	U	397	ug/kg	79.4	397

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180004**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13438**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 23:38**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2626.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	397	ug/kg	79.4	397
606-20-2	2,6-Dinitrotoluene	U	397	ug/kg	39.7	397
208-96-8	Acenaphthylene	U	39.7	ug/kg	11.9	39.7
51-28-5	2,4-Dinitrophenol	U	794	ug/kg	151	794
132-64-9	Dibenzofuran	U	397	ug/kg	79.4	397
84-66-2	Diethylphthalate	U	397	ug/kg	79.4	397
86-73-7	Fluorene	U	39.7	ug/kg	11.9	39.7
7005-72-3	4-Chlorophenylphenylether	U	397	ug/kg	79.4	397
534-52-1	2-Methyl-4,6-dinitrophenol	U	397	ug/kg	79.4	397
100-01-6	4-Nitroaniline	U	397	ug/kg	119	397
	p-Nitroaniline					
122-39-4	Diphenylamine	U	397	ug/kg	79.4	397
122-66-7	Azobenzene	U	397	ug/kg	79.4	397
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	397	ug/kg	79.4	397
118-74-1	Hexachlorobenzene	U	397	ug/kg	79.4	397
85-01-8	Phenanthrene	U	39.7	ug/kg	11.9	39.7
120-12-7	Anthracene	U	39.7	ug/kg	7.94	39.7
84-74-2	Di-n-butylphthalate	U	397	ug/kg	79.4	397
206-44-0	Fluoranthene	U	39.7	ug/kg	11.9	39.7
85-68-7	Butylbenzylphthalate	U	397	ug/kg	79.4	397
56-55-3	Benzo(a)anthracene	U	39.7	ug/kg	11.9	39.7
91-94-1	3,3'-Dichlorobenzidine	U	397	ug/kg	119	397
218-01-9	Chrysene	U	39.7	ug/kg	11.9	39.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	397	ug/kg	79.4	397
117-84-0	Di-n-octylphthalate	U	397	ug/kg	79.4	397
205-99-2	Benzo(b)fluoranthene	U	39.7	ug/kg	11.9	39.7
207-08-9	Benzo(k)fluoranthene	U	39.7	ug/kg	11.9	39.7
50-32-8	Benzo(a)pyrene	U	39.7	ug/kg	11.9	39.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.7	ug/kg	11.9	39.7
53-70-3	Dibenzo(a,h)anthracene	U	39.7	ug/kg	11.9	39.7
191-24-2	Benzo(ghi)perylene	U	39.7	ug/kg	11.9	39.7
120-82-1	1,2,4-Trichlorobenzene	U	397	ug/kg	79.4	397

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.84	410	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180006**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13439**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 00:18**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2628.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	380	ug/kg	76.0	380
108-95-2	Phenol	U	380	ug/kg	76.0	380
95-57-8	2-Chlorophenol	U	380	ug/kg	76.0	380
106-46-7	1,4-Dichlorobenzene	U	380	ug/kg	76.0	380
621-64-7	N-Nitrosodipropylamine	U	380	ug/kg	76.0	380
59-50-7	4-Chloro-3-methylphenol	U	380	ug/kg	76.0	380
83-32-9	Acenaphthene	U	38.0	ug/kg	12.5	38.0
121-14-2	2,4-Dinitrotoluene	U	380	ug/kg	38.0	380
100-02-7	4-Nitrophenol	U	380	ug/kg	125	380
87-86-5	Pentachlorophenol	U	380	ug/kg	95.0	380
129-00-0	Pyrene	U	38.0	ug/kg	11.4	38.0
110-86-1	Pyridine	U	380	ug/kg	76.0	380
62-53-3	Aniline	U	380	ug/kg	114	380
111-44-4	bis(2-Chloroethyl) ether	U	380	ug/kg	76.0	380
541-73-1	1,3-Dichlorobenzene	U	380	ug/kg	76.0	380
100-51-6	Benzyl alcohol	U	380	ug/kg	114	380
95-50-1	1,2-Dichlorobenzene	U	380	ug/kg	76.0	380
108-60-1	bis(2-Chloroisopropyl)ether	U	380	ug/kg	76.0	380
95-48-7	o-Cresol	U	380	ug/kg	76.0	380
65794-96-9	m,p-Cresols	U	380	ug/kg	114	380
67-72-1	Hexachloroethane	U	380	ug/kg	76.0	380
98-95-3	Nitrobenzene	U	380	ug/kg	76.0	380
78-59-1	Isophorone	U	380	ug/kg	76.0	380
88-75-5	2-Nitrophenol	U	380	ug/kg	76.0	380
105-67-9	2,4-Dimethylphenol	U	380	ug/kg	133	380
111-91-1	bis(2-Chloroethoxy)methane	U	380	ug/kg	76.0	380
120-83-2	2,4-Dichlorophenol	U	380	ug/kg	76.0	380
65-85-0	Benzoic acid	U	760	ug/kg	190	760
91-20-3	Naphthalene	U	38.0	ug/kg	11.4	38.0
106-47-8	4-Chloroaniline	U	380	ug/kg	76.0	380
87-68-3	Hexachlorobutadiene	U	380	ug/kg	76.0	380
91-57-6	2-Methylnaphthalene	U	38.0	ug/kg	7.60	38.0
77-47-4	Hexachlorocyclopentadiene	U	380	ug/kg	76.0	380
88-06-2	2,4,6-Trichlorophenol	U	380	ug/kg	76.0	380
95-95-4	2,4,5-Trichlorophenol	U	380	ug/kg	76.0	380
91-58-7	2-Chloronaphthalene	U	38.0	ug/kg	12.5	38.0
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	380	ug/kg	76.0	380
99-09-2	3-Nitroaniline	U	380	ug/kg	76.0	380

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	Date Collected:	03/09/2010 12:00	Matrix:	S
Lab Sample ID:	249180006	Date Received:	03/11/2010 09:00	%Moisture:	12.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13439	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966675	Inst:	MSD2.I	Dilution:	1
Run Date:	03/27/2010 00:18	Analyst:	AGSI	Inj. Vol:	.5 uL
Prep Date:	03/18/2010 22:34	Aliquot:	30.17 g	Final Volume:	1 mL
Data File:	s2c2628.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	380	ug/kg	76.0	380
606-20-2	2,6-Dinitrotoluene	U	380	ug/kg	38.0	380
208-96-8	Acenaphthylene	U	38.0	ug/kg	11.4	38.0
51-28-5	2,4-Dinitrophenol	U	760	ug/kg	144	760
132-64-9	Dibenzofuran	U	380	ug/kg	76.0	380
84-66-2	Diethylphthalate	U	380	ug/kg	76.0	380
86-73-7	Fluorene	U	38.0	ug/kg	11.4	38.0
7005-72-3	4-Chlorophenylphenylether	U	380	ug/kg	76.0	380
534-52-1	2-Methyl-4,6-dinitrophenol	U	380	ug/kg	76.0	380
100-01-6	4-Nitroaniline	U	380	ug/kg	114	380
	p-Nitroaniline					
122-39-4	Diphenylamine	U	380	ug/kg	76.0	380
122-66-7	Azobenzene	U	380	ug/kg	76.0	380
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	380	ug/kg	76.0	380
118-74-1	Hexachlorobenzene	U	380	ug/kg	76.0	380
85-01-8	Phenanthrene	U	38.0	ug/kg	11.4	38.0
120-12-7	Anthracene	U	38.0	ug/kg	7.60	38.0
84-74-2	Di-n-butylphthalate	U	380	ug/kg	76.0	380
206-44-0	Fluoranthene	U	38.0	ug/kg	11.4	38.0
85-68-7	Butylbenzylphthalate	U	380	ug/kg	76.0	380
56-55-3	Benzo(a)anthracene	U	38.0	ug/kg	11.4	38.0
91-94-1	3,3'-Dichlorobenzidine	U	380	ug/kg	114	380
218-01-9	Chrysene	U	38.0	ug/kg	11.4	38.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	380	ug/kg	76.0	380
117-84-0	Di-n-octylphthalate	U	380	ug/kg	76.0	380
205-99-2	Benzo(b)fluoranthene	U	38.0	ug/kg	11.4	38.0
207-08-9	Benzo(k)fluoranthene	U	38.0	ug/kg	11.4	38.0
50-32-8	Benzo(a)pyrene	U	38.0	ug/kg	11.4	38.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.0	ug/kg	11.4	38.0
53-70-3	Dibenzo(a,h)anthracene	U	38.0	ug/kg	11.4	38.0
191-24-2	Benzo(ghi)perylene	U	38.0	ug/kg	11.4	38.0
120-82-1	1,2,4-Trichlorobenzene	U	380	ug/kg	76.0	380

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	7.97	426	ug/kg		J
	Unknown	8.1	2890	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180006**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13439**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 00:18**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2628.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.13	1620	ug/kg		J
	Unknown	8.24	729	ug/kg		J
	Unknown	8.31	820	ug/kg		J
	Unknown	8.34	1500	ug/kg		J
	Unknown	8.38	1570	ug/kg		J
	Unknown	8.49	235	ug/kg		J
	Unknown	8.65	389	ug/kg		J
	Unknown	8.68	481	ug/kg		J
	Unknown	8.72	315	ug/kg		J
	Unknown	8.76	619	ug/kg		J
	Unknown	8.81	367	ug/kg		J
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	8.89	1470	ug/kg	96	NJ
309735-29-3	1,2-Benzisothiazole, 3-(hexahydro-1H-aze	9.02	239	ug/kg	94	NJ
	Unknown	9.07	375	ug/kg		J
	Unknown	9.19	410	ug/kg		J
	Unknown	9.27	517	ug/kg		J
	Unknown	9.37	1110	ug/kg		J
	Unknown	9.44	939	ug/kg		J
	Unknown	9.56	1230	ug/kg		J
	Unknown	9.79	1340	ug/kg		J
	Unknown	9.86	1890	ug/kg		J
	Unknown	9.91	706	ug/kg		J
	Unknown	9.99	960	ug/kg		J
	Unknown	10.12	592	ug/kg		J
	Unknown	10.31	482	ug/kg		J
	Unknown	10.54	987	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180008**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13463**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 00:38**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2629.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	394	ug/kg	78.7	394
108-95-2	Phenol	U	394	ug/kg	78.7	394
95-57-8	2-Chlorophenol	U	394	ug/kg	78.7	394
106-46-7	1,4-Dichlorobenzene	U	394	ug/kg	78.7	394
621-64-7	N-Nitrosodipropylamine	U	394	ug/kg	78.7	394
59-50-7	4-Chloro-3-methylphenol	U	394	ug/kg	78.7	394
83-32-9	Acenaphthene	U	39.4	ug/kg	13.0	39.4
121-14-2	2,4-Dinitrotoluene	U	394	ug/kg	39.4	394
100-02-7	4-Nitrophenol	U	394	ug/kg	130	394
87-86-5	Pentachlorophenol	U	394	ug/kg	98.4	394
129-00-0	Pyrene	U	39.4	ug/kg	11.8	39.4
110-86-1	Pyridine	U	394	ug/kg	78.7	394
62-53-3	Aniline	U	394	ug/kg	118	394
111-44-4	bis(2-Chloroethyl) ether	U	394	ug/kg	78.7	394
541-73-1	1,3-Dichlorobenzene	U	394	ug/kg	78.7	394
100-51-6	Benzyl alcohol	U	394	ug/kg	118	394
95-50-1	1,2-Dichlorobenzene	U	394	ug/kg	78.7	394
108-60-1	bis(2-Chloroisopropyl)ether	U	394	ug/kg	78.7	394
95-48-7	o-Cresol	U	394	ug/kg	78.7	394
65794-96-9	m,p-Cresols	U	394	ug/kg	118	394
67-72-1	Hexachloroethane	U	394	ug/kg	78.7	394
98-95-3	Nitrobenzene	U	394	ug/kg	78.7	394
78-59-1	Isophorone	U	394	ug/kg	78.7	394
88-75-5	2-Nitrophenol	U	394	ug/kg	78.7	394
105-67-9	2,4-Dimethylphenol	U	394	ug/kg	138	394
111-91-1	bis(2-Chloroethoxy)methane	U	394	ug/kg	78.7	394
120-83-2	2,4-Dichlorophenol	U	394	ug/kg	78.7	394
65-85-0	Benzoic acid	U	787	ug/kg	197	787
91-20-3	Naphthalene	U	39.4	ug/kg	11.8	39.4
106-47-8	4-Chloroaniline	U	394	ug/kg	78.7	394
87-68-3	Hexachlorobutadiene	U	394	ug/kg	78.7	394
91-57-6	2-Methylnaphthalene	U	39.4	ug/kg	7.87	39.4
77-47-4	Hexachlorocyclopentadiene	U	394	ug/kg	78.7	394
88-06-2	2,4,6-Trichlorophenol	U	394	ug/kg	78.7	394
95-95-4	2,4,5-Trichlorophenol	U	394	ug/kg	78.7	394
91-58-7	2-Chloronaphthalene	U	39.4	ug/kg	13.0	39.4
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	394	ug/kg	78.7	394
99-09-2	3-Nitroaniline	U	394	ug/kg	78.7	394

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180008**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13463**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 00:38**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2629.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	394	ug/kg	78.7	394
606-20-2	2,6-Dinitrotoluene	U	394	ug/kg	39.4	394
208-96-8	Acenaphthylene	U	39.4	ug/kg	11.8	39.4
51-28-5	2,4-Dinitrophenol	U	787	ug/kg	150	787
132-64-9	Dibenzofuran	U	394	ug/kg	78.7	394
84-66-2	Diethylphthalate	U	394	ug/kg	78.7	394
86-73-7	Fluorene	U	39.4	ug/kg	11.8	39.4
7005-72-3	4-Chlorophenylphenylether	U	394	ug/kg	78.7	394
534-52-1	2-Methyl-4,6-dinitrophenol	U	394	ug/kg	78.7	394
100-01-6	4-Nitroaniline	U	394	ug/kg	118	394
	p-Nitroaniline					
122-39-4	Diphenylamine	U	394	ug/kg	78.7	394
122-66-7	Azobenzene	U	394	ug/kg	78.7	394
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	394	ug/kg	78.7	394
118-74-1	Hexachlorobenzene	U	394	ug/kg	78.7	394
85-01-8	Phenanthrene	U	39.4	ug/kg	11.8	39.4
120-12-7	Anthracene	U	39.4	ug/kg	7.87	39.4
84-74-2	Di-n-butylphthalate	U	394	ug/kg	78.7	394
206-44-0	Fluoranthene	U	39.4	ug/kg	11.8	39.4
85-68-7	Butylbenzylphthalate	U	394	ug/kg	78.7	394
56-55-3	Benzo(a)anthracene	U	39.4	ug/kg	11.8	39.4
91-94-1	3,3'-Dichlorobenzidine	U	394	ug/kg	118	394
218-01-9	Chrysene	U	39.4	ug/kg	11.8	39.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	394	ug/kg	78.7	394
117-84-0	Di-n-octylphthalate	U	394	ug/kg	78.7	394
205-99-2	Benzo(b)fluoranthene	U	39.4	ug/kg	11.8	39.4
207-08-9	Benzo(k)fluoranthene	U	39.4	ug/kg	11.8	39.4
50-32-8	Benzo(a)pyrene	U	39.4	ug/kg	11.8	39.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.4	ug/kg	11.8	39.4
53-70-3	Dibenzo(a,h)anthracene	U	39.4	ug/kg	11.8	39.4
191-24-2	Benzo(ghi)perylene	U	39.4	ug/kg	11.8	39.4
120-82-1	1,2,4-Trichlorobenzene	U	394	ug/kg	78.7	394

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	393	ug/kg		JA

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-2398

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202074566	MB for batch 966672	75	68	78	68	82	98
1202074567	LCS for batch 966672	72	70	76	68	79	77
249180001	RE46-10-13437	64	59	67	62	64	80
249180002	RE46-10-13436	63	57	64	60	65	84
249180003	RE46-10-13434	42	42	45	44	58	67
249180004	RE46-10-13438	72	65	75	65	73	88
249180005	RE46-10-13435	66	59	68	60	66	83
249180006	RE46-10-13439	55	50	56	50	54	71
249180008	RE46-10-13463	60	55	62	55	60	76

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(29%-99%)
PHL	=	Phenol-d5	(33%-98%)
NBZ	=	Nitrobenzene-d5	(31%-105%)
FBP	=	2-Fluorobiphenyl	(25%-109%)
TBP	=	2,4,6-Tribromophenol	(37%-106%)
TPH	=	p-Terphenyl-d14	(13%-150%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: LCS for batch 966672
Lab Sample ID: 1202074567
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/26/2010 17:56
Dilution: 1
Prep Batch ID 966672
Batch ID: 966675

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	993	60	22-114
108-95-2	LCS	Phenol	1670	0.0	1140	68	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1170	70	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1090	65	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1260	76	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1230	74	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	1180	71	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1330	80	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	623	37	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	943	57	27-116
129-00-0	LCS	Pyrene	1670	0.0	1090	65	42-113
110-86-1	LCS	Pyridine	1670	0.0	921	55	8-125
62-53-3	LCS	Aniline	1670	0.0	1010	61	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1170	70	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1100	66	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	341	20 *	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1100	66	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1520	91	28-117
95-48-7	LCS	o-Cresol	1670	0.0	1150	69	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1430	86	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	1190	71	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	1270	76	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: LCS for batch 966672
Lab Sample ID: 1202074567
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/26/2010 17:56
Dilution: 1
Prep Batch ID: 966672
Batch ID: 966675

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1250	75	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	1110	67	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	831	50	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1130	68	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1180	71	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	3000	90	22-138
91-20-3	LCS	Naphthalene	1670	0.0	1160	70	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	990	59	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1310	78	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1280	77	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	959	58	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1020	61	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1220	73	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1130	68	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1280	77	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1230	74	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	1350	81	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1250	75	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	1230	74	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1220	73	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	1220	73	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	1440	87	51-126

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 966672 **Matrix:** SOIL

Lab Sample ID: 1202074567

Instrument: MSD2.I **Analysis Date:** 03/26/2010 17:56 **Dilution:** 1

Analyst: AGS1 **Prep Batch ID** 966672

Inj. Vol: .5 uL **Batch ID:** 966675

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1330	80	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1280	77	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1230	74	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1560	93	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	1190	71	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1300	78	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1220	73	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1210	73	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	1250	75	46-107
120-12-7	LCS	Anthracene	1670	0.0	1220	73	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1510	91	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1430	86	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1310	78	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1230	74	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1120	67	36-103
218-01-9	LCS	Chrysene	1670	0.0	1270	76	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1340	80	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1300	78	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1210	72	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1390	83	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1320	79	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1460	87	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: LCS for batch 966672
Lab Sample ID: 1202074567
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/26/2010 17:56
Dilution: 1
Prep Batch ID: 966672
Batch ID: 966675

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1480	89	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1420	85	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1210	72	32-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: RE16-10-2917MS
Lab Sample ID: 1202074568
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 03/26/2010 19:57
Prep Batch ID: 966672
Batch ID: 966675

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1900	0.00	U	926	49	27-98
108-95-2	MS	Phenol	1900	0.00	U	940	49	33-94
95-57-8	MS	2-Chlorophenol	1900	0.00	U	1040	55	29-96
106-46-7	MS	1,4-Dichlorobenzene	1900	0.00	U	1020	54	27-96
621-64-7	MS	N-Nitrosodipropylamine	1900	0.00	U	1160	61	29-102
59-50-7	MS	4-Chloro-3-methylphenol	1900	0.00	U	1110	59	29-110
83-32-9	MS	Acenaphthene	1900	0.00	U	1060	56	17-109
121-14-2	MS	2,4-Dinitrotoluene	1900	0.00	U	1210	64	33-107
100-02-7	MS	4-Nitrophenol	1900	0.00	U	0.00	0 *	15-110
87-86-5	MS	Pentachlorophenol	1900	0.00	U	480	25	23-110
129-00-0	MS	Pyrene	1900	32.8	J	1090	56	24-118
110-86-1	MS	Pyridine	1900	0.00	U	842	44	25-102
62-53-3	MS	Aniline	1900	0.00	U	1160	61	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	1900	0.00	U	1080	57	29-96
541-73-1	MS	1,3-Dichlorobenzene	1900	0.00	U	1030	54	26-97
100-51-6	MS	Benzyl alcohol	1900	0.00	U	0.00	0 *	19-112
95-50-1	MS	1,2-Dichlorobenzene	1900	0.00	U	1010	53	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	1900	0.00	U	1360	72	28-103
95-48-7	MS	o-Cresol	1900	0.00	U	1030	54	32-107
65794-96-9	MS	m,p-Cresols	1900	0.00	U	1250	66	33-115
67-72-1	MS	Hexachloroethane	1900	0.00	U	1070	57	25-100
98-95-3	MS	Nitrobenzene	1900	0.00	U	1220	64	27-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: RE16-10-2917MS
Lab Sample ID: 1202074568
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 03/26/2010 19:57
Prep Batch ID: 966672
Batch ID: 966675
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1900	0.00	U	1170	62	29-104
88-75-5	MS	2-Nitrophenol	1900	0.00	U	1080	57	26-102
105-67-9	MS	2,4-Dimethylphenol	1900	0.00	U	733	39	22-104
111-91-1	MS	bis(2-Chloroethoxy)methane	1900	0.00	U	1060	56	27-101
120-83-2	MS	2,4-Dichlorophenol	1900	0.00	U	1120	59	26-103
65-85-0	MS	Benzoic acid	3800	0.00	U	747	20	13-131
91-20-3	MS	Naphthalene	1900	0.00	U	1150	60	23-103
106-47-8	MS	4-Chloroaniline	1900	0.00	U	1030	54	26-103
87-68-3	MS	Hexachlorobutadiene	1900	0.00	U	1250	66	28-101
91-57-6	MS	2-Methylnaphthalene	1900	0.00	U	1220	64	27-106
77-47-4	MS	Hexachlorocyclopentadiene	1900	0.00	U	847	45	24-117
88-06-2	MS	2,4,6-Trichlorophenol	1900	0.00	U	782	41	26-105
95-95-4	MS	2,4,5-Trichlorophenol	1900	0.00	U	931	49	30-110
91-58-7	MS	2-Chloronaphthalene	1900	0.00	U	1040	55	28-102
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	1190	63	33-106
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	1230	65	33-116
131-11-3	MS	Dimethylphthalate	1900	0.00	U	1200	63	38-113
606-20-2	MS	2,6-Dinitrotoluene	1900	0.00	U	1110	59	29-107
208-96-8	MS	Acenaphthylene	1900	0.00	U	1110	58	25-108
51-28-5	MS	2,4-Dinitrophenol	1900	0.00	U	848	45	14-102
132-64-9	MS	Dibenzofuran	1900	0.00	U	1110	58	35-112
84-66-2	MS	Diethylphthalate	1900	0.00	U	1280	67	36-122

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: RE16-10-2917MS
Lab Sample ID: 1202074568
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 03/26/2010 19:57
Prep Batch ID: 966672
Batch ID: 966675
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1900	0.00	U	1200	63	33-105
7005-72-3	MS	4-Chlorophenylphenylether	1900	0.00	U	1160	61	30-110
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1900	0.00	U	951	50	26-97
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	1690	89	28-135
122-39-4	MS	Diphenylamine	1900	0.00	U	1110	58	33-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1180	62	31-113
101-55-3	MS	4-Bromophenylphenylether	1900	0.00	U	1080	57	31-109
118-74-1	MS	Hexachlorobenzene	1900	0.00	U	1060	56	37-99
85-01-8	MS	Phenanthrene	1900	30.0	J	1260	65	29-109
120-12-7	MS	Anthracene	1900	8.64	J	1160	60	19-118
84-74-2	MS	Di-n-butylphthalate	1900	0.00	U	1300	68	39-123
206-44-0	MS	Fluoranthene	1900	42.9		1410	72	33-114
85-68-7	MS	Butylbenzylphthalate	1900	0.00	U	1120	59	35-131
56-55-3	MS	Benzo(a)anthracene	1900	0.00	U	1190	63	30-111
91-94-1	MS	3,3'-Dichlorobenzidine	1900	0.00	U	1000	53	30-124
218-01-9	MS	Chrysene	1900	20.1	J	1210	63	32-108
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1900	0.00	U	1120	59	37-129
117-84-0	MS	Di-n-octylphthalate	1900	0.00	U	1140	60	31-143
205-99-2	MS	Benzo(b)fluoranthene	1900	26.7	J	1190	61	29-118
207-08-9	MS	Benzo(k)fluoranthene	1900	0.00	U	1270	67	32-118
50-32-8	MS	Benzo(a)pyrene	1900	17.3	J	1260	65	33-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1900	12.6	J	1310	68	29-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: RE16-10-2917MS
Lab Sample ID: 1202074568
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.6
Analysis Date: 03/26/2010 19:57
Prep Batch ID: 966672
Batch ID: 966675
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1900	0.00	U	1300	69	27-119
191-24-2	MS	Benzo(ghi)perylene	1900	15.0	J	1270	66	28-112
120-82-1	MS	1,2,4-Trichlorobenzene	1900	0.00	U	1150	60	28-99

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: RE16-10-2917MSD
Lab Sample ID: 1202074569
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.6
Analysis Date: 03/26/2010 20:18
Dilution: 1
Prep Batch ID: 966672
Batch ID: 966675

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1900	0.00	U	772	41	27-98	18	0-30
108-95-2	MSD Phenol	1900	0.00	U	804	42	33-94	16	0-30
95-57-8	MSD 2-Chlorophenol	1900	0.00	U	912	48	29-96	14	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1900	0.00	U	860	45	27-96	18	0-30
621-64-7	MSD N-Nitrosodipropylamine	1900	0.00	U	979	51	29-102	17	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1900	0.00	U	1090	57	29-110	2	0-30
83-32-9	MSD Acenaphthene	1900	0.00	U	949	50	17-109	11	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1900	0.00	U	1160	61	33-107	5	0-30
100-02-7	MSD 4-Nitrophenol	1900	0.00	U	0.00	0 *	15-110	0	0-30
87-86-5	MSD Pentachlorophenol	1900	0.00	U	573	30	23-110	18	0-30
129-00-0	MSD Pyrene	1900	32.8	J	944	48	24-118	14	0-30
110-86-1	MSD Pyridine	1900	0.00	U	708	37	25-102	17	0-30
62-53-3	MSD Aniline	1900	0.00	U	1130	59	18-109	3	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1900	0.00	U	917	48	29-96	16	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1900	0.00	U	851	45	26-97	19	0-30
100-51-6	MSD Benzyl alcohol	1900	0.00	U	0.00	0 *	19-112	0	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1900	0.00	U	845	44	30-97	17	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1900	0.00	U	1150	60	28-103	17	0-30
95-48-7	MSD o-Cresol	1900	0.00	U	930	49	32-107	10	0-30
65794-96-9	MSD m,p-Cresols	1900	0.00	U	1140	60	33-115	9	0-30
67-72-1	MSD Hexachloroethane	1900	0.00	U	899	47	25-100	18	0-30
98-95-3	MSD Nitrobenzene	1900	0.00	U	1060	56	27-106	14	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: RE16-10-2917MSD
Lab Sample ID: 1202074569
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.6
Analysis Date: 03/26/2010 20:18
Dilution: 1
Prep Batch ID: 966672
Batch ID: 966675

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1900	0.00	U	1020	54	29-104	13	0-30
88-75-5	MSD 2-Nitrophenol	1900	0.00	U	901	47	26-102	18	0-30
105-67-9	MSD 2,4-Dimethylphenol	1900	0.00	U	667	35	22-104	9	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1900	0.00	U	931	49	27-101	13	0-30
120-83-2	MSD 2,4-Dichlorophenol	1900	0.00	U	1020	53	26-103	9	0-30
65-85-0	MSD Benzoic acid	3810	0.00	U	1040	27	13-131	33 *	0-30
91-20-3	MSD Naphthalene	1900	0.00	U	954	50	23-103	19	0-30
106-47-8	MSD 4-Chloroaniline	1900	0.00	U	974	51	26-103	5	0-30
87-68-3	MSD Hexachlorobutadiene	1900	0.00	U	1050	55	28-101	18	0-30
91-57-6	MSD 2-Methylnaphthalene	1900	0.00	U	1050	55	27-106	15	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1900	0.00	U	669	35	24-117	24	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1900	0.00	U	805	42	26-105	3	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1900	0.00	U	992	52	30-110	6	0-30
91-58-7	MSD 2-Chloronaphthalene	1900	0.00	U	911	48	28-102	14	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	1130	59	33-106	5	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	1210	64	33-116	2	0-30
131-11-3	MSD Dimethylphthalate	1900	0.00	U	1140	60	38-113	5	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1900	0.00	U	1060	56	29-107	5	0-30
208-96-8	MSD Acenaphthylene	1900	0.00	U	997	52	25-108	11	0-30
51-28-5	MSD 2,4-Dinitrophenol	1900	0.00	U	874	46	14-102	3	0-30
132-64-9	MSD Dibenzofuran	1900	0.00	U	1020	53	35-112	9	0-30
84-66-2	MSD Diethylphthalate	1900	0.00	U	1210	64	36-122	5	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: RE16-10-2917MSD
Lab Sample ID: 1202074569
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.6
Analysis Date: 03/26/2010 20:18
Dilution: 1
Prep Batch ID: 966672
Batch ID: 966675

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1900	0.00	U	1120	59	33-105	8	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1900	0.00	U	1080	57	30-110	7	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1900	0.00	U	928	49	26-97	2	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	1670	88	28-135	1	0-30
122-39-4	MSD	Diphenylamine	1900	0.00	U	1040	55	33-109	6	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1110	58	31-113	7	0-30
101-55-3	MSD	4-Bromophenylphenylether	1900	0.00	U	1000	53	31-109	8	0-30
118-74-1	MSD	Hexachlorobenzene	1900	0.00	U	992	52	37-99	7	0-30
85-01-8	MSD	Phenanthrene	1900	30.0	J	1120	57	29-109	12	0-30
120-12-7	MSD	Anthracene	1900	8.64	J	1080	56	19-118	7	0-30
84-74-2	MSD	Di-n-butylphthalate	1900	0.00	U	1220	64	39-123	6	0-30
206-44-0	MSD	Fluoranthene	1900	42.9		1240	63	33-114	13	0-30
85-68-7	MSD	Butylbenzylphthalate	1900	0.00	U	1040	55	35-131	7	0-30
56-55-3	MSD	Benzo(a)anthracene	1900	0.00	U	1130	60	30-111	5	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1900	0.00	U	950	50	30-124	5	0-30
218-01-9	MSD	Chrysene	1900	20.1	J	1050	54	32-108	14	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1900	0.00	U	1040	54	37-129	8	0-30
117-84-0	MSD	Di-n-octylphthalate	1900	0.00	U	1050	55	31-143	8	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1900	26.7	J	1170	60	29-118	1	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1900	0.00	U	1060	56	32-118	18	0-30
50-32-8	MSD	Benzo(a)pyrene	1900	17.3	J	1140	59	33-115	10	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1900	12.6	J	1190	62	29-114	9	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: RE16-10-2917MSD
Lab Sample ID: 1202074569
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.6
Analysis Date: 03/26/2010 20:18
Dilution: 1
Prep Batch ID: 966672
Batch ID: 966675

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD	Dibenzo(a,h)anthracene	1900	0.00	U	1210	64	27-119	7	0-30
191-24-2	MSD	Benzo(ghi)perylene	1900	15.0	J	1140	59	28-112	11	0-30
120-82-1	MSD	1,2,4-Trichlorobenzene	1900	0.00	U	955	50	28-99	18	0-30

Method Blank Summary

SDG Number:	**10-2398**	**Client:**	**LANL010**	**Matrix:**	**SOIL**
Client ID:	**MB for batch 966672**	**Instrument ID:**	**MSD2.I**	**Data File:**	**s2c2608-1.d**
Lab Sample ID:	**1202074566**	**Prep Date:**	**03/18/2010 22:34**	**Analyzed:**	**03/26/10 17:36**
Column:	**J&W DB-5MS**	**Level:**	**LOW**		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 966672	1202074567	s2c2609-1.d	03/26/10	1756
04	RE46-10-13437	249180001	s2c2623.d	03/26/10	2238
05	RE46-10-13436	249180002	s2c2624.d	03/26/10	2258
06	RE46-10-13434	249180003	s2c2625.d	03/26/10	2318
07	RE46-10-13438	249180004	s2c2626.d	03/26/10	2338
08	RE46-10-13435	249180005	s2c2627.d	03/26/10	2358
09	RE46-10-13439	249180006	s2c2628.d	03/27/10	0018
10	RE46-10-13463	249180008	s2c2629.d	03/27/10	0038

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2398

Instrument ID: MSD2.I **Injection Date/Time:** 12-MAR-10 14:32

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s031210.b/s2c1201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	51.2
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	43.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.7
197	0 - 1% of mass 198	0.5
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	21.3
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	67.2
442	Greater than 40% of mass 198	65.7
443	17 - 23% of mass 442	21.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100309-08	s2c1203.d	12-MAR-10 15:04
MEGA010	WBN100309-07	s2c1204.d	12-MAR-10 15:31
MEGA020	WBN100309-06	s2c1205.d	12-MAR-10 15:59
MEGA040	WBN100309-05.1	s2c1206.d	12-MAR-10 16:23
MEGA050	WBN100309-04	s2c1207.d	12-MAR-10 16:48
MEGA080	WBN100309-03	s2c1208.d	12-MAR-10 17:13
MEGA100	WBN100309-02	s2c1209.d	12-MAR-10 17:38
MEGA120	WBN100309-01	s2c1210.d	12-MAR-10 18:02
MEGAICV	WBN100309-09.1	s2c1212.d	12-MAR-10 18:54
AP010	WBN100218-01	s2c1213.d	12-MAR-10 19:18
AP020	WBN100218-02	s2c1214.d	12-MAR-10 19:39
AP040	WBN100218-03.1	s2c1215.d	12-MAR-10 19:59
AP050	WBN100218-04	s2c1216.d	12-MAR-10 20:19
AP080	WBN100218-05	s2c1217.d	12-MAR-10 20:39
AP100	WBN100218-06	s2c1218.d	12-MAR-10 20:59
AP120	WBN100218-07	s2c1219.d	12-MAR-10 21:19

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2398

Instrument ID: MSD2.1 **Injection Date/Time:** 12-MAR-10 14:32

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s031210.b/s2c1201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	51.2
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	43.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.7
197	0 - 1% of mass 198	0.5
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	21.3
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	67.2
442	Greater than 40% of mass 198	65.7
443	17 - 23% of mass 442	21.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
APICV	WBN100218-08.1	s2c1227.d	13-MAR-10 00:00

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2398

Instrument ID: MSD2.I **Injection Date/Time:** 26-MAR-10 15:12

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s032610.b/s2c2601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	53.5
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	45
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	53.4
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	22.5
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	68.2
442	Greater than 40% of mass 198	69.5
443	17 - 23% of mass 442	21.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-09.1	s2c2602.d	26-MAR-10 15:25
APCVS	WBN100218-08.1	s2c2605.d	26-MAR-10 16:34
SBLK01	1202074566	s2c2608-1.d	26-MAR-10 17:36
SBLK01LCS	1202074567	s2c2609-1.d	26-MAR-10 17:56
RE46-10-13437	249180001	s2c2623.d	26-MAR-10 22:38
RE46-10-13436	249180002	s2c2624.d	26-MAR-10 22:58
RE46-10-13434	249180003	s2c2625.d	26-MAR-10 23:18
RE46-10-13438	249180004	s2c2626.d	26-MAR-10 23:38
RE46-10-13435	249180005	s2c2627.d	26-MAR-10 23:58
RE46-10-13439	249180006	s2c2628.d	27-MAR-10 00:18
RE46-10-13463	249180008	s2c2629.d	27-MAR-10 00:38

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: MSD2.1

GC Column: J&W DB-5MS

Client SDG: 10-2398

STD Analysis Time: 26-MAR-10 15:25

Data File: s2c2602.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	RT	#	Area	RT	#	Area	RT	#	Area	RT	#	Area	RT	#	Area	RT	#
12 Hour STD	158646	3.81		744655	4.67		397163	5.92		686062	6.91		608658	8.56		380590	9.96	
Upper Limit	317292	4.31		1489310	5.17		794326	6.42		1372124	7.41		1217316	9.06		761180	10.5	
Lower Limit	79323	3.31		372328	4.17		198582	5.42		343031	6.41		304329	8.06		190295	9.46	
Sample ID																		
BLK01	194616	3.81		754016	4.67		452391	5.91		803516	6.9		641005	8.54		413678	9.95	
BLK01LCS	141015	3.81		632826	4.67		339607	5.92		612202	6.91		566944	8.55		390661	9.96	
RE46-10-13437	144182	3.81		576132	4.67		350647	5.91		629722	6.9		483812	8.54		309507	9.95	
RE46-10-13436	197611	3.81		789456	4.67		474208	5.91		836259	6.91		574810	8.54		354583	9.95	
RE46-10-13434	169349	3.81		683670	4.67		417637	5.91		751177	6.91		572012	8.54		361700	9.95	
RE46-10-13438	165096	3.81		667398	4.67		403825	5.91		732670	6.91		558425	8.54		359168	9.95	
RE46-10-13435	198914	3.81		787965	4.67		483763	5.91		895091	6.91		646235	8.54		361130	9.95	
RE46-10-13439	210132	3.81		841163	4.67		522389	5.91		951735	6.91		686184	8.54		391029	9.95	
RE46-10-13463	177239	3.81		711866	4.67		440608	5.91		817322	6.91		584088	8.54		330730	9.95	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180003**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**15.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13434**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 23:18**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2625.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	391	ug/kg	78.2	391
108-95-2	Phenol	U	391	ug/kg	78.2	391
95-57-8	2-Chlorophenol	U	391	ug/kg	78.2	391
106-46-7	1,4-Dichlorobenzene	U	391	ug/kg	78.2	391
621-64-7	N-Nitrosodipropylamine	U	391	ug/kg	78.2	391
59-50-7	4-Chloro-3-methylphenol	U	391	ug/kg	78.2	391
83-32-9	Acenaphthene	U	39.1	ug/kg	12.9	39.1
121-14-2	2,4-Dinitrotoluene	U	391	ug/kg	39.1	391
100-02-7	4-Nitrophenol	U	391	ug/kg	129	391
87-86-5	Pentachlorophenol	U	391	ug/kg	97.7	391
129-00-0	Pyrene	U	39.1	ug/kg	11.7	39.1
110-86-1	Pyridine	U	391	ug/kg	78.2	391
62-53-3	Aniline	U	391	ug/kg	117	391
111-44-4	bis(2-Chloroethyl) ether	U	391	ug/kg	78.2	391
541-73-1	1,3-Dichlorobenzene	U	391	ug/kg	78.2	391
100-51-6	Benzyl alcohol	U	391	ug/kg	117	391
95-50-1	1,2-Dichlorobenzene	U	391	ug/kg	78.2	391
108-60-1	bis(2-Chloroisopropyl)ether	U	391	ug/kg	78.2	391
95-48-7	o-Cresol	U	391	ug/kg	78.2	391
65794-96-9	m,p-Cresols	U	391	ug/kg	117	391
67-72-1	Hexachloroethane	U	391	ug/kg	78.2	391
98-95-3	Nitrobenzene	U	391	ug/kg	78.2	391
78-59-1	Isophorone	U	391	ug/kg	78.2	391
88-75-5	2-Nitrophenol	U	391	ug/kg	78.2	391
105-67-9	2,4-Dimethylphenol	U	391	ug/kg	137	391
111-91-1	bis(2-Chloroethoxy)methane	U	391	ug/kg	78.2	391
120-83-2	2,4-Dichlorophenol	U	391	ug/kg	78.2	391
65-85-0	Benzoic acid	U	782	ug/kg	195	782
91-20-3	Naphthalene	U	39.1	ug/kg	11.7	39.1
106-47-8	4-Chloroaniline	U	391	ug/kg	78.2	391
87-68-3	Hexachlorobutadiene	U	391	ug/kg	78.2	391
91-57-6	2-Methylnaphthalene	U	39.1	ug/kg	7.82	39.1
77-47-4	Hexachlorocyclopentadiene	U	391	ug/kg	78.2	391
88-06-2	2,4,6-Trichlorophenol	U	391	ug/kg	78.2	391
95-95-4	2,4,5-Trichlorophenol	U	391	ug/kg	78.2	391
91-58-7	2-Chloronaphthalene	U	39.1	ug/kg	12.9	39.1
88-74-4	2-Nitroaniline	U	391	ug/kg	78.2	391
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	391	ug/kg	78.2	391

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180003**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**15.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13434**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 23:18**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2625.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	391	ug/kg	78.2	391
606-20-2	2,6-Dinitrotoluene	U	391	ug/kg	39.1	391
208-96-8	Acenaphthylene	U	39.1	ug/kg	11.7	39.1
51-28-5	2,4-Dinitrophenol	U	782	ug/kg	148	782
132-64-9	Dibenzofuran	U	391	ug/kg	78.2	391
84-66-2	Diethylphthalate	U	391	ug/kg	78.2	391
86-73-7	Fluorene	U	39.1	ug/kg	11.7	39.1
7005-72-3	4-Chlorophenylphenylether	U	391	ug/kg	78.2	391
534-52-1	2-Methyl-4,6-dinitrophenol	U	391	ug/kg	78.2	391
100-01-6	4-Nitroaniline	U	391	ug/kg	117	391
	p-Nitroaniline					
122-39-4	Diphenylamine	U	391	ug/kg	78.2	391
122-66-7	Azobenzene	U	391	ug/kg	78.2	391
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	391	ug/kg	78.2	391
118-74-1	Hexachlorobenzene	U	391	ug/kg	78.2	391
85-01-8	Phenanthrene	U	39.1	ug/kg	11.7	39.1
120-12-7	Anthracene	U	39.1	ug/kg	7.82	39.1
84-74-2	Di-n-butylphthalate	U	391	ug/kg	78.2	391
206-44-0	Fluoranthene	U	39.1	ug/kg	11.7	39.1
85-68-7	Butylbenzylphthalate	U	391	ug/kg	78.2	391
56-55-3	Benzo(a)anthracene	U	39.1	ug/kg	11.7	39.1
91-94-1	3,3'-Dichlorobenzidine	U	391	ug/kg	117	391
218-01-9	Chrysene	U	39.1	ug/kg	11.7	39.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	391	ug/kg	78.2	391
117-84-0	Di-n-octylphthalate	U	391	ug/kg	78.2	391
205-99-2	Benzo(b)fluoranthene	U	39.1	ug/kg	11.7	39.1
207-08-9	Benzo(k)fluoranthene	U	39.1	ug/kg	11.7	39.1
50-32-8	Benzo(a)pyrene	U	39.1	ug/kg	11.7	39.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.1	ug/kg	11.7	39.1
53-70-3	Dibenzo(a,h)anthracene	U	39.1	ug/kg	11.7	39.1
191-24-2	Benzo(ghi)perylene	U	39.1	ug/kg	11.7	39.1
120-82-1	1,2,4-Trichlorobenzene	U	391	ug/kg	78.2	391

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.84	212	ug/kg		JA

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2625.d
Lab Smp Id: 249180003 Client Smp ID: RE46-10-13434
Inj Date : 26-MAR-2010 23:18
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249180003|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2398.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.13000	weight of sample
M	15.06790	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	169349	40.0000	
* 29 Naphthalene-d8	136	4.666	4.672	(1.000)	683670	40.0000	
* 46 Acenaphthene-d10	164	5.913	5.918	(1.000)	417637	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	751177	40.0000	
* 91 Chrysene-d12	240	8.539	8.555	(1.000)	572012	40.0000	
* 98 Perylene-d12	264	9.946	9.962	(1.000)	361700	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	168567	41.8031	1630
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	207533	41.7947	1630
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.893)	111395	22.5126	880
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.915)	251928	21.9253	857
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.091)	71279	57.7033	2250
$ 81 p-Terphenyl-d14	244	7.817	7.822	(0.915)	348013	33.3595	1300

ION RATIO REPORT

SV REPORT

Data file: s2c2625.d
Report Date: 03/27/2010 21:58
Lab. ID: 249180003 SampleType: SAMPLE
Injection Date: 26-MAR-2010 23:18
Operator: AGS1 Instrument: MSD2.i
Sample Info: |249180003|966675|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2398
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	17409	3.53	3.60	80-120	100	(T)
93	138	3.49	3.61	335-395	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	18525	4.17	4.05	80-120	100	(T)
42	16052	4.17	4.05	96-156	87	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	74623	5.91	5.69	80-120	100	(T)
164	417637	5.91	5.69	0- 40	560	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	52894	5.91	5.74	80-120	100	(T)
63	772	5.91	5.74	87-147	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	52894	5.91	6.03	80-120	100	(T)
89	1100	5.91	6.03	58-118	2	(QT)
63	772	5.91	6.03	47-107	1	(QT)
53 Fluorene		CAS#: 86-73-7				
166	3634	6.45	6.29	80-120	100	(T)
165	3729	6.45	6.29	61-121	103	(T)
167	1103	6.45	6.29	0- 43	30	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	326	6.45	6.31	80-120	100	(T)
105	772	6.45	6.31	15- 75	237	(QT)
51	1053	6.45	6.31	92-152	323	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD2.i/s032610.b/s2c2625.d
Lab Smp Id: 249180003 Client Smp ID: RE46-10-13434
Inj Date : 26-MAR-2010 23:18
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249180003|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2398.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.13000	weight of sample
M	15.06790	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.811	1252295	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.843	169680	5.41979870	212	0		0	10

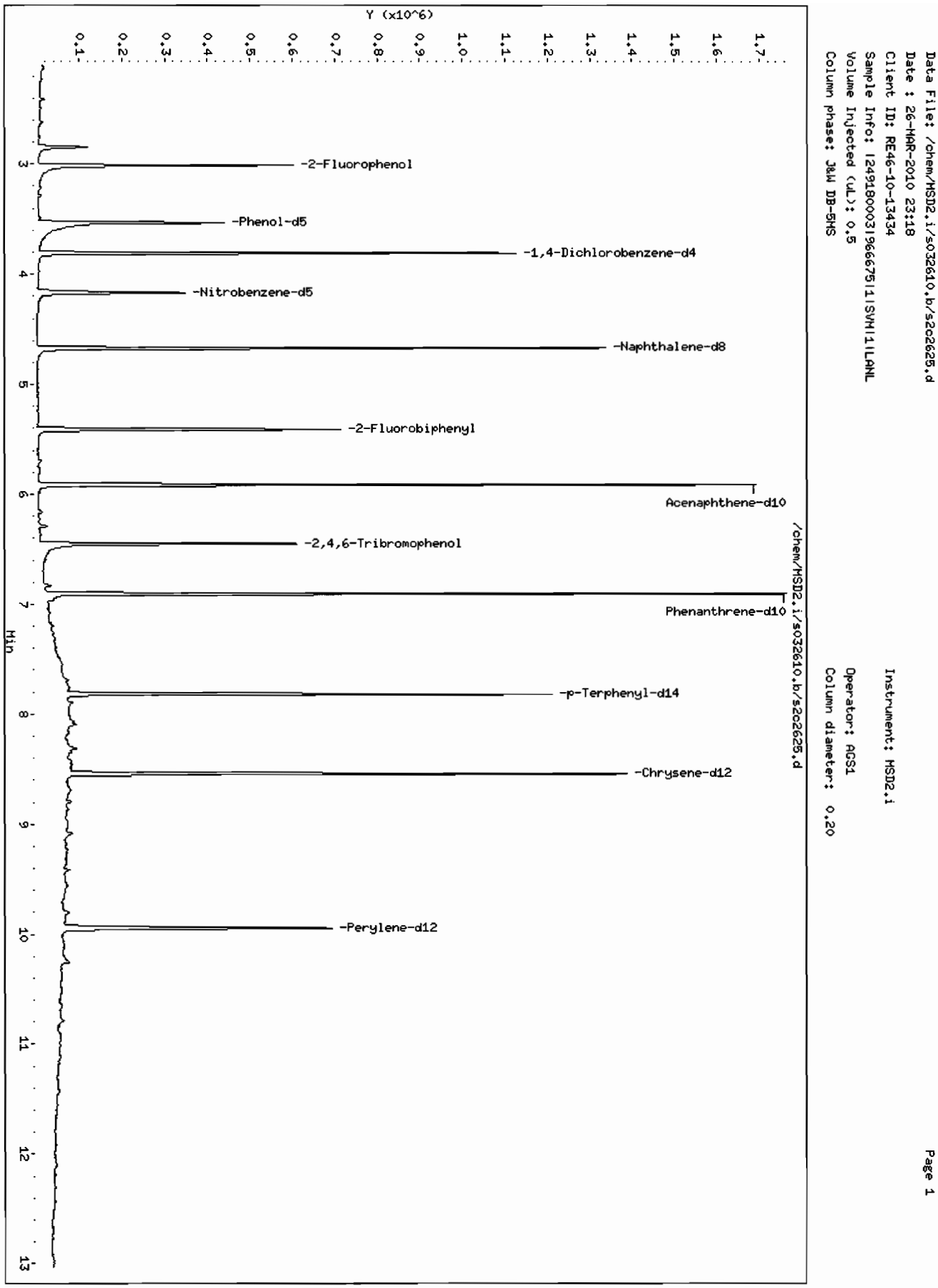
Data File: /chem/MSD2.i/s032610.b/s2c26625.d
Date : 26-MAR-2010 23:18
Client ID: RE46-10-13434
Sample Info: 124918000319666751|1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS
Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20
Page 1
Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
-2-Fluorophenol
-Phenol-d5
-1,4-Dichlorobenzene-d4
-Nitrobenzene-d5
-Naphthalene-d8
-2-Fluorobiphenyl
Acenaphthene-d10
-2,4,6-Tribromophenol
Phenanthrene-d10
-p-Terphenyl-d14
-Chrysene-d12
-Perylene-d12
/chem/MSD2.i/s032610.b/s2c26625.d
Min
3
4
5
6
7
8
9
10
11
12
13

Data File: /chem/MSD2.i/s032610.b/s2c2625.d

Date : 26-MAR-2010 23:18

Client ID: RE46-10-13434

Instrument: MSD2.i

Sample Info: 1249180003|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	45	C6H12O2	116

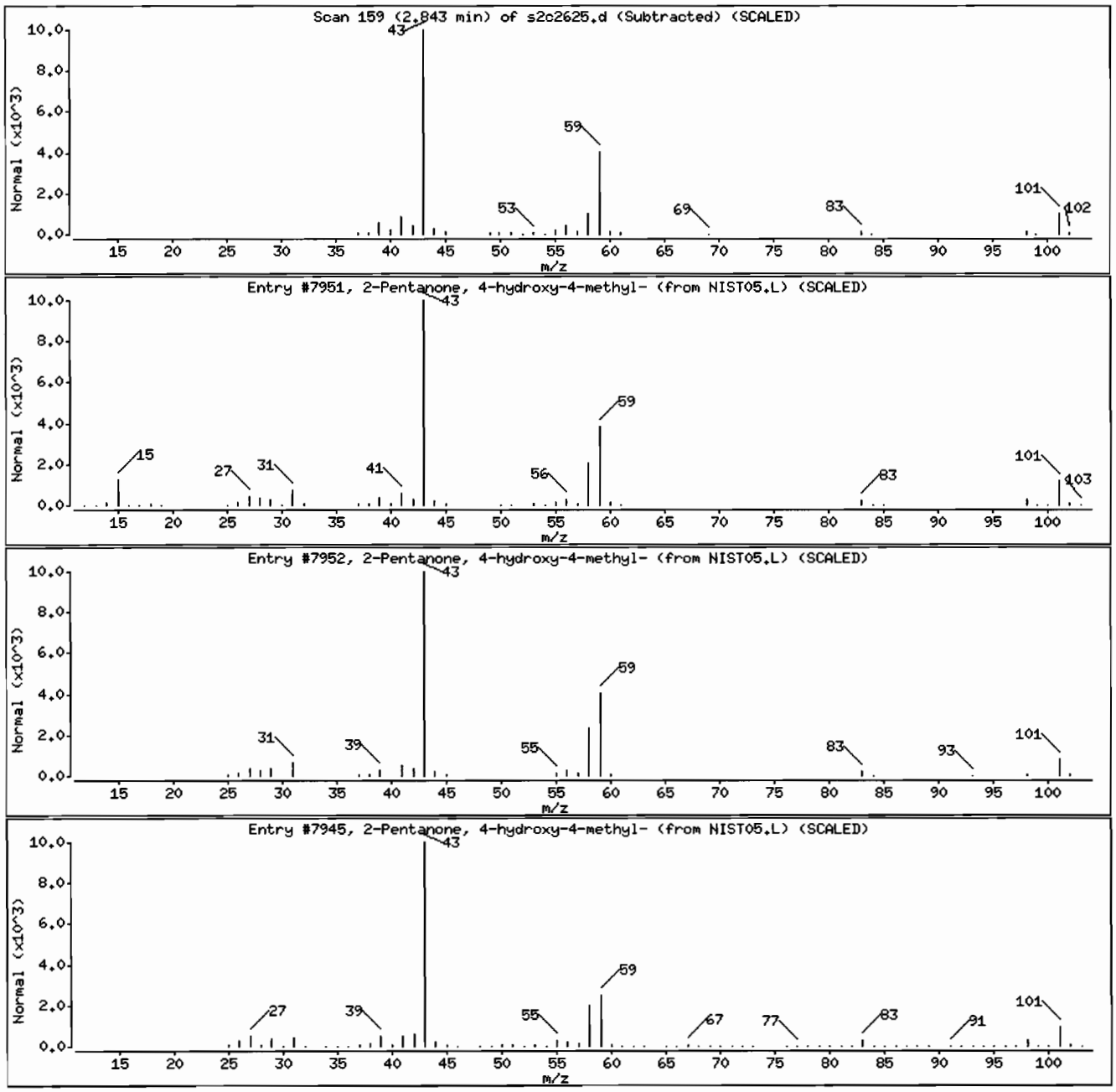

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180005**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**17.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13435**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 23:58**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2627.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	404	ug/kg	80.7	404
108-95-2	Phenol	U	404	ug/kg	80.7	404
95-57-8	2-Chlorophenol	U	404	ug/kg	80.7	404
106-46-7	1,4-Dichlorobenzene	U	404	ug/kg	80.7	404
621-64-7	N-Nitrosodipropylamine	U	404	ug/kg	80.7	404
59-50-7	4-Chloro-3-methylphenol	U	404	ug/kg	80.7	404
83-32-9	Acenaphthene	U	40.4	ug/kg	13.3	40.4
121-14-2	2,4-Dinitrotoluene	U	404	ug/kg	40.4	404
100-02-7	4-Nitrophenol	U	404	ug/kg	133	404
87-86-5	Pentachlorophenol	U	404	ug/kg	101	404
129-00-0	Pyrene		77.4	ug/kg	12.1	40.4
110-86-1	Pyridine	U	404	ug/kg	80.7	404
62-53-3	Aniline	U	404	ug/kg	121	404
111-44-4	bis(2-Chloroethyl) ether	U	404	ug/kg	80.7	404
541-73-1	1,3-Dichlorobenzene	U	404	ug/kg	80.7	404
100-51-6	Benzyl alcohol	U	404	ug/kg	121	404
95-50-1	1,2-Dichlorobenzene	U	404	ug/kg	80.7	404
108-60-1	bis(2-Chloroisopropyl)ether	U	404	ug/kg	80.7	404
95-48-7	o-Cresol	U	404	ug/kg	80.7	404
65794-96-9	m,p-Cresols	U	404	ug/kg	121	404
67-72-1	Hexachloroethane	U	404	ug/kg	80.7	404
98-95-3	Nitrobenzene	U	404	ug/kg	80.7	404
78-59-1	Isophorone	U	404	ug/kg	80.7	404
88-75-5	2-Nitrophenol	U	404	ug/kg	80.7	404
105-67-9	2,4-Dimethylphenol	U	404	ug/kg	141	404
111-91-1	bis(2-Chloroethoxy)methane	U	404	ug/kg	80.7	404
120-83-2	2,4-Dichlorophenol	U	404	ug/kg	80.7	404
65-85-0	Benzoic acid	U	807	ug/kg	202	807
91-20-3	Naphthalene	U	40.4	ug/kg	12.1	40.4
106-47-8	4-Chloroaniline	U	404	ug/kg	80.7	404
87-68-3	Hexachlorobutadiene	U	404	ug/kg	80.7	404
91-57-6	2-Methylnaphthalene	U	40.4	ug/kg	8.07	40.4
77-47-4	Hexachlorocyclopentadiene	U	404	ug/kg	80.7	404
88-06-2	2,4,6-Trichlorophenol	U	404	ug/kg	80.7	404
95-95-4	2,4,5-Trichlorophenol	U	404	ug/kg	80.7	404
91-58-7	2-Chloronaphthalene	U	40.4	ug/kg	13.3	40.4
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	404	ug/kg	80.7	404
99-09-2	3-Nitroaniline	U	404	ug/kg	80.7	404

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180005**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**17.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13435**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 23:58**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2627.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	404	ug/kg	80.7	404
606-20-2	2,6-Dinitrotoluene	U	404	ug/kg	40.4	404
208-96-8	Acenaphthylene	U	40.4	ug/kg	12.1	40.4
51-28-5	2,4-Dinitrophenol	U	807	ug/kg	153	807
132-64-9	Dibenzofuran	U	404	ug/kg	80.7	404
84-66-2	Diethylphthalate	U	404	ug/kg	80.7	404
86-73-7	Fluorene	U	40.4	ug/kg	12.1	40.4
7005-72-3	4-Chlorophenylphenylether	U	404	ug/kg	80.7	404
534-52-1	2-Methyl-4,6-dinitrophenol	U	404	ug/kg	80.7	404
100-01-6	4-Nitroaniline	U	404	ug/kg	121	404
	p-Nitroaniline					
122-39-4	Diphenylamine	U	404	ug/kg	80.7	404
122-66-7	Azobenzene	U	404	ug/kg	80.7	404
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	404	ug/kg	80.7	404
118-74-1	Hexachlorobenzene	U	404	ug/kg	80.7	404
85-01-8	Phenanthrene	J	32.0	ug/kg	12.1	40.4
120-12-7	Anthracene	J	12.5	ug/kg	8.07	40.4
84-74-2	Di-n-butylphthalate	U	404	ug/kg	80.7	404
206-44-0	Fluoranthene		91.1	ug/kg	12.1	40.4
85-68-7	Butylbenzylphthalate	U	404	ug/kg	80.7	404
56-55-3	Benzo(a)anthracene	U	40.4	ug/kg	12.1	40.4
91-94-1	3,3'-Dichlorobenzidine	U	404	ug/kg	121	404
218-01-9	Chrysene		66.4	ug/kg	12.1	40.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	404	ug/kg	80.7	404
117-84-0	Di-n-octylphthalate	U	404	ug/kg	80.7	404
205-99-2	Benzo(b)fluoranthene		116	ug/kg	12.1	40.4
207-08-9	Benzo(k)fluoranthene	U	40.4	ug/kg	12.1	40.4
50-32-8	Benzo(a)pyrene		63.0	ug/kg	12.1	40.4
193-39-5	Indeno(1,2,3-cd)pyrene	J	28.8	ug/kg	12.1	40.4
53-70-3	Dibenzo(a,h)anthracene	U	40.4	ug/kg	12.1	40.4
191-24-2	Benzo(ghi)perylene	J	32.6	ug/kg	12.1	40.4
120-82-1	1,2,4-Trichlorobenzene	U	404	ug/kg	80.7	404

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	426	ug/kg		JA
	Unknown	8.1	171	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180005**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**17.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13435**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 23:58**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2627.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.2	175	ug/kg		J
	Unknown	8.38	184	ug/kg		J
	Unknown	8.43	263	ug/kg		J
	Unknown	8.67	286	ug/kg		J
4452-45-3	1,14-Docosanediol	10.03	302	ug/kg	81	NJ
55044-36-5	1H-Indene, 5-butyl-6-hexyloctahydro-	10.07	388	ug/kg	92	NJ
	Unknown	10.12	424	ug/kg		J
	Unknown	10.16	453	ug/kg		J
	Unknown	10.25	596	ug/kg		J
	Unknown	10.43	683	ug/kg		J
2097-85-0	Cholestan-3-one, 4,4-dimethyl-, (5.alpha	10.55	621	ug/kg	91	NJ
	Unknown	10.66	606	ug/kg		J
601-53-6	Cholestan-3-one, (5.beta.)-	10.84	609	ug/kg	95	NJ
	Unknown	11.12	439	ug/kg		J
	Unknown	11.57	234	ug/kg		J
	Unknown	11.64	277	ug/kg		J
	Unknown	11.75	213	ug/kg		J

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Data file : /chem/MSD2.i/s032610.b/s2c2627.d
Lab Smp Id: 249180005 Client Smp ID: RE46-10-13435
Inj Date : 26-MAR-2010 23:58
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249180005|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2398.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.17000	weight of sample
M	17.89980	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	198914	40.0000	
* 29 Naphthalene-d8	136	4.667	4.672	(1.000)	787965	40.0000	
* 46 Acenaphthene-d10	164	5.913	5.918	(1.000)	483763	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	895091	40.0000	
* 91 Chrysene-d12	240	8.544	8.555	(1.000)	646235	40.0000	
* 98 Perylene-d12	264	9.951	9.962	(1.000)	361130	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	310422	65.5399	2640
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	343886	58.9611	2380
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.893)	193732	33.9705	1370
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.915)	401634	30.1763	1220
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.091)	94271	65.8846	2660
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.915)	490687	41.6336	1680

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.769	7.774	(0.909)	40376	1.91672	77.4
68 Phenanthrene	178	6.918	6.924	(1.002)	17532	0.79246	32.0(a)
69 Anthracene	178	6.950	6.956	(1.006)	6625	0.30955	12.5(a)
76 Fluoranthene	202	7.630	7.635	(1.105)	45076	2.25571	91.1
92 Chrysene	228	8.560	8.576	(1.002)	24748	1.64485	66.4
95 Benzo(b)fluoranthene	252	9.502	9.512	(0.955)	28254	2.86836	116
97 Benzo(a)pyrene	252	9.882	9.892	(0.993)	12744	1.56096	63.0
99 Indeno(1,2,3-cd)pyrene	276	11.513	11.534	(1.157)	4994	0.71459	28.8(a)
101 Benzo(ghi)perylene	276	12.005	12.021	(1.206)	4570	0.80734	32.6(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s2c2627.d
Report Date: 03/27/2010 21:59
Lab. ID: 249180005 SampleType: SAMPLE
Injection Date: 26-MAR-2010 23:58
Operator: AGS1 Instrument: MSD2.i
Sample Info: |249180005|966675|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2398
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	27396	3.53	3.60	80-120	100	(T)
93	107	3.49	3.61	335-395	0	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	31030	4.17	4.05	80-120	100	(T)
42	27663	4.17	4.05	96-156	89	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	86443	5.91	5.69	80-120	100	(T)
164	483763	5.91	5.69	0- 40	560	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	61752	5.91	5.74	80-120	100	(T)
63	1087	5.91	5.74	87-147	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	61752	5.91	6.03	80-120	100	(T)
89	1245	5.91	6.03	58-118	2	(QT)
63	1087	5.91	6.03	47-107	2	(QT)
53 Fluorene		CAS#: 86-73-7				
166	4963	6.45	6.29	80-120	100	(T)
165	4958	6.45	6.29	61-121	100	(T)
167	1310	6.45	6.29	0- 43	26	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	383	6.45	6.31	80-120	100	(T)
105	980	6.45	6.31	15- 75	255	(QT)
51	1264	6.45	6.31	92-152	330	(QT)
56 p-Nitroaniline				CAS#: 100-01-6		
138	126	6.39	6.29	80-120	100	(T)
108	150	6.40	6.29	73-133	119	(T)
92	2374	6.45	6.30	15- 75	1883	(QT)
68 Phenanthrene				CAS#: 85-01-8		
178	17532	6.92	6.92	80-120	100	( )
179	3145	6.92	6.92	0- 45	18	( )
176	3413	6.92	6.92	0- 49	19	( )
69 Anthracene				CAS#: 120-12-7		
178	6625	6.95	6.96	80-120	100	( )
179	1229	6.95	6.96	0- 46	19	( )
176	1161	6.95	6.96	0- 48	18	( )
76 Fluoranthene				CAS#: 206-44-0		
202	45076	7.63	7.64	80-120	100	( )
203	7834	7.63	7.64	0- 47	17	( )
101	3893	7.63	7.64	0- 39	9	( )
79 Pyrene				CAS#: 129-00-0		
202	40376	7.77	7.77	80-120	100	( )
200	8315	7.77	7.77	0- 51	21	( )
101	4582	7.77	7.77	0- 40	11	( )
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	25918	8.54	8.54	80-120	100	( )
226	7346	8.54	8.54	0- 56	28	( )
229	6493	8.54	8.54	0- 49	25	( )
92 Chrysene				CAS#: 218-01-9		
228	24748	8.56	8.58	80-120	100	( )
229	5422	8.56	8.58	0- 50	22	( )
226	7432	8.56	8.58	0- 59	30	( )
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	28254	9.50	9.51	80-120	100	( )
253	5654	9.51	9.51	0- 49	20	( )
125	4638	9.51	9.51	0- 39	16	( )
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	28884	9.50	9.54	80-120	100	( )
253	7076	9.51	9.54	0- 54	25	( )
125	5160	9.51	9.54	0- 40	18	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	12744	9.88	9.89	80-120	100	( )
253	3331	9.88	9.89	0- 52	26	( )
125	2955	9.88	9.89	0- 42	23	( )
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	4994	11.51	11.53	80-120	100	( )
138	1301	11.50	11.53	0- 58	26	( )
100 Dibenzo(a,h)anthracene			CAS#: 53-70-3			
278	1996	11.50	11.54	80-120	100	( )
139	586	11.52	11.53	0- 52	29	( )
101 Benzo(ghi)perylene			CAS#: 191-24-2			
276	4570	12.00	12.02	80-120	100	( )
138	1133	12.00	12.02	0- 58	25	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2627.d
Lab Smp Id: 249180005 Client Smp ID: RE46-10-13435
Inj Date : 26-MAR-2010 23:58
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249180005|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2398.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.17000	weight of sample
M	17.89980	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.811	1471004	40.000
* 91 Chrysene-d12	8.544	2410389	40.000
* 98 Perylene-d12	9.951	1908440	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.848	387701	10.5424787	426	0		0	10
Unknown				CAS #:			
8.095	255923	4.24699299	171	0		0	91
Unknown				CAS #:			
8.197	260577	4.32423633	174	0		0	91
Unknown				CAS #:			
8.379	274417	4.55389709	184	0		0	91
Unknown				CAS #:			
8.427	393221	6.52543132	263	0		0	91
Unknown				CAS #:			
8.673	427073	7.08720143	286	0		0	91
1,14-Docosanediol				CAS #: 4452-45-3			
10.031	357470	7.49240391	302	81	NIST05.L	148951	98
1H-Indene, 5-butyl-6-hexyloctahydro-				CAS #: 55044-36-5			
10.074	459007	9.62055936	388	92	NIST05.L	101522	98
Unknown				CAS #:			
10.122	501412	10.5093465	424	0		0	98
Unknown				CAS #:			
10.160	535844	11.2310373	453	0		0	98
Unknown				CAS #:			
10.251	704463	14.7651983	596	0		0	98
Unknown				CAS #:			
10.432	807139	16.9172452	683	0		0	98
Cholestan-3-one, 4,4-dimethyl-, (5.alpha				CAS #: 2097-85-0			
10.550	733821	15.3805263	621	91	NIST05.L	174416	98
Unknown				CAS #:			
10.657	716269	15.0126419	606	0		0	98
Cholestan-3-one, (5.beta.)-				CAS #: 601-53-6			
10.844	720180	15.0946267	609	95	NIST05.L	167292	98

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
Unknown				CAS #:			
11.122	518293	10.8631771	438	0		0	98
Unknown				CAS #:			
11.566	276044	5.78575379	234	0		0	98
Unknown				CAS #:			
11.636	327147	6.85684317	277	0		0	98
Unknown				CAS #:			
11.754	252166	5.28528536	213	0		0	98

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Sample Info: |249180005|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: AGS1

Column diameter: 0.20

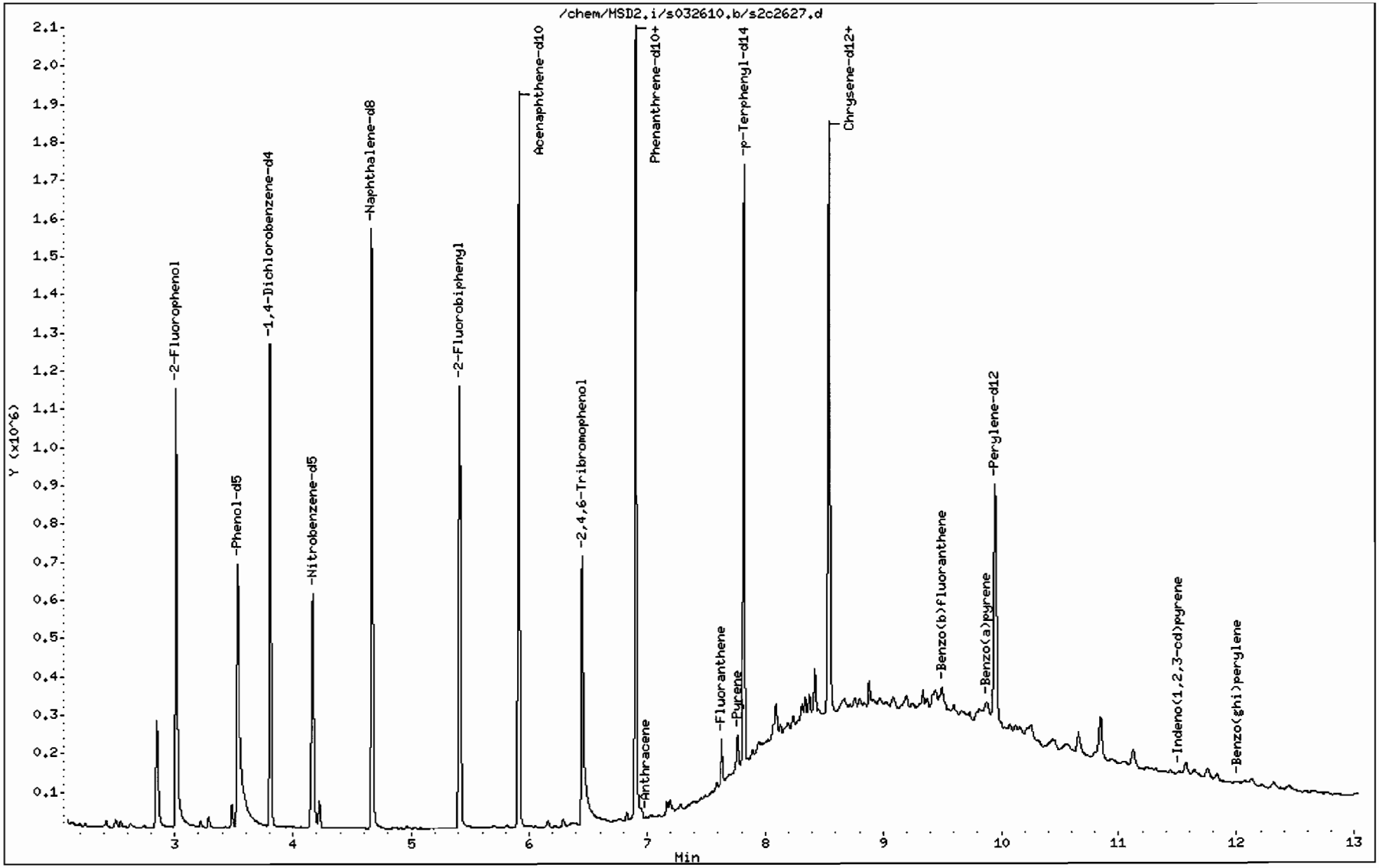

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: |249180005|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 77.4 ug/Kg

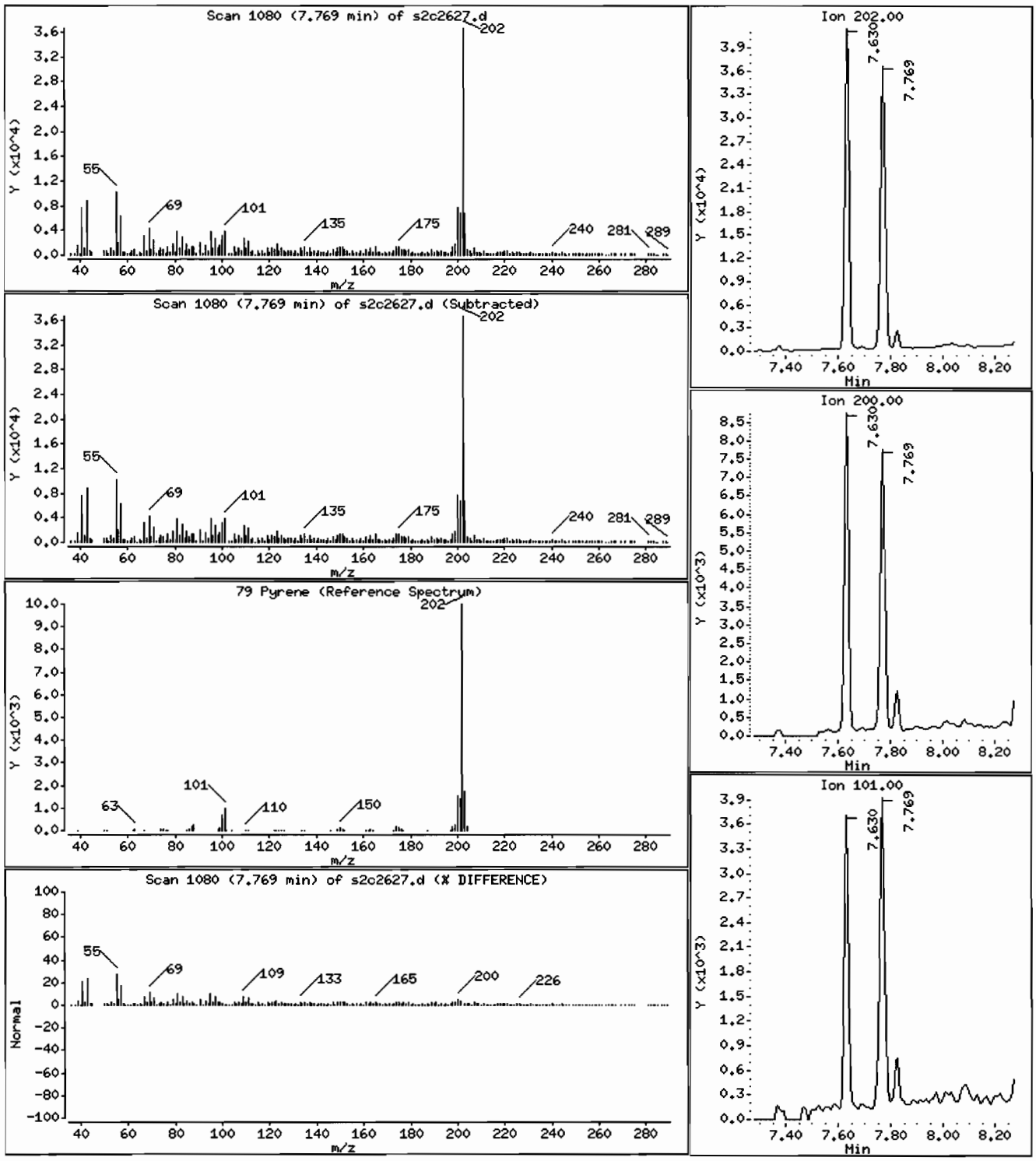

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: |2491800051966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 32.0 ug/Kg

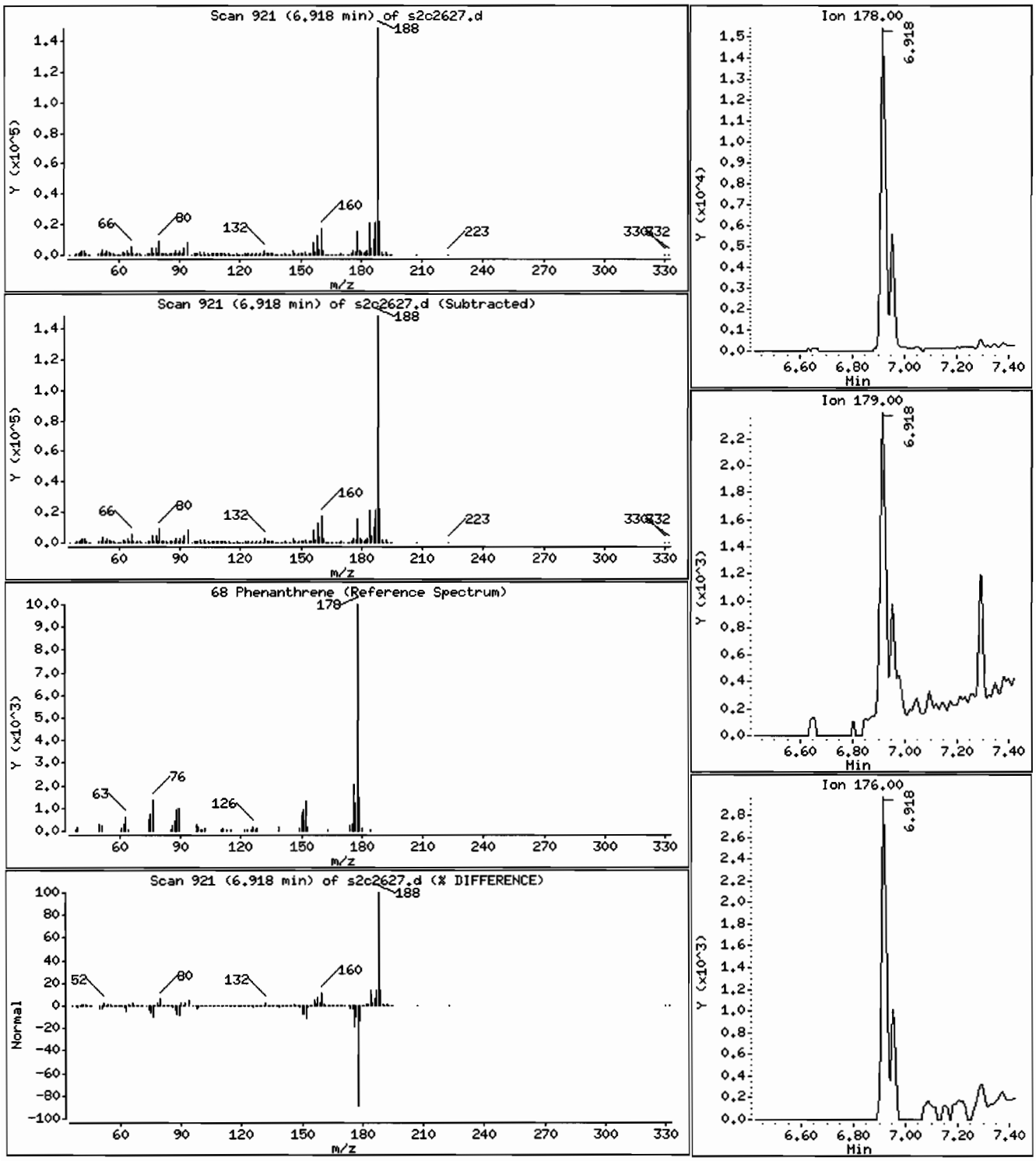

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: 1249180005|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 12.5 ug/Kg

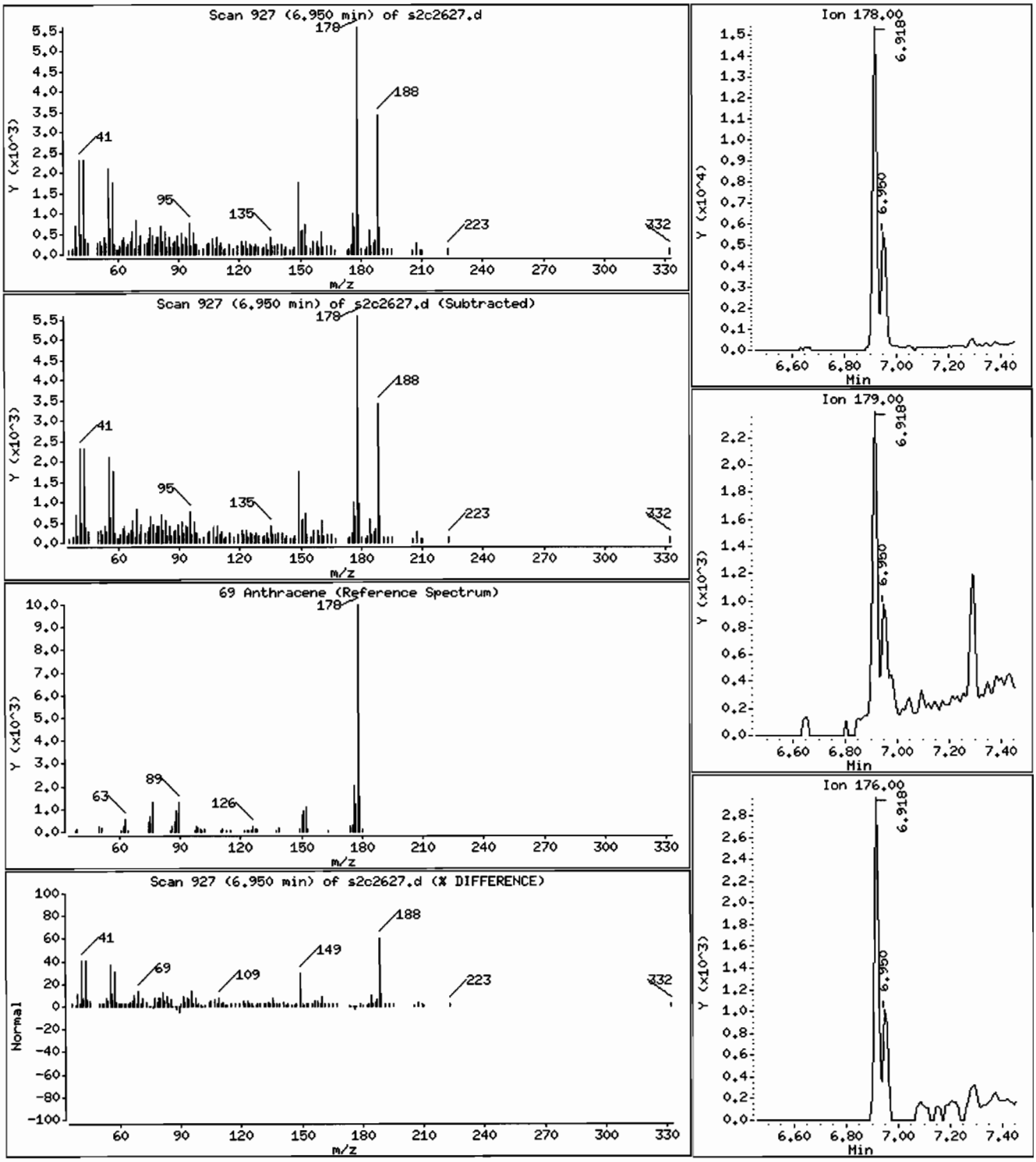

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: |2491800051966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 91.1 ug/Kg

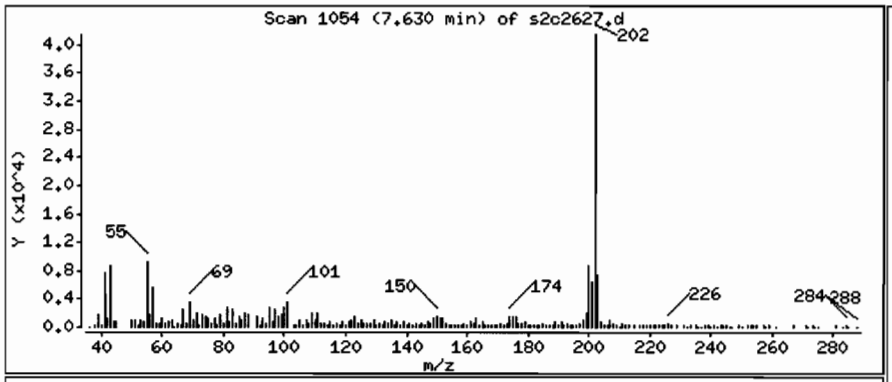

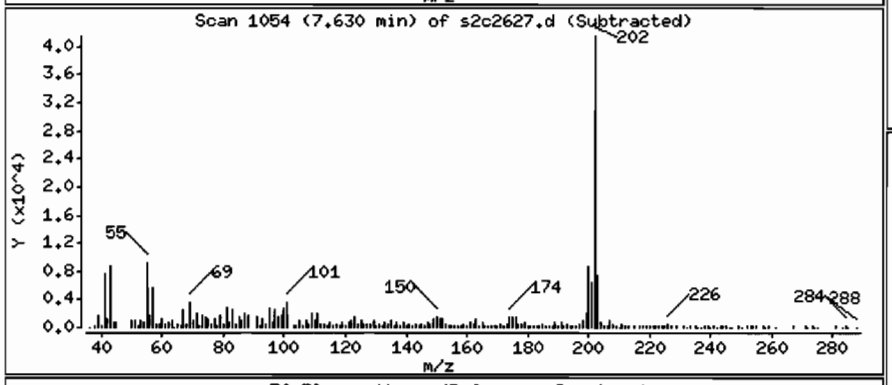

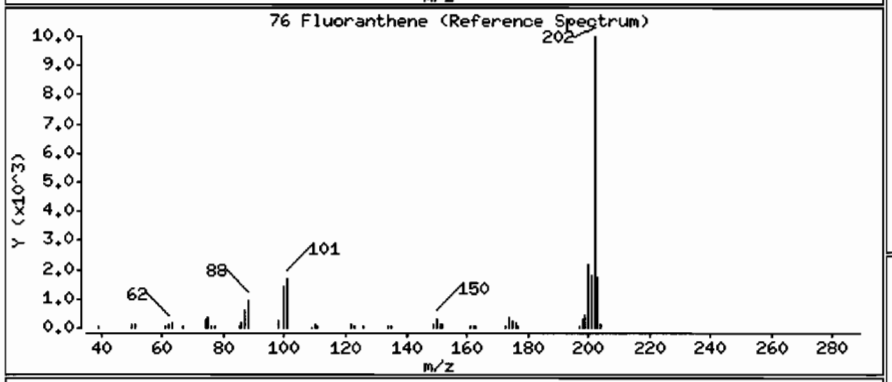

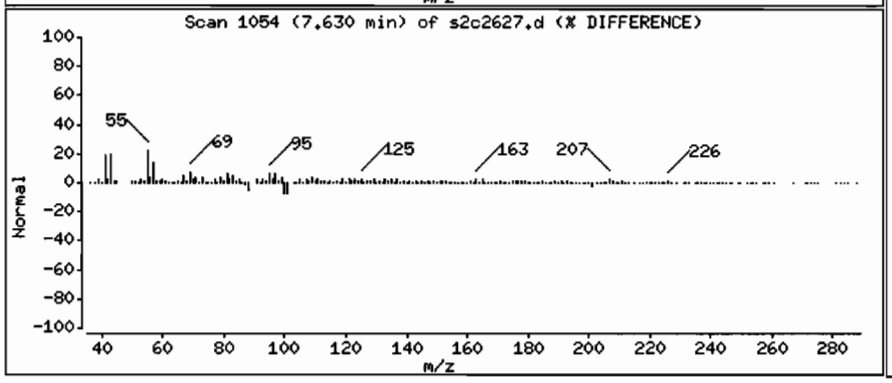

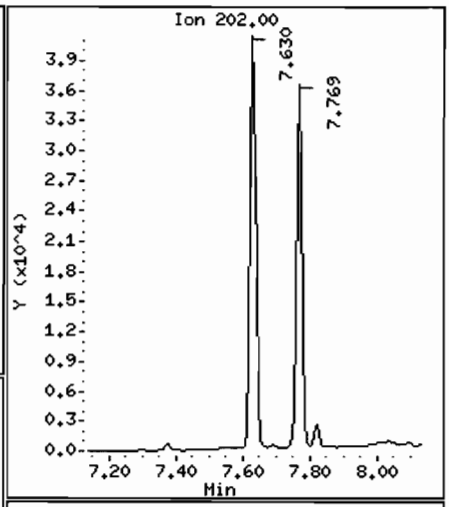

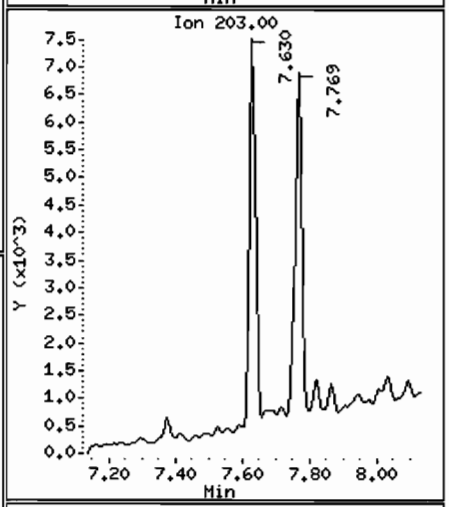

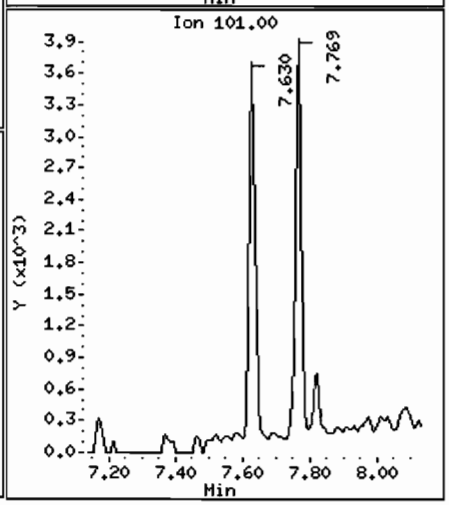

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: 1249180005|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 66.4 ug/Kg

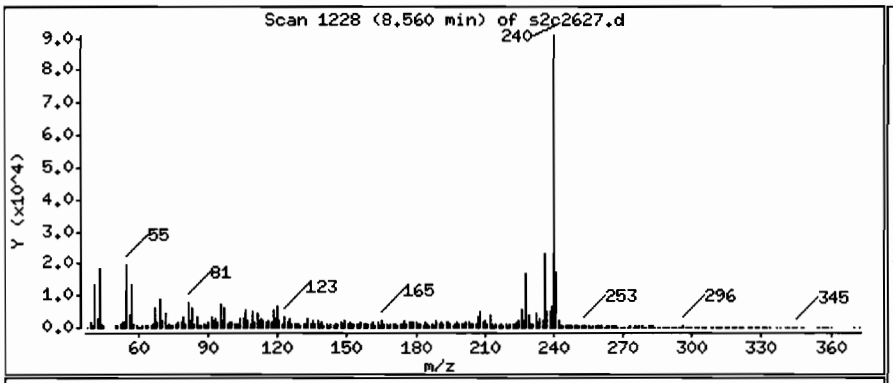

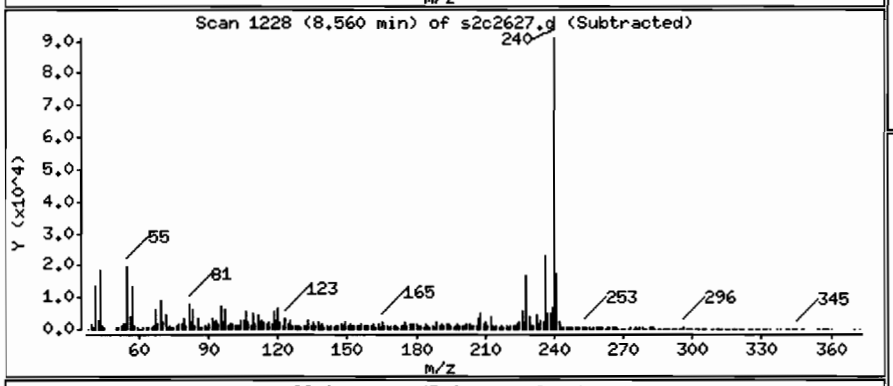

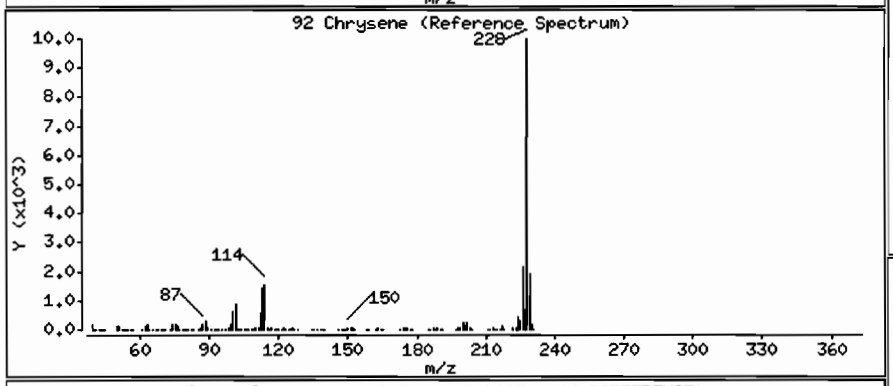

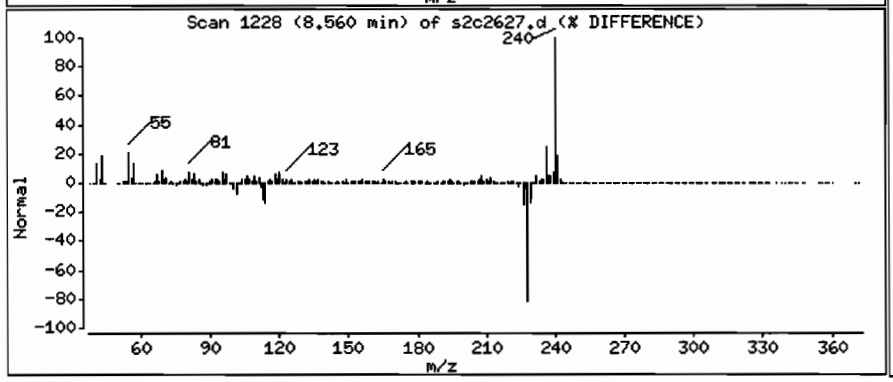

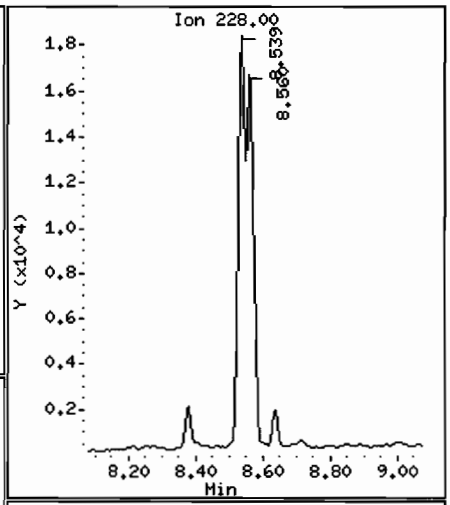

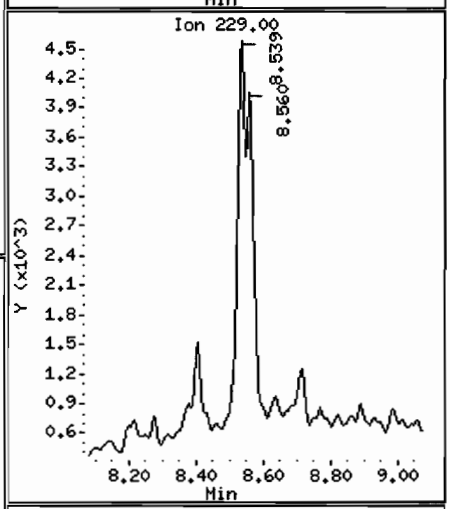

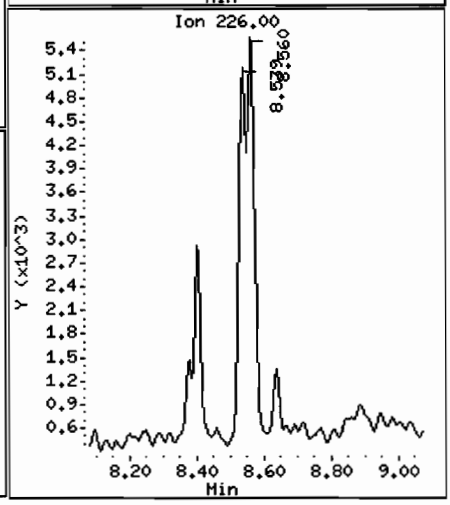

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: |249180005|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 116 ug/Kg

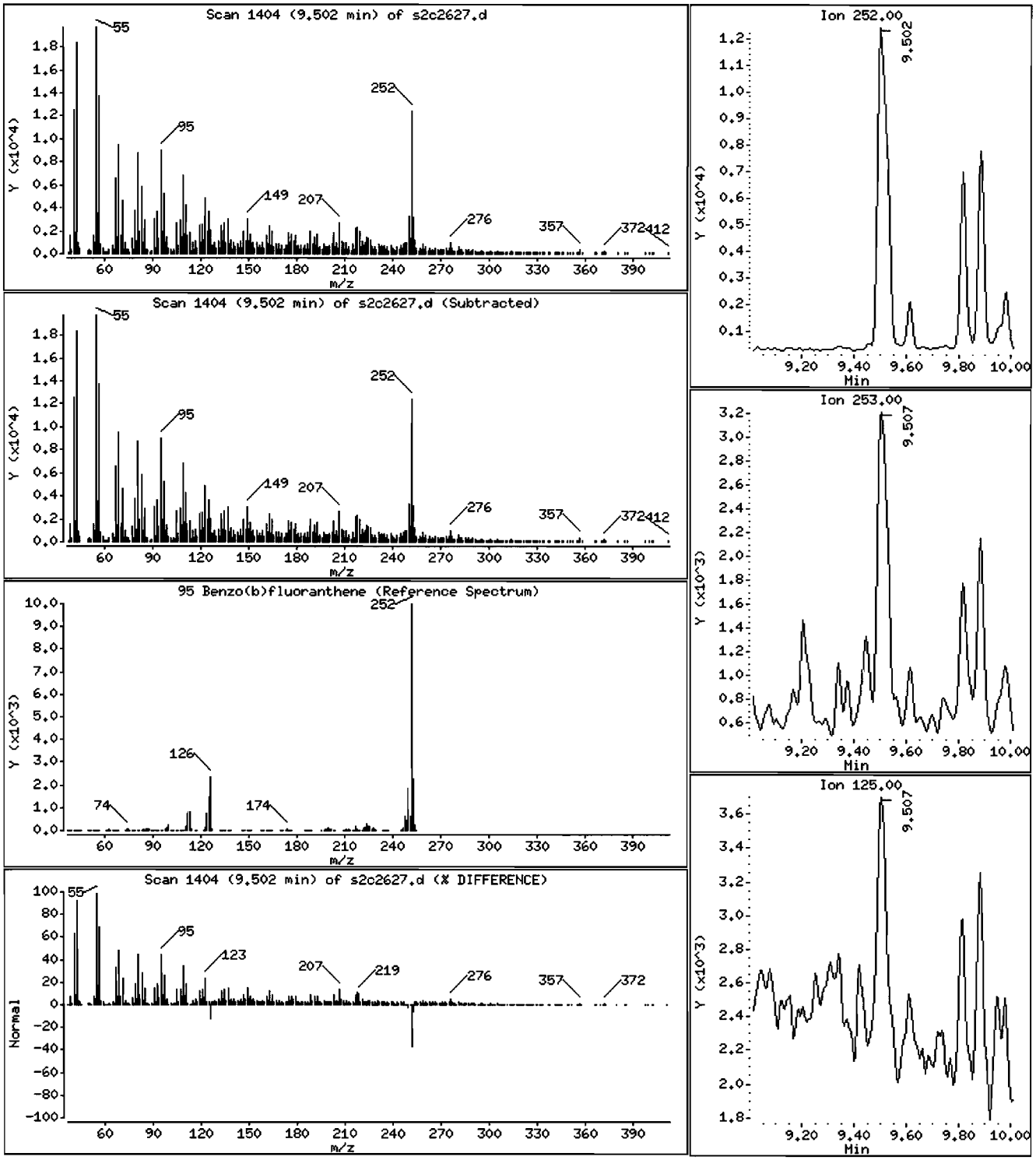

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: |2491800051966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 63.0 ug/Kg

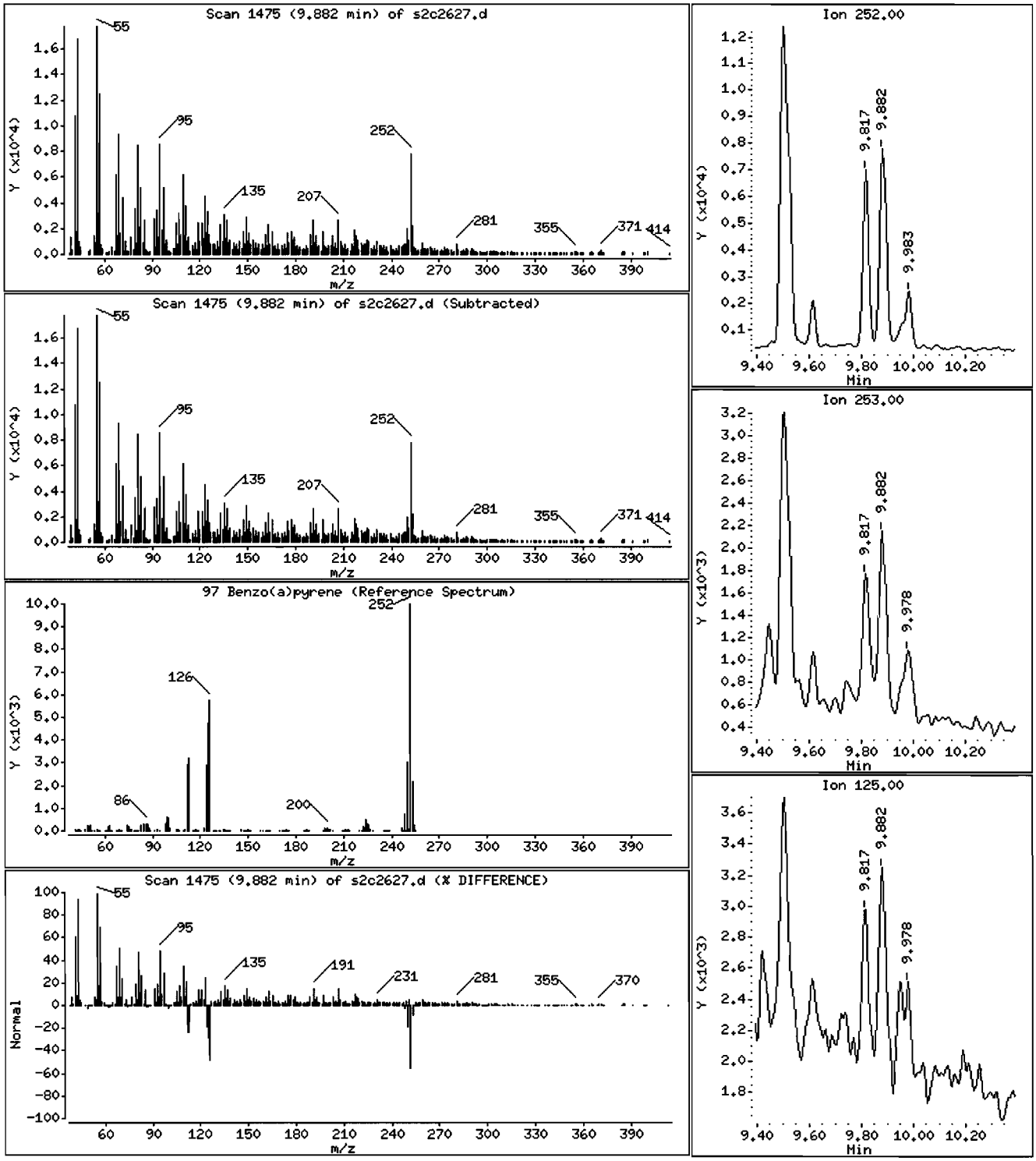

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: |2491800051966675111SVMI11LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 28.8 ug/Kg

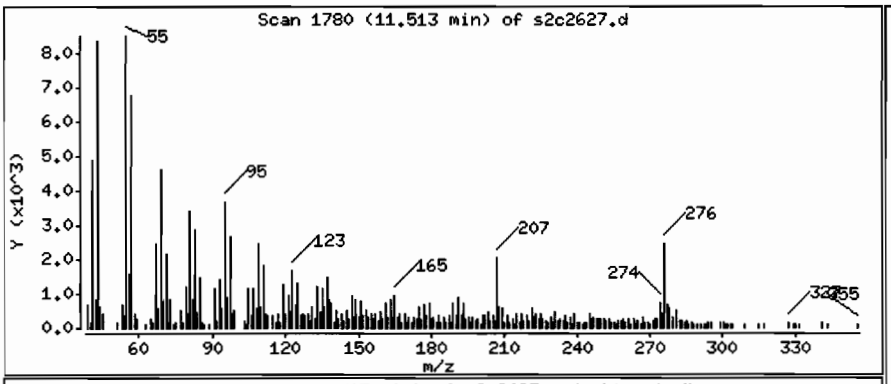

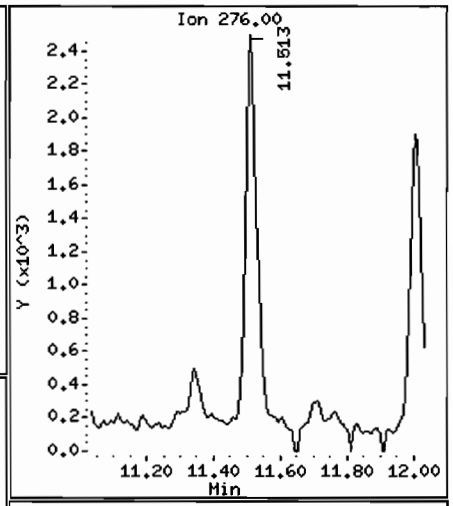

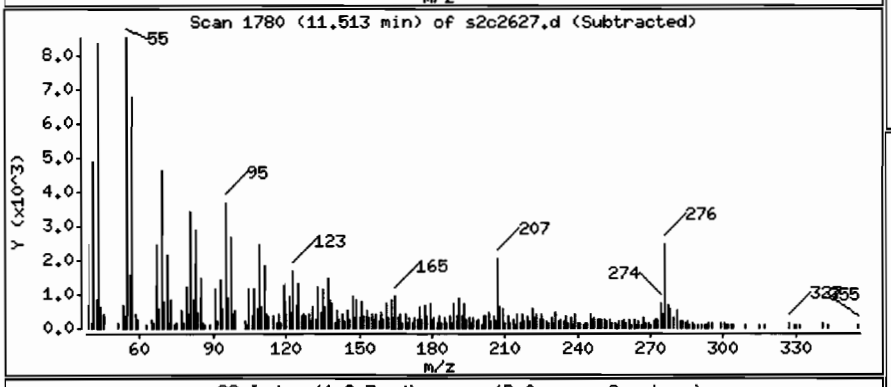

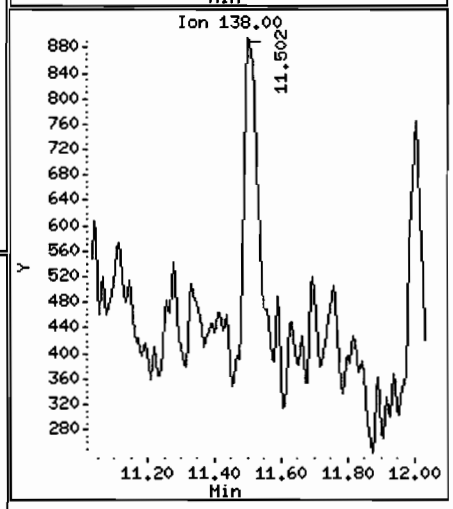

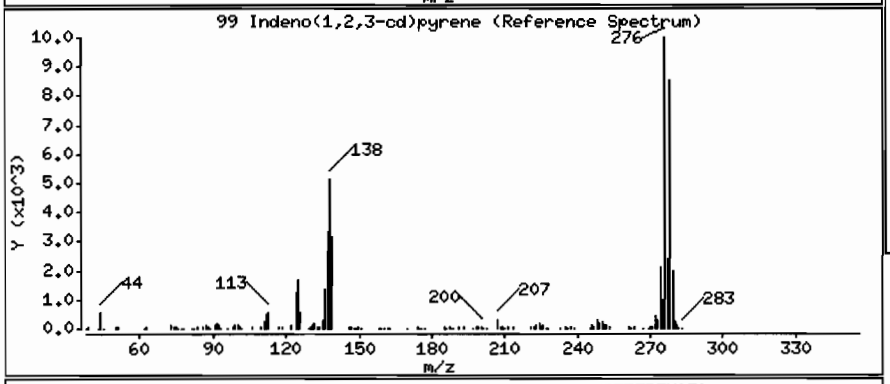

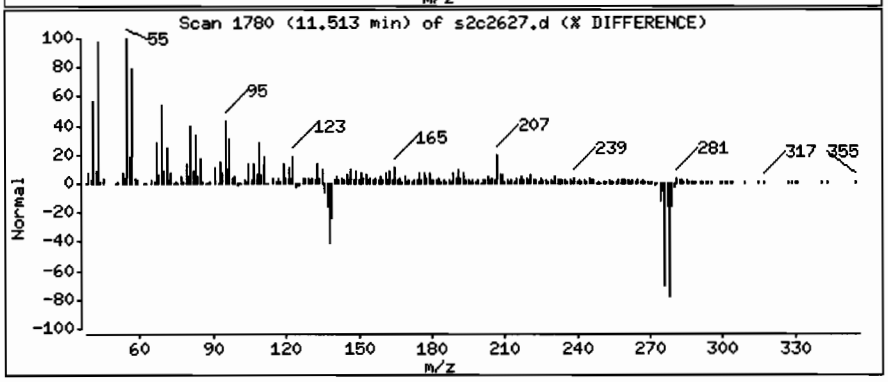

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: |249180005|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 32.6 ug/Kg

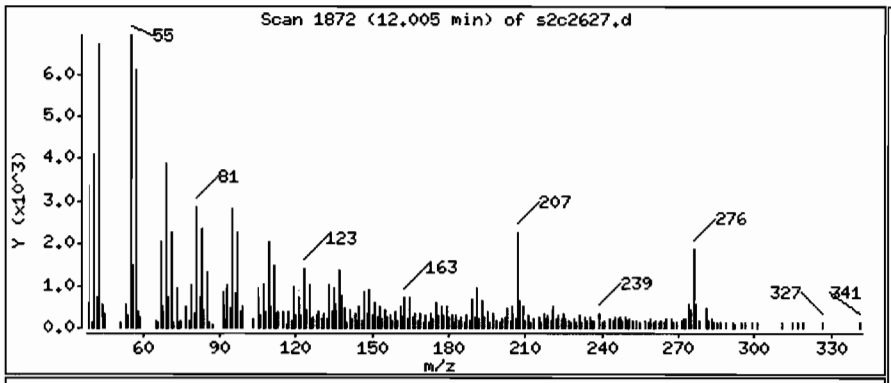

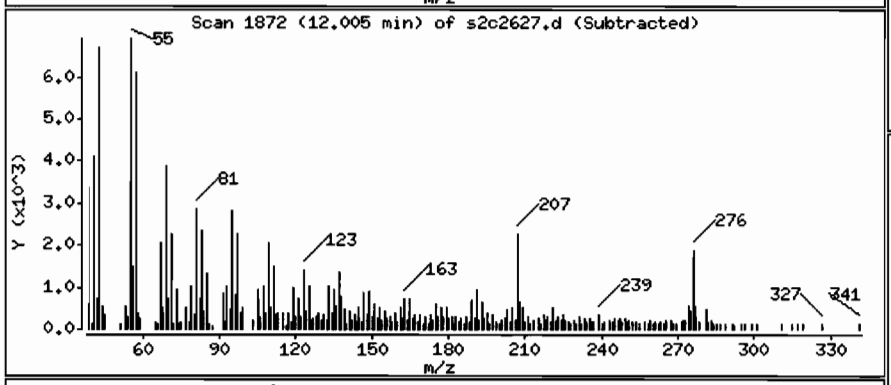

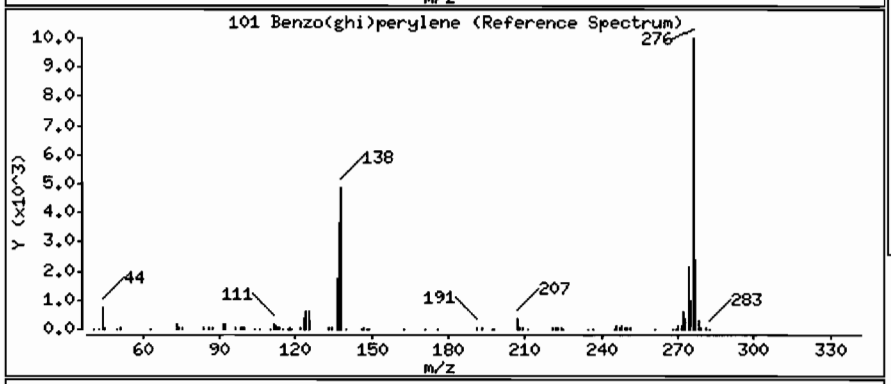

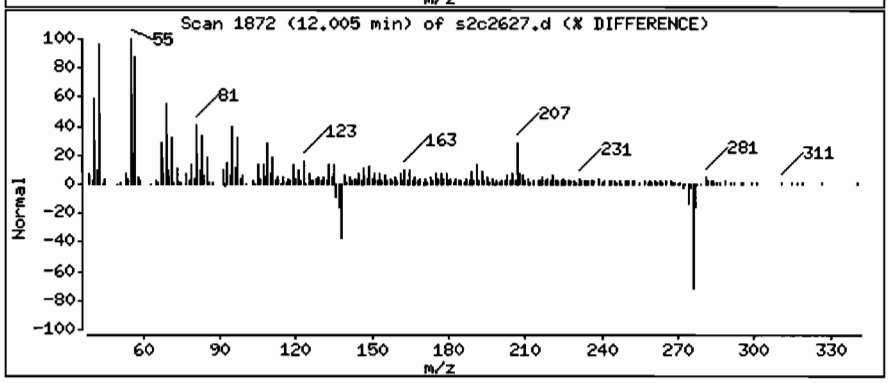

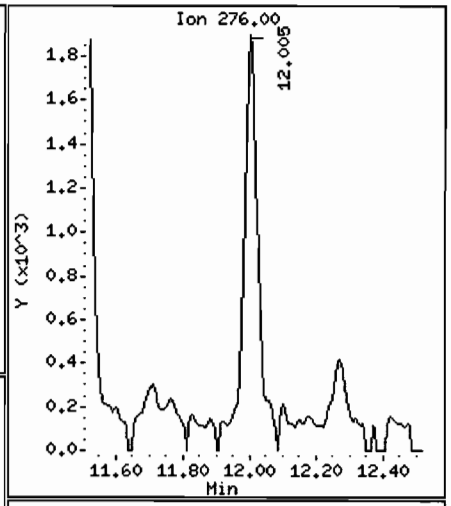

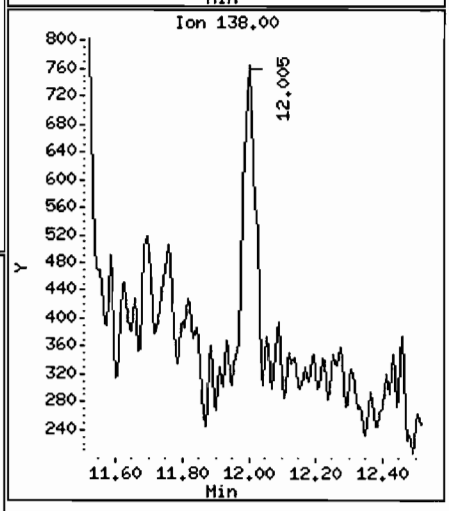

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: |2491800051966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3948	9	C4H7NO2	101

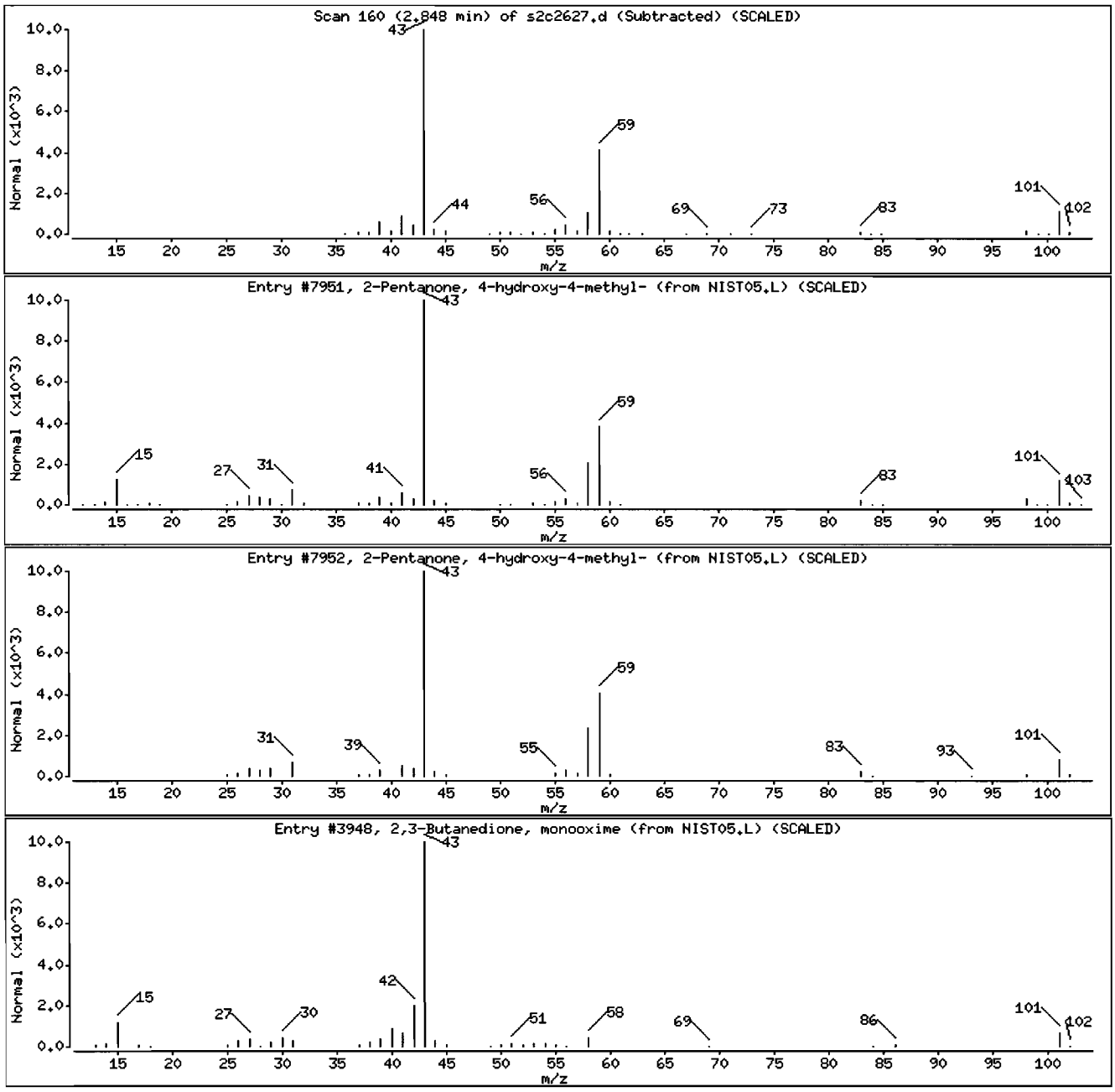

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: |2491800051966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Lup-20(29)-en-3-ol, acetate, (3.beta.)-	1617-68-1	NIST05.L	181939	12	C32H5202	468
3-n-Hexylthiolane, S,S-dioxide	71053-07-1	NIST05.L	59289	10	C10H2002S	204
2,2-Dimethylhex-4-enylamine	133885-74-2	NIST05.L	11531	10	C8H17N	127

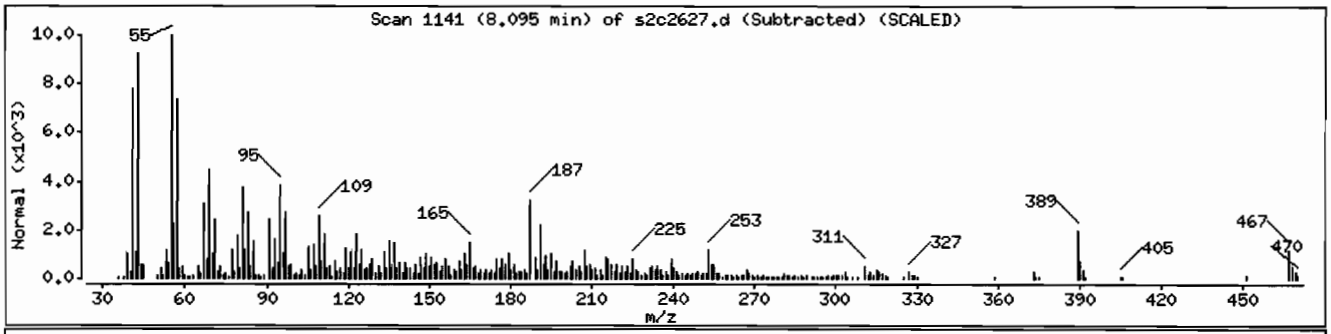

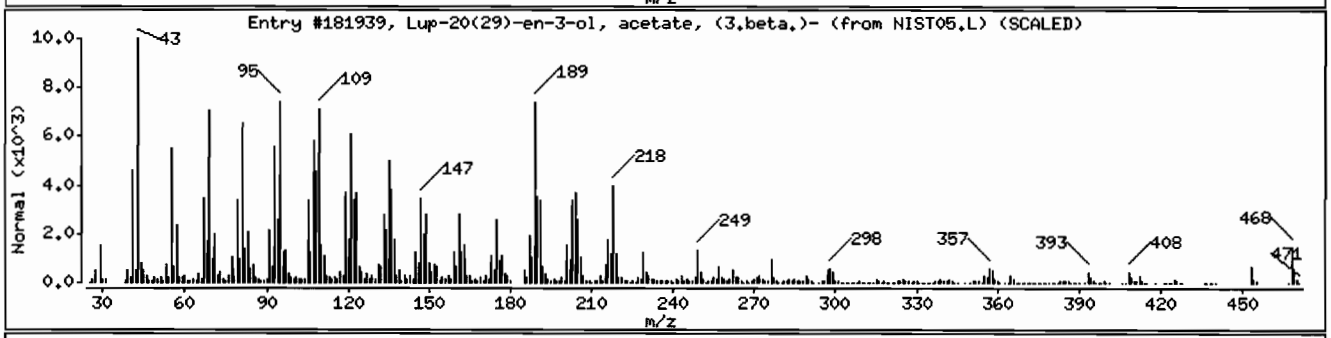

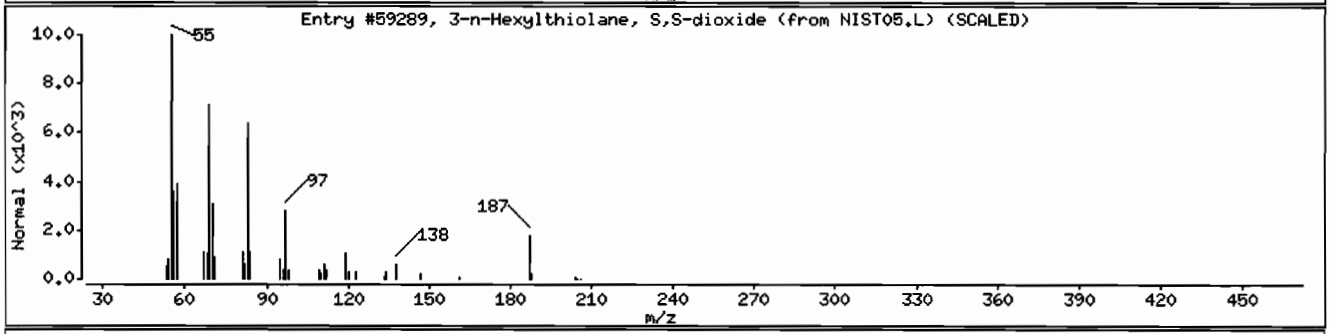

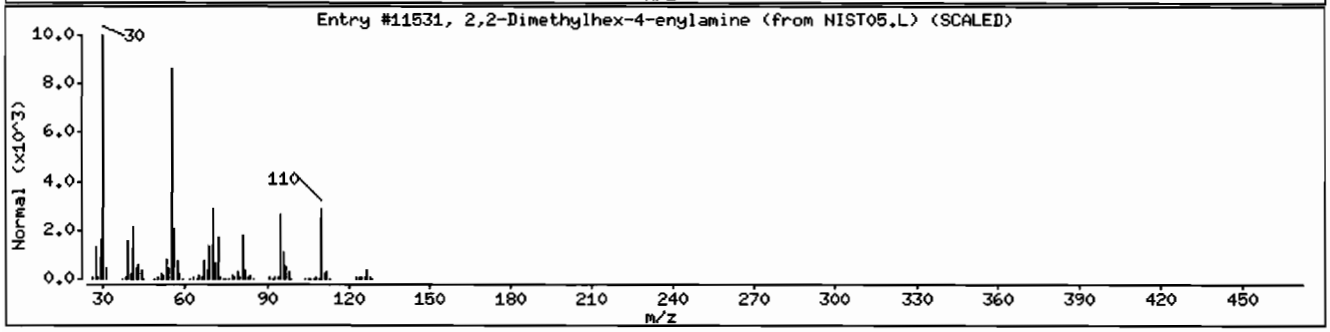

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: |2491800005|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Oxiranepentanoic acid, 3-undecyl-, methy	1041-25-4	NIST05.L	132218	68	C19H3603	312
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	60	C16H2603	266
Ethyl 1-(2-formylethyl)-2-oxocyclooctane-	13347-96-1	NIST05.L	94499	51	C14H2204	254

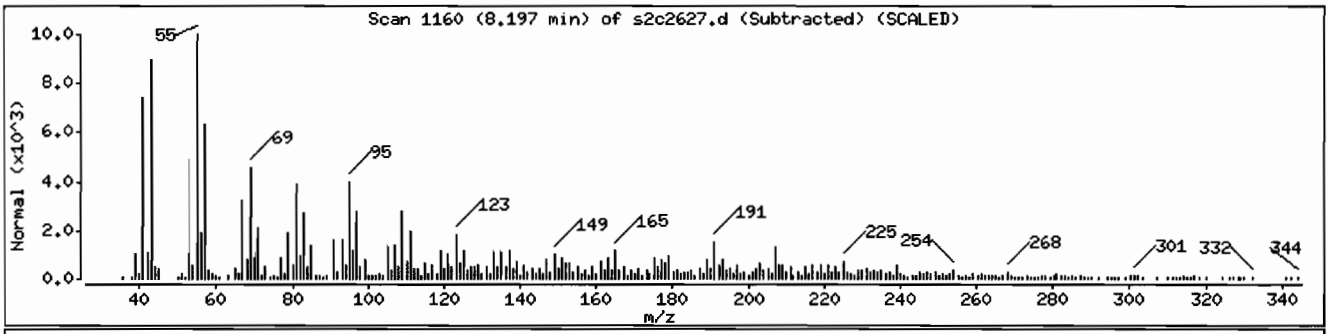

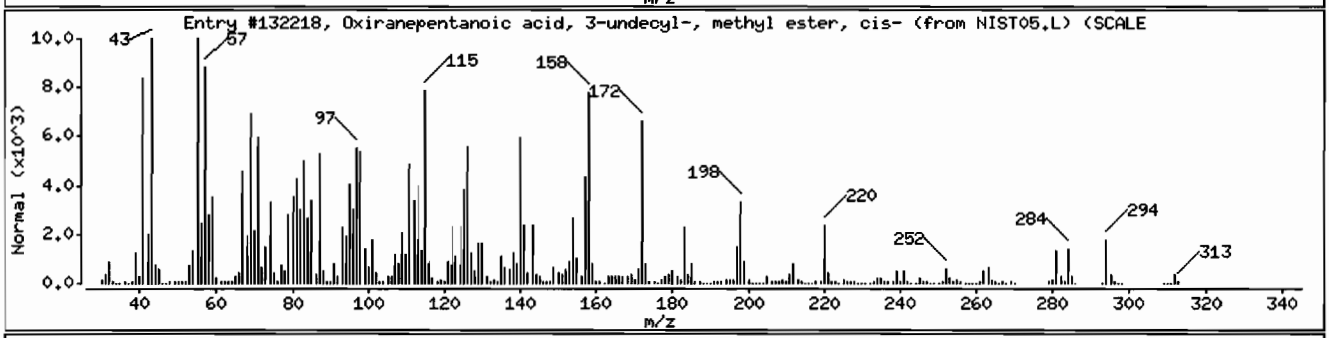

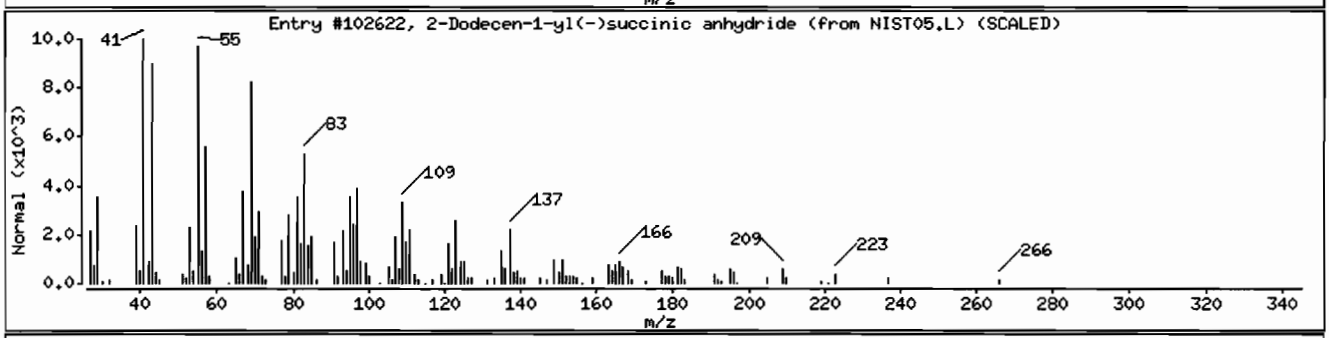

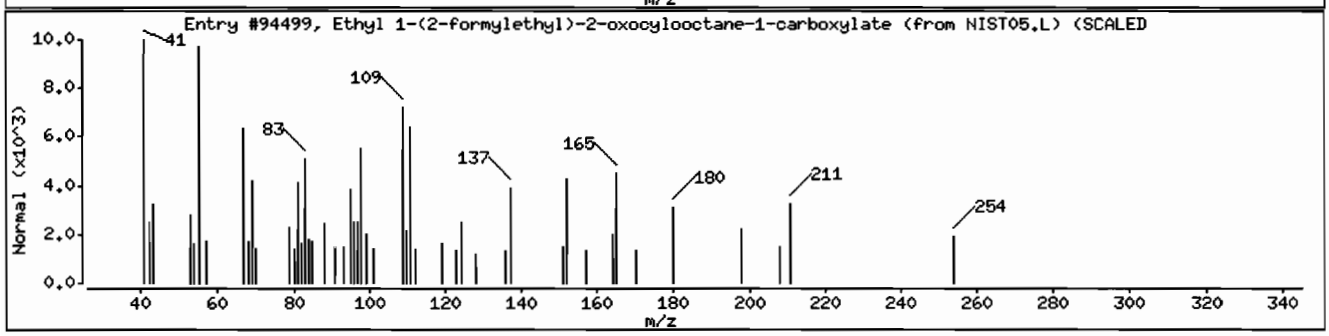

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: 1249180005|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,1-Dimethyl-1-phenyl-4,4,4-trivinyldisi	102105-78-2	NIST05.L	106868	47	C16H24Si2	272
1-Phenylthio-1-acetoxy-1-methyl-2-propan	29943-31-5	NIST05.L	83463	30	C12H14O3S	238
Oxirane, 2-(4-methoxyphenyl)-3-phenyl-	5814-81-3	NIST05.L	75973	25	C15H14O2	226

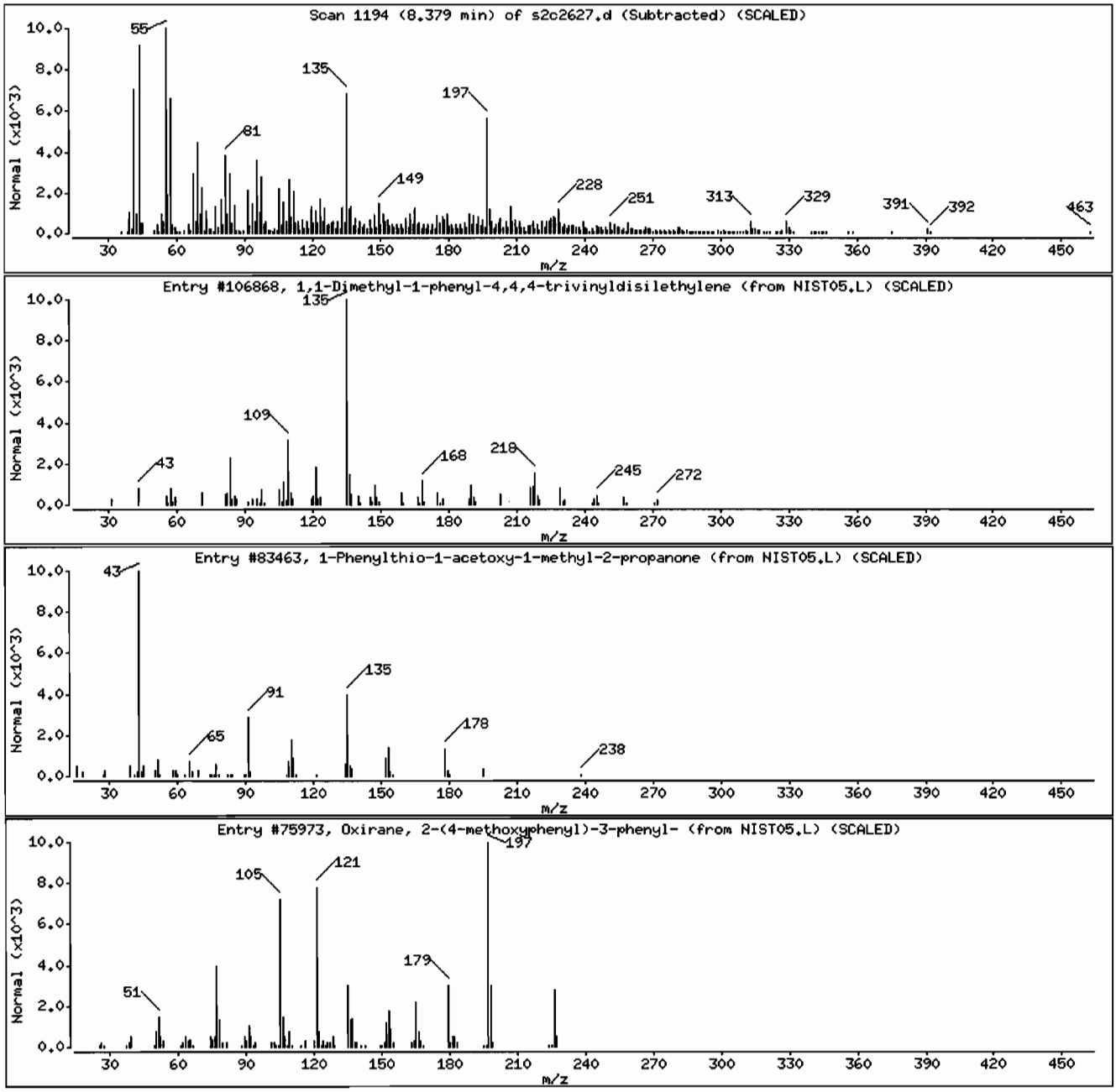

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435 Instrument: MSD2.i

Sample Info: |2491800005|966675|1|SVHI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,4,7,14-Tetramethyl-4-vinyl-tricyclo[5,	1000193-31-2	NIST05.L	118746	49	C20H340	290
2-(2-Isopropyl-5-methylphenoxy)-N'-(5-me	339108-39-3	NIST05.L	133307	45	C18H22N2O3	314
1,2-Benzenedicarboxylic acid, mono(2-eth	4376-20-9	NIST05.L	110587	42	C16H2204	278

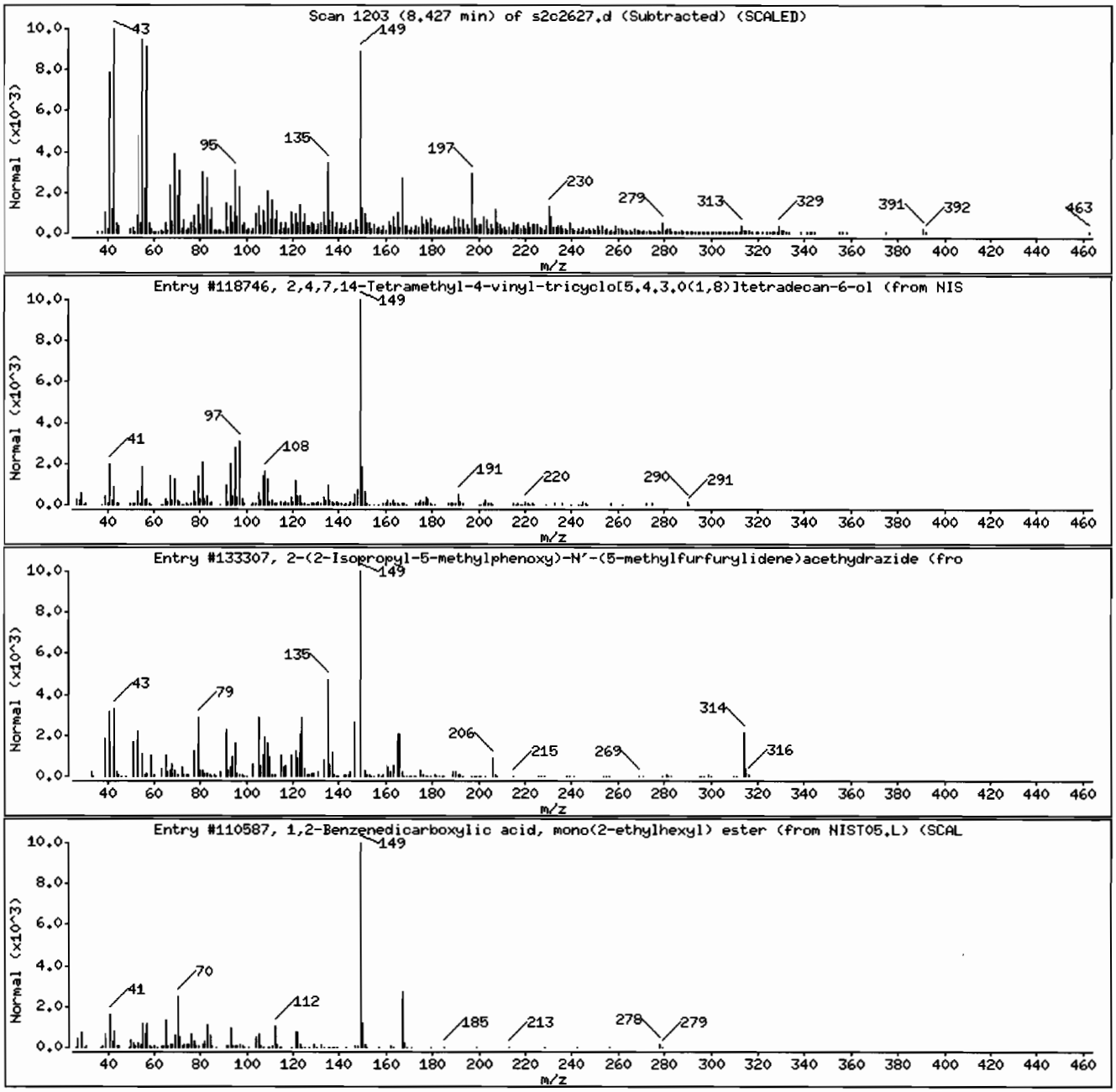

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Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: |249180005|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Oxiranepentanoic acid, 3-undecyl-, methy	1041-25-4	NIST05.L	132218	68	C19H36O3	312
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102623	53	C16H26O3	266
Pentadec-7-ene, 7-bromomethyl-	1000259-58-5	NIST05.L	125926	42	C16H31Br	302

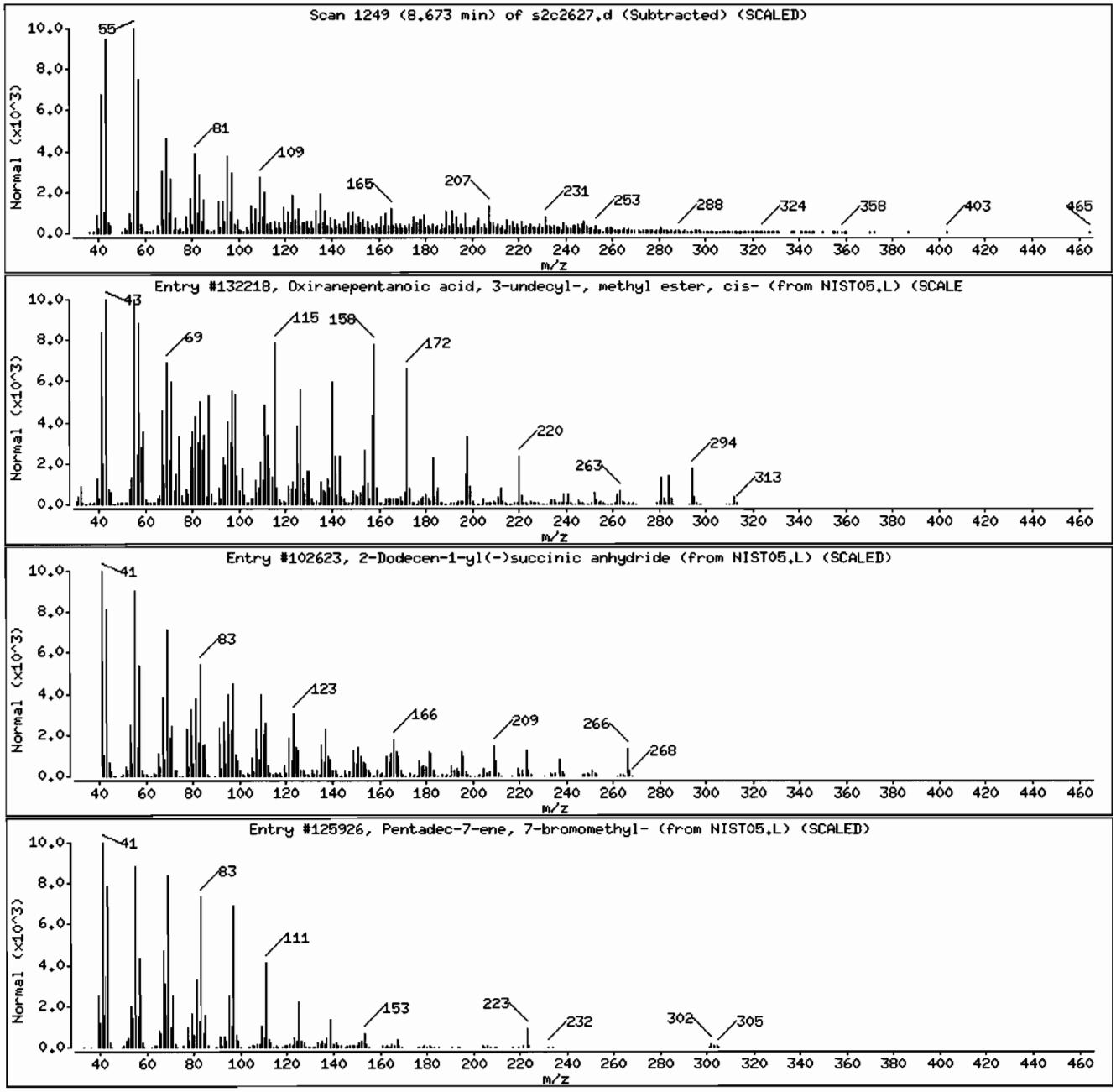

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435 Instrument: MSD2.i

Sample Info: |249180005|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,14-Docosanediol	4452-45-3	NIST05.L	148951	81	C22H4602	342
9-Methyl-Z-10-tetradecen-1-ol acetate	1000130-99-4	NIST05.L	104145	60	C17H3202	268
Oxiranepentanoic acid, 3-undecyl-, methy	1041-25-4	NIST05.L	132218	59	C19H3603	312

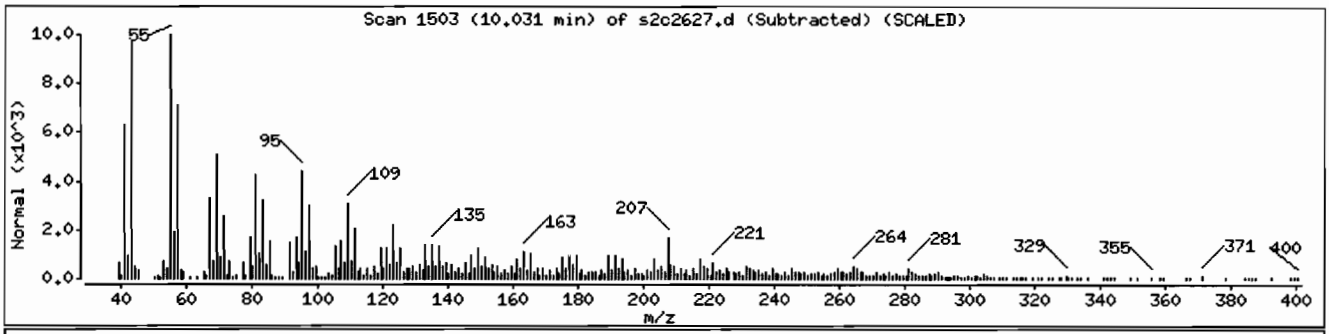

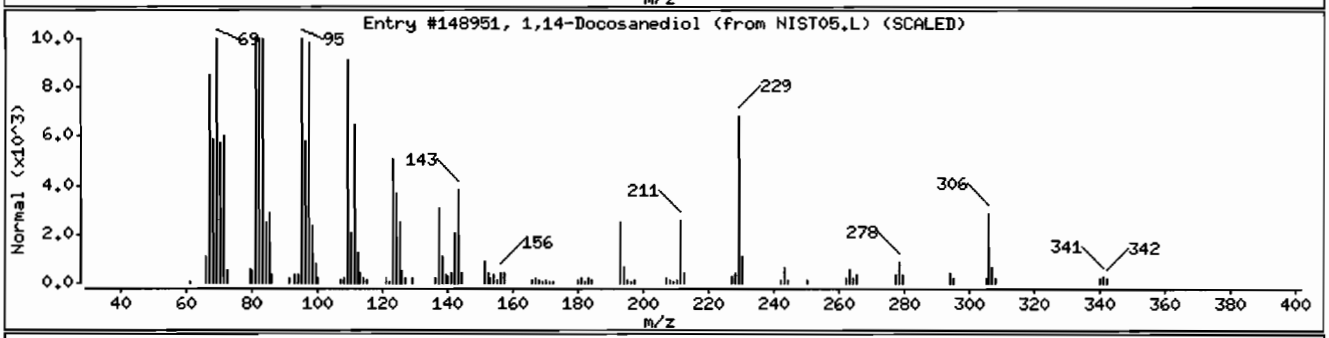

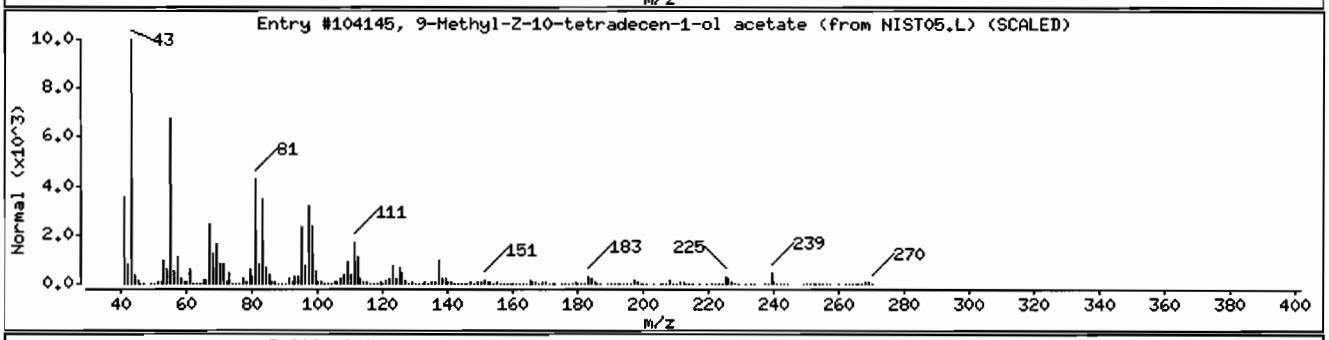

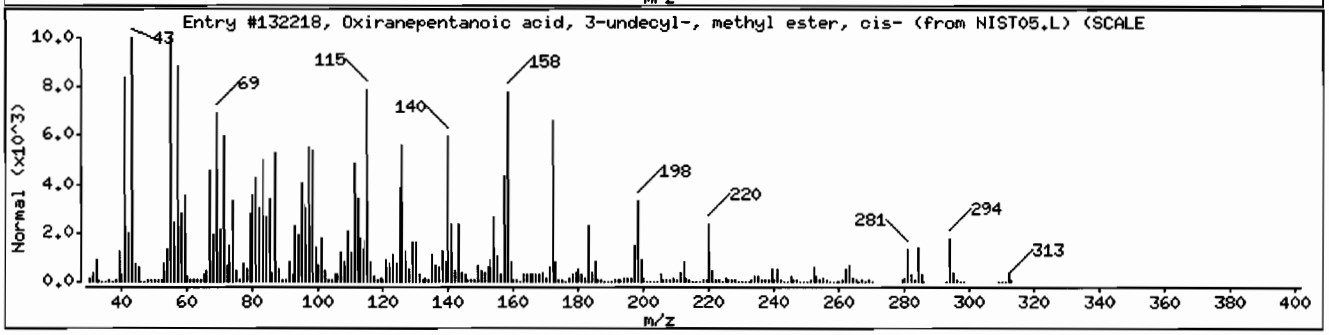

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: 1249180005|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	92	C19H36	264
Cholest-23-ene, (5.beta.)-	30658-62-9	NIST05.L	161558	86	C27H46	370
2-(4a,8-Dimethyl-6-oxo-1,2,3,4,4a,5,6,8a	1000190-21-8	NIST05.L	81139	70	C15H2202	234

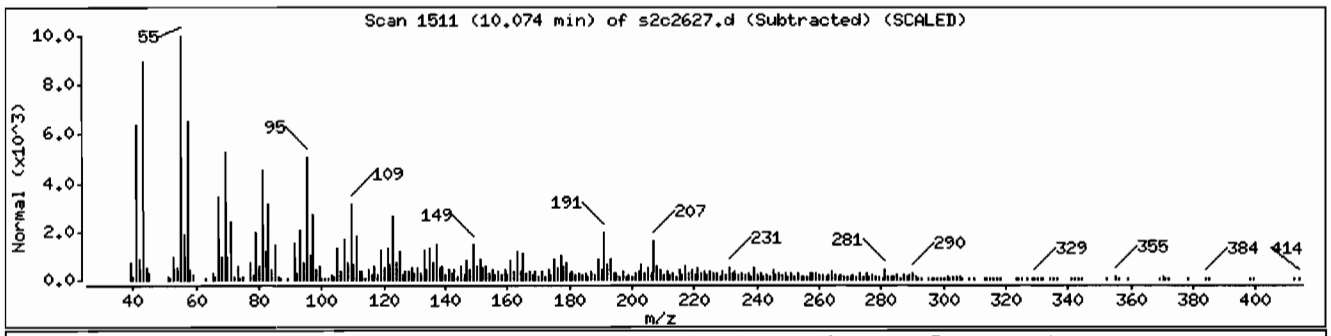

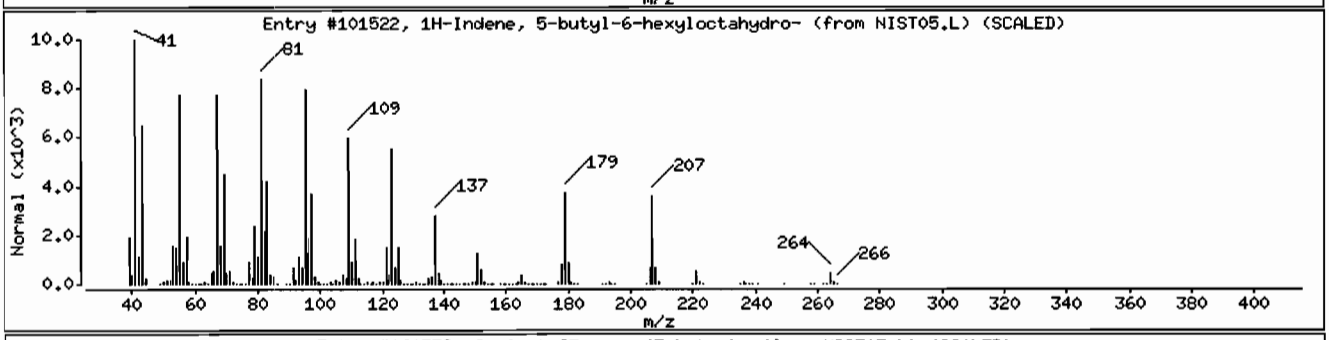

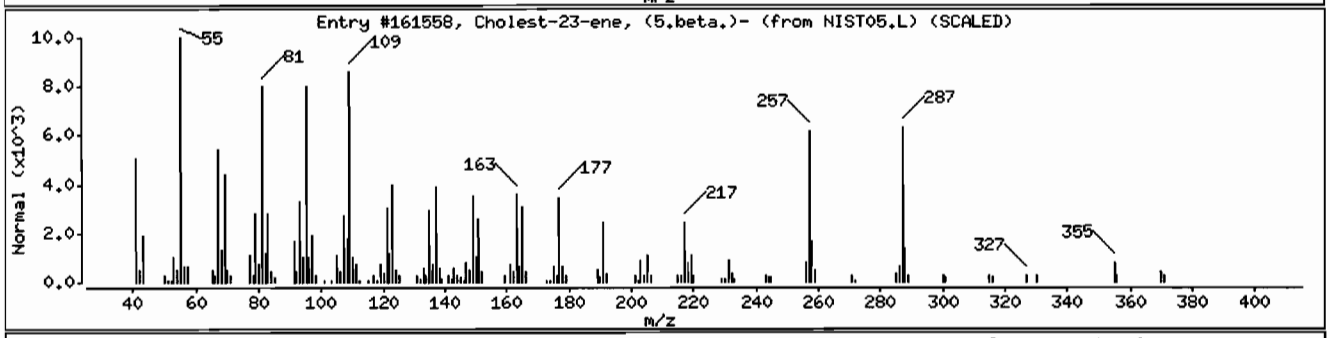

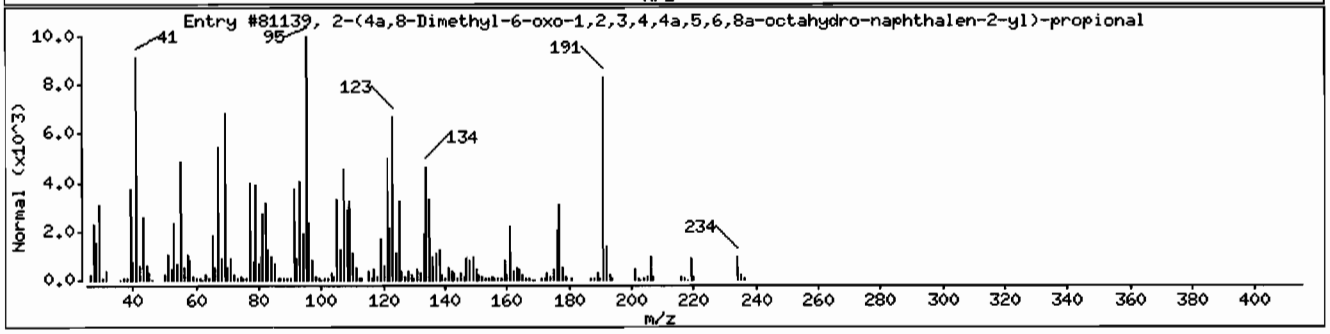

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435 Instrument: MSD2.i

Sample Info: |249180005|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	83	C19H36	264
9-Methyl-Z-10-tetradecen-1-ol acetate	1000130-99-4	NIST05.L	104145	60	C17H3202	268
Oxiranepentanoic acid, 3-undecyl-, methy	1041-25-4	NIST05.L	132218	59	C19H3603	312

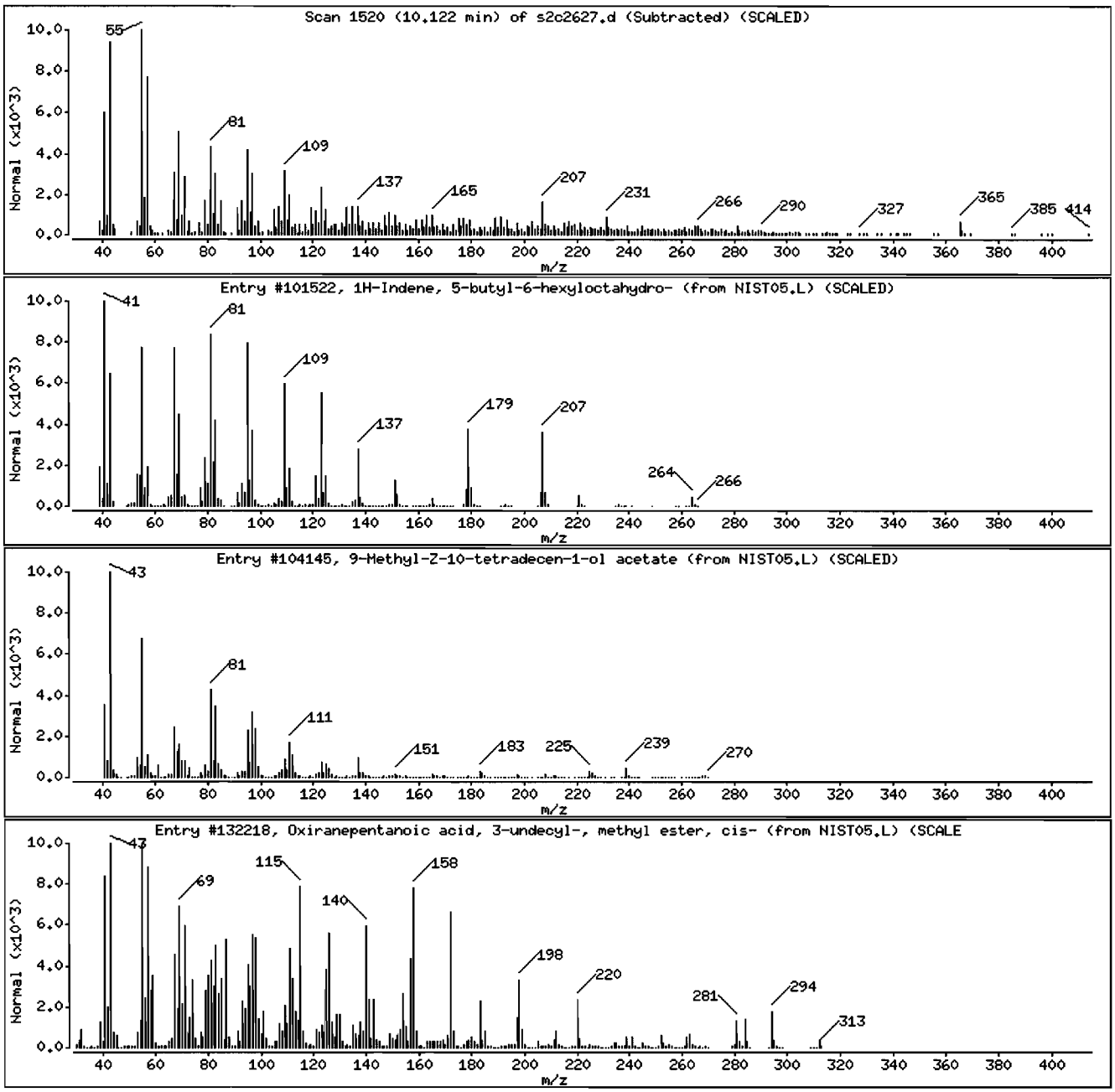

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: |2491800051966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indene, 2-butyl-5-hexyloctahydro-	55044-33-2	NIST05.L	101525	78	C19H36	264
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	58	C16H26O3	266
Spiro[4.5]decan-7-one, 1,8-dimethyl-8,9-	61050-91-7	NIST05.L	82504	51	C15H24O2	236

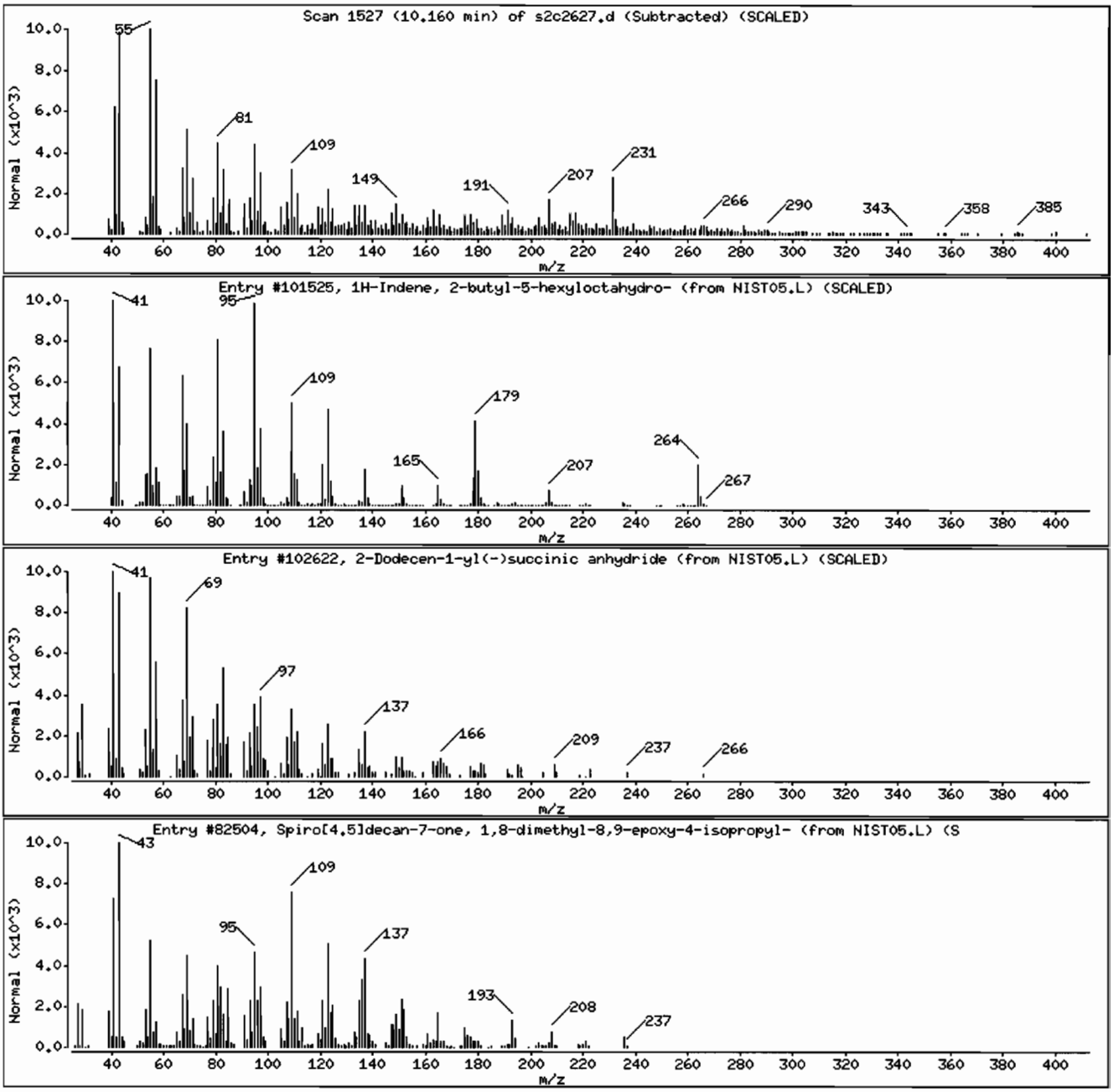

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435 Instrument: MSD2.i

Sample Info: 1249180005|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	49	C16H26O3	266
1-Bromo-3-(2-bromoethyl)-nonane	70928-49-3	NIST05.L	131673	46	C11H22Br2	312
2-Hydroxy-2,4,4-trimethyl-3-(3-methylbut	1000191-17-4	NIST05.L	72780	45	C14H22O2	222

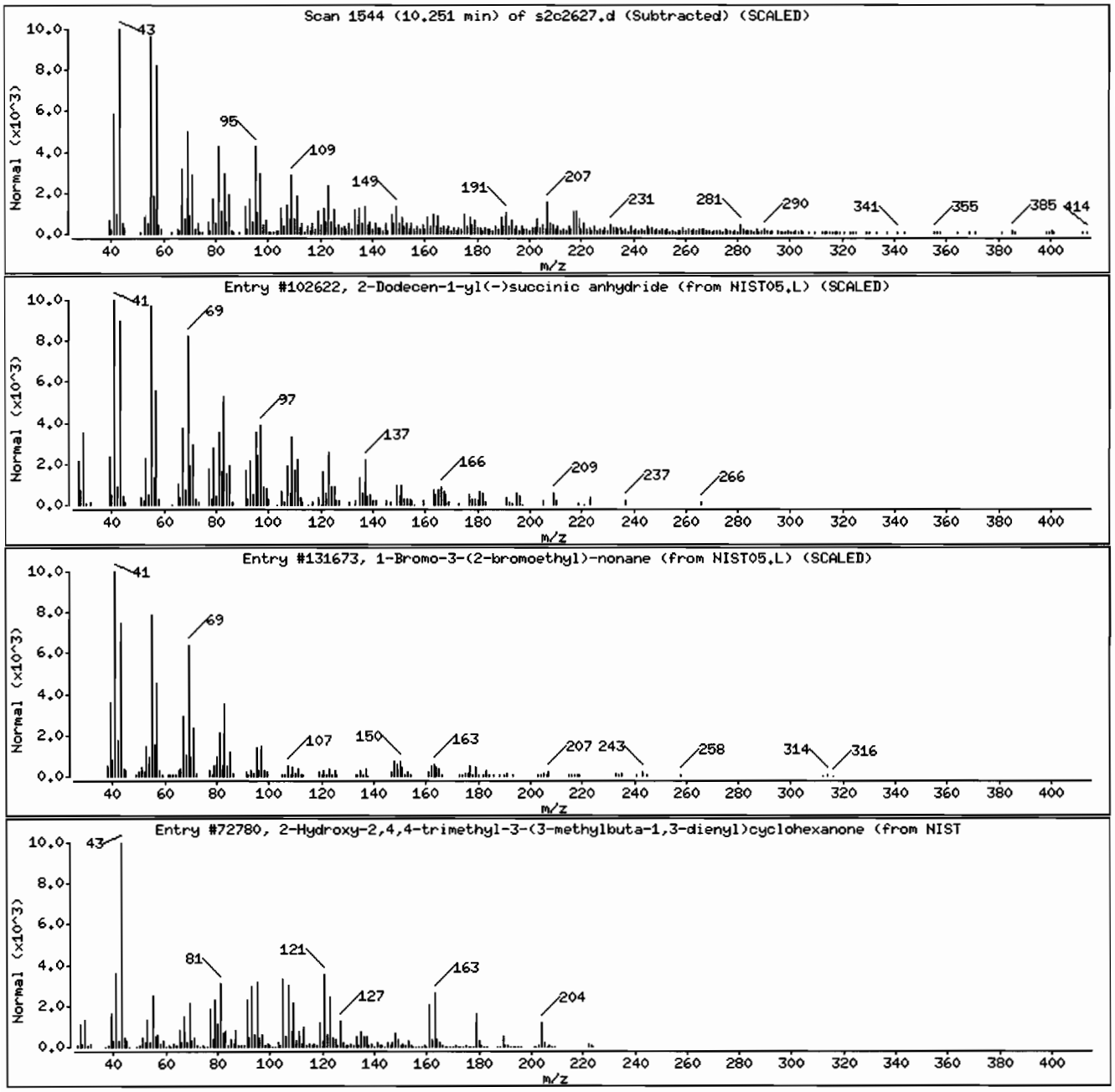

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Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: I2491800051966675111SVMI11LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	55	C16H2603	266
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	52	C18H3402	282
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	46	C19H36	264

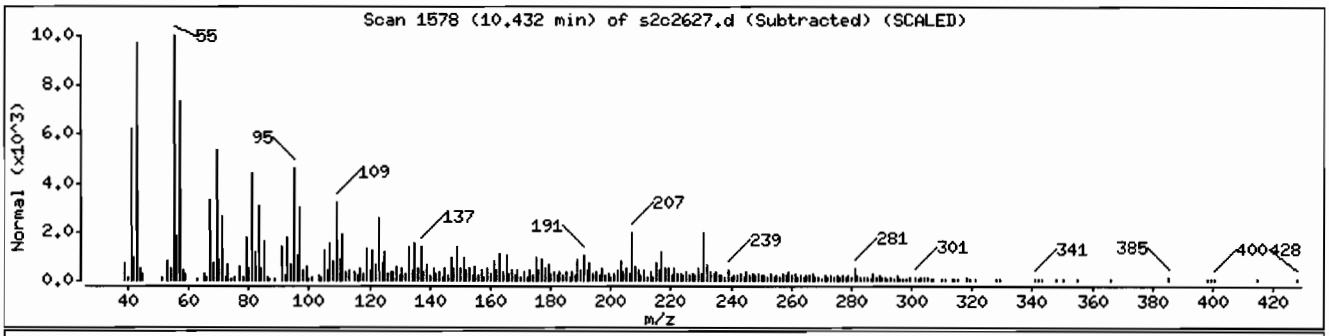

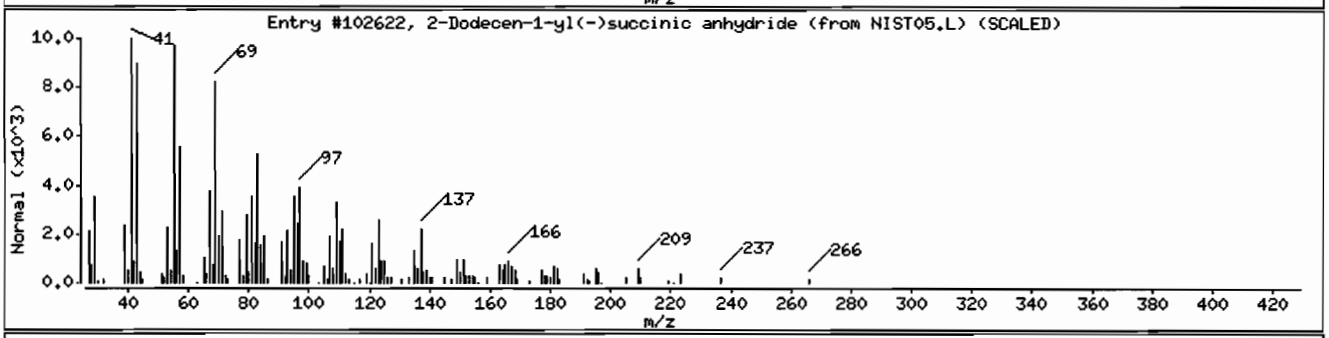

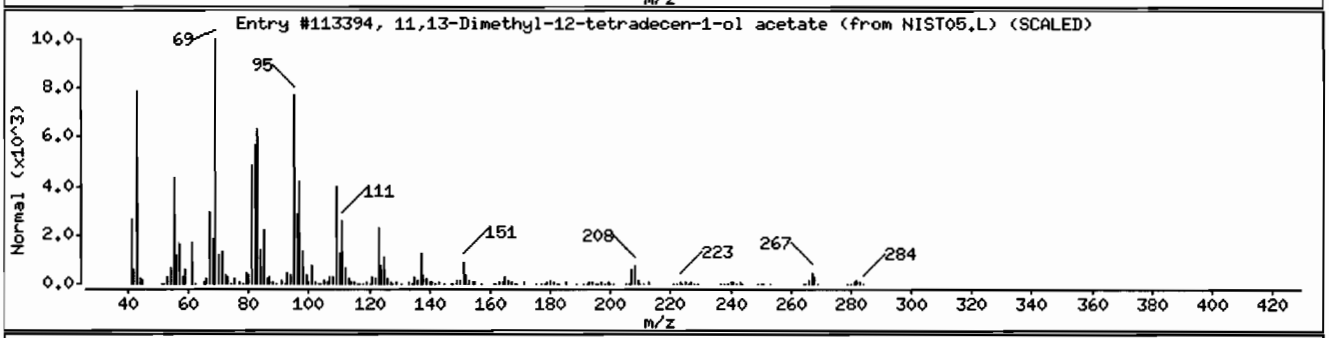

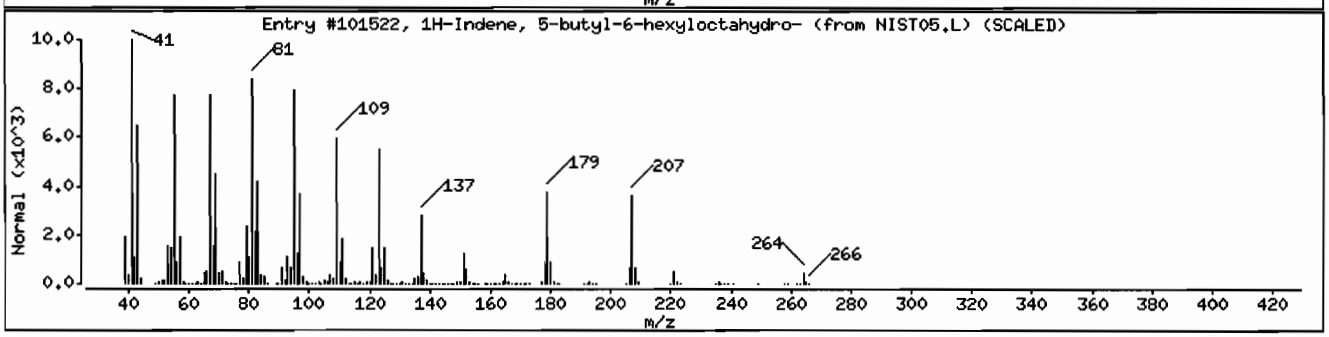

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Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: |2491800051966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cholestan-3-one, 4,4-dimethyl-, (5.alpha	2097-85-0	NIST05.L	174416	91	C29H50O	414
1H-Indene, 2-butyl-5-hexyloctahydro-	55044-33-2	NIST05.L	101525	70	C19H36	264
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	60	C19H36	264

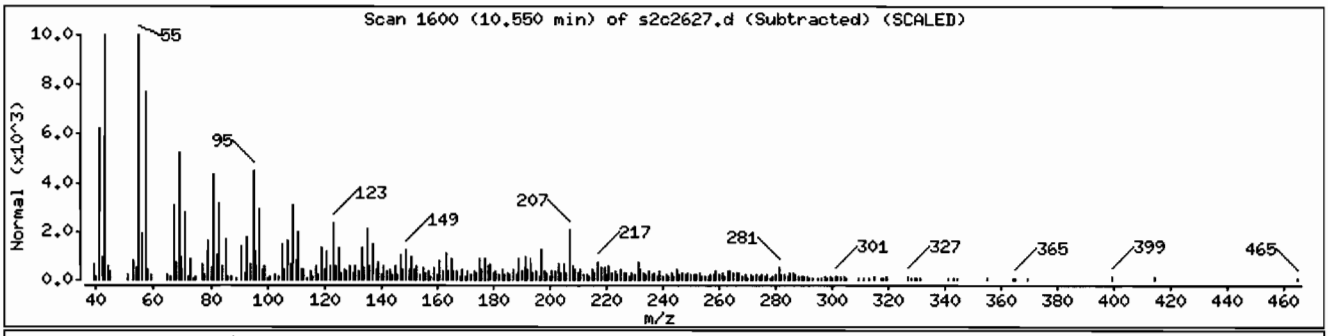

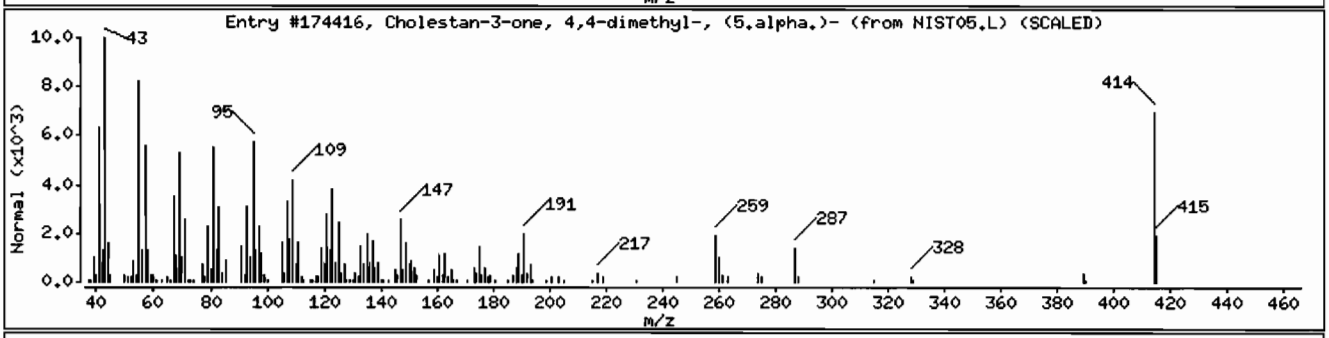

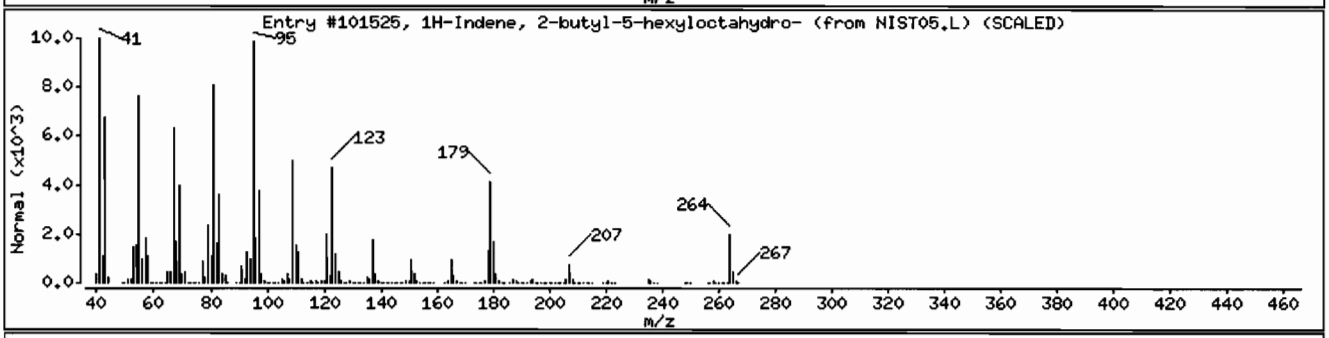

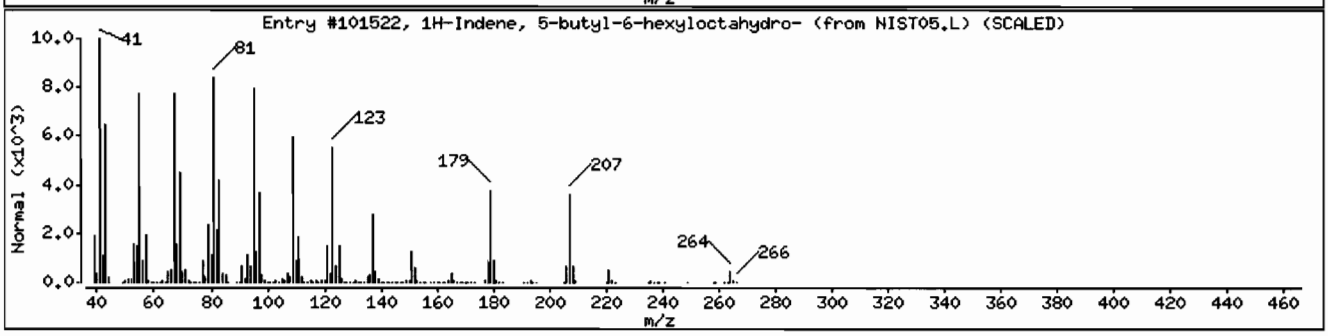

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58 /

Client ID: RE46-10-13435 Instrument: MSD2.i

Sample Info: 1249180005|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
(1R,2S,8R,8Ar)-8-acetoxy-1-(2-hydroxyeth	1000298-98-4	NIST05.L	122239	58	C18H3203	296
Ledol	577-27-5	NIST05.L	72882	44	C15H260	222
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	42	C16H2603	266

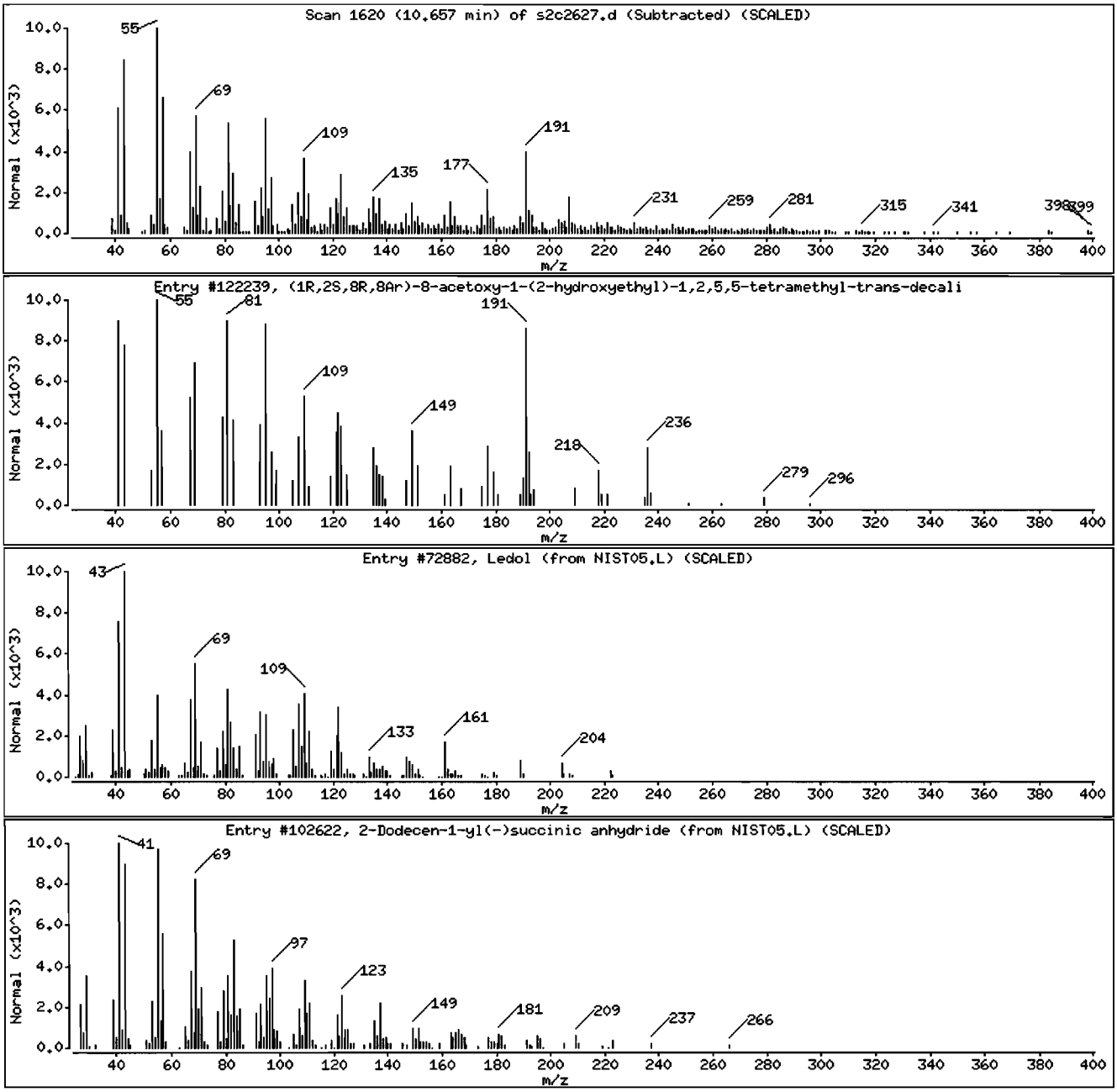

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Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: 1249180005196667511SVMI1ILANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cholestan-3-one, (5.beta.)-	601-53-6	NIST05.L	167292	95	C27H460	386
Cholestan-3-one, (5.beta.)-	601-53-6	NIST05.L	167291	89	C27H460	386
(1R,2R,8S,8Ar)-8-hydroxy-1-(2-hydroxyeth	1000298-98-6	NIST05.L	94834	86	C16H3002	254

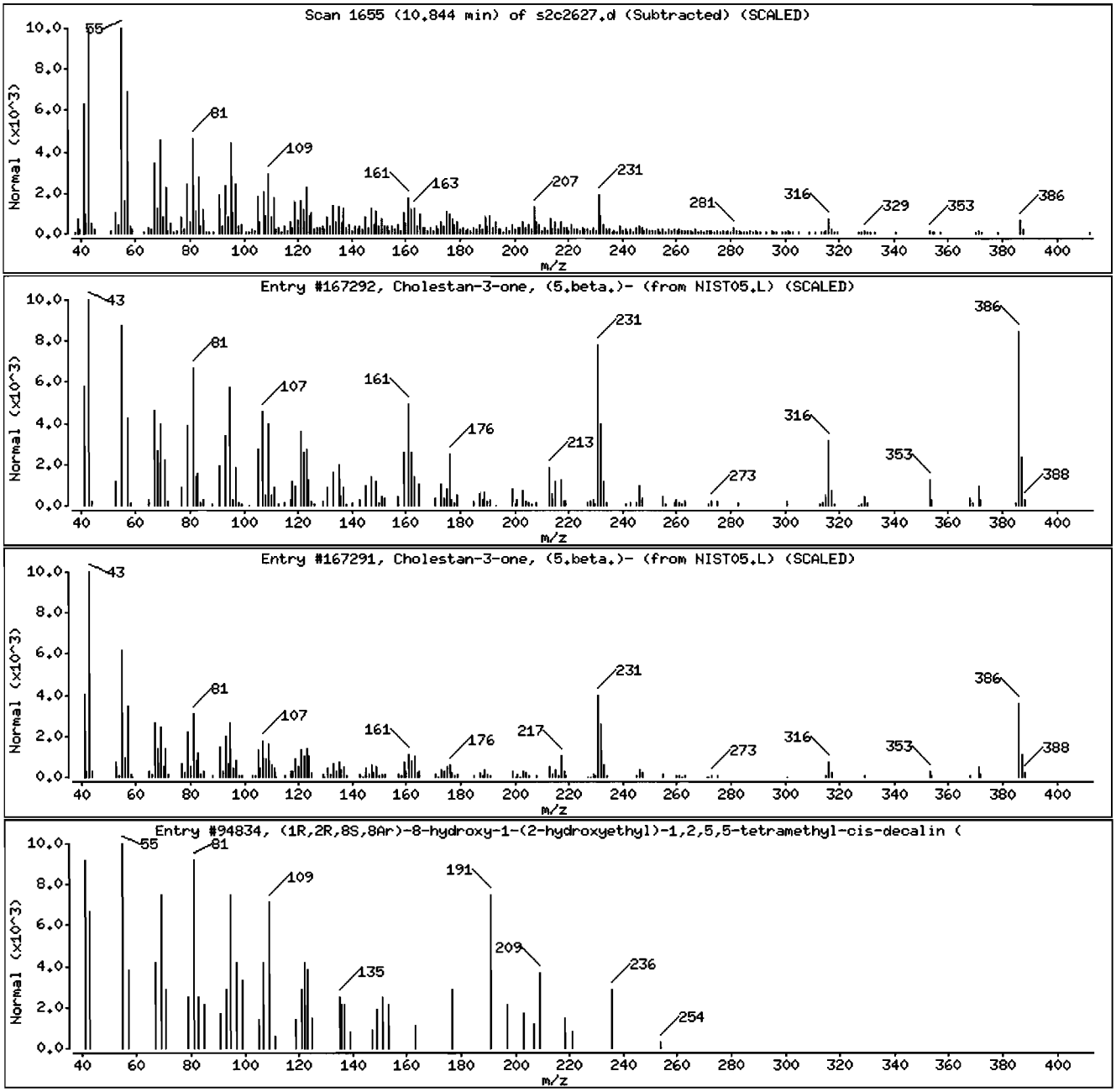

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435

Instrument: MSD2.i

Sample Info: |2491800051966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
9,9'-Biphenanthrene, octacosahydro-	55334-18-4	NIST05.L	165937	58	C28H46	382
1H-Indene, 2-butyl-5-hexyloctahydro-	55044-33-2	NIST05.L	101523	58	C19H36	264
1H-Indene, 2-butyl-5-hexyloctahydro-	55044-33-2	NIST05.L	101525	58	C19H36	264

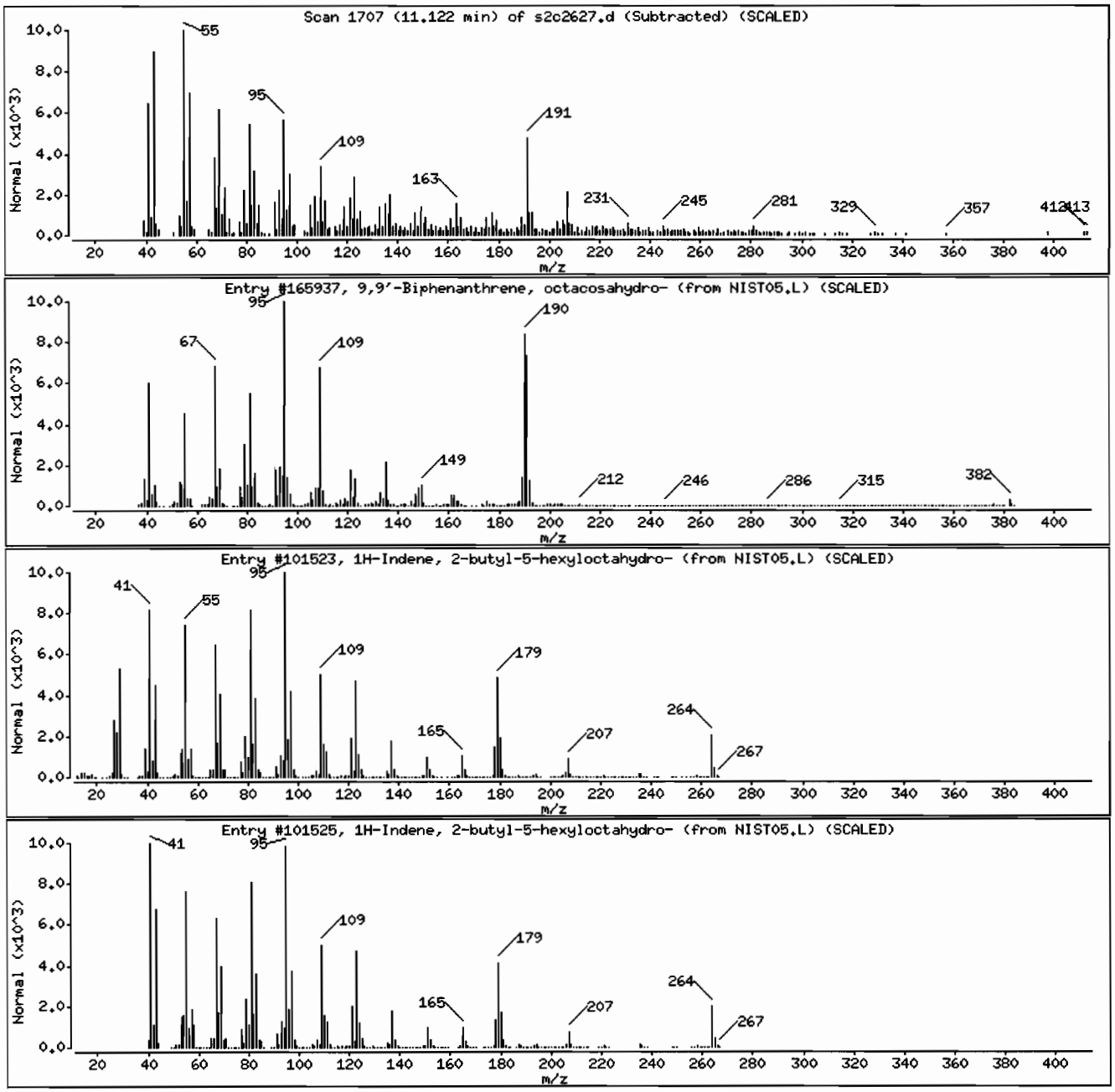

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435 Instrument: MSD2.i

Sample Info: 1249180005|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	30	C19H36	264
Tetradecanoic acid, 2-oxo-, methyl ester	55682-82-1	NIST05.L	96098	25	C15H28O3	256
10-Methyltricyclo[4.3.1.1(2,5)]undecan-1	1000187-06-1	NIST05.L	43091	25	C12H20O	180

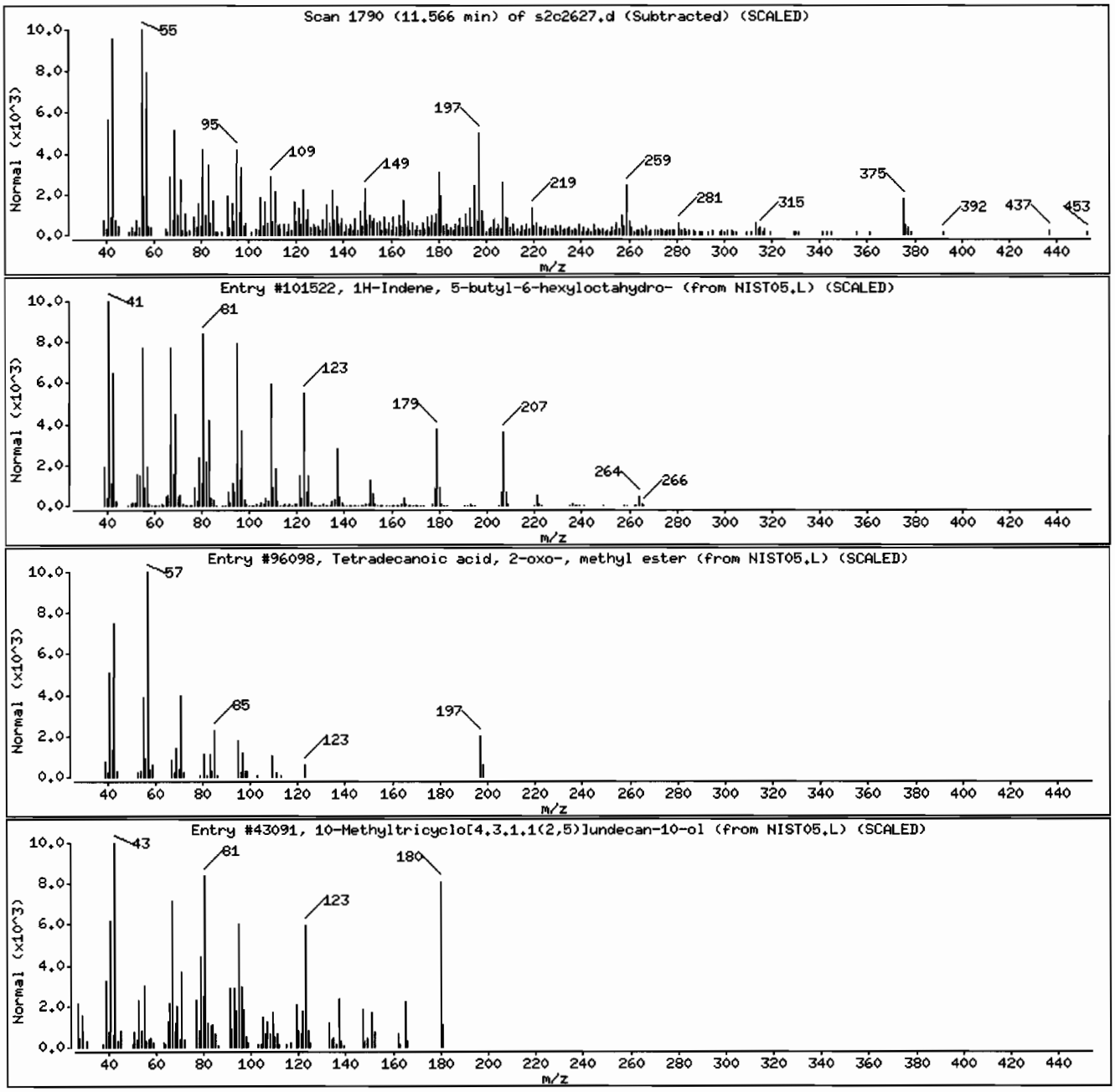

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435 Instrument: MSD2.i

Sample Info: 1249180005|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	60	C16H2603	266
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	53	C19H36	264
2,5-Furandione, 3-dodecyl-	59426-46-9	NIST05.L	102620	53	C16H2603	266

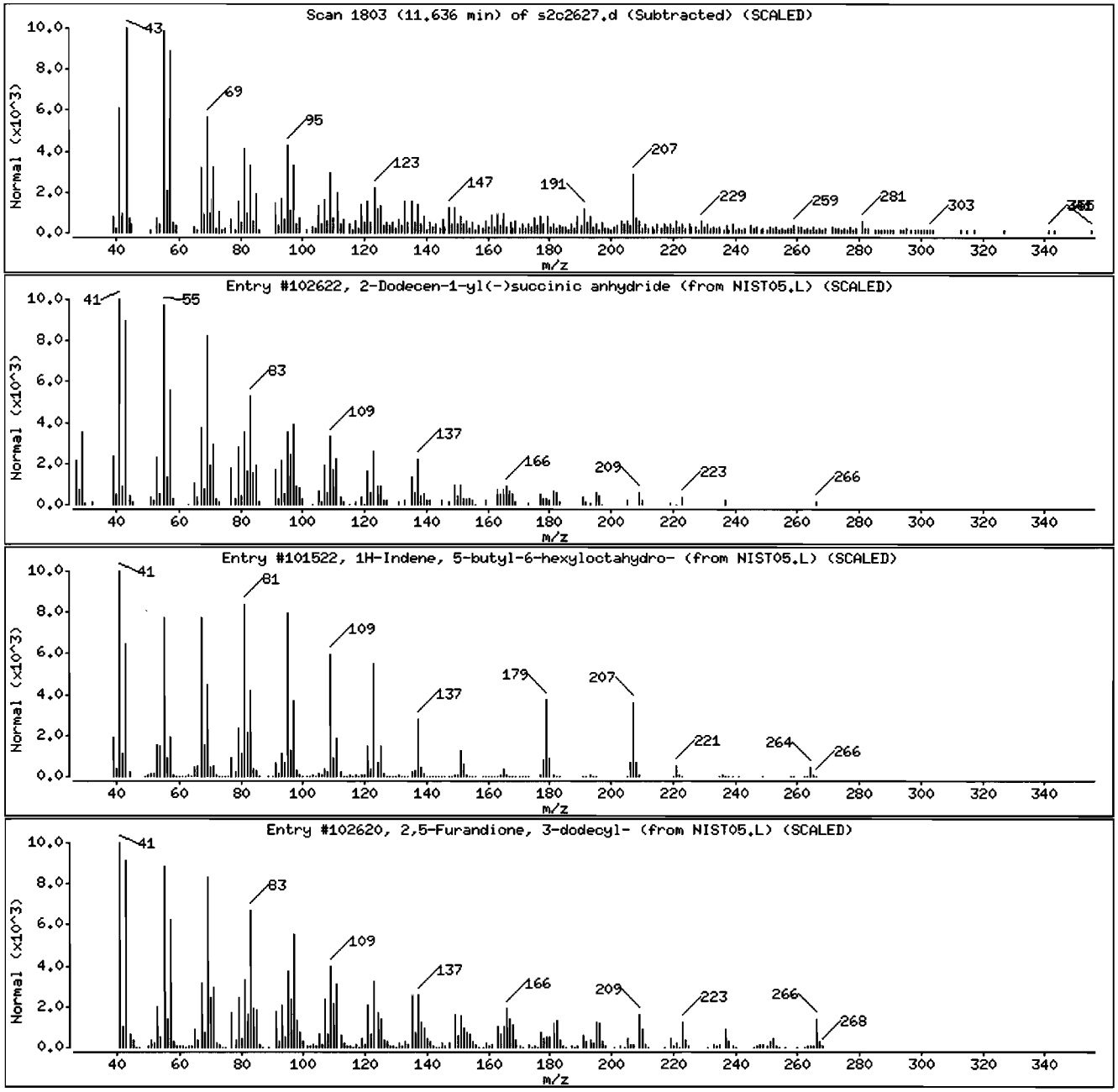

Data File: /chem/MSD2.i/s032610.b/s2c2627.d

Date : 26-MAR-2010 23:58

Client ID: RE46-10-13435 Instrument: MSD2.i

Sample Info: |2491800051966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	56	C16H2603	266
2,5-Furandione, 3-dodecyl-	59426-46-9	NIST05.L	102620	55	C16H2603	266
3-Hexen-2-one, 3-cyclohexyl-4-ethyl-	1000150-19-1	NIST05.L	62952	50	C14H240	208

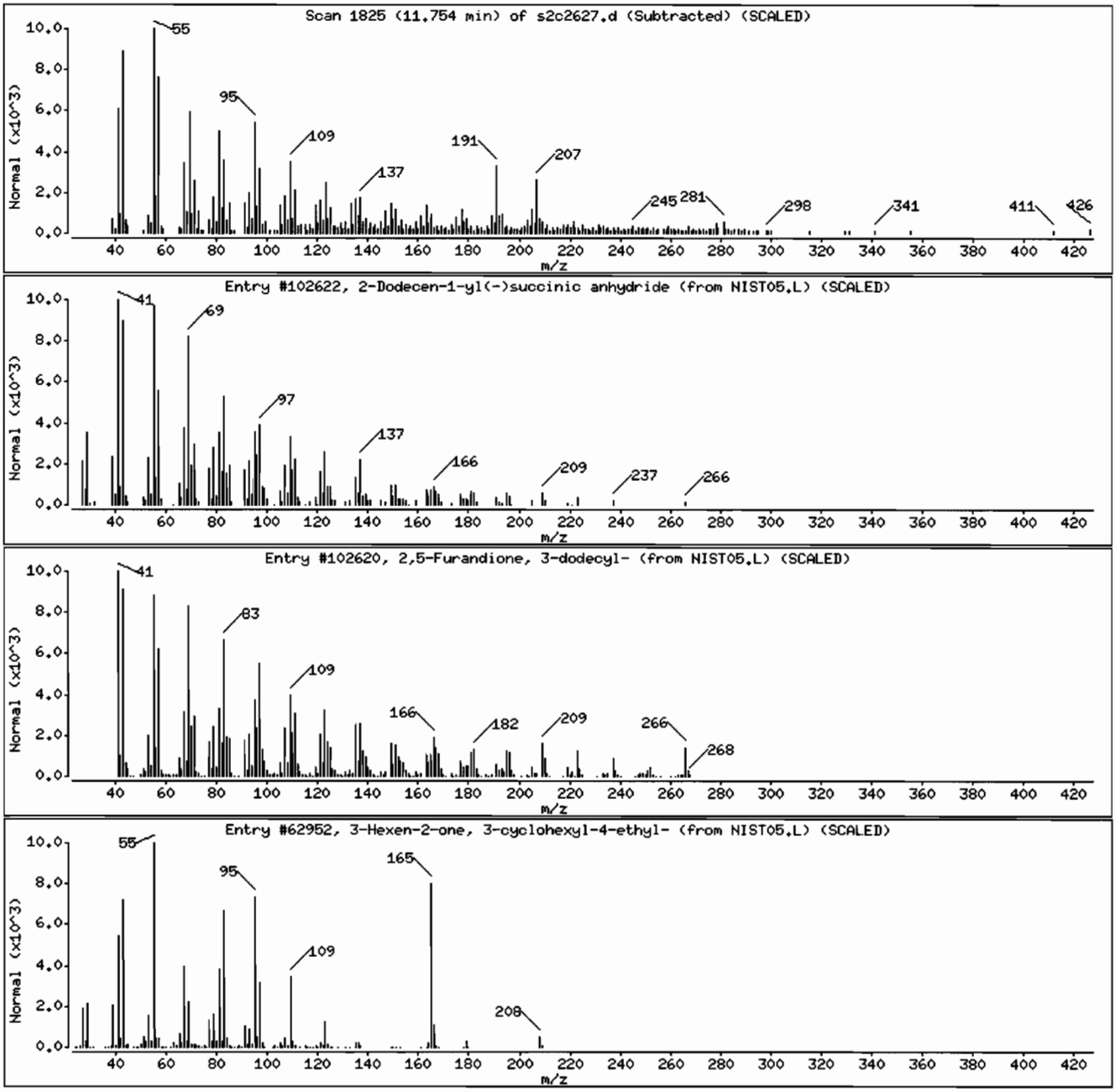

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180002**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13436**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 22:58**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2624.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	398	ug/kg	79.7	398
108-95-2	Phenol	U	398	ug/kg	79.7	398
95-57-8	2-Chlorophenol	U	398	ug/kg	79.7	398
106-46-7	1,4-Dichlorobenzene	U	398	ug/kg	79.7	398
621-64-7	N-Nitrosodipropylamine	U	398	ug/kg	79.7	398
59-50-7	4-Chloro-3-methylphenol	U	398	ug/kg	79.7	398
83-32-9	Acenaphthene	U	39.8	ug/kg	13.2	39.8
121-14-2	2,4-Dinitrotoluene	U	398	ug/kg	39.8	398
100-02-7	4-Nitrophenol	U	398	ug/kg	132	398
87-86-5	Pentachlorophenol	U	398	ug/kg	99.6	398
129-00-0	Pyrene		46.6	ug/kg	12.0	39.8
110-86-1	Pyridine	U	398	ug/kg	79.7	398
62-53-3	Aniline	U	398	ug/kg	120	398
111-44-4	bis(2-Chloroethyl) ether	U	398	ug/kg	79.7	398
541-73-1	1,3-Dichlorobenzene	U	398	ug/kg	79.7	398
100-51-6	Benzyl alcohol	U	398	ug/kg	120	398
95-50-1	1,2-Dichlorobenzene	U	398	ug/kg	79.7	398
108-60-1	bis(2-Chloroisopropyl)ether	U	398	ug/kg	79.7	398
95-48-7	o-Cresol	U	398	ug/kg	79.7	398
65794-96-9	m,p-Cresols	U	398	ug/kg	120	398
67-72-1	Hexachloroethane	U	398	ug/kg	79.7	398
98-95-3	Nitrobenzene	U	398	ug/kg	79.7	398
78-59-1	Isophorone	U	398	ug/kg	79.7	398
88-75-5	2-Nitrophenol	U	398	ug/kg	79.7	398
105-67-9	2,4-Dimethylphenol	U	398	ug/kg	139	398
111-91-1	bis(2-Chloroethoxy)methane	U	398	ug/kg	79.7	398
120-83-2	2,4-Dichlorophenol	U	398	ug/kg	79.7	398
65-85-0	Benzoic acid	U	797	ug/kg	199	797
91-20-3	Naphthalene	U	39.8	ug/kg	12.0	39.8
106-47-8	4-Chloroaniline	U	398	ug/kg	79.7	398
87-68-3	Hexachlorobutadiene	U	398	ug/kg	79.7	398
91-57-6	2-Methylnaphthalene	U	39.8	ug/kg	7.97	39.8
77-47-4	Hexachlorocyclopentadiene	U	398	ug/kg	79.7	398
88-06-2	2,4,6-Trichlorophenol	U	398	ug/kg	79.7	398
95-95-4	2,4,5-Trichlorophenol	U	398	ug/kg	79.7	398
91-58-7	2-Chloronaphthalene	U	39.8	ug/kg	13.2	39.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	398	ug/kg	79.7	398
99-09-2	3-Nitroaniline	U	398	ug/kg	79.7	398

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180002**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13436**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 22:58**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2624.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	398	ug/kg	79.7	398
606-20-2	2,6-Dinitrotoluene	U	398	ug/kg	39.8	398
208-96-8	Acenaphthylene	U	39.8	ug/kg	12.0	39.8
51-28-5	2,4-Dinitrophenol	U	797	ug/kg	151	797
132-64-9	Dibenzofuran	U	398	ug/kg	79.7	398
84-66-2	Diethylphthalate	U	398	ug/kg	79.7	398
86-73-7	Fluorene	U	39.8	ug/kg	12.0	39.8
7005-72-3	4-Chlorophenylphenylether	U	398	ug/kg	79.7	398
534-52-1	2-Methyl-4,6-dinitrophenol	U	398	ug/kg	79.7	398
100-01-6	4-Nitroaniline	U	398	ug/kg	120	398
	p-Nitroaniline					
122-39-4	Diphenylamine	U	398	ug/kg	79.7	398
122-66-7	Azobenzene	U	398	ug/kg	79.7	398
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	398	ug/kg	79.7	398
118-74-1	Hexachlorobenzene	U	398	ug/kg	79.7	398
85-01-8	Phenanthrene		45.7	ug/kg	12.0	39.8
120-12-7	Anthracene	J	25.0	ug/kg	7.97	39.8
84-74-2	Di-n-butylphthalate	U	398	ug/kg	79.7	398
206-44-0	Fluoranthene		63.8	ug/kg	12.0	39.8
85-68-7	Butylbenzylphthalate	U	398	ug/kg	79.7	398
56-55-3	Benzo(a)anthracene	U	39.8	ug/kg	12.0	39.8
91-94-1	3,3'-Dichlorobenzidine	U	398	ug/kg	120	398
218-01-9	Chrysene		58.6	ug/kg	12.0	39.8
117-81-7	bis(2-Ethylhexyl)phthalate	J	160	ug/kg	79.7	398
117-84-0	Di-n-octylphthalate	U	398	ug/kg	79.7	398
205-99-2	Benzo(b)fluoranthene		93.6	ug/kg	12.0	39.8
207-08-9	Benzo(k)fluoranthene	U	39.8	ug/kg	12.0	39.8
50-32-8	Benzo(a)pyrene	J	38.1	ug/kg	12.0	39.8
193-39-5	Indeno(1,2,3-cd)pyrene	J	24.4	ug/kg	12.0	39.8
53-70-3	Dibenzo(a,h)anthracene	U	39.8	ug/kg	12.0	39.8
191-24-2	Benzo(ghi)perylene	J	26.9	ug/kg	12.0	39.8
120-82-1	1,2,4-Trichlorobenzene	U	398	ug/kg	79.7	398

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	436	ug/kg		JA
	Unknown	7.49	241	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180002**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13436**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 22:58**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2624.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
19780-11-1	2-Dodecen-1-yl(-)succinic anhydride	7.55	253	ug/kg	92	NJ
	Unknown	7.69	310	ug/kg		J
629-78-7	Heptadecane	7.9	340	ug/kg	80	NJ
	Unknown	8.1	374	ug/kg		J
	Unknown	8.13	246	ug/kg		J
	Unknown	8.24	256	ug/kg		J
	Unknown	8.31	431	ug/kg		J
	Unknown	8.34	266	ug/kg		J
	Unknown	8.38	255	ug/kg		J
	Unknown	8.68	570	ug/kg		J
	Unknown	8.72	247	ug/kg		J
	Unknown	8.8	282	ug/kg		J
	Unknown	8.89	416	ug/kg		J
	Unknown	8.98	236	ug/kg		J
	Unknown	9.09	459	ug/kg		J
55044-36-5	1H-Indene, 5-butyl-6-hexyloctahydro-	9.18	275	ug/kg	86	NJ
	Unknown	9.34	1300	ug/kg		J
	Unknown	9.42	707	ug/kg		J
601-53-6	Cholestan-3-one, (5.beta.)-	10.84	907	ug/kg	99	NJ
	Unknown	11.58	1280	ug/kg		J

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Data file : /chem/MSD2.i/s032610.b/s2c2624.d
Lab Smp Id: 249180002 Client Smp ID: RE46-10-13436
Inj Date : 26-MAR-2010 22:58
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249180002|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2398.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.15000	weight of sample
M	16.76870	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	197611	40.0000	
* 29 Naphthalene-d8	136	4.667	4.672	(1.000)	789456	40.0000	
* 46 Acenaphthene-d10	164	5.913	5.918	(1.000)	474208	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	836259	40.0000	
* 91 Chrysene-d12	240	8.544	8.555	(1.000)	574810	40.0000	
* 98 Perylene-d12	264	9.951	9.962	(1.000)	354583	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	294346	62.5555	2490
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	332882	57.4508	2290
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.893)	183549	32.1241	1280
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.915)	391879	30.0367	1200
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.091)	90795	64.7338	2580
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.915)	441316	42.0974	1680

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.769	7.774	(0.909)	21929	1.17036	46.6
68 Phenanthrene	178	6.918	6.924	(1.002)	23704	1.14682	45.7
69 Anthracene	178	6.950	6.956	(1.006)	12552	0.62775	25.0(a)
76 Fluoranthene	202	7.630	7.635	(1.105)	29880	1.60046	63.8
92 Chrysene	228	8.560	8.576	(1.002)	19671	1.46987	58.6
93 bis(2-Ethylhexyl)phthalate	149	8.427	8.437	(0.986)	48596	4.02562	160(a)
95 Benzo(b)fluoranthene	252	9.502	9.512	(0.955)	22726	2.34975	93.6
97 Benzo(a)pyrene	252	9.882	9.892	(0.993)	7674	0.95731	38.1(a)
99 Indeno(1,2,3-cd)pyrene	276	11.513	11.534	(1.157)	4210	0.61353	24.4(a)
101 Benzo(ghi)perylene	276	12.005	12.021	(1.206)	3747	0.67417	26.9(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s2c2624.d
Report Date: 03/27/2010 21:58
Lab. ID: 249180002 SampleType: SAMPLE
Injection Date: 26-MAR-2010 22:58
Operator: AGS1 Instrument: MSD2.i
Sample Info: |249180002|966675|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2398
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	26462	3.53	3.60	80-120	100	(T)
93	137	3.49	3.61	335-395	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	29467	4.17	4.05	80-120	100	(T)
42	25302	4.16	4.05	96-156	86	(QT)
41 m-Nitroaniline			CAS#: 99-09-2			
138	177	5.91	5.87	80-120	100	( )
92	3468	5.91	5.87	84-144	1954	(Q)
108	13131	5.91	5.87	0- 42	7398	(Q)
43 Dimethylphthalate			CAS#: 131-11-3			
163	84784	5.91	5.69	80-120	100	(T)
164	474208	5.91	5.69	0- 40	559	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	61971	5.91	5.74	80-120	100	(T)
63	1244	5.91	5.74	87-147	2	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	61971	5.91	6.03	80-120	100	(T)
89	1183	5.91	6.03	58-118	2	(QT)
63	1244	5.91	6.03	47-107	2	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	4516	6.45	6.29	80-120	100	(T)
165	4399	6.45	6.29	61-121	97	(T)
167	1200	6.45	6.29	0- 43	27	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	535	6.21	6.31	80-120	100	(T)
105	259	6.16	6.31	15- 75	48	(T)
51	152	6.16	6.31	92-152	29	(QT)
56 p-Nitroaniline			CAS#: 100-01-6			
138	299	6.29	6.29	80-120	100	( )
108	2927	6.34	6.29	73-133	979	(Q)
92	138	6.24	6.30	15- 75	46	( )
68 Phenanthrene			CAS#: 85-01-8			
178	23704	6.92	6.92	80-120	100	( )
179	4286	6.92	6.92	0- 45	18	( )
176	4574	6.92	6.92	0- 49	19	( )
69 Anthracene			CAS#: 120-12-7			
178	12552	6.95	6.96	80-120	100	( )
179	2406	6.95	6.96	0- 46	19	( )
176	2202	6.95	6.96	0- 48	18	( )
76 Fluoranthene			CAS#: 206-44-0			
202	29880	7.63	7.64	80-120	100	( )
203	5683	7.63	7.64	0- 47	19	( )
101	2893	7.63	7.64	0- 39	10	( )
79 Pyrene			CAS#: 129-00-0			
202	21929	7.77	7.77	80-120	100	( )
200	4792	7.77	7.77	0- 51	22	( )
101	2372	7.77	7.77	0- 40	11	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	21193	8.54	8.54	80-120	100	( )
226	5429	8.54	8.54	0- 56	26	( )
229	6048	8.54	8.54	0- 49	29	( )
92 Chrysene			CAS#: 218-01-9			
228	19671	8.56	8.58	80-120	100	( )
229	4584	8.57	8.58	0- 50	23	( )
226	5497	8.56	8.58	0- 59	28	( )
93 bis(2-Ethylhexyl)phthalate				CAS#: 117-81-7		
149	48596	8.43	8.44	80-120	100	( )
167	14215	8.43	8.44	1- 61	29	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	22726	9.50	9.51	80-120	100	( )
253	4669	9.51	9.51	0- 49	21	( )
125	2571	9.50	9.51	0- 39	11	( )
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	22726	9.50	9.54	80-120	100	( )
253	4669	9.51	9.54	0- 54	21	( )
125	2571	9.50	9.54	0- 40	11	( )
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	7674	9.88	9.89	80-120	100	( )
253	1680	9.88	9.89	0- 52	22	( )
125	1384	9.88	9.89	0- 42	18	( )
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	4210	11.51	11.53	80-120	100	( )
138	1227	11.51	11.53	0- 58	29	( )
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	3747	12.00	12.02	80-120	100	( )
138	933	12.00	12.02	0- 58	25	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2624.d
Lab Smp Id: 249180002 Client Smp ID: RE46-10-13436
Inj Date : 26-MAR-2010 22:58
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249180002|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2398.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.15000	weight of sample
M	16.76870	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.811	1463969	40.000
* 67 Phenanthrene-d10	6.908	2286375	40.000
* 91 Chrysene-d12	8.544	2731059	40.000
* 98 Perylene-d12	9.951	1011917	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.848	400202	10.9347044	436	0		0	10
Unknown				CAS #:			
7.485	345257	6.04024634	241	0		0	67
2-Dodecen-1-yl(-)succinic anhydride				CAS #: 19780-11-1			
7.555	363197	6.35411202	253	92	NIST05.L	102622	67
Unknown				CAS #:			
7.694	444824	7.78217766	310	0		0	67
Heptadecane				CAS #: 629-78-7			
7.897	583165	8.54122585	340	80	NIST05.L	85524	91
Unknown				CAS #:			
8.100	640319	9.37831829	374	0		0	91
Unknown				CAS #:			
8.127	420751	6.16246229	246	0		0	91
Unknown				CAS #:			
8.245	438765	6.42630342	256	0		0	91
Unknown				CAS #:			
8.314	738329	10.8138058	431	0		0	91
Unknown				CAS #:			
8.341	456476	6.68570518	266	0		0	91
Unknown				CAS #:			
8.379	436921	6.39928877	255	0		0	91
Unknown				CAS #:			
8.678	976636	14.3041277	570	0		0	91
Unknown				CAS #:			
8.721	423588	6.20400616	247	0		0	91
Unknown				CAS #:			
8.801	482479	7.06654794	282	0		0	91
Unknown				CAS #:			
8.887	711961	10.4276177	416	0		0	91

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
8.978	404960	5.93118408	236	0		0	91
Unknown				CAS #:			
9.090	786785	11.5235110	459	0		0	91
1H-Indene, 5-butyl-6-hexyloctahydro-				CAS #: 55044-36-5			
9.181	471815	6.91035888	275	86	NIST05.L	101522	91
Unknown				CAS #:			
9.341	828357	32.7440496	1300	0		0	98
Unknown				CAS #:			
9.422	448534	17.7300637	706	0		0	98
Cholestan-3-one, (5.beta.)-				CAS #: 601-53-6			
10.844	575901	22.7647310	907	99	NIST05.L	167292	98
Unknown				CAS #:			
11.577	813181	32.1441718	1280	0		0	98

Data File: /chem/MSD2.i/s032610.b/s2c2624.d
Date : 26-MAR-2010 22:58
Client ID: RE46-10-13436
Sample Info: |2491800021966675|1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

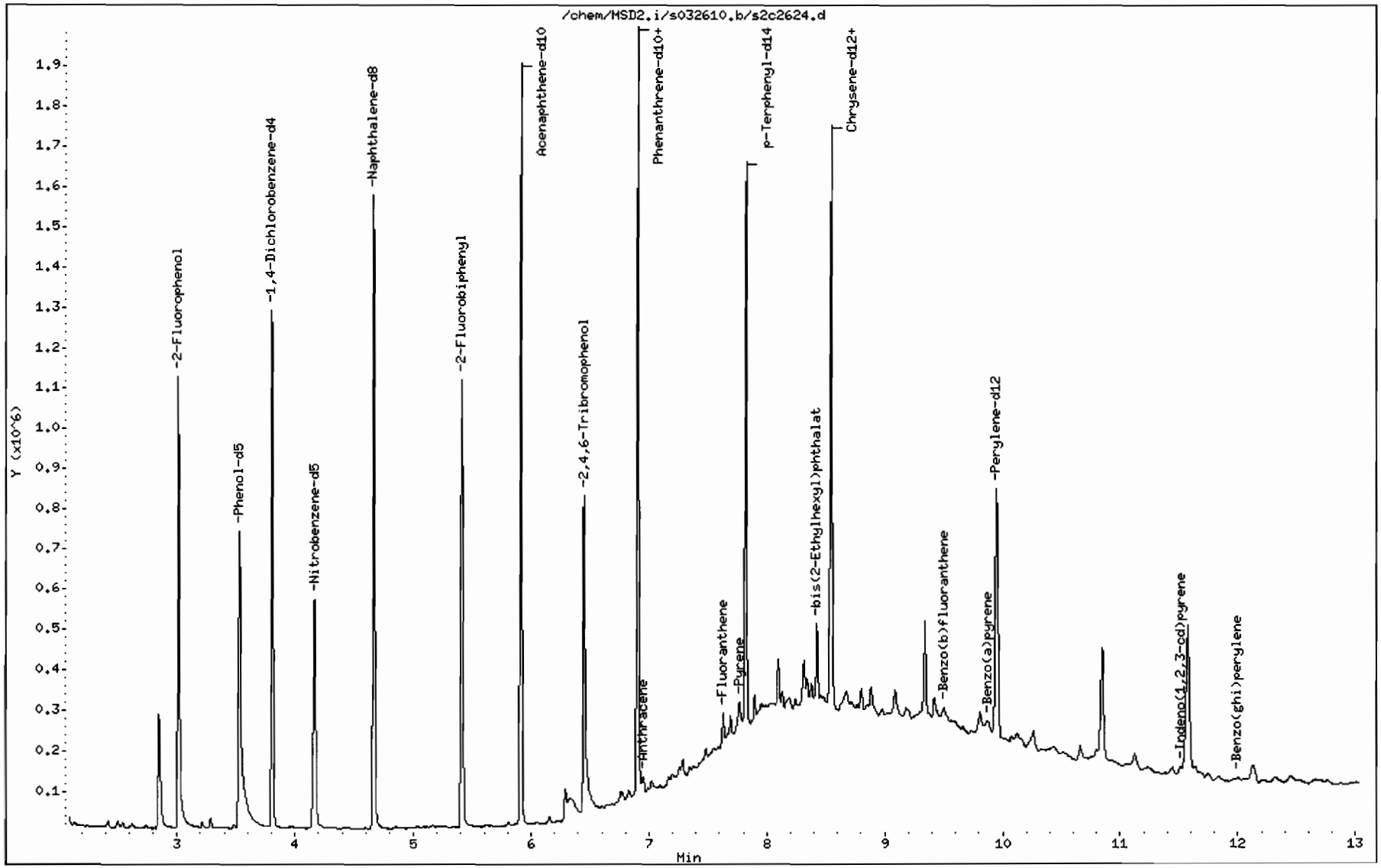

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436

Instrument: MSD2.i

Sample Info: |2491800021966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 46.6 ug/Kg

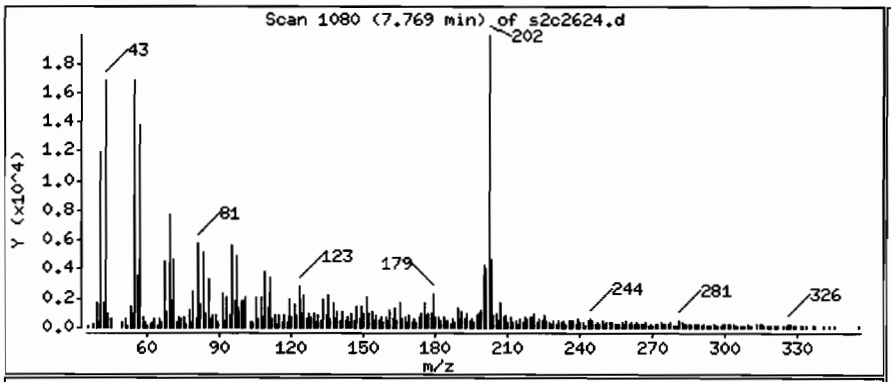

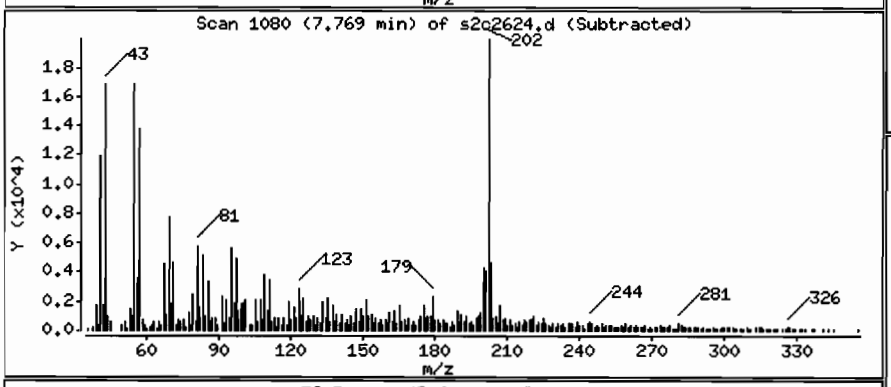

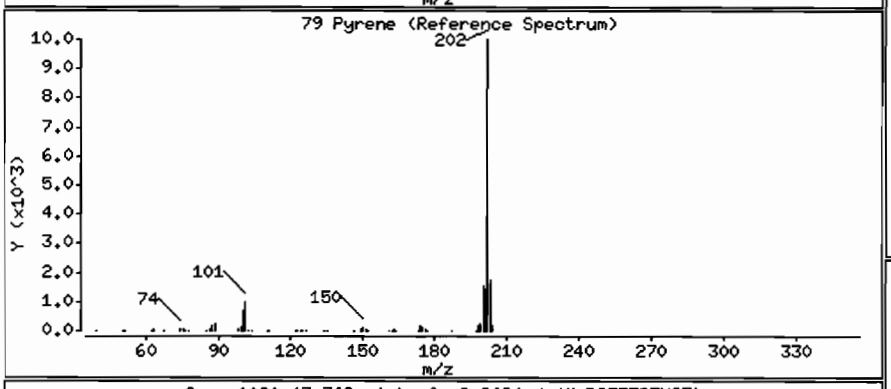

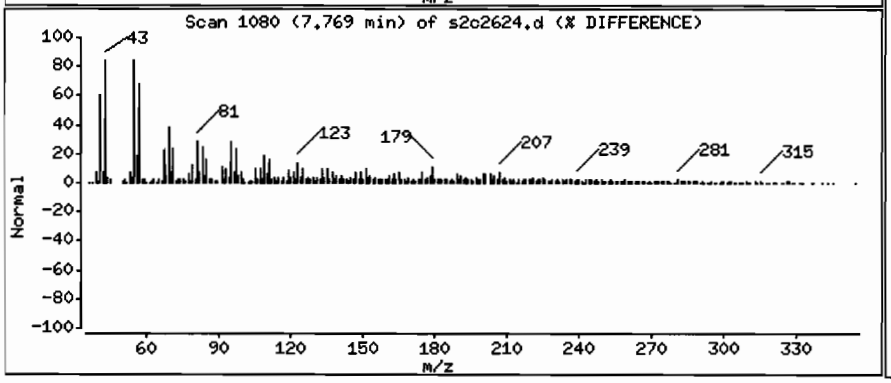

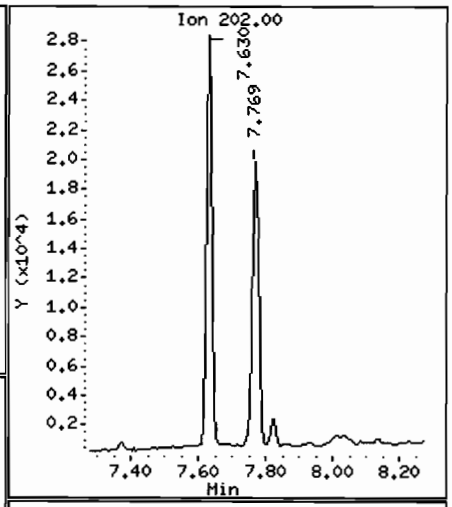

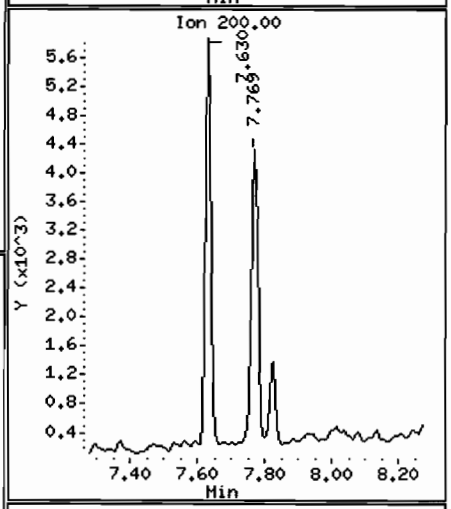

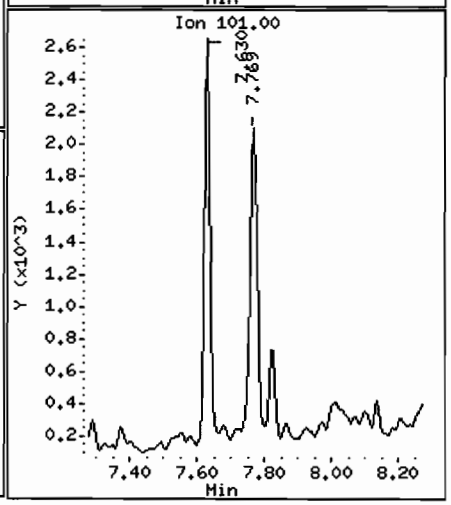

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436

Instrument: MSD2.i

Sample Info: I2491800021966675I1ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 45.7 ug/Kg

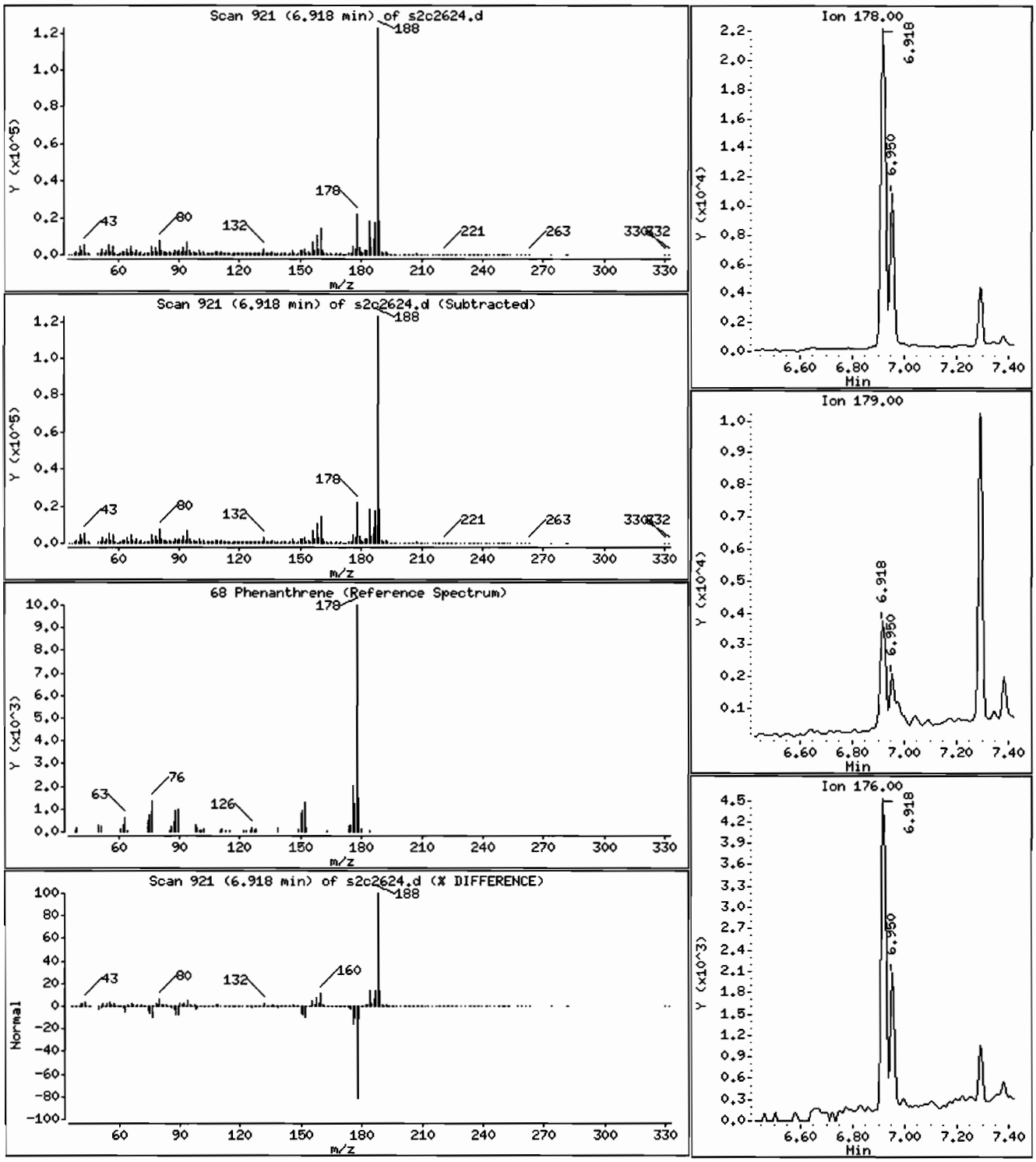

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436

Instrument: MSD2.i

Sample Info: |2491800021966675111SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 25.0 ug/Kg

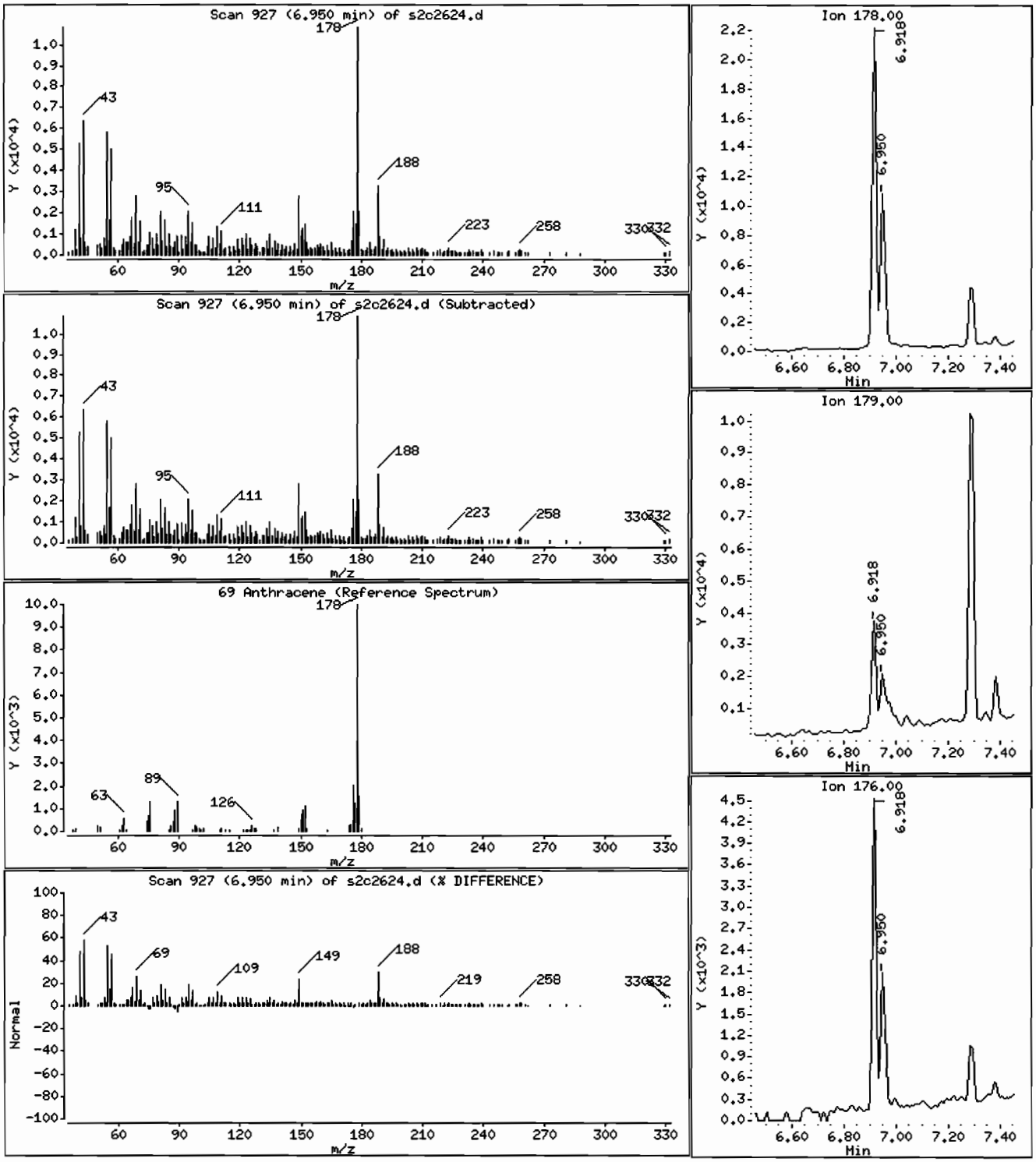

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436

Instrument: MSD2.i

Sample Info: |2491800021966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 63.8 ug/Kg

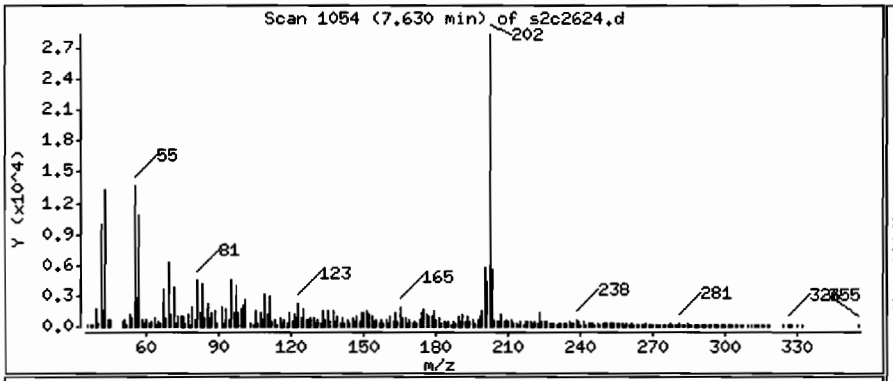

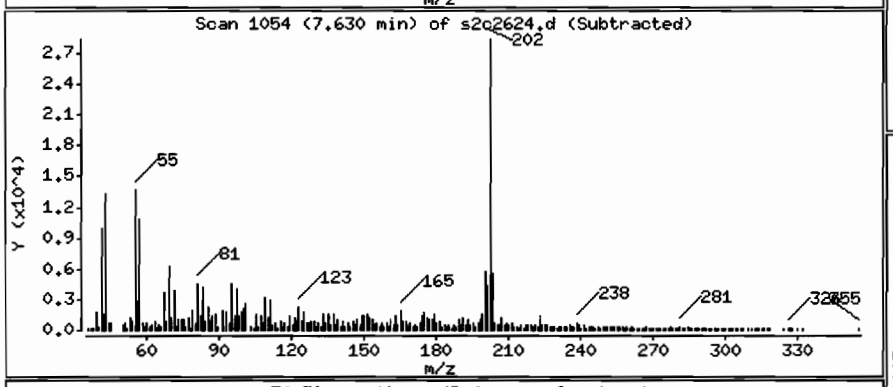

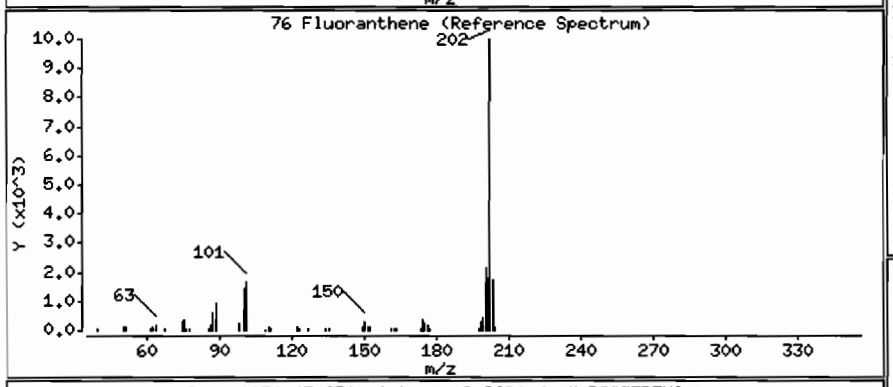

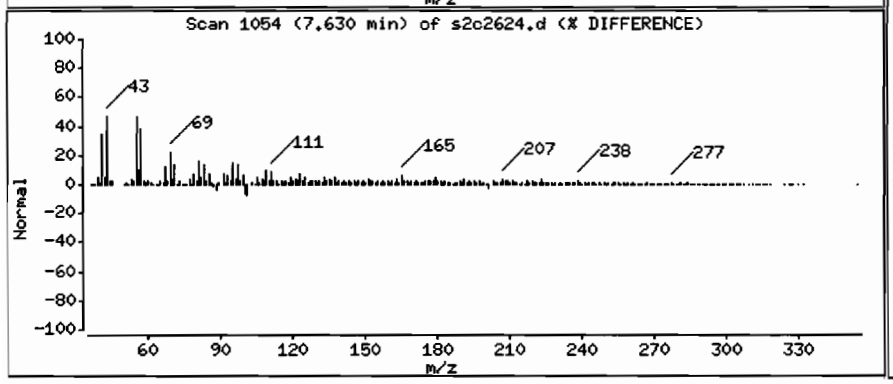

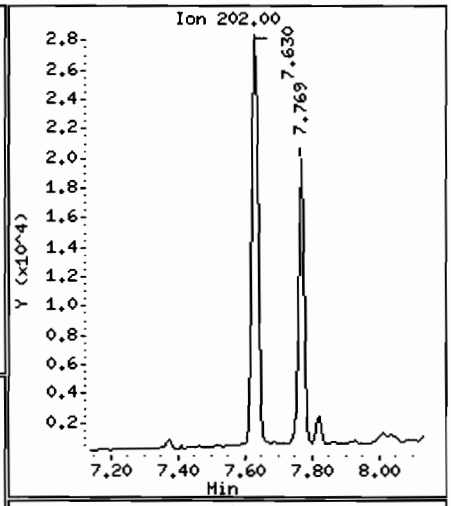

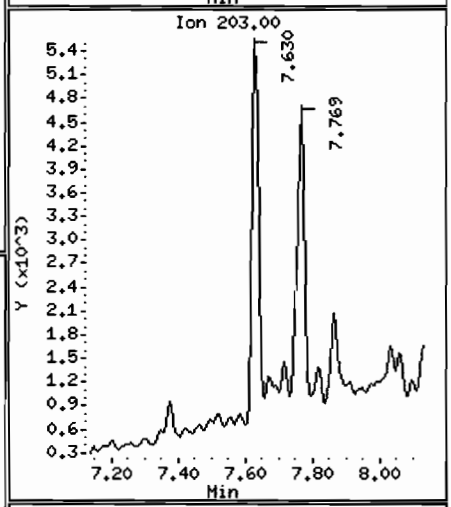

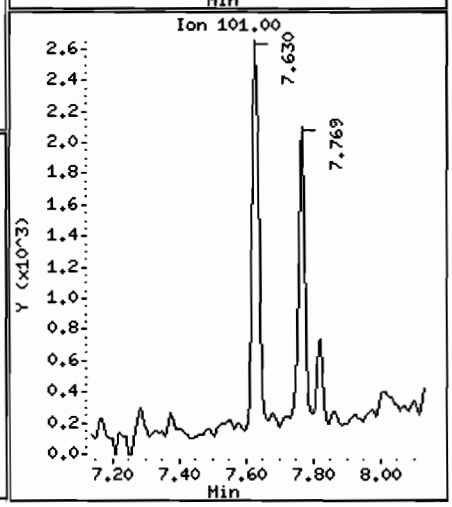

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436

Instrument: MSD2.i

Sample Info: 1249180002|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 58.6 ug/Kg

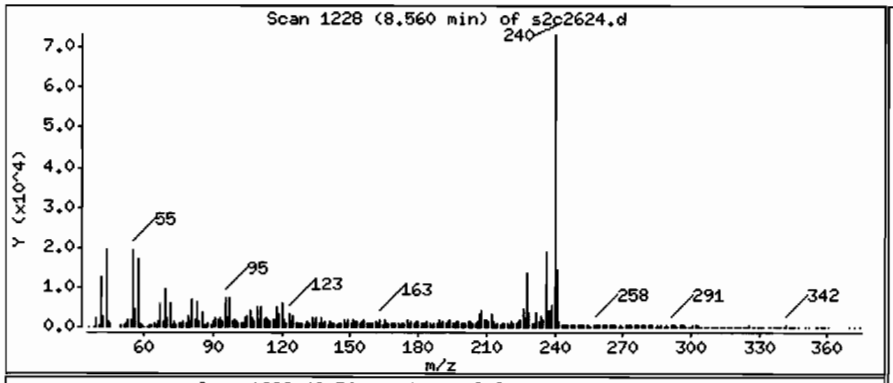

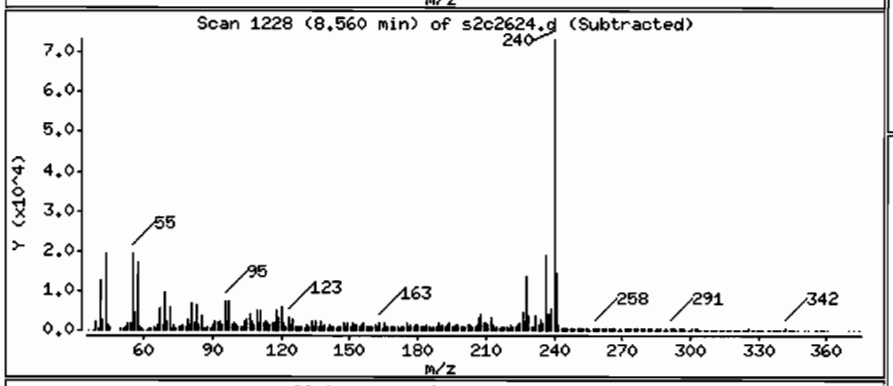

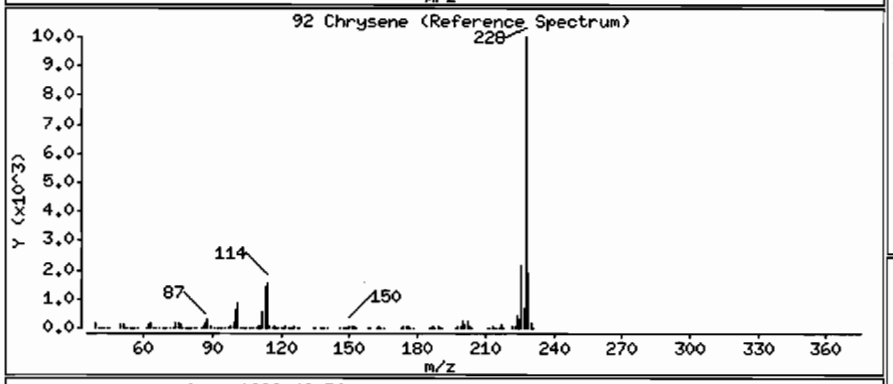

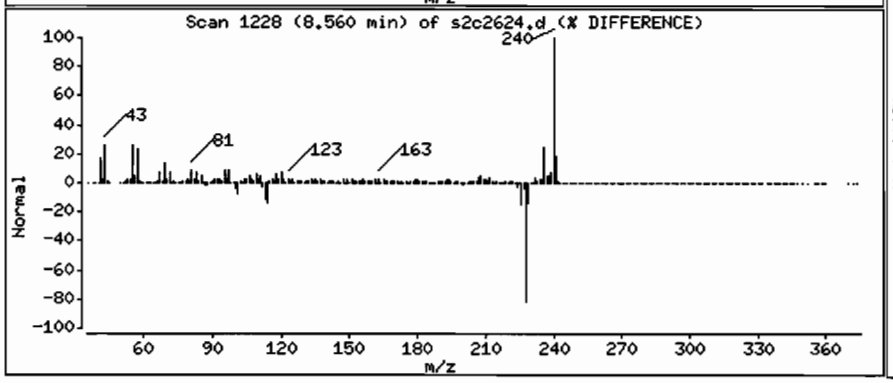

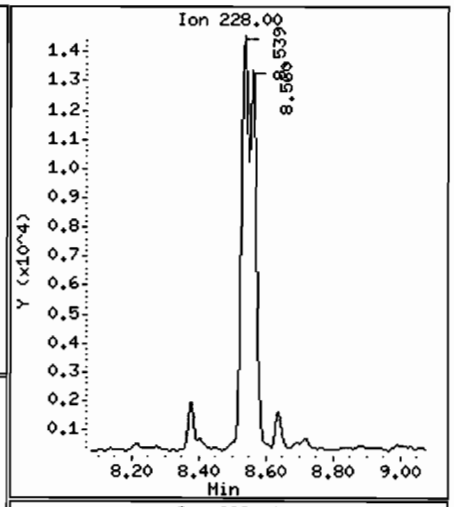

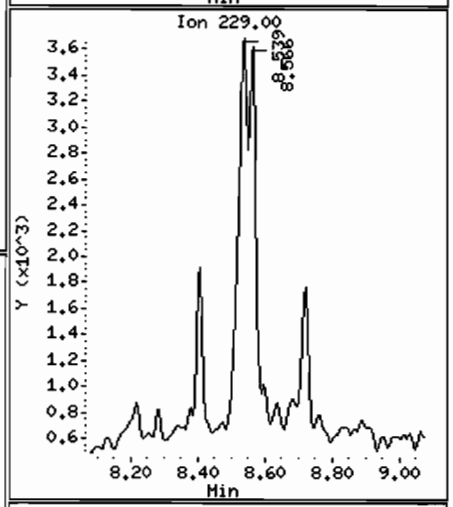

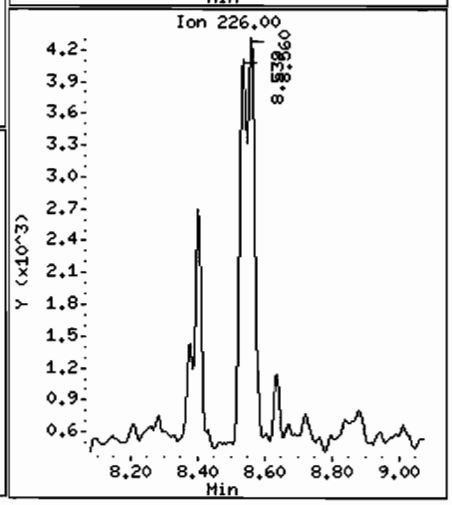

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436

Instrument: MSD2.i

Sample Info: |2491800002|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 160 ug/Kg

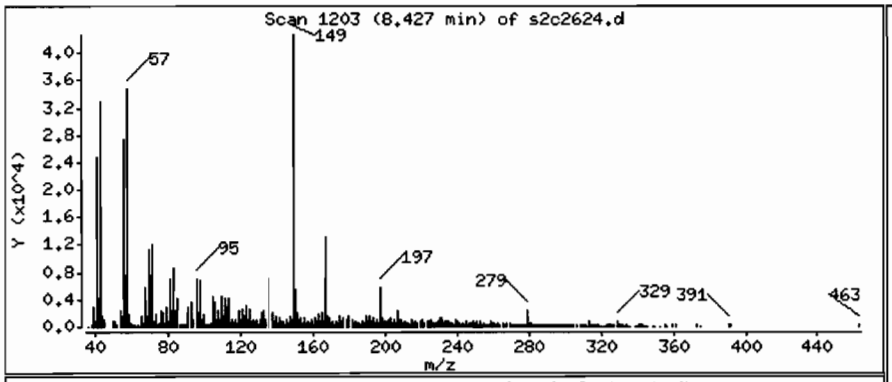

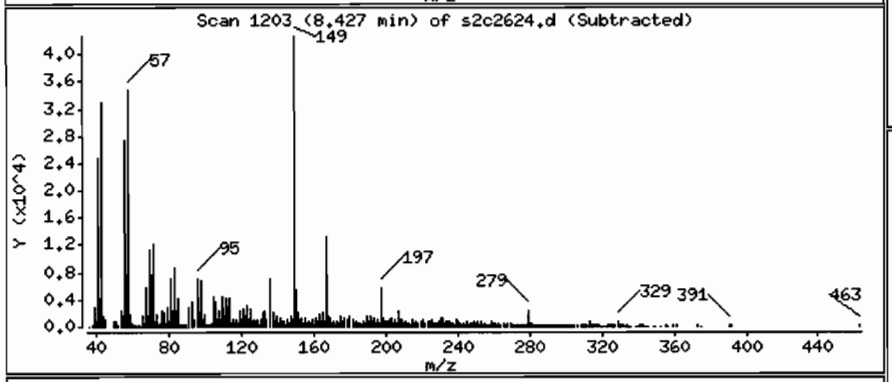

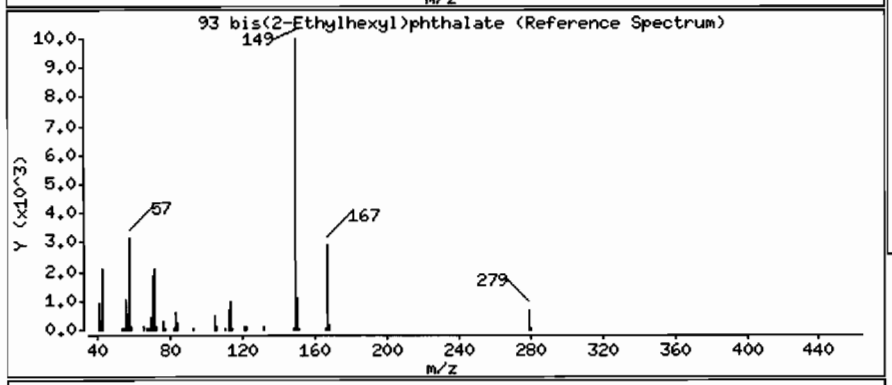

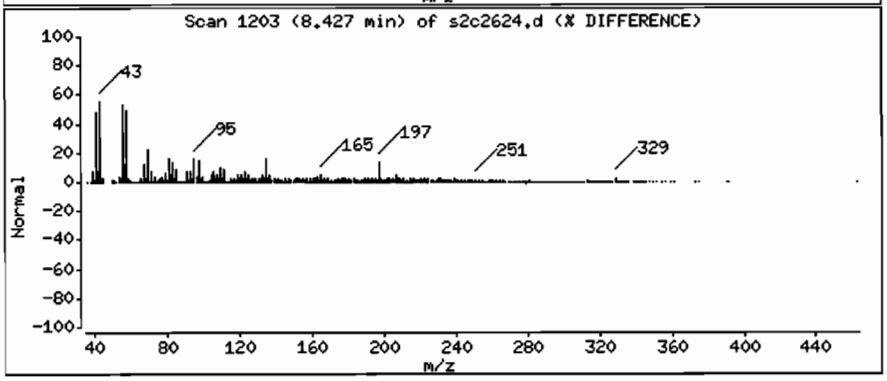

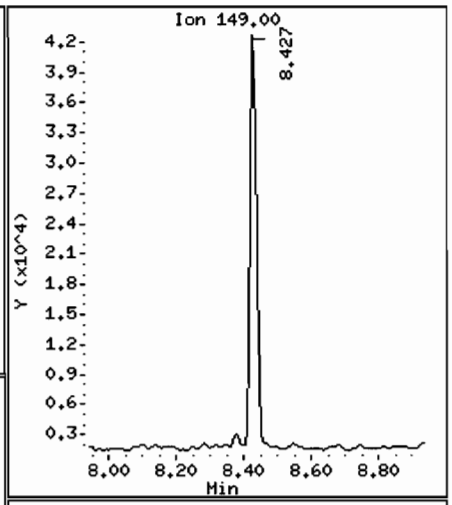

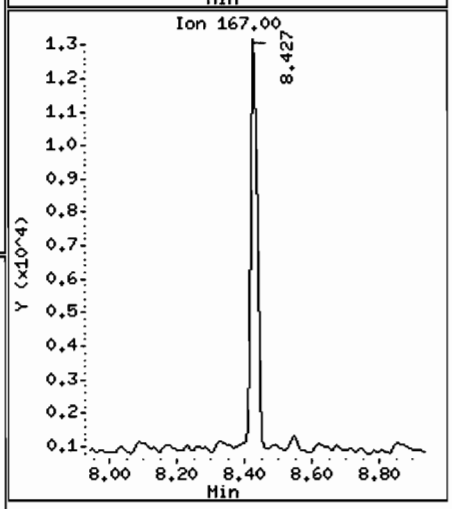

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436

Instrument: MSD2.i

Sample Info: 1249180002|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 93.6 ug/Kg

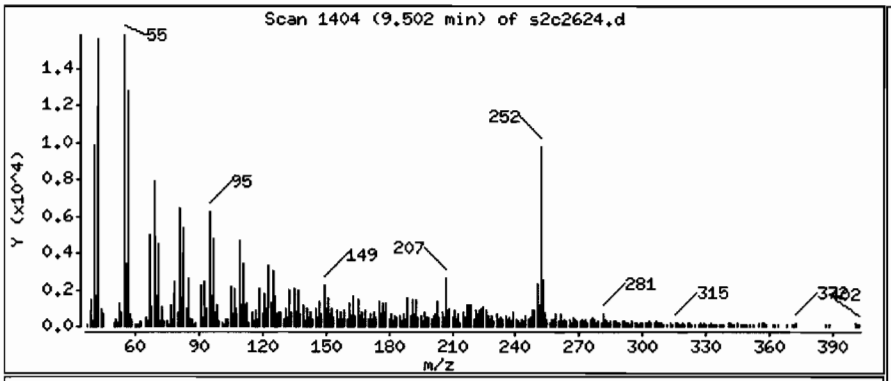

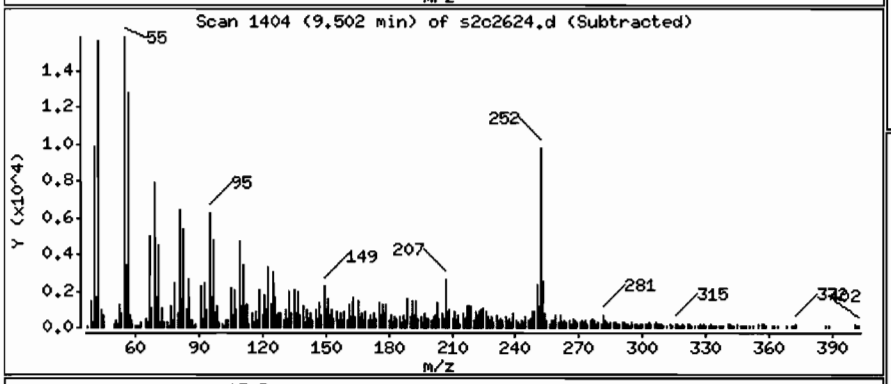

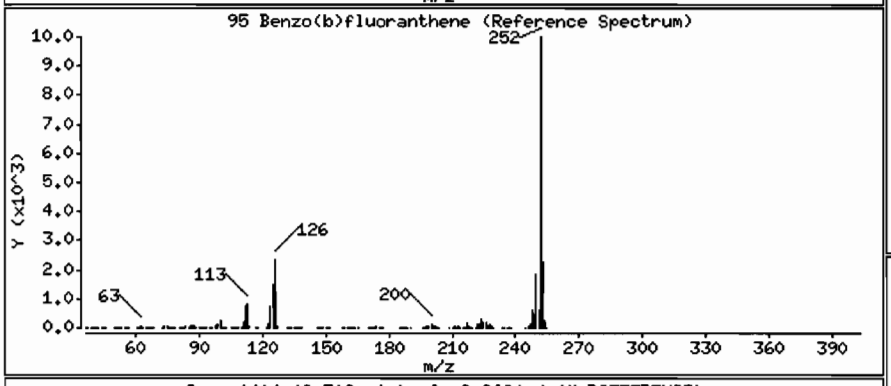

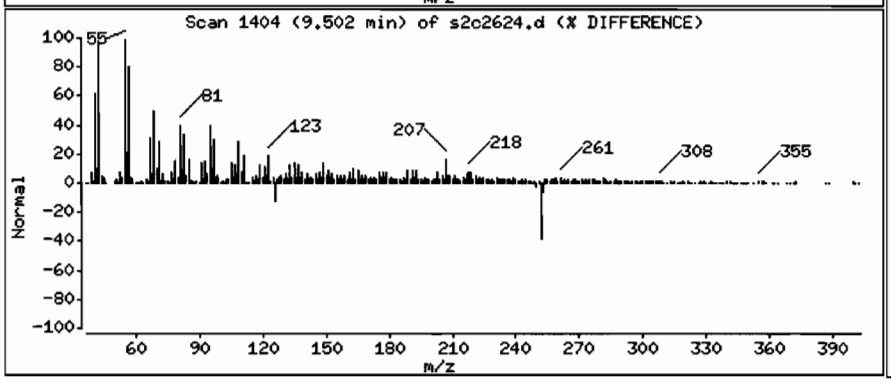

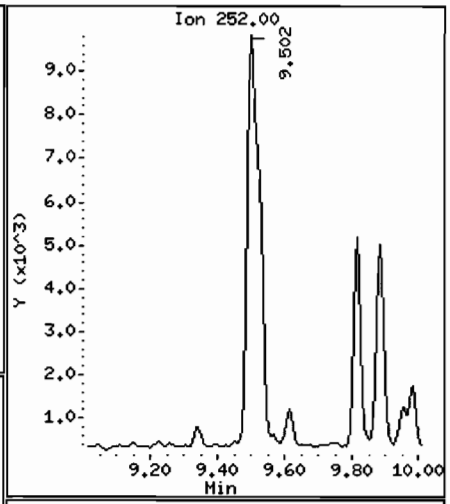

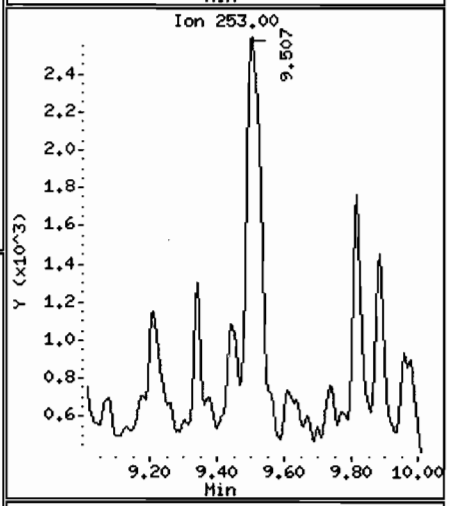

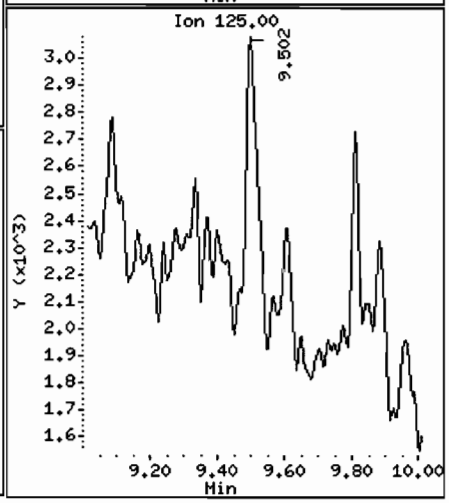

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436

Instrument: MSD2.i

Sample Info: |249180002|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 38.1 ug/Kg

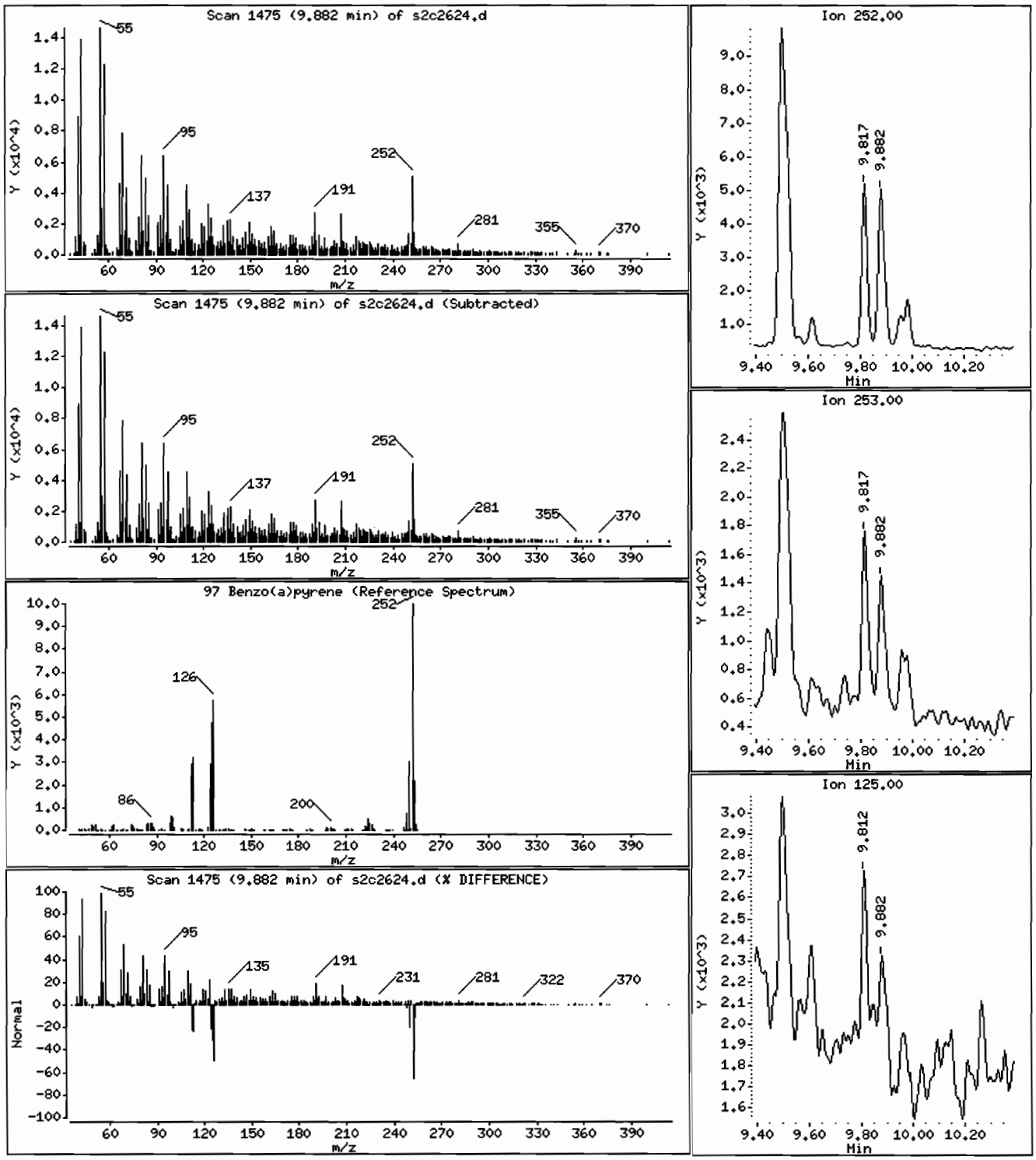

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436 Instrument: MSD2.i

Sample Info: |2491800021966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene Concentration: 24.4 ug/Kg

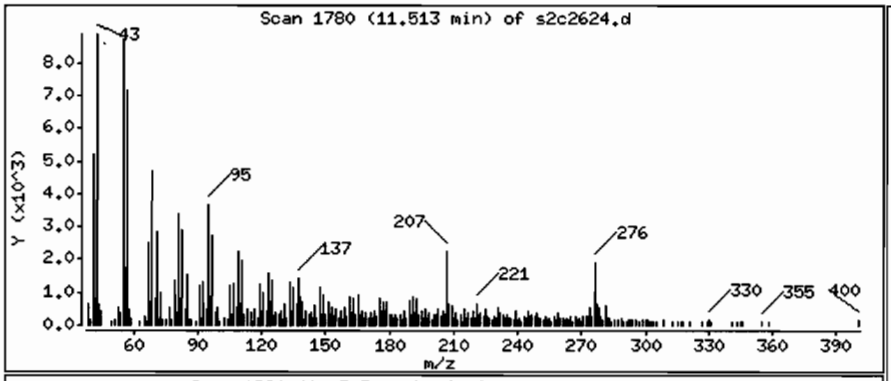

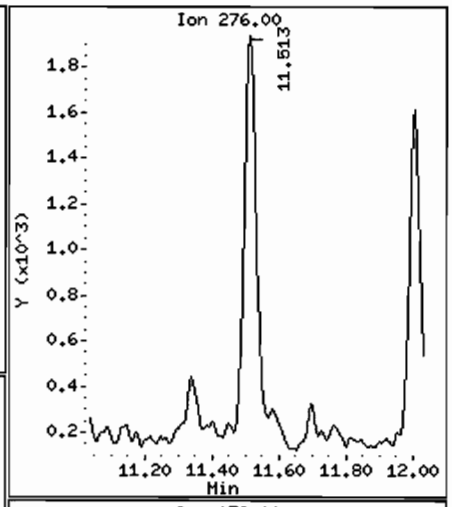

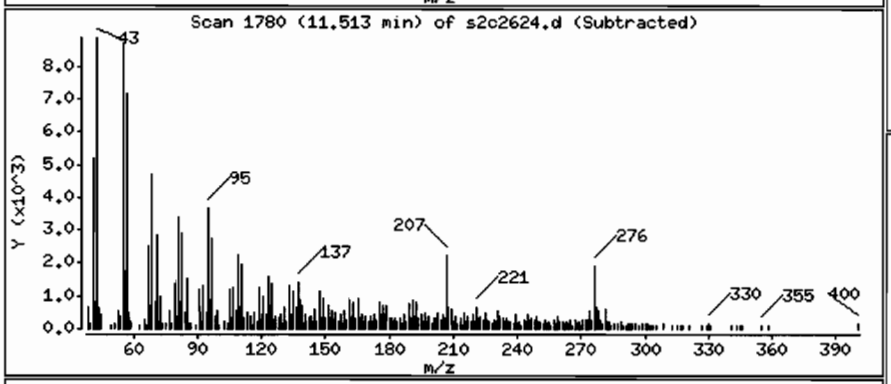

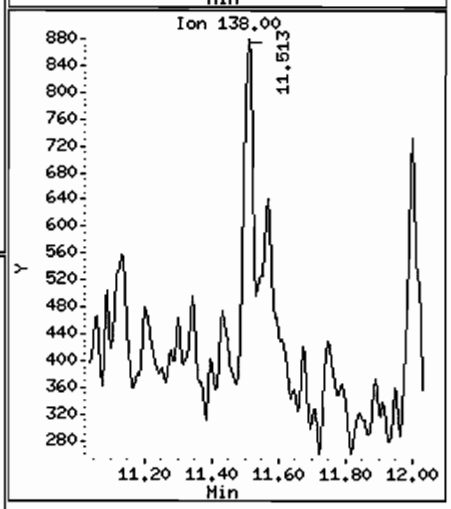

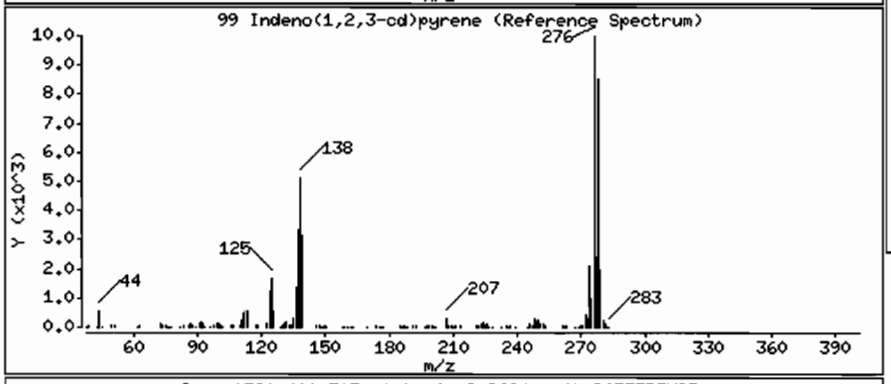

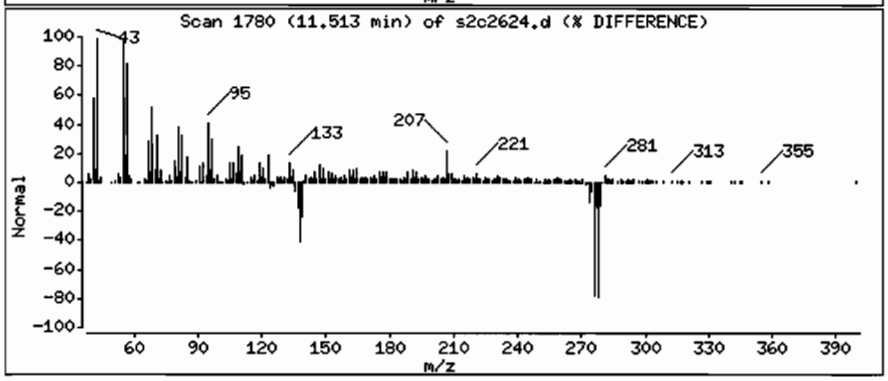

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436

Instrument: MSD2.i

Sample Info: 1249180002|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 26.9 ug/Kg

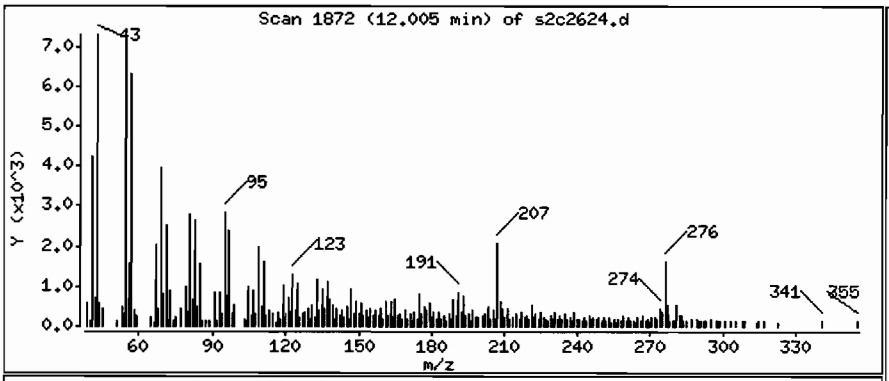

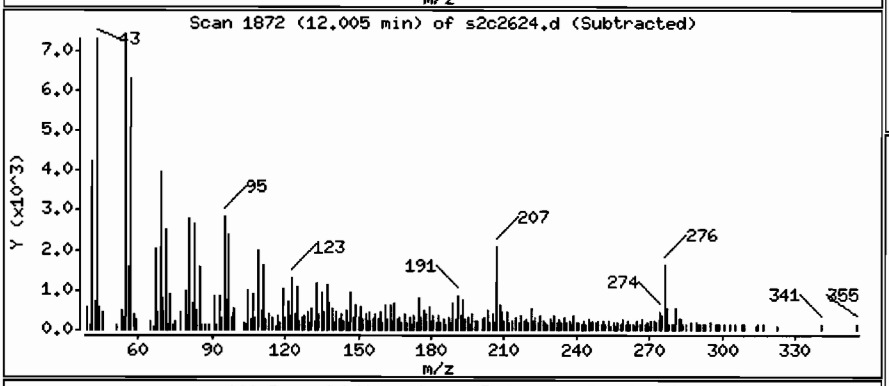

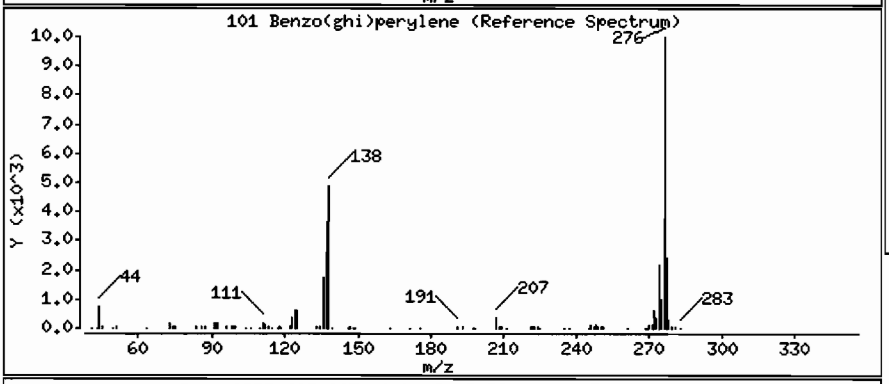

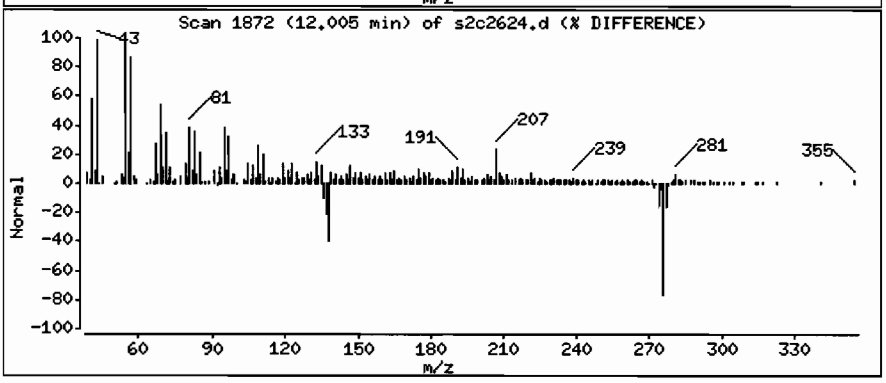

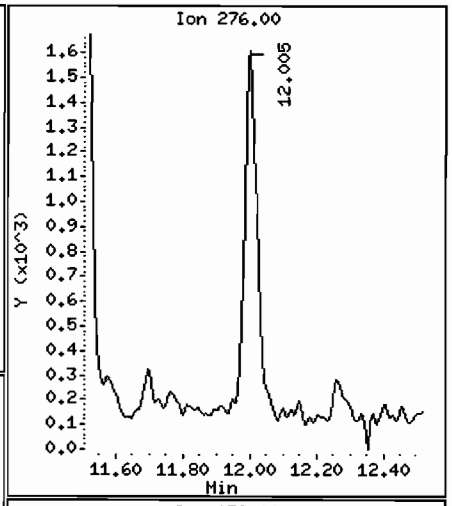

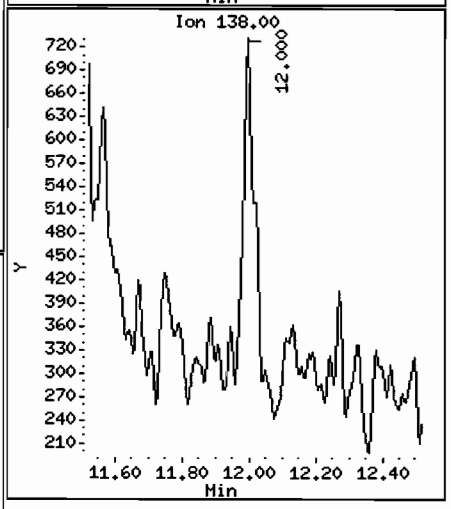

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436

Instrument: MSD2.i

Sample Info: 1249180002|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
Diacetamide	625-77-4	NIST05.L	3936	9	C4H7NO2	101

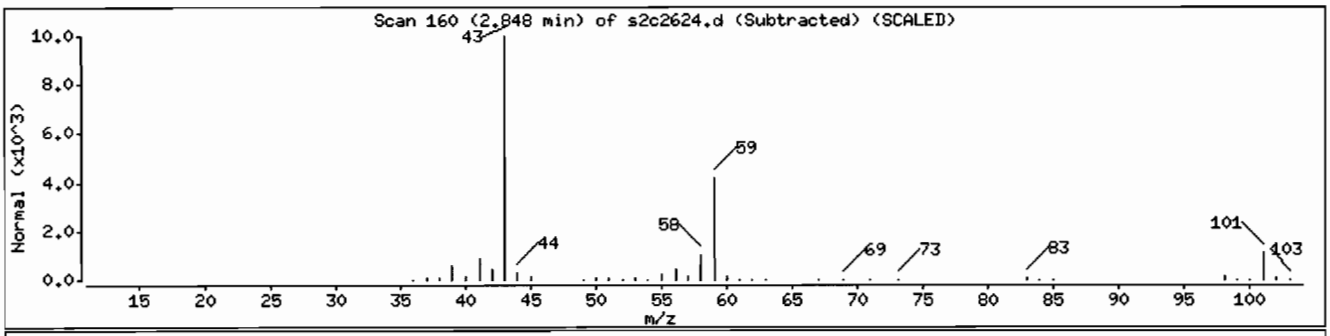

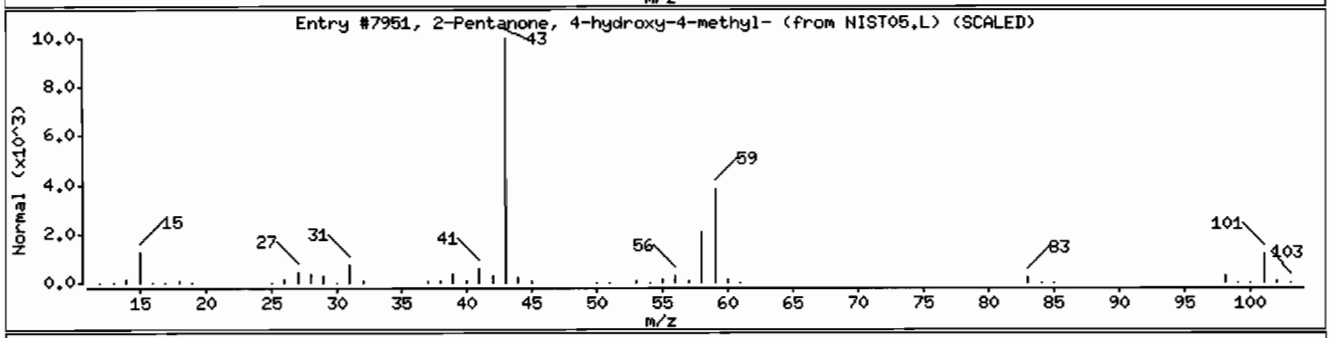

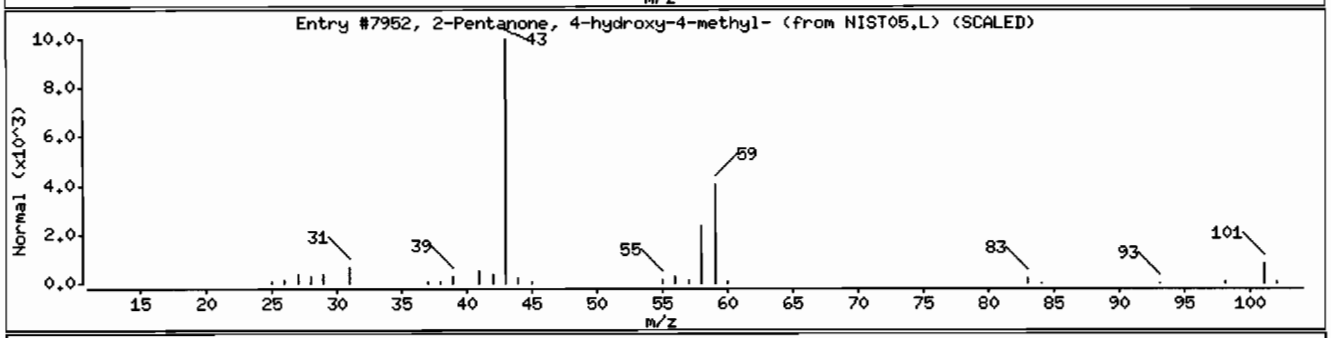

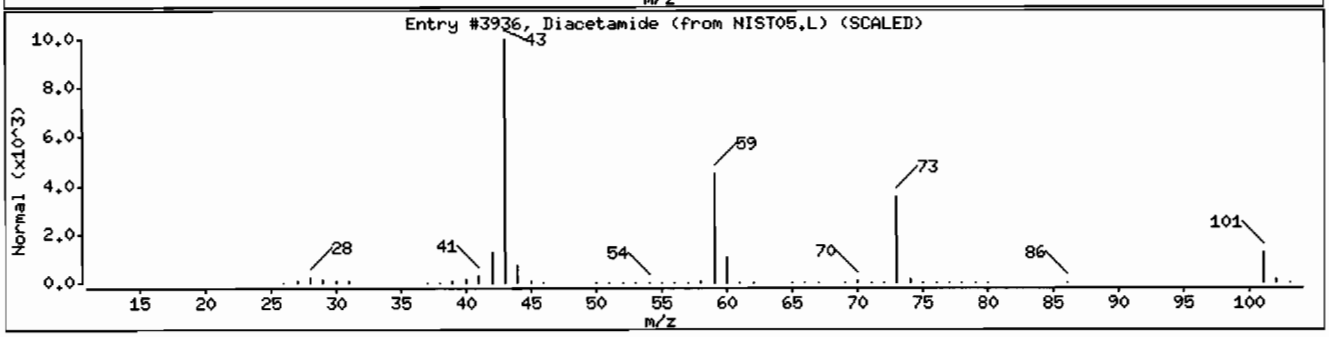

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436 Instrument: MSD2.i

Sample Info: |2491800021966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclotetradecane, 1,7,11-trimethyl-4-(1-	1786-12-5	NIST05.L	112116	74	C20H40	280
Oxiranepentanoic acid, 3-undecyl-, methy	1041-25-4	NIST05.L	132218	68	C19H36O3	312
N1-Tetrahydrofuran-2-ylmethyl-2-(4-chlor	283155-62-4	NIST05.L	122597	59	C13H16ClN3OS	297

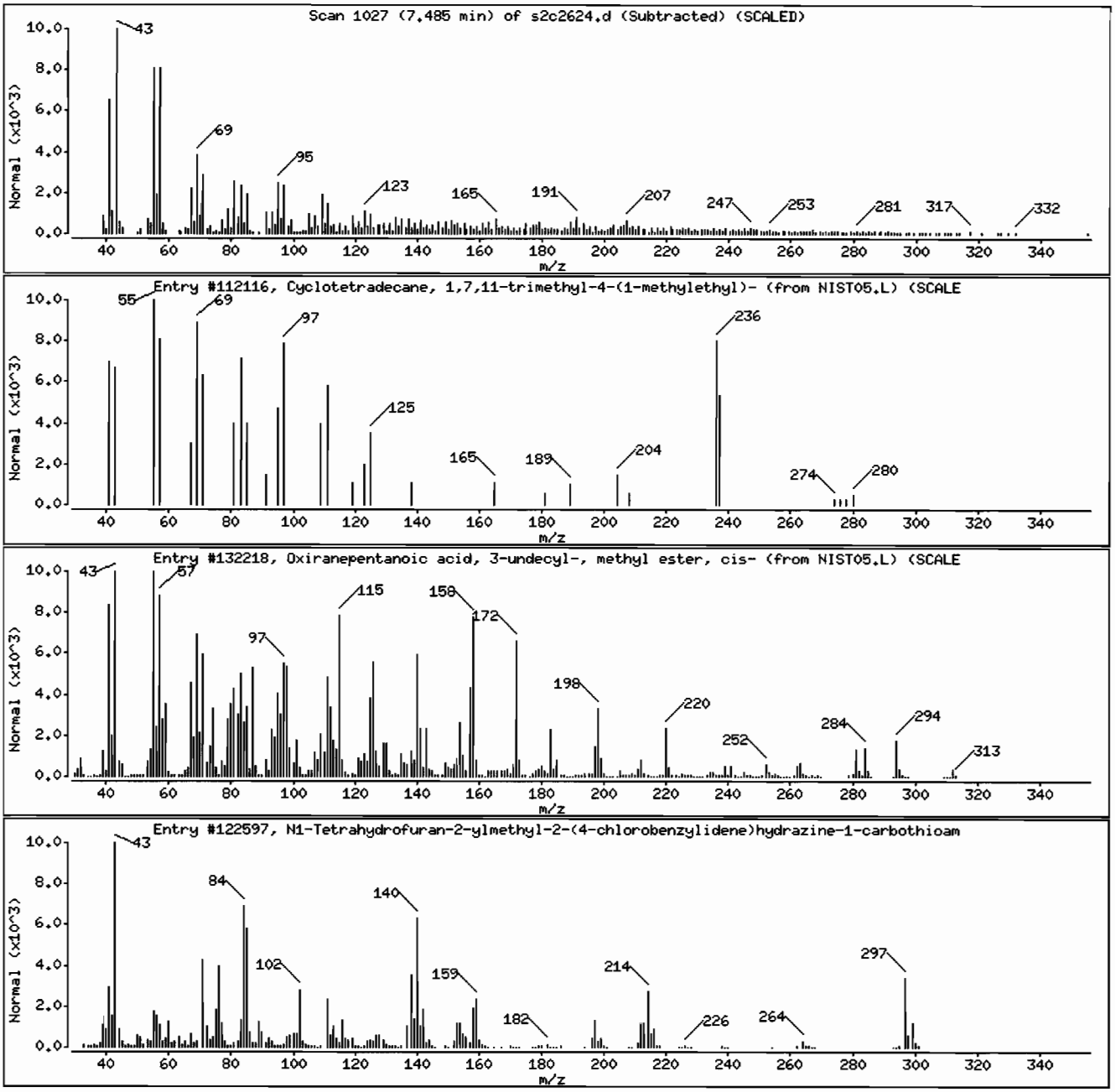

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436 Instrument: MSD2.i

Sample Info: I2491800021966675I1ISVMI1ILANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	92	C16H26O3	266
9-Methyl-Z-10-tetradecen-1-ol acetate	1000130-99-4	NIST05.L	104145	55	C17H32O2	268
5,6,6-Trimethyl-5-(3-oxobut-1-enyl)-1-ox	1000192-73-9	NIST05.L	82376	55	C14H20O3	236

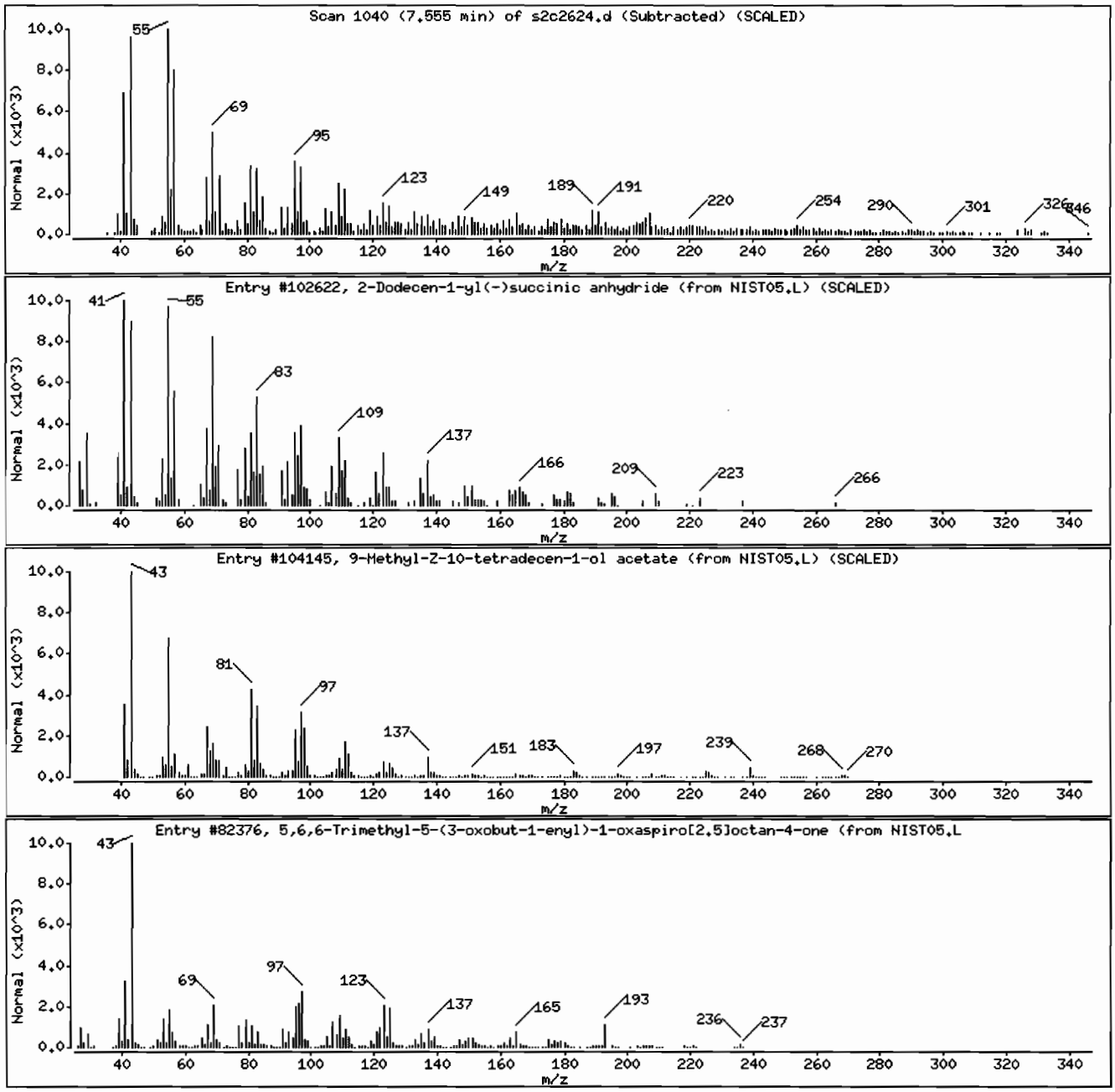

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436

Instrument: MSD2.i

Sample Info: |2491800021966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
N1-Tetrahydrofuran-2-ylmethyl-2-(4-chlor	283155-62-4	NIST05.L	122597	59	C13H16ClN3OS	297
Hexadecane	544-76-3	NIST05.L	76090	53	C16H34	226
Methoxyacetic acid, heptadecyl ester	1000282-99-1	NIST05.L	141364	53	C20H40O3	328

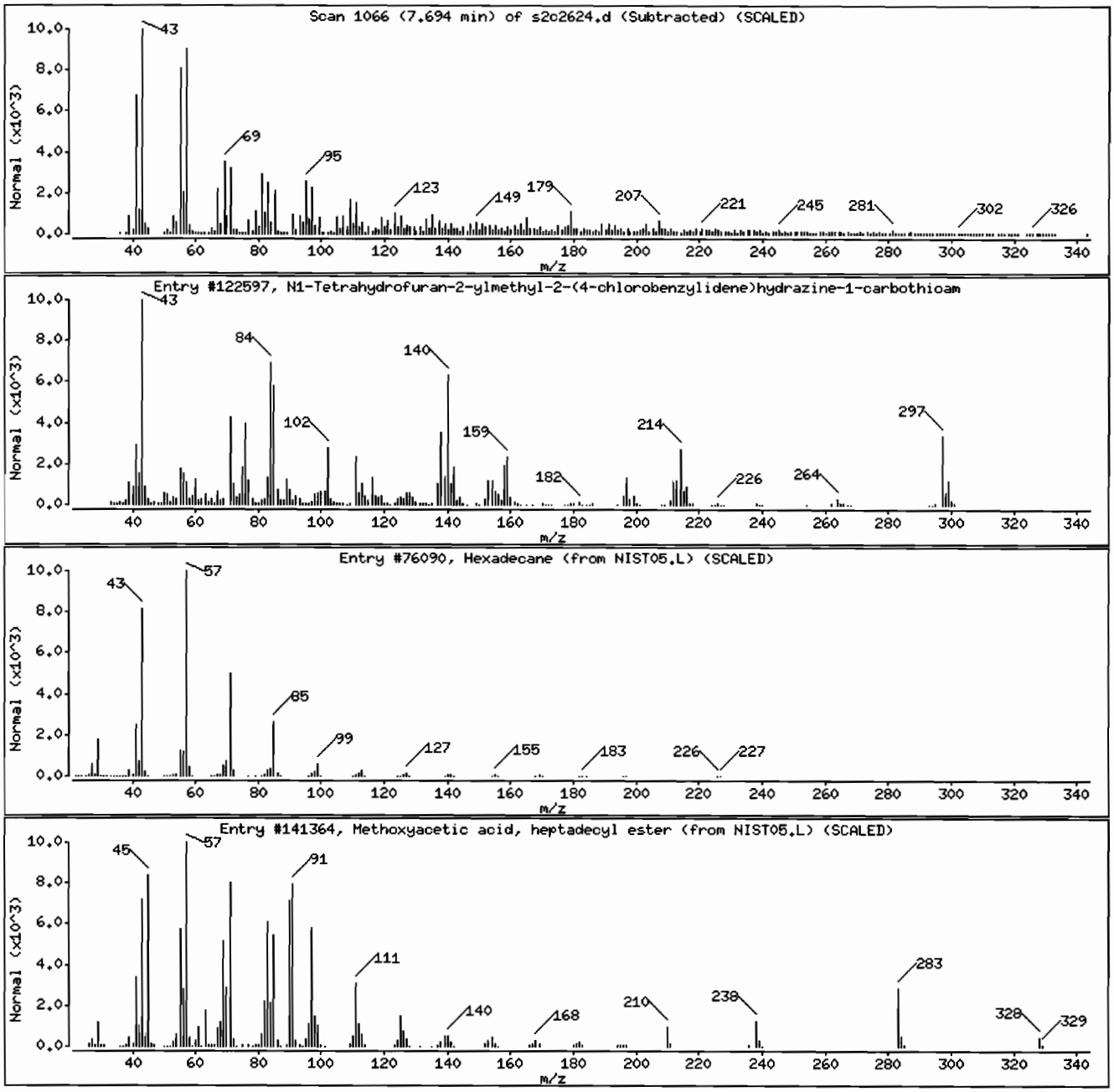

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436

Instrument: MSD2.i

Sample Info: 1249180002196667511ISVM11LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heptadecane	629-78-7	NIST05.L	85524	80	C17H36	240
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	74	C16H26O3	266
Hexadecane, 1-chloro-	4860-03-1	NIST05.L	98778	70	C16H33Cl	260

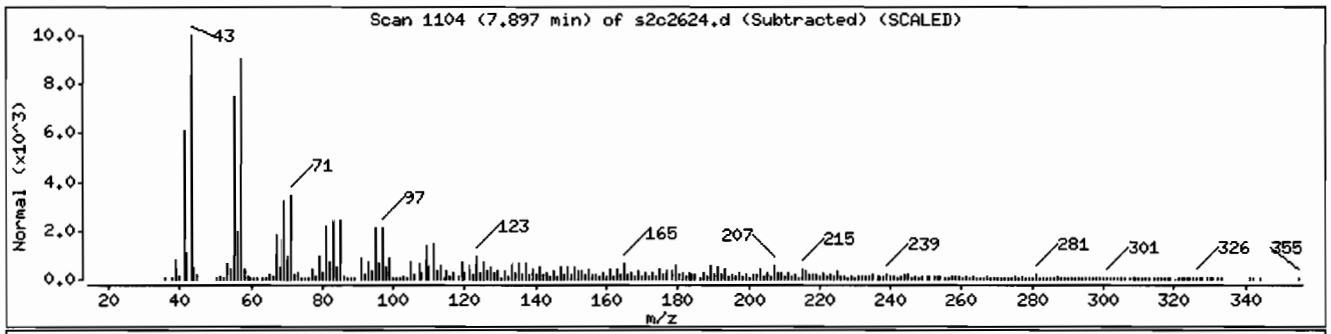

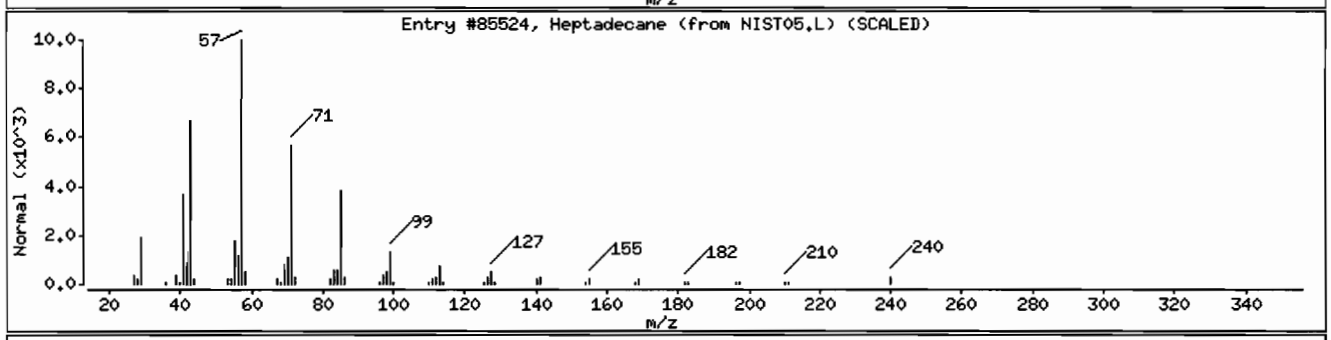

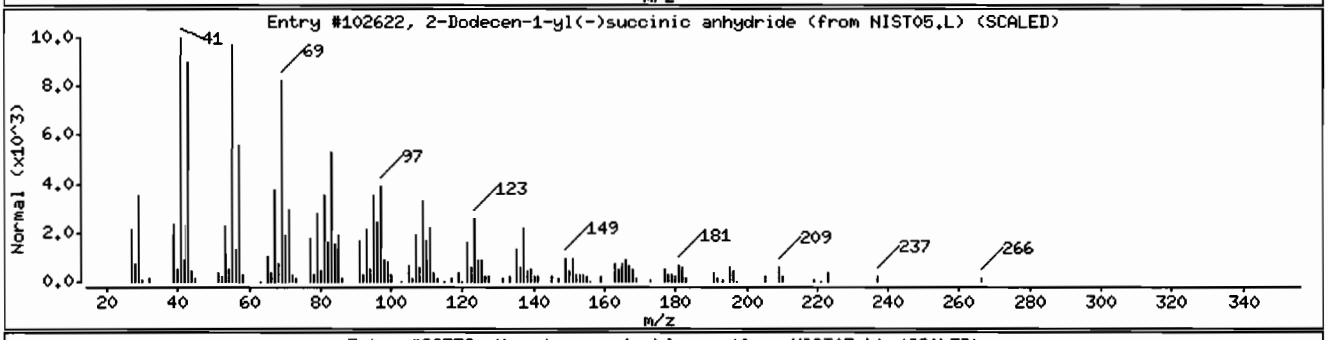

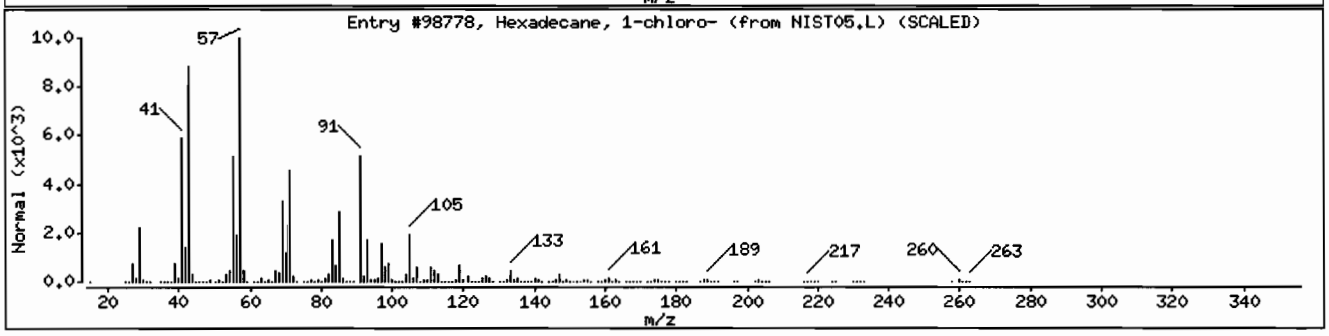

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436 Instrument: MSD2.i

Sample Info: |2491800021966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Sulfoxide, decyl methyl	3079-28-5	NIST05.L	59465	12	C11H24OS	204
2.beta.-(2,2-Dimethylpropanoyloxy)-2.alp	1000143-58-6	NIST05.L	177474	12	C19H28O11	432
1-Heptadecanamine	4200-95-7	NIST05.L	95505	11	C17H37N	255

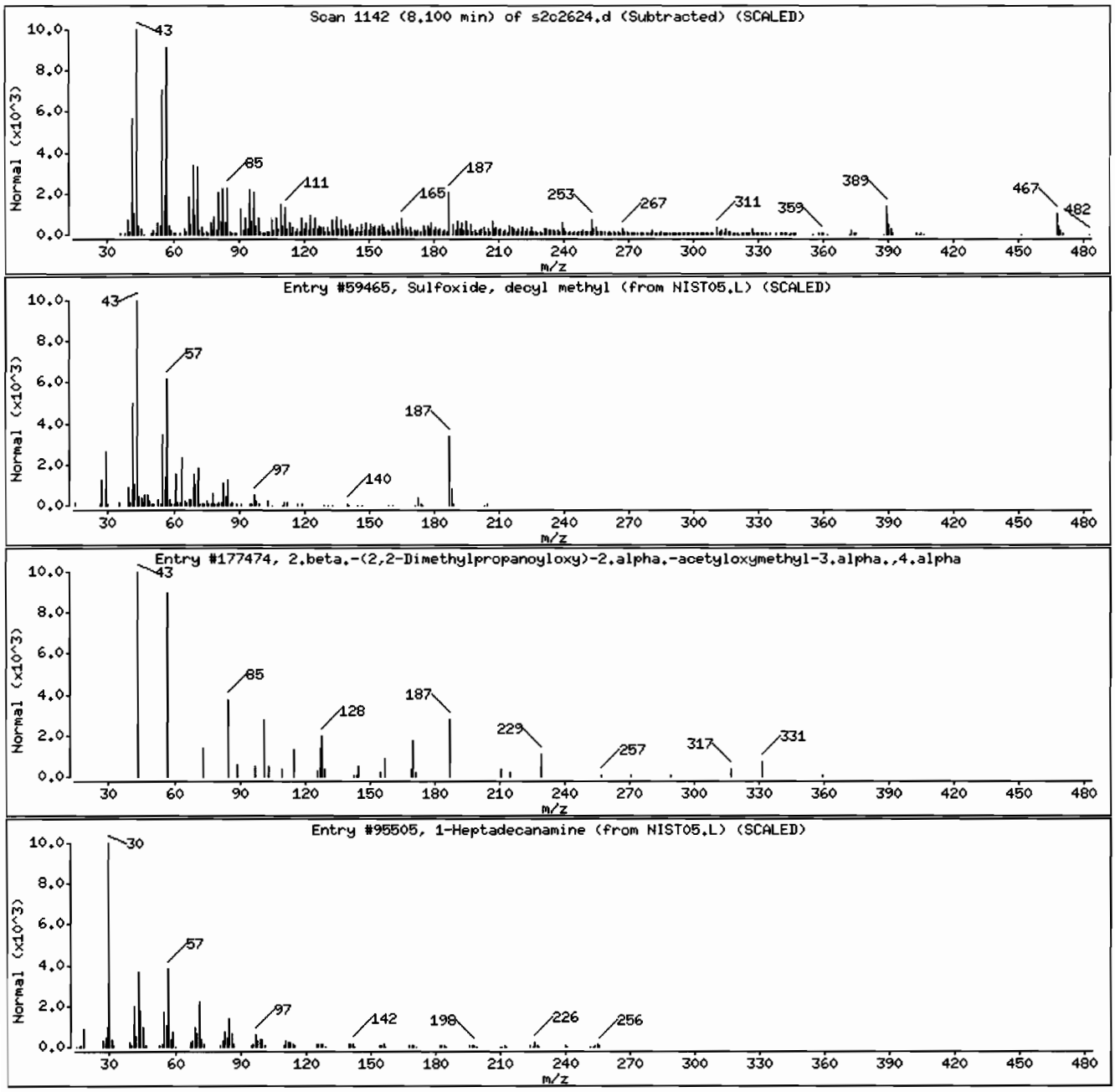

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436

Instrument: MSD2.i

Sample Info: 1249180002|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	38	C19H36	264
Cyclopentane, 1,1'-[3-(2-cyclopentylethy	55255-85-1	NIST05.L	127513	14	C22H40	304
Acetic acid, 2-(2-acetyl-3-oxoisoxazolid	1000185-79-0	NIST05.L	77716	12	C10H15NO5	229

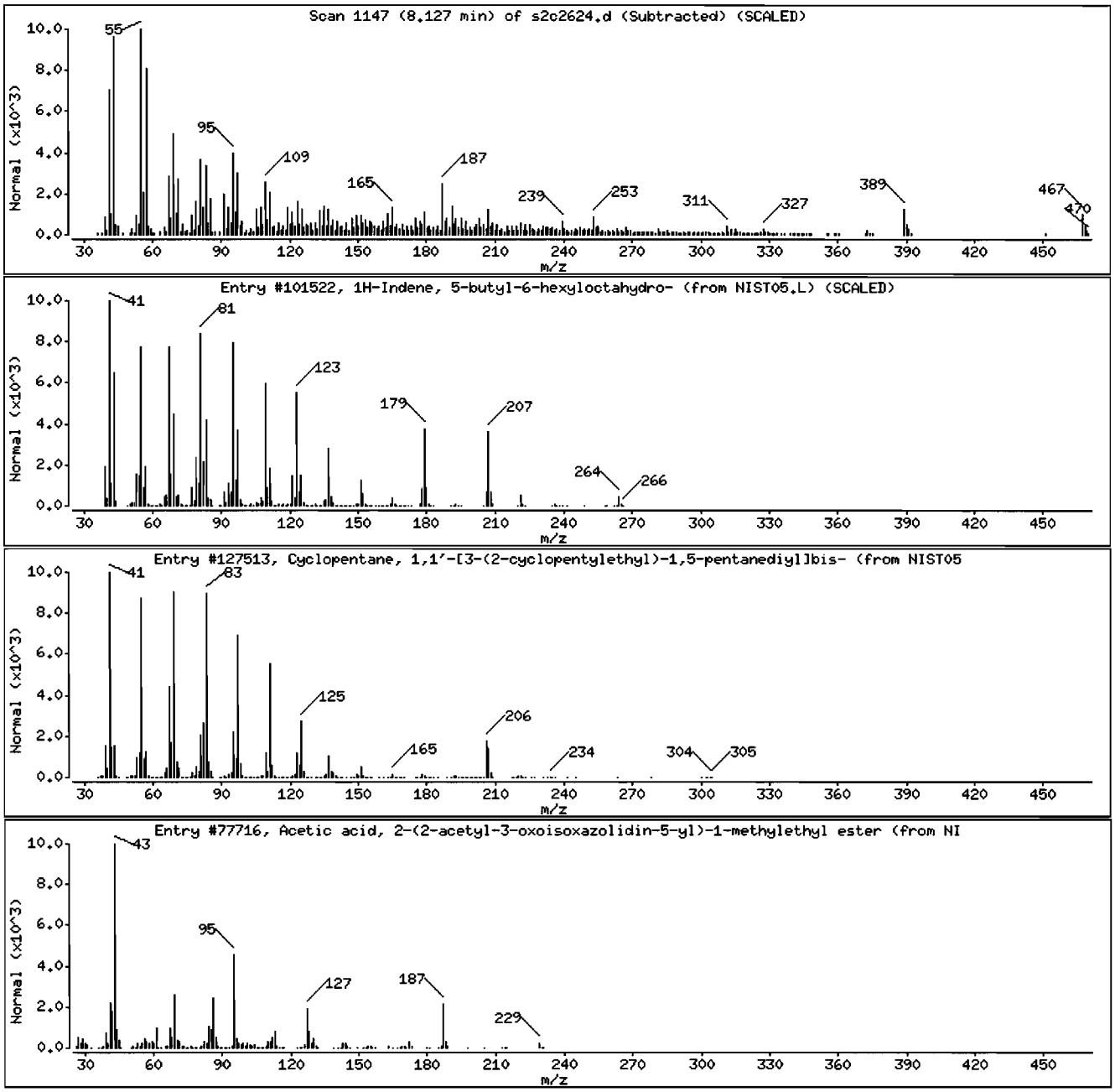

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436

Instrument: MSD2.i

Sample Info: 1249180002|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	68	C16H2603	266
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102623	64	C16H2603	266
E-9-Methyl-8-tridecen-2-ol, acetate	1000131-35-6	NIST05.L	94797	59	C16H3002	254

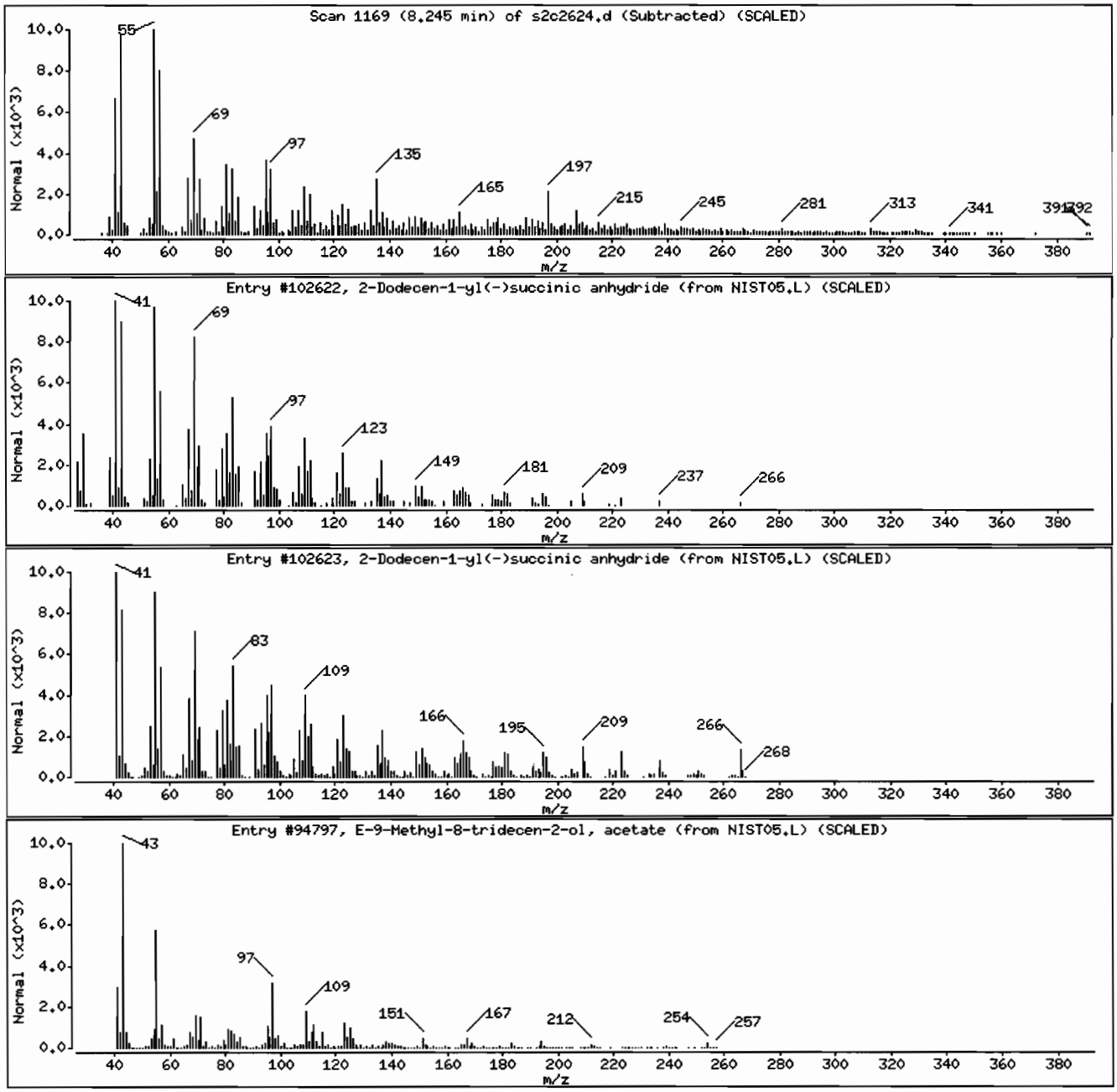

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436 Instrument: MSD2.i

Sample Info: |2491800021966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
N1-Tetrahydrofuran-2-ylmethyl-2-(4-chlor	283155-62-4	NIST05.L	122597	64	C13H16ClN3OS	297
1-Bromo-4-bromomethyldecane	61639-11-0	NIST05.L	131672	64	C11H22Br2	312
1,11-Dibromoundecane	16696-65-4	NIST05.L	131669	60	C11H22Br2	312

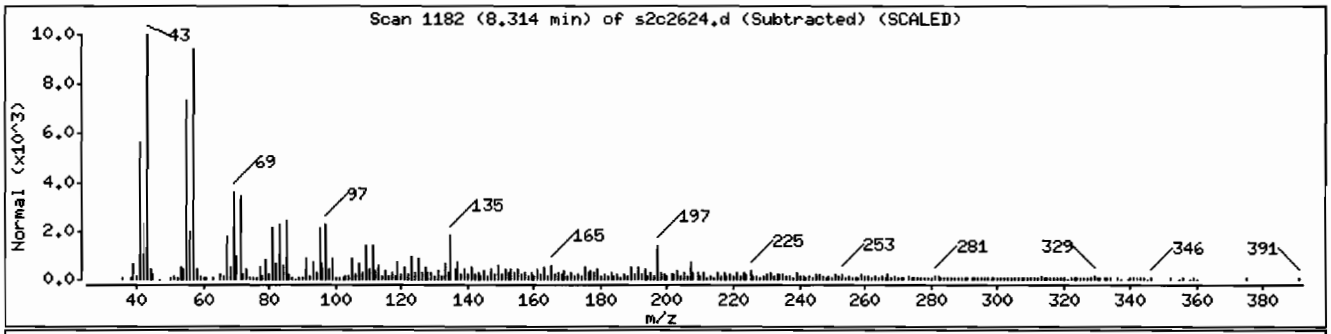

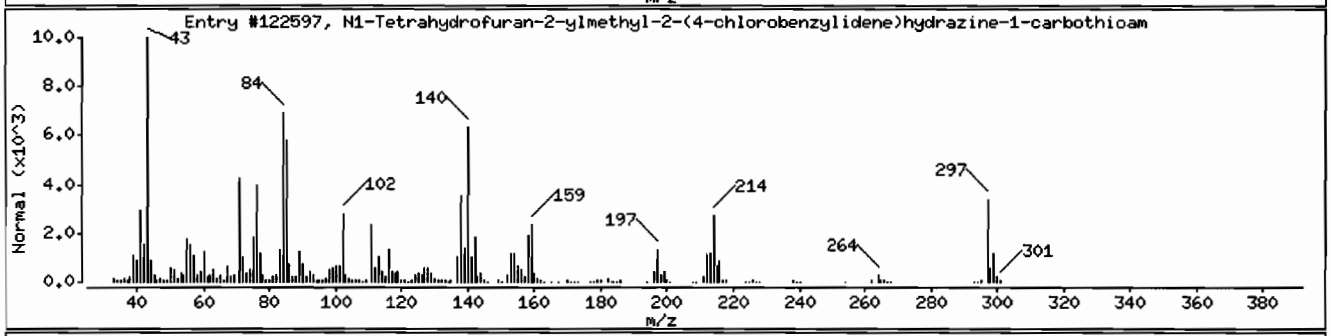

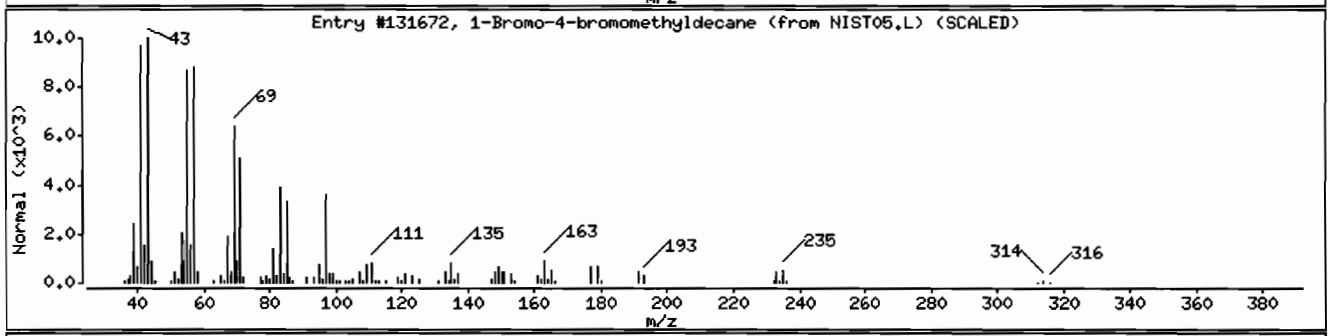

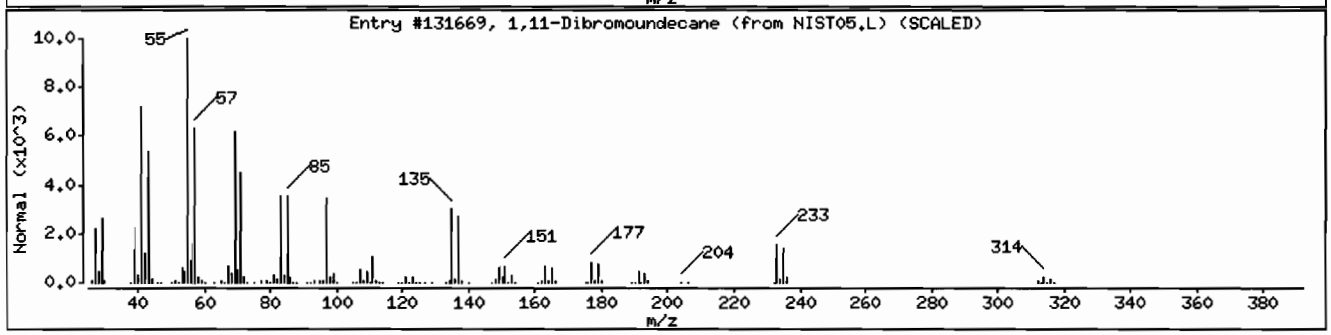

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436 Instrument: MSD2.i

Sample Info: |2491800021966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: ACS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	44	C19H36	264
2-Iodoadamantane	18971-91-0	NIST05.L	99512	25	C10H15I	262
6-(1-Adamantylamino)-2,4,5-trichloronico	339165-88-7	NIST05.L	154787	15	C16H16Cl3N3	355

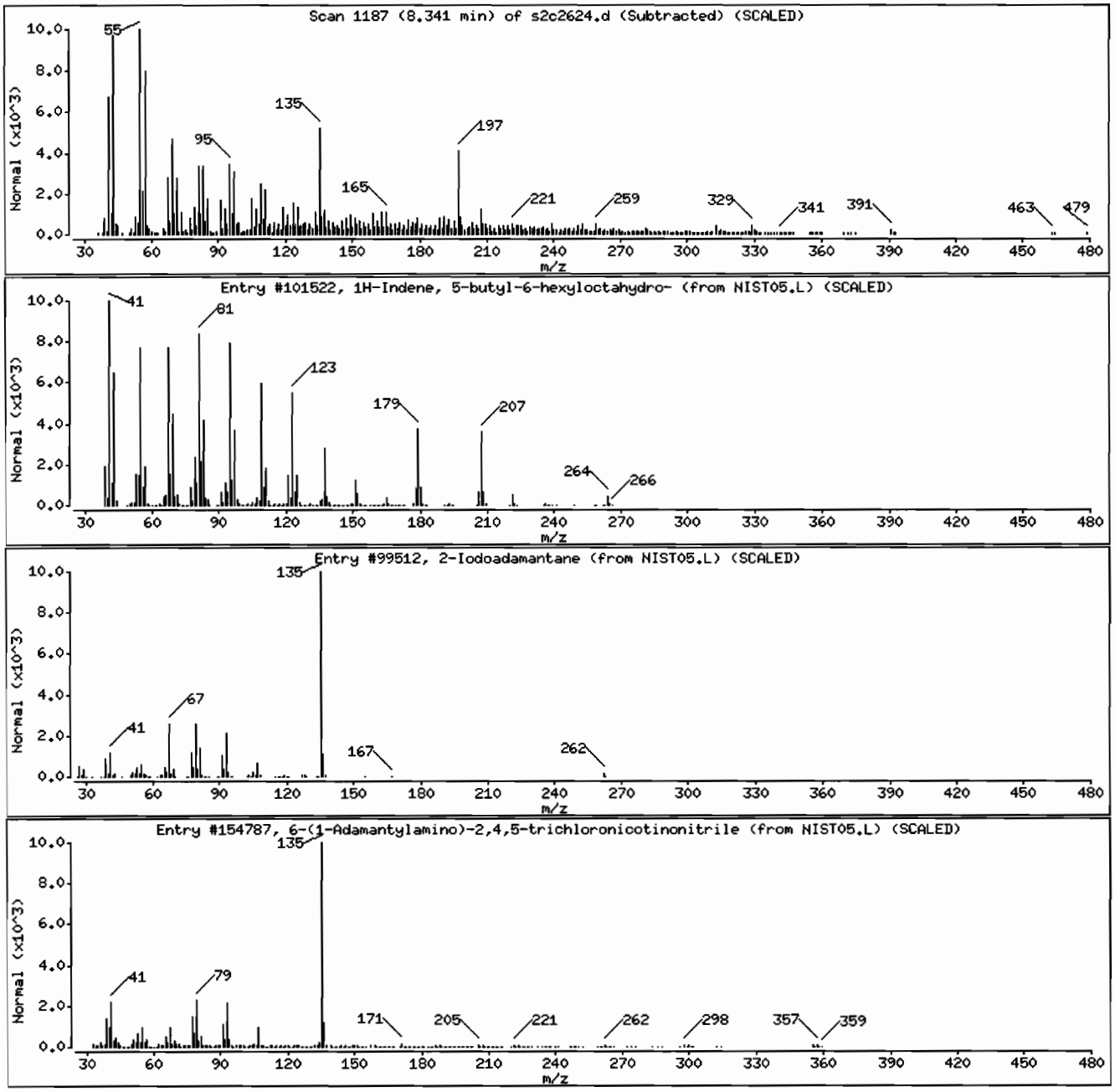

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436

Instrument: MSD2.i

Sample Info: |2491800002|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	35	C19H36	264
1,1-Dimethyl-1-phenyl-4,4,4-trivinyldisi	102105-78-2	NIST05.L	106868	25	C16H24Si2	272
2,10,10-Trimethyltricyclo[7.1.1.0(2,7)]u	148323-04-0	NIST05.L	59751	25	C14H20O	204

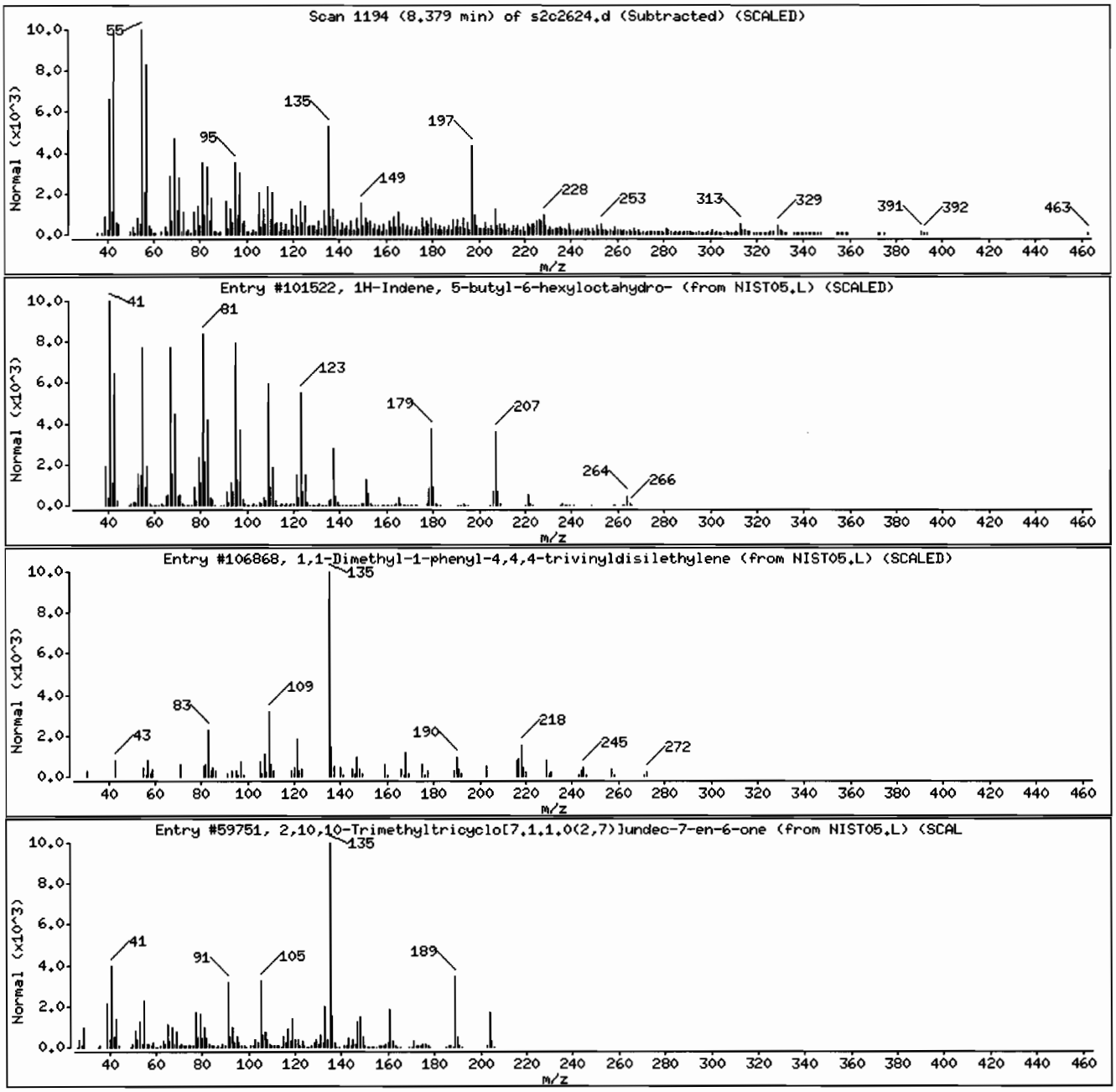

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436 Instrument: MSD2.i

Sample Info: |2491800021966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	70	C16H2603	266
Oxiranepentanoic acid, 3-undecyl-, methy	1041-25-4	NIST05.L	132218	68	C19H3603	312
9-Methyl-Z-10-tetradecen-1-ol acetate	1000130-99-4	NIST05.L	104145	64	C17H3202	268

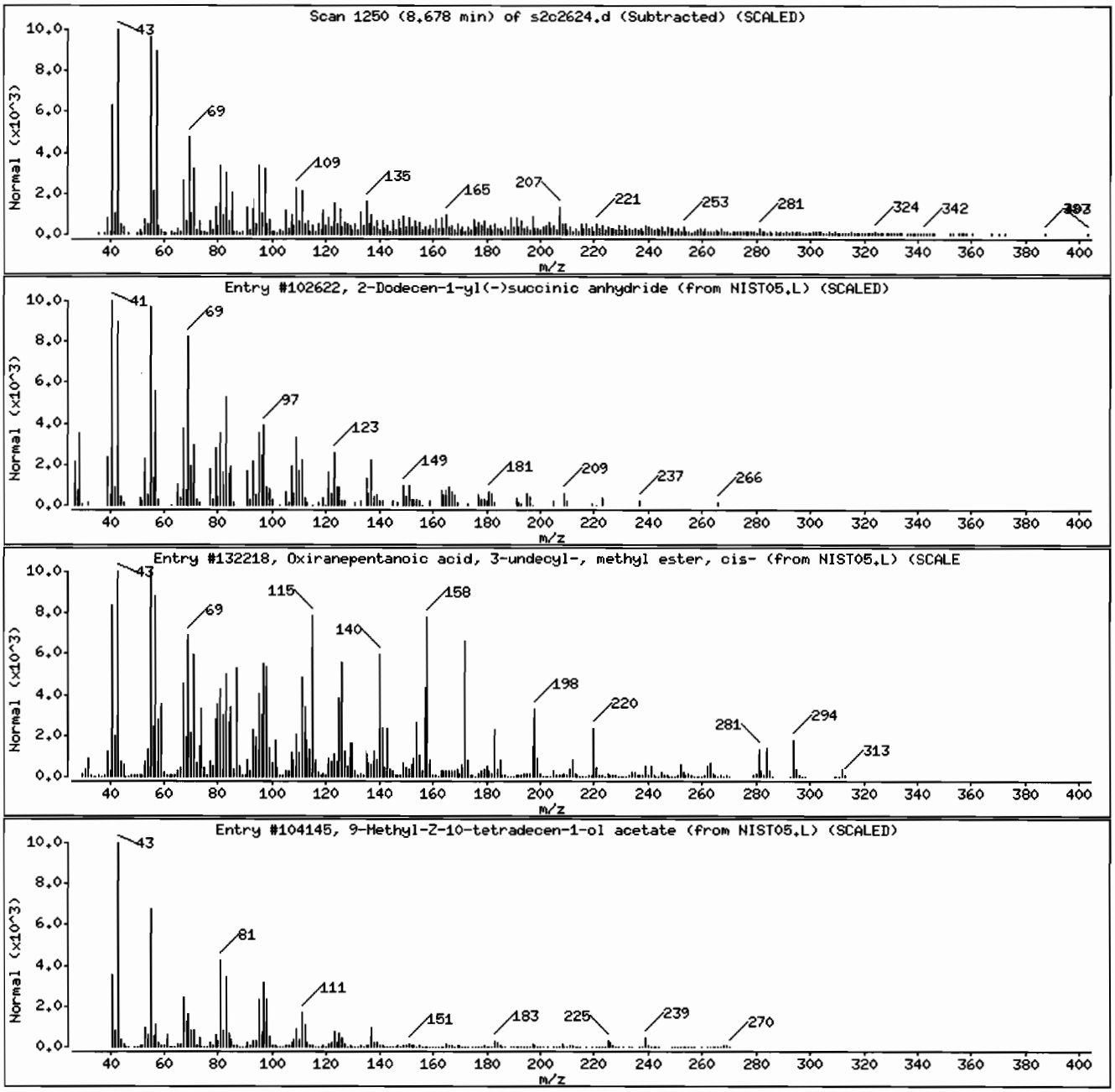

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436 Instrument: MSD2.i

Sample Info: |2491800021966675111SVM11LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Z-14-Octadecen-1-ol acetate	1000131-07-6	NIST05.L	131075	60	C20H3802	310
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	60	C16H2603	266
(1S,2E,4S,5R,7E,11E)-Cembra-2,7,11-trien	1000140-92-3	NIST05.L	128658	60	C20H3402	306

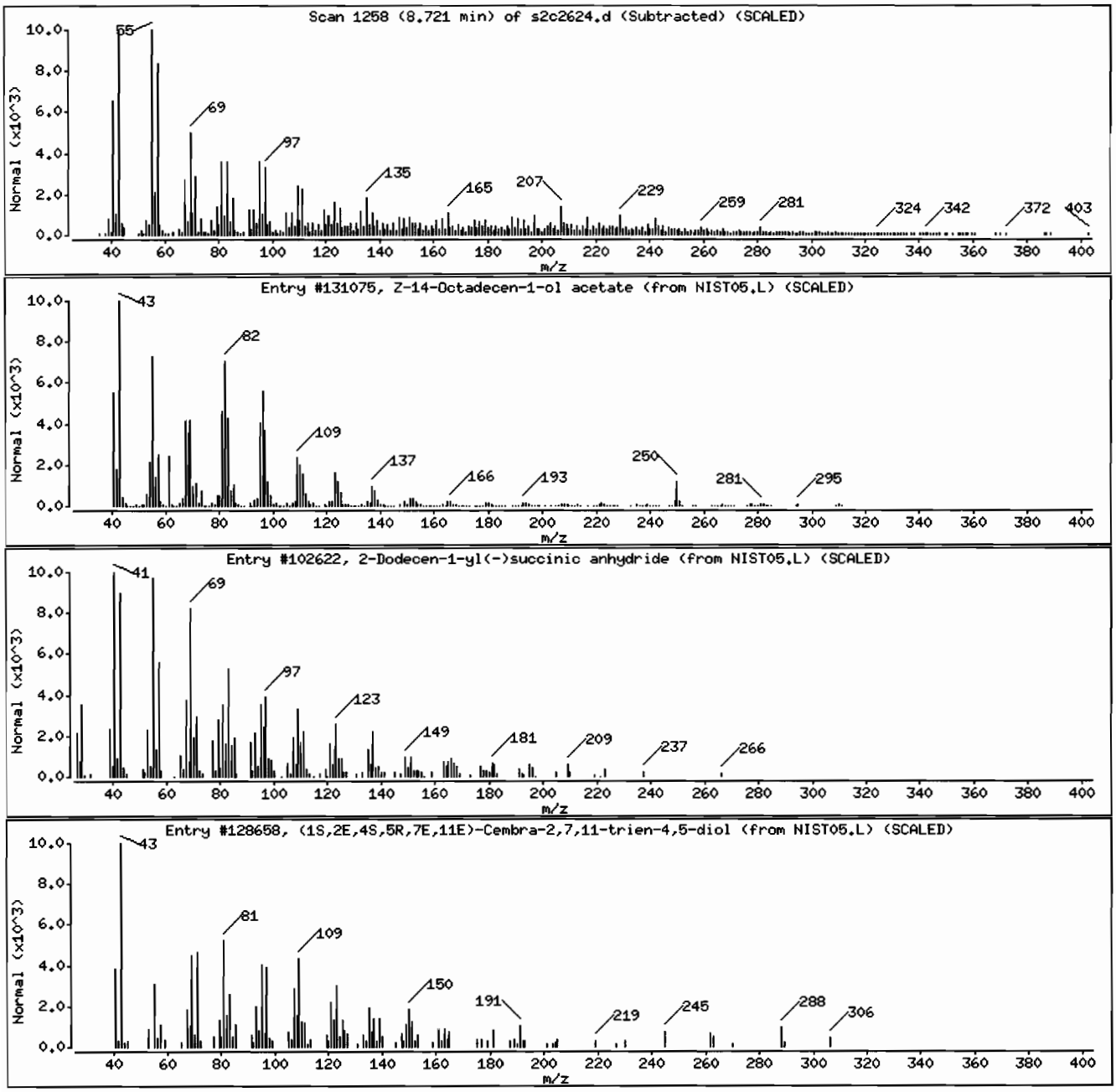

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436 Instrument: MSD2.i

Sample Info: 1249180002196667511SVMI11LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
7-Methyl-Z-tetradecen-1-ol acetate	1000130-99-6	NIST05.L	104132	70	C17H3202	268
l-Lysine, N2-[(2,4-dichlorophenoxy)acety	50649-08-6	NIST05.L	151440	64	C14H18Cl2N204	348
9-Methyl-Z-10-tetradecen-1-ol acetate	1000130-99-4	NIST05.L	104145	64	C17H3202	268

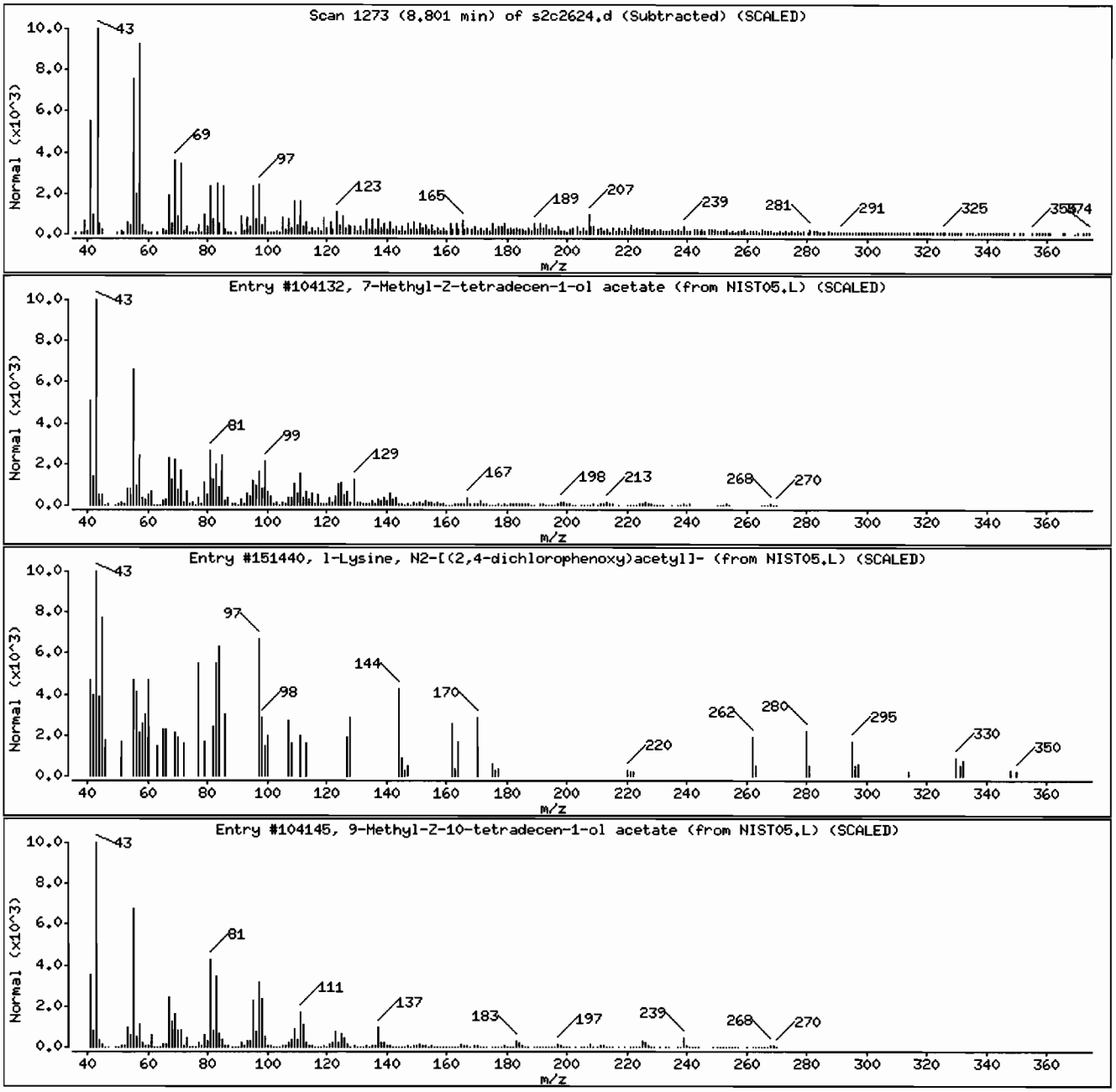

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436 Instrument: MSD2.i

Sample Info: |2491800021966675|1|SVH|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	30	C19H36	264
2-Methyl-cis-7,8-epoxynonadecane	1000130-93-3	NIST05.L	122417	25	C20H400	296
2-Butanone, 4-(2,3-epoxy-2,6,6-trimethyl	1000138-62-1	NIST05.L	64285	22	C13H2202	210

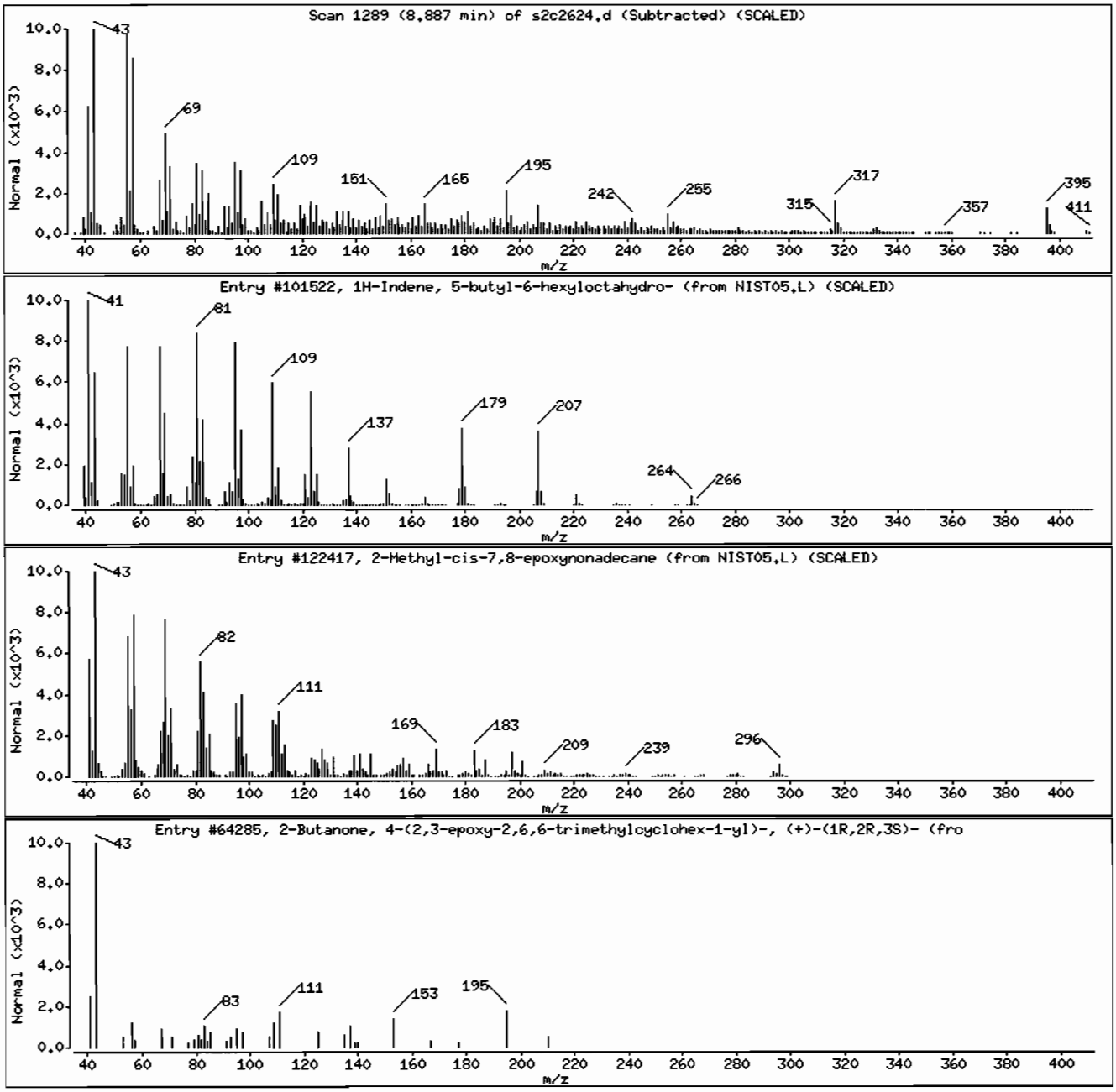

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436 Instrument: MSD2.i

Sample Info: |249180002|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	92	C16H2603	266
9-Methyl-Z-10-tetradecen-1-ol acetate	1000130-99-4	NIST05.L	104145	66	C17H3202	268
E-9-Methyl-8-tridecen-2-ol, acetate	1000131-35-6	NIST05.L	94797	59	C16H3002	254

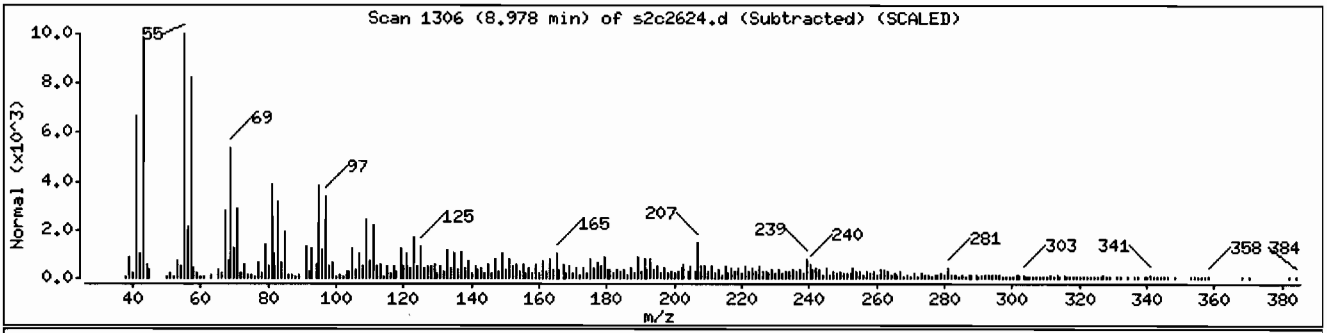

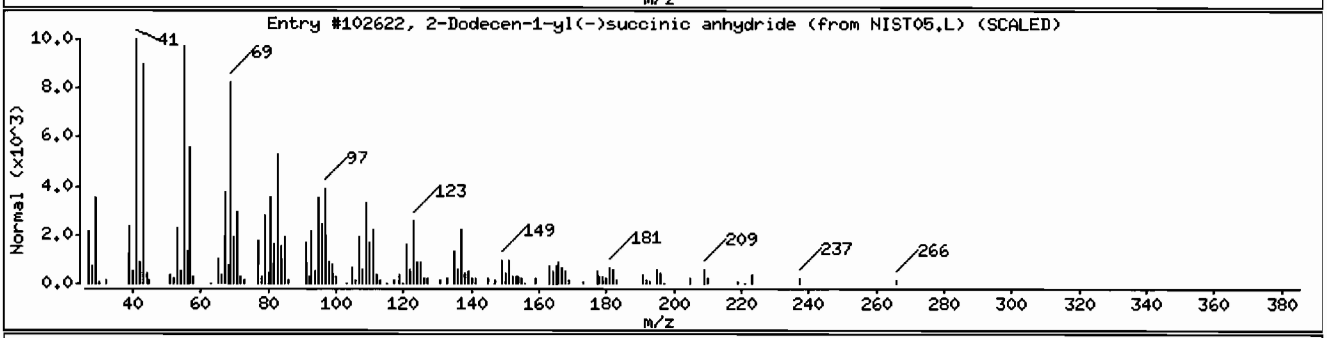

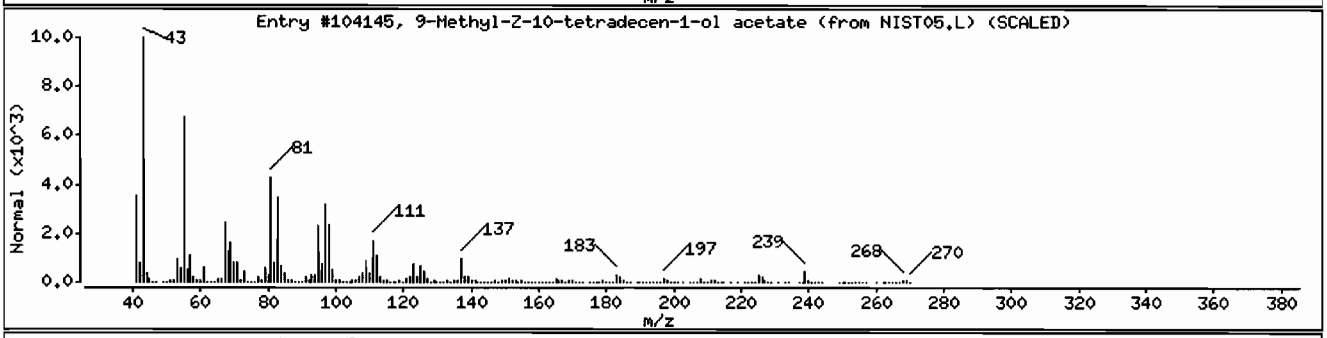

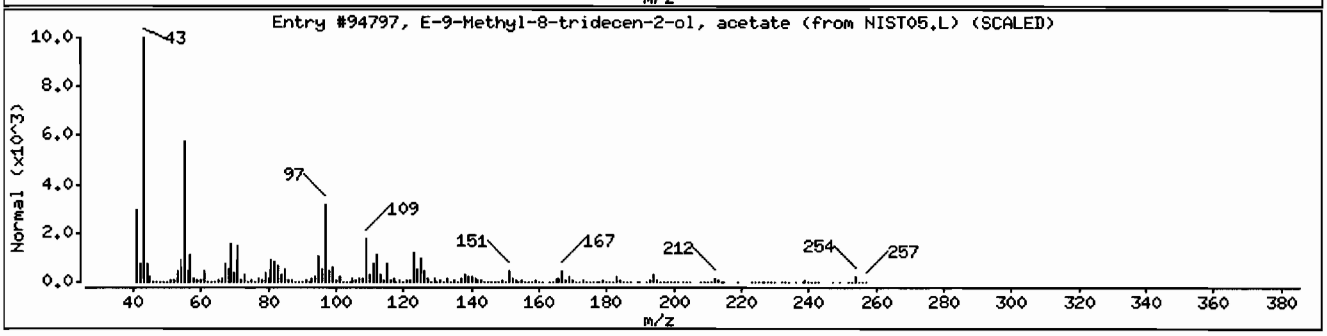

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436 Instrument: MSD2.i

Sample Info: |2491800021966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Oxiranepentanoic acid, 3-undecyl-, methy	1041-25-4	NIST05.L	132218	68	C19H3603	312
4-Methyldocosane	25117-30-0	NIST05.L	139235	60	C23H48	324
N1-Tetrahydrofuran-2-ylmethyl-2-(4-chlor	283155-62-4	NIST05.L	122597	56	C13H16ClN3OS	297

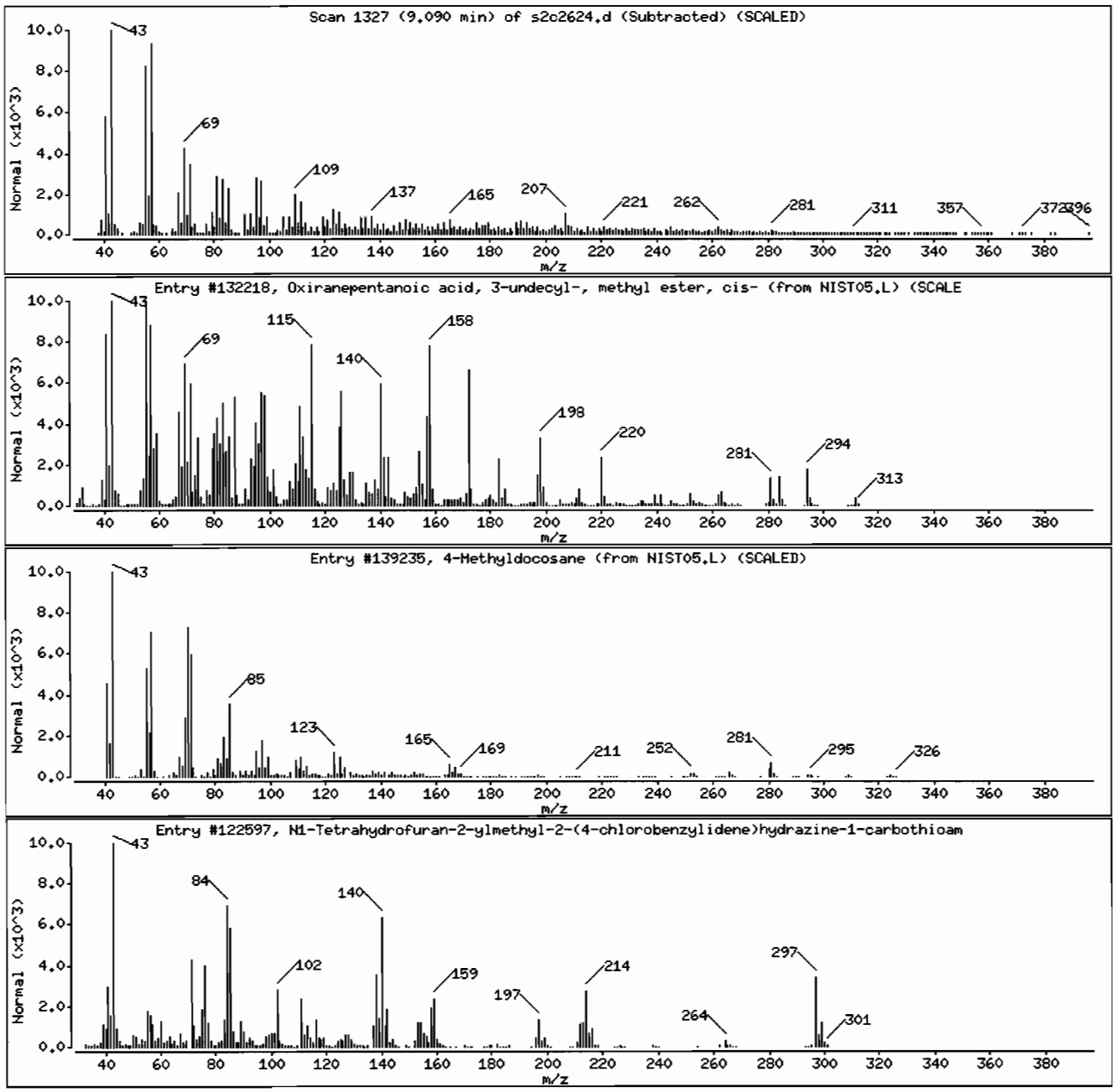

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436 Instrument: MSD2.i

Sample Info: |2491800021966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	86	C19H36	264
(1R,2S,8R,8Ar)-8-acetoxy-1-(2-hydroxyeth	1000298-98-4	NIST05.L	122239	78	C18H3203	296
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	70	C18H3402	282

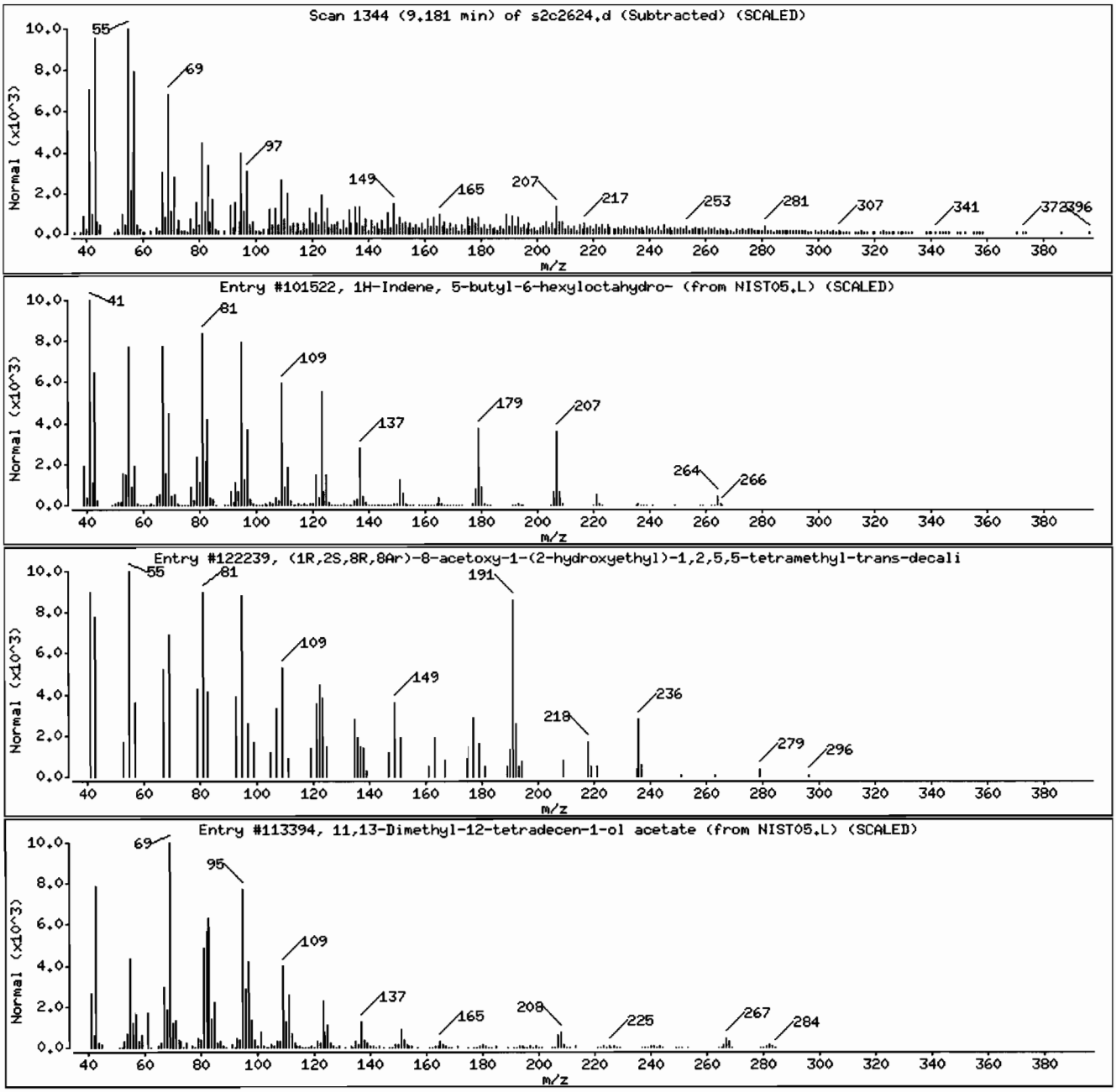

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436 Instrument: MSD2.i

Sample Info: I2491800021966675I1ISVMI1ILANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3-Methoxy-2-nitrobenzoic acid	4920-80-3	NIST05.L	55211	30	C8H7NO5	197
4-Hydrazono-5-hydroxyimino-4,5,6,7-tetra	303194-86-7	NIST05.L	55129	25	C6H7N5O3	197
Cholest-2-eno[2,3-b]quinoxaline, (5.beta	24479-67-2	NIST05.L	182335	25	C33H48N2	472

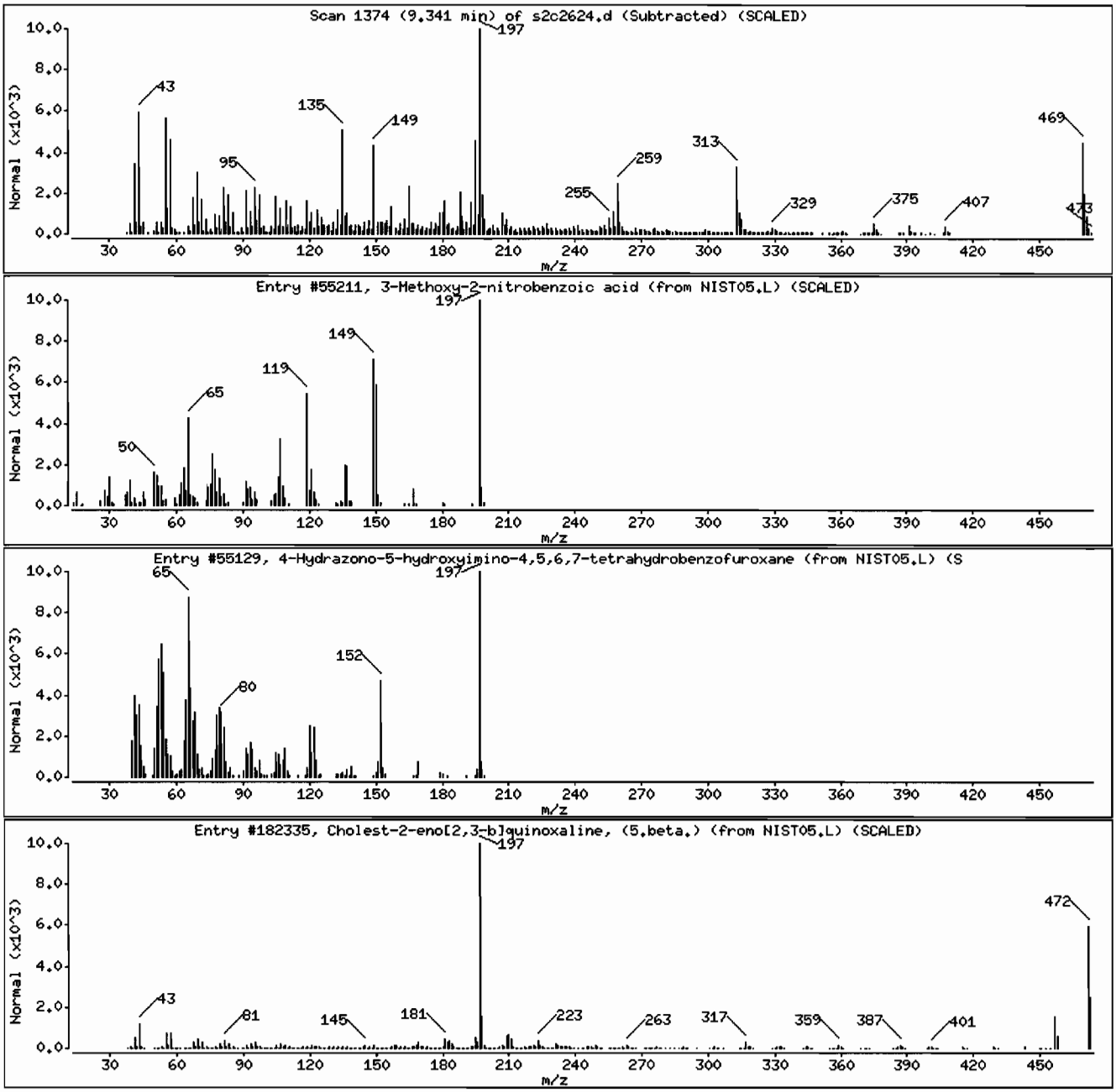

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436 Instrument: MSD2.i

Sample Info: |2491800021966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
E-9-Methyl-8-tridecen-2-ol, acetate	1000131-35-6	NIST05.L	94797	66	C16H3002	254
2,5-Furandione, 3-dodecyl-	59426-46-9	NIST05.L	102620	64	C16H2603	266
N1-Tetrahydrofuran-2-ylmethyl-2-(4-chlor	283155-62-4	NIST05.L	122597	59	C13H16ClN3OS	297

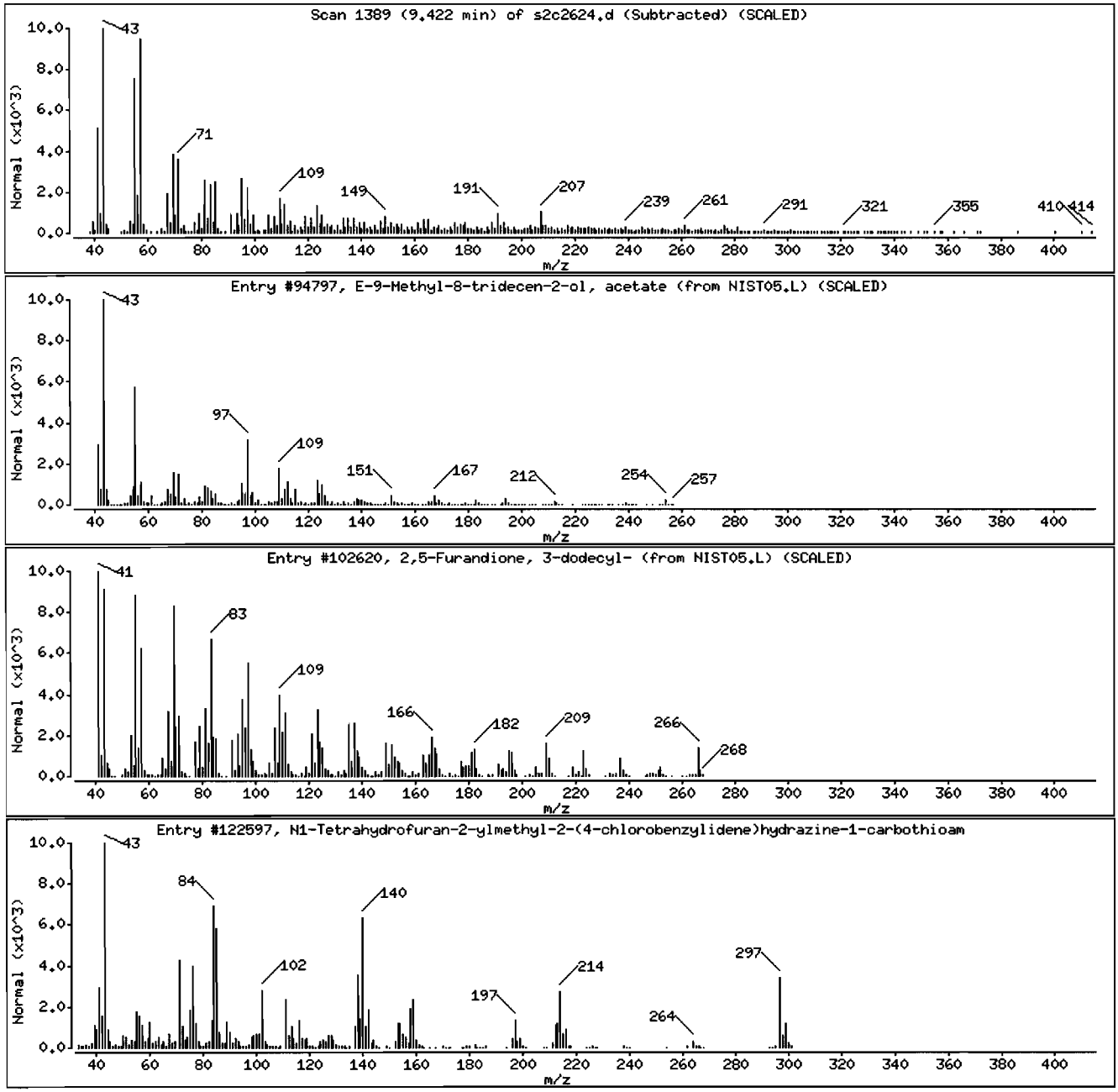

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436 Instrument: MSD2.i

Sample Info: 1249180002196667511SVMI11LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cholestan-3-one, (5.beta.)-	601-53-6	NIST05.L	167292	99	C27H460	386
Cholestan-3-one, (5.beta.)-	601-53-6	NIST05.L	167291	86	C27H460	386
17-(1,5-Dimethylhexyl)-10,13-dimethyl-2,	1000210-38-4	NIST05.L	167337	50	C27H460	386

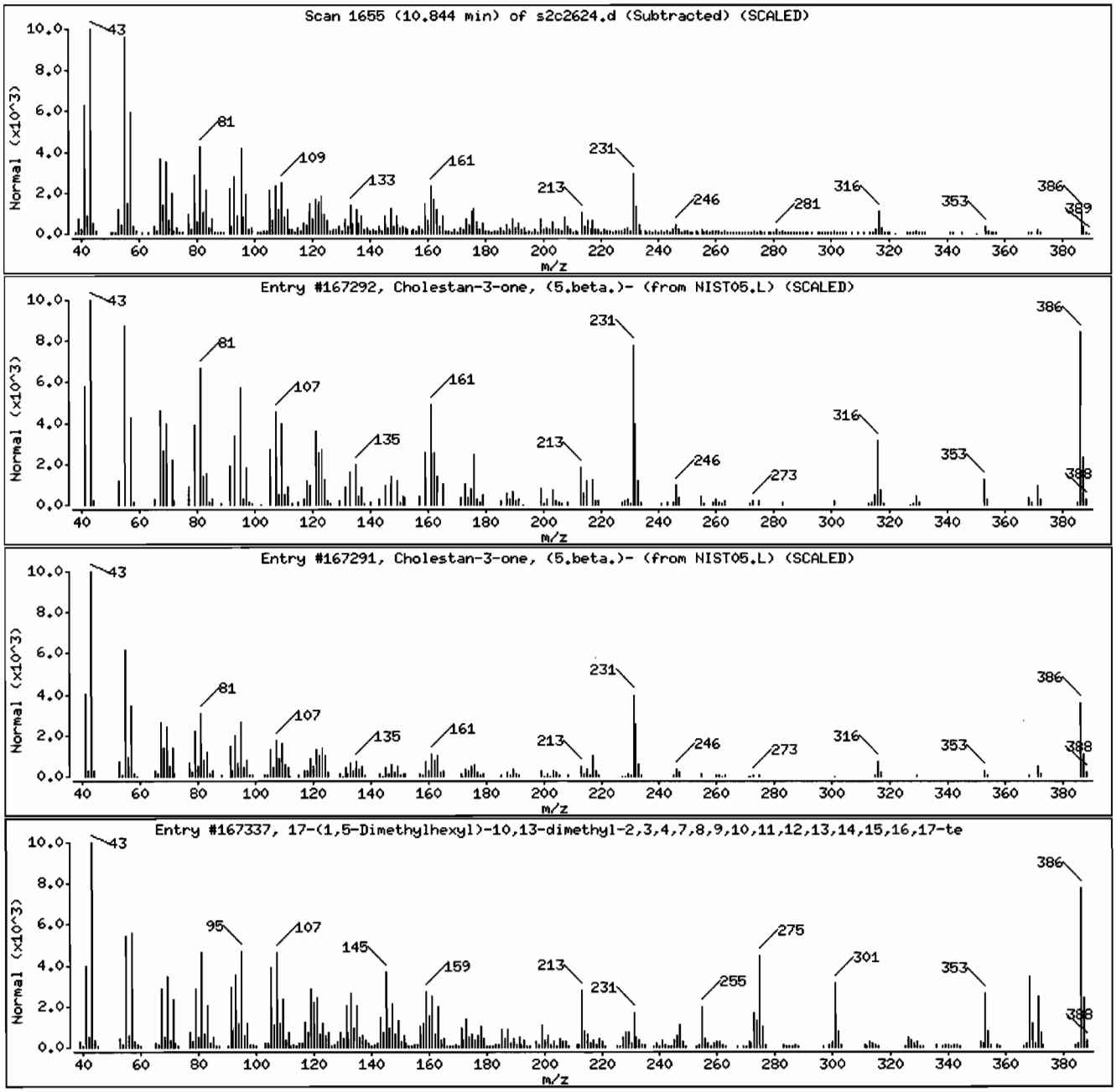

Data File: /chem/MSD2.i/s032610.b/s2c2624.d

Date : 26-MAR-2010 22:58

Client ID: RE46-10-13436 Instrument: MSD2.i

Sample Info: 1249180002|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: ACS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
p,p'-Ditolylamine	620-93-9	NIST05.L	55093	35	C14H15N	197
Benzaldehyde, 4-hydroxy-3-methoxy-5-nitr	6635-20-7	NIST05.L	55229	25	C8H7NO5	197
4-Hydrazono-5-hydroxyimino-4,5,6,7-tetra	303194-86-7	NIST05.L	55129	25	C6H7N5O3	197

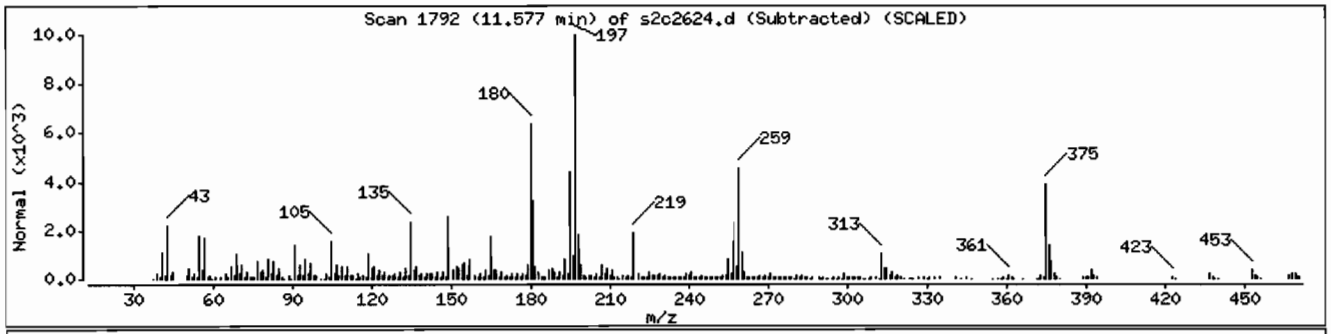

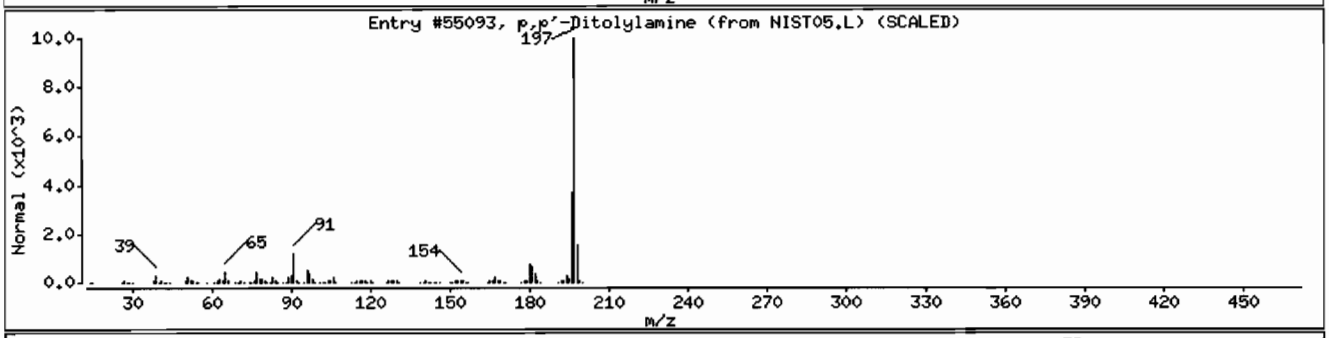

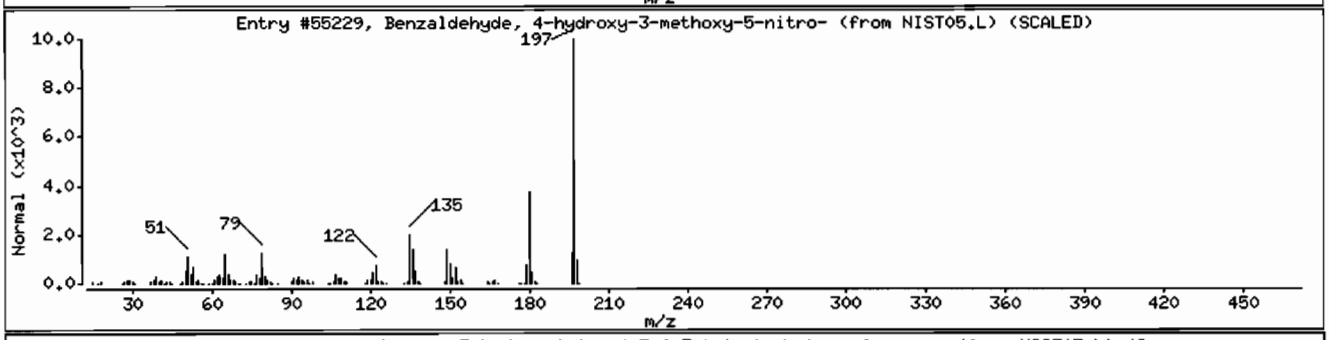

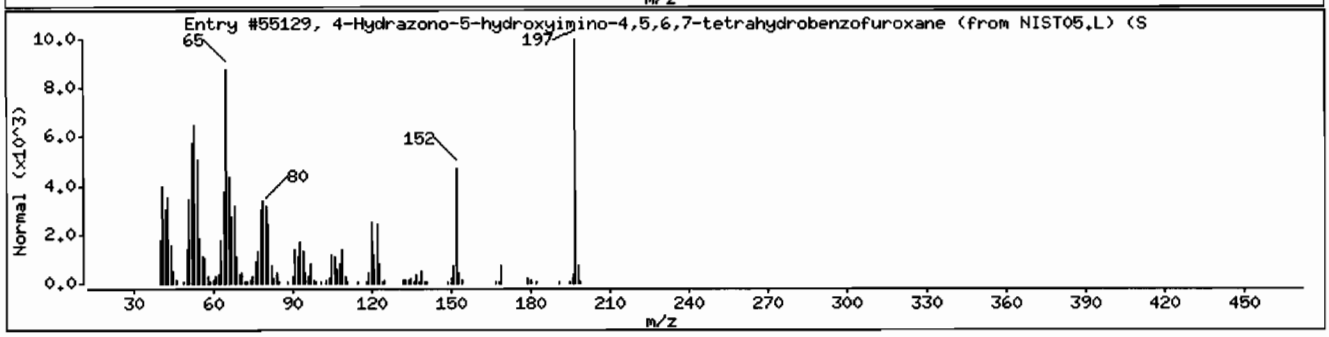

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180001**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13437**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 22:38**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2623.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	408	ug/kg	81.6	408
108-95-2	Phenol	U	408	ug/kg	81.6	408
95-57-8	2-Chlorophenol	U	408	ug/kg	81.6	408
106-46-7	1,4-Dichlorobenzene	U	408	ug/kg	81.6	408
621-64-7	N-Nitrosodipropylamine	U	408	ug/kg	81.6	408
59-50-7	4-Chloro-3-methylphenol	U	408	ug/kg	81.6	408
83-32-9	Acenaphthene	U	40.8	ug/kg	13.5	40.8
121-14-2	2,4-Dinitrotoluene	U	408	ug/kg	40.8	408
100-02-7	4-Nitrophenol	U	408	ug/kg	135	408
87-86-5	Pentachlorophenol	U	408	ug/kg	102	408
129-00-0	Pyrene		63.4	ug/kg	12.2	40.8
110-86-1	Pyridine	U	408	ug/kg	81.6	408
62-53-3	Aniline	U	408	ug/kg	122	408
111-44-4	bis(2-Chloroethyl) ether	U	408	ug/kg	81.6	408
541-73-1	1,3-Dichlorobenzene	U	408	ug/kg	81.6	408
100-51-6	Benzyl alcohol	U	408	ug/kg	122	408
95-50-1	1,2-Dichlorobenzene	U	408	ug/kg	81.6	408
108-60-1	bis(2-Chloroisopropyl)ether	U	408	ug/kg	81.6	408
95-48-7	o-Cresol	U	408	ug/kg	81.6	408
65794-96-9	m,p-Cresols	U	408	ug/kg	122	408
67-72-1	Hexachloroethane	U	408	ug/kg	81.6	408
98-95-3	Nitrobenzene	U	408	ug/kg	81.6	408
78-59-1	Isophorone	U	408	ug/kg	81.6	408
88-75-5	2-Nitrophenol	U	408	ug/kg	81.6	408
105-67-9	2,4-Dimethylphenol	U	408	ug/kg	143	408
111-91-1	bis(2-Chloroethoxy)methane	U	408	ug/kg	81.6	408
120-83-2	2,4-Dichlorophenol	U	408	ug/kg	81.6	408
65-85-0	Benzoic acid	U	816	ug/kg	204	816
91-20-3	Naphthalene	U	40.8	ug/kg	12.2	40.8
106-47-8	4-Chloroaniline	U	408	ug/kg	81.6	408
87-68-3	Hexachlorobutadiene	U	408	ug/kg	81.6	408
91-57-6	2-Methylnaphthalene	U	40.8	ug/kg	8.16	40.8
77-47-4	Hexachlorocyclopentadiene	U	408	ug/kg	81.6	408
88-06-2	2,4,6-Trichlorophenol	U	408	ug/kg	81.6	408
95-95-4	2,4,5-Trichlorophenol	U	408	ug/kg	81.6	408
91-58-7	2-Chloronaphthalene	U	40.8	ug/kg	13.5	40.8
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	408	ug/kg	81.6	408
99-09-2	3-Nitroaniline	U	408	ug/kg	81.6	408

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180001**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13437**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 22:38**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2623.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	408	ug/kg	81.6	408
606-20-2	2,6-Dinitrotoluene	U	408	ug/kg	40.8	408
208-96-8	Acenaphthylene	U	40.8	ug/kg	12.2	40.8
51-28-5	2,4-Dinitrophenol	U	816	ug/kg	155	816
132-64-9	Dibenzofuran	U	408	ug/kg	81.6	408
84-66-2	Diethylphthalate	U	408	ug/kg	81.6	408
86-73-7	Fluorene	U	40.8	ug/kg	12.2	40.8
7005-72-3	4-Chlorophenylphenylether	U	408	ug/kg	81.6	408
534-52-1	2-Methyl-4,6-dinitrophenol	U	408	ug/kg	81.6	408
100-01-6	4-Nitroaniline	U	408	ug/kg	122	408
	p-Nitroaniline					
122-39-4	Diphenylamine	U	408	ug/kg	81.6	408
122-66-7	Azobenzene	U	408	ug/kg	81.6	408
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	408	ug/kg	81.6	408
118-74-1	Hexachlorobenzene	U	408	ug/kg	81.6	408
85-01-8	Phenanthrene	J	40.3	ug/kg	12.2	40.8
120-12-7	Anthracene	J	15.4	ug/kg	8.16	40.8
84-74-2	Di-n-butylphthalate	U	408	ug/kg	81.6	408
206-44-0	Fluoranthene		84.6	ug/kg	12.2	40.8
85-68-7	Butylbenzylphthalate	U	408	ug/kg	81.6	408
56-55-3	Benzo(a)anthracene	U	40.8	ug/kg	12.2	40.8
91-94-1	3,3'-Dichlorobenzidine	U	408	ug/kg	122	408
218-01-9	Chrysene	U	40.8	ug/kg	12.2	40.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	408	ug/kg	81.6	408
117-84-0	Di-n-octylphthalate	U	408	ug/kg	81.6	408
205-99-2	Benzo(b)fluoranthene		88.1	ug/kg	12.2	40.8
207-08-9	Benzo(k)fluoranthene	U	40.8	ug/kg	12.2	40.8
50-32-8	Benzo(a)pyrene	U	40.8	ug/kg	12.2	40.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.8	ug/kg	12.2	40.8
53-70-3	Dibenzo(a,h)anthracene	U	40.8	ug/kg	12.2	40.8
191-24-2	Benzo(ghi)perylene	U	40.8	ug/kg	12.2	40.8
120-82-1	1,2,4-Trichlorobenzene	U	408	ug/kg	81.6	408

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
55044-36-5	1H-Indene, 5-butyl-6-hexyloctahydro-	7.94	669	ug/kg	93	NJ
1000130-82-4	Z-8-Methyl-9-tetradecen-1-ol acetate	8.09	992	ug/kg	86	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180001**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13437**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 22:38**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2623.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.19	476	ug/kg		J
	Unknown	8.31	477	ug/kg		J
	Unknown	8.42	534	ug/kg		J
	Unknown	8.45	481	ug/kg		J
	Unknown	8.67	1070	ug/kg		J
	Unknown	8.71	510	ug/kg		J
309735-29-3	1,2-Benzisothiazole, 3-(hexahydro-1H-aze	8.76	713	ug/kg	91	NJ
	Unknown	8.81	516	ug/kg		J
	Unknown	8.84	514	ug/kg		J
	Unknown	8.9	803	ug/kg		J
	Unknown	8.92	467	ug/kg		J
	Unknown	8.98	743	ug/kg		J
1000215-78-2	Sclareoloxide	9.03	737	ug/kg	86	NJ
1000130-78-5	11,12-Dibromo-tetradecan-1-ol acetate	9.1	925	ug/kg	89	NJ
	Unknown	9.2	1260	ug/kg		J
	Unknown	9.25	1270	ug/kg		J
	Unknown	9.33	1070	ug/kg		J
	Unknown	9.44	1050	ug/kg		J
	Unknown	9.6	1260	ug/kg		J
	Unknown	9.66	795	ug/kg		J
	Unknown	9.74	1100	ug/kg		J
1041-25-4	Oxiranepentanoic acid, 3-undecyl-, methy	9.87	1250	ug/kg	90	NJ
	Unknown	10.12	656	ug/kg		J
	Unknown	10.16	713	ug/kg		J
	Unknown	10.25	1750	ug/kg		J
	Unknown	10.44	984	ug/kg		J
	Unknown	10.56	823	ug/kg		J
	Unknown	10.66	877	ug/kg		J

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Data file : /chem/MSD2.i/s032610.b/s2c2623.d
Lab Smp Id: 249180001 Client Smp ID: RE46-10-13437
Inj Date : 26-MAR-2010 22:38
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249180001|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2398.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	18.35860	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	144182	40.0000	
* 29 Naphthalene-d8	136	4.667	4.672	(1.000)	576132	40.0000	
* 46 Acenaphthene-d10	164	5.913	5.918	(1.000)	350647	40.0000	
* 67 Phenanthrene-d10	188	6.902	6.908	(1.000)	629722	40.0000	
* 91 Chrysene-d12	240	8.544	8.555	(1.000)	483812	40.0000	
* 98 Perylene-d12	264	9.951	9.962	(1.000)	309507	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	220356	64.1848	2620
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	250292	59.2042	2420
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.893)	140674	33.7364	1380
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.915)	298867	30.9796	1260
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.091)	66306	63.9324	2610
$ 81 p-Terphenyl-d14	244	7.817	7.822	(0.915)	354671	40.1956	1640

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.763	7.774	(0.909)	24510	1.55414	63.4
68 Phenanthrene	178	6.918	6.924	(1.002)	15385	0.98847	40.3(a)
69 Anthracene	178	6.950	6.956	(1.007)	5665	0.37624	15.4(a)
76 Fluoranthene	202	7.630	7.635	(1.105)	29123	2.07154	84.6
95 Benzo(b)fluoranthene	252	9.502	9.512	(0.955)	18225	2.15881	88.1

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s2c2623.d
Report Date: 03/27/2010 21:57
Lab. ID: 249180001 SampleType: SAMPLE
Injection Date: 26-MAR-2010 22:38
Operator: AGS1 Instrument: MSD2.i
Sample Info: |249180001|966675|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2398
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	18288	3.53	3.60	80-120	100	(T)
93	497	3.49	3.61	335-395	3	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	23112	4.17	4.05	80-120	100	(T)
42	20071	4.17	4.05	96-156	87	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	63251	5.91	5.69	80-120	100	(T)
164	350647	5.91	5.69	0- 40	554	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	45452	5.91	5.74	80-120	100	(T)
63	799	5.91	5.74	87-147	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	45452	5.91	6.03	80-120	100	(T)
89	972	5.91	6.03	58-118	2	(QT)
63	799	5.91	6.03	47-107	2	(QT)
53 Fluorene			CAS#: 86-73-7			
166	3474	6.45	6.29	80-120	100	(T)
165	3561	6.45	6.29	61-121	103	(T)
167	1391	6.45	6.29	0- 43	40	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	225	6.45	6.31	80-120	100	(T)
105	776	6.45	6.31	15- 75	344	(QT)
51	774	6.45	6.31	92-152	343	(QT)
68 Phenanthrene				CAS#: 85-01-8		
178	15385	6.92	6.92	80-120	100	( )
179	2677	6.92	6.92	0- 45	17	( )
176	2990	6.92	6.92	0- 49	19	( )
69 Anthracene				CAS#: 120-12-7		
178	5665	6.95	6.96	80-120	100	( )
179	957	6.95	6.96	0- 46	17	( )
176	1021	6.95	6.96	0- 48	18	( )
76 Fluoranthene				CAS#: 206-44-0		
202	29123	7.63	7.64	80-120	100	( )
203	5222	7.63	7.64	0- 47	18	( )
101	2579	7.63	7.64	0- 39	9	( )
79 Pyrene				CAS#: 129-00-0		
202	24510	7.76	7.77	80-120	100	( )
200	4946	7.76	7.77	0- 51	20	( )
101	3241	7.76	7.77	0- 40	13	( )
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	12948	8.56	8.54	80-120	100	( )
226	4967	8.56	8.54	0- 56	38	( )
229	4152	8.56	8.54	0- 49	32	( )
92 Chrysene				CAS#: 218-01-9		
228	12948	8.56	8.58	80-120	100	( )
229	4152	8.56	8.58	0- 50	32	( )
226	4965	8.56	8.58	0- 59	38	( )
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	18225	9.50	9.51	80-120	100	( )
253	4730	9.51	9.51	0- 49	26	( )
125	3347	9.50	9.51	0- 39	18	( )
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	18174	9.50	9.54	80-120	100	( )
253	4822	9.51	9.54	0- 54	27	( )
125	3214	9.50	9.54	0- 40	18	( )
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	8673	9.89	9.89	80-120	100	( )
253	2735	9.88	9.89	0- 52	32	( )
125	2928	9.89	9.89	0- 42	34	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	3411	11.52	11.53	80-120	100	( )
138	230	11.51	11.53	0- 58	7	( )
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	3230	12.01	12.02	80-120	100	( )
138	715	12.01	12.02	0- 58	22	( )

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD2.i/s032610.b/s2c2623.d
Lab Smp Id: 249180001 Client Smp ID: RE46-10-13437
Inj Date : 26-MAR-2010 22:38
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249180001|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2398.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	18.35860	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 91 Chrysene-d12	8.544	3935427	40.000
* 98 Perylene-d12	9.951	2881640	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
1H-Indene, 5-butyl-6-hexyloctahydro-					CAS #: 55044-36-5		
7.940	1612937	16.3940214	669	93	NIST05.L	101522	91

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Z-8-Methyl-9-tetradecen-1-ol acetate					CAS #: 1000130-82-4		
8.090	2390928	24.3015795	992	86	NIST05.L	104139	91
Unknown					CAS #:		
8.191	1147055	11.6587564	476	0		0	91
Unknown					CAS #:		
8.309	1149053	11.6790610	477	0		0	91
Unknown					CAS #:		
8.421	1286811	13.0792498	534	0		0	91
Unknown					CAS #:		
8.453	1158984	11.7800095	481	0		0	91
Unknown					CAS #:		
8.667	2584495	26.2690089	1070	0		0	91
Unknown					CAS #:		
8.710	1229877	12.5005657	510	0		0	91
1,2-Benzisothiazole, 3-(hexahydro-1H-aze					CAS #: 309735-29-3		
8.764	1718332	17.4652616	713	91	NIST05.L	101019	91
Unknown					CAS #:		
8.806	1243551	12.6395555	516	0		0	91
Unknown					CAS #:		
8.838	1238912	12.5924016	514	0		0	91
Unknown					CAS #:		
8.897	1935181	19.6693318	803	0		0	91
Unknown					CAS #:		
8.924	1124677	11.4313083	466	0		0	91
Unknown					CAS #:		
8.983	1791051	18.2043794	743	0		0	91
Sclareoloxide					CAS #: 1000215-78-2		
9.031	1775371	18.0450134	736	86	NIST05.L	100188	91
11,12-Dibromo-tetradecan-1-ol acetate					CAS #: 1000130-78-5		
9.101	2230481	22.6707901	925	89	NIST05.L	173750	91

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
9.202	3026027	30.7567785	1260	0		0	91
Unknown				CAS #:			
9.250	2239222	31.0825899	1270	0		0	98
Unknown				CAS #:			
9.331	1881650	26.1191486	1070	0		0	98
Unknown				CAS #:			
9.443	1860541	25.8261350	1050	0		0	98
Unknown				CAS #:			
9.598	2217389	30.7795272	1260	0		0	98
Unknown				CAS #:			
9.657	1402965	19.4745303	795	0		0	98
Unknown				CAS #:			
9.737	1945325	27.0030120	1100	0		0	98
Oxiranepentanoic acid, 3-undecyl-, methy				CAS #: 1041-25-4			
9.871	2205947	30.6207090	1250	90	NIST05.L	132218	98
Unknown				CAS #:			
10.122	1158219	16.0772186	656	0		0	98
Unknown				CAS #:			
10.165	1258711	17.4721404	713	0		0	98
Unknown				CAS #:			
10.245	3096577	42.9835192	1750	0		0	98
Unknown				CAS #:			
10.438	1736026	24.0977419	984	0		0	98
Unknown				CAS #:			
10.561	1452087	20.1563849	823	0		0	98
Unknown				CAS #:			
10.662	1547575	21.4818516	877	0		0	98

Data File: /chem/MSD2.i/s032610.b/s2c2623.d
Date : 26-MAR-2010 22:38
Client ID: RE46-10-13437
Sample Info: |2491800011966675|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD2.i

Operator: AGS1
Column diameter: 0.20

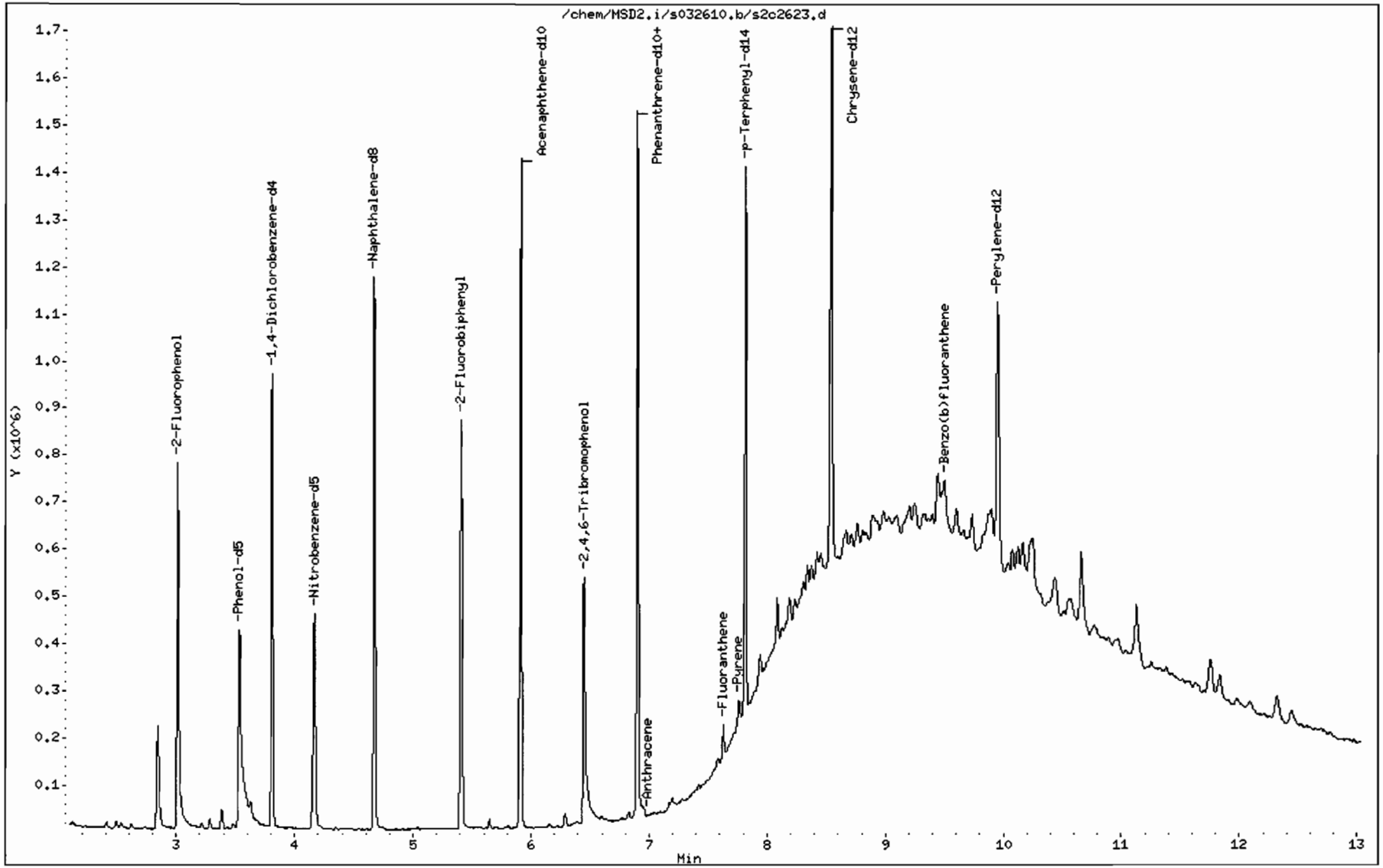

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437

Instrument: MSD2.i

Sample Info: |2491800001|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 63.4 ug/Kg

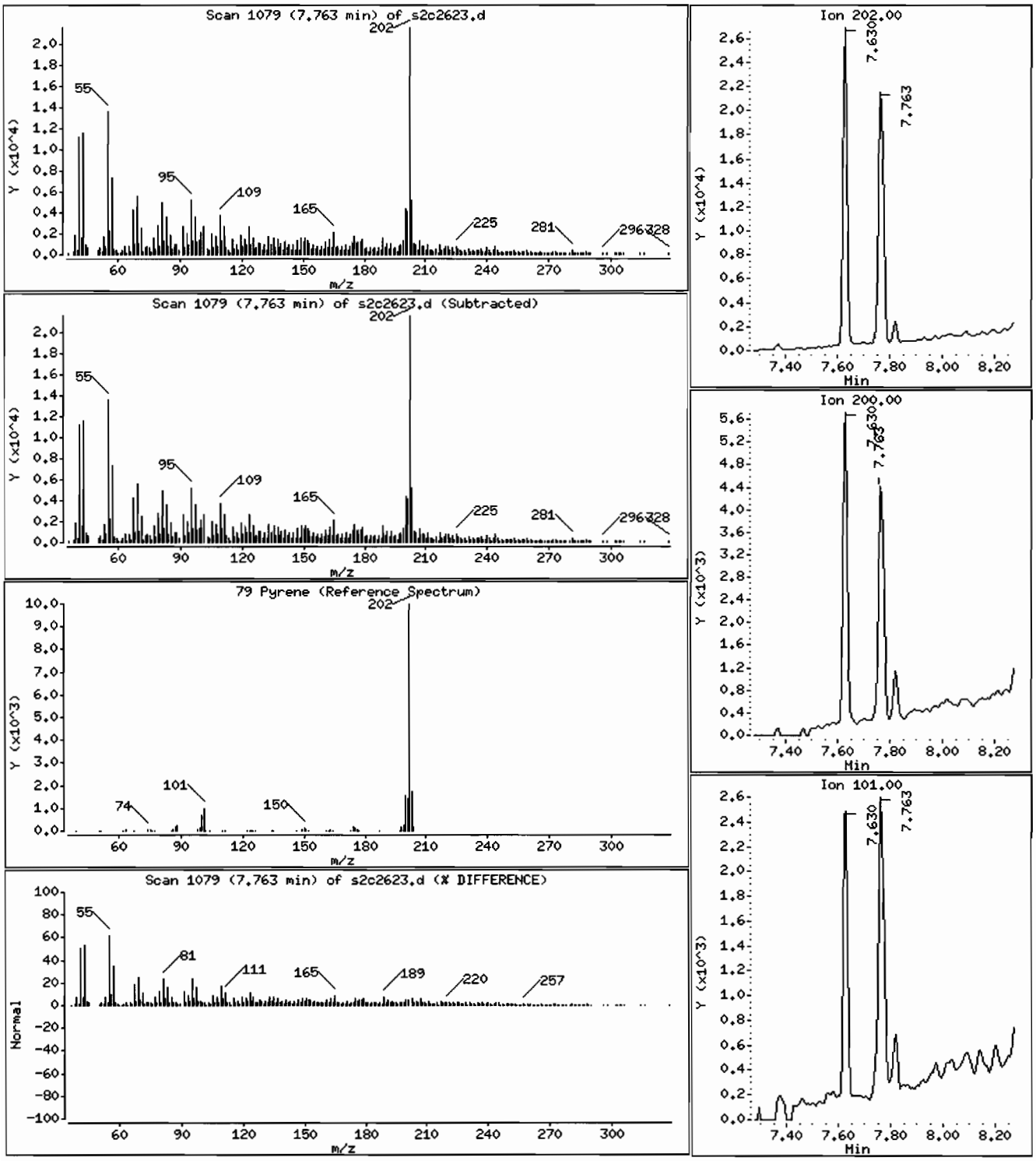

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437

Instrument: MSD2.i

Sample Info: |249180001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 40.3 ug/Kg

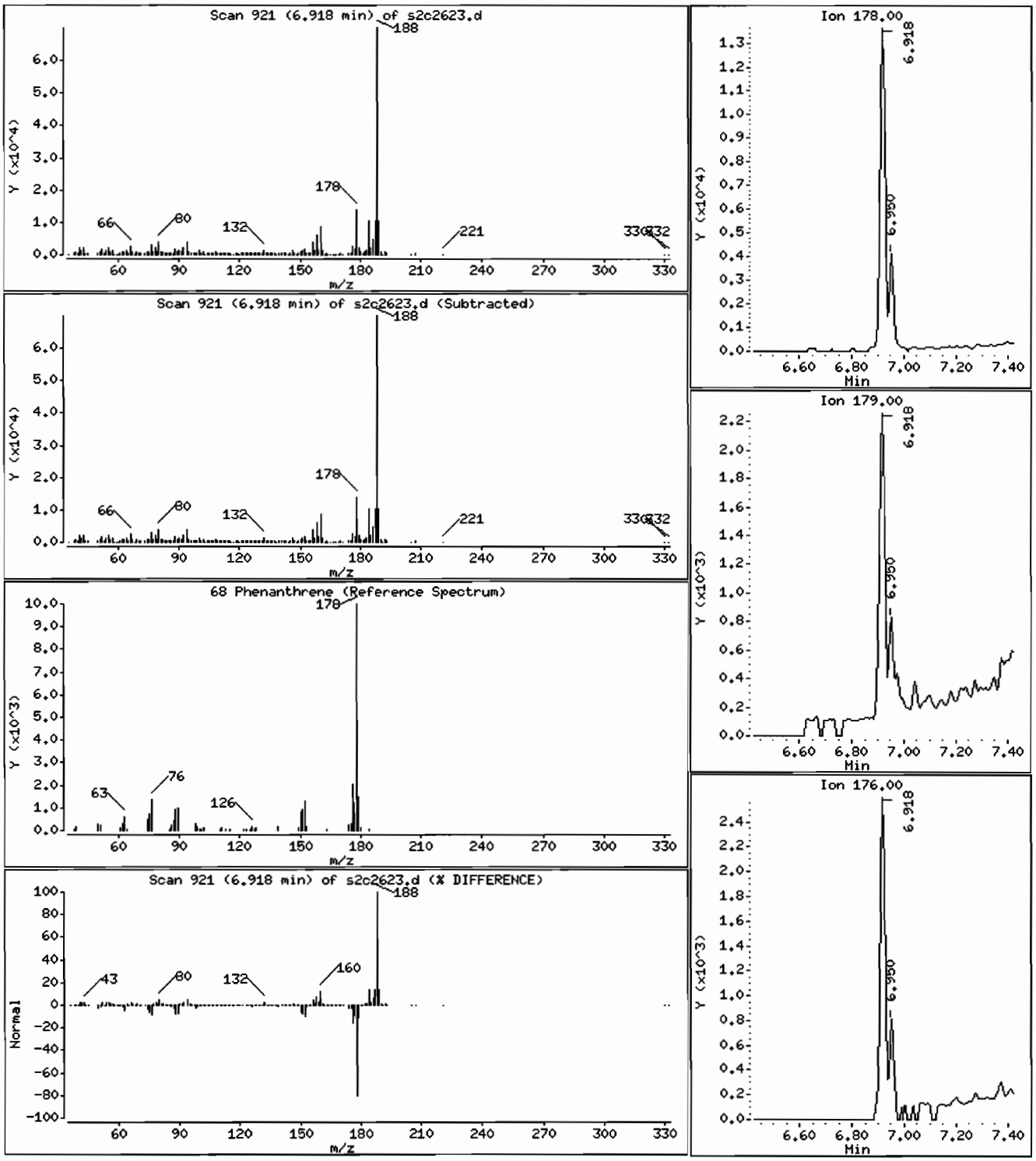

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Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437

Instrument: MSD2.i

Sample Info: 1249180001|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 15.4 ug/Kg

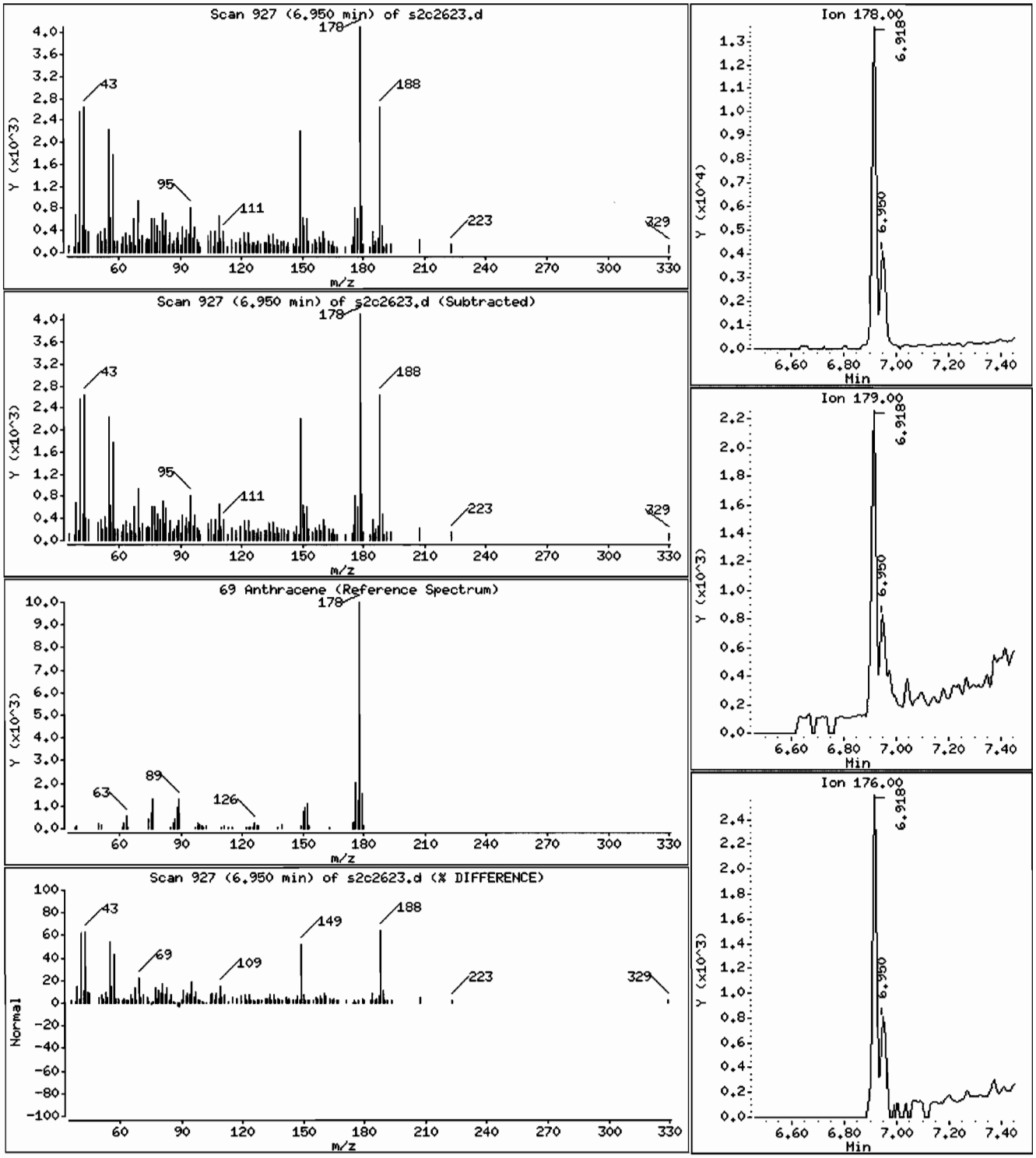

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437

Instrument: MSD2.i

Sample Info: |2491800001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 84.6 ug/Kg

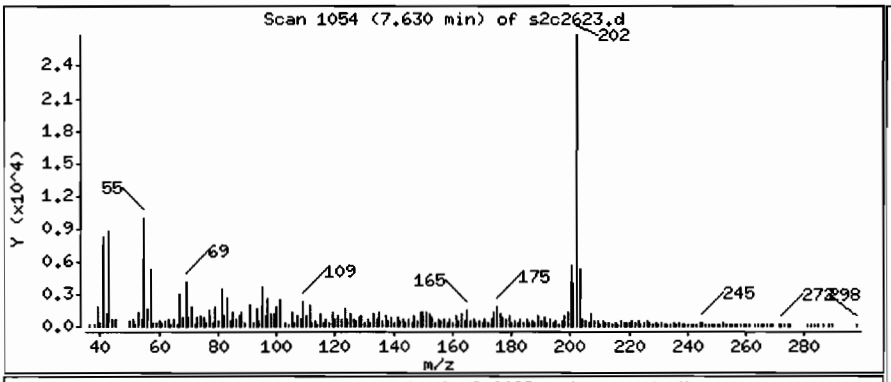

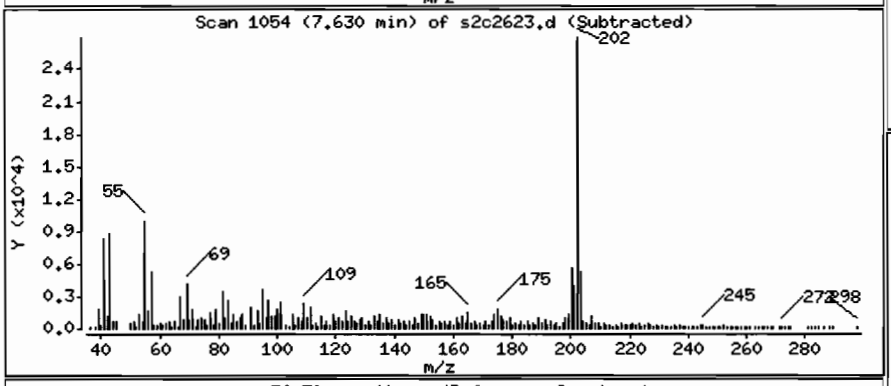

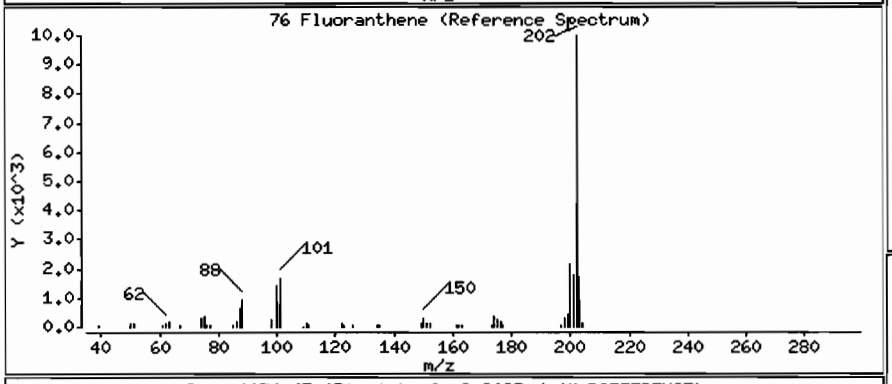

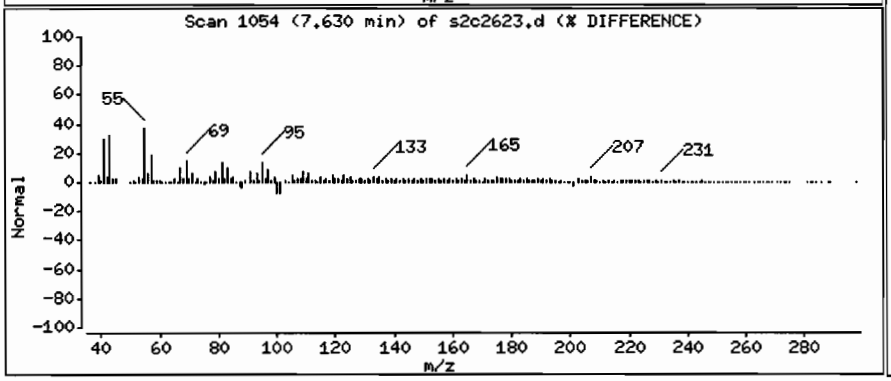

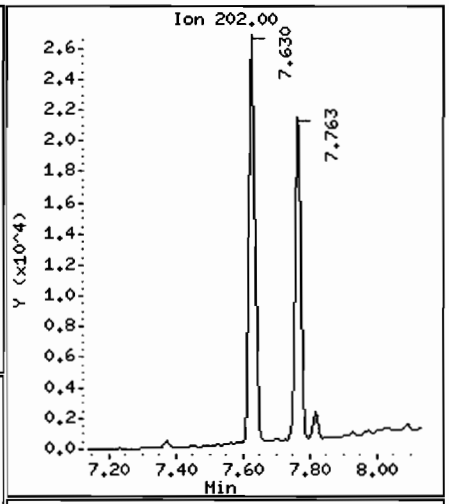

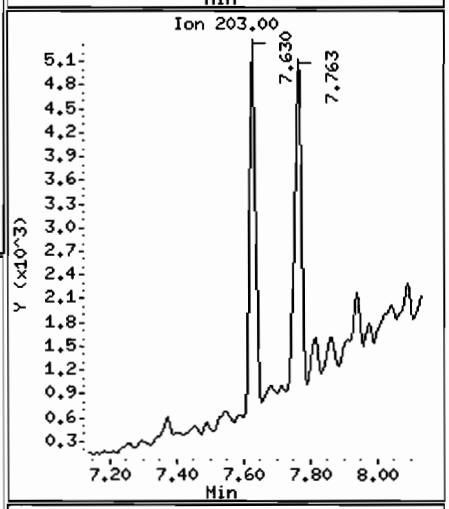

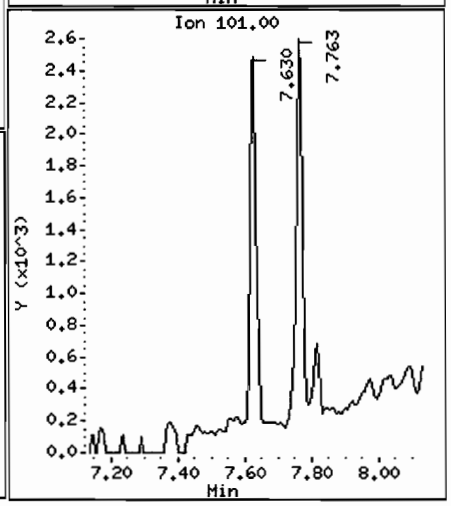

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437

Instrument: MSD2.i

Sample Info: |2491800001|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 88.1 ug/Kg

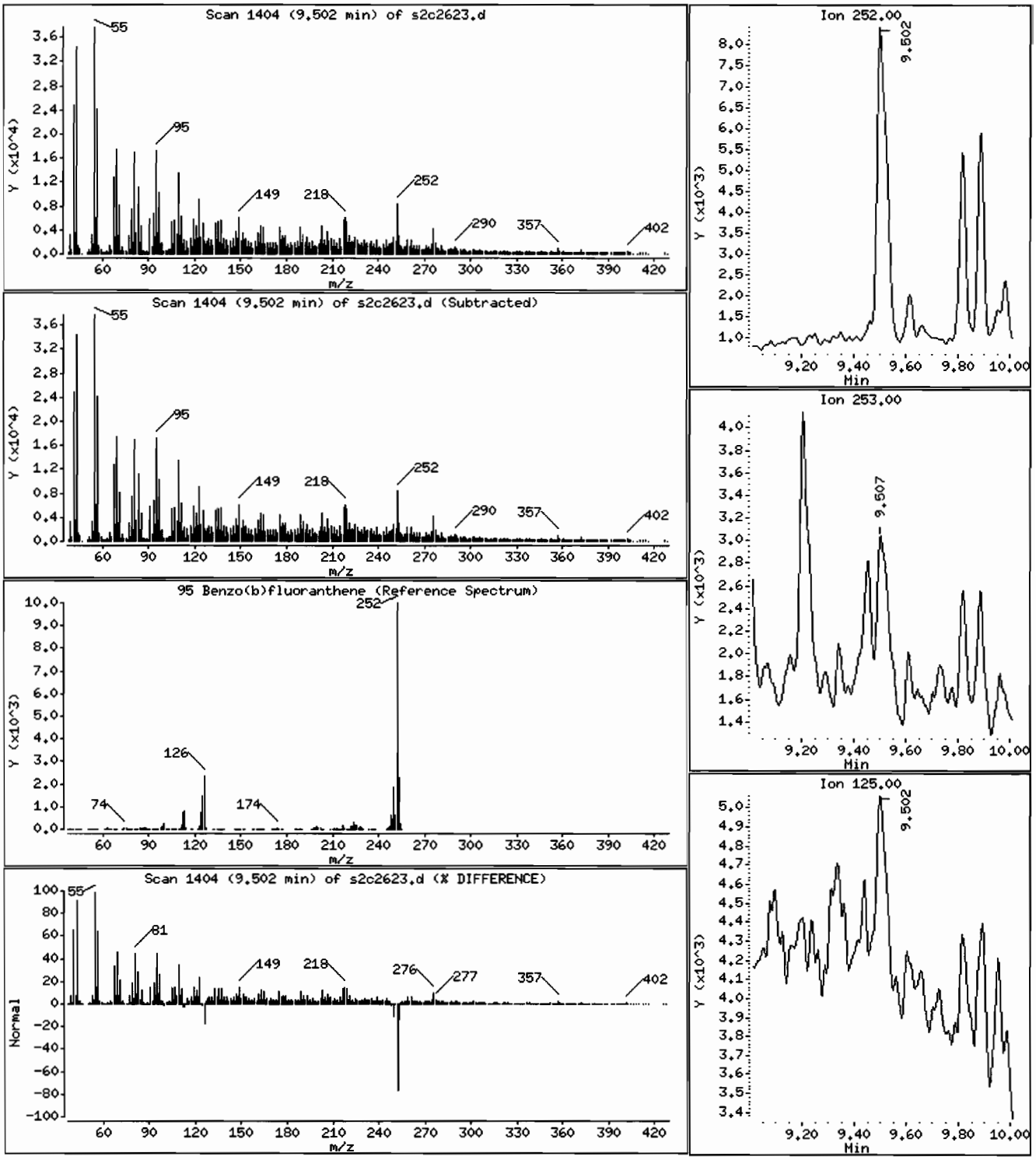

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437

Instrument: MSD2.i

Sample Info: |2491800001|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	93	C19H36	264
(1R,2S,8R,8Ar)-8-acetoxy-1-(2-hydroxyeth	1000298-98-4	NIST05.L	122239	53	C18H3203	296
2-Butyl-3-methyl-5-(2-methylprop-2-enyl)	1000281-10-7	NIST05.L	72954	52	C15H260	222

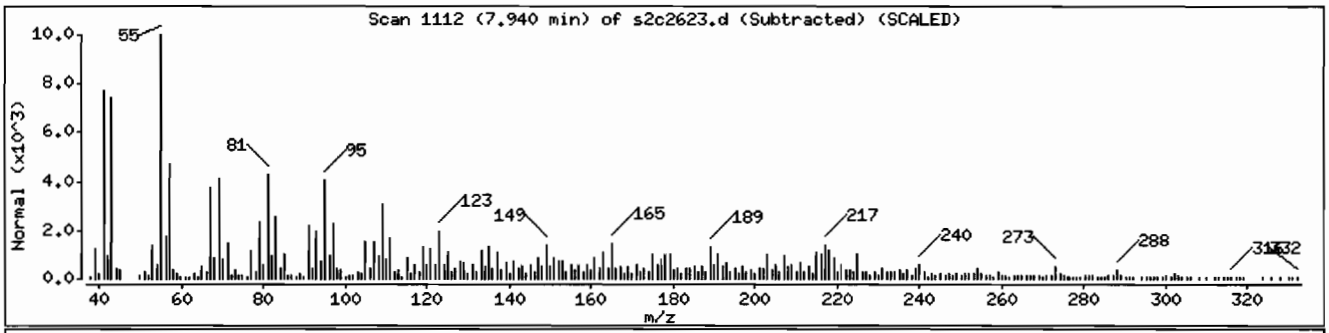

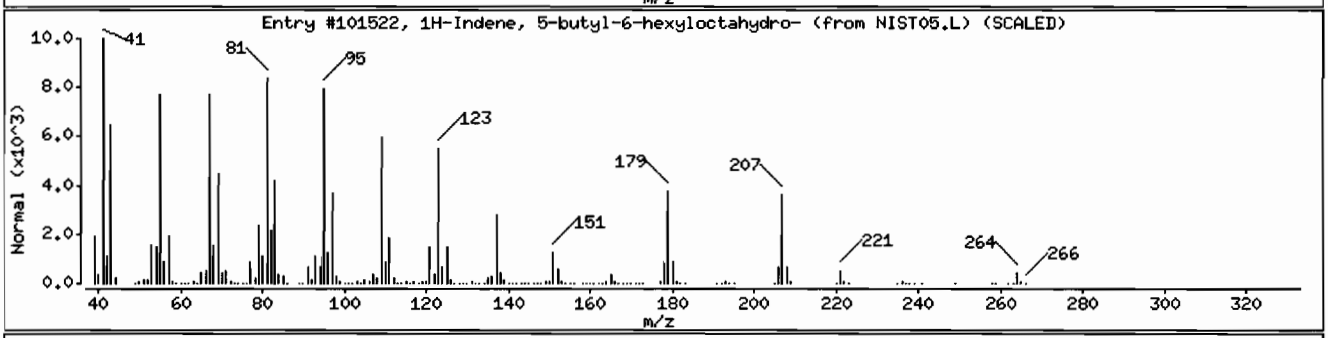

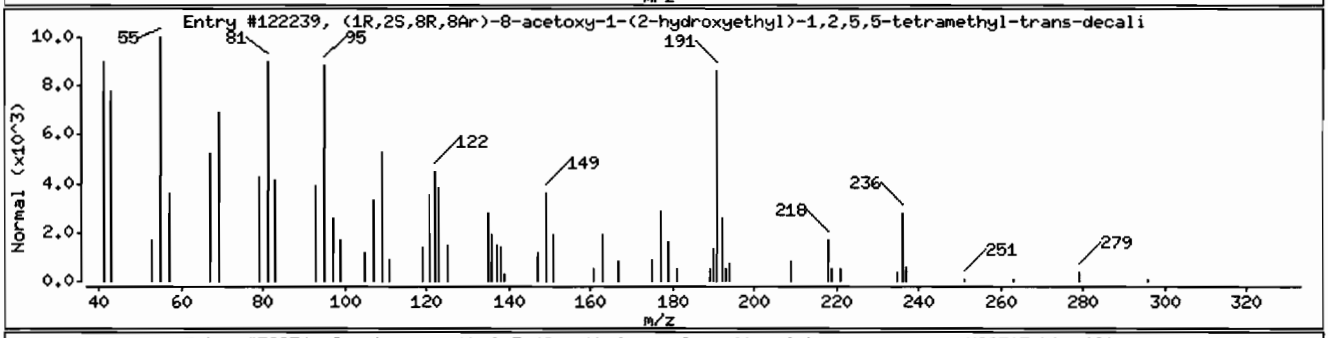

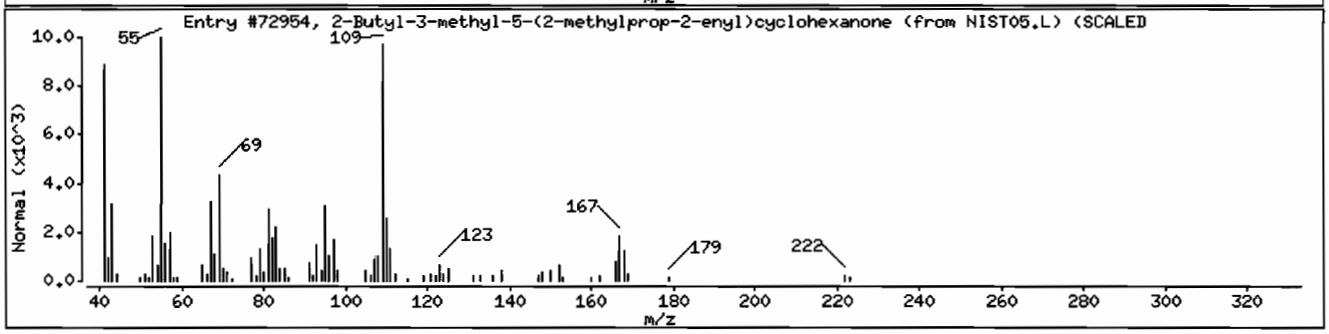

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |249180001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Z-8-Methyl-9-tetradecen-1-ol acetate	1000130-82-4	NIST05.L	104139	86	C17H32O2	268
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	78	C19H36	264
(1R,2S,8R,8Ar)-8-acetoxy-1-(2-hydroxyeth	1000298-98-4	NIST05.L	122239	60	C18H32O3	296

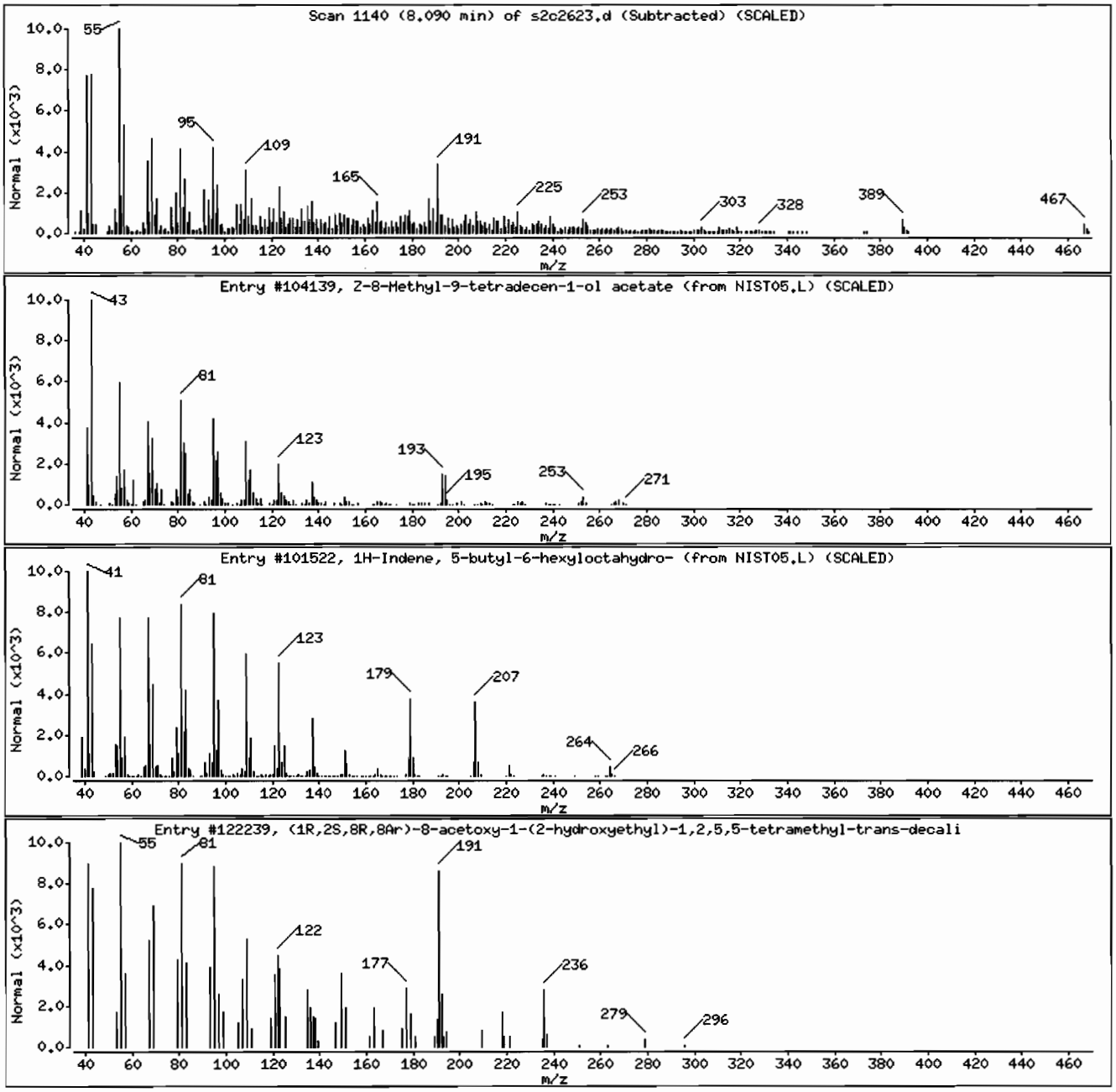

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Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437

Instrument: MSD2.i

Sample Info: |2491800011966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	64	C19H36	264
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	53	C16H2603	266
(1R,2S,8R,8Ar)-8-acetoxy-1-(2-hydroxyeth	1000298-98-4	NIST05.L	122239	53	C18H3203	296

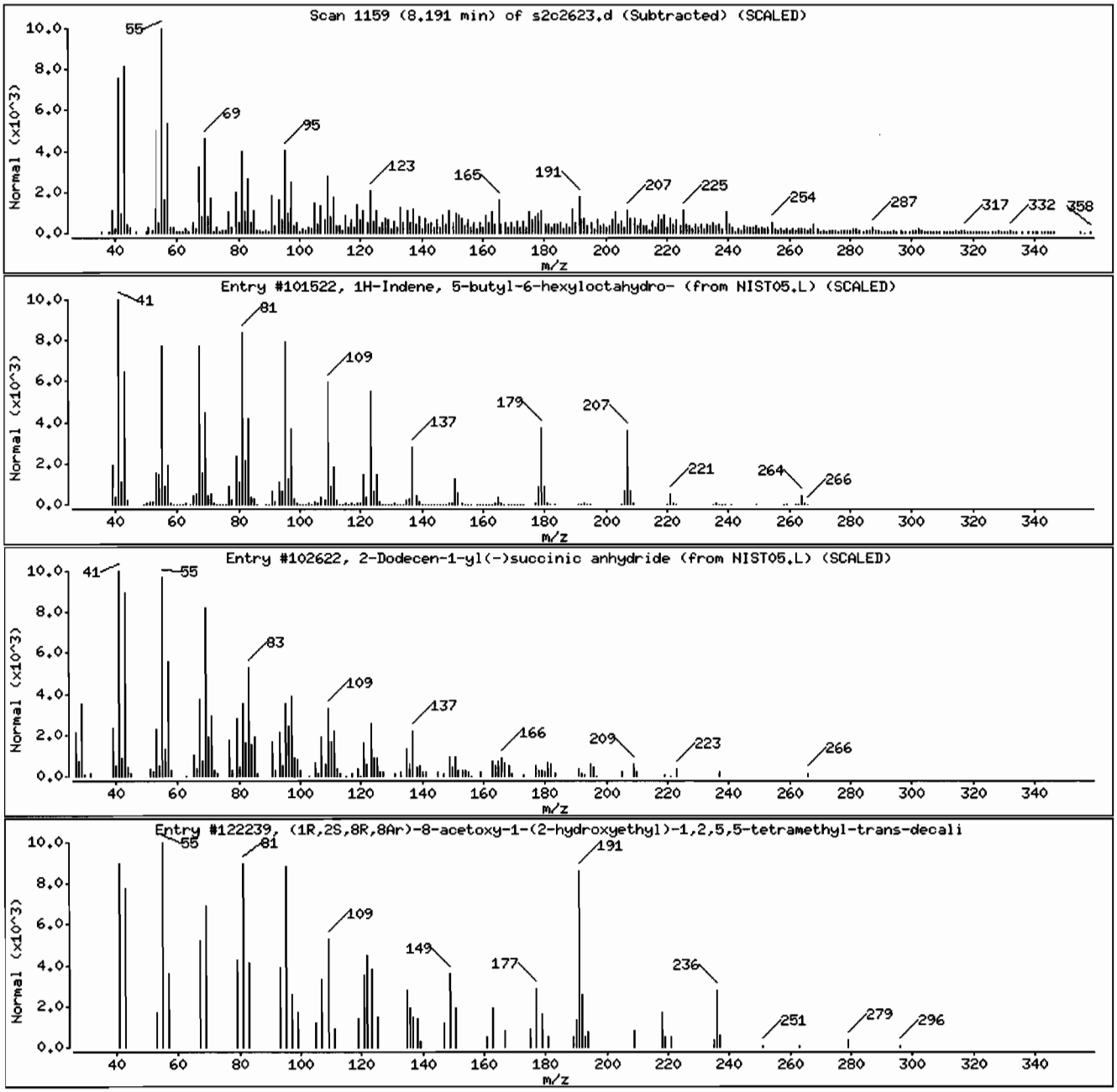

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Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |2491800001|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexene, 4-(4-ethylcyclohexyl)-1-pen	301643-32-3	NIST05.L	100231	70	C19H34	262
Z-8-Methyl-9-tetradecen-1-ol acetate	1000130-82-4	NIST05.L	104139	64	C17H32O2	268
5.alpha.-Androstan-3.beta.-ol, 4,4-dimet	7673-19-0	NIST05.L	127500	55	C21H36O	304

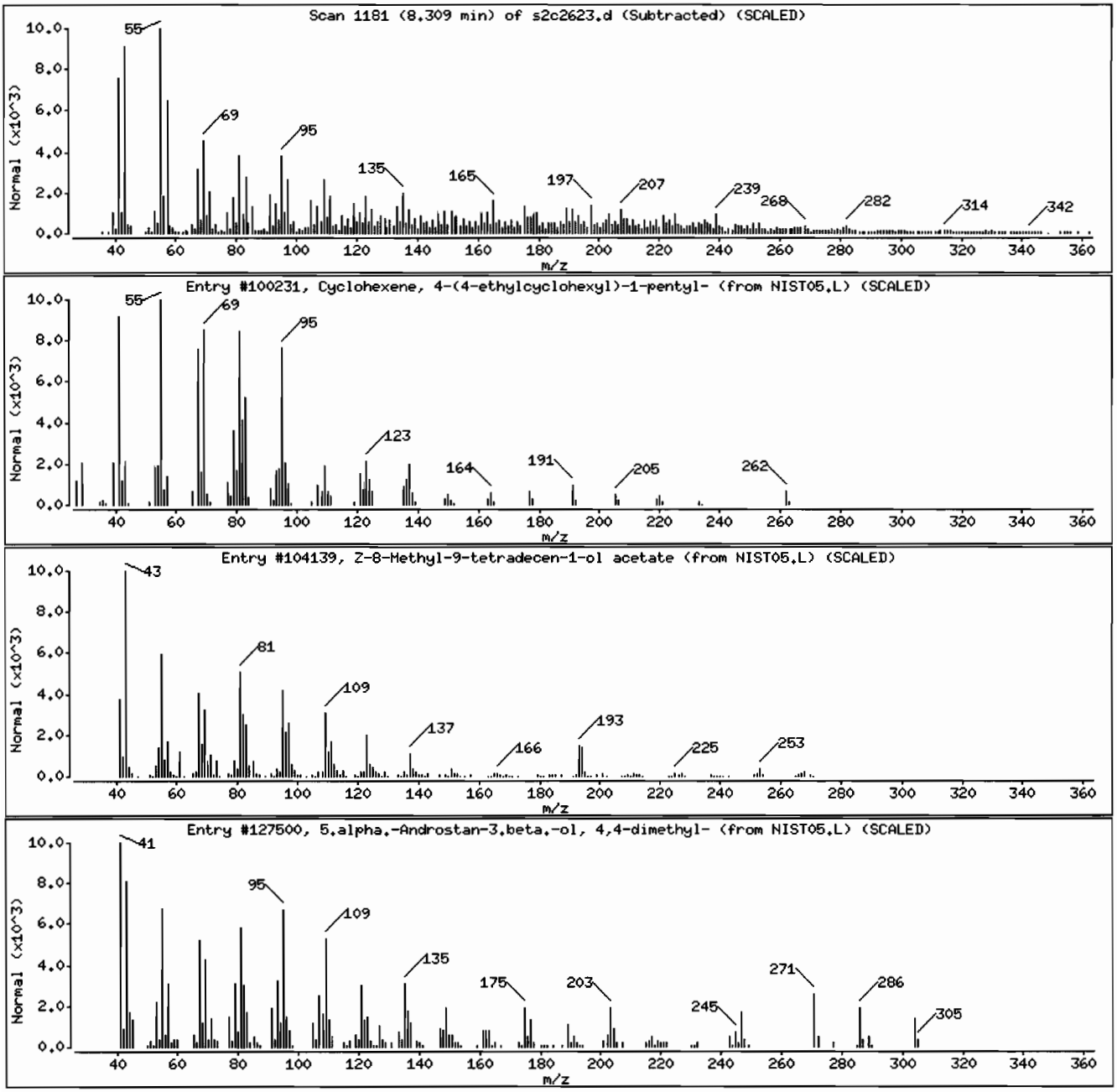

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |249180001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
5.alpha.-Androstan-3.beta.-ol, 4,4-dimet	7673-19-0	NIST05.L	127500	52	C21H360	304
Spiro[4.5]decan-7-one, 1,8-dimethyl-8,9-	61050-91-7	NIST05.L	82504	47	C15H2402	236
Cyclohexene, 4-(4-ethylcyclohexyl)-1-pen	301643-32-3	NIST05.L	100231	44	C19H34	262

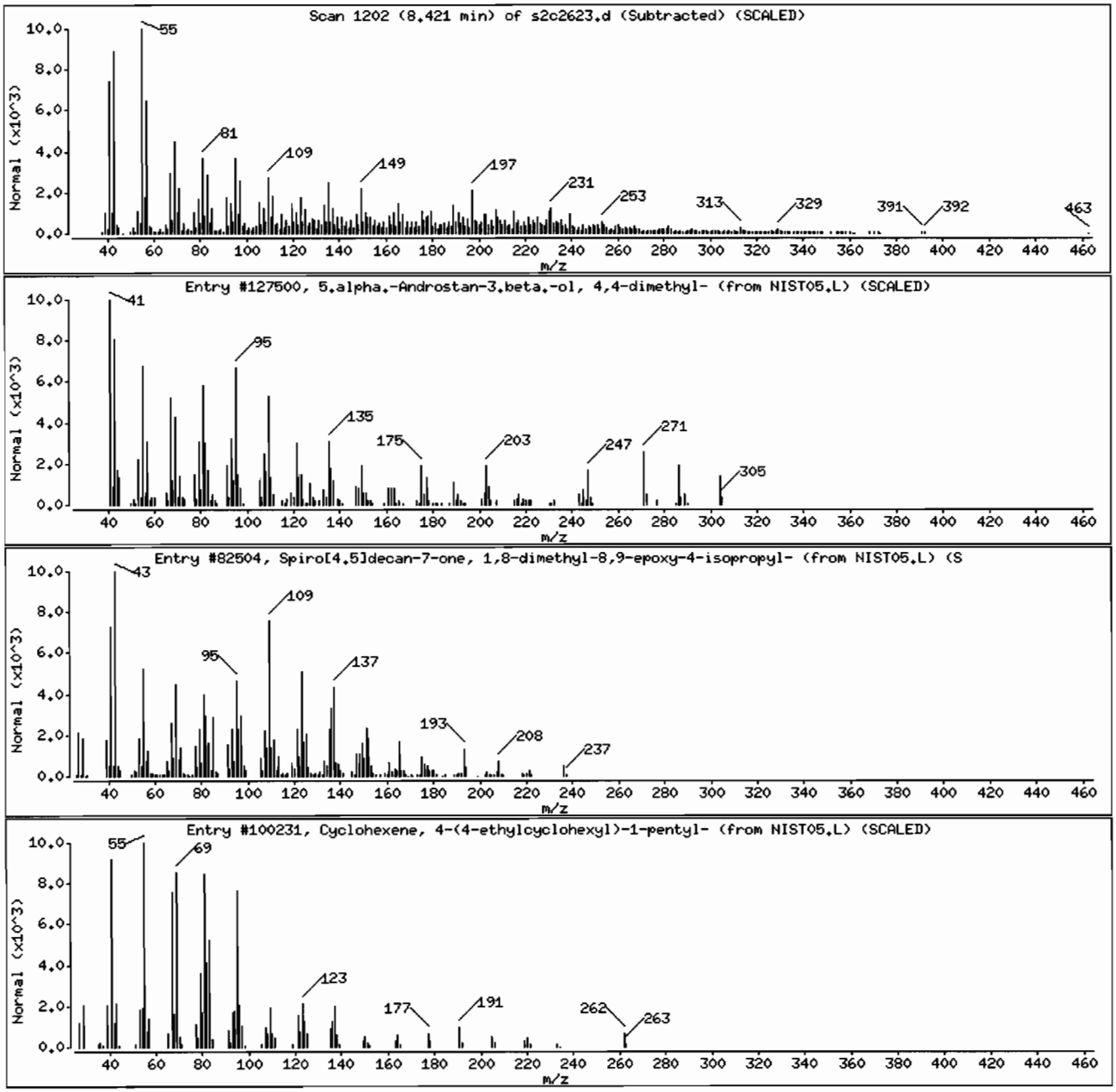

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |2491800001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Z-8-Methyl-9-tetradecen-1-ol acetate	1000130-82-4	NIST05.L	104139	78	C17H3202	268
5.alpha.-Androstan-3.beta.-ol, 4,4-dimet	7673-19-0	NIST05.L	127500	64	C21H360	304
7-Hydroxy-6,9a-dimethyl-3-methylene-deca	1000296-15-9	NIST05.L	101213	51	C15H2004	264

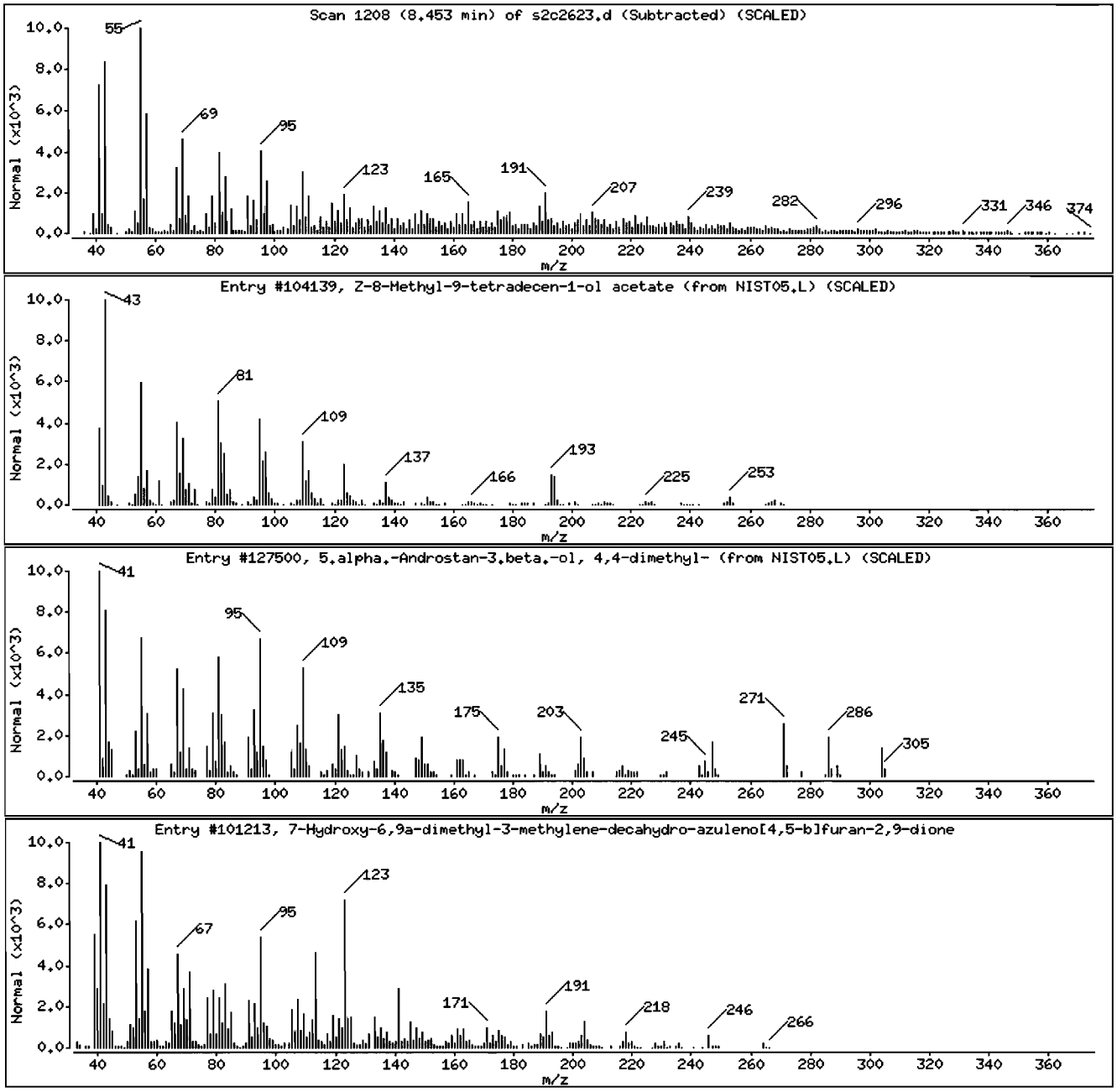

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437

Instrument: MSD2.i

Sample Info: |249180001|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Z-8-Methyl-9-tetradecen-1-ol acetate	1000130-82-4	NIST05.L	104139	89	C17H3202	268
5.alpha.-Androstan-3.beta.-ol, 4,4-dimet	7673-19-0	NIST05.L	127500	86	C21H360	304
Spiro[4.5]decan-7-one, 1,8-dimethyl-8,9-	61050-91-7	NIST05.L	82504	60	C15H2402	236

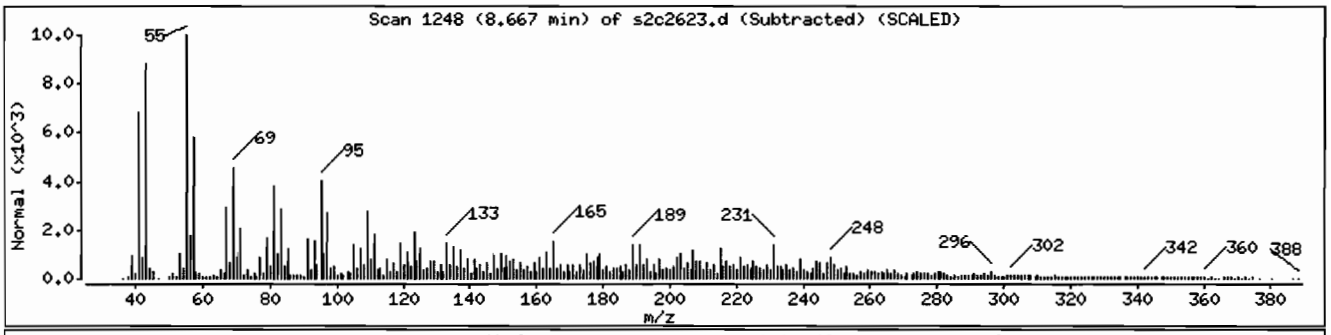

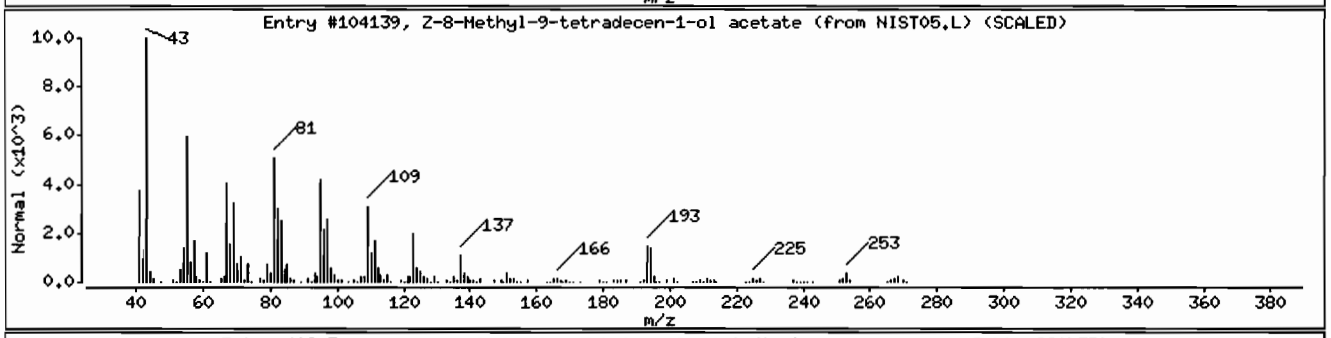

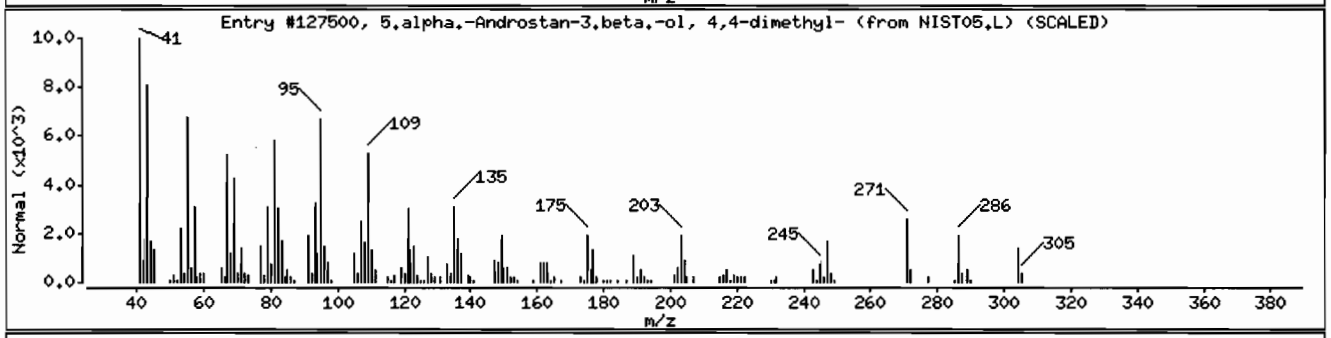

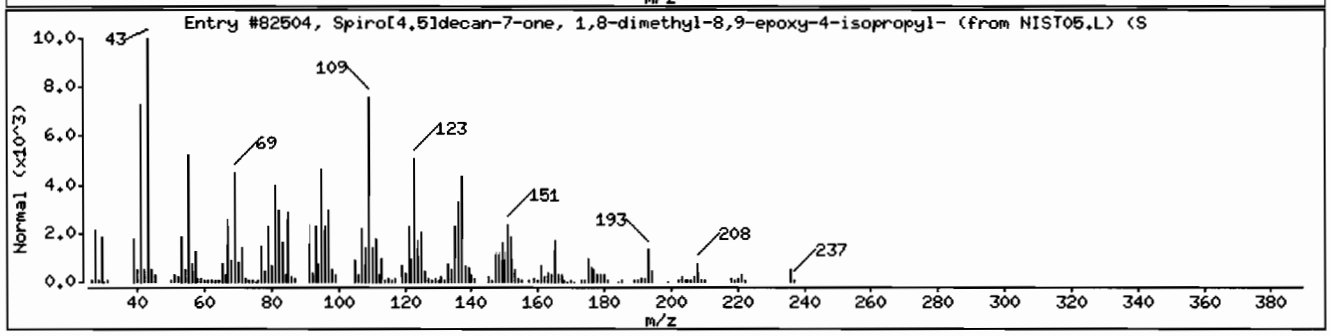

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |2491800001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	68	C16H30Br2O2	412
2-Methyl-cis-7,8-epoxynonadecane	1000130-93-3	NIST05.L	122417	56	C20H40O	296
3-Buten-2-one, 4-(3-hydroxy-6,6-dimethyl	1000142-31-3	NIST05.L	62871	46	C13H20O2	208

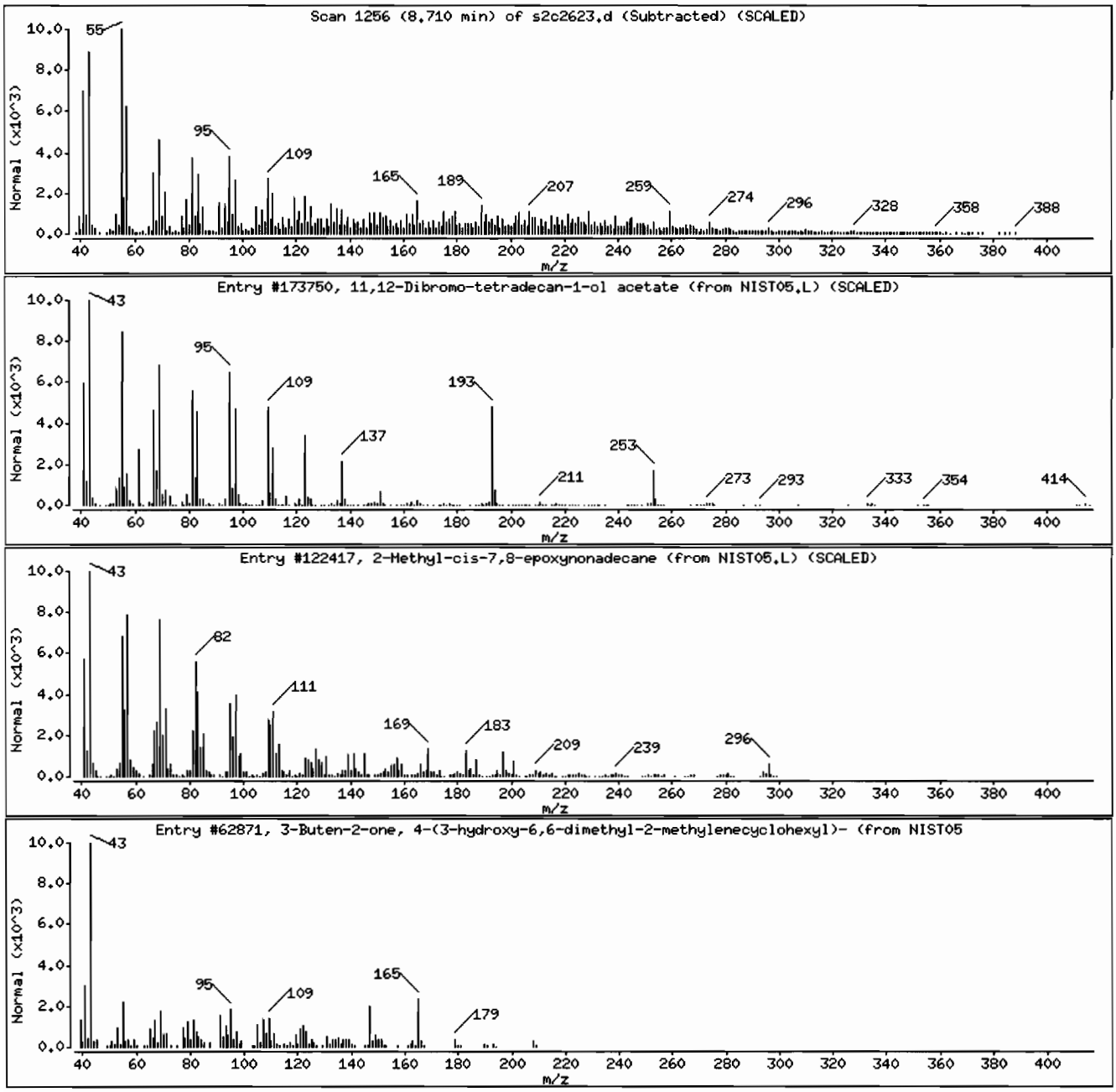

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437

Instrument: MSD2.i

Sample Info: |2491800001|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,2-Benzisothiazole, 3-(hexahydro-1H-aze	309735-29-3	NIST05.L	101019	91	C13H16N2O2S	264
Z-8-Methyl-9-tetradecen-1-ol acetate	1000130-82-4	NIST05.L	104139	87	C17H32O2	268
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	83	C16H30Br2O2	412

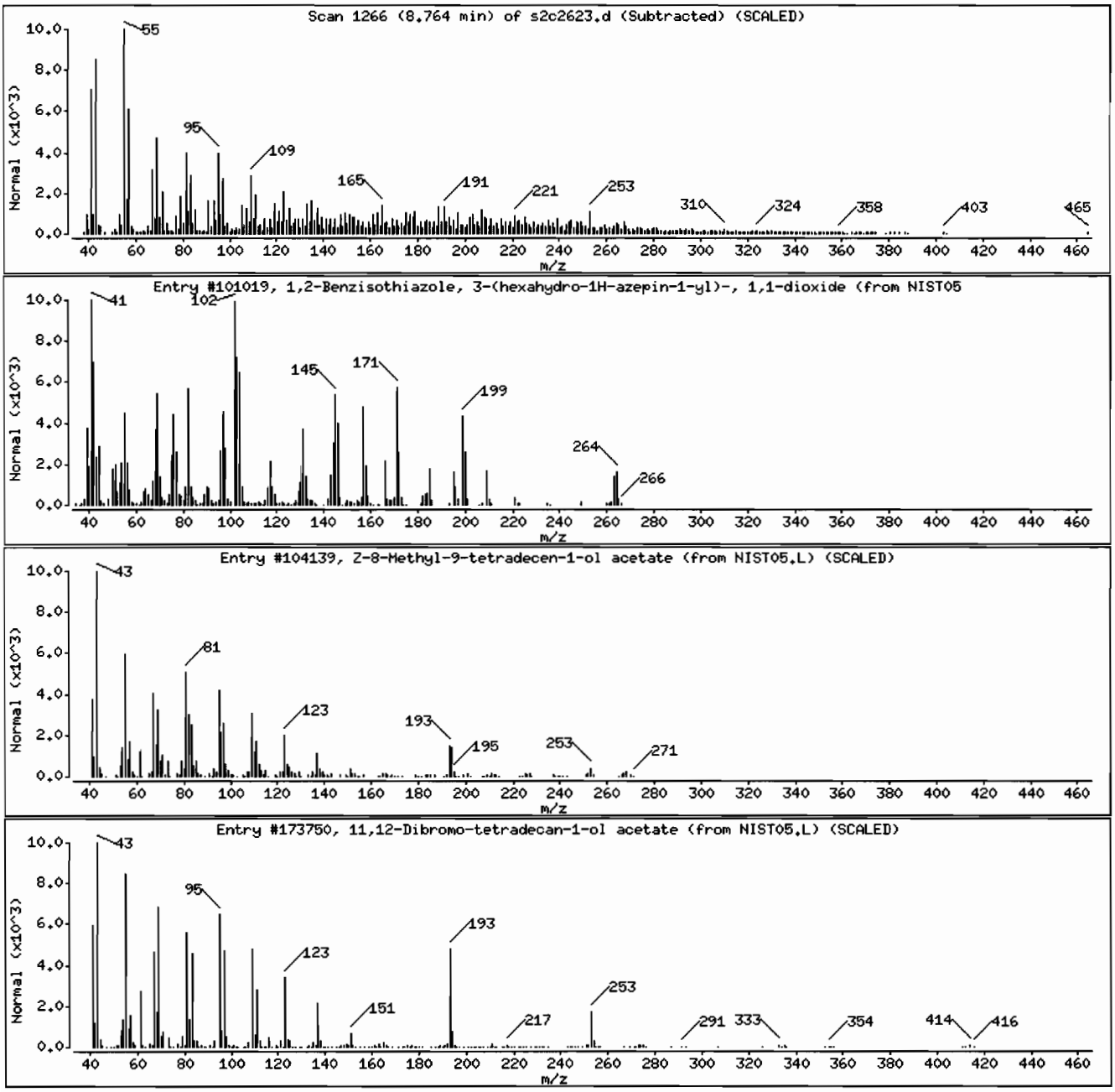

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Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |249180001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Z-8-Methyl-9-tetradecen-1-ol acetate	1000130-82-4	NIST05.L	104139	90	C17H3202	268
17-Octadecen-1-ol acetate	1000130-91-1	NIST05.L	131056	64	C20H3802	310
5.alpha.-Ergost-8(14)-ene	6673-69-4	NIST05.L	166609	56	C28H48	384

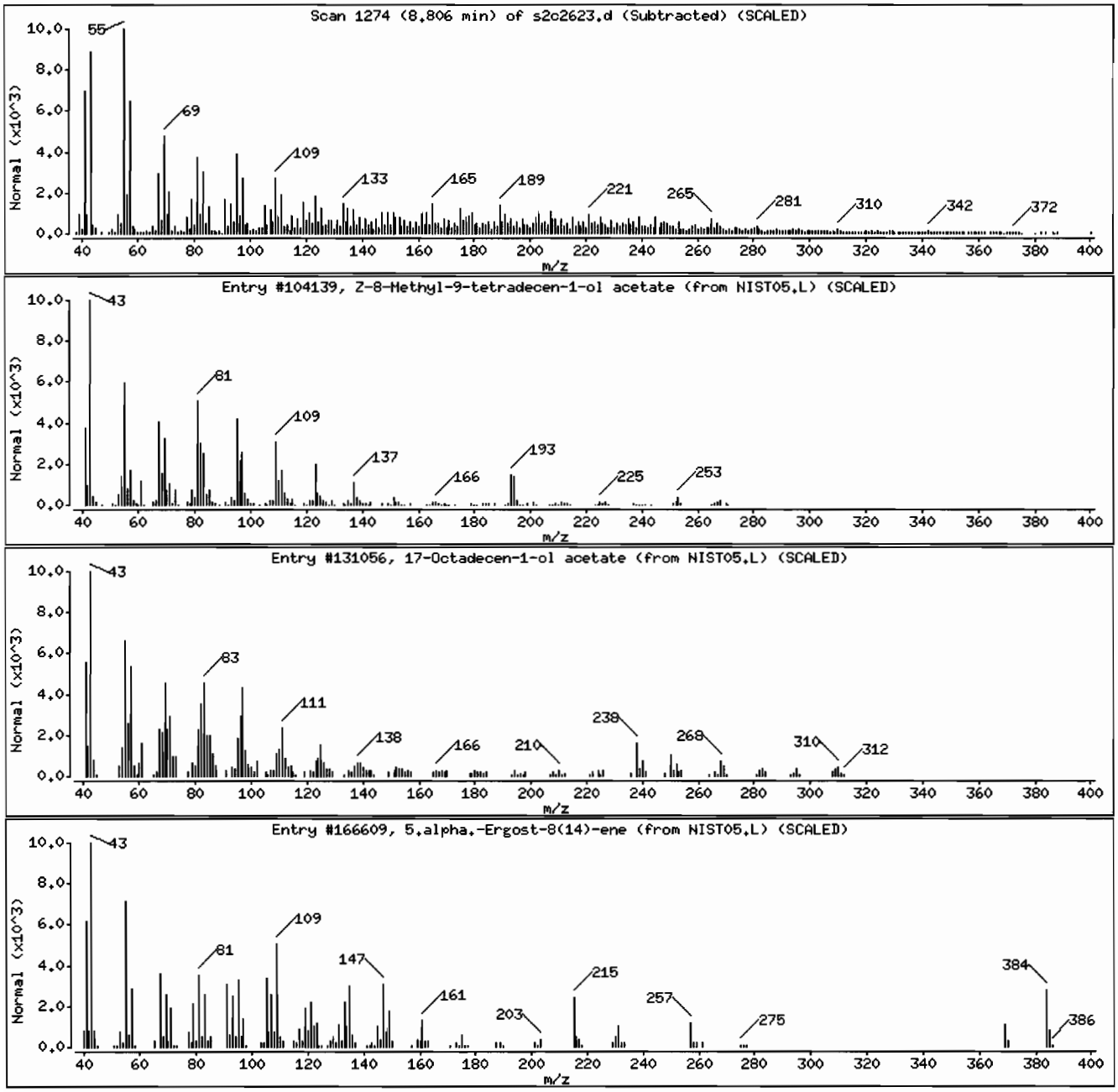

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Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |249180001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,2-Benzisothiazole, 3-(hexahydro-1H-aze	309735-29-3	NIST05.L	101019	91	C13H16N2O2S	264
Z-8-Methyl-9-tetradecen-1-ol acetate	1000130-82-4	NIST05.L	104139	70	C17H32O2	268
E,E,Z-1,3,12-Nonadecatriene-5,14-diol	1000131-11-4	NIST05.L	121084	62	C19H34O2	294

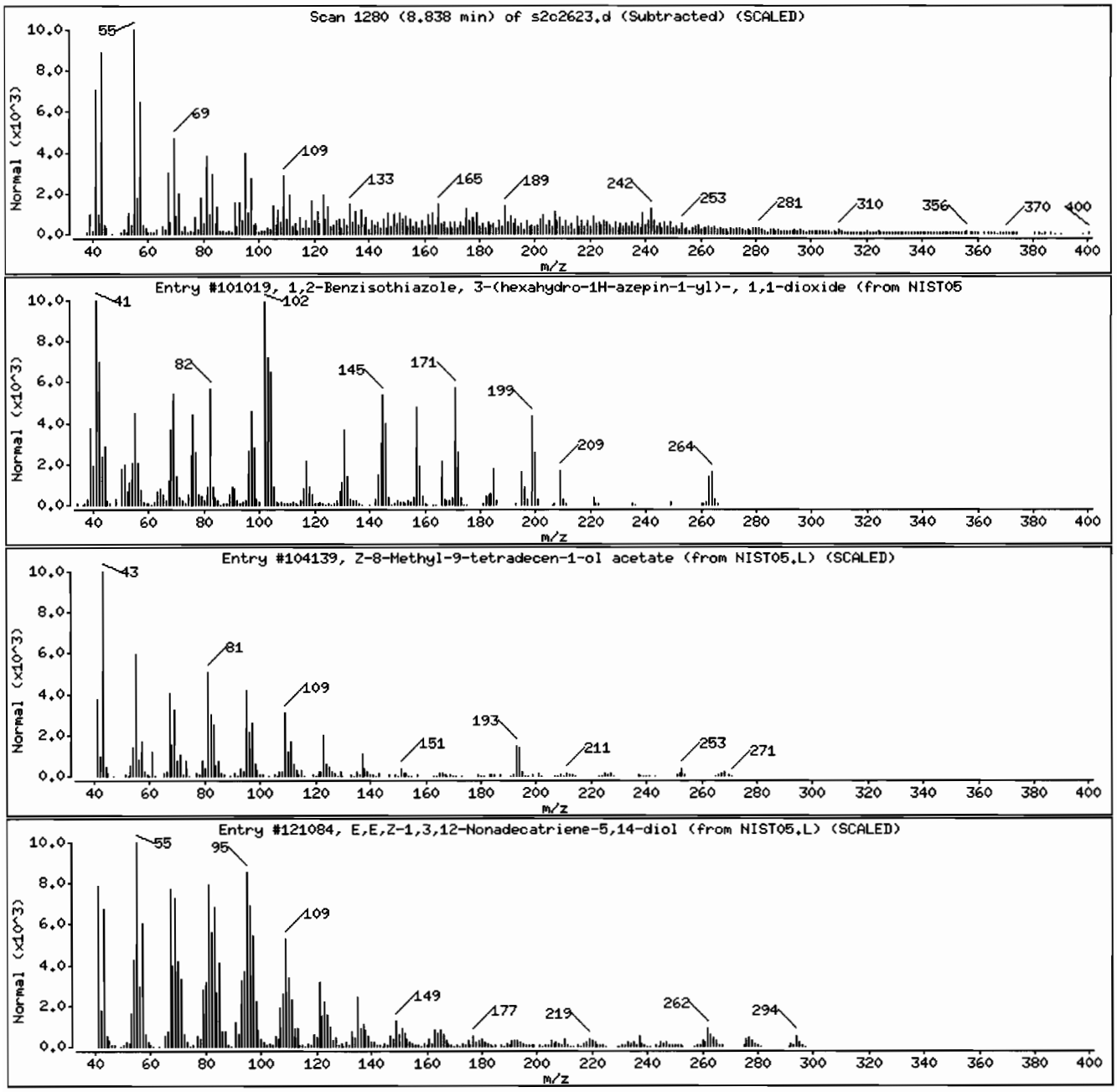

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: I2491800011966675I1ISVMI1ILANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,2-Benzisothiazole, 3-(hexahydro-1H-aze	309735-29-3	NIST05.L	101019	91	C13H16N2O2S	264
Oxiranepentanoic acid, 3-undecyl-, methy	1041-25-4	NIST05.L	132218	90	C19H3603	312
Z-8-Methyl-9-tetradecen-1-ol acetate	1000130-82-4	NIST05.L	104139	76	C17H3202	268

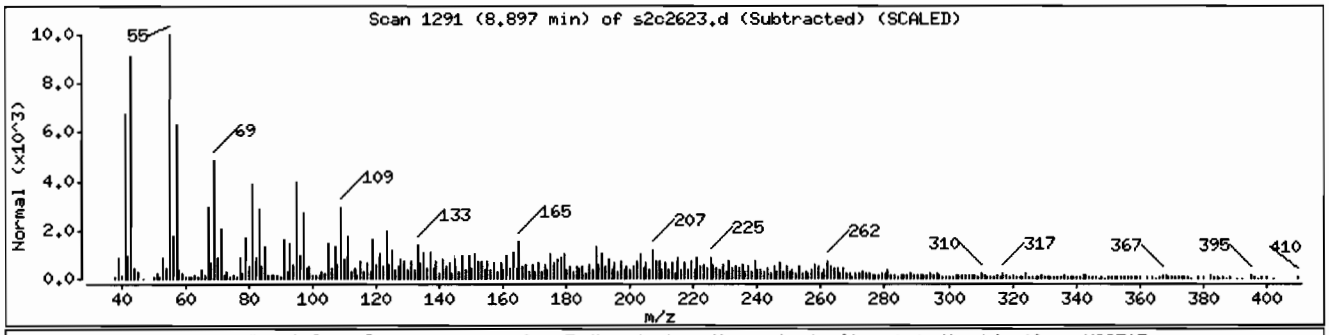

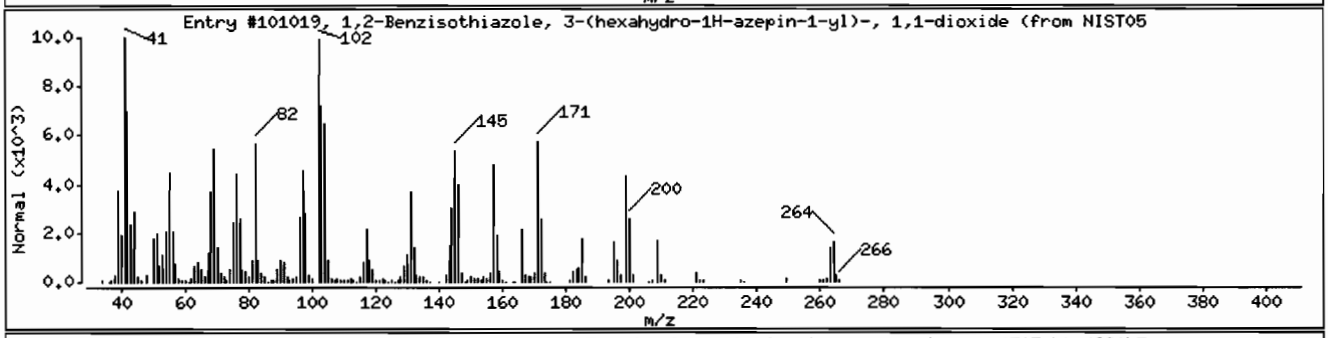

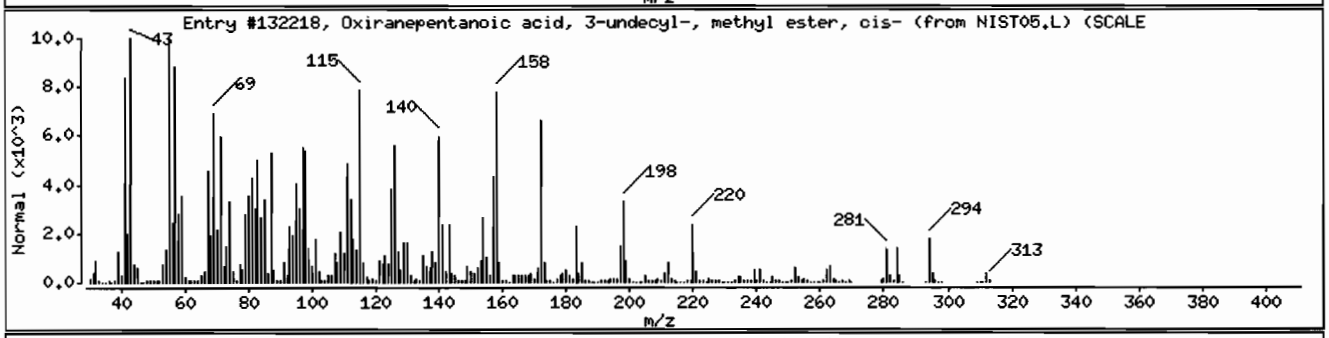

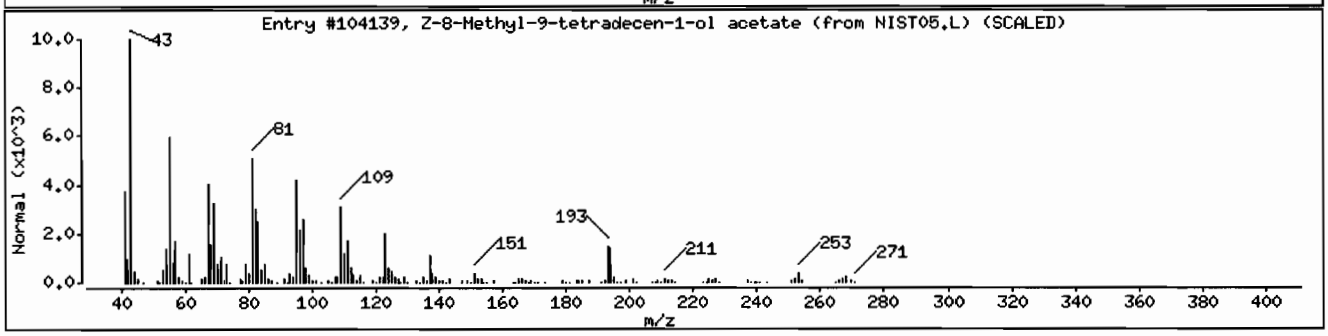

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |2491800011966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	78	C16H26O3	266
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	64	C19H36	264
7-Hydroxy-6,9a-dimethyl-3-methylene-deca	1000296-15-9	NIST05.L	101213	60	C15H20O4	264

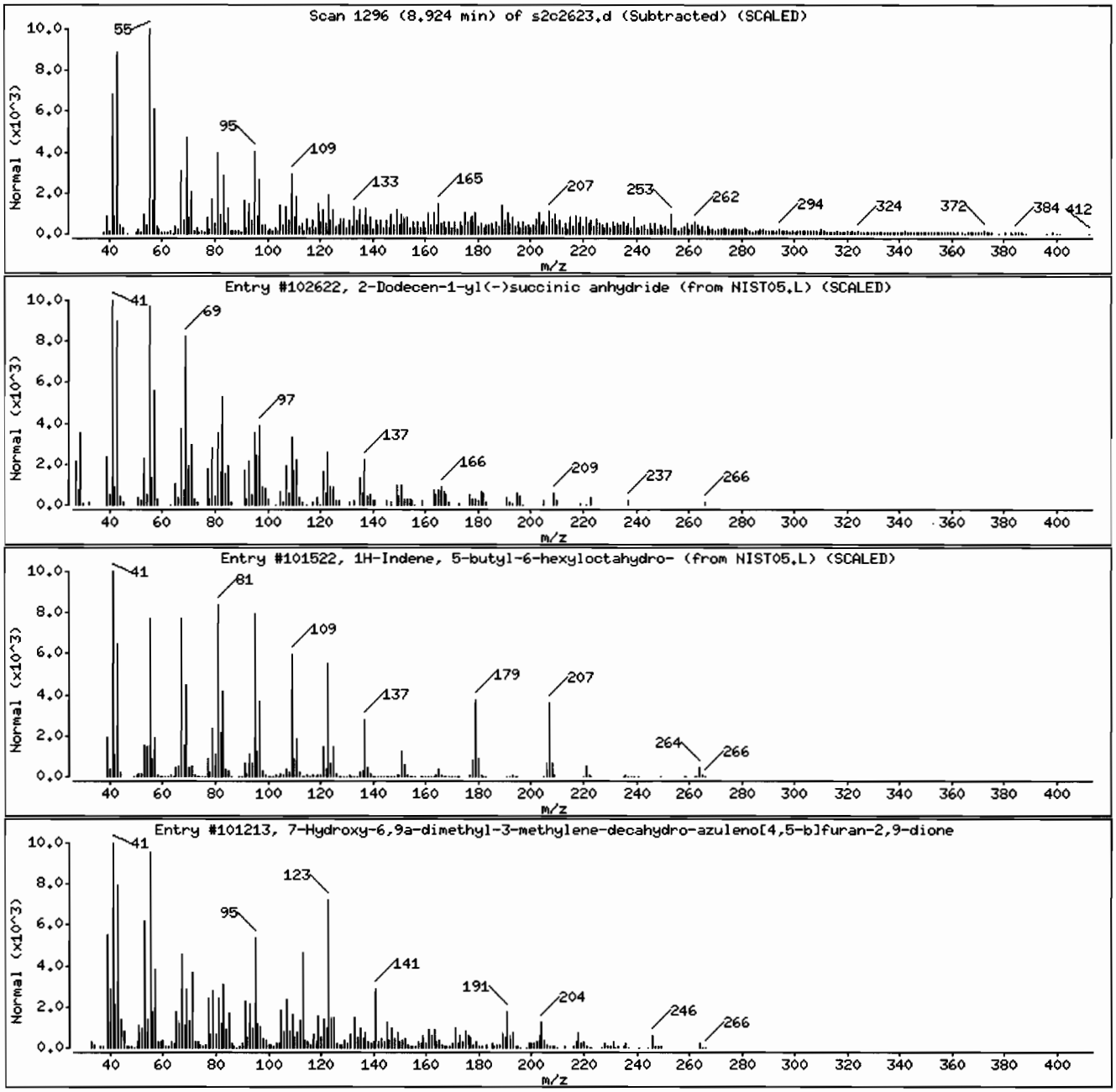

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |2491800001|966675|1|SVHI|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2H-Bisoxireno[2,3:8,8a]azuleno[4,5-b]fur	36416-50-9	NIST05.L	99945	58	C15H18O4	262
Thunbergol	25269-17-4	NIST05.L	118732	58	C20H34O	290
5.alpha.-Ergost-8(14)-ene	6673-69-4	NIST05.L	166609	56	C28H48	384

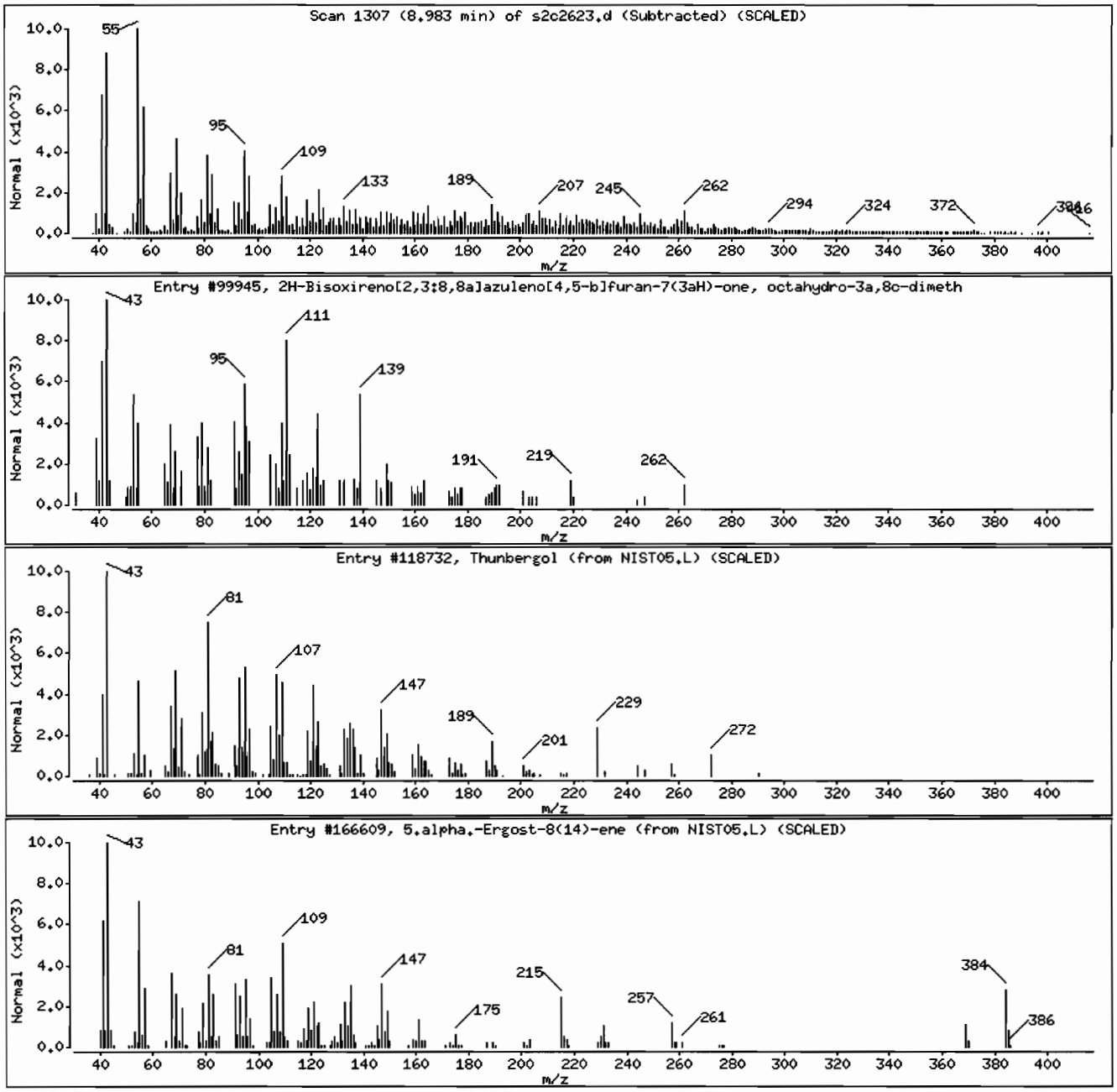

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |249180001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Sclareoloxide	1000215-78-2	NIST05.L	100188	86	C18H30O	262
Sclareoloxide(Cis-A/B)	1000215-78-3	NIST05.L	100192	83	C18H30O	262
5-Octen-2-one, 6-methyl-8-(2,6,6-trimeth	55638-41-0	NIST05.L	100209	64	C18H30O	262

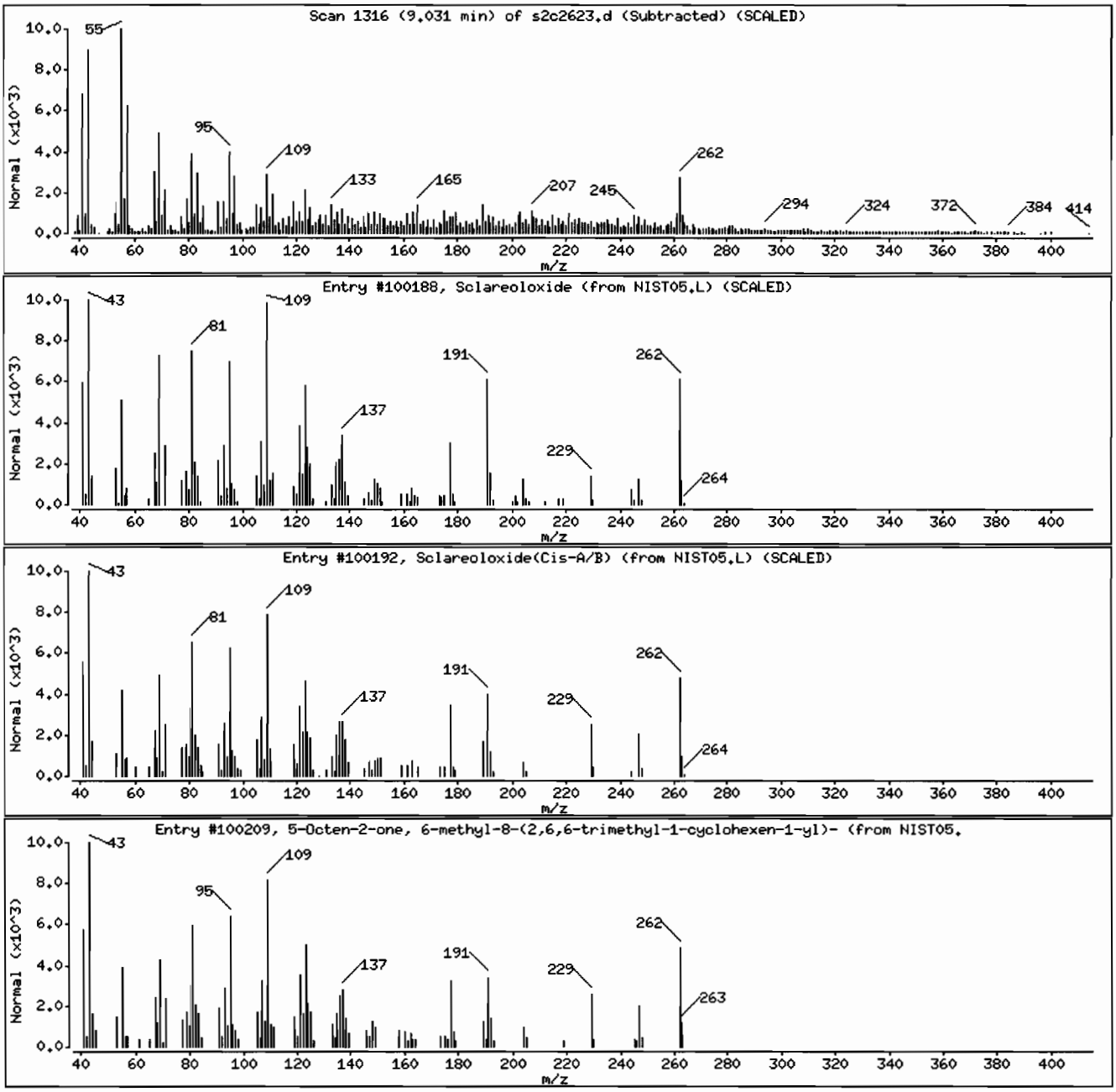

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |2491800001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	89	C16H30Br2O2	412
E,E,Z-1,3,12-Nonadecatriene-5,14-diol	1000131-11-4	NIST05.L	121084	78	C19H34O2	294
5-Octen-2-one, 6-methyl-8-(2,6,6-trimeth	55638-41-0	NIST05.L	100209	70	C18H30O	262

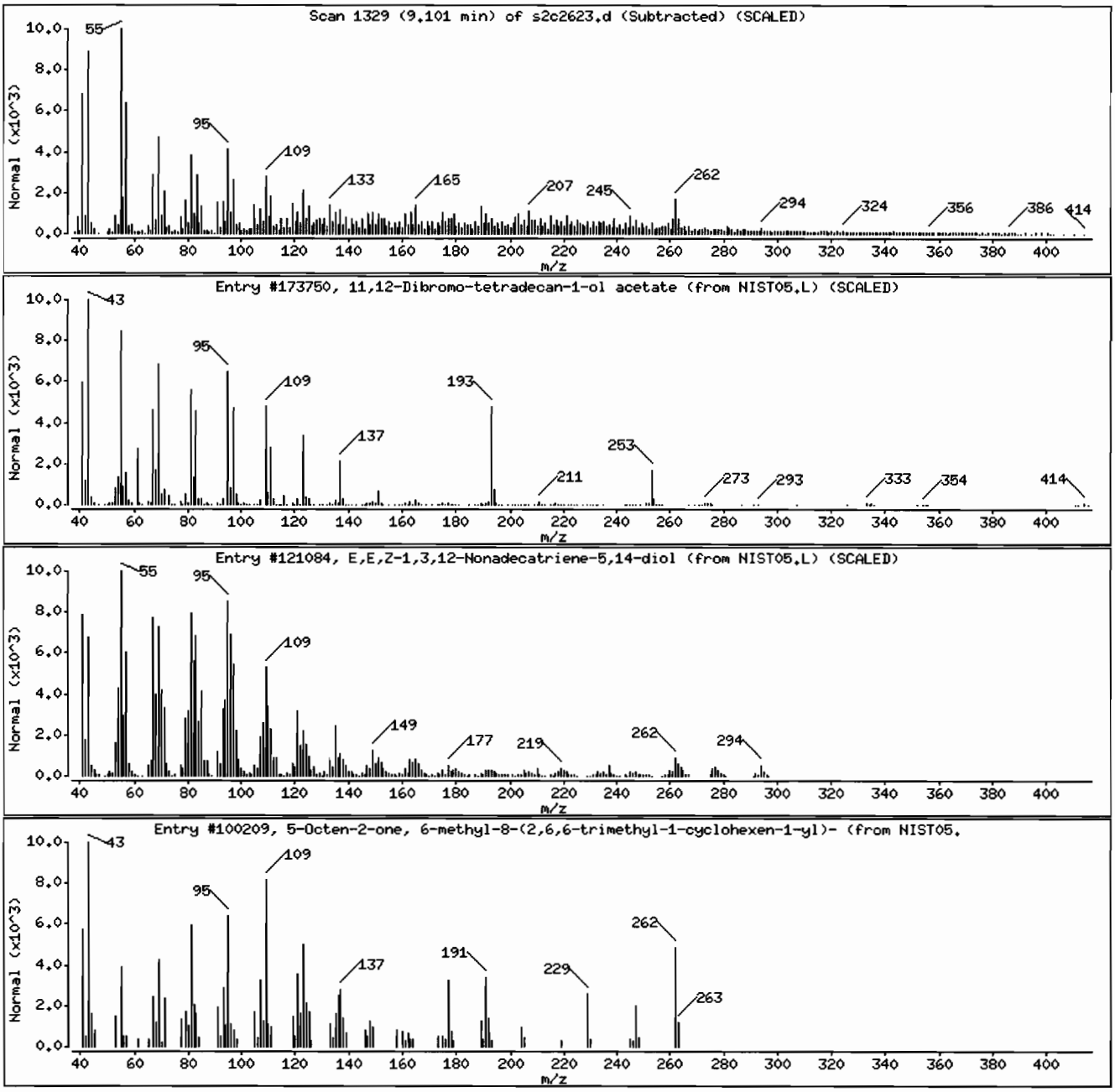

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |249180001|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,2-Benzisothiazole, 3-(hexahydro-1H-aze	309735-29-3	NIST05.L	101019	91	C13H16N2O2S	264
Oxiranepentanoic acid, 3-undecyl-, methy	1041-25-4	NIST05.L	132218	90	C19H36O3	312
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	86	C19H36	264

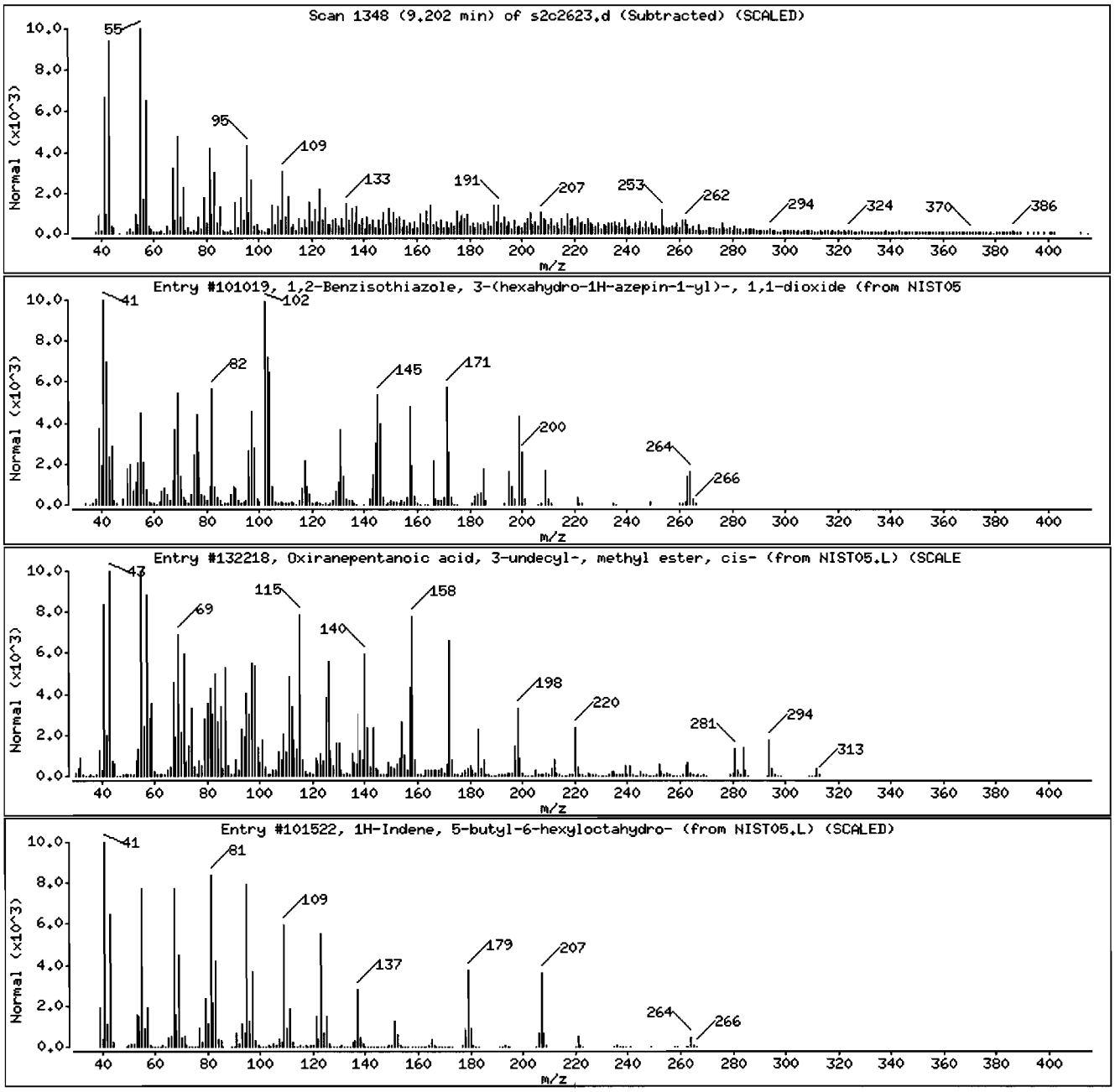

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: 1249180001|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	93	C16H30Br2O2	412
1,2-Benzisothiazole, 3-(hexahydro-1H-aze	309735-29-3	NIST05.L	101019	91	C13H16N2O2S	264
Oxiranepentanoic acid, 3-undecyl-, methy	1041-25-4	NIST05.L	132218	90	C19H36O3	312

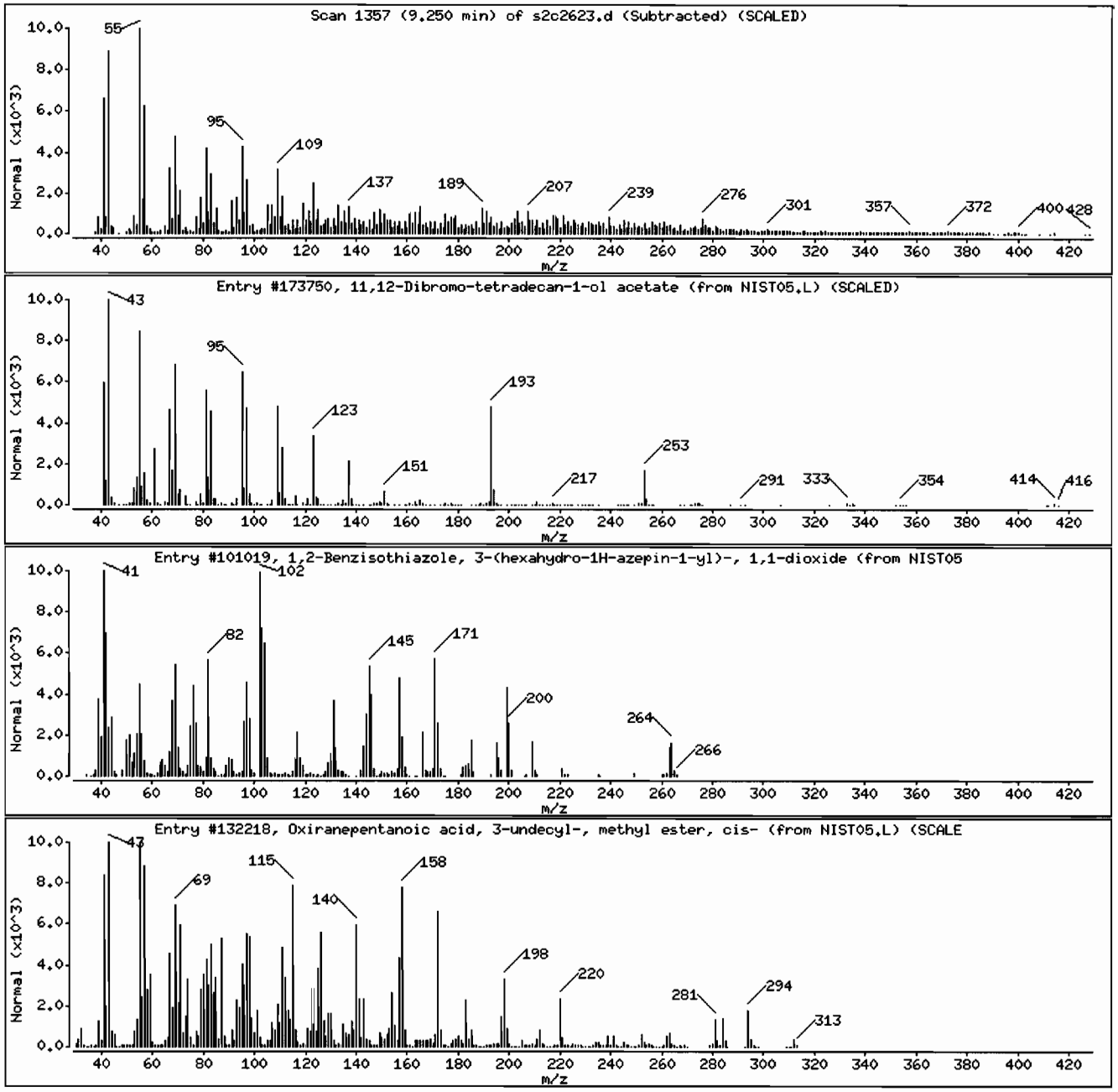

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |249180001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	93	C16H30Br2O2	412
17-(1,5-Dimethylhexyl)-10,13-dimethylhex	1000210-43-6	NIST05.L	167975	66	C27H48O	388
Spiro[4.5]decan-7-one, 1,8-dimethyl-8,9-	61050-91-7	NIST05.L	82504	60	C15H24O2	236

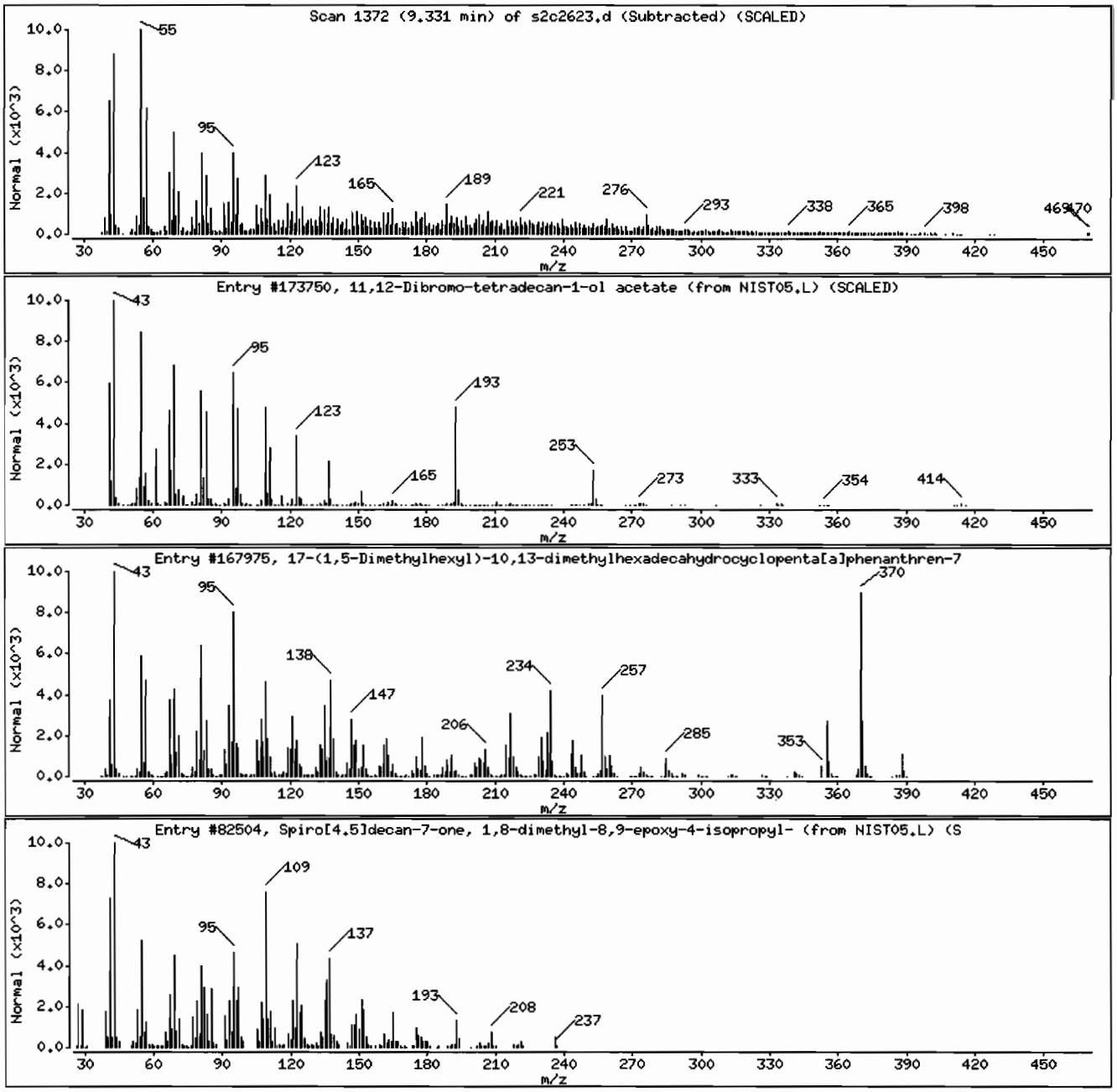

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |249180001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	78	C19H36	264
Cholestan-3-one, 4,4-dimethyl-, (5.alpha	2097-85-0	NIST05.L	174416	60	C29H50O	414
Androstane, (5.beta.)-	438-23-3	NIST05.L	98864	56	C19H32	260

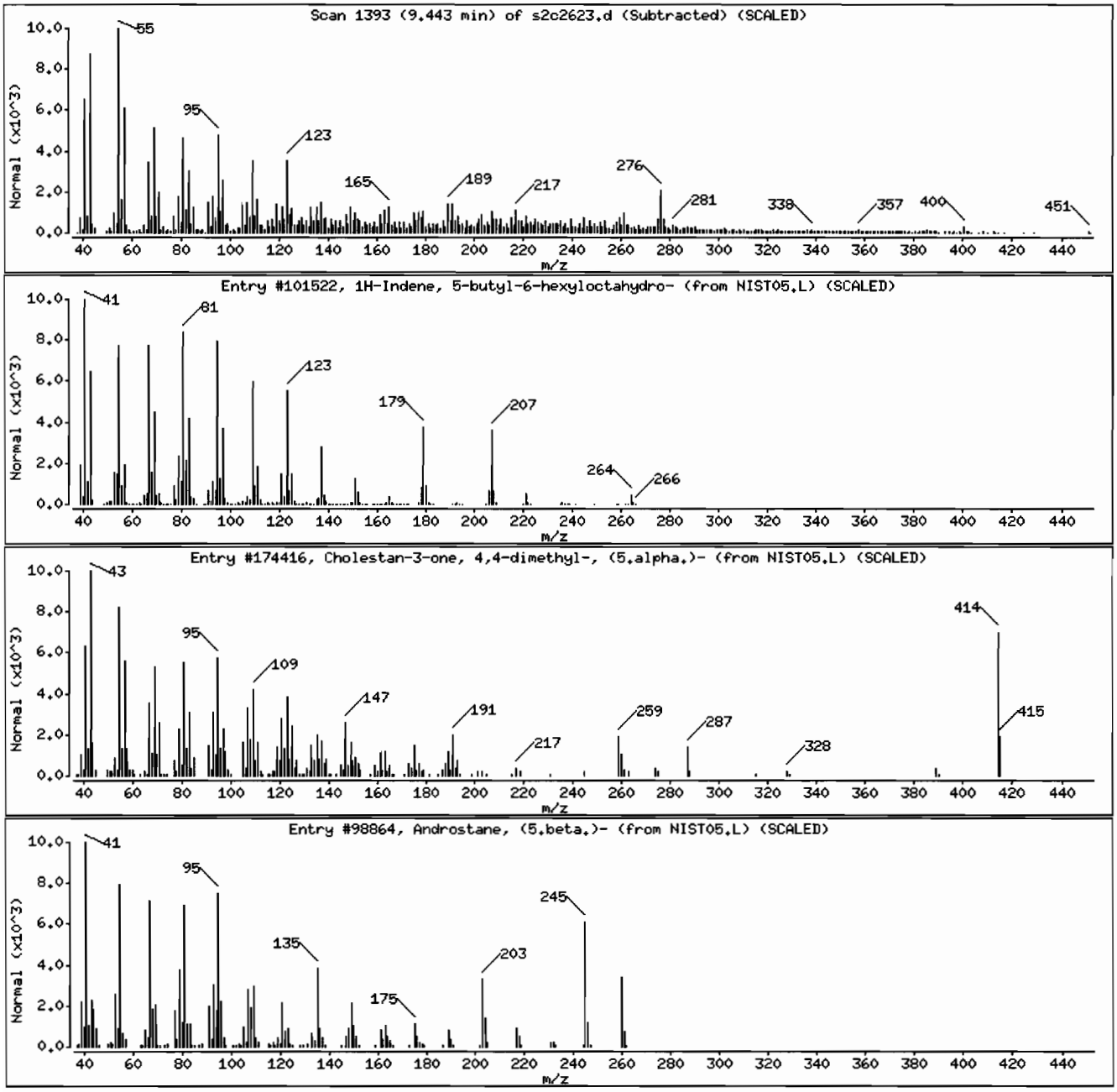

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |249180001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	93	C16H30Br2O2	412
Cyclohexene, 4-(4-ethylcyclohexyl)-1-pen	301643-32-3	NIST05.L	100231	80	C19H34	262
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	58	C19H36	264

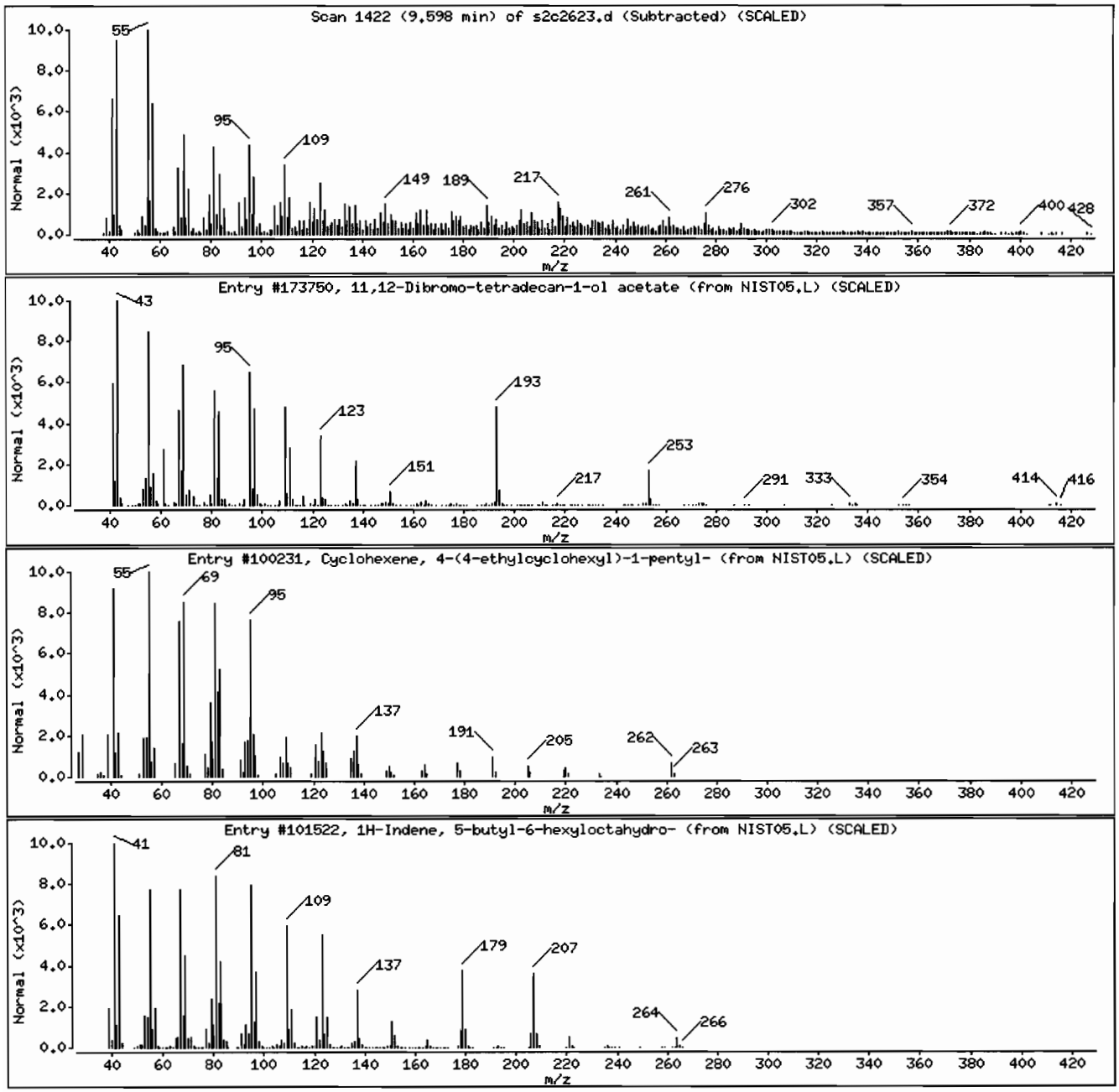

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |249180001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,2-Benzisothiazole, 3-(hexahydro-1H-aze	309735-29-3	NIST05.L	101019	91	C13H16N2O2S	264
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	86	C16H30Br2O2	412
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	64	C16H26O3	266

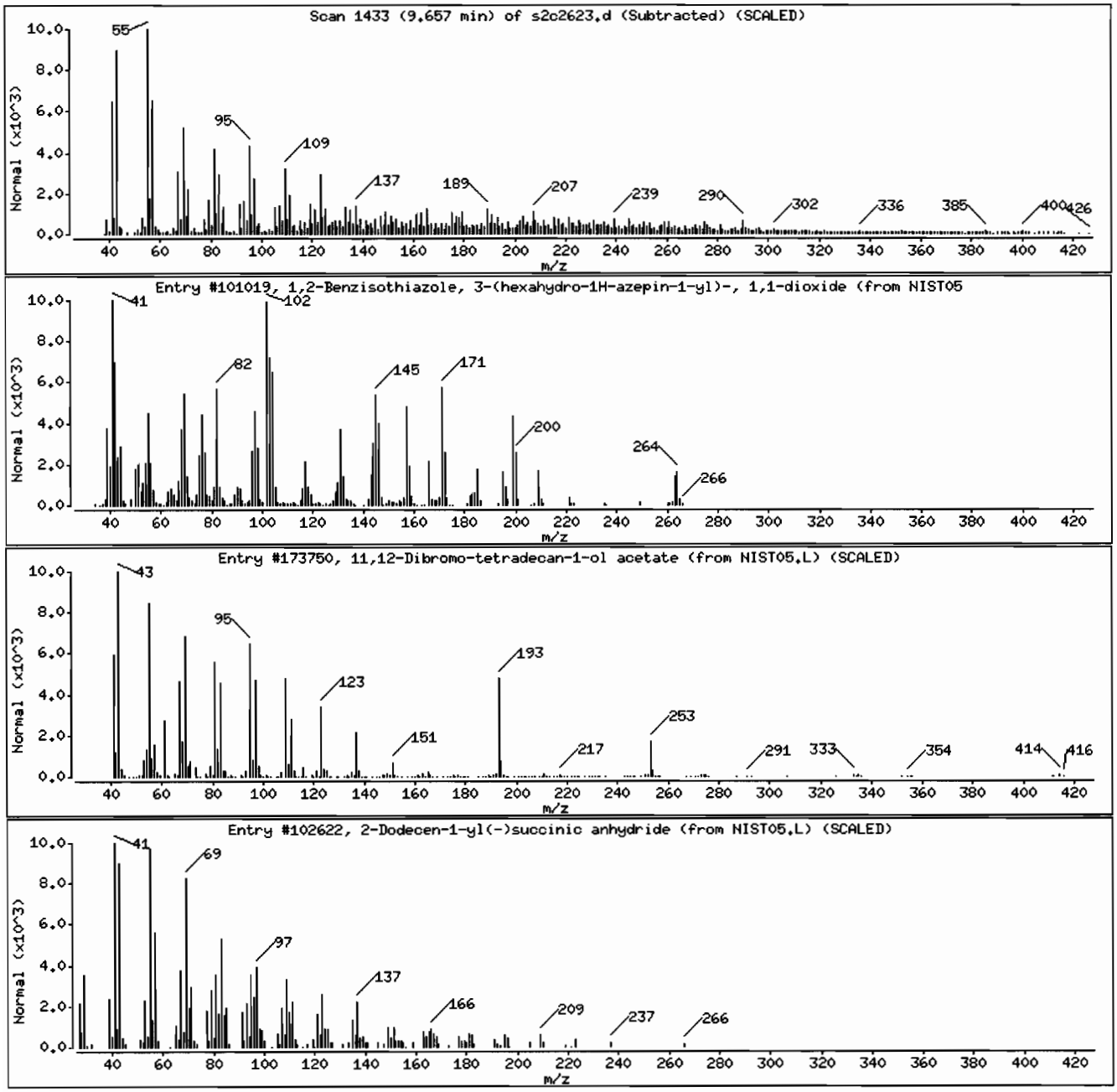

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437

Instrument: MSD2.i

Sample Info: |2491800001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	64	C19H36	264
Cholestan-3-one, 4,4-dimethyl-, (5.alpha	2097-85-0	NIST05.L	174416	42	C29H500	414
9,19-Cycloergost-24(28)-en-3-ol, 4,14-di	469-39-6	NIST05.L	176611	38	C30H500	426

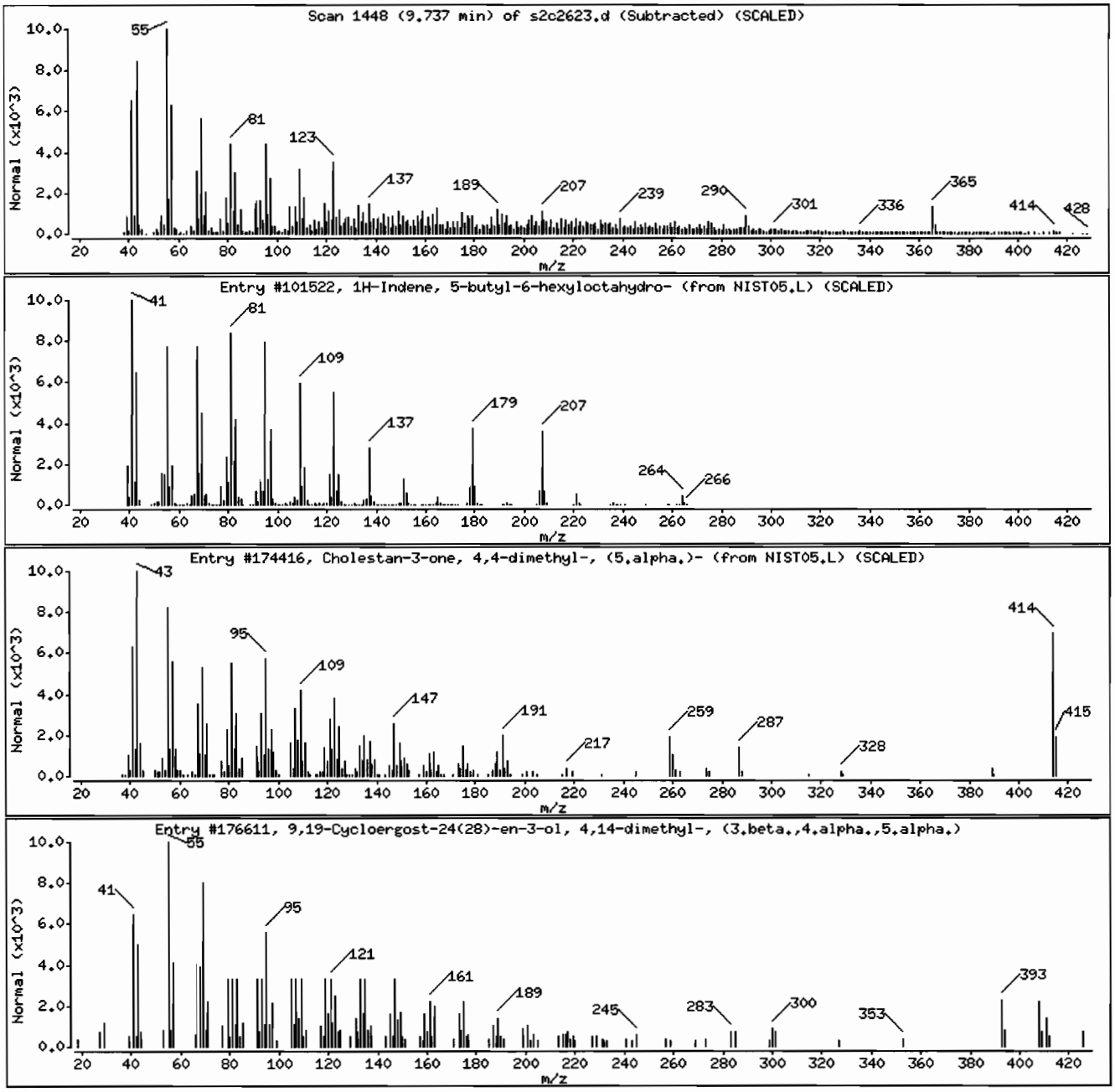

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437

Instrument: MSD2.i

Sample Info: |2491800001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Oxiranepentanoic acid, 3-undecyl-, methy	1041-25-4	NIST05.L	132218	90	C19H3603	312
1H-Indene, 2-butyl-5-hexyloctahydro-	55044-33-2	NIST05.L	101525	89	C19H36	264
Cholestan-3-one, 4,4-dimethyl-, (5.alpha	2097-85-0	NIST05.L	174416	46	C29H500	414

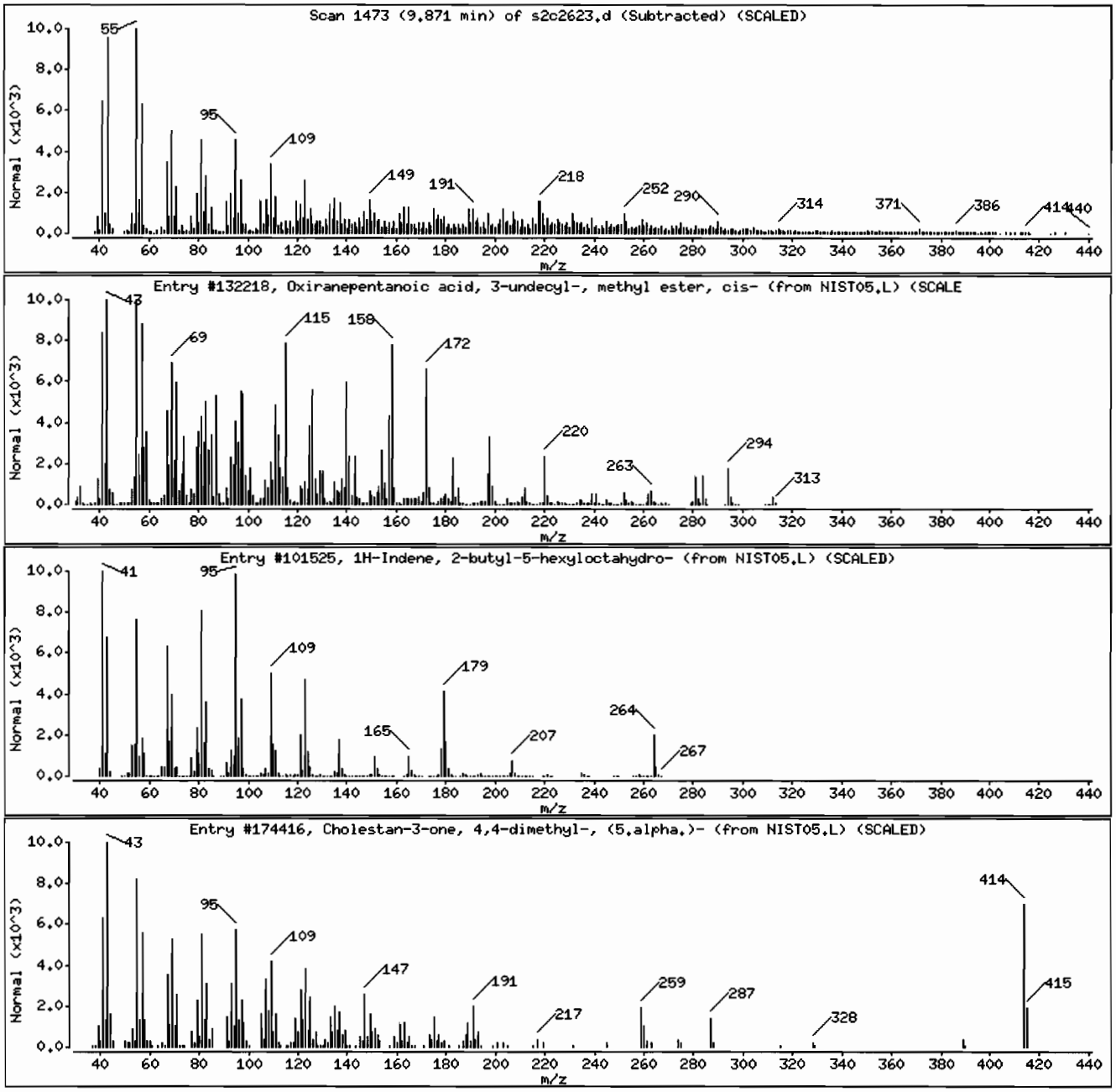

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |2491800001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	89	C19H36	264
4,22-Stigmastadiene-3-one	20817-72-5	NIST05.L	173535	58	C29H460	410
22-Stigmasten-3-one	4736-95-2	NIST05.L	173935	52	C29H480	412

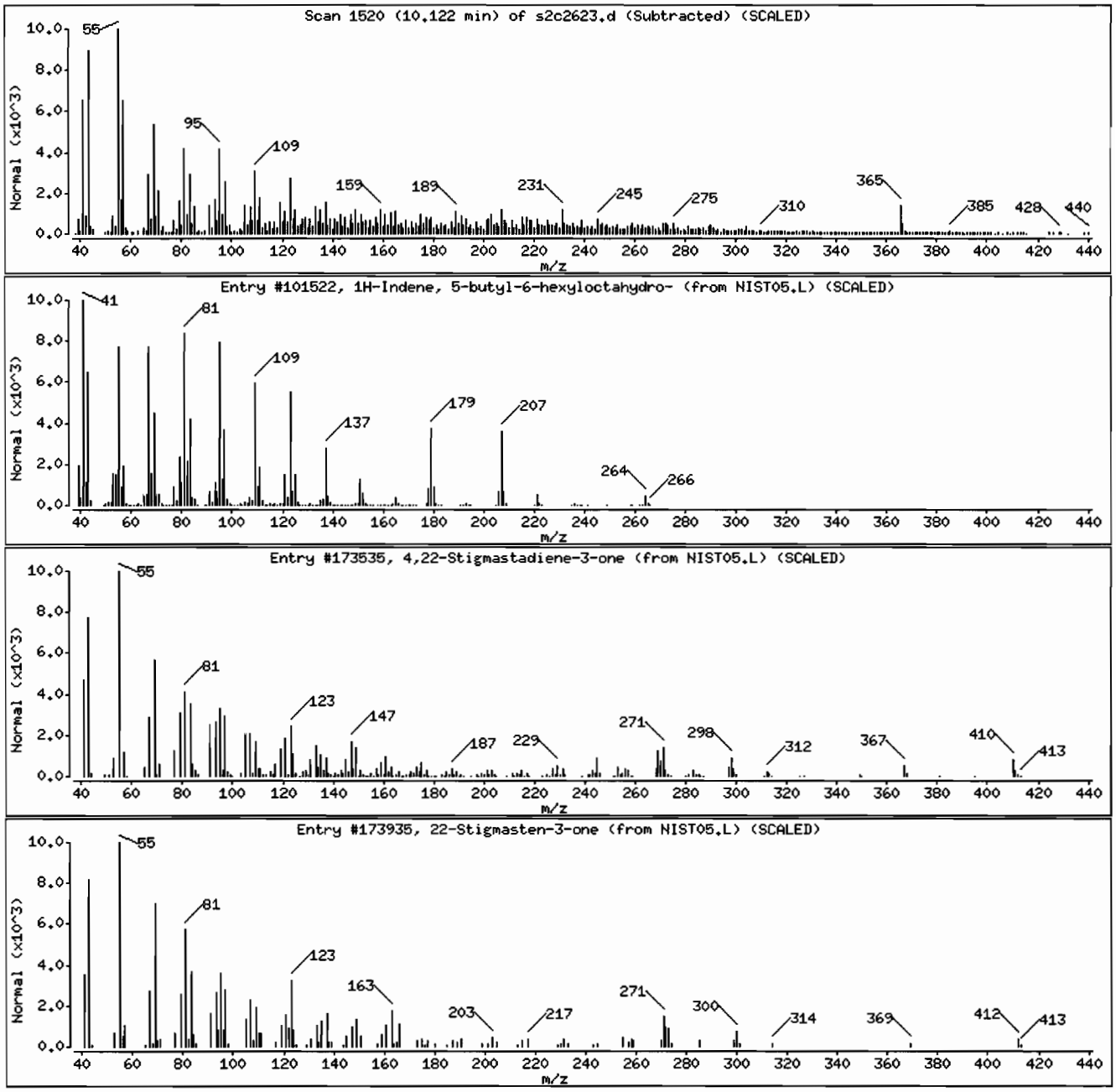

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |249180001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	64	C19H36	264
2,3(1H)-Dihydro-7-methylthio-9-cyclopent	1000257-08-5	NIST05.L	79205	30	C13H13NOS	231
Lanost-7-en-3-one, (9.beta.,13.alpha.,14	55515-18-9	NIST05.L	176602	30	C30H50O	426

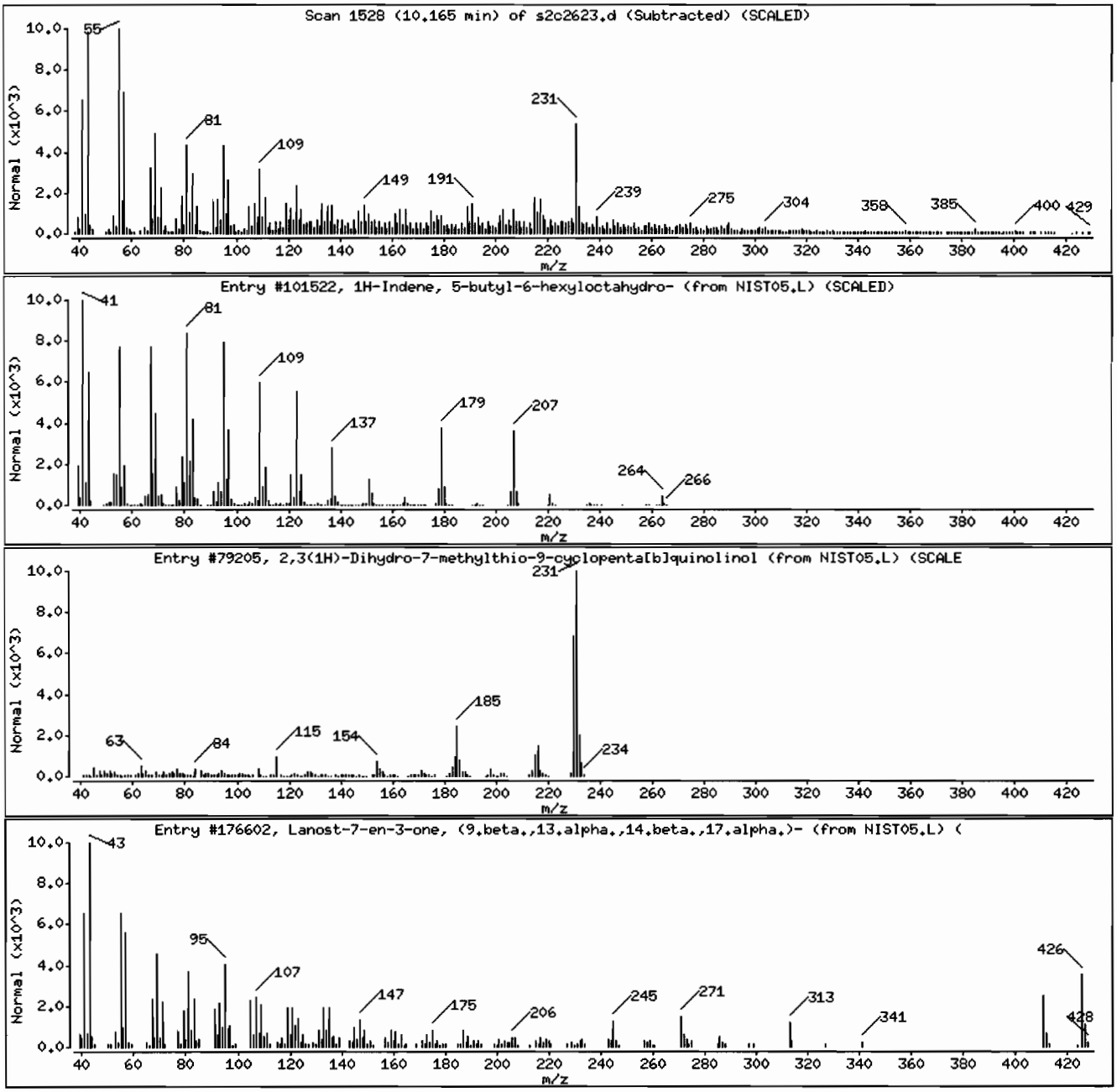

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |249180001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	78	C19H36	264
Coprostan-16.beta.-ol	1000252-96-1	NIST05.L	167966	66	C27H480	388
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	49	C16H2603	266

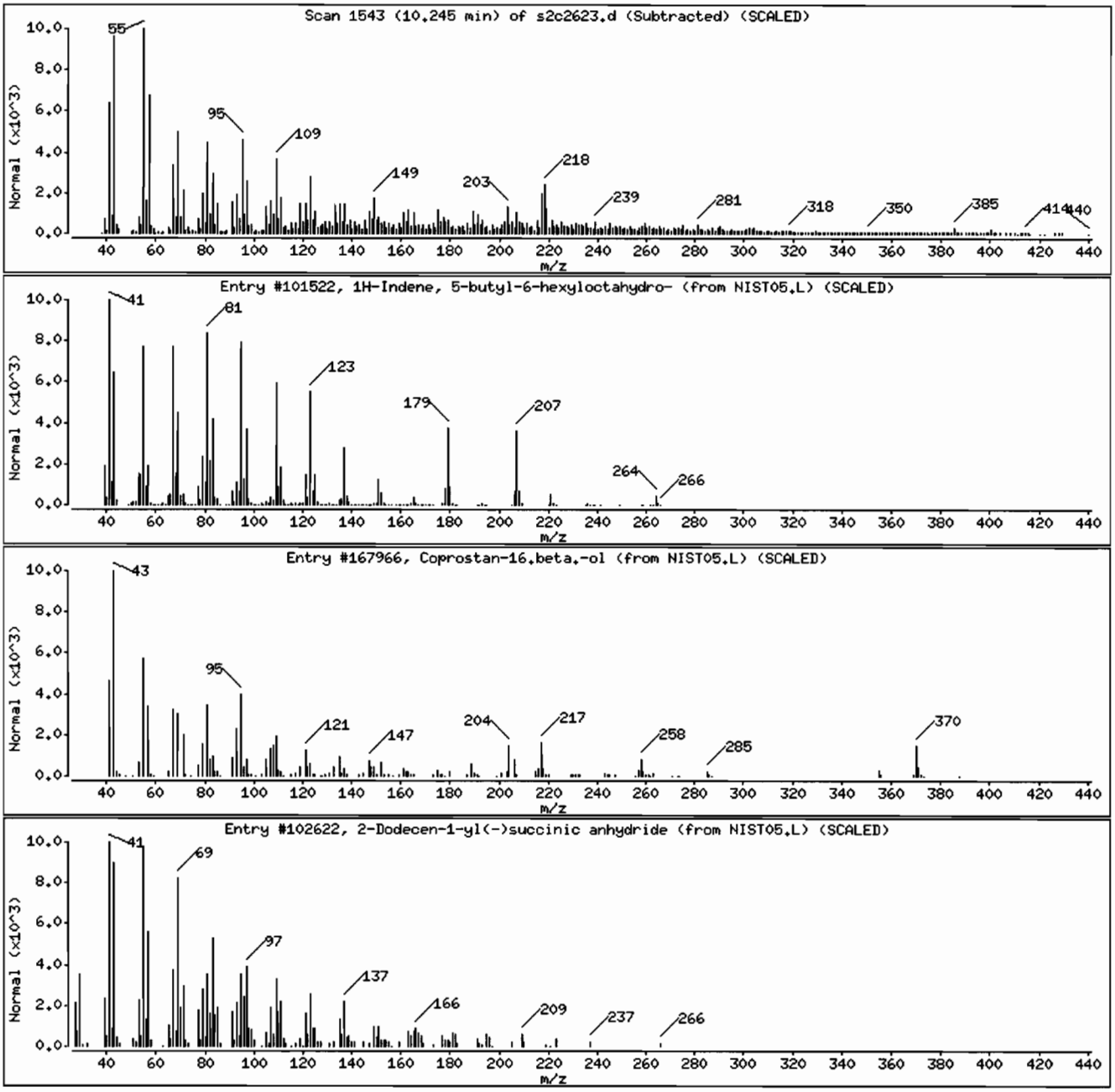

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437

Instrument: MSD2.i

Sample Info: |249180001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indene, 2-butyl-5-hexyloctahydro-	55044-33-2	NIST05.L	101525	78	C19H36	264
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102622	49	C16H2603	266
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102623	49	C16H2603	266

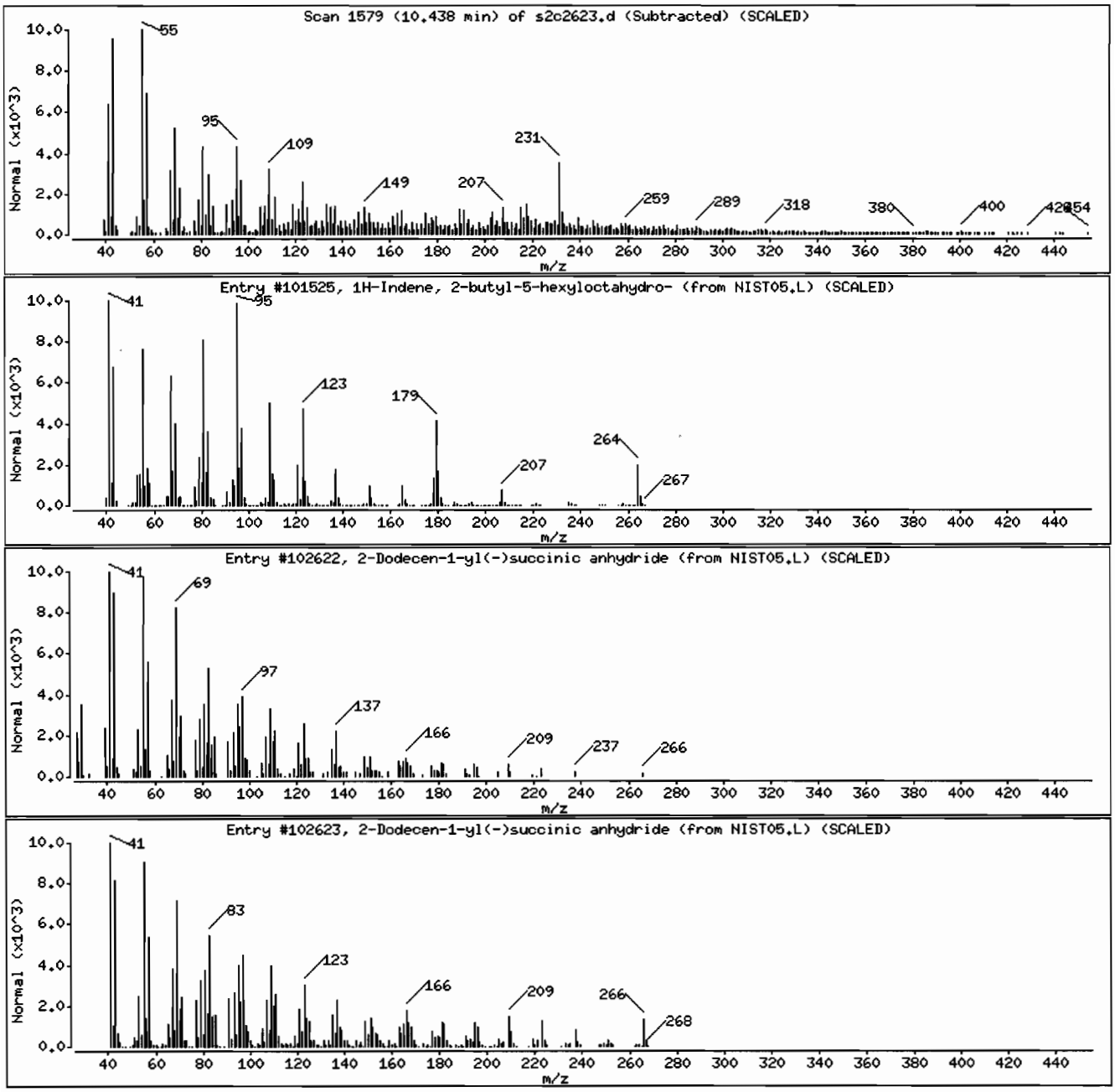

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |2491800001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	78	C19H36	264
5.alpha.-Androstan-3.beta.-ol, 4,4-dimet	7673-19-0	NIST05.L	127500	66	C21H360	304
Androstane, (5.beta.)-	438-23-3	NIST05.L	98864	56	C19H32	260

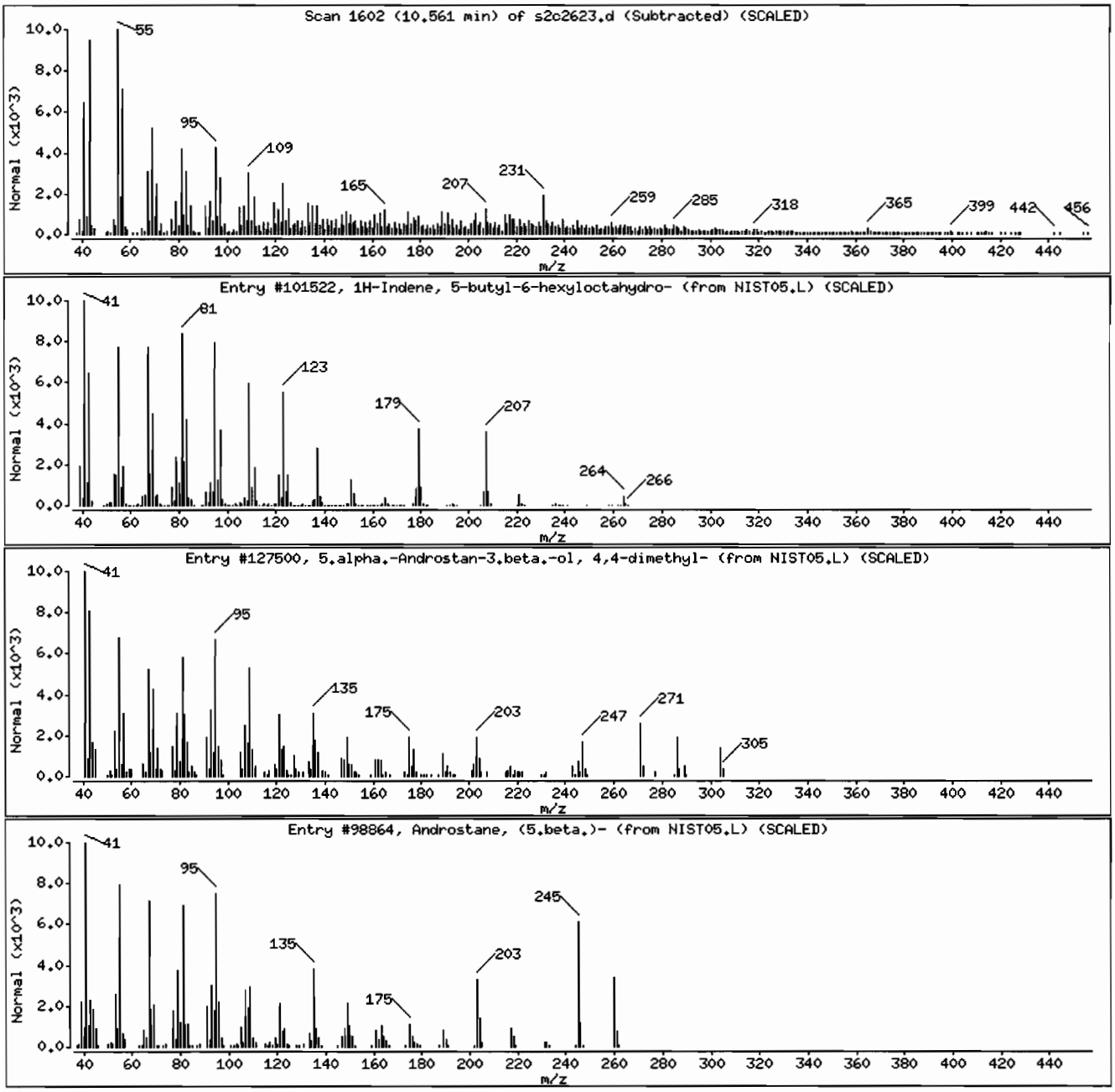

Data File: /chem/MSD2.i/s032610.b/s2c2623.d

Date : 26-MAR-2010 22:38

Client ID: RE46-10-13437 Instrument: MSD2.i

Sample Info: |2491800001|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Phenanthrene, 9-dodecyltetradecahydro-	55334-01-5	NIST05.L	157353	70	C26H48	360
2(1H)-Naphthalenone, octahydro-4a-methyl	54594-42-2	NIST05.L	62989	55	C14H24O	208
A-Norcholestan-3-one, 5-ethenyl-, (5.bet	19594-90-2	NIST05.L	170874	51	C28H46O	398

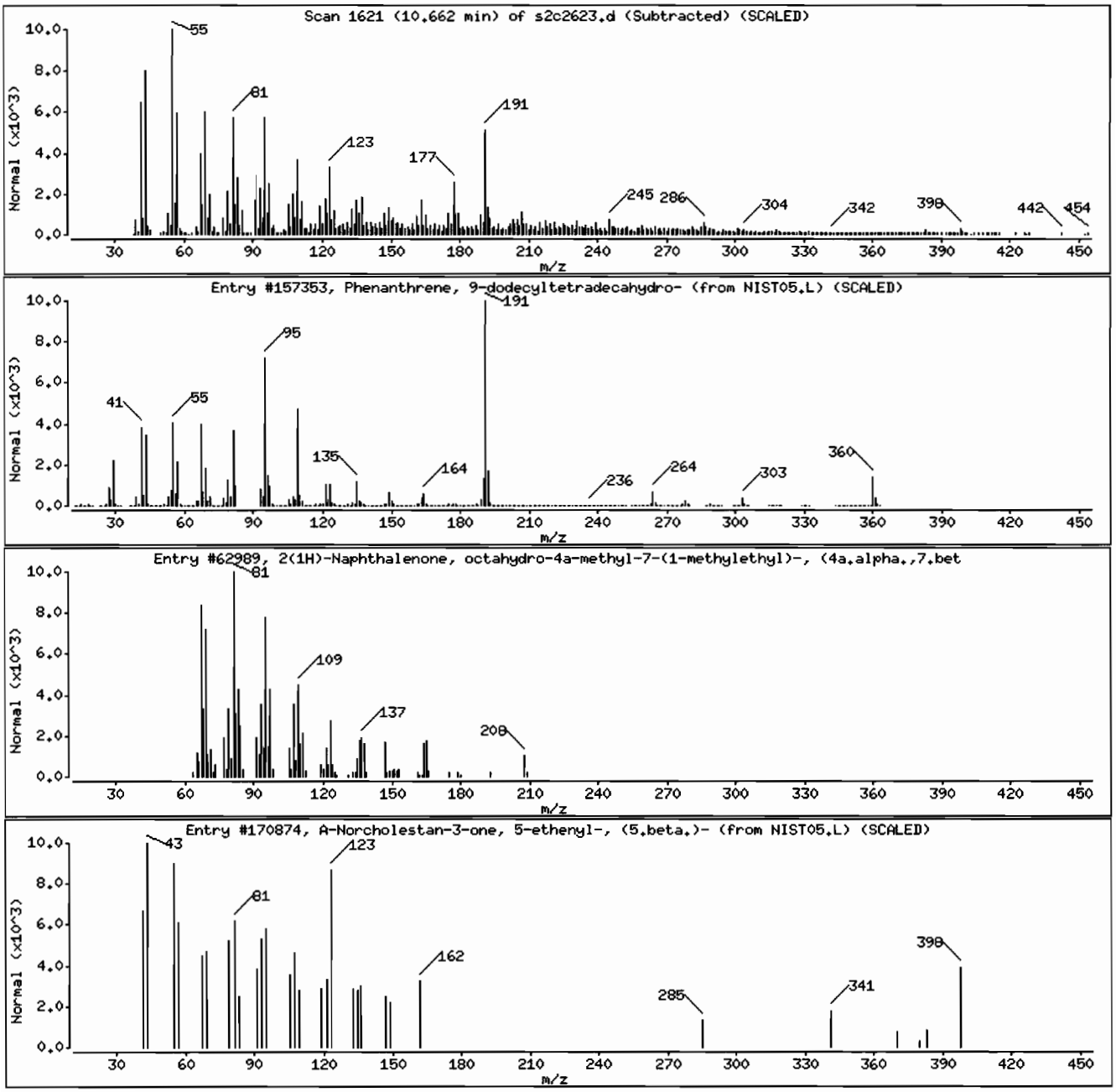

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180004**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13438**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 23:38**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2626.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	397	ug/kg	79.4	397
108-95-2	Phenol	U	397	ug/kg	79.4	397
95-57-8	2-Chlorophenol	U	397	ug/kg	79.4	397
106-46-7	1,4-Dichlorobenzene	U	397	ug/kg	79.4	397
621-64-7	N-Nitrosodipropylamine	U	397	ug/kg	79.4	397
59-50-7	4-Chloro-3-methylphenol	U	397	ug/kg	79.4	397
83-32-9	Acenaphthene	U	39.7	ug/kg	13.1	39.7
121-14-2	2,4-Dinitrotoluene	U	397	ug/kg	39.7	397
100-02-7	4-Nitrophenol	U	397	ug/kg	131	397
87-86-5	Pentachlorophenol	U	397	ug/kg	99.2	397
129-00-0	Pyrene	U	39.7	ug/kg	11.9	39.7
110-86-1	Pyridine	U	397	ug/kg	79.4	397
62-53-3	Aniline	U	397	ug/kg	119	397
111-44-4	bis(2-Chloroethyl) ether	U	397	ug/kg	79.4	397
541-73-1	1,3-Dichlorobenzene	U	397	ug/kg	79.4	397
100-51-6	Benzyl alcohol	U	397	ug/kg	119	397
95-50-1	1,2-Dichlorobenzene	U	397	ug/kg	79.4	397
108-60-1	bis(2-Chloroisopropyl)ether	U	397	ug/kg	79.4	397
95-48-7	o-Cresol	U	397	ug/kg	79.4	397
65794-96-9	m,p-Cresols	U	397	ug/kg	119	397
67-72-1	Hexachloroethane	U	397	ug/kg	79.4	397
98-95-3	Nitrobenzene	U	397	ug/kg	79.4	397
78-59-1	Isophorone	U	397	ug/kg	79.4	397
88-75-5	2-Nitrophenol	U	397	ug/kg	79.4	397
105-67-9	2,4-Dimethylphenol	U	397	ug/kg	139	397
111-91-1	bis(2-Chloroethoxy)methane	U	397	ug/kg	79.4	397
120-83-2	2,4-Dichlorophenol	U	397	ug/kg	79.4	397
65-85-0	Benzoic acid	U	794	ug/kg	198	794
91-20-3	Naphthalene	U	39.7	ug/kg	11.9	39.7
106-47-8	4-Chloroaniline	U	397	ug/kg	79.4	397
87-68-3	Hexachlorobutadiene	U	397	ug/kg	79.4	397
91-57-6	2-Methylnaphthalene	U	39.7	ug/kg	7.94	39.7
77-47-4	Hexachlorocyclopentadiene	U	397	ug/kg	79.4	397
88-06-2	2,4,6-Trichlorophenol	U	397	ug/kg	79.4	397
95-95-4	2,4,5-Trichlorophenol	U	397	ug/kg	79.4	397
91-58-7	2-Chloronaphthalene	U	39.7	ug/kg	13.1	39.7
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	397	ug/kg	79.4	397
99-09-2	3-Nitroaniline	U	397	ug/kg	79.4	397

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180004**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13438**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 23:38**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2626.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	397	ug/kg	79.4	397
606-20-2	2,6-Dinitrotoluene	U	397	ug/kg	39.7	397
208-96-8	Acenaphthylene	U	39.7	ug/kg	11.9	39.7
51-28-5	2,4-Dinitrophenol	U	794	ug/kg	151	794
132-64-9	Dibenzofuran	U	397	ug/kg	79.4	397
84-66-2	Diethylphthalate	U	397	ug/kg	79.4	397
86-73-7	Fluorene	U	39.7	ug/kg	11.9	39.7
7005-72-3	4-Chlorophenylphenylether	U	397	ug/kg	79.4	397
534-52-1	2-Methyl-4,6-dinitrophenol	U	397	ug/kg	79.4	397
100-01-6	4-Nitroaniline	U	397	ug/kg	119	397
	p-Nitroaniline					
122-39-4	Diphenylamine	U	397	ug/kg	79.4	397
122-66-7	Azobenzene	U	397	ug/kg	79.4	397
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	397	ug/kg	79.4	397
118-74-1	Hexachlorobenzene	U	397	ug/kg	79.4	397
85-01-8	Phenanthrene	U	39.7	ug/kg	11.9	39.7
120-12-7	Anthracene	U	39.7	ug/kg	7.94	39.7
84-74-2	Di-n-butylphthalate	U	397	ug/kg	79.4	397
206-44-0	Fluoranthene	U	39.7	ug/kg	11.9	39.7
85-68-7	Butylbenzylphthalate	U	397	ug/kg	79.4	397
56-55-3	Benzo(a)anthracene	U	39.7	ug/kg	11.9	39.7
91-94-1	3,3'-Dichlorobenzidine	U	397	ug/kg	119	397
218-01-9	Chrysene	U	39.7	ug/kg	11.9	39.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	397	ug/kg	79.4	397
117-84-0	Di-n-octylphthalate	U	397	ug/kg	79.4	397
205-99-2	Benzo(b)fluoranthene	U	39.7	ug/kg	11.9	39.7
207-08-9	Benzo(k)fluoranthene	U	39.7	ug/kg	11.9	39.7
50-32-8	Benzo(a)pyrene	U	39.7	ug/kg	11.9	39.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.7	ug/kg	11.9	39.7
53-70-3	Dibenzo(a,h)anthracene	U	39.7	ug/kg	11.9	39.7
191-24-2	Benzo(ghi)perylene	U	39.7	ug/kg	11.9	39.7
120-82-1	1,2,4-Trichlorobenzene	U	397	ug/kg	79.4	397

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.84	410	ug/kg		JA

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Data file : /chem/MSD2.i/s032610.b/s2c2626.d
Lab Smp Id: 249180004 Client Smp ID: RE46-10-13438
Inj Date : 26-MAR-2010 23:38
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249180004|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2398.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	16.04740	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	165096	40.0000	
* 29 Naphthalene-d8	136	4.672	4.672	(1.000)	667398	40.0000	
* 46 Acenaphthene-d10	164	5.913	5.918	(1.000)	403825	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	732670	40.0000	
* 91 Chrysene-d12	240	8.544	8.555	(1.000)	558425	40.0000	
* 98 Perylene-d12	264	9.946	9.962	(1.000)	359168	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	283581	72.1371	2860
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	315670	65.2099	2590
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.892)	181056	37.4831	1490
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.915)	360505	32.4479	1290
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.091)	86859	72.7210	2880
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.915)	449648	44.1507	1750

ION RATIO REPORT

SV REPORT

Data file: s2c2626.d
Report Date: 03/27/2010 21:58
Lab. ID: 249180004 SampleType: SAMPLE
Injection Date: 26-MAR-2010 23:38
Operator: AGS1 Instrument: MSD2.i
Sample Info: |249180004|966675|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2398
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	24980	3.53	3.60	80-120	100	(T)
93	183	3.49	3.61	335-395	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	29234	4.17	4.05	80-120	100	(T)
42	25496	4.17	4.05	96-156	87	(QT)
43 Dimethylphthalate			CAS#: 131-11-3			
163	72328	5.91	5.69	80-120	100	(T)
164	403825	5.91	5.69	0- 40	558	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	50805	5.91	5.74	80-120	100	(T)
63	758	5.91	5.74	87-147	1	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	50805	5.91	6.03	80-120	100	(T)
89	927	5.91	6.03	58-118	2	(QT)
63	758	5.91	6.03	47-107	1	(QT)
53 Fluorene		CAS#: 86-73-7				
166	3871	6.45	6.29	80-120	100	(T)
165	4541	6.45	6.29	61-121	117	(T)
167	1328	6.45	6.29	0- 43	34	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	396	6.45	6.31	80-120	100	(T)
105	854	6.45	6.31	15- 75	216	(QT)
51	986	6.45	6.31	92-152	249	(QT)

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD2.i/s032610.b/s2c2626.d
Lab Smp Id: 249180004 Client Smp ID: RE46-10-13438
Inj Date : 26-MAR-2010 23:38
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249180004|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2398.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	16.04740	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.811	1237966	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.843	319536	10.3245374	410	0		0	10

Data File: /chem/MSD2.i/s032610.b/s2c2626.d
Date : 26-MAR-2010 23:38
Client ID: RE46-10-13438
Sample Info: 1249180004|966675|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD2.i

Operator: AGS1
Column diameter: 0.20

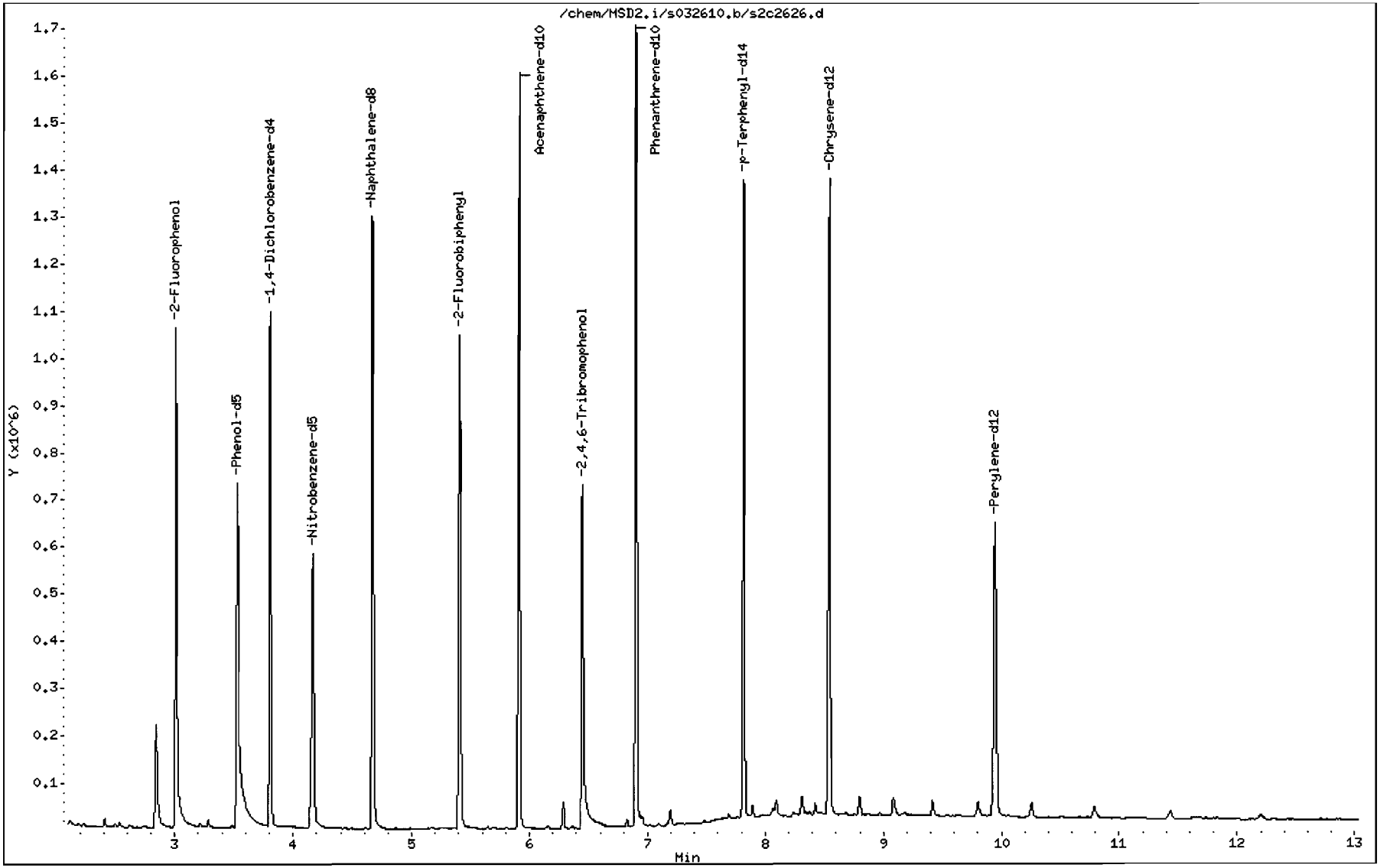

Data File: /chem/MSD2.i/s032610.b/s2c2626.d

Date : 26-MAR-2010 23:38

Client ID: RE46-10-13438

Instrument: MSD2.i

Sample Info: |249180004|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
1-Propen-2-ol, acetate	108-22-5	NIST05.L	3595	10	C5H8O2	100

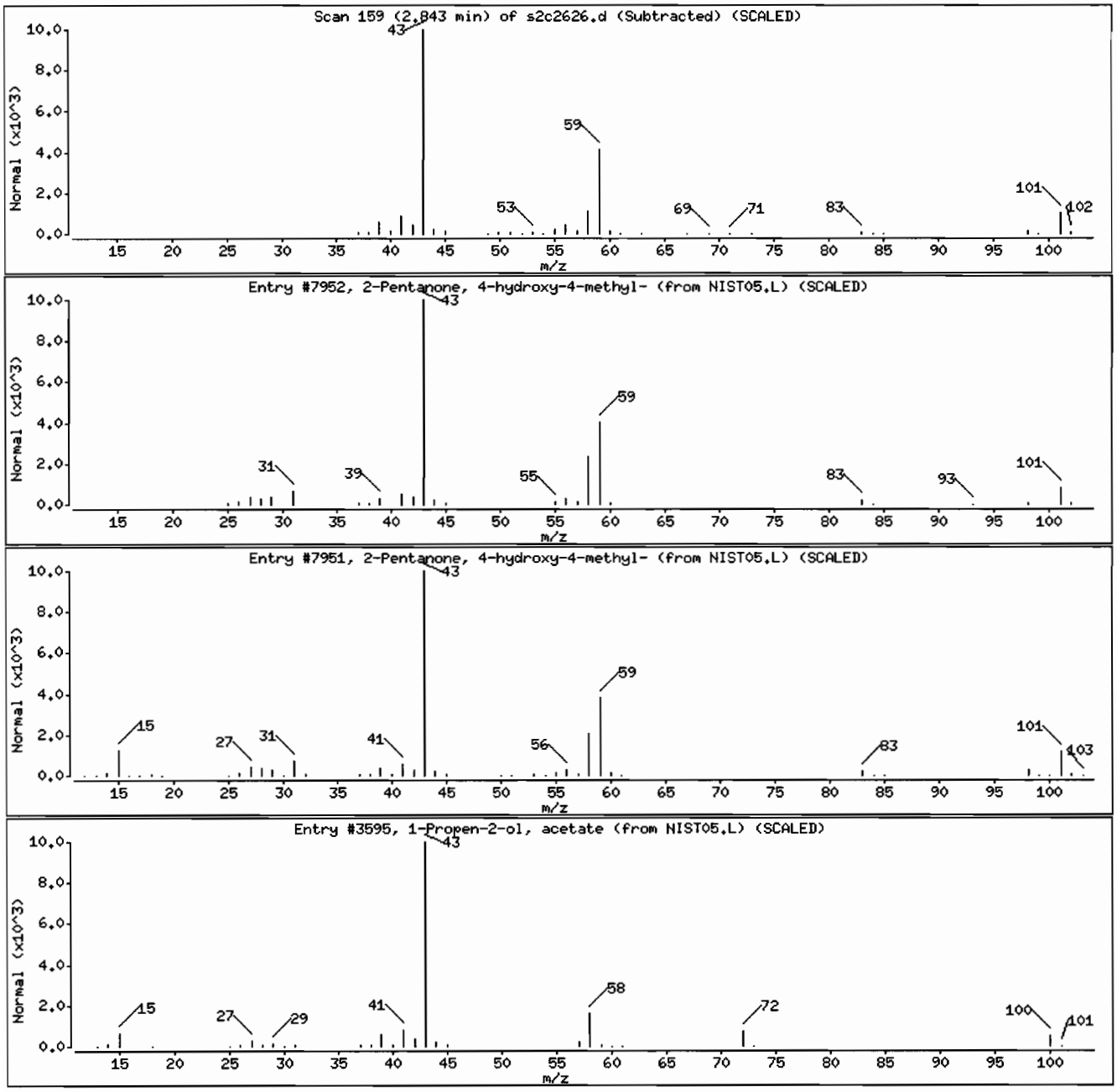

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	Date Collected:	03/09/2010 12:00	Matrix:	S
Lab Sample ID:	249180006	Date Received:	03/11/2010 09:00	%Moisture:	12.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13439	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966675	Inst:	MSD2.I	Dilution:	1
Run Date:	03/27/2010 00:18	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/18/2010 22:34	Aliquot:	30.17 g	Final Volume:	1 mL
Data File:	s2c2628.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	380	ug/kg	76.0	380
108-95-2	Phenol	U	380	ug/kg	76.0	380
95-57-8	2-Chlorophenol	U	380	ug/kg	76.0	380
106-46-7	1,4-Dichlorobenzene	U	380	ug/kg	76.0	380
621-64-7	N-Nitrosodipropylamine	U	380	ug/kg	76.0	380
59-50-7	4-Chloro-3-methylphenol	U	380	ug/kg	76.0	380
83-32-9	Acenaphthene	U	38.0	ug/kg	12.5	38.0
121-14-2	2,4-Dinitrotoluene	U	380	ug/kg	38.0	380
100-02-7	4-Nitrophenol	U	380	ug/kg	125	380
87-86-5	Pentachlorophenol	U	380	ug/kg	95.0	380
129-00-0	Pyrene	U	38.0	ug/kg	11.4	38.0
110-86-1	Pyridine	U	380	ug/kg	76.0	380
62-53-3	Aniline	U	380	ug/kg	114	380
111-44-4	bis(2-Chloroethyl) ether	U	380	ug/kg	76.0	380
541-73-1	1,3-Dichlorobenzene	U	380	ug/kg	76.0	380
100-51-6	Benzyl alcohol	U	380	ug/kg	114	380
95-50-1	1,2-Dichlorobenzene	U	380	ug/kg	76.0	380
108-60-1	bis(2-Chloroisopropyl)ether	U	380	ug/kg	76.0	380
95-48-7	o-Cresol	U	380	ug/kg	76.0	380
65794-96-9	m,p-Cresols	U	380	ug/kg	114	380
67-72-1	Hexachloroethane	U	380	ug/kg	76.0	380
98-95-3	Nitrobenzene	U	380	ug/kg	76.0	380
78-59-1	Isophorone	U	380	ug/kg	76.0	380
88-75-5	2-Nitrophenol	U	380	ug/kg	76.0	380
105-67-9	2,4-Dimethylphenol	U	380	ug/kg	133	380
111-91-1	bis(2-Chloroethoxy)methane	U	380	ug/kg	76.0	380
120-83-2	2,4-Dichlorophenol	U	380	ug/kg	76.0	380
65-85-0	Benzoic acid	U	760	ug/kg	190	760
91-20-3	Naphthalene	U	38.0	ug/kg	11.4	38.0
106-47-8	4-Chloroaniline	U	380	ug/kg	76.0	380
87-68-3	Hexachlorobutadiene	U	380	ug/kg	76.0	380
91-57-6	2-Methylnaphthalene	U	38.0	ug/kg	7.60	38.0
77-47-4	Hexachlorocyclopentadiene	U	380	ug/kg	76.0	380
88-06-2	2,4,6-Trichlorophenol	U	380	ug/kg	76.0	380
95-95-4	2,4,5-Trichlorophenol	U	380	ug/kg	76.0	380
91-58-7	2-Chloronaphthalene	U	38.0	ug/kg	12.5	38.0
88-74-4	2-Nitroaniline	U	380	ug/kg	76.0	380
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	380	ug/kg	76.0	380

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180006**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13439**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 00:18**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2628.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	380	ug/kg	76.0	380
606-20-2	2,6-Dinitrotoluene	U	380	ug/kg	38.0	380
208-96-8	Acenaphthylene	U	38.0	ug/kg	11.4	38.0
51-28-5	2,4-Dinitrophenol	U	760	ug/kg	144	760
132-64-9	Dibenzofuran	U	380	ug/kg	76.0	380
84-66-2	Diethylphthalate	U	380	ug/kg	76.0	380
86-73-7	Fluorene	U	38.0	ug/kg	11.4	38.0
7005-72-3	4-Chlorophenylphenylether	U	380	ug/kg	76.0	380
534-52-1	2-Methyl-4,6-dinitrophenol	U	380	ug/kg	76.0	380
100-01-6	4-Nitroaniline	U	380	ug/kg	114	380
	p-Nitroaniline					
122-39-4	Diphenylamine	U	380	ug/kg	76.0	380
122-66-7	Azobenzene	U	380	ug/kg	76.0	380
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	380	ug/kg	76.0	380
118-74-1	Hexachlorobenzene	U	380	ug/kg	76.0	380
85-01-8	Phenanthrene	U	38.0	ug/kg	11.4	38.0
120-12-7	Anthracene	U	38.0	ug/kg	7.60	38.0
84-74-2	Di-n-butylphthalate	U	380	ug/kg	76.0	380
206-44-0	Fluoranthene	U	38.0	ug/kg	11.4	38.0
85-68-7	Butylbenzylphthalate	U	380	ug/kg	76.0	380
56-55-3	Benzo(a)anthracene	U	38.0	ug/kg	11.4	38.0
91-94-1	3,3'-Dichlorobenzidine	U	380	ug/kg	114	380
218-01-9	Chrysene	U	38.0	ug/kg	11.4	38.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	380	ug/kg	76.0	380
117-84-0	Di-n-octylphthalate	U	380	ug/kg	76.0	380
205-99-2	Benzo(b)fluoranthene	U	38.0	ug/kg	11.4	38.0
207-08-9	Benzo(k)fluoranthene	U	38.0	ug/kg	11.4	38.0
50-32-8	Benzo(a)pyrene	U	38.0	ug/kg	11.4	38.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.0	ug/kg	11.4	38.0
53-70-3	Dibenzo(a,h)anthracene	U	38.0	ug/kg	11.4	38.0
191-24-2	Benzo(ghi)perylene	U	38.0	ug/kg	11.4	38.0
120-82-1	1,2,4-Trichlorobenzene	U	380	ug/kg	76.0	380

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	7.97	426	ug/kg		J
	Unknown	8.1	2890	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180006**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13439**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 00:18**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2628.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.13	1620	ug/kg		J
	Unknown	8.24	729	ug/kg		J
	Unknown	8.31	820	ug/kg		J
	Unknown	8.34	1500	ug/kg		J
	Unknown	8.38	1570	ug/kg		J
	Unknown	8.49	235	ug/kg		J
	Unknown	8.65	389	ug/kg		J
	Unknown	8.68	481	ug/kg		J
	Unknown	8.72	315	ug/kg		J
	Unknown	8.76	619	ug/kg		J
	Unknown	8.81	367	ug/kg		J
807-28-3	1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	8.89	1470	ug/kg	96	NJ
309735-29-3	1,2-Benzisothiazole, 3-(hexahydro-1H-aze	9.02	239	ug/kg	94	NJ
	Unknown	9.07	375	ug/kg		J
	Unknown	9.19	410	ug/kg		J
	Unknown	9.27	517	ug/kg		J
	Unknown	9.37	1110	ug/kg		J
	Unknown	9.44	939	ug/kg		J
	Unknown	9.56	1230	ug/kg		J
	Unknown	9.79	1340	ug/kg		J
	Unknown	9.86	1890	ug/kg		J
	Unknown	9.91	706	ug/kg		J
	Unknown	9.99	960	ug/kg		J
	Unknown	10.12	592	ug/kg		J
	Unknown	10.31	482	ug/kg		J
	Unknown	10.54	987	ug/kg		J

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Data file : /chem/MSD2.i/s032610.b/s2c2628.d
Lab Smp Id: 249180006 Client Smp ID: RE46-10-13439
Inj Date : 27-MAR-2010 00:18
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249180006|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2398.sub
Target Version: 3.50
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.17000	weight of sample
M	12.79950	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	210132	40.0000	
* 29 Naphthalene-d8	136	4.672	4.672	(1.000)	841163	40.0000	
* 46 Acenaphthene-d10	164	5.913	5.918	(1.000)	522389	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	951735	40.0000	
* 91 Chrysene-d12	240	8.544	8.555	(1.000)	686184	40.0000	
* 98 Perylene-d12	264	9.946	9.962	(1.000)	391029	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	272950	54.5518	2070
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	305484	49.5807	1880
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.892)	171147	28.1123	1070
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.915)	355930	24.7650	941
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.091)	83958	54.3383	2060
$ 81 p-Terphenyl-d14	244	7.817	7.822	(0.915)	441793	35.3027	1340

ION RATIO REPORT

SV REPORT

Data file: s2c2628.d
Report Date: 03/27/2010 21:59
Lab. ID: 249180006 SampleType: SAMPLE
Injection Date: 27-MAR-2010 00:18
Operator: AGS1 Instrument: MSD2.i
Sample Info: |249180006|966675|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2398
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	27271	4.17	4.05	80-120	100	(T)
42	25198	4.17	4.05	96-156	92	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	92039	5.92	5.69	80-120	100	(T)
164	522389	5.91	5.69	0- 40	568	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	66944	5.91	5.74	80-120	100	(T)
63	1021	5.91	5.74	87-147	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	66944	5.91	6.03	80-120	100	(T)
89	1371	5.91	6.03	58-118	2	(QT)
63	1021	5.91	6.03	47-107	2	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	356	6.45	6.31	80-120	100	(T)
105	707	6.45	6.31	15- 75	198	(QT)
51	1027	6.45	6.31	92-152	288	(QT)
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	5159	8.54	8.54	80-120	100	( )
226	773	8.54	8.54	0- 56	15	( )
229	1247	8.54	8.54	0- 49	24	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
92 Chrysene			CAS#: 218-01-9			
228	5159	8.54	8.58	80-120	100	( )
229	1247	8.54	8.58	0- 50	24	( )
226	773	8.54	8.58	0- 59	15	( )
93 bis(2-Ethylhexyl)phthalate				CAS#: 117-81-7		
149	32006	8.42	8.44	80-120	100	( )
167	10397	8.42	8.44	1- 61	32	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2628.d
Lab Smp Id: 249180006 Client Smp ID: RE46-10-13439
Inj Date : 27-MAR-2010 00:18
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249180006|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2cl239.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2398.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.17000	weight of sample
M	12.79950	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 91 Chrysene-d12	8.544	2718967	40.000
* 98 Perylene-d12	9.946	1442042	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
7.972	762400	11.2160263	426	0		0	91

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
8.100	5160598	75.9199516	2880	0		0	91
Unknown				CAS #:			
8.127	2901791	42.6895971	1620	0		0	91
Unknown				CAS #:			
8.239	1303992	19.1836325	729	0		0	91
Unknown				CAS #:			
8.314	1466867	21.5797672	820	0		0	91
Unknown				CAS #:			
8.341	2687316	39.5343484	1500	0		0	91
Unknown				CAS #:			
8.378	2812916	41.3821131	1570	0		0	91
Unknown				CAS #:			
8.485	420128	6.18069723	235	0		0	91(L)
Unknown				CAS #:			
8.651	695312	10.2290622	389	0		0	91
Unknown				CAS #:			
8.678	860297	12.6562284	481	0		0	91
Unknown				CAS #:			
8.721	563063	8.28348184	315	0		0	91
Unknown				CAS #:			
8.764	1107532	16.2934213	619	0		0	91
Unknown				CAS #:			
8.812	656167	9.65318309	367	0		0	91
1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa				CAS #:	807-28-3		
8.887	2622657	38.5831284	1470	96	NIST05.L	173479	91
1,2-Benzisothiazole, 3-(hexahydro-1H-aze				CAS #:	309735-29-3		
9.020	427335	6.28672045	239	94	NIST05.L	101019	91
Unknown				CAS #:			
9.068	671168	9.87386163	375	0		0	91

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
9.186	733655	10.7931336	410	0		0	91
Unknown				CAS #:			
9.266	490209	13.5976210	517	0		0	98
Unknown				CAS #:			
9.373	1055389	29.2748293	1110	0		0	98
Unknown				CAS #:			
9.443	890482	24.7005753	939	0		0	98
Unknown				CAS #:			
9.555	1168369	32.4087304	1230	0		0	98
Unknown				CAS #:			
9.785	1269542	35.2150956	1340	0		0	98
Unknown				CAS #:			
9.860	1796188	49.8234374	1890	0		0	98
Unknown				CAS #:			
9.914	669659	18.5752808	706	0		0	98
Unknown				CAS #:			
9.994	910217	25.2479997	960	0		0	98
Unknown				CAS #:			
10.122	561172	15.5660294	592	0		0	98
Unknown				CAS #:			
10.315	457203	12.6821049	482	0		0	98
Unknown				CAS #:			
10.545	935928	25.9611715	987	0		0	98

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/MSD2.i/s032610.b/s2c2628.d
Date : 27-MAR-2010 00:18
Client ID: RE46-10-13439
Sample Info: |2491800061966675|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

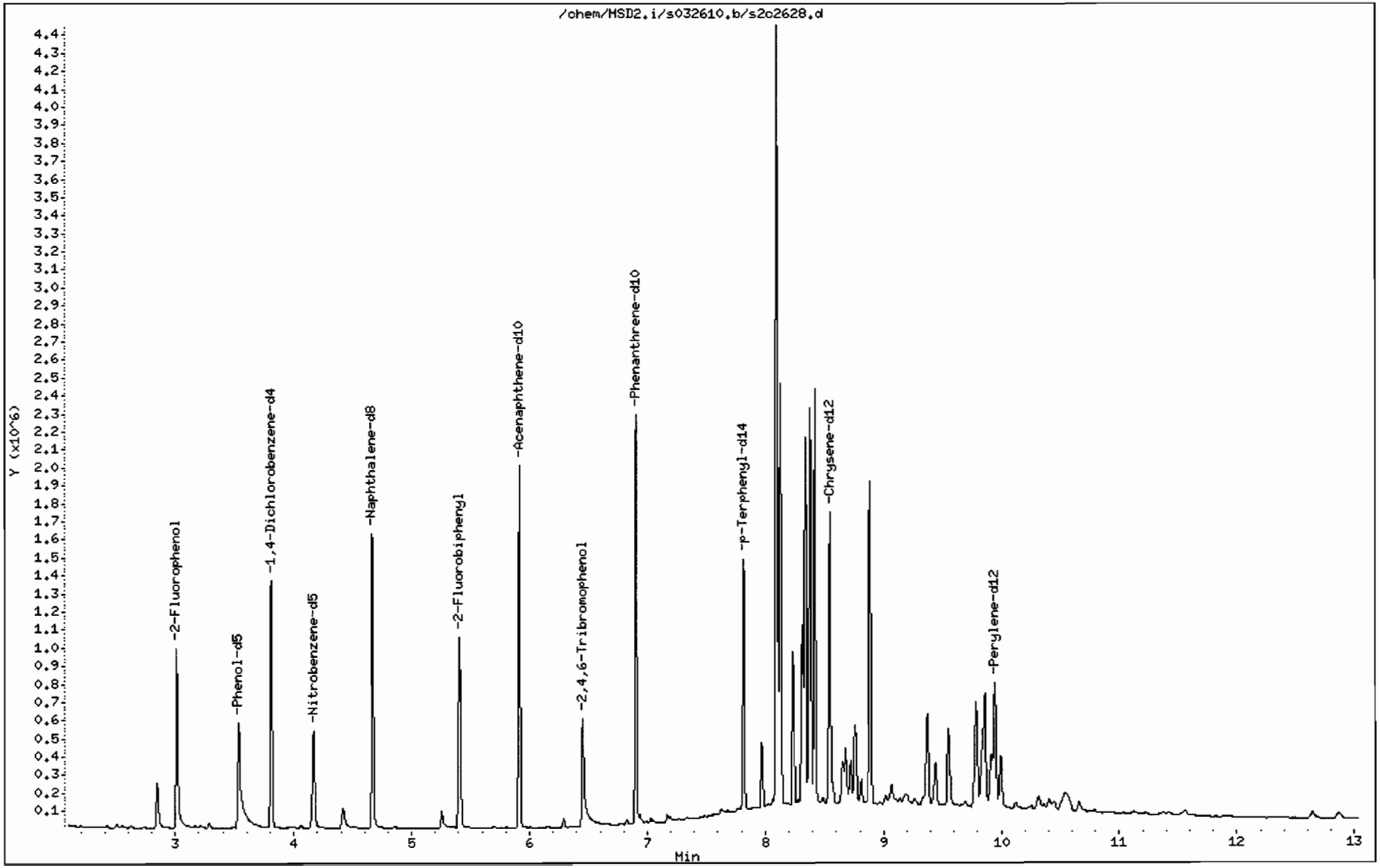

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439

Instrument: MSD2.i

Sample Info: 1249180006196667511SVMI11LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Disulfide, t-butyl-[piperidino-(phenylim	25110-38-7	NIST05.L	129506	14	C16H24N2S2	308
1,3,5-Triazine-2,4-diamine, 6-phenyl-	91-76-9	NIST05.L	48340	14	C9H9N5	187
1,3-Difluoro-5-dichloromethyldimethylsil	1000299-10-6	NIST05.L	105865	14	C9H10Cl2F2OS	270

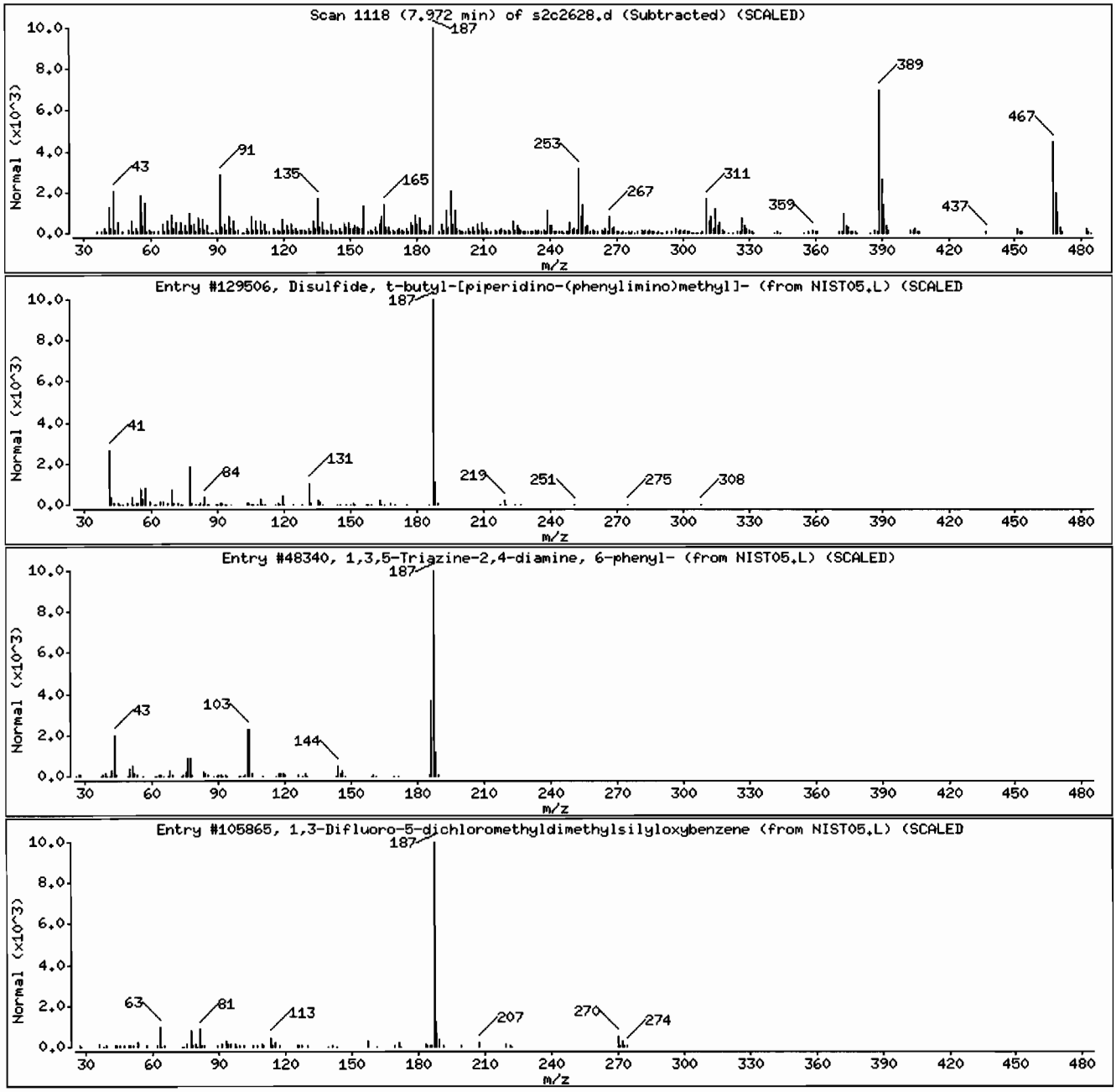

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439 Instrument: MSD2.i

Sample Info: |2491800061966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,3-Benzenedicarboxylic acid, 5-[[dimeth	1000115-88-1	NIST05.L	185870	10	C26H48O5Si3	524
2H-1-Benzopyran-2-one, 7-(2H-naphtho[1,2	3333-62-8	NIST05.L	168175	10	C25H15N3O2	389
2,3-Dihydrothieno(2,3-b)quinoline	49824-28-4	NIST05.L	48073	9	C11H9NS	187

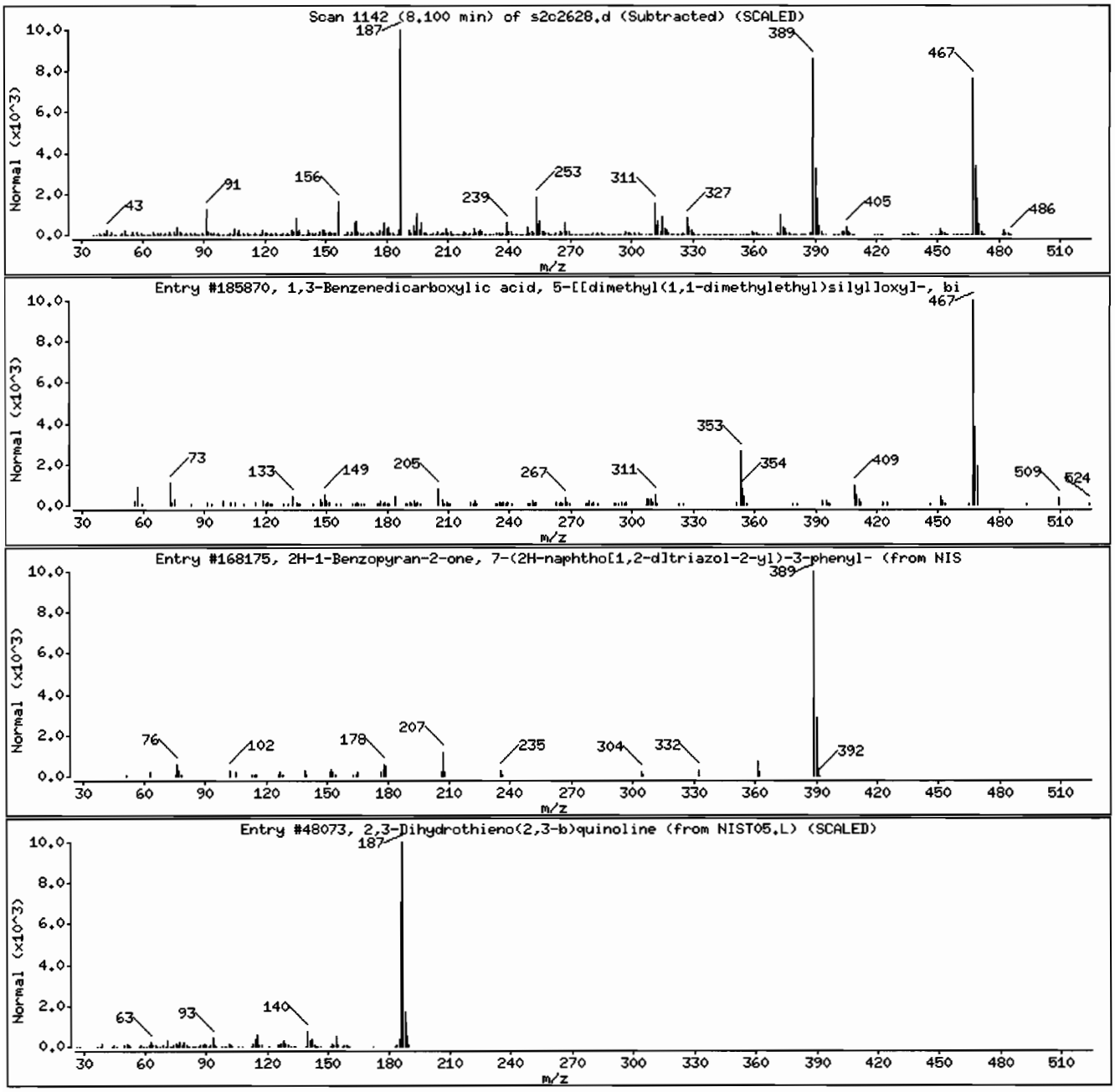

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439 Instrument: MSD2.i

Sample Info: |2491800061966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indole-2,3-dione, 1-(tert-butyldimeth	1000143-20-4	NIST05.L	179495	14	C24H42N2O2Si2	446
1,3-Benzenedicarboxylic acid, 5-[[dimeth	1000115-88-1	NIST05.L	185870	14	C26H48O5Si3	524
6-Chloro-N-(4-iodo-phenyl)-N'-isopropyl-	337342-48-0	NIST05.L	168008	9	C12H13ClIN5	389

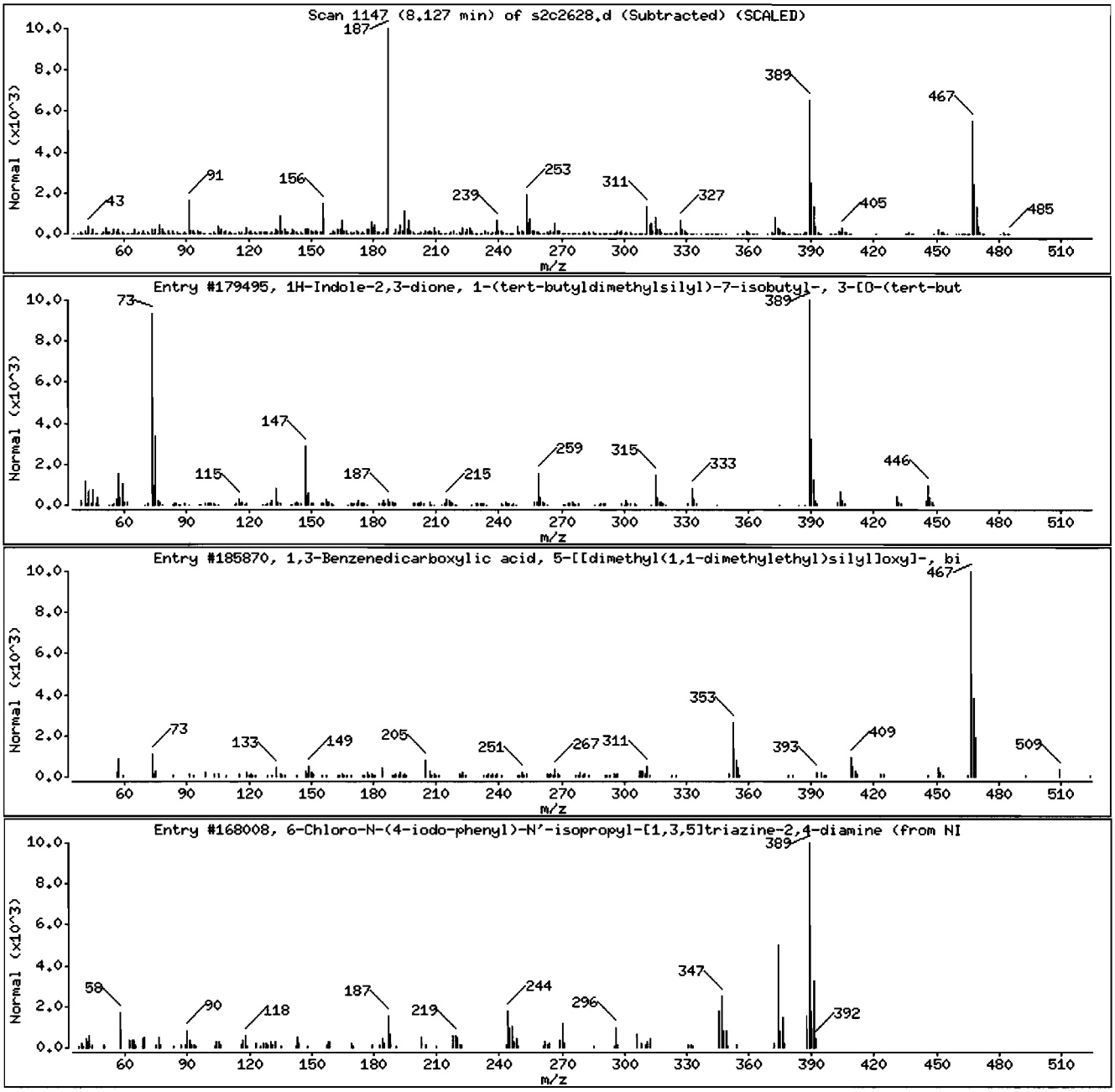

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439 Instrument: MSD2.i

Sample Info: |2491800061966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,3-Benzodioxin-4-one, 2-(1,1-dimethylet	1000197-46-5	NIST05.L	83732	42	C14H2203	238
2'-Methyldihydro-2-stilbazole	58246-68-7	NIST05.L	55103	42	C14H15N	197
Spiro[cyclobutane-1,1'(2'H)-phenanthren]	41487-68-7	NIST05.L	94927	30	C18H220	254

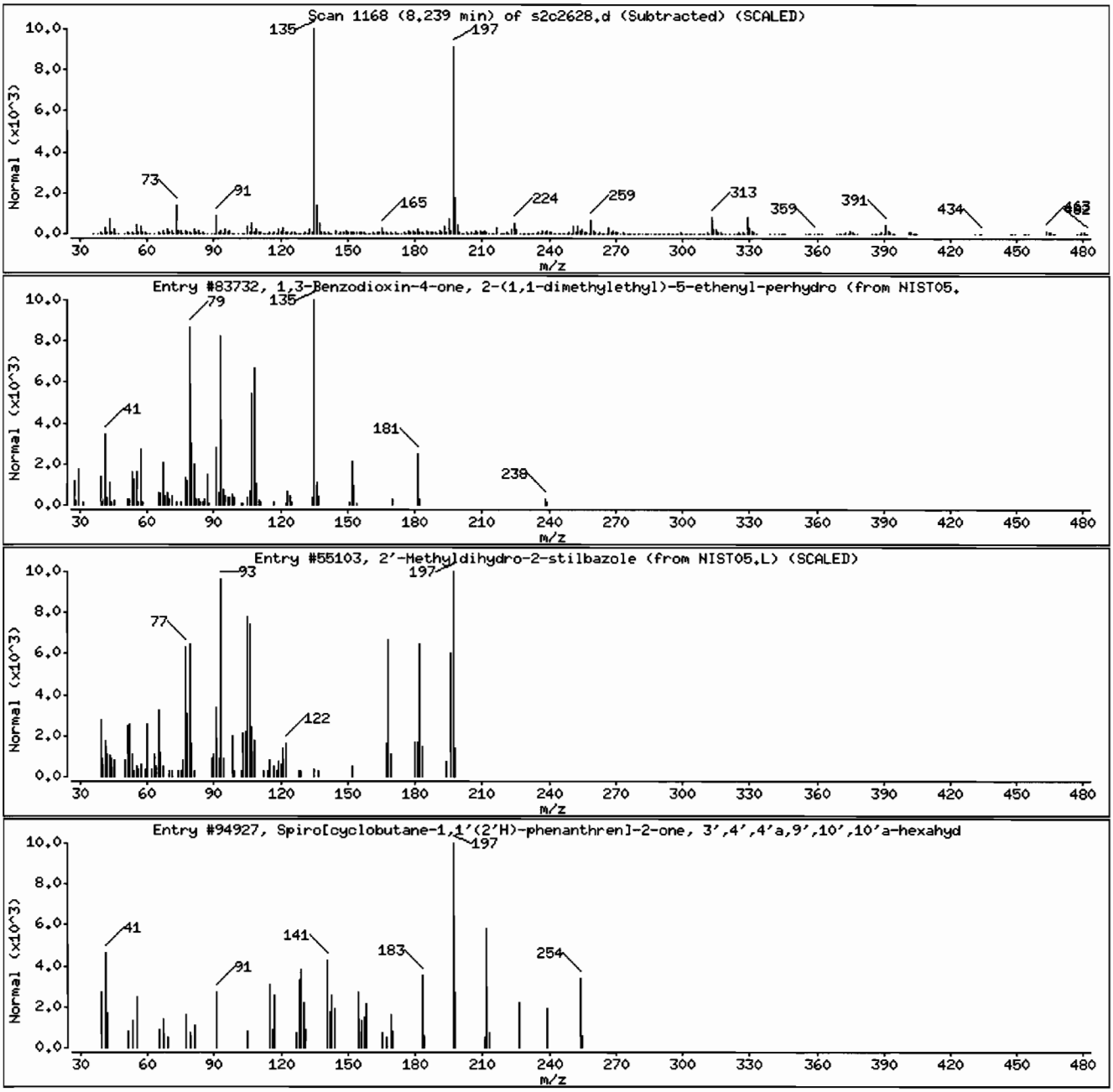

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439 Instrument: MSD2.i

Sample Info: |249180006|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: ACS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzamide, N-(2'-acetyl-4',5'-dimethoxyp	156785-66-9	NIST05.L	141819	35	C18H19NO5	329
1-Adamantanecarboxylic acid, 2-isopropox	1000293-75-6	NIST05.L	133516	30	C20H26O3	314
4-(4-Methyl-2,4-diphenyl-2-pentyl)phenol	52379-26-7	NIST05.L	142639	30	C24H26O	330

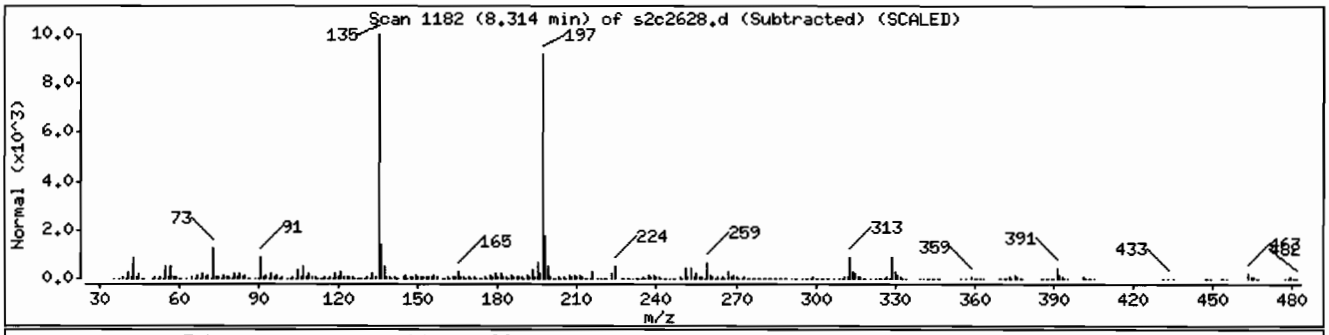

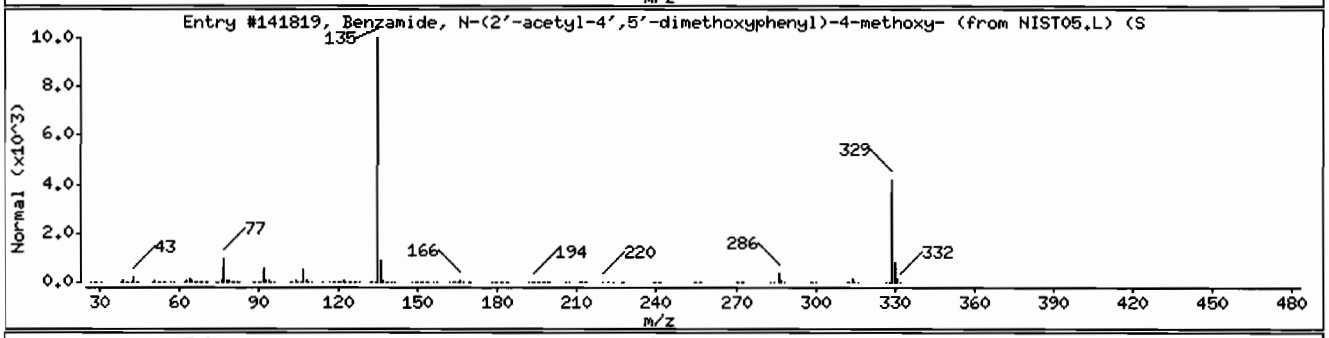

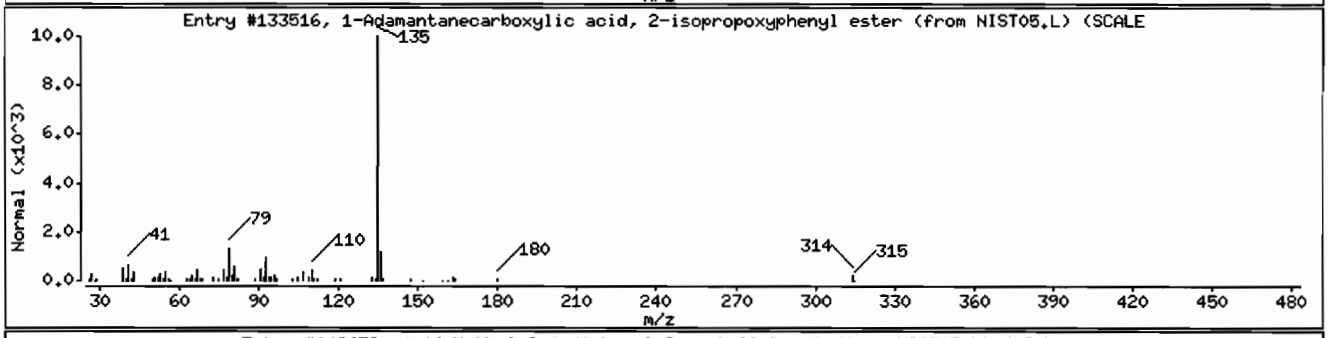

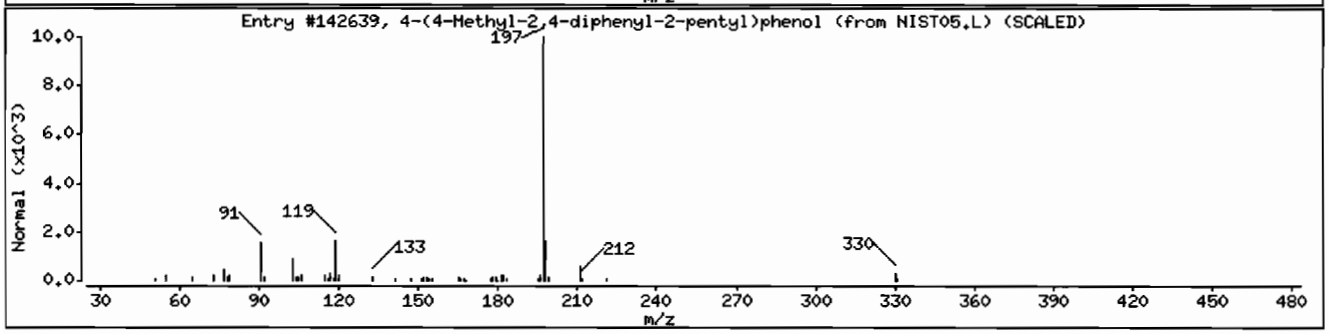

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439 Instrument: MSD2.i

Sample Info: |249180006|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4-(4-Methyl-2,4-diphenyl-2-pentyl)phenol	52379-26-7	NIST05.L	142639	38	C24H26O	330
2'-Methyldihydro-2-stilbazole	58246-68-7	NIST05.L	55103	35	C14H15N	197
1,3,5-Triazine-2,4-diamine, N,N'-diethyl	673-04-1	NIST05.L	55185	35	C8H15N5O	197

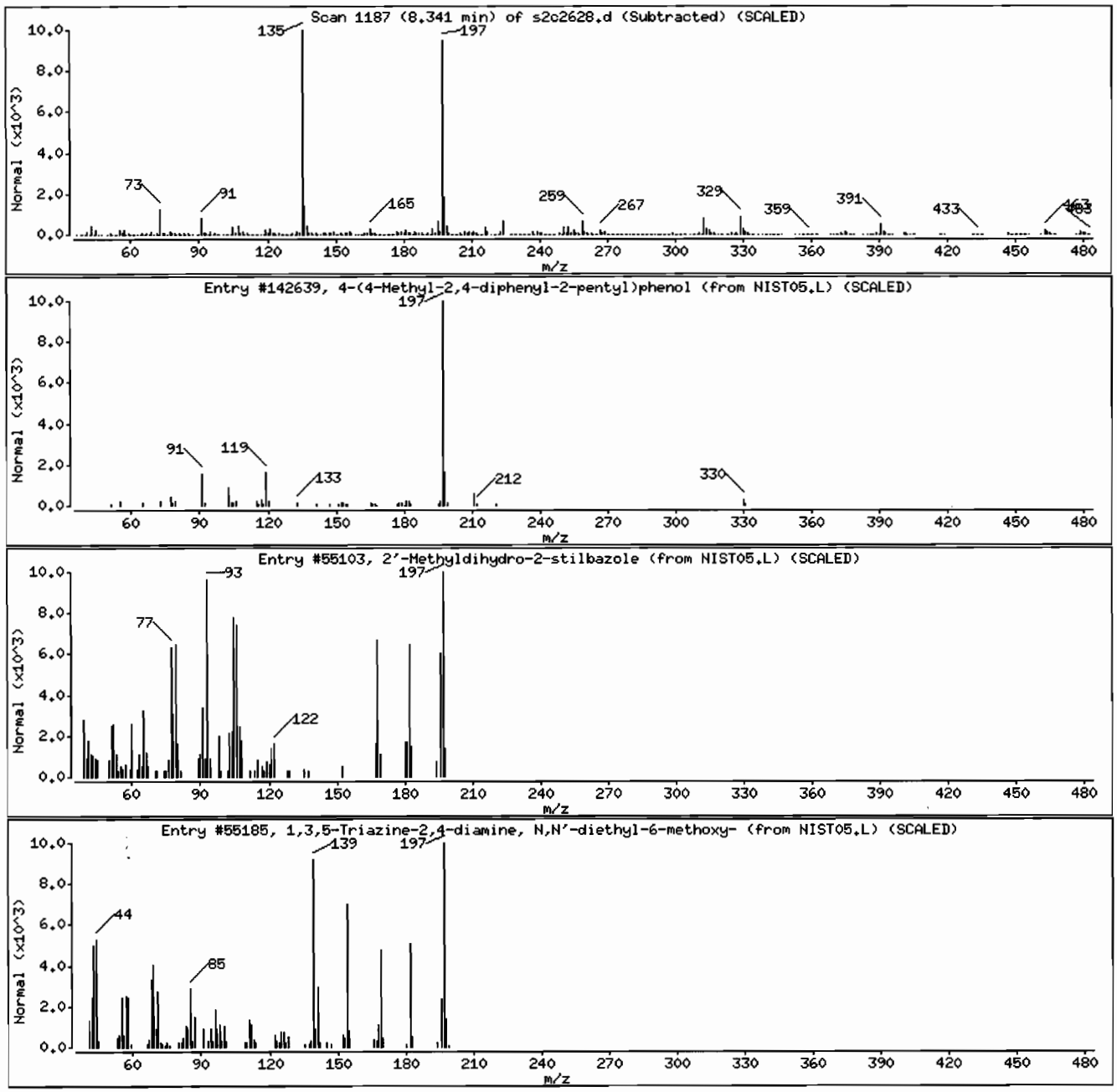

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439

Instrument: MSD2.i

Sample Info: |249180006|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4-(4-Methyl-2,4-diphenyl-2-pentyl)phenol	52379-26-7	NIST05.L	142639	38	C24H26O	330
2'-Methyldihydro-2-stilbazole	58246-68-7	NIST05.L	55103	35	C14H15N	197
1,3,5-Triazine-2,4-diamine, N,N'-diethyl	673-04-1	NIST05.L	55185	35	C8H15N5O	197

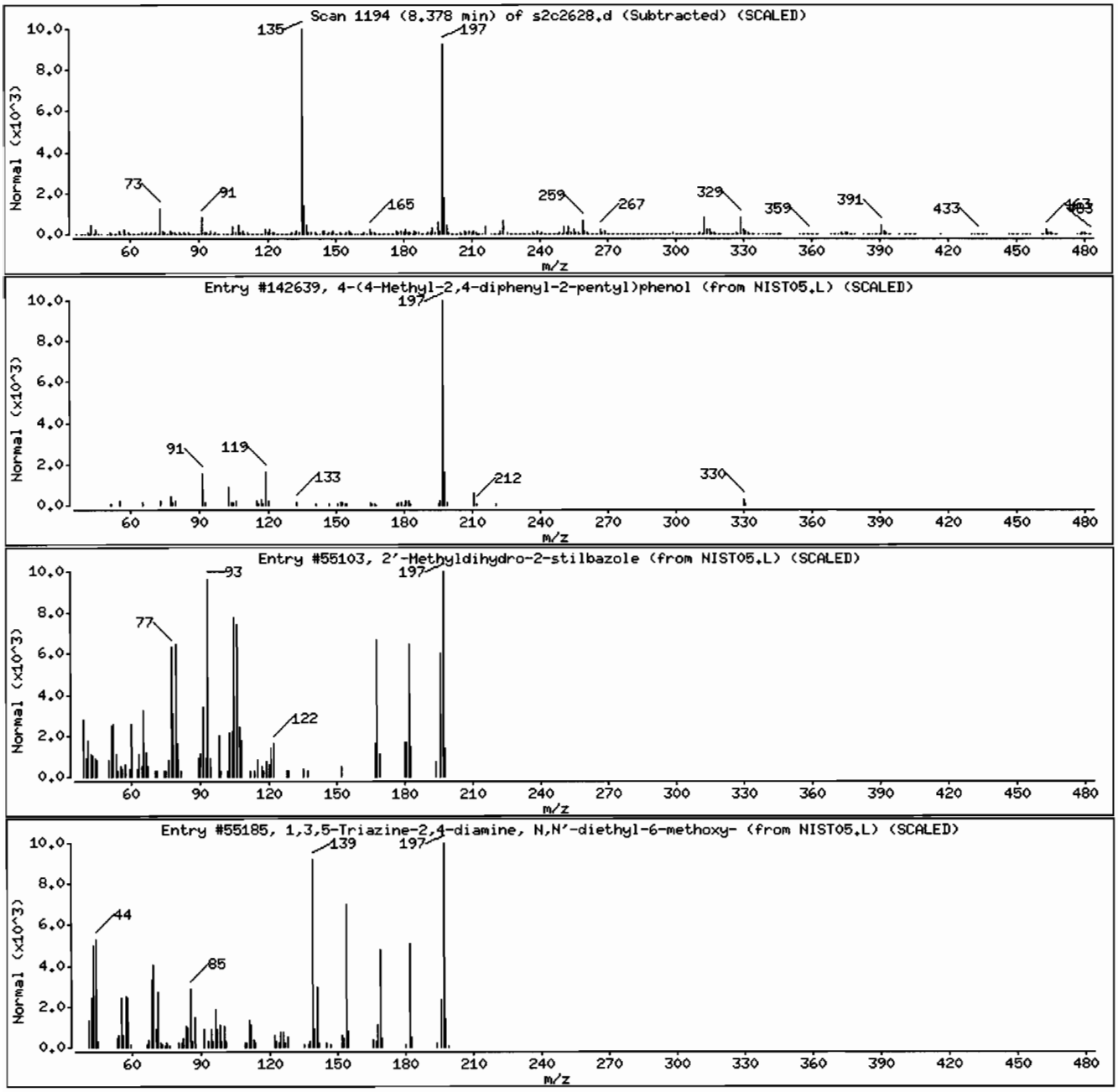

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439

Instrument: MSD2.i

Sample Info: |2491800061966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,2-Benzisothiazole, 3-(hexahydro-1H-aze	309735-29-3	NIST05.L	101019	91	C13H16N2O2S	264
9-Methyl-Z-10-tetradecen-1-ol acetate	1000130-99-4	NIST05.L	104145	58	C17H32O2	268
1,4-Methanoazulen-7-ol, decahydro-4,8,8,	18319-27-2	NIST05.L	72970	45	C15H26O	222

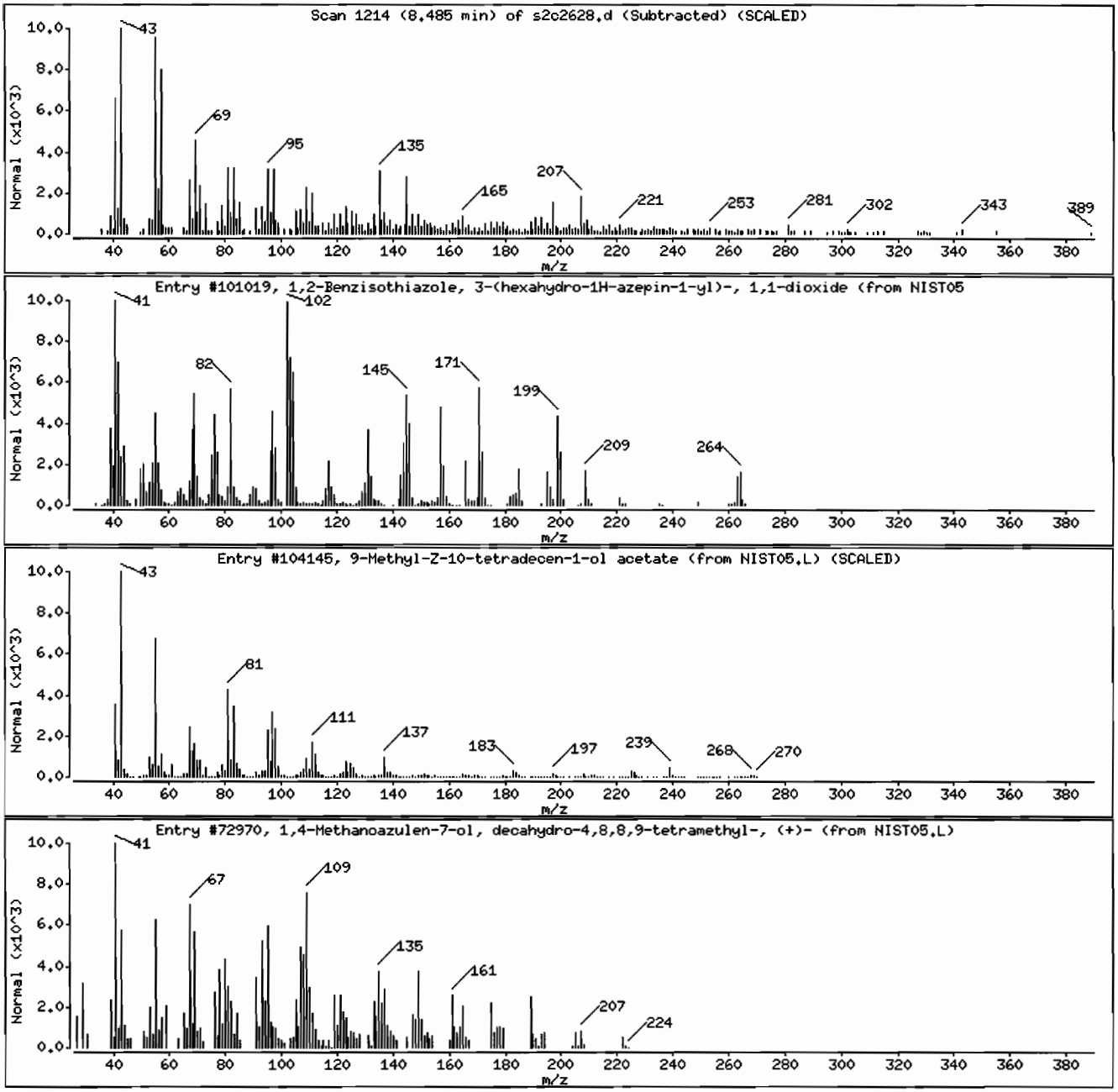

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439 Instrument: MSD2.i

Sample Info: |249180006|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Adamantan-1-yl-6-chloro-7-fluoro-4-oxo	1000210-85-2	NIST05.L	168107	38	C21H21ClFNO3	389
Semicarbazide, 1-(4-tert-butyl-phenoxy)-	1000301-10-1	NIST05.L	155735	38	C19H23N3O2S	357
Chloroacetic acid, 1-adamantylmethyl est	83813-49-4	NIST05.L	86425	38	C13H19ClO2	242

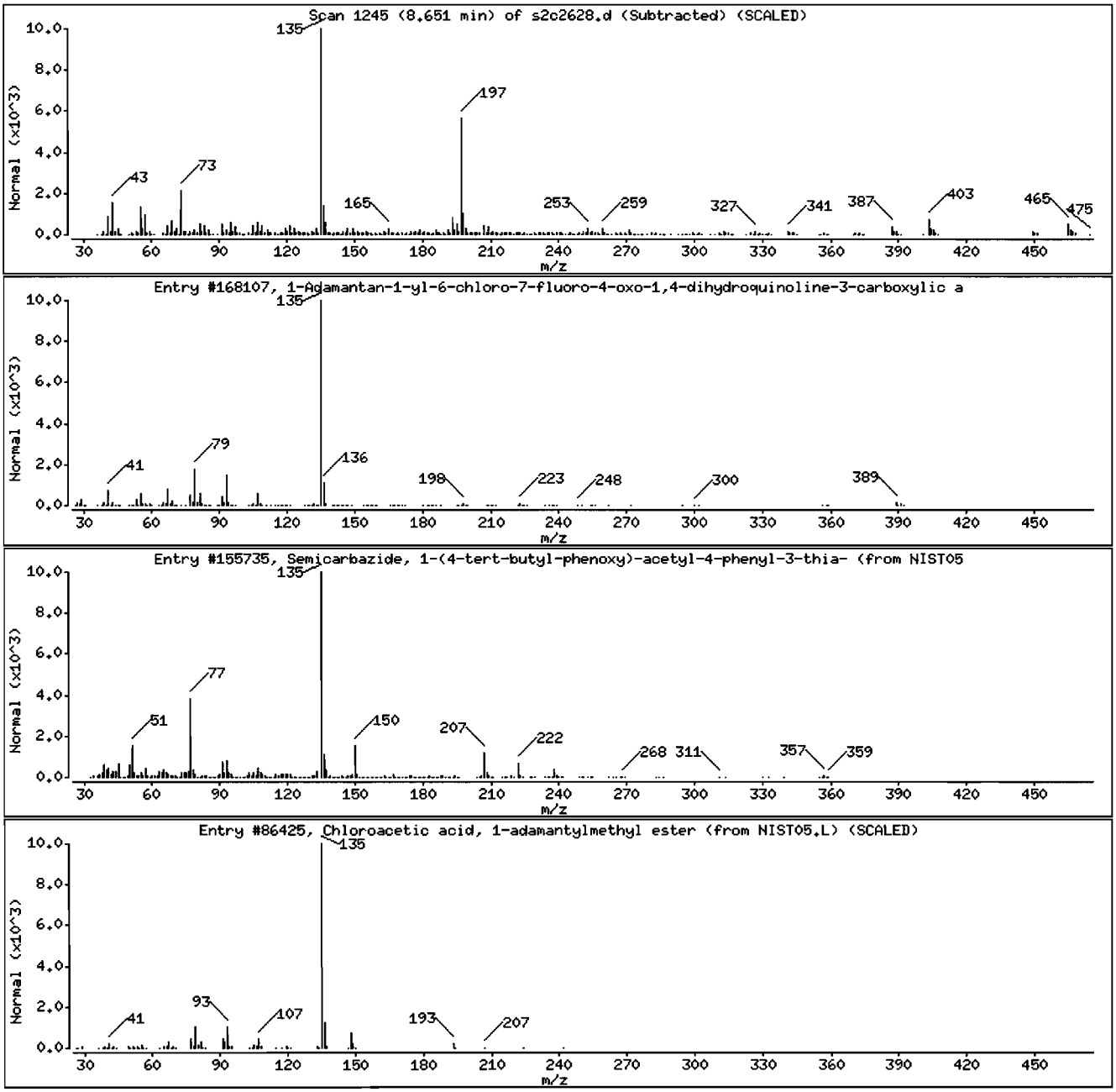

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439

Instrument: MSD2.i

Sample Info: |2491800006|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Adenosine, 2'-deoxy-	958-09-8	NIST05.L	92345	38	C10H13N5O3	251
Thieno[2,3-c]pyridine	272-12-8	NIST05.L	14957	38	C7H5NS	135
4-(3-Chloropropyl)-2,6-dimethylphenol	111112-96-0	NIST05.L	55498	38	C11H15ClO	198

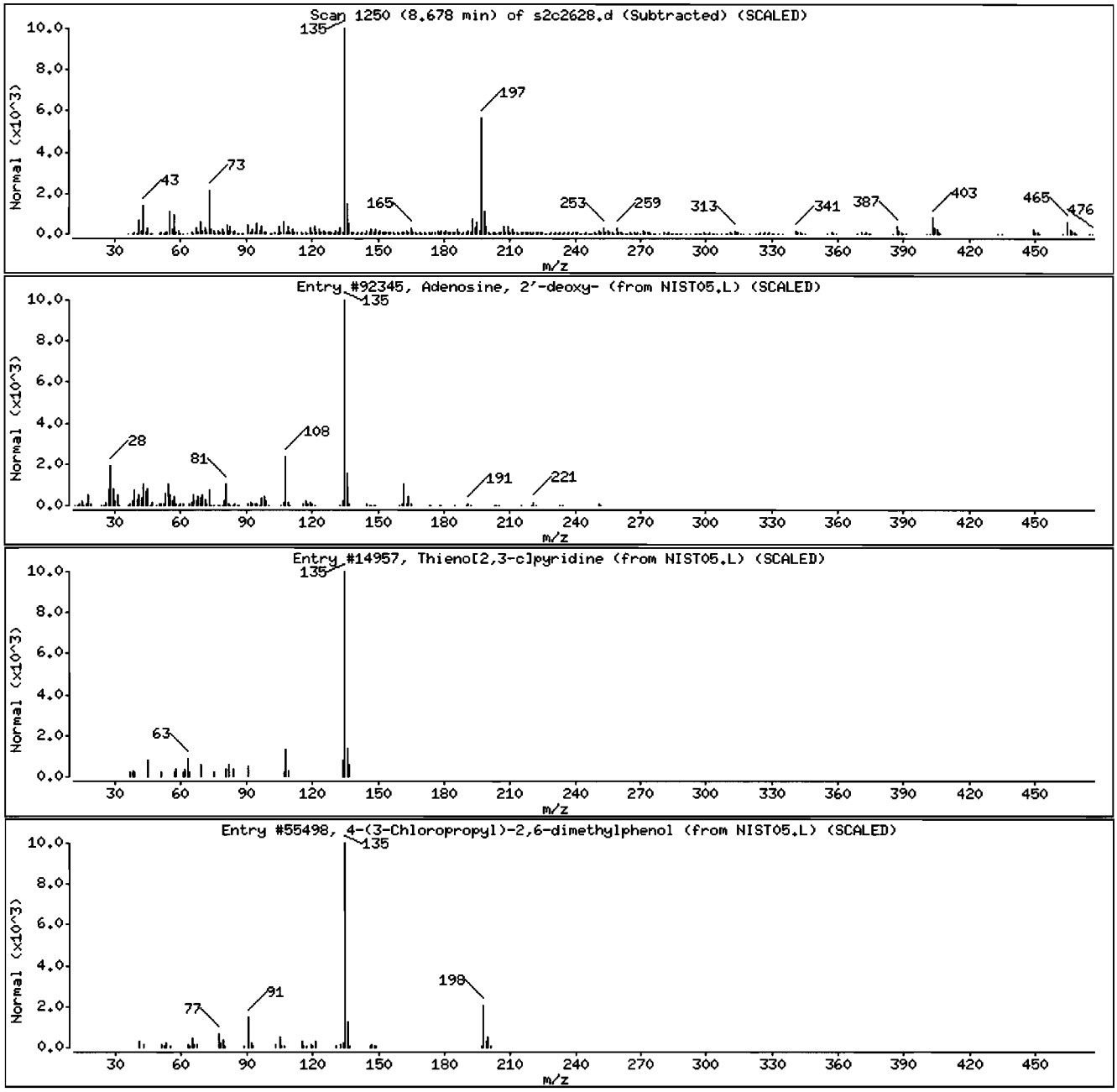

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439 Instrument: MSD2.i

Sample Info: |2491800061966675|1|SVH|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Thieno[2,3-c]pyridine	272-12-8	NIST05.L	14957	38	C7H5NS	135
Benzamide, N-(4-fluorophenyl)-4-methoxy-	1000307-49-4	NIST05.L	88525	38	C14H12FNO2	245
1-Phenyl-hexan-1-one oxime	69060-56-6	NIST05.L	50559	35	C12H17NO	191

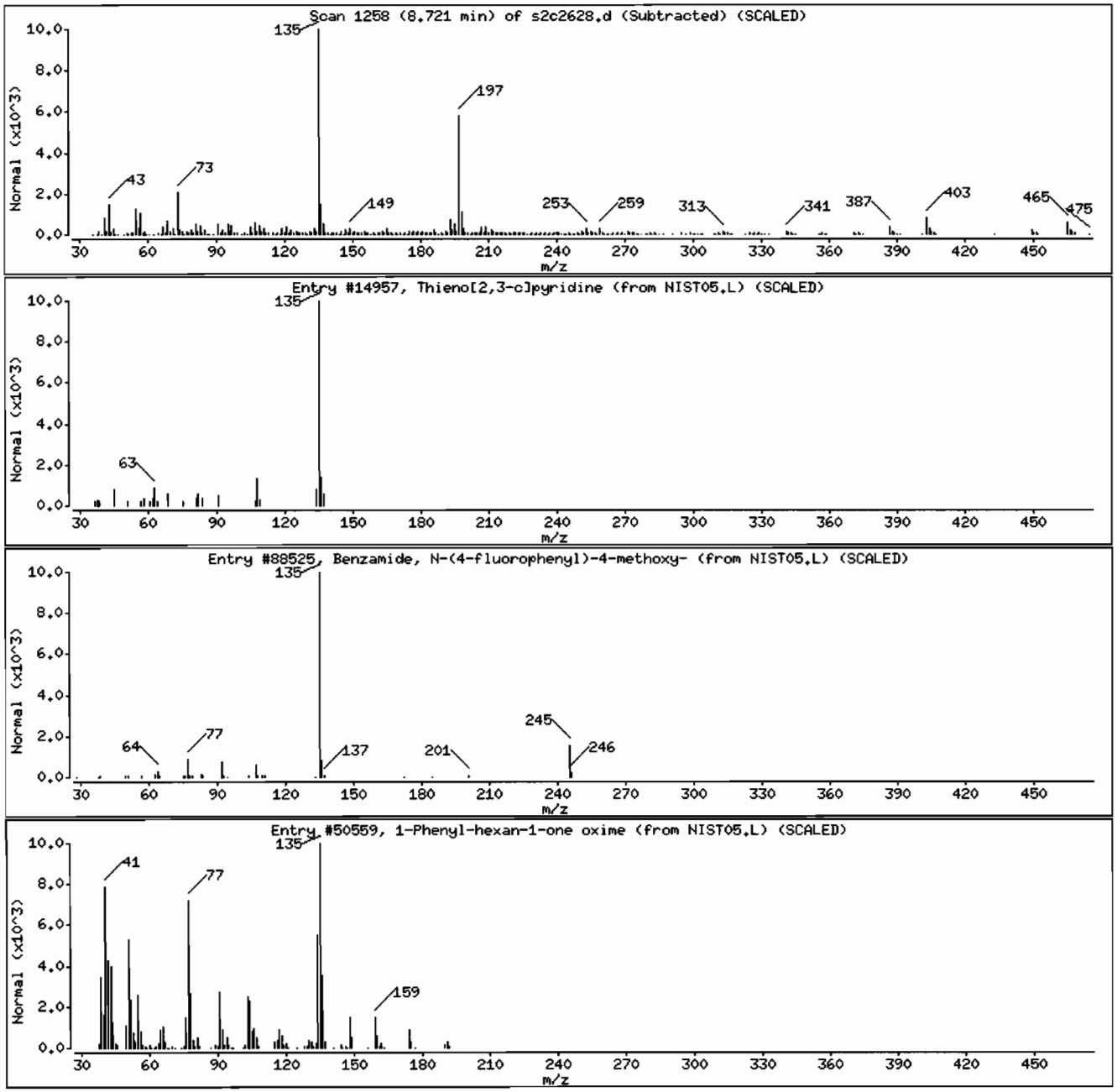

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439 Instrument: MSD2.i

Sample Info: |249180006|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: ACS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Trichloroacetic acid, 1-adamantylmethyl	1000282-92-0	NIST05.L	130566	38	C13H17Cl3O2	310
Thieno[3,2-c]pyridine	272-14-0	NIST05.L	14956	35	C7H5NS	135
1-Adamantaneacetic acid	4942-47-6	NIST05.L	52610	35	C12H18O2	194

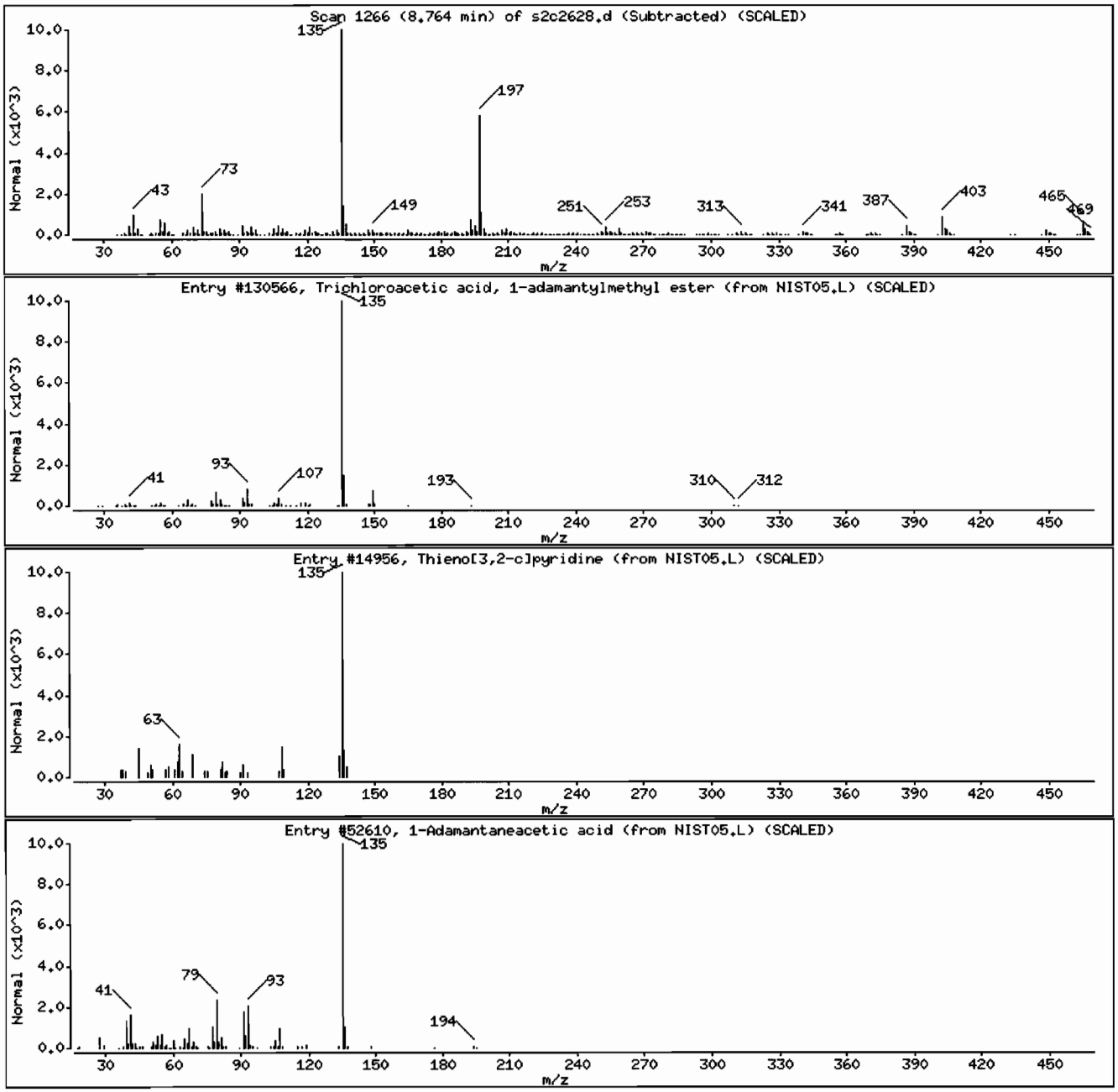

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Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439 Instrument: MSD2.i

Sample Info: |2491800061966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Adamantan-1-yl-6-chloro-7-fluoro-4-oxo	1000210-85-2	NIST05.L	168107	46	C21H21ClFNO3	389
3-Adamantan-1-yl-3-oxo-propionitrile	1000296-74-6	NIST05.L	59037	38	C13H17NO	203
Butanenitrile, 2-(1-adamantyl)-3-methyl-	1000266-44-6	NIST05.L	69206	38	C15H23N	217

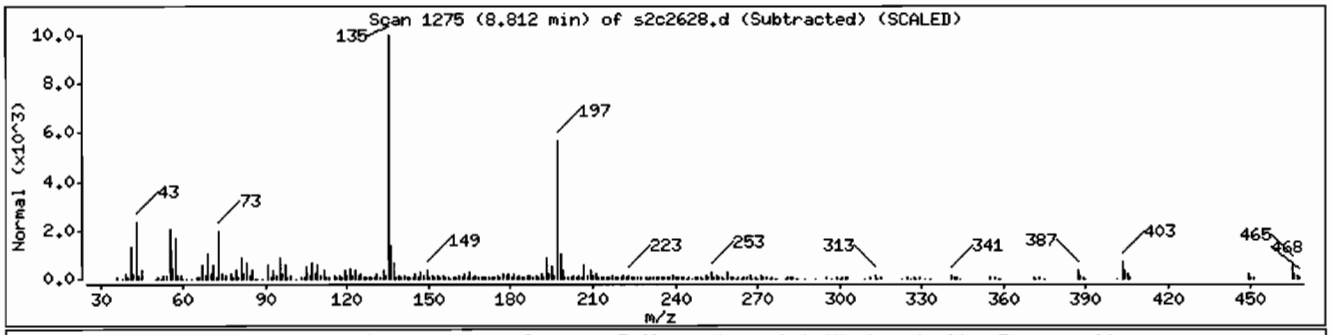

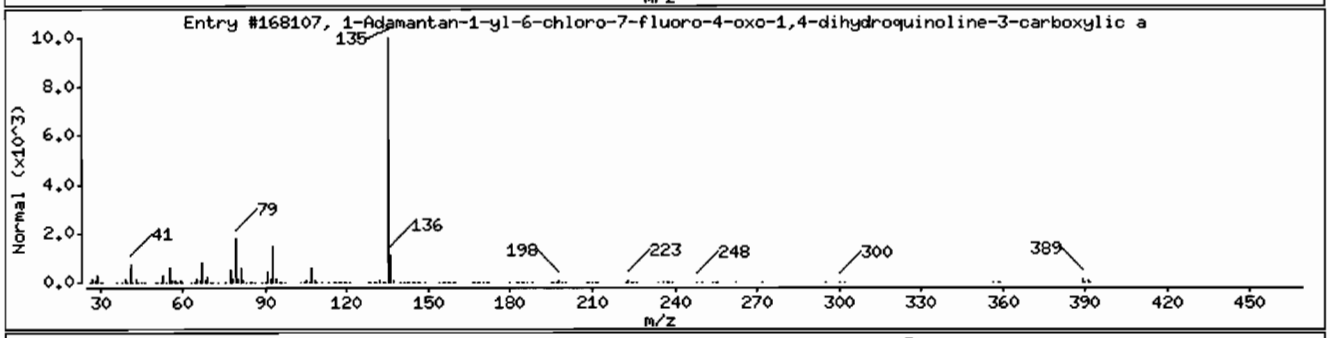

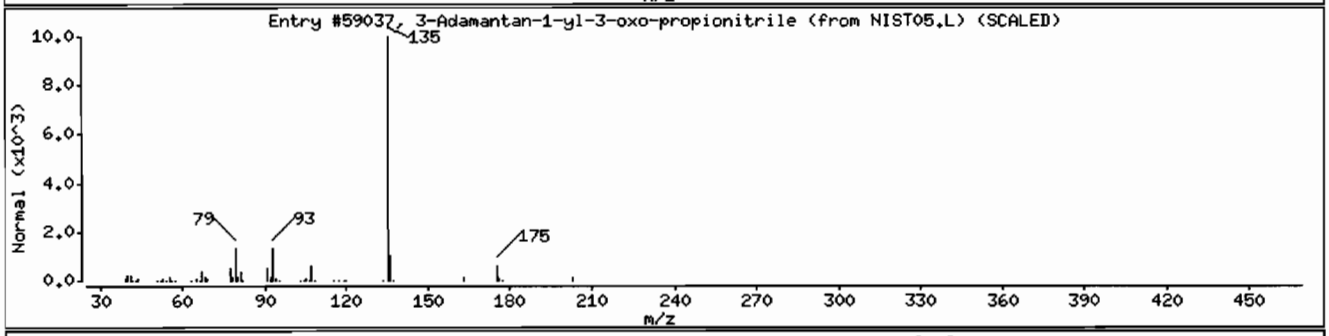

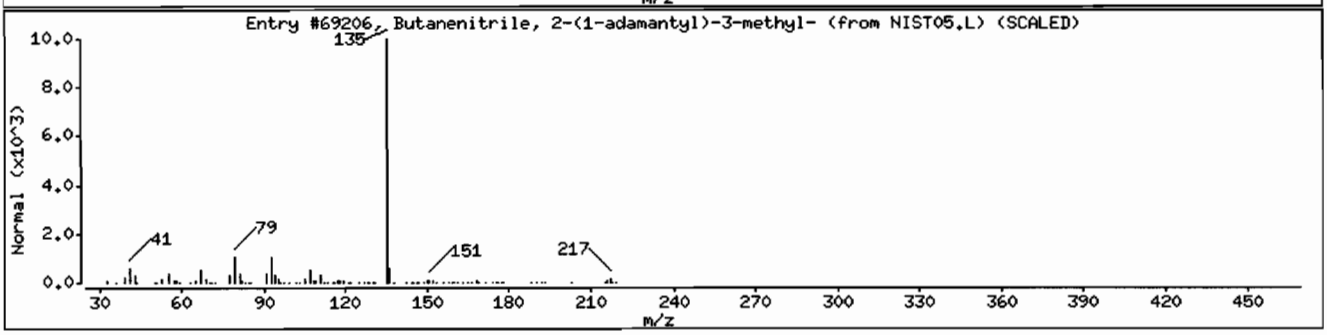

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Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439 Instrument: MSD2.i

Sample Info: |249180006|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,1,3,3-Tetraphenyl-1,3-dimethyldisiloxa	807-28-3	NIST05.L	173479	96	C26H26OSi2	410
4-(3,5-Dinitrobenzamido)butyric acid	102202-82-4	NIST05.L	122514	25	C11H11N3O7	297
1,3-Diphenyl-1,3-dimethyl-1,3-disila-2-o	1000078-51-7	NIST05.L	143636	18	C20H20OSi2	332

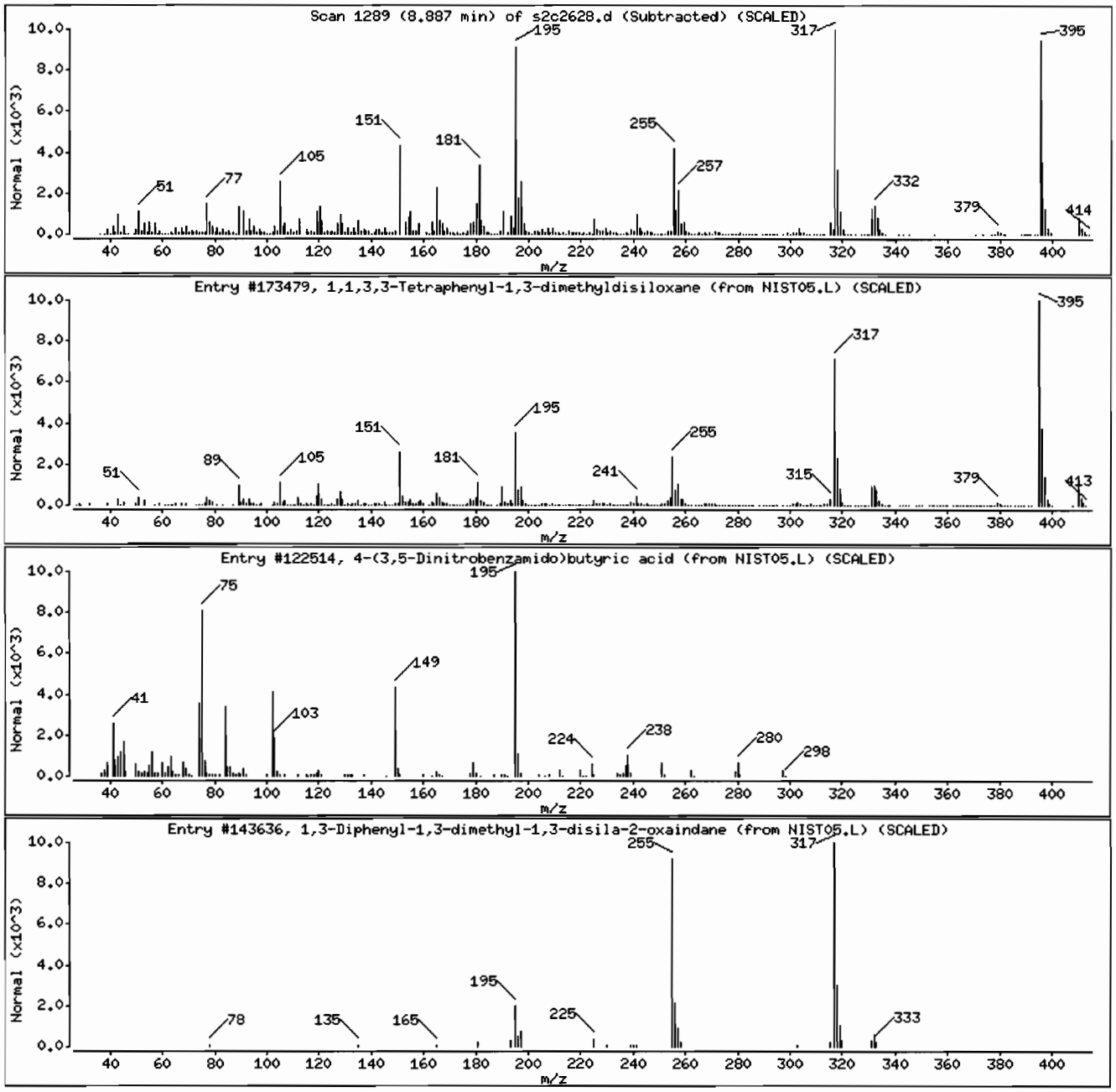

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Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439

Instrument: MSD2.i

Sample Info: |2491800061966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,2-Benzisothiazole, 3-(hexahydro-1H-aze	309735-29-3	NIST05.L	101019	94	C13H16N2O2S	264
1-Cyclohexylnonene	114614-84-5	NIST05.L	63041	38	C15H28	208
Z-8-Methyl-9-tetradecenoic acid	1000130-84-5	NIST05.L	85352	25	C15H28O2	240

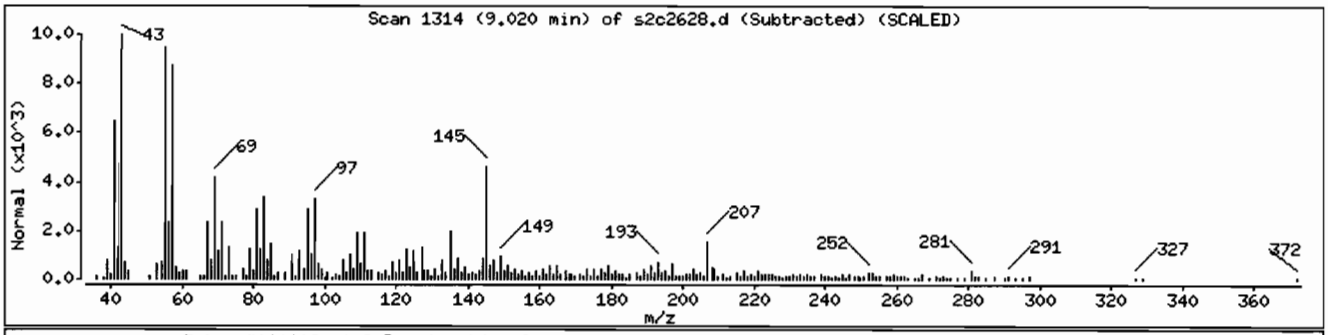

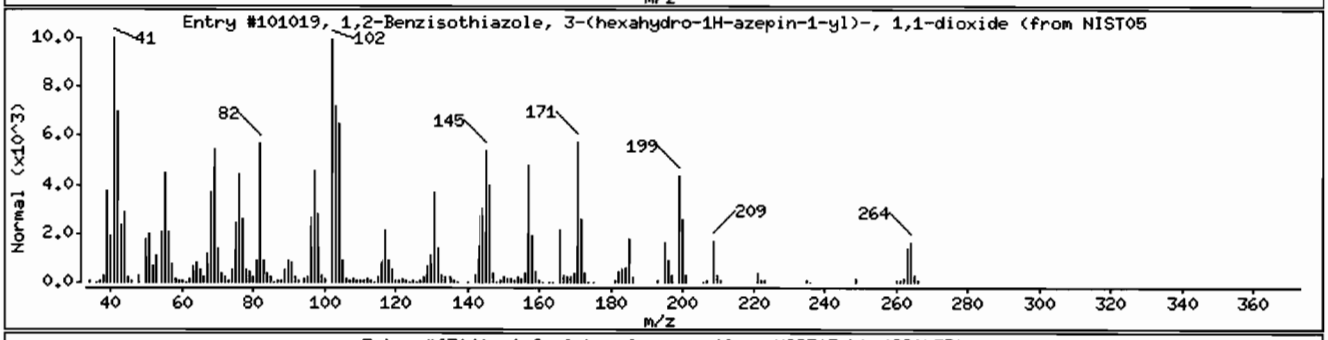

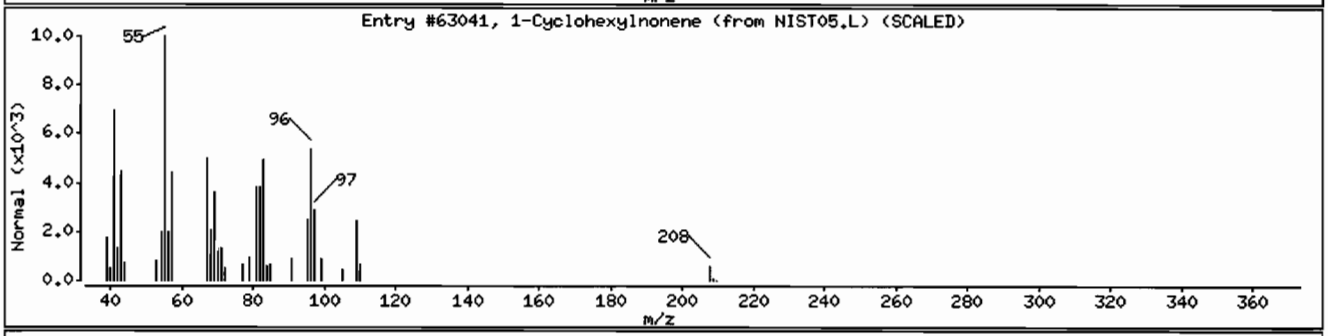

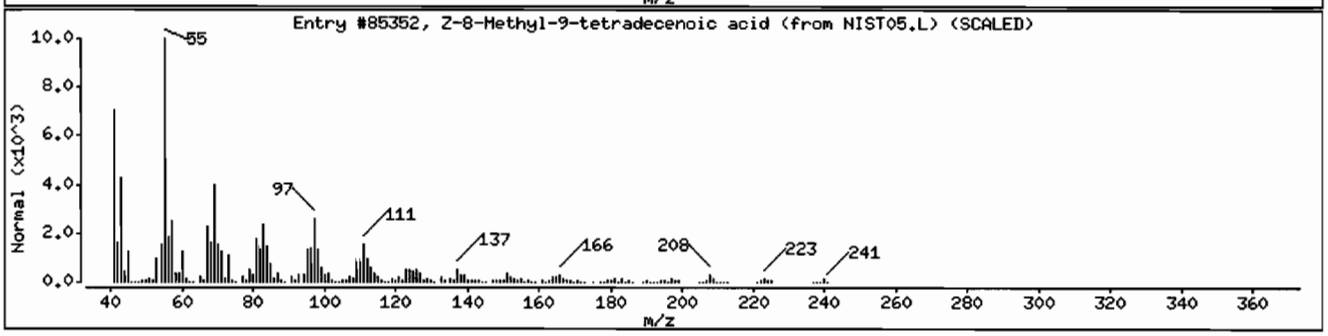

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Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439

Instrument: MSD2.i

Sample Info: |249180006|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Methanone, (3,4-diaminophenyl)-2-thienyl	83846-78-0	NIST05.L	69511	38	C11H10N2OS	218
Adamantane-1-carboxamide, N-(2-benzoyl-4	1000286-06-8	NIST05.L	162704	25	C25H27NO2	373
Butanediamide, 2-(2-methoxybenzyl)-N,N'-	1000260-20-4	NIST05.L	134544	15	C18H24N2O3	316

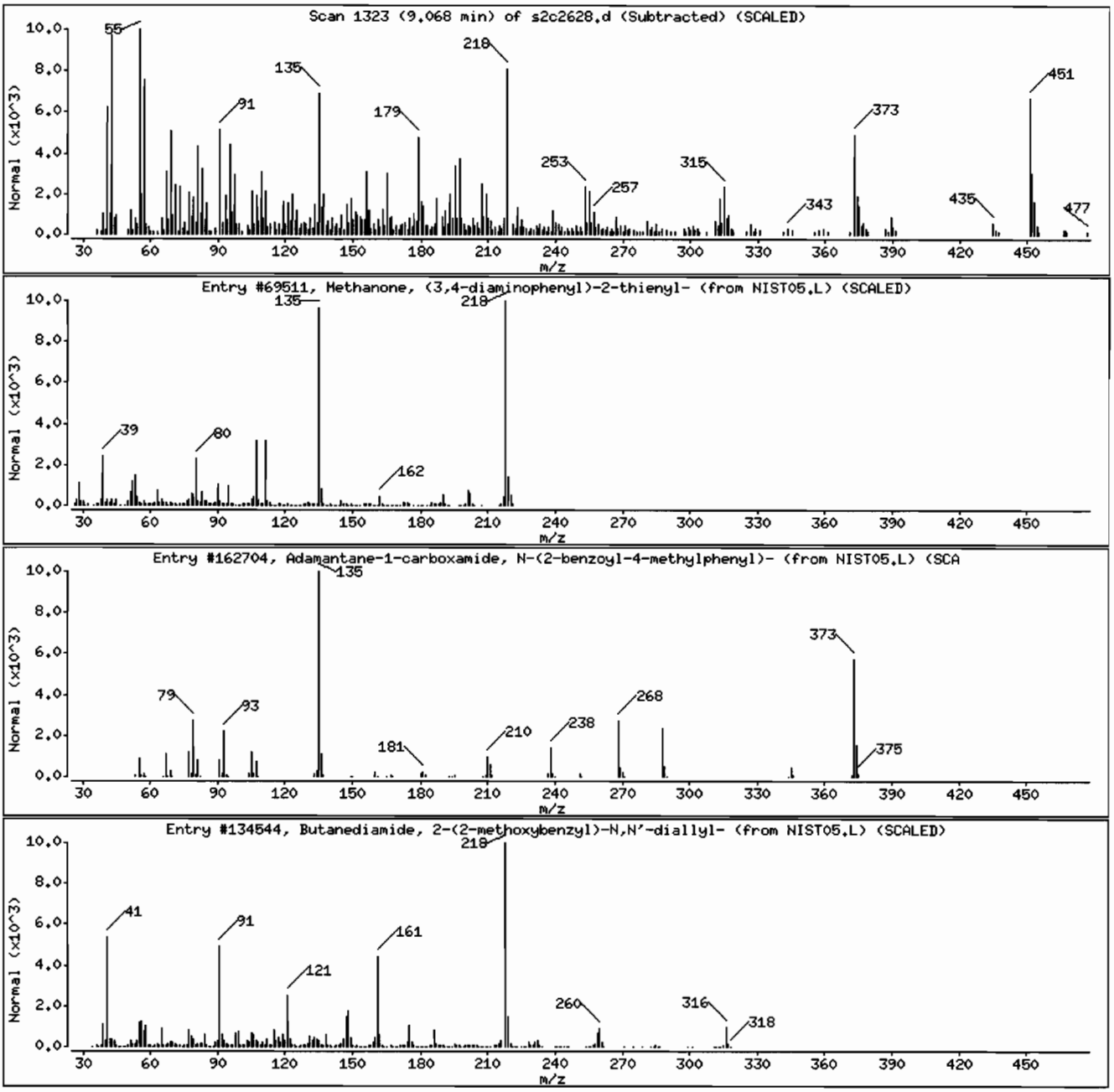

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Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439

Instrument: MSD2.i

Sample Info: |2491800061966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Phenol, 2-ethyl-4,5-dimethyl-	2219-78-5	NIST05.L	22776	46	C10H140	150
Benzenemethanol, .alpha.-ethyl-.alpha.-2	74685-43-1	NIST05.L	86880	41	C17H220	242
2-Methoxybenzoic acid, 2-ethylhexyl este	16397-72-1	NIST05.L	101333	41	C16H2403	264

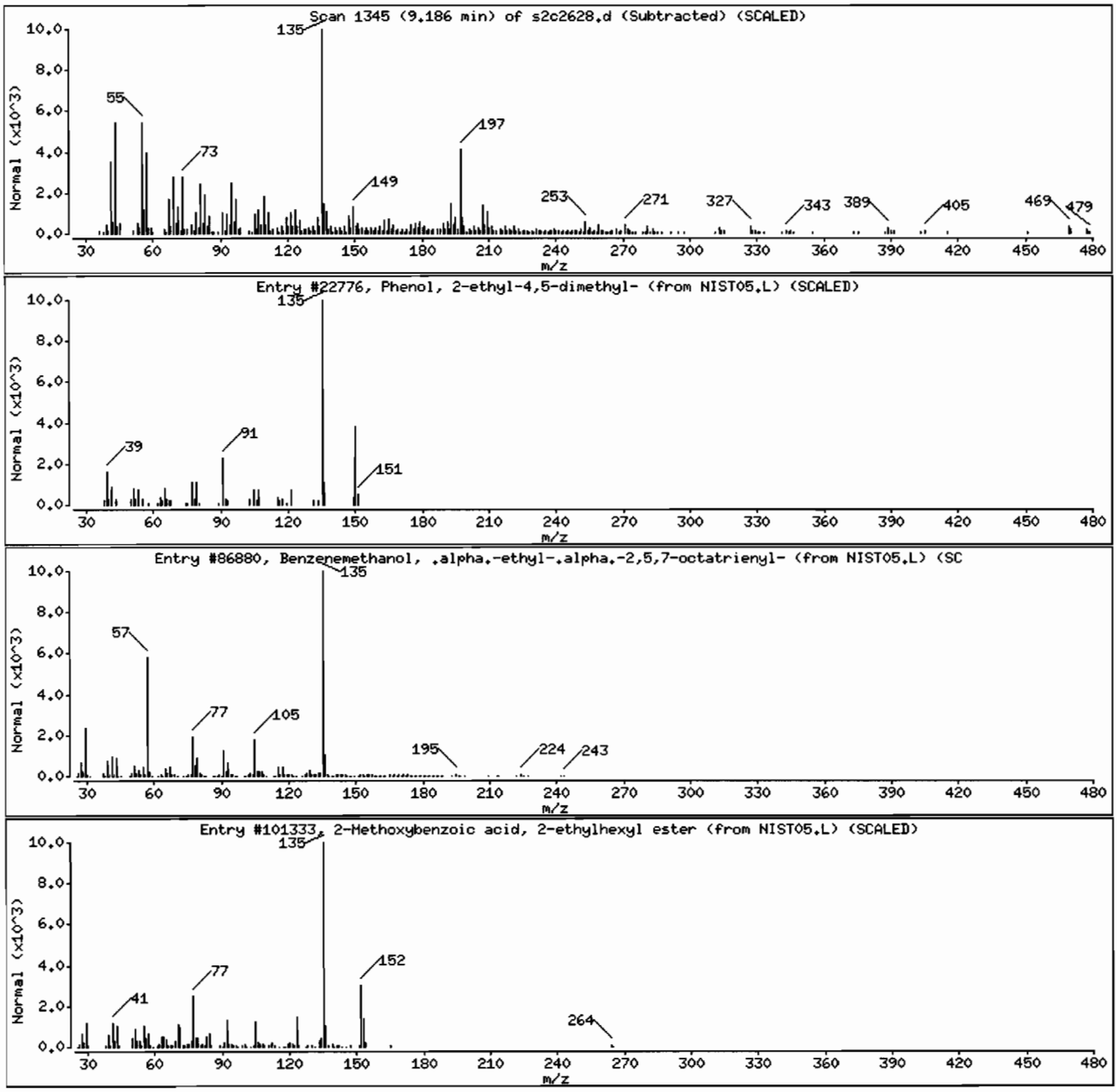

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Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439 Instrument: MSD2.i

Sample Info: |2491800061966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Spiro[4.5]decan-7-one, 1,8-dimethyl-8,9-	61050-91-7	NIST05.L	82504	56	C15H24O2	236
2-Butanone, 4-(dimethylphenylsilyl)-4-ph	100103-32-0	NIST05.L	113352	42	C18H22OSi	282
Pentane-2,4-dione, 3-(1-adamantyl)-	102402-84-6	NIST05.L	81107	41	C15H22O2	234

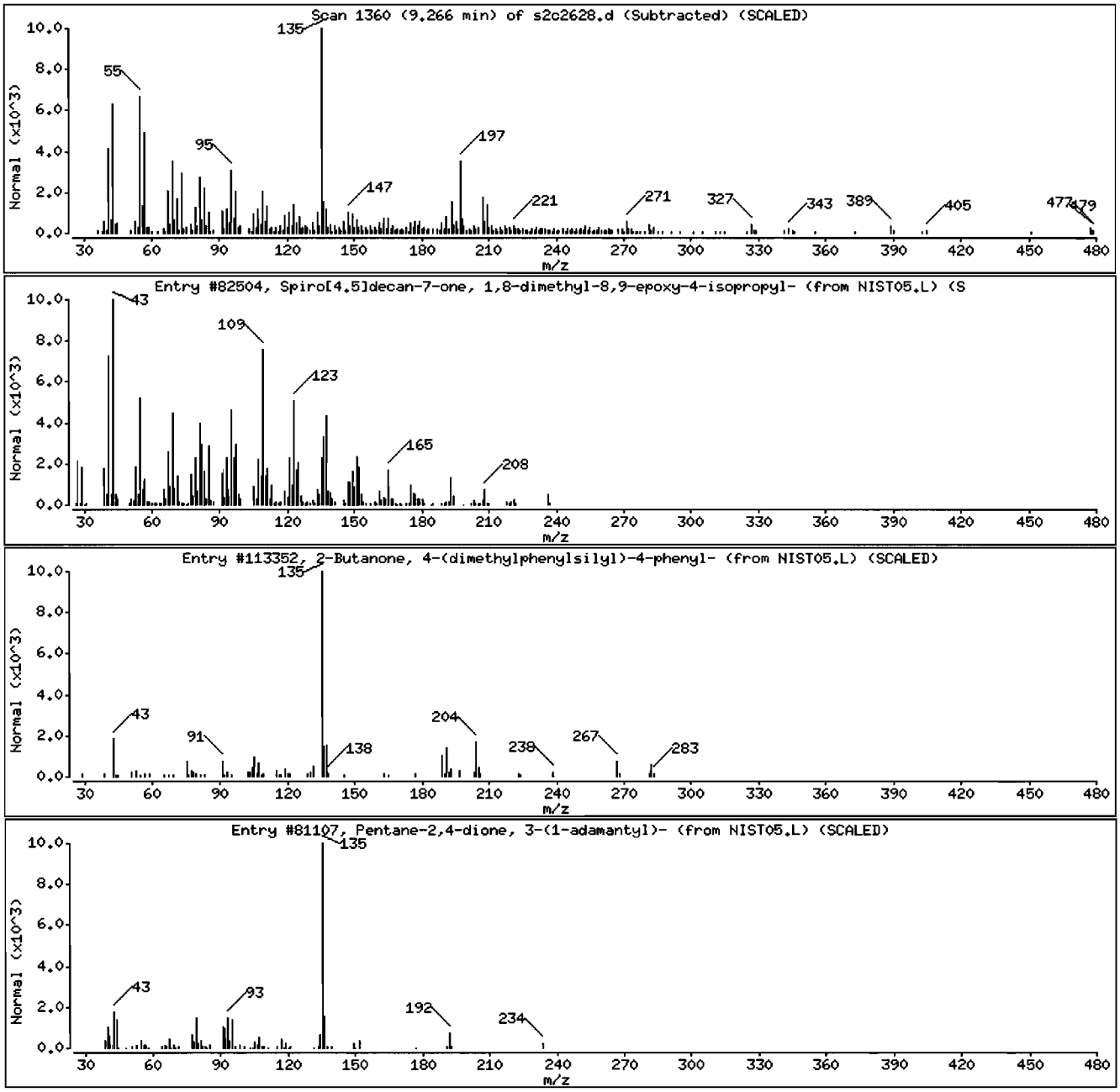

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Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439

Instrument: MSD2.i

Sample Info: |2491800061966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,2,8,8,12,13,17,18-Octamethyl-2,3,7,8,2	72812-15-8	NIST05.L	180083	12	C29H33N5	451
12-Oleanen-3-yl acetate, (3.alpha.)-	33055-28-6	NIST05.L	181936	11	C32H5202	468
6-Fluoro-3,4-dihydro-2H-pyrano[2,3-b]qui	122910-26-3	NIST05.L	69631	11	C12H11FN2O	218

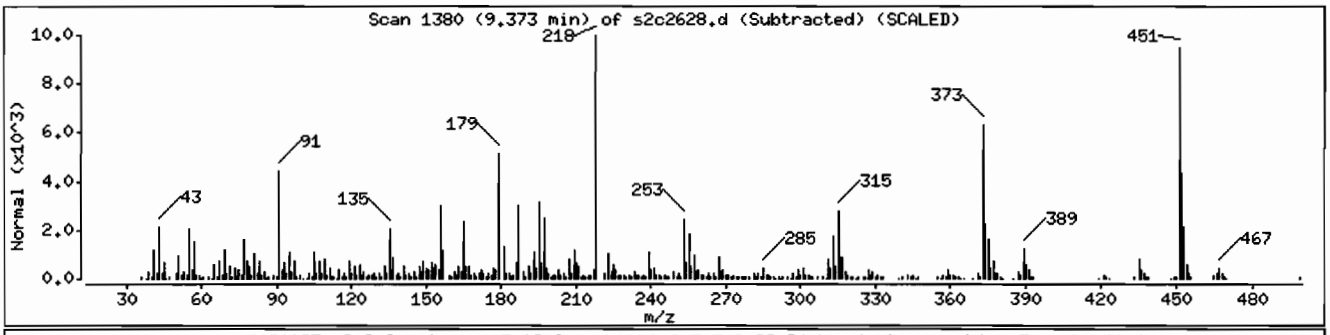

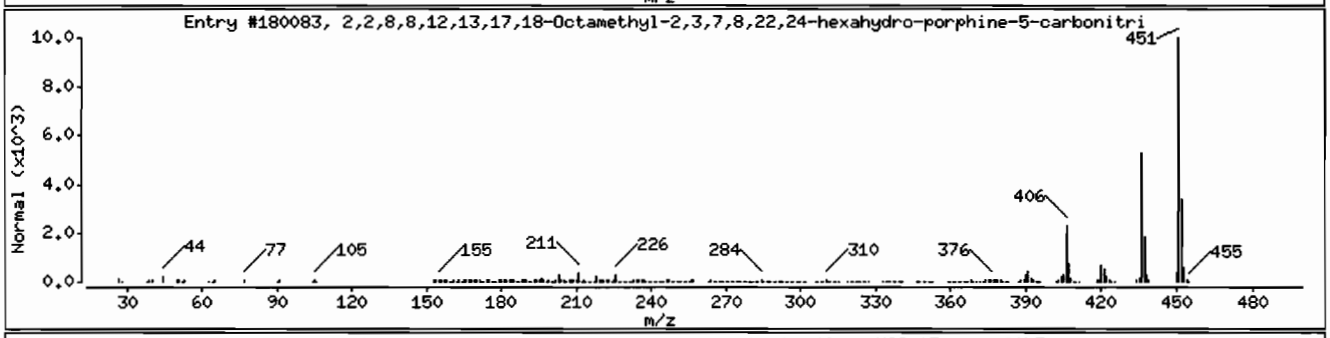

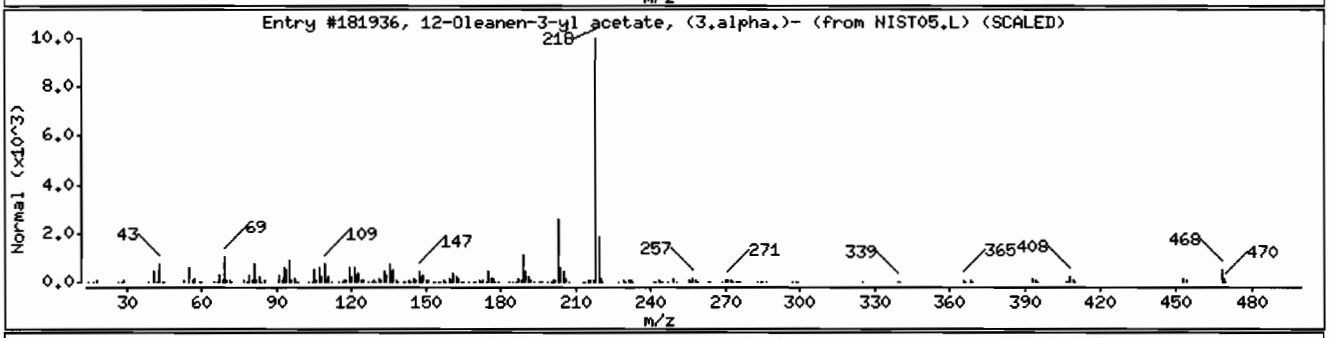

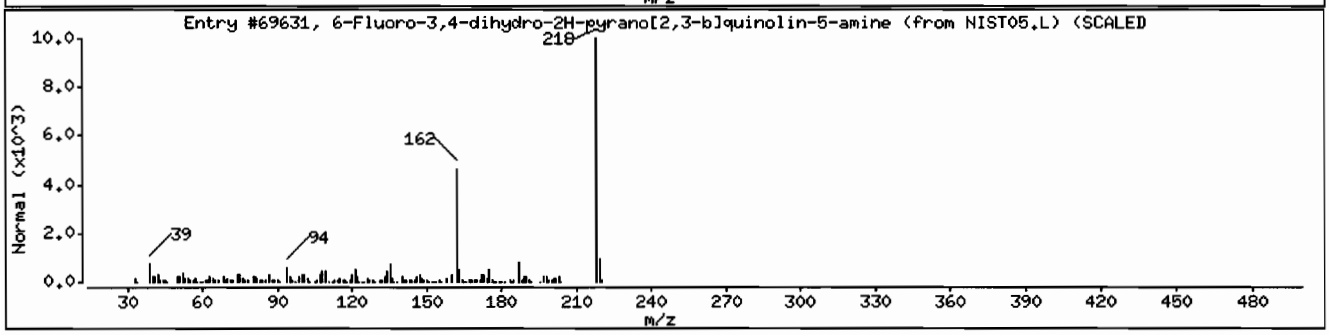

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439 Instrument: MSD2.i

Sample Info: |2491800061966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: ACS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
6-Fluoro-3,4-dihydro-2H-pyrano[2,3-b]qui	122910-26-3	NIST05.L	69631	11	C12H11FN2O	218
Dibenzo[b,e][1,4]dioxin, 2-chloro-	39227-54-8	NIST05.L	69725	11	C12H7ClO2	218
Trifluoroacetic acid , 3,5-dimethylpheny	1000307-65-2	NIST05.L	69449	11	C10H9F3O2	218

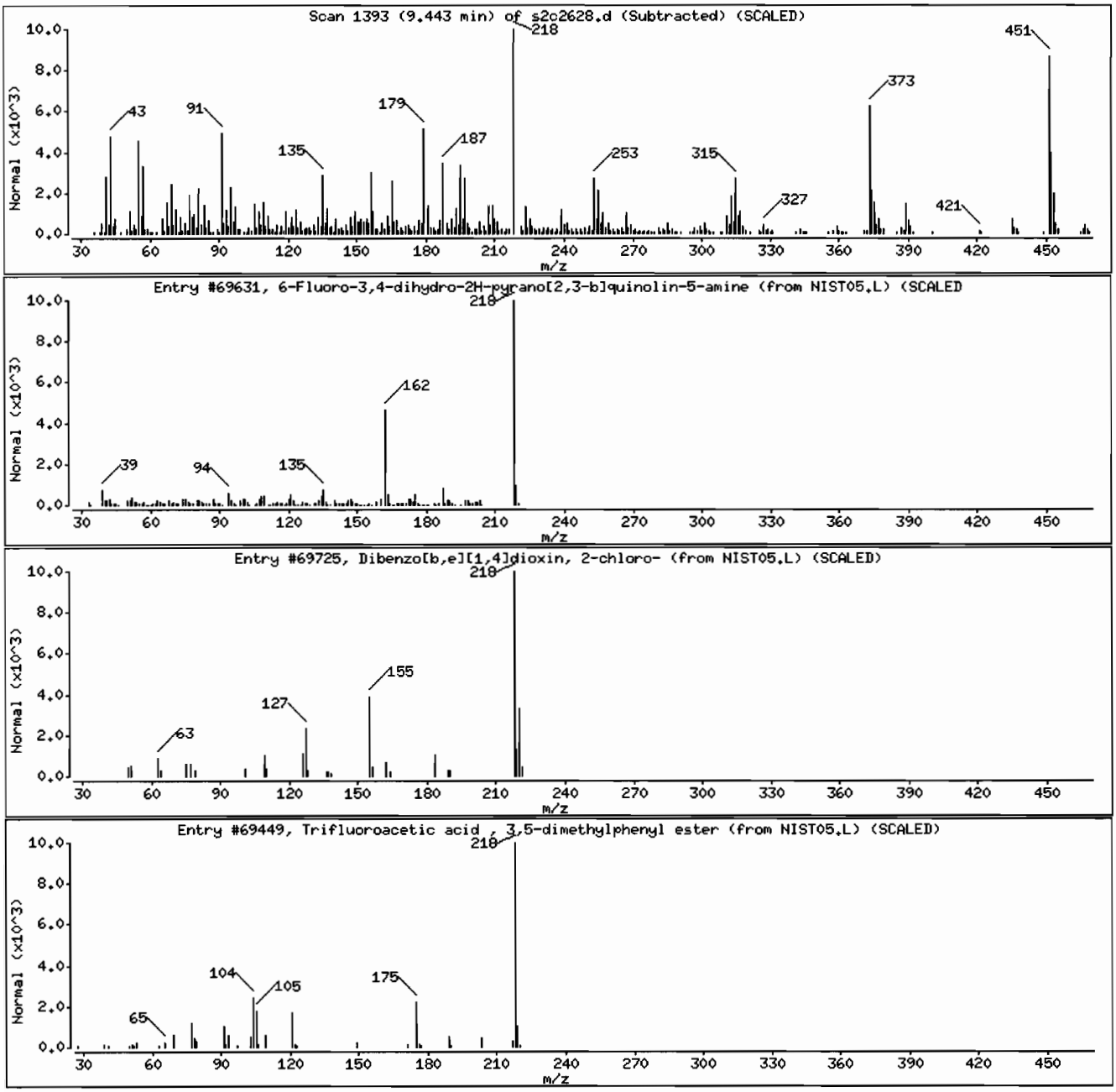

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Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439 Instrument: MSD2.i

Sample Info: |2491800061966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Acetamide, 2-(adamantan-1-yl)-N-(4-benzo	1000311-05-2	NIST05.L	162702	70	C25H27NO2	373
2,4-Diphenyl-2-(2-hydroxyphenyl)butane	1000280-74-0	NIST05.L	126240	43	C22H22O	302
Benzene, 1,1',1''-[1-(bromomethyl)-2-met	55282-37-6	NIST05.L	165156	43	C22H21BrO	380

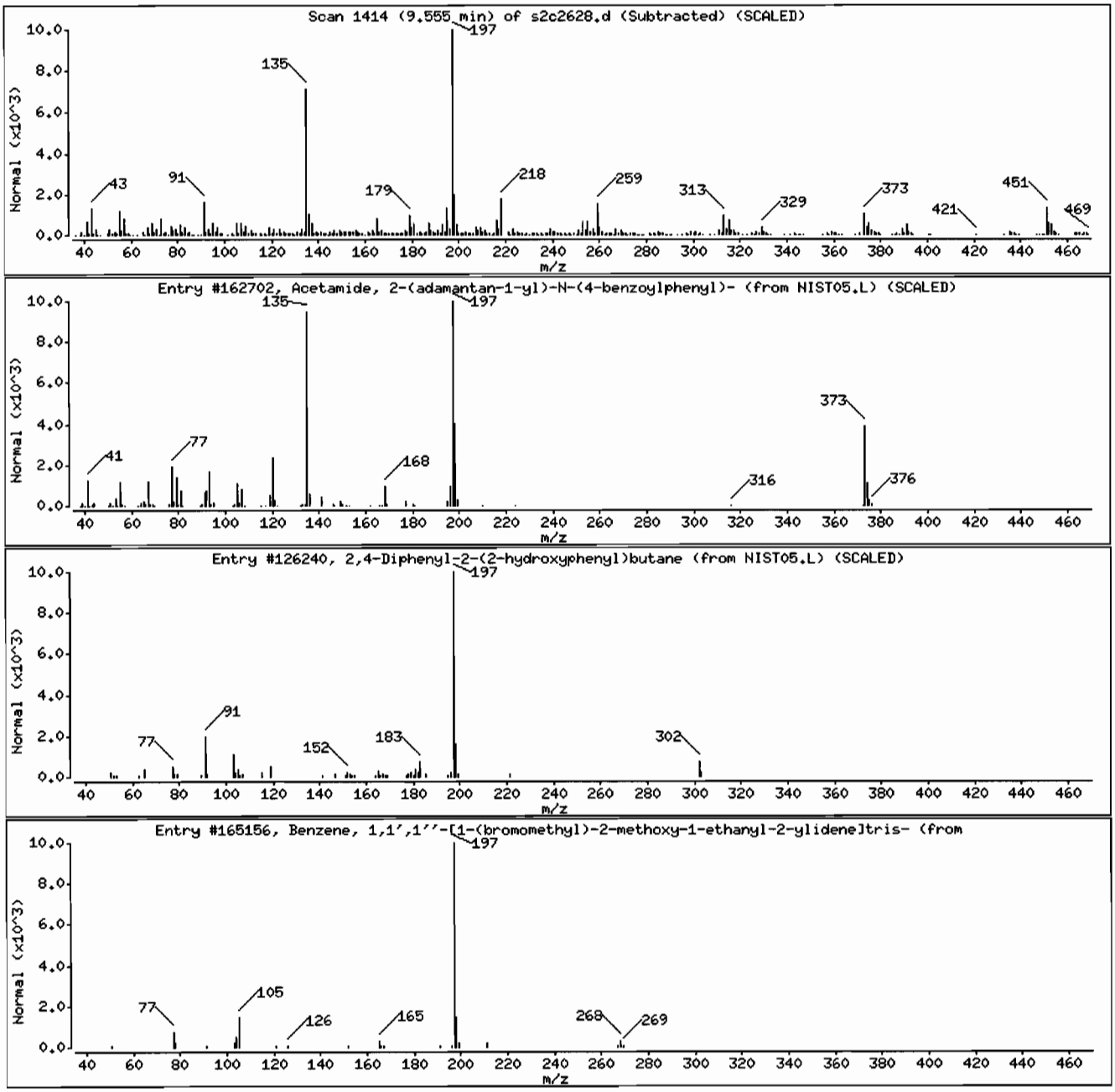

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Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439

Instrument: MSD2.i

Sample Info: |249180006|966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Spiro[cyclobutane-1,1'(2'H)-phenanthren]	41487-68-7	NIST05.L	94927	46	C18H22O	254
1,3,5-Triazine-2,4-diamine, N,N'-diethyl	673-04-1	NIST05.L	55185	43	C8H15N5O	197
Benzenamine, N-methyl-2,4-dinitro-	2044-88-4	NIST05.L	55154	43	C7H7N3O4	197

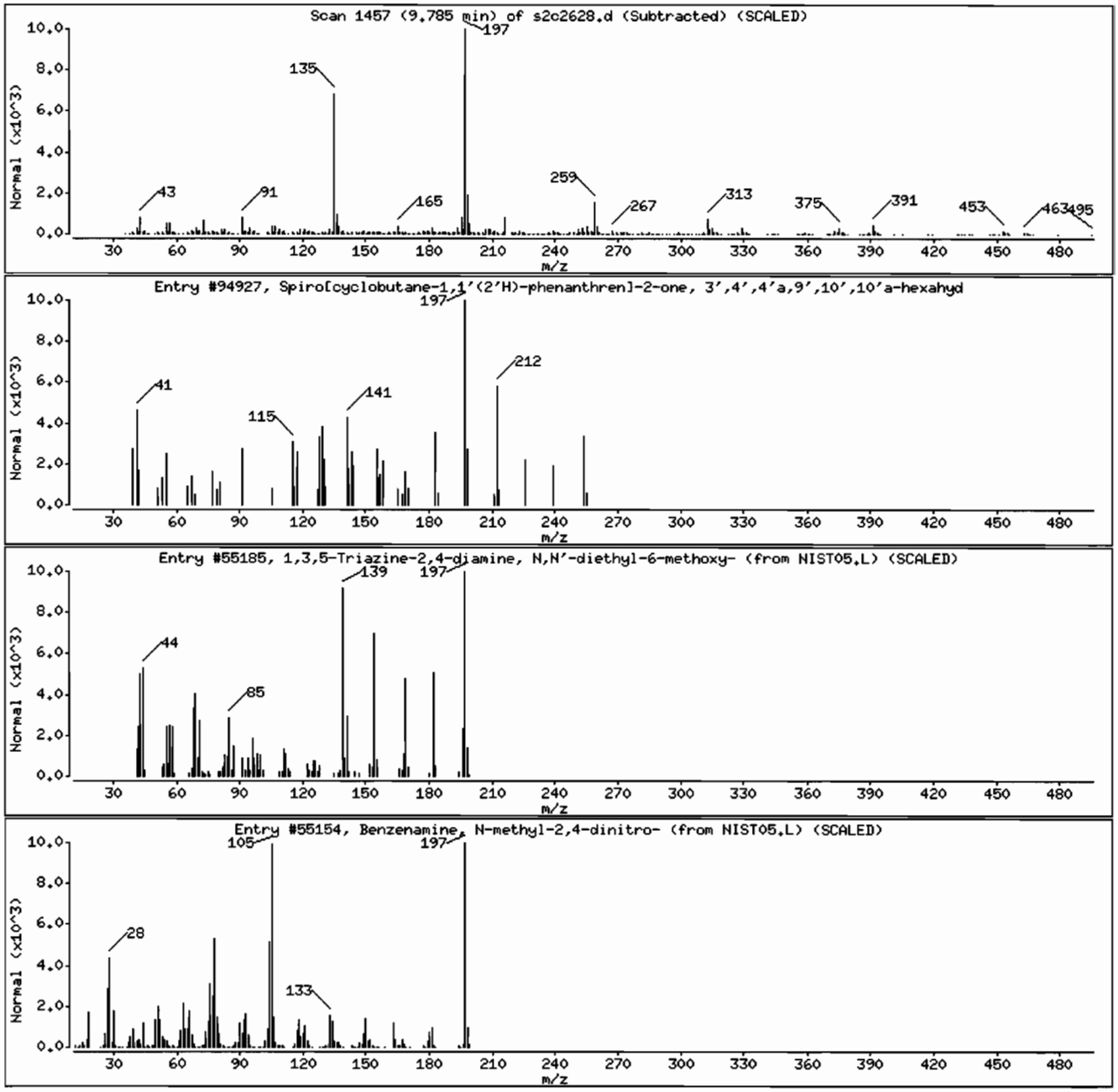

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439 Instrument: MSD2.i

Sample Info: 1249180006196667511SVM11LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Spiro[cyclobutane-1,1'(2'H)-phenanthren]	41487-68-7	NIST05.L	94927	46	C18H22O	254
1,3,5-Triazine-2,4-diamine, N,N'-diethyl	673-04-1	NIST05.L	55185	43	C8H15N5O	197
2'-Methyldihydro-2-stilbazole	58246-68-7	NIST05.L	55103	43	C14H15N	197

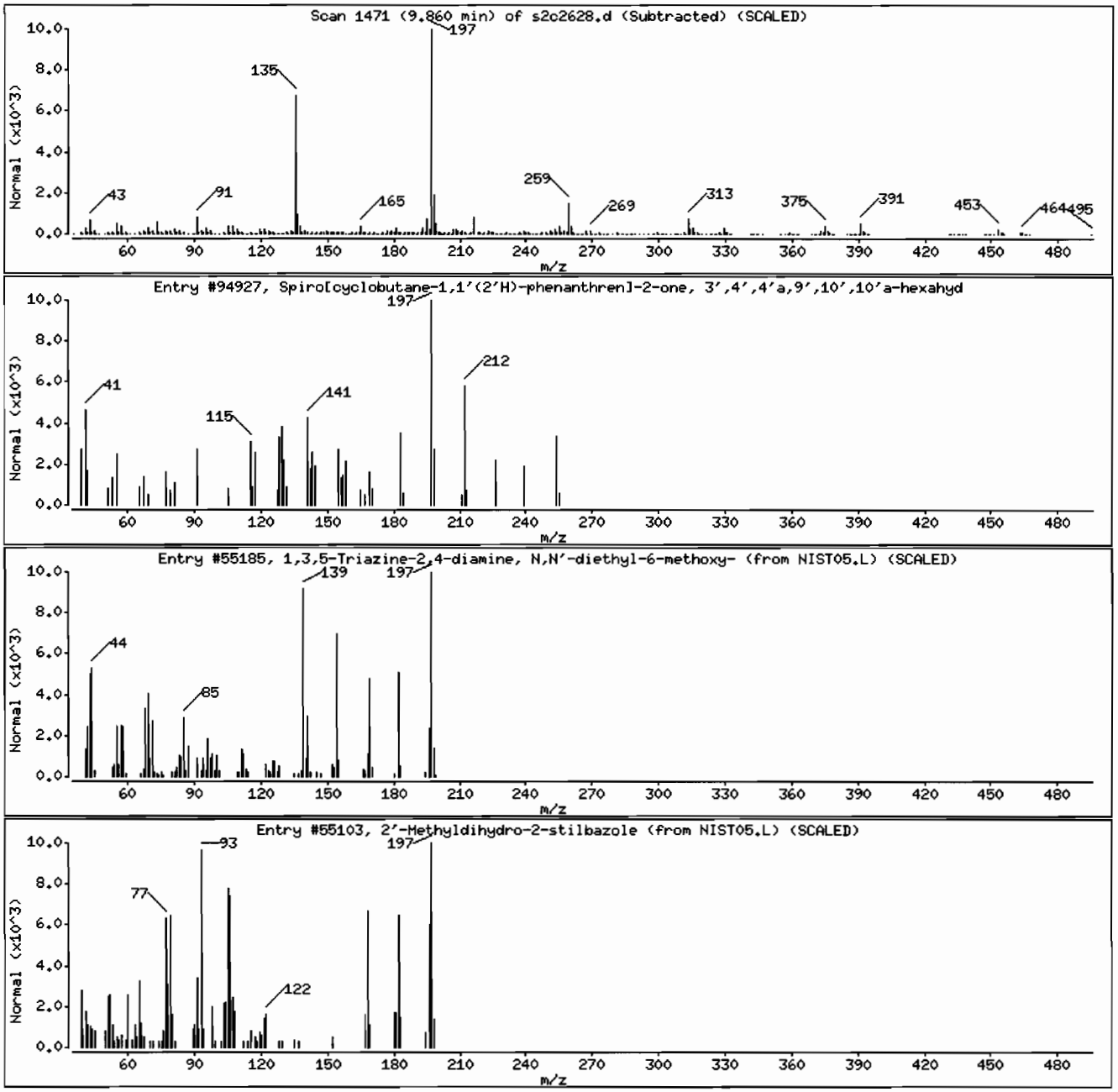

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439

Instrument: MSD2.i

Sample Info: 1249180006|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2'-Methyldihydro-2-stilbazole	58246-68-7	NIST05.L	55103	49	C14H15N	197
p,p'-Ditolylamine	620-93-9	NIST05.L	55093	47	C14H15N	197
Benzene, 1,1',1''-[1-(bromomethyl)-2-met	55373-93-8	NIST05.L	169605	47	C23H23BrO	394

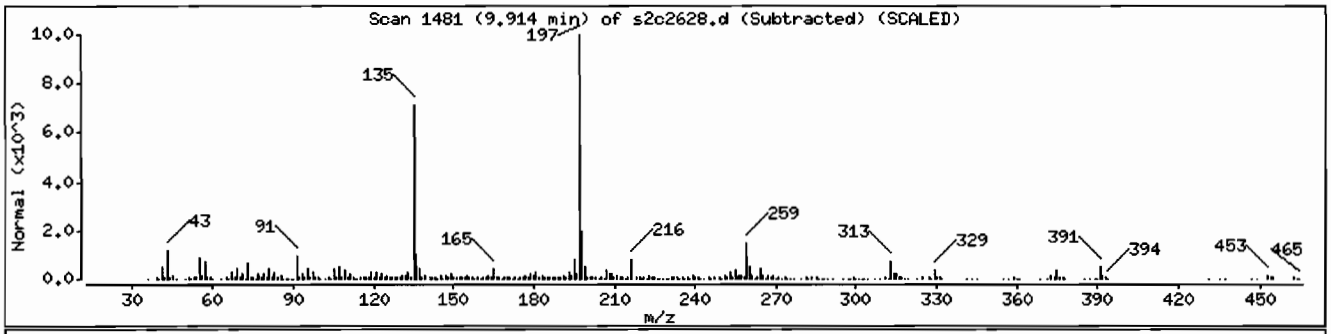

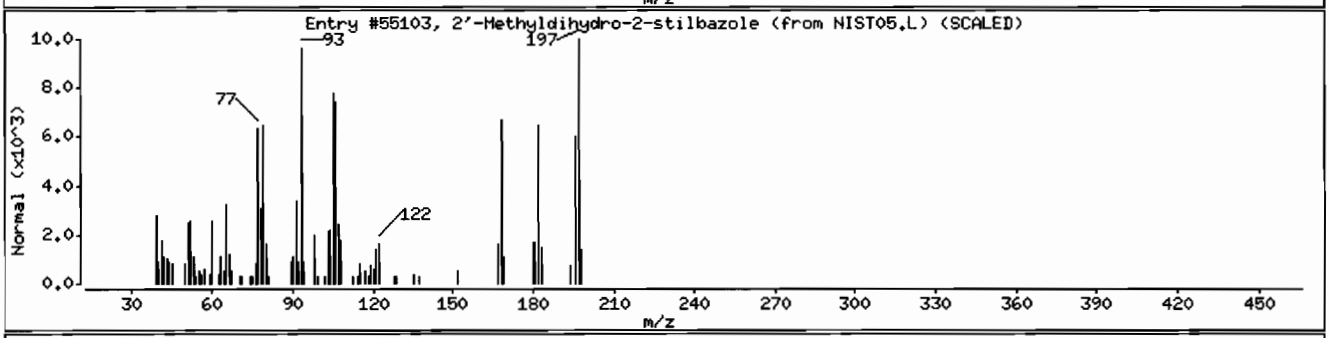

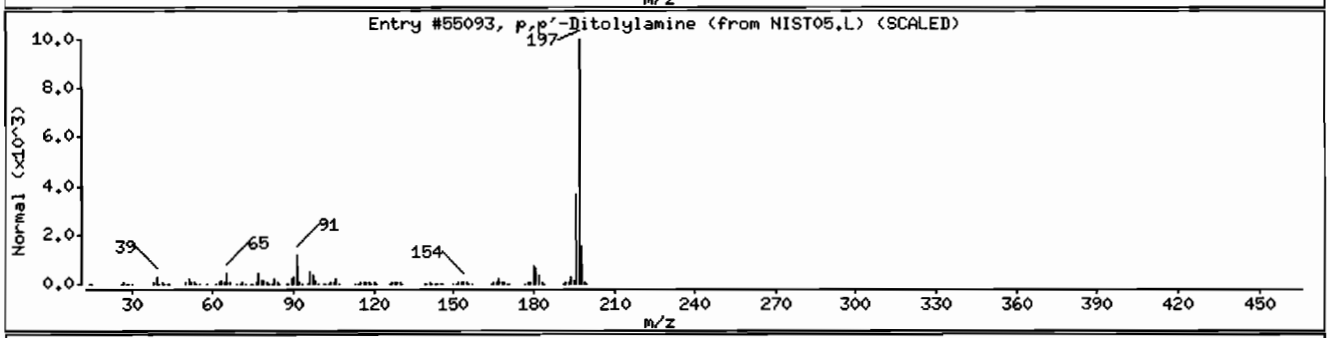

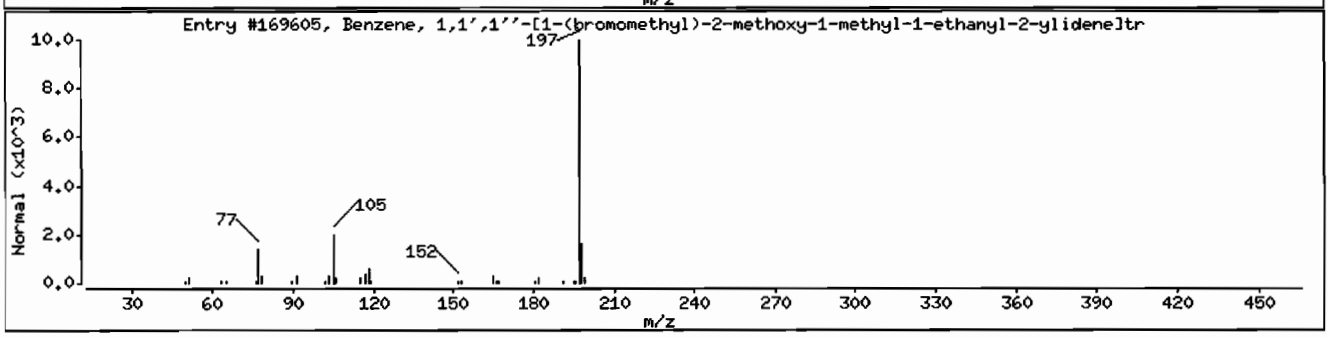

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439 Instrument: MSD2.i

Sample Info: 1249180006196667511SVMI11LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Spiro[cyclobutane-1,1'(2'H)-phenanthren]	41487-68-7	NIST05.L	94927	46	C18H22O	254
Disilane, 1,2-dimethyl-1,1,2,2-tetraphen	1172-76-5	NIST05.L	169683	43	C26H26Si2	394
Benzenamine, N-methyl-2,4-dinitro-	2044-88-4	NIST05.L	55154	43	C7H7N3O4	197

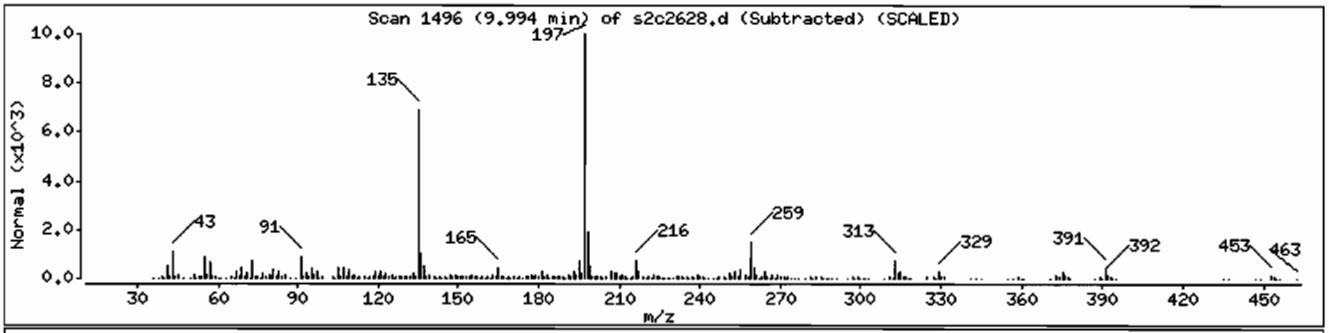

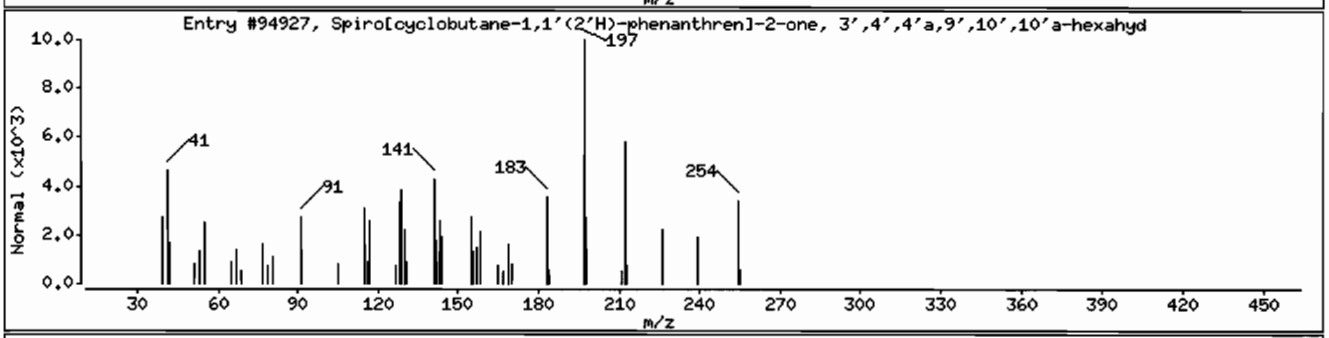

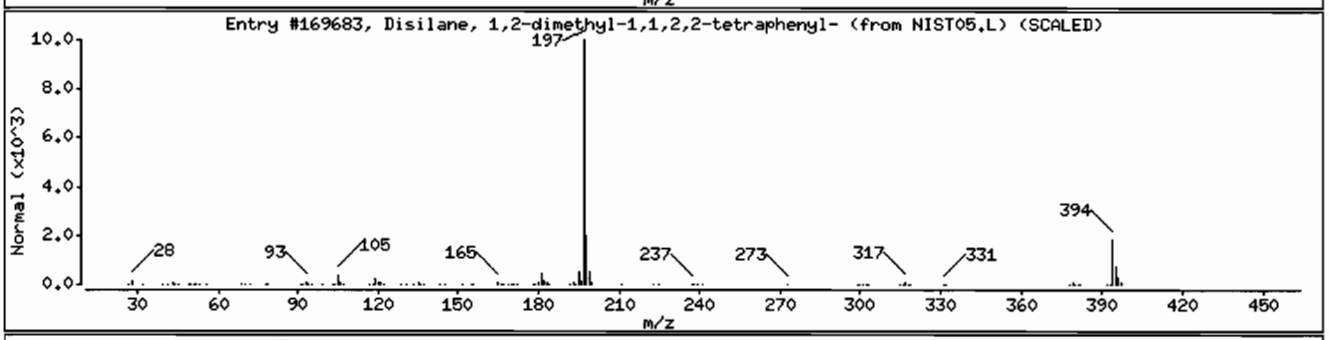

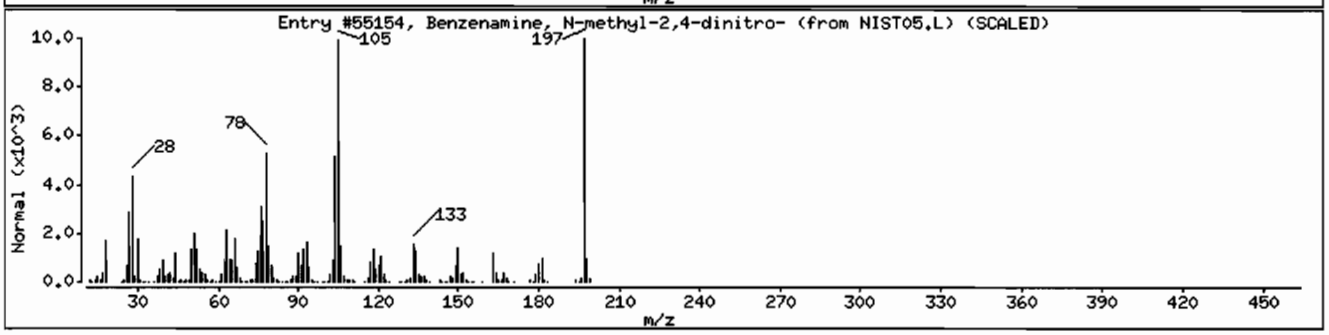

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439 Instrument: MSD2.i

Sample Info: |2491800061966675|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,1-Dimethyl-1-phenyl-4,4,4-trivinyldisi	102105-78-2	NIST05.L	106868	47	C16H24Si2	272
Morphinan-4,6-diol, N-formyl-6-acetate(e	1000129-10-2	NIST05.L	141877	38	C19H23NO4	329
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	25	C19H36	264

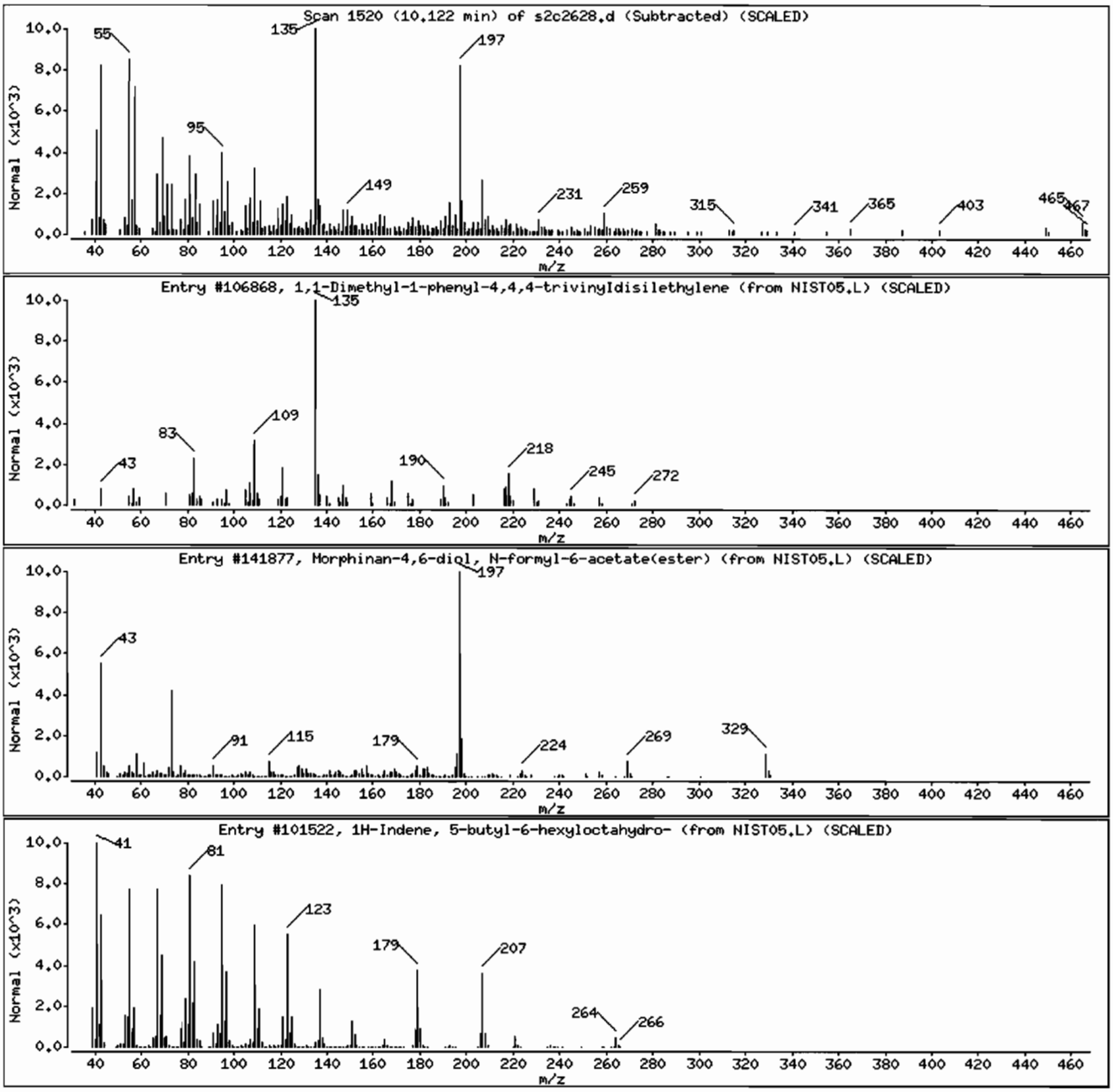

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439 Instrument: MSD2.i

Sample Info: |249180006|966675|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[3.2.0]heptan-2-one, 5-(ethoxycar	1000157-07-8	NIST05.L	102496	38	C15H22O4	266
N-[3,5-Dinitropyridin-2-yl]glycine	3264-08-2	NIST05.L	86995	38	C7H6N4O6	242
2-Aminophenol, N-acetyl-O-carbo[2,2,2-tr	1000128-76-8	NIST05.L	139276	30	C11H10Cl3NO4	325

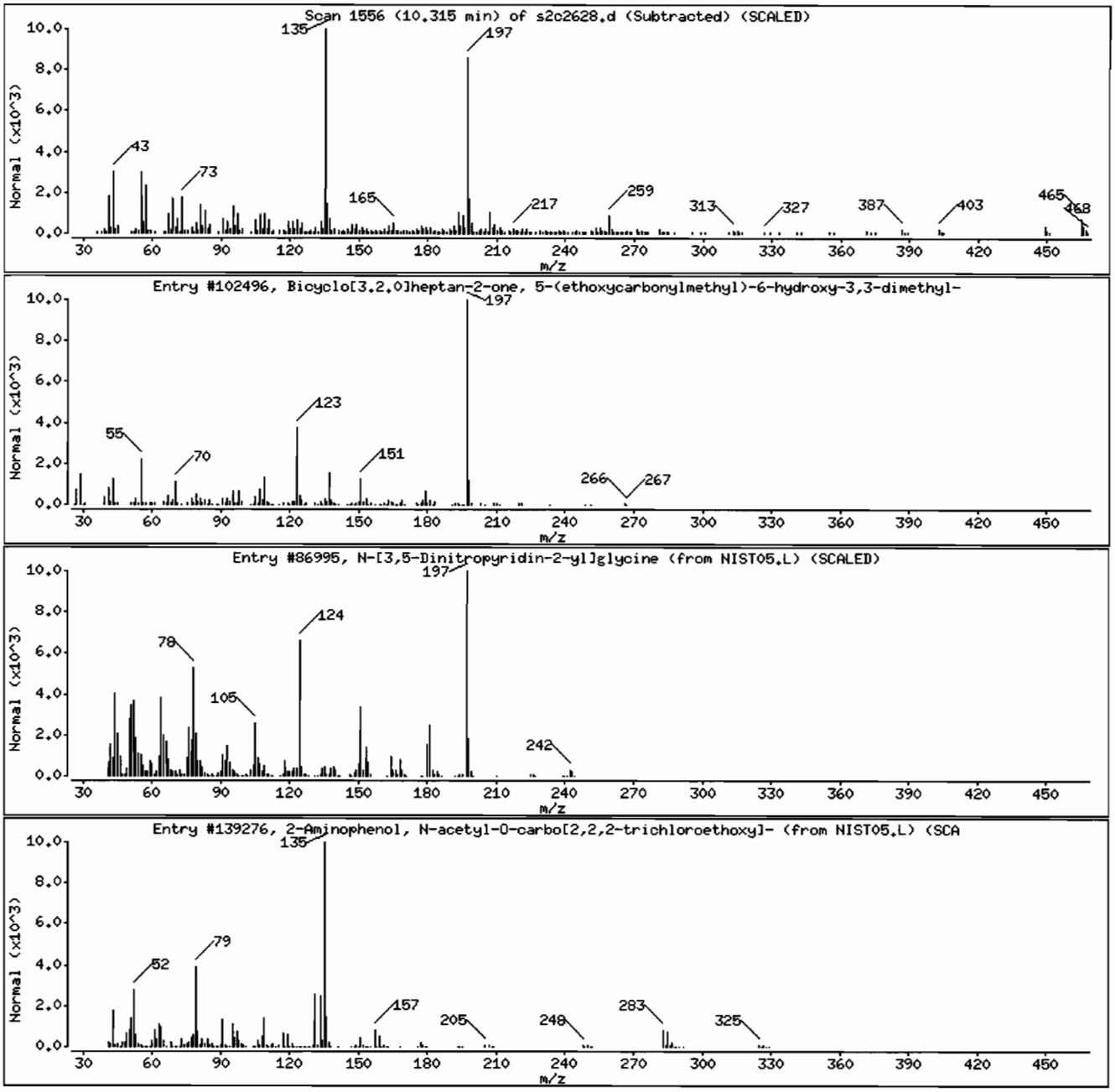

Data File: /chem/MSD2.i/s032610.b/s2c2628.d

Date : 27-MAR-2010 00:18

Client ID: RE46-10-13439 Instrument: MSD2.i

Sample Info: 1249180006196667511SVM11LANL

Volume Injected (uL): 0.5 Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
p,p'-Ditolylamine	620-93-9	NIST05.L	55093	38	C14H15N	197
Benzenamine, N-methyl-2,4-dinitro-	2044-88-4	NIST05.L	55154	38	C7H7N3O4	197
4-Hydrazono-5-hydroxyimino-4,5,6,7-tetra	303194-86-7	NIST05.L	55129	30	C6H7N5O3	197

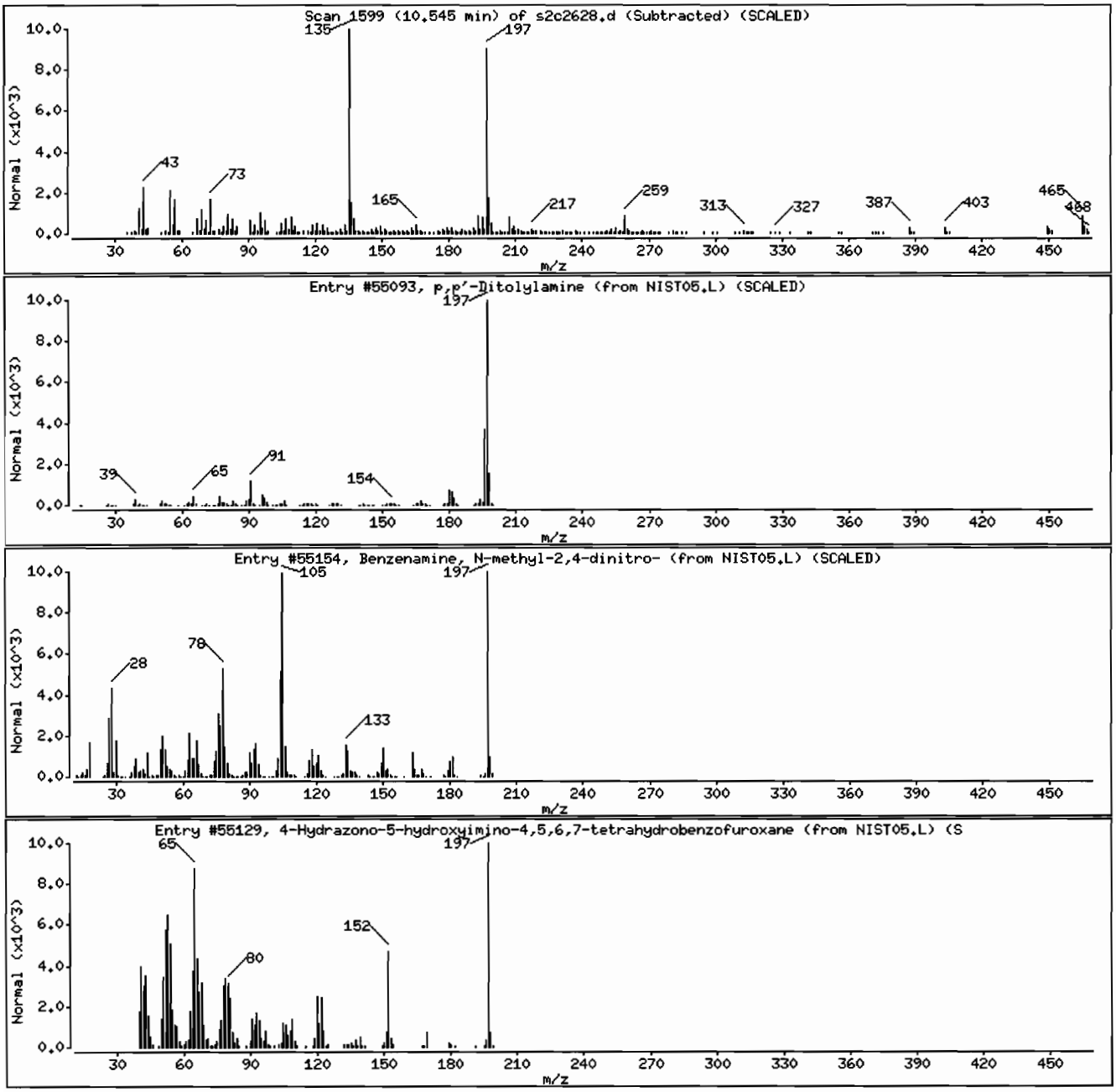

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180008**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13463**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 00:38**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2629.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	394	ug/kg	78.7	394
108-95-2	Phenol	U	394	ug/kg	78.7	394
95-57-8	2-Chlorophenol	U	394	ug/kg	78.7	394
106-46-7	1,4-Dichlorobenzene	U	394	ug/kg	78.7	394
621-64-7	N-Nitrosodipropylamine	U	394	ug/kg	78.7	394
59-50-7	4-Chloro-3-methylphenol	U	394	ug/kg	78.7	394
83-32-9	Acenaphthene	U	39.4	ug/kg	13.0	39.4
121-14-2	2,4-Dinitrotoluene	U	394	ug/kg	39.4	394
100-02-7	4-Nitrophenol	U	394	ug/kg	130	394
87-86-5	Pentachlorophenol	U	394	ug/kg	98.4	394
129-00-0	Pyrene	U	39.4	ug/kg	11.8	39.4
110-86-1	Pyridine	U	394	ug/kg	78.7	394
62-53-3	Aniline	U	394	ug/kg	118	394
111-44-4	bis(2-Chloroethyl) ether	U	394	ug/kg	78.7	394
541-73-1	1,3-Dichlorobenzene	U	394	ug/kg	78.7	394
100-51-6	Benzyl alcohol	U	394	ug/kg	118	394
95-50-1	1,2-Dichlorobenzene	U	394	ug/kg	78.7	394
108-60-1	bis(2-Chloroisopropyl)ether	U	394	ug/kg	78.7	394
95-48-7	o-Cresol	U	394	ug/kg	78.7	394
65794-96-9	m,p-Cresols	U	394	ug/kg	118	394
67-72-1	Hexachloroethane	U	394	ug/kg	78.7	394
98-95-3	Nitrobenzene	U	394	ug/kg	78.7	394
78-59-1	Isophorone	U	394	ug/kg	78.7	394
88-75-5	2-Nitrophenol	U	394	ug/kg	78.7	394
105-67-9	2,4-Dimethylphenol	U	394	ug/kg	138	394
111-91-1	bis(2-Chloroethoxy)methane	U	394	ug/kg	78.7	394
120-83-2	2,4-Dichlorophenol	U	394	ug/kg	78.7	394
65-85-0	Benzoic acid	U	787	ug/kg	197	787
91-20-3	Naphthalene	U	39.4	ug/kg	11.8	39.4
106-47-8	4-Chloroaniline	U	394	ug/kg	78.7	394
87-68-3	Hexachlorobutadiene	U	394	ug/kg	78.7	394
91-57-6	2-Methylnaphthalene	U	39.4	ug/kg	7.87	39.4
77-47-4	Hexachlorocyclopentadiene	U	394	ug/kg	78.7	394
88-06-2	2,4,6-Trichlorophenol	U	394	ug/kg	78.7	394
95-95-4	2,4,5-Trichlorophenol	U	394	ug/kg	78.7	394
91-58-7	2-Chloronaphthalene	U	39.4	ug/kg	13.0	39.4
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	394	ug/kg	78.7	394
99-09-2	3-Nitroaniline	U	394	ug/kg	78.7	394

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180008**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13463**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/27/2010 00:38**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2629.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	394	ug/kg	78.7	394
606-20-2	2,6-Dinitrotoluene	U	394	ug/kg	39.4	394
208-96-8	Acenaphthylene	U	39.4	ug/kg	11.8	39.4
51-28-5	2,4-Dinitrophenol	U	787	ug/kg	150	787
132-64-9	Dibenzofuran	U	394	ug/kg	78.7	394
84-66-2	Diethylphthalate	U	394	ug/kg	78.7	394
86-73-7	Fluorene	U	39.4	ug/kg	11.8	39.4
7005-72-3	4-Chlorophenylphenylether	U	394	ug/kg	78.7	394
534-52-1	2-Methyl-4,6-dinitrophenol	U	394	ug/kg	78.7	394
100-01-6	4-Nitroaniline	U	394	ug/kg	118	394
	p-Nitroaniline					
122-39-4	Diphenylamine	U	394	ug/kg	78.7	394
122-66-7	Azobenzene	U	394	ug/kg	78.7	394
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	394	ug/kg	78.7	394
118-74-1	Hexachlorobenzene	U	394	ug/kg	78.7	394
85-01-8	Phenanthrene	U	39.4	ug/kg	11.8	39.4
120-12-7	Anthracene	U	39.4	ug/kg	7.87	39.4
84-74-2	Di-n-butylphthalate	U	394	ug/kg	78.7	394
206-44-0	Fluoranthene	U	39.4	ug/kg	11.8	39.4
85-68-7	Butylbenzylphthalate	U	394	ug/kg	78.7	394
56-55-3	Benzo(a)anthracene	U	39.4	ug/kg	11.8	39.4
91-94-1	3,3'-Dichlorobenzidine	U	394	ug/kg	118	394
218-01-9	Chrysene	U	39.4	ug/kg	11.8	39.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	394	ug/kg	78.7	394
117-84-0	Di-n-octylphthalate	U	394	ug/kg	78.7	394
205-99-2	Benzo(b)fluoranthene	U	39.4	ug/kg	11.8	39.4
207-08-9	Benzo(k)fluoranthene	U	39.4	ug/kg	11.8	39.4
50-32-8	Benzo(a)pyrene	U	39.4	ug/kg	11.8	39.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.4	ug/kg	11.8	39.4
53-70-3	Dibenzo(a,h)anthracene	U	39.4	ug/kg	11.8	39.4
191-24-2	Benzo(ghi)perylene	U	39.4	ug/kg	11.8	39.4
120-82-1	1,2,4-Trichlorobenzene	U	394	ug/kg	78.7	394

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.85	393	ug/kg		JA

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2629.d
Lab Smp Id: 249180008 Client Smp ID: RE46-10-13463
Inj Date : 27-MAR-2010 00:38
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249180008|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2398.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	15.38880	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	177239	40.0000	
* 29 Naphthalene-d8	136	4.672	4.672	(1.000)	711866	40.0000	
* 46 Acenaphthene-d10	164	5.913	5.918	(1.000)	440608	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	817322	40.0000	
* 91 Chrysene-d12	240	8.544	8.555	(1.000)	584088	40.0000	
* 98 Perylene-d12	264	9.946	9.962	(1.000)	330730	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	254720	60.3562	2380
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	285581	54.9524	2160
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.892)	160373	31.1272	1220
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.915)	332244	27.4077	1080
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.091)	77938	59.8047	2350
$ 81 p-Terphenyl-d14	244	7.817	7.822	(0.915)	404242	37.9483	1490

ION RATIO REPORT

SV REPORT

Data file: s2c2629.d
Report Date: 03/27/2010 21:59
Lab. ID: 249180008 SampleType: SAMPLE
Injection Date: 27-MAR-2010 00:38
Operator: AGS1 Instrument: MSD2.i
Sample Info: |249180008|966675|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2398
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	25690	4.17	4.05	80-120	100	(T)
42	23277	4.17	4.05	96-156	91	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	78939	5.91	5.69	80-120	100	(T)
164	440608	5.91	5.69	0- 40	558	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	58100	5.91	5.74	80-120	100	(T)
63	928	5.91	5.74	87-147	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	58100	5.91	6.03	80-120	100	(T)
89	1140	5.91	6.03	58-118	2	(QT)
63	928	5.91	6.03	47-107	2	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	235	6.45	6.31	80-120	100	(T)
105	1028	6.45	6.31	15- 75	436	(QT)
51	1098	6.45	6.31	92-152	466	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2629.d
Lab Smp Id: 249180008 Client Smp ID: RE46-10-13463
Inj Date : 27-MAR-2010 00:38
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |249180008|966675|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2398.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	15.38880	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.811	1317595	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.848	328657	9.97747976	393	0		0	10

Data File: /chem/MSD2.i/s032610.b/s2c2629.d

Date : 27-MAR-2010 00:38

Client ID: RE46-10-13463

Sample Info: |2491800081966675|1|SVMI1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: AGS1

Column diameter: 0.20

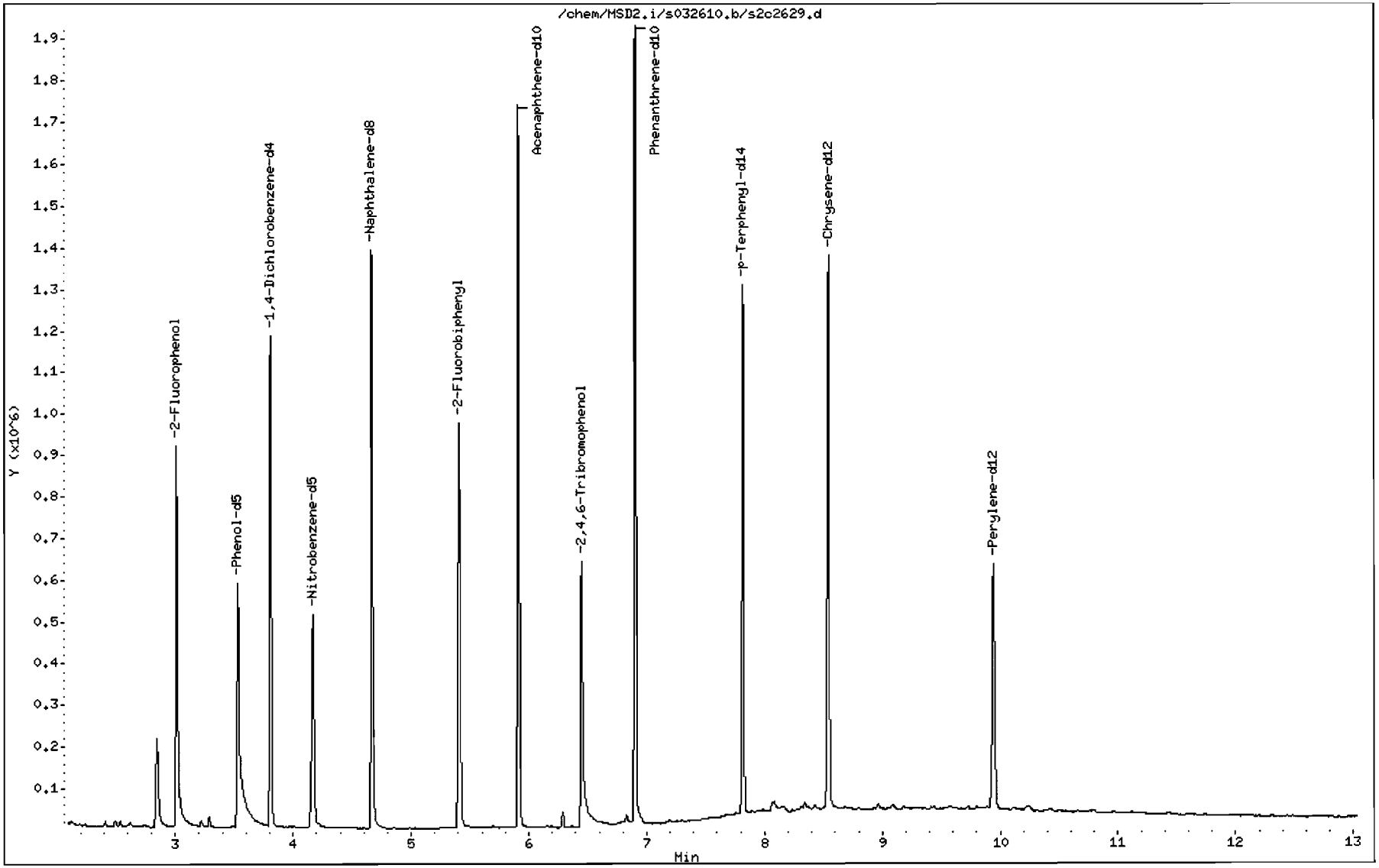

Data File: /chem/MSD2.i/s032610.b/s2c2629.d

Date : 27-MAR-2010 00:38

Client ID: RE46-10-13463

Instrument: MSD2.i

Sample Info: |2491800081966675|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	45	C6H12O2	116

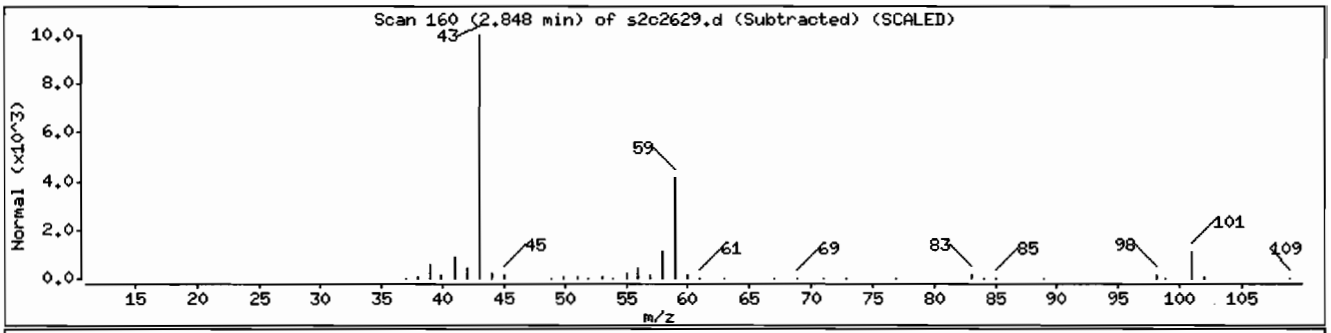

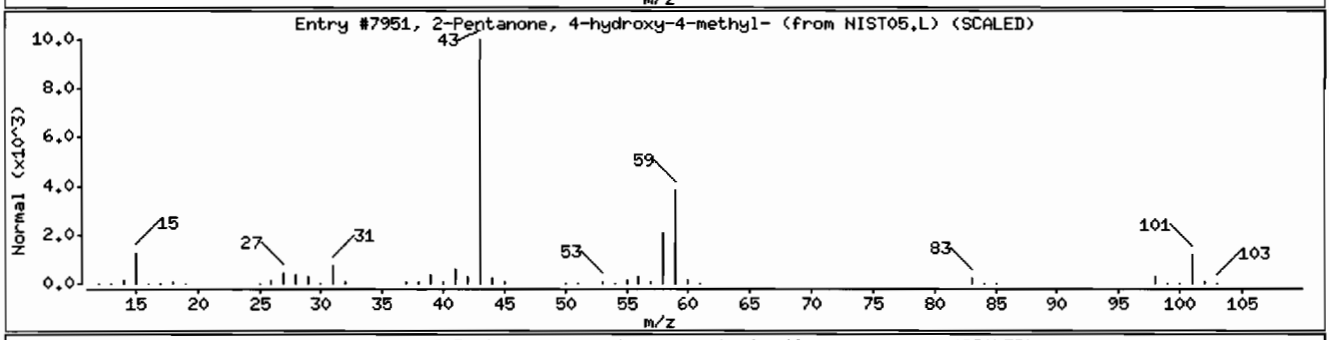

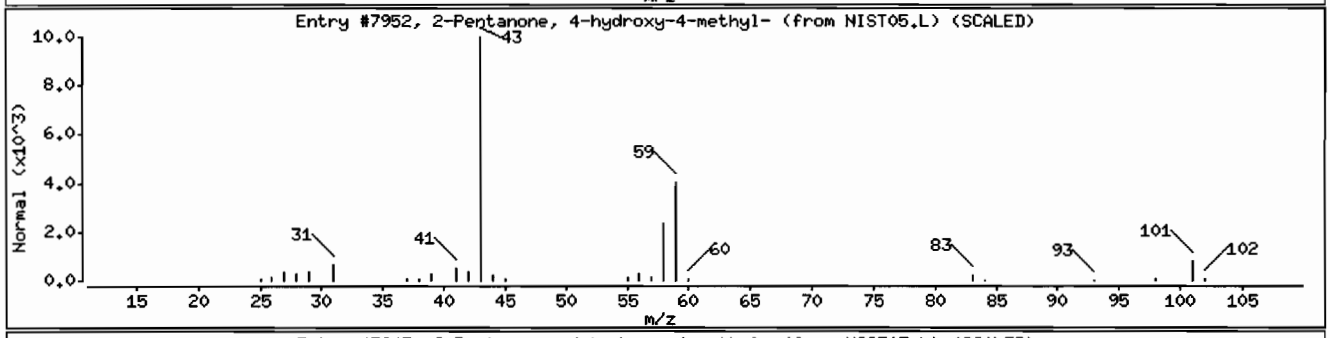

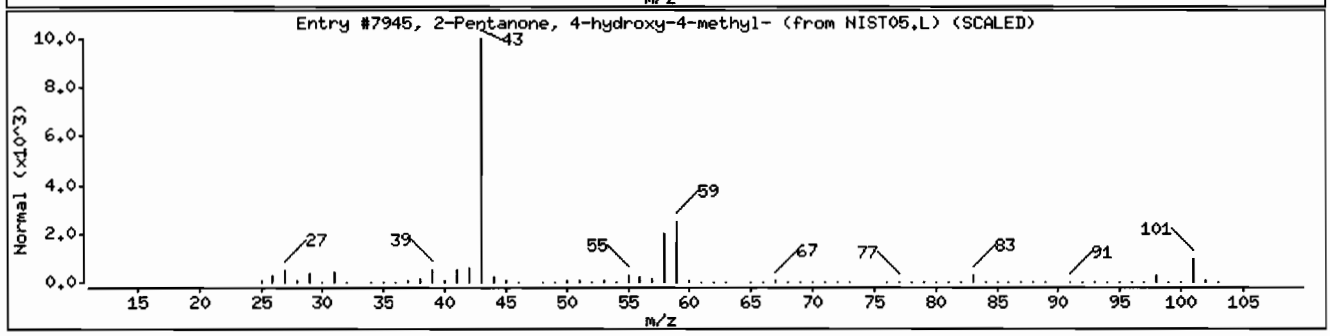

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 26-Mar-2010 17:06

Calibration History

Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Start Cal Date: 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
12-MAR-2010 15:04	MEGAII	/chem/MSD2.i/s031210.b/s2c1203.d
Cal Level: 2 , Cal Amount: 10.00000		
13-MAR-2010 03:15	BJCO	/chem/MSD2.i/s031210.b/s2c1237.d
13-MAR-2010 01:15	HEX	/chem/MSD2.i/s031210.b/s2c1231.d
12-MAR-2010 21:39	PEST	/chem/MSD2.i/s031210.b/s2c1220.d
12-MAR-2010 19:18	AP12	/chem/MSD2.i/s031210.b/s2c1213.d
12-MAR-2010 15:31	MEGAII	/chem/MSD2.i/s031210.b/s2c1204.d
Cal Level: 3 , Cal Amount: 20.00000		
13-MAR-2010 03:42	BJCO	/chem/MSD2.i/s031210.b/s2c1238.d
13-MAR-2010 01:35	HEX	/chem/MSD2.i/s031210.b/s2c1232.d
12-MAR-2010 21:59	PEST	/chem/MSD2.i/s031210.b/s2c1221.d
12-MAR-2010 19:39	AP12	/chem/MSD2.i/s031210.b/s2c1214.d
12-MAR-2010 15:59	MEGAII	/chem/MSD2.i/s031210.b/s2c1205.d
Cal Level: 4 , Cal Amount: 40.00000		
13-MAR-2010 04:08	BJCO	/chem/MSD2.i/s031210.b/s2c1239.d
13-MAR-2010 01:55	HEX	/chem/MSD2.i/s031210.b/s2c1233.d
12-MAR-2010 22:19	PEST	/chem/MSD2.i/s031210.b/s2c1222.d
12-MAR-2010 19:59	AP12	/chem/MSD2.i/s031210.b/s2c1215.d
12-MAR-2010 16:23	MEGAII	/chem/MSD2.i/s031210.b/s2c1206.d
Cal Level: 5 , Cal Amount: 50.00000		
13-MAR-2010 04:35	BJCO	/chem/MSD2.i/s031210.b/s2c1240.d
13-MAR-2010 02:15	HEX	/chem/MSD2.i/s031210.b/s2c1234.d
12-MAR-2010 22:39	PEST	/chem/MSD2.i/s031210.b/s2c1223.d
12-MAR-2010 20:19	AP12	/chem/MSD2.i/s031210.b/s2c1216.d
12-MAR-2010 16:48	MEGAII	/chem/MSD2.i/s031210.b/s2c1207.d
Cal Level: 6 , Cal Amount: 80.00000		
13-MAR-2010 05:01	BJCO	/chem/MSD2.i/s031210.b/s2c1241.d
13-MAR-2010 02:35	HEX	/chem/MSD2.i/s031210.b/s2c1235.d
12-MAR-2010 23:00	PEST	/chem/MSD2.i/s031210.b/s2c1224.d
12-MAR-2010 20:39	AP12	/chem/MSD2.i/s031210.b/s2c1217.d
12-MAR-2010 17:13	MEGAII	/chem/MSD2.i/s031210.b/s2c1208.d
Cal Level: 7 , Cal Amount: 100.00000		

13-MAR-2010 05:28	BJCO	/chem/MSD2.i/s031210.b/s2c1242.d
13-MAR-2010 02:55	HEX	/chem/MSD2.i/s031210.b/s2c1236.d
12-MAR-2010 23:20	PEST	/chem/MSD2.i/s031210.b/s2c1225.d
12-MAR-2010 20:59	AP12	/chem/MSD2.i/s031210.b/s2c1218.d
12-MAR-2010 17:38	MEGAII	/chem/MSD2.i/s031210.b/s2c1209.d

Cal Level: 8 , Cal Amount: 120.00000		
13-MAR-2010 05:54	BJCO	/chem/MSD2.i/s031210.b/s2c1243.d
12-MAR-2010 23:40	PEST	/chem/MSD2.i/s031210.b/s2c1226.d
12-MAR-2010 21:19	AP12	/chem/MSD2.i/s031210.b/s2c1219.d
12-MAR-2010 18:02	MEGAII	/chem/MSD2.i/s031210.b/s2c1210.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
26-MAR-2010 16:34	AP12	/chem/MSD2.i/s032610.b/s2c2605.d
Ccal Level: 4 , Ccal Amount: 40.0		
26-MAR-2010 16:12	PEST	/chem/MSD2.i/s032610.b/s2c2604.d
Ccal Level: 4 , Ccal Amount: 40.0		
26-MAR-2010 15:52	AP12	/chem/MSD2.i/s032610.b/s2c2603.d
Ccal Level: 4 , Ccal Amount: 40.0		
26-MAR-2010 15:25	MEGAII	/chem/MSD2.i/s032610.b/s2c2602.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Calibration File Names:
Level 1: /chem/MSD2.i/s031210.b/s2c1203.d
Level 2: /chem/MSD2.i/s031210.b/s2c1237.d
Level 3: /chem/MSD2.i/s031210.b/s2c1238.d
Level 4: /chem/MSD2.i/s031210.b/s2c1239.d
Level 5: /chem/MSD2.i/s031210.b/s2c1240.d
Level 6: /chem/MSD2.i/s031210.b/s2c1241.d
Level 7: /chem/MSD2.i/s031210.b/s2c1242.d
Level 8: /chem/MSD2.i/s031210.b/s2c1243.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	++++++	0.53069	0.56409	0.54068	0.55457	0.54064					
	++++++	0.55374					AVRG		0.54740		2.22282
2 Pyridine	++++++	0.74049	0.79261	0.76560	0.80515	0.77149					
	++++++	0.79393					AVRG		0.77821		3.04477
4 Aniline	++++++	0.55826	0.57077	0.56362	0.58547	0.57284					
	++++++	0.59420					AVRG		0.57419		2.34554
209 Benzaldehyde	++++++	0.93842	0.91810	0.84928	0.88119	0.86080					
	0.82896	0.76897					AVRG		0.86368		6.55756
6 Phenol	++++++	1.14465	1.17926	1.17186	1.24067	1.22191					
	++++++	1.29706					AVRG		1.20923		4.57865

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	1.04016	1.03764	1.04161	1.01485	1.04797	1.03256					
	#####	1.05677					AVRG		1.03880		1.26167
8 2-Chlorophenol	#####	1.02487	1.07560	1.05680	1.09331	1.07141					
	#####	1.13071					AVRG		1.07545		3.29921
203 n-Decane	#####	2.00990	2.00845	1.84585	1.80869	1.77685					
	#####	1.56954					AVRG		1.83655		8.95766
9 1,3-Dichlorobenzene	#####	1.24048	1.30102	1.24836	1.29021	1.27457					
	#####	1.32500					AVRG		1.27994		2.51073
11 1,4-Dichlorobenzene	#####	1.33103	1.36189	1.32236	1.38180	1.35219					
	#####	1.39329					AVRG		1.35709		2.04557
12 Benzyl alcohol	#####	0.46844	0.53613	0.58192	0.62208	0.59998					
	#####	0.60896					AVRG		0.56959		10.15574
13 1,2-Dichlorobenzene	#####	1.21698	1.24338	1.21938	1.27220	1.26460					
	#####	1.29976					AVRG		1.25272		2.57686
14 bis(2-Chloroisopropyl)ether	#####	2.68696	2.65305	2.54839	2.53017	2.49533					
	#####	2.32358					AVRG		2.53958		5.08482
15 o-Cresol	#####	0.84323	0.82956	0.80082	0.84780	0.84739					
	#####	0.95435					AVRG		0.85386		6.12877

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INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
16 Acetophenone	+++++	1.37504	1.34990	1.31025	1.39529	1.40445					
	1.40367	1.39174					AVRG		1.37576		2.51790
17 N-Nitrosodipropylamine	0.73303	0.75246	0.76349	0.75895	0.77570	0.75404					
	+++++	0.77361					AVRG		0.75875		1.90533
18 m,p-Cresols	+++++	0.98606	1.00993	1.01061	1.04500	1.01871					
	+++++	1.03374					AVRG		1.01734		2.02140
19 Hexachloroethane	+++++	0.53473	0.54456	0.52915	0.54253	0.52984					
	+++++	0.53701					AVRG		0.53630		1.18806
21 Nitrobenzene	+++++	0.30184	0.30097	0.28004	0.26992	0.25041					
	+++++	0.23182					AVRG		0.27250		10.21908
22 Isophorone	+++++	0.54505	0.54677	0.50717	0.49346	0.45822					
	+++++	0.40630					AVRG		0.49283		10.93751
23 2-Nitrophenol	+++++	0.17908	0.15205	0.13691	0.13791	0.12777					
	+++++	0.12234					AVRG		0.14268		14.37906
24 2,4-Dimethylphenol	+++++	0.27372	0.30536	0.25113	0.23635	0.20969					
	+++++	+++++					AVRG		0.25525		14.26274
25 bis(2-Chloroethoxy)methane	+++++	0.30134	0.30867	0.28603	0.28357	0.26861					
	+++++	0.24812					AVRG		0.28272		7.79457

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Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.21397	0.21772	0.20785	0.20427	0.19269					
	+++++	0.17722					AVRG		0.20229		7.43147
27 Benzoic acid	+++++	+++++	0.09573	0.12767	0.14526	0.12886					
	+++++	0.13198					AVRG		0.12590		14.50415
28 1,2,4-Trichlorobenzene	+++++	0.27075	0.27246	0.25039	0.24546	0.23111					
	+++++	0.21355					AVRG		0.24729		9.21640
30 Naphthalene	0.88264	0.83585	0.83802	0.78823	0.78416	0.73200					
	+++++	0.69134					AVRG		0.79318		8.30793
204 alpha-Terpineol	+++++	0.30499	0.30556	0.27977	0.26969	0.25106					
	+++++	0.21766					AVRG		0.27145		12.40556
31 4-Chloroaniline	+++++	0.30611	0.36557	0.36836	0.36658	0.33911					
	+++++	0.32132					AVRG		0.34451		7.72390
189 Caprolactam	+++++	0.07385	0.08037	0.08218	0.09025	0.09135					
	0.08948	0.09264					AVRG		0.08573		8.19744
32 Hexachlorobutadiene	+++++	0.16400	0.16685	0.15308	0.14816	0.13933					
	+++++	0.12666					AVRG		0.14968		10.13585
33 4-Chloro-3-methylphenol	+++++	0.23613	0.23807	0.22392	0.22130	0.20293					
	+++++	0.18282					AVRG		0.21753		9.73149

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.55918	0.54065	0.54701	0.50998	0.50398	0.47433					
	+++++	0.43335					AVRG		0.50978		8.74067
35 1-Methylnaphthalene	0.54513	0.53724	0.53347	0.50485	0.49777	0.46277					
	+++++	0.42797					AVRG		0.50131		8.59294
36 Hexachlorocyclopentadiene	+++++	0.16297	0.19074	0.20053	0.20711	0.17732					
	+++++	0.20353					AVRG		0.19037		9.03164
208 1,1'-Biphenyl	+++++	1.35911	1.33104	1.31085	1.38582	1.39800					
	1.41044	1.39351					AVRG		1.36982		2.72454
205 2,3-Dichloroaniline	+++++	0.51010	0.54015	0.54652	0.56436	0.57152					
	+++++	0.61221					AVRG		0.55748		6.16449
37 2,4,6-Trichlorophenol	+++++	0.27124	0.28804	0.30627	0.30322	0.30549					
	+++++	0.33030					AVRG		0.30076		6.59007
38 2,4,5-Trichlorophenol	+++++	0.29158	0.32247	0.31010	0.33011	0.33422					
	+++++	0.35852					AVRG		0.32450		6.99838
40 2-Chloronaphthalene	0.95732	0.92503	0.97188	0.94372	0.96936	0.97959					
	+++++	1.03937					AVRG		0.96947		3.71428
42 o-Nitroaniline	+++++	0.28178	0.30956	0.30499	0.30426	0.30435					
	+++++	0.30862					AVRG		0.30226		3.40284

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	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	21802	52996	142135	204510	208409					
	+++++	402686					LINR	0.08432	0.22019		0.99755
43 Dimethylphthalate	+++++	1.10980	1.15239	1.11587	1.13305	1.14965					
	+++++	1.16434					AVRG		1.13752		1.90358
44 2,6-Dinitrotoluene	+++++	0.24590	0.25940	0.25324	0.25815	0.25973					
	+++++	0.26721					AVRG		0.25727		2.77894
45 Acenaphthylene	1.37487	1.40503	1.46492	1.45336	1.46622	1.49132					
	+++++	1.57389					AVRG		1.46137		4.35613
47 Acenaphthene	1.09285	0.99386	1.05730	1.04614	1.07303	1.07796					
	+++++	1.11624					AVRG		1.06534		3.65712
48 2,4-Dinitrophenol	+++++	+++++	26928	70814	105683	112290					
	+++++	256161					LINR	0.27701	0.14408		0.99297
49 Dibenzofuran	+++++	1.23686	1.30875	1.28894	1.31722	1.32619					
	+++++	1.37415					AVRG		1.30868		3.45347
50 2,4-Dinitrotoluene	+++++	0.29926	0.32448	0.32292	0.32838	0.33137					
	+++++	0.32165					AVRG		0.32134		3.54887
51 Diethylphthalate	+++++	1.14932	1.19433	1.15409	1.17087	1.17737					
	+++++	1.15441					AVRG		1.16673		1.48807

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.13055	0.15792	0.16796	0.17481	0.16540					
	+++++	0.16153					AVRG		0.15969		9.64147
53 Fluorene	1.05424	1.07394	1.13370	1.14492	1.17060	1.17058					
	+++++	1.20012					AVRG		1.13544		4.70479
54 4-Chlorophenylphenylether	+++++	0.50279	0.52689	0.52750	0.53924	0.54595					
	+++++	0.56736					AVRG		0.53496		4.04829
55 2-Methyl-4,6-dinitrophenol	+++++	18180	48014	109404	161133	168398					
	+++++	347979					LINR	0.18671	0.12250		0.99452
56 p-Nitroaniline	+++++	22179	45659	125678	187857	194328					
	+++++	406138					LINR	0.15309	0.22168		0.99822
133 Diphenylamine	+++++	0.48570	0.49400	0.50138	0.51990	0.52948					
	+++++	0.59303					AVRG		0.52058		7.49917
58 1,2-Diphenylhydrazine	+++++	0.63730	0.66715	0.65507	0.67151	0.69301					
	+++++	0.74396					AVRG		0.67800		5.48585
59 Tributylphosphate	+++++	1.14218	1.23338	1.26398	1.24736	1.30493					
	1.31959	1.26442					AVRG		1.25369		4.61401
61 4-Bromophenylphenylether	+++++	0.16412	0.17037	0.17123	0.17327	0.18076					
	+++++	0.19621					AVRG		0.17599		6.39971

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
63 Hexachlorobenzene	+++++	0.16428	0.16925	0.17087	0.17418	0.18013					
	+++++	0.19569					AVRG		0.17573		6.32010
207 Atrazine	+++++	0.04678	0.04546	0.04310	0.04200	0.04389					
	0.04014	0.03918					AVRG		0.04293		6.37284
65 Pentachlorophenol	+++++	0.07005	0.08362	0.09145	0.09635	0.09801					
	+++++	0.10656					AVRG		0.09101		14.01556
206 n-Octadecane	+++++	0.58190	0.60061	0.56933	0.56240	0.58766					
	+++++	0.58012					AVRG		0.58034		2.32517
68 Phenanthrene	0.98272	0.94591	0.98449	0.95745	1.00421	0.99535					
	+++++	1.05048					AVRG		0.98866		3.44563
69 Anthracene	0.88306	0.89261	0.96551	0.99042	0.96594	0.99150					
	+++++	1.00588					AVRG		0.95642		5.13275
72 Di-n-butylphthalate	+++++	1.11765	1.16093	1.12721	1.12060	1.15861					
	+++++	1.10402					AVRG		1.13150		2.04799
76 Fluoranthene	0.81916	0.85958	0.91809	0.91892	0.91345	0.92075					
	+++++	0.90111					AVRG		0.89301		4.36703
77 Benzidine	+++++	0.33270	0.32337	0.26589	0.33110	0.36513					
	0.36116	0.39174					AVRG		0.33873		11.83753

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.23304	1.24570	1.28178	1.24643	1.33748	1.35539					
	+++++	1.42729					AVRG		1.30387		5.53101
85 Butylbenzylphthalate	+++++	0.59999	0.62912	0.59210	0.60752	0.62259					
	+++++	0.60906					AVRG		0.61006		2.26136
89 Benzo(a)anthracene	1.07945	0.96635	0.97615	0.97295	1.00816	0.99033					
	+++++	0.99439					AVRG		0.99826		3.86151
90 3,3'-Dichlorobenzidine	+++++	0.21872	0.24546	0.24771	0.27723	0.29323					
	0.27943	0.29408					AVRG		0.26512		10.69374
92 Chrysene	0.92724	0.88493	0.98051	0.91794	0.90417	0.93552					
	+++++	0.96869					AVRG		0.93128		3.64633
93 bis(2-Ethylhexyl)phthalate	0.83224	0.82159	0.85356	0.79815	0.82639	0.87973					
	+++++	0.86867					AVRG		0.84005		3.40874
94 Di-n-octylphthalate	+++++	1.80144	1.89250	1.71252	1.93706	2.03001					
	+++++	2.06832					AVRG		1.90697		7.08363
95 Benzo(b)fluoranthene	0.94096	1.08670	1.08972	1.16567	1.15813	1.07475					
	+++++	1.12139					AVRG		1.09105		6.87930
96 Benzo(k)fluoranthene	1.00301	0.98897	1.13567	0.97578	1.11291	1.23028					
	+++++	1.27986					AVRG		1.10378		10.96105

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	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.82242	0.84279	0.91106	0.89892	0.92930	0.92862					
	+++++	0.99694					AVRG		0.90429		6.44159
99 Indeno(1,2,3-cd)pyrene	0.72384	0.70149	0.79920	0.80145	0.75282	0.78505					
	+++++	0.85471					AVRG		0.77408		6.72266
100 Dibenzo(a,h)anthracene	0.58300	0.56617	0.64555	0.65848	0.61402	0.64622					
	+++++	0.71335					AVRG		0.63240		7.84312
101 Benzo(ghi)perylene	0.62290	0.59146	0.65859	0.64551	0.59098	0.61395					
	+++++	0.66549					AVRG		0.62698		4.85944
102 1,4-Dioxane	+++++	0.35160	0.34509	0.33135	0.35428	0.34578					
	0.35023	0.34933					AVRG		0.34681		2.17036
103 Methyl methacrylate	+++++	0.20061	0.19873	0.18864	0.20452	0.20433					
	0.20673	0.20414					AVRG		0.20110		3.03929
104 Ethyl methacrylate	+++++	0.75667	0.76459	0.72872	0.77419	0.76818					
	0.77700	0.76357					AVRG		0.76185		2.11428
105 2-Picoline	+++++	1.16328	1.16948	1.11649	1.19601	1.20509					
	1.22656	1.22244					AVRG		1.18562		3.27696
106 N-Nitrosomethylethylamine	+++++	0.45377	0.46348	0.43670	0.46929	0.45242					
	0.45863	0.45164					AVRG		0.45513		2.27560

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.63060	0.60690	0.56958	0.58418	0.57873					
	0.55212	0.52685					AVRG		0.57842		5.90367
108 N-Nitrosodiethylamine	+++++	0.49994	0.50455	0.48829	0.51912	0.51895					
	0.52868	0.51703					AVRG		0.51094		2.71861
109 Ethyl Methanesulfonate	+++++	0.64316	0.63898	0.61674	0.64614	0.64667					
	0.63240	0.62556					AVRG		0.63566		1.78065
110 Pentachloroethane	+++++	0.38534	0.38296	0.36184	0.37892	0.37518					
	0.37755	0.36804					AVRG		0.37569		2.20176
111 N-Nitrosopyrrolidine	+++++	0.49075	0.50988	0.50101	0.53665	0.55050					
	0.56242	0.57355					AVRG		0.53211		6.02450
113 N-Nitrosomorpholine	+++++	1.00110	0.99132	0.94345	1.00036	0.97827					
	0.95370	0.93068					AVRG		0.97127		2.94734
114 o-Toluidine	+++++	1.80852	1.83550	1.80199	1.84876	1.97447					
	1.98694	2.00308					AVRG		1.89418		4.73437
115 N-Nitrosopiperidine	+++++	0.13521	0.13511	0.13226	0.14210	0.14020					
	0.13850	0.13785					AVRG		0.13732		2.44499
116 a,a-Dimethylphenethylamine	+++++	0.79717	0.87203	0.88887	0.95657	0.97824					
	0.96170	0.96066					AVRG		0.91646		7.23662

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	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.12969	0.13498	0.13988	0.14347	0.15050					
	0.15111	0.15112					AVRG		0.14297		5.98605
118 2,6-Dichlorophenol	+++++	0.21704	0.22718	0.22752	0.24481	0.24384					
	0.24812	0.24650					AVRG		0.23643		5.19197
119 Hexachloropropene	+++++	0.09452	0.12047	0.11686	0.12728	0.13200					
	0.12883	0.13145					AVRG		0.12163		10.85915
120 p-Phenylenediamine	+++++	0.16662	0.22639	0.22496	0.24913	0.22983					
	0.19849	0.20531					AVRG		0.21439		12.51311
121 N-Nitrosodi-n-butylamine	+++++	0.23456	0.24217	0.20702	0.21125	0.21342					
	0.20654	0.20943					AVRG		0.21777		6.62755
122 Safrole	+++++	0.20577	0.20863	0.20444	0.21501	0.21894					
	0.21571	0.21789					AVRG		0.21234		2.80176
123 1,2,4,5-Tetrachlorobenzene	+++++	0.45777	0.45385	0.43570	0.46563	0.46742					
	0.47683	0.46456					AVRG		0.46025		2.83817
124 Isosafrole	+++++	0.35040	0.35154	0.34687	0.36295	0.36305					
	0.36929	0.36287					AVRG		0.35814		2.34899
125 1,4-Naphthoquinone	+++++	0.35704	0.37620	0.36066	0.36273	0.31265					
	0.28003	0.26784					AVRG		0.33102		13.24400

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126 m-Dinitrobenzene	+++++	0.15972	0.17551	0.17202	0.17880	0.17527					
	+++++	0.18357					AVRG		0.17415		4.63730
127 Pentachlorobenzene	+++++	0.39226	0.39020	0.38763	0.40604	0.41773					
	0.41906	0.42405					AVRG		0.40528		3.77750
128 1-Naphthylamine	+++++	0.87990	0.89273	0.87839	0.96023	0.99070					
	0.96177	0.97320					AVRG		0.93385		5.16042
129 2-Naphthylamine	+++++	0.96003	0.98889	0.96557	1.04769	1.04666					
	1.01828	1.03999					AVRG		1.00959		3.76020
130 2,3,4,6-Tetrachlorophenol	+++++	0.24559	0.25323	0.27046	0.28031	0.29434					
	+++++	0.30632					AVRG		0.27504		8.51517
131 5-Nitro-o-toluidine	+++++	0.22743	0.26020	0.25061	0.27591	0.28592					
	0.27827	0.28407					AVRG		0.26606		8.01756
132 Thionazin	+++++	0.15011	0.15522	0.16542	0.16383	0.17150					
	0.17067	0.16715					AVRG		0.16341		4.87242
134 Sulfotepp	+++++	0.08160	0.08679	0.09355	0.09774	0.10316					
	0.10522	0.10640					AVRG		0.09635		9.88855
135 Phorate	+++++	0.34717	0.36619	0.37505	0.38205	0.38811					
	0.38037	0.37522					AVRG		0.37345		3.60208

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.09652	0.13549	0.13757	0.14799	0.14625					
	0.13417	0.13774					AVRG		0.13367		12.87991
137 Phenacetin	+++++	0.27229	0.29485	0.28597	0.30648	0.30974					
	0.30537	0.31201					AVRG		0.29810		4.89196
138 Diallate	+++++	0.27591	0.25445	0.25725	0.26238	0.26308					
	0.26769	0.26482					AVRG		0.26365		2.66294
139 Dimethoate	+++++	0.18468	0.19709	0.20942	0.21468	0.22518					
	0.22365	0.22216					AVRG		0.21098		7.20828
140 4-Aminobiphenyl	+++++	0.54803	0.54411	0.53885	0.63692	0.66300					
	0.65007	0.64996					AVRG		0.60442		9.49504
141 Pentachloronitrobenzene	+++++	0.08753	0.08511	0.08321	0.08704	0.08548					
	0.08309	0.08073					AVRG		0.08460		2.84314
142 Pronamide	+++++	0.31192	0.30186	0.29923	0.31237	0.31025					
	0.30730	0.29182					AVRG		0.30496		2.51189
143 Dinoseb	+++++	26318	64904	148620	219199	230621					
	+++++	463231					LINR	0.16895	0.16301		0.99661
144 Disulfoton	+++++	0.26029	0.26807	0.27619	0.28099	0.29536					
	0.28719	0.28588					AVRG		0.27914		4.29750

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.16726	0.18176	0.19745	0.20499	0.21200					
	0.21135	0.20784					AVRG		0.19752		8.59064
146 4-Nitroquinoline-1-oxide	+++++	2342	9511	16827	20691	41438					
	+++++	+++++					LINR	0.12110	0.01872		0.99242
147 Methapyrilene	+++++	0.47127	0.44938	0.39997	0.40196	0.40766					
	0.34925	0.35531					AVRG		0.40497		11.03384
148 Isodrin	+++++	0.10675	0.09831	0.09726	0.09704	0.10075					
	0.09619	0.09809					AVRG		0.09920		3.65672
149 Aramite	+++++	0.05128	0.05168	0.04752	0.04833	0.05257					
	0.04617	0.04656					AVRG		0.04916		5.35243
150 Kepone	+++++	0.06472	0.06750	0.06098	0.06584	0.07074					
	0.06165	0.06597					AVRG		0.06534		5.13220
151 p-(Dimethylamino)azobenzene	+++++	0.40077	0.36831	0.39870	0.38456	0.36646					
	0.39314	0.38315					AVRG		0.38501		3.56168
152 Chlorobenzilate	+++++	0.36667	0.32344	0.37057	0.34530	0.34588					
	0.37301	0.36768					AVRG		0.35608		5.16475
153 3,3'-Dimethylbenzidine	+++++	0.51799	0.49896	0.45789	0.49166	0.51632					
	0.51079	0.52916					AVRG		0.50325		4.67890

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
154 Famphur	+++++	0.36991	0.39797	0.41889	0.44377	0.43941					
	0.42710	0.42618					AVRG		0.41760		6.17190
155 2-Acetylaminofluorene	+++++	0.24420	0.30205	0.29363	0.33824	0.35451					
	0.33945	0.35224					AVRG		0.31776		12.63393
157 7,12Dimethylbenz(a)anthracene	+++++	0.56588	0.53307	0.57223	0.56155	0.56719					
	0.57623	0.59670					AVRG		0.56755		3.35460
158 3-Methylcholanthrene	+++++	0.38667	0.38727	0.39472	0.41832	0.42507					
	0.41325	0.43432					AVRG		0.40852		4.66290
26 Phthalic anhydride	+++++	16723	47830	125691	196574	215901					
	+++++	+++++					LINR	0.12340	0.10949		0.99655
173 Carbazole	18867	141917	253992	658583	1027960	1048673					
	+++++	2140487					LINR	0.13239	0.73569		0.99210
174 Hexachlorophene	+++++	518849	1036568	1456110	1739399	+++++					
	2263726	+++++					LINR	5.32015	0.08280		0.99874
179 Dibenzo(a,e)pyrene	+++++	0.28512	0.33642	0.33663	0.27673	0.30466					
	+++++	0.34488					AVRG		0.31408		9.31398
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	10744	27498	56694	89591	116622					
	+++++	221829					LINR	0.17295	0.25904		0.99077
191 Parathion	+++++	0.04839	0.05278	0.05817	0.06057	0.06406					
	0.06770	0.06650					AVRG		0.05974		11.99755
192 Methoxychlor	+++++	0.56862	0.61889	0.60522	0.60255	0.61534					
	+++++	0.62322					AVRG		0.60564		3.26803
210 m-Toluidine	+++++	1.14296	1.20463	1.50407	1.47783	1.51385					
	+++++	1.62653					AVRG		1.41165		13.61097
211 p-Toluidine	+++++	1.03688	1.03950	0.98382	1.16617	1.07729					
	+++++	1.06044					AVRG		1.06068		5.70763
212 Cis Diallate	+++++	0.26579	0.24953	0.24544	0.24698	0.24161					
	0.24032	0.24133					AVRG		0.24728		3.56817
213 Trans Diallate	+++++	0.32461	0.29935	0.30264	0.30868	0.30950					
	0.31493	0.31155					AVRG		0.31018		2.66294
214 1,4-Dinitrobenzene	+++++	0.20082	0.22011	0.22052	0.22474	0.22190					
	+++++	0.23207					AVRG		0.22002		4.72222
215 2-Ethoxyethanol	+++++	0.67233	0.71321	0.70155	0.72308	0.70042					
	+++++	0.72494					AVRG		0.70592		2.75199

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
216 Methylenebis(2-chloroaniline)	+++++	18503	31120	85711	123300	126551						
	+++++	+++++					LINR	0.12923	0.11629		0.99554	
226 2,2'-Dichlorobenzil	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
227 4-Chlorothioanisole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
228 4-Chlorothiophenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
229 bis(p-Chlorophenyl)sulfone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
230 bis(p-Chlorophenyl)disulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
231 Diphenyl disulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
232 Diphenyl sulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
233 Phenyl sulfone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
234 Hydroxymethyl phthalimide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
235 Phthalic acid	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
236 Thiophenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
237 bis(Chloromethyl)ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
238 Octachlorostyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
239 Dibenzo(a,h)pyrene	+++++	0.30133	0.24543	0.32224	0.29208	0.31923						
	0.31975	0.32872					AVRG		0.30411		9.49556	<-
240 Benzo(j)fluoranthene	+++++	0.83072	0.92385	0.96790	1.00940	1.00885						
	0.96377	1.00814					AVRG		0.95895		6.76250	<-
241 Dibenzo(a,j)acridine	+++++	0.52861	0.50350	0.56758	0.54588	0.60197						
	0.62650	0.57297					AVRG		0.56386		7.48315	<-
242 Dibenz(a,h)acridine	+++++	0.50014	0.47046	0.53958	0.51864	0.56520						
	0.59114	0.54589					AVRG		0.53301		7.59150	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
243 Quinoline	+++++	0.46673	0.48865	0.51133	0.52553	0.56197						
	0.54063	0.54407					AVRG		0.51984		6.42466	<-
244 2,4-Toluene Diisocyanate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
245 Dibenzo(a,i)pyrene	+++++	0.17203	0.15057	0.20368	0.18325	0.20792						
	0.21104	0.21682					AVRG		0.19219		12.67372	<-
246 1-Nitropyrene	+++++	20082	52196	139152	171773	455481						
	483179	481130					LINR	0.19784	0.19692		0.99615	<-
247 5-Methylchrysene	+++++	0.49606	0.51261	0.54747	0.54329	0.55777						
	0.55201	0.55122					AVRG		0.53721		4.35140	<-
248 Dibenzo(a,l)pyrene	+++++	0.27683	0.24014	0.28791	0.26504	0.29597						
	0.31327	0.28427					AVRG		0.28049		8.31565	<-
249 7H-Dibenzo(c,g)carbazole	+++++	0.36891	0.33138	0.39163	0.37071	0.41623						
	0.44981	0.40022					AVRG		0.38984		9.72582	<-
250 1-Hexanol	+++++	0.81019	0.88354	0.90810	0.89375	0.82269						
	0.80572	0.80074					AVRG		0.84639		5.50854	<-
M 222 Trichlorophenols	+++++	0.28141	0.30525	0.30818	0.31667	0.31985						
	+++++	0.34441					AVRG		0.31263		6.59754	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	ml	m2	%RSD or R^2	
M 223 Tetrachlorophenols	+++++	0.24559	0.25323	0.27046	0.28031	0.29434						
	+++++	0.30632					AVRG		0.27504		8.51517	
M 224 Benzo(b,k)fluoranthene	0.97199	1.03784	1.11270	1.07072	1.13552	1.15252						
	+++++	1.20062					AVRG		1.09742		6.99618	
M 225 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 3 2-Fluorophenol	+++++	0.91171	0.95294	0.93696	0.97627	0.93389						
	+++++	1.00292					AVRG		0.95245		3.43740	
$ 5 Phenol-d5	+++++	1.12207	1.15643	1.14832	1.20475	1.17617						
	+++++	1.22938					AVRG		1.17285		3.34024	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.32032	0.32188	0.29453	0.28831	0.26888						
	+++++	0.24310					AVRG		0.28950		10.48064	
$ 39 2-Fluorobiphenyl	+++++	1.04124	1.09665	1.06393	1.09049	1.11952						
	+++++	1.19118					AVRG		1.10050		4.73010	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Cal Date : 26-Mar-2010 17:05 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
$ 60 2,4,6-Tribromophenol	+++++	0.10863	0.11665	0.11808	0.12058	0.12299					
	+++++	0.12293					AVRG		0.11831		4.54874
$ 81 p-Terphenyl-d14	+++++	0.66878	0.70423	0.69072	0.73707	0.76446					
	+++++	0.81180					AVRG		0.72951		7.22278

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 12-MAR-2010 18:54
Lab File ID: s2c1212.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 18:02
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	0.95245	0.93834	0.93834	0.000	-1.48102	60.00000	Averaged
$ 5 Phenol-d5	1.17285	1.13234	1.13234	0.000	-3.45424	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28950	0.29753	0.29753	0.000	2.77388	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.10050	1.08541	1.08541	0.000	-1.37168	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11831	0.11606	0.11606	0.000	-1.90573	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.72951	0.73940	0.73940	0.000	1.35559	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.54740	0.52461	0.52461	0.000	-4.16446	60.00000	Averaged
2 Pyridine	0.77821	0.58893	0.58893	0.000	-24.32317	60.00000	Averaged
4 Aniline	0.57419	0.51885	0.51885	0.000	-9.63809	60.00000	Averaged
6 Phenol	1.20923	1.19909	1.19909	0.001	-0.83915	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.03880	0.93188	0.93188	0.000	-10.29272	60.00000	Averaged
8 2-Chlorophenol	1.07545	1.09732	1.09732	0.000	2.03377	60.00000	Averaged
203 n-Decane	1.83655	1.81258	1.81258	0.000	-1.30488	60.00000	Averaged
9 1,3-Dichlorobenzene	1.27994	1.24868	1.24868	0.000	-2.44251	60.00000	Averaged
11 1,4-Dichlorobenzene	1.35709	1.30739	1.30739	0.001	-3.66268	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.25272	1.26001	1.26001	0.000	0.58216	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.53958	2.42695	2.42695	0.000	-4.43484	60.00000	Averaged
12 Benzyl alcohol	0.56959	0.59115	0.59115	0.000	3.78667	60.00000	Averaged
15 o-Cresol	0.85386	0.84683	0.84683	0.000	-0.82343	60.00000	Averaged
18 m,p-Cresols	1.01734	1.03157	1.03157	0.000	1.39833	60.00000	Averaged
17 N-Nitrosodipropylamine	0.75875	0.75192	0.75192	0.050	-0.89997	60.00000	Averaged spcc
19 Hexachloroethane	0.53630	0.51130	0.51130	0.000	-4.66258	60.00000	Averaged
21 Nitrobenzene	0.27250	0.26462	0.26462	0.000	-2.89142	60.00000	Averaged
22 Isophorone	0.49283	0.46638	0.46638	0.000	-5.36610	60.00000	Averaged
23 2-Nitrophenol	0.14268	0.13889	0.13889	0.001	-2.65087	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.25525	0.24875	0.24875	0.000	-2.54825	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.28272	0.25590	0.25590	0.000	-9.48667	60.00000	Averaged
26 2,4-Dichlorophenol	0.20229	0.20678	0.20678	0.001	2.22074	20.00000	Averaged ccc
27 Benzoic acid	0.12590	0.13539	0.13539	0.000	7.54080	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24729	0.23757	0.23757	0.000	-3.92985	60.00000	Averaged
30 Naphthalene	0.79318	0.73998	0.73998	0.000	-6.70624	60.00000	Averaged
204 alpha-Terpineol	0.27145	0.24457	0.24457	0.000	-9.90400	60.00000	Averaged
31 4-Chloroaniline	0.34451	0.34387	0.34387	0.000	-0.18513	60.00000	Averaged
32 Hexachlorobutadiene	0.14968	0.14732	0.14732	0.001	-1.57512	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21753	0.22451	0.22451	0.001	3.20750	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.50978	0.50939	0.50939	0.000	-0.07628	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 12-MAR-2010 18:54
Lab File ID: s2c1212.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 18:02
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.50131	0.48065	0.48065	0.000	-4.12090	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.19037	0.16197	0.16197	0.050	-14.91714	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.55748	0.52593	0.52593	0.000	-5.65805	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.30076	0.29510	0.29510	0.001	-1.88287	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.32450	0.32264	0.32264	0.000	-0.57285	60.00000	Averaged	
40 2-Chloronaphthalene	0.96947	0.93771	0.93771	0.000	-3.27528	60.00000	Averaged	
42 o-Nitroaniline	0.30226	0.29731	0.29731	0.000	-1.63904	60.00000	Averaged	
41 m-Nitroaniline	42.34792	40.00000	0.21455	0.000	5.86981	0.000e+00	Linear	<-
43 Dimethylphthalate	1.13752	1.08580	1.08580	0.000	-4.54616	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.25727	0.24724	0.24724	0.000	-3.90095	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.32134	0.32044	0.32044	0.000	-0.28246	60.00000	Averaged	
45 Acenaphthylene	1.46137	1.43394	1.43394	0.000	-1.87723	60.00000	Averaged	
47 Acenaphthene	1.06534	0.99366	0.99366	0.001	-6.72774	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	43.39364	40.00000	0.11639	0.050	8.48410	0.000e+00	Linear	<-spcc
49 Dibenzofuran	1.30868	1.27744	1.27744	0.000	-2.38769	60.00000	Averaged	
51 Diethylphthalate	1.16673	1.11642	1.11642	0.000	-4.31267	60.00000	Averaged	
52 4-Nitrophenol	0.15969	0.17678	0.17678	0.050	10.70040	60.00000	Averaged	spcc
53 Fluorene	1.13544	1.09827	1.09827	0.000	-3.27395	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.53496	0.50010	0.50010	0.000	-6.51651	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	49.43642	40.00000	0.12853	0.000	23.59104	0.000e+00	Linear	<-
56 p-Nitroaniline	45.98377	40.00000	0.22091	0.000	14.95942	0.000e+00	Linear	<-
133 Diphenylamine	0.52058	0.49828	0.49828	0.001	-4.28299	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.67800	0.63515	0.63515	0.000	-6.32056	60.00000	Averaged	
61 4-Bromophenylphenylether	0.17599	0.15541	0.15541	0.000	-11.69298	60.00000	Averaged	
63 Hexachlorobenzene	0.17573	0.16135	0.16135	0.000	-8.18286	60.00000	Averaged	
65 Pentachlorophenol	0.09101	0.09422	0.09422	0.001	3.52958	20.00000	Averaged	ccc
206 n-Octadecane	0.58034	0.54417	0.54417	0.000	-6.23136	60.00000	Averaged	
68 Phenanthrene	0.98866	0.94474	0.94474	0.000	-4.44244	60.00000	Averaged	
69 Anthracene	0.95642	0.88574	0.88574	0.000	-7.39015	60.00000	Averaged	
72 Di-n-butylphthalate	1.13150	1.06538	1.06538	0.000	-5.84413	60.00000	Averaged	
76 Fluoranthene	0.89301	0.88183	0.88183	0.001	-1.25167	20.00000	Averaged	ccc
79 Pyrene	1.30387	1.11648	1.11648	0.000	-14.37193	60.00000	Averaged	
85 Butylbenzylphthalate	0.61006	0.54363	0.54363	0.000	-10.88944	60.00000	Averaged	
89 Benzo(a)anthracene	0.99826	0.91547	0.91547	0.000	-8.29331	60.00000	Averaged	
92 Chrysene	0.93128	0.85492	0.85492	0.000	-8.19991	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.84005	0.76087	0.76087	0.000	-9.42480	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 12-MAR-2010 18:54
Lab File ID: s2c1212.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 18:02
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.90697	1.62008	1.62008	0.001	-15.04453	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.09105	1.07318	1.07318	0.000	-1.63732	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.10378	0.96926	0.96926	0.000	-12.18747	60.00000	Averaged	
	97 Benzo(a)pyrene	0.90429	0.85268	0.85268	0.001	-5.70785	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.77408	0.74575	0.74575	0.000	-3.65997	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.63240	0.61423	0.61423	0.000	-2.87235	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.62698	0.59748	0.59748	0.000	-4.70493	60.00000	Averaged	
	126 m-Dinitrobenzene	0.17415	0.17536	0.17536	0.000	0.69298	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27504	0.24941	0.24941	0.000	-9.31817	60.00000	Averaged	
	143 Dinoseb	40.05156	40.00000	0.13568	0.000	0.12890	0.000e+00	Linear	<-
	173 Carbazole	42.31804	40.00000	0.68093	0.000	5.79511	0.000e+00	Linear	<-
	184 p-Benzoquinone	25.62660	40.00000	0.12116	0.000	-35.93349	0.000e+00	Linear	<-
	192 Methoxychlor	0.60564	0.58020	0.58020	0.000	-4.20018	60.00000	Averaged	
	211 p-Toluidine	1.06068	0.79713	0.79713	0.000	-24.84761	60.00000	Averaged	
	210 m-Toluidine	1.41165	1.45567	1.45567	0.000	3.11867	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.22002	0.22732	0.22732	0.000	3.31771	60.00000	Averaged	
	215 2-Ethoxyethanol	0.70592	0.72271	0.72271	0.000	2.37858	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	48.62249	40.00000	0.12633	0.000	21.55622	0.000e+00	Linear	<-
	179 Dibenzo(a,e)pyrene	0.31408	0.23056	0.23056	0.000	-26.59122	60.00000	Averaged	
	26 Phthalic anhydride	56.98108	40.00000	0.14245	0.000	42.45270	0.000e+00	Linear	<-
M	222 Trichlorophenols	0.31263	0.30887	0.30887	0.000	-1.20299	60.00000	Averaged	
M	223 Tetrachlorophenols	0.27504	0.24941	0.24941	0.000	-9.31817	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.09742	1.02122	1.02122	0.000	-6.94301	60.00000	Averaged	

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Data file : /chem/MSD2.i/s031210.b/s2c1212.d
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGAICV
Inj Date : 12-MAR-2010 18:54
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100309-09.1|40PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m
Meth Date : 12-Mar-2010 19:19 ann00964 Quant Type: ISTD
Cal Date : 12-MAR-2010 18:02 Cal File: s2c1210.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.982	3.982	(1.000)	333197	40.0000	
* 29 Naphthalene-d8	136	4.848	4.848	(1.000)	1447881	40.0000	
* 46 Acenaphthene-d10	164	6.095	6.095	(1.000)	750245	40.0000	
* 67 Phenanthrene-d10	188	7.073	7.073	(1.000)	1307528	40.0000	
* 91 Chrysene-d12	240	8.769	8.769	(1.000)	1059004	40.0000	
* 98 Perylene-d12	264	10.304	10.304	(1.000)	718805	40.0000	
$ 3 2-Fluorophenol	112	3.169	3.169	(0.796)	312653	40.0000	39.4
$ 5 Phenol-d5	99	3.693	3.693	(0.927)	377292	40.0000	38.6
$ 20 Nitrobenzene-d5	82	4.346	4.346	(0.896)	430793	40.0000	41.1
$ 39 2-Fluorobiphenyl	172	5.586	5.586	(0.917)	814322	40.0000	39.4
$ 60 2,4,6-Tribromophenol	329	6.624	6.624	(1.087)	87070	40.0000	39.2
$ 81 p-Terphenyl-d14	244	7.988	7.988	(0.911)	783025	40.0000	40.5
1 N-Methyl-N-nitrosomethylamine	74	2.490	2.490	(0.625)	174797	40.0000	38.3
2 Pyridine	79	2.527	2.527	(0.635)	196229	40.0000	30.3
4 Aniline	66	3.768	3.768	(0.946)	172880	40.0000	36.1
6 Phenol	94	3.704	3.704	(0.930)	399532	40.0000	39.7(Q)
7 bis(2-Chloroethyl) ether	63	3.779	3.779	(0.949)	310498	40.0000	35.9
8 2-Chlorophenol	128	3.848	3.848	(0.966)	365625	40.0000	40.8
203 n-Decane	43	3.827	3.827	(0.961)	603947	40.0000	39.5
9 1,3-Dichlorobenzene	146	3.950	3.950	(0.992)	416056	40.0000	39.0
11 1,4-Dichlorobenzene	146	3.993	3.993	(1.003)	435617	40.0000	38.5
13 1,2-Dichlorobenzene	146	4.099	4.099	(1.030)	419832	40.0000	40.2
14 bis(2-Chloroisopropyl)ether	45	4.121	4.121	(1.035)	808653	40.0000	38.2
12 Benzyl alcohol	108	4.046	4.046	(1.016)	196971	40.0000	41.5
15 o-Cresol	107	4.094	4.094	(1.028)	282161	40.0000	39.7
18 m,p-Cresols	107	4.196	4.196	(1.054)	343715	40.0000	40.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.222	4.222	(1.060)	250539	40.0000	39.6
19 Hexachloroethane	117	4.329	4.329	(1.087)	170363	40.0000	38.1
21 Nitrobenzene	77	4.356	4.356	(0.898)	383137	40.0000	38.8
22 Isophorone	82	4.511	4.511	(0.930)	675266	40.0000	37.8
23 2-Nitrophenol	139	4.570	4.570	(0.943)	201103	40.0000	38.9
24 2,4-Dimethylphenol	122	4.559	4.559	(0.940)	360154	40.0000	39.0
25 bis(2-Chloroethoxy)methane	93	4.629	4.629	(0.955)	370515	40.0000	36.2
26 2,4-Dichlorophenol	162	4.731	4.731	(0.976)	299391	40.0000	40.9
27 Benzoic acid	105	4.613	4.613	(0.951)	196034	40.0000	43.0(H)
28 1,2,4-Trichlorobenzene	180	4.795	4.795	(0.989)	343972	40.0000	38.4
30 Naphthalene	128	4.864	4.864	(1.003)	1071410	40.0000	37.3(Q)
204 alpha-Terpineol	59	4.838	4.838	(0.998)	354106	40.0000	36.0
31 4-Chloroaniline	127	4.875	4.875	(1.006)	497883	40.0000	39.9
32 Hexachlorobutadiene	225	4.928	4.928	(1.017)	213305	40.0000	39.4
33 4-Chloro-3-methylphenol	107	5.185	5.185	(1.069)	325058	40.0000	41.3
34 2-Methylnaphthalene	142	5.340	5.340	(1.101)	737542	40.0000	40.0
35 1-Methylnaphthalene	142	5.415	5.415	(1.117)	695929	40.0000	38.4
36 Hexachlorocyclopentadiene	237	5.447	5.447	(0.894)	121516	40.0000	34.0
205 2,3-Dichloroaniline	161	5.538	5.538	(0.909)	394580	40.0000	37.7
37 2,4,6-Trichlorophenol	196	5.528	5.528	(0.907)	221395	40.0000	39.2
38 2,4,5-Trichlorophenol	196	5.560	5.560	(0.912)	242060	40.0000	39.8
40 2-Chloronaphthalene	162	5.699	5.699	(0.935)	703515	40.0000	38.7
42 o-Nitroaniline	65	5.752	5.752	(0.944)	223053	40.0000	39.3
41 m-Nitroaniline	138	6.041	6.041	(0.991)	160966	40.0000	42.3
43 Dimethylphthalate	163	5.859	5.859	(0.961)	814618	40.0000	38.2
44 2,6-Dinitrotoluene	165	5.913	5.913	(0.970)	185488	40.0000	38.4
50 2,4-Dinitrotoluene	165	6.196	6.196	(1.017)	240405	40.0000	39.9
45 Acenaphthylene	152	5.998	5.998	(0.984)	1075805	40.0000	39.2
47 Acenaphthene	154	6.116	6.116	(1.004)	745492	40.0000	37.3
48 2,4-Dinitrophenol	184	6.111	6.111	(1.003)	87320	40.0000	43.4
49 Dibenzofuran	168	6.228	6.228	(1.022)	958390	40.0000	39.0
51 Diethylphthalate	149	6.335	6.335	(1.039)	837585	40.0000	38.3
52 4-Nitrophenol	139	6.127	6.127	(1.005)	132630	40.0000	44.3
53 Fluorene	166	6.464	6.464	(1.061)	823971	40.0000	38.7
54 4-Chlorophenylphenylether	204	6.442	6.442	(1.057)	375195	40.0000	37.4
55 2-Methyl-4,6-dinitrophenol	198	6.480	6.480	(0.916)	168059	40.0000	49.4
56 p-Nitroaniline	138	6.464	6.464	(1.061)	165733	40.0000	46.0
133 Diphenylamine	169	6.517	6.517	(0.921)	651520	40.0000	38.3
58 1,2-Diphenylhydrazine	77	6.549	6.549	(0.926)	830471	40.0000	37.5
61 4-Bromophenylphenylether	248	6.763	6.763	(0.956)	203209	40.0000	35.3
63 Hexachlorobenzene	284	6.822	6.822	(0.964)	210975	40.0000	36.7
65 Pentachlorophenol	266	6.940	6.940	(0.981)	123194	40.0000	41.4
206 n-Octadecane	57	6.918	6.918	(0.978)	711522	40.0000	37.5
68 Phenanthrene	178	7.089	7.089	(1.002)	1235271	40.0000	38.2
69 Anthracene	178	7.121	7.121	(1.007)	1158125	40.0000	37.0
72 Di-n-butylphthalate	149	7.357	7.357	(1.040)	1393010	40.0000	37.7
76 Fluoranthene	202	7.801	7.801	(1.103)	1153017	40.0000	39.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.945	7.945	(0.906)	1182358	40.0000	34.2
85 Butylbenzylphthalate	149	8.261	8.261	(0.942)	575706	40.0000	35.6
89 Benzo(a)anthracene	228	8.758	8.758	(0.999)	969483	40.0000	36.7
92 Chrysene	228	8.790	8.790	(1.002)	905364	40.0000	36.7
93 bis(2-Ethylhexyl)phthalate	149	8.630	8.630	(0.984)	805769	40.0000	36.2
94 Di-n-octylphthalate	149	9.191	9.191	(0.892)	1164521	40.0000	34.0
95 Benzo(b)fluoranthene	252	9.812	9.812	(0.952)	771408	40.0000	39.3
96 Benzo(k)fluoranthene	252	9.844	9.844	(0.955)	696710	40.0000	35.1
97 Benzo(a)pyrene	252	10.229	10.229	(0.993)	612909	40.0000	37.7
99 Indeno(1,2,3-cd)pyrene	276	12.037	12.037	(1.168)	536048	40.0000	38.5
100 Dibenzo(a,h)anthracene	278	12.042	12.042	(1.169)	441515	40.0000	38.8
101 Benzo(ghi)perylene	276	12.572	12.572	(1.220)	429475	40.0000	38.1
126 m-Dinitrobenzene	168	5.902	5.902	(0.968)	131560	40.0000	40.3
130 2,3,4,6-Tetrachlorophenol	232	6.303	6.303	(1.034)	187121	40.0000	36.3
143 Dinoseb	211	7.025	7.025	(0.993)	177407	40.0000	40.0
173 Carbazole	167	7.202	7.202	(1.018)	890330	40.0000	42.3
184 p-Benzoquinone	54	3.468	3.468	(0.871)	40369	40.0000	25.6
192 Methoxychlor	227	8.619	8.619	(0.983)	614438	40.0000	38.3
211 p-Toluidine	106	4.260	4.260	(1.070)	265601	40.0000	30.1
210 m-Toluidine	106	4.281	4.281	(1.075)	485025	40.0000	41.2
214 1,4-Dinitrobenzene	75	5.843	5.843	(0.959)	170549	40.0000	41.3
215 2-Ethoxyethanol	59	2.340	2.340	(0.588)	240806	40.0000	41.0
216 Methylenebis(2-chloroaniline)	231	8.683	8.683	(0.990)	133781	40.0000	48.6(Q)
179 Dibenzo(a,e)pyrene	302	16.706	16.706	(1.621)	165727	40.0000	29.4
26 Phthalic anhydride	104	5.383	5.383	(1.110)	206257	40.0000	57.0
M 222 Trichlorophenols	196				463455	80.0000	79.0
M 223 Tetrachlorophenols	232				187121	40.0000	36.3
M 224 Benzo(b,k)fluoranthene	252				1468118	80.0000	74.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

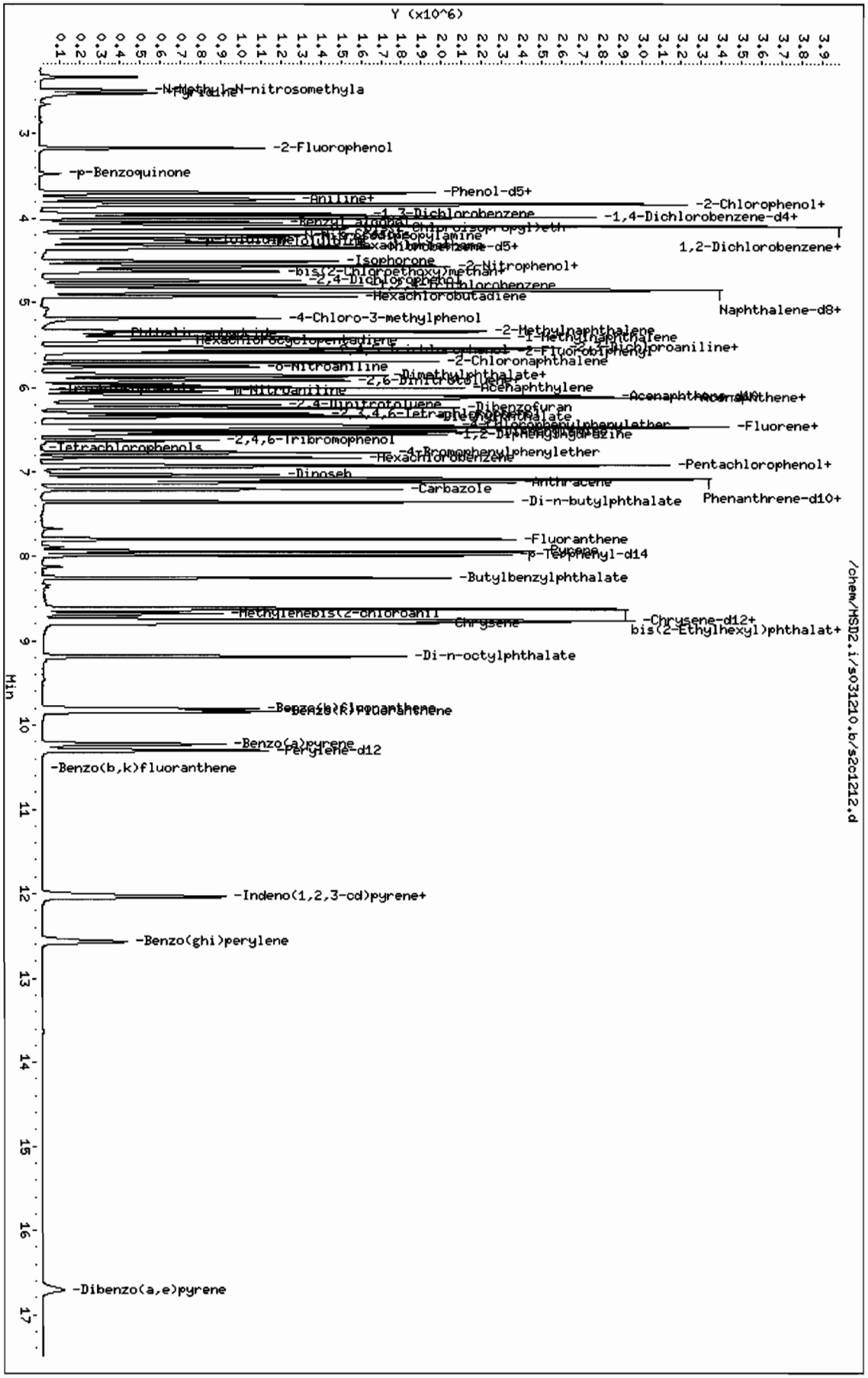
Data File: /chem/MSD2.i/s031210.b/s2c1212.d
Date : 12-MAR-2010 18:54
Client ID: MEGAICV
Sample Info: IWBN100309-09.1|40PPM|1|SVMF1|MEGAICV
Column phase: J&W DB-5MS
Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20
Page 1
Y (x10^6)
Min
/chem/MSD2.i/s031210.b/s2c1212.d
-N-Methyl-N-nitrosomethyla
-2-Fluorophenol
-p-Benzoquinone
-Phenol-d5+
-Aniline+
-2-Chlorophenol+
-1,4-Dichlorobenzene-d4+
1,2-Dichlorobenzene+
-Isophorone
-2-Nitrophenol+
-Hexachlorobutadiene
Naphthalene-d8+
-4-Chloro-3-methylphenol
-2-Methylnaphthalene
-2-Chloronaphthalene
-o-Nitroaniline
-Dimethylphthalate+
-Acenaphthylene
-Dibenzofuran
-Fluorene+
-2,4,6-Tribromophenol
-Hexachlorobenzene
-Pentachlorophenol+
-Carbazole
-Anthracene
-Di-n-butylphthalate
Phenanthrene-d10+
-Fluoranthene
-Pyrene
-Butylbenzylphthalate
-Chrysene-d12+
bis(2-Ethylhexyl)phthalat+
-Di-n-octylphthalate
-Benzo(a)pyrene
-Perylene-d12
-Benzo(b,k)fluoranthene
-Indeno(1,2,3-cd)pyrene+
-Benzo(ghi)perylene
-Dibenzo(a,e)pyrene

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 13-MAR-2010 00:00
Lab File ID: s2c1227.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 21:19
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86368	0.75564	0.75564	0.000	-12.50838	60.00000	Averaged
16 Acetophenone	1.37576	1.27079	1.27079	0.000	-7.62984	60.00000	Averaged
189 Caprolactam	0.08573	0.08566	0.08566	0.000	-0.08430	60.00000	Averaged
208 1,1'-Biphenyl	1.36982	1.31903	1.31903	0.000	-3.70836	60.00000	Averaged
207 Atrazine	0.04293	0.04369	0.04369	0.000	1.76064	60.00000	Averaged
77 Benzidine	0.33873	0.34309	0.34309	0.000	1.28761	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.26512	0.28321	0.28321	0.000	6.82159	60.00000	Averaged
102 1,4-Dioxane	0.34681	0.37068	0.37068	0.000	6.88370	60.00000	Averaged
103 Methyl methacrylate	0.20110	0.21548	0.21548	0.000	7.15166	60.00000	Averaged
104 Ethyl methacrylate	0.76185	0.80024	0.80024	0.000	5.03989	60.00000	Averaged
105 2-Picoline	1.18562	1.12632	1.12632	0.000	-5.00158	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45513	0.44655	0.44655	0.000	-1.88560	60.00000	Averaged
107 Methyl methanesulfonate	0.57842	0.59134	0.59134	0.000	2.23361	60.00000	Averaged
108 N-Nitrosodiethylamine	0.51094	0.49566	0.49566	0.000	-2.99036	60.00000	Averaged
109 Ethyl Methanesulfonate	0.63566	0.67502	0.67502	0.000	6.19142	60.00000	Averaged
110 Pentachloroethane	0.37569	0.42896	0.42896	0.000	14.17796	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.53211	0.49610	0.49610	0.000	-6.76619	60.00000	Averaged
113 N-Nitrosomorpholine	0.97127	0.96572	0.96572	0.000	-0.57150	60.00000	Averaged
114 o-Toluidine	1.89418	1.79540	1.79540	0.000	-5.21493	60.00000	Averaged
115 N-Nitrosopiperidine	0.13732	0.13231	0.13231	0.000	-3.64621	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.91646	0.89653	0.89653	0.000	-2.17525	60.00000	Averaged
118 2,6-Dichlorophenol	0.23643	0.22415	0.22415	0.000	-5.19240	60.00000	Averaged
119 Hexachloropropene	0.12163	0.15923	0.15923	0.000	30.90841	60.00000	Averaged
120 p-Phenylenediamine	0.21439	0.23161	0.23161	0.000	8.03359	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21777	0.20771	0.20771	0.000	-4.61876	60.00000	Averaged
122 Safrole	0.21234	0.21590	0.21590	0.000	1.67394	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.46025	0.44876	0.44876	0.000	-2.49607	60.00000	Averaged
124 Isosafrole	0.35814	0.40082	0.40082	0.000	11.91638	60.00000	Averaged
125 1,4-Naphthoquinone	0.33102	0.34506	0.34506	0.000	4.24213	60.00000	Averaged
127 Pentachlorobenzene	0.40528	0.38955	0.38955	0.000	-3.88134	60.00000	Averaged
128 1-Naphthylamine	0.93385	0.95763	0.95763	0.000	2.54649	60.00000	Averaged
129 2-Naphthylamine	1.00959	1.04476	1.04476	0.000	3.48365	60.00000	Averaged
131 5-Nitro-o-toluidine	0.26606	0.26753	0.26753	0.000	0.55219	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.13367	0.16141	0.16141	0.000	20.75009	60.00000	Averaged
137 Phenacetin	0.29810	0.30174	0.30174	0.000	1.22161	60.00000	Averaged
138 Diallate	0.26365	0.23898	0.23898	0.000	-9.35913	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 13-MAR-2010 00:00
Lab File ID: s2c1227.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 21:19
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.24728	0.26374	0.26374	0.000	6.65322	60.00000	Averaged
213 Trans Diallate	0.31018	0.28115	0.28115	0.000	-9.35913	60.00000	Averaged
140 4-Aminobiphenyl	0.60442	0.62924	0.62924	0.000	4.10653	60.00000	Averaged
141 Pentachloronitrobenzene	0.08460	0.08405	0.08405	0.000	-0.64552	60.00000	Averaged
142 Pronamide	0.30496	0.30856	0.30856	0.000	1.17857	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	45.34862	40.00000	0.01896	0.000	13.37156	60.00000	Linear
147 Methapyrilene	0.40497	0.44250	0.44250	0.000	9.26786	60.00000	Averaged
148 Isodrin	0.09920	0.08903	0.08903	0.000	-10.25242	60.00000	Averaged
149 Aramite	0.04916	0.04815	0.04815	0.000	-2.05353	60.00000	Averaged
150 Kepone	0.06534	0.05728	0.05728	0.000	-12.34233	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.38501	0.37365	0.37365	0.000	-2.95212	60.00000	Averaged
152 Chlorobenzilate	0.35608	0.32534	0.32534	0.000	-8.63249	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.50325	0.52227	0.52227	0.000	3.77811	60.00000	Averaged
155 2-Acetylaminofluorene	0.31776	0.33833	0.33833	0.000	6.47277	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.56755	0.51824	0.51824	0.000	-8.68907	60.00000	Averaged
158 3-Methylcholanthrene	0.40852	0.40827	0.40827	0.000	-0.06068	60.00000	Averaged

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Data file : /chem/MSD2.i/s031210.b/s2c1227.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV
Inj Date : 13-MAR-2010 00:00
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100218-08.1|40 PPM|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m
Meth Date : 15-Mar-2010 14:05 ann00964 Quant Type: ISTD
Cal Date : 12-MAR-2010 21:19 Cal File: s2c1219.d
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclpl

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.982	3.982	(1.000)	327425	40.0000	
* 29 Naphthalene-d8	136	4.843	4.843	(1.000)	1276866	40.0000	
* 46 Acenaphthene-d10	164	6.089	6.089	(1.000)	725322	40.0000	
* 67 Phenanthrene-d10	188	7.068	7.068	(1.000)	1248188	40.0000	
* 91 Chrysene-d12	240	8.758	8.758	(1.000)	903803	40.0000	
* 98 Perylene-d12	264	10.288	10.288	(1.000)	599145	40.0000	
209 Benzaldehyde	77	3.704	3.704	(0.930)	247417	40.0000	35.0
16 Acetophenone	105	4.228	4.228	(1.062)	416090	40.0000	36.9
189 Caprolactam	113	5.116	5.116	(1.056)	109373	40.0000	40.0
208 1,1'-Biphenyl	154	5.667	5.667	(0.931)	956718	40.0000	38.5
207 Atrazine	173	6.833	6.833	(0.967)	54534	40.0000	40.7
77 Benzidine	184	7.844	7.844	(0.896)	310084	40.0000	40.5
90 3,3'-Dichlorobenzidine	252	8.683	8.683	(0.991)	255965	40.0000	42.7
102 1,4-Dioxane	88	2.345	2.345	(0.589)	121371	40.0000	42.8
103 Methyl methacrylate	100	2.335	2.335	(0.586)	70554	40.0000	42.9
104 Ethyl methacrylate	69	2.693	2.693	(0.676)	262019	40.0000	42.0
105 2-Picoline	93	2.885	2.885	(0.725)	368786	40.0000	38.0
106 N-Nitrosomethylethylamine	88	2.928	2.928	(0.735)	146212	40.0000	39.2
107 Methyl methanesulfonate	80	3.078	3.078	(0.773)	193620	40.0000	40.9
108 N-Nitrosodiethylamine	102	3.313	3.313	(0.832)	162291	40.0000	38.8
109 Ethyl Methanesulfonate	79	3.468	3.468	(0.871)	221018	40.0000	42.5
110 Pentachloroethane	167	3.805	3.805	(0.956)	140451	40.0000	45.7
111 N-Nitrosopyrrolidine	100	4.217	4.217	(1.059)	162437	40.0000	37.3(Q)
113 N-Nitrosomorpholine	56	4.239	4.239	(1.064)	316200	40.0000	39.8
114 o-Toluidine	106	4.255	4.255	(1.068)	587859	40.0000	37.9
115 N-Nitrosopiperidine	114	4.458	4.458	(0.920)	168944	40.0000	38.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.699	4.699	(0.970)	1144746	40.0000	39.1
118 2,6-Dichlorophenol	162	4.886	4.886	(1.009)	286211	40.0000	37.9
119 Hexachloropropene	213	4.918	4.918	(1.015)	203309	40.0000	52.4
120 p-Phenylenediamine	108	5.121	5.121	(1.057)	295737	40.0000	43.2
121 N-Nitrosodi-n-butylamine	84	5.089	5.089	(1.051)	265219	40.0000	38.2
122 Safrole	162	5.255	5.255	(1.085)	275669	40.0000	40.7
123 1,2,4,5-Tetrachlorobenzene	216	5.458	5.458	(0.896)	325498	40.0000	39.0
124 Isosafrole	162	5.624	5.624	(0.924)	290720	40.0000	44.8
125 1,4-Naphthoquinone	158	5.811	5.811	(0.954)	250282	40.0000	41.7
127 Pentachlorobenzene	250	6.202	6.202	(1.018)	282550	40.0000	38.4
128 1-Naphthylamine	143	6.277	6.277	(1.031)	694587	40.0000	41.0
129 2-Naphthylamine	143	6.330	6.330	(1.040)	757785	40.0000	41.4
131 5-Nitro-o-toluidine	152	6.453	6.453	(1.060)	194043	40.0000	40.2
136 1,3,5-Trinitrobenzene	75	6.667	6.667	(0.943)	201473	40.0000	48.3
137 Phenacetin	108	6.699	6.699	(0.948)	376632	40.0000	40.5(Q)
138 Diallate	86	6.688	6.688	(0.946)	298288	40.0000	36.2
212 Cis Diallate	86	6.747	6.747	(0.955)	49379	6.00000	6.4
213 Trans Diallate	86	6.688	6.688	(0.946)	298288	34.0000	30.8
140 4-Aminobiphenyl	169	6.929	6.929	(0.980)	785409	40.0000	41.6
141 Pentachloronitrobenzene	237	6.945	6.945	(0.983)	104915	40.0000	39.7
142 Pronamide	173	6.934	6.934	(0.981)	385139	40.0000	40.5
146 4-Nitroquinoline-1-oxide	101	7.533	7.533	(1.066)	23665	40.0000	45.3
147 Methapyrilene	58	7.544	7.544	(1.067)	552326	40.0000	43.7
148 Isodrin	193	7.710	7.710	(1.091)	111124	40.0000	35.9
149 Aramite	185	7.935	7.935	(1.123)	60098	40.0000	39.2
150 Kepone	272	8.373	8.373	(1.185)	71493	40.0000	35.1
151 p-(Dimethylamino)azobenzene	120	8.063	8.063	(0.921)	337704	40.0000	38.8
152 Chlorobenzilate	251	8.074	8.074	(0.922)	294042	40.0000	36.5
153 3,3'-Dimethylbenzidine	212	8.277	8.277	(0.945)	472026	40.0000	41.5
155 2-Acetylaminofluorene	181	8.464	8.464	(0.966)	305783	40.0000	42.6
157 7,12Dimethylbenz(a)anthracene	256	9.764	9.764	(0.949)	310498	40.0000	36.5
158 3-Methylcholanthrene	268	10.668	10.668	(1.037)	244613	40.0000	40.0(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s031210.b/s2c1227.d
Date : 13-MAR-2010 00:00
Client ID: APICV
Sample Info: IWBN100218-08,1|40 PPM|1|SVMF11|APICV
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

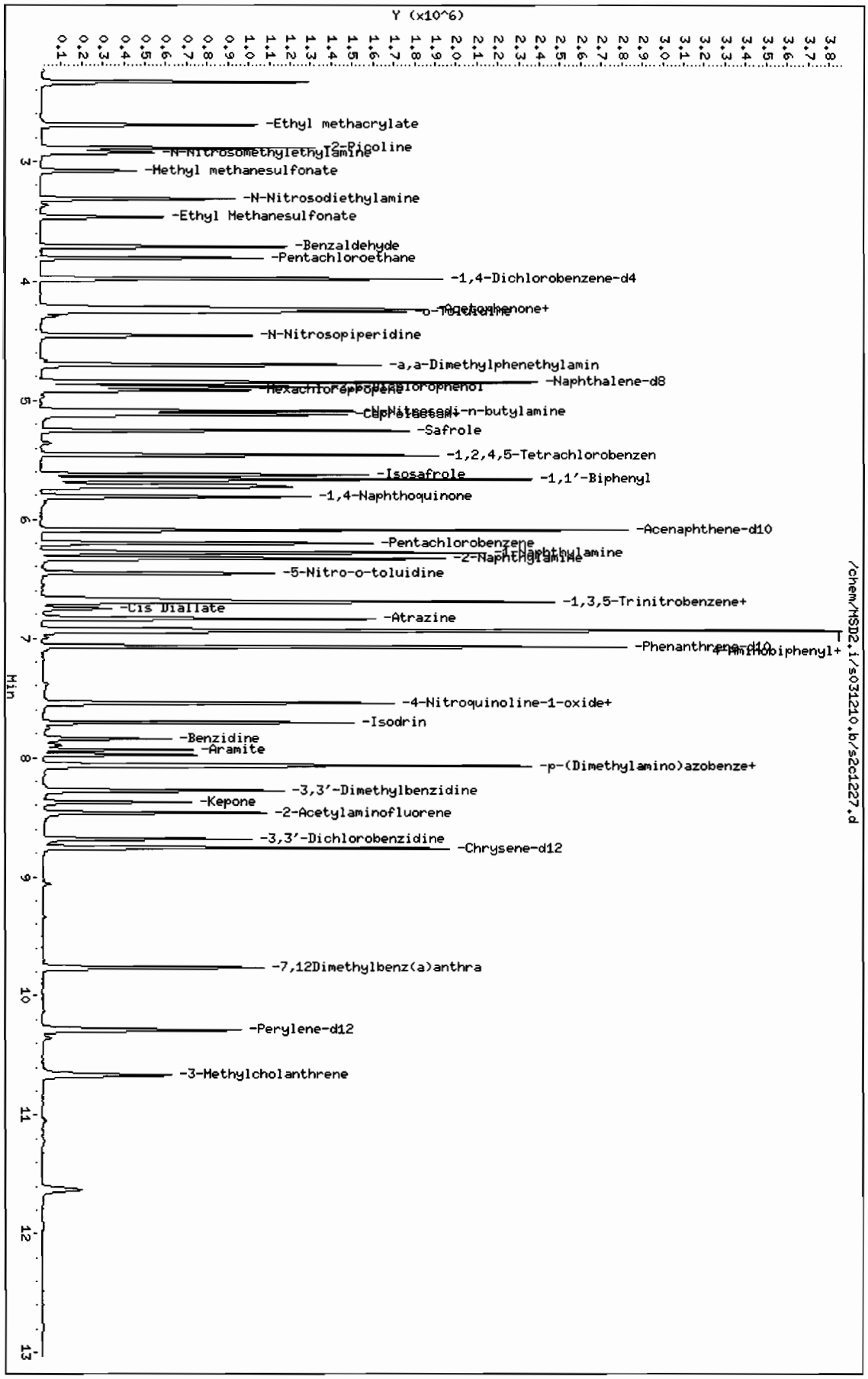

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-MAR-2010 15:25
Lab File ID: s2c2602.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	0.95245	0.84952	0.84952	0.000	-10.80672	60.00000	Averaged
$ 5 Phenol-d5	1.17285	1.08428	1.08428	0.000	-7.55170	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28950	0.29672	0.29672	0.000	2.49196	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.10050	1.05389	1.05389	0.000	-4.23522	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11831	0.11272	0.11272	0.000	-4.72328	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.72951	0.66032	0.66032	0.000	-9.48427	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.54740	0.51431	0.51431	0.000	-6.04438	60.00000	Averaged
2 Pyridine	0.77821	0.70775	0.70775	0.000	-9.05518	60.00000	Averaged
4 Aniline	0.57419	0.58211	0.58211	0.000	1.37825	60.00000	Averaged
6 Phenol	1.20923	1.05758	1.05758	0.001	-12.54122	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.03880	1.07689	1.07689	0.000	3.66701	60.00000	Averaged
8 2-Chlorophenol	1.07545	1.00261	1.00261	0.000	-6.77315	60.00000	Averaged
203 n-Decane	1.83655	2.33238	2.33238	0.000	26.99819	60.00000	Averaged
9 1,3-Dichlorobenzene	1.27994	1.27457	1.27457	0.000	-0.41938	60.00000	Averaged
11 1,4-Dichlorobenzene	1.35709	1.37861	1.37861	0.001	1.58564	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.25272	1.25785	1.25785	0.000	0.40970	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.53958	3.15355	3.15355	0.000	24.17613	60.00000	Averaged
12 Benzyl alcohol	0.56959	0.28350	0.28350	0.000	-50.22720	60.00000	Averaged
15 o-Cresol	0.85386	0.78314	0.78314	0.000	-8.28244	60.00000	Averaged
18 m,p-Cresols	1.01734	0.91492	0.91492	0.000	-10.06716	60.00000	Averaged
17 N-Nitrosodipropylamine	0.75875	0.77340	0.77340	0.050	1.93055	60.00000	Averaged spcc
19 Hexachloroethane	0.53630	0.58524	0.58524	0.000	9.12475	60.00000	Averaged
21 Nitrobenzene	0.27250	0.27942	0.27942	0.000	2.53840	60.00000	Averaged
22 Isophorone	0.49283	0.49816	0.49816	0.000	1.08185	60.00000	Averaged
23 2-Nitrophenol	0.14268	0.12233	0.12233	0.001	-14.26424	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.25525	0.17231	0.17231	0.000	-32.49390	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.28272	0.26585	0.26585	0.000	-5.96907	60.00000	Averaged
26 2,4-Dichlorophenol	0.20229	0.18460	0.18460	0.001	-8.74083	20.00000	Averaged ccc
27 Benzoic acid	0.12590	0.11622	0.11622	0.000	-7.68513	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24729	0.24808	0.24808	0.000	0.32111	60.00000	Averaged
30 Naphthalene	0.79318	0.74995	0.74995	0.000	-5.44972	60.00000	Averaged
204 alpha-Terpineol	0.27145	0.30185	0.30185	0.000	11.19925	60.00000	Averaged
31 4-Chloroaniline	0.34451	0.30723	0.30723	0.000	-10.82115	60.00000	Averaged
32 Hexachlorobutadiene	0.14968	0.16557	0.16557	0.001	10.61384	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21753	0.20717	0.20717	0.001	-4.76276	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.50978	0.49774	0.49774	0.000	-2.36278	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-MAR-2010 15:25
Lab File ID: s2c2602.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.50131	0.50289	0.50289	0.000	0.31570	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.19037	0.16309	0.16309	0.050	-14.32971	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.55748	0.52537	0.52537	0.000	-5.75916	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.30076	0.26359	0.26359	0.001	-12.35965	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.32450	0.28177	0.28177	0.000	-13.16692	60.00000	Averaged
40 2-Chloronaphthalene	0.96947	0.91506	0.91506	0.000	-5.61251	60.00000	Averaged
42 o-Nitroaniline	0.30226	0.29730	0.29730	0.000	-1.64178	60.00000	Averaged
41 m-Nitroaniline	27.91412	40.00000	0.13510	0.000	-30.21471	60.00000	Linear
43 Dimethylphthalate	1.13752	1.14724	1.14724	0.000	0.85501	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25727	0.24980	0.24980	0.000	-2.90390	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32134	0.31078	0.31078	0.000	-3.28817	60.00000	Averaged
45 Acenaphthylene	1.46137	1.39595	1.39595	0.000	-4.47650	60.00000	Averaged
47 Acenaphthene	1.06534	1.07340	1.07340	0.001	0.75634	20.00000	Averaged ccc
48 2,4-Dinitrophenol	42.41691	40.00000	0.11287	0.050	6.04226	60.00000	Linear spcc
49 Dibenzofuran	1.30868	1.25298	1.25298	0.000	-4.25650	60.00000	Averaged
51 Diethylphthalate	1.16673	1.24765	1.24765	0.000	6.93551	60.00000	Averaged
52 4-Nitrophenol	0.15969	0.12437	0.12437	0.050	-22.11706	60.00000	Averaged spcc
53 Fluorene	1.13544	1.14385	1.14385	0.000	0.74043	60.00000	Averaged
54 4-Chlorophenylphenylether	0.53496	0.52189	0.52189	0.000	-2.44331	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	38.13931	40.00000	0.09393	0.000	-4.65173	60.00000	Linear
56 p-Nitroaniline	27.89801	40.00000	0.12067	0.000	-30.25498	60.00000	Linear
133 Diphenylamine	0.52058	0.46026	0.46026	0.001	-11.58680	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.67800	0.63314	0.63314	0.000	-6.61712	60.00000	Averaged
61 4-Bromophenylphenylether	0.17599	0.16998	0.16998	0.000	-3.41758	60.00000	Averaged
63 Hexachlorobenzene	0.17573	0.17982	0.17982	0.000	2.32611	60.00000	Averaged
65 Pentachlorophenol	0.09101	0.07956	0.07956	0.001	-12.58297	20.00000	Averaged ccc
206 n-Octadecane	0.58034	0.63764	0.63764	0.000	9.87408	60.00000	Averaged
68 Phenanthrene	0.98866	1.00053	1.00053	0.000	1.20041	60.00000	Averaged
69 Anthracene	0.95642	0.92635	0.92635	0.000	-3.14379	60.00000	Averaged
72 Di-n-butylphthalate	1.13150	1.23666	1.23666	0.000	9.29374	60.00000	Averaged
76 Fluoranthene	0.89301	0.97516	0.97516	0.001	9.19937	20.00000	Averaged ccc
79 Pyrene	1.30387	1.18791	1.18791	0.000	-8.89359	60.00000	Averaged
85 Butylbenzylphthalate	0.61006	0.60541	0.60541	0.000	-0.76218	60.00000	Averaged
89 Benzo(a)anthracene	0.99826	0.97209	0.97209	0.000	-2.62083	60.00000	Averaged
92 Chrysene	0.93128	0.88559	0.88559	0.000	-4.90619	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.84005	0.81972	0.81972	0.000	-2.42018	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-MAR-2010 15:25
Lab File ID: s2c2602.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.90697	1.94128	1.94128	0.001	1.79884	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	1.09105	1.19664	1.19664	0.000	9.67851	60.00000	Averaged	
96 Benzo(k)fluoranthene	1.10378	1.09567	1.09567	0.000	-0.73544	60.00000	Averaged	
97 Benzo(a)pyrene	0.90429	0.92966	0.92966	0.001	2.80475	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	0.77408	0.81172	0.81172	0.000	4.86204	60.00000	Averaged	
100 Dibenzo(a,h)anthracene	0.63240	0.66504	0.66504	0.000	5.16073	60.00000	Averaged	
101 Benzo(ghi)perylene	0.62698	0.64149	0.64149	0.000	2.31335	60.00000	Averaged	
126 m-Dinitrobenzene	0.17415	0.15567	0.15567	0.000	-10.61312	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.27504	0.26617	0.26617	0.000	-3.22744	60.00000	Averaged	
143 Dinoseb	39.69399	40.00000	0.13422	0.000	-0.76503	60.00000	Linear	
173 Carbazole	20.90772	40.00000	0.28714	0.000	-47.73071	60.00000	Linear	
184 p-Benzoquinone	34.30498	40.00000	0.17736	0.000	-14.23755	60.00000	Linear	
192 Methoxychlor	0.60564	0.61717	0.61717	0.000	1.90282	60.00000	Averaged	
211 p-Toluidine	1.06068	0.86766	0.86766	0.000	-18.19850	60.00000	Averaged	
210 m-Toluidine	1.41165	1.36151	1.36151	0.000	-3.55164	60.00000	Averaged	
214 1,4-Dinitrobenzene	0.22002	0.23185	0.23185	0.000	5.37315	60.00000	Averaged	
215 2-Ethoxyethanol	0.70592	0.55001	0.55001	0.000	-22.08626	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	36.16631	40.00000	0.09011	0.000	-9.58422	60.00000	Linear	
179 Dibenzo(a,e)pyrene	0.31408	0.30121	0.30121	0.000	-4.09508	60.00000	Averaged	
26 Phthalic anhydride	39.20317	40.00000	0.09379	0.000	-1.99207	60.00000	Linear	
M 222 Trichlorophenols	0.31263	0.27268	0.27268	0.000	-12.77861	60.00000	Averaged	
M 223 Tetrachlorophenols	0.27504	0.26617	0.26617	0.000	-3.22744	60.00000	Averaged	
M 224 Benzo(b,k)fluoranthene	1.09742	1.14615	1.14615	0.000	4.44131	60.00000	Averaged	

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Data file : /chem/MSD2.i/s032610.b/s2c2602.d
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGACVS
Inj Date : 26-MAR-2010 15:25
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100309-09.1|40PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 27-Mar-2010 21:53 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	158646	40.0000	
* 29 Naphthalene-d8	136	4.672	4.672	(1.000)	744655	40.0000	
* 46 Acenaphthene-d10	164	5.918	5.918	(1.000)	397163	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	686062	40.0000	
* 91 Chrysene-d12	240	8.555	8.555	(1.000)	608658	40.0000	
* 98 Perylene-d12	264	9.962	9.962	(1.000)	380590	40.0000	
$ 3 2-Fluorophenol	112	3.003	3.003	(0.788)	134773	40.0000	35.7
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	172017	40.0000	37.0
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.892)	220952	40.0000	41.0
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.914)	418568	40.0000	38.3
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.090)	44769	40.0000	38.1
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.914)	401909	40.0000	36.2
1 N-Methyl-N-nitrosomethylamine	74	2.319	2.319	(0.608)	81594	40.0000	37.6
2 Pyridine	79	2.345	2.345	(0.615)	112281	40.0000	36.4
4 Aniline	66	3.597	3.597	(0.944)	92349	40.0000	40.6
6 Phenol	94	3.538	3.538	(0.928)	167781	40.0000	35.0
7 bis(2-Chloroethyl) ether	63	3.613	3.613	(0.948)	170844	40.0000	41.5
8 2-Chlorophenol	128	3.677	3.677	(0.965)	159060	40.0000	37.3
203 n-Decane	43	3.661	3.661	(0.961)	370023	40.0000	50.8
9 1,3-Dichlorobenzene	146	3.773	3.773	(0.990)	202206	40.0000	39.8
11 1,4-Dichlorobenzene	146	3.822	3.822	(1.003)	218711	40.0000	40.6
13 1,2-Dichlorobenzene	146	3.923	3.923	(1.029)	199553	40.0000	40.2
14 bis(2-Chloroisopropyl)ether	45	3.955	3.955	(1.038)	500298	40.0000	49.7
12 Benzyl alcohol	108	3.880	3.880	(1.018)	44976	40.0000	19.9
15 o-Cresol	107	3.929	3.929	(1.031)	124242	40.0000	36.7
18 m,p-Cresols	107	4.030	4.030	(1.058)	145149	40.0000	36.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.046	4.046	(1.062)	122697	40.0000	40.8
19 Hexachloroethane	117	4.148	4.148	(1.088)	92846	40.0000	43.6
21 Nitrobenzene	77	4.185	4.185	(0.896)	208068	40.0000	41.0
22 Isophorone	82	4.335	4.335	(0.928)	370957	40.0000	40.4
23 2-Nitrophenol	139	4.394	4.394	(0.940)	91090	40.0000	34.3
24 2,4-Dimethylphenol	122	4.394	4.394	(0.940)	128311	40.0000	27.0
25 bis(2-Chloroethoxy)methane	93	4.458	4.458	(0.954)	197964	40.0000	37.6
26 2,4-Dichlorophenol	162	4.560	4.560	(0.976)	137467	40.0000	36.5
27 Benzoic acid	105	4.447	4.447	(0.952)	86547	40.0000	36.9
28 1,2,4-Trichlorobenzene	180	4.624	4.624	(0.990)	184735	40.0000	40.1
30 Naphthalene	128	4.688	4.688	(1.003)	558455	40.0000	37.8
204 alpha-Terpineol	59	4.667	4.667	(0.999)	224777	40.0000	44.5
31 4-Chloroaniline	127	4.704	4.704	(1.007)	228779	40.0000	35.7
32 Hexachlorobutadiene	225	4.752	4.752	(1.017)	123290	40.0000	44.2
33 4-Chloro-3-methylphenol	107	5.020	5.020	(1.074)	154269	40.0000	38.1
34 2-Methylnaphthalene	142	5.164	5.164	(1.105)	370643	40.0000	39.0
35 1-Methylnaphthalene	142	5.239	5.239	(1.121)	374483	40.0000	40.1
36 Hexachlorocyclopentadiene	237	5.266	5.266	(0.890)	64772	40.0000	34.3
205 2,3-Dichloroaniline	161	5.362	5.362	(0.906)	208658	40.0000	37.7
37 2,4,6-Trichlorophenol	196	5.357	5.357	(0.905)	104687	40.0000	35.0
38 2,4,5-Trichlorophenol	196	5.383	5.383	(0.910)	111910	40.0000	34.7
40 2-Chloronaphthalene	162	5.517	5.517	(0.932)	363426	40.0000	37.8
42 o-Nitroaniline	65	5.576	5.576	(0.942)	118076	40.0000	39.3
41 m-Nitroaniline	138	5.870	5.870	(0.992)	53655	40.0000	27.9
43 Dimethylphthalate	163	5.688	5.688	(0.961)	455642	40.0000	40.3
44 2,6-Dinitrotoluene	165	5.742	5.742	(0.970)	99212	40.0000	38.8
50 2,4-Dinitrotoluene	165	6.025	6.025	(1.018)	123429	40.0000	38.7
45 Acenaphthylene	152	5.817	5.817	(0.983)	554421	40.0000	38.2
47 Acenaphthene	154	5.940	5.940	(1.004)	426313	40.0000	40.3
48 2,4-Dinitrophenol	184	5.940	5.940	(1.004)	44828	40.0000	42.4
49 Dibenzofuran	168	6.057	6.057	(1.023)	497637	40.0000	38.3
51 Diethylphthalate	149	6.170	6.170	(1.042)	495521	40.0000	42.8
52 4-Nitrophenol	139	5.966	5.966	(1.008)	49397	40.0000	31.2
53 Fluorene	166	6.293	6.293	(1.063)	454295	40.0000	40.3
54 4-Chlorophenylphenylether	204	6.271	6.271	(1.060)	207274	40.0000	39.0
55 2-Methyl-4,6-dinitrophenol	198	6.309	6.309	(0.913)	64444	40.0000	38.1
56 p-Nitroaniline	138	6.293	6.293	(1.063)	47927	40.0000	27.9
133 Diphenylamine	169	6.351	6.351	(0.919)	315768	40.0000	35.4
58 1,2-Diphenylhydrazine	77	6.378	6.378	(0.923)	434370	40.0000	37.4
61 4-Bromophenylphenylether	248	6.597	6.597	(0.955)	116616	40.0000	38.6
63 Hexachlorobenzene	284	6.656	6.656	(0.964)	123369	40.0000	40.9
65 Pentachlorophenol	266	6.774	6.774	(0.981)	54580	40.0000	35.0
206 n-Octadecane	57	6.763	6.763	(0.979)	437460	40.0000	43.9
68 Phenanthrene	178	6.924	6.924	(1.002)	686423	40.0000	40.5
69 Anthracene	178	6.956	6.956	(1.007)	635533	40.0000	38.7
72 Di-n-butylphthalate	149	7.197	7.197	(1.042)	848427	40.0000	43.7
76 Fluoranthene	202	7.635	7.635	(1.105)	669019	40.0000	43.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.774	7.774	(0.909)	723032	40.0000	36.4
85 Butylbenzylphthalate	149	8.084	8.084	(0.945)	368489	40.0000	39.7
89 Benzo(a)anthracene	228	8.544	8.544	(0.999)	591672	40.0000	39.0
92 Chrysene	228	8.576	8.576	(1.002)	539024	40.0000	38.0
93 bis(2-Ethylhexyl)phthalate	149	8.437	8.437	(0.986)	498927	40.0000	39.0
94 Di-n-octylphthalate	149	8.951	8.951	(0.899)	738831	40.0000	40.7
95 Benzo(b)fluoranthene	252	9.512	9.512	(0.955)	455430	40.0000	43.9
96 Benzo(k)fluoranthene	252	9.539	9.539	(0.958)	417000	40.0000	39.7
97 Benzo(a)pyrene	252	9.892	9.892	(0.993)	353818	40.0000	41.1
99 Indeno(1,2,3-cd)pyrene	276	11.534	11.534	(1.158)	308931	40.0000	41.9
100 Dibenzo(a,h)anthracene	278	11.540	11.540	(1.158)	253106	40.0000	42.1
101 Benzo(ghi)perylene	276	12.021	12.021	(1.207)	244144	40.0000	40.9
126 m-Dinitrobenzene	168	5.726	5.726	(0.967)	61825	40.0000	35.8
130 2,3,4,6-Tetrachlorophenol	232	6.132	6.132	(1.036)	105711	40.0000	38.7
143 Dinoseb	211	6.865	6.865	(0.994)	92086	40.0000	39.7
173 Carbazole	167	7.041	7.041	(1.019)	196996	40.0000	20.9
184 p-Benzoquinone	54	3.303	3.303	(0.867)	28137	40.0000	34.3
192 Methoxychlor	227	8.421	8.421	(0.984)	375643	40.0000	40.8
211 p-Toluidine	106	4.089	4.089	(1.073)	137650	40.0000	32.7
210 m-Toluidine	106	4.110	4.110	(1.079)	215998	40.0000	38.6
214 1,4-Dinitrobenzene	75	5.667	5.667	(0.958)	92081	40.0000	42.1
215 2-Ethoxyethanol	59	2.158	2.158	(0.566)	87257	40.0000	31.2
216 Methylenebis(2-chloroaniline)	231	8.480	8.480	(0.991)	54849	40.0000	36.2
179 Dibenzo(a,e)pyrene	302	15.770	15.770	(1.583)	114639	40.0000	38.4
26 Phthalic anhydride	104	5.207	5.207	(1.114)	69844	40.0000	39.2
M 222 Trichlorophenols	196				216597	80.0000	69.8
M 223 Tetrachlorophenols	232				105711	40.0000	38.7
M 224 Benzo(b,k)fluoranthene	252				872430	80.0000	83.6

Data File: /chem/MSD2.i/s032610.b/s2o2602.d
Date : 26-MAR-2010 15:25
Client ID: MEGACVS
Sample Info: IWBN100309-09,1|40PPM|1|SVMF1|MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

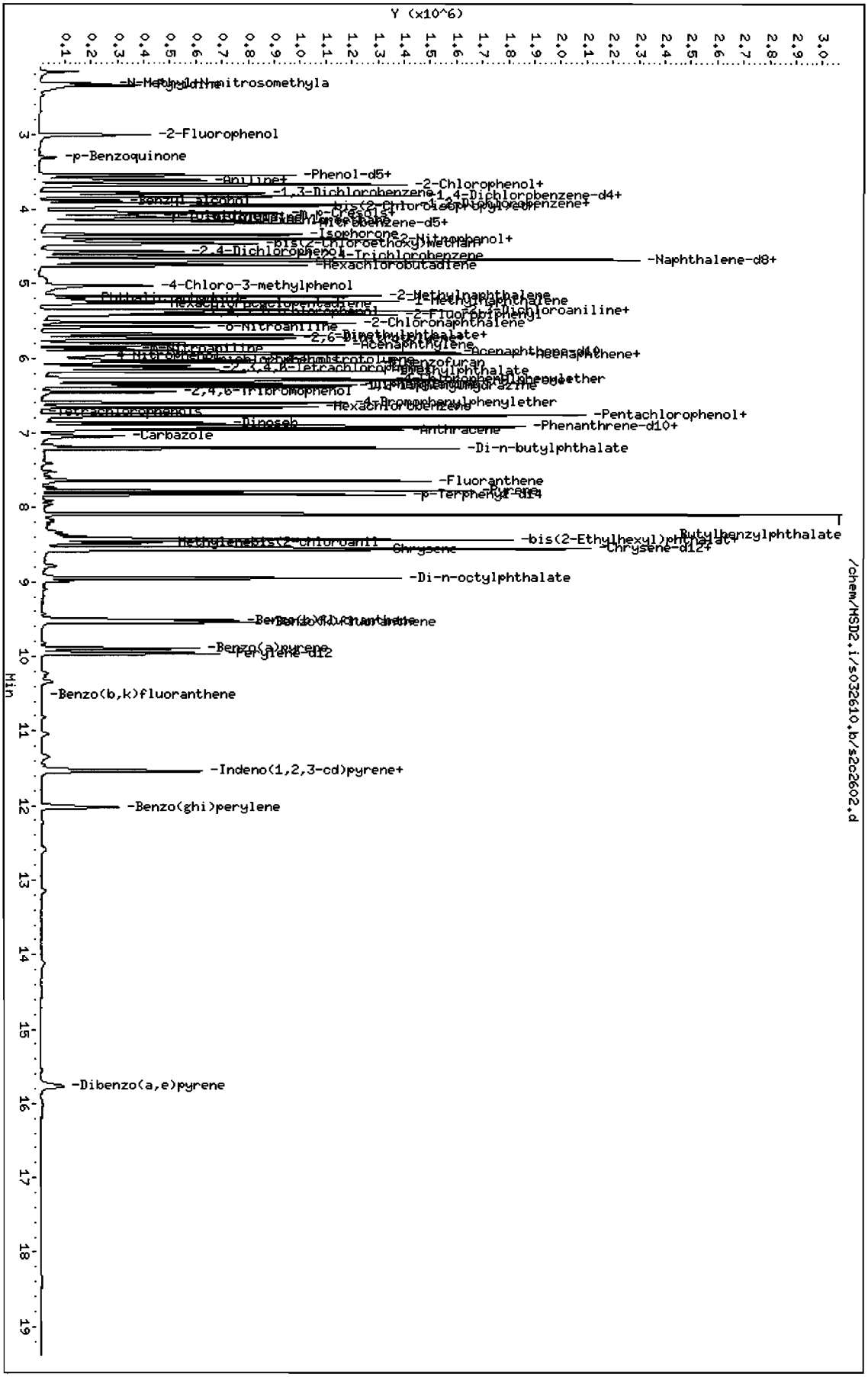

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-MAR-2010 16:34
Lab File ID: s2c2605.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86368	0.81614	0.81614	0.000	-5.50454	60.00000	Averaged
16 Acetophenone	1.37576	1.39463	1.39463	0.000	1.37145	60.00000	Averaged
189 Caprolactam	0.08573	0.07926	0.07926	0.000	-7.54673	60.00000	Averaged
208 1,1'-Biphenyl	1.36982	1.24082	1.24082	0.000	-9.41777	60.00000	Averaged
207 Atrazine	0.04293	0.04070	0.04070	0.000	-5.20042	60.00000	Averaged
77 Benzidine	0.33873	0.15976	0.15976	0.000	-52.83396	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.26512	0.26252	0.26252	0.000	-0.98085	60.00000	Averaged
102 1,4-Dioxane	0.34681	0.26478	0.26478	0.000	-23.65264	60.00000	Averaged
103 Methyl methacrylate	0.20110	0.15368	0.15368	0.000	-23.57876	60.00000	Averaged
104 Ethyl methacrylate	0.76185	0.61445	0.61445	0.000	-19.34673	60.00000	Averaged
105 2-Picoline	1.18562	0.96844	0.96844	0.000	-18.31807	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45513	0.38562	0.38562	0.000	-15.27205	60.00000	Averaged
107 Methyl methanesulfonate	0.57842	0.57101	0.57101	0.000	-1.28221	60.00000	Averaged
108 N-Nitrosodiethylamine	0.51094	0.47555	0.47555	0.000	-6.92658	60.00000	Averaged
109 Ethyl Methanesulfonate	0.63566	0.58560	0.58560	0.000	-7.87612	60.00000	Averaged
110 Pentachloroethane	0.37569	0.36414	0.36414	0.000	-3.07397	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.53211	0.49645	0.49645	0.000	-6.70041	60.00000	Averaged
113 N-Nitrosomorpholine	0.97127	1.16376	1.16376	0.000	19.81823	60.00000	Averaged
114 o-Toluidine	1.89418	1.80202	1.80202	0.000	-4.86538	60.00000	Averaged
115 N-Nitrosopiperidine	0.13732	0.12093	0.12093	0.000	-11.93267	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.91646	0.93864	0.93864	0.000	2.41938	60.00000	Averaged
118 2,6-Dichlorophenol	0.23643	0.21746	0.21746	0.000	-8.02446	60.00000	Averaged
119 Hexachloropropene	0.12163	0.13266	0.13266	0.000	9.07094	60.00000	Averaged
120 p-Phenylenediamine	0.21439	0.18197	0.18197	0.000	-15.12054	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21777	0.20311	0.20311	0.000	-6.73091	60.00000	Averaged
122 Safrole	0.21234	0.20391	0.20391	0.000	-3.97130	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.46025	0.42650	0.42650	0.000	-7.33424	60.00000	Averaged
124 Isosafrole	0.35814	0.30007	0.30007	0.000	-16.21275	60.00000	Averaged
125 1,4-Naphthoquinone	0.33102	0.28003	0.28003	0.000	-15.40405	60.00000	Averaged
127 Pentachlorobenzene	0.40528	0.39612	0.39612	0.000	-2.26147	60.00000	Averaged
128 1-Naphthylamine	0.93385	0.83975	0.83975	0.000	-10.07595	60.00000	Averaged
129 2-Naphthylamine	1.00959	0.83732	0.83732	0.000	-17.06281	60.00000	Averaged
131 5-Nitro-o-toluidine	0.26606	0.22952	0.22952	0.000	-13.73210	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.13367	0.16157	0.16157	0.000	20.86978	60.00000	Averaged
137 Phenacetin	0.29810	0.27909	0.27909	0.000	-6.37834	60.00000	Averaged
138 Diallate	0.26365	0.23159	0.23159	0.000	-12.15938	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-MAR-2010 16:34
Lab File ID: s2c2605.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.24728	0.19881	0.19881	0.000	-19.60261	60.00000	Averaged
213 Trans Diallate	0.31018	0.27246	0.27246	0.000	-12.15938	60.00000	Averaged
140 4-Aminobiphenyl	0.60442	0.50091	0.50091	0.000	-17.12453	60.00000	Averaged
141 Pentachloronitrobenzene	0.08460	0.10249	0.10249	0.000	21.14627	60.00000	Averaged
142 Pronamide	0.30496	0.35150	0.35150	0.000	15.26076	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	30.28667	40.00000	0.01191	0.000	-24.28331	60.00000	Linear
147 Methapyrilene	0.40497	0.37524	0.37524	0.000	-7.34237	60.00000	Averaged
148 Isodrin	0.09920	0.10321	0.10321	0.000	4.04865	60.00000	Averaged
149 Aramite	0.04916	0.04809	0.04809	0.000	-2.16305	60.00000	Averaged
150 Kepone	0.06534	0.06391	0.06391	0.000	-2.18656	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.38501	0.33876	0.33876	0.000	-12.01296	60.00000	Averaged
152 Chlorobenzilate	0.35608	0.33623	0.33623	0.000	-5.57274	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.50325	0.38113	0.38113	0.000	-24.26658	60.00000	Averaged
155 2-Acetylaminofluorene	0.31776	0.34795	0.34795	0.000	9.49941	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.56755	0.54684	0.54684	0.000	-3.64944	60.00000	Averaged
158 3-Methylcholanthrene	0.40852	0.39297	0.39297	0.000	-3.80636	60.00000	Averaged

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2605.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APCVS
Inj Date : 26-MAR-2010 16:34
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100218-08.1|40 PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 26-Mar-2010 17:05 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	205189	40.0000	
* 29 Naphthalene-d8	136	4.672	4.672	(1.000)	856171	40.0000	
* 46 Acenaphthene-d10	164	5.918	5.918	(1.000)	554090	40.0000	
* 67 Phenanthrene-d10	188	6.913	6.913	(1.000)	990324	40.0000	
* 91 Chrysene-d12	240	8.555	8.555	(1.000)	790141	40.0000	
* 98 Perylene-d12	264	9.962	9.962	(1.000)	502641	40.0000	
209 Benzaldehyde	77	3.538	3.538	(0.928)	167462	40.0000	37.8
16 Acetophenone	105	4.062	4.062	(1.066)	286163	40.0000	40.5
189 Caprolactam	113	4.955	4.955	(1.061)	67860	40.0000	37.0
208 1,1'-Biphenyl	154	5.490	5.490	(0.928)	687524	40.0000	36.2
207 Atrazine	173	6.683	6.683	(0.967)	40308	40.0000	37.9
77 Benzidine	184	7.689	7.689	(0.899)	126236	40.0000	18.9
90 3,3'-Dichlorobenzidine	252	8.491	8.491	(0.992)	207430	40.0000	39.6
102 1,4-Dioxane	88	2.163	2.163	(0.568)	54330	40.0000	30.5
103 Methyl methacrylate	100	2.158	2.158	(0.566)	31534	40.0000	30.6
104 Ethyl methacrylate	69	2.527	2.527	(0.663)	126079	40.0000	32.3
105 2-Picoline	93	2.720	2.720	(0.714)	198713	40.0000	32.7
106 N-Nitrosomethylethylamine	88	2.763	2.763	(0.725)	79126	40.0000	33.9
107 Methyl methanesulfonate	80	2.918	2.918	(0.766)	117164	40.0000	39.5
108 N-Nitrosodiethylamine	102	3.148	3.148	(0.826)	97577	40.0000	37.2
109 Ethyl Methanesulfonate	79	3.308	3.308	(0.868)	120158	40.0000	36.8
110 Pentachloroethane	167	3.634	3.634	(0.954)	74718	40.0000	38.8
111 N-Nitrosopyrrolidine	100	4.057	4.057	(1.065)	101867	40.0000	37.3(Q)
113 N-Nitrosomorpholine	56	4.073	4.073	(1.069)	238790	40.0000	47.9
114 o-Toluidine	106	4.089	4.089	(1.073)	369755	40.0000	38.0
115 N-Nitrosopiperidine	114	4.287	4.287	(0.918)	103539	40.0000	35.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.528	4.528	(0.969)	803633	40.0000	41.0
118 2,6-Dichlorophenol	162	4.715	4.715	(1.009)	186179	40.0000	36.8
119 Hexachloropropene	213	4.742	4.742	(1.015)	113583	40.0000	43.6
120 p-Phenylenediamine	108	4.955	4.955	(1.061)	155799	40.0000	34.0
121 N-Nitrosodi-n-butylamine	84	4.918	4.918	(1.053)	173898	40.0000	37.3
122 Safrole	162	5.084	5.084	(1.088)	174580	40.0000	38.4
123 1,2,4,5-Tetrachlorobenzene	216	5.287	5.287	(0.893)	236317	40.0000	37.1
124 Isosafrole	162	5.453	5.453	(0.921)	166268	40.0000	33.5
125 1,4-Naphthoquinone	158	5.640	5.640	(0.953)	155162	40.0000	33.8
127 Pentachlorobenzene	250	6.031	6.031	(1.019)	219484	40.0000	39.1
128 1-Naphthylamine	143	6.111	6.111	(1.033)	465298	40.0000	36.0
129 2-Naphthylamine	143	6.164	6.164	(1.042)	463952	40.0000	33.2
131 5-Nitro-o-toluidine	152	6.287	6.287	(1.062)	127176	40.0000	34.5
136 1,3,5-Trinitrobenzene	75	6.517	6.517	(0.943)	160009	40.0000	48.3
137 Phenacetin	108	6.544	6.544	(0.947)	276387	40.0000	37.4(Q)
138 Diallate	86	6.528	6.528	(0.944)	229353	40.0000	35.1
212 Cis Diallate	86	6.587	6.587	(0.953)	29533	6.00000	4.8
213 Trans Diallate	86	6.528	6.528	(0.944)	229353	34.0000	29.9
140 4-Aminobiphenyl	169	6.774	6.774	(0.980)	496068	40.0000	33.2
141 Pentachloronitrobenzene	237	6.785	6.785	(0.981)	101498	40.0000	48.4
142 Pronamide	173	6.785	6.785	(0.981)	348103	40.0000	46.1
146 4-Nitroquinoline-1-oxide	101	7.378	7.378	(1.067)	11794	40.0000	30.3
147 Methapyrilene	58	7.394	7.394	(1.070)	371605	40.0000	37.1
148 Isodrin	193	7.550	7.550	(1.092)	102216	40.0000	41.6
149 Aramite	185	7.785	7.785	(1.126)	47629	40.0000	39.1
150 Kepone	272	8.191	8.191	(1.185)	63295	40.0000	39.1
151 p-(Dimethylamino)azobenzene	120	7.903	7.903	(0.924)	267670	40.0000	35.2
152 Chlorobenzilate	251	7.919	7.919	(0.926)	265672	40.0000	37.8
153 3,3'-Dimethylbenzidine	212	8.111	8.111	(0.948)	301147	40.0000	30.3
155 2-Acetylaminofluorene	181	8.282	8.282	(0.968)	274927	40.0000	43.8
157 7,12Dimethylbenz(a)anthracene	256	9.486	9.486	(0.952)	274863	40.0000	38.5
158 3-Methylcholanthrene	268	10.309	10.309	(1.035)	197522	40.0000	38.5(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s032610.b/s2c2605.d
Date : 26-MAR-2010 16:34
Client ID: APCVS
Sample Info: IWBM100218-08,1|40 PPM|1|SVMF1|1|APCVS
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

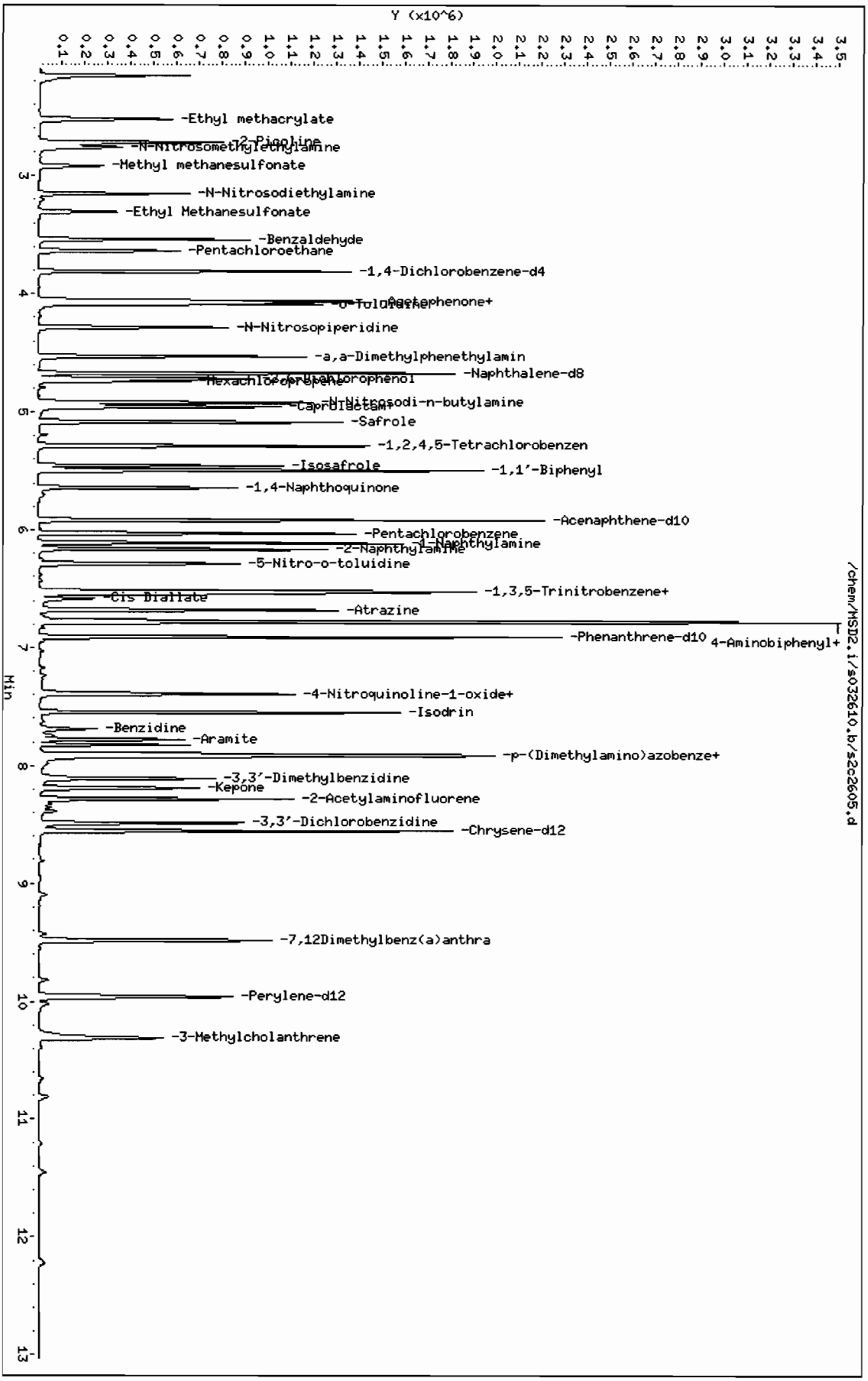

Page 1

QC Data

Data File: /chem/MSD2.i/s031210.b/s2c1201.d

Date : 12-MAR-2010 14:32

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

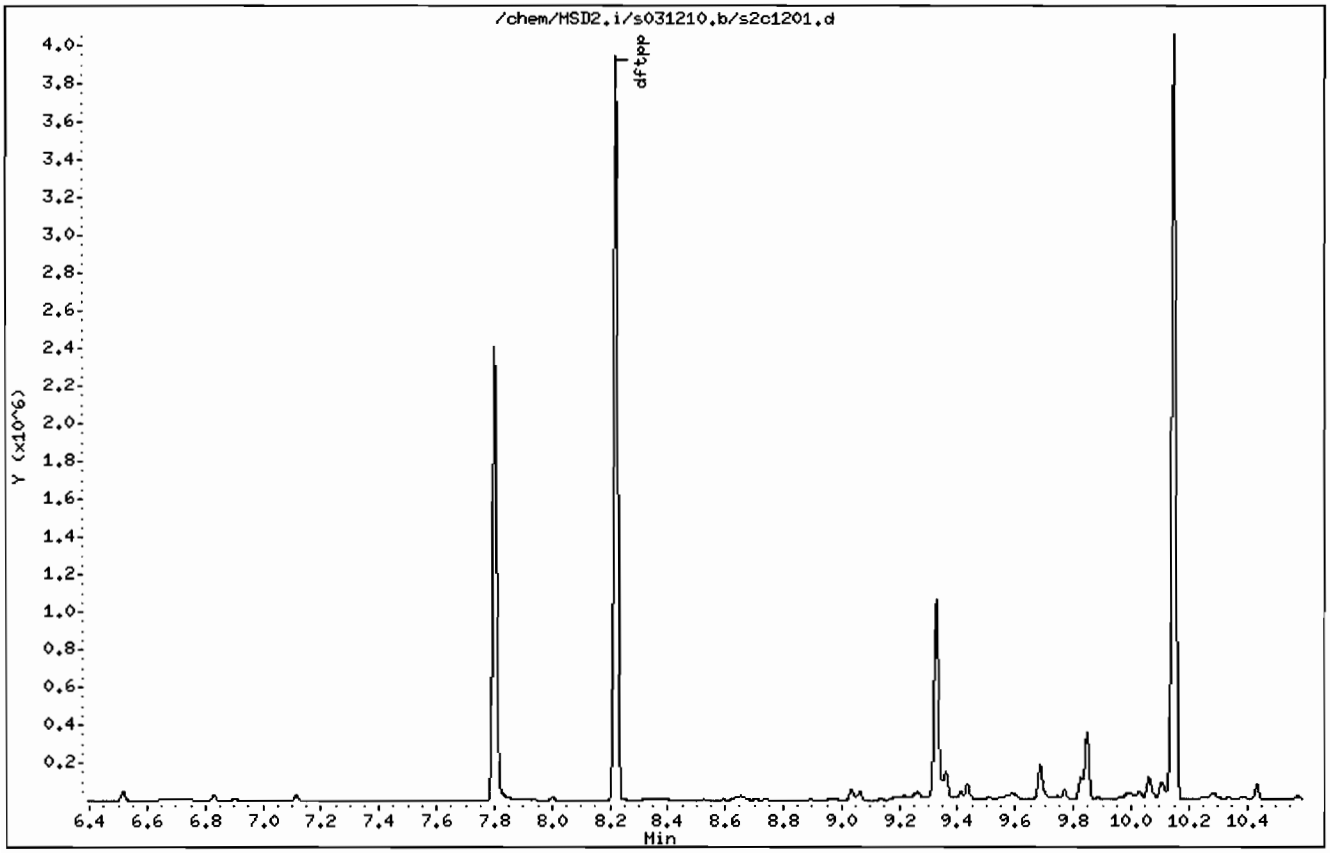

Data File: /chem/MSD2.i/s031210.b/s2c1201.d

Date : 12-MAR-2010 14:32

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

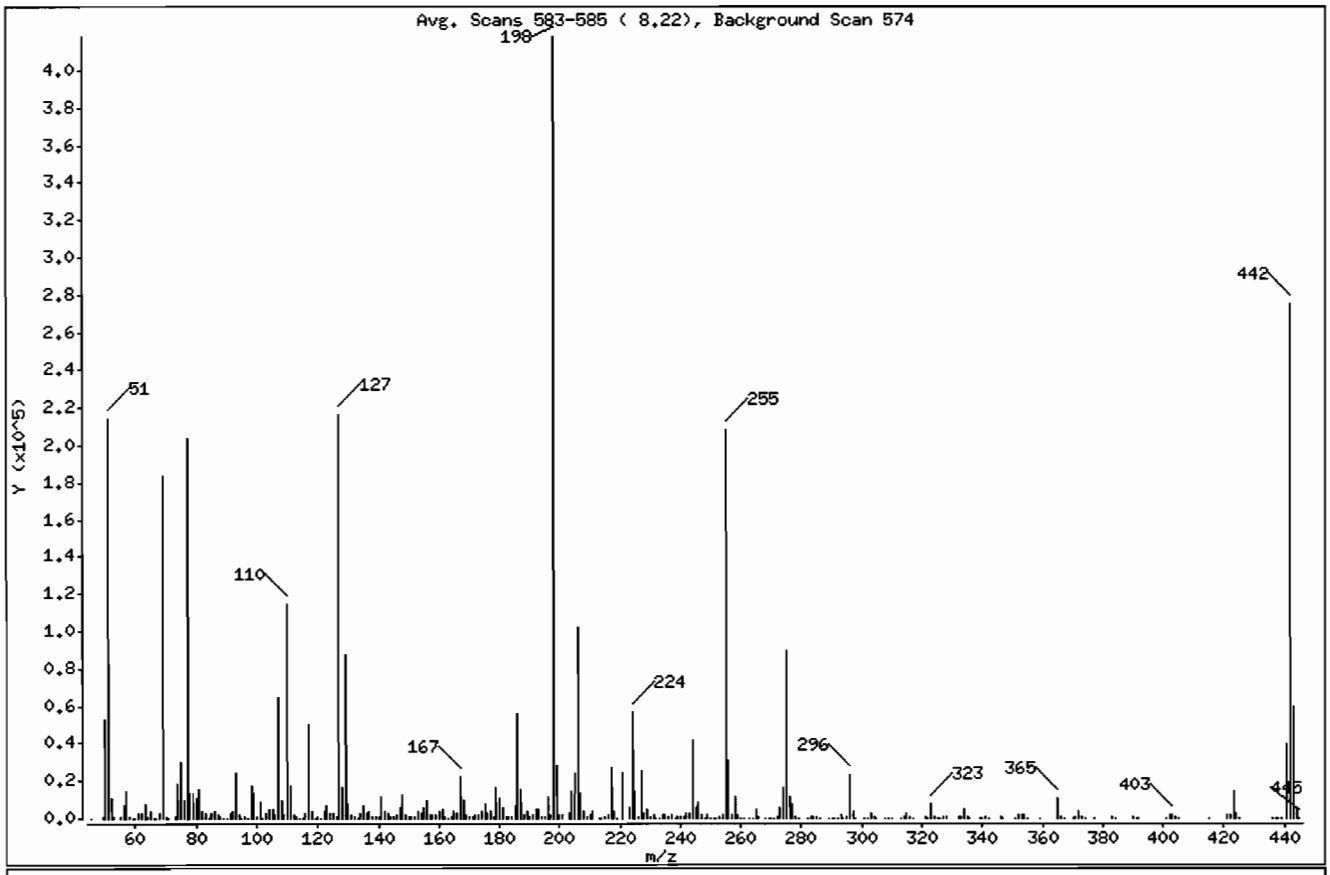

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	51.23
68	Less than 2.00% of mass 69	0.66 (1.50)
69	Mass 69 relative abundance	43.91
70	Less than 2.00% of mass 69	0.22 (0.50)
127	40.00 - 60.00% of mass 198	51.73
197	Less than 1.00% of mass 198	0.54
199	5.00 - 9.00% of mass 198	6.68
275	10.00 - 30.00% of mass 198	21.33
365	Greater than 1.00% of mass 198	2.44
441	Present, but less than mass 443	9.51
442	Greater than 40.00% of mass 198	65.73
443	17.00 - 23.00% of mass 442	14.16 (21.54)

Date : 12-MAR-2010 14:32

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c1201.d
Spectrum: Avg. Scans 583-585 (8.22), Background Scan 574
Location of Maximum: 198.00
Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	111	128.00	16105	207.00	13087	294.00	340
49.00	1232	129.00	87200	208.00	3366	295.00	506
50.00	53328	130.00	7430	209.00	1093	296.00	23416
51.00	214272	131.00	1539	210.00	1706	297.00	3588
52.00	10549	132.00	939	211.00	4158	298.00	195
53.00	487	133.00	251	213.00	272	301.00	290
55.00	832	134.00	2602	214.00	82	302.00	297
56.00	6559	135.00	7153	215.00	1062	303.00	2593
57.00	14416	136.00	2794	216.00	2280	304.00	688
58.00	574	137.00	3413	217.00	27360	305.00	141
59.00	214	138.00	835	218.00	3612	308.00	266
60.00	128	139.00	544	219.00	310	309.00	175
61.00	2499	140.00	1186	221.00	23584	310.00	263
62.00	2815	141.00	11269	223.00	5914	313.00	188
63.00	7676	142.00	3759	224.00	56600	314.00	1057
64.00	1029	143.00	2548	225.00	14894	315.00	2589
65.00	3643	144.00	564	226.00	1401	316.00	1393
66.00	227	145.00	550	227.00	24744	317.00	244
67.00	249	146.00	1785	228.00	3284	321.00	907
68.00	2751	147.00	5698	229.00	4822	322.00	417
69.00	183616	148.00	12040	230.00	606	323.00	7352
70.00	924	149.00	2352	231.00	2082	324.00	1433
71.00	69	150.00	590	232.00	344	325.00	163
73.00	1326	151.00	1386	233.00	452	326.00	205
74.00	18456	152.00	915	234.00	1620	327.00	1409
75.00	30256	153.00	3731	235.00	1697	328.00	800
76.00	9563	154.00	2755	236.00	1243	332.00	529
77.00	203648	155.00	6002	237.00	1721	333.00	698
78.00	13270	156.00	9198	238.00	174	334.00	4633
79.00	13512	157.00	1778	239.00	837	335.00	1148
80.00	10545	158.00	2068	240.00	582	336.00	129
81.00	15127	159.00	1680	241.00	1318	339.00	36
82.00	3756	160.00	3406	242.00	2859	340.00	35
83.00	3210	161.00	4970	243.00	2882	341.00	750
84.00	283	162.00	1386	244.00	41656	342.00	198

Date : 12-MAR-2010 14:32

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c1201.d
Spectrum: Avg. Scans 583-585 (8.22), Background Scan 574
Location of Maximum: 198.00
Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
85.00	2708	163.00	351	245.00	5634	346.00	1433
86.00	4261	164.00	594	246.00	8289	347.00	279
87.00	1859	165.00	4127	247.00	1512	351.00	89
88.00	737	166.00	3102	248.00	396	352.00	2169
89.00	409	167.00	21928	249.00	1500	353.00	1448
90.00	33	168.00	9147	250.00	274	354.00	2178
91.00	3326	169.00	1600	251.00	362	355.00	446
92.00	3744	170.00	833	252.00	354	359.00	204
93.00	23560	171.00	791	253.00	954	365.00	10190
94.00	1638	172.00	1833	254.00	1580	366.00	1326
95.00	431	173.00	2299	255.00	208832	367.00	69
96.00	1044	174.00	4053	256.00	30520	370.00	245
97.00	353	175.00	8142	257.00	2349	371.00	659
98.00	17640	176.00	2587	258.00	11879	372.00	4217
99.00	13822	177.00	4010	259.00	1703	373.00	973
100.00	1267	178.00	1325	260.00	329	374.00	71
101.00	8433	179.00	16023	261.00	399	377.00	73
102.00	446	180.00	10416	263.00	145	383.00	1032
103.00	2592	181.00	5383	264.00	341	384.00	293
104.00	5157	182.00	761	265.00	4795	390.00	534
105.00	4954	183.00	489	266.00	713	391.00	366
106.00	1577	184.00	1375	268.00	265	392.00	291
107.00	64696	185.00	6858	269.00	39	401.00	207
108.00	10050	186.00	56160	270.00	297	402.00	1528
109.00	1764	187.00	15585	271.00	433	403.00	2384
110.00	114096	188.00	1641	272.00	551	404.00	798
111.00	17488	189.00	3417	273.00	5795	405.00	91
112.00	2390	190.00	598	274.00	15910	415.00	123
113.00	762	191.00	1833	275.00	89224	421.00	1870
114.00	188	192.00	4782	276.00	11921	422.00	1814
115.00	216	193.00	5187	277.00	7262	423.00	14591
116.00	3185	194.00	1094	278.00	1035	424.00	2911
117.00	49888	195.00	806	279.00	226	425.00	233
118.00	3469	196.00	11999	282.00	142	436.00	76
119.00	443	197.00	2241	283.00	690	437.00	117

Data File: /chem/MSD2.i/s031210.b/s2c1201.d

Date : 12-MAR-2010 14:32

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2c1201.d
Spectrum: Avg. Scans 583-585 (8.22), Background Scan 574
Location of Maximum: 198.00
Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
120.00	823	198.00	418304	284.00	641	438.00	77
121.00	272	199.00	27952	285.00	1258	439.00	437
122.00	4046	200.00	2119	286.00	201	441.00	39784
123.00	6733	201.00	2001	289.00	268	442.00	274944
124.00	2787	203.00	2988	290.00	239	443.00	59232
125.00	2776	204.00	14572	291.00	177	444.00	5408
126.00	814	205.00	24104	292.00	278	445.00	225
127.00	216384	206.00	101472	293.00	1773		

Data File: /chem/MSD2.i/s032610.b/s2c2601.d

Date : 26-MAR-2010 15:12

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

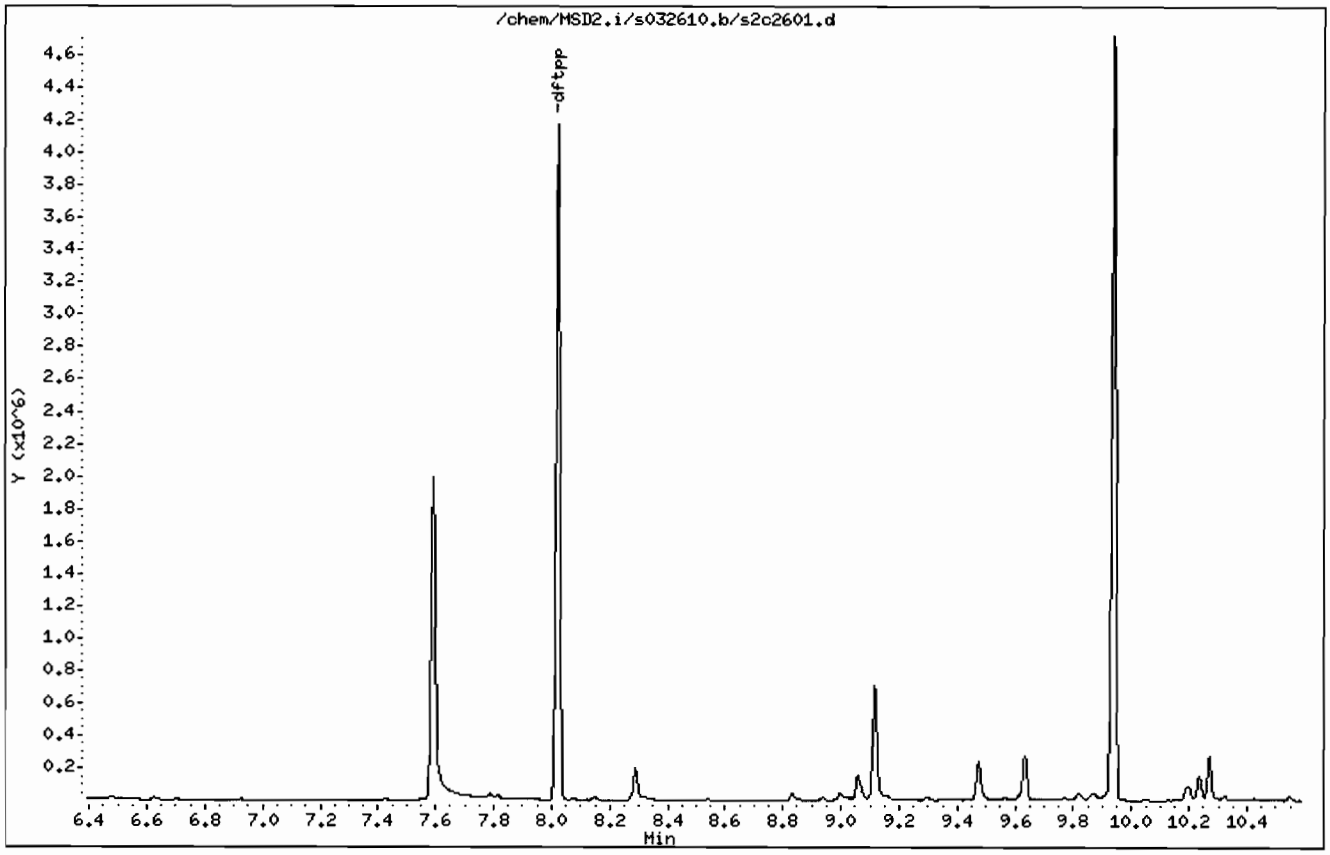

Data File: /chem/MSD2.i/s032610.b/s2c2601.d

Date : 26-MAR-2010 15:12

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

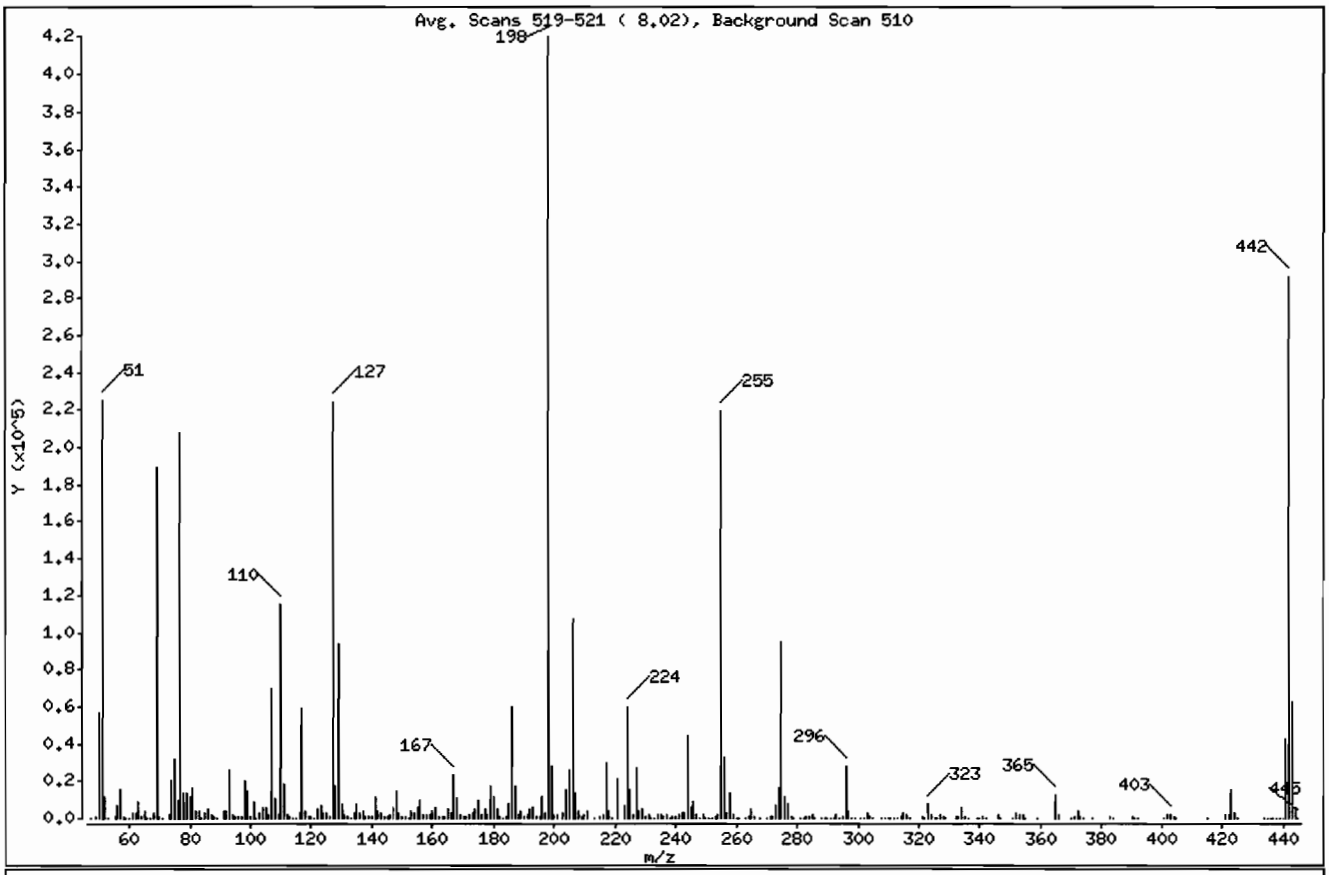

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	53.50
68	Less than 2.00% of mass 69	0.69 (1.54)
69	Mass 69 relative abundance	45.03
70	Less than 2.00% of mass 69	0.24 (0.53)
127	40.00 - 60.00% of mass 198	53.40
197	Less than 1.00% of mass 198	0.68
199	5.00 - 9.00% of mass 198	6.70
275	10.00 - 30.00% of mass 198	22.48
365	Greater than 1.00% of mass 198	2.88
441	Present, but less than mass 443	10.22
442	Greater than 40.00% of mass 198	69.48
443	17.00 - 23.00% of mass 442	14.98 (21.56)

Date : 26-MAR-2010 15:12

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c2601.d
Spectrum: Avg. Scans 519-521 (8.02), Background Scan 510
Location of Maximum: 198.00
Number of points: 316

m/z	Y	m/z	Y	m/z	Y	m/z	Y
47.00	36	131.00	1818	213.00	245	302.00	473
49.00	1134	132.00	826	215.00	1215	303.00	3157
50.00	56928	133.00	351	216.00	2361	304.00	803
51.00	224896	134.00	2770	217.00	30000	305.00	33
52.00	11346	135.00	7325	218.00	3562	308.00	397
53.00	433	136.00	3248	219.00	330	309.00	207
55.00	945	137.00	3735	221.00	21256	310.00	293
56.00	6698	138.00	750	223.00	6314	311.00	42
57.00	15103	139.00	519	224.00	59792	312.00	73
58.00	539	140.00	1084	225.00	15432	313.00	233
59.00	265	141.00	11972	226.00	1831	314.00	1251
60.00	69	142.00	4062	227.00	27536	315.00	2953
61.00	2491	143.00	2536	228.00	3789	316.00	1455
62.00	3061	144.00	722	229.00	4742	317.00	211
63.00	8339	145.00	585	230.00	777	321.00	909
64.00	1145	146.00	2129	231.00	2143	322.00	420
65.00	3412	147.00	5899	232.00	405	323.00	7889
66.00	396	148.00	14283	233.00	474	324.00	1505
67.00	204	149.00	2957	234.00	1724	325.00	114
68.00	2913	150.00	590	235.00	1792	326.00	176
69.00	189312	151.00	1379	236.00	1278	327.00	1623
70.00	1000	152.00	238	237.00	1808	328.00	765
71.00	179	153.00	3755	238.00	301	329.00	150
73.00	1465	154.00	2766	239.00	984	332.00	689
74.00	20104	155.00	6231	240.00	701	333.00	827
75.00	31632	156.00	9291	241.00	1488	334.00	5354
76.00	10073	157.00	1651	242.00	3141	335.00	1299
77.00	207744	158.00	2282	243.00	3050	336.00	145
78.00	13585	159.00	1691	244.00	44464	339.00	114
79.00	13774	160.00	3819	245.00	5706	340.00	35
80.00	11217	161.00	5590	246.00	9121	341.00	834
81.00	16229	162.00	1389	247.00	1871	342.00	211
82.00	3922	163.00	534	248.00	395	346.00	1609
83.00	3462	164.00	654	249.00	1518	347.00	245
84.00	396	165.00	4456	250.00	294	351.00	179

Date : 26-MAR-2010 15:12

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c2601.d
Spectrum: Avg. Scans 519-521 (8.02), Background Scan 510
Location of Maximum: 198.00
Number of points: 316

m/z	Y	m/z	Y	m/z	Y	m/z	Y
85.00	2663	166.00	3368	251.00	397	352.00	2524
86.00	4739	167.00	23648	252.00	455	353.00	1708
87.00	2120	168.00	10178	253.00	1084	354.00	2416
88.00	760	169.00	1852	254.00	1634	355.00	409
89.00	363	170.00	732	255.00	219520	359.00	140
91.00	3502	171.00	965	256.00	32432	365.00	12126
92.00	3947	172.00	2138	257.00	2590	366.00	1624
93.00	25904	173.00	2623	258.00	13537	370.00	281
94.00	1575	174.00	4522	259.00	2305	371.00	619
95.00	525	175.00	9401	260.00	396	372.00	4256
96.00	1191	176.00	2390	261.00	391	373.00	953
97.00	522	177.00	4438	263.00	6	374.00	73
98.00	20552	178.00	1493	264.00	686	377.00	38
99.00	14671	179.00	17376	265.00	5132	383.00	1154
100.00	1329	180.00	11343	266.00	1031	384.00	283
101.00	8842	181.00	5312	268.00	418	390.00	630
102.00	396	182.00	857	270.00	359	391.00	284
103.00	2541	183.00	474	271.00	517	392.00	321
104.00	5742	184.00	1379	272.00	721	401.00	243
105.00	5801	185.00	7687	273.00	6744	402.00	1774
106.00	1792	186.00	59704	274.00	16416	403.00	2278
107.00	69888	187.00	17128	275.00	94520	404.00	858
108.00	10215	188.00	1813	276.00	11976	405.00	37
109.00	1669	189.00	4113	277.00	8137	415.00	79
110.00	114864	190.00	656	278.00	1249	421.00	1911
111.00	18008	191.00	1645	279.00	279	422.00	2023
112.00	2329	192.00	4928	281.00	133	423.00	15341
113.00	774	193.00	5831	282.00	245	424.00	3128
114.00	113	194.00	1196	283.00	971	425.00	299
115.00	236	195.00	540	284.00	668	434.00	135
116.00	3315	196.00	11383	285.00	1559	435.00	80
117.00	59056	197.00	2840	286.00	218	436.00	286
118.00	4065	198.00	420416	288.00	35	437.00	205
119.00	504	199.00	28152	289.00	241	438.00	243
120.00	916	200.00	2179	290.00	215	439.00	336

Date : 26-MAR-2010 15:12

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c2601.d
Spectrum: Avg. Scans 519-521 (8.02), Background Scan 510
Location of Maximum: 198.00
Number of points: 316

m/z	Y	m/z	Y	m/z	Y	m/z	Y
121.00	303	201.00	1899	291.00	169	440.00	204
122.00	4685	203.00	3352	292.00	412	441.00	42952
123.00	7039	204.00	15646	293.00	1765	442.00	292096
124.00	3205	205.00	26056	294.00	368	443.00	62992
125.00	2805	206.00	107016	295.00	551	444.00	5770
126.00	723	207.00	13672	296.00	27800	445.00	397
127.00	224512	208.00	3975	297.00	3636		
128.00	16992	209.00	1307	298.00	234		
129.00	93432	210.00	2009	299.00	38		
130.00	7581	211.00	3971	301.00	430		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074566**				
Client Sample:	**QC for batch 966672**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966672**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 17:36**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2608-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	333	ug/kg	66.7	333
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074566**				
Client Sample:	**QC for batch 966672**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966672**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 17:36**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2608-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
108-88-3	Toluene	2.51	143	ug/kg	95	NJ
	Unknown Aldol Condensate	2.85	363	ug/kg		JA

GEL Laboratories LLC

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Data file : /chem/MSD2.i/s032610.b/s2c2608.d
Lab Smp Id: 1202074566 Client Smp ID: SBLK01
Inj Date : 26-MAR-2010 17:36
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202074566|966675|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 26-Mar-2010 19:34 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2cl239.d
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2398.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.805	3.811	(1.000)	194616	40.0000	
* 29 Naphthalene-d8	136	4.667	4.672	(1.000)	754016	40.0000	
* 46 Acenaphthene-d10	164	5.913	5.918	(1.000)	452391	40.0000	
* 67 Phenanthrene-d10	188	6.902	6.908	(1.000)	803516	40.0000	
* 91 Chrysene-d12	240	8.544	8.555	(1.000)	641005	40.0000	
* 98 Perylene-d12	264	9.946	9.962	(1.000)	413678	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.792)	346280	74.7252	2490
$ 5 Phenol-d5	99	3.527	3.533	(0.927)	386263	67.6895	2260
$ 20 Nitrobenzene-d5	82	4.164	4.169	(0.892)	212489	38.9370	1300
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.915)	422368	33.9348	1130
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.091)	110156	82.3251	2740
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.915)	573695	49.0738	1640

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2608.d
Lab Smp Id: 1202074566 Client Smp ID: SBLK01
Inj Date : 26-MAR-2010 17:36
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202074566|966675|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 26-Mar-2010 19:34 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2398.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.805	1437075	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Toluene					CAS #: 108-88-3		
2.506	154308	4.29505195	143	95	NIST05.L	2400	10
Unknown Aldol Condensate					CAS #:		
2.848	391750	10.9040980	363	0		0	10

Data File: /chem/MSD2.i/s032610.b/s2c2608.d
Date : 26-MAR-2010 17:36
Client ID: SBLK01
Sample Info: 1120207456619666675|1|SVM11|MB
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

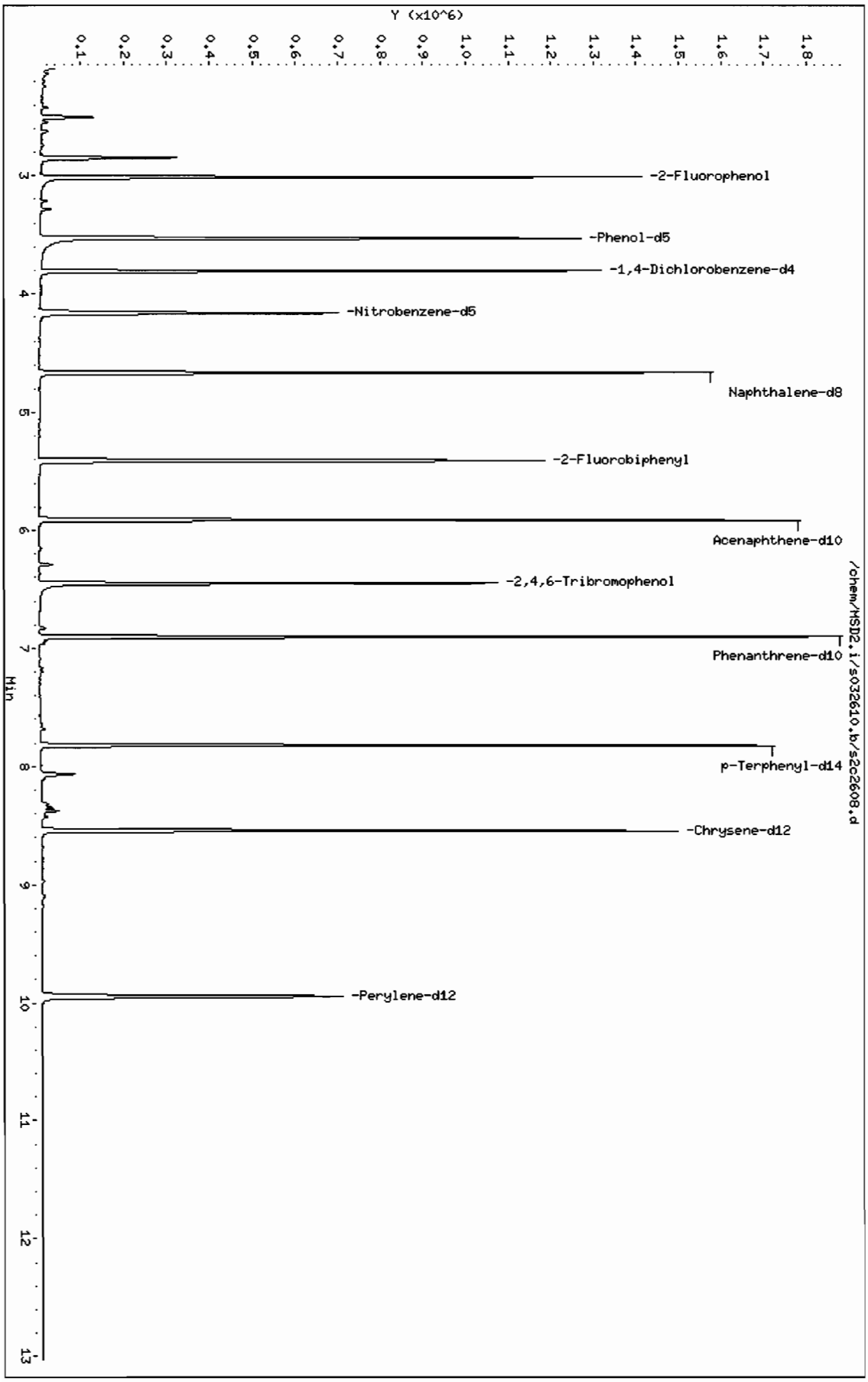

Page 1

Data File: /chem/MSD2.i/s032610.b/s2c2608.d

Date : 26-MAR-2010 17:36

Client ID: SBLK01

Instrument: MSD2.i

Sample Info: |1202074566|966675|1|SVM|1|MB

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Toluene	108-88-3	NIST05.L	2400	95	C7H8	92
1,3,5-Cycloheptatriene	544-25-2	NIST05.L	2414	90	C7H8	92
Toluene	108-88-3	NIST05.L	2397	90	C7H8	92

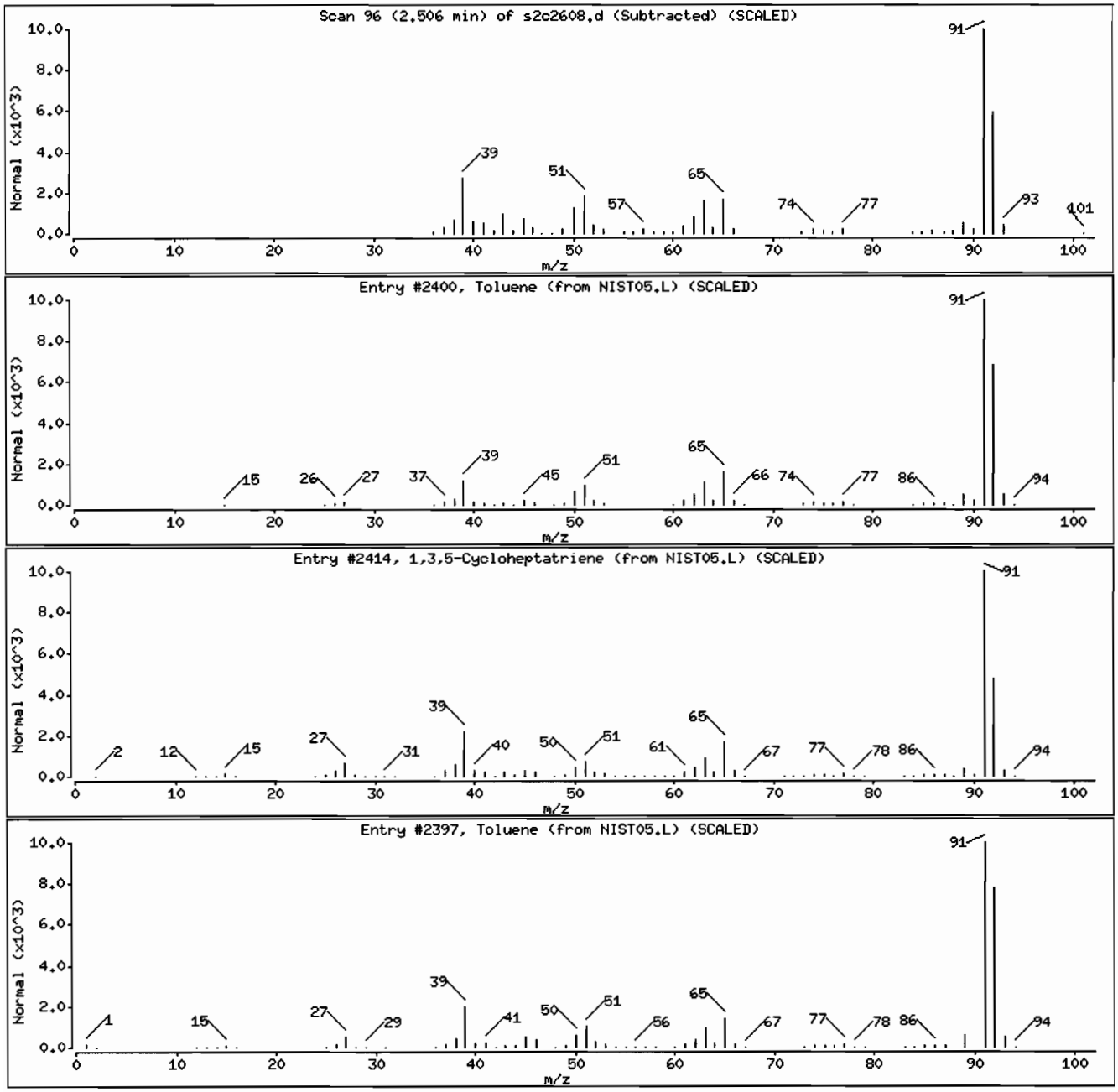

Data File: /chem/MSD2.i/s032610.b/s2c2608.d

Date : 26-MAR-2010 17:36

Client ID: SBLK01

Instrument: MSD2.i

Sample Info: |1202074566|966675|1|SVM|1|MB

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
Diacetamide	625-77-4	NIST05.L	3936	9	C4H7NO2	101

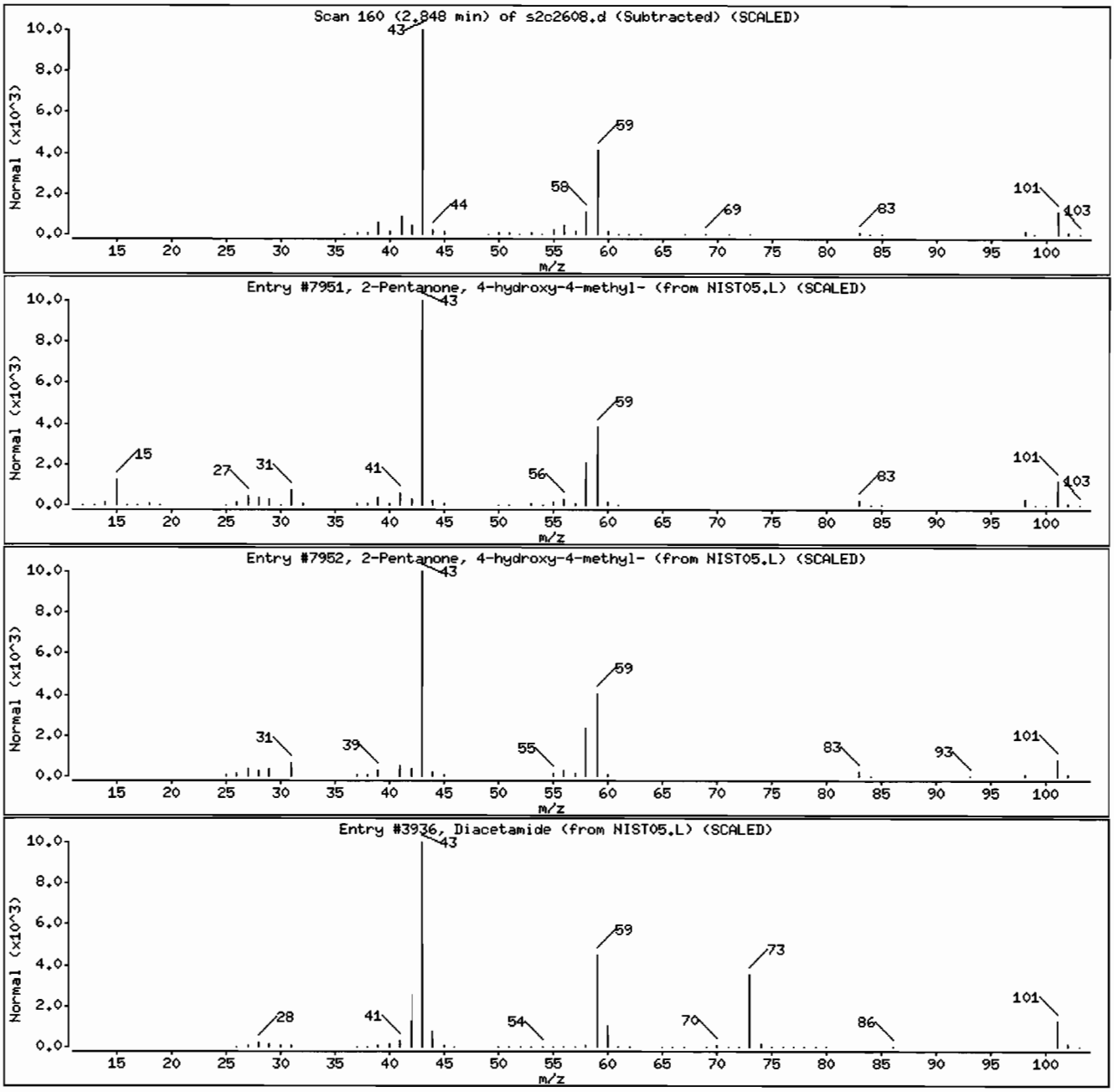

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074567**				
Client Sample:	**QC for batch 966672**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966672**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 17:56**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2609-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		993	ug/kg	66.7	333
108-95-2	Phenol		1140	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1170	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1090	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1260	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1230	ug/kg	66.7	333
83-32-9	Acenaphthene		1180	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1330	ug/kg	33.3	333
100-02-7	4-Nitrophenol		623	ug/kg	110	333
87-86-5	Pentachlorophenol		943	ug/kg	83.3	333
129-00-0	Pyrene		1090	ug/kg	10.0	33.3
110-86-1	Pyridine		921	ug/kg	66.7	333
62-53-3	Aniline		1010	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1170	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1100	ug/kg	66.7	333
100-51-6	Benzyl alcohol		341	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1100	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1520	ug/kg	66.7	333
95-48-7	o-Cresol		1150	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1430	ug/kg	100	333
67-72-1	Hexachloroethane		1190	ug/kg	66.7	333
98-95-3	Nitrobenzene		1270	ug/kg	66.7	333
78-59-1	Isophorone		1250	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1110	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		831	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1130	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1180	ug/kg	66.7	333
65-85-0	Benzoic acid		3000	ug/kg	167	667
91-20-3	Naphthalene		1160	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		990	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1310	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1280	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		959	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1020	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1220	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1130	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline *o-Nitroaniline*		1280	ug/kg	66.7	333
99-09-2	3-Nitroaniline		1230	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074567**				
Client Sample:	**QC for batch 966672**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966672**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966675**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 17:56**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/18/2010 22:34**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2609-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1350	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1250	ug/kg	33.3	333
208-96-8	Acenaphthylene		1230	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1220	ug/kg	127	667
132-64-9	Dibenzofuran		1220	ug/kg	66.7	333
84-66-2	Diethylphthalate		1440	ug/kg	66.7	333
86-73-7	Fluorene		1330	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1280	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1230	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1560	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1190	ug/kg	66.7	333
122-66-7	Azobenzene		1300	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1220	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1210	ug/kg	66.7	333
85-01-8	Phenanthrene		1250	ug/kg	10.0	33.3
120-12-7	Anthracene		1220	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1510	ug/kg	66.7	333
206-44-0	Fluoranthene		1430	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1310	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1230	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1120	ug/kg	100	333
218-01-9	Chrysene		1270	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1340	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1300	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1210	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1390	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1320	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1460	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1480	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1420	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1210	ug/kg	66.7	333

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032610.b/s2c2609.d
Lab Smp Id: 1202074567 Client Smp ID: SBLK01LCS
Inj Date : 26-MAR-2010 17:56
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202074567|966675|1|SVM|1|LCS
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 26-Mar-2010 19:34 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2398.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	141015	40.0000	
* 29 Naphthalene-d8	136	4.672	4.672	(1.000)	632826	40.0000	
* 46 Acenaphthene-d10	164	5.918	5.918	(1.000)	339607	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	612202	40.0000	
* 91 Chrysene-d12	240	8.550	8.555	(1.000)	566944	40.0000	
* 98 Perylene-d12	264	9.956	9.962	(1.000)	390661	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	241953	72.0583	2400
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	290615	70.2861	2340
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.892)	173780	37.9422	1260
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.914)	315853	33.8047	1130
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.090)	78895	78.5436	2620
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.915)	397652	38.4585	1280

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.543	3.538	(0.930)	145868	34.2172	1140
8 2-Chlorophenol	128	3.677	3.677	(0.965)	132799	35.0267	1170
11 1,4-Dichlorobenzene	146	3.821	3.822	(1.003)	156605	32.7334	1090
17 N-Nitrosodipropylamine	70	4.046	4.046	(1.062)	101478	37.9373	1260(Q)
28 1,2,4-Trichlorobenzene	180	4.624	4.624	(0.990)	141739	36.2296	1210
33 4-Chloro-3-methylphenol	107	5.030	5.020	(1.077)	127439	37.0306	1230
47 Acenaphthene	154	5.940	5.940	(1.004)	321471	35.5417	1180
50 2,4-Dinitrotoluene	165	6.025	6.025	(1.018)	109247	40.0428	1330
52 4-Nitrophenol	139	5.993	5.966	(1.013)	25349	18.6963	623
65 Pentachlorophenol	266	6.779	6.774	(0.981)	39392	28.2813	943
79 Pyrene	202	7.774	7.774	(0.909)	604525	32.7114	1090
2 Pyridine	79	2.367	2.345	(0.621)	75781	27.6220	921
4 Aniline	66	3.597	3.597	(0.944)	61352	30.3085	1010
7 bis(2-Chloroethyl) ether	63	3.613	3.613	(0.948)	128062	34.9691	1160
9 1,3-Dichlorobenzene	146	3.779	3.773	(0.992)	149208	33.0671	1100
12 Benzyl alcohol	108	3.886	3.880	(1.020)	20559	10.2385	341(R)
13 1,2-Dichlorobenzene	146	3.923	3.923	(1.029)	145206	32.8795	1100
14 bis(2-Chloroisopropyl)ether	45	3.955	3.955	(1.038)	408181	45.5917	1520
15 o-Cresol	107	3.934	3.929	(1.032)	103917	34.5219	1150
18 m,p-Cresols	107	4.030	4.030	(1.058)	153816	42.8874	1430
19 Hexachloroethane	117	4.148	4.148	(1.088)	67238	35.5630	1180
21 Nitrobenzene	77	4.185	4.185	(0.896)	164756	38.2167	1270
22 Isophorone	82	4.335	4.335	(0.928)	291589	37.3983	1250
23 2-Nitrophenol	139	4.399	4.394	(0.942)	75055	33.2508	1110
24 2,4-Dimethylphenol	122	4.394	4.394	(0.940)	100690	24.9342	831
25 bis(2-Chloroethoxy)methane	93	4.458	4.458	(0.954)	151185	33.8006	1130
26 2,4-Dichlorophenol	162	4.565	4.560	(0.977)	113628	35.5054	1180
27 Benzoic acid	105	4.463	4.447	(0.955)	179329	90.0328	3000
30 Naphthalene	128	4.688	4.688	(1.003)	438526	34.9463	1160
31 4-Chloroaniline	127	4.704	4.704	(1.007)	161912	29.7068	990
32 Hexachlorobutadiene	225	4.752	4.752	(1.017)	92760	39.1718	1300
34 2-Methylnaphthalene	142	5.164	5.164	(1.105)	308749	38.2821	1280
36 Hexachlorocyclopentadiene	237	5.271	5.266	(0.891)	46493	28.7662	959
37 2,4,6-Trichlorophenol	196	5.357	5.357	(0.905)	77922	30.5157	1020
38 2,4,5-Trichlorophenol	196	5.394	5.383	(0.911)	100906	36.6257	1220
40 2-Chloronaphthalene	162	5.517	5.517	(0.932)	278554	33.8423	1130
42 o-Nitroaniline	65	5.576	5.576	(0.942)	98464	38.3688	1280
41 m-Nitroaniline	138	5.870	5.870	(0.992)	62737	36.9314	1230
43 Dimethylphthalate	163	5.683	5.688	(0.960)	390779	40.4629	1350
44 2,6-Dinitrotoluene	165	5.742	5.742	(0.970)	81585	37.3508	1240
45 Acenaphthylene	152	5.817	5.817	(0.983)	456614	36.8020	1230
48 2,4-Dinitrophenol	184	5.945	5.940	(1.005)	31104	36.5083	1220(Q)
49 Dibenzofuran	168	6.057	6.057	(1.023)	406478	36.5835	1220
51 Diethylphthalate	149	6.170	6.170	(1.042)	429273	43.3357	1440
53 Fluorene	166	6.293	6.293	(1.063)	385680	40.0078	1330
54 4-Chlorophenylphenylether	204	6.271	6.271	(1.060)	174389	38.3958	1280
55 2-Methyl-4,6-dinitrophenol	198	6.309	6.309	(0.913)	55086	36.8485	1230

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.293	6.293	(1.063)	76455	46.7457	1560
133 Diphenylamine	169	6.351	6.351	(0.919)	283607	35.5955	1190
58 1,2-Diphenylhydrazine	77	6.378	6.378	(0.923)	405870	39.1132	1300
61 4-Bromophenylphenylether	248	6.597	6.597	(0.955)	98918	36.7235	1220
63 Hexachlorobenzene	284	6.656	6.656	(0.964)	97589	36.2836	1210
68 Phenanthrene	178	6.924	6.924	(1.002)	568235	37.5532	1250
69 Anthracene	178	6.956	6.956	(1.007)	536708	36.6654	1220
72 Di-n-butylphthalate	149	7.202	7.197	(1.043)	784173	45.2816	1510
76 Fluoranthene	202	7.635	7.635	(1.105)	588149	43.0326	1430
85 Butylbenzylphthalate	149	8.084	8.084	(0.946)	338521	39.1500	1300
89 Benzo(a)anthracene	228	8.539	8.544	(0.999)	524117	37.0430	1230
90 3,3'-Dichlorobenzidine	252	8.480	8.491	(0.992)	126495	33.6624	1120
92 Chrysene	228	8.571	8.576	(1.002)	502837	38.0947	1270
93 bis(2-Ethylhexyl)phthalate	149	8.432	8.437	(0.986)	477204	40.0793	1340
94 Di-n-octylphthalate	149	8.945	8.951	(0.898)	723823	38.8640	1300
95 Benzo(b)fluoranthene	252	9.507	9.512	(0.955)	385954	36.2204	1210
96 Benzo(k)fluoranthene	252	9.534	9.539	(0.958)	448209	41.5773	1380
97 Benzo(a)pyrene	252	9.887	9.892	(0.993)	348982	39.5142	1320
99 Indeno(1,2,3-cd)pyrene	276	11.529	11.534	(1.158)	330514	43.7184	1460
100 Dibenzo(a,h)anthracene	278	11.534	11.540	(1.158)	275109	44.5424	1480
101 Benzo(ghi)perylene	276	12.016	12.021	(1.207)	260132	42.4813	1420
1 N-Methyl-N-nitrosomethylamine	74	2.329	2.319	(0.611)	57496	29.7938	993

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD2.i/s032610.b/s2c2609.d
Date : 26-MAR-2010 17:56
Client ID: SBLK01LCS
Sample Info: 1120207456719666751|1|SVM11|LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

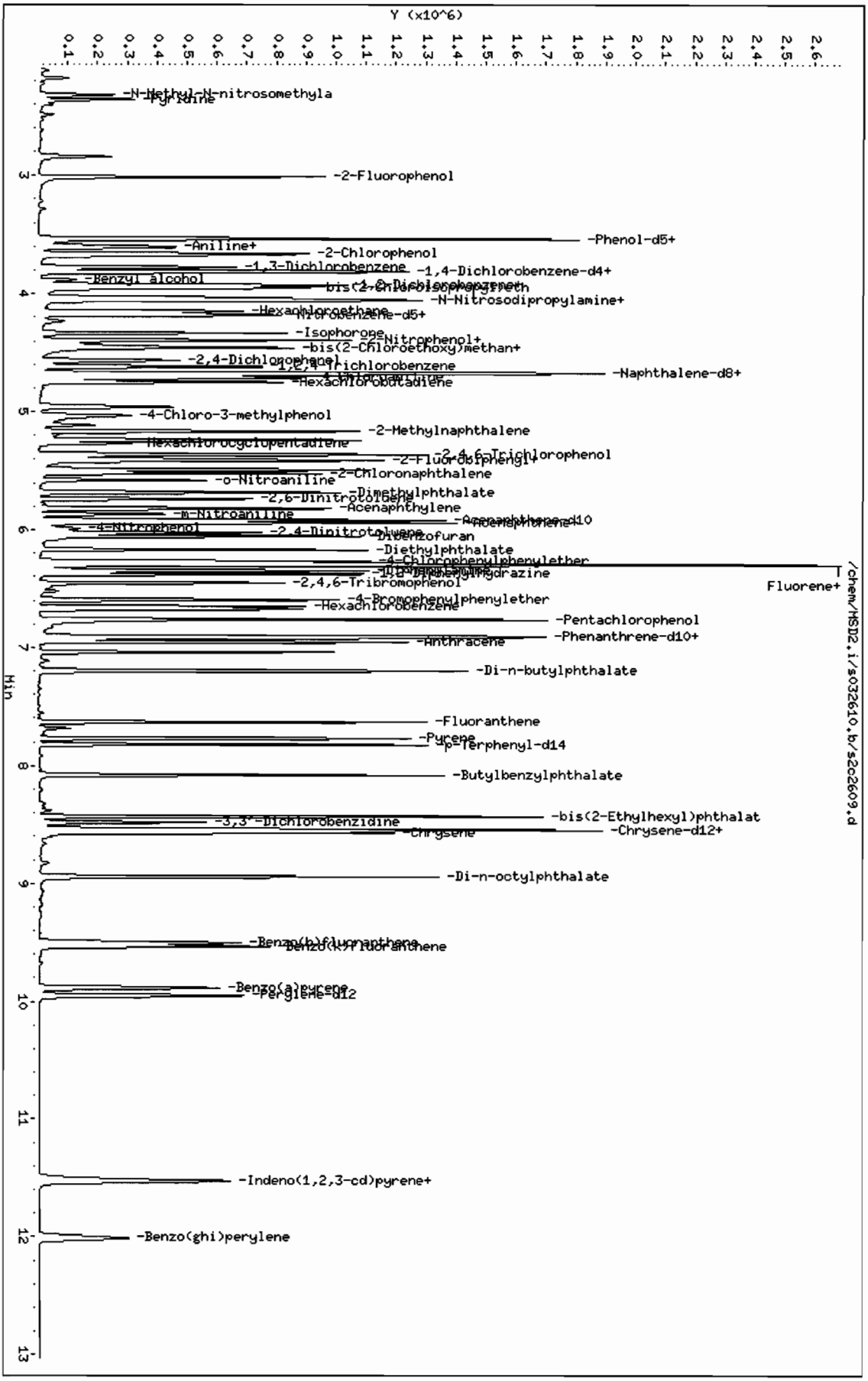

Page 1

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 966672 **Verified by:** _____

Analyst: Alberto Velasco

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202074566 MB	18-MAR-2010 22:34:00	30	1	0.03333
1202074567 LCS	18-MAR-2010 22:34:00	30	1	0.03333
249180001	18-MAR-2010 22:34:00	30.01	1	0.03332
249180002	18-MAR-2010 22:34:00	30.15	1	0.03317
249180003	18-MAR-2010 22:34:00	30.13	1	0.03319
249180004	18-MAR-2010 22:34:00	30.02	1	0.03331
249180005	18-MAR-2010 22:34:00	30.17	1	0.03315
249180006	18-MAR-2010 22:34:00	30.17	1	0.03315
249180008	18-MAR-2010 22:34:00	30.02	1	0.03331
249244001	18-MAR-2010 22:34:00	30.14	1	0.03318
249244002	18-MAR-2010 22:34:00	30.08	1	0.03324
249244003	18-MAR-2010 22:34:00	30.04	1	0.03329
249244004	18-MAR-2010 22:34:00	30.13	1	0.03319
249244005	18-MAR-2010 22:34:00	30.07	1	0.03326
249244006	18-MAR-2010 22:34:00	30.14	1	0.03318
249245001	18-MAR-2010 22:34:00	30.03	1	0.0333
249245002	18-MAR-2010 22:34:00	30.14	1	0.03318
249247001	18-MAR-2010 22:34:00	30.02	1	0.03331
249247002	18-MAR-2010 22:34:00	30.19	1	0.03312
249247003	18-MAR-2010 22:34:00	30.02	1	0.03331
249250003	18-MAR-2010 22:34:00	30.07	1	0.03326
1202074568 MS (249250003)	18-MAR-2010 22:34:00	30.11	1	0.03321
1202074569 MSD (249250003)	18-MAR-2010 22:34:00	30.04	1	0.03329
249250004	18-MAR-2010 22:34:00	30.19	1	0.03312

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202074567	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
LCS	1202074567	BENZIDINE LCS	UE100310-23	1	mL
MS	1202074568	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MS	1202074568	BENZIDINE LCS	UE100310-23	1	mL
MSD	1202074569	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MSD	1202074569	BENZIDINE LCS	UE100310-23	1	mL
SURR	All	BNA for all Surrogate	UE100310-10	1	mL
REGNT	All	Acetone	1273823-B1	150	mL
REGNT	All	Methylene Chloride	1287549-D	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: AJS

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD2

DATE: 03/12/2010 METHOD:8270C MSD2-DFTPP.m OPERATOR:AGS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1165 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100227-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD2.i/s031210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c1201.d	WBN100207-01	AGS1	12-MAR-2010 14:32	50PPM	DFTPP	1.0	DFTPP	8270C (MEGA-AP-PEST)
s2c1201D.d	WBN100207-01	AGS1	12-MAR-2010 14:32	50PPM	DFTPP	1.0	DFTPP	8270D (MEGA-AP-PEST)
s2c1202.d	INSTBLK	AGS1	12-MAR-2010 14:44	------	s031210	1.0	INSTBLK	
s2c1203.d	WBN100309-08	AGS1	12-MAR-2010 15:04	1PPM	CAL	1.0	MEGA001	
s2c1204.d	WBN100309-07	AGS1	12-MAR-2010 15:31	10PPM	CAL	1.0	MEGA010	
s2c1204D.d	WBN100309-07	AGS1	12-MAR-2010 15:31	10PPM	CAL	1.0	MEGA010	requanted for linear analytes in 8270D passes 70-130% 56/26/216
s2c1205.d	WBN100309-06	AGS1	12-MAR-2010 15:59	20PPM	CAL	1.0	MEGA020	
s2c1206.d	WBN100309-05.1	AGS1	12-MAR-2010 16:23	40PPM	CAL	1.0	MEGA040	
s2c1207.d	WBN100309-04	AGS1	12-MAR-2010 16:48	50PPM	CAL	1.0	MEGA050	
s2c1208.d	WBN100309-03	AGS1	12-MAR-2010 17:13	80PPM	CAL	1.0	MEGA080	
s2c1209.d	WBN100309-02	AGS1	12-MAR-2010 17:38	1000PPM	CAL	1.0	MEGA100	
s2c1210.d	WBN100309-01	AGS1	12-MAR-2010 18:02	120PPM	CAL	1.0	MEGA120	
s2c1211.d	INSTBLK	AGS1	12-MAR-2010 18:27	------	s031210	1.0	INSTBLK	
s2c1212.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	8270C 333197
s2c1212BOE.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	BOE 333197
s2c1212D.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	8270D 333197
s2c1212-625.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	625 333197
s2c1213.d	WBN100218-01	AGS1	12-MAR-2010 19:18	10 PPM	s031210	1.0	AP010	
s2c1214.d	WBN100218-02	AGS1	12-MAR-2010 19:39	20 PPM	CAL	1.0	AP020	

s2c1215.d	WBN100218-03.1	AGS1	12-MAR-2010 19:59	40 PPM	CAL	1.0	AP040	
s2c1216.d	WBN100218-04	AGS1	12-MAR-2010 20:19	50 PPM	CAL	1.0	AP050	
s2c1217.d	WBN100218-05	AGS1	12-MAR-2010 20:39	80 PPM	CAL	1.0	AP0800	
s2c1218.d	WBN100218-06	AGS1	12-MAR-2010 20:59	100 PPM	CAL	1.0	AP100	
s2c1219.d	WBN100218-07	AGS1	12-MAR-2010 21:19	120 PPM	CAL	1.0	AP120	
s2c1220.d	WBN100304-25	AGS1	12-MAR-2010 21:39	10 PPM	CAL	1.0	PEST010	
s2c1221.d	WBN100304-24	AGS1	12-MAR-2010 21:59	20 PPM	CAL	1.0	PEST020	
s2c1222.d	WBN100304-23.1	AGS1	12-MAR-2010 22:19	40 PPM	CAL	1.0	PEST040	
s2c1223.d	WBN100304-22	AGS1	12-MAR-2010 22:39	50 PPM	CAL	1.0	PEST050	
s2c1224.d	WBN100304-21	AGS1	12-MAR-2010 23:00	80 PPM	CAL	1.0	PEST080	
s2c1225.d	WBN100304-20	AGS1	12-MAR-2010 23:20	100 PPM	CAL	1.0	PEST100	
s2c1226.d	WBN100304-19	AGS1	12-MAR-2010 23:40	120 PPM	CAL	1.0	PEST120	
s2c1227.d	WBN100218-08.1	AGS1	13-MAR-2010 00:00	40 PPM	ICV	1.0	APICV	8270C
s2c1227D.d	WBN100218-08.1	AGS1	13-MAR-2010 00:00	40 PPM	ICV	1.0	APICV	8270D
s2c1228.d	WBN100304-26.1	AGS1	13-MAR-2010 00:20	40 PPM	ICV	1.0	PESTICV	8270C
s2c1228D.d	WBN100304-26.1	AGS1	13-MAR-2010 00:20	40 PPM	ICV	1.0	PESTICV	8270D
s2c1229.d	WBN100207-01	AGS1	13-MAR-2010 00:42	50PPM	DFTPP	1.0	DFTPP	8270C (HEX-BJCO)
s2c1229D.d	WBN100207-01	AGS1	13-MAR-2010 00:42	50PPM	DFTPP	1.0	DFTPP	8270D (HEX)
s2c1230.d	INSTBLK	AGS1	13-MAR-2010 00:55	------	s031210	1.0	INSTBLK	
s2c1231.d	WBN100304-16	AGS1	13-MAR-2010 01:15	500 PPM	CAL	1.0	HEX500	
s2c1232.d	WBN100304-15	AGS1	13-MAR-2010 01:35	1000 PPM	CAL	1.0	HEX1000	
s2c1233.d	WBN100304-14	AGS1	13-MAR-2010 01:55	1250 PPM	CAL	1.0	HEX1250	
s2c1234.d	WBN100304-13	AGS1	13-MAR-2010 02:15	1500 PPM	CAL	1.0	HEX1500	

Instrument Batch: /chem/MSD2.i/s031210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c1235.d	WBN100304-12	AGS1	13-MAR-2010 02:35	1750 PPM	CAL	1.0	HEX1750	

s2c1236.d	UBN100126-02.3	AGS1	13-MAR-2010 02:55	2000 PPM	CAL		1.0	HEX2000	
s2c1237.d	WBN100301-07	AGS1	13-MAR-2010 03:15	10PPM	CAL		1.0	BJCO010	
s2c1238.d	WBN100301-06	AGS1	13-MAR-2010 03:42	10PPM	CAL		1.0	BJCO010	
s2c1239.d	WBN100301-05.1	AGS1	13-MAR-2010 04:08	40PPM	CAL		1.0	BJCO040	
s2c1240.d	WBN100301-04	AGS1	13-MAR-2010 04:35	10PPM	CAL		1.0	BJCO010	
s2c1241.d	WBN100301-03	AGS1	13-MAR-2010 05:01	10PPM	CAL		1.0	BJCO010	
s2c1242.d	WBN100301-02	AGS1	13-MAR-2010 05:28	10PPM	CAL		1.0	BJCO010	
s2c1243.d	WBN100301-01	AGS1	13-MAR-2010 05:54	10PPM	CAL		1.0	BJCO010	
s2c1244.d	WBN100304-10.1	AGS1	13-MAR-2010 06:21	1250 PPM	ICV		1.0	HEXICV	8270C
s2c1244D.d	WBN100304-10.1	AGS1	13-MAR-2010 06:21	1250 PPM	ICV		1.0	HEXICV	8270D
s2c1245.d	WBN100301-05.3	AGS1	13-MAR-2010 06:41	10PPM	ICV		1.0	BJCOICV	
s2c1245D.d	WBN100301-05.3	AGS1	13-MAR-2010 06:41	10PPM	ICV		1.0	BJCOICV	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD2

DATE: 03/26/2010 METHOD:8270C MSD2-DFTPP.m OPERATOR:AGS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1165 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD2.i/s032610.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c2601.d	WBN100306-01.2	AGS1	26-MAR-2010 15:12	50PPM	DFTPP	1.0	DFTPP	8270C TUNE
s2c2601D.d	WBN100306-01.2	AGS1	26-MAR-2010 15:12	50PPM	DFTPP	1.0	DFTPP	8270D TUNE
s2c2602.d	WBN100309-09.1	AGS1	26-MAR-2010 15:25	40PPM	CVS	1.0	MEGACVS	8270C 158646
s2c2602D.d	WBN100309-09.1	AGS1	26-MAR-2010 15:25	40PPM	CVS	1.0	MEGACVS	8270D 158646
s2c2603.d	WBN100218-08.1	AGS1	26-MAR-2010 15:52	40 PPM	DUSE	1.0	APCVS	DUSE ISTD HIGH
s2c2604.d	WBN100304-26.1	AGS1	26-MAR-2010 16:12	40 PPM	CVS	1.0	PESTCVS	8270C
s2c2604D.d	WBN100304-26.1	AGS1	26-MAR-2010 16:12	40 PPM	CVS	1.0	PESTCVS	8270D
s2c2605.d	WBN100218-08.1	AGS1	26-MAR-2010 16:34	40 PPM	CVS	1.0	APCVS	8270C
s2c2605D.d	WBN100218-08.1	AGS1	26-MAR-2010 16:34	40 PPM	CVS	1.0	APCVS	8270D
s2c2606.d	1202080906	AGS1	26-MAR-2010 16:55	969217	249338	1.0	MB	
s2c2607.d	1202080907	AGS1	26-MAR-2010 17:15	969217	249338	1.0	LCS	
s2c2608.d	1202074566	AGS1	26-MAR-2010 17:36	966675	10-2398	1.0	MB	
s2c2608-1.d	1202074566	AGS1	26-MAR-2010 17:36	966675	10-2412	1.0	MB	
s2c2608-2.d	1202074566	AGS1	26-MAR-2010 17:36	966675	10-2415	1.0	MB	
s2c2608-3.d	1202074566	AGS1	26-MAR-2010 17:36	966675	10-2416	1.0	MB	
s2c2608-4.d	1202074566	AGS1	26-MAR-2010 17:36	966675	10-2418	1.0	MB	
s2c2609.d	1202074567	AGS1	26-MAR-2010 17:56	966675	10-2398	1.0	LCS	
s2c2609-1.d	1202074567	AGS1	26-MAR-2010 17:56	966675	10-2412	1.0	LCS	
s2c2609-2.d	1202074567	AGS1	26-MAR-2010 17:56	966675	10-2415	1.0	LCS	

s2c2609-3.d	1202074567	AGS1	26-MAR-2010 17:56	966675	10-2416		1.0	LCS
s2c2609-4.d	1202074567	AGS1	26-MAR-2010 17:56	966675	10-2418		1.0	LCS
s2c2610.d	248862002	AGS1	26-MAR-2010 18:17	965979	10-2314		1.0	LANL
s2c2611.d	249338018	AGS1	26-MAR-2010 18:37	969217	249338		1.0	GEEL_BEAM
s2c2612.d	1202080908	AGS1	26-MAR-2010 18:57	969217	249338		1.0	MS
s2c2613.d	1202080909	AGS1	26-MAR-2010 19:17	969217	249338		1.0	MSD
s2c2614.d	249250003	AGS1	26-MAR-2010 19:37	966675	10-2418		1.0	LANL
s2c2615.d	1202074568	AGS1	26-MAR-2010 19:57	966675	10-2418		1.0	MS
s2c2616.d	1202074569	AGS1	26-MAR-2010 20:18	966675	10-2418		1.0	MSD
s2c2617.d	249250004	AGS1	26-MAR-2010 20:38	966675	10-2418		1.0	LANL
s2c2618.d	249245001	AGS1	26-MAR-2010 20:58	966675	10-2415		1.0	LANL
s2c2619.d	249245002	AGS1	26-MAR-2010 21:18	966675	10-2415		1.0	LANL
s2c2620.d	249247001	AGS1	26-MAR-2010 21:38	966675	10-2416		1.0	LANL
s2c2621.d	249247002	AGS1	26-MAR-2010 21:58	966675	10-2416		1.0	LANL
s2c2622.d	249247003	AGS1	26-MAR-2010 22:18	966675	10-2416		1.0	LANL
s2c2623.d	249180001	AGS1	26-MAR-2010 22:38	966675	10-2398		1.0	LANL
s2c2624.d	249180002	AGS1	26-MAR-2010 22:58	966675	10-2398		1.0	LANL
s2c2625.d	249180003	AGS1	26-MAR-2010 23:18	966675	10-2398		1.0	LANL
s2c2626.d	249180004	AGS1	26-MAR-2010 23:38	966675	10-2398		1.0	LANL
s2c2627.d	249180005	AGS1	26-MAR-2010 23:58	966675	10-2398		1.0	LANL
s2c2628.d	249180006	AGS1	27-MAR-2010 00:18	966675	10-2398		1.0	LANL
s2c2629.d	249180008	AGS1	27-MAR-2010 00:38	966675	10-2398		1.0	LANL
s2c2630.d	249244001	AGS1	27-MAR-2010 00:58	966675	10-2412		1.0	LANL
s2c2631.d	249244002	AGS1	27-MAR-2010 01:18	966675	10-2412		1.0	LANL
s2c2632.d	249244003	AGS1	27-MAR-2010 01:38	966675	10-2412		1.0	LANL
s2c2633.d	249244004	AGS1	27-MAR-2010 01:58	966675	10-2412		1.0	LANL
s2c2634.d	249244005	AGS1	27-MAR-2010 02:19	966675	10-2412		1.0	LANL

s2c2635.d	249244006	AGS1	27-MAR-2010 02:39	966675	10-2412	1.0	LANL

Instrument Batch: /chem/MSD2.i/s032610.b

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
30-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
966675	See Below		

Potentially affected work order(s)(SDG): 249180(10-2398),249244(10-2412),249245(10-2415),249247(10-2416),249250(10-2418)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for LCS/LCSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The LCS(1202074567) recovered Benzyl alcohol at 20%. The limits are 27%-108%.	1. The LCS failure represented less than 5% of the total requested spike analyte list. That satisfied the acceptance criteria for the client and the data results have been reported. Please note that Benzyl alcohol is known to be a poor responder as stated in the Method (EPA 8270). This may account for the low recovery of the analyte in the LCS (as well as the zero recoveries in the MS and MSD).
2. The MS(1202074568) and the MSD(1202074569) both recovered 4-Nitrophenol at 0% (limits are 15%-110%) and Benzyl alcohol 0% (limits are 19%-112%).	2. Since the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported. Please note that 4-Nitrophenol and Benzyl alcohol are designated as poor responders in the analytical method (EPA 8270). This may account for the zero recoveries of the analyte in the MS and MSD (as well as the low recovery for Benzyl alcohol in the LCS).
3. The MS(1202074568)/MSD(1202074569) RPD value for Benzoic acid was 33%. The limit is 30%.	3. Since Benzoic acid was individually within the acceptance limits for the MS and MSD, the data results have been reported un-qualified for the RPD failures.

Originator's Name:

Anne Salter 30-MAR-10

Data Validator/Group Leader:

Daniel Beacham 01-APR-10

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD2.i/s032610.b/s2c2615.d
Lab Smp Id: 1202074568 Client Smp ID: RE16-10-2917MS
Inj Date : 26-MAR-2010 19:57
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202074568|966675|1|SVM|1|MS
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 26-Mar-2010 19:34 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 15 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2418.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.11000	weight of sample
M	12.61330	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	187005	40.0000	
* 29 Naphthalene-d8	136	4.672	4.672	(1.000)	793825	40.0000	
* 46 Acenaphthene-d10	164	5.918	5.918	(1.000)	436749	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	786537	40.0000	
* 91 Chrysene-d12	240	8.550	8.555	(1.000)	712849	40.0000	
* 98 Perylene-d12	264	9.951	9.962	(1.000)	460232	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	259169	58.2034	2210
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	296456	54.0659	2050
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.892)	183410	31.9231	1210
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.914)	330130	27.4740	1040
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.090)	66129	51.1915	1940
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.915)	386940	29.7629	1130

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.543	3.538	(0.930)	139858	24.7391	940
8 2-Chlorophenol	128	3.677	3.677	(0.965)	138194	27.4856	1040
11 1,4-Dichlorobenzene	146	3.822	3.822	(1.003)	171071	26.9634	1020
17 N-Nitrosodipropylamine	70	4.046	4.046	(1.062)	108215	30.5066	1160(Q)
28 1,2,4-Trichlorobenzene	180	4.619	4.624	(0.989)	148189	30.1960	1150
33 4-Chloro-3-methylphenol	107	5.046	5.020	(1.080)	126595	29.3248	1110
47 Acenaphthene	154	5.940	5.940	(1.004)	324000	27.8539	1060
50 2,4-Dinitrotoluene	165	6.025	6.025	(1.018)	111605	31.8085	1210
65 Pentachlorophenol	266	6.790	6.774	(0.983)	22588	12.6225	480
79 Pyrene	202	7.769	7.774	(0.909)	664950	28.6165	1090
2 Pyridine	79	2.377	2.345	(0.624)	80592	22.1513	842
4 Aniline	66	3.592	3.597	(0.942)	81757	30.4560	1160(Q)
7 bis(2-Chloroethyl) ether	63	3.608	3.613	(0.947)	137751	28.3643	1080
9 1,3-Dichlorobenzene	146	3.773	3.773	(0.990)	161976	27.0687	1030
13 1,2-Dichlorobenzene	146	3.923	3.923	(1.029)	154907	26.4499	1000
14 bis(2-Chloroisopropyl)ether	45	3.950	3.955	(1.036)	425861	35.8685	1360
15 o-Cresol	107	3.934	3.929	(1.032)	108155	27.0936	1030
18 m,p-Cresols	107	4.030	4.030	(1.058)	157025	33.0148	1250
19 Hexachloroethane	117	4.148	4.148	(1.088)	70849	28.2572	1070
21 Nitrobenzene	77	4.185	4.185	(0.896)	173448	32.0731	1220
22 Isophorone	82	4.335	4.335	(0.928)	300935	30.7689	1170
23 2-Nitrophenol	139	4.394	4.394	(0.940)	80561	28.4516	1080
24 2,4-Dimethylphenol	122	4.399	4.394	(0.942)	97679	19.2828	733
25 bis(2-Chloroethoxy)methane	93	4.458	4.458	(0.954)	157076	27.9953	1060
26 2,4-Dichlorophenol	162	4.565	4.560	(0.977)	118260	29.4582	1120
27 Benzoic acid	105	4.431	4.447	(0.948)	49081	19.6437	746(aQ)
30 Naphthalene	128	4.688	4.688	(1.003)	475710	30.2209	1150
31 4-Chloroaniline	127	4.704	4.704	(1.007)	184752	27.0225	1030
32 Hexachlorobutadiene	225	4.752	4.752	(1.017)	97856	32.9427	1250
34 2-Methylnaphthalene	142	5.164	5.164	(1.105)	324544	32.0792	1220
36 Hexachlorocyclopentadiene	237	5.266	5.266	(0.890)	46309	22.2795	847
37 2,4,6-Trichlorophenol	196	5.357	5.357	(0.905)	67600	20.5852	782
38 2,4,5-Trichlorophenol	196	5.405	5.383	(0.913)	86758	24.4863	931
40 2-Chloronaphthalene	162	5.517	5.517	(0.932)	291038	27.4944	1040
42 o-Nitroaniline	65	5.576	5.576	(0.942)	103522	31.3674	1190
41 m-Nitroaniline	138	5.870	5.870	(0.992)	69906	32.4491	1230
43 Dimethylphthalate	163	5.683	5.688	(0.960)	390609	31.4494	1200
44 2,6-Dinitrotoluene	165	5.736	5.742	(0.969)	82338	29.3113	1110
45 Acenaphthylene	152	5.817	5.817	(0.983)	464722	29.1246	1110
48 2,4-Dinitrophenol	184	5.945	5.940	(1.005)	17654	22.3028	848(Q)
49 Dibenzofuran	168	6.057	6.057	(1.023)	417059	29.1871	1110
51 Diethylphthalate	149	6.170	6.170	(1.042)	429059	33.6801	1280
53 Fluorene	166	6.293	6.293	(1.063)	392812	31.6845	1200
54 4-Chlorophenylphenylether	204	6.271	6.271	(1.060)	178442	30.5496	1160
55 2-Methyl-4,6-dinitrophenol	198	6.309	6.309	(0.913)	42275	25.0182	951
56 p-Nitroaniline	138	6.293	6.293	(1.063)	92515	44.3456	1680
133 Diphenylamine	169	6.351	6.351	(0.919)	297790	29.0913	1100

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
58 1,2-Diphenylhydrazine	77	6.378	6.378	(0.923)	415577	31.1719	1180
61 4-Bromophenylphenylether	248	6.598	6.597	(0.955)	98794	28.5479	1080
63 Hexachlorobenzene	284	6.656	6.656	(0.964)	96482	27.9210	1060
68 Phenanthrene	178	6.924	6.924	(1.002)	644541	33.1547	1260
69 Anthracene	178	6.956	6.956	(1.007)	572282	30.4301	1160
72 Di-n-butylphthalate	149	7.197	7.197	(1.042)	760566	34.1839	1300
76 Fluoranthene	202	7.635	7.635	(1.105)	651074	37.0780	1410
85 Butylbenzylphthalate	149	8.079	8.084	(0.945)	319919	29.4258	1120
89 Benzo(a)anthracene	228	8.539	8.544	(0.999)	556890	31.3033	1190
90 3,3'-Dichlorobenzidine	252	8.486	8.491	(0.992)	124427	26.3348	1000
92 Chrysene	228	8.571	8.576	(1.002)	528416	31.8387	1210
93 bis(2-Ethylhexyl)phthalate	149	8.432	8.437	(0.986)	441806	29.5114	1120
94 Di-n-octylphthalate	149	8.946	8.951	(0.899)	657389	29.9613	1140
95 Benzo(b)fluoranthene	252	9.502	9.512	(0.955)	391859	31.2155	1190
96 Benzo(k)fluoranthene	252	9.534	9.539	(0.958)	424561	33.4302	1270
97 Benzo(a)pyrene	252	9.887	9.892	(0.994)	344882	33.1470	1260
99 Indeno(1,2,3-cd)pyrene	276	11.524	11.534	(1.158)	306051	34.3630	1300
100 Dibenzo(a,h)anthracene	278	11.529	11.540	(1.159)	249807	34.3318	1300
101 Benzo(ghi)perylene	276	12.010	12.021	(1.207)	241748	33.5112	1270
1 N-Methyl-N-nitrosomethylamine	74	2.340	2.319	(0.614)	62337	24.3583	926

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s032610.b/s2c2615.d
Date : 26-MAR-2010 19:57
Client ID: RE16-10-2917MS
Sample Info: 1120207456819666751|SVM|1|MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

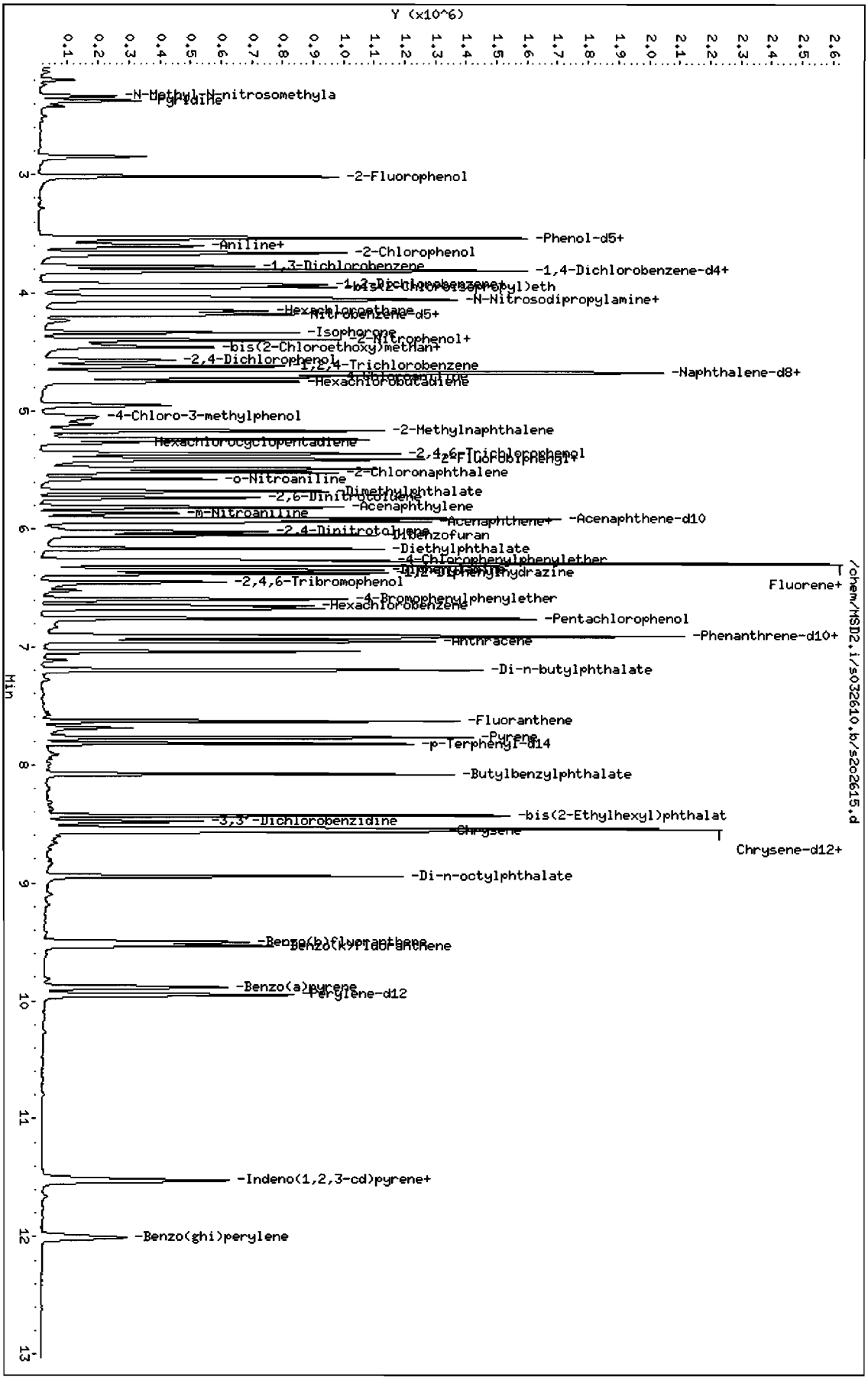

Page 1

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD2.i/s032610.b/s2c2616.d
Lab Smp Id: 1202074569 Client Smp ID: RE16-10-2917MSD
Inj Date : 26-MAR-2010 20:18
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202074569|966675|1|SVM|1|MSD
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032610.b/MSD2-M8270AQA-031210.m
Meth Date : 26-Mar-2010 19:34 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 16 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2418.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	12.61330	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.811	3.811	(1.000)	181275	40.0000	
* 29 Naphthalene-d8	136	4.672	4.672	(1.000)	767276	40.0000	
* 46 Acenaphthene-d10	164	5.918	5.918	(1.000)	431641	40.0000	
* 67 Phenanthrene-d10	188	6.908	6.908	(1.000)	790472	40.0000	
* 91 Chrysene-d12	240	8.550	8.555	(1.000)	726348	40.0000	
* 98 Perylene-d12	264	9.951	9.962	(1.000)	471154	40.0000	
$ 3 2-Fluorophenol	112	3.014	3.003	(0.791)	205671	47.6490	1820
$ 5 Phenol-d5	99	3.533	3.533	(0.927)	241389	45.4147	1730
$ 20 Nitrobenzene-d5	82	4.169	4.169	(0.892)	146929	26.4584	1010
$ 39 2-Fluorobiphenyl	172	5.410	5.410	(0.914)	275710	23.2166	884
$ 60 2,4,6-Tribromophenol	329	6.453	6.453	(1.090)	67584	52.9370	2020
$ 81 p-Terphenyl-d14	244	7.822	7.822	(0.915)	362656	27.3766	1040

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.543	3.538	(0.930)	115640	21.1018	804
8 2-Chlorophenol	128	3.677	3.677	(0.965)	116643	23.9326	912
11 1,4-Dichlorobenzene	146	3.822	3.822	(1.003)	138778	22.5649	860
17 N-Nitrosodipropylamine	70	4.041	4.046	(1.060)	88414	25.7124	979(Q)
28 1,2,4-Trichlorobenzene	180	4.618	4.624	(0.989)	118897	25.0656	955
33 4-Chloro-3-methylphenol	107	5.041	5.020	(1.079)	119790	28.7086	1090
47 Acenaphthene	154	5.940	5.940	(1.004)	286393	24.9122	949
50 2,4-Dinitrotoluene	165	6.025	6.025	(1.018)	105194	30.3361	1160
65 Pentachlorophenol	266	6.779	6.774	(0.981)	27042	15.0362	573
79 Pyrene	202	7.769	7.774	(0.909)	586532	24.7726	944
2 Pyridine	79	2.383	2.345	(0.625)	65522	18.5785	708
4 Aniline	66	3.592	3.597	(0.942)	76926	29.5622	1130(Q)
7 bis(2-Chloroethyl) ether	63	3.608	3.613	(0.947)	113299	24.0668	917
9 1,3-Dichlorobenzene	146	3.773	3.773	(0.990)	129603	22.3433	851
13 1,2-Dichlorobenzene	146	3.923	3.923	(1.029)	125917	22.1796	845
14 bis(2-Chloroisopropyl)ether	45	3.950	3.955	(1.036)	347353	30.1809	1150
15 o-Cresol	107	3.934	3.929	(1.032)	94497	24.4204	930
18 m,p-Cresols	107	4.030	4.030	(1.058)	138467	30.0332	1140
19 Hexachloroethane	117	4.148	4.148	(1.088)	57337	23.5910	899
21 Nitrobenzene	77	4.180	4.185	(0.895)	145742	27.8824	1060
22 Isophorone	82	4.335	4.335	(0.928)	253755	26.8428	1020
23 2-Nitrophenol	139	4.394	4.394	(0.940)	64738	23.6545	901
24 2,4-Dimethylphenol	122	4.394	4.394	(0.940)	85696	17.5026	667
25 bis(2-Chloroethoxy)methane	93	4.458	4.458	(0.954)	132601	24.4509	931
26 2,4-Dichlorophenol	162	4.565	4.560	(0.977)	103741	26.7357	1020
27 Benzoic acid	105	4.437	4.447	(0.950)	65978	27.3201	1040
30 Naphthalene	128	4.683	4.688	(1.002)	381075	25.0466	954
31 4-Chloroaniline	127	4.704	4.704	(1.007)	169038	25.5796	974
32 Hexachlorobutadiene	225	4.752	4.752	(1.017)	79060	27.5361	1050
34 2-Methylnaphthalene	142	5.164	5.164	(1.105)	270152	27.6268	1050
36 Hexachlorocyclopentadiene	237	5.266	5.266	(0.890)	36053	17.5505	668
37 2,4,6-Trichlorophenol	196	5.357	5.357	(0.905)	68597	21.1360	805
38 2,4,5-Trichlorophenol	196	5.394	5.383	(0.911)	91155	26.0317	992
40 2-Chloronaphthalene	162	5.517	5.517	(0.932)	250089	23.9056	911
42 o-Nitroaniline	65	5.576	5.576	(0.942)	97001	29.7393	1130
41 m-Nitroaniline	138	5.870	5.870	(0.992)	67516	31.7873	1210
43 Dimethylphthalate	163	5.683	5.688	(0.960)	366625	29.8677	1140
44 2,6-Dinitrotoluene	165	5.736	5.742	(0.969)	77346	27.8600	1060
45 Acenaphthylene	152	5.817	5.817	(0.983)	412660	26.1679	997
48 2,4-Dinitrophenol	184	5.945	5.940	(1.005)	18449	22.9469	874(Q)
49 Dibenzofuran	168	6.057	6.057	(1.023)	377353	26.7209	1020
51 Diethylphthalate	149	6.170	6.170	(1.042)	400476	31.8084	1210
53 Fluorene	166	6.293	6.293	(1.063)	358970	29.2975	1120
54 4-Chlorophenylphenylether	204	6.271	6.271	(1.060)	163468	28.3172	1080
55 2-Methyl-4,6-dinitrophenol	198	6.309	6.309	(0.913)	40922	24.3719	928
56 p-Nitroaniline	138	6.293	6.293	(1.063)	90415	43.9201	1670
133 Diphenylamine	169	6.351	6.351	(0.919)	280425	27.2585	1040

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
58 1,2-Diphenylhydrazine	77	6.378	6.378	(0.923)	388709	29.0114	1100
61 4-Bromophenylphenylether	248	6.598	6.597	(0.955)	91738	26.3770	1000
63 Hexachlorobenzene	284	6.656	6.656	(0.964)	90400	26.0307	992
68 Phenanthrene	178	6.924	6.924	(1.002)	572444	29.2995	1120
69 Anthracene	178	6.956	6.956	(1.007)	533408	28.2219	1080
72 Di-n-butylphthalate	149	7.197	7.197	(1.042)	716456	32.0411	1220
76 Fluoranthene	202	7.630	7.635	(1.105)	573494	32.4973	1240
85 Butylbenzylphthalate	149	8.079	8.084	(0.945)	303335	27.3819	1040
89 Benzo(a)anthracene	228	8.539	8.544	(0.999)	539610	29.7683	1130
90 3,3'-Dichlorobenzidine	252	8.480	8.491	(0.992)	120007	24.9272	950
92 Chrysene	228	8.566	8.576	(1.002)	466482	27.5847	1050
93 bis(2-Ethylhexyl)phthalate	149	8.427	8.437	(0.986)	415511	27.2392	1040
94 Di-n-octylphthalate	149	8.940	8.951	(0.898)	621340	27.6619	1050
95 Benzo(b)fluoranthene	252	9.502	9.512	(0.955)	395340	30.7627	1170
96 Benzo(k)fluoranthene	252	9.529	9.539	(0.958)	361813	27.8290	1060
97 Benzo(a)pyrene	252	9.882	9.892	(0.993)	317624	29.8195	1140
99 Indeno(1,2,3-cd)pyrene	276	11.524	11.534	(1.158)	285486	31.3109	1190
100 Dibenzo(a,h)anthracene	278	11.524	11.540	(1.158)	237479	31.8809	1210
101 Benzo(ghi)perylene	276	12.005	12.021	(1.206)	221473	29.9890	1140
1 N-Methyl-N-nitrosomethylamine	74	2.340	2.319	(0.614)	50303	20.2773	772

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s032610.b/s2c2616.d
Date : 26-MAR-2010 20:18
Client ID: RE16-10-2917MSD
Sample Info: |1202074569|966675|1|SVMI1|MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: AGS1
Column diameter: 0.20

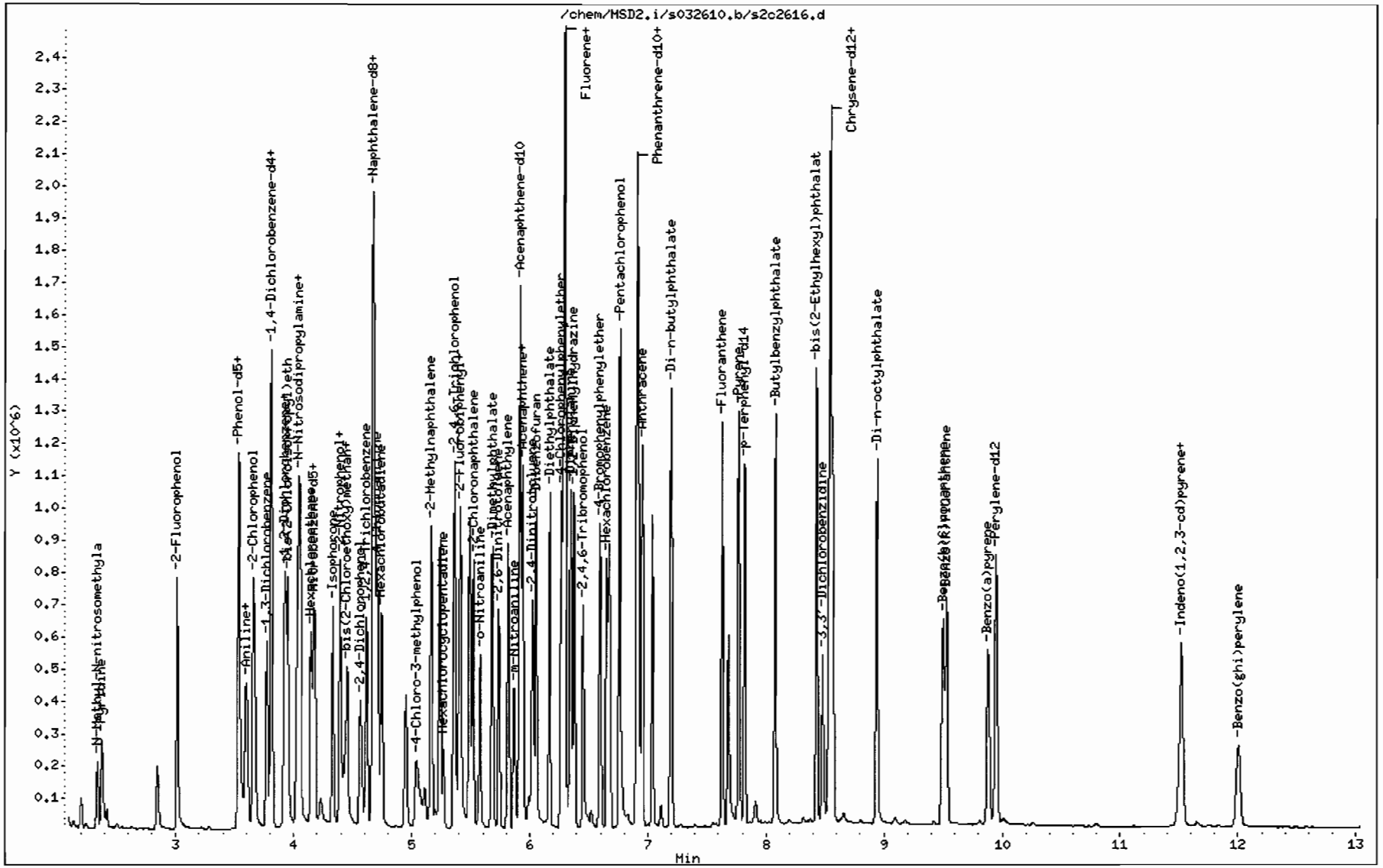

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2398

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	967400, 968935
Prep Batch Number:	967399, 968933

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
249180001	RE46-10-13437
249180003	RE46-10-13434
249180004	RE46-10-13438
249180005	RE46-10-13435
249180006	RE46-10-13439
249180008	RE46-10-13463
1202076363	Method Blank (MB) (Batch 967400)
1202076364	Laboratory Control Sample (LCS) (Batch 967400)
1202076365	248863002(RE46-10-12930) Matrix Spike (MS) (Batch 967400)
1202076366	248863002(RE46-10-12930) Matrix Spike Duplicate (MSD) (Batch 967400)
249180002	RE46-10-13436
1202080259	Method Blank (MB) (Batch 968935)
1202080260	Laboratory Control Sample (LCS) (Batch 968935)
1202080261	Laboratory Control Sample Duplicate (LCSD) (Batch 968935)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery
The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement
The RPD between the LCS and LCSD met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-2315) was selected for the matrix spike and matrix spike duplicate analysis in batch 967400. A Form III and QC raw data are included in the package summarizing the results.

The matrix spike and matrix spike duplicate analysis was not performed for batch 968935. The LCS and LCSD analysis was performed to measure the precision and accuracy for this batch.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
Sample 249180002 (RE46-10-13436) was diluted at 1:10 due to the oily matrix of the extract.

Sample Re-extraction/Re-analysis
Sample 249180002 (RE46-10-13436) was extracted and analyzed twice. The second analysis was reported.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data Exception Report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG. A copy is included in the Miscellaneous Data section of this package.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the LCSD is from the same analytical column as the LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 4/7/10

Roadmap for LANL 10-2398 PCB

This roadmap was analyzed by yip00818 on 03-25-2010, 15:31.
This roadmap was packaged by yml on 04-06-2010, 21:00.
This roadmap was validated by jim01140 on 04-07-2010, 12:46.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032310a.b/033f3301.d	249180001	sample	23-MAR-2010	13:46	10-2398.sub	RE46-10-13437	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/032310a.b/034f3401.d	249180002	sample	23-MAR-2010	13:59	10-2398.sub	RE46-10-13436	1.00000	967400	RE SURROGATE LOW
☐	N	/chem/ecd1a.i/032510.b/036f3601.d	249180002	sample	25-MAR-2010	11:56	10-2398.sub	RE46-10-13436	10.00000	968935	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/035f3501.d	249180003	sample	23-MAR-2010	14:12	10-2398.sub	RE46-10-13434	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/036f3601.d	249180004	sample	23-MAR-2010	14:24	10-2398.sub	RE46-10-13438	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/037f3701.d	249180005	sample	23-MAR-2010	14:37	10-2398.sub	RE46-10-13435	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/038f3801.d	249180006	sample	23-MAR-2010	14:50	10-2398.sub	RE46-10-13439	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/039f3901.d	249180008	sample	23-MAR-2010	15:02	10-2398.sub	RE46-10-13463	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032310a.b/033b3301.d	249180001	sample	23-MAR-2010	13:46	10-2398.sub	RE46-10-13437	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/032310a.b/034b3401.d	249180002	sample	23-MAR-2010	13:59	10-2398.sub	RE46-10-13436	1.00000	967400	RE SURROGATE LOW
☐	N	/chem/ecd1a.i/032510.b/036b3601.d	249180002	sample	25-MAR-2010	11:56	10-2398.sub	RE46-10-13436	10.00000	968935	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/035b3501.d	249180003	sample	23-MAR-2010	14:12	10-2398.sub	RE46-10-13434	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/036b3601.d	249180004	sample	23-MAR-2010	14:24	10-2398.sub	RE46-10-13438	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/037b3701.d	249180005	sample	23-MAR-2010	14:37	10-2398.sub	RE46-10-13435	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/038b3801.d	249180006	sample	23-MAR-2010	14:50	10-2398.sub	RE46-10-13439	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/032310a.b/039b3901.d	249180008	sample	23-MAR-2010	15:02	10-2398.sub	RE46-10-13463	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032310a.b/012f1201-4.d	1202076363	mb	23-MAR-2010	09:39	10-2398.sub	PBLK01	1.00000	967400	
☐	N	/chem/ecd1a.i/032510.b/030f3001-2.d	1202080259	mb	25-MAR-2010	10:47	10-2398.sub	PBLK02	1.00000	968935	
☐	N	/chem/ecd1a.i/032310a.b/013f1301-4.d	1202076364	lcs	23-MAR-2010	09:49	10-2398.sub	PBLK01LCS	1.00000	967400	
☐	N	/chem/ecd1a.i/032510.b/031f3101-2.d	1202080260	lcs	25-MAR-2010	10:57	10-2398.sub	PBLK02LCS	1.00000	968935	

☐	N	/chem/ecd1a.i/032510.b/032f3201-2.d	1202080261	lcsd	25-MAR-2010	11:08	10-2398.sub	PBLK02LCSD	1.00000	968935	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032310a.b/012b1201-4.d	1202076363	mb	23-MAR-2010	09:39	10-2398.sub	PBLK01	1.00000	967400	
☐	N	/chem/ecd1a.i/032510.b/030b3001-2.d	1202080259	mb	25-MAR-2010	10:47	10-2398.sub	PBLK02	1.00000	968935	
☐	N	/chem/ecd1a.i/032310a.b/013b1301-4.d	1202076364	lcs	23-MAR-2010	09:49	10-2398.sub	PBLK01LCS	1.00000	967400	
☐	N	/chem/ecd1a.i/032510.b/031b3101-2.d	1202080260	lcs	25-MAR-2010	10:57	10-2398.sub	PBLK02LCS	1.00000	968935	
☐	N	/chem/ecd1a.i/032510.b/032b3201-2.d	1202080261	lcsd	25-MAR-2010	11:08	10-2398.sub	PBLK02LCSD	1.00000	968935	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180003**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**15.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13434**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 14:12**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	035b3501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.92	ug/kg	1.30	3.92	1
11104-28-2	Aroclor-1221	U	3.92	ug/kg	1.30	3.92	1
11141-16-5	Aroclor-1232	U	3.92	ug/kg	1.30	3.92	1
53469-21-9	Aroclor-1242	U	3.92	ug/kg	1.30	3.92	1
12672-29-6	Aroclor-1248	U	3.92	ug/kg	1.30	3.92	1
11097-69-1	Aroclor-1254	P	5.10	ug/kg	1.30	3.92	1
11096-82-5	Aroclor-1260		9.10	ug/kg	1.30	3.92	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180005**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**17.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13435**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 14:37**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**037f3701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	037b3701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.05	ug/kg	1.35	4.05	1
11104–28–2	Aroclor–1221	U	4.05	ug/kg	1.35	4.05	1
11141–16–5	Aroclor–1232	U	4.05	ug/kg	1.35	4.05	1
53469–21–9	Aroclor–1242	U	4.05	ug/kg	1.35	4.05	1
12672–29–6	Aroclor–1248	U	4.05	ug/kg	1.35	4.05	1
11097–69–1	Aroclor–1254		25.7	ug/kg	1.35	4.05	1
11096–82–5	Aroclor–1260		16.8	ug/kg	1.35	4.05	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180002**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13436**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968935**	**Inst:**	**ECD1A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 11:56**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 20:20**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**036f3601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	036b3601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	40.0	ug/kg	13.3	40.0	1
11104–28–2	Aroclor–1221	U	40.0	ug/kg	13.3	40.0	1
11141–16–5	Aroclor–1232	U	40.0	ug/kg	13.3	40.0	1
53469–21–9	Aroclor–1242	U	40.0	ug/kg	13.3	40.0	1
12672–29–6	Aroclor–1248	U	40.0	ug/kg	13.3	40.0	1
11097–69–1	Aroclor–1254		230	ug/kg	13.3	40.0	1
11096–82–5	Aroclor–1260		129	ug/kg	13.3	40.0	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180001**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13437**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:46**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**033f3301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	033b3301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.08	ug/kg	1.36	4.08	1
11104–28–2	Aroclor–1221	U	4.08	ug/kg	1.36	4.08	1
11141–16–5	Aroclor–1232	U	4.08	ug/kg	1.36	4.08	1
53469–21–9	Aroclor–1242	U	4.08	ug/kg	1.36	4.08	1
12672–29–6	Aroclor–1248	U	4.08	ug/kg	1.36	4.08	1
11097–69–1	Aroclor–1254		27.9	ug/kg	1.36	4.08	1
11096–82–5	Aroclor–1260		16.4	ug/kg	1.36	4.08	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180004**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13438**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 14:24**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**036f3601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	036b3601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.96	ug/kg	1.32	3.96	1
11104–28–2	Aroclor–1221	U	3.96	ug/kg	1.32	3.96	1
11141–16–5	Aroclor–1232	U	3.96	ug/kg	1.32	3.96	1
53469–21–9	Aroclor–1242	U	3.96	ug/kg	1.32	3.96	1
12672–29–6	Aroclor–1248	U	3.96	ug/kg	1.32	3.96	1
11097–69–1	Aroclor–1254		23.6	ug/kg	1.32	3.96	1
11096–82–5	Aroclor–1260		11.5	ug/kg	1.32	3.96	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180006**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13439**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 14:50**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**038f3801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	038b3801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.82	ug/kg	1.27	3.82	1
11104–28–2	Aroclor–1221	U	3.82	ug/kg	1.27	3.82	1
11141–16–5	Aroclor–1232	U	3.82	ug/kg	1.27	3.82	1
53469–21–9	Aroclor–1242	U	3.82	ug/kg	1.27	3.82	1
12672–29–6	Aroclor–1248	U	3.82	ug/kg	1.27	3.82	1
11097–69–1	Aroclor–1254		64.7	ug/kg	1.27	3.82	1
11096–82–5	Aroclor–1260		40.3	ug/kg	1.27	3.82	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180008**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13463**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 15:02**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**039f3901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	039b3901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.93	ug/kg	1.31	3.93	1
11104–28–2	Aroclor–1221	U	3.93	ug/kg	1.31	3.93	1
11141–16–5	Aroclor–1232	U	3.93	ug/kg	1.31	3.93	1
53469–21–9	Aroclor–1242	U	3.93	ug/kg	1.31	3.93	1
12672–29–6	Aroclor–1248	U	3.93	ug/kg	1.31	3.93	1
11097–69–1	Aroclor–1254	P	4.50	ug/kg	1.31	3.93	1
11096–82–5	Aroclor–1260		10.0	ug/kg	1.31	3.93	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-2398

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
1202076363	MB for batch 967399	71		68		86		78	
1202076364	LCS for batch 967399	77		73		85		78	
249180001	RE46-10-13437	39		37		32		33	
249180003	RE46-10-13434	44		42		46		42	
249180004	RE46-10-13438	46		44		63		57	
249180005	RE46-10-13435	52		50		49		49	
249180006	RE46-10-13439	47		45		38		46	
249180008	RE46-10-13463	33		32		34		33	
1202080259	MB for batch 968933	70		66		79		73	
1202080260	LCS for batch 968933	72		67		83		78	
1202080261	LCSD for batch 968933	73		68		81		76	
249180002	RE46-10-13436	80	D	82	D	74	D	81	D

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%-120%)
DCB = Decachlorobiphenyl	(30%-116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: LCS for batch 967399
Lab Sample ID: 1202076364
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 09:49
Dilution: 1
Prep Batch ID: 967399
Batch ID: 967400

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	23.8	71	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	27.3	82	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2398
Client ID: LCS for batch 968933
Lab Sample ID: 1202080260
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/25/2010 10:57
Dilution: 1
Prep Batch ID: 968933
Batch ID: 968935

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	23.7	71	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	25.8	77	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2398
Client ID: LCSD for batch 968933
Lab Sample ID: 1202080261
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample Duplicate
Matrix: SOIL
Analysis Date: 03/25/2010 11:08
Dilution: 1
Prep Batch ID: 968933
Batch ID: 968935

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	LCSD Aroclor–1016	33.3	0.0	22.4	67	39–102	6	0–21
11096–82–5	LCSD Aroclor–1260	33.3	0.0	25.6	77	45–118	1	0–22

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2315
Client ID: RE46–10–12930MS
Lab Sample ID: 1202076365
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 8.5
Analysis Date: 03/23/2010 10:25
Prep Batch ID: 967399
Batch ID: 967400

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674–11–2	MS	Aroclor–1016	36.4	0.00	U	18.0	49	23–119
11096–82–5	MS	Aroclor–1260	36.4	0.00	U	22.4	62	28–124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2315**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE46-10-12930MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202076366**	**%Moisture:**	**8.5**
Instrument:	**ECD1A.I**	**Analysis Date:**	**03/23/2010 10:37**
Analyst:	**YS1**	**Prep Batch ID:**	**967399**
Inj. Vol:	**1 uL**	**Batch ID:**	**967400**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	36.4	0.00	U	21.3	59	23-119	17	0-28
11096-82-5	MSD Aroclor-1260	36.4	0.00	U	25.9	71	28-124	15	0-30

Method Blank Summary

SDG Number:	10–2398	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 967399	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	012b1201–1.d 012f1201–1.d
Lab Sample ID:	1202076363				
Column:	CLP2 CLP1	Prep Date:	03/22/2010 11:11	Analyzed:	03/23/10 09:39
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 967399	1202076364	013f1301–1.d 013b1301–1.d	03/23/10	0949
04 RE46–10–13437	249180001	033f3301.d 033b3301.d	03/23/10	1346
05 RE46–10–13434	249180003	035f3501.d 035b3501.d	03/23/10	1412
06 RE46–10–13438	249180004	036f3601.d 036b3601.d	03/23/10	1424
07 RE46–10–13435	249180005	037f3701.d 037b3701.d	03/23/10	1437
08 RE46–10–13439	249180006	038f3801.d 038b3801.d	03/23/10	1450
09 RE46–10–13463	249180008	039f3901.d 039b3901.d	03/23/10	1502

Method Blank Summary

SDG Number:	10–2398	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 968933	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	030b3001–1.d 030f3001–1.d
Lab Sample ID:	1202080259				
Column:	CLP2 CLP1	Prep Date:	03/24/2010 20:20	Analyzed:	03/25/10 10:47
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 968933	1202080260	031f3101–1.d 031b3101–1.d	03/25/10	1057
02 LCSD for batch 968933	1202080261	032f3201–1.d 032b3201–1.d	03/25/10	1108
03 RE46–10–13436	249180002	036f3601.d 036b3601.d	03/25/10	1156

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2398	**Date Collected:**	03/09/2010 12:00	**Matrix:**	S
Lab Sample ID:	249180003	**Date Received:**	03/11/2010 09:00	**%Moisture:**	15.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13434	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967400	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/23/2010 14:12	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 11:11	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	035f3501.d	**Column:**	1 CLP1	**Level:**	LOW
	035b3501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.92	ug/kg	1.30	3.92	1
11104-28-2	Aroclor-1221	U	3.92	ug/kg	1.30	3.92	1
11141-16-5	Aroclor-1232	U	3.92	ug/kg	1.30	3.92	1
53469-21-9	Aroclor-1242	U	3.92	ug/kg	1.30	3.92	1
12672-29-6	Aroclor-1248	U	3.92	ug/kg	1.30	3.92	1
11097-69-1	Aroclor-1254	P	5.10	ug/kg	1.30	3.92	1
11096-82-5	Aroclor-1260		9.10	ug/kg	1.30	3.92	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/035f3501.d
Lab Smp Id: 249180003 Client Smp ID: RE46-10-13434
Inj Date : 23-MAR-2010 14:12
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249180003|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-13434|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	15.06790	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.913	-0.001	34642365	88.9353	3.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.217	-0.004	27505855	92.6340	3.6	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.206	3.208	-0.002	1006910	75.9247	3.0	80.00- 120.00	100.00
3.361	3.363	-0.002	1119263	62.7625	2.4	113.89- 153.89	111.16
3.594	3.597	-0.003	2097196	93.7449	3.7	156.06- 196.06	208.28
3.758	3.759	-0.001	1480982	89.8106	3.5	110.77- 150.77	147.08

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.866	3.868	-0.002	5162949	323.404	12.7	110.30- 150.30	512.75
Average of Peak Concentrations =					5.0		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	4205955	229.456	9.0	80.00- 120.00	100.00(M)
3.866	3.867	-0.001	5162949	192.004	7.5	129.52- 169.52	122.75
4.027	4.030	-0.003	6167393	217.811	8.5	138.68- 178.68	146.63
4.095	4.097	-0.002	4212850	260.730	10.2	69.81- 109.81	100.16
4.238	4.240	-0.002	4384169	260.766	10.2	73.33- 113.33	104.24
Average of Peak Concentrations =					9.1		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/035f3501.d
Date : 23-MAR-2010 14:12
Client ID: RE46-10-13434
Sample Info: |24918000311|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

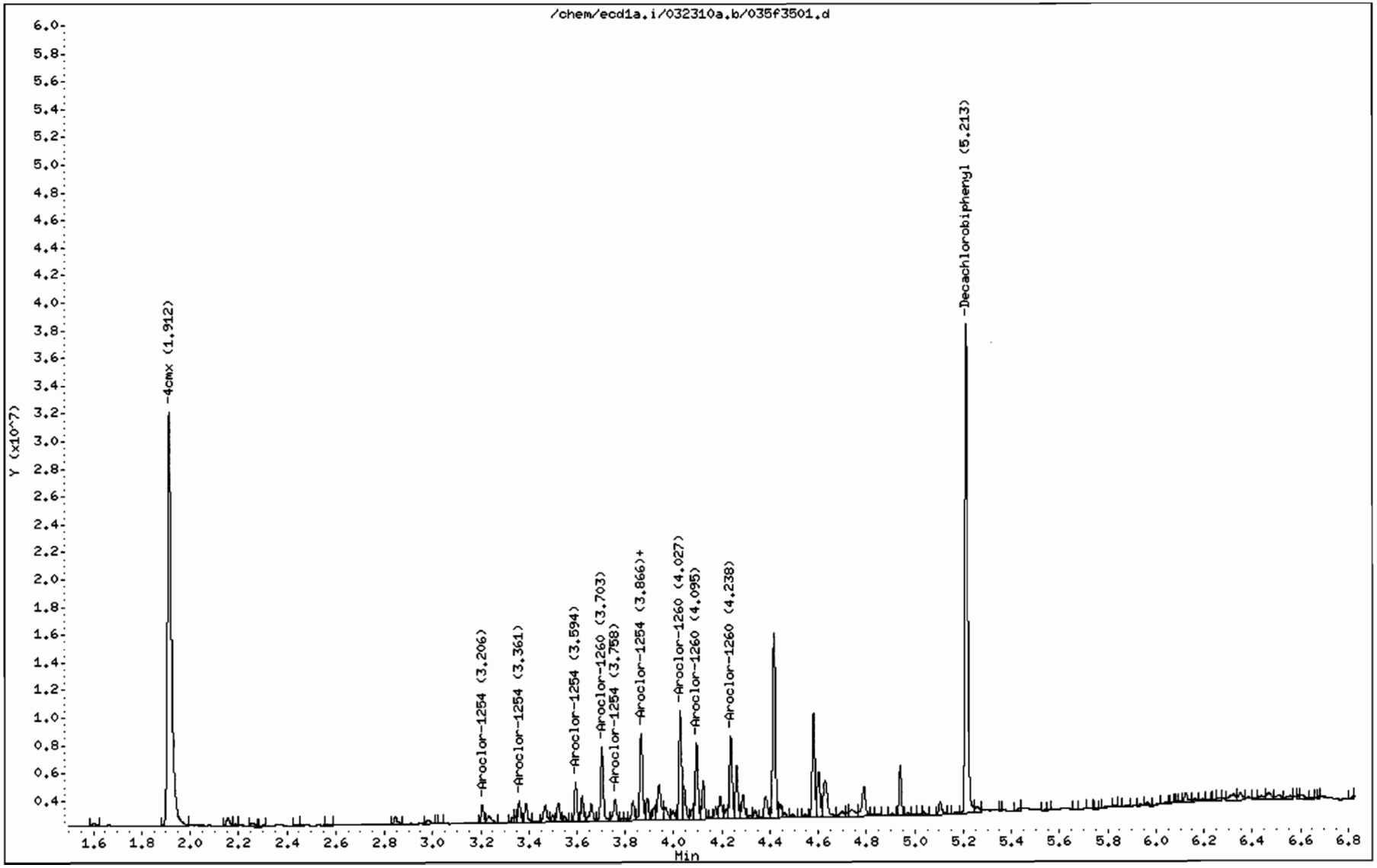

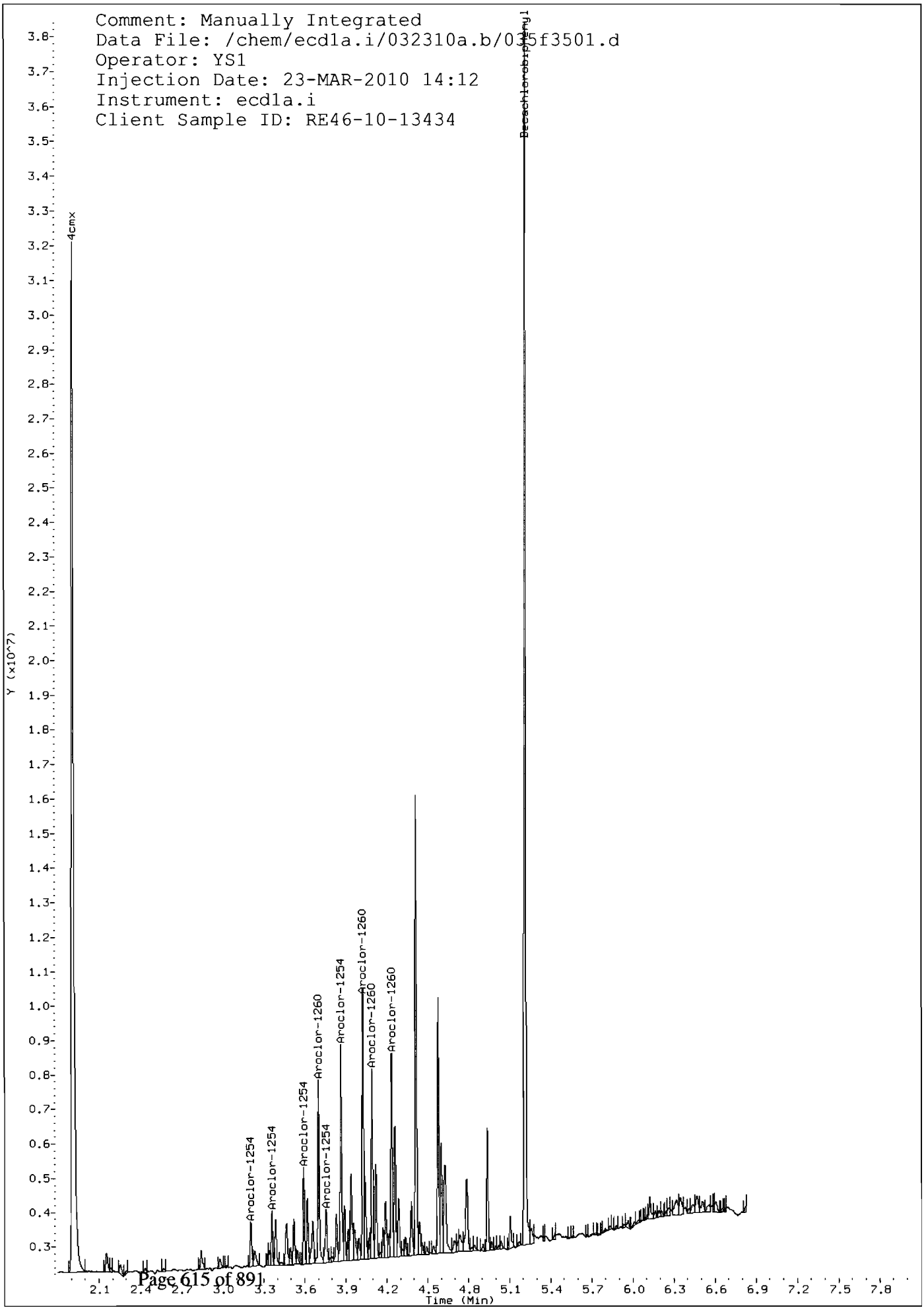
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/035f3501.d
Operator: YS1
Injection Date: 23-MAR-2010 14:12
Instrument: ecd1a.i
Client Sample ID: RE46-10-13434
4cmx
Decachlorobiphenyl
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

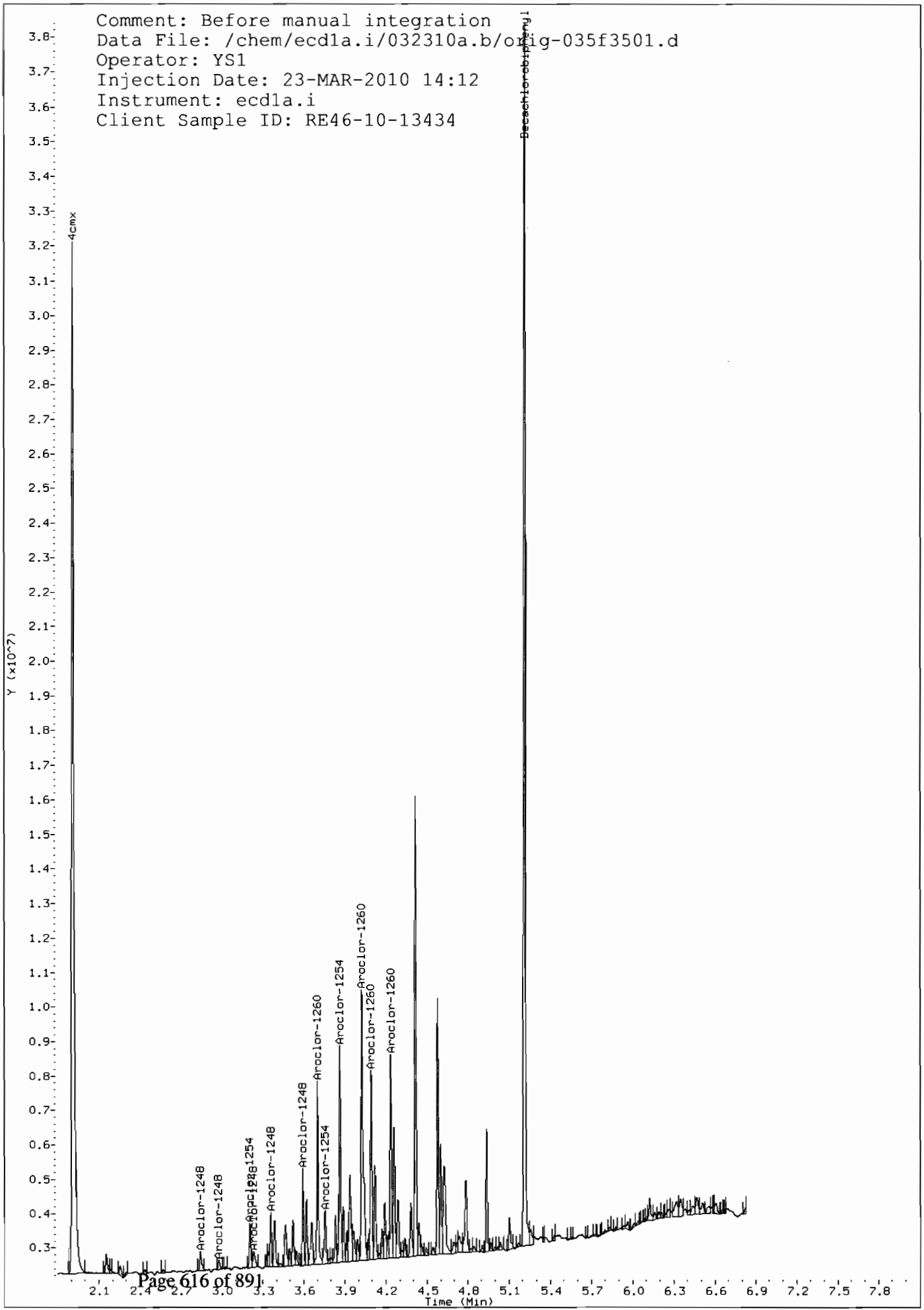
Comment: Before manual integration
Data File: /chem/ecd1a.i/032310a.b/orig-035f3501.d
Operator: YS1
Injection Date: 23-MAR-2010 14:12
Instrument: ecd1a.i
Client Sample ID: RE46-10-13434
4cmx
Decachlorobiphenyl
Aroclor-1248
Aroclor-1254
Aroclor-1260
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/035b3501.d
Lab Smp Id: 249180003 Client Smp ID: RE46-10-13434
Inj Date : 23-MAR-2010 14:12
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249180003|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-13434|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 13:46 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	15.06790	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	22291624	84.9746	3.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.909	5.912	-0.003	15793553	84.3793	3.3	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.373	3.373	0.000	303882	50.4685	2.0	80.00- 120.00	100.00(a)
3.794	3.795	-0.001	674210	62.3127	2.4	161.92- 201.92	221.87
3.911	3.912	-0.001	1344271	112.646	4.4	181.59- 221.59	442.37
4.186	4.188	-0.002	1375732	83.6729	3.3	261.95- 301.95	452.72

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.323	4.323	0.000	601836	49.6748	1.9	185.16- 225.16	198.05
Average of Peak Concentrations =					2.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	2623295	200.554	7.8	80.00- 120.00	100.00
4.428	4.428	0.000	2293813	147.521	5.8	101.84- 141.84	87.44
4.693	4.695	-0.002	2889154	242.866	9.5	71.46- 111.46	110.13
4.866	4.867	-0.001	3139825	255.494	10.0	75.14- 115.14	119.69
5.013	5.015	-0.002	6472734	245.229	9.6	191.46- 231.46	246.74
Average of Peak Concentrations =					8.5		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/032310a.b/035b3501.d

Date : 23-MAR-2010 14:12

Client ID: RE46-10-13434

Sample Info: |249180003|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

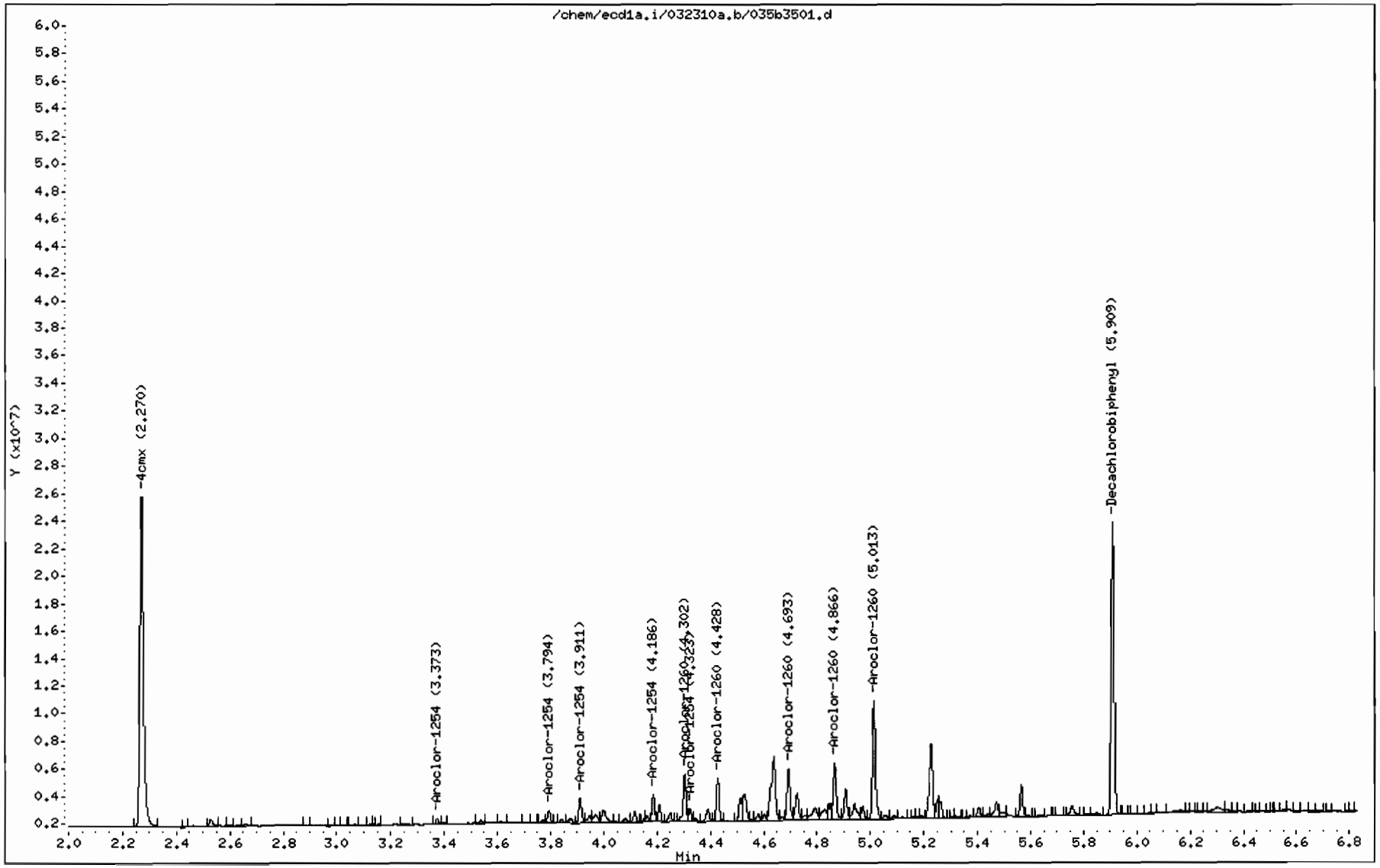

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180005**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**17.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13435**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 14:37**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**037f3701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	037b3701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.05	ug/kg	1.35	4.05	1
11104–28–2	Aroclor–1221	U	4.05	ug/kg	1.35	4.05	1
11141–16–5	Aroclor–1232	U	4.05	ug/kg	1.35	4.05	1
53469–21–9	Aroclor–1242	U	4.05	ug/kg	1.35	4.05	1
12672–29–6	Aroclor–1248	U	4.05	ug/kg	1.35	4.05	1
11097–69–1	Aroclor–1254		25.7	ug/kg	1.35	4.05	1
11096–82–5	Aroclor–1260		16.8	ug/kg	1.35	4.05	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/037f3701.d
Lab Smp Id: 249180005 Client Smp ID: RE46-10-13435
Inj Date : 23-MAR-2010 14:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249180005|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-13435|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	17.89980	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.913	-0.003	40512464	104.005	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.217	-0.004	29143142	98.1481	4.0	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.206	3.208	-0.002	7142670	538.584	21.8	80.00- 120.00	100.00
3.360	3.363	-0.003	9347607	524.166	21.2	113.89- 153.89	130.87
3.594	3.597	-0.003	12888850	576.133	23.3	156.06- 196.06	180.45
3.757	3.759	-0.002	9540956	578.589	23.4	110.77- 150.77	133.58

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.865	3.868	-0.003	15251956	955.372	38.7	110.30- 150.30	213.53
Average of Peak Concentrations =					25.7		
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.705	-0.003	8500679	463.755	18.8	80.00- 120.00	100.00(M)
3.865	3.867	-0.002	15251956	567.202	23.0	129.52- 169.52	179.42
4.027	4.030	-0.003	17741459	626.568	25.4	138.68- 178.68	208.71
4.095	4.097	-0.002	3324851	205.773	8.3	69.81- 109.81	39.11
4.236	4.240	-0.004	3455795	205.547	8.3	73.33- 113.33	40.65
Average of Peak Concentrations =					16.8		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/037f3701.d
Date : 23-MAR-2010 14:37
Client ID: RE46-10-13435
Sample Info: |249180005|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Page 1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

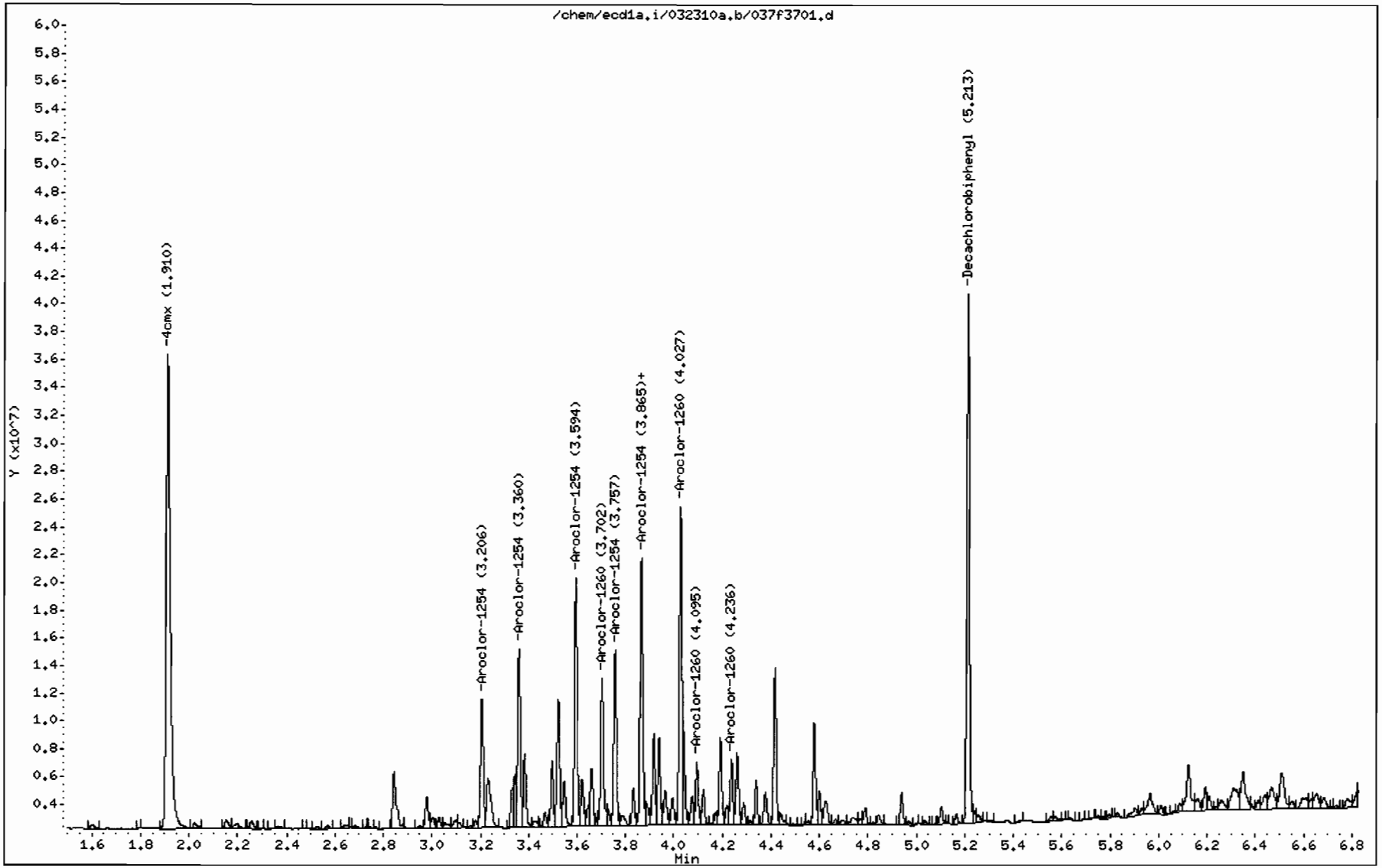

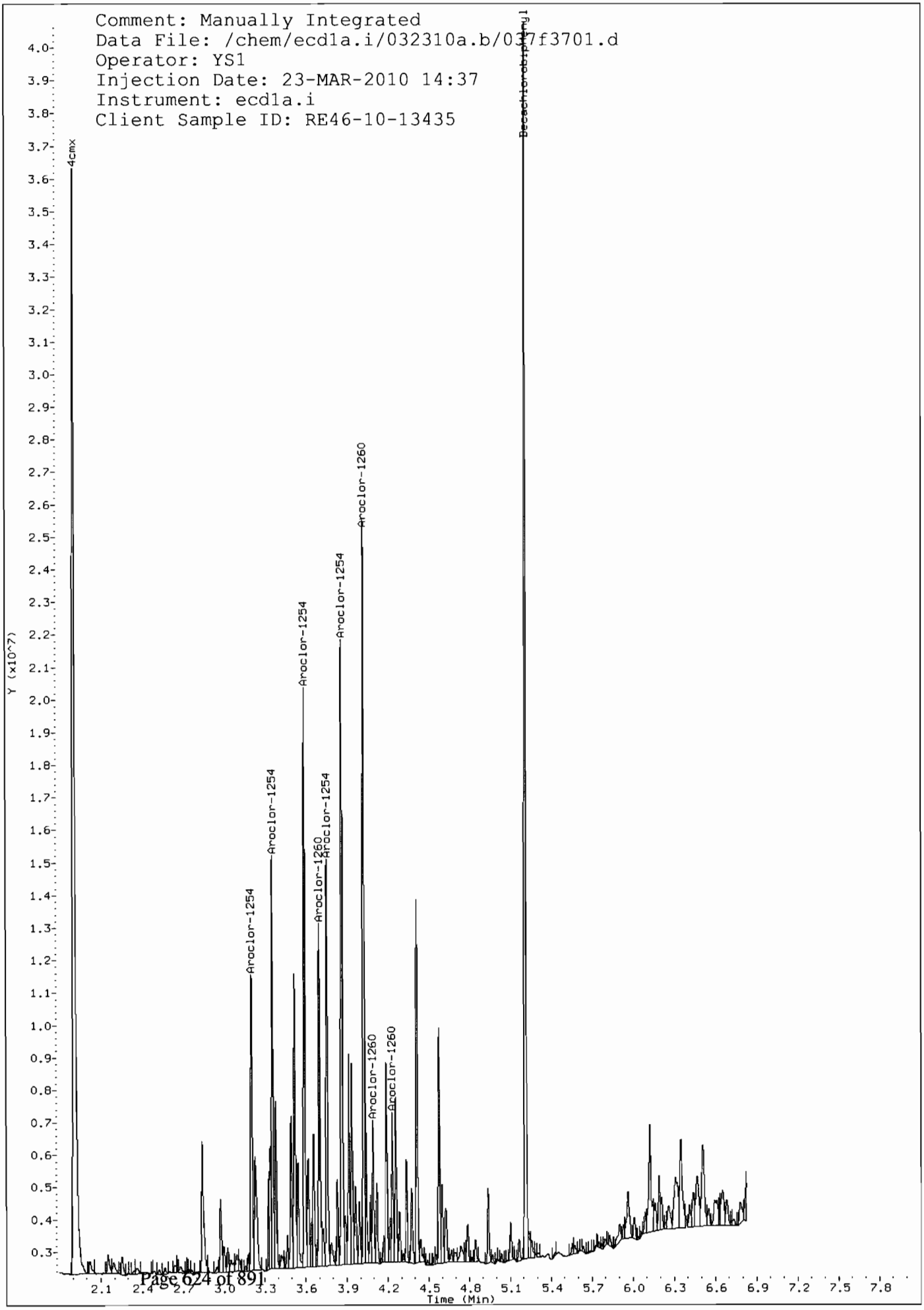
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/037f3701.d
Operator: YS1
Injection Date: 23-MAR-2010 14:37
Instrument: ecd1a.i
Client Sample ID: RE46-10-13435
4cmx
Decachlorobiphenyl
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd1a.i/032310a.b/orig-037f3701.d
Operator: YS1
Injection Date: 23-MAR-2010 14:37
Instrument: ecd1a.i
Client Sample ID: RE46-10-13435

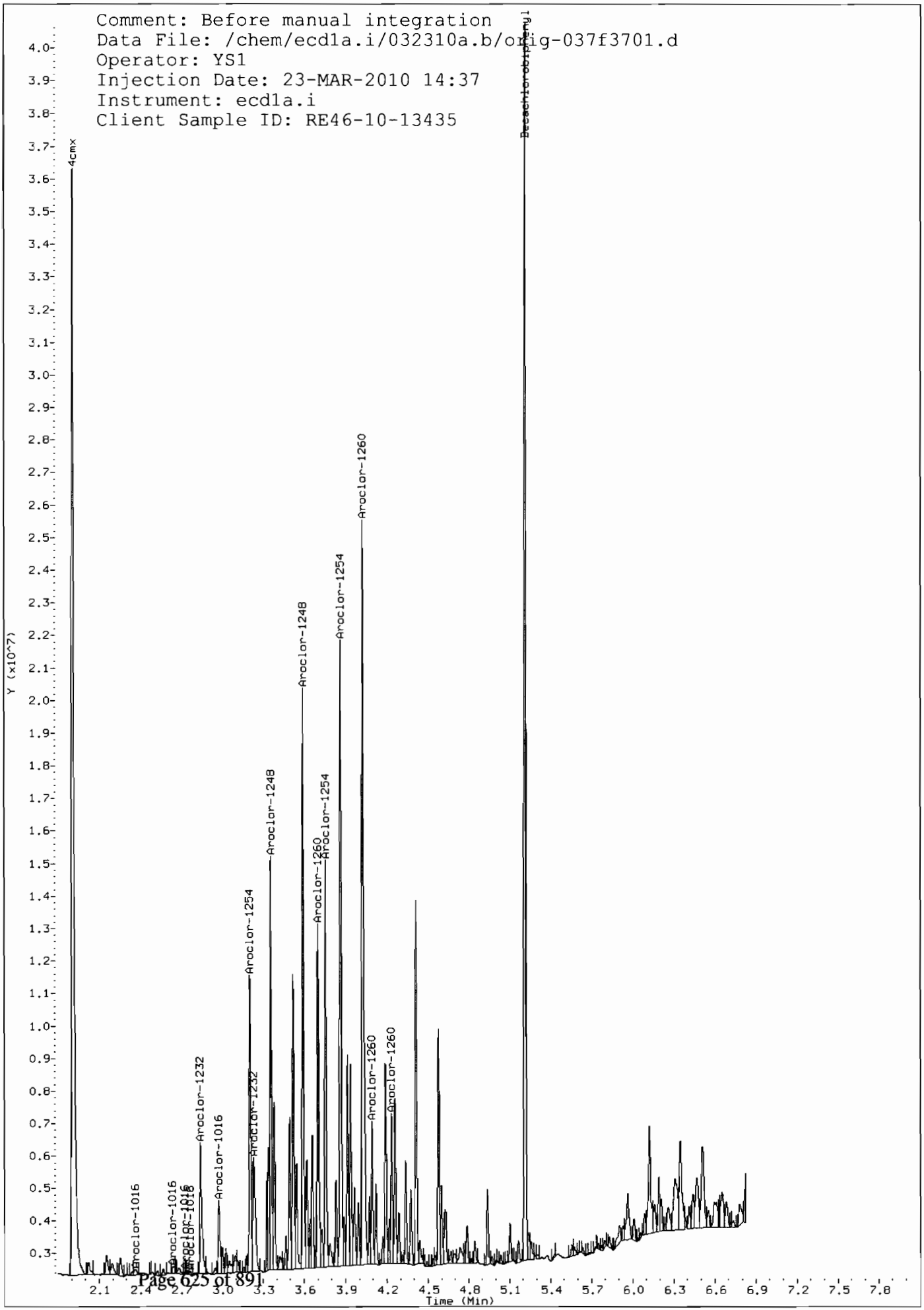

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/037b3701.d
Lab Smp Id: 249180005 Client Smp ID: RE46-10-13435
Inj Date : 23-MAR-2010 14:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249180005|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-13435|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 13:46 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	17.89980	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	26070998	99.3814	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	18416855	98.3946	4.0	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.372	3.373	-0.001	2296876	381.464	15.4	80.00- 120.00	100.00
3.794	3.795	-0.001	5102513	471.591	19.1	161.92- 201.92	222.15
3.910	3.912	-0.002	6470654	542.220	21.9	181.59- 221.59	281.72
4.185	4.188	-0.003	8980385	546.193	22.1	261.95- 301.95	390.98

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.322	4.323	-0.001	6003691	495.537	20.0	185.16- 225.16	261.39
Average of Peak Concentrations =					19.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	5976823	456.936	18.5	80.00- 120.00	100.00
4.427	4.428	-0.001	7308982	470.061	19.0	101.84- 141.84	122.29
4.694	4.695	-0.001	3176202	266.996	10.8	71.46- 111.46	53.14
4.865	4.867	-0.002	2609962	212.378	8.6	75.14- 115.14	43.67
5.012	5.015	-0.003	5966427	226.047	9.2	191.46- 231.46	99.83
Average of Peak Concentrations =					13.2		

Data File: /chem/ecd1a.i/032310a.b/037b3701.d
Date : 23-MAR-2010 14:37
Client ID: RE46-10-13435
Sample Info: |249180005|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

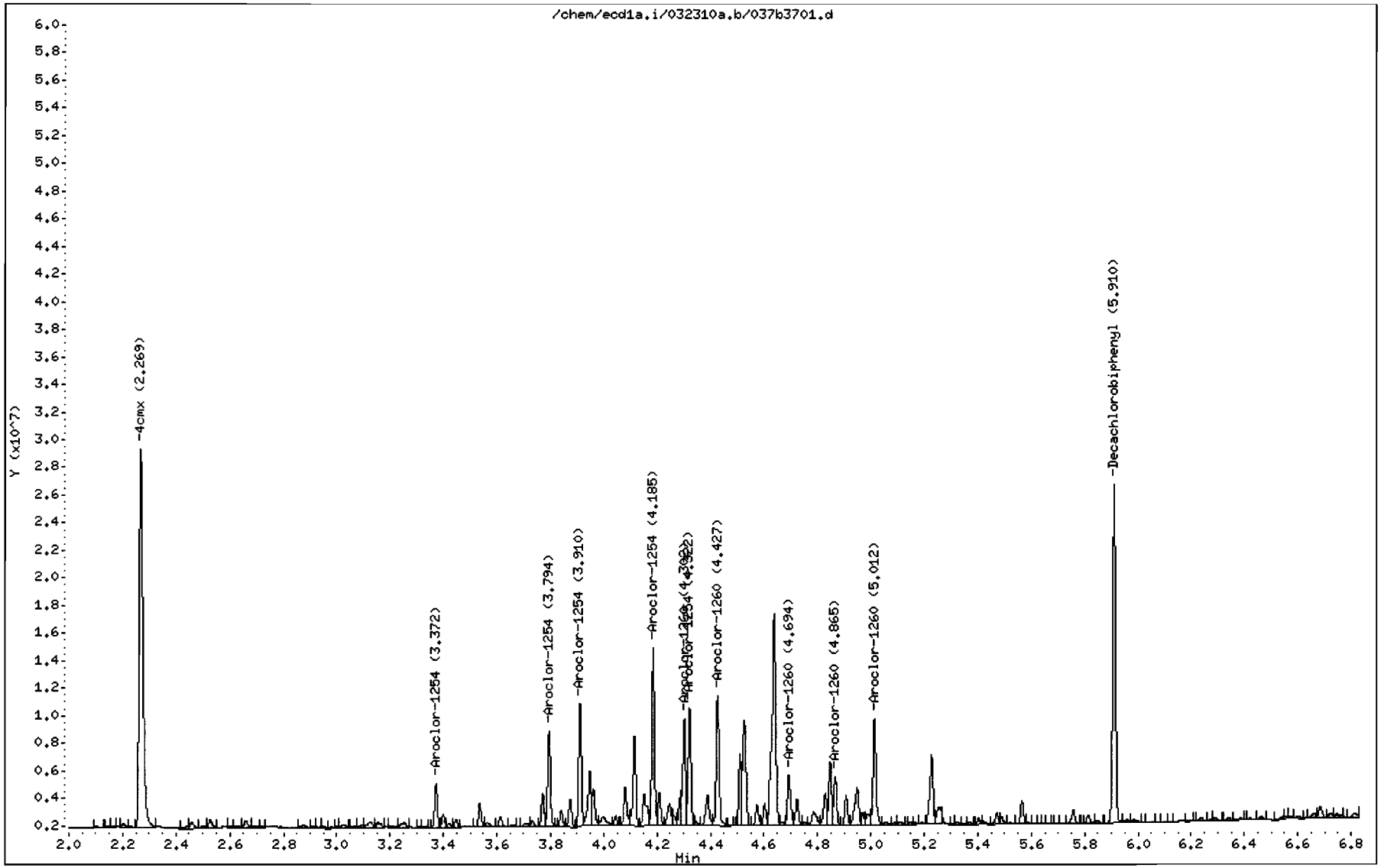

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180002**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13436**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968935**	**Inst:**	**ECD1A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 11:56**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 20:20**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**036f3601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	036b3601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	40.0	ug/kg	13.3	40.0	1
11104–28–2	Aroclor–1221	U	40.0	ug/kg	13.3	40.0	1
11141–16–5	Aroclor–1232	U	40.0	ug/kg	13.3	40.0	1
53469–21–9	Aroclor–1242	U	40.0	ug/kg	13.3	40.0	1
12672–29–6	Aroclor–1248	U	40.0	ug/kg	13.3	40.0	1
11097–69–1	Aroclor–1254		230	ug/kg	13.3	40.0	1
11096–82–5	Aroclor–1260		129	ug/kg	13.3	40.0	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/036f3601.d
Lab Smp Id: 249180002 Client Smp ID: RE46-10-13436
Inj Date : 25-MAR-2010 11:56
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249180002|10|
Misc Info : |ECD82P_1S|968935|SVA|LANL|SOIL|RE46-10-13436|||
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:00 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 36
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	16.76870	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.910	0.001	6217716	15.9624	6.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.210	5.211	-0.001	4372058	14.7242	5.9	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.203	3.204	-0.001	6669796	502.927	201	80.00- 120.00	100.00
3.358	3.359	-0.001	8709761	488.399	195	114.55- 154.55	130.59
3.591	3.593	-0.002	12655419	565.699	226	154.38- 194.38	189.74
3.753	3.756	-0.003	9560232	579.758	232	109.00- 149.00	143.34

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.862	3.865	-0.003	11808899	739.701	296	111.47- 151.47	177.05
Average of Peak Concentrations =					230		
7 Aroclor-1260					CAS #: 11096-82-5		
3.699	3.700	-0.001	7048386	384.525	154	80.00- 120.00	100.00
3.862	3.862	0.000	11808899	439.159	175	128.31- 168.31	167.54
4.023	4.024	-0.001	16557787	584.765	234	139.26- 179.26	234.92
4.091	4.092	-0.001	1712980	106.015	42.4	69.45- 109.45	24.30
4.233	4.235	-0.002	1734814	103.185	41.2	73.28- 113.28	24.61
Average of Peak Concentrations =					129		

Data File: /chem/ecd1a.i/032510.b/036f3601.d

Page 1

Date : 25-MAR-2010 11:56

Client ID: RE46-10-13436

Instrument: ecd1a.i

Sample Info: |2491800021101

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

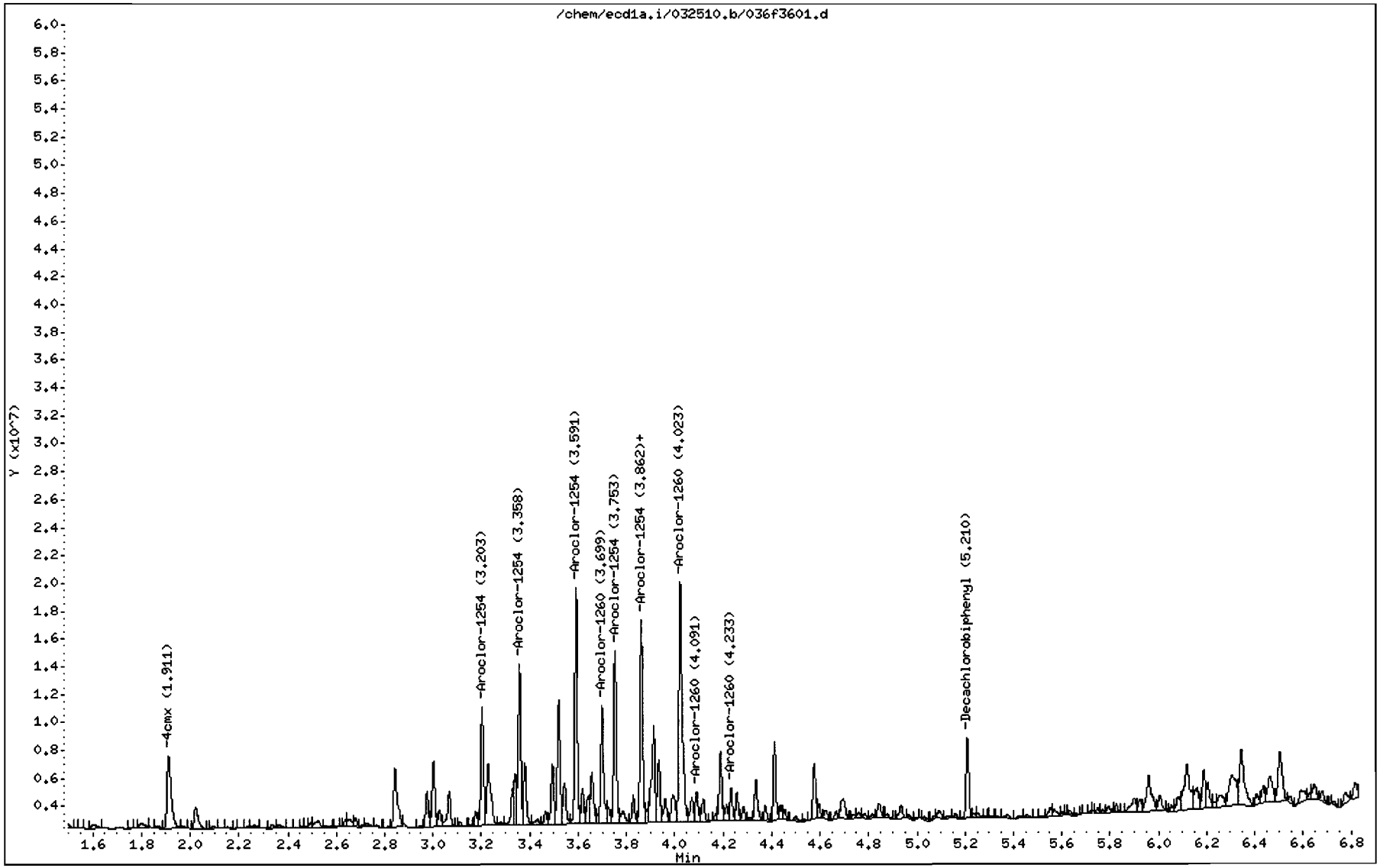

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/036b3601.d
Lab Smp Id: 249180002 Client Smp ID: RE46-10-13436
Inj Date : 25-MAR-2010 11:56
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249180002|10|
Misc Info : |ECD82P_1S|968935|SVA|LANL|SOIL|RE46-10-13436|||
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:00 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 36
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	16.76870	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.268	2.267	0.001	4276309	16.3011	6.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.906	5.906	0.000	3035985	16.2202	6.5	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.370	3.369	0.001	2281046	378.835	151	80.00- 120.00	100.00
3.791	3.791	0.000	4674076	431.993	173	161.89- 201.89	204.91
3.908	3.908	0.000	5711208	478.581	191	180.34- 220.34	250.38
4.183	4.184	-0.001	8364592	508.740	203	260.37- 300.37	366.70

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.319	4.319	0.000	5816362	480.075	192	191.96- 231.96	254.99
Average of Peak Concentrations =					182		
7 Aroclor-1260					CAS #: 11096-82-5		
4.298	4.299	-0.001	4257986	325.528	130	80.00- 120.00	100.00
4.424	4.424	0.000	6135729	394.605	158	102.79- 142.79	144.10
4.692	4.689	0.003	1788940	150.381	60.1	72.08- 112.08	42.01
4.863	4.862	0.001	1586262	129.078	51.6	75.01- 115.01	37.25
5.009	5.010	-0.001	2879536	109.095	43.6	191.84- 231.84	67.63
Average of Peak Concentrations =					88.7		

Data File: /chem/ecd1a.i/032510.b/036b3601.d

Date : 25-MAR-2010 11:56

Client ID: RE46-10-13436

Sample Info: |2491800021101

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

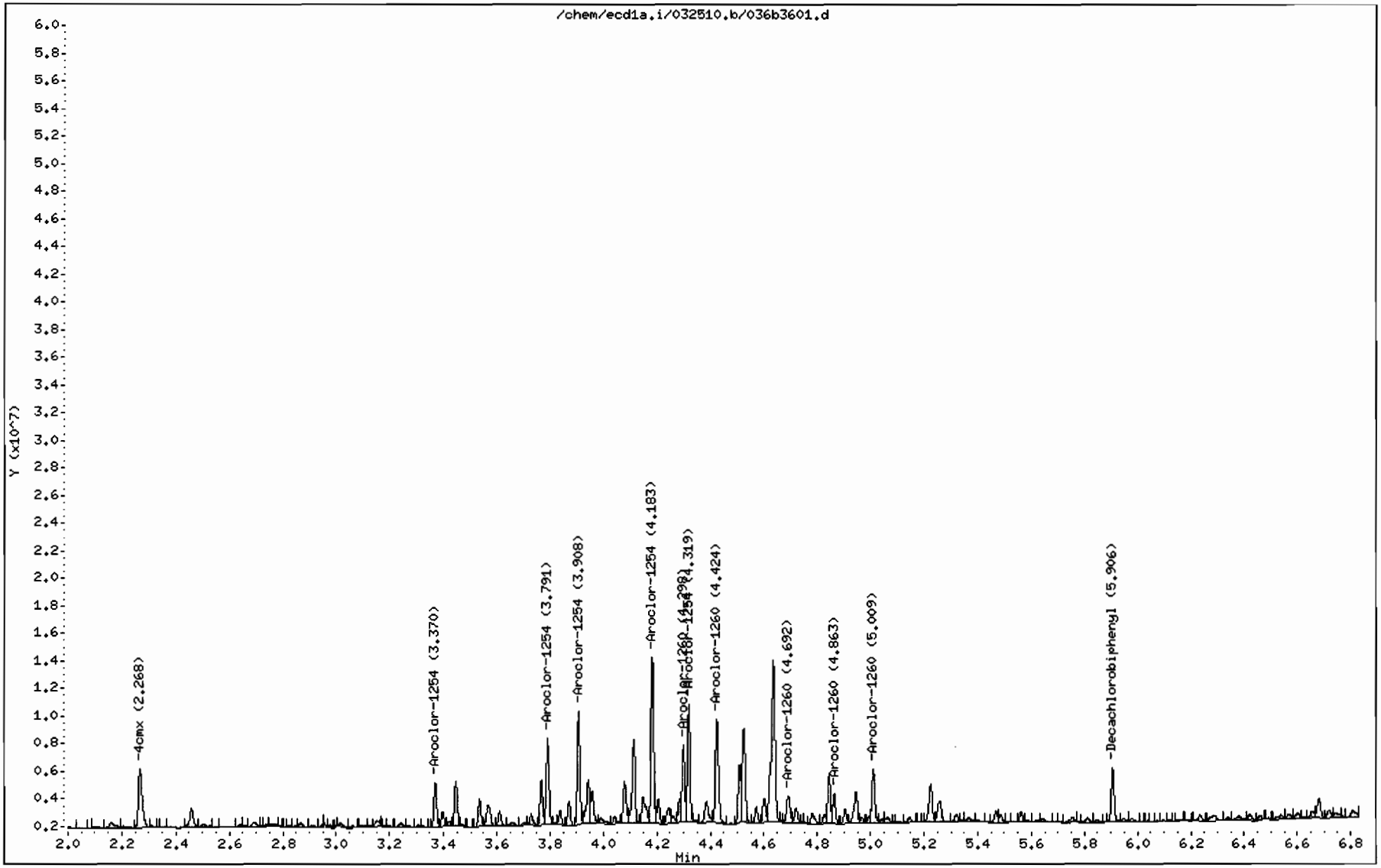

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180001**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**18.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13437**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 13:46**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**033f3301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	033b3301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.08	ug/kg	1.36	4.08	1
11104–28–2	Aroclor–1221	U	4.08	ug/kg	1.36	4.08	1
11141–16–5	Aroclor–1232	U	4.08	ug/kg	1.36	4.08	1
53469–21–9	Aroclor–1242	U	4.08	ug/kg	1.36	4.08	1
12672–29–6	Aroclor–1248	U	4.08	ug/kg	1.36	4.08	1
11097–69–1	Aroclor–1254		27.9	ug/kg	1.36	4.08	1
11096–82–5	Aroclor–1260		16.4	ug/kg	1.36	4.08	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/033f3301.d
Lab Smp Id: 249180001 Client Smp ID: RE46-10-13437
Inj Date : 23-MAR-2010 13:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249180001|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-13437|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	18.35860	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.913	-0.001	30206562	77.5476	3.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	18825873	63.4016	2.6	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.207	3.208	-0.001	8485664	639.850	26.1	80.00- 120.00	100.00
3.362	3.363	-0.001	10613224	595.135	24.3	113.89- 153.89	125.07
3.595	3.597	-0.002	14340911	641.041	26.2	156.06- 196.06	169.00
3.757	3.759	-0.002	9557118	579.569	23.7	110.77- 150.77	112.63

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.865	3.868	-0.003	15347087	961.331	39.2	110.30- 150.30	180.86
Average of Peak Concentrations =					27.9		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	8450896	461.039	18.8	80.00- 120.00	100.00(M)
3.865	3.867	-0.002	15347087	570.739	23.3	129.52- 169.52	181.60
4.028	4.030	-0.002	18839891	665.361	27.2	138.68- 178.68	222.93
4.095	4.097	-0.002	2486706	153.901	6.3	69.81- 109.81	29.43
4.237	4.240	-0.003	2575772	153.204	6.2	73.33- 113.33	30.48
Average of Peak Concentrations =					16.4		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/033f3301.d

Date : 23-MAR-2010 13:46

Client ID: RE46-10-13437

Sample Info: |2491800011|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

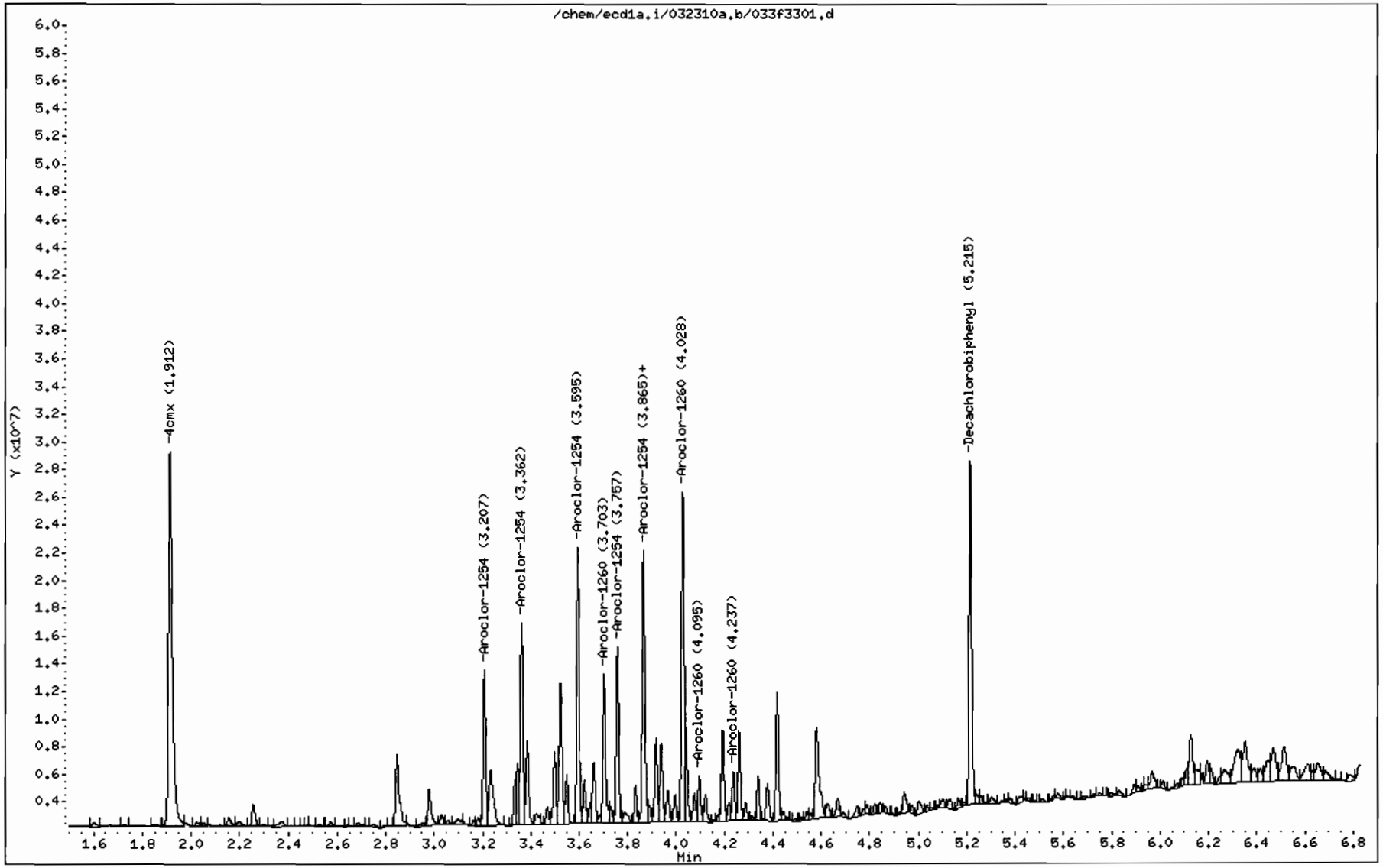

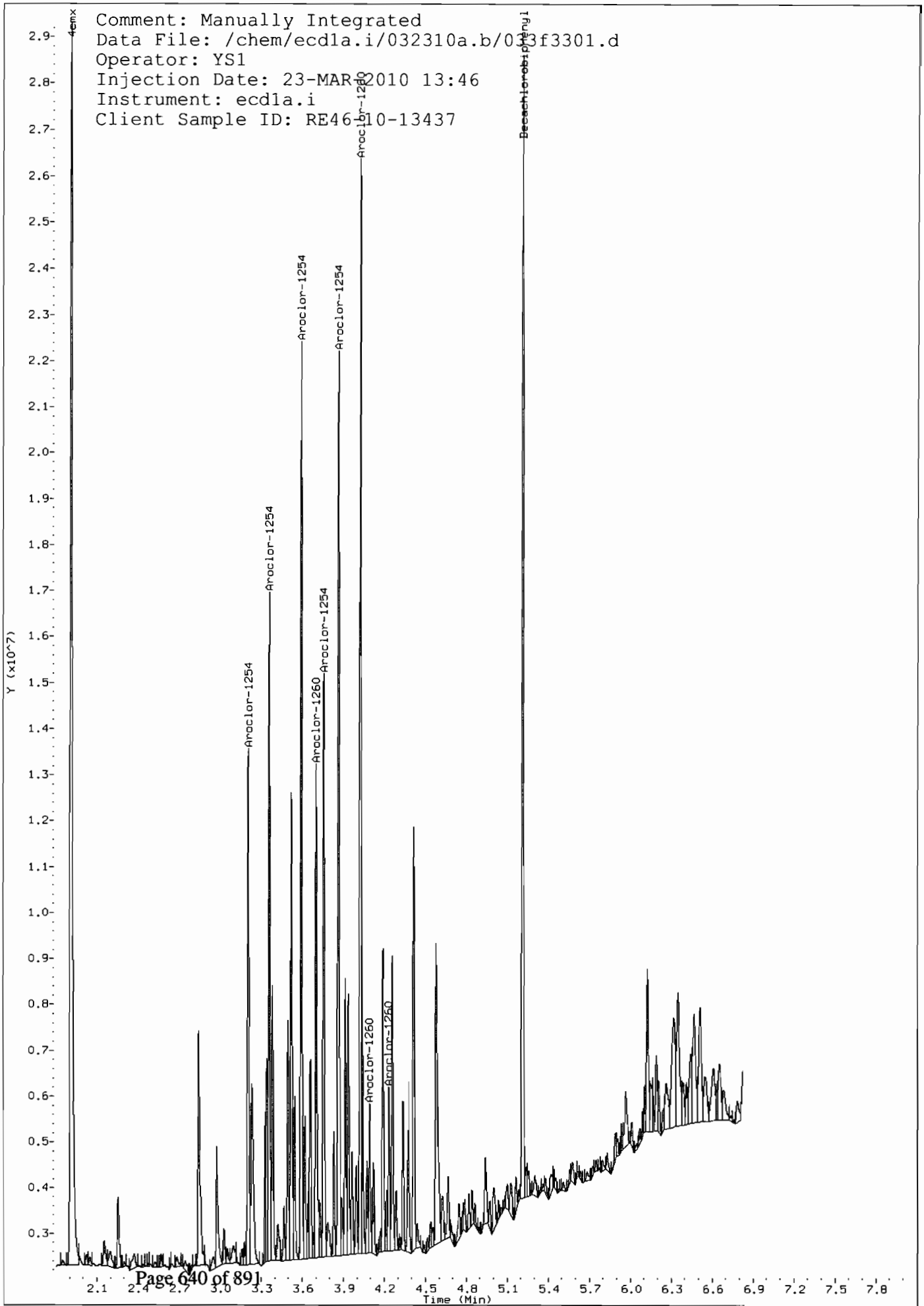
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Operator: YS1
Injection Date: 23-MAR-2010 13:46
Instrument: ecd1a.i
Client Sample ID: RE46-10-13437
4cmx
Decachlorobiphenyl
Aroclor-1260
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
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Y (x10^7)
Time (Min)

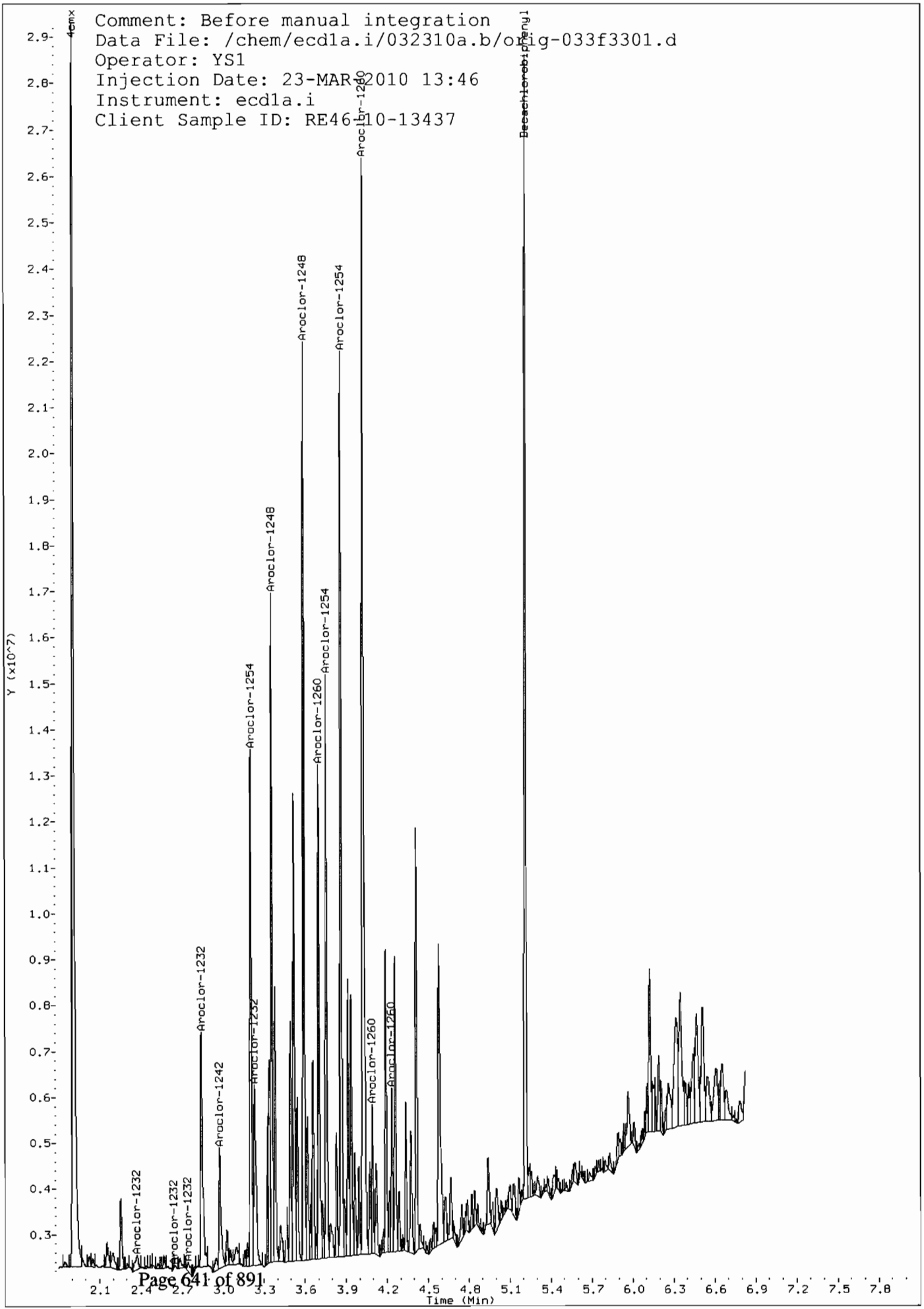
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Operator: YS1
Injection Date: 23-MAR-2010 13:46
Instrument: ecd1a.i
Client Sample ID: RE46110-13437
4cmx
Decachlorobiphenyl
Aroclor-1260
Aroclor-1248
Aroclor-1254
Aroclor-1232
Aroclor-1242
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/033b3301.d
Lab Smp Id: 249180001 Client Smp ID: RE46-10-13437
Inj Date : 23-MAR-2010 13:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249180001|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-13437|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 13:46 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	18.35860	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	19469998	74.2187	3.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	12264190	65.5232	2.7	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.373	3.373	0.000	2679203	444.960	18.2	80.00- 120.00	100.00
3.795	3.795	0.000	5973414	552.082	22.5	161.92- 201.92	222.95
3.911	3.912	-0.001	7242092	606.864	24.8	181.59- 221.59	270.31
4.186	4.188	-0.002	9882807	601.079	24.5	261.95- 301.95	368.87

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.323	4.323	0.000	6042816	498.767	20.4	185.16- 225.16	225.55
Average of Peak Concentrations =					22.1		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	5932520	453.549	18.5	80.00- 120.00	100.00(M)
4.428	4.428	0.000	6784299	436.317	17.8	101.84- 141.84	114.36
4.695	4.695	0.000	2669206	224.377	9.2	71.46- 111.46	44.99
4.866	4.867	-0.001	2185992	177.879	7.3	75.14- 115.14	36.85
5.014	5.015	-0.001	5036838	190.828	7.8	191.46- 231.46	84.90
Average of Peak Concentrations =					12.1		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/033b3301.d
Date : 23-MAR-2010 13:46
Client ID: RE46-10-13437
Sample Info: 1249180001|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

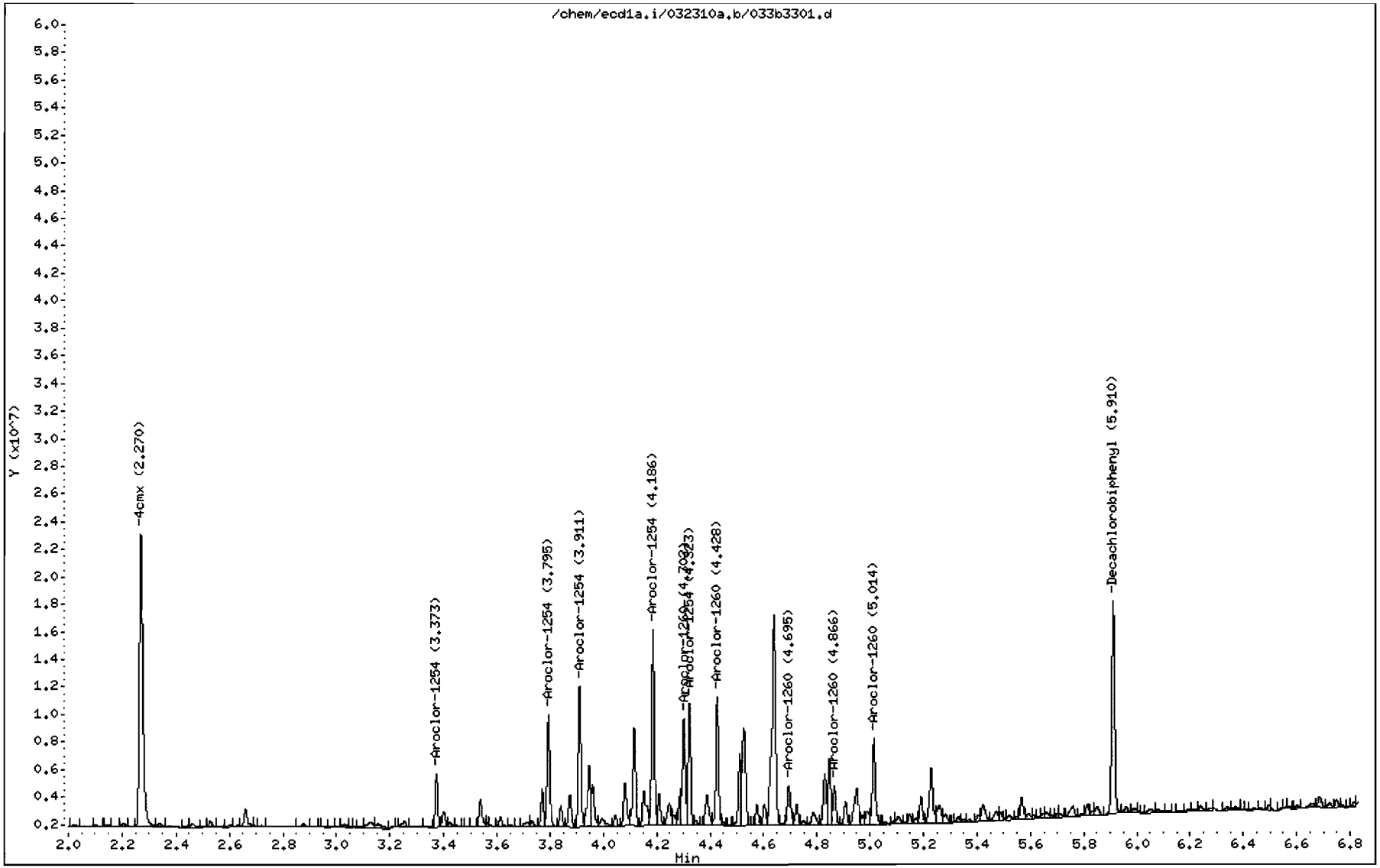

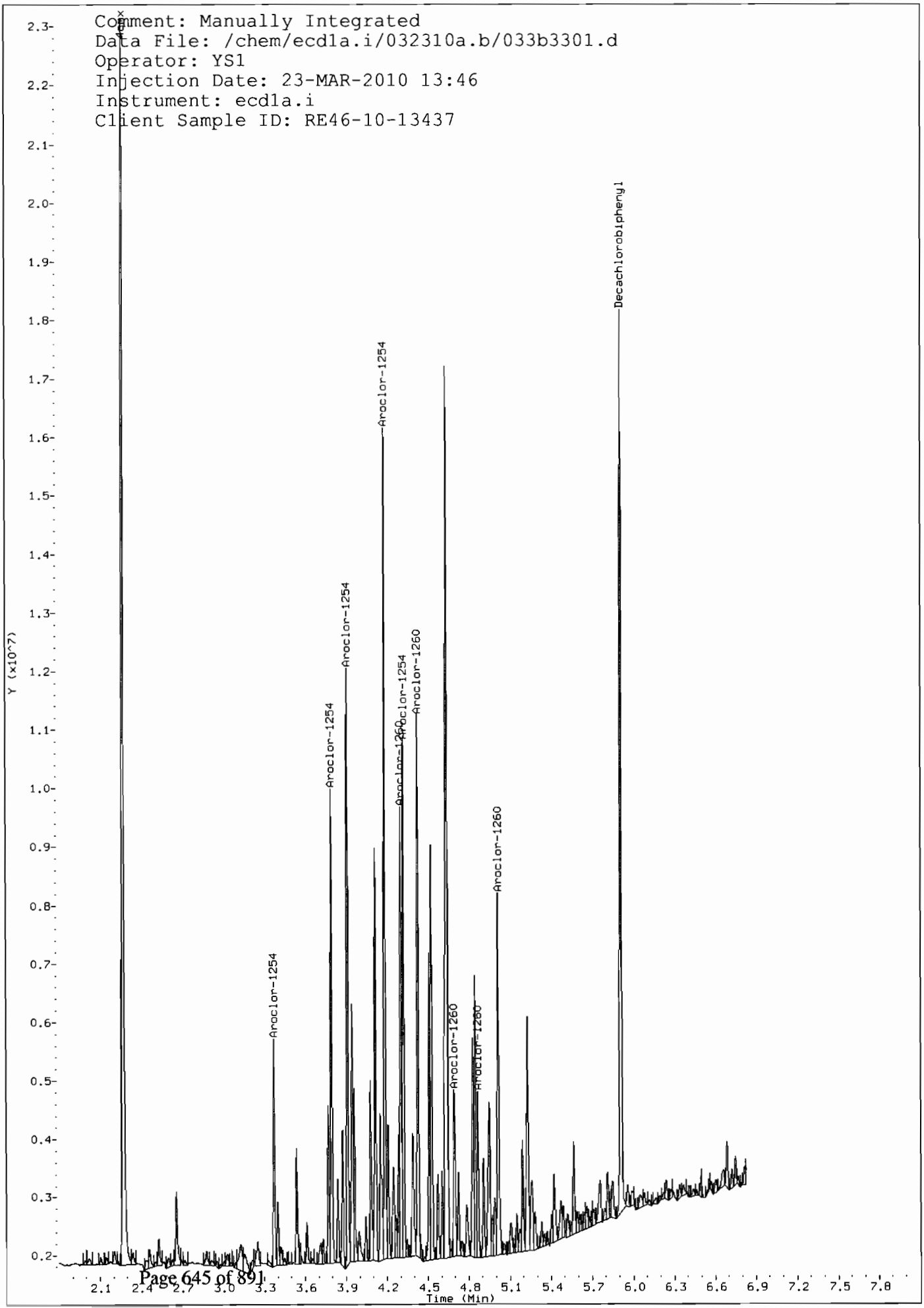
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Data File: /chem/ecd1a.i/032310a.b/033b3301.d
Operator: YS1
Injection Date: 23-MAR-2010 13:46
Instrument: ecd1a.i
Client Sample ID: RE46-10-13437
Y (x10^7)
Time (Min)
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

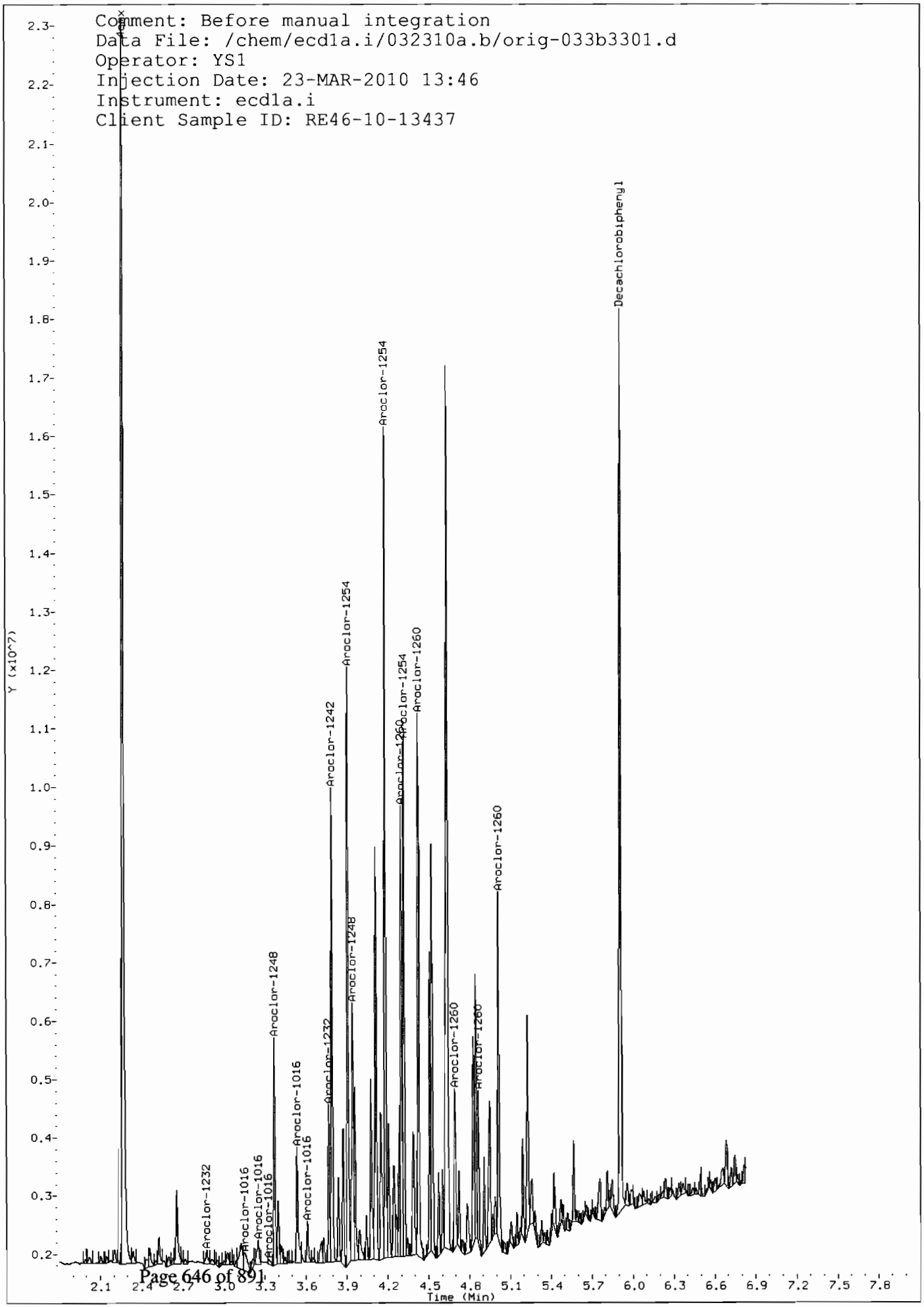
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Operator: YS1
Injection Date: 23-MAR-2010 13:46
Instrument: ecd1a.i
Client Sample ID: RE46-10-13437
Y (x10^7)
Time (Min)
Decachlorobiphenyl
Aroclor-1254
Aroclor-1260
Aroclor-1242
Aroclor-1248
Aroclor-1232
Aroclor-1016

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180004**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**16**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13438**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 14:24**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**036f3601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	036b3601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.96	ug/kg	1.32	3.96	1
11104–28–2	Aroclor–1221	U	3.96	ug/kg	1.32	3.96	1
11141–16–5	Aroclor–1232	U	3.96	ug/kg	1.32	3.96	1
53469–21–9	Aroclor–1242	U	3.96	ug/kg	1.32	3.96	1
12672–29–6	Aroclor–1248	U	3.96	ug/kg	1.32	3.96	1
11097–69–1	Aroclor–1254		23.6	ug/kg	1.32	3.96	1
11096–82–5	Aroclor–1260		11.5	ug/kg	1.32	3.96	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/036f3601.d
Lab Smp Id: 249180004 Client Smp ID: RE46-10-13438
Inj Date : 23-MAR-2010 14:24
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249180004|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-13438|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 36
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	16.04740	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	35748583	91.7753	3.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.217	-0.003	37418776	126.019	5.0	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.206	3.208	-0.002	6785479	511.650	20.2	80.00- 120.00	100.00(M)
3.361	3.363	-0.002	9692794	543.522	21.5	113.89- 153.89	142.85
3.594	3.597	-0.003	13377655	597.983	23.7	156.06- 196.06	197.15
3.756	3.759	-0.003	9339689	566.383	22.4	110.77- 150.77	137.64

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.865	3.868	-0.003	12141240	760.519	30.1	110.30- 150.30	178.93
Average of Peak Concentrations =					23.6		
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.705	-0.003	6049251	330.018	13.1	80.00- 120.00	100.00(M)
3.865	3.867	-0.002	12141240	451.518	17.9	129.52- 169.52	200.71
4.027	4.030	-0.003	14599694	515.611	20.4	138.68- 178.68	241.35
4.095	4.097	-0.002	1175903	72.7759	2.9	69.81- 109.81	19.44
4.237	4.240	-0.003	1355644	80.6323	3.2	73.33- 113.33	22.41
Average of Peak Concentrations =					11.5		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/036f3601.d
Date : 23-MAR-2010 14:24
Client ID: RE46-10-13438
Sample Info: |249180004|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

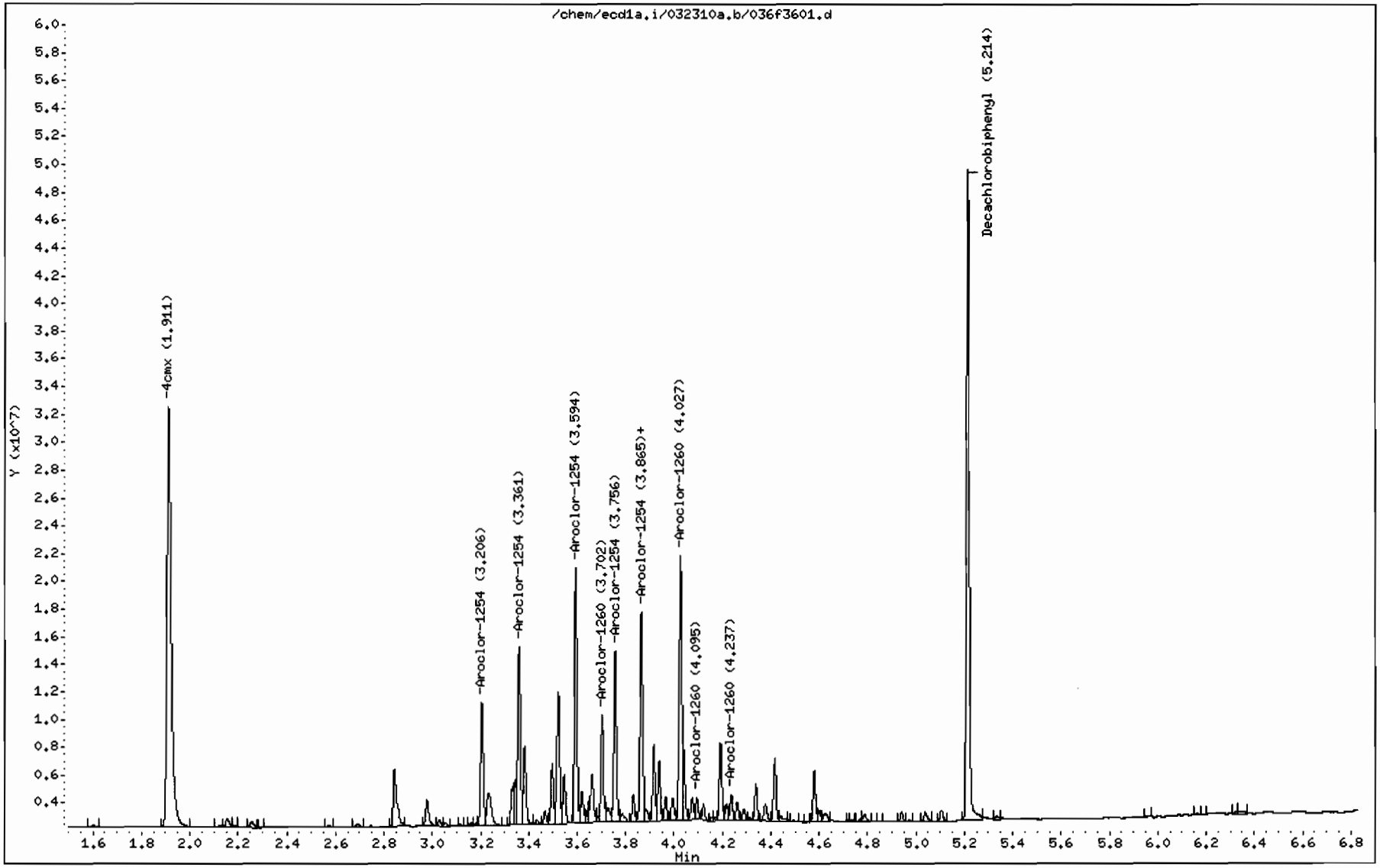

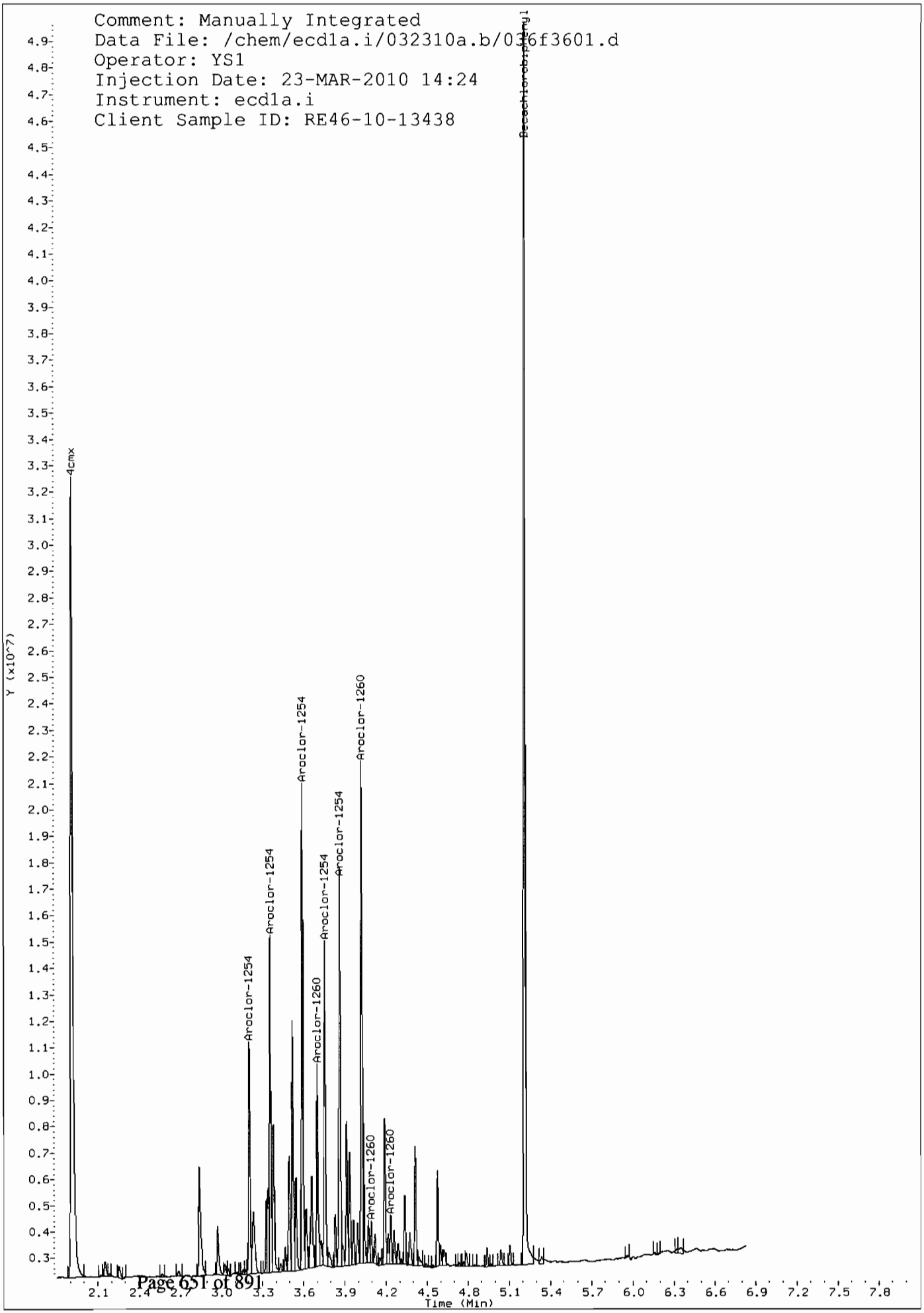
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/036f3601.d
Operator: YS1
Injection Date: 23-MAR-2010 14:24
Instrument: ecd1a.i
Client Sample ID: RE46-10-13438
Decachlorobiphenyl
4cmx
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

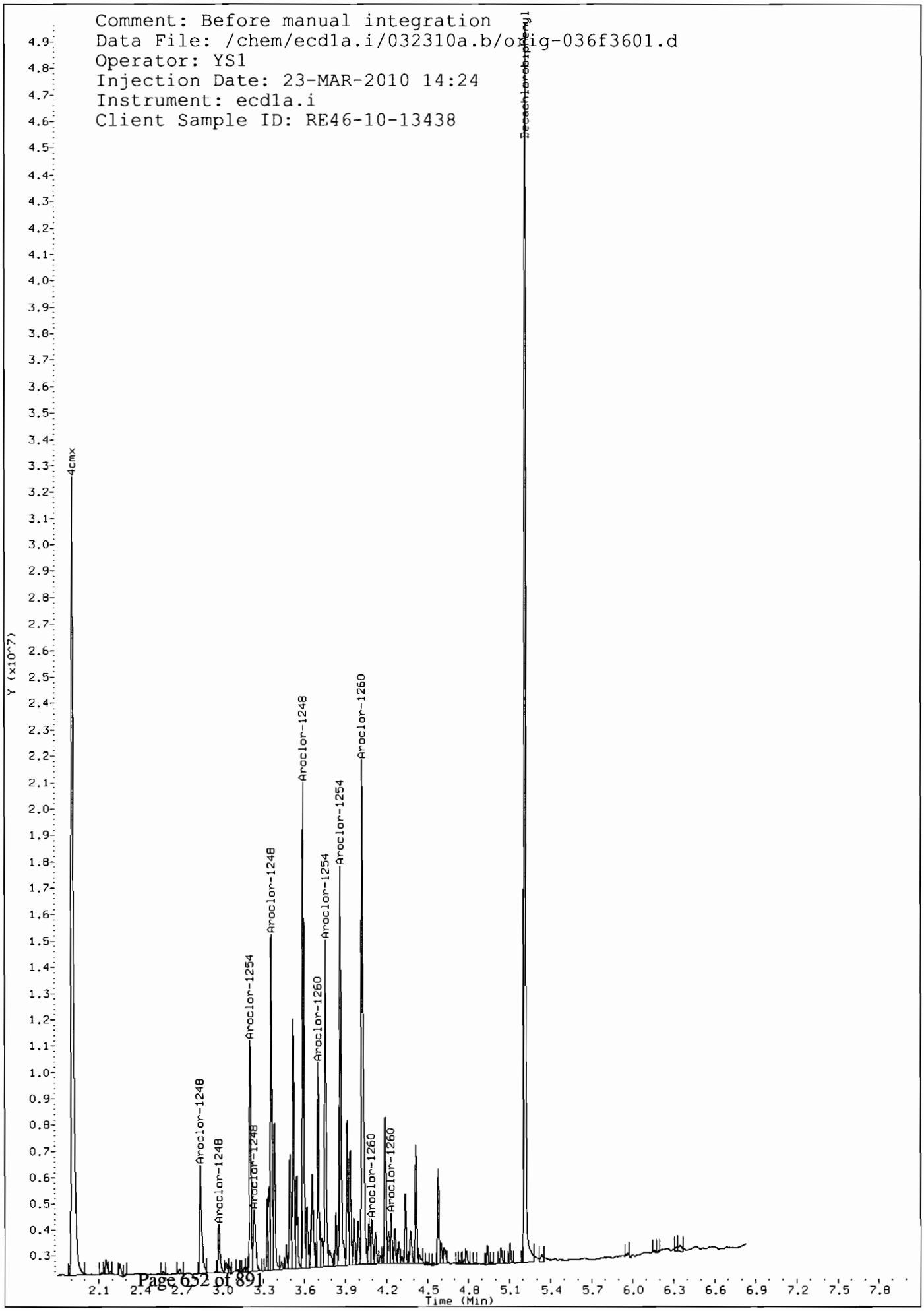
Comment: Before manual integration
Data File: /chem/ecd1a.i/032310a.b/orig-036f3601.d
Operator: YS1
Injection Date: 23-MAR-2010 14:24
Instrument: ecd1a.i
Client Sample ID: RE46-10-13438
Decachlorobiphenyl
4cmx
Aroclor-1248
Aroclor-1254
Aroclor-1260
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/036b3601.d
Lab Smp Id: 249180004 Client Smp ID: RE46-10-13438
Inj Date : 23-MAR-2010 14:24
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249180004|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-13438|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 13:46 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 36
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	16.04740	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	23243888	88.6046	3.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	21414220	114.408	4.5	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.372	3.373	-0.001	2303807	382.615	15.1	80.00- 120.00	100.00
3.793	3.795	-0.002	4823188	445.775	17.6	161.92- 201.92	209.36
3.911	3.912	-0.001	6412777	537.370	21.3	181.59- 221.59	278.36
4.186	4.188	-0.002	9143626	556.121	22.0	261.95- 301.95	396.89

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.322	4.323	-0.001	6146614	507.334	20.1	185.16- 225.16	266.80
Average of Peak Concentrations =					19.2		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	4452451	340.395	13.5	80.00- 120.00	100.00
4.427	4.428	-0.001	5719698	367.849	14.6	101.84- 141.84	128.46
4.696	4.695	0.001	1587231	133.425	5.3	71.46- 111.46	35.65
4.866	4.867	-0.001	1044759	85.0143	3.4	75.14- 115.14	23.46
5.013	5.015	-0.002	2372466	89.8844	3.6	191.46- 231.46	53.28
Average of Peak Concentrations =					8.1		

Data File: /chem/ecd1a.i/032310a.b/036b3601.d

Date : 23-MAR-2010 14:24

Client ID: RE46-10-13438

Sample Info: |249180004|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

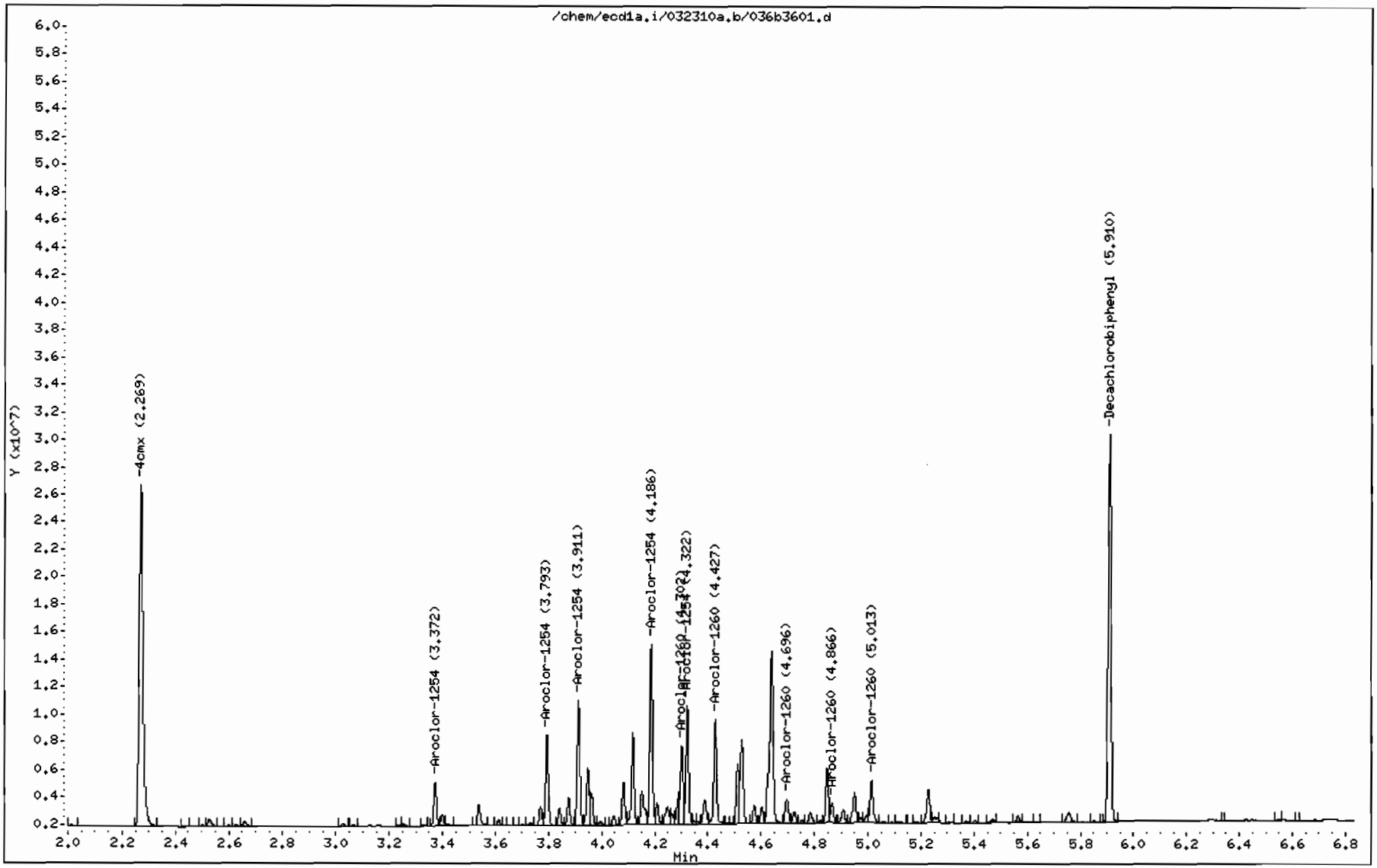

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180006**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**12.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13439**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 14:50**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**038f3801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	038b3801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.82	ug/kg	1.27	3.82	1
11104–28–2	Aroclor–1221	U	3.82	ug/kg	1.27	3.82	1
11141–16–5	Aroclor–1232	U	3.82	ug/kg	1.27	3.82	1
53469–21–9	Aroclor–1242	U	3.82	ug/kg	1.27	3.82	1
12672–29–6	Aroclor–1248	U	3.82	ug/kg	1.27	3.82	1
11097–69–1	Aroclor–1254		64.7	ug/kg	1.27	3.82	1
11096–82–5	Aroclor–1260		40.3	ug/kg	1.27	3.82	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/038f3801.d
Lab Smp Id: 249180006 Client Smp ID: RE46-10-13439
Inj Date : 23-MAR-2010 14:50
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249180006|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-13439|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 38
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	12.79950	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.913	-0.001	36826079	94.5415	3.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.217	-0.004	22573063	76.0214	2.9	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.205	3.208	-0.003	19459554	1467.32	56.1	80.00- 120.00	100.00
3.360	3.363	-0.003	24552512	1376.78	52.6	113.89- 153.89	126.17
3.593	3.597	-0.004	33212549	1484.61	56.8	156.06- 196.06	170.67
3.756	3.759	-0.003	26337077	1597.15	61.0	110.77- 150.77	135.34

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.864	3.868	-0.004	40616829	2544.21	97.2	110.30- 150.30	208.72
Average of Peak Concentrations =					64.8		
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.705	-0.003	23767039	1296.61	49.6	80.00- 120.00	100.00(M)
3.864	3.867	-0.003	40616829	1510.49	57.7	129.52- 169.52	170.90
4.026	4.030	-0.004	37984348	1341.48	51.3	138.68- 178.68	159.82
4.094	4.097	-0.003	9208065	569.881	21.8	69.81- 109.81	38.74
4.235	4.240	-0.005	9292038	552.681	21.1	73.33- 113.33	39.10
Average of Peak Concentrations =					40.3		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/038f3801.d
Date : 23-MAR-2010 14:50
Client ID: RE46-10-13439
Sample Info: |249180006|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

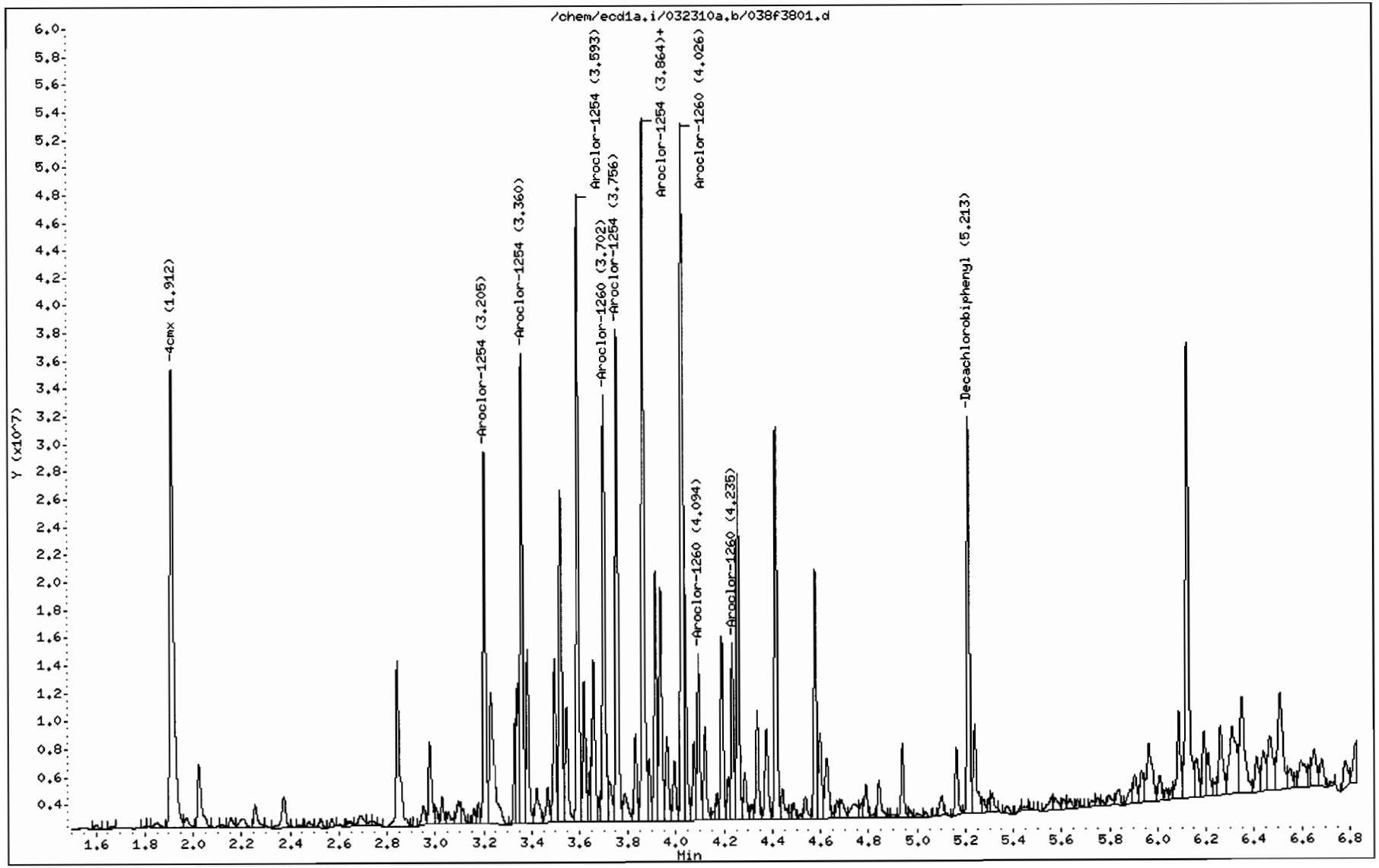

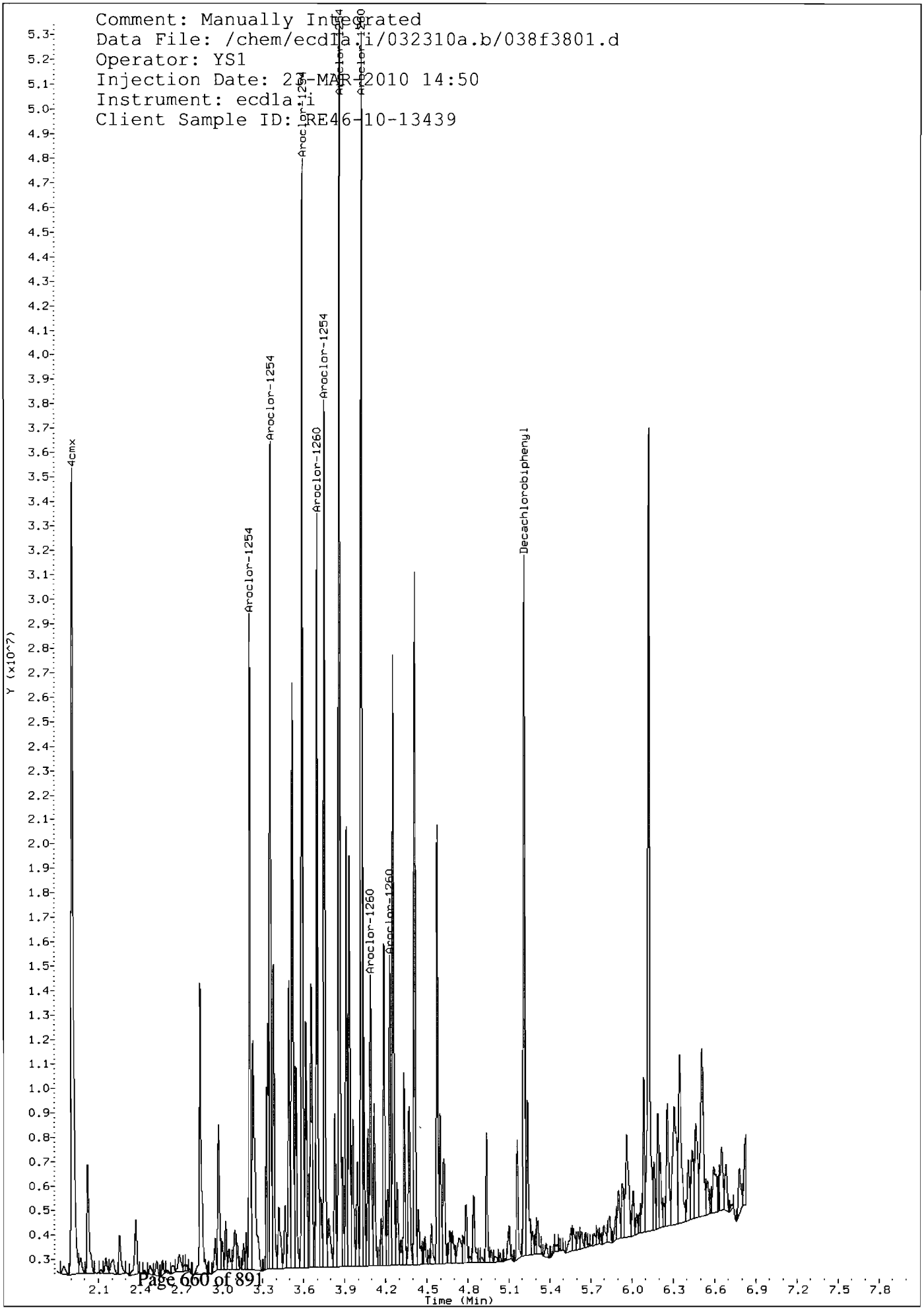
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Data File: /chem/ecd1a.i/032310a.b/038f3801.d
Operator: YS1
Injection Date: 23-MAR-2010 14:50
Instrument: ecd1a.i
Client Sample ID: RE46-10-13439
4cmx
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

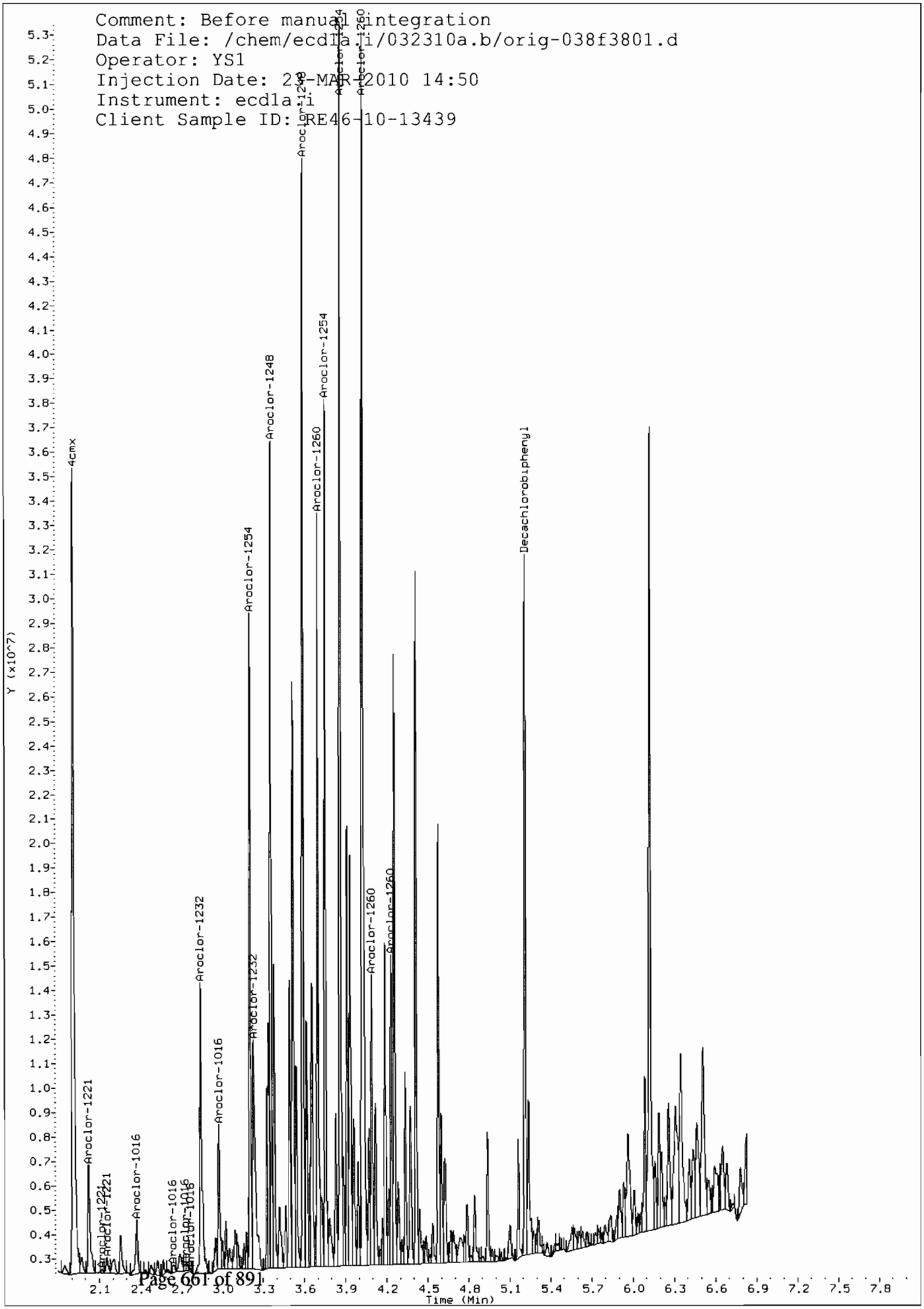
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Operator: YS1
Injection Date: 23-MAR-2010 14:50
Instrument: ecd1a.i
Client Sample ID: RE46-10-13439
Y (x10^7)
Time (Min)
4cmx
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1016
Aroclor-1254
Aroclor-1248
Aroclor-1260
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/038b3801.d
Lab Smp Id: 249180006 Client Smp ID: RE46-10-13439
Inj Date : 23-MAR-2010 14:50
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249180006|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-13439|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 15:02 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 38
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	12.79950	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	23726885	90.4458	3.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.908	5.912	-0.004	17383192	92.8721	3.6	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.372	3.373	-0.001	6049986	1004.78	38.4	80.00- 120.00	100.00
3.793	3.795	-0.002	13292366	1228.52	47.0	161.92- 201.92	219.71
3.910	3.912	-0.002	16679194	1397.66	53.4	181.59- 221.59	275.69
4.185	4.188	-0.003	23846829	1450.38	55.4	261.95- 301.95	394.16

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.321	4.323	-0.002	14292973	1179.72	45.1	185.16- 225.16	236.25
Average of Peak Concentrations =					47.9		

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7 Aroclor-1260					CAS #: 11096-82-5		
4.301	4.304	-0.003	19036545	1455.37	55.6	80.00- 120.00	100.00
4.426	4.428	-0.002	17156295	1103.37	42.2	101.84- 141.84	90.12
4.692	4.695	-0.003	6718415	564.759	21.6	71.46- 111.46	35.29
4.864	4.867	-0.003	5850531	476.070	18.2	75.14- 115.14	30.73
5.012	5.015	-0.003	15501242	587.288	22.4	191.46- 231.46	81.43
Average of Peak Concentrations =					32.0		

Data File: /chem/ecd1a.i/032310a.b/038b3801.d

Page 1

Date : 23-MAR-2010 14:50

Client ID: RE46-10-13439

Instrument: ecd1a.i

Sample Info: |249180006|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

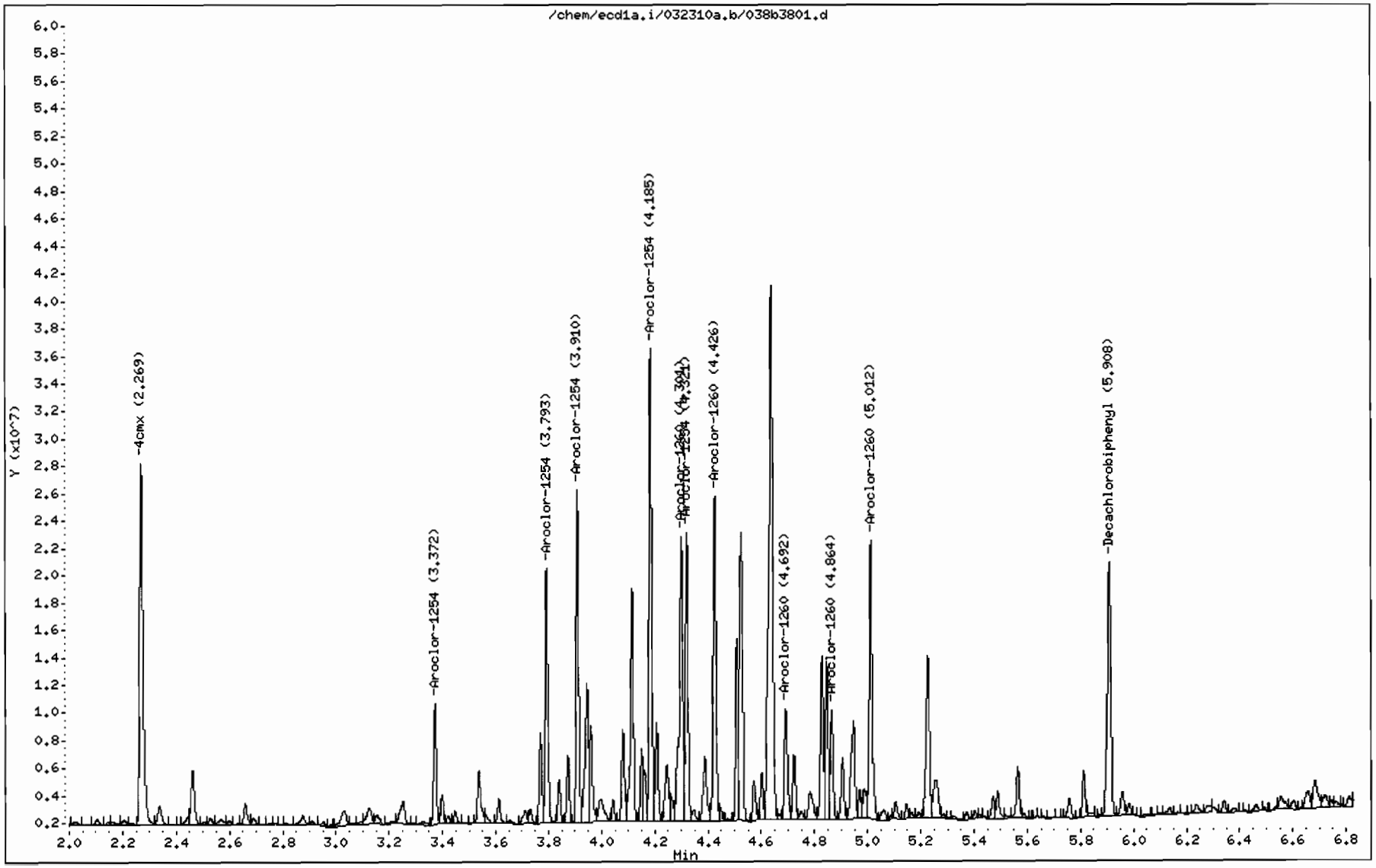

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**	**Date Collected:**	**03/09/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249180008**	**Date Received:**	**03/11/2010 09:00**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13463**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 15:02**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**039f3901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	039b3901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.93	ug/kg	1.31	3.93	1
11104–28–2	Aroclor–1221	U	3.93	ug/kg	1.31	3.93	1
11141–16–5	Aroclor–1232	U	3.93	ug/kg	1.31	3.93	1
53469–21–9	Aroclor–1242	U	3.93	ug/kg	1.31	3.93	1
12672–29–6	Aroclor–1248	U	3.93	ug/kg	1.31	3.93	1
11097–69–1	Aroclor–1254	P	4.50	ug/kg	1.31	3.93	1
11096–82–5	Aroclor–1260		10.0	ug/kg	1.31	3.93	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/039f3901.d
Lab Smp Id: 249180008 Client Smp ID: RE46-10-13463
Inj Date : 23-MAR-2010 15:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |249180008|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-13463|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 39
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	15.38880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	25862405	66.3951	2.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.217	-0.004	20059332	67.5557	2.6	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.206	3.208	-0.002	722240	54.4595	2.1	80.00- 120.00	100.00
3.361	3.363	-0.002	685590	38.4444	1.5	113.89- 153.89	94.93
3.594	3.597	-0.003	1722864	77.0122	3.0	156.06- 196.06	238.54
3.757	3.759	-0.002	1071341	64.9689	2.6	110.77- 150.77	148.34

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.866	3.868	-0.002	5474276	342.905	13.5	110.30- 150.30	757.96
Average of Peak Concentrations =					4.5		
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.705	-0.003	4524151	246.816	9.7	80.00- 120.00	100.00(M)
3.866	3.867	-0.001	5474276	203.582	8.0	129.52- 169.52	121.00
4.026	4.030	-0.004	6746483	238.263	9.4	138.68- 178.68	149.12
4.095	4.097	-0.002	4691864	290.376	11.4	69.81- 109.81	103.71
4.236	4.240	-0.004	4837452	287.727	11.3	73.33- 113.33	106.93
Average of Peak Concentrations =					10.0		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/039f3901.d
Date : 23-MAR-2010 15:02
Client ID: RE46-10-13463
Sample Info: 1249180008111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

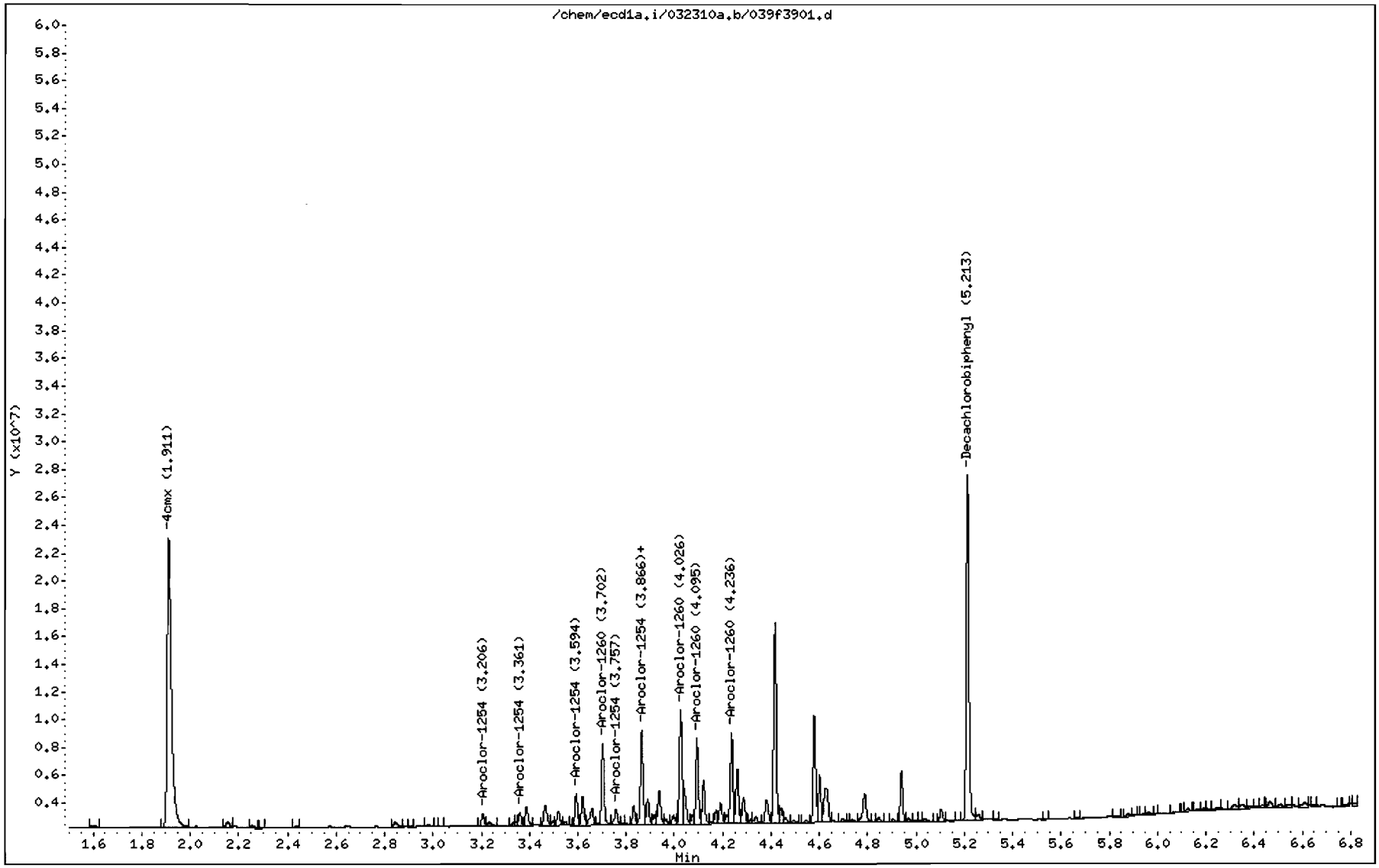

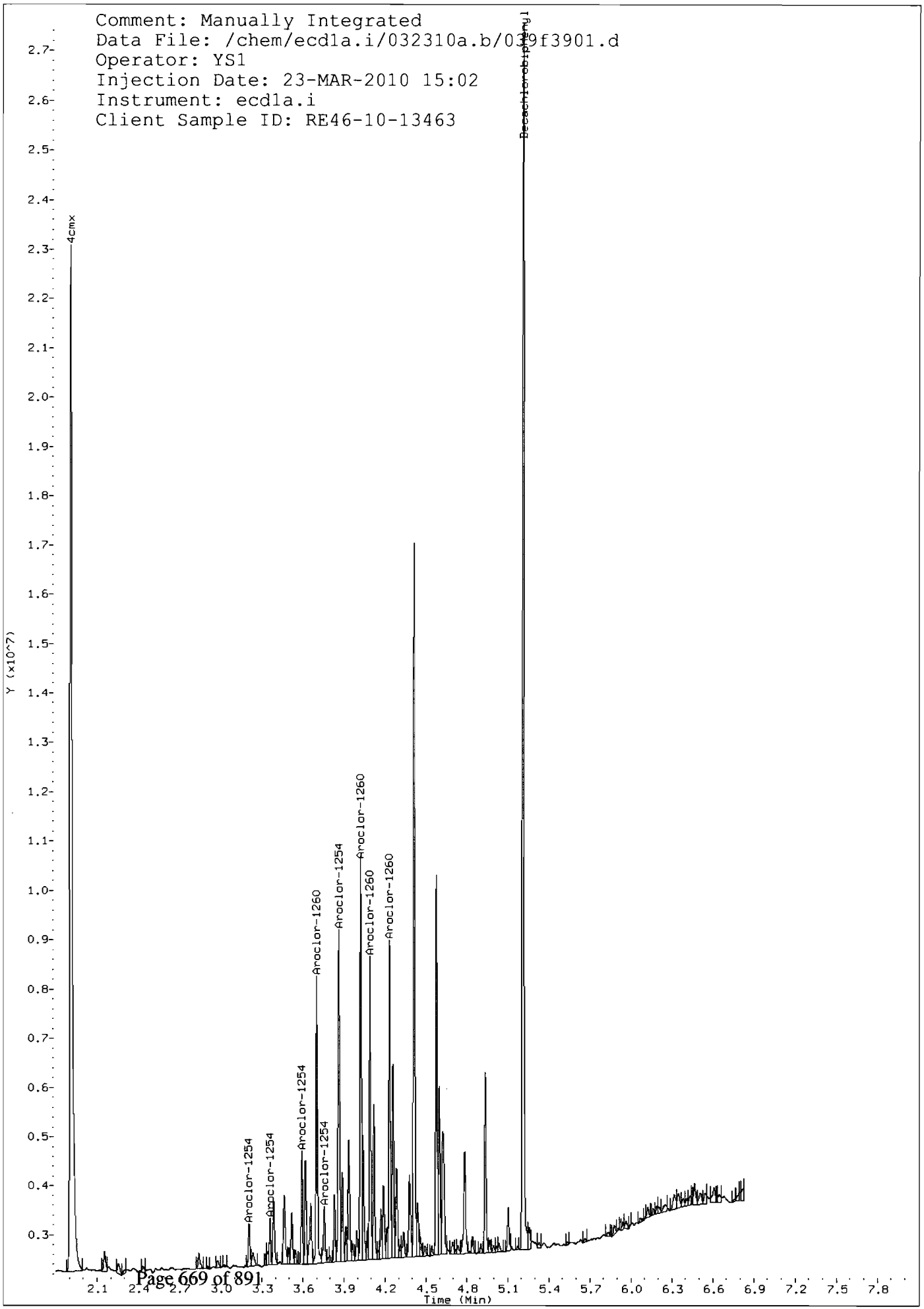
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/039f3901.d
Operator: YS1
Injection Date: 23-MAR-2010 15:02
Instrument: ecd1a.i
Client Sample ID: RE46-10-13463
4cmx
Decachlorobiphenyl
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

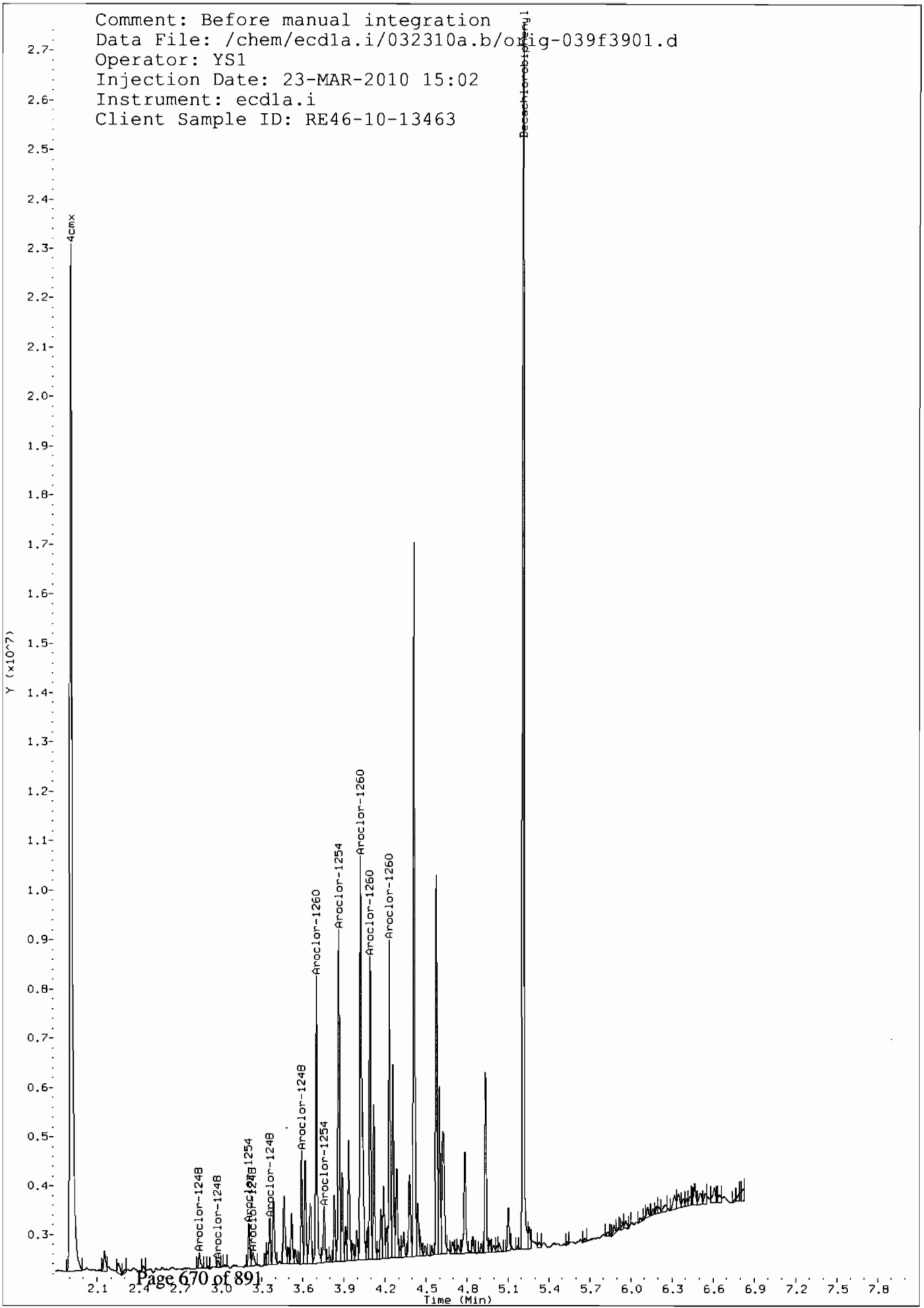
Comment: Before manual integration
Data File: /chem/ecd1a.i/032310a.b/orig-039f3901.d
Operator: YS1
Injection Date: 23-MAR-2010 15:02
Instrument: ecd1a.i
Client Sample ID: RE46-10-13463
4cmx
Decachlorobiphenyl
Aroclor-1248
Aroclor-1254
Aroclor-1260
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/032310a.b/039b3901.d
Lab Smp Id: 249180008 Client Smp ID: RE46-10-13463
Inj Date : 23-MAR-2010 15:02
Operator : YS1 Inst ID: ecdla.i
Smp Info : |249180008|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-13463|||
Comment :
Method : /chem/ecdla.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 05:51 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 39
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	15.38880	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	16838988	64.1894	2.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	12227814	65.3288	2.6	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.372	3.373	-0.001	184751	30.6834	1.2	80.00- 120.00	100.00(a)
3.793	3.795	-0.002	507286	46.8850	1.8	161.92- 201.92	274.58
3.911	3.912	-0.001	1117378	93.6327	3.7	181.59- 221.59	604.80
4.186	4.188	-0.002	1248347	75.9253	3.0	261.95- 301.95	675.69

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.322	4.323	-0.001	481949	39.7795	1.6	185.16- 225.16	260.86
Average of Peak Concentrations =					2.2		
7 Aroclor-1260					CAS #: 11096-82-5		
4.301	4.304	-0.003	3053110	233.414	9.2	80.00- 120.00	100.00
4.427	4.428	-0.001	2707493	174.126	6.8	102.36- 142.36	88.68
4.692	4.695	-0.003	3207020	269.587	10.6	71.76- 111.76	105.04
4.865	4.867	-0.002	3314591	269.715	10.6	74.97- 114.97	108.56
5.012	5.015	-0.003	7275688	275.650	10.8	192.80- 232.80	238.30
Average of Peak Concentrations =					9.6		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/032310a.b/039b3901.d

Date : 23-MAR-2010 15:02

Client ID: RE46-10-13463

Sample Info: |249180008|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

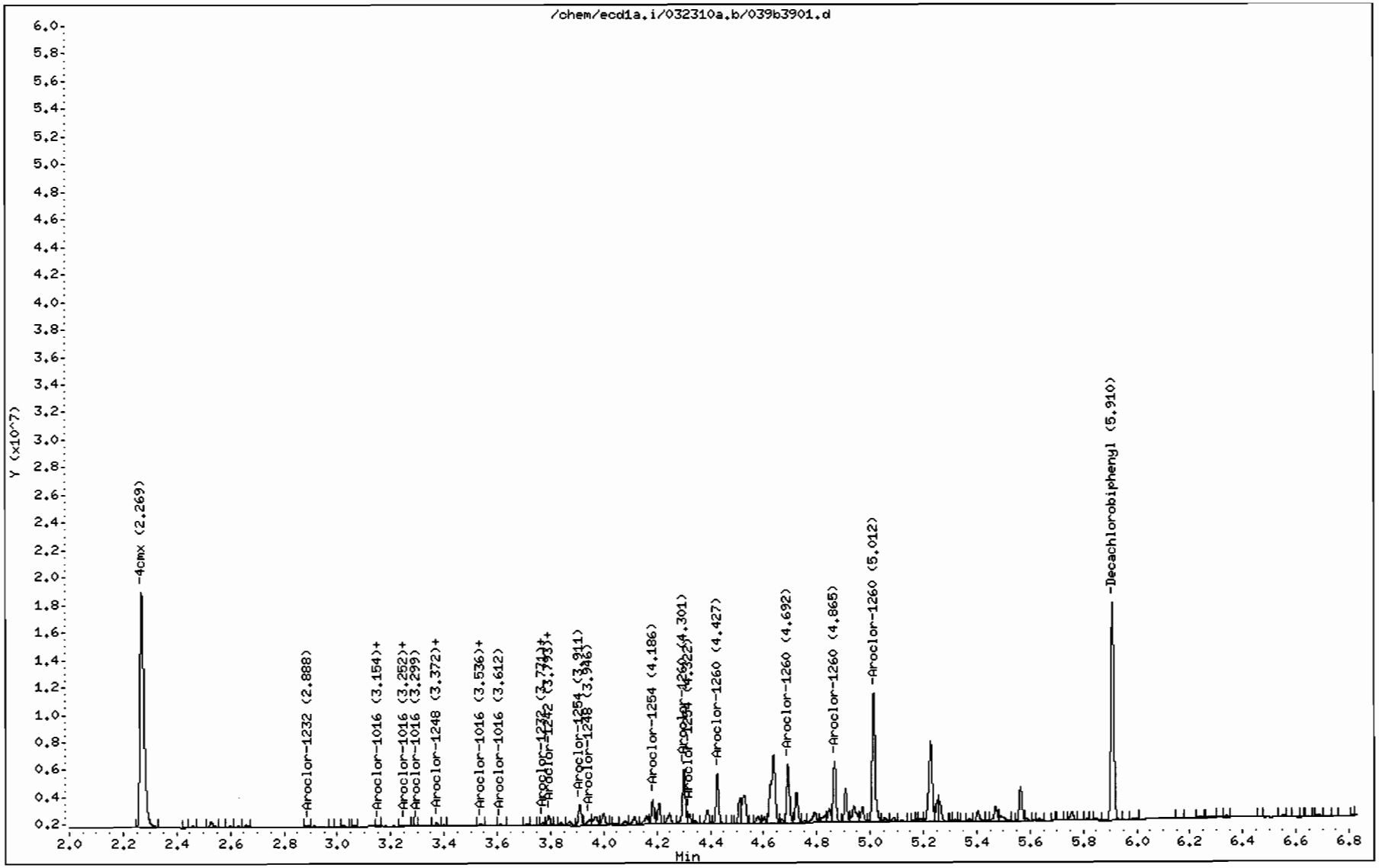

STANDARDS DATA

Report Date: 25-Mar-2010 05:51

Calibration History

Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032f3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029f2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023f2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017f1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033f3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030f3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024f2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018f1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034f3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031f3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025f2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019f1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035f3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032f3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026f2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020f2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014f1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009f0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008f0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007f0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010f1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036f3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033f3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027f2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021f2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 07:53	AR1660	/chem/ecd1a.i/032310a.b/002f0201.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 01:19	AR1660	/chem/ecd1a.i/032310a.b/087f8701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 23:38	AR1660	/chem/ecd1a.i/032310a.b/079f7901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 21:06	AR1660	/chem/ecd1a.i/032310a.b/067f6701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 18:35	AR1660	/chem/ecd1a.i/032310a.b/055f5501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:03	AR1660	/chem/ecd1a.i/032310a.b/048f4801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 15:17	AR1660	/chem/ecd1a.i/032310a.b/040f4001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:25	AR1660	/chem/ecd1a.i/032310a.b/031f3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:04	AR1660	/chem/ecd1a.i/032310a.b/029f2901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 11:28	AR1660	/chem/ecd1a.i/032310a.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:07	AR1262	/chem/ecd1a.i/032310a.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:56	AR1221	/chem/ecd1a.i/032310a.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:46	AR1232	/chem/ecd1a.i/032310a.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:35	AR1268	/chem/ecd1a.i/032310a.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:25	AR1248	/chem/ecd1a.i/032310a.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:14	AR1242	/chem/ecd1a.i/032310a.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:04	AR1254	/chem/ecd1a.i/032310a.b/003f0301.d

Report Date: 24-Mar-2010 08:34

Calibration History

Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029b2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023b2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017b1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030b3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024b2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018b1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031b3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025b2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019b1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032b3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026b2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020b2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014b1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009b0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008b0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007b0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010b1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033b3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027b2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021b2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 01:19	AR1660	/chem/ecd1a.i/032310a.b/087b8701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 23:38	AR1660	/chem/ecd1a.i/032310a.b/079b7901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 21:06	AR1660	/chem/ecd1a.i/032310a.b/067b6701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 18:35	AR1660	/chem/ecd1a.i/032310a.b/055b5501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:03	AR1660	/chem/ecd1a.i/032310a.b/048b4801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 15:17	AR1660	/chem/ecd1a.i/032310a.b/040b4001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:25	AR1660	/chem/ecd1a.i/032310a.b/031b3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:04	AR1660	/chem/ecd1a.i/032310a.b/029b2901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 11:28	AR1660	/chem/ecd1a.i/032310a.b/021b2101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:07	AR1262	/chem/ecd1a.i/032310a.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:56	AR1221	/chem/ecd1a.i/032310a.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:46	AR1232	/chem/ecd1a.i/032310a.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:35	AR1268	/chem/ecd1a.i/032310a.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:25	AR1248	/chem/ecd1a.i/032310a.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:14	AR1242	/chem/ecd1a.i/032310a.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:04	AR1254	/chem/ecd1a.i/032310a.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 07:53	AR1660	/chem/ecd1a.i/032310a.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Mar-2010 05:50 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.365	2.335-2.395	1.518e+04
	2.651	2.621-2.681	1.894e+04
	2.732	2.702-2.762	1.244e+04
	2.770	2.740-2.800	7.348e+03
	2.980	2.950-3.010	9.518e+03
63 4,4-DDD	3.888	3.868-3.908	3.140e+05
64 4,4-DDE	3.539	3.519-3.559	3.727e+05
62 4,4-DDT	4.052	4.032-4.072	2.363e+05
2 Aroclor-1221	2.025	1.994-2.054	4.466e+03
	2.117	2.087-2.147	2.447e+03
	2.143	2.113-2.173	1.083e+04
3 Aroclor-1232	2.364	2.334-2.394	6.667e+03
	2.651	2.621-2.681	8.344e+03
	2.731	2.701-2.761	5.531e+03
	2.845	2.816-2.876	2.649e+03
	3.232	3.202-3.262	3.555e+03
4 Aroclor-1242	2.364	2.334-2.394	1.233e+04
	2.652	2.622-2.682	1.490e+04
	2.769	2.739-2.799	5.896e+03
	2.979	2.949-3.009	7.735e+03
	3.233	3.203-3.263	7.285e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m

	Compound	RT	RT Window	RF
	5 Aroclor-1248	2.847	2.817-2.877	1.000e+04
		2.979	2.949-3.009	1.314e+04
		3.233	3.203-3.263	1.430e+04
		3.365	3.335-3.395	1.190e+04
		3.597	3.567-3.627	8.005e+03
	6 Aroclor-1254	3.208	3.178-3.238	1.326e+04
		3.363	3.333-3.393	1.783e+04
		3.597	3.567-3.627	2.237e+04
		3.759	3.729-3.789	1.649e+04
		3.868	3.838-3.898	1.596e+04
	7 Aroclor-1260	3.705	3.675-3.735	1.833e+04
		3.867	3.837-3.897	2.689e+04
		4.030	4.000-4.060	2.832e+04
		4.097	4.067-4.127	1.616e+04
		4.240	4.210-4.270	1.681e+04
	8 Aroclor-1262	3.704	3.674-3.734	1.423e+04
		3.866	3.836-3.896	1.874e+04
		4.097	4.067-4.127	2.315e+04
		4.239	4.209-4.269	2.110e+04
		4.418	4.388-4.448	4.350e+04
	9 Aroclor-1268	4.604	4.574-4.634	4.848e+04
		4.627	4.597-4.657	5.448e+04
		4.739	4.709-4.769	3.862e+04
		4.942	4.912-4.972	1.635e+04
		5.107	5.077-5.137	1.121e+05
M	10 Aroclor-Total	1.000	0.980-1.020	
	11 4cmx	1.913	1.883-1.943	3.895e+05
	12 Decachlorobiphenyl	5.217	5.187-5.247	2.969e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Mar-2010 06:13 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.165	3.135-3.195	1.258e+04
	3.248	3.218-3.278	8.634e+03
	3.311	3.281-3.341	5.287e+03
	3.538	3.508-3.568	6.893e+03
	3.614	3.584-3.644	6.423e+03
62 4,4-DDT	4.642	4.622-4.662	7.489e+04
63 4,4-DDE	4.111	4.091-4.131	2.469e+05
64 4,4-DDD	4.455	4.435-4.475	1.989e+05
2 Aroclor-1221	2.466	2.436-2.496	3.250e+03
	2.560	2.530-2.590	2.084e+03
	2.601	2.571-2.631	7.320e+03
3 Aroclor-1232	2.867	2.837-2.897	5.054e+03
	3.165	3.135-3.195	5.712e+03
	3.247	3.217-3.277	3.888e+03
	3.538	3.508-3.568	2.840e+03
	3.771	3.741-3.801	2.821e+03
4 Aroclor-1242	3.165	3.135-3.195	1.014e+04
	3.248	3.218-3.278	7.097e+03
	3.538	3.508-3.568	5.514e+03
	3.772	3.742-3.802	5.722e+03
	3.799	3.769-3.829	6.370e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.374	3.344-3.404	7.604e+03
	3.538	3.509-3.568	9.470e+03
	3.772	3.742-3.802	1.093e+04
	3.799	3.769-3.829	1.216e+04
	3.936	3.906-3.966	1.181e+04
6 Aroclor-1254	3.373	3.343-3.403	6.021e+03
	3.795	3.765-3.825	1.082e+04
	3.912	3.882-3.942	1.193e+04
	4.188	4.158-4.218	1.644e+04
	4.323	4.293-4.353	1.212e+04
7 Aroclor-1260	4.304	4.274-4.334	1.308e+04
	4.428	4.398-4.458	1.555e+04
	4.695	4.665-4.725	1.190e+04
	4.867	4.837-4.897	1.229e+04
	5.015	4.985-5.045	2.639e+04
8 Aroclor-1262	4.428	4.398-4.458	1.160e+04
	4.693	4.663-4.723	1.620e+04
	4.866	4.836-4.896	1.484e+04
	5.013	4.983-5.043	2.937e+04
	5.227	5.197-5.257	2.065e+04
9 Aroclor-1268	5.226	5.196-5.256	3.730e+04
	5.254	5.224-5.284	3.492e+04
	5.403	5.373-5.433	2.658e+04
	5.568	5.538-5.598	1.223e+04
	5.760	5.730-5.790	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.270	2.240-2.300	2.623e+05
$ 12 Decachlorobiphenyl	5.912	5.882-5.942	1.872e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Cal Date : 25-Mar-2010 05:50 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032f3201.d
Level 2: /chem/ecd1a.i/022210.b/033f3301.d
Level 3: /chem/ecd1a.i/022210.b/034f3401.d
Level 4: /chem/ecd1a.i/022210.b/035f3501.d
Level 5: /chem/ecd1a.i/022210.b/036f3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	___ RRF	% RSD
1 Aroclor-1016(1)	17517	15916	14941	14342	13168	15177	10.833
(2)	20378	19291	18809	18310	17891	18936	5.082
(3)	13830	13020	12255	11836	11271	12442	8.071
(4)	7957	7573	7201	7091	6919	7348	5.665
(5)	10680	9850	9332	8998	8729	9518	8.119
63 4,4-DDD	+++++	+++++	+++++	313980	+++++	313980	0.000
64 4,4-DDE	+++++	+++++	+++++	372684	+++++	372684	0.000
62 4,4-DDT	+++++	+++++	+++++	236265	+++++	236265	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4466	+++++	4466	0.000
(2)	+++++	+++++	+++++	2447	+++++	2447	0.000
(3)	+++++	+++++	+++++	10828	+++++	10828	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6667	+++++	6667	0.000
(2)	+++++	+++++	+++++	8344	+++++	8344	0.000
(3)	+++++	+++++	+++++	5531	+++++	5531	0.000
(4)	+++++	+++++	+++++	2649	+++++	2649	0.000
(5)	+++++	+++++	+++++	3555	+++++	3555	0.000
4 Aroclor-1242(1)	14179	12973	12200	11692	10617	12332	10.871
(2)	16141	15119	14927	14559	13766	14903	5.801
(3)	6352	6182	5816	5703	5424	5896	6.324
(4)	8823	8005	7582	7293	6975	7735	9.260
(5)	7955	7511	7149	7022	6787	7285	6.273
5 Aroclor-1248(1)	11183	10572	9738	9526	8980	10000	8.748
(2)	14876	13683	12753	12517	11873	13140	8.885
(3)	15448	14508	14083	13911	13564	14303	5.068
(4)	13161	12385	11501	11480	10960	11898	7.335
(5)	8649	8385	7955	7608	7427	8005	6.411

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Cal Date : 25-Mar-2010 05:50 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	15079	13757	12872	12576	12027	13262	8.998
(2)	20126	18408	17163	17147	16322	17833	8.313
(3)	24516	23104	21642	21571	21024	22371	6.372
(4)	18056	17097	15691	15840	15766	16490	6.365
(5)	18024	16683	15151	15091	14874	15964	8.504
7 Aroclor-1260(1)	20231	18737	18018	17739	16925	18330	6.792
(2)	29345	27114	26401	26314	25275	26890	5.656
(3)	30716	28501	27786	27176	27398	28315	5.062
(4)	17775	16311	15776	15627	15300	16158	6.034
(5)	18203	16850	16463	16434	16114	16813	4.876
8 Aroclor-1262(1)	+++++	+++++	+++++	14232	+++++	14232	0.000
(2)	+++++	+++++	+++++	18742	+++++	18742	0.000
(3)	+++++	+++++	+++++	23151	+++++	23151	0.000
(4)	+++++	+++++	+++++	21098	+++++	21098	0.000
(5)	+++++	+++++	+++++	43500	+++++	43500	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 4cmx	407603	391717	384007	385362	378927	389523	2.846
12 Decachlorobiphenyl	324859	292709	291687	292552	282844	296930	5.438

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Cal Date : 24-Mar-2010 06:13 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032b3201.d
Level 2: /chem/ecd1a.i/022210.b/033b3301.d
Level 3: /chem/ecd1a.i/022210.b/034b3401.d
Level 4: /chem/ecd1a.i/022210.b/035b3501.d
Level 5: /chem/ecd1a.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	___ RRF	% RSD
1 Aroclor-1016(1)	14376	12782	12025	12307	11436	12585	8.846
(2)	10090	9074	8445	8099	7462	8634	11.594
(3)	6137	5472	5151	4973	4701	5287	10.435
(4)	7962	7103	6817	6522	6060	6893	10.318
(5)	7497	6686	6263	5965	5703	6423	10.948
62 4,4-DDT	+++++	+++++	+++++	74891	+++++	74891	0.000
63 4,4-DDE	+++++	+++++	+++++	246875	+++++	246875	0.000
64 4,4-DDD	+++++	+++++	+++++	198885	+++++	198885	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3250	+++++	3250	0.000
(2)	+++++	+++++	+++++	2084	+++++	2084	0.000
(3)	+++++	+++++	+++++	7320	+++++	7320	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	5054	+++++	5054	0.000
(2)	+++++	+++++	+++++	5712	+++++	5712	0.000
(3)	+++++	+++++	+++++	3888	+++++	3888	0.000
(4)	+++++	+++++	+++++	2840	+++++	2840	0.000
(5)	+++++	+++++	+++++	2821	+++++	2821	0.000
4 Aroclor-1242(1)	11230	10514	10117	9526	9309	10139	7.634
(2)	8350	7546	6909	6642	6036	7097	12.487
(3)	6442	5836	5387	5177	4727	5514	11.868
(4)	6626	6011	5573	5400	4999	5722	10.877
(5)	7365	6655	6241	6005	5582	6370	10.658
5 Aroclor-1248(1)	9056	8166	7435	6980	6383	7604	13.684
(2)	11093	10088	9257	8814	8097	9470	12.242
(3)	12505	11602	10677	10284	9581	10930	10.466
(4)	13890	12873	11986	11379	10657	12157	10.405
(5)	13590	12468	11541	11009	10453	11812	10.502

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Cal Date : 24-Mar-2010 06:13 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7300	6493	5824	5480	5009	6021	14.886
(2)	12825	11548	10490	9974	9262	10820	12.909
(3)	14182	12643	11550	11031	10262	11934	12.788
(4)	19027	17317	15983	15442	14439	16442	10.826
(5)	14064	13049	11651	11174	10640	12116	11.634
7 Aroclor-1260(1)	15189	13569	12744	12369	11530	13080	10.610
(2)	17885	16016	15152	14853	13838	15549	9.776
(3)	13812	12250	11562	11271	10585	11896	10.311
(4)	14218	12635	11954	11625	11015	12289	9.981
(5)	29595	26825	25949	25629	23976	26395	7.824
8 Aroclor-1262(1)	+++++	+++++	+++++	11597	+++++	11597	0.000
(2)	+++++	+++++	+++++	16200	+++++	16200	0.000
(3)	+++++	+++++	+++++	14838	+++++	14838	0.000
(4)	+++++	+++++	+++++	29366	+++++	29366	0.000
(5)	+++++	+++++	+++++	20651	+++++	20651	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	286554	267083	258607	255362	244057	262333	6.044
$ 12 Decachlorobiphenyl	217815	191410	181026	177515	168101	187173	10.178

Report Date: 26-Mar-2010 14:20

Calibration History

Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032f3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029f2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023f2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017f1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033f3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030f3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024f2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018f1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034f3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031f3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025f2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019f1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035f3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032f3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026f2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020f2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014f1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009f0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008f0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007f0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010f1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036f3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033f3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027f2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021f2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 1000 |

25-MAR-2010 12:09	AR1660	/chem/ecd1a.i/032510.b/037f3701.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 13:44	AR1660	/chem/ecd1a.i/032510.b/046f4601.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 10:26	AR1660	/chem/ecd1a.i/032510.b/028f2801.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 09:27	AR1660	/chem/ecd1a.i/032510.b/023f2301.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 06:41	AR1262	/chem/ecd1a.i/032510.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 06:31	AR1221	/chem/ecd1a.i/032510.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 06:20	AR1232	/chem/ecd1a.i/032510.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 06:10	AR1268	/chem/ecd1a.i/032510.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 05:59	AR1248	/chem/ecd1a.i/032510.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 05:49	AR1242	/chem/ecd1a.i/032510.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 05:38	AR1254	/chem/ecd1a.i/032510.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 05:28	AR1660	/chem/ecd1a.i/032510.b/002f0201.d

Report Date: 29-Mar-2010 10:02

Calibration History

Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029b2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023b2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017b1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030b3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024b2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018b1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031b3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025b2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019b1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032b3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026b2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020b2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014b1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009b0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008b0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007b0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010b1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033b3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027b2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021b2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 1000 |

25-MAR-2010 13:44	AR1660	/chem/ecd1a.i/032510.b/046b4601.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 12:09	AR1660	/chem/ecd1a.i/032510.b/037b3701.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 10:26	AR1660	/chem/ecd1a.i/032510.b/028b2801.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 09:27	AR1660	/chem/ecd1a.i/032510.b/023b2301.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 05:28	AR1660	/chem/ecd1a.i/032510.b/002b0201.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 06:41	AR1262	/chem/ecd1a.i/032510.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 06:31	AR1221	/chem/ecd1a.i/032510.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 06:20	AR1232	/chem/ecd1a.i/032510.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 06:10	AR1268	/chem/ecd1a.i/032510.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 05:59	AR1248	/chem/ecd1a.i/032510.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 05:49	AR1242	/chem/ecd1a.i/032510.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 05:38	AR1254	/chem/ecd1a.i/032510.b/003b0301.d

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COMPOUND LISTING

Method file : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Mar-2010 14:17 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.361	2.331-2.391	1.518e+04
	2.647	2.617-2.677	1.894e+04
	2.727	2.697-2.757	1.244e+04
	2.765	2.735-2.795	7.348e+03
	2.975	2.945-3.005	9.518e+03
63 4,4-DDD	3.888	3.868-3.908	3.140e+05
64 4,4-DDE	3.539	3.519-3.559	3.727e+05
62 4,4-DDT	4.052	4.032-4.072	2.363e+05
2 Aroclor-1221	2.023	1.993-2.053	4.466e+03
	2.115	2.085-2.145	2.447e+03
	2.140	2.110-2.170	1.083e+04
3 Aroclor-1232	2.364	2.334-2.394	6.667e+03
	2.649	2.619-2.679	8.344e+03
	2.730	2.700-2.760	5.531e+03
	2.844	2.814-2.874	2.649e+03
	3.230	3.200-3.260	3.555e+03
4 Aroclor-1242	2.362	2.332-2.392	1.233e+04
	2.648	2.618-2.678	1.490e+04
	2.767	2.737-2.797	5.896e+03
	2.976	2.946-3.006	7.735e+03
	3.229	3.199-3.259	7.285e+03

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COMPOUND LISTING

Method file : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.843	2.813-2.873	1.000e+04
	2.976	2.946-3.006	1.314e+04
	3.229	3.199-3.259	1.430e+04
	3.361	3.331-3.391	1.190e+04
	3.593	3.563-3.623	8.005e+03
6 Aroclor-1254	3.204	3.174-3.234	1.326e+04
	3.359	3.329-3.389	1.783e+04
	3.593	3.563-3.623	2.237e+04
	3.756	3.726-3.786	1.649e+04
	3.865	3.835-3.895	1.596e+04
7 Aroclor-1260	3.700	3.670-3.730	1.833e+04
	3.862	3.832-3.892	2.689e+04
	4.024	3.994-4.054	2.832e+04
	4.092	4.062-4.122	1.616e+04
	4.235	4.205-4.265	1.681e+04
8 Aroclor-1262	3.702	3.672-3.732	1.423e+04
	3.865	3.835-3.895	1.874e+04
	4.095	4.065-4.125	2.315e+04
	4.237	4.207-4.267	2.110e+04
	4.417	4.387-4.447	4.350e+04
9 Aroclor-1268	4.600	4.570-4.630	4.848e+04
	4.623	4.593-4.653	5.448e+04
	4.736	4.706-4.766	3.862e+04
	4.938	4.908-4.968	1.635e+04
	5.104	5.074-5.133	1.121e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.910	1.880-1.940	3.895e+05
$ 12 Decachlorobiphenyl	5.211	5.181-5.241	2.969e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Mar-2010 14:16 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.161	3.131-3.191	1.258e+04
	3.244	3.214-3.274	8.634e+03
	3.307	3.277-3.337	5.287e+03
	3.534	3.504-3.564	6.893e+03
	3.609	3.579-3.639	6.423e+03
62 4,4-DDT	4.642	4.622-4.662	7.489e+04
63 4,4-DDE	4.111	4.091-4.131	2.469e+05
64 4,4-DDD	4.455	4.435-4.475	1.989e+05
2 Aroclor-1221	2.464	2.434-2.494	3.250e+03
	2.559	2.529-2.589	2.084e+03
	2.599	2.569-2.629	7.320e+03
3 Aroclor-1232	2.865	2.835-2.895	5.054e+03
	3.162	3.132-3.192	5.712e+03
	3.245	3.215-3.275	3.888e+03
	3.535	3.505-3.565	2.840e+03
	3.770	3.740-3.800	2.821e+03
4 Aroclor-1242	3.162	3.132-3.192	1.014e+04
	3.245	3.215-3.275	7.097e+03
	3.535	3.505-3.565	5.514e+03
	3.769	3.739-3.799	5.722e+03
	3.797	3.767-3.827	6.370e+03

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COMPOUND LISTING

Method file : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.370	3.340-3.400	7.604e+03
	3.534	3.504-3.564	9.470e+03
	3.769	3.739-3.799	1.093e+04
	3.796	3.766-3.826	1.216e+04
	3.933	3.903-3.963	1.181e+04
6 Aroclor-1254	3.369	3.339-3.399	6.021e+03
	3.791	3.761-3.821	1.082e+04
	3.908	3.878-3.938	1.193e+04
	4.184	4.154-4.214	1.644e+04
	4.319	4.289-4.349	1.212e+04
7 Aroclor-1260	4.299	4.269-4.329	1.308e+04
	4.424	4.394-4.454	1.555e+04
	4.689	4.659-4.719	1.190e+04
	4.862	4.832-4.892	1.229e+04
	5.010	4.980-5.040	2.639e+04
8 Aroclor-1262	4.426	4.396-4.456	1.160e+04
	4.692	4.662-4.722	1.620e+04
	4.865	4.835-4.895	1.484e+04
	5.012	4.982-5.042	2.937e+04
	5.224	5.194-5.254	2.065e+04
9 Aroclor-1268	5.222	5.192-5.252	3.730e+04
	5.249	5.219-5.279	3.492e+04
	5.399	5.369-5.429	2.658e+04
	5.564	5.534-5.593	1.223e+04
	5.756	5.726-5.786	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.267	2.237-2.297	2.623e+05
$ 12 Decachlorobiphenyl	5.906	5.876-5.936	1.872e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Cal Date : 25-Mar-2010 14:17 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032f3201.d
Level 2: /chem/ecd1a.i/022210.b/033f3301.d
Level 3: /chem/ecd1a.i/022210.b/034f3401.d
Level 4: /chem/ecd1a.i/022210.b/035f3501.d
Level 5: /chem/ecd1a.i/022210.b/036f3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	17517	15916	14941	14342	13168	15177	10.833
(2)	20378	19291	18809	18310	17891	18936	5.082
(3)	13830	13020	12255	11836	11271	12442	8.071
(4)	7957	7573	7201	7091	6919	7348	5.665
(5)	10680	9850	9332	8998	8729	9518	8.119
63 4,4-DDD	+++++	+++++	+++++	313980	+++++	313980	0.000
64 4,4-DDE	+++++	+++++	+++++	372684	+++++	372684	0.000
62 4,4-DDT	+++++	+++++	+++++	236265	+++++	236265	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4466	+++++	4466	0.000
(2)	+++++	+++++	+++++	2447	+++++	2447	0.000
(3)	+++++	+++++	+++++	10828	+++++	10828	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6667	+++++	6667	0.000
(2)	+++++	+++++	+++++	8344	+++++	8344	0.000
(3)	+++++	+++++	+++++	5531	+++++	5531	0.000
(4)	+++++	+++++	+++++	2649	+++++	2649	0.000
(5)	+++++	+++++	+++++	3555	+++++	3555	0.000
4 Aroclor-1242(1)	14179	12973	12200	11692	10617	12332	10.871
(2)	16141	15119	14927	14559	13766	14903	5.801
(3)	6352	6182	5816	5703	5424	5896	6.324
(4)	8823	8005	7582	7293	6975	7735	9.260
(5)	7955	7511	7149	7022	6787	7285	6.273
5 Aroclor-1248(1)	11183	10572	9738	9526	8980	10000	8.748
(2)	14876	13683	12753	12517	11873	13140	8.885
(3)	15448	14508	14083	13911	13564	14303	5.068
(4)	13161	12385	11501	11480	10960	11898	7.335
(5)	8649	8385	7955	7608	7427	8005	6.411

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Cal Date : 25-Mar-2010 14:17 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	15079	13757	12872	12576	12027	13262	8.998
(2)	20126	18408	17163	17147	16322	17833	8.313
(3)	24516	23104	21642	21571	21024	22371	6.372
(4)	18056	17097	15691	15840	15766	16490	6.365
(5)	18024	16683	15151	15091	14874	15964	8.504
7 Aroclor-1260(1)	20231	18737	18018	17739	16925	18330	6.792
(2)	29345	27114	26401	26314	25275	26890	5.656
(3)	30716	28501	27786	27176	27398	28315	5.062
(4)	17775	16311	15776	15627	15300	16158	6.034
(5)	18203	16850	16463	16434	16114	16813	4.876
8 Aroclor-1262(1)	+++++	+++++	+++++	14232	+++++	14232	0.000
(2)	+++++	+++++	+++++	18742	+++++	18742	0.000
(3)	+++++	+++++	+++++	23151	+++++	23151	0.000
(4)	+++++	+++++	+++++	21098	+++++	21098	0.000
(5)	+++++	+++++	+++++	43500	+++++	43500	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	407603	391717	384007	385362	378927	389523	2.846
$ 12 Decachlorobiphenyl	324859	292709	291687	292552	282844	296930	5.438

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Cal Date : 25-Mar-2010 14:16 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032b3201.d
Level 2: /chem/ecd1a.i/022210.b/033b3301.d
Level 3: /chem/ecd1a.i/022210.b/034b3401.d
Level 4: /chem/ecd1a.i/022210.b/035b3501.d
Level 5: /chem/ecd1a.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	___ RRF	% RSD
1 Aroclor-1016(1)	14376	12782	12025	12307	11436	12585	8.846
(2)	10090	9074	8445	8099	7462	8634	11.594
(3)	6137	5472	5151	4973	4701	5287	10.435
(4)	7962	7103	6817	6522	6060	6893	10.318
(5)	7497	6686	6263	5965	5703	6423	10.948
62 4,4-DDT	+++++	+++++	+++++	74891	+++++	74891	0.000
63 4,4-DDE	+++++	+++++	+++++	246875	+++++	246875	0.000
64 4,4-DDD	+++++	+++++	+++++	198885	+++++	198885	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3250	+++++	3250	0.000
(2)	+++++	+++++	+++++	2084	+++++	2084	0.000
(3)	+++++	+++++	+++++	7320	+++++	7320	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	5054	+++++	5054	0.000
(2)	+++++	+++++	+++++	5712	+++++	5712	0.000
(3)	+++++	+++++	+++++	3888	+++++	3888	0.000
(4)	+++++	+++++	+++++	2840	+++++	2840	0.000
(5)	+++++	+++++	+++++	2821	+++++	2821	0.000
4 Aroclor-1242(1)	11230	10514	10117	9526	9309	10139	7.634
(2)	8350	7546	6909	6642	6036	7097	12.487
(3)	6442	5836	5387	5177	4727	5514	11.868
(4)	6626	6011	5573	5400	4999	5722	10.877
(5)	7365	6655	6241	6005	5582	6370	10.658
5 Aroclor-1248(1)	9056	8166	7435	6980	6383	7604	13.684
(2)	11093	10088	9257	8814	8097	9470	12.242
(3)	12505	11602	10677	10284	9581	10930	10.466
(4)	13890	12873	11986	11379	10657	12157	10.405
(5)	13590	12468	11541	11009	10453	11812	10.502

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Cal Date : 25-Mar-2010 14:16 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7300	6493	5824	5480	5009	6021	14.886
(2)	12825	11548	10490	9974	9262	10820	12.909
(3)	14182	12643	11550	11031	10262	11934	12.788
(4)	19027	17317	15983	15442	14439	16442	10.826
(5)	14064	13049	11651	11174	10640	12116	11.634
7 Aroclor-1260(1)	15189	13569	12744	12369	11530	13080	10.610
(2)	17885	16016	15152	14853	13838	15549	9.776
(3)	13812	12250	11562	11271	10585	11896	10.311
(4)	14218	12635	11954	11625	11015	12289	9.981
(5)	29595	26825	25949	25629	23976	26395	7.824
8 Aroclor-1262(1)	+++++	+++++	+++++	11597	+++++	11597	0.000
(2)	+++++	+++++	+++++	16200	+++++	16200	0.000
(3)	+++++	+++++	+++++	14838	+++++	14838	0.000
(4)	+++++	+++++	+++++	29366	+++++	29366	0.000
(5)	+++++	+++++	+++++	20651	+++++	20651	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	286554	267083	258607	255362	244057	262333	6.044
$ 12 Decachlorobiphenyl	217815	191410	181026	177515	168101	187173	10.178

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 0753

Lab File ID: 002F0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14904.311	0.01	-1.8	15.0
(2)	18935.774	19020.221	0.01	0.4	15.0
(3)	12442.153	11642.075	0.01	-6.4	15.0
(4)	7348.319	7018.562	0.01	-4.5	15.0
(5)	9517.775	9050.522	0.01	-4.9	15.0
Aroclor-1260	18330.091	18974.465	0.01	3.5	15.0
(2)	26889.831	28338.650	0.01	5.4	15.0
(3)	28315.304	30220.801	0.01	6.7	15.0
(4)	16157.873	17084.331	0.01	5.7	15.0
(5)	16812.669	17877.749	0.01	6.3	15.0
4cmx	389523.02	413156.93	0.01	6.1	15.0
Decachlorobiphenyl	296930.38	316393.35	0.01	6.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 0753

Lab File ID: 002B0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11580.435	0.01	-8.0	15.0
(2)	8634.207	7799.455	0.01	-9.7	15.0
(3)	5286.637	4831.888	0.01	-8.6	15.0
(4)	6892.719	6341.985	0.01	-8.0	15.0
(5)	6422.564	5935.096	0.01	-7.6	15.0
Aroclor-1260	13080.231	12744.147	0.01	-2.6	15.0
(2)	15549.023	15548.972	0.01	-0.0	15.0
(3)	11896.069	11720.380	0.01	-1.5	15.0
(4)	12289.216	12237.561	0.01	-0.4	15.0
(5)	26394.638	27173.631	0.01	3.0	15.0
4cmx	262332.66	262353.40	0.01	0.0	15.0
Decachlorobiphenyl	187173.38	185867.43	0.01	-0.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 0804

Lab File ID: 003F0301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	13261.954	12967.036	0.01	-2.2	15.0
(2)	17833.306	17361.430	0.01	-2.6	15.0
(3)	22371.301	22829.689	0.01	2.0	15.0
(4)	16490.050	16956.788	0.01	2.8	15.0
(5)	15964.418	16896.192	0.01	5.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 0804

Lab File ID: 003B0301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6021.217	5514.362	0.01	-8.4	15.0
(2)	10819.790	10031.897	0.01	-7.3	15.0
(3)	11933.626	11116.209	0.01	-6.8	15.0
(4)	16441.788	15547.782	0.01	-5.4	15.0
(5)	12115.517	11313.436	0.01	-6.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 1128

Lab File ID: 021F2101 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14292.984	0.01	-5.8	15.0
(2)	18935.774	18014.082	0.01	-4.9	15.0
(3)	12442.153	11433.112	0.01	-8.1	15.0
(4)	7348.319	6916.561	0.01	-5.9	15.0
(5)	9517.775	8921.011	0.01	-6.3	15.0
Aroclor-1260	18330.091	18917.452	0.01	3.2	15.0
(2)	26889.831	27896.153	0.01	3.7	15.0
(3)	28315.304	29772.954	0.01	5.1	15.0
(4)	16157.873	16821.466	0.01	4.1	15.0
(5)	16812.669	17522.638	0.01	4.2	15.0
4cmx	389523.02	401450.50	0.01	3.1	15.0
Decachlorobiphenyl	296930.38	291093.56	0.01	-2.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 1128

Lab File ID: 021B2101 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11869.406	0.01	-5.7	15.0
(2)	8634.207	7752.072	0.01	-10.2	15.0
(3)	5286.637	4807.813	0.01	-9.0	15.0
(4)	6892.719	6307.203	0.01	-8.5	15.0
(5)	6422.564	5822.450	0.01	-9.3	15.0
Aroclor-1260	13080.231	12629.591	0.01	-3.4	15.0
(2)	15549.023	15357.793	0.01	-1.2	15.0
(3)	11896.069	11596.776	0.01	-2.5	15.0
(4)	12289.216	12072.542	0.01	-1.8	15.0
(5)	26394.638	26797.242	0.01	1.5	15.0
4cmx	262332.66	259327.12	0.01	-1.1	15.0
Decachlorobiphenyl	187173.38	181181.45	0.01	-3.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 1325

Lab File ID: 031F3101 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14712.704	0.01	-3.0	15.0
(2)	18935.774	18638.228	0.01	-1.6	15.0
(3)	12442.153	11724.643	0.01	-5.8	15.0
(4)	7348.319	7099.679	0.01	-3.4	15.0
(5)	9517.775	9253.865	0.01	-2.8	15.0
Aroclor-1260	18330.091	19201.876	0.01	4.8	15.0
(2)	26889.831	28710.260	0.01	6.8	15.0
(3)	28315.304	30469.829	0.01	7.6	15.0
(4)	16157.873	17245.697	0.01	6.7	15.0
(5)	16812.669	17921.417	0.01	6.6	15.0
4cmx	389523.02	418283.07	0.01	7.4	15.0
Decachlorobiphenyl	296930.38	316346.37	0.01	6.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 1325

Lab File ID: 031B3101 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11970.242	0.01	-4.9	15.0
(2)	8634.207	7814.854	0.01	-9.5	15.0
(3)	5286.637	4878.304	0.01	-7.7	15.0
(4)	6892.719	6354.796	0.01	-7.8	15.0
(5)	6422.564	6007.559	0.01	-6.5	15.0
Aroclor-1260	13080.231	12778.065	0.01	-2.3	15.0
(2)	15549.023	15569.159	0.01	0.1	15.0
(3)	11896.069	11687.369	0.01	-1.8	15.0
(4)	12289.216	12156.651	0.01	-1.1	15.0
(5)	26394.638	27021.040	0.01	2.4	15.0
4cmx	262332.66	262429.94	0.01	0.0	15.0
Decachlorobiphenyl	187173.38	185182.13	0.01	-1.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 1517

Lab File ID: 040F4001 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14575.061	0.01	-4.0	15.0
(2)	18935.774	18160.272	0.01	-4.1	15.0
(3)	12442.153	11708.744	0.01	-5.9	15.0
(4)	7348.319	7027.826	0.01	-4.4	15.0
(5)	9517.775	8993.172	0.01	-5.5	15.0
Aroclor-1260	18330.091	18935.701	0.01	3.3	15.0
(2)	26889.831	28174.842	0.01	4.8	15.0
(3)	28315.304	30238.844	0.01	6.8	15.0
(4)	16157.873	17075.467	0.01	5.7	15.0
(5)	16812.669	17808.225	0.01	5.9	15.0
4cmx	389523.02	410492.69	0.01	5.4	15.0
Decachlorobiphenyl	296930.38	305408.41	0.01	2.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 1517

Lab File ID: 040B4001 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11738.136	0.01	-6.7	15.0
(2)	8634.207	7821.418	0.01	-9.4	15.0
(3)	5286.637	4864.092	0.01	-8.0	15.0
(4)	6892.719	6353.525	0.01	-7.8	15.0
(5)	6422.564	5959.991	0.01	-7.2	15.0
Aroclor-1260	13080.231	12690.762	0.01	-3.0	15.0
(2)	15549.023	15477.566	0.01	-0.4	15.0
(3)	11896.069	11573.487	0.01	-2.7	15.0
(4)	12289.216	11959.992	0.01	-2.7	15.0
(5)	26394.638	26779.955	0.01	1.4	15.0
4cmx	262332.66	262838.37	0.01	0.2	15.0
Decachlorobiphenyl	187173.38	178312.49	0.01	-4.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

Instrument ID: ECD1A Calibration Date: 03/25/10 Time: 0528

Lab File ID: 002F0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14589.566	0.01	-3.9	15.0
(2)	18935.774	18756.674	0.01	-0.9	15.0
(3)	12442.153	11593.920	0.01	-6.8	15.0
(4)	7348.319	6963.555	0.01	-5.2	15.0
(5)	9517.775	8874.475	0.01	-6.8	15.0
Aroclor-1260	18330.091	18589.252	0.01	1.4	15.0
(2)	26889.831	27581.026	0.01	2.6	15.0
(3)	28315.304	29481.031	0.01	4.1	15.0
(4)	16157.873	16685.252	0.01	3.3	15.0
(5)	16812.669	17360.654	0.01	3.2	15.0
4cmx	389523.02	418561.13	0.01	7.4	15.0
Decachlorobiphenyl	296930.38	315777.66	0.01	6.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

Instrument ID: ECD1A Calibration Date: 03/25/10 Time: 0528

Lab File ID: 002B0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11747.342	0.01	-6.6	15.0
(2)	8634.207	7814.731	0.01	-9.5	15.0
(3)	5286.637	4818.974	0.01	-8.8	15.0
(4)	6892.719	6167.712	0.01	-10.5	15.0
(5)	6422.564	5923.164	0.01	-7.8	15.0
Aroclor-1260	13080.231	12832.813	0.01	-1.9	15.0
(2)	15549.023	15664.888	0.01	0.7	15.0
(3)	11896.069	11826.610	0.01	-0.6	15.0
(4)	12289.216	12290.315	0.01	0.0	15.0
(5)	26394.638	27280.290	0.01	3.4	15.0
4cmx	262332.66	267786.20	0.01	2.1	15.0
Decachlorobiphenyl	187173.38	192101.66	0.01	2.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

Instrument ID: ECD1A Calibration Date: 03/25/10 Time: 0538

Lab File ID: 003F0301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	13261.954	12741.217	0.01	-3.9	15.0
(2)	17833.306	17143.351	0.01	-3.9	15.0
(3)	22371.301	22218.593	0.01	-0.7	15.0
(4)	16490.050	16436.259	0.01	-0.3	15.0
(5)	15964.418	16751.210	0.01	4.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

Instrument ID: ECD1A Calibration Date: 03/25/10 Time: 0538

Lab File ID: 003B0301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6021.217	5545.194	0.01	-7.9	15.0
(2)	10819.790	10086.059	0.01	-6.8	15.0
(3)	11933.626	11109.350	0.01	-6.9	15.0
(4)	16441.788	15547.011	0.01	-5.4	15.0
(5)	12115.517	11753.589	0.01	-3.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

Instrument ID: ECD1A Calibration Date: 03/25/10 Time: 1026

Lab File ID: 028F2801 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14712.751	0.01	-3.0	15.0
(2)	18935.774	18693.026	0.01	-1.3	15.0
(3)	12442.153	11643.911	0.01	-6.4	15.0
(4)	7348.319	7050.056	0.01	-4.0	15.0
(5)	9517.775	9101.881	0.01	-4.4	15.0
Aroclor-1260	18330.091	18885.324	0.01	3.0	15.0
(2)	26889.831	28062.112	0.01	4.4	15.0
(3)	28315.304	30094.246	0.01	6.3	15.0
(4)	16157.873	17025.182	0.01	5.4	15.0
(5)	16812.669	17670.317	0.01	5.1	15.0
4cmx	389523.02	419247.35	0.01	7.6	15.0
Decachlorobiphenyl	296930.38	318496.62	0.01	7.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

Instrument ID: ECD1A Calibration Date: 03/25/10 Time: 1026

Lab File ID: 028B2801 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	12129.697	0.01	-3.6	15.0
(2)	8634.207	7798.446	0.01	-9.7	15.0
(3)	5286.637	4833.083	0.01	-8.6	15.0
(4)	6892.719	6385.988	0.01	-7.4	15.0
(5)	6422.564	6043.433	0.01	-5.9	15.0
Aroclor-1260	13080.231	12823.274	0.01	-2.0	15.0
(2)	15549.023	15717.711	0.01	1.1	15.0
(3)	11896.069	11865.206	0.01	-0.2	15.0
(4)	12289.216	12280.274	0.01	-0.1	15.0
(5)	26394.638	27462.132	0.01	4.0	15.0
4cmx	262332.66	265939.76	0.01	1.4	15.0
Decachlorobiphenyl	187173.38	192515.21	0.01	2.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

Instrument ID: ECD1A Calibration Date: 03/25/10 Time: 1209

Lab File ID: 037F3701 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	15182.835	0.01	0.0	15.0
(2)	18935.774	19644.621	0.01	3.7	15.0
(3)	12442.153	12091.177	0.01	-2.8	15.0
(4)	7348.319	7289.124	0.01	-0.8	15.0
(5)	9517.775	9272.000	0.01	-2.6	15.0
Aroclor-1260	18330.091	19582.367	0.01	6.8	15.0
(2)	26889.831	29042.968	0.01	8.0	15.0
(3)	28315.304	31186.822	0.01	10.1	15.0
(4)	16157.873	17516.907	0.01	8.4	15.0
(5)	16812.669	18266.420	0.01	8.6	15.0
4cmx	389523.02	435155.71	0.01	11.7	15.0
Decachlorobiphenyl	296930.38	326663.07	0.01	10.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

Instrument ID: ECD1A Calibration Date: 03/25/10 Time: 1209

Lab File ID: 037B3701 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	12496.893	0.01	-0.7	15.0
(2)	8634.207	7968.120	0.01	-7.7	15.0
(3)	5286.637	4949.155	0.01	-6.4	15.0
(4)	6892.719	6307.501	0.01	-8.5	15.0
(5)	6422.564	5992.558	0.01	-6.7	15.0
Aroclor-1260	13080.231	13078.449	0.01	-0.0	15.0
(2)	15549.023	16058.379	0.01	3.3	15.0
(3)	11896.069	12042.699	0.01	1.2	15.0
(4)	12289.216	12426.191	0.01	1.1	15.0
(5)	26394.638	27705.419	0.01	5.0	15.0
4cmx	262332.66	273494.19	0.01	4.2	15.0
Decachlorobiphenyl	187173.38	193045.96	0.01	3.1	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/002f0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 23-MAR-2010 07:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:52 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.913	0.000	41315693	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.217	5.217	0.000	31639335	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.365	2.365	0.000	14904311	1000.00	982	80.00- 120.00	100.00
2.651	2.651	0.000	19020221	1000.00	1000	107.62- 147.62	127.62
2.732	2.732	0.000	11642075	1000.00	936	58.11- 98.11	78.11
2.770	2.770	0.000	7018562	1000.00	955	27.09- 67.09	47.09
2.980	2.980	0.000	9050522	1000.00	951	40.72- 80.72	60.72
Average of Peak Amounts =					966		
7 Aroclor-1260					CAS #: 11096-82-5		
3.705	3.705	0.000	18974465	1000.00	1040	80.00- 120.00	100.00
3.867	3.867	0.000	28338650	1000.00	1050	129.35- 169.35	149.35
4.030	4.030	0.000	30220801	1000.00	1070	139.27- 179.27	159.27
4.097	4.097	0.000	17084331	1000.00	1060	70.04- 110.04	90.04
4.240	4.240	0.000	17877749	1000.00	1060	74.22- 114.22	94.22
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd1a.i/032310a.b/002f0201.d
Date : 23-MAR-2010 07:53
Client ID: AR166001
Sample Info: IWAR100222-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

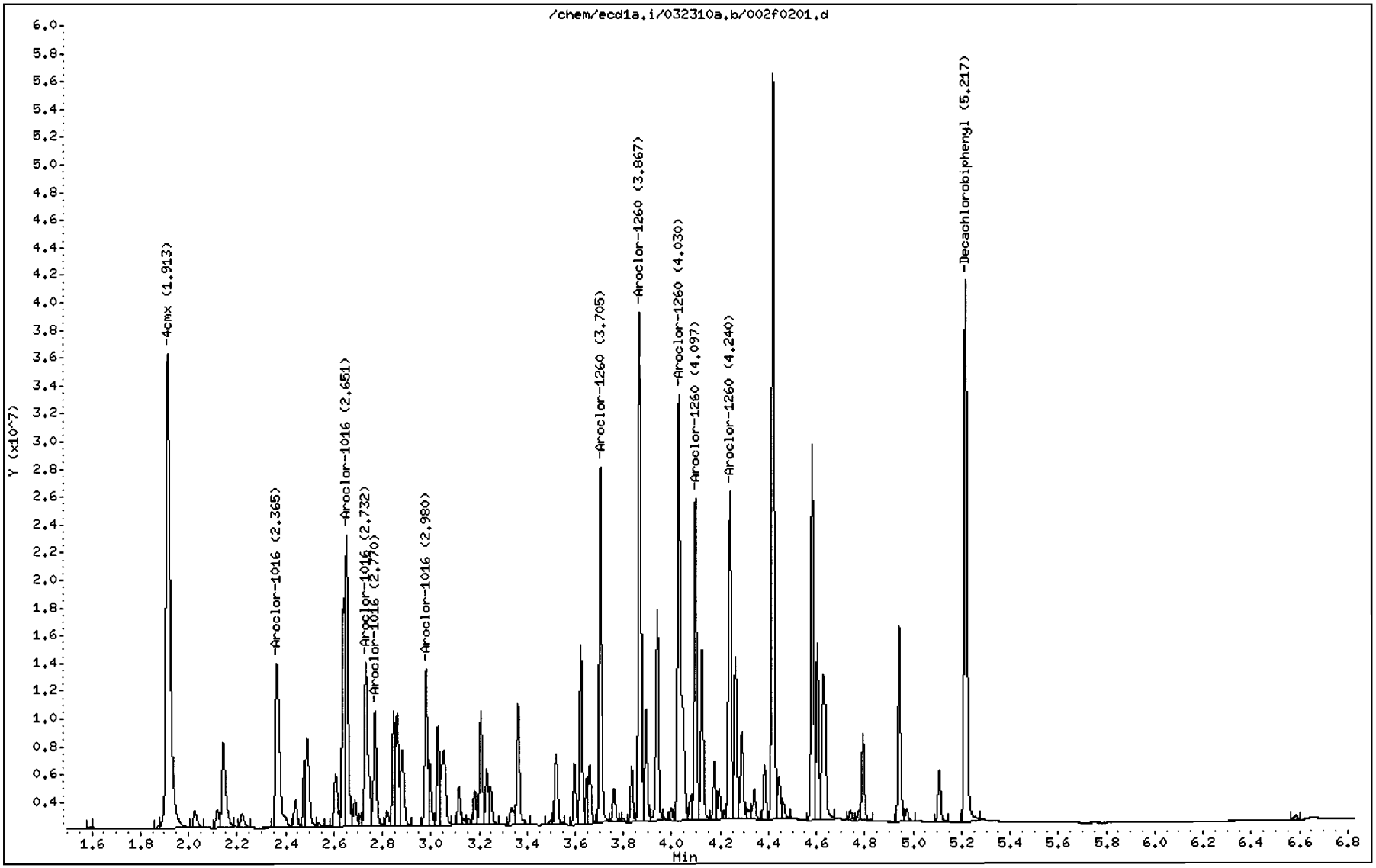

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/002b0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 23-MAR-2010 07:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	26235340	100.000	100	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.912	5.912	0.000	18586743	100.000	99.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.165	3.165	0.000	11580435	1000.00	920	80.00- 120.00	100.00(M)
3.248	3.248	0.000	7799455	1000.00	903	45.31- 85.31	67.35
3.311	3.311	0.000	4831888	1000.00	914	20.51- 60.51	41.72
3.538	3.538	0.000	6341985	1000.00	920	33.14- 73.14	54.76
3.614	3.614	0.000	5935096	1000.00	924	29.05- 69.05	51.25
		Average of Peak Amounts =			916		
7 Aroclor-1260					CAS #: 11096-82-5		
4.304	4.304	0.000	12744147	1000.00	974	80.00- 120.00	100.00
4.428	4.428	0.000	15548972	1000.00	1000	101.60- 141.60	122.01
4.695	4.695	0.000	11720380	1000.00	985	71.82- 111.82	91.97
4.867	4.867	0.000	12237561	1000.00	996	75.59- 115.59	96.02
5.015	5.015	0.000	27173631	1000.00	1030	192.18- 232.18	213.22
		Average of Peak Amounts =			997		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/002b0201.d

Date : 23-MAR-2010 07:53

Client ID: AR166001

Sample Info: IWAR100222-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

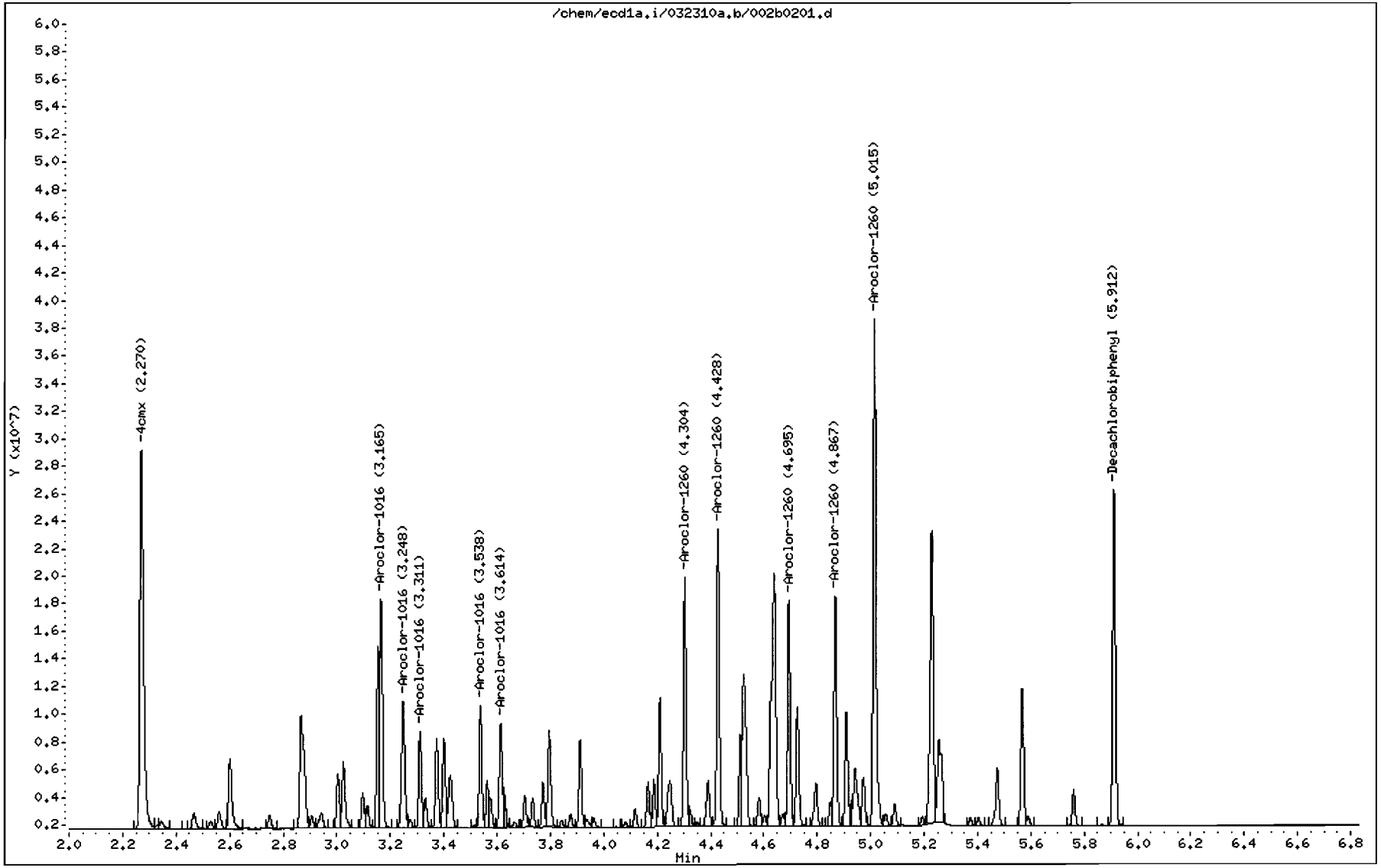

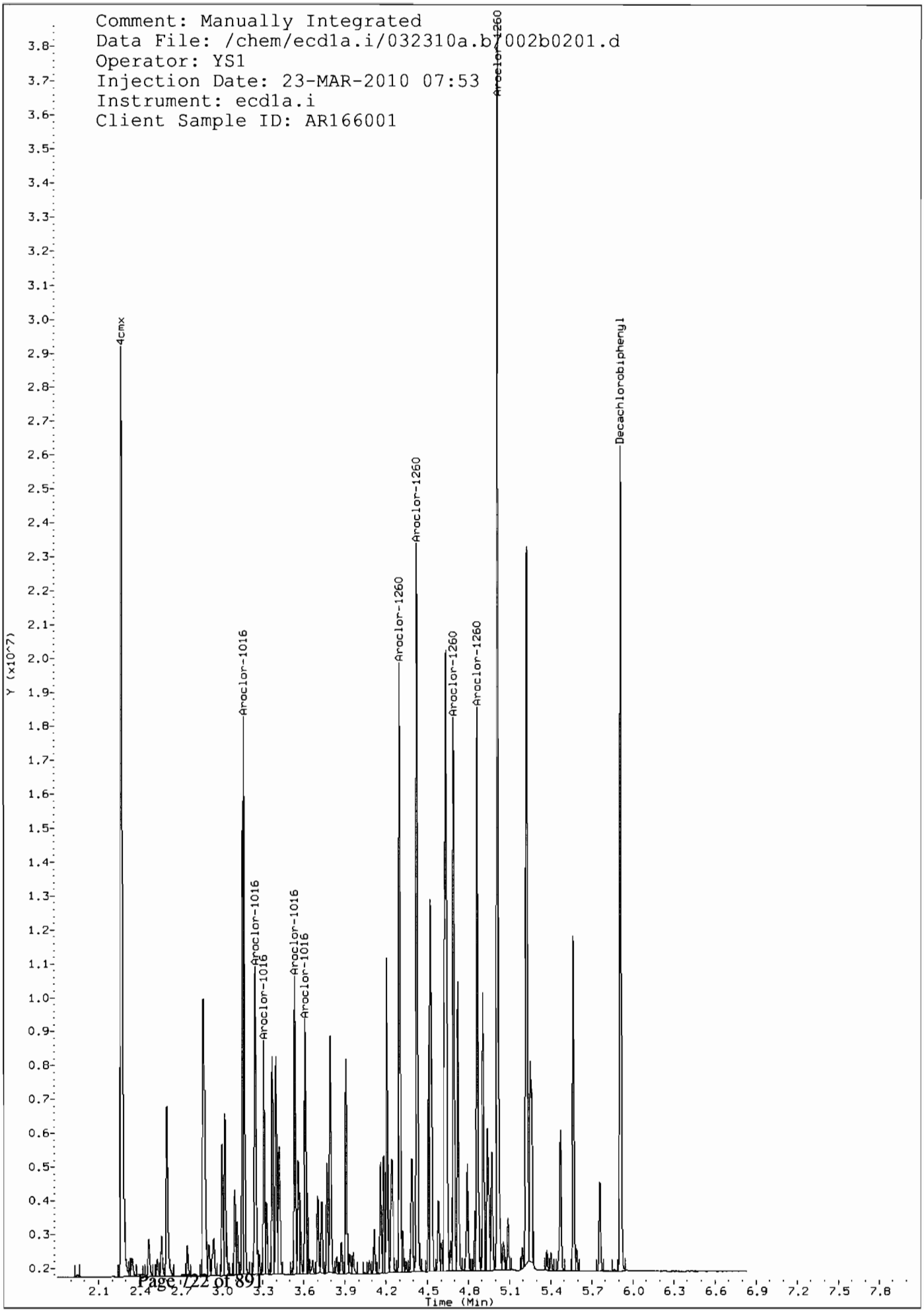
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Operator: YS1
Injection Date: 23-MAR-2010 07:53
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

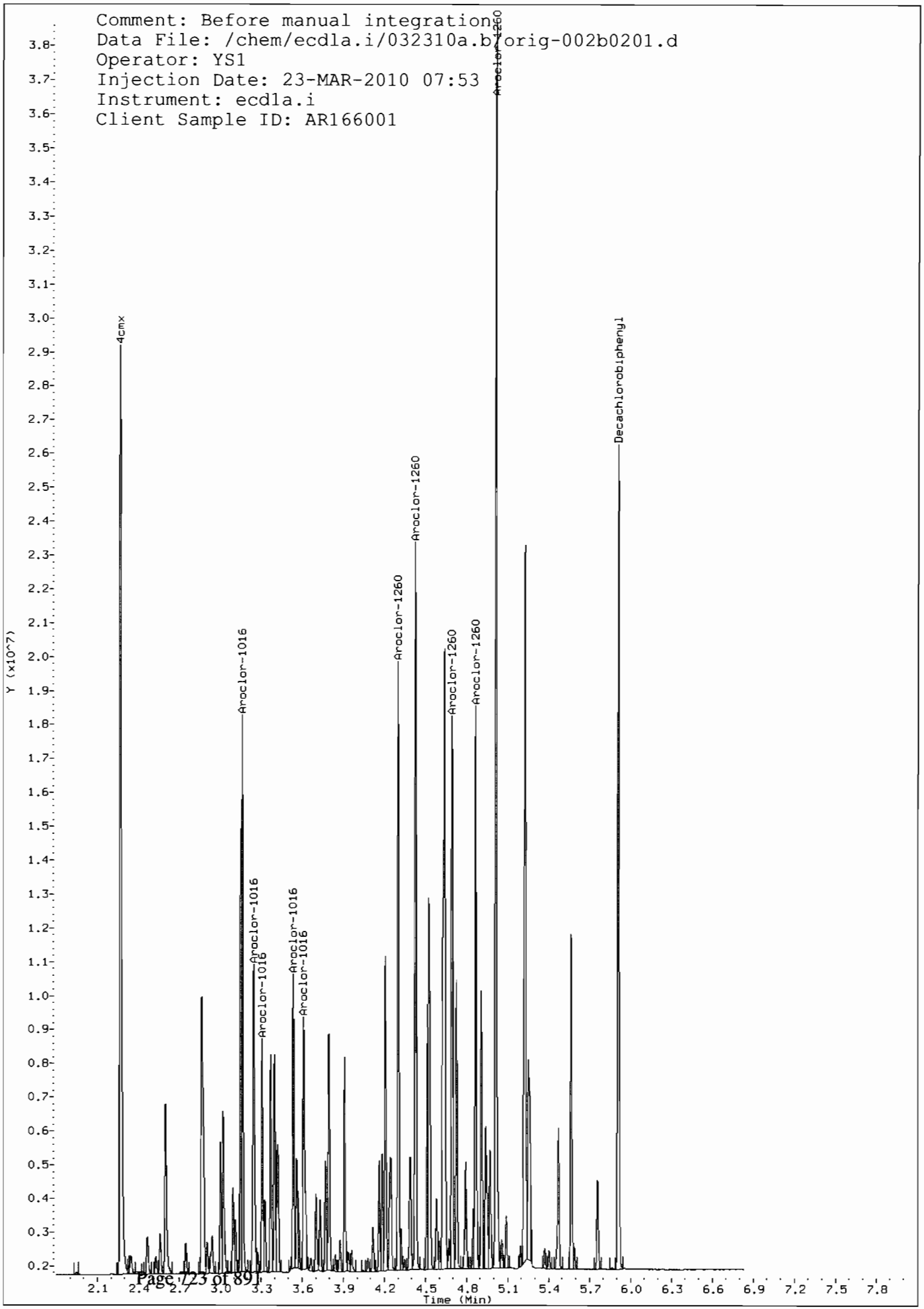
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Operator: YS1
Injection Date: 23-MAR-2010 07:53
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 23-MAR-2010 08:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.208	3.208	0.000	12967036	1000.00	978	80.00- 120.00	100.00
3.363	3.363	0.000	17361430	1000.00	974	113.89- 153.89	133.89
3.597	3.597	0.000	22829689	1000.00	1020	156.06- 196.06	176.06
3.759	3.759	0.000	16956788	1000.00	1030	110.77- 150.77	130.77
3.868	3.868	0.000	16896192	1000.00	1060	110.30- 150.30	130.30

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032310a.b/003f0301.d
Date : 23-MAR-2010 08:04
Client ID: AR125401
Sample Info: |WAR100219-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

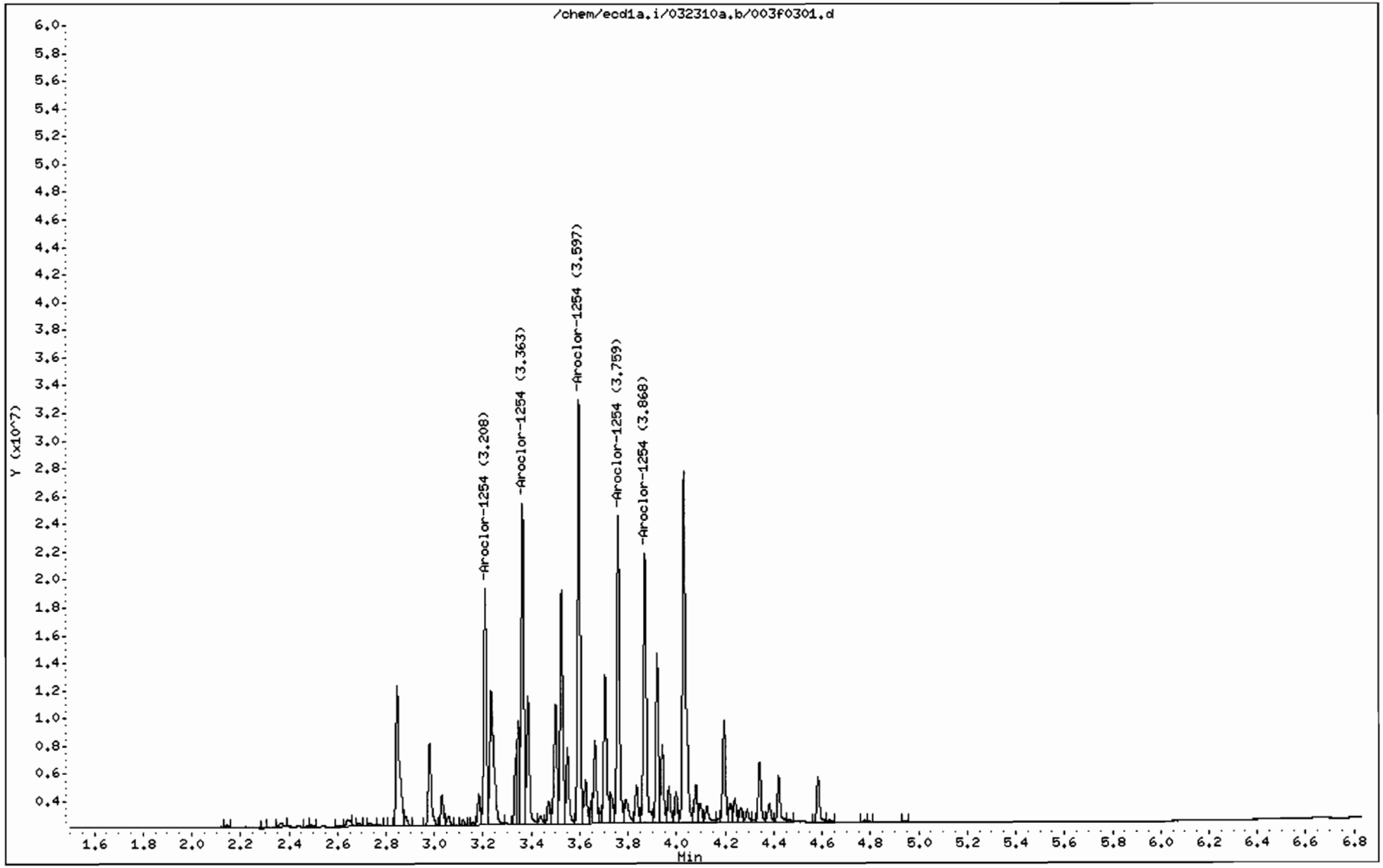

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 23-MAR-2010 08:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.373	3.373	0.000	5514362	1000.00	916	80.00- 120.00	100.00
3.795	3.795	0.000	10031897	1000.00	927	161.92- 201.92	181.92
3.912	3.912	0.000	11116209	1000.00	932	181.59- 221.59	201.59
4.188	4.188	0.000	15547782	1000.00	946	261.95- 301.95	281.95
4.323	4.323	0.000	11313436	1000.00	934	185.16- 225.16	205.16
Average of Peak Amounts =					931		

Data File: /chem/ecd1a.i/032310a.b/003b0301.d
Date : 23-MAR-2010 08:04
Client ID: AR125401
Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

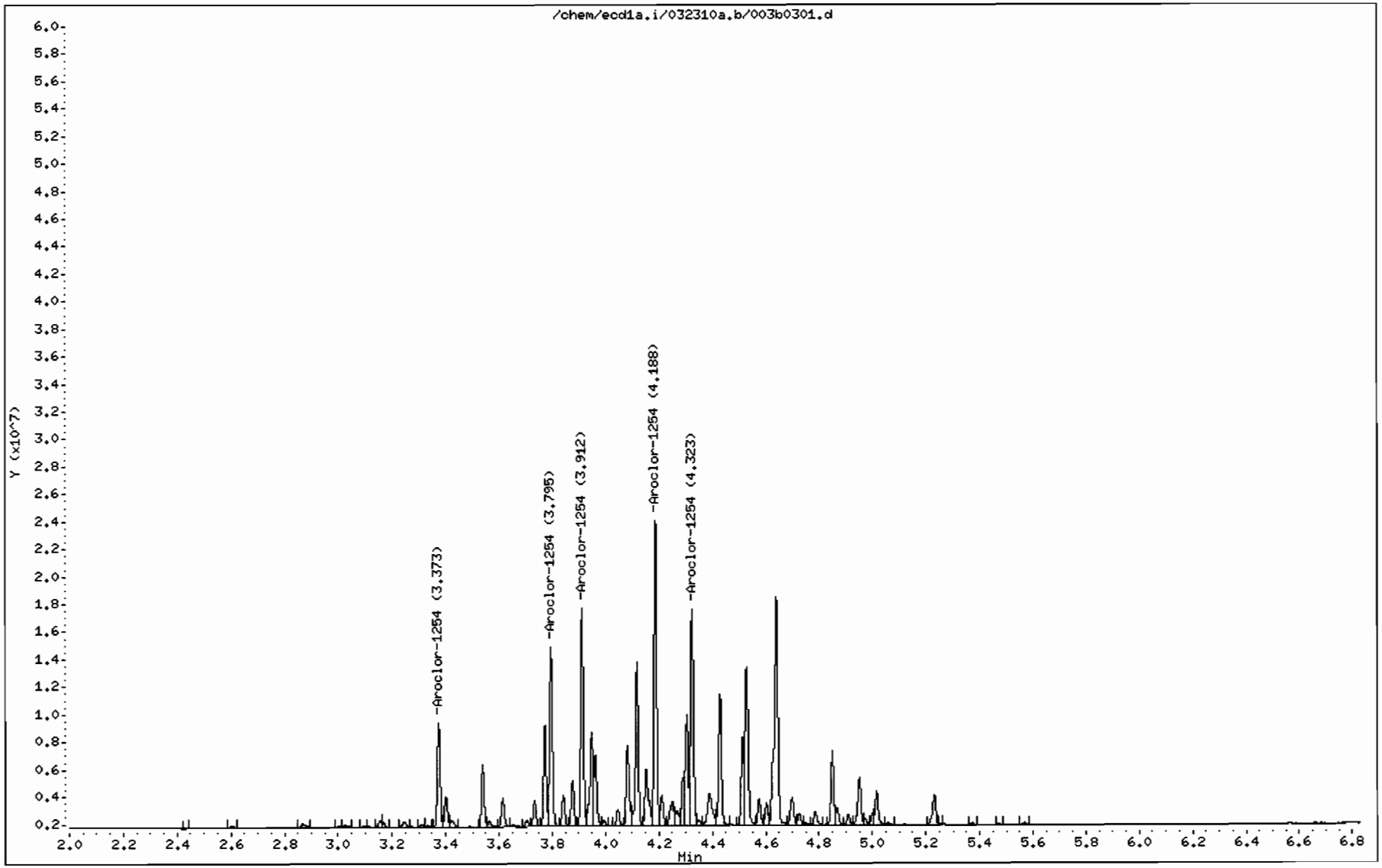

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/004f0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 23-MAR-2010 08:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.364	2.364	0.000	12529932	1000.00	1020	80.00- 120.00	100.00
2.652	2.652	0.000	15449624	1000.00	1040	103.30- 143.30	123.30
2.769	2.769	0.000	5907302	1000.00	1000	27.15- 67.15	47.15
2.979	2.979	0.000	7663511	1000.00	991	41.16- 81.16	61.16
3.233	3.233	0.000	7372131	1000.00	1010	38.84- 78.84	58.84

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032310a.b/004f0401.d

Page 1

Date : 23-MAR-2010 08:14

Client ID: AR124201

Instrument: ecd1a.i

Sample Info: IWAR100219-42

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

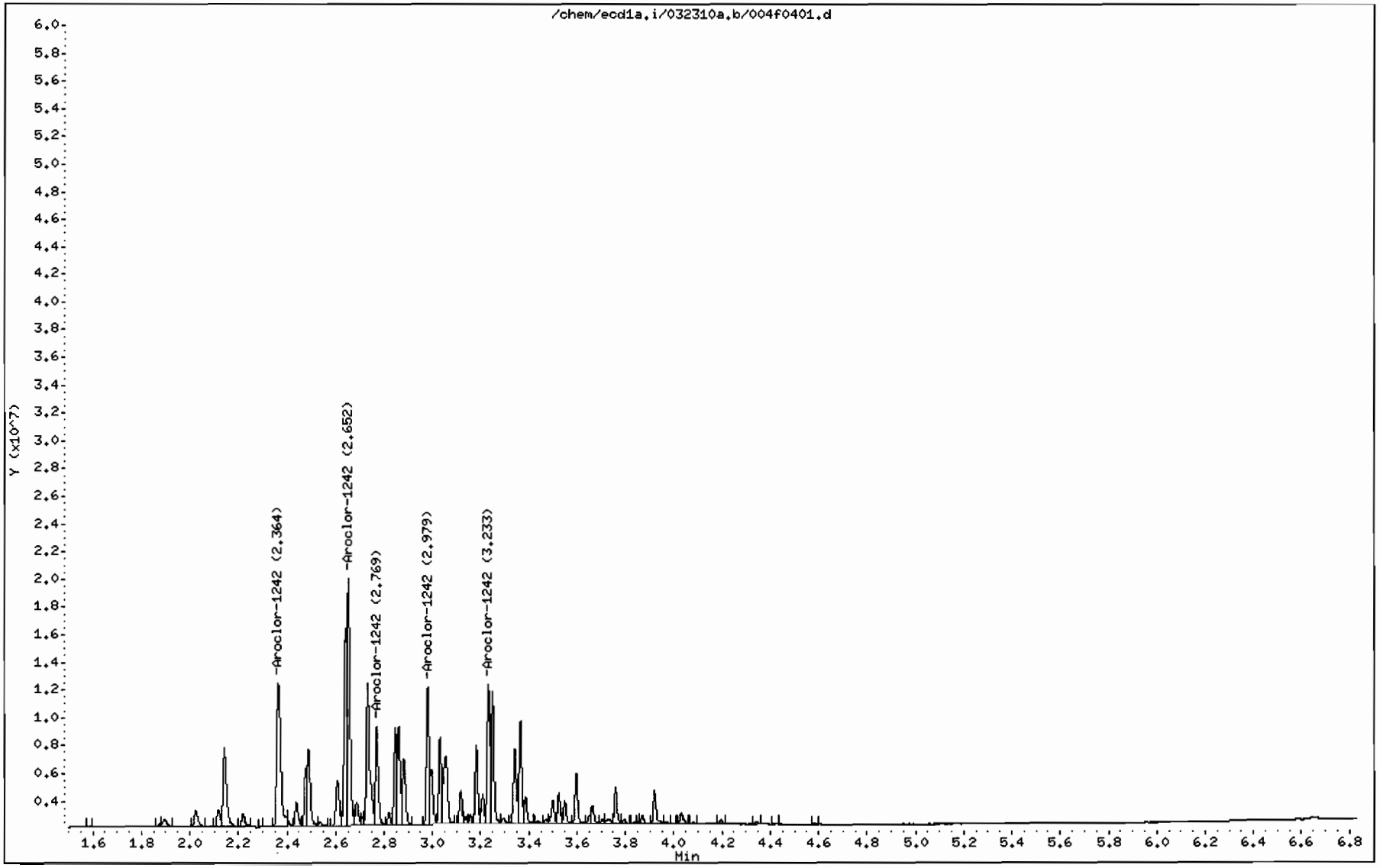

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/004b0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 23-MAR-2010 08:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.165	3.165	0.000	9989319	1000.00	985	80.00- 120.00	100.00
3.248	3.248	0.000	6594356	1000.00	929	46.01- 86.01	66.01
3.538	3.538	0.000	5227592	1000.00	948	32.33- 72.33	52.33
3.772	3.772	0.000	5504861	1000.00	962	35.11- 75.11	55.11
3.799	3.799	0.000	6141848	1000.00	964	41.48- 81.48	61.48
Average of Peak Amounts =					958		

Data File: /chem/ecd1a.i/032310a.b/004b0401.d

Date : 23-MAR-2010 08:14

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

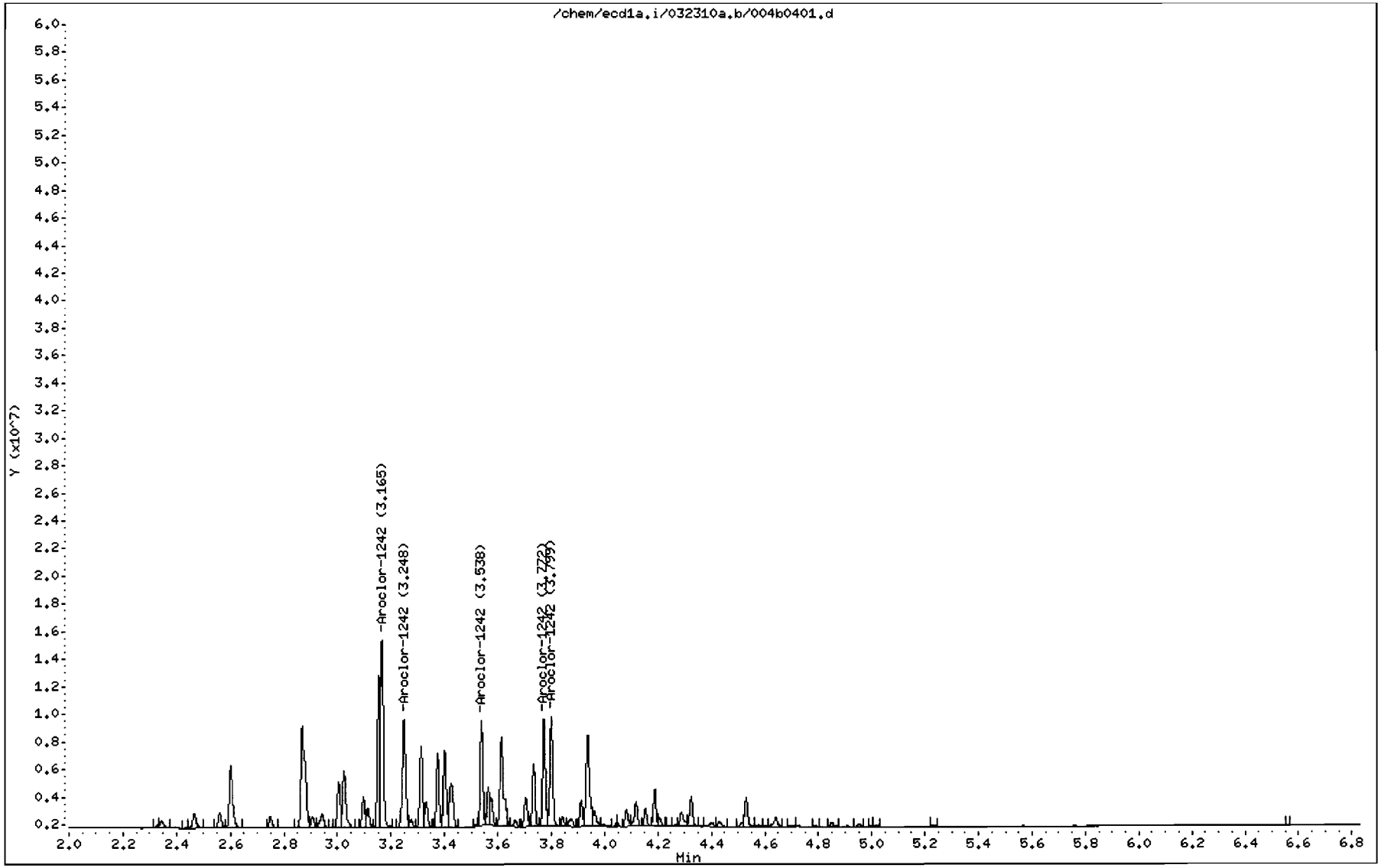

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 23-MAR-2010 08:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
2.847	2.847	0.000	10050677	1000.00	1000	80.00- 120.00	100.00
2.979	2.979	0.000	13265173	1000.00	1010	111.98- 151.98	131.98
3.233	3.233	0.000	14344935	1000.00	1000	122.73- 162.73	142.73
3.365	3.365	0.000	11923879	1000.00	1000	98.64- 138.64	118.64
3.597	3.597	0.000	7748802	1000.00	968	57.10- 97.10	77.10
Average of Peak Amounts =					998		

Data File: /chem/ecd1a.i/032310a.b/005f0501.d

Date : 23-MAR-2010 08:25

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

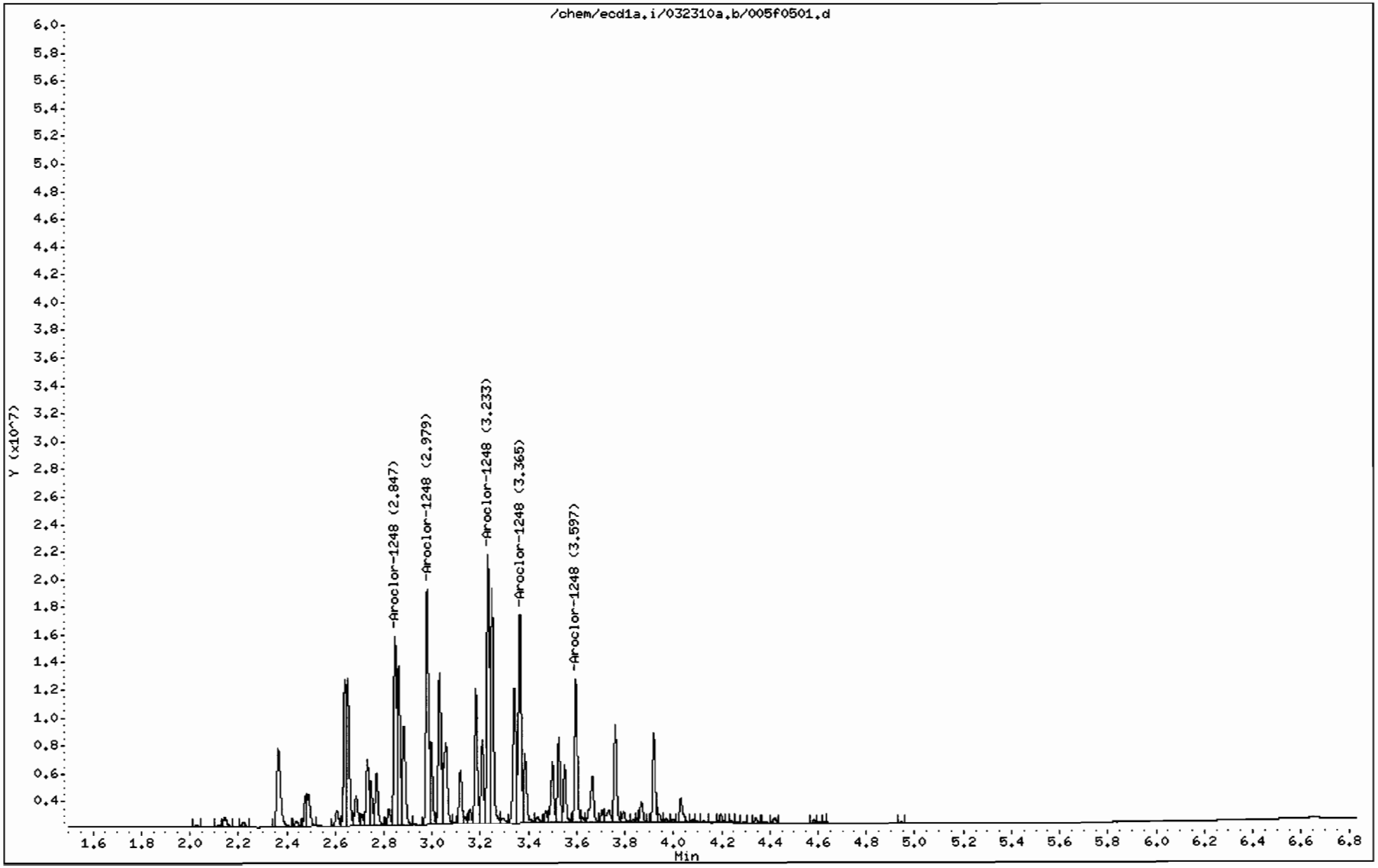

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 23-MAR-2010 08:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.374	3.374	0.000	7199782	1000.00	947	80.00- 120.00	100.00
3.538	3.538	0.000	9052406	1000.00	956	105.73- 145.73	125.73
3.772	3.772	0.000	10456838	1000.00	957	125.24- 165.24	145.24
3.799	3.799	0.000	11728900	1000.00	965	142.91- 182.91	162.91
3.936	3.936	0.000	11323085	1000.00	958	137.27- 177.27	157.27
Average of Peak Amounts =					957		

Data File: /chem/ecd1a.i/032310a.b/005b0501.d
Date : 23-MAR-2010 08:25
Client ID: AR124801
Sample Info: IWAR100223-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

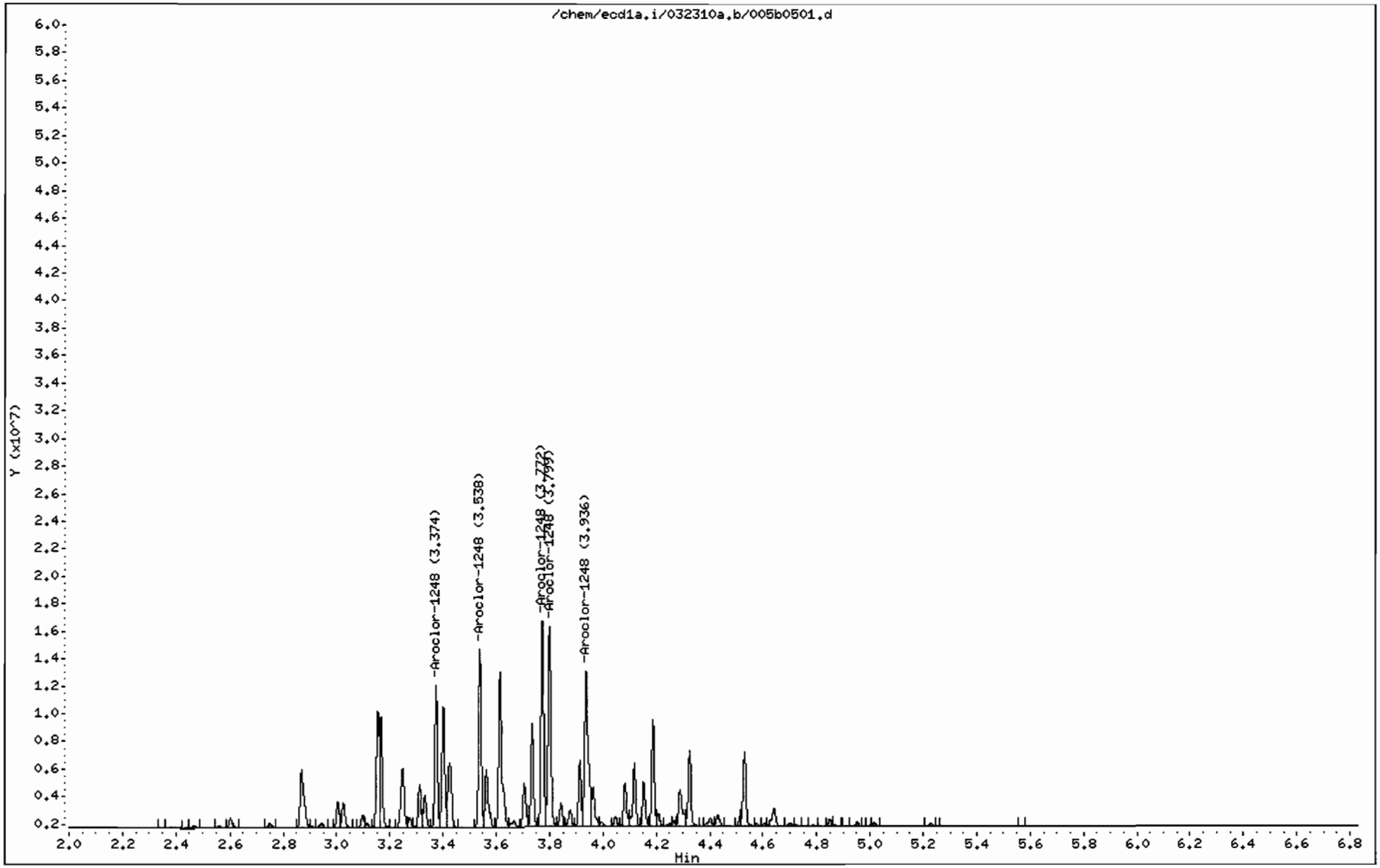

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/007f0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 23-MAR-2010 08:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.364	2.364	0.000	7062304	1000.00	1060	80.00- 120.00	100.00
2.651	2.651	0.000	9115443	1000.00	1090	109.07- 149.07	129.07
2.731	2.731	0.000	5834361	1000.00	1050	62.61- 102.61	82.61
2.845	2.845	0.000	2821856	1000.00	1060	19.96- 59.96	39.96
3.232	3.232	0.000	3909059	1000.00	1100	35.35- 75.35	55.35

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd1a.i/032310a.b/007f0701.d

Date : 23-MAR-2010 08:46

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

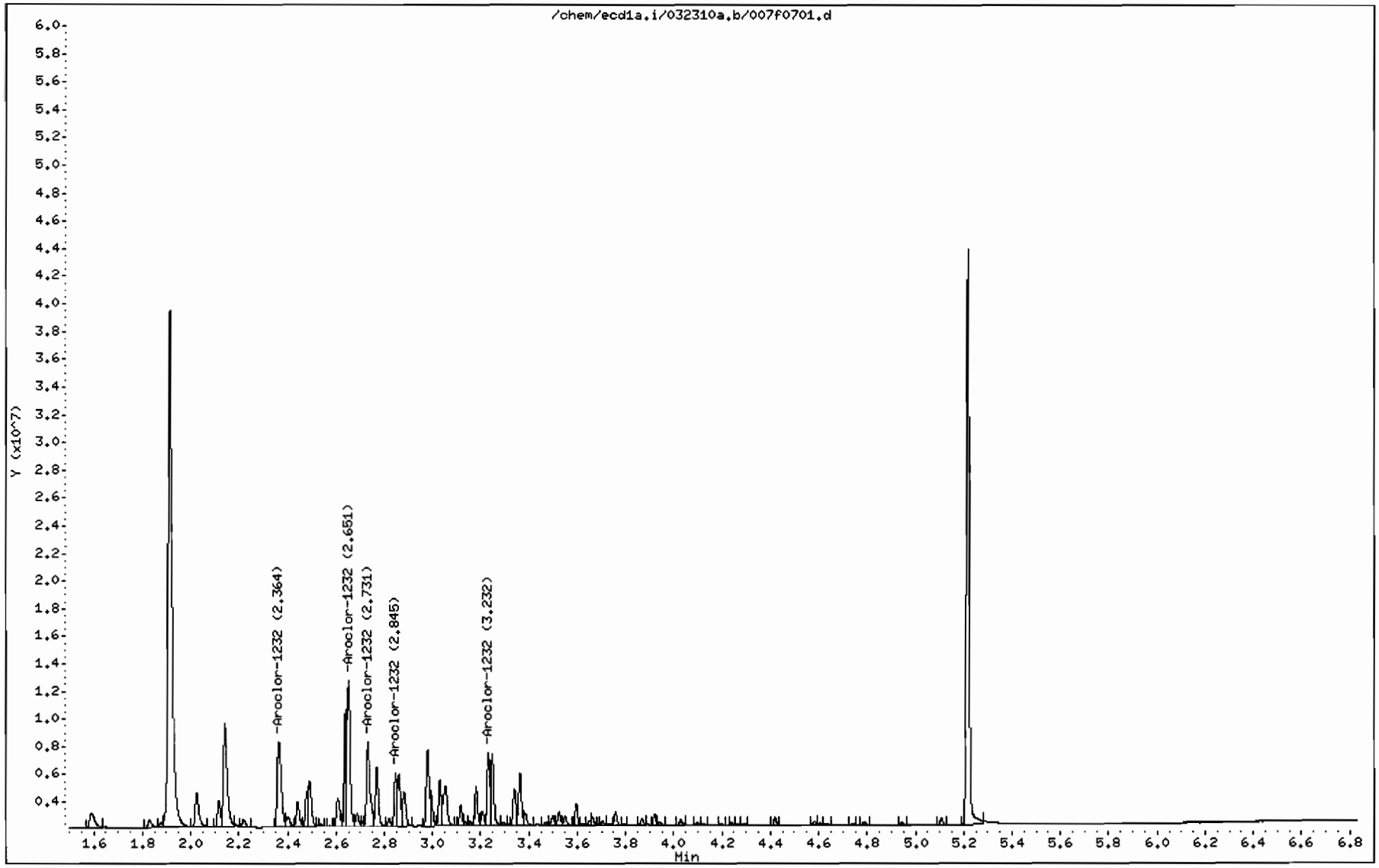

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/007b0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 23-MAR-2010 08:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.867	2.867	0.000	5247172	1000.00	1040	80.00- 120.00	100.00
3.165	3.165	0.000	5974577	1000.00	1040	93.86- 133.86	113.86
3.247	3.247	0.000	4031708	1000.00	1040	56.84- 96.84	76.84
3.538	3.538	0.000	3003761	1000.00	1060	37.25- 77.25	57.25
3.771	3.771	0.000	2991304	1000.00	1060	37.01- 77.01	57.01

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/032310a.b/007b0701.d

Page 1

Date : 23-MAR-2010 08:46

Client ID: AR123201

Instrument: ecd1a.i

Sample Info: IWAR100104-32

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

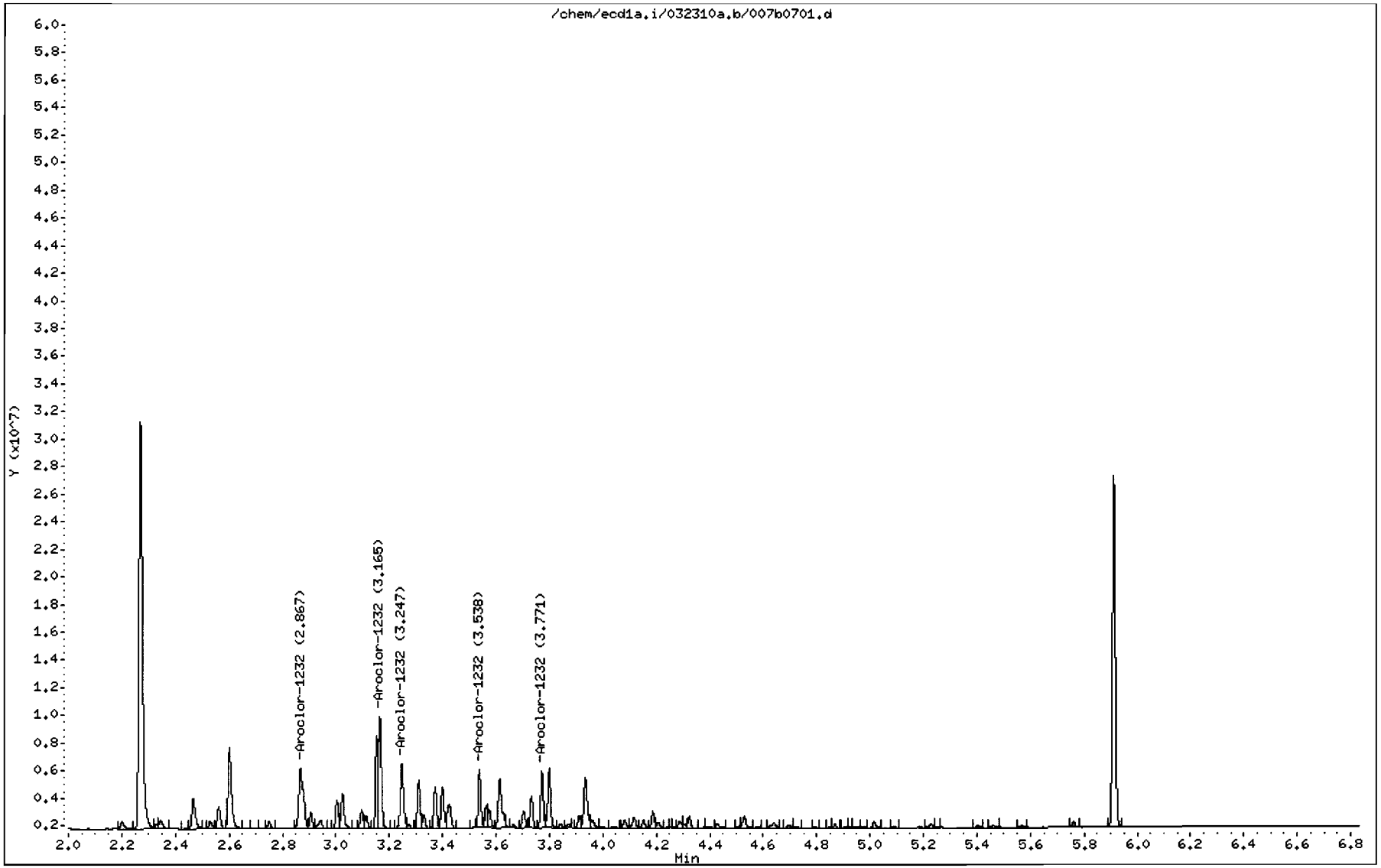

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/008f0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 23-MAR-2010 08:56
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.025	2.025	0.000	4670074	1000.00	1040	80.00- 120.00	100.00
2.117	2.117	0.000	2571490	1000.00	1050	35.06- 75.06	55.06
2.143	2.143	0.000	11386000	1000.00	1050	223.81- 263.81	243.81

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/032310a.b/008f0801.d

Date : 23-MAR-2010 08:56

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

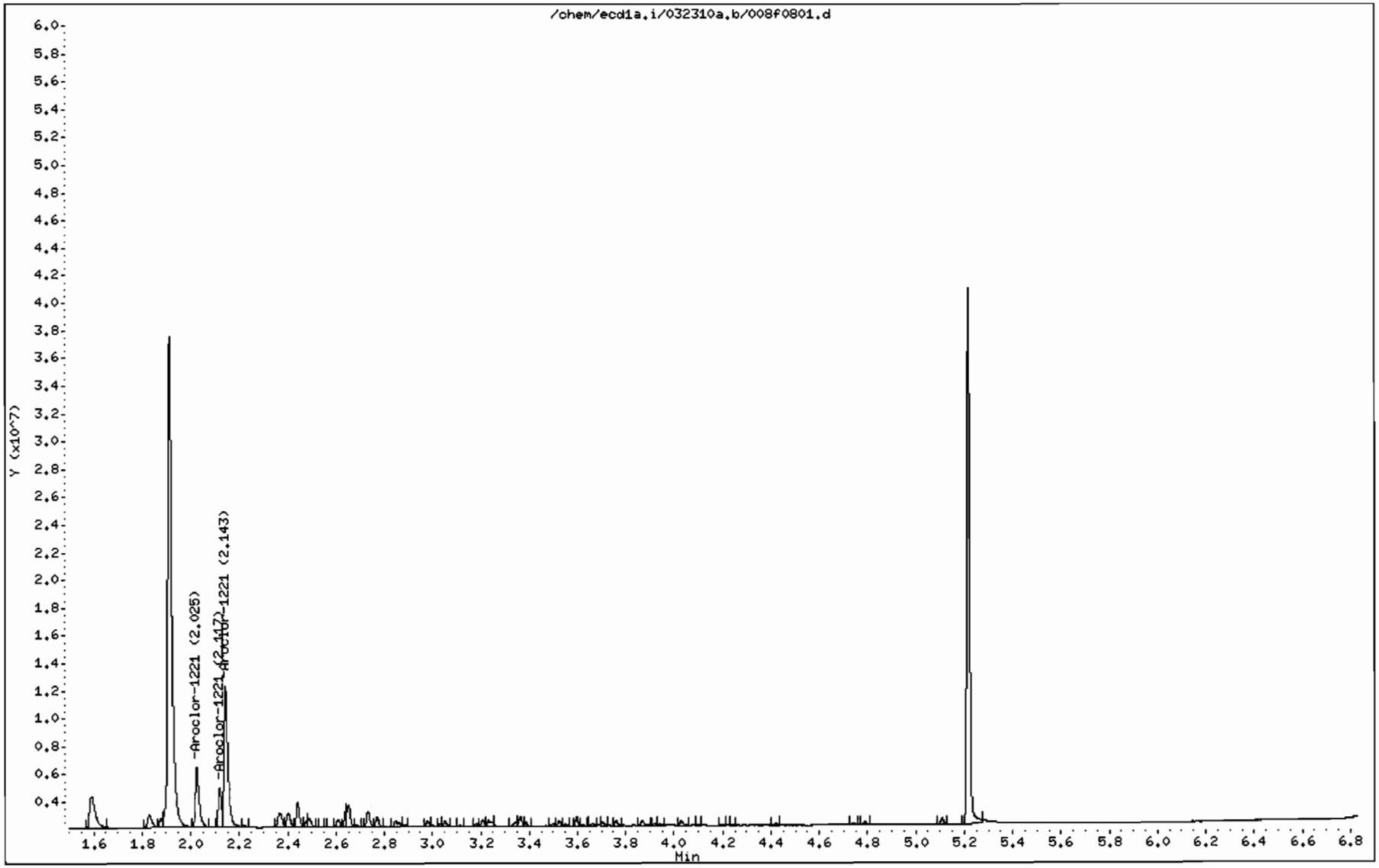

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/008b0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 23-MAR-2010 08:56
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.466	2.466	0.000	3437472	1000.00	1060	80.00- 120.00	100.00
2.560	2.560	0.000	2167005	1000.00	1040	43.04- 83.04	63.04
2.601	2.601	0.000	7383393	1000.00	1010	194.79- 234.79	214.79

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/032310a.b/008b0801.d
Date : 23-MAR-2010 08:56
Client ID: AR122101
Sample Info: IWAR100104-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

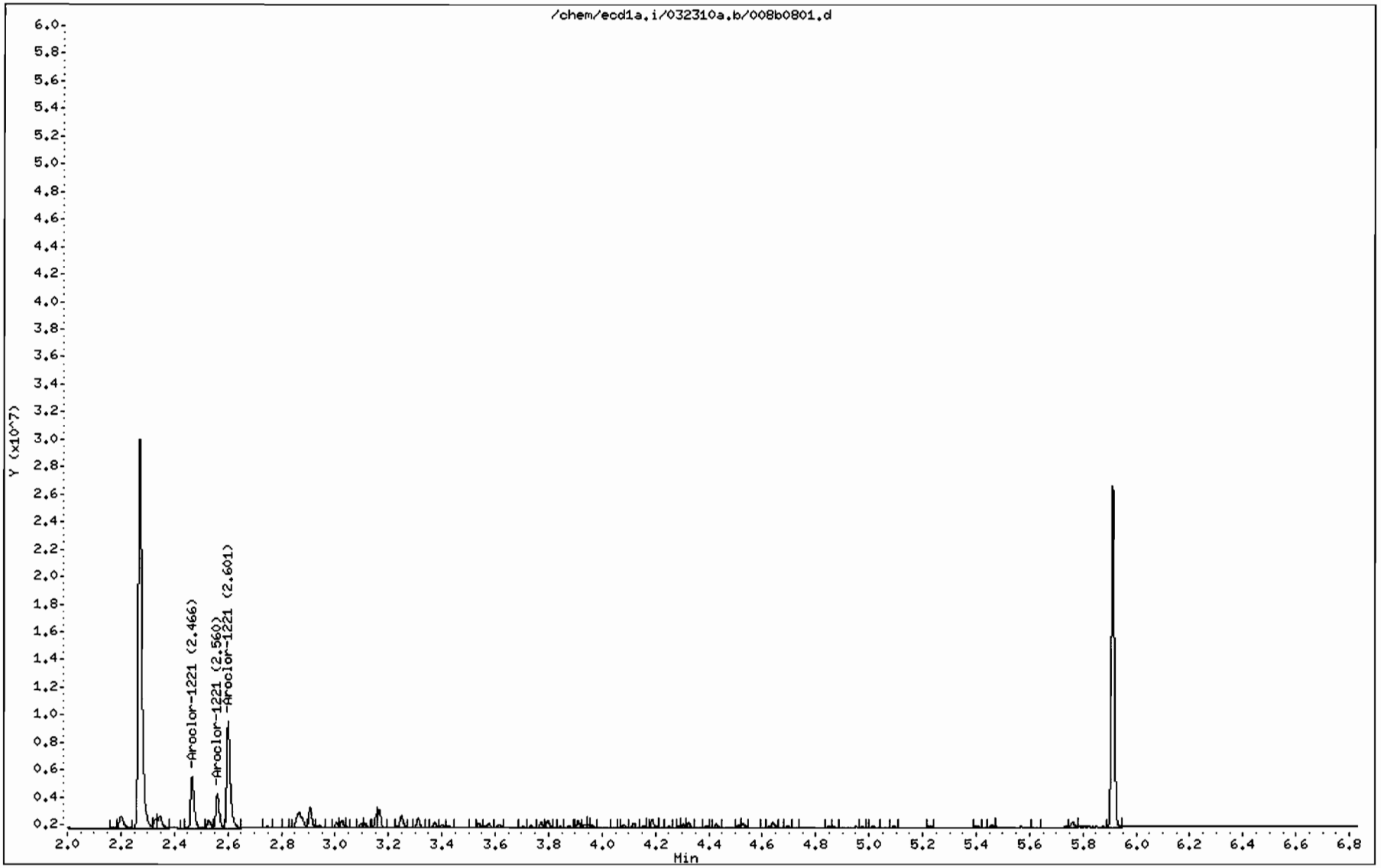

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/021f2101.d
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002
Inj Date : 23-MAR-2010 11:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:54 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	40145050	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	29109356	100.000	98.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.365	-0.001	14292984	1000.00	942	80.00- 120.00	100.00
2.650	2.651	-0.001	18014082	1000.00	951	106.03- 146.03	126.03
2.731	2.732	-0.001	11433112	1000.00	919	59.99- 99.99	79.99
2.768	2.770	-0.002	6916561	1000.00	941	28.39- 68.39	48.39
2.978	2.980	-0.002	8921011	1000.00	937	42.42- 82.42	62.42
Average of Peak Amounts =					938		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	18917452	1000.00	1030	80.00- 120.00	100.00
3.866	3.867	-0.001	27896153	1000.00	1040	127.46- 167.46	147.46
4.027	4.030	-0.003	29772954	1000.00	1050	137.38- 177.38	157.38
4.096	4.097	-0.001	16821466	1000.00	1040	68.92- 108.92	88.92
4.238	4.240	-0.002	17522638	1000.00	1040	72.63- 112.63	92.63
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd1a.i/032310a.b/021f2101.d
Date : 23-MAR-2010 11:28
Client ID: AR166002
Sample Info: IWAR100222-60 02

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

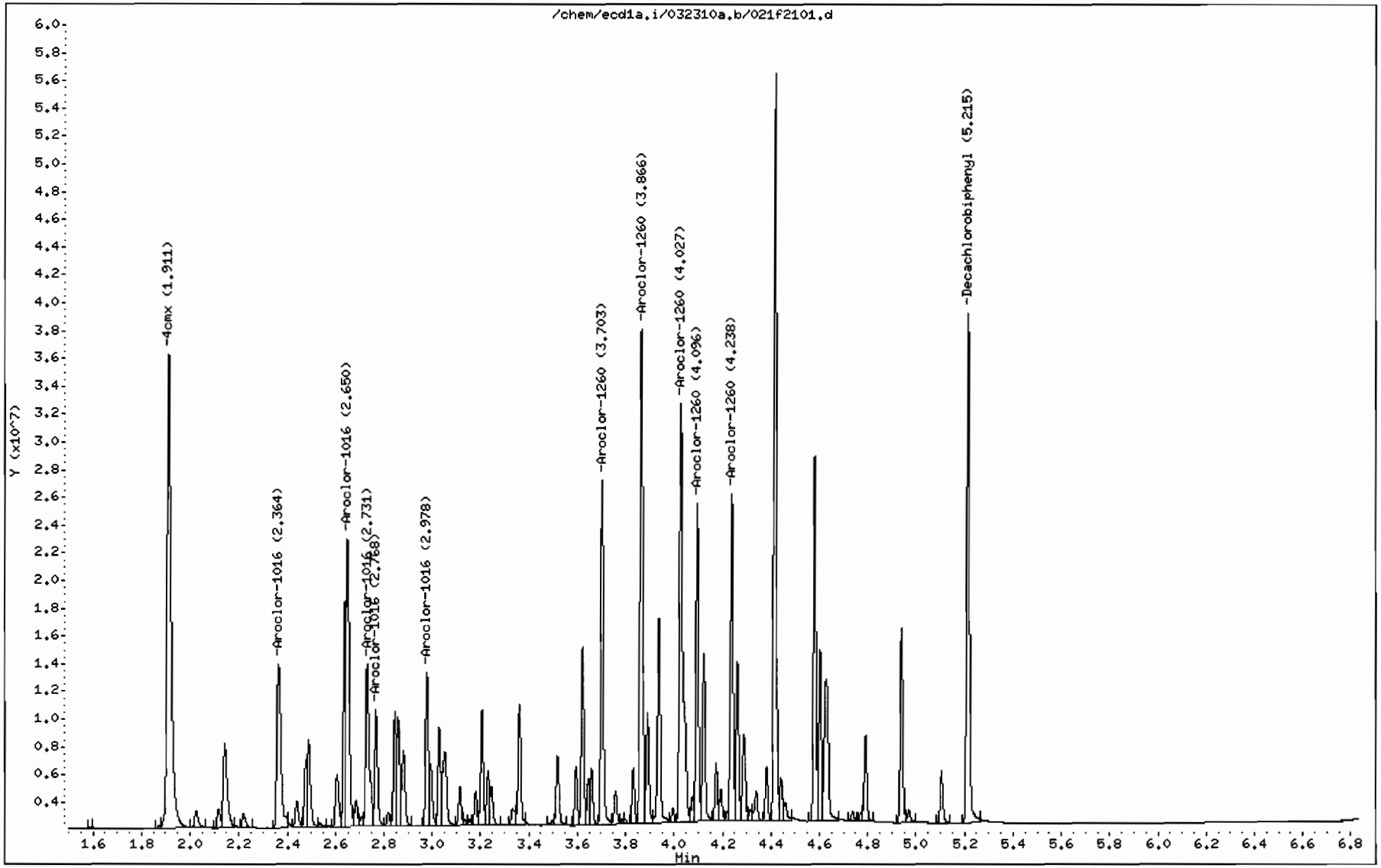

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/021b2101.d
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002
Inj Date : 23-MAR-2010 11:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	25932712	100.000	98.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	18118145	100.000	96.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	11869406	1000.00	943	80.00- 120.00	100.00(M)
3.247	3.248	-0.001	7752072	1000.00	898	45.31- 85.31	65.31
3.311	3.311	0.000	4807813	1000.00	909	20.51- 60.51	40.51
3.537	3.538	-0.001	6307202	1000.00	915	31.09- 71.09	53.14
3.612	3.614	-0.002	5822449	1000.00	906	37.88- 77.88	59.40
Average of Peak Amounts =					914		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	12629591	1000.00	966	80.00- 120.00	100.00
4.427	4.428	-0.001	15357793	1000.00	988	101.60- 141.60	121.60
4.693	4.695	-0.002	11596776	1000.00	975	71.82- 111.82	91.82
4.866	4.867	-0.001	12072542	1000.00	982	75.59- 115.59	95.59
5.013	5.015	-0.002	26797242	1000.00	1020	192.18- 232.18	212.18
Average of Peak Amounts =					985		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/021b2101.d
Date : 23-MAR-2010 11:28
Client ID: AR166002
Sample Info: IWAR100222-60 02

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

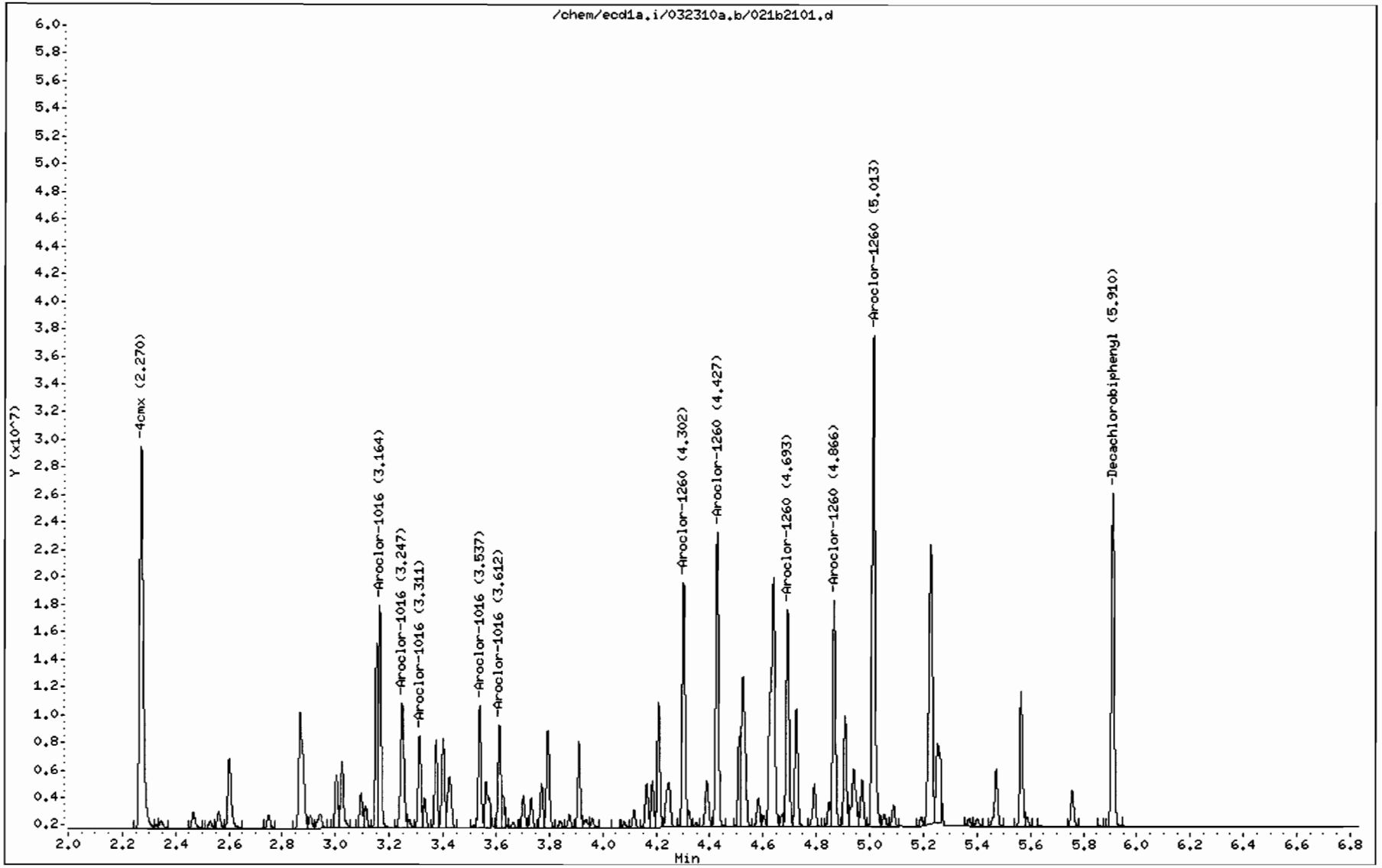

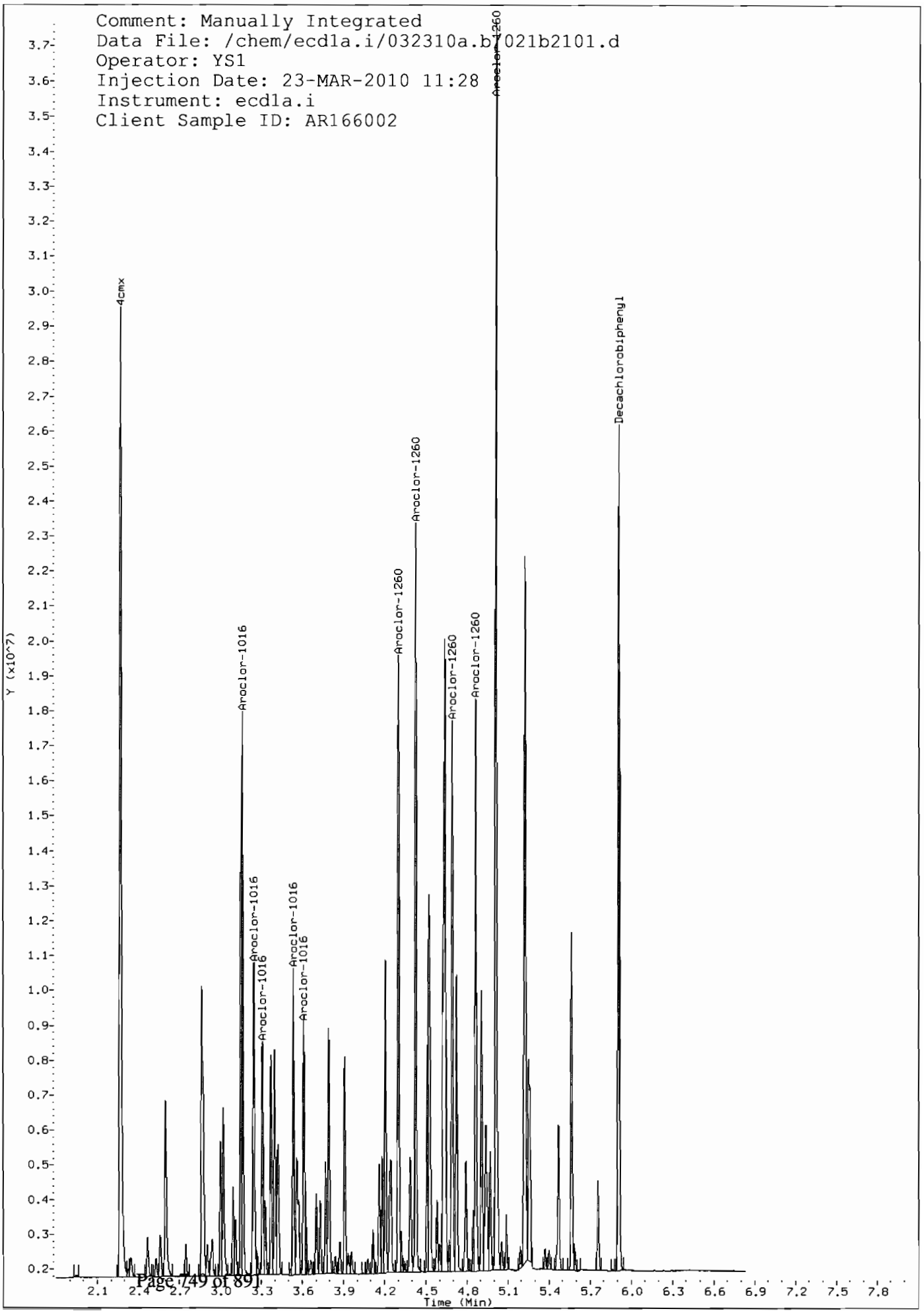
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/021b2101.d
Operator: YS1
Injection Date: 23-MAR-2010 11:28
Instrument: ecd1a.i
Client Sample ID: AR166002
Acmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

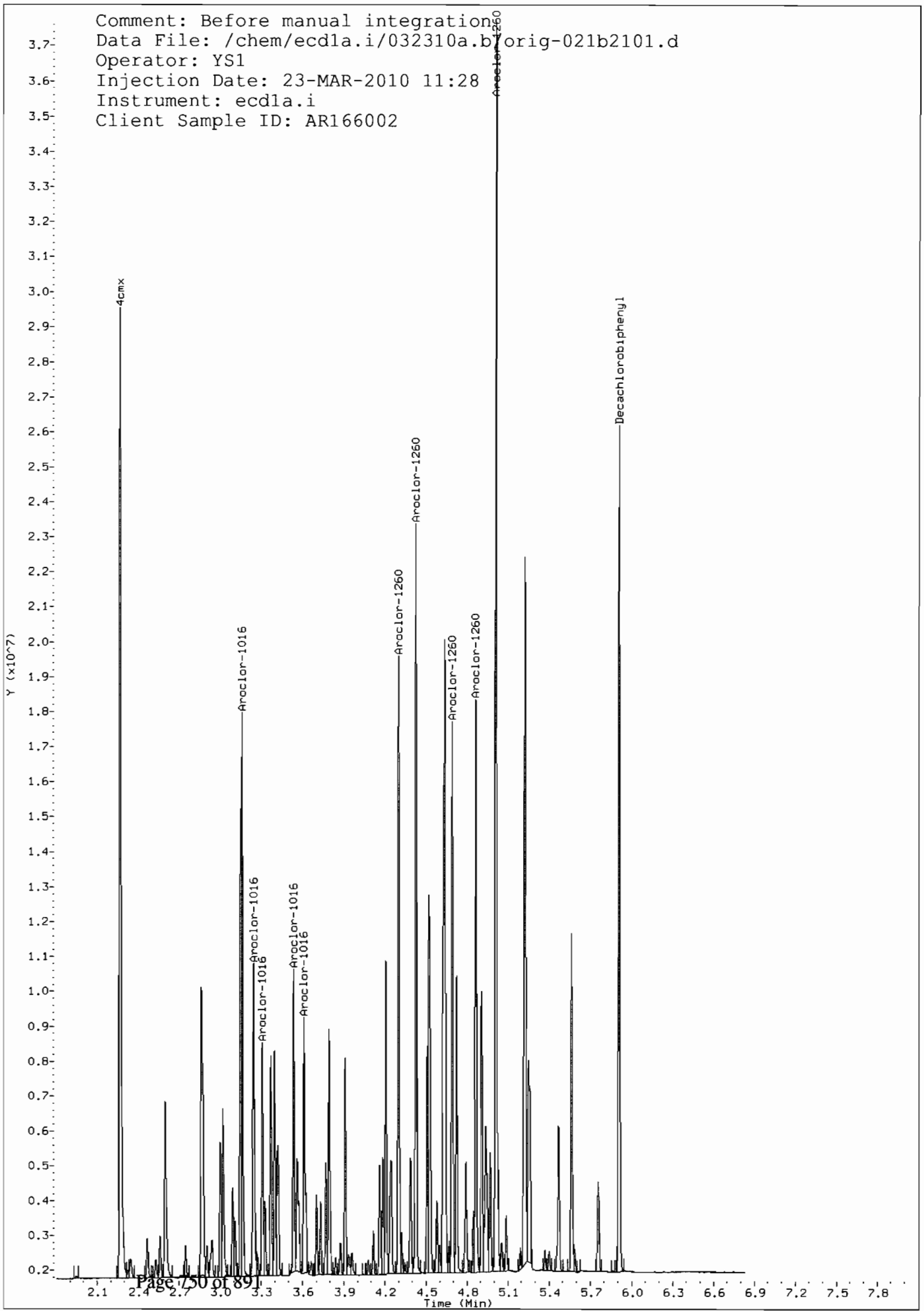
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Operator: YS1
Injection Date: 23-MAR-2010 11:28
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/031f3101.d
Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004
Inj Date : 23-MAR-2010 13:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.913	0.000	41828307	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.216	5.217	-0.001	31634637	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.365	2.365	0.000	14712704	1000.00	969	80.00- 120.00	100.00
2.652	2.651	0.001	18638228	1000.00	984	106.68- 146.68	126.68
2.732	2.732	0.000	11724643	1000.00	942	59.69- 99.69	79.69
2.770	2.770	0.000	7099679	1000.00	966	28.26- 68.26	48.26
2.980	2.980	0.000	9253865	1000.00	972	42.90- 82.90	62.90
Average of Peak Amounts =					967		
7 Aroclor-1260					CAS #: 11096-82-5		
3.705	3.705	0.000	19201876	1000.00	1050	80.00- 120.00	100.00
3.867	3.867	0.000	28710260	1000.00	1070	129.52- 169.52	149.52
4.030	4.030	0.000	30469829	1000.00	1080	138.68- 178.68	158.68
4.097	4.097	0.000	17245697	1000.00	1070	69.81- 109.81	89.81
4.240	4.240	0.000	17921417	1000.00	1060	73.33- 113.33	93.33
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd1a.i/032310a.b/031f3101.d

Date : 23-MAR-2010 13:25

Client ID: AR166004

Sample Info: IWAR100222-60 04

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

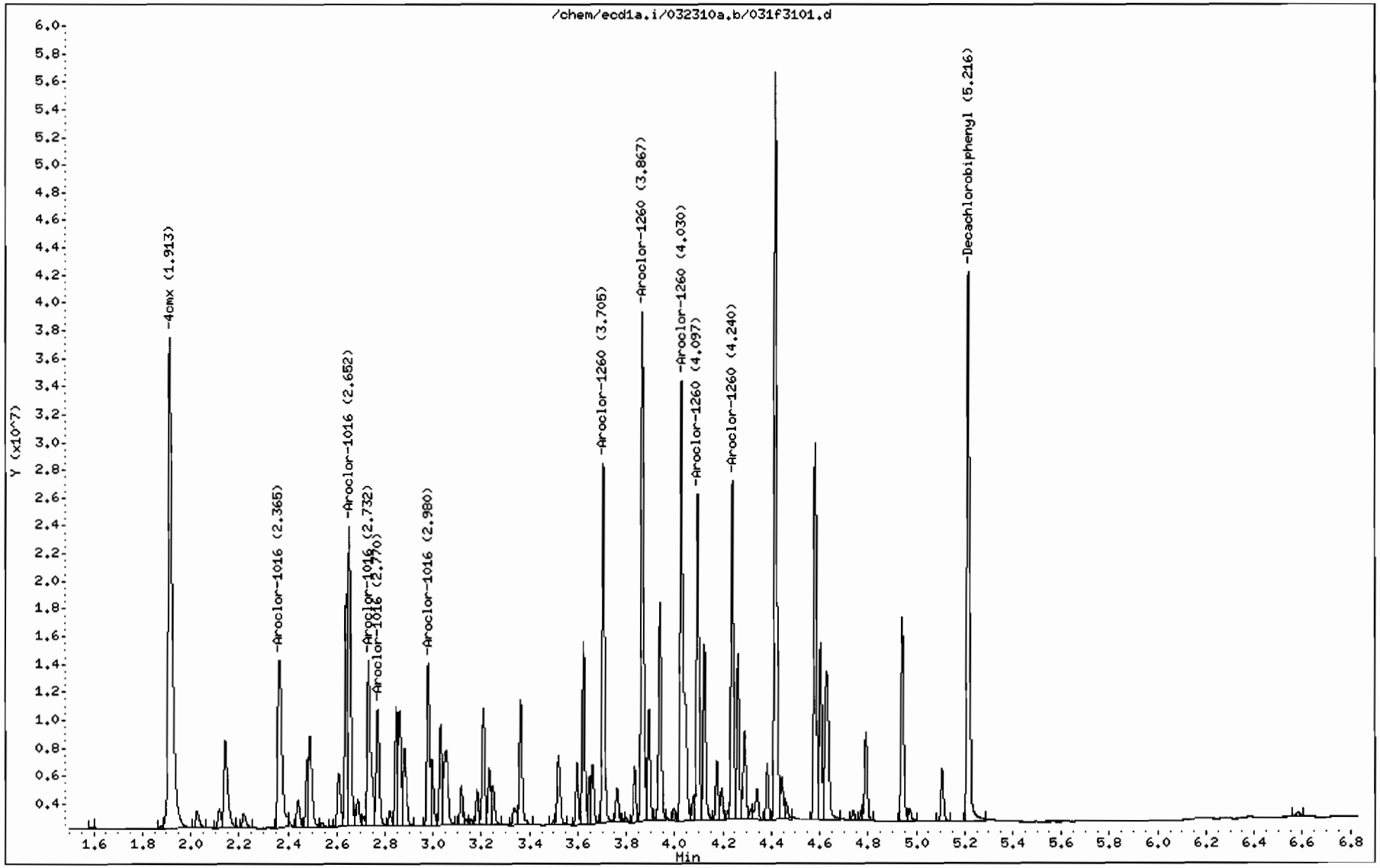

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/031b3101.d
Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004
Inj Date : 23-MAR-2010 13:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 15:02 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	26242994	100.000	100	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.912	-0.001	18518213	100.000	98.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.165	3.165	0.000	11970242	1000.00	951	80.00- 120.00	100.00(M)
3.248	3.248	0.000	7814854	1000.00	905	45.29- 85.29	65.29
3.312	3.311	0.001	4878304	1000.00	923	20.75- 60.75	40.75
3.539	3.538	0.001	6354796	1000.00	922	33.09- 73.09	53.09
3.614	3.614	0.000	6007559	1000.00	935	30.19- 70.19	50.19
Average of Peak Amounts =					927		
7 Aroclor-1260					CAS #: 11096-82-5		
4.304	4.304	0.000	12778065	1000.00	977	80.00- 120.00	100.00
4.429	4.428	0.001	15569159	1000.00	1000	101.84- 141.84	121.84
4.694	4.695	-0.001	11687369	1000.00	982	71.46- 111.46	91.46
4.867	4.867	0.000	12156651	1000.00	989	75.14- 115.14	95.14
5.015	5.015	0.000	27021040	1000.00	1020	191.46- 231.46	211.46
Average of Peak Amounts =					995		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/031b3101.d
Date : 23-MAR-2010 13:25
Client ID: AR166004
Sample Info: IWAR100222-60 04

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

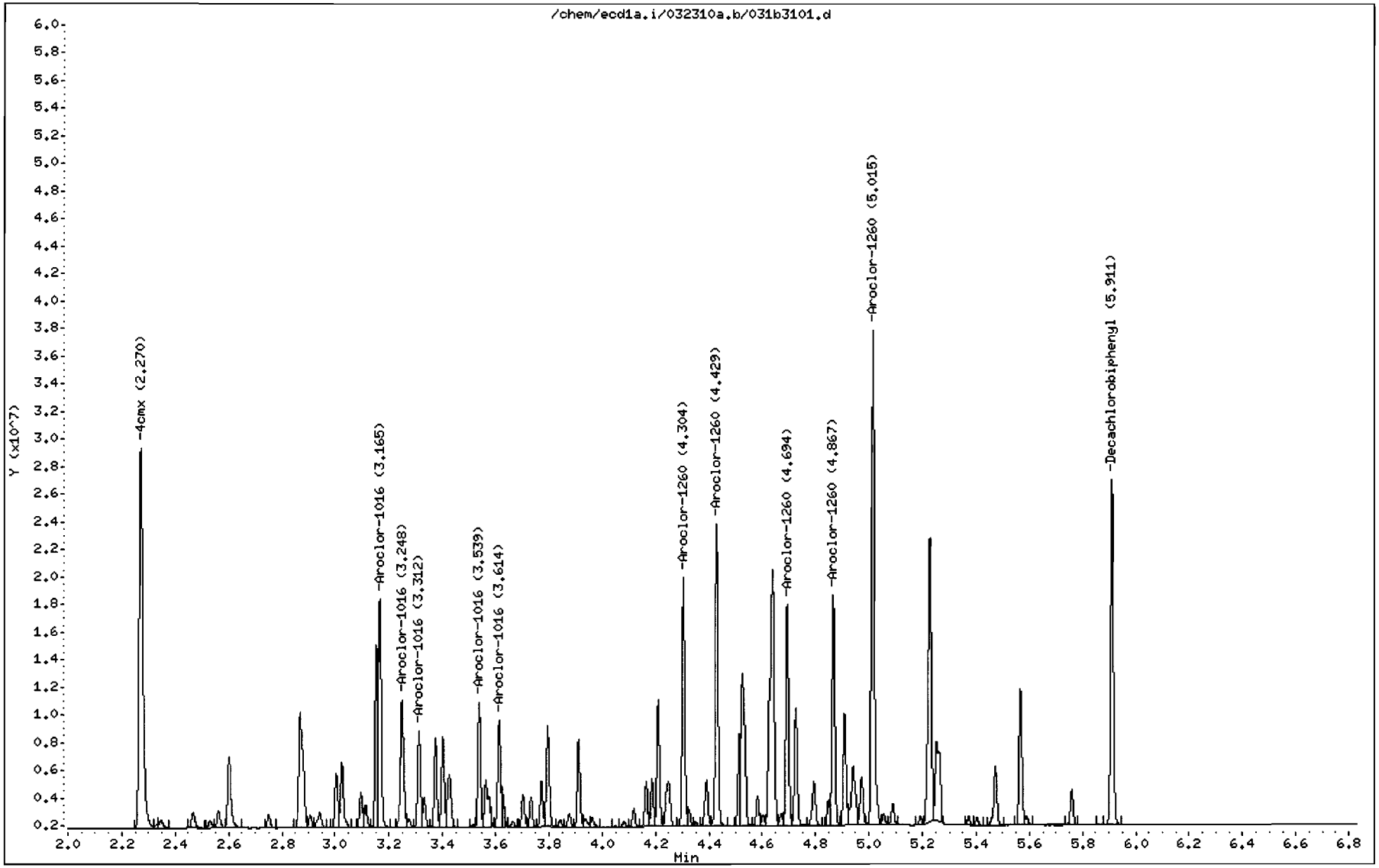

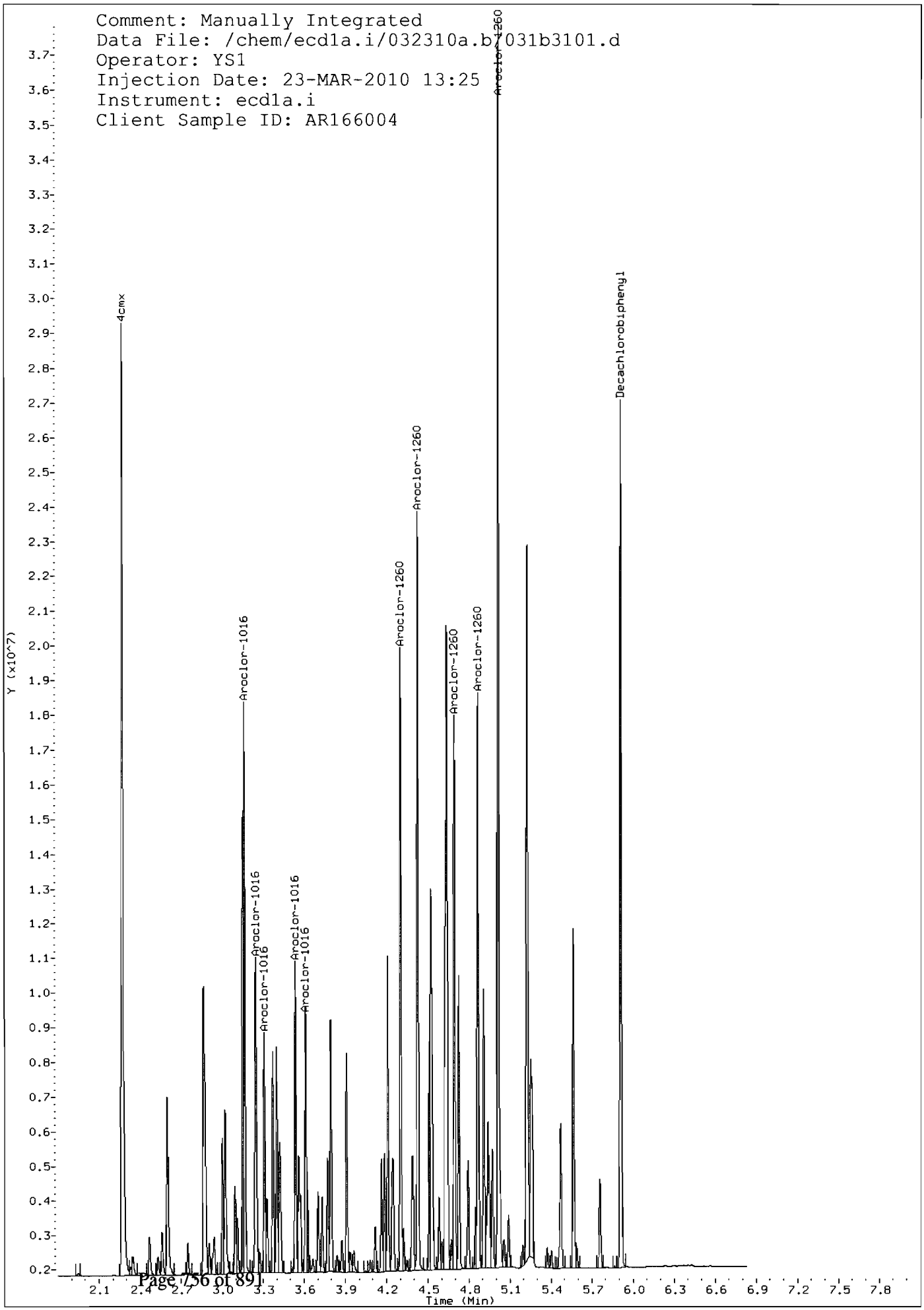
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/031b3101.d
Operator: YS1
Injection Date: 23-MAR-2010 13:25
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

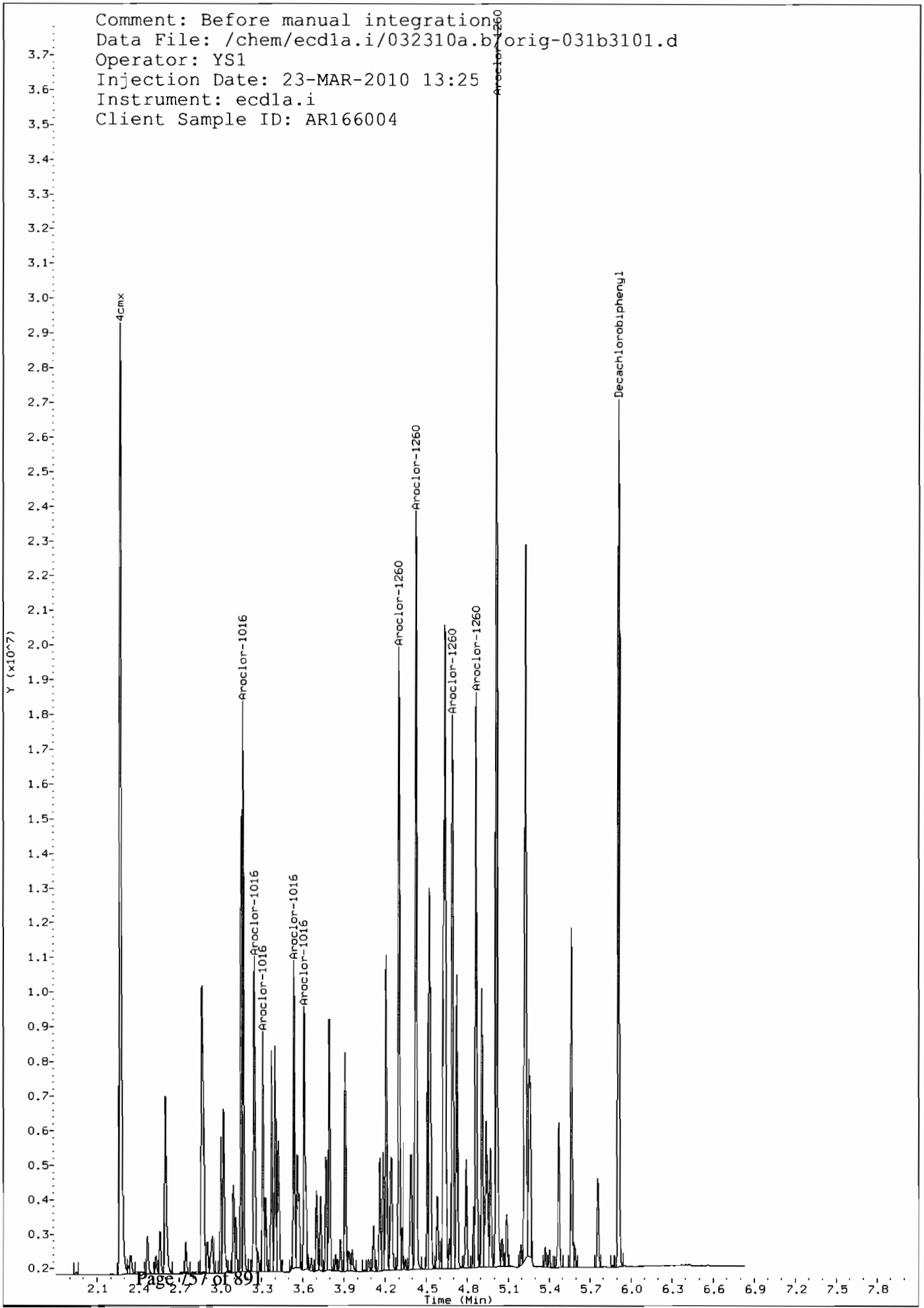
Comment: Before manual integration
Data File: /chem/ecd1a.i/032310a.b/orig-031b3101.d
Operator: YS1
Injection Date: 23-MAR-2010 13:25
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/040f4001.d
Lab Smp Id: WAR100222-60 05 Client Smp ID: AR166005
Inj Date : 23-MAR-2010 15:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 40 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	41049269	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.217	-0.004	30540841	100.000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.365	-0.002	14575061	1000.00	960	80.00- 120.00	100.00
2.649	2.651	-0.002	18160272	1000.00	959	104.60- 144.60	124.60
2.730	2.732	-0.002	11708744	1000.00	941	60.33- 100.33	80.33
2.767	2.770	-0.003	7027826	1000.00	956	28.22- 68.22	48.22
2.976	2.980	-0.004	8993172	1000.00	945	41.70- 81.70	61.70
Average of Peak Amounts =					952		
7 Aroclor-1260					CAS #: 11096-82-5		
3.701	3.705	-0.004	18935701	1000.00	1030	80.00- 120.00	100.00
3.864	3.867	-0.003	28174842	1000.00	1050	128.79- 168.79	148.79
4.025	4.030	-0.005	30238844	1000.00	1070	139.69- 179.69	159.69
4.094	4.097	-0.003	17075467	1000.00	1060	70.18- 110.18	90.18
4.236	4.240	-0.004	17808225	1000.00	1060	74.05- 114.05	94.05
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd1a.i/032310a.b/040f4001.d

Date : 23-MAR-2010 15:17

Client ID: AR166005

Sample Info: IWAR100222-60 05

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

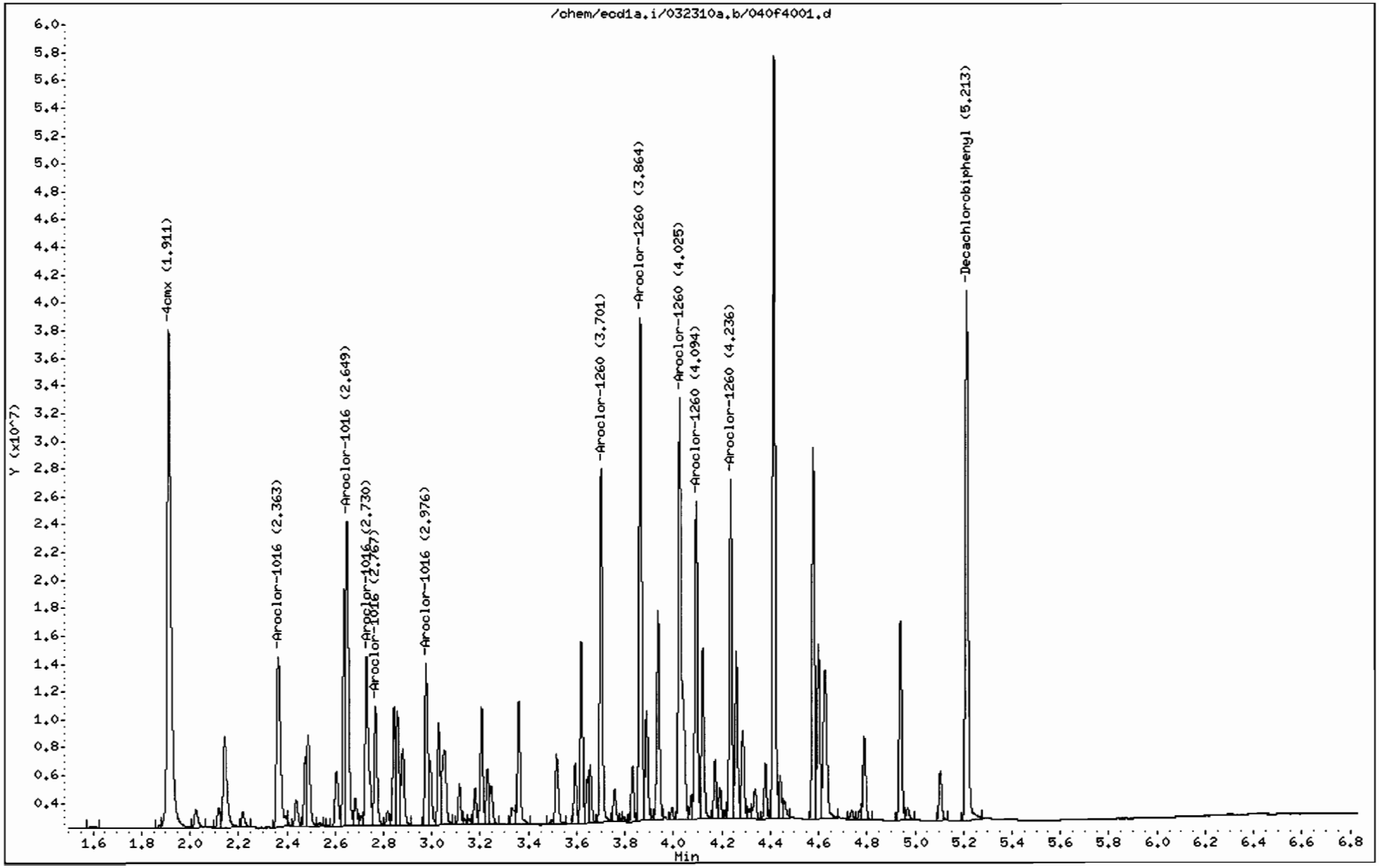

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/040b4001.d
Lab Smp Id: WAR100222-60 05 Client Smp ID: AR166005
Inj Date : 23-MAR-2010 15:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 06:13 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 40 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	26283837	100.000	100	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.909	5.912	-0.003	17831249	100.000	95.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.163	3.165	-0.002	11738136	1000.00	933	80.00- 120.00	100.00(M)
3.245	3.248	-0.003	7821418	1000.00	906	46.63- 86.63	66.63
3.309	3.311	-0.002	4864092	1000.00	920	21.44- 61.44	41.44
3.535	3.538	-0.003	6353524	1000.00	922	34.13- 74.13	54.13
3.611	3.614	-0.003	5959990	1000.00	928	30.77- 70.77	60.30
		Average of Peak Amounts =			922		
7 Aroclor-1260					CAS #: 11096-82-5		
4.301	4.304	-0.003	12690762	1000.00	970	80.00- 120.00	100.00
4.425	4.428	-0.003	15477566	1000.00	995	101.96- 141.96	121.96
4.692	4.695	-0.003	11573487	1000.00	973	71.20- 111.20	91.20
4.865	4.867	-0.002	11959992	1000.00	973	74.24- 114.24	94.24
5.012	5.015	-0.003	26779955	1000.00	1010	191.02- 231.02	211.02
		Average of Peak Amounts =			985		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/040b4001.d
Date : 23-MAR-2010 15:17
Client ID: AR166005
Sample Info: IWAR100222-60 05
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

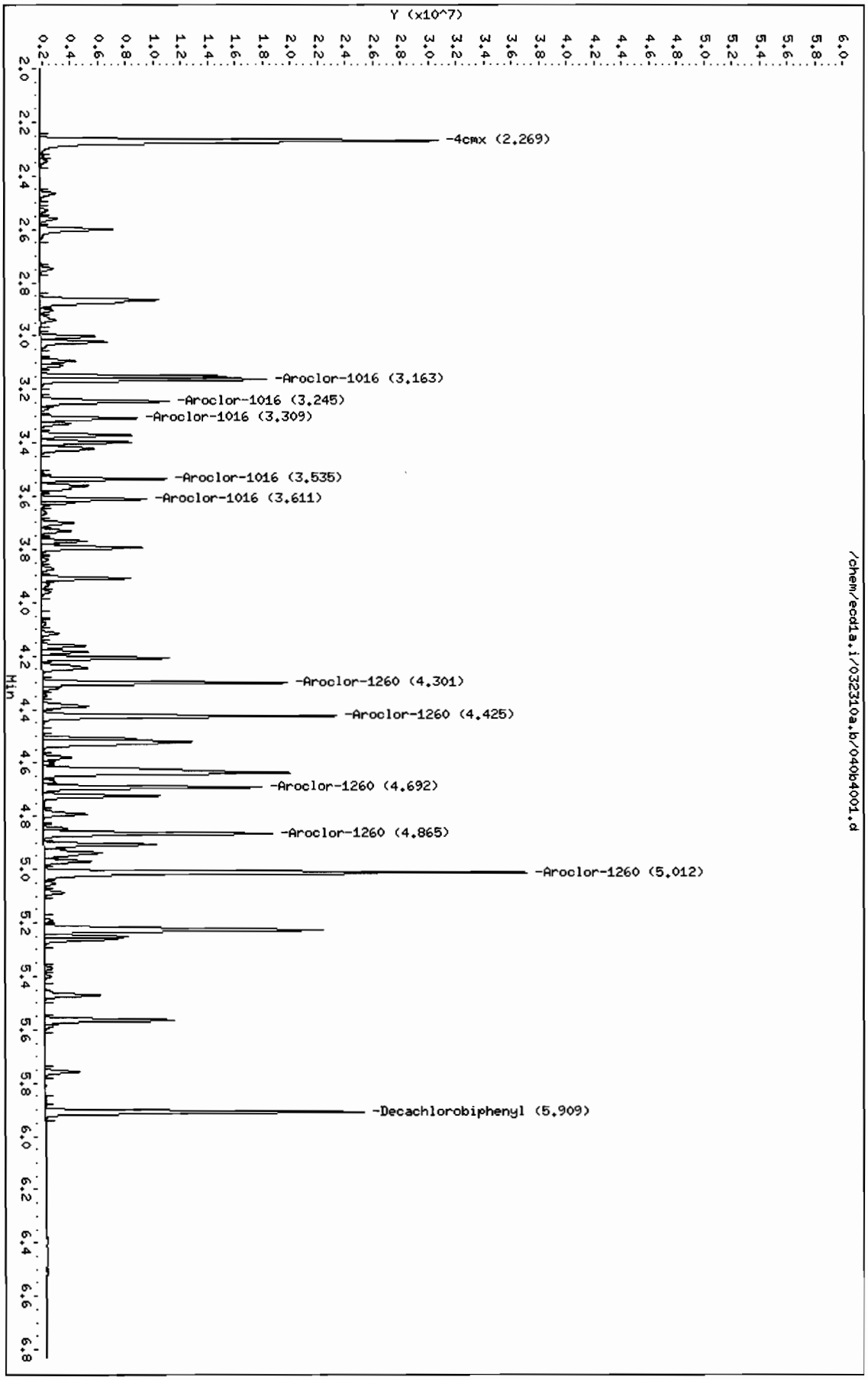

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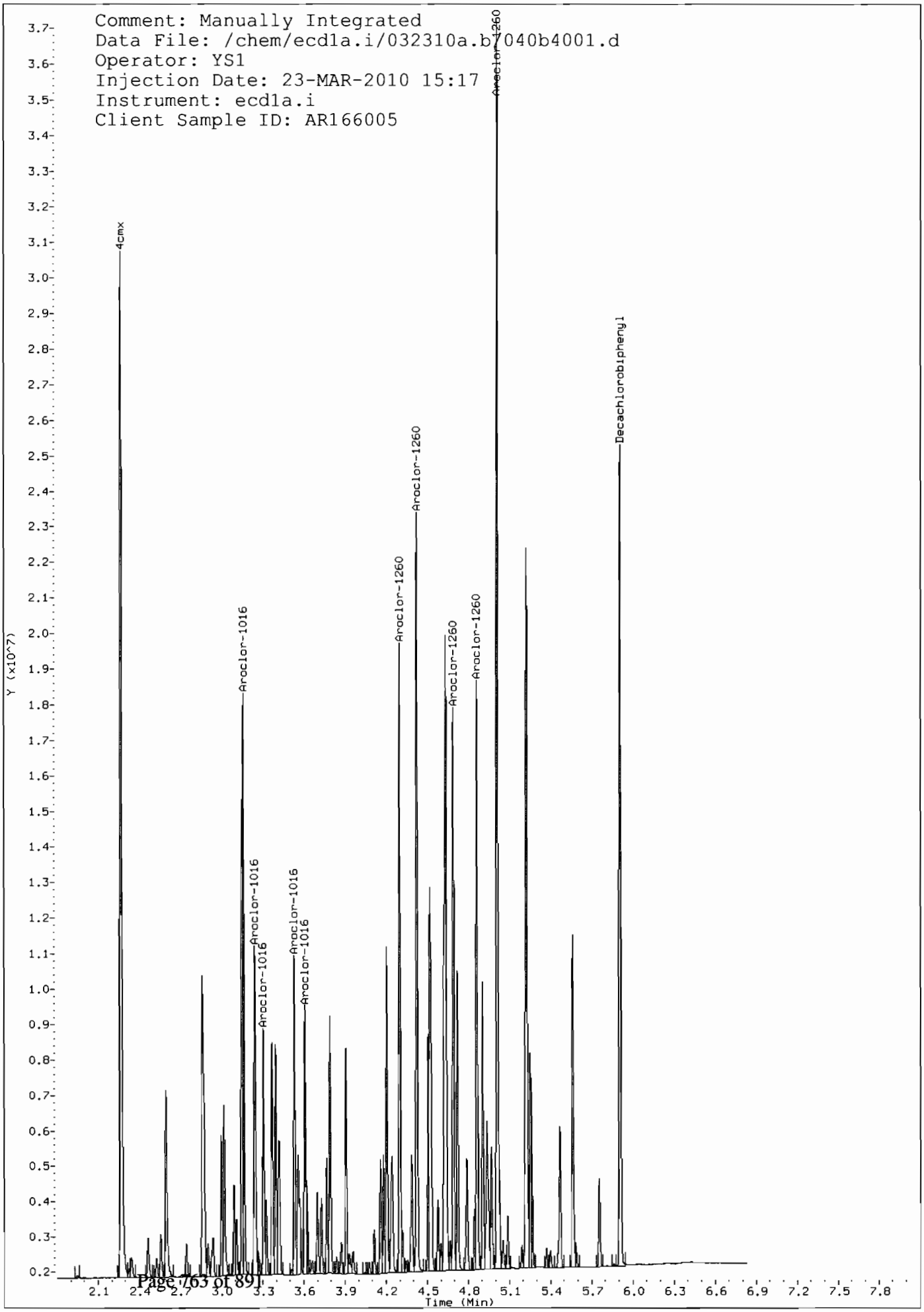
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Data File: /chem/ecd1a.i/032310a.b/040b4001.d
Operator: YS1
Injection Date: 23-MAR-2010 15:17
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

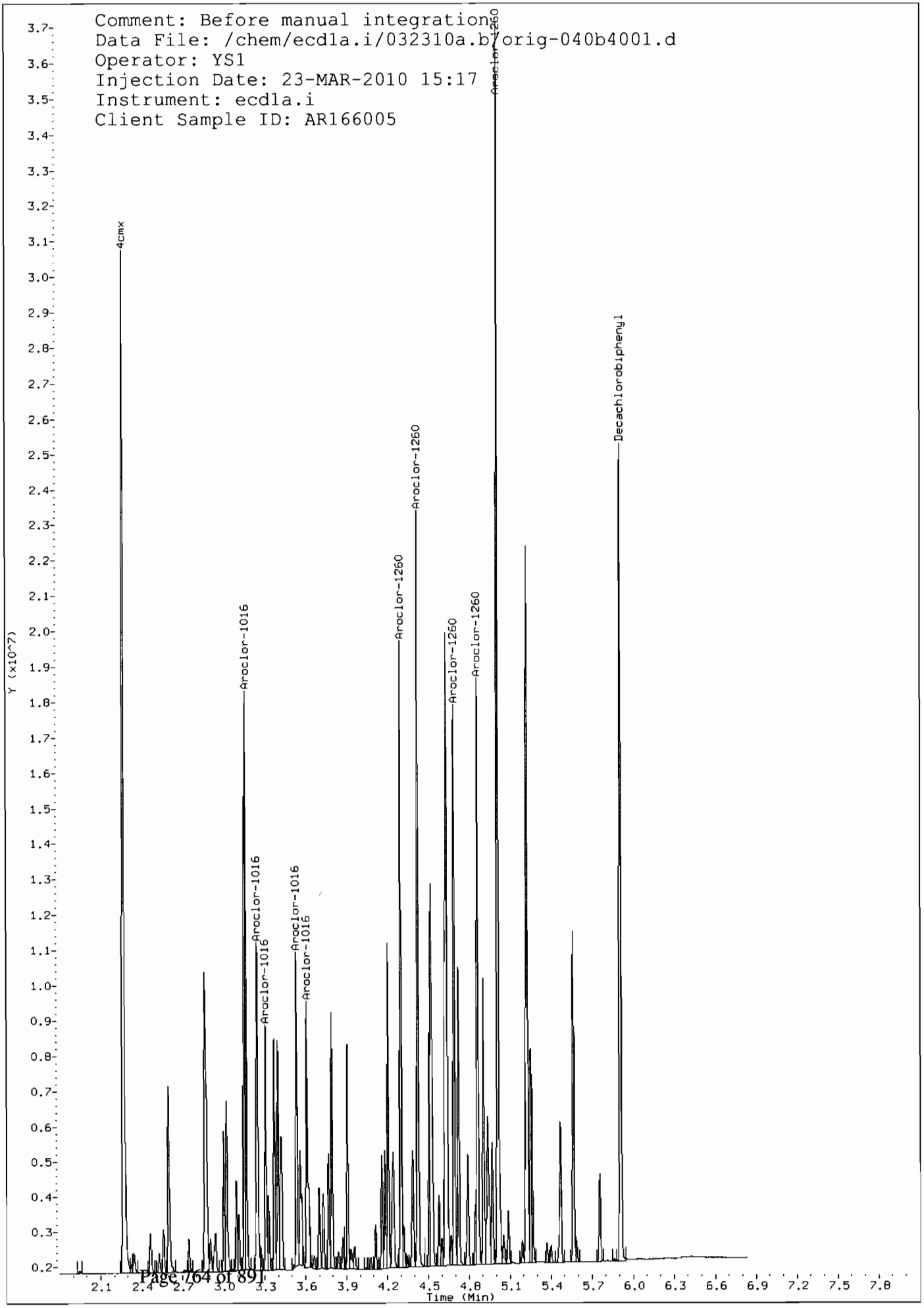
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Operator: YS1
Injection Date: 23-MAR-2010 15:17
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/002f0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 25-MAR-2010 05:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.910	0.000	41856113	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.211	5.211	0.000	31577766	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.361	2.361	0.000	14589566	1000.00	961	80.00- 120.00	100.00
2.647	2.647	0.000	18756674	1000.00	990	109.39- 149.39	128.56
2.727	2.727	0.000	11593920	1000.00	932	59.64- 99.64	79.47
2.765	2.765	0.000	6963555	1000.00	948	28.01- 68.01	47.73
2.975	2.975	0.000	8874475	1000.00	932	41.07- 81.07	60.83
Average of Peak Amounts =					953		
7 Aroclor-1260					CAS #: 11096-82-5		
3.700	3.700	0.000	18589252	1000.00	1010	80.00- 120.00	100.00
3.862	3.862	0.000	27581026	1000.00	1020	128.31- 168.31	148.37
4.024	4.024	0.000	29481031	1000.00	1040	139.26- 179.26	158.59
4.092	4.092	0.000	16685252	1000.00	1030	69.45- 109.45	89.76
4.235	4.235	0.000	17360654	1000.00	1030	73.28- 113.28	93.39
Average of Peak Amounts =					1.03e+03		

Data File: /chem/ecd1a.i/032510.b/002f0201.d
Date : 25-MAR-2010 05:28
Client ID: AR166001
Sample Info: IWAR100222-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

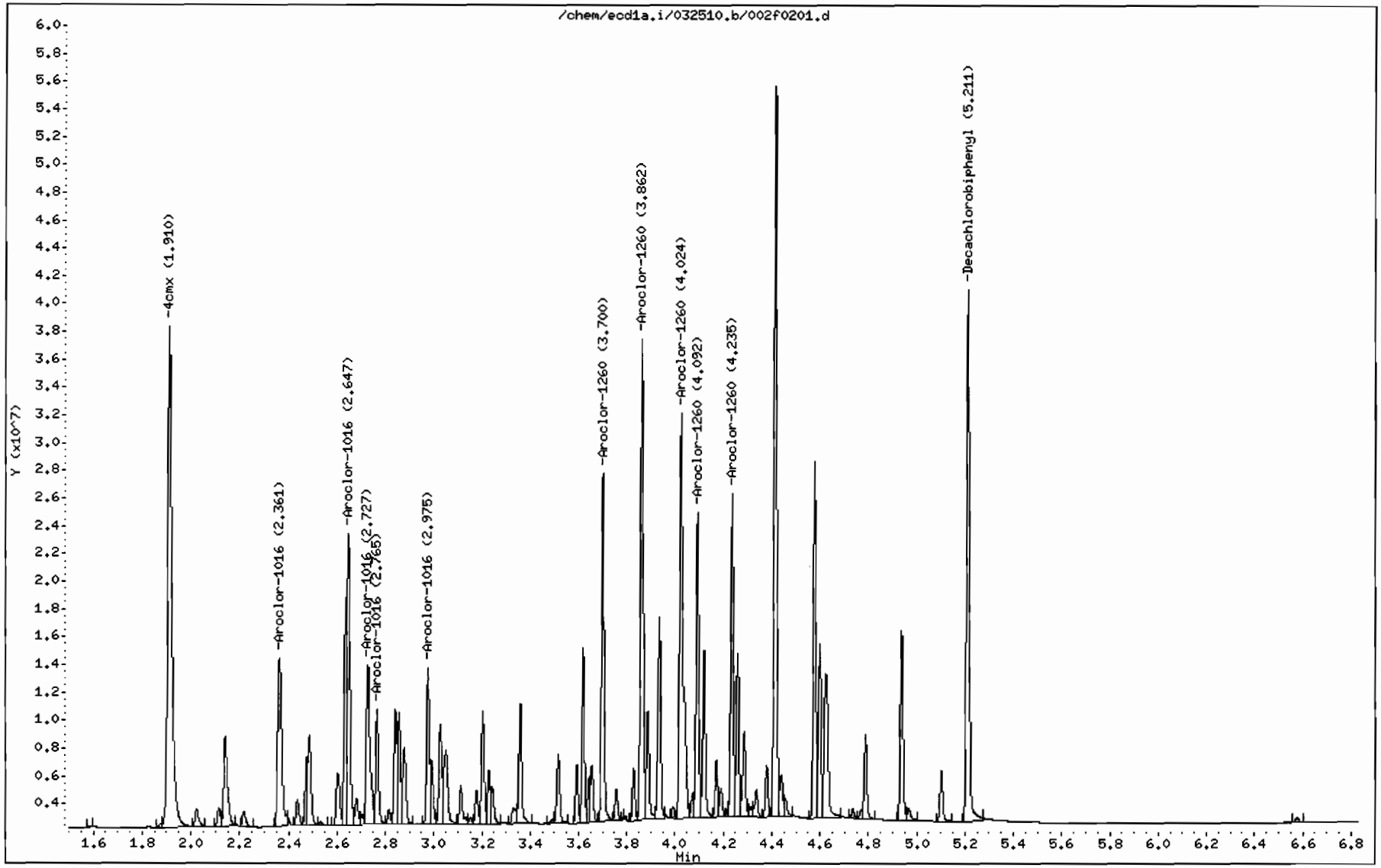

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/002b0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 25-MAR-2010 05:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.267	2.267	0.000	26778620	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.906	5.906	0.000	19210166	100.000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.161	3.161	0.000	11747342	1000.00	933	80.00- 120.00	100.00(M)
3.244	3.244	0.000	7814731	1000.00	905	46.40- 86.40	66.52
3.307	3.307	0.000	4818974	1000.00	912	21.43- 61.43	41.02
3.534	3.534	0.000	6167712	1000.00	895	34.28- 74.28	52.50
3.609	3.609	0.000	5923163	1000.00	922	30.28- 70.28	61.29
Average of Peak Amounts =					913		
7 Aroclor-1260					CAS #: 11096-82-5		
4.299	4.299	0.000	12832813	1000.00	981	80.00- 120.00	100.00
4.424	4.424	0.000	15664888	1000.00	1010	102.07- 142.07	122.07
4.689	4.689	0.000	11826610	1000.00	994	71.88- 111.88	92.16
4.862	4.862	0.000	12290315	1000.00	1000	75.24- 115.24	95.77
5.010	5.010	0.000	27280290	1000.00	1030	192.99- 232.99	212.58
Average of Peak Amounts =					1e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032510.b/002b0201.d
Date : 25-MAR-2010 05:28
Client ID: AR166001
Sample Info: IWAR100222-60 01
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

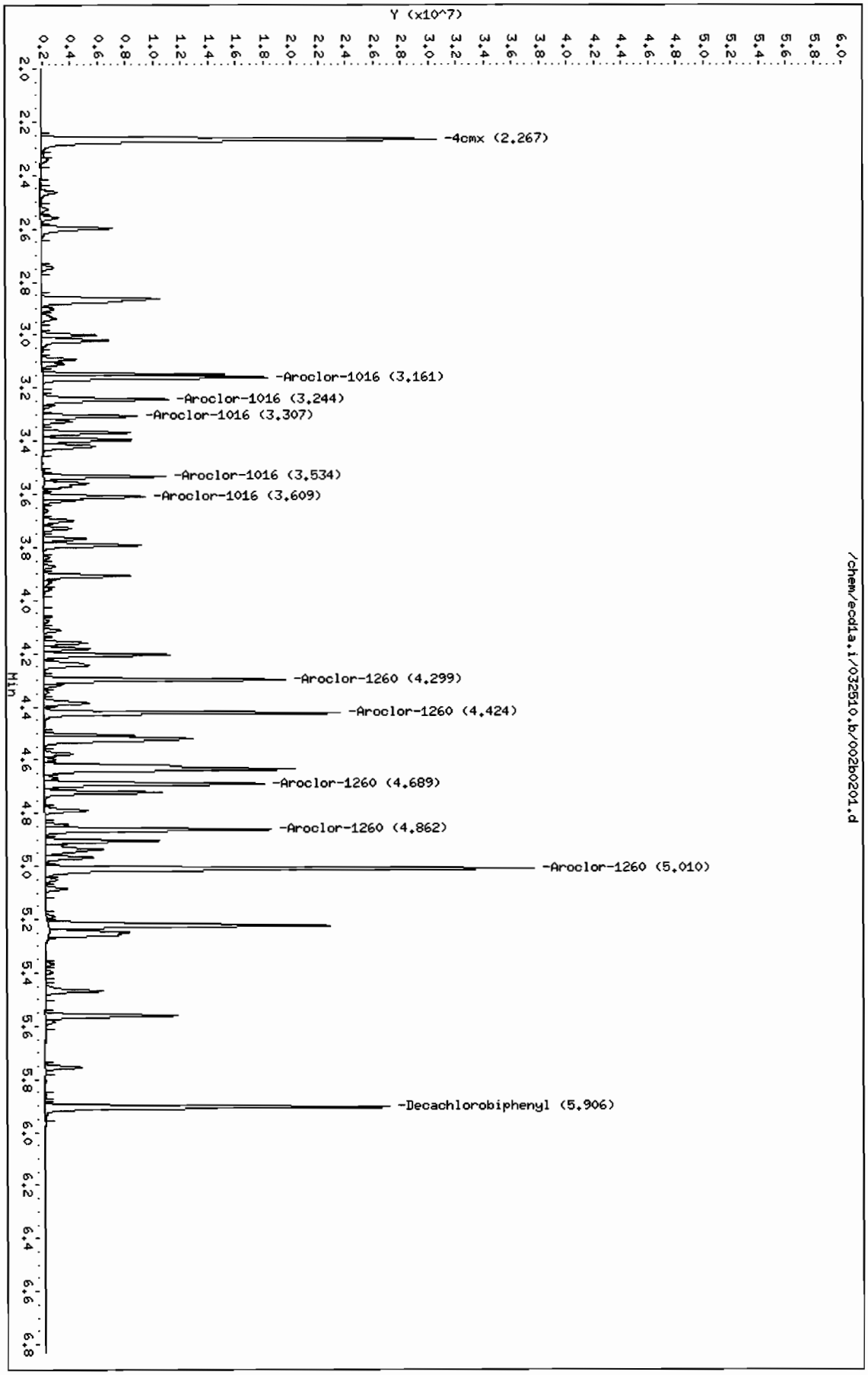

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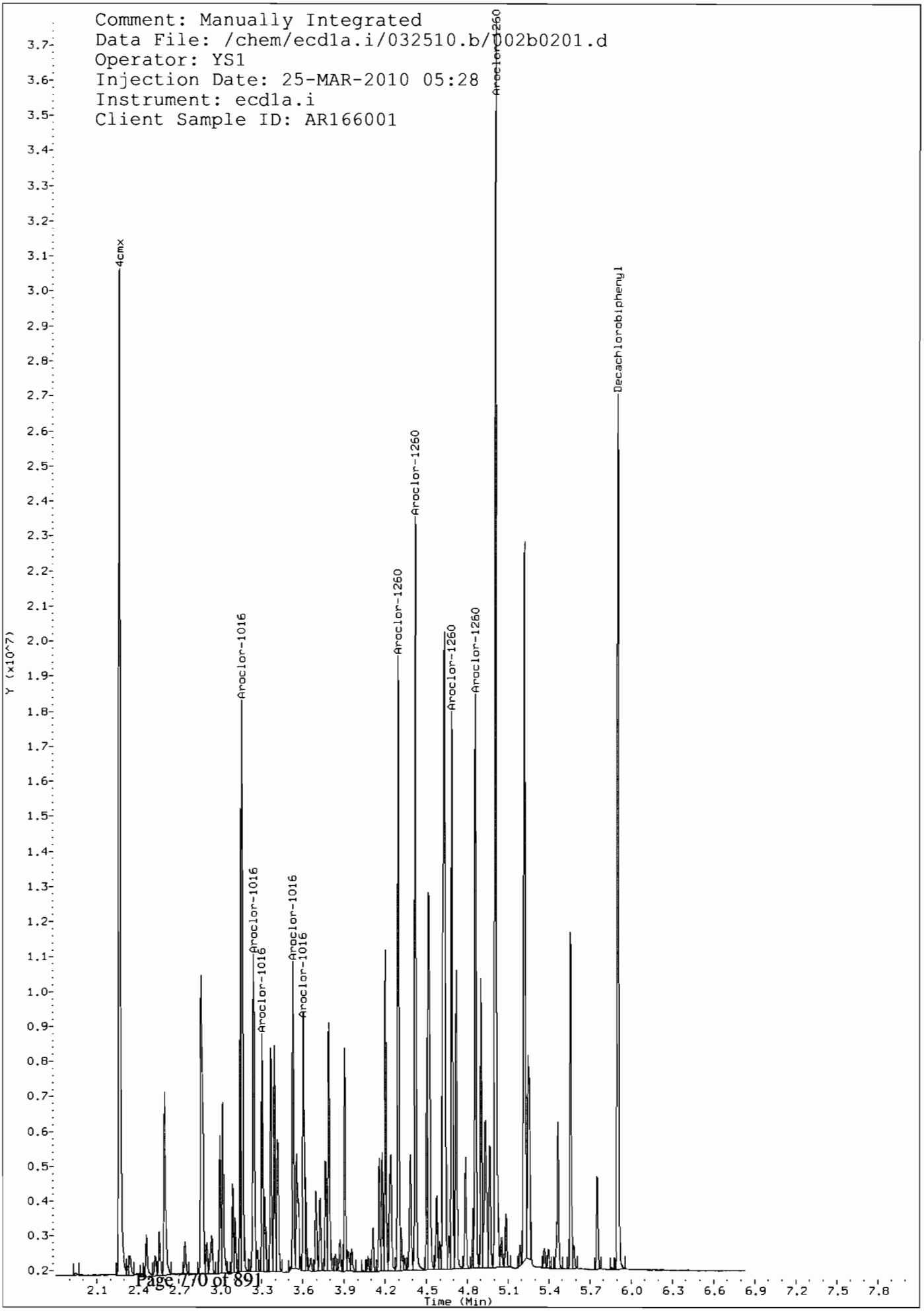
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032510.b/002b0201.d
Operator: YS1
Injection Date: 25-MAR-2010 05:28
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
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Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

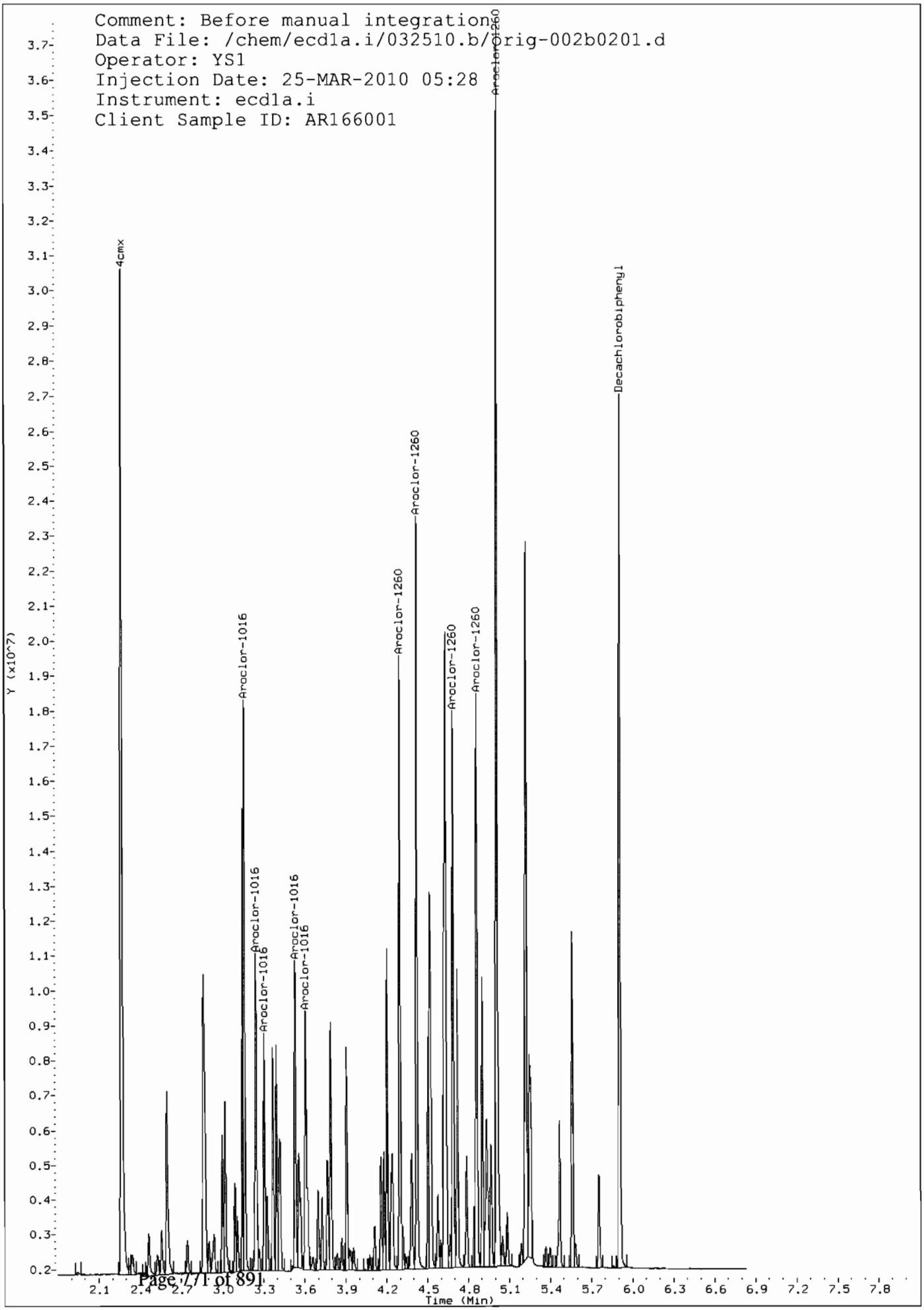
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Operator: YS1
Injection Date: 25-MAR-2010 05:28
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 25-MAR-2010 05:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.204	3.204	0.000	12741217	1000.00	961	80.00- 120.00	100.00
3.359	3.359	0.000	17143351	1000.00	961	114.55- 154.55	134.55
3.593	3.593	0.000	22218593	1000.00	993	154.38- 194.38	174.38
3.756	3.756	0.000	16436259	1000.00	997	109.00- 149.00	129.00
3.865	3.865	0.000	16751210	1000.00	1050	111.47- 151.47	131.47
Average of Peak Amounts =					992		

Data File: /chem/ecd1a.i/032510.b/003f0301.d
Date : 25-MAR-2010 05:38
Client ID: AR125401
Sample Info: IWAR100219-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

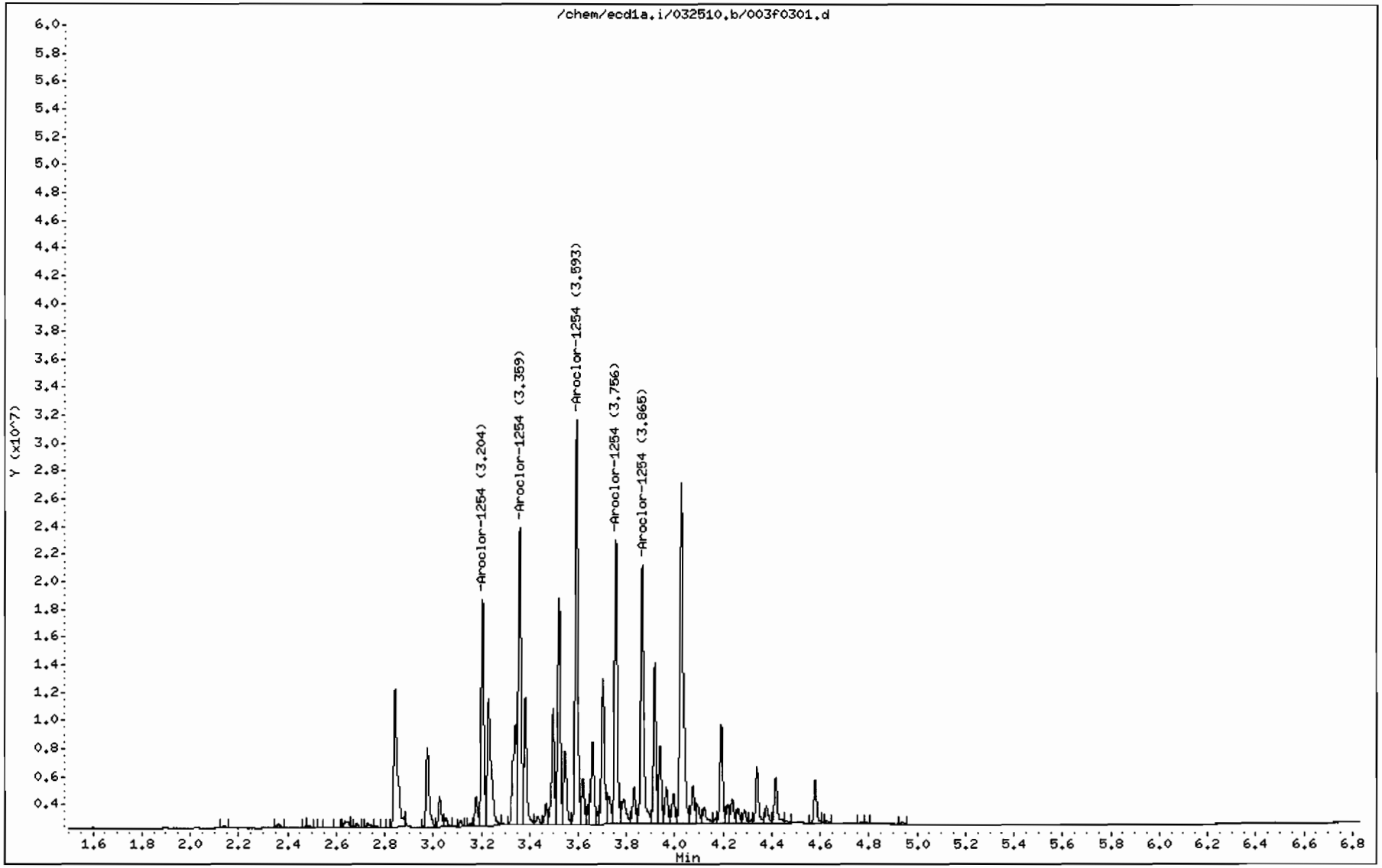

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 25-MAR-2010 05:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.369	3.369	0.000	5545194	1000.00	921	80.00- 120.00	100.00
3.791	3.791	0.000	10086059	1000.00	932	161.89- 201.89	181.89
3.908	3.908	0.000	11109350	1000.00	931	180.34- 220.34	200.34
4.184	4.184	0.000	15547011	1000.00	946	260.37- 300.37	280.37
4.319	4.319	0.000	11753589	1000.00	970	191.96- 231.96	211.96
Average of Peak Amounts =					940		

Data File: /chem/ecd1a.i/032510.b/003b0301.d

Date : 25-MAR-2010 05:38

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

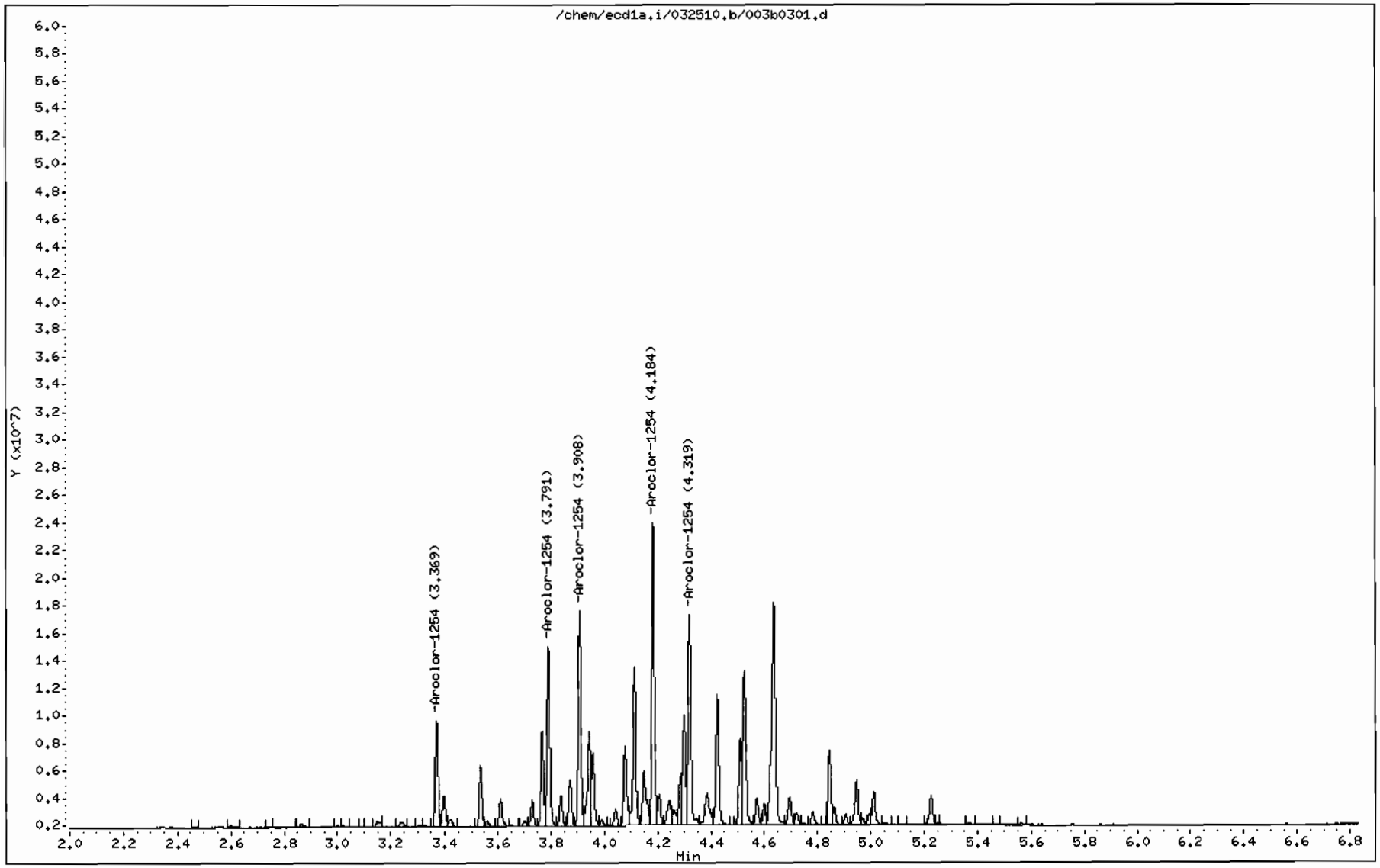

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/004f0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 25-MAR-2010 05:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.362	2.362	0.000	13076449	1000.00	1060	80.00- 120.00	100.00
2.648	2.648	0.000	16216596	1000.00	1090	104.01- 144.01	124.01
2.767	2.767	0.000	6142196	1000.00	1040	26.97- 66.97	46.97
2.976	2.976	0.000	7756934	1000.00	1000	39.32- 79.32	59.32
3.229	3.229	0.000	7321166	1000.00	1000	35.99- 75.99	55.99

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/032510.b/004f0401.d

Date : 25-MAR-2010 05:49

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

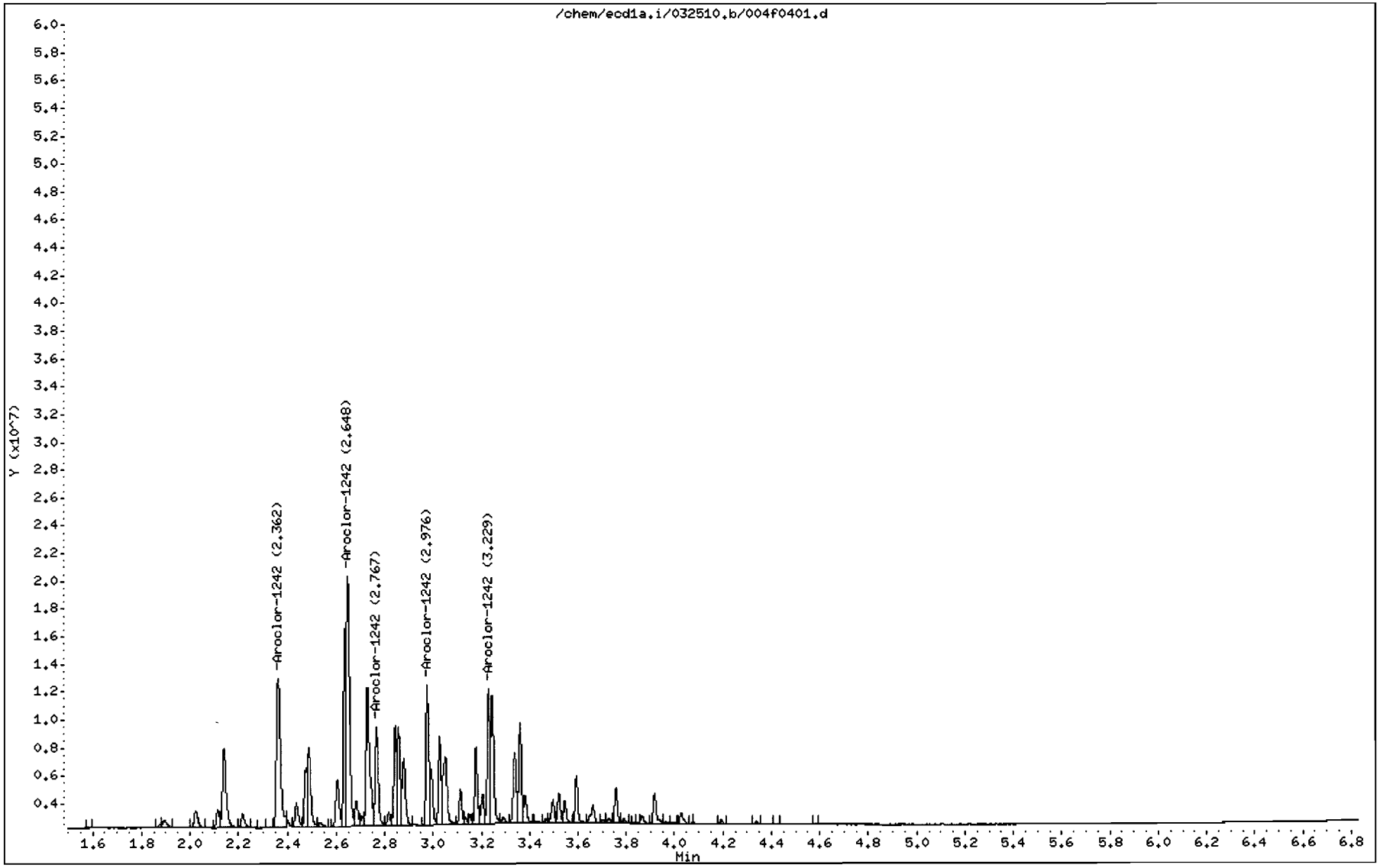

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/004b0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 25-MAR-2010 05:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.162	3.162	0.000	10561120	1000.00	1040	80.00- 120.00	100.00
3.245	3.245	0.000	6862133	1000.00	967	44.98- 84.98	64.98
3.535	3.535	0.000	5443854	1000.00	987	31.55- 71.55	51.55
3.769	3.769	0.000	5633083	1000.00	984	33.34- 73.34	53.34
3.797	3.797	0.000	6382451	1000.00	1000	40.43- 80.43	60.43
		Average of Peak Amounts =			996		

Data File: /chem/ecd1a.i/032510.b/004b0401.d

Date : 25-MAR-2010 05:49

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

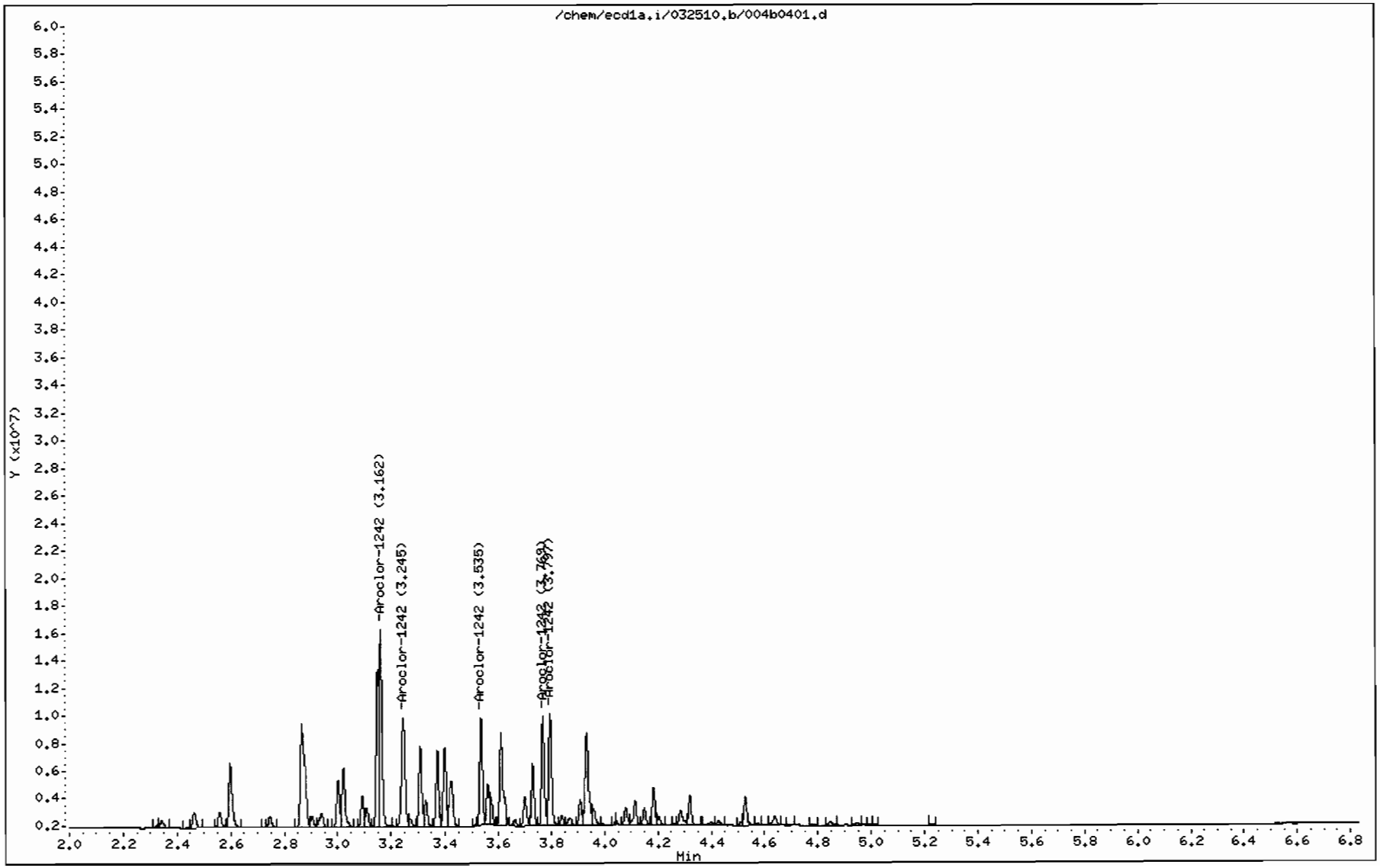

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 25-MAR-2010 05:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
2.843	2.843	0.000	9867227	1000.00	987	80.00- 120.00	100.00
2.976	2.976	0.000	13399471	1000.00	1020	115.80- 155.80	135.80
3.229	3.229	0.000	14257070	1000.00	997	124.49- 164.49	144.49
3.361	3.361	0.000	11546842	1000.00	970	97.02- 137.02	117.02
3.593	3.593	0.000	7606610	1000.00	950	57.09- 97.09	77.09
Average of Peak Amounts =					985		

Data File: /chem/ecd1a.i/032510.b/005f0501.d
Date : 25-MAR-2010 05:59
Client ID: AR124801
Sample Info: IWAR100223-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

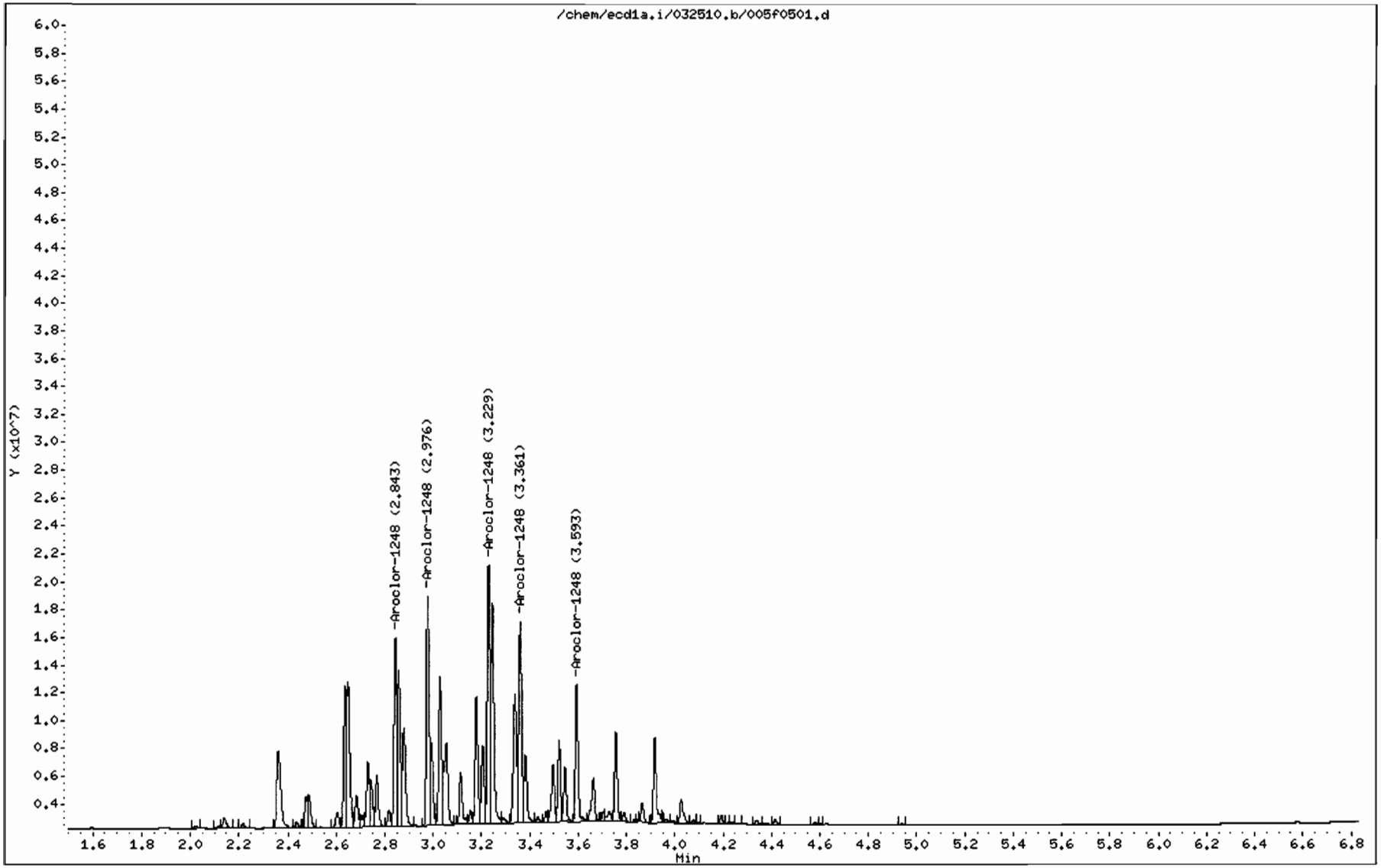

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 25-MAR-2010 05:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.370	3.370	0.000	7370949	1000.00	969	80.00- 120.00	100.00
3.534	3.534	0.000	9263824	1000.00	978	105.68- 145.68	125.68
3.769	3.769	0.000	10633859	1000.00	973	124.27- 164.27	144.27
3.796	3.796	0.000	12002970	1000.00	987	142.84- 182.84	162.84
3.933	3.933	0.000	11432912	1000.00	968	135.11- 175.11	155.11
		Average of Peak Amounts =			975		

Data File: /chem/ecd1a.i/032510.b/005b0501.d
Date : 25-MAR-2010 05:59
Client ID: AR124801
Sample Info: IWAR100223-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

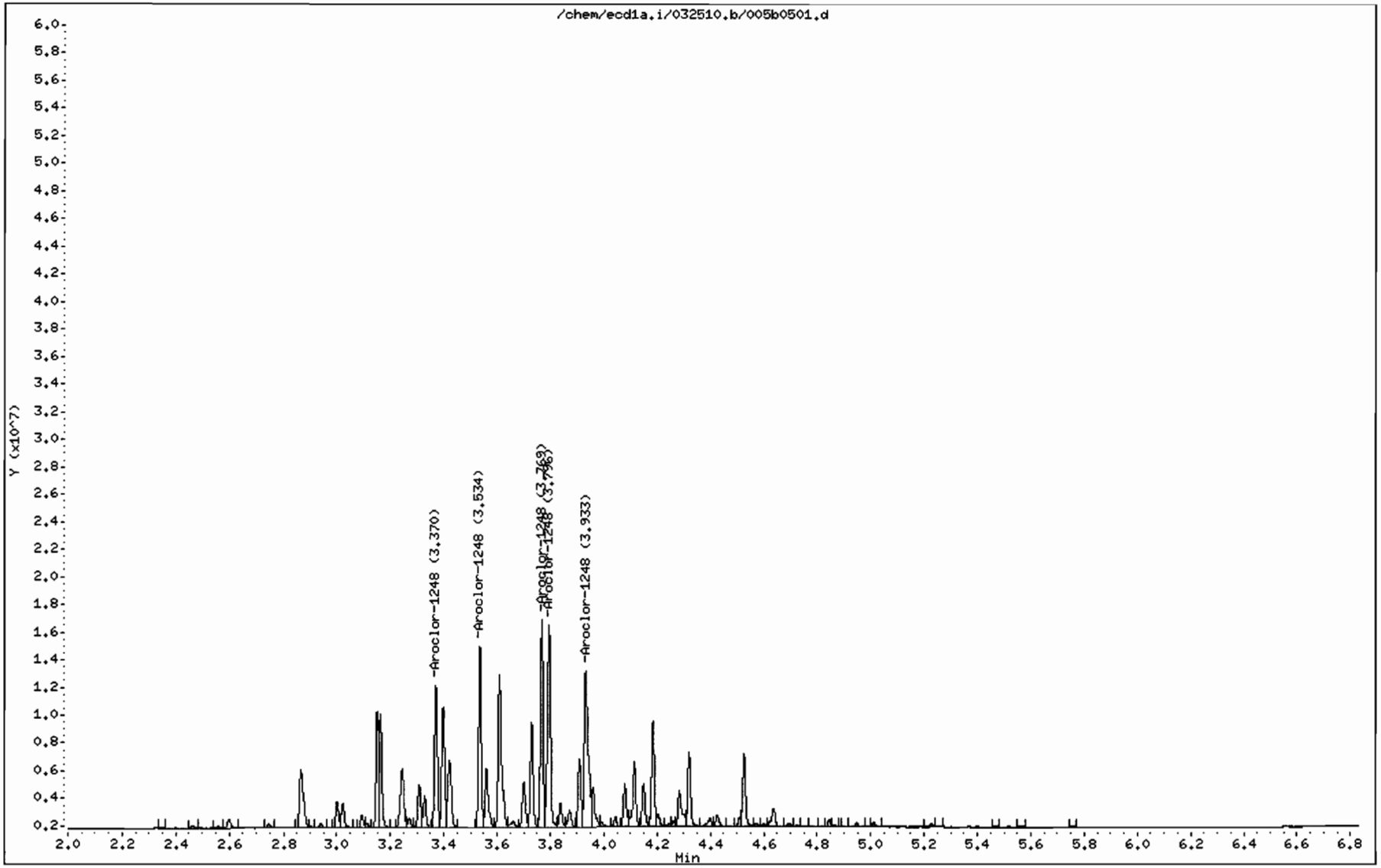

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/007f0701.d
Lab Smp Id: WAR100323-32 Client Smp ID: AR123201
Inj Date : 25-MAR-2010 06:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100323-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.364	2.364	0.000	6975788	1000.00	1050	80.00- 120.00	100.00
2.649	2.649	0.000	9399818	1000.00	1130	114.75- 154.75	134.75
2.730	2.730	0.000	5692871	1000.00	1030	61.61- 101.61	81.61
2.844	2.844	0.000	2705322	1000.00	1020	18.78- 58.78	38.78
3.230	3.230	0.000	3593253	1000.00	1010	31.51- 71.51	51.51

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/032510.b/007f0701.d

Page 1

Date : 25-MAR-2010 06:20

Client ID: AR123201

Instrument: ecd1a.i

Sample Info: IWAR100323-32

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

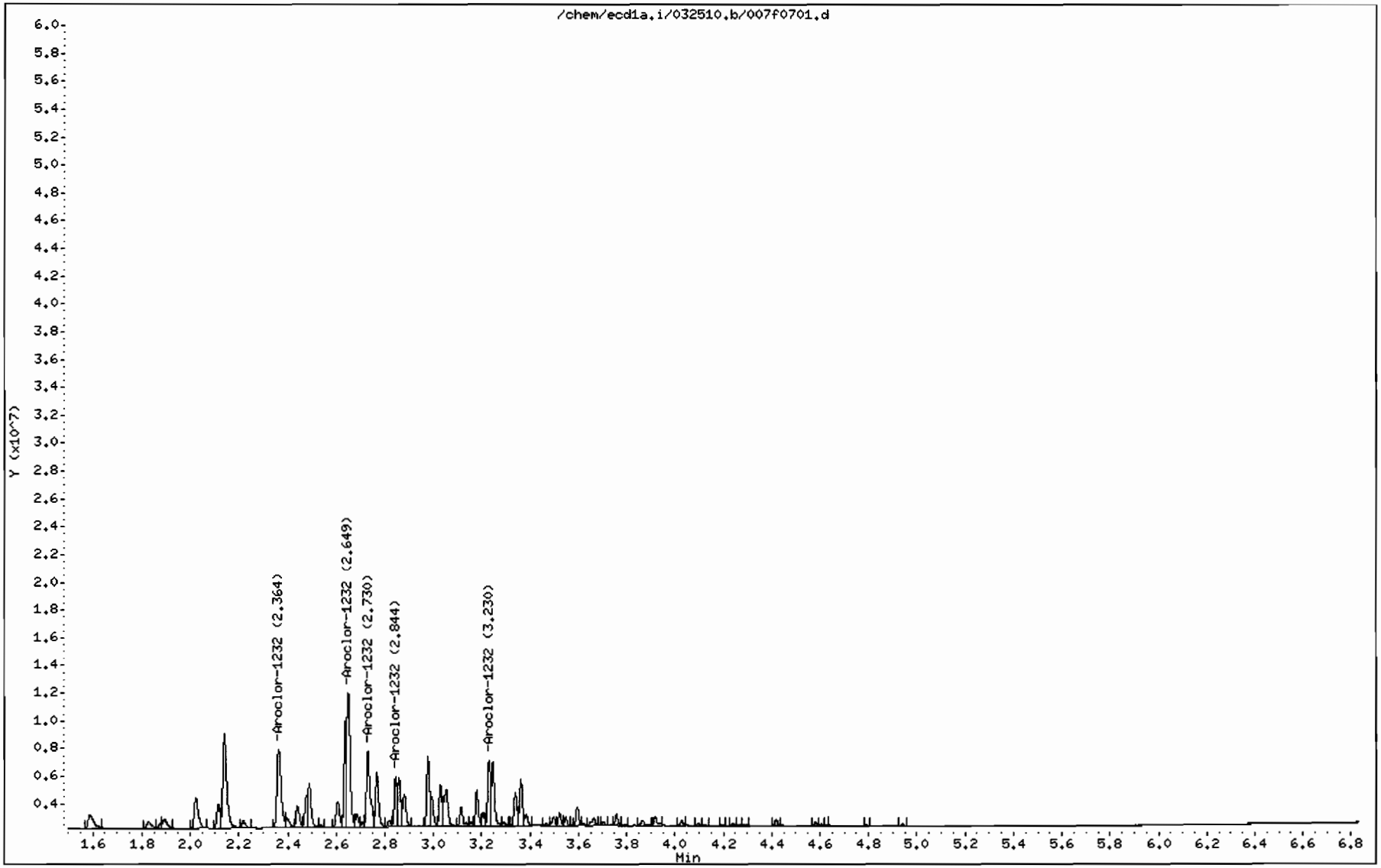

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/007b0701.d
Lab Smp Id: WAR100323-32 Client Smp ID: AR123201
Inj Date : 25-MAR-2010 06:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100323-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.865	2.865	0.000	5194181	1000.00	1030	80.00- 120.00	100.00
3.162	3.162	0.000	6127702	1000.00	1070	97.97- 137.97	117.97
3.245	3.245	0.000	3981330	1000.00	1020	56.65- 96.65	76.65
3.535	3.535	0.000	2964593	1000.00	1040	37.08- 77.08	57.08
3.770	3.770	0.000	2934244	1000.00	1040	36.49- 76.49	56.49

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/032510.b/007b0701.d

Page 1

Date : 25-MAR-2010 06:20

Client ID: AR123201

Instrument: ecd1a.i

Sample Info: IWAR100323-32

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

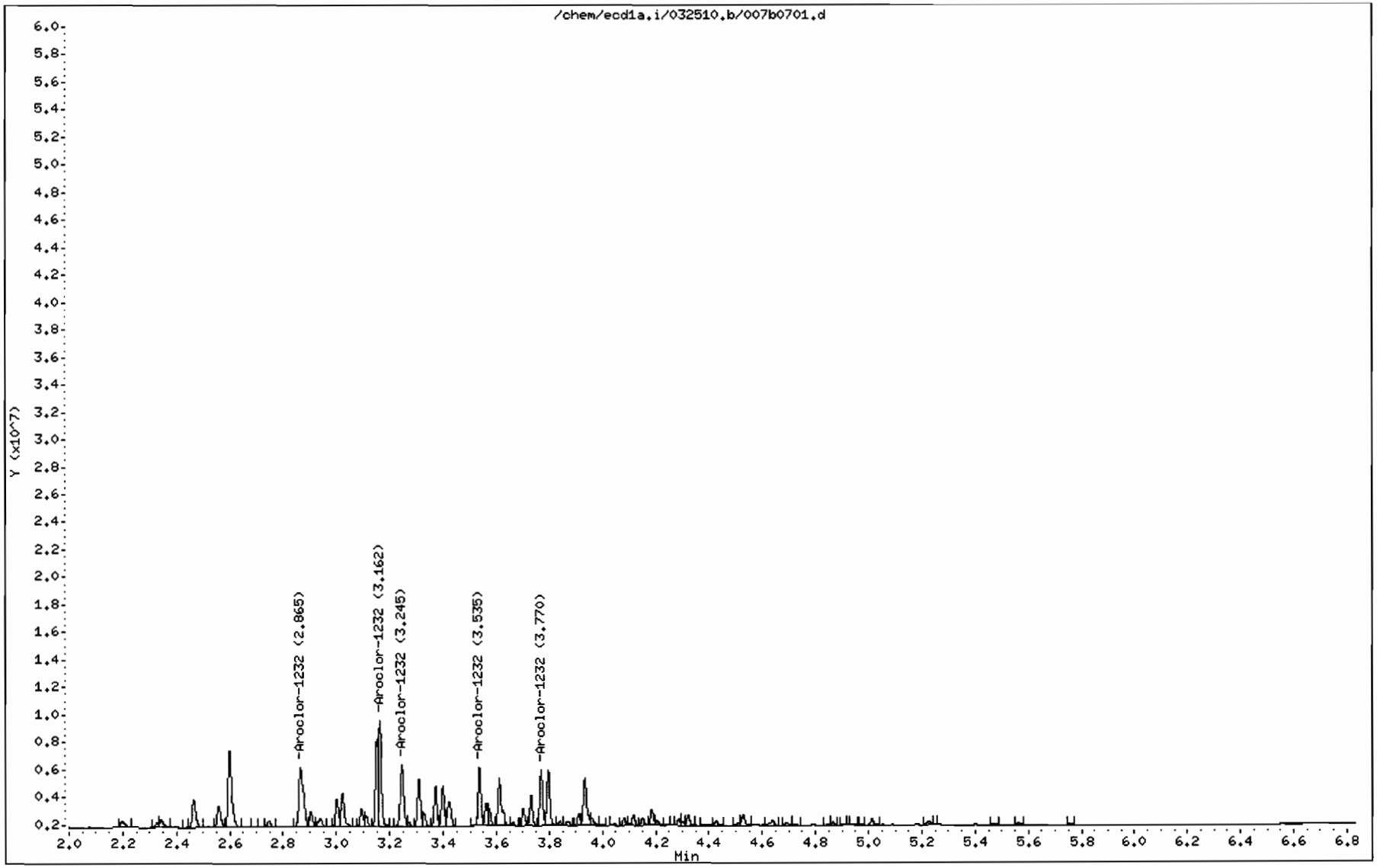

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/008f0801.d
Lab Smp Id: WAR100323-21 Client Smp ID: AR122101
Inj Date : 25-MAR-2010 06:31
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100323-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.023	2.023	0.000	4577430	1000.00	1020	80.00- 120.00	100.00
2.115	2.115	0.000	2483523	1000.00	1010	34.26- 74.26	54.26
2.140	2.140	0.000	10579455	1000.00	977	211.12- 251.12	231.12

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032510.b/008f0801.d

Page 1

Date : 25-MAR-2010 06:31

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: IWAR100323-21

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

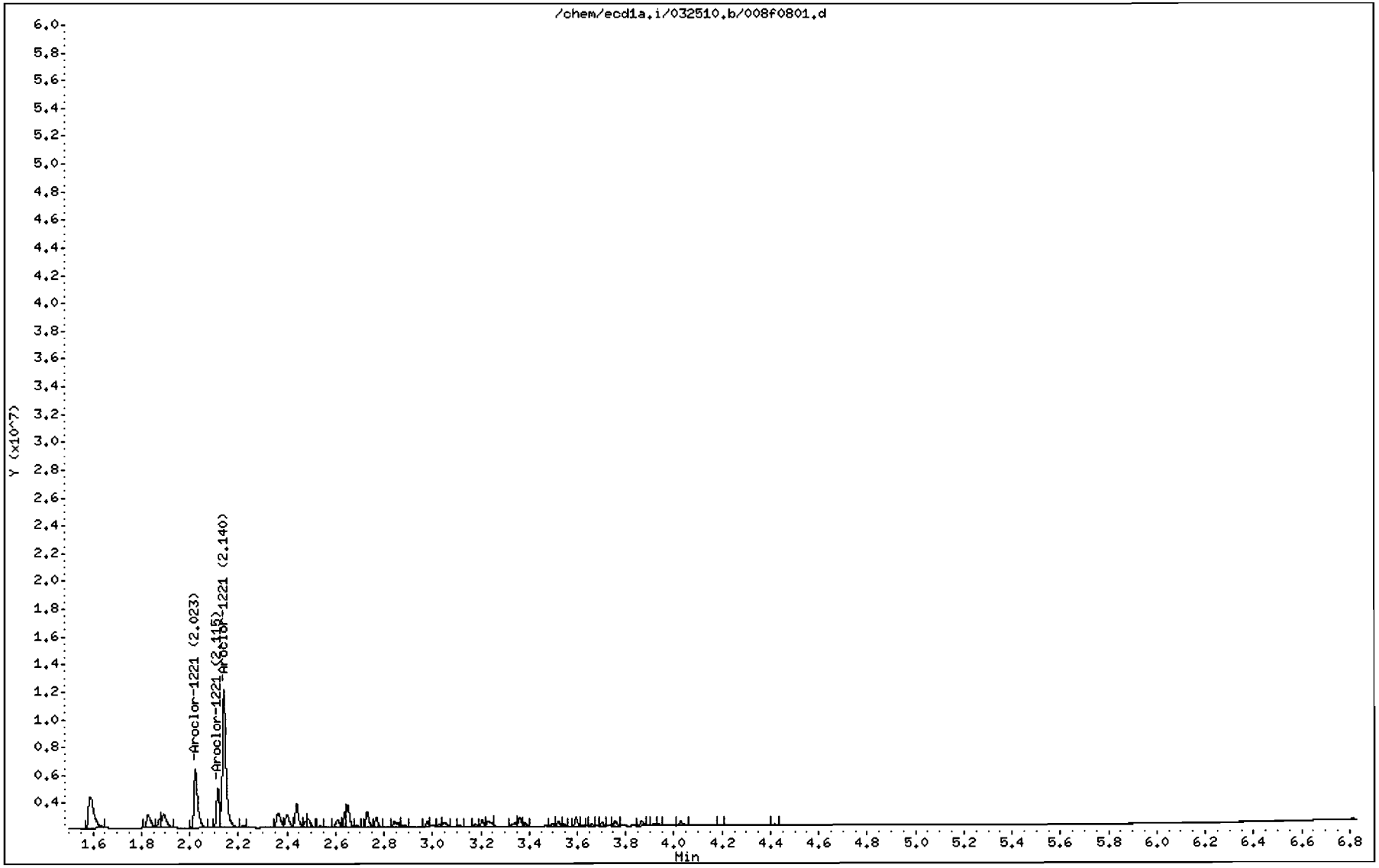

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/008b0801.d
Lab Smp Id: WAR100323-21 Client Smp ID: AR12101
Inj Date : 25-MAR-2010 06:31
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100323-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.464	2.464	0.000	3296438	1000.00	1010	80.00- 120.00	100.00
2.559	2.559	0.000	2103411	1000.00	1010	43.81- 83.81	63.81
2.599	2.599	0.000	7148167	1000.00	976	196.85- 236.85	216.85
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd1a.i/032510.b/008b0801.d

Page 1

Date : 25-MAR-2010 06:31

Client ID: AR12101

Instrument: ecd1a.i

Sample Info: IWAR100323-21

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

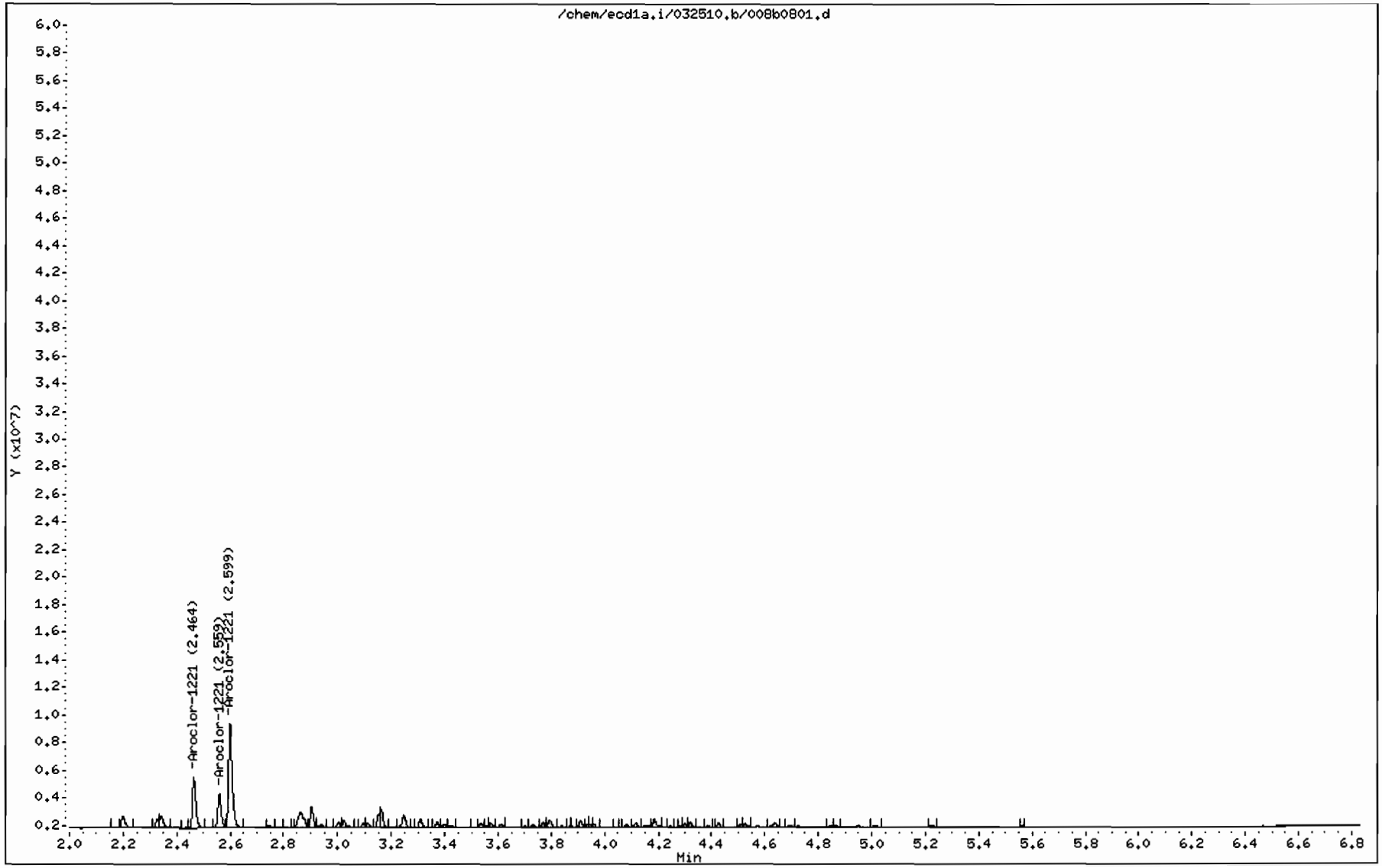

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/028f2801.d
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003
Inj Date : 25-MAR-2010 10:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 11:02 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 28 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.910	0.000	41924735	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.211	5.211	0.000	31849662	100.000	107	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.362	2.361	0.001	14712751	1000.00	969	80.00- 120.00	100.00
2.647	2.647	0.000	18693026	1000.00	987	107.05- 147.05	127.05
2.727	2.727	0.000	11643911	1000.00	936	59.14- 99.14	79.14
2.765	2.765	0.000	7050056	1000.00	959	27.92- 67.92	47.92
2.975	2.975	0.000	9101881	1000.00	956	41.86- 81.86	61.86
Average of Peak Amounts =					962		
7 Aroclor-1260					CAS #: 11096-82-5		
3.700	3.700	0.000	18885324	1000.00	1030	80.00- 120.00	100.00
3.862	3.862	0.000	28062112	1000.00	1040	128.59- 168.59	148.59
4.024	4.024	0.000	30094246	1000.00	1060	139.35- 179.35	159.35
4.092	4.092	0.000	17025182	1000.00	1050	70.15- 110.15	90.15
4.235	4.235	0.000	17670317	1000.00	1050	73.57- 113.57	93.57
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd1a.i/032510.b/028f2801.d

Date : 25-MAR-2010 10:26

Client ID: AR166003

Sample Info: IWAR100222-60 03

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

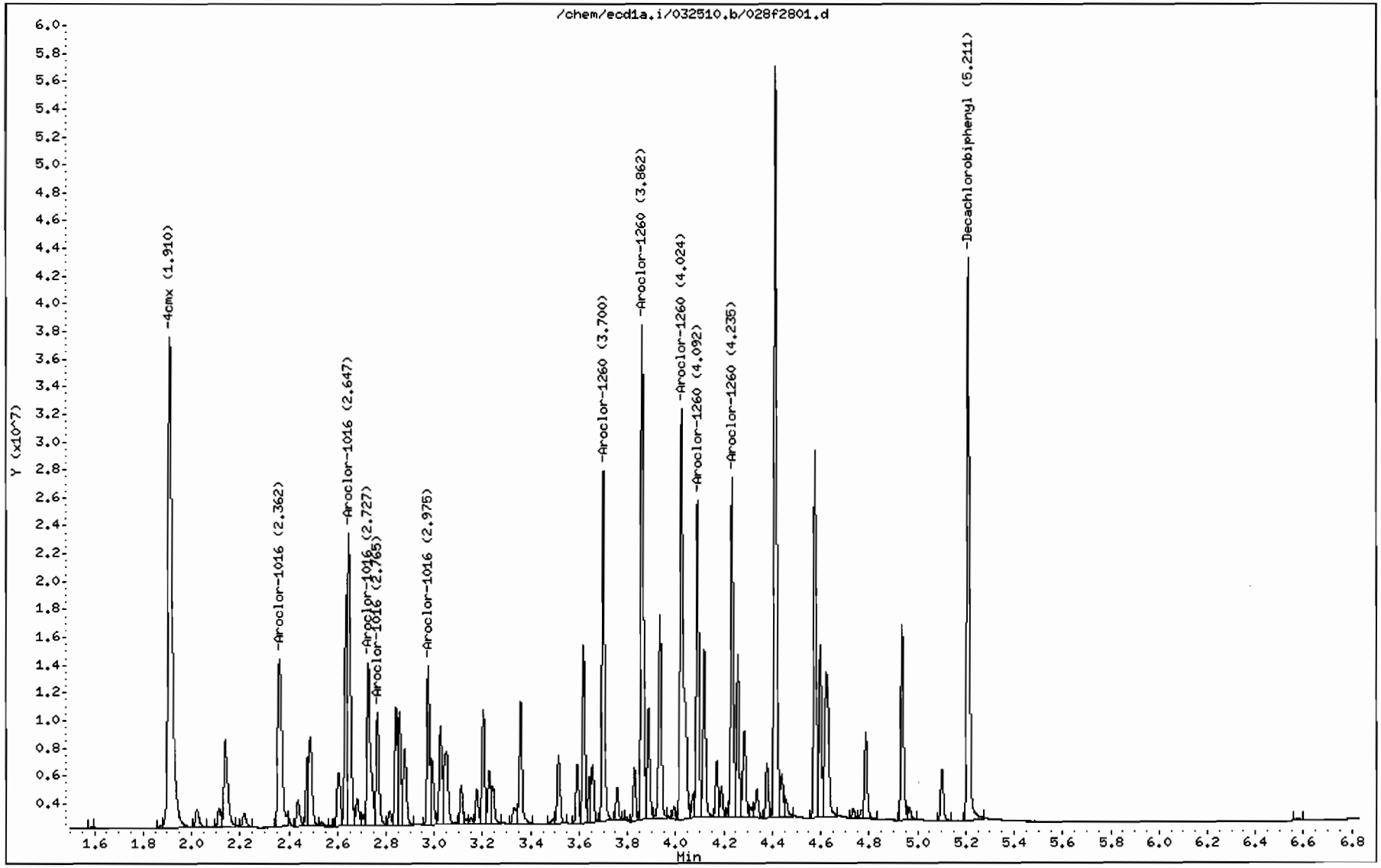

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/028b2801.d
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003
Inj Date : 25-MAR-2010 10:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 11:02 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 28 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.267	2.267	0.000	26593976	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.907	5.906	0.001	19251521	100.000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.161	3.161	0.000	12129697	1000.00	964	80.00- 120.00	100.00(M)
3.244	3.244	0.000	7798446	1000.00	903	44.29- 84.29	64.29
3.307	3.307	0.000	4833083	1000.00	914	19.85- 59.85	39.85
3.534	3.534	0.000	6385988	1000.00	926	32.65- 72.65	52.65
3.609	3.609	0.000	6043433	1000.00	941	29.82- 69.82	49.82
Average of Peak Amounts =					930		
7 Aroclor-1260					CAS #: 11096-82-5		
4.299	4.299	0.000	12823274	1000.00	980	80.00- 120.00	100.00
4.424	4.424	0.000	15717711	1000.00	1010	102.57- 142.57	122.57
4.689	4.689	0.000	11865206	1000.00	997	72.53- 112.53	92.53
4.862	4.862	0.000	12280274	1000.00	999	75.77- 115.77	95.77
5.010	5.010	0.000	27462132	1000.00	1040	194.16- 234.16	214.16
Average of Peak Amounts =					1.01e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032510.b/028b2801.d
Date : 25-MAR-2010 10:26
Client ID: AR166003
Sample Info: IWAR100222-60 03

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

Column phase: CLP2

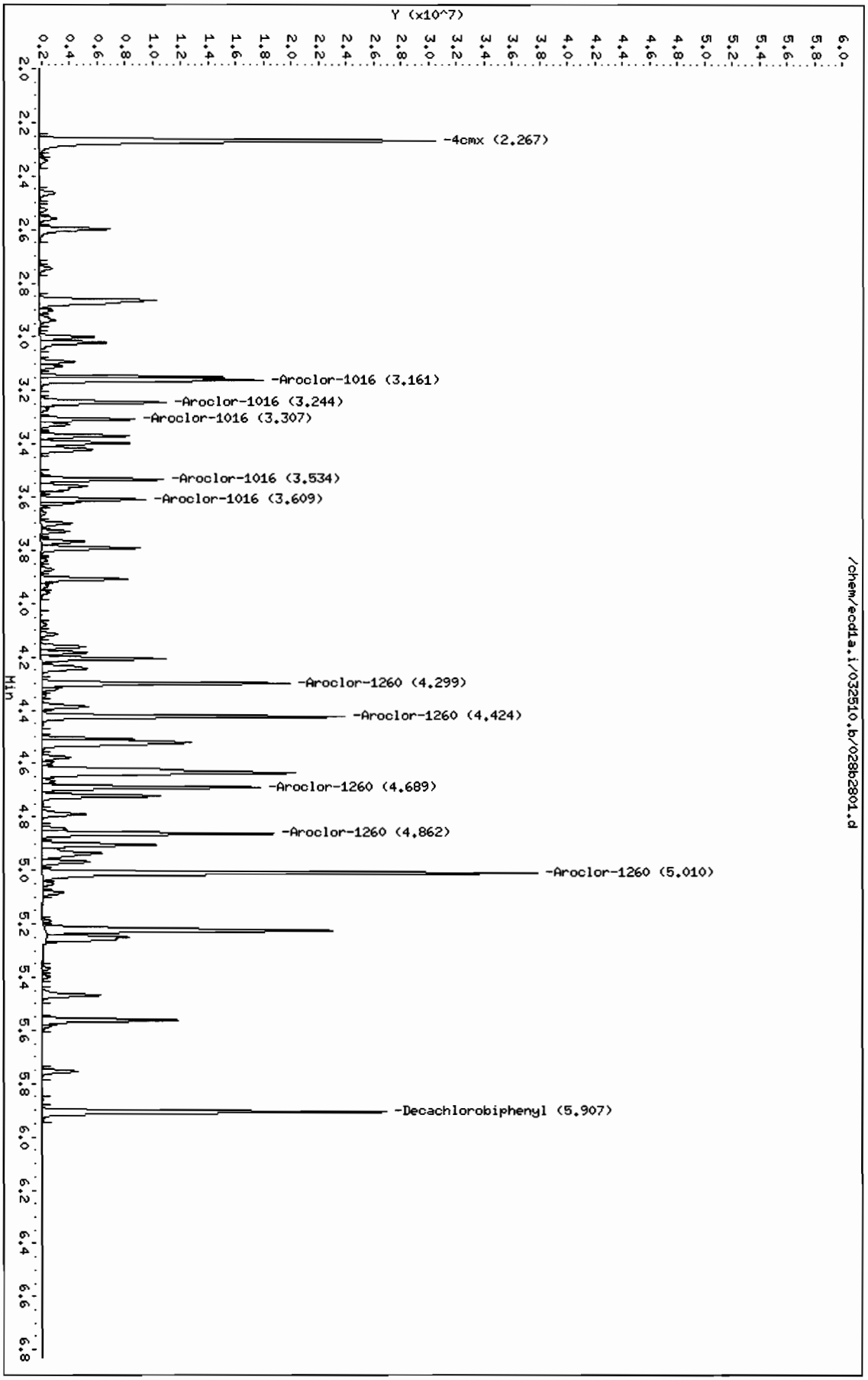

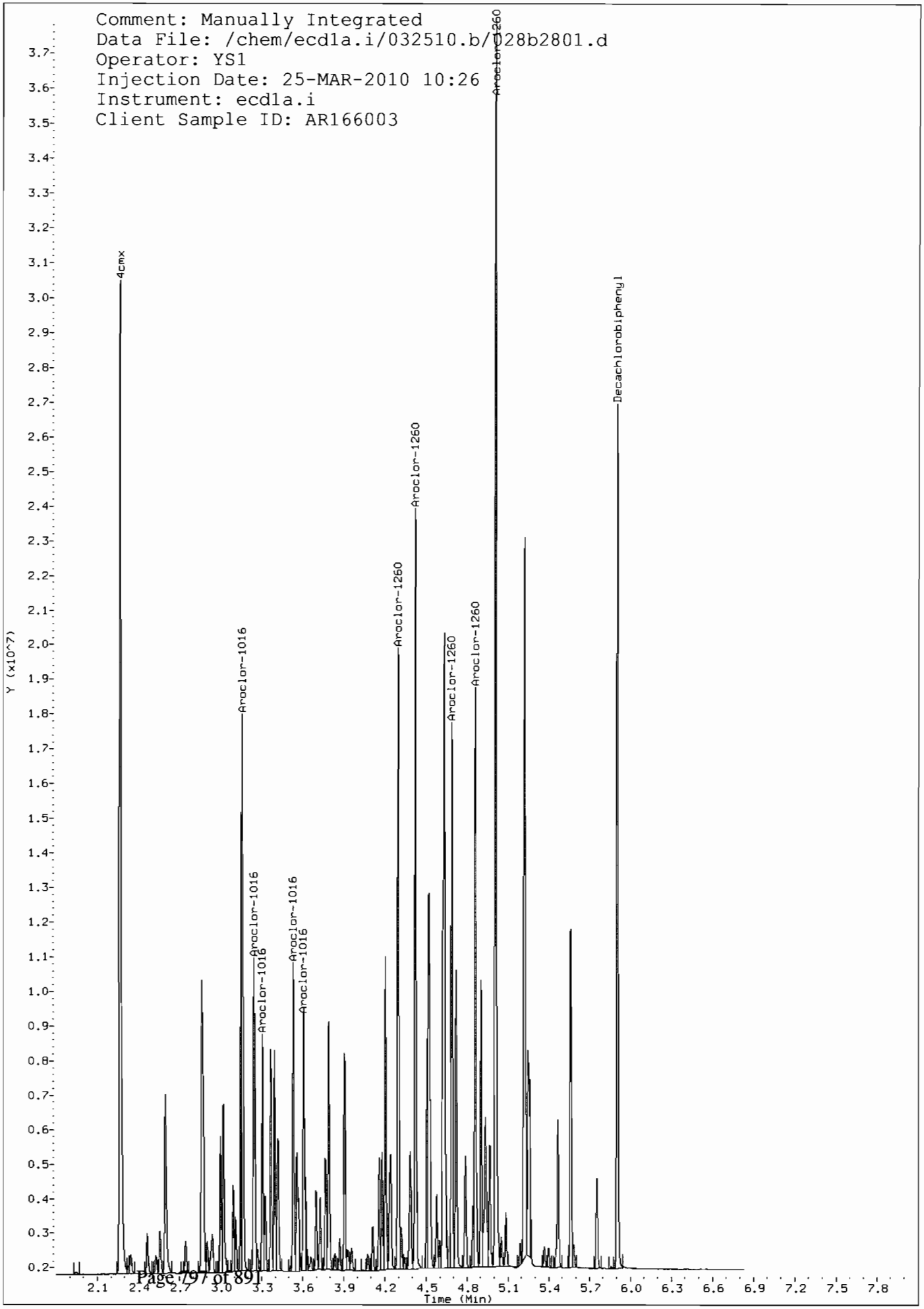
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032510.b/028b2801.d
Operator: YS1
Injection Date: 25-MAR-2010 10:26
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd1a.i/032510.b/orig-028b2801.d
Operator: YS1
Injection Date: 25-MAR-2010 10:26
Instrument: ecd1a.i
Client Sample ID: AR166003

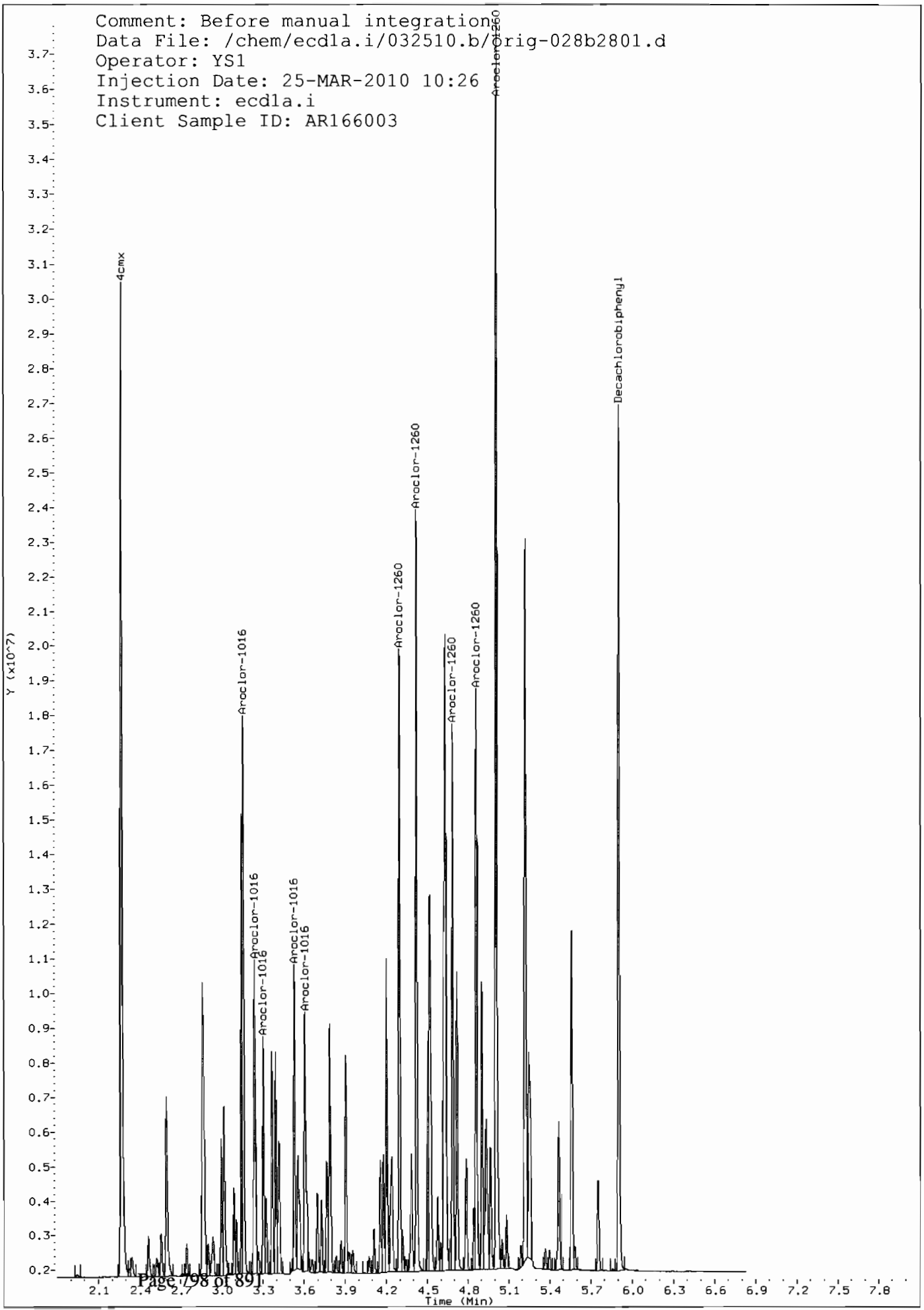

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/037f3701.d
Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004
Inj Date : 25-MAR-2010 12:09
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 37 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.910	0.000	43515571	100.000	112	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.211	5.211	0.000	32666307	100.000	110	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.361	2.361	0.000	15182835	1000.00	1000	80.00- 120.00	100.00
2.647	2.647	0.000	19644621	1000.00	1040	109.39- 149.39	129.39
2.728	2.727	0.001	12091177	1000.00	972	59.64- 99.64	79.64
2.766	2.765	0.001	7289124	1000.00	992	28.01- 68.01	48.01
2.975	2.975	0.000	9272000	1000.00	974	41.07- 81.07	61.07
Average of Peak Amounts =					995		
7 Aroclor-1260					CAS #: 11096-82-5		
3.700	3.700	0.000	19582367	1000.00	1070	80.00- 120.00	100.00
3.862	3.862	0.000	29042968	1000.00	1080	128.31- 168.31	148.31
4.024	4.024	0.000	31186822	1000.00	1100	139.26- 179.26	159.26
4.092	4.092	0.000	17516907	1000.00	1080	69.45- 109.45	89.45
4.235	4.235	0.000	18266420	1000.00	1090	73.28- 113.28	93.28
Average of Peak Amounts =					1.08e+03		

Data File: /chem/ecd1a.i/032510.b/037f3701.d
Date : 25-MAR-2010 12:09
Client ID: AR166004
Sample Info: IWAR100222-60 04

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

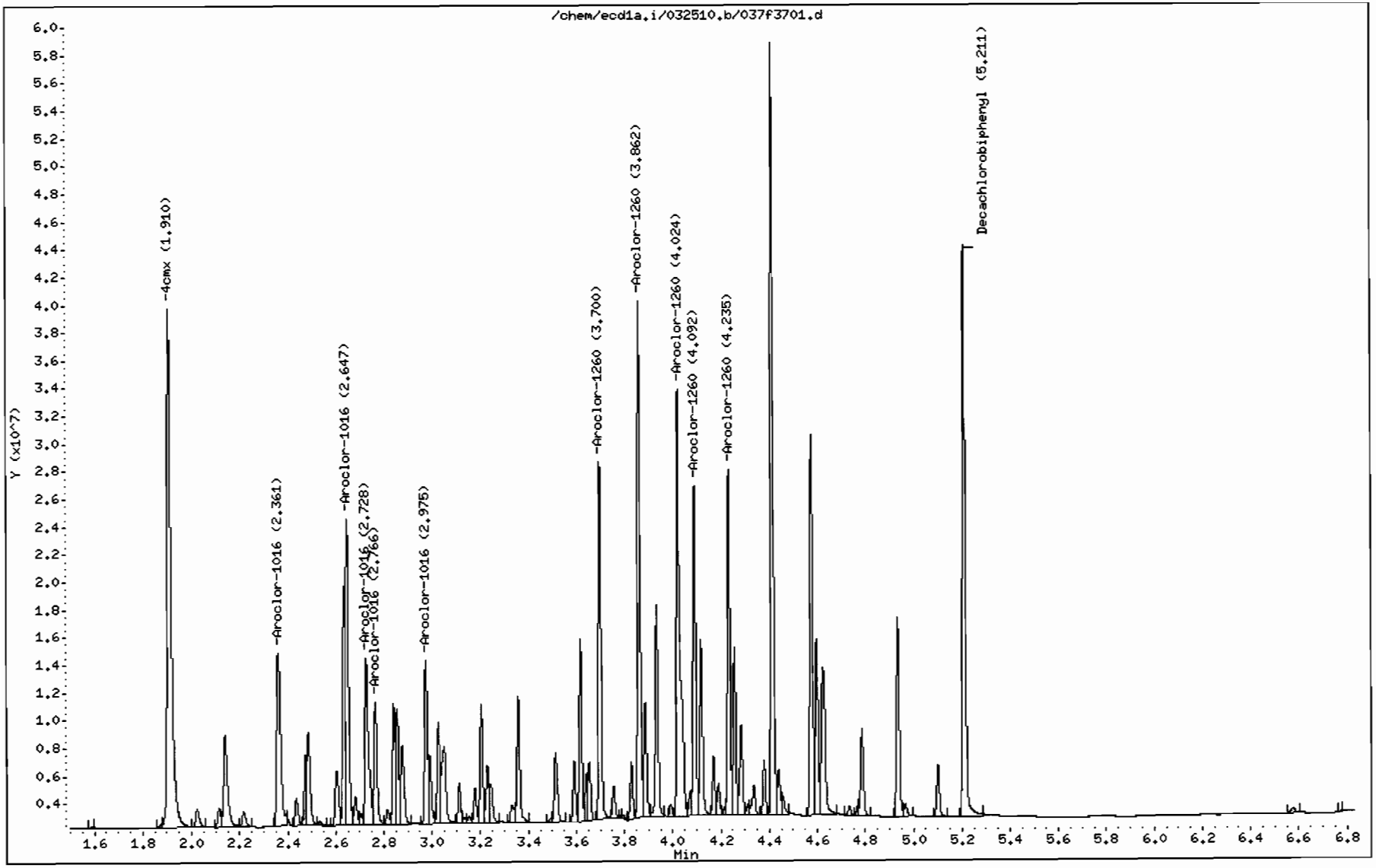

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/037b3701.d
Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004
Inj Date : 25-MAR-2010 12:09
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 37 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.267	2.267	0.000	27349419	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.906	5.906	0.000	19304596	100.000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.161	3.161	0.000	12496893	1000.00	993	80.00- 120.00	100.00(M)
3.244	3.244	0.000	7968120	1000.00	923	43.76- 83.76	63.76
3.307	3.307	0.000	4949155	1000.00	936	19.60- 59.60	39.60
3.534	3.534	0.000	6307501	1000.00	915	30.47- 70.47	50.47
3.609	3.609	0.000	5992558	1000.00	933	27.95- 67.95	47.95
Average of Peak Amounts =					940		
7 Aroclor-1260					CAS #: 11096-82-5		
4.299	4.299	0.000	13078449	1000.00	1000	80.00- 120.00	100.00
4.423	4.424	-0.001	16058379	1000.00	1030	102.79- 142.79	122.79
4.689	4.689	0.000	12042699	1000.00	1010	72.08- 112.08	92.08
4.862	4.862	0.000	12426191	1000.00	1010	75.01- 115.01	95.01
5.009	5.010	-0.001	27705419	1000.00	1050	191.84- 231.84	211.84
Average of Peak Amounts =					1.02e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032510.b/037b3701.d
Date : 25-MAR-2010 12:09
Client ID: AR166004
Sample Info: WAR100222-60 04

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

Column phase: CLP2

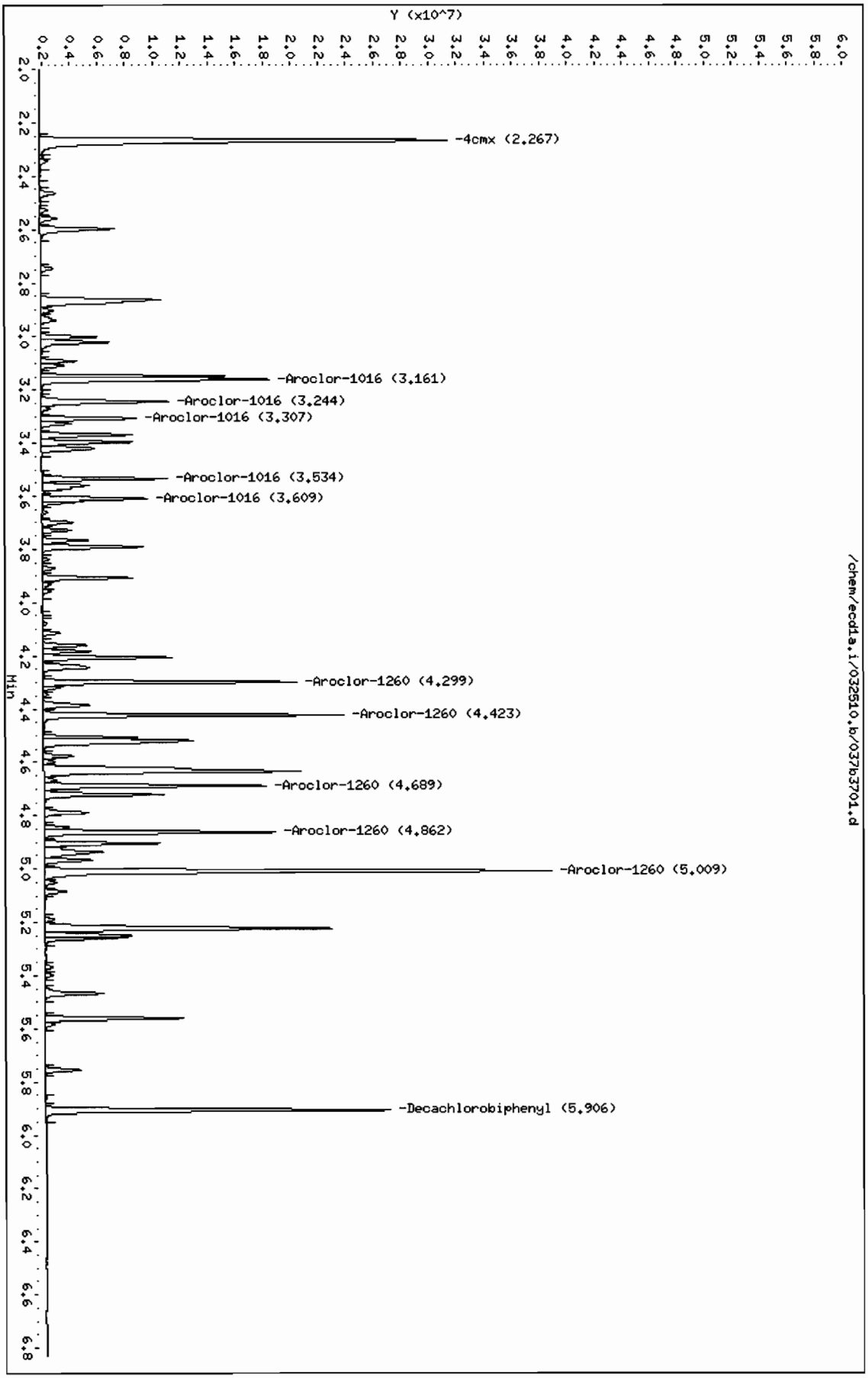

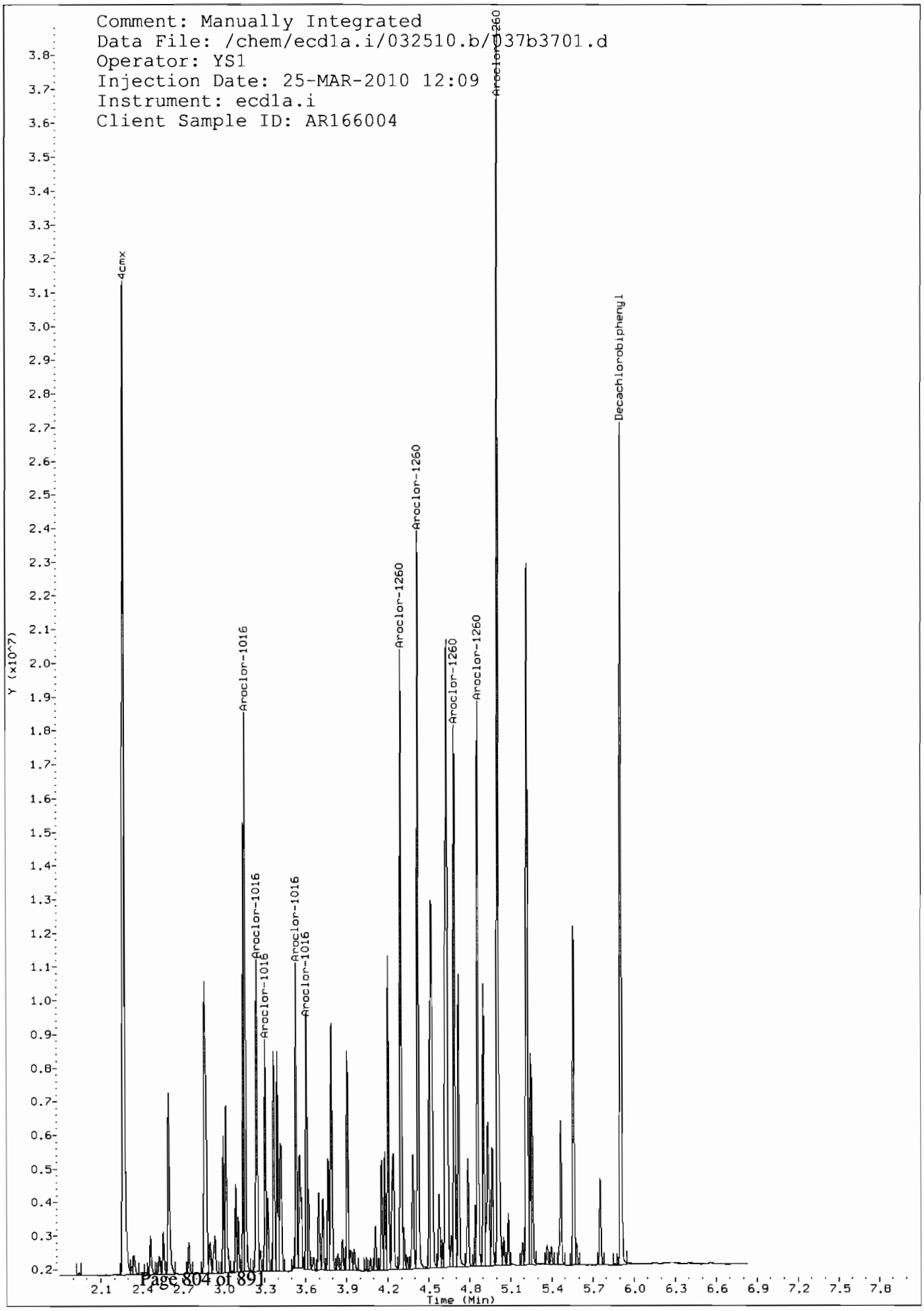
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032510.b/037b3701.d
Operator: YS1
Injection Date: 25-MAR-2010 12:09
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

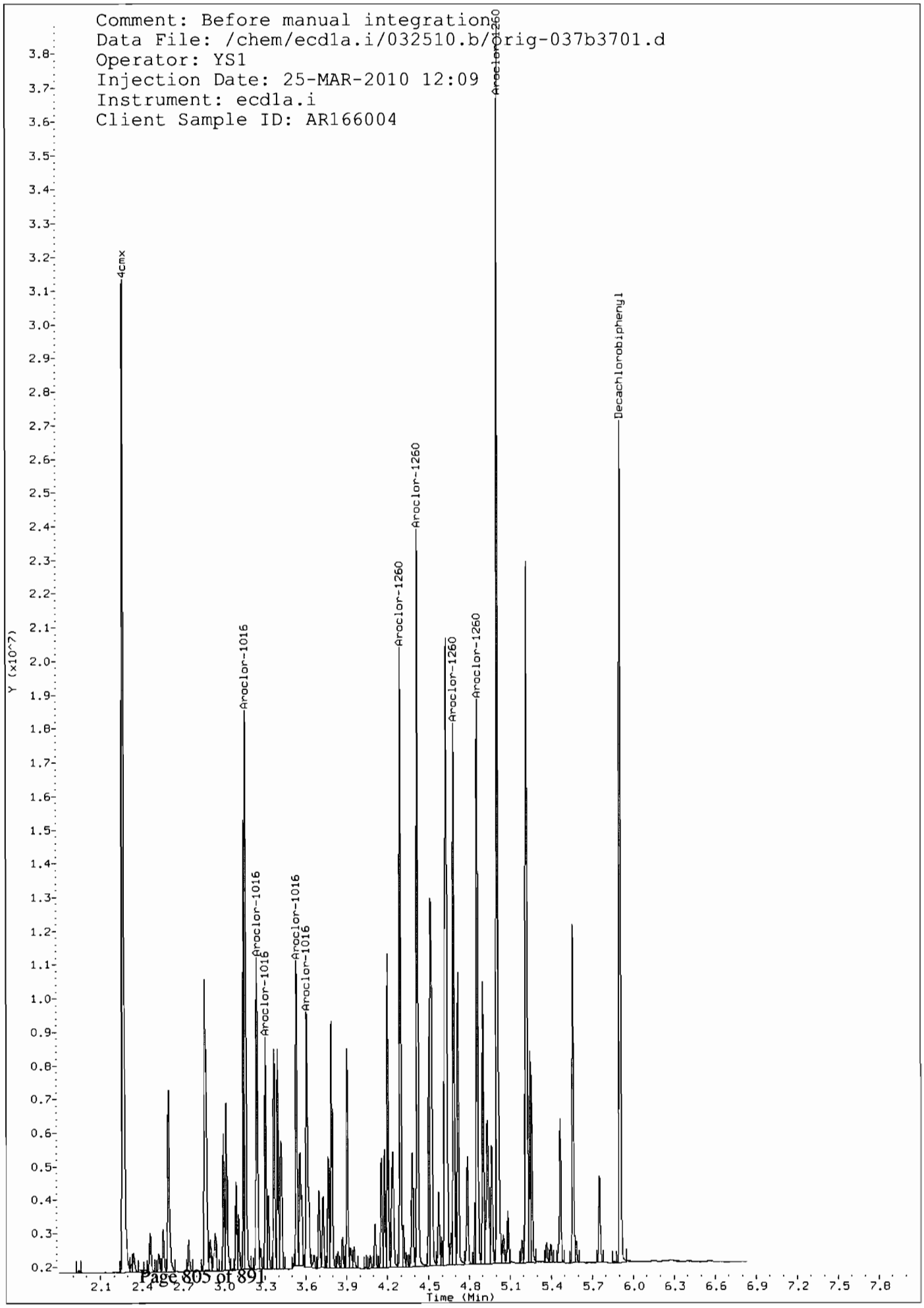
Comment: Before manual integration
Data File: /chem/ecd1a.i/032510.b/orig-037b3701.d
Operator: YS1
Injection Date: 25-MAR-2010 12:09
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10	1446	1.91	5.23
02	ZZZZZ	ZZZZZ	03/11/10	1456	1.92	5.22
03	ZZZZZ	ZZZZZ	03/11/10	1507		
04	ZZZZZ	ZZZZZ	03/11/10	1517		
05	ZZZZZ	ZZZZZ	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	1.92	5.22
12	AR166002	WAR100311-02	03/11/10	1641	1.92	5.22
13	AR166003	WAR100311-03	03/11/10	1652	1.92	5.22
14	AR166004	WAR100311-04	03/11/10	1702	1.91	5.22
15	AR166005	IAR100311-01	03/11/10	1713	1.92	5.22
16	AR166001	WAR100222-60	03/11/10	1724	1.91	5.22
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	1.91	5.22
04	ZZZZZ	ZZZZZ	03/11/10	2054	1.92	5.22
05	ZZZZZ	ZZZZZ	03/11/10	2105	1.92	5.22
06	ZZZZZ	ZZZZZ	03/11/10	2115	1.92	5.22
07	ZZZZZ	ZZZZZ	03/11/10	2126	1.92	5.22
08	ZZZZZ	ZZZZZ	03/11/10	2136	1.92	5.22
09	ZZZZZ	ZZZZZ	03/11/10	2147	1.92	5.22
10	ZZZZZ	ZZZZZ	03/11/10	2157	1.92	5.22
11	ZZZZZ	ZZZZZ	03/11/10	2208	1.92	5.22
12	ZZZZZ	ZZZZZ	03/11/10	2218	1.92	5.22
13	ZZZZZ	ZZZZZ	03/11/10	2229	1.92	5.22
14	AR166002	WAR100222-60	03/11/10	2239	1.91	5.22
15	PIBLK03	WAR100219-99	03/11/10	2250	1.91	5.22
16	ZZZZZ	ZZZZZ	03/11/10	2300	1.90	5.23
17	ZZZZZ	ZZZZZ	03/11/10	2311	1.92	5.22
18	ZZZZZ	ZZZZZ	03/11/10	2321	1.91	5.22
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10	1446	2.27	5.92
02	ZZZZZ	ZZZZZ	03/11/10	1456	2.27	5.92
03	ZZZZZ	ZZZZZ	03/11/10	1507		
04	ZZZZZ	ZZZZZ	03/11/10	1517		
05	ZZZZZ	ZZZZZ	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	2.27	5.92
12	AR166002	WAR100311-02	03/11/10	1641	2.27	5.92
13	AR166003	WAR100311-03	03/11/10	1652	2.27	5.92
14	AR166004	WAR100311-04	03/11/10	1702	2.27	5.92
15	AR166005	IAR100311-01	03/11/10	1713	2.27	5.92
16	AR166001	WAR100222-60	03/11/10	1724	2.27	5.92
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	2.27	5.92
04	ZZZZZ	ZZZZZ	03/11/10	2054	2.28	5.92
05	ZZZZZ	ZZZZZ	03/11/10	2105	2.28	5.92
06	ZZZZZ	ZZZZZ	03/11/10	2115	2.28	5.92
07	ZZZZZ	ZZZZZ	03/11/10	2126	2.28	5.92
08	ZZZZZ	ZZZZZ	03/11/10	2136	2.28	5.92
09	ZZZZZ	ZZZZZ	03/11/10	2147	2.28	5.92
10	ZZZZZ	ZZZZZ	03/11/10	2157	2.28	5.92
11	ZZZZZ	ZZZZZ	03/11/10	2208	2.28	5.92
12	ZZZZZ	ZZZZZ	03/11/10	2218	2.28	5.92
13	ZZZZZ	ZZZZZ	03/11/10	2229	2.28	5.92
14	AR166002	WAR100222-60	03/11/10	2239	2.27	5.92
15	PIBLK03	WAR100219-99	03/11/10	2250	2.27	5.92
16	ZZZZZ	ZZZZZ	03/11/10	2300		5.92
17	ZZZZZ	ZZZZZ	03/11/10	2311		5.23*
18	ZZZZZ	ZZZZZ	03/11/10	2321		
19						
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	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/23/10	0743	1.91	5.22
02	AR166001	WAR100222-60	03/23/10	0753	1.91	5.22
03	AR125401	WAR100219-54	03/23/10	0804		
04	AR124201	WAR100219-42	03/23/10	0814		
05	AR124801	WAR100223-48	03/23/10	0825		
06	AR126801	WAR100107-68	03/23/10	0835		
07	AR123201	WAR100104-32	03/23/10	0846		
08	AR122101	WAR100104-21	03/23/10	0856		
09	AR126201	WAR100104-62	03/23/10	0907		
10	DDTANALOGSTD	WAR091219-DD	03/23/10	0918		
11	PIBLK02	WAR100219-99	03/23/10	0928	1.91	5.22
12	PBLK01	1202076363	03/23/10	0939	1.91	5.22
13	PBLK01LCS	1202076364	03/23/10	0949	1.91	5.22
14	ZZZZZ	ZZZZZ	03/23/10	1000	1.91	5.22
15	ZZZZZ	ZZZZZ	03/23/10	1012	1.91	5.22
16	ZZZZZ	ZZZZZ	03/23/10	1025	1.91	5.22
17	ZZZZZ	ZZZZZ	03/23/10	1037	1.91	5.22
18	ZZZZZ	ZZZZZ	03/23/10	1050	1.91	5.21
19	ZZZZZ	ZZZZZ	03/23/10	1103	1.91	5.21
20	ZZZZZ	ZZZZZ	03/23/10	1115	1.91	5.21
21	AR166002	WAR100222-60	03/23/10	1128	1.91	5.21
22	PIBLK03	WAR100219-99	03/23/10	1138	1.91	5.22
23	ZZZZZ	ZZZZZ	03/23/10	1149	1.91	5.22
24	ZZZZZ	ZZZZZ	03/23/10	1201	1.91	5.21
25	ZZZZZ	ZZZZZ	03/23/10	1214	1.91	5.21
26	ZZZZZ	ZZZZZ	03/23/10	1226	1.91	5.21
27	ZZZZZ	ZZZZZ	03/23/10	1239	1.91	5.21
28	ZZZZZ	ZZZZZ	03/23/10	1252	1.91	5.21
29	AR166003	WAR100222-60	03/23/10	1304	1.91	5.21
30	PIBLK04	WAR100219-99	03/23/10	1315	1.91	5.22
31	AR166004	WAR100222-60	03/23/10	1325	1.91	5.22
32	PIBLK05	WAR100219-99	03/23/10	1336	1.91	5.22

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	RE46-10-13437	249180001	03/23/10	1346	1.91	5.21
02	ZZZZZ	ZZZZZ	03/23/10	1359	1.91	5.21
03	RE46-10-13434	249180003	03/23/10	1412	1.91	5.21
04	RE46-10-13438	249180004	03/23/10	1424	1.91	5.21
05	RE46-10-13435	249180005	03/23/10	1437	1.91	5.21
06	RE46-10-13439	249180006	03/23/10	1450	1.91	5.21
07	RE46-10-13463	249180008	03/23/10	1502	1.91	5.21
08	AR166005	WAR100222-60	03/23/10	1517	1.91	5.21
09	PIBLK06	WAR100219-99	03/23/10	1527	1.91	5.22
10	ZZZZZ	ZZZZZ	03/23/10	1540	1.91	5.21
11	ZZZZZ	ZZZZZ	03/23/10	1552	1.91	5.21
12	ZZZZZ	ZZZZZ	03/23/10	1605	1.91	
13	ZZZZZ	ZZZZZ	03/23/10	1619	1.91	5.21
14	ZZZZZ	ZZZZZ	03/23/10	1634	1.91	5.21
15	ZZZZZ	ZZZZZ	03/23/10	1648	1.91	5.21
16	AR166006	WAR100222-60	03/23/10	1703	1.91	5.21
17	PIBLK07	WAR100219-99	03/23/10	1715	1.91	5.21
18	ZZZZZ	ZZZZZ	03/23/10	1728	1.91	5.21
19	ZZZZZ	ZZZZZ	03/23/10	1741	1.91	5.21
20	ZZZZZ	ZZZZZ	03/23/10	1753	1.91	5.21
21	ZZZZZ	ZZZZZ	03/23/10	1806	1.91	5.22
22	ZZZZZ	ZZZZZ	03/23/10	1820	1.91	5.21
23	AR166007	WAR100222-60	03/23/10	1835	1.91	5.21
24	PIBLK08	WAR100219-99	03/23/10	1847	1.91	5.21
25	ZZZZZ	ZZZZZ	03/23/10	1900	1.91	5.21
26	ZZZZZ	ZZZZZ	03/23/10	1913	1.91	5.21
27	ZZZZZ	ZZZZZ	03/23/10	1925	1.91	5.21
28	ZZZZZ	ZZZZZ	03/23/10	1938	1.91	5.21
29	ZZZZZ	ZZZZZ	03/23/10	1950	1.91	5.21
30	ZZZZZ	ZZZZZ	03/23/10	2003	1.91	5.21
31	ZZZZZ	ZZZZZ	03/23/10	2016	1.91	5.21
32	ZZZZZ	ZZZZZ	03/23/10	2028	1.91	5.21

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/23/10	0743	2.27	5.91
02	AR166001	WAR100222-60	03/23/10	0753	2.27	5.91
03	AR125401	WAR100219-54	03/23/10	0804		
04	AR124201	WAR100219-42	03/23/10	0814		
05	AR124801	WAR100223-48	03/23/10	0825		
06	AR126801	WAR100107-68	03/23/10	0835		
07	AR123201	WAR100104-32	03/23/10	0846		
08	AR122101	WAR100104-21	03/23/10	0856		
09	AR126201	WAR100104-62	03/23/10	0907		
10	DDTANALOGSTD	WAR091219-DD	03/23/10	0918		
11	PIBLK02	WAR100219-99	03/23/10	0928	2.27	5.91
12	PBLK01	1202076363	03/23/10	0939	2.27	5.91
13	PBLK01LCS	1202076364	03/23/10	0949	2.27	5.91
14	ZZZZZ	ZZZZZ	03/23/10	1000	2.27	5.91
15	ZZZZZ	ZZZZZ	03/23/10	1012	2.27	5.91
16	ZZZZZ	ZZZZZ	03/23/10	1025	2.27	5.91
17	ZZZZZ	ZZZZZ	03/23/10	1037	2.27	5.91
18	ZZZZZ	ZZZZZ	03/23/10	1050	2.27	5.91
19	ZZZZZ	ZZZZZ	03/23/10	1103	2.27	5.91
20	ZZZZZ	ZZZZZ	03/23/10	1115	2.27	5.91
21	AR166002	WAR100222-60	03/23/10	1128	2.27	5.91
22	PIBLK03	WAR100219-99	03/23/10	1138	2.27	5.91
23	ZZZZZ	ZZZZZ	03/23/10	1149	2.27	5.91
24	ZZZZZ	ZZZZZ	03/23/10	1201	2.27	5.91
25	ZZZZZ	ZZZZZ	03/23/10	1214	2.27	5.91
26	ZZZZZ	ZZZZZ	03/23/10	1226	2.27	5.91
27	ZZZZZ	ZZZZZ	03/23/10	1239	2.27	5.91
28	ZZZZZ	ZZZZZ	03/23/10	1252	2.27	5.91
29	AR166003	WAR100222-60	03/23/10	1304	2.27	5.91
30	PIBLK04	WAR100219-99	03/23/10	1315	2.27	5.91
31	AR166004	WAR100222-60	03/23/10	1325	2.27	5.91
32	PIBLK05	WAR100219-99	03/23/10	1336	2.27	5.91

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	RE46-10-13437	249180001	03/23/10	1346	2.27	5.91
02	ZZZZZ	ZZZZZ	03/23/10	1359	2.27	5.91
03	RE46-10-13434	249180003	03/23/10	1412	2.27	5.91
04	RE46-10-13438	249180004	03/23/10	1424	2.27	5.91
05	RE46-10-13435	249180005	03/23/10	1437	2.27	5.91
06	RE46-10-13439	249180006	03/23/10	1450	2.27	5.91
07	RE46-10-13463	249180008	03/23/10	1502	2.27	5.91
08	AR166005	WAR100222-60	03/23/10	1517	2.27	5.91
09	PIBLK06	WAR100219-99	03/23/10	1527	2.27	5.91
10	ZZZZZ	ZZZZZ	03/23/10	1540	2.27	5.91
11	ZZZZZ	ZZZZZ	03/23/10	1552	2.27	5.91
12	ZZZZZ	ZZZZZ	03/23/10	1605	2.27	
13	ZZZZZ	ZZZZZ	03/23/10	1619	2.27	5.91
14	ZZZZZ	ZZZZZ	03/23/10	1634	2.27	5.91
15	ZZZZZ	ZZZZZ	03/23/10	1648	2.27	5.91
16	AR166006	WAR100222-60	03/23/10	1703	2.27	5.91
17	PIBLK07	WAR100219-99	03/23/10	1715	2.27	5.91
18	ZZZZZ	ZZZZZ	03/23/10	1728	2.27	5.91
19	ZZZZZ	ZZZZZ	03/23/10	1741	2.27	5.91
20	ZZZZZ	ZZZZZ	03/23/10	1753	2.27	5.91
21	ZZZZZ	ZZZZZ	03/23/10	1806	2.27	5.91
22	ZZZZZ	ZZZZZ	03/23/10	1820	2.27	5.91
23	AR166007	WAR100222-60	03/23/10	1835	2.27	5.91
24	PIBLK08	WAR100219-99	03/23/10	1847	2.27	5.91
25	ZZZZZ	ZZZZZ	03/23/10	1900	2.27	5.91
26	ZZZZZ	ZZZZZ	03/23/10	1913	2.27	5.91
27	ZZZZZ	ZZZZZ	03/23/10	1925	2.27	5.91
28	ZZZZZ	ZZZZZ	03/23/10	1938	2.27	5.91
29	ZZZZZ	ZZZZZ	03/23/10	1950	2.27	5.91
30	ZZZZZ	ZZZZZ	03/23/10	2003	2.27	5.91
31	ZZZZZ	ZZZZZ	03/23/10	2016	2.27	5.91
32	ZZZZZ	ZZZZZ	03/23/10	2028	2.27	5.91

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.21

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/25/10	0517	1.91	5.21
02	AR166001	WAR100222-60	03/25/10	0528	1.91	5.21
03	AR125401	WAR100219-54	03/25/10	0538		
04	AR124201	WAR100219-42	03/25/10	0549		
05	AR124801	WAR100223-48	03/25/10	0559		
06	AR126801	WAR100323-68	03/25/10	0610		
07	AR123201	WAR100323-32	03/25/10	0620		
08	AR122101	WAR100323-21	03/25/10	0631		
09	AR126201	WAR100323-62	03/25/10	0641		
10	DDTANALOGSTD	WAR100323-DD	03/25/10	0652		
11	PIBLK02	WAR100219-99	03/25/10	0702	1.91	5.21
12	ZZZZZ	ZZZZZ	03/25/10	0713	1.91	5.21
13	ZZZZZ	ZZZZZ	03/25/10	0723	1.91	5.21
14	ZZZZZ	ZZZZZ	03/25/10	0734	1.91	5.21
15	ZZZZZ	ZZZZZ	03/25/10	0746	1.91	5.21
16	ZZZZZ	ZZZZZ	03/25/10	0759	1.91	5.21
17	ZZZZZ	ZZZZZ	03/25/10	0811	1.91	5.21
18	ZZZZZ	ZZZZZ	03/25/10	0826	1.91	5.21
19	ZZZZZ	ZZZZZ	03/25/10	0839	1.91	5.21
20	ZZZZZ	ZZZZZ	03/25/10	0851	1.91	5.21
21	ZZZZZ	ZZZZZ	03/25/10	0904	1.91	5.21
22	PIBLK03	WAR100219-99	03/25/10	0917	1.91	5.21
23	AR166002	WAR100222-60	03/25/10	0927	1.91	5.21
24	PIBLK04	WAR100219-99	03/25/10	0938	1.91	5.21
25	ZZZZZ	ZZZZZ	03/25/10	0948		
26	ZZZZZ	ZZZZZ	03/25/10	1001	1.91	5.21
27	ZZZZZ	ZZZZZ	03/25/10	1013	1.91	5.21
28	AR166003	WAR100222-60	03/25/10	1026	1.91	5.21
29	PIBLK05	WAR100219-99	03/25/10	1036	1.91	5.21
30	PBLK02	1202080259	03/25/10	1047	1.91	5.21
31	PBLK02LCS	1202080260	03/25/10	1057	1.91	5.21
32	PBLK02LCSD	1202080261	03/25/10	1108	1.91	5.21

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobipheny1 (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.21

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/25/10	1118	1.91	5.21
02	ZZZZZ	ZZZZZ	03/25/10	1131	1.91	5.21
03	ZZZZZ	ZZZZZ	03/25/10	1144	1.91	5.21
04	RE46-10-13436	249180002	03/25/10	1156	1.91	5.21
05	AR166004	WAR100222-60	03/25/10	1209	1.91	5.21
06	PIBLK06	WAR100219-99	03/25/10	1219	1.91	5.21
07	ZZZZZ	ZZZZZ	03/25/10	1230	1.91	5.21
08	ZZZZZ	ZZZZZ	03/25/10	1240	1.91	5.21
09	ZZZZZ	ZZZZZ	03/25/10	1251	1.91	5.21
10	ZZZZZ	ZZZZZ	03/25/10	1302	1.91	5.21
11	ZZZZZ	ZZZZZ	03/25/10	1312	1.91	5.21
12	ZZZZZ	ZZZZZ	03/25/10	1323	1.91	5.21
13	ZZZZZ	ZZZZZ	03/25/10	1333	1.91	5.21
14	AR166005	WAR100222-60	03/25/10	1344	1.91	5.21
15	PIBLK07	WAR100219-99	03/25/10	1354	1.91	5.21
16						
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29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/25/10	0517	2.26	5.90
02	AR166001	WAR100222-60	03/25/10	0528	2.27	5.91
03	AR125401	WAR100219-54	03/25/10	0538		
04	AR124201	WAR100219-42	03/25/10	0549		
05	AR124801	WAR100223-48	03/25/10	0559		
06	AR126801	WAR100323-68	03/25/10	0610		
07	AR123201	WAR100323-32	03/25/10	0620		
08	AR12101	WAR100323-21	03/25/10	0631		
09	AR126201	WAR100323-62	03/25/10	0641		
10	DDTANALOGSTD	WAR100323-DD	03/25/10	0652		
11	PIBLK02	WAR100219-99	03/25/10	0702	2.27	5.91
12	ZZZZZ	ZZZZZ	03/25/10	0713	2.27	5.91
13	ZZZZZ	ZZZZZ	03/25/10	0723	2.27	5.91
14	ZZZZZ	ZZZZZ	03/25/10	0734	2.27	5.91
15	ZZZZZ	ZZZZZ	03/25/10	0746	2.27	5.91
16	ZZZZZ	ZZZZZ	03/25/10	0759	2.27	5.91
17	ZZZZZ	ZZZZZ	03/25/10	0811	2.27	5.91
18	ZZZZZ	ZZZZZ	03/25/10	0826	2.27	5.91
19	ZZZZZ	ZZZZZ	03/25/10	0839	2.27	5.91
20	ZZZZZ	ZZZZZ	03/25/10	0851	2.27	5.91
21	ZZZZZ	ZZZZZ	03/25/10	0904	2.27	5.91
22	PIBLK03	WAR100219-99	03/25/10	0917	2.27	5.91
23	AR166002	WAR100222-60	03/25/10	0927	2.27	5.91
24	PIBLK04	WAR100219-99	03/25/10	0938	2.27	5.91
25	ZZZZZ	ZZZZZ	03/25/10	0948		
26	ZZZZZ	ZZZZZ	03/25/10	1001	2.27	5.91
27	ZZZZZ	ZZZZZ	03/25/10	1013	2.27	5.91
28	AR166003	WAR100222-60	03/25/10	1026	2.27	5.91
29	PIBLK05	WAR100219-99	03/25/10	1036	2.27	5.91
30	PBLK02	1202080259	03/25/10	1047	2.27	5.91
31	PBLK02LCS	1202080260	03/25/10	1057	2.27	5.91
32	PBLK02LCSD	1202080261	03/25/10	1108	2.27	5.91

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2398

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/25/10	1118	2.27	5.91
02	ZZZZZ	ZZZZZ	03/25/10	1131	2.27	5.91
03	ZZZZZ	ZZZZZ	03/25/10	1144	2.27	5.91
04	RE46-10-13436	249180002	03/25/10	1156	2.27	5.91
05	AR166004	WAR100222-60	03/25/10	1209	2.27	5.91
06	PIBLK06	WAR100219-99	03/25/10	1219	2.27	5.91
07	ZZZZZ	ZZZZZ	03/25/10	1230	2.27	5.91
08	ZZZZZ	ZZZZZ	03/25/10	1240	2.27	5.91
09	ZZZZZ	ZZZZZ	03/25/10	1251	2.27	5.91
10	ZZZZZ	ZZZZZ	03/25/10	1302	2.27	5.91
11	ZZZZZ	ZZZZZ	03/25/10	1312	2.27	5.91
12	ZZZZZ	ZZZZZ	03/25/10	1323	2.27	5.91
13	ZZZZZ	ZZZZZ	03/25/10	1333	2.27	5.91
14	AR166005	WAR100222-60	03/25/10	1344	2.27	5.91
15	PIBLK07	WAR100219-99	03/25/10	1354	2.27	5.91
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–2398 **Client ID:** LCS for batch 967399

Lab Sample ID: 1202076364

Data File:	013f1301.d	**Data File:**	013b1301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 09:49	**Analyzed:**	23–MAR–10 09:49

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							5.14
Column 1	1	2.36	2.33 – 2.39	24.4		ug/kg	
	2	2.65	2.62 – 2.68	24.3		ug/kg	
	3	2.73	2.7 – 2.76	23.2		ug/kg	
	4	2.77	2.74 – 2.8	23.4		ug/kg	
	5	2.98	2.95 – 3.01	23.7		ug/kg	
					23.8		
Column 2	1	3.17	3.13 – 3.19	23.3		ug/kg	
	2	3.25	3.22 – 3.28	22.5		ug/kg	
	3	3.31	3.28 – 3.34	21.3		ug/kg	
	4	3.54	3.51 – 3.57	23		ug/kg	
	5	3.61	3.58 – 3.64	22.9		ug/kg	
					22.6		
Aroclor–1260							5.4
Column 1	1	3.71	3.68 – 3.74	26.4		ug/kg	
	2	3.87	3.84 – 3.9	27.2		ug/kg	
	3	4.03	4 – 4.06	27.9		ug/kg	
	4	4.1	4.07 – 4.13	27.5		ug/kg	
	5	4.24	4.21 – 4.27	27.6		ug/kg	
					27.3		
Column 2	1	4.3	4.27 – 4.33	24.9		ug/kg	
	2	4.43	4.4 – 4.46	25.8		ug/kg	
	3	4.69	4.66 – 4.72	25.6		ug/kg	
	4	4.87	4.84 – 4.9	25.9		ug/kg	
	5	5.02	4.98 – 5.04	27		ug/kg	
					25.9		

Identification Summary

SDG Number: 10–2398 **Client ID:** LCS for batch 968933

Lab Sample ID: 1202080260

Data File:	031f3101.d	**Data File:**	031b3101.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	25–MAR–10 10:57	**Analyzed:**	25–MAR–10 10:57

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							9.45
Column 1	1	2.36	2.33 – 2.39	23.4		ug/kg	
	2	2.65	2.62 – 2.68	22.8		ug/kg	
	3	2.73	2.7 – 2.76	21.5		ug/kg	
	4	2.77	2.73 – 2.79	22.1		ug/kg	
	5	2.98	2.94 – 3	28.6		ug/kg	
					23.7		
Column 2	1	3.16	3.13 – 3.19	22.3		ug/kg	
	2	3.25	3.21 – 3.27	21.2		ug/kg	
	3	3.31	3.28 – 3.34	20.9		ug/kg	
	4	3.54	3.5 – 3.56	21.6		ug/kg	
	5	3.61	3.58 – 3.64	21.8		ug/kg	
					21.5		
Aroclor–1260							3.33
Column 1	1	3.7	3.67 – 3.73	24.8		ug/kg	
	2	3.86	3.83 – 3.89	25.5		ug/kg	
	3	4.03	3.99 – 4.05	26.2		ug/kg	
	4	4.09	4.06 – 4.12	26.1		ug/kg	
	5	4.24	4.2 – 4.26	26.2		ug/kg	
					25.7		
Column 2	1	4.3	4.27 – 4.33	23.8		ug/kg	
	2	4.43	4.39 – 4.45	24.7		ug/kg	
	3	4.69	4.66 – 4.72	24.6		ug/kg	
	4	4.86	4.83 – 4.89	25		ug/kg	
	5	5.01	4.98 – 5.04	26.4		ug/kg	
					24.9		

Identification Summary

SDG Number: 10–2398 **Client ID:** LCSD for batch 968933

Lab Sample ID: 1202080261

Data File:	032f3201.d	**Data File:**	032b3201.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	25–MAR–10 11:08	**Analyzed:**	25–MAR–10 11:08

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							4.64
Column 1	1	2.36	2.33 – 2.39	22.8		ug/kg	
	2	2.65	2.62 – 2.68	23		ug/kg	
	3	2.73	2.7 – 2.76	21.7		ug/kg	
	4	2.77	2.73 – 2.79	21.8		ug/kg	
	5	2.98	2.94 – 3	22.5		ug/kg	
					22.4		
Column 2	1	3.16	3.13 – 3.19	22.1		ug/kg	
	2	3.24	3.21 – 3.27	21.3		ug/kg	
	3	3.31	3.28 – 3.34	21		ug/kg	
	4	3.54	3.5 – 3.56	21		ug/kg	
	5	3.61	3.58 – 3.64	21.2		ug/kg	
					21.3		
Aroclor–1260							3.63
Column 1	1	3.7	3.67 – 3.73	24.9		ug/kg	
	2	3.86	3.83 – 3.89	25.5		ug/kg	
	3	4.03	3.99 – 4.05	26		ug/kg	
	4	4.09	4.06 – 4.12	25.8		ug/kg	
	5	4.24	4.2 – 4.26	25.9		ug/kg	
					25.6		
Column 2	1	4.3	4.27 – 4.33	23.8		ug/kg	
	2	4.43	4.39 – 4.45	24.7		ug/kg	
	3	4.69	4.66 – 4.72	24.6		ug/kg	
	4	4.86	4.83 – 4.89	24.6		ug/kg	
	5	5.01	4.98 – 5.04	26		ug/kg	
					24.7		

Identification Summary

SDG Number: 10–2398 **Client ID:** RE46–10–13434

Lab Sample ID: 249180003

Data File:	035f3501.d	**Data File:**	035b3501.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 14:12	**Analyzed:**	23–MAR–10 14:12

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							57.1
Column 1	1	3.21	3.18 – 3.24	2.97		ug/kg	
	2	3.36	3.33 – 3.39	2.46		ug/kg	
	3	3.59	3.57 – 3.63	3.67		ug/kg	
	4	3.76	3.73 – 3.79	3.52		ug/kg	
	5	3.87	3.84 – 3.9	12.7		ug/kg	
					5.06		
Column 2	1	3.37	3.34 – 3.4	1.98		ug/kg	
	2	3.79	3.77 – 3.83	2.44		ug/kg	
	3	3.91	3.88 – 3.94	4.41		ug/kg	
	4	4.19	4.16 – 4.22	3.28		ug/kg	
	5	4.32	4.29 – 4.35	1.95		ug/kg	
					2.81		
Aroclor–1260							6.14
Column 1	1	3.7	3.68 – 3.74	8.99		ug/kg	
	2	3.87	3.84 – 3.9	7.52		ug/kg	
	3	4.03	4 – 4.06	8.53		ug/kg	
	4	4.1	4.07 – 4.13	10.2		ug/kg	
	5	4.24	4.21 – 4.27	10.2		ug/kg	
					9.09		
Column 2	1	4.3	4.27 – 4.33	7.85		ug/kg	
	2	4.43	4.4 – 4.46	5.78		ug/kg	
	3	4.69	4.66 – 4.72	9.51		ug/kg	
	4	4.87	4.84 – 4.9	10		ug/kg	
	5	5.01	4.98 – 5.04	9.6		ug/kg	
					8.55		

Identification Summary

SDG Number: 10–2398 **Client ID:** RE46–10–13435

Lab Sample ID: 249180005

Data File:	037f3701.d	**Data File:**	037b3701.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 14:37	**Analyzed:**	23–MAR–10 14:37

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							26.2
Column 1	1	3.21	3.18 – 3.24	21.8		ug/kg	
	2	3.36	3.33 – 3.39	21.2		ug/kg	
	3	3.59	3.57 – 3.63	23.3		ug/kg	
	4	3.76	3.73 – 3.79	23.4		ug/kg	
	5	3.86	3.84 – 3.9	38.7		ug/kg	
					25.7		
Column 2	1	3.37	3.34 – 3.4	15.4		ug/kg	
	2	3.79	3.77 – 3.83	19.1		ug/kg	
	3	3.91	3.88 – 3.94	21.9		ug/kg	
	4	4.19	4.16 – 4.22	22.1		ug/kg	
	5	4.32	4.29 – 4.35	20.1		ug/kg	
					19.7		
Aroclor–1260							23.6
Column 1	1	3.7	3.68 – 3.74	18.8		ug/kg	
	2	3.86	3.84 – 3.9	23		ug/kg	
	3	4.03	4 – 4.06	25.4		ug/kg	
	4	4.09	4.07 – 4.13	8.33		ug/kg	
	5	4.24	4.21 – 4.27	8.32		ug/kg	
					16.7		
Column 2	1	4.3	4.27 – 4.33	18.5		ug/kg	
	2	4.43	4.4 – 4.46	19		ug/kg	
	3	4.69	4.66 – 4.72	10.8		ug/kg	
	4	4.87	4.84 – 4.9	8.6		ug/kg	
	5	5.01	4.98 – 5.04	9.15		ug/kg	
					13.2		

Identification Summary

SDG Number: 10–2398 **Client ID:** RE46–10–13436

Lab Sample ID: 249180002

Data File:	036f3601.d	**Data File:**	036b3601.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	25–MAR–10 11:56	**Analyzed:**	25–MAR–10 11:56

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							23.2
Column 1	1	3.2	3.17 – 3.23	201		ug/kg	
	2	3.36	3.33 – 3.39	195		ug/kg	
	3	3.59	3.56 – 3.62	226		ug/kg	
	4	3.75	3.73 – 3.79	232		ug/kg	
	5	3.86	3.84 – 3.9	296		ug/kg	
					230		
Column 2	1	3.37	3.34 – 3.4	151		ug/kg	
	2	3.79	3.76 – 3.82	173		ug/kg	
	3	3.91	3.88 – 3.94	191		ug/kg	
	4	4.18	4.15 – 4.21	203		ug/kg	
	5	4.32	4.29 – 4.35	192		ug/kg	
					182		
Aroclor–1260							37.3
Column 1	1	3.7	3.67 – 3.73	154		ug/kg	
	2	3.86	3.83 – 3.89	175		ug/kg	
	3	4.02	3.99 – 4.05	234		ug/kg	
	4	4.09	4.06 – 4.12	42.4		ug/kg	
	5	4.23	4.2 – 4.26	41.2		ug/kg	
					129		
Column 2	1	4.3	4.27 – 4.33	130		ug/kg	
	2	4.42	4.39 – 4.45	158		ug/kg	
	3	4.69	4.66 – 4.72	60.1		ug/kg	
	4	4.86	4.83 – 4.89	51.6		ug/kg	
	5	5.01	4.98 – 5.04	43.6		ug/kg	
					88.6		

Identification Summary

SDG Number: 10–2398 **Client ID:** RE46–10–13437

Lab Sample ID: 249180001

Data File:	033f3301.d	**Data File:**	033b3301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 13:46	**Analyzed:**	23–MAR–10 13:46

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							23.3
Column 1	1	3.21	3.18 – 3.24	26.1		ug/kg	
	2	3.36	3.33 – 3.39	24.3		ug/kg	
	3	3.59	3.57 – 3.63	26.2		ug/kg	
	4	3.76	3.73 – 3.79	23.7		ug/kg	
	5	3.87	3.84 – 3.9	39.2		ug/kg	
					27.9		
Column 2	1	3.37	3.34 – 3.4	18.2		ug/kg	
	2	3.79	3.77 – 3.83	22.5		ug/kg	
	3	3.91	3.88 – 3.94	24.8		ug/kg	
	4	4.19	4.16 – 4.22	24.5		ug/kg	
	5	4.32	4.29 – 4.35	20.4		ug/kg	
					22.1		
Aroclor–1260							29.9
Column 1	1	3.7	3.68 – 3.74	18.8		ug/kg	
	2	3.87	3.84 – 3.9	23.3		ug/kg	
	3	4.03	4 – 4.06	27.2		ug/kg	
	4	4.09	4.07 – 4.13	6.28		ug/kg	
	5	4.24	4.21 – 4.27	6.25		ug/kg	
					16.4		
Column 2	1	4.3	4.27 – 4.33	18.5		ug/kg	
	2	4.43	4.4 – 4.46	17.8		ug/kg	
	3	4.69	4.66 – 4.72	9.16		ug/kg	
	4	4.87	4.84 – 4.9	7.26		ug/kg	
	5	5.01	4.98 – 5.04	7.79		ug/kg	
					12.1		

Identification Summary

SDG Number: 10–2398 **Client ID:** RE46–10–13438

Lab Sample ID: 249180004

Data File:	036f3601.d	**Data File:**	036b3601.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 14:24	**Analyzed:**	23–MAR–10 14:24

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							20.4
Column 1	1	3.21	3.18 – 3.24	20.3		ug/kg	
	2	3.36	3.33 – 3.39	21.5		ug/kg	
	3	3.59	3.57 – 3.63	23.7		ug/kg	
	4	3.76	3.73 – 3.79	22.4		ug/kg	
	5	3.86	3.84 – 3.9	30.1		ug/kg	
					23.6		
Column 2	1	3.37	3.34 – 3.4	15.1		ug/kg	
	2	3.79	3.77 – 3.83	17.6		ug/kg	
	3	3.91	3.88 – 3.94	21.3		ug/kg	
	4	4.19	4.16 – 4.22	22		ug/kg	
	5	4.32	4.29 – 4.35	20.1		ug/kg	
					19.2		
Aroclor–1260							35.2
Column 1	1	3.7	3.68 – 3.74	13.1		ug/kg	
	2	3.86	3.84 – 3.9	17.9		ug/kg	
	3	4.03	4 – 4.06	20.4		ug/kg	
	4	4.09	4.07 – 4.13	2.88		ug/kg	
	5	4.24	4.21 – 4.27	3.19		ug/kg	
					11.5		
Column 2	1	4.3	4.27 – 4.33	13.5		ug/kg	
	2	4.43	4.4 – 4.46	14.6		ug/kg	
	3	4.7	4.66 – 4.72	5.28		ug/kg	
	4	4.87	4.84 – 4.9	3.37		ug/kg	
	5	5.01	4.98 – 5.04	3.56		ug/kg	
					8.05		

Identification Summary

SDG Number: 10–2398 **Client ID:** RE46–10–13439

Lab Sample ID: 249180006

Data File:	038f3801.d	**Data File:**	038b3801.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 14:50	**Analyzed:**	23–MAR–10 14:50

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							30
Column 1	1	3.21	3.18 – 3.24	56.1		ug/kg	
	2	3.36	3.33 – 3.39	52.6		ug/kg	
	3	3.59	3.57 – 3.63	56.7		ug/kg	
	4	3.76	3.73 – 3.79	61		ug/kg	
	5	3.86	3.84 – 3.9	97.2		ug/kg	
					64.7		
Column 2	1	3.37	3.34 – 3.4	38.4		ug/kg	
	2	3.79	3.77 – 3.83	47		ug/kg	
	3	3.91	3.88 – 3.94	53.4		ug/kg	
	4	4.19	4.16 – 4.22	55.4		ug/kg	
	5	4.32	4.29 – 4.35	45.1		ug/kg	
					47.9		
Aroclor–1260							22.9
Column 1	1	3.7	3.68 – 3.74	49.6		ug/kg	
	2	3.86	3.84 – 3.9	57.7		ug/kg	
	3	4.03	4 – 4.06	51.3		ug/kg	
	4	4.09	4.07 – 4.13	21.8		ug/kg	
	5	4.24	4.21 – 4.27	21.1		ug/kg	
					40.3		
Column 2	1	4.3	4.27 – 4.33	55.6		ug/kg	
	2	4.43	4.4 – 4.46	42.2		ug/kg	
	3	4.69	4.66 – 4.72	21.6		ug/kg	
	4	4.86	4.84 – 4.9	18.2		ug/kg	
	5	5.01	4.98 – 5.04	22.4		ug/kg	
					32		

Identification Summary

SDG Number: 10–2398 **Client ID:** RE46–10–13463

Lab Sample ID: 249180008

Data File:	039f3901.d	**Data File:**	039b3901.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 15:02	**Analyzed:**	23–MAR–10 15:02

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							67.3
Column 1	1	3.21	3.18 – 3.24	2.14		ug/kg	
	2	3.36	3.33 – 3.39	1.51		ug/kg	
	3	3.59	3.57 – 3.63	3.02		ug/kg	
	4	3.76	3.73 – 3.79	2.55		ug/kg	
	5	3.87	3.84 – 3.9	13.5		ug/kg	
					4.54		
Column 2	1	3.37	3.34 – 3.4	1.21		ug/kg	
	2	3.79	3.77 – 3.83	1.84		ug/kg	
	3	3.91	3.88 – 3.94	3.68		ug/kg	
	4	4.19	4.16 – 4.22	2.98		ug/kg	
	5	4.32	4.29 – 4.35	1.56		ug/kg	
					2.25		
Aroclor–1260							3.56
Column 1	1	3.7	3.68 – 3.74	9.69		ug/kg	
	2	3.87	3.84 – 3.9	8		ug/kg	
	3	4.03	4 – 4.06	9.36		ug/kg	
	4	4.09	4.07 – 4.13	11.4		ug/kg	
	5	4.24	4.21 – 4.27	11.3		ug/kg	
					9.95		
Column 2	1	4.3	4.27 – 4.33	9.17		ug/kg	
	2	4.43	4.4 – 4.46	6.84		ug/kg	
	3	4.69	4.66 – 4.72	10.6		ug/kg	
	4	4.86	4.84 – 4.9	10.6		ug/kg	
	5	5.01	4.98 – 5.04	10.8		ug/kg	
					9.6		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076363**				
Client Sample:	**QC for batch 967399**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 967399**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 09:39**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**012f1201-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	012b1201-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/012f1201-4.d
Lab Smp Id: 1202076363 Client Smp ID: PBLK01
Inj Date : 23-MAR-2010 09:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076363|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.913	0.000	55677539	142.938	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.216	5.217	-0.001	50797679	171.076	5.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/012f1201-4.d
Date : 23-MAR-2010 09:39
Client ID: PBLK01
Sample Info: |120207636311|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

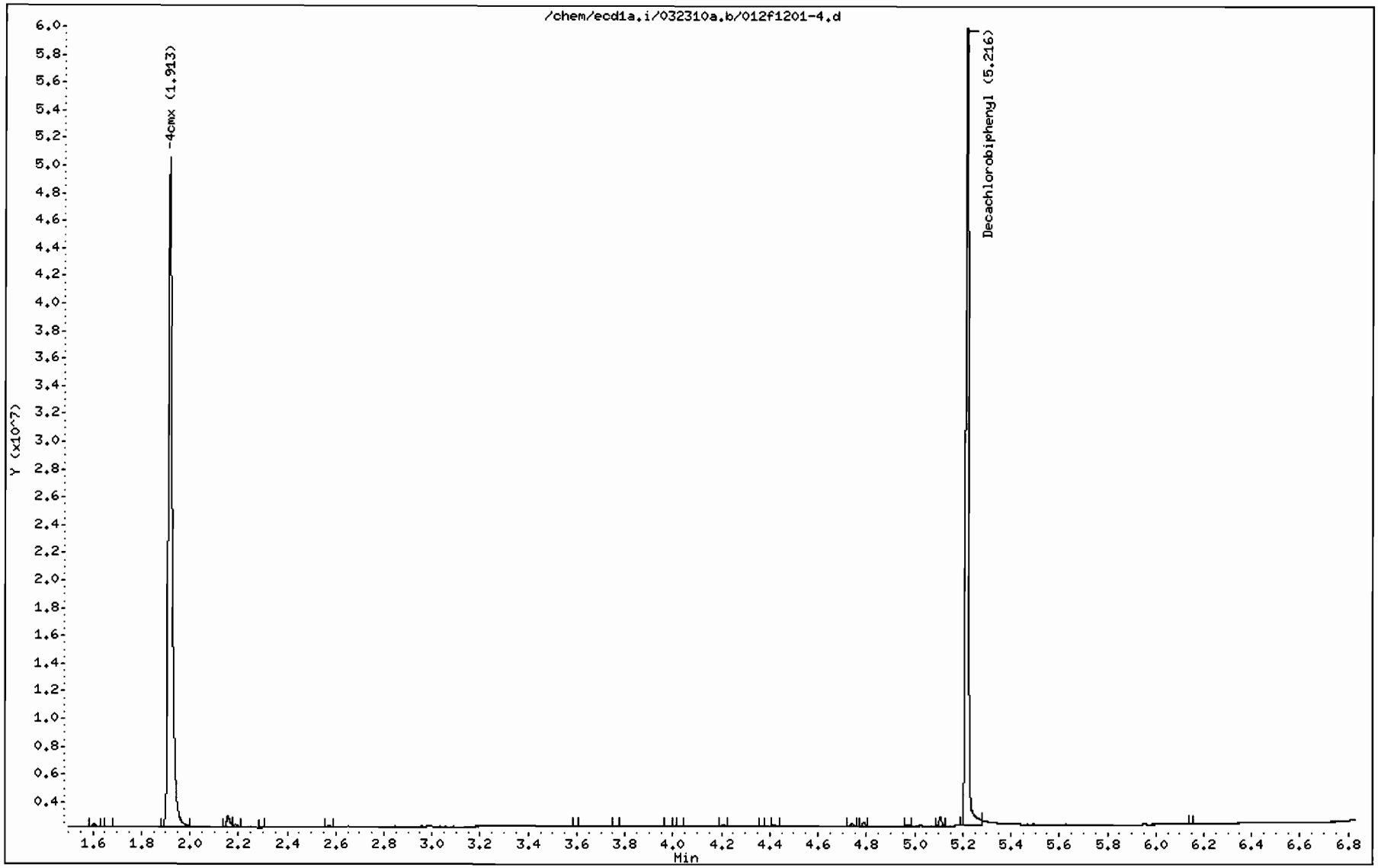

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/012b1201-4.d
Lab Smp Id: 1202076363 Client Smp ID: PBLK01
Inj Date : 23-MAR-2010 09:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076363|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	35680599	136.013	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.912	-0.001	29195098	155.979	5.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/012b1201-4.d

Page 1

Date : 23-MAR-2010 09:39

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: |1202076363|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

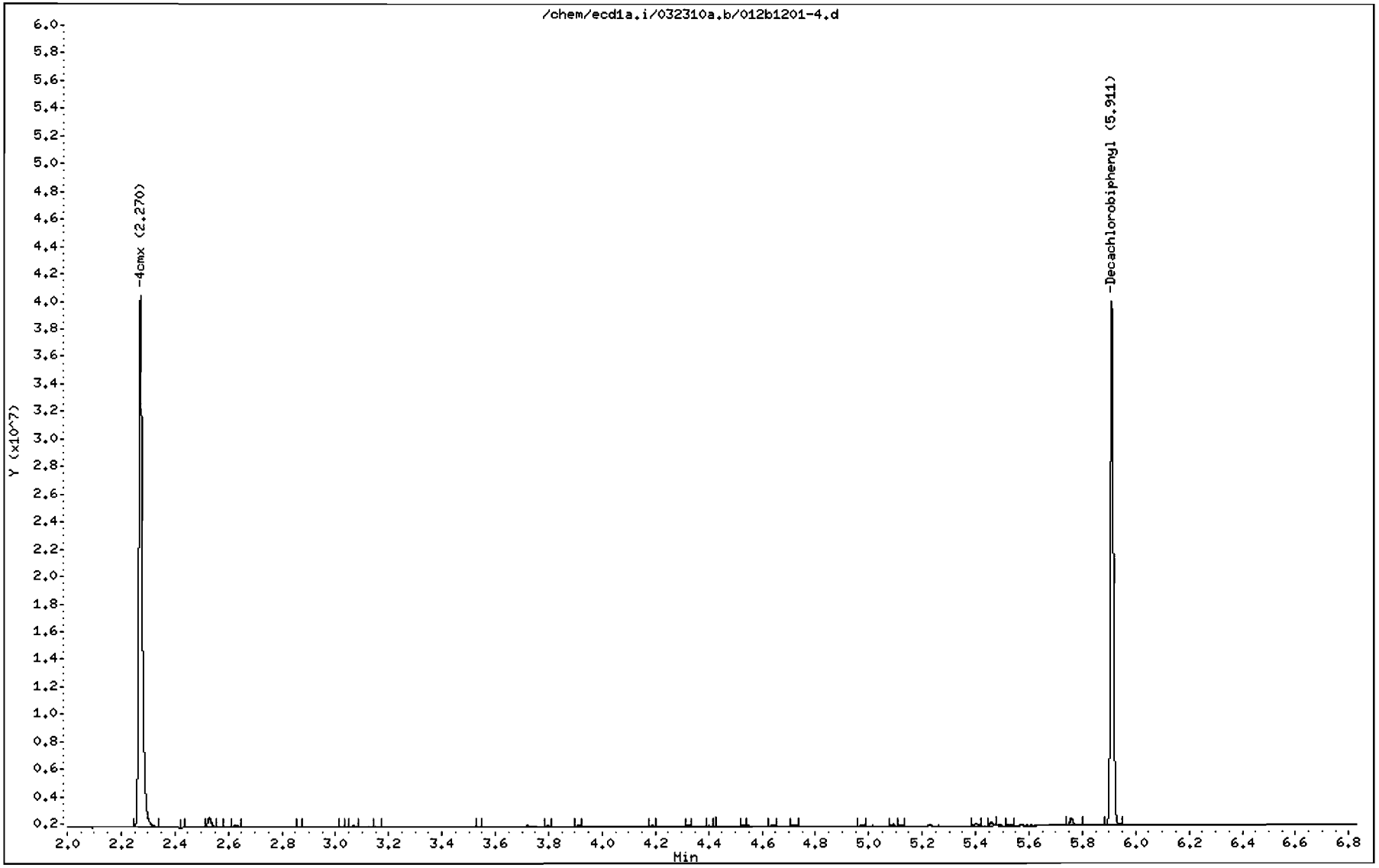

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202080259**				
Client Sample:	**QC for batch 968933**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 968933**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968935**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 10:47**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 20:20**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**030f3001–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	030b3001–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/030f3001-2.d
Lab Smp Id: 1202080259 Client Smp ID: PBLK02
Inj Date : 25-MAR-2010 10:47
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202080259|1|
Misc Info : |ECD82P_1S|968935|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 30 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.909	1.910	-0.001	54256551	139.290	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.211	0.002	46990852	158.255	5.3	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032510.b/030f3001-2.d

Date : 25-MAR-2010 10:47

Client ID: PBLK02

Sample Info: |120208025911|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

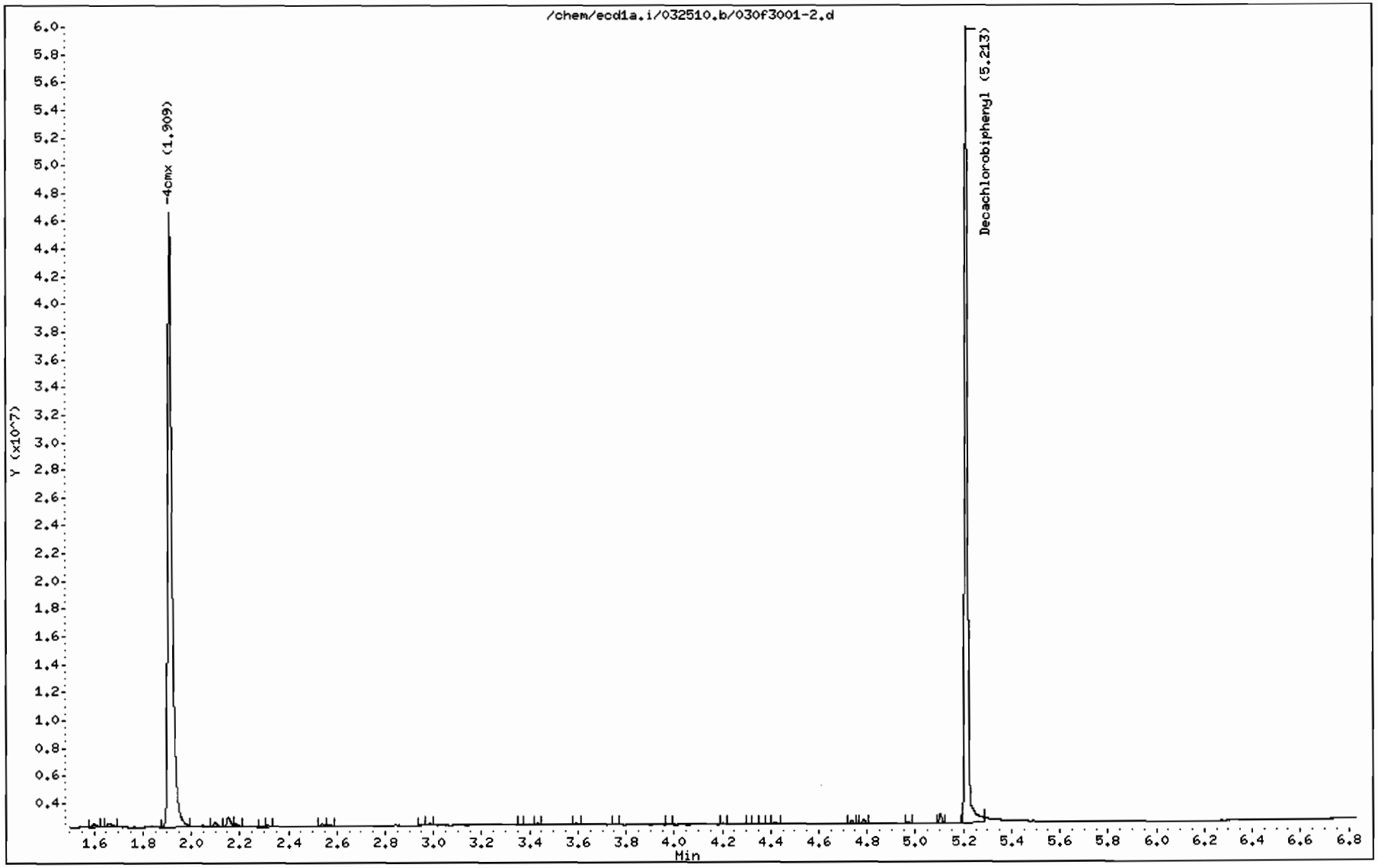

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/030b3001-2.d
Lab Smp Id: 1202080259 Client Smp ID: PBLK02
Inj Date : 25-MAR-2010 10:47
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202080259|1|
Misc Info : |ECD82P_1S|968935|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 30 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.267	2.267	0.000	34569008	131.775	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.907	5.906	0.001	27484991	146.842	4.9	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032510.b/030b3001-2.d

Date : 25-MAR-2010 10:47

Client ID: PBLK02

Sample Info: |120208025911|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

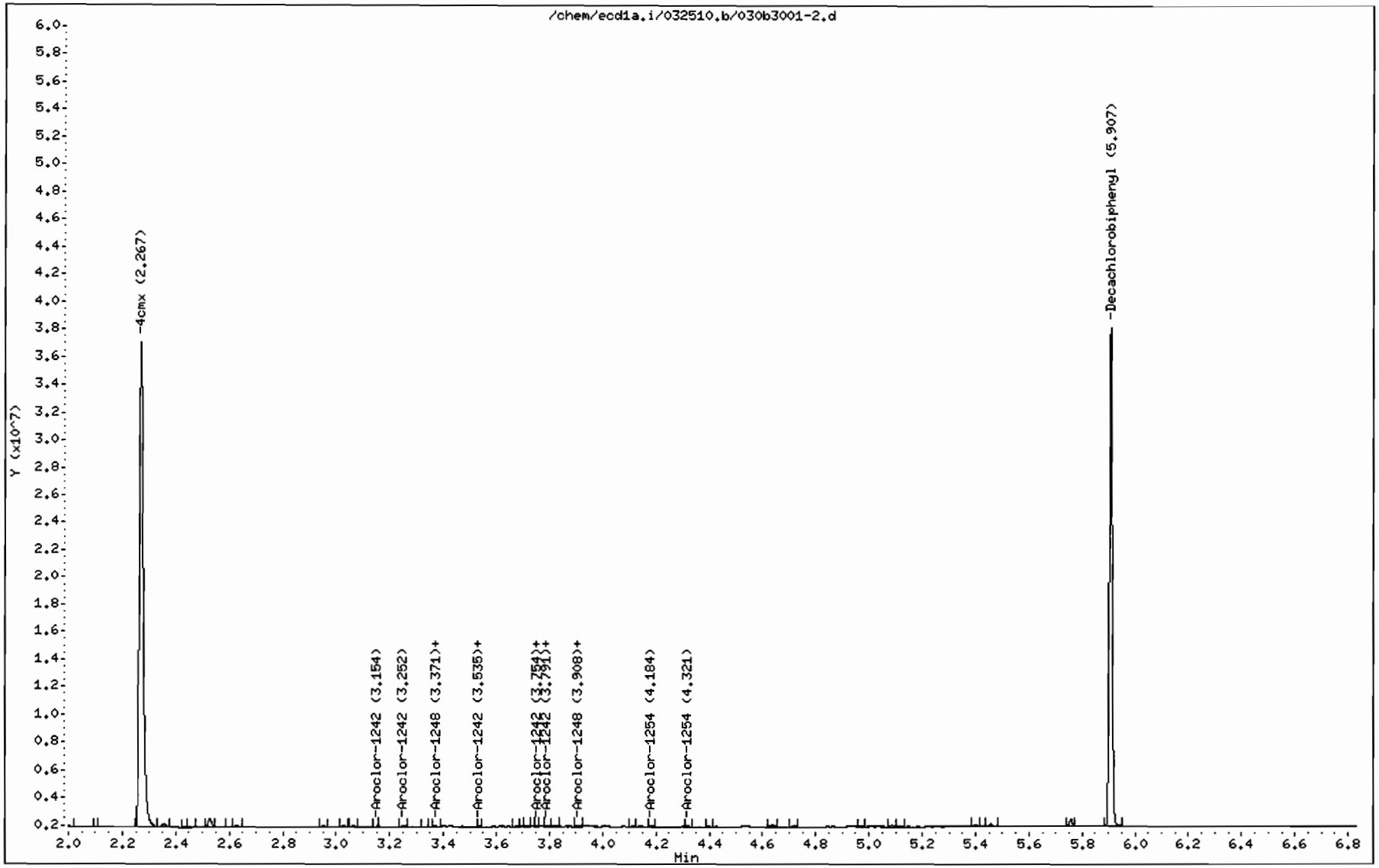

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076364**				
Client Sample:	**QC for batch 967399**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967399**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.l**	**Dilution:**	**1**
Run Date:	**03/23/2010 09:49**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**013f1301–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	013b1301–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		23.8	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		27.3	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/013f1301-4.d
Lab Smp Id: 1202076364 Client Smp ID: PBLK01LCS
Inj Date : 23-MAR-2010 09:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076364|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.913	0.000	59940461	153.882	5.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.217	5.217	0.000	50553608	170.254	5.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.365	-0.001	11111108	732.111	24.4	80.00- 120.00	100.00
2.652	2.651	0.001	13777452	727.589	24.2	107.62- 147.62	124.00
2.732	2.732	0.000	8677264	697.409	23.2	58.11- 98.11	78.10
2.769	2.770	-0.001	5163605	702.692	23.4	27.09- 67.09	46.47

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.980	2.980	0.000	6764549	710.728	23.7	40.72- 80.72	60.88
Average of Peak Concentrations =					23.8		
7 Aroclor-1260					CAS #: 11096-82-5		
3.705	3.705	0.000	14522007	792.250	26.4	80.00- 120.00	100.00
3.868	3.867	0.001	21910267	814.816	27.2	129.35- 169.35	150.88
4.029	4.030	-0.001	23662778	835.689	27.8	139.27- 179.27	162.94
4.098	4.097	0.001	13316018	824.119	27.5	70.04- 110.04	91.70
4.240	4.240	0.000	13902474	826.905	27.6	74.22- 114.22	95.73
Average of Peak Concentrations =					27.3		

Data File: /chem/ecd1a.i/032310a.b/013f1301-4.d
Date : 23-MAR-2010 09:49
Client ID: PBLK01LCS
Sample Info: |120207636411|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

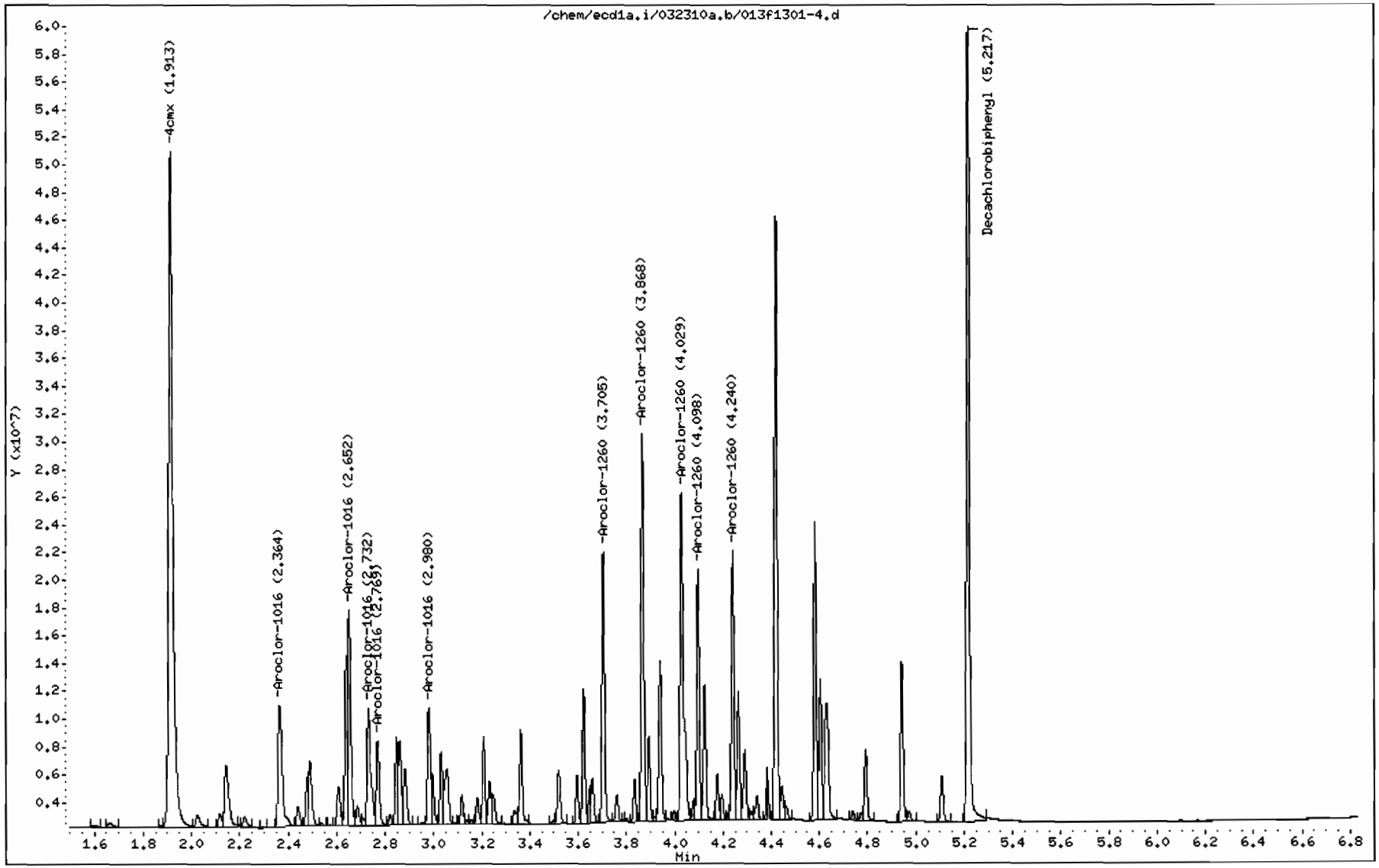

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/013b1301-4.d
Lab Smp Id: 1202076364 Client Smp ID: PBLK01LCS
Inj Date : 23-MAR-2010 09:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076364|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	38124510	145.329	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.912	5.912	0.000	29193722	155.972	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.165	3.165	0.000	8815970	700.515	23.4	80.00- 120.00	100.00(M)
3.248	3.248	0.000	5826181	674.779	22.5	45.31- 85.31	66.09
3.311	3.311	0.000	3380212	639.388	21.3	20.51- 60.51	38.34
3.538	3.538	0.000	4755018	689.861	23.0	33.14- 73.14	53.94

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.613	3.614	-0.001	4412224	686.988	22.9	29.05- 69.05	50.05
Average of Peak Concentrations =					22.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.303	4.304	-0.001	9774555	747.277	24.9	80.00- 120.00	100.00
4.428	4.428	0.000	12027985	773.552	25.8	101.60- 141.60	123.05
4.693	4.695	-0.002	9150944	769.241	25.6	71.82- 111.82	93.62
4.867	4.867	0.000	9545846	776.766	25.9	75.59- 115.59	97.66
5.015	5.015	0.000	21419564	811.512	27.0	192.18- 232.18	219.14
Average of Peak Concentrations =					25.8		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/013b1301-4.d
Date : 23-MAR-2010 09:49
Client ID: PBLK01LCS
Sample Info: |120207636411|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

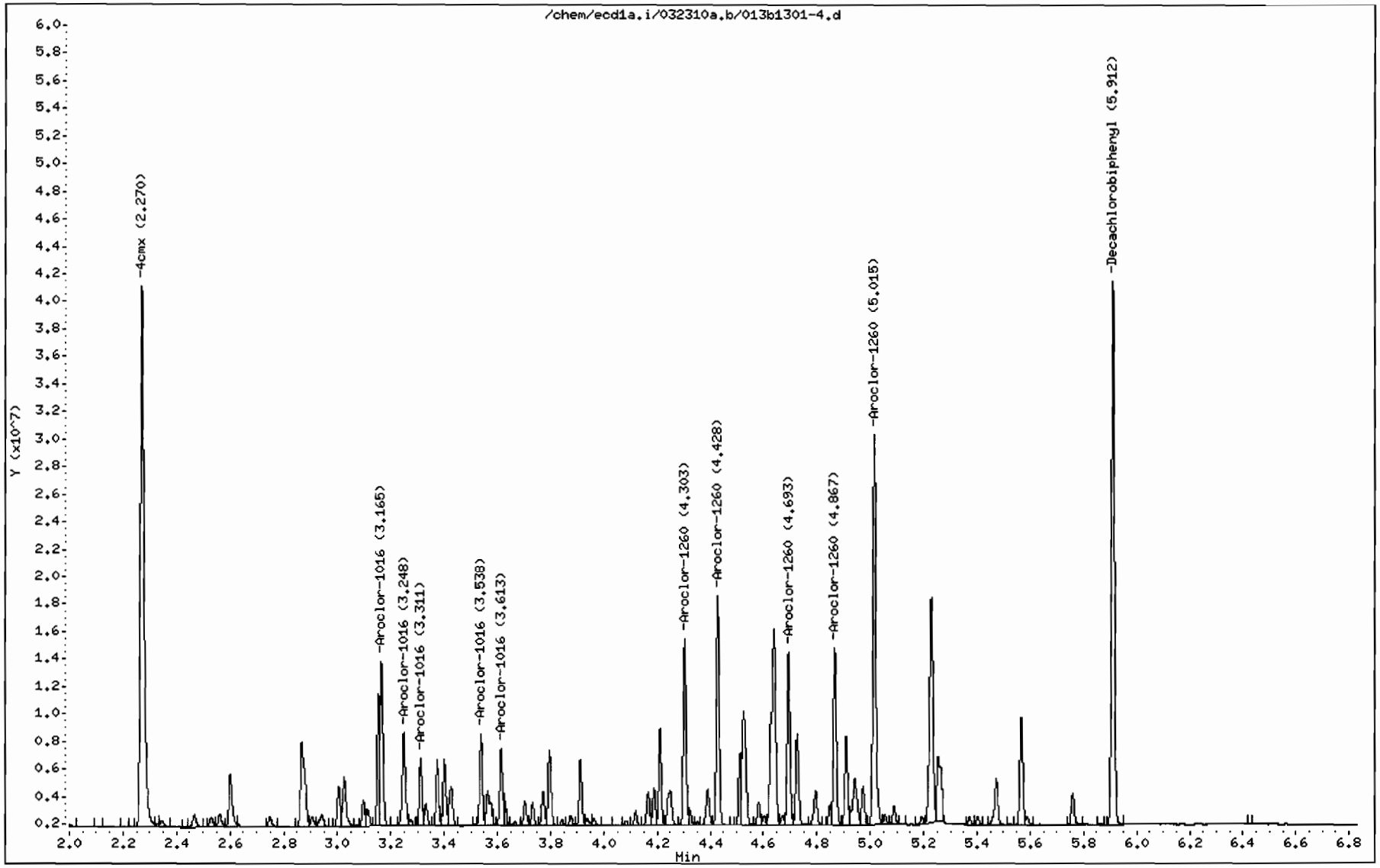

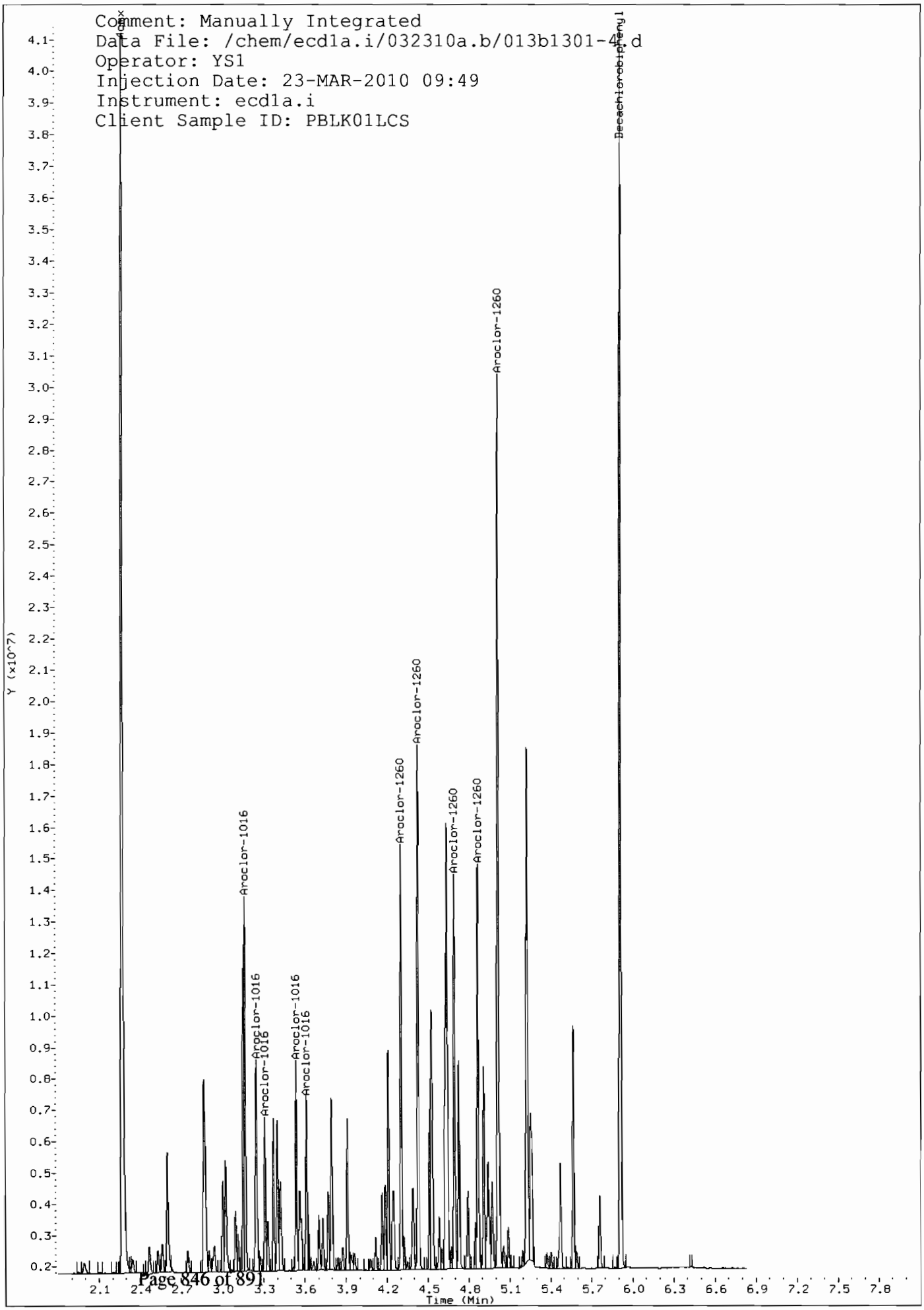
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/013b1301-4.d
Operator: YS1
Injection Date: 23-MAR-2010 09:49
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^7)
Time (Min)

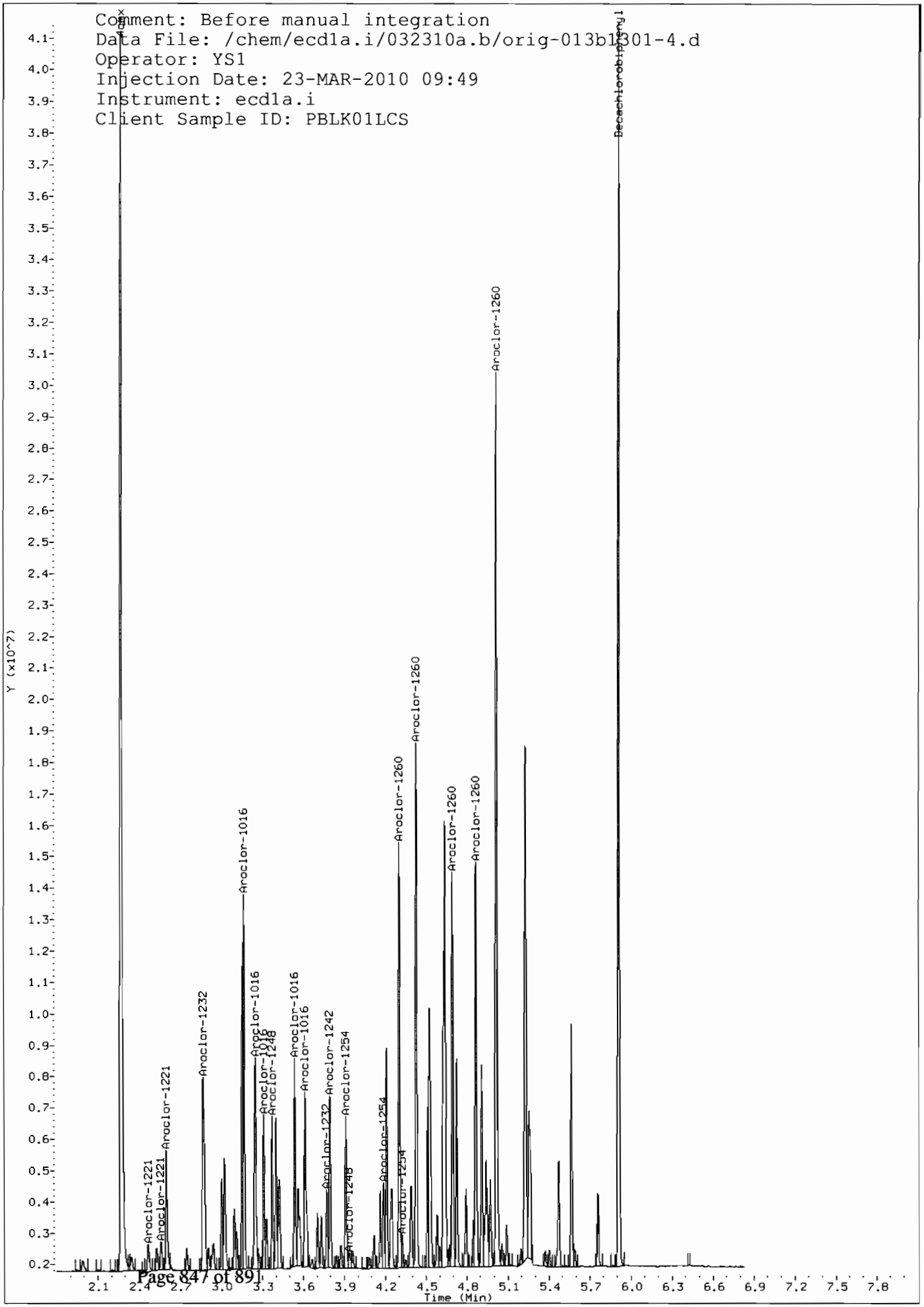
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Data File: /chem/ecd1a.i/032310a.b/orig-013b1301-4.d
Operator: YS1
Injection Date: 23-MAR-2010 09:49
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1232
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1232
Aroclor-1254
Aroclor-1248
Aroclor-1254
Aroclor-1254
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202080260**				
Client Sample:	**QC for batch 968933**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 968933**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968935**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 10:57**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 20:20**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**031f3101–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	031b3101–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		23.7	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		25.8	ug/kg	1.11	3.33	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/031f3101-2.d
Lab Smp Id: 1202080260 Client Smp ID: PBLK02LCS
Inj Date : 25-MAR-2010 10:57
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202080260|1|
Misc Info : |ECD82P_1S|968935|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 31 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.910	0.001	55914200	143.545	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.211	0.002	49324690	166.115	5.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.361	0.002	10655564	702.095	23.4	80.00- 120.00	100.00
2.649	2.647	0.002	12928412	682.751	22.8	109.39- 149.39	121.33
2.729	2.727	0.002	8033017	645.629	21.5	59.64- 99.64	75.39
2.767	2.765	0.002	4878429	663.884	22.1	28.01- 68.01	45.78

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.977	2.975	0.002	8154317	856.746	28.6	41.07- 81.07	76.53
Average of Peak Concentrations =					23.7		
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.700	0.002	13651748	744.773	24.8	80.00- 120.00	100.00
3.864	3.862	0.002	20566900	764.858	25.5	128.31- 168.31	150.65
4.026	4.024	0.002	22220149	784.740	26.2	139.26- 179.26	162.76
4.093	4.092	0.001	12635626	782.010	26.1	69.45- 109.45	92.56
4.236	4.235	0.001	13221886	786.424	26.2	73.28- 113.28	96.85
Average of Peak Concentrations =					25.8		

Data File: /chem/ecd1a.i/032510.b/031f3101-2.d
Date : 25-MAR-2010 10:57
Client ID: PBLK02LCS
Sample Info: 1120208026011
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

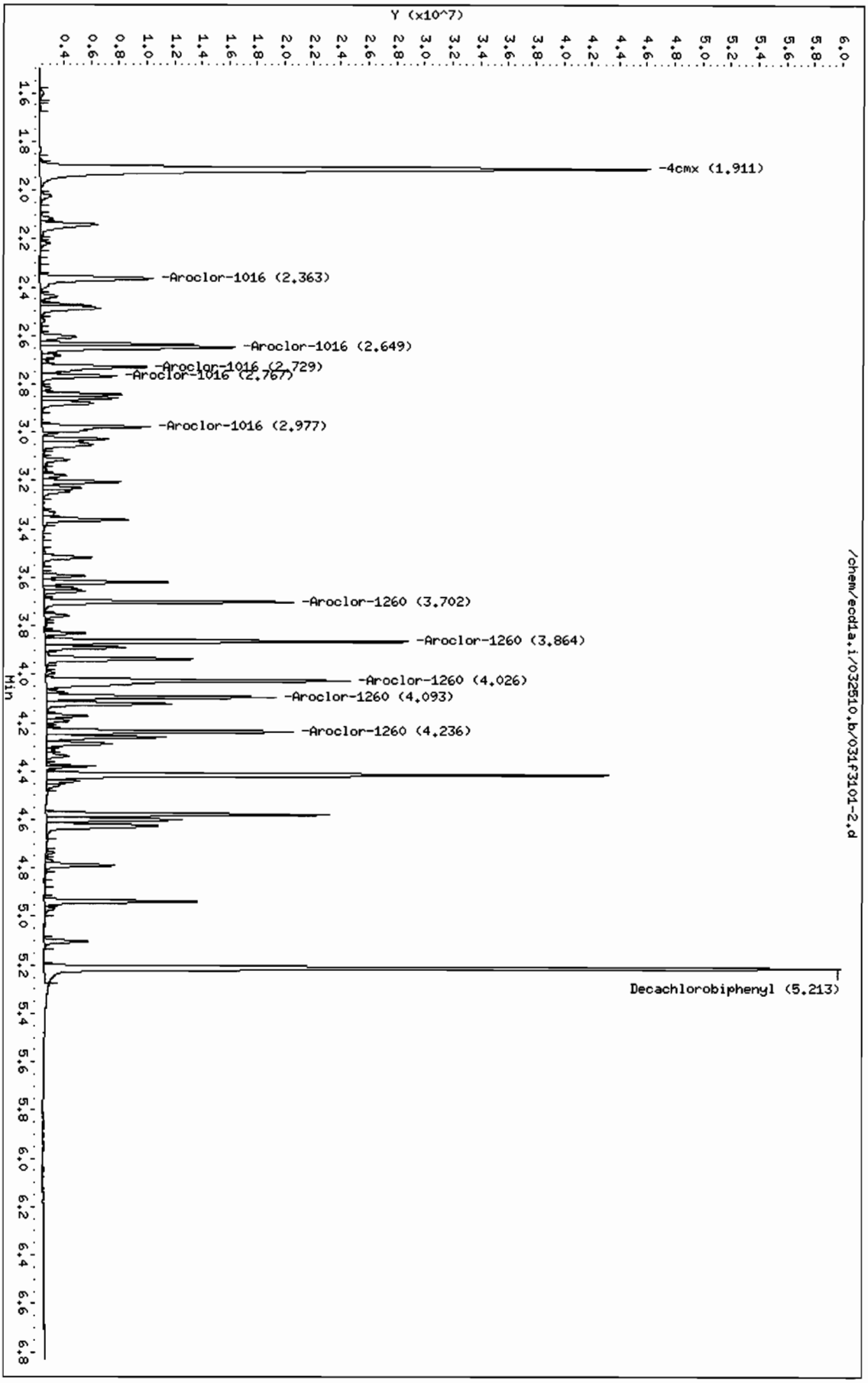

Page 1

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/031b3101-2.d
Lab Smp Id: 1202080260 Client Smp ID: PBLK02LCS
Inj Date : 25-MAR-2010 10:57
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202080260|1|
Misc Info : |ECD82P_1S|968935|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 31 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.268	2.267	0.001	35413581	134.995	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.907	5.906	0.001	29222277	156.124	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.162	3.161	0.001	8402187	667.636	22.2	80.00- 120.00	100.00(M)
3.245	3.244	0.001	5481624	634.873	21.2	46.40- 86.40	65.24
3.308	3.307	0.001	3316056	627.252	20.9	21.43- 61.43	39.47
3.535	3.534	0.001	4457466	646.692	21.6	34.28- 74.28	53.05

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.610	3.609	0.001	4201530	654.183	21.8	30.28- 70.28	50.01
Average of Peak Concentrations =					21.5		
7 Aroclor-1260					CAS #: 11096-82-5		
4.300	4.299	0.001	9323765	712.813	23.8	80.00- 120.00	100.00
4.425	4.424	0.001	11539926	742.164	24.7	102.07- 142.07	123.77
4.690	4.689	0.001	8789694	738.874	24.6	71.88- 111.88	94.27
4.863	4.862	0.001	9221762	750.395	25.0	75.24- 115.24	98.91
5.010	5.010	0.000	20900941	791.863	26.4	192.99- 232.99	224.17
Average of Peak Concentrations =					24.9		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032510.b/031b3101-2.d
Date : 25-MAR-2010 10:57
Client ID: PBLK02LCS
Sample Info: 1120208026011
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

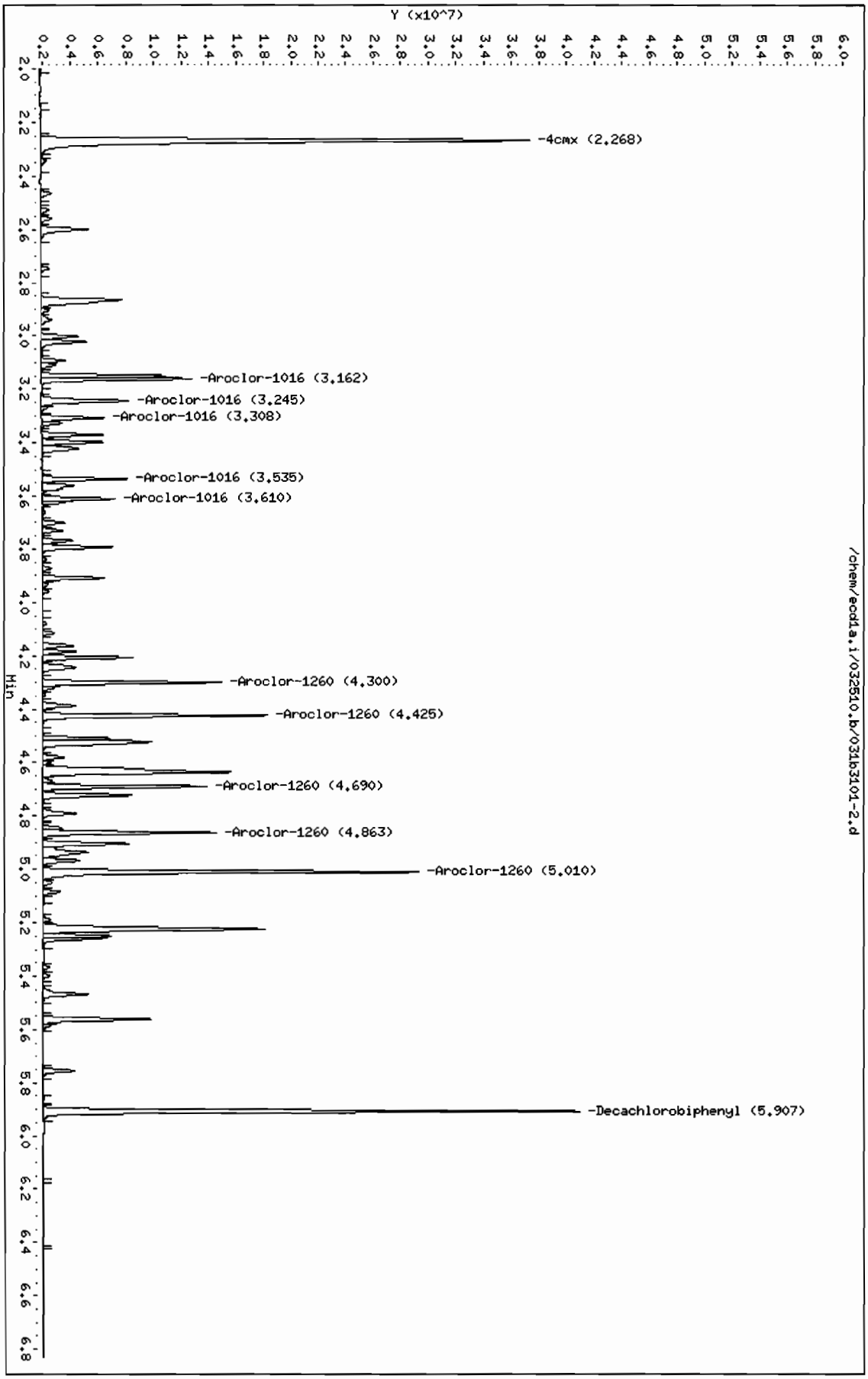

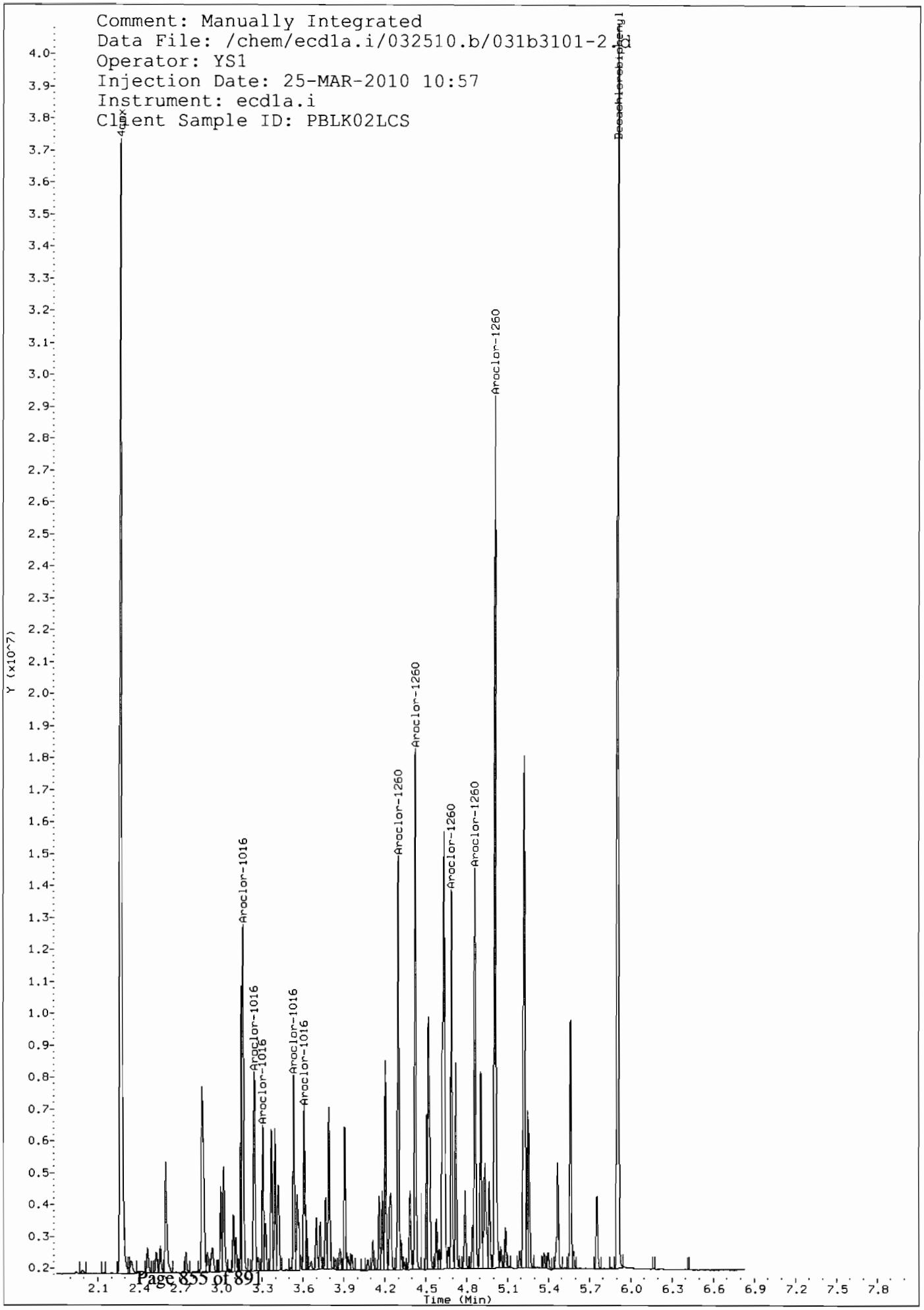
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032510.b/031b3101-2.d
Operator: YS1
Injection Date: 25-MAR-2010 10:57
Instrument: ecd1a.i
Client Sample ID: PBLK02LCS
4,4'-DDE
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
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Aroclor-1260
Y (x10^7)
Time (Min)

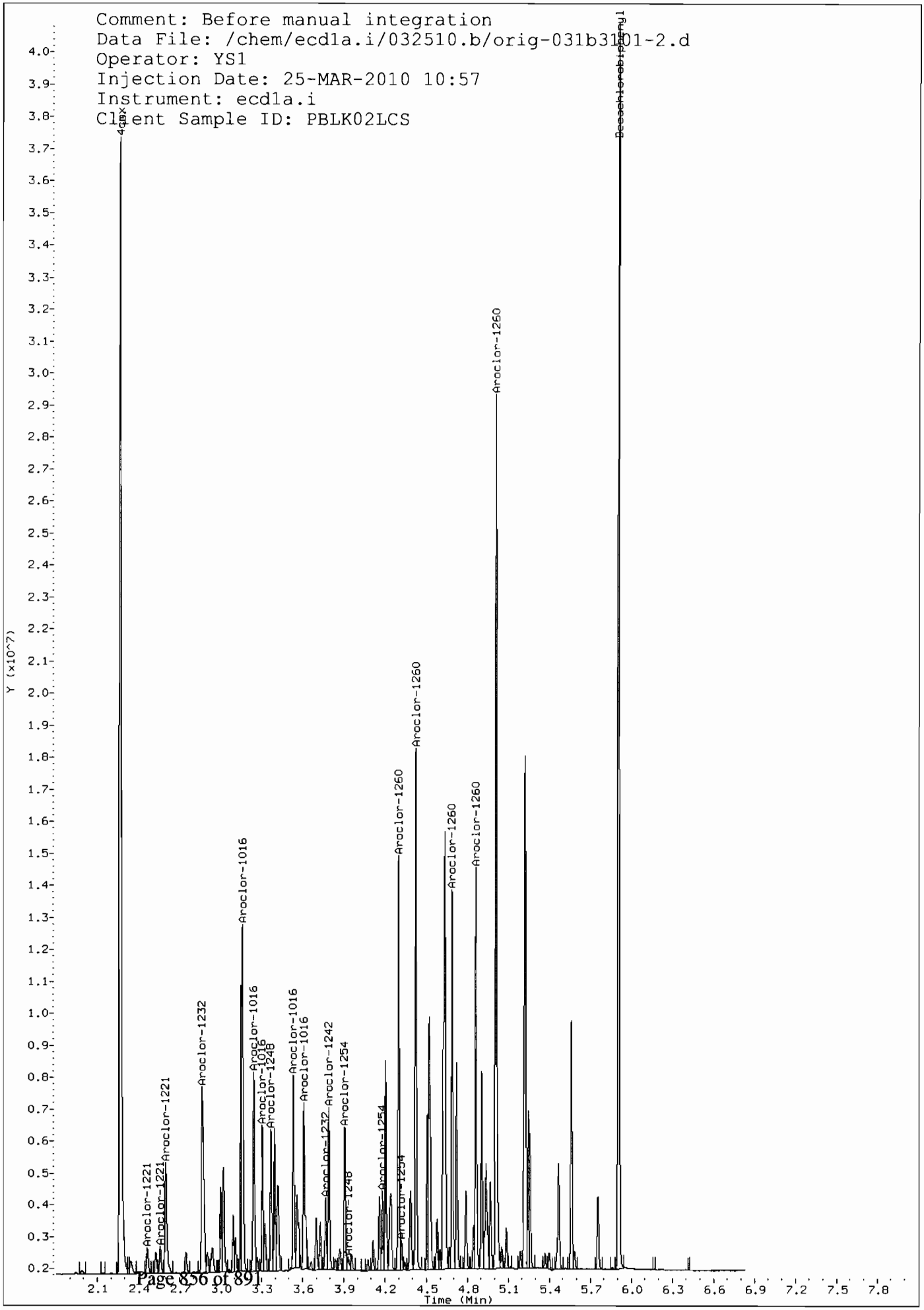
Comment: Before manual integration
Data File: /chem/ecd1a.i/032510.b/orig-031b3101-2.d
Operator: YS1
Injection Date: 25-MAR-2010 10:57
Instrument: ecd1a.i
Client Sample ID: PBLK02LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Aroclor-1248
Aroclor-1232
Aroclor-1242
Aroclor-1254
Aroclor-1232
Aroclor-1254
Aroclor-1248
Aroclor-1221
Aroclor-1221
Aroclor-1221
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2398**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202080261**				
Client Sample:	**QC for batch 968933**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCSD for batch 968933**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**968935**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 11:08**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 20:20**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**032f3201-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	032b3201-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		22.4	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		25.6	ug/kg	1.11	3.33	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/032f3201-2.d
Lab Smp Id: 1202080261 Client Smp ID: PBLK02LCSD
Inj Date : 25-MAR-2010 11:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202080261|1|
Misc Info : |ECD82P_1S|968935|SVA|QC A|SOIL|LCSD|||
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 32 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.910	0.000	56666035	145.475	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.211	0.003	47938124	161.446	5.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.361	0.002	10385313	684.289	22.8	80.00- 120.00	100.00
2.649	2.647	0.002	13069687	690.211	23.0	109.39- 149.39	125.85
2.729	2.727	0.002	8110787	651.880	21.7	59.64- 99.64	78.10
2.766	2.765	0.001	4804043	653.761	21.8	28.01- 68.01	46.26

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.977	2.975	0.002	6415148	674.018	22.5	41.07- 81.07	61.77
Average of Peak Concentrations =					22.4		
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.700	0.002	13710156	747.959	24.9	80.00- 120.00	100.00
3.864	3.862	0.002	20550759	764.258	25.5	128.31- 168.31	149.89
4.026	4.024	0.002	22123241	781.317	26.0	139.26- 179.26	161.36
4.094	4.092	0.002	12525265	775.180	25.8	69.45- 109.45	91.36
4.237	4.235	0.002	13052443	776.346	25.9	73.28- 113.28	95.20
Average of Peak Concentrations =					25.6		

Data File: /chem/ecd1a.i/032510.b/032f3201-2.d

Page 1

Date : 25-MAR-2010 11:08

Client ID: PBLK02LCSD

Instrument: ecd1a.i

Sample Info: |1202080261|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

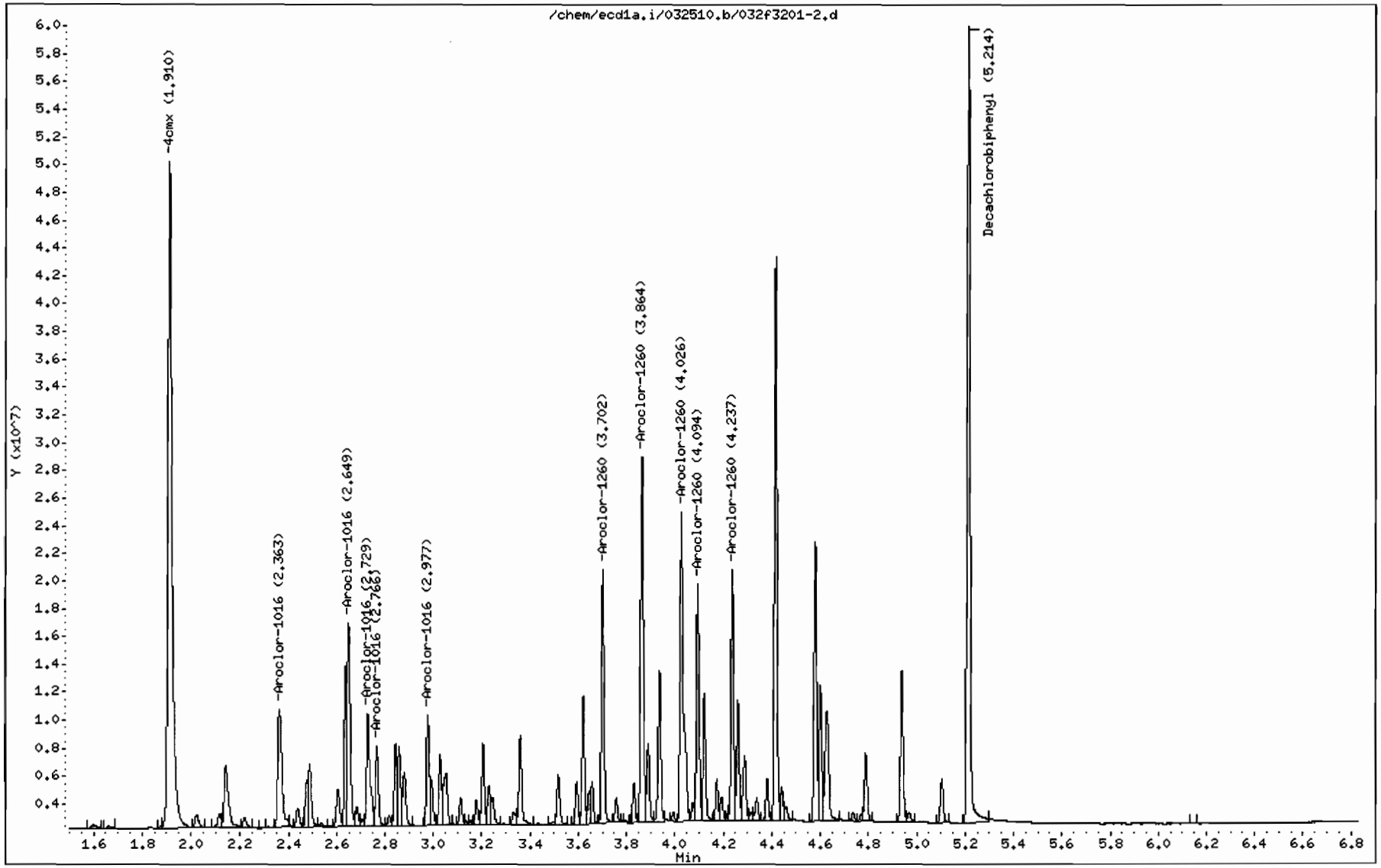

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/032b3201-2.d
Lab Smp Id: 1202080261 Client Smp ID: PBLK02LCSD
Inj Date : 25-MAR-2010 11:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202080261|1|
Misc Info : |ECD82P_1S|968935|SVA|QC A|SOIL|LCSD|||
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 32 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2398.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.268	2.267	0.001	35868699	136.730	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.908	5.906	0.002	28493628	152.231	5.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.162	3.161	0.001	8356145	663.978	22.1	80.00- 120.00	100.00(M)
3.244	3.244	0.000	5530072	640.484	21.3	46.40- 86.40	66.18
3.308	3.307	0.001	3332247	630.315	21.0	21.43- 61.43	39.88
3.535	3.534	0.001	4341480	629.865	21.0	34.28- 74.28	51.96

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.610	3.609	0.001	4094676	637.545	21.2	30.28- 70.28	49.00
Average of Peak Concentrations =					21.3		
7 Aroclor-1260					CAS #: 11096-82-5		
4.300	4.299	0.001	9324204	712.847	23.8	80.00- 120.00	100.00
4.425	4.424	0.001	11503053	739.793	24.6	102.07- 142.07	123.37
4.691	4.689	0.002	8775094	737.647	24.6	71.88- 111.88	94.11
4.864	4.862	0.002	9078281	738.719	24.6	75.24- 115.24	97.36
5.012	5.010	0.002	20559900	778.942	26.0	192.99- 232.99	220.50
Average of Peak Concentrations =					24.7		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032510.b/032b3201-2.d
Date : 25-MAR-2010 11:08
Client ID: PBLK02LCSD
Sample Info: 1120208026111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

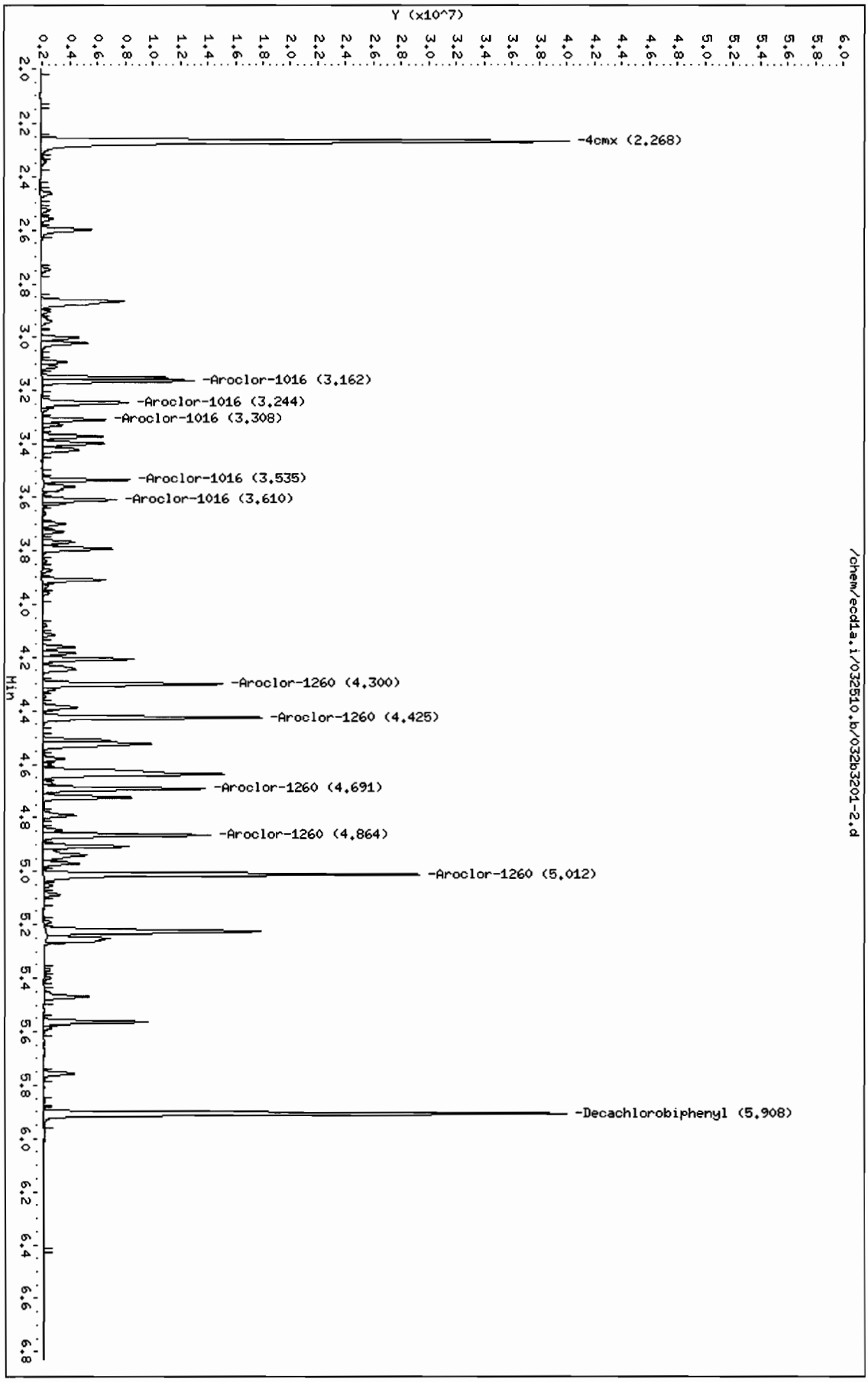

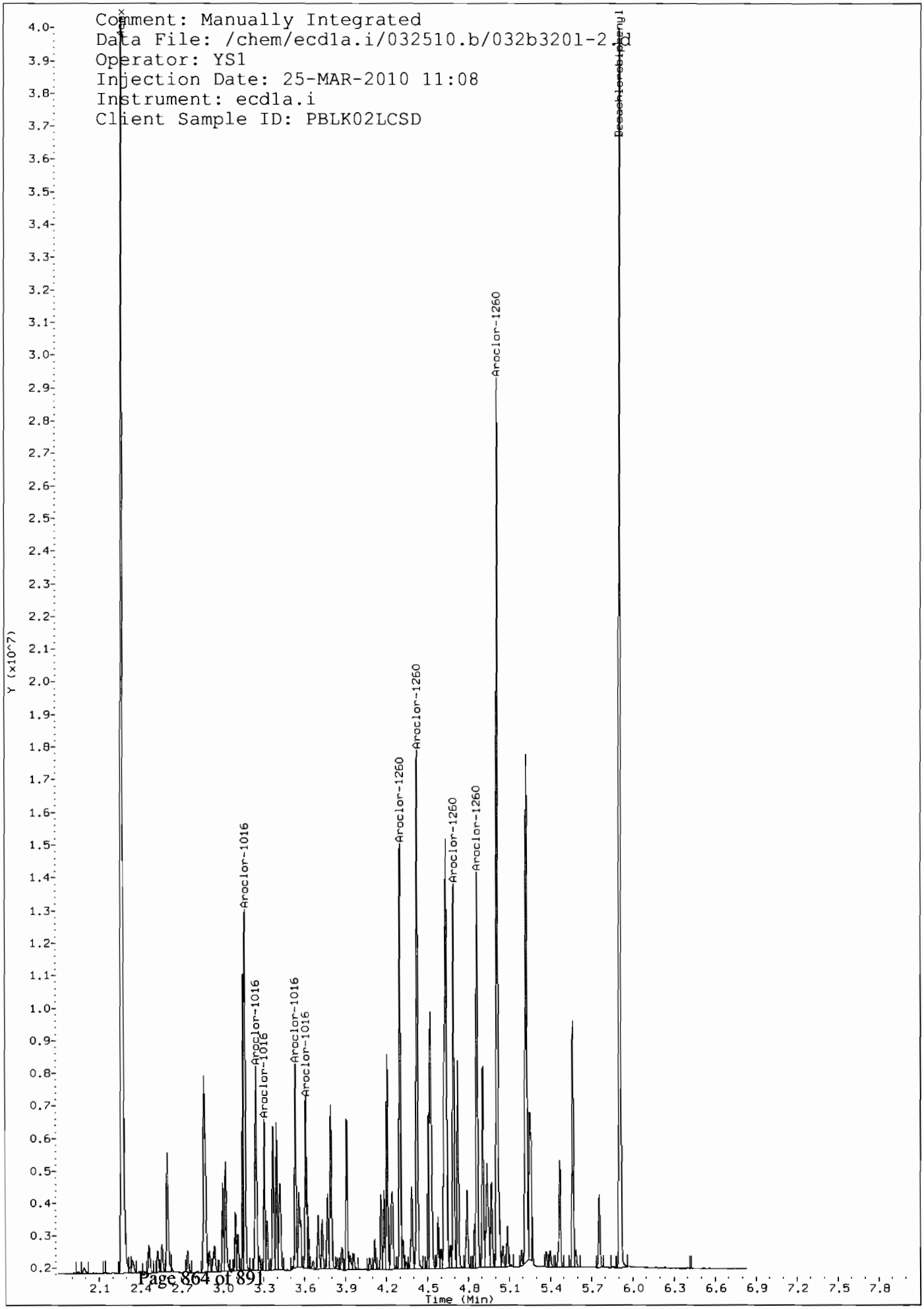
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032510.b/032b3201-2.d
Operator: YS1
Injection Date: 25-MAR-2010 11:08
Instrument: ecd1a.i
Client Sample ID: PBLK02LCSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Time (Min)

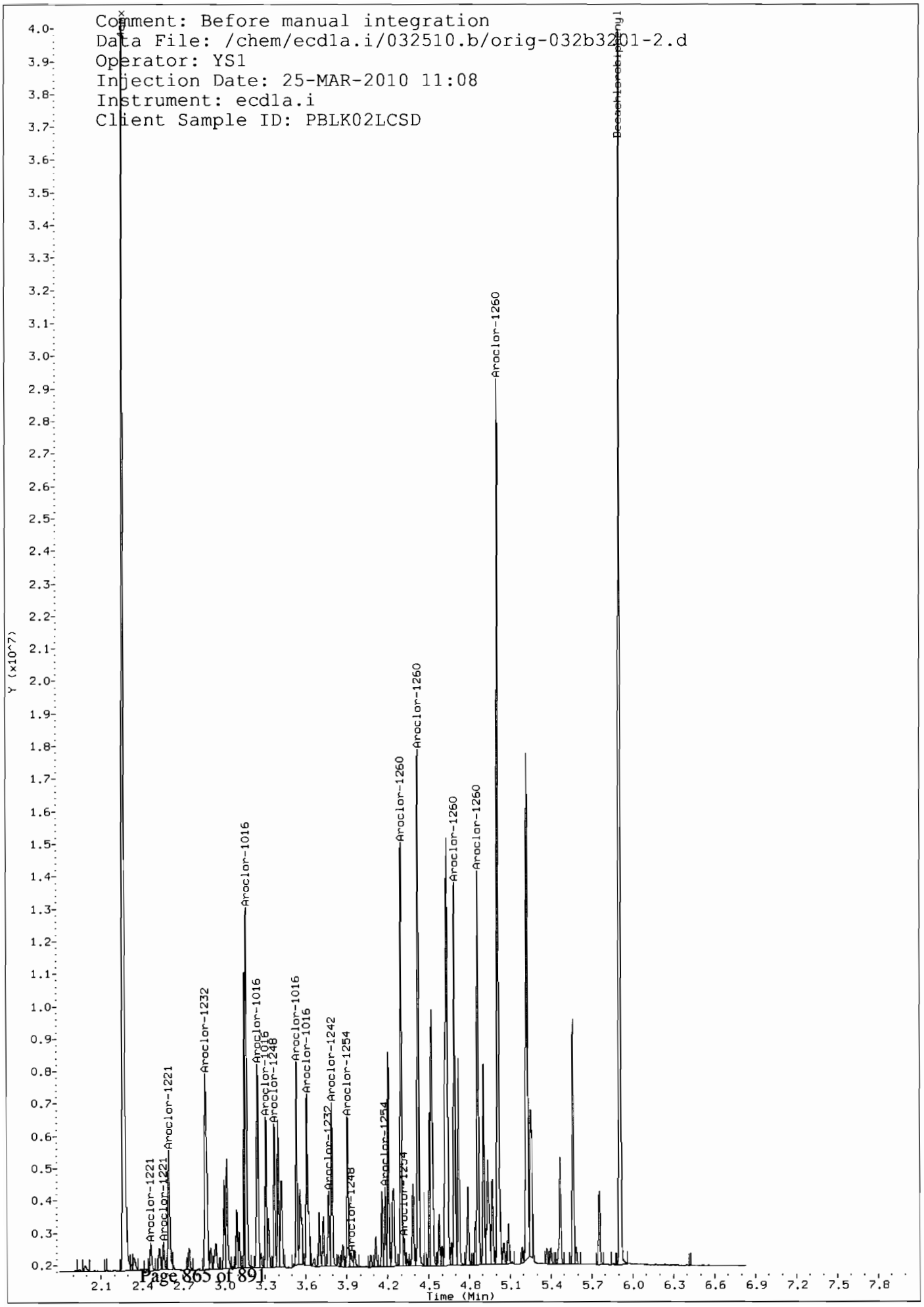
Comment: Before manual integration
Data File: /chem/ecd1a.i/032510.b/orig-032b3201-2.d
Operator: YS1
Injection Date: 25-MAR-2010 11:08
Instrument: ecd1a.i
Client Sample ID: PBLK02LCSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1242
Aroclor-1254
Aroclor-1232
Aroclor-1254
Aroclor-1254
Aroclor-1248
Aroclor-1221
Aroclor-1221
Aroclor-1221
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/12/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/031110b.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	11-MAR-2010 14:46		031110b	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	11-MAR-2010 14:56		031110b	1.0		DUSE RE-ICAL
003f0301.d	WAR100219-54	YS1	11-MAR-2010 15:07		031110b	1.0		DUSE RE-ICAL
004f0401.d	WAR100219-42	YS1	11-MAR-2010 15:17		031110b	1.0		DUSE RE-ICAL
005f0501.d	WAR100223-48	YS1	11-MAR-2010 15:28		031110b	1.0		DUSE RE-ICAL
006f0601.d	WAR100107-68	YS1	11-MAR-2010 15:38		031110b	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	11-MAR-2010 15:49		031110b	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	11-MAR-2010 15:59		031110b	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	11-MAR-2010 16:10		031110b	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	11-MAR-2010 16:21		031110b	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100311-01	YS1	11-MAR-2010 16:31		031110b	1.0		AR1660 I-CAL LEVEL 1
012f1201.d	WAR100311-02	YS1	11-MAR-2010 16:41		031110b	1.0		AR1660 I-CAL LEVEL 2
013f1301.d	WAR100311-03	YS1	11-MAR-2010 16:52		031110b	1.0		AR1660 I-CAL LEVEL 3
014f1401.d	WAR100311-04	YS1	11-MAR-2010 17:02		031110b	1.0		AR1660 I-CAL LEVEL 4
015f1501.d	IAR100311-01	YS1	11-MAR-2010 17:13		031110b	1.0		AR1660 I-CAL LEVEL 5

Instrument Batch: /chem/ecd1a.i/031110b.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100222-60 01	YS1	11-MAR-2010 17:24		031110b	1.0	PASSED ON BOTH COLUMNS
017f1701.d	WAR100311-05	YS1	11-MAR-2010 17:34		031110b	1.0	AR1254 I-CAL LEVEL 1
018f1801.d	WAR100311-06	YS1	11-MAR-2010 17:45		031110b	1.0	AR1254 I-CAL LEVEL 2
019f1901.d	WAR100311-07	YS1	11-MAR-2010 17:55		031110b	1.0	AR1254 I-CAL LEVEL 3
020f2001.d	WAR100311-08	YS1	11-MAR-2010 18:06		031110b	1.0	AR1254 I-CAL LEVEL 4
021f2101.d	IAR100219-02	YS1	11-MAR-2010 18:16		031110b	1.0	AR1254 I-CAL LEVEL 5
022f2201.d	WAR100219-54	YS1	11-MAR-2010 18:27		031110b	1.0	PASSED ON BOTH COLUMNS
023f2301.d	WAR100311-09	YS1	11-MAR-2010 18:37		031110b	1.0	AR1242 I-CAL LEVEL 1
024f2401.d	WAR100311-10	YS1	11-MAR-2010 18:48		031110b	1.0	AR1242 I-CAL LEVEL 2
025f2501.d	WAR100311-11	YS1	11-MAR-2010 18:58		031110b	1.0	AR1242 I-CAL LEVEL 3
026f2601.d	WAR100311-12	YS1	11-MAR-2010 19:09		031110b	1.0	AR1242 I-CAL LEVEL 4
027f2701.d	IAR100219-01	YS1	11-MAR-2010 19:19		031110b	1.0	AR1242 I-CAL LEVEL 5
028f2801.d	WAR100219-42	YS1	11-MAR-2010 19:30		031110b	1.0	PASSED ON BOTH COLUMNS
029f2901.d	WAR100311-13	YS1	11-MAR-2010 19:40		031110b	1.0	AR1248 I-CAL LEVEL 1
030f3001.d	WAR100311-14	YS1	11-MAR-2010 19:51		031110b	1.0	AR1248 I-CAL LEVEL 2
031f3101.d	WAR100311-15	YS1	11-MAR-2010 20:01		031110b	1.0	AR1248 I-CAL LEVEL 3
032f3201.d	WAR100311-16	YS1	11-MAR-2010 20:12		031110b	1.0	AR1248 I-CAL LEVEL 4
033f3301.d	IAR100211-01	YS1	11-MAR-2010 20:22		031110b	1.0	AR1248 I-CAL LEVEL 5
034f3401.d	WAR100223-48	YS1	11-MAR-2010 20:33		031110b	1.0	PASSED ON BOTH COLUMNS
035f3501.d	WAR100219-99 02	YS1	11-MAR-2010 20:44		031110b	1.0	CLEAN

Instrument Batch: /chem/ecd1a.i/031110b.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202067743	YS1	11-MAR-2010 20:54	963869	246954	1.0	MB	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
037f3701.d	1202067744	YS1	11-MAR-2010 21:05	963869	246954	1.0	LCS	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
038f3801.d	246954003	YS1	11-MAR-2010 21:15	963869	246954	1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
039f3901.d	1202067745	YS1	11-MAR-2010 21:26	963869	246954	1.0	MS	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
040f4001.d	1202067746	YS1	11-MAR-2010 21:36	963869	246954	1.0	MSD	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT

041f4101.d	246954006	YS1	11-MAR-2010 21:47	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
042f4201.d	246954007	YS1	11-MAR-2010 21:57	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
043f4301.d	246954009	YS1	11-MAR-2010 22:08	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
044f4401.d	246954012	YS1	11-MAR-2010 22:18	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
045f4501.d	246954014	YS1	11-MAR-2010 22:29	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
046f4601.d	WAR100222-60 02	YS1	11-MAR-2010 22:39		031110b		1.0		PASSED ON BOTH COLUMNS
046f4901.d	WAR100222-60 03	YS1	11-MAR-2010 23:11		031110b		1.0		CLEAN
047f4701.d	WAR100219-99 03	YS1	11-MAR-2010 22:50		031210		1.0		
047f5001.d	WAR100219-99 04	YS1	11-MAR-2010 23:21		031110b		1.0		
048f4801.d	WE100311-07SCR	YS1	11-MAR-2010 23:00		031110b		1.0		LCS CSREEN FOR PREP

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/24/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/032310a.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	23-MAR-2010 07:43		032310a	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	23-MAR-2010 07:53		032310a	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YS1	23-MAR-2010 08:04		032310a	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YS1	23-MAR-2010 08:14		032310a	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR100223-48	YS1	23-MAR-2010 08:25		032310a	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100107-68	YS1	23-MAR-2010 08:35		032310a	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	23-MAR-2010 08:46		032310a	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	23-MAR-2010 08:56		032310a	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	23-MAR-2010 09:07		032310a	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	23-MAR-2010 09:18		032310a	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100219-99 02	YS1	23-MAR-2010 09:28		032310a	1.0		CLEAN
012f1201.d	1202076363	YS1	23-MAR-2010 09:39	967400	10-2315	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202076364	YS1	23-MAR-2010 09:49	967400	10-2315	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	248863001	YS1	23-MAR-2010 10:00	967400	10-2315	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	248863002	YS1	23-MAR-2010 10:12		032310a	1.0		UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/032310a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	1202076365	YS1	23-MAR-2010 10:25	967400	10-2315		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
017f1701.d	1202076366	YS1	23-MAR-2010 10:37	967400	10-2315		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	248863003	YS1	23-MAR-2010 10:50	967400	10-2315		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	248863004	YS1	23-MAR-2010 11:03	967400	10-2315		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	248865001	YS1	23-MAR-2010 11:15	967400	10-2318		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	WAR100222-60 02	YS1	23-MAR-2010 11:28		032310a		1.0		PASSED ON BOTH COLUMNS
022f2201.d	WAR100219-99 03	YS1	23-MAR-2010 11:38		032310a		1.0		CLEAN
023f2301.d	248866001	YS1	23-MAR-2010 11:49	967400	10-2319		1.0	LANL	DUSE
024f2401.d	248866002	YS1	23-MAR-2010 12:01	967400	10-2319		1.0	LANL	DUSE RR
025f2501.d	248867001	YS1	23-MAR-2010 12:14	967400	10-2320		1.0	LANL	DUSE RR RE SURROGATE LOW
026f2601.d	248867002	YS1	23-MAR-2010 12:26	967400	10-2320		1.0	LANL	DUSE RR RE SURROGATE LOW
027f2701.d	248867003	YS1	23-MAR-2010 12:39	967400	10-2320		1.0	LANL	DUSE RR
028f2801.d	248867004	YS1	23-MAR-2010 12:52	967400	10-2320		1.0	LANL	DUSE RR
029f2901.d	WAR100222-60 03	YS1	23-MAR-2010 13:04		032310a		1.0		AR1016 LOW ON BACK
030f3001.d	WAR100219-99 04	YS1	23-MAR-2010 13:15		032310a		1.0		CLEAN
031f3101.d	WAR100222-60 05	YS1	23-MAR-2010 13:25		032310a		1.0		PASSED ON BOTH COLUMNS
032f3201.d	WAR100219-99 06	YS1	23-MAR-2010 13:36		032310a		1.0		CLEAN
033f3301.d	249180001	YS1	23-MAR-2010 13:46	967400	10-2398		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	249180002	YS1	23-MAR-2010 13:59	967400	10-2398		1.0	LANL	RE SURROGATE LOW
035f3501.d	249180003	YS1	23-MAR-2010 14:12	967400	10-2398		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	249180004	YS1	23-MAR-2010 14:24	967400	10-2398		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	249180005	YS1	23-MAR-2010 14:37	967400	10-2398		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	249180006	YS1	23-MAR-2010 14:50	967400	10-2398		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	249180008	YS1	23-MAR-2010 15:02	967400	10-2398		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	WAR100222-60 05	YS1	23-MAR-2010 15:17		032310a		1.0		PASSED ON BOTH COLUMNS

041f4101.d	WAR100219-99 06	YS1	23-MAR-2010 15:27			032310a	1.0		CLEAN
042f4201.d	1202077651	YS1	23-MAR-2010 15:40	967870	249699		1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
043f4301.d	1202077652	YS1	23-MAR-2010 15:52	967870	249699		1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
044f4401.d	249572001	YS1	23-MAR-2010 16:05	967870	249572		10.0	ENRG	UPLOAD BOTH COLUMNS, USE FRONT
045f4501.d	249699001	YS1	23-MAR-2010 16:19	967870	249699		5.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
046f4601.d	1202077653	YS1	23-MAR-2010 16:34	967870	249699		5.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
047f4701.d	1202077654	YS1	23-MAR-2010 16:48	967870	249699		5.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
048f4801.d	WAR100222-60 06	YS1	23-MAR-2010 17:03			032310a	1.0		PASSED ON BOTH COLUMNS
049f4901.d	WAR100219-99 07	YS1	23-MAR-2010 17:15			032310a	1.0		CLEAN
050f5001.d	249699002	YS1	23-MAR-2010 17:28	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
051f5101.d	249699003	YS1	23-MAR-2010 17:41	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
052f5201.d	249699004	YS1	23-MAR-2010 17:53	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
053f5301.d	249699005	YS1	23-MAR-2010 18:06	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
054f5401.d	249699006	YS1	23-MAR-2010 18:20	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
055f5501.d	WAR100222-60 07	YS1	23-MAR-2010 18:35			032310a	1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/032310a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	WAR100219-99 08	YS1	23-MAR-2010 18:47		032310a	1.0		CLEAN
057f5701.d	1202076035	YS1	23-MAR-2010 19:00	967272	10-2261	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	1202076036	YS1	23-MAR-2010 19:13	967272	10-2261	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	248689001	YS1	23-MAR-2010 19:25	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	1202076037	YS1	23-MAR-2010 19:38	967272	10-2261	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	1202076038	YS1	23-MAR-2010 19:50	967272	10-2261	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
062f6201.d	248689003	YS1	23-MAR-2010 20:03	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	248689005	YS1	23-MAR-2010 20:16	967272	10-2261	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	248689006	YS1	23-MAR-2010 20:28	967272	10-2261	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	248689007	YS1	23-MAR-2010 20:41	967272	10-2261		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	248689008	YS1	23-MAR-2010 20:54	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	WAR100222-60 08	YS1	23-MAR-2010 21:06		032310a		1.0		PASSED ON BOTH COLUMNS
068f6801.d	WAR100219-99 09	YS1	23-MAR-2010 21:19		032310a		1.0		CLEAN
069f6901.d	248689009	YS1	23-MAR-2010 21:32	967272	10-2261		50.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	248689010	YS1	23-MAR-2010 21:44	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	248689011	YS1	23-MAR-2010 21:57	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
072f7201.d	248689012	YS1	23-MAR-2010 22:09	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	248689013	YS1	23-MAR-2010 22:22	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	248689014	YS1	23-MAR-2010 22:35	967272	10-2261		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	248689015	YS1	23-MAR-2010 22:47	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	248689016	YS1	23-MAR-2010 23:00	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	248689017	YS1	23-MAR-2010 23:13	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	248689018	YS1	23-MAR-2010 23:25	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	WAR100222-60 09	YS1	23-MAR-2010 23:38		032310a	1.0		PASSED ON BOTH COLUMNS
080f8001.d	WAR100219-99 10	YS1	23-MAR-2010 23:50		032310a	1.0		CLEAN
081f8101.d	248866001	YS1	24-MAR-2010 00:03	967400	10-2319	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	248866002	YS1	24-MAR-2010 00:16	967400	10-2319	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
083f8301.d	248867001	YS1	24-MAR-2010 00:28	967400	10-2320	1.0	LANL	RE SURROGATE LOW
084f8401.d	248867002	YS1	24-MAR-2010 00:41	967400	10-2320	1.0	LANL	RE SURROGATE LOW
085f8501.d	248867003	YS1	24-MAR-2010 00:54	967400	10-2320	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	248867004	YS1	24-MAR-2010 01:06	967400	10-2320	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	WAR100222-60 10	YS1	24-MAR-2010 01:19		032310a	1.0		PASSED ON BOTH COLUMNS
088f8801.d	WAR100219-99 11	YS1	24-MAR-2010 01:31		032310a	1.0		CLEAN
089f8901.d		YS1	24-MAR-2010 02:42		032310a	1.0		DUSE SCREEN

090f9001.d		YS1	24-MAR-2010 03:52	032310a	1.0	DUSE SCREEN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/25/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/032510.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	25-MAR-2010 05:17		032510	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	25-MAR-2010 05:28		032510	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YS1	25-MAR-2010 05:38		032510	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YS1	25-MAR-2010 05:49		032510	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR100223-48	YS1	25-MAR-2010 05:59		032510	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100323-68	YS1	25-MAR-2010 06:10		032510	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100323-32	YS1	25-MAR-2010 06:20		032510	1.0		PATTERN ONLY
008f0801.d	WAR100323-21	YS1	25-MAR-2010 06:31		032510	1.0		PATTERN ONLY
009f0901.d	WAR100323-62	YS1	25-MAR-2010 06:41		032510	1.0		PATTERN ONLY
010f1001.d	WAR100323-DDT	YS1	25-MAR-2010 06:52		032510	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100219-99 02	YS1	25-MAR-2010 07:02		032510	1.0		CLEAN
012f1201.d	1202079111	YS1	25-MAR-2010 07:13	968491	EUI-7532R	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202079112	YS1	25-MAR-2010 07:23	968491	EUI-7532R	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	249568001	YS1	25-MAR-2010 07:34	968491	EUI-7532R	1.0	CARE	DUSE RR 5X
015f1501.d	249569001	YS1	25-MAR-2010 07:46	968491	EUI-7541R	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/032510.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	1202079113	YS1	25-MAR-2010 07:59	968491	EUI-7541R	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
017f1701.d	1202079114	YS1	25-MAR-2010 08:11	968491	EUI-7541R	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	249569001	YS1	25-MAR-2010 08:26	968491	EUI-7541R	1.0	CARE	DUSE USE ORIGINAL RUN FILE 15
019f1901.d	249569002	YS1	25-MAR-2010 08:39	968491	EUI-7541R	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	249571001	YS1	25-MAR-2010 08:51	968491	EUI-7554R	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	249664001	YS1	25-MAR-2010 09:04	968491	EUI-7564	1.0	CARE	DUSE RR 5X
022f2201.d	WAR100219-99 03	YS1	25-MAR-2010 09:17		032510	1.0		CLEAN
023f2301.d	WAR100222-60 02	YS1	25-MAR-2010 09:27		032510	1.0		PASSED ON BOTH COLUMNS
024f2401.d	WAR100219-99 04	YS1	25-MAR-2010 09:38		032510	1.0		CLEAN
025f2501.d	249665001	YS1	25-MAR-2010 09:48	968491	EUI-7565	100.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	249568001	YS1	25-MAR-2010 10:01	968491	EUI-7532R	5.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	249664001	YS1	25-MAR-2010 10:13	968491	EUI-7564	5.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	WAR100222-60 03	YS1	25-MAR-2010 10:26		032510	1.0		PASSED ON BOTH COLUMNS
029f2901.d	WAR100219-99 05	YS1	25-MAR-2010 10:36		032510	1.0		CLEAN
030f3001.d	1202080259	YS1	25-MAR-2010 10:47	968935	10-2279	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	1202080260	YS1	25-MAR-2010 10:57	968935	10-2279	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	1202080261	YS1	25-MAR-2010 11:08	968935	10-2279	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	248747002	YS1	25-MAR-2010 11:18	968935	10-2279	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	248867001	YS1	25-MAR-2010 11:31	968935	10-2320	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	248867002	YS1	25-MAR-2010 11:44	968935	10-2320	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	249180002	YS1	25-MAR-2010 11:56	968935	10-2398	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	WAR100222-60 04	YS1	25-MAR-2010 12:09		032510	1.0		PASSED ON BOTH COLUMNS
038f3801.d	WAR100219-99 06	YS1	25-MAR-2010 12:19		032510	1.0		CLEAN
039f3901.d	1202081692	YS1	25-MAR-2010 12:30	969518	032510	1.0	QC A	UPLOAD BOTH COLUMNS
040f4001.d	1202081693	YS1	25-MAR-2010 12:40	969518	032510	1.0	QC A	UPLOAD BOTH COLUMNS

041f4101.d	1202081694	YS1	25-MAR-2010 12:51	969518	032510		1.0	QC A	UPLOAD BOTH COLUMNS
042f4201.d	1202081695	YS1	25-MAR-2010 13:02	969518	032510		1.0	QC A	UPLOAD BOTH COLUMNS
043f4301.d	1202081696	YS1	25-MAR-2010 13:12	969518	032510		1.0	QC A	UPLOAD BOTH COLUMNS
044f4401.d	1202081697	YS1	25-MAR-2010 13:23	969518	032510		1.0	QC A	UPLOAD BOTH COLUMNS
045f4501.d	249991001	YS1	25-MAR-2010 13:33	969518	032510		1.0	QC A	UPLOAD BOTH COLUMNS
046f4601.d	WAR100222-60 05	YS1	25-MAR-2010 13:44		032510		1.0		PASSED ON BOTH COLUMNS
047f4701.d	WAR100219-99 07	YS1	25-MAR-2010 13:54		032510		1.0		CLEAN

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/016b1601.d
Lab Smp Id: 1202076365 Client Smp ID: RE46-10-12930MS
Inj Date : 23-MAR-2010 10:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076365|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 16 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	23544458	89.7504	3.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.912	-0.001	21341456	114.020	4.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	6432404	511.118	18.6	80.00- 120.00	100.00(M)
3.246	3.248	-0.002	4305536	498.660	18.2	45.31- 85.31	66.94
3.310	3.311	-0.001	2619092	495.417	18.0	20.51- 60.51	40.72
3.537	3.538	-0.001	3430764	497.737	18.1	31.09- 71.09	53.34

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.612	3.614	-0.002	2837720	441.836	16.1	37.88- 77.88	54.31
Average of Peak Concentrations =					17.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	8098250	619.121	22.5	80.00- 120.00	100.00(M)
4.427	4.428	-0.001	8587128	552.262	20.1	101.60- 141.60	106.04
4.693	4.695	-0.002	7202376	605.442	22.0	71.82- 111.82	88.94
4.866	4.867	-0.001	7186212	584.758	21.3	75.59- 115.59	88.74
5.014	5.015	-0.001	16513408	625.635	22.8	192.18- 232.18	203.91
Average of Peak Concentrations =					21.7		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/016b1601.d
Date : 23-MAR-2010 10:25
Client ID: RE46-10-12930MS
Sample Info: 1120207636511!
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

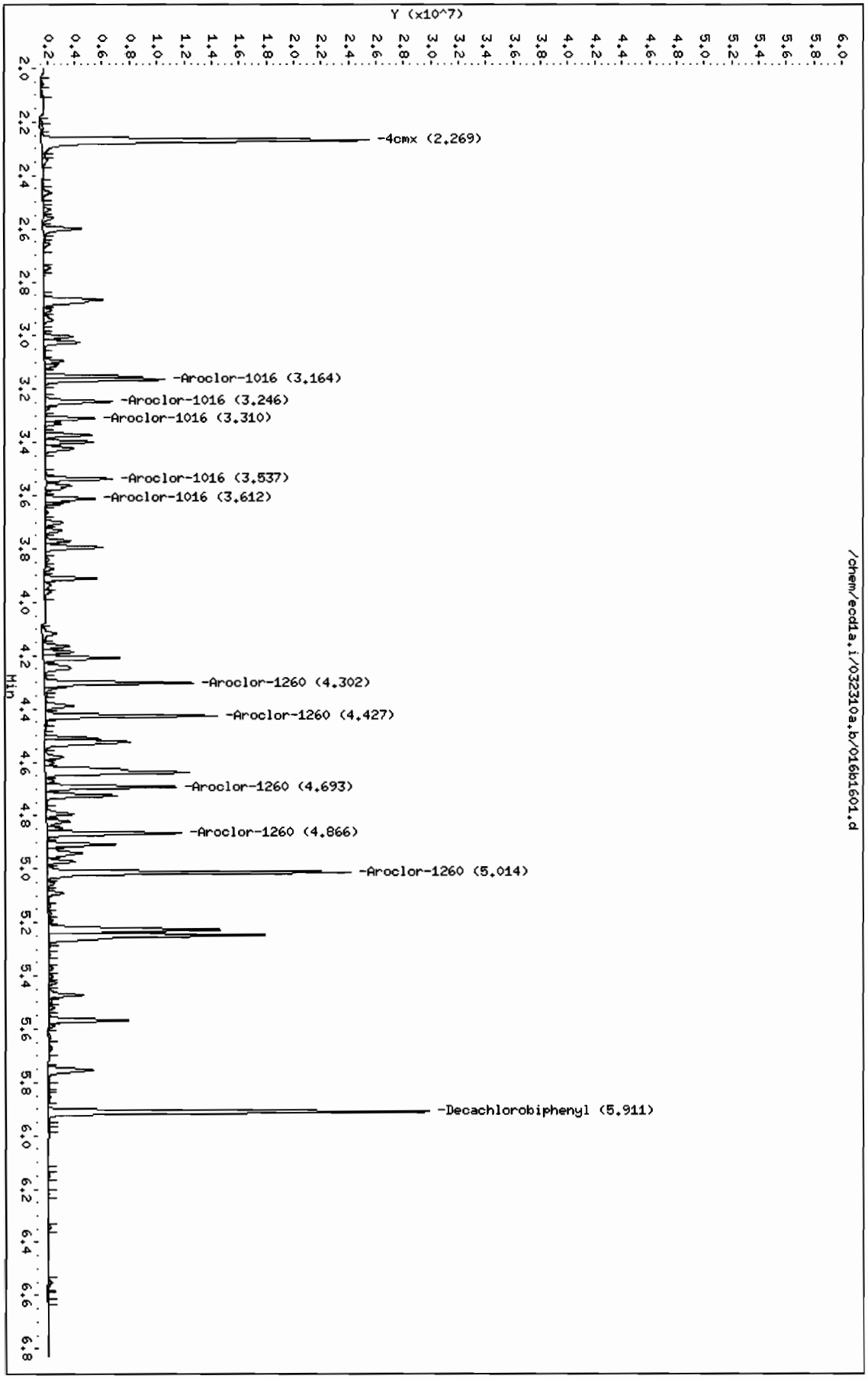

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/016f1601.d
Lab Smp Id: 1202076365 Client Smp ID: RE46-10-12930MS
Inj Date : 23-MAR-2010 10:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076365|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 16 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.913	-0.003	38311340	98.3545	3.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	33890889	114.137	4.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.365	-0.002	7409790	488.231	17.8	80.00- 120.00	100.00
2.650	2.651	-0.001	10039875	530.207	19.3	107.62- 147.62	135.49
2.730	2.732	-0.002	6163757	495.393	18.0	58.11- 98.11	83.18
2.768	2.770	-0.002	3669626	499.383	18.2	27.09- 67.09	49.52

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.978	2.980	-0.002	4381218	460.320	16.8	40.72- 80.72	59.13
Average of Peak Concentrations =					18.0		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	11269491	614.808	22.4	80.00- 120.00	100.00
3.865	3.867	-0.002	16550116	615.479	22.4	129.35- 169.35	146.86
4.027	4.030	-0.003	17484112	617.479	22.5	139.27- 179.27	155.15
4.095	4.097	-0.002	10164870	629.097	22.9	70.04- 110.04	90.20
4.238	4.240	-0.002	10013847	595.613	21.7	74.22- 114.22	88.86
Average of Peak Concentrations =					22.4		

Data File: /chem/ecd1a.i/032310a.b/016f1601.d
Date : 23-MAR-2010 10:25
Client ID: RE46-10-12930HS
Sample Info: 1120207636511
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

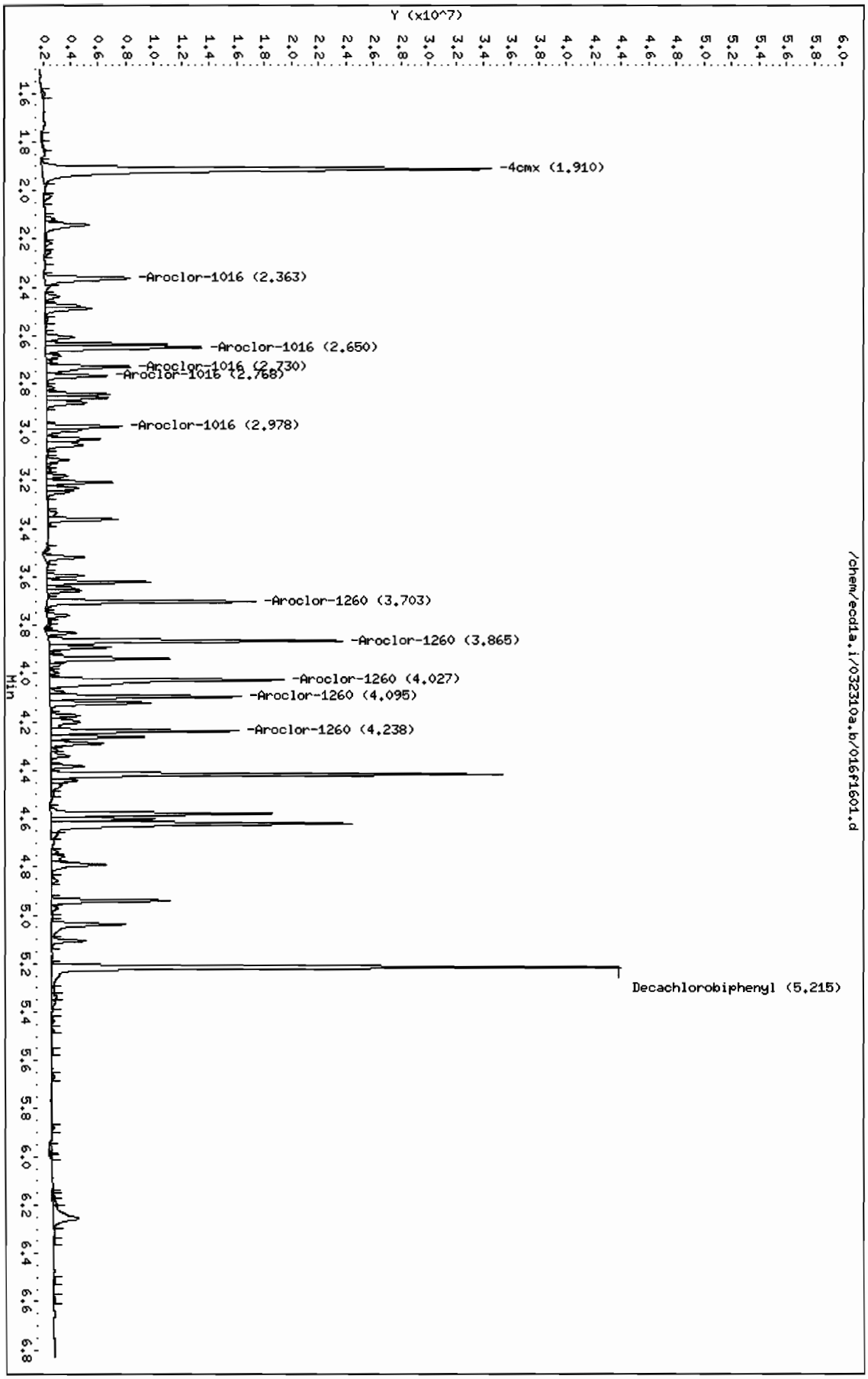

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/017b1701.d
Lab Smp Id: 1202076366 Client Smp ID: RE46-10-12930MSD
Inj Date : 23-MAR-2010 10:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076366|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 17 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	30645536	116.819	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	25077158	133.978	4.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	7682155	610.423	22.2	80.00- 120.00	100.00(M)
3.247	3.248	-0.001	5009387	580.179	21.1	45.31- 85.31	65.21
3.310	3.311	-0.001	3050696	577.058	21.0	20.51- 60.51	39.71
3.537	3.538	-0.001	3967793	575.650	21.0	31.09- 71.09	51.65

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.612	3.614	-0.002	3481107	542.012	19.7	37.88- 77.88	55.05
Average of Peak Concentrations =					21.0		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	8714119	666.205	24.2	80.00- 120.00	100.00
4.427	4.428	-0.001	10606333	682.122	24.8	101.60- 141.60	121.71
4.693	4.695	-0.002	8095314	680.503	24.8	71.82- 111.82	92.90
4.866	4.867	-0.001	8341264	678.747	24.7	75.59- 115.59	95.72
5.014	5.015	-0.001	18790623	711.911	25.9	192.18- 232.18	215.63
Average of Peak Concentrations =					24.9		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/017b1701.d

Page 1

Date : 23-MAR-2010 10:37

Client ID: RE46-10-12930MSD

Instrument: ecd1a.i

Sample Info: |1202076366|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

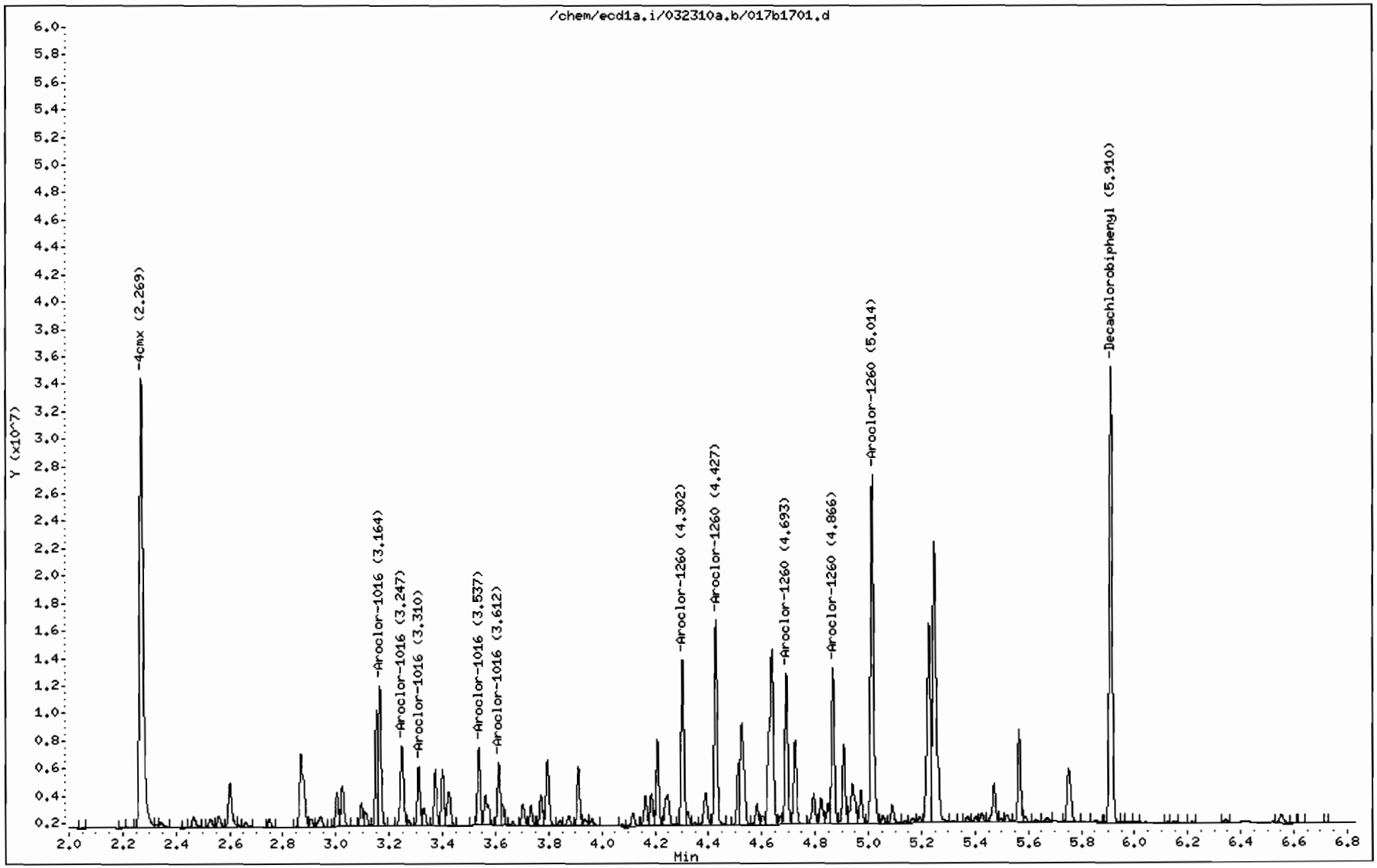

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/017f1701.d
Lab Smp Id: 1202076366 Client Smp ID: RE46-10-12930MSD
Inj Date : 23-MAR-2010 10:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076366|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 17 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2244.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	47813392	122.749	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	43027538	144.908	5.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.365	-0.002	9107248	600.077	21.8	80.00- 120.00	100.00
2.650	2.651	-0.001	11740813	620.033	22.6	107.62- 147.62	128.92
2.730	2.732	-0.002	7057387	567.216	20.6	58.11- 98.11	77.49
2.768	2.770	-0.002	4170651	567.565	20.7	27.09- 67.09	45.79

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.978	2.980	-0.002	5475533	575.295	20.9	40.72- 80.72	60.12
Average of Peak Concentrations =					21.3		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	12582459	686.437	25.0	80.00- 120.00	100.00
3.865	3.867	-0.002	19194350	713.814	26.0	129.35- 169.35	152.55
4.028	4.030	-0.002	20553278	725.872	26.4	139.27- 179.27	163.35
4.095	4.097	-0.002	11550117	714.829	26.0	70.04- 110.04	91.80
4.238	4.240	-0.002	11954440	711.038	25.9	74.22- 114.22	95.01
Average of Peak Concentrations =					25.9		

Data File: /chem/ecd1a.i/032310a.b/017f1701.d
Date : 23-MAR-2010 10:37
Client ID: RE46-10-12930MSD
Sample Info: |1202076366|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

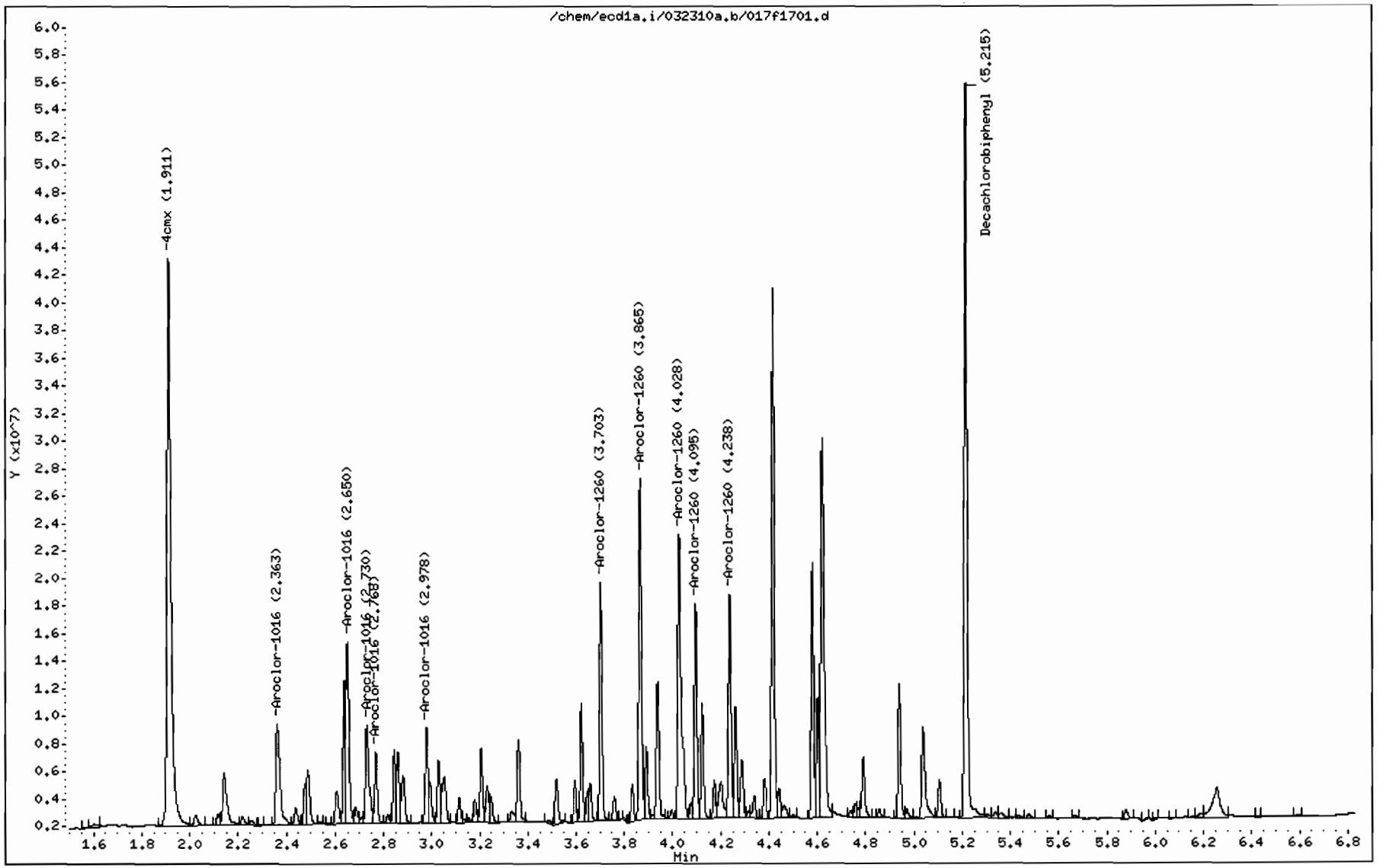

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 967399 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202076363 MB	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
1202076364 LCS	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
248863001	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
248863002	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
1202076365 MS (248863002)	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
1202076366 MSD (248863002)	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248863003	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
248863004	22-MAR-2010 11:11:00	30.04	H2SO4/KMnl		1	8	1	0.03329
248865001	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248866001	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248866002	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
248867001	22-MAR-2010 11:11:00	30.08	H2SO4/KMnl		1	8	1	0.03324
248867002	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248867003	22-MAR-2010 11:11:00	30.02	H2SO4/KMnl		1	8	1	0.03331
248867004	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
249180001	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
249180002	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
249180003	22-MAR-2010 11:11:00	30.07	H2SO4/KMnl		1	8	1	0.03326
249180004	22-MAR-2010 11:11:00	30.09	H2SO4/KMnl		1	8	1	0.03323
249180005	22-MAR-2010 11:11:00	30.09	H2SO4/KMnl		1	8	1	0.03323
249180006	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
249180008	22-MAR-2010 11:11:00	30.09	H2SO4/KMnl		1	8	1	0.03323

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202076364	PCB Laboratory Control	WE100311-07	1	mL
MS	1202076365	PCB Laboratory Control	WE100311-07	1	mL
MSD	1202076366	PCB Laboratory Control	WE100311-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100310-16	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1273823-B1	150	mL
REGNT	All	Hexane	1279341-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 03/22/2010

Clean up Initials: RWH

Verified By: JAM

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 968933 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202080259 MB	24-MAR-2010 20:20:00	30	H2SO4/KMn2		2	9	1	0.03333
1202080260 LCS	24-MAR-2010 20:20:00	30	H2SO4/KMn2		2	9	1	0.03333
1202080261 LCSD	24-MAR-2010 20:20:00	30	H2SO4/KMn2		2	9	1	0.03333
248747002 - 3	24-MAR-2010 20:20:00	30.07	H2SO4/KMn2		2	9	1	0.03326
248867001 - 2	24-MAR-2010 20:20:00	30.02	H2SO4/KMn2		2	9	1	0.03331
248867002 - 2	24-MAR-2010 20:20:00	30.17	H2SO4/KMn2		2	9	1	0.03315
249180002 - 2	24-MAR-2010 20:20:00	30.07	H2SO4/KMn2		2	9	1	0.03326

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202080260	PCB Laboratory Control	WE100311-07	1	mL
LCSD	1202080261	PCB Laboratory Control	WE100311-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100310-16	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1289815-B1	150	mL
REGNT	All	Hexane	1289823-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 3/24/10

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

Wednesday, March 10, 2010

REQUEST NUMBER: 10-2397

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2397
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/10/2010
TURNAROUND/REPORT DUE: 4/9/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	EPA:901.1	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	

Wednesday, March 10, 2010

REQUEST NUMBER: 10-2397

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	HASL-300:AM-241	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	HASL-300:ISOPU	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	HASL-300:ISOTH	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	HASL-300:ISOU	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	

Wednesday, March 10, 2010

REQUEST NUMBER: 10-2397

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	SW-846:6020	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	SW-846:6850	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	SW-846:7471A	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	SW-846:9012A	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	

Wednesday, March 10, 2010

REQUEST NUMBER: 10-2397

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	

Final Page of REQUEST NUMBER 10-2397

Wednesday, March 10, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2397C

REQUEST NUMBER: 10-2397

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/9/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13437	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13437	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13436	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13436	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13434	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13434	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13438	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13438	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13435	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13435	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13439	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13439	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13463	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13463	1	POLY	AM241+GS+ISOPU/TH/U	None	S

Relinquished By: **Date** 3/10/10 **Time** 3:00 **Received By:** **Date** **Time**

Printed Name Signature Printed Name Signature

Printed Name Signature Printed Name Signature

Printed Name Signature Printed Name Signature

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2659 **EVENT NAME:** SMWU 46-003(b), 46-003(d),46-003(e)

SAMPLE ID: RE46-10-13437 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-09-10	MEDIA:	ALLH	QBT 3
TIME COLLECTED (HH:MM)		1505	SUB-MEDIA:	SOIL	OK
PRS ID:	46-003(d)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611598		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	12 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	13 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA ~~COMPOSITE TIME INTERVAL:~~ ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ BOREHOLE DIRECTION:

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	

SAMPLE DESC: tuff, Pinkish-gray 7.5YR 6/3, moist

SAMPLE COMMENTS: 5' below base of line/tank

LOCATION DESC: 3d-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm Samples < MDA
α = 8 cpm
β = 1017

COLLECTED BY (PRINT) J. Ivey **REVIEWED BY (PRINT)** M. Shu

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)	3-9-10	(Printed Name) Sherri Sherwood	3-9-10
(Signature)	1700	(Signature) Sherri Sherwood	1700
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2659 **EVENT NAME:** SMWU 46-003(b), 46-003(d),46-003(e)

SAMPLE ID: RE46-10-13436 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-09-10	MEDIA:	ALLH	QBT3
TIME COLLECTED (HH:MM)		1420	SUB-MEDIA:	SOIL	OK
PRS ID:	46-003(d)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611598		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	7 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	8 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA ~~COMPOSITE TIME INTERVAL:~~ ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: BOREHOLE DIRECTION:

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	

SAMPLE DESC: tuff, pinkish-gray 7.5YR 6/3, sl. moist

SAMPLE COMMENTS: Base of line/tank

LOCATION DESC: 3d-2

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.0 ppm Samples < MDA

α = 8 dpm
β = 1017

COLLECTED BY (PRINT) J. [illegible] **REVIEWED BY (PRINT)** M. Shendo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [illegible]	3-9-10	(Printed Name) Sherri Sherwood	3/9/10
(Signature)	1700	(Signature) Sherri Sherwood	1700
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2659 **EVENT NAME:** SMWU 46-003(b), 46-003(d),46-003(e)

SAMPLE ID: RE46-10-13435 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-09-10	MEDIA:	ALLH	QBT 3
TIME COLLECTED (HH:MM)		1515	SUB-MEDIA:	SOIL	OK
PRS ID:	46-003(d)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611597		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	9 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	10 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	

SAMPLE DESC: tuff, Pinkish-gray 7.5YR 6/3, moist

SAMPLE COMMENTS: 5' below base of line/tank

LOCATION DESC: 3d-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0ppm Samples < MDA

α = 8 dpm
β = 1017

COLLECTED BY (PRINT) J. Jack **REVIEWED BY (PRINT)** M Stanley

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)	3-9-10	(Printed Name) Sherri Sherwood	3-9-10
(Signature)	1700	(Signature) Sherri Sherwood	1700
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2659 **EVENT NAME:** SMWU 46-003(b), 46-003(d),46-003(e)

SAMPLE ID: RE46-10-13439 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-09-10	MEDIA:	ALLH	QBT 3
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	SOIL	OK
PRS ID:	46-003(d)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611599		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	9 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	10 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	

SAMPLE DESC: tuff, ~~QBT 3, 7.5YR~~ tuff 7.5YR 6/3, sl. moist JLS 3-9-10

SAMPLE COMMENTS: 5' below base of line/tank

LOCATION DESC: 3d-3

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm
α = 0
β = 1017 dpm
Samples LMDA

COLLECTED BY (PRINT) J. Jul **REVIEWED BY (PRINT)** M. Sheehan

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jul	3-9-10 1700	(Printed Name) Sheri Sherwood	3-9-10 1700
(Signature)		(Signature) Sheri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2659 **EVENT NAME:** SMWU 46-003(b), 46-003(d),46-003(e)

SAMPLE ID: RE46-10-13438 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-09-10	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		1410	SUB-MEDIA:	SOIL	
PRS ID:	46-003(d)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611599		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	4 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	5 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA ~~COMPOSITE TIME INTERVAL:~~ ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA ~~BOREHOLE DECLINATION:~~ ~~BOREHOLE DIRECTION:~~

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	

SAMPLE DESC: fill, brn, (7.5YR 4/3), clayey sand, moist

SAMPLE COMMENTS: Base of line/tank

LOCATION DESC: 3d-3

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0.1

α = 8 dpm
β = 1017

Sampleg ~~Background~~ 3/9-10 < MDA

COLLECTED BY (PRINT) J. Jacobson **REVIEWED BY (PRINT)** M. Shenda

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jacobson	3-9-10	(Printed Name) Sherri Sherwood	3/9/10
(Signature)	1700	(Signature) Sherri Sherwood	1700
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2659 **EVENT NAME:** SMWU 46-003(b), 46-003(d),46-003(e)

SAMPLE ID: RE46-10-13463 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-09-10	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		1430	SUB-MEDIA:	SOIL	
PRS ID:	46-003(d)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK 46-611598		FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	4 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	5 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		Met+NO3+CL04+CN	1 LITER POLY	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	

SAMPLE DESC: QC Sample of RE46-10-13434

SAMPLE COMMENTS:

LOCATION DESC: 3d-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm

α = 8 dpm
β = 1017

Samples < MDA

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** M. Shenda

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-9-10	(Printed Name) Sherri Sherwood	3-9-10
(Signature)	1700	(Signature) Sherri Sherwood	1700
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2659 **EVENT NAME:** SMWU 46-003(b), 46-003(d),46-003(e)

SAMPLE ID: RE46-10-13434 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-09-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1430	SUB-MEDIA:	SOIL	
PRS ID:	46-003(d)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	46-611597	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	4 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	5 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ ~~BOREHOLE DIRECTION:~~ _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU/TH/U	1 LITER POLY	None	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	

SAMPLE DESC: Fill, brn 7.5YR, clayey Sand, v. moist

SAMPLE COMMENTS: Base of line/tank

LOCATION DESC: 3d-1

FIELD SCREENING/MEASUREMENT RESULTS: PID = 0 ppm Samples < MDA
α 8 dpm
β = 1017

COLLECTED BY (PRINT) J. [illegible] **REVIEWED BY (PRINT)** M. Shenlo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [illegible]	3-9-10 1700	(Printed Name) Sherri Shenwood	3-9-10 1700
(Signature)		(Signature) Sherri Shenwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2659 **EVENT NAME:** SMWU 46-003(b), 46-003(d),46-003(e)

SAMPLE ID: RE46-10-13462 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-09-10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1430	SUB-MEDIA:	OTHER	
PRS ID:	46-003(d)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK 46-611598		FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	4 Ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	5 Ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 2	3-9-10	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-13434

SAMPLE COMMENTS:

LOCATION DESC: 3d-1

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) T. Jordan **REVIEWED BY (PRINT)** M. Shendo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [illegible]	3-9-10	(Printed Name) Sherri Sherwood	3-9-10
(Signature) [illegible]	1700	(Signature) Sherri Sherwood	1700
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2397 VALIDATION DATE: 6/1/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS/MSD %R calculations were performed incorrectly. The parent sample result was < the MDL and, thus, a result of 0 µg/kg should have been used to calculate the %Rs. The laboratory subtracted the parent sample concentration. The %Rs were within the acceptance limits when calculated correctly. No sample results were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/02/10

VALIDATOR'S SIGNATURE: DATE: 6/1/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☒	☐	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☐	☒	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☐	☒	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966571

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13437

Date Received: 11-MAR-10

GEL Job No (SDG): 10-2397

GEL Sample ID: 249179001

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.612	2.45	0.612	ug/kg	U	1	29-MAR-10 18:04	per0329030a
	Perchlorate Isotope Ratio						1	29-MAR-10 18:04	per0329030a
14797-73-0	Perchlorate-101	.612	2.45	0.612	ug/kg	U	1	29-MAR-10 18:04	per0329030a
	Perchlorate-O(18)			5.68	ug/kg		1	29-MAR-10 18:04	per0329030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LMF
6/1/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966571

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13436

Date Received: 11-MAR-10

GEL Job No (SDG): 10-2397

GEL Sample ID: 249179002

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.601	2.4	0.601	ug/kg	U	1	29-MAR-10 18:28	per0329033a
	Perchlorate Isotope Ratio						1	29-MAR-10 18:28	per0329033a
14797-73-0	Perchlorate-101	.601	2.4	0.601	ug/kg	U	1	29-MAR-10 18:28	per0329033a
	Perchlorate-O(18)			5.51	ug/kg		1	29-MAR-10 18:28	per0329033a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966571

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13434

Date Received: 11-MAR-10

GEL Job No (SDG): 10-2397

GEL Sample ID: 249179003

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.589	2.35	0.589	ug/kg	U	1	29-MAR-10 18:36	per0329034a
	Perchlorate Isotope Ratio						1	29-MAR-10 18:36	per0329034a
14797-73-0	Perchlorate-101	.589	2.35	0.589	ug/kg	U	1	29-MAR-10 18:36	per0329034a
	Perchlorate-O(18)			5.46	ug/kg		1	29-MAR-10 18:36	per0329034a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LMF
6/1/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966571

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13438

Date Received: 11-MAR-10

GEL Job No (SDG): 10-2397

GEL Sample ID: 249179004

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.596	2.38	0.596	ug/kg	U	1	29-MAR-10 19:08	per0329038a
	Perchlorate Isotope Ratio						1	29-MAR-10 19:08	per0329038a
14797-73-0	Perchlorate-101	.596	2.38	0.596	ug/kg	U	1	29-MAR-10 19:08	per0329038a
	Perchlorate-O(18)			5.42	ug/kg		1	29-MAR-10 19:08	per0329038a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966571

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13435

Date Received: 11-MAR-10

GEL Job No (SDG): 10-2397

GEL Sample ID: 249179005

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.609	2.44	0.609	ug/kg	U	1	29-MAR-10 19:16	per0329039a
	Perchlorate Isotope Ratio						1	29-MAR-10 19:16	per0329039a
14797-73-0	Perchlorate-101	.609	2.44	0.609	ug/kg	U	1	29-MAR-10 19:16	per0329039a
	Perchlorate-O(18)			5.72	ug/kg		1	29-MAR-10 19:16	per0329039a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LMF
6/1/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966571

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-13439

Date Received: 11-MAR-10

GEL Job No (SDG): 10-2397

GEL Sample ID: 249179006

Date Filtered: 22-MAR-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.573	2.29	0.573	ug/kg	U	1	29-MAR-10 19:24	per0329040a
	Perchlorate Isotope Ratio						1	29-MAR-10 19:24	per0329040a
14797-73-0	Perchlorate-101	.573	2.29	0.573	ug/kg	U	1	29-MAR-10 19:24	per0329040a
	Perchlorate-O(18)			5.37	ug/kg		1	29-MAR-10 19:24	per0329040a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LMF

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 966571

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46–10–13463

Date Received: 11–MAR–10

GEL Job No (SDG): 10–2397

GEL Sample ID: 249179007

Date Filtered: 22–MAR–10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.591	2.36	0.591	ug/kg	U	1	29–MAR–10 19:32	per0329041a
	Perchlorate Isotope Ratio						1	29–MAR–10 19:32	per0329041a
14797–73–0	Perchlorate–101	.591	2.36	0.591	ug/kg	U	1	29–MAR–10 19:32	per0329041a
	Perchlorate–O(18)			5.46	ug/kg		1	29–MAR–10 19:32	per0329041a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LMF

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2397 VALIDATION DATE: 6/1/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS %R was < the laboratory LAL but ≥10% for Zn. The associated sample results were detects and, thus, were qualified J-,I6a. The MS %Rs were < the laboratory LAL but ≥10% for Mn and > the laboratory UALs for Al. However, the associated parent sample results were >4X the spike concentrations and, thus, no sample results were qualified, based on professional judgment.
2. The duplicate RPDs were >20% for Mg and Zn, and both the duplicate and parent sample results were ≥5X the PQL. The associated sample results were detects and, thus, were qualified J,I10a.
3. It should be noted that the matrix QC parent sample for CVAA was from another LANL RN. No sample results were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/02/10

VALIDATOR'S SIGNATURE: DATE: 6/1/10

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2397 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249179001 **BASIS:** Dry Weight **DATE COLLECTED** 09-MAR-10

CLIENT ID: RE46-10-13437 **LEVEL:** Low **DATE RECEIVED** 11-MAR-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	3050000	ug/kg		8200	24100	24100	1	P	HSC	04/05/10 15:53	040510-1	965578
7440-36-0	Antimony	1210	ug/kg	U	398	1210	1210	1	P	HSC	04/05/10 15:53	040510-1	965578
7440-38-2	Arsenic	1010	ug/kg	J	243	1210	1210	2	MS	RMJ	05/13/10 05:31	100512-2	965581
7440-39-3	Barium	30300	ug/kg	*	121	603	603	1	P	HSC	04/05/10 15:53	040510-1	965578
7440-41-7	Beryllium	342	ug/kg	*	24.3	121	121	2	MS	RMJ	05/13/10 05:31	100512-2	965581
7440-43-9	Cadmium	138	ug/kg	J	121	603	603	1	P	HSC	04/05/10 15:53	040510-1	965578
7440-70-2	Calcium	902000	ug/kg	*	9640	30100	30100	1	P	HSC	04/05/10 15:53	040510-1	965578
7440-47-3	Chromium	2360	ug/kg		181	603	603	1	P	HSC	04/05/10 15:53	040510-1	965578
7440-48-4	Cobalt	1140	ug/kg		181	603	603	1	P	HSC	04/05/10 15:53	040510-1	965578
7440-50-8	Copper	18200	ug/kg	*	362	1210	1210	1	P	HSC	04/05/10 15:53	040510-1	965578
7439-89-6	Iron	8740000	ug/kg		9640	30100	30100	1	P	HSC	04/05/10 15:53	040510-1	965578
7439-92-1	Lead	6150	ug/kg	*	301	1210	1210	1	P	HSC	04/05/10 15:53	040510-1	965578
7439-95-4	Magnesium J,I10a	695000	ug/kg	*	10200	36200	36200	1	P	HSC	04/05/10 15:53	040510-1	965578
7439-96-5	Manganese	302000	ug/kg		241	1210	1210	1	P	HSC	04/05/10 15:53	040510-1	965578
7439-97-6	Mercury	81.6	ug/kg		4.86	14.3	14.3	1	AV	JXL1	03/31/10 09:51	033110S1-3	969277
7440-02-0	Nickel	2780	ug/kg	*	121	485	485	2	MS	RMJ	05/13/10 05:31	100512-2	965581
7440-09-7	Potassium	441000	ug/kg	*	7720	30100	30100	1	P	HSC	04/05/10 15:53	040510-1	965578
7782-49-2	Selenium	1210	ug/kg	U	606	1210	1210	2	MS	RMJ	05/13/10 05:31	100512-2	965581
7440-22-4	Silver	603	ug/kg	U	121	603	603	1	P	HSC	04/05/10 15:53	040510-1	965578
7440-23-5	Sodium	90400	ug/kg		8440	30100	30100	1	P	HSC	04/05/10 15:53	040510-1	965578
7440-28-0	Thallium	243	ug/kg	U	72.8	243	243	2	MS	RMJ	05/13/10 05:31	100512-2	965581
7440-62-2	Vanadium	5750	ug/kg	*	121	603	603	1	P	HSC	04/05/10 15:53	040510-1	965578
7440-66-6	Zinc J-,I6a	106000	ug/kg	*N	398	1210	1210	1	P	HSC	04/05/10 15:53	040510-1	965578

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965578	965577	SW846 3050B	0.508	g	50	mL	03/26/10	BXA1
965581	965580	SW846 3050B	0.505	g	50	mL	03/25/10	LYH1
969277	969276	SW846 7471A Prep	0.514	g	30	mL	03/30/10	TXB3

LMF
6/1/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2397 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249179002 **BASIS:** Dry Weight **DATE COLLECTED** 09-MAR-10

CLIENT ID: RE46-10-13436 **LEVEL:** Low **DATE RECEIVED** 11-MAR-10

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	3610000	ug/kg		8120	23900	23900	1	P	HSC	04/05/10 16:06	040510-1	965578
7440-36-0	Antimony	1190	ug/kg	U	394	1190	1190	1	P	HSC	04/05/10 16:06	040510-1	965578
7440-38-2	Arsenic	2020	ug/kg		210	1050	1050	2	MS	RMJ	05/13/10 06:02	100512-2	965581
7440-39-3	Barium	37900	ug/kg	*	119	597	597	1	P	HSC	04/05/10 16:06	040510-1	965578
7440-41-7	Beryllium	365	ug/kg	*	21	105	105	2	MS	RMJ	05/13/10 06:02	100512-2	965581
7440-43-9	Cadmium	438	ug/kg	J	119	597	597	1	P	HSC	04/05/10 16:06	040510-1	965578
7440-70-2	Calcium	1230000	ug/kg	*	9550	29900	29900	1	P	HSC	04/05/10 16:06	040510-1	965578
7440-47-3	Chromium	3780	ug/kg		179	597	597	1	P	HSC	04/05/10 16:06	040510-1	965578
7440-48-4	Cobalt	2160	ug/kg		179	597	597	1	P	HSC	04/05/10 16:06	040510-1	965578
7440-50-8	Copper	26700	ug/kg	*	358	1190	1190	1	P	HSC	04/05/10 16:06	040510-1	965578
7439-89-6	Iron	10800000	ug/kg		9550	29900	29900	1	P	HSC	04/05/10 16:06	040510-1	965578
7439-92-1	Lead	17600	ug/kg	*	299	1190	1190	1	P	HSC	04/05/10 16:06	040510-1	965578
7439-95-4	Magnesium J,I10a	641000	ug/kg	*	10200	35800	35800	1	P	HSC	04/05/10 16:06	040510-1	965578
7439-96-5	Manganese	317000	ug/kg		239	1190	1190	1	P	HSC	04/05/10 16:06	040510-1	965578
7439-97-6	Mercury	110	ug/kg		4.72	13.9	13.9	1	AV	JXL1	03/31/10 09:53	033110S1-3	969277
7440-02-0	Nickel	8130	ug/kg	*	105	419	419	2	MS	RMJ	05/13/10 06:02	100512-2	965581
7440-09-7	Potassium	469000	ug/kg	*	7640	29900	29900	1	P	HSC	04/05/10 16:06	040510-1	965578
7782-49-2	Selenium	1050	ug/kg	U	524	1050	1050	2	MS	RMJ	05/13/10 06:02	100512-2	965581
7440-22-4	Silver	597	ug/kg	U	119	597	597	1	P	HSC	04/05/10 16:06	040510-1	965578
7440-23-5	Sodium	101000	ug/kg		8360	29900	29900	1	P	HSC	04/05/10 16:06	040510-1	965578
7440-28-0	Thallium	210	ug/kg	U	62.9	210	210	2	MS	RMJ	05/13/10 06:02	100512-2	965581
7440-62-2	Vanadium	8720	ug/kg	*	119	597	597	1	P	HSC	04/05/10 16:06	040510-1	965578
7440-66-6	Zinc J-,I6a	73300	ug/kg	*N	394	1190	1190	1	P	HSC	04/05/10 16:06	040510-1	965578

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965578	965577	SW846 3050B	0.503	g	50	mL	03/26/10	BXA1
965581	965580	SW846 3050B	0.573	g	50	mL	03/25/10	LYH1
969277	969276	SW846 7471A Prep	0.519	g	30	mL	03/30/10	TXB3

LMF
6/1/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2397 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249179003 **BASIS:** Dry Weight **DATE COLLECTED** 09-MAR-10

CLIENT ID: RE46-10-13434 **LEVEL:** Low **DATE RECEIVED** 11-MAR-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	2320000	ug/kg		7740	22800	22800	1	P	HSC	04/05/10 16:08	040510-1	965578
7440-36-0	Antimony	1140	ug/kg	U	376	1140	1140	1	P	HSC	04/05/10 16:08	040510-1	965578
7440-38-2	Arsenic	997	ug/kg	J	231	1160	1160	2	MS	RMJ	05/13/10 06:06	100512-2	965581
7440-39-3	Barium	20100	ug/kg	*	114	569	569	1	P	HSC	04/05/10 16:08	040510-1	965578
7440-41-7	Beryllium	288	ug/kg	*	23.1	116	116	2	MS	RMJ	05/13/10 06:06	100512-2	965581
7440-43-9	Cadmium	569	ug/kg	U	114	569	569	1	P	HSC	04/05/10 16:08	040510-1	965578
7440-70-2	Calcium	737000	ug/kg	*	9110	28500	28500	1	P	HSC	04/05/10 16:08	040510-1	965578
7440-47-3	Chromium	2900	ug/kg		171	569	569	1	P	HSC	04/05/10 16:08	040510-1	965578
7440-48-4	Cobalt	1000	ug/kg		171	569	569	1	P	HSC	04/05/10 16:08	040510-1	965578
7440-50-8	Copper	4120	ug/kg	*	342	1140	1140	1	P	HSC	04/05/10 16:08	040510-1	965578
7439-89-6	Iron	7350000	ug/kg		9110	28500	28500	1	P	HSC	04/05/10 16:08	040510-1	965578
7439-92-1	Lead	6670	ug/kg	*	285	1140	1140	1	P	HSC	04/05/10 16:08	040510-1	965578
7439-95-4	Magnesium J,I10a	394000	ug/kg	*	9680	34200	34200	1	P	HSC	04/05/10 16:08	040510-1	965578
7439-96-5	Manganese	240000	ug/kg		228	1140	1140	1	P	HSC	04/05/10 16:08	040510-1	965578
7439-97-6	Mercury	26.3	ug/kg		4.21	12.4	12.4	1	AV	JXL1	03/31/10 09:54	033110S1-3	969277
7440-02-0	Nickel	2280	ug/kg	*	116	463	463	2	MS	RMJ	05/13/10 06:06	100512-2	965581
7440-09-7	Potassium	338000	ug/kg	*	7290	28500	28500	1	P	HSC	04/05/10 16:08	040510-1	965578
7782-49-2	Selenium	1160	ug/kg	U	578	1160	1160	2	MS	RMJ	05/13/10 06:06	100512-2	965581
7440-22-4	Silver	569	ug/kg	U	114	569	569	1	P	HSC	04/05/10 16:08	040510-1	965578
7440-23-5	Sodium	79700	ug/kg		7970	28500	28500	1	P	HSC	04/05/10 16:08	040510-1	965578
7440-28-0	Thallium	231	ug/kg	U	69.4	231	231	2	MS	RMJ	05/13/10 06:06	100512-2	965581
7440-62-2	Vanadium	6080	ug/kg	*	114	569	569	1	P	HSC	04/05/10 16:08	040510-1	965578
7440-66-6	Zinc J-,I6a	27500	ug/kg	*N	376	1140	1140	1	P	HSC	04/05/10 16:08	040510-1	965578

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965578	965577	SW846 3050B	0.517	g	50	mL	03/26/10	BXA1
965581	965580	SW846 3050B	0.509	g	50	mL	03/25/10	LYH1
969277	969276	SW846 7471A Prep	0.571	g	30	mL	03/30/10	TXB3

LMF
6/1/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2397 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249179004 **BASIS:** Dry Weight **DATE COLLECTED** 09-MAR-10

CLIENT ID: RE46-10-13438 **LEVEL:** Low **DATE RECEIVED** 11-MAR-10

MATRIX: SOIL **%SOLIDS:** 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	3780000	ug/kg		8080	23800	23800	1	P	HSC	04/05/10 16:10	040510-1	965578
7440-36-0	Antimony	1190	ug/kg	U	392	1190	1190	1	P	HSC	04/05/10 16:10	040510-1	965578
7440-38-2	Arsenic	1050	ug/kg	J	235	1170	1170	2	MS	RMJ	05/13/10 06:11	100512-2	965581
7440-39-3	Barium	32400	ug/kg	*	119	594	594	1	P	HSC	04/05/10 16:10	040510-1	965578
7440-41-7	Beryllium	481	ug/kg	*	23.5	117	117	2	MS	RMJ	05/13/10 06:11	100512-2	965581
7440-43-9	Cadmium	594	ug/kg	U	119	594	594	1	P	HSC	04/05/10 16:10	040510-1	965578
7440-70-2	Calcium	1050000	ug/kg	*	9510	29700	29700	1	P	HSC	04/05/10 16:10	040510-1	965578
7440-47-3	Chromium	3980	ug/kg		178	594	594	1	P	HSC	04/05/10 16:10	040510-1	965578
7440-48-4	Cobalt	1370	ug/kg		178	594	594	1	P	HSC	04/05/10 16:10	040510-1	965578
7440-50-8	Copper	5330	ug/kg	*	357	1190	1190	1	P	HSC	04/05/10 16:10	040510-1	965578
7439-89-6	Iron	8440000	ug/kg		9510	29700	29700	1	P	HSC	04/05/10 16:10	040510-1	965578
7439-92-1	Lead	8230	ug/kg	*	297	1190	1190	1	P	HSC	04/05/10 16:10	040510-1	965578
7439-95-4	Magnesium J,I10a	801000	ug/kg	*	10100	35700	35700	1	P	HSC	04/05/10 16:10	040510-1	965578
7439-96-5	Manganese	280000	ug/kg		238	1190	1190	1	P	HSC	04/05/10 16:10	040510-1	965578
7439-97-6	Mercury	29.8	ug/kg		4.13	12.1	12.1	1	AV	JXL1	03/31/10 09:56	033110S1-3	969277
7440-02-0	Nickel	3780	ug/kg	*	117	470	470	2	MS	RMJ	05/13/10 06:11	100512-2	965581
7440-09-7	Potassium	477000	ug/kg	*	7610	29700	29700	1	P	HSC	04/05/10 16:10	040510-1	965578
7782-49-2	Selenium	1170	ug/kg	U	587	1170	1170	2	MS	RMJ	05/13/10 06:11	100512-2	965581
7440-22-4	Silver	594	ug/kg	U	119	594	594	1	P	HSC	04/05/10 16:10	040510-1	965578
7440-23-5	Sodium	59100	ug/kg		8320	29700	29700	1	P	HSC	04/05/10 16:10	040510-1	965578
7440-28-0	Thallium	235	ug/kg	U	70.5	235	235	2	MS	RMJ	05/13/10 06:11	100512-2	965581
7440-62-2	Vanadium	7670	ug/kg	*	119	594	594	1	P	HSC	04/05/10 16:10	040510-1	965578
7440-66-6	Zinc J-,I6a	31300	ug/kg	*N	392	1190	1190	1	P	HSC	04/05/10 16:10	040510-1	965578

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965578	965577	SW846 3050B	0.501	g	50	mL	03/26/10	BXA1
965581	965580	SW846 3050B	0.507	g	50	mL	03/25/10	LYH1
969277	969276	SW846 7471A Prep	0.589	g	30	mL	03/30/10	TXB3

LMF
6/1/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2397 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249179005 **BASIS:** Dry Weight **DATE COLLECTED** 09-MAR-10

CLIENT ID: RE46-10-13435 **LEVEL:** Low **DATE RECEIVED** 11-MAR-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	6470000	ug/kg		8170	24000	24000	1	P	HSC	04/05/10 16:12	040510-1	965578
7440-36-0	Antimony	1200	ug/kg	U	396	1200	1200	1	P	HSC	04/05/10 16:12	040510-1	965578
7440-38-2	Arsenic	1350	ug/kg		226	1130	1130	2	MS	RMJ	05/13/10 06:15	100512-2	965581
7440-39-3	Barium	52100	ug/kg	*	120	601	601	1	P	HSC	04/05/10 16:12	040510-1	965578
7440-41-7	Beryllium	500	ug/kg	*	22.6	113	113	2	MS	RMJ	05/13/10 06:15	100512-2	965581
7440-43-9	Cadmium	601	ug/kg	U	120	601	601	1	P	HSC	04/05/10 16:12	040510-1	965578
7440-70-2	Calcium	2290000	ug/kg	*	9610	30000	30000	1	P	HSC	04/05/10 16:12	040510-1	965578
7440-47-3	Chromium	5750	ug/kg		180	601	601	1	P	HSC	04/05/10 16:12	040510-1	965578
7440-48-4	Cobalt	2330	ug/kg		180	601	601	1	P	HSC	04/05/10 16:12	040510-1	965578
7440-50-8	Copper	16700	ug/kg	*	360	1200	1200	1	P	HSC	04/05/10 16:12	040510-1	965578
7439-89-6	Iron	10800000	ug/kg		9610	30000	30000	1	P	HSC	04/05/10 16:12	040510-1	965578
7439-92-1	Lead	10300	ug/kg	*	300	1200	1200	1	P	HSC	04/05/10 16:12	040510-1	965578
7439-95-4	Magnesium J,I10a	1240000	ug/kg	*	10200	36000	36000	1	P	HSC	04/05/10 16:12	040510-1	965578
7439-96-5	Manganese	275000	ug/kg		240	1200	1200	1	P	HSC	04/05/10 16:12	040510-1	965578
7439-97-6	Mercury	35.7	ug/kg		4.7	13.8	13.8	1	AV	JXL1	03/31/10 09:58	033110S1-3	969277
7440-02-0	Nickel	4440	ug/kg	*	113	453	453	2	MS	RMJ	05/13/10 06:15	100512-2	965581
7440-09-7	Potassium	786000	ug/kg	*	7690	30000	30000	1	P	HSC	04/05/10 16:12	040510-1	965578
7782-49-2	Selenium	1130	ug/kg	U	566	1130	1130	2	MS	RMJ	05/13/10 06:15	100512-2	965581
7440-22-4	Silver	601	ug/kg	U	120	601	601	1	P	HSC	04/05/10 16:12	040510-1	965578
7440-23-5	Sodium	132000	ug/kg		8410	30000	30000	1	P	HSC	04/05/10 16:12	040510-1	965578
7440-28-0	Thallium	74.9	ug/kg	J	67.9	226	226	2	MS	RMJ	05/13/10 06:15	100512-2	965581
7440-62-2	Vanadium	12100	ug/kg	*	120	601	601	1	P	HSC	04/05/10 16:12	040510-1	965578
7440-66-6	Zinc J-,I6a	65000	ug/kg	*N	396	1200	1200	1	P	HSC	04/05/10 16:12	040510-1	965578

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965578	965577	SW846 3050B	0.507	g	50	mL	03/26/10	BXA1
965581	965580	SW846 3050B	0.538	g	50	mL	03/25/10	LYH1
969277	969276	SW846 7471A Prep	0.529	g	30	mL	03/30/10	TXB3

LMF
6/1/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2397 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249179006 **BASIS:** Dry Weight **DATE COLLECTED** 09-MAR-10

CLIENT ID: RE46-10-13439 **LEVEL:** Low **DATE RECEIVED** 11-MAR-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	1870000	ug/kg		7560	22200	22200	1	P	HSC	04/05/10 16:15	040510-1	965578
7440-36-0	Antimony	1110	ug/kg	U	367	1110	1110	1	P	HSC	04/05/10 16:15	040510-1	965578
7440-38-2	Arsenic	1160	ug/kg		219	1100	1100	2	MS	RMJ	05/13/10 06:19	100512-2	965581
7440-39-3	Barium	26600	ug/kg	*	111	556	556	1	P	HSC	04/05/10 16:15	040510-1	965578
7440-41-7	Beryllium	341	ug/kg	*	21.9	110	110	2	MS	RMJ	05/13/10 06:19	100512-2	965581
7440-43-9	Cadmium	556	ug/kg	U	111	556	556	1	P	HSC	04/05/10 16:15	040510-1	965578
7440-70-2	Calcium	742000	ug/kg	*	8890	27800	27800	1	P	HSC	04/05/10 16:15	040510-1	965578
7440-47-3	Chromium	2790	ug/kg		167	556	556	1	P	HSC	04/05/10 16:15	040510-1	965578
7440-48-4	Cobalt	1040	ug/kg		167	556	556	1	P	HSC	04/05/10 16:15	040510-1	965578
7440-50-8	Copper	7790	ug/kg	*	333	1110	1110	1	P	HSC	04/05/10 16:15	040510-1	965578
7439-89-6	Iron	4760000	ug/kg		8890	27800	27800	1	P	HSC	04/05/10 16:15	040510-1	965578
7439-92-1	Lead	4230	ug/kg	*	278	1110	1110	1	P	HSC	04/05/10 16:15	040510-1	965578
7439-95-4	Magnesium J,I10a	532000	ug/kg	*	9450	33300	33300	1	P	HSC	04/05/10 16:15	040510-1	965578
7439-96-5	Manganese	104000	ug/kg		222	1110	1110	1	P	HSC	04/05/10 16:15	040510-1	965578
7439-97-6	Mercury	171	ug/kg		3.99	11.7	11.7	1	AV	JXL1	03/31/10 10:00	033110S1-3	969277
7440-02-0	Nickel	2630	ug/kg	*	110	439	439	2	MS	RMJ	05/13/10 06:19	100512-2	965581
7440-09-7	Potassium	297000	ug/kg	*	7110	27800	27800	1	P	HSC	04/05/10 16:15	040510-1	965578
7782-49-2	Selenium	1100	ug/kg	U	548	1100	1100	2	MS	RMJ	05/13/10 06:19	100512-2	965581
7440-22-4	Silver	556	ug/kg	U	111	556	556	1	P	HSC	04/05/10 16:15	040510-1	965578
7440-23-5	Sodium	54300	ug/kg		7780	27800	27800	1	P	HSC	04/05/10 16:15	040510-1	965578
7440-28-0	Thallium	219	ug/kg	U	65.8	219	219	2	MS	RMJ	05/13/10 06:19	100512-2	965581
7440-62-2	Vanadium	5910	ug/kg	*	111	556	556	1	P	HSC	04/05/10 16:15	040510-1	965578
7440-66-6	Zinc J-,I6a	41600	ug/kg	*N	367	1110	1110	1	P	HSC	04/05/10 16:15	040510-1	965578

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965578	965577	SW846 3050B	0.516	g	50	mL	03/26/10	BXA1
965581	965580	SW846 3050B	0.523	g	50	mL	03/25/10	LYH1
969277	969276	SW846 7471A Prep	0.586	g	30	mL	03/30/10	TXB3

LMF
6/1/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2397 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 249179007 **BASIS:** Dry Weight **DATE COLLECTED** 09-MAR-10

CLIENT ID: RE46-10-13463 **LEVEL:** Low **DATE RECEIVED** 11-MAR-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	3760000	ug/kg		8040	23600	23600	1	P	HSC	04/05/10 16:17	040510-1	965578
7440-36-0	Antimony	1180	ug/kg	U	390	1180	1180	1	P	HSC	04/05/10 16:17	040510-1	965578
7440-38-2	Arsenic	1460	ug/kg		225	1130	1130	2	MS	RMJ	05/13/10 06:24	100512-2	965581
7440-39-3	Barium	34500	ug/kg	*	118	591	591	1	P	HSC	04/05/10 16:17	040510-1	965578
7440-41-7	Beryllium	371	ug/kg	*	22.5	113	113	2	MS	RMJ	05/13/10 06:24	100512-2	965581
7440-43-9	Cadmium	591	ug/kg	U	118	591	591	1	P	HSC	04/05/10 16:17	040510-1	965578
7440-70-2	Calcium	1210000	ug/kg	*	9460	29500	29500	1	P	HSC	04/05/10 16:17	040510-1	965578
7440-47-3	Chromium	3500	ug/kg		177	591	591	1	P	HSC	04/05/10 16:17	040510-1	965578
7440-48-4	Cobalt	1610	ug/kg		177	591	591	1	P	HSC	04/05/10 16:17	040510-1	965578
7440-50-8	Copper	6690	ug/kg	*	355	1180	1180	1	P	HSC	04/05/10 16:17	040510-1	965578
7439-89-6	Iron	8890000	ug/kg		9460	29500	29500	1	P	HSC	04/05/10 16:17	040510-1	965578
7439-92-1	Lead	13200	ug/kg	*	295	1180	1180	1	P	HSC	04/05/10 16:17	040510-1	965578
7439-95-4	Magnesium J,I10a	660000	ug/kg	*	10000	35500	35500	1	P	HSC	04/05/10 16:17	040510-1	965578
7439-96-5	Manganese	268000	ug/kg		236	1180	1180	1	P	HSC	04/05/10 16:17	040510-1	965578
7439-97-6	Mercury	53.6	ug/kg		4.76	14	14	1	AV	JXLI	03/31/10 10:01	033110S1-3	969277
7440-02-0	Nickel	3370	ug/kg	*	113	450	450	2	MS	RMJ	05/13/10 06:24	100512-2	965581
7440-09-7	Potassium	515000	ug/kg	*	7560	29500	29500	1	P	HSC	04/05/10 16:17	040510-1	965578
7782-49-2	Selenium	1130	ug/kg	U	563	1130	1130	2	MS	RMJ	05/13/10 06:24	100512-2	965581
7440-22-4	Silver	591	ug/kg	U	118	591	591	1	P	HSC	04/05/10 16:17	040510-1	965578
7440-23-5	Sodium	99300	ug/kg		8270	29500	29500	1	P	HSC	04/05/10 16:17	040510-1	965578
7440-28-0	Thallium	225	ug/kg	U	67.5	225	225	2	MS	RMJ	05/13/10 06:24	100512-2	965581
7440-62-2	Vanadium	8750	ug/kg	*	118	591	591	1	P	HSC	04/05/10 16:17	040510-1	965578
7440-66-6	Zinc J-,I6a	46400	ug/kg	*N	390	1180	1180	1	P	HSC	04/05/10 16:17	040510-1	965578

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
965578	965577	SW846 3050B	0.5	g	50	mL	03/26/10	BXA1
965581	965580	SW846 3050B	0.525	g	50	mL	03/25/10	LYH1
969277	969276	SW846 7471A Prep	0.507	g	30	mL	03/30/10	TXB3

LMF
6/1/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2397 VALIDATION DATE: 6/2/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the matrix QC analyses for total CN were performed on parent samples from another LANL RN. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/02/10

VALIDATOR'S SIGNATURE: DATE: 6/2/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 4, 2010

Client SDG: 10-2397

Client Sample ID:	RE46-10-13437	Project:	LANL01004
Sample ID:	249179001	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-MAR-10 12:00		
Receive Date:	11-MAR-10		
Collector:	Client		
Moisture:	18.4%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	73.1	269	ug/kg	1	AXC2 03/23/10	1447	964817	1
Chromatography										
: 300.0 Nitrate in Soil "Dry Weight Corrected"										
ate-N		2.12	0.365	1.22	mg/kg	1	GXM 04/01/10 3	1517	970173	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/31/10	1405	970172
846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

LMF
6/2/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 4, 2010

Client SDG: 10-2397

Client Sample ID:	RE46-10-13436	Project:	LANL01004
Sample ID:	249179002	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-MAR-10 12:00		
Receive Date:	11-MAR-10		
Collector:	Client		
Moisture:	16.8%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	77.1	283	ug/kg	1	AXC2 03/23/10	1448	964817	1
Chromatography										
300.0 Nitrate in Soil "Dry Weight Corrected"										
ate-N		2.87	0.357	1.19	mg/kg	1	GXM 3 04/01/10	1544	970173	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/31/10	1405	970172
846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 4, 2010

Client SDG: 10-2397

Client Sample ID:	RE46-10-13434	Project:	LANL01004
Sample ID:	249179003	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-MAR-10 12:00		
Receive Date:	11-MAR-10		
Collector:	Client		
Moisture:	15.1%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	80.1	294	ug/kg	1	AXC2 03/23/10	1449	964817	1
Chromatography										
: 300.0 Nitrate in Soil "Dry Weight Corrected"										
ate-N		1.43	0.353	1.18	mg/kg	1	GXM 04/01/10 3	1633	970173	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/31/10	1405	970172
846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

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TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 4, 2010

Client SDG: 10-2397

Client Sample ID:	RE46-10-13438	Project:	LANL01004
Sample ID:	249179004	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-MAR-10 12:00		
Receive Date:	11-MAR-10		
Collector:	Client		
Moisture:	16%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	73.6	271	ug/kg	1	AXC2 03/23/10	1450	964817	1
Chromatography										
300.0 Nitrate in Soil "Dry Weight Corrected"										
ate-N		1.43	0.354	1.18	mg/kg	1	GXM 04/01/10 3	1659	970173	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/31/10	1405	970172
846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 4, 2010

Client SDG: 10-2397

Client Sample ID:	RE46-10-13435	Project:	LANL01004
Sample ID:	249179005	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-MAR-10 12:00		
Receive Date:	11-MAR-10		
Collector:	Client		
Moisture:	17.9%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	78.1	287	ug/kg	1	AXC2 03/23/10	1451	964817	1
Chromatography										
: 300.0 Nitrate in Soil "Dry Weight Corrected"										
ate-N		2.68	0.365	1.22	mg/kg	1	GXM 04/01/10 3	1726	970173	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/31/10	1405	970172
846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

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6/2/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 4, 2010

Client SDG: 10-2397

Client Sample ID:	RE46-10-13439	Project:	LANL01004
Sample ID:	249179006	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-MAR-10 12:00		
Receive Date:	11-MAR-10		
Collector:	Client		
Moisture:	12.8%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	76.5	281	ug/kg	1	AXC2 03/23/10	1451	964817	1
Chromatography										
' 300.0 Nitrate in Soil "Dry Weight Corrected"										
ate-N		2.01	0.344	1.15	mg/kg	1	GXM 04/01/10 3	1753	970173	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/31/10	1405	970172
846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

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6/2/10

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 4, 2010

Client SDG: 10-2397

Client Sample ID:	RE46-10-13463	Project:	LANL01004
Sample ID:	249179007	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-MAR-10 12:00		
Receive Date:	11-MAR-10		
Collector:	Client		
Moisture:	15.4%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	78.8	290	ug/kg	1	AXC2 03/23/10	1452	964817	1
Chromatography										
: 300.0 Nitrate in Soil "Dry Weight Corrected"										
ate-N		2.19	0.355	1.18	mg/kg	1	GXM 04/01/10 3	1820	970173	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	GXM3	03/31/10	1405	970172
846 9010B Prep	SW846 9010B Prep	AXS5	03/22/10	1532	964816

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

LMF
6/2/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2397 VALIDATION DATE: 6/2/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. All gamma spec sample results that were rejected by the laboratory due to interference or low abundance were qualified R,R5a. In the duplicate sample, the laboratory also rejected several results. No sample data were qualified as a result.
2. It should be noted that the matrix QC for all analyses except alpha spec -Am and gamma spec were performed on parent samples from other LANL RNs. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 06/02/10

VALIDATOR'S SIGNATURE: DATE: 6/2/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☐	☒	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 10, 2010

Client Sample ID:	RE46-10-13437	Project:	LANL01004
Sample ID:	249179001	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-MAR-10		
Receive Date:	11-MAR-10		
Collector:	Client		
Moisture:	18.4%		

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	M
vimetric Solids													
s Received"													
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
ericium-241		0.0619		0.0239	+/-0.0109	0.050	pCi/g		HAKB	04/09/10	0830	973308	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.0138		0.0191	+/-0.00628	0.050	pCi/g		HAKB	04/07/10	2048	972663	4
tonium-239/240	U	0.0102		0.0162	+/-0.00709	0.050	pCi/g						
)TH "Dry Weight Corrected"													
rium-228		1.83		0.203	+/-0.190	0.100	pCi/g		AYB1	03/29/10	1705	965814	7
rium-230		0.970		0.255	+/-0.119	0.100	pCi/g						
rium-232		1.64		0.109	+/-0.174	0.100	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		3.54		0.101	+/-0.278	0.100	pCi/g		HAKB	04/03/10	1616	966612	9
nium-235/236		0.177		0.0616	+/-0.0313	0.100	pCi/g						
nium-238		1.01		0.0709	+/-0.0942	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.0592		0.556	+/-0.162	0.200	pCi/g		MXR1	03/23/10	1644	964804	10
muth-211	UI	4.12	R,R5a	0.468	+/-0.376		pCi/g						
muth-214		1.20		0.153	+/-0.121	0.200	pCi/g						
lmium-109	UI	2.46	R,R5a	2.15	+/-0.793		pCi/g						
ium-139	U	0.0114		0.0678	+/-0.0208	0.050	pCi/g						
ium-134	UI	0.176	R,R5a	0.111	+/-0.0344	0.100	pCi/g						
ium-137	U	-0.0286		0.0789	+/-0.0243	0.100	pCi/g						
alt-60	U	0.00468		0.0865	+/-0.0266	0.100	pCi/g						
opium-152	U	0.100		0.226	+/-0.0833	0.200	pCi/g						
thanum-140	U	-0.0242		0.162	+/-0.0497		pCi/g						
d-212		2.06		0.131	+/-0.145	0.100	pCi/g						
d-214		1.50		0.170	+/-0.142	0.100	pCi/g						
rcury-203	U	0.0709		0.0898	+/-0.0282	0.100	pCi/g						
assium-40		35.5		0.720	+/-2.05	1.00	pCi/g						
lium-223	U	0.829		1.55	+/-0.504		pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 10, 2010

Client Sample ID: RE46-10-13437
Sample ID: 249179001

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
. Gamma Spec Analysis													
ıMMA SPEC "Dry Weight Corrected"													
lium-224	UI	5.59	R,R5a	1.40	+/-0.997		pCi/g						
lium-226		1.20		0.153	+/-0.121		pCi/g						
lium-228		1.99		0.288	+/-0.251	0.500	pCi/g						
henium-106	U	0.0469		0.609	+/-0.185	0.800	pCi/g						
lium-22	U	0.0128		0.105	+/-0.0318	0.080	pCi/g						
›ntium-85	U	0.0856		0.0908	+/-0.0284		pCi/g						
ıllium-208		0.653		0.0727	+/-0.0529	0.080	pCi/g						
›rium-227	U	-0.111		0.537	+/-0.159		pCi/g						
›rium-231	U	0.829		1.55	+/-0.504		pCi/g						
›rium-234	U	0.563		4.44	+/-1.28	2.00	pCi/g						
-113	U	-0.0362		0.0933	+/-0.029	0.100	pCi/g						
ınium-235	U	0.238		0.505	+/-0.150	0.500	pCi/g						
rium-88	U	-0.0117		0.0519	+/-0.0173	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
·ericium-243 Tracer	AM241 "Dry Weight Corrected"	64.6	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	92.9	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	75.0	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	93.0	(50%-105%)

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 10, 2010

Client Sample ID:	RE46-10-13436	Project:	LANL01004
Sample ID:	249179002	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-MAR-10		
Receive Date:	11-MAR-10		
Collector:	Client		
Moisture:	16.8%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ıs Received"													
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
ericium-241	U	0.0173		0.0179	+/-0.00807	0.050	pCi/g		HAKB	04/09/10	0830	973308	2
)PU "Dry Weight Corrected"													
tonium-238	U	-0.00769		0.0192	+/-0.00937	0.050	pCi/g		HAKB	04/07/10	2048	972663	4
tonium-239/240	U	0.00767		0.0162	+/-0.00704	0.050	pCi/g						
)TH "Dry Weight Corrected"													
›rium-228		2.25		0.237	+/-0.237	0.100	pCi/g		AYB1	03/29/10	1705	965814	7
›rium-230		2.26		0.298	+/-0.234	0.100	pCi/g						
›rium-232		1.60		0.127	+/-0.180	0.100	pCi/g						
)U "Dry Weight Corrected"													
ınium-233/234		1.86		0.103	+/-0.157	0.100	pCi/g		HAKB	04/03/10	1616	966612	9
ınium-235/236		0.346		0.0627	+/-0.0467	0.100	pCi/g						
ınium-238		0.913		0.0721	+/-0.0875	0.100	pCi/g						
Gamma Spec Analysis													
ıMMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.376		0.498	+/-0.149	0.200	pCi/g		MXR1	03/23/10	1849	964804	10
muth-211	UI	4.31	R,R5a	0.410	+/-0.353		pCi/g						
muth-214		1.26		0.129	+/-0.112	0.200	pCi/g						
lmium-109	UI	2.24	R,R5a	2.22	+/-0.700		pCi/g						
·ium-139	U	-0.0397		0.0618	+/-0.0197	0.050	pCi/g						
;ium-134	U	0.0773		0.106	+/-0.0291	0.100	pCi/g						
;ium-137	U	0.0401		0.0811	+/-0.0225	0.100	pCi/g						
›alt-60	U	0.049		0.081	+/-0.0222	0.100	pCi/g						
'opium-152	U	0.0388		0.203	+/-0.0848	0.200	pCi/g						
ıthanum-140	U	0.0129		0.154	+/-0.047		pCi/g						
ıd-212		1.78		0.116	+/-0.126	0.100	pCi/g						
ıd-214		1.56		0.149	+/-0.135	0.100	pCi/g						
rcury-203	U	0.0482		0.0847	+/-0.0235	0.100	pCi/g						
assium-40		32.1		0.530	+/-1.84	1.00	pCi/g						
lium-223	U	-0.129		1.31	+/-0.443		pCi/g						
lium-224	UI	5.15	R,R5a	1.25	+/-0.878		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 10, 2010

Client Sample ID: RE46-10-13436
Sample ID: 249179002

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
ıMMA SPEC "Dry Weight Corrected"													
lium-226		1.26		0.129	+/-0.112		pCi/g						
lium-228		2.03		0.241	+/-0.193	0.500	pCi/g						
henium-106	U	0.339		0.631	+/-0.179	0.800	pCi/g						
lium-22	U	-0.0137		0.0845	+/-0.0267	0.080	pCi/g						
ɔntium-85	UI	0.118	R,R5a	0.0917	+/-0.0276		pCi/g						
ıllium-208		0.510		0.0685	+/-0.0511	0.080	pCi/g						
ɔrium-227	U	0.0987		0.552	+/-0.156		pCi/g						
ɔrium-231	U	-0.129		1.31	+/-0.443		pCi/g						
ɔrium-234	U	1.63		4.20	+/-1.17	2.00	pCi/g						
-113	U	-0.0464		0.0848	+/-0.0265	0.100	pCi/g						
ınium-235	U	0.136		0.443	+/-0.130	0.500	pCi/g						
rium-88	U	0.00328		0.0463	+/-0.0137	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ɜricium-243 Tracer	AM241 "Dry Weight Corrected"	100	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	99.8	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	60.8	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	91.9	(50%-105%)

tes:
?U is calculated at the 67% confidence level (1-sigma).
ıe Qualifiers in this report are defined as follows :

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 10, 2010

Client Sample ID:	RE46-10-13434	Project:	LANL01004
Sample ID:	249179003	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-MAR-10		
Receive Date:	11-MAR-10		
Collector:	Client		
Moisture:	15.1%		

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
s Received"													
Alpha Spec Analysis													
241 "Dry Weight Corrected"													
ericium-241	U	0.00376		0.0232	+/-0.00302	0.050	pCi/g		HAKB	03/26/10	1820	966602	2
PU "Dry Weight Corrected"													
tonium-238	U	-0.00243		0.0203	+/-0.00521	0.050	pCi/g		HAKB	04/07/10	2048	972663	3
tonium-239/240	U	0.00794		0.0172	+/-0.00392	0.050	pCi/g						
TH "Dry Weight Corrected"													
rium-228		2.24		0.235	+/-0.237	0.100	pCi/g		AYB1	03/29/10	1705	965814	6
rium-230		2.74		0.294	+/-0.272	0.100	pCi/g						
rium-232		1.90		0.126	+/-0.204	0.100	pCi/g						
U "Dry Weight Corrected"													
nium-233/234		0.968		0.0965	+/-0.0909	0.100	pCi/g		HAKB	04/03/10	1616	966612	8
nium-235/236	U	0.0423		0.0589	+/-0.0137	0.100	pCi/g						
nium-238		0.821		0.0678	+/-0.0796	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.0453		0.187	+/-0.0548	0.200	pCi/g		MXR1	03/23/10	1903	964804	9
muth-211	UI	3.73	R,R5a	0.337	+/-0.288		pCi/g						
muth-214		1.25		0.114	+/-0.109	0.200	pCi/g						
lmium-109	UI	2.03	R,R5a	1.20	+/-0.500		pCi/g						
ium-139	U	-0.0317		0.0465	+/-0.015	0.050	pCi/g						
ium-134	U	0.0575		0.0925	+/-0.0259	0.100	pCi/g						
ium-137	U	0.018		0.0747	+/-0.0216	0.100	pCi/g						
alt-60	U	0.000844		0.0678	+/-0.0205	0.100	pCi/g						
opium-152	U	-0.0155		0.164	+/-0.0536	0.200	pCi/g						
thanum-140	U	-0.0498		0.129	+/-0.0499		pCi/g						
d-212		1.96		0.0969	+/-0.113	0.100	pCi/g						
d-214		1.35		0.126	+/-0.111	0.100	pCi/g						
rcury-203	U	0.0551		0.065	+/-0.0247	0.100	pCi/g						
assium-40		32.0		0.596	+/-1.70	1.00	pCi/g						
lium-223	U	-0.065		1.14	+/-0.387		pCi/g						
lium-224	UI	5.01	R,R5a	1.04	+/-0.663		pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 10, 2010

Client Sample ID: RE46-10-13434
Sample ID: 249179003

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis													
ıMMA SPEC "Dry Weight Corrected"													
lium-226		1.25		0.114	+/-0.109		pCi/g						
lium-228		1.64		0.242	+/-0.199	0.500	pCi/g						
henium-106	U	0.205		0.571	+/-0.162	0.800	pCi/g						
lium-22	U	0.0296		0.0879	+/-0.0252	0.080	pCi/g						
ɔntium-85	UI	0.109	R,R5a	0.0782	+/-0.0222		pCi/g						
ıllium-208		0.565		0.0644	+/-0.0512	0.080	pCi/g						
ɔrium-227	U	0.0759		0.427	+/-0.123		pCi/g						
ɔrium-231	U	-0.065		1.14	+/-0.387		pCi/g						
ɔrium-234	U	1.19		1.87	+/-0.532	2.00	pCi/g						
-113	U	-0.0188		0.0791	+/-0.0245	0.100	pCi/g						
ınium-235	U	0.292		0.366	+/-0.109	0.500	pCi/g						
rium-88	U	-0.0125		0.0509	+/-0.0166	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ɜricium-243 Tracer	AM241 "Dry Weight Corrected"	77.8	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	92.8	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	59.8	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	91.9	(50%-105%)

tes:
?U is calculated at the 67% confidence level (1-sigma).
ıe Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 10, 2010

Client Sample ID:	RE46-10-13438	Project:	LANL01004
Sample ID:	249179004	Client ID:	LANL010
Matrix:	S		
Collect Date:	09-MAR-10		
Receive Date:	11-MAR-10		
Collector:	Client		
Moisture:	16%		

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
s Received"													
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
ericium-241	U	0.0103		0.0214	+/-0.00393	0.050	pCi/g		HAKB	03/26/10	1820	966602	2
PU "Dry Weight Corrected"													
tonium-238	U	0.0105		0.0226	+/-0.00609	0.050	pCi/g		HAKB	04/07/10	2048	972663	3
tonium-239/240	U	0.00459		0.0191	+/-0.00439	0.050	pCi/g						
TH "Dry Weight Corrected"													
rium-228		2.04		0.179	+/-0.198	0.100	pCi/g		AYB1	03/29/10	1705	965814	6
rium-230		1.31		0.224	+/-0.141	0.100	pCi/g						
rium-232		1.91		0.0956	+/-0.186	0.100	pCi/g						
U "Dry Weight Corrected"													
nium-233/234		0.871		0.101	+/-0.0841	0.100	pCi/g		HAKB	04/03/10	1616	966612	8
nium-235/236	U	0.0574		0.0616	+/-0.0176	0.100	pCi/g						
nium-238		0.886		0.0708	+/-0.0851	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	0.00086		0.0806	+/-0.0259	0.200	pCi/g		MXR1	03/23/10	1904	964804	9
muth-211	UI	4.45	R,R5a	0.356	+/-0.309		pCi/g						
muth-214		1.49		0.114	+/-0.122	0.200	pCi/g						
lmium-109	UI	4.00	R,R5a	0.798	+/-0.399		pCi/g						
ium-139	U	-0.00683		0.0422	+/-0.0124	0.050	pCi/g						
ium-134	UI	0.137	R,R5a	0.102	+/-0.0457	0.100	pCi/g						
ium-137	U	0.017		0.0872	+/-0.0244	0.100	pCi/g						
alt-60	U	0.0269		0.0711	+/-0.0201	0.100	pCi/g						
opium-152	U	-0.00306		0.160	+/-0.048	0.200	pCi/g						
thanum-140	U	-0.0412		0.144	+/-0.0458		pCi/g						
d-212		2.12		0.0861	+/-0.134	0.100	pCi/g						
d-214		1.62		0.118	+/-0.121	0.100	pCi/g						
rcury-203	U	-0.00384		0.0592	+/-0.0205	0.100	pCi/g						
assium-40		33.7		0.497	+/-1.71	1.00	pCi/g						
lium-223	U	-0.198		1.01	+/-0.338		pCi/g						
lium-224	UI	5.55	R,R5a	0.923	+/-0.750		pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 10, 2010

Client Sample ID: RE46-10-13438
Sample ID: 249179004

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
. **Gamma Spec Analysis**												
ıMMA SPEC "Dry Weight Corrected"												
lium-226		1.49	0.114	+/-0.122		pCi/g						
lium-228		2.32	0.230	+/-0.236	0.500	pCi/g						
henium-106	U	-0.068	0.502	+/-0.149	0.800	pCi/g						
lium-22	U	-0.0454	0.079	+/-0.0261	0.080	pCi/g						
ɔntium-85	U	0.0392	0.0659	+/-0.0211		pCi/g						
ıllium-208		0.599	0.060	+/-0.058	0.080	pCi/g						
ɔrium-227	U	-0.197	0.364	+/-0.117		pCi/g						
ɔrium-231	U	-0.198	1.01	+/-0.338		pCi/g						
ɔrium-234		1.96	0.776	+/-0.498	2.00	pCi/g						
-113	U	-0.0341	0.0695	+/-0.0215	0.100	pCi/g						
ınium-235	U	-0.0337	0.284	+/-0.0829	0.500	pCi/g						
rium-88	U	0.0214	0.0639	+/-0.0175	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ɜricium-243 Tracer	AM241 "Dry Weight Corrected"	84.7	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	94.8	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	81.0	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	92.4	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ıe Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound

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Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 10, 2010

Client Sample ID: RE46-10-13435
Sample ID: 249179005
Matrix: S
Collect Date: 09-MAR-10
Receive Date: 11-MAR-10
Collector: Client
Moisture: 17.9%

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
s Received"													
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
ericium-241	U	0.0289		0.0321	+/-0.00924	0.050	pCi/g		HAKB	03/26/10	1820	966602	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.000653		0.020	+/-0.00435	0.050	pCi/g		HAKB	04/07/10	2048	972663	3
tonium-239/240	U	0.00668		0.0169	+/-0.00401	0.050	pCi/g						
)TH "Dry Weight Corrected"													
rium-228		2.00		0.178	+/-0.195	0.100	pCi/g		AYB1	03/29/10	1706	965814	6
rium-230		1.39		0.223	+/-0.146	0.100	pCi/g						
rium-232		1.54		0.0953	+/-0.158	0.100	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		1.71		0.0964	+/-0.144	0.100	pCi/g		HAKB	04/03/10	1616	966612	8
nium-235/236		0.110		0.0589	+/-0.0229	0.100	pCi/g						
nium-238		0.957		0.0677	+/-0.0894	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	0.0896		0.127	+/-0.0402	0.200	pCi/g		MXR1	03/23/10	2012	964804	9
muth-211	UI	4.38	R,R5a	0.358	+/-0.321		pCi/g						
muth-214		1.37		0.140	+/-0.109	0.200	pCi/g						
lmium-109	UI	2.98	R,R5a	1.37	+/-0.438		pCi/g						
ium-139	U	-0.0249		0.0571	+/-0.0177	0.050	pCi/g						
ium-134	UI	0.130	R,R5a	0.119	+/-0.0517	0.100	pCi/g						
ium-137	U	-0.0119		0.0845	+/-0.0264	0.100	pCi/g						
alt-60	U	-0.0186		0.0793	+/-0.0256	0.100	pCi/g						
opium-152	U	0.0733		0.190	+/-0.0778	0.200	pCi/g						
thanum-140	U	-0.0505		0.136	+/-0.054		pCi/g						
d-212		1.85		0.171	+/-0.130	0.100	pCi/g						
d-214		1.59		0.130	+/-0.124	0.100	pCi/g						
rcury-203	U	0.0396		0.075	+/-0.0239	0.100	pCi/g						
assium-40		33.4		0.605	+/-1.46	1.00	pCi/g						
lium-223	U	0.487		1.29	+/-0.422		pCi/g						
lium-224	UI	3.08	R,R5a	1.83	+/-0.506		pCi/g						

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GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 10, 2010

Client Sample ID: RE46-10-13435
Sample ID: 249179005
Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
. Gamma Spec Analysis												
ıMMA SPEC "Dry Weight Corrected"												
lium-226		1.37	0.140	+/-0.109		pCi/g						
lium-228		2.35	0.254	+/-0.232	0.500	pCi/g						
henium-106	U	0.0643	0.665	+/-0.201	0.800	pCi/g						
lium-22	U	-0.0214	0.101	+/-0.0319	0.080	pCi/g						
›ntium-85	U	0.0438	0.0792	+/-0.0258		pCi/g						
ıllium-208		0.654	0.0743	+/-0.0515	0.080	pCi/g						
›rium-227	U	0.290	0.532	+/-0.150		pCi/g						
›rium-231	U	0.487	1.29	+/-0.422		pCi/g						
›rium-234		1.48	1.26	+/-0.520	2.00	pCi/g						
-113	U	-0.00649	0.0914	+/-0.0273	0.100	pCi/g						
ınium-235	U	0.261	0.412	+/-0.121	0.500	pCi/g						
rium-88	U	0.00886	0.0726	+/-0.0214	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
·ericium-243 Tracer	AM241 "Dry Weight Corrected"	57.4	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	93.8	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	84.3	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	96.2	(50%-105%)

tes:
?U is calculated at the 67% confidence level (1-sigma).
ıe Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound

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GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 10, 2010

Client Sample ID: RE46-10-13439
Sample ID: 249179006
Matrix: S
Collect Date: 09-MAR-10
Receive Date: 11-MAR-10
Collector: Client
Moisture: 12.8%

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ıs Received"													
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
ericium-241		0.0755		0.0203	+/-0.0112	0.050	pCi/g		HAKB	04/09/10	0830	973308	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.00546		0.0216	+/-0.0066	0.050	pCi/g		HAKB	04/07/10	2048	972663	4
tonium-239/240	U	-0.00168		0.0182	+/-0.00334	0.050	pCi/g						
)TH "Dry Weight Corrected"													
›rium-228		2.04		0.186	+/-0.201	0.100	pCi/g		AYB1	03/29/10	1706	965814	7
›rium-230		1.60		0.233	+/-0.165	0.100	pCi/g						
›rium-232		1.94		0.0994	+/-0.190	0.100	pCi/g						
)U "Dry Weight Corrected"													
ınium-233/234		1.72		0.0975	+/-0.146	0.100	pCi/g		HAKB	04/03/10	1616	966612	9
ınium-235/236		0.107		0.0595	+/-0.0243	0.100	pCi/g						
ınium-238		0.968		0.0685	+/-0.0909	0.100	pCi/g						
Gamma Spec Analysis													
ıMMA SPEC "Dry Weight Corrected"													
ericium-241	U	0.0886		0.219	+/-0.0675	0.200	pCi/g		MXR1	03/23/10	2033	964804	10
muth-211	UI	3.73	R,R5a	0.306	+/-0.293		pCi/g						
muth-214		1.08		0.0986	+/-0.0855	0.200	pCi/g						
lmium-109	UI	2.99	R,R5a	1.23	+/-0.460		pCi/g						
ium-139	U	-0.00488		0.0474	+/-0.0138	0.050	pCi/g						
;ium-134	UI	0.102	R,R5a	0.0735	+/-0.0301	0.100	pCi/g						
;ium-137	U	0.0138		0.0581	+/-0.0171	0.100	pCi/g						
›alt-60	U	0.0187		0.0567	+/-0.0164	0.100	pCi/g						
'opium-152	U	-0.0643		0.144	+/-0.0506	0.200	pCi/g						
ıthanum-140	U	0.0358		0.117	+/-0.0389		pCi/g						
ıd-212		1.72		0.0904	+/-0.125	0.100	pCi/g						
ıd-214		1.35		0.111	+/-0.113	0.100	pCi/g						
rcury-203	U	0.0217		0.0653	+/-0.0194	0.100	pCi/g						
assium-40		32.9		0.446	+/-1.68	1.00	pCi/g						
lium-223	U	-0.0813		0.957	+/-0.323		pCi/g						
lium-224	UI	4.31	R,R5a	0.968	+/-0.605		pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 10, 2010

Client Sample ID: RE46-10-13439
Sample ID: 249179006
Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
. **Gamma Spec Analysis**													
ıMMA SPEC "Dry Weight Corrected"													
lium-226		1.08		0.0986	+/-0.0855		pCi/g						
lium-228		2.01		0.202	+/-0.197	0.500	pCi/g						
henium-106	U	-0.0885		0.463	+/-0.141	0.800	pCi/g						
lium-22	U	-0.0375		0.0592	+/-0.0192	0.080	pCi/g						
›ntium-85	UI	0.112	R,R5a	0.0689	+/-0.0216		pCi/g						
ıllium-208		0.513		0.0488	+/-0.0463	0.080	pCi/g						
›rium-227	U	0.0748		0.393	+/-0.117		pCi/g						
›rium-231	U	-0.0813		0.957	+/-0.323		pCi/g						
›rium-234	U	1.69		1.87	+/-0.860	2.00	pCi/g						
-113	U	0.00319		0.0685	+/-0.0203	0.100	pCi/g						
ınium-235		0.434		0.315	+/-0.144	0.500	pCi/g						
rium-88	U	0.027		0.0479	+/-0.0142	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
·ericium-243 Tracer	AM241 "Dry Weight Corrected"	84.9	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	96.7	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	77.7	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	96.0	(50%-105%)

tes:
·U is calculated at the 67% confidence level (1-sigma).
ıe Qualifiers in this report are defined as follows :

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GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 10, 2010

Client Sample ID: RE46-10-13463
Sample ID: 249179007
Matrix: S
Collect Date: 09-MAR-10
Receive Date: 11-MAR-10
Collector: Client
Moisture: 15.4%

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ıs Received"													
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
.ericium-241	U	0.00878		0.0214	+/-0.00362	0.050	pCi/g		HAKB	03/26/10	1820	966602	2
)PU "Dry Weight Corrected"													
tonium-238	U	-0.00588		0.0191	+/-0.00492	0.050	pCi/g		HAKB	04/07/10	2048	972663	3
tonium-239/240	U	0.000682		0.0161	+/-0.00253	0.050	pCi/g						
)TH "Dry Weight Corrected"													
›rium-228		2.05		0.179	+/-0.200	0.100	pCi/g		AYB1	03/29/10	1706	965814	6
›rium-230		1.14		0.224	+/-0.127	0.100	pCi/g						
›rium-232		1.81		0.0956	+/-0.179	0.100	pCi/g						
)U "Dry Weight Corrected"													
ınium-233/234		1.22		0.0968	+/-0.109	0.100	pCi/g		HAKB	04/03/10	1616	966612	8
ınium-235/236		0.0679		0.0591	+/-0.0187	0.100	pCi/g						
ınium-238		0.975		0.0681	+/-0.0909	0.100	pCi/g						
Gamma Spec Analysis													
ıMMA SPEC "Dry Weight Corrected"													
.ericium-241	U	0.128		0.301	+/-0.0936	0.200	pCi/g		MXR1	03/23/10	2044	964804	9
muth-211	UI	4.13	R,R5a	0.396	+/-0.284		pCi/g						
muth-214		1.32		0.111	+/-0.104	0.200	pCi/g						
lmium-109	UI	3.97	R,R5a	1.36	+/-0.563		pCi/g						
ium-139	U	-0.00931		0.057	+/-0.017	0.050	pCi/g						
ium-134	UI	0.114	R,R5a	0.0936	+/-0.0409	0.100	pCi/g						
ium-137	U	0.0336		0.0731	+/-0.0204	0.100	pCi/g						
›alt-60	U	0.0206		0.0633	+/-0.0178	0.100	pCi/g						
'opium-152	U	-0.231		0.171	+/-0.0663	0.200	pCi/g						
ıthanum-140	U	-0.0338		0.129	+/-0.0413		pCi/g						
ıd-212		1.88		0.102	+/-0.111	0.100	pCi/g						
ıd-214		1.50		0.145	+/-0.111	0.100	pCi/g						
rcury-203	U	0.0242		0.0709	+/-0.0228	0.100	pCi/g						
assium-40		33.7		0.555	+/-2.04	1.00	pCi/g						
lium-223	U	-0.0257		1.09	+/-0.366		pCi/g						
lium-224	UI	6.15	R,R5a	1.09	+/-0.743		pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 10, 2010

Client Sample ID: RE46-10-13463 Project: LANL01004
Sample ID: 249179007 Client ID: LANL010

ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis												
MMA SPEC "Dry Weight Corrected"												
lium-226		1.32	0.111	+/-0.104		pCi/g						
lium-228		1.97	0.222	+/-0.204	0.500	pCi/g						
henium-106	U	0.0713	0.530	+/-0.152	0.800	pCi/g						
lium-22	U	-0.00335	0.0714	+/-0.0213	0.080	pCi/g						
ontium-85	U	0.0554	0.0742	+/-0.0238		pCi/g						
llium-208		0.583	0.0631	+/-0.0469	0.080	pCi/g						
rium-227	U	-0.155	0.438	+/-0.129		pCi/g						
rium-231	U	-0.0257	1.09	+/-0.366		pCi/g						
rium-234	U	2.14	2.53	+/-1.00	2.00	pCi/g						
-113	U	0.0016	0.0792	+/-0.0233	0.100	pCi/g						
nium-235	U	0.0573	0.414	+/-0.122	0.500	pCi/g						
rium-88	U	0.00918	0.0574	+/-0.0168	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	86.3	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	96.0	(50%-105%)
rium-229 Tracer	ISOTH "Dry Weight Corrected"	82.5	(50%-105%)
nium-232 Tracer	ISOU "Dry Weight Corrected"	98.2	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ne Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound

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Wednesday, March 10, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2397C

REQUEST NUMBER: 10-2397

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/9/2010
TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

249179%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13437	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13437	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13436	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13436	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13434	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13434	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13438	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13438	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13435	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13435	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13439	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-13439	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13463	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-13463	1	POLY	AM241+GS+ISOPU/TH/U	None	S

Relinquished By:	Date	Time	Received By:	Date	Time
	3/10/10	3:00	Mercedes Simmons Mercedes Simmons	3/11/10	0900
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name / Signature

Hard Copy Required

Wednesday, March 10, 2010

REQUEST NUMBER: 10-2397

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2397
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/10/2010
TURNAROUND/REPORT DUE: 4/9/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	EPA:901.1	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	

Wednesday, March 10, 2010

REQUEST NUMBER: 10-2397

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	HASL-300:AM-241	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	HASL-300:ISOPU	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	HASL-300:ISOTH	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	HASL-300:ISOU	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	

Wednesday, March 10, 2010

REQUEST NUMBER: 10-2397

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	SW-846:6020	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	SW-846:6850	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	SW-846:7471A	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	RE46-10-13436	S	3/9/2010	
		1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	
	SW-846:9012A	1	RE46-10-13434	S	3/9/2010	
		1	RE46-10-13435	S	3/9/2010	
		1	[illegible]	S	[illegible]	

Wednesday, March 10, 2010

REQUEST NUMBER: 10-2397

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE46-10-13437	S	3/9/2010	
		1	RE46-10-13438	S	3/9/2010	
		1	RE46-10-13439	S	3/9/2010	
		1	RE46-10-13463	S	3/9/2010	

Final Page of REQUEST NUMBER 10-2397

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

March 17, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 249179
SDG: 10-2397

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 11, 2010, and analyzed for General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2397
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 249179
SDG: 10-2397

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Case Narrative

Case Narrative for
ARS International (63641-10)
LANL Project - ARRA
Workorder #: 251870
SDG # : 10-2937

May 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The sample arrived at GEL Laboratories LLC, Charleston, South Carolina on April 28, 2010 for analysis. The sample was prepared/analyzed within the required holding time. Shipping container temperature was checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. The Metals container was preserved prior to analysis. There are no additional comments concerning sample receipt. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following sample:

Laboratory ID	Client ID
251870001	GW03-10-16675

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC/MS Volatile and Metals.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for
Valerie Davis

Project Manager

List of current GEL Certifications as of 04 May 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Tuesday, April 27, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2937C

REQUEST NUMBER: 10-2937

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 5/7/2010

TURNAROUND REQ'D: 10

LAB REQUEST COMMENTS:

251870

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
GW03-10-16675	1	POLY	METALS	Nitric Acid	W
GW03-10-16675	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	W
GW03-10-16675	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	W
GW03-10-16675	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	W
GW03-10-16675	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	W
GW03-10-16675	3	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	W

Relinquished By:		Date	Time	Received By:		Date	Time
Printed Name	Signature			Printed Name	Signature		
		4/27/10	1400	Patricia Dover-Dent	P. W. Dent	4-28-10	09:10
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name	Signature		

Hard Copy Required

Tuesday, April 27, 2010

REQUEST NUMBER: 10-2937

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2937
Per Agreement Number:126310011
Project Cost Code: AREW0120MV00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 4/27/2010
TURNAROUND/REPORT DUE: 5/7/2010
TURNAROUND REQ'D: 10 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	GW03-10-16675	W	4/26/2010	
	SW-846:6020	1	GW03-10-16675	W	4/26/2010	
	SW-846:8260B	1	GW03-10-16675	W	4/26/2010	
		2	GW03-10-16675	W	4/26/2010	
	SW-846:8321A_MOD	1	GW03-10-16675	W	4/26/2010	
		2	GW03-10-16675	W	4/26/2010	
		3	GW03-10-16675	W	4/26/2010	

Final Page of REQUEST NUMBER 10-2937

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client:LANL/ARSL			**SDG/AR/COC/Work Order:10-2937**
Received By:Patricia Dover-Dent			**Date Received:April 28, 2010**
Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*:60
Classified Radioactive II or III by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Samples requiring cold preservation within (0 ≤ 6 deg. C)?	X			Preservation Method: Ice bags Blue ice Dry ice None Other (describe) **2,3,21**
2a	Daily check performed and passed on IR temperature gun?	X			Temperature Device Serial #:**51049919** Secondary Temperature Device Serial # (If Applicable):
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5	Samples requiring chemical preservation at proper pH?			X	Sample ID's, containers affected and observed pH:**GW03-10-16675 for METALS** If Preservation added, Lot#: **J10027**
6	VOA vials free of headspace (defined as < 6mm bubble)?	X			Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected:**No Time Written on Chain Of Custody**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			
13	Carrier and tracking number.	X			Circle Applicable: **(FedEx Air)** FedEx Ground UPS Field Services Courier Other **7209 7850 8990 2C 7209 7850 9004 3C 7209 7850 8980 21C**

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials _____ Date 4/29/10 Page 1 of 1

Subject: Re: Sample Receipt for 4/28/10
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Thu, 29 Apr 2010 13:48:23 -0400
To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>
CC: LANL@amrad.com

Dionne Francis wrote:

> Keith,
>
> RN 10-2937: The Metals container was preserved prior to analysis.
>
> Thanks,
> Dionne

--

Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

IGIN ID: SAFA (505) 665-9968
/LENE VALDEZ
; ALAMOS NATL LAB.
0 BLDG 1237 DPU 03

; ALAMOS, NM 87545
TED STATES US

SHIP DATE: 27APR10
ACTWGT: 26.0 LB MAN
CAD: 0014176/CAFE2452

BILL SENDER

LERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

ARLESTON SC 29407
) 556-8171
: MR2A0515BYDO

21c

FedEx Express

1 of 2
7209 7850 8980
ISTER ##

WED - 28APR A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27APR10
ACTWGT: 21.0 LB MAN
CAD: 0014176/CAFE2452

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: AREW0120MV00

3c

FedEx Express

TRK# 0201 7209 7850 9004

WED - 28APR A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27APR10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2452

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BYDO

2c

FedEx Express

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PRIORITY OVERNIGHT

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SC-US
CHS

2 of 2
MPS# 0263 7209 7850 8990
Mstr# 7209 7850 8980 0201

XX CHSA

Part # 156148-434 NRIT V3 09-09

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

Volatile Analysis

Case Narrative

ChemStation Case Narrative
ARS International (ARSL)
SDG 10-2937

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B DOE-AL
Prep Method:	SW846 5030B
Analytical Batch Number:	981428

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
251870001	GW03-10-16675
1202110251	Method Blank (MB)
1202110254	Laboratory Control Sample (LCS)
1202110255	Laboratory Control Sample (LCS)
1202110252	251870001(GW03-10-16675) Post Spike (PS)
1202110253	251870001(GW03-10-16675) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 251870001 (GW03-10-16675) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
A Data Exception Document was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this sample delivery group/work order. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA6.I	Gas Chromatograph/Mass Spectrometer	HP6890N/HP5975	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

ARSL001 ARS International (63641-10)

Client SDG: 10-2937 GEL Work Order: 251870

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

DL Indicates that sample is diluted.
RA Indicates that sample is re-analyzed without re-extraction.
RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 11 MAY 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**	**Date Collected:**	**04/26/2010 12:00**	**Matrix:**	**W**
Lab Sample ID:	**251870001**	**Date Received:**	**04/28/2010 09:10**		
		Client:	**ARSL001**	**Project:**	**LANL00310**
Client ID:	**GW03-10-16675**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 18:06**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 18:06**				
Data File:	**050510V6\6J316.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	J	1.95	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**	**Date Collected:**	**04/26/2010 12:00**	**Matrix:**	**W**
Lab Sample ID:	**251870001**	**Date Received:**	**04/28/2010 09:10**		
		Client:	**ARSL001**	**Project:**	**LANL00310**
Client ID:	**GW03-10-16675**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 18:06**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 18:06**				
Data File:	**050510V6\6J316.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**	**Date Collected:**	**04/26/2010 12:00**	**Matrix:**	**W**
Lab Sample ID:	**251870001**	**Date Received:**	**04/28/2010 09:10**		
		Client:	**ARSL001**	**Project:**	**LANL00310**
Client ID:	**GW03-10-16675**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 18:06**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 18:06**				
Data File:	**050510V6\6J316.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/L		

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-2937

Matrix Type: LIQUID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202110254	LCS for batch 981428	105	101	95
1202110255	LCS for batch 981428	103	98	101
1202110251	MB for batch 981428	105	100	97
251870001	GW03-10-16675	105	101	100
1202110252	GW03-10-16675PS	104	102	98
1202110253	GW03-10-16675PSD	104	102	101

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(72%-132%)
TOL	= Toluene-d8	(76%-122%)
BFB	= Bromofluorobenzene	(77%-123%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2937 **Sample Type:** Post Spike
Client ID: GW03-10-16675PS **Matrix:** W
Lab Sample ID: 1202110252
Instrument: VOA6.I **Analysis Date:** 05/05/2010 19:01 **Dilution:** 1
Analyst: RXD1 **Prep Batch ID** 981428
Purge Vol: 5 mL **Batch ID:** 981428

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	30.8	62	36-136
74-87-3	PS	Chloromethane	50.0	0.00	U	42.1	84	47-135
75-01-4	PS	Vinyl chloride	50.0	0.00	U	42.4	85	51-136
74-83-9	PS	Bromomethane	50.0	0.00	U	46.6	93	50-140
75-00-3	PS	Chloroethane	50.0	0.00	U	50.3	101	60-125
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	51.0	102	54-146
60-29-7	PS	Ethyl ether	50.0	0.00	U	47.4	95	61-112
67-64-1	PS	Acetone	250	0.00	U	177	71	15-142
75-05-8	PS	Acetonitrile	1250	0.00	U	1390	111	53-129
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	51.3	103	59-128
74-88-4	PS	Iodomethane	250	0.00	U	234	93	57-133
75-09-2	PS	Methylene chloride	50.0	0.00	U	53.0	106	63-122
75-15-0	PS	Carbon disulfide	250	0.00	U	269	108	62-135
1634-04-4	PS	tert-Butyl methyl ether	50.0	0.00	U	54.3	109	65-120
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	53.9	108	64-120
108-05-4	PS	Vinyl acetate	250	0.00	U	316	126	56-151
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	54.8	110	58-132
78-93-3	PS	2-Butanone	250	0.00	U	199	79	11-118
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	54.8	110	63-132
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	59.8	120	56-136
67-66-3	PS	Chloroform	50.0	0.00	U	53.4	107	68-130
74-97-5	PS	Bromochloromethane	50.0	0.00	U	48.3	97	70-124

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2937 **Sample Type:** Post Spike

Client ID: GW03-10-16675PS **Matrix:** W

Lab Sample ID: 1202110252

Instrument: VOA6.I **Analysis Date:** 05/05/2010 19:01 **Dilution:** 1

Analyst: RXD1 **Prep Batch ID:** 981428

Purge Vol: 5 mL **Batch ID:** 981428

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	54.3	109	66-132
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	54.9	110	64-130
71-36-3	PS	n-Butyl alcohol	5000	0.00	U	5310	106	52-149
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	55.5	111	61-137
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	53.7	107	60-127
71-43-2	PS	Benzene	50.0	0.00	U	52.0	104	65-119
79-01-6	PS	Trichloroethylene	50.0	0.00	U	51.0	102	68-121
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	54.8	110	69-122
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	53.5	107	67-134
74-95-3	PS	Dibromomethane	50.0	0.00	U	49.9	100	70-122
108-10-1	PS	4-Methyl-2-pentanone	250	1.95	J	280	111	52-130
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	54.8	110	64-133
108-88-3	PS	Toluene	50.0	0.00	U	49.6	99	64-116
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	58.3	117	63-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	52.9	106	66-123
591-78-6	PS	2-Hexanone	250	0.00	U	194	77	25-125
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	54.9	110	70-119
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	51.4	103	63-121
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	53.4	107	66-132
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	50.2	100	72-122
108-90-7	PS	Chlorobenzene	50.0	0.00	U	52.0	104	74-116
100-41-4	PS	Ethylbenzene	50.0	0.00	U	53.4	107	59-125

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2937** **Sample Type:** **Post Spike**

Client ID: **GW03-10-16675PS** **Matrix:** **W**

Lab Sample ID: **1202110252**

Instrument: **VOA6.I** **Analysis Date:** **05/05/2010 19:01** **Dilution: 1**

Analyst: **RXD1** **Prep Batch ID:** **981428**

Purge Vol: **5 mL** **Batch ID:** **981428**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	PS	m,p-Xylenes	100	0.00	U	105	105	48-140
95-47-6	PS	o-Xylene	50.0	0.00	U	51.2	102	59-134
100-42-5	PS	Styrene	50.0	0.00	U	50.5	101	54-138
75-25-2	PS	Bromoform	50.0	0.00	U	53.5	107	59-140
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	53.9	108	65-124
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	51.8	104	61-137
108-86-1	PS	Bromobenzene	50.0	0.00	U	51.1	102	64-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	56.0	112	56-128
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	54.5	109	62-125
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	54.8	110	44-134
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	54.3	109	55-133
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	53.7	107	62-126
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	51.9	104	62-130
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	52.5	105	66-123
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	53.7	107	61-121
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	52.2	104	60-136
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	50.8	102	66-122
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	49.9	100	75-120
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	52.7	105	57-133
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	47.9	96	58-138
87-68-3	PS	Hexachlorobutadiene	50.0	0.00	U	34.9	70	48-136
91-20-3	PS	Naphthalene	50.0	0.00	U	38.8	78	63-129

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2937 **Sample Type:** Post Spike

Client ID: GW03-10-16675PS **Matrix:** W

Lab Sample ID: 1202110252

Instrument: VOA6.I **Analysis Date:** 05/05/2010 19:01 **Dilution:** 1

Analyst: RXD1 **Prep Batch ID** 981428

Purge Vol: 5 mL **Batch ID:** 981428

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	PS	1,2,3-Trichlorobenzene	50.0	0.00	U	39.5	79	65-129
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	55.1	110	69-128
120-82-1	PS	1,2,4-Trichlorobenzene	50.0	0.00	U	40.2	80	56-130
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	49.0	98	67-123

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2937 **Sample Type:** Post Spike Duplicate

Client ID: GW03-10-16675PSD **Matrix:** W

Lab Sample ID: 1202110253

Instrument: VOA6.I **Analysis Date:** 05/05/2010 19:29 **Dilution:** 1

Analyst: RXD1 **Prep Batch ID:** 981428

Purge Vol: 5 mL **Batch ID:** 981428

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	29.2	58	36-136	6	0-20
74-87-3	PSD	Chloromethane	50.0	0.00	U	40.3	81	47-135	4	0-20
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	40.8	82	51-136	4	0-20
74-83-9	PSD	Bromomethane	50.0	0.00	U	44.6	89	50-140	4	0-20
75-00-3	PSD	Chloroethane	50.0	0.00	U	48.0	96	60-125	5	0-20
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	48.1	96	54-146	6	0-20
60-29-7	PSD	Ethyl ether	50.0	0.00	U	46.9	94	61-112	1	0-20
67-64-1	PSD	Acetone	250	0.00	U	195	78	15-142	9	0-20
75-05-8	PSD	Acetonitrile	1250	0.00	U	1330	106	53-129	5	0-20
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	49.1	98	59-128	4	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	226	90	57-133	3	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	51.5	103	63-122	3	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	256	102	62-135	5	0-20
1634-04-4	PSD	tert-Butyl methyl ether	50.0	0.00	U	54.7	109	65-120	1	0-20
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	52.1	104	64-120	3	0-20
108-05-4	PSD	Vinyl acetate	250	0.00	U	290	116	56-151	8	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	53.3	107	58-132	3	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	197	79	11-118	1	0-20
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	52.8	106	63-132	4	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	58.5	117	56-136	2	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	52.2	104	68-130	2	0-20
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	47.6	95	70-124	2	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2937 **Sample Type:** Post Spike Duplicate

Client ID: GW03-10-16675PSD **Matrix:** W

Lab Sample ID: 1202110253

Instrument: VOA6.I **Analysis Date:** 05/05/2010 19:29 **Dilution:** 1

Analyst: RXD1 **Prep Batch ID** 981428

Purge Vol: 5 mL **Batch ID:** 981428

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	52.4	105	66-132	4	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	52.6	105	64-130	4	0-29
71-36-3	PSD	n-Butyl alcohol	5000	0.00	U	5240	105	52-149	1	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	53.3	107	61-137	4	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	52.9	106	60-127	2	0-20
71-43-2	PSD	Benzene	50.0	0.00	U	50.2	100	65-119	3	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	49.0	98	68-121	4	0-20
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	53.3	107	69-122	3	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	52.6	105	67-134	2	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	49.6	99	70-122	1	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	1.95	J	282	112	52-130	1	0-20
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	54.0	108	64-133	1	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	47.7	95	64-116	4	0-20
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	57.9	116	63-133	1	0-20
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	52.4	105	66-123	1	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	189	76	25-125	2	0-20
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	53.9	108	70-119	2	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	47.9	96	63-121	7	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	53.2	106	66-132	1	0-20
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	50.0	100	72-122	0	0-20
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	49.3	99	74-116	5	0-20
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	50.1	100	59-125	6	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2937 **Sample Type:** Post Spike Duplicate

Client ID: GW03-10-16675PSD **Matrix:** W

Lab Sample ID: 1202110253

Instrument: VOA6.I **Analysis Date:** 05/05/2010 19:29 **Dilution:** 1

Analyst: RXD1 **Prep Batch ID** 981428

Purge Vol: 5 mL **Batch ID:** 981428

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	97.8	98	48-140	7	0-20
95-47-6	PSD	o-Xylene	50.0	0.00	U	48.2	96	59-134	6	0-20
100-42-5	PSD	Styrene	50.0	0.00	U	47.6	95	54-138	6	0-20
75-25-2	PSD	Bromoform	50.0	0.00	U	54.9	110	59-140	3	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	54.8	110	65-124	2	0-20
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	53.8	108	61-137	4	0-20
108-86-1	PSD	Bromobenzene	50.0	0.00	U	50.2	100	64-125	2	0-20
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	52.5	105	56-128	7	0-20
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	52.1	104	62-125	4	0-20
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	52.9	106	44-134	3	0-20
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	51.3	103	55-133	6	0-20
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	50.7	101	62-126	6	0-20
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	49.1	98	62-130	6	0-20
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	49.7	99	66-123	6	0-20
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	50.0	100	61-121	7	0-20
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	48.0	96	60-136	8	0-20
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	47.5	95	66-122	7	0-20
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	46.9	94	75-120	6	0-20
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	47.6	95	57-133	10	0-20
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	48.5	97	58-138	1	0-20
87-68-3	PSD	Hexachlorobutadiene	50.0	0.00	U	34.3	69	48-136	2	0-20
91-20-3	PSD	Naphthalene	50.0	0.00	U	41.9	84	63-129	8	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2937**
Client ID: **GW03-10-16675PSD**
Lab Sample ID: **1202110253**
Instrument: **VOA6.I**
Analyst: **RXD1**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **W**
Analysis Date: **05/05/2010 19:29**
Dilution: **1**
Prep Batch ID: **981428**
Batch ID: **981428**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
87-61-6	PSD	1,2,3-Trichlorobenzene	50.0	0.00	U	41.9	84	65-129	6	0-24
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	53.1	106	69-128	4	0-20
120-82-1	PSD	1,2,4-Trichlorobenzene	50.0	0.00	U	39.2	78	56-130	2	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	46.5	93	67-123	5	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2937
Client ID: LCS for batch 981428
Lab Sample ID: 1202110254
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 05/05/2010 11:05
Dilution: 1
Prep Batch ID: 981428
Batch ID: 981428

CAS No	Parmname		Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	32.0	64	58-147
74-87-3	LCS	Chloromethane	50.0	0.0	41.2	82	57-131
75-01-4	LCS	Vinyl chloride	50.0	0.0	42.9	86	68-129
74-83-9	LCS	Bromomethane	50.0	0.0	46.2	92	70-129
75-00-3	LCS	Chloroethane	50.0	0.0	49.2	98	69-128
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	52.1	104	70-150
60-29-7	LCS	Ethyl ether	50.0	0.0	48.0	96	68-122
67-64-1	LCS	Acetone	250	0.0	175	70	30-152
75-05-8	LCS	Acetonitrile	1250	0.0	1300	104	60-121
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	51.5	103	71-130
74-88-4	LCS	Iodomethane	250	0.0	242	97	71-129
75-09-2	LCS	Methylene chloride	50.0	0.0	52.9	106	70-124
75-15-0	LCS	Carbon disulfide	250	0.0	272	109	74-137
1634-04-4	LCS	tert-Butyl methyl ether	50.0	0.0	56.0	112	70-120
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	53.2	106	73-122
108-05-4	LCS	Vinyl acetate	250	0.0	316	126	62-143
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	53.9	108	75-121
78-93-3	LCS	2-Butanone	250	0.0	198	79	30-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	53.5	107	76-125
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	60.9	122	74-138
67-66-3	LCS	Chloroform	50.0	0.0	53.3	107	75-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	49.9	100	74-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2937
Client ID: LCS for batch 981428
Lab Sample ID: 1202110254
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 05/05/2010 11:05
Dilution: 1
Prep Batch ID: 981428
Batch ID: 981428

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	55.2	110	73-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	55.2	110	79-130
71-36-3	LCS	n-Butyl alcohol	5000	0.0	5230	105	60-141
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	58.6	117	73-139
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	52.2	104	66-123
71-43-2	LCS	Benzene	50.0	0.0	51.4	103	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	51.8	104	78-123
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	54.6	109	75-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	56.2	112	76-129
74-95-3	LCS	Dibromomethane	50.0	0.0	51.4	103	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	265	106	57-132
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	56.6	113	78-129
108-88-3	LCS	Toluene	50.0	0.0	48.7	97	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	59.1	118	77-126
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	52.6	105	74-120
591-78-6	LCS	2-Hexanone	250	0.0	187	75	30-149
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	53.4	107	74-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	50.7	101	73-124
124-48-1	LCS	Dibromochloromethane	50.0	0.0	58.2	116	74-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	51.1	102	77-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	51.3	103	77-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	51.8	104	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2937
Client ID: LCS for batch 981428
Lab Sample ID: 1202110254
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 05/05/2010 11:05
Dilution: 1
Prep Batch ID: 981428
Batch ID: 981428

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	LCS	m,p-Xylenes	100	0.0	104	104	75-121
95-47-6	LCS	o-Xylene	50.0	0.0	51.0	102	76-123
100-42-5	LCS	Styrene	50.0	0.0	51.7	103	74-128
75-25-2	LCS	Bromoform	50.0	0.0	59.7	119	67-134
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	51.5	103	69-120
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	50.2	100	72-134
108-86-1	LCS	Bromobenzene	50.0	0.0	49.4	99	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	51.7	103	70-123
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	52.0	104	72-121
98-82-8	LCS	Isopropylbenzene	50.0	0.0	51.1	102	58-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	51.2	102	71-125
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	50.2	100	73-122
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	49.7	99	75-127
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	50.3	101	74-123
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	50.9	102	74-126
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	50.6	101	76-129
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	49.1	98	76-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	49.4	99	75-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	51.9	104	75-130
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	53.4	107	66-130
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	48.1	96	67-132
91-20-3	LCS	Naphthalene	50.0	0.0	43.4	87	66-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2937
Client ID: LCS for batch 981428
Lab Sample ID: 1202110254
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 05/05/2010 11:05
Dilution: 1
Prep Batch ID: 981428
Batch ID: 981428

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	LCS	1,2,3-Trichlorobenzene	50.0	0.0	47.2	94	71-130
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	55.9	112	76-125
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	47.1	94	73-127
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	48.5	97	76-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2937**
Client ID: **LCS for batch 981428**
Lab Sample ID: **1202110255**
Instrument: **VOA6.I**
Analyst: **RXD1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **WATER**
Analysis Date: **05/05/2010 12:01**
Dilution: **1**
Prep Batch ID: **981428**
Batch ID: **981428**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
107-02-8	LCS	Acrolein	250	0.0	275	110	43-147
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	266	106	66-142
107-05-1	LCS	Allyl chloride	250	0.0	299	120	61-137
107-13-1	LCS	Acrylonitrile	250	0.0	275	110	55-137
126-99-8	LCS	2-Chloro-1,3-butadiene	50.0	0.0	57.7	115	71-143
107-12-0	LCS	Propionitrile	250	0.0	273	109	68-131
126-98-7	LCS	Methacrylonitrile	250	0.0	280	112	54-134
78-83-1	LCS	Isobutyl alcohol	2500	0.0	2590	104	50-143
80-62-6	LCS	Methyl methacrylate	250	0.0	286	115	63-133
97-63-2	LCS	Ethyl methacrylate	250	0.0	297	119	66-128

Method Blank Summary

SDG Number:	10-2937	Client:	ARSL001	Matrix:	WATER
Client ID:	MB for batch 981428	Instrument ID:	VOA6.I	Data File:	050510V6\6J307BA.D
Lab Sample ID:	1202110251	Prep Date:	05/05/2010 13:55	Analyzed:	05/05/10 13:55
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 981428	1202110254	050510V6\6J302LA.D	05/05/10	1105
02	LCS for batch 981428	1202110255	050510V6\6J304SA.D	05/05/10	1201
03	GW03-10-16675	251870001	050510V6\6J316.D	05/05/10	1806
04	GW03-10-16675PS	1202110252	050510V6\6J318.D	05/05/10	1901
05	GW03-10-16675PSD	1202110253	050510V6\6J319.D	05/05/10	1929

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2937

Instrument ID: VOA6.I **Injection Date/Time:** 12-MAR-10 10:14

Column Description: DB-624 **Lab File ID** 031210V6\6B503.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	18.5
75	30.0 - 60.0% of mass 95	50.5
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	77.7
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	97
177	5.0 - 9.0% of mass 176	6.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W6VM100312-02	031210V6\6B504.D	12-MAR-10 10:46
ICALMIX[A]	W6VM100312-03	031210V6\6B505.D	12-MAR-10 11:14
ICALMIX[A]	W6VM100312-04	031210V6\6B506.D	12-MAR-10 11:42
ICALMIX[A]	W6VM100312-05	031210V6\6B507.D	12-MAR-10 12:09
ICALMIX[A]	W6VM100312-06	031210V6\6B508.D	12-MAR-10 12:37
ICALMIX[A]	W6VM100312-07	031210V6\6B509.D	12-MAR-10 13:05
ICALMIX[A]	W6VM100312-08	031210V6\6B510.D	12-MAR-10 13:33
ICALMIX[A]	W6VM100312-09	031210V6\6B512.D	12-MAR-10 14:28
ICVMIX[A]01	W6VM100312-10	031210V6\6B513.D	12-MAR-10 14:56
ICALMIX[B]	W6VM100312-12	031210V6\6B515.D	12-MAR-10 15:52
ICALMIX[B]	W6VM100312-13	031210V6\6B516.D	12-MAR-10 16:19
ICALMIX[B]	W6VM100312-14	031210V6\6B517.D	12-MAR-10 16:48
ICALMIX[B]	W6VM100312-15	031210V6\6B518.D	12-MAR-10 17:15
ICALMIX[B]	W6VM100312-16	031210V6\6B519.D	12-MAR-10 17:43
ICALMIX[B]	W6VM100312-17	031210V6\6B520.D	12-MAR-10 18:11
ICALMIX[B]	W6VM100312-18	031210V6\6B521.D	12-MAR-10 18:39
ICVMIX[B]02	W6VM100312-19	031210V6\6B523.D	12-MAR-10 19:34

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2937

Instrument ID: VOA6.I **Injection Date/Time:** 05-MAY-10 10:38

Column Description: DB-624 **Lab File ID** 050510V6\6J301.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	19
75	30.0 - 60.0% of mass 95	52.1
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.8
174	50.0 - 100.0% of mass 95	79.9
175	5.0 -9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	97
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]04	W6VM100505-01	050510V6\6J302.D	05-MAY-10 11:05
BLK01LCS	1202110254	050510V6\6J302LA.D	05-MAY-10 11:05
CCVMIX[B]05	W6VM100505-99	050510V6\6J304.D	05-MAY-10 12:01
BLK01SLCS	1202110255	050510V6\6J304SA.D	05-MAY-10 12:01
BLK01	1202110251	050510V6\6J307BA.D	05-MAY-10 13:55
GW03-10-16675	251870001	050510V6\6J316.D	05-MAY-10 18:06
GW03-10-16675MS	1202110252	050510V6\6J318.D	05-MAY-10 19:01
GW03-10-16675MSD	1202110253	050510V6\6J319.D	05-MAY-10 19:29

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2937

Instrument: VOA6.I

STD Analysis Time: 05-MAY-10 11:05

GC Column: DB-624

Data File: C:\msdchem\1\DATA\050510V6\6J302.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1386911		9.98	1007776		13.2	547135		15.6
Upper Limit	2773822		10.5	2015552		13.7	1094270		16.1
Lower Limit	693456		9.48	503888		12.7	273568		15.1
Sample ID									
BLK01LCS	1386911		9.98	1007776		13.2	547135		15.6
BLK01SLCS	1379130		9.98	999549		13.2	509615		15.6
BLK01	1269618		9.98	908944		13.2	456076		15.6
GW03-10-16675	1155024		9.98	805576		13.2	378926		15.6
GW03-10-16675MS	1210919		9.98	856696		13.2	439606		15.6
GW03-10-16675MSD	1257971		9.98	890118		13.2	438505		15.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**	**Date Collected:**	**04/26/2010 12:00**	**Matrix:**	**W**
Lab Sample ID:	**251870001**	**Date Received:**	**04/28/2010 09:10**		
		Client:	**ARSL001**	**Project:**	**LANL00310**
Client ID:	**GW03-10-16675**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 18:06**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 18:06**				
Data File:	**050510V6\6J316.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	J	1.95	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**	**Date Collected:**	**04/26/2010 12:00**	**Matrix:**	**W**
Lab Sample ID:	**251870001**	**Date Received:**	**04/28/2010 09:10**		
		Client:	**ARSL001**	**Project:**	**LANL00310**
Client ID:	**GW03-10-16675**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 18:06**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 18:06**				
Data File:	**050510V6\6J316.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**	**Date Collected:**	**04/26/2010 12:00**	**Matrix:**	**W**
Lab Sample ID:	**251870001**	**Date Received:**	**04/28/2010 09:10**		
		Client:	**ARSL001**	**Project:**	**LANL00310**
Client ID:	**GW03-10-16675**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 18:06**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 18:06**				
Data File:	**050510V6\6J316.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J316.D
Acq On : 5 May 2010 6:06 pm
Operator : RXD1
InstName : VOA6
Sample : |251870001|981428|1|VOAF|1|VOA8260LFD|
Misc : ARSL 5mL pH7
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 06 09:51:47 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.980	9.974	1.000	96	1155708	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	805576	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	378926	50.00	ug/L	0.00
82) B Fluorobenzene	9.980	9.974	1.000	96	1155024	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	805576	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	378926	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	323693	52.44	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 104.88%					
43) Toluene-d8	11.626	11.626	0.884	98	1064591	50.52	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 101.04%					
61) Bromofluorobenzene	14.357	14.357	0.922	95	355198	50.03	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 100.06%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.703	4.682	0.471	50	702	Below Cal	#	42
4) Vinyl chloride	0.000	4.924	0.000		0	N.D.		
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.718	6.706	0.673	43	16547	Below Cal		90
10) 1,1-Dichloroethylene	0.000	6.712	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.084	0.000		0	N.D.		
15) Methylene chloride	7.291	7.285	0.731	84	4349	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	8.694	8.694	0.871	43	422	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	9.395	9.413	0.941	56	185	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.712	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J316.D
Acq On : 5 May 2010 6:06 pm
Operator : RXD1
InstName : VOA6
Sample : |251870001|981428|1|VOAF|1|VOA8260LFD|
Misc : ARSL 5mL pH7
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 06 09:51:47 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38)	Bromodichloromethane	0.000	10.864	0.000		0	N.D.		
39)	2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.		
40)	cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.		
42)	4-Methyl-2-pentanone	11.407	11.413	0.867	58	3656	1.95	ug/L #	65
44)	Toluene	11.699	11.699	0.889	91	1653	N.D.		
45)	trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.		
46)	1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.		
47)	2-Hexanone	0.000	12.260	0.000		0	N.D.		
48)	1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.		
49)	Tetrachloroethylene	0.000	12.290	0.000		0	N.D.		
50)	Dibromochloromethane	0.000	12.540	0.000		0	N.D.		
51)	1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.		
52)	Chlorobenzene	0.000	13.187	0.000		0	N.D.		
53)	1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.		
54)	Ethylbenzene	0.000	13.248	0.000		0	N.D.		
55)	m,p-Xylenes	0.000	13.357	0.000		0	N.D.		
56)	o-Xylene	0.000	13.796	0.000		0	N.D.		
57)	Styrene	0.000	13.796	0.000		0	N.D.		
59)	Bromoform	0.000	14.058	0.000		0	N.D.		
60)	Isopropylbenzene	0.000	14.156	0.000		0	N.D.		
62)	1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.		
63)	1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.		
64)	Bromobenzene	0.000	14.564	0.000		0	N.D.		
65)	n-Propylbenzene	0.000	14.583	0.000		0	N.D.		
66)	1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.		
67)	2-Chlorotoluene	0.000	14.729	0.000		0	N.D.		
68)	4-Chlorotoluene	0.000	14.833	0.000		0	N.D.		
69)	tert-Butylbenzene	0.000	15.107	0.000		0	N.D.		
70)	1,2,4-Trimethylbenzene	0.000	15.150	0.000		0	N.D.		
71)	sec-Butylbenzene	0.000	15.333	0.000		0	N.D.		
72)	4-Isopropyltoluene	0.000	15.454	0.000		0	N.D.		
73)	1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.		
74)	1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.		
75)	n-Butylbenzene	0.000	15.887	0.000		0	N.D.		
76)	1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.		
77)	1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.		
78)	1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.		
79)	Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.		
80)	Naphthalene	0.000	18.283	0.000		0	N.D.		
81)	1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.		
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.		
85)	Acrolein	0.000	6.536	0.000		0	N.D.		
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.		
87)	Isopropyl Alcohol	0.000	6.792	0.000		0	N.D.		
88)	Allyl chloride	0.000	7.139	0.000		0	N.D.		
89)	tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.		
90)	Acrylonitrile	0.000	7.542	0.000		0	N.D.		
91)	Isopropyl ether	0.000	8.078	0.000		0	N.D.		
92)	2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.		
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.		
94)	Ethyl acetate	8.694	8.700	0.871	43	422	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J316.D
Acq On : 5 May 2010 6:06 pm
Operator : RXD1
InstName : VOA6
Sample : |251870001|981428|1|VOAF|1|VOA8260LFD|
Misc : ARSL 5mL pH7
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 06 09:51:47 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	8.773	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	9.059	0.000		0	N.D.	
98)	Isobutyl alcohol	9.389	9.389	0.941	41	376	N.D.	
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	10.590	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.	
110)	Pentachloroethane	0.000	15.180	0.000		0	N.D.	
111)	Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	0.000	16.113	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J316.D
Acq On : 5 May 2010 6:06 pm
Operator : RXD1
InstName : VOA6
Sample : |251870001|981428|1|VOAF|1|VOA8260LFD|
Misc : ARSL 5mL pH7
ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 06 09:51:47 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

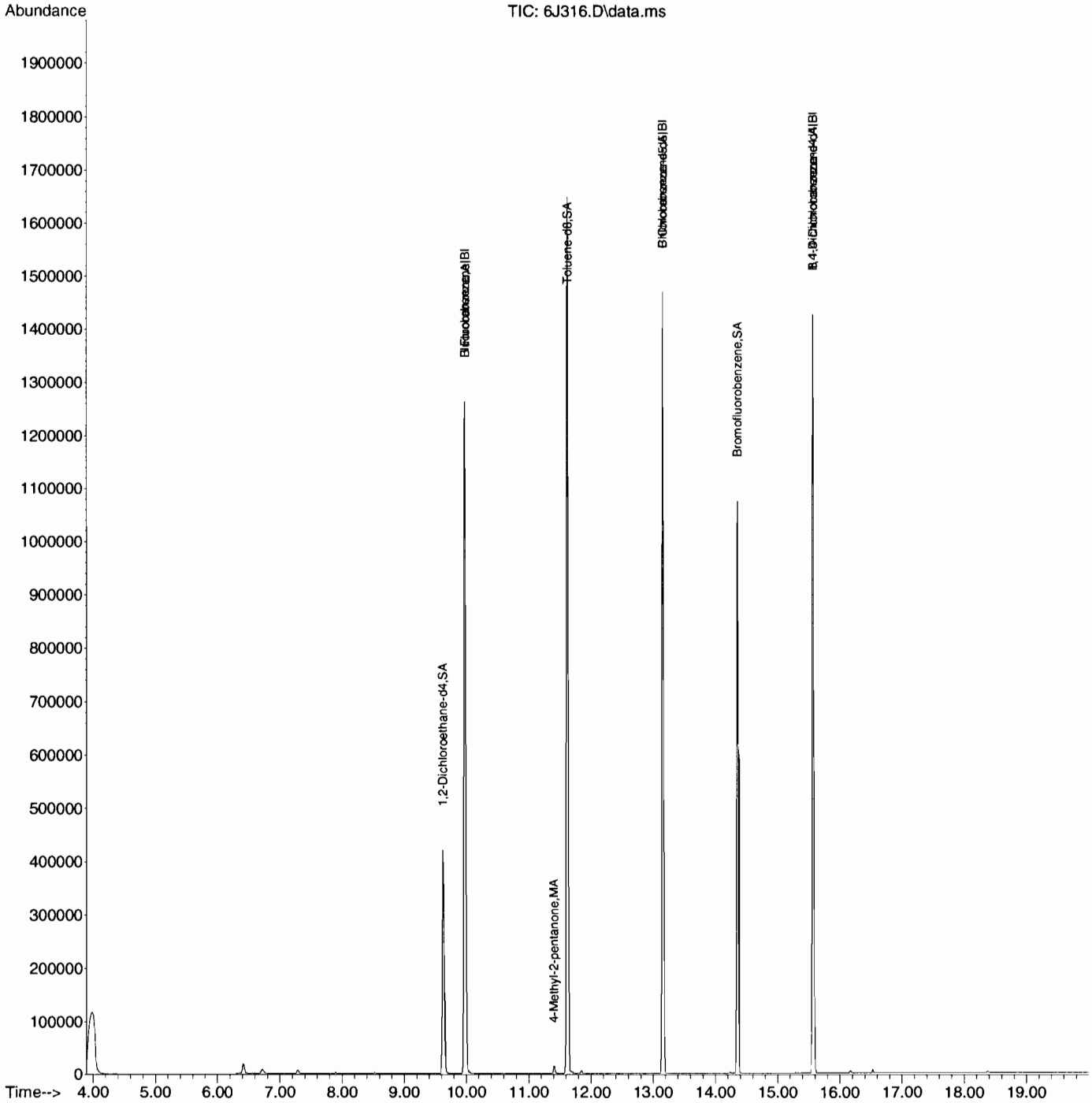

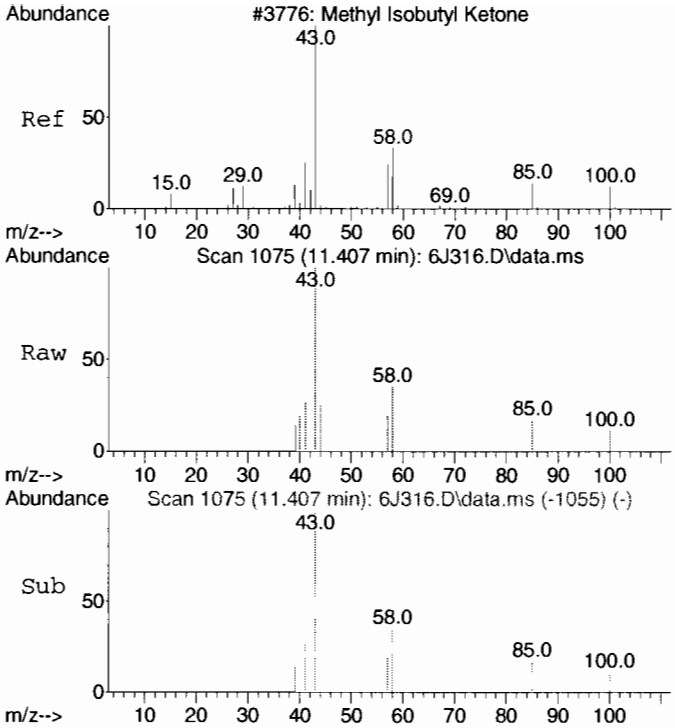

#42
4-Methyl-2-pentanone
Concen: 1.95 ug/L
RT: 11.407 min Scan# 1075
Delta R.T. -0.006 min
Lab File: 6J316.D
Acq: 5 May 2010 6:06 pm

Tgt Ion: 58 Resp: 3656

Ion	Ratio	Lower	Upper
58	100		
43	313.5	219.7	279.7#
100	22.6	9.7	69.7

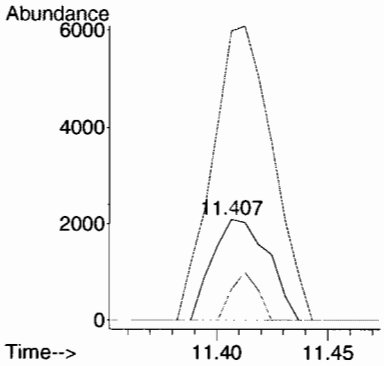

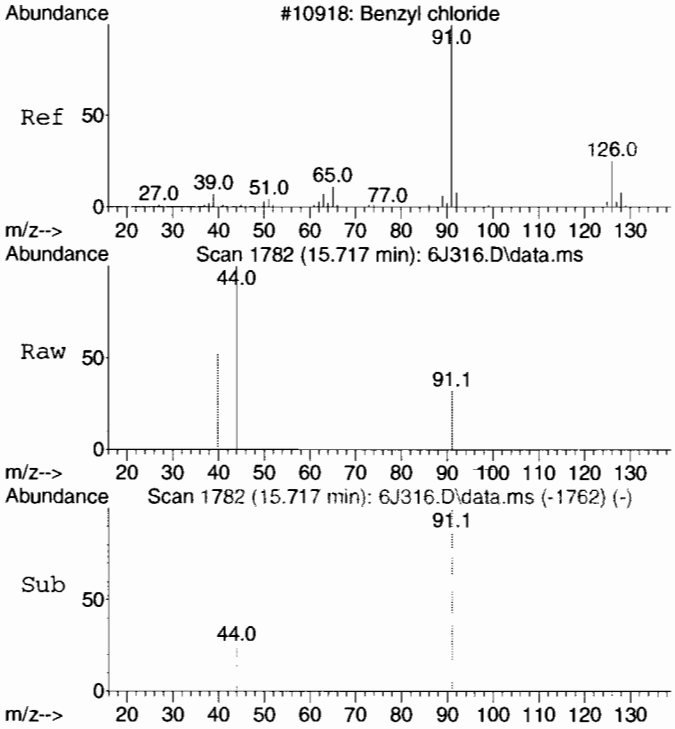

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 0.14 ug/L
RT: 15.717 min Scan# 1782
Delta R.T. -0.000 min
Lab File: 6J316.D
Acq: 5 May 2010 6:06 pm

Tgt Ion: 91 Resp: 1098

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	53.0
65	0.0	0.0	42.7

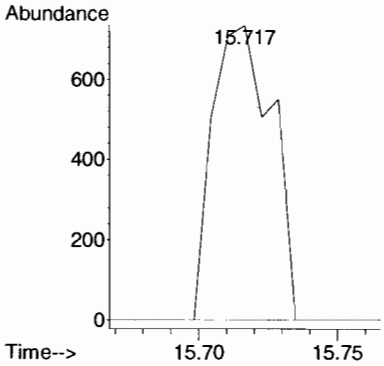

Library Search Compound Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J316.D
Acq On    :  5 May 2010   6:06 pm
Operator  : RXD1
Sample    : |251870001|981428|1|VOAF|1|VOA8260LFD|
Misc      : ARSL 5mL pH7
ALS Vial  : 16   Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P
```

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J316.D
Acq On : 5 May 2010 6:06 pm
Operator : RXD1
Sample : |251870001|981428|1|VOAF|1|VOA8260LFD|
Misc : ARSL 5mL pH7
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

						--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Last Update : Sat Mar 13 09:33:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\031210V6\6B512.D

Injection Date	Mix	Calibration File
12 Mar 2010 2:28 pm	A	C:\msdchem\1\DATA\031210V6\6B512.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\031210V6\6B515.D

Injection Date	Mix	Calibration File
12 Mar 2010 10:46 am	A	C:\msdchem\1\DATA\031210V6\6B504.D
12 Mar 2010 3:52 pm	B	C:\msdchem\1\DATA\031210V6\6B515.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\031210V6\6B516.D

Injection Date	Mix	Calibration File
12 Mar 2010 11:14 am	A	C:\msdchem\1\DATA\031210V6\6B505.D
12 Mar 2010 4:19 pm	B	C:\msdchem\1\DATA\031210V6\6B516.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\031210V6\6B517.D

Injection Date	Mix	Calibration File
12 Mar 2010 11:42 am	A	C:\msdchem\1\DATA\031210V6\6B506.D
12 Mar 2010 4:48 pm	B	C:\msdchem\1\DATA\031210V6\6B517.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\031210V6\6B518.D

Injection Date	Mix	Calibration File
12 Mar 2010 12:09 pm	A	C:\msdchem\1\DATA\031210V6\6B507.D
12 Mar 2010 5:15 pm	B	C:\msdchem\1\DATA\031210V6\6B518.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\031210V6\6B519.D

Injection Date	Mix	Calibration File
12 Mar 2010 12:37 pm	A	C:\msdchem\1\DATA\031210V6\6B508.D
12 Mar 2010 5:43 pm	B	C:\msdchem\1\DATA\031210V6\6B519.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\031210V6\6B520.D

Injection Date	Mix	Calibration File
12 Mar 2010 1:05 pm	A	C:\msdchem\1\DATA\031210V6\6B509.D
12 Mar 2010 6:11 pm	B	C:\msdchem\1\DATA\031210V6\6B520.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\031210V6\6B521.D

Injection Date	Mix	Calibration File
12 Mar 2010 1:33 pm	A	C:\msdchem\1\DATA\031210V6\6B510.D
12 Mar 2010 6:39 pm	B	C:\msdchem\1\DATA\031210V6\6B521.D

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Last Update : Sat Mar 13 09:33:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane	0.1595144	0.2118175 0.1808732	0.2017264	0.2313175	0.1926607	0.1798825	0.1940	AVRG		12.1498
3)MPA Chloromethane 0.0041 | 0.2507 | 0.00	517947	18461 1067500	28067	62665	115823	223147		LINR		0.9995
4)MCA Vinyl chloride	0.2487523	0.3432382 0.2551129	0.3034314	0.2940697	0.2789305	0.2667620	0.2843	AVRG		11.4751
5)MA Bromomethane	0.1969775	0.2256741 0.2042118	0.2060141	0.2093139	0.2060192	0.2048528	0.2076	AVRG		4.2477
6)MA Chloroethane	0.1813707	0.1984180 0.1877889	0.1844788	0.2046699	0.1951804	0.1907734	0.1918	AVRG		4.2587
7)MA Trichlorofluoromethane	0.3380579	0.3591636 0.3510914	0.3512498	0.3574494	0.3530156	0.3499062	0.3514	AVRG		1.9434
8)MA Ethyl ether	0.2103427	0.2641645 0.2146818	0.2330603	0.2261087	0.2237078	0.2212246	0.2276	AVRG		7.7965
9)MA Acetone 0.0146 | 0.0970 | 0.00	1048402	37378 2058933	54214	122346	247323	461484		LINR		0.9995
10)MCA 1,1-Dichloroethylene	0.2909809	0.3616414 0.3442579	0.3366911	0.3519944	0.3516021	0.3238174	0.3373	AVRG		7.0464
11)MA Iodomethane	0.3295873	0.4098843 0.3759927	0.3866970	0.4018987	0.4044744	0.3678777	0.3823	AVRG		7.3064
12)MA Acetonitrile	0.0256697	0.0304016 0.0265236	0.0312918	0.0290217	0.0295354	0.0280713	0.0286	AVRG		7.0843
13)MA Methyl acetate	0.1525681	0.2030273 0.1543270	0.1700340	0.1592927	0.1607780	0.1671110	0.1667	AVRG		10.3119
14)MA Carbon disulfide	0.5862944	0.8279816 0.6674275	0.7495623	0.7797123	0.7614069	0.6277722	0.7143	AVRG		12.3554
15)MA Methylene chloride 0.0024 | 0.2410 | 0.00	461538	1038857	31863	59484	117449	207638		LINR		0.9956
16)MA tert-Butyl methyl ether	0.5118207	0.5877966 0.5788707	0.6462028	0.5303401	0.5599594	0.5541895	0.5670	AVRG		7.7038

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Last Update : Sat Mar 13 09:33:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle		0.3636381	0.3386775	0.3464331	0.3460859	0.3245226				
	0.2971905	0.3412927					0.3368	AVRG		6.2306
18)MA Vinyl acetate		0.4050682	0.3656826	0.4208282	0.4547981	0.4125847				
	0.4201214	0.4087983					0.4126	AVRG		6.3958
19)MPA 1,1-Dichloroethane		0.4533448	0.4271077	0.4361563	0.4384649	0.4209762				
	0.3823867	0.4305625					0.4270	AVRG		5.1917
20)MA 2-Butanone		0.1657204	0.1320748	0.1311834	0.1303007	0.1257350				
	0.1186622	0.1162723					0.1314	AVRG		12.4365
21)MA cis-1,2-Dichloroethylene		0.4072526	0.3772060	0.3761269	0.3894652	0.3704985				
	0.3383597	0.3803804					0.3770	AVRG		5.5403
22)MA 2,2-Dichloropropane		0.3064799	0.2934268	0.3049508	0.3109821	0.3130130				
	0.2932187	0.3401065					0.3089	AVRG		5.1221
23)MA Bromochloromethane		0.1275476	0.1202364	0.1187990	0.1236851	0.1187459				
	0.1110591	0.1246069					0.1207	AVRG		4.4326
24)MCA Chloroform		0.4427359	0.4202280	0.4182947	0.4216427	0.4116339				
	0.3775283	0.4145053					0.4152	AVRG		4.6813
25)MA 1,1,1-Trichloroethane		0.3705904	0.3441764	0.3386513	0.3521370	0.3404787				
	0.3175275	0.3577545					0.3459	AVRG		4.8360
26)MA Cyclohexane		0.4919314	0.5083312	0.4489105	0.4519105	0.4029849				
	0.3690491	0.4223457					0.4422	AVRG		11.0279
27)MA 1,1-Dichloropropene		0.3589471	0.3400704	0.3420208	0.3428933	0.3256159				
	0.3009533	0.3361145					0.3352	AVRG		5.3899
28)MA Carbon tetrachloride		0.3102086	0.2973754	0.3047963	0.3091232	0.3061853				
	0.2892088	0.3301603					0.3067	AVRG		4.1354
29)SA 1,2-Dichloroethane-d4		0.2709508	0.2651500	0.2644821	0.2708655	0.2657381				
	0.2683414	0.2637576					0.2670	AVRG		1.1256
30)MA 1,2-Dichloroethane		0.3565655	0.3246760	0.3233675	0.3306531	0.3190874				
	0.2933087	0.3150747					0.3232	AVRG		5.8526
31)MA Benzene	1.0171624	1.1138161	1.0335586	1.0199751	1.0143315	0.9639108				
	0.8782882	0.9640348					1.0006	AVRG		6.7975

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Last Update : Sat Mar 13 09:33:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene	0.4408667	0.5521930 0.5004789	0.5321677	0.5281919	0.5194096	0.4814292	0.5078	AVRG		7.3436
33)MA n-Butyl alcohol -0.0081 | 0.0067 | 0.00	9523 1421817	21469 2764904	38030	108469	248187	511537		LINR	#	0.9996
34)MA Trichloroethylene	0.2232065	0.2659206 0.2467061	0.2494237	0.2534562	0.2507758	0.2413051	0.2473	AVRG		5.2680
35)MCA 1,2-Dichloropropane	0.2328437	0.2605801 0.2525978	0.2549710	0.2487108	0.2519473	0.2468328	0.2498	AVRG		3.4782
36)MA Methylcyclohexane	0.4095398	0.4957324 0.4600110	0.4706505	0.4759781	0.4742294	0.4412850	0.4611	AVRG		6.0940
37)MA Dibromomethane	0.1303543	0.1439060 0.1410351	0.1350374	0.1367475	0.1387887	0.1390451	0.1378	AVRG		3.1683
38)MA Bromodichloromethane	0.2882285	0.3084044 0.3143036	0.2790740	0.2802100	0.2951935	0.2989756	0.2949	AVRG		4.5626
39)MA 2-Chloroethylvinyl ether	0.1449496	0.1349522 0.1423222	0.1280463	0.1669831	0.1404143	0.1408395	0.1426	AVRG		8.4819
40)MA cis-1,3-Dichloropropylen	0.3683049	0.3586344 0.4036096	0.3411605	0.3542391	0.3748578	0.3785024	0.3685	AVRG		5.4519
42)MA 4-Methyl-2-pentanone	0.1165262	0.1166364 0.1202946	0.1038625	0.1131420	0.1222683	0.1213114	0.1163	AVRG		5.4557
43)SA Toluene-d8	1.2885473	1.3047931 1.3000033	1.3053391	1.3047556	1.3452290	1.3069329	1.3079	AVRG		1.3452
44)MCA Toluene	1.2750523	1.7964783 1.3643460	1.8044871	1.5437982	1.5357182	1.4195126	1.5342	AVRG		13.3342
45)MA trans-1,3-Dichloropropyl	0.4505810	0.4223590 0.4922897	0.3921591	0.4206758	0.4497572	0.4618508	0.4414	AVRG		7.3872
46)MA 1,1,2-Trichloroethane	0.2158668	0.2355383 0.2264172	0.2272393	0.2254324	0.2317492	0.2292490	0.2274	AVRG		2.7020
47)MA 2-Hexanone	0.2952851	0.3251512 0.3003943	0.2743437	0.2987469	0.3102324	0.3036136	0.3011	AVRG		5.1162

Response Factor Report VOA6
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Method File : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Last Update : Sat Mar 13 09:33:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane	0.4660754	0.5255064 0.4908158	0.4840277	0.5010807	0.5126453	0.4982285	0.4969	AVRG		3.8870
49)MA Tetrachloroethylene	0.2574323	0.3137914 0.2826557	0.2916459	0.2925478	0.2897071	0.2832760	0.2873	AVRG		5.8311
50)MA Dibromochloromethane	0.2980681	0.2807829 0.3269542	0.2561803	0.2649968	0.2868295	0.2981568	0.2874	AVRG		8.1776
51)MA 1,2-Dibromoethane	0.2606522	0.2818215 0.2750273	0.2527127	0.2636811	0.2739199	0.2766665	0.2692	AVRG		3.8562
52)MPA Chlorobenzene	0.8686342	1.0216720 0.9196467	0.9439953	0.9574266	0.9543900	0.9266808	0.9418	AVRG		4.9158
53)MA 1,1,1,2-Tetrachloroethan	0.3132195	0.3044763 0.3414279	0.2902161	0.3041182	0.3125464	0.3227814	0.3127	AVRG		5.1799
54)MCA Ethylbenzene	1.5044268	1.8526609 1.5665208	1.6763148	1.6883167	1.6733448	1.6185771	1.6543	AVRG		6.6582
55)MA m,p-Xylenes	0.6046792	0.6970725 0.6382920	0.6594820	0.6687302	0.6678113	0.6480505	0.6549	AVRG		4.4091
56)MA o-Xylene	0.6020563	0.6809091 0.6416585	0.6410754	0.6585911	0.6545585	0.6378612	0.6452	AVRG		3.7361
57)MA Styrene	1.0261777	1.1412425 1.0830552	1.0325277	1.0776207	1.0902808	1.0806620	1.0759	AVRG		3.5809
59)MPA Bromoform	0.3637803	0.3071893 0.3917796	0.2664614	0.3012421	0.3154623	0.3391076	0.3264	AVRG		12.8442
60)MA Isopropylbenzene	2.8779512	3.3241811 2.9247094	3.1851169	3.2704758	3.1697736	3.0457236	3.1140	AVRG		5.4536
61)SA Bromofluorobenzene	0.9304033	0.9573791 0.9127856	0.9446756	0.9448753	0.9533241	0.9144005	0.9368	AVRG		1.9209
62)MPA 1,1,2,2-Tetrachloroethan	0.6434592	0.7077166 0.6329169	0.6301894	0.6587123	0.6550095	0.6488275	0.6538	AVRG		3.9774
63)MA 1,2,3-Trichloropropane	0.1725076	0.1830038 0.1729410	0.1742812	0.1803590	0.1791520	0.1758728	0.1769	AVRG		2.2752

Response Factor Report VOA6
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Last Update : Sat Mar 13 09:33:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene	0.7161573	0.8035641 0.7451922	0.7554784	0.7659647	0.7665598	0.7436759	0.7567	AVRG		3.5489
65)MA n-Propylbenzene	3.3773716	4.0172697 3.3772371	3.7858798	3.8669910	3.7411856	3.5790385	3.6779	AVRG		6.6331
66)MA 1,3,5-Trimethylbenzene	2.5087511	2.8488609 2.5672952	2.6571869	2.7915583	2.7194059	2.6162575	2.6728	AVRG		4.5506
67)MA 2-Chlorotoluene	0.7179328	0.7833052 0.7484609	0.7610641	0.7713066	0.7747280	0.7438248	0.7572	AVRG		2.9529
68)MA 4-Chlorotoluene	2.0428883	2.4894023 2.0867728	2.2590395	2.3138696	2.2532797	2.1302476	2.2251	AVRG		6.8899
69)MA tert-Butylbenzene	0.5542853	0.6140114 0.5855641	0.5754555	0.6000138	0.5969444	0.5730406	0.5856	AVRG		3.4045
70)MA 1,2,4-Trimethylbenzene	2.5310417	2.9155747 2.5970052	2.7340142	2.8148696	2.7650272	2.6736771	2.7187	AVRG		4.8061
71)MA sec-Butylbenzene	3.2805550	3.7493130 3.2874178	3.6052952	3.6878484	3.5996995	3.4709055	3.5259	AVRG		5.2805
72)MA 4-Isopropyltoluene	2.7328324	3.0366387 2.7700936	2.8929112	3.0098500	2.9753861	2.8895587	2.9010	AVRG		4.0148
73)MA 1,3-Dichlorobenzene	1.3562763	1.6307534 1.4113117	1.4673943	1.4790869	1.4913301	1.4318567	1.4669	AVRG		5.8479
74)MA 1,4-Dichlorobenzene	1.3744765	1.6497271 1.4202042	1.4991300	1.5272645	1.5096187	1.4468425	1.4896	AVRG		5.9698
75)MA n-Butylbenzene	2.5779995	2.9922649 2.5943487	2.7377276	2.8826594	2.8140483	2.7116063	2.7587	AVRG		5.4435
76)MA 1,2-Dichlorobenzene	1.2828210	1.4834323 1.3216405	1.3668511	1.4054285	1.3790134	1.3416084	1.3687	AVRG		4.7111
77)MA 1,2-Dibromo-3-chloroprop	0.1171638	0.0867279 0.1211446	0.0943022	0.1016596	0.1006879	0.1084130	0.1043	AVRG		11.7092
78)MA 1,2,4-Trichlorobenzene	0.9141406	1.0483852 0.9226872	0.9450189	0.9610077	0.9570244	0.9326724	0.9544	AVRG		4.6994

Response Factor Report VOA6
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Last Update : Sat Mar 13 09:33:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2	
79)MA Hexachlorobutadiene	0.5939383	0.6333522 0.5996099	0.6166152	0.6353508	0.6228964	0.6038196	0.6151	AVRG		2.6725	
80)MA Naphthalene	1.7881505	2.1559559 1.7715436	1.8592694	1.8689848	1.8461552	1.8536393	1.8777	AVRG		6.8308	
81)MA 1,2,3-Trichlorobenzene	0.7255148	0.8021564 0.7423670	0.7790383	0.7646731	0.7640236	0.7542940	0.7617	AVRG		3.2555	
83)B Chlorotrifluoroethylene -0.0095 | 0.1259 | 0.00	607763	19938 1125576	34344	102830	215788	619252		LINR		0.9513	#
84)B 2-Chloro-1,1,1-trifluoro	0.3015148	0.3040690 0.3039556	0.2861072	0.2951301	0.2935519	0.3061605	0.2986	AVRG		2.4371	
85)B Acrolein	0.0360140	0.0342852 0.0361440	0.0364795	0.0367400	0.0381048	0.0380237	0.0365	AVRG		3.5701	
86)B Trichlorotrifluoroethane	0.0953469	0.0993036 0.0940919	0.0988719	0.0999985	0.1009349	0.1005467	0.0984	AVRG		2.7035	
87)B Isopropyl Alcohol	0.0124696	0.0117308 0.0128192	0.0127624	0.0135213	0.0136606	0.0132783	0.0129	AVRG		5.1890	
88)B Allyl chloride	0.3333630	0.3676810 0.3277703	0.3557492	0.3513189	0.3576676	0.3559746	0.3499	AVRG		4.0629	
89)B tert-Butyl Alcohol	0.0167952	0.0149275 0.0177822	0.0161803	0.0176338	0.0180499	0.0176449	0.0170	AVRG		6.5938	
90)B Acrylonitrile	0.0640709	0.0639817 0.0649515	0.0694778	0.0715481	0.0708356	0.0696287	0.0678	AVRG		4.8936	
91)B Isopropyl ether	0.7498082	0.7415251 0.7727993	0.7257151	0.7413754	0.7498212	0.7662702	0.7496	AVRG		2.1230	
92)B 2-Chloro-1,3-butadiene	0.3198852	0.3165005 0.3257386	0.3155472	0.3202810	0.3301584	0.3295426	0.3225	AVRG		1.8553	
93)B Ethyl tert-butyl ether	0.6125627	0.5588437 0.6540362	0.5389844	0.5644184	0.5820748	0.6087273	0.5885	AVRG		6.6665	
94)B Ethyl acetate	0.1775072	0.1819134 0.1734266	0.1910496	0.1916244	0.1933254	0.1881685	0.1853	AVRG		4.1739	

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Last Update : Sat Mar 13 09:33:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile		0.0236487	0.0293700	0.0284637	0.0291015	0.0279781				
	0.0267580	0.0264019					0.0274	AVRG		7.2597
96)B Methacrylonitrile		0.1153782	0.1232713	0.1249559	0.1247090	0.1217022				
	0.1154187	0.1131760					0.1198	AVRG		4.1593
97)B Tetrahydrofuran		0.0609386	0.0638747	0.0636759	0.0629373	0.0616167				
	0.0566349	0.0559710					0.0608	AVRG		5.3562
98)B Isobutyl alcohol		0.0071421	0.0081935	0.0079302	0.0079461	0.0076496				
	0.0075260	0.0070642					0.0076	AVRG	#	5.5474
99)B Methyl tert-amyl ether		0.4506316	0.4507972	0.4737073	0.4954592	0.5169581				
	0.5376164	0.5887958					0.5020	AVRG		10.0032
100)B Methyl methacrylate		0.1240803	0.1366671	0.1461326	0.1490957	0.1503756				
	0.1495818	0.1451446					0.1430	AVRG		6.6786
101)B 1,4-Dioxane		0.0017414	0.0021312	0.0021419	0.0022147	0.0021070				
	0.0020959	0.0020285					0.0021	AVRG	#	7.4333
102)B 2-Nitropropane		0.0462847	0.0439004	0.0460169	0.0498065	0.0546800				
	0.0589066	0.0588798					0.0512	AVRG		12.2657
104)B Ethyl methacrylate		0.3046757	0.3429595	0.3692255	0.3887976	0.3884756				
	0.4002444	0.3705125					0.3664	AVRG		8.9957
106)B 1-Chlorohexane		0.6960574	0.6293392	0.6429243	0.6271740	0.6496148				
	0.6213587	0.6519695					0.6455	AVRG		3.8994
107)B cis-1,4-Dichloro-2-buten		0.1614948	0.1747775	0.1809192	0.1901204	0.1964179				
	0.2009369	0.1923293					0.1853	AVRG		7.4308
108)B Cyclohexanone		0.0105420	0.0128386	0.0141071	0.0148013	0.0148723				
	0.0150870	0.0150447					0.0139	AVRG		12.0828
109)B trans-1,4-Dichloro-2-but		0.1657652	0.1729162	0.1767336	0.1820416	0.1842876				
	0.1861249	0.1774403					0.1779	AVRG		3.9698
110)B Pentachloroethane		0.3519640	0.3186502	0.3428142	0.3575926	0.3743351				
	0.3849480	0.3704790					0.3573	AVRG		6.2177
111)B Benzyl chloride		0.8133953	0.8934589	1.0046264	1.1006820	1.1639153				
	1.2115230	1.0745648					1.0375	AVRG		13.8392

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Last Update : Sat Mar 13 09:33:19 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
12)B bis(2-Chloroisopropyl)et		0.2034668	0.2364583	0.2447149	0.2515408	0.2482700				
	0.2421925	0.2317176					0.2369	AVRG		6.8444

#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-2937

Instrument ID: VOA6.I **Injection Date** 12-MAR-10 14:56

Data File: 031210V6\6B513.D **Init. Cal. Date(s)** 12-MAR-10 10:46 - 12-MAR-10 18:3

Lab Sample ID W6VM100312-10 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.267	0.26346		.01		-1.32584	30		Averaged	
S	Toluene-d8	1.3079	1.29949		.01		-0.64302	30		Averaged	
S	Bromofluorobenzene	0.9368	0.90052		.01		-3.87276	30		Averaged	
	Dichlorodifluoromethane	0.194	0.16656		.01		-14.14433	30		Averaged	
	Chloromethane	50	44.06	50			-11.88	30		Linear	spcc
	Vinyl chloride	0.2843	0.23554		.01		-17.1509	20		Averaged	ccc
	Bromomethane	0.2076	0.18854		.01		-9.18112	30		Averaged	
	Chloroethane	0.1918	0.1698		.01		-11.47028	30		Averaged	
	Trichlorofluoromethane	0.3514	0.32506		.01		-7.49573	30		Averaged	
	Ethyl ether	0.2276	0.19551		.01		-14.0993	30		Averaged	
	1,1-Dichloroethylene	0.3373	0.30974		.01		-8.17077	20		Averaged	ccc
	Acetone	250	216.44	250			-13.424	40		Linear	
	Iodomethane	0.3823	0.35715		.01		-6.5786	30		Averaged	
	Acetonitrile	0.0286	0.0259		.01		-9.44056	30		Averaged	
	Carbon disulfide	0.7143	0.69248		.01		-3.05474	30		Averaged	
	Methyl acetate	0.1667	0.14622		.01		-12.28554	40		Averaged	
	Methylene chloride	50	48.66	50			-2.68	30		Linear	
	tert-Butyl methyl ether	0.567	0.54156		.01		-4.48677	30		Averaged	
	trans-1,2-Dichloroethylene	0.3368	0.31722		.01		-5.81354	30		Averaged	
	Vinyl acetate	0.4126	0.429		.01		3.97479	40		Averaged	
	1,1-Dichloroethane	0.427	0.40704		.1		-4.67447	30		Averaged	spcc
	2-Butanone	0.1314	0.10639		.01		-19.03349	40		Averaged	
	cis-1,2-Dichloroethylene	0.377	0.36048		.01		-4.38196	30		Averaged	
	2,2-Dichloropropane	0.3089	0.31816		.01		2.99773	30		Averaged	
	Bromochloromethane	0.1207	0.11761		.01		-2.56007	30		Averaged	
	Chloroform	0.4152	0.39648		.01		-4.50867	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3459	0.33799		.01		-2.28679	30		Averaged	
	Cyclohexane	0.4422	0.40601		.01		-8.18408	30		Averaged	
	1,1-Dichloropropene	0.3352	0.32316		.01		-3.59189	30		Averaged	
	Carbon tetrachloride	0.3067	0.31062		.01		1.27812	30		Averaged	
	1,2-Dichloroethane	0.3232	0.30371		.01		-6.03032	30		Averaged	
	Benzene	1.0006	0.92863		.01		-7.19268	30		Averaged	
	Cyclohexene	0.5078	0.46069		.01		-9.27727	30		Averaged	
	n-Butyl alcohol	5000	4686.28	5000			-6.2744	40		Linear	
	Trichloroethylene	0.2473	0.23292		.01		-5.8148	30		Averaged	
	Methylcyclohexane	0.4611	0.43878		.01		-4.8406	30		Averaged	
	1,2-Dichloropropane	0.2498	0.23937		.01		-4.17534	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 12-MAR-10 14:56

Data File: 031210V6\6B513.D **Init. Cal. Date(s)** 12-MAR-10 10:46 12-MAR-10 18:3

Lab Sample ID W6VM100312-10 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1378	0.13238		.01		-3.93324	30		Averaged	
Bromodichloromethane	0.2949	0.29529		.01		0.13225	30		Averaged	
2-Chloroethylvinyl ether	0.1426	0.12064		.01		-15.39972	30		Averaged	
cis-1,3-Dichloropropylene	0.3685	0.37552		.01		1.90502	30		Averaged	
4-Methyl-2-pentanone	0.1163	0.11197		.01		-3.72313	40		Averaged	
Toluene	1.5342	1.33556		.01		-12.94746	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4414	0.45998		.01		4.20933	30		Averaged	
1,1,2-Trichloroethane	0.2274	0.21706		.01		-4.54705	30		Averaged	
2-Hexanone	0.3011	0.24457		.01		-18.77449	40		Averaged	
1,3-Dichloropropane	0.4969	0.47374		.01		-4.6609	30		Averaged	
Tetrachloroethylene	0.2873	0.27188		.01		-5.36721	30		Averaged	
Dibromochloromethane	0.2874	0.29883		.01		3.97704	30		Averaged	
1,2-Dibromoethane	0.2692	0.26354		.01		-2.10253	30		Averaged	
Chlorobenzene	0.9418	0.90194		.3		-4.23232	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3127	0.32095		.01		2.63831	30		Averaged	
Ethylbenzene	1.6543	1.53469		.01		-7.23025	20		Averaged	ccc
m,p-Xylenes	0.6549	0.62104		.01		-5.17026	30		Averaged	
o-Xylene	0.6452	0.61682		.01		-4.39864	30		Averaged	
Styrene	1.0759	1.03933		.01		-3.39901	30		Averaged	
Bromoform	0.3264	0.34846		.1		6.75858	30		Averaged	spcc
Isopropylbenzene	3.114	2.88704		.01		-7.28838	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6538	0.60415		.3		-7.59407	30		Averaged	spcc
1,2,3-Trichloropropane	0.1769	0.16513		.01		-6.65348	30		Averaged	
Bromobenzene	0.7567	0.71535		.01		-5.46452	30		Averaged	
n-Propylbenzene	3.6779	3.34156		.01		-9.14489	30		Averaged	
2-Chlorotoluene	0.7572	0.72225		.01		-4.61569	30		Averaged	
1,3,5-Trimethylbenzene	2.6728	2.50815		.01		-6.16021	30		Averaged	
4-Chlorotoluene	2.2251	2.03		.01		-8.76815	30		Averaged	
tert-Butylbenzene	0.5856	0.56388		.01		-3.70902	30		Averaged	
1,2,4-Trimethylbenzene	2.7187	2.5269		.01		-7.05484	30		Averaged	
sec-Butylbenzene	3.5259	3.28572		.01		-6.81188	30		Averaged	
4-Isopropyltoluene	2.901	2.73819		.01		-5.6122	30		Averaged	
1,3-Dichlorobenzene	1.4669	1.36376		.01		-7.03115	30		Averaged	
1,4-Dichlorobenzene	1.4896	1.38177		.01		-7.23886	30		Averaged	
n-Butylbenzene	2.7587	2.55666		.01		-7.32374	30		Averaged	
1,2-Dichlorobenzene	1.3687	1.28508		.01		-6.10945	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1043	0.10714		.01		2.72291	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 12-MAR-10 14:56

Data File: 031210V6\6B513.D **Init. Cal. Date(s)** 12-MAR-10 10:46 12-MAR-10 18:3

Lab Sample ID W6VM100312-10 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.9544	0.8715		.01		-8.68609	30		Averaged
Hexachlorobutadiene	0.6151	0.57411		.01		-6.66396	30		Averaged
Naphthalene	1.8777	1.6365		.01		-12.8455	30		Averaged
1,2,3-Trichlorobenzene	0.7617	0.71098		.01		-6.65879	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031210V6\
Data File : 6B513.D
Acq On : 12 Mar 2010 2:56 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100312-10|L-ICV|1|VOAF|1|VOA8260BS|
Misc : L-ICV 5mL N/A MIX[A] 0305-01A+0310-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 13 09:35:43 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	2100048	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	1555098	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	860960	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	2097889	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	1555098	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.577	1.000	152	860960	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	553272	49.33	ug/L	0.00
43) Toluene-d8	11.626	11.626	0.884	98	2020840	49.68	ug/L	0.00
61) Bromofluorobenzene	14.357	14.357	0.922	95	775309	48.06	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	349791	42.94	ug/L	100
3) Chloromethane	4.682	4.682	0.469	50	472689	44.06	ug/L	100
4) Vinyl chloride	4.924	4.924	0.494	62	494645	41.42	ug/L	99
5) Bromomethane	5.478	5.478	0.549	94	395941	45.41	ug/L	100
6) Chloroethane	5.619	5.619	0.563	64	356583	44.26	ug/L	100
7) Trichlorofluoromethane	6.032	6.032	0.605	101	682652	46.25	ug/L	100
8) Ethyl ether	6.328	6.328	0.634	59	410589	42.95	ug/L	98
9) Acetone	6.706	6.706	0.672	43	912336	216.44	ug/L	99
10) 1,1-Dichloroethylene	6.712	6.712	0.673	61	650459	45.92	ug/L	100
11) Iodomethane	6.956	6.956	0.697	142	3750119	233.52	ug/L	100
12) Acetonitrile	7.072	7.072	0.709	41	1360042	1130.43	ug/L	100
13) Methyl acetate	7.096	7.096	0.711	43	1535310	219.24	ug/L	100
14) Carbon disulfide	7.084	7.084	0.710	76	7271207	242.36	ug/L	100
15) Methylene chloride	7.285	7.285	0.730	84	497671	48.66	ug/L	99
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	1137295	47.75	ug/L	99
17) trans-1,2-Dichloroethy...	7.621	7.621	0.764	61	666169	47.09	ug/L	100
18) Vinyl acetate	8.060	8.060	0.808	43	4504652	259.97	ug/L	98
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	854812	47.66	ug/L	100
20) 2-Butanone	8.694	8.694	0.872	43	1117168	202.39	ug/L	100
21) cis-1,2-Dichloroethylene	8.742	8.742	0.877	61	757023	47.80	ug/L	100
22) 2,2-Dichloropropane	8.767	8.767	0.879	77	668160	51.50	ug/L	98
23) Bromochloromethane	9.017	9.017	0.904	128	246989	48.73	ug/L	98
24) Chloroform	9.053	9.053	0.908	83	832624	47.74	ug/L	100
25) 1,1,1-Trichloroethane	9.328	9.321	0.935	97	709789	48.86	ug/L	100
26) Cyclohexane	9.413	9.413	0.944	56	852647	45.91	ug/L	100
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	678654	48.20	ug/L	99
28) Carbon tetrachloride	9.517	9.510	0.954	117	652321	50.64	ug/L	100
30) 1,2-Dichloroethane	9.706	9.712	0.973	62	637796	46.98	ug/L	100
31) Benzene	9.724	9.724	0.975	78	1950165	46.40	ug/L	100
32) Cyclohexene	9.834	9.834	0.986	67	967475	45.36	ug/L	99
33) n-Butyl alcohol	10.077	10.077	1.010	56	1294290	4686.28	ug/L	100
34) Trichloroethylene	10.364	10.364	1.039	95	489147	47.10	ug/L	99
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	502692	47.92	ug/L	99
36) Methylcyclohexane	10.602	10.602	1.063	83	921466	47.58	ug/L	100
37) Dibromomethane	10.748	10.748	1.078	93	278004	48.02	ug/L	100
38) Bromodichloromethane	10.864	10.864	1.089	83	620122	50.06	ug/L	99
39) 2-Chloroethylvinyl ether	11.089	11.089	1.112	63	1266698	211.43	ug/L	100
40) cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	788609	50.96	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031210V6\
Data File : 6B513.D
Acq On : 12 Mar 2010 2:56 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100312-10|L-ICV|1|VOAF|1|VOA8260BS|
Misc : L-ICV 5mL N/A MIX[A] 0305-01A+0310-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 13 09:35:43 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42) 4-Methyl-2-pentanone	11.406	11.413	0.867	58	870638	240.71	ug/L		100
44) Toluene	11.693	11.699	0.889	91	2076922	43.53	ug/L		99
45) trans-1,3-Dichloroprop...	11.858	11.858	0.901	75	715321	52.11	ug/L		100
46) 1,1,2-Trichloroethane	12.077	12.077	0.918	83	337549	47.74	ug/L		99
47) 2-Hexanone	12.260	12.260	0.932	43	1901645	203.06	ug/L		100
48) 1,3-Dichloropropane	12.272	12.272	0.933	76	736719	47.67	ug/L		92
49) Tetrachloroethylene	12.290	12.290	0.934	164	422801	47.32	ug/L		100
50) Dibromochloromethane	12.540	12.540	0.953	129	464704	51.98	ug/L		100
51) 1,2-Dibromoethane	12.705	12.705	0.966	107	409829	48.95	ug/L		100
52) Chlorobenzene	13.187	13.187	1.002	112	1402599	47.88	ug/L		100
53) 1,1,1,2-Tetrachloroethane	13.241	13.241	1.006	131	499113	51.32	ug/L		100
54) Ethylbenzene	13.248	13.248	1.007	91	2386592	46.38	ug/L		100
55) m,p-Xylenes	13.363	13.357	1.016	106	1931562	94.83	ug/L		99
56) o-Xylene	13.796	13.796	1.049	106	959216	47.80	ug/L		100
57) Styrene	13.802	13.796	1.049	104	1616259	48.30	ug/L		100
59) Bromoform	14.058	14.058	0.903	173	300007	53.37	ug/L		99
60) Isopropylbenzene	14.156	14.156	0.909	105	2485622	46.36	ug/L		100
62) 1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	520152	46.20	ug/L		99
63) 1,2,3-Trichloropropane	14.528	14.528	0.933	110	142173	46.68	ug/L	#	1
64) Bromobenzene	14.564	14.564	0.935	156	615892	47.27	ug/L		99
65) n-Propylbenzene	14.583	14.583	0.937	91	2876947	45.43	ug/L		100
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	2159416	46.92	ug/L		100
67) 2-Chlorotoluene	14.729	14.729	0.946	126	621828	47.69	ug/L		100
68) 4-Chlorotoluene	14.833	14.833	0.953	91	1747749	45.62	ug/L		99
69) tert-Butylbenzene	15.107	15.107	0.970	134	485475	48.14	ug/L		98
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	2175564	46.47	ug/L		99
71) sec-Butylbenzene	15.333	15.333	0.985	105	2828874	46.59	ug/L		100
72) 4-Isopropyltoluene	15.454	15.454	0.993	119	2357474	47.19	ug/L		100
73) 1,3-Dichlorobenzene	15.515	15.515	0.996	146	1174140	46.49	ug/L		100
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	1189646	46.38	ug/L		100
75) n-Butylbenzene	15.887	15.887	1.020	91	2201181	46.34	ug/L		100
76) 1,2-Dichlorobenzene	16.021	16.021	1.029	146	1106402	46.95	ug/L		100
77) 1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	92243	51.36	ug/L		99
78) 1,2,4-Trichlorobenzene	17.911	17.911	1.150	180	750328	45.66	ug/L		100
79) Hexachlorobutadiene	18.076	18.076	1.161	225	494290	46.67	ug/L		100
80) Naphthalene	18.289	18.283	1.175	128	1408957	43.58	ug/L		100
81) 1,2,3-Trichlorobenzene	18.618	18.618	1.196	180	612125	46.67	ug/L		99
83) Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.			
85) Acrolein	6.474	6.536	0.649		0m	N.D.	d		
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.			
87) Isopropyl Alcohol	6.706	6.792	0.672		0m	N.D.	d		
88) Allyl chloride	7.072	7.139	0.709		0m	N.D.	d		
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.			
90) Acrylonitrile	7.572	7.542	0.759		0m	N.D.	d		
91) Isopropyl ether	8.060	8.078	0.808		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	8.212	8.206	0.823		0m	N.D.	d		
93) Ethyl tert-butyl ether	8.486	8.486	0.851		0m	N.D.	d		
94) Ethyl acetate	8.694	8.700	0.872		0m	N.D.	d		
95) Propionitrile	8.687	8.773	0.871		0m	N.D.	d		
96) Methacrylonitrile	8.974	8.950	0.900		0m	N.D.	d		
97) Tetrahydrofuran	9.053	9.059	0.908		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031210V6\
Data File : 6B513.D
Acq On : 12 Mar 2010 2:56 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100312-10|L-ICV|1|VOAF|1|VOA8260BS|
Misc : L-ICV 5mL N/A MIX[A] 0305-01A+0310-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 13 09:35:43 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	9.413	9.389	0.944		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724	9.736	0.975		0m	N.D.	d
100)	Methyl methacrylate	10.602	10.590	1.063		0m	N.D.	d
101)	1,4-Dioxane	10.748	10.699	1.078		0m	N.D.	d
102)	2-Nitropropane	11.089	11.071	1.112		0m	N.D.	d
104)	Ethyl methacrylate	11.858	11.858	0.901		0m	N.D.	d
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156	14.199	0.909		0m	N.D.	d
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.	
110)	Pentachloroethane	15.180	15.180	0.975		0m	N.D.	d
111)	Benzyl chloride	15.710	15.717	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.168	16.113	1.038		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\031210V6\
Data File : 6B513.D
Acq On    : 12 Mar 2010   2:56 pm
Operator  : RXD1
InstName  : VOA6
Sample    : |W6VM100312-10|L-ICV|1|VOAF|1|VOA8260BS|
Misc      : L-ICV 5mL N/A MIX[A] 0305-01A+0310-01
ALS Vial  : 13   Sample Multiplier: 1

Quant Time: Mar 13 09:35:43 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE
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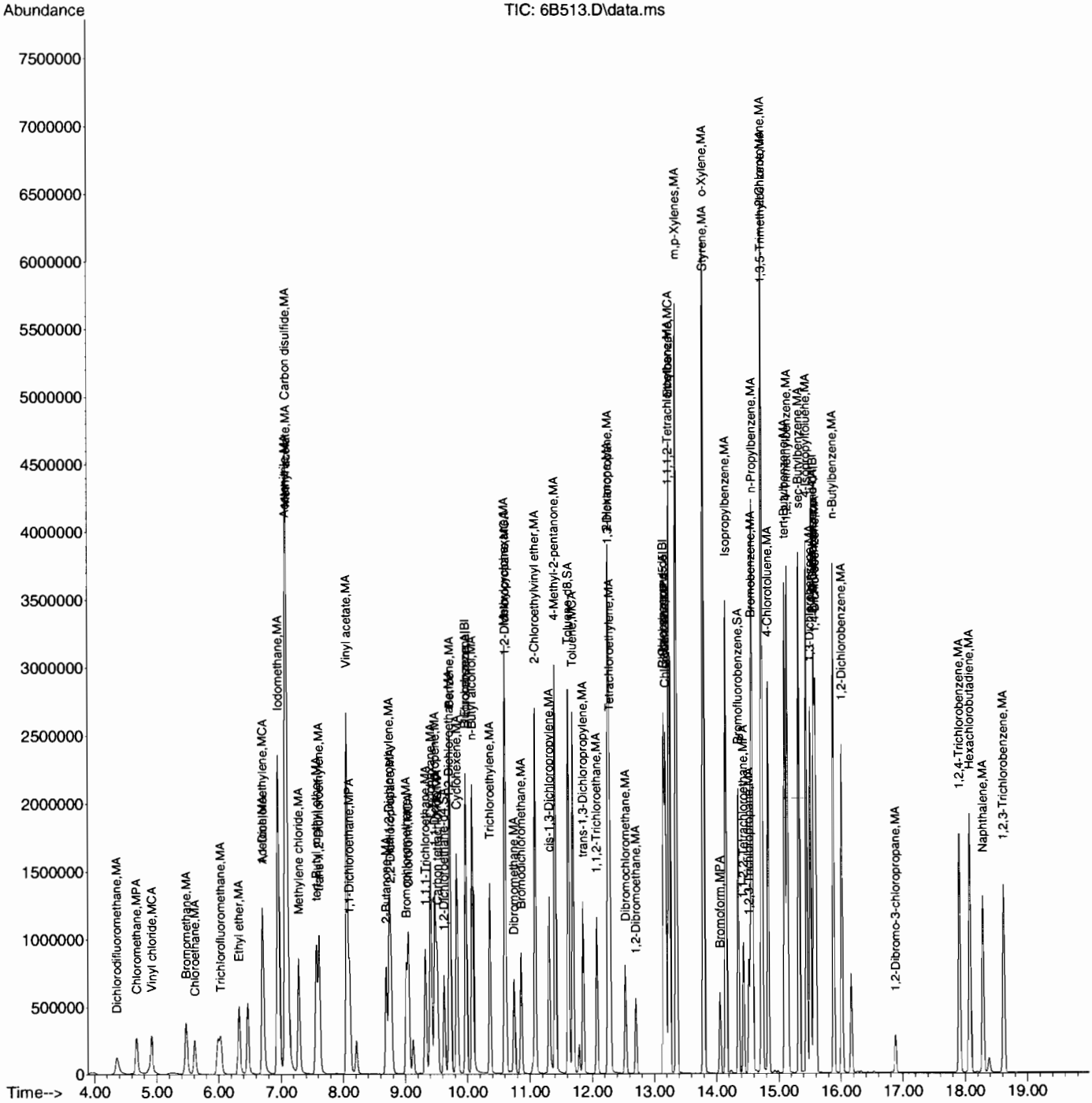

Continuing Calibration Summary

Client SDG: 10-2937

Instrument ID: VOA6.I **Injection Date** 12-MAR-10 19:34

Data File: 031210V6\6B523.D **Init. Cal. Date(s)** 12-MAR-10 10:46 - 12-MAR-10 18:3

Lab Sample ID W6VM100312-19 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.267	0.25906		.01		-2.97378	30		Averaged
S	Toluene-d8	1.3079	1.30219		.01		-0.43658	30		Averaged
S	Bromofluorobenzene	0.9368	0.93716		.01		0.03843	30		Averaged
	Chlorotrifluoroethylene	150	134.12	150			-10.58667	30		Linear
	2-Chloro-1,1,1-trifluoroethane	0.2986	0.30928		.01		3.57669	30		Averaged
	Acrolein	0.0365	0.03724		.01		2.0274	30		Averaged
	Trichlorotrifluoroethane	0.0984	0.09273		.01		-5.7622	30		Averaged
	Isopropyl Alcohol	0.0129	0.01392		.01		7.90698	40		Averaged
	Allyl chloride	0.3499	0.36373		.01		3.95256	30		Averaged
	tert-Butyl Alcohol	0.017	0.01892		.01		11.29412	40		Averaged
	Acrylonitrile	0.0678	0.07068		.01		4.24779	30		Averaged
	Isopropyl ether	0.7496	0.76805		.01		2.46131	30		Averaged
	2-Chloro-1,3-butadiene	0.3225	0.35986		.01		11.5845	30		Averaged
	Ethyl tert-butyl ether	0.5885	0.6343		.01		7.7825	30		Averaged
	Ethyl acetate	0.1853	0.17424		.01		-5.9687	40		Averaged
	Propionitrile	0.0274	0.0277		.01		1.09489	30		Averaged
	Methacrylonitrile	0.1198	0.12108		.01		1.06845	30		Averaged
	Tetrahydrofuran	0.0608	0.05973		.01		-1.75987	30		Averaged
	Isobutyl alcohol	0.0076	0.00712		.01		-6.31579	40		Averaged
	Methyl tert-amyl ether	0.502	0.54087		.01		7.74303	30		Averaged
	Methyl methacrylate	0.143	0.15285		.01		6.88811	30		Averaged
	1,4-Dioxane	0.0021	0.00205		.01		-2.38095	40		Averaged
	2-Nitropropane	0.0512	0.05876		.01		14.76563	30		Averaged
	Ethyl methacrylate	0.3664	0.39728		.01		8.42795	30		Averaged
	1-Chlorohexane	0.6455	0.64739		.01		0.2928	30		Averaged
	cis-1,4-Dichloro-2-butene	0.1853	0.20837		.01		12.45008	30		Averaged
	Cyclohexanone	0.0139	0.01299		.01		-6.54676	40		Averaged
	trans-1,4-Dichloro-2-butene	0.1779	0.19612		.01		10.24171	30		Averaged
	Pentachloroethane	0.3573	0.32498		.01		-9.04562	30		Averaged
	Benzyl chloride	1.0375	1.09027		.01		5.08627	30		Averaged
	bis(2-Chloroisopropyl)ether	0.2369	0.24335		.01		2.72267	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031210V6\
Data File : 6B523.D
Acq On : 12 Mar 2010 7:34 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100312-19|S-ICV|1|VOAF|1|VOA8260BS|
Misc : S-ICV 5mL N/A MIX[B] 0304-08A+0226-02A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 13 09:35:55 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	2117587	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	1577557	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	837515	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	2115310	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	1577557	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	15.577	1.000	152	837515	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	548585	48.51	ug/L	0.00
43) Toluene-d8	11.626	11.626	0.884	98	2054282	49.78	ug/L	0.00
61) Bromofluorobenzene	14.357	14.357	0.922	95	784884	50.02	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.279	4.360	0.429		0m	N.D.	d	
3) Chloromethane	4.662	4.682	0.467		0m	N.D.	d	
4) Vinyl chloride	4.894	4.924	0.491		0m	N.D.	d	
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.688	6.706	0.671		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.682	6.712	0.670		0m	N.D.	d	
11) Iodomethane	6.950	6.956	0.697		0m	N.D.	d	
12) Acetonitrile	7.139	7.072	0.716		0m	N.D.	d	
13) Methyl acetate	7.096	7.096	0.711		0m	N.D.	d	
14) Carbon disulfide	7.139	7.084	0.716		0m	N.D.	d	
15) Methylene chloride	7.285	7.285	0.730		0m	N.D.	d	
16) tert-Butyl methyl ether	7.578	7.572	0.760		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	8.078	8.060	0.810		0m	N.D.	d	
19) 1,1-Dichloroethane	8.206	8.102	0.823		0m	N.D.	d	
20) 2-Butanone	8.700	8.694	0.872		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.700	8.742	0.872		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	9.053	9.053	0.908		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	9.388	9.413	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	9.736	9.712	0.976		0m	N.D.	d	
31) Benzene	9.718	9.724	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	10.370	10.364	1.040		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	10.589	10.602	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031210V6\
Data File : 6B523.D
Acq On : 12 Mar 2010 7:34 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100312-19|S-ICV|1|VOAF|1|VOA8260BS|
Misc : S-ICV 5mL N/A MIX[B] 0304-08A+0226-02A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 13 09:35:55 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	0.000	11.413	0.000		0	N.D.		
44) Toluene	11.693	11.699	0.889		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.		
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.		
47) 2-Hexanone	12.254	12.260	0.931		0m	N.D.	d	
48) 1,3-Dichloropropane	12.309	12.272	0.936		0m	N.D.	d	
49) Tetrachloroethylene	12.290	12.290	0.934		0m	N.D.	d	
50) Dibromochloromethane	0.000	12.540	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.		
52) Chlorobenzene	13.186	13.187	1.002		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.		
54) Ethylbenzene	13.247	13.248	1.007		0m	N.D.	d	
55) m,p-Xylenes	13.369	13.357	1.016		0m	N.D.	d	
56) o-Xylene	0.000	13.796	0.000		0	N.D.		
57) Styrene	0.000	13.796	0.000		0	N.D.		
59) Bromoform	0.000	14.058	0.000		0	N.D.		
60) Isopropylbenzene	14.156	14.156	0.909		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	14.485	14.436	0.930		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.		
64) Bromobenzene	0.000	14.564	0.000		0	N.D.		
65) n-Propylbenzene	14.583	14.583	0.936		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946		0m	N.D.	d	
67) 2-Chlorotoluene	14.735	14.729	0.946		0m	N.D.	d	
68) 4-Chlorotoluene	14.832	14.833	0.952		0m	N.D.	d	
69) tert-Butylbenzene	15.174	15.107	0.974		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	15.149	15.150	0.973		0m	N.D.	d	
71) sec-Butylbenzene	0.000	15.333	0.000		0	N.D.		
72) 4-Isopropyltoluene	15.454	15.454	0.992		0m	N.D.	d	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.		
74) 1,4-Dichlorobenzene	15.601	15.601	1.002		0m	N.D.	d	
75) n-Butylbenzene	0.000	15.887	0.000		0	N.D.		
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.		
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.		
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.		
80) Naphthalene	18.289	18.283	1.174		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.		
83) Chlorotrifluoroethylene	4.279	4.280	0.429	116	694088	134.12	ug/L	100
84) 2-Chloro-1,1,1-trifluo...	5.035	5.035	0.505	118	1962678	155.34	ug/L	100
85) Acrolein	6.535	6.536	0.655	56	393870	254.78	ug/L	99
86) Trichlorotrifluoroethane	6.682	6.682	0.670	85	980776	235.50	ug/L	99
87) Isopropyl Alcohol	6.791	6.792	0.681	45	1472261	2699.42	ug/L	99
88) Allyl chloride	7.139	7.139	0.716	41	3846969	259.85	ug/L	100
89) tert-Butyl Alcohol	7.285	7.285	0.730	59	2001263	2782.28	ug/L	99
90) Acrylonitrile	7.541	7.542	0.756	53	747569	260.68	ug/L	100
91) Isopropyl ether	8.078	8.078	0.810	45	1624667	51.23	ug/L	100
92) 2-Chloro-1,3-butadiene	8.206	8.206	0.823	53	761222	55.79	ug/L	100
93) Ethyl tert-butyl ether	8.486	8.486	0.851	59	1341747	53.89	ug/L	100
94) Ethyl acetate	8.700	8.700	0.872	43	1842897	235.10	ug/L	100
95) Propionitrile	8.773	8.773	0.880	54	292937	252.81	ug/L	100
96) Methacrylonitrile	8.949	8.950	0.897	41	1280577	252.66	ug/L	99
97) Tetrahydrofuran	9.059	9.059	0.908	42	631720	245.57	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031210V6\
Data File : 6B523.D
Acq On : 12 Mar 2010 7:34 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100312-19|S-ICV|1|VOAF|1|VOA8260BS|
Misc : S-ICV 5mL N/A MIX[B] 0304-08A+0226-02A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 13 09:35:55 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98)	Isobutyl alcohol	9.388	9.389	0.941	41	752582	2329.62	ug/L	100
99)	Methyl tert-amyl ether	9.736	9.736	0.976	73	1144100	53.87	ug/L	99
100)	Methyl methacrylate	10.589	10.590	1.062	69	1616672	267.21	ug/L	100
101)	1,4-Dioxane	10.699	10.699	1.073	88	217091	2483.98	ug/L	100
102)	2-Nitropropane	11.071	11.071	1.110	43	621474	286.85	ug/L	99
104)	Ethyl methacrylate	11.857	11.858	0.901	69	3133625	271.06	ug/L	100
106)	1-Chlorohexane	13.052	13.053	0.838	55	542202	50.15	ug/L	99
107)	cis-1,4-Dichloro-2-butene	14.198	14.199	0.912	53	872581	281.15	ug/L	100
108)	Cyclohexanone	14.320	14.315	0.919	42	271929	1168.02	ug/L	98
109)	trans-1,4-Dichloro-2-b...	14.485	14.491	0.930	53	821262	275.60	ug/L	100
110)	Pentachloroethane	15.180	15.180	0.975	167	1360893	227.42	ug/L	99
111)	Benzyl chloride	15.716	15.717	1.009	91	4565594	262.73	ug/L	100
112)	bis(2-Chloroisopropyl)...	16.113	16.113	1.034	45	1019052	256.80	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\031210V6\
Data File : 6B523.D
Acq On    : 12 Mar 2010   7:34 pm
Operator  : RXD1
InstName  : VOA6
Sample    : |W6VM100312-19|S-ICV|1|VOAF|1|VOA8260BS|
Misc      : S-ICV 5mL N/A MIX[B] 0304-08A+0226-02A
ALS Vial  : 23   Sample Multiplier: 1

Quant Time: Mar 13 09:35:55 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE
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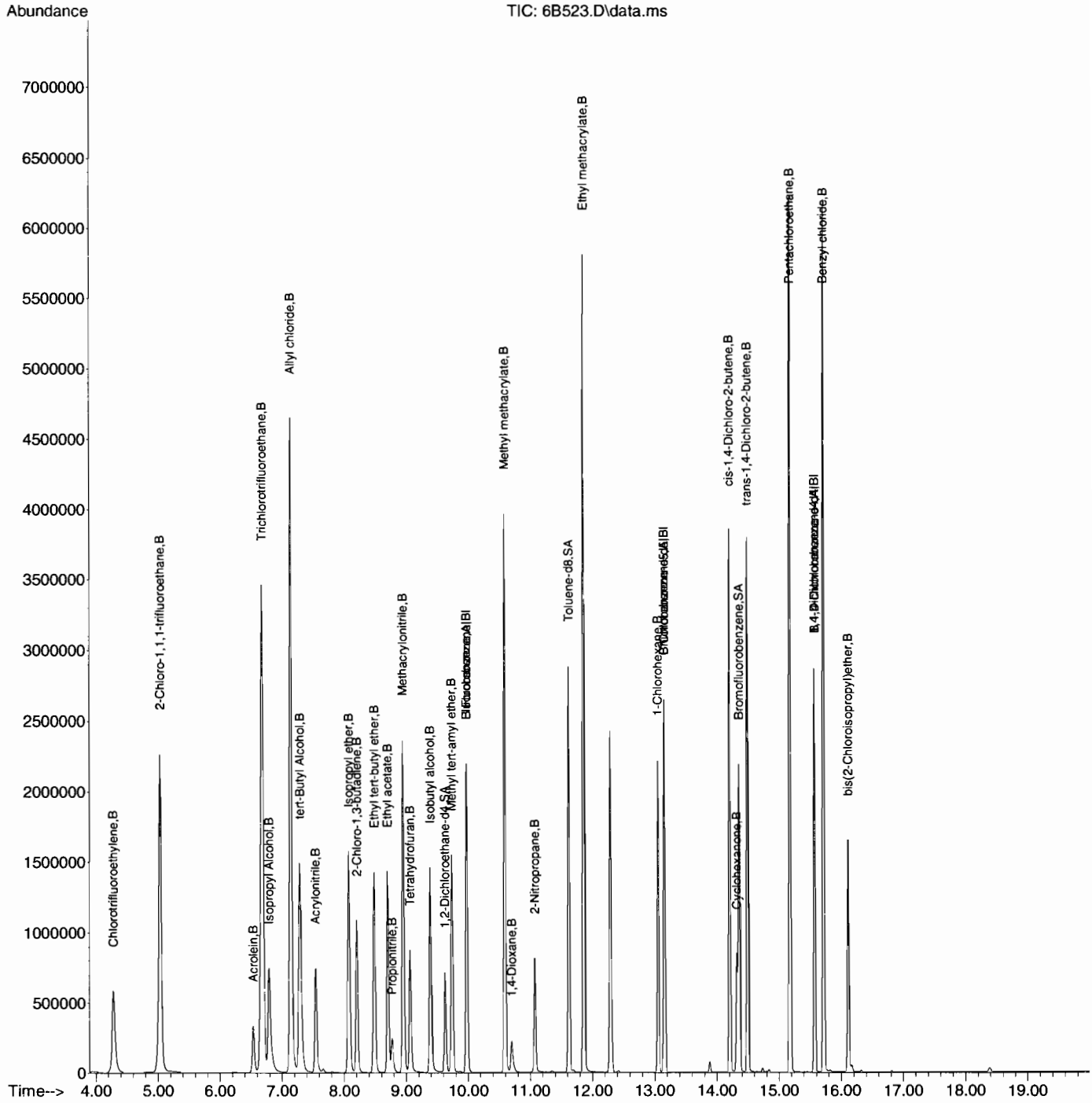

Continuing Calibration Summary

Client SDG: 10-2937

Instrument ID: VOA6.I **Injection Date** 05-MAY-10 11:05

Data File: 050510V6\6J302.D **Init. Cal. Date(s)** 12-MAR-10 10:46 - 12-MAR-10 18:3

Lab Sample ID W6VM100505-01 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.267	0.2792		.01		4.56929	30		Averaged	
S	Toluene-d8	1.3079	1.32234		.01		1.10406	30		Averaged	
S	Bromofluorobenzene	0.9368	0.88596		.01		-5.42699	30		Averaged	
	Dichlorodifluoromethane	0.194	0.12418		.01		-35.98969	30	*	Averaged	
	Chloromethane	50	41.2	50			-17.6	30		Linear	spcc
	Vinyl chloride	0.2843	0.24399		.01		-14.17868	20		Averaged	ccc
	Bromomethane	0.2076	0.1916		.01		-7.70713	30		Averaged	
	Chloroethane	0.1918	0.1886		.01		-1.6684	30		Averaged	
	Trichlorofluoromethane	0.3514	0.36625		.01		4.22595	30		Averaged	
	Ethyl ether	0.2276	0.21867		.01		-3.92355	30		Averaged	
	1,1-Dichloroethylene	0.3373	0.34704		.01		2.88764	20		Averaged	ccc
	Acetone	250	174.57	250			-30.172	40		Linear	
	Iodomethane	0.3823	0.36968		.01		-3.30107	30		Averaged	
	Acetonitrile	0.0286	0.02974		.01		3.98601	30		Averaged	
	Carbon disulfide	0.7143	0.77856		.01		8.99622	30		Averaged	
	Methyl acetate	0.1667	0.16635		.01		-0.20996	40		Averaged	
	Methylene chloride	50	52.86	50			5.72	30		Linear	
	tert-Butyl methyl ether	0.567	0.63544		.01		12.07055	30		Averaged	
	trans-1,2-Dichloroethylene	0.3368	0.35806		.01		6.31235	30		Averaged	
	Vinyl acetate	0.4126	0.52125		.01		26.33301	40		Averaged	
	1,1-Dichloroethane	0.427	0.46028		.1		7.79391	30		Averaged	spcc
	2-Butanone	0.1314	0.10394		.01		-20.89802	40		Averaged	
	cis-1,2-Dichloroethylene	0.377	0.40354		.01		7.03979	30		Averaged	
	2,2-Dichloropropane	0.3089	0.37645		.01		21.86792	30		Averaged	
	Bromochloromethane	0.1207	0.12053		.01		-0.14085	30		Averaged	
	Chloroform	0.4152	0.44229		.01		6.52457	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3459	0.38176		.01		10.36716	30		Averaged	
	Cyclohexane	0.4422	0.44623		.01		0.91135	30		Averaged	
	1,1-Dichloropropene	0.3352	0.36989		.01		10.34905	30		Averaged	
	Carbon tetrachloride	0.3067	0.3597		.01		17.28073	30		Averaged	
	1,2-Dichloroethane	0.3232	0.33743		.01		4.40285	30		Averaged	
	Benzene	1.0006	1.02933		.01		2.87128	30		Averaged	
	Cyclohexene	0.5078	0.52		.01		2.40252	30		Averaged	
	n-Butyl alcohol	5000	5228.8	5000			4.576	40		Linear	
	Trichloroethylene	0.2473	0.25623		.01		3.611	30		Averaged	
	1,2-Dichloropropane	0.2498	0.27251		.01		9.09127	20		Averaged	ccc
	Methylcyclohexane	0.4611	0.47217		.01		2.40078	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Dat** 05-MAY-10 11:05

Data File: 050510V6\6J302.D **Init. Cal. Date(s)** 12-MAR-10 10:46 12-MAR-10 18:3

Lab Sample ID W6VM100505-01 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1378	0.14176		.01		2.87373	30		Averaged	
Bromodichloromethane	0.2949	0.33158		.01		12.43811	30		Averaged	
2-Chloroethylvinyl ether	0.1426	0.15543		.01		8.99719	30		Averaged	
cis-1,3-Dichloropropylene	0.3685	0.41672		.01		13.08548	30		Averaged	
4-Methyl-2-pentanone	0.1163	0.12336		.01		6.07051	40		Averaged	
Toluene	1.5342	1.49329		.01		-2.66654	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.4414	0.52208		.01		18.27821	30		Averaged	
1,1,2-Trichloroethane	0.2274	0.23921		.01		5.19349	30		Averaged	
2-Hexanone	0.3011	0.22555		.01		-25.09133	40		Averaged	
1,3-Dichloropropane	0.4969	0.53089		.01		6.84041	30		Averaged	
Tetrachloroethylene	0.2873	0.2913		.01		1.39227	30		Averaged	
Dibromochloromethane	0.2874	0.33468		.01		16.45094	30		Averaged	
1,2-Dibromoethane	0.2692	0.27514		.01		2.20654	30		Averaged	
Chlorobenzene	0.9418	0.96701		.3		2.67679	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3127	0.34985		.01		11.8804	30		Averaged	
Ethylbenzene	1.6543	1.71433		.01		3.62873	20		Averaged	ccc
m,p-Xylenes	0.6549	0.67881		.01		3.65094	30		Averaged	
o-Xylene	0.6452	0.6579		.01		1.96838	30		Averaged	
Styrene	1.0759	1.11207		.01		3.36184	30		Averaged	
Bromoform	0.3264	0.38941		.1		19.30453	30		Averaged	spcc
Isopropylbenzene	3.114	3.1807		.01		2.14194	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6538	0.67392		.3		3.07739	30		Averaged	spcc
1,2,3-Trichloropropane	0.1769	0.17741		.01		0.2883	30		Averaged	
Bromobenzene	0.7567	0.7469		.01		-1.2951	30		Averaged	
n-Propylbenzene	3.6779	3.80103		.01		3.34783	30		Averaged	
2-Chlorotoluene	0.7572	0.78676		.01		3.90386	30		Averaged	
1,3,5-Trimethylbenzene	2.6728	2.7355		.01		2.34585	30		Averaged	
4-Chlorotoluene	2.2251	2.23319		.01		0.36358	30		Averaged	
tert-Butylbenzene	0.5856	0.58165		.01		-0.67452	30		Averaged	
1,2,4-Trimethylbenzene	2.7187	2.73634		.01		0.64884	30		Averaged	
sec-Butylbenzene	3.5259	3.59018		.01		1.82308	30		Averaged	
4-Isopropyltoluene	2.901	2.93282		.01		1.09686	30		Averaged	
1,3-Dichlorobenzene	1.4669	1.43907		.01		-1.8972	30		Averaged	
1,4-Dichlorobenzene	1.4896	1.47219		.01		-1.16877	30		Averaged	
n-Butylbenzene	2.7587	2.86562		.01		3.87574	30		Averaged	
1,2-Dichlorobenzene	1.3687	1.32812		.01		-2.96486	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1043	0.11131		.01		6.721	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Dat** 05-MAY-10 11:05

Data File: 050510V6\6J302.D **Init. Cal. Date(s)** 12-MAR-10 10:46 12-MAR-10 18:3

Lab Sample ID W6VM100505-01 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.9544	0.89892		.01		-5.81308	30		Averaged
Hexachlorobutadiene	0.6151	0.59198		.01		-3.75874	30		Averaged
Naphthalene	1.8777	1.62912		.01		-13.23854	30		Averaged
1,2,3-Trichlorobenzene	0.7617	0.71891		.01		-5.6177	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J302.D
Acq On : 5 May 2010 11:05 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100505-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 0408-01D+0503-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 05 11:22:37 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.980	9.974	1.000	96	1387879	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	1007776	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	547135	50.00	ug/L	0.00
82) B Fluorobenzene	9.980	9.974	1.000	96	1386911	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	1007776	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	15.577	1.000	152	547135	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	387489	52.28	ug/L	0.00
43) Toluene-d8	11.626	11.626	0.884	98	1332623	50.55	ug/L	0.00
61) Bromofluorobenzene	14.357	14.357	0.922	95	484737	47.28	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	172340	32.01	ug/L	99
3) Chloromethane	4.713	4.682	0.472	50	292454	41.20	ug/L	99
4) Vinyl chloride	4.934	4.924	0.494	62	338632	42.91	ug/L	99
5) Bromomethane	5.488	5.478	0.550	94	265922	46.15	ug/L	99
6) Chloroethane	5.619	5.619	0.563	64	261748	49.16	ug/L	100
7) Trichlorofluoromethane	6.032	6.032	0.604	101	508306	52.11	ug/L	100
8) Ethyl ether	6.334	6.328	0.635	59	303491	48.04	ug/L	97
9) Acetone	6.712	6.706	0.673	43	490220	174.57	ug/L	100
10) 1,1-Dichloroethylene	6.712	6.712	0.673	61	481653	51.45	ug/L	98
11) Iodomethane	6.956	6.956	0.697	142	2565378	241.72	ug/L	97
12) Acetonitrile	7.078	7.072	0.709	41	1031748	1297.61	ug/L	100
13) Methyl acetate	7.096	7.096	0.711	43	1154339	249.42	ug/L	98
14) Carbon disulfide	7.084	7.084	0.710	76	5402730	272.49	ug/L	100
15) Methylene chloride	7.291	7.285	0.731	84	356988	52.86	ug/L	97
16) tert-Butyl methyl ether	7.578	7.572	0.759	73	881913	56.03	ug/L	100
17) trans-1,2-Dichloroethy...	7.621	7.621	0.764	61	496945	53.15	ug/L	98
18) Vinyl acetate	8.066	8.060	0.808	43	3617143	315.87	ug/L	92
19) 1,1-Dichloroethane	8.108	8.102	0.812	63	638816	53.90	ug/L	100
20) 2-Butanone	8.694	8.694	0.871	43	721281	197.72	ug/L	98
21) cis-1,2-Dichloroethylene	8.742	8.742	0.876	61	560058	53.51	ug/L	96
22) 2,2-Dichloropropane	8.767	8.767	0.878	77	522471	60.94	ug/L	98
23) Bromochloromethane	9.017	9.017	0.903	128	167282	49.94	ug/L	94
24) Chloroform	9.053	9.053	0.907	83	613848	53.26	ug/L	99
25) 1,1,1-Trichloroethane	9.328	9.321	0.935	97	529834	55.18	ug/L	99
26) Cyclohexane	9.413	9.413	0.943	56	619308	50.45	ug/L	98
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	513356	55.17	ug/L	98
28) Carbon tetrachloride	9.517	9.510	0.954	117	499220	58.64	ug/L	100
30) 1,2-Dichloroethane	9.712	9.712	0.973	62	468317	52.19	ug/L	100
31) Benzene	9.724	9.724	0.974	78	1428588	51.43	ug/L	99
32) Cyclohexene	9.834	9.834	0.985	67	721696	51.20	ug/L	99
33) n-Butyl alcohol	10.083	10.077	1.010	56	955700	5228.80	ug/L	95
34) Trichloroethylene	10.364	10.364	1.038	95	355621	51.82	ug/L	98
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	378215	54.55	ug/L	99
36) Methylcyclohexane	10.608	10.602	1.063	83	655312	51.20	ug/L	98
37) Dibromomethane	10.748	10.748	1.077	93	196749	51.42	ug/L	96
38) Bromodichloromethane	10.864	10.864	1.089	83	460189	56.22	ug/L	100
39) 2-Chloroethylvinyl ether	11.089	11.089	1.111	63	1078568	272.40	ug/L	98
40) cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	578351	56.55	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J302.D
Acq On : 5 May 2010 11:05 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100505-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 0408-01D+0503-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 05 11:22:37 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42)	4-Methyl-2-pentanone	11.412	11.413	0.867	58	621594	265.19	ug/L		93
44)	Toluene	11.699	11.699	0.889	91	1504900	48.67	ug/L		99
45)	trans-1,3-Dichloroprop...	11.858	11.858	0.901	75	526137	59.14	ug/L		99
46)	1,1,2-Trichloroethane	12.083	12.077	0.918	83	241068	52.61	ug/L		99
47)	2-Hexanone	12.260	12.260	0.932	43	1136522	187.27	ug/L		98
48)	1,3-Dichloropropane	12.272	12.272	0.933	76	535018	53.42	ug/L		86
49)	Tetrachloroethylene	12.290	12.290	0.934	164	293561	50.70	ug/L		96
50)	Dibromochloromethane	12.540	12.540	0.953	129	337284	58.22	ug/L		100
51)	1,2-Dibromoethane	12.705	12.705	0.966	107	277282	51.10	ug/L		99
52)	Chlorobenzene	13.193	13.187	1.003	112	974531	51.34	ug/L		99
53)	1,1,1,2-Tetrachloroethane	13.247	13.241	1.007	131	352571	55.94	ug/L		100
54)	Ethylbenzene	13.254	13.248	1.007	91	1727665	51.81	ug/L		99
55)	m,p-Xylenes	13.363	13.357	1.016	106	1368179	103.66	ug/L		97
56)	o-Xylene	13.796	13.796	1.049	106	663017	50.98	ug/L		98
57)	Styrene	13.802	13.796	1.049	104	1120719	51.68	ug/L		99
59)	Bromoform	14.058	14.058	0.903	173	213058	59.65	ug/L		99
60)	Isopropylbenzene	14.156	14.156	0.909	105	1740270	51.07	ug/L		99
62)	1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	368723	51.54	ug/L		100
63)	1,2,3-Trichloropropane	14.528	14.528	0.933	110	97069	50.15	ug/L	#	88
64)	Bromobenzene	14.564	14.564	0.935	156	408655	49.36	ug/L		95
65)	n-Propylbenzene	14.583	14.583	0.936	91	2079678	51.67	ug/L		98
66)	1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1496688	51.17	ug/L		98
67)	2-Chlorotoluene	14.729	14.729	0.946	126	430464	51.95	ug/L		96
68)	4-Chlorotoluene	14.833	14.833	0.952	91	1221857	50.18	ug/L		98
69)	tert-Butylbenzene	15.107	15.107	0.970	134	318242	49.66	ug/L		97
70)	1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	1497146	50.32	ug/L		98
71)	sec-Butylbenzene	15.332	15.333	0.984	105	1964311	50.91	ug/L		98
72)	4-Isopropyltoluene	15.454	15.454	0.992	119	1604651	50.55	ug/L		99
73)	1,3-Dichlorobenzene	15.515	15.515	0.996	146	787368	49.05	ug/L		99
74)	1,4-Dichlorobenzene	15.601	15.601	1.002	146	805485	49.42	ug/L		100
75)	n-Butylbenzene	15.887	15.887	1.020	91	1567883	51.94	ug/L		98
76)	1,2-Dichlorobenzene	16.021	16.021	1.029	146	726659	48.52	ug/L		99
77)	1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	60900	53.36	ug/L		93
78)	1,2,4-Trichlorobenzene	17.911	17.911	1.150	180	491831	47.09	ug/L		100
79)	Hexachlorobutadiene	18.076	18.076	1.160	225	323891	48.12	ug/L		99
80)	Naphthalene	18.283	18.283	1.174	128	891349	43.38	ug/L		100
81)	1,2,3-Trichlorobenzene	18.618	18.618	1.195	180	393339	47.19	ug/L		100
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.			
85)	Acrolein	0.000	6.536	0.000		0	N.D.			
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.			
87)	Isopropyl Alcohol	6.718	6.792	0.673		0m	N.D.	d		
88)	Allyl chloride	7.078	7.139	0.709		0m	N.D.	d		
89)	tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.			
90)	Acrylonitrile	7.572	7.542	0.759		0m	N.D.	d		
91)	Isopropyl ether	8.066	8.078	0.808		0m	N.D.	d		
92)	2-Chloro-1,3-butadiene	8.212	8.206	0.823		0m	N.D.	d		
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.			
94)	Ethyl acetate	8.694	8.700	0.871		0m	N.D.	d		
95)	Propionitrile	8.687	8.773	0.870		0m	N.D.	d		
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.			
97)	Tetrahydrofuran	9.053	9.059	0.907		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J302.D
Acq On : 5 May 2010 11:05 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100505-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 0408-01D+0503-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 05 11:22:37 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98)	Isobutyl alcohol	9.413	9.389	0.943		0m	N.D.		d
99)	Methyl tert-amyl ether	9.724	9.736	0.974		0m	N.D.		d
100)	Methyl methacrylate	10.602	10.590	1.062		0m	N.D.		d
101)	1,4-Dioxane	10.699	10.699	1.072		0m	N.D.		d
102)	2-Nitropropane	11.089	11.071	1.111		0m	N.D.		d
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.		
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.156	14.199	0.909		0m	N.D.		d
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.		
110)	Pentachloroethane	15.180	15.180	0.975		0m	N.D.		d
111)	Benzyl chloride	15.717	15.717	1.009		0m	N.D.		d
112)	bis(2-Chloroisopropyl)...	16.168	16.113	1.038		0m	N.D.		d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J302.D
Acq On : 5 May 2010 11:05 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100505-01|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 0408-01D+0503-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 05 11:22:37 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

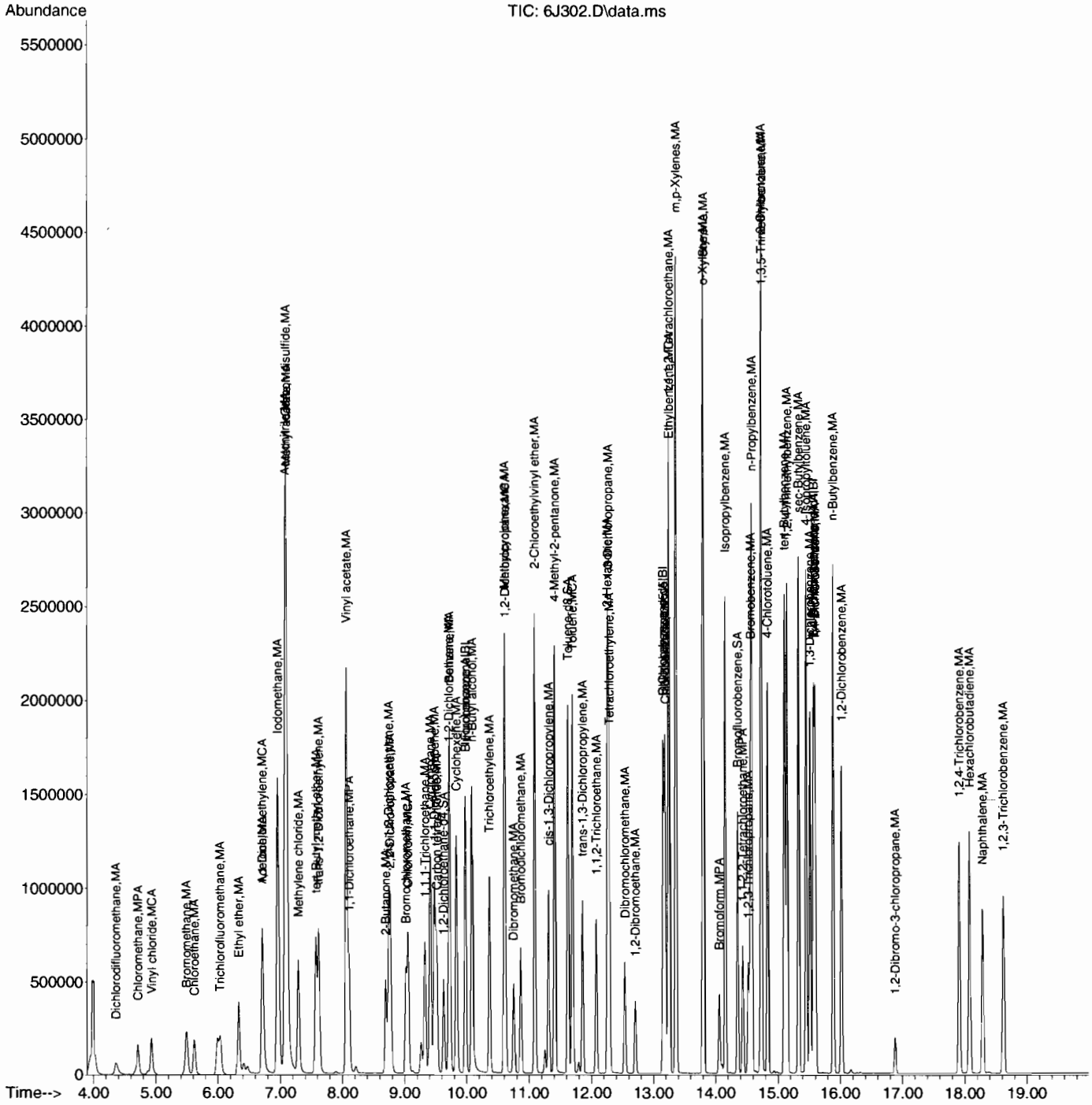

Continuing Calibration Summary

Client SDG: 10-2937

Instrument ID: VOA6.I **Injection Date** 05-MAY-10 12:01

Data File: 050510V6\6J304.D **Init. Cal. Date(s)** 12-MAR-10 10:46 - 12-MAR-10 18:3

Lab Sample ID W6VM100505-99 **Quant Type** ISTD **Method:** VOA6-8260-031210.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.267	0.276		.01		3.37079	30		Averaged
S	Toluene-d8	1.3079	1.27876		.01		-2.228	30		Averaged
S	Bromofluorobenzene	0.9368	0.94636		.01		1.0205	30		Averaged
	Chlorotrifluoroethylene	150	146.25	150			-2.5	30		Linear
	2-Chloro-1,1,1-trifluoroethane	0.2986	0.31383		.01		5.10047	30		Averaged
	Acrolein	0.0365	0.04021		.01		10.16438	30		Averaged
	Trichlorotrifluoroethane	0.0984	0.10467		.01		6.37195	30		Averaged
	Isopropyl Alcohol	0.0129	0.01452		.01		12.55814	40		Averaged
	Allyl chloride	0.3499	0.41908		.01		19.77136	30		Averaged
	tert-Butyl Alcohol	0.017	0.02334		.01		37.29412	40		Averaged
	Acrylonitrile	0.0678	0.07465		.01		10.10324	30		Averaged
	Isopropyl ether	0.7496	0.83304		.01		11.13127	30		Averaged
	2-Chloro-1,3-butadiene	0.3225	0.37227		.01		15.43256	30		Averaged
	Ethyl tert-butyl ether	0.5885	0.72621		.01		23.40017	30		Averaged
	Ethyl acetate	0.1853	0.19806		.01		6.88613	40		Averaged
	Propionitrile	0.0274	0.02986		.01		8.9781	30		Averaged
	Methacrylonitrile	0.1198	0.13417		.01		11.99499	30		Averaged
	Tetrahydrofuran	0.0608	0.06884		.01		13.22368	30		Averaged
	Isobutyl alcohol	0.0076	0.00792		.01		4.21053	40		Averaged
	Methyl tert-amyl ether	0.502	0.67872		.01		35.20319	30	*	Averaged
	Methyl methacrylate	0.143	0.16382		.01		14.55944	30		Averaged
	1,4-Dioxane	0.0021	0.00211		.01		0.47619	40		Averaged
	2-Nitropropane	0.0512	0.07068		.01		38.04688	30	*	Averaged
	Ethyl methacrylate	0.3664	0.43467		.01		18.63264	30		Averaged
	1-Chlorohexane	0.6455	0.71797		.01		11.22696	30		Averaged
	cis-1,4-Dichloro-2-butene	0.1853	0.24079		.01		29.94603	30		Averaged
	Cyclohexanone	0.0139	0.01344		.01		-3.30935	40		Averaged
	trans-1,4-Dichloro-2-butene	0.1779	0.22385		.01		25.82912	30		Averaged
	Pentachloroethane	0.3573	0.5249		.01		46.90736	30	*	Averaged
	Benzyl chloride	1.0375	1.36033		.01		31.11614	30	*	Averaged
	bis(2-Chloroisopropyl)ether	0.2369	0.26055		.01		9.98312	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J304.D
Acq On : 5 May 2010 12:01 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100505-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 0430-08A+0403-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 05 13:13:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.980	9.974	1.000	96	1379563	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	999549	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	509615	50.00	ug/L	0.00
82) B Fluorobenzene	9.980	9.974	1.000	96	1379130	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	999549	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	15.577	1.000	152	509615	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.632	9.626	0.965	65	380760	51.68	ug/L	0.00
43) Toluene-d8	11.626	11.626	0.884	98	1278185	48.88	ug/L	0.00
61) Bromofluorobenzene	14.357	14.357	0.922	95	482281	50.51	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.280	4.360	0.429		0m	N.D.	d	
3) Chloromethane	4.713	4.682	0.472		0m	N.D.	d	
4) Vinyl chloride	4.924	4.924	0.493		0m	N.D.	d	
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.694	6.706	0.671		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.676	6.712	0.669		0m	N.D.	d	
11) Iodomethane	6.950	6.956	0.696		0m	N.D.	d	
12) Acetonitrile	7.145	7.072	0.716		0m	N.D.	d	
13) Methyl acetate	7.102	7.096	0.712		0m	N.D.	d	
14) Carbon disulfide	7.145	7.084	0.716		0m	N.D.	d	
15) Methylene chloride	7.291	7.285	0.731		0m	N.D.	d	
16) tert-Butyl methyl ether	7.578	7.572	0.759		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	8.084	8.060	0.810		0m	N.D.	d	
19) 1,1-Dichloroethane	8.212	8.102	0.823		0m	N.D.	d	
20) 2-Butanone	8.706	8.694	0.872		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.706	8.742	0.872		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	9.389	9.413	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	9.480	9.480	0.950		0m	N.D.	d	
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	9.730	9.712	0.975		0m	N.D.	d	
31) Benzene	9.724	9.724	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	10.090	10.077	1.011		0m	N.D.	d	
34) Trichloroethylene	10.370	10.364	1.039		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	10.589	10.602	1.061		0m	N.D.	d	
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J304.D
Acq On : 5 May 2010 12:01 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100505-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 0430-08A+0403-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 05 13:13:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.		
42)	4-Methyl-2-pentanone	0.000	11.413	0.000		0	N.D.		
44)	Toluene	11.699	11.699	0.889		0m	N.D.	d	
45)	trans-1,3-Dichloroprop...	11.864	11.858	0.902		0m	N.D.	d	
46)	1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.		
47)	2-Hexanone	12.260	12.260	0.932		0m	N.D.	d	
48)	1,3-Dichloropropane	12.309	12.272	0.936		0m	N.D.	d	
49)	Tetrachloroethylene	12.290	12.290	0.934		0m	N.D.	d	
50)	Dibromochloromethane	0.000	12.540	0.000		0	N.D.		
51)	1,2-Dibromoethane	12.705	12.705	0.966		0m	N.D.	d	
52)	Chlorobenzene	13.193	13.187	1.003		0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane	13.248	13.241	1.007		0m	N.D.	d	
54)	Ethylbenzene	13.254	13.248	1.007		0m	N.D.	d	
55)	m,p-Xylenes	13.363	13.357	1.016		0m	N.D.	d	
56)	o-Xylene	13.796	13.796	1.049		0m	N.D.	d	
57)	Styrene	13.802	13.796	1.049		0m	N.D.	d	
59)	Bromoform	14.058	14.058	0.903		0m	N.D.	d	
60)	Isopropylbenzene	14.156	14.156	0.909		0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane	14.436	14.436	0.927		0m	N.D.	d	
63)	1,2,3-Trichloropropane	14.528	14.528	0.933		0m	N.D.	d	
64)	Bromobenzene	14.564	14.564	0.935		0m	N.D.	d	
65)	n-Propylbenzene	14.577	14.583	0.936		0m	N.D.	d	
66)	1,3,5-Trimethylbenzene	14.735	14.735	0.946		0m	N.D.	d	
67)	2-Chlorotoluene	14.729	14.729	0.946		0m	N.D.	d	
68)	4-Chlorotoluene	14.833	14.833	0.952		0m	N.D.	d	
69)	tert-Butylbenzene	15.107	15.107	0.970		0m	N.D.	d	
70)	1,2,4-Trimethylbenzene	15.150	15.150	0.973		0m	N.D.	d	
71)	sec-Butylbenzene	15.332	15.333	0.984		0m	N.D.	d	
72)	4-Isopropyltoluene	15.454	15.454	0.992		0m	N.D.	d	
73)	1,3-Dichlorobenzene	15.515	15.515	0.996		0m	N.D.	d	
74)	1,4-Dichlorobenzene	15.601	15.601	1.002		0m	N.D.	d	
75)	n-Butylbenzene	15.887	15.887	1.020		0m	N.D.	d	
76)	1,2-Dichlorobenzene	16.021	16.021	1.029		0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...	16.881	16.881	1.084		0m	N.D.	d	
78)	1,2,4-Trichlorobenzene	17.905	17.911	1.150		0m	N.D.	d	
79)	Hexachlorobutadiene	18.076	18.076	1.160		0m	N.D.	d	
80)	Naphthalene	18.289	18.283	1.174		0m	N.D.	d	
81)	1,2,3-Trichlorobenzene	18.618	18.618	1.195		0m	N.D.	d	
83)	Chlorotrifluoroethylene	4.290	4.280	0.430	116	494663	146.25	ug/L	99
84)	2-Chloro-1,1,1-trifluo...	5.045	5.035	0.506	118	1298448	157.63	ug/L	98
85)	Acrolein	6.542	6.536	0.655	56	277246	275.07	ug/L	99
86)	Trichlorotrifluoroethane	6.688	6.682	0.670	85	721781	265.82	ug/L	96
87)	Isopropyl Alcohol	6.791	6.792	0.681	45	1001372	2816.11	ug/L	97
88)	Allyl chloride	7.145	7.139	0.716	41	2889850	299.40	ug/L	98
89)	tert-Butyl Alcohol	7.291	7.285	0.731	59	1609511	3432.10	ug/L	83
90)	Acrylonitrile	7.547	7.542	0.756	53	514780	275.33	ug/L	99
91)	Isopropyl ether	8.084	8.078	0.810	45	1148867	55.56	ug/L	98
92)	2-Chloro-1,3-butadiene	8.212	8.206	0.823	53	513408	57.71	ug/L	97
93)	Ethyl tert-butyl ether	8.486	8.486	0.850	59	1001536	61.70	ug/L	98
94)	Ethyl acetate	8.706	8.700	0.872	43	1365768	267.24	ug/L	98
95)	Propionitrile	8.779	8.773	0.880	54	205888	272.53	ug/L	100
96)	Methacrylonitrile	8.950	8.950	0.897	41	925189	279.98	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J304.D
Acq On : 5 May 2010 12:01 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100505-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 0430-08A+0403-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 05 13:13:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
97)	Tetrahydrofuran	9.065	9.059	0.908	42	474730	283.05	ug/L	96
98)	Isobutyl alcohol	9.389	9.389	0.941	41	546430	2594.39	ug/L	97
99)	Methyl tert-amyl ether	9.742	9.736	0.976	73	936045	67.60	ug/L	89
100)	Methyl methacrylate	10.589	10.590	1.061	69	1129611	286.37	ug/L	95
101)	1,4-Dioxane	10.699	10.699	1.072	88	145176	2547.83	ug/L	96
102)	2-Nitropropane	11.071	11.071	1.109	43	487402	345.06	ug/L	98
104)	Ethyl methacrylate	11.858	11.858	0.901	69	2172346	296.57	ug/L	95
106)	1-Chlorohexane	13.052	13.053	0.838	55	365886	55.61	ug/L	94
107)	cis-1,4-Dichloro-2-butene	14.205	14.199	0.912	53	613562	324.90	ug/L	100
108)	Cyclohexanone	14.314	14.315	0.919	42	171186	1208.40	ug/L	98
109)	trans-1,4-Dichloro-2-b...	14.485	14.491	0.930	53	570384	314.57	ug/L	99
110)	Pentachloroethane	15.180	15.180	0.975	167	1337485	367.32	ug/L	99
111)	Benzyl chloride	15.717	15.717	1.009	91	3466221	327.81	ug/L	98
112)	bis(2-Chloroisopropyl)...	16.113	16.113	1.034	45	663910	274.95	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J304.D
Acq On : 5 May 2010 12:01 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100505-03|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[B] 0430-08A+0403-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 05 13:13:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

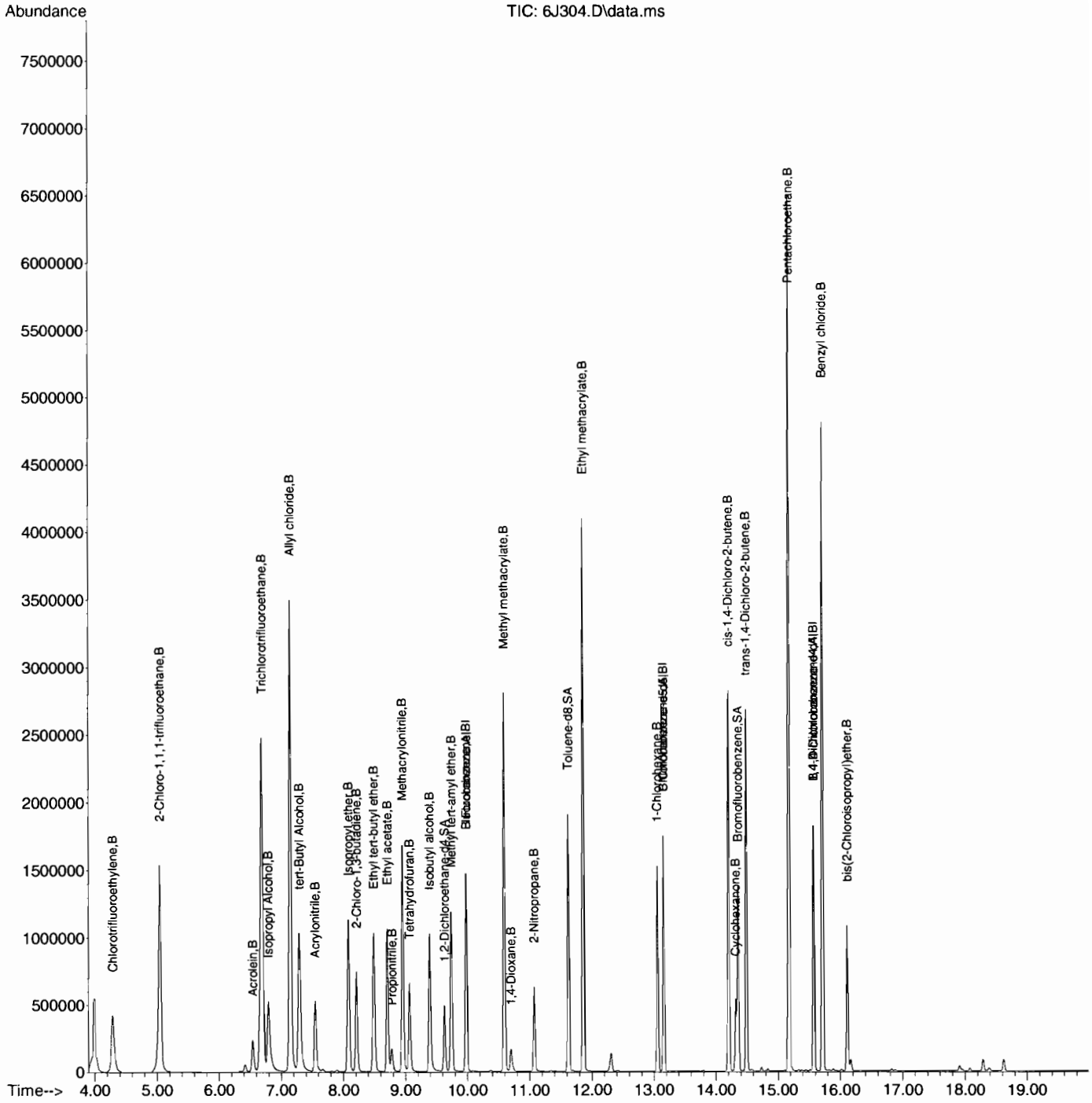

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031210V6\
Data File : 6B503.D
Acq On : 12 Mar 2010 10:14 am
Operator : RXD1
Sample : |UVM100217-02|BFB|1|VOAF|1|VOA8260BS|
Misc : BFB 5mL N/A
ALS Vial : 3 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Title : Volatile Organics 8260B SubList :
Last Update : Sat Mar 13 09:33:19 2010

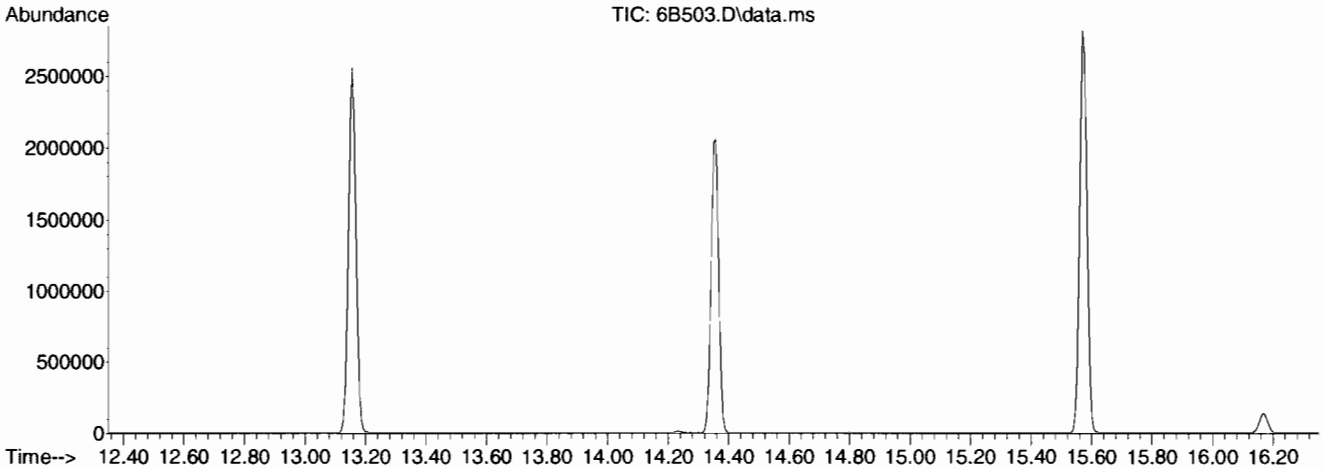

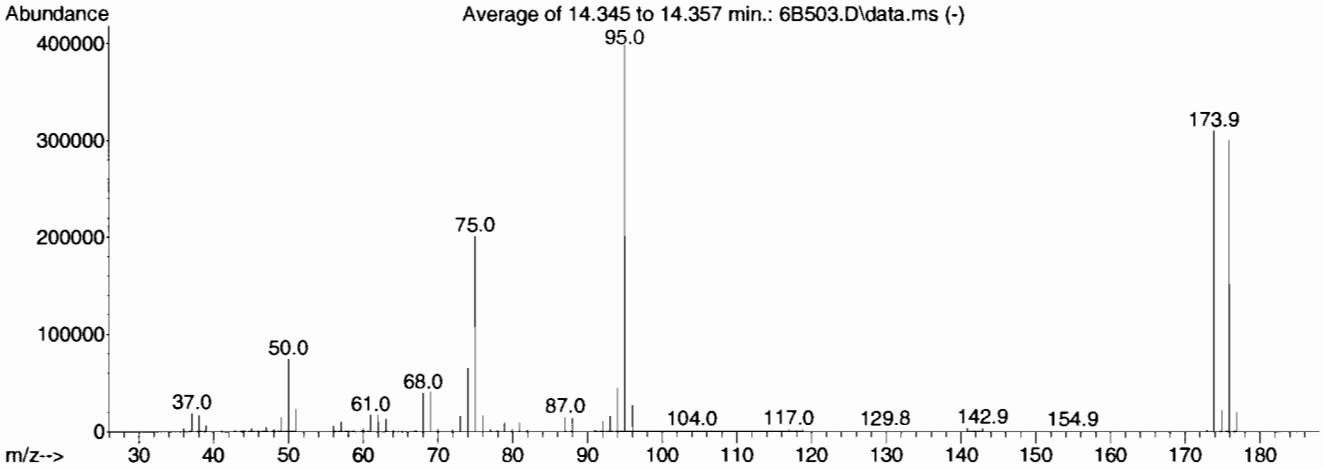

AutoFind: Scans 1557, 1558, 1559; Background Corrected with Scan 1549

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.5	73891	PASS
75	95	30	60	50.5	201173	PASS
95	95	100	100	100.0	398613	PASS
96	95	5	9	6.8	27259	PASS
173	174	0.00	2	0.6	1883	PASS
174	95	50	100	77.7	309781	PASS
175	174	5	9	7.1	21936	PASS
176	174	95	101	97.0	300395	PASS
177	176	5	9	6.6	19882	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J301.D
Acq On : 5 May 2010 10:38 am
Operator : RXD1
Sample : |UVM100419-02|BFB|1|VOAF|1|VOA8260BS|
Misc : BFB 5mL N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Title : Volatile Organics 8260B SubList :
Last Update : Sat Mar 13 09:33:19 2010

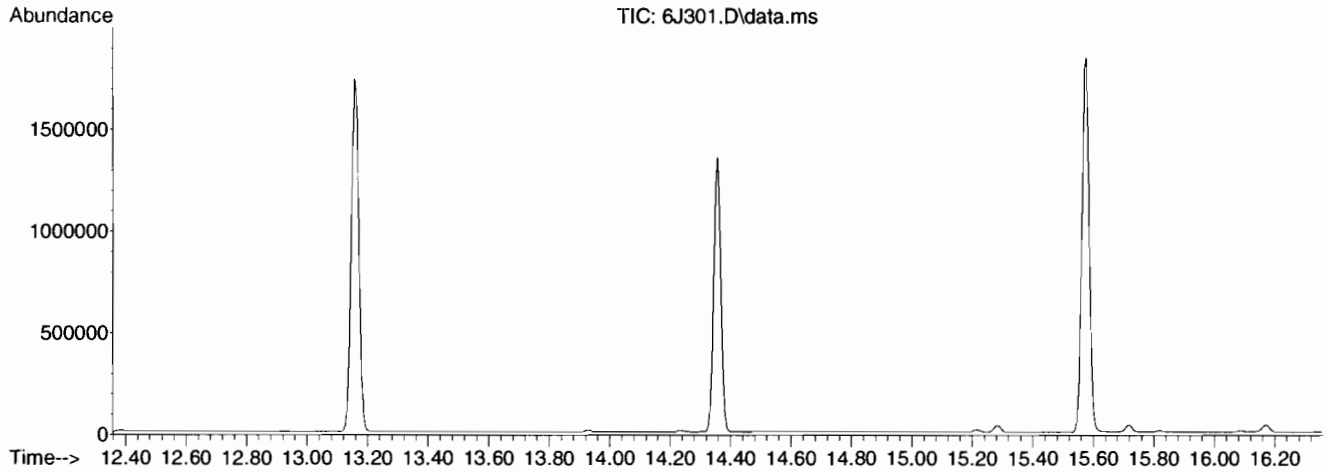

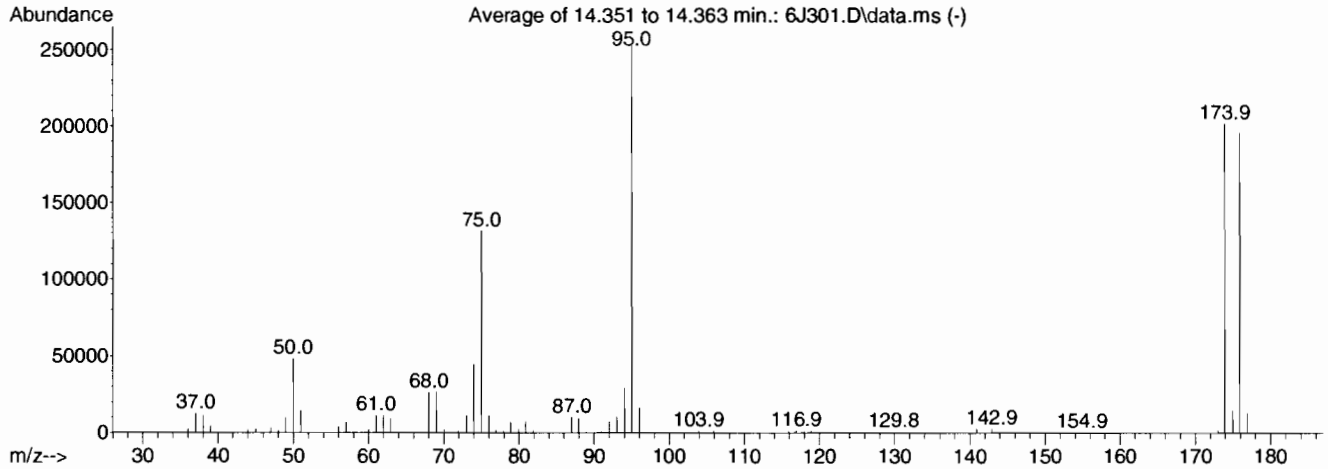

AutoFind: Scans 1558, 1559, 1560; Background Corrected with Scan 1550

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.0	48027	PASS
75	95	30	60	52.1	131509	PASS
95	95	100	100	100.0	252565	PASS
96	95	5	9	6.5	16422	PASS
173	174	0.00	2	0.8	1615	PASS
174	95	50	100	79.9	201920	PASS
175	174	5	9	7.2	14622	PASS
176	174	95	101	97.0	195776	PASS
177	176	5	9	6.5	12805	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**			**Matrix:**	**WATER**
Lab Sample ID:	**1202110251**				
Client Sample:	**QC for batch 981428**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**MB for batch 981428**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 13:55**	**Analyst:**	**RXDI**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 13:55**				
Data File:	**050510V6\6J307BA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**			**Matrix:**	**WATER**
Lab Sample ID:	**1202110251**				
Client Sample:	**QC for batch 981428**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**MB for batch 981428**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 13:55**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 13:55**				
Data File:	**050510V6\6J307BA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**			**Matrix:**	**WATER**
Lab Sample ID:	**1202110251**				
Client Sample:	**QC for batch 981428**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**MB for batch 981428**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 13:55**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 13:55**				
Data File:	**050510V6\6J307BA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/L		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J307BA.D
Acq On : 5 May 2010 1:55 pm
Operator : RXD1
InstName : VOA6
Sample : |1202110251|981428|1|VOAF|1|VOA8260LFD|
Misc : BLANK 5mL N/A
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 05 14:19:19 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.980	9.974	1.000	96	1270540	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	908944	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	456076	50.00	ug/L	0.00
82) B Fluorobenzene	9.980	9.974	1.000	96	1269618	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	908944	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	15.577	1.000	152	456076	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	357208	52.64	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 105.28%					
43) Toluene-d8	11.626	11.626	0.884	98	1193266	50.19	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 100.38%					
61) Bromofluorobenzene	14.357	14.357	0.922	95	416502	48.74	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 97.48%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.702	4.682	0.471	50	674	Below Cal	#	42
4) Vinyl chloride	0.000	4.924	0.000		0	N.D.		
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.724	6.706	0.674	43	6845	Below Cal		78
10) 1,1-Dichloroethylene	0.000	6.712	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	0.000	7.084	0.000		0	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	5186	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	9.388	9.413	0.941	56	199	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.712	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J307BA.D
Acq On : 5 May 2010 1:55 pm
Operator : RXD1
InstName : VOA6
Sample : |1202110251|981428|1|VOAF|1|VOA8260LFD|
Misc : BLANK 5mL N/A
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 05 14:19:19 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.413	0.000		0	N.D.	
44) Toluene	11.699	11.699	0.889	91	460	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.540	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	0.000	13.248	0.000		0	N.D.	
55) m,p-Xylenes	0.000	13.357	0.000		0	N.D.	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	0.000	13.796	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	0.000	14.583	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.735	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.729	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	15.150	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	15.333	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	15.454	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	0.000	15.887	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.283	18.283	1.174	128	744	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.536	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.792	0.000		0	N.D.	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.542	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J307BA.D
Acq On : 5 May 2010 1:55 pm
Operator : RXD1
InstName : VOA6
Sample : |1202110251|981428|1|VOAF|1|VOA8260LFD|
Misc : BLANK 5mL N/A
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 05 14:19:19 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	8.773	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	9.059	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	9.389	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	10.590	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.	
110)	Pentachloroethane	0.000	15.180	0.000		0	N.D.	
111)	Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.119	16.113	1.035	45	380	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J307BA.D
Acq On : 5 May 2010 1:55 pm
Operator : RXD1
InstName : VOA6
Sample : |1202110251|981428|1|VOAF|1|VOA8260LFD|
Misc : BLANK 5mL N/A
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 05 14:19:19 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

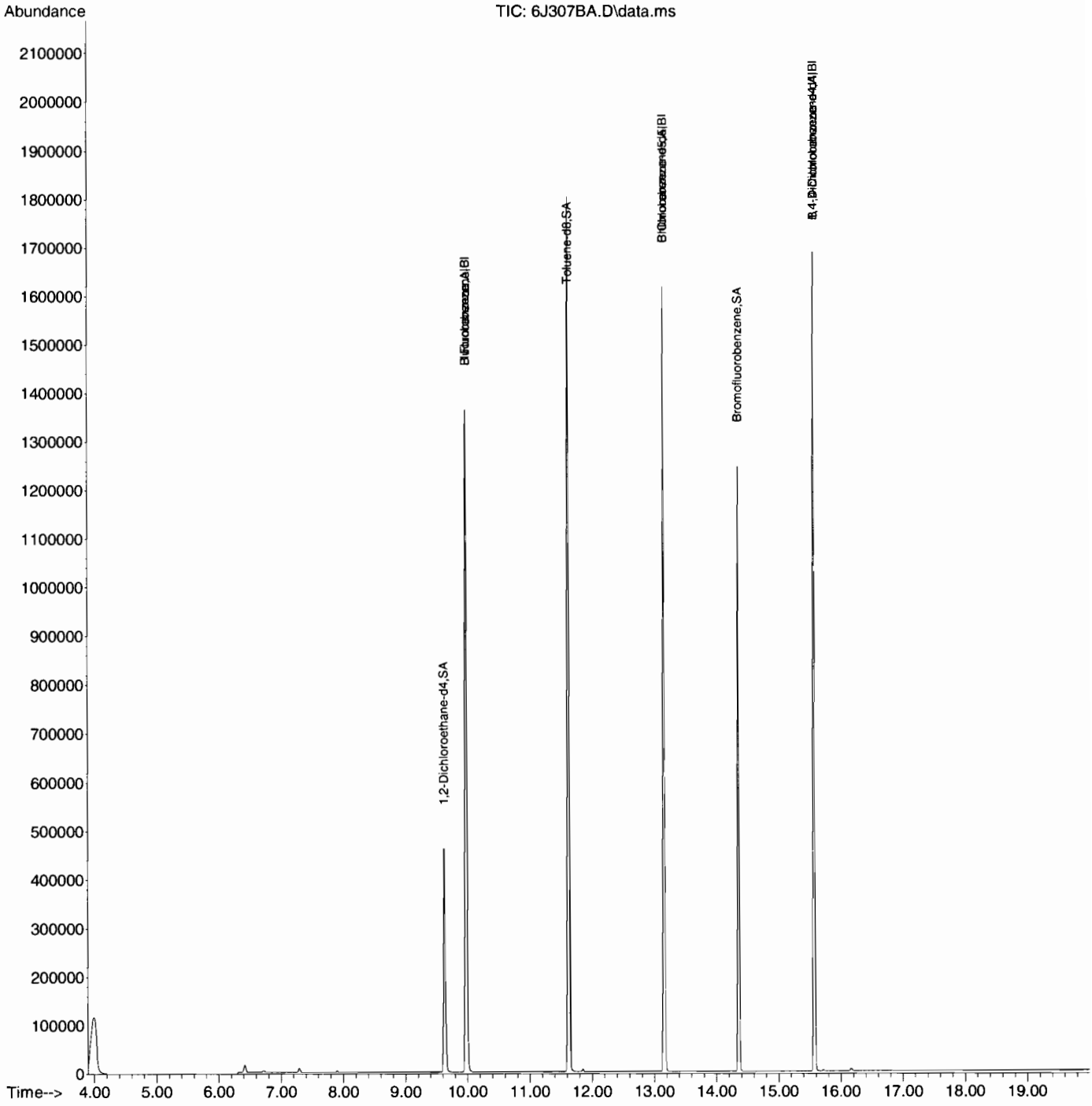

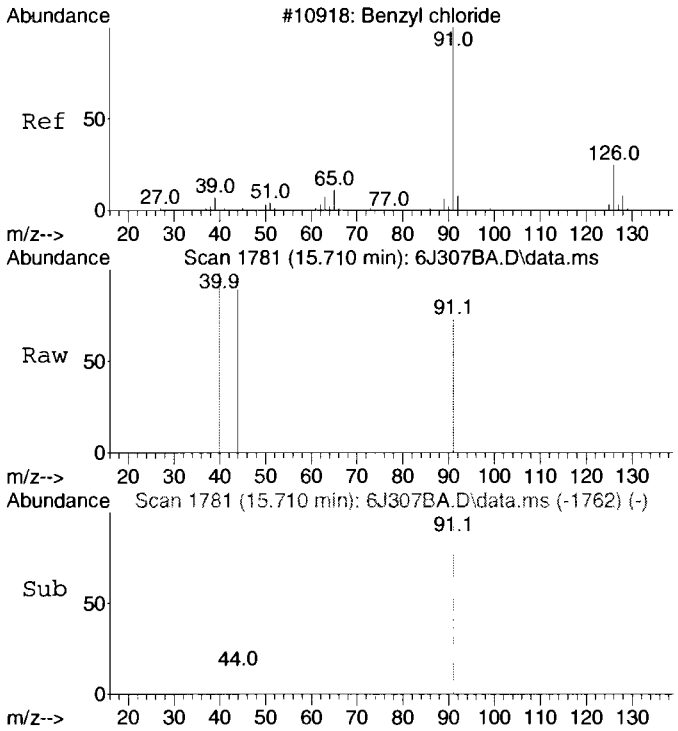

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 0.38 ug/L
RT: 15.710 min Scan# 1781
Delta R.T. -0.007 min
Lab File: 6J307BA.D
Acq: 5 May 2010 1:55 pm

Tgt Ion: 91 Resp: 3556

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	53.0
65	0.0	0.0	42.7

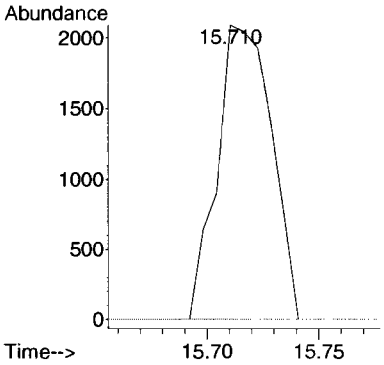

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J307BA.D
Acq On : 5 May 2010 1:55 pm
Operator : RXD1
Sample : |1202110251|981428|1|VOAF|1|VOA8260LFD|
Misc : BLANK 5mL N/A
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J307BA.D
Acq On : 5 May 2010 1:55 pm
Operator : RXD1
Sample : |1202110251|981428|1|VOAF|1|VOA8260LFD|
Misc : BLANK 5mL N/A
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**			**Matrix:**	**WATER**
Lab Sample ID:	**1202110254**				
Client Sample:	**QC for batch 981428**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 981428**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 11:05**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 11:05**				
Data File:	**050510V6\6J302LA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		32.0	ug/L	0.300	1.00
74-87-3	Chloromethane		41.2	ug/L	0.300	1.00
75-01-4	Vinyl chloride		42.9	ug/L	0.500	1.00
74-83-9	Bromomethane		46.2	ug/L	0.300	1.00
75-00-3	Chloroethane		49.2	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		52.1	ug/L	0.300	1.00
60-29-7	Ethyl ether		48.0	ug/L	0.300	1.00
67-64-1	Acetone		175	ug/L	3.50	10.0
75-05-8	Acetonitrile		1300	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		51.5	ug/L	0.300	1.00
74-88-4	Iodomethane		242	ug/L	1.25	5.00
75-09-2	Methylene chloride		52.9	ug/L	3.00	10.0
75-15-0	Carbon disulfide		272	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		56.0	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		53.2	ug/L	0.300	1.00
108-05-4	Vinyl acetate		316	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		53.9	ug/L	0.300	1.00
78-93-3	2-Butanone		198	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		53.5	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		60.9	ug/L	0.300	1.00
67-66-3	Chloroform		53.3	ug/L	0.250	1.00
74-97-5	Bromochloromethane		49.9	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		55.2	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		55.2	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		5230	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		58.6	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		52.2	ug/L	0.250	1.00
71-43-2	Benzene		51.4	ug/L	0.300	1.00
79-01-6	Trichloroethylene		51.8	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		54.6	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		56.2	ug/L	0.250	1.00
74-95-3	Dibromomethane		51.4	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		265	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		56.6	ug/L	0.250	1.00
108-88-3	Toluene		48.7	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		59.1	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		52.6	ug/L	0.250	1.00
591-78-6	2-Hexanone		187	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**			**Matrix:**	**WATER**
Lab Sample ID:	**1202110254**				
Client Sample:	**QC for batch 981428**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 981428**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 11:05**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 11:05**				
Data File:	**050510V6\6J302LA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		53.4	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		50.7	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		58.2	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		51.1	ug/L	0.250	1.00
108-90-7	Chlorobenzene		51.3	ug/L	0.250	1.00
100-41-4	Ethylbenzene		51.8	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		104	ug/L	0.500	2.00
95-47-6	o-Xylene		51.0	ug/L	0.300	1.00
100-42-5	Styrene		51.7	ug/L	0.250	1.00
75-25-2	Bromoform		59.7	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		51.5	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		50.2	ug/L	0.300	1.00
108-86-1	Bromobenzene		49.4	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		51.7	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		52.0	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		51.1	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		51.2	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		50.2	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		49.7	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		50.3	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		50.9	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		50.6	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		49.1	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		49.4	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		51.9	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		53.4	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		48.1	ug/L	0.300	1.00
91-20-3	Naphthalene		43.4	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		47.2	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**			**Matrix:**	**WATER**
Lab Sample ID:	**1202110254**				
Client Sample:	**QC for batch 981428**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 981428**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 11:05**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 11:05**				
Data File:	**050510V6\6J302LA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		55.9	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		47.1	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		48.5	ug/L	0.250	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J302LA.D
Acq On : 5 May 2010 11:05 am
Operator : RXD1
InstName : VOA6
Sample : |1202110254|981428|1|VOAF|1|VOA8260LFD|
Misc : LCS 5mL N/A MIX[A] 0408-01D+0503-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 05 11:22:37 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.980	9.974	1.000	96	1387879	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	1007776	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	547135	50.00	ug/L	0.00
82) B Fluorobenzene	9.980	9.974	1.000	96	1386911	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	1007776	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	15.577	1.000	152	547135	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	387489	52.28	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 104.56%					
43) Toluene-d8	11.626	11.626	0.884	98	1332623	50.55	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 101.10%					
61) Bromofluorobenzene	14.357	14.357	0.922	95	484737	47.28	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 94.56%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	172340	32.01	ug/L	99
3) Chloromethane	4.713	4.682	0.472	50	292454	41.20	ug/L	99
4) Vinyl chloride	4.934	4.924	0.494	62	338632	42.91	ug/L	99
5) Bromomethane	5.488	5.478	0.550	94	265922	46.15	ug/L	99
6) Chloroethane	5.619	5.619	0.563	64	261748	49.16	ug/L	100
7) Trichlorofluoromethane	6.032	6.032	0.604	101	508306	52.11	ug/L	100
8) Ethyl ether	6.334	6.328	0.635	59	303491	48.04	ug/L	97
9) Acetone	6.712	6.706	0.673	43	490220	174.57	ug/L	100
10) 1,1-Dichloroethylene	6.712	6.712	0.673	61	481653	51.45	ug/L	98
11) Iodomethane	6.956	6.956	0.697	142	2565378	241.72	ug/L	97
12) Acetonitrile	7.078	7.072	0.709	41	1031748	1297.61	ug/L	100
13) Methyl acetate	7.096	7.096	0.711	43	1154339	249.42	ug/L	98
14) Carbon disulfide	7.084	7.084	0.710	76	5402730	272.49	ug/L	100
15) Methylene chloride	7.291	7.285	0.731	84	356988	52.86	ug/L	97
16) tert-Butyl methyl ether	7.578	7.572	0.759	73	881913	56.03	ug/L	100
17) trans-1,2-Dichloroethy...	7.621	7.621	0.764	61	496945	53.15	ug/L	98
18) Vinyl acetate	8.066	8.060	0.808	43	3617143	315.87	ug/L	92
19) 1,1-Dichloroethane	8.108	8.102	0.812	63	638816	53.90	ug/L	100
20) 2-Butanone	8.694	8.694	0.871	43	721281	197.72	ug/L	98
21) cis-1,2-Dichloroethylene	8.742	8.742	0.876	61	560058	53.51	ug/L	96
22) 2,2-Dichloropropane	8.767	8.767	0.878	77	522471	60.94	ug/L	98
23) Bromochloromethane	9.017	9.017	0.903	128	167282	49.94	ug/L	94
24) Chloroform	9.053	9.053	0.907	83	613848	53.26	ug/L	99
25) 1,1,1-Trichloroethane	9.328	9.321	0.935	97	529834	55.18	ug/L	99
26) Cyclohexane	9.413	9.413	0.943	56	619308	50.45	ug/L	98
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	513356	55.17	ug/L	98
28) Carbon tetrachloride	9.517	9.510	0.954	117	499220	58.64	ug/L	100
30) 1,2-Dichloroethane	9.712	9.712	0.973	62	468317	52.19	ug/L	100
31) Benzene	9.724	9.724	0.974	78	1428588	51.43	ug/L	99
32) Cyclohexene	9.834	9.834	0.985	67	721696	51.20	ug/L	99
33) n-Butyl alcohol	10.083	10.077	1.010	56	955700	5228.80	ug/L	95
34) Trichloroethylene	10.364	10.364	1.038	95	355621	51.82	ug/L	98
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	378215	54.55	ug/L	99
36) Methylcyclohexane	10.608	10.602	1.063	83	655312	51.20	ug/L	98
37) Dibromomethane	10.748	10.748	1.077	93	196749	51.42	ug/L	96

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J302LA.D
Acq On : 5 May 2010 11:05 am
Operator : RXD1
InstName : VOA6
Sample : |1202110254|981428|1|VOAF|1|VOA8260LFD|
Misc : LCS 5mL N/A MIX[A] 0408-01D+0503-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 05 11:22:37 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38)	Bromodichloromethane	10.864	10.864	1.089	83	460189	56.22	ug/L		100
39)	2-Chloroethylvinyl ether	11.089	11.089	1.111	63	1078568	272.40	ug/L		98
40)	cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	578351	56.55	ug/L		98
42)	4-Methyl-2-pentanone	11.412	11.413	0.867	58	621594	265.19	ug/L		93
44)	Toluene	11.699	11.699	0.889	91	1504900	48.67	ug/L		99
45)	trans-1,3-Dichloroprop...	11.858	11.858	0.901	75	526137	59.14	ug/L		99
46)	1,1,2-Trichloroethane	12.083	12.077	0.918	83	241068	52.61	ug/L		99
47)	2-Hexanone	12.260	12.260	0.932	43	1136522	187.27	ug/L		98
48)	1,3-Dichloropropane	12.272	12.272	0.933	76	535018	53.42	ug/L		86
49)	Tetrachloroethylene	12.290	12.290	0.934	164	293561	50.70	ug/L		96
50)	Dibromochloromethane	12.540	12.540	0.953	129	337284	58.22	ug/L		100
51)	1,2-Dibromoethane	12.705	12.705	0.966	107	277282	51.10	ug/L		99
52)	Chlorobenzene	13.193	13.187	1.003	112	974531	51.34	ug/L		99
53)	1,1,1,2-Tetrachloroethane	13.247	13.241	1.007	131	352571	55.94	ug/L		100
54)	Ethylbenzene	13.254	13.248	1.007	91	1727665	51.81	ug/L		99
55)	m,p-Xylenes	13.363	13.357	1.016	106	1368179	103.66	ug/L		97
56)	o-Xylene	13.796	13.796	1.049	106	663017	50.98	ug/L		98
57)	Styrene	13.802	13.796	1.049	104	1120719	51.68	ug/L		99
59)	Bromoform	14.058	14.058	0.903	173	213058	59.65	ug/L		99
60)	Isopropylbenzene	14.156	14.156	0.909	105	1740270	51.07	ug/L		99
62)	1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	368723	51.54	ug/L		100
63)	1,2,3-Trichloropropane	14.528	14.528	0.933	110	97069	50.15	ug/L	#	88
64)	Bromobenzene	14.564	14.564	0.935	156	408655	49.36	ug/L		95
65)	n-Propylbenzene	14.583	14.583	0.936	91	2079678	51.67	ug/L		98
66)	1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1496688	51.17	ug/L		98
67)	2-Chlorotoluene	14.729	14.729	0.946	126	430464	51.95	ug/L		96
68)	4-Chlorotoluene	14.833	14.833	0.952	91	1221857	50.18	ug/L		98
69)	tert-Butylbenzene	15.107	15.107	0.970	134	318242	49.66	ug/L		97
70)	1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	1497146	50.32	ug/L		98
71)	sec-Butylbenzene	15.332	15.333	0.984	105	1964311	50.91	ug/L		98
72)	4-Isopropyltoluene	15.454	15.454	0.992	119	1604651	50.55	ug/L		99
73)	1,3-Dichlorobenzene	15.515	15.515	0.996	146	787368	49.05	ug/L		99
74)	1,4-Dichlorobenzene	15.601	15.601	1.002	146	805485	49.42	ug/L		100
75)	n-Butylbenzene	15.887	15.887	1.020	91	1567883	51.94	ug/L		98
76)	1,2-Dichlorobenzene	16.021	16.021	1.029	146	726659	48.52	ug/L		99
77)	1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	60900	53.36	ug/L		93
78)	1,2,4-Trichlorobenzene	17.911	17.911	1.150	180	491831	47.09	ug/L		100
79)	Hexachlorobutadiene	18.076	18.076	1.160	225	323891	48.12	ug/L		99
80)	Naphthalene	18.283	18.283	1.174	128	891349	43.38	ug/L		100
81)	1,2,3-Trichlorobenzene	18.618	18.618	1.195	180	393339	47.19	ug/L		100
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.			
85)	Acrolein	0.000	6.536	0.000		0	N.D.			
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.			
87)	Isopropyl Alcohol	6.718	6.792	0.673		0m	N.D.	d		
88)	Allyl chloride	7.078	7.139	0.709		0m	N.D.	d		
89)	tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.			
90)	Acrylonitrile	7.572	7.542	0.759		0m	N.D.	d		
91)	Isopropyl ether	8.066	8.078	0.808		0m	N.D.	d		
92)	2-Chloro-1,3-butadiene	8.212	8.206	0.823		0m	N.D.	d		
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.			
94)	Ethyl acetate	8.694	8.700	0.871		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J302LA.D
Acq On : 5 May 2010 11:05 am
Operator : RXD1
InstName : VOA6
Sample : |1202110254|981428|1|VOAF|1|VOA8260LFD|
Misc : LCS 5mL N/A MIX[A] 0408-01D+0503-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 05 11:22:37 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	8.687	8.773	0.870		0m	N.D.		d
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.		
97)	Tetrahydrofuran	9.053	9.059	0.907		0m	N.D.		d
98)	Isobutyl alcohol	9.413	9.389	0.943		0m	N.D.		d
99)	Methyl tert-amyl ether	9.724	9.736	0.974		0m	N.D.		d
100)	Methyl methacrylate	10.602	10.590	1.062		0m	N.D.		d
101)	1,4-Dioxane	10.699	10.699	1.072		0m	N.D.		d
102)	2-Nitropropane	11.089	11.071	1.111		0m	N.D.		d
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.		
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.156	14.199	0.909		0m	N.D.		d
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.		
110)	Pentachloroethane	15.180	15.180	0.975		0m	N.D.		d
111)	Benzyl chloride	15.717	15.717	1.009		0m	N.D.		d
112)	bis(2-Chloroisopropyl)...	16.168	16.113	1.038		0m	N.D.		d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J302LA.D
Acq On : 5 May 2010 11:05 am
Operator : RXD1
InstName : VOA6
Sample : |1202110254|981428|1|VOAF|1|VOA8260LFD|
Misc : LCS 5mL N/A MIX[A] 0408-01D+0503-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 05 11:22:37 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

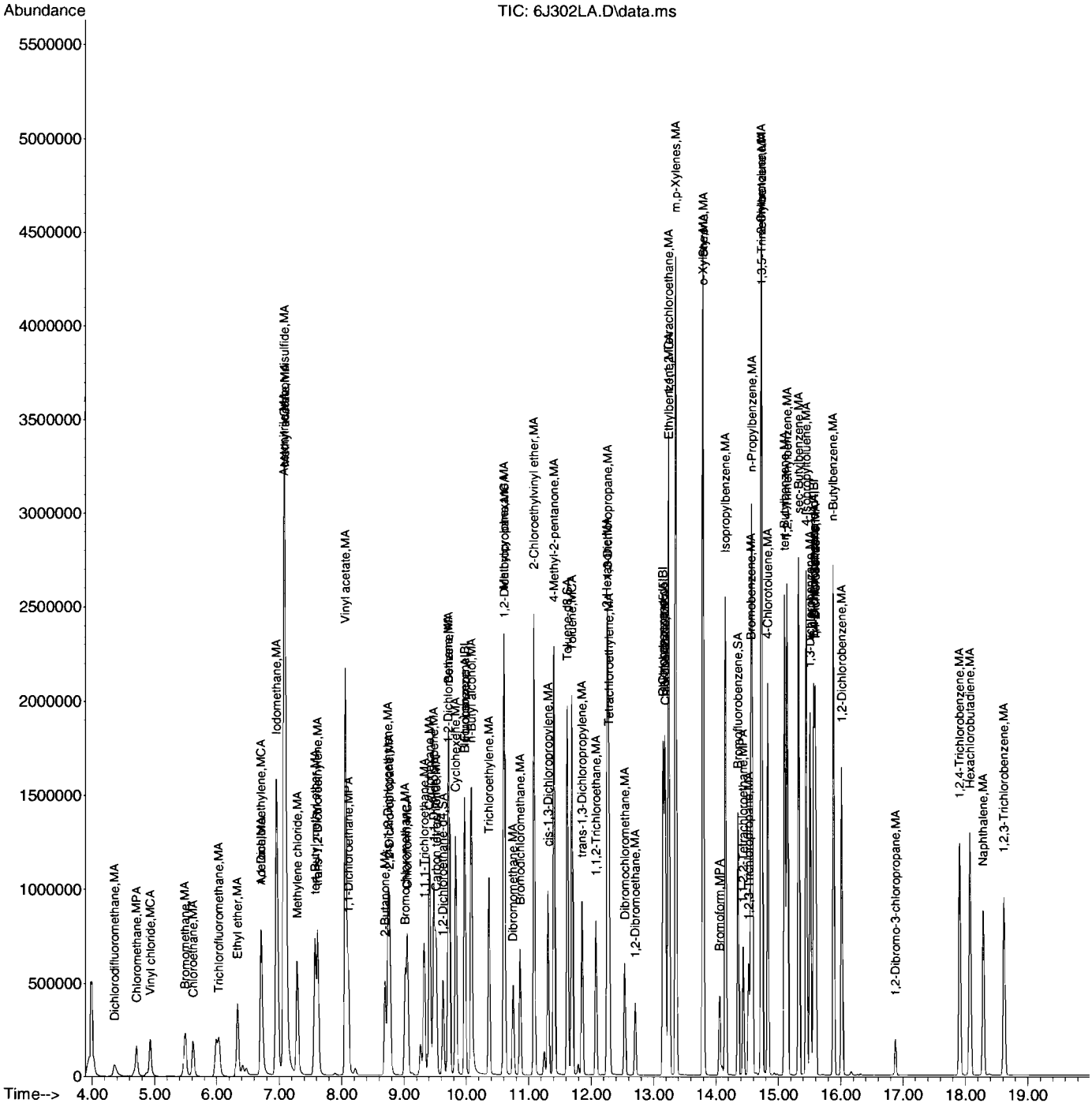

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**			**Matrix:**	**WATER**
Lab Sample ID:	**1202110255**				
Client Sample:	**QC for batch 981428**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 981428**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 12:01**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 12:01**				
Data File:	**050510V6\6J304SA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**			**Matrix:**	**WATER**
Lab Sample ID:	**1202110255**				
Client Sample:	**QC for batch 981428**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 981428**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 12:01**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 12:01**				
Data File:	**050510V6\6J304SA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein		275	ug/L	1.25	5.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		266	ug/L	1.00	5.00
107-05-1	Allyl chloride		299	ug/L	1.50	5.00
107-13-1	Acrylonitrile		275	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene		57.7	ug/L	0.300	1.00
107-12-0	Propionitrile		273	ug/L	1.50	5.00
126-98-7	Methacrylonitrile		280	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol		2590	ug/L	12.5	50.0
80-62-6	Methyl methacrylate		286	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**			**Matrix:**	**WATER**
Lab Sample ID:	**1202110255**				
Client Sample:	**QC for batch 981428**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**LCS for batch 981428**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 12:01**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 12:01**				
Data File:	**050510V6\6J304SA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate		297	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J304SA.D
Acq On : 5 May 2010 12:01 pm
Operator : RXD1
InstName : VOA6
Sample : |1202110255|981428|1|VOAF|1|VOA8260LFD|
Misc : LCS 5mL N/A MIX[B] 0430-08A+0403-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 05 13:13:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.980	9.974	1.000	96	1379563	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	999549	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	509615	50.00	ug/L	0.00
82) B Fluorobenzene	9.980	9.974	1.000	96	1379130	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	999549	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	15.577	1.000	152	509615	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.632	9.626	0.965	65	380760	51.68	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 103.36%					
43) Toluene-d8	11.626	11.626	0.884	98	1278185	48.88	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 97.76%					
61) Bromofluorobenzene	14.357	14.357	0.922	95	482281	50.51	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 101.02%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.280	4.360	0.429		0m	N.D.	d	
3) Chloromethane	4.713	4.682	0.472		0m	N.D.	d	
4) Vinyl chloride	4.924	4.924	0.493		0m	N.D.	d	
5) Bromomethane	0.000	5.478	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.694	6.706	0.671		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.676	6.712	0.669		0m	N.D.	d	
11) Iodomethane	6.950	6.956	0.696		0m	N.D.	d	
12) Acetonitrile	7.145	7.072	0.716		0m	N.D.	d	
13) Methyl acetate	7.102	7.096	0.712		0m	N.D.	d	
14) Carbon disulfide	7.145	7.084	0.716		0m	N.D.	d	
15) Methylene chloride	7.291	7.285	0.731		0m	N.D.	d	
16) tert-Butyl methyl ether	7.578	7.572	0.759		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	7.621	0.000		0	N.D.		
18) Vinyl acetate	8.084	8.060	0.810		0m	N.D.	d	
19) 1,1-Dichloroethane	8.212	8.102	0.823		0m	N.D.	d	
20) 2-Butanone	8.706	8.694	0.872		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.706	8.742	0.872		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.321	0.000		0	N.D.		
26) Cyclohexane	9.389	9.413	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	9.480	9.480	0.950		0m	N.D.	d	
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	9.730	9.712	0.975		0m	N.D.	d	
31) Benzene	9.724	9.724	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	9.834	0.000		0	N.D.		
33) n-Butyl alcohol	10.090	10.077	1.011		0m	N.D.	d	
34) Trichloroethylene	10.370	10.364	1.039		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	10.589	10.602	1.061		0m	N.D.	d	
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J304SA.D
Acq On : 5 May 2010 12:01 pm
Operator : RXD1
InstName : VOA6
Sample : |1202110255|981428|1|VOAF|1|VOA8260LFD|
Misc : LCS 5mL N/A MIX[B] 0430-08A+0403-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 05 13:13:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.		
42) 4-Methyl-2-pentanone	0.000	11.413	0.000		0	N.D.		
44) Toluene	11.699	11.699	0.889		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	11.864	11.858	0.902		0m	N.D.	d	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.		
47) 2-Hexanone	12.260	12.260	0.932		0m	N.D.	d	
48) 1,3-Dichloropropane	12.309	12.272	0.936		0m	N.D.	d	
49) Tetrachloroethylene	12.290	12.290	0.934		0m	N.D.	d	
50) Dibromochloromethane	0.000	12.540	0.000		0	N.D.		
51) 1,2-Dibromoethane	12.705	12.705	0.966		0m	N.D.	d	
52) Chlorobenzene	13.193	13.187	1.003		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	13.248	13.241	1.007		0m	N.D.	d	
54) Ethylbenzene	13.254	13.248	1.007		0m	N.D.	d	
55) m,p-Xylenes	13.363	13.357	1.016		0m	N.D.	d	
56) o-Xylene	13.796	13.796	1.049		0m	N.D.	d	
57) Styrene	13.802	13.796	1.049		0m	N.D.	d	
59) Bromoform	14.058	14.058	0.903		0m	N.D.	d	
60) Isopropylbenzene	14.156	14.156	0.909		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	14.436	14.436	0.927		0m	N.D.	d	
63) 1,2,3-Trichloropropane	14.528	14.528	0.933		0m	N.D.	d	
64) Bromobenzene	14.564	14.564	0.935		0m	N.D.	d	
65) n-Propylbenzene	14.577	14.583	0.936		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946		0m	N.D.	d	
67) 2-Chlorotoluene	14.729	14.729	0.946		0m	N.D.	d	
68) 4-Chlorotoluene	14.833	14.833	0.952		0m	N.D.	d	
69) tert-Butylbenzene	15.107	15.107	0.970		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973		0m	N.D.	d	
71) sec-Butylbenzene	15.332	15.333	0.984		0m	N.D.	d	
72) 4-Isopropyltoluene	15.454	15.454	0.992		0m	N.D.	d	
73) 1,3-Dichlorobenzene	15.515	15.515	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	15.601	15.601	1.002		0m	N.D.	d	
75) n-Butylbenzene	15.887	15.887	1.020		0m	N.D.	d	
76) 1,2-Dichlorobenzene	16.021	16.021	1.029		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	16.881	16.881	1.084		0m	N.D.	d	
78) 1,2,4-Trichlorobenzene	17.905	17.911	1.150		0m	N.D.	d	
79) Hexachlorobutadiene	18.076	18.076	1.160		0m	N.D.	d	
80) Naphthalene	18.289	18.283	1.174		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	18.618	18.618	1.195		0m	N.D.	d	
83) Chlorotrifluoroethylene	4.290	4.280	0.430	116	494663	146.25	ug/L	99
84) 2-Chloro-1,1,1-trifluo...	5.045	5.035	0.506	118	1298448	157.63	ug/L	98
85) Acrolein	6.542	6.536	0.655	56	277246	275.07	ug/L	99
86) Trichlorotrifluoroethane	6.688	6.682	0.670	85	721781	265.82	ug/L	96
87) Isopropyl Alcohol	6.791	6.792	0.681	45	1001372	2816.11	ug/L	97
88) Allyl chloride	7.145	7.139	0.716	41	2889850	299.40	ug/L	98
89) tert-Butyl Alcohol	7.291	7.285	0.731	59	1609511	3432.10	ug/L	83
90) Acrylonitrile	7.547	7.542	0.756	53	514780	275.33	ug/L	99
91) Isopropyl ether	8.084	8.078	0.810	45	1148867	55.56	ug/L	98
92) 2-Chloro-1,3-butadiene	8.212	8.206	0.823	53	513408	57.71	ug/L	97
93) Ethyl tert-butyl ether	8.486	8.486	0.850	59	1001536	61.70	ug/L	98
94) Ethyl acetate	8.706	8.700	0.872	43	1365768	267.24	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J304SA.D
Acq On : 5 May 2010 12:01 pm
Operator : RXD1
InstName : VOA6
Sample : |1202110255|981428|1|VOAF|1|VOA8260LFD|
Misc : LCS 5mL N/A MIX[B] 0430-08A+0403-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 05 13:13:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	8.779	8.773	0.880	54	205888	272.53	ug/L	100
96)	Methacrylonitrile	8.950	8.950	0.897	41	925189	279.98	ug/L	100
97)	Tetrahydrofuran	9.065	9.059	0.908	42	474730	283.05	ug/L	96
98)	Isobutyl alcohol	9.389	9.389	0.941	41	546430	2594.39	ug/L	97
99)	Methyl tert-amyl ether	9.742	9.736	0.976	73	936045	67.60	ug/L	89
100)	Methyl methacrylate	10.589	10.590	1.061	69	1129611	286.37	ug/L	95
101)	1,4-Dioxane	10.699	10.699	1.072	88	145176	2547.83	ug/L	96
102)	2-Nitropropane	11.071	11.071	1.109	43	487402	345.06	ug/L	98
104)	Ethyl methacrylate	11.858	11.858	0.901	69	2172346	296.57	ug/L	95
106)	1-Chlorohexane	13.052	13.053	0.838	55	365886	55.61	ug/L	94
107)	cis-1,4-Dichloro-2-butene	14.205	14.199	0.912	53	613562	324.90	ug/L	100
108)	Cyclohexanone	14.314	14.315	0.919	42	171186	1208.40	ug/L	98
109)	trans-1,4-Dichloro-2-b...	14.485	14.491	0.930	53	570384	314.57	ug/L	99
110)	Pentachloroethane	15.180	15.180	0.975	167	1337485	367.32	ug/L	99
111)	Benzyl chloride	15.717	15.717	1.009	91	3466221	327.81	ug/L	98
112)	bis(2-Chloroisopropyl)...	16.113	16.113	1.034	45	663910	274.95	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J304SA.D
Acq On : 5 May 2010 12:01 pm
Operator : RXD1
InstName : VOA6
Sample : |1202110255|981428|1|VOAF|1|VOA8260LFD|
Misc : LCS 5mL N/A MIX[B] 0430-08A+0403-08C
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 05 13:13:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

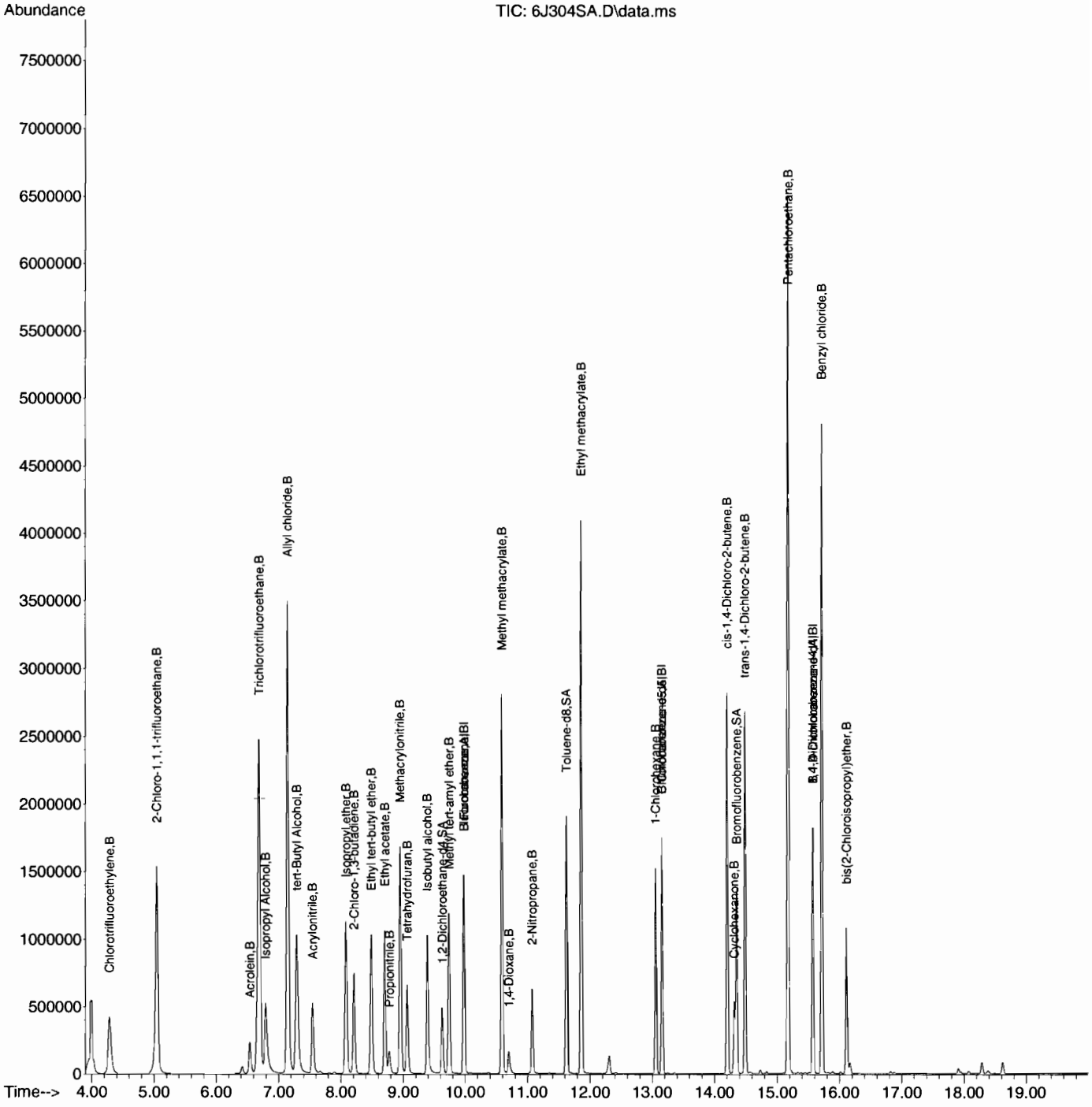

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**	**Date Collected:**	**04/26/2010 12:00**	**Matrix:**	**W**
Lab Sample ID:	**1202110252**	**Date Received:**	**04/28/2010 09:10**		
Client Sample:	**QC for batch 981428**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**GW03-10-16675PS**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 19:01**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 19:01**				
Data File:	**050510V6\6J318.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		30.8	ug/L	0.300	1.00
74-87-3	Chloromethane		42.1	ug/L	0.300	1.00
75-01-4	Vinyl chloride		42.4	ug/L	0.500	1.00
74-83-9	Bromomethane		46.6	ug/L	0.300	1.00
75-00-3	Chloroethane		50.3	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		51.0	ug/L	0.300	1.00
60-29-7	Ethyl ether		47.4	ug/L	0.300	1.00
67-64-1	Acetone		177	ug/L	3.50	10.0
75-05-8	Acetonitrile		1390	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		51.3	ug/L	0.300	1.00
74-88-4	Iodomethane		234	ug/L	1.25	5.00
75-09-2	Methylene chloride		53.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide		269	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		54.3	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		53.9	ug/L	0.300	1.00
108-05-4	Vinyl acetate		316	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		54.8	ug/L	0.300	1.00
78-93-3	2-Butanone		199	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		54.8	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		59.8	ug/L	0.300	1.00
67-66-3	Chloroform		53.4	ug/L	0.250	1.00
74-97-5	Bromochloromethane		48.3	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		54.3	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		54.9	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		5310	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		55.5	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		53.7	ug/L	0.250	1.00
71-43-2	Benzene		52.0	ug/L	0.300	1.00
79-01-6	Trichloroethylene		51.0	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		54.8	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		53.5	ug/L	0.250	1.00
74-95-3	Dibromomethane		49.9	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		280	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		54.8	ug/L	0.250	1.00
108-88-3	Toluene		49.6	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		58.3	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		52.9	ug/L	0.250	1.00
591-78-6	2-Hexanone		194	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**	**Date Collected:**	**04/26/2010 12:00**	**Matrix:**	**W**
Lab Sample ID:	**1202110252**	**Date Received:**	**04/28/2010 09:10**		
Client Sample:	**QC for batch 981428**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**GW03-I0-16675PS**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 19:01**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 19:01**				
Data File:	**050510V6\6J318.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		54.9	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		51.4	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		53.4	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		50.2	ug/L	0.250	1.00
108-90-7	Chlorobenzene		52.0	ug/L	0.250	1.00
100-41-4	Ethylbenzene		53.4	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		105	ug/L	0.500	2.00
95-47-6	o-Xylene		51.2	ug/L	0.300	1.00
100-42-5	Styrene		50.5	ug/L	0.250	1.00
75-25-2	Bromoform		53.5	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		53.9	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		51.8	ug/L	0.300	1.00
108-86-1	Bromobenzene		51.1	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		56.0	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		54.5	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		54.8	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		54.3	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		53.7	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		51.9	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		52.5	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		53.7	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		52.2	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		50.8	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		49.9	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		52.7	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		47.9	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		34.9	ug/L	0.300	1.00
91-20-3	Naphthalene		38.8	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		39.5	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**	**Date Collected:**	**04/26/2010 12:00**	**Matrix:**	**W**
Lab Sample ID:	**1202110252**	**Date Received:**	**04/28/2010 09:10**		
Client Sample:	**QC for batch 981428**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**GW03-10-16675PS**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 19:01**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 19:01**				
Data File:	**050510V6\6J318.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		55.1	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		40.2	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		49.0	ug/L	0.250	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J318.D
Acq On : 5 May 2010 7:01 pm
Operator : RXD1
InstName : VOA6
Sample : |1202110252|981428|1|VOAF|1|VOA8260LFD|
Misc : ARSL 5mL pH7 MIX[A] MS 251870001
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 06 08:50:29 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.980	9.974	1.000	96	1211526	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	856696	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	439606	50.00	ug/L	0.00
82) B Fluorobenzene	9.980	9.974	1.000	96	1210919	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	856696	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	15.577	1.000	152	439606	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	337095	52.10	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 104.20%					
43) Toluene-d8	11.626	11.626	0.884	98	1144940	51.09	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 102.18%					
61) Bromofluorobenzene	14.357	14.357	0.922	95	404406	49.10	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 98.20%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	144849	30.82	ug/L	99
3) Chloromethane	4.713	4.682	0.472	50	260517	42.06	ug/L	98
4) Vinyl chloride	4.924	4.924	0.493	62	291791	42.35	ug/L	100
5) Bromomethane	5.488	5.478	0.550	94	234542	46.63	ug/L	99
6) Chloroethane	5.619	5.619	0.563	64	233618	50.27	ug/L	99
7) Trichlorofluoromethane	6.032	6.032	0.604	101	434036	50.97	ug/L	100
8) Ethyl ether	6.334	6.328	0.635	59	261347	47.39	ug/L	99
9) Acetone	6.712	6.706	0.673	43	434664	177.43	ug/L	98
10) 1,1-Dichloroethylene	6.712	6.712	0.673	61	419010	51.27	ug/L	96
11) Iodomethane	6.956	6.956	0.697	142	2165204	233.71	ug/L	96
12) Acetonitrile	7.078	7.072	0.709	41	965571	1391.15	ug/L	98
13) Methyl acetate	7.096	7.096	0.711	43	1057881	261.85	ug/L	97
14) Carbon disulfide	7.084	7.084	0.710	76	4652548	268.81	ug/L	100
15) Methylene chloride	7.291	7.285	0.731	84	312374	52.99	ug/L	94
16) tert-Butyl methyl ether	7.578	7.572	0.759	73	745952	54.29	ug/L	100
17) trans-1,2-Dichloroethy...	7.621	7.621	0.764	61	439562	53.86	ug/L	96
18) Vinyl acetate	8.066	8.060	0.808	43	3157608	315.87	ug/L	91
19) 1,1-Dichloroethane	8.108	8.102	0.812	63	567278	54.83	ug/L	100
20) 2-Butanone	8.694	8.694	0.871	43	632320	198.57	ug/L	97
21) cis-1,2-Dichloroethylene	8.742	8.742	0.876	61	500908	54.83	ug/L	94
22) 2,2-Dichloropropane	8.767	8.767	0.878	77	447371	59.77	ug/L	99
23) Bromochloromethane	9.023	9.017	0.904	128	141202	48.29	ug/L	89
24) Chloroform	9.053	9.053	0.907	83	537498	53.42	ug/L	99
25) 1,1,1-Trichloroethane	9.328	9.321	0.935	97	455337	54.33	ug/L	98
26) Cyclohexane	9.413	9.413	0.943	56	550963	51.42	ug/L	96
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	446046	54.91	ug/L	95
28) Carbon tetrachloride	9.517	9.510	0.954	117	412654	55.52	ug/L	99
30) 1,2-Dichloroethane	9.712	9.712	0.973	62	420884	53.74	ug/L	100
31) Benzene	9.724	9.724	0.974	78	1261255	52.02	ug/L	99
32) Cyclohexene	9.834	9.834	0.985	67	630035	51.20	ug/L	99
33) n-Butyl alcohol	10.084	10.077	1.010	56	848176	5314.99	ug/L	93
34) Trichloroethylene	10.364	10.364	1.038	95	305230	50.95	ug/L	97
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	331407	54.76	ug/L	99
36) Methylcyclohexane	10.608	10.602	1.063	83	573652	51.35	ug/L	96
37) Dibromomethane	10.754	10.748	1.078	93	166677	49.90	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J318.D
Acq On : 5 May 2010 7:01 pm
Operator : RXD1
InstName : VOA6
Sample : |1202110252|981428|1|VOAF|1|VOA8260LFD|
Misc : ARSL 5mL pH7 MIX[A] MS 251870001
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 06 08:50:29 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38)	Bromodichloromethane	10.864	10.864	1.089	83	382321	53.50	ug/L		100
39)	2-Chloroethylvinyl ether	11.090	11.089	1.111	63	958079	277.20	ug/L		97
40)	cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	488884	54.76	ug/L		98
42)	4-Methyl-2-pentanone	11.413	11.413	0.867	58	557284	279.69	ug/L		91
44)	Toluene	11.699	11.699	0.889	91	1304862	49.64	ug/L		99
45)	trans-1,3-Dichloroprop...	11.858	11.858	0.901	75	440896	58.30	ug/L		97
46)	1,1,2-Trichloroethane	12.083	12.077	0.918	83	206241	52.94	ug/L		99
47)	2-Hexanone	12.260	12.260	0.932	43	999507	193.73	ug/L		96
48)	1,3-Dichloropropane	12.272	12.272	0.933	76	467348	54.89	ug/L		89
49)	Tetrachloroethylene	12.291	12.290	0.934	164	252748	51.35	ug/L		96
50)	Dibromochloromethane	12.540	12.540	0.953	129	263182	53.44	ug/L		100
51)	1,2-Dibromoethane	12.705	12.705	0.966	107	231304	50.15	ug/L		100
52)	Chlorobenzene	13.193	13.187	1.003	112	838438	51.96	ug/L		97
53)	1,1,1,2-Tetrachloroethane	13.242	13.241	1.006	131	294929	55.05	ug/L		99
54)	Ethylbenzene	13.254	13.248	1.007	91	1512488	53.36	ug/L		98
55)	m,p-Xylenes	13.363	13.357	1.016	106	1179124	105.09	ug/L		96
56)	o-Xylene	13.796	13.796	1.049	106	565928	51.19	ug/L		95
57)	Styrene	13.802	13.796	1.049	104	931549	50.53	ug/L		97
59)	Bromoform	14.058	14.058	0.903	173	153447	53.47	ug/L		100
60)	Isopropylbenzene	14.156	14.156	0.909	105	1499268	54.76	ug/L		98
62)	1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	309869	53.90	ug/L		100
63)	1,2,3-Trichloropropane	14.528	14.528	0.933	110	80494	51.76	ug/L	#	78
64)	Bromobenzene	14.564	14.564	0.935	156	340069	51.12	ug/L		90
65)	n-Propylbenzene	14.583	14.583	0.936	91	1812243	56.04	ug/L		97
66)	1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1277020	54.34	ug/L		96
67)	2-Chlorotoluene	14.729	14.729	0.946	126	362595	54.46	ug/L		92
68)	4-Chlorotoluene	14.833	14.833	0.952	91	1050354	53.69	ug/L		98
69)	tert-Butylbenzene	15.107	15.107	0.970	134	267379	51.93	ug/L	#	85
70)	1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	1255795	52.54	ug/L		98
71)	sec-Butylbenzene	15.333	15.333	0.984	105	1665506	53.73	ug/L		97
72)	4-Isopropyltoluene	15.455	15.454	0.992	119	1330550	52.17	ug/L		99
73)	1,3-Dichlorobenzene	15.515	15.515	0.996	146	654763	50.77	ug/L		99
74)	1,4-Dichlorobenzene	15.601	15.601	1.002	146	653093	49.87	ug/L		99
75)	n-Butylbenzene	15.887	15.887	1.020	91	1278409	52.71	ug/L		98
76)	1,2-Dichlorobenzene	16.021	16.021	1.029	146	590064	49.03	ug/L		99
77)	1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	43877	47.85	ug/L		92
78)	1,2,4-Trichlorobenzene	17.911	17.911	1.150	180	337222	40.19	ug/L		100
79)	Hexachlorobutadiene	18.076	18.076	1.160	225	188728	34.90	ug/L		99
80)	Naphthalene	18.283	18.283	1.174	128	639796	38.76	ug/L		99
81)	1,2,3-Trichlorobenzene	18.619	18.618	1.195	180	264173	39.45	ug/L		99
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.			
85)	Acrolein	0.000	6.536	0.000		0	N.D.			
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.			
87)	Isopropyl Alcohol	6.706	6.792	0.672		0m	N.D.		d	
88)	Allyl chloride	7.078	7.139	0.709		0m	N.D.		d	
89)	tert-Butyl Alcohol	7.298	7.285	0.731		0m	N.D.		d	
90)	Acrylonitrile	7.578	7.542	0.759		0m	N.D.		d	
91)	Isopropyl ether	8.066	8.078	0.808		0m	N.D.		d	
92)	2-Chloro-1,3-butadiene	8.218	8.206	0.823		0m	N.D.		d	
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.			
94)	Ethyl acetate	8.694	8.700	0.871		0m	N.D.		d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J318.D
Acq On : 5 May 2010 7:01 pm
Operator : RXD1
InstName : VOA6
Sample : |1202110252|981428|1|VOAF|1|VOA8260LFD|
Misc : ARSL 5mL pH7 MIX[A] MS 251870001
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 06 08:50:29 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	8.688	8.773	0.870		0m	N.D.	d
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	9.053	9.059	0.907		0m	N.D.	d
98)	Isobutyl alcohol	9.413	9.389	0.943		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724	9.736	0.974		0m	N.D.	d
100)	Methyl methacrylate	10.608	10.590	1.063		0m	N.D.	d
101)	1,4-Dioxane	10.705	10.699	1.073		0m	N.D.	d
102)	2-Nitropropane	11.090	11.071	1.111		0m	N.D.	d
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156	14.199	0.909		0m	N.D.	d
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.	
110)	Pentachloroethane	15.180	15.180	0.975		0m	N.D.	d
111)	Benzyl chloride	15.717	15.717	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	0.000	16.113	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J318.D
Acq On : 5 May 2010 7:01 pm
Operator : RXD1
InstName : VOA6
Sample : |1202110252|981428|1|VOAF|1|VOA8260LFD|
Misc : ARSL 5mL pH7 MIX[A] MS 251870001
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 06 08:50:29 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

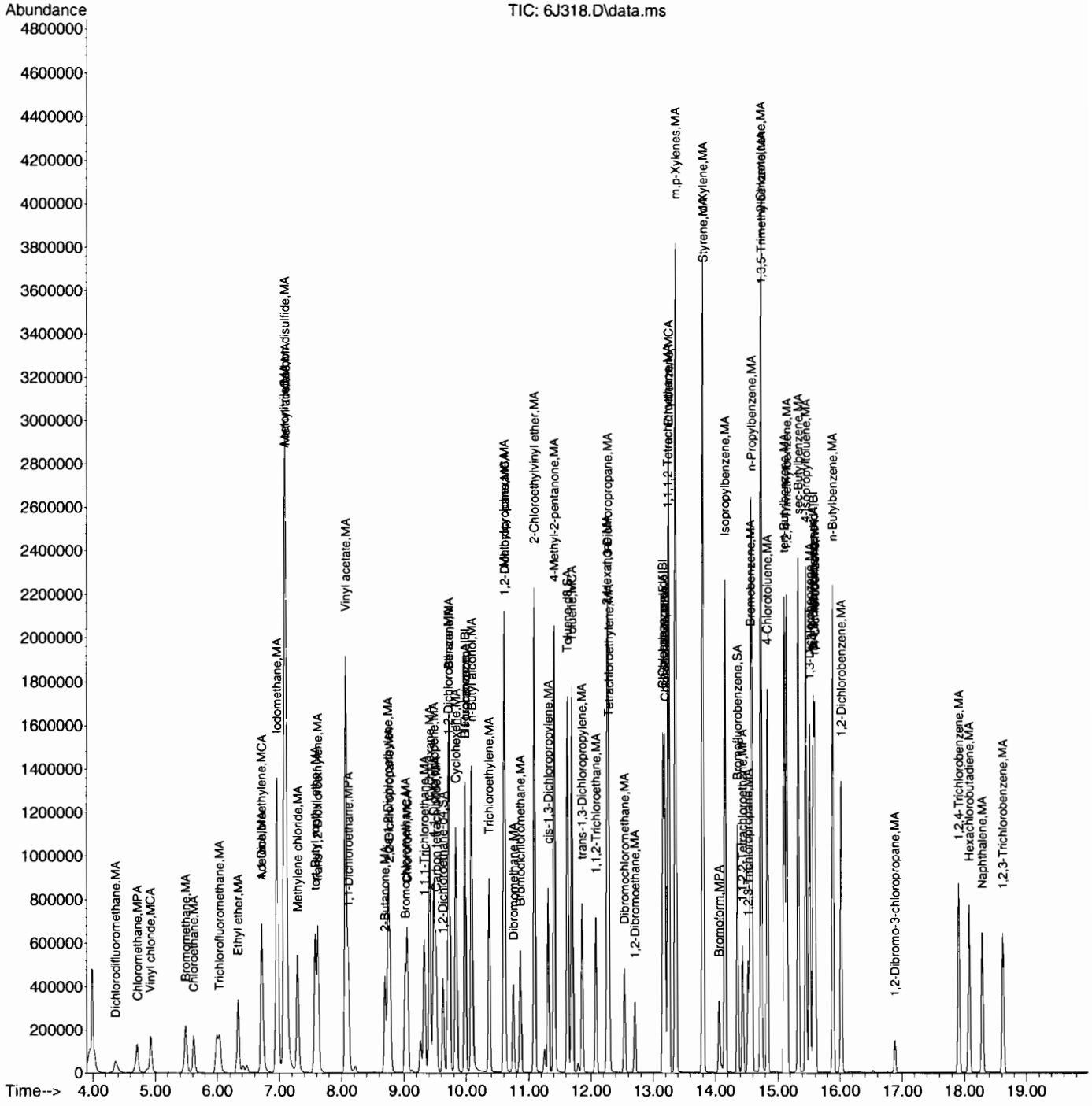

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**	**Date Collected:**	**04/26/2010 12:00**	**Matrix:**	**W**
Lab Sample ID:	**1202110253**	**Date Received:**	**04/28/2010 09:10**		
Client Sample:	**QC for batch 981428**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**GW03-10-16675PSD**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 19:29**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 19:29**				
Data File:	**050510V6\6J319.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		29.2	ug/L	0.300	1.00
74-87-3	Chloromethane		40.3	ug/L	0.300	1.00
75-01-4	Vinyl chloride		40.8	ug/L	0.500	1.00
74-83-9	Bromomethane		44.6	ug/L	0.300	1.00
75-00-3	Chloroethane		48.0	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		48.1	ug/L	0.300	1.00
60-29-7	Ethyl ether		46.9	ug/L	0.300	1.00
67-64-1	Acetone		195	ug/L	3.50	10.0
75-05-8	Acetonitrile		1330	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		49.1	ug/L	0.300	1.00
74-88-4	Iodomethane		226	ug/L	1.25	5.00
75-09-2	Methylene chloride		51.5	ug/L	3.00	10.0
75-15-0	Carbon disulfide		256	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		54.7	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		52.1	ug/L	0.300	1.00
108-05-4	Vinyl acetate		290	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		53.3	ug/L	0.300	1.00
78-93-3	2-Butanone		197	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		52.8	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		58.5	ug/L	0.300	1.00
67-66-3	Chloroform		52.2	ug/L	0.250	1.00
74-97-5	Bromochloromethane		47.6	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		52.4	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		52.6	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		5240	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		53.3	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		52.9	ug/L	0.250	1.00
71-43-2	Benzene		50.2	ug/L	0.300	1.00
79-01-6	Trichloroethylene		49.0	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		53.3	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		52.6	ug/L	0.250	1.00
74-95-3	Dibromomethane		49.6	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		282	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		54.0	ug/L	0.250	1.00
108-88-3	Toluene		47.7	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		57.9	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		52.4	ug/L	0.250	1.00
591-78-6	2-Hexanone		189	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**	**Date Collected:**	**04/26/2010 12:00**	**Matrix:**	**W**
Lab Sample ID:	**1202110253**	**Date Received:**	**04/28/2010 09:10**		
Client Sample:	**QC for batch 981428**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**GW03-10-16675PSD**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 19:29**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 19:29**				
Data File:	**050510V6\6J319.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		53.9	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		47.9	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		53.2	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		50.0	ug/L	0.250	1.00
108-90-7	Chlorobenzene		49.3	ug/L	0.250	1.00
100-41-4	Ethylbenzene		50.1	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		97.8	ug/L	0.500	2.00
95-47-6	o-Xylene		48.2	ug/L	0.300	1.00
100-42-5	Styrene		47.6	ug/L	0.250	1.00
75-25-2	Bromoform		54.9	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		54.8	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		53.8	ug/L	0.300	1.00
108-86-1	Bromobenzene		50.2	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		52.5	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		52.1	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		52.9	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		51.3	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		50.7	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		49.1	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		49.7	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		50.0	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		48.0	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		47.5	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		46.9	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		47.6	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		48.5	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		34.3	ug/L	0.300	1.00
91-20-3	Naphthalene		41.9	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		41.9	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2937**	**Date Collected:**	**04/26/2010 12:00**	**Matrix:**	**W**
Lab Sample ID:	**1202110253**	**Date Received:**	**04/28/2010 09:10**		
Client Sample:	**QC for batch 981428**	**Client:**	**ARSL001**	**Project:**	**QC**
Client ID:	**GW03-10-16675PSD**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**981428**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**05/05/2010 19:29**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**05/05/2010 19:29**				
Data File:	**050510V6\6J319.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		53.1	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		39.2	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		46.5	ug/L	0.250	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J319.D
Acq On : 5 May 2010 7:29 pm
Operator : RXD1
InstName : VOA6
Sample : |1202110253|981428|1|VOAF|1|VOA8260LFD|
Misc : ARSL 5mL pH7 MIX[A] MSD 251870001
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 06 08:50:33 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.980	9.974	1.000	96	1259149	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	890118	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	438505	50.00	ug/L	0.00
82) B Fluorobenzene	9.980	9.974	1.000	96	1257971	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	890118	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	15.577	1.000	152	438505	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.632	9.626	0.965	65	348375	51.80	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 103.60%					
43) Toluene-d8	11.626	11.626	0.884	98	1185239	50.90	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 101.80%					
61) Bromofluorobenzene	14.357	14.357	0.922	95	414529	50.45	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 100.90%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	142490	29.17	ug/L	100
3) Chloromethane	4.713	4.682	0.472	50	259384	40.26	ug/L	99
4) Vinyl chloride	4.924	4.924	0.493	62	291919	40.77	ug/L	100
5) Bromomethane	5.488	5.478	0.550	94	233358	44.64	ug/L	99
6) Chloroethane	5.619	5.619	0.563	64	231733	47.97	ug/L	100
7) Trichlorofluoromethane	6.032	6.032	0.604	101	425756	48.11	ug/L	100
8) Ethyl ether	6.334	6.328	0.635	59	268583	46.86	ug/L	100
9) Acetone	6.712	6.706	0.673	43	494307	194.86	ug/L	99
10) 1,1-Dichloroethylene	6.712	6.712	0.673	61	416985	49.09	ug/L	96
11) Iodomethane	6.956	6.956	0.697	142	2178233	226.23	ug/L	96
12) Acetonitrile	7.072	7.072	0.709	41	958753	1329.08	ug/L	98
13) Methyl acetate	7.102	7.096	0.712	43	1100077	261.99	ug/L	97
14) Carbon disulfide	7.084	7.084	0.710	76	4597065	255.56	ug/L	100
15) Methylene chloride	7.291	7.285	0.731	84	315418	51.47	ug/L	95
16) tert-Butyl methyl ether	7.578	7.572	0.759	73	781298	54.72	ug/L	100
17) trans-1,2-Dichloroethy...	7.621	7.621	0.764	61	441817	52.09	ug/L	96
18) Vinyl acetate	8.066	8.060	0.808	43	3017237	290.42	ug/L	91
19) 1,1-Dichloroethane	8.108	8.102	0.812	63	573548	53.34	ug/L	99
20) 2-Butanone	8.693	8.694	0.871	43	653302	197.40	ug/L	96
21) cis-1,2-Dichloroethylene	8.742	8.742	0.876	61	501742	52.84	ug/L	94
22) 2,2-Dichloropropane	8.767	8.767	0.878	77	454660	58.45	ug/L	99
23) Bromochloromethane	9.017	9.017	0.903	128	144543	47.57	ug/L	90
24) Chloroform	9.053	9.053	0.907	83	545299	52.15	ug/L	99
25) 1,1,1-Trichloroethane	9.328	9.321	0.935	97	456101	52.36	ug/L	99
26) Cyclohexane	9.413	9.413	0.943	56	540425	48.53	ug/L	96
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	444230	52.62	ug/L	96
28) Carbon tetrachloride	9.517	9.510	0.954	117	411288	53.25	ug/L	100
30) 1,2-Dichloroethane	9.712	9.712	0.973	62	430551	52.89	ug/L	99
31) Benzene	9.724	9.724	0.974	78	1266118	50.24	ug/L	99
32) Cyclohexene	9.834	9.834	0.985	67	620936	48.55	ug/L	98
33) n-Butyl alcohol	10.083	10.077	1.010	56	868588	5237.93	ug/L	94
34) Trichloroethylene	10.364	10.364	1.038	95	304981	48.98	ug/L	97
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	335217	53.29	ug/L	99
36) Methylcyclohexane	10.608	10.602	1.063	83	557938	48.05	ug/L	97
37) Dibromomethane	10.754	10.748	1.078	93	172012	49.55	ug/L	94

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J319.D
Acq On : 5 May 2010 7:29 pm
Operator : RXD1
InstName : VOA6
Sample : |1202110253|981428|1|VOAF|1|VOA8260LFD|
Misc : ARSL 5mL pH7 MIX[A] MSD 251870001
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 06 08:50:33 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38)	Bromodichloromethane	10.864	10.864	1.089	83	390305	52.55	ug/L		100
39)	2-Chloroethylvinyl ether	11.089	11.089	1.111	63	963987	268.36	ug/L		97
40)	cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	501092	54.00	ug/L		98
42)	4-Methyl-2-pentanone	11.412	11.413	0.867	58	584683	282.42	ug/L		91
44)	Toluene	11.699	11.699	0.889	91	1301937	47.67	ug/L		99
45)	trans-1,3-Dichloroprop...	11.864	11.858	0.902	75	454591	57.85	ug/L		97
46)	1,1,2-Trichloroethane	12.083	12.077	0.918	83	211905	52.35	ug/L		99
47)	2-Hexanone	12.260	12.260	0.932	43	1015506	189.44	ug/L		96
48)	1,3-Dichloropropane	12.272	12.272	0.933	76	477137	53.94	ug/L		88
49)	Tetrachloroethylene	12.290	12.290	0.934	164	244745	47.85	ug/L		96
50)	Dibromochloromethane	12.540	12.540	0.953	129	272086	53.17	ug/L		100
51)	1,2-Dibromoethane	12.711	12.705	0.966	107	239624	50.00	ug/L		99
52)	Chlorobenzene	13.193	13.187	1.003	112	826722	49.31	ug/L		97
53)	1,1,1,2-Tetrachloroethane	13.247	13.241	1.007	131	295373	53.06	ug/L		100
54)	Ethylbenzene	13.254	13.248	1.007	91	1476328	50.13	ug/L		98
55)	m,p-Xylenes	13.363	13.357	1.016	106	1139688	97.76	ug/L		96
56)	o-Xylene	13.796	13.796	1.049	106	553467	48.18	ug/L		96
57)	Styrene	13.802	13.796	1.049	104	911883	47.61	ug/L		97
59)	Bromoform	14.058	14.058	0.903	173	157249	54.93	ug/L		98
60)	Isopropylbenzene	14.156	14.156	0.909	105	1444646	52.90	ug/L		98
62)	1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	314001	54.76	ug/L		100
63)	1,2,3-Trichloropropane	14.528	14.528	0.933	110	83445	53.79	ug/L	#	90
64)	Bromobenzene	14.564	14.564	0.935	156	333365	50.24	ug/L		91
65)	n-Propylbenzene	14.583	14.583	0.936	91	1691824	52.45	ug/L		97
66)	1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1202399	51.30	ug/L		97
67)	2-Chlorotoluene	14.735	14.729	0.946	126	345956	52.09	ug/L		92
68)	4-Chlorotoluene	14.833	14.833	0.952	91	988315	50.65	ug/L		98
69)	tert-Butylbenzene	15.107	15.107	0.970	134	252150	49.10	ug/L		94
70)	1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	1184025	49.66	ug/L		98
71)	sec-Butylbenzene	15.332	15.333	0.984	105	1545592	49.98	ug/L		98
72)	4-Isopropyltoluene	15.454	15.454	0.992	119	1221309	48.00	ug/L		98
73)	1,3-Dichlorobenzene	15.515	15.515	0.996	146	611162	47.51	ug/L		99
74)	1,4-Dichlorobenzene	15.601	15.601	1.002	146	612301	46.87	ug/L		99
75)	n-Butylbenzene	15.887	15.887	1.020	91	1151746	47.61	ug/L		97
76)	1,2-Dichlorobenzene	16.021	16.021	1.029	146	558524	46.53	ug/L		99
77)	1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	44388	48.53	ug/L		90
78)	1,2,4-Trichlorobenzene	17.911	17.911	1.150	180	328323	39.22	ug/L		99
79)	Hexachlorobutadiene	18.076	18.076	1.160	225	185151	34.32	ug/L		99
80)	Naphthalene	18.289	18.283	1.174	128	689774	41.89	ug/L		99
81)	1,2,3-Trichlorobenzene	18.618	18.618	1.195	180	279622	41.86	ug/L		99
83)	Chlorotrifluoroethylene	0.000	4.280	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.			
85)	Acrolein	0.000	6.536	0.000		0	N.D.			
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.			
87)	Isopropyl Alcohol	6.712	6.792	0.673		0m	N.D.	d		
88)	Allyl chloride	7.072	7.139	0.709		0m	N.D.	d		
89)	tert-Butyl Alcohol	7.285	7.285	0.730		0m	N.D.	d		
90)	Acrylonitrile	7.578	7.542	0.759		0m	N.D.	d		
91)	Isopropyl ether	8.066	8.078	0.808		0m	N.D.	d		
92)	2-Chloro-1,3-butadiene	8.218	8.206	0.823		0m	N.D.	d		
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.			
94)	Ethyl acetate	8.693	8.700	0.871		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J319.D
Acq On : 5 May 2010 7:29 pm
Operator : RXD1
InstName : VOA6
Sample : |1202110253|981428|1|VOAF|1|VOA8260LFD|
Misc : ARSL 5mL pH7 MIX[A] MSD 251870001
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 06 08:50:33 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	8.693	8.773	0.871		0m	N.D.	d
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	9.065	9.059	0.908		0m	N.D.	d
98)	Isobutyl alcohol	9.413	9.389	0.943		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724	9.736	0.974		0m	N.D.	d
100)	Methyl methacrylate	10.608	10.590	1.063		0m	N.D.	d
101)	1,4-Dioxane	10.754	10.699	1.078		0m	N.D.	d
102)	2-Nitropropane	11.089	11.071	1.111		0m	N.D.	d
104)	Ethyl methacrylate	11.797	11.858	0.897		0m	N.D.	d
106)	1-Chlorohexane	0.000	13.053	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156	14.199	0.909		0m	N.D.	d
108)	Cyclohexanone	0.000	14.315	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.491	0.000		0	N.D.	
110)	Pentachloroethane	15.180	15.180	0.975		0m	N.D.	d
111)	Benzyl chloride	15.717	15.717	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	0.000	16.113	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\050510V6\
Data File : 6J319.D
Acq On : 5 May 2010 7:29 pm
Operator : RXD1
InstName : VOA6
Sample : |1202110253|981428|1|VOAF|1|VOA8260LFD|
Misc : ARSL 5mL pH7 MIX[A] MSD 251870001
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 06 08:50:33 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-031210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Sat Mar 13 09:33:19 2010
Response via : Initial Calibration
Integrator: RTE

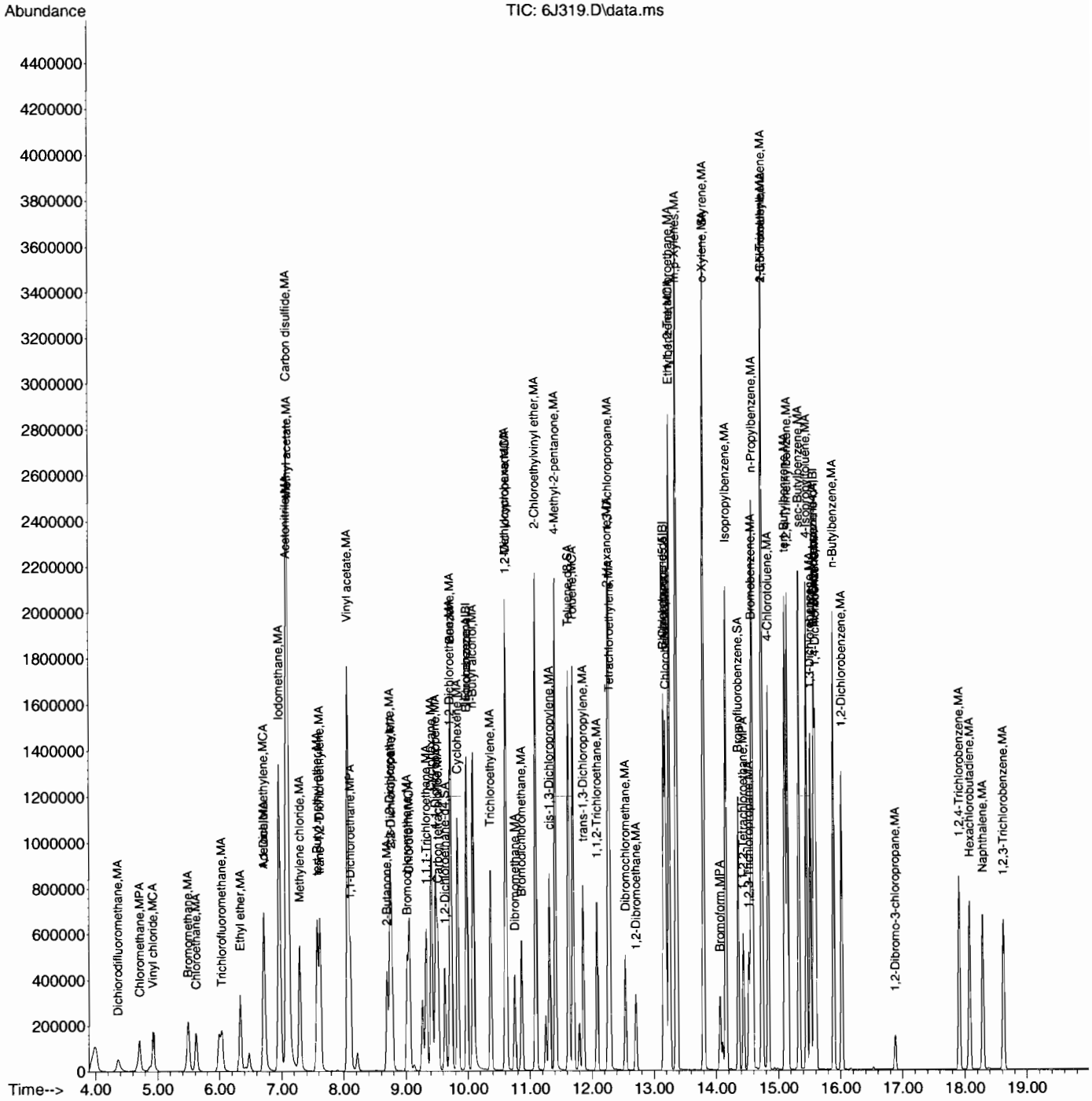

Miscellaneous

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 3/12/2010 Method 8260B/624 Operator: RXD1

REVIEWED BY:
DATE:

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1447

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/12/2010

(See pg. 75 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a
Cl test lot # 72612
Sequence Number: 031210V6

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	ICV	MS/ LCS	BFB
L-ICV	W6VM100312-10		5+5		
IS	UVM100217-01	1	1		
SS	UVM100217-02	1	1		
S-ICV	W6VM100312-19		5+5		
BFB	UVM100217-02				1

Purge Amount	
5	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
3/12/2010	9:18	6B501.D	12020--	BLANK	BLANK	5mL	1	N/A	1	w	RXD1	N/A	X	RINSE
3/12/2010	9:46	6B502.D	W6VM100313-01	L-1	L-1	5mL	1	N/A	2	w	RXD1	N/A	X	MIX[A] TEST
3/12/2010	10:14	6B503.D	UVM100217-02	GEL	BFB	5mL	1	N/A	3	w	RXD1	N/A	O	
3/12/2010	10:46	6B504.D	W6VM100312-02	ICAL	I-CAL	5mL	1	N/A	4	w	RXD1	N/A	O	UVM100106-02D+UVM100222-02B
3/12/2010	11:14	6B505.D	W6VM100312-03	ICAL	I-CAL	5mL	1	N/A	5	w	RXD1	N/A	O	UVM100106-03D+UVM100222-03B
3/12/2010	11:42	6B506.D	W6VM100312-04	ICAL	I-CAL	5mL	1	N/A	6	w	RXD1	N/A	O	UVM100106-04D+UVM100222-04B
3/12/2010	12:09	6B507.D	W6VM100312-05	ICAL	I-CAL	5mL	1	N/A	7	w	RXD1	N/A	O	UVM100106-05D+UVM100222-05B
3/12/2010	12:37	6B508.D	W6VM100312-06	ICAL	I-CAL	5mL	1	N/A	8	w	RXD1	N/A	O	UVM100106-06D+UVM100222-06B
3/12/2010	13:05	6B509.D	W6VM100312-07	ICAL	I-CAL	5mL	1	N/A	9	w	RXD1	N/A	O	UVM100106-07D+UVM100222-07B
3/12/2010	13:33	6B510.D	W6VM100312-08	ICAL	I-CAL	5mL	1	N/A	10	w	RXD1	N/A	O	UVM100106-08D+UVM100222-08B
3/12/2010	14:00	6B511.D	12020--	BLANK	BLANK	5mL	1	N/A	11	w	RXD1	N/A	X	RINSE
3/12/2010	14:28	6B512.D	W6VM100312-09	ICAL	I-CAL	5mL	1	N/A	12	w	RXD1	N/A	O	UVM100106-01D+UVM100222-01B
3/12/2010	14:56	6B513.D	W6VM100312-10	L-ICV	L-ICV	5mL	1	N/A	13	w	RXD1	N/A	O	UVM100305-01A+IVM100310-01
3/12/2010	15:24	6B514.D	W6VM100312-11	L-ICV	L-ICV	5mL	1	N/A	14	w	RXD1	N/A	X	UVM100226-01A+IVM100310-01
3/12/2010	15:52	6B515.D	W6VM100312-12	ICAL	I-CAL	5mL	1	N/A	15	w	RXD1	N/A	O	UVM100304-01+UVM100227-01B
3/12/2010	16:19	6B516.D	W6VM100312-13	ICAL	I-CAL	5mL	1	N/A	16	w	RXD1	N/A	O	UVM100304-02+UVM100227-02B
3/12/2010	16:48	6B517.D	W6VM100312-14	ICAL	I-CAL	5mL	1	N/A	17	w	RXD1	N/A	O	UVM100304-03+UVM100227-03B
3/12/2010	17:15	6B518.D	W6VM100312-15	ICAL	I-CAL	5mL	1	N/A	18	w	RXD1	N/A	O	UVM100304-04+UVM100227-04B
3/12/2010	17:43	6B519.D	W6VM100312-16	ICAL	I-CAL	5mL	1	N/A	19	w	RXD1	N/A	O	UVM100304-05+UVM100227-05B
3/12/2010	18:11	6B520.D	W6VM100312-17	ICAL	I-CAL	5mL	1	N/A	20	w	RXD1	N/A	O	UVM100304-06+UVM100227-06B
3/12/2010	18:39	6B521.D	W6VM100312-18	ICAL	I-CAL	5mL	1	N/A	21	w	RXD1	N/A	O	UVM100304-07+UVM100227-07B
3/12/2010	19:07	6B522.D	12020--	BLANK	BLANK	5mL	1	N/A	22	w	RXD1	N/A	X	RINSE
3/12/2010	19:34	6B523.D	W6VM100312-19	S-ICV	S-ICV	5mL	1	N/A	23	w	RXD1	N/A	O	UVM100304-08A+UVM100226-02A
3/12/2010	20:02	6B524.D	W6VM100312-20	S-ICV	S-ICV	5mL	1	N/A	24	w	RXD1	N/A	X	UVM100215-08B+UVM100226-02A
3/12/2010	20:30	6B525.D	12020--	BLANK	BLANK	5mL	1	N/A	25	w	RXD1	N/A	X	RINSE

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 5/5/2010 Method 8260B/624 Operator: RXD1

REVIEWED BY:
DATE:

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1718

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/12/2010

(See pg. 75 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a
Cl test lot # 72612
Sequence Number: 050510V6

Daily Standard — Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W6VM100505-01		5+5		
IS	UVM100401-01	1	1	1	
SS	UVM100402-02	1	1	1	
LCS/MS	W6VM100505-01/02			5+5	
BFB	UVM100419-02				1
SHORT	W6VM100505-03/04		5+5	5+5	

Purge Amount

5	Water Purge Vol:ML
varied	Soil Purge Wt.:G
x	Mid level ext. MeOH Vol:
100	ul
DA992	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
5 May 2010 10:38	6J301.D	UVM100419-02	GEL	BFB	5mL	1	N/A	1	w	RXD1	N/A	O	
5 May 2010 11:05	6J302.D	W6VM100505-01	GEL	CCV/LCS	5mL	1	N/A	2	w	RXD1	N/A	O	MIX[A] 0408-01D+0503-01
5 May 2010 11:33	6J303.D	W6VM100505-02	GEL	LCS	5g	1	N/A	3	s	RXD1	N/A	O	SOIL MIX[A] 0408-01D+0503-01
5 May 2010 12:01	6J304.D	W6VM100505-03	GEL	CCV	5mL	1	N/A	4	w	RXD1	N/A	O	MIX[B] 0430-08A+0403-08C
5 May 2010 12:29	6J305.D	W6VM100505-04	GEL	LCS	5g	1	N/A	5	s	RXD1	N/A	O	SOIL MIX[B] 0430-08A+0403-08
5 May 2010 13:28	6J306.D	12020--	BLANK	BLANK	5g	1	N/A	6	s	RXD1	N/A	O	SOIL
5 May 2010 13:55	6J307.D	12020--	BLANK	BLANK	5mL	1	N/A	7	w	RXD1	N/A	O	
5 May 2010 14:23	6J308.D	252091003	SSFL	980862	4.2g	1	N/A	8	s	RXD1	N/A	x	SOIL, RR of 6J222, IS low
5 May 2010 14:51	6J309.D	1202108966	PCGE	980834	5g	1	N/A	9	s	RXD1	N/A	x	SOIL MIX[A] MS 251688001, IS low
5 May 2010 15:19	6J310.D	1202108967	PCGE	980834	5g	1	N/A	10	s	RXD1	N/A	x	SOIL MIX[A] MSD 251688001
5 May 2010 15:47	6J311.D	12020--	BLANK	BLANK	5mL	1	N/A	11	w	RXD1	N/A	X	RINSE
5 May 2010 16:15	6J312.D	12020--	BLANK	BLANK	5mL	1	N/A	12	w	RXD1	N/A	X	RINSE
5 May 2010 16:43	6J313.D	12020--	HB	HB	100uL	50	N/A	13	s	RXD1	N/A	O	SOIL
5 May 2010 17:10	6J314.D	251829001	ARSL	981428	5mL	1	pH2	14	w	RXD1	N	O	
5 May 2010 17:38	6J315.D	251829002	ARSL	981428	5mL	1	pH11	15	w	RXD1	N	O	
5 May 2010 18:06	6J316.D	251870001	ARSL	981428	5mL	1	pH7	16	w	RXD1	N	O	
5 May 2010 18:34	6J317.D	251997001	CARE	981426	100uL	50	N/A	17	s	RXD1	N/A	O	SOIL
5 May 2010 19:01	6J318.D	1202110252	ARSL	981428	5mL	1	pH7	18	w	RXD1	N	O	MIX[A] MS 251870001
5 May 2010 19:29	6J319.D	1202110253	ARSL	981428	5mL	1	pH7	19	w	RXD1	N	O	MIX[A] MSD 251870001
5 May 2010 19:57	6J320.D	1202110243	CARE	981426	100uL	50	N/A	20	s	RXD1	N/A	O	SOIL MIX[A] MS 251997001
5 May 2010 20:57	6J321.D	1202110244	CARE	981426	100uL	50	N/A	21	s	RXD1	N/A	O	SOIL MIX[A] MS 251997001
5 May 2010 21:25	6J322.D	12020--	BLANK	BLANK	5mL	1	N/A	22	w	RXD1	N/A	X	RINSE
5 May 2010 21:52	6J323.D	12020--	BLANK	BLANK	5mL	1	N/A	23	w	RXD1	N/A	X	RINSE

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
ARS International (ARSL)
SDG 10-2937

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 3535/8321A Modified
Prep Method:	SW846 Method 3535
Analytical Batch Number:	979353
Prep Batch Number:	979352

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 3535/8321A Modified :

Sample ID	Client ID
251870001	GW03-10-16675
1202105524	Method Blank (MB)
1202105525	Laboratory Control Sample (LCS)
1202105526	251870001(GW03-10-16675) Matrix Spike (MS)
1202105527	251870001(GW03-10-16675) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

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CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Sample 251870001 (GW03-10-16675) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recovered Nitrobenzene at 62.9%. The recovery limits are 65-114%. Since the LCS met acceptance limits for Nitrobenzene, the data are reported. The Nitrobenzene recovery met the DOD QSM marginal exceedance recovery limits of 56-122%. Please see data exception report 825887.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD for Nitrobenzene was 37.0%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the analytical and/or extraction process. The data are reported. Please see data exception report 825887.

Internal Standard (ISTD) Acceptance
QC samples 1202105524(MB) and 1202105526(GW03-10-16675MS) failed ISTD acceptance criteria. Please see the Form 8 in the data package for the exact recoveries. The samples were re-analyzed and similar recoveries were observed. The re-analysis data are reported. The confirmation raw data are in the Miscellaneous Section of the data package. Please see data exception report 825887.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
Sample and QC 251870001 (GW03-10-16675), 1202105526(GW03-10-16675)(MS) and 1202105527(GW03-10-16675)(MSD) were extracted using less than 770 mL of sample.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

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Sample Re-extraction/Re-analysis
QC samples 1202105524(MB) and 1202105526(GW03-10-16675MS) failed ISTD acceptance criteria. Please see the Form 8 in the data package for the exact recoveries. The samples were re-analyzed and similar recoveries were observed. The re-analysis data are reported. The confirmation raw data are in the Miscellaneous Section of the data package. Please see data exception report 825887.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Sample 251870001 (GW03-10-16675) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

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Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
Sample and QC 251870001 (GW03-10-16675), 1202105526(GW03-10-16675)(MS) and 1202105527(GW03-10-16675)(MSD) were extracted using less than 770 mL of sample.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 825887 was generated for this SDG.

The MS recovered Nitrobenzene at 62.9%. The recovery limits are 65-114%. Since the LCS met acceptance limits for Nitrobenzene, the data are reported. The Nitrobenzene recovery met the DOD QSM marginal exceedance recovery limits of 56-122%.

The MS/MSD RPD for Nitrobenzene was 37.0%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the analytical and/or extraction process. The data are reported.

QC samples 1202105524(MB) and 1202105526(GW03-10-16675MS) failed ISTD acceptance criteria. Please see the Form 8 in the data package for the exact recoveries. The samples were re-analyzed and similar recoveries were observed. The re-analysis data are reported. The confirmation raw data are in the Miscellaneous Section of the data package.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The sample was not originally analyzed using SW-846 Method 8330.

Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M. Mauer **Date:** 05/10/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: GW03-10-16675

Lab Code: GEL

GEL Job No (SDG) 10-2937

Matrix: WATER

GEL Sample ID: 251870001

Sample Amount 77

Moisture:

Amount Units mL

Date Received: 28-APR-10

Extraction Type Sol Exchange

Extraction Batch ID: 979352

Concentrated Extract Volume (mL) 5

Date Extracted: 29-APR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0501264a

Date Analyzed: 07-MAY-10 02:08

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	3.25	U
121-14-2	2,4-Dinitrotoluene	3.25	U
121-82-4	RDX	3.25	U
19406-51-0	4-Amino-2,6-dinitrotoluene	3.25	U
2691-41-0	HMX	3.25	U
35572-78-2	2-Amino-4,6-dinitrotoluene	3.25	U
479-45-8	Tetryl	6.49	U
606-20-2	2,6-Dinitrotoluene	3.25	U
78-11-5	PETN	13.0	U
88-72-2	o-Nitrotoluene	3.25	U
98-95-3	Nitrobenzene	3.25	U
99-08-1	m-Nitrotoluene	3.25	U
99-35-4	1,3,5-Trinitrobenzene	3.25	U
99-65-0	m-Dinitrobenzene	3.25	U
99-99-0	p-Nitrotoluene	6.49	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: GW03-10-16675

Lab Code: GEL

GEL Job No (SDG) 10-2937

Matrix: WATER

GEL Sample ID: 251870001

Sample Amount 77

Moisture:

Amount Units mL

Date Received: 28-APR-10

Extraction Type Sol Exchange

Extraction Batch ID: 979352

Concentrated Extract Volume (mL) 5

Date Extracted: 29-APR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS05030041.wiff

Date Analyzed: 04-MAY-10 01:51

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	13.0	U
59229-75-3	2,6-Diamino-4-nitrotoluene	13.0	U
618-87-1	3,5-Dinitroaniline	13.0	U
6629-29-4	2,4-Diamino-6-nitrotoluene	13.0	U
78-30-8	tris(o-cresyl) phosphate	13.0	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2937

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
251870001	GW03–10–16675	98	67 – 134	
251870001	GW03–10–16675	101	67 – 134	
1202105524	MB for batch 979352	93.2	67 – 134	
1202105524	MB for batch 979352	104	67 – 134	
1202105525	LCS for batch 979352	97.8	67 – 134	
1202105525	LCS for batch 979352	108	67 – 134	
1202105526	GW03–10–16675(251870001MS)	94.3	67 – 134	
1202105526	GW03–10–16675(251870001MS)	104	67 – 134	
1202105527	GW03–10–16675(251870001MSD)	86.1	67 – 134	
1202105527	GW03–10–16675(251870001MSD)	101	67 – 134	

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-2937

Extract Batch Code: 979352

Date Extracted: 29-APR-10

GEL LCS ID: 1202105525

GEL LCSDUP ID:

Analysis Date/Time: 07-MAY-10 01:38

DUP Analysis Date/Time:

Reporting Units: ug/L

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
o-Nitrotoluene	6.49351	4.63	71.2					54 – 121
2-Amino-4,6-dinitrotoluene	6.49351	6.07	93.5					66 – 143
HMX	6.49351	4.5	69.3					57 – 129
PETN	6.49351	5.85	90					59 – 142
m-Nitrotoluene	6.49351	5.96	91.8					55 – 119
m-Dinitrobenzene	6.49351	6.14	94.5					70 – 128
Tetryl	6.49351	6.43	99					53 – 123
RDX	6.49351	4.92	75.8					66 – 150
Nitrobenzene	6.49351	5.26	81.1					56 – 125
4-Amino-2,6-dinitrotoluene	6.49351	6.12	94.2					68 – 141
2,6-Dinitrotoluene	6.49351	6.15	94.7					73 – 123
1,3,5-Trinitrobenzene	6.49351	6.28	96.6					64 – 129
2,4,6-Trinitrotoluene	6.49351	8.24	127					67 – 150
2,4-Dinitrotoluene	6.49351	6.09	93.8					76.9 – 126
p-Nitrotoluene	6.49351	5.26	81					56 – 129

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-2937

Extract Batch Code: 979352

Date Extracted: 29-APR-10

GEL LCS ID: 1202105525

GEL LCSDUP ID:

Analysis Date/Time: 04-MAY-10 01:35

DUP Analysis Date/Time:

Reporting Units: ug/L

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec	#	LCSD Conc	LCSD Rec	#	RPD	#	RPD	Recovery Limits
2,4-Diamino-6-nitrotoluene	6.49351	6.18	95.2								38 - 114
2,6-Diamino-4-nitrotoluene	6.49351	6.21	95.6								59.1 - 123
3,5-Dinitroaniline	6.49351	5.71	88								64 - 117
TATB	6.49351	6.06	93.4								27 - 141
tris(o-cresyl) phosphate	6.49351	2.64	40.6								17 - 73

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: GW03-10-16675

Lab Code: GEL

GEL Job No (SDG) 10-2937

Extract Batch Code: 979352

Date Extracted: 29-APR-10

GEL Spike ID: 1202105526

GEL SpikeDup ID: 1202105527

Analysis Date/Time: 07-MAY-10 22:18

MSD Analysis Date/Time:

Reporting Units: ug/L

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
1,3,5-Trinitrobenzene	64.93506	0	60	92.3	66	102	9.6	30	28 – 140
2,4,6-Trinitrotoluene	64.93506	0	73.2	113	78.4	121	6.97	30	68 – 147
2,4-Dinitrotoluene	64.93506	0	61.2	94.2	59.9	92.2	2.13	30	77.5 – 131
2,6-Dinitrotoluene	64.93506	0	63.5	97.8	62.2	95.7	2.13	30	83 – 114
2-Amino-4,6-dinitrotoluene	64.93506	0	59.2	91.2	73.5	113	21.4	30	70 – 149
4-Amino-2,6-dinitrotoluene	64.93506	0	58.1	89.4	61.2	94.3	5.32	30	73 – 140
HMX	64.93506	0	65.4	101	55	84.7	17.3	30	53 – 150
Nitrobenzene	64.93506	0	40.8	62.9 *	59.4	91.4	37 *	30	65 – 114
PETN	64.93506	0	58.3	89.8	68.1	105	15.4	30	47 – 145
RDX	64.93506	0	48.7	75	62.4	96.2	24.7	30	63 – 156
Tetryl	64.93506	0	65.8	101	71	109	7.61	30	26 – 116
m-Dinitrobenzene	64.93506	0	63.7	98	66.5	102	4.39	30	79 – 117
m-Nitrotoluene	64.93506	0	48.8	75.2	59.8	92	20.2	30	66 – 111
o-Nitrotoluene	64.93506	0	49.5	76.2	50.4	77.5	1.74	30	65 – 115
p-Nitrotoluene	64.93506	0	47.6	73.3	50.3	77.5	5.6	30	66 – 121

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: GW03-10-16675

Lab Code: GEL

GEL Job No (SDG) 10-2937

Extract Batch Code: 979352

Date Extracted: 29-APR-10

GEL Spike ID: 1202105526

GEL SpikeDup ID: 1202105527

Analysis Date/Time: 04-MAY-10 02:07

MSD Analysis Date/Time:

Reporting Units: ug/L

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	64.93506	0	43.2	66.6	42.3	65.2	2.12	30	31 - 125
2,6-Diamino-4-nitrotoluene	64.93506	0	43.8	67.4	50.6	78	14.6	30	50.3 - 136
3,5-Dinitroaniline	64.93506	0	59.2	91.2	57.1	88	3.57	30	60 - 128
tris(o-cresyl) phosphate	64.93506	1.31	29.2	43	27.4	40.2	6.42	30	14 - 78
TATB	64.93506	0	61.8	95.2	62.9	96.8	1.67	30	21 - 150

#Column to be used to flag recovery and RPD values with an asterisk

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2937

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 01-MAY-10 16:48

GEL Data File: EXP0501001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	489.987
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	451.718
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\050110expa.mdb, Time: Sun May 02 13:33:57 2010
Calibration: Untitled, Time: Sun May 02 13:48:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501001a
Date: 01-May-2010
Time: 16:48:31
ID: XIBLK01
Vial: 1:1,A

MM 5/2/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.030e+003

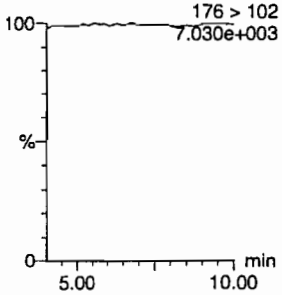

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.030e+003

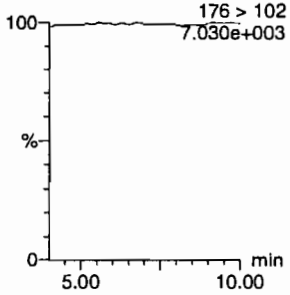

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.754e+003

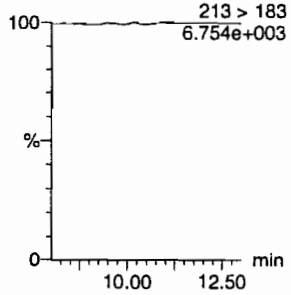

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.351e+004

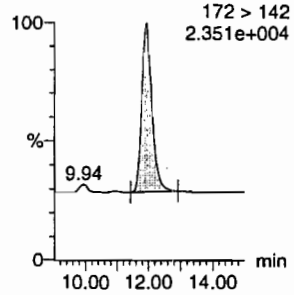

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.753e+003

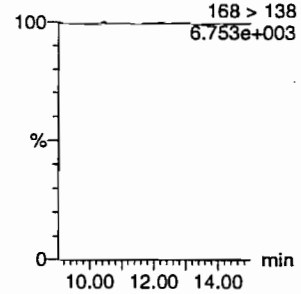

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.743e+003

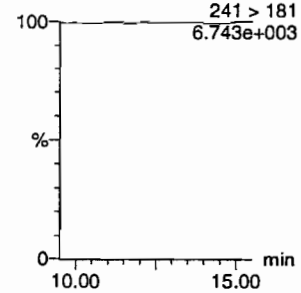

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.743e+003

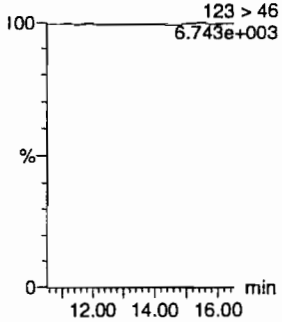

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.847e+003

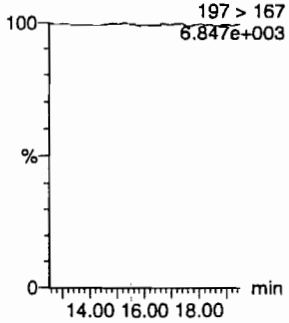

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.874e+003

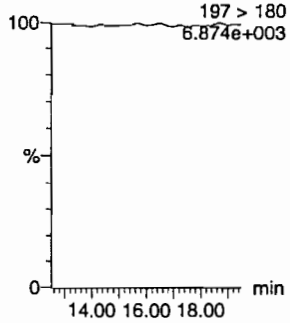

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.768e+003

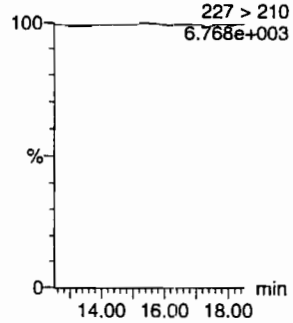

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.787e+003

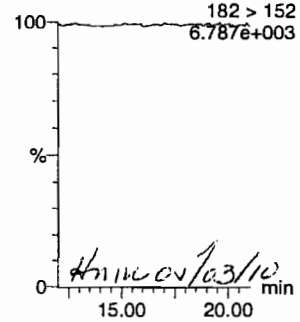

HMM 05/03/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.787e+003

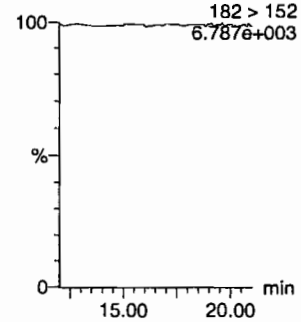

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

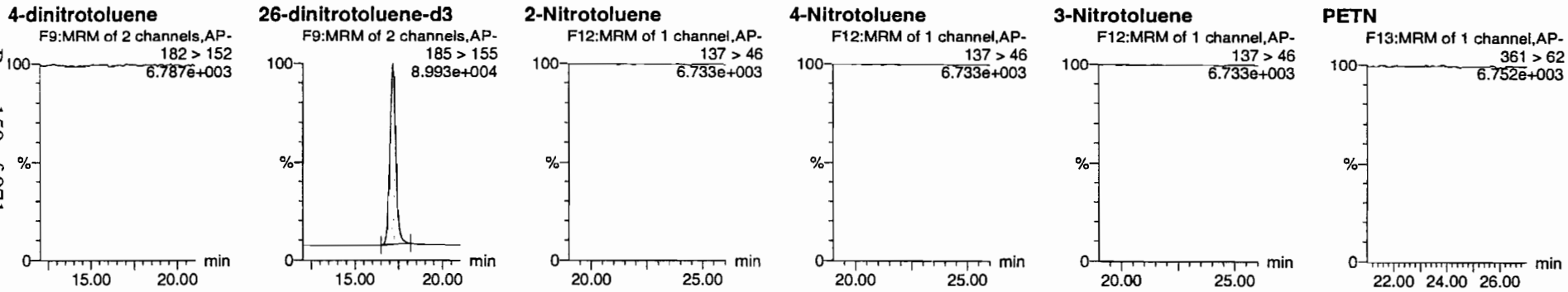

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK01	HMX	176 > 102			6333.678									
IBLK01	RDX	176 > 102			6333.678									
IBLK01	135-Trinitrobenzene	213 > 183			6333.678									
IBLK01	13-Dinitrobenzene-d4	172 > 142	11.92	6333.678		6333.678	6333.678	bb			489.9867	98.0	-2.0	311.4
IBLK01	13-Dinitrobenzene	168 > 138			6333.678									
IBLK01	Tetryl	241 > 181			6333.678									
IBLK01	Nitrobenzene	123 > 46			6333.678									
IBLK01	4-Amino-26-dinitrotoluene	197 > 167			33444.125									
IBLK01	2-Amino-46-dinitrotoluene	197 > 180			33444.125									
IBLK01	246-Trinitrotoluene	227 > 210			33444.125									
IBLK01	34-dinitrotoluene	182 > 152			33444.125									
IBLK01	26-dinitrotoluene	182 > 152			33444.125									
IBLK01	24-dinitrotoluene	182 > 152			33444.125									
IBLK01	26-dinitrotoluene-d3	185 > 155	17.16	33444.125		33444.125	33444.125	bb			451.7181	90.3	-9.7	3404.4
IBLK01	2-Nitrotoluene	137 > 46			33444.125									
IBLK01	4-Nitrotoluene	137 > 46			33444.125									
IBLK01	3-Nitrotoluene	137 > 46			33444.125									
IBLK01	PETN	361 > 62			33444.125									

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2937

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 01-MAY-10 17:18

GEL Data File: EXP0501002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	555.81
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	566.069
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501002a
Date: 01-May-2010
Time: 17:18:00
D: XIBLK01
Vial: 1:1,A

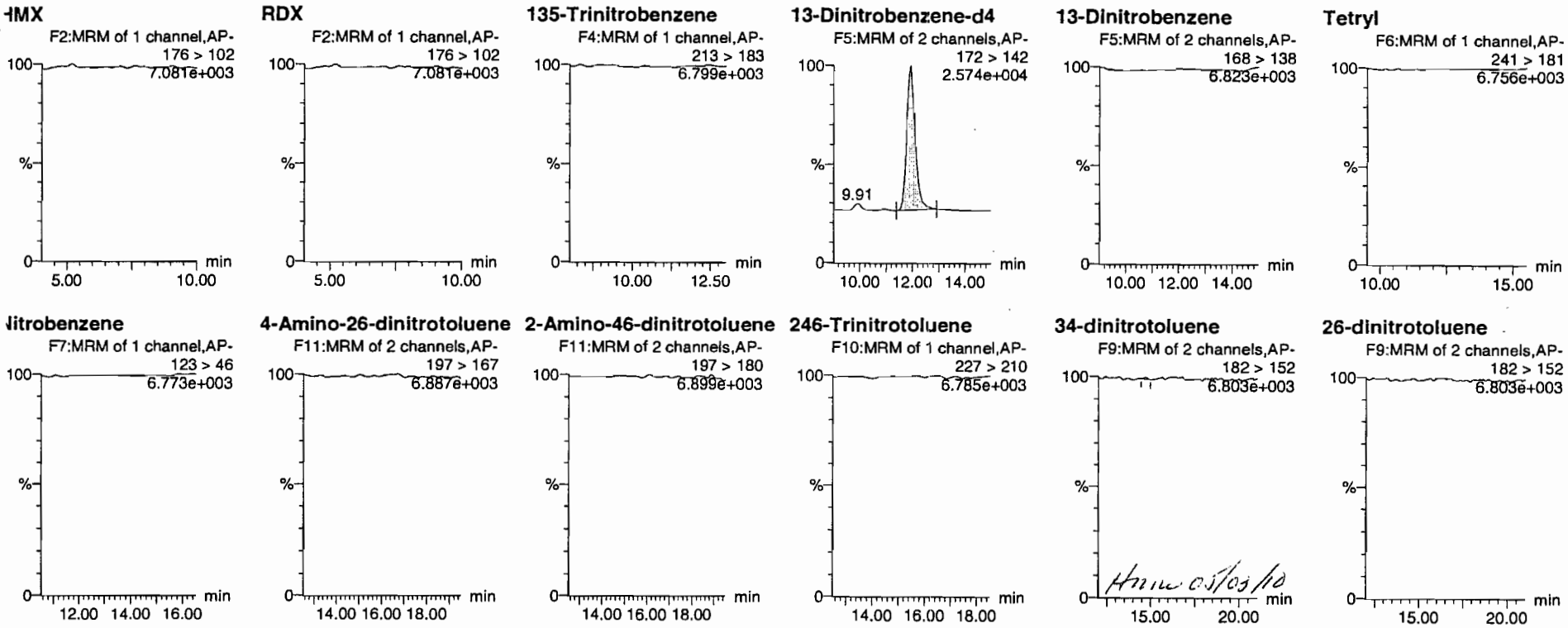

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.803e+003

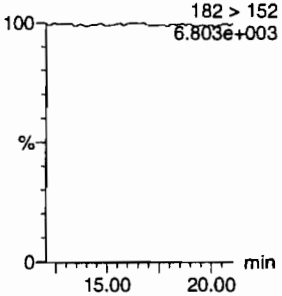

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
1.113e+005

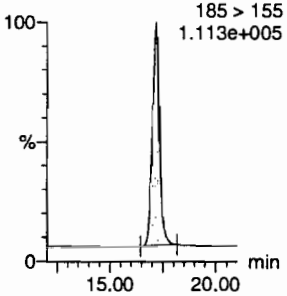

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.761e+003

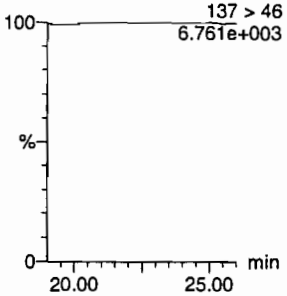

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.761e+003

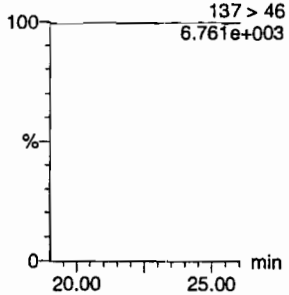

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.761e+003

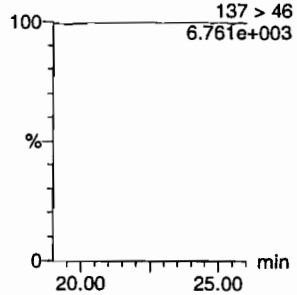

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.771e+003

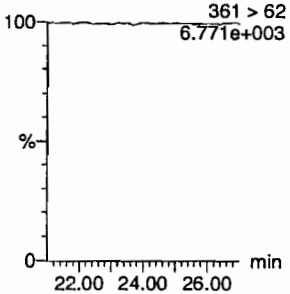

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod:Date	Mod:Time	ng/mL	%Rec	%Dev	S/N
(IBLK01	HMX	176 > 102			7184.522									
(IBLK01	RDX	176 > 102			7184.522									
(IBLK01	135-Trinitrobenzene	213 > 183			7184.522									
(IBLK01	13-Dinitrobenzene-d4	172 > 142	11.92	7184.522		7184.522	7184.522	bb			555.8098	111.2	11.2	424.8
(IBLK01	13-Dinitrobenzene	168 > 138			7184.522									
(IBLK01	Tetryl	241 > 181			7184.522									
(IBLK01	Nitrobenzene	123 > 46			7184.522									
(IBLK01	4-Amino-26-dinitrotoluene	197 > 167			41910.383									
(IBLK01	2-Amino-46-dinitrotoluene	197 > 180			41910.383									
(IBLK01	246-Trinitrotoluene	227 > 210			41910.383									
(IBLK01	34-dinitrotoluene	182 > 152			41910.383			MM-	02-May-10	13:43:21				
(IBLK01	26-dinitrotoluene	182 > 152			41910.383									
(IBLK01	24-dinitrotoluene	182 > 152			41910.383									
(IBLK01	26-dinitrotoluene-d3	185 > 155	17.16	41910.383		41910.383	41910.383	bb			566.0689	113.2	13.2	2364.8
(IBLK01	2-Nitrotoluene	137 > 46			41910.383									
(IBLK01	4-Nitrotoluene	137 > 46			41910.383									
(IBLK01	3-Nitrotoluene	137 > 46			41910.383									
(IBLK01	PETN	361 > 62			41910.383									

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2937

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 03–MAY–10 15:23

GEL Data File: EXS05030001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	11.6
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

MAT
5/5/10

mple Name: "XIBLK01" Sample ID: "|1|MAP" File: "EXS05030001.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 5/3/2010
. Time: 3:23:34 PM
ified: No

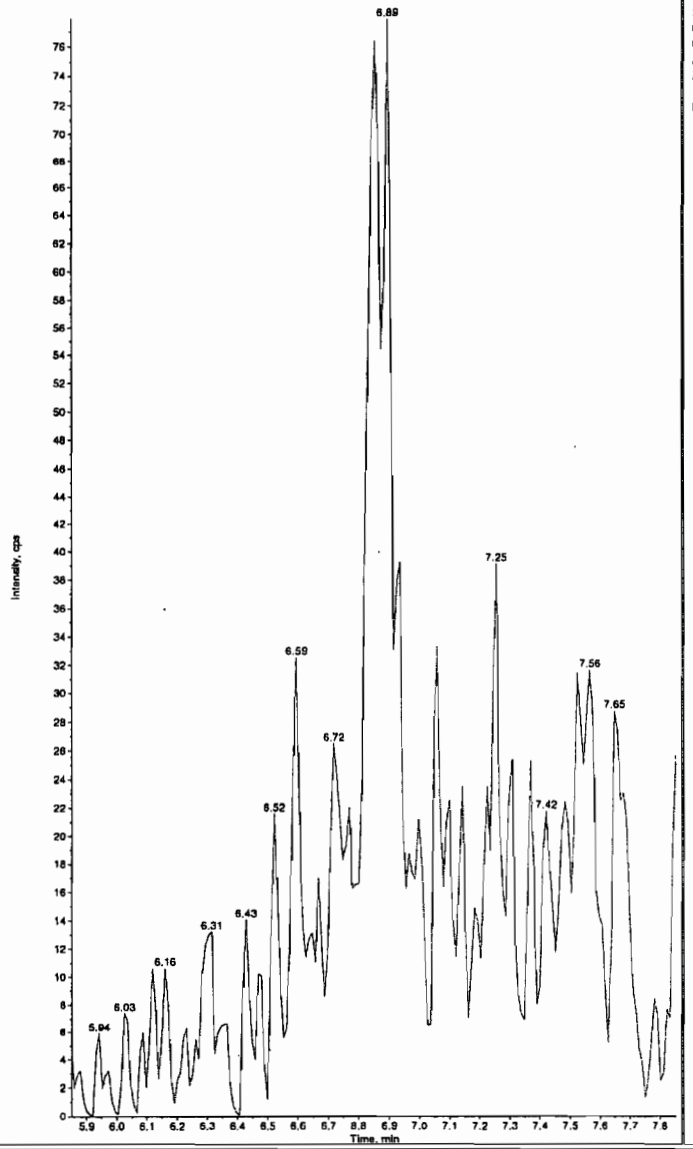

Sample Name: "XIBLK01" Sample ID: "|1|MAP" File: "EXS05030001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 5/3/2010
Acq. Time: 3:23:34 PM

Modified: No

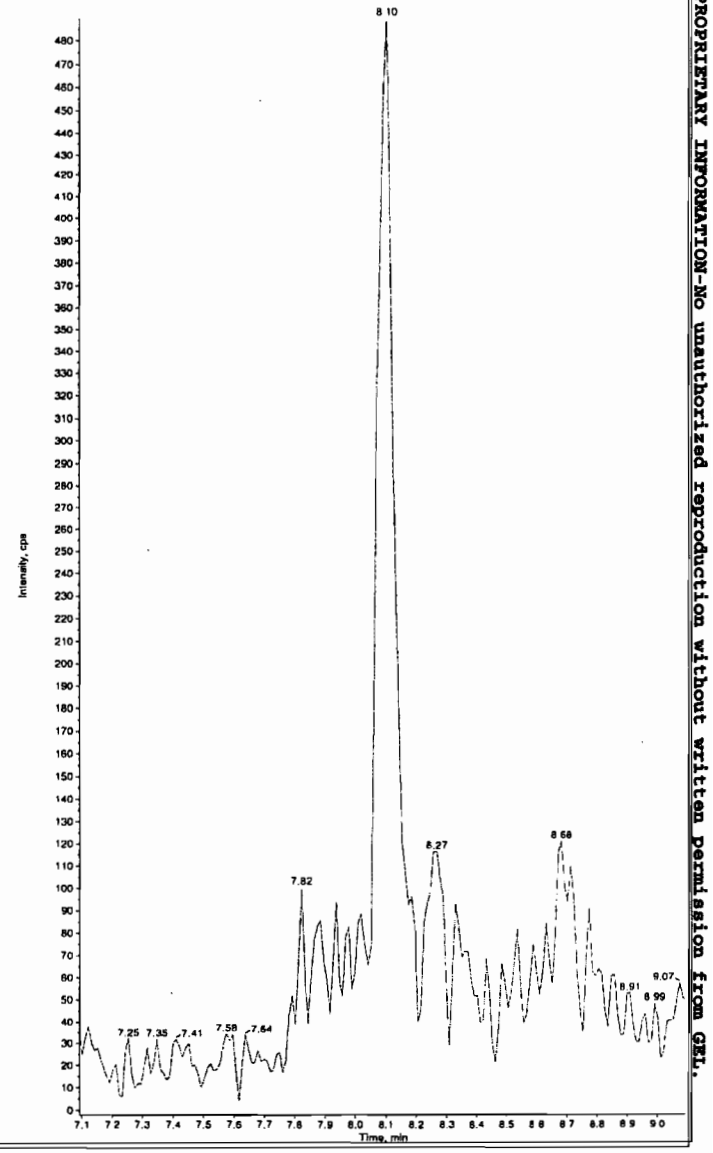

HLM 05/06/10

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mple Name: "XIBLK01" Sample ID: "|1|MAP" File: "EXS05030001.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 5/3/2010
Time: 3:23:34 PM

fied: No

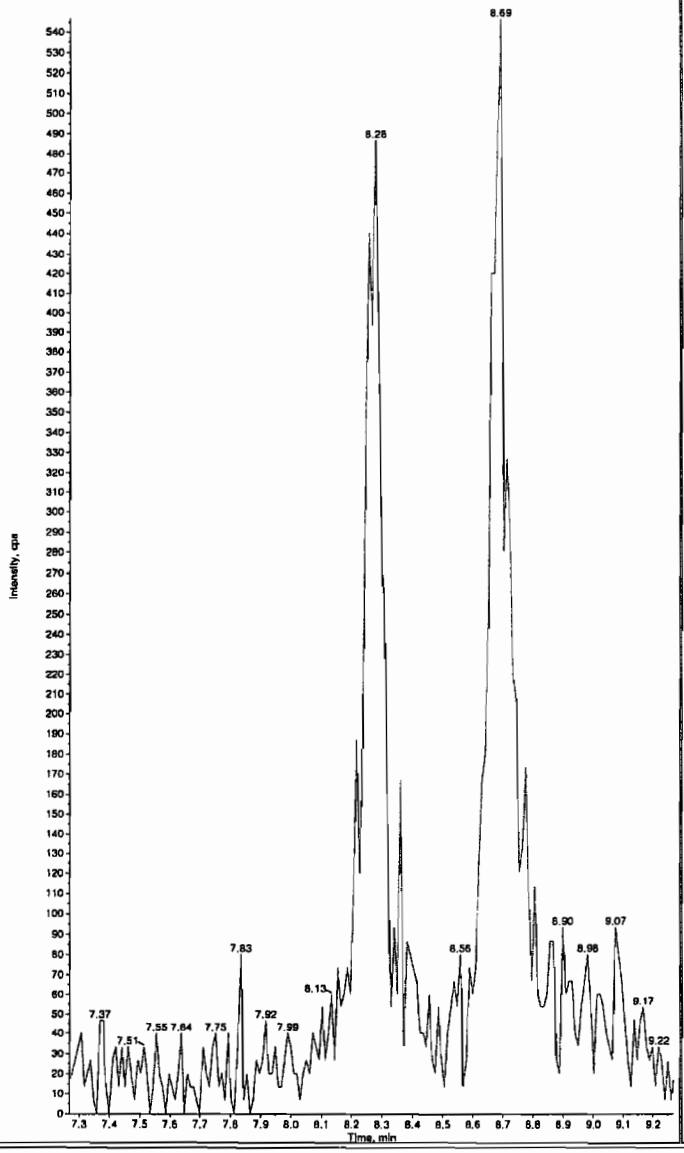

Sample Name: "XIBLK01" Sample ID: "|1|MAP" File: "EXS05030001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 5/3/2010
Acq. Time: 3:23:34 PM

Modified: No

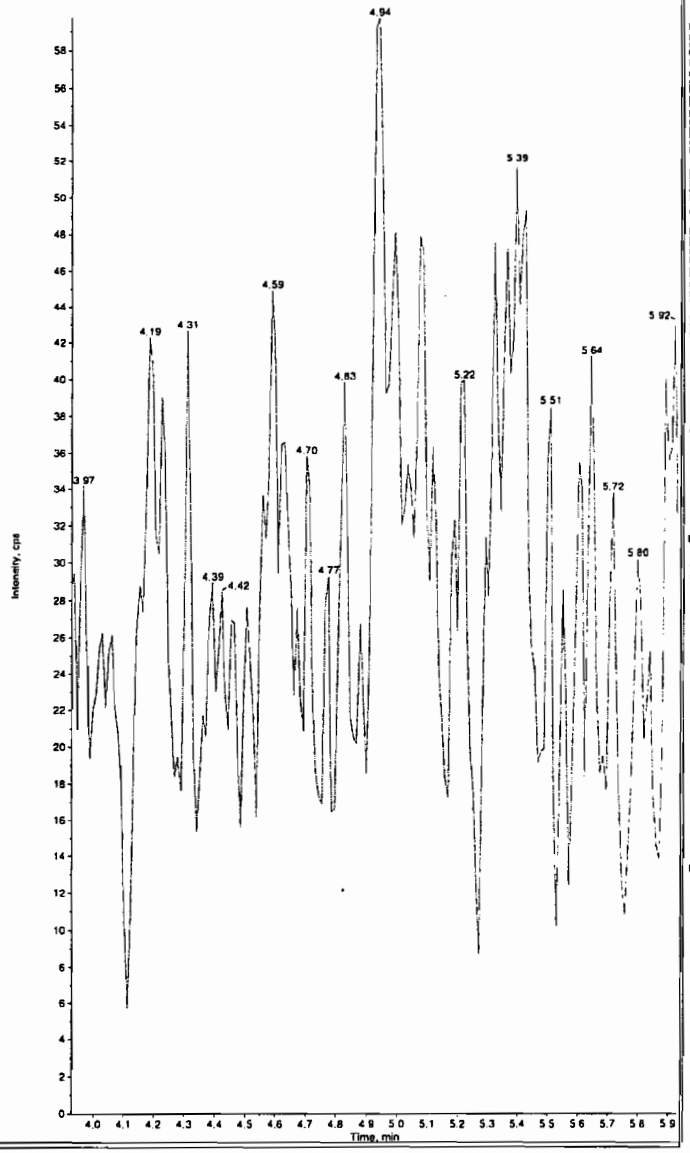

mple Name: "XIBLK01" Sample ID: "|1|MAP" File: "EXS05030001.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""

le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 5/3/2010
Time: 3:23:34 PM

fied: No

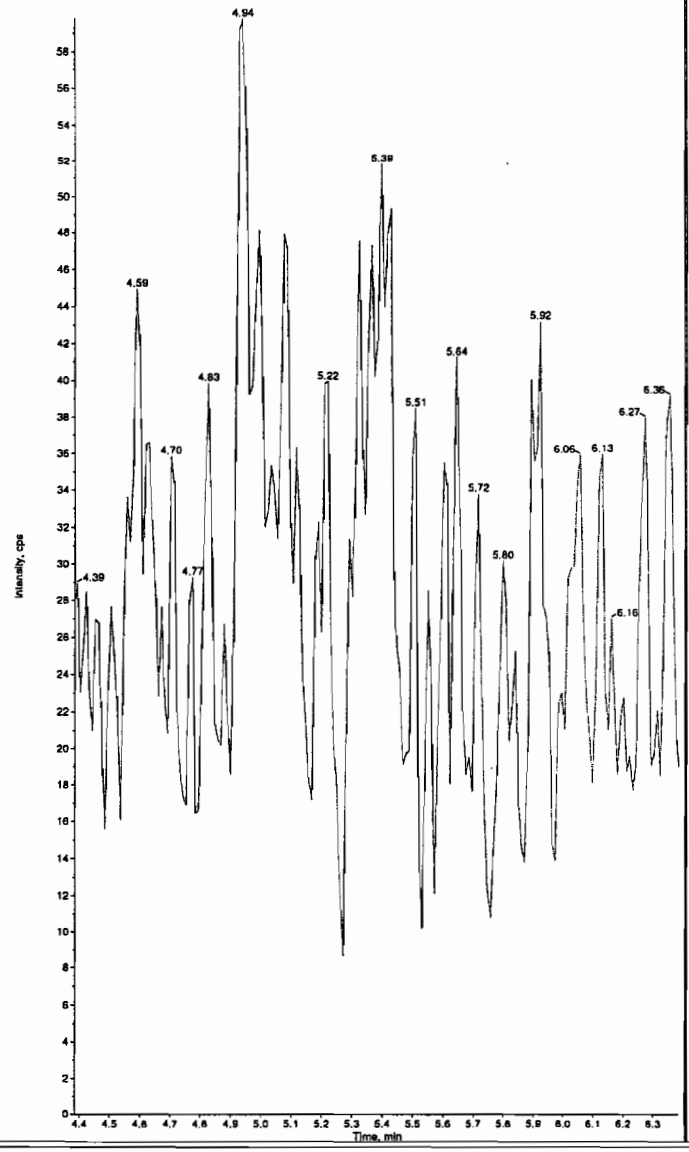

Sample Name: "XIBLK01" Sample ID: "|1|MAP" File: "EXS05030001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 11.6 ng/mL
Acq. Date: 5/3/2010
Acq. Time: 3:23:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 7.84e+004 counts
Height: 19635.063 cps
Start Time: 10.7 min
End Time: 10.9 min

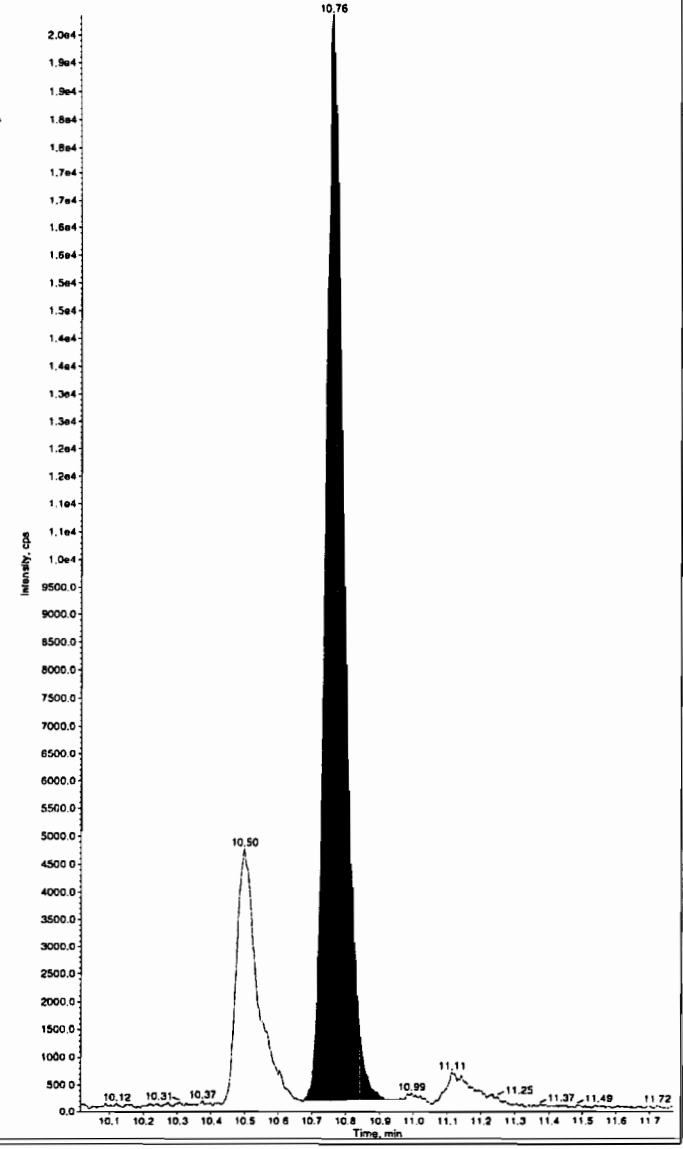

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2937

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 03–MAY–10 15:39

GEL Data File: EXS05030002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	9.7
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

MAP 5/5/10

mple Name: "XIBLK01" Sample ID: "[1]MAP" File: "EXS05030002.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 5/3/2010
Time: 3:39:17 PM

fied: No

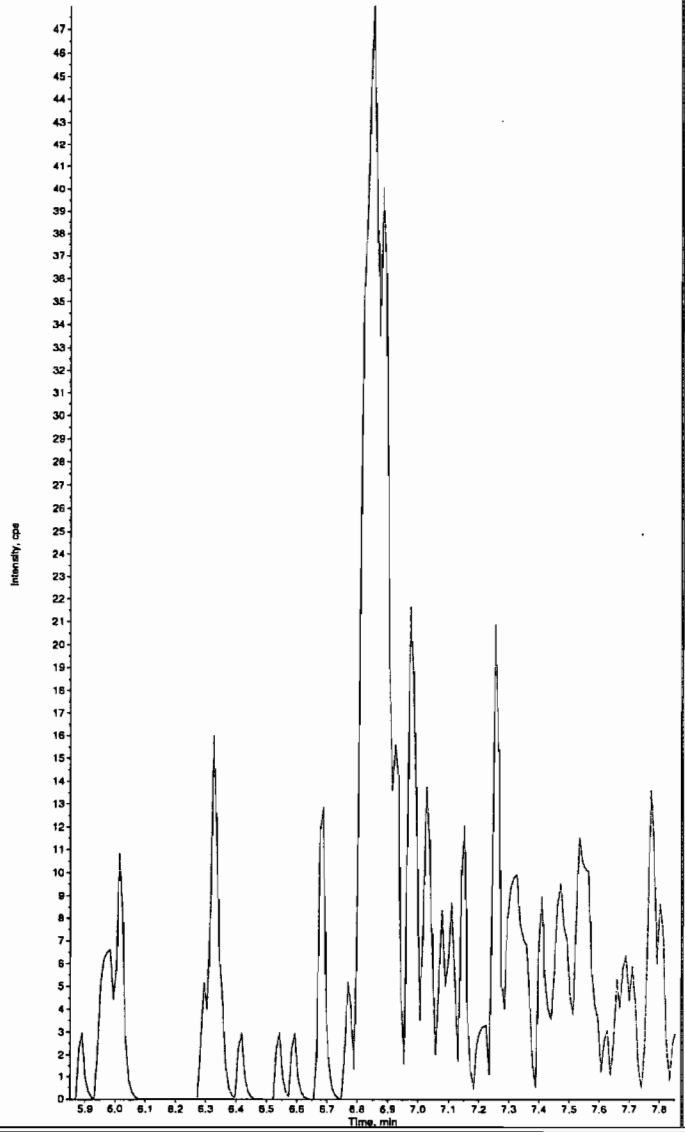

Sample Name: "XIBLK01" Sample ID: "[1]MAP" File: "EXS05030002.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 5/3/2010
Acq. Time: 3:39:17 PM

Modified: No

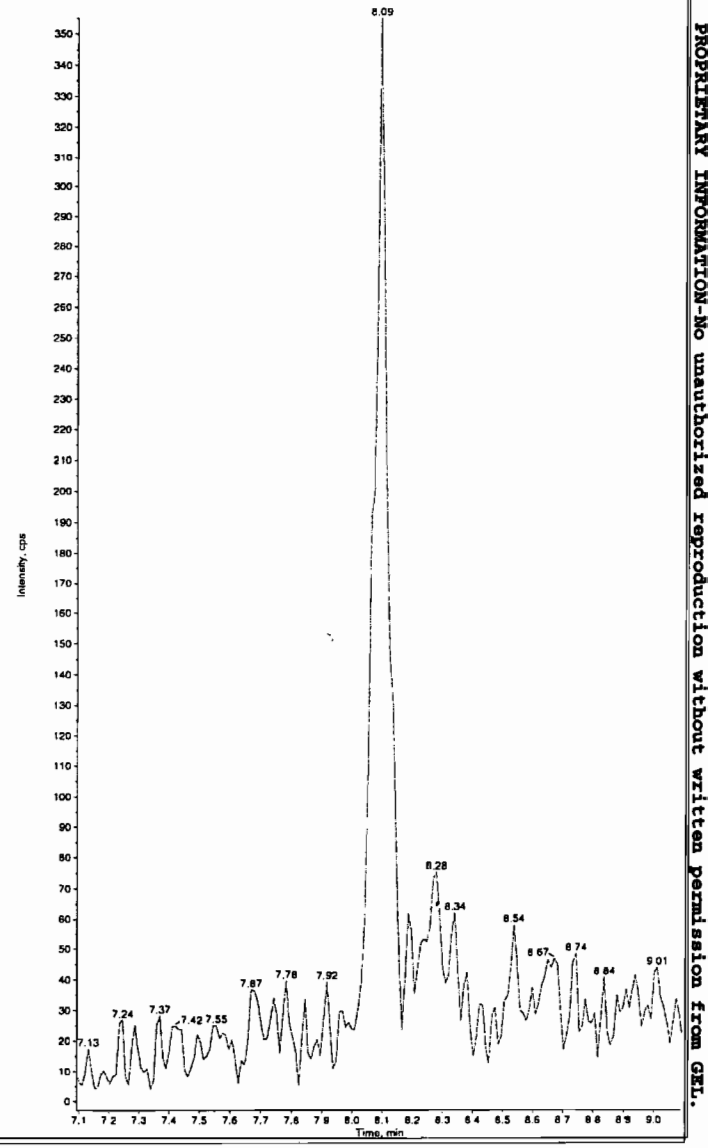

tmw 05/06/10

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mple Name: "XIBLK01" Sample ID: "|1|MAP" File: "EXS05030002.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
culated Conc: 0.00 ng/mL
Date: 5/3/2010
Time: 3:39:17 PM

fied: No

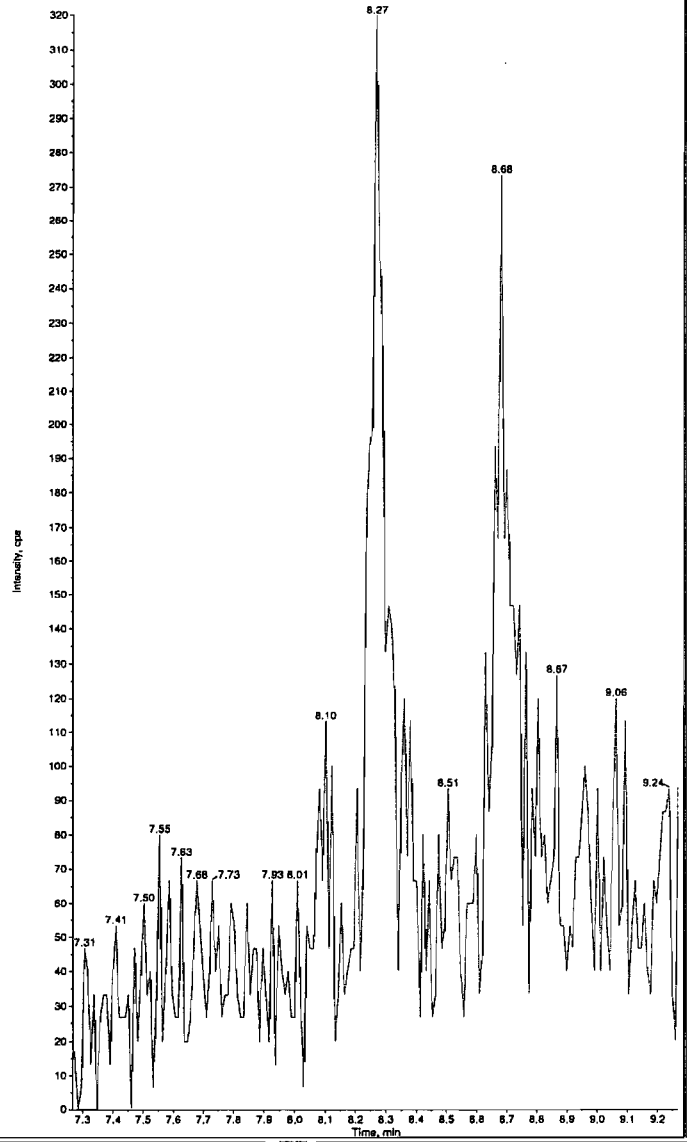

Sample Name: "XIBLK01" Sample ID: "|1|MAP" File: "EXS05030002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 5/3/2010
Acq. Time: 3:39:17 PM

Modified: No

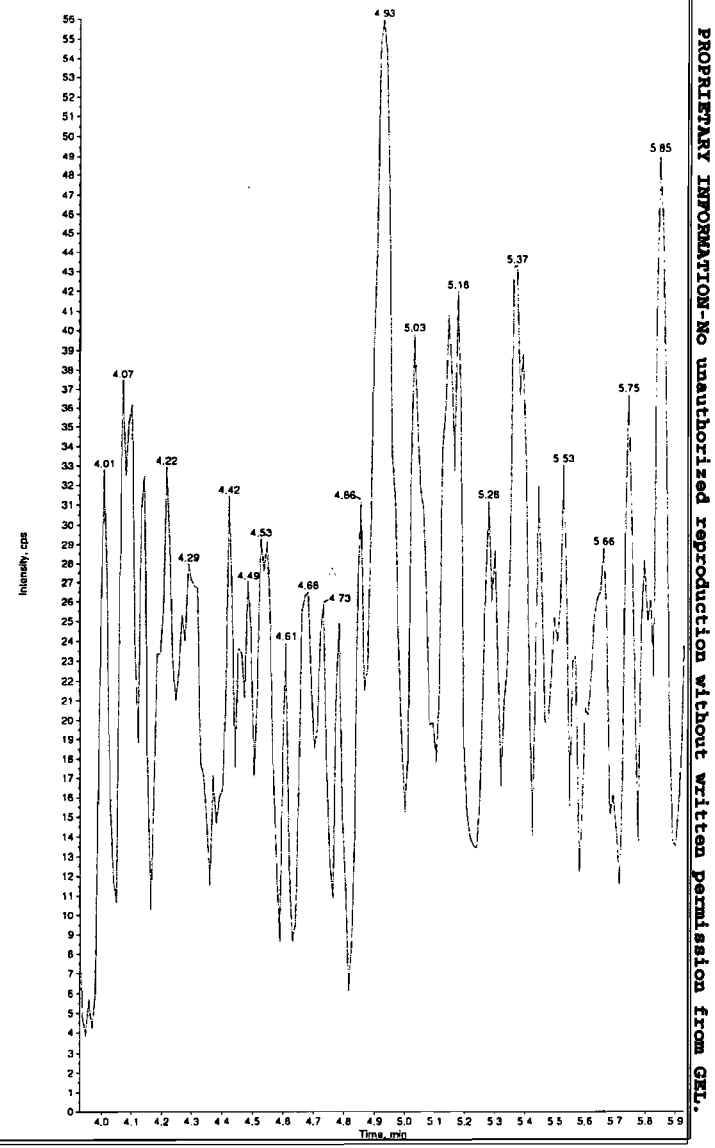

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "XIBLK01" Sample ID: "[1]MAP" File: "EXS05030002.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""

```
le Index:        1
le Type:       Unknown
entration:       N/A
culated Conc:    0.00     ng/mL
. Date:        5/3/2010
. Time:        3:39:17 PM

.fied:           No
```

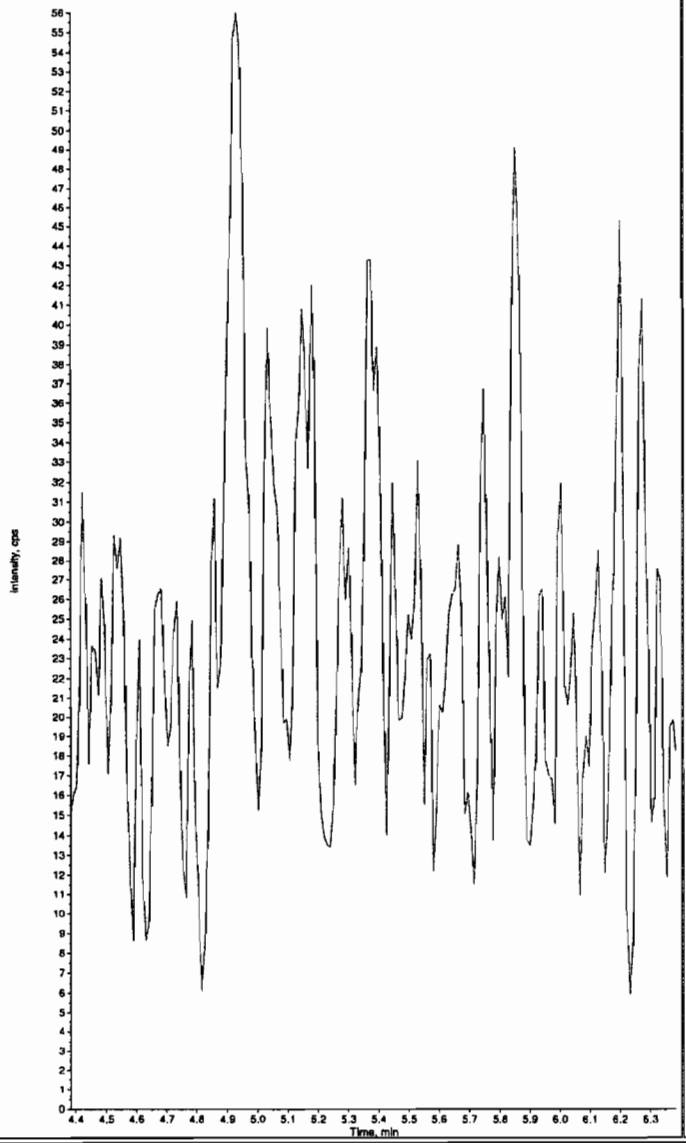

Sample Name: "XIBLK01" Sample ID: "[1]MAP" File: "EXS05030002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:     9.70     ng/mL
Acq. Date:         5/3/2010
Acq. Time:         3:39:17 PM

Modified:            No
Proc. Algorithm:  IntelliQuan - IQA
Min. Peak Height: 8000.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3          points
RT Window:          30.0     sec
Expected RT:        10.8     min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.8     min
Area:          4.10e+004    counts
Height:         9804.558    cps
Start Time:         10.7     min
End Time:           10.9     min
```

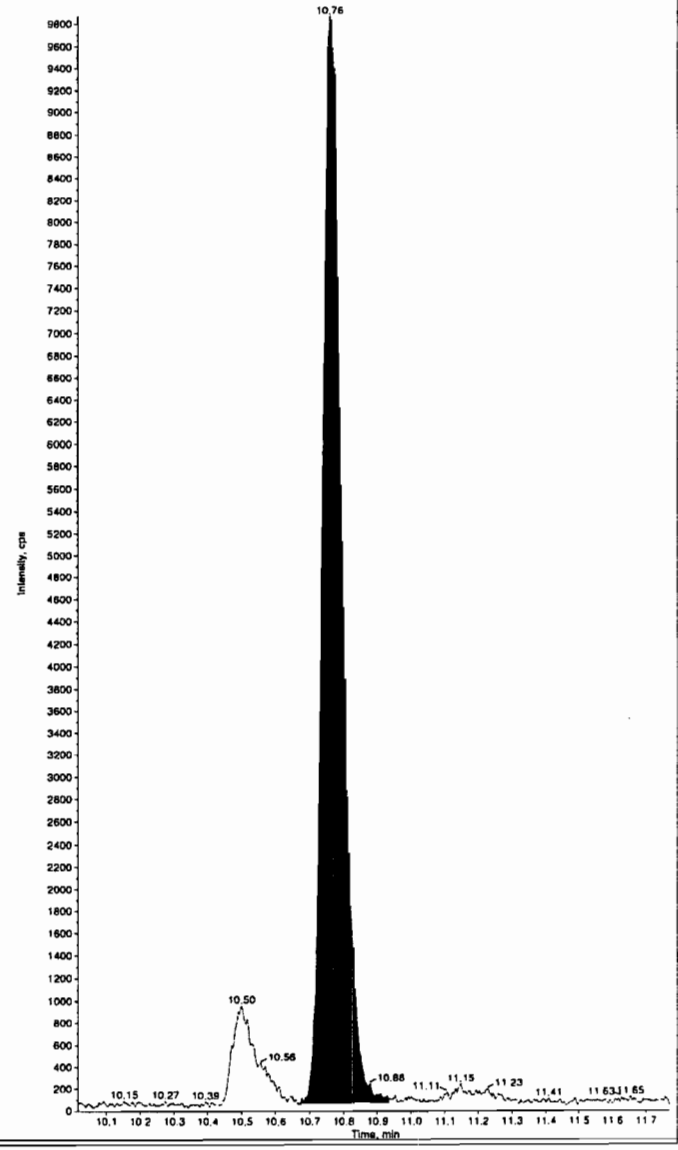

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2937

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 01–MAY–10 20:44

GEL Data File: EXP0501009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	542.622
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	549.499
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501009a
Date: 01-May-2010
Time: 20:44:17
ID: XIBLK02
Vial: 1:1,A

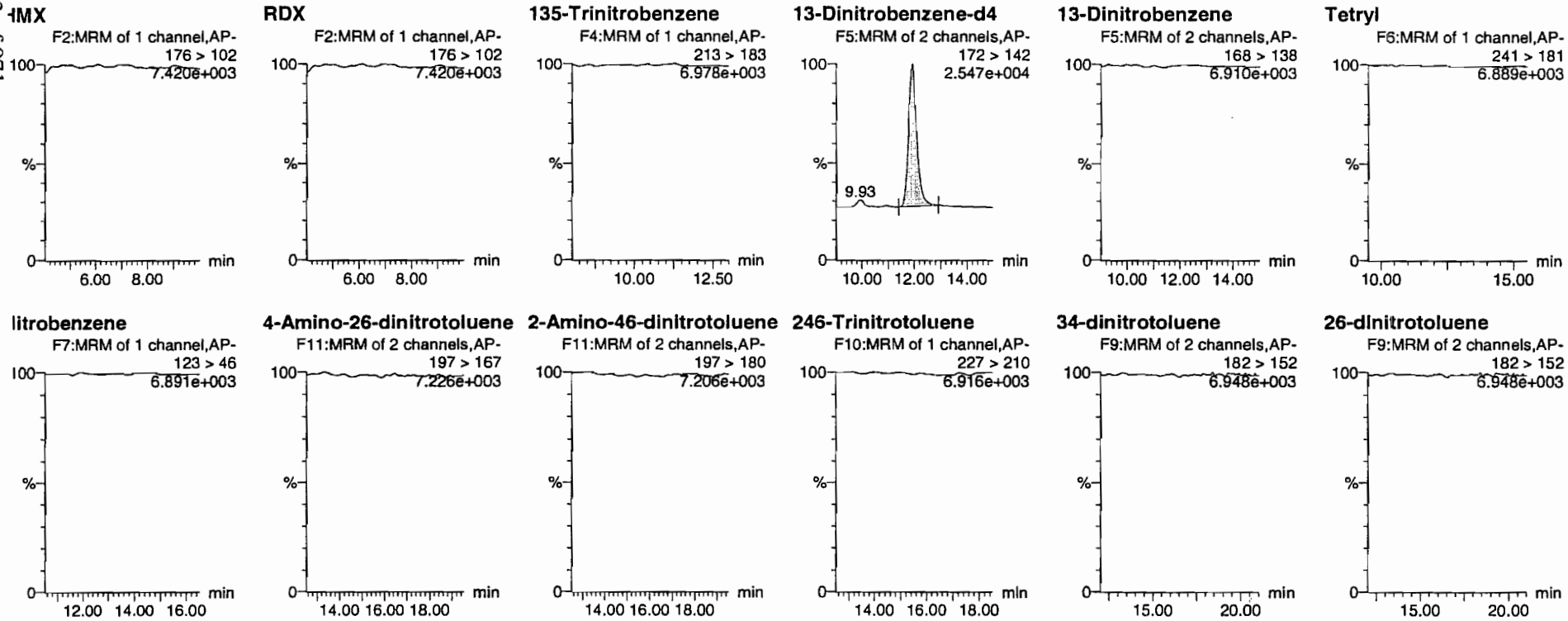

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

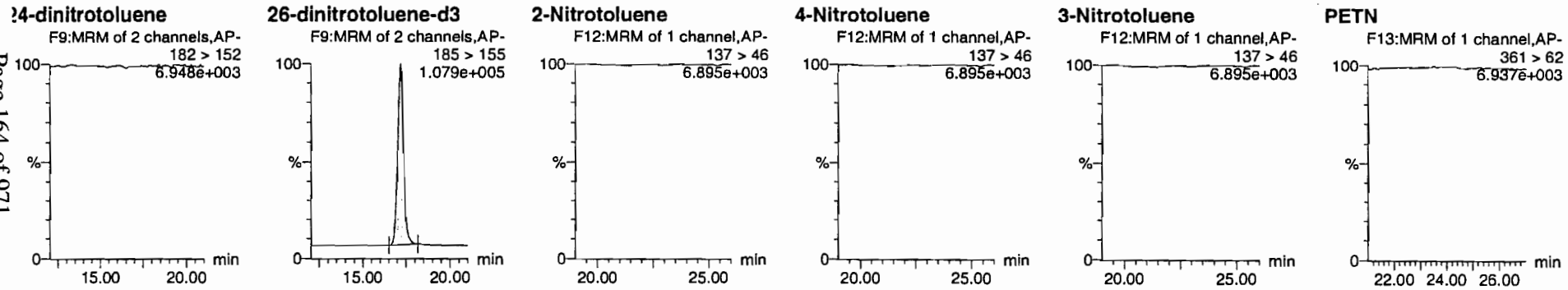

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
(IBLK02	HMX	176 > 102			7014.050									
(IBLK02	RDX	176 > 102			7014.050									
(IBLK02	135-Trinitrobenzene	213 > 183			7014.050									
(IBLK02	13-Dinitrobenzene-d4	172 > 142	11.92	7014.050		7014.050	7014.050	bb			542.6217	108.5	8.5	285.5
(IBLK02	13-Dinitrobenzene	168 > 138			7014.050									
(IBLK02	Tetryl	241 > 181			7014.050									
(IBLK02	Nitrobenzene	123 > 46			7014.050									
(IBLK02	4-Amino-26-dinitrotoluene	197 > 167			40683.559									
(IBLK02	2-Amino-46-dinitrotoluene	197 > 180			40683.559									
(IBLK02	246-Trinitrotoluene	227 > 210			40683.559									
(IBLK02	34-dinitrotoluene	182 > 152			40683.559									
IBLK02	26-dinitrotoluene	182 > 152			40683.559									
IBLK02	24-dinitrotoluene	182 > 152			40683.559			MM-	02-May-10	13:36:58				
IBLK02	26-dinitrotoluene-d3	185 > 155	17.16	40683.559		40683.559	40683.559	bb			549.4986	109.9	9.9	3115.0
IBLK02	2-Nitrotoluene	137 > 46			40683.559									
IBLK02	4-Nitrotoluene	137 > 46			40683.559									
IBLK02	3-Nitrotoluene	137 > 46			40683.559									
IBLK02	PETN	361 > 62			40683.559									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2937

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 01–MAY–10 21:43

GEL Data File: EXP0501011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	583.687
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	581.111
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501011a
Date: 01-May-2010
Time: 21:43:15
ID: XIBLK03
Vial: 1:1,A

MAP 5/2/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.140e+003

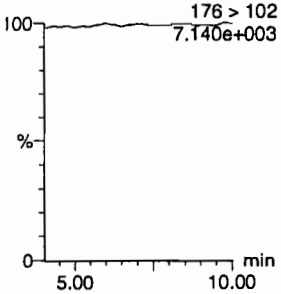

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.140e+003

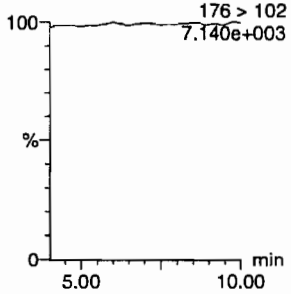

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.809e+003

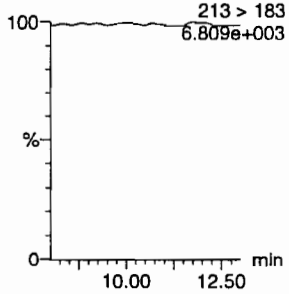

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.684e+004

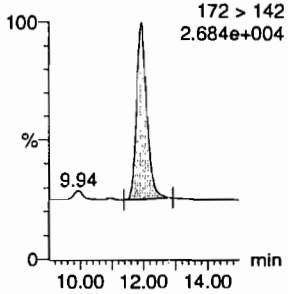

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.732e+003

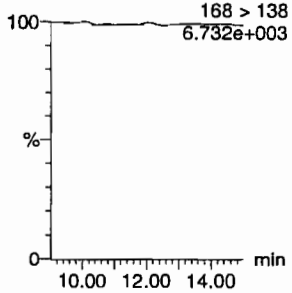

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.738e+003

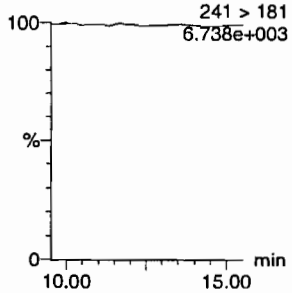

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.868e+003

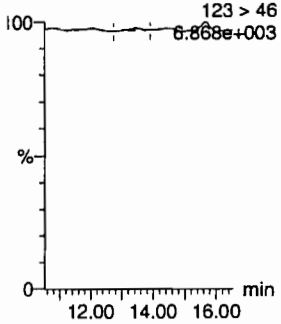

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.985e+003

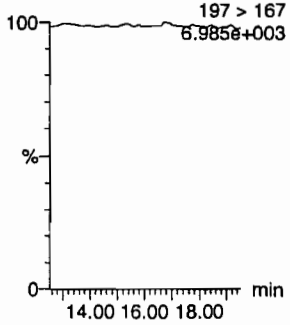

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.998e+003

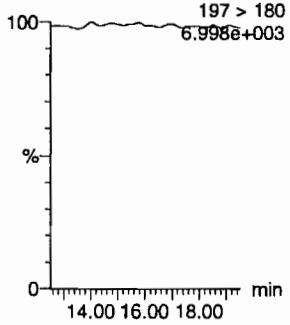

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.741e+003

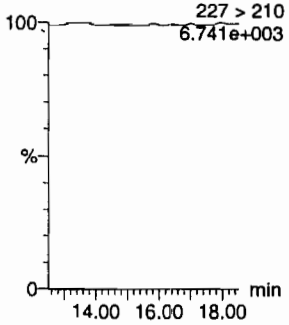

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.803e+003

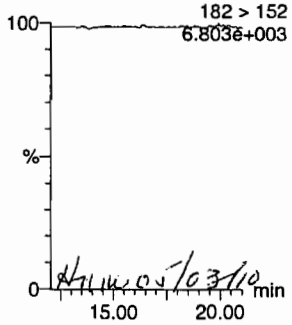

HMW 05/03/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.803e+003

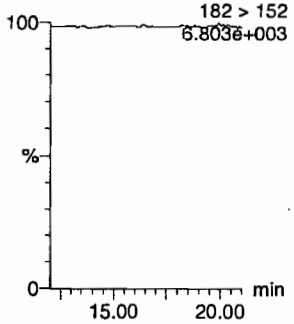

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

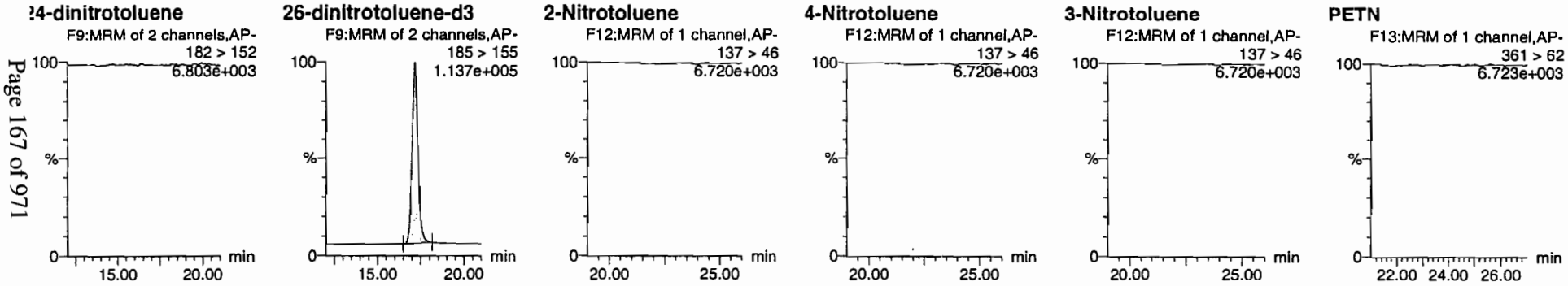

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
(IBLK03	HMX	176 > 102			7544.867									
(IBLK03	RDX	176 > 102			7544.867									
(IBLK03	135-Trinitrobenzene	213 > 183			7544.867									
(IBLK03	13-Dinitrobenzene-d4	172 > 142	11.92	7544.867		7544.867	7544.867	bb			583.6869	116.7	16.7	668.9
(IBLK03	13-Dinitrobenzene	168 > 138			7544.867									
(IBLK03	Tetryl	241 > 181			7544.867									
(IBLK03	Nitrobenzene	123 > 46			7544.867			MM-	02-May-10	13:46:48				
(IBLK03	4-Amino-26-dinitrotoluene	197 > 167			43024.102									
(IBLK03	2-Amino-46-dinitrotoluene	197 > 180			43024.102									
(IBLK03	246-Trinitrotoluene	227 > 210			43024.102									
(IBLK03	34-dinitrotoluene	182 > 152			43024.102									
(IBLK03	26-dinitrotoluene	182 > 152			43024.102									
(IBLK03	24-dinitrotoluene	182 > 152			43024.102									
(IBLK03	26-dinitrotoluene-d3	185 > 155	17.16	43024.102		43024.102	43024.102	bb			581.1115	116.2	16.2	3981.9
(IBLK03	2-Nitrotoluene	137 > 46			43024.102									
(IBLK03	4-Nitrotoluene	137 > 46			43024.102									
(IBLK03	3-Nitrotoluene	137 > 46			43024.102									
(IBLK03	PETN	361 > 62			43024.102									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2937

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 02-MAY-10 04:06

GEL Data File: EXP0501024a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	557.901
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	530.808
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

ataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

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ime: 04:06:31
): XIBLK04
ial: 1:1,A

MM 5/2/10

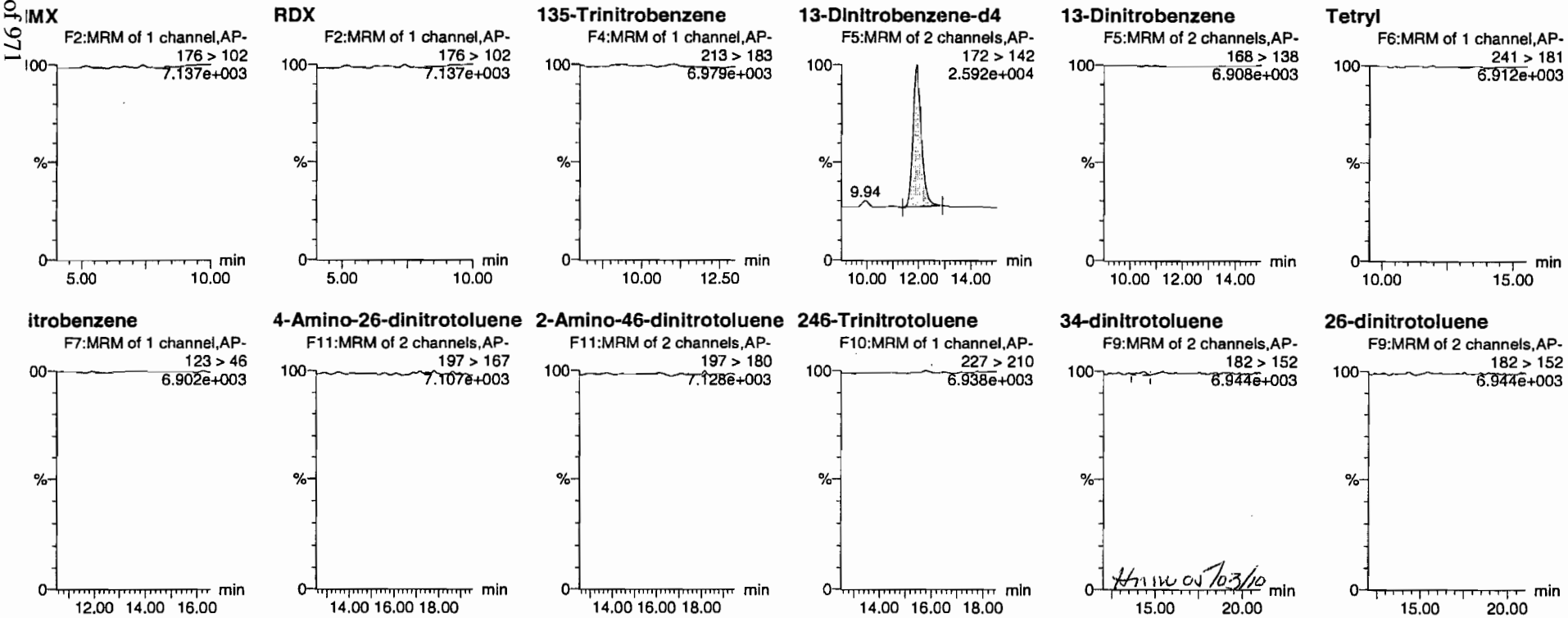

HMW on 7/03/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

4-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.944e+003

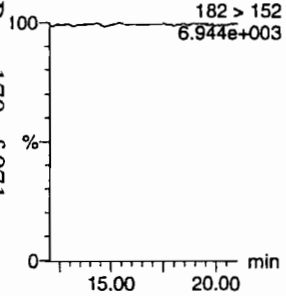

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
1.041e+005

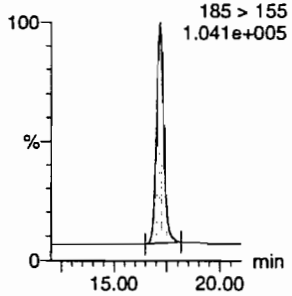

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.889e+003

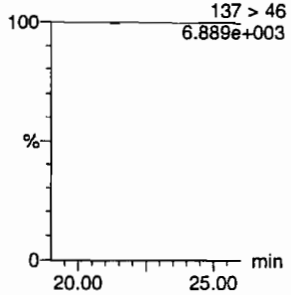

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.889e+003

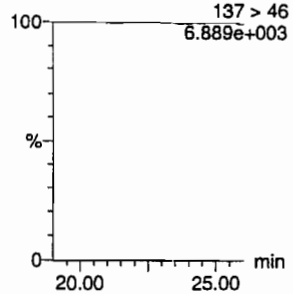

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.889e+003

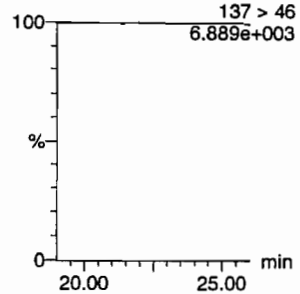

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.888e+003

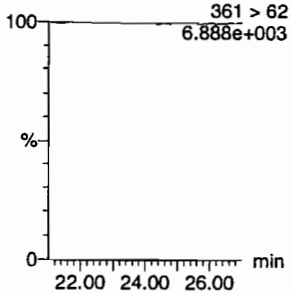

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK04	HMX	176 > 102			7211.548									
IBLK04	RDX	176 > 102			7211.548									
IBLK04	135-Trinitrobenzene	213 > 183			7211.548									
IBLK04	13-Dinitrobenzene-d4	172 > 142	11.92	7211.548		7211.548	7211.548	bb			557.9006	111.6	11.6	638.7
IBLK04	13-Dinitrobenzene	168 > 138			7211.548									
IBLK04	Tetryl	241 > 181			7211.548									
IBLK04	Nitrobenzene	123 > 46			7211.548									
IBLK04	4-Amino-26-dinitrotoluene	197 > 167			39299.742									
IBLK04	2-Amino-46-dinitrotoluene	197 > 180			39299.742									
IBLK04	246-Trinitrotoluene	227 > 210			39299.742									
IBLK04	34-dinitrotoluene	182 > 152			39299.742			MM-	02-May-10	13:43:13				
IBLK04	26-dinitrotoluene	182 > 152			39299.742									
IBLK04	24-dinitrotoluene	182 > 152			39299.742									
IBLK04	26-dinitrotoluene-d3	185 > 155	17.16	39299.742		39299.742	39299.742	bb			530.8078	106.2	6.2	2286.2
IBLK04	2-Nitrotoluene	137 > 46			39299.742									
IBLK04	4-Nitrotoluene	137 > 46			39299.742									
IBLK04	3-Nitrotoluene	137 > 46			39299.742									
IBLK04	PETN	361 > 62			39299.742									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2937

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 02–MAY–10 10:30

GEL Data File: EXP0501037a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	435.998
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	447.89
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501037a
Date: 02-May-2010
Time: 10:30:01
ID: XIBLK05
Vial: 1:1,A

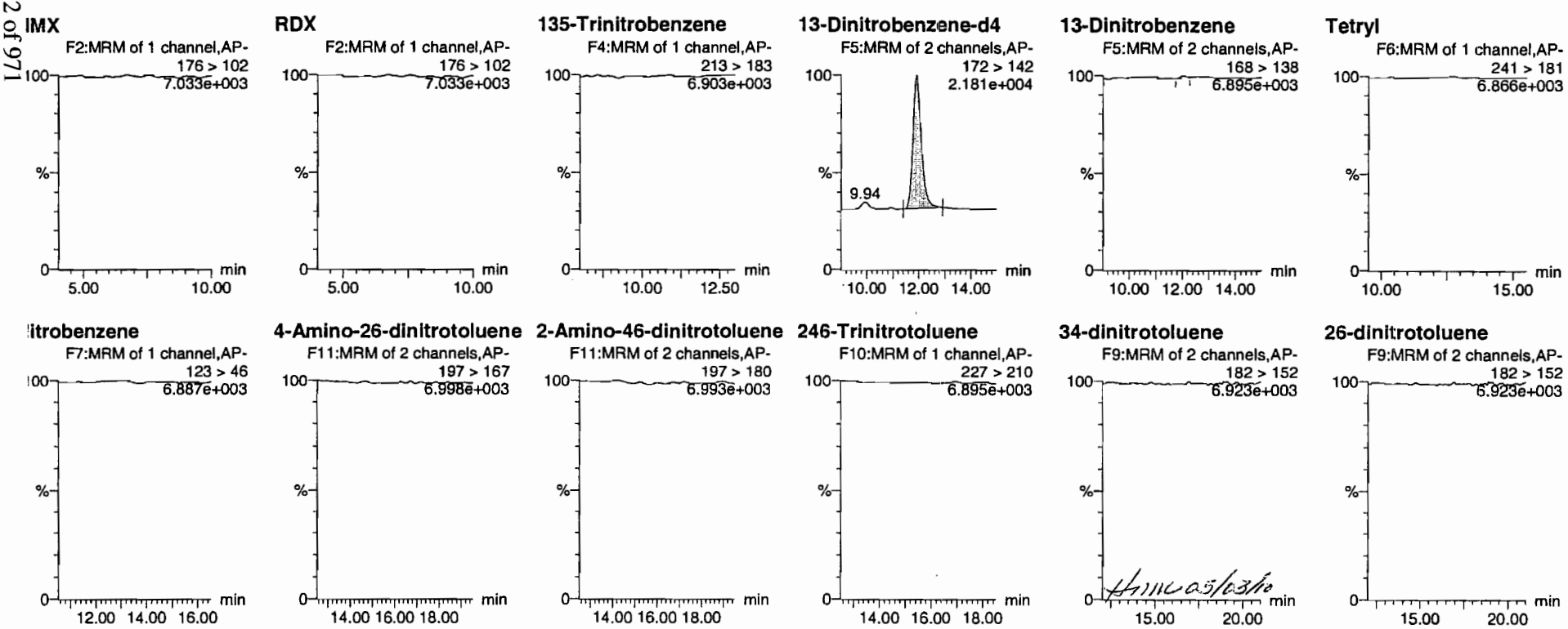

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

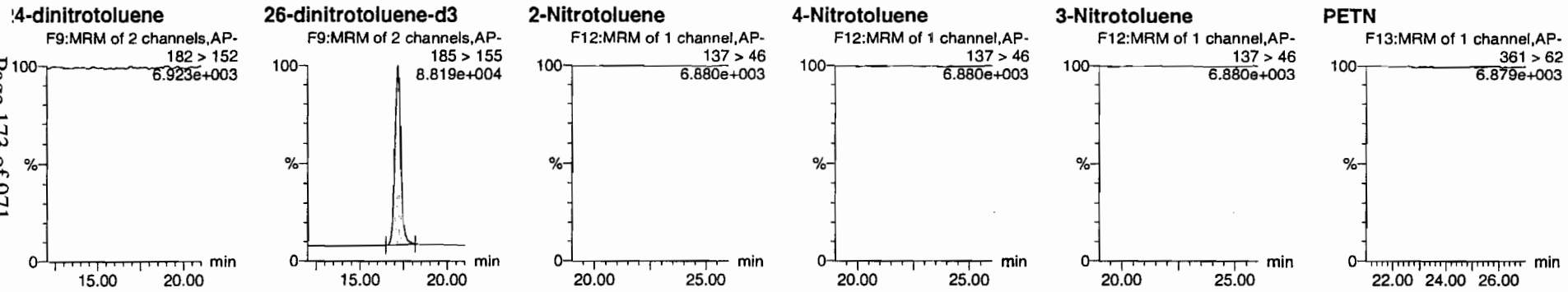

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK05	HMX	176 > 102			5635.809									
IBLK05	RDX	176 > 102			5635.809									
IBLK05	135-Trinitrobenzene	213 > 183			5635.809									
IBLK05	13-Dinitrobenzene-d4	172 > 142	11.92	5635.809		5635.809	5635.809	bb			435.9981	87.2	-12.8	606.8
IBLK05	13-Dinitrobenzene	168 > 138			5635.809			MM-	02-May-10	13:47:06				
IBLK05	Tetryl	241 > 181			5635.809									
IBLK05	Nitrobenzene	123 > 46			5635.809									
IBLK05	4-Amino-26-dinitrotoluene	197 > 167			33160.738									
IBLK05	2-Amino-46-dinitrotoluene	197 > 180			33160.738									
IBLK05	246-Trinitrotoluene	227 > 210			33160.738									
IBLK05	34-dinitrotoluene	182 > 152			33160.738									
IBLK05	26-dinitrotoluene	182 > 152			33160.738									
IBLK05	24-dinitrotoluene	182 > 152			33160.738									
IBLK05	26-dinitrotoluene-d3	185 > 155	17.16	33160.738		33160.738	33160.738	bb			447.8905	89.6	-10.4	1352.0
IBLK05	2-Nitrotoluene	137 > 46			33160.738									
IBLK05	4-Nitrotoluene	137 > 46			33160.738									
IBLK05	3-Nitrotoluene	137 > 46			33160.738									
IBLK05	PETN	361 > 62			33160.738									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2937

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 02-MAY-10 16:53

GEL Data File: EXP0501050a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	514.176
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	501.231
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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ate: 02-May-2010
ime: 16:53:45
): XIBLK06
ial: 1:1,A

MATT 5/3/10

MX
F2:MRM of 1 channel,AP-
176 > 102
5.974e+003

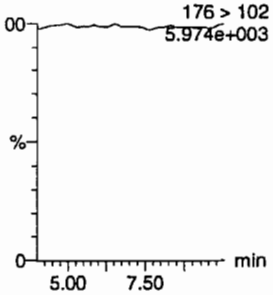

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.974e+003

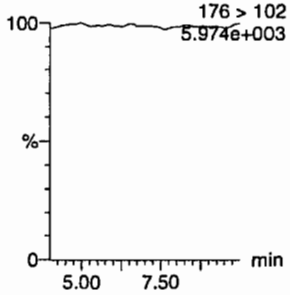

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.769e+003

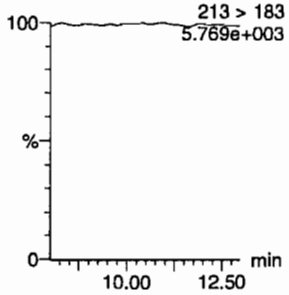

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.330e+004

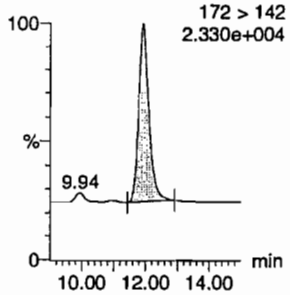

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.739e+003

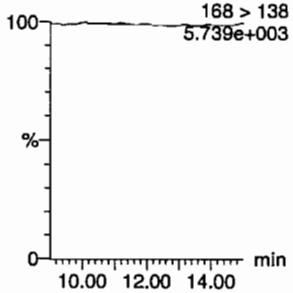

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.769e+003

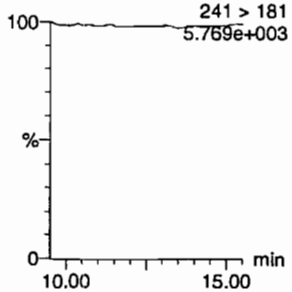

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.733e+003

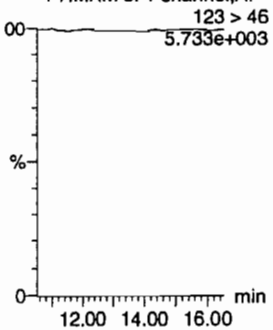

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.885e+003

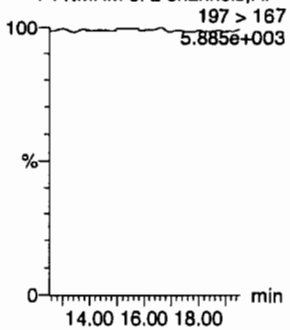

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.886e+003

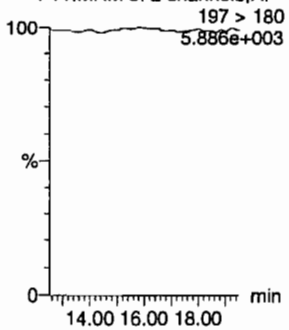

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.762e+003

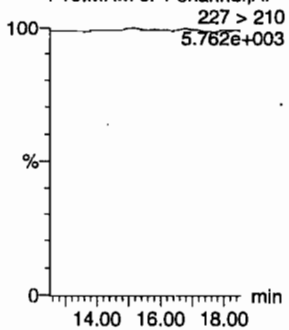

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.783e+003

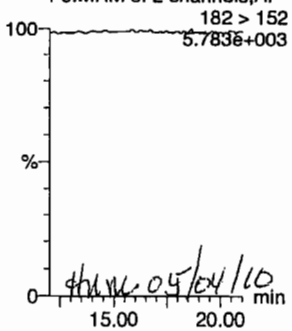

thm 05/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.783e+003

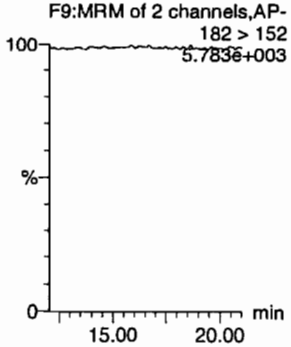

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA1.qld, Time: Mon May 03 12:28:02 2010

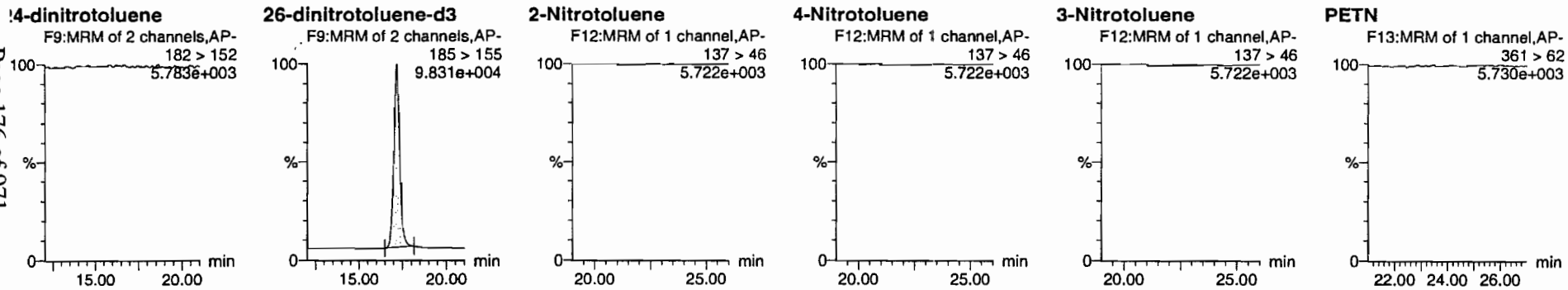

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK06	HMX	176 > 102			6646.352									
IBLK06	RDX	176 > 102			6646.352									
IBLK06	135-Trinitrobenzene	213 > 183			6646.352									
IBLK06	13-Dinitrobenzene-d4	172 > 142	11.93	6646.352		6646.352	6646.352	bb			514.1758	102.8	2.8	972.2
IBLK06	13-Dinitrobenzene	168 > 138			6646.352									
IBLK06	Tetryl	241 > 181			6646.352									
IBLK06	Nitrobenzene	123 > 46			6646.352									
IBLK06	4-Amino-26-dinitrotoluene	197 > 167			37109.957									
IBLK06	2-Amino-46-dinitrotoluene	197 > 180			37109.957									
IBLK06	246-Trinitrotoluene	227 > 210			37109.957									
IBLK06	34-dinitrotoluene	182 > 152			37109.957									
IBLK06	26-dinitrotoluene	182 > 152			37109.957									
IBLK06	24-dinitrotoluene	182 > 152			37109.957									
IBLK06	26-dinitrotoluene-d3	185 > 155	17.16	37109.957		37109.957	37109.957	bb			501.2312	100.2	0.2	4097.1
IBLK06	2-Nitrotoluene	137 > 46			37109.957									
IBLK06	4-Nitrotoluene	137 > 46			37109.957									
IBLK06	3-Nitrotoluene	137 > 46			37109.957									
IBLK06	PETN	361 > 62			37109.957									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2937

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 02-MAY-10 23:17

GEL Data File: EXP0501063a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	442.922
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	461.115
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA1.qld, Time: Mon May 03 12:28:02 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501063a
Date: 02-May-2010
Time: 23:17:21
ID: XIBLK07
Vial: 1:1,A

MMT 5/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.157e+003

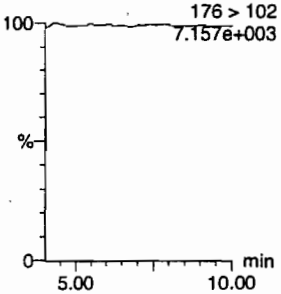

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.157e+003

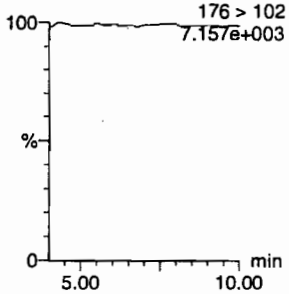

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.902e+003

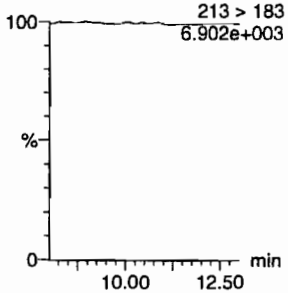

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.209e+004

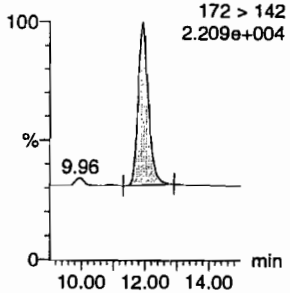

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.898e+003

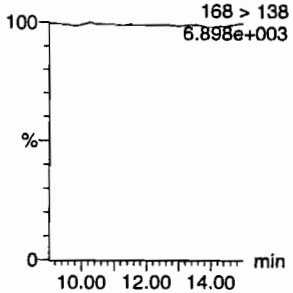

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.883e+003

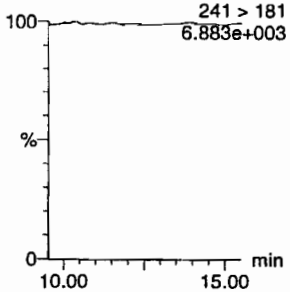

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.880e+003

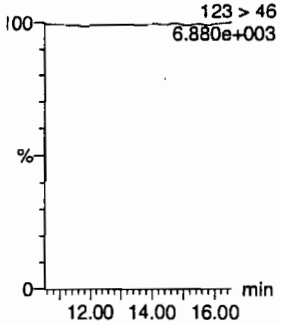

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.017e+003

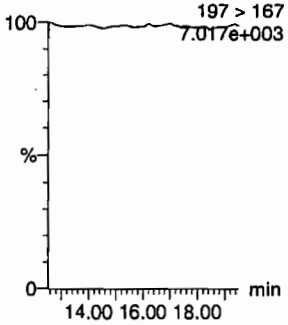

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.976e+003

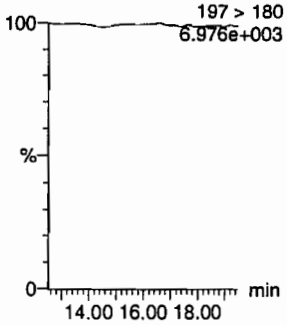

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.893e+003

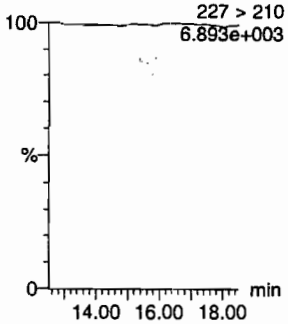

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.910e+003

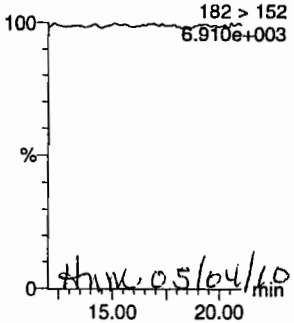

thw. 05/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.910e+003

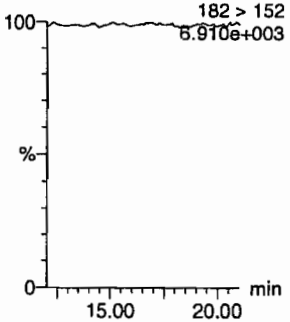

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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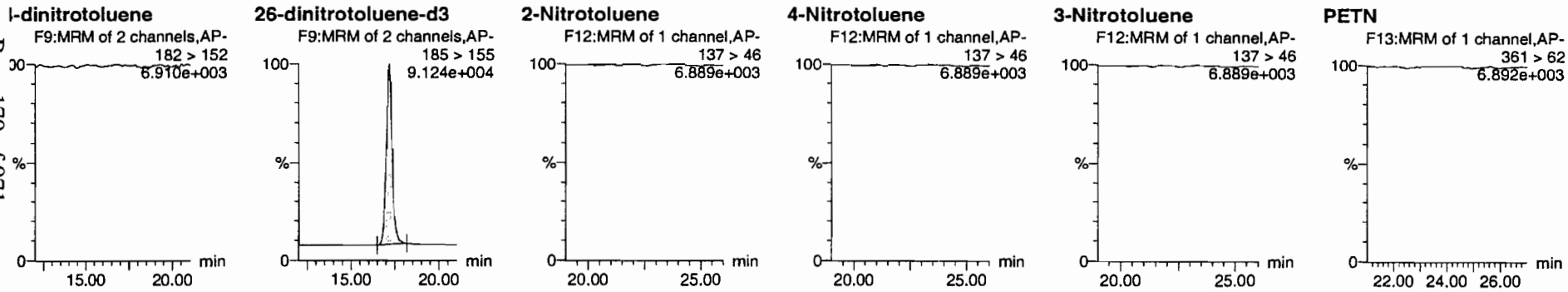

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
BLK07	HMX	176 > 102			5725.305									
BLK07	RDX	176 > 102			5725.305									
BLK07	135-Trinitrobenzene	213 > 183			5725.305									
BLK07	13-Dinitrobenzene-d4	172 > 142	11.92	5725.305		5725.305	5725.305	bb			442.9217	88.6	-11.4	337.9
BLK07	13-Dinitrobenzene	168 > 138			5725.305									
BLK07	Tetryl	241 > 181			5725.305									
BLK07	Nitrobenzene	123 > 46			5725.305									
BLK07	4-Amino-26-dinitrotoluene	197 > 167			34139.832									
BLK07	2-Amino-46-dinitrotoluene	197 > 180			34139.832									
BLK07	246-Trinitrotoluene	227 > 210			34139.832									
BLK07	34-dinitrotoluene	182 > 152			34139.832									
BLK07	26-dinitrotoluene	182 > 152			34139.832									
BLK07	24-dinitrotoluene	182 > 152			34139.832									
BLK07	26-dinitrotoluene-d3	185 > 155	17.16	34139.832		34139.832	34139.832	bb			461.1147	92.2	-7.8	3072.8
BLK07	2-Nitrotoluene	137 > 46			34139.832									
BLK07	4-Nitrotoluene	137 > 46			34139.832									
BLK07	3-Nitrotoluene	137 > 46			34139.832									
BLK07	PETN	361 > 62			34139.832									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2937

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 03-MAY-10 02:14

GEL Data File: EXP0501069a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	475.339
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	493.238
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

ataset: C:\MASSLYNX\New_Exp.PRO\050110expA1.qld, Time: Mon May 03 12:28:02 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501069a
ate: 03-May-2010
ime: 02:14:27
): XIBLK09
ial: 1:1,A

HMT 5/3/10

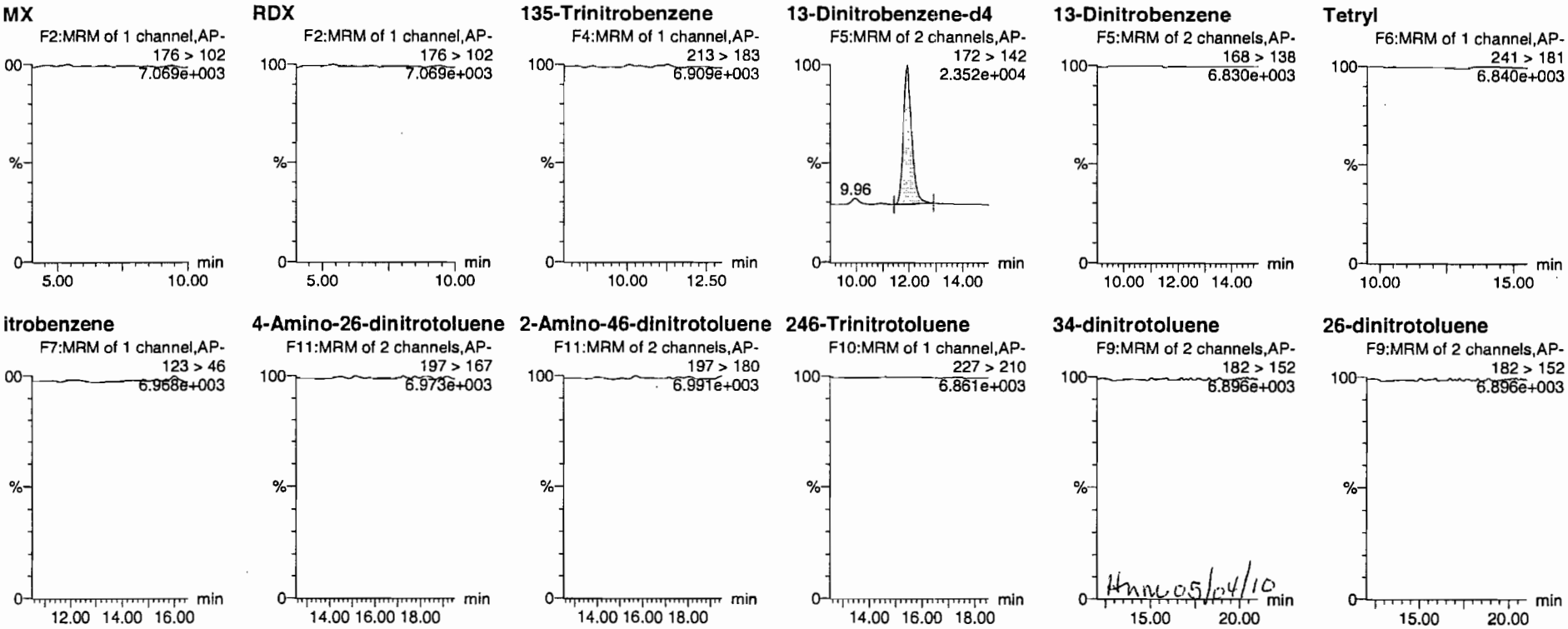

HMM 05/04/10

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ı-dinitrotoluene

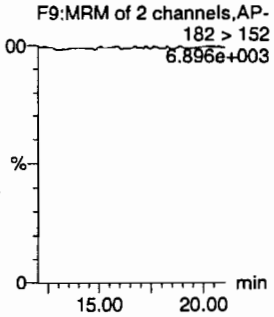

26-dinitrotoluene-d3

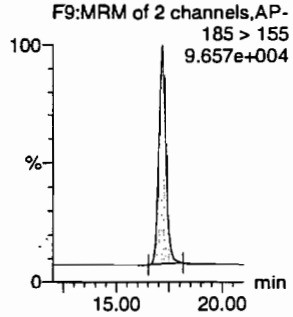

2-Nitrotoluene

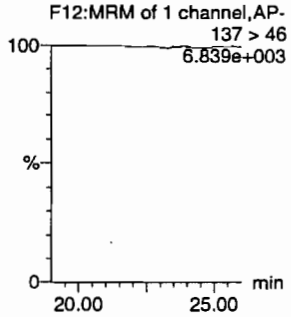

4-Nitrotoluene

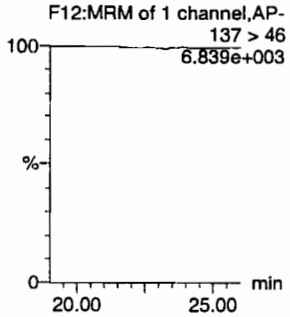

3-Nitrotoluene

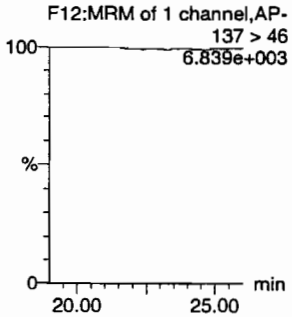

PETN

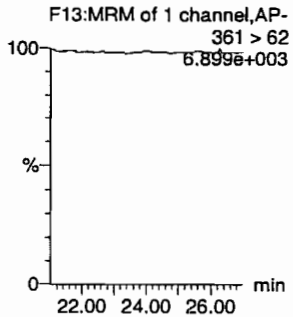

)	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK09	HMX	176 > 102			6144.340									
IBLK09	RDX	176 > 102			6144.340									
IBLK09	135-Trinitrobenzene	213 > 183			6144.340									
IBLK09	13-Dinitrobenzene-d4	172 > 142	11.92	6144.340		6144.340	6144.340	bb			475.3391	95.1	-4.9	324.9
IBLK09	13-Dinitrobenzene	168 > 138			6144.340									
IBLK09	Tetryl	241 > 181			6144.340									
IBLK09	Nitrobenzene	123 > 46			6144.340									
IBLK09	4-Amino-26-dinitrotoluene	197 > 167			36518.160									
IBLK09	2-Amino-46-dinitrotoluene	197 > 180			36518.160									
IBLK09	246-Trinitrotoluene	227 > 210			36518.160									
IBLK09	34-dinitrotoluene	182 > 152			36518.160									
IBLK09	26-dinitrotoluene	182 > 152			36518.160									
IBLK09	24-dinitrotoluene	182 > 152			36518.160									
IBLK09	26-dinitrotoluene-d3	185 > 155	17.16	36518.160		36518.160	36518.160	bb			493.2380	98.6	-1.4	817.1
IBLK09	2-Nitrotoluene	137 > 46			36518.160									
IBLK09	4-Nitrotoluene	137 > 46			36518.160									
IBLK09	3-Nitrotoluene	137 > 46			36518.160									
IBLK09	PETN	361 > 62			36518.160									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-2937
Lab Code: GEL
Lab Sample ID: XIBLK11
Analysis Date: 03-MAY-10 14:02
GEL Data File: EXP0501093a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	561.531
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	655.248
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA2.qld, Time: Tue May 04 09:31:35 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501093a
Date: 03-May-2010
Time: 14:02:30
ID: XIBLK11
Vial: 1:1,A

MM 5/4/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.488e+003

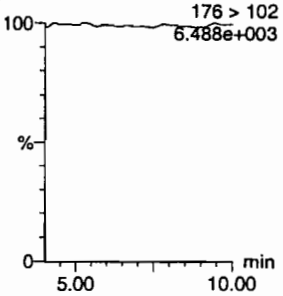

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.488e+003

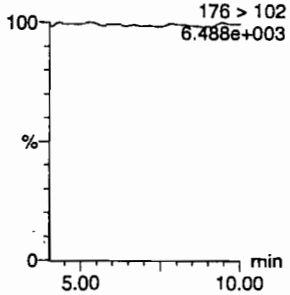

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.340e+003

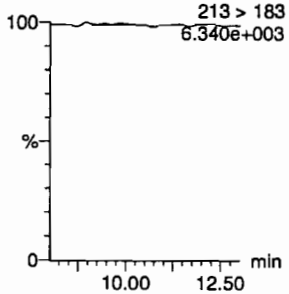

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.541e+004

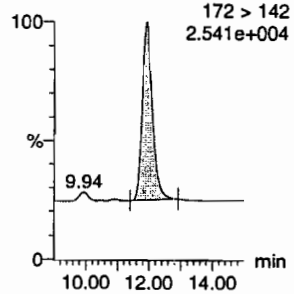

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.302e+003

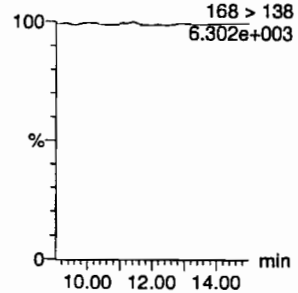

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.280e+003

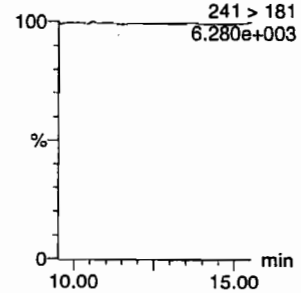

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.269e+003

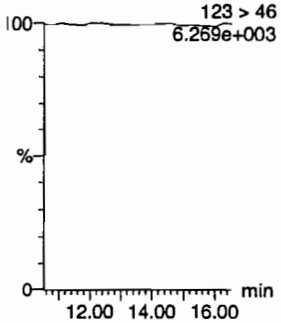

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.420e+003

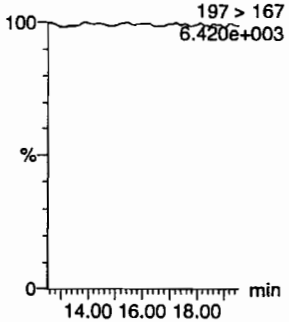

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.451e+003

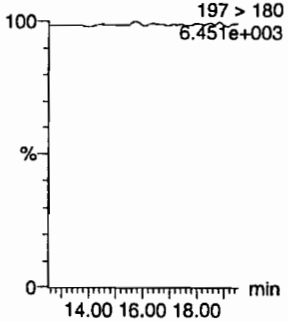

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.292e+003

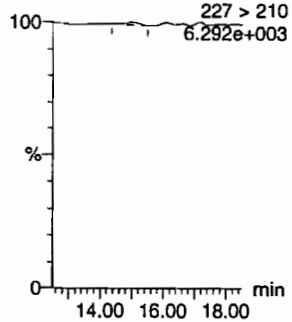

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.311e+003

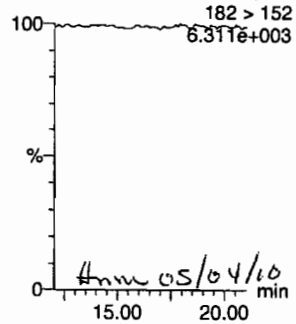

HMM 05/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.311e+003

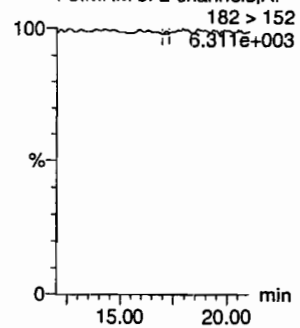

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Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA2.qld, Time: Tue May 04 09:31:35 2010

24-dinitrotoluene

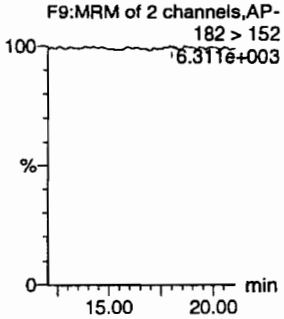

26-dinitrotoluene-d3

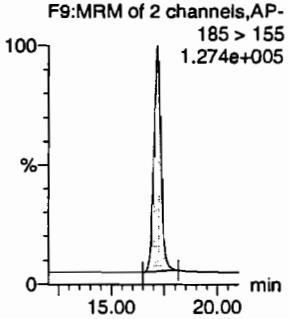

2-Nitrotoluene

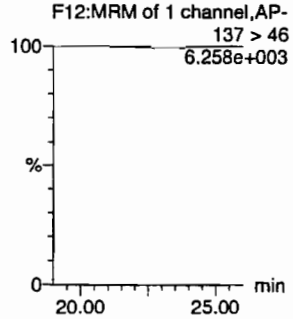

4-Nitrotoluene

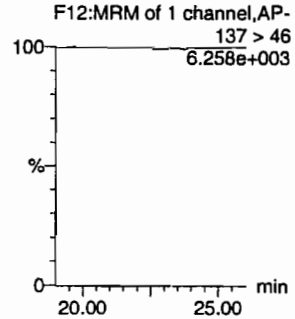

3-Nitrotoluene

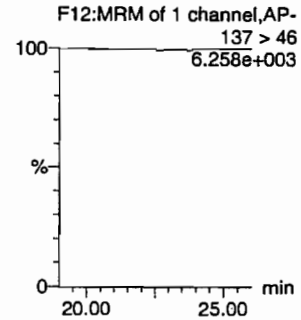

PETN

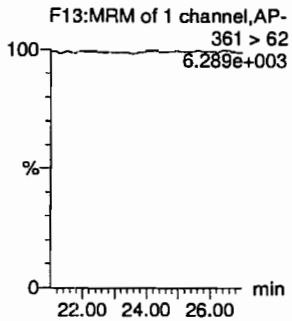

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
KIBLK11	HMX	176 > 102			7258.479									
KIBLK11	RDX	176 > 102			7258.479									
KIBLK11	135-Trinitrobenzene	213 > 183			7258.479									
KIBLK11	13-Dinitrobenzene-d4	172 > 142	11.92	7258.479		7258.479	7258.479	bb			561.5313	112.3	12.3	1021.0
KIBLK11	13-Dinitrobenzene	168 > 138			7258.479									
KIBLK11	Tetryl	241 > 181			7258.479									
KIBLK11	Nitrobenzene	123 > 46			7258.479									
KIBLK11	4-Amino-26-dinitrotoluene	197 > 167			48513.023									
KIBLK11	2-Amino-46-dinitrotoluene	197 > 180			48513.023									
KIBLK11	246-Trinitrotoluene	227 > 210			48513.023			MM-	04-May-10	09:19:17				
KIBLK11	34-dinitrotoluene	182 > 152			48513.023									
KIBLK11	26-dinitrotoluene	182 > 152			48513.023			MM-	04-May-10	09:28:15				
KIBLK11	24-dinitrotoluene	182 > 152			48513.023			MM-	04-May-10	09:29:04				
KIBLK11	26-dinitrotoluene-d3	185 > 155	17.16	48513.023		48513.023	48513.023	bb			655.2484	131.0	31.0	3699.5
KIBLK11	2-Nitrotoluene	137 > 46			48513.023									
KIBLK11	4-Nitrotoluene	137 > 46			48513.023									
KIBLK11	3-Nitrotoluene	137 > 46			48513.023									
KIBLK11	PETN	361 > 62			48513.023									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2937

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 03–MAY–10 20:26

GEL Data File: EXP0501106a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	562.355
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	489.211
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

ataset: C:\MASSLYNX\New_Exp.PRO\050110expA2.qld, Time: Tue May 04 09:31:35 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501106a
ate: 03-May-2010
ime: 20:26:05
): XIBLK12
ial: 1:1,A

MM 5/4/10

MX
F2:MRM of 1 channel,AP-
176 > 102
6.732e+003

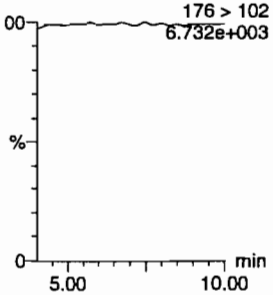

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.732e+003

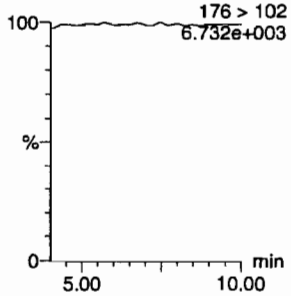

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.543e+003

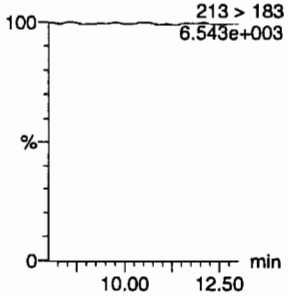

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.571e+004

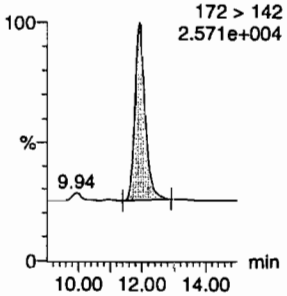

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.512e+003

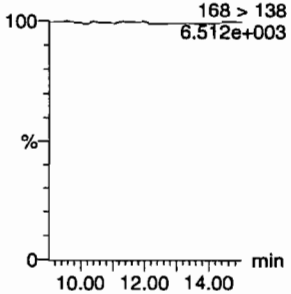

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.514e+003

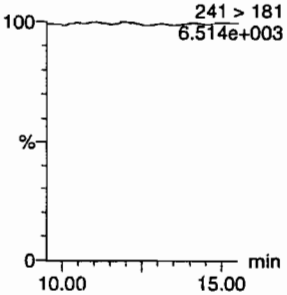

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.488e+003

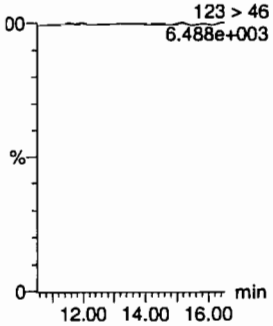

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.625e+003

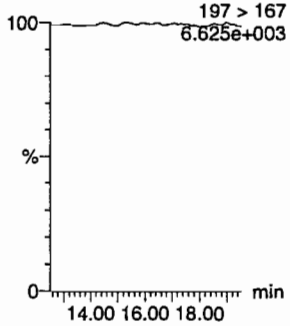

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.648e+003

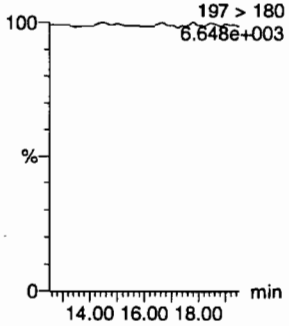

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.538e+003

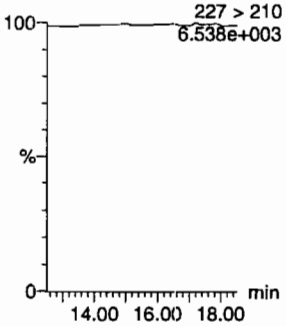

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.576e+003

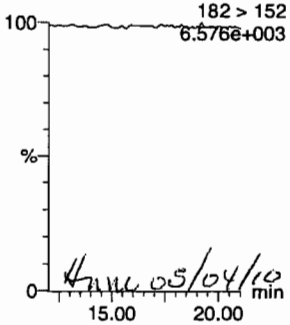

HMM 05/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.576e+003

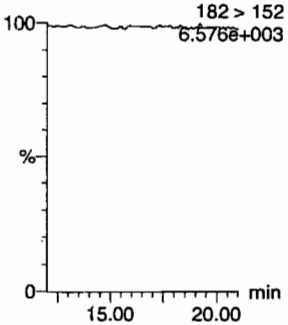

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luantify Sample Report
iEL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\050110expA2.qld, Time: Tue May 04 09:31:35 2010

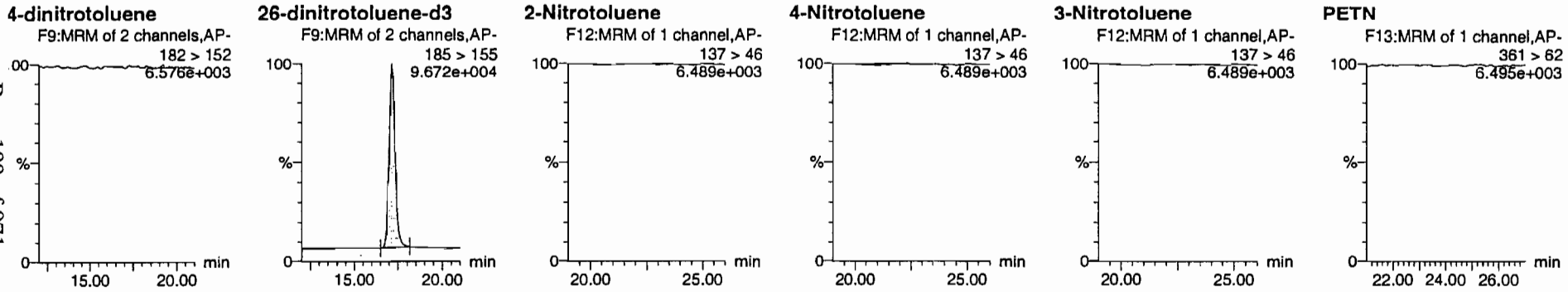

)	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
IBLK12	HMX	176 > 102			7269.123									
IBLK12	RDX	176 > 102			7269.123									
IBLK12	135-Trinitrobenzene	213 > 183			7269.123									
IBLK12	13-Dinitrobenzene-d4	172 > 142	11.92	7269.123		7269.123	7269.123	bb			562.3547	112.5	12.5	280.9
IBLK12	13-Dinitrobenzene	168 > 138			7269.123									
IBLK12	Tetryl	241 > 181			7269.123									
IBLK12	Nitrobenzene	123 > 46			7269.123									
IBLK12	4-Amino-26-dinitrotoluene	197 > 167			36220.000									
IBLK12	2-Amino-46-dinitrotoluene	197 > 180			36220.000									
IBLK12	246-Trinitrotoluene	227 > 210			36220.000									
IBLK12	34-dinitrotoluene	182 > 152			36220.000									
IBLK12	26-dinitrotoluene	182 > 152			36220.000									
IBLK12	24-dinitrotoluene	182 > 152			36220.000									
IBLK12	26-dinitrotoluene-d3	185 > 155	17.16	36220.000		36220.000	36220.000	bb			489.2108	97.8	-2.2	3124.0
IBLK12	2-Nitrotoluene	137 > 46			36220.000									
IBLK12	4-Nitrotoluene	137 > 46			36220.000									
IBLK12	3-Nitrotoluene	137 > 46			36220.000									
IBLK12	PETN	361 > 62			36220.000									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–2937
Lab Code: GEL
Lab Sample ID: XIBLK13
Analysis Date: 03–MAY–10 23:52
GEL Data File: EXP0501113a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	568.786
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	583.975
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA2.qld, Time: Tue May 04 09:31:35 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501113a
Date: 03-May-2010
Time: 23:52:52
ID: XIBLK13
Vial: 1:1,A

MM 5/4/10

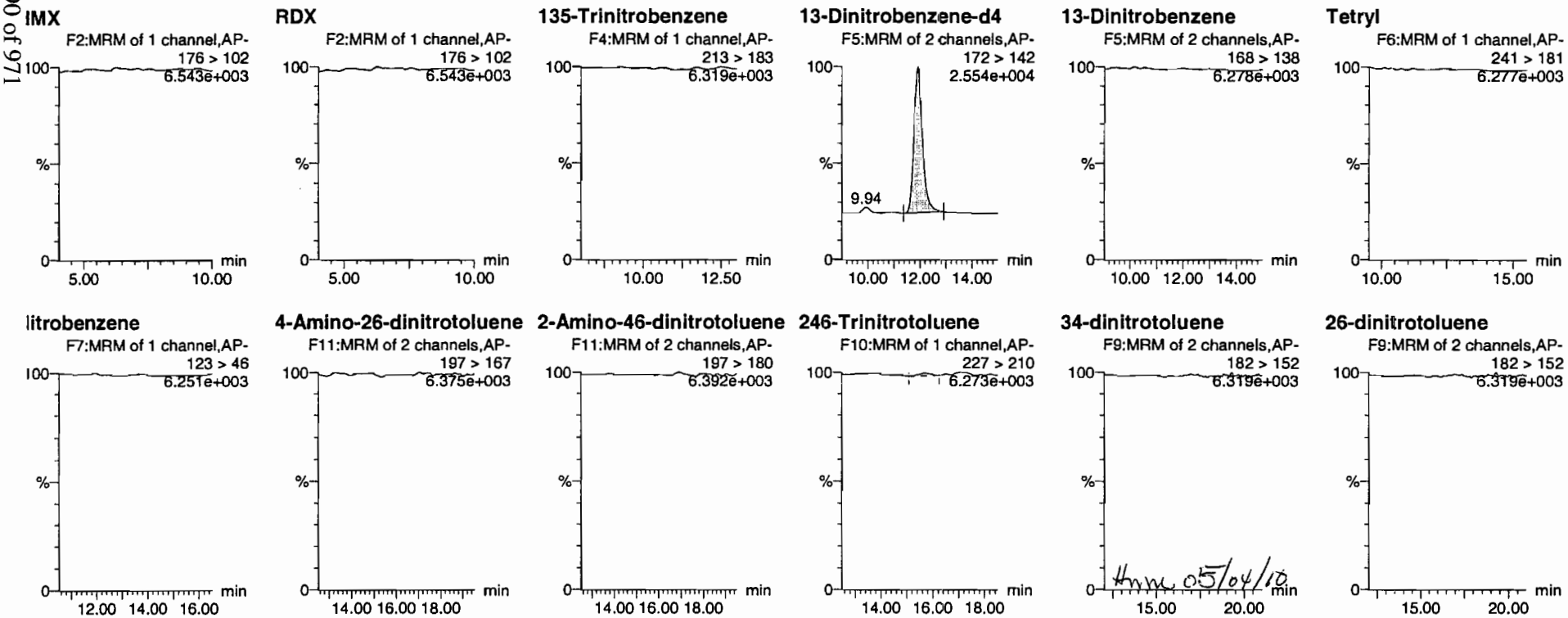

HMM 05/04/10

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\050110expA2.qld, Time: Tue May 04 09:31:35 2010

4-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.319e+003

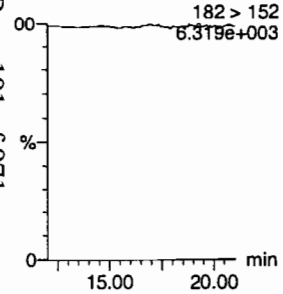

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
1.148e+005

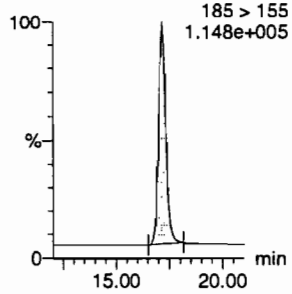

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.242e+003

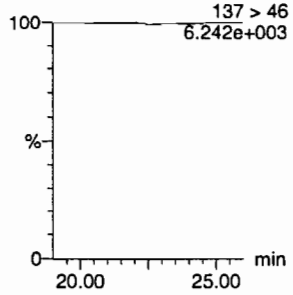

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.242e+003

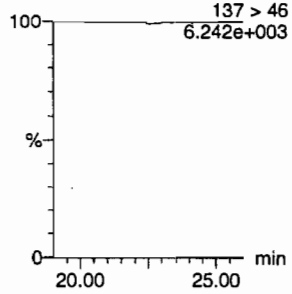

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.242e+003

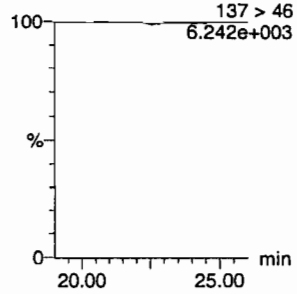

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.288e+003

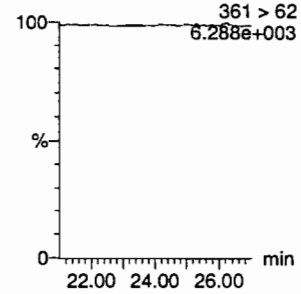

)	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
IBLK13	HMX	176 > 102			7352.252									
IBLK13	RDX	176 > 102			7352.252									
IBLK13	135-Trinitrobenzene	213 > 183			7352.252									
IBLK13	13-Dinitrobenzene-d4	172 > 142	11.92	7352.252		7352.252	7352.252	bb			568.7858	113.8	13.8	437.8
IBLK13	13-Dinitrobenzene	168 > 138			7352.252									
IBLK13	Tetryl	241 > 181			7352.252									
IBLK13	Nitrobenzene	123 > 46			7352.252									
IBLK13	4-Amino-26-dinitrotoluene	197 > 167			43236.090									
IBLK13	2-Amino-46-dinitrotoluene	197 > 180			43236.090									
IBLK13	246-Trinitrotoluene	227 > 210			43236.090			MM-	04-May-10	09:19:03				
IBLK13	34-dinitrotoluene	182 > 152			43236.090									
IBLK13	26-dinitrotoluene	182 > 152			43236.090									
IBLK13	24-dinitrotoluene	182 > 152			43236.090									
IBLK13	26-dinitrotoluene-d3	185 > 155	17.16	43236.090		43236.090	43236.090	bb			583.9747	116.8	16.8	2184.9
IBLK13	2-Nitrotoluene	137 > 46			43236.090									
IBLK13	4-Nitrotoluene	137 > 46			43236.090									
IBLK13	3-Nitrotoluene	137 > 46			43236.090									
IBLK13	PETN	361 > 62			43236.090									

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–2937
Lab Code: GEL
Lab Sample ID: XIBLK14
Analysis Date: 04–MAY–10 06:16
GEL Data File: EXP0501126a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	477.377
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	460.203
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA2.qld, Time: Tue May 04 09:31:35 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501126a
Date: 04-May-2010
Time: 06:16:17
ID: XIBLK14
Vial: 1:1,A

HMX

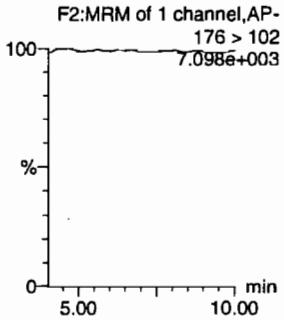

RDX

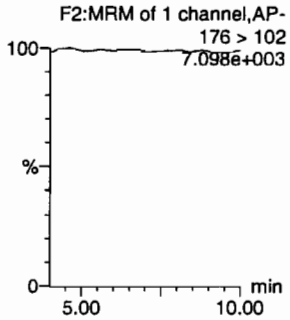

135-Trinitrobenzene

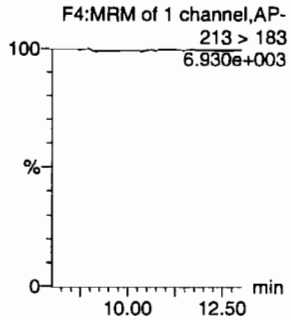

13-Dinitrobenzene-d4

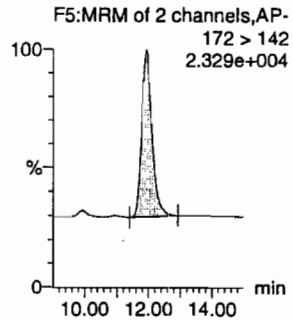

13-Dinitrobenzene

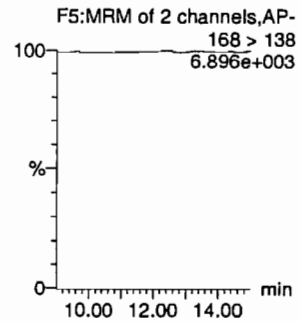

Tetryl

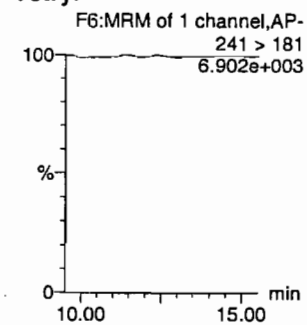

Nitrobenzene

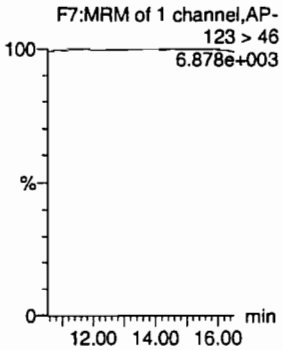

4-Amino-26-dinitrotoluene

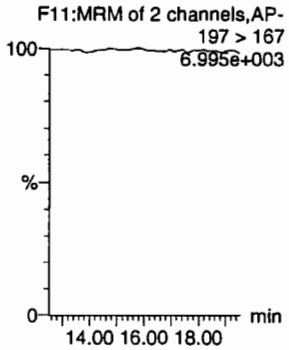

2-Amino-46-dinitrotoluene

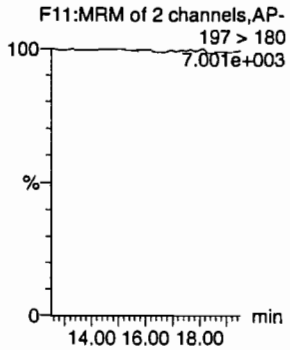

246-Trinitrotoluene

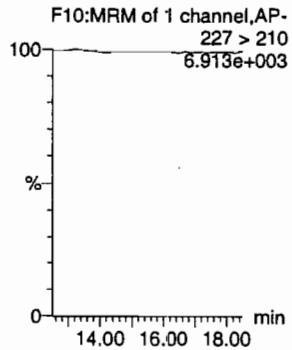

34-dinitrotoluene

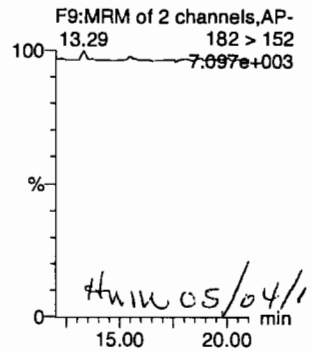

26-dinitrotoluene

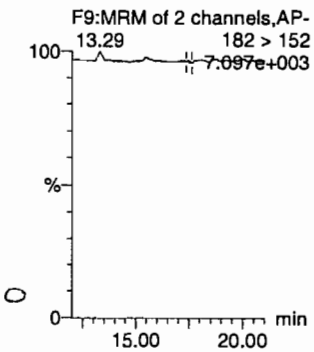

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA2.qld, Time: Tue May 04 09:31:35 2010

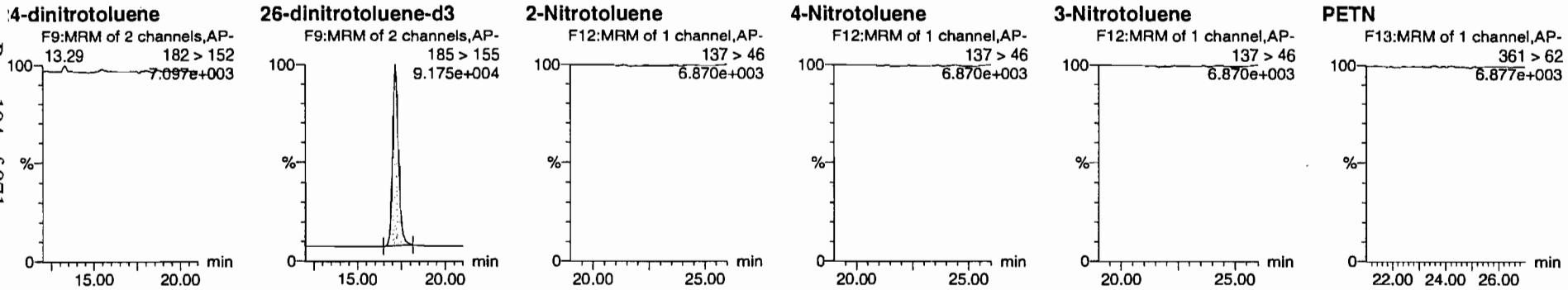

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
(IBLK14	HMX	176 > 102			6170.681									
(IBLK14	RDX	176 > 102			6170.681									
(IBLK14	135-Trinitrobenzene	213 > 183			6170.681									
(IBLK14	13-Dinitrobenzene-d4	172 > 142	11.92	6170.681		6170.681	6170.681	bb			477.3769	95.5	-4.5	374.0
(IBLK14	13-Dinitrobenzene	168 > 138			6170.681									
(IBLK14	Tetryl	241 > 181			6170.681									
(IBLK14	Nitrobenzene	123 > 46			6170.681									
(IBLK14	4-Amino-26-dinitrotoluene	197 > 167			34072.332									
(IBLK14	2-Amino-46-dinitrotoluene	197 > 180			34072.332									
(IBLK14	246-Trinitrotoluene	227 > 210			34072.332									
(IBLK14	34-dinitrotoluene	182 > 152			34072.332									
(IBLK14	26-dinitrotoluene	182 > 152			34072.332			MM-	04-May-10	09:26:17				
(IBLK14	24-dinitrotoluene	182 > 152			34072.332									
(IBLK14	26-dinitrotoluene-d3	185 > 155	17.16	34072.332		34072.332	34072.332	bb			460.2031	92.0	-8.0	2802.9
(IBLK14	2-Nitrotoluene	137 > 46			34072.332									
(IBLK14	4-Nitrotoluene	137 > 46			34072.332									
(IBLK14	3-Nitrotoluene	137 > 46			34072.332									
(IBLK14	PETN	361 > 62			34072.332									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2937

Lab Code: GEL

Lab Sample ID: XIBLK15

Analysis Date: 04-MAY-10 12:10

GEL Data File: EXP0501138a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	503.736
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	510.28
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA3.qld, Time: Tue May 04 13:25:47 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501138a
Date: 04-May-2010
Time: 12:10:24
ID: XIBLK15
Vial: 1:1,A

MMT 5/4/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.734e+003

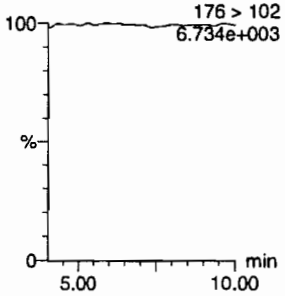

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.734e+003

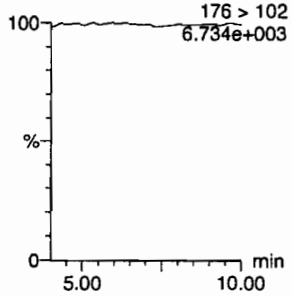

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.588e+003

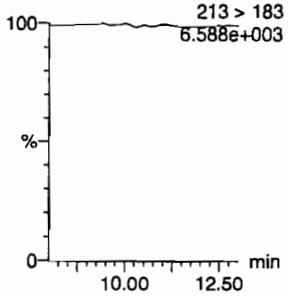

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.371e+004

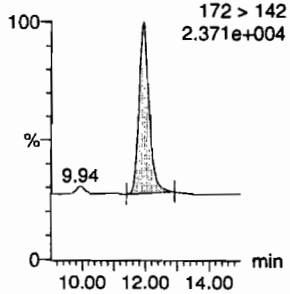

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.525e+003

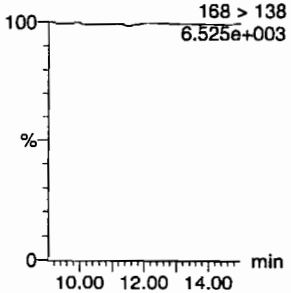

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.515e+003

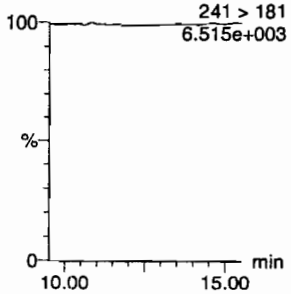

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.521e+003

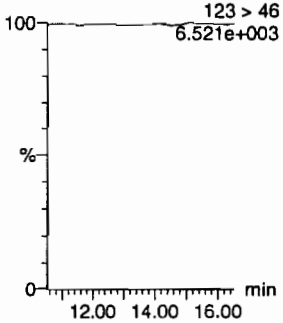

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.721e+003

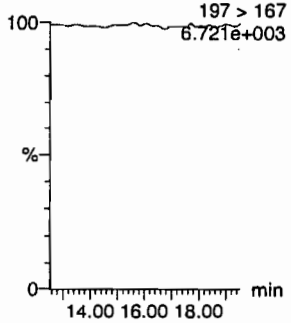

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.731e+003

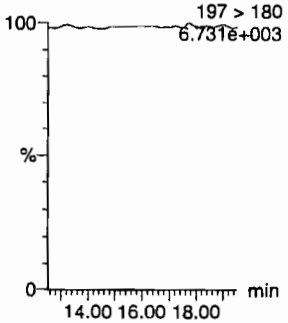

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.564e+003

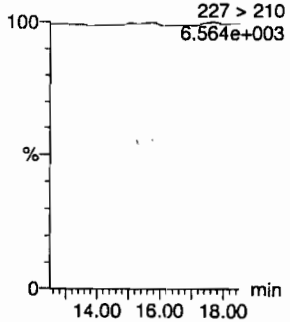

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.577e+003

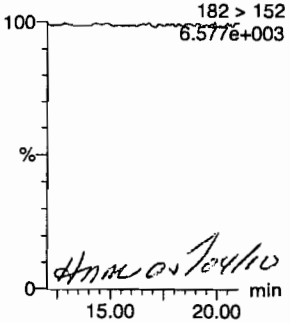

HMM 05/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.577e+003

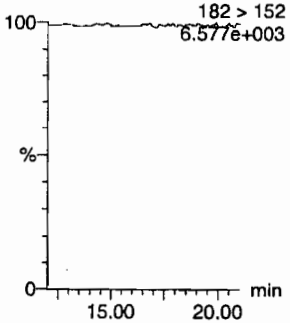

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA3.qld, Time: Tue May 04 13:25:47 2010

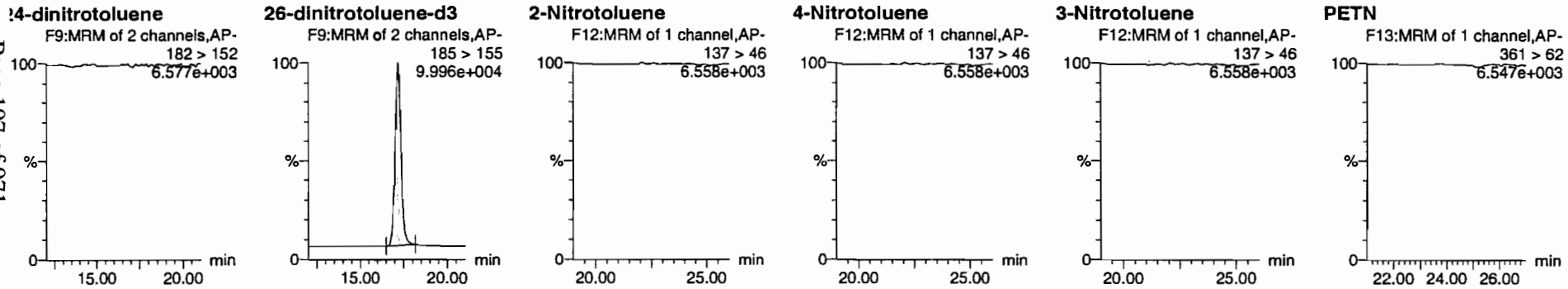

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
(IBLK15	HMX	176 > 102			6511.398									
(IBLK15	RDX	176 > 102			6511.398									
(IBLK15	135-Trinitrobenzene	213 > 183			6511.398									
(IBLK15	13-Dinitrobenzene-d4	172 > 142	11.92	6511.398		6511.398	6511.398	bb			503.7355	100.7	0.7	881.3
(IBLK15	13-Dinitrobenzene	168 > 138			6511.398									
(IBLK15	Tetryl	241 > 181			6511.398									
(IBLK15	Nitrobenzene	123 > 46			6511.398									
(IBLK15	4-Amino-26-dinitrotoluene	197 > 167			37779.902									
(IBLK15	2-Amino-46-dinitrotoluene	197 > 180			37779.902									
(IBLK15	246-Trinitrotoluene	227 > 210			37779.902									
(IBLK15	34-dinitrotoluene	182 > 152			37779.902									
(IBLK15	26-dinitrotoluene	182 > 152			37779.902									
(IBLK15	24-dinitrotoluene	182 > 152			37779.902									
(IBLK15	26-dinitrotoluene-d3	185 > 155	17.18	37779.902		37779.902	37779.902	bb			510.2799	102.1	2.1	2580.4
(IBLK15	2-Nitrotoluene	137 > 46			37779.902									
(IBLK15	4-Nitrotoluene	137 > 46			37779.902									
(IBLK15	3-Nitrotoluene	137 > 46			37779.902									
(IBLK15	PETN	361 > 62			37779.902									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2937

Lab Code: GEL

Lab Sample ID: XIBLK17

Analysis Date: 05–MAY–10 00:57

GEL Data File: EXP0501164a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	597.312
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	609.116
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA4.qld, Time: Wed May 05 10:55:50 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501164a
Date: 05-May-2010
Time: 00:57:05
ID: XIBLK17
Vial: 1:1,A

MMT 5/5/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.818e+003

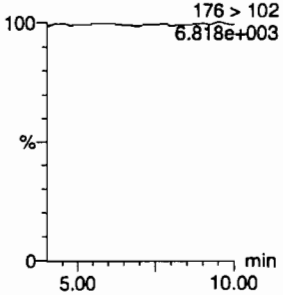

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.818e+003

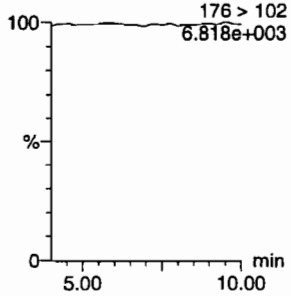

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.692e+003

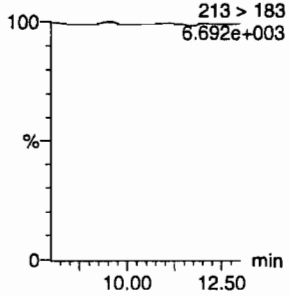

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.735e+004

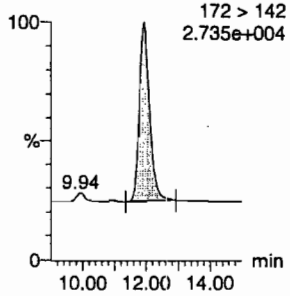

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.693e+003

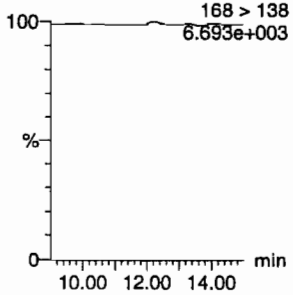

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.631e+003

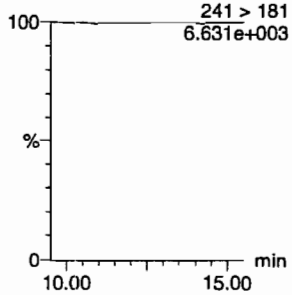

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.662e+003

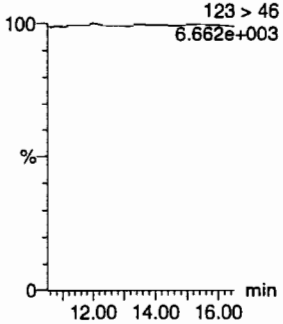

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.784e+003

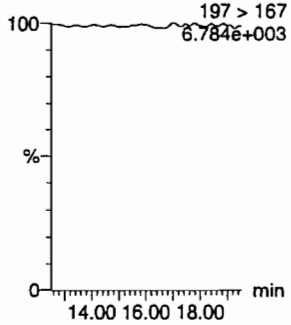

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.792e+003

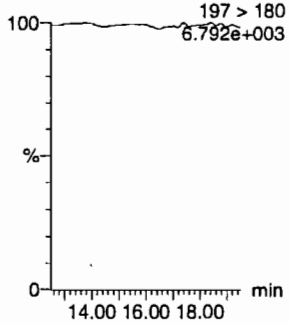

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.662e+003

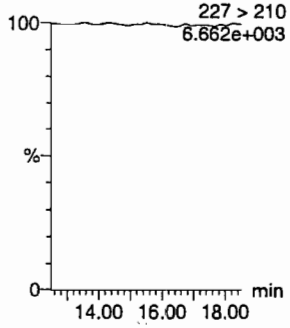

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.719e+003

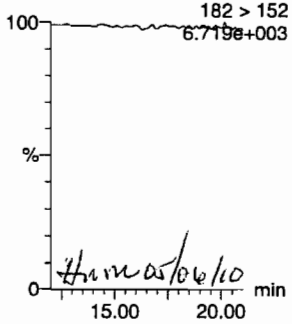

Hmm 05/06/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.719e+003

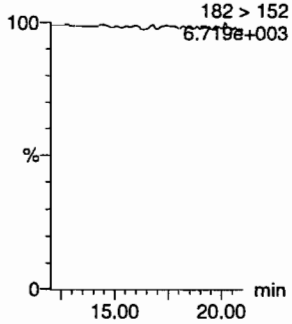

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA4.qld, Time: Wed May 05 10:55:50 2010

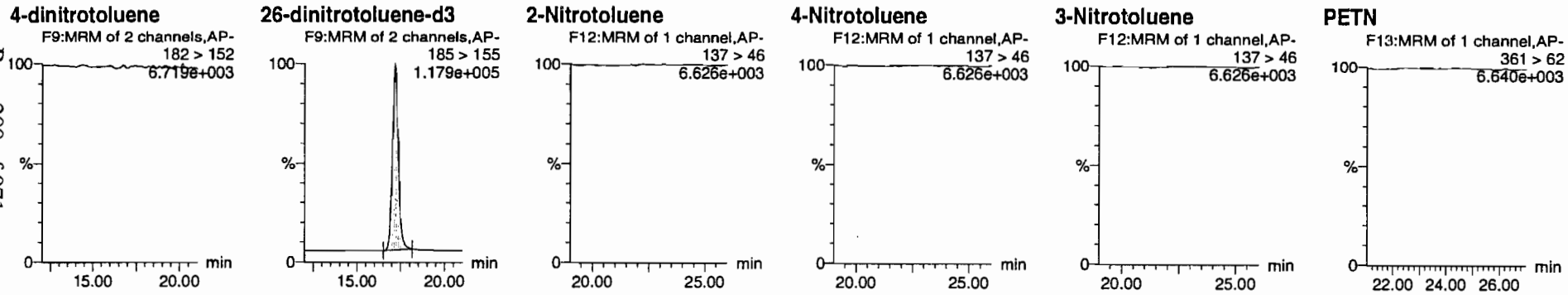

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
KIBLK17	HMX	176 > 102			7720.989									
KIBLK17	RDX	176 > 102			7720.989									
KIBLK17	135-Trinitrobenzene	213 > 183			7720.989									
KIBLK17	13-Dinitrobenzene-d4	172 > 142	11.92	7720.989		7720.989	7720.989	bb			597.3120	119.5	19.5	419.2
KIBLK17	13-Dinitrobenzene	168 > 138			7720.989									
KIBLK17	Tetryl	241 > 181			7720.989									
KIBLK17	Nitrobenzene	123 > 46			7720.989									
KIBLK17	4-Amino-26-dinitrotoluene	197 > 167			45097.461									
KIBLK17	2-Amino-46-dinitrotoluene	197 > 180			45097.461									
KIBLK17	246-Trinitrotoluene	227 > 210			45097.461									
KIBLK17	34-dinitrotoluene	182 > 152			45097.461									
KIBLK17	26-dinitrotoluene	182 > 152			45097.461									
KIBLK17	24-dinitrotoluene	182 > 152			45097.461									
KIBLK17	26-dinitrotoluene-d3	185 > 155	17.18	45097.461		45097.461	45097.461	bb			609.1156	121.8	21.8	3491.6
KIBLK17	2-Nitrotoluene	137 > 46			45097.461									
KIBLK17	4-Nitrotoluene	137 > 46			45097.461									
KIBLK17	3-Nitrotoluene	137 > 46			45097.461									
KIBLK17	PETN	361 > 62			45097.461									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–2937
Lab Code: GEL
Lab Sample ID: XIBLK18
Analysis Date: 05–MAY–10 03:54
GEL Data File: EXP0501170a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	485.252
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	511.495
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA4.qld, Time: Wed May 05 10:55:50 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501170a
Date: 05-May-2010
Time: 03:54:04
ID: XIBLK18
Vial: 1:1,A

MM 5/7/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.739e+003

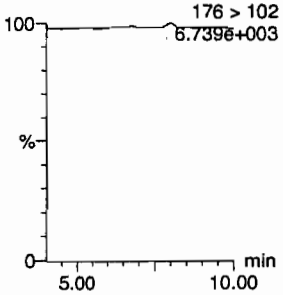

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.739e+003

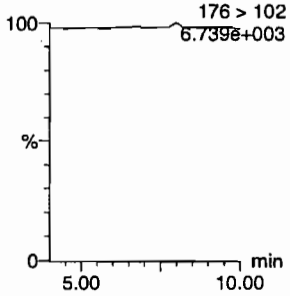

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.629e+003

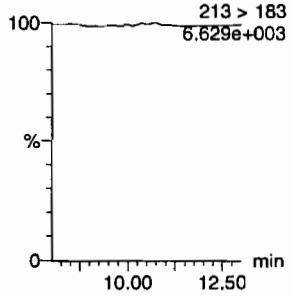

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.296e+004

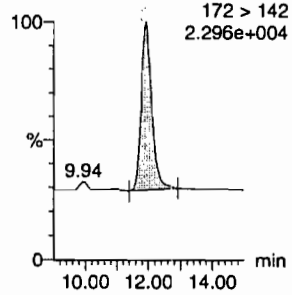

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.638e+003

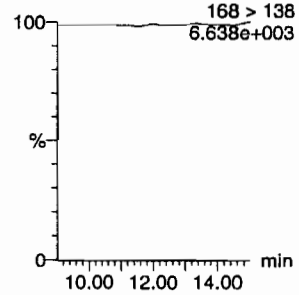

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.616e+003

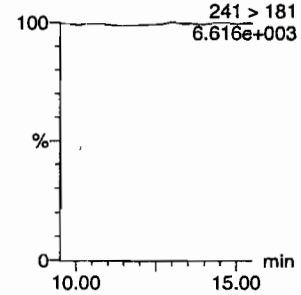

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.618e+003

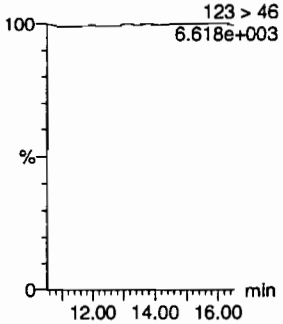

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.660e+003

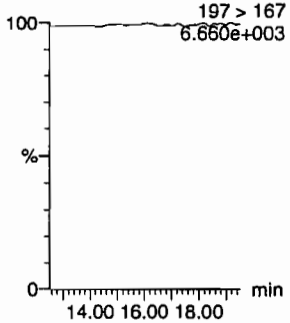

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.656e+003

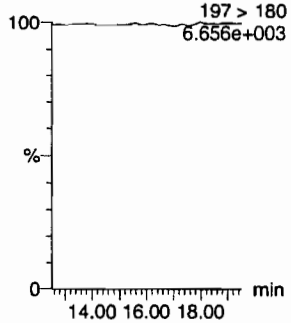

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.625e+003

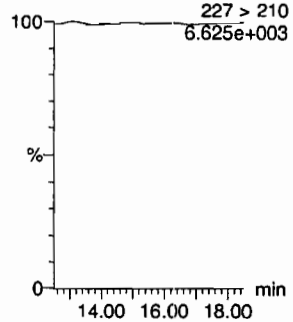

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.660e+003

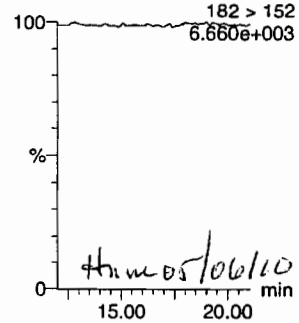

Hm 05/06/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.660e+003

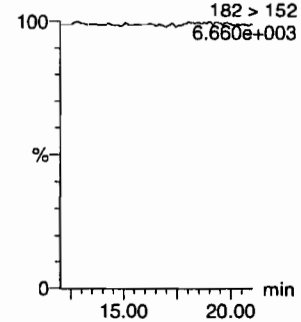

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA4.qld, Time: Wed May 05 10:55:50 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.660e+003

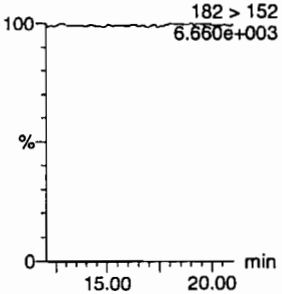

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
1.010e+005

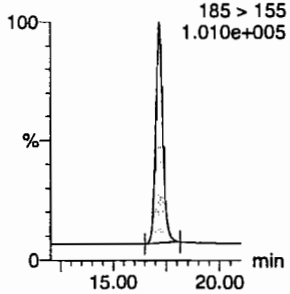

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.654e+003

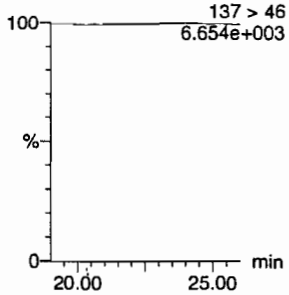

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.654e+003

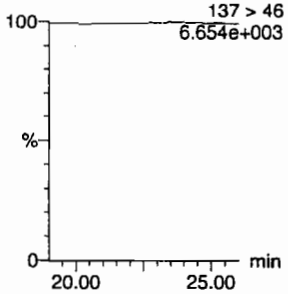

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.654e+003

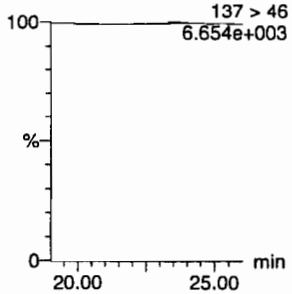

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.639e+003

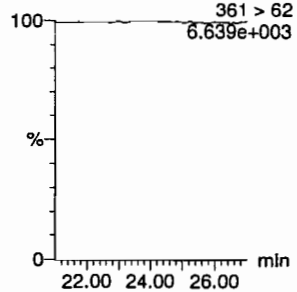

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK18	HMX	176 > 102			6272.474									
XIBLK18	RDX	176 > 102			6272.474									
XIBLK18	135-Trinitrobenzene	213 > 183			6272.474									
XIBLK18	13-Dinitrobenzene-d4	172 > 142	11.92	6272.474		6272.474	6272.474	bb			485.2519	97.1	-2.9	172.0
XIBLK18	13-Dinitrobenzene	168 > 138			6272.474									
XIBLK18	Tetryl	241 > 181			6272.474									
XIBLK18	Nitrobenzene	123 > 46			6272.474									
XIBLK18	4-Amino-26-dinitrotoluene	197 > 167			37869.902									
XIBLK18	2-Amino-46-dinitrotoluene	197 > 180			37869.902									
XIBLK18	246-Trinitrotoluene	227 > 210			37869.902									
XIBLK18	34-dinitrotoluene	182 > 152			37869.902									
XIBLK18	26-dinitrotoluene	182 > 152			37869.902									
XIBLK18	24-dinitrotoluene	182 > 152			37869.902									
XIBLK18	26-dinitrotoluene-d3	185 > 155	17.18	37869.902		37869.902	37869.902	bb			511.4955	102.3	2.3	2539.2
XIBLK18	2-Nitrotoluene	137 > 46			37869.902									
XIBLK18	4-Nitrotoluene	137 > 46			37869.902									
XIBLK18	3-Nitrotoluene	137 > 46			37869.902									
XIBLK18	PETN	361 > 62			37869.902									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2937

Lab Code: GEL

Lab Sample ID: XIBLK19

Analysis Date: 05-MAY-10 07:20

GEL Data File: EXP0501177a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	491.219
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	501.932
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA4.qld, Time: Wed May 05 10:55:50 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501177a
Date: 05-May-2010
Time: 07:20:46
ID: XIBLK19
Vial: 1:1,A

MM 5/5/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.813e+003

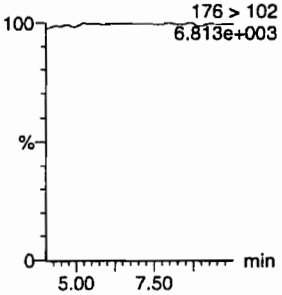

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.813e+003

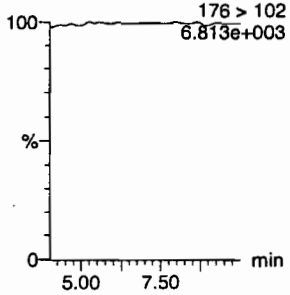

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.638e+003

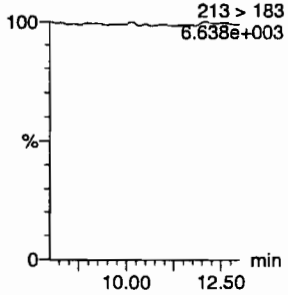

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.353e+004

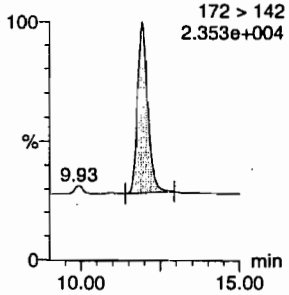

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.571e+003

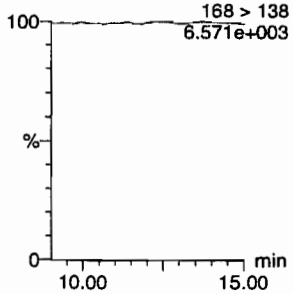

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.580e+003

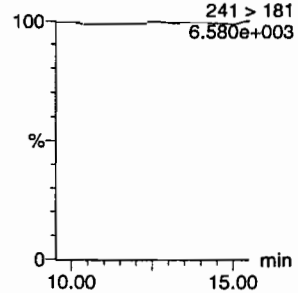

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.553e+003

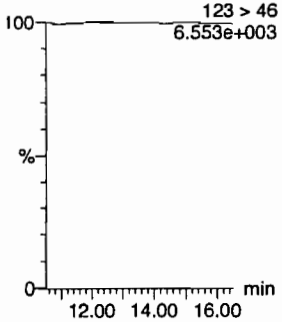

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.741e+003

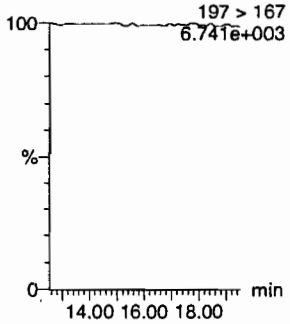

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.764e+003

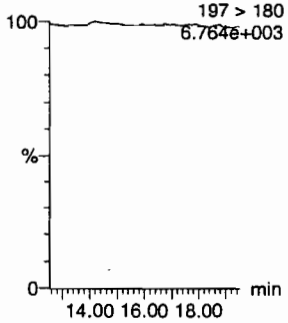

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.596e+003

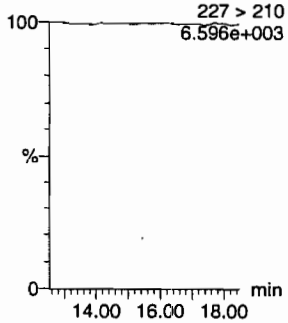

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.627e+003

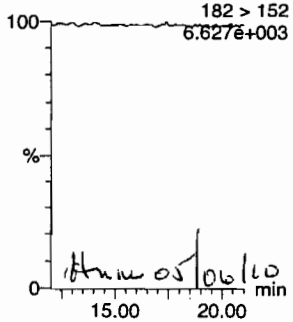

MM 05/06/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.627e+003

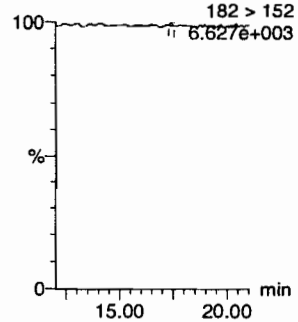

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA4.qld, Time: Wed May 05 10:55:50 2010

24-dinitrotoluene

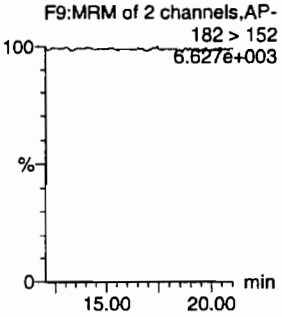

26-dinitrotoluene-d3

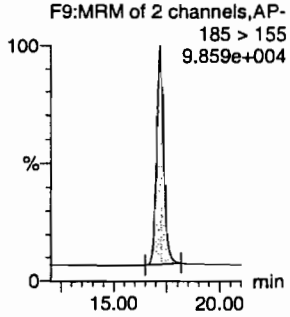

2-Nitrotoluene

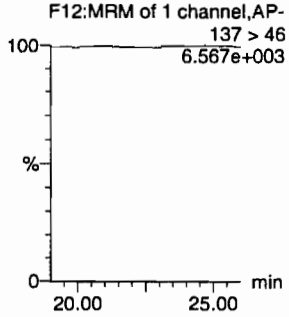

4-Nitrotoluene

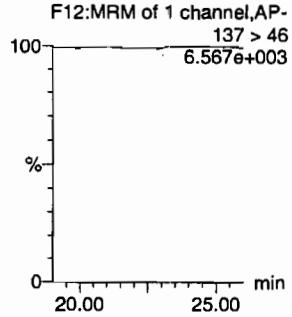

3-Nitrotoluene

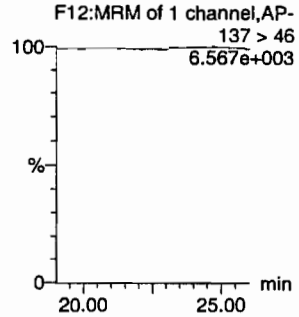

PETN

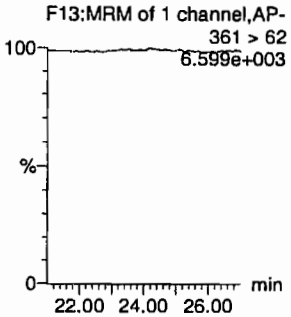

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
CIBLK19	HMX	176 > 102			6349.609									
CIBLK19	RDX	176 > 102			6349.609									
CIBLK19	135-Trinitrobenzene	213 > 183			6349.609									
CIBLK19	13-Dinitrobenzene-d4	172 > 142	11.92	6349.609		6349.609	6349.609	bb			491.2192	98.2	-1.8	427.0
CIBLK19	13-Dinitrobenzene	168 > 138			6349.609									
CIBLK19	Tetryl	241 > 181			6349.609									
CIBLK19	Nitrobenzene	123 > 46			6349.609									
CIBLK19	4-Amino-26-dinitrotoluene	197 > 167			37161.855									
CIBLK19	2-Amino-46-dinitrotoluene	197 > 180			37161.855									
CIBLK19	246-Trinitrotoluene	227 > 210			37161.855									
CIBLK19	34-dinitrotoluene	182 > 152			37161.855									
CIBLK19	26-dinitrotoluene	182 > 152			37161.855			MM-	05-May-10	10:50:04				
CIBLK19	24-dinitrotoluene	182 > 152			37161.855									
CIBLK19	26-dinitrotoluene-d3	185 > 155	17.19	37161.855		37161.855	37161.855	bb			501.9322	100.4	0.4	2971.1
CIBLK19	2-Nitrotoluene	137 > 46			37161.855									
CIBLK19	4-Nitrotoluene	137 > 46			37161.855									
CIBLK19	3-Nitrotoluene	137 > 46			37161.855									
CIBLK19	PETN	361 > 62			37161.855									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-2937
Lab Code: GEL
Lab Sample ID: XIBLK20
Analysis Date: 05-MAY-10 13:45
GEL Data File: EXP0501190a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	476.603
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	518.175
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

ataset: C:\MASSLYNX\New_Exp.PRO\050110expA4a.qld, Time: Thu May 06 10:39:49 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501190a
ate: 05-May-2010
ime: 13:45:21
): XIBLK20
ial: 1:1,A

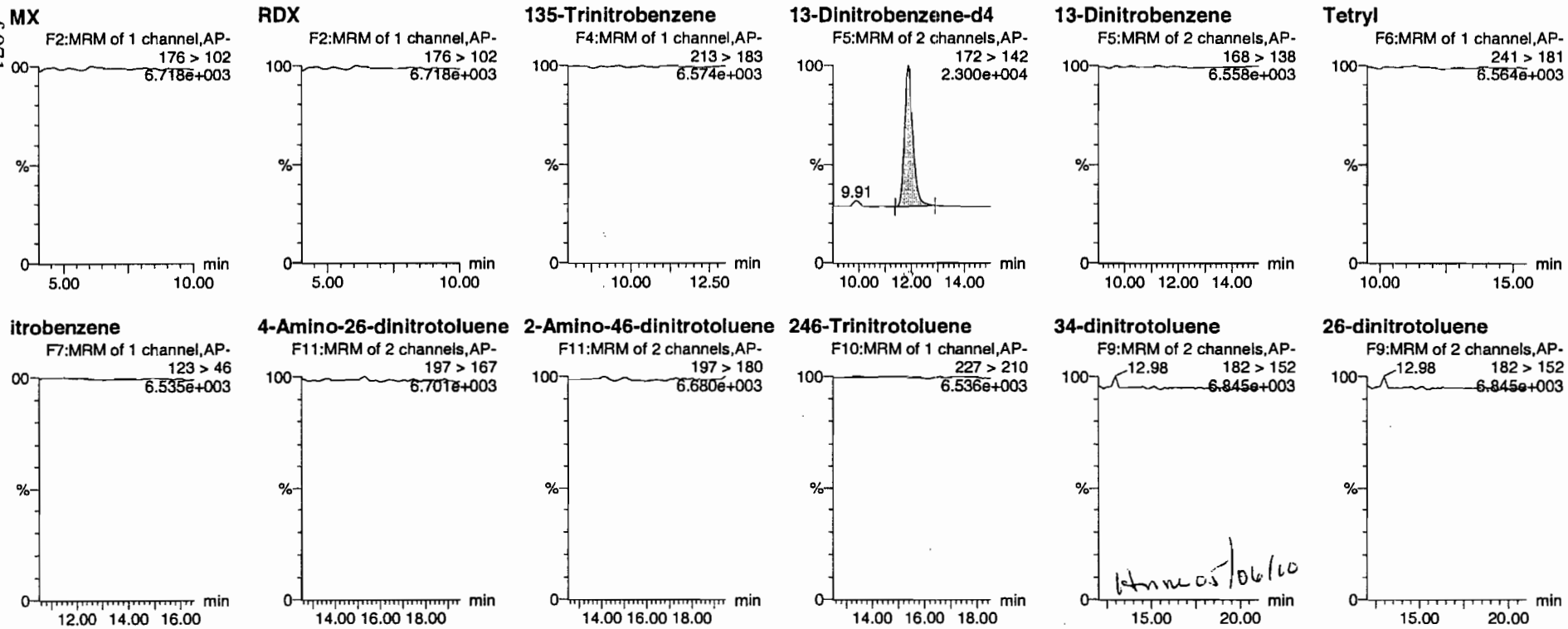

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA4a.qld, Time: Thu May 06 10:39:49 2010

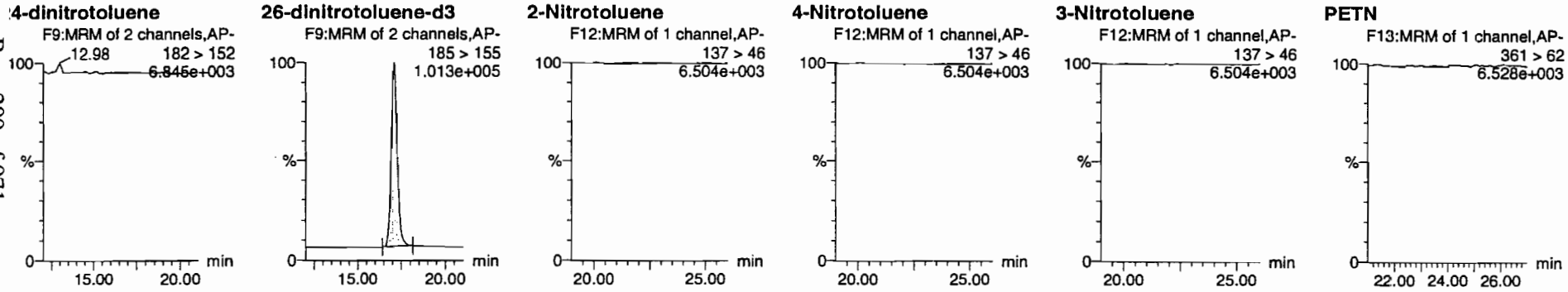

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK20	HMX	176 > 102			6160.673									
IBLK20	RDX	176 > 102			6160.673									
IBLK20	135-Trinitrobenzene	213 > 183			6160.673									
IBLK20	13-Dinitrobenzene-d4	172 > 142	11.87	6160.673		6160.673	6160.673	bb			476.6027	95.3	-4.7	695.7
IBLK20	13-Dinitrobenzene	168 > 138			6160.673									
IBLK20	Tetryl	241 > 181			6160.673									
IBLK20	Nitrobenzene	123 > 46			6160.673									
IBLK20	4-Amino-26-dinitrotoluene	197 > 167			38364.473									
IBLK20	2-Amino-46-dinitrotoluene	197 > 180			38364.473									
IBLK20	246-Trinitrotoluene	227 > 210			38364.473									
IBLK20	34-dinitrotoluene	182 > 152			38364.473									
IBLK20	26-dinitrotoluene	182 > 152			38364.473									
IBLK20	24-dinitrotoluene	182 > 152			38364.473									
IBLK20	26-dinitrotoluene-d3	185 > 155	17.09	38364.473		38364.473	38364.473	bb			518.1755	103.6	3.6	2228.4
IBLK20	2-Nitrotoluene	137 > 46			38364.473									
IBLK20	4-Nitrotoluene	137 > 46			38364.473									
IBLK20	3-Nitrotoluene	137 > 46			38364.473									
IBLK20	PETN	361 > 62			38364.473									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2937

Lab Code: GEL

Lab Sample ID: XIBLK21

Analysis Date: 05–MAY–10 20:08

GEL Data File: EXP0501203a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	456.814
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	460.682
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA5.qld, Time: Thu May 06 10:30:00 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501203a
Date: 05-May-2010
Time: 20:08:58
ID: XIBLK21
Vial: 1:1,A

MAP 5/6/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.817e+003

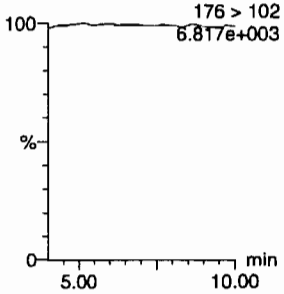

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.817e+003

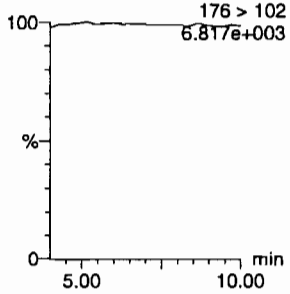

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.641e+003

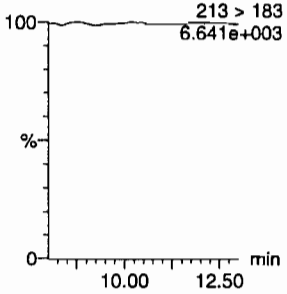

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.220e+004

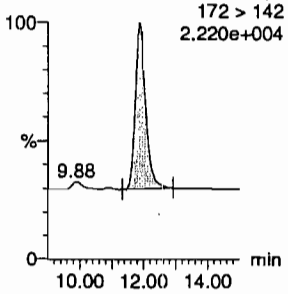

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.614e+003

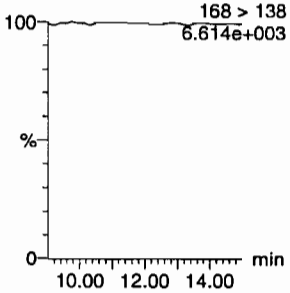

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.601e+003

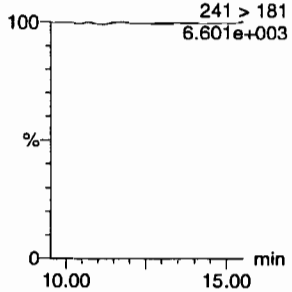

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.618e+003

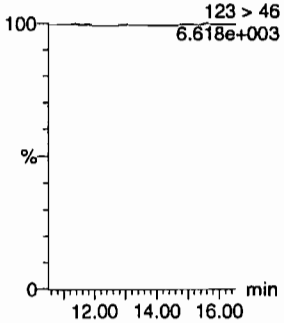

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.828e+003

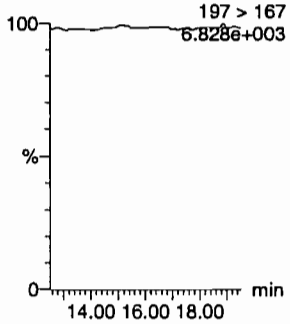

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.785e+003

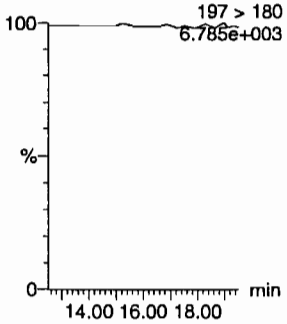

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.647e+003

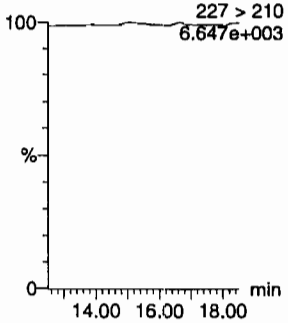

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.677e+003

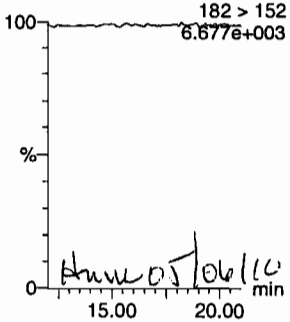

Hmw 05/06/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.677e+003

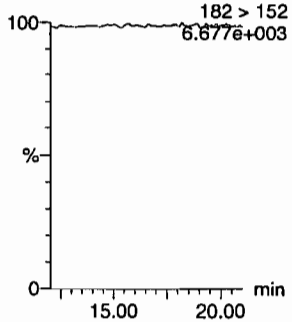

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uantify Sample Report
iEL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\050110expA5.qld, Time: Thu May 06 10:30:00 2010

4-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.677e+003

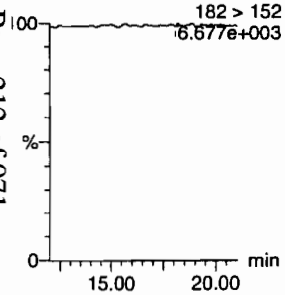

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
9.073e+004

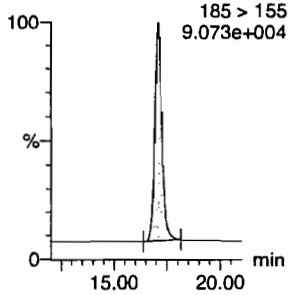

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.622e+003

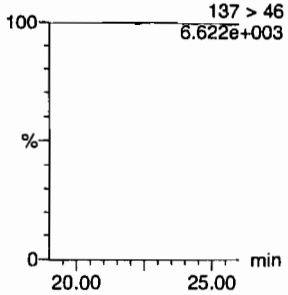

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.622e+003

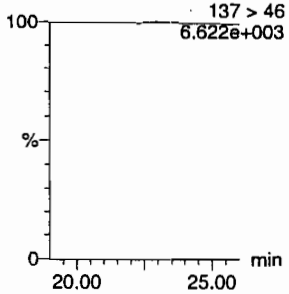

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.622e+003

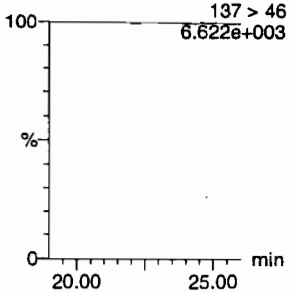

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.621e+003

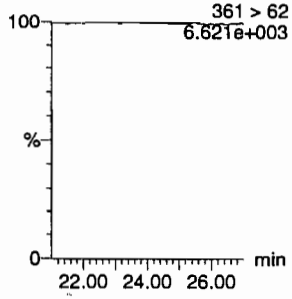

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK21	HMX	176 > 102			5904.875									
IBLK21	RDX	176 > 102			5904.875									
IBLK21	135-Trinitrobenzene	213 > 183			5904.875									
IBLK21	13-Dinitrobenzene-d4	172 > 142	11.87	5904.875		5904.875	5904.875	bb			456.8136	91.4	-8.6	568.5
IBLK21	13-Dinitrobenzene	168 > 138			5904.875									
IBLK21	Tetryl	241 > 181			5904.875									
IBLK21	Nitrobenzene	123 > 46			5904.875									
IBLK21	4-Amino-26-dinitrotoluene	197 > 167			34107.809									
IBLK21	2-Amino-46-dinitrotoluene	197 > 180			34107.809									
IBLK21	246-Trinitrotoluene	227 > 210			34107.809									
IBLK21	34-dinitrotoluene	182 > 152			34107.809									
IBLK21	26-dinitrotoluene	182 > 152			34107.809									
IBLK21	24-dinitrotoluene	182 > 152			34107.809			MM-	06-May-10	10:09:03				
IBLK21	26-dinitrotoluene-d3	185 > 155	17.09	34107.809		34107.809	34107.809	bb			460.6822	92.1	-7.9	3226.2
IBLK21	2-Nitrotoluene	137 > 46			34107.809									
IBLK21	4-Nitrotoluene	137 > 46			34107.809									
IBLK21	3-Nitrotoluene	137 > 46			34107.809									
IBLK21	PETN	361 > 62			34107.809									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2937

Lab Code: GEL

Lab Sample ID: XIBLK22

Analysis Date: 06–MAY–10 02:32

GEL Data File: EXP0501216a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	468.834
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	477.477
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA5.qld, Time: Thu May 06 10:30:00 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501216a
Date: 06-May-2010
Time: 02:32:17
ID: XIBLK22
Vial: 1:1,A

MMT 5/6/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.221e+003

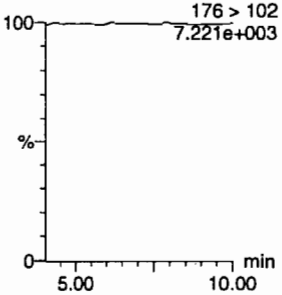

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.221e+003

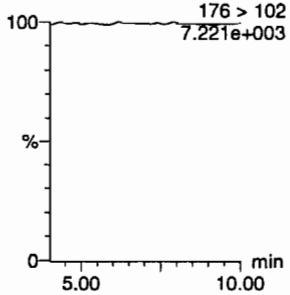

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
7.076e+003

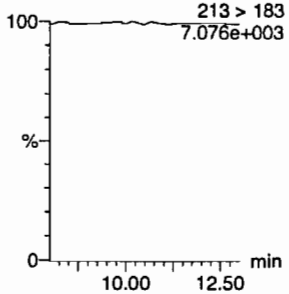

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.327e+004

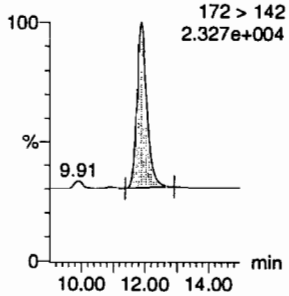

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.041e+003

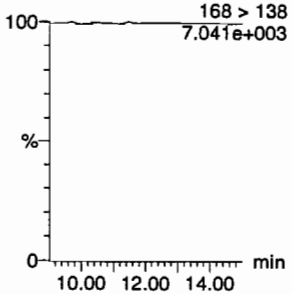

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.036e+003

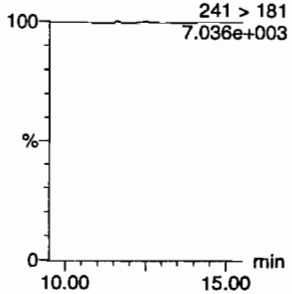

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
7.069e+003

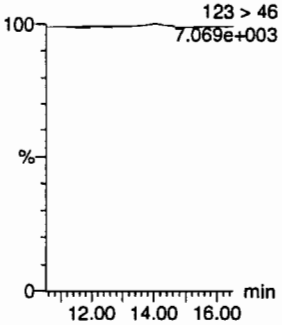

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.218e+003

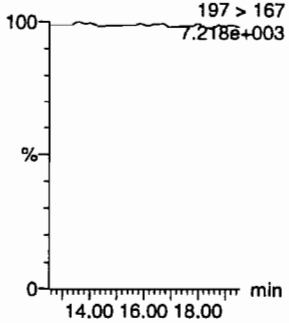

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.171e+003

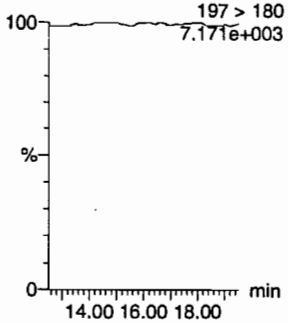

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.068e+003

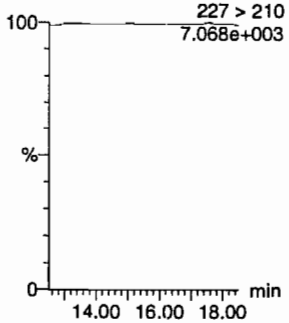

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.117e+003

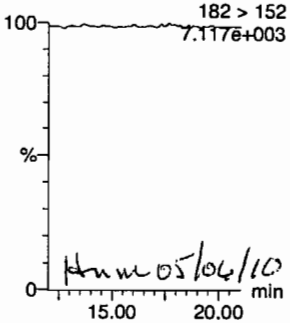

Hmm 05/06/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.117e+003

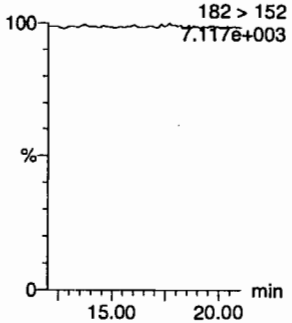

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA5.qld, Time: Thu May 06 10:30:00 2010

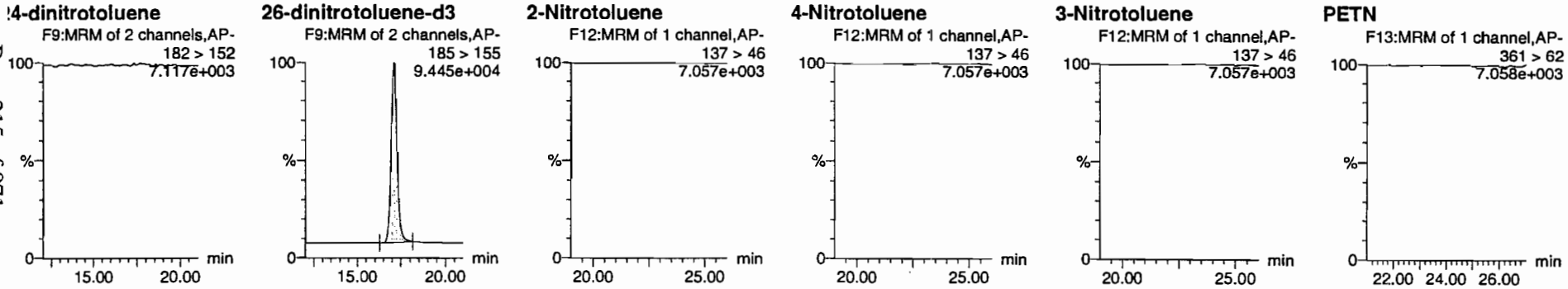

D	Name	Trace	RT	Area	IS Area	Abs:Resp	Response	Flags	Mod:Date	Mod:Time	ng/mL	%Rec	%Dev	S/N
(IBLK22	HMX	176 > 102			6060.255									
(IBLK22	RDX	176 > 102			6060.255									
(IBLK22	135-Trinitrobenzene	213 > 183			6060.255									
(IBLK22	13-Dinitrobenzene-d4	172 > 142	11.89	6060.255		6060.255	6060.255	bb			468.8341	93.8	-6.2	400.6
(IBLK22	13-Dinitrobenzene	168 > 138			6060.255									
(IBLK22	Tetryl	241 > 181			6060.255									
(IBLK22	Nitrobenzene	123 > 46			6060.255									
(IBLK22	4-Amino-26-dinitrotoluene	197 > 167			35351.242									
(IBLK22	2-Amino-46-dinitrotoluene	197 > 180			35351.242									
(IBLK22	246-Trinitrotoluene	227 > 210			35351.242									
(IBLK22	34-dinitrotoluene	182 > 152			35351.242									
(IBLK22	26-dinitrotoluene	182 > 152			35351.242									
(IBLK22	24-dinitrotoluene	182 > 152			35351.242									
(IBLK22	26-dinitrotoluene-d3	185 > 155	17.09	35351.242		35351.242	35351.242	bb			477.4768	95.5	-4.5	4454.4
(IBLK22	2-Nitrotoluene	137 > 46			35351.242									
(IBLK22	4-Nitrotoluene	137 > 46			35351.242									
(IBLK22	3-Nitrotoluene	137 > 46			35351.242									
(IBLK22	PETN	361 > 62			35351.242									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–2937
Lab Code: GEL
Lab Sample ID: XIBLK23
Analysis Date: 06–MAY–10 08:55
GEL Data File: EXP0501229a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	540.432
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	545.969
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

luantify Sample Report
iEL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\050110expA5.qld, Time: Thu May 06 10:30:00 2010

lame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501229a
ate: 06-May-2010
ime: 08:55:39
): XIBLK23
ial: 1:1,A

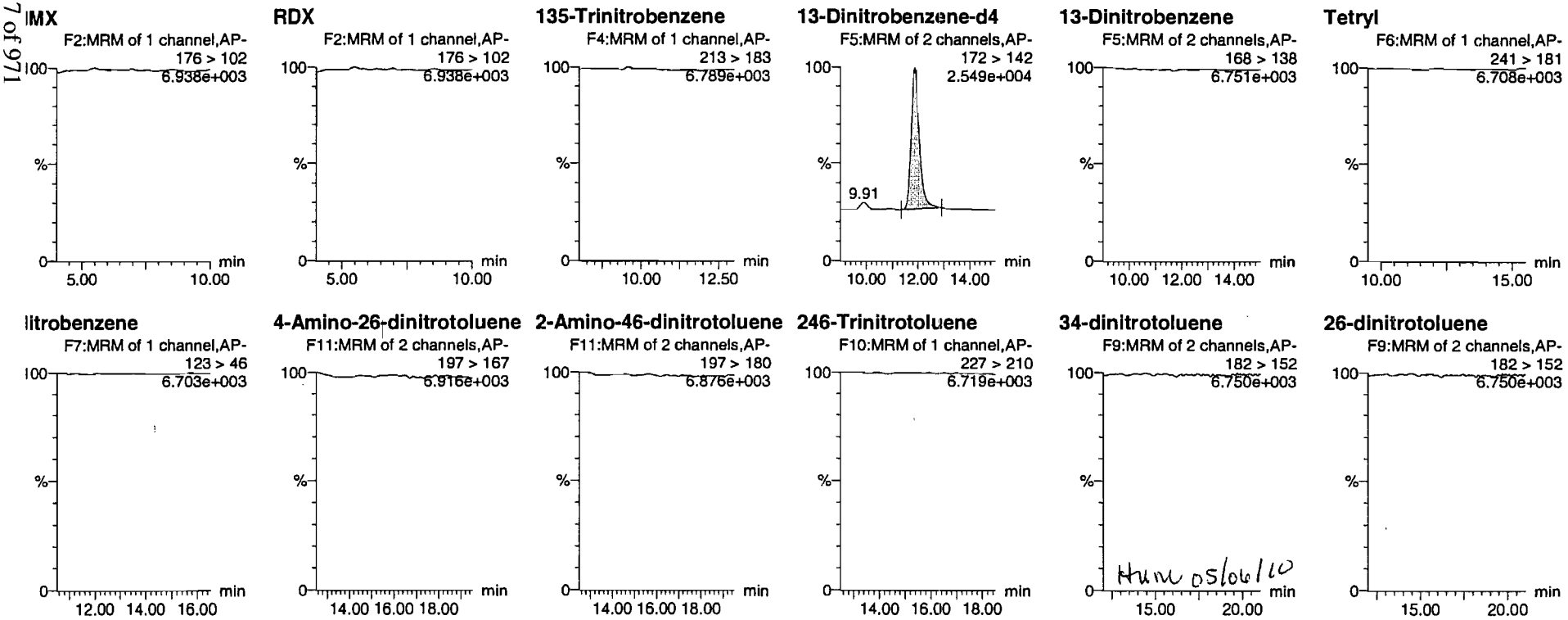

iEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA5.qld, Time: Thu May 06 10:30:00 2010

!4-dinitrotoluene

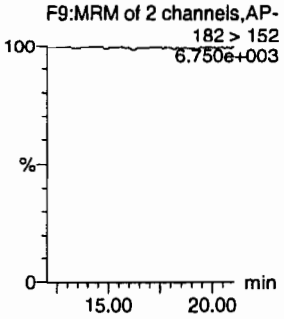

26-dinitrotoluene-d3

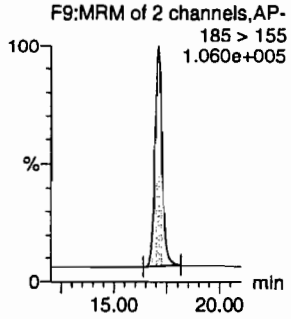

2-Nitrotoluene

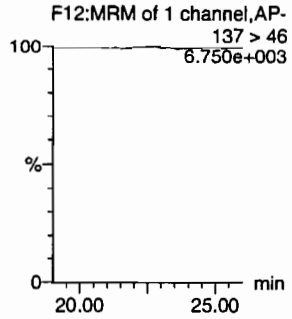

4-Nitrotoluene

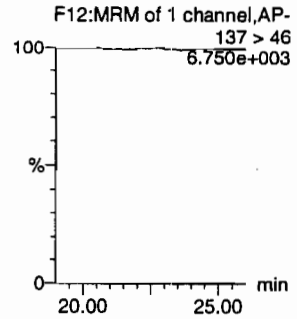

3-Nitrotoluene

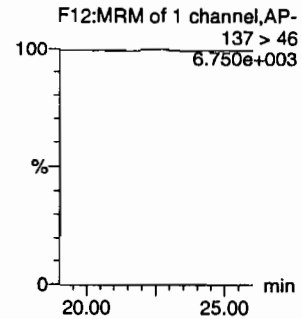

PETN

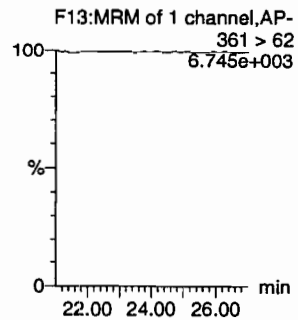

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK23	HMX	176 > 102			6985.749									
XIBLK23	RDX	176 > 102			6985.749									
XIBLK23	135-Trinitrobenzene	213 > 183			6985.749									
XIBLK23	13-Dinitrobenzene-d4	172 > 142	11.87	6985.749		6985.749	6985.749	bb			540.4323	108.1	8.1	920.8
XIBLK23	13-Dinitrobenzene	168 > 138			6985.749									
XIBLK23	Tetryl	241 > 181			6985.749									
XIBLK23	Nitrobenzene	123 > 46			6985.749									
XIBLK23	4-Amino-26-dinitrotoluene	197 > 167			40422.211									
XIBLK23	2-Amino-46-dinitrotoluene	197 > 180			40422.211									
XIBLK23	246-Trinitrotoluene	227 > 210			40422.211									
XIBLK23	34-dinitrotoluene	182 > 152			40422.211									
XIBLK23	26-dinitrotoluene	182 > 152			40422.211									
XIBLK23	24-dinitrotoluene	182 > 152			40422.211									
XIBLK23	26-dinitrotoluene-d3	185 > 155	17.09	40422.211		40422.211	40422.211	bb			545.9686	109.2	9.2	3894.1
XIBLK23	2-Nitrotoluene	137 > 46			40422.211									
XIBLK23	4-Nitrotoluene	137 > 46			40422.211									
XIBLK23	3-Nitrotoluene	137 > 46			40422.211									
XIBLK23	PETN	361 > 62			40422.211									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2937

Lab Code: GEL

Lab Sample ID: XIBLK24

Analysis Date: 06–MAY–10 11:23

GEL Data File: EXP0501234a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	476.125
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	489.014
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA6.qld, Time: Thu May 06 12:25:42 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501234a
Date: 06-May-2010
Time: 11:23:18
ID: XIBLK24
Vial: 1:1,A

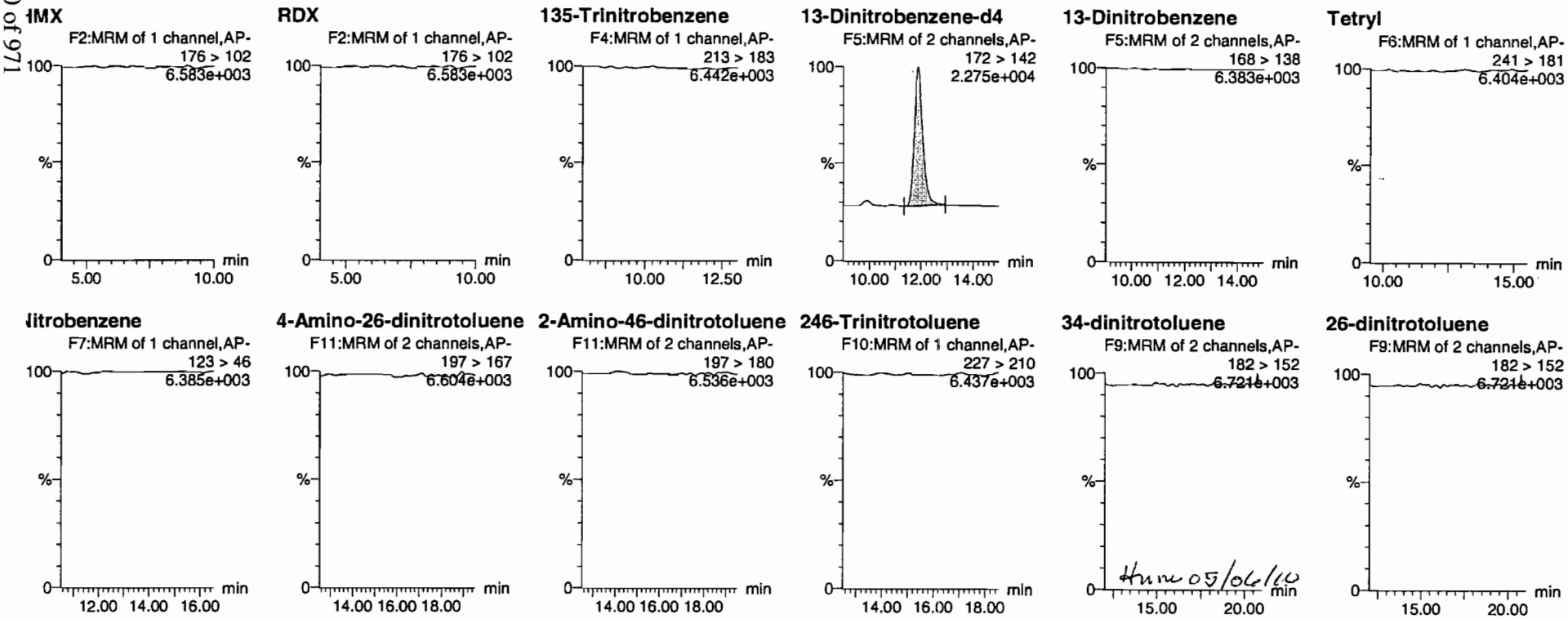

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA6.qld, Time: Thu May 06 12:25:42 2010

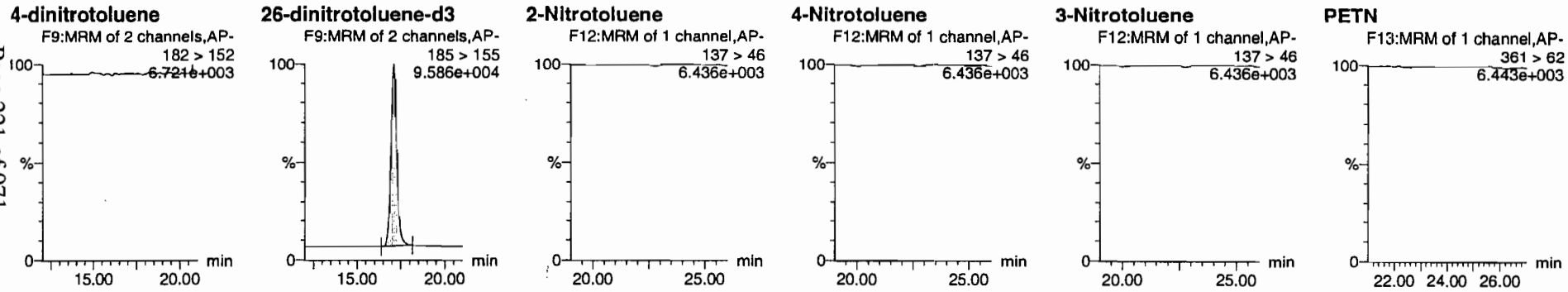

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK24	HMX	176 > 102			6154.498									
IBLK24	RDX	176 > 102			6154.498									
IBLK24	135-Trinitrobenzene	213 > 183			6154.498									
IBLK24	13-Dinitrobenzene-d4	172 > 142	11.87	6154.498		6154.498	6154.498	bb			476.1250	95.2	-4.8	395.5
IBLK24	13-Dinitrobenzene	168 > 138			6154.498									
IBLK24	Tetryl	241 > 181			6154.498									
IBLK24	Nitrobenzene	123 > 46			6154.498									
IBLK24	4-Amino-26-dinitrotoluene	197 > 167			36205.457									
IBLK24	2-Amino-46-dinitrotoluene	197 > 180			36205.457									
IBLK24	246-Trinitrotoluene	227 > 210			36205.457									
IBLK24	34-dinitrotoluene	182 > 152			36205.457									
IBLK24	26-dinitrotoluene	182 > 152			36205.457									
IBLK24	24-dinitrotoluene	182 > 152			36205.457									
IBLK24	26-dinitrotoluene-d3	185 > 155	17.09	36205.457		36205.457	36205.457	bb			489.0144	97.8	-2.2	1894.4
IBLK24	2-Nitrotoluene	137 > 46			36205.457									
IBLK24	4-Nitrotoluene	137 > 46			36205.457									
IBLK24	3-Nitrotoluene	137 > 46			36205.457									
IBLK24	PETN	361 > 62			36205.457									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2937

Lab Code: GEL

Lab Sample ID: XIBLK25

Analysis Date: 06-MAY-10 17:46

GEL Data File: EXP0501247a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	489.369
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	524.159
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501247a
Date: 06-May-2010
Time: 17:46:39
ID: XIBLK25
Vial: 1:1,A

HMT 5/7/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.483e+003

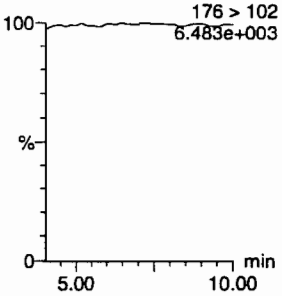

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.483e+003

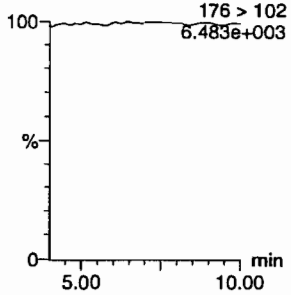

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.312e+003

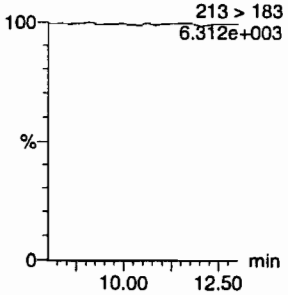

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.317e+004

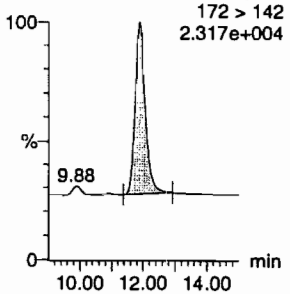

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.281e+003

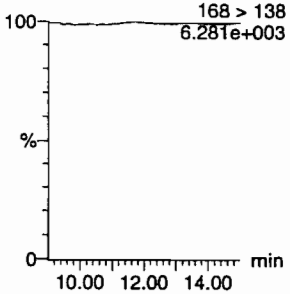

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.275e+003

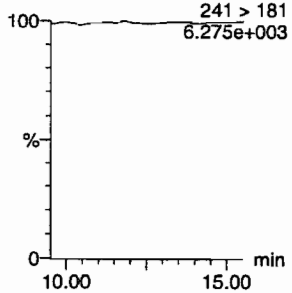

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.278e+003

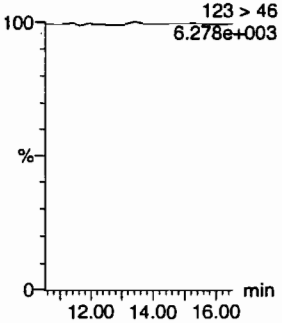

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.410e+003

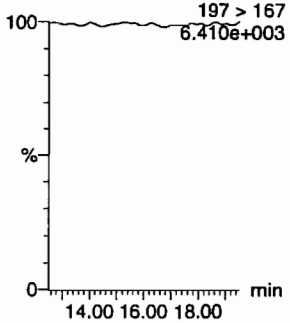

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.446e+003

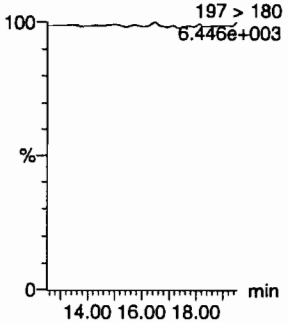

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.284e+003

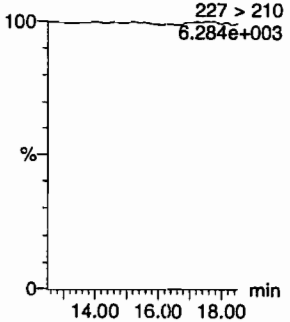

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.321e+003

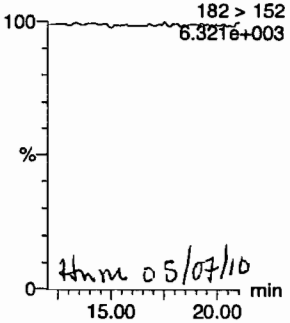

Hmm 05/07/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.321e+003

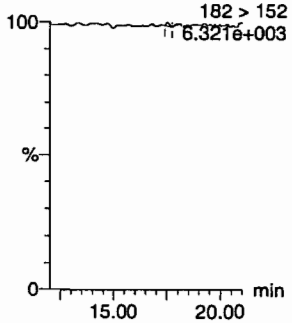

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ataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

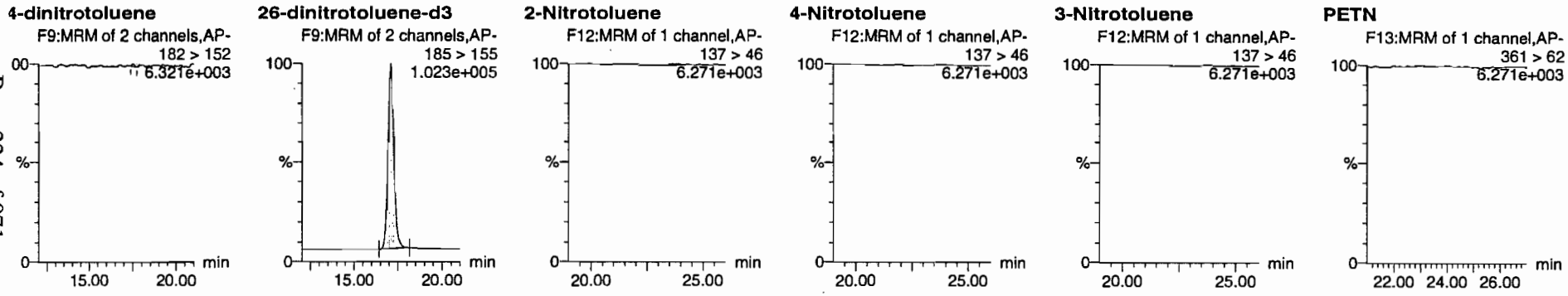

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
IBLK25	HMX	176 > 102			6325.692									
IBLK25	RDX	176 > 102			6325.692									
IBLK25	135-Trinitrobenzene	213 > 183			6325.692									
IBLK25	13-Dinitrobenzene-d4	172 > 142	11.87	6325.692		6325.692	6325.692	bb			489.3689	97.9	-2.1	905.3
IBLK25	13-Dinitrobenzene	168 > 138			6325.692									
IBLK25	Tetryl	241 > 181			6325.692									
IBLK25	Nitrobenzene	123 > 46			6325.692									
IBLK25	4-Amino-26-dinitrotoluene	197 > 167			38807.461									
IBLK25	2-Amino-46-dinitrotoluene	197 > 180			38807.461									
IBLK25	246-Trinitrotoluene	227 > 210			38807.461									
IBLK25	34-dinitrotoluene	182 > 152			38807.461									
IBLK25	26-dinitrotoluene	182 > 152			38807.461			MM-	07-May-10	11:01:35				
IBLK25	24-dinitrotoluene	182 > 152			38807.461			MM-	07-May-10	11:12:26				
IBLK25	26-dinitrotoluene-d3	185 > 155	17.09	38807.461		38807.461	38807.461	bb			524.1588	104.8	4.8	2184.2
IBLK25	2-Nitrotoluene	137 > 46			38807.461									
IBLK25	4-Nitrotoluene	137 > 46			38807.461									
IBLK25	3-Nitrotoluene	137 > 46			38807.461									
IBLK25	PETN	361 > 62			38807.461									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2937

Lab Code: GEL

Lab Sample ID: XIBLK26

Analysis Date: 07-MAY-10 00:10

GEL Data File: EXP0501260a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	464.532
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	471.024
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

ataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501260a
ate: 07-May-2010
ime: 00:10:03
D: XIBLK26
ial: 1:1,A

MAT 5/7/10

MX
F2:MRM of 1 channel,AP-
176 > 102
7.060e+003

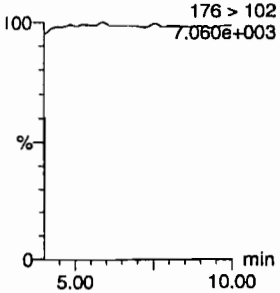

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.060e+003

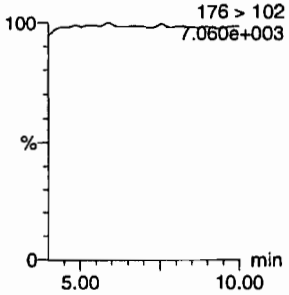

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.518e+003

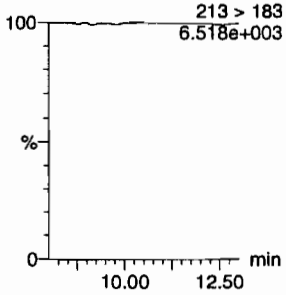

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.251e+004

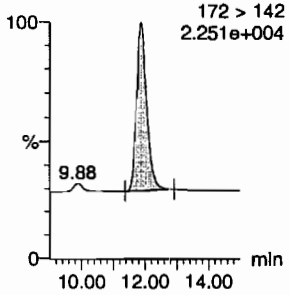

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.528e+003

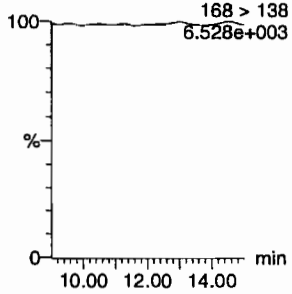

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.492e+003

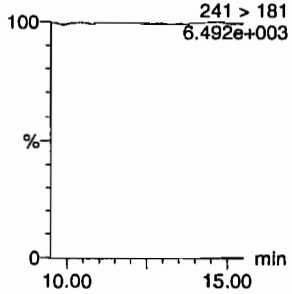

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.493e+003

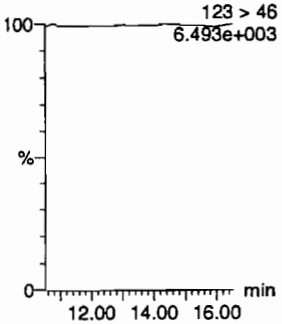

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.677e+003

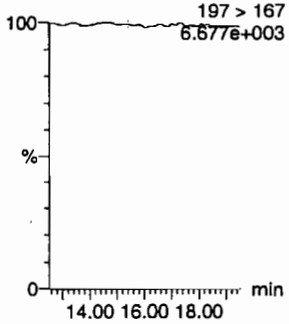

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.704e+003

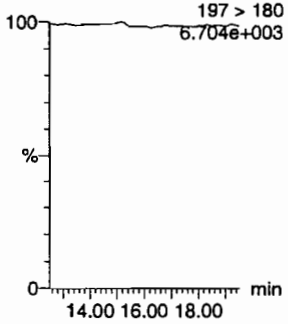

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.509e+003

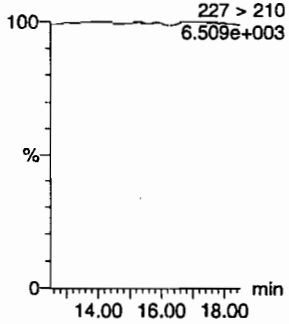

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.538e+003

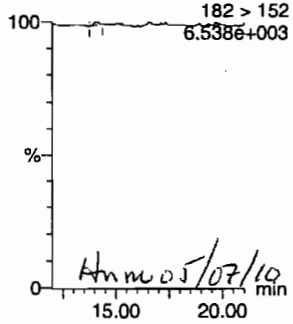

Hmm 05/07/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.538e+003

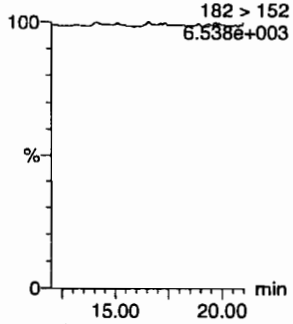

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

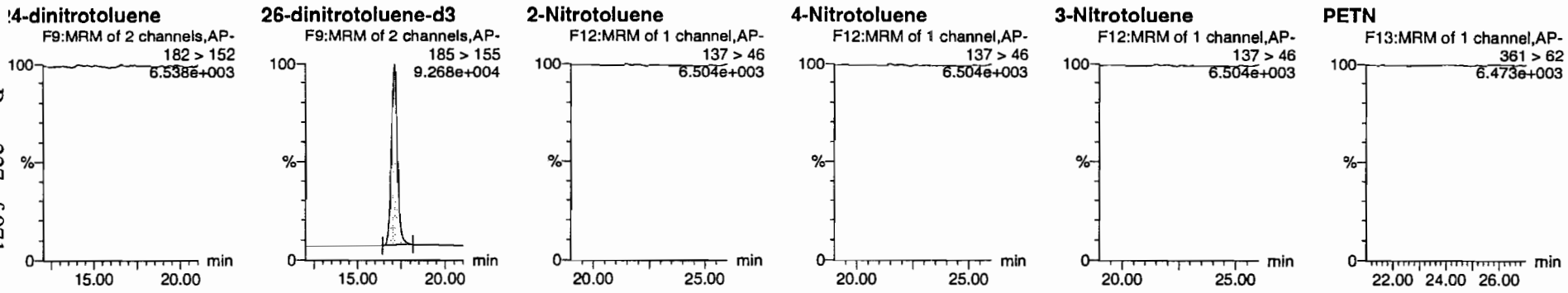

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
CIBLK26	HMX	176 > 102			6004.648									
CIBLK26	RDX	176 > 102			6004.648									
CIBLK26	135-Trinitrobenzene	213 > 183			6004.648									
CIBLK26	13-Dinitrobenzene-d4	172 > 142	11.87	6004.648		6004.648	6004.648	bb			464.5323	92.9	-7.1	213.6
CIBLK26	13-Dinitrobenzene	168 > 138			6004.648									
CIBLK26	Tetryl	241 > 181			6004.648									
CIBLK26	Nitrobenzene	123 > 46			6004.648									
CIBLK26	4-Amino-26-dinitrotoluene	197 > 167			34873.512									
CIBLK26	2-Amino-46-dinitrotoluene	197 > 180			34873.512									
CIBLK26	246-Trinitrotoluene	227 > 210			34873.512									
CIBLK26	34-dinitrotoluene	182 > 152			34873.512			MM-	07-May-10	11:00:16				
CIBLK26	26-dinitrotoluene	182 > 152			34873.512									
CIBLK26	24-dinitrotoluene	182 > 152			34873.512									
CIBLK26	26-dinitrotoluene-d3	185 > 155	17.09	34873.512		34873.512	34873.512	bb			471.0243	94.2	-5.8	2822.3
CIBLK26	2-Nitrotoluene	137 > 46			34873.512									
CIBLK26	4-Nitrotoluene	137 > 46			34873.512									
CIBLK26	3-Nitrotoluene	137 > 46			34873.512									
CIBLK26	PETN	361 > 62			34873.512									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2937

Lab Code: GEL

Lab Sample ID: XIBLK27

Analysis Date: 07–MAY–10 03:36

GEL Data File: EXP0501267a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	580.305
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	560.135
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501267a
Date: 07-May-2010
Time: 03:36:35
ID: XIBLK27
Vial: 1:1,A

MAT 5/7/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.040e+003

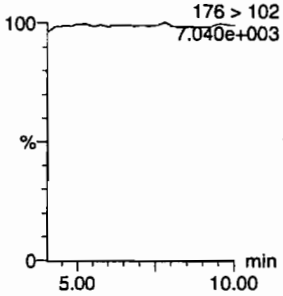

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.040e+003

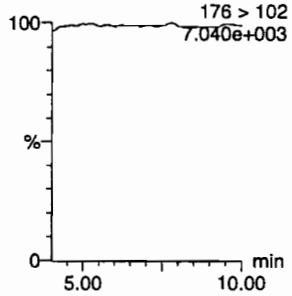

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.610e+003

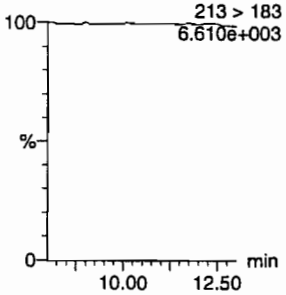

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.656e+004

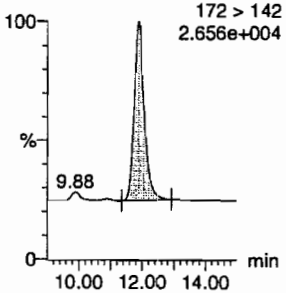

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.563e+003

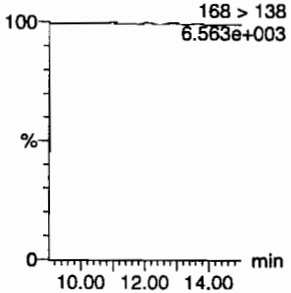

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.557e+003

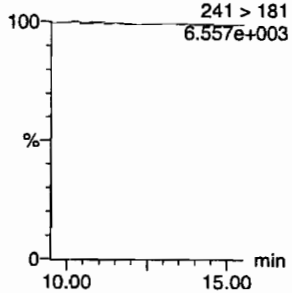

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.561e+003

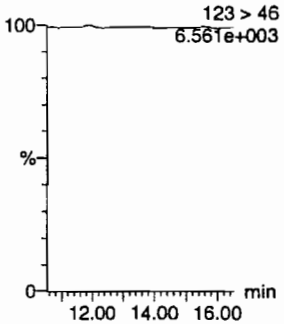

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.769e+003

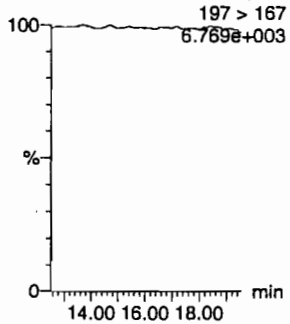

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.739e+003

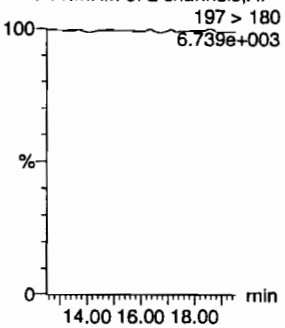

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.553e+003

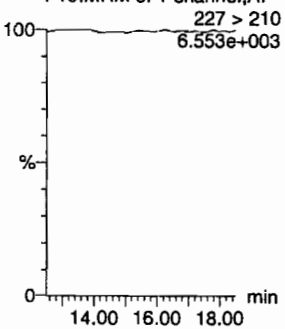

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.591e+003

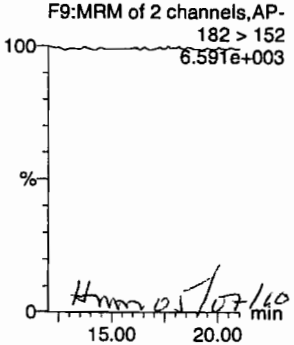

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.591e+003

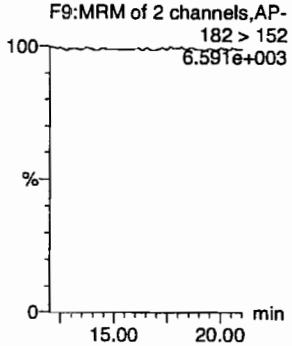

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.591e+003

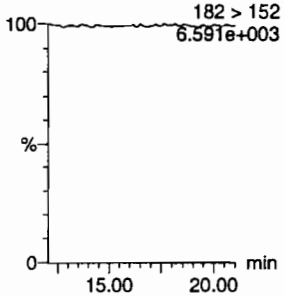

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
1.083e+005

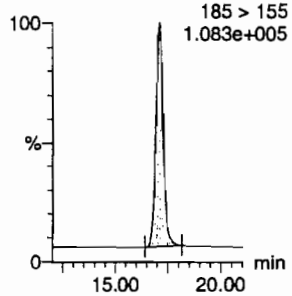

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.556e+003

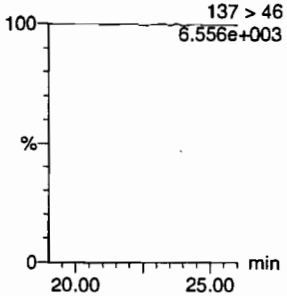

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.556e+003

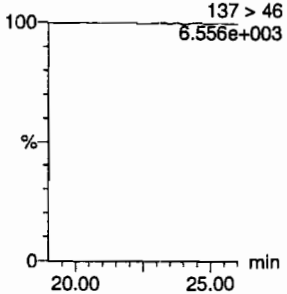

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.556e+003

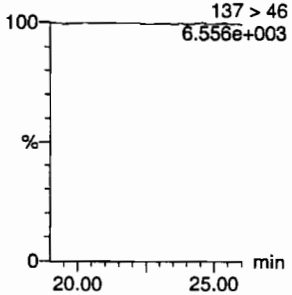

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.545e+003

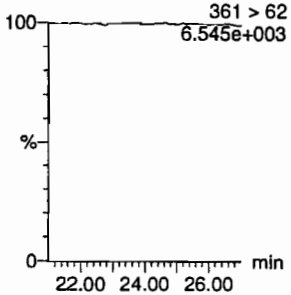

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK27	HMX	176 > 102			7501.151									
XIBLK27	RDX	176 > 102			7501.151									
XIBLK27	135-Trinitrobenzene	213 > 183			7501.151									
XIBLK27	13-Dinitrobenzene-d4	172 > 142	11.87	7501.151		7501.151	7501.151	bb			580.3049	116.1	16.1	573.5
XIBLK27	13-Dinitrobenzene	168 > 138			7501.151									
XIBLK27	Tetryl	241 > 181			7501.151									
XIBLK27	Nitrobenzene	123 > 46			7501.151									
XIBLK27	4-Amino-26-dinitrotoluene	197 > 167			41471.039									
XIBLK27	2-Amino-46-dinitrotoluene	197 > 180			41471.039									
XIBLK27	246-Trinitrotoluene	227 > 210			41471.039									
XIBLK27	34-dinitrotoluene	182 > 152			41471.039									
XIBLK27	26-dinitrotoluene	182 > 152			41471.039									
XIBLK27	24-dinitrotoluene	182 > 152			41471.039									
XIBLK27	26-dinitrotoluene-d3	185 > 155	17.09	41471.039		41471.039	41471.039	bb			560.1348	112.0	12.0	3457.2
XIBLK27	2-Nitrotoluene	137 > 46			41471.039									
XIBLK27	4-Nitrotoluene	137 > 46			41471.039									
XIBLK27	3-Nitrotoluene	137 > 46			41471.039									
XIBLK27	PETN	361 > 62			41471.039									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2937

Lab Code: GEL

Lab Sample ID: XIBLK28

Analysis Date: 07–MAY–10 05:34

GEL Data File: EXP0501271a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	491.658
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	506.412
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501271a
Date: 07-May-2010
Time: 05:34:31
ID: XIBLK28
Vial: 1:1,A

MMT 5/7/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.865e+003

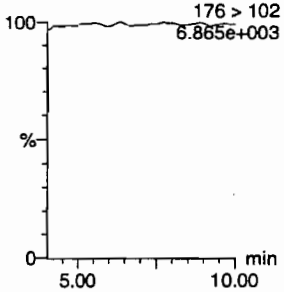

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.865e+003

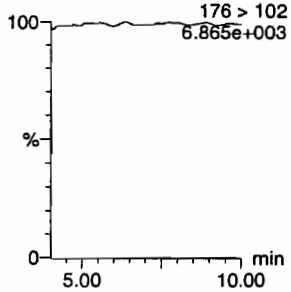

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.596e+003

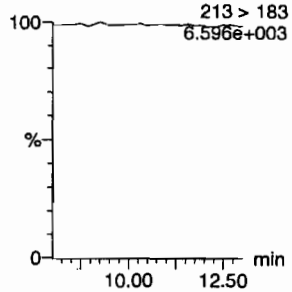

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.348e+004

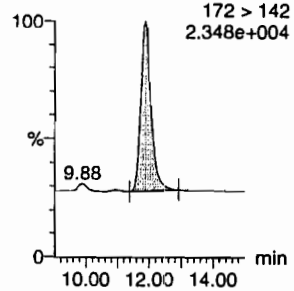

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.535e+003

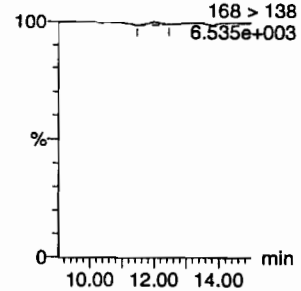

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.616e+003

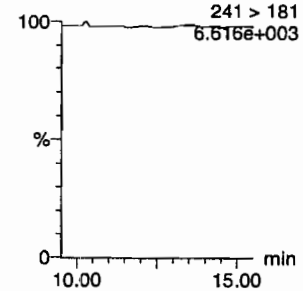

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.518e+003

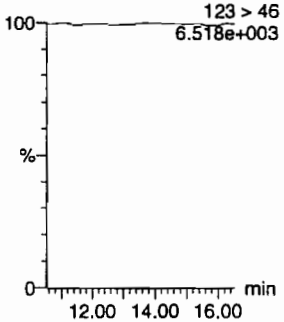

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.708e+003

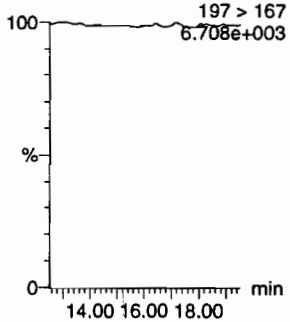

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.719e+003

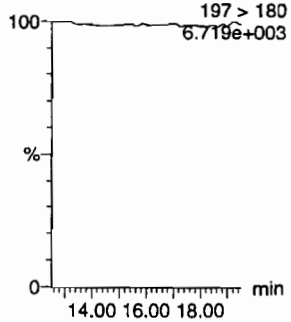

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.544e+003

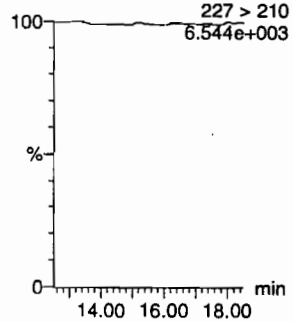

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.582e+003

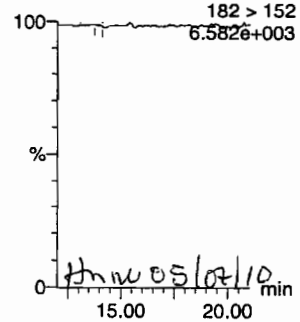

HMW 05/07/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.582e+003

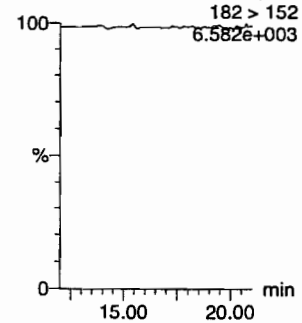

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.582e+003

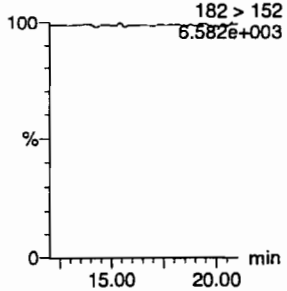

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
9.875e+004

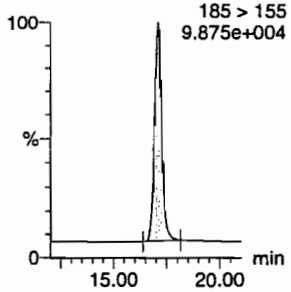

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.538e+003

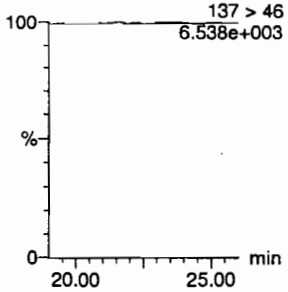

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.538e+003

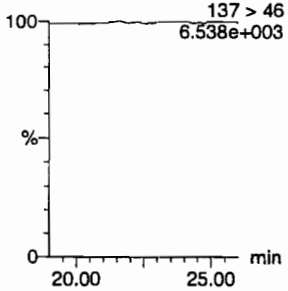

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.538e+003

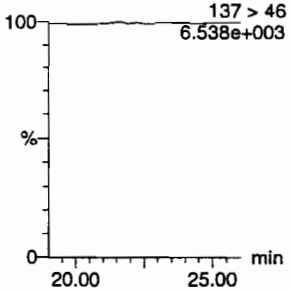

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.548e+003

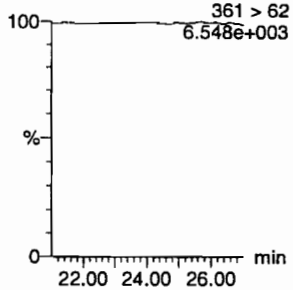

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK28	HMX	176 > 102			6355.286									
XIBLK28	RDX	176 > 102			6355.286									
XIBLK28	135-Trinitrobenzene	213 > 183			6355.286									
XIBLK28	13-Dinitrobenzene-d4	172 > 142	11.87	6355.286		6355.286	6355.286	bb			491.6584	98.3	-1.7	417.8
XIBLK28	13-Dinitrobenzene	168 > 138			6355.286			MM-	07-May-10	10:40:59				
XIBLK28	Tetryl	241 > 181			6355.286									
XIBLK28	Nitrobenzene	123 > 46			6355.286									
XIBLK28	4-Amino-26-dinitrotoluene	197 > 167			37493.539									
XIBLK28	2-Amino-46-dinitrotoluene	197 > 180			37493.539									
XIBLK28	246-Trinitrotoluene	227 > 210			37493.539									
XIBLK28	34-dinitrotoluene	182 > 152			37493.539			MM-	07-May-10	11:00:21				
XIBLK28	26-dinitrotoluene	182 > 152			37493.539									
XIBLK28	24-dinitrotoluene	182 > 152			37493.539									
XIBLK28	26-dinitrotoluene-d3	185 > 155	17.09	37493.539		37493.539	37493.539	bb			506.4121	101.3	1.3	2847.8
XIBLK28	2-Nitrotoluene	137 > 46			37493.539									
XIBLK28	4-Nitrotoluene	137 > 46			37493.539									
XIBLK28	3-Nitrotoluene	137 > 46			37493.539									
XIBLK28	PETN	361 > 62			37493.539									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2937

Lab Code: GEL

Lab Sample ID: XIBLK29

Analysis Date: 07-MAY-10 11:57

GEL Data File: EXP0501284a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	537.652
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	535.184
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501284a
Date: 07-May-2010
Time: 11:57:54
ID: XIBLK29
Vial: 1:1,A

MMT 5/5/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.823e+003

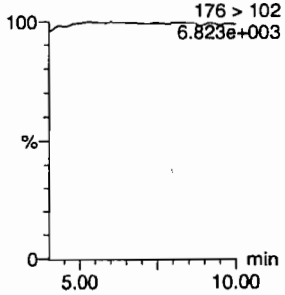

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.823e+003

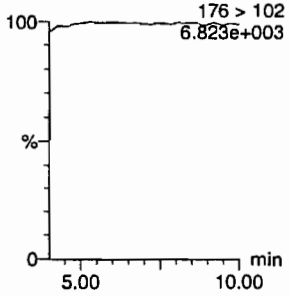

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.473e+003

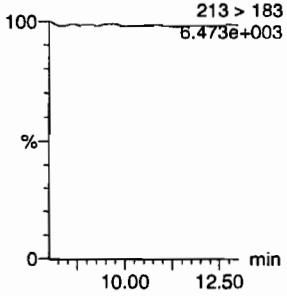

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.505e+004

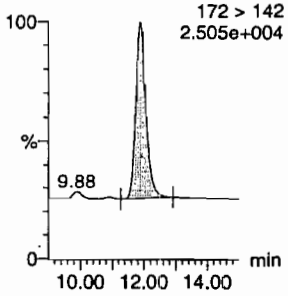

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.364e+003

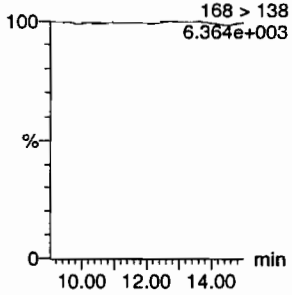

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.384e+003

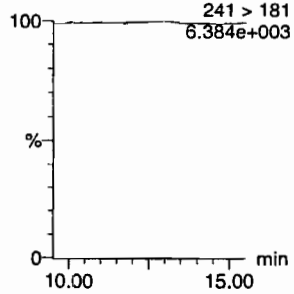

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.402e+003

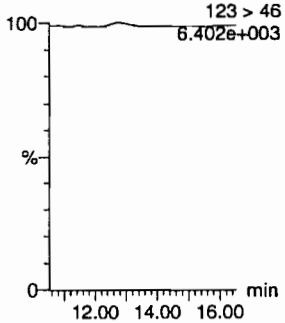

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
16.63
197 > 167
6.641e+003

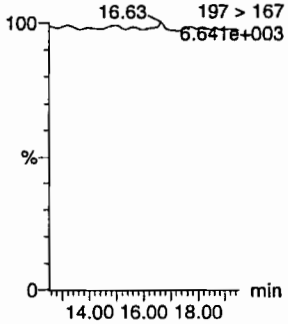

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
12.99
197 > 180
6.617e+003

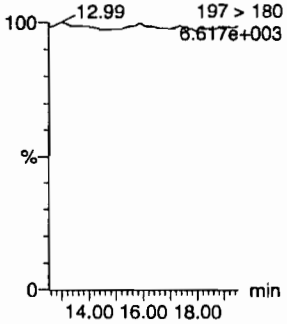

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.395e+003

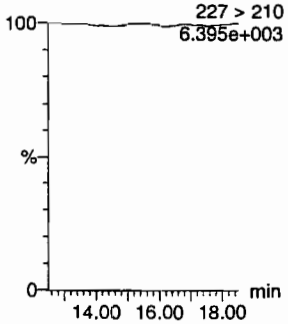

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.485e+003

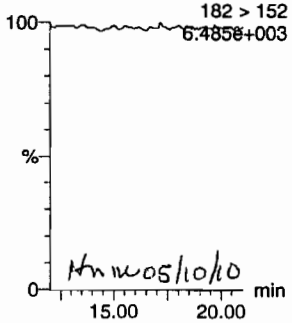

MMW 05/10/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.485e+003

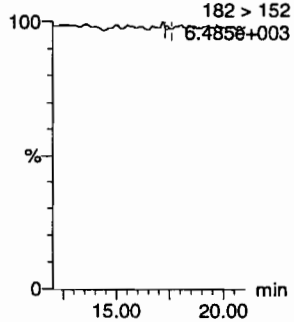

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

24-dinitrotoluene

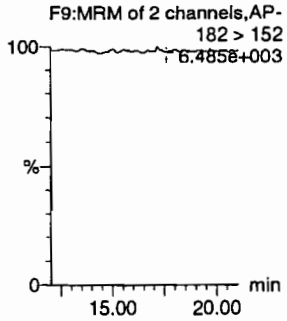

26-dinitrotoluene-d3

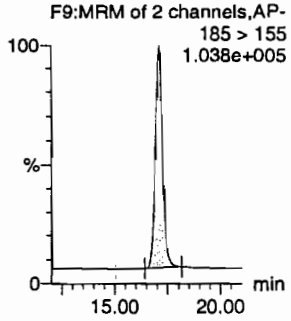

2-Nitrotoluene

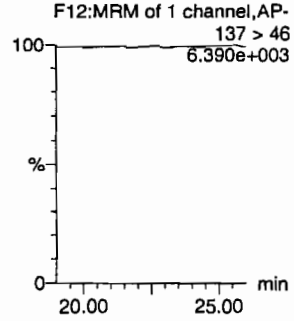

4-Nitrotoluene

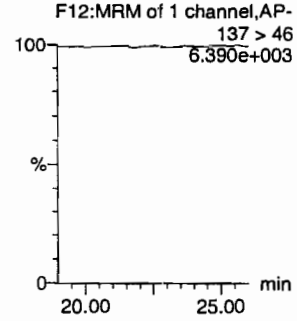

3-Nitrotoluene

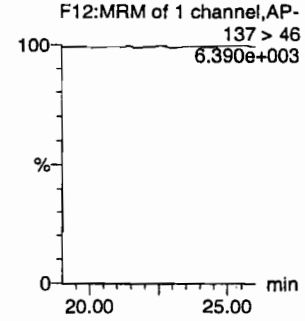

PETN

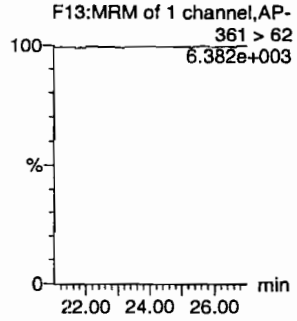

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK29	HMX	176 > 102			6949.809									
XIBLK29	RDX	176 > 102			6949.809									
XIBLK29	135-Trinitrobenzene	213 > 183			6949.809									
XIBLK29	13-Dinitrobenzene-d4	172 > 142	11.87	6949.809		6949.809	6949.809	bb			537.6519	107.5	7.5	363.0
XIBLK29	13-Dinitrobenzene	168 > 138			6949.809									
XIBLK29	Tetryl	241 > 181			6949.809									
XIBLK29	Nitrobenzene	123 > 46			6949.809									
XIBLK29	4-Amino-26-dinitrotoluene	197 > 167			39623.766									
XIBLK29	2-Amino-46-dinitrotoluene	197 > 180			39623.766									
XIBLK29	246-Trinitrotoluene	227 > 210			39623.766									
XIBLK29	34-dinitrotoluene	182 > 152			39623.766									
XIBLK29	26-dinitrotoluene	182 > 152			39623.766			MM-	08-May-10	11:51:46				
XIBLK29	24-dinitrotoluene	182 > 152			39623.766			MM-	08-May-10	11:49:55				
XIBLK29	26-dinitrotoluene-d3	185 > 155	17.09	39623.766		39623.766	39623.766	bb			535.1843	107.0	7.0	2261.3
XIBLK29	2-Nitrotoluene	137 > 46			39623.766									
XIBLK29	4-Nitrotoluene	137 > 46			39623.766									
XIBLK29	3-Nitrotoluene	137 > 46			39623.766									
XIBLK29	PETN	361 > 62			39623.766									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2937

Lab Code: GEL

Lab Sample ID: XIBLK30

Analysis Date: 07–MAY–10 13:26

GEL Data File: EXP0501287a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	601.902
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	532.1
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501287a
Date: 07-May-2010
Time: 13:26:22
ID: XIBLK30
Vial: 1:1,A

MMT 5/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.623e+003

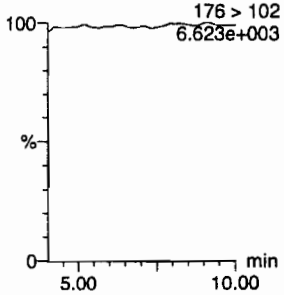

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.623e+003

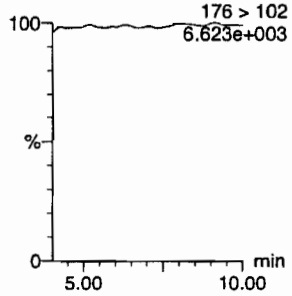

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.395e+003

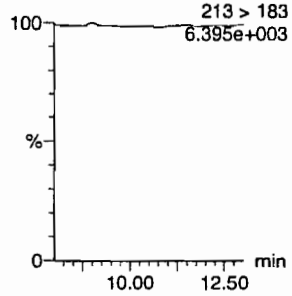

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.704e+004

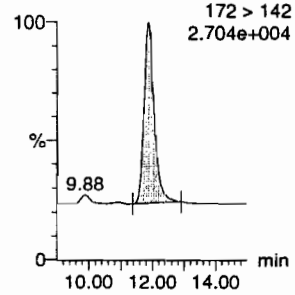

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.346e+003

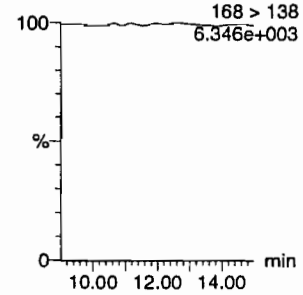

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.332e+003

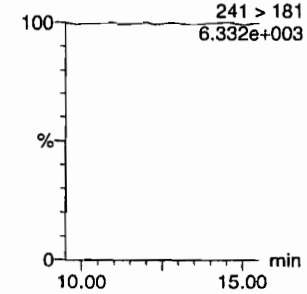

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.322e+003

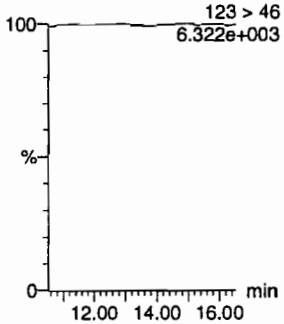

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.446e+003

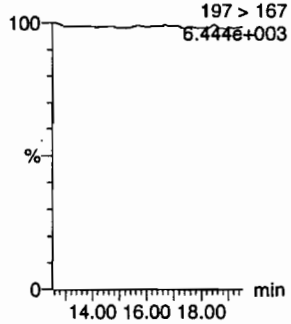

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.404e+003

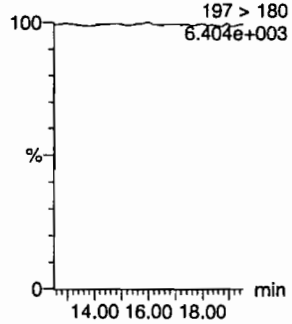

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.333e+003

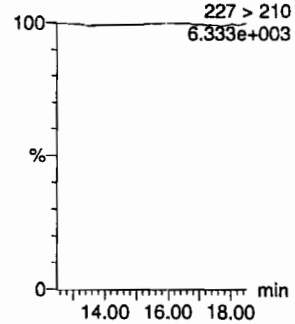

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.350e+003

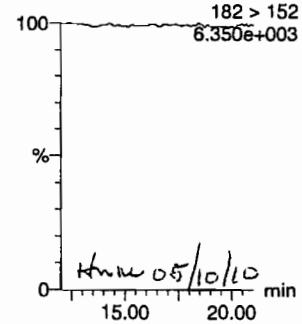

HMM 05/10/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.350e+003

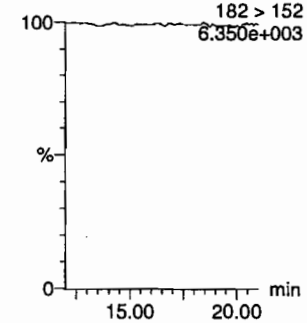

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

24-dinitrotoluene

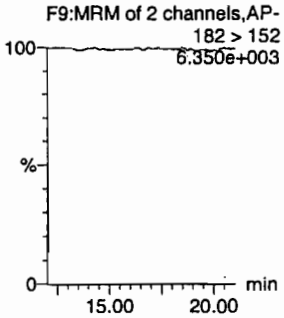

26-dinitrotoluene-d3

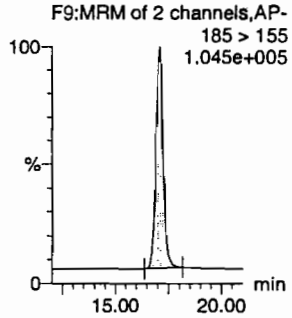

2-Nitrotoluene

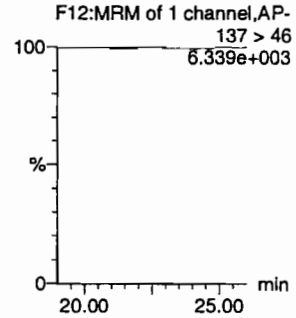

4-Nitrotoluene

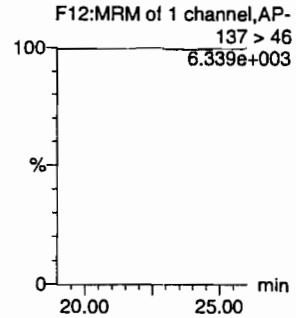

3-Nitrotoluene

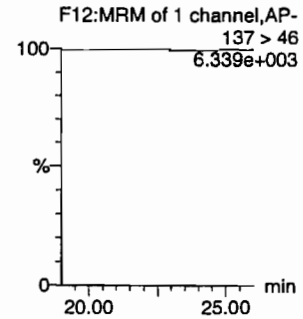

PETN

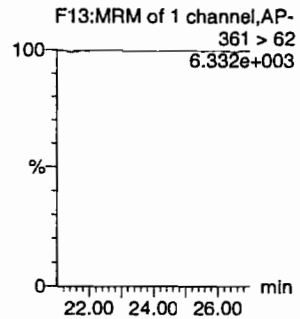

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK30	HMX	176 > 102			7780.318									
XIBLK30	RDX	176 > 102			7780.318									
XIBLK30	135-Trinitrobenzene	213 > 183			7780.318									
XIBLK30	13-Dinitrobenzene-d4	172 > 142	11.87	7780.318		7780.318	7780.318	bb			601.9019	120.4	20.4	1518.9
XIBLK30	13-Dinitrobenzene	168 > 138			7780.318									
XIBLK30	Tetryl	241 > 181			7780.318									
XIBLK30	Nitrobenzene	123 > 46			7780.318									
XIBLK30	4-Amino-26-dinitrotoluene	197 > 167			39395.445									
XIBLK30	2-Amino-46-dinitrotoluene	197 > 180			39395.445									
XIBLK30	246-Trinitrotoluene	227 > 210			39395.445									
XIBLK30	34-dinitrotoluene	182 > 152			39395.445									
XIBLK30	26-dinitrotoluene	182 > 152			39395.445									
XIBLK30	24-dinitrotoluene	182 > 152			39395.445			MM-	08-May-10	11:49:43				
XIBLK30	26-dinitrotoluene-d3	185 > 155	17.09	39395.445		39395.445	39395.445	bb			532.1005	106.4	6.4	1663.5
XIBLK30	2-Nitrotoluene	137 > 46			39395.445									
XIBLK30	4-Nitrotoluene	137 > 46			39395.445									
XIBLK30	3-Nitrotoluene	137 > 46			39395.445									
XIBLK30	PETN	361 > 62			39395.445									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2937

Lab Code: GEL

Lab Sample ID: XIBLK31

Analysis Date: 07–MAY–10 18:22

GEL Data File: EXP0501297a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	309.148
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	298.245
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501297a
Date: 07-May-2010
Time: 18:22:27
ID: XIBLK31
Vial: 1:1,A

MMT 5/8/10

HMX

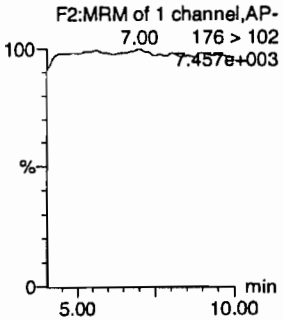

RDX

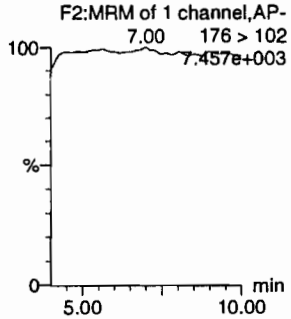

135-Trinitrobenzene

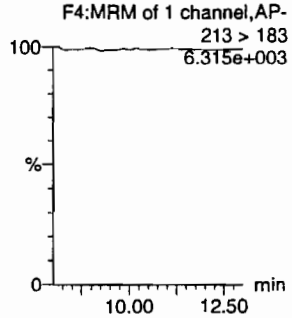

13-Dinitrobenzene-d4

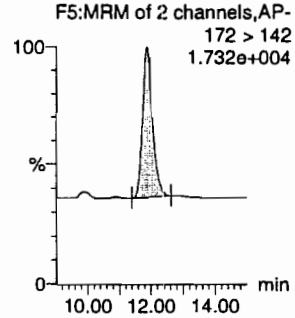

13-Dinitrobenzene

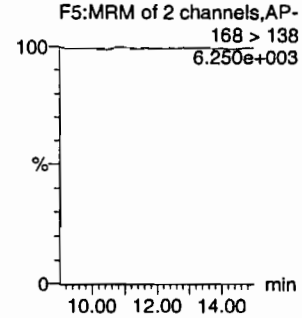

Tetryl

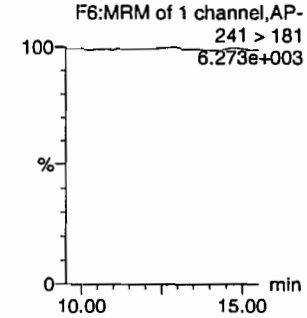

Nitrobenzene

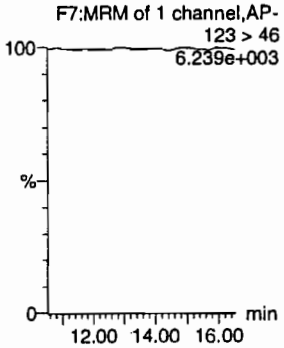

4-Amino-26-dinitrotoluene

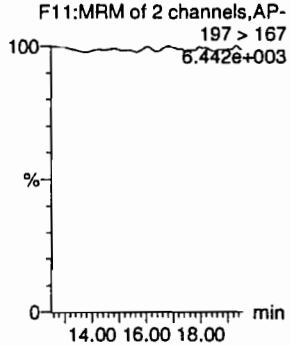

2-Amino-46-dinitrotoluene

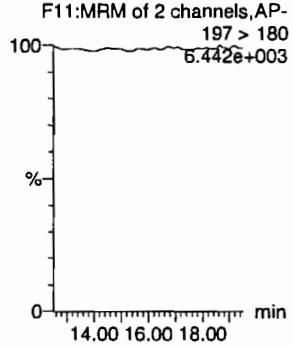

246-Trinitrotoluene

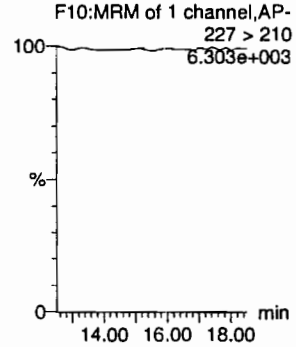

34-dinitrotoluene

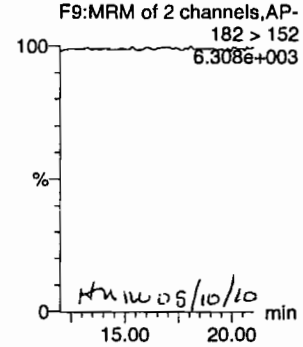

HM 05/10/10

26-dinitrotoluene

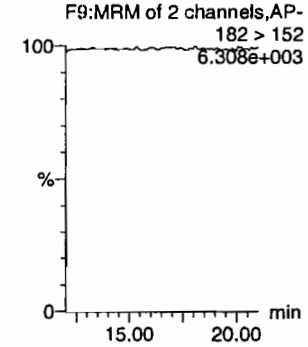

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

24-dinitrotoluene

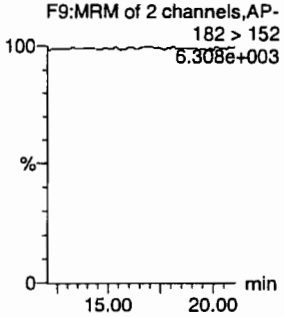

26-dinitrotoluene-d3

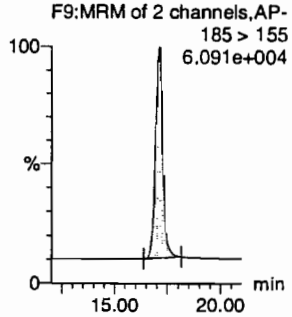

2-Nitrotoluene

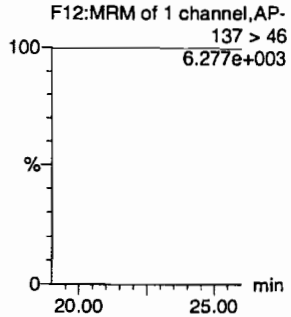

4-Nitrotoluene

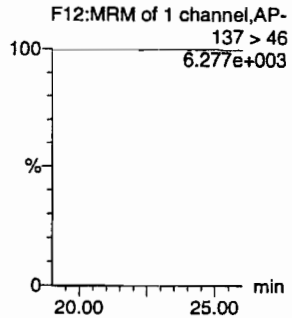

3-Nitrotoluene

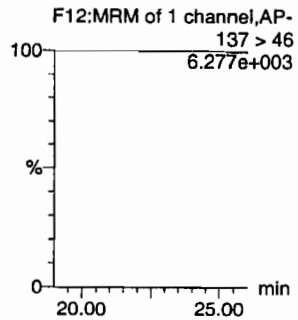

PETN

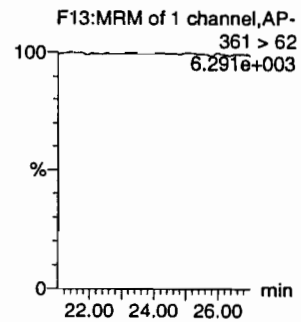

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK31	HMX	176 > 102			3996.111									
XIBLK31	RDX	176 > 102			3996.111									
XIBLK31	135-Trinitrobenzene	213 > 183			3996.111									
XIBLK31	13-Dinitrobenzene-d4	172 > 142	11.87	3996.111		3996.111	3996.111	bb			309.1476	61.8	-38.2	470.9
XIBLK31	13-Dinitrobenzene	168 > 138			3996.111									
XIBLK31	Tetryl	241 > 181			3996.111									
XIBLK31	Nitrobenzene	123 > 46			3996.111									
XIBLK31	4-Amino-26-dinitrotoluene	197 > 167			22081.344									
XIBLK31	2-Amino-46-dinitrotoluene	197 > 180			22081.344									
XIBLK31	246-Trinitrotoluene	227 > 210			22081.344									
XIBLK31	34-dinitrotoluene	182 > 152			22081.344									
XIBLK31	26-dinitrotoluene	182 > 152			22081.344									
XIBLK31	24-dinitrotoluene	182 > 152			22081.344									
XIBLK31	26-dinitrotoluene-d3	185 > 155	17.09	22081.344		22081.344	22081.344	bb			298.2450	59.6	-40.4	1763.5
XIBLK31	2-Nitrotoluene	137 > 46			22081.344									
XIBLK31	4-Nitrotoluene	137 > 46			22081.344									
XIBLK31	3-Nitrotoluene	137 > 46			22081.344									
XIBLK31	PETN	361 > 62			22081.344									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2937

Lab Code: GEL

Lab Sample ID: XIBLK32

Analysis Date: 07-MAY-10 23:17

GEL Data File: EXP0501307a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	333.49
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	342.328
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501307a
Date: 07-May-2010
Time: 23:17:41
ID: XIBLK32
Vial: 1:1,A

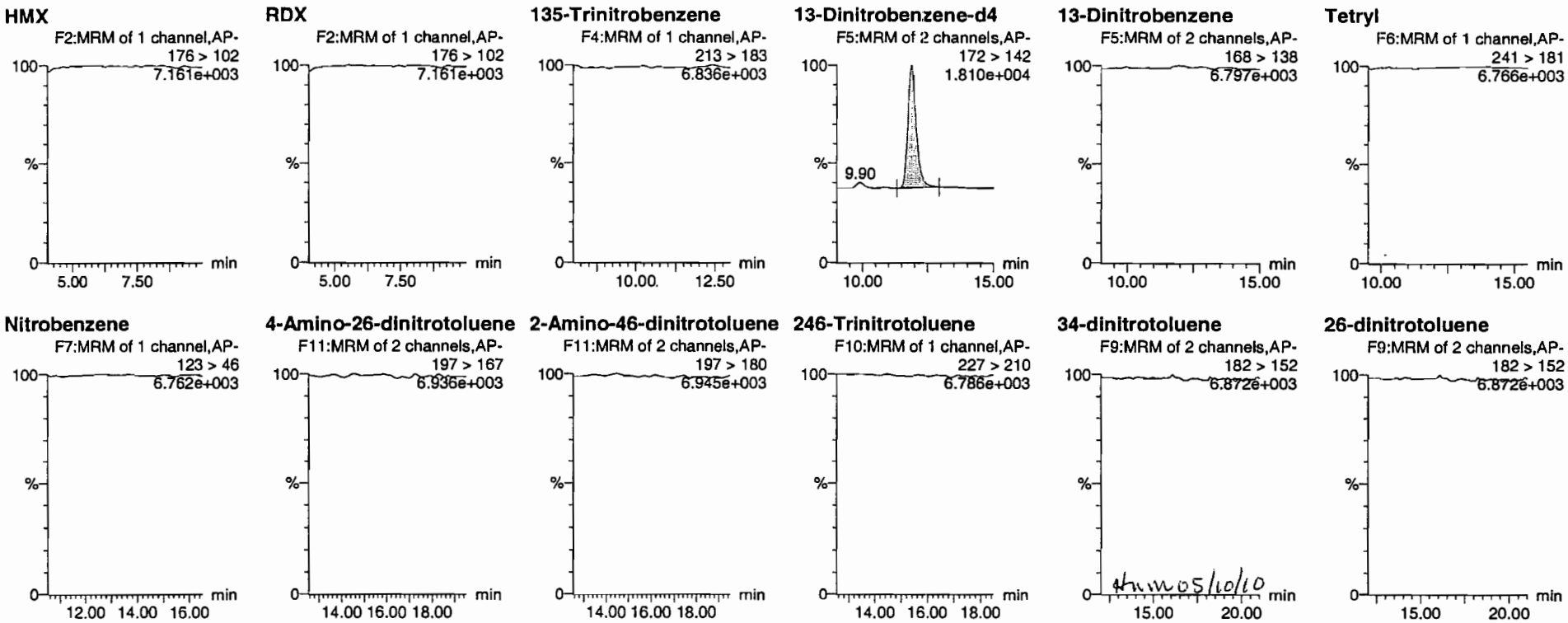

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

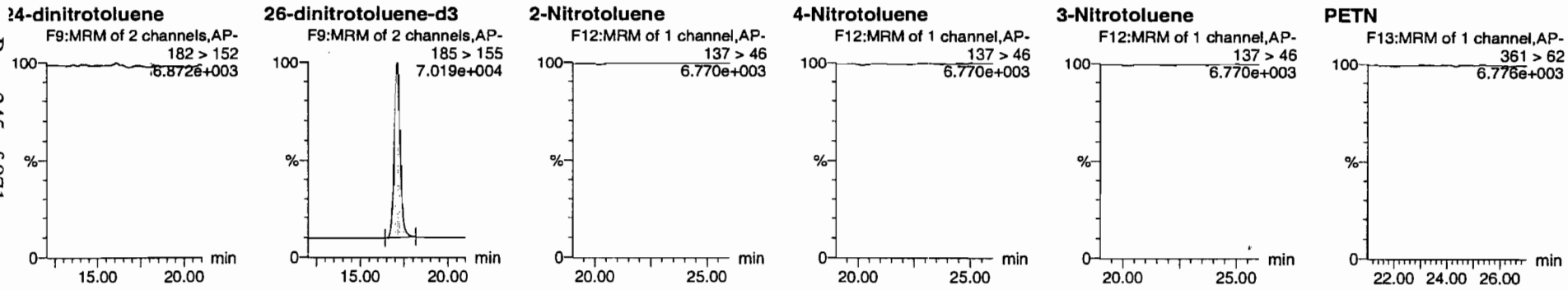

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK32	HMX	176 > 102			4310.770									
XIBLK32	RDX	176 > 102			4310.770									
XIBLK32	135-Trinitrobenzene	213 > 183			4310.770									
XIBLK32	13-Dinitrobenzene-d4	172 > 142	11.89	4310.770		4310.770	4310.770	bb			333.4903	66.7	-33.3	509.3
XIBLK32	13-Dinitrobenzene	168 > 138			4310.770									
XIBLK32	Tetryl	241 > 181			4310.770									
XIBLK32	Nitrobenzene	123 > 46			4310.770									
XIBLK32	4-Amino-26-dinitrotoluene	197 > 167			25345.139									
XIBLK32	2-Amino-46-dinitrotoluene	197 > 180			25345.139									
XIBLK32	246-Trinitrotoluene	227 > 210			25345.139									
XIBLK32	34-dinitrotoluene	182 > 152			25345.139									
XIBLK32	26-dinitrotoluene	182 > 152			25345.139									
XIBLK32	24-dinitrotoluene	182 > 152			25345.139			MM-	08-May-10	11:48:18				
XIBLK32	26-dinitrotoluene-d3	185 > 155	17.10	25345.139		25345.139	25345.139	bb			342.3279	68.5	-31.5	1559.7
XIBLK32	2-Nitrotoluene	137 > 46			25345.139									
XIBLK32	4-Nitrotoluene	137 > 46			25345.139									
XIBLK32	3-Nitrotoluene	137 > 46			25345.139									
XIBLK32	PETN	361 > 62			25345.139									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2937

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 03–MAY–10 17:44

GEL Data File: EXS05030010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	20.5
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

MMT 5/5/10

nple Name: "XIBLK02" Sample ID: "|1|MAP" File: "EXS05030010.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_B" Annotation: "
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 5/3/2010
Time: 5:44:53 PM

fied: No

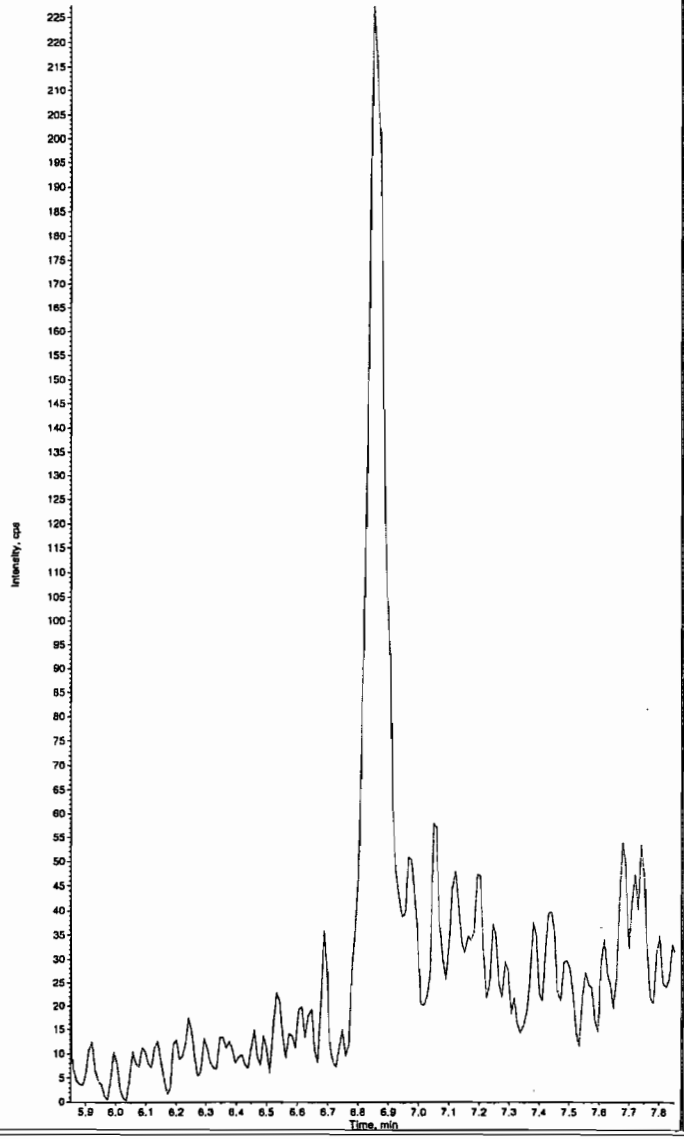

Sample Name: "XIBLK02" Sample ID: "|1|MAP" File: "EXS05030010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: "
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 5/3/2010
Acq. Time: 5:44:53 PM

Modified: No

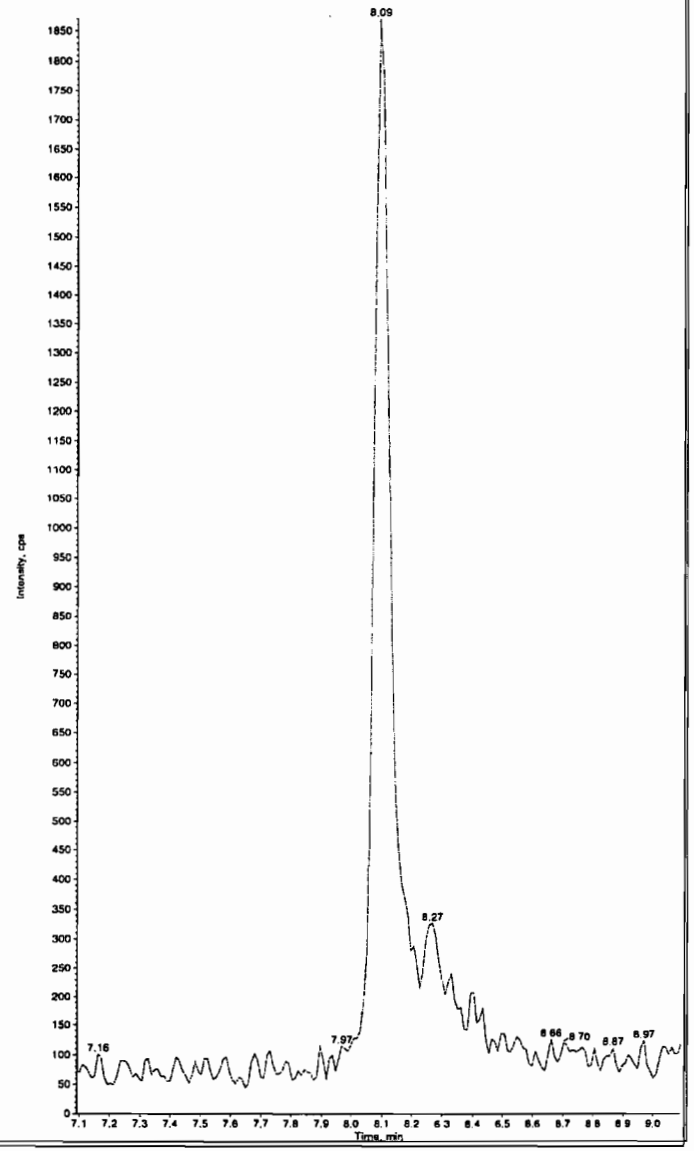

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK02" Sample ID: "|1|MAP" File: "EXS05030010.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_B" Annotation: ""
le Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 5/3/2010
Time: 5:44:53 PM
fied: No

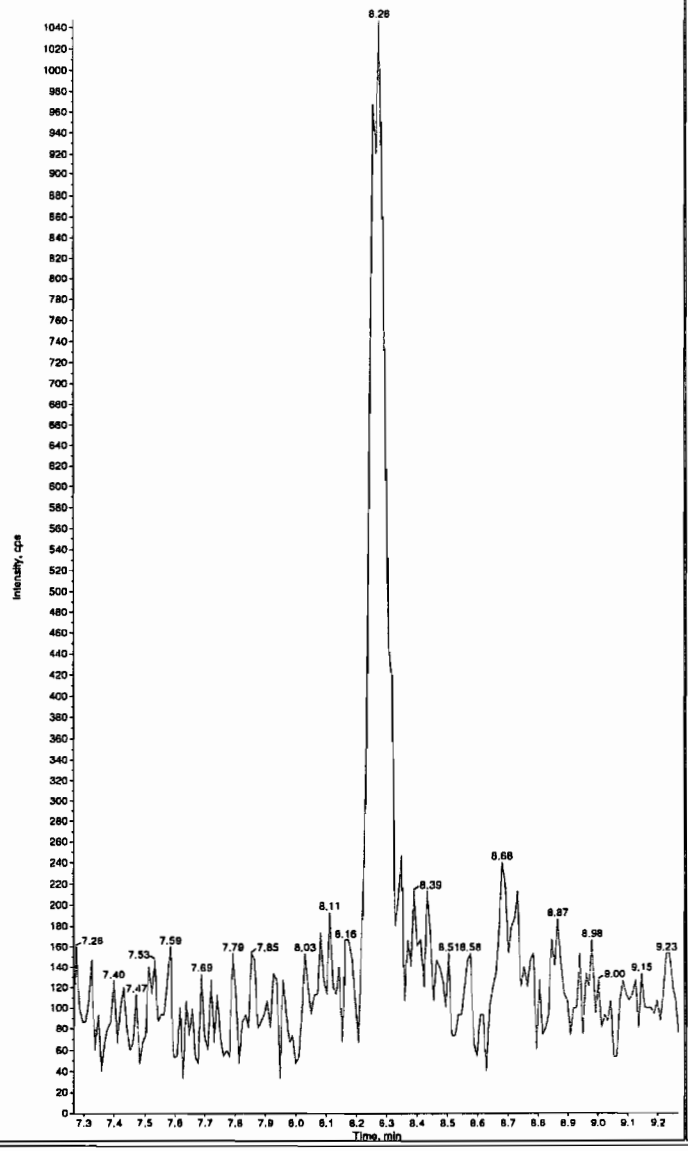

Sample Name: "XIBLK02" Sample ID: "|1|MAP" File: "EXS05030010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 5/3/2010
Acq. Time: 5:44:53 PM

Modified: No

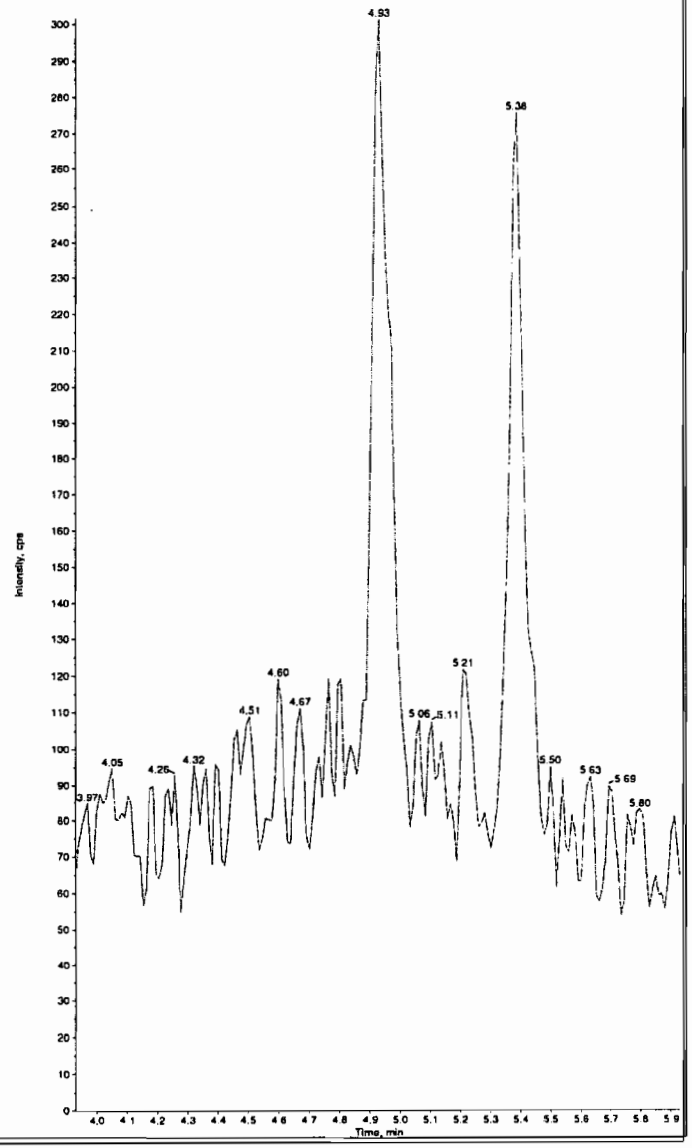

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "XI8LK02" Sample ID: "[1]MAP" File: "EXS05030010.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_B" Annotation: ""
.e Index: 1
.e Type: Unknown
ntration: N/A
ilated Conc: 0.00 ng/mL
Date: 5/3/2010
Time: 5:44:53 PM
ied: No

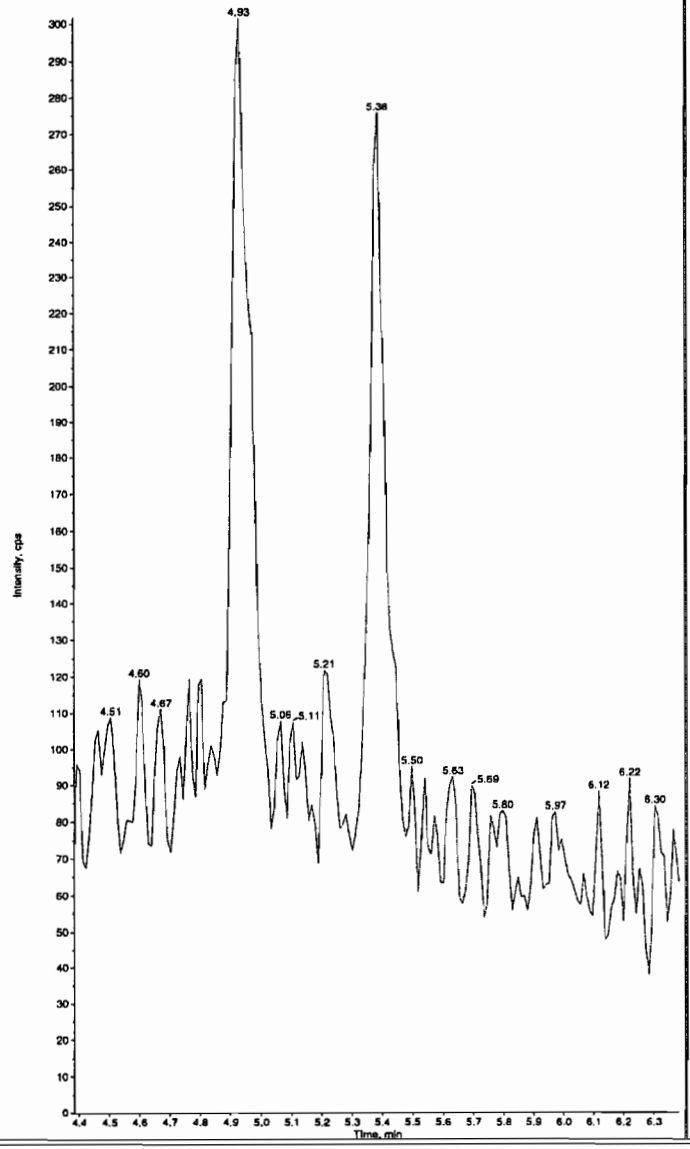

Sample Name: "XI8LK02" Sample ID: "[1]MAP" File: "EXS05030010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 20.5 ng/mL
Acq. Date: 5/3/2010
Acq. Time: 5:44:53 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.53e+005 counts
Height: 61171.547 cps
Start Time: 10.7 min
End Time: 11.1 min

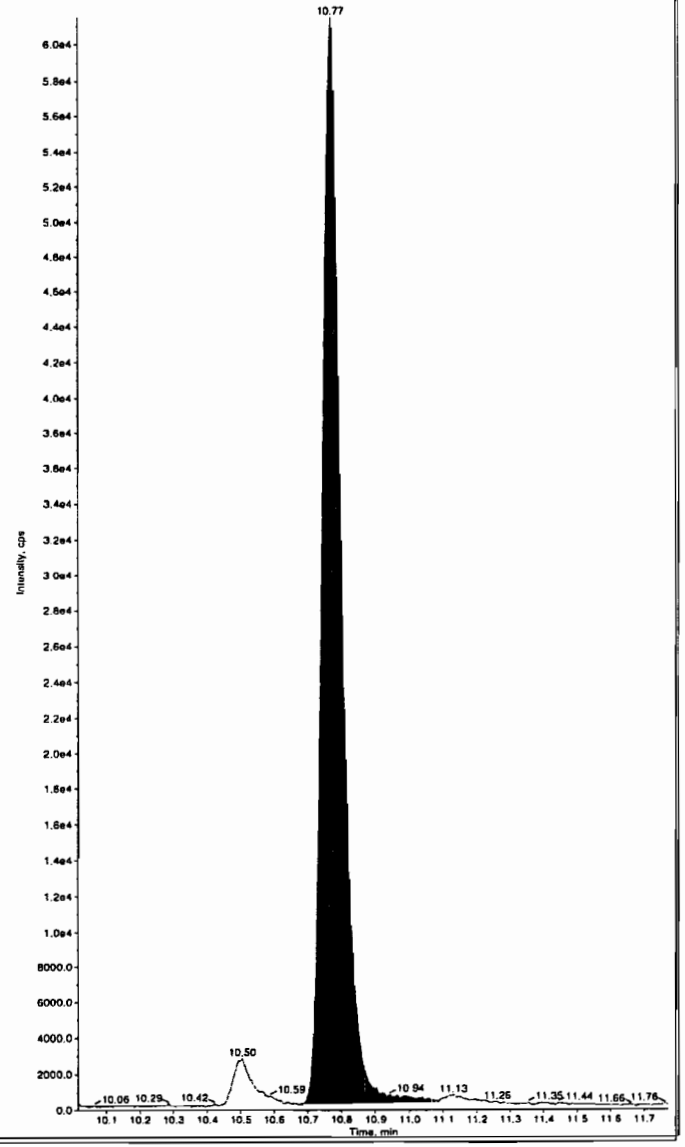

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2937

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 03–MAY–10 18:16

GEL Data File: EXS05030012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	15.2
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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mrm 5/3/10

nple Name: "XIBLK03" Sample ID: "|1|MAP" File: "EXS05030012.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 5/3/2010
Time: 6:16:17 PM

fied: No

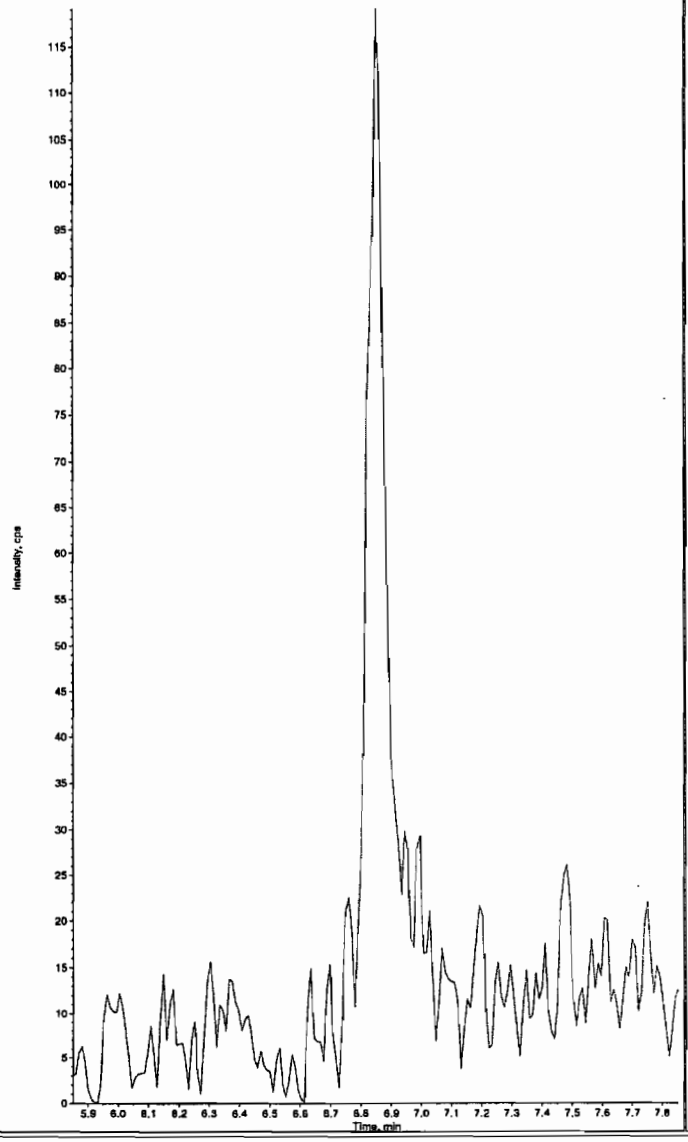

Sample Name: "XIBLK03" Sample ID: "|1|MAP" File: "EXS05030012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 5/3/2010
Acq. Time: 5:16:17 PM

Modified: No

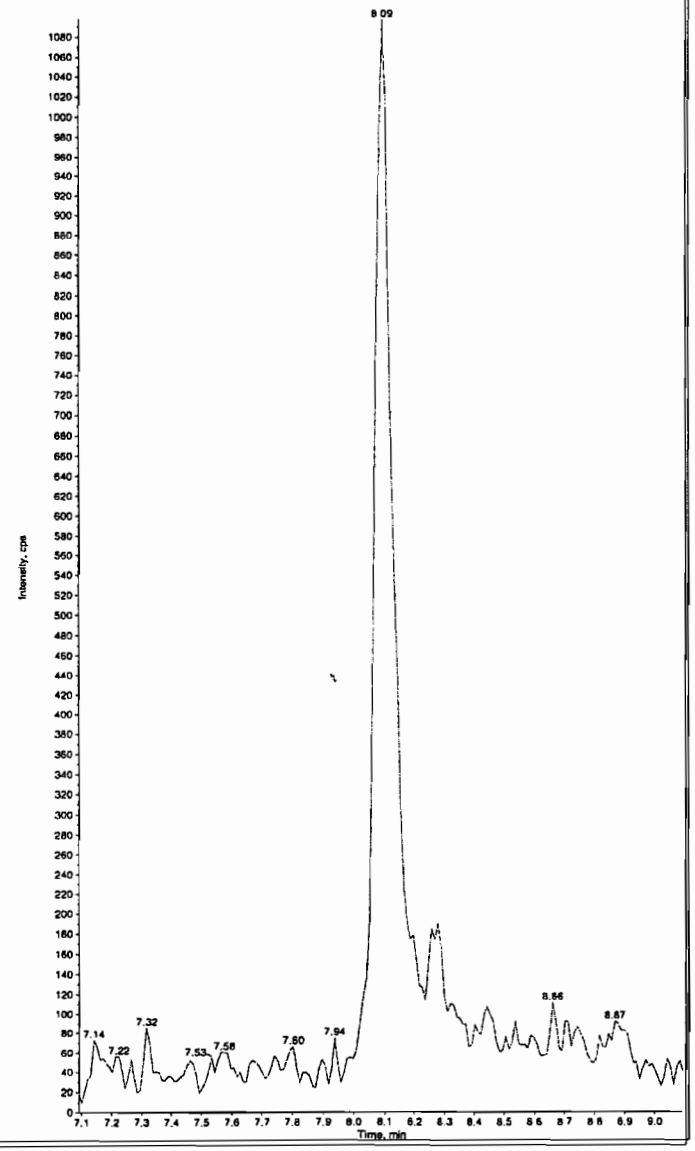

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK03" Sample ID: "[1]MAP" File: "EXS05030012.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 5/3/2010
Time: 6:16:17 PM

fied: No

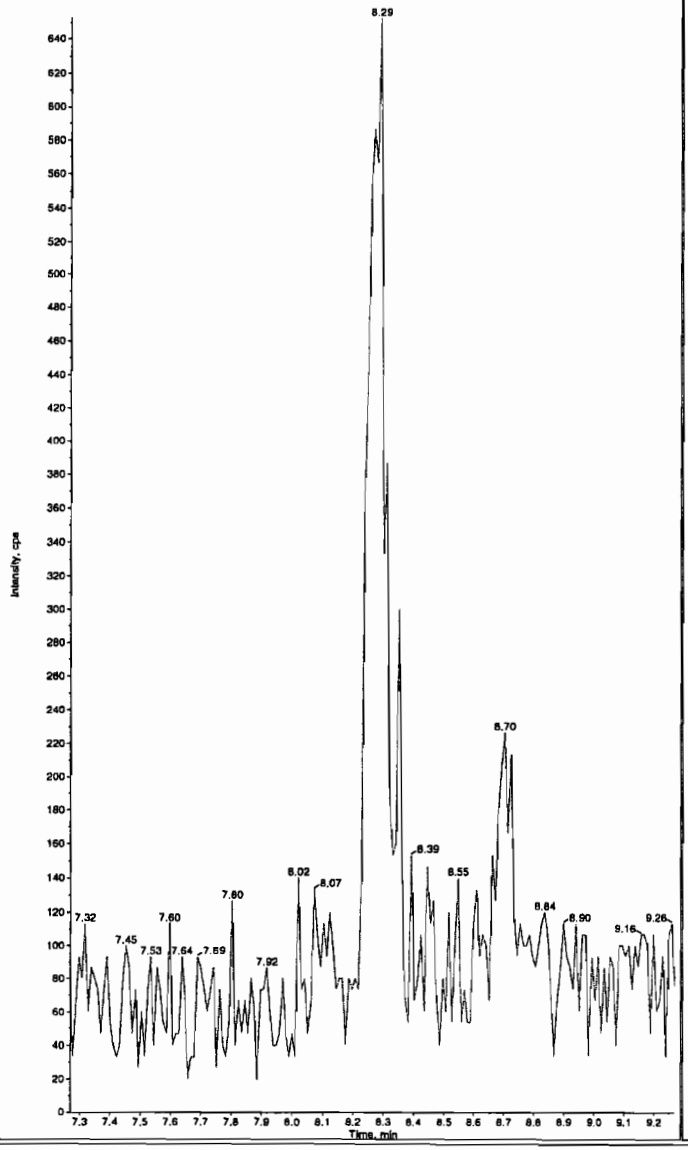

Sample Name: "XIBLK03" Sample ID: "[1]MAP" File: "EXS05030012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 5/3/2010
Acq. Time: 6:16:17 PM

Modified: No

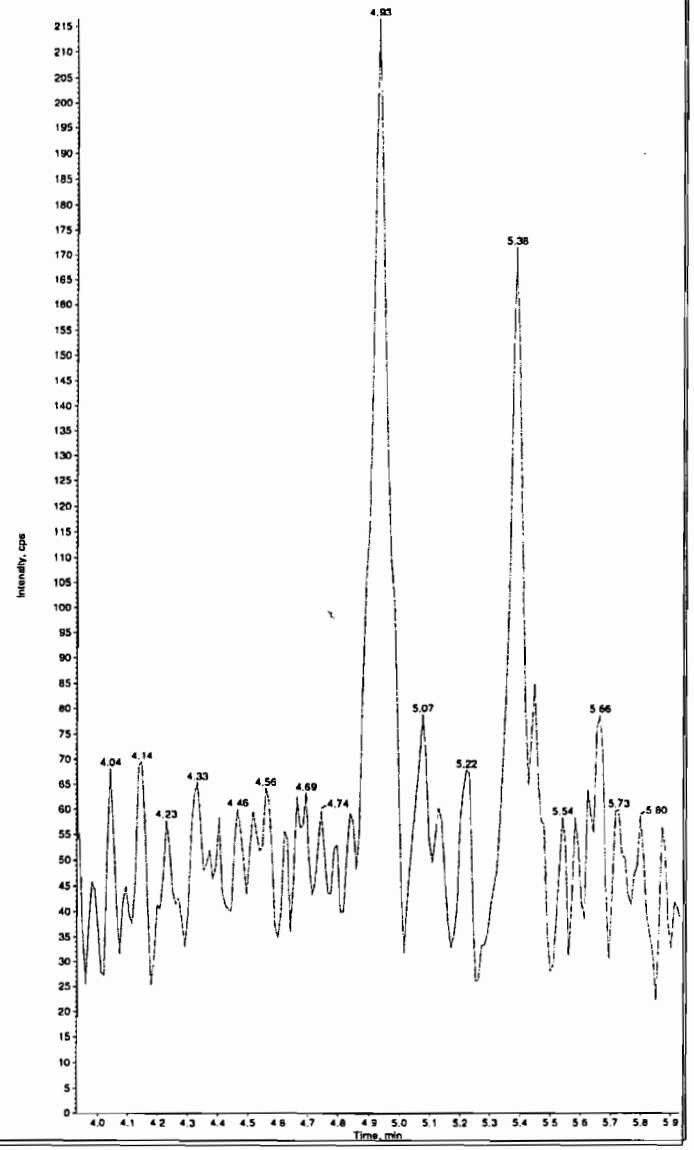

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK03" Sample ID: "|1|MAP" File: "EXS05030012.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_8" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 5/3/2010
Time: 6:16:17 PM
fied: No

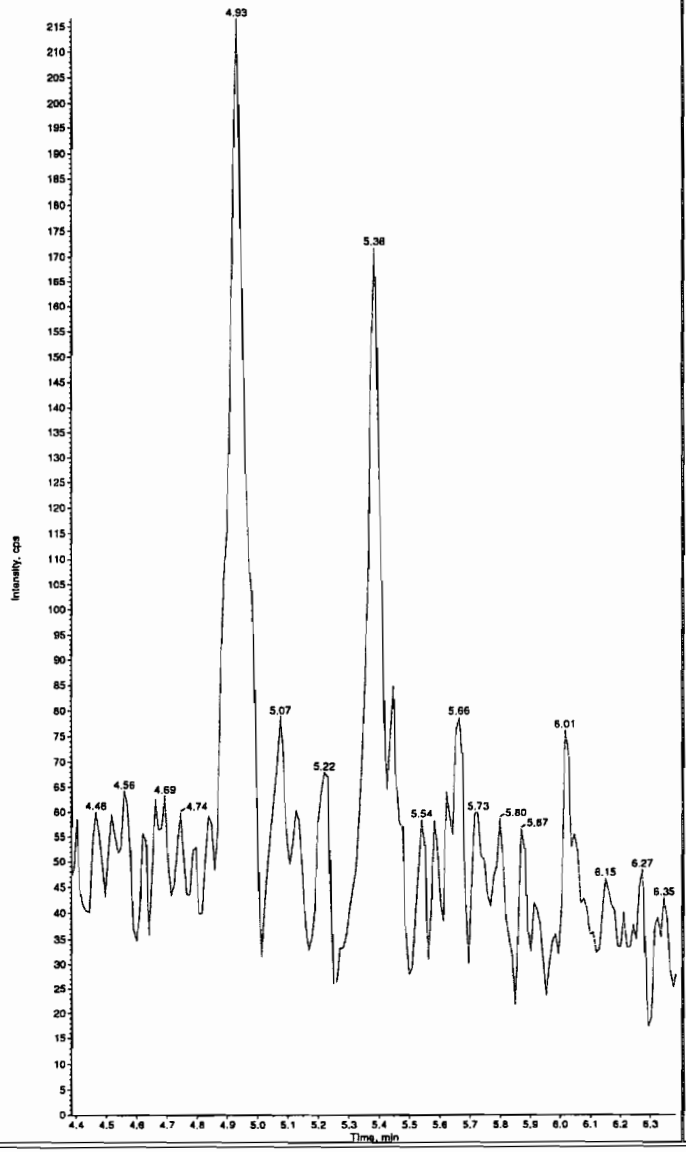

Sample Name: "XIBLK03" Sample ID: "|1|MAP" File: "EXS05030012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 15.2 ng/mL
Acq. Date: 5/3/2010
Acq. Time: 6:16:17 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.48e+005 counts
Height: 36251.472 cps
Start Time: 10.7 min
End Time: 11.0 min

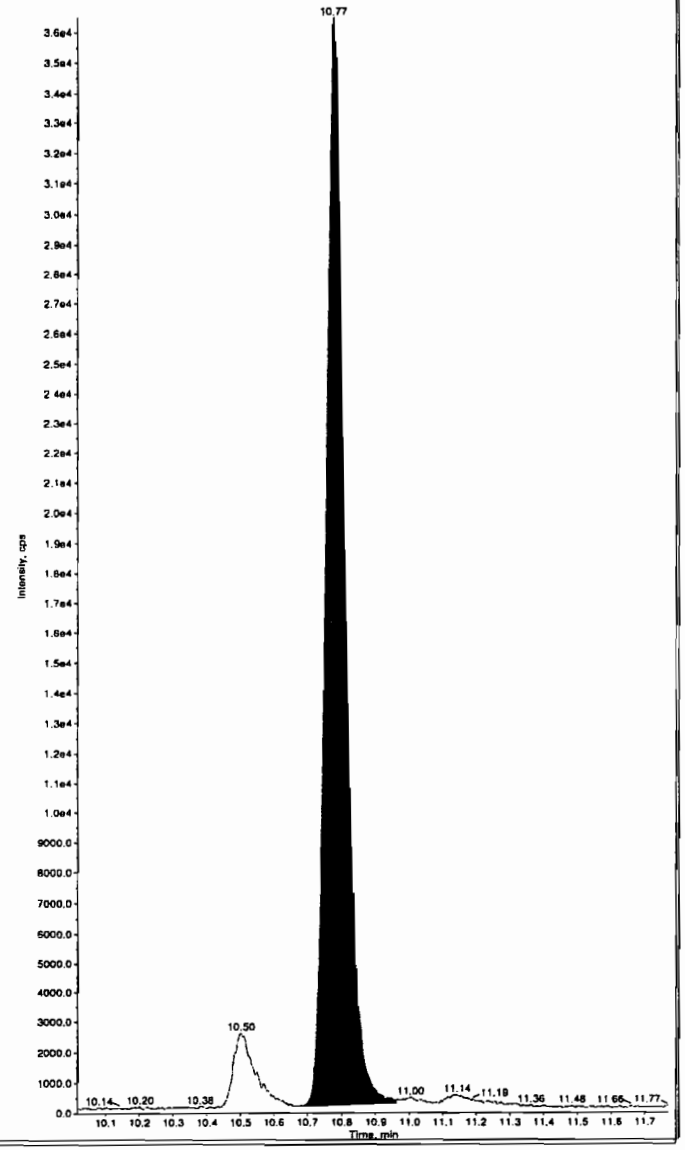

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2937

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 03-MAY-10 21:24

GEL Data File: EXS05030024.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	13.7
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

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ple Name: "XIBLK04" Sample ID: "|1|MAP" File: "EXS05030024.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ilated Conc: 0.00 ng/mL
Date: 5/3/2010
Time: 9:24:41 PM

ied: No

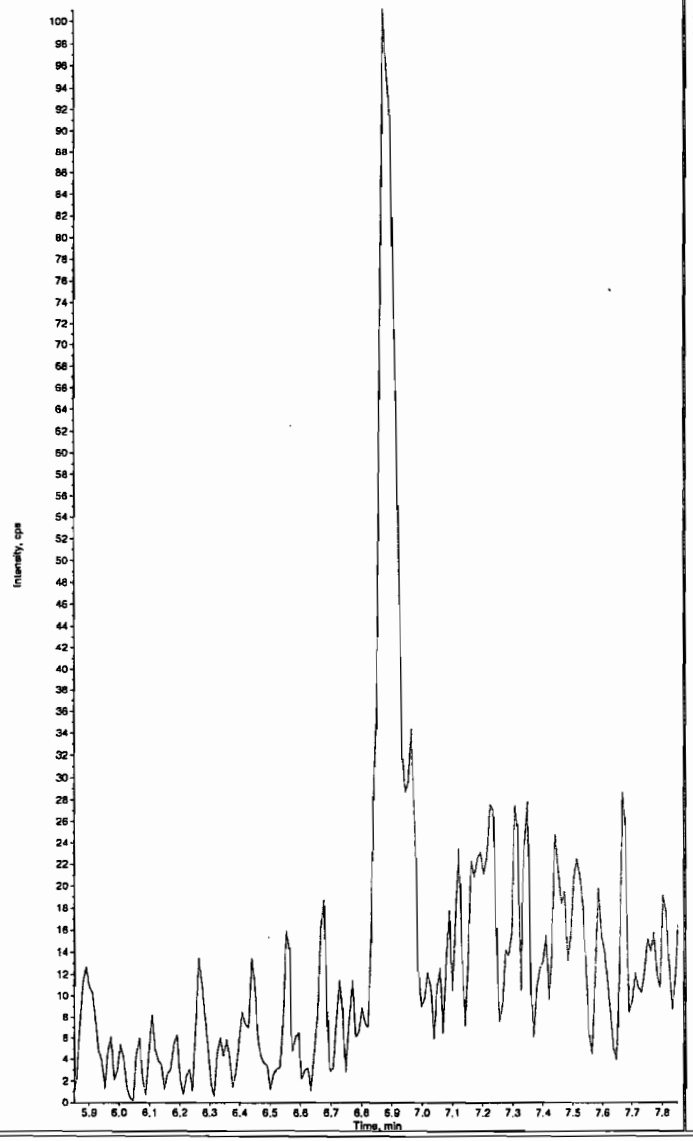

Sample Name: "XIBLK04" Sample ID: "|1|MAP" File: "EXS05030024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 5/3/2010
Acq. Time: 9:24:41 PM

Modified: No

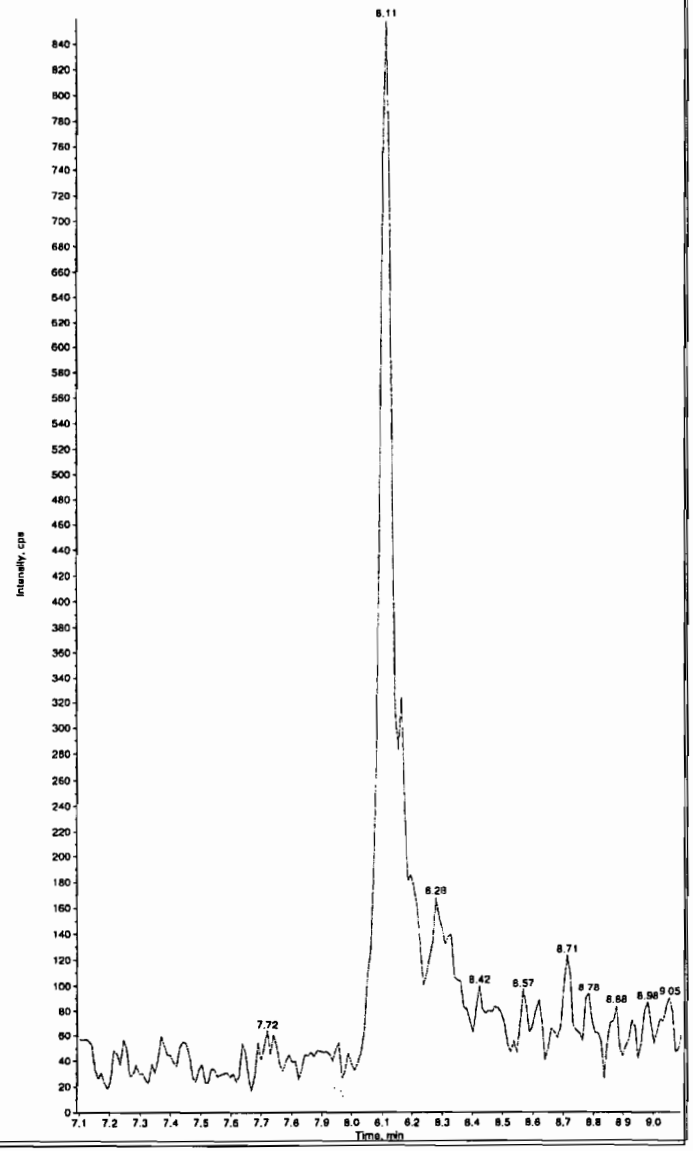

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK04" Sample ID: "[1]MAP" File: "EXS05030024.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ilated Conc: 0.00 ng/mL
Date: 5/3/2010
Time: 9:24:41 PM

fied: No

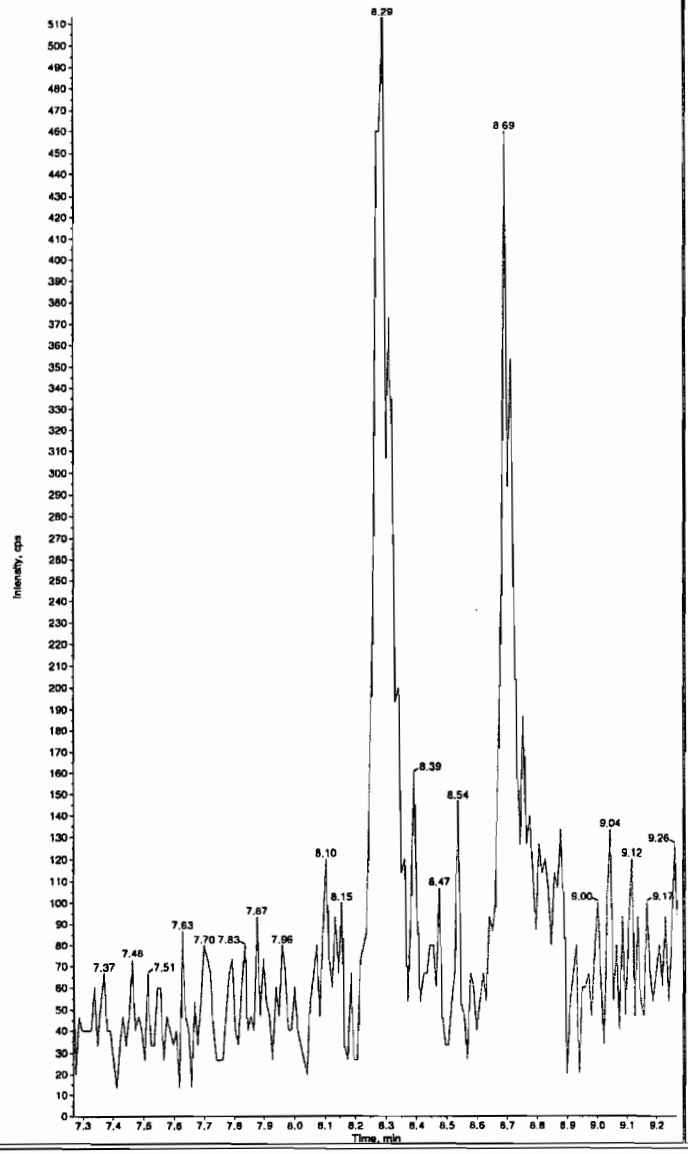

Sample Name: "XIBLK04" Sample ID: "[1]MAP" File: "EXS05030024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 5/3/2010
Acq. Time: 9:24:41 PM

Modified: No

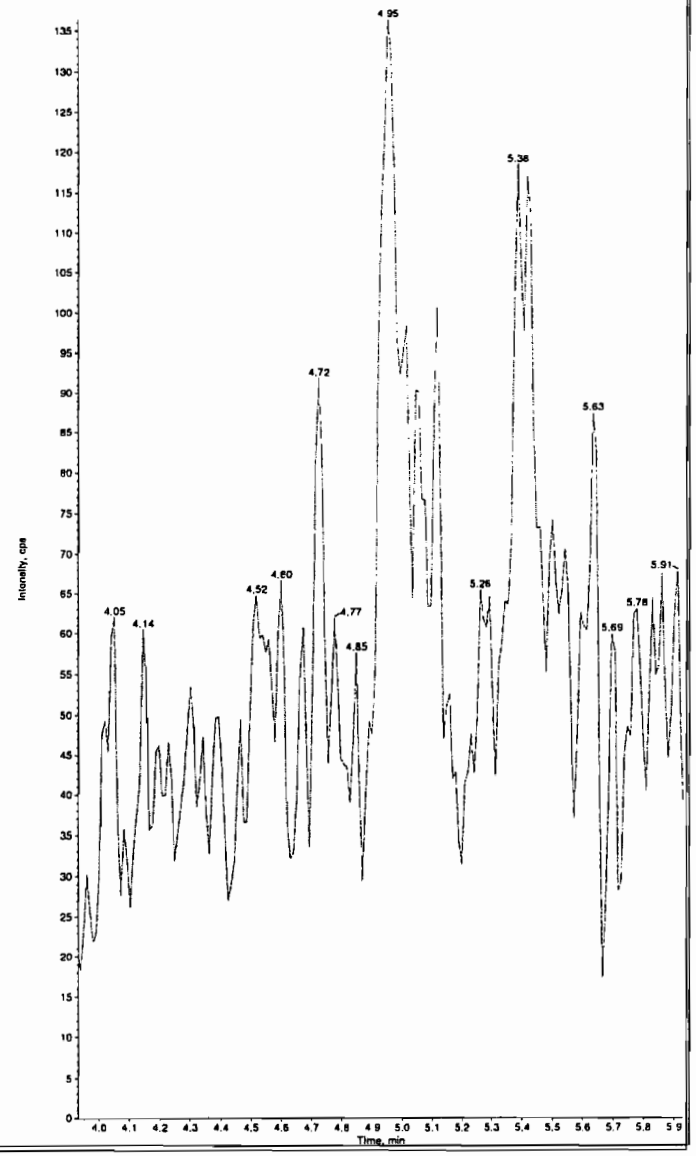

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK04" Sample ID: "[1]MAP" File: "EXS05030024.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ilated Conc: 0.00 ng/mL
Date: 5/3/2010
Time: 9:24:41 PM

fied: No

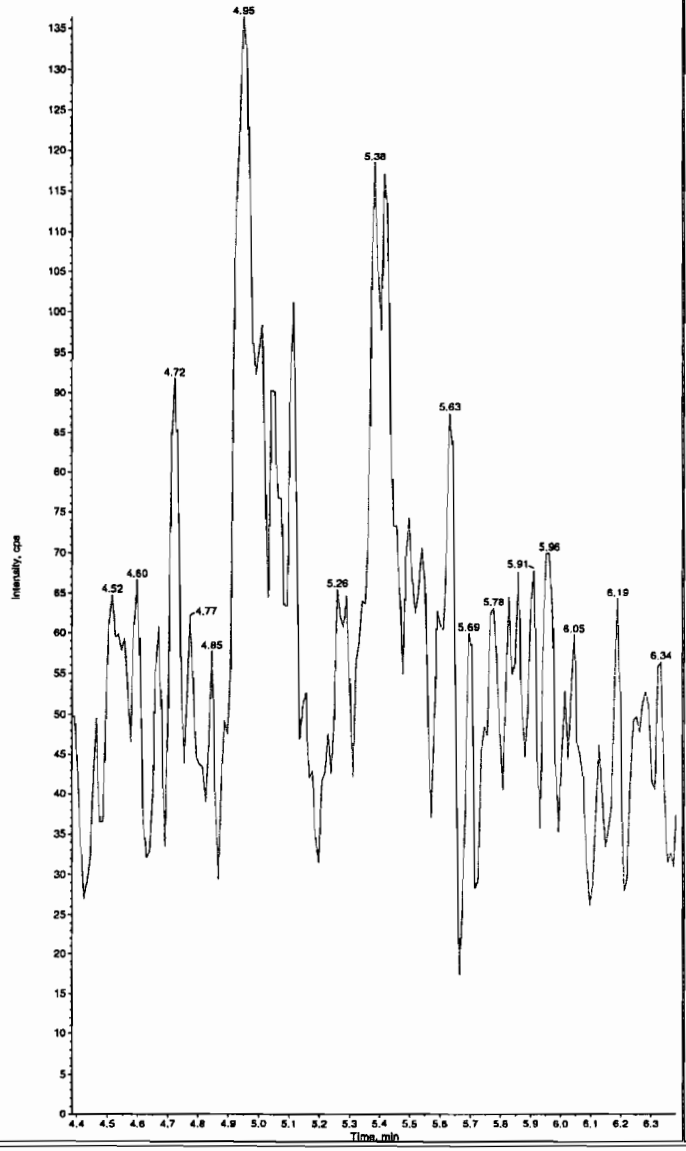

Sample Name: "XIBLK04" Sample ID: "[1]MAP" File: "EXS05030024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 13.7 ng/mL
Acq. Date: 5/3/2010
Acq. Time: 9:24:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.19e+005 counts
Height: 28556.938 cps
Start Time: 10.7 min
End Time: 11.0 min

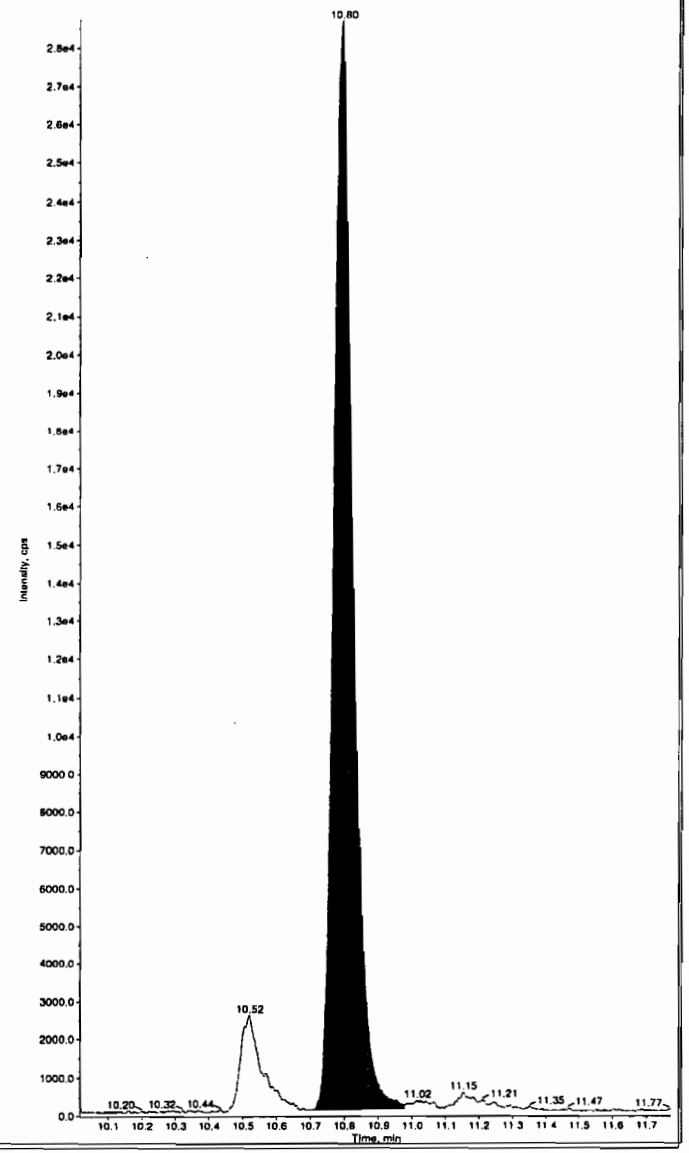

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2937

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 04-MAY-10 00:48

GEL Data File: EXS05030037.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	13.8
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

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ple Name: "XIBLK05" Sample ID: "|1|MAP" File: "EXS05030037.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 5/4/2010
Time: 12:48:53 AM
ied: No

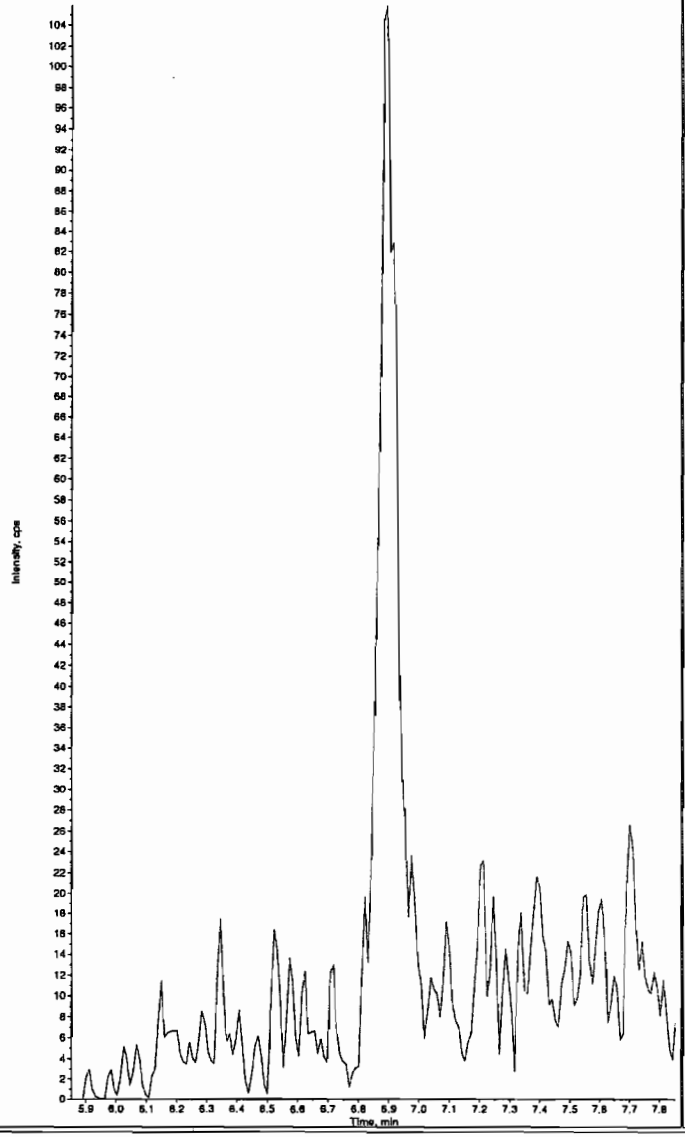

Sample Name: "XIBLK05" Sample ID: "|1|MAP" File: "EXS05030037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 5/4/2010
Acq. Time: 12:48:53 AM

Modified: No

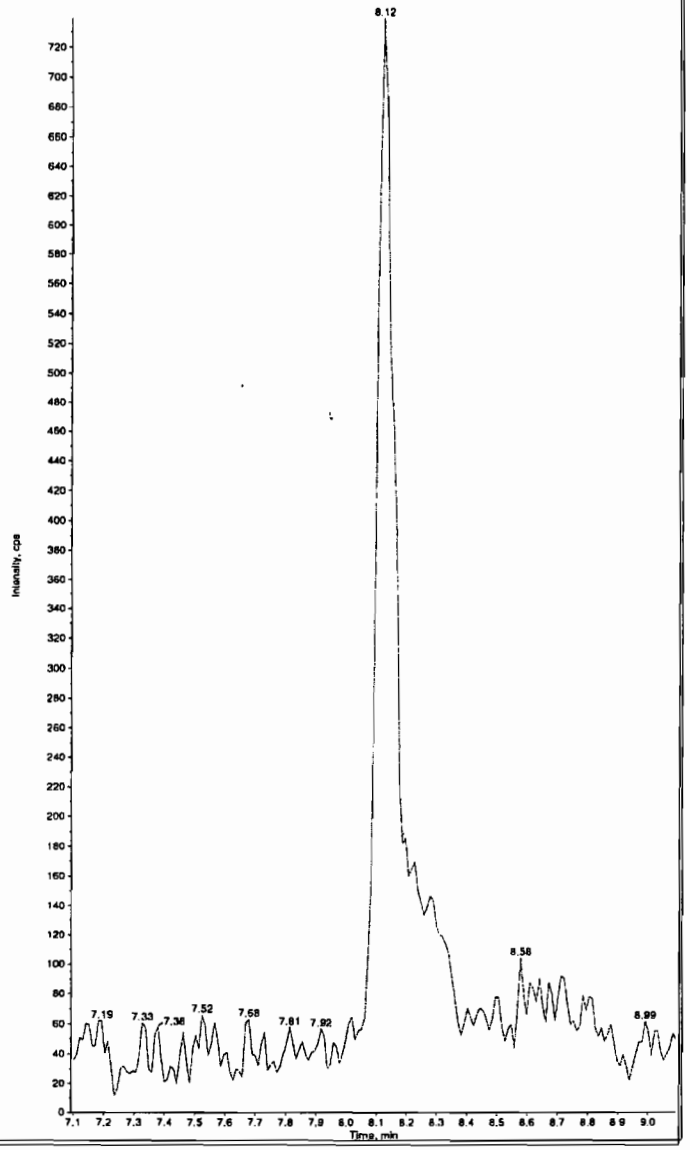

Hmm 05/06/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK05" Sample ID: "|1|MAP" File: "EXS05030037.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 5/4/2010
Time: 12:48:53 AM
ied: No

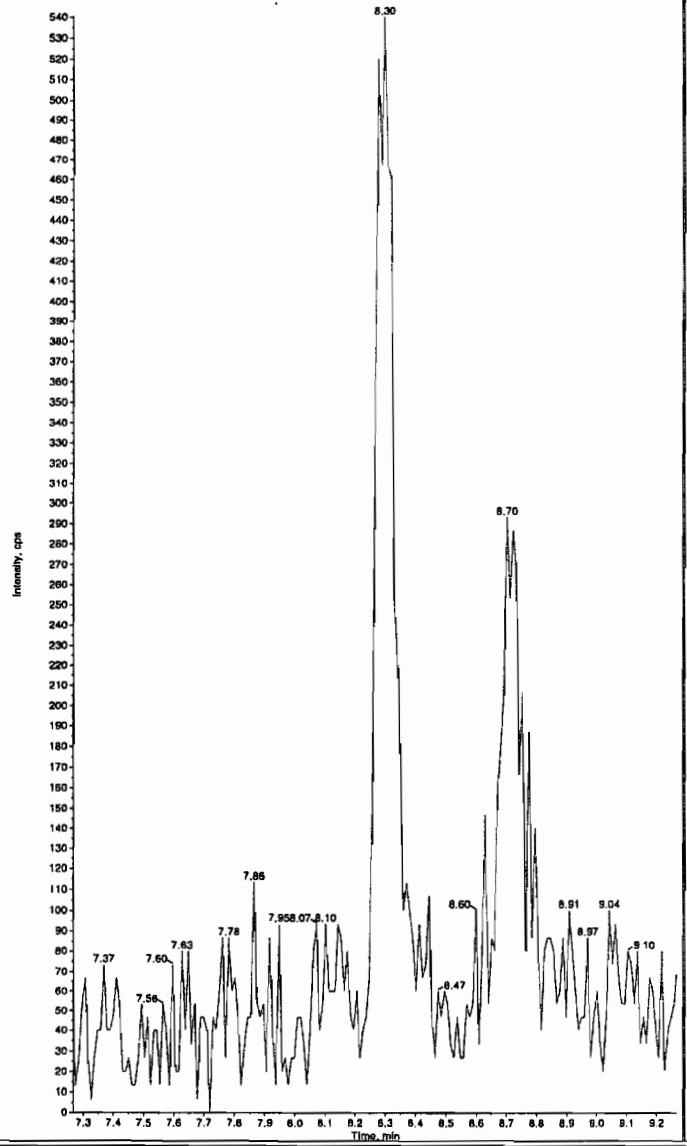

Sample Name: "XIBLK05" Sample ID: "|1|MAP" File: "EXS05030037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 5/4/2010
Acq. Time: 12:48:53 AM

Modified: No

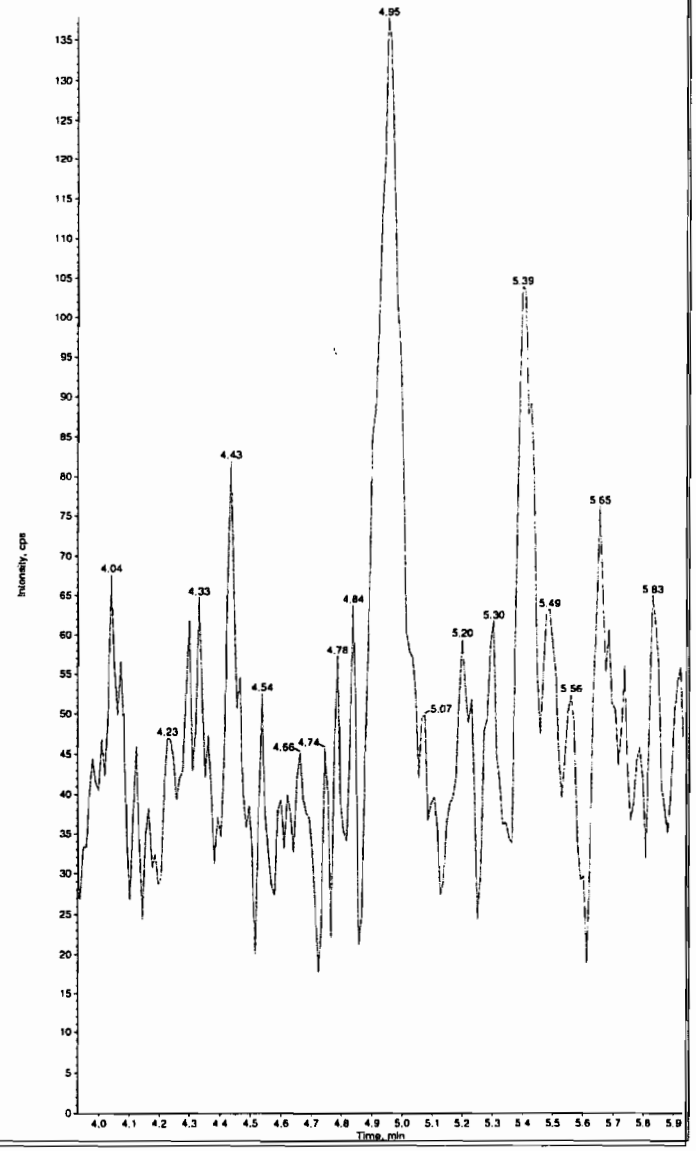

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK05" Sample ID: "[1]MAP" File: "EXS05030037.wiff"
< Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_B" Annotation: ""

```
e Index:        1
e Type:     Unknown
ntration:     N/A
lated Conc:    0.00     ng/mL
Date:       5/4/2010
Time:       12:48:53 AM

ied:            No
```

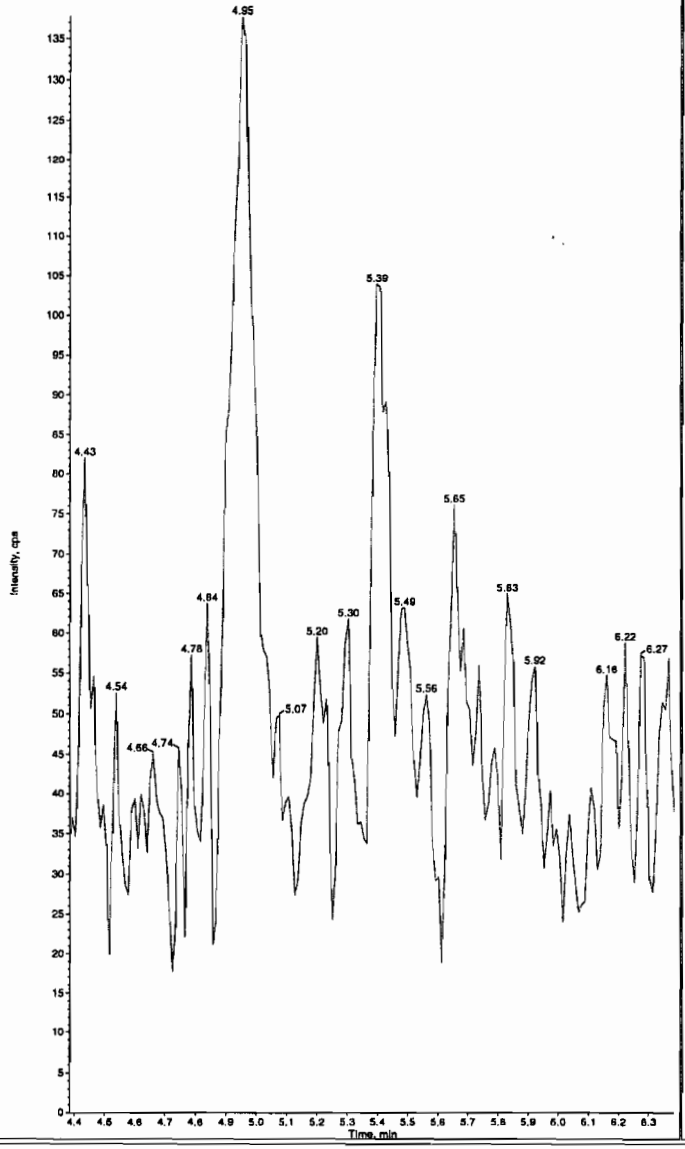

Sample Name: "XIBLK05" Sample ID: "[1]MAP" File: "EXS05030037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:        1
Sample Type:     Unknown
Concentration:     N/A
Calculated Conc:    13.8     ng/mL
Acq. Date:       5/4/2010
Acq. Time:       12:48:53 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:       10.8     min
Use Relative RT:     No

Int. Type:       Valley
Retention Time:    10.8     min
Area:        1.22e+005    counts
Height:        29883.755    cps
Start Time:        10.7     min
End Time:          11.0     min
```

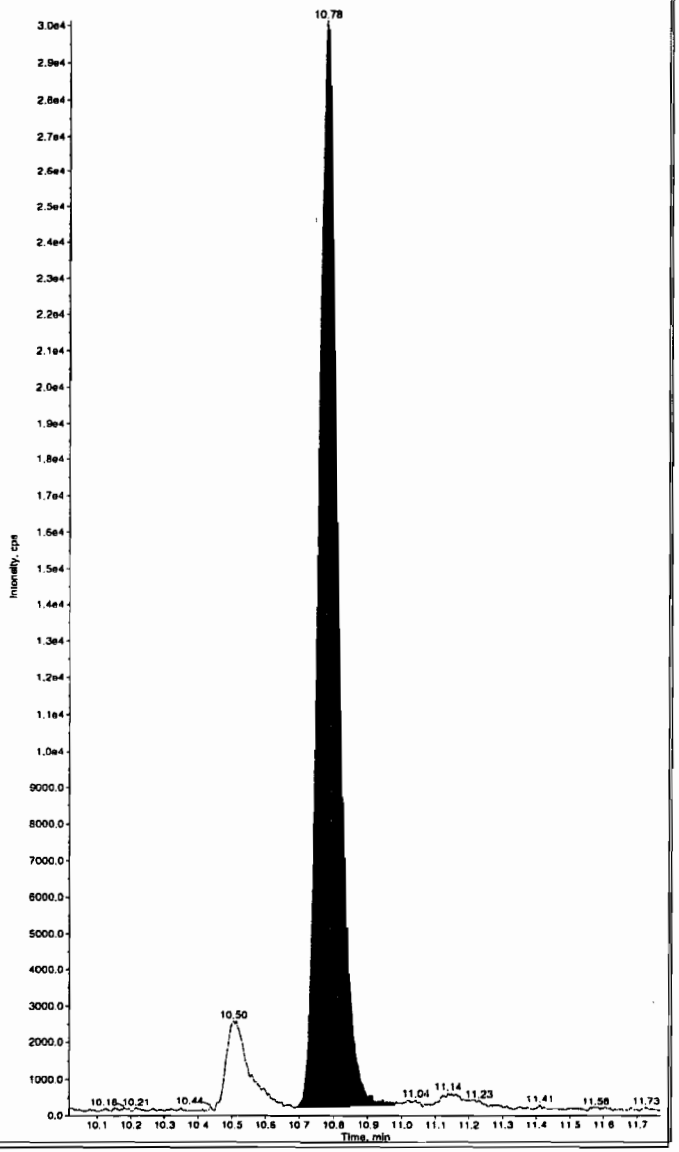

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2937

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 04–MAY–10 02:54

GEL Data File: EXS05030045.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	13.9
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

MMT 5/18/10

ple Name: "XIBLK06" Sample ID: "|1|MAP" File: "EXS05030045.wiff"
: Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 5/4/2010
Time: 2:54:33 AM

ied: No

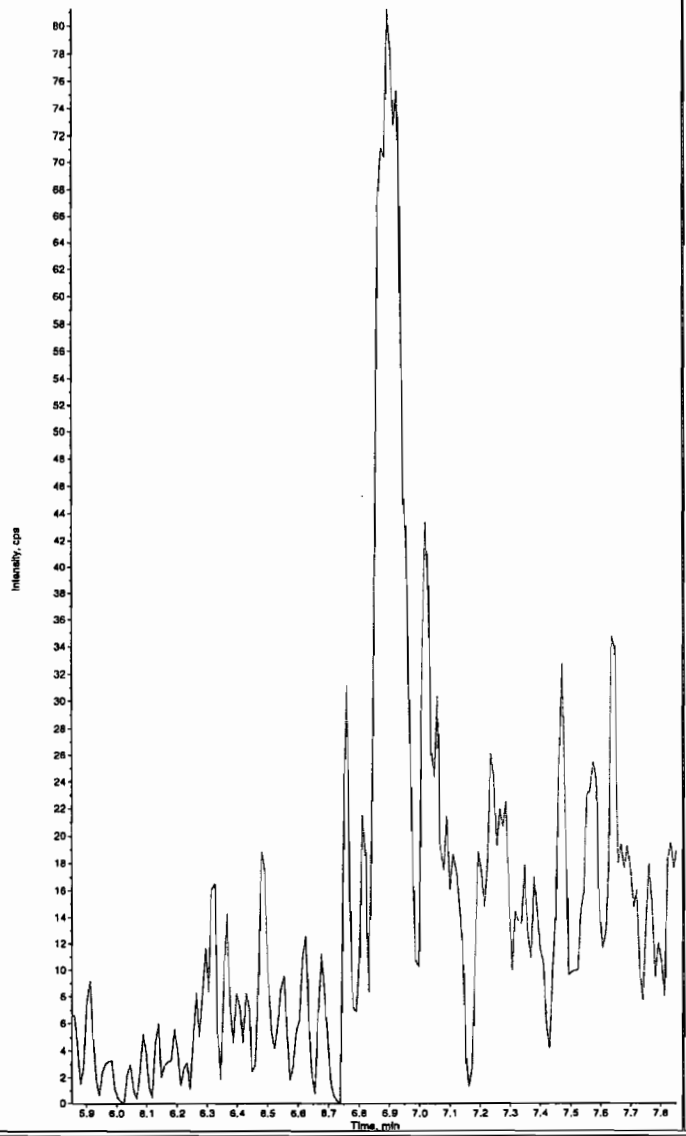

Sample Name: "XIBLK06" Sample ID: "|1|MAP" File: "EXS05030045.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 5/4/2010
Acq. Time: 2:54:33 AM

Modified: No

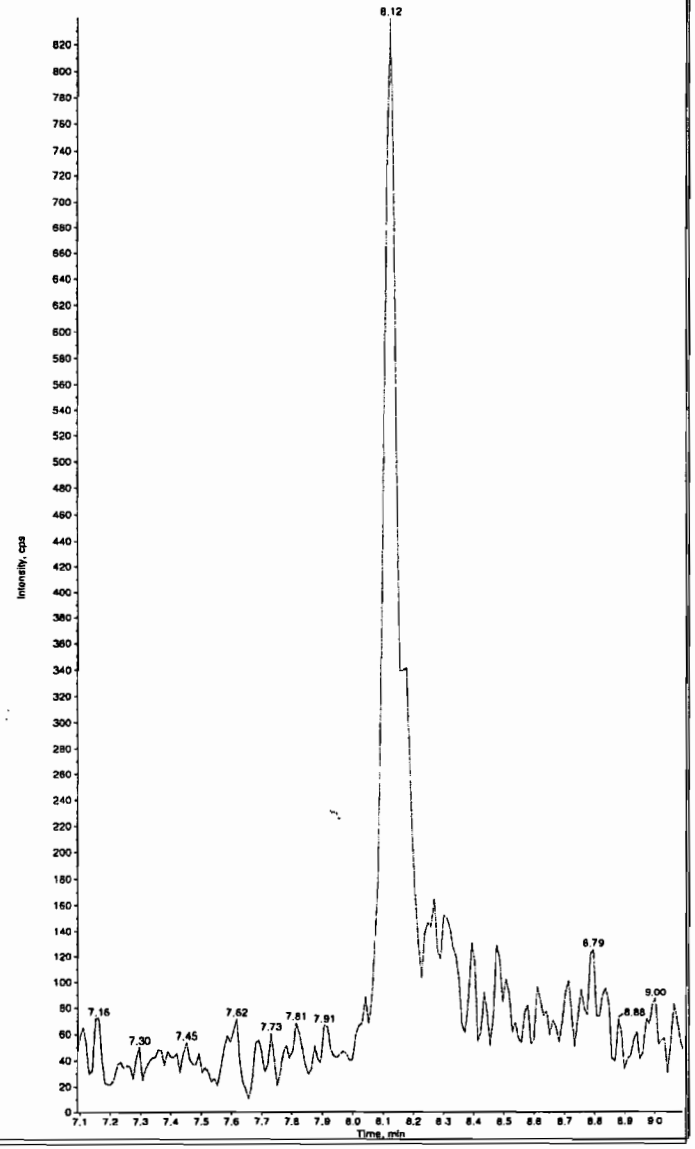

Hmm 05/06/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK06" Sample ID: "|1|MAP" File: "EXS05030045.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 5/4/2010
Time: 2:54:33 AM

ied: No

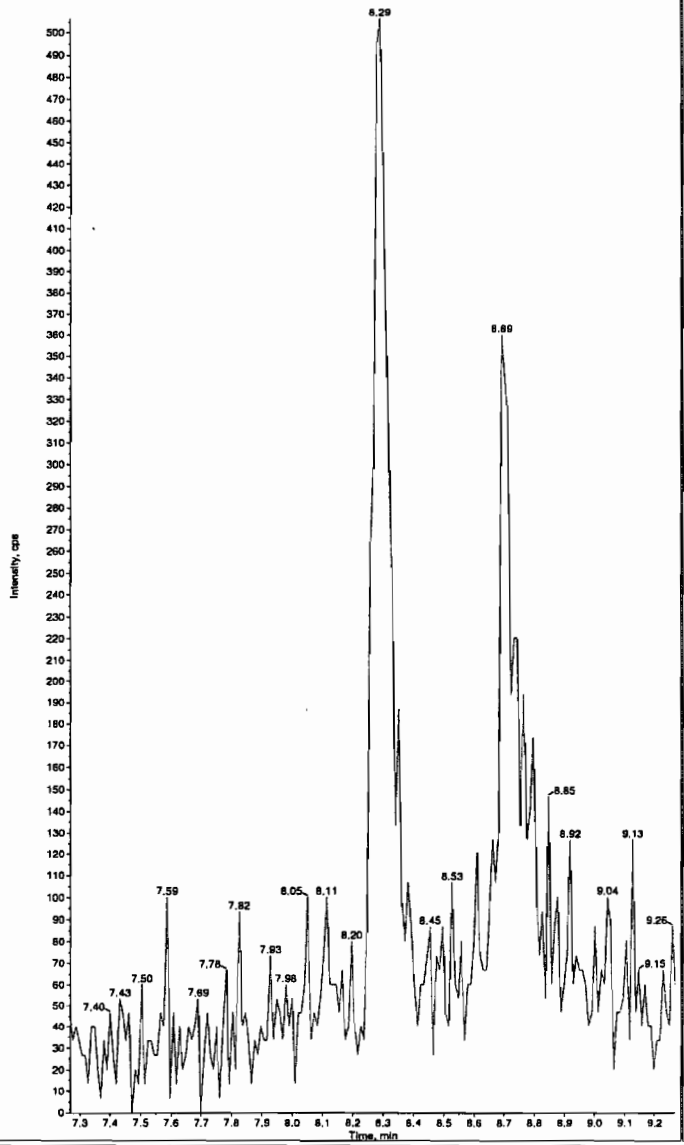

Sample Name: "XIBLK06" Sample ID: "|1|MAP" File: "EXS05030045.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 5/4/2010
Acq. Time: 2:54:33 AM

Modified: No

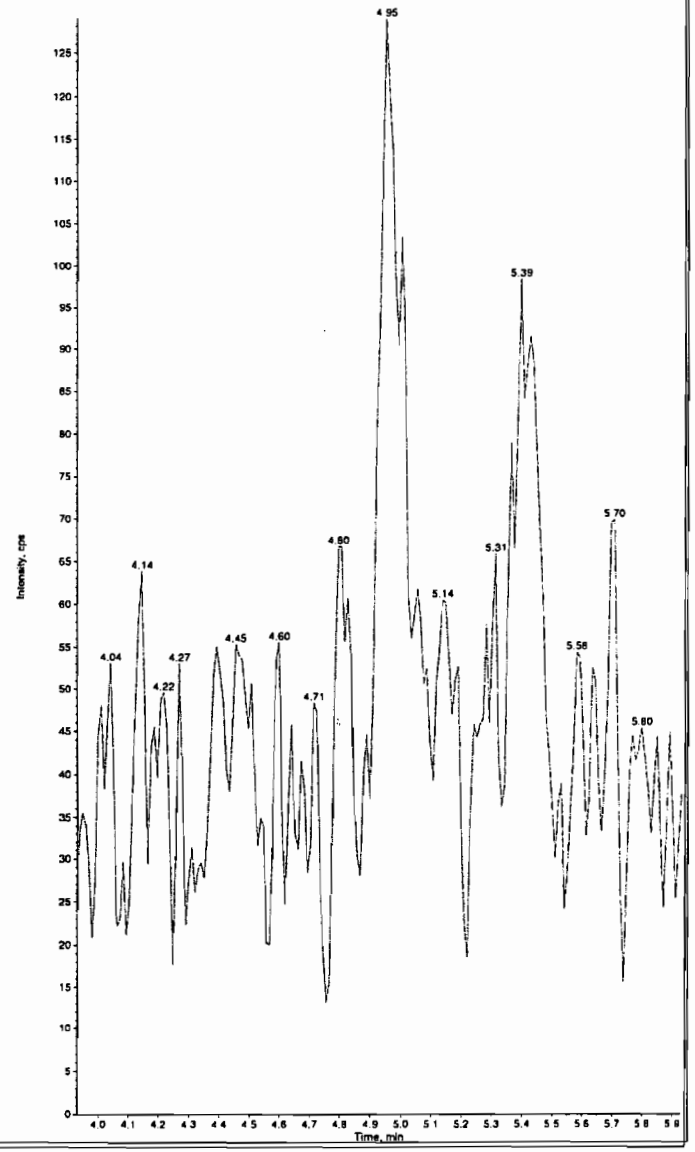

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK06" Sample ID: "|1|MAP" File: "EXS05030045.wiff"
: Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_B" Annotation: ""

e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 5/4/2010
Time: 2:54:33 AM

ied: No

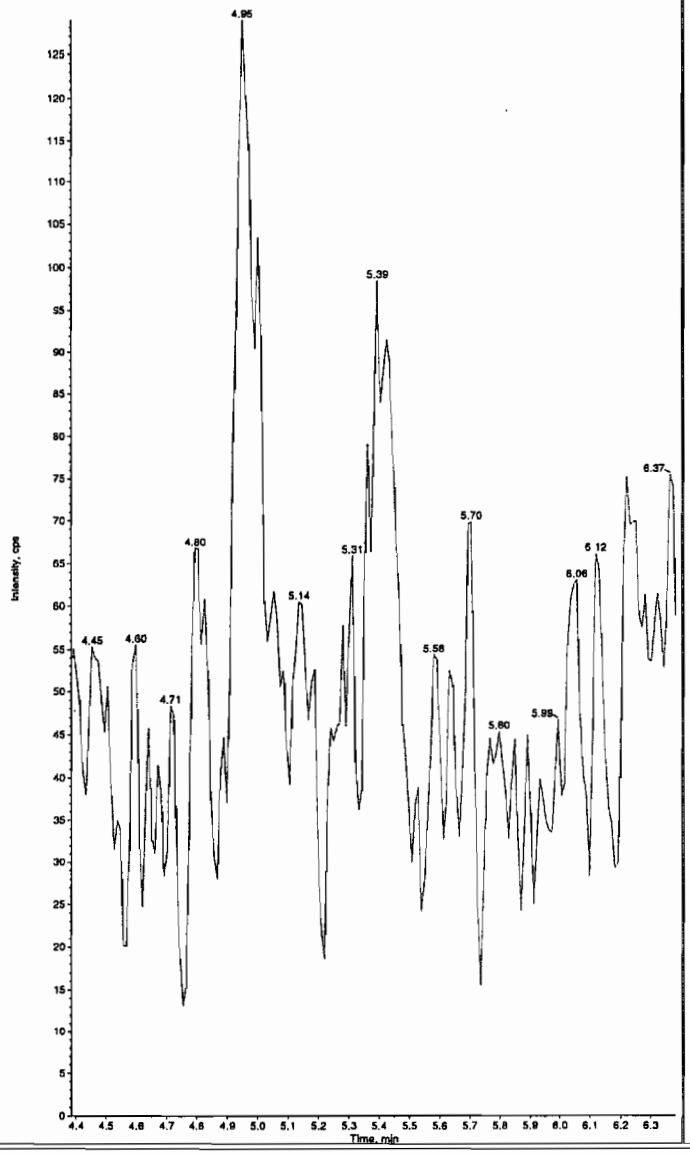

Sample Name: "XIBLK06" Sample ID: "|1|MAP" File: "EXS05030045.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 13.9 ng/mL
Acq. Date: 5/4/2010
Acq. Time: 2:54:33 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.23e+005 counts
Height: 30375.742 cps
Start Time: 10.7 min
End Time: 11.0 min

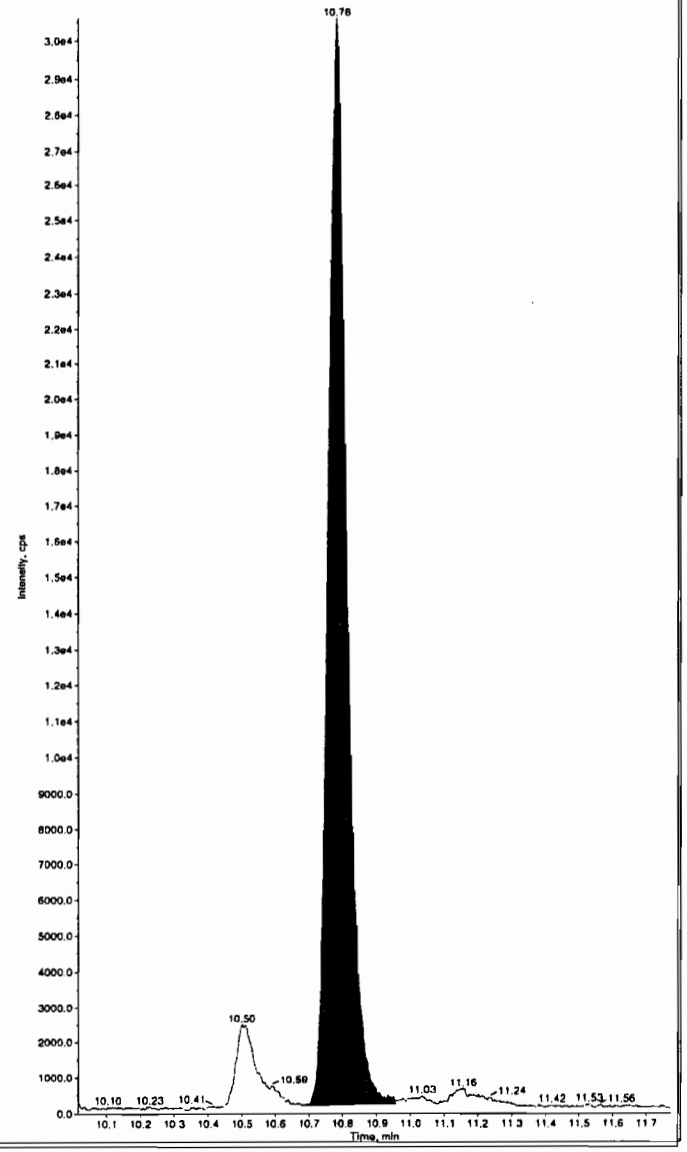

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

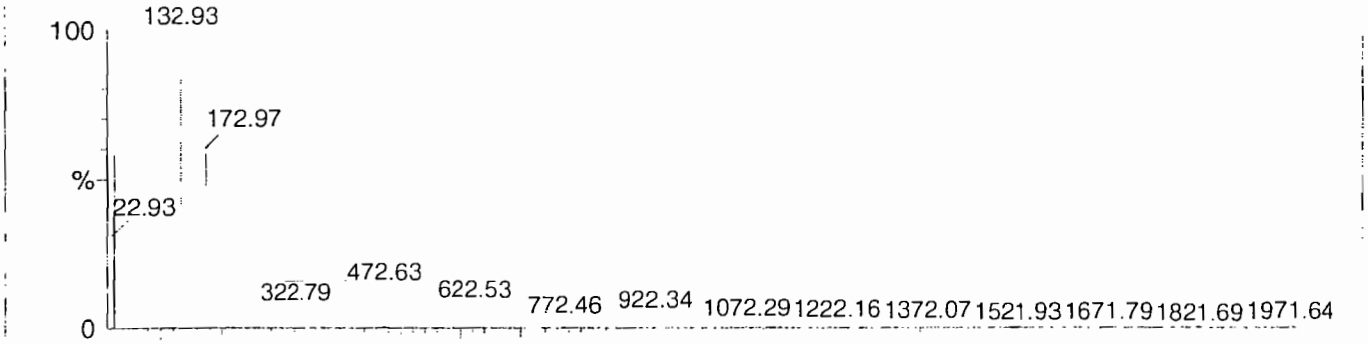

Reference file: Naics2

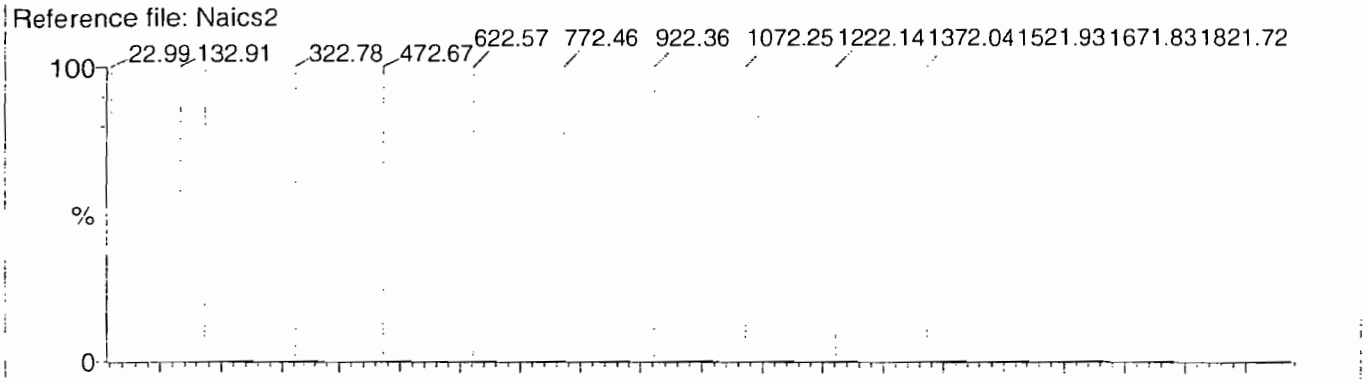

Mass difference (Raw - Ref mass)

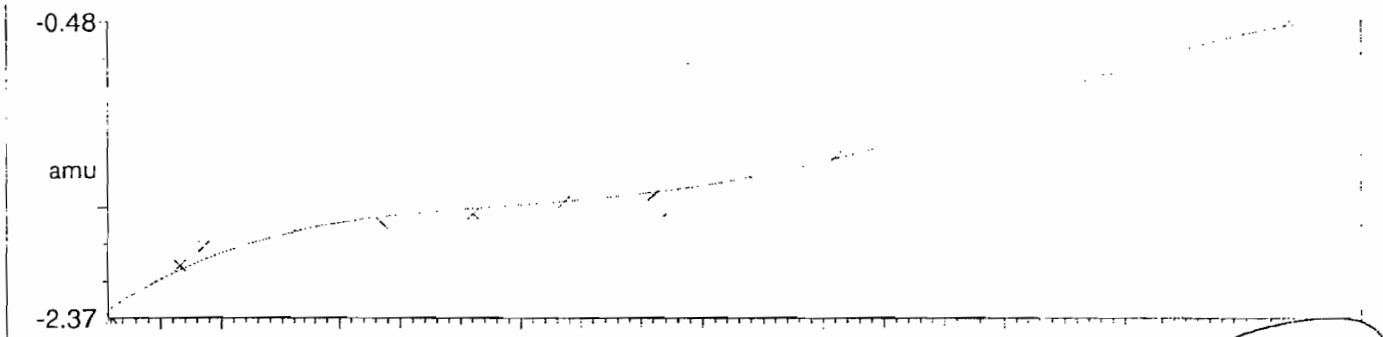

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
hm

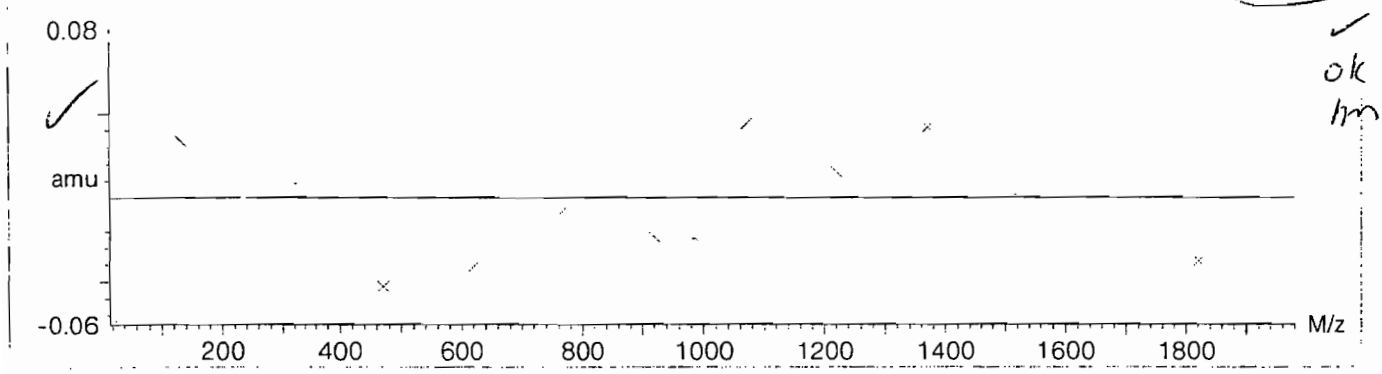

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

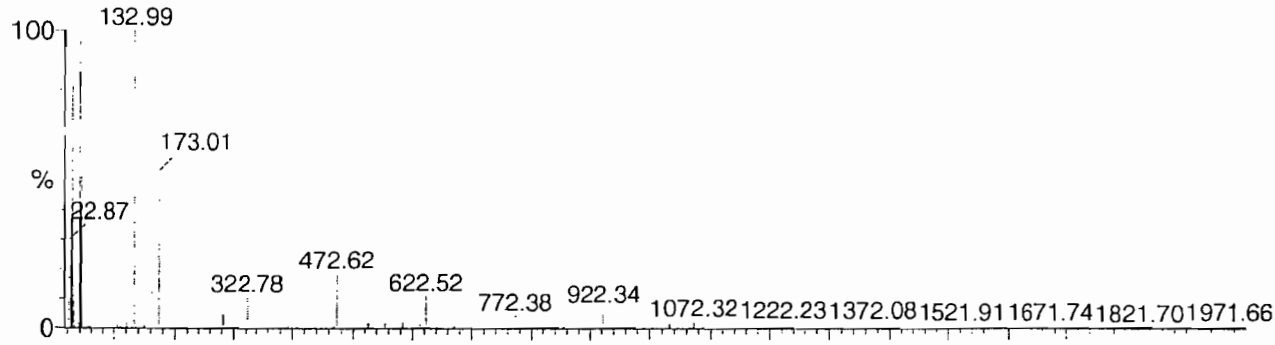

Reference file: Naics2

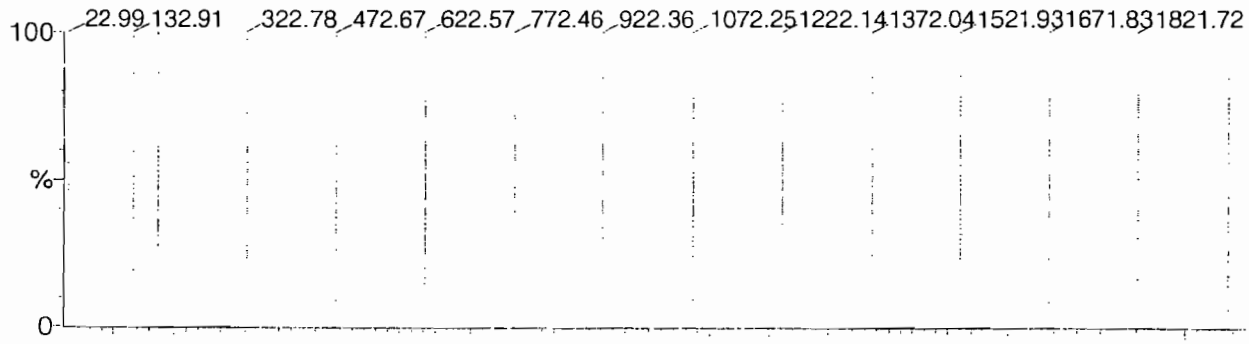

Mass difference (Raw - Ref mass)

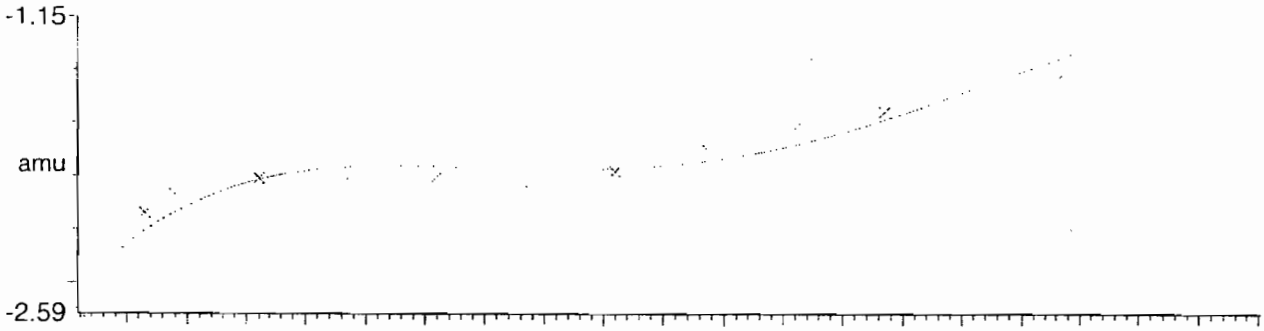

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
mm

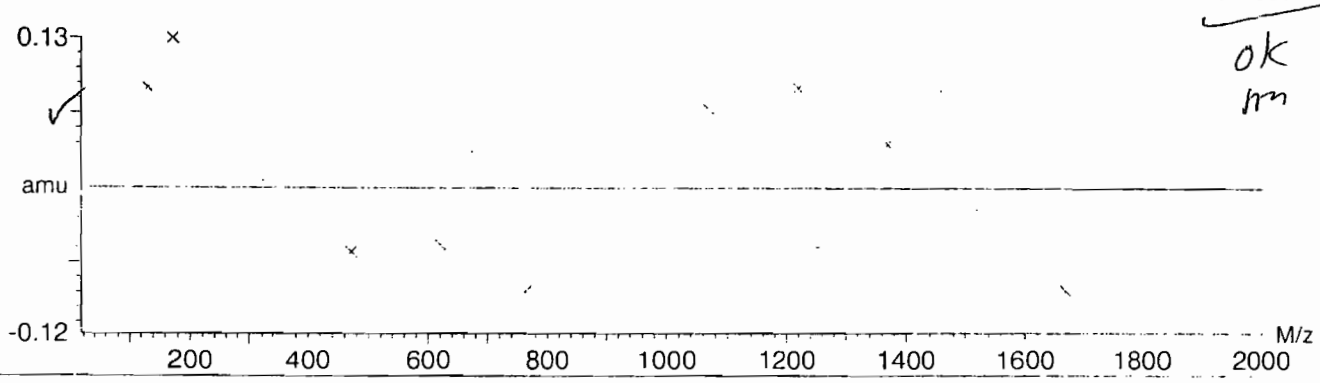

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

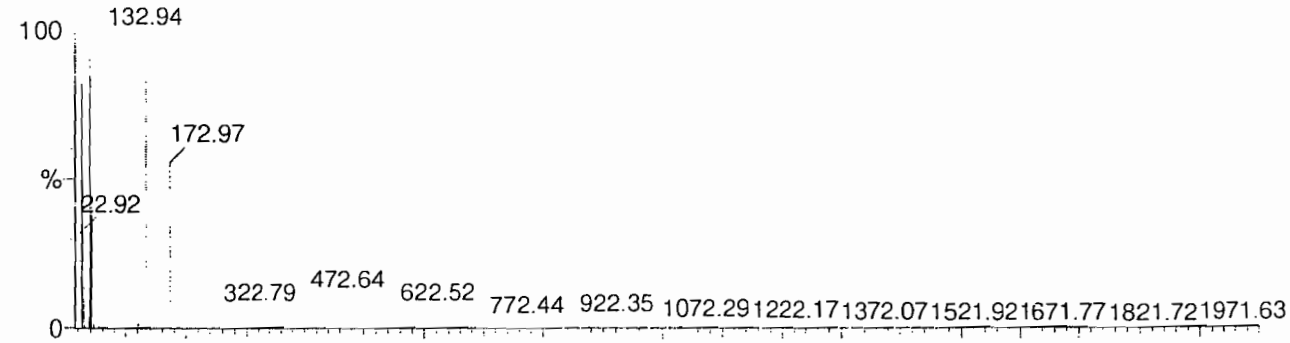

Reference file: Naics2

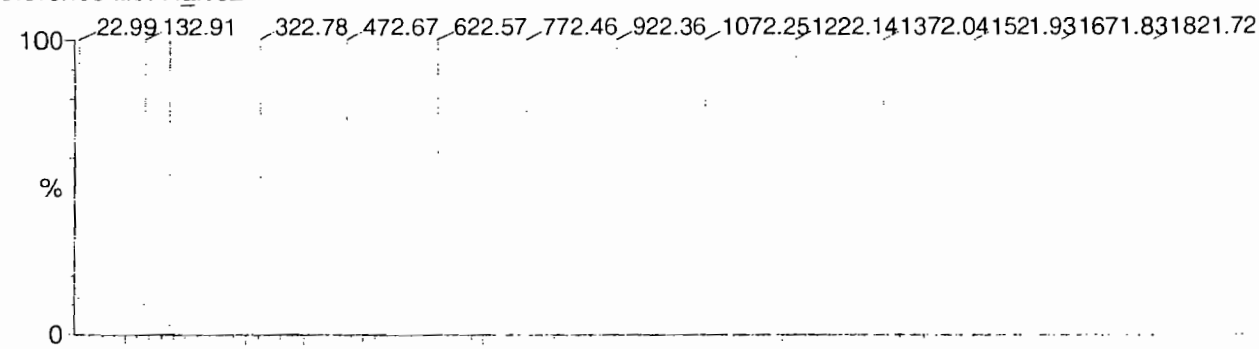

Mass difference (Raw - Ref mass)

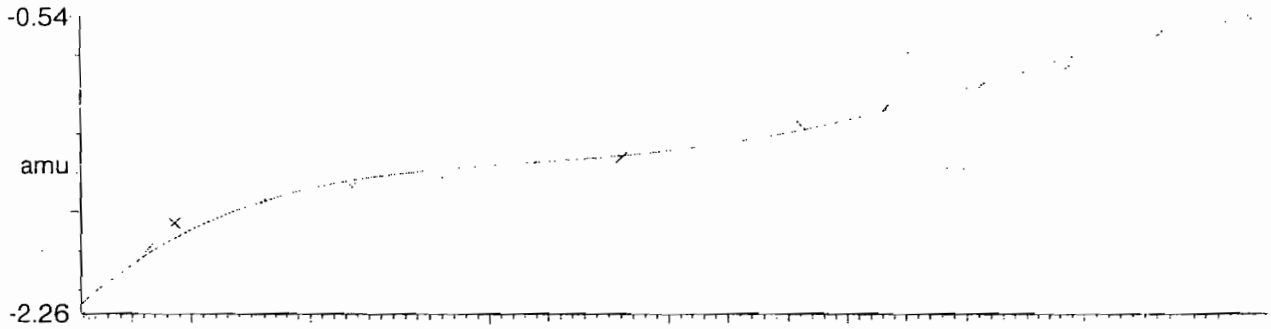

Residuals

Mean residual = 3.486639e-9 ± 0.040487

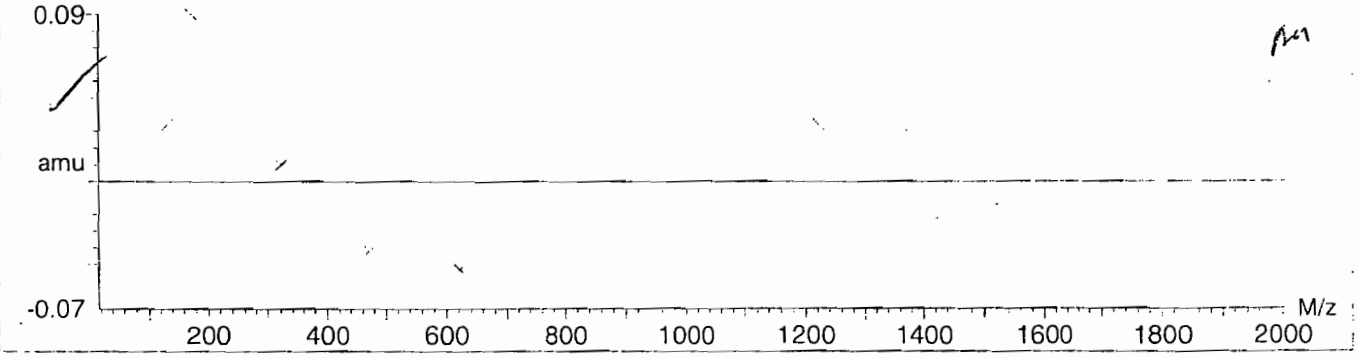

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Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

15 matches of 15 tested references

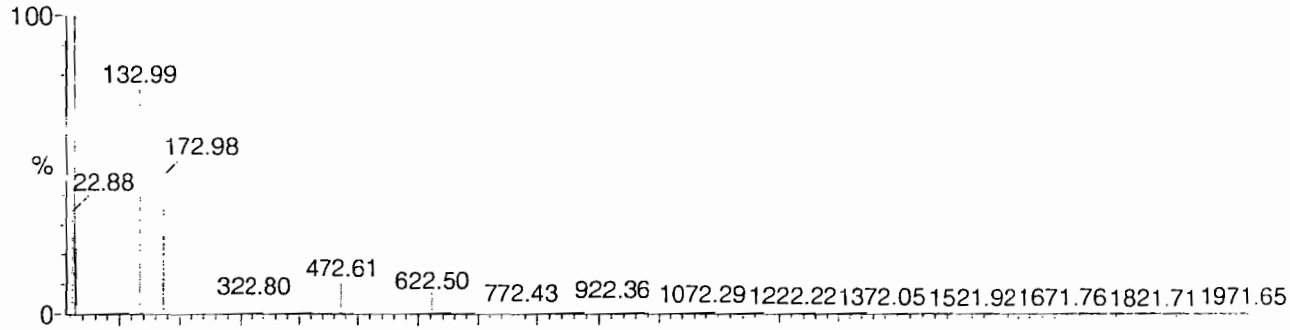

Reference file: Naics2

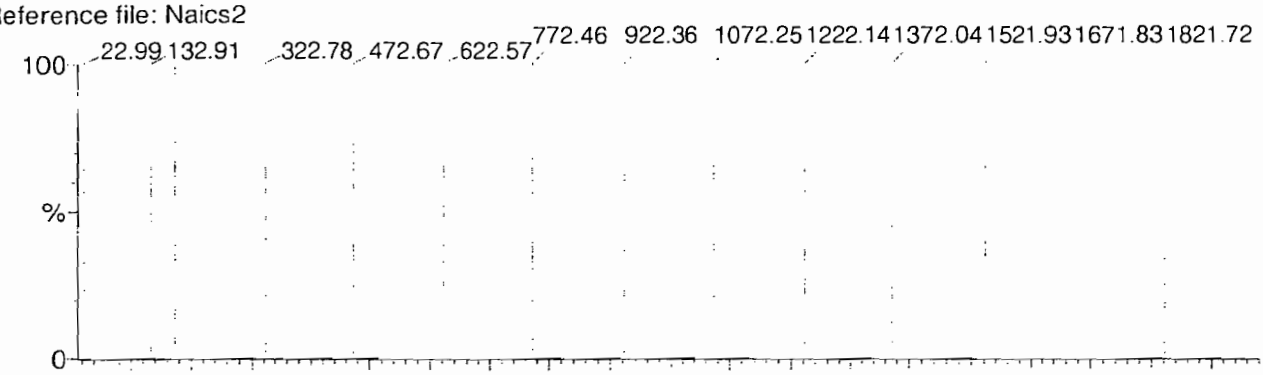

Mass difference (Raw - Ref mass)

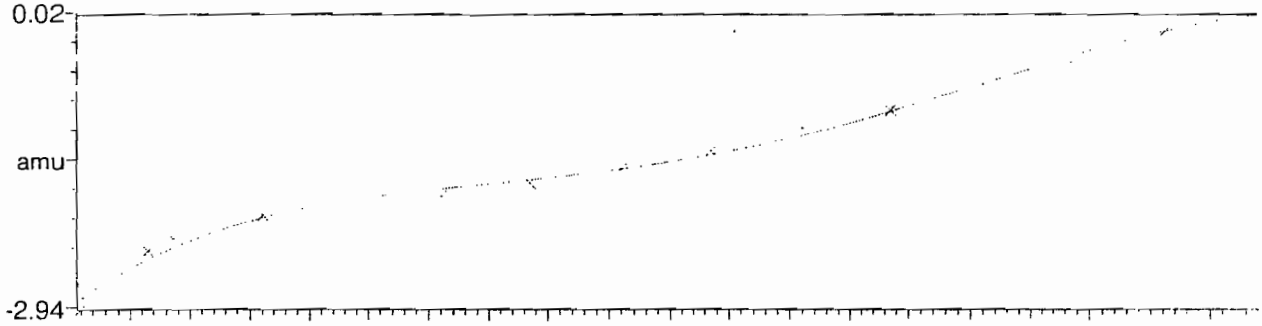

Residuals

Mean residual = 2.048910e-9 ± 0.057803

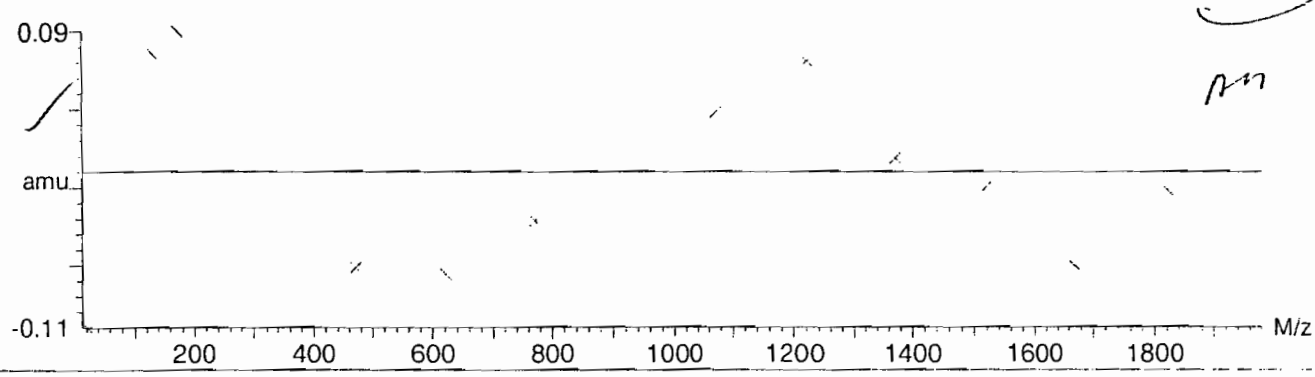

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

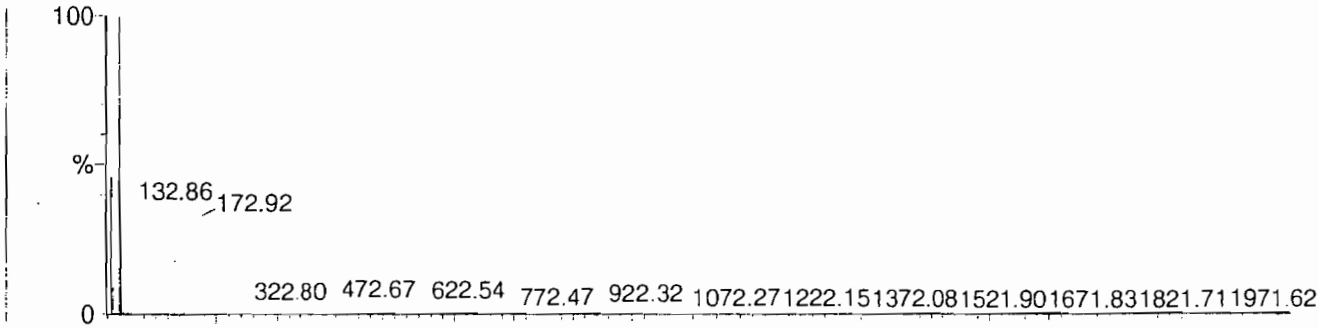

Reference file: Naics2

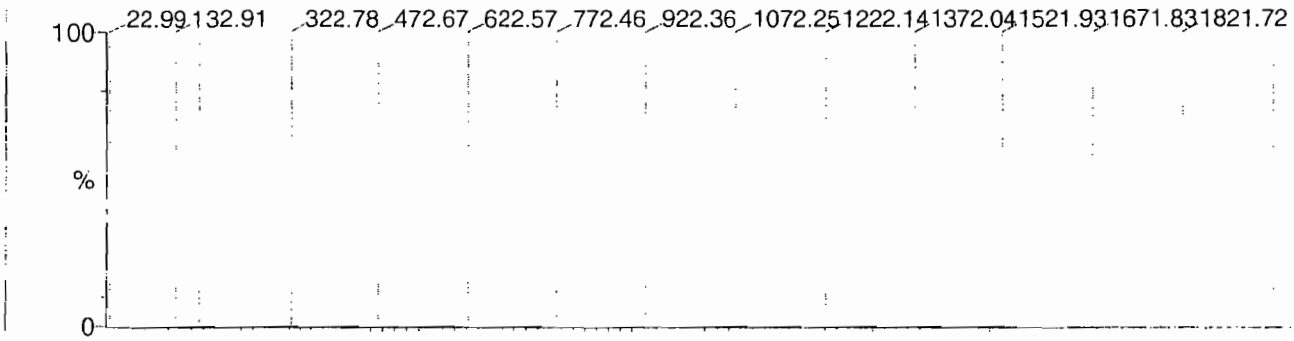

Mass difference (Raw - Ref mass)

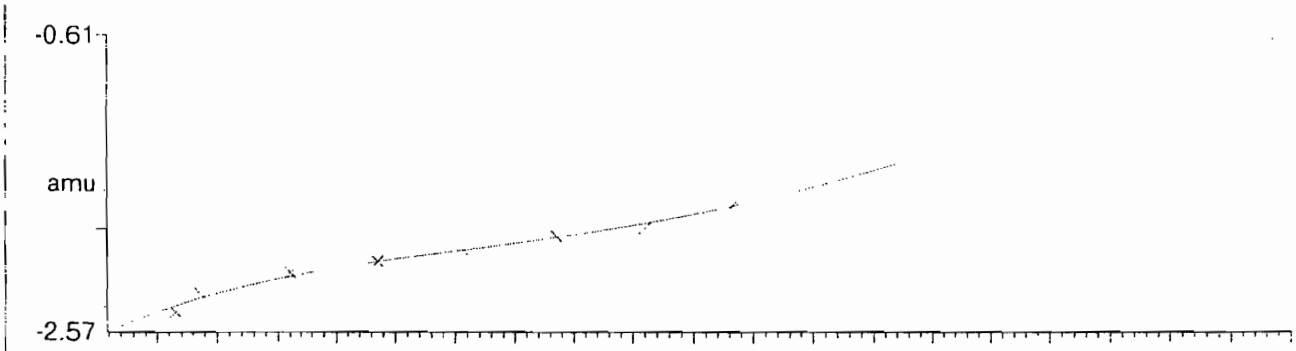

Residuals

Mean residual = -2.623502e-9 ± 0.025622

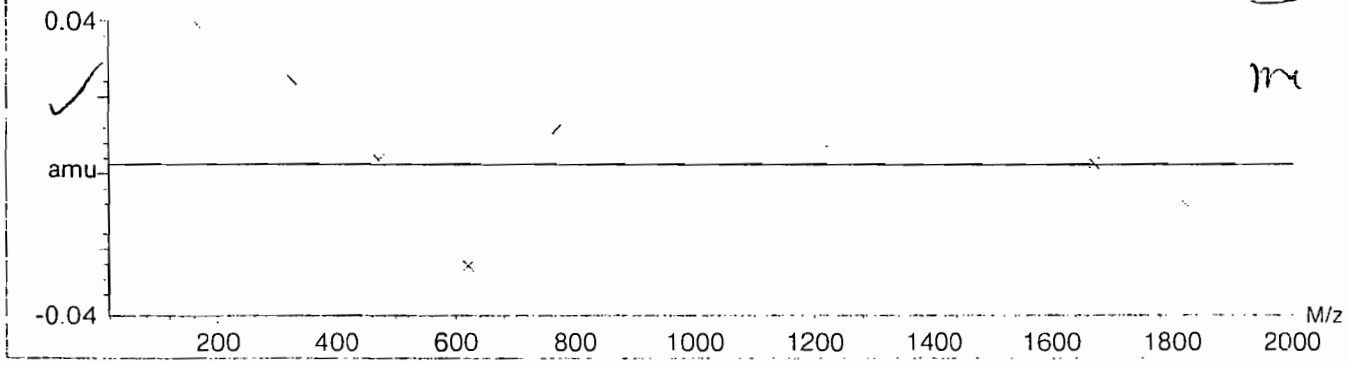

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

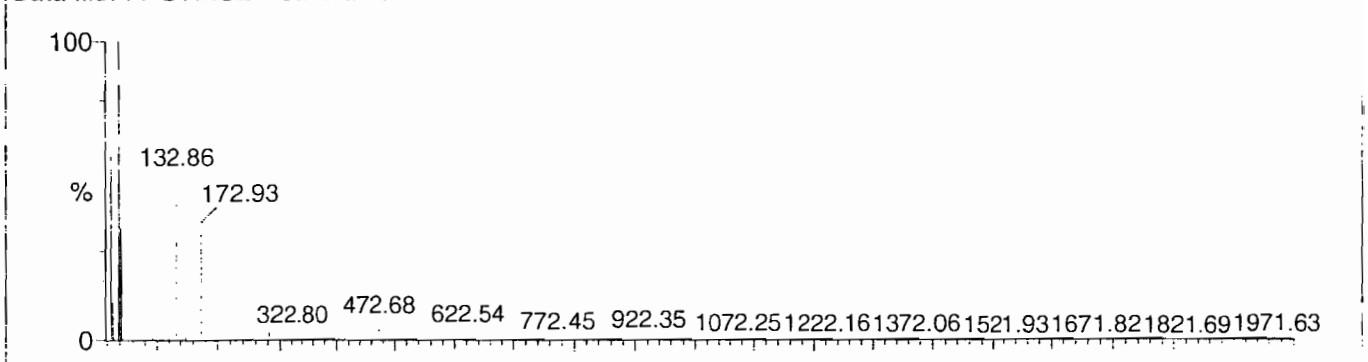

Reference file: Naics2

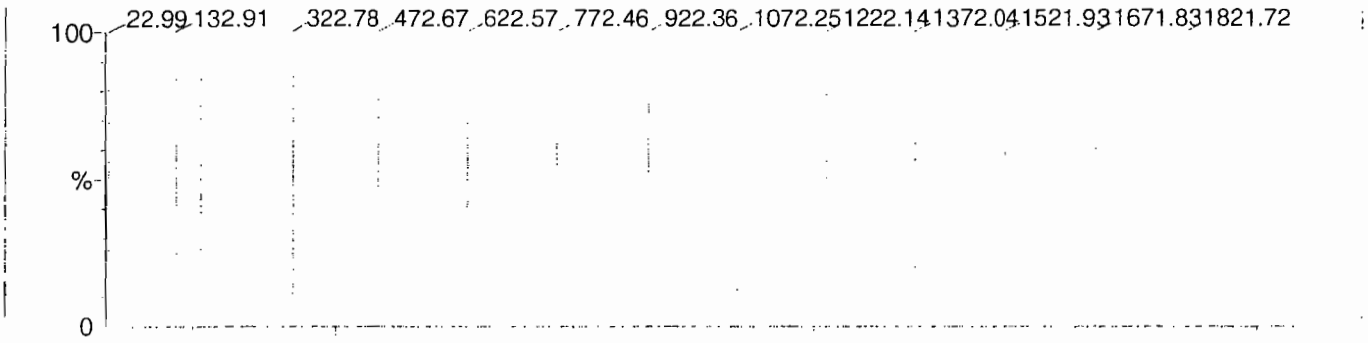

Mass difference (Raw - Ref mass)

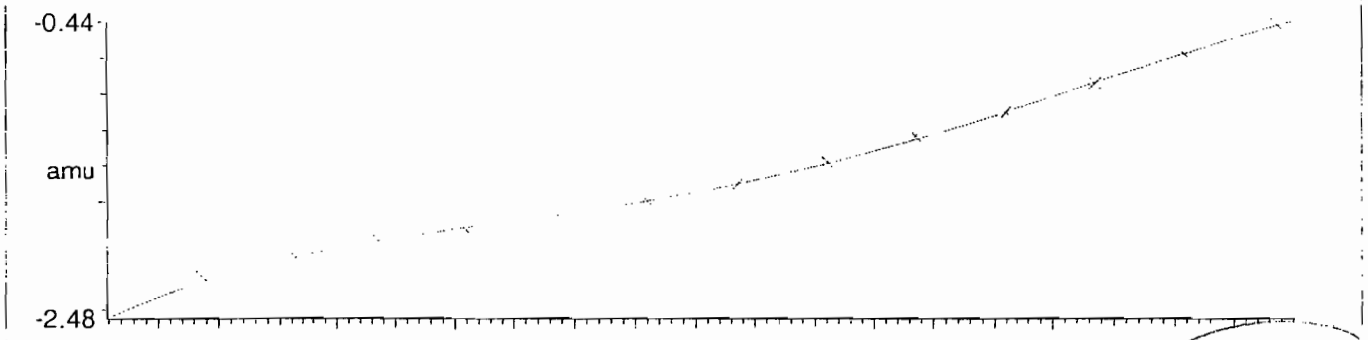

Residuals

Mean residual = -6.785350e-9 ± 0.023134

m

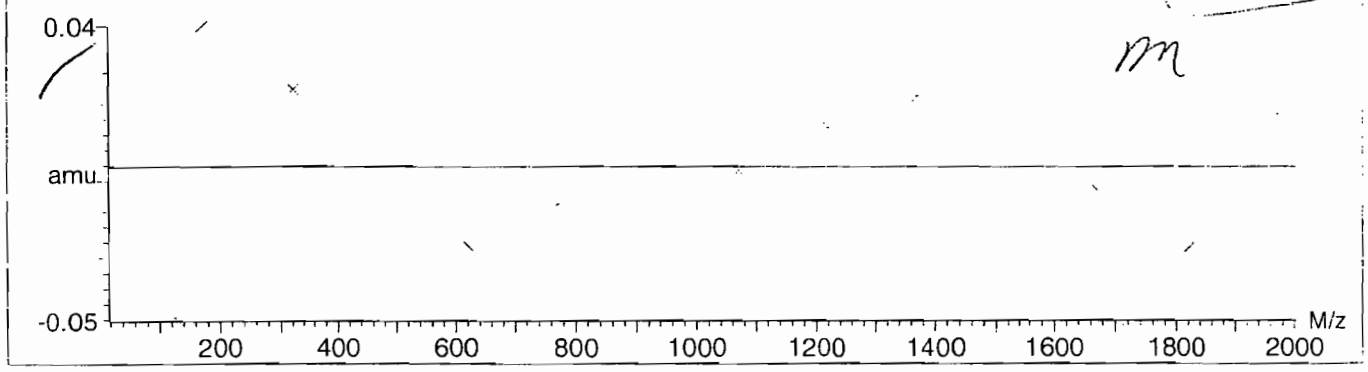

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Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Sat May 01 10:52:55 2010

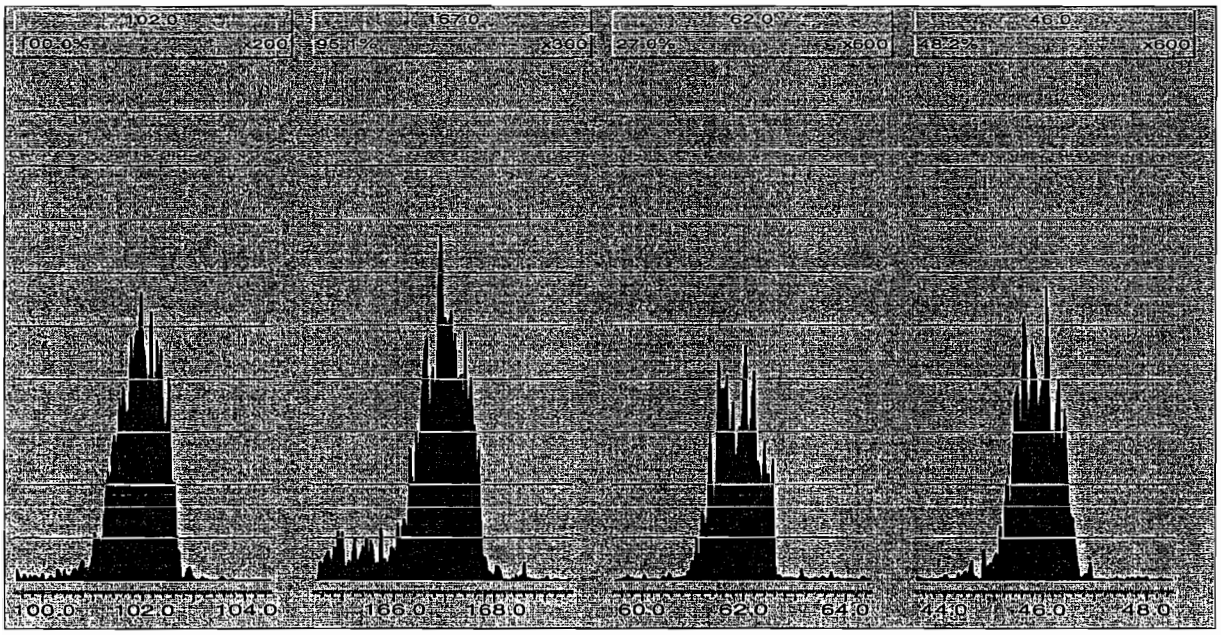

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2937

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			6463.112	11.921	37018.817	17.165
Upper Limit			8402.0456	12.421	48124.4621	17.665
Lower Limit			4524.1784	11.421	25913.1719	16.665
LCS for batch 979352	07–may–10 01:38	EXP0501263a	7898.91	11.891	42459	17.105
GW03–10–16675	07–may–10 02:08	EXP0501264a	7363.92	11.893	44561.6	17.094
GW03–10–16675(251870001MS	07–may–10 03:07	EXP0501266a	6303.98	11.868	40550.8	17.094
MB for batch 979352	07–may–10 21:49	EXP0501304a	8321.15	11.891	48604.4 *	17.105
GW03–10–16675(251870001MS	07–may–10 22:18	EXP0501305a	9292.29 *	11.894	43727.5	17.094

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE
DATA

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: GW03-10-16675

Lab Code: GEL

GEL Job No (SDG) 10-2937

Matrix: WATER

GEL Sample ID: 251870001

Sample Amount 77

Moisture:

Amount Units mL

Date Received: 28-APR-10

Extraction Type Sol Exchange

Extraction Batch ID: 979352

Concentrated Extract Volume (mL) 5

Date Extracted: 29-APR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0501264a

Date Analyzed: 07-MAY-10 02:08

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	3.25	U
121-14-2	2,4-Dinitrotoluene	3.25	U
121-82-4	RDX	3.25	U
19406-51-0	4-Amino-2,6-dinitrotoluene	3.25	U
2691-41-0	HMX	3.25	U
35572-78-2	2-Amino-4,6-dinitrotoluene	3.25	U
479-45-8	Tetryl	6.49	U
606-20-2	2,6-Dinitrotoluene	3.25	U
78-11-5	PETN	13.0	U
88-72-2	o-Nitrotoluene	3.25	U
98-95-3	Nitrobenzene	3.25	U
99-08-1	m-Nitrotoluene	3.25	U
99-35-4	1,3,5-Trinitrobenzene	3.25	U
99-65-0	m-Dinitrobenzene	3.25	U
99-99-0	p-Nitrotoluene	6.49	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501264a
Date: 07-May-2010
Time: 02:08:04
ID: 251870001 | ARSL | 979353 | GQ | 2 |
Vial: 1:8,C

MM 5/7/10

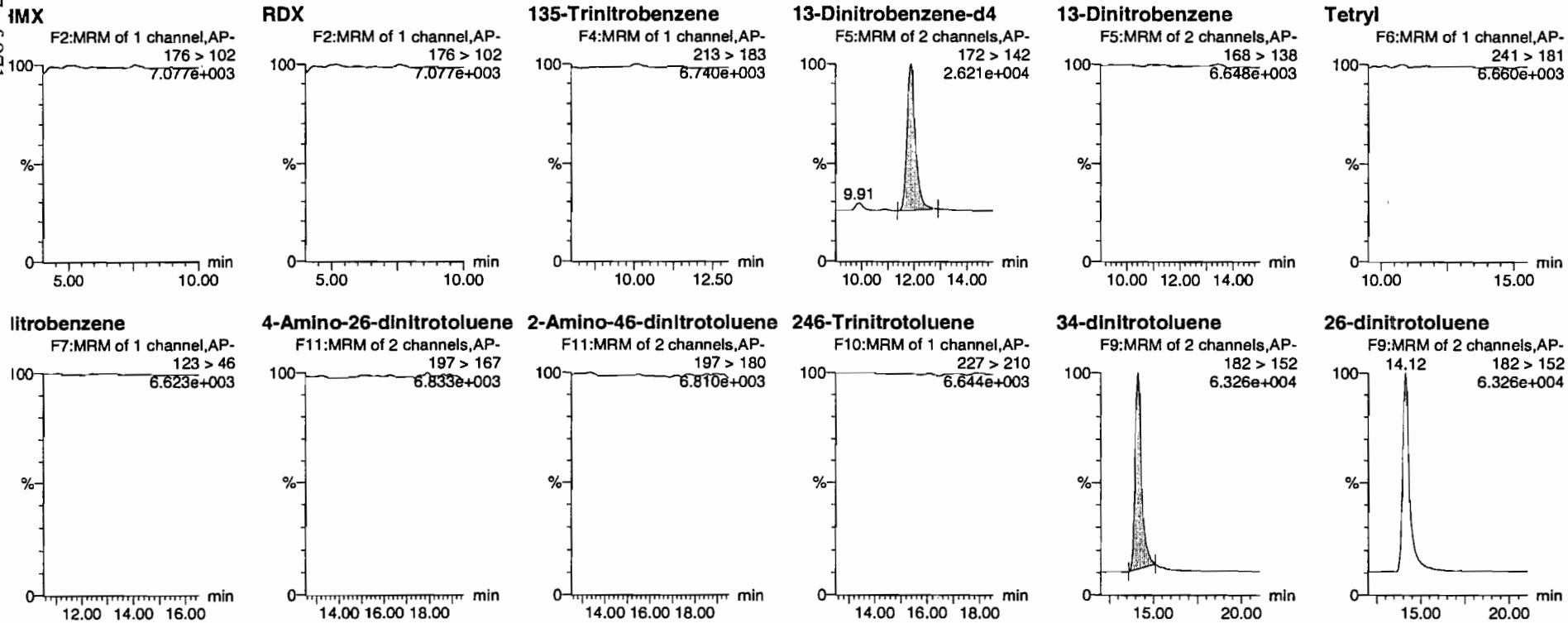

HMC 05/10/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

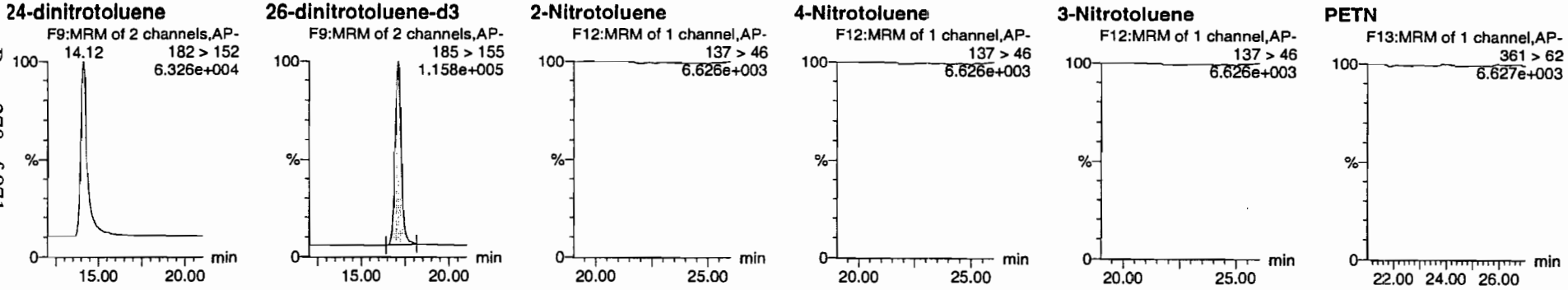

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
251870001	HMX	176 > 102			7363.919									
251870001	RDX	176 > 102			7363.919									
251870001	135-Trinitrobenzene	213 > 183			7363.919									
251870001	13-Dinitrobenzene-d4	172 > 142	11.89	7363.919		7363.919	7363.919	bb			569.6883	113.9	13.9	310.9
251870001	13-Dinitrobenzene	168 > 138			7363.919									
251870001	Tetryl	241 > 181			7363.919									
251870001	Nitrobenzene	123 > 46			7363.919									
251870001	4-Amino-26-dinitrotoluene	197 > 167			44561.621									
251870001	2-Amino-46-dinitrotoluene	197 > 180			44561.621									
251870001	246-Trinitrotoluene	227 > 210			44561.621									
251870001	34-dinitrotoluene	182 > 152	14.12	23554.199	44561.621	23554.199	264.288	bb			244.8872	98.0	-2.0	936.4
251870001	26-dinitrotoluene	182 > 152			44561.621									
251870001	24-dinitrotoluene	182 > 152			44561.621									
251870001	26-dinitrotoluene-d3	185 > 155	17.09	44561.621		44561.621	44561.621	bb			601.8782	120.4	20.4	2849.3
251870001	2-Nitrotoluene	137 > 46			44561.621									
251870001	4-Nitrotoluene	137 > 46			44561.621									
251870001	3-Nitrotoluene	137 > 46			44561.621									
251870001	PETN	361 > 62			44561.621									

3.17 x 10 = 31.7

only 7 ml extracted
HMC 05/10/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: GW03-10-16675

Lab Code: GEL

GEL Job No (SDG) 10-2937

Matrix: WATER

GEL Sample ID: 251870001

Sample Amount 77

Moisture:

Amount Units mL

Date Received: 28-APR-10

Extraction Type Sol Exchange

Extraction Batch ID: 979352

Concentrated Extract Volume (mL) 5

Date Extracted: 29-APR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS05030041.wiff

Date Analyzed: 04-MAY-10 01:51

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	13.0	U
59229-75-3	2,6-Diamino-4-nitrotoluene	13.0	U
618-87-1	3,5-Dinitroaniline	13.0	U
6629-29-4	2,4-Diamino-6-nitrotoluene	13.0	U
78-30-8	tris(o-cresyl) phosphate	13.0	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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mpl 5/5/10

mple Name: "251870001" Sample ID: "979353|2|MAP" File: "EXS05030041.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 5/4/2010
. Time: 1:51:41 AM

ified: No

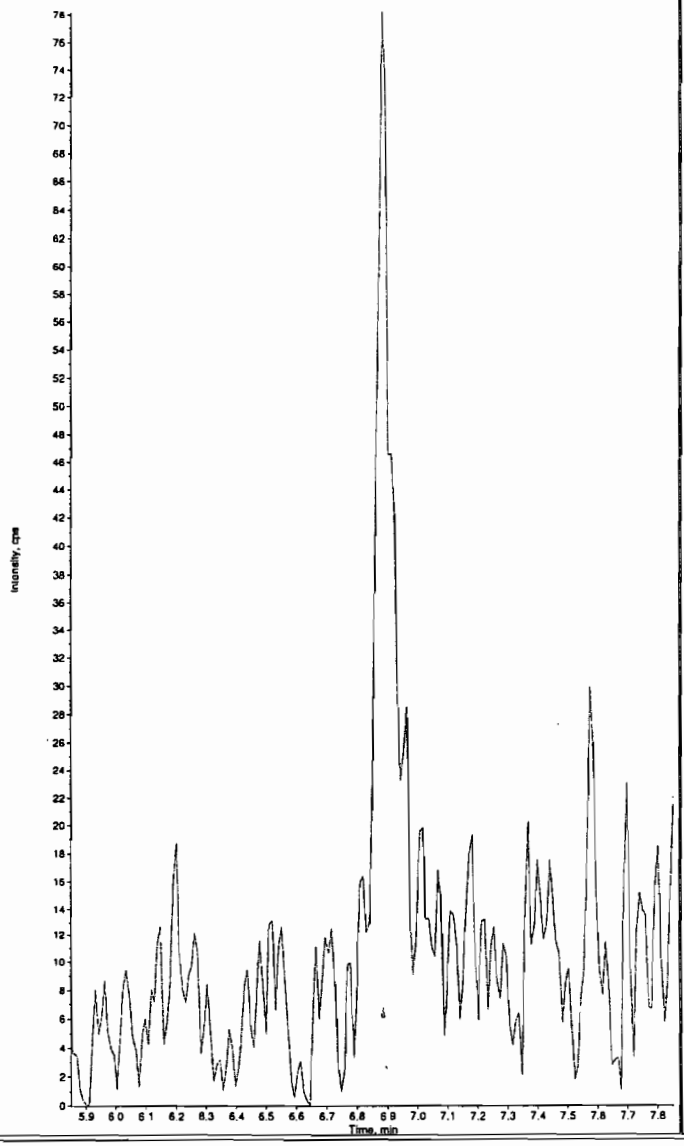

Sample Name: "251870001" Sample ID: "979353|2|MAP" File: "EXS05030041.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 5/4/2010
Acq. Time: 1:51:41 AM

Modified: No

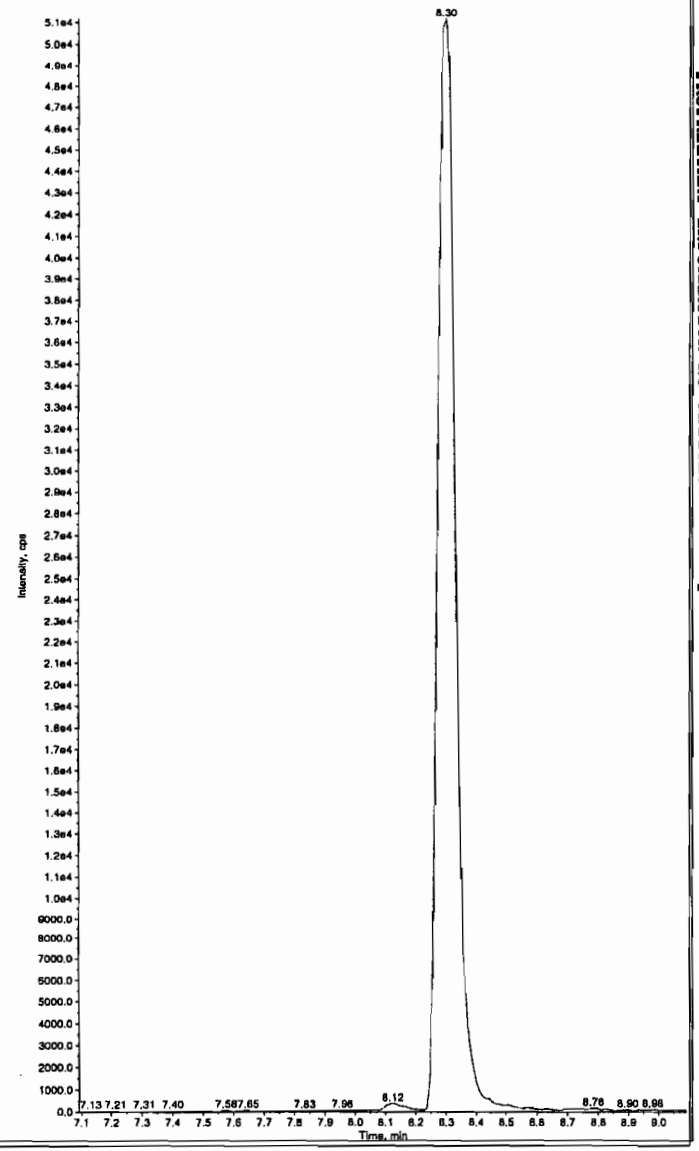

HMW 05/06/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "251870001" Sample ID: "979353|2|MAP" File: "EXS05030041.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 252. ng/mL
. Date: 5/4/2010
. Time: 1:51:41 AM

ified: No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 0 points
Window: 15.0 sec
ected RT: 8.27 min
Relative RT: No

Type: Valley
ention Time: 8.29 min
: 2.06e+006 counts
ght: 557986.572 cps
t Time: 8.20 min
Time: 8.58 min

3.27 X10 = 32.7
only 77 ml extracted
HWW 05/10/10

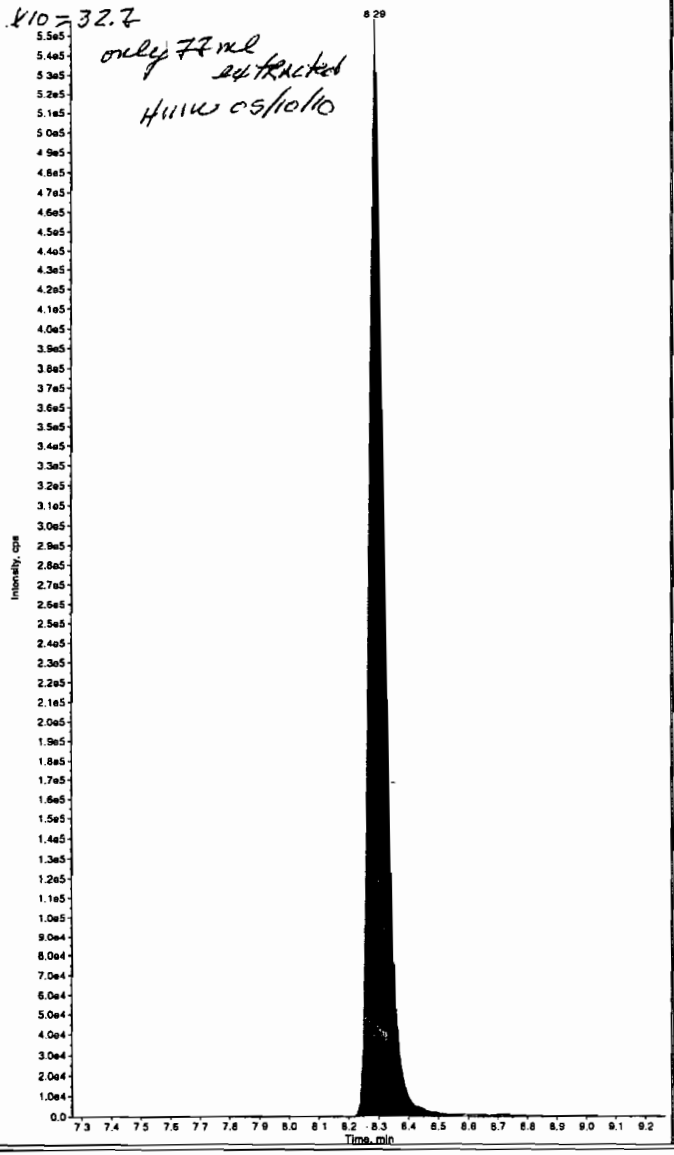

Sample Name: "251870001" Sample ID: "979353|2|MAP" File: "EXS05030041.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 5/4/2010
Acq. Time: 1:51:41 AM

Modified: No

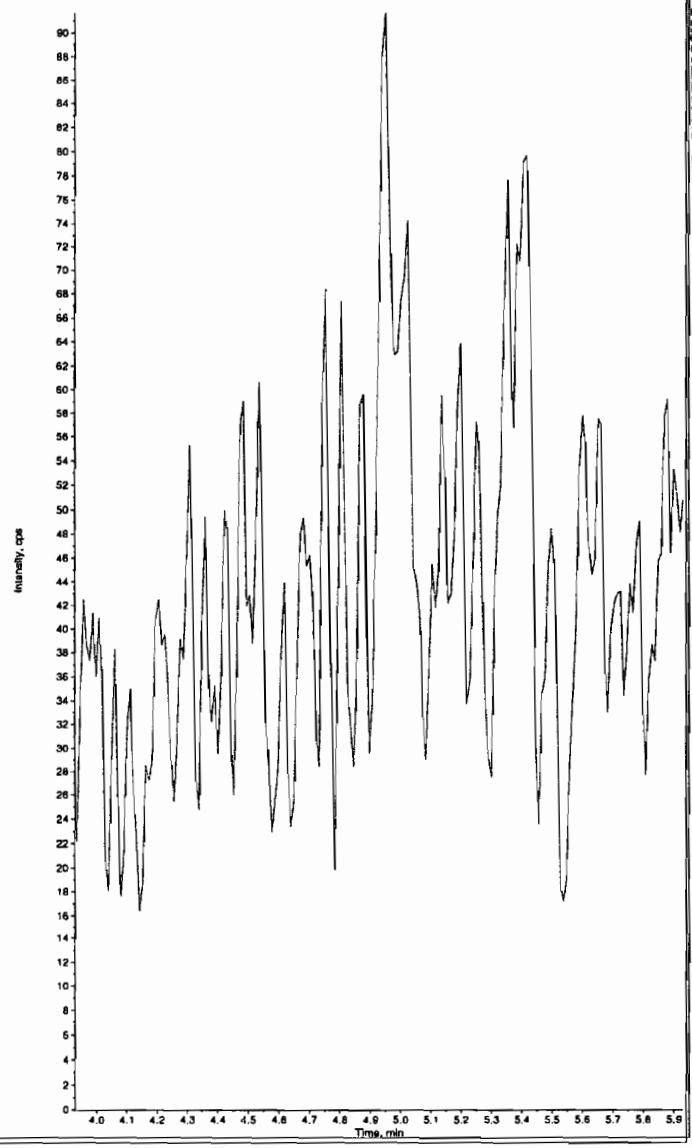

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "251870001" Sample ID: "979353|2|MAP" File: "EXS05030041.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212L" Annotation: ""

```
ple Index:        1
ple Type:       Unknown
centration:       N/A
culated Conc:     0.00      ng/mL
 Date:          5/4/2010
 Time:          1:51:41 AM

fied:              No
```

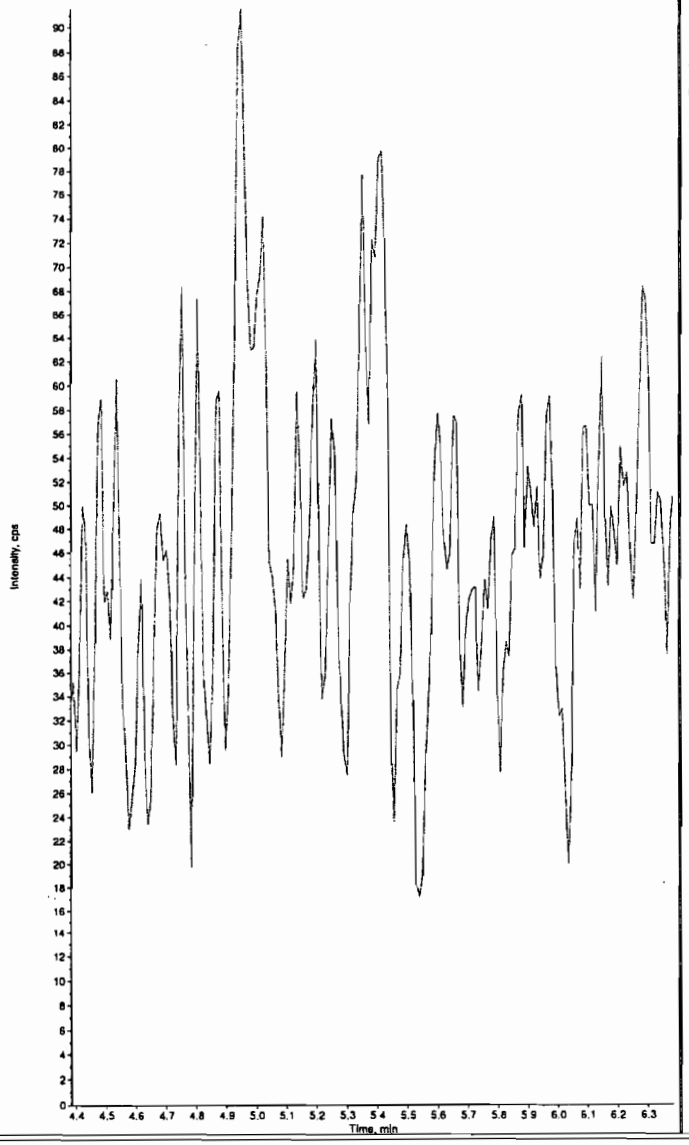

Sample Name: "251870001" Sample ID: "979353|2|MAP" File: "EXS05030041.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:     10.1      ng/mL
Acq. Date:         5/4/2010
Acq. Time:         1:51:41 AM

Modified:            No
Proc. Algorithm:  IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3        points
RT Window:          30.0     sec
Expected RT:        10.8     min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      10.8    min
Area:          4.90e+004   counts
Height:          11732.549  cps
Start Time:          10.7    min
End Time:            11.0    min
```

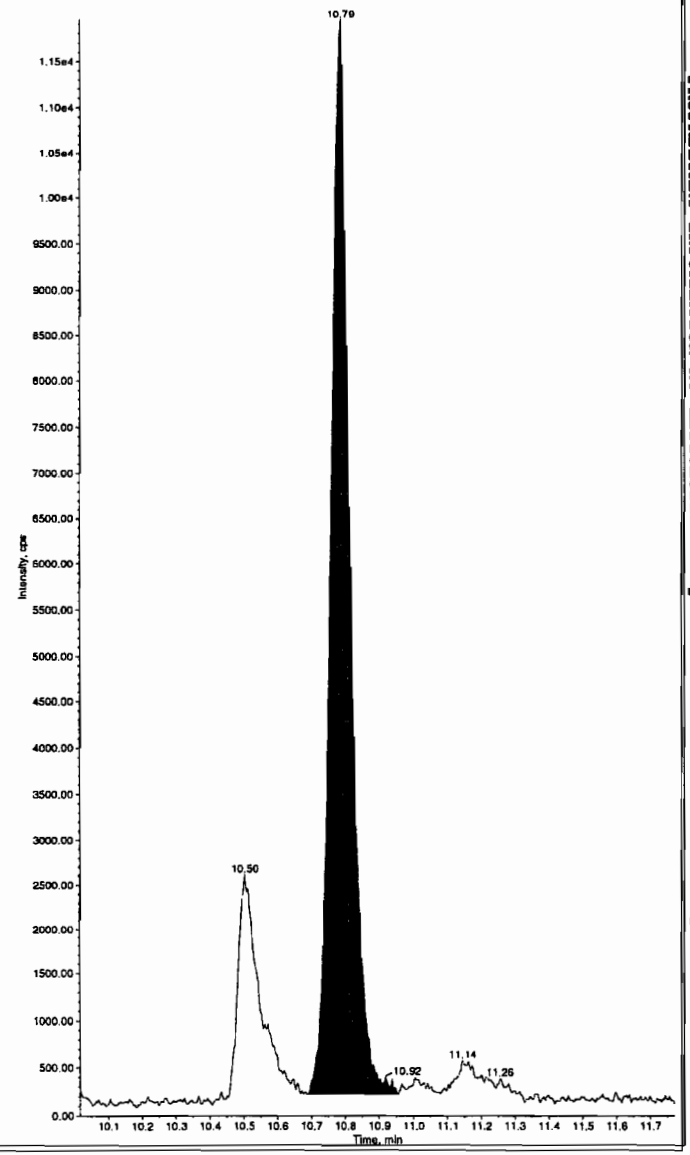

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2937

Lab Code: GEL

Run Date: 01-MAY-10,03-MAY-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0501003a	EXP0501004a	EXP0501005a	EXP0501006a	EXP0501007a	EXP0501008a			
Parmname									
1,3,5-Trinitrobenzene	4.971	4.766	4.603	4.647	4.832	4.685	4.751	2.86	
1,3-Dinitrobenzene-d4	13.383	14.132	12.624	13.226	11.92	12.272	12.926	6.268	
2,4,6-Trinitrotoluene	.469	.471	.494	.523	.532	.54	0.505	6.146	
2,4-Dinitrotoluene	.259	.268	.256	.306	.293	.269	0.275	7.317	
2,6-Dinitrotoluene	1.109	1.165	1.101	1.132	1.183	1.145	1.139	2.766	
2,6-Dinitrotoluene-d3	78.827	80.901	75.142	71.101	67.232	71.023	74.038	7.026	
2-Amino-4,6-dinitrotoluene	.509	.49	.484	.5	.504	.561	0.508	5.423	
3,4-Dinitrotoluene	.964	1.047	1.036	1.21	1.101	1.118	1.079	7.785	
4-Amino-2,6-dinitrotoluene	.302	.36	.329	.339	.353	.359	0.340	6.595	
HMX	4.009	4.32	4.287	4.422	4.229	4.122	4.232	3.487	
Nitrobenzene	.503	.516	.477	.474	.478	.495	0.491	3.468	
RDX	2.932	2.973	3.025	3.078	3.058	3.111	3.030	2.217	
Tetryl	1.279	1.279	1.428	1.404	1.386	1.454	1.372	5.499	
m-Dinitrobenzene	1.44	1.243	1.233	1.184	1.327	1.262	1.282	7.08	
m-Nitrotoluene	.03	.05	.045	.044	.048	.044	0.044	16.348	
o-Nitrotoluene	.075	.064	.059	.063	.069	.062	0.065	8.839	
p-Nitrotoluene	.037	.043	.031	.033	.036	.032	0.035	12.884	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2937

Lab Code: GEL

Run Date: 01-MAY-10,03-MAY-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0501003a	EXP0501004a	EXP0501005a	EXP0501006a	EXP0501007a	EXP0501008a					
Parmname:											
PETN	2706.95	5730.15	16851.7	30025.1	47830.4	53570.2	1.274	-.0005101	.902	.9987	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\050110expa.mdb, Time: Sun May 02 13:33:57 2010
Calibration: Untitled, Time: Sun May 02 13:48:06 2010

Compound name: HMX
Response Factor: 4.23136
RRF SD: 0.147562, % Relative SD: 3.48735
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

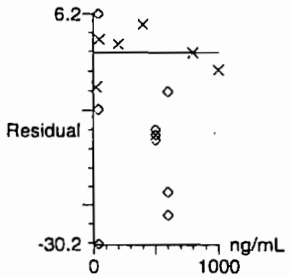

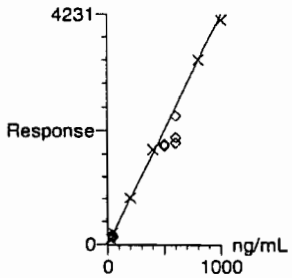

MM 5/2/10

Compound name: RDX
Response Factor: 3.02934
RRF SD: 0.0671719, % Relative SD: 2.21738
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

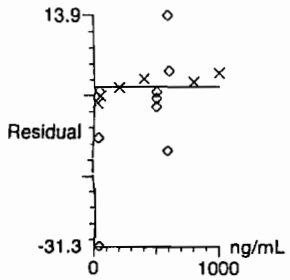

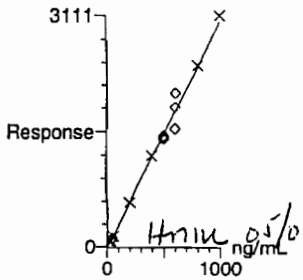

HMM 05/03/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Compound name: 135-Trinitrobenzene
Response Factor: 4.75057
RRF SD: 0.135869, % Relative SD: 2.86005
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

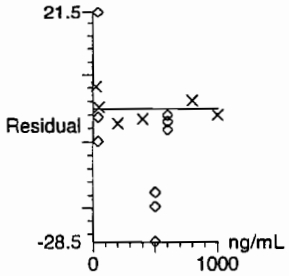

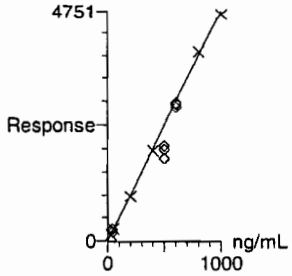

Compound name: 13-Dinitrobenzene-d4
Response Factor: 12.9262
RRF SD: 0.810188, % Relative SD: 6.26779
Response type: External Std, Area
Curve type: RF

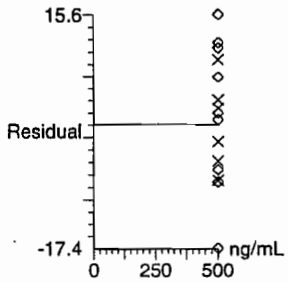

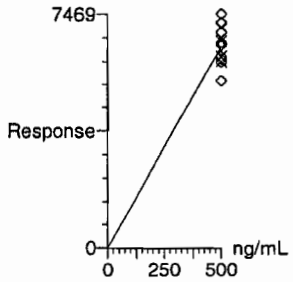

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Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Compound name: 13-Dinitrobenzene
Response Factor: 1.28137
RRF SD: 0.0907215, % Relative SD: 7.08004
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

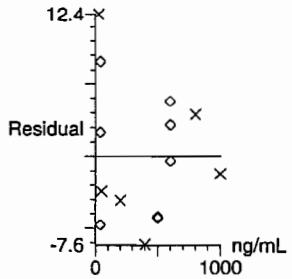

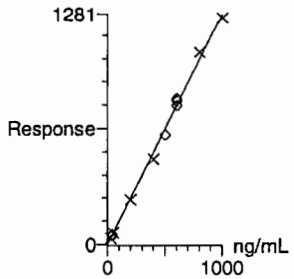

Compound name: Tetryl
Response Factor: 1.37155
RRF SD: 0.0754159, % Relative SD: 5.49859
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

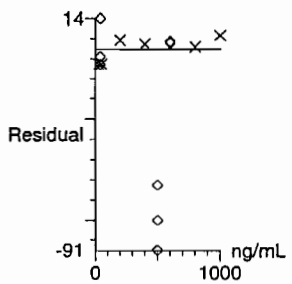

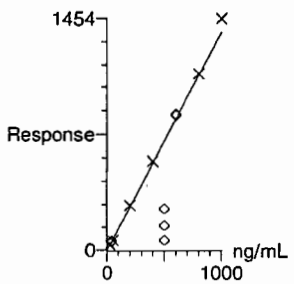

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Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Compound name: Nitrobenzene
Response Factor: 0.490363
RRF SD: 0.0170053, % Relative SD: 3.4679
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

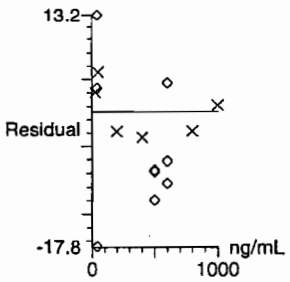

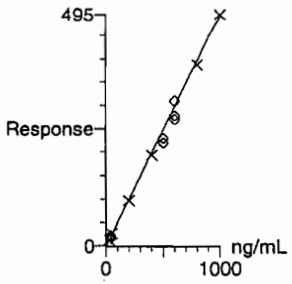

Compound name: 4-Amino-26-dinitrotoluene
Response Factor: 0.340293
RRF SD: 0.0224418, % Relative SD: 6.59485
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

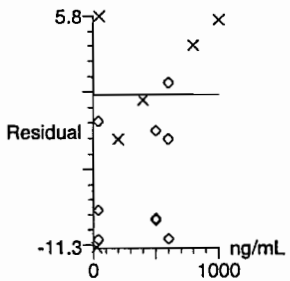

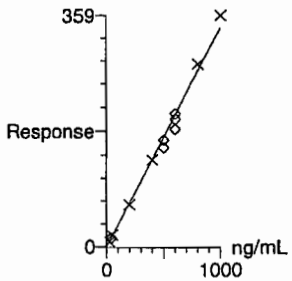

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Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.507885
RRF SD: 0.0275404, % Relative SD: 5.42256
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

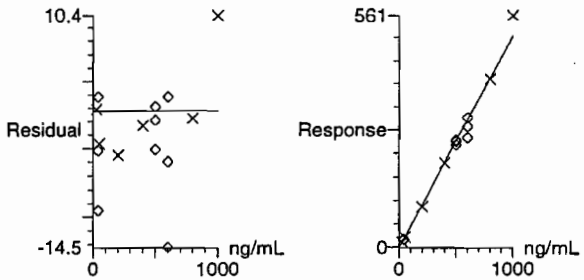

Compound name: 246-Trinitrotoluene
Response Factor: 0.504831
RRF SD: 0.0310287, % Relative SD: 6.14635
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

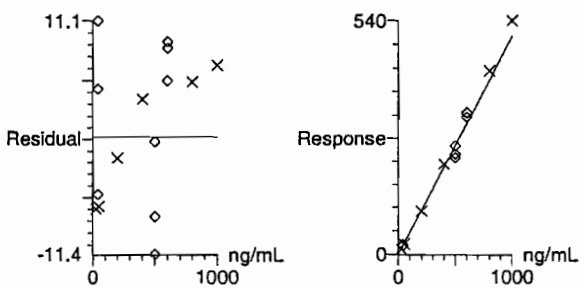

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Compound name: 34-dinitrotoluene
Response Factor: 1.07922
RRF SD: 0.084013, % Relative SD: 7.78458
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

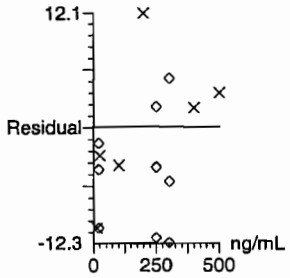

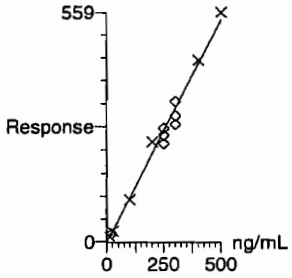

Compound name: 26-dinitrotoluene
Response Factor: 1.13925
RRF SD: 0.0315128, % Relative SD: 2.7661
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

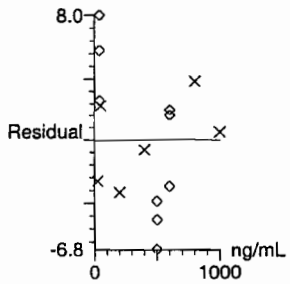

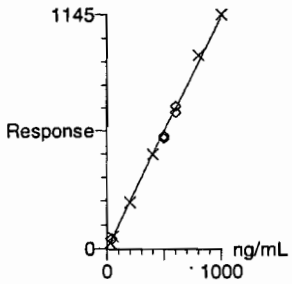

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Compound name: 24-dinitrotoluene
Response Factor: 0.275229
RRF SD: 0.0201376, % Relative SD: 7.31667
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

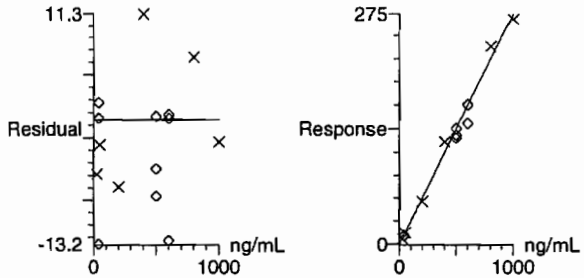

Compound name: 26-dinitrotoluene-d3
Response Factor: 74.0376
RRF SD: 5.20153, % Relative SD: 7.02552
Response type: External Std, Area
Curve type: RF

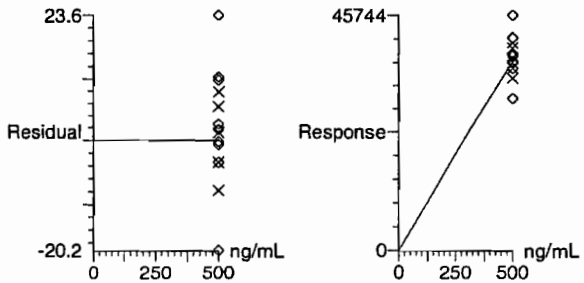

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Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Compound name: 2-Nitrotoluene
Response Factor: 0.0653396
RRF SD: 0.00577506, % Relative SD: 8.83852
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

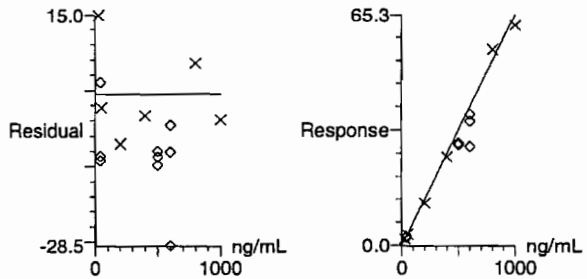

Compound name: 4-Nitrotoluene
Response Factor: 0.0354041
RRF SD: 0.00456134, % Relative SD: 12.8836
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

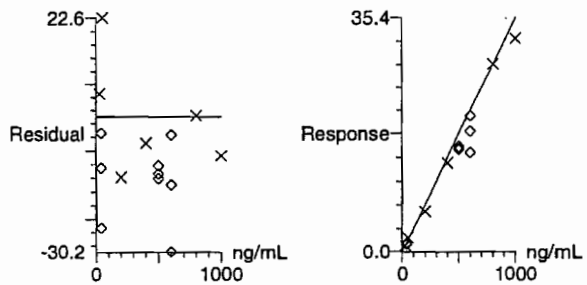

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Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Compound name: 3-Nitrotoluene
Response Factor: 0.043238
RRF SD: 0.00706853, % Relative SD: 16.348
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

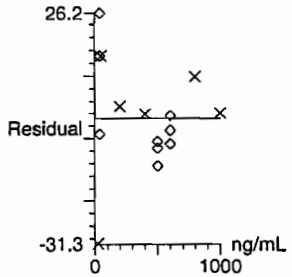

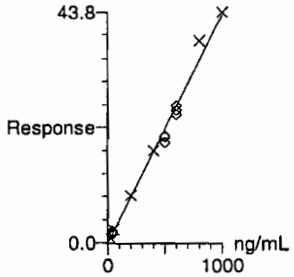

Compound name: PETN
Coefficient of Determination: 0.998670
Calibration curve: -0.000510136 * x^2 + 1.27363 * x + 0.902056
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

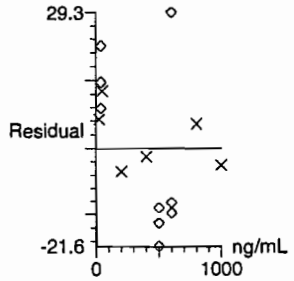

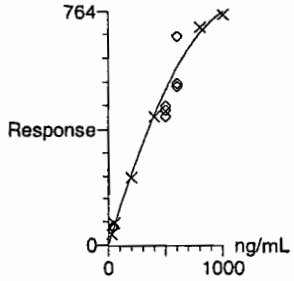

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0501010a

Analysis Date: 01-MAY-10 21:13

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	573.32	96	
1,3-Dinitrobenzene-d4	500	503.319	101	
2,4,6-Trinitrotoluene	600	654.844	109	
2,4-Dinitrotoluene	600	603.209	101	
2,6-Dinitrotoluene	600	611.716	102	
2,6-Dinitrotoluene-d3	500	496.171	99	
2-Amino-4,6-dinitrotoluene	600	609.282	102	
3,4-Dinitrotoluene	300	315.314	105	
4-Amino-2,6-dinitrotoluene	600	605.035	101	
HMX	600	564.16	94	
Nitrobenzene	600	623.049	104	
PETN	600	527.679	88	
RDX	600	618.877	103	
Tetryl	600	616.734	103	
m-Dinitrobenzene	600	616.17	103	
m-Nitrotoluene	600	582.039	97	
o-Nitrotoluene	600	565.036	94	
p-Nitrotoluene	600	575.152	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501010a
Date: 01-May-2010
Time: 21:13:46
ID: WXX100501-07ICV
Vial: 1:1,B

MATT 5/6/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.248e+005

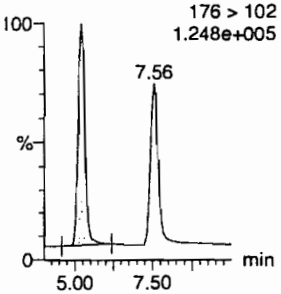

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.248e+005

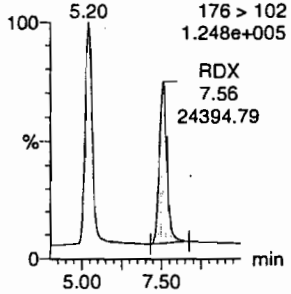

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.321e+005

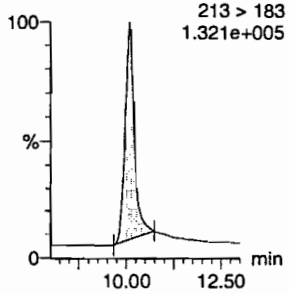

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.394e+004

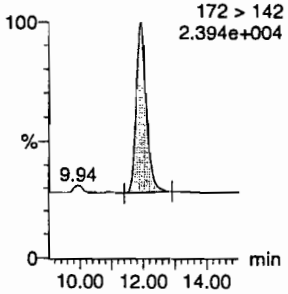

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
3.282e+004

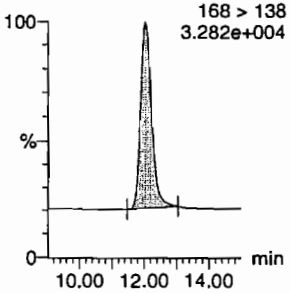

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
3.116e+004

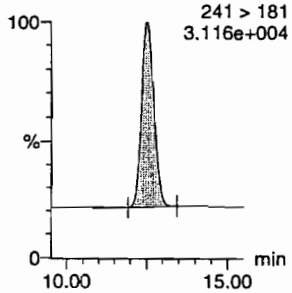

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.512e+004

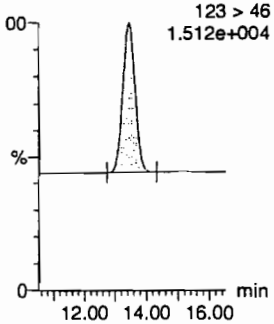

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
4.253e+004

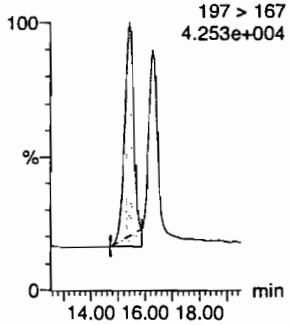

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.266e+004

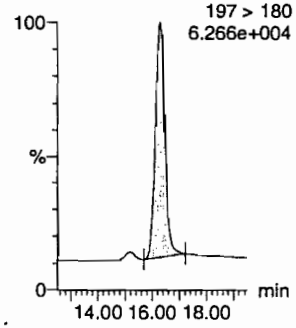

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.739e+004

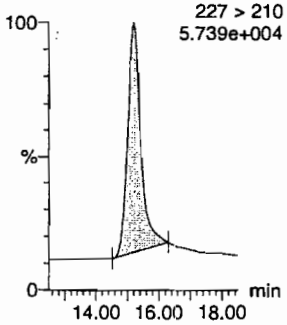

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.478e+005

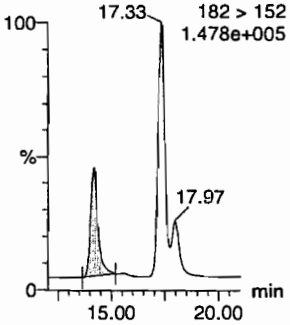

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.478e+005

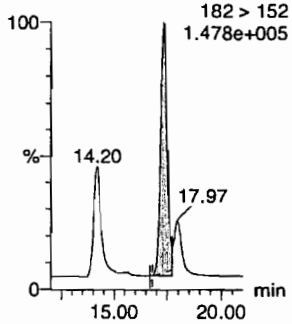

Hume 05/03/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

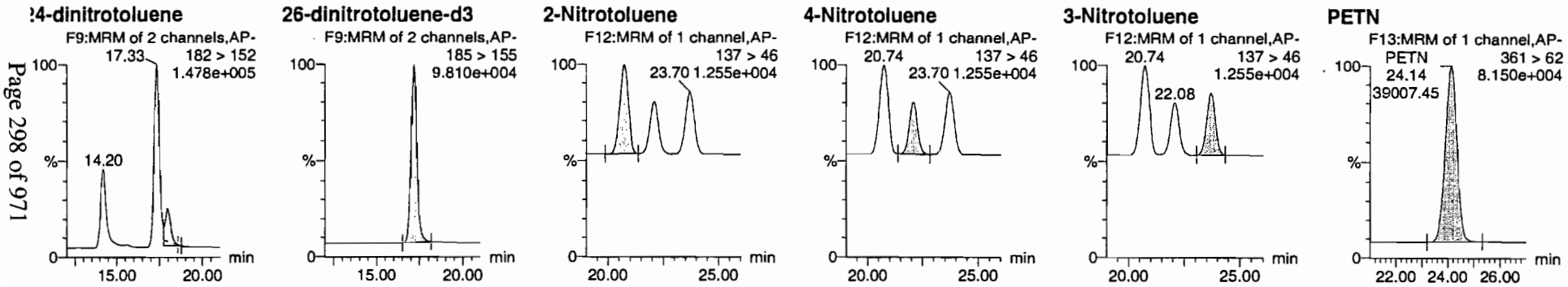

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100501-07ICV	HMX	176 > 102	5.20	31061.777	6506.009	31061.777	2387.161	bb			564.1596	94.0	-6.0	1129.9
WXX100501-07ICV	RDX	176 > 102	7.56	24394.787	6506.009	24394.787	1874.789	bb			618.8765	103.1	3.1	819.8
WXX100501-07ICV	135-Trinitrobenzene	213 > 183	10.09	35439.492	6506.009	35439.492	2723.597	bb			573.3200	95.6	-4.4	3017.7
WXX100501-07ICV	13-Dinitrobenzene-d4	172 > 142	11.92	6506.009		6506.009	6506.009	bb			503.3186	100.7	0.7	610.1
WXX100501-07ICV	13-Dinitrobenzene	168 > 138	12.03	10273.539	6506.009	10273.539	789.542	bb			616.1704	102.7	2.7	945.4
WXX100501-07ICV	Tetryl	241 > 181	12.49	11006.612	6506.009	11006.612	845.880	bb			616.7339	102.8	2.8	622.3
WXX100501-07ICV	Nitrobenzene	123 > 46	13.45	3975.435	6506.009	3975.435	305.520	bb			623.0493	103.8	3.8	468.3
WXX100501-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.42	15126.803	36735.313	15126.803	205.889	MM	02-May-10	13:45:07	605.0349	100.8	0.8	252.8
WXX100501-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.28	22735.137	36735.313	22735.137	309.445	bb			609.2818	101.5	1.5	928.5
WXX100501-07ICV	246-Trinitrotoluene	227 > 210	15.20	24288.322	36735.313	24288.322	330.585	bb			654.8436	109.1	9.1	973.1
WXX100501-07ICV	34-dinitrotoluene	182 > 152	14.20	25001.654	36735.313	25001.654	340.295	bb			315.3143	105.1	5.1	349.8
WXX100501-07ICV	26-dinitrotoluene	182 > 152	17.33	51201.398	36735.313	51201.398	696.896	MM	02-May-10	13:40:50	611.7162	102.0	2.0	814.9
WXX100501-07ICV	24-dinitrotoluene	182 > 152	17.97	12197.612	36735.313	12197.612	166.020	MM	02-May-10	13:37:12	603.2085	100.5	0.5	172.7
WXX100501-07ICV	26-dinitrotoluene-d3	185 > 155	17.16	36735.313		36735.313	36735.313	bb			496.1710	99.2	-0.8	3339.8
WXX100501-07ICV	2-Nitrotoluene	137 > 46	20.74	2712.480	36735.313	2712.480	36.919	bb			565.0359	94.2	-5.8	593.1
WXX100501-07ICV	4-Nitrotoluene	137 > 46	22.08	1496.063	36735.313	1496.063	20.363	bb			575.1516	95.9	-4.1	342.9
WXX100501-07ICV	3-Nitrotoluene	137 > 46	23.70	1848.974	36735.313	1848.974	25.166	bb			582.0388	97.0	-3.0	407.6
WXX100501-07ICV	PETN	361 > 62	24.14	39007.453	36735.313	39007.453	530.926	bb			527.6793	87.9	-12.1	1983.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/01/10
Time of Injection: 2113
Standard Number: WXX100501-07ICV
Data File: EXP0501010a

HMX		94.0
RDX		103.1
135-TNB		95.6
13-DNB		102.7
Tetryl		102.8
Nitrobenzene		103.8
4A-26-DNT		100.8
2A-46-DNT		101.5
246-TNT		109.1
34-DNT(surr)		105.1
26-DNT		102.0
24-DNT		100.5
2-NT		94.2
4-NT		95.9
3-NT		97.0
PETN		87.9
Total		1596.0
Average		99.8

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2937

Lab Code: GEL

Run Date: 01-MAY-10,03-MAY-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8Q

Calibration Type: Linear

Calibration Level:	19	20	21	22	24	25	Slope	Intercept	COD	Q
Data File:	EXS05030003.w	EXS05030004.w	EXS05030005.w	EXS05030006.w	EXS05030008.w	EXS05030009.w				
Parmname										
2,4-Diamino-6-nitrotoluene	107000	234000	303000	1010000	2270000	4130000	2120	-32700	.9967	
3,4-Dinitrotoluene	222000	435000	846000	2200000	4060000	7050000	8220	-7630	.9972	

Linear fit : Y=mx +b
where b is Intercept and m is slope

COD is Coefficient of Determination

Q column used to flag COD values outside of Limit (<0.990)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2937

Lab Code: GEL

Run Date: 01-MAY-10,03-MAY-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS05030003.wifl	EXS05030004.wifl	EXS05030005.wifl	EXS05030006.wifl	EXS05030008.wifl	EXS05030009.wifl					
Parmname:											
2,6-Diamino-4-nitrotoluene	153000	292000	712000	1440000	2910000	5310000	-28900	3130	-.227	.9999	
3,5-Dinitroaniline	423000	821000	1750000	3770000	7530000	11500000	-184000	9120	-1.63	.999	
TATB	34000	64300	154000	337000	675000	1260000	-10100	721	-.042	.9999	
tris(o-cresyl) phosphate	826000	2010000	4330000	8710000	16300000	25600000	-149000	19700	-3.38	.9998	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.01e+004			
a1	721			
a2	-0.042			

Correlation coefficient 0.9999
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.84e+005			
a1	9.12e+003			
a2	-1.63			

Correlation coefficient 0.9990
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Linear	Weighting	None	Iterate No
Intercept	-7.63e+003			
Slope	8.22e+003			

Correlation coefficient 0.9972
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-2.89e+004			
a1	3.13e+003			
a2	-0.227			

Correlation coefficient 0.9999
Use Area

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit Linear Weighting None Iterate No
Intercept -3.27e+004
Slope 2.12e+003
Correlation coefficient 0.9967
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit Quadratic Weighting None Iterate No
a0 -1.49e+005
a1 1.97e+004
a2 -3.38
Correlation coefficient 0.9998
Use Area

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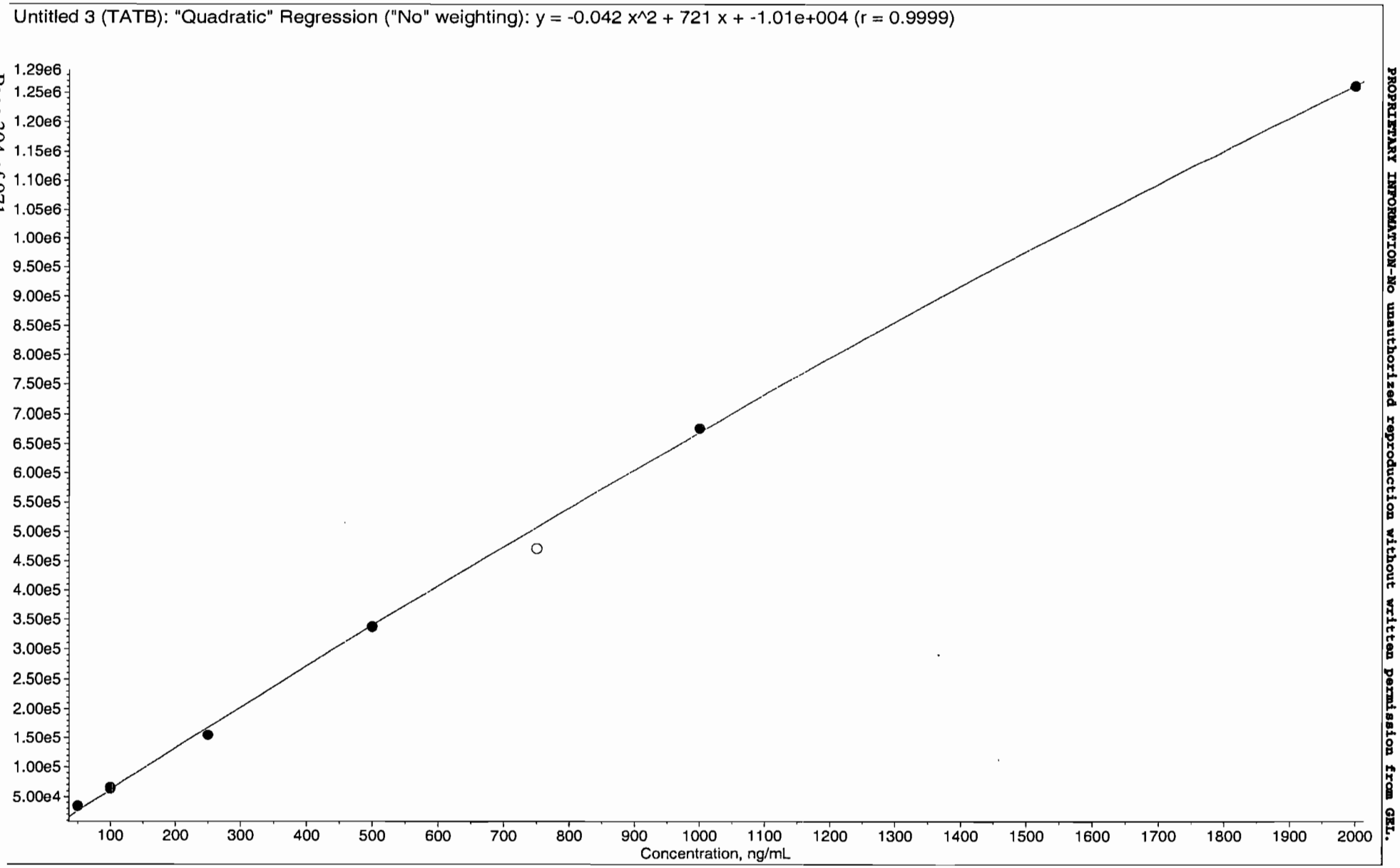

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

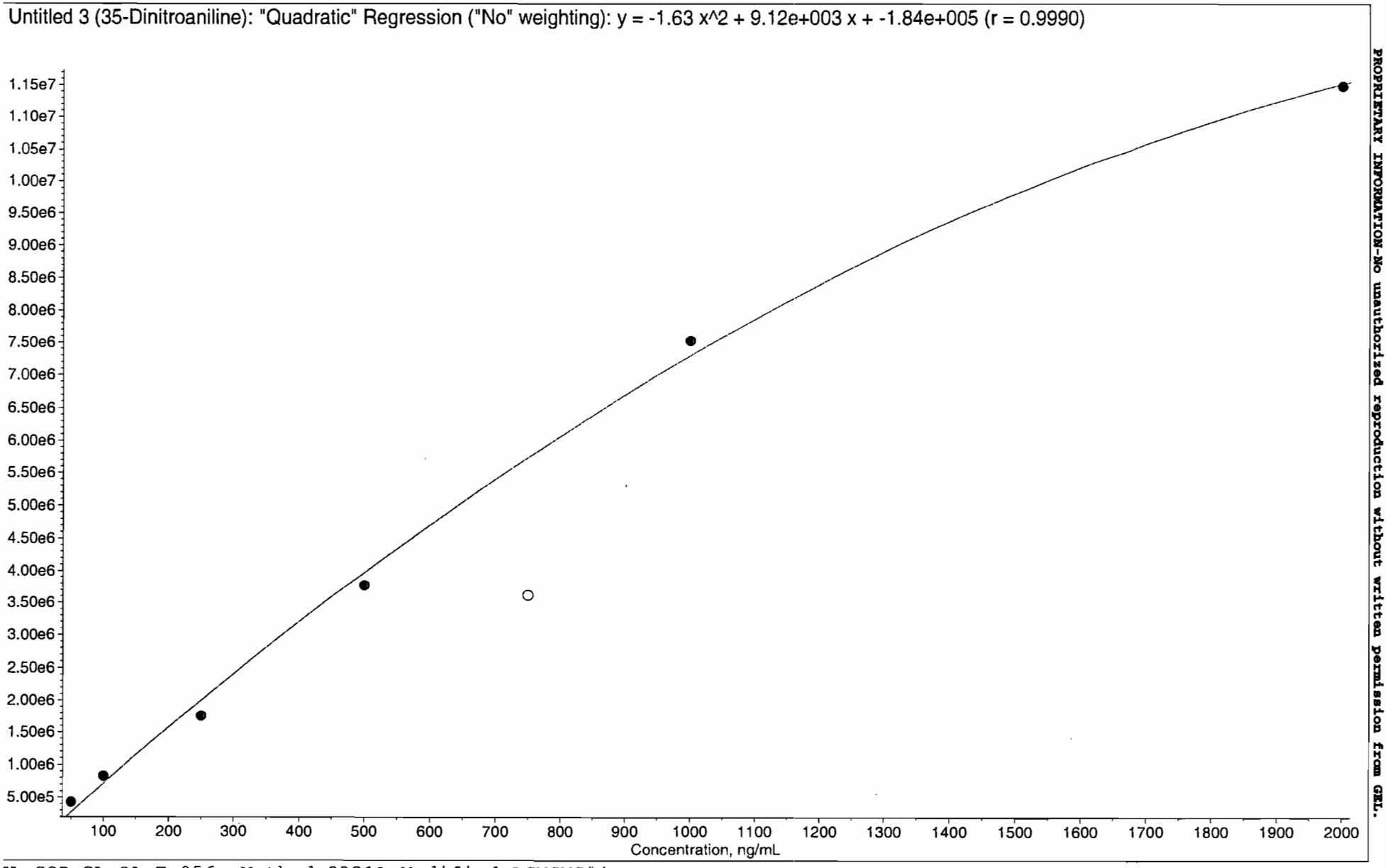

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Untitled 3 (34-Dinitrotoluene): "Linear" Regression ("No" weighting): y = 8.22e+003 x + -7.63e+003 (r = 0.9972)

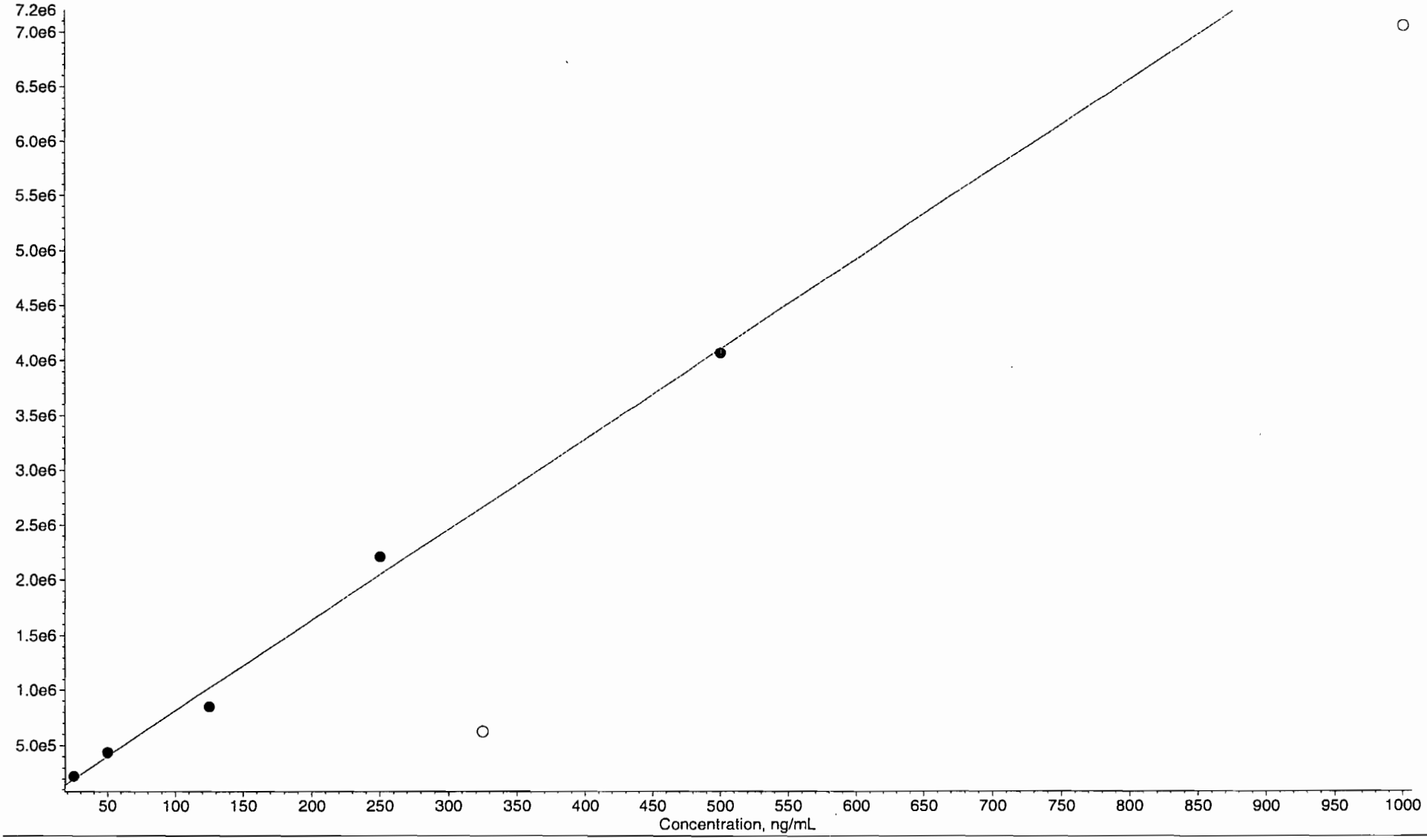

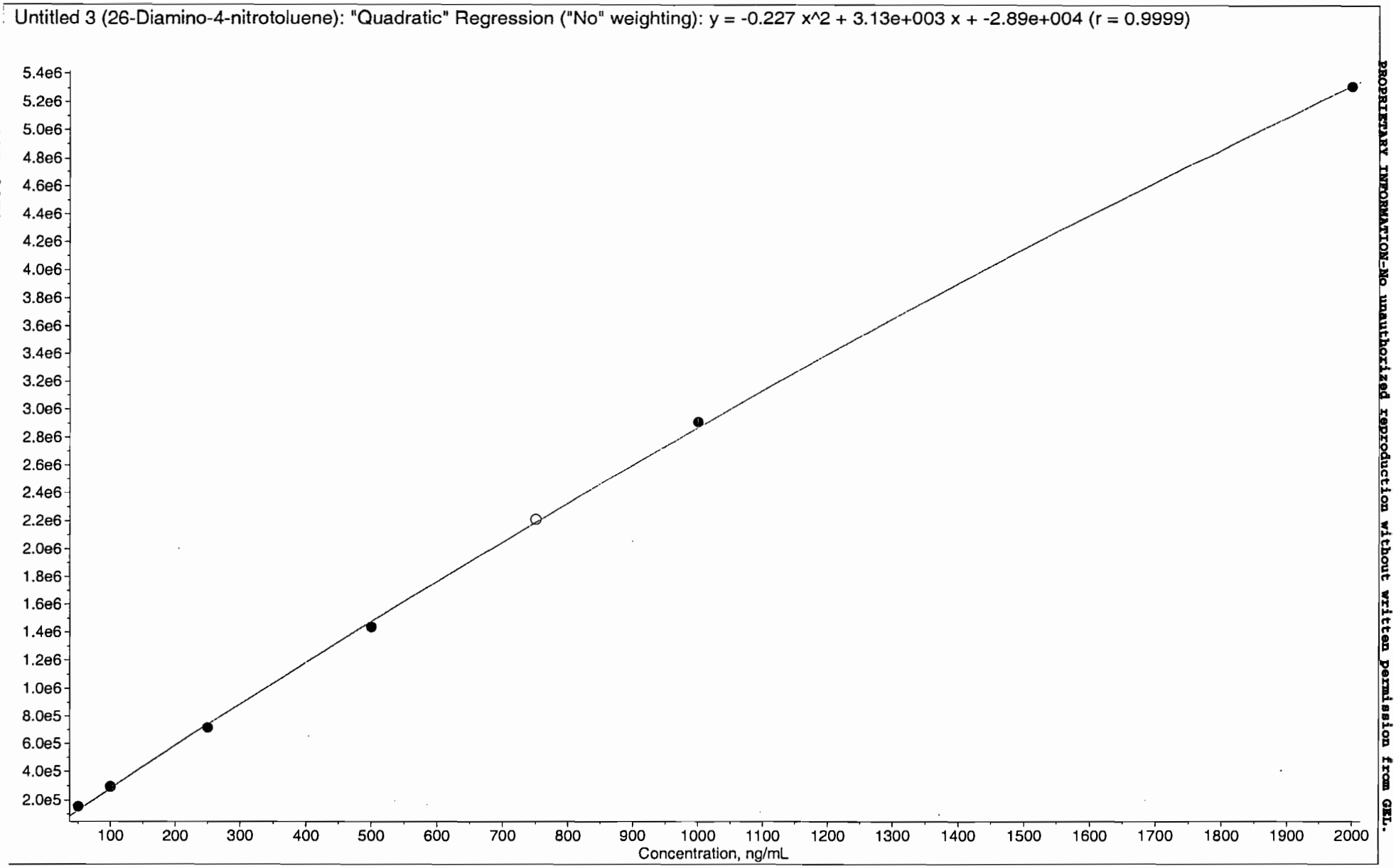

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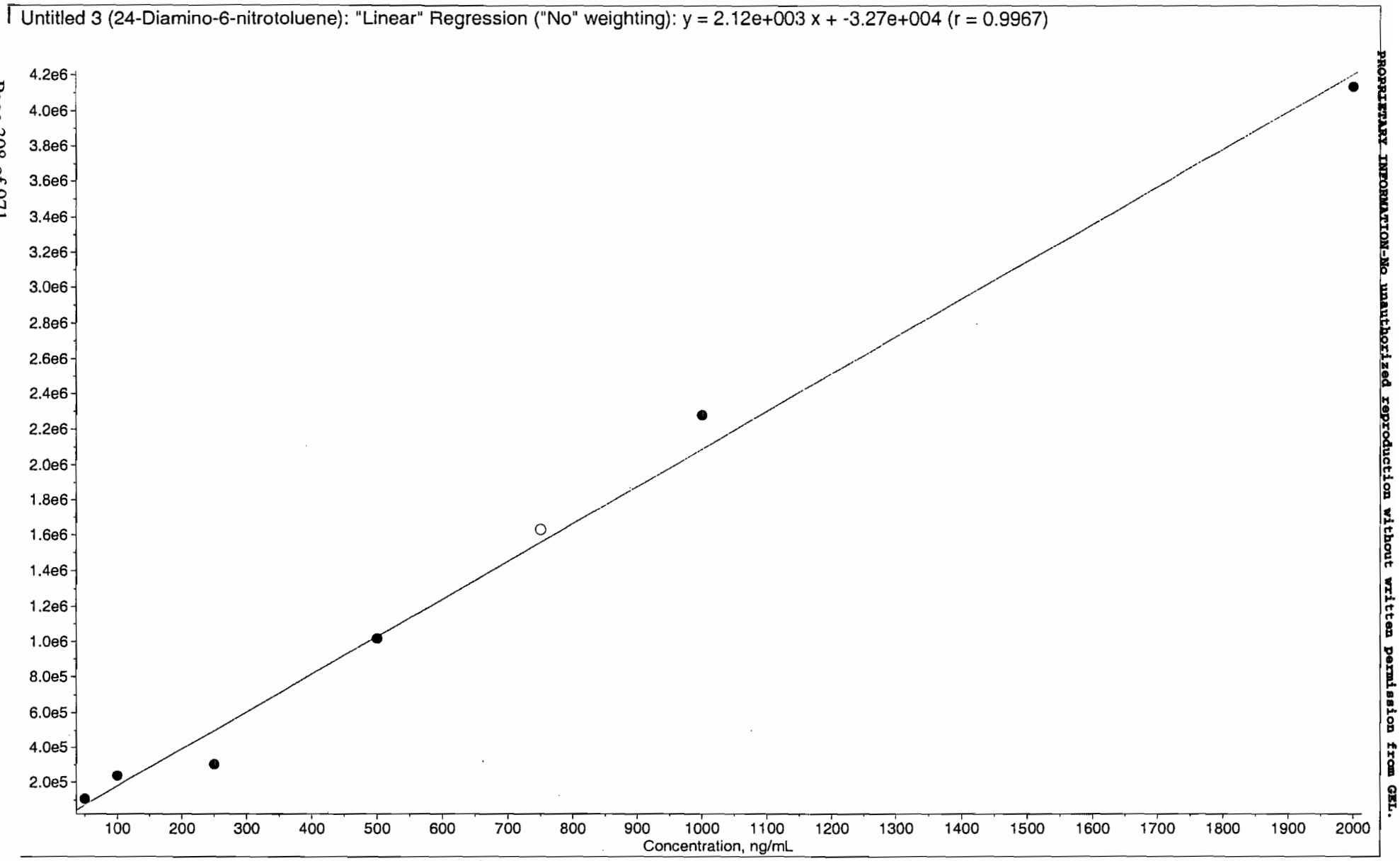

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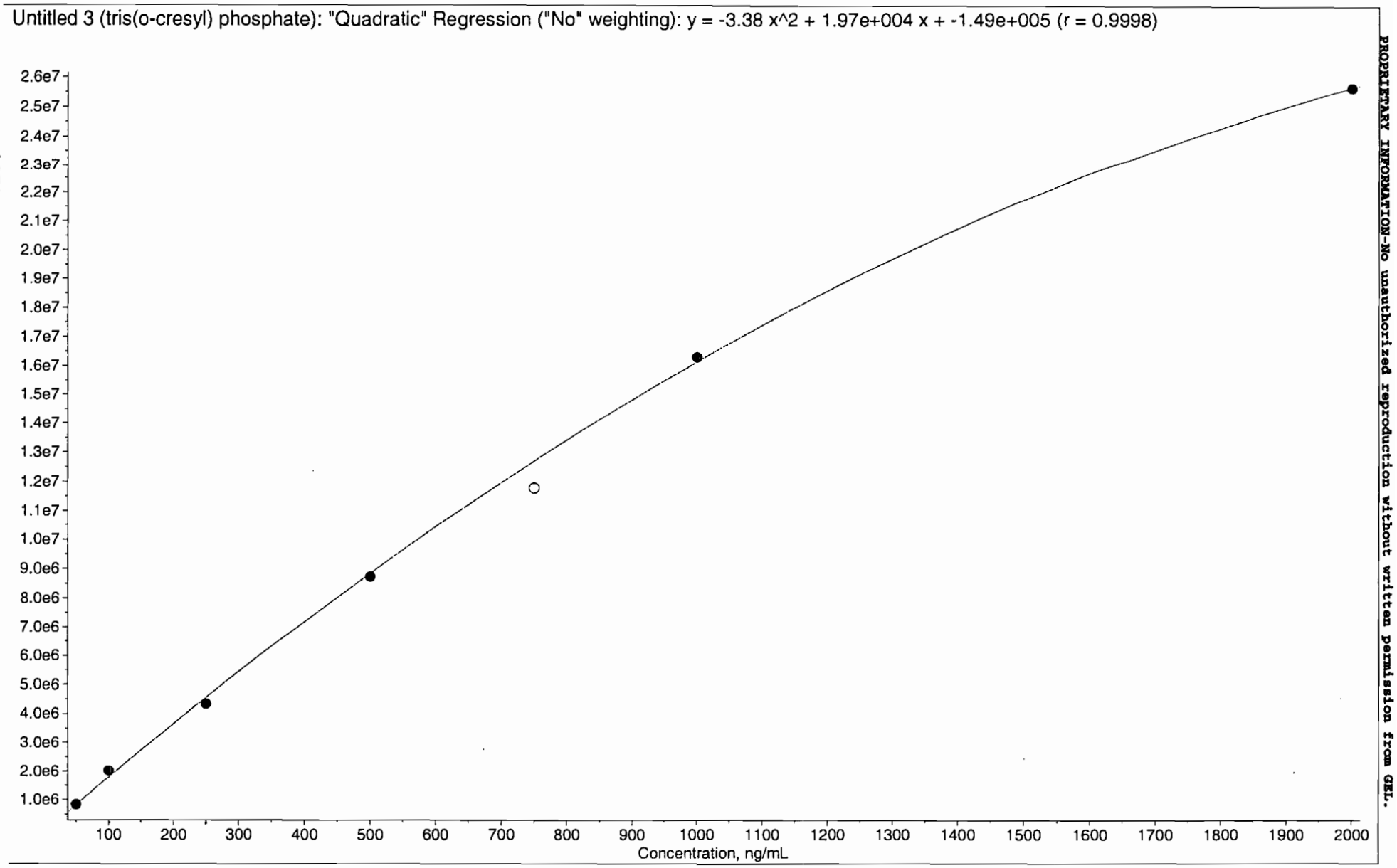

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2937

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS05030011.wiff

Analysis Date: 03–MAY–10 18:00

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	557	111	
2,6–Diamino–4–nitrotoluene	500	491	98	
3,4–Dinitrotoluene	250	254	102	
3,5–Dinitroaniline	500	513	103	
TATB	500	482	97	
tris(o–cresyl) phosphate	500	503	101	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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ample Name: "WXX100503-26ICV" Sample ID: "|1|MAP" File: "EXS05030011.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	500.	ng/mL
culated Conc:	482.	ng/mL
. Date:	5/3/2010	
. Time:	6:00:35 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	6.85	min
Relative RT:	No	
. Type:	Valley	
ention Time:	6.85	min
s:	3.28e+005	counts
ght:	71975.929	cps
rt Time:	6.77	min
Time:	7.44	min

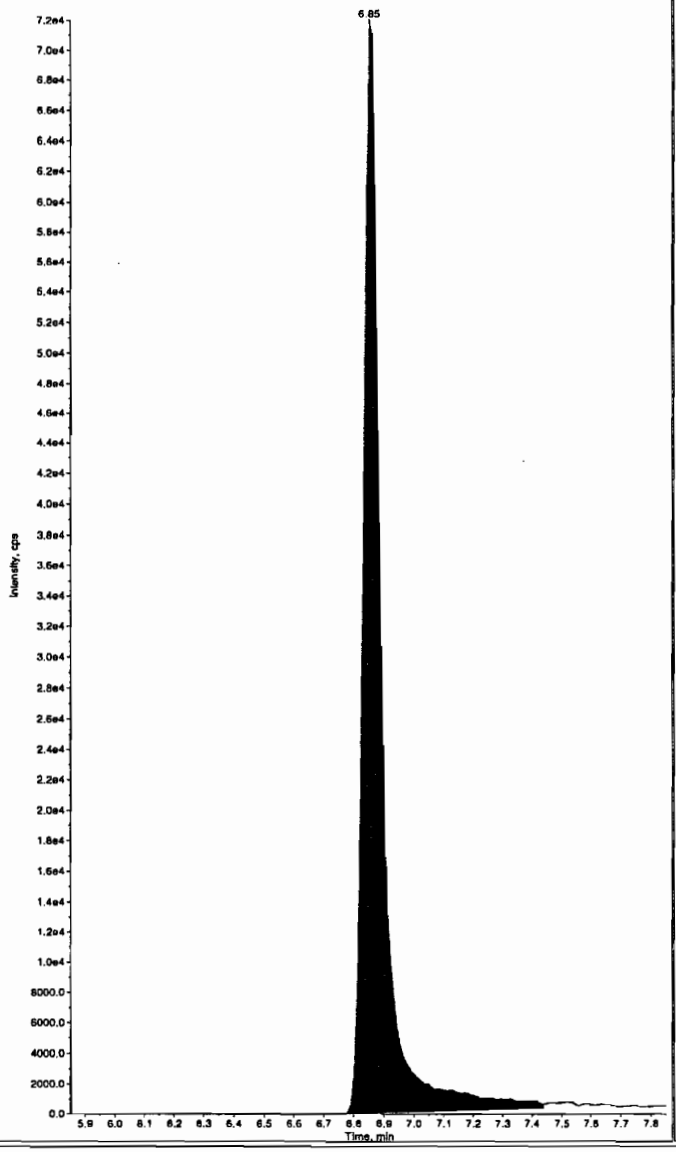

Sample Name: "WXX100503-26ICV" Sample ID: "|1|MAP" File: "EXS05030011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	513.	ng/mL
Acq. Date:	5/3/2010	
Acq. Time:	6:00:35 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	5	points
RT Window:	15.0	sec
Expected RT:	8.09	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.09	min
Area:	4.07e+006	counts
Height:	1000655.396	cps
Start Time:	8.02	min
End Time:	8.23	min

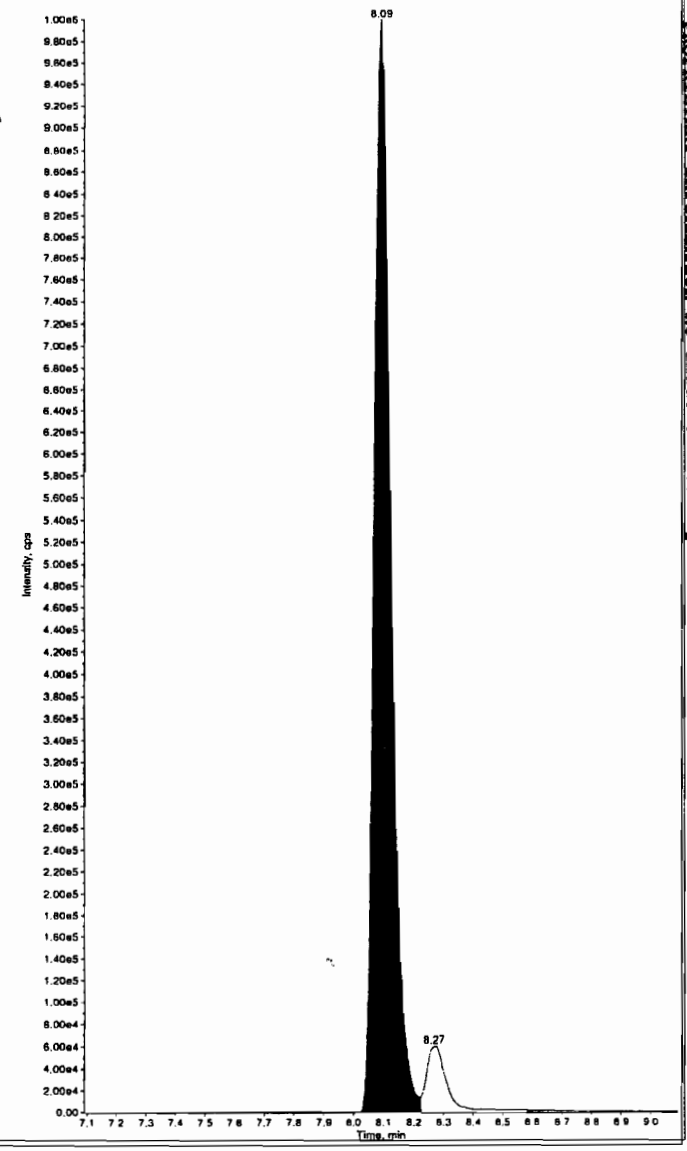

Hmm 5/06/10

ample Name: "WXX100503-26ICV" Sample ID: "[1]MAP" File: "EXS05030011.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	250.	ng/mL
culated Conc:	254.	ng/mL
. Date:	5/3/2010	
. Time:	6:00:35 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	1460.00	cps
. Peak Width:	0.00	sec
othing Width:	0	points
Window:	15.0	sec
ected RT:	8.27	min
Relative RT:	No	
. Type:	Valley	
ention Time:	8.27	min
s:	2.08e+006	counts
ght:	558718.689	cps
rt Time:	8.20	min
Time:	8.62	min

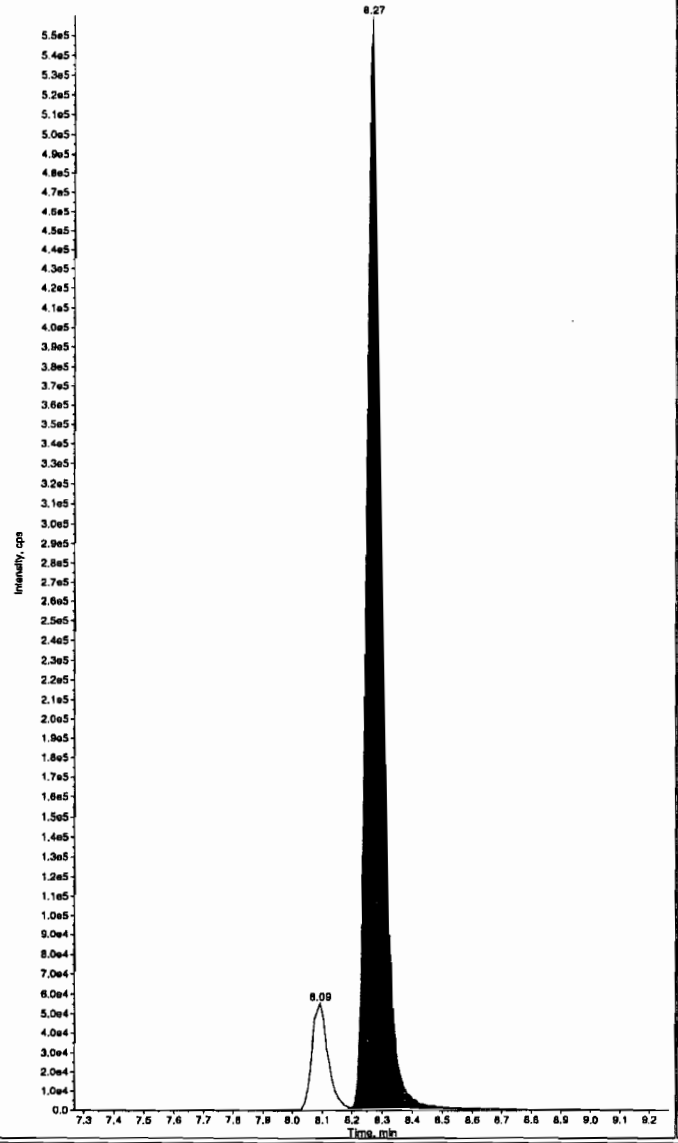

Sample Name: "WXX100503-26ICV" Sample ID: "[1]MAP" File: "EXS05030011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	491.	ng/mL
Acq. Date:	5/3/2010	
Acq. Time:	6:00:35 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	4.93	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	4.93	min
Area:	1.45e+006	counts
Height:	331326.111	cps
Start Time:	4.84	min
End Time:	5.18	min

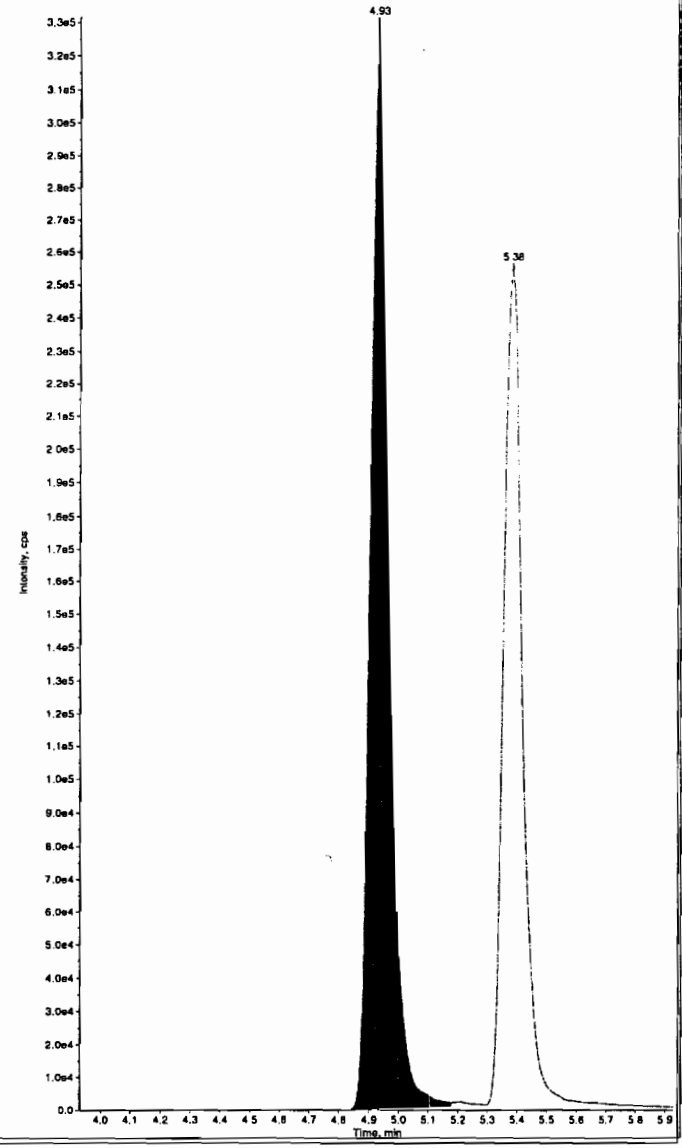

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ample Name: "WXX100503-26ICV" Sample ID: "[1]MAP" File: "EXS05030011.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	500.	ng/mL
culated Conc:	557.	ng/mL
. Date:	5/3/2010	
. Time:	6:00:35 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	350.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	5.38	min
Relative RT:	No	
. Type:	Valley	
ention Time:	5.38	min
a:	1.15e+006	counts
ght:	255308.090	cps
rt Time:	5.29	min
Time:	5.97	min

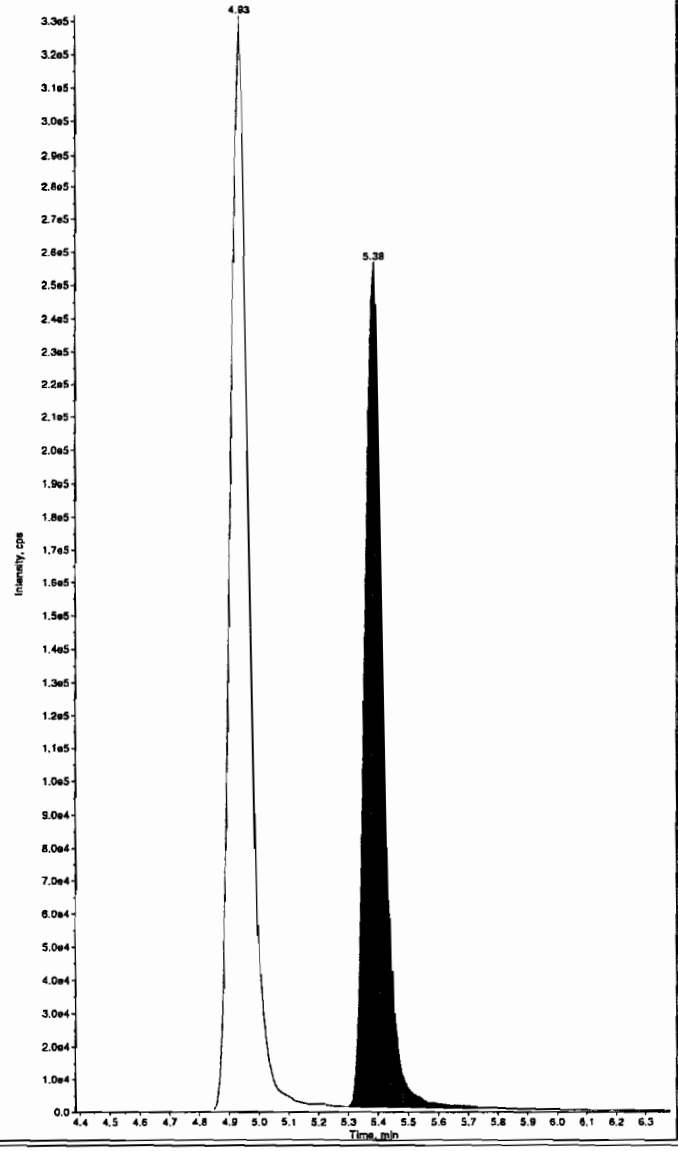

Sample Name: "WXX100503-26ICV" Sample ID: "[1]MAP" File: "EXS05030011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	503.	ng/mL
Acq. Date:	5/3/2010	
Acq. Time:	6:00:35 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	8.89e+006	counts
Height:	2104157.471	cps
Start Time:	10.7	min
End Time:	11.1	min

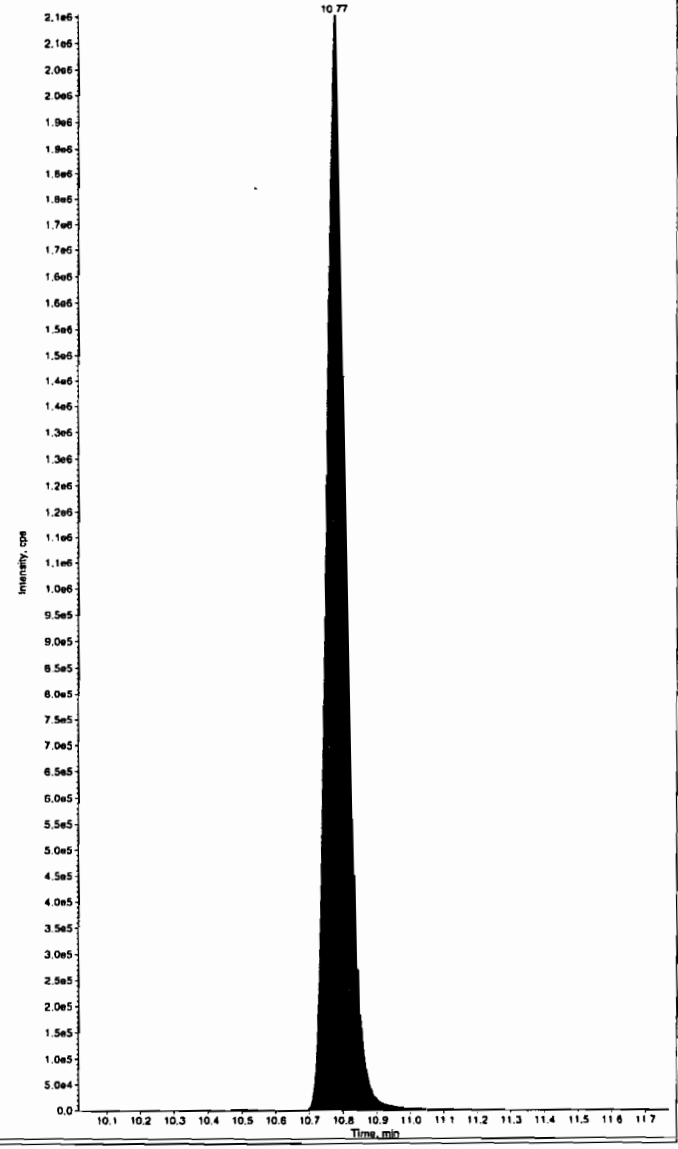

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0501012a

Analysis Date: 01-MAY-10 22:12

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	39.278	98	
1,3-Dinitrobenzene-d4	500	534.073	107	
2,4,6-Trinitrotoluene	40	44.45	111	
2,4-Dinitrotoluene	40	40.686	102	
2,6-Dinitrotoluene	40	41.046	103	
2,6-Dinitrotoluene-d3	500	515.516	103	
2-Amino-4,6-dinitrotoluene	40	40.618	102	
3,4-Dinitrotoluene	20	19.11	96	
4-Amino-2,6-dinitrotoluene	40	35.709	89	
HMX	40	36.502	91	
Nitrobenzene	40	32.867	82	
PETN	40	43.436	109	
RDX	40	39.623	99	
Tetryl	40	37.225	93	
m-Dinitrobenzene	40	37.638	94	
m-Nitrotoluene	40	38.428	96	
o-Nitrotoluene	40	40.871	102	
p-Nitrotoluene	40	38.532	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501012a
Date: 01-May-2010
Time: 22:12:44
ID: WXX100501-08CRI
Vial: 1:1,C

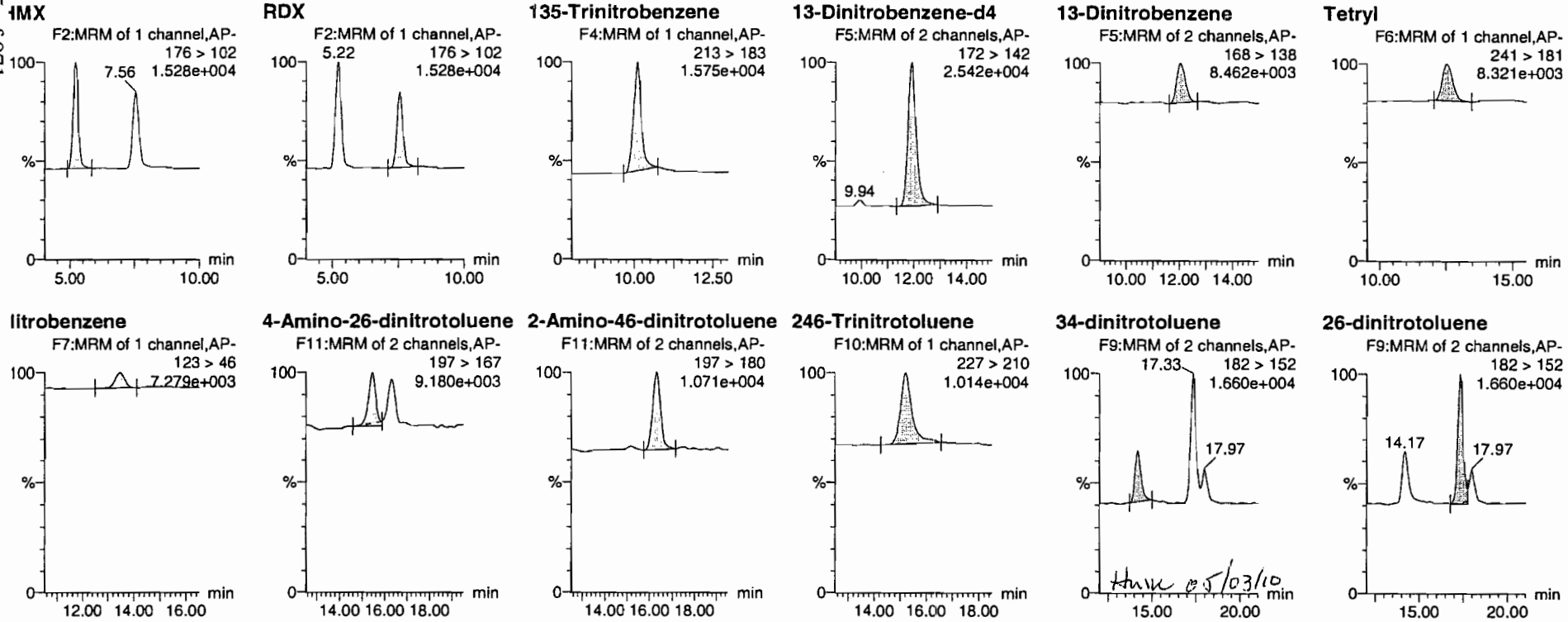

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

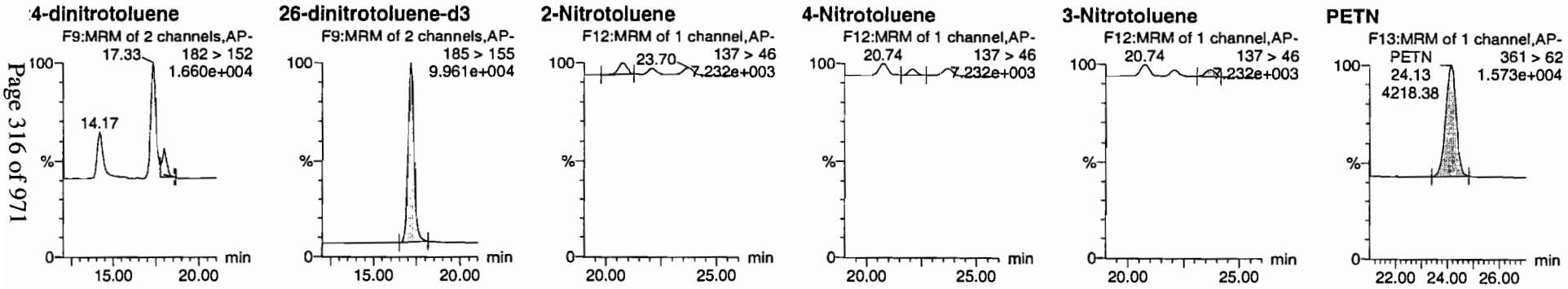

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
VXX100501-08CRI	HMX	176 > 102	5.22	2132.554	6903.553	2132.554	154.453	bb			36.5021	91.3	-8.7	478.5
VXX100501-08CRI	RDX	176 > 102	7.56	1657.293	6903.553	1657.293	120.032	bb			39.6231	99.1	-0.9	338.6
VXX100501-08CRI	135-Trinitrobenzene	213 > 183	10.09	2576.311	6903.553	2576.311	186.593	bb			39.2781	98.2	-1.8	275.5
VXX100501-08CRI	13-Dinitrobenzene-d4	172 > 142	11.92	6903.553		6903.553	6903.553	bb			534.0735	106.8	6.8	89.7
VXX100501-08CRI	13-Dinitrobenzene	168 > 138	12.03	665.897	6903.553	665.897	48.229	bb			37.6383	94.1	-5.9	45.8
VXX100501-08CRI	Tetryl	241 > 181	12.53	704.935	6903.553	704.935	51.056	bb			37.2250	93.1	-6.9	66.9
VXX100501-08CRI	Nitrobenzene	123 > 46	13.45	222.525	6903.553	222.525	16.117	bb			32.8669	82.2	-17.8	26.4
VXX100501-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.42	927.580	38167.594	927.580	12.151	MM	02-May-10	13:45:15	35.7087	89.3	-10.7	31.4
VXX100501-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.28	1574.738	38167.594	1574.738	20.629	bb			40.6179	101.5	1.5	75.4
VXX100501-08CRI	246-Trinitrotoluene	227 > 210	15.21	1712.940	38167.594	1712.940	22.440	bb			44.4499	111.1	11.1	113.8
VXX100501-08CRI	34-dinitrotoluene	182 > 152	14.17	1574.342	38167.594	1574.342	20.624	bb			19.1101	95.6	-4.4	77.4
VXX100501-08CRI	26-dinitrotoluene	182 > 152	17.33	3569.569	38167.594	3569.569	46.762	MM	02-May-10	13:40:59	41.0462	102.6	2.6	199.1
VXX100501-08CRI	24-dinitrotoluene	182 > 152	17.97	854.806	38167.594	854.806	11.198	MM	02-May-10	13:37:25	40.6864	101.7	1.7	50.5
VXX100501-08CRI	26-dinitrotoluene-d3	185 > 155	17.16	38167.594		38167.594	38167.594	bb			515.5163	103.1	3.1	2478.8
VXX100501-08CRI	2-Nitrotoluene	137 > 46	20.74	203.854	38167.594	203.854	2.671	bb			40.8712	102.2	2.2	29.4
VXX100501-08CRI	4-Nitrotoluene	137 > 46	22.07	104.136	38167.594	104.136	1.364	bb			38.5321	96.3	-3.7	15.5
VXX100501-08CRI	3-Nitrotoluene	137 > 46	23.70	126.833	38167.594	126.833	1.662	bb			38.4275	96.1	-3.9	17.3
VXX100501-08CRI	PETN	361 > 62	24.13	4218.381	38167.594	4218.381	55.261	bb			43.4362	108.6	8.6	342.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/01/10
Time of Injection	2212
Standard Number	WXX100501-08CRI
Data File	EXP0501012a

HMX	91.3
RDX	99.1
135-TNB	98.2
13-DNB	94.1
Tetryl	93.1
Nitrobenzene	82.2
4A-26-DNT	89.3
2A-46-DNT	101.5
246-TNT	111.1
34-DNT(surr)	95.6
26-DNT	102.6
24-DNT	101.7
2-NT	102.2
4-NT	96.3
3-NT	96.1
PETN	108.6
Total	1563.0
Average	97.7

MTP 5/6/10

HMW 05/03/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXP0501023a

Analysis Date: 02-MAY-10 03:36

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	591.631	99	
1,3-Dinitrobenzene-d4	500	460.044	92	
2,4,6-Trinitrotoluene	600	632.693	105	
2,4-Dinitrotoluene	600	523.08	87	
2,6-Dinitrotoluene	600	582.351	97	
2,6-Dinitrotoluene-d3	500	510.283	102	
2-Amino-4,6-dinitrotoluene	600	513.168	86	
3,4-Dinitrotoluene	300	263.234	88	
4-Amino-2,6-dinitrotoluene	600	535.976	89	
HMX	600	468.82	78	*
Nitrobenzene	600	543.255	91	
PETN	600	513.98	86	
RDX	600	683.208	114	
Tetryl	600	616.54	103	
m-Dinitrobenzene	600	597.54	100	
m-Nitrotoluene	600	603.8	101	
o-Nitrotoluene	600	428.874	71	*
p-Nitrotoluene	600	418.831	70	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501023a
Date: 02-May-2010
Time: 03:36:56
ID: WXX100501-07CCV
Vial: 1:1,B

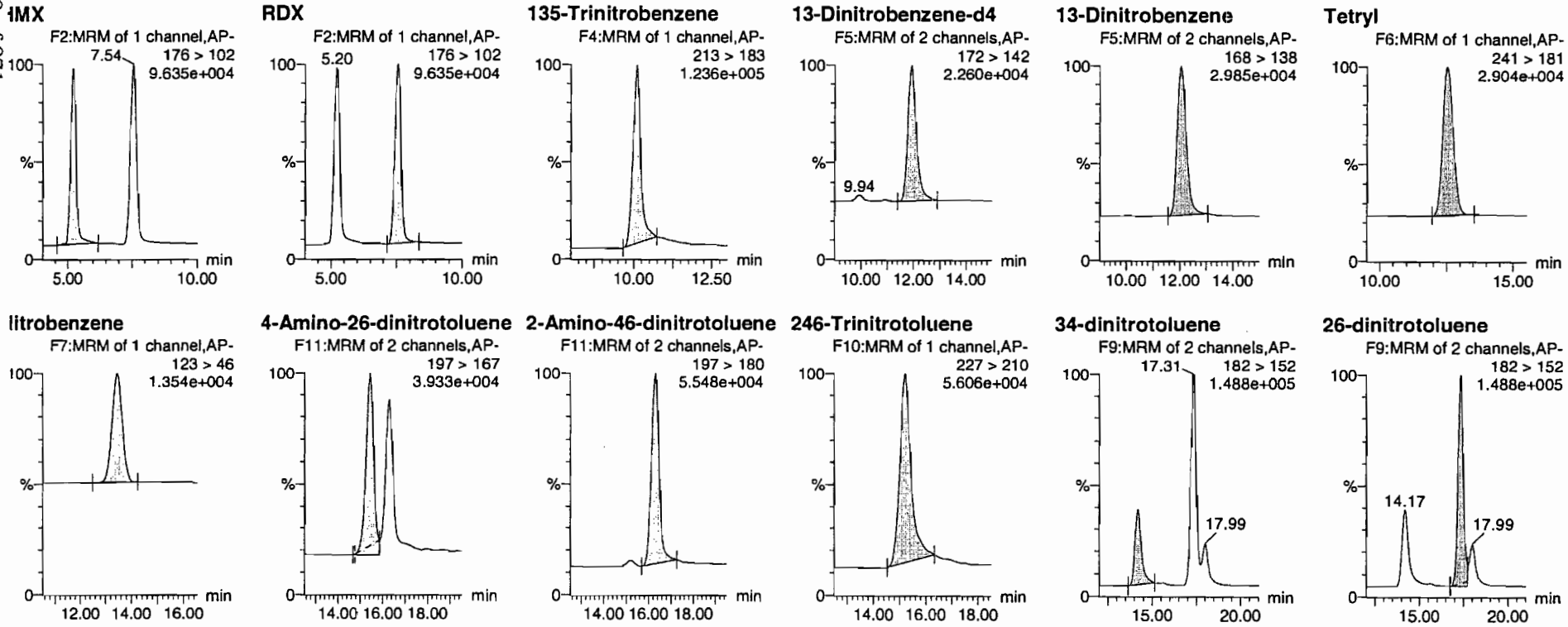

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Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

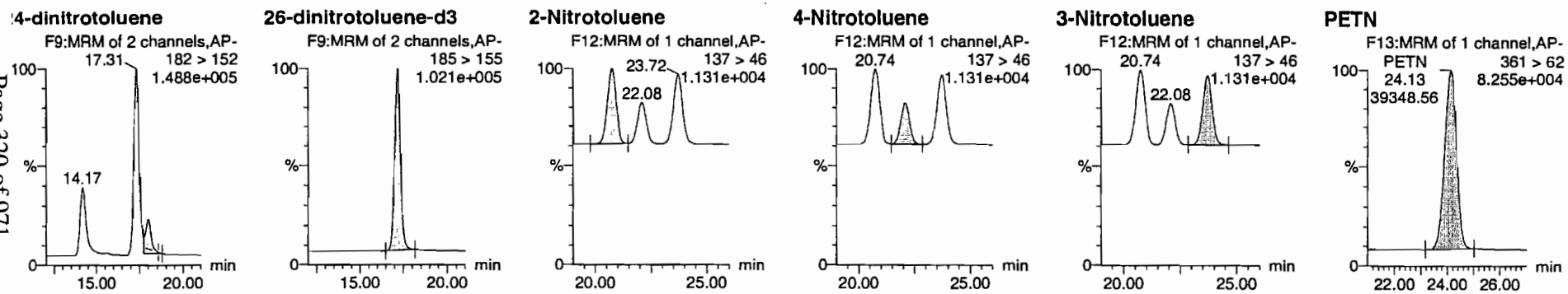

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
VXX100501-07CCV	HMX	176 > 102	5.20	23593.213	5946.633	23593.213	1983.746	bb			468.8202	78.1	-21.9	2027.2
VXX100501-07CCV	RDX	176 > 102	7.54	24615.160	5946.633	24615.160	2069.672	bb			683.2084	113.9	13.9	2058.2
VXX100501-07CCV	135-Trinitrobenzene	213 > 183	10.09	33427.020	5946.633	33427.020	2810.584	bb			591.6309	98.6	-1.4	2211.0
VXX100501-07CCV	13-Dinitrobenzene-d4	172 > 142	11.92	5946.633		5946.633	5946.633	bb			460.0441	92.0	-8.0	985.6
VXX100501-07CCV	13-Dinitrobenzene	168 > 138	12.03	9106.320	5946.633	9106.320	765.670	bb			597.5403	99.6	-0.4	1450.1
VXX100501-07CCV	Tetryl	241 > 181	12.48	10057.120	5946.633	10057.120	845.615	bb			616.5401	102.8	2.8	912.7
VXX100501-07CCV	Nitrobenzene	123 > 46	13.45	3168.274	5946.633	3168.274	266.392	bb			543.2554	90.5	-9.5	183.1
VXX100501-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.43	13781.355	37780.125	13781.355	182.389	MM	02-May-10	13:46:08	535.9763	89.3	-10.7	360.9
VXX100501-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.29	19693.285	37780.125	19693.285	260.630	bb			513.1675	85.5	-14.5	1064.6
VXX100501-07CCV	246-Trinitrotoluene	227 > 210	15.21	24134.184	37780.125	24134.184	319.403	bb			632.6931	105.4	5.4	1466.3
VXX100501-07CCV	34-dinitrotoluene	182 > 152	14.17	21465.783	37780.125	21465.783	284.088	bb			263.2340	87.7	-12.3	434.9
VXX100501-07CCV	26-dinitrotoluene	182 > 152	17.31	50129.813	37780.125	50129.813	663.442	MM	02-May-10	13:42:11	582.3507	97.1	-2.9	1213.0
VXX100501-07CCV	24-dinitrotoluene	182 > 152	17.99	10878.144	37780.125	10878.144	143.966	MM	02-May-10	13:38:14	523.0797	87.2	-12.8	227.5
VXX100501-07CCV	26-dinitrotoluene-d3	185 > 155	17.16	37780.125		37780.125	37780.125	bb			510.2829	102.1	2.1	2817.3
VXX100501-07CCV	2-Nitrotoluene	137 > 46	20.74	2117.386	37780.125	2117.386	28.022	bb			428.8742	71.5	-28.5	176.1
VXX100501-07CCV	4-Nitrotoluene	137 > 46	22.08	1120.433	37780.125	1120.433	14.828	bb			418.8309	69.8	-30.2	97.4
VXX100501-07CCV	3-Nitrotoluene	137 > 46	23.72	1972.656	37780.125	1972.656	26.107	bb			603.7997	100.6	0.6	162.1
VXX100501-07CCV	PETN	361 > 62	24.13	39348.559	37780.125	39348.559	520.757	bb			513.9797	85.7	-14.3	3325.2

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/02/10
Time of Injection: 0336
Standard Number: WXX100501-07CCV
Data File: EXP0501023a

HMX	78.1
RDX	113.9
135-TNB	98.6
13-DNB	99.6
Tetryl	102.8
Nitrobenzene	90.5
4A-26-DNT	89.3
2A-46-DNT	85.5
246-TNT	105.4
34-DNT(surr)	87.7
26-DNT	97.1
24-DNT	87.2
2-NT	71.5
4-NT	69.8
3-NT	100.6
PETN	85.7
Total	1463.3
Average	91.5

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-2937

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0501025a **Analysis Date:** 02-MAY-10 04:36

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	48.603	122	
1,3-Dinitrobenzene-d4	500	468.774	94	
2,4,6-Trinitrotoluene	40	41.86	105	
2,4-Dinitrotoluene	40	40.057	100	
2,6-Dinitrotoluene	40	43.191	108	
2,6-Dinitrotoluene-d3	500	479.904	96	
2-Amino-4,6-dinitrotoluene	40	35.772	89	
3,4-Dinitrotoluene	20	19.651	98	
4-Amino-2,6-dinitrotoluene	40	39.204	98	
HMX	40	42.481	106	
Nitrobenzene	40	45.282	113	
PETN	40	48.795	122	
RDX	40	36.013	90	
Tetryl	40	45.513	114	
m-Dinitrobenzene	40	43.26	108	
m-Nitrotoluene	40	46.196	115	
o-Nitrotoluene	40	35.013	88	
p-Nitrotoluene	40	30.104	75	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501025a
Date: 02-May-2010
Time: 04:36:01
ID: WXX100501-08CRI
Vial: 1:1,C

Page 323 of 971

HMX

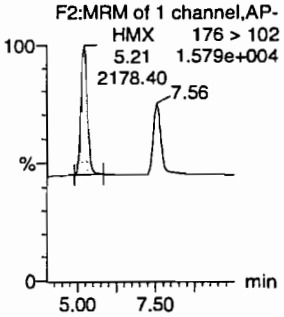

RDX

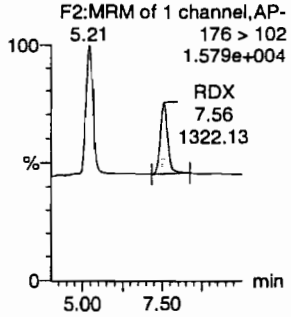

135-Trinitrobenzene

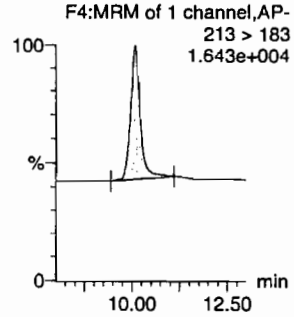

13-Dinitrobenzene-d4

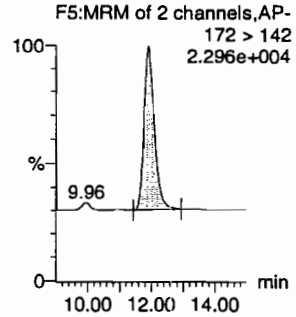

13-Dinitrobenzene

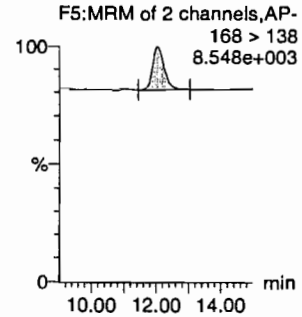

Tetryl

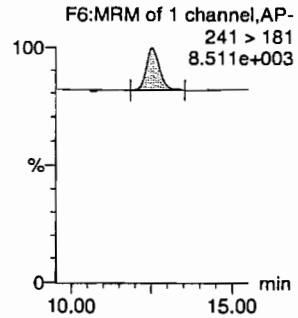

Nitrobenzene

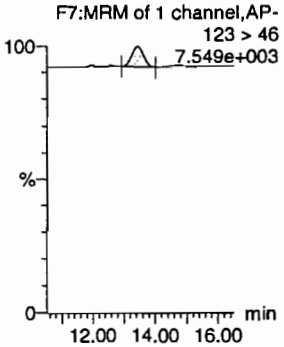

4-Amino-26-dinitrotoluene

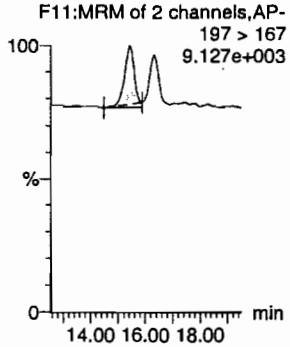

2-Amino-46-dinitrotoluene

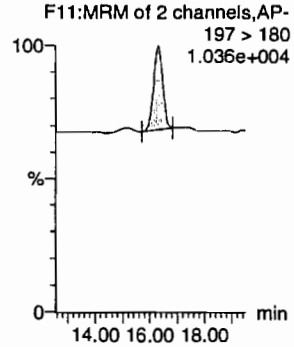

246-Trinitrotoluene

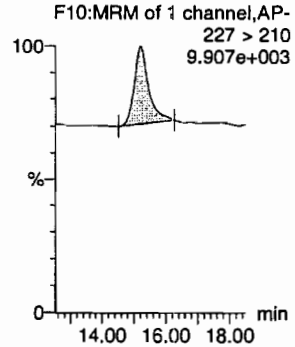

34-dinitrotoluene

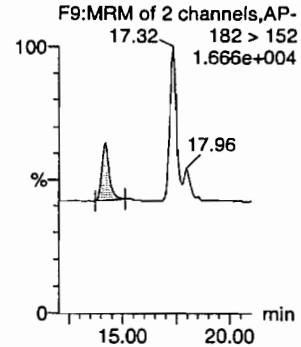

26-dinitrotoluene

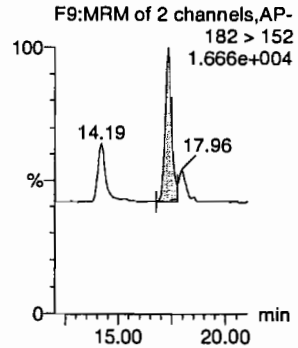

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

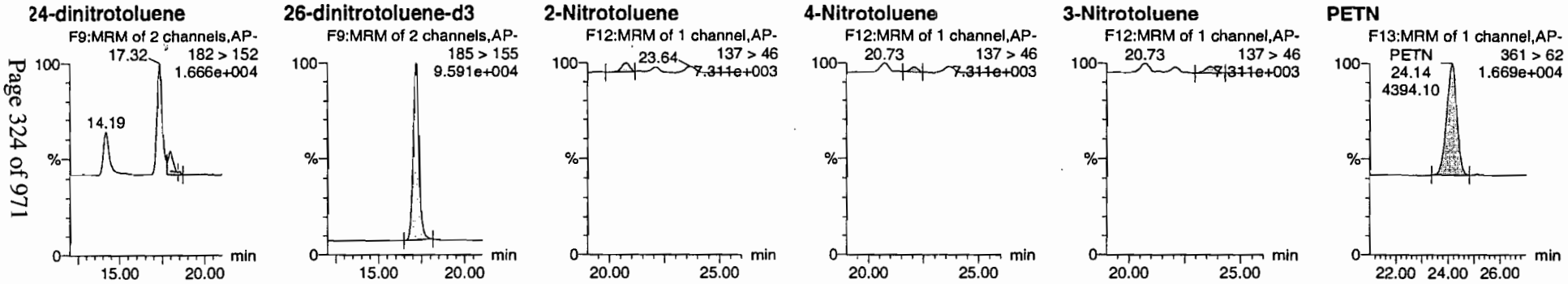

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100501-08CRI	HMX	176 > 102	5.21	2178.402	6059.484	2178.402	179.751	bb			42.4808	106.2	6.2	391.3
WXX100501-08CRI	RDX	176 > 102	7.56	1322.128	6059.484	1322.128	109.096	bb			36.0130	90.0	-10.0	211.0
WXX100501-08CRI	135-Trinitrobenzene	213 > 183	10.09	2798.172	6059.484	2798.172	230.892	bb			48.6030	121.5	21.5	318.8
WXX100501-08CRI	13-Dinitrobenzene-d4	172 > 142	11.92	6059.484		6059.484	6059.484	bb			468.7745	93.8	-6.2	245.2
WXX100501-08CRI	13-Dinitrobenzene	168 > 138	12.03	671.774	6059.484	671.774	55.432	bb			43.2596	108.1	8.1	77.4
WXX100501-08CRI	Tetryl	241 > 181	12.52	756.513	6059.484	756.513	62.424	bb			45.5134	113.8	13.8	87.9
WXX100501-08CRI	Nitrobenzene	123 > 46	13.44	269.094	6059.484	269.094	22.204	bb			45.2815	113.2	13.2	19.1
WXX100501-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.41	948.024	35530.957	948.024	13.341	MM	02-May-10	13:46:17	39.2039	98.0	-2.0	43.0
WXX100501-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.30	1291.045	35530.957	1291.045	18.168	bb			35.7716	89.4	-10.6	122.9
WXX100501-08CRI	246-Trinitrotoluene	227 > 210	15.19	1501.712	35530.957	1501.712	21.132	bb			41.8604	104.7	4.7	118.1
WXX100501-08CRI	34-dinitrotoluene	182 > 152	14.19	1507.089	35530.957	1507.089	21.208	bb			19.6513	98.3	-1.7	58.1
WXX100501-08CRI	26-dinitrotoluene	182 > 152	17.32	3496.613	35530.957	3496.613	49.205	MM	02-May-10	13:42:21	43.1909	108.0	8.0	153.7
WXX100501-08CRI	24-dinitrotoluene	182 > 152	17.96	783.438	35530.957	783.438	11.025	MM	02-May-10	13:38:24	40.0566	100.1	0.1	32.5
WXX100501-08CRI	26-dinitrotoluene-d3	185 > 155	17.17	35530.957		35530.957	35530.957	bb			479.9042	96.0	-4.0	3023.8
WXX100501-08CRI	2-Nitrotoluene	137 > 46	20.73	162.573	35530.957	162.573	2.288	bb			35.0134	87.5	-12.5	49.2
WXX100501-08CRI	4-Nitrotoluene	137 > 46	22.07	75.737	35530.957	75.737	1.066	bb			30.1035	75.3	-24.7	28.2
WXX100501-08CRI	3-Nitrotoluene	137 > 46	23.64	141.941	35530.957	141.941	1.997	bb			46.1962	115.5	15.5	35.5
WXX100501-08CRI	PETN	361 > 62	24.14	4394.097	35530.957	4394.097	61.835	bb			48.7954	122.0	22.0	484.0

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/02/10
Time of Injection	0436
Standard Number	WXX100501-08CRI
Data File	EXP0501025a

HMX	106.2
RDX	90.0
135-TNB	121.5
13-DNB	108.1
Tetryl	113.8
Nitrobenzene	113.2
4A-26-DNT	98.0
2A-46-DNT	89.4
246-TNT	104.7
34-DNT(surr)	98.3
26-DNT	108.0
24-DNT	100.1
2-NT	87.5
4-NT	75.3
3-NT	115.5
PETN	122.0
Total	1651.6
Average	103.2

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-2937

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0501036a **Analysis Date:** 02-MAY-10 10:00

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	583.465	97	
1,3-Dinitrobenzene-d4	500	413.219	83	
2,4,6-Trinitrotoluene	600	651.177	109	
2,4-Dinitrotoluene	600	600.713	100	
2,6-Dinitrotoluene	600	609.598	102	
2,6-Dinitrotoluene-d3	500	398.796	80	*
2-Amino-4,6-dinitrotoluene	600	567.524	95	
3,4-Dinitrotoluene	300	282.849	94	
4-Amino-2,6-dinitrotoluene	600	580.296	97	
HMX	600	446.351	74	*
Nitrobenzene	600	560.307	93	
PETN	600	775.765	129	*
RDX	600	525.302	88	
Tetryl	600	621.199	104	
m-Dinitrobenzene	600	628.054	105	
m-Nitrotoluene	600	561.708	94	
o-Nitrotoluene	600	534.972	89	
p-Nitrotoluene	600	509.217	85	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501036a
Date: 02-May-2010
Time: 10:00:25
ID: WXX100501-07CCV
Vial: 1:1,B

MMP 5/2/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
8.672e+004
7.56

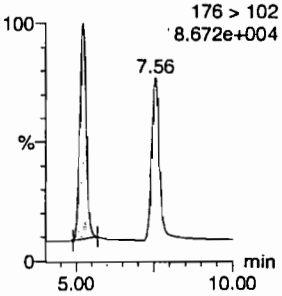

RDX
F2:MRM of 1 channel,AP-
5.22
176 > 102
8.672e+004
RDX
7.56
16999.60

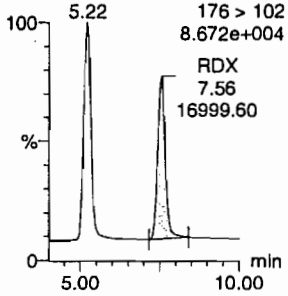

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.110e+005

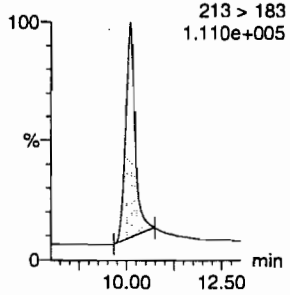

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.106e+004

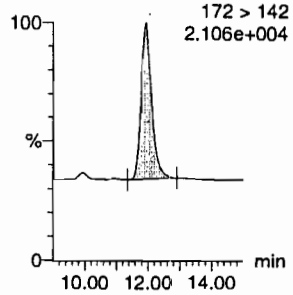

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.913e+004

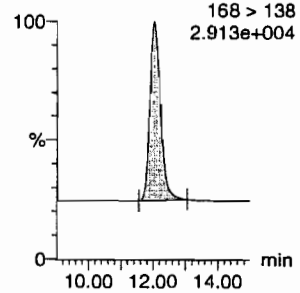

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.48
9101.72
241 > 181
2.706e+004

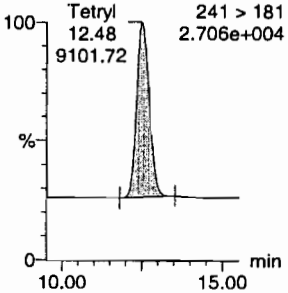

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.330e+004

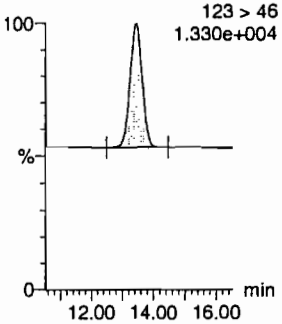

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
3.513e+004

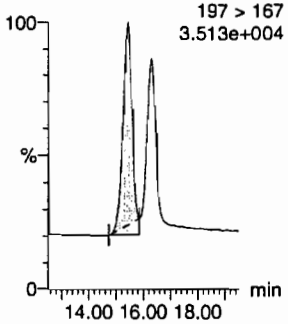

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
4.904e+004

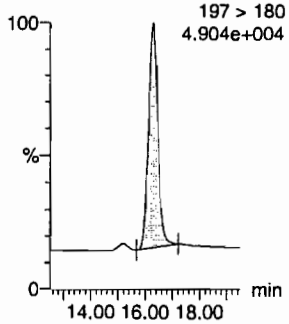

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
4.656e+004

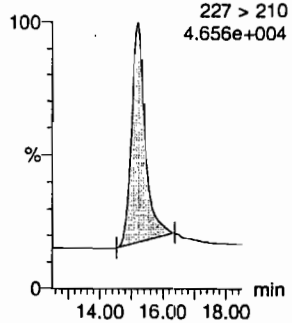

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.34
182 > 152
1.189e+005
17.97

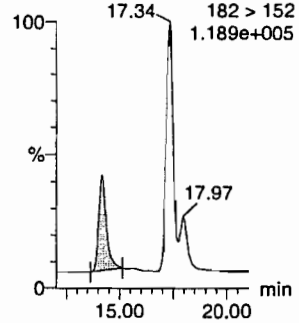

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.189e+005
14.17
17.97

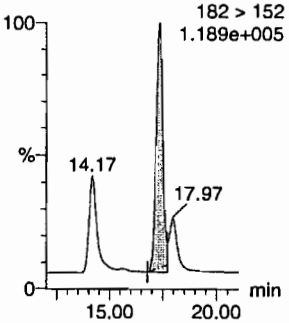

tm 05/03/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

24-dinitrotoluene

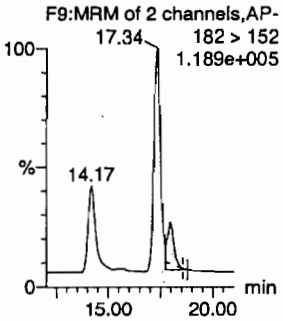

26-dinitrotoluene-d3

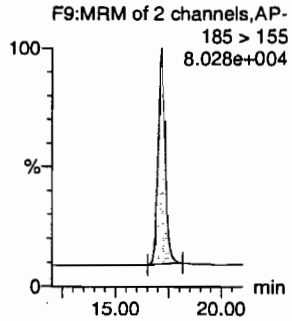

2-Nitrotoluene

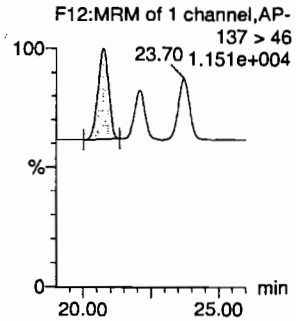

4-Nitrotoluene

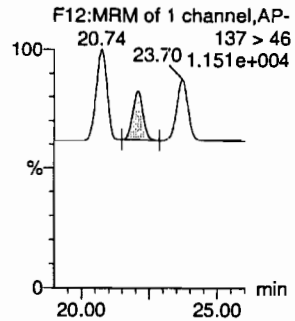

3-Nitrotoluene

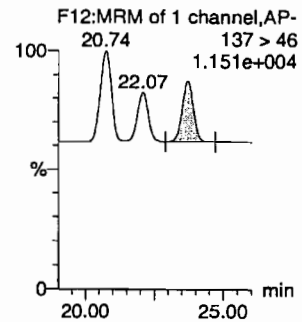

PETN

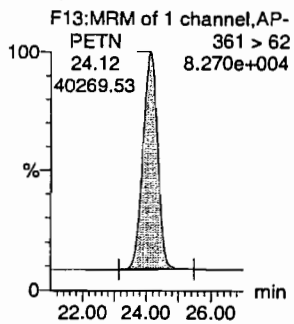

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100501-07CCV	HMX	176 > 102	5.22	20176.115	5341.356	20176.115	1888.670	bb			446.3509	74.4	-25.6	1902.3
WXX100501-07CCV	RDX	176 > 102	7.56	16999.604	5341.356	16999.604	1591.319	bb			525.3018	87.6	-12.4	1431.9
WXX100501-07CCV	135-Trinitrobenzene	213 > 183	10.09	29610.250	5341.356	29610.250	2771.791	bb			583.4651	97.2	-2.8	2276.4
WXX100501-07CCV	13-Dinitrobenzene-d4	172 > 142	11.92	5341.356		5341.356	5341.356	bb			413.2186	82.6	-17.4	565.0
WXX100501-07CCV	13-Dinitrobenzene	168 > 138	12.03	8597.118	5341.356	8597.118	804.769	bb			628.0537	104.7	4.7	1306.6
WXX100501-07CCV	Tetryl	241 > 181	12.48	9101.717	5341.356	9101.717	852.004	bb			621.1988	103.5	3.5	811.1
WXX100501-07CCV	Nitrobenzene	123 > 46	13.45	2935.114	5341.356	2935.114	274.754	bb			560.3068	93.4	-6.6	503.9
WXX100501-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.43	11661.013	29525.934	11661.013	197.471	MM	02-May-10	13:46:29	580.2961	96.7	-3.3	324.7
WXX100501-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.29	17020.945	29525.934	17020.945	288.237	bb			567.5242	94.6	-5.4	912.8
WXX100501-07CCV	246-Trinitrotoluene	227 > 210	15.21	19412.373	29525.934	19412.373	328.734	bb			651.1767	108.5	8.5	617.1
WXX100501-07CCV	34-dinitrotoluene	182 > 152	14.17	18026.037	29525.934	18026.037	305.258	bb			282.8494	94.3	-5.7	300.8
WXX100501-07CCV	26-dinitrotoluene	182 > 152	17.34	41010.500	29525.934	41010.500	694.483	MM	02-May-10	13:42:54	609.5977	101.6	1.6	787.4
WXX100501-07CCV	24-dinitrotoluene	182 > 152	17.97	9763.252	29525.934	9763.252	165.333	MM	02-May-10	13:38:44	600.7133	100.1	0.1	167.3
WXX100501-07CCV	26-dinitrotoluene-d3	185 > 155	17.16	29525.934		29525.934	29525.934	bb			398.7964	79.8	-20.2	1531.3
WXX100501-07CCV	2-Nitrotoluene	137 > 46	20.74	2064.152	29525.934	2064.152	34.955	bb			534.9723	89.2	-10.8	135.2
WXX100501-07CCV	4-Nitrotoluene	137 > 46	22.07	1064.609	29525.934	1064.609	18.028	bb			509.2168	84.9	-15.1	73.1
WXX100501-07CCV	3-Nitrotoluene	137 > 46	23.70	1434.199	29525.934	1434.199	24.287	bb			561.7081	93.6	-6.4	91.8
WXX100501-07CCV	PETN	361 > 62	24.12	40269.531	29525.934	40269.531	681.935	bb			775.7647	129.3	29.3	530.7

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GRAND MEAN AVERAGE

Vendor: Restek MHP 5/3/10
Date of Analysis: 05/02/10
Time of Injection: ~~0100~~ 1000
Standard Number: WXX100501-07CCV
Data File: EXP0501036a

HMX		74.4
RDX		87.6
135-TNB		97.2
13-DNB		104.7
Tetryl		103.5
Nitrobenzene		93.4
4A-26-DNT		96.7
2A-46-DNT		94.6
246-TNT		108.5
34-DNT(surr)		94.3
26-DNT		101.6
24-DNT		100.1
2-NT		89.2
4-NT		84.9
3-NT		93.6
PETN		129.3
Total		1553.6
Average		97.1

MHP 5/3/10

Hmc 05/05/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0501038a

Analysis Date: 02-MAY-10 10:59

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	37.235	93	
1,3-Dinitrobenzene-d4	500	508.296	102	
2,4,6-Trinitrotoluene	40	37.764	94	
2,4-Dinitrotoluene	40	34.709	87	
2,6-Dinitrotoluene	40	42.307	106	
2,6-Dinitrotoluene-d3	500	499.106	100	
2-Amino-4,6-dinitrotoluene	40	38.282	96	
3,4-Dinitrotoluene	20	17.866	89	
4-Amino-2,6-dinitrotoluene	40	36.579	91	
HMX	40	27.937	70	*
Nitrobenzene	40	41.253	103	
PETN	40	45.692	114	
RDX	40	27.49	69	*
Tetryl	40	38.72	97	
m-Dinitrobenzene	40	40.824	102	
m-Nitrotoluene	40	50.487	126	
o-Nitrotoluene	40	35.356	88	
p-Nitrotoluene	40	35.443	89	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501038a
Date: 02-May-2010
Time: 10:59:30
ID: WXX100501-08CRI
Vial: 1:1,C

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.213e+004

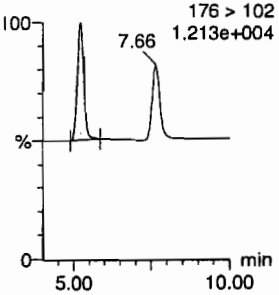

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.213e+004

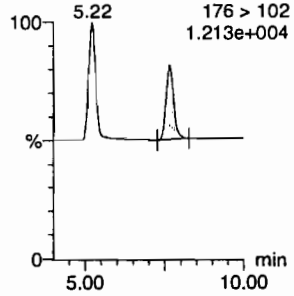

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.428e+004

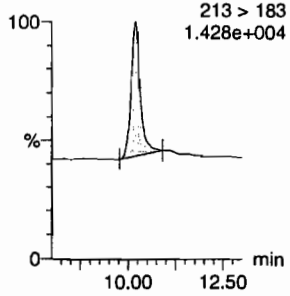

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.273e+004

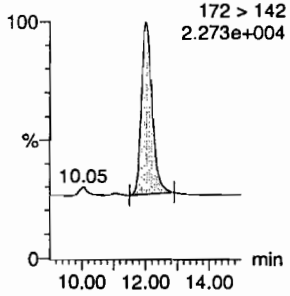

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.680e+003

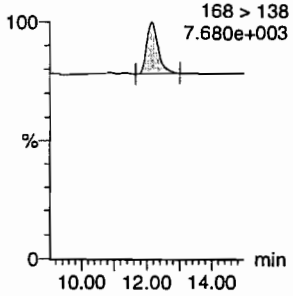

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.499e+003

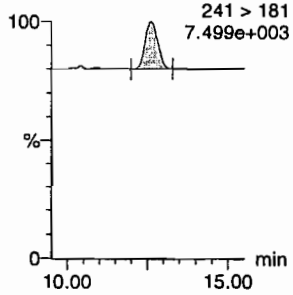

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.517e+003

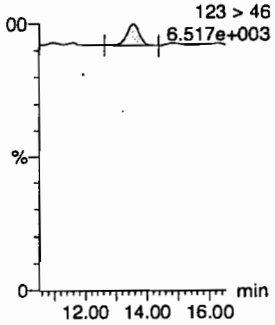

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
8.207e+003

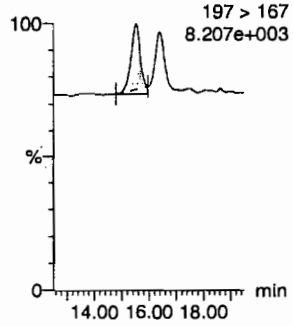

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
9.794e+003

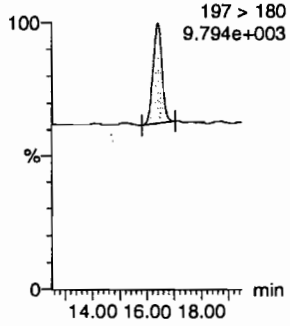

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
9.035e+003

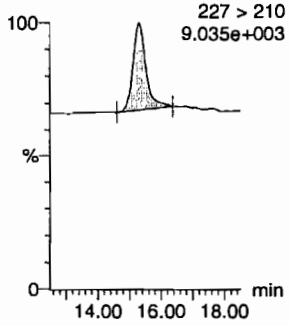

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.598e+004

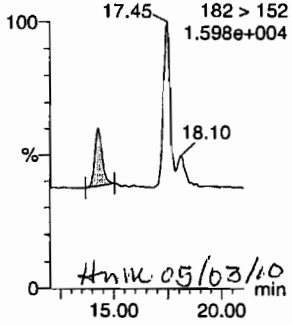

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.598e+004

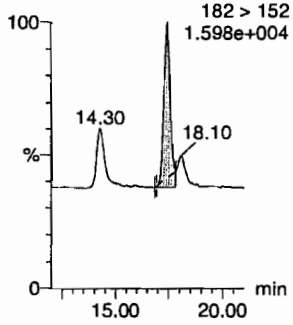

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA.qld, Time: Sun May 02 13:48:06 2010

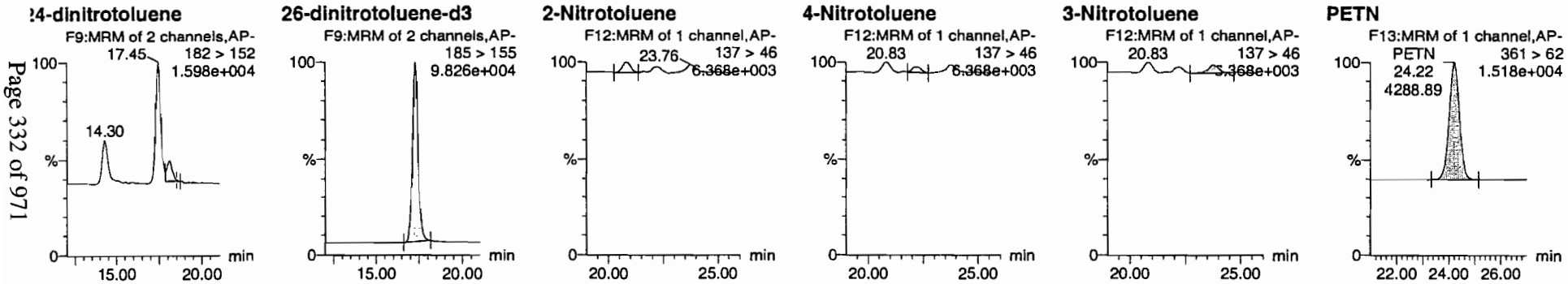

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100501-08CRI	HMX	176 > 102	5.22	1553.356	6570.348	1553.356	118.210	bb			27.9366	69.8	-30.2	285.3
WXX100501-08CRI	RDX	176 > 102	7.66	1094.330	6570.348	1094.330	83.278	bb			27.4904	68.7	-31.3	180.2
WXX100501-08CRI	135-Trinitrobenzene	213 > 183	10.20	2324.409	6570.348	2324.409	176.886	bb			37.2348	93.1	-6.9	165.8
WXX100501-08CRI	13-Dinitrobenzene-d4	172 > 142	12.00	6570.348		6570.348	6570.348	bb			508.2960	101.7	1.7	307.1
WXX100501-08CRI	13-Dinitrobenzene	168 > 138	12.14	687.390	6570.348	687.390	52.310	bb			40.8235	102.1	2.1	72.6
WXX100501-08CRI	Tetryl	241 > 181	12.63	697.860	6570.348	697.860	53.107	bb			38.7203	96.8	-3.2	36.2
WXX100501-08CRI	Nitrobenzene	123 > 46	13.54	265.822	6570.348	265.822	20.229	bb			41.2529	103.1	3.1	47.6
WXX100501-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.53	919.928	36952.605	919.928	12.447	MM	02-May-10	13:46:36	36.5785	91.4	-8.6	30.9
WXX100501-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.38	1436.928	36952.605	1436.928	19.443	bb			38.2820	95.7	-4.3	135.2
WXX100501-08CRI	246-Trinitrotoluene	227 > 210	15.31	1408.961	36952.605	1408.961	19.064	bb			37.7640	94.4	-5.6	77.9
WXX100501-08CRI	34-dinitrotoluene	182 > 152	14.30	1425.004	36952.605	1425.004	19.282	bb			17.8661	89.3	-10.7	38.8
WXX100501-08CRI	26-dinitrotoluene	182 > 152	17.45	3562.125	36952.605	3562.125	48.199	MM	02-May-10	13:43:04	42.3074	105.8	5.8	109.6
WXX100501-08CRI	24-dinitrotoluene	182 > 152	18.10	706.005	36952.605	706.005	9.553	MM	02-May-10	13:38:53	34.7088	86.8	-13.2	19.1
WXX100501-08CRI	26-dinitrotoluene-d3	185 > 155	17.27	36952.605		36952.605	36952.605	bb			499.1059	99.8	-0.2	2682.7
WXX100501-08CRI	2-Nitrotoluene	137 > 46	20.83	170.730	36952.605	170.730	2.310	bb			35.3556	88.4	-11.6	35.2
WXX100501-08CRI	4-Nitrotoluene	137 > 46	22.21	92.739	36952.605	92.739	1.255	bb			35.4433	88.6	-11.4	19.2
WXX100501-08CRI	3-Nitrotoluene	137 > 46	23.76	161.333	36952.605	161.333	2.183	bb			50.4874	126.2	26.2	26.7
WXX100501-08CRI	PETN	361 > 62	24.22	4288.887	36952.605	4288.887	58.032	bb			45.6924	114.2	14.2	372.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/02/10
Time of Injection	1059
Standard Number	WXX100501-08CRI
Data File	EXP0501038a

HMX	69.8
RDX	68.7
135-TNB	93.1
13-DNB	102.1
Tetryl	96.8
Nitrobenzene	103.1
4A-26-DNT	91.4
2A-46-DNT	95.7
246-TNT	94.4
34-DNT(surr)	89.3
26-DNT	105.8
24-DNT	86.8
2-NT	88.4
4-NT	88.6
3-NT	126.2
PETN	114.2
Total	1514.4
Average	94.7

HMK 05/03/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2937

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0501049a

Analysis Date: 02–MAY–10 16:24

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	623.033	104	
1,3–Dinitrobenzene–d4	500	397.128	79	*
2,4,6–Trinitrotoluene	600	614.337	102	
2,4–Dinitrotoluene	600	625.147	104	
2,6–Dinitrotoluene	600	603.512	101	
2,6–Dinitrotoluene–d3	500	479.48	96	
2–Amino–4,6–dinitrotoluene	600	564.417	94	
3,4–Dinitrotoluene	300	242.79	81	
4–Amino–2,6–dinitrotoluene	600	538.325	90	
HMX	600	514.216	86	
Nitrobenzene	600	595.691	99	
PETN	600	574.482	96	
RDX	600	557.128	93	
Tetryl	600	642.327	107	
m–Dinitrobenzene	600	620.083	103	
m–Nitrotoluene	600	499.326	83	
o–Nitrotoluene	600	515.955	86	
p–Nitrotoluene	600	447.858	75	*

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA1.qld, Time: Mon May 03 12:28:02 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501049a
Date: 02-May-2010
Time: 16:24:09
ID: WXX100501-07CCV
Vial: 1:1,B

MAT 5/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
9.112e+004
7.55

RDX
F2:MRM of 1 channel,AP-
176 > 102
9.112e+004
5.21
RDX
7.55
17327.49

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.134e+005

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.923e+004
9.93

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.618e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
2.611e+004
Tetryl
12.52
9044.83

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.212e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
3.662e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.573e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.177e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.395e+005
17.32
17.96

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.395e+005
14.19
17.96

Hnne 05/04/10

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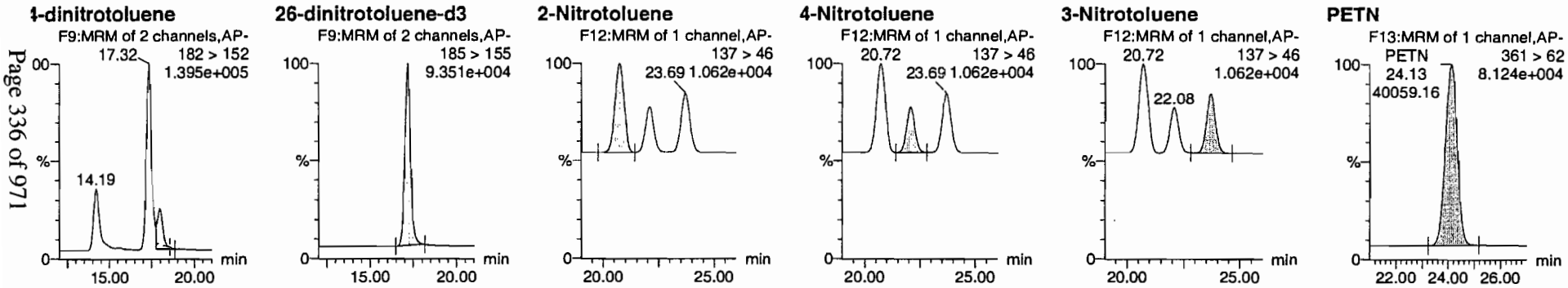

)	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
/XX100501-07CCV	HMX	176 > 102	5.21	22338.713	5133.370	22338.713	2175.833	bb			514.2164	85.7	-14.3	4552.3
/XX100501-07CCV	RDX	176 > 102	7.55	17327.490	5133.370	17327.490	1687.730	bb			557.1277	92.9	-7.1	3243.0
/XX100501-07CCV	135-Trinitrobenzene	213 > 183	10.09	30387.086	5133.370	30387.086	2959.760	bb			623.0326	103.8	3.8	2787.7
/XX100501-07CCV	13-Dinitrobenzene-d4	172 > 142	11.92	5133.370		5133.370	5133.370	bb			397.1284	79.4	-20.6	288.6
/XX100501-07CCV	13-Dinitrobenzene	168 > 138	12.03	8157.496	5133.370	8157.496	794.556	bb			620.0829	103.3	3.3	478.9
/XX100501-07CCV	Tetryl	241 > 181	12.52	9044.825	5133.370	9044.825	880.983	bb			642.3273	107.1	7.1	747.2
/XX100501-07CCV	Nitrobenzene	123 > 46	13.44	2998.963	5133.370	2998.963	292.105	bb			595.6909	99.3	-0.7	474.8
/XX100501-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.41	13006.197	35499.555	13006.197	183.188	MM	03-May-10	12:11:21	538.3249	89.7	-10.3	120.0
/XX100501-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.27	20352.541	35499.555	20352.541	286.659	bb			564.4170	94.1	-5.9	790.9
/XX100501-07CCV	246-Trinitrotoluene	227 > 210	15.20	22019.420	35499.555	22019.420	310.137	bb			614.3372	102.4	2.4	1105.2
/XX100501-07CCV	34-dinitrotoluene	182 > 152	14.19	18603.504	35499.555	18603.504	262.024	bb			242.7898	80.9	-19.1	433.2
/XX100501-07CCV	26-dinitrotoluene	182 > 152	17.32	48815.430	35499.555	48815.430	687.550	MM	03-May-10	12:23:11	603.5123	100.6	0.6	1330.8
/XX100501-07CCV	24-dinitrotoluene	182 > 152	17.96	12215.989	35499.555	12215.989	172.058	MM	03-May-10	12:25:27	625.1470	104.2	4.2	293.7
/XX100501-07CCV	26-dinitrotoluene-d3	185 > 155	17.17	35499.555		35499.555	35499.555	bb			479.4801	95.9	-4.1	2922.6
/XX100501-07CCV	2-Nitrotoluene	137 > 46	20.72	2393.546	35499.555	2393.546	33.712	bb			515.9554	86.0	-14.0	544.7
/XX100501-07CCV	4-Nitrotoluene	137 > 46	22.08	1125.762	35499.555	1125.762	15.856	bb			447.8575	74.6	-25.4	280.3
/XX100501-07CCV	3-Nitrotoluene	137 > 46	23.69	1532.858	35499.555	1532.858	21.590	bb			499.3257	83.2	-16.8	367.1
/XX100501-07CCV	PETN	361 > 62	24.13	40059.164	35499.555	40059.164	564.221	bb			574.4825	95.7	-4.3	2116.6

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/02/10
Time of Injection: 1624
Standard Number: WXX100501-07CCV
Data File: EXP0501049a

HMX	85.7
RDX	92.9
135-TNB	103.8
13-DNB	103.3
Tetryl	107.1
Nitrobenzene	99.3
4A-26-DNT	89.7
2A-46-DNT	94.1
246-TNT	102.4
34-DNT(surr)	80.9
26-DNT	100.6
24-DNT	104.2
2-NT	86.0
4-NT	74.6
3-NT	83.2
PETN	95.7
Total	1503.5
Average	94.0

AMP 5/3/10

Hm 05/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0501051a

Analysis Date: 02-MAY-10 17:23

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	43.746	109	
1,3-Dinitrobenzene-d4	500	494.832	99	
2,4,6-Trinitrotoluene	40	40.97	102	
2,4-Dinitrotoluene	40	39.181	98	
2,6-Dinitrotoluene	40	42.455	106	
2,6-Dinitrotoluene-d3	500	496.914	99	
2-Amino-4,6-dinitrotoluene	40	36.448	91	
3,4-Dinitrotoluene	20	19.626	98	
4-Amino-2,6-dinitrotoluene	40	38.704	97	
HMX	40	42.47	106	
Nitrobenzene	40	43.932	110	
PETN	40	48.277	121	
RDX	40	37.528	94	
Tetryl	40	45.068	113	
m-Dinitrobenzene	40	37.906	95	
m-Nitrotoluene	40	36.971	92	
o-Nitrotoluene	40	34.599	86	
p-Nitrotoluene	40	41.296	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Date: 02-May-2010
Time: 17:23:14
ID: WXX100501-08CRI
Vial: 1:1,C

MM 5/3/10

HMX

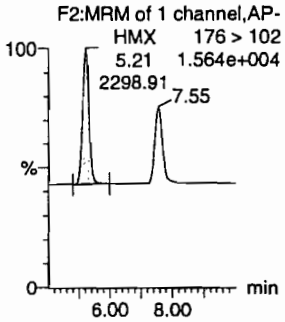

RDX

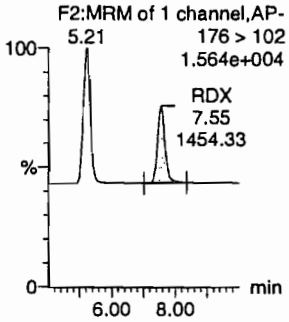

135-Trinitrobenzene

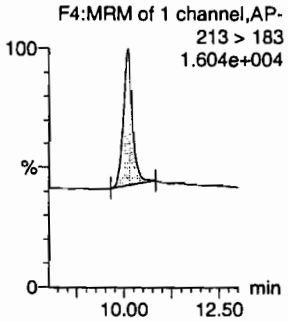

13-Dinitrobenzene-d4

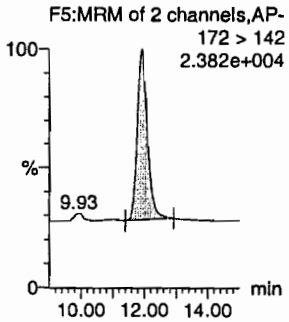

13-Dinitrobenzene

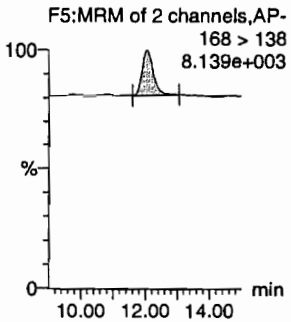

Tetryl

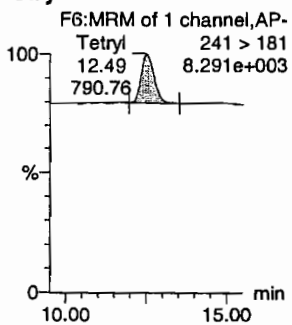

Nitrobenzene

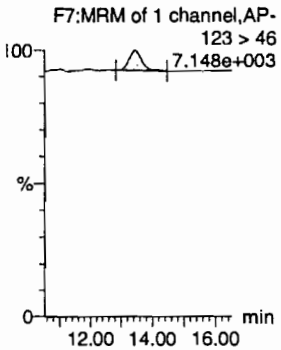

4-Amino-26-dinitrotoluene

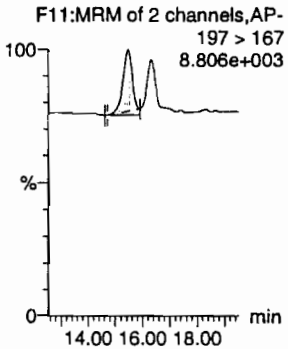

2-Amino-46-dinitrotoluene

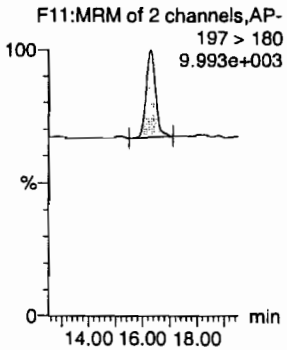

246-Trinitrotoluene

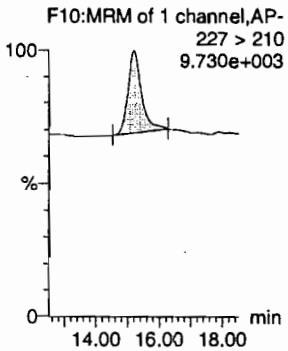

34-dinitrotoluene

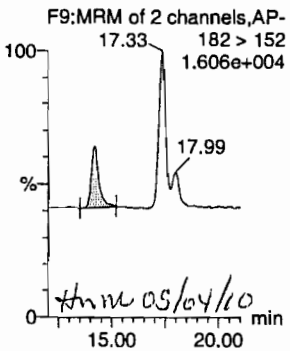

thm 05/04/10

26-dinitrotoluene

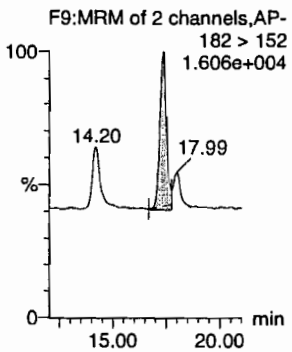

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA1.qld, Time: Mon May 03 12:28:02 2010

4-dinitrotoluene

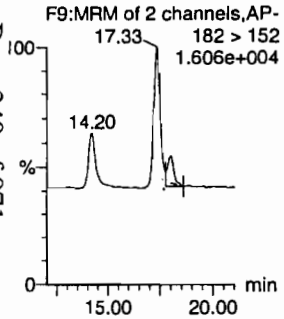

26-dinitrotoluene-d3

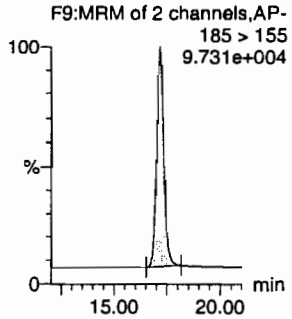

2-Nitrotoluene

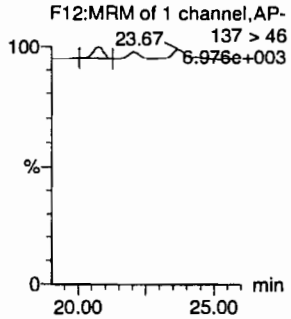

4-Nitrotoluene

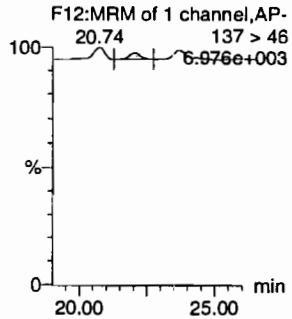

3-Nitrotoluene

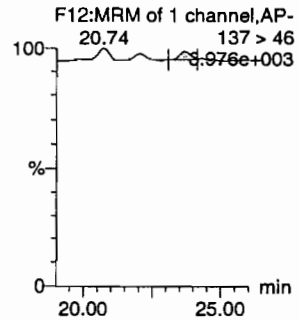

PETN

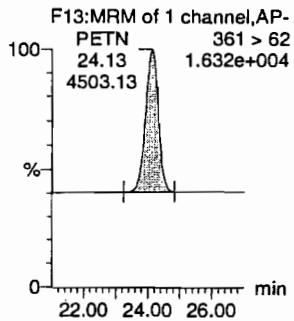

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
VXX100501-08CRI	HMX	176 > 102	5.21	2298.906	6396.313	2298.906	179.706	bb			42.4700	106.2	6.2	384.5
VXX100501-08CRI	RDX	176 > 102	7.55	1454.327	6396.313	1454.327	113.685	bb			37.5279	93.8	-6.2	219.1
VXX100501-08CRI	135-Trinitrobenzene	213 > 183	10.09	2658.565	6396.313	2658.565	207.820	bb			43.7464	109.4	9.4	380.1
VXX100501-08CRI	13-Dinitrobenzene-d4	172 > 142	11.92	6396.313		6396.313	6396.313	bb			494.8323	99.0	-1.0	447.4
VXX100501-08CRI	13-Dinitrobenzene	168 > 138	12.03	621.357	6396.313	621.357	48.571	bb			37.9059	94.8	-5.2	76.1
VXX100501-08CRI	Tetryl	241 > 181	12.49	790.756	6396.313	790.756	61.813	bb			45.0683	112.7	12.7	102.8
VXX100501-08CRI	Nitrobenzene	123 > 46	13.45	275.588	6396.313	275.588	21.543	bb			43.9322	109.8	9.8	31.2
VXX100501-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.42	969.107	36790.336	969.107	13.171	MM	03-May-10	12:11:37	38.7039	96.8	-3.2	53.9
VXX100501-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.28	1362.065	36790.336	1362.065	18.511	bb			36.4476	91.1	-8.9	106.7
VXX100501-08CRI	246-Trinitrotoluene	227 > 210	15.20	1521.866	36790.336	1521.866	20.683	bb			40.9701	102.4	2.4	187.8
VXX100501-08CRI	34-dinitrotoluene	182 > 152	14.20	1558.500	36790.336	1558.500	21.181	bb			19.6260	98.1	-1.9	75.6
VXX100501-08CRI	26-dinitrotoluene	182 > 152	17.33	3558.838	36790.336	3558.838	48.366	MM	03-May-10	12:22:55	42.4548	106.1	6.1	198.4
VXX100501-08CRI	24-dinitrotoluene	182 > 152	17.99	793.480	36790.336	793.480	10.784	MM	03-May-10	12:25:38	39.1813	98.0	-2.0	43.0
VXX100501-08CRI	26-dinitrotoluene-d3	185 > 155	17.16	36790.336		36790.336	36790.336	bb			496.9142	99.4	-0.6	2053.0
VXX100501-08CRI	2-Nitrotoluene	137 > 46	20.74	166.344	36790.336	166.344	2.261	bb			34.5992	86.5	-13.5	18.5
VXX100501-08CRI	4-Nitrotoluene	137 > 46	22.05	107.579	36790.336	107.579	1.462	bb			41.2962	103.2	3.2	10.9
VXX100501-08CRI	3-Nitrotoluene	137 > 46	23.67	117.622	36790.336	117.622	1.599	bb			36.9709	92.4	-7.6	13.1
VXX100501-08CRI	PETN	361 > 62	24.13	4503.128	36790.336	4503.128	61.200	bb			48.2767	120.7	20.7	314.2

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/02/10
Time of Injection	1723
Standard Number	WXX100501-08CRI
Data File	EXP0501051a

HMX		106.2
RDX		93.8
135-TNB		109.4
13-DNB		94.8
Tetryl		112.7
Nitrobenzene		109.8
4A-26-DNT		96.8
2A-46-DNT		91.1
246-TNT		102.4
34-DNT(surr)		98.1
26-DNT		106.1
24-DNT		98.0
2-NT		86.5
4-NT		103.2
3-NT		92.4
PETN		120.7
Total		1622.0
Average		101.4

HMM 05/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

MTP 5/3/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0501062a

Analysis Date: 02-MAY-10 22:47

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	710.629	118	
1,3-Dinitrobenzene-d4	500	391.063	78	*
2,4,6-Trinitrotoluene	600	643.809	107	
2,4-Dinitrotoluene	600	556.618	93	
2,6-Dinitrotoluene	600	604.549	101	
2,6-Dinitrotoluene-d3	500	404.839	81	
2-Amino-4,6-dinitrotoluene	600	584.107	97	
3,4-Dinitrotoluene	300	282.717	94	
4-Amino-2,6-dinitrotoluene	600	579.657	97	
HMX	600	702.878	117	
Nitrobenzene	600	600.365	100	
PETN	600	762.647	127	*
RDX	600	742.997	124	*
Tetryl	600	658.941	110	
m-Dinitrobenzene	600	610.639	102	
m-Nitrotoluene	600	551.526	92	
o-Nitrotoluene	600	559.058	93	
p-Nitrotoluene	600	519.514	87	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501062a
ate: 02-May-2010
me: 22:47:46
: WXX100501-07CCV
al: 1:1,B

MM 5/3/10

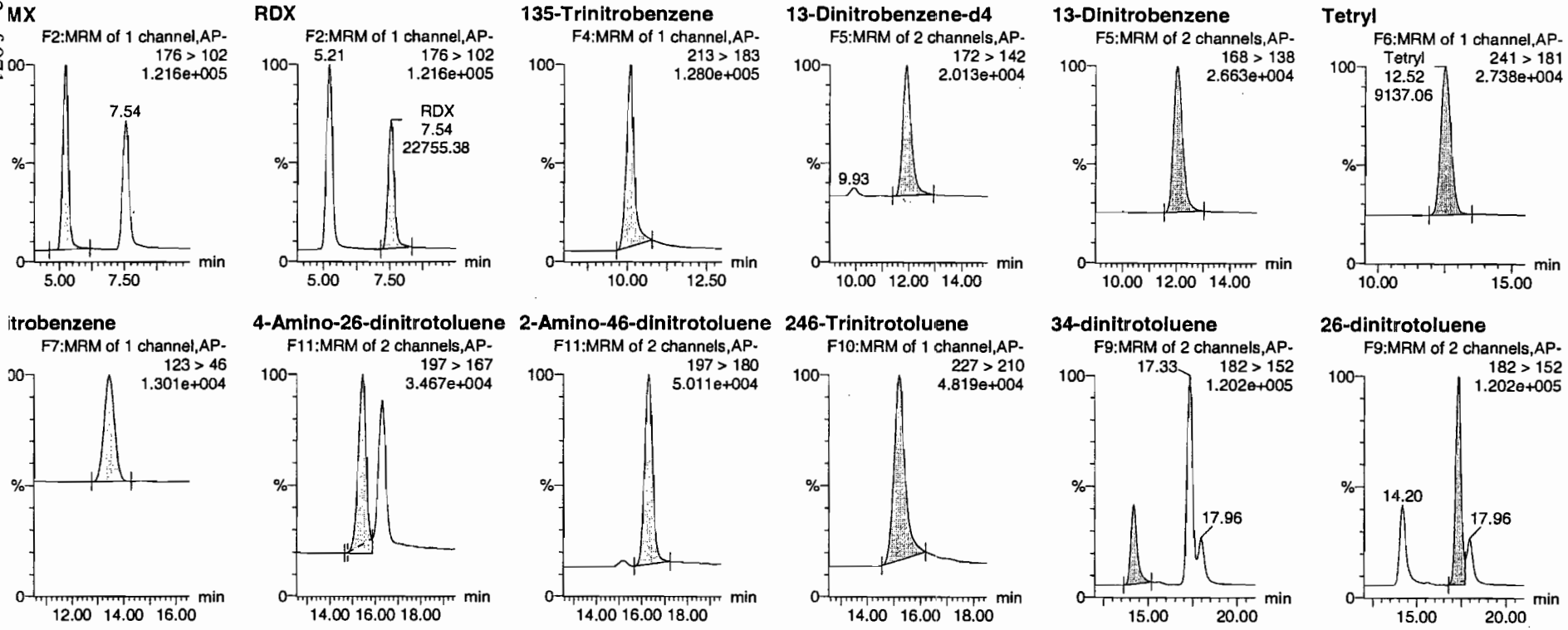

MM 05/04/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

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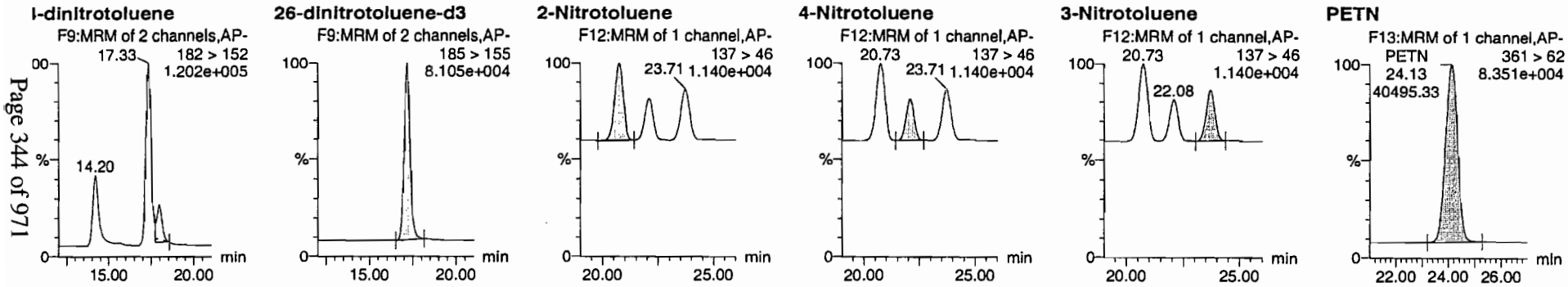

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XX100501-07CCV	HMX	176 > 102	5.21	30068.264	5054.973	30068.264	2974.127	bb			702.8779	117.1	17.1	1211.3
XX100501-07CCV	RDX	176 > 102	7.54	22755.383	5054.973	22755.383	2250.792	bb			742.9968	123.8	23.8	843.4
XX100501-07CCV	135-Trinitrobenzene	213 > 183	10.09	34130.070	5054.973	34130.070	3375.890	bb			710.6285	118.4	18.4	749.8
XX100501-07CCV	13-Dinitrobenzene-d4	172 > 142	11.92	5054.973		5054.973	5054.973	bb			391.0634	78.2	-21.8	633.8
XX100501-07CCV	13-Dinitrobenzene	168 > 138	12.03	7910.571	5054.973	7910.571	782.454	bb			610.6388	101.8	1.8	1622.0
XX100501-07CCV	Tetryl	241 > 181	12.52	9137.059	5054.973	9137.059	903.769	bb			658.9408	109.8	9.8	406.8
XX100501-07CCV	Nitrobenzene	123 > 46	13.44	2976.333	5054.973	2976.333	294.397	bb			600.3646	100.1	0.1	469.2
XX100501-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.41	11824.681	29973.336	11824.681	197.253	MM	03-May-10	12:12:07	579.6574	96.6	-3.4	369.7
XX100501-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.27	17783.752	29973.336	17783.752	296.660	bb			584.1074	97.4	-2.6	655.6
XX100501-07CCV	246-Trinitrotoluene	227 > 210	15.19	19483.561	29973.336	19483.561	325.015	bb			643.8091	107.3	7.3	992.4
XX100501-07CCV	34-dinitrotoluene	182 > 152	14.20	18290.609	29973.336	18290.609	305.115	bb			282.7169	94.2	-5.8	514.1
XX100501-07CCV	26-dinitrotoluene	182 > 152	17.33	41287.098	29973.336	41287.098	688.730	MM	03-May-10	12:22:42	604.5485	100.8	0.8	1349.9
XX100501-07CCV	24-dinitrotoluene	182 > 152	17.96	9183.662	29973.336	9183.662	153.197	MM	03-May-10	12:25:51	556.6180	92.8	-7.2	281.0
XX100501-07CCV	26-dinitrotoluene-d3	185 > 155	17.17	29973.336		29973.336	29973.336	bb			404.8393	81.0	-19.0	2515.1
XX100501-07CCV	2-Nitrotoluene	137 > 46	20.73	2189.769	29973.336	2189.769	36.529	bb			559.0575	93.2	-6.8	361.7
XX100501-07CCV	4-Nitrotoluene	137 > 46	22.08	1102.596	29973.336	1102.596	18.393	bb			519.5144	86.6	-13.4	195.7
XX100501-07CCV	3-Nitrotoluene	137 > 46	23.71	1429.540	29973.336	1429.540	23.847	bb			551.5262	91.9	-8.1	240.5
XX100501-07CCV	PETN	361 > 62	24.13	40495.328	29973.336	40495.328	675.523	bb			762.6469	127.1	27.1	5905.2

✓

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/02/10
Time of Injection: 2247
Standard Number: WXX100501-07CCV
Data File: EXP0501062a

HMX	117.1
RDX	123.8
135-TNB	118.4
13-DNB	101.8
Tetryl	109.8
Nitrobenzene	100.1
4A-26-DNT	96.6
2A-46-DNT	97.4
246-TNT	107.3
34-DNT(surr)	94.2
26-DNT	100.8
24-DNT	92.8
2-NT	93.2
4-NT	86.6
3-NT	91.9
PETN	127.1
Total	1658.9
Average	103.7

HMM 05/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0501064a

Analysis Date: 02-MAY-10 23:46

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	45.657	114	
1,3-Dinitrobenzene-d4	500	435.513	87	
2,4,6-Trinitrotoluene	40	37.037	93	
2,4-Dinitrotoluene	40	40.531	101	
2,6-Dinitrotoluene	40	43.809	110	
2,6-Dinitrotoluene-d3	500	443.049	89	
2-Amino-4,6-dinitrotoluene	40	33.437	84	
3,4-Dinitrotoluene	20	20.939	105	
4-Amino-2,6-dinitrotoluene	40	39.188	98	
HMX	40	36.331	91	
Nitrobenzene	40	37.78	94	
PETN	40	54.628	137	*
RDX	40	35.052	88	
Tetryl	40	38.438	96	
m-Dinitrobenzene	40	42.288	106	
m-Nitrotoluene	40	39.615	99	
o-Nitrotoluene	40	39.722	99	
p-Nitrotoluene	40	32.255	81	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA1.qld, Time: Mon May 03 12:28:02 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501064a
Date: 02-May-2010
Time: 23:46:50
ID: WXX100501-08CRI
Vial: 1:1,C

AMP 5/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.363e+004
7.56

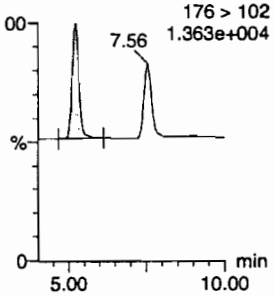

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.363e+004
5.22

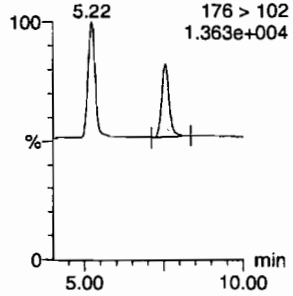

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.528e+004

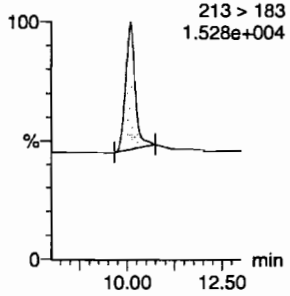

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.161e+004

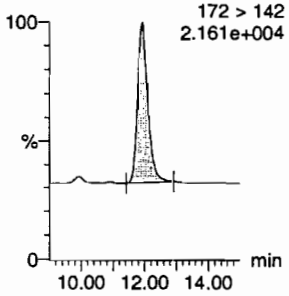

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
8.389e+003

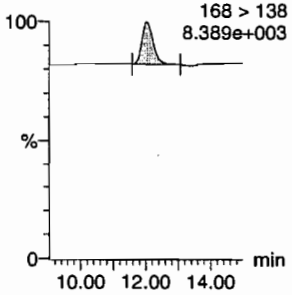

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
8.163e+003

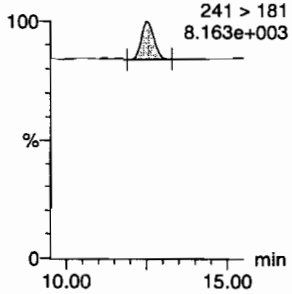

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
7.381e+003

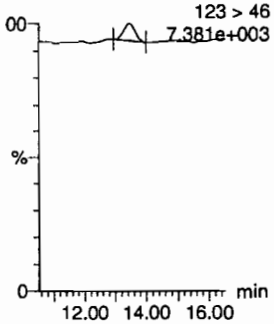

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
8.995e+003

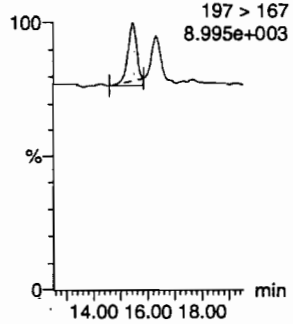

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
9.776e+003

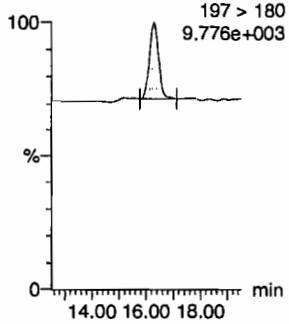

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
9.568e+003

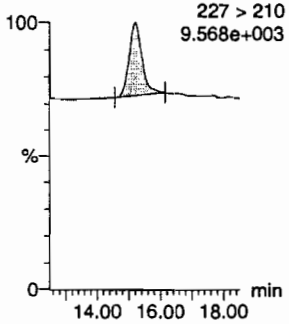

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.553e+004
17.36
17.97

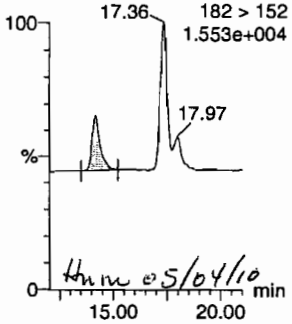

HMM 05/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.553e+004
14.17
17.97

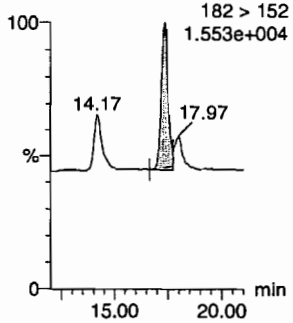

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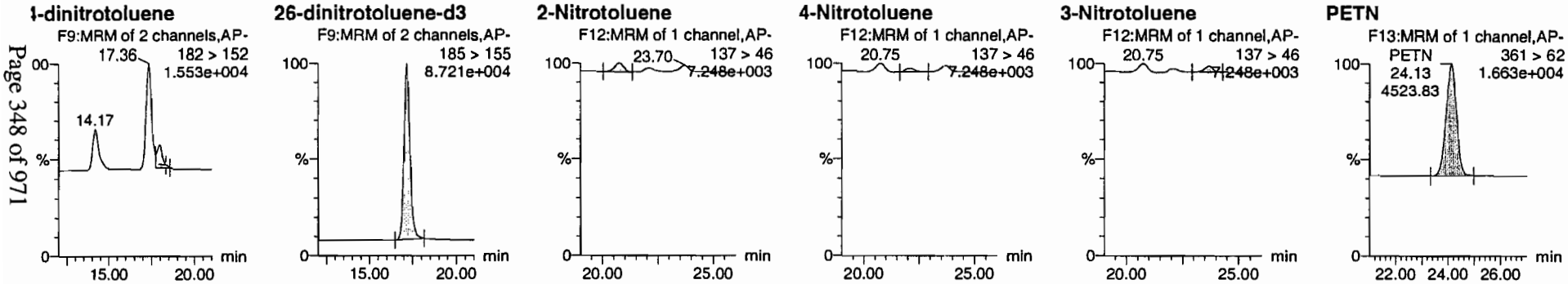

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
'XX100501-08CRI	HMX	176 > 102	5.22	1730.846	5629.539	1730.846	153.729	bb			36.3309	90.8	-9.2	302.8
'XX100501-08CRI	RDX	176 > 102	7.56	1195.546	5629.539	1195.546	106.185	bb			35.0522	87.6	-12.4	191.6
'XX100501-08CRI	135-Trinitrobenzene	213 > 183	10.09	2442.032	5629.539	2442.032	216.894	bb			45.6565	114.1	14.1	192.4
'XX100501-08CRI	13-Dinitrobenzene-d4	172 > 142	11.92	5629.539		5629.539	5629.539	bb			435.5130	87.1	-12.9	490.2
'XX100501-08CRI	13-Dinitrobenzene	168 > 138	12.03	610.090	5629.539	610.090	54.186	bb			42.2879	105.7	5.7	91.2
'XX100501-08CRI	Tetryl	241 > 181	12.48	593.578	5629.539	593.578	52.720	bb			38.4383	96.1	-3.9	78.6
'XX100501-08CRI	Nitrobenzene	123 > 46	13.45	208.584	5629.539	208.584	18.526	bb			37.7799	94.4	-5.6	41.8
'XX100501-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.42	874.866	32802.320	874.866	13.335	MM	03-May-10	12:12:15	39.1881	98.0	-2.0	57.3
'XX100501-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.28	1114.105	32802.320	1114.105	16.982	bb			33.4369	83.6	-16.4	111.4
'XX100501-08CRI	246-Trinitrotoluene	227 > 210	15.21	1226.641	32802.320	1226.641	18.697	bb			37.0371	92.6	-7.4	66.3
'XX100501-08CRI	34-dinitrotoluene	182 > 152	14.17	1482.548	32802.320	1482.548	22.598	bb			20.9393	104.7	4.7	36.3
'XX100501-08CRI	26-dinitrotoluene	182 > 152	17.36	3274.259	32802.320	3274.259	49.909	MM	03-May-10	12:22:34	43.8087	109.5	9.5	94.6
'XX100501-08CRI	24-dinitrotoluene	182 > 152	17.97	731.836	32802.320	731.836	11.155	MM	03-May-10	12:25:59	40.5308	101.3	1.3	20.1
'XX100501-08CRI	26-dinitrotoluene-d3	185 > 155	17.16	32802.320		32802.320	32802.320	bb			443.0494	88.6	-11.4	2731.0
'XX100501-08CRI	2-Nitrotoluene	137 > 46	20.75	170.271	32802.320	170.271	2.595	bb			39.7218	99.3	-0.7	24.4
'XX100501-08CRI	4-Nitrotoluene	137 > 46	22.10	74.918	32802.320	74.918	1.142	bb			32.2551	80.6	-19.4	9.9
'XX100501-08CRI	3-Nitrotoluene	137 > 46	23.70	112.371	32802.320	112.371	1.713	bb			39.6145	99.0	-1.0	17.0
'XX100501-08CRI	PETN	361 > 62	24.13	4523.826	32802.320	4523.826	68.956	bb			54.6282	136.6	36.6	534.7

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/02/10
Time of Injection	2346
Standard Number	WXX100501-08CRI
Data File	EXP0501064a

HMX	90.8
RDX	87.6
135-TNB	114.1
13-DNB	105.7
Tetryl	96.1
Nitrobenzene	94.4
4A-26-DNT	98.0
2A-46-DNT	83.6
246-TNT	92.6
34-DNT(surr)	104.7
26-DNT	109.5
24-DNT	101.3
2-NT	99.3
4-NT	80.6
3-NT	99.0
PETN	136.6
Total	1593.9
Average	99.6

HMM 05/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0501068a

Analysis Date: 03-MAY-10 01:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	604.988	101	
1,3-Dinitrobenzene-d4	500	515.636	103	
2,4,6-Trinitrotoluene	600	682.677	114	
2,4-Dinitrotoluene	600	604.582	101	
2,6-Dinitrotoluene	600	602.844	100	
2,6-Dinitrotoluene-d3	500	528.941	106	
2-Amino-4,6-dinitrotoluene	600	629.062	105	
3,4-Dinitrotoluene	300	284.108	95	
4-Amino-2,6-dinitrotoluene	600	621.653	104	
HMX	600	579.408	97	
Nitrobenzene	600	563.074	94	
PETN	600	580.976	97	
RDX	600	671.99	112	
Tetryl	600	666.959	111	
m-Dinitrobenzene	600	594.787	99	
m-Nitrotoluene	600	579.055	97	
o-Nitrotoluene	600	549.32	92	
p-Nitrotoluene	600	539.318	90	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

luantify Sample Report
iEL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\050110expA1.qld, Time: Mon May 03 12:28:02 2010

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ate: 03-May-2010
ime: 01:44:51
): WXX100501-07CCV
ial: 1:1,B

MM 5/3/10

MX
F2:MRM of 1 channel,AP-
176 > 102
1.300e+005
7.56

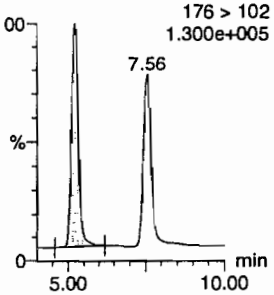

RDX
F2:MRM of 1 channel,AP-
5.22
176 > 102
1.300e+005
RDX
7.56
27136.61

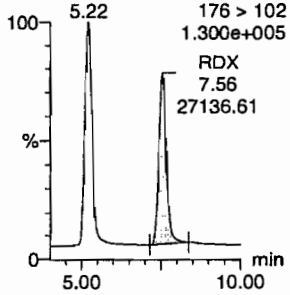

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.413e+005

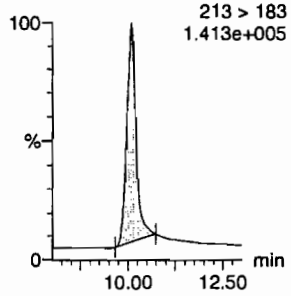

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.446e+004
9.94

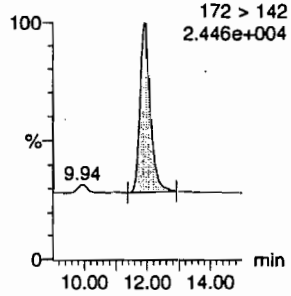

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
3.237e+004

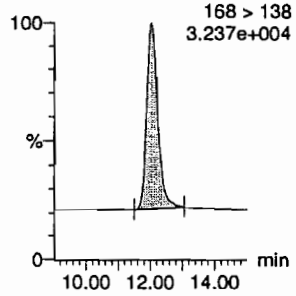

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
3.407e+004

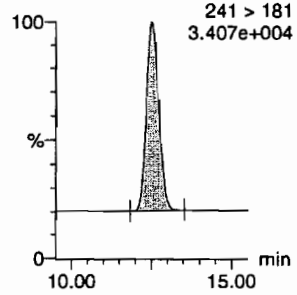

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.475e+004

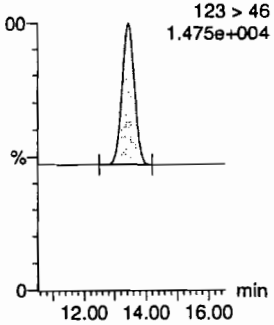

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
4.683e+004

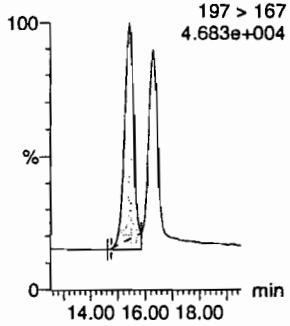

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.824e+004

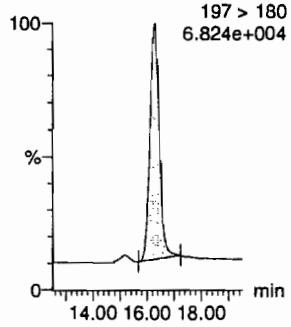

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.323e+004

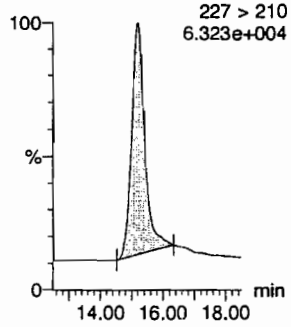

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.33
182 > 152
1.570e+005
17.97

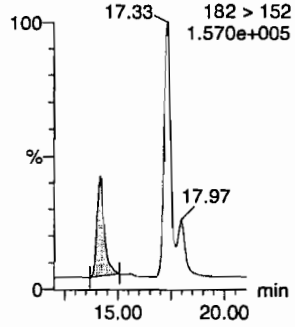

Hm 05/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.570e+005
14.16
17.97

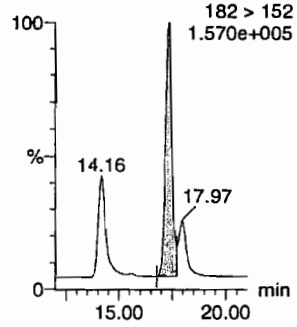

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luantify Sample Report
iEL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\050110expA1.qld, Time: Mon May 03 12:28:02 2010

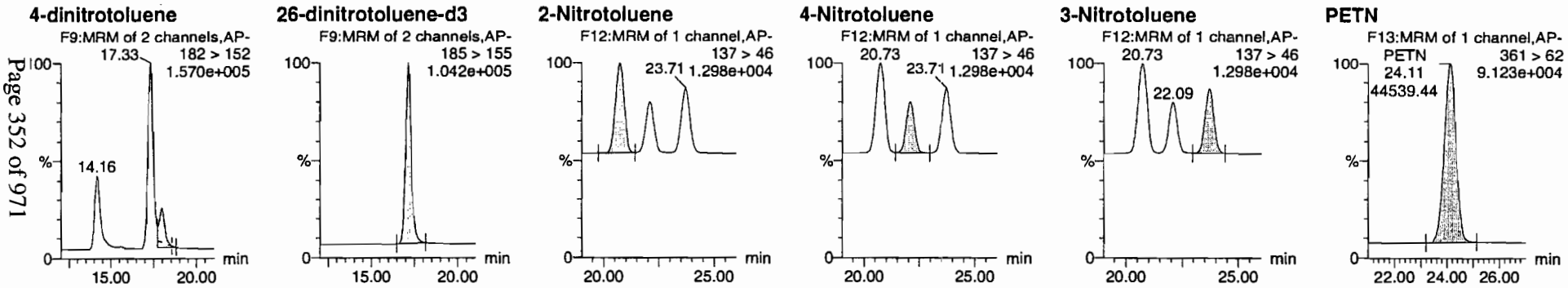

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
VXX100501-07CCV	HMX	176 > 102	5.22	32681.998	6665.223	32681.998	2451.681	bb			579.4077	96.6	-3.4	959.8
VXX100501-07CCV	RDX	176 > 102	7.56	27136.609	6665.223	27136.609	2035.687	bb			671.9896	112.0	12.0	732.1
VXX100501-07CCV	135-Trinitrobenzene	213 > 183	10.09	38312.188	6665.223	38312.188	2874.036	bb			604.9877	100.8	0.8	1880.0
VXX100501-07CCV	13-Dinitrobenzene-d4	172 > 142	11.92	6665.223		6665.223	6665.223	bb			515.6357	103.1	3.1	717.6
VXX100501-07CCV	13-Dinitrobenzene	168 > 138	12.03	10159.698	6665.223	10159.698	762.142	bb			594.7871	99.1	-0.9	748.3
VXX100501-07CCV	Tetryl	241 > 181	12.48	12194.250	6665.223	12194.250	914.767	bb			666.9591	111.2	11.2	3301.1
VXX100501-07CCV	Nitrobenzene	123 > 46	13.45	3680.677	6665.223	3680.677	276.111	bb			563.0740	93.8	-6.2	503.9
VXX100501-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.42	16568.775	39161.496	16568.775	211.544	MM	03-May-10	12:12:26	621.6532	103.6	3.6	136.1
VXX100501-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.28	25023.502	39161.496	25023.502	319.491	bb			629.0616	104.8	4.8	1378.9
VXX100501-07CCV	246-Trinitrotoluene	227 > 210	15.21	26992.979	39161.496	26992.979	344.637	bb			682.6772	113.8	13.8	883.6
VXX100501-07CCV	34-dinitrotoluene	182 > 152	14.16	24015.078	39161.496	24015.078	306.616	bb			284.1080	94.7	-5.3	482.6
VXX100501-07CCV	26-dinitrotoluene	182 > 152	17.33	53791.297	39161.496	53791.297	686.788	MM	03-May-10	12:22:19	602.8436	100.5	0.5	1220.2
VXX100501-07CCV	24-dinitrotoluene	182 > 152	17.97	13032.817	39161.496	13032.817	166.398	MM	03-May-10	12:26:08	604.5823	100.8	0.8	260.3
VXX100501-07CCV	26-dinitrotoluene-d3	185 > 155	17.16	39161.496		39161.496	39161.496	bb			528.9406	105.8	5.8	3082.4
VXX100501-07CCV	2-Nitrotoluene	137 > 46	20.73	2811.196	39161.496	2811.196	35.892	bb			549.3196	91.6	-8.4	592.6
VXX100501-07CCV	4-Nitrotoluene	137 > 46	22.09	1495.506	39161.496	1495.506	19.094	bb			539.3182	89.9	-10.1	334.1
VXX100501-07CCV	3-Nitrotoluene	137 > 46	23.71	1960.986	39161.496	1960.986	25.037	bb			579.0554	96.5	-3.5	422.5
VXX100501-07CCV	PETN	361 > 62	24.11	44539.441	39161.496	44539.441	568.664	bb			580.9763	96.8	-3.2	2805.5

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/03/10
Time of Injection: 0144
Standard Number: WXX100501-07CCV
Data File: EXP0501068a

HMX	96.6
RDX	112.0
135-TNB	100.8
13-DNB	99.1
Tetryl	111.2
Nitrobenzene	93.9
4A-26-DNT	103.6
2A-46-DNT	104.8
246-TNT	113.8
34-DNT(surr)	94.7
26-DNT	100.5
24-DNT	100.8
2-NT	91.6
4-NT	89.9
3-NT	96.5
PETN	96.8
Total	1606.6
Average	100.4

MJP 5/3/10

HMK 05/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0501070a

Analysis Date: 03-MAY-10 02:43

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	43.08	108	
1,3-Dinitrobenzene-d4	500	479.593	96	
2,4,6-Trinitrotoluene	40	42.032	105	
2,4-Dinitrotoluene	40	30.212	76	
2,6-Dinitrotoluene	40	42.332	106	
2,6-Dinitrotoluene-d3	500	514.718	103	
2-Amino-4,6-dinitrotoluene	40	48.97	122	
3,4-Dinitrotoluene	20	21.274	106	
4-Amino-2,6-dinitrotoluene	40	40.081	100	
HMX	40	36.644	92	
Nitrobenzene	40	41.477	104	
PETN	40	48.168	120	
RDX	40	37.065	93	
Tetryl	40	36.22	91	
m-Dinitrobenzene	40	41.095	103	
m-Nitrotoluene	40	36.871	92	
o-Nitrotoluene	40	32.509	81	
p-Nitrotoluene	40	33.254	83	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

ataset: C:\MASSLYNX\New_Exp.PRO\050110expA1.qld, Time: Mon May 03 12:28:02 2010

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ate: 03-May-2010
me: 02:43:56
: WXX100501-08CRI
al: 1:1,C

MM 5/3/10

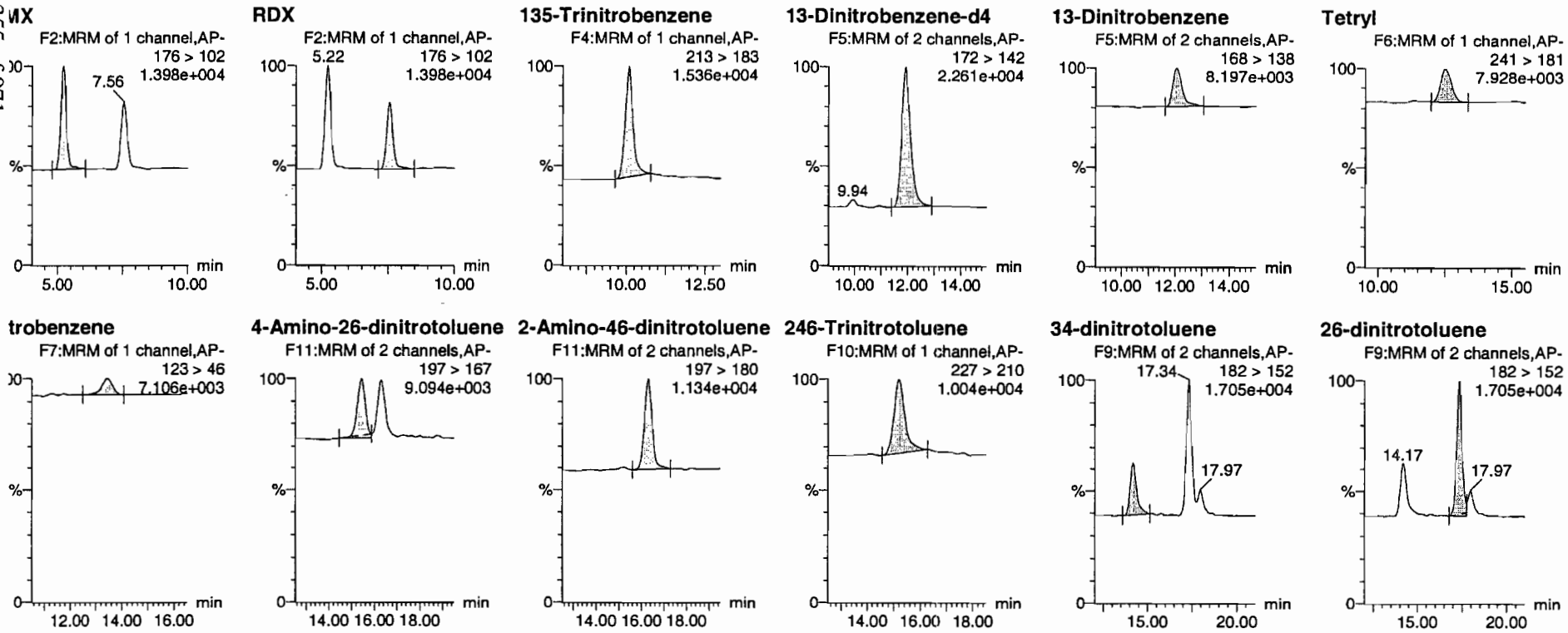

Hmw 05/04/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

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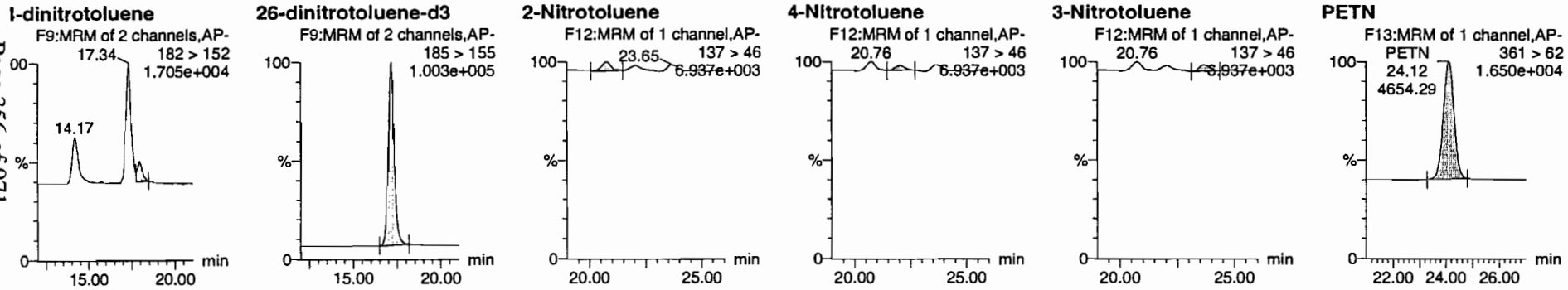

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
'XX100501-08CRI	HMX	176 > 102	5.22	1922.447	6199.325	1922.447	155.053	bb			36.6438	91.6	-8.4	317.3
'XX100501-08CRI	RDX	176 > 102	7.56	1392.151	6199.325	1392.151	112.282	bb			37.0650	92.7	-7.3	206.7
'XX100501-08CRI	135-Trinitrobenzene	213 > 183	10.09	2537.424	6199.325	2537.424	204.653	bb			43.0797	107.7	7.7	345.6
'XX100501-08CRI	13-Dinitrobenzene-d4	172 > 142	11.92	6199.325		6199.325	6199.325	bb			479.5929	95.9	-4.1	1375.6
'XX100501-08CRI	13-Dinitrobenzene	168 > 138	12.03	652.884	6199.325	652.884	52.658	bb			41.0948	102.7	2.7	57.3
'XX100501-08CRI	Tetryl	241 > 181	12.48	615.937	6199.325	615.937	49.678	bb			36.2202	90.6	-9.4	50.0
'XX100501-08CRI	Nitrobenzene	123 > 46	13.41	252.173	6199.325	252.173	20.339	bb			41.4769	103.7	3.7	14.4
'XX100501-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.43	1039.539	38108.496	1039.539	13.639	MM	03-May-10	12:12:36	40.0808	100.2	0.2	50.7
'XX100501-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.29	1895.597	38108.496	1895.597	24.871	bb			48.9698	122.4	22.4	88.4
'XX100501-08CRI	246-Trinitrotoluene	227 > 210	15.21	1617.241	38108.496	1617.241	21.219	bb			42.0317	105.1	5.1	66.6
'XX100501-08CRI	34-dinitrotoluene	182 > 152	14.17	1749.910	38108.496	1749.910	22.960	bb			21.2742	106.4	6.4	78.3
'XX100501-08CRI	26-dinitrotoluene	182 > 152	17.34	3675.694	38108.496	3675.694	48.227	MM	03-May-10	12:22:10	42.3321	105.8	5.8	203.1
'XX100501-08CRI	24-dinitrotoluene	182 > 152	17.97	633.763	38108.496	633.763	8.315	MM	03-May-10	12:26:22	30.2121	75.5	-24.5	35.0
'XX100501-08CRI	26-dinitrotoluene-d3	185 > 155	17.16	38108.496		38108.496	38108.496	bb			514.7181	102.9	2.9	2419.7
'XX100501-08CRI	2-Nitrotoluene	137 > 46	20.76	161.895	38108.496	161.895	2.124	bb			32.5091	81.3	-18.7	30.5
'XX100501-08CRI	4-Nitrotoluene	137 > 46	22.06	89.731	38108.496	89.731	1.177	bb			33.2535	83.1	-16.9	16.8
XX100501-08CRI	3-Nitrotoluene	137 > 46	23.65	121.507	38108.496	121.507	1.594	bb			36.8710	92.2	-7.8	21.6
XX100501-08CRI	PETN	361 > 62	24.12	4654.294	38108.496	4654.294	61.066	bb			48.1677	120.4	20.4	378.8

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/03/10
Time of Injection	0243
Standard Number	WXX100501-08CRI
Data File	EXP0501070a

HMX	91.6
RDX	92.7
135-TNB	107.7
13-DNB	102.7
Tetryl	90.6
Nitrobenzene	103.7
4A-26-DNT	100.2
2A-46-DNT	122.4
246-TNT	105.1
34-DNT(surr)	106.4
26-DNT	105.8
24-DNT	75.5
2-NT	81.3
4-NT	83.1
3-NT	92.2
PETN	120.4
Total	1581.4
Average	98.8

MMT 5/3/10

Hmm 05/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0501092a

Analysis Date: 03-MAY-10 13:33

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	645.825	108	
1,3-Dinitrobenzene-d4	500	481.277	96	
2,4,6-Trinitrotoluene	600	676.674	113	
2,4-Dinitrotoluene	600	623.156	104	
2,6-Dinitrotoluene	600	606.917	101	
2,6-Dinitrotoluene-d3	500	510.275	102	
2-Amino-4,6-dinitrotoluene	600	630.795	105	
3,4-Dinitrotoluene	300	289.3	96	
4-Amino-2,6-dinitrotoluene	600	583.711	97	
HMX	600	610.881	102	
Nitrobenzene	600	619.378	103	
PETN	600	552.469	92	
RDX	600	621.017	104	
Tetryl	600	677.638	113	
m-Dinitrobenzene	600	621.218	104	
m-Nitrotoluene	600	553.927	92	
o-Nitrotoluene	600	516.465	86	
p-Nitrotoluene	600	528.405	88	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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ate: 03-May-2010
me: 13:33:02
: WXX100501-07CCV
al: 1:1,B

MM 5/4/10

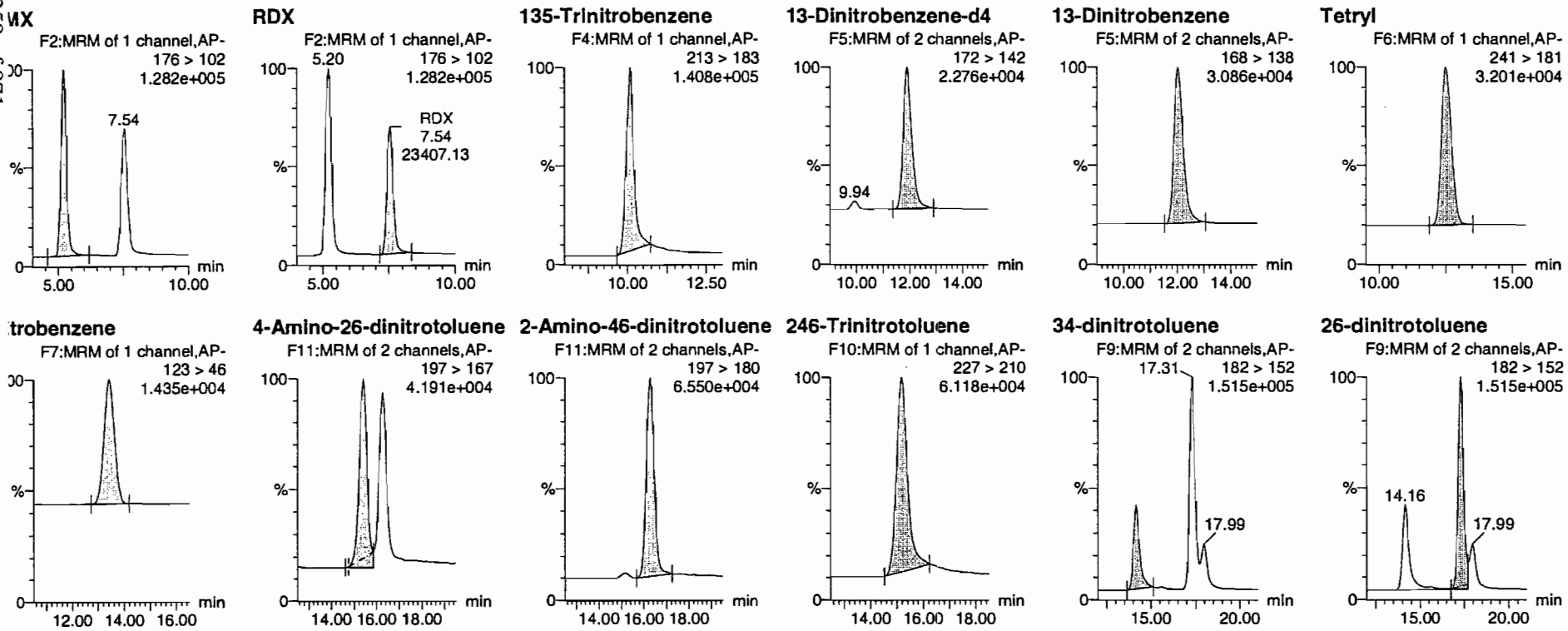

HMW 05/04/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

uantify Sample Report

EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\050110expA2.qld, Time: Tue May 04 09:31:35 2010

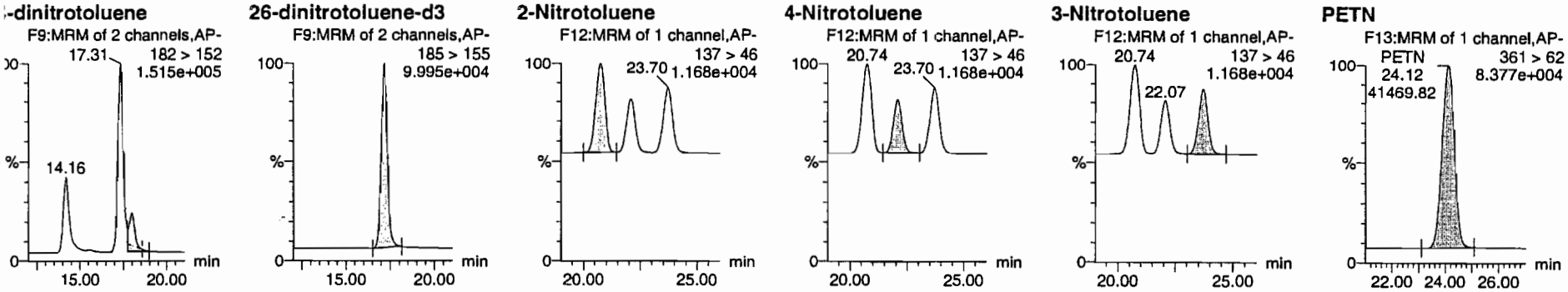

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XX100501-07CCV	HMX	176 > 102	5.20	32161.227	6221.091	32161.227	2584.854	bb			610.8807	101.8	1.8	1027.4
XX100501-07CCV	RDX	176 > 102	7.54	23407.127	6221.091	23407.127	1881.272	bb			621.0166	103.5	3.5	695.9
XX100501-07CCV	135-Trinitrobenzene	213 > 183	10.09	38173.063	6221.091	38173.063	3068.036	bb			645.8249	107.6	7.6	622.6
XX100501-07CCV	13-Dinitrobenzene-d4	172 > 142	11.92	6221.091		6221.091	6221.091	bb			481.2768	96.3	-3.7	589.4
XX100501-07CCV	13-Dinitrobenzene	168 > 138	12.03	9904.099	6221.091	9904.099	796.010	bb			621.2177	103.5	3.5	739.9
XX100501-07CCV	Tetryl	241 > 181	12.48	11563.938	6221.091	11563.938	929.414	bb			677.6384	112.9	12.9	1536.7
XX100501-07CCV	Nitrobenzene	123 > 46	13.45	3778.941	6221.091	3778.941	303.720	bb			619.3783	103.2	3.2	822.7
XX100501-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.42	15008.528	37779.563	15008.528	198.633	MM	04-May-10	09:21:56	583.7114	97.3	-2.7	380.4
XX100501-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.28	24207.008	37779.563	24207.008	320.372	bb			630.7955	105.1	5.1	878.2
XX100501-07CCV	246-Trinitrotoluene	227 > 210	15.17	25811.461	37779.563	25811.461	341.606	bb			676.6740	112.8	12.8	248.7
XX100501-07CCV	34-dinitrotoluene	182 > 152	14.16	23591.053	37779.563	23591.053	312.220	bb			289.3004	96.4	-3.6	391.9
XX100501-07CCV	26-dinitrotoluene	182 > 152	17.31	52243.734	37779.563	52243.734	691.429	MM	04-May-10	09:28:28	606.9168	101.2	1.2	992.9
XX100501-07CCV	24-dinitrotoluene	182 > 152	17.99	12959.175	37779.563	12959.175	171.510	MM	04-May-10	09:29:00	623.1561	103.9	3.9	208.0
XX100501-07CCV	26-dinitrotoluene-d3	185 > 155	17.16	37779.563		37779.563	37779.563	bb			510.2753	102.1	2.1	2127.3
XX100501-07CCV	2-Nitrotoluene	137 > 46	20.74	2549.789	37779.563	2549.789	33.746	bb			516.4646	86.1	-13.9	266.9
XX100501-07CCV	4-Nitrotoluene	137 > 46	22.07	1413.539	37779.563	1413.539	18.708	bb			528.4052	88.1	-11.9	157.7
XX100501-07CCV	3-Nitrotoluene	137 > 46	23.70	1809.693	37779.563	1809.693	23.951	bb			553.9274	92.3	-7.7	194.7
XX100501-07CCV	PETN	361 > 62	24.12	41469.820	37779.563	41469.820	548.839	bb			552.4693	92.1	-7.9	1182.9

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/03/10
Time of Injection: 1333
Standard Number: WXX100501-07CCV
Data File: EXP0501092a

HMX	101.8
RDX	103.5
135-TNB	107.6
13-DNB	103.5
Tetryl	112.9
Nitrobenzene	103.2
4A-26-DNT	97.3
2A-46-DNT	105.1
246-TNT	112.8
34-DNT(surr)	96.4
26-DNT	101.2
24-DNT	103.9
2-NT	86.1
4-NT	88.1
3-NT	92.3
PETN	92.1
Total	1607.8
Average	100.5

MATT 5/4/10

HMM 05/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2937

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0501094a

Analysis Date: 03–MAY–10 14:31

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	48.441	121	
1,3–Dinitrobenzene–d4	500	494.248	99	
2,4,6–Trinitrotoluene	40	41.466	104	
2,4–Dinitrotoluene	40	36.398	91	
2,6–Dinitrotoluene	40	40.209	101	
2,6–Dinitrotoluene–d3	500	531.865	106	
2–Amino–4,6–dinitrotoluene	40	38.96	97	
3,4–Dinitrotoluene	20	21.418	107	
4–Amino–2,6–dinitrotoluene	40	37.905	95	
HMX	40	42.557	106	
Nitrobenzene	40	38.964	97	
PETN	40	46.176	115	
RDX	40	36.699	92	
Tetryl	40	39.199	98	
m–Dinitrobenzene	40	43.138	108	
m–Nitrotoluene	40	38.543	96	
o–Nitrotoluene	40	37.086	93	
p–Nitrotoluene	40	30.745	77	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA2.qld, Time: Tue May 04 09:31:35 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501094a
Date: 03-May-2010
Time: 14:31:59
ID: WXX100501-08CRI
Vial: 1:1,C

MM 5/4/10

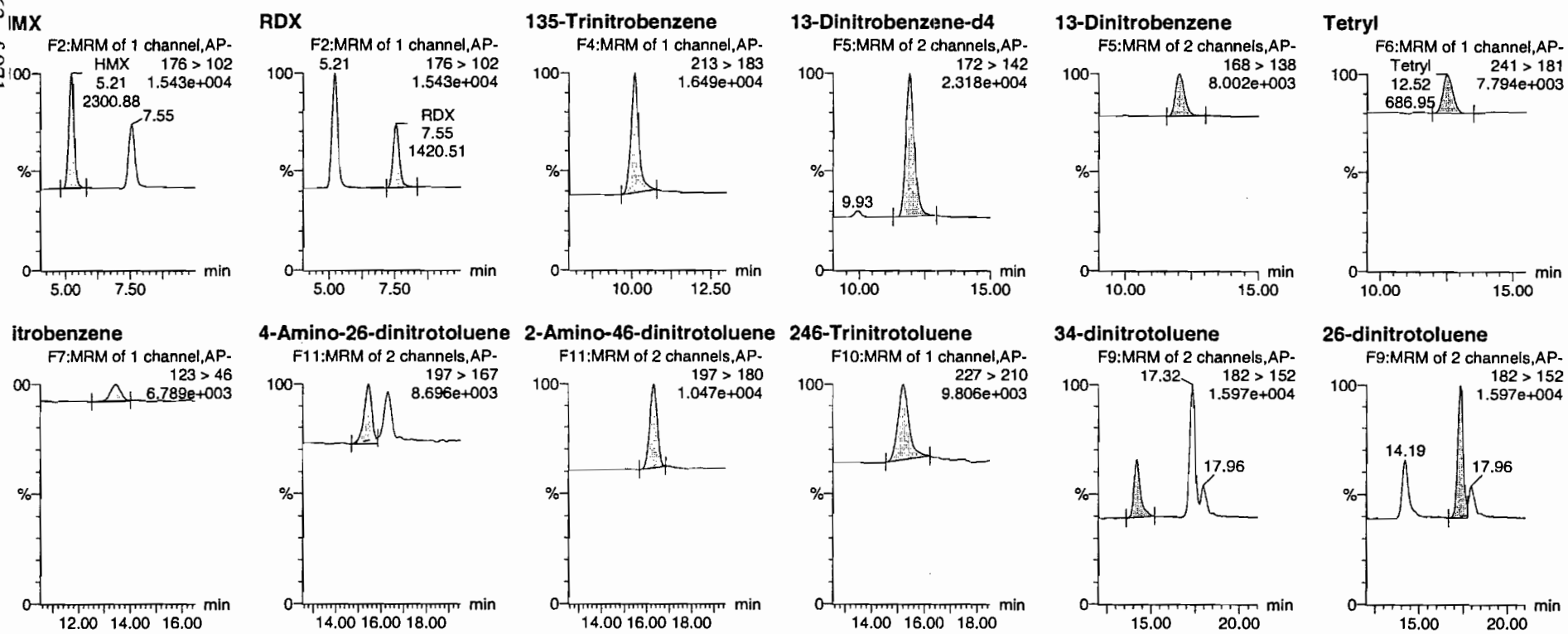

HMM 05/04/10

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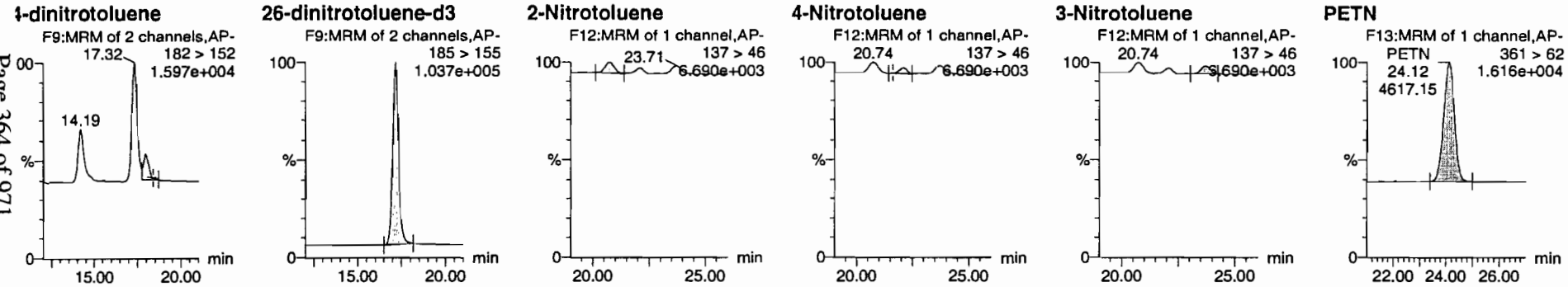

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
'XX100501-08CRI	HMX	176 > 102	5.21	2300.878	6388.761	2300.878	180.072	bb			42.5566	106.4	6.4	565.3
'XX100501-08CRI	RDX	176 > 102	7.55	1420.505	6388.761	1420.505	111.172	bb			36.6985	91.7	-8.3	313.2
'XX100501-08CRI	135-Trinitrobenzene	213 > 183	10.09	2940.363	6388.761	2940.363	230.120	bb			48.4405	121.1	21.1	270.0
'XX100501-08CRI	13-Dinitrobenzene-d4	172 > 142	11.92	6388.761		6388.761	6388.761	bb			494.2481	98.8	-1.2	598.6
'XX100501-08CRI	13-Dinitrobenzene	168 > 138	12.03	706.280	6388.761	706.280	55.275	bb			43.1376	107.8	7.8	195.7
'XX100501-08CRI	Tetryl	241 > 181	12.52	686.954	6388.761	686.954	53.763	bb			39.1985	98.0	-2.0	66.3
'XX100501-08CRI	Nitrobenzene	123 > 46	13.44	244.135	6388.761	244.135	19.107	bb			38.9642	97.4	-2.6	37.3
'XX100501-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.45	1015.870	39378.043	1015.870	12.899	MM	04-May-10	09:22:02	37.9054	94.8	-5.2	62.7
'XX100501-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.30	1558.355	39378.043	1558.355	19.787	bb			38.9598	97.4	-2.6	115.6
'XX100501-08CRI	246-Trinitrotoluene	227 > 210	15.20	1648.621	39378.043	1648.621	20.933	bb			41.4658	103.7	3.7	87.7
'XX100501-08CRI	34-dinitrotoluene	182 > 152	14.19	1820.457	39378.043	1820.457	23.115	bb			21.4183	107.1	7.1	108.2
'XX100501-08CRI	26-dinitrotoluene	182 > 152	17.32	3607.626	39378.043	3607.626	45.808	MM	04-May-10	09:28:11	40.2086	100.5	0.5	249.7
'XX100501-08CRI	24-dinitrotoluene	182 > 152	17.96	788.966	39378.043	788.966	10.018	MM	04-May-10	09:29:11	36.3983	91.0	-9.0	53.8
XX100501-08CRI	26-dinitrotoluene-d3	185 > 155	17.15	39378.043		39378.043	39378.043	bb			531.8654	106.4	6.4	2306.1
XX100501-08CRI	2-Nitrotoluene	137 > 46	20.74	190.841	39378.043	190.841	2.423	bb			37.0861	92.7	-7.3	13.9
XX100501-08CRI	4-Nitrotoluene	137 > 46	22.09	85.726	39378.043	85.726	1.089	MM	04-May-10	09:25:36	30.7450	76.9	-23.1	7.3
XX100501-08CRI	3-Nitrotoluene	137 > 46	23.71	131.247	39378.043	131.247	1.666	bb			38.5425	96.4	-3.6	9.9
XX100501-08CRI	PETN	361 > 62	24.12	4617.154	39378.043	4617.154	58.626	bb			46.1764	115.4	15.4	600.2

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/03/10
Time of Injection	1431
Standard Number	WXX100501-08CRI
Data File	EXP0501094a

HMX	106.4
RDX	91.7
135-TNB	121.1
13-DNB	107.8
Tetryl	98.0
Nitrobenzene	97.4
4A-26-DNT	94.8
2A-46-DNT	97.4
246-TNT	103.7
34-DNT(surr)	107.1
26-DNT	100.5
24-DNT	91.0
2-NT	92.7
4-NT	76.9
3-NT	96.4
PETN	115.4
Total	1598.3
Average	99.9

MATT 5/4/10

Hmm 05/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0501105a

Analysis Date: 03-MAY-10 19:56

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	643.112	107	
1,3-Dinitrobenzene-d4	500	482.704	97	
2,4,6-Trinitrotoluene	600	788.689	131	*
2,4-Dinitrotoluene	600	608.606	101	
2,6-Dinitrotoluene	600	616.244	103	
2,6-Dinitrotoluene-d3	500	443.453	89	
2-Amino-4,6-dinitrotoluene	600	758.277	126	*
3,4-Dinitrotoluene	300	335.346	112	
4-Amino-2,6-dinitrotoluene	600	741.254	124	*
HMX	600	603.788	101	
Nitrobenzene	600	605.175	101	
PETN	600	748.614	125	*
RDX	600	637.69	106	
Tetryl	600	681.777	114	
m-Dinitrobenzene	600	615.914	103	
m-Nitrotoluene	600	606.062	101	
o-Nitrotoluene	600	582.419	97	
p-Nitrotoluene	600	608.931	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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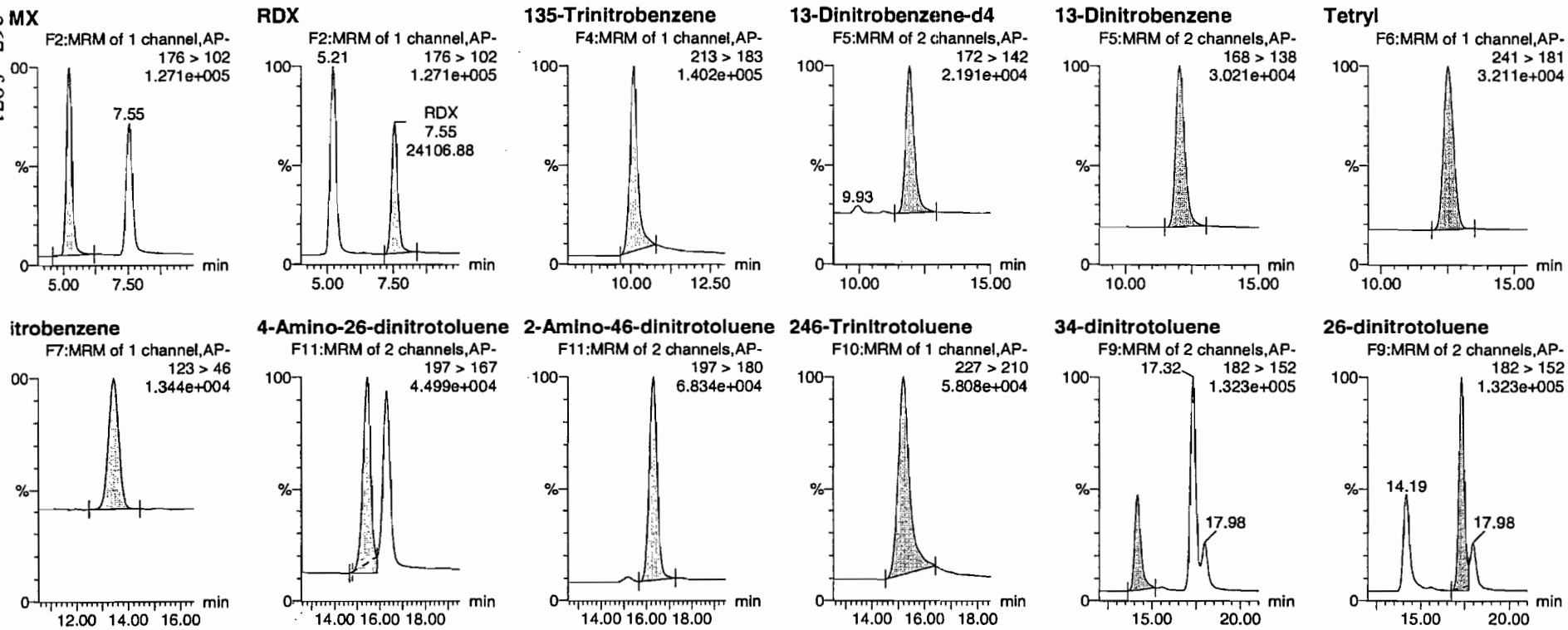

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

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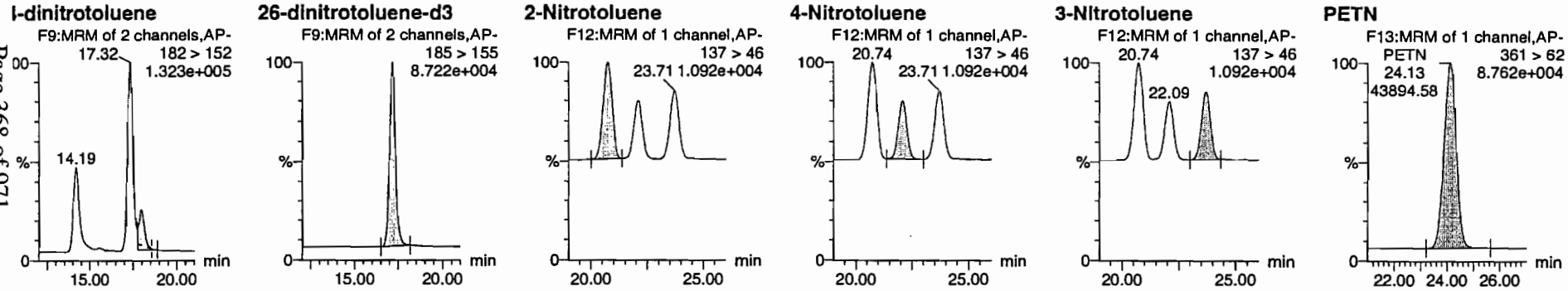

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XX100501-07CCV	HMX	176 > 102	5.21	31882.088	6239.544	31882.088	2554.841	bb			603.7877	100.6	0.6	2078.8
XX100501-07CCV	RDX	176 > 102	7.55	24106.877	6239.544	24106.877	1931.782	bb			637.6902	106.3	6.3	1453.9
XX100501-07CCV	135-Trinitrobenzene	213 > 183	10.09	38125.480	6239.544	38125.480	3055.150	bb			643.1122	107.2	7.2	2365.7
XX100501-07CCV	13-Dinitrobenzene-d4	172 > 142	11.92	6239.544		6239.544	6239.544	bb			482.7043	96.5	-3.5	668.0
XX100501-07CCV	13-Dinitrobenzene	168 > 138	12.03	9848.668	6239.544	9848.668	789.214	bb			615.9140	102.7	2.7	1545.4
XX100501-07CCV	Tetryl	241 > 181	12.52	11669.076	6239.544	11669.076	935.090	bb			681.7771	113.6	13.6	809.8
XX100501-07CCV	Nitrobenzene	123 > 46	13.44	3703.234	6239.544	3703.234	296.755	bb			605.1746	100.9	0.9	285.8
XX100501-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.45	16563.424	32832.211	16563.424	252.244	MM	04-May-10	09:22:59	741.2539	123.5	23.5	419.7
XX100501-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.30	25288.545	32832.211	25288.545	385.118	bb			758.2774	126.4	26.4	1054.2
XX100501-07CCV	246-Trinitrotoluene	227 > 210	15.20	26144.609	32832.211	26144.609	398.155	bb			788.6892	131.4	31.4	356.4
XX100501-07CCV	34-dinitrotoluene	182 > 152	14.19	23764.838	32832.211	23764.838	361.913	bb			335.3462	111.8	11.8	496.5
XX100501-07CCV	26-dinitrotoluene	182 > 152	17.32	46100.016	32832.211	46100.016	702.055	MM	04-May-10	09:27:26	616.2442	102.7	2.7	1115.6
XX100501-07CCV	24-dinitrotoluene	182 > 152	17.98	10999.175	32832.211	10999.175	167.506	MM	04-May-10	09:30:06	608.6062	101.4	1.4	240.1
XX100501-07CCV	26-dinitrotoluene-d3	185 > 155	17.17	32832.211		32832.211	32832.211	bb			443.4532	88.7	-11.3	2144.4
XX100501-07CCV	2-Nitrotoluene	137 > 46	20.74	2498.861	32832.211	2498.861	38.055	bb			582.4186	97.1	-2.9	91.0
XX100501-07CCV	4-Nitrotoluene	137 > 46	22.09	1415.637	32832.211	1415.637	21.559	bb			608.9309	101.5	1.5	53.6
XX100501-07CCV	3-Nitrotoluene	137 > 46	23.71	1720.728	32832.211	1720.728	26.205	bb			606.0619	101.0	1.0	63.1
XX100501-07CCV	PETN	361 > 62	24.13	43894.582	32832.211	43894.582	668.468	bb			748.6137	124.8	24.8	6553.8

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/03/10
Time of Injection: 1956
Standard Number: WXX100501-07CCV
Data File: EXP0501105a

HMX		100.6
RDX		106.3
135-TNB		107.2
13-DNB		102.7
Tetryl		113.6
Nitrobenzene		100.9
4A-26-DNT		123.5
2A-46-DNT		126.4
246-TNT		131.4
34-DNT(surr)		111.8
26-DNT		102.7
24-DNT		101.4
2-NT		97.1
4-NT		101.5
3-NT		101.0
PETN		124.8
Total		1752.9
Average		109.6

MTT 5/4/10

Hmm 05/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0501107a

Analysis Date: 03-MAY-10 20:55

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	47.026	118	
1,3-Dinitrobenzene-d4	500	587.223	117	
2,4,6-Trinitrotoluene	40	43.587	109	
2,4-Dinitrotoluene	40	36.858	92	
2,6-Dinitrotoluene	40	39.178	98	
2,6-Dinitrotoluene-d3	500	590.397	118	
2-Amino-4,6-dinitrotoluene	40	38.963	97	
3,4-Dinitrotoluene	20	19.044	95	
4-Amino-2,6-dinitrotoluene	40	38.377	96	
HMX	40	36.983	92	
Nitrobenzene	40	43.049	108	
PETN	40	42.611	107	
RDX	40	35.375	88	
Tetryl	40	36.694	92	
m-Dinitrobenzene	40	40.172	100	
m-Nitrotoluene	40	35.055	88	
o-Nitrotoluene	40	38.021	95	
p-Nitrotoluene	40	38.582	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50--150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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ate: 03-May-2010
me: 20:55:34
I: WXX100501-08CRI
ial: 1:1,C

MHT 5/4/10

MX

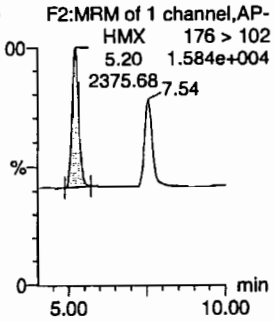

RDX

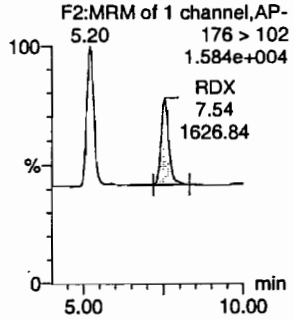

135-Trinitrobenzene

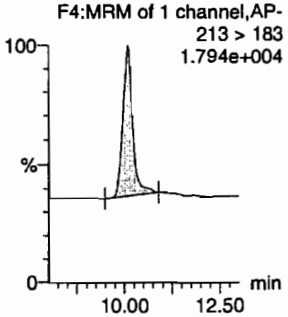

13-Dinitrobenzene-d4

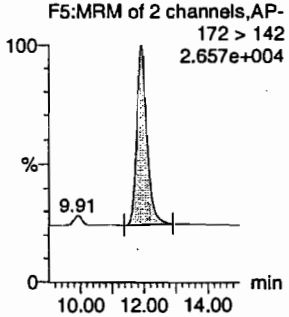

13-Dinitrobenzene

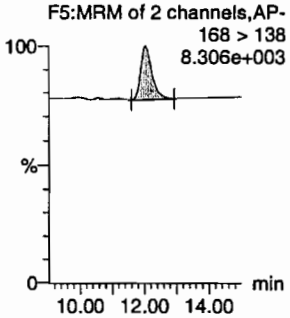

Tetryl

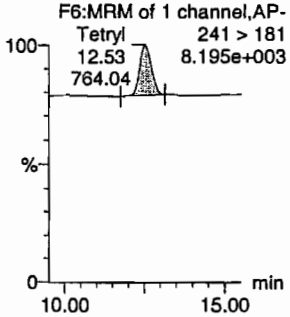

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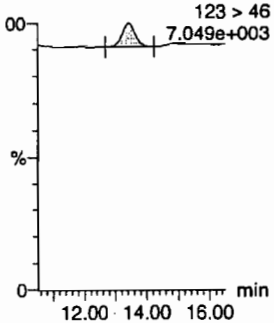

4-Amino-26-dinitrotoluene

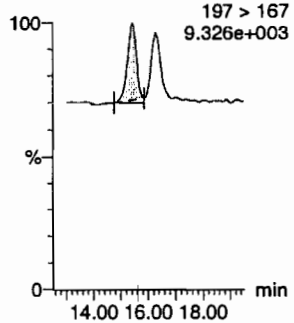

2-Amino-46-dinitrotoluene

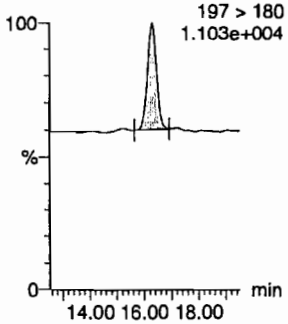

246-Trinitrotoluene

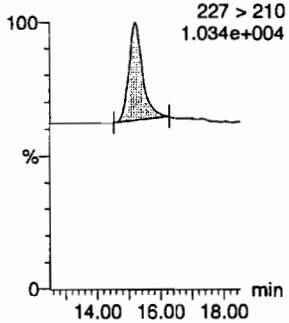

34-dinitrotoluene

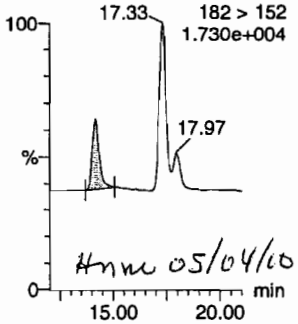

Hmm 05/04/10

26-dinitrotoluene

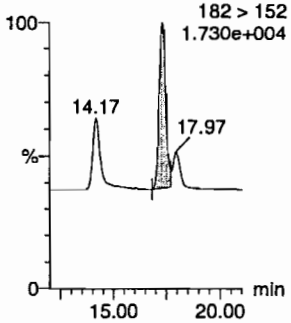

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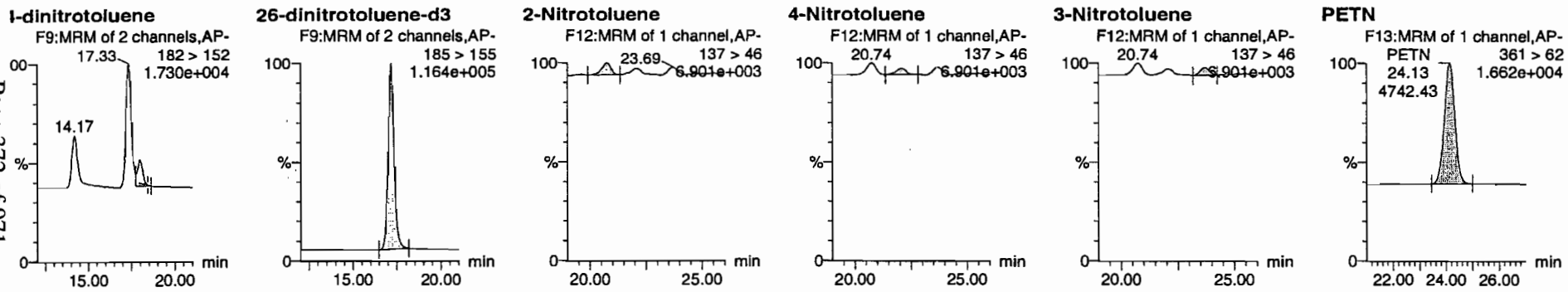

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
/XX100501-08CRI	HMX	176 > 102	5.20	2375.682	7590.582	2375.682	156.489	bb			36.9831	92.5	-7.5	299.4
/XX100501-08CRI	RDX	176 > 102	7.54	1626.836	7590.582	1626.836	107.161	bb			35.3745	88.4	-11.6	183.6
/XX100501-08CRI	135-Trinitrobenzene	213 > 183	10.09	3391.451	7590.582	3391.451	223.399	bb			47.0256	117.6	17.6	223.4
/XX100501-08CRI	13-Dinitrobenzene-d4	172 > 142	11.92	7590.582		7590.582	7590.582	bb			587.2235	117.4	17.4	658.7
/XX100501-08CRI	13-Dinitrobenzene	168 > 138	12.00	781.456	7590.582	781.456	51.475	bb			40.1721	100.4	0.4	73.9
/XX100501-08CRI	Tetryl	241 > 181	12.53	764.037	7590.582	764.037	50.328	bb			36.6943	91.7	-8.3	158.7
/XX100501-08CRI	Nitrobenzene	123 > 46	13.45	320.465	7590.582	320.465	21.109	bb			43.0485	107.6	7.6	22.4
/XX100501-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.42	1141.684	43711.613	1141.684	13.059	MM	04-May-10	09:23:10	38.3766	95.9	-4.1	64.9
/XX100501-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.28	1729.981	43711.613	1729.981	19.789	bb			38.9627	97.4	-2.6	93.0
/XX100501-08CRI	246-Trinitrotoluene	227 > 210	15.21	1923.662	43711.613	1923.662	22.004	bb			43.5869	109.0	9.0	218.5
/XX100501-08CRI	34-dinitrotoluene	182 > 152	14.17	1796.822	43711.613	1796.822	20.553	bb			19.0444	95.2	-4.8	84.6
/XX100501-08CRI	26-dinitrotoluene	182 > 152	17.33	3902.014	43711.613	3902.014	44.634	bd			39.1781	97.9	-2.1	200.1
/XX100501-08CRI	24-dinitrotoluene	182 > 152	17.97	886.845	43711.613	886.845	10.144	MM	04-May-10	09:30:14	36.8576	92.1	-7.9	43.9
/XX100501-08CRI	26-dinitrotoluene-d3	185 > 155	17.16	43711.613		43711.613	43711.613	bb			590.3974	118.1	18.1	1704.5
/XX100501-08CRI	2-Nitrotoluene	137 > 46	20.74	217.181	43711.613	217.181	2.484	bb			38.0205	95.1	-4.9	32.2
/XX100501-08CRI	4-Nitrotoluene	137 > 46	22.05	119.418	43711.613	119.418	1.366	bb			38.5824	96.5	-3.5	16.3
/XX100501-08CRI	3-Nitrotoluene	137 > 46	23.69	132.506	43711.613	132.506	1.516	bb			35.0545	87.6	-12.4	20.8
/XX100501-08CRI	PETN	361 > 62	24.13	4742.430	43711.613	4742.430	54.247	bb			42.6112	106.5	6.5	89.6

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/03/10
Time of Injection	2055
Standard Number	WXX100501-08CRI
Data File	EXP0501107a

HMX	92.5
RDX	88.4
135-TNB	117.6
13-DNB	100.4
Tetryl	91.7
Nitrobenzene	107.6
4A-26-DNT	95.9
2A-46-DNT	97.4
246-TNT	109.0
34-DNT(surr)	95.2
26-DNT	97.9
24-DNT	92.1
2-NT	95.1
4-NT	96.5
3-NT	87.6
PETN	106.5
Total	1571.4
Average	98.2

HMM 05/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2937

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0501112a **Analysis Date:** 03–MAY–10 23:23

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	623.838	104	
1,3–Dinitrobenzene–d4	500	510.483	102	
2,4,6–Trinitrotoluene	600	708.122	118	
2,4–Dinitrotoluene	600	607.057	101	
2,6–Dinitrotoluene	600	600.379	100	
2,6–Dinitrotoluene–d3	500	513.526	103	
2–Amino–4,6–dinitrotoluene	600	604.122	101	
3,4–Dinitrotoluene	300	294.606	98	
4–Amino–2,6–dinitrotoluene	600	605.45	101	
HMX	600	556.099	93	
Nitrobenzene	600	584.979	97	
PETN	600	535.286	89	
RDX	600	598.067	100	
Tetryl	600	626.816	104	
m–Dinitrobenzene	600	616.84	103	
m–Nitrotoluene	600	564.964	94	
o–Nitrotoluene	600	526.687	88	
p–Nitrotoluene	600	499.824	83	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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ime: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501112a
ite: 03-May-2010
me: 23:23:16
: WXX100501-07CCV
al: 1:1,B

MAT 5/4/10

MX

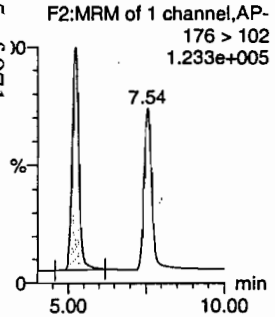

RDX

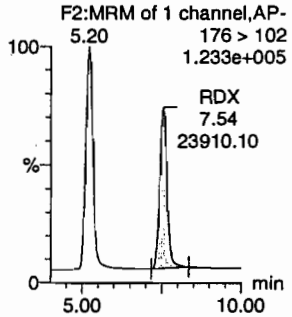

135-Trinitrobenzene

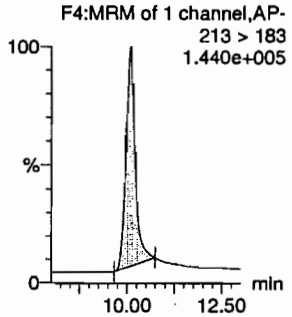

13-Dinitrobenzene-d4

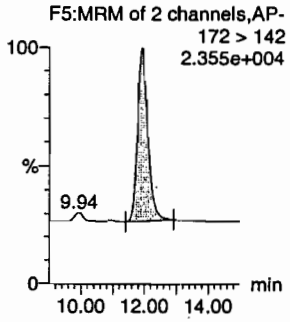

13-Dinitrobenzene

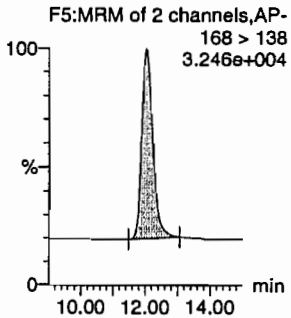

Tetryl

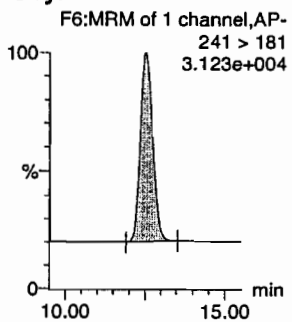

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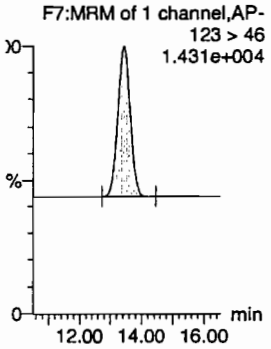

4-Amino-26-dinitrotoluene

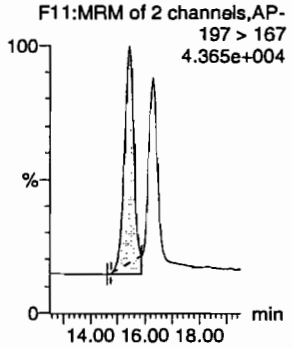

2-Amino-46-dinitrotoluene

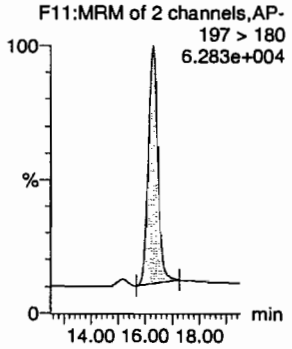

246-Trinitrotoluene

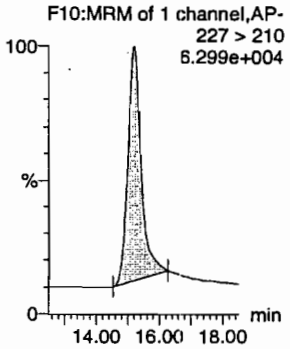

34-dinitrotoluene

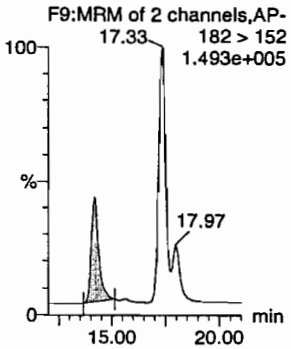

26-dinitrotoluene

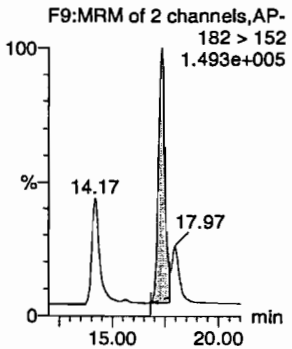

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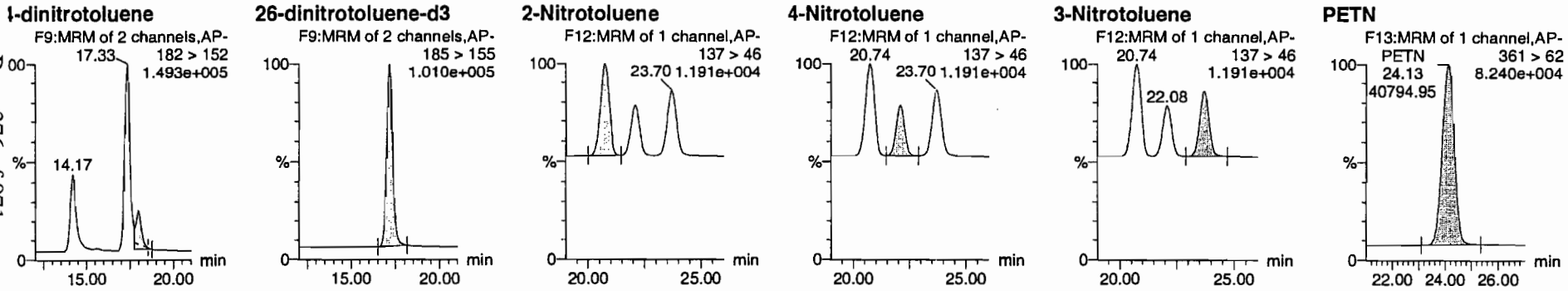

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
'XX100501-07CCV	HMX	176 > 102	5.20	31053.822	6598.618	31053.822	2353.055	bb			556.0994	92.7	-7.3	3544.5
'XX100501-07CCV	RDX	176 > 102	7.54	23910.102	6598.618	23910.102	1811.751	bb			598.0673	99.7	-0.3	2558.6
'XX100501-07CCV	135-Trinitrobenzene	213 > 183	10.09	39111.148	6598.618	39111.148	2963.586	bb			623.8381	104.0	4.0	1819.2
'XX100501-07CCV	13-Dinitrobenzene-d4	172 > 142	11.92	6598.618		6598.618	6598.618	bb			510.4830	102.1	2.1	417.9
'XX100501-07CCV	13-Dinitrobenzene	168 > 138	12.03	10431.092	6598.618	10431.092	790.400	bb			616.8395	102.8	2.8	626.9
'XX100501-07CCV	Tetryl	241 > 181	12.48	11345.782	6598.618	11345.782	859.709	bb			626.8163	104.5	4.5	1988.8
'XX100501-07CCV	Nitrobenzene	123 > 46	13.45	3785.653	6598.618	3785.653	286.852	bb			584.9789	97.5	-2.5	552.7
'XX100501-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.42	15666.667	38020.270	15666.667	206.030	MM	04-May-10	09:23:25	605.4502	100.9	0.9	568.0
'XX100501-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.28	23331.100	38020.270	23331.100	306.824	bb			604.1216	100.7	0.7	844.5
'XX100501-07CCV	246-Trinitrotoluene	227 > 210	15.21	27183.123	38020.270	27183.123	357.482	bb			708.1219	118.0	18.0	2145.3
'XX100501-07CCV	34-dinitrotoluene	182 > 152	14.17	24176.729	38020.270	24176.729	317.945	bb			294.6056	98.2	-1.8	787.1
'XX100501-07CCV	26-dinitrotoluene	182 > 152	17.33	52010.234	38020.270	52010.234	683.980	MM	04-May-10	09:27:03	600.3790	100.1	0.1	1903.7
'XX100501-07CCV	24-dinitrotoluene	182 > 152	17.97	12704.808	38020.270	12704.808	167.079	MM	04-May-10	09:30:25	607.0568	101.2	1.2	413.4
'XX100501-07CCV	26-dinitrotoluene-d3	185 > 155	17.16	38020.270		38020.270	38020.270	bb			513.5265	102.7	2.7	4042.4
'XX100501-07CCV	2-Nitrotoluene	137 > 46	20.74	2616.825	38020.270	2616.825	34.414	bb			526.6872	87.8	-12.2	219.4
'XX100501-07CCV	4-Nitrotoluene	137 > 46	22.08	1345.600	38020.270	1345.600	17.696	bb			499.8239	83.3	-16.7	118.7
'XX100501-07CCV	3-Nitrotoluene	137 > 46	23.70	1857.511	38020.270	1857.511	24.428	bb			564.9644	94.2	-5.8	153.1
'XX100501-07CCV	PETN	361 > 62	24.13	40794.953	38020.270	40794.953	536.490	bb			535.2864	89.2	-10.8	1751.6

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/03/10
Time of Injection: 2323
Standard Number: WXX100501-07CCV
Data File: EXP0501112a

HMX		92.7
RDX		99.7
135-TNB		104.0
13-DNB		102.8
Tetryl		104.5
Nitrobenzene		97.5
4A-26-DNT		100.9
2A-46-DNT		100.7
246-TNT		118.0
34-DNT(surr)		98.2
26-DNT		100.1
24-DNT		101.2
2-NT		87.8
4-NT		83.3
3-NT		94.2
PETN		89.2
Total		1574.8
Average		98.4

MJT 5/4/10

Hmc 05/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2937

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0501114a

Analysis Date: 04–MAY–10 00:22

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	43.389	108	
1,3–Dinitrobenzene–d4	500	561.127	112	
2,4,6–Trinitrotoluene	40	39.788	99	
2,4–Dinitrotoluene	40	37.986	95	
2,6–Dinitrotoluene	40	42.123	105	
2,6–Dinitrotoluene–d3	500	557.839	112	
2–Amino–4,6–dinitrotoluene	40	41.873	105	
3,4–Dinitrotoluene	20	19.118	96	
4–Amino–2,6–dinitrotoluene	40	39.887	100	
HMX	40	37.164	93	
Nitrobenzene	40	40.182	100	
PETN	40	43.79	109	
RDX	40	35.112	88	
Tetryl	40	37.045	93	
m–Dinitrobenzene	40	40.397	101	
m–Nitrotoluene	40	39.02	98	
o–Nitrotoluene	40	34.648	87	
p–Nitrotoluene	40	32.262	81	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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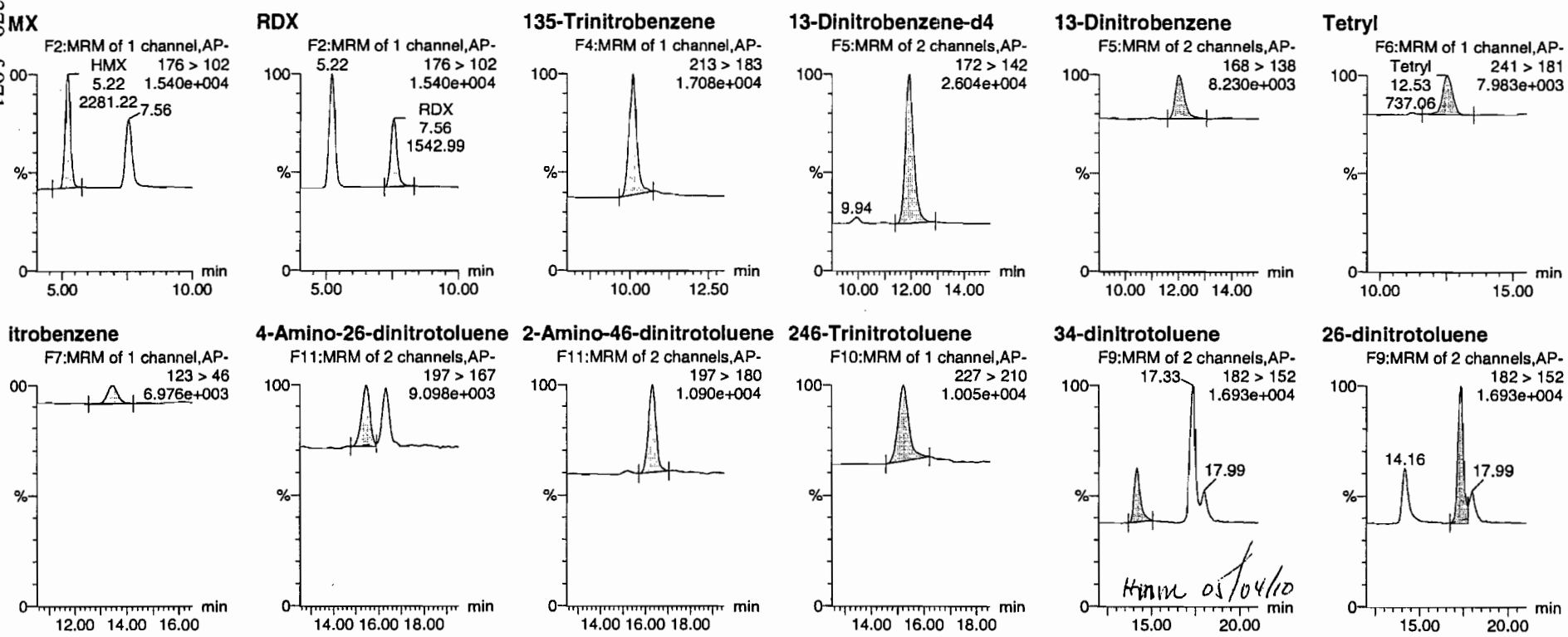

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Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA2.qld, Time: Tue May 04 09:31:35 2010

4-dinitrotoluene

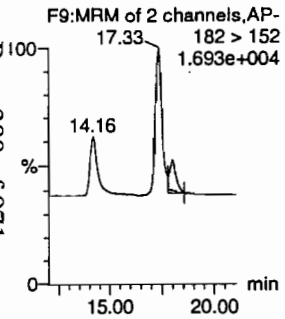

26-dinitrotoluene-d3

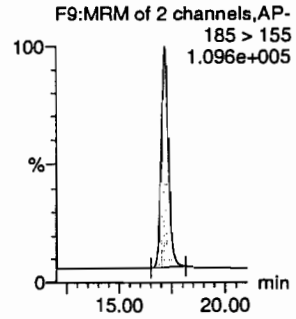

2-Nitrotoluene

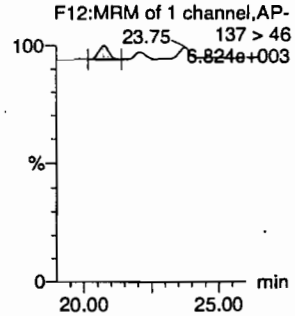

4-Nitrotoluene

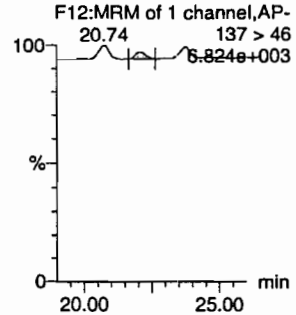

3-Nitrotoluene

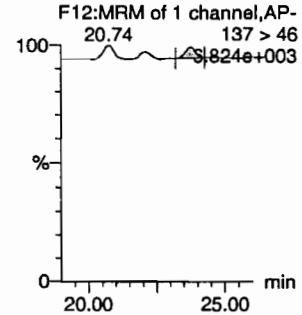

PETN

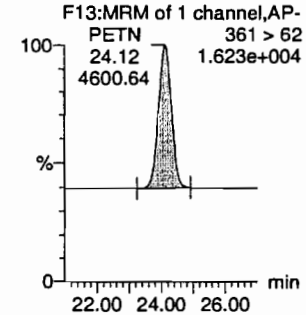

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
VXX100501-08CRI	HMX	176 > 102	5.22	2281.219	7253.258	2281.219	157.255	bb			37.1642	92.9	-7.1	376.4
VXX100501-08CRI	RDX	176 > 102	7.56	1542.987	7253.258	1542.987	106.365	bb			35.1116	87.8	-12.2	225.4
VXX100501-08CRI	135-Trinitrobenzene	213 > 183	10.09	2990.115	7253.258	2990.115	206.122	bb			43.3889	108.5	8.5	338.3
VXX100501-08CRI	13-Dinitrobenzene-d4	172 > 142	11.92	7253.258		7253.258	7253.258	bb			561.1274	112.2	12.2	435.5
VXX100501-08CRI	13-Dinitrobenzene	168 > 138	12.00	750.906	7253.258	750.906	51.763	bb			40.3969	101.0	1.0	39.6
VXX100501-08CRI	Tetryl	241 > 181	12.53	737.063	7253.258	737.063	50.809	bb			37.0451	92.6	-7.4	63.8
VXX100501-08CRI	Nitrobenzene	123 > 46	13.45	285.836	7253.258	285.836	19.704	bb			40.1824	100.5	0.5	33.4
VXX100501-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.42	1121.180	41301.027	1121.180	13.573	MM	04-May-10	09:23:30	39.8870	99.7	-0.3	61.8
VXX100501-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.31	1756.673	41301.027	1756.673	21.267	bb			41.8730	104.7	4.7	163.2
VXX100501-08CRI	246-Trinitrotoluene	227 > 210	15.21	1659.178	41301.027	1659.178	20.086	bb			39.7884	99.5	-0.5	120.6
VXX100501-08CRI	34-dinitrotoluene	182 > 152	14.16	1704.279	41301.027	1704.279	20.632	bb			19.1178	95.6	-4.4	80.6
VXX100501-08CRI	26-dinitrotoluene	182 > 152	17.33	3963.951	41301.027	3963.951	47.989	MM	04-May-10	09:26:55	42.1230	105.3	5.3	208.6
VXX100501-08CRI	24-dinitrotoluene	182 > 152	17.99	863.595	41301.027	863.595	10.455	MM	04-May-10	09:30:38	37.9862	95.0	-5.0	45.5
VXX100501-08CRI	26-dinitrotoluene-d3	185 > 155	17.16	41301.027		41301.027	41301.027	bb			557.8385	111.6	11.6	3359.7
VXX100501-08CRI	2-Nitrotoluene	137 > 46	20.74	187.004	41301.027	187.004	2.264	bb			34.6484	86.6	-13.4	42.8
VXX100501-08CRI	4-Nitrotoluene	137 > 46	22.09	94.349	41301.027	94.349	1.142	bb			32.2621	80.7	-19.3	21.1
VXX100501-08CRI	3-Nitrotoluene	137 > 46	23.75	139.362	41301.027	139.362	1.687	bb			39.0201	97.6	-2.4	34.1
VXX100501-08CRI	PETN	361 > 62	24.12	4600.640	41301.027	4600.640	55.696	bb			43.7902	109.5	9.5	371.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/04/10
Time of Injection	0022
Standard Number	WXX100501-08CRI
Data File	EXP0501114a

HMX	92.9
RDX	87.8
135-TNB	108.5
13-DNB	101.0
Tetryl	92.6
Nitrobenzene	100.5
4A-26-DNT	99.7
2A-46-DNT	104.7
246-TNT	99.5
34-DNT(surr)	95.6
26-DNT	105.3
24-DNT	95.0
2-NT	86.6
4-NT	80.7
3-NT	97.6
PETN	109.5
Total	1557.5
Average	97.3

HMC 05/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-2937

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0501125a **Analysis Date:** 04-MAY-10 05:46

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	601.493	100	
1,3-Dinitrobenzene-d4	500	416.311	83	
2,4,6-Trinitrotoluene	600	670.454	112	
2,4-Dinitrotoluene	600	609.909	102	
2,6-Dinitrotoluene	600	612.452	102	
2,6-Dinitrotoluene-d3	500	417.864	84	
2-Amino-4,6-dinitrotoluene	600	578.497	96	
3,4-Dinitrotoluene	300	279.848	93	
4-Amino-2,6-dinitrotoluene	600	580.767	97	
HMX	600	529.191	88	
Nitrobenzene	600	561.555	94	
PETN	600	757.149	126	*
RDX	600	546.476	91	
Tetryl	600	618.334	103	
m-Dinitrobenzene	600	589.597	98	
m-Nitrotoluene	600	570.706	95	
o-Nitrotoluene	600	542.62	90	
p-Nitrotoluene	600	541.795	90	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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me: 05:46:49
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MP 5/4/10

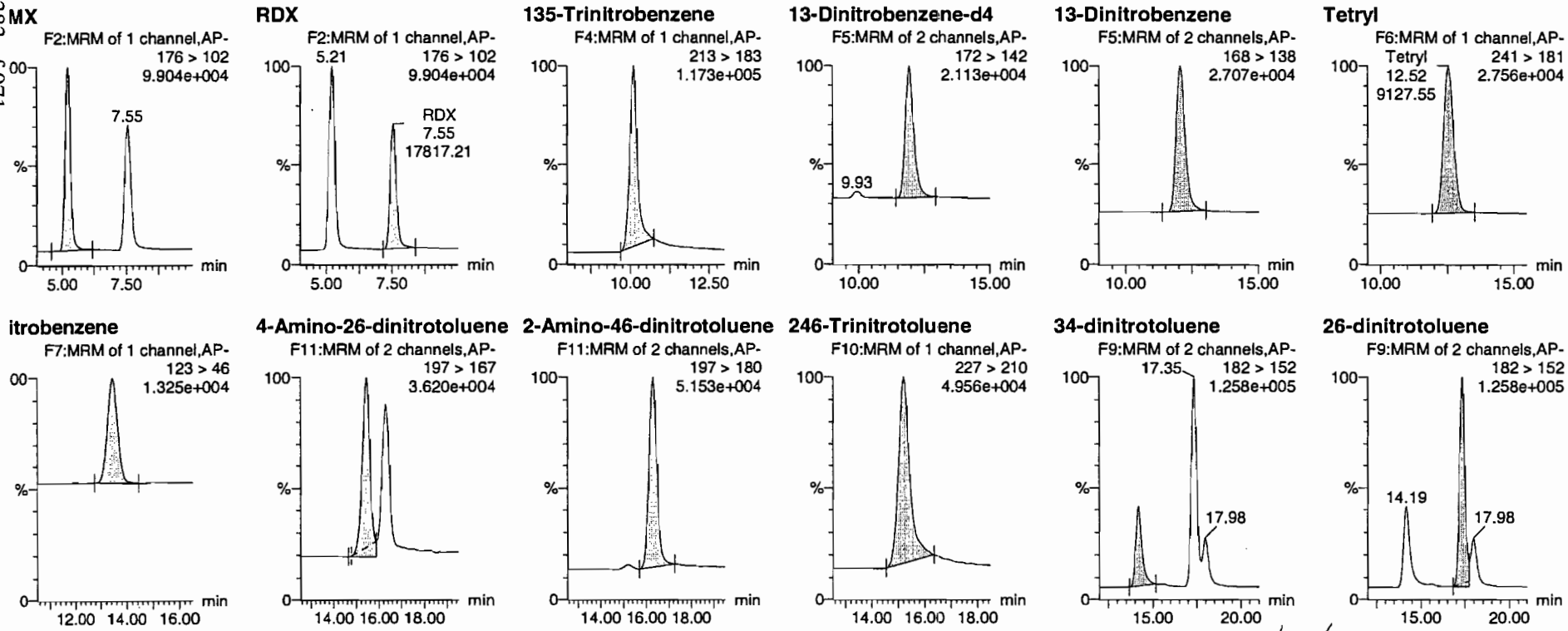

HMW 05/04/10

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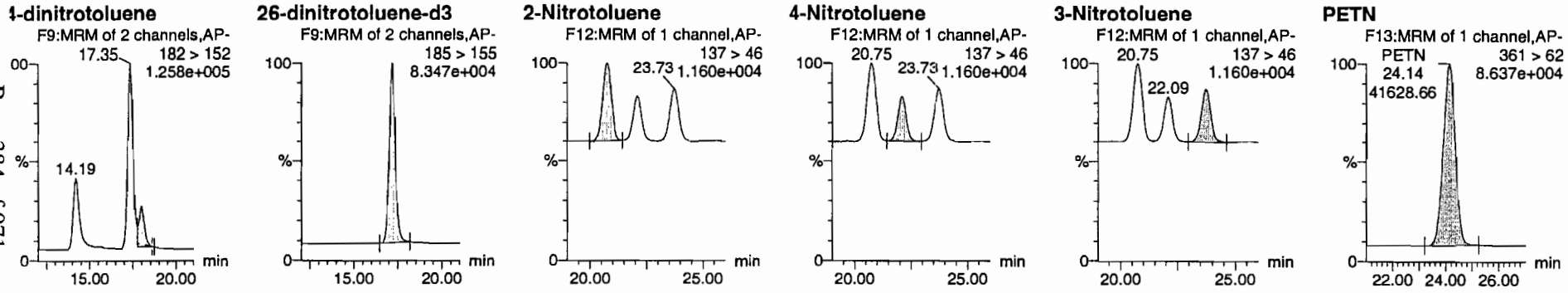

)	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
/XX100501-07CCV	HMX	176 > 102	5.21	24099.729	5381.335	24099.729	2239.196	bb			529.1910	88.2	-11.8	3784.6
/XX100501-07CCV	RDX	176 > 102	7.55	17817.213	5381.335	17817.213	1655.464	bb			546.4764	91.1	-8.9	2576.2
/XX100501-07CCV	135-Trinitrobenzene	213 > 183	10.09	30753.605	5381.335	30753.605	2857.433	bb			601.4926	100.2	0.2	3375.0
/XX100501-07CCV	13-Dinitrobenzene-d4	172 > 142	11.92	5381.335		5381.335	5381.335	bb			416.3115	83.3	-16.7	892.2
/XX100501-07CCV	13-Dinitrobenzene	168 > 138	12.03	8131.105	5381.335	8131.105	755.491	bb			589.5966	98.3	-1.7	501.2
/XX100501-07CCV	Tetryl	241 > 181	12.52	9127.546	5381.335	9127.546	848.075	bb			618.3335	103.1	3.1	490.3
/XX100501-07CCV	Nitrobenzene	123 > 46	13.44	2963.673	5381.335	2963.673	275.366	bb			561.5555	93.6	-6.4	305.2
/XX100501-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.45	12228.484	30937.662	12228.484	197.631	MM	04-May-10	09:24:37	580.7673	96.8	-3.2	449.7
/XX100501-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.30	18179.592	30937.662	18179.592	293.810	bb			578.4969	96.4	-3.6	356.8
/XX100501-07CCV	246-Trinitrotoluene	227 > 210	15.20	20942.688	30937.662	20942.688	338.466	bb			670.4537	111.7	11.7	579.0
/XX100501-07CCV	34-dinitrotoluene	182 > 152	14.19	18687.486	30937.662	18687.486	302.018	bb			279.8479	93.3	-6.7	436.2
/XX100501-07CCV	26-dinitrotoluene	182 > 152	17.35	43172.527	30937.662	43172.527	697.734	MM	04-May-10	09:26:22	612.4517	102.1	2.1	1163.3
/XX100501-07CCV	24-dinitrotoluene	182 > 152	17.98	10386.661	30937.662	10386.661	167.864	MM	04-May-10	09:31:20	609.9088	101.7	1.7	256.7
/XX100501-07CCV	26-dinitrotoluene-d3	185 > 155	17.17	30937.662		30937.662	30937.662	bb			417.8642	83.6	-16.4	2029.8
/XX100501-07CCV	2-Nitrotoluene	137 > 46	20.75	2193.766	30937.662	2193.766	35.455	bb			542.6204	90.4	-9.6	557.5
/XX100501-07CCV	4-Nitrotoluene	137 > 46	22.09	1186.879	30937.662	1186.879	19.182	bb			541.7952	90.3	-9.7	322.4
/XX100501-07CCV	3-Nitrotoluene	137 > 46	23.73	1526.844	30937.662	1526.844	24.676	bb			570.7055	95.1	-4.9	382.1
/XX100501-07CCV	PETN	361 > 62	24.14	41628.660	30937.662	41628.660	672.783	bb			757.1493	126.2	26.2	4379.3

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/04/10
Time of Injection: 0546
Standard Number: WXX100501-07CCV
Data File: EXP0501125a

HMX		88.2
RDX		91.1
135-TNB		100.2
13-DNB		98.3
Tetryl		103.1
Nitrobenzene		93.6
4A-26-DNT		96.8
2A-46-DNT		96.4
246-TNT		111.7
34-DNT(surr)		93.3
26-DNT		102.1
24-DNT		101.7
2-NT		90.4
4-NT		90.3
3-NT		95.1
PETN		126.2
Total		1578.5
Average		98.7

MTP 5/4/10

HMK 05/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0501127a

Analysis Date: 04-MAY-10 06:45

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	44.534	111	
1,3-Dinitrobenzene-d4	500	444.019	89	
2,4,6-Trinitrotoluene	40	38.344	96	
2,4-Dinitrotoluene	40	36.891	92	
2,6-Dinitrotoluene	40	41.625	104	
2,6-Dinitrotoluene-d3	500	459.186	92	
2-Amino-4,6-dinitrotoluene	40	34.008	85	
3,4-Dinitrotoluene	20	18.521	93	
4-Amino-2,6-dinitrotoluene	40	35.779	89	
HMX	40	36.057	90	
Nitrobenzene	40	46.945	117	
PETN	40	55.839	140	*
RDX	40	36.866	92	
Tetryl	40	33.621	84	
m-Dinitrobenzene	40	38.994	97	
m-Nitrotoluene	40	40.378	101	
o-Nitrotoluene	40	35.653	89	
p-Nitrotoluene	40	42.78	107	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA2.qld, Time: Tue May 04 09:31:35 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501127a
Date: 04-May-2010
Time: 06:45:46
ID: WXX100501-08CRI
Vial: 1:1,C

MMT 5/4/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.22 1.294e+004
1751.36 7.56

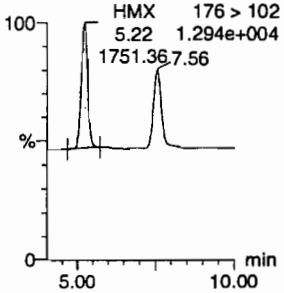

RDX
F2:MRM of 1 channel,AP-
5.22 176 > 102
1.294e+004
RDX
7.56
1281.95

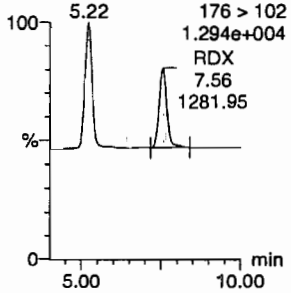

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.417e+004

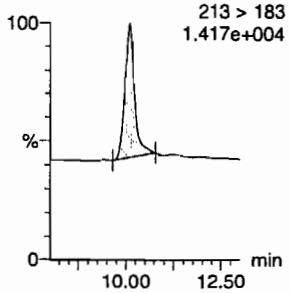

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.100e+004

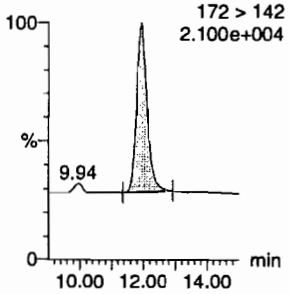

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.399e+003

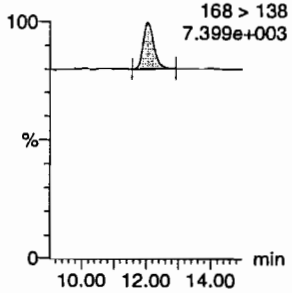

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.103e+003

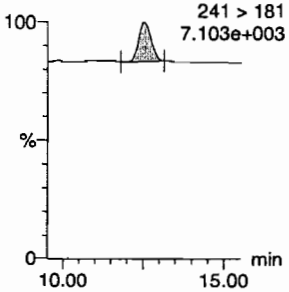

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.447e+003

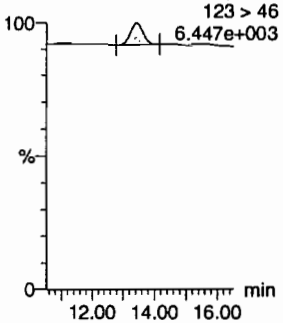

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
8.038e+003

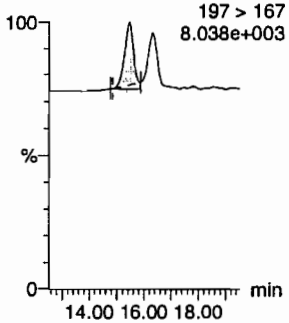

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
9.123e+003

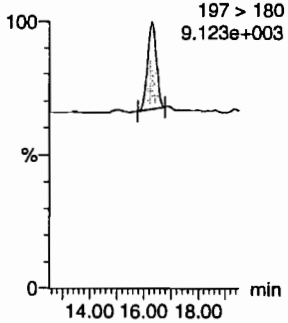

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
8.815e+003

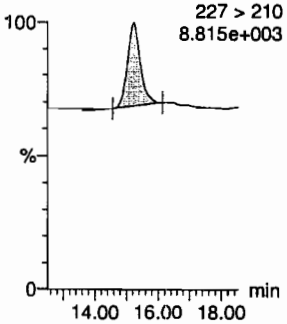

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.33 182 > 152
1.464e+004
17.97

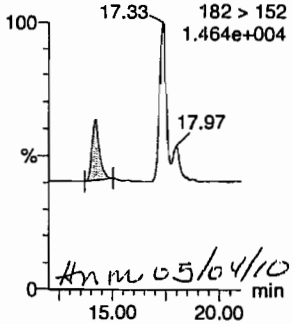

Hm m 05/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.464e+004
14.21
17.97

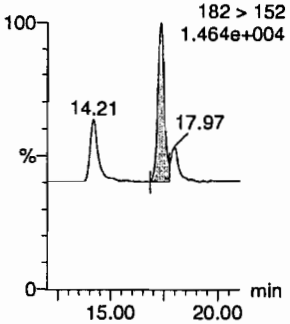

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA2.qld, Time: Tue May 04 09:31:35 2010

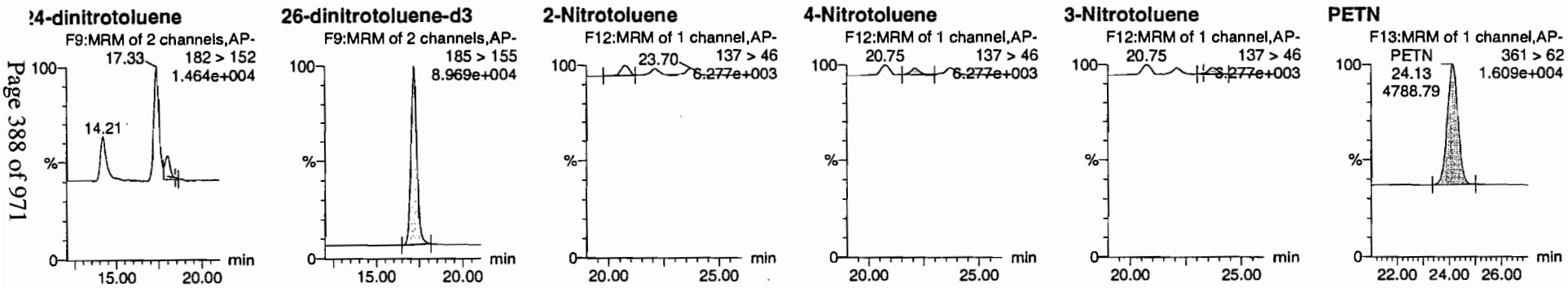

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
VXX100501-08CRI	HMX	176 > 102	5.22	1751.364	5739.491	1751.364	152.571	bb			36.0573	90.1	-9.9	350.2
VXX100501-08CRI	RDX	176 > 102	7.56	1281.951	5739.491	1281.951	111.678	bb			36.8655	92.2	-7.8	221.8
VXX100501-08CRI	135-Trinitrobenzene	213 > 183	10.09	2428.516	5739.491	2428.516	211.562	bb			44.5340	111.3	11.3	153.9
VXX100501-08CRI	13-Dinitrobenzene-d4	172 > 142	11.92	5739.491		5739.491	5739.491	bb			444.0192	88.8	-11.2	458.0
VXX100501-08CRI	13-Dinitrobenzene	168 > 138	12.03	573.551	5739.491	573.551	49.965	bb			38.9937	97.5	-2.5	63.8
VXX100501-08CRI	Tetryl	241 > 181	12.53	529.334	5739.491	529.334	46.113	bb			33.6214	84.1	-15.9	53.2
VXX100501-08CRI	Nitrobenzene	123 > 46	13.41	264.248	5739.491	264.248	23.020	bb			46.9452	117.4	17.4	41.7
VXX100501-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.42	827.844	33997.039	827.844	12.175	MM	04-May-10	09:24:46	35.7787	89.4	-10.6	25.6
VXX100501-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.28	1174.410	33997.039	1174.410	17.272	bb			34.0082	85.0	-15.0	83.3
VXX100501-08CRI	246-Trinitrotoluene	227 > 210	15.21	1316.185	33997.039	1316.185	19.357	bb			38.3442	95.9	-4.1	185.6
VXX100501-08CRI	34-dinitrotoluene	182 > 152	14.21	1359.085	33997.039	1359.085	19.988	bb			18.5210	92.6	-7.4	38.1
VXX100501-08CRI	26-dinitrotoluene	182 > 152	17.33	3224.352	33997.039	3224.352	47.421	MM	04-May-10	09:26:13	41.6249	104.1	4.1	100.8
VXX100501-08CRI	24-dinitrotoluene	182 > 152	17.97	690.365	33997.039	690.365	10.153	MM	04-May-10	09:31:35	36.8905	92.2	-7.8	20.6
VXX100501-08CRI	26-dinitrotoluene-d3	185 > 155	17.18	33997.039		33997.039	33997.039	bb			459.1861	91.8	-8.2	3071.5
VXX100501-08CRI	2-Nitrotoluene	137 > 46	20.75	158.394	33997.039	158.394	2.330	bb			35.6526	89.1	-10.9	23.7
VXX100501-08CRI	4-Nitrotoluene	137 > 46	22.10	102.982	33997.039	102.982	1.515	bb			42.7796	106.9	6.9	15.3
VXX100501-08CRI	3-Nitrotoluene	137 > 46	23.70	118.707	33997.039	118.707	1.746	MM	04-May-10	09:25:51	40.3776	100.9	0.9	16.1
VXX100501-08CRI	PETN	361 > 62	24.13	4788.790	33997.039	4788.790	70.430	bb			55.8388	139.6	39.6	870.6

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/04/10
Time of Injection	0645
Standard Number	WXX100501-08CRI
Data File	EXP0501127a

HMX	90.1
RDX	92.2
135-TNB	111.3
13-DNB	97.5
Tetryl	84.1
Nitrobenzene	117.4
4A-26-DNT	89.4
2A-46-DNT	85.0
246-TNT	95.9
34-DNT(surr)	92.6
26-DNT	104.1
24-DNT	92.2
2-NT	89.1
4-NT	106.9
3-NT	100.9
PETN	139.6
Total	1588.3
Average	99.3

HMM 05/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXP0501137a

Analysis Date: 04-MAY-10 11:40

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	606.514	101	
1,3-Dinitrobenzene-d4	500	459.893	92	
2,4,6-Trinitrotoluene	600	577.91	96	
2,4-Dinitrotoluene	600	553.837	92	
2,6-Dinitrotoluene	600	614.044	102	
2,6-Dinitrotoluene-d3	500	523.554	105	
2-Amino-4,6-dinitrotoluene	600	501.841	84	
3,4-Dinitrotoluene	300	249.163	83	
4-Amino-2,6-dinitrotoluene	600	518.778	86	
HMX	600	581.838	97	
Nitrobenzene	600	570.093	95	
PETN	600	582.255	97	
RDX	600	580.502	97	
Tetryl	600	619.988	103	
m-Dinitrobenzene	600	617.916	103	
m-Nitrotoluene	600	465.744	78	*
o-Nitrotoluene	600	467.51	78	*
p-Nitrotoluene	600	437.065	73	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA3.qld, Time: Tue May 04 13:25:47 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501137a
Date: 04-May-2010
Time: 11:40:55
ID: WXX100501-07CCV
Vial: 1:1,B

MM 5/4/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.175e+005

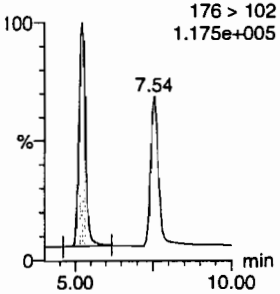

RDX
F2:MRM of 1 channel,AP-
5.22
176 > 102
1.175e+005

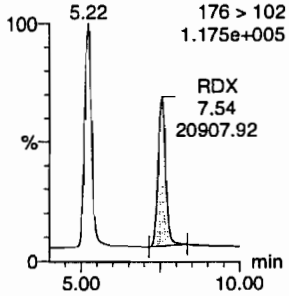

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.259e+005

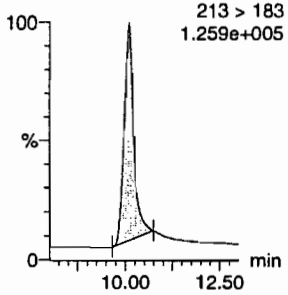

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.231e+004

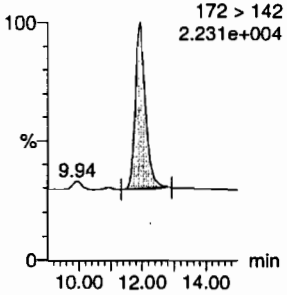

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.994e+004

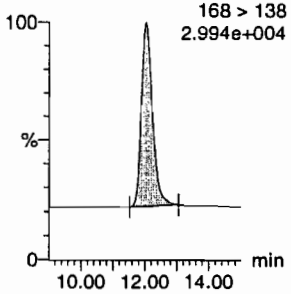

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
2.899e+004

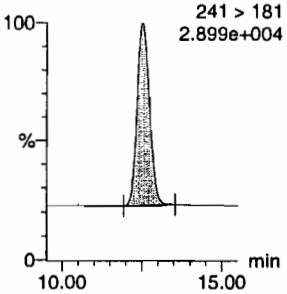

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.364e+004

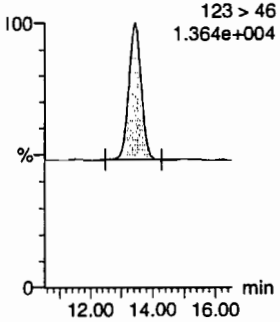

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
3.921e+004

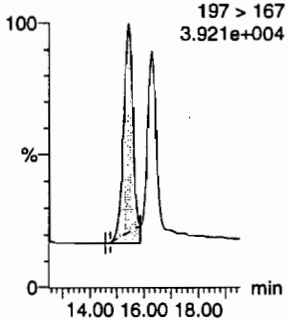

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.572e+004

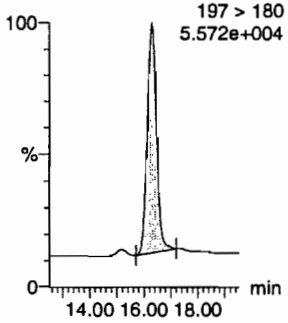

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.414e+004

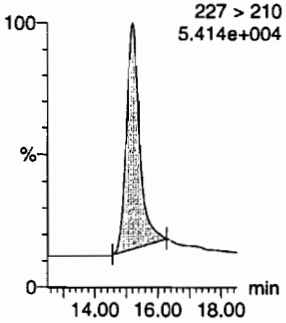

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.608e+005

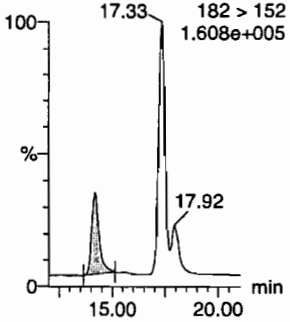

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.608e+005

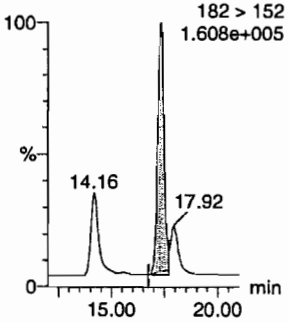

HMM 05/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ataset: C:\MASSLYNX\New_Exp.PRO\050110expA3.qld, Time: Tue May 04 13:25:47 2010

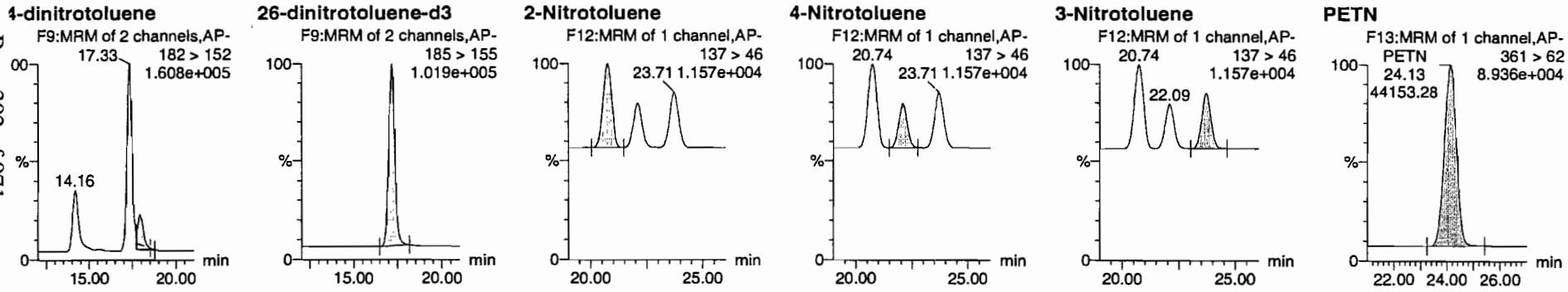

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
VXX100501-07CCV	HMX	176 > 102	5.22	29271.174	5944.683	29271.174	2461.963	bb			581.8376	97.0	-3.0	2439.9
VXX100501-07CCV	RDX	176 > 102	7.54	20907.924	5944.683	20907.924	1758.540	bb			580.5022	96.8	-3.2	1627.9
VXX100501-07CCV	135-Trinitrobenzene	213 > 183	10.09	34256.699	5944.683	34256.699	2881.289	bb			606.5144	101.1	1.1	8537.2
VXX100501-07CCV	13-Dinitrobenzene-d4	172 > 142	11.92	5944.683		5944.683	5944.683	bb			459.8932	92.0	-8.0	765.6
VXX100501-07CCV	13-Dinitrobenzene	168 > 138	12.03	9413.756	5944.683	9413.756	791.779	bb			617.9163	103.0	3.0	1265.7
VXX100501-07CCV	Tetryl	241 > 181	12.48	10110.043	5944.683	10110.043	850.343	bb			619.9877	103.3	3.3	842.4
VXX100501-07CCV	Nitrobenzene	123 > 46	13.45	3323.704	5944.683	3323.704	279.553	bb			570.0935	95.0	-5.0	314.1
VXX100501-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.42	13686.047	38762.664	13686.047	176.536	MM	04-May-10	13:24:12	518.7779	86.5	-13.5	293.5
VXX100501-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.28	19759.480	38762.664	19759.480	254.878	bb			501.8411	83.6	-16.4	620.2
VXX100501-07CCV	246-Trinitrotoluene	227 > 210	15.21	22617.783	38762.664	22617.783	291.747	bb			577.9101	96.3	-3.7	1488.3
VXX100501-07CCV	34-dinitrotoluene	182 > 152	14.16	20846.734	38762.664	20846.734	268.902	bb			249.1627	83.1	-16.9	416.1
VXX100501-07CCV	26-dinitrotoluene	182 > 152	17.33	54232.723	38762.664	54232.723	699.548	MM	04-May-10	13:24:59	614.0443	102.3	2.3	1285.3
VXX100501-07CCV	24-dinitrotoluene	182 > 152	17.92	11817.328	38762.664	11817.328	152.432	MM	04-May-10	13:25:25	553.8372	92.3	-7.7	243.4
VXX100501-07CCV	26-dinitrotoluene-d3	185 > 155	17.16	38762.664		38762.664	38762.664	bb			523.5537	104.7	4.7	2251.7
VXX100501-07CCV	2-Nitrotoluene	137 > 46	20.74	2368.162	38762.664	2368.162	30.547	bb			467.5102	77.9	-22.1	439.9
VXX100501-07CCV	4-Nitrotoluene	137 > 46	22.09	1199.618	38762.664	1199.618	15.474	bb			437.0645	72.8	-27.2	231.6
VXX100501-07CCV	3-Nitrotoluene	137 > 46	23.71	1561.190	38762.664	1561.190	20.138	bb			465.7438	77.6	-22.4	287.9
VXX100501-07CCV	PETN	361 > 62	24.13	44153.281	38762.664	44153.281	569.534	bb			582.2552	97.0	-3.0	2596.0

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/04/10
Time of Injection: 1140
Standard Number: WXX100501-07CCV
Data File: EXP0501137a

HMX		97.0
RDX		96.8
135-TNB		101.1
13-DNB		103.0
Tetryl		103.3
Nitrobenzene		95.0
4A-26-DNT		86.5
2A-46-DNT		83.6
246-TNT		96.3
34-DNT(surr)		83.1
26-DNT		102.3
24-DNT		92.3
2-NT		77.9
4-NT		72.8
3-NT		77.6
PETN		97.0
Total		1465.6
Average		91.6

MJT 5/4/10

Hmm 05/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2937

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0501139a

Analysis Date: 04–MAY–10 12:39

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	47.099	118	
1,3–Dinitrobenzene–d4	500	479.327	96	
2,4,6–Trinitrotoluene	40	46.32	116	
2,4–Dinitrotoluene	40	41.349	103	
2,6–Dinitrotoluene	40	40.723	102	
2,6–Dinitrotoluene–d3	500	488.257	98	
2–Amino–4,6–dinitrotoluene	40	39.011	98	
3,4–Dinitrotoluene	20	20.44	102	
4–Amino–2,6–dinitrotoluene	40	40.013	100	
HMX	40	37.041	93	
Nitrobenzene	40	33.907	85	
PETN	40	57.875	145	*
RDX	40	36.225	91	
Tetryl	40	40.693	102	
m–Dinitrobenzene	40	45.556	114	
m–Nitrotoluene	40	39.313	98	
o–Nitrotoluene	40	32.532	81	
p–Nitrotoluene	40	41.577	104	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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ate: 04-May-2010
ime: 12:39:52
): WXX100501-08CRI
ial: 1:1,C

MM 5/4/10

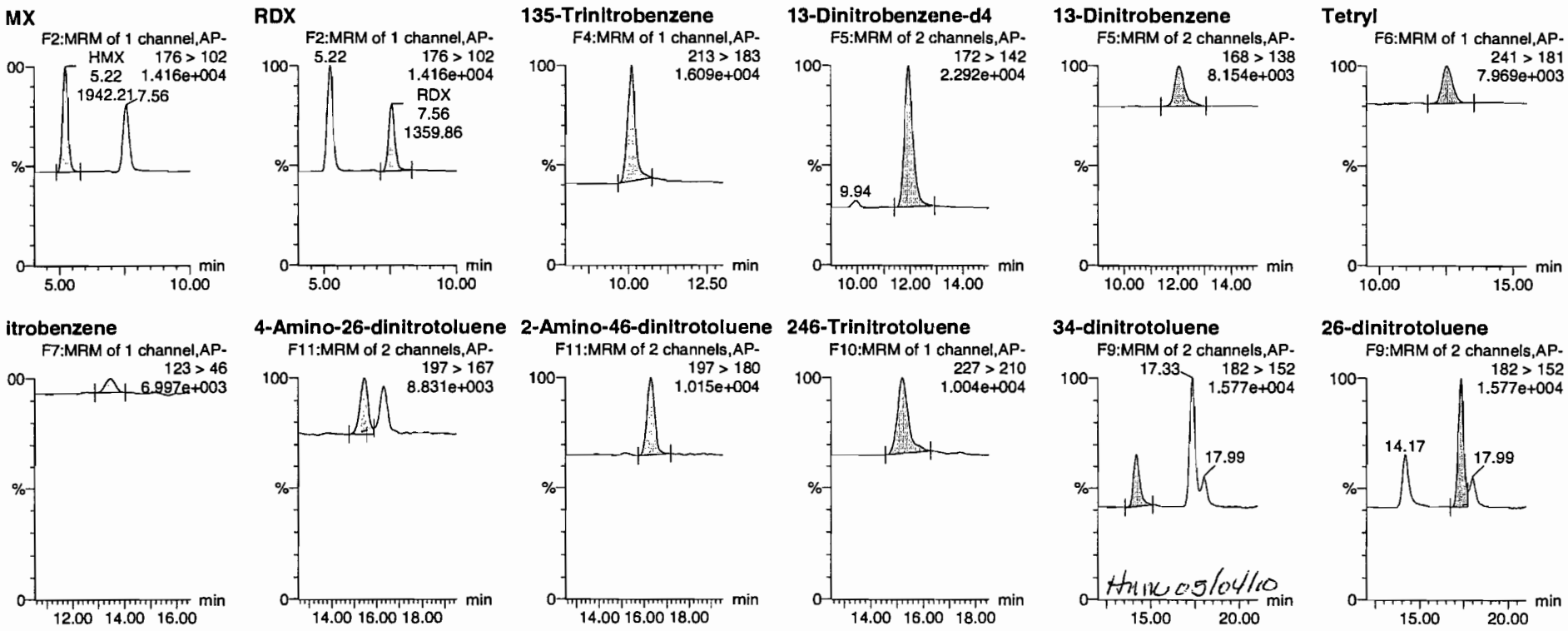

HMW 05/04/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA3.qld, Time: Tue May 04 13:25:47 2010

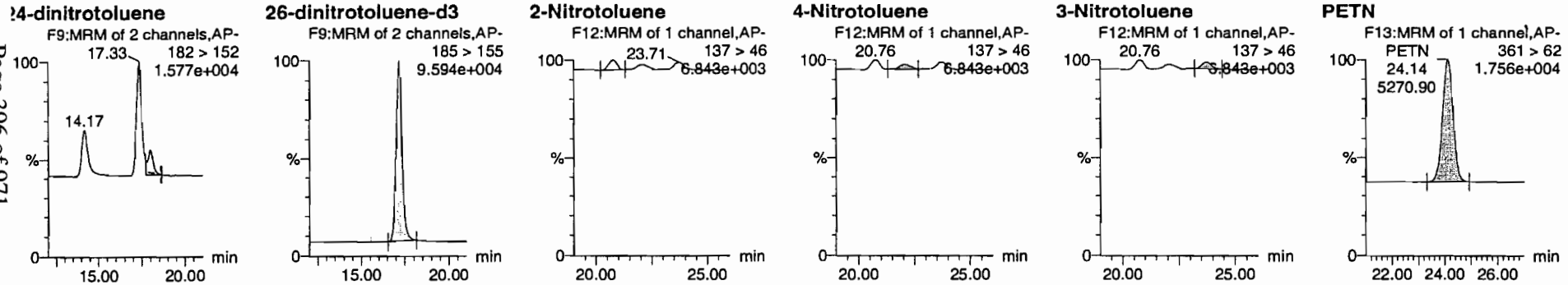

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100501-08CRI	HMX	176 > 102	5.22	1942.211	6195.886	1942.211	156.734	bb			37.0411	92.6	-7.4	197.3
WXX100501-08CRI	RDX	176 > 102	7.56	1359.859	6195.886	1359.859	109.739	bb			36.2253	90.6	-9.4	125.2
WXX100501-08CRI	135-Trinitrobenzene	213 > 183	10.09	2772.606	6195.886	2772.606	223.746	bb			47.0987	117.7	17.7	463.6
WXX100501-08CRI	13-Dinitrobenzene-d4	172 > 142	11.92	6195.886		6195.886	6195.886	bb			479.3268	95.9	-4.1	795.3
WXX100501-08CRI	13-Dinitrobenzene	168 > 138	12.03	723.352	6195.886	723.352	58.374	bb			45.5556	113.9	13.9	97.4
WXX100501-08CRI	Tetryl	241 > 181	12.53	691.613	6195.886	691.613	55.812	bb			40.6929	101.7	1.7	65.9
WXX100501-08CRI	Nitrobenzene	123 > 46	13.45	206.037	6195.886	206.037	16.627	bb			33.9074	84.8	-15.2	30.0
WXX100501-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.42	984.437	36149.398	984.437	13.616	MM	04-May-10	13:24:22	40.0133	100.0	0.0	80.3
WXX100501-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.28	1432.478	36149.398	1432.478	19.813	bb			39.0114	97.5	-2.5	78.1
WXX100501-08CRI	246-Trinitrotoluene	227 > 210	15.21	1690.610	36149.398	1690.610	23.384	bb			46.3198	115.8	15.8	153.8
WXX100501-08CRI	34-dinitrotoluene	182 > 152	14.17	1594.834	36149.398	1594.834	22.059	bb			20.4396	102.2	2.2	78.3
WXX100501-08CRI	26-dinitrotoluene	182 > 152	17.33	3354.164	36149.398	3354.164	46.393	MM	04-May-10	13:25:07	40.7226	101.8	1.8	192.3
WXX100501-08CRI	24-dinitrotoluene	182 > 152	17.99	822.781	36149.398	822.781	11.380	MM	04-May-10	13:25:15	41.3485	103.4	3.4	44.0
WXX100501-08CRI	26-dinitrotoluene-d3	185 > 155	17.18	36149.398		36149.398	36149.398	bb			488.2573	97.7	-2.3	2621.2
WXX100501-08CRI	2-Nitrotoluene	137 > 46	20.76	153.679	36149.398	153.679	2.126	bb			32.5317	81.3	-18.7	45.9
WXX100501-08CRI	4-Nitrotoluene	137 > 46	22.09	106.423	36149.398	106.423	1.472	bb			41.5768	103.9	3.9	24.1
WXX100501-08CRI	3-Nitrotoluene	137 > 46	23.71	122.893	36149.398	122.893	1.700	bb			39.3125	98.3	-1.7	31.1
WXX100501-08CRI	PETN	361 > 62	24.14	5270.896	36149.398	5270.896	72.904	bb			57.8747	144.7	44.7	923.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/04/10
Time of Injection	1239
Standard Number	WXX100501-08CRI
Data File	EXP0501139a

HMX	92.6
RDX	90.6
135-TNB	117.7
13-DNB	113.9
Tetryl	101.7
Nitrobenzene	84.8
4A-26-DNT	100.0
2A-46-DNT	97.5
246-TNT	115.8
34-DNT(surr)	102.2
26-DNT	101.8
24-DNT	103.4
2-NT	81.3
4-NT	103.9
3-NT	98.3
PETN	144.7
Total	1650.2
Average	103.1

MAT 5/4/10

HMM 05/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0501163a

Analysis Date: 05-MAY-10 00:27

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	618.863	103	
1,3-Dinitrobenzene-d4	500	523.781	105	
2,4,6-Trinitrotoluene	600	789.062	132	*
2,4-Dinitrotoluene	600	586.297	98	
2,6-Dinitrotoluene	600	603.989	101	
2,6-Dinitrotoluene-d3	500	542.197	108	
2-Amino-4,6-dinitrotoluene	600	622.573	104	
3,4-Dinitrotoluene	300	281.463	94	
4-Amino-2,6-dinitrotoluene	600	624.695	104	
HMX	600	538.072	90	
Nitrobenzene	600	552.693	92	
PETN	600	585.506	98	
RDX	600	580.821	97	
Tetryl	600	646.426	108	
m-Dinitrobenzene	600	576.947	96	
m-Nitrotoluene	600	599.396	100	
o-Nitrotoluene	600	524.962	87	
p-Nitrotoluene	600	533.938	89	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA4.qld, Time: Wed May 05 10:55:50 2010

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Date: 05-May-2010
Time: 00:27:31
ID: WXX100504-07CCV
Vial: 1:1,B

MAT 5/5/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.237e+005
7.56

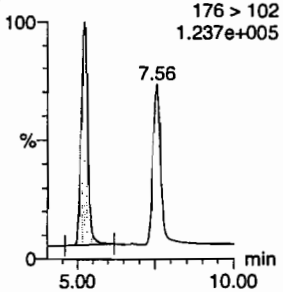

RDX
F2:MRM of 1 channel,AP-
5.22
176 > 102
1.237e+005
RDX
7.56
23825.48

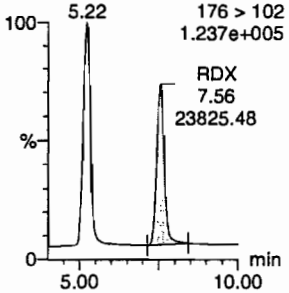

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.475e+005

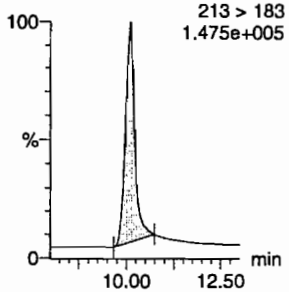

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.446e+004
9.94

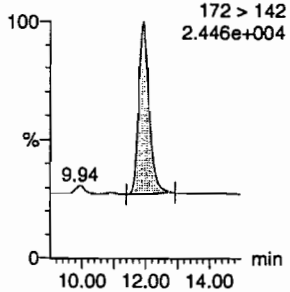

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
3.201e+004

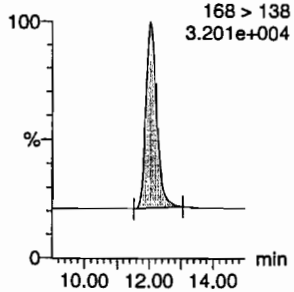

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
3.329e+004

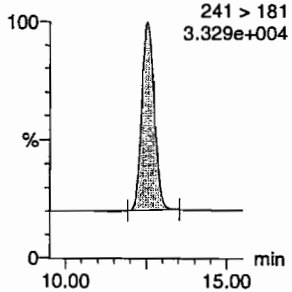

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.448e+004

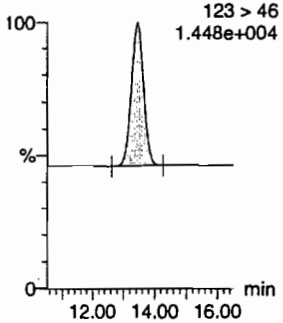

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
4.722e+004

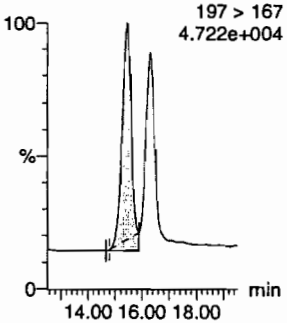

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.949e+004

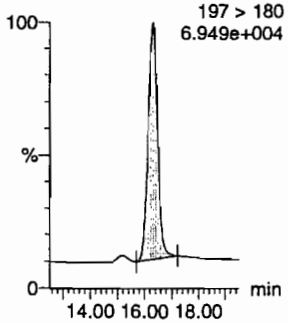

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.499e+004

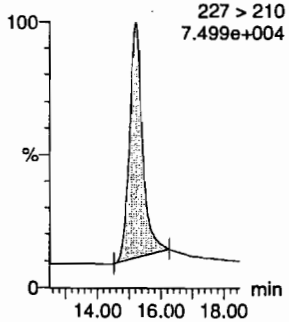

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.600e+005
17.33
17.99

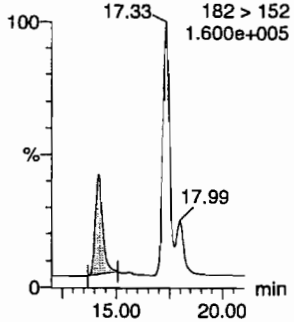

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.600e+005
14.16
17.99

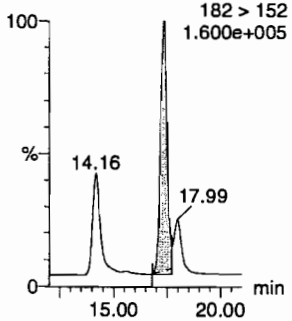

DJ 06/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA4.qld, Time: Wed May 05 10:55:50 2010

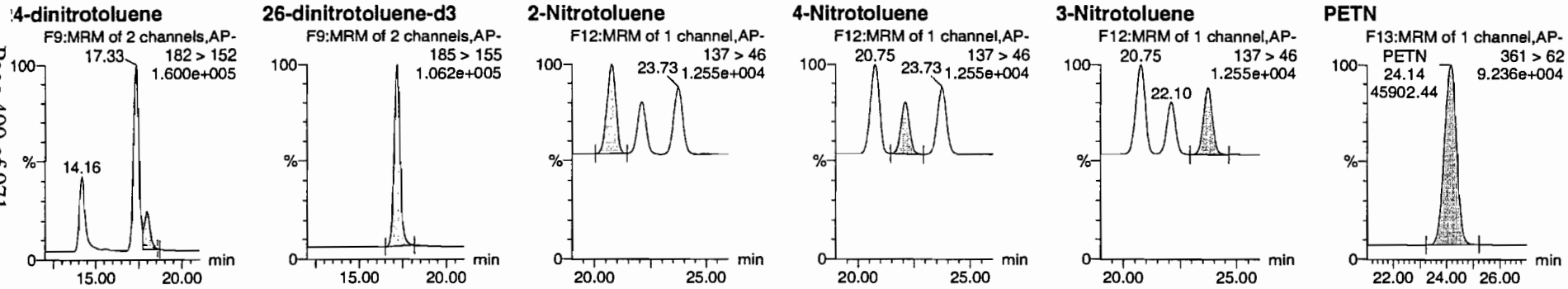

D	Name	Trace	RT	Area	IS Area	Abs:Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100504-07CCV	HMX	176 > 102	5.22	30829.820	6770.507	30829.820	2276.773	bb			538.0717	89.7	-10.3	2906.0
WXX100504-07CCV	RDX	176 > 102	7.56	23825.482	6770.507	23825.482	1759.505	bb			580.8208	96.8	-3.2	2069.7
WXX100504-07CCV	135-Trinitrobenzene	213 > 183	10.09	39809.953	6770.507	39809.953	2939.954	bb			618.8634	103.1	3.1	965.5
WXX100504-07CCV	13-Dinitrobenzene-d4	172 > 142	11.92	6770.507		6770.507	6770.507	bb			523.7807	104.8	4.8	775.3
WXX100504-07CCV	13-Dinitrobenzene	168 > 138	12.03	10010.645	6770.507	10010.645	739.283	bb			576.9475	96.2	-3.8	673.5
WXX100504-07CCV	Tetryl	241 > 181	12.53	12005.520	6770.507	12005.520	886.604	bb			646.4257	107.7	7.7	1236.6
WXX100504-07CCV	Nitrobenzene	123 > 46	13.45	3669.888	6770.507	3669.888	271.020	bb			552.6931	92.1	-7.9	478.5
WXX100504-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.42	17067.125	40142.965	17067.125	212.579	MM	05-May-10	10:45:18	624.6949	104.1	4.1	325.7
WXX100504-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.31	25386.053	40142.965	25386.053	316.196	bb			622.5727	103.8	3.8	633.4
WXX100504-07CCV	246-Trinitrotoluene	227 > 210	15.21	31981.363	40142.965	31981.363	398.343	bb			789.0624	131.5	31.5	669.3
WXX100504-07CCV	34-dinitrotoluene	182 > 152	14.16	24387.791	40142.965	24387.791	303.762	bb			281.4632	93.8	-6.2	532.3
WXX100504-07CCV	26-dinitrotoluene	182 > 152	17.33	55244.203	40142.965	55244.203	688.093	MM	05-May-10	10:51:09	603.9892	100.7	0.7	1346.7
WXX100504-07CCV	24-dinitrotoluene	182 > 152	17.99	12955.405	40142.965	12955.405	161.366	MM	05-May-10	10:53:30	586.2974	97.7	-2.3	278.0
WXX100504-07CCV	26-dinitrotoluene-d3	185 > 155	17.18	40142.965		40142.965	40142.965	bb			542.1970	108.4	8.4	2667.3
WXX100504-07CCV	2-Nitrotoluene	137 > 46	20.75	2753.874	40142.965	2753.874	34.301	bb			524.9620	87.5	-12.5	306.1
WXX100504-07CCV	4-Nitrotoluene	137 > 46	22.10	1517.694	40142.965	1517.694	18.904	bb			533.9382	89.0	-11.0	178.9
WXX100504-07CCV	3-Nitrotoluene	137 > 46	23.73	2080.743	40142.965	2080.743	25.917	bb			599.3961	99.9	-0.1	230.7
WXX100504-07CCV	PETN	361 > 62	24.14	45902.441	40142.965	45902.441	571.737	bb			585.5055	97.6	-2.4	2771.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/05/10
Time of Injection: 0027
Standard Number: WXX100504-07CCV
Data File: EXP050163a

HMX		89.7
RDX		96.8
135-TNB		103.1
13-DNB		96.2
Tetryl		107.7
Nitrobenzene		92.1
4A-26-DNT		104.1
2A-46-DNT		103.8
246-TNT		131.5
34-DNT(surr)		93.8
26-DNT		100.7
24-DNT		97.7
2-NT		87.5
4-NT		89.0
3-NT		99.9
PETN		97.6
Total		1591.2
Average		99.5

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0501165a

Analysis Date: 05-MAY-10 01:26

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	45.533	114	
1,3-Dinitrobenzene-d4	500	539.251	108	
2,4,6-Trinitrotoluene	40	46.261	116	
2,4-Dinitrotoluene	40	37.646	94	
2,6-Dinitrotoluene	40	37.934	95	
2,6-Dinitrotoluene-d3	500	545.04	109	
2-Amino-4,6-dinitrotoluene	40	38.39	96	
3,4-Dinitrotoluene	20	18.659	93	
4-Amino-2,6-dinitrotoluene	40	39.789	99	
HMX	40	38.683	97	
Nitrobenzene	40	37.194	93	
PETN	40	50.538	126	
RDX	40	35.941	90	
Tetryl	40	41.546	104	
m-Dinitrobenzene	40	39.005	98	
m-Nitrotoluene	40	45.262	113	
o-Nitrotoluene	40	40.334	101	
p-Nitrotoluene	40	28.197	70	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA4.qld, Time: Wed May 05 10:55:50 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501165a
Date: 05-May-2010
Time: 01:26:34
ID: WXX100504-08CRI
Vial: 1:1,C

MM 5/6/10

HMX

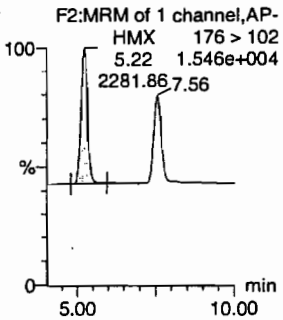

RDX

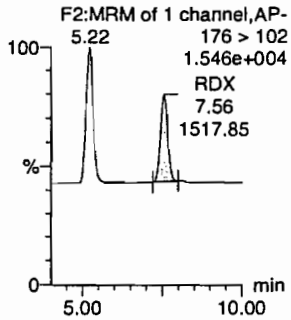

135-Trinitrobenzene

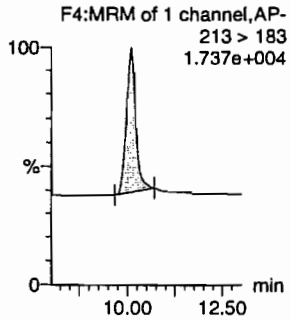

13-Dinitrobenzene-d4

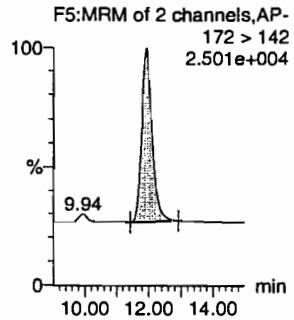

13-Dinitrobenzene

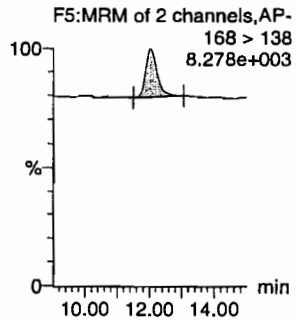

Tetryl

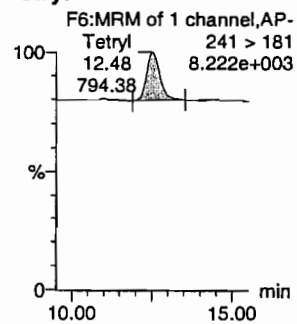

Nitrobenzene

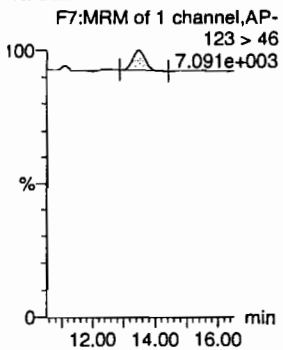

4-Amino-26-dinitrotoluene

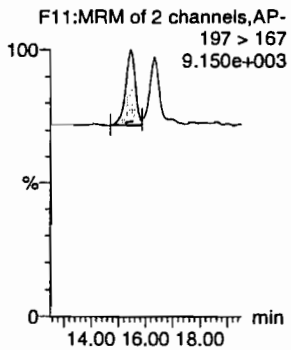

2-Amino-46-dinitrotoluene

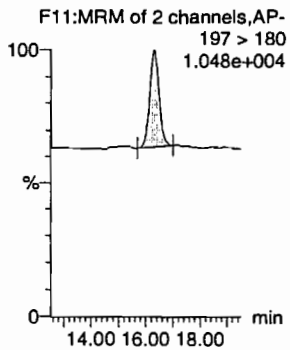

246-Trinitrotoluene

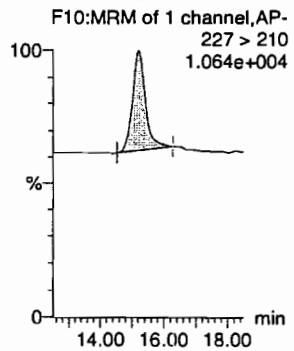

34-dinitrotoluene

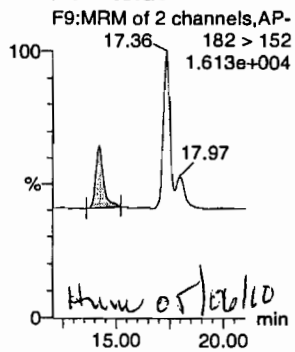

Hum 05/06/10

26-dinitrotoluene

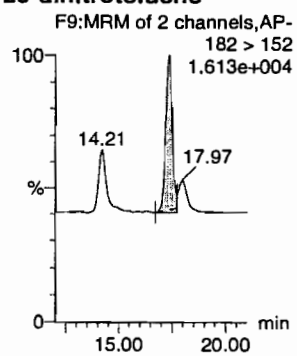

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Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA4.qld, Time: Wed May 05 10:55:50 2010

4-dinitrotoluene

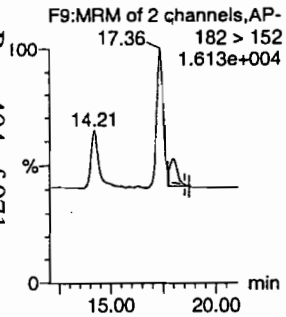

26-dinitrotoluene-d3

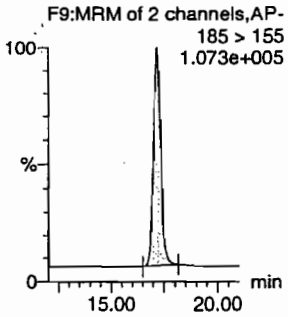

2-Nitrotoluene

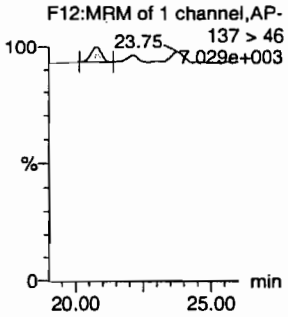

4-Nitrotoluene

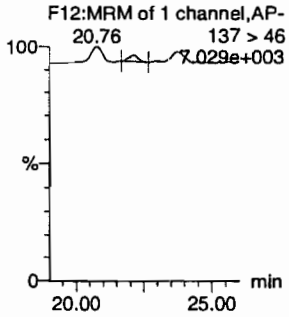

3-Nitrotoluene

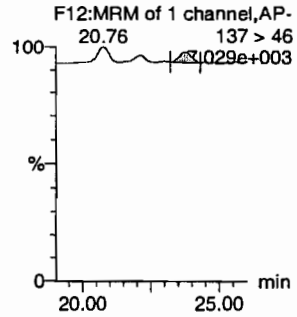

PETN

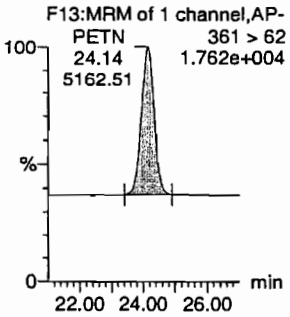

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
VXX100504-08CRI	HMX	176 > 102	5.22	2281.860	6970.475	2281.860	163.680	bb			38.6827	96.7	-3.3	333.0
VXX100504-08CRI	RDX	176 > 102	7.56	1517.850	6970.475	1517.850	108.877	bb			35.9408	89.9	-10.1	210.5
VXX100504-08CRI	135-Trinitrobenzene	213 > 183	10.09	3015.549	6970.475	3015.549	216.309	bb			45.5332	113.8	13.8	328.2
VXX100504-08CRI	13-Dinitrobenzene-d4	172 > 142	11.92	6970.475		6970.475	6970.475	bb			539.2507	107.9	7.9	749.8
VXX100504-08CRI	13-Dinitrobenzene	168 > 138	12.03	696.772	6970.475	696.772	49.980	bb			39.0053	97.5	-2.5	65.0
VXX100504-08CRI	Tetryl	241 > 181	12.48	794.385	6970.475	794.385	56.982	bb			41.5458	103.9	3.9	95.5
VXX100504-08CRI	Nitrobenzene	123 > 46	13.45	254.263	6970.475	254.263	18.239	bb			37.1940	93.0	-7.0	26.8
VXX100504-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.46	1092.776	40353.445	1092.776	13.540	MM	05-May-10	10:45:25	39.7894	99.5	-0.5	83.4
VXX100504-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.31	1573.613	40353.445	1573.613	19.498	bb			38.3903	96.0	-4.0	102.4
VXX100504-08CRI	246-Trinitrotoluene	227 > 210	15.21	1884.837	40353.445	1884.837	23.354	bb			46.2612	115.7	15.7	46.3
VXX100504-08CRI	34-dinitrotoluene	182 > 152	14.21	1625.167	40353.445	1625.167	20.137	bb			18.6585	93.3	-6.7	44.8
VXX100504-08CRI	26-dinitrotoluene	182 > 152	17.36	3487.847	40353.445	3487.847	43.216	MM	05-May-10	10:51:00	37.9340	94.8	-5.2	112.0
VXX100504-08CRI	24-dinitrotoluene	182 > 152	17.97	836.227	40353.445	836.227	10.361	MM	05-May-10	10:53:39	37.6461	94.1	-5.9	22.1
VXX100504-08CRI	26-dinitrotoluene-d3	185 > 155	17.18	40353.445		40353.445	40353.445	bb			545.0398	109.0	9.0	2942.2
VXX100504-08CRI	2-Nitrotoluene	137 > 46	20.76	212.698	40353.445	212.698	2.635	bb			40.3344	100.8	0.8	24.4
VXX100504-08CRI	4-Nitrotoluene	137 > 46	22.13	80.568	40353.445	80.568	0.998	bb			28.1967	70.5	-29.5	10.2
VXX100504-08CRI	3-Nitrotoluene	137 > 46	23.75	157.947	40353.445	157.947	1.957	bb			45.2622	113.2	13.2	16.4
VXX100504-08CRI	PETN	361 > 62	24.14	5162.505	40353.445	5162.505	63.966	bb			50.5382	126.3	26.3	642.4

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/05/10
Time of Injection	0126
Standard Number	WXX100504-08CRI
Data File	EXP0501165a

HMX	96.7
RDX	89.9
135-TNB	113.8
13-DNB	97.5
Tetryl	103.9
Nitrobenzene	93.0
4A-26-DNT	99.5
2A-46-DNT	96.0
246-TNT	115.7
34-DNT(surr)	93.3
26-DNT	94.8
24-DNT	94.1
2-NT	100.8
4-NT	70.5
3-NT	113.2
PETN	126.3
Total	1599.0
Average	99.9

MTT 5/5/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXP0501176a

Analysis Date: 05-MAY-10 06:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	597.377	100	
1,3-Dinitrobenzene-d4	500	426.49	85	
2,4,6-Trinitrotoluene	600	676.86	113	
2,4-Dinitrotoluene	600	605.076	101	
2,6-Dinitrotoluene	600	593.496	99	
2,6-Dinitrotoluene-d3	500	443.037	89	
2-Amino-4,6-dinitrotoluene	600	562.348	94	
3,4-Dinitrotoluene	300	276.797	92	
4-Amino-2,6-dinitrotoluene	600	560.039	93	
HMX	600	529.139	88	
Nitrobenzene	600	568.97	95	
PETN	600	747.525	125	*
RDX	600	562.919	94	
Tetryl	600	630.954	105	
m-Dinitrobenzene	600	586.825	98	
m-Nitrotoluene	600	551.65	92	
o-Nitrotoluene	600	523.515	87	
p-Nitrotoluene	600	526.567	88	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA4.qld, Time: Wed May 05 10:55:50 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501176a
Date: 05-May-2010
Time: 06:51:13
ID: WXX100504-07CCV
Vial: 1:1,B

MATT 5/5/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.007e+005
7.56

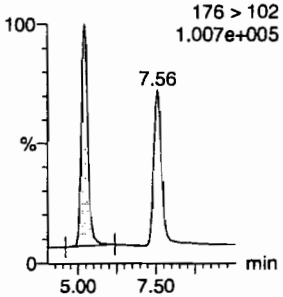

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.007e+005
5.21
RDX
7.56
18802.04

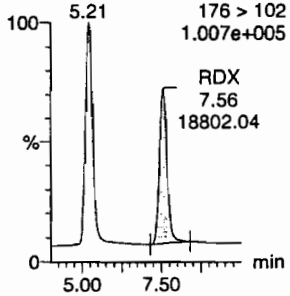

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.180e+005

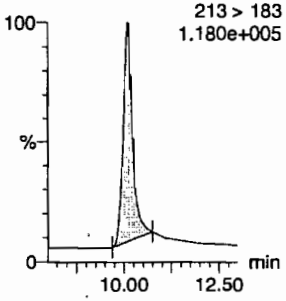

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.118e+004
9.93

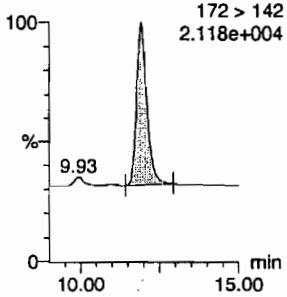

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.718e+004

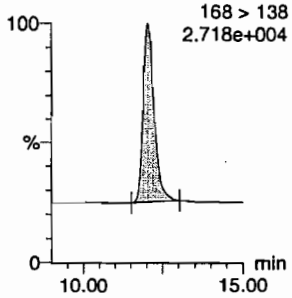

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
241 > 181
12.52
2.817e+004
9541.57

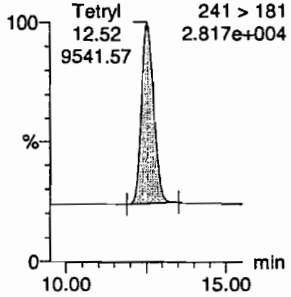

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.320e+004

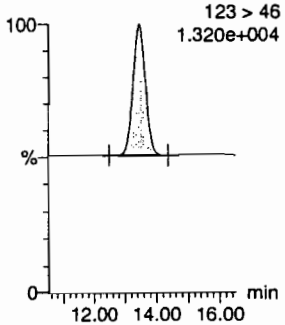

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
3.683e+004

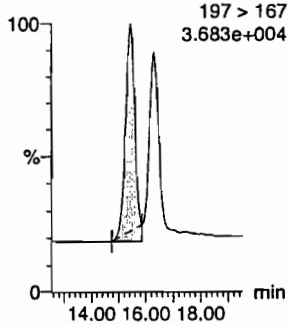

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.286e+004

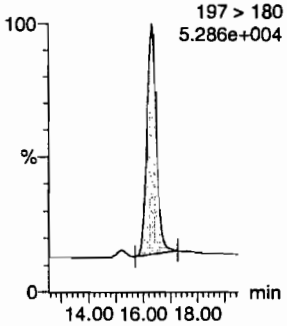

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.251e+004

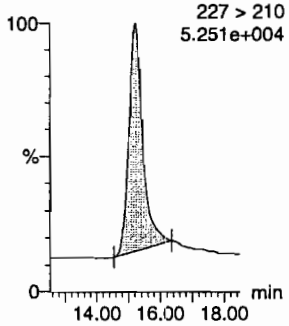

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.283e+005
17.35
18.00

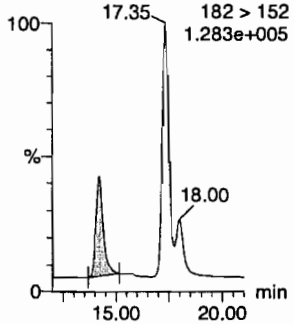

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.283e+005
14.19
18.00

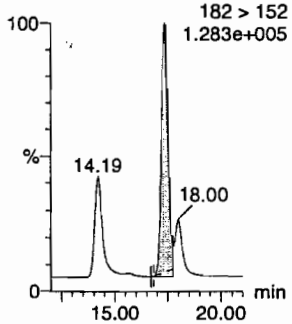

MM 05/06/10

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ataset: C:\MASSLYNX\New_Exp.PRO\050110expA4.qld, Time: Wed May 05 10:55:50 2010

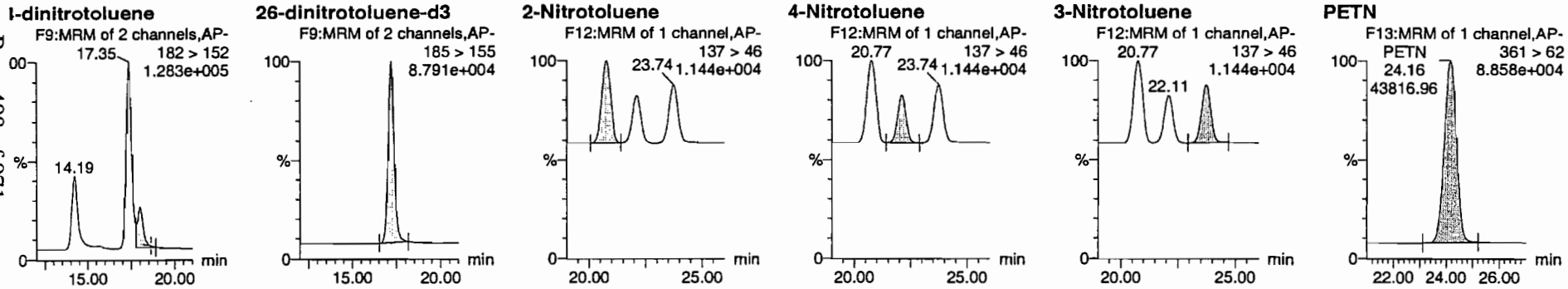

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
/XX100504-07CCV	HMX	176 > 102	5.21	24686.537	5512.907	24686.537	2238.976	bb			529.1391	88.2	-11.8	1277.8
/XX100504-07CCV	RDX	176 > 102	7.56	18802.045	5512.907	18802.045	1705.275	bb			562.9192	93.8	-6.2	895.4
/XX100504-07CCV	135-Trinitrobenzene	213 > 183	10.09	31289.957	5512.907	31289.957	2837.882	bb			597.3771	99.6	-0.4	1591.9
/XX100504-07CCV	13-Dinitrobenzene-d4	172 > 142	11.92	5512.907		5512.907	5512.907	bb			426.4901	85.3	-14.7	931.1
/XX100504-07CCV	13-Dinitrobenzene	168 > 138	12.03	8290.753	5512.907	8290.753	751.940	bb			586.8252	97.8	-2.2	898.4
/XX100504-07CCV	Tetryl	241 > 181	12.52	9541.567	5512.907	9541.567	865.384	bb			630.9542	105.2	5.2	957.8
/XX100504-07CCV	Nitrobenzene	123 > 46	13.44	3076.224	5512.907	3076.224	279.002	bb			568.9704	94.8	-5.2	273.6
/XX100504-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.45	12502.426	32801.430	12502.426	190.577	MM	05-May-10	10:46:08	560.0393	93.3	-6.7	394.2
/XX100504-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.30	18736.732	32801.430	18736.732	285.608	bb			562.3484	93.7	-6.3	1172.5
/XX100504-07CCV	246-Trinitrotoluene	227 > 210	15.23	22416.508	32801.430	22416.508	341.700	bb			676.8603	112.8	12.8	408.8
/XX100504-07CCV	34-dinitrotoluene	182 > 152	14.19	19597.256	32801.430	19597.256	298.726	bb			276.7969	92.3	-7.7	437.5
/XX100504-07CCV	26-dinitrotoluene	182 > 152	17.35	44356.668	32801.430	44356.668	676.139	MM	05-May-10	10:50:17	593.4963	98.9	-1.1	1126.8
/XX100504-07CCV	24-dinitrotoluene	182 > 152	18.00	10925.118	32801.430	10925.118	166.534	MM	05-May-10	10:54:28	605.0758	100.8	0.8	246.4
/XX100504-07CCV	26-dinitrotoluene-d3	185 > 155	17.19	32801.430		32801.430	32801.430	bb			443.0374	88.6	-11.4	3671.4
/XX100504-07CCV	2-Nitrotoluene	137 > 46	20.77	2244.030	32801.430	2244.030	34.206	bb			523.5150	87.3	-12.7	170.3
/XX100504-07CCV	4-Nitrotoluene	137 > 46	22.11	1223.011	32801.430	1223.011	18.643	bb			526.5672	87.8	-12.2	97.9
/XX100504-07CCV	3-Nitrotoluene	137 > 46	23.74	1564.773	32801.430	1564.773	23.852	bb			551.6498	91.9	-8.1	119.7
/XX100504-07CCV	PETN	361 > 62	24.16	43816.965	32801.430	43816.965	667.912	bb			747.5247	124.6	24.6	1188.0

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/05/10
Time of Injection: 0651
Standard Number: WXX100504-07CCV
Data File: EXP050176a

HMX	88.2
RDX	93.8
135-TNB	99.6
13-DNB	97.8
Tetryl	105.2
Nitrobenzene	94.8
4A-26-DNT	93.3
2A-46-DNT	93.7
246-TNT	112.8
34-DNT(surr)	92.3
26-DNT	98.9
24-DNT	100.8
2-NT	87.3
4-NT	87.8
3-NT	91.9
PETN	124.6
Total	1562.8
Average	97.7

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-2937

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0501178a **Analysis Date:** 05-MAY-10 07:50

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	42.732	107	
1,3-Dinitrobenzene-d4	500	435.911	87	
2,4,6-Trinitrotoluene	40	40.509	101	
2,4-Dinitrotoluene	40	36.308	91	
2,6-Dinitrotoluene	40	38.664	97	
2,6-Dinitrotoluene-d3	500	448.498	90	
2-Amino-4,6-dinitrotoluene	40	37.206	93	
3,4-Dinitrotoluene	20	19.747	99	
4-Amino-2,6-dinitrotoluene	40	35.296	88	
HMX	40	37.374	93	
Nitrobenzene	40	46.376	116	
PETN	40	56.944	142	*
RDX	40	37.08	93	
Tetryl	40	38.049	95	
m-Dinitrobenzene	40	44.462	111	
m-Nitrotoluene	40	36.966	92	
o-Nitrotoluene	40	38.05	95	
p-Nitrotoluene	40	43.026	108	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA4.qld, Time: Wed May 05 10:55:50 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501178a
Date: 05-May-2010
Time: 07:50:15
ID: WXX100504-08CRI
Vial: 1:1,C

MMT 5/5/10

HMX

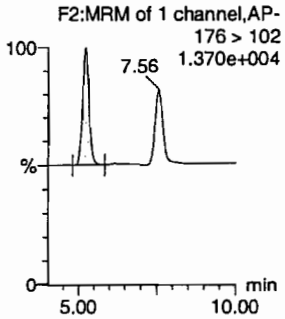

RDX

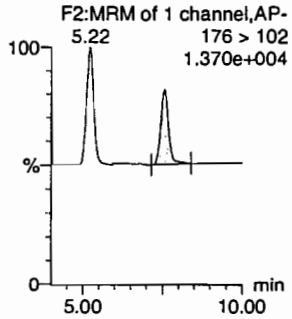

135-Trinitrobenzene

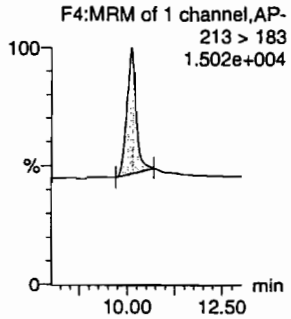

13-Dinitrobenzene-d4

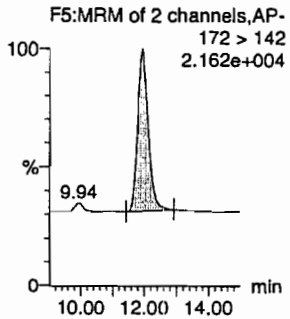

13-Dinitrobenzene

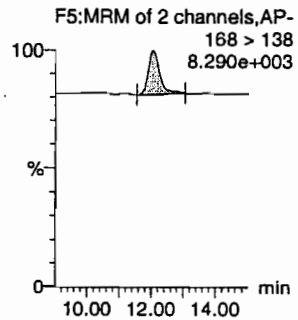

Tetryl

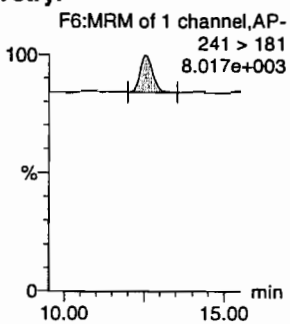

Nitrobenzene

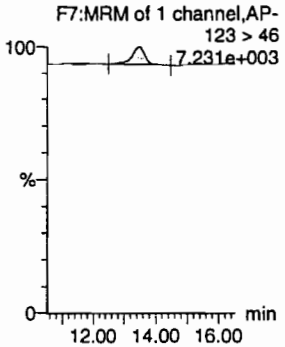

4-Amino-26-dinitrotoluene

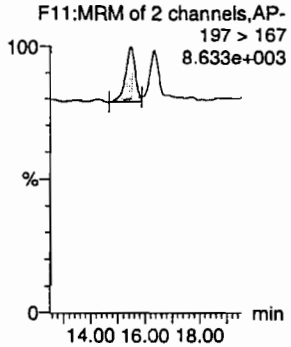

2-Amino-46-dinitrotoluene

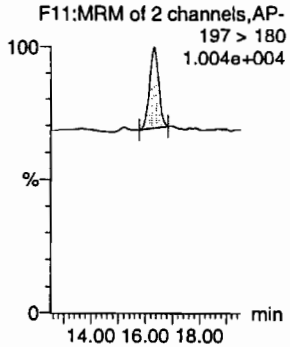

246-Trinitrotoluene

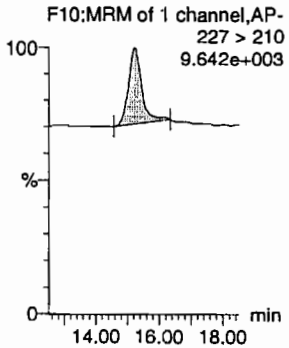

34-dinitrotoluene

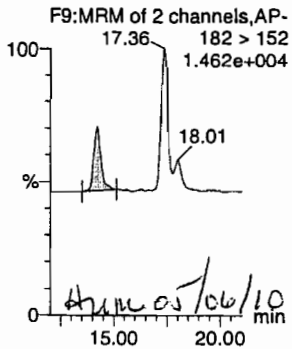

dhm 05/06/10

26-dinitrotoluene

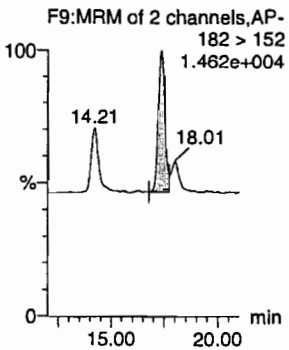

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA4.qld, Time: Wed May 05 10:55:50 2010

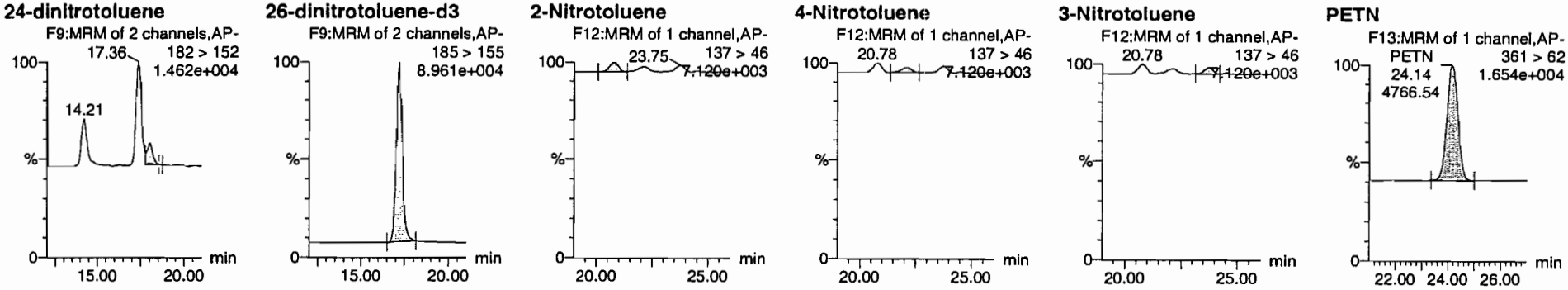

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100504-08CRI	HMX	176 > 102	5.22	1782.168	5634.680	1782.168	158.143	bb			37.3740	93.4	-6.6	212.5
WXX100504-08CRI	RDX	176 > 102	7.56	1265.850	5634.680	1265.850	112.327	bb			37.0796	92.7	-7.3	135.4
WXX100504-08CRI	135-Trinitrobenzene	213 > 183	10.09	2287.695	5634.680	2287.695	203.001	bb			42.7320	106.8	6.8	103.0
WXX100504-08CRI	13-Dinitrobenzene-d4	172 > 142	11.92	5634.680		5634.680	5634.680	bb			435.9108	87.2	-12.8	361.5
WXX100504-08CRI	13-Dinitrobenzene	168 > 138	12.03	642.045	5634.680	642.045	56.973	bb			44.4623	111.2	11.2	78.3
WXX100504-08CRI	Tetryl	241 > 181	12.53	588.108	5634.680	588.108	52.186	bb			38.0493	95.1	-4.9	83.9
WXX100504-08CRI	Nitrobenzene	123 > 46	13.45	256.277	5634.680	256.277	22.741	bb			46.3759	115.9	15.9	21.9
WXX100504-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.46	797.670	33205.688	797.670	12.011	MM	05-May-10	10:46:17	35.2962	88.2	-11.8	24.7
WXX100504-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.31	1254.932	33205.688	1254.932	18.896	bb			37.2059	93.0	-7.0	100.2
WXX100504-08CRI	246-Trinitrotoluene	227 > 210	15.21	1358.116	33205.688	1358.116	20.450	bb			40.5087	101.3	1.3	76.0
WXX100504-08CRI	34-dinitrotoluene	182 > 152	14.21	1415.328	33205.688	1415.328	21.312	bb			19.7471	98.7	-1.3	89.5
WXX100504-08CRI	26-dinitrotoluene	182 > 152	17.36	2925.272	33205.688	2925.272	44.048	MM	05-May-10	10:50:01	38.6639	96.7	-3.3	198.6
WXX100504-08CRI	24-dinitrotoluene	182 > 152	18.01	663.653	33205.688	663.653	9.993	MM	05-May-10	10:54:51	36.3082	90.8	-9.2	41.2
WXX100504-08CRI	26-dinitrotoluene-d3	185 > 155	17.18	33205.688		33205.688	33205.688	bb			448.4976	89.7	-10.3	2401.3
WXX100504-08CRI	2-Nitrotoluene	137 > 46	20.78	165.109	33205.688	165.109	2.486	bb			38.0497	95.1	-4.9	55.8
WXX100504-08CRI	4-Nitrotoluene	137 > 46	22.12	101.165	33205.688	101.165	1.523	bb			43.0263	107.6	7.6	30.3
WXX100504-08CRI	3-Nitrotoluene	137 > 46	23.75	106.147	33205.688	106.147	1.598	bb			36.9658	92.4	-7.6	37.9
WXX100504-08CRI	PETN	361 > 62	24.14	4766.536	33205.688	4766.536	71.773	bb			56.9435	142.4	42.4	790.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/05/10
Time of Injection	0750
Standard Number	WXX100504-08CRI
Data File	EXP0501178a

HMX	93.4
RDX	92.7
135-TNB	106.8
13-DNB	111.2
Tetryl	95.1
Nitrobenzene	115.9
4A-26-DNT	88.2
2A-46-DNT	93.0
246-TNT	101.3
34-DNT(surr)	98.7
26-DNT	96.7
24-DNT	90.8
2-NT	95.1
4-NT	107.6
3-NT	92.4
PETN	142.4
Total	1621.3
Average	101.3

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0501189a

Analysis Date: 05-MAY-10 13:15

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	614.489	102	
1,3-Dinitrobenzene-d4	500	451.29	90	
2,4,6-Trinitrotoluene	600	717.268	120	
2,4-Dinitrotoluene	600	604.059	101	
2,6-Dinitrotoluene	600	603.038	101	
2,6-Dinitrotoluene-d3	500	458.487	92	
2-Amino-4,6-dinitrotoluene	600	594.595	99	
3,4-Dinitrotoluene	300	280.603	94	
4-Amino-2,6-dinitrotoluene	600	599.03	100	
HMX	600	558.183	93	
Nitrobenzene	600	581.455	97	
PETN	600	627.886	105	
RDX	600	571.641	95	
Tetryl	600	669.254	112	
m-Dinitrobenzene	600	617.844	103	
m-Nitrotoluene	600	567.075	95	
o-Nitrotoluene	600	534.082	89	
p-Nitrotoluene	600	519.119	87	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA4a.qld, Time: Thu May 06 10:39:49 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501189a
Date: 05-May-2010
Time: 13:15:47
ID: WXX100504-07CCV
Vial: 1:1,B

MM 5/6/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.103e+005
7.52

RDX
F2:MRM of 1 channel,AP-
5.20
176 > 102
1.103e+005
RDX
7.52
20203.58

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.238e+005

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.192e+004
9.88

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.958e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
3.091e+004

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.337e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
3.943e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.745e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.800e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.25
182 > 152
1.366e+005
17.90

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.366e+005
14.12
17.90

thme 05/06/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA4a.qld, Time: Thu May 06 10:39:49 2010

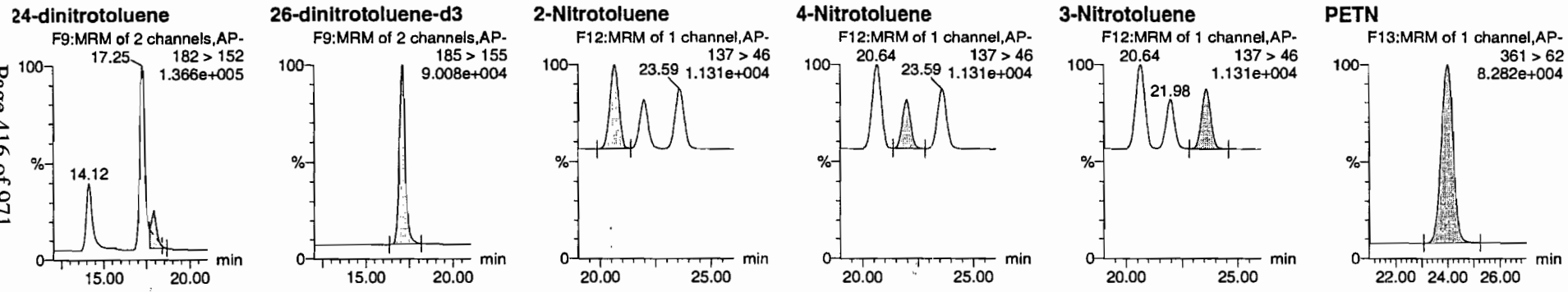

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100504-07CCV	HMX	176 > 102	5.20	27555.797	5833.470	27555.797	2361.870	bb			558.1827	93.0	-7.0	3864.9
WXX100504-07CCV	RDX	176 > 102	7.52	20203.580	5833.470	20203.580	1731.695	bb			571.6405	95.3	-4.7	2629.9
WXX100504-07CCV	135-Trinitrobenzene	213 > 183	10.07	34057.840	5833.470	34057.840	2919.175	bb			614.4895	102.4	2.4	2090.3
WXX100504-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	5833.470		5833.470	5833.470	bb			451.2896	90.3	-9.7	562.9
WXX100504-07CCV	13-Dinitrobenzene	168 > 138	12.00	9236.559	5833.470	9236.559	791.687	bb			617.8438	103.0	3.0	747.9
WXX100504-07CCV	Tetryl	241 > 181	12.45	10709.246	5833.470	10709.246	917.914	bb			669.2536	111.5	11.5	813.0
WXX100504-07CCV	Nitrobenzene	123 > 46	13.37	3326.525	5833.470	3326.525	285.124	bb			581.4552	96.9	-3.1	796.6
WXX100504-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.35	13839.178	33945.246	13839.178	203.846	MM	06-May-10	10:38:24	599.0297	99.8	-0.2	257.0
WXX100504-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.22	20501.967	33945.246	20501.967	301.986	bb			594.5946	99.1	-0.9	1100.8
WXX100504-07CCV	246-Trinitrotoluene	227 > 210	15.14	24583.092	33945.246	24583.092	362.099	bb			717.2679	119.5	19.5	1703.2
WXX100504-07CCV	34-dinitrotoluene	182 > 152	14.12	20559.535	33945.246	20559.535	302.834	bb			280.6035	93.5	-6.5	299.1
WXX100504-07CCV	26-dinitrotoluene	182 > 152	17.25	46641.430	33945.246	46641.430	687.010	MM	06-May-10	10:39:05	603.0382	100.5	0.5	812.1
WXX100504-07CCV	24-dinitrotoluene	182 > 152	17.90	11287.082	33945.246	11287.082	166.254	MM	06-May-10	10:39:43	604.0587	100.7	0.7	171.2
WXX100504-07CCV	26-dinitrotoluene-d3	185 > 155	17.09	33945.246		33945.246	33945.246	bb			458.4865	91.7	-8.3	3030.8
WXX100504-07CCV	2-Nitrotoluene	137 > 46	20.64	2369.155	33945.246	2369.155	34.897	bb			534.0818	89.0	-11.0	423.8
WXX100504-07CCV	4-Nitrotoluene	137 > 46	21.98	1247.757	33945.246	1247.757	18.379	bb			519.1194	86.5	-13.5	244.6
WXX100504-07CCV	3-Nitrotoluene	137 > 46	23.59	1664.617	33945.246	1664.617	24.519	bb			567.0747	94.5	-5.5	301.2
WXX100504-07CCV	PETN	361 > 62	23.99	40699.055	33945.246	40699.055	599.481	bb			627.8861	104.6	4.6	2789.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/05/10
Time of Injection: 1315
Standard Number: WXX100504-07CCV
Data File: EXP050189a

HMX		93.0
RDX		95.3
135-TNB		102.4
13-DNB		103.0
Tetryl		111.5
Nitrobenzene		96.9
4A-26-DNT		99.8
2A-46-DNT		99.1
246-TNT		119.5
34-DNT(surr)		93.5
26-DNT		100.5
24-DNT		100.7
2-NT		89.0
4-NT		86.5
3-NT		94.5
PETN		104.6
Total		1589.8
Average		99.4

HMM 5/6/10

HMM 05/06/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-2937

Lab Code: GEI **GEL Sample ID:** WXXCRI

GEL Data File EXP0501191a **Analysis Date:** 05-MAY-10 14:14

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	46.088	115	
1,3-Dinitrobenzene-d4	500	470.659	94	
2,4,6-Trinitrotoluene	40	47.425	119	
2,4-Dinitrotoluene	40	37.785	94	
2,6-Dinitrotoluene	40	39.491	99	
2,6-Dinitrotoluene-d3	500	484.109	97	
2-Amino-4,6-dinitrotoluene	40	35.652	89	
3,4-Dinitrotoluene	20	18.667	93	
4-Amino-2,6-dinitrotoluene	40	37.774	94	
HMX	40	35.575	89	
Nitrobenzene	40	41.999	105	
PETN	40	49.952	125	
RDX	40	34.757	87	
Tetryl	40	39.358	98	
m-Dinitrobenzene	40	40.141	100	
m-Nitrotoluene	40	39.344	98	
o-Nitrotoluene	40	41.837	105	
p-Nitrotoluene	40	32.239	81	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA4a.qld, Time: Thu May 06 10:39:49 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501191a
Date: 05-May-2010
Time: 14:14:49
ID: WXX100504-08CRI
Vial: 1:1,C

MMT 5/6/10

HMX

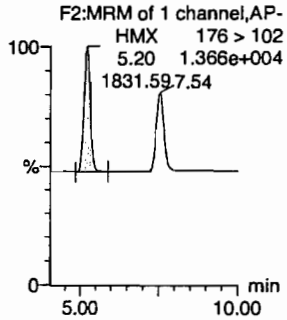

RDX

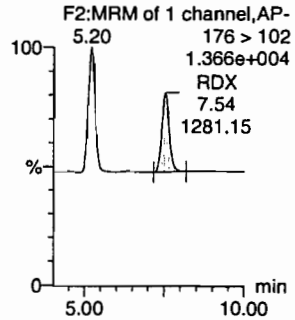

135-Trinitrobenzene

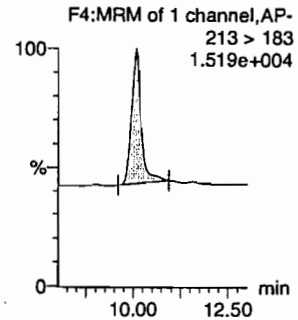

13-Dinitrobenzene-d4

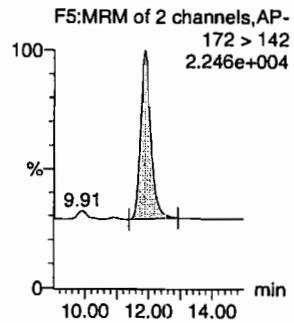

13-Dinitrobenzene

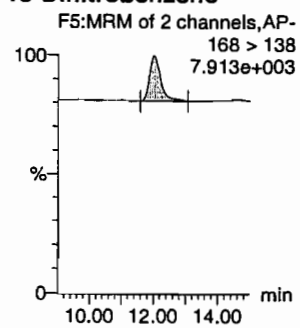

Tetryl

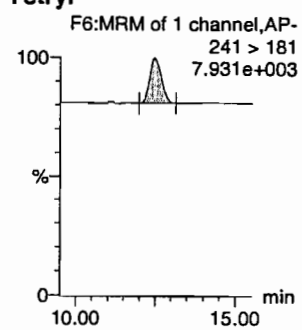

Nitrobenzene

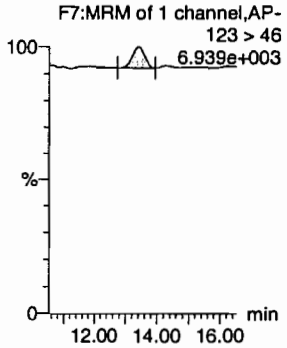

4-Amino-26-dinitrotoluene

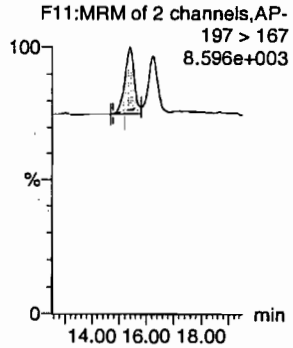

2-Amino-46-dinitrotoluene

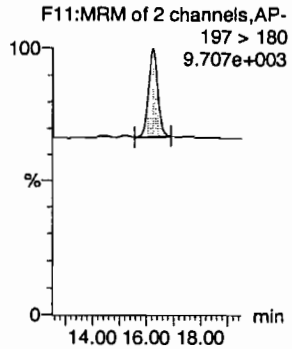

246-Trinitrotoluene

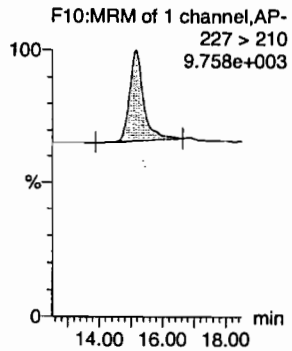

34-dinitrotoluene

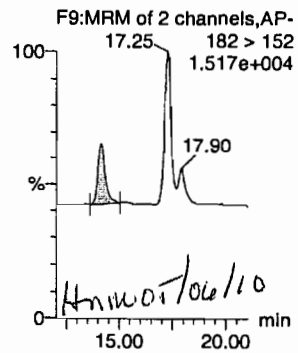

HMM 05/06/10

26-dinitrotoluene

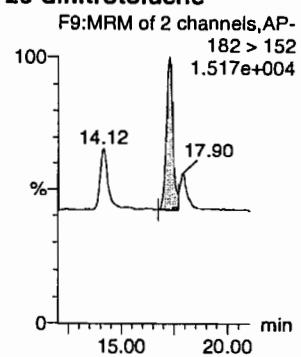

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA4a.qld, Time: Thu May 06 10:39:49 2010

24-dinitrotoluene

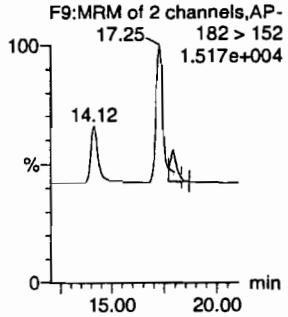

26-dinitrotoluene-d3

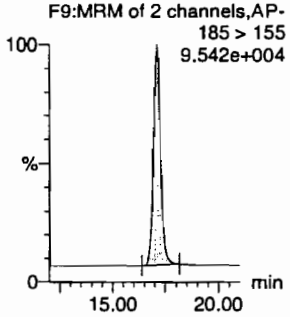

2-Nitrotoluene

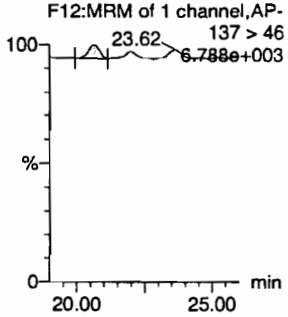

4-Nitrotoluene

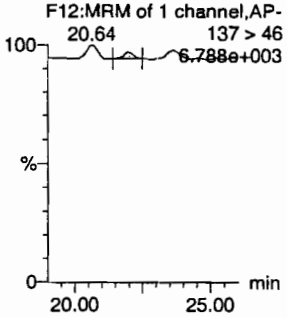

3-Nitrotoluene

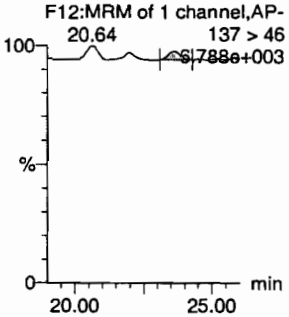

PETN

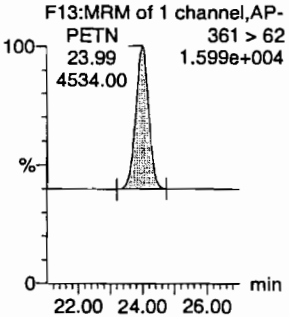

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100504-08CRI	HMX	176 > 102	5.20	1831.594	6083.838	1831.594	150.529	bb			35.5748	88.9	-11.1	216.7
WXX100504-08CRI	RDX	176 > 102	7.54	1281.154	6083.838	1281.154	105.292	bb			34.7572	86.9	-13.1	137.4
WXX100504-08CRI	135-Trinitrobenzene	213 > 183	10.07	2664.018	6083.838	2664.018	218.942	bb			46.0876	115.2	15.2	360.4
WXX100504-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6083.838		6083.838	6083.838	bb			470.6586	94.1	-5.9	937.2
WXX100504-08CRI	13-Dinitrobenzene	168 > 138	12.00	625.847	6083.838	625.847	51.435	bb			40.1408	100.4	0.4	70.9
WXX100504-08CRI	Tetryl	241 > 181	12.45	656.825	6083.838	656.825	53.981	bb			39.3578	98.4	-1.6	54.4
WXX100504-08CRI	Nitrobenzene	123 > 46	13.41	250.590	6083.838	250.590	20.595	bb			41.9990	105.0	5.0	35.7
WXX100504-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.35	921.453	35842.285	921.453	12.854	MM	06-May-10	10:38:32	37.7741	94.4	-5.6	63.7
WXX100504-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.22	1298.015	35842.285	1298.015	18.107	bb			35.6524	89.1	-10.9	89.7
WXX100504-08CRI	246-Trinitrotoluene	227 > 210	15.14	1716.225	35842.285	1716.225	23.941	bb			47.4245	118.6	18.6	89.8
WXX100504-08CRI	34-dinitrotoluene	182 > 152	14.12	1444.159	35842.285	1444.159	20.146	bb			18.6671	93.3	-6.7	70.2
WXX100504-08CRI	26-dinitrotoluene	182 > 152	17.25	3225.075	35842.285	3225.075	44.990	MM	06-May-10	10:39:12	39.4908	98.7	-1.3	172.7
WXX100504-08CRI	24-dinitrotoluene	182 > 152	17.90	745.493	35842.285	745.493	10.400	MM	06-May-10	10:39:34	37.7854	94.5	-5.5	39.8
WXX100504-08CRI	26-dinitrotoluene-d3	185 > 155	17.09	35842.285		35842.285	35842.285	bb			484.1092	96.8	-3.2	2832.7
WXX100504-08CRI	2-Nitrotoluene	137 > 46	20.64	195.960	35842.285	195.960	2.734	bb			41.8374	104.6	4.6	38.0
WXX100504-08CRI	4-Nitrotoluene	137 > 46	21.97	81.820	35842.285	81.820	1.141	bb			32.2389	80.6	-19.4	18.1
WXX100504-08CRI	3-Nitrotoluene	137 > 46	23.62	121.947	35842.285	121.947	1.701	bb			39.3442	98.4	-1.6	22.9
WXX100504-08CRI	PETN	361 > 62	23.99	4534.003	35842.285	4534.003	63.249	bb			49.9518	124.9	24.9	202.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/05/10
Time of Injection	1414
Standard Number	WXX100504-08CRI
Data File	EXP0501191a

HMX	88.9
RDX	86.9
135-TNB	115.2
13-DNB	100.4
Tetryl	98.4
Nitrobenzene	105.0
4A-26-DNT	94.4
2A-46-DNT	89.1
246-TNT	118.6
34-DNT(surr)	93.3
26-DNT	98.7
24-DNT	94.5
2-NT	104.6
4-NT	80.6
3-NT	98.4
PETN	124.9
Total	1591.9
Average	99.5

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2937

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0501202a

Analysis Date: 05–MAY–10 19:39

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	615.515	103	
1,3–Dinitrobenzene–d4	500	426.535	85	
2,4,6–Trinitrotoluene	600	696.325	116	
2,4–Dinitrotoluene	600	564.195	94	
2,6–Dinitrotoluene	600	579.719	97	
2,6–Dinitrotoluene–d3	500	435.306	87	
2–Amino–4,6–dinitrotoluene	600	565.835	94	
3,4–Dinitrotoluene	300	284.899	95	
4–Amino–2,6–dinitrotoluene	600	565.683	94	
HMX	600	736.161	123	*
Nitrobenzene	600	576.168	96	
PETN	600	658.436	110	
RDX	600	635.261	106	
Tetryl	600	656.95	109	
m–Dinitrobenzene	600	607.87	101	
m–Nitrotoluene	600	531.429	89	
o–Nitrotoluene	600	525.687	88	
p–Nitrotoluene	600	502.254	84	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA5.qld, Time: Thu May 06 10:30:00 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501202a
Date: 05-May-2010
Time: 19:39:25
ID: WXX100504-07CCV
Vial: 1:1,B

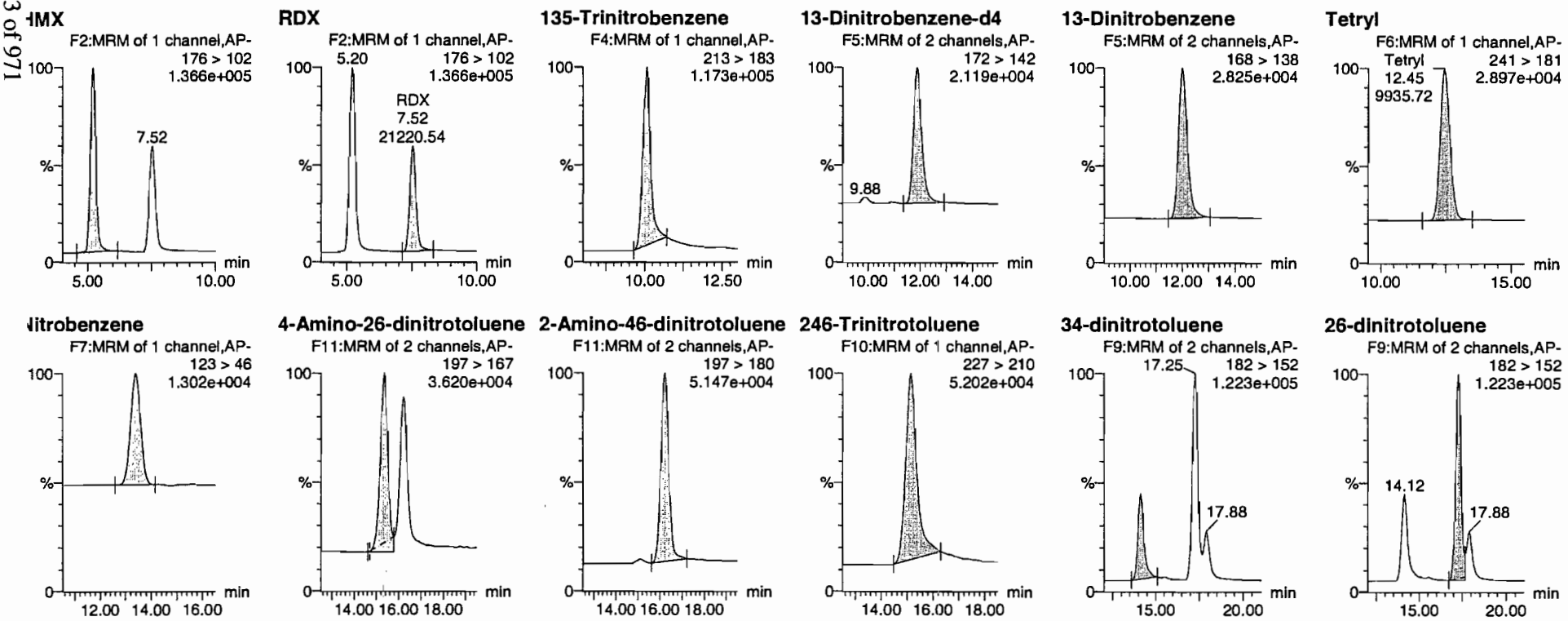

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)uantify Sample Report
;EL Laboratories, LLC / Analyst : Michael A. Penny

)ataset: C:\MASSLYNX\New_Exp.PRO\050110expA5.qld, Time: Thu May 06 10:30:00 2010

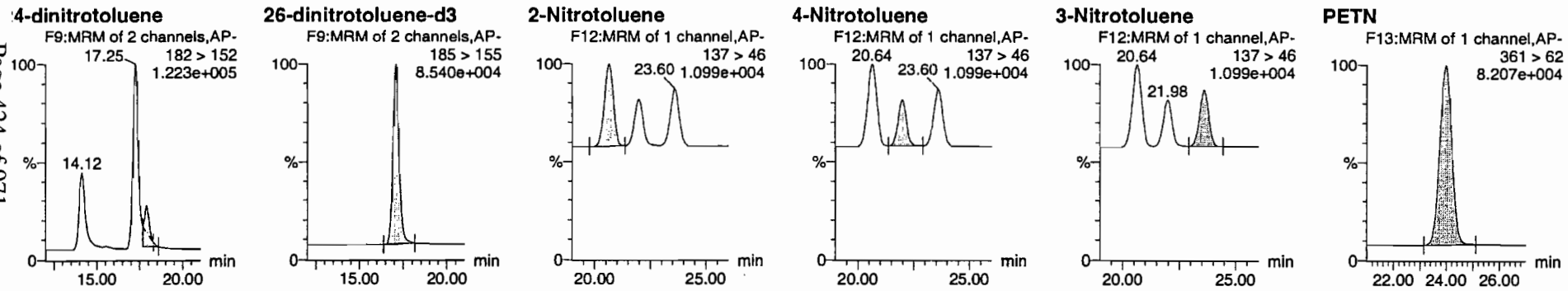

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100504-07CCV	HMX	176 > 102	5.20	34348.547	5513.482	34348.547	3114.960	bb			736.1609	122.7	22.7	5915.4
WXX100504-07CCV	RDX	176 > 102	7.52	21220.537	5513.482	21220.537	1924.422	bb			635.2608	105.9	5.9	3386.3
WXX100504-07CCV	135-Trinitrobenzene	213 > 183	10.07	32243.346	5513.482	32243.346	2924.046	bb			615.5147	102.6	2.6	3346.0
WXX100504-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	5513.482		5513.482	5513.482	bb			426.5346	85.3	-14.7	731.1
WXX100504-07CCV	13-Dinitrobenzene	168 > 138	12.00	8588.979	5513.482	8588.979	778.907	bb			607.8704	101.3	1.3	571.9
WXX100504-07CCV	Tetryl	241 > 181	12.45	9935.722	5513.482	9935.722	901.039	bb			656.9499	109.5	9.5	1945.4
WXX100504-07CCV	Nitrobenzene	123 > 46	13.41	3115.462	5513.482	3115.462	282.531	bb			576.1677	96.0	-4.0	333.2
WXX100504-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.35	12408.043	32229.016	12408.043	192.498	MM	06-May-10	10:28:58	565.6832	94.3	-5.7	304.8
WXX100504-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.22	18523.904	32229.016	18523.904	287.379	bb			565.8351	94.3	-5.7	816.5
WXX100504-07CCV	246-Trinitrotoluene	227 > 210	15.14	22658.699	32229.016	22658.699	351.526	bb			696.3247	116.1	16.1	768.0
WXX100504-07CCV	34-dinitrotoluene	182 > 152	14.12	19818.893	32229.016	19818.893	307.470	bb			284.8991	95.0	-5.0	385.1
WXX100504-07CCV	26-dinitrotoluene	182 > 152	17.25	42570.895	32229.016	42570.895	660.444	MM	06-May-10	10:12:19	579.7191	96.6	-3.4	929.0
WXX100504-07CCV	24-dinitrotoluene	182 > 152	17.88	10009.209	32229.016	10009.209	155.283	MM	06-May-10	10:08:59	564.1949	94.0	-6.0	206.6
WXX100504-07CCV	26-dinitrotoluene-d3	185 > 155	17.09	32229.016		32229.016	32229.016	bb			435.3060	87.1	-12.9	2049.3
WXX100504-07CCV	2-Nitrotoluene	137 > 46	20.64	2214.018	32229.016	2214.018	34.348	bb			525.6872	87.6	-12.4	456.5
WXX100504-07CCV	4-Nitrotoluene	137 > 46	21.98	1146.184	32229.016	1146.184	17.782	bb			502.2541	83.7	-16.3	255.1
WXX100504-07CCV	3-Nitrotoluene	137 > 46	23.60	1481.110	32229.016	1481.110	22.978	bb			531.4289	88.6	-11.4	312.5
WXX100504-07CCV	PETN	361 > 62	23.99	39857.184	32229.016	39857.184	618.343	bb			658.4356	109.7	9.7	1795.7

✓

;EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/05/10
Time of Injection: 1939
Standard Number: WXX100504-07CCV
Data File: EXP050202a

HMX		122.7
RDX		105.9
135-TNB		102.6
13-DNB		101.3
Tetryl		109.5
Nitrobenzene		96.0
4A-26-DNT		94.3
2A-46-DNT		94.3
246-TNT		116.1
34-DNT(surr)		95.0
26-DNT		96.6
24-DNT		94.0
2-NT		87.6
4-NT		83.7
3-NT		88.6
PETN		109.7
Total		1597.9
Average		99.9

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-2937

Lab Code: GEI **GEL Sample ID:** WXXCRI

GEL Data File EXP0501204a **Analysis Date:** 05-MAY-10 20:38

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	42.523	106	
1,3-Dinitrobenzene-d4	500	449.415	90	
2,4,6-Trinitrotoluene	40	40.872	102	
2,4-Dinitrotoluene	40	37.938	95	
2,6-Dinitrotoluene	40	38.951	97	
2,6-Dinitrotoluene-d3	500	455.906	91	
2-Amino-4,6-dinitrotoluene	40	33.205	83	
3,4-Dinitrotoluene	20	18.59	93	
4-Amino-2,6-dinitrotoluene	40	36.43	91	
HMX	40	34.953	87	
Nitrobenzene	40	36.962	92	
PETN	40	50.683	127	
RDX	40	33.493	84	
Tetryl	40	37.588	94	
m-Dinitrobenzene	40	37.804	95	
m-Nitrotoluene	40	33.88	85	
o-Nitrotoluene	40	45.412	114	
p-Nitrotoluene	40	34.234	86	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA5.qld, Time: Thu May 06 10:30:00 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501204a
Date: 05-May-2010
Time: 20:38:27
ID: WXX100504-08CRI
Vial: 1:1,C

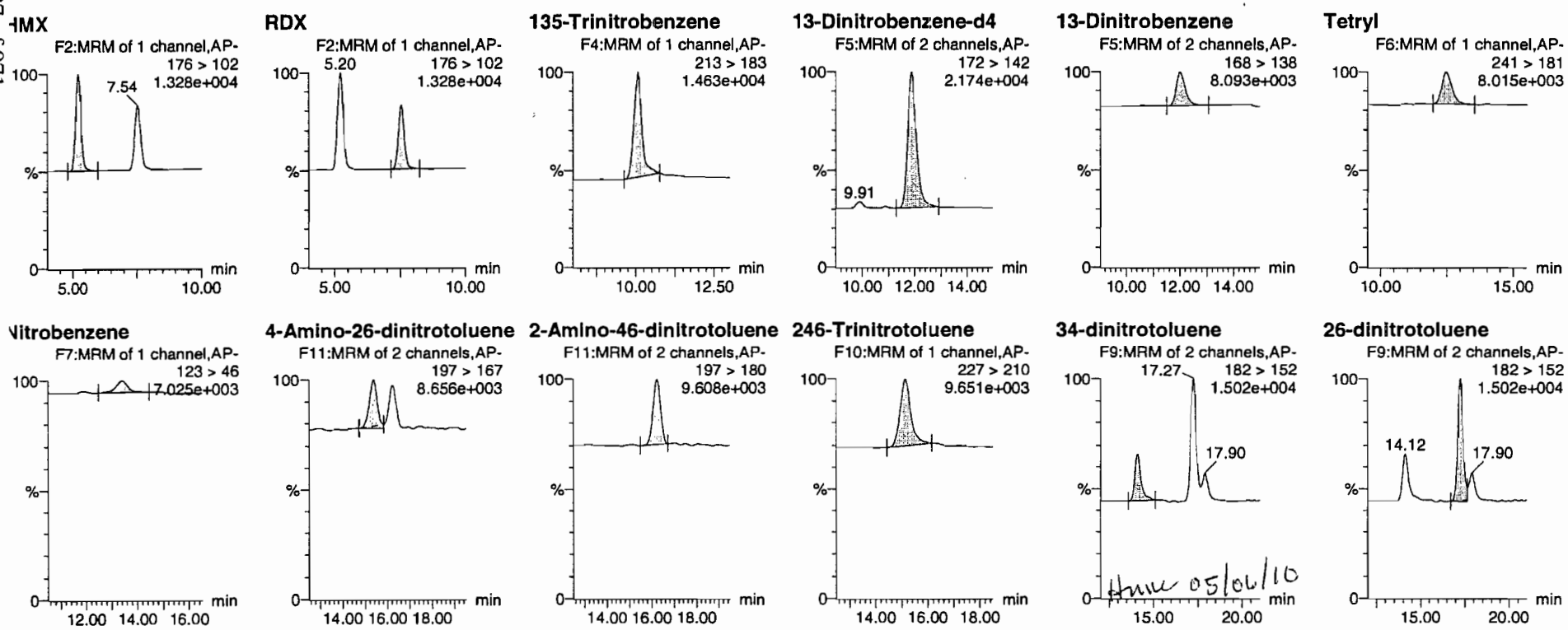

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA5.qld, Time: Thu May 06 10:30:00 2010

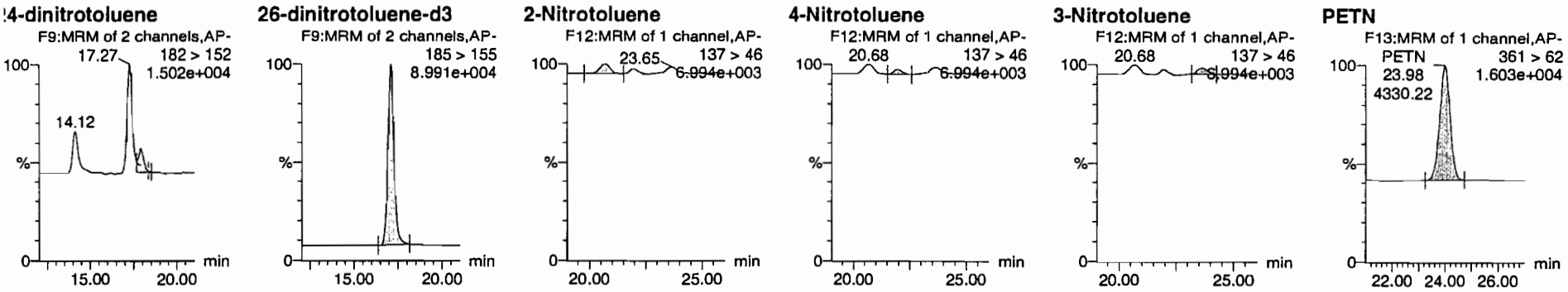

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100504-08CRI	HMX	176 > 102	5.20	1718.377	5809.236	1718.377	147.900	bb			34.9534	87.4	-12.6	165.6
WXX100504-08CRI	RDX	176 > 102	7.54	1178.818	5809.236	1178.818	101.461	bb			33.4926	83.7	-16.3	106.9
WXX100504-08CRI	135-Trinitrobenzene	213 > 183	10.07	2347.015	5809.236	2347.015	202.007	bb			42.5227	106.3	6.3	429.1
WXX100504-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	5809.236		5809.236	5809.236	bb			449.4148	89.9	-10.1	497.0
WXX100504-08CRI	13-Dinitrobenzene	168 > 138	12.00	562.811	5809.236	562.811	48.441	bb			37.8041	94.5	-5.5	93.4
WXX100504-08CRI	Tetryl	241 > 181	12.45	598.968	5809.236	598.968	51.553	bb			37.5875	94.0	-6.0	126.3
WXX100504-08CRI	Nitrobenzene	123 > 46	13.41	210.581	5809.236	210.581	18.125	bb			36.9618	92.4	-7.6	19.2
WXX100504-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.35	836.899	33754.223	836.899	12.397	MM	06-May-10	10:28:48	36.4302	91.1	-8.9	62.4
WXX100504-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.22	1138.469	33754.223	1138.469	16.864	bb			33.2045	83.0	-17.0	67.7
WXX100504-08CRI	246-Trinitrotoluene	227 > 210	15.14	1392.948	33754.223	1392.948	20.634	bb			40.8724	102.2	2.2	100.9
WXX100504-08CRI	34-dinitrotoluene	182 > 152	14.12	1354.367	33754.223	1354.367	20.062	bb			18.5895	92.9	-7.1	63.7
WXX100504-08CRI	26-dinitrotoluene	182 > 152	17.27	2995.649	33754.223	2995.649	44.374	MM	06-May-10	10:12:09	38.9507	97.4	-2.6	165.2
WXX100504-08CRI	24-dinitrotoluene	182 > 152	17.90	704.897	33754.223	704.897	10.442	MM	06-May-10	10:09:12	37.9380	94.8	-5.2	36.2
WXX100504-08CRI	26-dinitrotoluene-d3	185 > 155	17.09	33754.223		33754.223	33754.223	bb			455.9065	91.2	-8.8	1092.3
WXX100504-08CRI	2-Nitrotoluene	137 > 46	20.68	200.309	33754.223	200.309	2.967	bb			45.4115	113.5	13.5	21.5
WXX100504-08CRI	4-Nitrotoluene	137 > 46	21.94	81.822	33754.223	81.822	1.212	bb			34.2340	85.6	-14.4	10.9
WXX100504-08CRI	3-Nitrotoluene	137 > 46	23.65	98.894	33754.223	98.894	1.465	bb			33.8803	84.7	-15.3	12.6
WXX100504-08CRI	PETN	361 > 62	23.98	4330.221	33754.223	4330.221	64.143	bb			50.6833	126.7	26.7	623.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/05/10
Time of Injection	2038
Standard Number	WXX100504-08CRI
Data File	EXP0501204a

HMX		87.4
RDX		83.7
135-TNB		106.3
13-DNB		94.5
Tetryl		94.0
Nitrobenzene		92.4
4A-26-DNT		91.1
2A-46-DNT		83.0
246-TNT		102.2
34-DNT(surr)		92.9
26-DNT		97.4
24-DNT		94.8
2-NT		113.5
4-NT		85.6
3-NT		84.7
PETN		126.7
Total		1530.2
Average		95.6

MAT 5/6/10

HMM 05/06/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0501215a

Analysis Date: 06-MAY-10 02:02

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	604.44	101	
1,3-Dinitrobenzene-d4	500	442.576	89	
2,4,6-Trinitrotoluene	600	696.448	116	
2,4-Dinitrotoluene	600	573.534	96	
2,6-Dinitrotoluene	600	597.512	100	
2,6-Dinitrotoluene-d3	500	470.788	94	
2-Amino-4,6-dinitrotoluene	600	571.801	95	
3,4-Dinitrotoluene	300	279.566	93	
4-Amino-2,6-dinitrotoluene	600	564.372	94	
HMX	600	540.54	90	
Nitrobenzene	600	567.049	95	
PETN	600	669.043	112	
RDX	600	582.742	97	
Tetryl	600	665.775	111	
m-Dinitrobenzene	600	618.75	103	
m-Nitrotoluene	600	540.841	90	
o-Nitrotoluene	600	533.529	89	
p-Nitrotoluene	600	519.123	87	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA5.qld, Time: Thu May 06 10:30:00 2010

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Date: 06-May-2010
Time: 02:02:43
ID: WXX100504-07CCV
Vial: 1:1,B

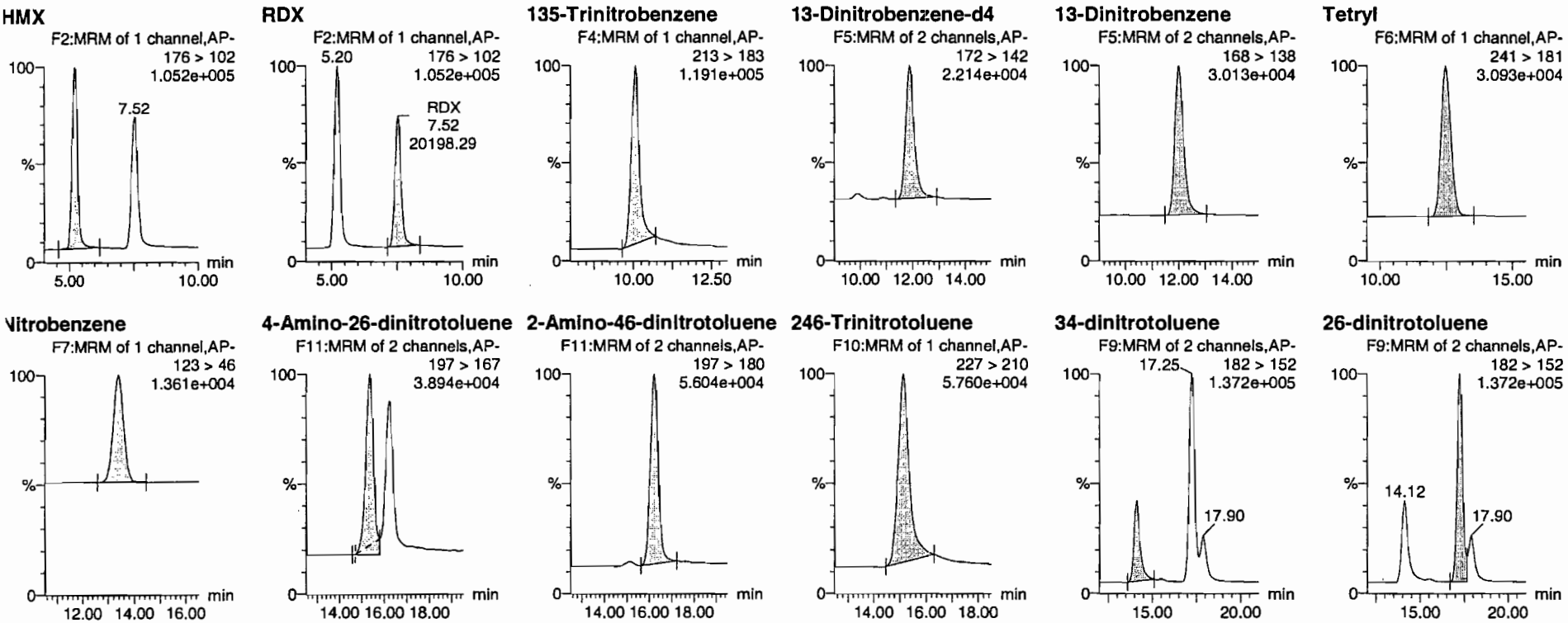

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA5.qld, Time: Thu May 06 10:30:00 2010

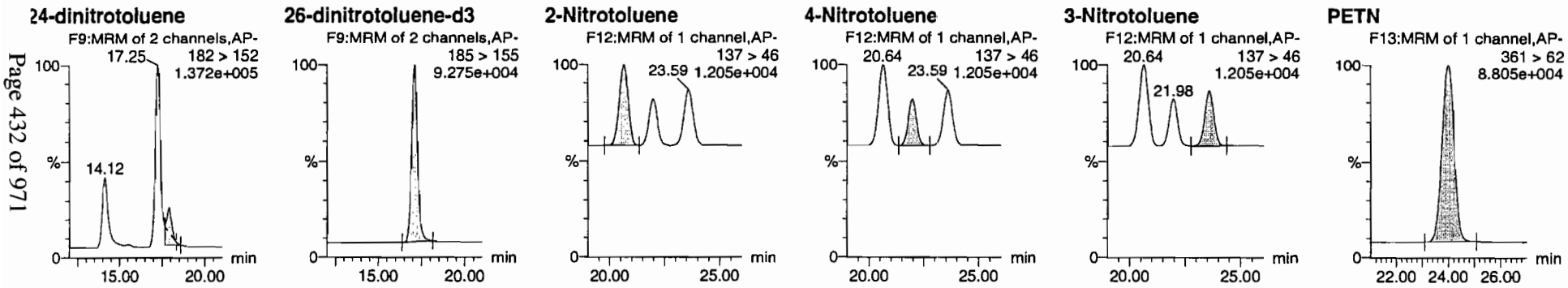

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100504-07CCV	HMX	176 > 102	5.20	26169.607	5720.839	26169.607	2287.218	bb			540.5400	90.1	-9.9	3473.8
WXX100504-07CCV	RDX	176 > 102	7.52	20198.293	5720.839	20198.293	1765.326	bb			582.7424	97.1	-2.9	2487.6
WXX100504-07CCV	135-Trinitrobenzene	213 > 183	10.07	32854.055	5720.839	32854.055	2871.437	bb			604.4405	100.7	0.7	1558.7
WXX100504-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	5720.839		5720.839	5720.839	bb			442.5762	88.5	-11.5	579.8
WXX100504-07CCV	13-Dinitrobenzene	168 > 138	12.00	9071.506	5720.839	9071.506	792.848	bb			618.7498	103.1	3.1	341.9
WXX100504-07CCV	Tetryl	241 > 181	12.45	10447.878	5720.839	10447.878	913.142	bb			665.7745	111.0	11.0	1293.4
WXX100504-07CCV	Nitrobenzene	123 > 46	13.41	3181.473	5720.839	3181.473	278.060	bb			567.0495	94.5	-5.5	336.0
WXX100504-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.35	13388.301	34855.980	13388.301	192.052	MM	06-May-10	10:25:51	564.3717	94.1	-5.9	530.9
WXX100504-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.22	20244.994	34855.980	20244.994	290.409	bb			571.8008	95.3	-4.7	581.1
WXX100504-07CCV	246-Trinitrotoluene	227 > 210	15.14	24509.934	34855.980	24509.934	351.589	bb			696.4480	116.1	16.1	1098.2
WXX100504-07CCV	34-dinitrotoluene	182 > 152	14.12	21033.080	34855.980	21033.080	301.714	bb			279.5659	93.2	-6.8	669.5
WXX100504-07CCV	26-dinitrotoluene	182 > 152	17.25	47453.887	34855.980	47453.887	680.714	MM	06-May-10	10:11:31	597.5117	99.6	-0.4	1728.1
WXX100504-07CCV	24-dinitrotoluene	182 > 152	17.90	11004.242	34855.980	11004.242	157.853	MM	06-May-10	10:10:09	573.5341	95.6	-4.4	367.3
WXX100504-07CCV	26-dinitrotoluene-d3	185 > 155	17.09	34855.980		34855.980	34855.980	bb			470.7875	94.2	-5.8	2087.7
WXX100504-07CCV	2-Nitrotoluene	137 > 46	20.64	2430.202	34855.980	2430.202	34.861	bb			533.5294	88.9	-11.1	772.8
WXX100504-07CCV	4-Nitrotoluene	137 > 46	21.98	1281.242	34855.980	1281.242	18.379	bb			519.1228	86.5	-13.5	439.0
WXX100504-07CCV	3-Nitrotoluene	137 > 46	23.59	1630.203	34855.980	1630.203	23.385	bb			540.8406	90.1	-9.9	523.1
WXX100504-07CCV	PETN	361 > 62	23.98	43546.973	34855.980	43546.973	624.670	bb			669.0433	111.5	11.5	602.5

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GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/06/10
Time of Injection: 0202
Standard Number: WXX100504-07CCV
Data File: EXP050215a

HMX		90.1
RDX		97.1
135-TNB		100.7
13-DNB		103.1
Tetryl		111.0
Nitrobenzene		94.5
4A-26-DNT		94.1
2A-46-DNT		95.3
246-TNT		116.1
34-DNT(surr)		93.2
26-DNT		99.6
24-DNT		95.6
2-NT		88.9
4-NT		86.5
3-NT		90.1
PETN		111.5
Total		1567.4
Average		98.0

MDT 5/6/10

HMW 05/06/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2937

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0501217a **Analysis Date:** 06–MAY–10 03:01

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	43.412	109	
1,3–Dinitrobenzene–d4	500	470.195	94	
2,4,6–Trinitrotoluene	40	41.722	104	
2,4–Dinitrotoluene	40	39.088	98	
2,6–Dinitrotoluene	40	37.21	93	
2,6–Dinitrotoluene–d3	500	481.628	96	
2–Amino–4,6–dinitrotoluene	40	35.123	88	
3,4–Dinitrotoluene	20	18.229	91	
4–Amino–2,6–dinitrotoluene	40	37.634	94	
HMX	40	37.944	95	
Nitrobenzene	40	41.546	104	
PETN	40	51.958	130	
RDX	40	35.977	90	
Tetryl	40	41.286	103	
m–Dinitrobenzene	40	37.293	93	
m–Nitrotoluene	40	39.082	98	
o–Nitrotoluene	40	37.331	93	
p–Nitrotoluene	40	39.694	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA5.qld, Time: Thu May 06 10:30:00 2010

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Time: 03:01:46
ID: WXX100504-08CRI
Vial: 1:1,C

MM 5/6/10

HMX

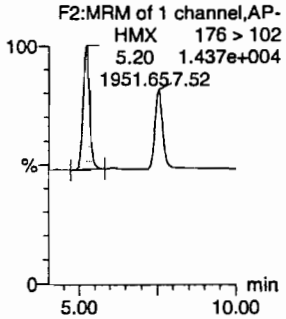

RDX

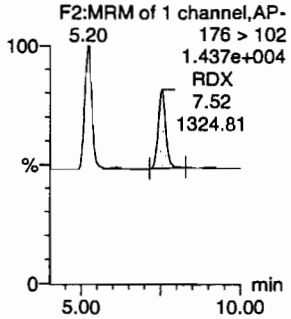

135-Trinitrobenzene

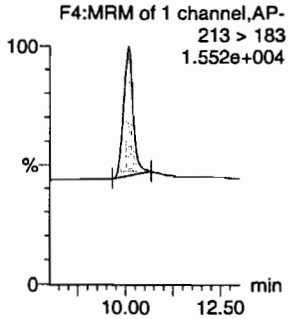

13-Dinitrobenzene-d4

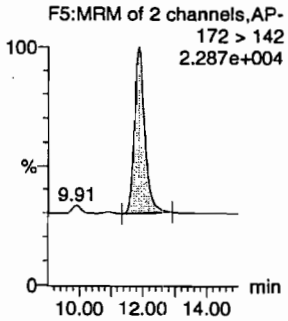

13-Dinitrobenzene

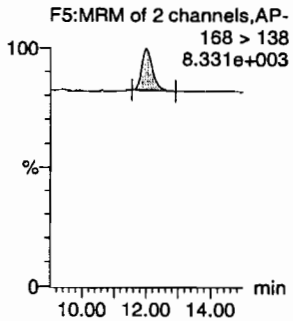

Tetryl

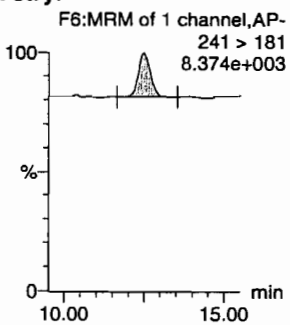

Nitrobenzene

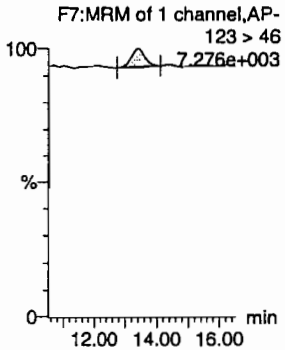

4-Amino-26-dinitrotoluene

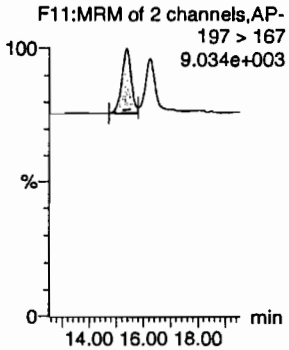

2-Amino-46-dinitrotoluene

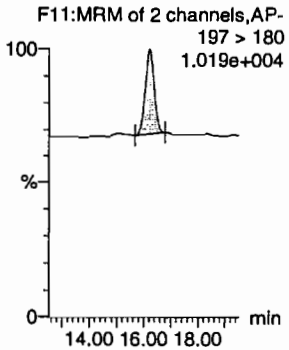

246-Trinitrotoluene

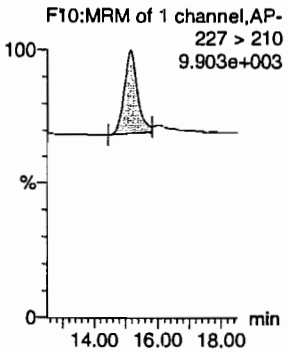

34-dinitrotoluene

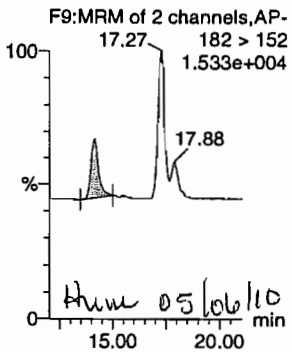

Hum 05/06/10

26-dinitrotoluene

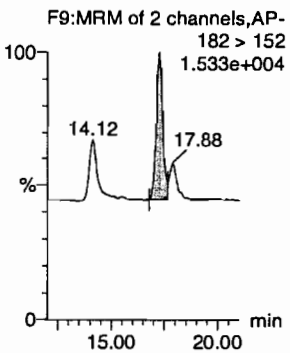

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA5.qld, Time: Thu May 06 10:30:00 2010

24-dinitrotoluene

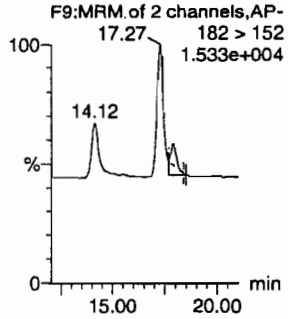

26-dinitrotoluene-d3

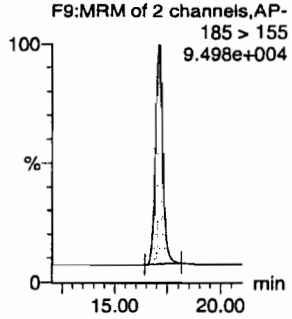

2-Nitrotoluene

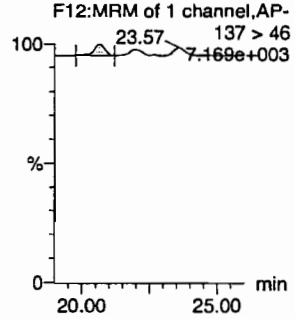

4-Nitrotoluene

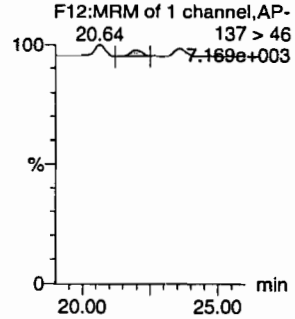

3-Nitrotoluene

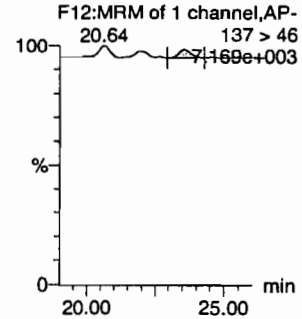

PETN

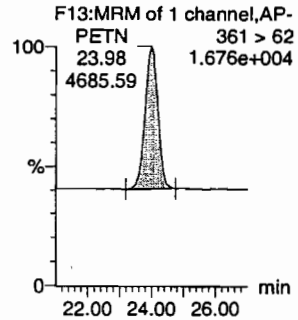

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100504-08CRI	HMX	176 > 102	5.20	1951.648	6077.851	1951.648	160.554	bb			37.9439	94.9	-5.1	366.3
WXX100504-08CRI	RDX	176 > 102	7.52	1324.810	6077.851	1324.810	108.987	bb			35.9770	89.9	-10.1	229.9
WXX100504-08CRI	135-Trinitrobenzene	213 > 183	10.07	2506.911	6077.851	2506.911	206.233	bb			43.4123	108.5	8.5	216.7
WXX100504-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6077.851		6077.851	6077.851	bb			470.1954	94.0	-6.0	765.7
WXX100504-08CRI	13-Dinitrobenzene	168 > 138	12.00	580.880	6077.851	580.880	47.787	bb			37.2934	93.2	-6.8	71.5
WXX100504-08CRI	Tetryl	241 > 181	12.45	688.319	6077.851	688.319	56.625	bb			41.2856	103.2	3.2	81.8
WXX100504-08CRI	Nitrobenzene	123 > 46	13.37	247.643	6077.851	247.643	20.373	bb			41.5459	103.9	3.9	18.3
WXX100504-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.35	913.330	35658.574	913.330	12.807	MM	06-May-10	10:25:43	37.6340	94.1	-5.9	53.5
WXX100504-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.22	1272.179	35658.574	1272.179	17.838	bb			35.1228	87.8	-12.2	90.4
WXX100504-08CRI	246-Trinitrotoluene	227 > 210	15.14	1502.104	35658.574	1502.104	21.062	bd			41.7215	104.3	4.3	139.9
WXX100504-08CRI	34-dinitrotoluene	182 > 152	14.12	1403.027	35658.574	1403.027	19.673	bb			18.2289	91.1	-8.9	65.1
WXX100504-08CRI	26-dinitrotoluene	182 > 152	17.27	3023.206	35658.574	3023.206	42.391	MM	06-May-10	10:11:24	37.2097	93.0	-7.0	160.1
WXX100504-08CRI	24-dinitrotoluene	182 > 152	17.88	767.248	35658.574	767.248	10.758	MM	06-May-10	10:10:17	39.0884	97.7	-2.3	37.8
WXX100504-08CRI	26-dinitrotoluene-d3	185 > 155	17.09	35658.574		35658.574	35658.574	bb			481.6279	96.3	-3.7	2266.7
WXX100504-08CRI	2-Nitrotoluene	137 > 46	20.64	173.956	35658.574	173.956	2.439	bb			37.3309	93.3	-6.7	25.5
WXX100504-08CRI	4-Nitrotoluene	137 > 46	21.95	100.224	35658.574	100.224	1.405	bb			39.6939	99.2	-0.8	13.7
WXX100504-08CRI	3-Nitrotoluene	137 > 46	23.57	120.512	35658.574	120.512	1.690	bb			39.0815	97.7	-2.3	17.5
WXX100504-08CRI	PETN	361 > 62	23.98	4685.589	35658.574	4685.589	65.701	bb			51.9584	129.9	29.9	397.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/06/10
Time of Injection	0301
Standard Number	WXX100504-08CRI
Data File	EXP0501217a

HMX	94.9
RDX	89.9
135-TNB	108.5
13-DNB	93.2
Tetryl	103.2
Nitrobenzene	103.9
4A-26-DNT	94.1
2A-46-DNT	87.8
246-TNT	104.3
34-DNT(surr)	91.1
26-DNT	93.0
24-DNT	97.7
2-NT	93.3
4-NT	99.2
3-NT	97.7
PETN	129.9
Total	1581.7
Average	98.9

HMM 05/06/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-2937

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0501228a **Analysis Date:** 06-MAY-10 08:26

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	597.701	100	
1,3-Dinitrobenzene-d4	500	502.132	100	
2,4,6-Trinitrotoluene	600	702.556	117	
2,4-Dinitrotoluene	600	544.134	91	
2,6-Dinitrotoluene	600	586.632	98	
2,6-Dinitrotoluene-d3	500	535.049	107	
2-Amino-4,6-dinitrotoluene	600	545.394	91	
3,4-Dinitrotoluene	300	282.619	94	
4-Amino-2,6-dinitrotoluene	600	560	93	
HMX	600	520.281	87	
Nitrobenzene	600	532.324	89	
PETN	600	583.47	97	
RDX	600	559.43	93	
Tetryl	600	662.07	110	
m-Dinitrobenzene	600	599.662	100	
m-Nitrotoluene	600	523.561	87	
o-Nitrotoluene	600	489.043	82	
p-Nitrotoluene	600	500.665	83	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA5.qld, Time: Thu May 06 10:30:00 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501228a
Date: 06-May-2010
Time: 08:26:05
ID: WXX100504-07CCV
Vial: 1:1,B

MM 5/6/10

HMX

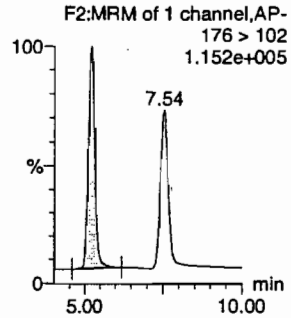

RDX

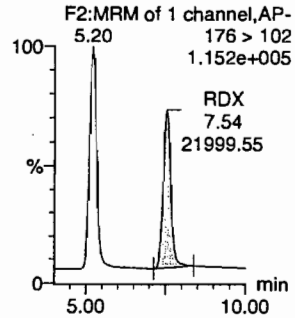

135-Trinitrobenzene

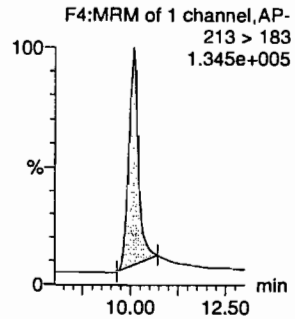

13-Dinitrobenzene-d4

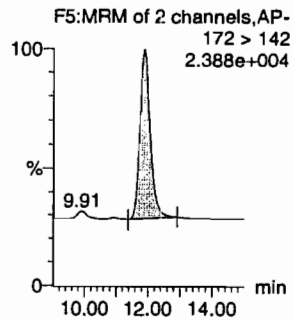

13-Dinitrobenzene

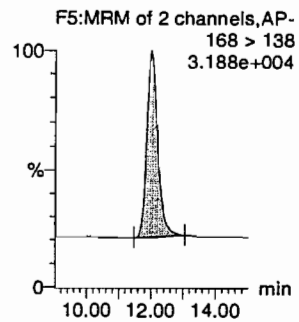

Tetryl

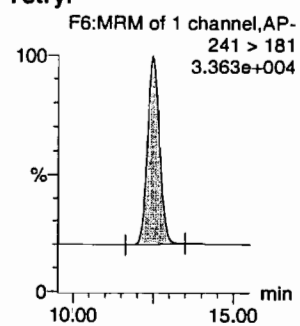

Nitrobenzene

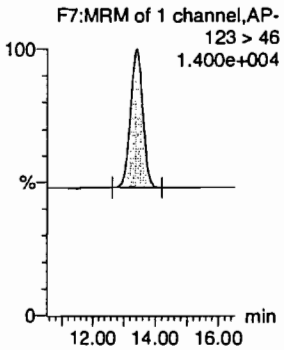

4-Amino-26-dinitrotoluene

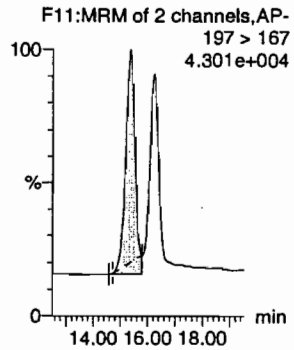

2-Amino-46-dinitrotoluene

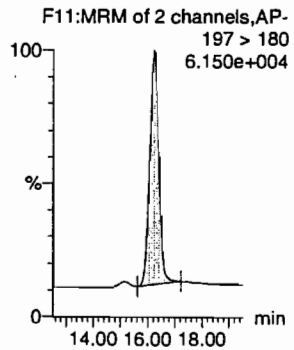

246-Trinitrotoluene

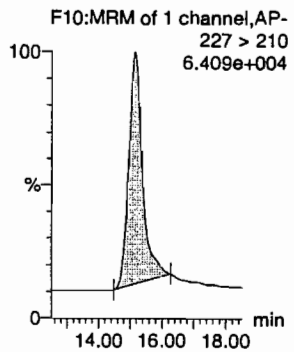

34-dinitrotoluene

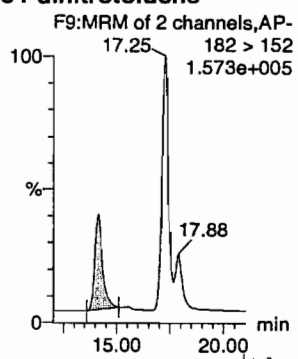

Hum 05/06/10

26-dinitrotoluene

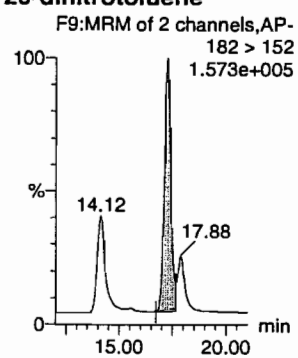

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA5.qld, Time: Thu May 06 10:30:00 2010

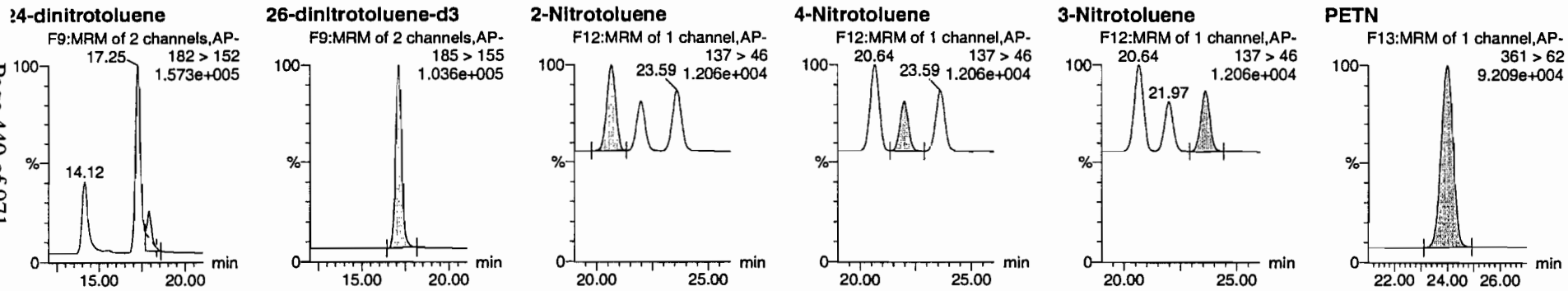

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100504-07CCV	HMX	176 > 102	5.20	28578.350	6490.672	28578.350	2201.494	bb			520.2809	86.7	-13.3	1163.3
WXX100504-07CCV	RDX	176 > 102	7.54	21999.549	6490.672	21999.549	1694.705	bb			559.4300	93.2	-6.8	828.7
WXX100504-07CCV	135-Trinitrobenzene	213 > 183	10.07	36859.516	6490.672	36859.516	2839.422	bb			597.7014	99.6	-0.4	1376.2
WXX100504-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	6490.672		6490.672	6490.672	bb			502.1321	100.4	0.4	944.0
WXX100504-07CCV	13-Dinitrobenzene	168 > 138	12.00	9974.727	6490.672	9974.727	768.389	bb			599.6623	99.9	-0.1	1397.6
WXX100504-07CCV	Tetryl	241 > 181	12.45	11787.853	6490.672	11787.853	908.061	bb			662.0699	110.3	10.3	1525.5
WXX100504-07CCV	Nitrobenzene	123 > 46	13.41	3388.546	6490.672	3388.546	261.032	bb			532.3241	88.7	-11.3	211.7
WXX100504-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.35	15097.916	39613.738	15097.916	190.564	MM	06-May-10	10:25:28	560.0002	93.3	-6.7	411.3
WXX100504-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.22	21945.828	39613.738	21945.828	276.998	bb			545.3942	90.9	-9.1	670.4
WXX100504-07CCV	246-Trinitrotoluene	227 > 210	15.14	28099.775	39613.738	28099.775	354.672	bb			702.5559	117.1	17.1	512.4
WXX100504-07CCV	34-dinitrotoluene	182 > 152	14.12	24165.107	39613.738	24165.107	305.009	bb			282.6191	94.2	-5.8	256.8
WXX100504-07CCV	26-dinitrotoluene	182 > 152	17.25	52949.273	39613.738	52949.273	668.320	MM	06-May-10	10:11:08	586.6324	97.8	-2.2	680.3
WXX100504-07CCV	24-dinitrotoluene	182 > 152	17.88	11865.205	39613.738	11865.205	149.761	MM	06-May-10	10:10:30	544.1340	90.7	-9.3	144.3
WXX100504-07CCV	26-dinitrotoluene-d3	185 > 155	17.09	39613.738		39613.738	39613.738	bb			535.0489	107.0	7.0	2631.4
WXX100504-07CCV	2-Nitrotoluene	137 > 46	20.64	2531.627	39613.738	2531.627	31.954	bb			489.0431	81.5	-18.5	259.1
WXX100504-07CCV	4-Nitrotoluene	137 > 46	21.97	1404.355	39613.738	1404.355	17.726	bb			500.6651	83.4	-16.6	151.5
WXX100504-07CCV	3-Nitrotoluene	137 > 46	23.59	1793.527	39613.738	1793.527	22.638	bb			523.5606	87.3	-12.7	184.7
WXX100504-07CCV	PETN	361 > 62	23.99	45188.039	39613.738	45188.039	570.358	bb			583.4697	97.2	-2.8	485.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/06/10
Time of Injection: 0826
Standard Number: WXX100504-07CCV
Data File: EXP050228a

HMX	86.7
RDX	93.2
135-TNB	99.6
13-DNB	99.9
Tetryl	110.3
Nitrobenzene	88.7
4A-26-DNT	93.3
2A-46-DNT	90.9
246-TNT	117.1
34-DNT(surr)	94.2
26-DNT	97.8
24-DNT	90.7
2-NT	81.5
4-NT	83.4
3-NT	87.3
PETN	97.2
Total	1511.8
Average	94.5

MAT 5/6/10

Hmm 05/06/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0501230a

Analysis Date: 06-MAY-10 09:25

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	45.369	113	
1,3-Dinitrobenzene-d4	500	480.29	96	
2,4,6-Trinitrotoluene	40	42.172	105	
2,4-Dinitrotoluene	40	40.841	102	
2,6-Dinitrotoluene	40	38.318	96	
2,6-Dinitrotoluene-d3	500	516.531	103	
2-Amino-4,6-dinitrotoluene	40	37.03	93	
3,4-Dinitrotoluene	20	19.89	99	
4-Amino-2,6-dinitrotoluene	40	37.359	93	
HMX	40	39.442	99	
Nitrobenzene	40	42.004	105	
PETN	40	52.425	131	*
RDX	40	36.354	91	
Tetryl	40	41.945	105	
m-Dinitrobenzene	40	37.714	94	
m-Nitrotoluene	40	36.491	91	
o-Nitrotoluene	40	34.409	86	
p-Nitrotoluene	40	36.352	91	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA5.qld, Time: Thu May 06 10:30:00 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501230a
Date: 06-May-2010
Time: 09:25:08
ID: WXX100504-08CRI
Vial: 1:1,C

MMT 5/6/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.20 1.477e+004
2072.28 7.52

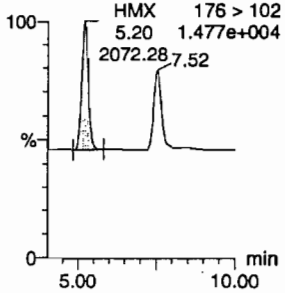

RDX
F2:MRM of 1 channel,AP-
5.20 176 > 102
1.477e+004
RDX
7.52
1367.44

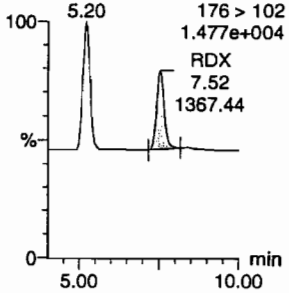

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.567e+004

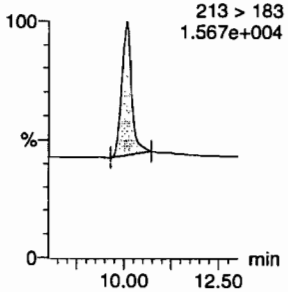

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.385e+004

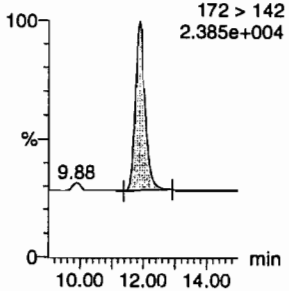

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
8.272e+003

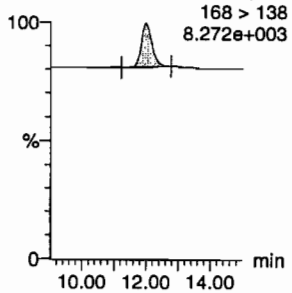

Tetryl
F6:MRM of 1 channel,AP-
Tetryl 241 > 181
12.45 8.321e+003
714.33

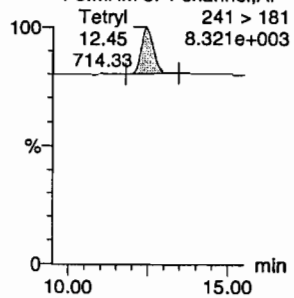

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
7.154e+003

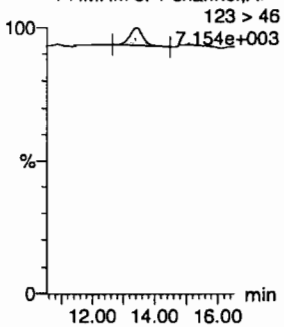

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
8.945e+003

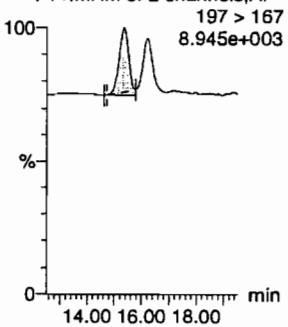

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
1.038e+004

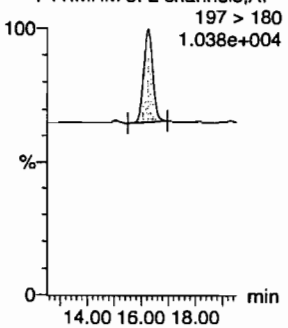

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
1.007e+004

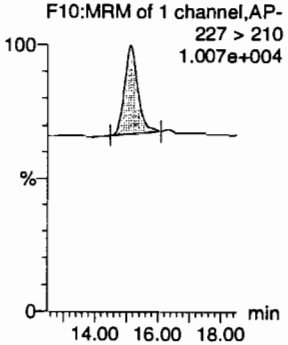

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.25 182 > 152
1.608e+004
17.88

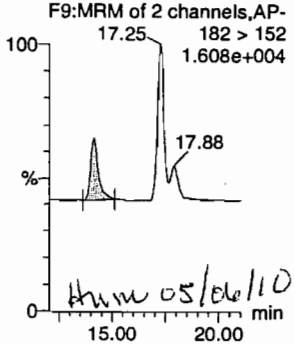

MMT 05/06/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.608e+004
14.12
17.88

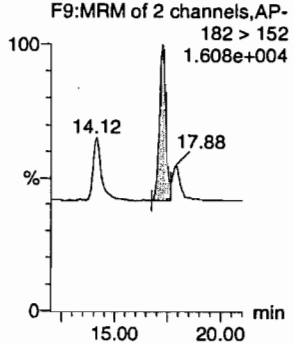

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA5.qld, Time: Thu May 06 10:30:00 2010

24-dinitrotoluene

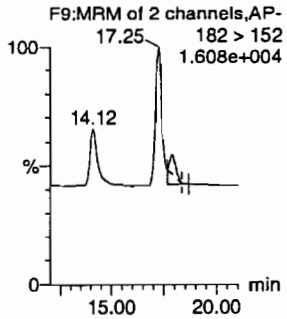

26-dinitrotoluene-d3

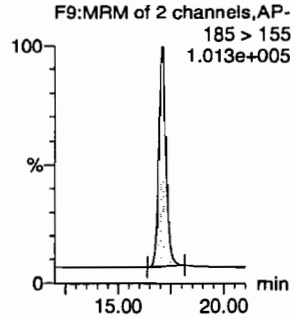

2-Nitrotoluene

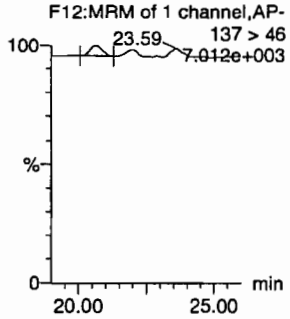

4-Nitrotoluene

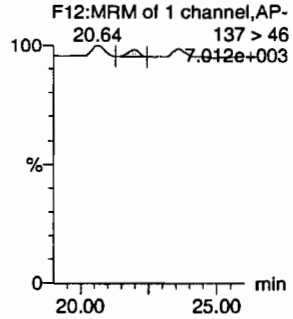

3-Nitrotoluene

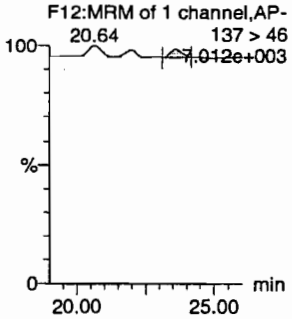

PETN

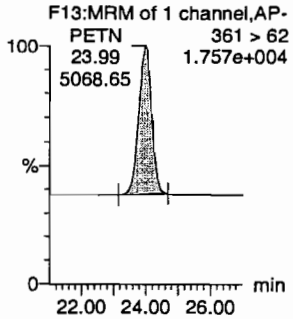

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100504-08CRI	HMX	176 > 102	5.20	2072.276	6208.335	2072.276	166.895	bb			39.4424	98.6	-1.4	236.7
WXX100504-08CRI	RDX	176 > 102	7.52	1367.438	6208.335	1367.438	110.129	bb			36.3542	90.9	-9.1	143.5
WXX100504-08CRI	135-Trinitrobenzene	213 > 183	10.07	2676.157	6208.335	2676.157	215.529	bb			45.3692	113.4	13.4	384.8
WXX100504-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6208.335		6208.335	6208.335	bb			480.2899	96.1	-3.9	715.2
WXX100504-08CRI	13-Dinitrobenzene	168 > 138	11.97	600.045	6208.335	600.045	48.326	bb			37.7141	94.3	-5.7	54.8
WXX100504-08CRI	Tetryl	241 > 181	12.45	714.332	6208.335	714.332	57.530	bb			41.9453	104.9	4.9	101.3
WXX100504-08CRI	Nitrobenzene	123 > 46	13.37	255.747	6208.335	255.747	20.597	bb			42.0037	105.0	5.0	16.9
WXX100504-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.35	972.361	38242.707	972.361	12.713	MM	06-May-10	10:25:18	37.3591	93.4	-6.6	43.6
WXX100504-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.22	1438.469	38242.707	1438.469	18.807	bb			37.0302	92.6	-7.4	53.3
WXX100504-08CRI	246-Trinitrotoluene	227 > 210	15.14	1628.364	38242.707	1628.364	21.290	bb			42.1722	105.4	5.4	127.3
WXX100504-08CRI	34-dinitrotoluene	182 > 152	14.12	1641.793	38242.707	1641.793	21.465	bb			19.8897	99.4	-0.6	93.5
WXX100504-08CRI	26-dinitrotoluene	182 > 152	17.25	3338.864	38242.707	3338.864	43.654	MM	06-May-10	10:11:02	38.3179	95.8	-4.2	230.4
WXX100504-08CRI	24-dinitrotoluene	182 > 152	17.88	859.751	38242.707	859.751	11.241	MM	06-May-10	10:10:43	40.8414	102.1	2.1	50.3
WXX100504-08CRI	26-dinitrotoluene-d3	185 > 155	17.09	38242.707		38242.707	38242.707	bb			516.5308	103.3	3.3	3007.8
WXX100504-08CRI	2-Nitrotoluene	137 > 46	20.64	171.958	38242.707	171.958	2.248	bb			34.4086	86.0	-14.0	23.2
WXX100504-08CRI	4-Nitrotoluene	137 > 46	21.98	98.438	38242.707	98.438	1.287	bb			36.3522	90.9	-9.1	14.9
WXX100504-08CRI	3-Nitrotoluene	137 > 46	23.59	120.679	38242.707	120.679	1.578	bb			36.4912	91.2	-8.8	17.5
WXX100504-08CRI	PETN	361 > 62	23.99	5068.655	38242.707	5068.655	66.270	bb			52.4245	131.1	31.1	593.7

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/06/10
Time of Injection	0925
Standard Number	WXX100504-08CRI
Data File	EXP0501230a

HMX	98.6
RDX	90.9
135-TNB	113.4
13-DNB	94.3
Tetryl	104.9
Nitrobenzene	105.0
4A-26-DNT	93.4
2A-46-DNT	92.6
246-TNT	105.4
34-DNT(surr)	99.4
26-DNT	95.8
24-DNT	102.1
2-NT	86.0
4-NT	90.9
3-NT	91.2
PETN	131.1
Total	1595.0
Average	99.7

MJT 5/6/10

Hmm 05/06/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-2937

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0501233a **Analysis Date:** 06-MAY-10 10:53

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	618.884	103	
1,3-Dinitrobenzene-d4	500	475.17	95	
2,4,6-Trinitrotoluene	600	668.957	111	
2,4-Dinitrotoluene	600	609.052	102	
2,6-Dinitrotoluene	600	594.646	99	
2,6-Dinitrotoluene-d3	500	503.718	101	
2-Amino-4,6-dinitrotoluene	600	600.78	100	
3,4-Dinitrotoluene	300	275.357	92	
4-Amino-2,6-dinitrotoluene	600	569.604	95	
HMX	600	630.896	105	
Nitrobenzene	600	606.024	101	
PETN	600	665.519	111	
RDX	600	594.78	99	
Tetryl	600	662.45	110	
m-Dinitrobenzene	600	592.837	99	
m-Nitrotoluene	600	555.627	93	
o-Nitrotoluene	600	536.503	89	
p-Nitrotoluene	600	550.073	92	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA6.qld, Time: Thu May 06 12:25:42 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501233a
Date: 06-May-2010
Time: 10:53:44
ID: WXX100504-07CCV
Vial: 1:1,B

MM 5/6/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.307e+005

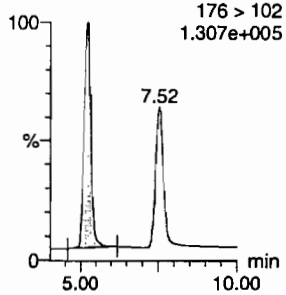

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.307e+005

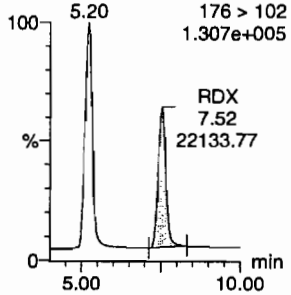

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.310e+005

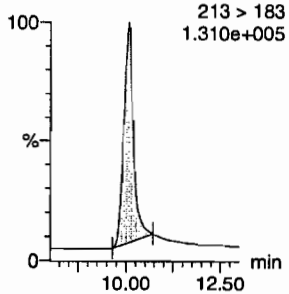

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.286e+004

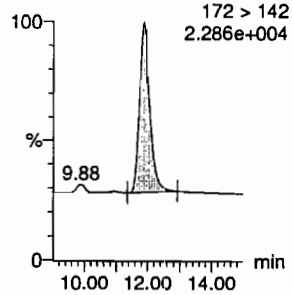

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
3.021e+004

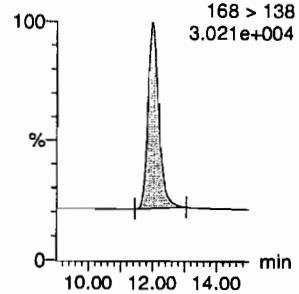

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
3.211e+004

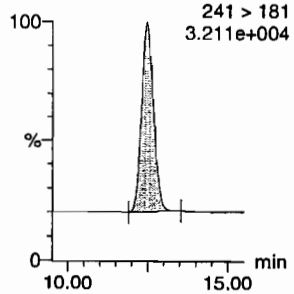

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.408e+004

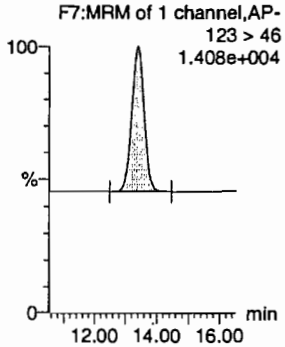

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
4.111e+004

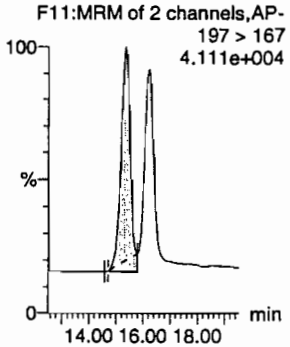

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.240e+004

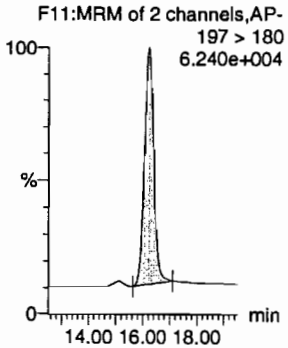

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.873e+004

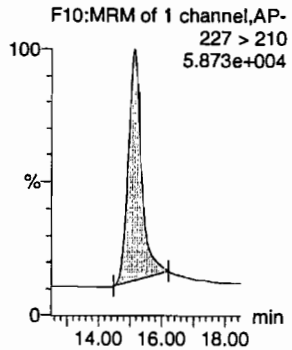

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.489e+005

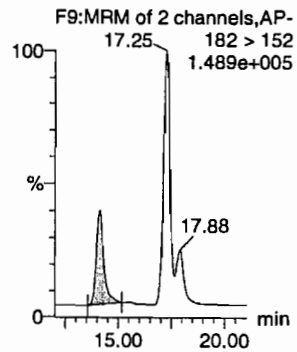

Thu 05/06/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.489e+005

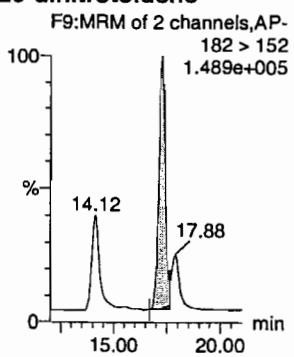

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA6.qld, Time: Thu May 06 12:25:42 2010

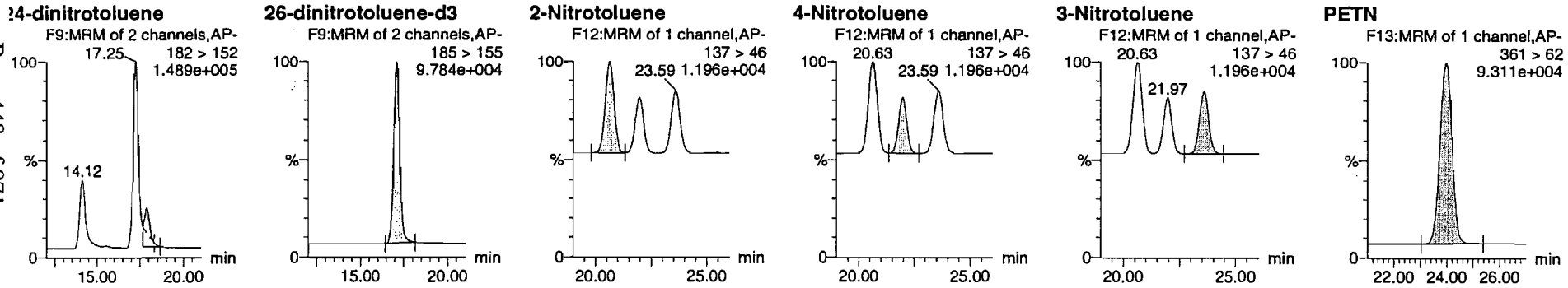

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100504-07CCV	HMX	176 > 102	5.20	32793.477	6142.148	32793.477	2669.545	bb			630.8957	105.1	5.1	2163.9
WXX100504-07CCV	RDX	176 > 102	7.52	22133.768	6142.148	22133.768	1801.794	bb			594.7805	99.1	-0.9	1343.7
WXX100504-07CCV	135-Trinitrobenzene	213 > 183	10.07	36116.445	6142.148	36116.445	2940.050	bb			618.8837	103.1	3.1	1306.9
WXX100504-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	6142.148		6142.148	6142.148	bb			475.1696	95.0	-5.0	700.8
WXX100504-07CCV	13-Dinitrobenzene	168 > 138	11.97	9331.691	6142.148	9331.691	759.644	bb			592.8373	98.8	-1.2	616.1
WXX100504-07CCV	Tetryl	241 > 181	12.45	11161.288	6142.148	11161.288	908.582	bb			662.4496	110.4	10.4	2167.8
WXX100504-07CCV	Nitrobenzene	123 > 46	13.41	3650.546	6142.148	3650.546	297.172	bb			606.0242	101.0	1.0	282.4
WXX100504-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.35	14457.590	37294.078	14457.590	193.832	MM	06-May-10	12:25:34	569.6040	94.9	-5.1	331.1
WXX100504-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.22	22758.900	37294.078	22758.900	305.128	bb			600.7804	100.1	0.1	1061.7
WXX100504-07CCV	246-Trinitrotoluene	227 > 210	15.14	25189.207	37294.078	25189.207	337.711	bb			668.9574	111.5	11.5	943.2
WXX100504-07CCV	34-dinitrotoluene	182 > 152	14.12	22165.482	37294.078	22165.482	297.172	bb			275.3569	91.8	-8.2	414.6
WXX100504-07CCV	26-dinitrotoluene	182 > 152	17.25	50529.672	37294.078	50529.672	677.449	MM	06-May-10	12:25:22	594.6460	99.1	-0.9	1116.7
WXX100504-07CCV	24-dinitrotoluene	182 > 152	17.88	12503.109	37294.078	12503.109	167.629	MM	06-May-10	12:24:55	609.0523	101.5	1.5	236.2
WXX100504-07CCV	26-dinitrotoluene-d3	185 > 155	17.09	37294.078		37294.078	37294.078	bb			503.7180	100.7	0.7	4364.2
WXX100504-07CCV	2-Nitrotoluene	137 > 46	20.63	2614.679	37294.078	2614.679	35.055	bb			536.5025	89.4	-10.6	291.1
WXX100504-07CCV	4-Nitrotoluene	137 > 46	21.97	1452.594	37294.078	1452.594	19.475	bb			550.0733	91.7	-8.3	175.4
WXX100504-07CCV	3-Nitrotoluene	137 > 46	23.59	1791.919	37294.078	1791.919	24.024	bb			555.6271	92.6	-7.4	198.4
WXX100504-07CCV	PETN	361 > 62	23.98	46437.145	37294.078	46437.145	622.581	bb			665.5189	110.9	10.9	3279.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/06/10
Time of Injection: 1053
Standard Number: WXX100504-07CCV
Data File: EXP050233a

HMX	105.1
RDX	99.1
135-TNB	103.1
13-DNB	98.8
Tetryl	110.4
Nitrobenzene	101.0
4A-26-DNT	94.9
2A-46-DNT	100.1
246-TNT	111.5
34-DNT(surr)	91.8
26-DNT	99.1
24-DNT	101.5
2-NT	89.4
4-NT	91.7
3-NT	92.6
PETN	110.9
Total	1601.0
Average	100.1

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2937

Lab Code: GEI **GEL Sample ID:** WXXCRI

GEL Data File EXP0501235a **Analysis Date:** 06–MAY–10 11:52

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	46.101	115	
1,3–Dinitrobenzene–d4	500	493.035	99	
2,4,6–Trinitrotoluene	40	40.699	102	
2,4–Dinitrotoluene	40	34.995	87	
2,6–Dinitrotoluene	40	38.834	97	
2,6–Dinitrotoluene–d3	500	498.834	100	
2–Amino–4,6–dinitrotoluene	40	34.937	87	
3,4–Dinitrotoluene	20	18.625	93	
4–Amino–2,6–dinitrotoluene	40	42.048	105	
HMX	40	39.167	98	
Nitrobenzene	40	43.128	108	
PETN	40	50.522	126	
RDX	40	38.951	97	
Tetryl	40	39.433	99	
m–Dinitrobenzene	40	44.508	111	
m–Nitrotoluene	40	42.486	106	
o–Nitrotoluene	40	40.257	101	
p–Nitrotoluene	40	34.541	86	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA6.qld, Time: Thu May 06 12:25:42 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501235a
Date: 06-May-2010
Time: 11:52:47
ID: WXX100504-08CRI
Vial: 1:1,C

MM 5/6/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.20 1.458e+004
2112.42 7.52

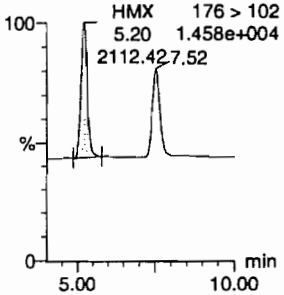

RDX
F2:MRM of 1 channel,AP-
5.20 176 > 102
1.458e+004
RDX
7.52
1503.99

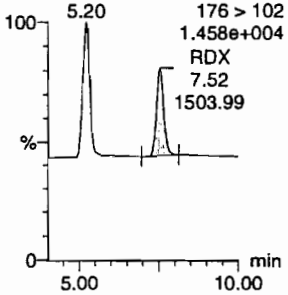

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.555e+004

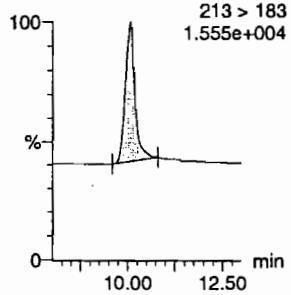

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.304e+004

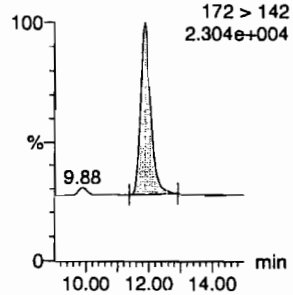

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
8.078e+003

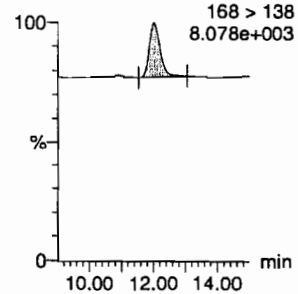

Tetryl
F6:MRM of 1 channel,AP-
Tetryl 241 > 181
12.45 7.826e+003
689.37

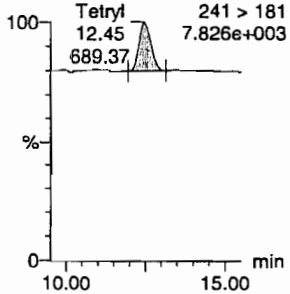

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.845e+003

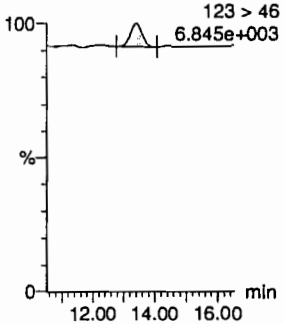

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
8.619e+003

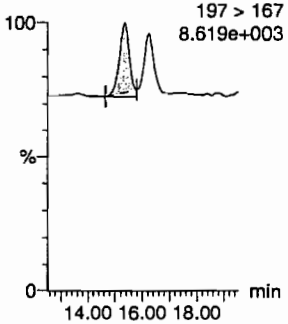

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
9.687e+003

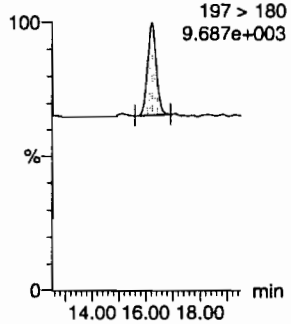

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
9.561e+003

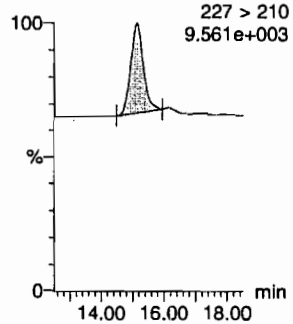

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.531e+004
17.25
17.88

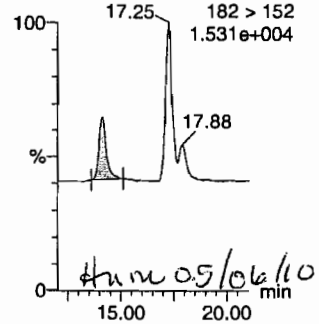

Hum 05/06/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.531e+004
14.12
17.88

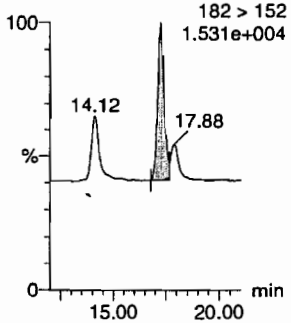

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA6.qld, Time: Thu May 06 12:25:42 2010

24-dinitrotoluene

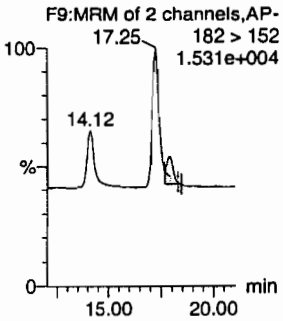

26-dinitrotoluene-d3

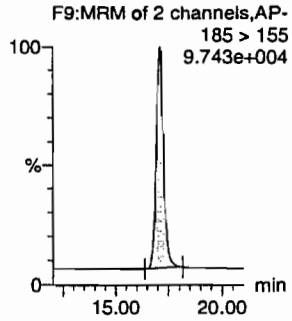

2-Nitrotoluene

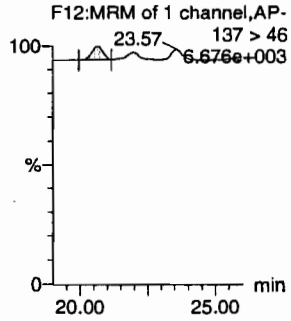

4-Nitrotoluene

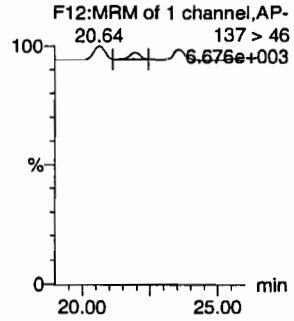

3-Nitrotoluene

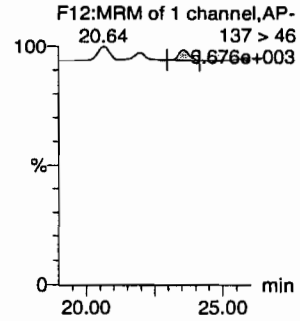

PETN

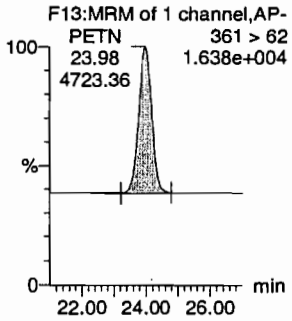

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100504-08CRI	HMX	176 > 102	5.20	2112.424	6373.083	2112.424	165.730	bb			39.1671	97.9	-2.1	266.3
WXX100504-08CRI	RDX	176 > 102	7.52	1503.991	6373.083	1503.991	117.996	bb			38.9509	97.4	-2.6	174.2
WXX100504-08CRI	135-Trinitrobenzene	213 > 183	10.07	2791.472	6373.083	2791.472	219.005	bb			46.1008	115.3	15.3	393.8
WXX100504-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6373.083		6373.083	6373.083	bb			493.0352	98.6	-1.4	1543.1
WXX100504-08CRI	13-Dinitrobenzene	168 > 138	12.00	726.924	6373.083	726.924	57.031	bb			44.5077	111.3	11.3	167.1
WXX100504-08CRI	Tetryl	241 > 181	12.45	689.371	6373.083	689.371	54.085	bb			39.4332	98.6	-1.4	128.9
WXX100504-08CRI	Nitrobenzene	123 > 46	13.41	269.558	6373.083	269.558	21.148	bb			43.1276	107.8	7.8	56.0
WXX100504-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.35	1056.902	36932.441	1056.902	14.309	MM	06-May-10	12:25:42	42.0478	105.1	5.1	59.9
WXX100504-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.22	1310.638	36932.441	1310.638	17.744	bb			34.9365	87.3	-12.7	120.6
WXX100504-08CRI	246-Trinitrotoluene	227 > 210	15.14	1517.646	36932.441	1517.646	20.546	bb			40.6992	101.7	1.7	220.9
WXX100504-08CRI	34-dinitrotoluene	182 > 152	14.12	1484.757	36932.441	1484.757	20.101	bb			18.6254	93.1	-6.9	122.0
WXX100504-08CRI	26-dinitrotoluene	182 > 152	17.25	3267.906	36932.441	3267.906	44.242	MM	06-May-10	12:25:14	38.8341	97.1	-2.9	300.6
WXX100504-08CRI	24-dinitrotoluene	182 > 152	17.88	711.447	36932.441	711.447	9.632	MM	06-May-10	12:25:05	34.9954	87.5	-12.5	61.7
WXX100504-08CRI	26-dinitrotoluene-d3	185 > 155	17.09	36932.441		36932.441	36932.441	bb			498.8335	99.8	-0.2	4085.8
WXX100504-08CRI	2-Nitrotoluene	137 > 46	20.64	194.292	36932.441	194.292	2.630	bb			40.2569	100.6	0.6	33.3
WXX100504-08CRI	4-Nitrotoluene	137 > 46	21.97	90.328	36932.441	90.328	1.223	bb			34.5407	86.4	-13.6	16.0
WXX100504-08CRI	3-Nitrotoluene	137 > 46	23.57	135.690	36932.441	135.690	1.837	bb			42.4859	106.2	6.2	24.9
WXX100504-08CRI	PETN	361 > 62	23.98	4723.357	36932.441	4723.357	63.946	bb			50.5217	126.3	26.3	610.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/06/10
Time of Injection	1152
Standard Number	WXX100504-08CRI
Data File	EXP0501235a

HMX	97.9
RDX	97.4
135-TNB	115.3
13-DNB	111.3
Tetryl	98.6
Nitrobenzene	107.8
4A-26-DNT	105.1
2A-46-DNT	87.3
246-TNT	101.7
34-DNT(surr)	93.1
26-DNT	97.1
24-DNT	87.5
2-NT	100.6
4-NT	86.4
3-NT	106.2
PETN	126.3
Total	1619.6
Average	101.2

MAP 5/6/10

Hmk 05/06/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0501246a

Analysis Date: 06-MAY-10 17:17

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	614.545	102	
1,3-Dinitrobenzene-d4	500	441.715	88	
2,4,6-Trinitrotoluene	600	690.189	115	
2,4-Dinitrotoluene	600	537.765	90	
2,6-Dinitrotoluene	600	606.953	101	
2,6-Dinitrotoluene-d3	500	474.753	95	
2-Amino-4,6-dinitrotoluene	600	573.7	96	
3,4-Dinitrotoluene	300	284.381	95	
4-Amino-2,6-dinitrotoluene	600	580.9	97	
HMX	600	565.264	94	
Nitrobenzene	600	574.339	96	
PETN	600	647.206	108	
RDX	600	600.027	100	
Tetryl	600	652.641	109	
m-Dinitrobenzene	600	615.734	103	
m-Nitrotoluene	600	540.616	90	
o-Nitrotoluene	600	527.595	88	
p-Nitrotoluene	600	509.705	85	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501246a
Date: 06-May-2010
Time: 17:17:10
ID: WXX100504-07CCV
Vial: 1:1,B

MM 5/7/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.092e+005

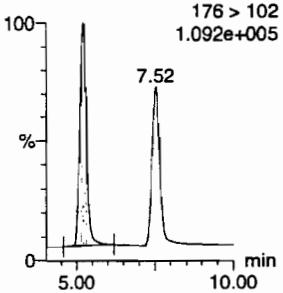

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.092e+005

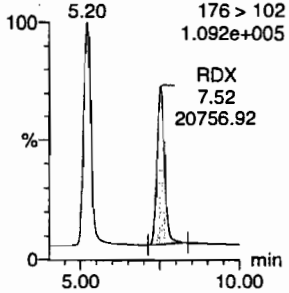

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.197e+005

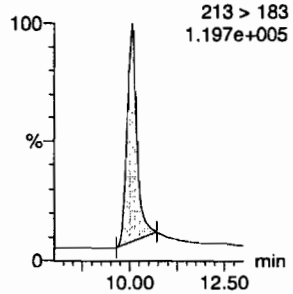

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.130e+004

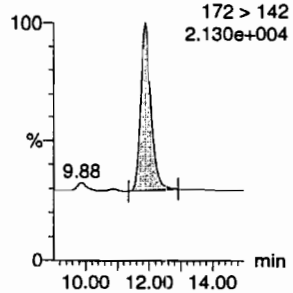

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.893e+004

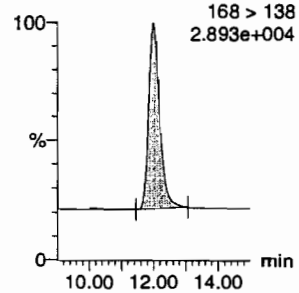

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
2.970e+004

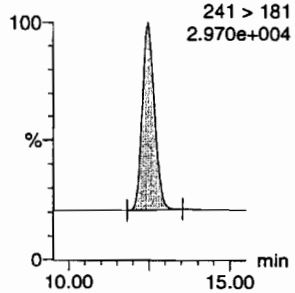

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.305e+004

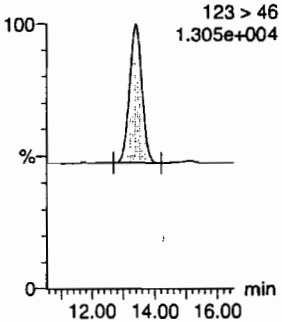

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
3.949e+004

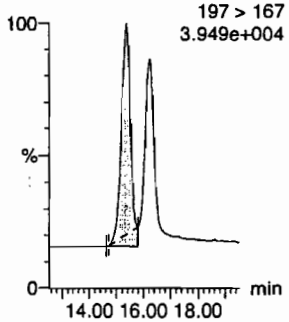

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.646e+004

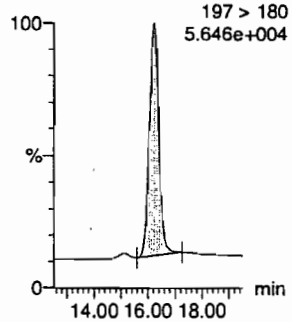

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.647e+004

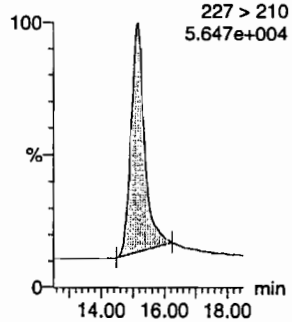

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.394e+005

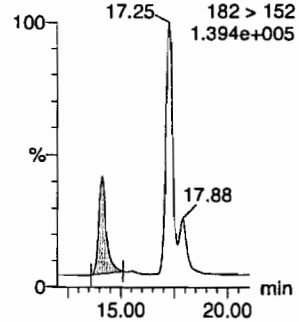

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.394e+005

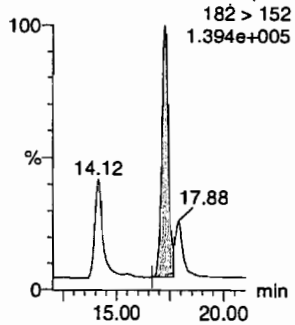

HMM 05/07/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

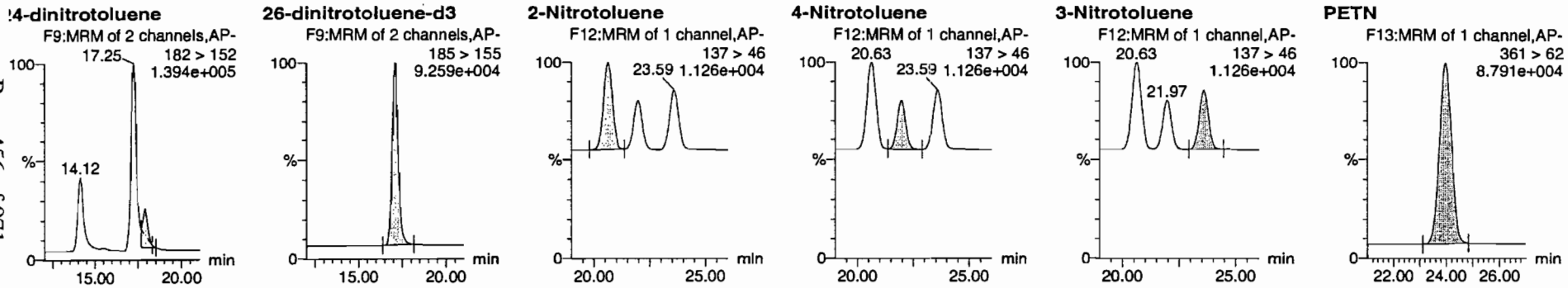

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100504-07CCV	HMX	176 > 102	5.20	27313.316	5709.705	27313.316	2391.833	bb			565.2637	94.2	-5.8	2287.8
WXX100504-07CCV	RDX	176 > 102	7.52	20756.920	5709.705	20756.920	1817.688	bb			600.0271	100.0	0.0	1624.6
WXX100504-07CCV	135-Trinitrobenzene	213 > 183	10.07	33338.266	5709.705	33338.266	2919.439	bb			614.5449	102.4	2.4	1520.8
WXX100504-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	5709.705		5709.705	5709.705	bb			441.7149	88.3	-11.7	313.0
WXX100504-07CCV	13-Dinitrobenzene	168 > 138	11.97	9009.718	5709.705	9009.718	788.983	bb			615.7337	102.6	2.6	856.6
WXX100504-07CCV	Tetryl	241 > 181	12.45	10221.848	5709.705	10221.848	895.129	bb			652.6413	108.8	8.8	1743.6
WXX100504-07CCV	Nitrobenzene	123 > 46	13.37	3216.099	5709.705	3216.099	281.634	bb			574.3388	95.7	-4.3	126.5
WXX100504-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.35	13896.471	35149.578	13896.471	197.676	MM	07-May-10	10:43:45	580.9001	96.8	-3.2	682.5
WXX100504-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.22	20483.322	35149.578	20483.322	291.374	bb			573.6997	95.6	-4.4	526.8
WXX100504-07CCV	246-Trinitrotoluene	227 > 210	15.14	24494.264	35149.578	24494.264	348.429	bb			690.1891	115.0	15.0	364.3
WXX100504-07CCV	34-dinitrotoluene	182 > 152	14.12	21575.520	35149.578	21575.520	306.910	bb			284.3805	94.8	-5.2	511.2
WXX100504-07CCV	26-dinitrotoluene	182 > 152	17.25	48609.777	35149.578	48609.777	691.470	MM	07-May-10	11:01:31	606.9535	101.2	1.2	1314.0
WXX100504-07CCV	24-dinitrotoluene	182 > 152	17.88	10404.857	35149.578	10404.857	148.008	MM	07-May-10	11:12:34	537.7649	89.6	-10.4	273.5
WXX100504-07CCV	26-dinitrotoluene-d3	185 > 155	17.09	35149.578		35149.578	35149.578	bb			474.7530	95.0	-5.0	2110.5
WXX100504-07CCV	2-Nitrotoluene	137 > 46	20.63	2423.413	35149.578	2423.413	34.473	bb			527.5949	87.9	-12.1	563.6
WXX100504-07CCV	4-Nitrotoluene	137 > 46	21.97	1268.595	35149.578	1268.595	18.046	bb			509.7052	85.0	-15.0	317.8
WXX100504-07CCV	3-Nitrotoluene	137 > 46	23.59	1643.252	35149.578	1643.252	23.375	bb			540.6161	90.1	-9.9	386.8
WXX100504-07CCV	PETN	361 > 62	23.97	42989.344	35149.578	42989.344	611.520	bb			647.2055	107.9	7.9	1022.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/06/10
Time of Injection: 1717
Standard Number: WXX100504-07CCV
Data File: EXP050246a

HMX	94.2
RDX	100.0
135-TNB	102.4
13-DNB	102.6
Tetryl	108.8
Nitrobenzene	95.7
4A-26-DNT	96.8
2A-46-DNT	95.6
246-TNT	115.0
34-DNT(surr)	94.8
26-DNT	101.2
24-DNT	89.6
2-NT	87.9
4-NT	85.0
3-NT	90.1
PETN	107.9
Total	1567.6
Average	98.0

MMT 5/7/10

Hmm 05/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0501248a

Analysis Date: 06-MAY-10 18:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	44.462	111	
1,3-Dinitrobenzene-d4	500	484.342	97	
2,4,6-Trinitrotoluene	40	46.175	115	
2,4-Dinitrotoluene	40	36.096	90	
2,6-Dinitrotoluene	40	39.605	99	
2,6-Dinitrotoluene-d3	500	537.655	108	
2-Amino-4,6-dinitrotoluene	40	39.992	100	
3,4-Dinitrotoluene	20	16.371	82	
4-Amino-2,6-dinitrotoluene	40	44.253	111	
HMX	40	37.353	93	
Nitrobenzene	40	44.26	111	
PETN	40	51.746	129	
RDX	40	32.163	80	
Tetryl	40	41.003	103	
m-Dinitrobenzene	40	38.413	96	
m-Nitrotoluene	40	36.621	92	
o-Nitrotoluene	40	43.923	110	
p-Nitrotoluene	40	36.234	91	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501248a
Date: 06-May-2010
Time: 18:16:08
ID: WXX100504-08CRI
Vial: 1:1,C

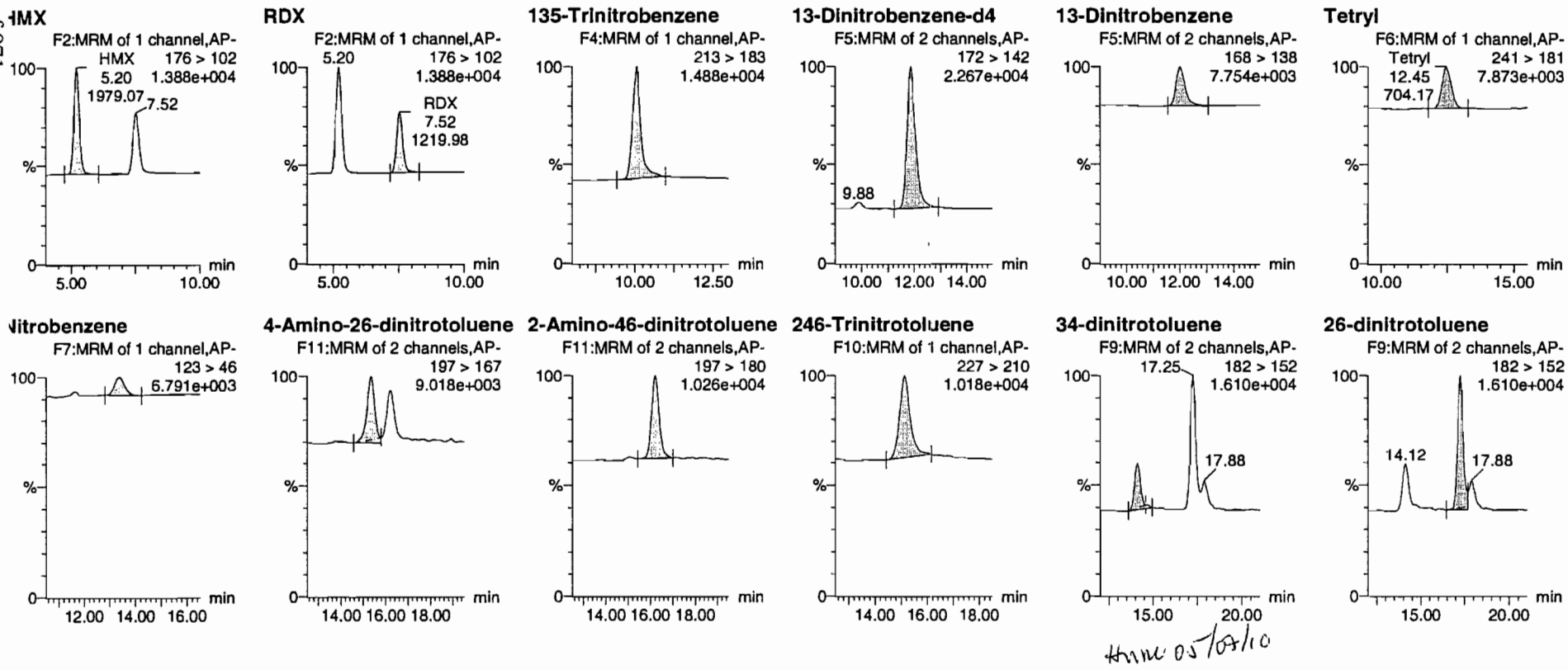

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luantify Sample Report

iEL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

4-dinitrotoluene

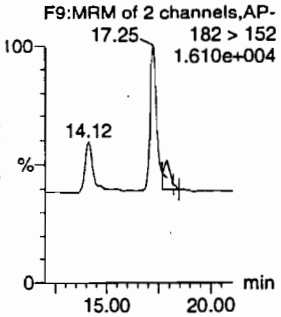

26-dinitrotoluene-d3

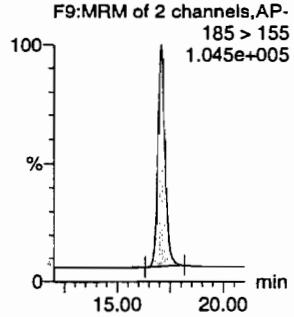

2-Nitrotoluene

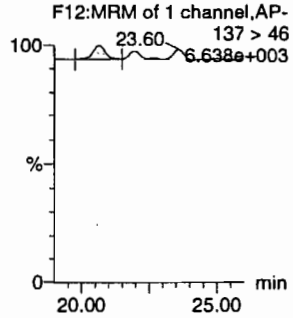

4-Nitrotoluene

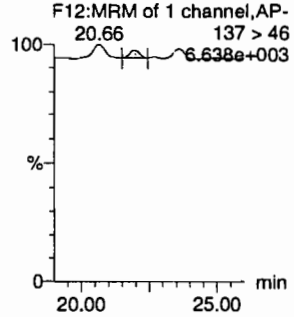

3-Nitrotoluene

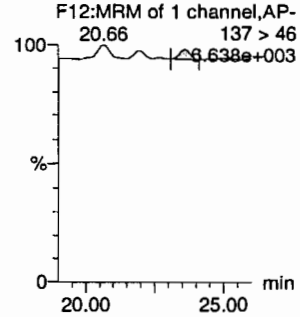

PETN

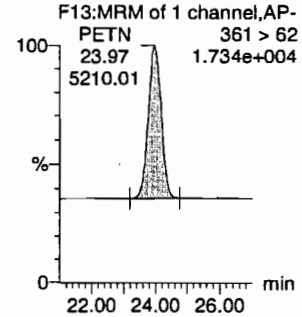

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
NXX100504-08CRI	HMX	176 > 102	5.20	1979.070	6260.708	1979.070	158.055	bb			37.3532	93.4	-6.6	349.5
NXX100504-08CRI	RDX	176 > 102	7.52	1219.978	6260.708	1219.978	97.431	bb			32.1625	80.4	-19.6	199.5
NXX100504-08CRI	135-Trinitrobenzene	213 > 183	10.05	2644.759	6260.708	2644.759	211.219	bb			44.4618	111.2	11.2	324.2
NXX100504-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6260.708		6260.708	6260.708	bb			484.3416	96.9	-3.1	299.2
NXX100504-08CRI	13-Dinitrobenzene	168 > 138	12.00	616.317	6260.708	616.317	49.221	bb			38.4128	96.0	-4.0	93.7
NXX100504-08CRI	Tetryl	241 > 181	12.45	704.170	6260.708	704.170	56.237	bb			41.0027	102.5	2.5	55.3
NXX100504-08CRI	Nitrobenzene	123 > 46	13.37	271.757	6260.708	271.757	21.703	bb			44.2598	110.6	10.6	52.7
NXX100504-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.35	1198.884	39806.676	1198.884	15.059	MM	07-May-10	10:43:54	44.2525	110.6	10.6	95.4
NXX100504-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.22	1617.054	39806.676	1617.054	20.311	bb			39.9920	100.0	-0.0	153.0
NXX100504-08CRI	246-Trinitrotoluene	227 > 210	15.14	1855.840	39806.676	1855.840	23.311	bb			46.1752	115.4	15.4	106.2
NXX100504-08CRI	34-dinitrotoluene	182 > 152	14.12	1406.588	39806.676	1406.588	17.668	MM	07-May-10	11:00:48	16.3708	81.9	-18.1	60.6
NXX100504-08CRI	26-dinitrotoluene	182 > 152	17.25	3592.118	39806.676	3592.118	45.120	MM	07-May-10	11:01:41	39.6047	99.0	-1.0	181.2
NXX100504-08CRI	24-dinitrotoluene	182 > 152	17.88	790.919	39806.676	790.919	9.935	MM	07-May-10	11:12:23	36.0955	90.2	-9.8	36.3
NXX100504-08CRI	26-dinitrotoluene-d3	185 > 155	17.09	39806.676		39806.676	39806.676	bb			537.6548	107.5	7.5	1667.3
NXX100504-08CRI	2-Nitrotoluene	137 > 46	20.66	228.483	39806.676	228.483	2.870	bb			43.9229	109.8	9.8	31.1
NXX100504-08CRI	4-Nitrotoluene	137 > 46	21.96	102.131	39806.676	102.131	1.283	bb			36.2341	90.6	-9.4	17.6
NXX100504-08CRI	3-Nitrotoluene	137 > 46	23.60	126.062	39806.676	126.062	1.583	bb			36.6213	91.6	-8.4	21.5
NXX100504-08CRI	PETN	361 > 62	23.97	5210.009	39806.676	5210.009	65.441	bb			51.7460	129.4	29.4	218.5

✓

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/06/10
Time of Injection	1816
Standard Number	WXX100504-08CRI
Data File	EXP0501248a

HMX		93.4
RDX		80.4
135-TNB		111.2
13-DNB		96.0
Tetryl		102.5
Nitrobenzene		110.6
4A-26-DNT		110.6
2A-46-DNT		100.0
246-TNT		115.4
34-DNT(surr)		81.9
26-DNT		99.0
24-DNT		90.2
2-NT		109.8
4-NT		90.6
3-NT		91.6
PETN		129.4
Total		1612.6
Average		100.8

MAT 5/7/10

Hmm 05/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2937

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0501259a

Analysis Date: 06–MAY–10 23:40

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	571.227	95	
1,3–Dinitrobenzene–d4	500	498.783	100	
2,4,6–Trinitrotoluene	600	737.703	123	*
2,4–Dinitrotoluene	600	583.389	97	
2,6–Dinitrotoluene	600	597.28	100	
2,6–Dinitrotoluene–d3	500	515.545	103	
2–Amino–4,6–dinitrotoluene	600	578.86	96	
3,4–Dinitrotoluene	300	281.021	94	
4–Amino–2,6–dinitrotoluene	600	589.626	98	
HMX	600	685.802	114	
Nitrobenzene	600	512.02	85	
PETN	600	515.505	86	
RDX	600	560.723	93	
Tetryl	600	607.504	101	
m–Dinitrobenzene	600	591.497	99	
m–Nitrotoluene	600	484.497	81	
o–Nitrotoluene	600	459.477	77	*
p–Nitrotoluene	600	459.88	77	*

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501259a
Date: 06-May-2010
Time: 23:40:35
ID: WXX100504-07CCV
Vial: 1:1,B

MAT 5/7/10

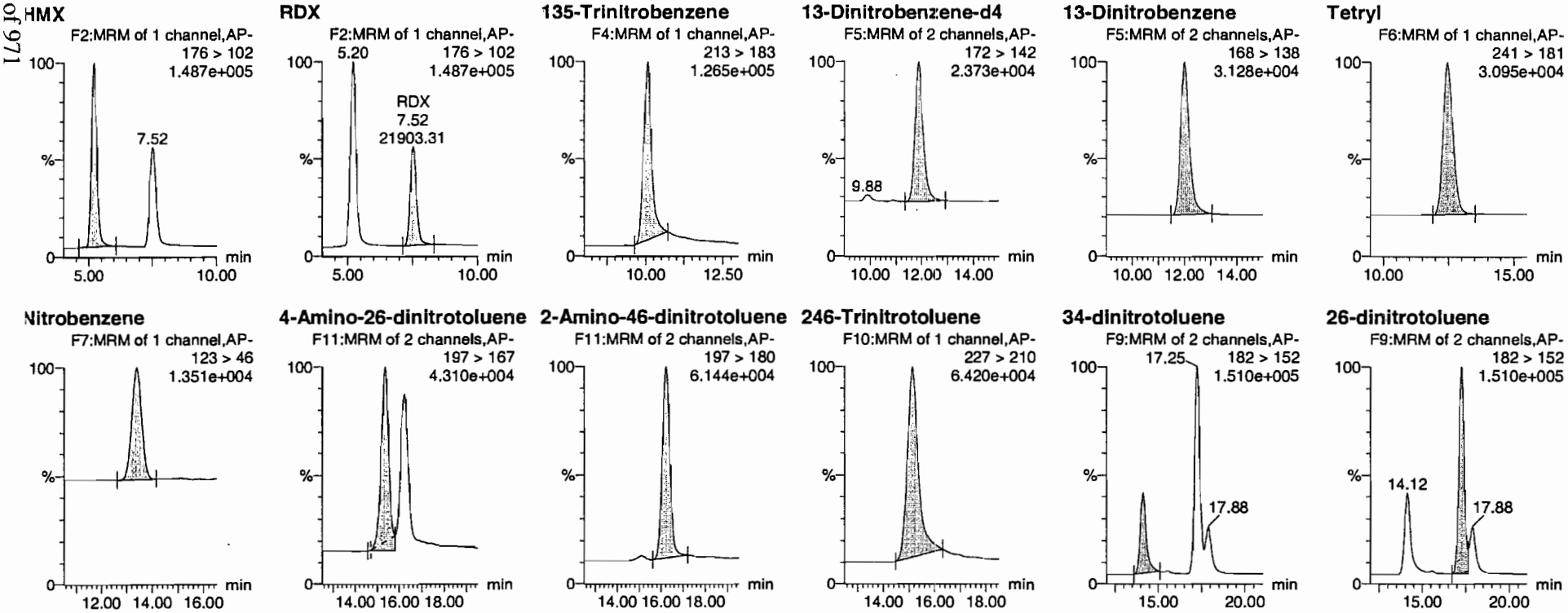

Hmm 05/07/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

24-dinitrotoluene

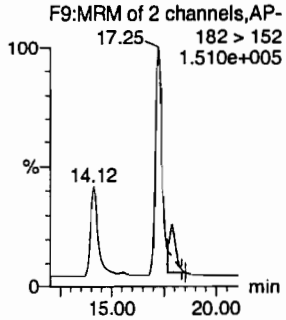

26-dinitrotoluene-d3

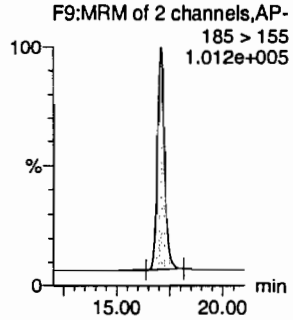

2-Nitrotoluene

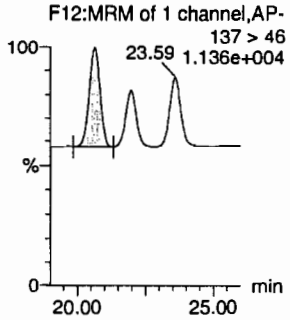

4-Nitrotoluene

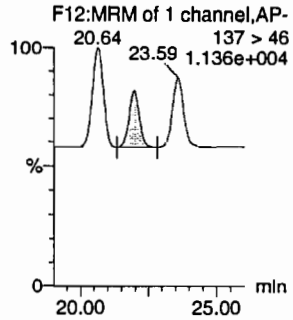

3-Nitrotoluene

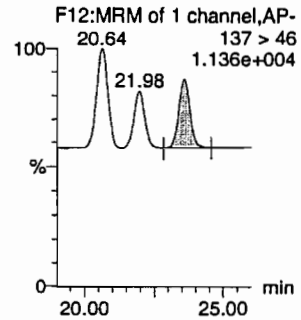

PETN

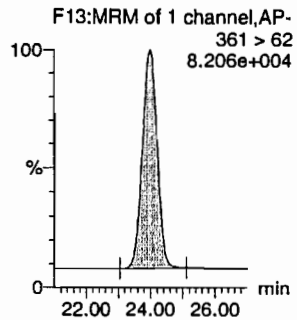

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100504-07CCV	HMX	176 > 102	5.20	37418.957	6447.380	37418.957	2901.873	bb			685.8020	114.3	14.3	2307.2
WXX100504-07CCV	RDX	176 > 102	7.52	21903.313	6447.380	21903.313	1698.621	bb			560.7228	93.5	-6.5	1242.4
WXX100504-07CCV	135-Trinitrobenzene	213 > 183	10.07	34991.926	6447.380	34991.926	2713.655	bb			571.2272	95.2	-4.8	2872.8
WXX100504-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	6447.380		6447.380	6447.380	bb			498.7830	99.8	-0.2	347.3
WXX100504-07CCV	13-Dinitrobenzene	168 > 138	12.00	9773.279	6447.380	9773.279	757.926	bb			591.4969	98.6	-1.4	442.7
WXX100504-07CCV	Tetryl	241 > 181	12.45	10744.186	6447.380	10744.186	833.221	bb			607.5039	101.3	1.3	1190.5
WXX100504-07CCV	Nitrobenzene	123 > 46	13.41	3237.561	6447.380	3237.561	251.076	bb			512.0202	85.3	-14.7	253.6
WXX100504-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.35	15317.173	38169.703	15317.173	200.646	MM	07-May-10	10:48:43	589.6263	98.3	-1.7	345.8
WXX100504-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.22	22443.369	38169.703	22443.369	293.995	bb			578.8601	96.5	-3.5	872.2
WXX100504-07CCV	246-Trinitrotoluene	227 > 210	15.14	28429.990	38169.703	28429.990	372.416	bb			737.7034	123.0	23.0	858.2
WXX100504-07CCV	34-dinitrotoluene	182 > 152	14.12	23152.564	38169.703	23152.564	303.285	bb			281.0211	93.7	-6.3	621.4
WXX100504-07CCV	26-dinitrotoluene	182 > 152	17.25	51945.090	38169.703	51945.090	680.449	MM	07-May-10	11:04:21	597.2795	99.5	-0.5	1600.5
WXX100504-07CCV	24-dinitrotoluene	182 > 152	17.88	12257.472	38169.703	12257.472	160.565	MM	07-May-10	11:11:38	583.3894	97.2	-2.8	344.4
WXX100504-07CCV	26-dinitrotoluene-d3	185 > 155	17.09	38169.703		38169.703	38169.703	bb			515.5448	103.1	3.1	2858.2
WXX100504-07CCV	2-Nitrotoluene	137 > 46	20.64	2291.867	38169.703	2291.867	30.022	bb			459.4771	76.6	-23.4	366.2
WXX100504-07CCV	4-Nitrotoluene	137 > 46	21.98	1242.931	38169.703	1242.931	16.282	bb			459.8799	76.6	-23.4	210.9
WXX100504-07CCV	3-Nitrotoluene	137 > 46	23.59	1599.209	38169.703	1599.209	20.949	bb			484.4973	80.7	-19.3	256.0
WXX100504-07CCV	PETN	361 > 62	23.98	39841.477	38169.703	39841.477	521.899	bb			515.5053	85.9	-14.1	2403.7

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/06/10
Time of Injection: 2340
Standard Number: WXX100504-07CCV
Data File: EXP050259a

HMX	114.3
RDX	93.5
135-TNB	95.2
13-DNB	98.6
Tetryl	101.3
Nitrobenzene	85.3
4A-26-DNT	98.3
2A-46-DNT	96.5
246-TNT	123.0
34-DNT(surr)	93.7
26-DNT	99.5
24-DNT	97.2
2-NT	76.6
4-NT	76.6
3-NT	80.7
PETN	85.9
Total	1516.2
Average	94.8

HMM 5/7/10

Hmm 05/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2937

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0501261a **Analysis Date:** 07–MAY–10 00:39

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	42.507	106	
1,3–Dinitrobenzene–d4	500	515.078	103	
2,4,6–Trinitrotoluene	40	39.762	99	
2,4–Dinitrotoluene	40	36.106	90	
2,6–Dinitrotoluene	40	37.44	94	
2,6–Dinitrotoluene–d3	500	584.12	117	
2–Amino–4,6–dinitrotoluene	40	35.069	88	
3,4–Dinitrotoluene	20	17.749	89	
4–Amino–2,6–dinitrotoluene	40	37.725	94	
HMX	40	46.566	116	
Nitrobenzene	40	39.128	98	
PETN	40	39.315	98	
RDX	40	36.053	90	
Tetryl	40	35.057	88	
m–Dinitrobenzene	40	38.504	96	
m–Nitrotoluene	40	41.261	103	
o–Nitrotoluene	40	27.788	69	*
p–Nitrotoluene	40	33.073	83	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501261a
Date: 07-May-2010
Time: 00:39:32
ID: WXX100504-08CRI
Vial: 1:1,C

MM 5/7/10

HMX

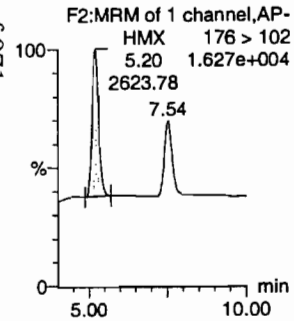

RDX

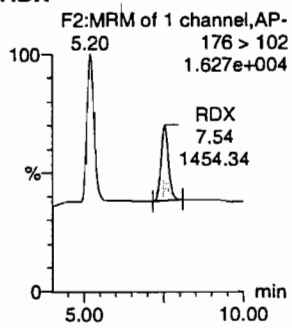

135-Trinitrobenzene

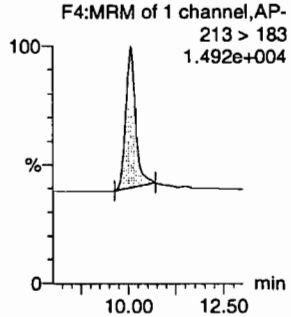

13-Dinitrobenzene-d4

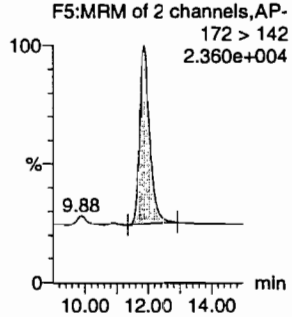

13-Dinitrobenzene

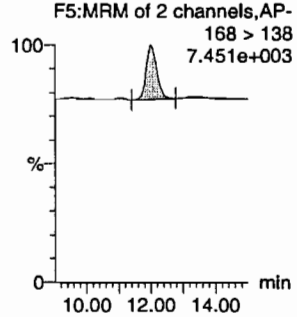

Tetryl

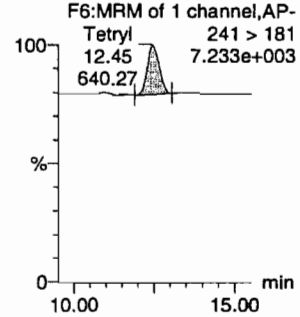

Nitrobenzene

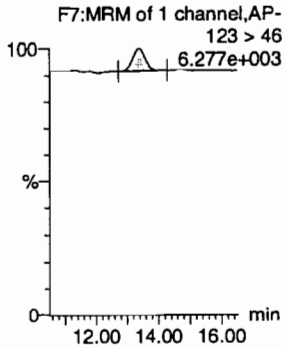

4-Amino-26-dinitrotoluene

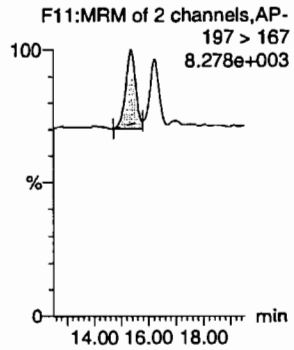

2-Amino-46-dinitrotoluene

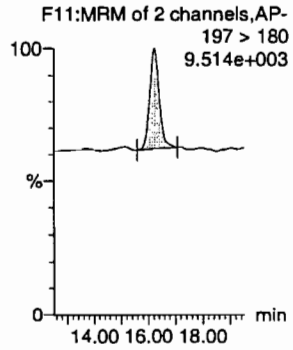

246-Trinitrotoluene

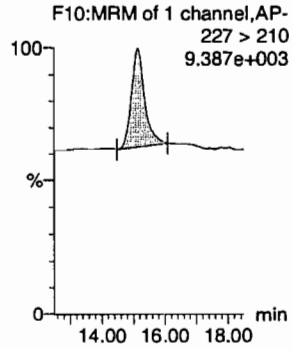

34-dinitrotoluene

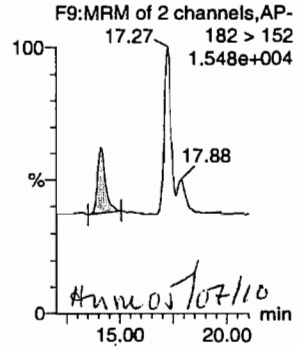

Hmm 05/07/10

26-dinitrotoluene

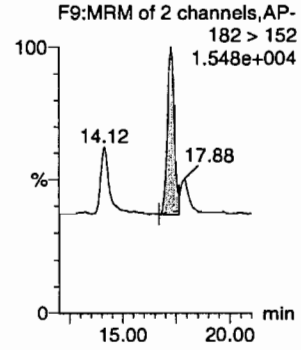

Page 467 of 971

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Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

24-dinitrotoluene

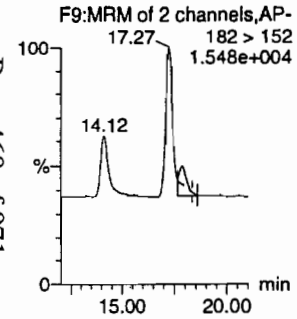

26-dinitrotoluene-d3

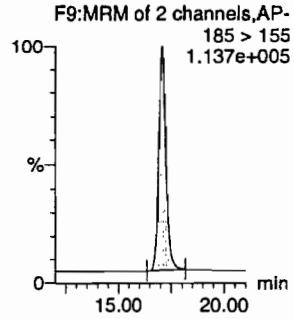

2-Nitrotoluene

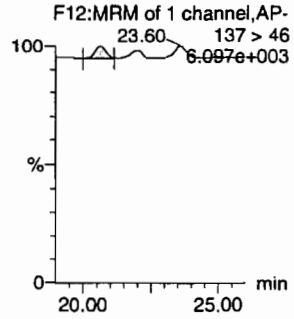

4-Nitrotoluene

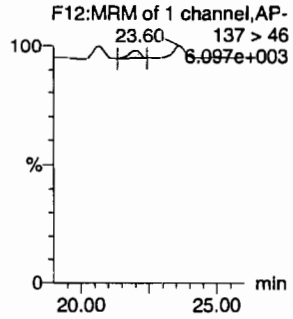

3-Nitrotoluene

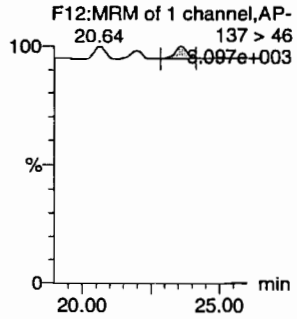

PETN

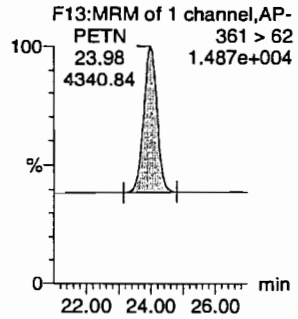

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100504-08CRI	HMX	176 > 102	5.20	2623.775	6658.012	2623.775	197.039	bb			46.5664	116.4	16.4	235.9
WXX100504-08CRI	RDX	176 > 102	7.54	1454.336	6658.012	1454.336	109.217	bb			36.0530	90.1	-9.9	120.5
WXX100504-08CRI	135-Trinitrobenzene	213 > 183	10.07	2688.903	6658.012	2688.903	201.930	bb			42.5065	106.3	6.3	271.5
WXX100504-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6658.012		6658.012	6658.012	bb			515.0779	103.0	3.0	409.6
WXX100504-08CRI	13-Dinitrobenzene	168 > 138	12.00	656.977	6658.012	656.977	49.337	bb			38.5036	96.3	-3.7	125.2
WXX100504-08CRI	Tetryl	241 > 181	12.45	640.271	6658.012	640.271	48.083	bb			35.0573	87.6	-12.4	64.2
WXX100504-08CRI	Nitrobenzene	123 > 46	13.41	255.492	6658.012	255.492	19.187	bb			39.1278	97.8	-2.2	28.2
WXX100504-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.35	1110.367	43246.879	1110.367	12.838	MM	07-May-10	10:48:50	37.7250	94.3	-5.7	33.4
WXX100504-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.22	1540.552	43246.879	1540.552	17.811	bb			35.0692	87.7	-12.3	79.4
WXX100504-08CRI	246-Trinitrotoluene	227 > 210	15.14	1736.177	43246.879	1736.177	20.073	bb			39.7615	99.4	-0.6	70.8
WXX100504-08CRI	34-dinitrotoluene	182 > 152	14.12	1656.798	43246.879	1656.798	19.155	bb			17.7490	88.7	-11.3	104.4
WXX100504-08CRI	26-dinitrotoluene	182 > 152	17.27	3689.247	43246.879	3689.247	42.653	MM	07-May-10	11:04:28	37.4399	93.6	-6.4	267.8
WXX100504-08CRI	24-dinitrotoluene	182 > 152	17.88	859.518	43246.879	859.518	9.937	MM	07-May-10	11:06:32	36.1058	90.3	-9.7	53.0
WXX100504-08CRI	26-dinitrotoluene-d3	185 > 155	17.07	43246.879		43246.879	43246.879	bb			584.1204	116.8	16.8	3684.8
WXX100504-08CRI	2-Nitrotoluene	137 > 46	20.64	157.041	43246.879	157.041	1.816	bb			27.7876	69.5	-30.5	29.8
WXX100504-08CRI	4-Nitrotoluene	137 > 46	22.00	101.278	43246.879	101.278	1.171	bb			33.0732	82.7	-17.3	18.4
WXX100504-08CRI	3-Nitrotoluene	137 > 46	23.60	154.310	43246.879	154.310	1.784	bb			41.2614	103.2	3.2	28.6
WXX100504-08CRI	PETN	361 > 62	23.98	4340.838	43246.879	4340.838	50.187	bb			39.3153	98.3	-1.7	263.1

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/07/10
Time of Injection	0039
Standard Number	WXX100504-08CRI
Data File	EXP0501261a

HMX	116.4
RDX	90.1
135-TNB	106.3
13-DNB	96.3
Tetryl	87.6
Nitrobenzene	97.8
4A-26-DNT	94.3
2A-46-DNT	87.7
246-TNT	99.4
34-DNT(surr)	88.7
26-DNT	93.6
24-DNT	90.3
2-NT	69.5
4-NT	82.7
3-NT	103.2
PETN	98.3
Total	1502.2
Average	93.9

HMT 5/7/10

Hmc 05/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2937

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0501270a

Analysis Date: 07–MAY–10 05:05

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	594.033	99	
1,3–Dinitrobenzene–d4	500	444.91	89	
2,4,6–Trinitrotoluene	600	633.052	106	
2,4–Dinitrotoluene	600	559.032	93	
2,6–Dinitrotoluene	600	590.689	98	
2,6–Dinitrotoluene–d3	500	524.634	105	
2–Amino–4,6–dinitrotoluene	600	622.687	104	
3,4–Dinitrotoluene	300	247.972	83	
4–Amino–2,6–dinitrotoluene	600	497.36	83	
HMX	600	513.539	86	
Nitrobenzene	600	582.745	97	
PETN	600	634.104	106	
RDX	600	569.485	95	
Tetryl	600	625.299	104	
m–Dinitrobenzene	600	598.296	100	
m–Nitrotoluene	600	514.101	86	
o–Nitrotoluene	600	527.207	88	
p–Nitrotoluene	600	512.849	85	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501270a
Date: 07-May-2010
Time: 05:05:02
ID: WXX100504-07CCV
Vial: 1:1,B

MAP 5/7/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.006e+005
7.52

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.006e+005
5.20
RDX
7.52
19842.85

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.167e+005

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.162e+004
9.88

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.891e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
2.898e+004
Tetryl
12.45
9864.44

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.332e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
4.044e+004
16.22

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.660e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.568e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.516e+005
17.25
17.90

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.516e+005
14.12
17.90

HMM 05/07/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

24-dinitrotoluene

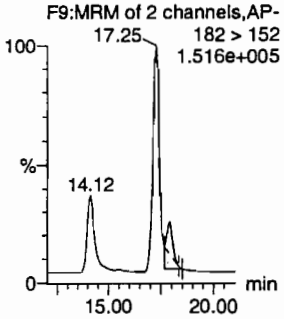

26-dinitrotoluene-d3

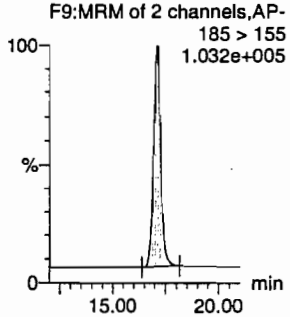

2-Nitrotoluene

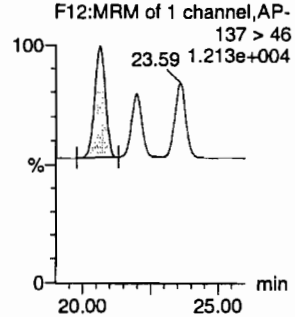

4-Nitrotoluene

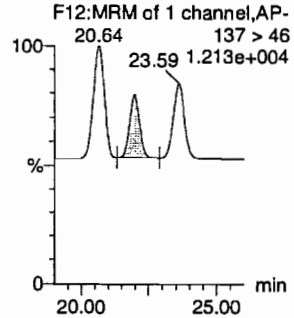

3-Nitrotoluene

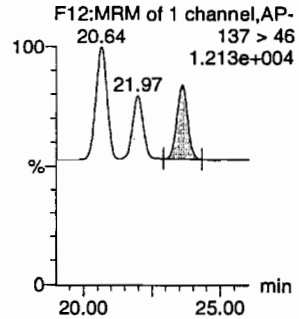

PETN

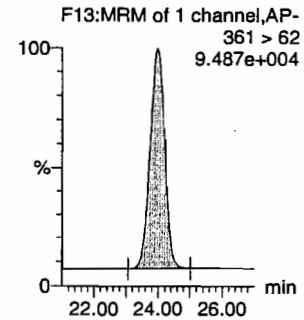

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100504-07CCV	HMX	176 > 102	5.20	24993.492	5751.005	24993.492	2172.967	bb			513.5391	85.6	-14.4	1459.8
WXX100504-07CCV	RDX	176 > 102	7.52	19842.852	5751.005	19842.852	1725.164	bb			569.4846	94.9	-5.1	1081.2
WXX100504-07CCV	135-Trinitrobenzene	213 > 183	10.07	32458.613	5751.005	32458.613	2821.995	bb			594.0329	99.0	-1.0	1598.0
WXX100504-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	5751.005		5751.005	5751.005	bb			444.9099	89.0	-11.0	347.1
WXX100504-07CCV	13-Dinitrobenzene	168 > 138	12.00	8817.887	5751.005	8817.887	766.639	bb			598.2961	99.7	-0.3	609.1
WXX100504-07CCV	Tetryl	241 > 181	12.45	9864.441	5751.005	9864.441	857.628	bb			625.2987	104.2	4.2	958.5
WXX100504-07CCV	Nitrobenzene	123 > 46	13.41	3286.776	5751.005	3286.776	285.757	bb			582.7453	97.1	-2.9	267.7
WXX100504-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.35	13148.106	38842.668	13148.106	169.248	MM	07-May-10	10:49:42	497.3604	82.9	-17.1	367.5
WXX100504-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.22	24568.246	38842.668	24568.246	316.253	bb			622.6865	103.8	3.8	496.1
WXX100504-07CCV	246-Trinitrotoluene	227 > 210	15.14	24827.014	38842.668	24827.014	319.584	bb			633.0519	105.5	5.5	496.2
WXX100504-07CCV	34-dinitrotoluene	182 > 152	14.12	20789.906	38842.668	20789.906	267.617	bb			247.9717	82.7	-17.3	575.7
WXX100504-07CCV	26-dinitrotoluene	182 > 152	17.25	52277.609	38842.668	52277.609	672.941	MM	07-May-10	11:05:09	590.6886	98.4	-1.6	1681.3
WXX100504-07CCV	24-dinitrotoluene	182 > 152	17.90	11952.783	38842.668	11952.783	153.862	MM	07-May-10	11:05:31	559.0317	93.2	-6.8	354.9
WXX100504-07CCV	26-dinitrotoluene-d3	185 > 155	17.09	38842.668		38842.668	38842.668	bb			524.6343	104.9	4.9	2968.1
WXX100504-07CCV	2-Nitrotoluene	137 > 46	20.64	2676.065	38842.668	2676.065	34.447	bb			527.2066	87.9	-12.1	274.7
WXX100504-07CCV	4-Nitrotoluene	137 > 46	21.97	1410.529	38842.668	1410.529	18.157	bb			512.8486	85.5	-14.5	153.1
WXX100504-07CCV	3-Nitrotoluene	137 > 46	23.59	1726.841	38842.668	1726.841	22.229	bb			514.1007	85.7	-14.3	179.5
WXX100504-07CCV	PETN	361 > 62	23.97	46875.129	38842.668	46875.129	603.397	bb			634.1042	105.7	5.7	6115.0

✓

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/07/10
Time of Injection: 0505
Standard Number: WXX100504-07CCV
Data File: EXP050270a

HMX		85.6
RDX		94.9
135-TNB		99.0
13-DNB		99.7
Tetryl		104.2
Nitrobenzene		97.1
4A-26-DNT		82.9
2A-46-DNT		103.8
246-TNT		105.5
34-DNT(surr)		82.7
26-DNT		98.4
24-DNT		93.2
2-NT		87.9
4-NT		85.5
3-NT		85.7
PETN		105.7
Total		1511.8
Average		94.5

MAT 5/7/10

HMW 05/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2937

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0501272a

Analysis Date: 07–MAY–10 06:04

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	42.71	107	
1,3–Dinitrobenzene–d4	500	461.866	92	
2,4,6–Trinitrotoluene	40	38.881	97	
2,4–Dinitrotoluene	40	34.951	87	
2,6–Dinitrotoluene	40	38.033	95	
2,6–Dinitrotoluene–d3	500	486.846	97	
2–Amino–4,6–dinitrotoluene	40	35.866	90	
3,4–Dinitrotoluene	20	19.665	98	
4–Amino–2,6–dinitrotoluene	40	41.416	104	
HMX	40	35.624	89	
Nitrobenzene	40	44.112	110	
PETN	40	50.579	126	
RDX	40	37.521	94	
Tetryl	40	33.851	85	
m–Dinitrobenzene	40	33.994	85	
m–Nitrotoluene	40	33.005	83	
o–Nitrotoluene	40	35.042	88	
p–Nitrotoluene	40	28.577	71	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501272a
Date: 07-May-2010
Time: 06:04:00
ID: WXX100504-08CRI
Vial: 1:1,C

MAT 5/7/10

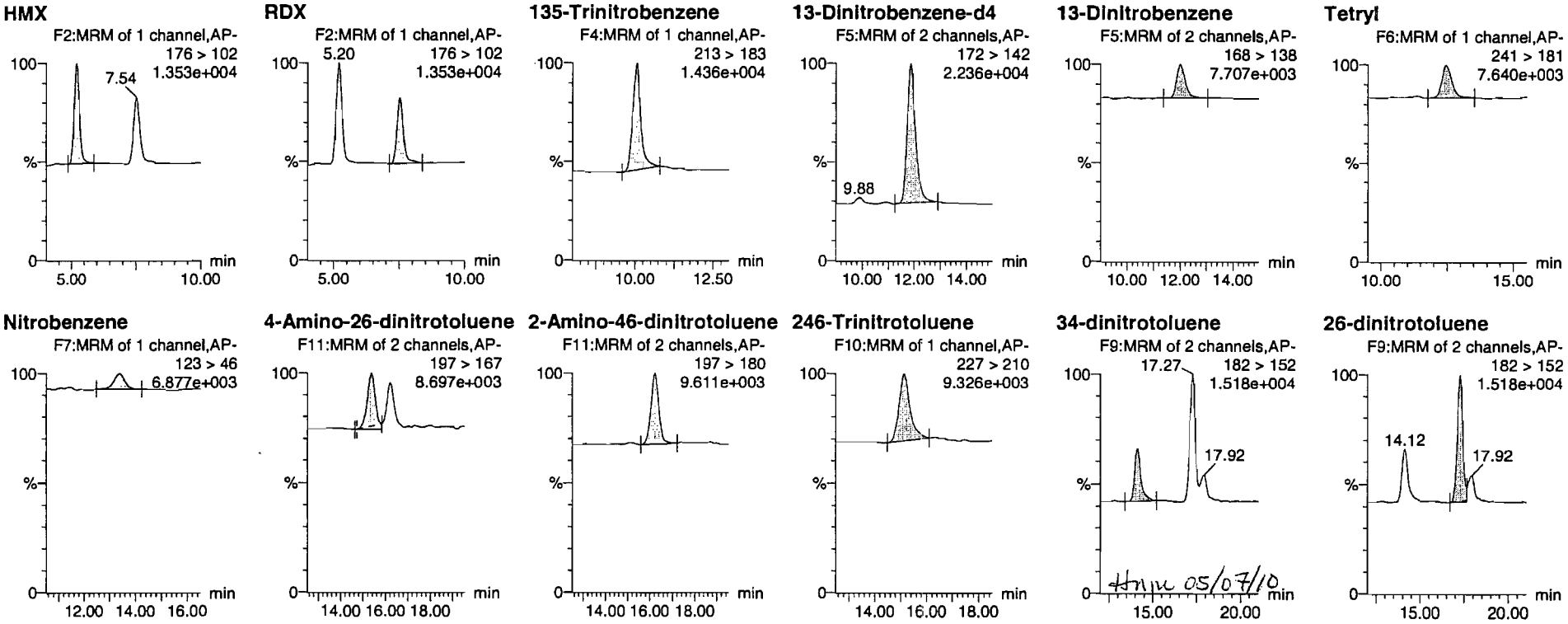

HMM 05/07/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

24-dinitrotoluene

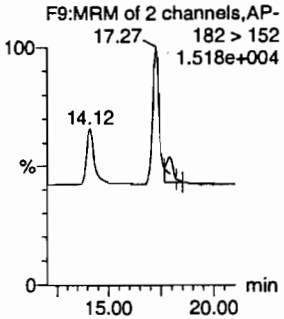

26-dinitrotoluene-d3

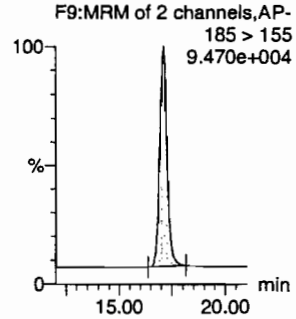

2-Nitrotoluene

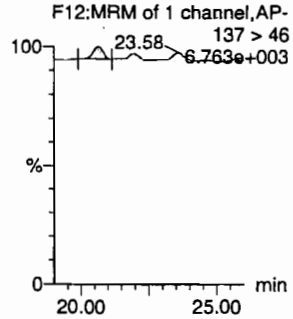

4-Nitrotoluene

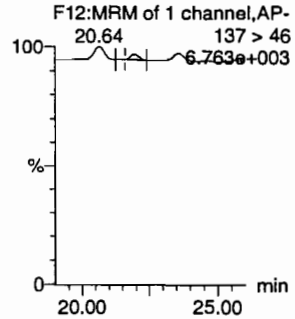

3-Nitrotoluene

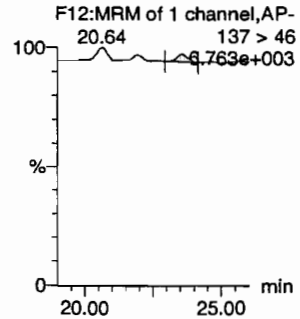

PETN

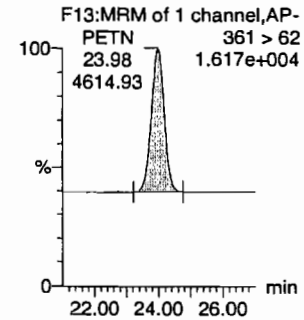

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100504-08CRI	HMX	176 > 102	5.20	1799.864	5970.178	1799.864	150.738	bb			35.6240	89.1	-10.9	55.5
WXX100504-08CRI	RDX	176 > 102	7.54	1357.182	5970.178	1357.182	113.663	bb			37.5208	93.8	-6.2	36.6
WXX100504-08CRI	135-Trinitrobenzene	213 > 183	10.07	2422.647	5970.178	2422.647	202.896	bb			42.7098	106.8	6.8	120.7
WXX100504-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	5970.178		5970.178	5970.178	bb			461.8656	92.4	-7.6	814.7
WXX100504-08CRI	13-Dinitrobenzene	168 > 138	12.00	520.106	5970.178	520.106	43.559	bb			33.9938	85.0	-15.0	69.0
WXX100504-08CRI	Tetryl	241 > 181	12.45	554.377	5970.178	554.377	46.429	bb			33.8514	84.6	-15.4	55.0
WXX100504-08CRI	Nitrobenzene	123 > 46	13.37	258.279	5970.178	258.279	21.631	bb			44.1117	110.3	10.3	20.9
WXX100504-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.35	1016.011	36044.945	1016.011	14.094	MM	07-May-10	10:49:49	41.4163	103.5	3.5	55.0
WXX100504-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.22	1313.162	36044.945	1313.162	18.216	bb			35.8656	89.7	-10.3	163.3
WXX100504-08CRI	246-Trinitrotoluene	227 > 210	15.14	1415.020	36044.945	1415.020	19.629	bb			38.8814	97.2	-2.8	89.5
WXX100504-08CRI	34-dinitrotoluene	182 > 152	14.12	1529.923	36044.945	1529.923	21.222	bb			19.6645	98.3	-1.7	30.0
WXX100504-08CRI	26-dinitrotoluene	182 > 152	17.27	3123.582	36044.945	3123.582	43.329	MM	07-May-10	11:05:13	38.0330	95.1	-4.9	72.5
WXX100504-08CRI	24-dinitrotoluene	182 > 152	17.92	693.468	36044.945	693.468	9.619	MM	07-May-10	11:05:22	34.9509	87.4	-12.6	13.8
WXX100504-08CRI	26-dinitrotoluene-d3	185 > 155	17.09	36044.945		36044.945	36044.945	bb			486.8464	97.4	-2.6	2410.9
WXX100504-08CRI	2-Nitrotoluene	137 > 46	20.64	165.058	36044.945	165.058	2.290	bb			35.0417	87.6	-12.4	83.7
WXX100504-08CRI	4-Nitrotoluene	137 > 46	21.94	72.936	36044.945	72.936	1.012	MM	07-May-10	11:13:35	28.5768	71.4	-28.6	37.8
WXX100504-08CRI	3-Nitrotoluene	137 > 46	23.58	102.878	36044.945	102.878	1.427	bb			33.0053	82.5	-17.5	49.7
WXX100504-08CRI	PETN	361 > 62	23.98	4614.929	36044.945	4614.929	64.016	bb			50.5793	126.4	26.4	439.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/07/10
Time of Injection	0604
Standard Number	WXX100504-08CRI
Data File	EXP0501272a

HMX	89.1
RDX	93.9
135-TNB	106.8
13-DNB	85.0
Tetryl	84.6
Nitrobenzene	110.3
4A-26-DNT	103.5
2A-46-DNT	89.7
246-TNT	97.2
34-DNT(surr)	98.3
26-DNT	95.1
24-DNT	87.4
2-NT	87.6
4-NT	71.4
3-NT	82.5
PETN	126.4
Total	1508.8
Average	94.3

KAT 5/7/10

HMC 05/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2937

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0501283a

Analysis Date: 07–MAY–10 11:28

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	615.952	103	
1,3–Dinitrobenzene–d4	500	453.62	91	
2,4,6–Trinitrotoluene	600	690.326	115	
2,4–Dinitrotoluene	600	573.438	96	
2,6–Dinitrotoluene	600	609.494	102	
2,6–Dinitrotoluene–d3	500	472.38	94	
2–Amino–4,6–dinitrotoluene	600	598.195	100	
3,4–Dinitrotoluene	300	281.779	94	
4–Amino–2,6–dinitrotoluene	600	603.812	101	
HMX	600	531.805	89	
Nitrobenzene	600	539.409	90	
PETN	600	630.956	105	
RDX	600	548.913	91	
Tetryl	600	586.174	98	
m–Dinitrobenzene	600	612.111	102	
m–Nitrotoluene	600	524.159	87	
o–Nitrotoluene	600	518.793	86	
p–Nitrotoluene	600	495.118	83	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501283a
Date: 07-May-2010
Time: 11:28:18
ID: WXX100504-07CCV
Vial: 1:1,B

MM 5/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.067e+005

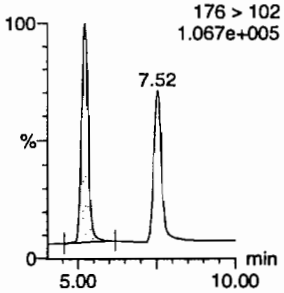

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.067e+005

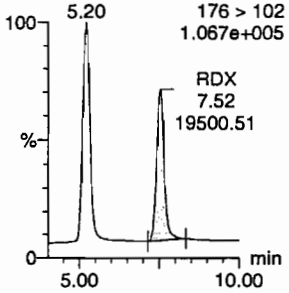

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.238e+005

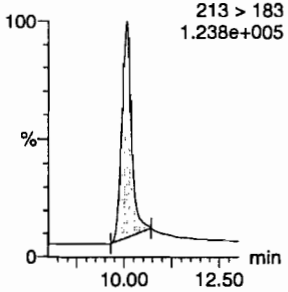

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.212e+004

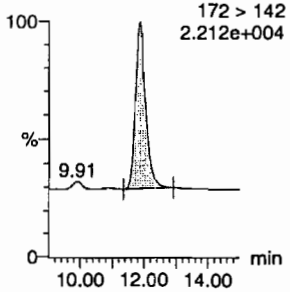

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
3.000e+004

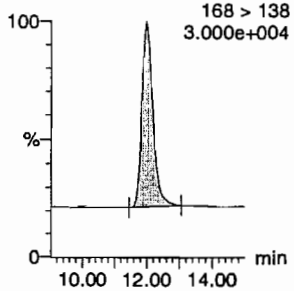

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
2.804e+004

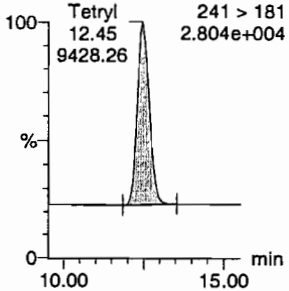

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.302e+004

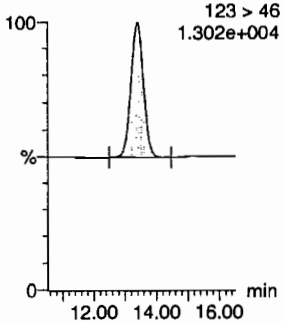

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
4.037e+004

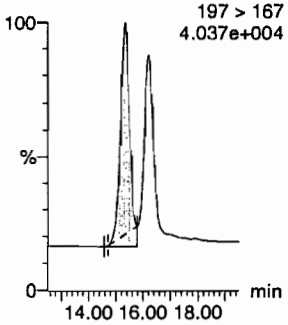

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.861e+004

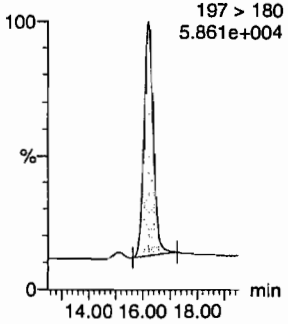

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.708e+004

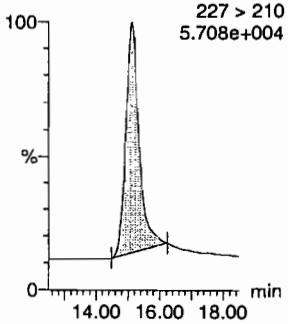

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.403e+005

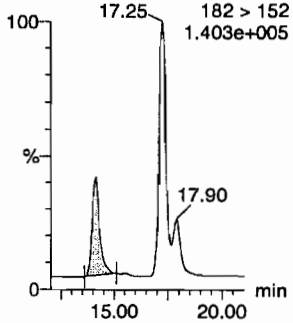

Hmc 05/10/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.403e+005

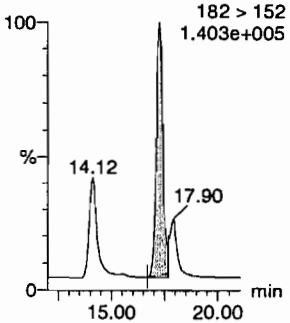

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

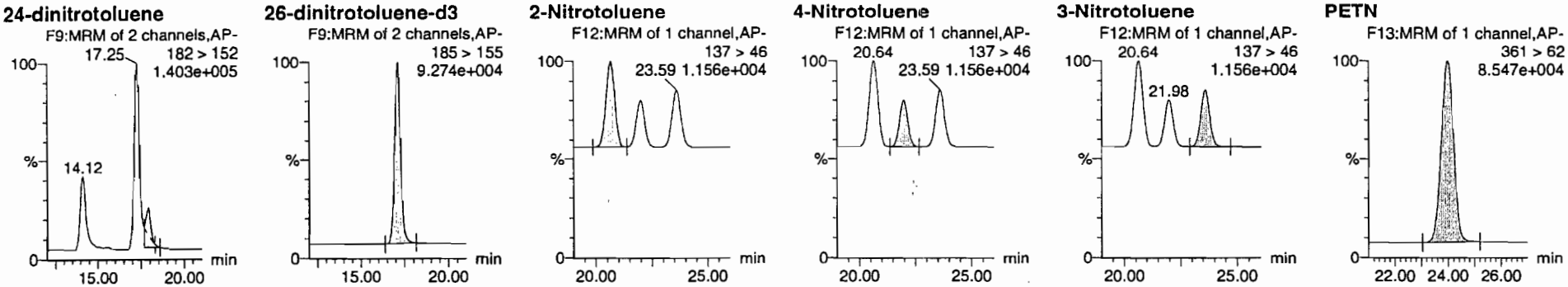

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100504-07CCV	HMX	176 > 102	5.20	26389.195	5863.592	26389.195	2250.258	bb			531.8054	88.6	-11.4	1535.2
WXX100504-07CCV	RDX	176 > 102	7.52	19500.510	5863.592	19500.510	1662.847	bb			548.9134	91.5	-8.5	1049.0
WXX100504-07CCV	135-Trinitrobenzene	213 > 183	10.07	34315.203	5863.592	34315.203	2926.125	bb			615.9524	102.7	2.7	676.6
WXX100504-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	5863.592		5863.592	5863.592	bb			453.6199	90.7	-9.3	635.3
WXX100504-07CCV	13-Dinitrobenzene	168 > 138	11.97	9198.107	5863.592	9198.107	784.341	bb			612.1109	102.0	2.0	528.2
WXX100504-07CCV	Tetryl	241 > 181	12.45	9428.264	5863.592	9428.264	803.967	bb			586.1743	97.7	-2.3	715.5
WXX100504-07CCV	Nitrobenzene	123 > 46	13.37	3101.912	5863.592	3101.912	264.506	bb			539.4090	89.9	-10.1	399.5
WXX100504-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.35	14372.365	34973.863	14372.365	205.473	MM	08-May-10	11:59:08	603.8119	100.6	0.6	641.3
WXX100504-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.22	21251.115	34973.863	21251.115	303.814	bb			598.1946	99.7	-0.3	1016.2
WXX100504-07CCV	246-Trinitrotoluene	227 > 210	15.14	24376.646	34973.863	24376.646	348.498	bb			690.3259	115.1	15.1	1082.4
WXX100504-07CCV	34-dinitrotoluene	182 > 152	14.12	21271.311	34973.863	21271.311	304.103	bb			281.7795	93.9	-6.1	253.7
WXX100504-07CCV	26-dinitrotoluene	182 > 152	17.25	48569.188	34973.863	48569.188	694.364	MM	08-May-10	11:51:42	609.4936	101.6	1.6	653.9
WXX100504-07CCV	24-dinitrotoluene	182 > 152	17.90	11039.615	34973.863	11039.615	157.827	MM	08-May-10	11:50:04	573.4384	95.6	-4.4	139.4
WXX100504-07CCV	26-dinitrotoluene-d3	185 > 155	17.09	34973.863		34973.863	34973.863	bb			472.3797	94.5	-5.5	2816.5
WXX100504-07CCV	2-Nitrotoluene	137 > 46	20.64	2371.072	34973.863	2371.072	33.898	bb			518.7934	86.5	-13.5	533.0
WXX100504-07CCV	4-Nitrotoluene	137 > 46	21.98	1226.128	34973.863	1226.128	17.529	bb			495.1177	82.5	-17.5	289.8
WXX100504-07CCV	3-Nitrotoluene	137 > 46	23.59	1585.264	34973.863	1585.264	22.664	bb			524.1588	87.4	-12.6	355.0
WXX100504-07CCV	PETN	361 > 62	23.97	42067.930	34973.863	42067.930	601.420	bb			630.9562	105.2	5.2	3804.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/07/10
Time of Injection: 1128
Standard Number: WXX100504-07CCV
Data File: EXP050283a

HMX	88.6
RDX	91.5
135-TNB	102.7
13-DNB	102.0
Tetryl	97.7
Nitrobenzene	89.9
4A-26-DNT	100.6
2A-46-DNT	99.7
246-TNT	115.1
34-DNT(surr)	93.9
26-DNT	101.6
24-DNT	95.6
2-NT	86.5
4-NT	82.5
3-NT	87.4
PETN	105.2
Total	1540.5
Average	96.3

MAT 5/8/10

HM 05/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0501285a

Analysis Date: 07-MAY-10 12:27

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	42.919	107	
1,3-Dinitrobenzene-d4	500	581.753	116	
2,4,6-Trinitrotoluene	40	42.226	106	
2,4-Dinitrotoluene	40	33.399	83	
2,6-Dinitrotoluene	40	38.953	97	
2,6-Dinitrotoluene-d3	500	618.493	124	
2-Amino-4,6-dinitrotoluene	40	37.186	93	
3,4-Dinitrotoluene	20	19.338	97	
4-Amino-2,6-dinitrotoluene	40	42.184	105	
HMX	40	36.987	92	
Nitrobenzene	40	32.255	81	
PETN	40	41.046	103	
RDX	40	36.365	91	
Tetryl	40	34.114	85	
m-Dinitrobenzene	40	41.334	103	
m-Nitrotoluene	40	38.033	95	
o-Nitrotoluene	40	34.478	86	
p-Nitrotoluene	40	31.666	79	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501285a
Date: 07-May-2010
Time: 12:27:23
ID: WXX100504-08CRI
Vial: 1:1,C

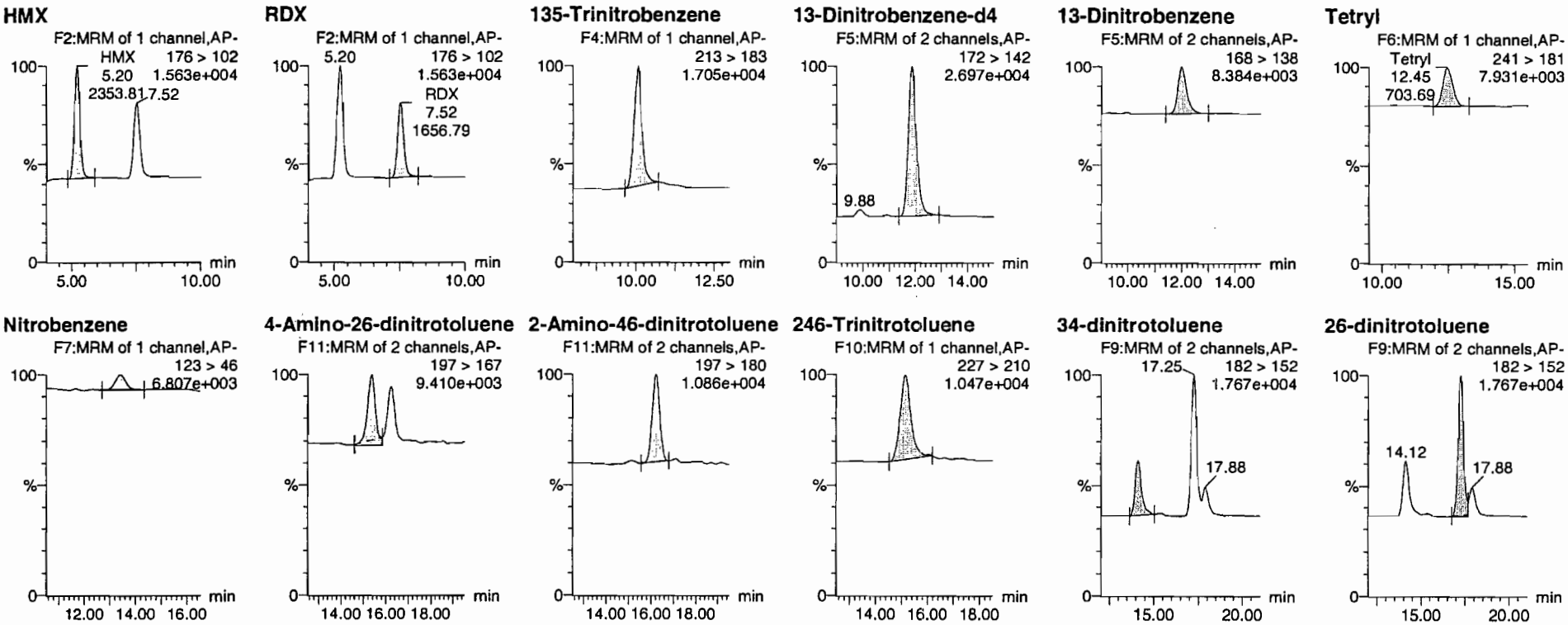

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

24-dinitrotoluene

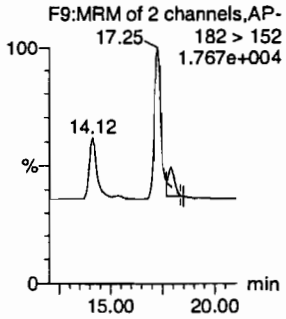

26-dinitrotoluene-d3

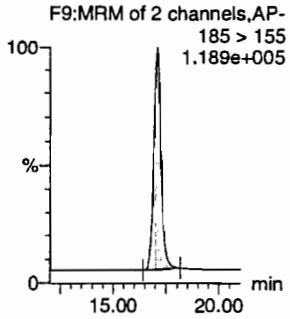

2-Nitrotoluene

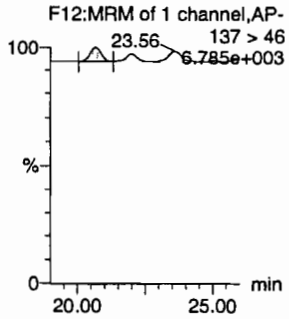

4-Nitrotoluene

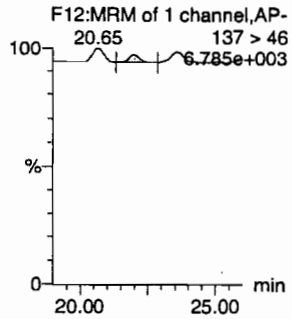

3-Nitrotoluene

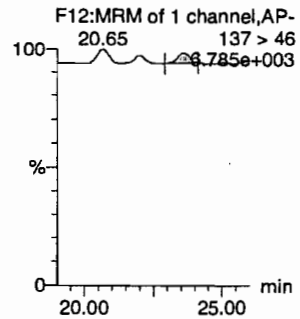

PETN

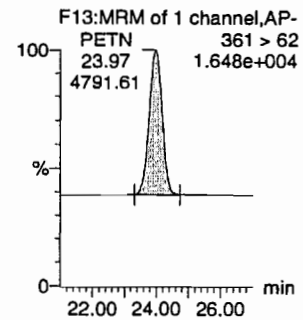

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100504-08CRI	HMX	176 > 102	5.20	2353.809	7519.872	2353.809	156.506	bb			36.9872	92.5	-7.5	443.6
WXX100504-08CRI	RDX	176 > 102	7.52	1656.786	7519.872	1656.786	110.161	bb			36.3645	90.9	-9.1	291.5
WXX100504-08CRI	135-Trinitrobenzene	213 > 183	10.07	3066.443	7519.872	3066.443	203.889	bb			42.9189	107.3	7.3	359.8
WXX100504-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	7519.872		7519.872	7519.872	bb			581.7532	116.4	16.4	705.0
WXX100504-08CRI	13-Dinitrobenzene	168 > 138	12.00	796.571	7519.872	796.571	52.964	bb			41.3342	103.3	3.3	131.5
WXX100504-08CRI	Tetryl	241 > 181	12.45	703.687	7519.872	703.687	46.788	bb			34.1136	85.3	-14.7	72.0
WXX100504-08CRI	Nitrobenzene	123 > 46	13.41	237.875	7519.872	237.875	15.816	bb			32.2545	80.6	-19.4	34.7
WXX100504-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.35	1314.671	45791.711	1314.671	14.355	MM	08-May-10	11:59:01	42.1839	105.5	5.5	97.0
WXX100504-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.22	1729.646	45791.711	1729.646	18.886	bb			37.1856	93.0	-7.0	95.9
WXX100504-08CRI	246-Trinitrotoluene	227 > 210	15.14	1952.270	45791.711	1952.270	21.317	bb			42.2257	105.6	5.6	116.1
WXX100504-08CRI	34-dinitrotoluene	182 > 152	14.12	1911.389	45791.711	1911.389	20.870	bb			19.3384	96.7	-3.3	129.0
WXX100504-08CRI	26-dinitrotoluene	182 > 152	17.25	4064.190	45791.711	4064.190	44.377	MM	08-May-10	11:51:53	38.9528	97.4	-2.6	325.2
WXX100504-08CRI	24-dinitrotoluene	182 > 152	17.88	841.863	45791.711	841.863	9.192	MM	08-May-10	11:49:51	33.3988	83.5	-16.5	63.0
WXX100504-08CRI	26-dinitrotoluene-d3	185 > 155	17.09	45791.711		45791.711	45791.711	bb			618.4926	123.7	23.7	3839.7
WXX100504-08CRI	2-Nitrotoluene	137 > 46	20.65	206.319	45791.711	206.319	2.253	bb			34.4783	86.2	-13.8	82.9
WXX100504-08CRI	4-Nitrotoluene	137 > 46	21.97	102.676	45791.711	102.676	1.121	bb			31.6664	79.2	-20.8	44.2
WXX100504-08CRI	3-Nitrotoluene	137 > 46	23.56	150.604	45791.711	150.604	1.644	bb			38.0325	95.1	-4.9	58.0
WXX100504-08CRI	PETN	361 > 62	23.97	4791.611	45791.711	4791.611	52.320	bb			41.0457	102.6	2.6	549.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/07/10
Time of Injection	1227
Standard Number	WXX100504-08CRI
Data File	EXP0501285a

HMX	92.5
RDX	90.9
135-TNB	107.3
13-DNB	103.3
Tetryl	85.3
Nitrobenzene	80.6
4A-26-DNT	105.5
2A-46-DNT	93.0
246-TNT	105.6
34-DNT(surr)	96.7
26-DNT	97.4
24-DNT	83.5
2-NT	86.2
4-NT	79.2
3-NT	95.1
PETN	102.6
Total	1504.7
Average	94.0

HMW 05/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0501296a

Analysis Date: 07-MAY-10 17:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	592.748	99	
1,3-Dinitrobenzene-d4	500	534.575	107	
2,4,6-Trinitrotoluene	600	777.228	130	*
2,4-Dinitrotoluene	600	672.465	112	
2,6-Dinitrotoluene	600	598.03	100	
2,6-Dinitrotoluene-d3	500	485.159	97	
2-Amino-4,6-dinitrotoluene	600	601.208	100	
3,4-Dinitrotoluene	300	299.655	100	
4-Amino-2,6-dinitrotoluene	600	626.039	104	
HMX	600	677.231	113	
Nitrobenzene	600	516.246	86	
PETN	600	546.066	91	
RDX	600	671.88	112	
Tetryl	600	668.123	111	
m-Dinitrobenzene	600	608.442	101	
m-Nitrotoluene	600	595.496	99	
o-Nitrotoluene	600	601.37	100	
p-Nitrotoluene	600	570.038	95	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501296a
Date: 07-May-2010
Time: 17:52:51
ID: WXX100507-07CCV
Vial: 1:1,B

MHT 5/10/10

HMX

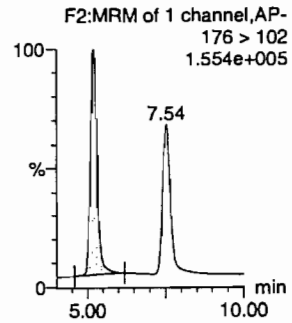

RDX

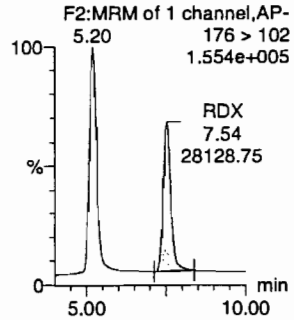

135-Trinitrobenzene

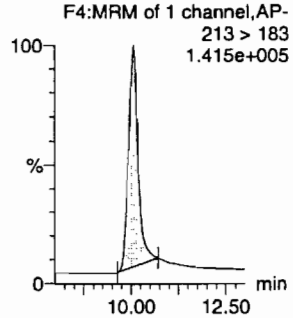

13-Dinitrobenzene-d4

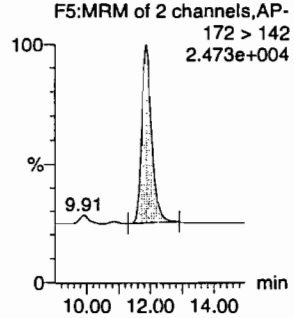

13-Dinitrobenzene

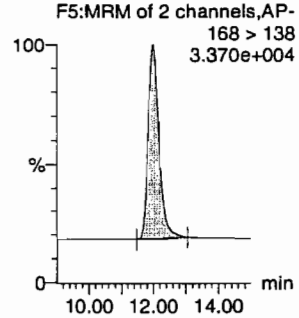

Tetryl

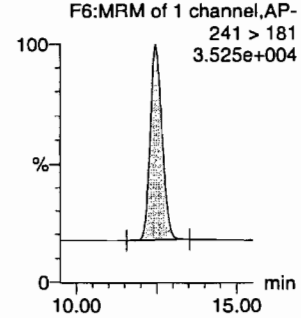

Nitrobenzene

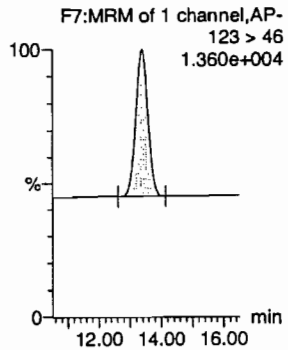

4-Amino-26-dinitrotoluene

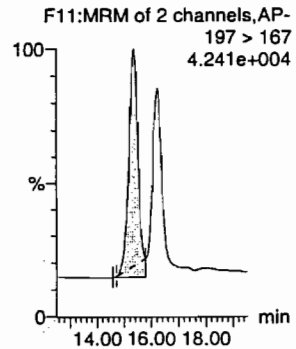

2-Amino-46-dinitrotoluene

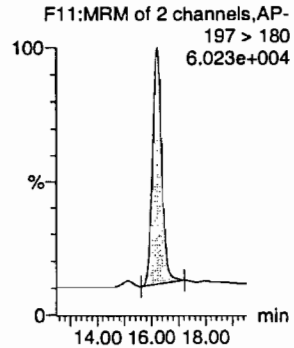

246-Trinitrotoluene

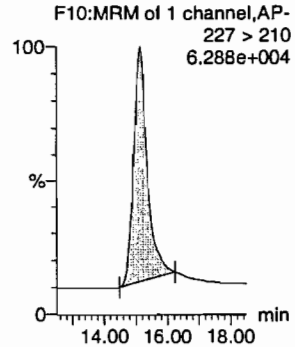

34-dinitrotoluene

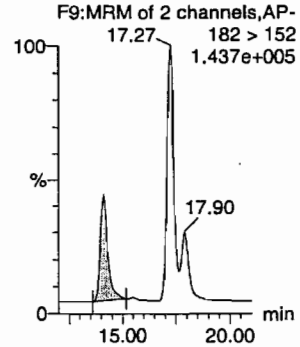

Hmm 05/10/10

26-dinitrotoluene

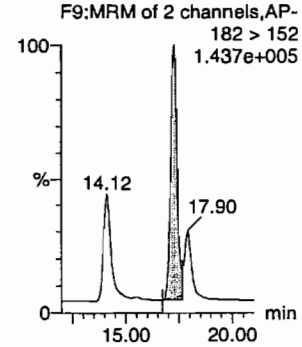

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

24-dinitrotoluene

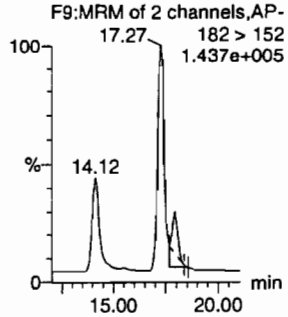

26-dinitrotoluene-d3

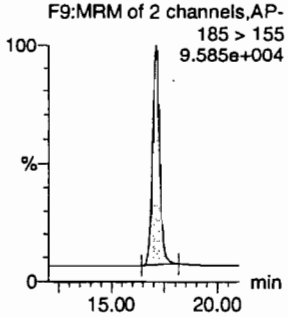

2-Nitrotoluene

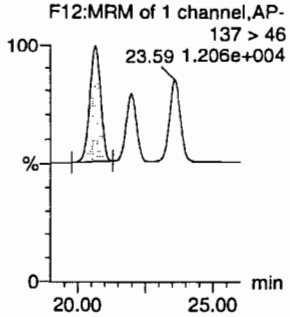

4-Nitrotoluene

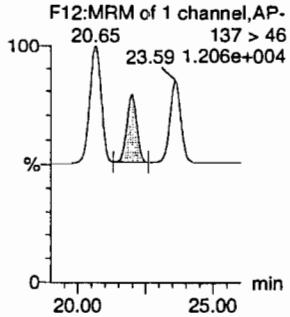

3-Nitrotoluene

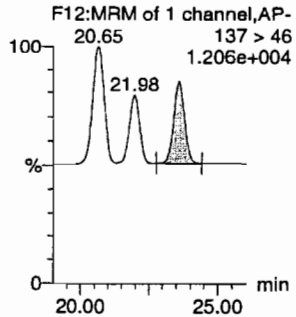

PETN

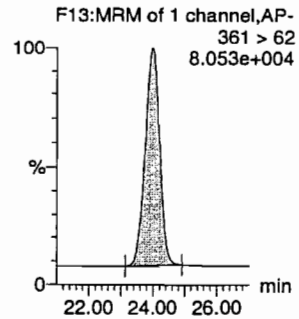

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100507-07CCV	HMX	176 > 102	5.20	39602.867	6910.034	39602.867	2865.606	bb			677.2310	112.9	12.9	2079.7
WXX100507-07CCV	RDX	176 > 102	7.54	28128.750	6910.034	28128.750	2035.355	bb			671.8803	112.0	12.0	1373.8
WXX100507-07CCV	135-Trinitrobenzene	213 > 183	10.07	38915.832	6910.034	38915.832	2815.893	bb			592.7485	98.8	-1.2	1852.6
WXX100507-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	6910.034		6910.034	6910.034	bb			534.5748	106.9	6.9	1025.5
WXX100507-07CCV	13-Dinitrobenzene	168 > 138	12.00	10774.676	6910.034	10774.676	779.640	bb			608.4424	101.4	1.4	1425.9
WXX100507-07CCV	Tetryl	241 > 181	12.45	12664.207	6910.034	12664.207	916.364	bb			668.1233	111.4	11.4	1474.0
WXX100507-07CCV	Nitrobenzene	123 > 46	13.41	3498.519	6910.034	3498.519	253.148	bb			516.2457	86.0	-14.0	767.1
WXX100507-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.35	15304.551	35919.977	15304.551	213.037	MM	08-May-10	11:57:54	626.0393	104.3	4.3	409.6
WXX100507-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.22	21935.941	35919.977	21935.941	305.345	bb			601.2078	100.2	0.2	433.1
WXX100507-07CCV	246-Trinitrotoluene	227 > 210	15.14	28187.777	35919.977	28187.777	392.369	bb			777.2283	129.5	29.5	393.5
WXX100507-07CCV	34-dinitrotoluene	182 > 152	14.12	23232.672	35919.977	23232.672	323.395	bb			299.6552	99.9	-0.1	577.2
WXX100507-07CCV	26-dinitrotoluene	182 > 152	17.27	48944.887	35919.977	48944.887	681.305	MM	08-May-10	11:52:29	598.0303	99.7	-0.3	1384.0
WXX100507-07CCV	24-dinitrotoluene	182 > 152	17.90	13296.249	35919.977	13296.249	185.082	MM	08-May-10	11:49:07	672.4647	112.1	12.1	352.0
WXX100507-07CCV	26-dinitrotoluene-d3	185 > 155	17.09	35919.977		35919.977	35919.977	bb			485.1585	97.0	-3.0	3949.0
WXX100507-07CCV	2-Nitrotoluene	137 > 46	20.65	2822.829	35919.977	2822.829	39.293	bb			601.3700	100.2	0.2	483.1
WXX100507-07CCV	4-Nitrotoluene	137 > 46	21.98	1449.852	35919.977	1449.852	20.182	bb			570.0380	95.0	-5.0	272.2
WXX100507-07CCV	3-Nitrotoluene	137 > 46	23.59	1849.737	35919.977	1849.737	25.748	bb			595.4960	99.2	-0.8	331.8
WXX100507-07CCV	PETN	361 > 62	23.99	39100.508	35919.977	39100.508	544.272	bb			546.0662	91.0	-9.0	1277.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/07/10
Time of Injection: 1752
Standard Number: WXX100507-07CCV
Data File: EXP050296a

HMX		112.9
RDX		112.0
135-TNB		98.8
13-DNB		101.4
Tetryl		111.4
Nitrobenzene		86.0
4A-26-DNT		104.3
2A-46-DNT		100.2
246-TNT		129.5
34-DNT(surr)		99.9
26-DNT		99.7
24-DNT		112.1
2-NT		100.2
4-NT		95.0
3-NT		99.2
PETN		91.0
Total		1653.6
Average		103.4

MJH 5/8/10

Hmm 05/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0501298a

Analysis Date: 07-MAY-10 18:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	46.479	116	
1,3-Dinitrobenzene-d4	500	450.041	90	
2,4,6-Trinitrotoluene	40	45.615	114	
2,4-Dinitrotoluene	40	37.859	95	
2,6-Dinitrotoluene	40	40.71	102	
2,6-Dinitrotoluene-d3	500	463.64	93	
2-Amino-4,6-dinitrotoluene	40	38.374	96	
3,4-Dinitrotoluene	20	20.823	104	
4-Amino-2,6-dinitrotoluene	40	35.218	88	
HMX	40	36.438	91	
Nitrobenzene	40	47.943	120	
PETN	40	50.198	125	
RDX	40	36.568	91	
Tetryl	40	41.95	105	
m-Dinitrobenzene	40	41.155	103	
m-Nitrotoluene	40	52.055	130	*
o-Nitrotoluene	40	36.385	91	
p-Nitrotoluene	40	52.163	130	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501298a
Date: 07-May-2010
Time: 18:51:56
ID: WXX100507-08CRI
Vial: 1:1,C

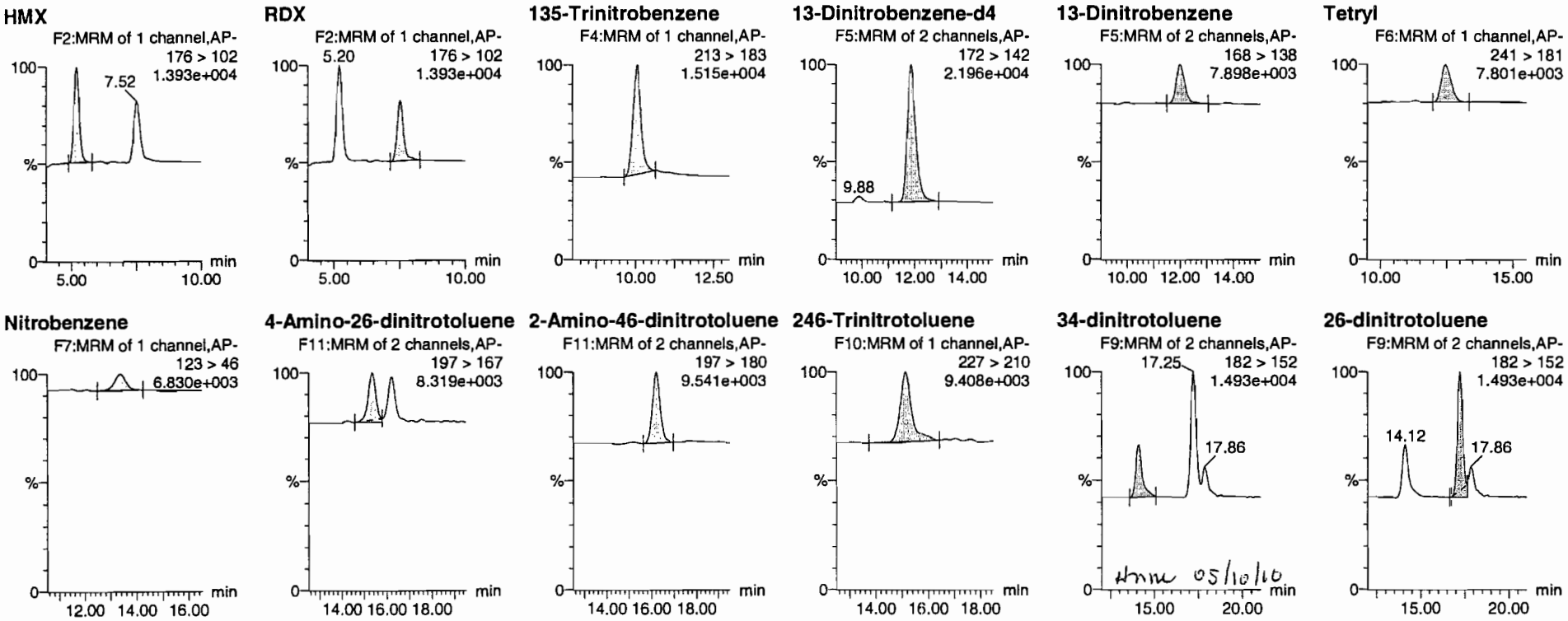

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

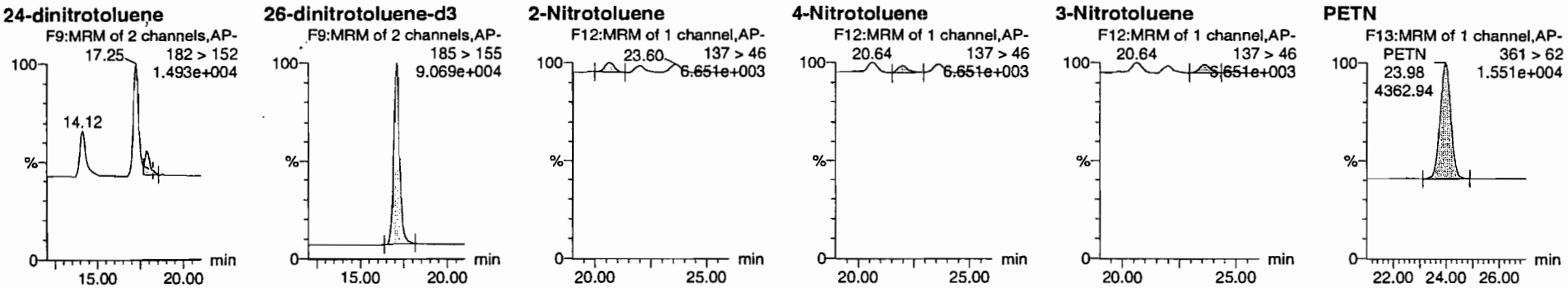

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100507-08CRI	HMX	176 > 102	5.20	1793.867	5817.333	1793.867	154.183	bb			36.4382	91.1	-8.9	229.6
WXX100507-08CRI	RDX	176 > 102	7.52	1288.843	5817.333	1288.843	110.776	bb			36.5677	91.4	-8.6	145.7
WXX100507-08CRI	135-Trinitrobenzene	213 > 183	10.05	2568.957	5817.333	2568.957	220.802	bb			46.4790	116.2	16.2	221.3
WXX100507-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	5817.333		5817.333	5817.333	bb			450.0412	90.0	-10.0	322.0
WXX100507-08CRI	13-Dinitrobenzene	168 > 138	12.00	613.557	5817.333	613.557	52.735	bb			41.1554	102.9	2.9	65.6
WXX100507-08CRI	Tetryl	241 > 181	12.45	669.420	5817.333	669.420	57.537	bb			41.9502	104.9	4.9	65.2
WXX100507-08CRI	Nitrobenzene	123 > 46	13.37	273.525	5817.333	273.525	23.509	bb			47.9430	119.9	19.9	27.1
WXX100507-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.35	822.772	34326.832	822.772	11.984	MM	08-May-10	11:57:46	35.2178	88.0	-12.0	54.4
WXX100507-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.22	1338.030	34326.832	1338.030	19.490	bb			38.3739	95.9	-4.1	165.9
WXX100507-08CRI	246-Trinitrotoluene	227 > 210	15.14	1580.960	34326.832	1580.960	23.028	bb			45.6153	114.0	14.0	107.1
WXX100507-08CRI	34-dinitrotoluene	182 > 152	14.12	1542.839	34326.832	1542.839	22.473	bb			20.8231	104.1	4.1	56.5
WXX100507-08CRI	26-dinitrotoluene	182 > 152	17.25	3184.040	34326.832	3184.040	46.378	MM	08-May-10	11:52:38	40.7096	101.8	1.8	137.5
WXX100507-08CRI	24-dinitrotoluene	182 > 152	17.86	715.357	34326.832	715.357	10.420	MM	08-May-10	11:49:00	37.8587	94.6	-5.4	30.3
WXX100507-08CRI	26-dinitrotoluene-d3	185 > 155	17.09	34326.832		34326.832	34326.832	bb			463.6405	92.7	-7.3	2892.2
WXX100507-08CRI	2-Nitrotoluene	137 > 46	20.64	163.214	34326.832	163.214	2.377	bb			36.3845	91.0	-9.0	19.3
WXX100507-08CRI	4-Nitrotoluene	137 > 46	22.00	126.788	34326.832	126.788	1.847	bb			52.1628	130.4	30.4	14.1
WXX100507-08CRI	3-Nitrotoluene	137 > 46	23.60	154.523	34326.832	154.523	2.251	bb			52.0552	130.1	30.1	16.5
WXX100507-08CRI	PETN	361 > 62	23.98	4362.936	34326.832	4362.936	63.550	bb			50.1977	125.5	25.5	797.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/07/10
Time of Injection	1851
Standard Number	WXX100507-08CRI
Data File	EXP0501298a

HMX	91.1
RDX	91.4
135-TNB	116.2
13-DNB	102.9
Tetryl	104.9
Nitrobenzene	119.9
4A-26-DNT	88.0
2A-46-DNT	95.9
246-TNT	114.0
34-DNT(surr)	104.1
26-DNT	101.8
24-DNT	94.6
2-NT	91.0
4-NT	130.4
3-NT	130.1
PETN	125.5
Total	1701.8
Average	106.4

MHT 5/8/10

Hmm 05/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2937

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0501306a

Analysis Date: 07–MAY–10 22:48

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	612.187	102	
1,3–Dinitrobenzene–d4	500	405.734	81	
2,4,6–Trinitrotoluene	600	737.672	123	*
2,4–Dinitrotoluene	600	561.763	94	
2,6–Dinitrotoluene	600	617.748	103	
2,6–Dinitrotoluene–d3	500	412.013	82	
2–Amino–4,6–dinitrotoluene	600	593.291	99	
3,4–Dinitrotoluene	300	300.664	100	
4–Amino–2,6–dinitrotoluene	600	598.416	100	
HMX	600	522.658	87	
Nitrobenzene	600	591.645	99	
PETN	600	720.888	120	*
RDX	600	586.64	98	
Tetryl	600	632.977	105	
m–Dinitrobenzene	600	608.575	101	
m–Nitrotoluene	600	550.491	92	
o–Nitrotoluene	600	541.383	90	
p–Nitrotoluene	600	516.106	86	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501306a
Date: 07-May-2010
Time: 22:48:12
ID: WXX100507-07CCV
Vial: 1:1,B

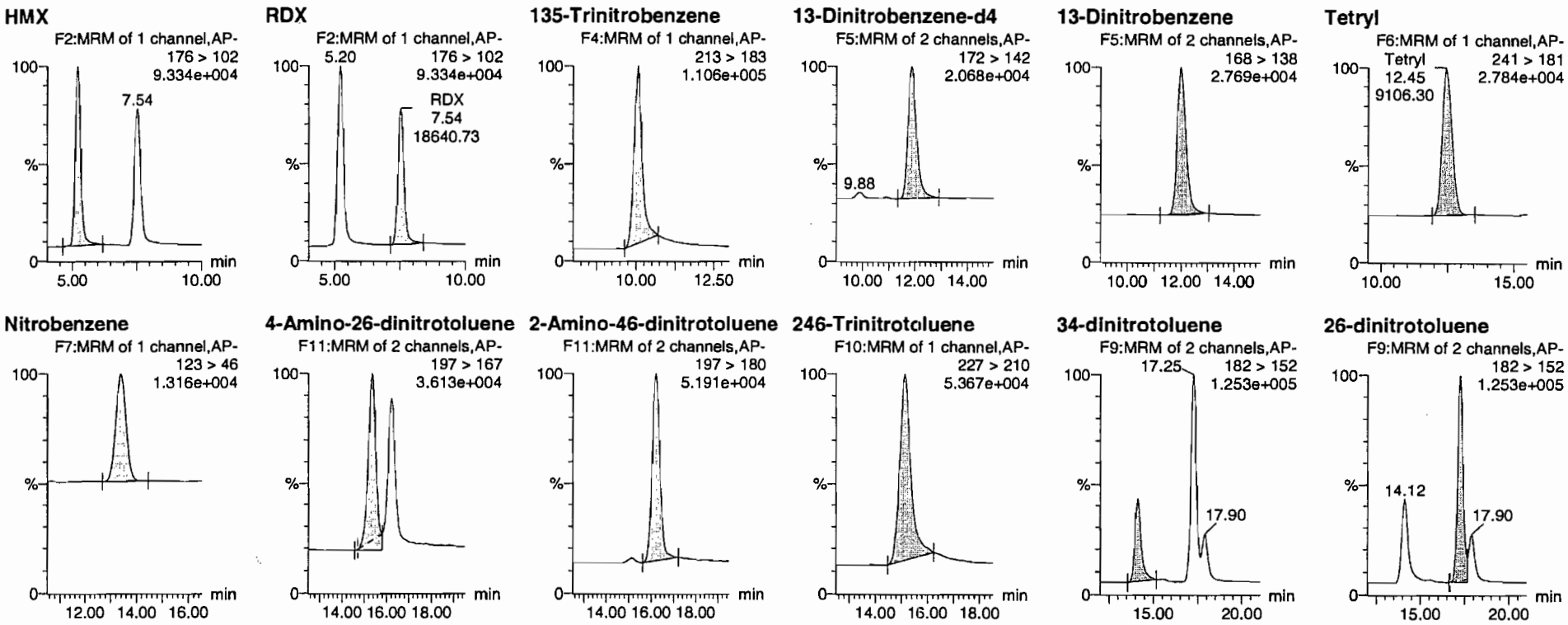

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

24-dinitrotoluene

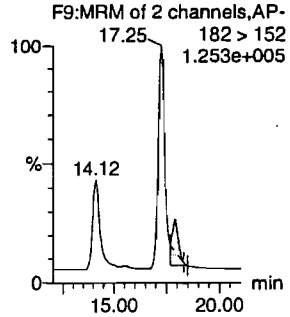

26-dinitrotoluene-d3

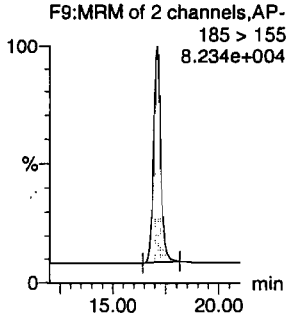

2-Nitrotoluene

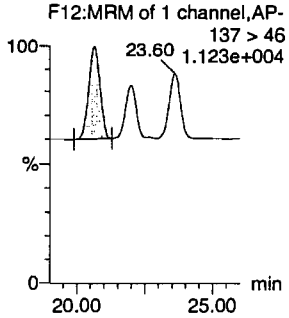

4-Nitrotoluene

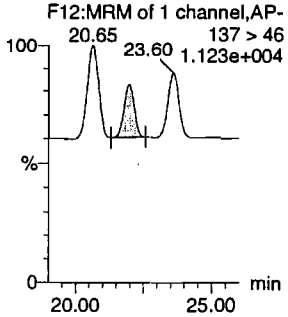

3-Nitrotoluene

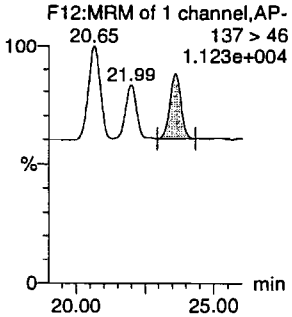

PETN

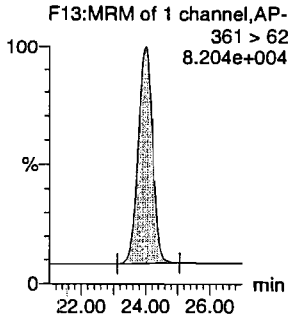

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100507-07CCV	HMX	176 > 102	5.20	23197.453	5244.607	23197.453	2211.553	bb			522.6581	87.1	-12.9	1271.5
WXX100507-07CCV	RDX	176 > 102	7.54	18640.727	5244.607	18640.727	1777.133	bb			586.6398	97.8	-2.2	957.8
WXX100507-07CCV	135-Trinitrobenzene	213 > 183	10.07	30505.131	5244.607	30505.131	2908.238	bb			612.1872	102.0	2.0	2796.0
WXX100507-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	5244.607		5244.607	5244.607	bb			405.7339	81.1	-18.9	541.0
WXX100507-07CCV	13-Dinitrobenzene	168 > 138	12.00	8179.593	5244.607	8179.593	779.810	bb			608.5751	101.4	1.4	1419.8
WXX100507-07CCV	Tetryl	241 > 181	12.45	9106.302	5244.607	9106.302	868.159	bb			632.9770	105.5	5.5	1165.4
WXX100507-07CCV	Nitrobenzene	123 > 46	13.41	3043.140	5244.607	3043.140	290.121	bb			591.6453	98.6	-1.4	401.3
WXX100507-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.35	12423.671	30504.467	12423.671	203.637	MM	08-May-10	11:56:50	598.4164	99.7	-0.3	492.0
WXX100507-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.22	18383.445	30504.467	18383.445	301.324	bb			593.2911	98.9	-1.1	428.1
WXX100507-07CCV	246-Trinitrotoluene	227 > 210	15.14	22719.729	30504.467	22719.729	372.400	bb			737.6724	122.9	22.9	672.1
WXX100507-07CCV	34-dinitrotoluene	182 > 152	14.12	19796.410	30504.467	19796.410	324.484	bb			300.6642	100.2	0.2	487.5
WXX100507-07CCV	26-dinitrotoluene	182 > 152	17.25	42936.121	30504.467	42936.121	703.768	MM	08-May-10	11:53:08	617.7479	103.0	3.0	1222.7
WXX100507-07CCV	24-dinitrotoluene	182 > 152	17.90	9432.782	30504.467	9432.782	154.613	MM	08-May-10	11:48:25	561.7625	93.6	-6.4	257.6
WXX100507-07CCV	26-dinitrotoluene-d3	185 > 155	17.09	30504.467		30504.467	30504.467	bb			412.0131	82.4	-17.6	2203.4
WXX100507-07CCV	2-Nitrotoluene	137 > 46	20.65	2158.116	30504.467	2158.116	35.374	bb			541.3830	90.2	-9.8	125.5
WXX100507-07CCV	4-Nitrotoluene	137 > 46	21.99	1114.773	30504.467	1114.773	18.272	bb			516.1064	86.0	-14.0	70.4
WXX100507-07CCV	3-Nitrotoluene	137 > 46	23.60	1452.141	30504.467	1452.141	23.802	bb			550.4910	91.7	-8.3	87.1
WXX100507-07CCV	PETN	361 > 62	23.99	39896.207	30504.467	39896.207	653.940	bb			720.8880	120.1	20.1	645.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 05/07/10
Time of Injection: 2248
Standard Number: WXX100507-07CCV
Data File: EXP050306a

HMX	87.1
RDX	97.8
135-TNB	102.0
13-DNB	101.4
Tetryl	105.5
Nitrobenzene	98.6
4A-26-DNT	99.7
2A-46-DNT	98.9
246-TNT	122.9
34-DNT(surr)	100.2
26-DNT	103.0
24-DNT	93.6
2-NT	90.2
4-NT	86.0
3-NT	91.7
PETN	120.1
Total	1598.7
Average	99.9

Hmc 05/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2937

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0501308a **Analysis Date:** 07–MAY–10 23:47

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	44.307	111	
1,3–Dinitrobenzene–d4	500	464.795	93	
2,4,6–Trinitrotoluene	40	44.712	112	
2,4–Dinitrotoluene	40	33.631	84	
2,6–Dinitrotoluene	40	41.054	103	
2,6–Dinitrotoluene–d3	500	477.027	95	
2–Amino–4,6–dinitrotoluene	40	35.952	90	
3,4–Dinitrotoluene	20	16.974	85	
4–Amino–2,6–dinitrotoluene	40	39.739	99	
HMX	40	35.011	88	
Nitrobenzene	40	33.264	83	
PETN	40	50.336	126	
RDX	40	34.474	86	
Tetryl	40	42.61	107	
m–Dinitrobenzene	40	43.229	108	
m–Nitrotoluene	40	43.037	108	
o–Nitrotoluene	40	32.658	82	
p–Nitrotoluene	40	31.945	80	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501308a
Date: 07-May-2010
Time: 23:47:10
ID: WXX100507-08CRI
Vial: 1:1,C

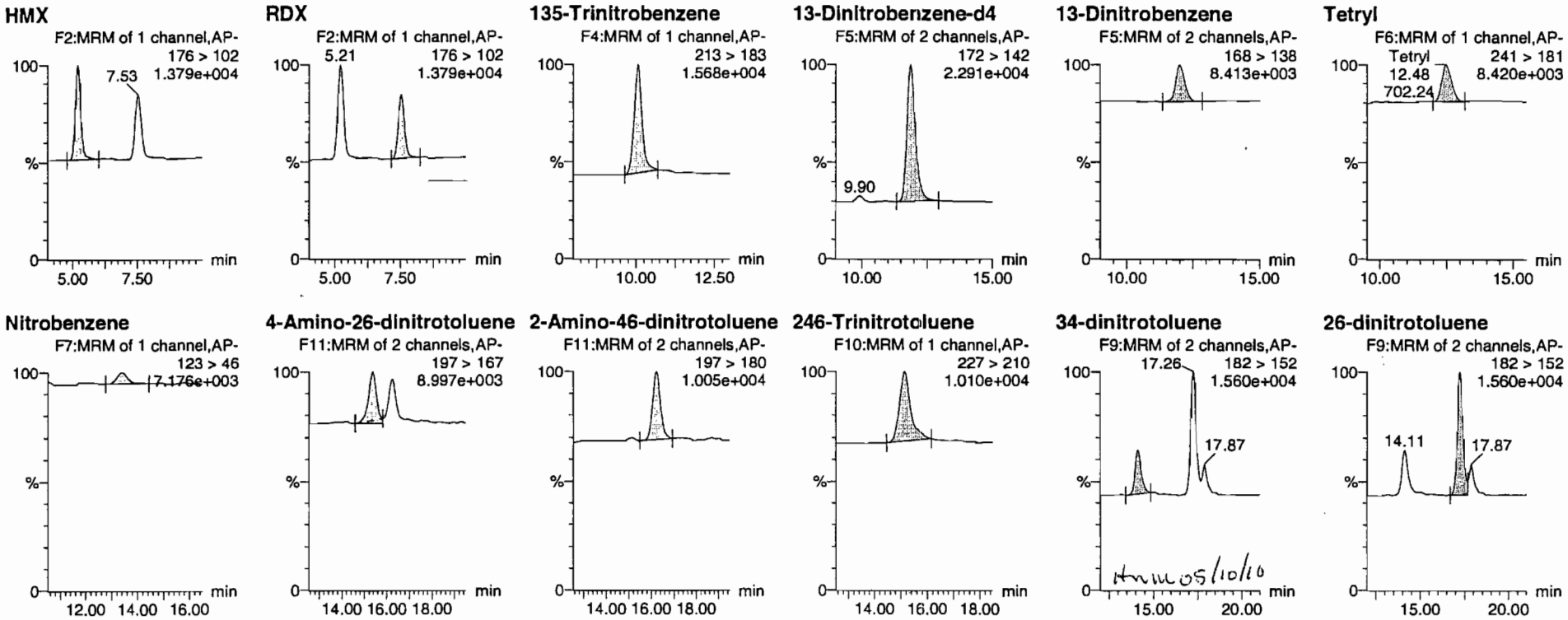

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Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

24-dinitrotoluene

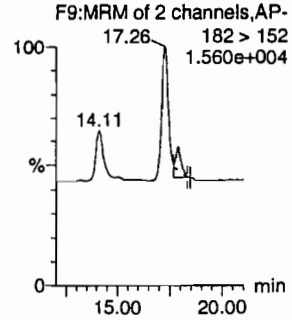

26-dinitrotoluene-d3

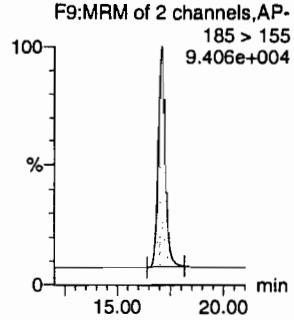

2-Nitrotoluene

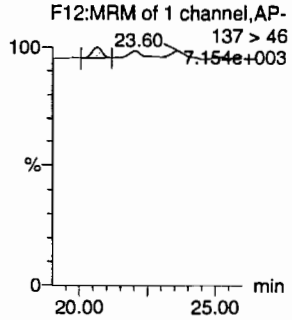

4-Nitrotoluene

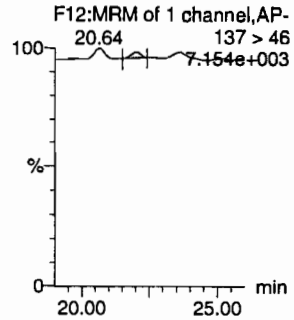

3-Nitrotoluene

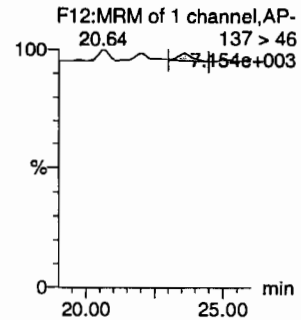

PETN

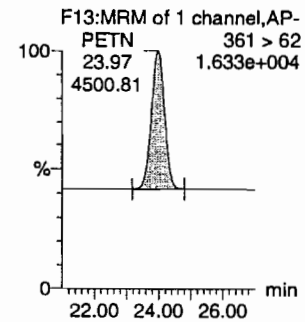

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100507-08CRI	HMX	176 > 102	5.21	1780.109	6008.048	1780.109	148.144	bb			35.0109	87.5	-12.5	288.5
WXX100507-08CRI	RDX	176 > 102	7.53	1254.899	6008.048	1254.899	104.435	bb			34.4744	86.2	-13.8	192.1
WXX100507-08CRI	135-Trinitrobenzene	213 > 183	10.05	2529.179	6008.048	2529.179	210.483	bb			44.3068	110.8	10.8	185.0
WXX100507-08CRI	13-Dinitrobenzene-d4	172 > 142	11.86	6008.048		6008.048	6008.048	bb			464.7953	93.0	-7.0	504.6
WXX100507-08CRI	13-Dinitrobenzene	168 > 138	12.00	665.602	6008.048	665.602	55.393	bb			43.2291	108.1	8.1	69.9
WXX100507-08CRI	Tetryl	241 > 181	12.48	702.235	6008.048	702.235	58.441	bb			42.6096	106.5	6.5	56.3
WXX100507-08CRI	Nitrobenzene	123 > 46	13.39	195.997	6008.048	195.997	16.311	bb			33.2635	83.2	-16.8	9.8
WXX100507-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.38	955.193	35317.902	955.193	13.523	MM	08-May-10	11:56:43	39.7387	99.3	-0.7	67.0
WXX100507-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.21	1289.762	35317.902	1289.762	18.259	bb			35.9517	89.9	-10.1	75.7
WXX100507-08CRI	246-Trinitrotoluene	227 > 210	15.13	1594.390	35317.902	1594.390	22.572	bb			44.7119	111.8	11.8	91.1
WXX100507-08CRI	34-dinitrotoluene	182 > 152	14.11	1293.925	35317.902	1293.925	18.318	bb			16.9736	84.9	-15.1	53.2
WXX100507-08CRI	26-dinitrotoluene	182 > 152	17.26	3303.678	35317.902	3303.678	46.771	MM	08-May-10	11:53:15	41.0539	102.6	2.6	146.2
WXX100507-08CRI	24-dinitrotoluene	182 > 152	17.87	653.827	35317.902	653.827	9.256	MM	08-May-10	11:48:14	33.6314	84.1	-15.9	33.5
WXX100507-08CRI	26-dinitrotoluene-d3	185 > 155	17.08	35317.902		35317.902	35317.902	bb			477.0265	95.4	-4.6	2058.7
WXX100507-08CRI	2-Nitrotoluene	137 > 46	20.64	150.729	35317.902	150.729	2.134	bb			32.6584	81.6	-18.4	30.1
WXX100507-08CRI	4-Nitrotoluene	137 > 46	22.04	79.889	35317.902	79.889	1.131	bb			31.9454	79.9	-20.1	17.0
WXX100507-08CRI	3-Nitrotoluene	137 > 46	23.60	131.442	35317.902	131.442	1.861	bb			43.0372	107.6	7.6	19.7
WXX100507-08CRI	PETN	361 > 62	23.97	4500.807	35317.902	4500.807	63.718	bb			50.3356	125.8	25.8	784.1

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	05/07/10
Time of Injection	2347
Standard Number	WXX100507-08CRI
Data File	EXP0501308a

HMX	87.5
RDX	86.2
135-TNB	110.8
13-DNB	108.1
Tetryl	106.5
Nitrobenzene	83.2
4A-26-DNT	99.3
2A-46-DNT	89.9
246-TNT	111.8
34-DNT(surr)	84.9
26-DNT	102.6
24-DNT	84.1
2-NT	81.6
4-NT	79.9
3-NT	107.6
PETN	125.8
Total	1549.8
Average	96.9

HMT 5/8/10

HMM 05/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2937

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS05030013.wiff

Analysis Date: 03–MAY–10 18:32

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	126	126	
2,6–Diamino–4–nitrotoluene	100	112	112	
3,4–Dinitrotoluene	50	55.7	111	
3,5–Dinitroaniline	100	115	115	
TATB	100	101	101	
tris(o–cresyl) phosphate	100	115	115	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

ample Name: "WXX100503-27CRI" Sample ID: "[1]MAP" File: "EXS05030013.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	100.	ng/mL
culated Conc:	101.	ng/mL
. Date:	5/3/2010	
. Time:	6:32:00 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	6.85	min
Relative RT:	No	
. Type:	Valley	
ention Time:	6.86	min
a:	6.21e+004	counts
ght:	14682.241	cps
rt Time:	6.75	min
Time:	7.20	min

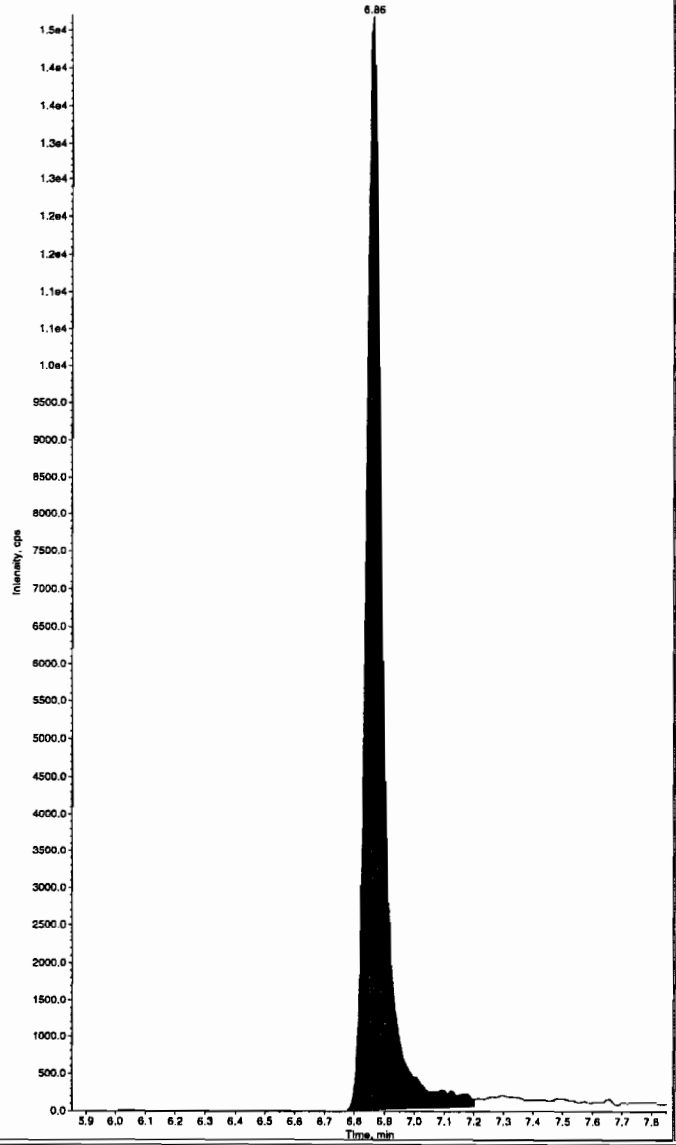

Sample Name: "WXX100503-27CRI" Sample ID: "[1]MAP" File: "EXS05030013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	115.	ng/mL
Acq. Date:	5/3/2010	
Acq. Time:	6:32:00 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	5	points
RT Window:	15.0	sec
Expected RT:	8.09	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.09	min
Area:	8.48e+005	counts
Height:	230532.471	cps
Start Time:	8.02	min
End Time:	8.23	min

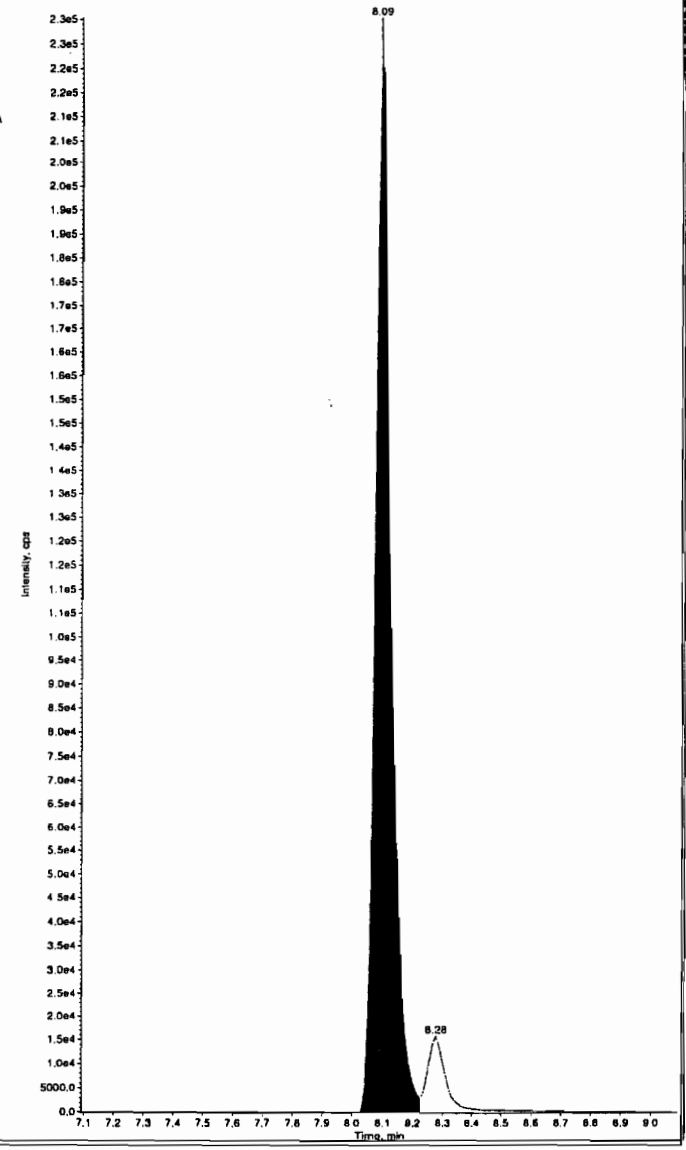

Hnm 05/06/10

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ample Name: "WXX100503-27CRI" Sample ID: "|1|MAP" File: "EXS05030013.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:         50.0     ng/mL
culated Conc:       55.7     ng/mL
. Date:          5/3/2010
. Time:          6:32:00 PM

ified:              No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:     0.00    sec
othing Width:  0         points
Window:           15.0    sec
ected RT:          8.27   min
 Relative RT:      No

. Type:          Base To Base
ention Time:       8.27   min
a:           4.51e+005   counts
ght:         123369.476  cps
rt Time:           8.20   min
 Time:             8.59   min
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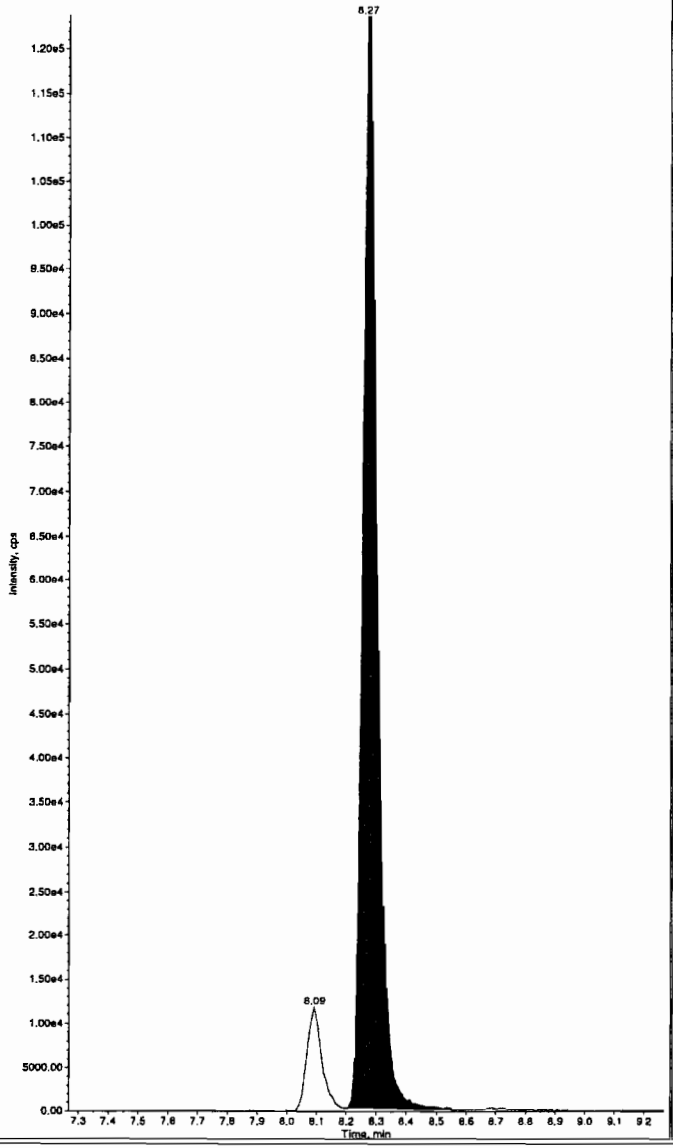

Sample Name: "WXX100503-27CRI" Sample ID: "|1|MAP" File: "EXS05030013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         100.     ng/mL
Calculated Conc:       112.     ng/mL
Acq. Date:          5/3/2010
Acq. Time:          6:32:00 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:        4.93    min
Use Relative RT:   No

Int. Type:         Valley
Retention Time:     4.93    min
Area:          3.18e+005   counts
Height:        74311.806   cps
Start Time:         4.84    min
End Time:           5.20    min
```

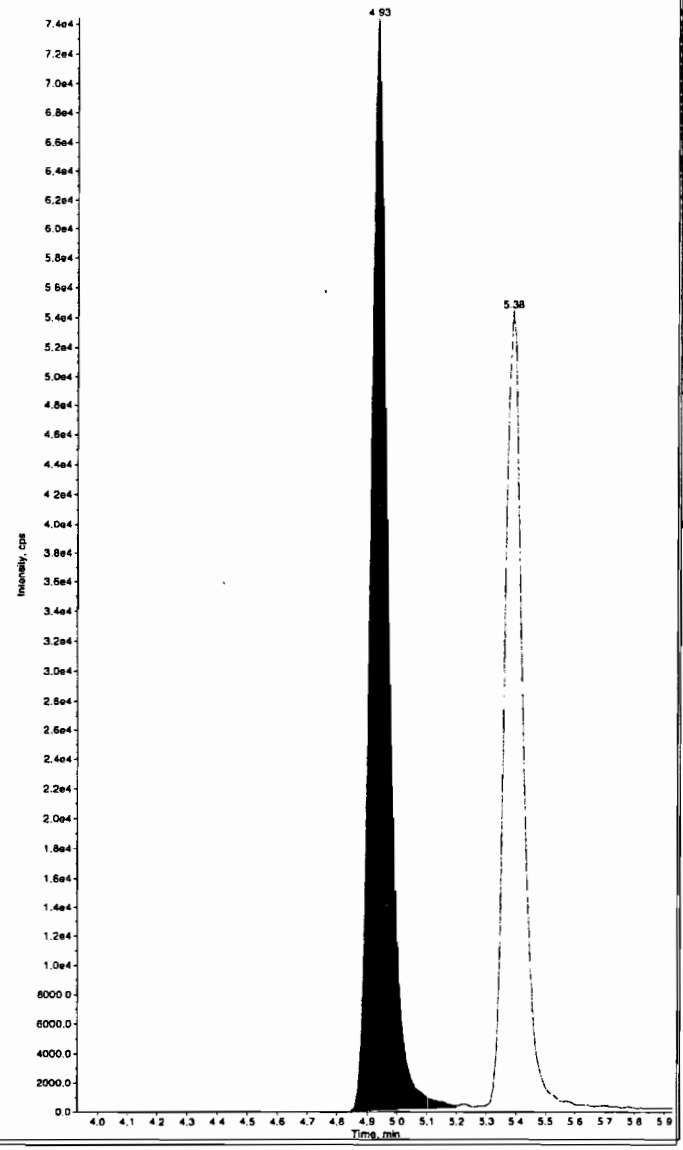

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100503-27CRI" Sample ID: "[1]MAP" File: "EXS05030013.wiff"
'eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
:omment: "LCMSEXP_C" Annotation: ""

ıple Index:	1	
ıple Type:	QC	
ıcentration:	100.	ng/mL
culated Conc:	126.	ng/mL
:. Date:	5/3/2010	
:. Time:	6:32:00 PM	
ıified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	350.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	5.38	min
Relative RT:	No	
. Type:	Valley	
ention Time:	5.38	min
a:	2.35e+005	counts
ght:	54164.463	cps
rt Time:	5.26	min
Time:	5.66	min

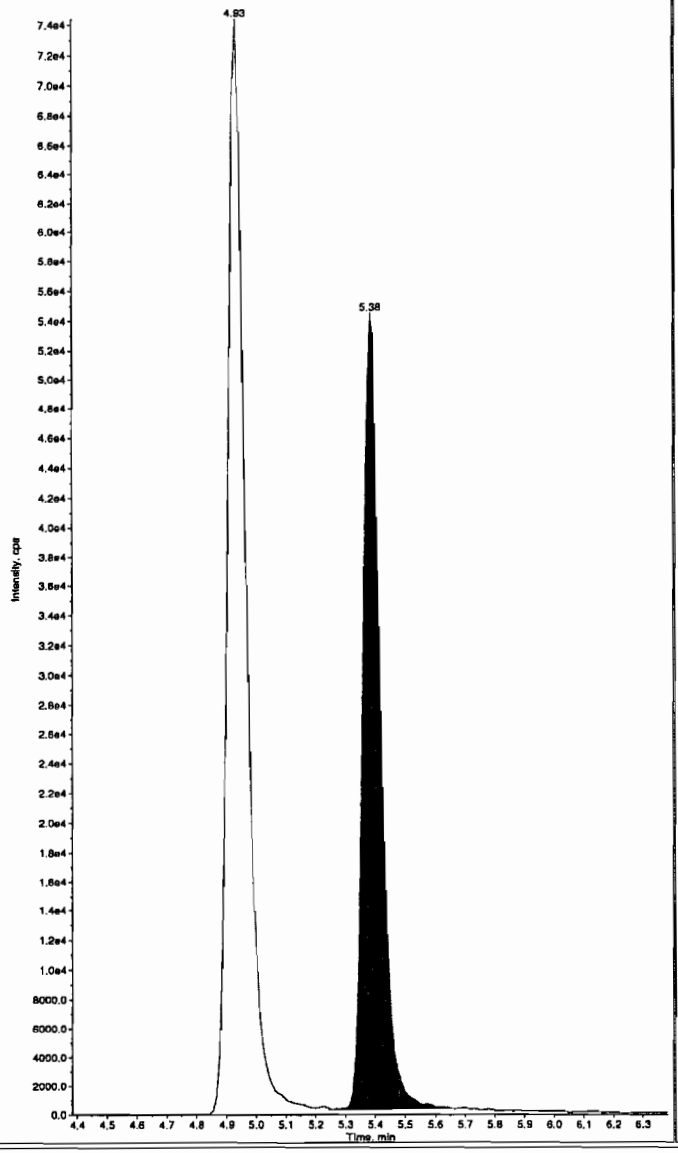

Sample Name: "WXX100503-27CRI" Sample ID: "[1]MAP" File: "EXS05030013.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	115.	ng/mL
Acq. Date:	5/3/2010	
Acq. Time:	6:32:00 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	2.06e+006	counts
Height:	515200.439	cps
Start Time:	10.7	min
End Time:	11.1	min

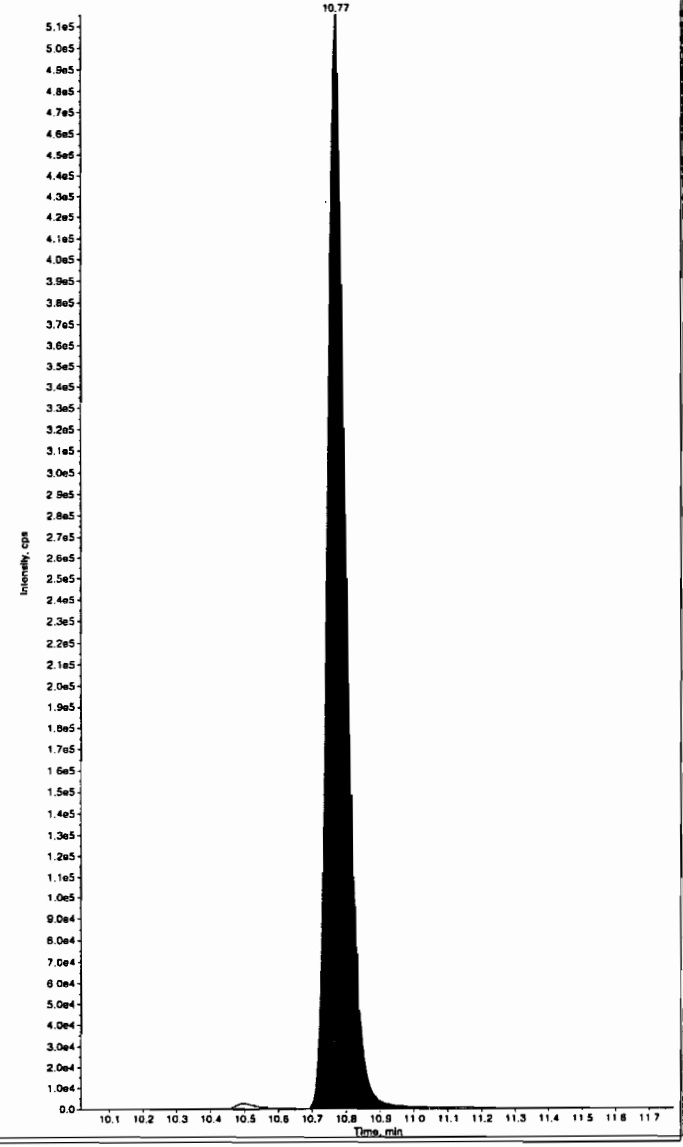

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS05030023.wiff

Analysis Date: 03-MAY-10 21:09

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	560	112	
2,6-Diamino-4-nitrotoluene	500	516	103	
3,4-Dinitrotoluene	250	253	101	
3,5-Dinitroaniline	500	497	99	
TATB	500	489	98	
tris(o-cresyl) phosphate	500	504	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino--4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80--120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

HMM 5/5/10

mple Name: "WXX100503-26CCV" Sample ID: "|1|MAP" File: "EXS05030023.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index:	1	
le Type:	QC	
entration:	500.	ng/mL
ulated Conc:	489.	ng/mL
Date:	5/3/2010	
Time:	9:09:00 PM	
fied:	No	
. Algorithm:	IntelliQuan - IQA	
Peak Height:	2500.00	cps
Peak Width:	0.00	sec
thing Width:	3	points
indow:	30.0	sec
cted RT:	6.85	min
Relative RT:	No	
Type:	Valley	
ntion Time:	6.87	min
:	3.33e+005	counts
ht:	74525.604	cps
t Time:	6.79	min
Time:	7.47	min

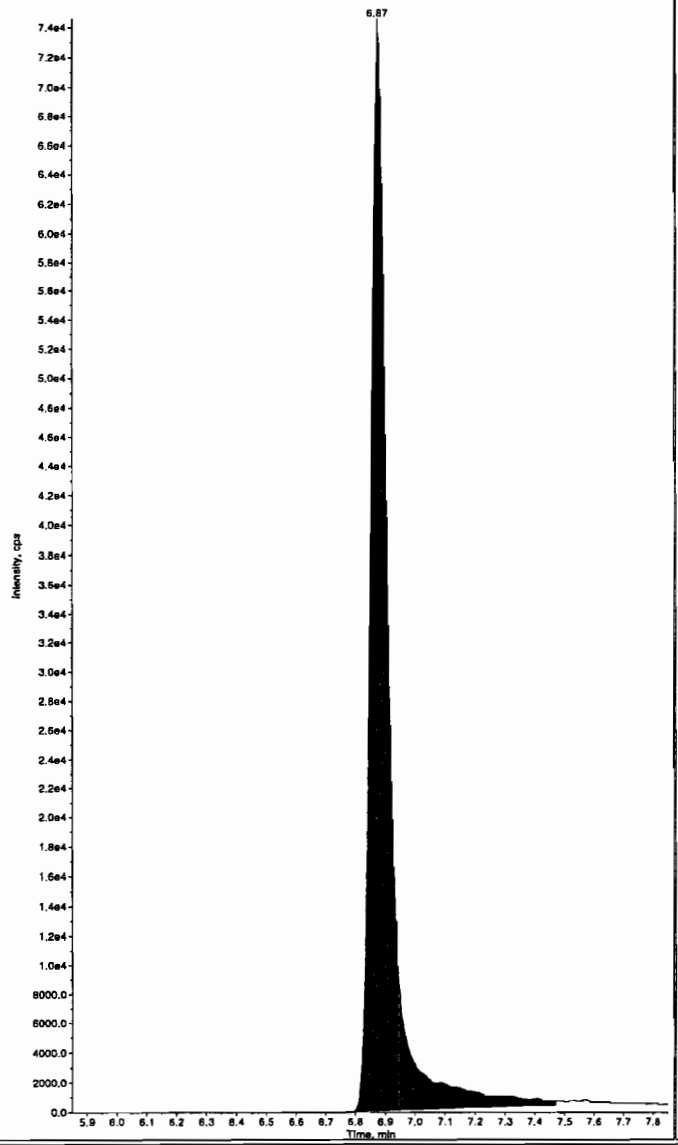

Sample Name: "WXX100503-26CCV" Sample ID: "|1|MAP" File: "EXS05030023.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	497.	ng/mL
Acq. Date:	5/3/2010	
Acq. Time:	9:09:00 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	5	points
RT Window:	15.0	sec
Expected RT:	8.09	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.11	min
Area:	3.95e+006	counts
Height:	1016082.275	cps
Start Time:	8.04	min
End Time:	8.24	min

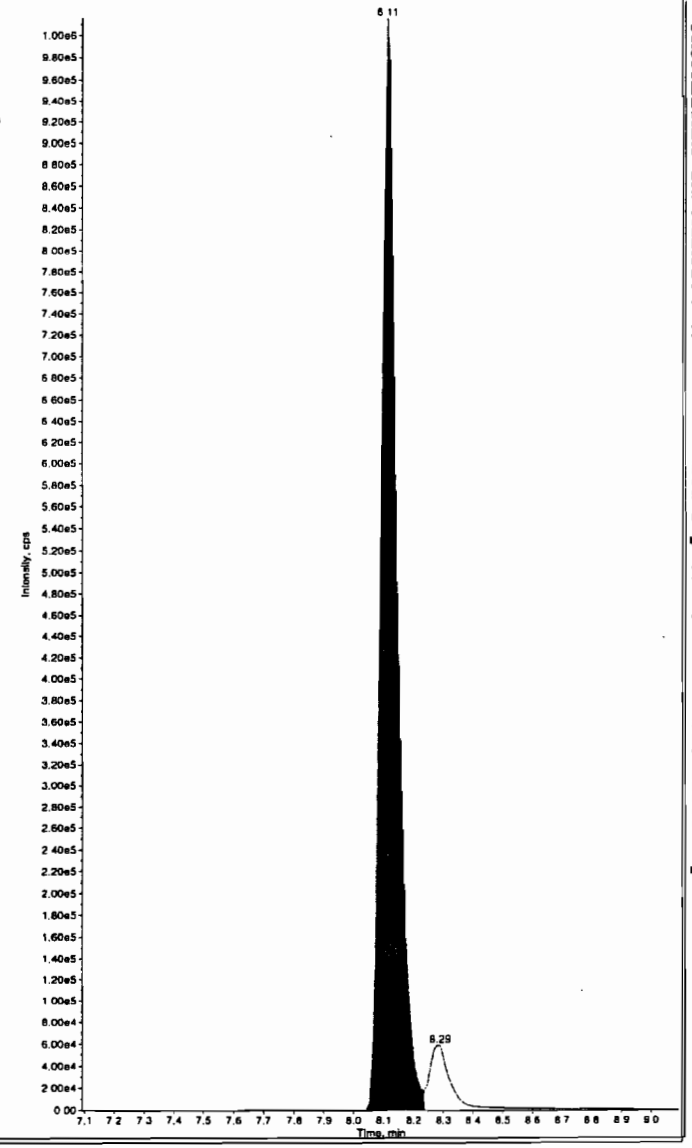

Hmm 05/06/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100503-26CCV" Sample ID: "|1|MAP" File: "EXS05030023.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 250. ng/mL
ulated Conc: 253. ng/mL
Date: 5/3/2010
Time: 9:09:00 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 0 points
indow: 15.0 sec
cted RT: 8.27 min
Relative RT: No

Type: Valley
ntion Time: 8.28 min
: 2.07e+006 counts
ht: 567022.278 cps
t Time: 8.21 min
Time: 8.61 min

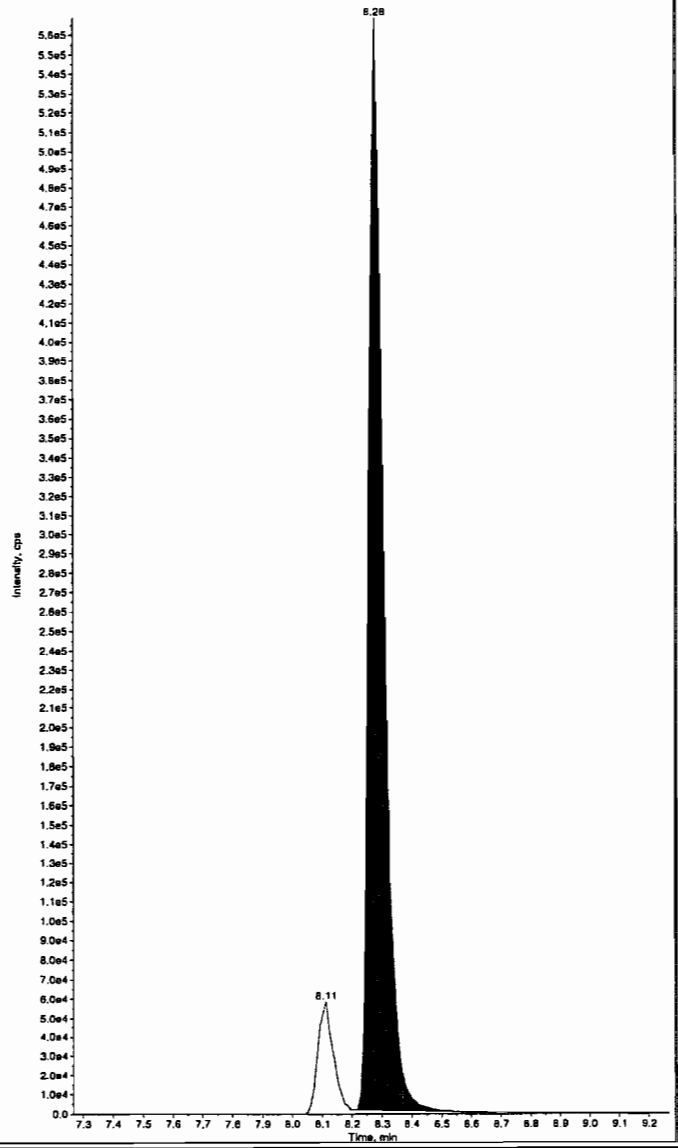

Sample Name: "WXX100503-26CCV" Sample ID: "|1|MAP" File: "EXS05030023.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 516. ng/mL
Acq. Date: 5/3/2010
Acq. Time: 9:09:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.93 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.94 min
Area: 1.52e+006 counts
Height: 363563.446 cps
Start Time: 4.84 min
End Time: 5.24 min

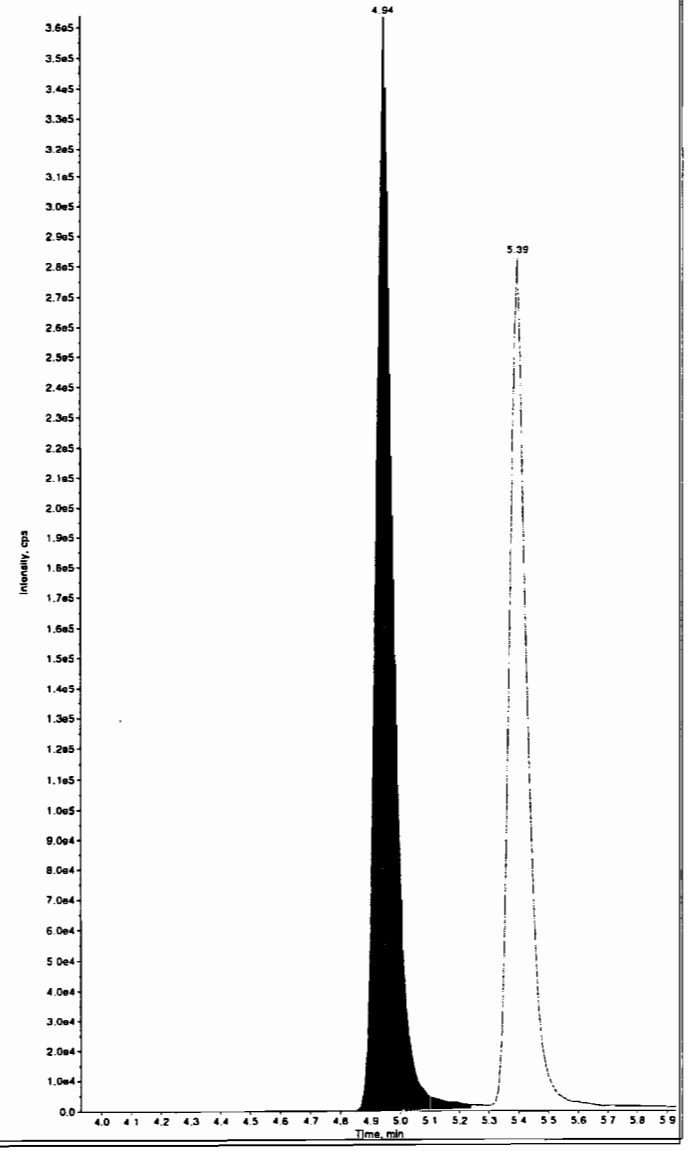

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100503-26CCV" Sample ID: "|1|MAP" File: "EXS05030023.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:        1
ple Type:          QC
entration:       500.    ng/mL
culated Conc:    560.    ng/mL
 Date:        5/3/2010
 Time:        9:09:00 PM

fied:             No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00   cps
 Peak Width:    0.00   sec
thing Width:  3        points
indow:          30.0   sec
cted RT:         5.38  min
 Relative RT:    No

 Type:         Valley
ntion Time:      5.39  min
:          1.15e+006  counts
ht:          281901.062  cps
t Time:          5.29  min
Time:            5.68  min
```

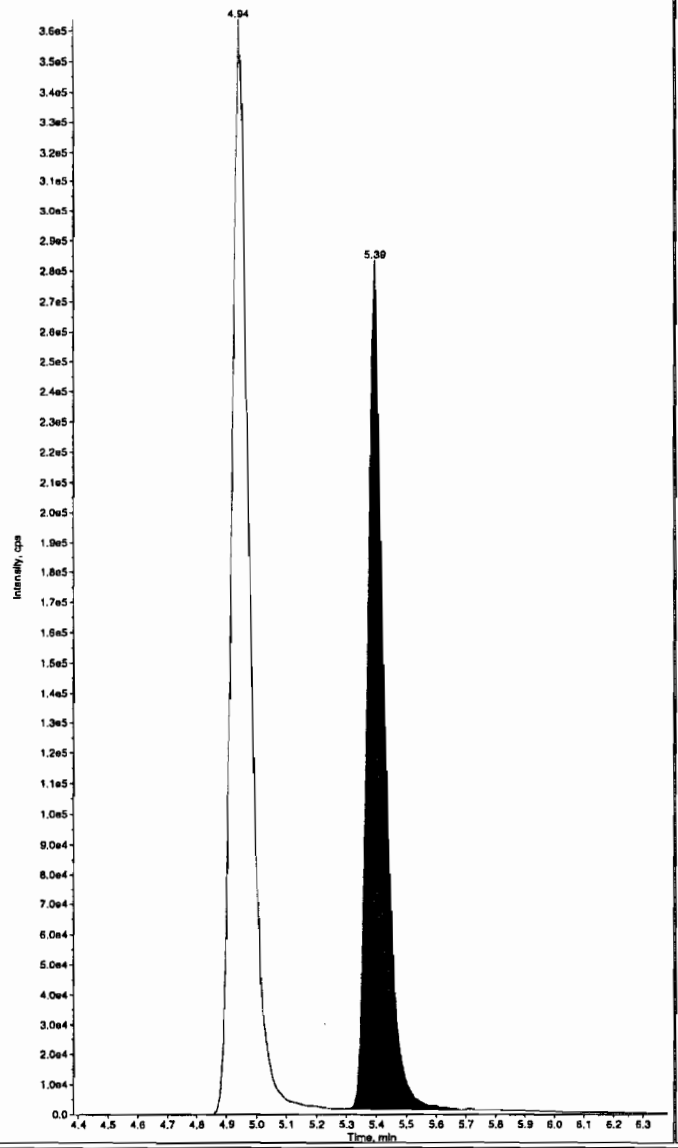

Sample Name: "WXX100503-26CCV" Sample ID: "|1|MAP" File: "EXS05030023.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:          QC
Concentration:       500.    ng/mL
Calculated Conc:     504.    ng/mL
Acq. Date:        5/3/2010
Acq. Time:        9:09:00 PM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:          30.0   sec
Expected RT:        10.8   min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.8   min
Area:         8.91e+006  counts
Height:        2101957.764  cps
Start Time:         10.7   min
End Time:           11.1   min
```

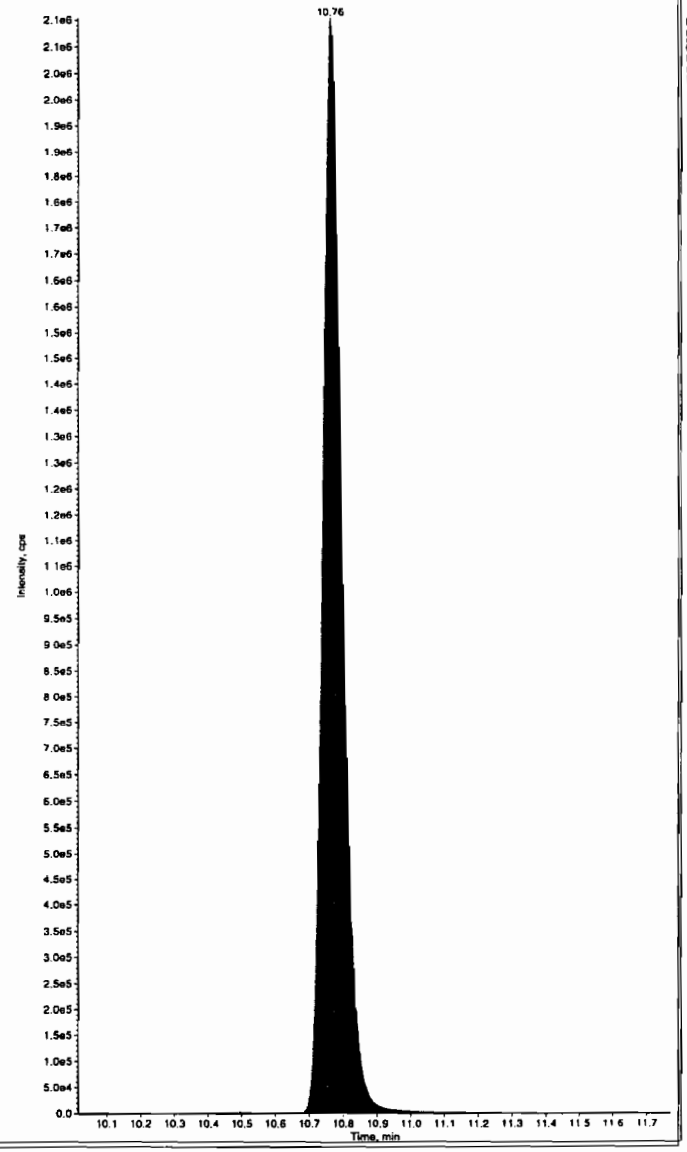

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2937

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS05030025.wiff

Analysis Date: 03–MAY–10 21:40

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	124	124	
2,6–Diamino–4–nitrotoluene	100	105	105	
3,4–Dinitrotoluene	50	53.7	107	
3,5–Dinitroaniline	100	117	117	
TATB	100	95	95	
tris(o–cresyl) phosphate	100	112	112	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LMT 5/8/10

mple Name: "WXX100503-27CRI" Sample ID: "|1|MAP" File: "EXS05030025.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
entration:	100.	ng/mL
ulated Conc:	95.0	ng/mL
Date:	5/3/2010	
Time:	9:40:23 PM	
fied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	2500.00	cps
Peak Width:	0.00	sec
thing Width:	3	points
indow:	30.0	sec
cted RT:	6.85	min
Relative RT:	No	
Type:	Valley	
ntion Time:	6.88	min
:	5.80e+004	counts
ht:	13929.276	cps
t Time:	6.80	min
Time:	7.24	min

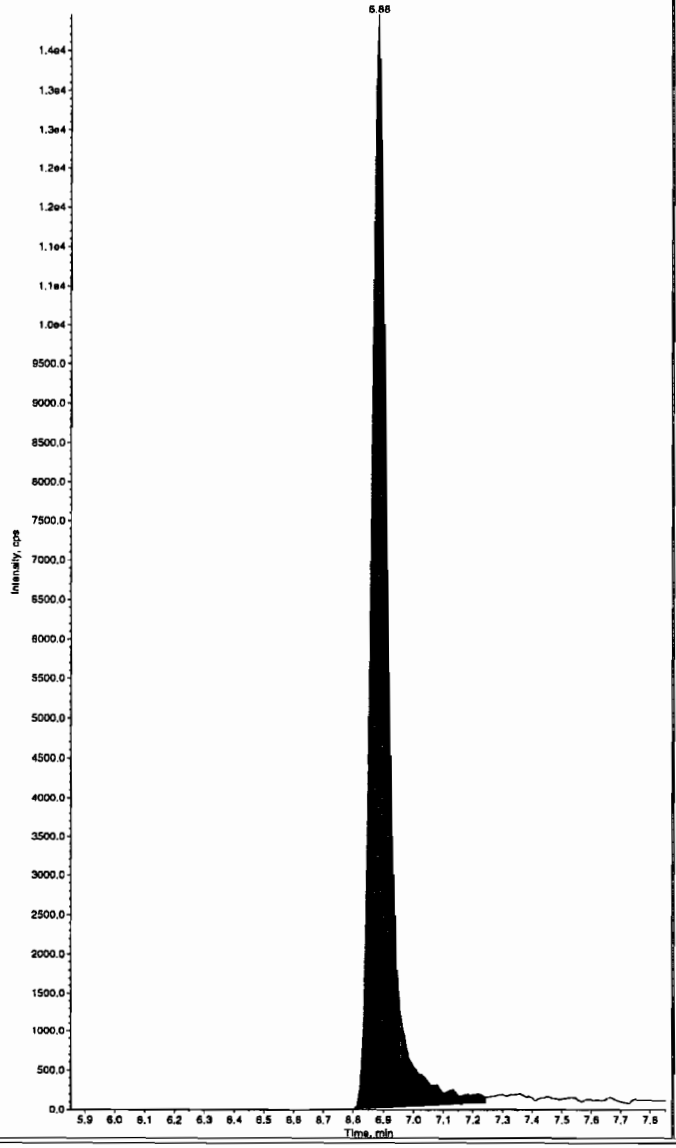

Sample Name: "WXX100503-27CRI" Sample ID: "|1|MAP" File: "EXS05030025.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	117.	ng/mL
Acq. Date:	5/3/2010	
Acq. Time:	9:40:23 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	5	points
RT Window:	15.0	sec
Expected RT:	8.09	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.11	min
Area:	8.58e+005	counts
Height:	213369.263	cps
Start Time:	8.04	min
End Time:	8.24	min

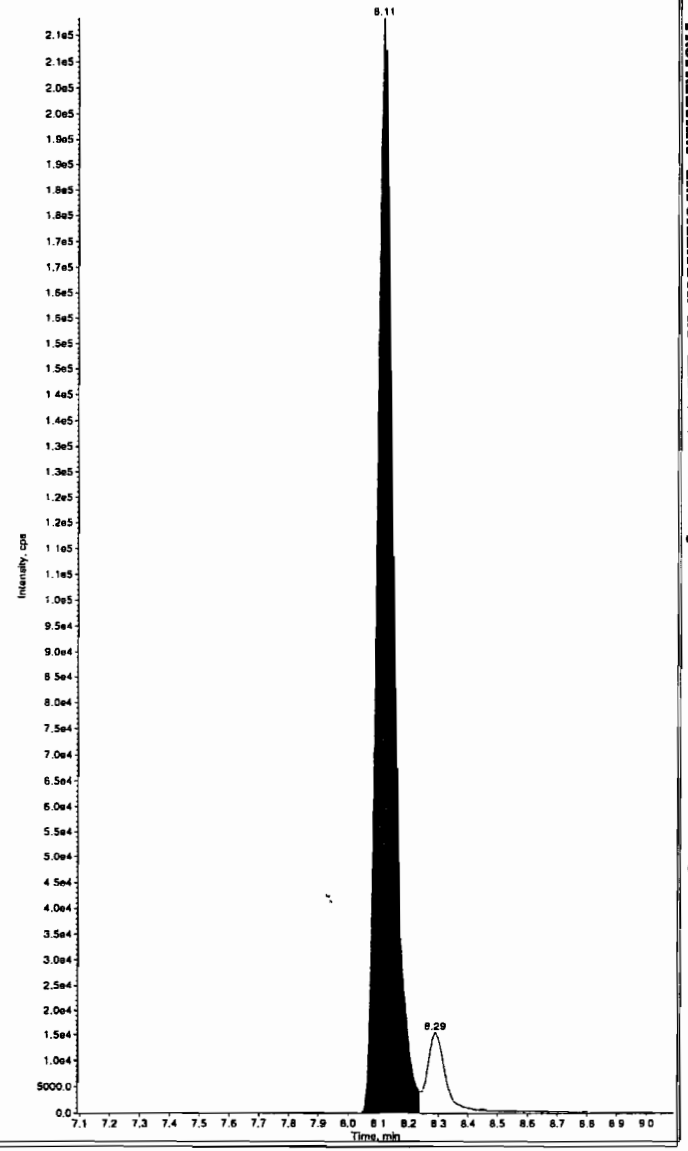

Hmw 05/06/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100503-27CRI" Sample ID: "|1|MAP" File: "EXS05030025.wiff"
ek Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

ıle Index:	1	
ıle Type:	QC	
:entration:	50.0	ng/mL
:ulated Conc:	53.7	ng/mL
Date:	5/3/2010	
Time:	9:40:23 PM	
.fied:	No	
:. Algorithm:	IntelliQuan - IQA	
Peak Height:	1460.00	cps
Peak Width:	0.00	sec
ıthing Width:	0	points
ſindow:	15.0	sec
:cted RT:	8.27	min
Relative RT:	No	
Type:	Valley	
ıntion Time:	8.29	min
::	4.33e+005	counts
ıht:	123709.137	cps
't Time:	8.22	min
Time:	8.60	min

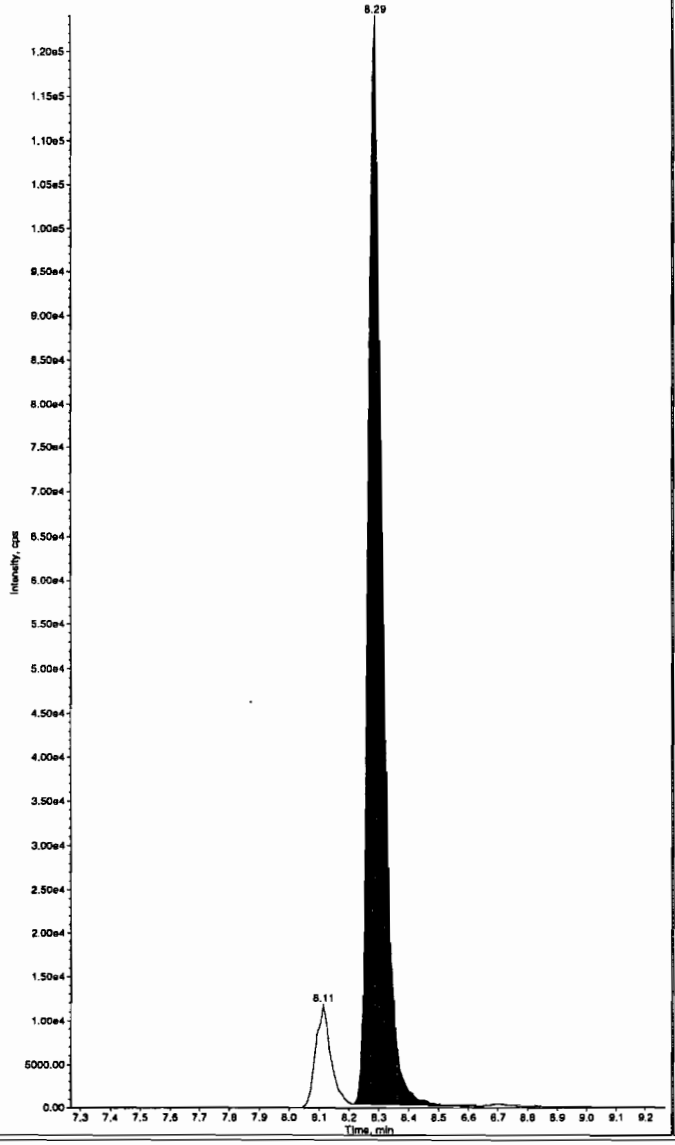

Sample Name: "WXX100503-27CRI" Sample ID: "|1|MAP" File: "EXS05030025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	105.	ng/mL
Acq. Date:	5/3/2010	
Acq. Time:	9:40:23 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	4.93	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	4.95	min
Area:	2.97e+005	counts
Height:	68541.344	cps
Start Time:	4.85	min
End Time:	5.24	min

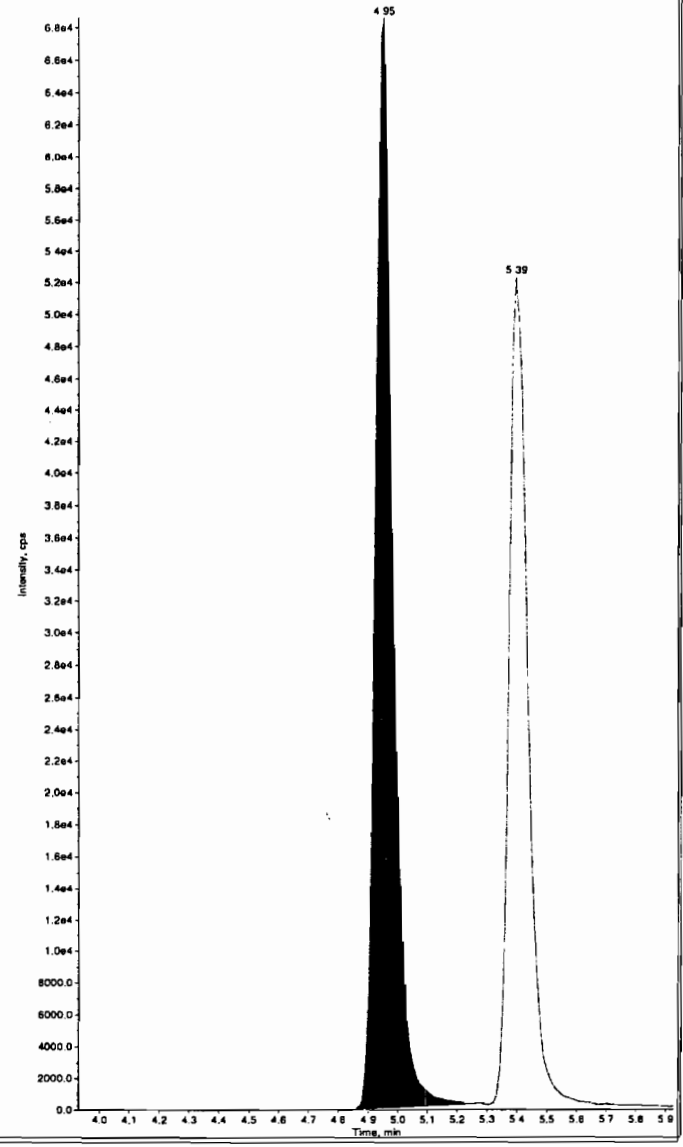

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100503-27CRI" Sample ID: "|1|MAP" File: "EXS05030025.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
entration:          100.     ng/mL
culated Conc:       124.     ng/mL
Date:          5/3/2010
Time:          9:40:23 PM

fied:               No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00    cps
Peak Width:    0.00    sec
thing Width:  3        points
Window:          30.0  sec
cted RT:         5.38  min
Relative RT:     No

Type:          Valley
ntion Time:      5.39  min
:          2.30e+005   counts
ht:          52121.094 cps
t Time:          5.30  min
Time:            5.75  min
```

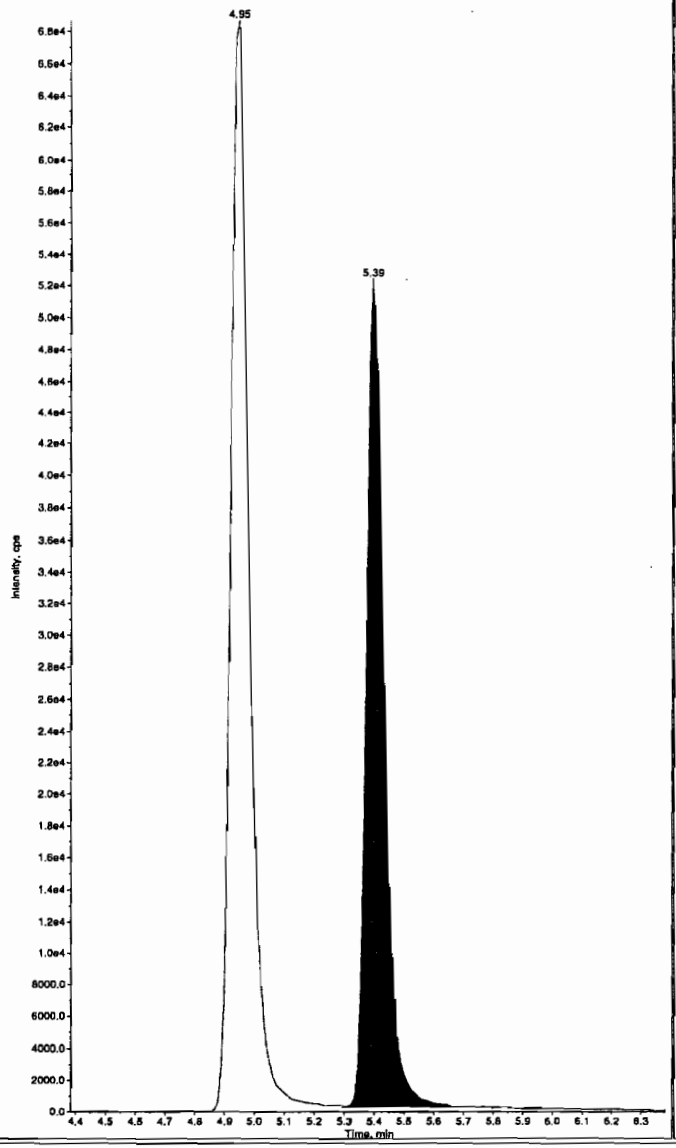

Sample Name: "WXX100503-27CRI" Sample ID: "|1|MAP" File: "EXS05030025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         100.     ng/mL
Calculated Conc:       112.     ng/mL
Acq. Date:        5/3/2010
Acq. Time:        9:40:23 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:          30.0    sec
Expected RT:        10.8    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.8    min
Area:         2.01e+006    counts
Height:         505869.141 cps
Start Time:         10.7    min
End Time:           11.1    min
```

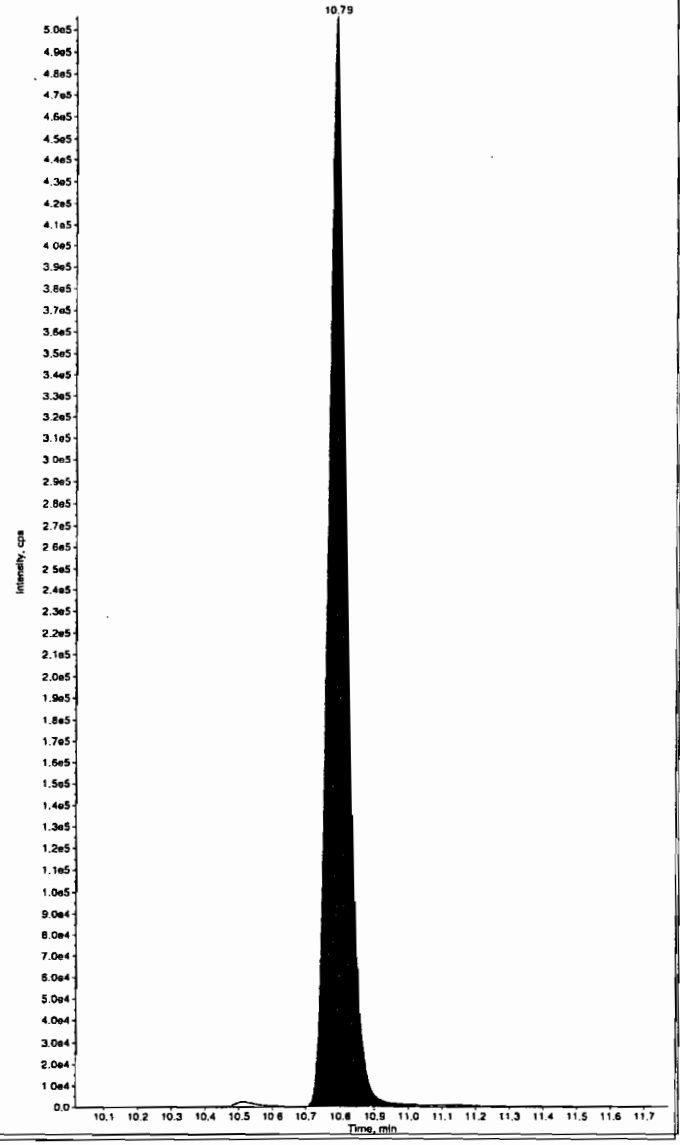

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2937

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS05030036.wiff

Analysis Date: 04-MAY-10 00:33

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	601	120	
2,6-Diamino-4-nitrotoluene	500	518	104	
3,4-Dinitrotoluene	250	253	101	
3,5-Dinitroaniline	500	495	99	
TATB	500	519	104	
tris(o-cresyl) phosphate	500	503	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

MAP 5/5/10

mple Name: "WXX100503-26CCV" Sample ID: "|1|MAP" File: "EXS05030036.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
le Type:           QC
entration:         500.     ng/mL
ulated Conc:       519.     ng/mL
 Date:         5/4/2010
 Time:         12:33:11 AM

fied:              No
. Algorithm: IntelliQuan - IQA
 Peak Height:2500.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
Window:          30.0   sec
cted RT:         6.85   min
 Relative RT:    No

 Type:         Valley
ntion Time:      6.88   min
:          3.52e+005    counts
ht:          71294.693  cps
t Time:          6.78   min
 Time:           7.77   min
```

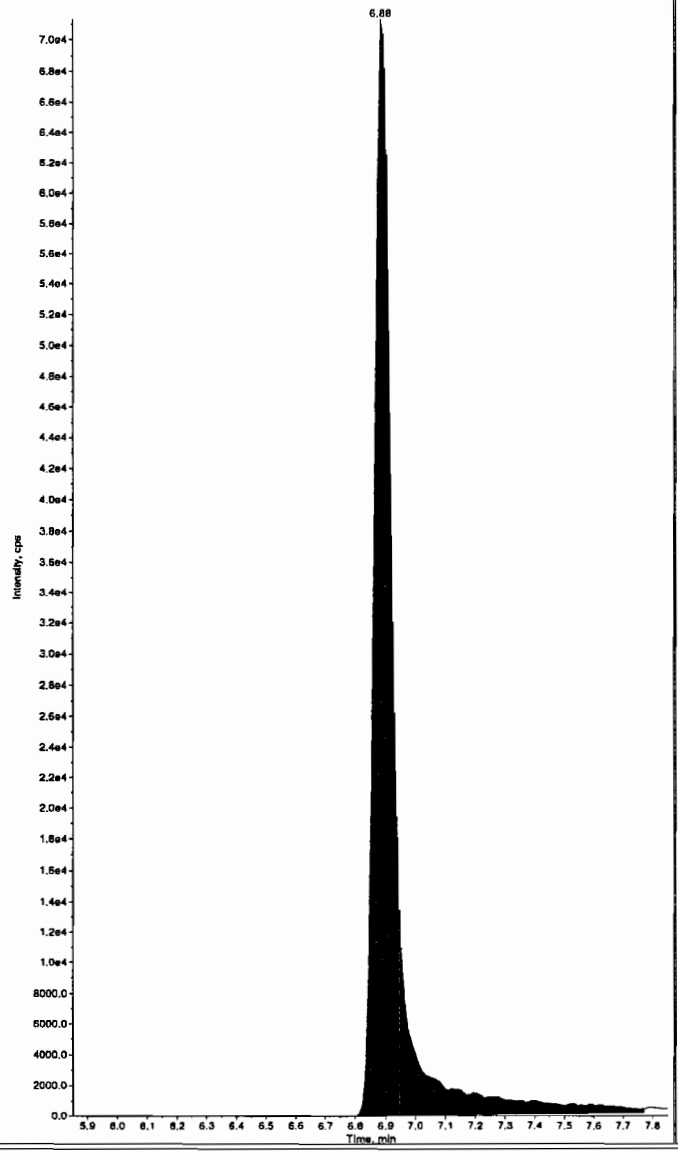

Sample Name: "WXX100503-26CCV" Sample ID: "|1|MAP" File: "EXS05030036.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         500.     ng/mL
Calculated Conc:       495.     ng/mL
Acq. Date:         5/4/2010
Acq. Time:         12:33:11 AM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  5        points
RT Window:          15.0    sec
Expected RT:         8.09   min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:      8.11   min
Area:          3.93e+006    counts
Height:        1017569.397  cps
Start Time:          8.05   min
End Time:            8.24   min
```

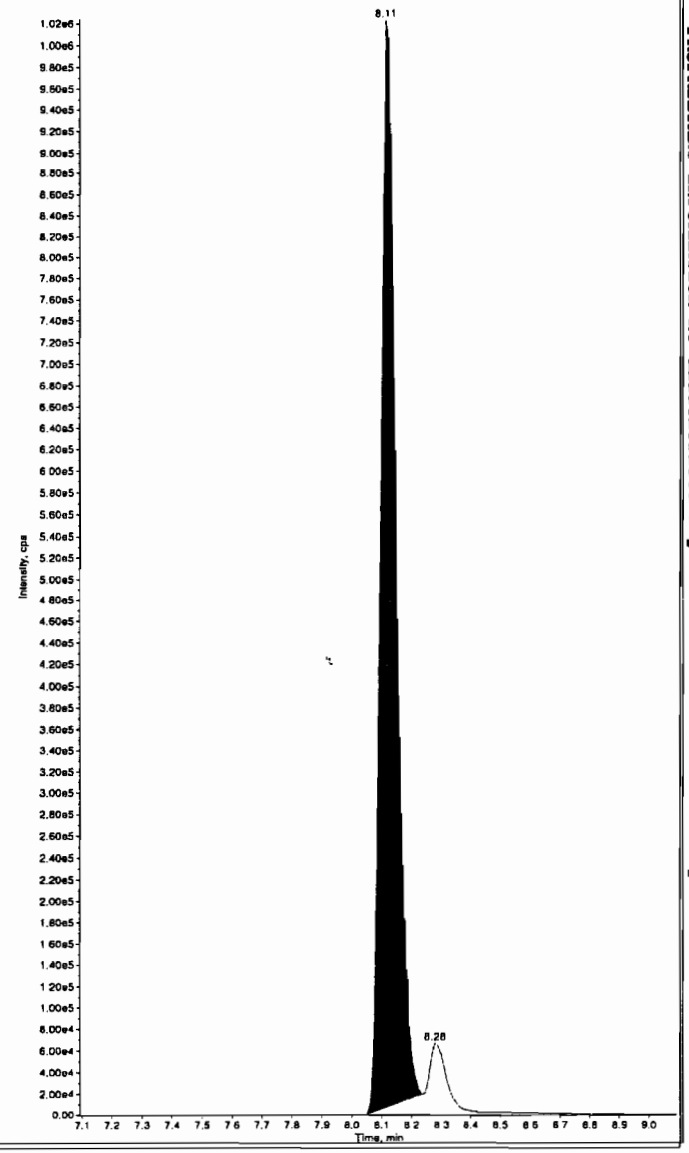

Hmm 05/06/10

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100503-26CCV" Sample ID: "|1|MAP" File: "EXS05030036.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
entration: 250. ng/mL
culated Conc: 253. ng/mL
Date: 5/4/2010
Time: 12:33:11 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 0 points
Window: 15.0 sec
cted RT: 8.27 min
Relative RT: No

Type: Valley
ntion Time: 8.28 min
: 2.08e+006 counts
ht: 581658.997 cps
t Time: 8.22 min
Time: 8.59 min

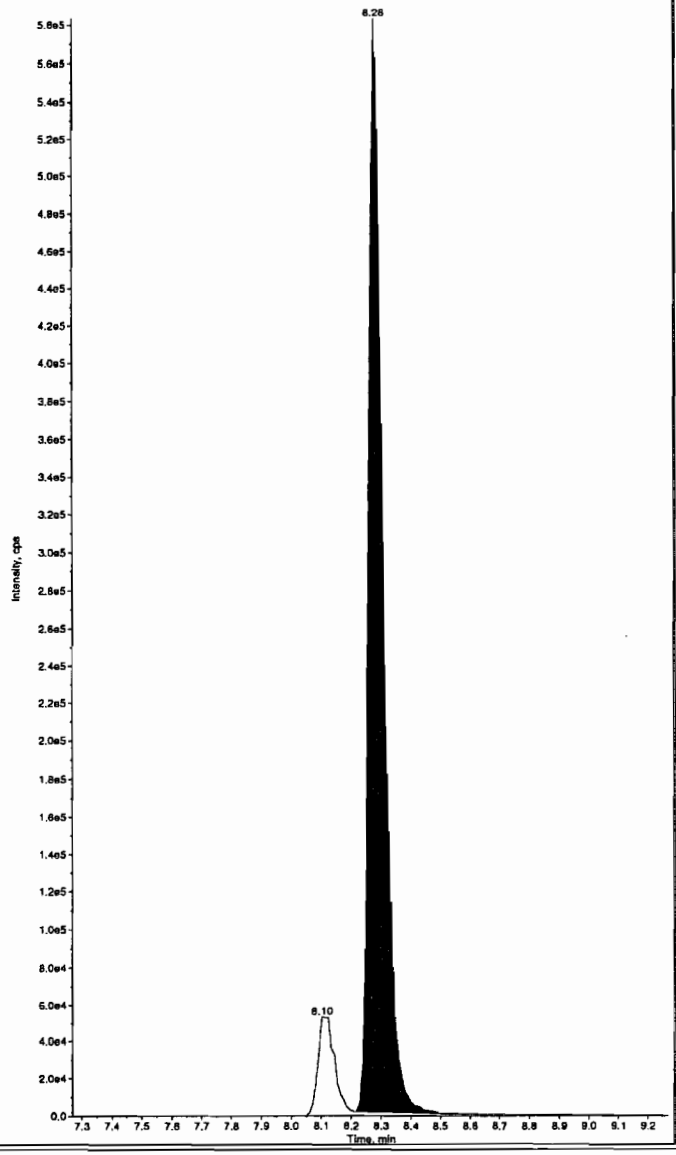

Sample Name: "WXX100503-26CCV" Sample ID: "|1|MAP" File: "EXS05030036.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 518. ng/mL
Acq. Date: 5/4/2010
Acq. Time: 12:33:11 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.93 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 1.53e+006 counts
Height: 324448.212 cps
Start Time: 4.87 min
End Time: 5.25 min

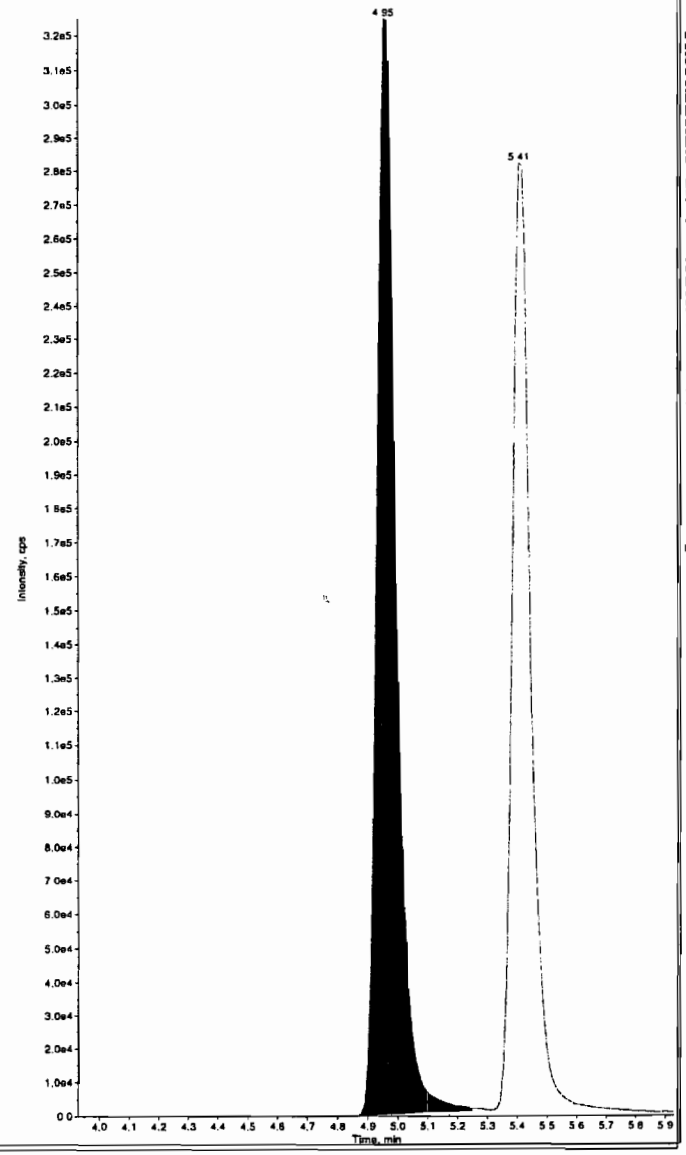

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100503-26CCV" Sample ID: "|1|MAP" File: "EXS05030036.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:        1
ple Type:        QC
entration:      500.     ng/mL
culated Conc:   601.     ng/mL
 Date:       5/4/2010
 Time:       12:33:11 AM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00   cps
 Peak Width:    0.00   sec
thing Width:  3        points
indow:        30.0     sec
cted RT:       5.38    min
Relative RT:   No

 Type:        Valley
ntion Time:    5.41    min
:          1.24e+006   counts
ht:        280881.042  cps
t Time:        5.31    min
Time:          5.88    min
```

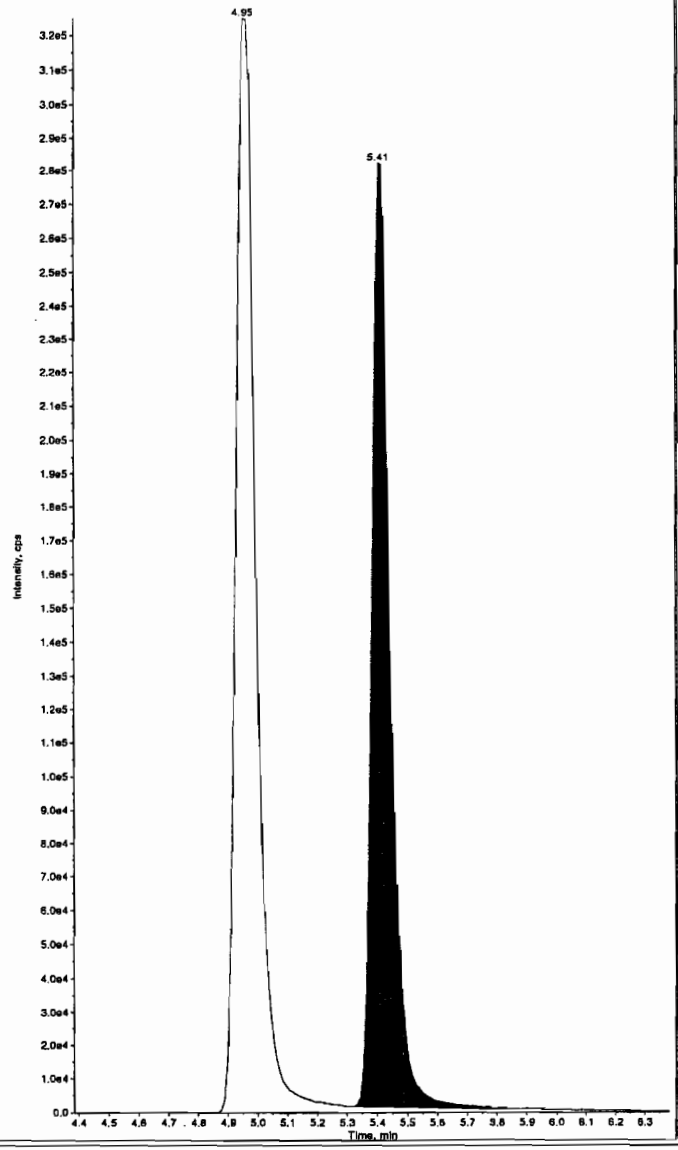

Sample Name: "WXX100503-26CCV" Sample ID: "|1|MAP" File: "EXS05030036.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      500.     ng/mL
Calculated Conc:    503.     ng/mL
Acq. Date:       5/4/2010
Acq. Time:       12:33:11 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:       10.8    min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    10.8    min
Area:        8.88e+006     counts
Height:      2114548.828   cps
Start Time:        10.7    min
End Time:          11.1    min
```

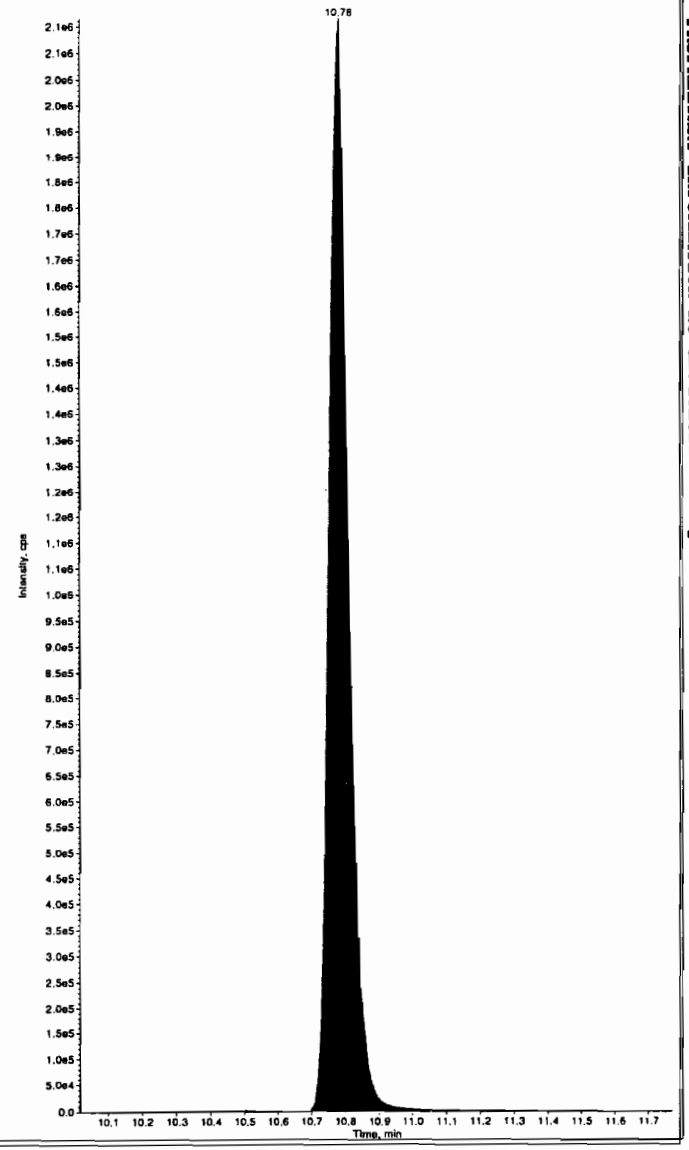

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2937

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS05030038.wiff

Analysis Date: 04–MAY–10 01:04

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	144	144	
2,6–Diamino–4–nitrotoluene	100	114	114	
3,4–Dinitrotoluene	50	53.9	108	
3,5–Dinitroaniline	100	115	115	
TATB	100	106	106	
tris(o–cresyl) phosphate	100	112	112	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

MATT 5/5/10

nple Name: "WXX100503-27CRI" Sample ID: "[1]MAP" File: "EXS05030038.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 106. ng/mL
Date: 5/4/2010
Time: 1:04:34 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.85 min
Relative RT: No

Type: Valley
ntion Time: 6.89 min
: 6.57e+004 counts
ht: 16071.091 cps
t Time: 6.77 min
Time: 7.33 min

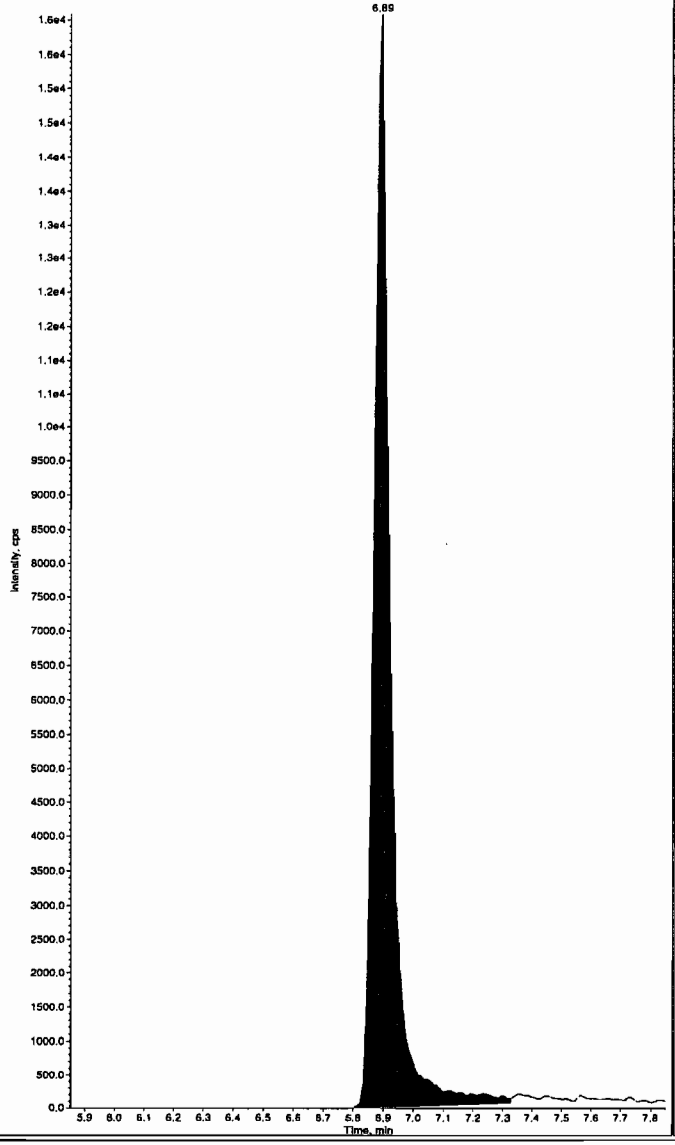

Sample Name: "WXX100503-27CRI" Sample ID: "[1]MAP" File: "EXS05030038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 115. ng/mL
Acq. Date: 5/4/2010
Acq. Time: 1:04:34 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 5 points
RT Window: 15.0 sec
Expected RT: 8.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 8.44e+005 counts
Height: 219462.097 cps
Start Time: 8.04 min
End Time: 8.25 min

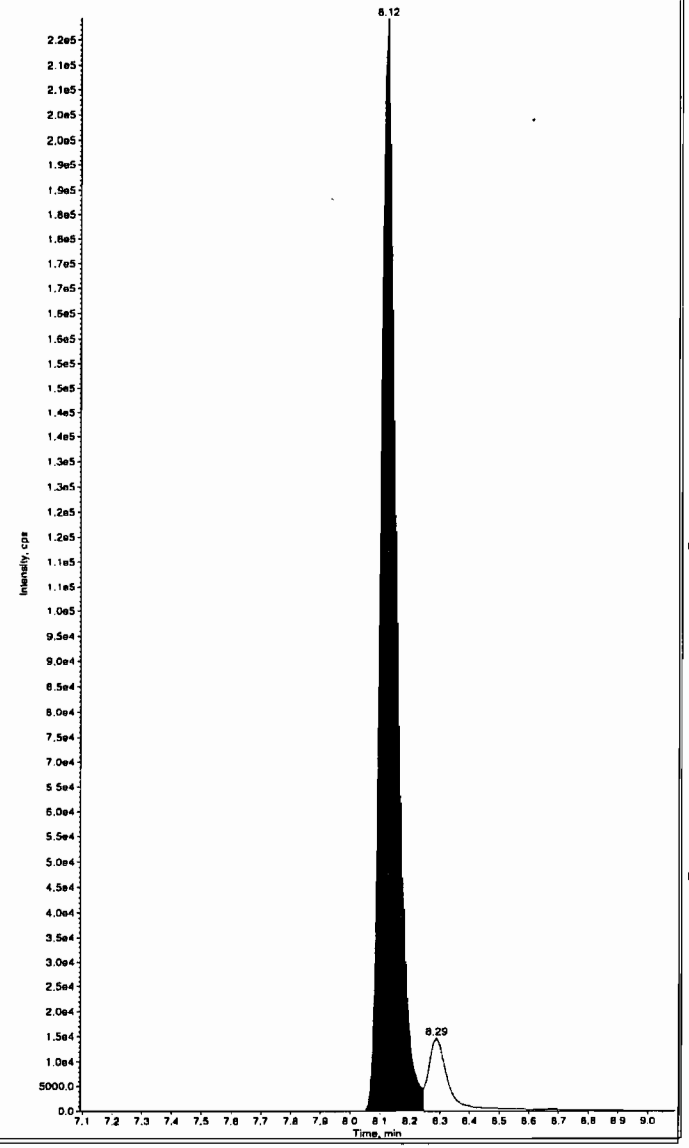

HMM 05/06/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100503-27CRI" Sample ID: "|1|MAP" File: "EXS05030038.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index:	1	
le Type:	QC	
entration:	50.0	ng/mL
ulated Conc:	53.9	ng/mL
Date:	5/4/2010	
Time:	1:04:34 AM	
fied:	No	
. Algorithm:	IntelliQuan - IQA	
Peak Height:	1460.00	cps
Peak Width:	0.00	sec
thing Width:	0	points
indow:	15.0	sec
cted RT:	8.27	min
Relative RT:	No	
Type:	Valley	
ntion Time:	8.28	min
:	4.35e+005	counts
ht:	122963.707	cps
t Time:	8.22	min
Time:	8.54	min

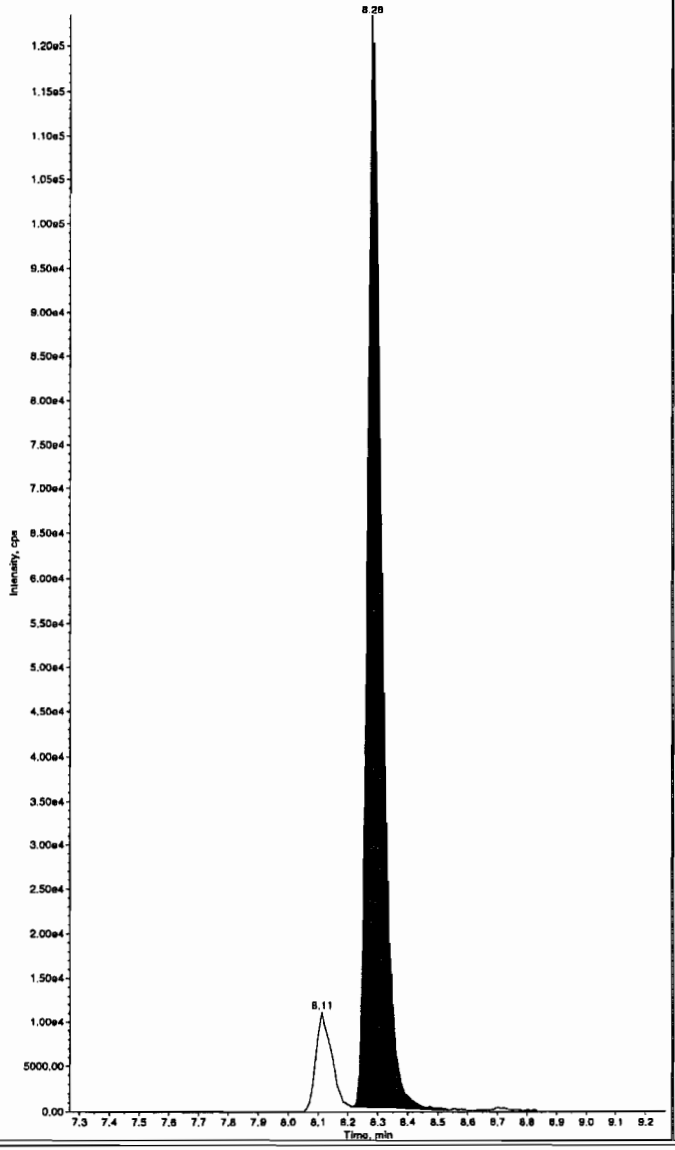

Sample Name: "WXX100503-27CRI" Sample ID: "|1|MAP" File: "EXS05030038.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	114.	ng/mL
Acq. Date:	5/4/2010	
Acq. Time:	1:04:34 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	4.93	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	4.95	min
Area:	3.26e+005	counts
Height:	68997.368	cps
Start Time:	4.86	min
End Time:	5.25	min

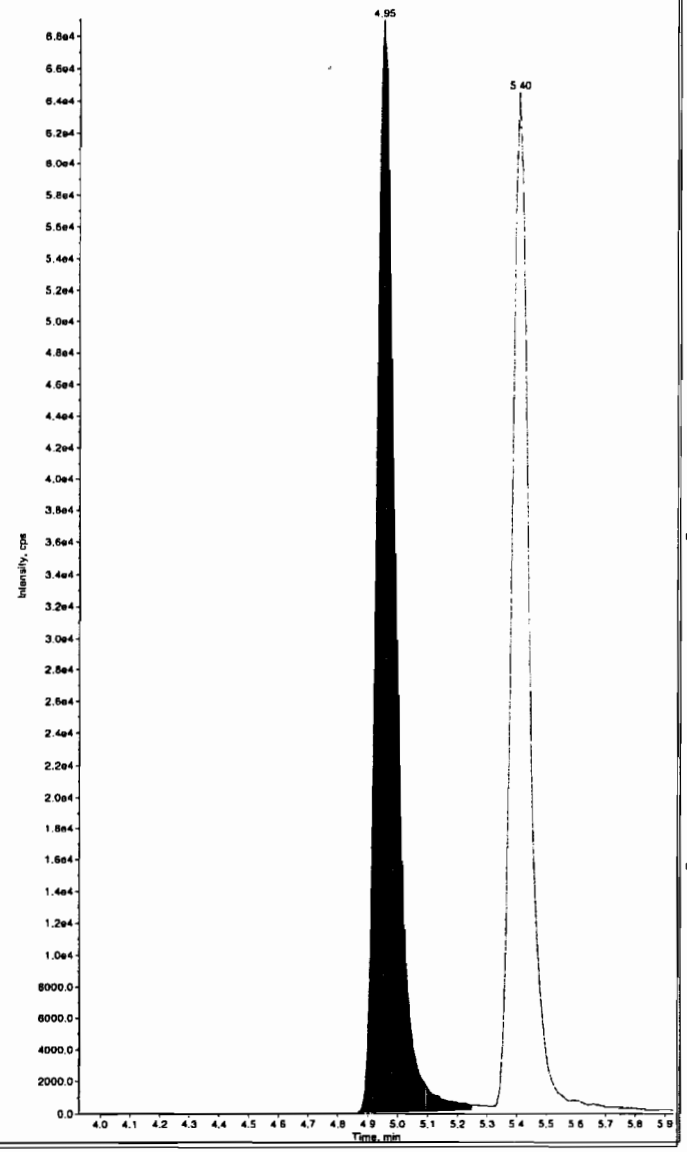

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100503-27CRI" Sample ID: "[1]MAP" File: "EXS05030038.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:        1
le Type:        QC
entration:      100.     ng/mL
ulated Conc:    144.     ng/mL
 Date:       5/4/2010
 Time:       1:04:34 AM

fied:           No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00   cps
 Peak Width:    0.00   sec
thing Width:  3       points
indow:         30.0    sec
cted RT:        5.38   min
Relative RT:    No

 Type:         Valley
ntion Time:     5.40   min
:          2.73e+005   counts
ht:         64495.483  cps
t Time:         5.32   min
Time:           6.04   min
```

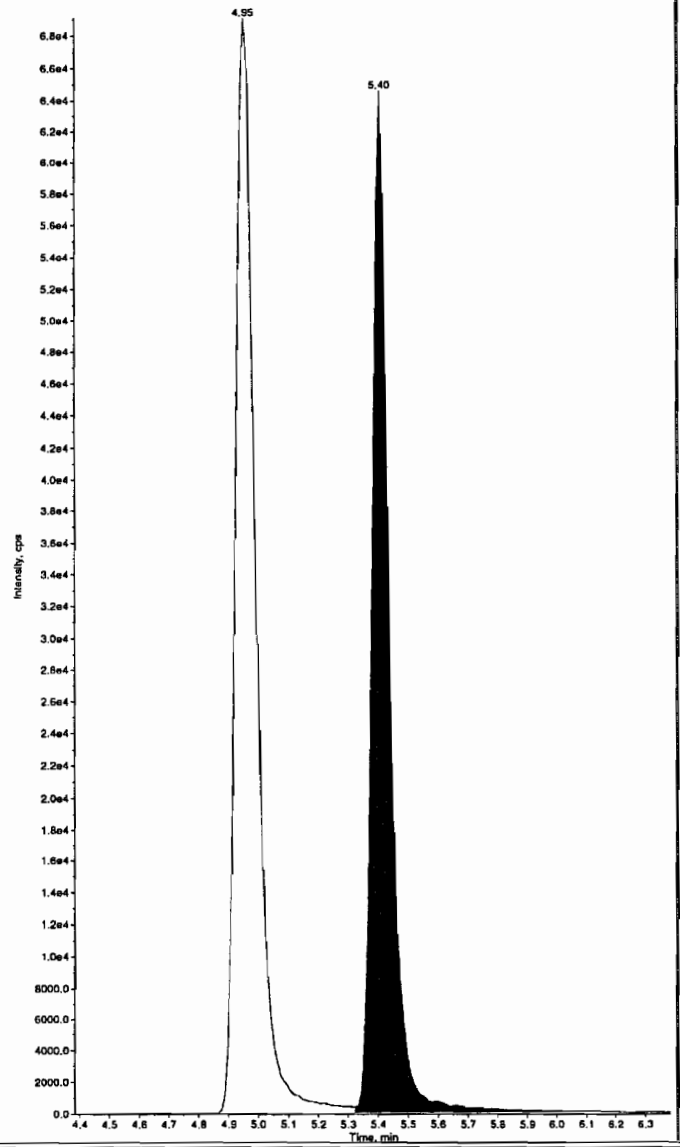

Sample Name: "WXX100503-27CRI" Sample ID: "[1]MAP" File: "EXS05030038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      100.     ng/mL
Calculated Conc:    112.     ng/mL
Acq. Date:       5/4/2010
Acq. Time:       1:04:34 AM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:        10.8   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.8   min
Area:         2.01e+006   counts
Height:        494710.358  cps
Start Time:         10.7   min
End Time:           11.1   min
```

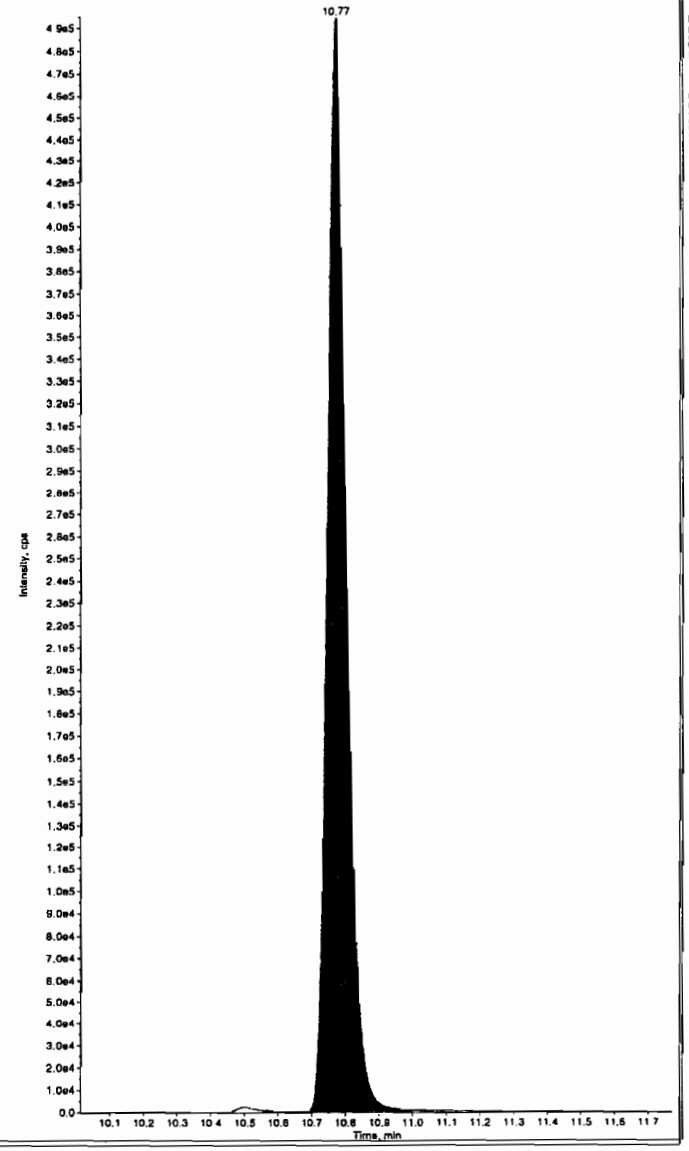

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2937

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS05030044.wiff

Analysis Date: 04–MAY–10 02:38

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	648	130	
2,6–Diamino–4–nitrotoluene	500	571	114	
3,4–Dinitrotoluene	250	245	98	
3,5–Dinitroaniline	500	453	91	
TATB	500	507	101	
tris(o–cresyl) phosphate	500	508	102	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

MHT 5/5/10

nple Name: "WXX100503-26CCV" Sample ID: "|1|MAP" File: "EXS05030044.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 507. ng/mL
Date: 5/4/2010
Time: 2:38:51 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.85 min
Relative RT: No

Type: Valley
ntion Time: 6.89 min
: 3.45e+005 counts
ht: 72254.044 cps
t Time: 6.80 min
Time: 7.56 min

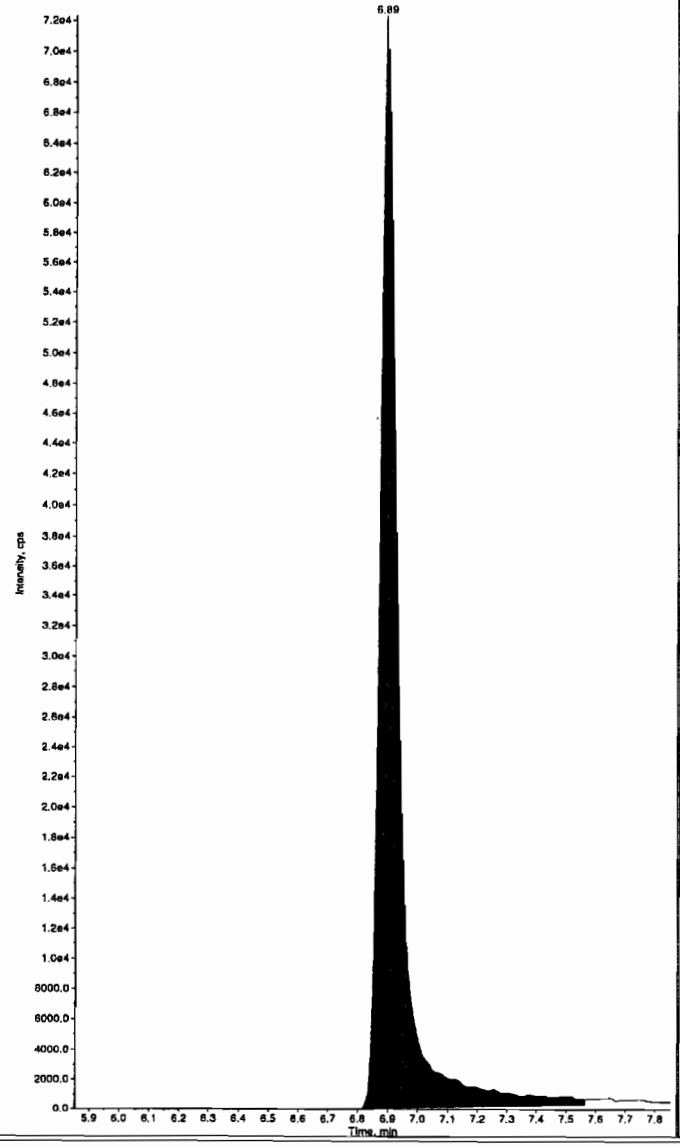

Sample Name: "WXX100503-26CCV" Sample ID: "|1|MAP" File: "EXS05030044.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 453. ng/mL
Acq. Date: 5/4/2010
Acq. Time: 2:38:51 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 5 points
RT Window: 15.0 sec
Expected RT: 8.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 3.61e+006 counts
Height: 868647.461 cps
Start Time: 8.05 min
End Time: 8.25 min

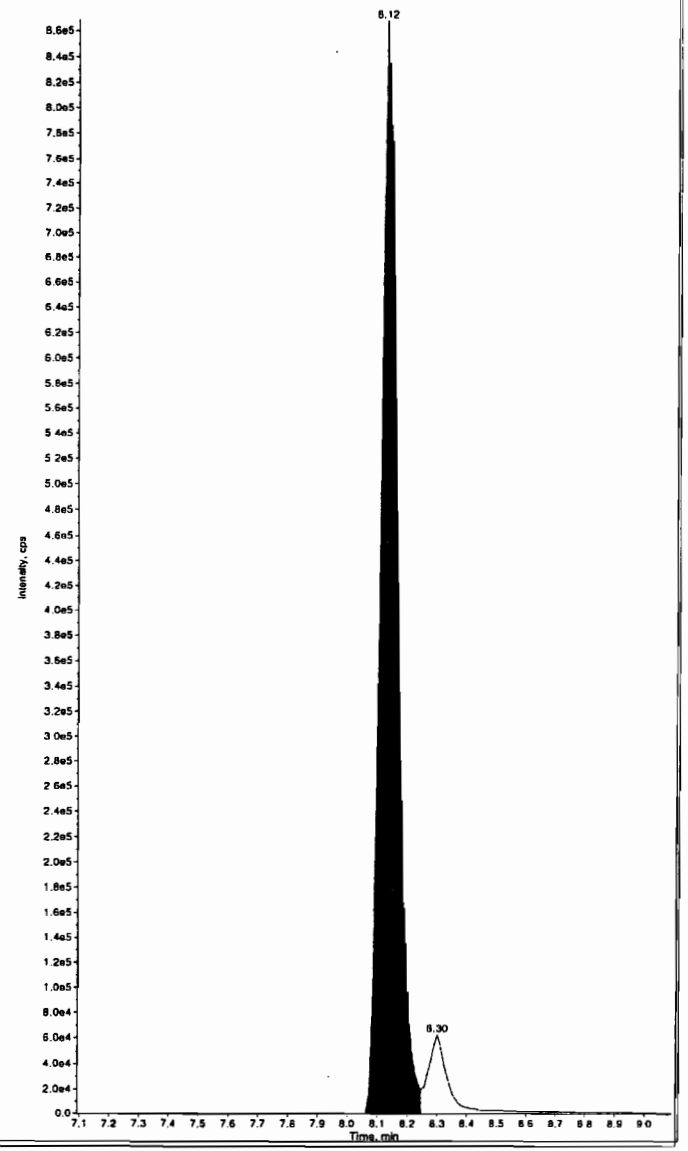

HMW 05/06/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100503-26CCV" Sample ID: "|1|MAP" File: "EXS05030044.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
le Type:           QC
entration:       250.     ng/mL
ulated Conc:     245.     ng/mL
 Date:        5/4/2010
 Time:        2:38:51 AM

fied:              No
. Algorithm: IntelliQuan - IQA
 Peak Height:1460.00    cps
 Peak Width:    0.00    sec
thing Width:  0        points
indow:          15.0    sec
cted RT:         8.27   min
Relative RT:     No

 Type:          Valley
ntion Time:      8.29   min
:          2.01e+006   counts
ht:         566724.304  cps
t Time:          8.22   min
Time:            8.60   min
```

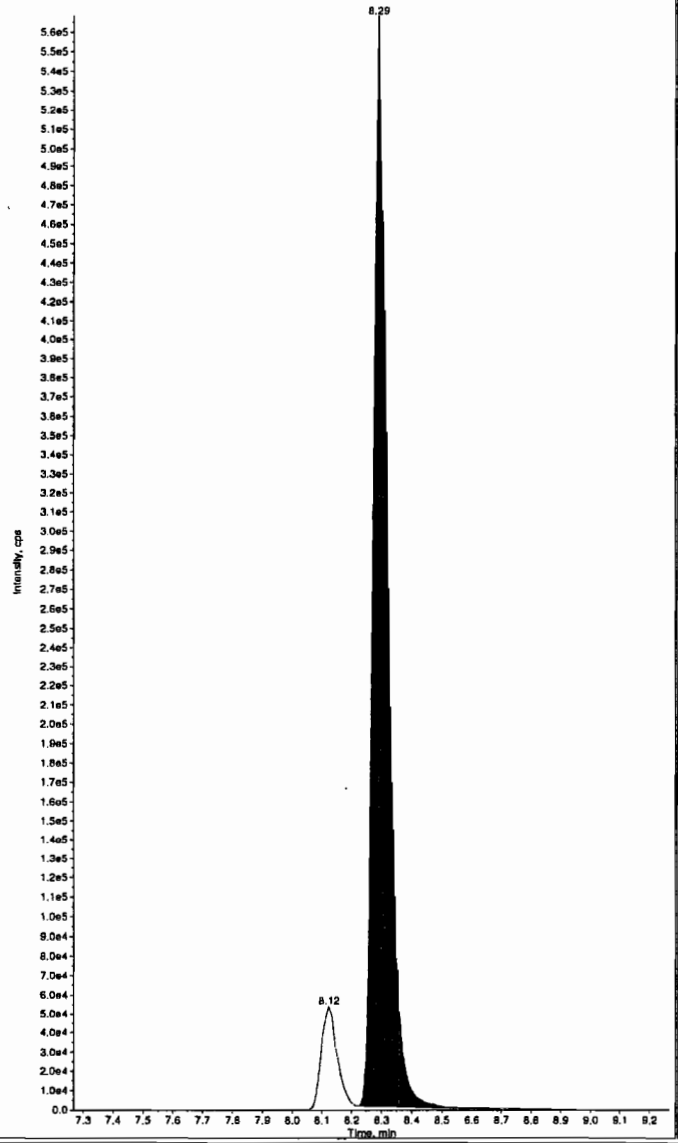

Sample Name: "WXX100503-26CCV" Sample ID: "|1|MAP" File: "EXS05030044.wiff"
Peak Name: "2,6-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       500.     ng/mL
Calculated Conc:     571.     ng/mL
Acq. Date:        5/4/2010
Acq. Time:        2:38:51 AM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:        4.93    min
Use Relative RT:    No

Int. Type:          Valley
Retention Time:     4.96    min
Area:         1.68e+006    counts
Height:        384552.948   cps
Start Time:         4.87    min
End Time:           5.22    min
```

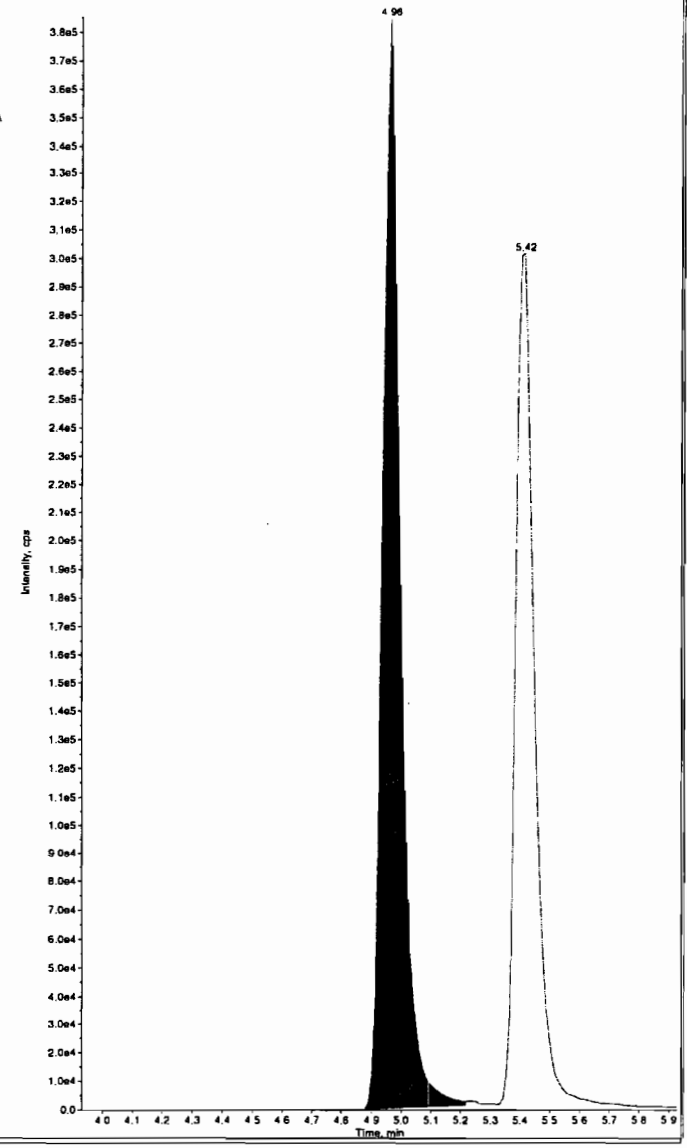

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100503-26CCV" Sample ID: "|1|MAP" File: "EXS05030044.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 648. ng/mL
Date: 5/4/2010
Time: 2:38:51 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.38 min
Relative RT: No

Type: Valley
ation Time: 5.42 min
: 1.34e+006 counts
nt: 299918.854 cps
Time: 5.33 min
Time: 5.89 min

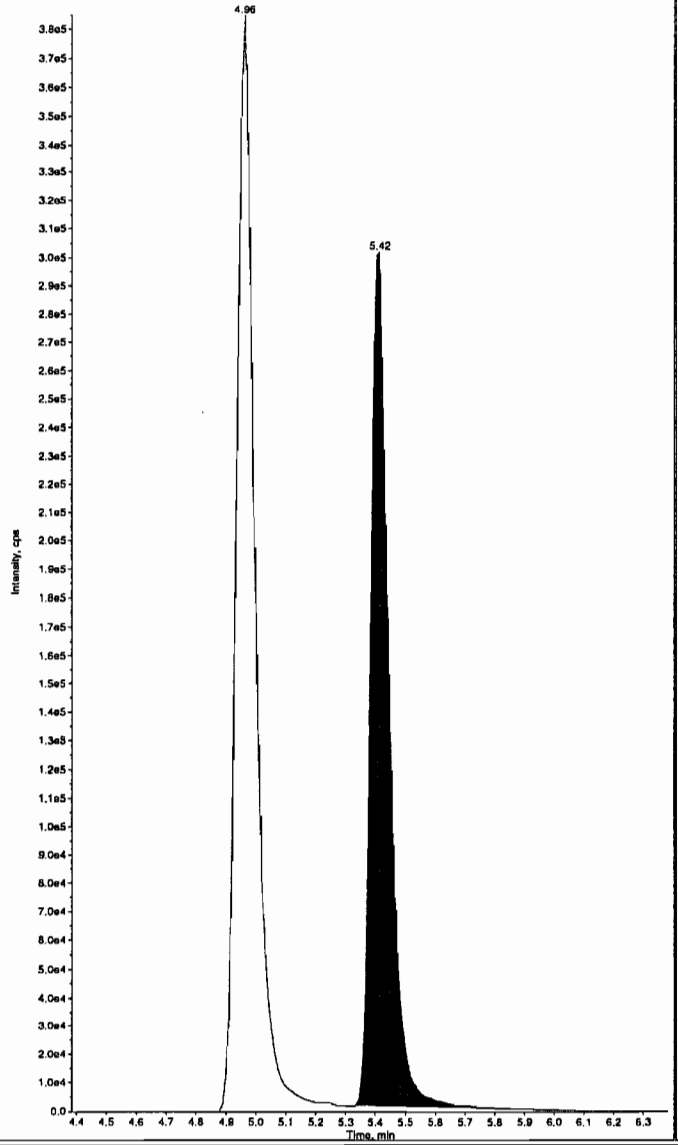

Sample Name: "WXX100503-26CCV" Sample ID: "|1|MAP" File: "EXS05030044.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 508. ng/mL
Acq. Date: 5/4/2010
Acq. Time: 2:38:51 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.97e+006 counts
Height: 2111599.365 cps
Start Time: 10.7 min
End Time: 11.1 min

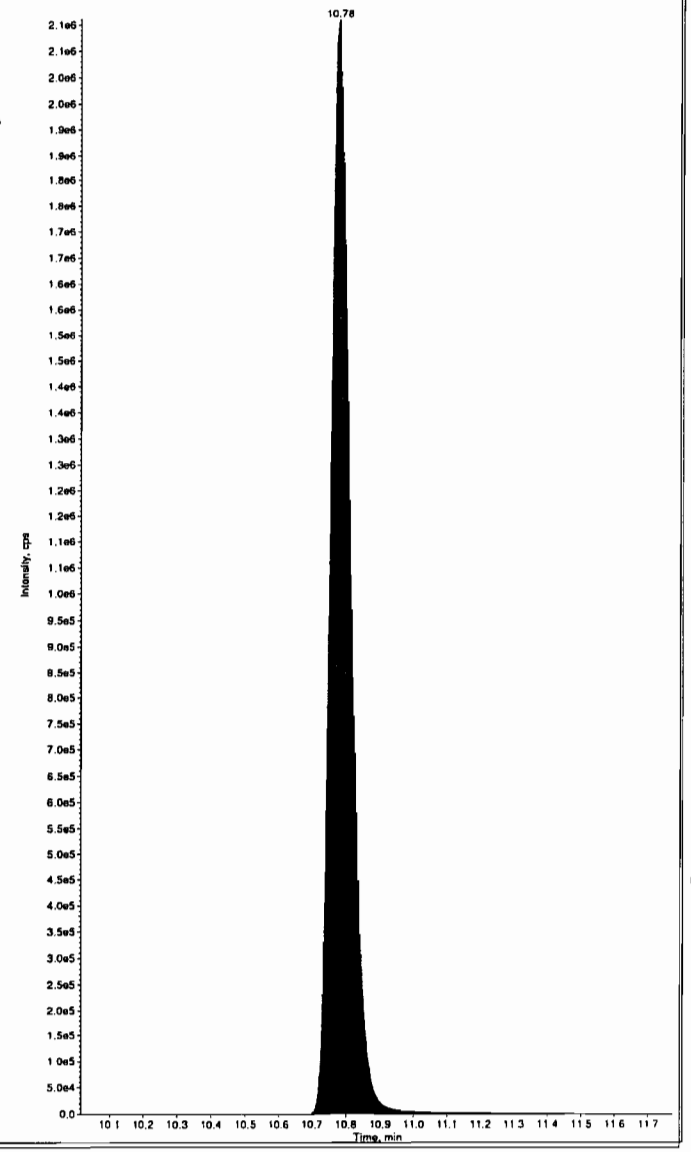

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2937

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS05030046.wiff

Analysis Date: 04–MAY–10 03:10

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	147	147	
2,6–Diamino–4–nitrotoluene	100	118	118	
3,4–Dinitrotoluene	50	52.4	105	
3,5–Dinitroaniline	100	115	115	
TATB	100	105	105	
tris(o–cresyl) phosphate	100	112	112	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

MMT 5/5/10

nple Name: "WXX100503-27CRI" Sample ID: "|1|MAP" File: "EXS05030046.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Indax: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 105. ng/mL
Date: 5/4/2010
Time: 3:10:13 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.85 min
Relative RT: No

Type: Valley
ntion Time: 6.89 min
: 6.51e+004 counts
ht: 15078.748 cps
t Time: 6.80 min
Time: 7.38 min

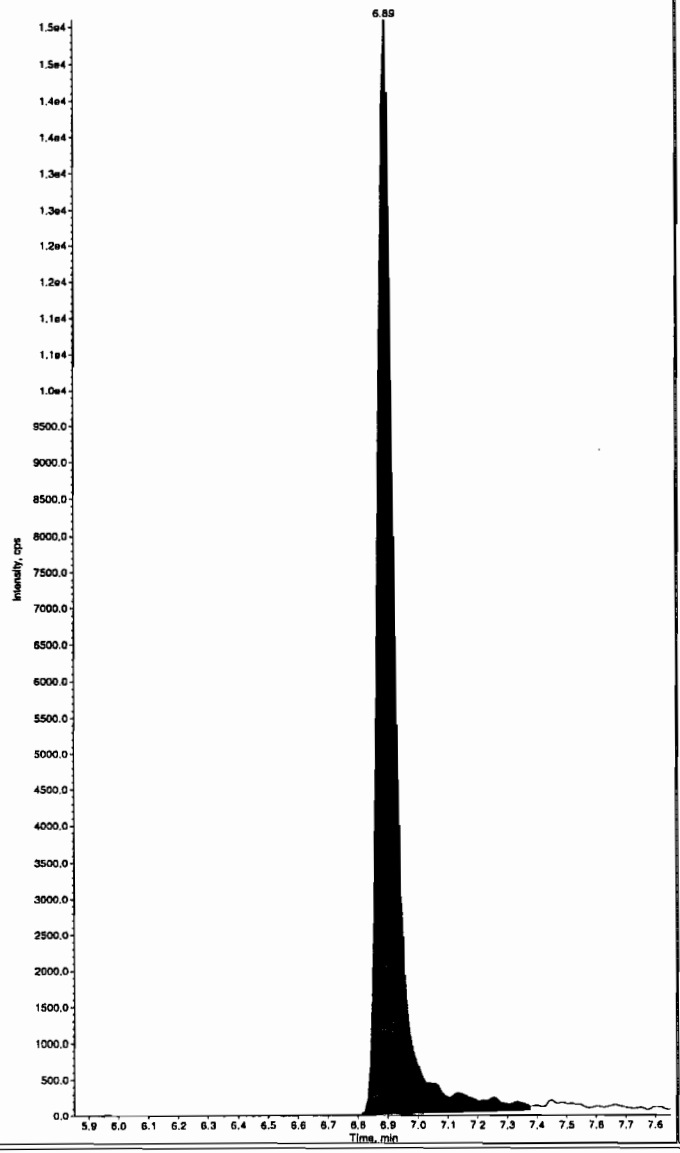

Sample Name: "WXX100503-27CRI" Sample ID: "|1|MAP" File: "EXS05030046.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 115. ng/mL
Acq. Date: 5/4/2010
Acq. Time: 3:10:13 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 5 points
RT Window: 15.0 sec
Expected RT: 8.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 8.40e+005 counts
Height: 205120.239 cps
Start Time: 8.05 min
End Time: 8.25 min

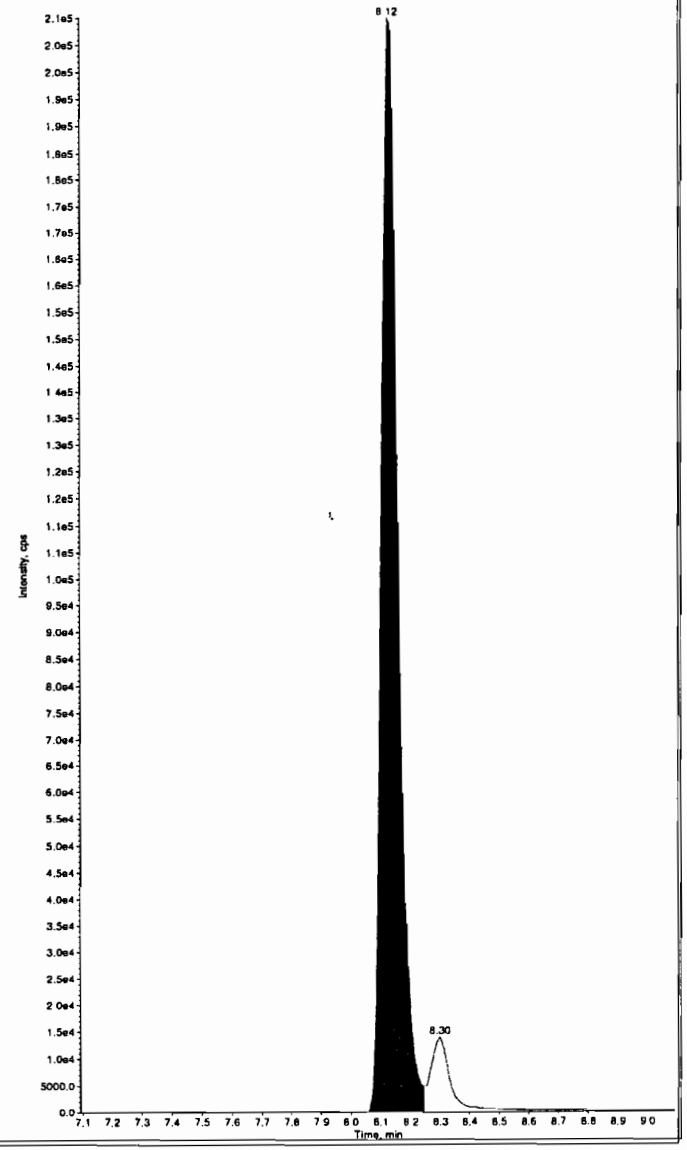

HMM 05/06/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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nple Name: "WXX100503-27CRI" Sample ID: "[1]MAP" File: "EXS05030046.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 50.0 ng/mL
ulated Conc: 52.4 ng/mL
Date: 5/4/2010
Time: 3:10:13 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 0 points
indow: 15.0 sec
cted RT: 8.27 min
Relative RT: No

Type: Valley
ation Time: 8.29 min
: 4.23e+005 counts
ht: 119866.669 cps
: Time: 8.22 min
Time: 8.50 min

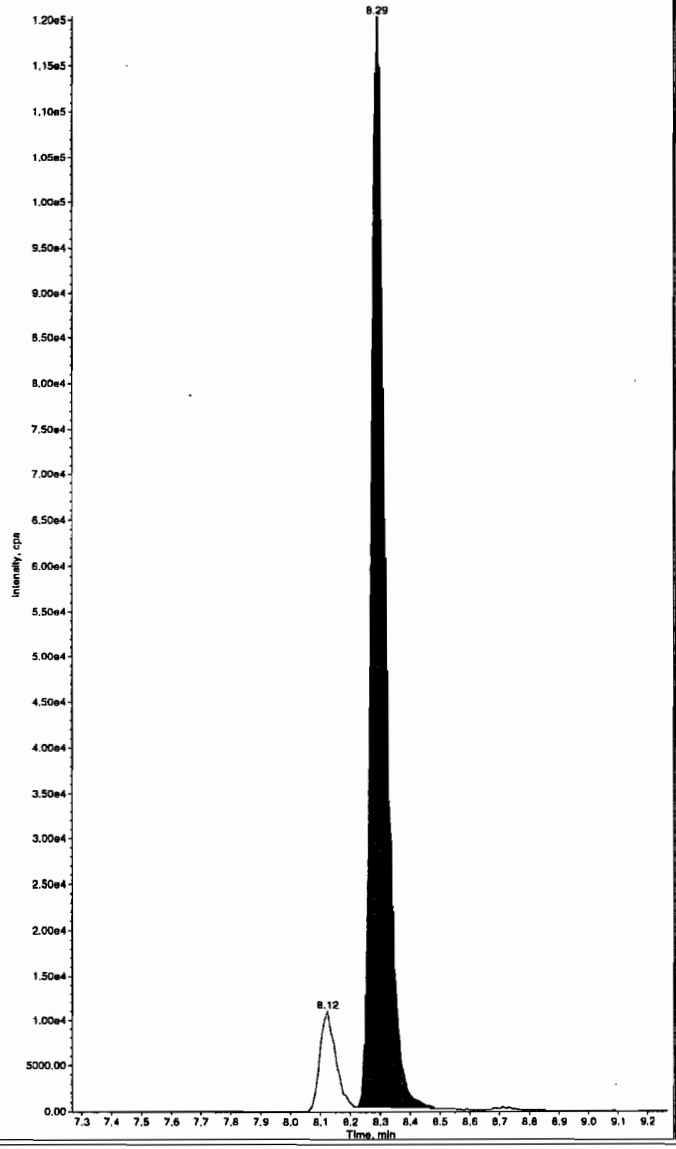

Sample Name: "WXX100503-27CRI" Sample ID: "[1]MAP" File: "EXS05030046.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 118. ng/mL
Acq. Date: 5/4/2010
Acq. Time: 3:10:13 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.93 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 3.36e+005 counts
Height: 75378.235 cps
Start Time: 4.86 min
End Time: 5.23 min

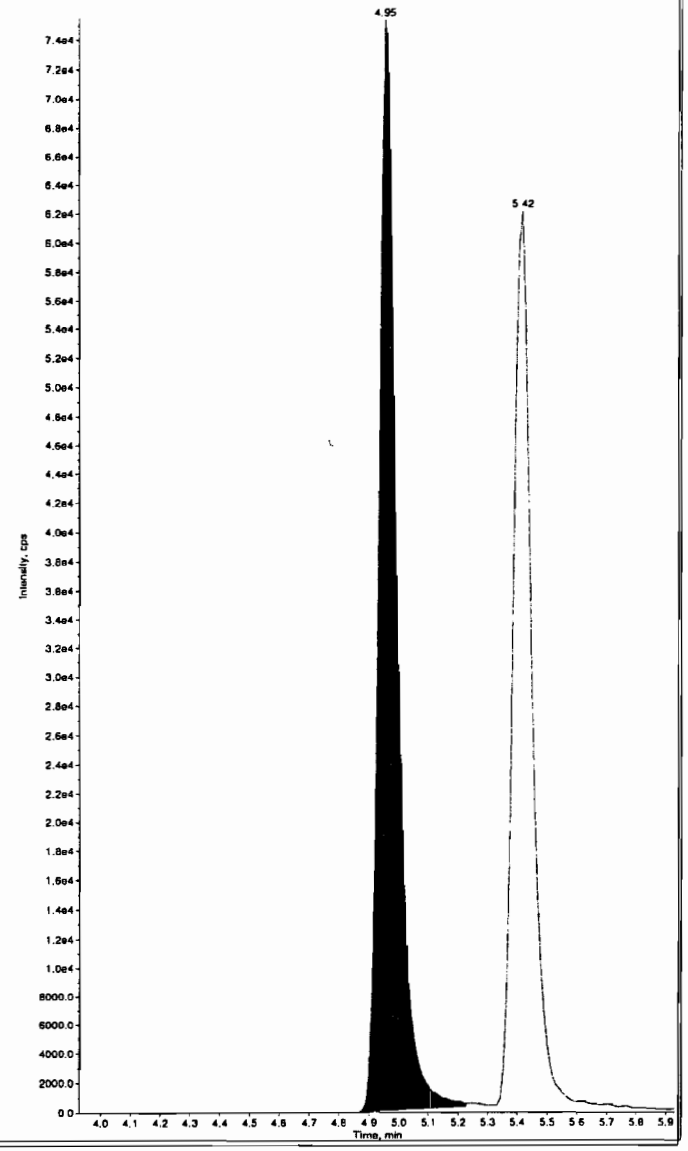

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nple Name: "WXX100503-27CRI" Sample ID: "|1|MAP" File: "EXS05030046.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 147. ng/mL
Date: 5/4/2010
Time: 3:10:13 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.38 min
Relative RT: No

Type: Valley
ntion Time: 5.42 min
: 2.79e+005 counts
nt: 62172.104 cps
Time: 5.30 min
Time: 5.99 min

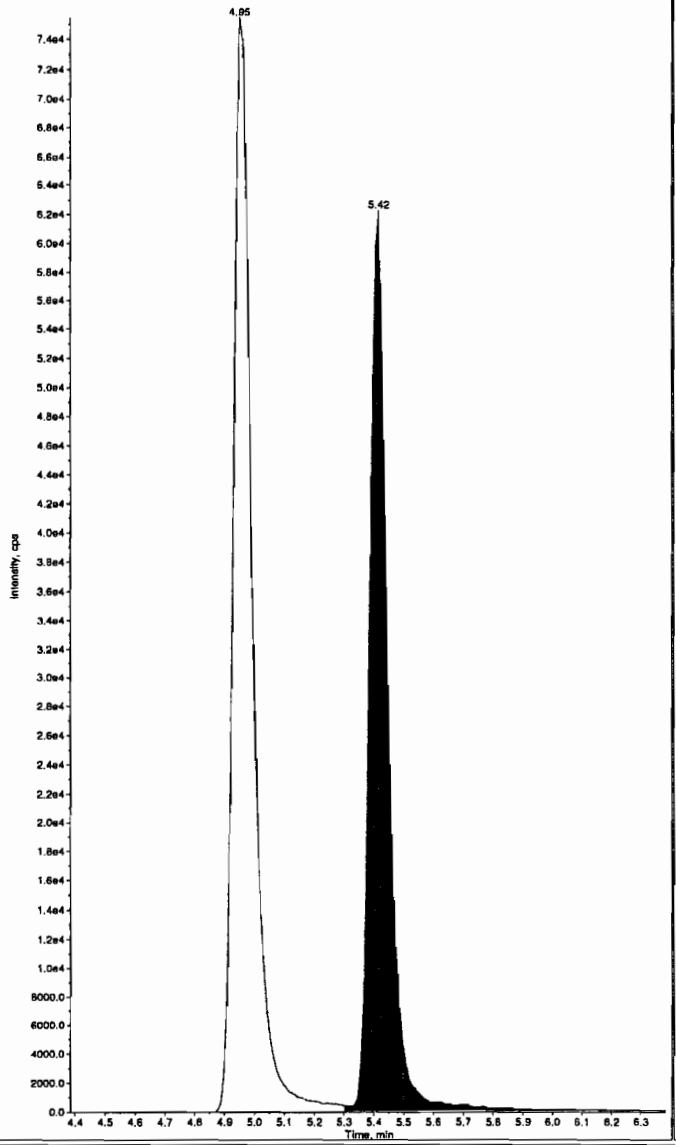

Sample Name: "WXX100503-27CRI" Sample ID: "|1|MAP" File: "EXS05030046.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 112. ng/mL
Acq. Date: 5/4/2010
Acq. Time: 3:10:13 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.00e+006 counts
Height: 486196.533 cps
Start Time: 10.7 min
End Time: 11.1 min

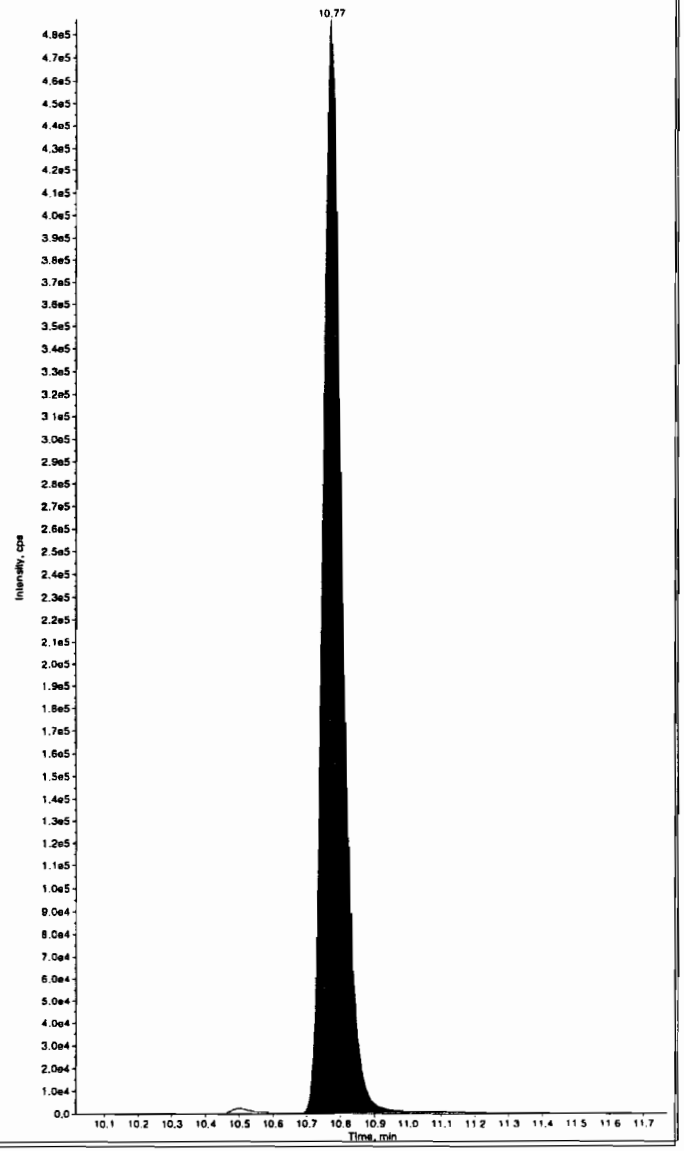

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QUALITY CONTROL DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 979352

Lab Code: GEL

GEL Job No (SDG) 10-2937

Matrix: WATER

GEL Sample ID: 1202105524

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 29-APR-10

Extraction Type Sol Exchange

Extraction Batch ID: 979352

Concentrated Extract Volume (mL) 5

Date Extracted: 29-APR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0501304a

Date Analyzed: 07-MAY-10 21:49

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501304a
Date: 07-May-2010
Time: 21:49:12
ID: 1202105524 | ALBC | 979353 | GSD | MB | 2 |
Vial: 1:8,A

5/8/10

P28 42

Confirmed by EXP0501262a

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.969e+003

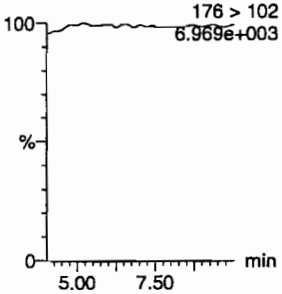

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.969e+003

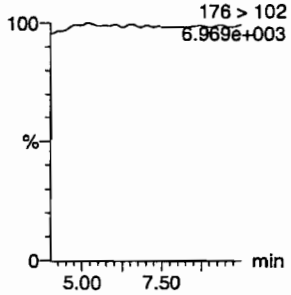

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.447e+003

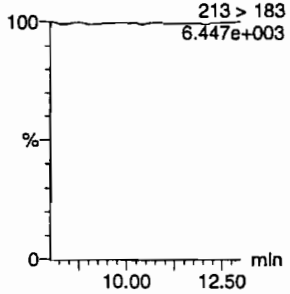

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.857e+004

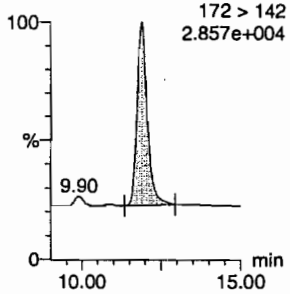

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.435e+003

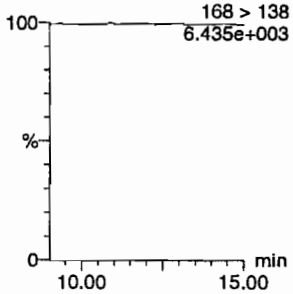

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.426e+003

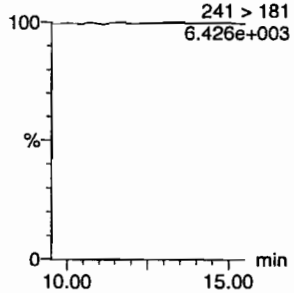

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.437e+003

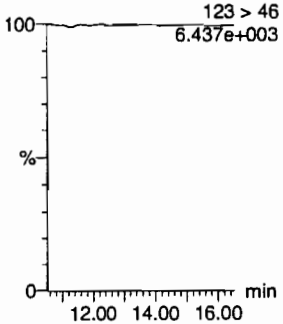

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.497e+003

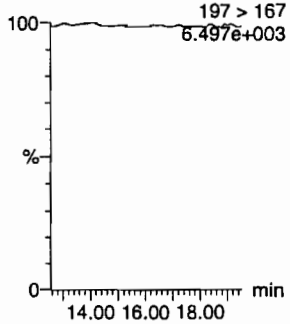

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.497e+003

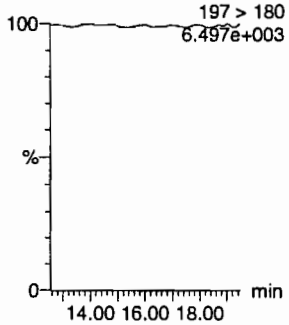

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.433e+003

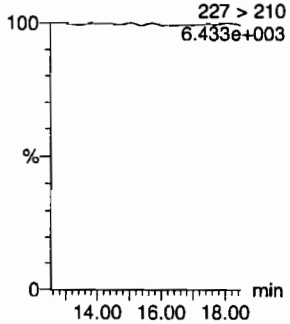

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.641e+004

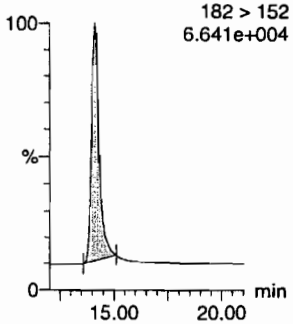

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.11
182 > 152
6.641e+004

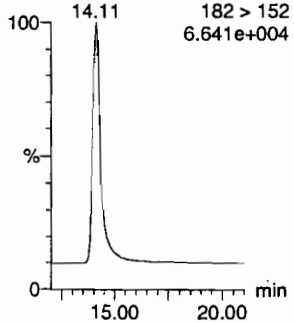

Hume
05/10/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
14.11 182 > 152
6.641e+004

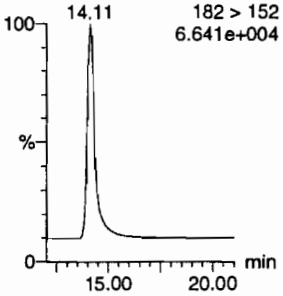

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
1.262e+005

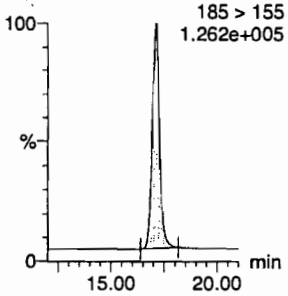

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.455e+003

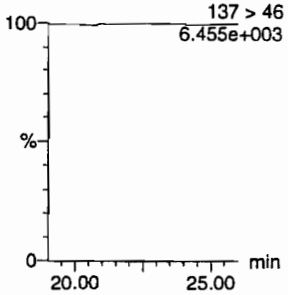

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.455e+003

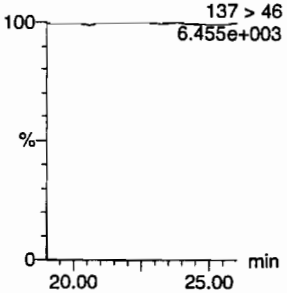

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.455e+003

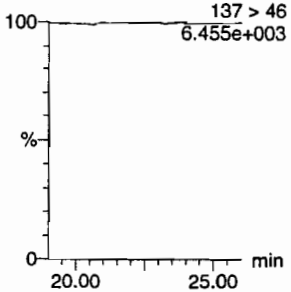

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.477e+003

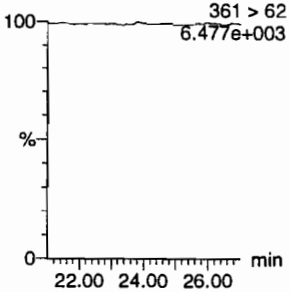

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202105524	HMX	176 > 102			8321.154									
1202105524	RDX	176 > 102			8321.154									
1202105524	135-Trinitrobenzene	213 > 183			8321.154									
1202105524	13-Dinitrobenzene-d4	172 > 142	11.89	8321.154		8321.154	8321.154	bb			643.7421	128.7	28.7	649.4
1202105524	13-Dinitrobenzene	168 > 138			8321.154									
1202105524	Tetryl	241 > 181			8321.154									
1202105524	Nitrobenzene	123 > 46			8321.154									
1202105524	4-Amino-26-dinitrotoluene	197 > 167			48604.387									
1202105524	2-Amino-46-dinitrotoluene	197 > 180			48604.387									
1202105524	246-Trinitrotoluene	227 > 210			48604.387									
1202105524	34-dinitrotoluene	182 > 152	14.11	24451.674	48604.387	24451.674	251.538	bb		3.02	233.0729	93.2	-6.8	886.6
1202105524	26-dinitrotoluene	182 > 152			48604.387									
1202105524	24-dinitrotoluene	182 > 152			48604.387									
1202105524	26-dinitrotoluene-d3	185 > 155	17.10	48604.387		48604.387	48604.387	bb			656.4824	131.3	31.3	4121.6
1202105524	2-Nitrotoluene	137 > 46			48604.387									
1202105524	4-Nitrotoluene	137 > 46			48604.387									
202105524	3-Nitrotoluene	137 > 46			48604.387									
202105524	PETN	361 > 62			48604.387									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 979352

Lab Code: GEI

GEL Job No (SDG) 10-2937

Matrix: WATER

GEL Sample ID: 1202105524

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 29-APR-10

Extraction Type Sol Exchange

Extraction Batch ID: 979352

Concentrated Extract Volume (mL) 5

Date Extracted: 29-APR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS05030039.wiff

Date Analyzed: 04-MAY-10 01:20

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MMP
5/5/10

nple Name: "1202105524" Sample ID: "979353|2|MAP" File: "EXS05030039.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCX83212L" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ilated Conc: 0.00 ng/mL
Date: 5/4/2010
Time: 1:20:16 AM

fied: No

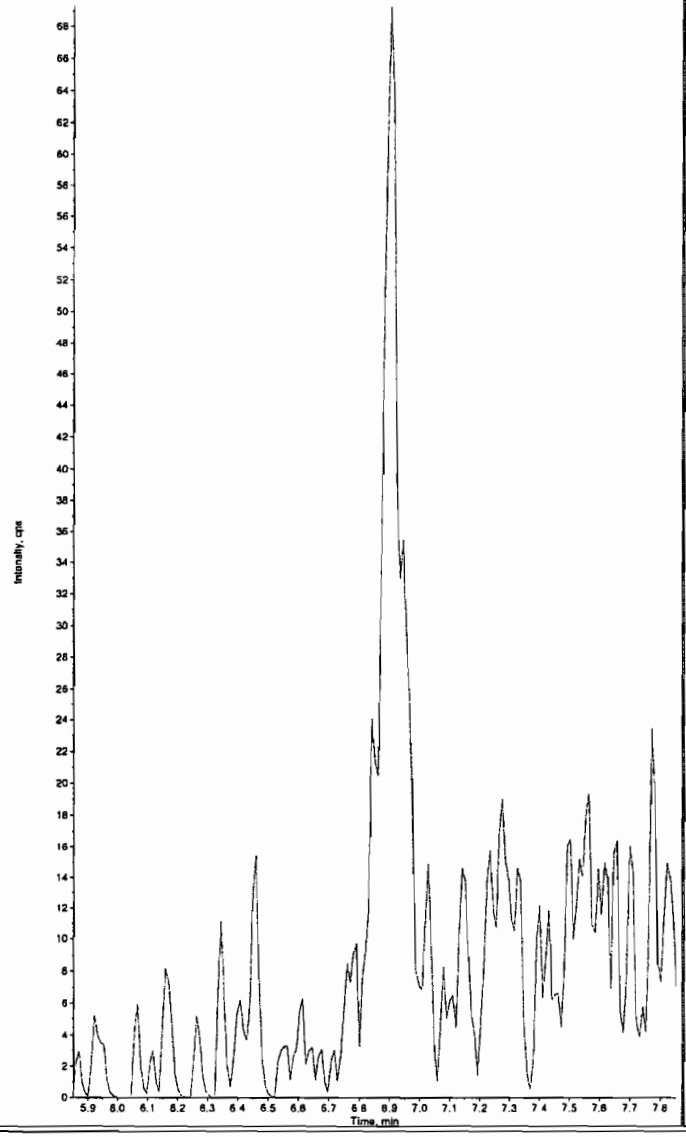

Sample Name: "1202105524" Sample ID: "979353|2|MAP" File: "EXS05030039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 5/4/2010
Acq. Time: 1:20:16 AM

Modified: No

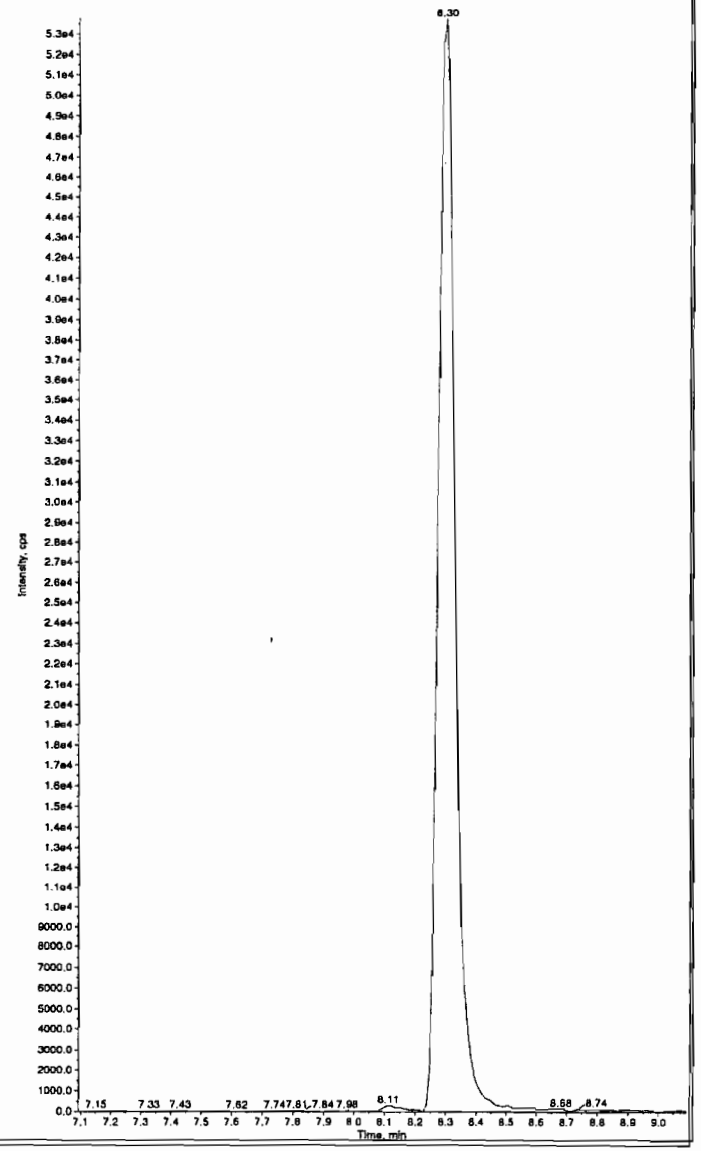

HMW 05/06/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "1202105524" Sample ID: "979353|2|MAP" File: "EXS05030039.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCX83212L" Annotation: ""
le Index: 1
le Type: Unknown 3.38
entration: N/A
culated Conc: 261. ng/mL
Date: 5/4/2010
Time: 1:20:16 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
ching Width: 0 points
indow: 15.0 sec
cted RT: 8.27 min
Relative RT: No

Type: Valley
ntion Time: 8.29 min
: 2.14e+006 counts
ht: 606796.448 cps
t Time: 8.20 min
Time: 8.79 min

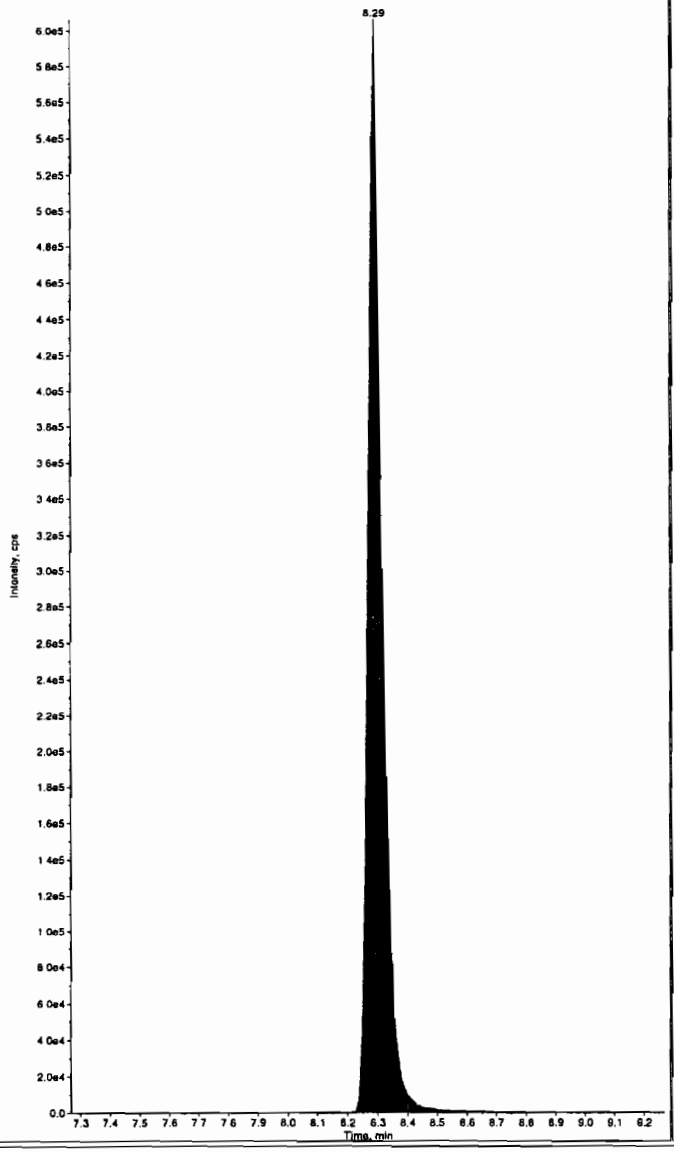

Sample Name: "1202105524" Sample ID: "979353|2|MAP" File: "EXS05030039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 5/4/2010
Acq. Time: 1:20:16 AM

Modified: No

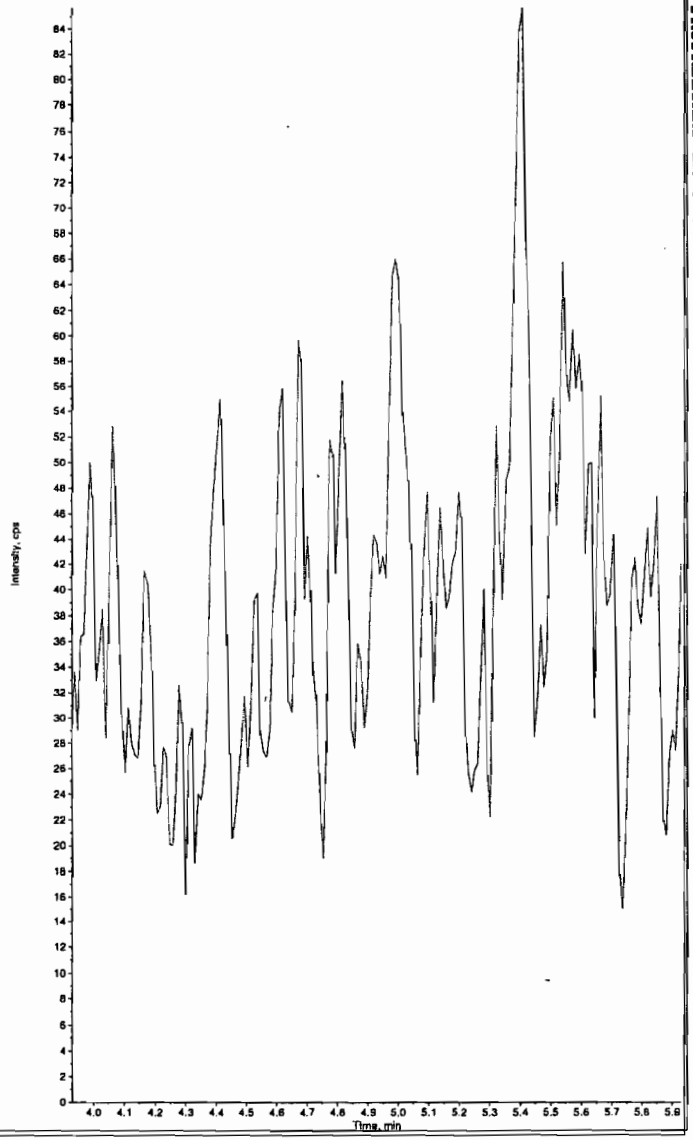

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ple Name: "1202105524" Sample ID: "979353|2|MAP" File: "EXS05030039.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCX83212L" Annotation: ""

```
e Index:        1
e Type:      Unknown
ntration:       N/A
lated Conc:     0.00     ng/mL
Date:        5/4/2010
Time:        1:20:16 AM

ied:            No
```

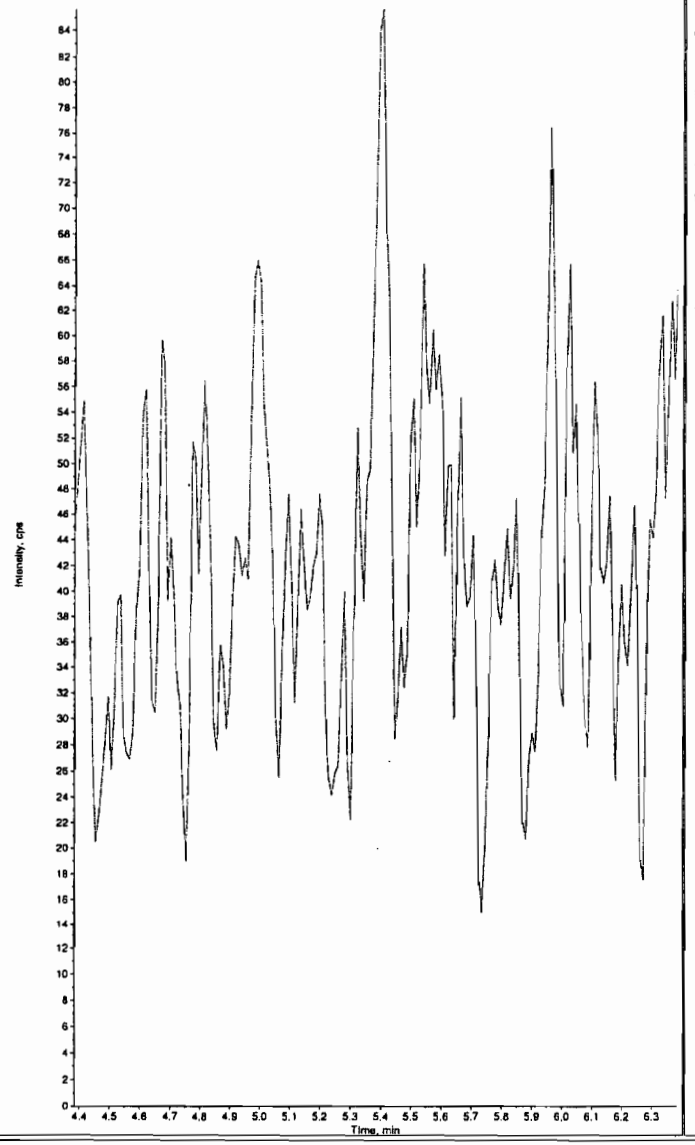

Sample Name: "1202105524" Sample ID: "979353|2|MAP" File: "EXS05030039.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     9.51     ng/mL
Acq. Date:        5/4/2010
Acq. Time:        1:20:16 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3        points
RT Window:          30.0     sec
Expected RT:        10.8     min
Use Relative RT:     No

Int. Type:        Valley
Retention Time:     10.8     min
Area:         3.73e+004    counts
Height:         9107.161   cps
Start Time:         10.7     min
End Time:           10.9     min
```

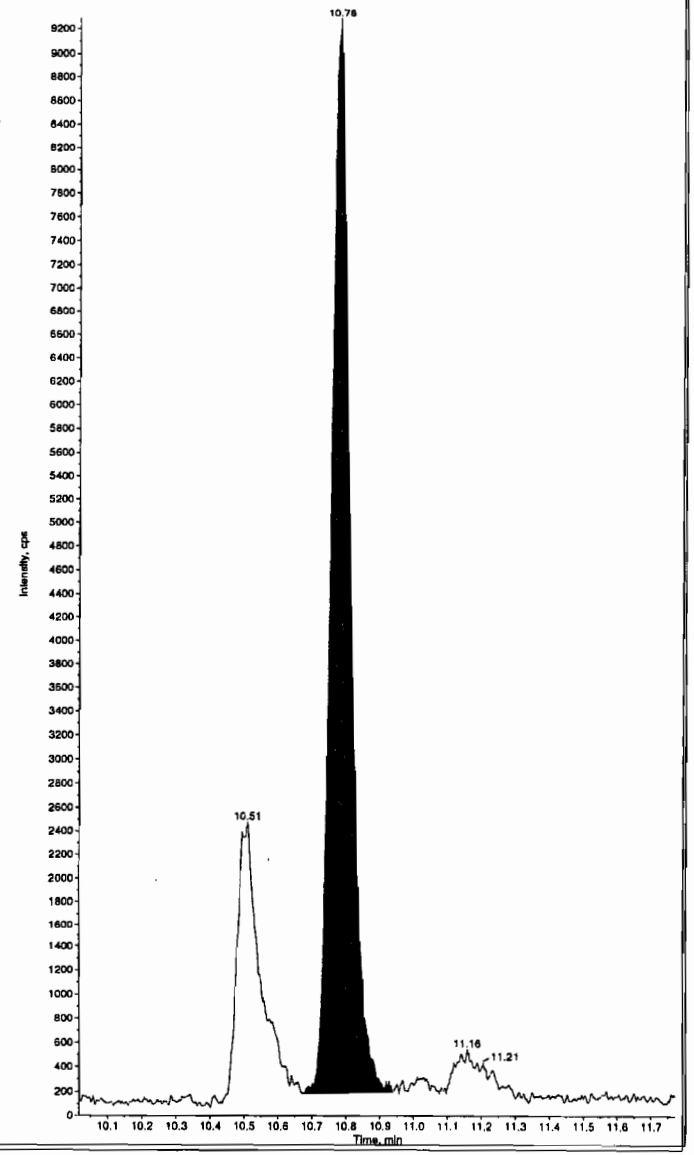

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 979352

Lab Code: GEL

GEL Job No (SDG) 10-2937

Matrix: WATER

GEL Sample ID: 1202105525

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 29-APR-10

Extraction Type Sol Exchange

Extraction Batch ID: 979352

Concentrated Extract Volume (mL) 5

Date Extracted: 29-APR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0501263a

Date Analyzed: 07-MAY-10 01:38

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	8.24	
121-14-2	2,4-Dinitrotoluene	6.09	
121-82-4	RDX	4.92	
19406-51-0	4-Amino-2,6-dinitrotoluene	6.12	
2691-41-0	HMX	4.5	
35572-78-2	2-Amino-4,6-dinitrotoluene	6.07	
479-45-8	Tetryl	6.43	
606-20-2	2,6-Dinitrotoluene	6.15	
78-11-5	PETN	5.85	
88-72-2	o-Nitrotoluene	4.63	
98-95-3	Nitrobenzene	5.26	
99-08-1	m-Nitrotoluene	5.96	
99-35-4	1,3,5-Trinitrobenzene	6.28	
99-65-0	m-Dinitrobenzene	6.14	
99-99-0	p-Nitrotoluene	5.26	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501263a
Date: 07-May-2010
Time: 01:38:33
ID: 1202105525
Vial: 1:8,B

ARSU/979353/LCS/LCS/2/

MAT 5/7/10

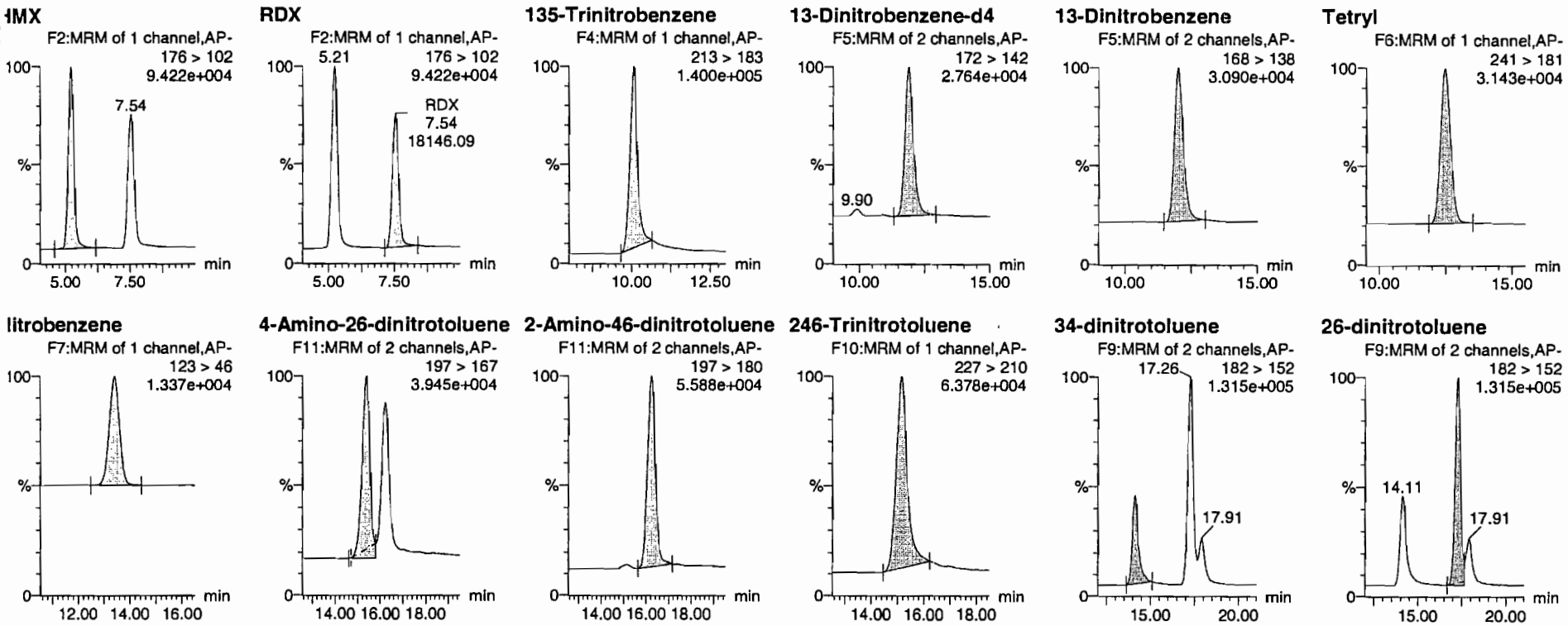

HMM 05/10/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

24-dinitrotoluene

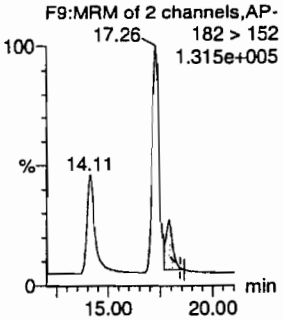

26-dinitrotoluene-d3

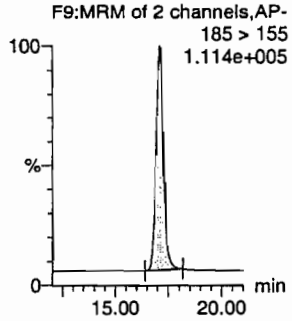

2-Nitrotoluene

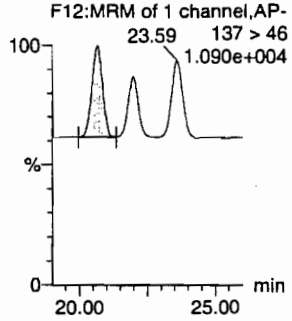

4-Nitrotoluene

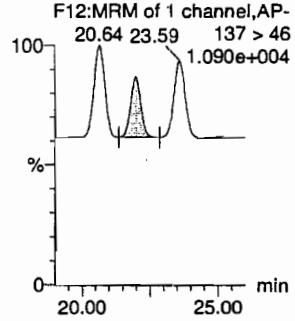

3-Nitrotoluene

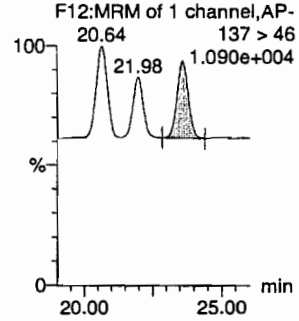

PETN

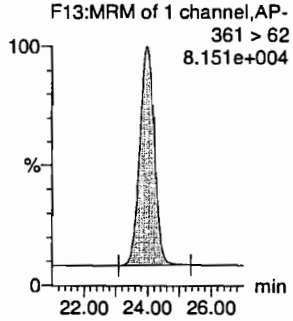

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
202105525	HMX	176 > 102	5.21	23162.785	7898.914	23162.785	1466.201	bb			346.5084	69.3	-30.7	2743.4
202105525	RDX	176 > 102	7.54	18146.088	7898.914	18146.088	1148.644	bb			379.1729	75.8	-24.2	2012.7
202105525	135-Trinitrobenzene	213 > 183	10.05	36266.359	7898.914	36266.359	2295.655	bb			483.2378	96.6	-3.4	4751.9
202105525	13-Dinitrobenzene-d4	172 > 142	11.89	7898.914		7898.914	7898.914	bb			611.0767	122.2	22.2	780.8
202105525	13-Dinitrobenzene	168 > 138	12.00	9565.573	7898.914	9565.573	605.499	bb			472.5405	94.5	-5.5	736.5
202105525	Tetryl	241 > 181	12.45	10722.335	7898.914	10722.335	678.722	bb			494.8582	99.0	-1.0	1208.2
202105525	Nitrobenzene	123 > 46	13.39	3140.312	7898.914	3140.312	198.781	bb			405.3758	81.1	-18.9	267.7
202105525	4-Amino-26-dinitrotoluene	197 > 167	15.38	13613.657	42458.953	13613.657	160.316	MM	07-May-10	10:49:00	471.1102	94.2	-5.8	377.3
202105525	2-Amino-46-dinitrotoluene	197 > 180	16.21	20172.135	42458.953	20172.135	237.549	bb			467.7211	93.5	-6.5	700.6
202105525	246-Trinitrotoluene	227 > 210	15.16	27196.059	42458.953	27196.059	320.263	bb			634.3962	126.9	26.9	270.5
202105525	34-dinitrotoluene	182 > 152	14.11	22404.139	42458.953	22404.139	263.833	bb		3.17	244.4655	97.8	-2.2	874.1
202105525	26-dinitrotoluene	182 > 152	17.26	45787.523	42458.953	45787.523	539.198	MM	07-May-10	11:04:41	473.2927	94.7	-5.3	2051.6
202105525	24-dinitrotoluene	182 > 152	17.91	10966.819	42458.953	10966.819	129.146	MM	07-May-10	11:06:20	469.2322	93.8	-6.2	449.6
202105525	26-dinitrotoluene-d3	185 > 155	17.10	42458.953		42458.953	42458.953	bb			573.4782	114.7	14.7	4879.4
202105525	2-Nitrotoluene	137 > 46	20.64	1976.179	42458.953	1976.179	23.272	bb			356.1642	71.2	-28.8	485.2
202105525	4-Nitrotoluene	137 > 46	21.98	1217.916	42458.953	1217.916	14.342	bb			405.1019	81.0	-19.0	323.3
202105525	3-Nitrotoluene	137 > 46	23.59	1685.339	42458.953	1685.339	19.847	bb			459.0108	91.8	-8.2	408.0
202105525	PETN	361 > 62	23.99	39988.371	42458.953	39988.371	470.906	bb			450.2120	90.0	-10.0	609.2

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 979352

Lab Code: GEL

GEL Job No (SDG) 10-2937

Matrix: WATER

GEL Sample ID: 1202105525

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 29-APR-10

Extraction Type Sol Exchange

Extraction Batch ID: 979352

Concentrated Extract Volume (mL) 5

Date Extracted: 29-APR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS05030040.wiff

Date Analyzed: 04-MAY-10 01:35

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	6.06	
59229-75-3	2,6-Diamino-4-nitrotoluene	6.21	
618-87-1	3,5-Dinitroaniline	5.71	
6629-29-4	2,4-Diamino-6-nitrotoluene	6.18	
78-30-8	tris(o-cresyl) phosphate	2.64	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

HMM 5/5/10

mple Name: "1202105525" Sample ID: "979353|2|MAP" File: "EXS05030040.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 467. ng/mL
Date: 5/4/2010
Time: 1:35:59 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 30.0 sec
cted RT: 6.85 min
Relative RT: No

Type: Valley
ntion Time: 6.89 min
: 3.17e+005 counts
ht: 68128.342 cps
t Time: 6.80 min
Time: 7.93 min

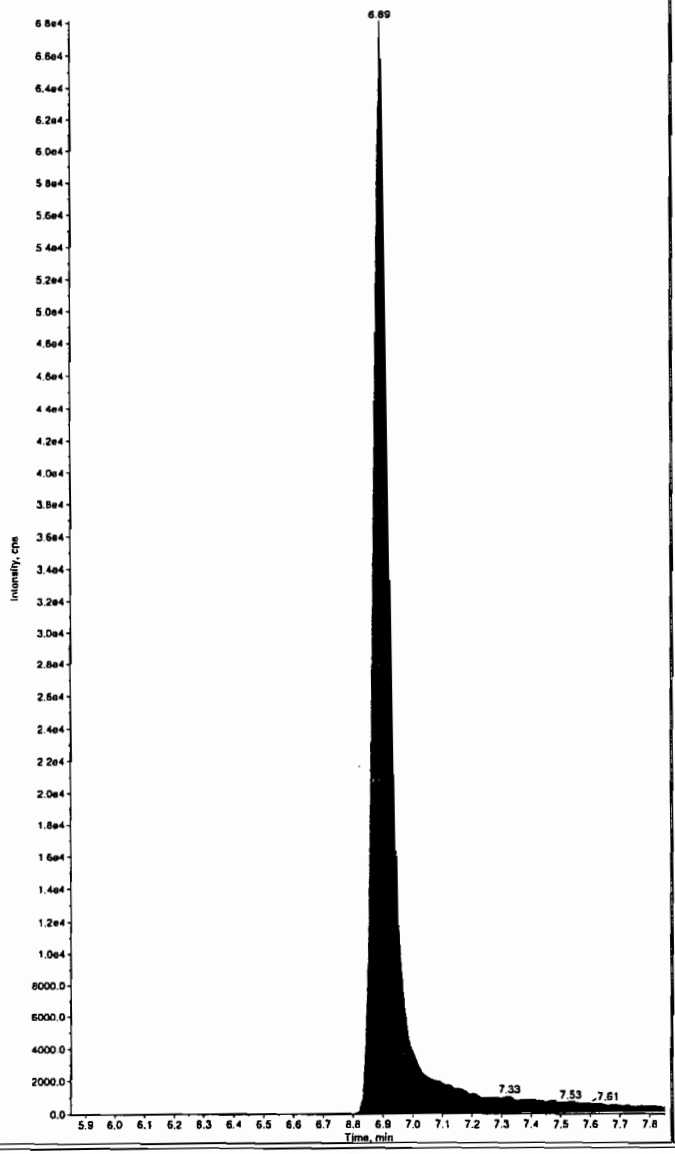

Sample Name: "1202105525" Sample ID: "979353|2|MAP" File: "EXS05030040.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 440. ng/mL
Acq. Date: 5/4/2010
Acq. Time: 1:35:59 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 5 points
RT Window: 15.0 sec
Expected RT: 8.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 3.51e+006 counts
Height: 898400.391 cps
Start Time: 8.06 min
End Time: 8.25 min

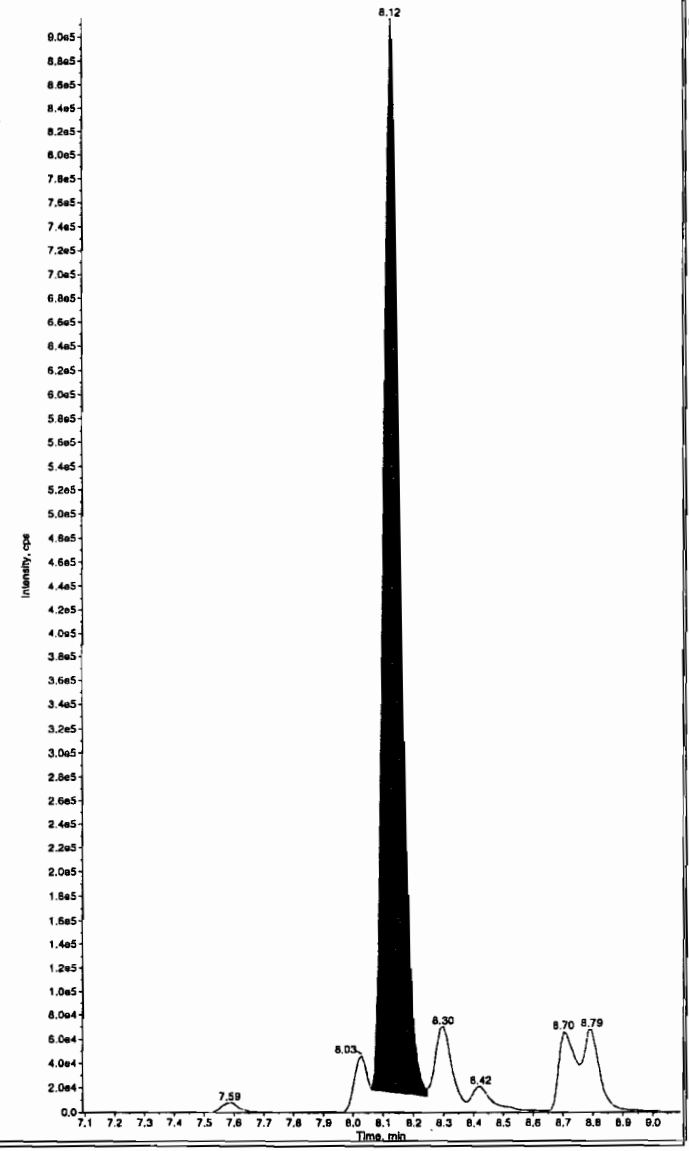

HMM 05/06/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "1202105525" Sample ID: "979353|2|MAP" File: "EXS05030040.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCX83212L" Annotation: ""

3.52

le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 271. ng/mL
Date: 5/4/2010
Time: 1:35:59 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 0 points
indow: 15.0 sec
cted RT: 8.27 min
Relative RT: No

Type: Valley
ntion Time: 8.30 min
: 2.22e+006 counts
ht: 592487.122 cps
t Time: 8.22 min
Time: 8.54 min

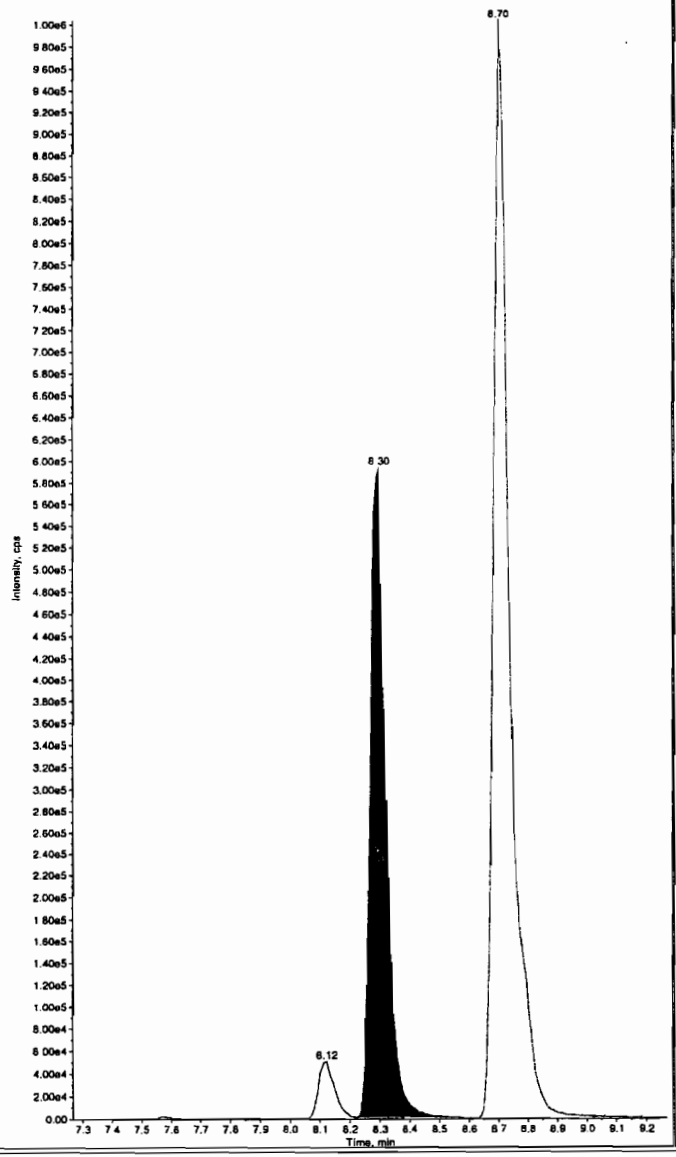

Sample Name: "1202105525" Sample ID: "979353|2|MAP" File: "EXS05030040.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 478. ng/mL
Acq. Date: 5/4/2010
Acq. Time: 1:35:59 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.93 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 1.41e+006 counts
Height: 333950.134 cps
Start Time: 4.87 min
End Time: 5.25 min

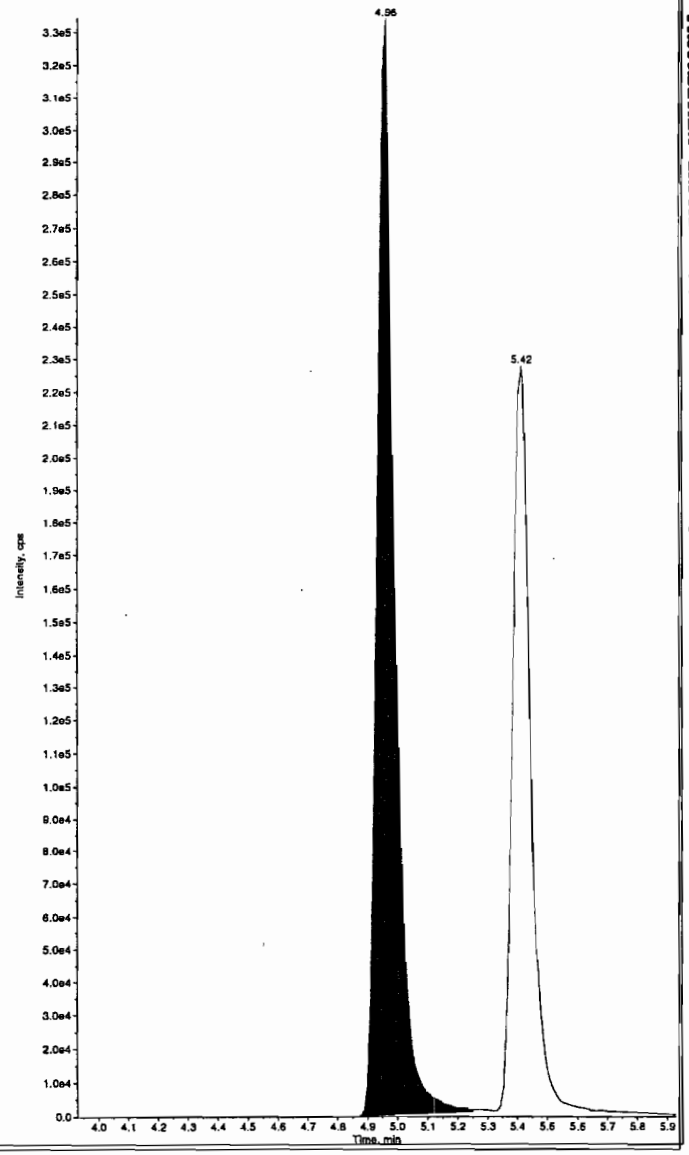

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nple Name: "1202105525" Sample ID: "979353|2|MAP" File: "EXS05030040.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCX83212L" Annotation: ""

le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 476. ng/mL
Date: 5/4/2010
Time: 1:35:59 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.38 min
Relative RT: No

Type: Valley
ntion Time: 5.42 min
: 9.77e+005 counts
nt: 227875.168 cps
: Time: 5.32 min
Time: 5.93 min

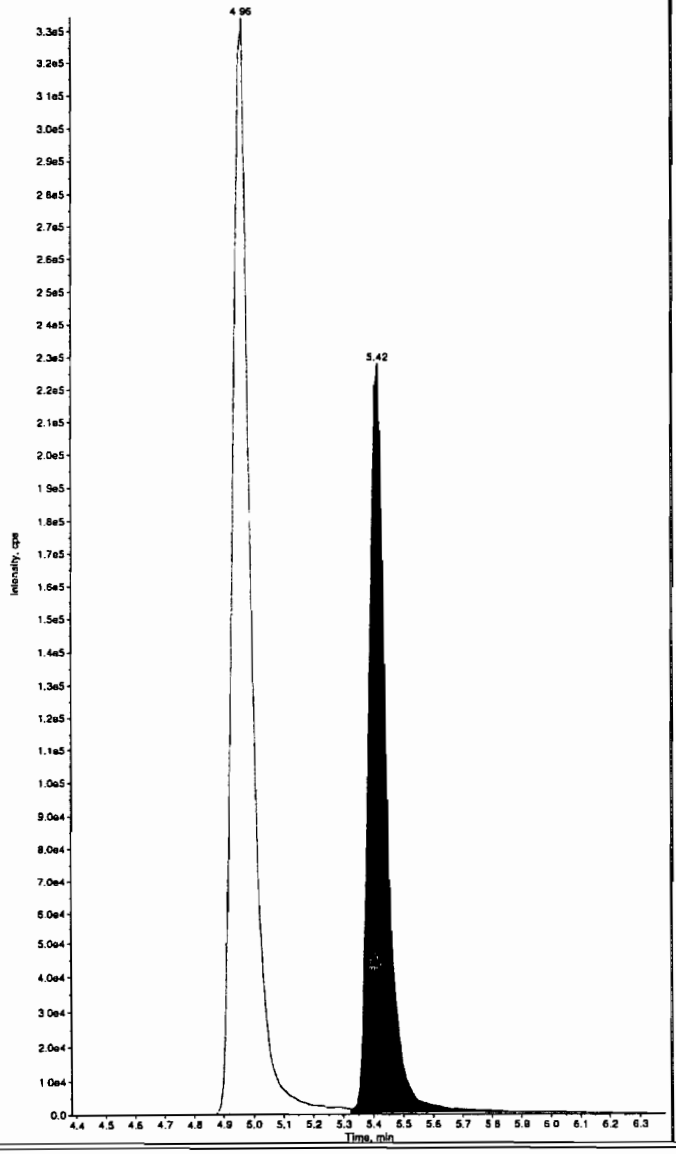

Sample Name: "1202105525" Sample ID: "979353|2|MAP" File: "EXS05030040.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 203. ng/mL
Acq. Date: 5/4/2010
Acq. Time: 1:35:59 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 3.71e+006 counts
Height: 919521.484 cps
Start Time: 10.7 min
End Time: 11.1 min

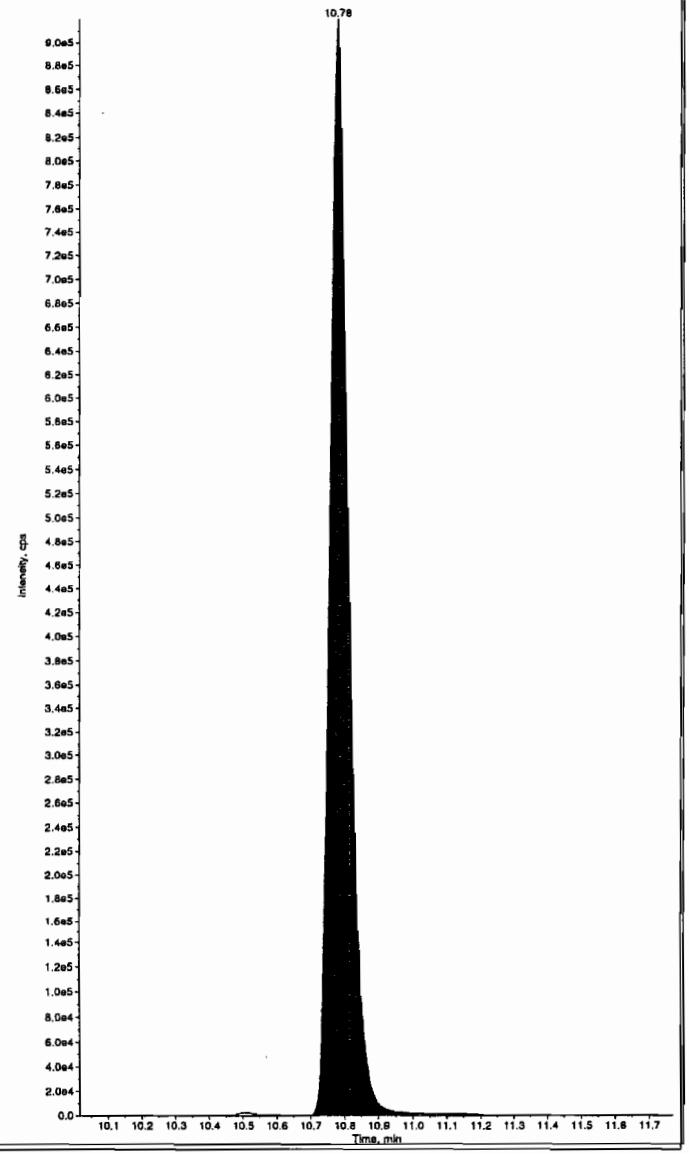

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: GW03-10-16675(251870001MS)

Lab Code: GEL

GEL Job No (SDG) 10-2937

Matrix: WATER

GEL Sample ID: 1202105526

Sample Amount 77

Moisture:

Amount Units mL

Date Received: 28-APR-10

Extraction Type Sol Exchange

Extraction Batch ID: 979352

Concentrated Extract Volume (mL) 5

Date Extracted: 29-APR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0501305a

Date Analyzed: 07-MAY-10 22:18

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	73.2	
121-14-2	2,4-Dinitrotoluene	61.2	
121-82-4	RDX	48.7	
19406-51-0	4-Amino-2,6-dinitrotoluene	58.1	
2691-41-0	HMX	65.4	
35572-78-2	2-Amino-4,6-dinitrotoluene	59.2	
479-45-8	Tetryl	65.8	
606-20-2	2,6-Dinitrotoluene	63.5	
78-11-5	PETN	58.3	
88-72-2	o-Nitrotoluene	49.5	
98-95-3	Nitrobenzene	40.8	
99-08-1	m-Nitrotoluene	48.8	
99-35-4	1,3,5-Trinitrobenzene	60.0	
99-65-0	m-Dinitrobenzene	63.7	
99-99-0	p-Nitrotoluene	47.6	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501305a
Date: 07-May-2010
Time: 22:18:43
ID: 1202105526 | ARSL | 979353 | LCQ | 251870001 MS | 2 |
Vial: 1:8,D

A 28 #1

Comments By EXP0501265a

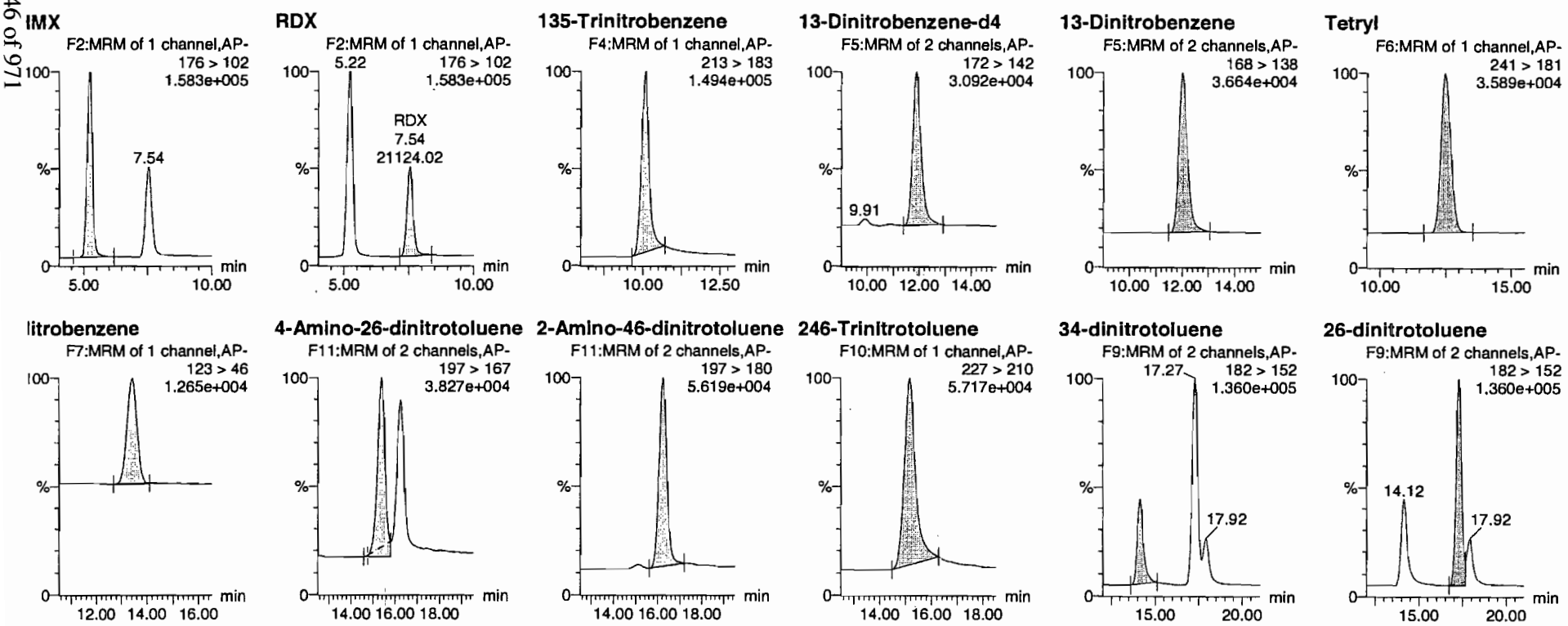

05/10/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA8.qld, Time: Sat May 08 12:04:34 2010

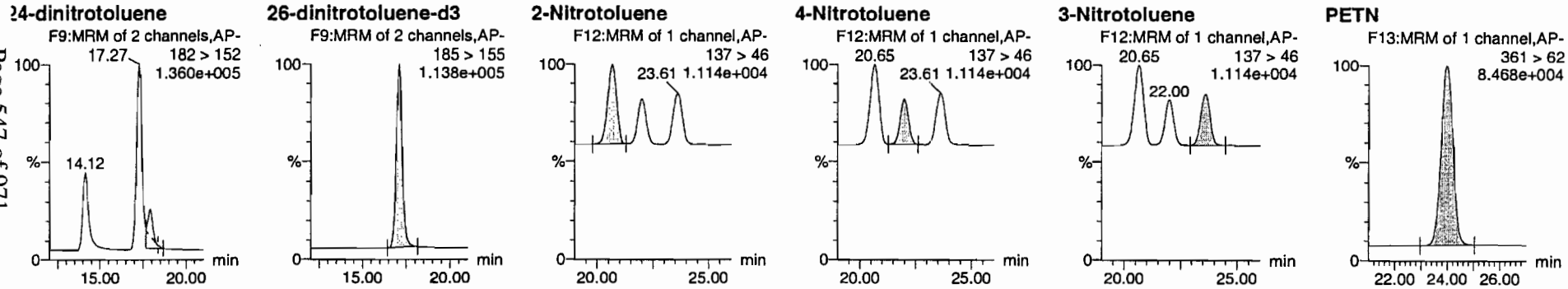

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202105526	HMX	176 > 102	5.22	39599.484	9292.287	39599.484	2130.772	bb			503.5670	100.7	0.7	2374.3
1202105526	RDX	176 > 102	7.54	21124.023	9292.287	21124.023	1136.643	bb			375.2111	75.0	-25.0	1146.8
1202105526	135-Trinitrobenzene	213 > 183	10.07	40758.195	9292.287	40758.195	2193.120	bb			461.6540	92.3	-7.7	1258.7
1202105526	13-Dinitrobenzene-d4	172 > 142	11.89	9292.287		9292.287	9292.287	bb			718.8710	143.8	43.8	824.5
1202105526	13-Dinitrobenzene	168 > 138	12.00	11672.960	9292.287	11672.960	628.099	bb			490.1780	98.0	-2.0	1266.4
1202105526	Tetryl	241 > 181	12.45	12912.859	9292.287	12912.859	694.816	bb			506.5923	101.3	1.3	2213.2
1202105526	Nitrobenzene	123 > 46	13.41	2866.244	9292.287	2866.244	154.227	bb			314.5162	62.9	-37.1	230.7
1202105526	4-Amino-26-dinitrotoluene	197 > 167	15.35	13308.766	43727.527	13308.766	152.178	MM	08-May-10	11:57:07	447.1980	89.4	-10.6	266.8
1202105526	2-Amino-46-dinitrotoluene	197 > 180	16.22	20259.043	43727.527	20259.043	231.651	bb			456.1087	91.2	-8.8	426.5
1202105526	246-Trinitrotoluene	227 > 210	15.14	24868.260	43727.527	24868.260	284.355	bb			563.2670	112.7	12.7	419.2
1202105526	34-dinitrotoluene	182 > 152	14.12	22244.471	43727.527	22244.471	254.353	bb		3.05	235.6817	94.3	-5.7	795.4
1202105526	26-dinitrotoluene	182 > 152	17.27	48721.371	43727.527	48721.371	557.102	MM	08-May-10	11:52:59	489.0086	97.8	-2.2	1925.2
1202105526	24-dinitrotoluene	182 > 152	17.92	11339.849	43727.527	11339.849	129.665	MM	08-May-10	11:48:35	471.1170	94.2	-5.8	411.0
1202105526	26-dinitrotoluene-d3	185 > 155	17.09	43727.527		43727.527	43727.527	bb		x10	590.6124	118.1	18.1	3778.5
1202105526	2-Nitrotoluene	137 > 46	20.65	2177.325	43727.527	2177.325	24.897	bb		30.5	381.0321	76.2	-23.8	243.2
202105526	4-Nitrotoluene	137 > 46	22.00	1134.457	43727.527	1134.457	12.972	bb			366.3948	73.3	-26.7	136.2
202105526	3-Nitrotoluene	137 > 46	23.61	1421.122	43727.527	1421.122	16.250	bb			375.8213	75.2	-24.8	155.2
202105526	PETN	361 > 62	23.98	41095.457	43727.527	41095.457	469.904	bb			448.9818	89.8	-10.2	2104.4

only 77 ml extracted
Hmw 05/10/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: GW03-10-16675(251870001MS)

Lab Code: GEL

GEL Job No (SDG) 10-2937

Matrix: WATER

GEL Sample ID: 1202105526

Sample Amount 77

Moisture:

Amount Units mL

Date Received: 28-APR-10

Extraction Type Sol Exchange

Extraction Batch ID: 979352

Concentrated Extract Volume (mL) 5

Date Extracted: 29-APR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS05030042.wiff

Date Analyzed: 04-MAY-10 02:07

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	61.8	
59229-75-3	2,6-Diamino-4-nitrotoluene	43.8	
618-87-1	3,5-Dinitroaniline	59.2	
6629-29-4	2,4-Diamino-6-nitrotoluene	43.2	
78-30-8	tris(o-cresyl) phosphate	29.2	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MMT1
5/5/10

nple Name: "1202105526" Sample ID: "979353|2|MAP" File: "EXS05030042.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCX83212L" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 476. ng/mL
Date: 5/4/2010
Time: 2:07:23 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.85 min
Relative RT: No

Type: Valley
ntion Time: 6.89 min
: 3.24e+005 counts
ht: 71918.358 cps
t Time: 6.79 min
Time: 7.63 min

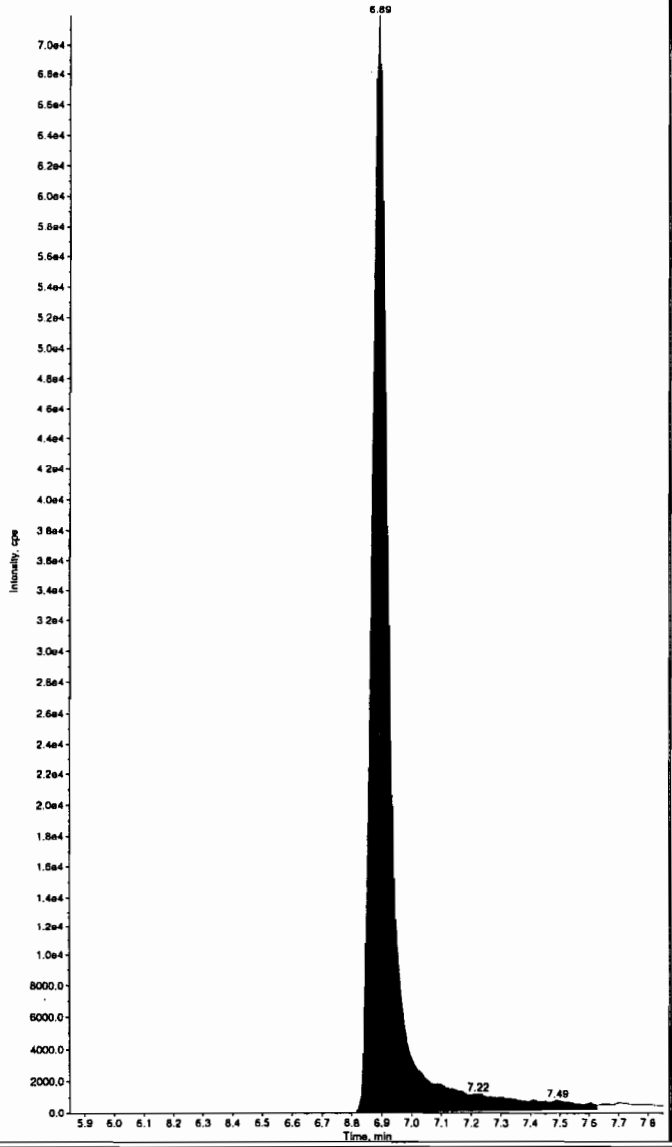

Sample Name: "1202105526" Sample ID: "979353|2|MAP" File: "EXS05030042.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 456. ng/mL
Acq. Date: 5/4/2010
Acq. Time: 2:07:23 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 5 points
RT Window: 15.0 sec
Expected RT: 8.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 3.64e+006 counts
Height: 877000.061 cps
Start Time: 7.96 min
End Time: 8.25 min

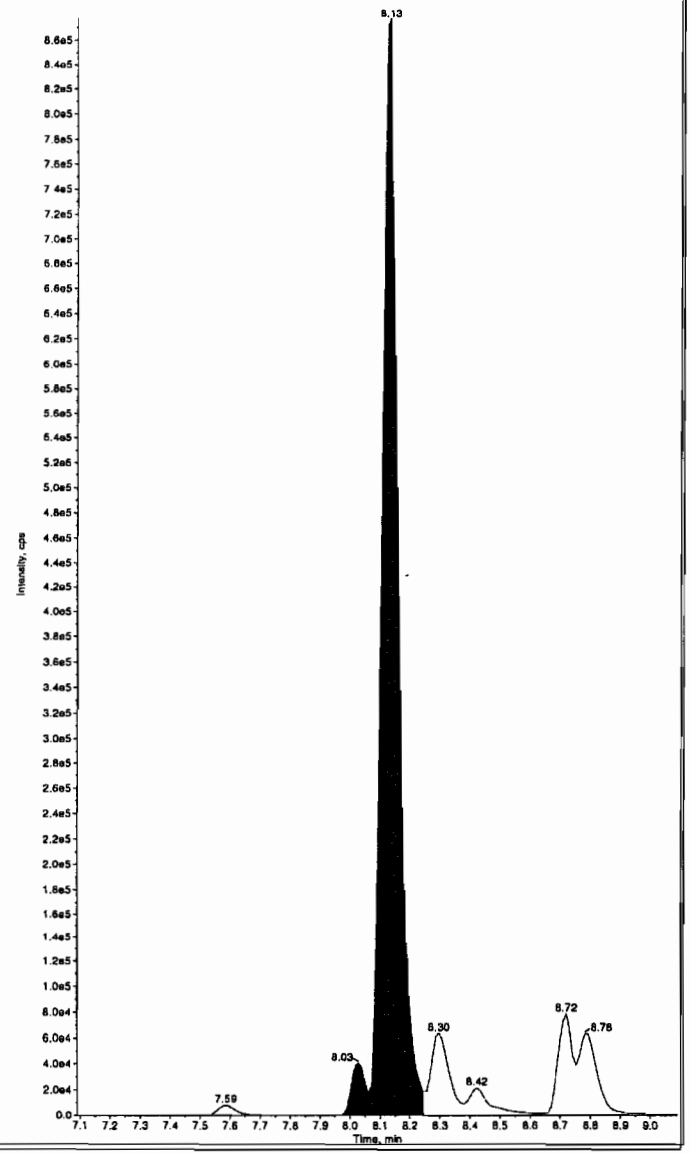

Hmm 05/06/10

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "1202105526" Sample ID: "979353|2|MAP" File: "EXS05030042.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCX83212L" Annotation: "

```
ple Index:        1
ple Type:      Unknown
entration:       N/A
culated Conc:    260.     ng/mL
 Date:        5/4/2010
 Time:        2:07:23 AM

fied:             No
. Algorithm: IntelliQuan - IQA
 Peak Height:1460.00    cps
 Peak Width:    0.00    sec
ching Width:  0        points
indow:         15.0    sec
cted RT:        8.27   min
Relative RT:    No

 Type:        Valley
ntion Time:     8.29   min
:          2.13e+006   counts
ht:          557002.380  cps
t Time:         8.22   min
Time:           8.54   min
```

3.37 x 10 = 33.7

only 77 ml extracted

HMK 05/10/10

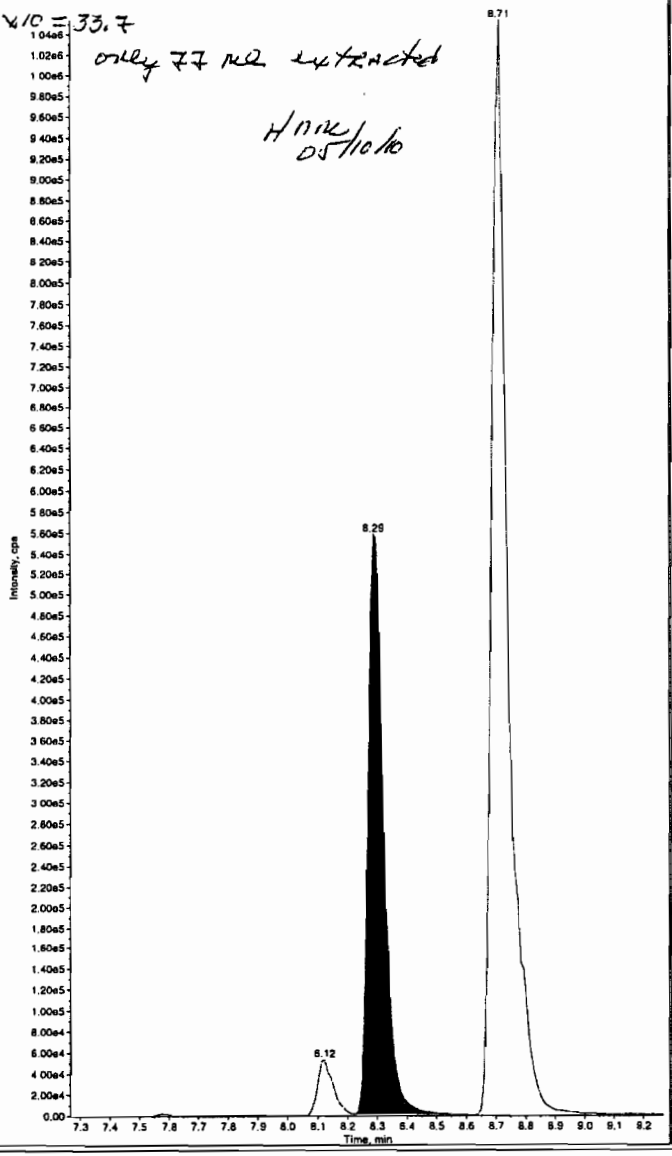

Sample Name: "1202105526" Sample ID: "979353|2|MAP" File: "EXS05030042.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: "

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     337.     ng/mL
Acq. Date:        5/4/2010
Acq. Time:        2:07:23 AM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:        4.93    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.95    min
Area:          9.98e+005    counts
Height:         236978.699  cps
Start Time:         4.87    min
End Time:           5.26    min
```

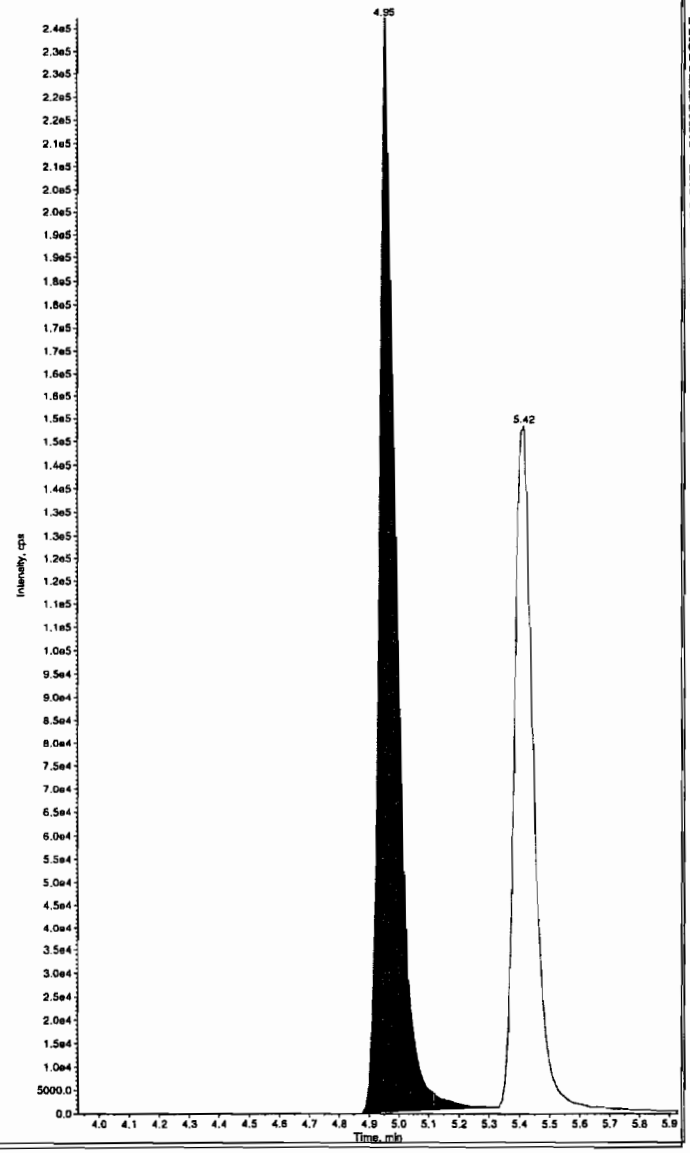

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ple Name: "1202105526" Sample ID: "979353|2|MAP" File: "EXS05030042.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
vment: "LCX83212L" Annotation: ""

e Index: 1
.e Type: Unknown
ntration: N/A
lated Conc: 333. ng/mL
Date: 5/4/2010
Time: 2:07:23 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 5.38 min
elative RT: No

Type: Valley
tion Time: 5.42 min
6.72e+005 counts
t: 148121.735 cps
Time: 5.32 min
ime: 5.94 min

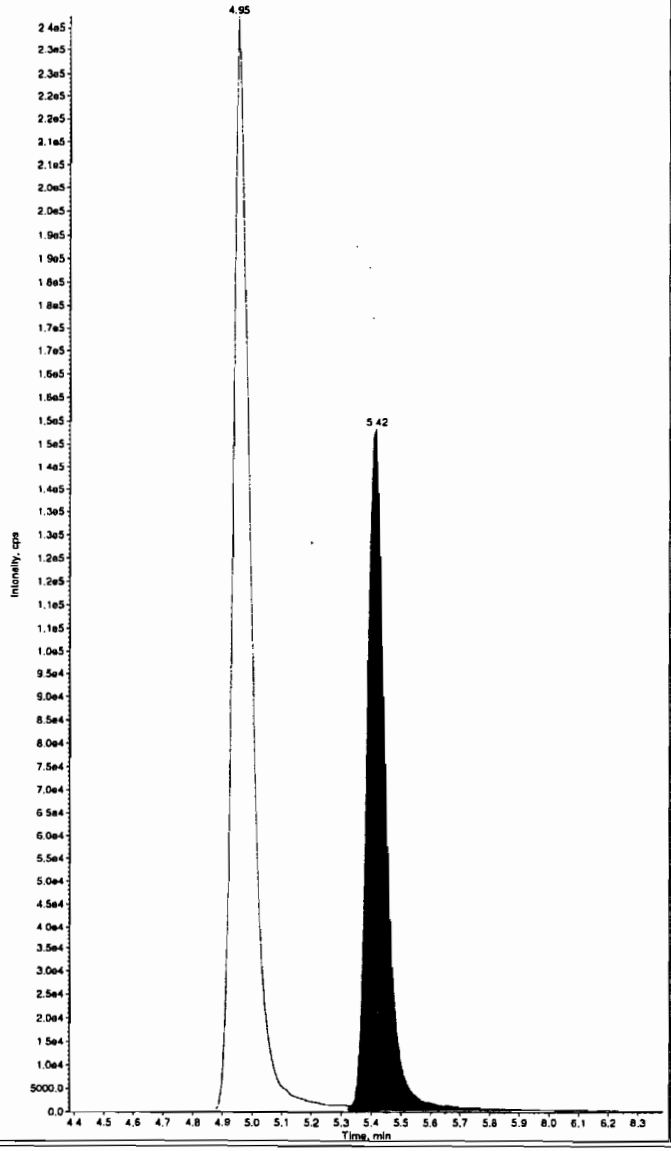

Sample Name: "1202105526" Sample ID: "979353|2|MAP" File: "EXS05030042.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 225. ng/mL
Acq. Date: 5/4/2010
Acq. Time: 2:07:23 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 4.11e+006 counts
Height: 989899.414 cps
Start Time: 10.7 min
End Time: 11.1 min

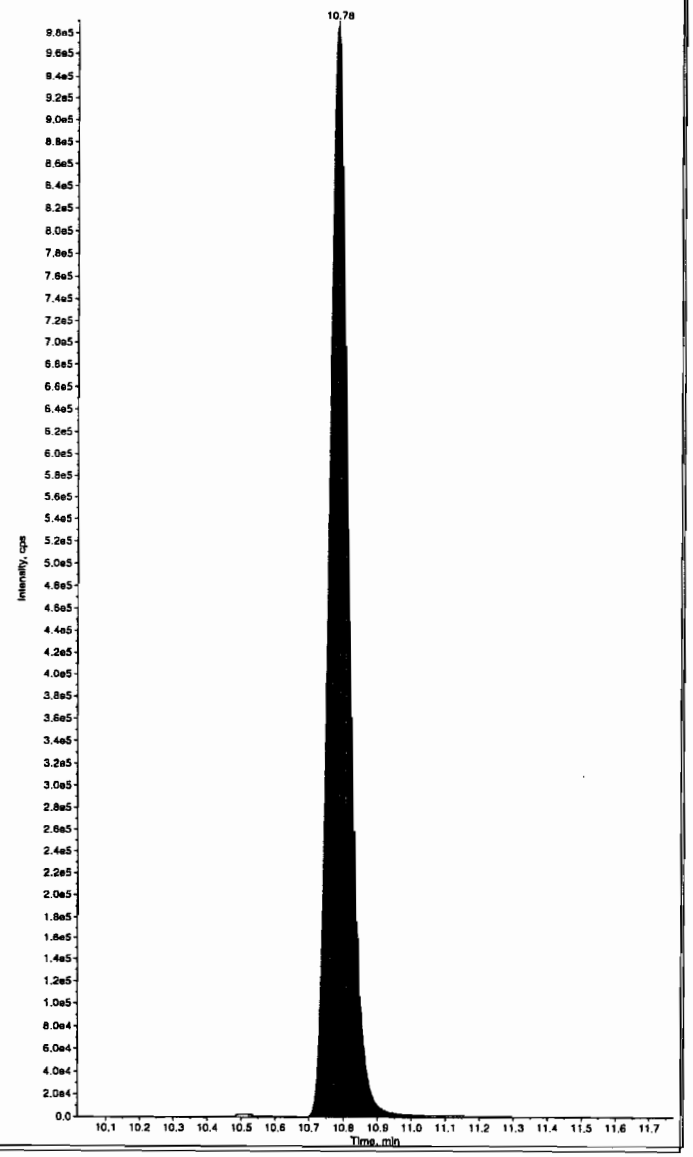

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: GW03-10-16675(251870001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-2937

Matrix: WATER

GEL Sample ID: 1202105527

Sample Amount 77

Moisture:

Amount Units mL

Date Received: 28-APR-10

Extraction Type Sol Exchange

Extraction Batch ID: 979352

Concentrated Extract Volume (mL) 5

Date Extracted: 29-APR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0501266a

Date Analyzed: 07-MAY-10 03:07

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	78.4	
121-14-2	2,4-Dinitrotoluene	59.9	
121-82-4	RDX	62.4	
19406-51-0	4-Amino-2,6-dinitrotoluene	61.2	
2691-41-0	HMX	55.0	
35572-78-2	2-Amino-4,6-dinitrotoluene	73.5	
479-45-8	Tetryl	71.0	
606-20-2	2,6-Dinitrotoluene	62.2	
78-11-5	PETN	68.1	
88-72-2	o-Nitrotoluene	50.4	
98-95-3	Nitrobenzene	59.4	
99-08-1	m-Nitrotoluene	59.8	
99-35-4	1,3,5-Trinitrobenzene	66.0	
99-65-0	m-Dinitrobenzene	66.5	
99-99-0	p-Nitrotoluene	50.3	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501266a
Date: 07-May-2010
Time: 03:07:05
ID: 1202105527 | ARSL | 979353 | LCQ | 251870001 MSD | 2 |
Vial: 1:8,E

MM 5/7/10

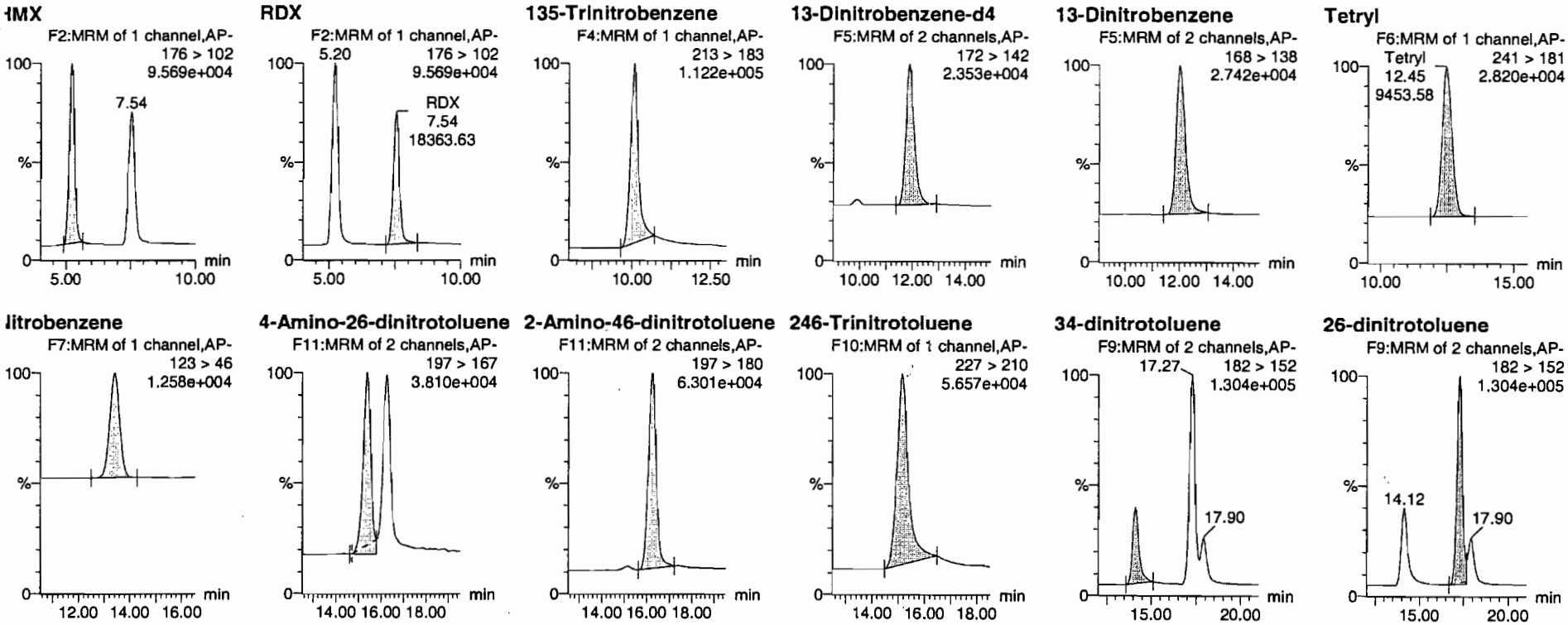

HNM 05/10/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

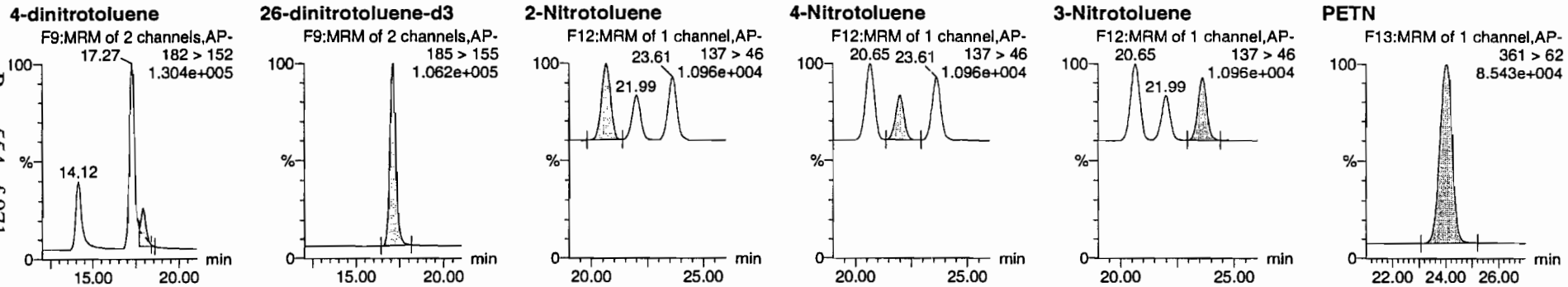

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
202105527	HMX	176 > 102	5.20	22593.467	6303.982	22593.467	1792.000	bb			423.5047	84.7	-15.3	3354.6
202105527	RDX	176 > 102	7.54	18363.631	6303.982	18363.631	1456.510	bb			480.8009	96.2	-3.8	2474.5
202105527	135-Trinitrobenzene	213 > 183	10.07	30437.961	6303.982	30437.961	2414.185	bb			508.1886	101.6	1.6	4954.7
202105527	13-Dinitrobenzene-d4	172 > 142	11.87	6303.982		6303.982	6303.982	bb			487.6894	97.5	-2.5	639.7
202105527	13-Dinitrobenzene	168 > 138	12.00	8274.251	6303.982	8274.251	656.272	bb			512.1641	102.4	2.4	645.7
202105527	Tetryl	241 > 181	12.45	9453.580	6303.982	9453.580	749.810	bb			546.6888	109.3	9.3	604.0
202105527	Nitrobenzene	123 > 46	13.41	2825.832	6303.982	2825.832	224.131	bb			457.0711	91.4	-8.6	620.6
202105527	4-Amino-26-dinitrotoluene	197 > 167	15.35	13015.830	40550.754	13015.830	160.488	MM	07-May-10	10:49:26	471.6175	94.3	-5.7	267.8
202105527	2-Amino-46-dinitrotoluene	197 > 180	16.22	23298.961	40550.754	23298.961	287.281	bb			565.6424	113.1	13.1	881.2
202105527	246-Trinitrotoluene	227 > 210	15.14	24726.275	40550.754	24726.275	304.881	bb			603.9258	120.8	20.8	715.6
202105527	34-dinitrotoluene	182 > 152	14.12	18836.551	40550.754	18836.551	232.259	bb		2.79	215.2093	86.1	-13.9	407.3
202105527	26-dinitrotoluene	182 > 152	17.27	44231.113	40550.754	44231.113	545.380	MM	07-May-10	11:04:56	478.7192	95.7	-4.3	1113.2
202105527	24-dinitrotoluene	182 > 152	17.90	10294.480	40550.754	10294.480	126.933	MM	07-May-10	11:06:02	461.1921	92.2	-7.8	237.4
202105527	26-dinitrotoluene-d3	185 > 155	17.09	40550.754		40550.754	40550.754	bb		$\frac{\times 10}{27.9}$	547.7048	109.5	9.5	3003.7
202105527	2-Nitrotoluene	137 > 46	20.65	2054.579	40550.754	2054.579	25.333	bb			387.7191	77.5	-22.5	165.8
202105527	4-Nitrotoluene	137 > 46	21.99	1112.655	40550.754	1112.655	13.719	bb			387.5054	77.5	-22.5	96.0
202105527	3-Nitrotoluene	137 > 46	23.61	1613.745	40550.754	1613.745	19.898	bb			460.1939	92.0	-8.0	136.5
202105527	PETN	361 > 62	24.02	42843.855	40550.754	42843.855	528.274	bb			524.0822	104.8	4.8	4674.1

only 27 ml extracted HMK 05/10/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: GW03-10-16675(251870001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-2937

Matrix: WATER

GEL Sample ID: 1202105527

Sample Amount 77

Moisture:

Amount Units mL

Date Received: 28-APR-10

Extraction Type Sol Exchange

Extraction Batch ID: 979352

Concentrated Extract Volume (mL) 5

Date Extracted: 29-APR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS05030043.wiff

Date Analyzed: 04-MAY-10 02:23

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	62.9	
59229-75-3	2,6-Diamino-4-nitrotoluene	50.6	
618-87-1	3,5-Dinitroaniline	57.1	
6629-29-4	2,4-Diamino-6-nitrotoluene	42.3	
78-30-8	tris(o-cresyl) phosphate	27.4	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MAP 5/5/10

ample Name: "1202105527" Sample ID: "979353|2|MAP" File: "EXS05030043.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 484. ng/mL
. Date: 5/4/2010
. Time: 2:23:07 AM

ified: No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
indow: 30.0 sec
ected RT: 6.85 min
Relative RT: No

Type: Valley
ention Time: 6.89 min
: 3.29e+005 counts
ght: 71640.648 cps
t Time: 6.79 min
Time: 7.70 min

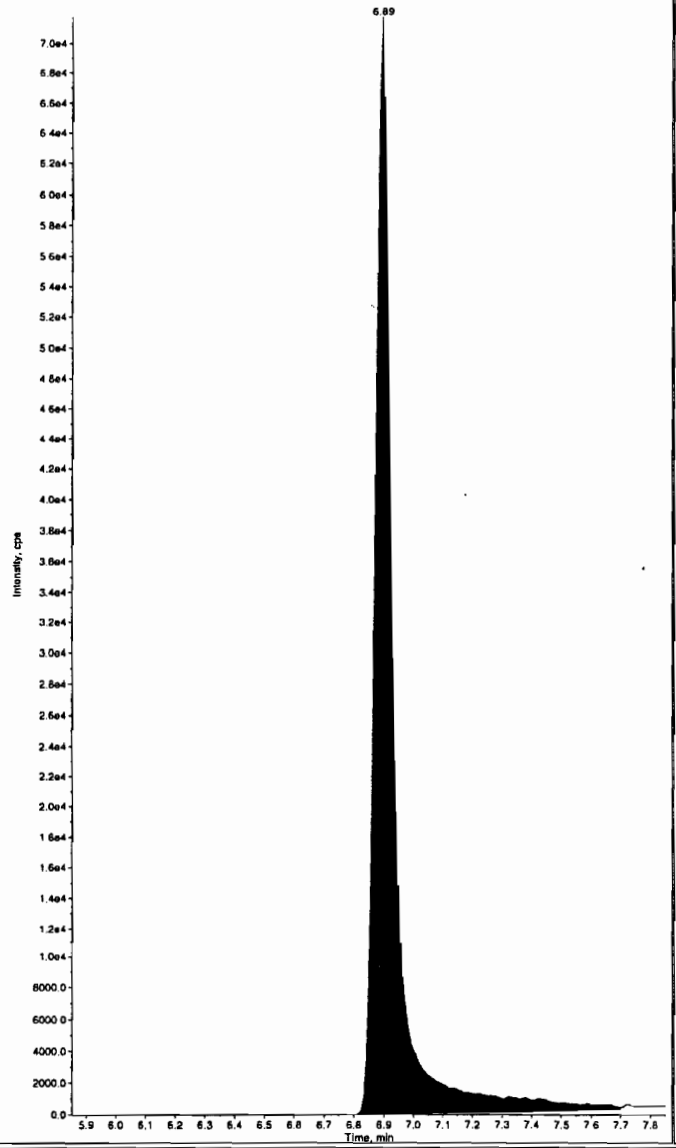

Sample Name: "1202105527" Sample ID: "979353|2|MAP" File: "EXS05030043.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 440. ng/mL
Acq. Date: 5/4/2010
Acq. Time: 2:23:07 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 5 points
RT Window: 15.0 sec
Expected RT: 8.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 3.52e+006 counts
Height: 915802.551 cps
Start Time: 8.06 min
End Time: 8.25 min

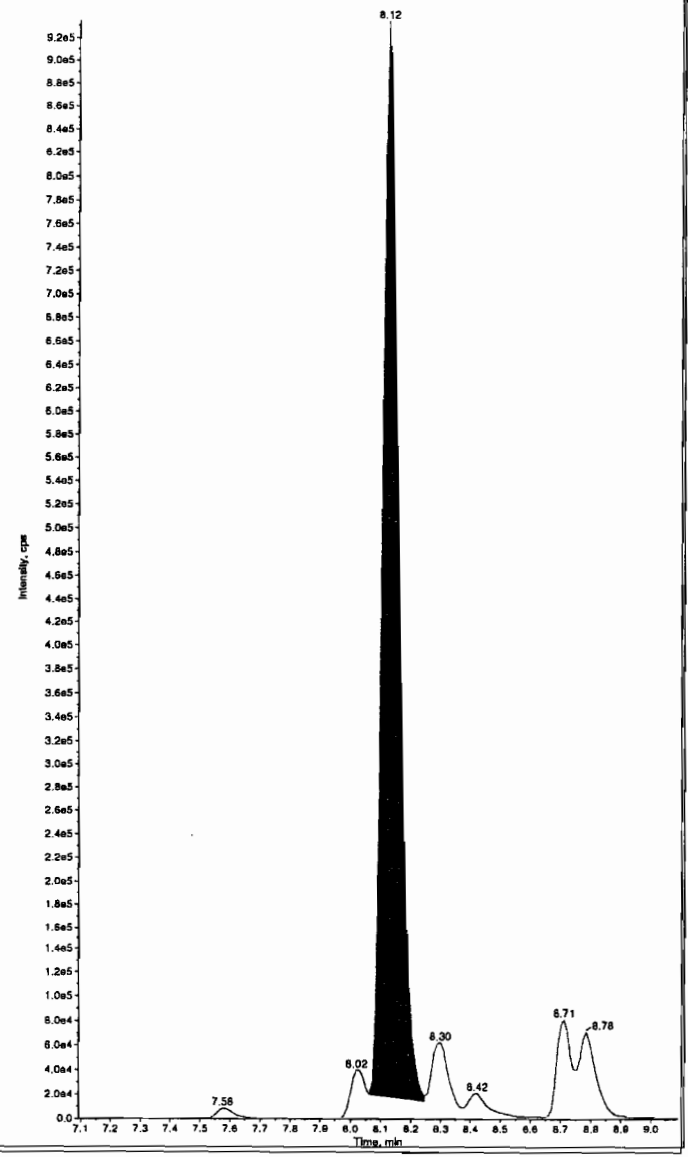

HMK 05/06/10

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mple Name: "1202105527" Sample ID: "979353|2|MAP" File: "EXS05030043.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCX83212L" Annotation: ""

3.28 x 10 = 32.8
only 77 ml extracted
HMM 05/10/10

le Index:	1
le Type:	Unknown
entration:	N/A
ulated Conc:	253. ng/mL
Date:	5/4/2010
Time:	2:23:07 AM
fied:	No
. Algorithm:	IntelliQuan - IQA
Peak Height:	1460.00 cps
Peak Width:	0.00 sec
thing Width:	0 points
indow:	15.0 sec
cted RT:	8.27 min
Relative RT:	No
Type:	Valley
ntion Time:	8.29 min
:	2.07e+006 counts
ht:	613457.153 cps
t Time:	8.22 min
Time:	8.54 min

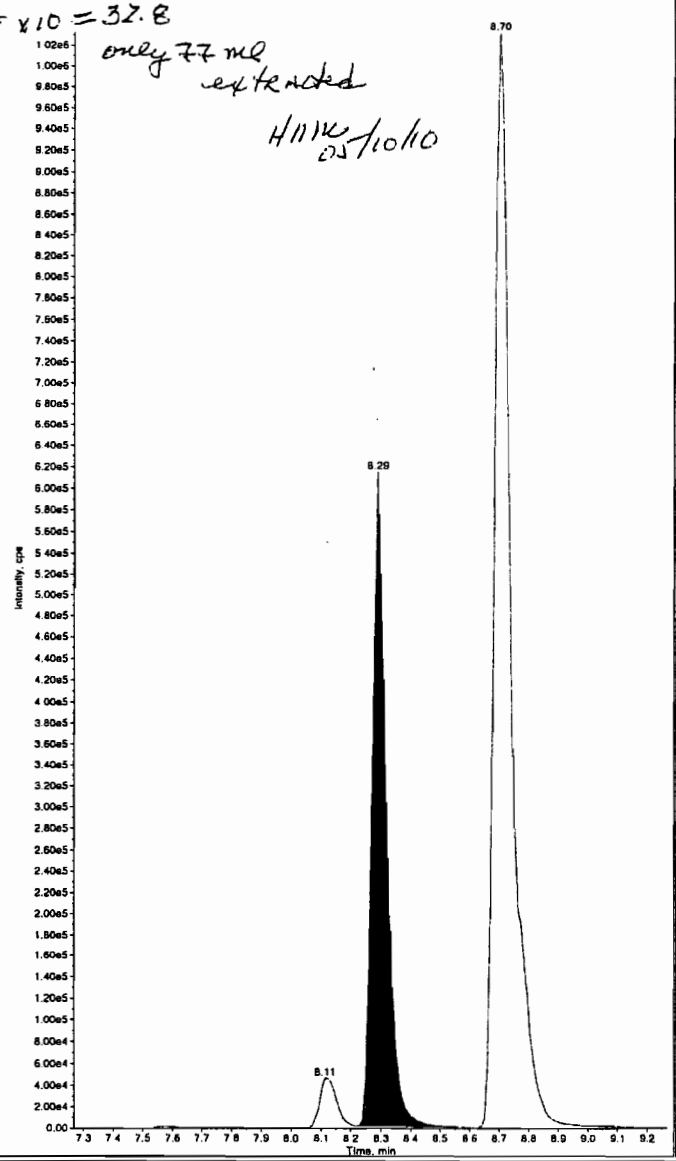

Sample Name: "1202105527" Sample ID: "979353|2|MAP" File: "EXS05030043.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	390. ng/mL
Acq. Date:	5/4/2010
Acq. Time:	2:23:07 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	4.93 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	4.95 min
Area:	1.15e+006 counts
Height:	263671.234 cps
Start Time:	4.86 min
End Time:	5.26 min

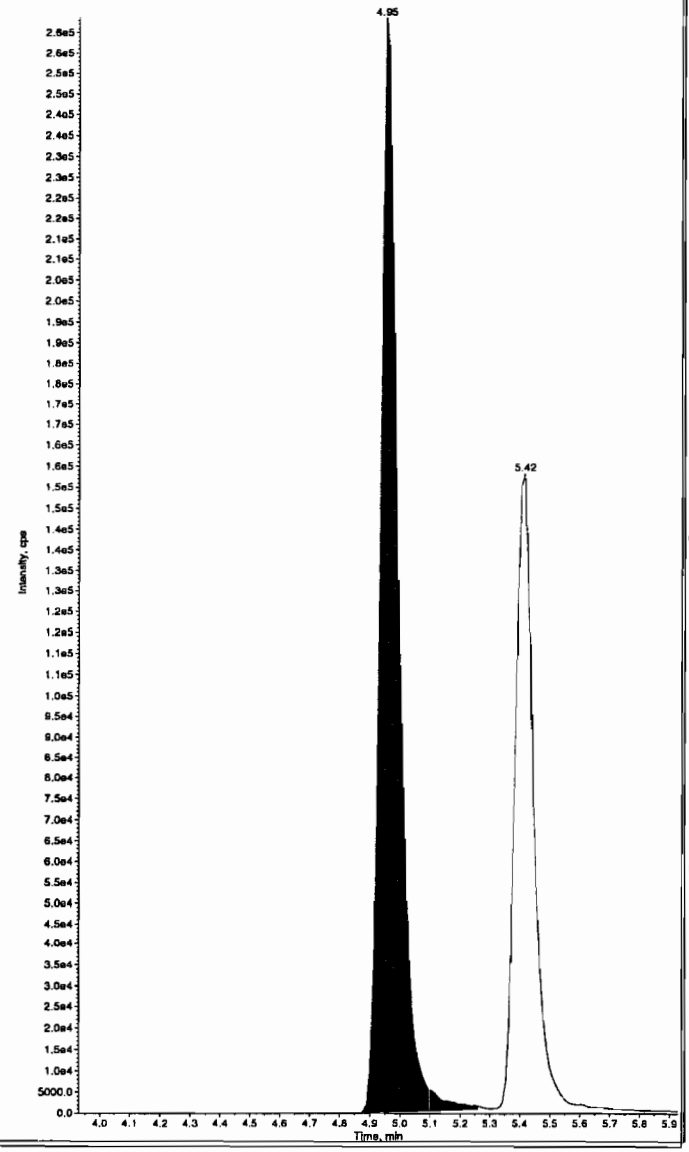

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ımple Name: "1202105527" Sample ID: "979353|2|MAP" File: "EXS05030043.wiff"
ıak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ɔmment: "LCX83212L" Annotation: ""

ple Index:	1
ple Type:	Unknown
centration:	N/A
culated Conc:	326. ng/mL
. Date:	5/4/2010
. Time:	2:23:07 AM
ified:	No
:. Algorithm:	IntelliQuan - IQA
. Peak Height:	350.00 cps
. Peak Width:	0.00 sec
othing Width:	3 points
Window:	30.0 sec
ected RT:	5.38 min
Relative RT:	No
. Type:	Valley
ention Time:	5.42 min
a:	6.57e+005 counts
ght:	152457.169 cps
rt Time:	5.30 min
Time:	5.81 min

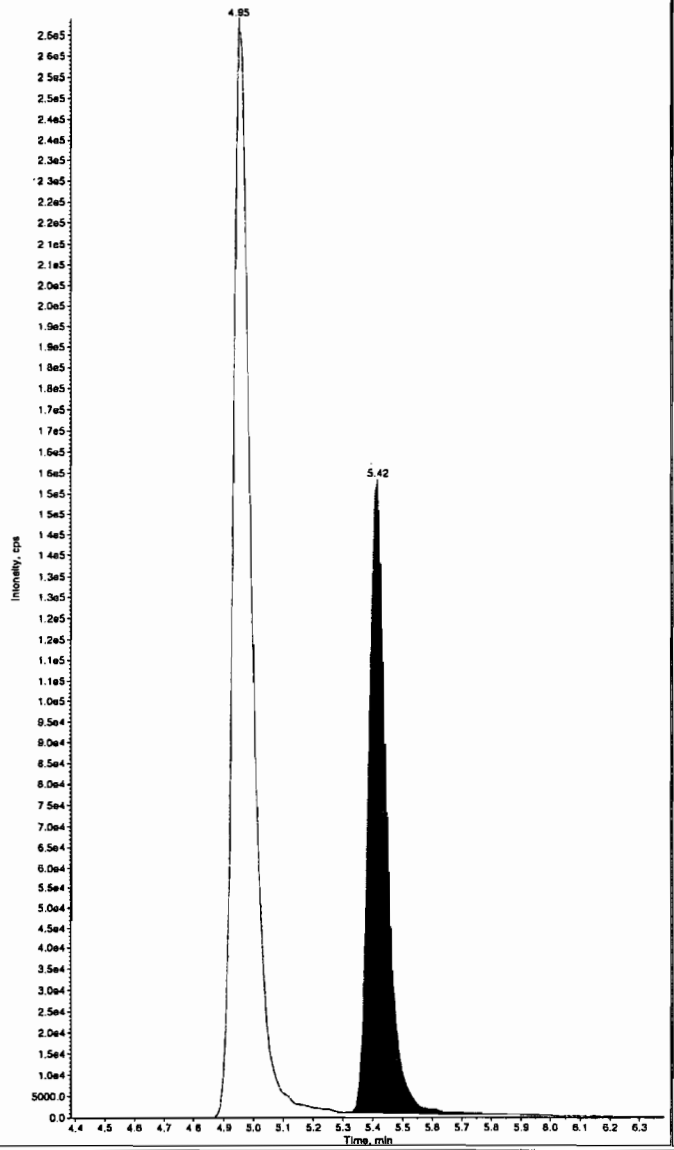

Sample Name: "1202105527" Sample ID: "979353|2|MAP" File: "EXS05030043.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	211. ng/mL
Acq. Date:	5/4/2010
Acq. Time:	2:23:07 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.8 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.8 min
Area:	3.85e+006 counts
Height:	938989.197 cps
Start Time:	10.7 min
End Time:	11.1 min

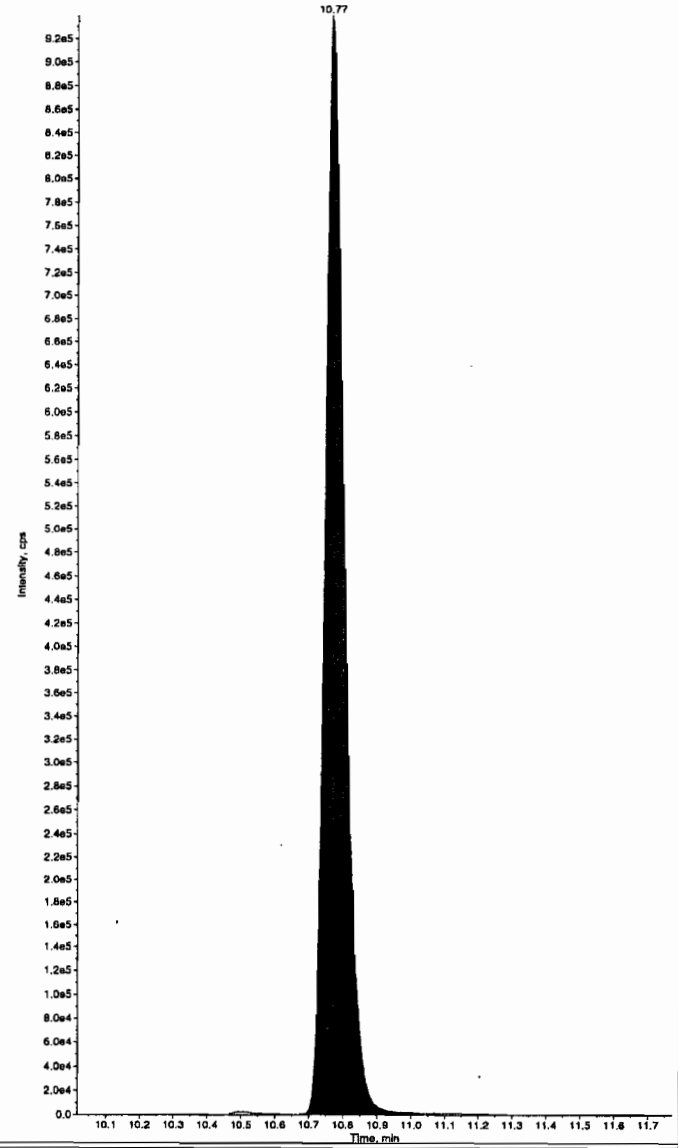

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 979352 **Verified by:** _____

Analyst: Sirena White

Method: SW846 Method 3535

Lab SOP: GL-OA-E-033 REV# 17

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Ph 1	Final Volume (mL)	Prepped Factor (mL/mL)
1202105524 MB	29-APR-2010 10:52:00	770	5	5	0.00649
1202105525 LCS	29-APR-2010 10:52:00	770	5	5	0.00649
251870001	29-APR-2010 10:52:00	77	7	5	0.06494
1202105526 MS (251870001)	29-APR-2010 10:52:00	77	7	5	0.06494
1202105527 MSD (251870001)	29-APR-2010 10:52:00	77	7	5	0.06494

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202105525	8321 Explosives LCS	IXX100310-03	.05	mL
LCS	1202105525	8321 LANL Explosives Mix 10mg/L	UXX100311-02.3	.5	mL
MS	1202105526	8321 Explosives LCS	IXX100310-03	.05	mL
MS	1202105526	8321 LANL Explosives Mix 10mg/L	UXX100311-02.3	.5	mL
MSD	1202105527	8321 Explosives LCS	IXX100310-03	.05	mL
MSD	1202105527	8321 LANL Explosives Mix 10mg/L	UXX100311-02.3	.5	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP100324-02	.025	mL

Comments:

SPE Cartridge: 003330028A

Sample 251870001 contained suspended solids and also was a little viscous. Sample was filtered and diluted in a 1:10 dilution to prevent clogging of the cartridge.

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 05/01/10
Extr. Injection Volume: 50uL
Sequence Number: 050110expA
Initial Calibration Date: 05/01/10

Method: SW846 8321A-Modified
Int. Std.: UXX100412-01.3
Mobile Phase Lot#: 1332627, 1297752
Standard-Samp Reagent Lot#: 1307631, 1293274

Reviewed BY: [illegible]
Date: 05/10/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100501-07 & WXX100504-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0501001a	XIBLK01	MAP	5/1/10 16:48			1		USE	B
EXP0501002a	XIBLK01	MAP	5/1/10 17:18			1		USE	B
EXP0501003a	WXXICAL-01	MAP	5/1/10 17:47			1		USE	I
EXP0501004a	WXXICAL-02	MAP	5/1/10 18:16			1		USE	I
EXP0501005a	WXXICAL-03	MAP	5/1/10 18:46			1		USE	I
EXP0501006a	WXXICAL-04	MAP	5/1/10 19:15			1		USE	I
EXP0501007a	WXXICAL-05	MAP	5/1/10 19:45			1		USE	I
EXP0501008a	WXXICAL-06	MAP	5/1/10 20:14			1		USE	I
EXP0501009a	XIBLK02	MAP	5/1/10 20:44			1		USE	B
EXP0501010a	WXXICV	MAP	5/1/10 21:13			1		USE	C
EXP0501011a	XIBLK03	MAP	5/1/10 21:43			1		USE	B
EXP0501012a	WXXCRI	MAP	5/1/10 22:12			1		USE	C
EXP0501013a	1202069769	MAP	5/1/10 22:42	964744	Various	2	LANL	USE	S
EXP0501014a	1202069770	MAP	5/1/10 23:11	964744	Various	2	LANL	USE	S
EXP0501015a	249245001	MAP	5/1/10 23:41	964744	10-2415	2	LANL	USE	S
EXP0501016a	1202069771	MAP	5/2/10 0:10	964744	10-2415	2	LANL	USE	S
EXP0501017a	1202069772	MAP	5/2/10 0:40	964744	10-2415	2	LANL	USE	S
EXP0501018a	249245002	MAP	5/2/10 1:09	964744	10-2415	2	LANL	USE	S
EXP0501019a	249247001	MAP	5/2/10 1:39	964744	10-2416	2	LANL	USE	S
EXP0501020a	249247002	MAP	5/2/10 2:08	964744	10-2416	2	LANL	USE	S
EXP0501021a	249247003	MAP	5/2/10 2:37	964744	10-2416	2	LANL	USE	S
EXP0501022a	249248002	MAP	5/2/10 3:07	964744	10-2417	2	LANL	USE	S
EXP0501023a	WXXCCV	MAP	5/2/10 3:36			1		USE	C
EXP0501024a	XIBLK04	MAP	5/2/10 4:06			1		USE	B
EXP0501025a	WXXCRI	MAP	5/2/10 4:36			1		USE	C
EXP0501026a	249248003	MAP	5/2/10 5:05	964744	10-2417	2	LANL	USE	S
EXP0501027a	249248004	MAP	5/2/10 5:35	964744	10-2417	2	LANL	USE	S
EXP0501028a	249250003	MAP	5/2/10 6:04	964744	10-2418	2	LANL	USE	S
EXP0501029a	249250004	MAP	5/2/10 6:33	964744	10-2418	2	LANL	USE	S

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EXP0501030a	249252001	MAP	5/2/10 7:03	964744	10-2419	2	LANL	USE	S
EXP0501031a	249252002	MAP	5/2/10 7:32	964744	10-2419	2	LANL	USE	S
EXP0501032a	249252003	MAP	5/2/10 8:02	964744	10-2419	2	LANL	USE	S
EXP0501033a	249255001	MAP	5/2/10 8:31	964744	10-2420	2	LANL	USE	S
EXP0501034a	249259001	MAP	5/2/10 9:01	964744	10-2421	2	LANL	USE	S
EXP0501035a	249259002	MAP	5/2/10 9:30	964744	10-2421	2	LANL	USE	S
EXP0501036a	WXXCCV	MAP	5/2/10 10:00			1		USE	C
EXP0501037a	XIBLK05	MAP	5/2/10 10:30			1		USE	B
EXP0501038a	WXXCRI	MAP	5/2/10 10:59			1		USE	C
EXP0501039a	1202074724	MAP	5/2/10 11:28	966730	Various	2	LANL	USE	S
EXP0501040a	1202074725	MAP	5/2/10 11:58	966730	Various	2	LANL	USE	S
EXP0501041a	249507001	MAP	5/2/10 12:28	966730	10-2464	2	LANL	USE	S
EXP0501042a	1202074726	MAP	5/2/10 12:57	966730	10-2464	2	LANL	USE	S
EXP0501043a	1202074727	MAP	5/2/10 13:27	966730	10-2464	2	LANL	USE	S
EXP0501044a	249507002	MAP	5/2/10 13:56	966730	10-2464	2	LANL	USE	S
EXP0501045a	249507006	MAP	5/2/10 14:26	966730	10-2464	2	LANL	USE	S
EXP0501046a	249507008	MAP	5/2/10 14:55	966730	10-2464	2	LANL	USE	S
EXP0501047a	249507009	MAP	5/2/10 15:25	966730	10-2464	2	LANL	USE	S
EXP0501048a	249507010	MAP	5/2/10 15:54	966730	10-2464	2	LANL	USE	S
EXP0501049a	WXXCCV	MAP	5/2/10 16:24			1		USE	C
EXP0501050a	XIBLK06	MAP	5/2/10 16:53			1		USE	B
EXP0501051a	WXXCRI	MAP	5/2/10 17:23			1		USE	C
EXP0501052a	249507011	MAP	5/2/10 17:52	966730	10-2464	2	LANL	USE	S
EXP0501053a	249507012	MAP	5/2/10 18:22	966730	10-2464	2	LANL	USE	S
EXP0501054a	249507013	MAP	5/2/10 18:51	966730	10-2464	2	LANL	USE	S
EXP0501055a	249525002	MAP	5/2/10 19:21	966730	10-2467	2	LANL	USE	S
EXP0501056a	249525003	MAP	5/2/10 19:50	966730	10-2467	2	LANL	USE	S
EXP0501057a	249525004	MAP	5/2/10 20:20	966730	10-2467	2	LANL	DUSE-RA	S
EXP0501058a	249525005	MAP	5/2/10 20:49	966730	10-2467	2	LANL	USE	S
EXP0501059a	249525006	MAP	5/2/10 21:19	966730	10-2467	2	LANL	USE	S
EXP0501060a	249525007	MAP	5/2/10 21:48	966730	10-2467	2	LANL	DUSE-RA	S
EXP0501061a	249525008	MAP	5/2/10 22:18	966730	10-2467	2	LANL	USE	S
EXP0501062a	WXXCCV	MAP	5/2/10 22:47			1		USE	C
EXP0501063a	XIBLK07	MAP	5/2/10 23:17			1		USE	B
EXP0501064a	WXXCRI	MAP	5/2/10 23:46			1		USE	C
EXP0501065a	249525009	MAP	5/3/10 0:16	966730	10-2467	2	LANL	USE	S
EXP0501066a	249525010	MAP	5/3/10 0:45	966730	10-2467	2	LANL	USE	S

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EXP0501067a	249527001	MAP	5/3/10 1:15	966730	10-2470	2	LANL	USE	S
EXP0501068a	WXXCCV	MAP	5/3/10 1:44			1		USE	C
EXP0501069a	XIBLK09	MAP	5/3/10 2:14			1		USE	B
EXP0501070a	WXXCRI	MAP	5/3/10 2:43			1		USE	C
EXP0501071a	1202068679	MAP	5/3/10 3:13	964263	Various	2	LANL	DUSE-RA	S
EXP0501072a	1202068680	MAP	5/3/10 3:42	964263	Various	2	LANL	DUSE-RA	S
EXP0501073a	249055001	MAP	5/3/10 4:12	964263	10-2349	2	LANL	DUSE-RA	S
EXP0501074a	1202068681	MAP	5/3/10 4:41	964263	10-2349	2	LANL	DUSE-RA	S
EXP0501075a	1202068682	MAP	5/3/10 5:11	964263	10-2349	2	LANL	DUSE-RA	S
EXP0501076a	249055002	MAP	5/3/10 5:40	964263	10-2349	2	LANL	DUSE-RA	S
EXP0501077a	249057002	MAP	5/3/10 6:10	964263	10-2350	2	LANL	DUSE-RA	S
EXP0501078a	249057003	MAP	5/3/10 6:39	964263	10-2350	2	LANL	DUSE-RA	S
EXP0501079a	249060002	MAP	5/3/10 7:09	964263	10-2351	2	LANL	DUSE-RA	S
EXP0501080a	249060003	MAP	5/3/10 7:38	964263	10-2351	2	LANL	DUSE-RA	S
EXP0501081a	WXXCCV	MAP	5/3/10 8:08			1		DUSE	C
EXP0501082a	XIBLK10	MAP	5/3/10 8:37			1		DUSE	B
EXP0501083a	WXXCRI	MAP	5/3/10 9:07			1		DUSE	C
EXP0501084a	249061002	MAP	5/3/10 9:36	964263	10-2352	2	LANL	DUSE-RA	S
EXP0501085a	249061003	MAP	5/3/10 10:06	964263	10-2352	2	LANL	DUSE-RA	S
EXP0501086a	249061004	MAP	5/3/10 10:35	964263	10-2352	2	LANL	DUSE-RA	S
EXP0501087a	249061005	MAP	5/3/10 11:05	964263	10-2352	2	LANL	DUSE-RA	S
EXP0501088a	249067003	MAP	5/3/10 11:34	964263	10-2354	2	LANL	DUSE-RA	S
EXP0501089a	249067004	MAP	5/3/10 12:04	964263	10-2354	2	LANL	DUSE-RA	S
EXP0501090a	249067005	MAP	5/3/10 12:33	964263	10-2354	2	LANL	DUSE-RA	S
EXP0501091a	249067006	MAP	5/3/10 13:03	964263	10-2354	2	LANL	DUSE-RA	S
EXP0501092a	WXXCCV	MAP	5/3/10 13:33			1		USE	C
EXP0501093a	XIBLK11	MAP	5/3/10 14:02			1		USE	B
EXP0501094a	WXXCRI	MAP	5/3/10 14:31			1		USE	C
EXP0501095a	1202068717	MAP	5/3/10 15:01	964284	Various	2	LANL	USE	S
EXP0501096a	1202068718	MAP	5/3/10 15:30	964284	Various	2	LANL	USE	S
EXP0501097a	249081001	MAP	5/3/10 16:00	964284	10-2359-1	2	LANL	USE	S
EXP0501098a	249101002	MAP	5/3/10 16:30	964284	10-2366	2	LANL	USE	S
EXP0501099a	1202068719	MAP	5/3/10 16:59	964284	10-2366	2	LANL	USE	S
EXP0501100a	1202068720	MAP	5/3/10 17:29	964284	10-2366	2	LANL	USE	S
EXP0501101a	249101003	MAP	5/3/10 17:58	964284	10-2366	2	LANL	USE	S
EXP0501102a	249101004	MAP	5/3/10 18:28	964284	10-2366	2	LANL	USE	S
EXP0501103a	249101005	MAP	5/3/10 18:57	964284	10-2366	2	LANL	USE	S

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EXP0501104a	249101006	MAP	5/3/10 19:27	964284	10-2366	2	LANL	USE	S
EXP0501105a	WXXCCV	MAP	5/3/10 19:56			1		USE	C
EXP0501106a	XIBLK12	MAP	5/3/10 20:26			1		USE	B
EXP0501107a	WXXCRI	MAP	5/3/10 20:55			1		USE	C
EXP0501108a	249525003	MAP	5/3/10 21:25	966730	10-2467	20	LANL	USE	S
EXP0501109a	249525004	MAP	5/3/10 21:54	966730	10-2467	2	LANL	USE	S
EXP0501110a	249525006	MAP	5/3/10 22:24	966730	10-2467	20	LANL	USE	S
EXP0501111a	249525007	MAP	5/3/10 22:53	966730	10-2467	2	LANL	USE	S
EXP0501112a	WXXCCV	MAP	5/3/10 23:23			1		USE	C
EXP0501113a	XIBLK13	MAP	5/3/10 23:52			1		USE	B
EXP0501114a	WXXCRI	MAP	5/4/10 0:22			1		USE	C
EXP0501115a	1202068679	MAP	5/4/10 0:51	964263	Various	2	LANL	USE	S
EXP0501116a	1202068680	MAP	5/4/10 1:21	964263	Various	2	LANL	DUSE-RA	S
EXP0501117a	249055001	MAP	5/4/10 1:50	964263	10-2349	2	LANL	USE	S
EXP0501118a	1202068681	MAP	5/4/10 2:20	964263	10-2349	2	LANL	USE	S
EXP0501119a	1202068682	MAP	5/4/10 2:49	964263	10-2349	2	LANL	USE	S
EXP0501120a	249055002	MAP	5/4/10 3:19	964263	10-2349	2	LANL	USE	S
EXP0501121a	249057002	MAP	5/4/10 3:48	964263	10-2350	2	LANL	USE	S
EXP0501122a	249057003	MAP	5/4/10 4:18	964263	10-2350	2	LANL	USE	S
EXP0501123a	249060002	MAP	5/4/10 4:47	964263	10-2351	2	LANL	USE	S
EXP0501124a	249060003	MAP	5/4/10 5:17	964263	10-2351	2	LANL	USE	S
EXP0501125a	WXXCCV	MAP	5/4/10 5:46			1		USE	C
EXP0501126a	XIBLK14	MAP	5/4/10 6:16			1		USE	B
EXP0501127a	WXXCRI	MAP	5/4/10 6:45			1		USE	C
EXP0501128a	249061002	MAP	5/4/10 7:15	964263	10-2352	2	LANL	USE	S
EXP0501129a	249061003	MAP	5/4/10 7:44	964263	10-2352	2	LANL	USE	S
EXP0501130a	249061004	MAP	5/4/10 8:14	964263	10-2352	2	LANL	USE	S
EXP0501131a	249061005	MAP	5/4/10 8:43	964263	10-2352	2	LANL	USE	S
EXP0501132a	249067003	MAP	5/4/10 9:13	964263	10-2354	2	LANL	USE	S
EXP0501133a	249067004	MAP	5/4/10 9:42	964263	10-2354	2	LANL	USE	S
EXP0501134a	249067005	MAP	5/4/10 10:12	964263	10-2354	2	LANL	USE	S
EXP0501135a	249067006	MAP	5/4/10 10:41	964263	10-2354	2	LANL	USE	S
EXP0501136a	1202068680	MAP	5/4/10 11:11	964263	Various	2	LANL	USE	S
EXP0501137a	WXXCCV	MAP	5/4/10 11:40			1		USE	C
EXP0501138a	XIBLK15	MAP	5/4/10 12:10			1		USE	B
EXP0501139a	WXXCRI	MAP	5/4/10 12:39			1		USE	C
EXP0501140a	1202075708	MAP	5/4/10 13:09	967144	Various	2	LANL	DUSE-RA	S

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EXP0501141a	1202075709	MAP	5/4/10 13:38	967144	Various	2	LANL	DUSE-RA	S
EXP0501142a	249582004	MAP	5/4/10 14:08	967144	10-2474	2	LANL	DUSE-RA	S
EXP0501143a	1202075710	MAP	5/4/10 14:37	967144	10-2474	2	LANL	DUSE-RA	S
EXP0501144a	1202075711	MAP	5/4/10 15:07	967144	10-2474	2	LANL	DUSE-RA	S
EXP0501145a	249582005	MAP	5/4/10 15:36	967144	10-2474	2	LANL	DUSE-RA	S
EXP0501146a	249582006	MAP	5/4/10 16:06	967144	10-2474	2	LANL	DUSE-RA	S
EXP0501147a	249582007	MAP	5/4/10 16:35	967144	10-2474	2	LANL	DUSE-RA	S
EXP0501148a	249582008	MAP	5/4/10 17:05	967144	10-2474	2	LANL	DUSE-RA	S
EXP0501149a	249582009	MAP	5/4/10 17:34	967144	10-2474	2	LANL	DUSE-RA	S
EXP0501150a	WXXCCV	MAP	5/4/10 18:04			1		DUSE	C
EXP0501151a	XIBLK16	MAP	5/4/10 18:33			1		DUSE	B
EXP0501152a	WXXCRI	MAP	5/4/10 19:03			1		DUSE	C
EXP0501153a	249582010	MAP	5/4/10 19:32	967144	10-2474	2	LANL	DUSE-RA	S
EXP0501154a	249582011	MAP	5/4/10 20:02	967144	10-2474	2	LANL	DUSE-RA	S
EXP0501155a	249582012	MAP	5/4/10 20:31	967144	10-2474	2	LANL	DUSE-RA	S
EXP0501156a	249582013	MAP	5/4/10 21:01	967144	10-2474	2	LANL	DUSE-RA	S
EXP0501157a	249582014	MAP	5/4/10 21:30	967144	10-2474	2	LANL	DUSE-RA	S
EXP0501158a	249582015	MAP	5/4/10 22:00	967144	10-2474	2	LANL	DUSE-RA	S
EXP0501159a	249582016	MAP	5/4/10 22:29	967144	10-2474	2	LANL	DUSE-RA	S
EXP0501160a	249582017	MAP	5/4/10 22:59	967144	10-2474	2	LANL	DUSE-RA	S
EXP0501161a	249582019	MAP	5/4/10 23:28	967144	10-2474	2	LANL	DUSE-RA	S
EXP0501162a	249597001	MAP	5/4/10 23:58	967144	10-2477	2	LANL	DUSE-RA	S
EXP0501163a	WXXCCV	MAP	5/5/10 0:27			1		USE	C
EXP0501164a	XIBLK17	MAP	5/5/10 0:57			1		USE	B
EXP0501165a	WXXCRI	MAP	5/5/10 1:26			1		USE	C
EXP0501166a	249597002	MAP	5/5/10 1:56	967144	10-2477	2	LANL	USE	S
EXP0501167a	249597003	MAP	5/5/10 2:25	967144	10-2477	2	LANL	USE	S
EXP0501168a	249604002	MAP	5/5/10 2:55	967144	10-2479	2	LANL	USE	S
EXP0501169a	249604003	MAP	5/5/10 3:24	967144	10-2479	2	LANL	USE	S
EXP0501170a	XIBLK18	MAP	5/5/10 3:54			1		USE	B
EXP0501171a	1202076394	MAP	5/5/10 4:23	967416	Various	2	LANL	USE	S
EXP0501172a	1202076395	MAP	5/5/10 4:53	967416	Various	2	LANL	DUSE-RA	S
EXP0501173a	249703002	MAP	5/5/10 5:22	967416	10-2497	2	LANL	USE	S
EXP0501174a	1202076396	MAP	5/5/10 5:52	967416	10-2497	2	LANL	USE	S
EXP0501175a	1202076397	MAP	5/5/10 6:21	967416	10-2497	2	LANL	USE	S
EXP0501176a	WXXCCV	MAP	5/5/10 6:51			1		USE	C
EXP0501177a	XIBLK19	MAP	5/5/10 7:20			1		USE	B

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EXP0501178a	WXXCRI	MAP	5/5/10 7:50			1		USE	C
EXP0501179a	249703003	MAP	5/5/10 8:19	967416	10-2497	2	LANL	USE	S
EXP0501180a	249703004	MAP	5/5/10 8:49	967416	10-2497	2	LANL	USE	S
EXP0501181a	249703005	MAP	5/5/10 9:18	967416	10-2497	2	LANL	USE	S
EXP0501182a	249703006	MAP	5/5/10 9:48	967416	10-2497	2	LANL	USE	S
EXP0501183a	249706004	MAP	5/5/10 10:17	967416	10-2500	2	LANL	USE	S
EXP0501184a	249706005	MAP	5/5/10 10:48	967416	10-2500	2	LANL	USE	S
EXP0501185a	249706006	MAP	5/5/10 11:17	967416	10-2500	2	LANL	USE	S
EXP0501186a	249706007	MAP	5/5/10 11:47	967416	10-2500	2	LANL	USE	S
EXP0501187a	249706008	MAP	5/5/10 12:16	967416	10-2500	2	LANL	USE	S
EXP0501188a	249706009	MAP	5/5/10 12:46	967416	10-2500	2	LANL	USE	S
EXP0501189a	WXXCCV	MAP	5/5/10 13:15			1		USE	C
EXP0501190a	XIBLK20	MAP	5/5/10 13:45			1		USE	B
EXP0501191a	WXXCRI	MAP	5/5/10 14:14			1		USE	C
EXP0501192a	249706010	MAP	5/5/10 14:44	967416	10-2500	2	LANL	DUSE-RA	S
EXP0501193a	249706011	MAP	5/5/10 15:13	967416	10-2500	2	LANL	USE	S
EXP0501194a	249706012	MAP	5/5/10 15:43	967416	10-2500	2	LANL	USE	S
EXP0501195a	249706013	MAP	5/5/10 16:12	967416	10-2500	2	LANL	DUSE-RA	S
EXP0501196a	249706014	MAP	5/5/10 16:42	967416	10-2500	2	LANL	USE	S
EXP0501197a	249706015	MAP	5/5/10 17:11	967416	10-2500	2	LANL	USE	S
EXP0501198a	249706016	MAP	5/5/10 17:41	967416	10-2500	2	LANL	USE	S
EXP0501199a	249706017	MAP	5/5/10 18:10	967416	10-2500	2	LANL	USE	S
EXP0501200a	249706018	MAP	5/5/10 18:40	967416	10-2500	2	LANL	USE	S
EXP0501201a	1202076395	MAP	5/5/10 19:09	967416	Various	2	LANL	USE	S
EXP0501202a	WXXCCV	MAP	5/5/10 19:39			1		USE	C
EXP0501203a	XIBLK21	MAP	5/5/10 20:08			1		USE	B
EXP0501204a	WXXCRI	MAP	5/5/10 20:38			1		USE	C
EXP0501205a	1202075708	MAP	5/5/10 21:07	967144	Various	2	LANL	USE	S
EXP0501206a	1202075709	MAP	5/5/10 21:37	967144	Various	2	LANL	USE	S
EXP0501207a	249582004	MAP	5/5/10 22:06	967144	10-2474	2	LANL	USE	S
EXP0501208a	1202075710	MAP	5/5/10 22:36	967144	10-2474	2	LANL	USE	S
EXP0501209a	1202075711	MAP	5/5/10 23:05	967144	10-2474	2	LANL	USE	S
EXP0501210a	249582005	MAP	5/5/10 23:35	967144	10-2474	2	LANL	USE	S
EXP0501211a	249582006	MAP	5/6/10 0:04	967144	10-2474	2	LANL	USE	S
EXP0501212a	249582007	MAP	5/6/10 0:34	967144	10-2474	2	LANL	USE	S
EXP0501213a	249582008	MAP	5/6/10 1:03	967144	10-2474	2	LANL	USE	S
EXP0501214a	249582009	MAP	5/6/10 1:33	967144	10-2474	2	LANL	USE	S

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EXP0501215a	WXXCCV	MAP	5/6/10 2:02			1		USE	C
EXP0501216a	XIBLK22	MAP	5/6/10 2:32			1		USE	B
EXP0501217a	WXXCRI	MAP	5/6/10 3:01			1		USE	C
EXP0501218a	249582010	MAP	5/6/10 3:31	967144	10-2474	2	LANL	USE	S
EXP0501219a	249582011	MAP	5/6/10 4:00	967144	10-2474	2	LANL	USE	S
EXP0501220a	249582012	MAP	5/6/10 4:30	967144	10-2474	2	LANL	USE	S
EXP0501221a	249582013	MAP	5/6/10 4:59	967144	10-2474	2	LANL	USE	S
EXP0501222a	249582014	MAP	5/6/10 5:29	967144	10-2474	2	LANL	USE	S
EXP0501223a	249582015	MAP	5/6/10 5:58	967144	10-2474	2	LANL	USE	S
EXP0501224a	249582016	MAP	5/6/10 6:28	967144	10-2474	2	LANL	USE	S
EXP0501225a	249582017	MAP	5/6/10 6:57	967144	10-2474	2	LANL	USE	S
EXP0501226a	249582019	MAP	5/6/10 7:27	967144	10-2474	2	LANL	USE	S
EXP0501227a	249597001	MAP	5/6/10 7:56	967144	10-2477	2	LANL	USE	S
EXP0501228a	WXXCCV	MAP	5/6/10 8:26			1		USE	C
EXP0501229a	XIBLK23	MAP	5/6/10 8:55			1		USE	B
EXP0501230a	WXXCRI	MAP	5/6/10 9:25			1		USE	C
EXP0501231a	249706010	MAP	5/6/10 9:54	967416	10-2500	2	LANL	USE	S
EXP0501232a	249706013	MAP	5/6/10 10:24	967416	10-2500	2	LANL	USE	S
EXP0501233a	WXXCCV	MAP	5/6/10 10:53			1		USE	C
EXP0501234a	XIBLK24	MAP	5/6/10 11:23			1		USE	B
EXP0501235a	WXXCRI	MAP	5/6/10 11:52			1		USE	C
EXP0501236a	1202076403	MAP	5/6/10 12:22	967419	Various	2	LANL	USE	S
EXP0501237a	1202076404	MAP	5/6/10 12:51	967419	Various	2	LANL	USE	S
EXP0501238a	249701002	MAP	5/6/10 13:21	967419	10-2496	2	LANL	USE	S
EXP0501239a	249720002	MAP	5/6/10 13:50	967419	10-2508	2	LANL	USE	S
EXP0501240a	1202076405	MAP	5/6/10 14:20	967419	10-2508	2	LANL	USE	S
EXP0501241a	1202076406	MAP	5/6/10 14:49	967419	10-2508	2	LANL	USE	S
EXP0501242a	249720004	MAP	5/6/10 15:19	967419	10-2508	2	LANL	USE	S
EXP0501243a	249720005	MAP	5/6/10 15:48	967419	10-2508	2	LANL	USE	S
EXP0501244a	249720006	MAP	5/6/10 16:18	967419	10-2508	2	LANL	USE	S
EXP0501245a	249720007	MAP	5/6/10 16:47	967419	10-2508	2	LANL	USE	S
EXP0501246a	WXXCCV	MAP	5/6/10 17:17			1		USE	C
EXP0501247a	XIBLK25	MAP	5/6/10 17:46			1		USE	B
EXP0501248a	WXXCRI	MAP	5/6/10 18:16			1		USE	C
EXP0501249a	1202094644	MAP	5/6/10 18:45	974803	10-2716	2	ARSL	USE	S
EXP0501250a	1202094645	MAP	5/6/10 19:15	974803	10-2716	2	ARSL	DUSE-RA	S
EXP0501251a	250986002	MAP	5/6/10 19:44	974803	10-2716	2	ARSL	USE	S

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EXP0501252a	250986004	MAP	5/6/10 20:14	974803	10-2716	2	ARSL	USE	S
EXP0501253a	250986006	MAP	5/6/10 20:43	974803	10-2716	2	ARSL	USE	S
EXP0501254a	250986007	MAP	5/6/10 21:13	974803	10-2716	2	ARSL	DUSE-RA	S
EXP0501255a	250986009	MAP	5/6/10 21:42	974803	10-2716	2	ARSL	USE	S
EXP0501256a	1202094646	MAP	5/6/10 22:12	974803	10-2716	2	ARSL	USE	S
EXP0501257a	1202094647	MAP	5/6/10 22:41	974803	10-2716	2	ARSL	USE	S
EXP0501258a	250986011	MAP	5/6/10 23:11	974803	10-2716	2	ARSL	USE	S
EXP0501259a	WXXCCV	MAP	5/6/10 23:40			1		USE	C
EXP0501260a	XIBLK26	MAP	5/7/10 0:10			1		USE	B
EXP0501261a	WXXCRI	MAP	5/7/10 0:39			1		USE	C
EXP0501262a	1202105524	MAP	5/7/10 1:09	979353	10-2937	2	ARSL	DUSE-RA	S
EXP0501263a	1202105525	MAP	5/7/10 1:38	979353	10-2937	2	ARSL	USE	S
EXP0501264a	251870001	MAP	5/7/10 2:08	979353	10-2937	2	ARSL	USE	S
EXP0501265a	1202105526	MAP	5/7/10 2:37	979353	10-2937	2	ARSL	DUSE-RA	S
EXP0501266a	1202105527	MAP	5/7/10 3:07	979353	10-2937	2	ARSL	USE	S
EXP0501267a	XIBLK27	MAP	5/7/10 3:36			1		USE	B
EXP0501268a	IXP100505-02	MAP	5/7/10 4:06	SCREEN	NA	1	GEL	USE	S
EXP0501269a	IXX100503-03	MAP	5/7/10 4:35	SCREEN	NA	1	GEL	USE	S
EXP0501270a	WXXCCV	MAP	5/7/10 5:05			1		USE	C
EXP0501271a	XIBLK28	MAP	5/7/10 5:34			1		USE	B
EXP0501272a	WXXCRI	MAP	5/7/10 6:04			1		USE	C
EXP0501273a	1202095608	MAP	5/7/10 6:33	975200	Various	2	ARSL	USE	S
EXP0501274a	1202095609	MAP	5/7/10 7:03	975200	Various	2	ARSL	USE	S
EXP0501275a	251042001	MAP	5/7/10 7:32	975200	10-2732	2	ARSL	USE	S
EXP0501276a	251042005	MAP	5/7/10 8:01	975200	10-2732	2	ARSL	USE	S
EXP0501277a	251042008	MAP	5/7/10 8:31	975200	10-2732	2	ARSL	USE	S
EXP0501278a	251062001	MAP	5/7/10 9:00	975200	10-2730	2	ARSL	USE	S
EXP0501279a	251062005	MAP	5/7/10 9:30	975200	10-2730	2	ARSL	DUSE-RA	S
EXP0501280a	1202095610	MAP	5/7/10 9:59	975200	10-2730	2	ARSL	USE	S
EXP0501281a	1202095611	MAP	5/7/10 10:29	975200	10-2730	2	ARSL	USE	S
EXP0501282a	251067001	MAP	5/7/10 10:58	975200	10-2735	2	ARSL	USE	S
EXP0501283a	WXXCCV	MAP	5/7/10 11:28			1		USE	C
EXP0501284a	XIBLK29	MAP	5/7/10 11:57			1		USE	B
EXP0501285a	WXXCRI	MAP	5/7/10 12:27			1		USE	C
EXP0501286a	251067005	MAP	5/7/10 12:56	975200	10-2735	2	ARSL	USE	S
EXP0501287a	XIBLK30	MAP	5/7/10 13:26			1		USE	B
EXP0501288a	1202096420	MAP	5/7/10 13:55	975534	Various	2	ARSL	USE	S

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EXP0501289a	1202096421	MAP	5/7/10 14:25	975534	Various	2	ARSL	DUSE-RA	S
EXP0501290a	251141001	MAP	5/7/10 14:55	975534	10-2742	2	ARSL	USE	S
EXP0501291a	1202096422	MAP	5/7/10 15:24	975534	10-2742	2	ARSL	DUSE-RA	S
EXP0501292a	1202096423	MAP	5/7/10 15:54	975534	10-2742	2	ARSL	USE	S
EXP0501293a	251141004	MAP	5/7/10 16:24	975534	10-2742	2	ARSL	DUSE-RA	S
EXP0501294a	251143001	MAP	5/7/10 16:53	975534	10-2745	2	ARSL	USE	S
EXP0501295a	251144004	MAP	5/7/10 17:23	975534	10-2750	2	ARSL	DUSE-RA	S
EXP0501296a	WXXCCV	MAP	5/7/10 17:52			1		USE	C
EXP0501297a	XIBLK31	MAP	5/7/10 18:22			1		USE	B
EXP0501298a	WXXCRI	MAP	5/7/10 18:51			1		USE	C
EXP0501299a	1202094645	MAP	5/7/10 19:21	974803	10-2716	2	ARSL	USE	S
EXP0501300a	250986002	MAP	5/7/10 19:50	974803	10-2716	20	ARSL	USE	S
EXP0501301a	250986004	MAP	5/7/10 20:20	974803	10-2716	20	ARSL	USE	S
EXP0501302a	250986006	MAP	5/7/10 20:50	974803	10-2716	20	ARSL	USE	S
EXP0501303a	250986007	MAP	5/7/10 21:19	974803	10-2716	2	ARSL	USE	S
EXP0501304a	1202105524	MAP	5/7/10 21:49	979353	10-2737	2	ARSL	USE	S
EXP0501305a	1202105526	MAP	5/7/10 22:18	979353	10-2737	2	ARSL	USE	S
EXP0501306a	WXXCCV	MAP	5/7/10 22:48			1		USE	C
EXP0501307a	XIBLK32	MAP	5/7/10 23:17			1		USE	B
EXP0501308a	WXXCRI	MAP	5/7/10 23:47			1		USE	C
EXP0501309a	251062001	MAP	5/8/10 0:16	975200	10-2730	10	ARSL	USE	S
EXP0501310a	251062005	MAP	5/8/10 0:46	975200	10-2730	10	ARSL	USE	S
EXP0501311a	251062005	MAP	5/8/10 1:15	975200	10-2730	2	ARSL	USE	S
EXP0501312a	XIBLK33	MAP	5/8/10 1:45			1		USE	B
EXP0501313a	1202096421	MAP	5/8/10 2:14	975534	Various	2	ARSL	USE	S
EXP0501314a	251141001	MAP	5/8/10 2:44	975534	10-2742	25	ARSL	USE	S
EXP0501315a	1202096422	MAP	5/8/10 3:13	975534	10-2742	2	ARSL	USE	S
EXP0501316a	XIBLK34	MAP	5/8/10 3:43			1		USE	B
EXP0501317a	251141004	MAP	5/8/10 4:12	975534	10-2742	2	ARSL	USE	S
EXP0501318a	WXXCCV	MAP	5/8/10 4:42			1		USE	C
EXP0501319a	XIBLK35	MAP	5/8/10 5:11			1		USE	B
EXP0501320a	WXXCRI	MAP	5/8/10 5:41			1		USE	C

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 05/03/10
Extr. Injection Volume: 10uL
Sequence Number: 050310exs
Initial Calibration Date: 050310

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1269686, 1293224
Standard-Samp Reagent Lot# :1307631, 1293274

Reviewed By: HMC
Date: 05/06/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100503-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS05030001.wiff	XIBLK01	MAP	5/3/2010 15:23			1		USE	B
EXS05030002.wiff	XIBLK01	MAP	5/3/2010 15:39			1		USE	B
EXS05030003.wiff	WXXICAL-19	MAP	5/3/2010 15:55			1		USE	I
EXS05030004.wiff	WXXICAL-20	MAP	5/3/2010 16:10			1		USE	I
EXS05030005.wiff	WXXICAL-21	MAP	5/3/2010 16:26			1		USE	I
EXS05030006.wiff	WXXICAL-22	MAP	5/3/2010 16:42			1		USE	I
EXS05030007.wiff	WXXICAL-23	MAP	5/3/2010 16:57			1		DUSE	I
EXS05030008.wiff	WXXICAL-24	MAP	5/3/2010 17:13			1		USE	I
EXS05030009.wiff	WXXICAL-25	MAP	5/3/2010 17:29			1		USE	I
EXS05030010.wiff	XIBLK02	MAP	5/3/2010 17:44			1		USE	B
EXS05030011.wiff	WXXICV	MAP	5/3/2010 18:00			1		USE	C
EXS05030012.wiff	XIBLK03	MAP	5/3/2010 18:16			1		USE	B
EXS05030013.wiff	WXXCRI	MAP	5/3/2010 18:32			1		USE	C
EXS05030014.wiff	1202092933	MAP	5/3/2010 18:47	974131	Various	2	ARSL	USE	S
EXS05030015.wiff	1202092934	MAP	5/3/2010 19:03	974131	Various	2	ARSL	USE	S
EXS05030016.wiff	250858002	MAP	5/3/2010 19:19	974131	10-2710	2	ARSL	USE	S
EXS05030017.wiff	250858004	MAP	5/3/2010 19:34	974131	10-2710	2	ARSL	USE	S
EXS05030018.wiff	250858006	MAP	5/3/2010 19:50	974131	10-2710	2	ARSL	USE	S
EXS05030019.wiff	250858008	MAP	5/3/2010 20:06	974131	10-2710	2	ARSL	USE	S
EXS05030020.wiff	250864001	MAP	5/3/2010 20:21	974131	10-2707	2	ARSL	USE	S
EXS05030021.wiff	1202092935	MAP	5/3/2010 20:37	974131	10-2707	2	ARSL	USE	S
EXS05030022.wiff	1202092936	MAP	5/3/2010 20:53	974131	10-2707	2	ARSL	USE	S
EXS05030023.wiff	WXXCCV	MAP	5/3/2010 21:09			1		USE	C
EXS05030024.wiff	XIBLK04	MAP	5/3/2010 21:24			1		USE	B
EXS05030025.wiff	WXXCRI	MAP	5/3/2010 21:40			1		USE	C
EXS05030026.wiff	1202094644	MAP	5/3/2010 21:56	974803	10-2716	2	ARSL	USE	S
EXS05030027.wiff	1202094645	MAP	5/3/2010 22:11	974803	10-2716	2	ARSL	USE	S
EXS05030028.wiff	250986002	MAP	5/3/2010 22:27	974803	10-2716	2	ARSL	USE	S
EXS05030029.wiff	250986004	MAP	5/3/2010 22:43	974803	10-2716	2	ARSL	USE	S
EXS05030030.wiff	250986006	MAP	5/3/2010 22:58	974803	10-2716	2	ARSL	USE	S

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EXS05030031.wiff	250986007	MAP	5/3/2010 23:14	974803	10-2716	2	ARSL	USE	S
EXS05030032.wiff	250986009	MAP	5/3/2010 23:30	974803	10-2716	2	ARSL	USE	S
EXS05030033.wiff	1202094646	MAP	5/3/2010 23:46	974803	10-2716	2	ARSL	USE	S
EXS05030034.wiff	1202094647	MAP	5/4/2010 0:01	974803	10-2716	2	ARSL	USE	S
EXS05030035.wiff	250986011	MAP	5/4/2010 0:17	974803	10-2716	2	ARSL	USE	S
EXS05030036.wiff	WXXCCV	MAP	5/4/2010 0:33			1		USE	C
EXS05030037.wiff	XIBLK05	MAP	5/4/2010 0:48			1		USE	B
EXS05030038.wiff	WXXCRI	MAP	5/4/2010 1:04			1		USE	C
EXS05030039.wiff	1202105524	MAP	5/4/2010 1:20	979353	10-2937	2	ARSL	USE	S
EXS05030040.wiff	1202105525	MAP	5/4/2010 1:35	979353	10-2937	2	ARSL	USE	S
EXS05030041.wiff	251870001	MAP	5/4/2010 1:51	979353	10-2937	2	ARSL	USE	S
EXS05030042.wiff	1202105526	MAP	5/4/2010 2:07	979353	10-2937	2	ARSL	USE	S
EXS05030043.wiff	1202105527	MAP	5/4/2010 2:23	979353	10-2937	2	ARSL	USE	S
EXS05030044.wiff	WXXCCV	MAP	5/4/2010 2:38			1		USE	C
EXS05030045.wiff	XIBLK06	MAP	5/4/2010 2:54			1		USE	B
EXS05030046.wiff	WXXCRI	MAP	5/4/2010 3:10			1		USE	C
EXS05030047.wiff	1202095608	MAP	5/4/2010 3:25	975200	Various	2	ARSL	DUSE-RA	S
EXS05030048.wiff	1202095609	MAP	5/4/2010 3:41	975200	Various	2	ARSL	DUSE-RA	S
EXS05030049.wiff	251042001	MAP	5/4/2010 3:57	975200	10-2732	2	ARSL	DUSE-RA	S
EXS05030050.wiff	251042005	MAP	5/4/2010 4:13	975200	10-2732	2	ARSL	DUSE-RA	S
EXS05030051.wiff	251042008	MAP	5/4/2010 4:28	975200	10-2732	2	ARSL	DUSE-RA	S
EXS05030052.wiff	251062001	MAP	5/4/2010 4:44	975200	10-2730	2	ARSL	DUSE-RA	S
EXS05030053.wiff	251062005	MAP	5/4/2010 5:00	975200	10-2730	2	ARSL	DUSE-RA	S
EXS05030054.wiff	1202095610	MAP	5/4/2010 5:15	975200	10-2730	2	ARSL	DUSE-RA	S
EXS05030055.wiff	1202095611	MAP	5/4/2010 5:31	975200	10-2730	2	ARSL	DUSE-RA	S
EXS05030056.wiff	251067001	MAP	5/4/2010 5:47	975200	10-2735	2	ARSL	DUSE-RA	S
EXS05030057.wiff	WXXCCV	MAP	5/4/2010 6:02			1		DUSE	C
EXS05030058.wiff	XIBLK07	MAP	5/4/2010 6:18			1		DUSE	B
EXS05030059.wiff	WXXCRI	MAP	5/4/2010 6:34			1		DUSE	C
EXS05030060.wiff	251067005	MAP	5/4/2010 6:50	975200	10-2735	2	ARSL	DUSE-RA	S
EXS05030061.wiff	XIBLK08	MAP	5/4/2010 7:05			1		DUSE	B
EXS05030062.wiff	1202096420	MAP	5/4/2010 7:21	975534	Various	2	ARSL	DUSE-RA	S
EXS05030063.wiff	1202096421	MAP	5/4/2010 7:37	975534	Various	2	ARSL	DUSE-RA	S
EXS05030064.wiff	251141001	MAP	5/4/2010 7:52	975534	10-2742	2	ARSL	DUSE-RA	S
EXS05030065.wiff	1202096422	MAP	5/4/2010 8:08	975534	10-2742	2	ARSL	DUSE-RA	S
EXS05030066.wiff	1202096423	MAP	5/4/2010 8:24	975534	10-2742	2	ARSL	DUSE-RA	S
EXS05030067.wiff	251141004	MAP	5/4/2010 8:40	975534	10-2742	2	ARSL	DUSE-RA	S

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EXS05030068.wiff	251143001	MAP	5/4/2010 8:55	975534	10-2745	2	ARSL	DUSE-RA	S
EXS05030069.wiff	251144004	MAP	5/4/2010 9:11	975534	10-2750	2	ARSL	DUSE-RA	S
EXS05030070.wiff	WXXCCV	MAP	5/4/2010 9:27			1		USE	C
EXS05030071.wiff	XIBLK09	MAP	5/4/2010 9:42			1		USE	B
EXS05030072.wiff	WXXCRI	MAP	5/4/2010 9:58			1		USE	C
EXS05030073.wiff	1202097385	MAP	5/4/2010 10:14	975913	Various	2	ARSL	USE	S
EXS05030074.wiff	1202097386	MAP	5/4/2010 10:29	975913	Various	2	ARSL	USE	S
EXS05030075.wiff	251263001	MAP	5/4/2010 10:45	975913	10-2774	2	ARSL	USE	S
EXS05030076.wiff	251264002	MAP	5/4/2010 11:01	975913	10-2776	2	ARSL	USE	S
EXS05030077.wiff	251264004	MAP	5/4/2010 11:17	975913	10-2776	2	ARSL	USE	S
EXS05030078.wiff	251266002	MAP	5/4/2010 11:32	975913	10-2780	2	ARSL	USE	S
EXS05030079.wiff	1202097387	MAP	5/4/2010 11:48	975913	10-2780	2	ARSL	USE	S
EXS05030080.wiff	1202097388	MAP	5/4/2010 12:04	975913	10-2780	2	ARSL	USE	S
EXS05030081.wiff	251266005	MAP	5/4/2010 12:19	975913	10-2780	2	ARSL	USE	S
EXS05030082.wiff	251267001	MAP	5/4/2010 12:35	975913	10-2788	2	ARSL	USE	S
EXS05030083.wiff	WXXCCV	MAP	5/4/2010 12:51			1		USE	C
EXS05030084.wiff	XIBLK10	MAP	5/4/2010 13:06			1		USE	B
EXS05030085.wiff	WXXCRI	MAP	5/4/2010 13:22			1		USE	C
EXS05030086.wiff	251291003	MAP	5/4/2010 13:38	975913	10-2802	2	ARSL	USE	S
EXS05030087.wiff	WXXCCV	MAP	5/4/2010 13:53			1		USE	C
EXS05030088.wiff	XIBLK11	MAP	5/4/2010 14:09			1		USE	B
EXS05030089.wiff	WXXCRI	MAP	5/4/2010 14:25			1		USE	C
EXS05030090.wiff	1202095608	MAP	5/4/2010 14:41	975200	Various	2	ARSL	USE	S
EXS05030091.wiff	1202095609	MAP	5/4/2010 14:56	975200	Various	2	ARSL	USE	S
EXS05030092.wiff	251042001	MAP	5/4/2010 15:12	975200	10-2732	2	ARSL	USE	S
EXS05030093.wiff	251042005	MAP	5/4/2010 15:28	975200	10-2732	2	ARSL	USE	S
EXS05030094.wiff	251042008	MAP	5/4/2010 15:43	975200	10-2732	2	ARSL	USE	S
EXS05030095.wiff	251062001	MAP	5/4/2010 15:59	975200	10-2730	2	ARSL	USE	S
EXS05030096.wiff	251062005	MAP	5/4/2010 16:15	975200	10-2730	2	ARSL	USE	S
EXS05030097.wiff	1202095610	MAP	5/4/2010 16:31	975200	10-2730	2	ARSL	USE	S
EXS05030098.wiff	1202095611	MAP	5/4/2010 16:46	975200	10-2730	2	ARSL	USE	S
EXS05030099.wiff	251067001	MAP	5/4/2010 17:02	975200	10-2735	2	ARSL	USE	S
EXS05030100.wiff	WXXCCV	MAP	5/4/2010 17:18			1		USE	C
EXS05030101.wiff	XIBLK12	MAP	5/4/2010 17:33			1		USE	B
EXS05030102.wiff	WXXCRI	MAP	5/4/2010 17:49			1		USE	C
EXS05030103.wiff	251067005	MAP	5/4/2010 18:05	975200	10-2735	2	ARSL	USE	S
EXS05030104.wiff	XIBLK13	MAP	5/4/2010 18:21			1		USE	B

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EXS05030105.wiff	1202096420	MAP	5/4/2010 18:36	975534	Various	2	ARSL	USE	S
EXS05030106.wiff	1202096421	MAP	5/4/2010 18:52	975534	Various	2	ARSL	USE	S
EXS05030107.wiff	251141001	MAP	5/4/2010 19:08	975534	10-2742	2	ARSL	USE	S
EXS05030108.wiff	1202096422	MAP	5/4/2010 19:23	975534	10-2742	2	ARSL	USE	S
EXS05030109.wiff	1202096423	MAP	5/4/2010 19:39	975534	10-2742	2	ARSL	USE	S
EXS05030110.wiff	251141004	MAP	5/4/2010 19:55	975534	10-2742	2	ARSL	USE	S
EXS05030111.wiff	251143001	MAP	5/4/2010 20:10	975534	10-2745	2	ARSL	USE	S
EXS05030112.wiff	251144004	MAP	5/4/2010 20:26	975534	10-2750	2	ARSL	USE	S
EXS05030113.wiff	WXXCCV	MAP	5/4/2010 20:42			1		USE	C
EXS05030114.wiff	XIBLK14	MAP	5/4/2010 20:58			1		USE	B
EXS05030115.wiff	WXXCRI	MAP	5/4/2010 21:13			1		USE	C

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501262a
Date: 07-May-2010 MMT 5/7/10
Time: 01:09:01
ID: 1202105524 | KARSL | 979353 | LCQ | MB | 2 |
Vial: 1:8,A

MMT 5/7/10

MUSE/ RA - A28 #2

CONFIRMS EXP0501304a

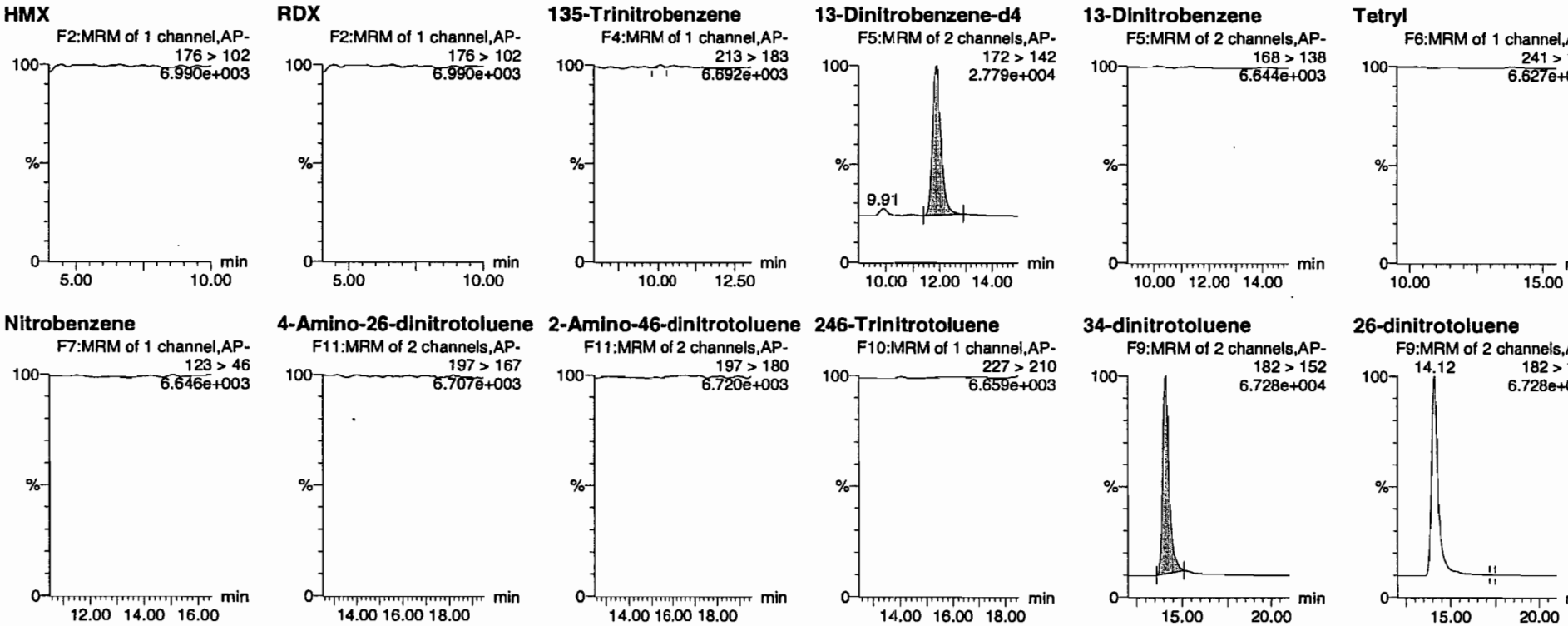

HMM 05/10/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

24-dinitrotoluene

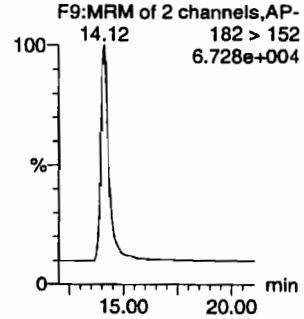

26-dinitrotoluene-d3

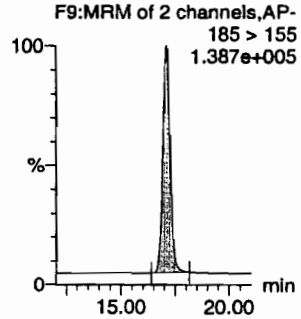

2-Nitrotoluene

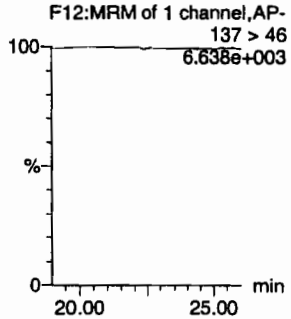

4-Nitrotoluene

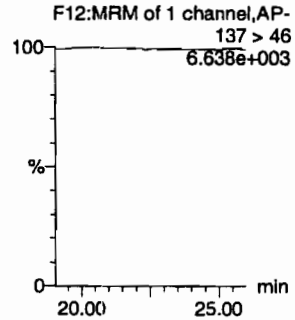

3-Nitrotoluene

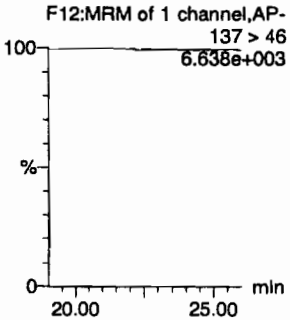

PETN

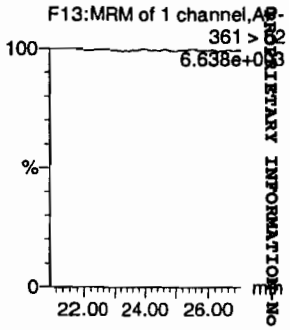

ID	Name	Trace	RT	Area	S/Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
1202105524	HMX	176 > 102			7783.303									
1202105524	RDX	176 > 102			7783.303									
1202105524	135-Trinitrobenzene	213 > 183			7783.303			MM-	07-May-10	10:40:28				
1202105524	13-Dinitrobenzene-d4	172 > 142	11.89	7783.303		7783.303	7783.303	bb			602.1328	120.4	20.4	953.2
1202105524	13-Dinitrobenzene	168 > 138			7783.303									
1202105524	Tetryl	241 > 181			7783.303									
1202105524	Nitrobenzene	123 > 46			7783.303									
1202105524	4-Amino-26-dinitrotoluene	197 > 167			52450.875									
1202105524	2-Amino-46-dinitrotoluene	197 > 180			52450.875									
1202105524	246-Trinitrotoluene	227 > 210			52450.875									
1202105524	34-dinitrotoluene	182 > 152	14.12	24350.945	52450.875	24350.945	232.131	bb			215.0908	86.0	-14.0	923.6
1202105524	26-dinitrotoluene	182 > 152			52450.875			MM-	07-May-10	11:04:32				
1202105524	24-dinitrotoluene	182 > 152			52450.875									
1202105524	26-dinitrotoluene-d3	185 > 155	17.09	52450.875		52450.875	52450.875	bb			708.4356	141.7	41.7	5369.8
1202105524	2-Nitrotoluene	137 > 46			52450.875									
1202105524	4-Nitrotoluene	137 > 46			52450.875									
1202105524	3-Nitrotoluene	137 > 46			52450.875									
1202105524	PETN	361 > 62			52450.875									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0501265a
Date: 07-May-2010
Time: 02:37:35
ID: 1202105526 | ARSC | 979353 | LCQ | 251870001 MS | 2 |
Vial: 1:8,D

MAT 5/7/10

RUSE / RA - A28 &1

CONFIRMS EXP0501305a

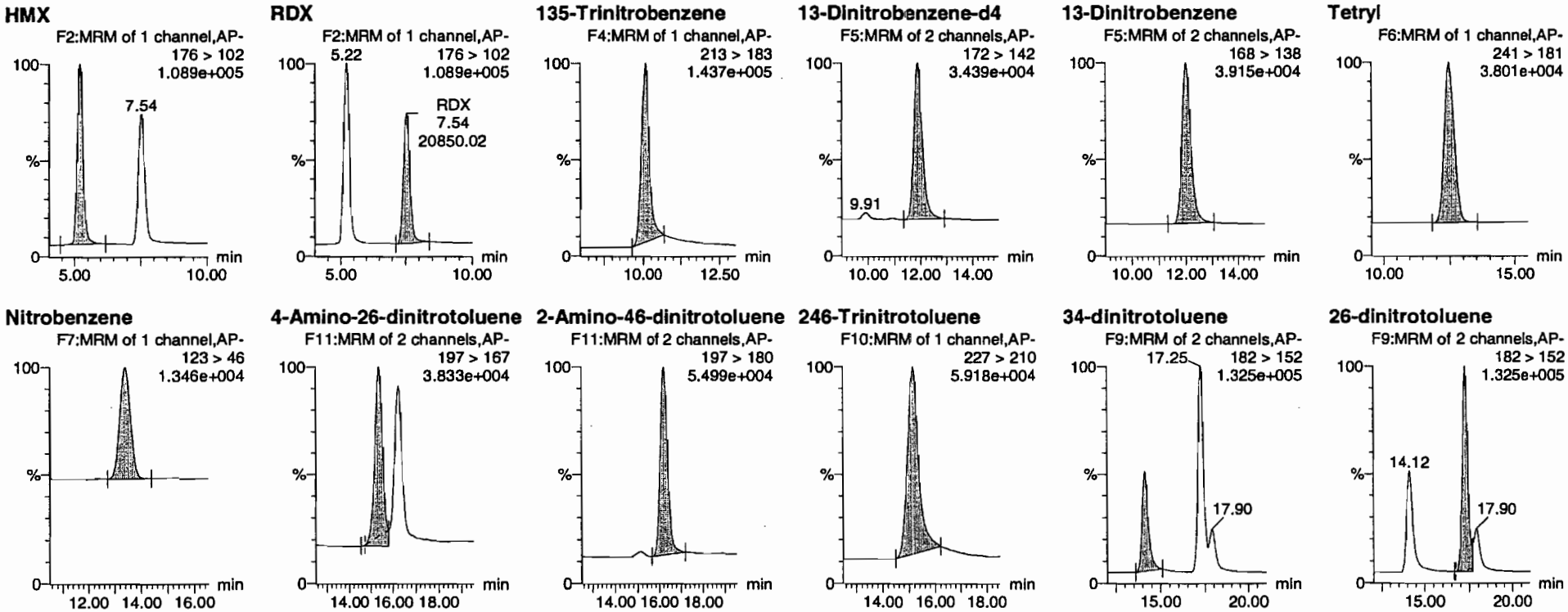

HMM 05/10/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\050110expA7.qld, Time: Fri May 07 11:14:11 2010

24-dinitrotoluene

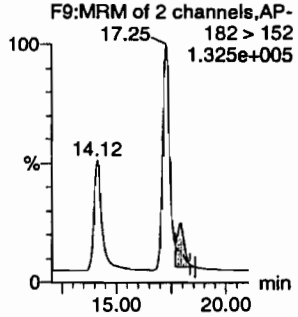

26-dinitrotoluene-d3

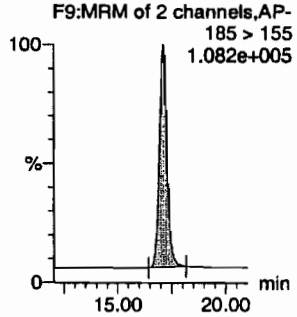

2-Nitrotoluene

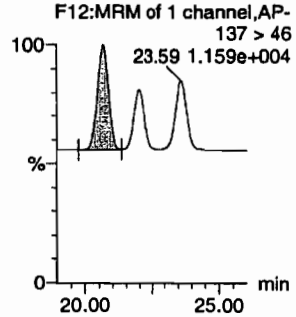

4-Nitrotoluene

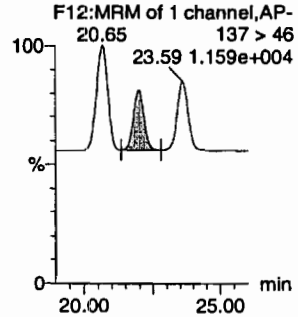

3-Nitrotoluene

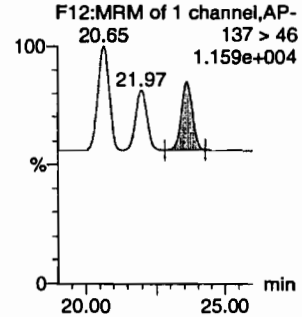

PETN

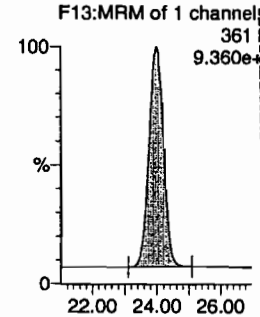

ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
1202105526	HMX	176 > 102	5.22	27251.098	10530.125	27251.098	1293.959	bb			305.8024	61.2	-38.8	1994.8
1202105526	RDX	176 > 102	7.54	20850.016	10530.125	20850.016	990.017	bb			326.8094	65.4	-34.6	1431.5
1202105526	135-Trinitrobenzene	213 > 183	10.07	40026.574	10530.125	40026.574	1900.574	bb			400.0730	80.0	-20.0	3429.7
1202105526	13-Dinitrobenzene-d4	172 > 142	11.87	10530.125		10530.125	10530.125	bb			814.6327	162.9	62.9	589.5
1202105526	13-Dinitrobenzene	168 > 138	12.00	12677.371	10530.125	12677.371	601.957	bb			469.7763	94.0	-6.0	1411.2
1202105526	Tetryl	241 > 181	12.45	13677.486	10530.125	13677.486	649.446	bb			473.5126	94.7	-5.3	489.9
1202105526	Nitrobenzene	123 > 46	13.41	3265.691	10530.125	3265.691	155.064	bb			316.2234	63.2	-36.8	294.5
1202105526	4-Amino-26-dinitrotoluene	197 > 167	15.35	13506.550	41216.082	13506.550	163.850	MM	07-May-10	10:49:19	481.4983	96.3	-3.7	259.3
1202105526	2-Amino-46-dinitrotoluene	197 > 180	16.22	19988.160	41216.082	19988.160	242.480	bb			477.4309	95.5	-4.5	1255.1
1202105526	246-Trinitrotoluene	227 > 210	15.14	25311.814	41216.082	25311.814	307.062	bb			608.2476	121.6	21.6	1151.3
1202105526	34-dinitrotoluene	182 > 152	14.12	24959.957	41216.082	24959.957	302.794	bb		2:63	280.5665	112.2	12.2	717.8
1202105526	26-dinitrotoluene	182 > 152	17.25	45040.934	41216.082	45040.934	546.400	MM	07-May-10	11:04:51	479.6148	95.9	-4.1	1486.2
1202105526	24-dinitrotoluene	182 > 152	17.90	9651.849	41216.082	9651.849	117.088	MM	07-May-10	11:06:10	425.4223	85.1	-14.9	287.5
1202105526	26-dinitrotoluene-d3	185 > 155	17.09	41216.082		41216.082	41216.082	bb			556.6912	111.3	11.3	1656.0
1202105526	2-Nitrotoluene	137 > 46	20.65	2427.837	41216.082	2427.837	29.453	bb			450.7607	90.2	-9.8	347.6
1202105526	4-Nitrotoluene	137 > 46	21.97	1324.024	41216.082	1324.024	16.062	bb			453.6755	90.7	-9.3	200.0
1202105526	3-Nitrotoluene	137 > 46	23.59	1583.179	41216.082	1583.179	19.206	bb			444.1894	88.8	-11.2	229.0
1202105526	PETN	361 > 62	23.98	45759.746	41216.082	45759.746	555.120	bb			561.3728	112.3	12.3	4296.0

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GEL Laboratories LLC
Form GEL-DER

DER Report No.: 825887
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
08-MAY-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 3535/8321A Modified	Liquid	LANL
Batch ID:	**Sample Numbers:**		
979353	See Below		

Potentially affected work order(s)(SDG): 251870(10-2937)

Application Issues:

Other

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The MS (1202105526) did not meet spike recovery limits for Nitrobenzene at 62.9%. The recovery limits are 65-114%.	1. Since the LCS met acceptance limits for Nitrobenzene, the data are reported with the appropriate DER. The discrepancy is noted in the case narrative. The Nitrobenzene recovery met the DOD QSM marginal exceedance recovery limits of 56-122%.
2. The MS/MSD pair (1202105526/7) did not meet RPD acceptance limits for Nitrobenzene at 37.0%. The acceptance limits are 0-30%.	2. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the analytical and/or extraction process. The data are reported with the appropriate DER. The discrepancies are noted in the case narrative.
3. The internal standard responses were outside of the acceptance criteria in the following samples: 1202105524(MB) and 1202105526(MS). Please see the Form 8 in the data package for the exact recoveries.	3. The samples were re-analyzed and similar recoveries were observed. The re-analysis data are reported with the appropriate DER. The discrepancies are noted in the case narrative. The confirmation raw data are located in the Miscellaneous Section of the data package.

Originator's Name:

Michael Penny 08-MAY-10

Data Validator/Group Leader:

Herbert Maier 10-MAY-10

Metals Analysis

Case Narrative

Metals Fractional Narrative
ARS International (ARSL)
SDG 10-2937

Sample Analysis

Sample ID	Client ID
251870001	GW03-10-16675
1202105373	Method Blank (MB) **ICP**
1202105374	Laboratory Control Sample (LCS)
1202105377	251870001(GW03-10-16675L) Serial Dilution (SD)
1202105375	251870001(GW03-10-16675D) Sample Duplicate (DUP)
1202105376	251870001(GW03-10-16675S) Matrix Spike (MS)
1202105362	Method Blank (MB) **ICP-MS**
1202105363	Laboratory Control Sample (LCS)
1202105366	251870001(GW03-10-16675L) Serial Dilution (SD)
1202105364	251870001(GW03-10-16675D) Sample Duplicate (DUP)
1202105365	251870001(GW03-10-16675S) Matrix Spike (MS)
1202105565	Method Blank (MB) **CVAA**
1202105566	Laboratory Control Sample (LCS)
1202105569	251870001(GW03-10-16675L) Serial Dilution (SD)
1202105567	251870001(GW03-10-16675D) Sample Duplicate (DUP)
1202105568	251870001(GW03-10-16675S) Matrix Spike (MS)

Method/Analysis Information

Analytical Batch: 979294, 979291, 979366 and 982094

Prep Batch : 979293, 979290 and 979365

Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21, GL-MA-E-010 REV# 23 and GL-GC-E-107 REV# 5
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 DOE-AL, EPA 245.1/245.2 and SM 2340 B
Prep Method :	SW846 3005A and EPA 245.1/245.2 Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Hardness as CaCO3 is calculated from Calcium and Magnesium results.

The Metals analysis-ICP was performed on a P E 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standards met the advisory control limits with the exceptions of lead, nickel, cadmium and arsenic, which recovered outside of the advisory limits of 70-130%.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 251870001 (GW03-10-16675).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of nickel, magnesium and manganese, as indicated by the "N" qualifiers.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exception of aluminum, as indicated by the "*" qualifier.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 823456 and 827612. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Total Hardness by Calculation is determined using the results of Total Calcium (Ca) and Total Magnesium (Mg) determined by ICP or ICP-MS.

Hardness = 2.497 (Ca) + 4.118 (Mg)

Please refer to the Total Ca and Total Mg data to validate results appearing on the Hardness Summary sheet. Both results are in the Inorganic/metals section of the package. There is no Batch QC for calculated results, and thus no QC Summary for the Hardness by Calculation Batch. The MDLs and PQLs are calculated using the higher of the two calculated values of Ca or Mg.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 5/14/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2937 **CONTRACT:** LANL00310 **METHOD TYPE:** EPA

SAMPLE ID: 251870001 **BASIS:** As Received **DATE COLLECTED** 26-APR-10

CLIENT ID: GW03-10-16675 **LEVEL:** Low **DATE RECEIVED** 28-APR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	05/03/10 09:40	050310W1-5	979366

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2937 **CONTRACT:** LANL00310 **METHOD TYPE:** SW846

SAMPLE ID: 251870001 **BASIS:** As Received **DATE COLLECTED** 26-APR-10

CLIENT ID: GW03-10-16675 **LEVEL:** Low **DATE RECEIVED** 28-APR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	12400	ug/L	*	68	200	200	1	P	CYL1	04/30/10 16:58	043010-1	979294
7440-36-0	Antimony	1.24	ug/L	J	0.5	3	3	1	MS	SKJ	05/10/10 19:45	100510-3	979291
7440-38-2	Arsenic	5	ug/L	U	1.5	5	5	1	MS	SKJ	05/10/10 19:45	100510-3	979291
7440-39-3	Barium	385	ug/L		1	5	5	1	P	CYL1	04/30/10 16:58	043010-1	979294
7440-41-7	Beryllium	3	ug/L	J	1	5	5	1	P	CYL1	04/30/10 16:58	043010-1	979294
7440-42-8	Boron	143	ug/L		15	50	50	1	P	CYL1	04/30/10 16:58	043010-1	979294
7440-43-9	Cadmium	0.307	ug/L	J	0.11	1	1	1	MS	SKJ	05/10/10 19:45	100510-3	979291
7440-70-2	Calcium	137000	ug/L		50	200	200	1	P	CYL1	04/30/10 16:58	043010-1	979294
7440-47-3	Chromium	43.9	ug/L		2.5	10	10	1	MS	SKJ	05/10/10 19:45	100510-3	979291
7440-48-4	Cobalt	20.2	ug/L		1	5	5	1	P	CYL1	04/30/10 16:58	043010-1	979294
7440-50-8	Copper	19.1	ug/L		3	10	10	1	P	CYL1	04/30/10 16:58	043010-1	979294
7439-89-6	Iron	24500	ug/L		30	100	100	1	P	CYL1	04/30/10 16:58	043010-1	979294
7439-92-1	Lead	21.5	ug/L		0.5	2	2	1	MS	SKJ	05/10/10 19:45	100510-3	979291
7439-95-4	Magnesium	14100	ug/L	N	85	300	300	1	P	CYL1	04/30/10 16:58	043010-1	979294
7439-96-5	Manganese	1340	ug/L	N	2	10	10	1	P	CYL1	04/30/10 16:58	043010-1	979294
7439-98-7	Molybdenum	26.4	ug/L		0.1	0.5	0.5	1	MS	SKJ	05/10/10 19:45	100510-3	979291
7440-02-0	Nickel	39.1	ug/L	N	0.5	2	2	1	MS	SKJ	05/10/10 19:45	100510-3	979291
7440-09-7	Potassium	40700	ug/L		50	150	150	1	P	CYL1	04/30/10 16:58	043010-1	979294
7782-49-2	Selenium	5	ug/L	U	1	5	5	1	MS	SKJ	05/10/10 19:45	100510-3	979291
7440-22-4	Silver	1	ug/L	U	0.2	1	1	1	MS	SKJ	05/10/10 19:45	100510-3	979291
7440-23-5	Sodium	84900	ug/L		100	300	300	1	P	CYL1	04/30/10 16:58	043010-1	979294
7440-24-6	Strontium	810	ug/L		1	5	5	1	P	CYL1	04/30/10 16:58	043010-1	979294
7440-28-0	Thallium	0.556	ug/L	J	0.3	1	1	1	MS	SKJ	05/12/10 17:16	100512-4	979291
7440-31-5	Tin	10	ug/L	U	2.5	10	10	1	P	CYL1	04/30/10 16:58	043010-1	979294
7440-61-1	Uranium	3.13	ug/L		0.05	0.2	0.2	1	MS	PRB	05/13/10 12:58	100513-2	979291
7440-62-2	Vanadium	45.6	ug/L		1	5	5	1	P	CYL1	04/30/10 16:58	043010-1	979294
7440-66-6	Zinc	363	ug/L		3.3	10	10	1	P	CYL1	04/30/10 16:58	043010-1	979294

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2937 **CONTRACT:** LANL00310 **METHOD TYPE:**

SAMPLE ID: 251870001 **BASIS:** As Received **DATE COLLECTED** 26-APR-10

CLIENT ID: GW03-10-16675 **LEVEL:** Low **DATE RECEIVED** 28-APR-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
	Hardness as CaCO3	401	mg/L		0.35	1.24	1.24	1		JJ2	05/07/10 13:08		982094

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
979291	979290	SW846 3005A	50	mL	50	mL	04/30/10	LYH1
979294	979293	SW846 3005A	50	mL	50	mL	04/30/10	LYH1
979366	979365	EPA 245.1/245.2 Prep	20	mL	20	mL	04/30/10	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2937

Contract: LANL00310 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	30–APR–10 09:51	043010–1
	Barium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	30–APR–10 09:51	043010–1
	Beryllium	256	ug/L	250	ug/L	102.3	90.0 – 110.0	P	30–APR–10 09:51	043010–1
	Boron	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	30–APR–10 09:51	043010–1
	Calcium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	30–APR–10 09:51	043010–1
	Cobalt	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	30–APR–10 09:51	043010–1
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	30–APR–10 09:51	043010–1
	Iron	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	30–APR–10 09:51	043010–1
	Magnesium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	30–APR–10 09:51	043010–1
	Manganese	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	30–APR–10 09:51	043010–1
	Potassium	2590	ug/L	2500	ug/L	103.6	90.0 – 110.0	P	30–APR–10 09:51	043010–1
	Sodium	2490	ug/L	2500	ug/L	99.6	90.0 – 110.0	P	30–APR–10 09:51	043010–1
	Strontium	538	ug/L	500	ug/L	107.7	90.0 – 110.0	P	30–APR–10 09:51	043010–1
	Tin	529	ug/L	500	ug/L	105.9	90.0 – 110.0	P	30–APR–10 09:51	043010–1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	30–APR–10 09:51	043010–1
	Zinc	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	30–APR–10 09:51	043010–1
	Mercury	5.06	ug/L	5	ug/L	101.2	90.0 – 110.0	AV	03–MAY–10 09:27	050310W1–5
	Antimony	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	10–MAY–10 18:32	100510–3
	Arsenic	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	10–MAY–10 18:32	100510–3
	Cadmium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	10–MAY–10 18:32	100510–3
	Chromium	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	10–MAY–10 18:32	100510–3
	Lead	53.6	ug/L	50	ug/L	107.3	90.0 – 110.0	MS	10–MAY–10 18:32	100510–3
	Molybdenum	50.6	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	10–MAY–10 18:32	100510–3
	Nickel	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	10–MAY–10 18:32	100510–3
	Selenium	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	10–MAY–10 18:32	100510–3
	Silver	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	10–MAY–10 18:32	100510–3
	Thallium	52.7	ug/L	50	ug/L	105.4	90.0 – 110.0	MS	12–MAY–10 16:52	100512–4
	Uranium	53.1	ug/L	50	ug/L	106.2	90.0 – 110.0	MS	13–MAY–10 12:26	100513–2
CCV01										
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	30–APR–10 10:06	043010–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2937

Contract: LANL00310 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	498	ug/L	500	ug/L	99.5	90.0 - 110.0	P	30-APR-10 10:06	043010-1
	Beryllium	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	30-APR-10 10:06	043010-1
	Boron	502	ug/L	500	ug/L	100.5	90.0 - 110.0	P	30-APR-10 10:06	043010-1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 - 110.0	P	30-APR-10 10:06	043010-1
	Cobalt	499	ug/L	500	ug/L	99.8	90.0 - 110.0	P	30-APR-10 10:06	043010-1
	Copper	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	30-APR-10 10:06	043010-1
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 - 110.0	P	30-APR-10 10:06	043010-1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 - 110.0	P	30-APR-10 10:06	043010-1
	Manganese	497	ug/L	500	ug/L	99.3	90.0 - 110.0	P	30-APR-10 10:06	043010-1
	Potassium	4990	ug/L	5000	ug/L	99.8	90.0 - 110.0	P	30-APR-10 10:06	043010-1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 - 110.0	P	30-APR-10 10:06	043010-1
	Strontium	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	30-APR-10 10:06	043010-1
	Tin	504	ug/L	500	ug/L	100.7	90.0 - 110.0	P	30-APR-10 10:06	043010-1
	Vanadium	503	ug/L	500	ug/L	100.5	90.0 - 110.0	P	30-APR-10 10:06	043010-1
	Zinc	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	30-APR-10 10:06	043010-1
	Mercury	5.1	ug/L	5	ug/L	102	80.0 - 120.0	AV	03-MAY-10 09:33	050310W1-5
	Antimony	51.7	ug/L	50	ug/L	103.3	90.0 - 110.0	MS	10-MAY-10 19:03	100510-3
	Arsenic	52	ug/L	50	ug/L	103.9	90.0 - 110.0	MS	10-MAY-10 19:03	100510-3
	Cadmium	52.5	ug/L	50	ug/L	105.1	90.0 - 110.0	MS	10-MAY-10 19:03	100510-3
	Chromium	51.1	ug/L	50	ug/L	102.3	90.0 - 110.0	MS	10-MAY-10 19:03	100510-3
	Lead	52.8	ug/L	50	ug/L	105.5	90.0 - 110.0	MS	10-MAY-10 19:03	100510-3
	Molybdenum	51.5	ug/L	50	ug/L	103.1	90.0 - 110.0	MS	10-MAY-10 19:03	100510-3
	Nickel	51.5	ug/L	50	ug/L	103	90.0 - 110.0	MS	10-MAY-10 19:03	100510-3
	Selenium	52.5	ug/L	50	ug/L	105	90.0 - 110.0	MS	10-MAY-10 19:03	100510-3
	Silver	51.5	ug/L	50	ug/L	102.9	90.0 - 110.0	MS	10-MAY-10 19:03	100510-3
	Thallium	50.5	ug/L	50	ug/L	101	90.0 - 110.0	MS	12-MAY-10 17:06	100512-4
	Uranium	51.6	ug/L	50	ug/L	103.2	90.0 - 110.0	MS	13-MAY-10 12:35	100513-2
CCV02										
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 - 110.0	P	30-APR-10 10:55	043010-1
	Barium	495	ug/L	500	ug/L	99	90.0 - 110.0	P	30-APR-10 10:55	043010-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2937

Contract: LANL00310 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Beryllium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	30–APR–10 10:55	043010–1
	Boron	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	30–APR–10 10:55	043010–1
	Calcium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	30–APR–10 10:55	043010–1
	Cobalt	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	30–APR–10 10:55	043010–1
	Copper	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	30–APR–10 10:55	043010–1
	Iron	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	30–APR–10 10:55	043010–1
	Magnesium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	30–APR–10 10:55	043010–1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	30–APR–10 10:55	043010–1
	Potassium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	30–APR–10 10:55	043010–1
	Sodium	9850	ug/L	10000	ug/L	98.5	90.0 – 110.0	P	30–APR–10 10:55	043010–1
	Strontium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	30–APR–10 10:55	043010–1
	Tin	495	ug/L	500	ug/L	99	90.0 – 110.0	P	30–APR–10 10:55	043010–1
	Vanadium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	30–APR–10 10:55	043010–1
	Zinc	490	ug/L	500	ug/L	98	90.0 – 110.0	P	30–APR–10 10:55	043010–1
	Mercury	5.12	ug/L	5	ug/L	102.4	80.0 – 120.0	AV	03–MAY–10 09:56	050310W1–5
	Antimony	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	10–MAY–10 19:21	100510–3
	Arsenic	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	10–MAY–10 19:21	100510–3
	Cadmium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	10–MAY–10 19:21	100510–3
	Chromium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	10–MAY–10 19:21	100510–3
	Lead	53.7	ug/L	50	ug/L	107.4	90.0 – 110.0	MS	10–MAY–10 19:21	100510–3
	Molybdenum	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	10–MAY–10 19:21	100510–3
	Nickel	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	10–MAY–10 19:21	100510–3
	Selenium	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	10–MAY–10 19:21	100510–3
	Silver	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	10–MAY–10 19:21	100510–3
	Thallium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	12–MAY–10 17:27	100512–4
	Uranium	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	13–MAY–10 12:50	100513–2
CCV03										
	Aluminum	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	30–APR–10 11:34	043010–1
	Barium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	30–APR–10 11:34	043010–1
	Beryllium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	30–APR–10 11:34	043010–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2937

Contract: LANL00310 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Boron	490	ug/L	500	ug/L	98	90.0 – 110.0	P	30–APR–10 11:34	043010–1
	Calcium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	30–APR–10 11:34	043010–1
	Cobalt	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	30–APR–10 11:34	043010–1
	Copper	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	30–APR–10 11:34	043010–1
	Iron	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	30–APR–10 11:34	043010–1
	Magnesium	4880	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	30–APR–10 11:34	043010–1
	Manganese	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	30–APR–10 11:34	043010–1
	Potassium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	30–APR–10 11:34	043010–1
	Sodium	10000	ug/L	10000	ug/L	100.1	90.0 – 110.0	P	30–APR–10 11:34	043010–1
	Strontium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	30–APR–10 11:34	043010–1
	Tin	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	30–APR–10 11:34	043010–1
	Vanadium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	30–APR–10 11:34	043010–1
	Zinc	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	30–APR–10 11:34	043010–1
	Antimony	53.4	ug/L	50	ug/L	106.8	90.0 – 110.0	MS	10–MAY–10 20:10	100510–3
	Arsenic	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	10–MAY–10 20:10	100510–3
	Cadmium	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	10–MAY–10 20:10	100510–3
	Chromium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	10–MAY–10 20:10	100510–3
	Lead	53.1	ug/L	50	ug/L	106.2	90.0 – 110.0	MS	10–MAY–10 20:10	100510–3
	Molybdenum	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	10–MAY–10 20:10	100510–3
	Nickel	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	10–MAY–10 20:10	100510–3
	Selenium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	10–MAY–10 20:10	100510–3
	Silver	51.7	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	10–MAY–10 20:10	100510–3
	Uranium	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	13–MAY–10 13:06	100513–2
CCV04										
	Aluminum	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	30–APR–10 12:00	043010–1
	Barium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	30–APR–10 12:00	043010–1
	Beryllium	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	30–APR–10 12:00	043010–1
	Boron	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	30–APR–10 12:00	043010–1
	Calcium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	30–APR–10 12:00	043010–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	30–APR–10 12:00	043010–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2937

Contract: LANL00310 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	30–APR–10 12:00	043010–1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	30–APR–10 12:00	043010–1
	Magnesium	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	30–APR–10 12:00	043010–1
	Manganese	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	30–APR–10 12:00	043010–1
	Potassium	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	30–APR–10 12:00	043010–1
	Sodium	9930	ug/L	10000	ug/L	99.3	90.0 – 110.0	P	30–APR–10 12:00	043010–1
	Strontium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	30–APR–10 12:00	043010–1
	Tin	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	30–APR–10 12:00	043010–1
	Vanadium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	30–APR–10 12:00	043010–1
	Zinc	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	30–APR–10 12:00	043010–1
CCV05										
	Aluminum	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	30–APR–10 12:11	043010–1
	Barium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	30–APR–10 12:11	043010–1
	Beryllium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	30–APR–10 12:11	043010–1
	Boron	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	30–APR–10 12:11	043010–1
	Calcium	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	30–APR–10 12:11	043010–1
	Cobalt	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	30–APR–10 12:11	043010–1
	Copper	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	30–APR–10 12:11	043010–1
	Iron	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	30–APR–10 12:11	043010–1
	Magnesium	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	30–APR–10 12:11	043010–1
	Manganese	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	30–APR–10 12:11	043010–1
	Potassium	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	30–APR–10 12:11	043010–1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 – 110.0	P	30–APR–10 12:11	043010–1
	Strontium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	30–APR–10 12:11	043010–1
	Tin	495	ug/L	500	ug/L	99	90.0 – 110.0	P	30–APR–10 12:11	043010–1
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	30–APR–10 12:11	043010–1
	Zinc	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	30–APR–10 12:11	043010–1
CCV06										
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	30–APR–10 13:19	043010–1
	Barium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	30–APR–10 13:19	043010–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2937

Contract: LANL00310 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Beryllium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	30–APR–10 13:19	043010–1
	Boron	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	30–APR–10 13:19	043010–1
	Calcium	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	30–APR–10 13:19	043010–1
	Cobalt	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	30–APR–10 13:19	043010–1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	30–APR–10 13:19	043010–1
	Iron	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	30–APR–10 13:19	043010–1
	Magnesium	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	30–APR–10 13:19	043010–1
	Manganese	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	30–APR–10 13:19	043010–1
	Potassium	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	30–APR–10 13:19	043010–1
	Sodium	9840	ug/L	10000	ug/L	98.4	90.0 – 110.0	P	30–APR–10 13:19	043010–1
	Strontium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	30–APR–10 13:19	043010–1
	Tin	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	30–APR–10 13:19	043010–1
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	30–APR–10 13:19	043010–1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	30–APR–10 13:19	043010–1
CCV07										
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	30–APR–10 13:30	043010–1
	Barium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	30–APR–10 13:30	043010–1
	Beryllium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	30–APR–10 13:30	043010–1
	Boron	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	30–APR–10 13:30	043010–1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	30–APR–10 13:30	043010–1
	Cobalt	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	30–APR–10 13:30	043010–1
	Copper	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	30–APR–10 13:30	043010–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	30–APR–10 13:30	043010–1
	Magnesium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	30–APR–10 13:30	043010–1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	30–APR–10 13:30	043010–1
	Potassium	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	30–APR–10 13:30	043010–1
	Sodium	10000	ug/L	10000	ug/L	100.1	90.0 – 110.0	P	30–APR–10 13:30	043010–1
	Strontium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	30–APR–10 13:30	043010–1
	Tin	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	30–APR–10 13:30	043010–1
	Vanadium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	30–APR–10 13:30	043010–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2937

Contract: LANL00310 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	30–APR–10 13:30	043010–1
CCV08										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	30–APR–10 14:08	043010–1
	Barium	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	30–APR–10 14:08	043010–1
	Beryllium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	30–APR–10 14:08	043010–1
	Boron	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	30–APR–10 14:08	043010–1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	30–APR–10 14:08	043010–1
	Cobalt	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	30–APR–10 14:08	043010–1
	Copper	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	30–APR–10 14:08	043010–1
	Iron	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	30–APR–10 14:08	043010–1
	Magnesium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	30–APR–10 14:08	043010–1
	Manganese	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	30–APR–10 14:08	043010–1
	Potassium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	30–APR–10 14:08	043010–1
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 – 110.0	P	30–APR–10 14:08	043010–1
	Strontium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	30–APR–10 14:08	043010–1
	Tin	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	30–APR–10 14:08	043010–1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	30–APR–10 14:08	043010–1
	Zinc	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	30–APR–10 14:08	043010–1
CCV09										
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	30–APR–10 14:19	043010–1
	Barium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	30–APR–10 14:19	043010–1
	Beryllium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	30–APR–10 14:19	043010–1
	Boron	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	30–APR–10 14:19	043010–1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	30–APR–10 14:19	043010–1
	Cobalt	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	30–APR–10 14:19	043010–1
	Copper	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	30–APR–10 14:19	043010–1
	Iron	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	30–APR–10 14:19	043010–1
	Magnesium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	30–APR–10 14:19	043010–1
	Manganese	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	30–APR–10 14:19	043010–1
	Potassium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	30–APR–10 14:19	043010–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2937

Contract: LANL00310 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	9900	ug/L	10000	ug/L	99	90.0 – 110.0	P	30–APR–10 14:19	043010–1
	Strontium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	30–APR–10 14:19	043010–1
	Tin	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	30–APR–10 14:19	043010–1
	Vanadium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	30–APR–10 14:19	043010–1
	Zinc	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	30–APR–10 14:19	043010–1
CCV10										
	Aluminum	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	30–APR–10 15:09	043010–1
	Barium	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	30–APR–10 15:09	043010–1
	Beryllium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	30–APR–10 15:09	043010–1
	Boron	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	30–APR–10 15:09	043010–1
	Calcium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	30–APR–10 15:09	043010–1
	Cobalt	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	30–APR–10 15:09	043010–1
	Copper	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	30–APR–10 15:09	043010–1
	Iron	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	30–APR–10 15:09	043010–1
	Magnesium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	30–APR–10 15:09	043010–1
	Manganese	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	30–APR–10 15:09	043010–1
	Potassium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	30–APR–10 15:09	043010–1
	Sodium	9900	ug/L	10000	ug/L	99	90.0 – 110.0	P	30–APR–10 15:09	043010–1
	Strontium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	30–APR–10 15:09	043010–1
	Tin	500	ug/L	500	ug/L	100	90.0 – 110.0	P	30–APR–10 15:09	043010–1
	Vanadium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	30–APR–10 15:09	043010–1
	Zinc	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	30–APR–10 15:09	043010–1
CCV11										
	Aluminum	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	30–APR–10 16:01	043010–1
	Barium	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	30–APR–10 16:01	043010–1
	Beryllium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	30–APR–10 16:01	043010–1
	Boron	495	ug/L	500	ug/L	99	90.0 – 110.0	P	30–APR–10 16:01	043010–1
	Calcium	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	30–APR–10 16:01	043010–1
	Cobalt	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	30–APR–10 16:01	043010–1
	Copper	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	30–APR–10 16:01	043010–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2937

Contract: LANL00310 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	30–APR–10 16:01	043010–1
	Magnesium	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	30–APR–10 16:01	043010–1
	Manganese	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	30–APR–10 16:01	043010–1
	Potassium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	30–APR–10 16:01	043010–1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 – 110.0	P	30–APR–10 16:01	043010–1
	Strontium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	30–APR–10 16:01	043010–1
	Tin	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	30–APR–10 16:01	043010–1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	30–APR–10 16:01	043010–1
	Zinc	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	30–APR–10 16:01	043010–1
CCV12										
	Aluminum	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	30–APR–10 16:28	043010–1
	Barium	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	30–APR–10 16:28	043010–1
	Beryllium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	30–APR–10 16:28	043010–1
	Boron	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	30–APR–10 16:28	043010–1
	Calcium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	30–APR–10 16:28	043010–1
	Cobalt	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	30–APR–10 16:28	043010–1
	Copper	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	30–APR–10 16:28	043010–1
	Iron	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	30–APR–10 16:28	043010–1
	Magnesium	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	30–APR–10 16:28	043010–1
	Manganese	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	30–APR–10 16:28	043010–1
	Potassium	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	30–APR–10 16:28	043010–1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 – 110.0	P	30–APR–10 16:28	043010–1
	Strontium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	30–APR–10 16:28	043010–1
	Tin	505	ug/L	500	ug/L	101	90.0 – 110.0	P	30–APR–10 16:28	043010–1
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	30–APR–10 16:28	043010–1
	Zinc	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	30–APR–10 16:28	043010–1
CCV13										
	Aluminum	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	30–APR–10 16:48	043010–1
	Barium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	30–APR–10 16:48	043010–1
	Beryllium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	30–APR–10 16:48	043010–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2937

Contract: LANL00310 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Boron	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	30-APR-10 16:48	043010-1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	30-APR-10 16:48	043010-1
	Cobalt	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	30-APR-10 16:48	043010-1
	Copper	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	30-APR-10 16:48	043010-1
	Iron	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	30-APR-10 16:48	043010-1
	Magnesium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	30-APR-10 16:48	043010-1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	30-APR-10 16:48	043010-1
	Potassium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	30-APR-10 16:48	043010-1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 – 110.0	P	30-APR-10 16:48	043010-1
	Strontium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	30-APR-10 16:48	043010-1
	Tin	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	30-APR-10 16:48	043010-1
	Vanadium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	30-APR-10 16:48	043010-1
	Zinc	490	ug/L	500	ug/L	98	90.0 – 110.0	P	30-APR-10 16:48	043010-1
CCV14										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	30-APR-10 17:07	043010-1
	Barium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	30-APR-10 17:07	043010-1
	Beryllium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	30-APR-10 17:07	043010-1
	Boron	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	30-APR-10 17:07	043010-1
	Calcium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	30-APR-10 17:07	043010-1
	Cobalt	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	30-APR-10 17:07	043010-1
	Copper	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	30-APR-10 17:07	043010-1
	Iron	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	30-APR-10 17:07	043010-1
	Magnesium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	30-APR-10 17:07	043010-1
	Manganese	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	30-APR-10 17:07	043010-1
	Potassium	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	30-APR-10 17:07	043010-1
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 – 110.0	P	30-APR-10 17:07	043010-1
	Strontium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	30-APR-10 17:07	043010-1
	Tin	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	30-APR-10 17:07	043010-1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	30-APR-10 17:07	043010-1
	Zinc	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	30-APR-10 17:07	043010-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-2937

Contract: LANL00310 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.195	ug/L	.2	ug/L	97.5	70.0 – 130.0	AV	03-MAY-10 09:31	050310W1-5
	Lead	2.75	ug/L	2	ug/L	137.3	70.0 – 130.0	MS	10-MAY-10 18:44	100510-3
	Nickel	2.65	ug/L	2	ug/L	132.4	70.0 – 130.0	MS	10-MAY-10 18:44	100510-3
	Silver	1.15	ug/L	1	ug/L	115.3	70.0 – 130.0	MS	10-MAY-10 18:44	100510-3
	Chromium	12.5	ug/L	10	ug/L	125.3	70.0 – 130.0	MS	10-MAY-10 18:44	100510-3
	Molybdenum	.64	ug/L	.5	ug/L	128	70.0 – 130.0	MS	10-MAY-10 18:44	100510-3
	Selenium	6.47	ug/L	5	ug/L	129.4	70.0 – 130.0	MS	10-MAY-10 18:44	100510-3
	Cadmium	1.34	ug/L	1	ug/L	133.6	70.0 – 130.0	MS	10-MAY-10 18:44	100510-3
	Arsenic	6.61	ug/L	5	ug/L	132.2	70.0 – 130.0	MS	10-MAY-10 18:44	100510-3
	Antimony	3.55	ug/L	3	ug/L	118.2	70.0 – 130.0	MS	10-MAY-10 18:44	100510-3
	Thallium	1.28	ug/L	1	ug/L	127.8	70.0 – 130.0	MS	12-MAY-10 16:58	100512-4
	Uranium	.225	ug/L	.2	ug/L	112.5	70.0 – 130.0	MS	13-MAY-10 12:29	100513-2
PQL01										
	Aluminum	195	ug/L	200	ug/L	97.3	70.0 – 130.0	P	30-APR-10 09:56	043010-1
	Sodium	298	ug/L	300	ug/L	99.2	70.0 – 130.0	P	30-APR-10 09:56	043010-1
	Beryllium	5.03	ug/L	5	ug/L	100.6	70.0 – 130.0	P	30-APR-10 09:56	043010-1
	Copper	10.1	ug/L	10	ug/L	100.5	70.0 – 130.0	P	30-APR-10 09:56	043010-1
	Zinc	11.1	ug/L	10	ug/L	111	70.0 – 130.0	P	30-APR-10 09:56	043010-1
	Strontium	5.05	ug/L	5	ug/L	101	70.0 – 130.0	P	30-APR-10 09:56	043010-1
	Tin	9.42	ug/L	10	ug/L	94.2	70.0 – 130.0	P	30-APR-10 09:56	043010-1
	Boron	50.6	ug/L	50	ug/L	101.2	70.0 – 130.0	P	30-APR-10 09:56	043010-1
	Calcium	206	ug/L	200	ug/L	102.9	70.0 – 130.0	P	30-APR-10 09:56	043010-1
	Vanadium	5.28	ug/L	5	ug/L	105.7	70.0 – 130.0	P	30-APR-10 09:56	043010-1
	Cobalt	4.93	ug/L	5	ug/L	98.7	70.0 – 130.0	P	30-APR-10 09:56	043010-1
	Barium	5.19	ug/L	5	ug/L	103.7	70.0 – 130.0	P	30-APR-10 09:56	043010-1
	Potassium	123	ug/L	150	ug/L	82.2	70.0 – 130.0	P	30-APR-10 09:56	043010-1
	Iron	102	ug/L	100	ug/L	102.1	70.0 – 130.0	P	30-APR-10 09:56	043010-1
	Manganese	10.2	ug/L	10	ug/L	101.5	70.0 – 130.0	P	30-APR-10 09:56	043010-1
	Magnesium	312	ug/L	300	ug/L	103.9	70.0 – 130.0	P	30-APR-10 09:56	043010-1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2937

Contract: LANL00310 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
PQL02										
	Aluminum	196	ug/L	200	ug/L	98.2	70.0 – 130.0	P	30–APR–10 11:36	043010–1
	Sodium	301	ug/L	300	ug/L	100.2	70.0 – 130.0	P	30–APR–10 11:36	043010–1
	Beryllium	4.98	ug/L	5	ug/L	99.5	70.0 – 130.0	P	30–APR–10 11:36	043010–1
	Copper	9.52	ug/L	10	ug/L	95.2	70.0 – 130.0	P	30–APR–10 11:36	043010–1
	Zinc	10.9	ug/L	10	ug/L	109.2	70.0 – 130.0	P	30–APR–10 11:36	043010–1
	Strontium	5.09	ug/L	5	ug/L	101.8	70.0 – 130.0	P	30–APR–10 11:36	043010–1
	Tin	9.76	ug/L	10	ug/L	97.6	70.0 – 130.0	P	30–APR–10 11:36	043010–1
	Boron	49.8	ug/L	50	ug/L	99.6	70.0 – 130.0	P	30–APR–10 11:36	043010–1
	Calcium	202	ug/L	200	ug/L	101	70.0 – 130.0	P	30–APR–10 11:36	043010–1
	Vanadium	4.89	ug/L	5	ug/L	97.8	70.0 – 130.0	P	30–APR–10 11:36	043010–1
	Cobalt	4.98	ug/L	5	ug/L	99.5	70.0 – 130.0	P	30–APR–10 11:36	043010–1
	Barium	5.06	ug/L	5	ug/L	101.2	70.0 – 130.0	P	30–APR–10 11:36	043010–1
	Potassium	104	ug/L	150	ug/L	69.6	70.0 – 130.0	P	30–APR–10 11:36	043010–1
	Iron	101	ug/L	100	ug/L	100.6	70.0 – 130.0	P	30–APR–10 11:36	043010–1
	Manganese	10	ug/L	10	ug/L	100.1	70.0 – 130.0	P	30–APR–10 11:36	043010–1
	Magnesium	302	ug/L	300	ug/L	100.6	70.0 – 130.0	P	30–APR–10 11:36	043010–1
PQL03										
	Aluminum	200	ug/L	200	ug/L	99.8	70.0 – 130.0	P	30–APR–10 12:02	043010–1
	Sodium	307	ug/L	300	ug/L	102.3	70.0 – 130.0	P	30–APR–10 12:02	043010–1
	Beryllium	5.01	ug/L	5	ug/L	100.3	70.0 – 130.0	P	30–APR–10 12:02	043010–1
	Copper	9.55	ug/L	10	ug/L	95.6	70.0 – 130.0	P	30–APR–10 12:02	043010–1
	Zinc	10.9	ug/L	10	ug/L	108.5	70.0 – 130.0	P	30–APR–10 12:02	043010–1
	Strontium	5.15	ug/L	5	ug/L	102.9	70.0 – 130.0	P	30–APR–10 12:02	043010–1
	Tin	9.9	ug/L	10	ug/L	99	70.0 – 130.0	P	30–APR–10 12:02	043010–1
	Boron	49.3	ug/L	50	ug/L	98.6	70.0 – 130.0	P	30–APR–10 12:02	043010–1
	Calcium	206	ug/L	200	ug/L	103.2	70.0 – 130.0	P	30–APR–10 12:02	043010–1
	Vanadium	5.45	ug/L	5	ug/L	108.9	70.0 – 130.0	P	30–APR–10 12:02	043010–1
	Cobalt	5.18	ug/L	5	ug/L	103.6	70.0 – 130.0	P	30–APR–10 12:02	043010–1
	Barium	5.08	ug/L	5	ug/L	101.6	70.0 – 130.0	P	30–APR–10 12:02	043010–1
	Potassium	158	ug/L	150	ug/L	105.6	70.0 – 130.0	P	30–APR–10 12:02	043010–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2937

Contract: LANL00310 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Iron	103	ug/L	100	ug/L	103.1	70.0 – 130.0	P	30–APR–10 12:02	043010–1
	Manganese	10	ug/L	10	ug/L	100.2	70.0 – 130.0	P	30–APR–10 12:02	043010–1
	Magnesium	307	ug/L	300	ug/L	102.3	70.0 – 130.0	P	30–APR–10 12:02	043010–1
PQL04										
	Strontium	5.08	ug/L	5	ug/L	101.6	70.0 – 130.0	P	30–APR–10 13:21	043010–1
	Cobalt	5.13	ug/L	5	ug/L	102.5	70.0 – 130.0	P	30–APR–10 13:21	043010–1
	Beryllium	4.99	ug/L	5	ug/L	99.8	70.0 – 130.0	P	30–APR–10 13:21	043010–1
	Barium	4.99	ug/L	5	ug/L	99.8	70.0 – 130.0	P	30–APR–10 13:21	043010–1
	Sodium	289	ug/L	300	ug/L	96.2	70.0 – 130.0	P	30–APR–10 13:21	043010–1
	Potassium	115	ug/L	150	ug/L	76.5	70.0 – 130.0	P	30–APR–10 13:21	043010–1
	Manganese	10.1	ug/L	10	ug/L	101.3	70.0 – 130.0	P	30–APR–10 13:21	043010–1
	Magnesium	313	ug/L	300	ug/L	104.3	70.0 – 130.0	P	30–APR–10 13:21	043010–1
	Iron	134	ug/L	100	ug/L	133.6	70.0 – 130.0	P	30–APR–10 13:21	043010–1
	Aluminum	196	ug/L	200	ug/L	98.1	70.0 – 130.0	P	30–APR–10 13:21	043010–1
	Tin	10.1	ug/L	10	ug/L	100.5	70.0 – 130.0	P	30–APR–10 13:21	043010–1
	Boron	50.5	ug/L	50	ug/L	101	70.0 – 130.0	P	30–APR–10 13:21	043010–1
	Calcium	203	ug/L	200	ug/L	101.5	70.0 – 130.0	P	30–APR–10 13:21	043010–1
	Zinc	11.4	ug/L	10	ug/L	114	70.0 – 130.0	P	30–APR–10 13:21	043010–1
	Vanadium	4.96	ug/L	5	ug/L	99.3	70.0 – 130.0	P	30–APR–10 13:21	043010–1
	Copper	9.22	ug/L	10	ug/L	92.2	70.0 – 130.0	P	30–APR–10 13:21	043010–1
PQL05										
	Aluminum	197	ug/L	200	ug/L	98.5	70.0 – 130.0	P	30–APR–10 14:10	043010–1
	Iron	120	ug/L	100	ug/L	120.2	70.0 – 130.0	P	30–APR–10 14:10	043010–1
	Magnesium	313	ug/L	300	ug/L	104.2	70.0 – 130.0	P	30–APR–10 14:10	043010–1
	Manganese	10	ug/L	10	ug/L	100.3	70.0 – 130.0	P	30–APR–10 14:10	043010–1
	Potassium	124	ug/L	150	ug/L	82.4	70.0 – 130.0	P	30–APR–10 14:10	043010–1
	Sodium	296	ug/L	300	ug/L	98.7	70.0 – 130.0	P	30–APR–10 14:10	043010–1
	Barium	4.95	ug/L	5	ug/L	99	70.0 – 130.0	P	30–APR–10 14:10	043010–1
	Beryllium	4.96	ug/L	5	ug/L	99.2	70.0 – 130.0	P	30–APR–10 14:10	043010–1
	Cobalt	5.17	ug/L	5	ug/L	103.4	70.0 – 130.0	P	30–APR–10 14:10	043010–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2937

Contract: LANL00310 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Copper	9.34	ug/L	10	ug/L	93.5	70.0 – 130.0	P	30–APR–10 14:10	043010–1
	Vanadium	5.11	ug/L	5	ug/L	102.3	70.0 – 130.0	P	30–APR–10 14:10	043010–1
	Zinc	10.9	ug/L	10	ug/L	108.6	70.0 – 130.0	P	30–APR–10 14:10	043010–1
	Calcium	204	ug/L	200	ug/L	101.8	70.0 – 130.0	P	30–APR–10 14:10	043010–1
	Boron	50.1	ug/L	50	ug/L	100.3	70.0 – 130.0	P	30–APR–10 14:10	043010–1
	Tin	9.7	ug/L	10	ug/L	97	70.0 – 130.0	P	30–APR–10 14:10	043010–1
	Strontium	5.19	ug/L	5	ug/L	103.8	70.0 – 130.0	P	30–APR–10 14:10	043010–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2937

Contract: LANL00310

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	30–APR–10 09:53	043010–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 09:53	043010–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 09:53	043010–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	30–APR–10 09:53	043010–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	30–APR–10 09:53	043010–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 09:53	043010–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	30–APR–10 09:53	043010–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	30–APR–10 09:53	043010–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	30–APR–10 09:53	043010–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	30–APR–10 09:53	043010–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	30–APR–10 09:53	043010–1
	Sodium	100	+/–300	U	100	300	LIQ	P	30–APR–10 09:53	043010–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 09:53	043010–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	30–APR–10 09:53	043010–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 09:53	043010–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	30–APR–10 09:53	043010–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	03–MAY–10 09:29	050310W1–5
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	10–MAY–10 18:38	100510–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	10–MAY–10 18:38	100510–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	10–MAY–10 18:38	100510–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	10–MAY–10 18:38	100510–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	10–MAY–10 18:38	100510–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	10–MAY–10 18:38	100510–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	10–MAY–10 18:38	100510–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	10–MAY–10 18:38	100510–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	10–MAY–10 18:38	100510–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	12–MAY–10 16:55	100512–4
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	13–MAY–10 12:28	100513–2
CCB01										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	30–APR–10 10:09	043010–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 10:09	043010–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2937

Contract: LANL00310

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 10:09	043010–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	30–APR–10 10:09	043010–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	30–APR–10 10:09	043010–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 10:09	043010–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	30–APR–10 10:09	043010–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	30–APR–10 10:09	043010–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	30–APR–10 10:09	043010–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	30–APR–10 10:09	043010–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	30–APR–10 10:09	043010–1
	Sodium	100	+/–300	U	100	300	LIQ	P	30–APR–10 10:09	043010–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 10:09	043010–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	30–APR–10 10:09	043010–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 10:09	043010–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	30–APR–10 10:09	043010–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	03–MAY–10 09:35	050310W1–5
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	10–MAY–10 19:09	100510–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	10–MAY–10 19:09	100510–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	10–MAY–10 19:09	100510–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	10–MAY–10 19:09	100510–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	10–MAY–10 19:09	100510–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	10–MAY–10 19:09	100510–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	10–MAY–10 19:09	100510–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	10–MAY–10 19:09	100510–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	10–MAY–10 19:09	100510–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	12–MAY–10 17:08	100512–4
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	13–MAY–10 12:36	100513–2
CCB02										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	30–APR–10 10:57	043010–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 10:57	043010–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 10:57	043010–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	30–APR–10 10:57	043010–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2937

Contract: LANL00310

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	30–APR–10 10:57	043010–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 10:57	043010–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	30–APR–10 10:57	043010–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	30–APR–10 10:57	043010–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	30–APR–10 10:57	043010–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	30–APR–10 10:57	043010–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	30–APR–10 10:57	043010–1
	Sodium	100	+/–300	U	100	300	LIQ	P	30–APR–10 10:57	043010–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 10:57	043010–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	30–APR–10 10:57	043010–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 10:57	043010–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	30–APR–10 10:57	043010–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	03–MAY–10 09:58	050310W1–5
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	10–MAY–10 19:27	100510–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	10–MAY–10 19:27	100510–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	10–MAY–10 19:27	100510–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	10–MAY–10 19:27	100510–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	10–MAY–10 19:27	100510–3
	Molybdenum	0.136	+/–.5	B	0.1	0.5	LIQ	MS	10–MAY–10 19:27	100510–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	10–MAY–10 19:27	100510–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	10–MAY–10 19:27	100510–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	10–MAY–10 19:27	100510–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	12–MAY–10 17:30	100512–4
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	13–MAY–10 12:52	100513–2
CCB03										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	30–APR–10 11:39	043010–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 11:39	043010–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 11:39	043010–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	30–APR–10 11:39	043010–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	30–APR–10 11:39	043010–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 11:39	043010–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2937

Contract: LANL00310

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	30–APR–10 11:39	043010–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	30–APR–10 11:39	043010–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	30–APR–10 11:39	043010–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	30–APR–10 11:39	043010–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	30–APR–10 11:39	043010–1
	Sodium	100	+/–300	U	100	300	LIQ	P	30–APR–10 11:39	043010–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 11:39	043010–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	30–APR–10 11:39	043010–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 11:39	043010–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	30–APR–10 11:39	043010–1
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	10–MAY–10 20:16	100510–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	10–MAY–10 20:16	100510–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	10–MAY–10 20:16	100510–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	10–MAY–10 20:16	100510–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	10–MAY–10 20:16	100510–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	10–MAY–10 20:16	100510–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	10–MAY–10 20:16	100510–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	10–MAY–10 20:16	100510–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	10–MAY–10 20:16	100510–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	13–MAY–10 13:07	100513–2
CCB04										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	30–APR–10 12:05	043010–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 12:05	043010–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 12:05	043010–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	30–APR–10 12:05	043010–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	30–APR–10 12:05	043010–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 12:05	043010–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	30–APR–10 12:05	043010–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	30–APR–10 12:05	043010–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	30–APR–10 12:05	043010–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	30–APR–10 12:05	043010–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2937

Contract: LANL00310

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	30–APR–10 12:05	043010–1
	Sodium	100	+/–300	U	100	300	LIQ	P	30–APR–10 12:05	043010–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 12:05	043010–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	30–APR–10 12:05	043010–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 12:05	043010–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	30–APR–10 12:05	043010–1
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	30–APR–10 12:13	043010–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 12:13	043010–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 12:13	043010–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	30–APR–10 12:13	043010–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	30–APR–10 12:13	043010–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 12:13	043010–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	30–APR–10 12:13	043010–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	30–APR–10 12:13	043010–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	30–APR–10 12:13	043010–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	30–APR–10 12:13	043010–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	30–APR–10 12:13	043010–1
	Sodium	100	+/–300	U	100	300	LIQ	P	30–APR–10 12:13	043010–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 12:13	043010–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	30–APR–10 12:13	043010–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 12:13	043010–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	30–APR–10 12:13	043010–1
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	30–APR–10 13:24	043010–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 13:24	043010–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 13:24	043010–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	30–APR–10 13:24	043010–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	30–APR–10 13:24	043010–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 13:24	043010–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	30–APR–10 13:24	043010–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2937

Contract: LANL00310

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	30–APR–10 13:24	043010–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	30–APR–10 13:24	043010–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	30–APR–10 13:24	043010–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	30–APR–10 13:24	043010–1
	Sodium	100	+/–300	U	100	300	LIQ	P	30–APR–10 13:24	043010–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 13:24	043010–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	30–APR–10 13:24	043010–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 13:24	043010–1
	Zinc	7.37	+/–10	B	3.3	10.0	LIQ	P	30–APR–10 13:24	043010–1
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	30–APR–10 13:32	043010–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 13:32	043010–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 13:32	043010–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	30–APR–10 13:32	043010–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	30–APR–10 13:32	043010–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 13:32	043010–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	30–APR–10 13:32	043010–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	30–APR–10 13:32	043010–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	30–APR–10 13:32	043010–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	30–APR–10 13:32	043010–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	30–APR–10 13:32	043010–1
	Sodium	100	+/–300	U	100	300	LIQ	P	30–APR–10 13:32	043010–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 13:32	043010–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	30–APR–10 13:32	043010–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 13:32	043010–1
	Zinc	5.99	+/–10	B	3.3	10.0	LIQ	P	30–APR–10 13:32	043010–1
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	30–APR–10 14:13	043010–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 14:13	043010–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 14:13	043010–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	30–APR–10 14:13	043010–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2937

Contract: LANL00310

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	30–APR–10 14:13	043010–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 14:13	043010–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	30–APR–10 14:13	043010–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	30–APR–10 14:13	043010–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	30–APR–10 14:13	043010–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	30–APR–10 14:13	043010–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	30–APR–10 14:13	043010–1
	Sodium	100	+/–300	U	100	300	LIQ	P	30–APR–10 14:13	043010–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 14:13	043010–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	30–APR–10 14:13	043010–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 14:13	043010–1
	Zinc	5.72	+/–10	B	3.3	10.0	LIQ	P	30–APR–10 14:13	043010–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	30–APR–10 14:21	043010–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 14:21	043010–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 14:21	043010–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	30–APR–10 14:21	043010–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	30–APR–10 14:21	043010–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 14:21	043010–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	30–APR–10 14:21	043010–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	30–APR–10 14:21	043010–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	30–APR–10 14:21	043010–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	30–APR–10 14:21	043010–1
	Potassium	–53.08	+/–150	B	50.0	150	LIQ	P	30–APR–10 14:21	043010–1
	Sodium	100	+/–300	U	100	300	LIQ	P	30–APR–10 14:21	043010–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 14:21	043010–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	30–APR–10 14:21	043010–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 14:21	043010–1
	Zinc	5.69	+/–10	B	3.3	10.0	LIQ	P	30–APR–10 14:21	043010–1
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	30–APR–10 15:11	043010–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2937

Contract: LANL00310

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 15:11	043010–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 15:11	043010–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	30–APR–10 15:11	043010–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	30–APR–10 15:11	043010–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 15:11	043010–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	30–APR–10 15:11	043010–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	30–APR–10 15:11	043010–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	30–APR–10 15:11	043010–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	30–APR–10 15:11	043010–1
	Potassium	–72.7	+/–150	B	50.0	150	LIQ	P	30–APR–10 15:11	043010–1
	Sodium	100	+/–300	U	100	300	LIQ	P	30–APR–10 15:11	043010–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 15:11	043010–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	30–APR–10 15:11	043010–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 15:11	043010–1
	Zinc	5.6	+/–10	B	3.3	10.0	LIQ	P	30–APR–10 15:11	043010–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	30–APR–10 16:03	043010–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 16:03	043010–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 16:03	043010–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	30–APR–10 16:03	043010–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	30–APR–10 16:03	043010–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 16:03	043010–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	30–APR–10 16:03	043010–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	30–APR–10 16:03	043010–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	30–APR–10 16:03	043010–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	30–APR–10 16:03	043010–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	30–APR–10 16:03	043010–1
	Sodium	100	+/–300	U	100	300	LIQ	P	30–APR–10 16:03	043010–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 16:03	043010–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	30–APR–10 16:03	043010–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 16:03	043010–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-2937

Contract: LANL00310

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Zinc	6.57	+/-10	B	3.3	10.0	LIQ	P	30-APR-10 16:03	043010-1
CCB12										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	30-APR-10 16:30	043010-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-APR-10 16:30	043010-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-APR-10 16:30	043010-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	30-APR-10 16:30	043010-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	30-APR-10 16:30	043010-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	30-APR-10 16:30	043010-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	30-APR-10 16:30	043010-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	30-APR-10 16:30	043010-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	30-APR-10 16:30	043010-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	30-APR-10 16:30	043010-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	30-APR-10 16:30	043010-1
	Sodium	100	+/-300	U	100	300	LIQ	P	30-APR-10 16:30	043010-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-APR-10 16:30	043010-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	30-APR-10 16:30	043010-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-APR-10 16:30	043010-1
	Zinc	6.85	+/-10	B	3.3	10.0	LIQ	P	30-APR-10 16:30	043010-1
CCB13										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	30-APR-10 16:50	043010-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-APR-10 16:50	043010-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	30-APR-10 16:50	043010-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	30-APR-10 16:50	043010-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	30-APR-10 16:50	043010-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	30-APR-10 16:50	043010-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	30-APR-10 16:50	043010-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	30-APR-10 16:50	043010-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	30-APR-10 16:50	043010-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	30-APR-10 16:50	043010-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	30-APR-10 16:50	043010-1
	Sodium	100	+/-300	U	100	300	LIQ	P	30-APR-10 16:50	043010-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2937

Contract: LANL00310

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 16:50	043010–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	30–APR–10 16:50	043010–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 16:50	043010–1
	Zinc	7.1	+/–10	B	3.3	10.0	LIQ	P	30–APR–10 16:50	043010–1
CCB14										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	30–APR–10 17:09	043010–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 17:09	043010–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 17:09	043010–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	30–APR–10 17:09	043010–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	30–APR–10 17:09	043010–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 17:09	043010–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	30–APR–10 17:09	043010–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	30–APR–10 17:09	043010–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	30–APR–10 17:09	043010–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	30–APR–10 17:09	043010–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	30–APR–10 17:09	043010–1
	Sodium	100	+/–300	U	100	300	LIQ	P	30–APR–10 17:09	043010–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 17:09	043010–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	30–APR–10 17:09	043010–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	30–APR–10 17:09	043010–1
	Zinc	6.55	+/–10	B	3.3	10.0	LIQ	P	30–APR–10 17:09	043010–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2937

Contract: LANL00310

Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202105362								
	Antimony	0.5	ug/L	+/–3	U	MS	0.5	3
	Arsenic	1.5	ug/L	+/–5	U	MS	1.5	5
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
	Chromium	2.5	ug/L	+/–10	U	MS	2.5	10
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Molybdenum	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Nickel	0.5	ug/L	+/–2	U	MS	0.5	2
	Selenium	1	ug/L	+/–5	U	MS	1	5
	Silver	0.2	ug/L	+/–1	U	MS	0.2	1
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2
1202105373								
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Barium	1	ug/L	+/–5	U	P	1	5
	Beryllium	1	ug/L	+/–5	U	P	1	5
	Boron	15	ug/L	+/–50	U	P	15	50
	Calcium	50	ug/L	+/–200	U	P	50	200
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Copper	3	ug/L	+/–10	U	P	3	10
	Iron	30	ug/L	+/–100	U	P	30	100
	Magnesium	85	ug/L	+/–300	U	P	85	300
	Manganese	2	ug/L	+/–10	U	P	2	10
	Potassium	50	ug/L	+/–150	U	P	50	150
	Sodium	100	ug/L	+/–300	U	P	100	300
	Strontium	1	ug/L	+/–5	U	P	1	5
	Tin	2.5	ug/L	+/–10	U	P	2.5	10
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
1202105565								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2

METALS
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Interference Check Sample

SDG No: 10–2937

Contract: LANL00310 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	508000	ug/L	500000	ug/L	102	80.0 – 120.0	30–APR–10 09:59	043010–1
	Barium	0.514	ug/L					30–APR–10 09:59	043010–1
	Beryllium	0.262	ug/L					30–APR–10 09:59	043010–1
	Boron	6.48	ug/L					30–APR–10 09:59	043010–1
	Calcium	483000	ug/L	500000	ug/L	96.7	80.0 – 120.0	30–APR–10 09:59	043010–1
	Cobalt	–5.36	ug/L					30–APR–10 09:59	043010–1
	Copper	12.3	ug/L					30–APR–10 09:59	043010–1
	Iron	191000	ug/L	200000	ug/L	95.5	80.0 – 120.0	30–APR–10 09:59	043010–1
	Magnesium	511000	ug/L	500000	ug/L	102	80.0 – 120.0	30–APR–10 09:59	043010–1
	Manganese	3.05	ug/L					30–APR–10 09:59	043010–1
	Potassium	–250.0	ug/L					30–APR–10 09:59	043010–1
	Sodium	35.3	ug/L					30–APR–10 09:59	043010–1
	Strontium	8.48	ug/L					30–APR–10 09:59	043010–1
	Tin	1.45	ug/L					30–APR–10 09:59	043010–1
	Vanadium	–3.26	ug/L					30–APR–10 09:59	043010–1
	Zinc	10.1	ug/L					30–APR–10 09:59	043010–1
ICSAB01									
	Aluminum	513000	ug/L	500000	ug/L	103	80.0 – 120.0	30–APR–10 10:01	043010–1
	Barium	489	ug/L	500	ug/L	97.7	80.0 – 120.0	30–APR–10 10:01	043010–1
	Beryllium	242	ug/L	250	ug/L	97	80.0 – 120.0	30–APR–10 10:01	043010–1
	Boron	512	ug/L	500	ug/L	102	80.0 – 120.0	30–APR–10 10:01	043010–1
	Calcium	488000	ug/L	500000	ug/L	97.6	80.0 – 120.0	30–APR–10 10:01	043010–1
	Cobalt	475	ug/L	500	ug/L	94.9	80.0 – 120.0	30–APR–10 10:01	043010–1
	Copper	564	ug/L	500	ug/L	113	80.0 – 120.0	30–APR–10 10:01	043010–1
	Iron	193000	ug/L	200000	ug/L	96.6	80.0 – 120.0	30–APR–10 10:01	043010–1
	Magnesium	511000	ug/L	500000	ug/L	102	80.0 – 120.0	30–APR–10 10:01	043010–1
	Manganese	488	ug/L	500	ug/L	97.5	80.0 – 120.0	30–APR–10 10:01	043010–1
	Potassium	5350	ug/L	5000	ug/L	107	80.0 – 120.0	30–APR–10 10:01	043010–1
	Sodium	5280	ug/L	5000	ug/L	106	80.0 – 120.0	30–APR–10 10:01	043010–1

METALS
–4–
Interference Check Sample

SDG No: 10–2937

Contract: LANL00310 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Strontium	513	ug/L	500	ug/L	103	80.0 – 120.0	30–APR–10 10:01	043010–1
	Tin	500	ug/L	500	ug/L	100	80.0 – 120.0	30–APR–10 10:01	043010–1
	Vanadium	495	ug/L	500	ug/L	99.1	80.0 – 120.0	30–APR–10 10:01	043010–1
	Zinc	492	ug/L	500	ug/L	98.3	80.0 – 120.0	30–APR–10 10:01	043010–1

METALS
–4–
Interference Check Sample

SDG No: 10–2937

Contract: LANL00310 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	0.004	ug/L					13–MAY–10 12:31	100513–2
ICSAB01									
	Uranium	19.9	ug/L	20	ug/L	99.5	80.0 – 120.0	13–MAY–10 12:33	100513–2

METALS
–4–
Interference Check Sample

SDG No: 10–2937

Contract: LANL00310 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.075	ug/L					10–MAY–10 18:50	100510–3
	Arsenic	0.028	ug/L					10–MAY–10 18:50	100510–3
	Cadmium	0.451	ug/L					10–MAY–10 18:50	100510–3
	Chromium	2.65	ug/L					10–MAY–10 18:50	100510–3
	Lead	0.241	ug/L					10–MAY–10 18:50	100510–3
	Molybdenum	2010	ug/L	2000	ug/L	100	80.0 – 120.0	10–MAY–10 18:50	100510–3
	Nickel	3.29	ug/L					10–MAY–10 18:50	100510–3
	Selenium	–1.24	ug/L					10–MAY–10 18:50	100510–3
	Silver	0.126	ug/L					10–MAY–10 18:50	100510–3
ICSAB01									
	Antimony	20.0	ug/L	20	ug/L	99.8	80.0 – 120.0	10–MAY–10 18:56	100510–3
	Arsenic	20.6	ug/L	20	ug/L	103	80.0 – 120.0	10–MAY–10 18:56	100510–3
	Cadmium	20.1	ug/L	20.44	ug/L	98.4	80.0 – 120.0	10–MAY–10 18:56	100510–3
	Chromium	22.8	ug/L	23.3	ug/L	97.7	80.0 – 120.0	10–MAY–10 18:56	100510–3
	Lead	21.2	ug/L	20.19	ug/L	105	80.0 – 120.0	10–MAY–10 18:56	100510–3
	Molybdenum	2020	ug/L	2000	ug/L	101	80.0 – 120.0	10–MAY–10 18:56	100510–3
	Nickel	21.7	ug/L	23.31	ug/L	93.3	80.0 – 120.0	10–MAY–10 18:56	100510–3
	Selenium	19.7	ug/L	20	ug/L	98.4	80.0 – 120.0	10–MAY–10 18:56	100510–3
	Silver	19.3	ug/L	20	ug/L	96.5	80.0 – 120.0	10–MAY–10 18:56	100510–3

METALS
–4–
Interference Check Sample

SDG No: 10–2937

Contract: LANL00310 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Thallium	–0.006	ug/L					12–MAY–10 17:00	100512–4
ICSAB01									
	Thallium	19.6	ug/L	20	ug/L	97.9	80.0 – 120.0	12–MAY–10 17:03	100512–4

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2937 **Client ID** GW03–10–16675S

Contract: LANL00310 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 251870001 **Spike ID:** 1202105365

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75–125	174		1.24	B	200	86.4		MS
Arsenic	ug/L	75–125	73.6		1.5	U	80	91.9		MS
Cadmium	ug/L	75–125	10.3		0.307	B	10	99.7		MS
Chromium	ug/L	75–125	84.1		43.9		50	80.4		MS
Lead	ug/L	75–125	55.5		21.5		40	84.9		MS
Molybdenum	ug/L	75–125	75.6		26.4		50	98.3		MS
Nickel	ug/L	75–125	76.1		39.1		50	74	N	MS
Selenium	ug/L	75–125	18.5		1	U	20	88.7		MS
Silver	ug/L	75–125	46.9		0.2	U	50	93.5		MS
Thallium	ug/L	75–125	82.5		0.556	B	100	82		MS
Uranium	ug/L	75–125	51.6		3.13		50	97		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2937 **Client ID** GW03–10–16675S

Contract: LANL00310 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 251870001 **Spike ID:** 1202105376

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75–125	17100		12400		5000	94		P
Barium	ug/L	75–125	826		385		500	88.2		P
Beryllium	ug/L	75–125	468		3	B	500	93		P
Boron	ug/L	75–125	606		143		500	92.6		P
Calcium	ug/L		131000		137000		5000	–120	N/A	P
Cobalt	ug/L	75–125	478		20.2		500	91.6		P
Copper	ug/L	75–125	505		19.1		500	97.2		P
Iron	ug/L		27100		24500		5000	51.6	N/A	P
Magnesium	ug/L	75–125	17800		14100		5000	73.2	N	P
Manganese	ug/L	75–125	1680		1340		500	68.6	N	P
Potassium	ug/L		42800		40700		5000	43	N/A	P
Sodium	ug/L		83300		84900		5000	–31.3	N/A	P
Strontium	ug/L	75–125	1220		810		500	81.1		P
Tin	ug/L	75–125	461		2.5	U	500	92.2		P
Vanadium	ug/L	75–125	511		45.6		500	93.1		P
Zinc	ug/L	75–125	793		363		500	85.9		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2937 **Client ID** GW03–10–16675S

Contract: LANL00310 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 251870001 **Spike ID:** 1202105568

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	2.02		0.066	U	2	101		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2937

Contract: LANL00310 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** GW03–10–16675D

Sample ID: 251870001 **Duplicate ID:** 1202105364 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L	+/–3	1.24	B	1.27	B	2.15		MS
Arsenic	ug/L		1.5	U	1.5	U			MS
Cadmium	ug/L	+/–1	0.307	B	0.317	B	3.21		MS
Chromium	ug/L	+/–10	43.9		45.5		3.56		MS
Lead	ug/L	+/–20%	21.5		21.7		.5		MS
Molybdenum	ug/L	+/–20%	26.4		27.5		4.18		MS
Nickel	ug/L	+/–20%	39.1		40.5		3.7		MS
Selenium	ug/L		1	U	1	U			MS
Silver	ug/L		0.2	U	0.2	U			MS
Thallium	ug/L		0.556	B	0.3	U	200		MS
Uranium	ug/L	+/–20%	3.13		3.35		6.78		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2937

Contract: LANL00310 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** GW03–10–16675D

Sample ID: 251870001 **Duplicate ID:** 1202105375 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	+/–20%	12400		9430		27.5	*	P
Barium	ug/L	+/–20%	385		355		8.16		P
Beryllium	ug/L	+/–5	3	B	2.72	B	9.59		P
Boron	ug/L	+/–50	143		134		6.27		P
Calcium	ug/L	+/–20%	137000		129000		6.15		P
Cobalt	ug/L	+/–5	20.2		18.6		8.58		P
Copper	ug/L	+/–10	19.1		16.5		14.6		P
Iron	ug/L	+/–20%	24500		21800		11.8		P
Magnesium	ug/L	+/–20%	14100		12800		9.59		P
Manganese	ug/L	+/–20%	1340		1250		6.69		P
Potassium	ug/L	+/–20%	40700		38300		6.09		P
Sodium	ug/L	+/–20%	84900		80200		5.68		P
Strontium	ug/L	+/–20%	810		760		6.37		P
Tin	ug/L		2.5	U	2.5	U			P
Vanadium	ug/L	+/–20%	45.6		41.1		10.3		P
Zinc	ug/L	+/–20%	363		341		6.47		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2937

Contract: LANL00310 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** GW03–10–16675D

Sample ID: 251870001 **Duplicate ID:** 1202105567 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2937

Contract: LANL00310

Aqueous LCS Source:O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202105363								
	Arsenic	ug/L	50	48.1		96.3	80–120	MS
	Cadmium	ug/L	50	49.6		99.2	80–120	MS
	Chromium	ug/L	50	46.5		92.9	80–120	MS
	Lead	ug/L	50	48.9		97.7	80–120	MS
	Molybdenum	ug/L	50	47.6		95.2	80–120	MS
	Nickel	ug/L	50	47.6		95.2	80–120	MS
	Selenium	ug/L	50	51.5		103	80–120	MS
	Silver	ug/L	50	50.2		100	80–120	MS
	Thallium	ug/L	50	47.4		94.9	80–120	MS
	Uranium	ug/L	50	51.5		103	80–120	MS
	Antimony	ug/L	50	51.2		102	80–120	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2937

Contract: LANL00310

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202105374								
	Aluminum	ug/L	5000	4790		95.7	80–120	P
	Barium	ug/L	500	488		97.7	80–120	P
	Beryllium	ug/L	500	485		97	80–120	P
	Boron	ug/L	500	480		96.1	80–120	P
	Calcium	ug/L	5000	4900		97.9	80–120	P
	Cobalt	ug/L	500	486		97.1	80–120	P
	Copper	ug/L	500	479		95.9	80–120	P
	Iron	ug/L	5000	5000		100	80–120	P
	Magnesium	ug/L	5000	4880		97.7	80–120	P
	Manganese	ug/L	500	480		96	80–120	P
	Potassium	ug/L	5000	4820		96.5	80–120	P
	Sodium	ug/L	5000	4770		95.4	80–120	P
	Strontium	ug/L	500	483		96.7	80–120	P
	Tin	ug/L	500	483		96.6	80–120	P
	Vanadium	ug/L	500	482		96.5	80–120	P
	Zinc	ug/L	500	473		94.6	80–120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2937

Contract: LANL00310

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202105566								
	Mercury	ug/L	2	2.04		102	85-115	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2937 **Client ID** GW03-10-16675L

Contract: LANL00310

Matrix: LIQUID **Level:** Low

Sample ID: 251870001 **Serial Dilution ID:** 1202105366

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1.24	B	2.5	U	100			MS
Arsenic	1.5	U	7.5	U				MS
Cadmium	.307	B	.55	U	100			MS
Chromium	43.9		52		18.5			MS
Lead	21.5		22.1		2.79			MS
Molybdenum	26.4		27.6		4.36		10	MS
Nickel	39.1		45.8		17.1			MS
Selenium	1	U	5	U				MS
Silver	.2	U	1	U				MS
Thallium	.556	B	3.94	B	608			MS
Uranium	3.13		3.4		8.63			MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2937 **Client ID** GW03–10–16675L

Contract: LANL00310

Matrix: LIQUID **Level:** Low

Sample ID: 251870001 **Serial Dilution ID:** 1202105377

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	12400		13000		4.44		10	P
Barium	385		398		3.38		10	P
Beryllium	3	B	5	U	100			P
Boron	143		143	B	.35			P
Calcium	137000		142000		3.28		10	P
Cobalt	20.2		22	B	8.91			P
Copper	19.1		15.4	B	19.4			P
Iron	24500		25600		4.29		10	P
Magnesium	14100		14700		4.26		10	P
Manganese	1340		1390		3.36		10	P
Potassium	40700		40700		.123		10	P
Sodium	84900		87000		2.47		10	P
Strontium	810		835		3.09		10	P
Tin	2.5	U	12.5	U				P
Vanadium	45.6		46.6		2.19			P
Zinc	363		380		4.55		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2937 **Client ID** GW03–10–16675L

Contract: LANL00310

Matrix: LIQUID **Level:** Low

Sample ID: 251870001 **Serial Dilution ID:** 1202105569

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10–2937 **Method Type** P

Contract: LANL00310 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	979293						
1202105373	MB for batch 979293	MB	W	30–APR–10	50mL	50mL	
1202105374	LCS for batch 979293	LCS	W	30–APR–10	50mL	50mL	
1202105376	GW03–10–16675S	MS	W	30–APR–10	50mL	50mL	
1202105375	GW03–10–16675D	DUP	W	30–APR–10	50mL	50mL	
251870001	GW03–10–16675	SAMPLE	W	30–APR–10	50mL	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-2937 **Method Type:** MS

Contract: LANL00310 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	979290						
1202105362	MB for batch 979290	MB	W	30-APR-10	50mL	50mL	
1202105363	LCS for batch 979290	LCS	W	30-APR-10	50mL	50mL	
1202105365	GW03-10-16675S	MS	W	30-APR-10	50mL	50mL	
1202105364	GW03-10-16675D	DUP	W	30-APR-10	50mL	50mL	
251870001	GW03-10-16675	SAMPLE	W	30-APR-10	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2937 **Method Type:** AV

Contract: LANL00310 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 979365							
1202105565	MB for batch 979365	MB	W	30–APR–10	20mL	20mL	
1202105566	LCS for batch 979365	LCS	W	30–APR–10	20mL	20mL	
1202105568	GW03–10–16675S	MS	W	30–APR–10	20mL	20mL	
1202105567	GW03–10–16675D	DUP	W	30–APR–10	20mL	20mL	
251870001	GW03–10–16675	SAMPLE	W	30–APR–10	20mL	20mL	

Metals
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Analysis Run Log

Contract: LANL00310
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 10–MAY–10 **End Date:** 10–MAY–10

Client Sdg: 10–2937
Method MS
Data File: 100510–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	18:14:00		X	X				X		X					X				X	X		X	X							
S10	1	18:20:00		X	X				X		X					X				X	X		X	X							
S100	1	18:26:00		X	X				X		X					X				X	X		X	X							
ICV01	1	18:32:00		X	X				X		X					X				X	X		X	X							
ICB01	1	18:38:00		X	X				X		X					X				X	X		X	X							
CRDL01	1	18:44:00		X	X				X		X					X				X	X		X	X							
ICSA01	1	18:50:00		X	X				X		X					X				X	X		X	X							
ICSAB01	1	18:56:00		X	X				X		X					X				X	X		X	X							
CCV01	1	19:03:00		X	X				X		X					X				X	X		X	X							
CCB01	1	19:09:00		X	X				X		X					X				X	X		X	X							
LR01	1	19:15:00		X	X				X		X					X				X	X		X	X							
CCV02	1	19:21:00		X	X				X		X					X				X	X		X	X							
CCB02	1	19:27:00		X	X				X		X					X				X	X		X	X							
1202105362	1	19:33:00		X	X				X		X					X				X	X		X	X							
1202105363	1	19:39:00		X	X				X		X					X				X	X		X	X							
251870001	1	19:45:00		X	X				X		X					X				X	X		X	X							
1202105364	1	19:51:00		X	X				X		X					X				X	X		X	X							
1202105365	1	19:58:00		X	X				X		X					X				X	X		X	X							
1202105366	5	20:04:00		X	X				X		X					X				X	X		X	X							
CCV03	1	20:10:00		X	X				X		X					X				X	X		X	X							
CCB03	1	20:16:00		X	X				X		X					X				X	X		X	X							

Metals
–14–
Analysis Run Log

Contract: LANL00310
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 12–MAY–10 **End Date:** 12–MAY–10

Client Sdg: 10–2937
Method MS
Data File: 100512–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	16:44:00																									X				
S10	1	16:47:00																									X				
S100	1	16:49:00																									X				
ICV01	1	16:52:00																									X				
ICB01	1	16:55:00																									X				
CRDL01	1	16:58:00																									X				
ICSA01	1	17:00:00																									X				
ICSAB01	1	17:03:00																									X				
CCV01	1	17:06:00																									X				
CCB01	1	17:08:00																									X				
1202105362	1	17:11:00																									X				
1202105363	1	17:14:00																									X				
251870001	1	17:16:00																									X				
1202105364	1	17:19:00																									X				
1202105365	1	17:22:00																									X				
1202105366	5	17:25:00																									X				
CCV02	1	17:27:00																									X				
CCB02	1	17:30:00																									X				

Metals
–14–
Analysis Run Log

Contract: LANL00310
Lab Code: GEL
Inst Name: HG3
Start Date: 03–MAY–10 **End Date:** 03–MAY–10

Client Sdg: 10–2937
Method AV
Data File: 050310W1–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	09:15:00																	X												
S0.2	1	09:17:00																	X												
S0.5	1	09:19:00																	X												
S2.0	1	09:21:00																	X												
S5.0	1	09:23:00																	X												
S10.0	1	09:25:00																	X												
ICV01	1	09:27:00																	X												
ICB01	1	09:29:00																	X												
CRDL01	1	09:31:00																	X												
CCV01	1	09:33:00																	X												
CCB01	1	09:35:00																	X												
1202105565	1	09:36:00																	X												
1202105566	1	09:38:00																	X												
251870001	1	09:40:00																	X												
1202105567	1	09:42:00																	X												
1202105568	1	09:44:00																	X												
1202105569	5	09:46:00																	X												
ZZZZZZ	1	09:48:00																													
ZZZZZZ	1	09:50:00																													
ZZZZZZ	1	09:52:00																													
ZZZZZZ	1	09:54:00																													
CCV02	1	09:56:00																	X												
CCB02	1	09:58:00																	X												

Metals
–14–
Analysis Run Log

Contract: LANL00310
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 30–APR–10 **End Date:** 30–APR–10

Client Sdg: 10–2937
Method P
Data File: 043010–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	09:41:20	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
S0.1	1	09:44:17				X	X	X				X	X					X				X				X		X		X	X
S0.5	1	09:46:14	X			X	X	X		X		X	X				X	X				X				X		X		X	X
SCAL	1	09:48:26	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
S10	1	09:50:43	X							X					X		X								X						
ICV01	1	09:51:47	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
ICB01	1	09:53:46	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
PQL01	1	09:56:42	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
ICSA01	1	09:59:38	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
ICSAB01	1	10:01:37	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
LR01	1	10:02:42	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
LR02	1	10:04:41	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
CCV01	1	10:06:58	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
CCB01	1	10:09:12	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
ZZZZZZ	1	10:34:59																													
ZZZZZZ	1	10:37:56																													
ZZZZZZ	1	10:40:52																													
ZZZZZZ	1	10:43:05																													
ZZZZZZ	1	10:46:01																													
ZZZZZZ	1	10:48:57																													
ZZZZZZ	5	10:51:53																													
CCV02	1	10:55:04	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
CCB02	1	10:57:05	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
ZZZZZZ	1	11:18:04																													
ZZZZZZ	1	11:21:01																													
ZZZZZZ	1	11:23:01																													
ZZZZZZ	1	11:25:57																													
ZZZZZZ	1	11:27:56																													
ZZZZZZ	1	11:29:55																													
ZZZZZZ	5	11:31:54																													
CCV03	1	11:34:50	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
PQL02	1	11:36:52	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
CCB03	1	11:39:49	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
ZZZZZZ	1	11:42:46																													
ZZZZZZ	1	11:45:44																													
ZZZZZZ	1	11:48:40																													
ZZZZZZ	1	11:51:36																													
ZZZZZZ	1	11:54:46																													
ZZZZZZ	1	11:57:56																													
CCV04	1	12:00:53	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																													
PQL03	1	12:02:54	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
CCB04	1	12:05:51	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
ZZZZZZ	100	12:08:48																													
CCV05	1	12:11:59	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
CCB05	1	12:13:59	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
ZZZZZZ	1	13:03:38																													
ZZZZZZ	1	13:06:51																													
ZZZZZZ	10	13:08:51																													
ZZZZZZ	10	13:11:11																													
ZZZZZZ	10	13:13:17																													
ZZZZZZ	10	13:15:24																													
ZZZZZZ	50	13:16:50																													
CCV06	1	13:19:47	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
PQL04	1	13:21:48	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
CCB06	1	13:24:45	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
ZZZZZZ	500	13:27:42																													
CCV07	1	13:30:53	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
CCB07	1	13:32:54	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
ZZZZZZ	20	13:58:25																													
ZZZZZZ	20	14:00:26																													
ZZZZZZ	20	14:02:26																													
ZZZZZZ	20	14:04:27																													
ZZZZZZ	100	14:05:32																													
CCV08	1	14:08:29	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
PQL05	1	14:10:29	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
CCB08	1	14:13:40	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
ZZZZZZ	500	14:16:38																													
CCV09	1	14:19:35	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
CCB09	1	14:21:35	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
CCV10	1	15:09:15	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
CCB10	1	15:11:15	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
ZZZZZZ	1	15:47:15																													
ZZZZZZ	1	15:50:14																													
ZZZZZZ	1	15:52:13																													
ZZZZZZ	1	15:54:16																													
ZZZZZZ	1	15:56:20																													
ZZZZZZ	5	15:58:19																													
CCV11	1	16:01:15	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
CCB11	1	16:03:31	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
ZZZZZZ	1	16:06:41																													

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	Ag	Na	Sr	Tl	Sn	U	V	Zn
ZZZZZZ	1	16:09:54																													
ZZZZZZ	1	16:12:50																													
ZZZZZZ	1	16:15:46																													
ZZZZZZ	1	16:18:42																													
ZZZZZZ	1	16:21:39																													
ZZZZZZ	1	16:24:36																													
ZZZZZZ	1	16:26:39																													
CCV12	1	16:28:42	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
CCB12	1	16:30:42	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
ZZZZZZ	1	16:33:35																													
ZZZZZZ	1	16:36:47																													
ZZZZZZ	1	16:38:45																													
ZZZZZZ	1	16:41:01																													
ZZZZZZ	1	16:43:17																													
ZZZZZZ	5	16:45:15																													
CCV13	1	16:48:25	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
CCB13	1	16:50:27	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
1202105373	1	16:53:37	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
1202105374	1	16:56:36	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
251870001	1	16:58:49	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
1202105375	1	17:00:47	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
1202105376	1	17:02:59	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
1202105377	5	17:05:04	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
CCV14	1	17:07:20	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X
CCB14	1	17:09:21	X			X	X	X		X		X	X		X		X	X				X			X	X		X		X	X

Metals
–14–
Analysis Run Log

Contract: LANL00310
Lab Code: GEL
Inst Name: ICPMS3
Start Date: 13–MAY–10 **End Date:** 13–MAY–10

Client Sdg: 10–2937
Method MS
Data File: 100513–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	12:21:00																											X		
S10	1	12:23:00																											X		
S100	1	12:24:00																											X		
ICV01	1	12:26:00																											X		
ICB01	1	12:28:00																											X		
CRDL01	1	12:29:00																											X		
ICSA01	1	12:31:00																											X		
ICSAB01	1	12:33:00																											X		
CCV01	1	12:35:00																											X		
CCB01	1	12:36:00																											X		
ZZZZZZ	1	12:38:00																													
ZZZZZZ	1	12:40:00																													
ZZZZZZ	1	12:42:00																													
ZZZZZZ	1	12:44:00																													
ZZZZZZ	1	12:46:00																													
ZZZZZZ	5	12:48:00																													
CCV02	1	12:50:00																											X		
CCB02	1	12:52:00																											X		
1202105362	1	12:53:00																											X		
1202105363	1	12:55:00																											X		
251870001	1	12:58:00																											X		
1202105364	1	13:00:00																											X		
1202105365	1	13:02:00																											X		
1202105366	5	13:04:00																											X		
CCV03	1	13:06:00																											X		
CCB03	1	13:07:00																											X		

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2937

Contract: LANL00310 **Lab Code: GEL** **MDL Effective Date:** 01-FEB-09
Contract: LANL00310 **Lab Code: GEL** **MDL Effective Date:** 01-MAR-10

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		10.0	30
	Antimony		0.5	3
	Arsenic		1.5	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.11	1
	Calcium		20.0	200
	Chromium		2.5	10
	Cobalt		0.1	1
	Iron		10.0	100
	Lead		0.5	2
	Magnesium		5.0	15
	Manganese		1.0	5
	Molybdenum		0.1	.5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Strontium		2.0	10
	Thallium		0.3	1
	Tin		1.0	5
	Uranium		0.05	.2
	Vanadium		3.0	10
LIQUID	Copper		0.14	1
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2937

Contract: LANL00310 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Mercury		0.066	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2937

Contract: LANL00310 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	15.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Molybdenum	202.031	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Strontium	421.552	1.0	5
	Thallium	190.801	5.0	20
	Tin	189.927	2.5	10
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-2937
Contract: LANL00310
Instrument: OPTIMA4 **Effective Dates:** 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00310
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2937
Effective Dates: 22-MAR-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00310
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2937
Effective Dates: 22-MAR-10

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00310
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2937
Effective Dates: 22-MAR-10

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00310
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2937
Effective Dates: 22-MAR-10

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL00310
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2937
Effective Dates: 22-MAR-10

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-2937

Contract: LANL00310 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Sodium	1	50000	ug/L	01-FEB-10
Strontium	1000	1000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Tin	1000	1000	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Boron	1000	200	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Molybdenum	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10

METALS
–12–
Linear Ranges

SDG NO. 10–2937

Contract: LANL00310 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Boron	20	5000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Molybdenum	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Strontium	20	10000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Tin	20	10000	ug/L	01–FEB–10
Uranium	20	15000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2937

Contract: LANL00310 **Lab Code: GEL**

Instrument ID ICPMS3

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Boron	1000	200	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Molybdenum	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Strontium	1000	1000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Tin	1000	1000	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

Raw Data

Calculation Data Logbook

Report run on: May 14, 2010 2:35 PM

Batch Id: 982094 **Sop:** GL-GC-E-107
Employee: Jamie Johnson
Instrument: No instrument-calculation method

Samp Id	Sample Type	Parmname	Run Date	Calcium mg/L	Magnesium mg/L	Result	Units
251870001	SAMPLE	Hardness as CaCO3	07-MAY-2010 13:08	137	14.1	401	mg/L

Calculation: (2.497 * Calcium) + (4.118 * Magnesium)

Method: Hg_ReAlign
Result: 051410

Sample ID: Hg_ReAlign

Hg 253.652 **Rep: 1**

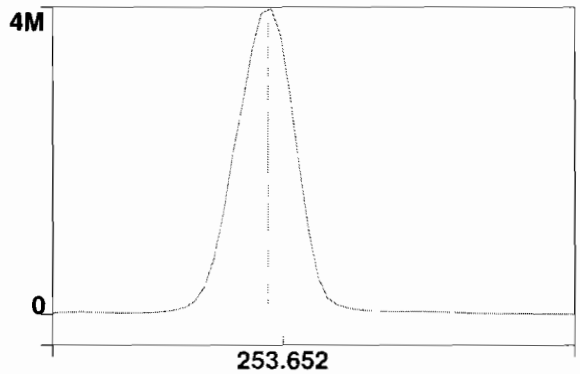

Intensity: 4403595.9 cps
Conc:

1

4/30/2010 9:40:13 Hg ReAlign... Actual peak offset (nm): -0.006
Drift (nm): 0.000 Slit adjustment: 0

Analysis Begun

Start Time: 4/30/2010 9:41:18 **Plasma On Time: 4/26/2010 14:25:04**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\043010.sif
Batch ID:
Results Data Set: 043010
Results Library: C:\pe\optima4\Results\Results.mdb

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 4/29/2010 14:32:07**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 4/30/2010 9:41:20**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time

1	Sc RADIAL	123319.3	123319.3	101	%	09:41:51
1	Al 396.153Radial†	-49.8	-49.5	[0.00]	µg/L	09:42:11
1	Ca 317.933Radial†	344.5	342.5	[0.00]	µg/L	09:42:11
1	Fe 238.204 Radial†	82.3	81.8	[0.00]	µg/L	09:42:11
1	K 766.490 Radial†	1635.3	1625.9	[0.00]	µg/L	09:41:51
1	Mg 279.077 IEC†	44.2	44.0	[0.00]	µg/L	09:42:11
1	Na 589.592 Radial†	252.7	251.3	[0.00]	µg/L	09:41:51
1	Sr 421.552†	-157.2	-156.3	[0.00]	µg/L	09:41:51
1	Sc 361.383	1621944.7	1621944.7	100.45	%	09:42:59
1	Y 371.029	1064503.7	1064503.7	100.44	%	09:42:59
1	Ag 328.068†	1930.0	1921.3	[0.00]	µg/L	09:43:01
1	As 188.979†	-27.7	-27.6	[0.00]	µg/L	09:43:21
1	B 249.677†	2082.0	2072.6	[0.00]	µg/L	09:43:21
1	Ba 233.527†	-296.9	-295.6	[0.00]	µg/L	09:43:21
1	Be 313.107†	-777.0	-773.5	[0.00]	µg/L	09:43:01
1	Cd 226.502†	-183.5	-182.7	[0.00]	µg/L	09:43:21
1	Co 228.616†	-243.2	-242.1	[0.00]	µg/L	09:43:21
1	Cr 267.716†	186.6	185.7	[0.00]	µg/L	09:43:21
1	Cu 324.752†	3557.5	3541.4	[0.00]	µg/L	09:43:01
1	Mn 257.610†	127.5	126.9	[0.00]	µg/L	09:43:21
1	Mo 202.031†	-6.3	-6.2	[0.00]	µg/L	09:43:21
1	Ni 231.604†	-67.1	-66.8	[0.00]	µg/L	09:43:21
1	P 214.914†	15.9	15.8	[0.00]	µg/L	09:43:21
1	Pb 220.353†	68.5	68.2	[0.00]	µg/L	09:43:21
1	S 181.975 Axial†	68.1	67.8	[0.00]	µg/L	09:43:21
1	Sb 206.836†	119.2	118.6	[0.00]	µg/L	09:43:21
1	Se 196.026†	37.4	37.3	[0.00]	µg/L	09:43:21
1	SiO2†	2091.6	2082.2	[0.00]	µg/L	09:43:21
1	Si 251.611†	654.4	651.4	[0.00]	µg/L	09:43:21
1	Sn 189.927†	-30.0	-29.9	[0.00]	µg/L	09:43:21
1	Ti 334.940†	1127.8	1122.7	[0.00]	µg/L	09:43:01
1	Tl 190.801†	-160.3	-159.6	[0.00]	µg/L	09:43:21
1	U 409.014†	-84.0	-83.6	[0.00]	µg/L	09:43:01
1	V 292.402†	107.4	106.9	[0.00]	µg/L	09:43:01
1	Zn 213.857†	3480.0	3464.3	[0.00]	µg/L	09:43:21
2	Sc RADIAL	123378.8	123378.8	101	%	09:42:13
2	Al 396.153Radial†	-57.3	-57.0	[0.00]	µg/L	09:42:33
2	Ca 317.933Radial†	360.0	357.8	[0.00]	µg/L	09:42:33
2	Fe 238.204 Radial†	75.1	74.6	[0.00]	µg/L	09:42:33
2	K 766.490 Radial†	1694.9	1684.3	[0.00]	µg/L	09:42:13
2	Mg 279.077 IEC†	44.8	44.6	[0.00]	µg/L	09:42:33
2	Na 589.592 Radial†	295.4	293.5	[0.00]	µg/L	09:42:13
2	Sr 421.552†	-134.4	-133.5	[0.00]	µg/L	09:42:13
2	Sc 361.383	1626552.1	1626552.1	100.74	%	09:43:23
2	Y 371.029	1067384.7	1067384.7	100.71	%	09:43:23
2	Ag 328.068†	2049.4	2034.3	[0.00]	µg/L	09:43:25
2	As 188.979†	-38.9	-38.6	[0.00]	µg/L	09:43:45
2	B 249.677†	2069.4	2054.2	[0.00]	µg/L	09:43:45
2	Ba 233.527†	-314.7	-312.4	[0.00]	µg/L	09:43:45
2	Be 313.107†	-665.9	-661.0	[0.00]	µg/L	09:43:25
2	Cd 226.502†	-181.2	-179.9	[0.00]	µg/L	09:43:45
2	Co 228.616†	-224.6	-222.9	[0.00]	µg/L	09:43:45
2	Cr 267.716†	207.0	205.5	[0.00]	µg/L	09:43:45
2	Cu 324.752†	3527.1	3501.2	[0.00]	µg/L	09:43:25
2	Mn 257.610†	117.3	116.5	[0.00]	µg/L	09:43:45
2	Mo 202.031†	-12.1	-12.0	[0.00]	µg/L	09:43:45
2	Ni 231.604†	-79.4	-78.8	[0.00]	µg/L	09:43:45
2	P 214.914†	-10.3	-10.2	[0.00]	µg/L	09:43:45
2	Pb 220.353†	97.0	96.3	[0.00]	µg/L	09:43:45
2	S 181.975 Axial†	65.5	65.0	[0.00]	µg/L	09:43:45
2	Sb 206.836†	117.0	116.1	[0.00]	µg/L	09:43:45
2	Se 196.026†	45.7	45.4	[0.00]	µg/L	09:43:45
2	SiO2†	2069.1	2053.9	[0.00]	µg/L	09:43:45
2	Si 251.611†	657.5	652.7	[0.00]	µg/L	09:43:45
2	Sn 189.927†	-26.9	-26.7	[0.00]	µg/L	09:43:45
2	Ti 334.940†	1138.3	1129.9	[0.00]	µg/L	09:43:25
2	Tl 190.801†	-156.6	-155.4	[0.00]	µg/L	09:43:45
2	U 409.014†	20.8	20.7	[0.00]	µg/L	09:43:25
2	V 292.402†	198.7	197.2	[0.00]	µg/L	09:43:25
2	Zn 213.857†	3533.1	3507.2	[0.00]	µg/L	09:43:45
3	Sc RADIAL	121129.4	121129.4	98.8	%	09:42:35

3	Al 396.153Radial†	-47.2	-47.7	[0.00]	µg/L	09:42:55
3	Ca 317.933Radial†	358.4	362.7	[0.00]	µg/L	09:42:55
3	Fe 238.204 Radial†	90.8	91.9	[0.00]	µg/L	09:42:55
3	K 766.490 Radial†	1749.1	1770.4	[0.00]	µg/L	09:42:35
3	Mg 279.077 IEC†	67.9	68.7	[0.00]	µg/L	09:42:55
3	Na 589.592 Radial†	266.1	269.4	[0.00]	µg/L	09:42:35
3	Sr 421.552†	-59.3	-60.0	[0.00]	µg/L	09:42:35
3	Sc 361.383	1595377.8	1595377.8	98.808	%	09:43:47
3	Y 371.029	1047571.8	1047571.8	98.844	%	09:43:47
3	Ag 328.068†	1997.1	2021.2	[0.00]	µg/L	09:43:49
3	As 188.979†	-40.0	-40.5	[0.00]	µg/L	09:44:10
3	B 249.677†	2081.4	2106.5	[0.00]	µg/L	09:44:10
3	Ba 233.527†	-306.3	-310.0	[0.00]	µg/L	09:44:10
3	Be 313.107†	-839.3	-849.5	[0.00]	µg/L	09:43:49
3	Cd 226.502†	-188.8	-191.0	[0.00]	µg/L	09:44:10
3	Co 228.616†	-237.3	-240.2	[0.00]	µg/L	09:44:10
3	Cr 267.716†	222.1	224.8	[0.00]	µg/L	09:44:10
3	Cu 324.752†	3460.1	3501.8	[0.00]	µg/L	09:43:49
3	Mn 257.610†	113.6	114.9	[0.00]	µg/L	09:44:10
3	Mo 202.031†	-23.2	-23.4	[0.00]	µg/L	09:44:10
3	Ni 231.604†	-68.7	-69.5	[0.00]	µg/L	09:44:10
3	P 214.914†	-7.9	-8.0	[0.00]	µg/L	09:44:10
3	Pb 220.353†	113.1	114.4	[0.00]	µg/L	09:44:10
3	S 181.975 Axial†	71.5	72.4	[0.00]	µg/L	09:44:10
3	Sb 206.836†	112.6	113.9	[0.00]	µg/L	09:44:10
3	Se 196.026†	33.6	34.0	[0.00]	µg/L	09:44:10
3	SiO2†	2076.3	2101.3	[0.00]	µg/L	09:44:10
3	Si 251.611†	691.3	699.7	[0.00]	µg/L	09:44:10
3	Sn 189.927†	-14.9	-15.1	[0.00]	µg/L	09:44:10
3	Ti 334.940†	1001.1	1013.1	[0.00]	µg/L	09:43:49
3	Tl 190.801†	-148.4	-150.2	[0.00]	µg/L	09:44:10
3	U 409.014†	0.7	0.7	[0.00]	µg/L	09:43:49
3	V 292.402†	143.5	145.2	[0.00]	µg/L	09:43:49
3	Zn 213.857†	3530.2	3572.8	[0.00]	µg/L	09:44:10

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1614624.9	16826.87	1.04%	100.00	%
Sc RADIAL	122609.2	1281.89	1.05%	100	%
Y 371.029	1059820.0	10704.67	1.01%	100.00	%
Ag 328.068†	1992.3	61.79	3.10%	[0.00]	µg/L
Al 396.153Radial†	-51.4	4.88	9.50%	[0.00]	µg/L
As 188.979†	-35.6	6.97	19.60%	[0.00]	µg/L
B 249.677†	2077.8	26.52	1.28%	[0.00]	µg/L
Ba 233.527†	-306.0	9.08	2.97%	[0.00]	µg/L
Be 313.107†	-761.3	94.82	12.45%	[0.00]	µg/L
Ca 317.933Radial†	354.3	10.55	2.98%	[0.00]	µg/L
Cd 226.502†	-184.5	5.80	3.15%	[0.00]	µg/L
Co 228.616†	-235.1	10.53	4.48%	[0.00]	µg/L
Cr 267.716†	205.3	19.54	9.52%	[0.00]	µg/L
Cu 324.752†	3514.8	23.05	0.66%	[0.00]	µg/L
Fe 238.204 Radial†	82.8	8.66	10.47%	[0.00]	µg/L
K 766.490 Radial†	1693.6	72.70	4.29%	[0.00]	µg/L
Mg 279.077 IEC†	52.4	14.13	26.94%	[0.00]	µg/L
Mn 257.610†	119.4	6.55	5.48%	[0.00]	µg/L
Mo 202.031†	-13.9	8.75	62.97%	[0.00]	µg/L
Na 589.592 Radial†	271.4	21.21	7.82%	[0.00]	µg/L
Ni 231.604†	-71.7	6.29	8.78%	[0.00]	µg/L
P 214.914†	-0.8	14.40	>999.9%	[0.00]	µg/L
Pb 220.353†	93.0	23.32	25.08%	[0.00]	µg/L
S 181.975 Axial†	68.4	3.75	5.48%	[0.00]	µg/L
Sb 206.836†	116.2	2.34	2.02%	[0.00]	µg/L
Se 196.026†	38.9	5.85	15.05%	[0.00]	µg/L
SiO2†	2079.1	23.83	1.15%	[0.00]	µg/L
Si 251.611†	667.9	27.50	4.12%	[0.00]	µg/L
Sn 189.927†	-23.9	7.80	32.63%	[0.00]	µg/L
Sr 421.552†	-116.6	50.32	43.15%	[0.00]	µg/L
Ti 334.940†	1088.6	65.43	6.01%	[0.00]	µg/L
Tl 190.801†	-155.1	4.70	3.03%	[0.00]	µg/L

U 409.014†	-20.8	55.37	266.76%	[0.00]	µg/L
V 292.402†	149.8	45.32	30.26%	[0.00]	µg/L
Zn 213.857†	3514.8	54.63	1.55%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 4/30/2010 9:44:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	122259.1	122259.1	99.7	%	09:44:48
1	K 766.490 Radial†	4266.0	2584.7	[1000]	µg/L	09:44:48
1	Sr 421.552†	45115.7	45361.5	[100]	µg/L	09:44:48
1	Sc 361.383	1604531.2	1604531.2	99.375	%	09:44:56
1	Y 371.029	1054181.4	1054181.4	99.468	%	09:44:56
1	Ag 328.068†	26735.8	24911.7	[100]	µg/L	09:44:58
1	As 188.979†	236.6	273.7	[100]	µg/L	09:45:18
1	B 249.677†	7669.3	5639.8	[100]	µg/L	09:44:58
1	Ba 233.527†	19263.6	19690.8	[100]	µg/L	09:44:58
1	Be 313.107†	302805.0	305471.2	[100]	µg/L	09:44:56
1	Cd 226.502†	11651.6	11909.4	[100]	µg/L	09:44:58
1	Co 228.616†	5547.6	5817.6	[100]	µg/L	09:45:18
1	Cr 267.716†	10383.3	10243.3	[100]	µg/L	09:44:58
1	Cu 324.752†	26337.8	22988.7	[100]	µg/L	09:44:58
1	Mn 257.610†	62639.7	62914.4	[100]	µg/L	09:44:58
1	Mo 202.031†	2703.3	2734.2	[100]	µg/L	09:45:18
1	Ni 231.604†	6409.2	6521.2	[100]	µg/L	09:45:18
1	P 214.914†	1816.7	1829.0	[500]	µg/L	09:45:18
1	Pb 220.353†	1426.8	1342.8	[100]	µg/L	09:45:18
1	S 181.975 Axial†	286.1	219.6	[200]	µg/L	09:45:18
1	Sb 206.836†	780.0	668.7	[100]	µg/L	09:45:18
1	Se 196.026†	270.4	233.2	[100]	µg/L	09:45:18
1	SiO2†	11402.0	9394.6	[1069.5]	µg/L	09:44:58
1	Si 251.611†	28004.5	27512.7	[500]	µg/L	09:44:58
1	Sn 189.927†	1111.6	1142.5	[100]	µg/L	09:45:18
1	Ti 334.940†	93830.9	93332.6	[100]	µg/L	09:44:58
1	Tl 190.801†	458.4	616.4	[100]	µg/L	09:45:18
1	U 409.014†	1713.4	1744.9	[100]	µg/L	09:44:58
1	V 292.402†	16475.0	16428.8	[100]	µg/L	09:44:58
1	Zn 213.857†	17397.4	13992.1	[100]	µg/L	09:44:58
2	Sc RADIAL	122823.0	122823.0	100	%	09:44:50
2	K 766.490 Radial†	4330.0	2628.9	[1000]	µg/L	09:44:50
2	Sr 421.552†	45375.0	45412.6	[100]	µg/L	09:44:50
2	Sc 361.383	1610638.0	1610638.0	99.753	%	09:45:20
2	Y 371.029	1057353.2	1057353.2	99.767	%	09:45:20
2	Ag 328.068†	26579.6	24653.1	[100]	µg/L	09:45:22
2	As 188.979†	242.4	278.6	[100]	µg/L	09:45:42
2	B 249.677†	7678.5	5619.7	[100]	µg/L	09:45:22
2	Ba 233.527†	19177.1	19530.6	[100]	µg/L	09:45:22
2	Be 313.107†	304420.1	305935.0	[100]	µg/L	09:45:20
2	Cd 226.502†	11626.1	11839.4	[100]	µg/L	09:45:22
2	Co 228.616†	5548.5	5797.3	[100]	µg/L	09:45:42
2	Cr 267.716†	10315.2	10135.4	[100]	µg/L	09:45:22
2	Cu 324.752†	26366.0	22916.5	[100]	µg/L	09:45:22
2	Mn 257.610†	62671.7	62707.4	[100]	µg/L	09:45:22
2	Mo 202.031†	2694.7	2715.3	[100]	µg/L	09:45:42
2	Ni 231.604†	6344.9	6432.3	[100]	µg/L	09:45:42
2	P 214.914†	1801.6	1806.9	[500]	µg/L	09:45:42
2	Pb 220.353†	1446.9	1357.5	[100]	µg/L	09:45:42
2	S 181.975 Axial†	279.9	212.2	[200]	µg/L	09:45:42
2	Sb 206.836†	777.5	663.2	[100]	µg/L	09:45:42
2	Se 196.026†	261.1	222.9	[100]	µg/L	09:45:42
2	SiO2†	11268.0	9216.8	[1069.5]	µg/L	09:45:22
2	Si 251.611†	28137.5	27539.2	[500]	µg/L	09:45:22
2	Sn 189.927†	1112.1	1138.7	[100]	µg/L	09:45:42
2	Ti 334.940†	94003.5	93147.6	[100]	µg/L	09:45:22
2	Tl 190.801†	459.6	615.8	[100]	µg/L	09:45:42
2	U 409.014†	1647.2	1672.1	[100]	µg/L	09:45:22
2	V 292.402†	16484.3	16375.4	[100]	µg/L	09:45:22

2	Zn 213.857†	17435.6	13964.0	[100]	µg/L	09:45:22
3	Sc RADIAL	121793.7	121793.7	99.3	%	09:44:52
3	K 766.490 Radial†	4196.2	2530.8	[1000]	µg/L	09:44:52
3	Sr 421.552†	44967.9	45385.6	[100]	µg/L	09:44:52
3	Sc 361.383	1626901.3	1626901.3	100.76	%	09:45:44
3	Y 371.029	1067434.1	1067434.1	100.72	%	09:45:44
3	Ag 328.068†	26769.5	24575.2	[100]	µg/L	09:45:46
3	As 188.979†	240.2	274.0	[100]	µg/L	09:46:07
3	B 249.677†	7775.1	5638.7	[100]	µg/L	09:45:46
3	Ba 233.527†	19540.5	19699.1	[100]	µg/L	09:45:46
3	Be 313.107†	308682.2	307114.2	[100]	µg/L	09:45:44
3	Cd 226.502†	11847.3	11942.5	[100]	µg/L	09:45:46
3	Co 228.616†	5507.3	5700.8	[100]	µg/L	09:46:07
3	Cr 267.716†	10429.0	10145.0	[100]	µg/L	09:45:46
3	Cu 324.752†	26763.6	23046.8	[100]	µg/L	09:45:46
3	Mn 257.610†	63421.3	62823.3	[100]	µg/L	09:45:46
3	Mo 202.031†	2684.5	2678.1	[100]	µg/L	09:46:07
3	Ni 231.604†	6335.4	6359.3	[100]	µg/L	09:46:07
3	P 214.914†	1804.5	1791.7	[500]	µg/L	09:46:07
3	Pb 220.353†	1439.9	1336.0	[100]	µg/L	09:46:07
3	S 181.975 Axial†	284.4	213.8	[200]	µg/L	09:46:07
3	Sb 206.836†	778.3	656.2	[100]	µg/L	09:46:07
3	Se 196.026†	261.2	220.4	[100]	µg/L	09:46:07
3	SiO2†	11494.7	9328.8	[1069.5]	µg/L	09:45:46
3	Si 251.611†	28707.5	27822.9	[500]	µg/L	09:45:46
3	Sn 189.927†	1100.2	1115.8	[100]	µg/L	09:46:07
3	Ti 334.940†	95325.9	93518.0	[100]	µg/L	09:45:46
3	Tl 190.801†	440.2	592.0	[100]	µg/L	09:46:07
3	U 409.014†	1824.3	1831.3	[100]	µg/L	09:45:46
3	V 292.402†	16620.9	16345.7	[100]	µg/L	09:45:46
3	Zn 213.857†	17710.1	14061.7	[100]	µg/L	09:45:46

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1614023.5	11562.93	0.72%	99.963	%
Sc RADIAL	122291.9	515.44	0.42%	99.7	%
Y 371.029	1059656.2	6919.98	0.65%	99.985	%
Ag 328.068†	24713.4	176.17	0.71%	[100]	µg/L
As 188.979†	275.4	2.74	0.99%	[100]	µg/L
B 249.677†	5632.7	11.28	0.20%	[100]	µg/L
Ba 233.527†	19640.1	95.00	0.48%	[100]	µg/L
Be 313.107†	306173.5	847.10	0.28%	[100]	µg/L
Cd 226.502†	11897.1	52.65	0.44%	[100]	µg/L
Co 228.616†	5771.9	62.41	1.08%	[100]	µg/L
Cr 267.716†	10174.6	59.72	0.59%	[100]	µg/L
Cu 324.752†	22984.0	65.30	0.28%	[100]	µg/L
K 766.490 Radial†	2581.5	49.14	1.90%	[1000]	µg/L
Mn 257.610†	62815.0	103.74	0.17%	[100]	µg/L
Mo 202.031†	2709.2	28.54	1.05%	[100]	µg/L
Ni 231.604†	6437.6	81.05	1.26%	[100]	µg/L
P 214.914†	1809.2	18.73	1.04%	[500]	µg/L
Pb 220.353†	1345.5	10.98	0.82%	[100]	µg/L
S 181.975 Axial†	215.2	3.87	1.80%	[200]	µg/L
Sb 206.836†	662.7	6.27	0.95%	[100]	µg/L
Se 196.026†	225.5	6.80	3.02%	[100]	µg/L
SiO2†	9313.4	89.92	0.97%	[1069.5]	µg/L
Si 251.611†	27625.0	171.96	0.62%	[500]	µg/L
Sn 189.927†	1132.3	14.49	1.28%	[100]	µg/L
Sr 421.552†	45386.6	25.54	0.06%	[100]	µg/L
Ti 334.940†	93332.7	185.18	0.20%	[100]	µg/L
Tl 190.801†	608.1	13.91	2.29%	[100]	µg/L
U 409.014†	1749.4	79.71	4.56%	[100]	µg/L
V 292.402†	16383.3	42.15	0.26%	[100]	µg/L
Zn 213.857†	14005.9	50.32	0.36%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 4/30/2010 9:46:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	122204.6	122204.6	99.7	%	09:46:45
1	Al 396.153Radial†	26090.5	26228.3	[5000]	µg/L	09:46:45
1	Ca 317.933Radial†	52773.8	52594.2	[5000]	µg/L	09:46:45
1	K 766.490 Radial†	14932.6	13288.5	[5000]	µg/L	09:46:45
1	Mg 279.077 IEC†	6946.2	6916.8	[5000]	µg/L	09:46:45
1	Sr 421.552†	221852.4	222703.4	[500]	µg/L	09:46:43
1	Sc 361.383	1608943.6	1608943.6	99.648	%	09:47:12
1	Y 371.029	1052306.3	1052306.3	99.291	%	09:47:12
1	Ag 328.068†	124695.7	123143.7	[500]	µg/L	09:47:12
1	As 188.979†	1402.1	1442.6	[500]	µg/L	09:47:32
1	B 249.677†	30400.3	28429.9	[500]	µg/L	09:47:12
1	Ba 233.527†	97208.3	97857.6	[500]	µg/L	09:47:12
1	Be 313.107†	1529374.7	1535536.3	[500]	µg/L	09:47:12
1	Cd 226.502†	58919.0	59311.6	[500]	µg/L	09:47:12
1	Co 228.616†	28392.6	28728.0	[500]	µg/L	09:47:32
1	Cr 267.716†	51040.6	51015.5	[500]	µg/L	09:47:12
1	Cu 324.752†	119099.8	116005.5	[500]	µg/L	09:47:12
1	Mn 257.610†	309881.9	310856.6	[500]	µg/L	09:47:12
1	Mo 202.031†	13599.6	13661.5	[500]	µg/L	09:47:32
1	Ni 231.604†	31999.8	32184.5	[500]	µg/L	09:47:32
1	P 214.914†	9102.1	9135.0	[2500]	µg/L	09:47:32
1	Pb 220.353†	6809.2	6740.3	[500]	µg/L	09:47:32
1	S 181.975 Axial†	1166.8	1102.5	[1000]	µg/L	09:47:32
1	Sb 206.836†	3461.2	3357.2	[500]	µg/L	09:47:32
1	Se 196.026†	1186.5	1151.8	[500]	µg/L	09:47:32
1	SiO2†	49507.2	47602.9	[5347.5]	µg/L	09:47:12
1	Si 251.611†	142582.6	142418.2	[2500]	µg/L	09:47:12
1	Sn 189.927†	5680.9	5724.8	[500]	µg/L	09:47:32
1	Ti 334.940†	470627.9	471201.1	[500]	µg/L	09:47:12
1	Tl 190.801†	2894.6	3059.9	[500]	µg/L	09:47:32
1	U 409.014†	8550.7	8601.7	[500]	µg/L	09:47:12
1	V 292.402†	82185.2	82325.6	[500]	µg/L	09:47:12
1	Zn 213.857†	73292.6	70036.6	[500]	µg/L	09:47:12
2	Sc RADIAL	120412.6	120412.6	98.2	%	09:46:49
2	Al 396.153Radial†	25755.3	26276.5	[5000]	µg/L	09:46:49
2	Ca 317.933Radial†	51856.1	52447.7	[5000]	µg/L	09:46:49
2	K 766.490 Radial†	14828.4	13405.3	[5000]	µg/L	09:46:49
2	Mg 279.077 IEC†	6764.3	6835.3	[5000]	µg/L	09:46:49
2	Sr 421.552†	221922.0	226086.9	[500]	µg/L	09:46:47
2	Sc 361.383	1625178.5	1625178.5	100.65	%	09:47:35
2	Y 371.029	1062514.2	1062514.2	100.25	%	09:47:35
2	Ag 328.068†	125357.5	122551.2	[500]	µg/L	09:47:35
2	As 188.979†	1400.1	1426.6	[500]	µg/L	09:47:55
2	B 249.677†	30803.1	28525.3	[500]	µg/L	09:47:35
2	Ba 233.527†	98076.0	97745.1	[500]	µg/L	09:47:35
2	Be 313.107†	1544459.0	1535190.9	[500]	µg/L	09:47:35
2	Cd 226.502†	59325.6	59124.9	[500]	µg/L	09:47:35
2	Co 228.616†	28493.9	28544.0	[500]	µg/L	09:47:55
2	Cr 267.716†	51501.7	50962.0	[500]	µg/L	09:47:35
2	Cu 324.752†	120054.1	115759.7	[500]	µg/L	09:47:35
2	Mn 257.610†	312496.3	310347.6	[500]	µg/L	09:47:35
2	Mo 202.031†	13616.4	13541.9	[500]	µg/L	09:47:55
2	Ni 231.604†	32037.8	31901.5	[500]	µg/L	09:47:55
2	P 214.914†	9103.3	9045.0	[2500]	µg/L	09:47:55
2	Pb 220.353†	6783.5	6646.5	[500]	µg/L	09:47:55
2	S 181.975 Axial†	1167.8	1091.8	[1000]	µg/L	09:47:55
2	Sb 206.836†	3479.2	3340.4	[500]	µg/L	09:47:55
2	Se 196.026†	1184.0	1137.4	[500]	µg/L	09:47:55
2	SiO2†	50220.4	47815.1	[5347.5]	µg/L	09:47:35

2	Si 251.611†	144195.6	142591.3	[2500]	µg/L	09:47:35
2	Sn 189.927†	5680.7	5667.7	[500]	µg/L	09:47:55
2	Ti 334.940†	474309.2	470140.5	[500]	µg/L	09:47:35
2	Tl 190.801†	2884.3	3020.6	[500]	µg/L	09:47:55
2	U 409.014†	8810.0	8773.5	[500]	µg/L	09:47:35
2	V 292.402†	82863.3	82175.4	[500]	µg/L	09:47:35
2	Zn 213.857†	73978.6	69983.5	[500]	µg/L	09:47:35
3	Sc RADIAL	123894.9	123894.9	101	%	09:46:53
3	Al 396.153Radial†	26357.4	26135.3	[5000]	µg/L	09:46:53
3	Ca 317.933Radial†	53480.0	52570.7	[5000]	µg/L	09:46:53
3	K 766.490 Radial†	15180.1	13329.1	[5000]	µg/L	09:46:53
3	Mg 279.077 IEC†	7037.6	6912.2	[5000]	µg/L	09:46:53
3	Sr 421.552†	225949.2	223721.0	[500]	µg/L	09:46:51
3	Sc 361.383	1622319.9	1622319.9	100.48	%	09:47:58
3	Y 371.029	1061643.0	1061643.0	100.17	%	09:47:58
3	Ag 328.068†	125285.2	122698.6	[500]	µg/L	09:47:58
3	As 188.979†	1377.2	1406.2	[500]	µg/L	09:48:18
3	B 249.677†	30551.5	28328.8	[500]	µg/L	09:47:58
3	Ba 233.527†	97626.2	97469.2	[500]	µg/L	09:47:58
3	Be 313.107†	1537767.2	1531234.6	[500]	µg/L	09:47:58
3	Cd 226.502†	58976.5	58881.3	[500]	µg/L	09:47:58
3	Co 228.616†	28279.3	28380.2	[500]	µg/L	09:48:18
3	Cr 267.716†	51183.5	50735.4	[500]	µg/L	09:47:58
3	Cu 324.752†	120061.1	115976.8	[500]	µg/L	09:47:58
3	Mn 257.610†	311707.3	310109.3	[500]	µg/L	09:47:58
3	Mo 202.031†	13570.1	13519.6	[500]	µg/L	09:48:18
3	Ni 231.604†	31918.9	31839.2	[500]	µg/L	09:48:18
3	P 214.914†	9073.3	9031.0	[2500]	µg/L	09:48:18
3	Pb 220.353†	6767.7	6642.6	[500]	µg/L	09:48:18
3	S 181.975 Axial†	1164.3	1090.4	[1000]	µg/L	09:48:18
3	Sb 206.836†	3466.8	3334.2	[500]	µg/L	09:48:18
3	Se 196.026†	1192.5	1147.9	[500]	µg/L	09:48:18
3	SiO2†	50042.7	47726.2	[5347.5]	µg/L	09:47:58
3	Si 251.611†	143944.1	142593.4	[2500]	µg/L	09:47:58
3	Sn 189.927†	5655.5	5652.6	[500]	µg/L	09:48:18
3	Ti 334.940†	473353.7	470019.9	[500]	µg/L	09:47:58
3	Tl 190.801†	2873.3	3014.8	[500]	µg/L	09:48:18
3	U 409.014†	8654.7	8634.4	[500]	µg/L	09:47:58
3	V 292.402†	82552.7	82011.3	[500]	µg/L	09:47:58
3	Zn 213.857†	73563.8	69700.1	[500]	µg/L	09:47:58

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1618814.0	8666.67	0.54%	100.26	%
Sc RADIAL	122170.7	1741.41	1.43%	99.6	%
Y 371.029	1058821.2	5658.81	0.53%	99.906	%
Ag 328.068†	122797.8	308.46	0.25%	[500]	µg/L
Al 396.153Radial†	26213.4	71.81	0.27%	[5000]	µg/L
As 188.979†	1425.1	18.25	1.28%	[500]	µg/L
B 249.677†	28428.0	98.25	0.35%	[500]	µg/L
Ba 233.527†	97690.6	199.85	0.20%	[500]	µg/L
Be 313.107†	1533987.3	2390.14	0.16%	[500]	µg/L
Ca 317.933Radial†	52537.5	78.66	0.15%	[5000]	µg/L
Cd 226.502†	59105.9	215.76	0.37%	[500]	µg/L
Co 228.616†	28550.7	173.96	0.61%	[500]	µg/L
Cr 267.716†	50904.3	148.71	0.29%	[500]	µg/L
Cu 324.752†	115914.0	134.39	0.12%	[500]	µg/L
K 766.490 Radial†	13341.0	59.32	0.44%	[5000]	µg/L
Mg 279.077 IEC†	6888.1	45.76	0.66%	[5000]	µg/L
Mn 257.610†	310437.9	381.74	0.12%	[500]	µg/L
Mo 202.031†	13574.3	76.32	0.56%	[500]	µg/L
Ni 231.604†	31975.0	184.02	0.58%	[500]	µg/L
P 214.914†	9070.3	56.45	0.62%	[2500]	µg/L
Pb 220.353†	6676.5	55.29	0.83%	[500]	µg/L
S 181.975 Axial†	1094.9	6.63	0.61%	[1000]	µg/L
Sb 206.836†	3343.9	11.93	0.36%	[500]	µg/L
Se 196.026†	1145.7	7.44	0.65%	[500]	µg/L
SiO2†	47714.8	106.58	0.22%	[5347.5]	µg/L
Si 251.611†	142534.3	100.57	0.07%	[2500]	µg/L

Sn 189.927†	5681.7	38.10	0.67%	[500] µg/L
Sr 421.552†	224170.4	1735.95	0.77%	[500] µg/L
Ti 334.940†	470453.8	649.96	0.14%	[500] µg/L
Tl 190.801†	3031.8	24.54	0.81%	[500] µg/L
U 409.014†	8669.9	91.25	1.05%	[500] µg/L
V 292.402†	82170.8	157.19	0.19%	[500] µg/L
Zn 213.857†	69906.7	180.90	0.26%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 4/30/2010 9:48:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	123797.7	123797.7	101	%	09:48:57
1	Al 396.153Radial†	52954.7	52497.7	[10000]	µg/L	09:48:57
1	Ca 317.933Radial†	106890.5	105509.9	[10000]	µg/L	09:48:57
1	Fe 238.204 Radial†	103139.6	102066.6	[10000]	µg/L	09:48:57
1	K 766.490 Radial†	28557.4	26589.6	[10000]	µg/L	09:48:57
1	Mg 279.077 IEC†	14143.7	13955.5	[10000]	µg/L	09:48:57
1	Na 589.592 Radial†	70149.1	69204.2	[10000]	µg/L	09:48:55
1	Sr 421.552†	457065.4	452793.7	[1000]	µg/L	09:48:55
1	Sc 361.383	1614238.1	1614238.1	99.976	%	09:49:24
1	Y 371.029	1050754.8	1050754.8	99.145	%	09:49:24
1	Ag 328.068†	254809.2	252877.9	[1000]	µg/L	09:49:26
1	As 188.979†	2833.8	2870.0	[1000]	µg/L	09:49:46
1	B 249.677†	60542.7	58479.5	[1000]	µg/L	09:49:26
1	Ba 233.527†	200025.4	200379.3	[1000]	µg/L	09:49:26
1	Be 313.107†	3086496.3	3087997.1	[1000]	µg/L	09:49:24
1	Cd 226.502†	121248.3	121461.9	[1000]	µg/L	09:49:26
1	Co 228.616†	58128.9	58377.9	[1000]	µg/L	09:49:26
1	Cr 267.716†	104918.3	104738.1	[1000]	µg/L	09:49:26
1	Cu 324.752†	243741.6	240285.2	[1000]	µg/L	09:49:26
1	Mn 257.610†	636881.6	636914.7	[1000]	µg/L	09:49:26
1	Mo 202.031†	27043.3	27063.6	[1000]	µg/L	09:49:46
1	Ni 231.604†	65432.5	65519.9	[1000]	µg/L	09:49:26
1	P 214.914†	18185.3	18190.4	[5000]	µg/L	09:49:46
1	Pb 220.353†	13489.9	13400.2	[1000]	µg/L	09:49:46
1	S 181.975 Axial†	2279.3	2211.4	[2000]	µg/L	09:49:46
1	Sb 206.836†	6816.3	6701.7	[1000]	µg/L	09:49:46
1	Se 196.026†	2340.0	2301.7	[1000]	µg/L	09:49:46
1	SiO2†	97807.4	95751.7	[10695]	µg/L	09:49:26
1	Si 251.611†	287084.2	286485.0	[5000]	µg/L	09:49:26
1	Sn 189.927†	11338.1	11364.7	[1000]	µg/L	09:49:46
1	Ti 334.940†	942422.6	941559.8	[1000]	µg/L	09:49:24
1	Tl 190.801†	5945.8	6102.3	[1000]	µg/L	09:49:46
1	U 409.014†	17711.5	17736.5	[1000]	µg/L	09:49:26
1	V 292.402†	169397.5	169288.3	[1000]	µg/L	09:49:26
1	Zn 213.857†	147157.7	143678.2	[1000]	µg/L	09:49:26
2	Sc RADIAL	121938.9	121938.9	99.5	%	09:49:01
2	Al 396.153Radial†	52269.5	52608.2	[10000]	µg/L	09:49:01
2	Ca 317.933Radial†	105310.6	105535.1	[10000]	µg/L	09:49:01
2	Fe 238.204 Radial†	101736.4	102212.8	[10000]	µg/L	09:49:01
2	K 766.490 Radial†	28295.2	26757.1	[10000]	µg/L	09:49:01
2	Mg 279.077 IEC†	13957.2	13981.5	[10000]	µg/L	09:49:01
2	Na 589.592 Radial†	68848.8	68955.8	[10000]	µg/L	09:48:59
2	Sr 421.552†	449443.1	452030.1	[1000]	µg/L	09:48:59
2	Sc 361.383	1610257.7	1610257.7	99.730	%	09:49:49
2	Y 371.029	1049010.9	1049010.9	98.980	%	09:49:49
2	Ag 328.068†	249537.9	248222.3	[1000]	µg/L	09:49:51
2	As 188.979†	2832.3	2875.5	[1000]	µg/L	09:50:11
2	B 249.677†	59194.3	57277.1	[1000]	µg/L	09:49:51
2	Ba 233.527†	195648.2	196484.8	[1000]	µg/L	09:49:51
2	Be 313.107†	3072847.3	3081942.4	[1000]	µg/L	09:49:49
2	Cd 226.502†	118356.6	118862.1	[1000]	µg/L	09:49:51
2	Co 228.616†	56754.6	57143.6	[1000]	µg/L	09:49:51
2	Cr 267.716†	102734.3	102807.6	[1000]	µg/L	09:49:51
2	Cu 324.752†	238705.2	235837.8	[1000]	µg/L	09:49:51
2	Mn 257.610†	622423.2	623991.8	[1000]	µg/L	09:49:51
2	Mo 202.031†	27065.5	27152.8	[1000]	µg/L	09:50:11
2	Ni 231.604†	63947.9	64193.1	[1000]	µg/L	09:49:51
2	P 214.914†	18231.8	18282.1	[5000]	µg/L	09:50:11
2	Pb 220.353†	13475.7	13419.3	[1000]	µg/L	09:50:11

2	S 181.975 Axial†	2290.5	2228.3	[2000]	µg/L	09:50:11
2	Sb 206.836†	6832.2	6734.6	[1000]	µg/L	09:50:11
2	Se 196.026†	2351.7	2319.2	[1000]	µg/L	09:50:11
2	SiO2†	96078.1	94259.6	[10695]	µg/L	09:49:51
2	Si 251.611†	281358.6	281453.7	[5000]	µg/L	09:49:51
2	Sn 189.927†	11391.0	11445.8	[1000]	µg/L	09:50:11
2	Ti 334.940†	939560.7	941020.2	[1000]	µg/L	09:49:49
2	Tl 190.801†	5971.2	6142.5	[1000]	µg/L	09:50:11
2	U 409.014†	17319.2	17386.9	[1000]	µg/L	09:49:51
2	V 292.402†	165847.6	166147.7	[1000]	µg/L	09:49:51
2	Zn 213.857†	143708.6	140583.6	[1000]	µg/L	09:49:51
3	Sc RADIAL	119456.8	119456.8	97.4	%	09:49:06
3	Al 396.153Radial†	51262.6	52666.8	[10000]	µg/L	09:49:06
3	Ca 317.933Radial†	103137.4	105504.7	[10000]	µg/L	09:49:06
3	Fe 238.204 Radial†	99148.4	101682.1	[10000]	µg/L	09:49:06
3	K 766.490 Radial†	27856.5	26898.0	[10000]	µg/L	09:49:06
3	Mg 279.077 IEC†	13626.9	13934.0	[10000]	µg/L	09:49:06
3	Na 589.592 Radial†	69407.2	70967.4	[10000]	µg/L	09:49:04
3	Sr 421.552†	453585.9	465672.2	[1000]	µg/L	09:49:04
3	Sc 361.383	1616408.9	1616408.9	100.11	%	09:50:14
3	Y 371.029	1052171.8	1052171.8	99.278	%	09:50:14
3	Ag 328.068†	250502.1	248233.4	[1000]	µg/L	09:50:16
3	As 188.979†	2848.8	2881.2	[1000]	µg/L	09:50:36
3	B 249.677†	59533.8	57390.3	[1000]	µg/L	09:50:16
3	Ba 233.527†	196697.6	196786.5	[1000]	µg/L	09:50:16
3	Be 313.107†	3059545.9	3056930.3	[1000]	µg/L	09:50:14
3	Cd 226.502†	118763.6	118817.1	[1000]	µg/L	09:50:16
3	Co 228.616†	56945.8	57118.1	[1000]	µg/L	09:50:16
3	Cr 267.716†	102776.4	102457.7	[1000]	µg/L	09:50:16
3	Cu 324.752†	239474.4	235695.2	[1000]	µg/L	09:50:16
3	Mn 257.610†	625400.8	624591.0	[1000]	µg/L	09:50:16
3	Mo 202.031†	27083.3	27067.3	[1000]	µg/L	09:50:36
3	Ni 231.604†	64175.0	64175.9	[1000]	µg/L	09:50:16
3	P 214.914†	18261.8	18242.4	[5000]	µg/L	09:50:36
3	Pb 220.353†	13506.5	13398.6	[1000]	µg/L	09:50:36
3	S 181.975 Axial†	2282.3	2211.4	[2000]	µg/L	09:50:36
3	Sb 206.836†	6853.0	6729.2	[1000]	µg/L	09:50:36
3	Se 196.026†	2347.6	2306.1	[1000]	µg/L	09:50:36
3	SiO2†	97049.0	94862.7	[10695]	µg/L	09:50:16
3	Si 251.611†	283610.9	282630.0	[5000]	µg/L	09:50:16
3	Sn 189.927†	11403.5	11414.8	[1000]	µg/L	09:50:36
3	Ti 334.940†	936034.4	933912.7	[1000]	µg/L	09:50:14
3	Tl 190.801†	5955.2	6103.7	[1000]	µg/L	09:50:36
3	U 409.014†	17555.7	17557.0	[1000]	µg/L	09:50:16
3	V 292.402†	166307.3	165974.0	[1000]	µg/L	09:50:16
3	Zn 213.857†	144460.9	140786.7	[1000]	µg/L	09:50:16

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1613634.9	3119.65	0.19%	99.939	%
Sc RADIAL	121731.2	2177.91	1.79%	99.3	%
Y 371.029	1050645.8	1583.26	0.15%	99.134	%
Ag 328.068†	249777.9	2684.72	1.07%	[1000]	µg/L
Al 396.153Radial†	52590.9	85.87	0.16%	[10000]	µg/L
As 188.979†	2875.6	5.58	0.19%	[1000]	µg/L
B 249.677†	57715.6	663.94	1.15%	[1000]	µg/L
Ba 233.527†	197883.5	2166.69	1.09%	[1000]	µg/L
Be 313.107†	3075623.2	16469.22	0.54%	[1000]	µg/L
Ca 317.933Radial†	105516.6	16.28	0.02%	[10000]	µg/L
Cd 226.502†	119713.7	1514.16	1.26%	[1000]	µg/L
Co 228.616†	57546.5	720.11	1.25%	[1000]	µg/L
Cr 267.716†	103334.5	1228.09	1.19%	[1000]	µg/L
Cu 324.752†	237272.7	2609.86	1.10%	[1000]	µg/L
Fe 238.204 Radial†	101987.2	274.14	0.27%	[10000]	µg/L
K 766.490 Radial†	26748.3	154.38	0.58%	[10000]	µg/L
Mg 279.077 IEC†	13957.0	23.75	0.17%	[10000]	µg/L
Mn 257.610†	628499.2	7294.21	1.16%	[1000]	µg/L
Mo 202.031†	27094.6	50.46	0.19%	[1000]	µg/L
Na 589.592 Radial†	69709.1	1096.72	1.57%	[10000]	µg/L

Ni 231.604†	64629.6	771.03	1.19%	[1000]	µg/L
P 214.914†	18238.3	45.97	0.25%	[5000]	µg/L
Pb 220.353†	13406.0	11.50	0.09%	[1000]	µg/L
S 181.975 Axial†	2217.1	9.75	0.44%	[2000]	µg/L
Sb 206.836†	6721.8	17.60	0.26%	[1000]	µg/L
Se 196.026†	2309.0	9.10	0.39%	[1000]	µg/L
SiO2†	94958.0	750.63	0.79%	[10695]	µg/L
Si 251.611†	283522.9	2631.81	0.93%	[5000]	µg/L
Sn 189.927†	11408.4	40.91	0.36%	[1000]	µg/L
Sr 421.552†	456832.0	7665.36	1.68%	[1000]	µg/L
Ti 334.940†	938830.9	4267.84	0.45%	[1000]	µg/L
Tl 190.801†	6116.2	22.83	0.37%	[1000]	µg/L
U 409.014†	17560.1	174.80	1.00%	[1000]	µg/L
V 292.402†	167136.6	1865.41	1.12%	[1000]	µg/L
Zn 213.857†	141682.8	1731.02	1.22%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 4/30/2010 9:50:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	123107.1	123107.1	100	%	09:51:12
1	Al 396.153Radial†	265143.1	264122.1	[50000]	µg/L	09:51:12
1	Ca 317.933Radial†	534506.9	531990.8	[50000]	µg/L	09:51:12
1	Fe 238.204 Radial†	207030.7	206110.6	[20000]	µg/L	09:51:12
1	Mg 279.077 IEC†	71041.9	70702.2	[50000]	µg/L	09:51:12
1	Na 589.592 Radial†	141428.4	140585.0	[20000]	µg/L	09:51:12
1	Sc 361.383	1621190.3	1621190.3	100.41	%	09:51:34
1	Y 371.029	1056145.4	1056145.4	99.653	%	09:51:34
2	Sc RADIAL	122763.2	122763.2	100	%	09:51:14
2	Al 396.153Radial†	264836.0	264555.1	[50000]	µg/L	09:51:14
2	Ca 317.933Radial†	533036.8	532013.6	[50000]	µg/L	09:51:14
2	Fe 238.204 Radial†	206115.7	205774.3	[20000]	µg/L	09:51:14
2	Mg 279.077 IEC†	70519.0	70378.1	[50000]	µg/L	09:51:14
2	Na 589.592 Radial†	141283.1	140834.4	[20000]	µg/L	09:51:14
2	Sc 361.383	1599456.5	1599456.5	99.061	%	09:51:37
2	Y 371.029	1041958.3	1041958.3	98.315	%	09:51:37
3	Sc RADIAL	122982.8	122982.8	100	%	09:51:16
3	Al 396.153Radial†	264110.1	263359.1	[50000]	µg/L	09:51:16
3	Ca 317.933Radial†	529359.6	527397.0	[50000]	µg/L	09:51:16
3	Fe 238.204 Radial†	205189.1	204482.9	[20000]	µg/L	09:51:16
3	Mg 279.077 IEC†	70295.3	70029.3	[50000]	µg/L	09:51:16
3	Na 589.592 Radial†	140570.4	139871.9	[20000]	µg/L	09:51:16
3	Sc 361.383	1606301.1	1606301.1	99.484	%	09:51:40
3	Y 371.029	1045380.2	1045380.2	98.638	%	09:51:40

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1608982.6	11112.28	0.69%	99.651	%
Sc RADIAL	122951.0	174.13	0.14%	100	%
Y 371.029	1047828.0	7403.54	0.71%	98.868	%
Al 396.153Radial†	264012.1	605.53	0.23%	[50000]	µg/L
Ca 317.933Radial†	530467.1	2658.85	0.50%	[50000]	µg/L
Fe 238.204 Radial†	205455.9	859.27	0.42%	[20000]	µg/L
Mg 279.077 IEC†	70369.9	336.50	0.48%	[50000]	µg/L
Na 589.592 Radial†	140430.4	499.54	0.36%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	248.9	0.00000	0.999977	
Al 396.153Radial	3	Lin Thru 0	0.0	5.279	0.00000	0.999999	
As 188.979	3	Lin Thru 0	0.0	2.870	0.00000	0.999987	
B 249.677	3	Lin Thru 0	0.0	57.53	0.00000	0.999981	
Ba 233.527	3	Lin Thru 0	0.0	197.4	0.00000	0.999987	
Be 313.107	3	Lin Thru 0	0.0	3074	0.00000	0.999999	
Ca 317.933Radial	3	Lin Thru 0	0.0	10.61	0.00000	0.999999	
Cd 226.502	3	Lin Thru 0	0.0	119.4	0.00000	0.999987	
Co 228.616	3	Lin Thru 0	0.0	57.46	0.00000	0.999995	
Cr 267.716	3	Lin Thru 0	0.0	103.0	0.00000	0.999982	
Cu 324.752	3	Lin Thru 0	0.0	236.1	0.00000	0.999955	
Fe 238.204 Radia	2	Lin Thru 0	0.0	10.26	0.00000	0.999996	
K 766.490 Radial	3	Lin Thru 0	0.0	2.673	0.00000	0.999995	
Mg 279.077 IEC	3	Lin Thru 0	0.0	1.407	0.00000	0.999997	
Mn 257.610	3	Lin Thru 0	0.0	627.0	0.00000	0.999988	
Mo 202.031	3	Lin Thru 0	0.0	27.11	0.00000	1.000000	
Na 589.592 Radia	2	Lin Thru 0	0.0	7.011	0.00000	0.999996	

Ni 231.604	3	Lin Thru 0	0.0	64.49	0.00000	0.999991
P 214.914	3	Lin Thru 0	0.0	3.644	0.00000	0.999998
Pb 220.353	3	Lin Thru 0	0.0	13.40	0.00000	0.999999
S 181.975 Axial	3	Lin Thru 0	0.0	1.106	0.00000	0.999985
Sb 206.836	3	Lin Thru 0	0.0	6.714	0.00000	0.999997
Se 196.026	3	Lin Thru 0	0.0	2.305	0.00000	0.999993
SiO2	3	Lin Thru 0	0.0	8.886	0.00000	0.999996
Si 251.611	3	Lin Thru 0	0.0	56.75	0.00000	0.999995
Sn 189.927	3	Lin Thru 0	0.0	11.40	0.00000	0.999999
Sr 421.552	3	Lin Thru 0	0.0	455.1	0.00000	0.999972
Ti 334.940	3	Lin Thru 0	0.0	939.2	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	6.105	0.00000	0.999994
U 409.014	3	Lin Thru 0	0.0	17.52	0.00000	0.999987
V 292.402	3	Lin Thru 0	0.0	166.6	0.00000	0.999977
Zn 213.857	3	Lin Thru 0	0.0	141.3	0.00000	0.999986

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 4/30/2010 9:51:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122033.1	122033.1	99.5	%			09:52:19
1	Al 396.153Radial†	26464.8	26641.1	5019.6	µg/L	5019.6	ppb	09:52:19
1	Ca 317.933Radial†	54063.5	53964.3	5088.0	µg/L	5088.0	ppb	09:52:19
1	Fe 238.204 Radial†	53292.5	53461.3	5211.7	µg/L	5211.7	ppb	09:52:19
1	K 766.490 Radial†	8532.7	6879.4	2571.0	µg/L	2571.0	ppb	09:52:19
1	Mg 279.077 IEC†	7073.4	7054.4	5024.7	µg/L	5024.7	ppb	09:52:19
1	Na 589.592 Radial†	17611.9	17423.6	2482.8	µg/L	2482.8	ppb	09:52:19
1	Sr 421.552†	244149.7	245418.7	539.20	µg/L	539.20	ppb	09:52:17
1	Sc 361.383	1631011.0	1631011.0	101.01	%			09:52:32
1	Y 371.029	1066561.4	1066561.4	100.64	%			09:52:32
1	Ag 328.068†	64122.6	61486.1	253.24	µg/L	253.24	ppb	09:52:32
1	As 188.979†	1370.7	1392.5	492.92	µg/L	492.92	ppb	09:52:52
1	B 249.677†	31771.4	29374.5	508.76	µg/L	508.76	ppb	09:52:32
1	Ba 233.527†	101281.3	100569.8	509.97	µg/L	509.97	ppb	09:52:32
1	Be 313.107†	793760.0	786546.7	256.01	µg/L	256.01	ppb	09:52:32
1	Cd 226.502†	58158.2	57758.4	483.39	µg/L	483.39	ppb	09:52:32
1	Co 228.616†	29765.5	29701.5	517.23	µg/L	517.23	ppb	09:52:52
1	Cr 267.716†	53260.9	52520.5	509.67	µg/L	509.67	ppb	09:52:32
1	Cu 324.752†	123519.5	118763.7	504.55	µg/L	504.55	ppb	09:52:32
1	Mn 257.610†	318798.7	315476.4	502.95	µg/L	502.95	ppb	09:52:32
1	Mo 202.031†	15868.8	15723.3	580.55	µg/L	580.55	ppb	09:52:52
1	Ni 231.604†	32396.7	32142.9	498.40	µg/L	498.40	ppb	09:52:52
1	P 214.914†	9487.1	9392.6	2568.5	µg/L	2568.5	ppb	09:52:52
1	Pb 220.353†	7099.6	6935.3	519.59	µg/L	519.59	ppb	09:52:52
1	S 181.975 Axial†	2979.5	2881.2	2611.0	µg/L	2611.0	ppb	09:52:52
1	Sb 206.836†	3521.8	3370.2	504.11	µg/L	504.11	ppb	09:52:52
1	Se 196.026†	6026.1	5926.7	2570	µg/L	2570	ppb	09:52:52
1	SiO2†	93937.9	90915.0	10207	µg/L	10207	ppb	09:52:32
1	Si 251.611†	275662.4	272225.0	4785.3	µg/L	4785.3	ppb	09:52:32
1	Sn 189.927†	6053.4	6016.5	529.50	µg/L	529.50	ppb	09:52:52
1	Ti 334.940†	473509.8	467664.0	497.30	µg/L	497.30	ppb	09:52:32
1	Tl 190.801†	3054.6	3179.0	528.03	µg/L	528.03	ppb	09:52:52
1	U 409.014†	8397.9	8334.3	505.97	µg/L	505.97	ppb	09:52:32
1	V 292.402†	83317.7	82330.8	501.82	µg/L	501.82	ppb	09:52:32
1	Zn 213.857†	75197.8	70927.6	497.97	µg/L	497.97	ppb	09:52:32
2	Sc RADIAL	121978.1	121978.1	99.5	%			09:52:23
2	Al 396.153Radial†	26631.8	26821.0	5053.7	µg/L	5053.7	ppb	09:52:23
2	Ca 317.933Radial†	54430.6	54357.9	5125.1	µg/L	5125.1	ppb	09:52:23
2	Fe 238.204 Radial†	53675.5	53870.4	5251.6	µg/L	5251.6	ppb	09:52:23
2	K 766.490 Radial†	8648.7	6999.9	2616.1	µg/L	2616.1	ppb	09:52:23
2	Mg 279.077 IEC†	7095.3	7079.6	5042.6	µg/L	5042.6	ppb	09:52:23
2	Na 589.592 Radial†	17759.5	17580.0	2505.0	µg/L	2505.0	ppb	09:52:23
2	Sr 421.552†	246922.2	248316.2	545.56	µg/L	545.56	ppb	09:52:21
2	Sc 361.383	1623103.7	1623103.7	100.53	%			09:52:55
2	Y 371.029	1062258.6	1062258.6	100.23	%			09:52:55
2	Ag 328.068†	63798.7	61473.1	253.18	µg/L	253.18	ppb	09:52:55
2	As 188.979†	1345.2	1373.7	486.35	µg/L	486.35	ppb	09:53:15
2	B 249.677†	31714.8	29471.4	510.45	µg/L	510.45	ppb	09:52:55
2	Ba 233.527†	100660.7	100440.9	509.32	µg/L	509.32	ppb	09:52:55
2	Be 313.107†	786865.7	783516.5	255.03	µg/L	255.03	ppb	09:52:55
2	Cd 226.502†	57549.1	57433.0	480.66	µg/L	480.66	ppb	09:52:55
2	Co 228.616†	29495.5	29576.5	515.05	µg/L	515.05	ppb	09:53:15
2	Cr 267.716†	52544.7	52064.9	505.25	µg/L	505.25	ppb	09:52:55
2	Cu 324.752†	122720.2	118564.3	503.70	µg/L	503.70	ppb	09:52:55
2	Mn 257.610†	316159.3	314388.3	501.22	µg/L	501.22	ppb	09:52:55
2	Mo 202.031†	15785.7	15717.1	580.32	µg/L	580.32	ppb	09:53:15
2	Ni 231.604†	32106.5	32010.4	496.34	µg/L	496.34	ppb	09:53:15
2	P 214.914†	9422.7	9374.3	2563.4	µg/L	2563.4	ppb	09:53:15
2	Pb 220.353†	7026.3	6896.6	516.71	µg/L	516.71	ppb	09:53:15

2	S 181.975 Axial†	2942.9	2859.2	2591.1 µg/L	2591.1 ppb	09:53:15
2	Sb 206.836†	3508.7	3374.1	504.74 µg/L	504.74 ppb	09:53:15
2	Se 196.026†	5955.1	5885.1	2560 µg/L	2560 ppb	09:53:15
2	SiO2†	93680.1	91111.6	10229 µg/L	10229 ppb	09:52:55
2	Si 251.611†	273816.4	271718.1	4776.4 µg/L	4776.4 ppb	09:52:55
2	Sn 189.927†	5988.2	5980.8	526.36 µg/L	526.36 ppb	09:53:15
2	Ti 334.940†	470576.0	467029.2	496.63 µg/L	496.63 ppb	09:52:55
2	Tl 190.801†	3033.6	3172.8	527.01 µg/L	527.01 ppb	09:53:15
2	U 409.014†	8209.1	8187.0	497.53 µg/L	497.53 ppb	09:52:55
2	V 292.402†	82865.9	82283.3	501.50 µg/L	501.50 ppb	09:52:55
2	Zn 213.857†	74284.4	70381.5	494.11 µg/L	494.11 ppb	09:52:55
3	Sc RADIAL	122479.6	122479.6	99.9 %		09:52:27
3	Al 396.153Radial†	26846.9	26926.7	5073.5 µg/L	5073.5 ppb	09:52:27
3	Ca 317.933Radial†	54467.1	54170.4	5107.4 µg/L	5107.4 ppb	09:52:27
3	Fe 238.204 Radial†	53688.3	53662.4	5231.3 µg/L	5231.3 ppb	09:52:27
3	K 766.490 Radial†	8592.0	6907.5	2581.5 µg/L	2581.5 ppb	09:52:27
3	Mg 279.077 IEC†	7093.0	7048.0	5020.3 µg/L	5020.3 ppb	09:52:27
3	Na 589.592 Radial†	17649.1	17396.3	2478.9 µg/L	2478.9 ppb	09:52:27
3	Sr 421.552†	241034.4	241406.0	530.38 µg/L	530.38 ppb	09:52:25
3	Sc 361.383	1617791.6	1617791.6	100.20 %		09:53:18
3	Y 371.029	1057950.9	1057950.9	99.824 %		09:53:18
3	Ag 328.068†	63881.1	61763.8	254.38 µg/L	254.38 ppb	09:53:18
3	As 188.979†	1354.9	1387.9	491.30 µg/L	491.30 ppb	09:53:38
3	B 249.677†	31678.2	29538.5	511.60 µg/L	511.60 ppb	09:53:18
3	Ba 233.527†	100682.2	100791.1	511.09 µg/L	511.09 ppb	09:53:18
3	Be 313.107†	786901.2	786122.2	255.88 µg/L	255.88 ppb	09:53:18
3	Cd 226.502†	57598.8	57670.6	482.66 µg/L	482.66 ppb	09:53:18
3	Co 228.616†	29623.0	29800.1	518.95 µg/L	518.95 ppb	09:53:38
3	Cr 267.716†	52635.1	52326.7	507.78 µg/L	507.78 ppb	09:53:18
3	Cu 324.752†	122479.9	118725.4	504.40 µg/L	504.40 ppb	09:53:18
3	Mn 257.610†	315523.1	314786.1	501.85 µg/L	501.85 ppb	09:53:18
3	Mo 202.031†	15850.0	15832.9	584.59 µg/L	584.59 ppb	09:53:38
3	Ni 231.604†	32322.2	32330.6	501.31 µg/L	501.31 ppb	09:53:38
3	P 214.914†	9466.4	9448.6	2583.8 µg/L	2583.8 ppb	09:53:38
3	Pb 220.353†	7080.6	6973.8	522.47 µg/L	522.47 ppb	09:53:38
3	S 181.975 Axial†	2975.9	2901.7	2629.6 µg/L	2629.6 ppb	09:53:38
3	Sb 206.836†	3515.2	3392.1	507.45 µg/L	507.45 ppb	09:53:38
3	Se 196.026†	5996.7	5946.0	2580 µg/L	2580 ppb	09:53:38
3	SiO2†	93697.5	91435.0	10265 µg/L	10265 ppb	09:53:18
3	Si 251.611†	274035.6	272831.3	4795.9 µg/L	4795.9 ppb	09:53:18
3	Sn 189.927†	6035.9	6048.0	532.26 µg/L	532.26 ppb	09:53:38
3	Ti 334.940†	469553.6	467545.9	497.17 µg/L	497.17 ppb	09:53:18
3	Tl 190.801†	3047.0	3196.1	530.82 µg/L	530.82 ppb	09:53:38
3	U 409.014†	8514.7	8518.8	516.53 µg/L	516.53 ppb	09:53:18
3	V 292.402†	82739.0	82427.3	502.43 µg/L	502.43 ppb	09:53:18
3	Zn 213.857†	74257.9	70597.8	495.61 µg/L	495.61 ppb	09:53:18

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1623968.8	100.58	%	0.412				0.41%
Sc RADIAL	122163.6	99.6	%	0.22				0.23%
Y 371.029	1062256.9	100.23	%	0.406				0.41%
Ag 328.068†	61574.3	253.60	µg/L	0.676	253.60	ppb	0.676	0.27%
QC value within limits for Ag 328.068 Recovery = 101.44%								
Al 396.153Radial†	26796.3	5048.9	µg/L	27.27	5048.9	ppb	27.27	0.54%
QC value within limits for Al 396.153Radial Recovery = 100.98%								
As 188.979†	1384.7	490.19	µg/L	3.424	490.19	ppb	3.424	0.70%
QC value within limits for As 188.979 Recovery = 98.04%								
B 249.677†	29461.4	510.27	µg/L	1.431	510.27	ppb	1.431	0.28%
QC value within limits for B 249.677 Recovery = 102.05%								
Ba 233.527†	100600.6	510.13	µg/L	0.899	510.13	ppb	0.899	0.18%
QC value within limits for Ba 233.527 Recovery = 102.03%								
Be 313.107†	785395.2	255.64	µg/L	0.536	255.64	ppb	0.536	0.21%
QC value within limits for Be 313.107 Recovery = 102.26%								
Ca 317.933Radial†	54164.2	5106.9	µg/L	18.56	5106.9	ppb	18.56	0.36%
QC value within limits for Ca 317.933Radial Recovery = 102.14%								
Cd 226.502†	57620.7	482.24	µg/L	1.413	482.24	ppb	1.413	0.29%
QC value within limits for Cd 226.502 Recovery = 96.45%								
Co 228.616†	29692.7	517.08	µg/L	1.952	517.08	ppb	1.952	0.38%

```
   QC value within limits for Co 228.616  Recovery = 103.42%
Cr 267.716†            52304.0      507.57 µg/L        2.215      507.57 ppb          2.215   0.44%
   QC value within limits for Cr 267.716  Recovery = 101.51%
Cu 324.752†           118684.5      504.22 µg/L        0.452      504.22 ppb          0.452   0.09%
   QC value within limits for Cu 324.752  Recovery = 100.84%
Fe 238.204 Radial†     53664.7      5231.5 µg/L        19.94      5231.5 ppb          19.94   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.63%
K 766.490 Radial†       6928.9      2589.5 µg/L        23.58      2589.5 ppb          23.58   0.91%
   QC value within limits for K 766.490 Radial  Recovery = 103.58%
Mg 279.077 IEC†         7060.7      5029.2 µg/L        11.82      5029.2 ppb          11.82   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.58%
Mn 257.610†           314883.6      502.01 µg/L        0.878      502.01 ppb          0.878   0.17%
   QC value within limits for Mn 257.610  Recovery = 100.40%
Mo 202.031†            15757.8      581.82 µg/L        2.403      581.82 ppb          2.403   0.41%
   QC value greater than the upper limit for Mo 202.031  Recovery = 116.36%
Na 589.592 Radial†     17466.7      2488.9 µg/L        14.11      2488.9 ppb          14.11   0.57%
   QC value within limits for Na 589.592 Radial  Recovery = 99.55%
Ni 231.604†            32161.3      498.68 µg/L        2.494      498.68 ppb          2.494   0.50%
   QC value within limits for Ni 231.604  Recovery = 99.74%
P 214.914†              9405.2      2571.9 µg/L        10.64      2571.9 ppb          10.64   0.41%
   QC value within limits for P 214.914  Recovery = 102.88%
Pb 220.353†             6935.2      519.59 µg/L        2.881      519.59 ppb          2.881   0.55%
   QC value within limits for Pb 220.353  Recovery = 103.92%
S 181.975 Axial†        2880.7      2610.5 µg/L        19.26      2610.5 ppb          19.26   0.74%
   QC value within limits for S 181.975 Axial  Recovery = 104.42%
Sb 206.836†             3378.8      505.43 µg/L        1.775      505.43 ppb          1.775   0.35%
   QC value within limits for Sb 206.836  Recovery = 101.09%
Se 196.026†             5919.3        2570 µg/L         13.5        2570 ppb           13.5   0.53%
   QC value within limits for Se 196.026  Recovery = 102.81%
SiO2†                  91153.9       10234 µg/L         29.5       10234 ppb           29.5   0.29%
   QC value within limits for SiO2  Recovery = 95.69%
Si 251.611†           272258.1      4785.9 µg/L         9.77      4785.9 ppb           9.77   0.20%
   QC value within limits for Si 251.611  Recovery = 95.72%
Sn 189.927†             6015.1      529.37 µg/L        2.952      529.37 ppb          2.952   0.56%
   QC value within limits for Sn 189.927  Recovery = 105.87%
Sr 421.552†           245047.0      538.38 µg/L        7.624      538.38 ppb          7.624   1.42%
   QC value within limits for Sr 421.552  Recovery = 107.68%
Ti 334.940†           467413.0      497.03 µg/L        0.356      497.03 ppb          0.356   0.07%
   QC value within limits for Ti 334.940  Recovery = 99.41%
Tl 190.801†             3182.6      528.62 µg/L        1.973      528.62 ppb          1.973   0.37%
   QC value within limits for Tl 190.801  Recovery = 105.72%
U 409.014†              8346.7      506.68 µg/L        9.519      506.68 ppb          9.519   1.88%
   QC value within limits for U 409.014  Recovery = 101.34%
V 292.402†             82347.1      501.92 µg/L        0.475      501.92 ppb          0.475   0.09%
   QC value within limits for V 292.402  Recovery = 100.38%
Zn 213.857†            70635.6      495.90 µg/L        1.943      495.90 ppb          1.943   0.39%
   QC value within limits for Zn 213.857  Recovery = 99.18%
QC Failed.  Continue with analysis.
```

Sequence No.: 7 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 4/30/2010 9:53:46**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122402.9	122402.9	99.8	%			09:54:15
1	Al 396.153Radial†	-36.4	14.9	2.7976	µg/L	2.7976	ppb	09:54:35
1	Ca 317.933Radial†	347.9	-5.8	-0.5503	µg/L	-0.5503	ppb	09:54:35
1	Fe 238.204 Radial†	100.4	17.8	1.7307	µg/L	1.7307	ppb	09:54:35
1	K 766.490 Radial†	1537.5	-153.5	-57.414	µg/L	-57.414	ppb	09:54:15
1	Mg 279.077 IEC†	54.9	2.6	1.8621	µg/L	1.8621	ppb	09:54:35
1	Na 589.592 Radial†	273.1	2.1	0.3576	µg/L	0.3576	ppb	09:54:15
1	Sr 421.552†	-137.6	-21.2	-0.0466	µg/L	-0.0466	ppb	09:54:15
1	Sc 361.383	1598002.5	1598002.5	98.971	%			09:55:23
1	Y 371.029	1048210.5	1048210.5	98.905	%			09:55:23
1	Ag 328.068†	2259.2	290.4	1.1578	µg/L	1.1578	ppb	09:55:25
1	As 188.979†	-45.3	-10.2	-3.5533	µg/L	-3.5533	ppb	09:55:45
1	B 249.677†	2161.9	106.6	1.8523	µg/L	1.8523	ppb	09:55:45
1	Ba 233.527†	-309.9	-7.1	-0.0355	µg/L	-0.0355	ppb	09:55:45
1	Be 313.107†	-833.2	-80.5	-0.0294	µg/L	-0.0294	ppb	09:55:25
1	Cd 226.502†	-185.0	-2.4	-0.0203	µg/L	-0.0203	ppb	09:55:45
1	Co 228.616†	-212.6	20.3	0.3529	µg/L	0.3529	ppb	09:55:45
1	Cr 267.716†	158.2	-45.5	-0.4327	µg/L	-0.4327	ppb	09:55:45
1	Cu 324.752†	3438.2	-40.8	-0.1812	µg/L	-0.1812	ppb	09:55:25
1	Mn 257.610†	119.3	1.1	0.0017	µg/L	0.0017	ppb	09:55:45
1	Mo 202.031†	4.5	18.4	0.6808	µg/L	0.6808	ppb	09:55:45
1	Ni 231.604†	-107.5	-36.9	-0.5717	µg/L	-0.5717	ppb	09:55:45
1	P 214.914†	-10.6	-9.9	-2.7175	µg/L	-2.7175	ppb	09:55:45
1	Pb 220.353†	117.9	26.1	1.9611	µg/L	1.9611	ppb	09:55:45
1	S 181.975 Axial†	62.2	-5.5	-4.9987	µg/L	-4.9987	ppb	09:55:45
1	Sb 206.836†	126.0	11.1	1.6666	µg/L	1.6666	ppb	09:55:45
1	Se 196.026†	32.5	-6.1	-2.64	µg/L	-2.64	ppb	09:55:45
1	SiO2†	2095.8	38.5	4.3085	µg/L	4.3085	ppb	09:55:45
1	Si 251.611†	676.7	15.8	0.2699	µg/L	0.2699	ppb	09:55:45
1	Sn 189.927†	-23.7	-0.1	-0.0053	µg/L	-0.0053	ppb	09:55:45
1	Ti 334.940†	1232.4	156.7	0.1712	µg/L	0.1712	ppb	09:55:25
1	Tl 190.801†	-161.4	-8.0	-1.3102	µg/L	-1.3102	ppb	09:55:45
1	U 409.014†	-206.2	-187.6	-10.689	µg/L	-10.689	ppb	09:55:25
1	V 292.402†	207.4	59.7	0.3563	µg/L	0.3563	ppb	09:55:25
1	Zn 213.857†	3491.5	13.0	0.0961	µg/L	0.0961	ppb	09:55:45
2	Sc RADIAL	122002.7	122002.7	99.5	%			09:54:37
2	Al 396.153Radial†	-54.8	-3.6	-0.7014	µg/L	-0.7014	ppb	09:54:57
2	Ca 317.933Radial†	368.9	16.4	1.5480	µg/L	1.5480	ppb	09:54:57
2	Fe 238.204 Radial†	86.1	3.8	0.3696	µg/L	0.3696	ppb	09:54:57
2	K 766.490 Radial†	1707.5	22.4	8.3978	µg/L	8.3978	ppb	09:54:37
2	Mg 279.077 IEC†	77.4	25.4	18.069	µg/L	18.069	ppb	09:54:57
2	Na 589.592 Radial†	258.2	-11.9	-1.7020	µg/L	-1.7020	ppb	09:54:37
2	Sr 421.552†	-181.7	-66.1	-0.1451	µg/L	-0.1451	ppb	09:54:37
2	Sc 361.383	1625224.3	1625224.3	100.66	%			09:55:48
2	Y 371.029	1065282.9	1065282.9	100.52	%			09:55:48
2	Ag 328.068†	2028.0	22.5	0.0859	µg/L	0.0859	ppb	09:55:50
2	As 188.979†	-42.2	-6.4	-2.2257	µg/L	-2.2257	ppb	09:56:10
2	B 249.677†	2150.6	58.8	1.0219	µg/L	1.0219	ppb	09:56:10
2	Ba 233.527†	-253.9	53.8	0.2728	µg/L	0.2728	ppb	09:56:10
2	Be 313.107†	-549.4	215.5	0.0680	µg/L	0.0680	ppb	09:55:50
2	Cd 226.502†	-157.2	28.4	0.2379	µg/L	0.2379	ppb	09:56:10
2	Co 228.616†	-234.2	2.4	0.0415	µg/L	0.0415	ppb	09:56:10
2	Cr 267.716†	206.0	-0.7	-0.0012	µg/L	-0.0012	ppb	09:56:10
2	Cu 324.752†	3515.8	-22.0	-0.0983	µg/L	-0.0983	ppb	09:55:50
2	Mn 257.610†	245.3	124.3	0.1975	µg/L	0.1975	ppb	09:56:10
2	Mo 202.031†	-3.3	10.6	0.3904	µg/L	0.3904	ppb	09:56:10
2	Ni 231.604†	-65.1	7.0	0.1088	µg/L	0.1088	ppb	09:56:10
2	P 214.914†	-4.2	-3.3	-0.9198	µg/L	-0.9198	ppb	09:56:10
2	Pb 220.353†	93.0	-0.6	-0.0392	µg/L	-0.0392	ppb	09:56:10

2	S 181.975 Axial†	65.2	-3.6	-3.2820 µg/L	-3.2820 ppb	09:56:10
2	Sb 206.836†	118.3	1.3	0.2026 µg/L	0.2026 ppb	09:56:10
2	Se 196.026†	26.6	-12.4	-5.39 µg/L	-5.39 ppb	09:56:10
2	SiO2†	2099.8	7.0	0.7772 µg/L	0.7772 ppb	09:56:10
2	Si 251.611†	700.8	28.3	0.4932 µg/L	0.4932 ppb	09:56:10
2	Sn 189.927†	-23.7	0.3	0.0305 µg/L	0.0305 ppb	09:56:10
2	Ti 334.940†	1181.5	85.2	0.0922 µg/L	0.0922 ppb	09:55:50
2	Tl 190.801†	-157.4	-1.3	-0.2135 µg/L	-0.2135 ppb	09:56:10
2	U 409.014†	-145.7	-124.0	-7.0559 µg/L	-7.0559 ppb	09:55:50
2	V 292.402†	209.8	58.6	0.3511 µg/L	0.3511 ppb	09:55:50
2	Zn 213.857†	3537.0	-0.8	-0.0063 µg/L	-0.0063 ppb	09:56:10
3	Sc RADIAL	120313.1	120313.1	98.1 %		09:54:59
3	Al 396.153Radial†	-22.1	28.9	5.4538 µg/L	5.4538 ppb	09:55:20
3	Ca 317.933Radial†	380.0	32.9	3.1017 µg/L	3.1017 ppb	09:55:20
3	Fe 238.204 Radial†	94.3	13.3	1.3005 µg/L	1.3005 ppb	09:55:20
3	K 766.490 Radial†	1700.8	39.7	14.844 µg/L	14.844 ppb	09:54:59
3	Mg 279.077 IEC†	59.1	7.8	5.5861 µg/L	5.5861 ppb	09:55:20
3	Na 589.592 Radial†	154.1	-114.3	-16.321 µg/L	-16.321 ppb	09:54:59
3	Sr 421.552†	22.0	139.0	0.3055 µg/L	0.3055 ppb	09:54:59
3	Sc 361.383	1615382.3	1615382.3	100.05 %		09:56:12
3	Y 371.029	1059330.0	1059330.0	99.954 %		09:56:12
3	Ag 328.068†	2091.5	98.2	0.3933 µg/L	0.3933 ppb	09:56:14
3	As 188.979†	-34.5	1.1	0.3834 µg/L	0.3834 ppb	09:56:34
3	B 249.677†	2132.5	53.7	0.9328 µg/L	0.9328 ppb	09:56:34
3	Ba 233.527†	-258.9	47.2	0.2393 µg/L	0.2393 ppb	09:56:34
3	Be 313.107†	-466.3	295.3	0.0952 µg/L	0.0952 ppb	09:56:14
3	Cd 226.502†	-164.6	20.0	0.1671 µg/L	0.1671 ppb	09:56:34
3	Co 228.616†	-218.8	16.3	0.2842 µg/L	0.2842 ppb	09:56:34
3	Cr 267.716†	202.2	-3.2	-0.0289 µg/L	-0.0289 ppb	09:56:34
3	Cu 324.752†	3664.1	147.6	0.6231 µg/L	0.6231 ppb	09:56:14
3	Mn 257.610†	185.5	66.0	0.1050 µg/L	0.1050 ppb	09:56:34
3	Mo 202.031†	-3.4	10.5	0.3861 µg/L	0.3861 ppb	09:56:34
3	Ni 231.604†	-93.9	-22.1	-0.3431 µg/L	-0.3431 ppb	09:56:34
3	P 214.914†	-10.7	-9.9	-2.7186 µg/L	-2.7186 ppb	09:56:34
3	Pb 220.353†	95.8	2.8	0.2104 µg/L	0.2104 ppb	09:56:34
3	S 181.975 Axial†	64.2	-4.2	-3.7911 µg/L	-3.7911 ppb	09:56:34
3	Sb 206.836†	119.8	3.6	0.5356 µg/L	0.5356 ppb	09:56:34
3	Se 196.026†	33.1	-5.8	-2.50 µg/L	-2.50 ppb	09:56:34
3	SiO2†	2086.8	6.7	0.7437 µg/L	0.7437 ppb	09:56:34
3	Si 251.611†	735.3	67.0	1.1766 µg/L	1.1766 ppb	09:56:34
3	Sn 189.927†	-25.3	-1.4	-0.1249 µg/L	-0.1249 ppb	09:56:34
3	Ti 334.940†	1166.8	77.6	0.0834 µg/L	0.0834 ppb	09:56:14
3	Tl 190.801†	-154.6	0.6	0.0945 µg/L	0.0945 ppb	09:56:34
3	U 409.014†	-69.8	-49.0	-2.7891 µg/L	-2.7891 ppb	09:56:14
3	V 292.402†	180.6	30.7	0.1861 µg/L	0.1861 ppb	09:56:14
3	Zn 213.857†	3544.8	28.4	0.2028 µg/L	0.2028 ppb	09:56:34

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1612869.7	99.891	%	0.8537				0.85%
Sc RADIAL	121572.9	99.2	%	0.90				0.91%
Y 371.029	1057607.8	99.791	%	0.8176				0.82%
Ag 328.068†	137.1	0.5457	µg/L	0.55194	0.5457	ppb	0.55194	101.15%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	13.4	2.5167	µg/L	3.08721	2.5167	ppb	3.08721	122.67%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.2	-1.7985	µg/L	2.00282	-1.7985	ppb	2.00282	111.36%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	73.1	1.2690	µg/L	0.50710	1.2690	ppb	0.50710	39.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	31.3	0.1589	µg/L	0.16913	0.1589	ppb	0.16913	106.46%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	143.4	0.0446	µg/L	0.06552	0.0446	ppb	0.06552	146.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	14.5	1.3665	µg/L	1.83275	1.3665	ppb	1.83275	134.12%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	15.3	0.1282	µg/L	0.13343	0.1282	ppb	0.13343	104.05%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	13.0	0.2262	µg/L	0.16357	0.2262	ppb	0.16357	72.32%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -16.5     -0.1543 µg/L       0.24151     -0.1543 ppb        0.24151 156.57%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               28.3      0.1145 µg/L       0.44238      0.1145 ppb        0.44238 386.31%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        11.6      1.1336 µg/L       0.69576      1.1336 ppb        0.69576  61.38%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -30.4     -11.391 µg/L       39.9876     -11.391 ppb        39.9876 351.04%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           11.9      8.5057 µg/L       8.48861      8.5057 ppb        8.48861  99.80%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               63.8      0.1014 µg/L       0.09796      0.1014 ppb        0.09796  96.60%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               13.2      0.4858 µg/L       0.16895      0.4858 ppb        0.16895  34.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -41.4     -5.8885 µg/L       9.09340     -5.8885 ppb        9.09340 154.43%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -17.3     -0.2687 µg/L       0.34633     -0.2687 ppb        0.34633 128.91%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -7.7     -2.1186 µg/L       1.03824     -2.1186 ppb        1.03824  49.01%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                9.4      0.7108 µg/L       1.08999      0.7108 ppb        1.08999 153.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.5     -4.0239 µg/L       0.88169     -4.0239 ppb        0.88169  21.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.3      0.8016 µg/L       0.76738      0.8016 ppb        0.76738  95.73%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -8.1       -3.51 µg/L         1.631       -3.51 ppb          1.631  46.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     17.4      1.9432 µg/L       2.04854      1.9432 ppb        2.04854 105.42%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               37.1      0.6466 µg/L       0.47240      0.6466 ppb        0.47240  73.06%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.4     -0.0333 µg/L       0.08139     -0.0333 ppb        0.08139 244.76%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               17.3      0.0379 µg/L       0.23691      0.0379 ppb        0.23691 625.23%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              106.5      0.1156 µg/L       0.04834      0.1156 ppb        0.04834  41.82%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -2.9     -0.4764 µg/L       0.73831     -0.4764 ppb        0.73831 154.98%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -120.2     -6.8446 µg/L       3.95414     -6.8446 ppb        3.95414  57.77%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                49.7      0.2978 µg/L       0.09681      0.2978 ppb        0.09681  32.51%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               13.6      0.0976 µg/L       0.10455      0.0976 ppb        0.10455 107.18%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 4/30/2010 9:56:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122250.3	122250.3	99.7	%			09:57:12
1	Al 396.153Radial†	967.4	1021.6	193.05	µg/L	193.05	ppb	09:57:32
1	Ca 317.933Radial†	2491.4	2144.4	202.18	µg/L	202.18	ppb	09:57:32
1	Fe 238.204 Radial†	1107.9	1028.4	100.25	µg/L	100.25	ppb	09:57:32
1	K 766.490 Radial†	1987.6	299.8	112.03	µg/L	112.03	ppb	09:57:12
1	Mg 279.077 IEC†	493.1	442.1	314.44	µg/L	314.44	ppb	09:57:32
1	Na 589.592 Radial†	2353.8	2089.3	297.89	µg/L	297.89	ppb	09:57:12
1	Sr 421.552†	2158.3	2281.2	5.0108	µg/L	5.0108	ppb	09:57:12
1	Sc 361.383	1595575.0	1595575.0	98.820	%			09:58:20
1	Y 371.029	1048236.8	1048236.8	98.907	%			09:58:20
1	Ag 328.068†	3324.2	1371.6	5.6263	µg/L	5.6263	ppb	09:58:22
1	As 188.979†	48.8	85.0	29.714	µg/L	29.714	ppb	09:58:42
1	B 249.677†	4949.7	2931.1	50.928	µg/L	50.928	ppb	09:58:22
1	Ba 233.527†	705.8	1020.2	5.1739	µg/L	5.1739	ppb	09:58:42
1	Be 313.107†	14414.1	15347.5	5.0084	µg/L	5.0084	ppb	09:58:22
1	Cd 226.502†	424.8	614.5	5.1375	µg/L	5.1375	ppb	09:58:42
1	Co 228.616†	53.4	289.2	5.0330	µg/L	5.0330	ppb	09:58:42
1	Cr 267.716†	693.0	496.0	4.7734	µg/L	4.7734	ppb	09:58:42
1	Cu 324.752†	5828.2	2383.0	10.161	µg/L	10.161	ppb	09:58:22
1	Mn 257.610†	6454.2	6411.8	10.214	µg/L	10.214	ppb	09:58:42
1	Mo 202.031†	260.6	277.6	10.253	µg/L	10.253	ppb	09:58:42
1	Ni 231.604†	221.5	295.8	4.5868	µg/L	4.5868	ppb	09:58:42
1	P 214.914†	529.8	536.9	147.18	µg/L	147.18	ppb	09:58:42
1	Pb 220.353†	234.6	144.5	10.786	µg/L	10.786	ppb	09:58:42
1	S 181.975 Axial†	171.8	105.5	95.525	µg/L	95.525	ppb	09:58:42
1	Sb 206.836†	166.1	51.9	7.8215	µg/L	7.8215	ppb	09:58:42
1	Se 196.026†	100.7	63.0	27.4	µg/L	27.4	ppb	09:58:42
1	SiO2†	3972.6	1940.9	218.00	µg/L	218.00	ppb	09:58:42
1	Si 251.611†	6319.5	5727.0	100.71	µg/L	100.71	ppb	09:58:22
1	Sn 189.927†	75.4	100.1	8.8031	µg/L	8.8031	ppb	09:58:42
1	Ti 334.940†	5857.8	4839.1	5.1092	µg/L	5.1092	ppb	09:58:22
1	Tl 190.801†	-40.3	114.3	18.805	µg/L	18.805	ppb	09:58:42
1	U 409.014†	877.5	908.7	52.218	µg/L	52.218	ppb	09:58:22
1	V 292.402†	981.5	843.4	5.2100	µg/L	5.2100	ppb	09:58:22
1	Zn 213.857†	5070.4	1616.2	11.393	µg/L	11.393	ppb	09:58:42
2	Sc RADIAL	120621.9	120621.9	98.4	%			09:57:34
2	Al 396.153Radial†	972.5	1040.0	196.52	µg/L	196.52	ppb	09:57:54
2	Ca 317.933Radial†	2526.7	2214.0	208.75	µg/L	208.75	ppb	09:57:54
2	Fe 238.204 Radial†	1122.0	1057.7	103.11	µg/L	103.11	ppb	09:57:54
2	K 766.490 Radial†	2071.7	412.3	154.09	µg/L	154.09	ppb	09:57:34
2	Mg 279.077 IEC†	477.2	432.6	307.69	µg/L	307.69	ppb	09:57:54
2	Na 589.592 Radial†	2337.6	2104.7	300.04	µg/L	300.04	ppb	09:57:34
2	Sr 421.552†	2112.7	2264.1	4.9730	µg/L	4.9730	ppb	09:57:34
2	Sc 361.383	1610773.0	1610773.0	99.761	%			09:58:44
2	Y 371.029	1058731.2	1058731.2	99.897	%			09:58:44
2	Ag 328.068†	3263.6	1279.2	5.2550	µg/L	5.2550	ppb	09:58:46
2	As 188.979†	37.1	72.7	25.450	µg/L	25.450	ppb	09:59:06
2	B 249.677†	4981.4	2915.6	50.659	µg/L	50.659	ppb	09:58:46
2	Ba 233.527†	707.3	1015.0	5.1477	µg/L	5.1477	ppb	09:59:06
2	Be 313.107†	14831.3	15628.1	5.0992	µg/L	5.0992	ppb	09:58:46
2	Cd 226.502†	423.0	608.6	5.0882	µg/L	5.0882	ppb	09:59:06
2	Co 228.616†	44.3	279.5	4.8651	µg/L	4.8651	ppb	09:59:06
2	Cr 267.716†	695.5	491.8	4.7341	µg/L	4.7341	ppb	09:59:06
2	Cu 324.752†	5882.3	2381.6	10.154	µg/L	10.154	ppb	09:58:46
2	Mn 257.610†	6453.2	6349.2	10.114	µg/L	10.114	ppb	09:59:06
2	Mo 202.031†	265.8	280.4	10.355	µg/L	10.355	ppb	09:59:06
2	Ni 231.604†	233.7	306.0	4.7444	µg/L	4.7444	ppb	09:59:06
2	P 214.914†	534.0	536.0	146.96	µg/L	146.96	ppb	09:59:06
2	Pb 220.353†	226.1	133.7	9.9858	µg/L	9.9858	ppb	09:59:06

2	S 181.975 Axial†	173.6	105.6	95.635 µg/L	95.635 ppb	09:59:06
2	Sb 206.836†	168.7	52.9	7.9719 µg/L	7.9719 ppb	09:59:06
2	Se 196.026†	112.6	74.0	32.2 µg/L	32.2 ppb	09:59:06
2	SiO2†	3956.3	1886.6	211.88 µg/L	211.88 ppb	09:59:06
2	Si 251.611†	6417.5	5764.9	101.38 µg/L	101.38 ppb	09:58:46
2	Sn 189.927†	80.7	104.8	9.2121 µg/L	9.2121 ppb	09:59:06
2	Ti 334.940†	5964.7	4890.4	5.1651 µg/L	5.1651 ppb	09:58:46
2	Tl 190.801†	-20.6	134.4	22.107 µg/L	22.107 ppb	09:59:06
2	U 409.014†	862.9	885.7	50.914 µg/L	50.914 ppb	09:58:46
2	V 292.402†	1015.2	867.9	5.3565 µg/L	5.3565 ppb	09:58:46
2	Zn 213.857†	5038.5	1535.8	10.822 µg/L	10.822 ppb	09:59:06
3	Sc RADIAL	120855.0	120855.0	98.6 %		09:57:56
3	Al 396.153Radial†	961.6	1027.0	194.06 µg/L	194.06 ppb	09:58:16
3	Ca 317.933Radial†	2506.1	2188.1	206.31 µg/L	206.31 ppb	09:58:16
3	Fe 238.204 Radial†	1122.1	1055.6	102.90 µg/L	102.90 ppb	09:58:16
3	K 766.490 Radial†	1943.5	278.2	103.93 µg/L	103.93 ppb	09:57:56
3	Mg 279.077 IEC†	484.8	439.4	312.51 µg/L	312.51 ppb	09:58:16
3	Na 589.592 Radial†	2303.9	2066.0	294.57 µg/L	294.57 ppb	09:57:56
3	Sr 421.552†	2200.3	2348.8	5.1593 µg/L	5.1593 ppb	09:57:56
3	Sc 361.383	1598878.3	1598878.3	99.025 %		09:59:08
3	Y 371.029	1050201.9	1050201.9	99.092 %		09:59:08
3	Ag 328.068†	3097.4	1135.7	4.6799 µg/L	4.6799 ppb	09:59:10
3	As 188.979†	43.0	79.0	27.626 µg/L	27.626 ppb	09:59:31
3	B 249.677†	4915.8	2886.5	50.153 µg/L	50.153 ppb	09:59:10
3	Ba 233.527†	719.4	1032.5	5.2364 µg/L	5.2364 ppb	09:59:31
3	Be 313.107†	14357.2	15260.0	4.9801 µg/L	4.9801 ppb	09:59:10
3	Cd 226.502†	419.1	607.7	5.0809 µg/L	5.0809 ppb	09:59:31
3	Co 228.616†	46.1	281.6	4.9020 µg/L	4.9020 ppb	09:59:31
3	Cr 267.716†	703.5	505.1	4.8616 µg/L	4.8616 ppb	09:59:31
3	Cu 324.752†	5765.7	2307.7	9.8424 µg/L	9.8424 ppb	09:59:10
3	Mn 257.610†	6406.1	6349.8	10.115 µg/L	10.115 ppb	09:59:31
3	Mo 202.031†	260.9	277.3	10.243 µg/L	10.243 ppb	09:59:31
3	Ni 231.604†	229.9	303.9	4.7120 µg/L	4.7120 ppb	09:59:31
3	P 214.914†	533.3	539.3	147.87 µg/L	147.87 ppb	09:59:31
3	Pb 220.353†	237.4	146.7	10.955 µg/L	10.955 ppb	09:59:31
3	S 181.975 Axial†	173.1	106.4	96.318 µg/L	96.318 ppb	09:59:31
3	Sb 206.836†	175.5	61.0	9.1829 µg/L	9.1829 ppb	09:59:31
3	Se 196.026†	105.8	68.0	29.6 µg/L	29.6 ppb	09:59:31
3	SiO2†	3949.3	1909.1	214.40 µg/L	214.40 ppb	09:59:31
3	Si 251.611†	6162.4	5555.1	97.676 µg/L	97.676 ppb	09:59:10
3	Sn 189.927†	91.8	116.6	10.245 µg/L	10.245 ppb	09:59:31
3	Ti 334.940†	5693.1	4660.5	4.9191 µg/L	4.9191 ppb	09:59:10
3	Tl 190.801†	-31.7	123.1	20.252 µg/L	20.252 ppb	09:59:31
3	U 409.014†	888.8	918.3	52.768 µg/L	52.768 ppb	09:59:10
3	V 292.402†	995.0	855.0	5.2804 µg/L	5.2804 ppb	09:59:10
3	Zn 213.857†	5038.3	1573.1	11.087 µg/L	11.087 ppb	09:59:31

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1601742.1	99.202	%	0.4951				0.50%
Sc RADIAL	121242.4	98.9	%	0.72				0.73%
Y 371.029	1052390.0	99.299	%	0.5264				0.53%
Ag 328.068†	1262.1	5.1871	µg/L	0.47684	5.1871	ppb	0.47684	9.19%
QC value within limits for Ag 328.068 Recovery = 103.74%								
Al 396.153Radial†	1029.5	194.54	µg/L	1.784	194.54	ppb	1.784	0.92%
QC value within limits for Al 396.153Radial Recovery = 97.27%								
As 188.979†	78.9	27.596	µg/L	2.1320	27.596	ppb	2.1320	7.73%
QC value within limits for As 188.979 Recovery = 91.99%								
B 249.677†	2911.1	50.580	µg/L	0.3933	50.580	ppb	0.3933	0.78%
QC value within limits for B 249.677 Recovery = 101.16%								
Ba 233.527†	1022.6	5.1860	µg/L	0.04555	5.1860	ppb	0.04555	0.88%
QC value within limits for Ba 233.527 Recovery = 103.72%								
Be 313.107†	15411.9	5.0292	µg/L	0.06226	5.0292	ppb	0.06226	1.24%
QC value within limits for Be 313.107 Recovery = 100.58%								
Ca 317.933Radial†	2182.2	205.75	µg/L	3.319	205.75	ppb	3.319	1.61%
QC value within limits for Ca 317.933Radial Recovery = 102.87%								
Cd 226.502†	610.3	5.1022	µg/L	0.03082	5.1022	ppb	0.03082	0.60%
QC value within limits for Cd 226.502 Recovery = 102.04%								
Co 228.616†	283.4	4.9334	µg/L	0.08822	4.9334	ppb	0.08822	1.79%

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   QC value within limits for Co 228.616  Recovery = 98.67%
Cr 267.716†              497.6      4.7897 µg/L       0.06532      4.7897 ppb        0.06532   1.36%
   QC value within limits for Cr 267.716  Recovery = 95.79%
Cu 324.752†             2357.4      10.052 µg/L        0.1818      10.052 ppb         0.1818   1.81%
   QC value within limits for Cu 324.752  Recovery = 100.52%
Fe 238.204 Radial†      1047.2      102.09 µg/L         1.593      102.09 ppb          1.593   1.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.09%
K 766.490 Radial†        330.1      123.35 µg/L        26.927      123.35 ppb         26.927  21.83%
   QC value within limits for K 766.490 Radial  Recovery = 82.23%
Mg 279.077 IEC†          438.0      311.55 µg/L         3.472      311.55 ppb          3.472   1.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.85%
Mn 257.610†             6370.3      10.148 µg/L        0.0573      10.148 ppb         0.0573   0.56%
   QC value within limits for Mn 257.610  Recovery = 101.48%
Mo 202.031†              278.4      10.283 µg/L        0.0619      10.283 ppb         0.0619   0.60%
   QC value within limits for Mo 202.031  Recovery = 102.83%
Na 589.592 Radial†      2086.7      297.50 µg/L         2.758      297.50 ppb          2.758   0.93%
   QC value within limits for Na 589.592 Radial  Recovery = 99.17%
Ni 231.604†              301.9      4.6811 µg/L       0.08324      4.6811 ppb        0.08324   1.78%
   QC value within limits for Ni 231.604  Recovery = 93.62%
P 214.914†               537.4      147.33 µg/L         0.473      147.33 ppb          0.473   0.32%
   QC value within limits for P 214.914  Recovery = 98.22%
Pb 220.353†              141.6      10.576 µg/L        0.5178      10.576 ppb         0.5178   4.90%
   QC value within limits for Pb 220.353  Recovery = 105.76%
S 181.975 Axial†         105.8      95.826 µg/L        0.4296      95.826 ppb         0.4296   0.45%
   QC value within limits for S 181.975 Axial  Recovery = 95.83%
Sb 206.836†               55.3      8.3255 µg/L       0.74636      8.3255 ppb        0.74636   8.96%
   QC value within limits for Sb 206.836  Recovery = 83.25%
Se 196.026†               68.3        29.7 µg/L          2.38        29.7 ppb           2.38   8.01%
   QC value within limits for Se 196.026  Recovery = 99.07%
SiO2†                    1912.2      214.76 µg/L         3.075      214.76 ppb          3.075   1.43%
   QC value within limits for SiO2  Recovery = 100.83%
Si 251.611†             5682.3      99.922 µg/L        1.9735      99.922 ppb         1.9735   1.98%
   QC value within limits for Si 251.611  Recovery = 99.92%
Sn 189.927†              107.2      9.4202 µg/L       0.74324      9.4202 ppb        0.74324   7.89%
   QC value within limits for Sn 189.927  Recovery = 94.20%
Sr 421.552†             2298.1      5.0477 µg/L       0.09847      5.0477 ppb        0.09847   1.95%
   QC value within limits for Sr 421.552  Recovery = 100.95%
Ti 334.940†             4796.7      5.0645 µg/L       0.12897      5.0645 ppb        0.12897   2.55%
   QC value within limits for Ti 334.940  Recovery = 101.29%
Tl 190.801†              123.9      20.388 µg/L        1.6550      20.388 ppb         1.6550   8.12%
   QC value within limits for Tl 190.801  Recovery = 101.94%
U 409.014†               904.3      51.967 µg/L        0.9525      51.967 ppb         0.9525   1.83%
   QC value within limits for U 409.014  Recovery = 103.93%
V 292.402†               855.4      5.2823 µg/L       0.07329      5.2823 ppb        0.07329   1.39%
   QC value within limits for V 292.402  Recovery = 105.65%
Zn 213.857†             1575.0      11.101 µg/L        0.2856      11.101 ppb         0.2856   2.57%
   QC value within limits for Zn 213.857  Recovery = 111.01%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 4/30/2010 9:59:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	119181.5	119181.5	97.2	%			10:00:11
1	Al 396.153Radial†	2582274.9	2656592.5	503230	µg/L	503230	ppb	10:00:09
1	Ca 317.933Radial†	4931496.1	5072971.5	478300	µg/L	478300	ppb	10:00:09
1	Fe 238.204 Radial†	1884115.6	1938220.0	188950	µg/L	188950	ppb	10:00:09
1	K 766.490 Radial†	1555.0	-93.9	-276.32	µg/L	-276.32	ppb	10:00:11
1	Mg 279.077 IEC†	696768.5	716755.2	509380	µg/L	509380	ppb	10:00:11
1	Na 589.592 Radial†	507.4	250.6	35.779	µg/L	35.779	ppb	10:00:11
1	Sr 421.552†	5286.9	5555.5	8.4629	µg/L	8.4629	ppb	10:00:11
1	Sc 361.383	1493667.8	1493667.8	92.509	%			10:00:24
1	Y 371.029	967839.2	967839.2	91.321	%			10:00:24
1	Ag 328.068†	4023.8	2357.3	-3.7415	µg/L	-3.7415	ppb	10:00:24
1	As 188.979†	-110.2	-83.5	13.231	µg/L	13.231	ppb	10:00:44
1	B 249.677†	2142.0	237.7	4.1156	µg/L	4.1156	ppb	10:00:24
1	Ba 233.527†	221.6	545.6	0.3474	µg/L	0.3474	ppb	10:00:44
1	Be 313.107†	-186.5	559.8	0.1944	µg/L	0.1944	ppb	10:00:24
1	Cd 226.502†	2226.0	2590.8	1.8278	µg/L	1.8278	ppb	10:00:44
1	Co 228.616†	30.6	268.1	-5.1877	µg/L	-5.1877	ppb	10:00:44
1	Cr 267.716†	117.2	-78.6	-0.4484	µg/L	-0.4484	ppb	10:00:44
1	Cu 324.752†	-3209.2	-6983.9	11.744	µg/L	11.744	ppb	10:00:24
1	Mn 257.610†	13995.3	15009.2	3.2358	µg/L	3.2358	ppb	10:00:24
1	Mo 202.031†	-458.2	-481.4	-0.9789	µg/L	-0.9789	ppb	10:00:44
1	Ni 231.604†	55.9	132.1	2.0489	µg/L	2.0489	ppb	10:00:44
1	P 214.914†	177.6	192.8	36.342	µg/L	36.342	ppb	10:00:44
1	Pb 220.353†	-237.7	-350.0	-1.0455	µg/L	-1.0455	ppb	10:00:44
1	S 181.975 Axial†	128.8	70.9	63.974	µg/L	63.974	ppb	10:00:44
1	Sb 206.836†	168.1	65.5	3.7696	µg/L	3.7696	ppb	10:00:44
1	Se 196.026†	-134.7	-184.4	-14.4	µg/L	-14.4	ppb	10:00:44
1	SiO2†	2066.3	154.5	17.869	µg/L	17.869	ppb	10:00:44
1	Si 251.611†	453.3	-177.9	-2.9078	µg/L	-2.9078	ppb	10:00:44
1	Sn 189.927†	-5.9	17.5	1.6225	µg/L	1.6225	ppb	10:00:44
1	Ti 334.940†	23304.4	24103.0	-3.3832	µg/L	-3.3832	ppb	10:00:24
1	Tl 190.801†	-176.1	-35.2	-5.3529	µg/L	-5.3529	ppb	10:00:44
1	U 409.014†	639.2	711.8	19.333	µg/L	19.333	ppb	10:00:24
1	V 292.402†	2729.0	2800.2	-3.3050	µg/L	-3.3050	ppb	10:00:44
1	Zn 213.857†	6686.2	3712.9	10.121	µg/L	10.121	ppb	10:00:44
2	Sc RADIAL	118400.8	118400.8	96.6	%			10:00:16
2	Al 396.153Radial†	2595826.6	2688141.2	509210	µg/L	509210	ppb	10:00:13
2	Ca 317.933Radial†	4959309.9	5135223.9	484170	µg/L	484170	ppb	10:00:13
2	Fe 238.204 Radial†	1893764.9	1960992.0	191170	µg/L	191170	ppb	10:00:13
2	K 766.490 Radial†	1640.4	5.1	-241.86	µg/L	-241.86	ppb	10:00:16
2	Mg 279.077 IEC†	694354.7	718981.7	510960	µg/L	510960	ppb	10:00:16
2	Na 589.592 Radial†	627.9	378.8	54.025	µg/L	54.025	ppb	10:00:16
2	Sr 421.552†	5272.3	5576.3	8.4627	µg/L	8.4627	ppb	10:00:16
2	Sc 361.383	1513569.6	1513569.6	93.741	%			10:00:47
2	Y 371.029	981003.2	981003.2	92.563	%			10:00:47
2	Ag 328.068†	3839.0	2103.0	-4.9084	µg/L	-4.9084	ppb	10:00:47
2	As 188.979†	-113.2	-85.2	13.155	µg/L	13.155	ppb	10:01:07
2	B 249.677†	2440.6	525.8	9.1241	µg/L	9.1241	ppb	10:00:47
2	Ba 233.527†	308.8	635.4	0.7745	µg/L	0.7745	ppb	10:01:07
2	Be 313.107†	-155.3	595.7	0.2098	µg/L	0.2098	ppb	10:00:47
2	Cd 226.502†	2234.8	2568.6	1.4087	µg/L	1.4087	ppb	10:01:07
2	Co 228.616†	16.0	252.1	-5.5817	µg/L	-5.5817	ppb	10:01:07
2	Cr 267.716†	142.5	-53.3	-0.1544	µg/L	-0.1544	ppb	10:01:07
2	Cu 324.752†	-3099.2	-6820.9	12.811	µg/L	12.811	ppb	10:00:47
2	Mn 257.610†	14074.1	14894.3	2.9839	µg/L	2.9839	ppb	10:00:47
2	Mo 202.031†	-441.2	-456.8	0.0465	µg/L	0.0465	ppb	10:01:07
2	Ni 231.604†	97.2	175.4	2.7191	µg/L	2.7191	ppb	10:01:07
2	P 214.914†	179.6	192.3	36.011	µg/L	36.011	ppb	10:01:07
2	Pb 220.353†	-277.8	-389.4	-3.6949	µg/L	-3.6949	ppb	10:01:07

2	S 181.975 Axial†	126.2	66.3	59.811 µg/L	59.811 ppb	10:01:07
2	Sb 206.836†	150.8	44.7	0.6109 µg/L	0.6109 ppb	10:01:07
2	Se 196.026†	-119.3	-166.1	-5.68 µg/L	-5.68 ppb	10:01:07
2	SiO2†	2054.8	112.8	13.171 µg/L	13.171 ppb	10:01:07
2	Si 251.611†	412.3	-228.1	-3.7955 µg/L	-3.7955 ppb	10:01:07
2	Sn 189.927†	-19.8	2.8	0.3269 µg/L	0.3269 ppb	10:01:07
2	Ti 334.940†	23284.3	23750.3	-3.7398 µg/L	-3.7398 ppb	10:00:47
2	Tl 190.801†	-208.9	-67.7	-10.671 µg/L	-10.671 ppb	10:01:07
2	U 409.014†	851.8	929.5	31.527 µg/L	31.527 ppb	10:00:47
2	V 292.402†	2817.1	2855.4	-3.1885 µg/L	-3.1885 ppb	10:01:07
2	Zn 213.857†	6730.4	3665.0	9.5851 µg/L	9.5851 ppb	10:01:07
3	Sc RADIAL	118196.2	118196.2	96.4 %		10:00:20
3	Al 396.153Radial†	2609428.3	2706904.4	512760 µg/L	512760 ppb	10:00:18
3	Ca 317.933Radial†	4987028.0	5172867.7	487720 µg/L	487720 ppb	10:00:18
3	Fe 238.204 Radial†	1906214.3	1977301.3	192760 µg/L	192760 ppb	10:00:18
3	K 766.490 Radial†	1664.2	32.8	-233.09 µg/L	-233.09 ppb	10:00:20
3	Mg 279.077 IEC†	695492.1	721406.4	512680 µg/L	512680 ppb	10:00:20
3	Na 589.592 Radial†	369.6	112.0	15.965 µg/L	15.965 ppb	10:00:20
3	Sr 421.552†	5294.1	5608.4	8.5053 µg/L	8.5053 ppb	10:00:20
3	Sc 361.383	1484267.4	1484267.4	91.926 %		10:01:09
3	Y 371.029	962698.3	962698.3	90.836 %		10:01:09
3	Ag 328.068†	3876.4	2224.6	-4.5256 µg/L	-4.5256 ppb	10:01:09
3	As 188.979†	-103.6	-77.1	16.330 µg/L	16.330 ppb	10:01:30
3	B 249.677†	2238.5	357.3	6.1946 µg/L	6.1946 ppb	10:01:09
3	Ba 233.527†	242.1	569.4	0.4198 µg/L	0.4198 ppb	10:01:30
3	Be 313.107†	333.1	1123.7	0.3802 µg/L	0.3802 ppb	10:01:09
3	Cd 226.502†	2270.7	2654.6	1.9620 µg/L	1.9620 ppb	10:01:30
3	Co 228.616†	33.7	271.8	-5.3226 µg/L	-5.3226 ppb	10:01:30
3	Cr 267.716†	171.2	-19.1	0.2149 µg/L	0.2149 ppb	10:01:30
3	Cu 324.752†	-3232.9	-7031.6	12.193 µg/L	12.193 ppb	10:01:09
3	Mn 257.610†	13817.5	14911.6	2.9390 µg/L	2.9390 ppb	10:01:09
3	Mo 202.031†	-429.1	-452.9	0.2861 µg/L	0.2861 ppb	10:01:30
3	Ni 231.604†	72.7	150.8	2.3387 µg/L	2.3387 ppb	10:01:30
3	P 214.914†	155.5	169.9	29.596 µg/L	29.596 ppb	10:01:30
3	Pb 220.353†	-264.2	-380.4	-2.8518 µg/L	-2.8518 ppb	10:01:30
3	S 181.975 Axial†	129.2	72.1	65.090 µg/L	65.090 ppb	10:01:30
3	Sb 206.836†	133.3	28.8	-1.7936 µg/L	-1.7936 ppb	10:01:30
3	Se 196.026†	-125.3	-175.2	-9.06 µg/L	-9.06 ppb	10:01:30
3	SiO2†	2008.5	105.7	12.341 µg/L	12.341 ppb	10:01:30
3	Si 251.611†	355.2	-281.6	-4.7539 µg/L	-4.7539 ppb	10:01:30
3	Sn 189.927†	2.2	26.3	2.3953 µg/L	2.3953 ppb	10:01:30
3	Ti 334.940†	22732.3	23640.2	-3.9032 µg/L	-3.9032 ppb	10:01:09
3	Tl 190.801†	-187.0	-48.4	-7.5076 µg/L	-7.5076 ppb	10:01:30
3	U 409.014†	763.2	851.0	26.841 µg/L	26.841 ppb	10:01:09
3	V 292.402†	2774.5	2868.4	-3.2784 µg/L	-3.2784 ppb	10:01:30
3	Zn 213.857†	6732.5	3809.0	10.465 µg/L	10.465 ppb	10:01:30

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1497168.2	92.725	%	0.9266				1.00%
Sc RADIAL	118592.9	96.7	%	0.42				0.44%
Y 371.029	970513.6	91.573	%	0.8908				0.97%
Ag 328.068†	2228.3	-4.3918	µg/L	0.59483	-4.3918	ppb	0.59483	13.54%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2683879.4	508400	µg/L	4816.2	508400	ppb	4816.2	0.95%
QC value within limits for Al 396.153Radial Recovery = 101.68%								
As 188.979†	-81.9	14.239	µg/L	1.8113	14.239	ppb	1.8113	12.72%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	373.6	6.4781	µg/L	2.51629	6.4781	ppb	2.51629	38.84%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	583.4	0.5139	µg/L	0.22855	0.5139	ppb	0.22855	44.48%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	759.7	0.2615	µg/L	0.10314	0.2615	ppb	0.10314	39.44%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5127021.0	483400	µg/L	4756.7	483400	ppb	4756.7	0.98%
QC value within limits for Ca 317.933Radial Recovery = 96.68%								
Cd 226.502†	2604.7	1.7328	µg/L	0.28863	1.7328	ppb	0.28863	16.66%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	264.0	-5.3640	µg/L	0.20026	-5.3640	ppb	0.20026	3.73%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -50.3     -0.1293 µg/L       0.33232     -0.1293 ppb        0.33232 256.98%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -6945.5      12.249 µg/L        0.5354      12.249 ppb         0.5354   4.37%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   1958837.8      190960 µg/L        1913.6      190960 ppb         1913.6   1.00%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.48%
K 766.490 Radial†        -18.6     -250.42 µg/L        22.855     -250.42 ppb         22.855   9.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       719047.7      511010 µg/L        1652.2      511010 ppb         1652.2   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.20%
Mn 257.610†            14938.4      3.0529 µg/L       0.15996      3.0529 ppb        0.15996   5.24%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -463.7     -0.2155 µg/L       0.67196     -0.2155 ppb        0.67196 311.87%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       247.2      35.256 µg/L       19.0357      35.256 ppb        19.0357  53.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              152.8      2.3689 µg/L       0.33613      2.3689 ppb        0.33613  14.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               185.0      33.983 µg/L        3.8029      33.983 ppb         3.8029  11.19%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -373.2     -2.5307 µg/L       1.35357     -2.5307 ppb        1.35357  53.49%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          69.8      62.958 µg/L        2.7826      62.958 ppb         2.7826   4.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               46.3      0.8623 µg/L       2.79012      0.8623 ppb        2.79012 323.56%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -175.2       -9.72 µg/L         4.406       -9.72 ppb          4.406  45.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    124.4      14.461 µg/L        2.9810      14.461 ppb         2.9810  20.61%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -229.2     -3.8190 µg/L       0.92327     -3.8190 ppb        0.92327  24.18%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               15.5      1.4482 µg/L       1.04518      1.4482 ppb        1.04518  72.17%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             5580.1      8.4770 µg/L       0.02455      8.4770 ppb        0.02455   0.29%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            23831.1     -3.6754 µg/L       0.26592     -3.6754 ppb        0.26592   7.24%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -50.4     -7.8438 µg/L       2.67479     -7.8438 ppb        2.67479  34.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               830.7      25.900 µg/L        6.1514      25.900 ppb         6.1514  23.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              2841.3     -3.2573 µg/L       0.06107     -3.2573 ppb        0.06107   1.87%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             3729.0      10.057 µg/L        0.4432      10.057 ppb         0.4432   4.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 4/30/2010 10:01:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	117676.6	117676.6	96.0	%			10:02:09
1	Al 396.153Radial†	2612312.8	2721862.6	515570	µg/L	515570	ppb	10:02:07
1	Ca 317.933Radial†	4986400.3	5195057.2	489810	µg/L	489810	ppb	10:02:07
1	Fe 238.204 Radial†	1908505.9	1988420.5	193840	µg/L	193840	ppb	10:02:07
1	K 766.490 Radial†	15855.8	14826.9	5300.3	µg/L	5300.3	ppb	10:02:09
1	Mg 279.077 IEC†	690438.2	719326.4	511210	µg/L	511210	ppb	10:02:09
1	Na 589.592 Radial†	35944.2	37179.5	5297.8	µg/L	5297.8	ppb	10:02:09
1	Sr 421.552†	225964.4	235552.6	513.72	µg/L	513.72	ppb	10:02:09
1	Sc 361.383	1531819.5	1531819.5	94.872	%			10:02:23
1	Y 371.029	993018.3	993018.3	93.697	%			10:02:23
1	Ag 328.068†	65413.9	66957.7	261.80	µg/L	261.80	ppb	10:02:23
1	As 188.979†	1271.9	1376.2	529.03	µg/L	529.03	ppb	10:02:25
1	B 249.677†	29843.6	29379.1	508.99	µg/L	508.99	ppb	10:02:23
1	Ba 233.527†	91370.9	96616.1	487.49	µg/L	487.49	ppb	10:02:23
1	Be 313.107†	704470.2	743313.0	241.96	µg/L	241.96	ppb	10:02:23
1	Cd 226.502†	55371.5	58549.2	470.17	µg/L	470.17	ppb	10:02:25
1	Co 228.616†	25662.4	27284.7	465.31	µg/L	465.31	ppb	10:02:25
1	Cr 267.716†	47595.2	49962.8	485.20	µg/L	485.20	ppb	10:02:25
1	Cu 324.752†	119967.5	122937.7	563.37	µg/L	563.37	ppb	10:02:23
1	Mn 257.610†	301923.8	318125.4	486.60	µg/L	486.60	ppb	10:02:23
1	Mo 202.031†	12132.5	12802.2	489.49	µg/L	489.49	ppb	10:02:25
1	Ni 231.604†	28738.2	30363.4	470.80	µg/L	470.80	ppb	10:02:25
1	P 214.914†	8709.4	9180.9	2495.7	µg/L	2495.7	ppb	10:02:25
1	Pb 220.353†	5674.8	5888.6	466.75	µg/L	466.75	ppb	10:02:25
1	S 181.975 Axial†	2836.5	2921.4	2646.4	µg/L	2646.4	ppb	10:02:25
1	Sb 206.836†	3219.1	3276.9	483.20	µg/L	483.20	ppb	10:02:25
1	Se 196.026†	4991.6	5222.6	2330	µg/L	2330	ppb	10:02:25
1	SiO2†	91803.7	94687.2	10635	µg/L	10635	ppb	10:02:23
1	Si 251.611†	269159.0	283041.0	4977.6	µg/L	4977.6	ppb	10:02:23
1	Sn 189.927†	5282.1	5591.6	492.32	µg/L	492.32	ppb	10:02:25
1	Ti 334.940†	472472.9	496924.7	499.85	µg/L	499.85	ppb	10:02:23
1	Tl 190.801†	2487.4	2777.0	462.82	µg/L	462.82	ppb	10:02:25
1	U 409.014†	8329.1	8800.1	511.36	µg/L	511.36	ppb	10:02:23
1	V 292.402†	80499.2	84700.9	494.91	µg/L	494.91	ppb	10:02:23
1	Zn 213.857†	71754.2	72118.2	490.49	µg/L	490.49	ppb	10:02:23
2	Sc RADIAL	119195.3	119195.3	97.2	%			10:02:14
2	Al 396.153Radial†	2612675.9	2687556.2	509070	µg/L	509070	ppb	10:02:12
2	Ca 317.933Radial†	4997037.2	5139801.6	484600	µg/L	484600	ppb	10:02:12
2	Fe 238.204 Radial†	1912675.5	1967373.1	191790	µg/L	191790	ppb	10:02:12
2	K 766.490 Radial†	16146.0	14914.9	5335.4	µg/L	5335.4	ppb	10:02:14
2	Mg 279.077 IEC†	702725.6	722799.8	513690	µg/L	513690	ppb	10:02:14
2	Na 589.592 Radial†	36384.4	37155.1	5294.3	µg/L	5294.3	ppb	10:02:14
2	Sr 421.552†	228590.2	235253.7	513.11	µg/L	513.11	ppb	10:02:14
2	Sc 361.383	1505486.1	1505486.1	93.241	%			10:02:28
2	Y 371.029	976027.6	976027.6	92.094	%			10:02:28
2	Ag 328.068†	64900.2	67612.8	264.59	µg/L	264.59	ppb	10:02:28
2	As 188.979†	1310.6	1441.2	551.40	µg/L	551.40	ppb	10:02:30
2	B 249.677†	29586.2	29653.3	513.70	µg/L	513.70	ppb	10:02:28
2	Ba 233.527†	90205.2	97050.5	489.73	µg/L	489.73	ppb	10:02:28
2	Be 313.107†	695426.0	746601.5	243.03	µg/L	243.03	ppb	10:02:28
2	Cd 226.502†	56459.7	60737.3	488.71	µg/L	488.71	ppb	10:02:30
2	Co 228.616†	26031.4	28153.5	480.54	µg/L	480.54	ppb	10:02:30
2	Cr 267.716†	48266.9	51560.7	500.61	µg/L	500.61	ppb	10:02:30
2	Cu 324.752†	118320.9	123383.7	565.04	µg/L	565.04	ppb	10:02:28
2	Mn 257.610†	297916.7	319394.4	488.53	µg/L	488.53	ppb	10:02:28
2	Mo 202.031†	12386.4	13298.3	507.76	µg/L	507.76	ppb	10:02:30
2	Ni 231.604†	29060.1	31238.5	484.37	µg/L	484.37	ppb	10:02:30
2	P 214.914†	8912.5	9559.4	2599.4	µg/L	2599.4	ppb	10:02:30
2	Pb 220.353†	5912.5	6248.2	493.31	µg/L	493.31	ppb	10:02:30

2	S 181.975 Axial†	2934.7	3079.1	2789.2 µg/L	2789.2 ppb	10:02:30
2	Sb 206.836†	3344.1	3470.3	512.13 µg/L	512.13 ppb	10:02:30
2	Se 196.026†	5015.9	5340.6	2380 µg/L	2380 ppb	10:02:30
2	SiO2†	90623.3	95113.8	10682 µg/L	10682 ppb	10:02:28
2	Si 251.611†	265639.5	284228.8	4998.2 µg/L	4998.2 ppb	10:02:28
2	Sn 189.927†	5309.4	5718.2	503.44 µg/L	503.44 ppb	10:02:30
2	Ti 334.940†	466314.2	499030.6	501.75 µg/L	501.75 ppb	10:02:28
2	Tl 190.801†	2552.6	2892.7	481.74 µg/L	481.74 ppb	10:02:30
2	U 409.014†	8128.0	8738.0	508.11 µg/L	508.11 ppb	10:02:28
2	V 292.402†	79260.8	84857.0	496.32 µg/L	496.32 ppb	10:02:28
2	Zn 213.857†	70733.7	72346.7	492.18 µg/L	492.18 ppb	10:02:28
3	Sc RADIAL	117819.5	117819.5	96.1 %		10:02:18
3	Al 396.153Radial†	2611806.5	2718033.7	514850 µg/L	514850 ppb	10:02:16
3	Ca 317.933Radial†	4987519.4	5189918.9	489330 µg/L	489330 ppb	10:02:16
3	Fe 238.204 Radial†	1908995.7	1986517.9	193660 µg/L	193660 ppb	10:02:16
3	K 766.490 Radial†	16142.2	15104.9	5404.7 µg/L	5404.7 ppb	10:02:18
3	Mg 279.077 IEC†	688912.9	716866.4	509470 µg/L	509470 ppb	10:02:18
3	Na 589.592 Radial†	35739.4	36920.9	5260.8 µg/L	5260.8 ppb	10:02:18
3	Sr 421.552†	225567.7	234854.1	512.19 µg/L	512.19 ppb	10:02:18
3	Sc 361.383	1509759.2	1509759.2	93.505 %		10:02:33
3	Y 371.029	978678.9	978678.9	92.344 %		10:02:33
3	Ag 328.068†	64642.4	67140.1	262.55 µg/L	262.55 ppb	10:02:33
3	As 188.979†	1227.0	1347.8	519.24 µg/L	519.24 ppb	10:02:35
3	B 249.677†	29599.6	29577.7	512.40 µg/L	512.40 ppb	10:02:33
3	Ba 233.527†	90297.4	96875.4	488.81 µg/L	488.81 ppb	10:02:33
3	Be 313.107†	695466.2	744533.6	242.36 µg/L	242.36 ppb	10:02:33
3	Cd 226.502†	56261.6	60354.0	485.30 µg/L	485.30 ppb	10:02:35
3	Co 228.616†	25968.5	28007.3	477.90 µg/L	477.90 ppb	10:02:35
3	Cr 267.716†	48039.8	51171.2	496.94 µg/L	496.94 ppb	10:02:35
3	Cu 324.752†	118455.0	123167.9	564.29 µg/L	564.29 ppb	10:02:33
3	Mn 257.610†	298076.1	318660.6	487.53 µg/L	487.53 ppb	10:02:33
3	Mo 202.031†	12297.6	13165.7	502.86 µg/L	502.86 ppb	10:02:35
3	Ni 231.604†	29027.6	31115.5	482.47 µg/L	482.47 ppb	10:02:35
3	P 214.914†	8970.1	9593.9	2609.0 µg/L	2609.0 ppb	10:02:35
3	Pb 220.353†	5834.2	6146.5	486.00 µg/L	486.00 ppb	10:02:35
3	S 181.975 Axial†	2892.8	3025.3	2740.5 µg/L	2740.5 ppb	10:02:35
3	Sb 206.836†	3373.2	3491.3	515.18 µg/L	515.18 ppb	10:02:35
3	Se 196.026†	4998.5	5306.8	2370 µg/L	2370 ppb	10:02:35
3	SiO2†	90573.7	94785.7	10646 µg/L	10646 ppb	10:02:33
3	Si 251.611†	266008.7	283817.4	4991.0 µg/L	4991.0 ppb	10:02:33
3	Sn 189.927†	5343.8	5738.8	505.25 µg/L	505.25 ppb	10:02:35
3	Ti 334.940†	467464.6	498845.5	502.02 µg/L	502.02 ppb	10:02:33
3	Tl 190.801†	2482.2	2809.7	468.13 µg/L	468.13 ppb	10:02:35
3	U 409.014†	8282.4	8878.5	515.81 µg/L	515.81 ppb	10:02:33
3	V 292.402†	79241.1	84595.3	494.49 µg/L	494.49 ppb	10:02:33
3	Zn 213.857†	70949.8	72363.1	492.16 µg/L	492.16 ppb	10:02:33

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1515688.3	93.872	%	0.8753				0.93%
Sc RADIAL	118230.5	96.4	%	0.68				0.71%
Y 371.029	982574.9	92.711	%	0.8625				0.93%
Ag 328.068†	67236.8	262.98	µg/L	1.442	262.98	ppb	1.442	0.55%
QC value within limits for Ag 328.068 Recovery = 105.19%								
Al 396.153Radial†	2709150.8	513160	µg/L	3561.4	513160	ppb	3561.4	0.69%
QC value within limits for Al 396.153Radial Recovery = 102.63%								
As 188.979†	1388.4	533.23	µg/L	16.485	533.23	ppb	16.485	3.09%
QC value within limits for As 188.979 Recovery = 106.65%								
B 249.677†	29536.7	511.69	µg/L	2.433	511.69	ppb	2.433	0.48%
QC value within limits for B 249.677 Recovery = 102.34%								
Ba 233.527†	96847.3	488.68	µg/L	1.123	488.68	ppb	1.123	0.23%
QC value within limits for Ba 233.527 Recovery = 97.74%								
Be 313.107†	744816.0	242.45	µg/L	0.540	242.45	ppb	0.540	0.22%
QC value within limits for Be 313.107 Recovery = 96.98%								
Ca 317.933Radial†	5174925.9	487920	µg/L	2878.2	487920	ppb	2878.2	0.59%
QC value within limits for Ca 317.933Radial Recovery = 97.58%								
Cd 226.502†	59880.2	481.39	µg/L	9.872	481.39	ppb	9.872	2.05%
QC value within limits for Cd 226.502 Recovery = 96.28%								
Co 228.616†	27815.2	474.58	µg/L	8.140	474.58	ppb	8.140	1.72%

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   QC value within limits for Co 228.616  Recovery = 94.92%
Cr 267.716†            50898.2      494.25 µg/L         8.051      494.25 ppb          8.051   1.63%
   QC value within limits for Cr 267.716  Recovery = 98.85%
Cu 324.752†           123163.1      564.23 µg/L         0.833      564.23 ppb          0.833   0.15%
   QC value within limits for Cu 324.752  Recovery = 112.85%
Fe 238.204 Radial†   1980770.5      193100 µg/L        1134.9      193100 ppb         1134.9   0.59%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.55%
K 766.490 Radial†      14948.9      5346.8 µg/L         53.12      5346.8 ppb          53.12   0.99%
   QC value within limits for K 766.490 Radial  Recovery = 106.94%
Mg 279.077 IEC†       719664.2      511460 µg/L        2120.2      511460 ppb         2120.2   0.41%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.29%
Mn 257.610†           318726.8      487.55 µg/L         0.966      487.55 ppb          0.966   0.20%
   QC value within limits for Mn 257.610  Recovery = 97.51%
Mo 202.031†            13088.7      500.04 µg/L         9.454      500.04 ppb          9.454   1.89%
   QC value within limits for Mo 202.031  Recovery = 100.01%
Na 589.592 Radial†     37085.1      5284.3 µg/L         20.41      5284.3 ppb          20.41   0.39%
   QC value within limits for Na 589.592 Radial  Recovery = 105.69%
Ni 231.604†            30905.8      479.21 µg/L         7.346      479.21 ppb          7.346   1.53%
   QC value within limits for Ni 231.604  Recovery = 95.84%
P 214.914†              9444.8      2568.1 µg/L         62.82      2568.1 ppb          62.82   2.45%
   QC value within limits for P 214.914  Recovery = 102.72%
Pb 220.353†             6094.4      482.02 µg/L        13.722      482.02 ppb         13.722   2.85%
   QC value within limits for Pb 220.353  Recovery = 96.40%
S 181.975 Axial†        3008.6      2725.4 µg/L         72.59      2725.4 ppb          72.59   2.66%
   QC value within limits for S 181.975 Axial  Recovery = 109.02%
Sb 206.836†             3412.9      503.50 µg/L        17.648      503.50 ppb         17.648   3.51%
   QC value within limits for Sb 206.836  Recovery = 100.70%
Se 196.026†             5290.0       2360 µg/L          26.1       2360 ppb           26.1   1.10%
   QC value within limits for Se 196.026  Recovery = 94.50%
SiO2†                  94862.2      10654 µg/L          24.8      10654 ppb           24.8   0.23%
   QC value within limits for SiO2  Recovery = 99.62%
Si 251.611†           283695.7      4988.9 µg/L         10.46      4988.9 ppb          10.46   0.21%
   QC value within limits for Si 251.611  Recovery = 99.78%
Sn 189.927†             5682.9      500.34 µg/L         6.999      500.34 ppb          6.999   1.40%
   QC value within limits for Sn 189.927  Recovery = 100.07%
Sr 421.552†           235220.2      513.01 µg/L         0.770      513.01 ppb          0.770   0.15%
   QC value within limits for Sr 421.552  Recovery = 102.60%
Ti 334.940†           498266.9      501.20 µg/L         1.183      501.20 ppb          1.183   0.24%
   QC value within limits for Ti 334.940  Recovery = 100.24%
Tl 190.801†             2826.4      470.90 µg/L         9.755      470.90 ppb          9.755   2.07%
   QC value within limits for Tl 190.801  Recovery = 94.18%
U 409.014†              8805.5      511.76 µg/L         3.868      511.76 ppb          3.868   0.76%
   QC value within limits for U 409.014  Recovery = 102.35%
V 292.402†             84717.7      495.24 µg/L         0.957      495.24 ppb          0.957   0.19%
   QC value within limits for V 292.402  Recovery = 99.05%
Zn 213.857†            72276.0      491.61 µg/L         0.968      491.61 ppb          0.968   0.20%
   QC value within limits for Zn 213.857  Recovery = 98.32%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 4/30/2010 10:02:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	116734.3	116734.3	95.2	%			10:03:15
1	Al 396.153Radial†	2550944.9	2679377.1	507550	µg/L	507550	ppb	10:03:12
1	Ca 317.933Radial†	4865446.8	5109954.7	481790	µg/L	481790	ppb	10:03:12
1	Fe 238.204 Radial†	4465628.3	4690286.2	457230	µg/L	457230	ppb	10:03:12
1	K 766.490 Radial†	1575.4	-38.9	-340.59	µg/L	-340.59	ppb	10:03:15
1	Mg 279.077 IEC†	673099.9	706922.4	502160	µg/L	502160	ppb	10:03:15
1	Na 589.592 Radial†	3435310.8	3607927.5	514580	µg/L	514580	ppb	10:03:12
1	Sr 421.552†	5236.9	5617.1	8.5708	µg/L	8.5708	ppb	10:03:15
1	Sc 361.383	1488918.2	1488918.2	92.214	%			10:03:28
1	Y 371.029	965873.1	965873.1	91.136	%			10:03:28
1	Ag 328.068†	-669.4	-2718.2	-8.4128	µg/L	-8.4128	ppb	10:03:28
1	As 188.979†	-227.5	-211.2	28.922	µg/L	28.922	ppb	10:03:48
1	B 249.677†	3245.9	1442.2	25.022	µg/L	25.022	ppb	10:03:28
1	Ba 233.527†	555.4	908.3	-1.2481	µg/L	-1.2481	ppb	10:03:48
1	Be 313.107†	-14699.0	-15178.7	-0.6634	µg/L	-0.6634	ppb	10:03:28
1	Cd 226.502†	5787.7	6460.9	6.0260	µg/L	6.0260	ppb	10:03:28
1	Co 228.616†	475.0	750.2	-10.791	µg/L	-10.791	ppb	10:03:48
1	Cr 267.716†	314.9	136.2	-0.0693	µg/L	-0.0693	ppb	10:03:48
1	Cu 324.752†	-12526.7	-17099.1	19.445	µg/L	19.445	ppb	10:03:28
1	Mn 257.610†	16441.8	17710.5	7.1208	µg/L	7.1208	ppb	10:03:28
1	Mo 202.031†	-780.4	-832.4	-3.4415	µg/L	-3.4415	ppb	10:03:28
1	Ni 231.604†	173.4	259.8	4.0278	µg/L	4.0278	ppb	10:03:48
1	P 214.914†	981.7	1065.4	95.039	µg/L	95.039	ppb	10:03:48
1	Pb 220.353†	5.1	-87.5	-0.3862	µg/L	-0.3862	ppb	10:03:48
1	S 181.975 Axial†	135.7	78.8	70.993	µg/L	70.993	ppb	10:03:48
1	Sb 206.836†	158.2	55.4	-1.3041	µg/L	-1.3041	ppb	10:03:48
1	Se 196.026†	-346.4	-414.6	-7.56	µg/L	-7.56	ppb	10:03:48
1	SiO2†	2115.7	215.2	24.978	µg/L	24.978	ppb	10:03:48
1	Si 251.611†	-1652.2	-2459.6	-42.979	µg/L	-42.979	ppb	10:03:28
1	Sn 189.927†	59.5	88.4	7.8647	µg/L	7.8647	ppb	10:03:48
1	Ti 334.940†	28858.6	30206.5	-1.9961	µg/L	-1.9961	ppb	10:03:28
1	Tl 190.801†	-239.1	-104.2	-16.510	µg/L	-16.510	ppb	10:03:48
1	U 409.014†	228374.2	247676.2	14059	µg/L	14059	ppb	10:03:28
1	V 292.402†	4988.9	5260.3	-7.4905	µg/L	-7.4905	ppb	10:03:28
1	Zn 213.857†	10350.7	7709.8	10.121	µg/L	10.121	ppb	10:03:48
2	Sc RADIAL	117160.5	117160.5	95.6	%			10:03:19
2	Al 396.153Radial†	2488396.9	2604173.0	493300	µg/L	493300	ppb	10:03:17
2	Ca 317.933Radial†	4722109.2	4941360.1	465890	µg/L	465890	ppb	10:03:17
2	Fe 238.204 Radial†	4336257.2	4537835.3	442370	µg/L	442370	ppb	10:03:17
2	K 766.490 Radial†	1699.9	85.4	-285.48	µg/L	-285.48	ppb	10:03:19
2	Mg 279.077 IEC†	674473.5	705788.0	501360	µg/L	501360	ppb	10:03:19
2	Na 589.592 Radial†	3350348.1	3505887.1	500030	µg/L	500030	ppb	10:03:17
2	Sr 421.552†	5260.9	5622.2	8.7065	µg/L	8.7065	ppb	10:03:19
2	Sc 361.383	1471614.4	1471614.4	91.143	%			10:03:51
2	Y 371.029	955837.7	955837.7	90.189	%			10:03:51
2	Ag 328.068†	-645.5	-2700.5	-7.7975	µg/L	-7.7975	ppb	10:03:51
2	As 188.979†	-217.4	-202.9	28.458	µg/L	28.458	ppb	10:04:11
2	B 249.677†	2971.6	1182.6	20.511	µg/L	20.511	ppb	10:03:51
2	Ba 233.527†	587.8	950.9	-0.8408	µg/L	-0.8408	ppb	10:04:11
2	Be 313.107†	-14518.5	-15168.1	-0.6492	µg/L	-0.6492	ppb	10:03:51
2	Cd 226.502†	5632.3	6364.2	6.7793	µg/L	6.7793	ppb	10:03:51
2	Co 228.616†	436.2	713.7	-10.651	µg/L	-10.651	ppb	10:04:11
2	Cr 267.716†	288.0	110.7	-0.8496	µg/L	-0.8496	ppb	10:04:11
2	Cu 324.752†	-12387.3	-17105.9	17.259	µg/L	17.259	ppb	10:03:51
2	Mn 257.610†	16111.2	17557.4	6.9474	µg/L	6.9474	ppb	10:03:51
2	Mo 202.031†	-692.0	-745.4	-0.8326	µg/L	-0.8326	ppb	10:03:51
2	Ni 231.604†	172.2	260.6	4.0412	µg/L	4.0412	ppb	10:04:11
2	P 214.914†	1000.2	1098.2	110.95	µg/L	110.95	ppb	10:04:11
2	Pb 220.353†	34.4	-55.2	1.6021	µg/L	1.6021	ppb	10:04:11

2	S 181.975 Axial†	135.2	79.9	72.043	µg/L	72.043 ppb	10:04:11
2	Sb 206.836†	184.0	85.7	3.5424	µg/L	3.5424 ppb	10:04:11
2	Se 196.026†	-367.1	-441.7	-24.4	µg/L	-24.4 ppb	10:04:11
2	SiO2†	2143.9	273.1	31.407	µg/L	31.407 ppb	10:04:11
2	Si 251.611†	-1548.3	-2366.7	-41.383	µg/L	-41.383 ppb	10:03:51
2	Sn 189.927†	56.8	86.2	7.6786	µg/L	7.6786 ppb	10:04:11
2	Ti 334.940†	29464.7	31239.5	-1.2594	µg/L	-1.2594 ppb	10:03:51
2	Tl 190.801†	-240.0	-108.2	-17.148	µg/L	-17.148 ppb	10:04:11
2	U 409.014†	226290.9	248302.4	14097	µg/L	14097 ppb	10:03:51
2	V 292.402†	4908.3	5235.5	-6.0163	µg/L	-6.0163 ppb	10:03:51
2	Zn 213.857†	10386.7	7881.4	12.822	µg/L	12.822 ppb	10:04:11
3	Sc RADIAL	116913.2	116913.2	95.4	%		10:03:24
3	Al 396.153Radial†	2544113.4	2668113.8	505410	µg/L	505410 ppb	10:03:21
3	Ca 317.933Radial†	4832510.9	5067596.0	477800	µg/L	477800 ppb	10:03:21
3	Fe 238.204 Radial†	4430585.0	4646359.9	452950	µg/L	452950 ppb	10:03:21
3	K 766.490 Radial†	1636.7	22.8	-315.71	µg/L	-315.71 ppb	10:03:24
3	Mg 279.077 IEC†	674501.1	707310.3	502440	µg/L	502440 ppb	10:03:24
3	Na 589.592 Radial†	3417376.3	3583599.1	511110	µg/L	511110 ppb	10:03:21
3	Sr 421.552†	5214.0	5584.6	8.5308	µg/L	8.5308 ppb	10:03:24
3	Sc 361.383	1487873.0	1487873.0	92.150	%		10:04:14
3	Y 371.029	965804.5	965804.5	91.129	%		10:04:14
3	Ag 328.068†	-755.4	-2812.0	-8.6974	µg/L	-8.6974 ppb	10:04:14
3	As 188.979†	-231.5	-215.7	26.399	µg/L	26.399 ppb	10:04:34
3	B 249.677†	3212.8	1408.8	24.443	µg/L	24.443 ppb	10:04:14
3	Ba 233.527†	553.9	907.1	-1.1987	µg/L	-1.1987 ppb	10:04:34
3	Be 313.107†	-14824.6	-15326.2	-0.7182	µg/L	-0.7182 ppb	10:04:14
3	Cd 226.502†	5593.9	6255.0	4.7526	µg/L	4.7526 ppb	10:04:14
3	Co 228.616†	428.9	700.5	-11.432	µg/L	-11.432 ppb	10:04:34
3	Cr 267.716†	287.3	106.4	-0.4923	µg/L	-0.4923 ppb	10:04:34
3	Cu 324.752†	-12340.7	-16906.8	19.623	µg/L	19.623 ppb	10:04:14
3	Mn 257.610†	16243.3	17507.6	6.7975	µg/L	6.7975 ppb	10:04:14
3	Mo 202.031†	-675.7	-719.4	0.5628	µg/L	0.5628 ppb	10:04:14
3	Ni 231.604†	187.8	275.5	4.2722	µg/L	4.2722 ppb	10:04:34
3	P 214.914†	993.8	1079.3	101.23	µg/L	101.23 ppb	10:04:34
3	Pb 220.353†	3.7	-89.0	-0.4671	µg/L	-0.4671 ppb	10:04:34
3	S 181.975 Axial†	153.6	98.3	88.693	µg/L	88.693 ppb	10:04:34
3	Sb 206.836†	173.4	72.0	1.2983	µg/L	1.2983 ppb	10:04:34
3	Se 196.026†	-340.0	-407.9	-6.16	µg/L	-6.16 ppb	10:04:34
3	SiO2†	2131.3	233.7	26.946	µg/L	26.946 ppb	10:04:34
3	Si 251.611†	-1501.3	-2297.1	-40.172	µg/L	-40.172 ppb	10:04:14
3	Sn 189.927†	59.0	88.0	7.8205	µg/L	7.8205 ppb	10:04:34
3	Ti 334.940†	27674.0	28943.0	-3.4585	µg/L	-3.4585 ppb	10:04:14
3	Tl 190.801†	-249.9	-116.1	-18.467	µg/L	-18.467 ppb	10:04:34
3	U 409.014†	227849.4	247280.6	14037	µg/L	14037 ppb	10:04:14
3	V 292.402†	4860.6	5125.0	-7.8237	µg/L	-7.8237 ppb	10:04:14
3	Zn 213.857†	10374.2	7743.2	10.810	µg/L	10.810 ppb	10:04:34

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1482801.9	91.836	%	0.6009				0.65%
Sc RADIAL	116936.0	95.4	%	0.17				0.18%
Y 371.029	962505.1	90.818	%	0.5448				0.60%
Ag 328.068†	-2743.6	-8.3026	µg/L	0.45998	-8.3026	ppb	0.45998	5.54%
Al 396.153Radial†	2650554.6	502090	µg/L	7683.3	502090	ppb	7683.3	1.53%
QC value within limits for Al 396.153Radial Recovery = 100.42%								
As 188.979†	-209.9	27.926	µg/L	1.3429	27.926	ppb	1.3429	4.81%
B 249.677†	1344.5	23.325	µg/L	2.4542	23.325	ppb	2.4542	10.52%
Ba 233.527†	922.1	-1.0958	µg/L	0.22224	-1.0958	ppb	0.22224	20.28%
Be 313.107†	-15224.3	-0.6769	µg/L	0.03647	-0.6769	ppb	0.03647	5.39%
Ca 317.933Radial†	5039636.9	475160	µg/L	8269.3	475160	ppb	8269.3	1.74%
QC value within limits for Ca 317.933Radial Recovery = 95.03%								
Cd 226.502†	6360.0	5.8526	µg/L	1.02445	5.8526	ppb	1.02445	17.50%
Co 228.616†	721.5	-10.958	µg/L	0.4163	-10.958	ppb	0.4163	3.80%
Cr 267.716†	117.7	-0.4704	µg/L	0.39065	-0.4704	ppb	0.39065	83.05%
Cu 324.752†	-17037.3	18.776	µg/L	1.3168	18.776	ppb	1.3168	7.01%
Fe 238.204 Radial†	4624827.1	450850	µg/L	7650.0	450850	ppb	7650.0	1.70%
QC value within limits for Fe 238.204 Radial Recovery = 90.17%								
K 766.490 Radial†	23.1	-313.93	µg/L	27.596	-313.93	ppb	27.596	8.79%
Mg 279.077 IEC†	706673.6	501990	µg/L	556.7	501990	ppb	556.7	0.11%

QC value within limits for Mg 279.077 IEC Recovery = 100.40%

Mn 257.610†	17591.9	6.9552 µg/L	0.16180	6.9552 ppb	0.16180	2.33%
Mo 202.031†	-765.7	-1.2371 µg/L	2.03259	-1.2371 ppb	2.03259	164.30%
Na 589.592 Radial†	3565804.6	508570 µg/L	7601.5	508570 ppb	7601.5	1.49%

QC value within limits for Na 589.592 Radial Recovery = 101.71%

Ni 231.604†	265.3	4.1138 µg/L	0.13741	4.1138 ppb	0.13741	3.34%
P 214.914†	1080.9	102.41 µg/L	8.020	102.41 ppb	8.020	7.83%
Pb 220.353†	-77.2	0.2496 µg/L	1.17198	0.2496 ppb	1.17198	469.56%
S 181.975 Axial†	85.7	77.243 µg/L	9.9298	77.243 ppb	9.9298	12.86%
Sb 206.836†	71.0	1.1789 µg/L	2.42546	1.1789 ppb	2.42546	205.75%
Se 196.026†	-421.4	-12.7 µg/L	10.17	-12.7 ppb	10.17	79.97%
SiO2†	240.7	27.777 µg/L	3.2939	27.777 ppb	3.2939	11.86%
Si 251.611†	-2374.5	-41.511 µg/L	1.4078	-41.511 ppb	1.4078	3.39%
Sn 189.927†	87.5	7.7879 µg/L	0.09720	7.7879 ppb	0.09720	1.25%
Sr 421.552†	5608.0	8.6027 µg/L	0.09209	8.6027 ppb	0.09209	1.07%
Ti 334.940†	30129.6	-2.2380 µg/L	1.11938	-2.2380 ppb	1.11938	50.02%
Tl 190.801†	-109.5	-17.375 µg/L	0.9978	-17.375 ppb	0.9978	5.74%
U 409.014†	247753.1	14064 µg/L	30.5	14064 ppb	30.5	0.22%

QC value within limits for U 409.014 Recovery = 93.76%

V 292.402†	5206.9	-7.1102 µg/L	0.96183	-7.1102 ppb	0.96183	13.53%
Zn 213.857†	7778.1	11.251 µg/L	1.4034	11.251 ppb	1.4034	12.47%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 4/30/2010 10:04:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122268.2	122268.2	99.7	%			10:05:15
1	Al 396.153Radial†	2599.3	2658.0	41.919	µg/L	41.919	ppb	10:05:35
1	Ca 317.933Radial†	899.7	547.9	51.658	µg/L	51.658	ppb	10:05:35
1	Fe 238.204 Radial†	-327.5	-411.2	-40.082	µg/L	-40.082	ppb	10:05:35
1	K 766.490 Radial†	793357.5	793876.5	297020	µg/L	297020	ppb	10:05:15
1	Mg 279.077 IEC†	-294.9	-348.1	-4.3376	µg/L	-4.3376	ppb	10:05:35
1	Na 589.592 Radial†	737.8	468.5	-197.35	µg/L	-197.35	ppb	10:05:15
1	Sr 421.552†	4579423.8	4592311.6	10090	µg/L	10090	ppb	10:05:13
1	Sc 361.383	1603236.8	1603236.8	99.295	%			10:06:32
1	Y 371.029	1037191.7	1037191.7	97.865	%			10:06:32
1	Ag 328.068†	-27770.7	-29960.2	-2.6170	µg/L	-2.6170	ppb	10:06:34
1	As 188.979†	28111.2	28346.4	10139	µg/L	10139	ppb	10:06:34
1	B 249.677†	288196.9	288166.2	4974.5	µg/L	4974.5	ppb	10:06:32
1	Ba 233.527†	2861875.6	2882509.9	14614	µg/L	14614	ppb	10:06:32
1	Be 313.107†	9023360.0	9088215.6	2956.4	µg/L	2956.4	ppb	10:06:29
1	Cd 226.502†	1158466.6	1166879.9	9776.8	µg/L	9776.8	ppb	10:06:32
1	Co 228.616†	559386.9	563595.4	9827.4	µg/L	9827.4	ppb	10:06:32
1	Cr 267.716†	2503652.2	2521230.7	24476	µg/L	24476	ppb	10:06:32
1	Cu 324.752†	4758778.0	4789065.4	20287	µg/L	20287	ppb	10:06:29
1	Mn 257.610†	6029204.5	6071911.3	9684.3	µg/L	9684.3	ppb	10:06:29
1	Mo 202.031†	267466.6	269380.4	9941.7	µg/L	9941.7	ppb	10:06:34
1	Ni 231.604†	629884.0	634429.8	9837.2	µg/L	9837.2	ppb	10:06:32
1	P 214.914†	54409.0	54796.3	14800	µg/L	14800	ppb	10:06:34
1	Pb 220.353†	321238.3	323427.2	24178	µg/L	24178	ppb	10:06:34
1	S 181.975 Axial†	55801.1	56129.1	50854	µg/L	50854	ppb	10:06:34
1	Sb 206.836†	67171.6	67532.5	9864.5	µg/L	9864.5	ppb	10:06:34
1	Se 196.026†	22545.6	22666.9	9830	µg/L	9830	ppb	10:06:34
1	SiO2†	908210.3	912582.3	102270	µg/L	102270	ppb	10:06:32
1	Si 251.611†	2683321.0	2701713.1	47406	µg/L	47406	ppb	10:06:32
1	Sn 189.927†	112138.6	112959.0	9943.4	µg/L	9943.4	ppb	10:06:34
1	Ti 334.940†	9312047.0	9377103.3	9976.0	µg/L	9976.0	ppb	10:06:29
1	Tl 190.801†	58928.9	59502.6	9895.0	µg/L	9895.0	ppb	10:06:34
1	U 409.014†	-2589.4	-2587.0	457.68	µg/L	457.68	ppb	10:06:34
1	V 292.402†	1641864.0	1653376.7	10126	µg/L	10126	ppb	10:06:32
1	Zn 213.857†	1999605.8	2010294.5	14150	µg/L	14150	ppb	10:06:32
2	Sc RADIAL	123750.3	123750.3	101	%			10:05:39
2	Al 396.153Radial†	2665.6	2692.4	48.668	µg/L	48.668	ppb	10:05:59
2	Ca 317.933Radial†	882.3	519.8	49.010	µg/L	49.010	ppb	10:05:59
2	Fe 238.204 Radial†	-389.1	-468.3	-45.654	µg/L	-45.654	ppb	10:05:59
2	K 766.490 Radial†	803749.0	794643.9	297310	µg/L	297310	ppb	10:05:39
2	Mg 279.077 IEC†	-310.2	-359.8	-12.731	µg/L	-12.731	ppb	10:05:59
2	Na 589.592 Radial†	716.4	438.4	-201.90	µg/L	-201.90	ppb	10:05:39
2	Sr 421.552†	4508447.1	4466990.4	9814.9	µg/L	9814.9	ppb	10:05:37
2	Sc 361.383	1594175.9	1594175.9	98.734	%			10:06:40
2	Y 371.029	1031303.5	1031303.5	97.309	%			10:06:40
2	Ag 328.068†	-27703.1	-30050.7	-3.1630	µg/L	-3.1630	ppb	10:06:42
2	As 188.979†	28014.3	28409.2	10160	µg/L	10160	ppb	10:06:42
2	B 249.677†	285656.5	287242.9	4958.6	µg/L	4958.6	ppb	10:06:40
2	Ba 233.527†	2840833.4	2877579.6	14589	µg/L	14589	ppb	10:06:40
2	Be 313.107†	9114637.9	9232315.1	3003.3	µg/L	3003.3	ppb	10:06:37
2	Cd 226.502†	1147013.5	1161911.1	9735.2	µg/L	9735.2	ppb	10:06:40
2	Co 228.616†	554074.8	561417.1	9789.5	µg/L	9789.5	ppb	10:06:40
2	Cr 267.716†	2485325.3	2516999.9	24435	µg/L	24435	ppb	10:06:40
2	Cu 324.752†	4808073.1	4866232.7	20614	µg/L	20614	ppb	10:06:37
2	Mn 257.610†	6089035.8	6167022.1	9836.0	µg/L	9836.0	ppb	10:06:37
2	Mo 202.031†	265829.6	269253.4	9937.0	µg/L	9937.0	ppb	10:06:42
2	Ni 231.604†	624058.4	632135.0	9801.6	µg/L	9801.6	ppb	10:06:40
2	P 214.914†	54129.3	54824.4	14804	µg/L	14804	ppb	10:06:42
2	Pb 220.353†	318885.8	322883.2	24137	µg/L	24137	ppb	10:06:42

2	S 181.975 Axial†	55388.1	56030.2	50764	µg/L	50764	ppb	10:06:42
2	Sb 206.836†	66696.6	67435.9	9850.6	µg/L	9850.6	ppb	10:06:42
2	Se 196.026†	22455.0	22704.1	9850	µg/L	9850	ppb	10:06:42
2	SiO2†	901904.5	911394.4	102140	µg/L	102140	ppb	10:06:40
2	Si 251.611†	2664201.6	2697708.1	47335	µg/L	47335	ppb	10:06:40
2	Sn 189.927†	111306.8	112758.5	9926.4	µg/L	9926.4	ppb	10:06:42
2	Ti 334.940†	9411627.6	9531264.6	10140	µg/L	10140	ppb	10:06:37
2	Tl 190.801†	58545.2	59451.3	9888.8	µg/L	9888.8	ppb	10:06:42
2	U 409.014†	-2734.0	-2748.3	448.90	µg/L	448.90	ppb	10:06:42
2	V 292.402†	1630855.9	1651625.5	10115	µg/L	10115	ppb	10:06:40
2	Zn 213.857†	1983800.5	2005732.5	14118	µg/L	14118	ppb	10:06:40
3	Sc RADIAL	121965.7	121965.7	99.5	%			10:06:04
3	Al 396.153Radial†	2604.8	2669.9	25.656	µg/L	25.656	ppb	10:06:24
3	Ca 317.933Radial†	782.5	432.3	40.757	µg/L	40.757	ppb	10:06:24
3	Fe 238.204 Radial†	-421.8	-506.8	-49.408	µg/L	-49.408	ppb	10:06:24
3	K 766.490 Radial†	797699.9	800214.8	299400	µg/L	299400	ppb	10:06:04
3	Mg 279.077 IEC†	-311.3	-365.3	-6.7839	µg/L	-6.7839	ppb	10:06:24
3	Na 589.592 Radial†	583.3	315.0	-221.35	µg/L	-221.35	ppb	10:06:04
3	Sr 421.552†	4522821.6	4546799.6	9990.2	µg/L	9990.2	ppb	10:06:02
3	Sc 361.383	1566625.2	1566625.2	97.027	%			10:06:48
3	Y 371.029	1014142.6	1014142.6	95.690	%			10:06:48
3	Ag 328.068†	-28284.7	-31143.6	-8.0262	µg/L	-8.0262	ppb	10:06:50
3	As 188.979†	28602.4	29514.3	10546	µg/L	10546	ppb	10:06:50
3	B 249.677†	279478.6	285963.7	4936.5	µg/L	4936.5	ppb	10:06:48
3	Ba 233.527†	2783756.0	2869353.1	14547	µg/L	14547	ppb	10:06:48
3	Be 313.107†	8991017.9	9267253.7	3014.7	µg/L	3014.7	ppb	10:06:45
3	Cd 226.502†	1121500.4	1156046.5	9686.1	µg/L	9686.1	ppb	10:06:48
3	Co 228.616†	542841.4	559708.5	9759.7	µg/L	9759.7	ppb	10:06:48
3	Cr 267.716†	2433534.8	2507890.2	24346	µg/L	24346	ppb	10:06:48
3	Cu 324.752†	4736933.9	4878553.3	20666	µg/L	20666	ppb	10:06:45
3	Mn 257.610†	6002228.5	6186010.5	9866.3	µg/L	9866.3	ppb	10:06:45
3	Mo 202.031†	271849.8	280192.9	10341	µg/L	10341	ppb	10:06:50
3	Ni 231.604†	610740.4	629524.5	9761.2	µg/L	9761.2	ppb	10:06:48
3	P 214.914†	55559.2	57262.3	15472	µg/L	15472	ppb	10:06:50
3	Pb 220.353†	326953.6	336878.1	25183	µg/L	25183	ppb	10:06:50
3	S 181.975 Axial†	56926.3	58602.1	53094	µg/L	53094	ppb	10:06:50
3	Sb 206.836†	68198.1	70171.4	10266	µg/L	10266	ppb	10:06:50
3	Se 196.026†	22998.4	23664.2	10300	µg/L	10300	ppb	10:06:50
3	SiO2†	882897.1	907868.9	101720	µg/L	101720	ppb	10:06:48
3	Si 251.611†	2610952.4	2690281.0	47196	µg/L	47196	ppb	10:06:48
3	Sn 189.927†	114029.8	117547.4	10347	µg/L	10347	ppb	10:06:50
3	Ti 334.940†	9276965.3	9560112.4	10171	µg/L	10171	ppb	10:06:45
3	Tl 190.801†	59820.4	61808.3	10275	µg/L	10275	ppb	10:06:50
3	U 409.014†	-2992.8	-3063.7	429.03	µg/L	429.03	ppb	10:06:50
3	V 292.402†	1596604.4	1645372.8	10081	µg/L	10081	ppb	10:06:48
3	Zn 213.857†	1943928.3	1999973.3	14077	µg/L	14077	ppb	10:06:48

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1588012.7	98.352	%	1.1810				1.20%
Sc RADIAL	122661.4	100	%	0.8				0.78%
Y 371.029	1027545.9	96.955	%	1.1299				1.17%
Ag 328.068†	-30384.8	-4.6021	µg/L	2.97790	-4.6021	ppb	2.97790	64.71%
Al 396.153Radial†	2673.4	38.748	µg/L	11.8289	38.748	ppb	11.8289	30.53%
As 188.979†	28756.7	10282	µg/L	229.0	10282	ppb	229.0	2.23%
QC value within limits for As 188.979 Recovery = 102.82%								
B 249.677†	287124.3	4956.5	µg/L	19.11	4956.5	ppb	19.11	0.39%
QC value within limits for B 249.677 Recovery = 99.13%								
Ba 233.527†	2876480.9	14583	µg/L	33.6	14583	ppb	33.6	0.23%
QC value within limits for Ba 233.527 Recovery = 97.22%								
Be 313.107†	9195928.1	2991.5	µg/L	30.87	2991.5	ppb	30.87	1.03%
QC value within limits for Be 313.107 Recovery = 99.72%								
Ca 317.933Radial†	500.0	47.142	µg/L	5.6858	47.142	ppb	5.6858	12.06%
Cd 226.502†	1161612.5	9732.7	µg/L	45.43	9732.7	ppb	45.43	0.47%
QC value within limits for Cd 226.502 Recovery = 97.33%								
Co 228.616†	561573.7	9792.2	µg/L	33.95	9792.2	ppb	33.95	0.35%
QC value within limits for Co 228.616 Recovery = 97.92%								
Cr 267.716†	2515373.6	24419	µg/L	66.2	24419	ppb	66.2	0.27%
QC value within limits for Cr 267.716 Recovery = 97.68%								

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Cu 324.752†          4844617.2       20522 µg/L         205.4       20522 ppb          205.4   1.00%
   QC value within limits for Cu 324.752  Recovery = 102.61%
Fe 238.204 Radial†      -462.1     -45.048 µg/L        4.6925     -45.048 ppb         4.6925  10.42%
K 766.490 Radial†     796245.0      297910 µg/L        1294.3      297910 ppb         1294.3   0.43%
   QC value within limits for K 766.490 Radial  Recovery = 99.30%
Mg 279.077 IEC†         -357.8     -7.9509 µg/L       4.31684     -7.9509 ppb        4.31684  54.29%
Mn 257.610†          6141648.0      9795.6 µg/L         97.51      9795.6 ppb          97.51   1.00%
   QC value within limits for Mn 257.610  Recovery = 97.96%
Mo 202.031†           272942.2       10073 µg/L         231.7       10073 ppb          231.7   2.30%
   QC value within limits for Mo 202.031  Recovery = 100.73%
Na 589.592 Radial†       407.3     -206.87 µg/L        12.750     -206.87 ppb         12.750   6.16%
Ni 231.604†           632029.8      9800.0 µg/L         38.06      9800.0 ppb          38.06   0.39%
   QC value within limits for Ni 231.604  Recovery = 98.00%
P 214.914†             55627.6       15025 µg/L         386.8       15025 ppb          386.8   2.57%
   QC value within limits for P 214.914  Recovery = 100.17%
Pb 220.353†           327729.5       24499 µg/L         592.5       24499 ppb          592.5   2.42%
   QC value within limits for Pb 220.353  Recovery = 98.00%
S 181.975 Axial†       56920.5       51570 µg/L        1320.0       51570 ppb         1320.0   2.56%
   QC value within limits for S 181.975 Axial  Recovery = 103.14%
Sb 206.836†            68379.9      9993.6 µg/L        235.75      9993.6 ppb         235.75   2.36%
   QC value within limits for Sb 206.836  Recovery = 99.94%
Se 196.026†            23011.7        9980 µg/L         245.3        9980 ppb          245.3   2.46%
   QC value within limits for Se 196.026  Recovery = 99.83%
SiO2†                 910615.2      102040 µg/L         285.6      102040 ppb          285.6   0.28%
   QC value within limits for SiO2  Recovery = 95.37%
Si 251.611†          2696567.4       47312 µg/L         106.6       47312 ppb          106.6   0.23%
   QC value within limits for Si 251.611  Recovery = 94.62%
Sn 189.927†           114421.6       10072 µg/L         237.9       10072 ppb          237.9   2.36%
   QC value within limits for Sn 189.927  Recovery = 100.72%
Sr 421.552†          4535367.2      9965.1 µg/L        139.39      9965.1 ppb         139.39   1.40%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†          9489493.4       10096 µg/L         104.8       10096 ppb          104.8   1.04%
   QC value within limits for Ti 334.940  Recovery = 100.96%
Tl 190.801†            60254.1       10020 µg/L         221.3       10020 ppb          221.3   2.21%
   QC value within limits for Tl 190.801  Recovery = 100.20%
U 409.014†             -2799.7      445.21 µg/L        14.676      445.21 ppb         14.676   3.30%
V 292.402†           1650125.0       10107 µg/L          23.3       10107 ppb           23.3   0.23%
   QC value within limits for V 292.402  Recovery = 101.07%
Zn 213.857†          2005333.4       14115 µg/L          36.4       14115 ppb           36.4   0.26%
   QC value within limits for Zn 213.857  Recovery = 94.10%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/30/2010 10:06:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123019.1	123019.1	100	%			10:07:32
1	Al 396.153Radial†	26317.0	26280.7	4954.6	µg/L	4954.6	ppb	10:07:32
1	Ca 317.933Radial†	53417.3	52885.0	4986.2	µg/L	4986.2	ppb	10:07:32
1	Fe 238.204 Radial†	51864.4	51608.8	5031.1	µg/L	5031.1	ppb	10:07:32
1	K 766.490 Radial†	15118.4	13374.5	4999.9	µg/L	4999.9	ppb	10:07:32
1	Mg 279.077 IEC†	7081.8	7005.8	4988.6	µg/L	4988.6	ppb	10:07:32
1	Na 589.592 Radial†	70038.6	69533.8	9912.8	µg/L	9912.8	ppb	10:07:30
1	Sr 421.552†	226938.8	226299.1	497.19	µg/L	497.19	ppb	10:07:30
1	Sc 361.383	1596184.9	1596184.9	98.858	%			10:07:58
1	Y 371.029	1043161.7	1043161.7	98.428	%			10:07:58
1	Ag 328.068†	123668.9	123105.3	500.83	µg/L	500.83	ppb	10:07:58
1	As 188.979†	1406.1	1457.9	515.36	µg/L	515.36	ppb	10:08:19
1	B 249.677†	30810.2	29088.4	503.84	µg/L	503.84	ppb	10:07:58
1	Ba 233.527†	96673.0	98095.9	497.42	µg/L	497.42	ppb	10:07:58
1	Be 313.107†	1528911.6	1547335.7	503.51	µg/L	503.51	ppb	10:07:58
1	Cd 226.502†	58378.3	59237.3	495.80	µg/L	495.80	ppb	10:07:58
1	Co 228.616†	28342.8	28905.3	503.37	µg/L	503.37	ppb	10:08:19
1	Cr 267.716†	50889.6	51272.2	497.53	µg/L	497.53	ppb	10:07:58
1	Cu 324.752†	118751.0	116608.0	495.40	µg/L	495.40	ppb	10:07:58
1	Mn 257.610†	308434.5	311878.3	497.22	µg/L	497.22	ppb	10:07:58
1	Mo 202.031†	13618.2	13789.4	509.19	µg/L	509.19	ppb	10:08:19
1	Ni 231.604†	31896.6	32336.8	501.40	µg/L	501.40	ppb	10:08:19
1	P 214.914†	9061.3	9166.8	2507.3	µg/L	2507.3	ppb	10:08:19
1	Pb 220.353†	6775.8	6761.1	506.39	µg/L	506.39	ppb	10:08:19
1	S 181.975 Axial†	1173.4	1118.6	1016.1	µg/L	1016.1	ppb	10:08:19
1	Sb 206.836†	3440.1	3363.6	502.27	µg/L	502.27	ppb	10:08:19
1	Se 196.026†	1195.0	1169.9	510	µg/L	510	ppb	10:08:19
1	SiO2†	49608.3	48102.2	5391.4	µg/L	5391.4	ppb	10:07:58
1	Si 251.611†	142541.4	143520.2	2518.7	µg/L	2518.7	ppb	10:07:58
1	Sn 189.927†	5692.7	5782.4	508.98	µg/L	508.98	ppb	10:08:19
1	Ti 334.940†	469641.4	473978.4	504.02	µg/L	504.02	ppb	10:07:58
1	Tl 190.801†	2896.9	3085.4	512.84	µg/L	512.84	ppb	10:08:19
1	U 409.014†	8494.4	8613.3	522.05	µg/L	522.05	ppb	10:07:58
1	V 292.402†	81924.6	82721.3	503.39	µg/L	503.39	ppb	10:07:58
1	Zn 213.857†	72834.7	70161.4	492.55	µg/L	492.55	ppb	10:07:58
2	Sc RADIAL	124168.4	124168.4	101	%			10:07:36
2	Al 396.153Radial†	26659.1	26375.8	4973.0	µg/L	4973.0	ppb	10:07:36
2	Ca 317.933Radial†	53911.6	52880.3	4985.8	µg/L	4985.8	ppb	10:07:36
2	Fe 238.204 Radial†	52274.8	51535.5	5023.9	µg/L	5023.9	ppb	10:07:36
2	K 766.490 Radial†	14964.7	13083.3	4891.0	µg/L	4891.0	ppb	10:07:36
2	Mg 279.077 IEC†	7173.6	7031.1	5006.4	µg/L	5006.4	ppb	10:07:36
2	Na 589.592 Radial†	69561.0	68416.1	9753.5	µg/L	9753.5	ppb	10:07:34
2	Sr 421.552†	225465.0	222750.3	489.39	µg/L	489.39	ppb	10:07:34
2	Sc 361.383	1619671.3	1619671.3	100.31	%			10:08:22
2	Y 371.029	1058636.1	1058636.1	99.888	%			10:08:22
2	Ag 328.068†	125555.4	123171.9	501.10	µg/L	501.10	ppb	10:08:22
2	As 188.979†	1399.5	1430.8	505.88	µg/L	505.88	ppb	10:08:42
2	B 249.677†	31306.0	29130.7	504.60	µg/L	504.60	ppb	10:08:22
2	Ba 233.527†	98383.3	98382.8	498.87	µg/L	498.87	ppb	10:08:22
2	Be 313.107†	1553716.9	1549637.3	504.26	µg/L	504.26	ppb	10:08:22
2	Cd 226.502†	59547.6	59546.6	498.39	µg/L	498.39	ppb	10:08:22
2	Co 228.616†	28273.1	28420.1	494.93	µg/L	494.93	ppb	10:08:42
2	Cr 267.716†	51697.0	51330.7	498.10	µg/L	498.10	ppb	10:08:22
2	Cu 324.752†	120304.7	116415.1	494.58	µg/L	494.58	ppb	10:08:22
2	Mn 257.610†	312922.7	311828.3	497.14	µg/L	497.14	ppb	10:08:22
2	Mo 202.031†	13618.3	13589.8	501.83	µg/L	501.83	ppb	10:08:42
2	Ni 231.604†	31912.4	31884.7	494.39	µg/L	494.39	ppb	10:08:42
2	P 214.914†	9065.1	9037.6	2471.8	µg/L	2471.8	ppb	10:08:42
2	Pb 220.353†	6780.1	6666.0	499.27	µg/L	499.27	ppb	10:08:42

2	S 181.975 Axial†	1169.1	1097.1	996.59 µg/L	996.59 ppb	10:08:42
2	Sb 206.836†	3450.8	3323.8	496.21 µg/L	496.21 ppb	10:08:42
2	Se 196.026†	1194.5	1151.9	502 µg/L	502 ppb	10:08:42
2	SiO2†	50308.0	48072.1	5388.3 µg/L	5388.3 ppb	10:08:22
2	Si 251.611†	144850.4	143731.1	2522.5 µg/L	2522.5 ppb	10:08:22
2	Sn 189.927†	5662.4	5668.7	499.01 µg/L	499.01 ppb	10:08:42
2	Ti 334.940†	476436.0	473863.0	503.89 µg/L	503.89 ppb	10:08:22
2	Tl 190.801†	2865.9	3012.1	500.87 µg/L	500.87 ppb	10:08:42
2	U 409.014†	8667.4	8661.2	524.75 µg/L	524.75 ppb	10:08:22
2	V 292.402†	83056.3	82647.8	502.88 µg/L	502.88 ppb	10:08:22
2	Zn 213.857†	74259.7	70513.6	495.09 µg/L	495.09 ppb	10:08:22
3	Sc RADIAL	121502.7	121502.7	99.1 %		10:07:40
3	Al 396.153Radial†	26121.2	26410.5	4979.5 µg/L	4979.5 ppb	10:07:40
3	Ca 317.933Radial†	52848.4	52975.3	4994.8 µg/L	4994.8 ppb	10:07:40
3	Fe 238.204 Radial†	51273.9	51658.1	5035.9 µg/L	5035.9 ppb	10:07:40
3	K 766.490 Radial†	15147.3	13591.7	5081.2 µg/L	5081.2 ppb	10:07:40
3	Mg 279.077 IEC†	6975.3	6986.4	4974.6 µg/L	4974.6 ppb	10:07:40
3	Na 589.592 Radial†	70213.1	70581.1	10062 µg/L	10062 ppb	10:07:38
3	Sr 421.552†	227104.6	229289.4	503.76 µg/L	503.76 ppb	10:07:38
3	Sc 361.383	1618723.1	1618723.1	100.25 %		10:08:45
3	Y 371.029	1058397.9	1058397.9	99.866 %		10:08:45
3	Ag 328.068†	125404.2	123094.4	500.75 µg/L	500.75 ppb	10:08:45
3	As 188.979†	1399.2	1431.3	506.04 µg/L	506.04 ppb	10:09:05
3	B 249.677†	30944.0	28787.9	498.63 µg/L	498.63 ppb	10:08:45
3	Ba 233.527†	97877.4	97935.6	496.60 µg/L	496.60 ppb	10:08:45
3	Be 313.107†	1544724.8	1541575.2	501.63 µg/L	501.63 ppb	10:08:45
3	Cd 226.502†	59206.3	59241.0	495.83 µg/L	495.83 ppb	10:08:45
3	Co 228.616†	28437.6	28600.6	498.07 µg/L	498.07 ppb	10:09:05
3	Cr 267.716†	51297.8	50962.6	494.54 µg/L	494.54 ppb	10:08:45
3	Cu 324.752†	119968.0	116149.5	493.44 µg/L	493.44 ppb	10:08:45
3	Mn 257.610†	311641.3	310732.9	495.39 µg/L	495.39 ppb	10:08:45
3	Mo 202.031†	13667.4	13646.7	503.93 µg/L	503.93 ppb	10:09:05
3	Ni 231.604†	32024.5	32015.1	496.41 µg/L	496.41 ppb	10:09:05
3	P 214.914†	9122.0	9099.7	2488.9 µg/L	2488.9 ppb	10:09:05
3	Pb 220.353†	6826.8	6716.6	503.06 µg/L	503.06 ppb	10:09:05
3	S 181.975 Axial†	1178.3	1106.9	1005.5 µg/L	1005.5 ppb	10:09:05
3	Sb 206.836†	3465.4	3340.4	498.77 µg/L	498.77 ppb	10:09:05
3	Se 196.026†	1195.9	1154.0	503 µg/L	503 ppb	10:09:05
3	SiO2†	50182.4	47976.2	5377.4 µg/L	5377.4 ppb	10:08:45
3	Si 251.611†	144140.0	143107.2	2511.5 µg/L	2511.5 ppb	10:08:45
3	Sn 189.927†	5699.4	5708.9	502.53 µg/L	502.53 ppb	10:09:05
3	Ti 334.940†	474664.3	472373.9	502.32 µg/L	502.32 ppb	10:08:45
3	Tl 190.801†	2904.7	3052.5	507.44 µg/L	507.44 ppb	10:09:05
3	U 409.014†	8416.1	8415.5	510.65 µg/L	510.65 ppb	10:08:45
3	V 292.402†	82807.6	82448.1	501.68 µg/L	501.68 ppb	10:08:45
3	Zn 213.857†	73584.6	69883.5	490.62 µg/L	490.62 ppb	10:08:45

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1611526.4	99.808	%	0.8234				0.82%
Sc RADIAL	122896.7	100	%	1.1				1.09%
Y 371.029	1053398.6	99.394	%	0.8366				0.84%
Ag 328.068†	123123.9	500.89	µg/L	0.180	500.89	ppb	0.180	0.04%
QC value within limits for Ag 328.068 Recovery = 100.18%								
Al 396.153Radial†	26355.6	4969.0	µg/L	12.88	4969.0	ppb	12.88	0.26%
QC value within limits for Al 396.153Radial Recovery = 99.38%								
As 188.979†	1440.0	509.09	µg/L	5.431	509.09	ppb	5.431	1.07%
QC value within limits for As 188.979 Recovery = 101.82%								
B 249.677†	29002.3	502.36	µg/L	3.248	502.36	ppb	3.248	0.65%
QC value within limits for B 249.677 Recovery = 100.47%								
Ba 233.527†	98138.1	497.63	µg/L	1.148	497.63	ppb	1.148	0.23%
QC value within limits for Ba 233.527 Recovery = 99.53%								
Be 313.107†	1546182.8	503.14	µg/L	1.353	503.14	ppb	1.353	0.27%
QC value within limits for Be 313.107 Recovery = 100.63%								
Ca 317.933Radial†	52913.5	4988.9	µg/L	5.05	4988.9	ppb	5.05	0.10%
QC value within limits for Ca 317.933Radial Recovery = 99.78%								
Cd 226.502†	59341.6	496.67	µg/L	1.486	496.67	ppb	1.486	0.30%
QC value within limits for Cd 226.502 Recovery = 99.33%								
Co 228.616†	28642.0	498.79	µg/L	4.268	498.79	ppb	4.268	0.86%

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   QC value within limits for Co 228.616  Recovery = 99.76%
Cr 267.716†            51188.5      496.72 µg/L         1.914      496.72 ppb          1.914   0.39%
   QC value within limits for Cr 267.716  Recovery = 99.34%
Cu 324.752†           116390.9      494.47 µg/L         0.981      494.47 ppb          0.981   0.20%
   QC value within limits for Cu 324.752  Recovery = 98.89%
Fe 238.204 Radial†     51600.8      5030.3 µg/L          6.01      5030.3 ppb           6.01   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.61%
K 766.490 Radial†      13349.8      4990.7 µg/L         95.43      4990.7 ppb          95.43   1.91%
   QC value within limits for K 766.490 Radial  Recovery = 99.81%
Mg 279.077 IEC†         7007.8      4989.8 µg/L         15.92      4989.8 ppb          15.92   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.80%
Mn 257.610†           311479.8      496.58 µg/L         1.032      496.58 ppb          1.032   0.21%
   QC value within limits for Mn 257.610  Recovery = 99.32%
Mo 202.031†            13675.3      504.98 µg/L         3.794      504.98 ppb          3.794   0.75%
   QC value within limits for Mo 202.031  Recovery = 101.00%
Na 589.592 Radial†     69510.3      9909.5 µg/L        154.34      9909.5 ppb         154.34   1.56%
   QC value within limits for Na 589.592 Radial  Recovery = 99.09%
Ni 231.604†            32078.8      497.40 µg/L         3.608      497.40 ppb          3.608   0.73%
   QC value within limits for Ni 231.604  Recovery = 99.48%
P 214.914†              9101.4      2489.3 µg/L         17.73      2489.3 ppb          17.73   0.71%
   QC value within limits for P 214.914  Recovery = 99.57%
Pb 220.353†             6714.6      502.91 µg/L         3.560      502.91 ppb          3.560   0.71%
   QC value within limits for Pb 220.353  Recovery = 100.58%
S 181.975 Axial†        1107.5      1006.0 µg/L          9.76      1006.0 ppb           9.76   0.97%
   QC value within limits for S 181.975 Axial  Recovery = 100.60%
Sb 206.836†             3342.6      499.08 µg/L         3.041      499.08 ppb          3.041   0.61%
   QC value within limits for Sb 206.836  Recovery = 99.82%
Se 196.026†             1158.6         505 µg/L           4.3         505 ppb            4.3   0.85%
   QC value within limits for Se 196.026  Recovery = 100.97%
SiO2†                  48050.2      5385.7 µg/L          7.33      5385.7 ppb           7.33   0.14%
   QC value within limits for SiO2  Recovery = 100.71%
Si 251.611†           143452.8      2517.6 µg/L          5.60      2517.6 ppb           5.60   0.22%
   QC value within limits for Si 251.611  Recovery = 100.70%
Sn 189.927†             5720.0      503.51 µg/L         5.060      503.51 ppb          5.060   1.00%
   QC value within limits for Sn 189.927  Recovery = 100.70%
Sr 421.552†           226112.9      496.78 µg/L         7.193      496.78 ppb          7.193   1.45%
   QC value within limits for Sr 421.552  Recovery = 99.36%
Ti 334.940†           473405.1      503.41 µg/L         0.948      503.41 ppb          0.948   0.19%
   QC value within limits for Ti 334.940  Recovery = 100.68%
Tl 190.801†             3050.0      507.05 µg/L         5.998      507.05 ppb          5.998   1.18%
   QC value within limits for Tl 190.801  Recovery = 101.41%
U 409.014†              8563.3      519.15 µg/L         7.484      519.15 ppb          7.484   1.44%
   QC value within limits for U 409.014  Recovery = 103.83%
V 292.402†             82605.7      502.65 µg/L         0.880      502.65 ppb          0.880   0.18%
   QC value within limits for V 292.402  Recovery = 100.53%
Zn 213.857†            70186.2      492.76 µg/L         2.244      492.76 ppb          2.244   0.46%
   QC value within limits for Zn 213.857  Recovery = 98.55%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/30/2010 10:09:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122922.3	122922.3	100	%			10:09:41
1	Al 396.153Radial†	0.8	52.2	9.8449	µg/L	9.8449	ppb	10:10:01
1	Ca 317.933Radial†	435.6	80.2	7.5600	µg/L	7.5600	ppb	10:10:01
1	Fe 238.204 Radial†	137.1	54.0	5.2600	µg/L	5.2600	ppb	10:10:01
1	K 766.490 Radial†	1768.5	70.5	26.355	µg/L	26.355	ppb	10:09:41
1	Mg 279.077 IEC†	72.5	19.9	14.186	µg/L	14.186	ppb	10:10:01
1	Na 589.592 Radial†	388.2	115.8	16.493	µg/L	16.493	ppb	10:09:41
1	Sr 421.552†	-162.2	-45.2	-0.0994	µg/L	-0.0994	ppb	10:09:41
1	Sc 361.383	1604183.1	1604183.1	99.353	%			10:10:49
1	Y 371.029	1052238.4	1052238.4	99.285	%			10:10:49
1	Ag 328.068†	1880.9	-99.1	-0.4167	µg/L	-0.4167	ppb	10:10:51
1	As 188.979†	-43.2	-7.9	-2.7326	µg/L	-2.7326	ppb	10:11:11
1	B 249.677†	2227.0	163.7	2.8449	µg/L	2.8449	ppb	10:11:11
1	Ba 233.527†	-268.4	35.8	0.1815	µg/L	0.1815	ppb	10:11:11
1	Be 313.107†	-641.5	115.7	0.0343	µg/L	0.0343	ppb	10:10:51
1	Cd 226.502†	-159.7	23.8	0.1990	µg/L	0.1990	ppb	10:11:11
1	Co 228.616†	-214.8	18.9	0.3282	µg/L	0.3282	ppb	10:11:11
1	Cr 267.716†	245.5	41.8	0.4143	µg/L	0.4143	ppb	10:11:11
1	Cu 324.752†	3621.2	130.0	0.5429	µg/L	0.5429	ppb	10:10:51
1	Mn 257.610†	205.5	87.4	0.1388	µg/L	0.1388	ppb	10:11:11
1	Mo 202.031†	15.0	28.9	1.0683	µg/L	1.0683	ppb	10:11:11
1	Ni 231.604†	-81.9	-10.7	-0.1667	µg/L	-0.1667	ppb	10:11:11
1	P 214.914†	-7.9	-7.2	-1.9856	µg/L	-1.9856	ppb	10:11:11
1	Pb 220.353†	94.7	2.3	0.1847	µg/L	0.1847	ppb	10:11:11
1	S 181.975 Axial†	64.9	-3.1	-2.8079	µg/L	-2.8079	ppb	10:11:11
1	Sb 206.836†	98.2	-17.4	-2.5771	µg/L	-2.5771	ppb	10:11:11
1	Se 196.026†	28.6	-10.1	-4.38	µg/L	-4.38	ppb	10:11:11
1	SiO2†	2136.2	70.9	7.9371	µg/L	7.9371	ppb	10:11:11
1	Si 251.611†	765.5	102.5	1.7858	µg/L	1.7858	ppb	10:11:11
1	Sn 189.927†	-12.2	11.6	1.0196	µg/L	1.0196	ppb	10:11:11
1	Ti 334.940†	1324.9	245.0	0.2642	µg/L	0.2642	ppb	10:10:51
1	Tl 190.801†	-159.6	-5.5	-0.9072	µg/L	-0.9072	ppb	10:11:11
1	U 409.014†	-210.8	-191.4	-10.949	µg/L	-10.949	ppb	10:10:51
1	V 292.402†	82.7	-66.5	-0.3947	µg/L	-0.3947	ppb	10:10:51
1	Zn 213.857†	3523.4	31.5	0.2236	µg/L	0.2236	ppb	10:11:11
2	Sc RADIAL	121554.1	121554.1	99.1	%			10:10:03
2	Al 396.153Radial†	-19.8	31.4	5.9142	µg/L	5.9142	ppb	10:10:23
2	Ca 317.933Radial†	476.6	126.4	11.915	µg/L	11.915	ppb	10:10:23
2	Fe 238.204 Radial†	154.0	72.6	7.0766	µg/L	7.0766	ppb	10:10:23
2	K 766.490 Radial†	1661.5	-17.6	-6.5885	µg/L	-6.5885	ppb	10:10:03
2	Mg 279.077 IEC†	76.0	24.2	17.213	µg/L	17.213	ppb	10:10:23
2	Na 589.592 Radial†	395.9	128.0	18.255	µg/L	18.255	ppb	10:10:03
2	Sr 421.552†	-153.1	-37.8	-0.0831	µg/L	-0.0831	ppb	10:10:03
2	Sc 361.383	1617060.0	1617060.0	100.15	%			10:11:13
2	Y 371.029	1061334.3	1061334.3	100.14	%			10:11:13
2	Ag 328.068†	1998.8	3.5	0.0101	µg/L	0.0101	ppb	10:11:15
2	As 188.979†	-36.3	-0.7	-0.2262	µg/L	-0.2262	ppb	10:11:36
2	B 249.677†	2186.1	105.1	1.8259	µg/L	1.8259	ppb	10:11:36
2	Ba 233.527†	-235.7	70.6	0.3580	µg/L	0.3580	ppb	10:11:36
2	Be 313.107†	-786.5	-24.0	-0.0083	µg/L	-0.0083	ppb	10:11:15
2	Cd 226.502†	-180.8	4.0	0.0329	µg/L	0.0329	ppb	10:11:36
2	Co 228.616†	-223.7	11.7	0.2041	µg/L	0.2041	ppb	10:11:36
2	Cr 267.716†	262.9	57.2	0.5565	µg/L	0.5565	ppb	10:11:36
2	Cu 324.752†	3764.4	243.9	1.0333	µg/L	1.0333	ppb	10:11:15
2	Mn 257.610†	175.2	55.5	0.0879	µg/L	0.0879	ppb	10:11:36
2	Mo 202.031†	9.6	23.4	0.8654	µg/L	0.8654	ppb	10:11:36
2	Ni 231.604†	-70.9	0.9	0.0142	µg/L	0.0142	ppb	10:11:36
2	P 214.914†	-0.0	0.7	0.1855	µg/L	0.1855	ppb	10:11:36
2	Pb 220.353†	108.8	15.7	1.1759	µg/L	1.1759	ppb	10:11:36

2	S 181.975 Axial†	60.6	-7.9	-7.1024 µg/L	-7.1024 ppb	10:11:36
2	Sb 206.836†	113.7	-2.7	-0.3925 µg/L	-0.3925 ppb	10:11:36
2	Se 196.026†	23.5	-15.4	-6.69 µg/L	-6.69 ppb	10:11:36
2	SiO2†	2103.9	21.6	2.3980 µg/L	2.3980 ppb	10:11:36
2	Si 251.611†	747.7	78.7	1.3692 µg/L	1.3692 ppb	10:11:36
2	Sn 189.927†	-14.4	9.5	0.8380 µg/L	0.8380 ppb	10:11:36
2	Ti 334.940†	1314.8	224.3	0.2381 µg/L	0.2381 ppb	10:11:15
2	Tl 190.801†	-150.8	4.6	0.7469 µg/L	0.7469 ppb	10:11:36
2	U 409.014†	-45.9	-25.1	-1.4408 µg/L	-1.4408 ppb	10:11:15
2	V 292.402†	125.4	-24.6	-0.1380 µg/L	-0.1380 ppb	10:11:15
2	Zn 213.857†	3577.0	56.9	0.4008 µg/L	0.4008 ppb	10:11:36
3	Sc RADIAL	119950.1	119950.1	97.8 %		10:10:25
3	Al 396.153Radial†	-4.0	47.3	8.9170 µg/L	8.9170 ppb	10:10:45
3	Ca 317.933Radial†	472.1	128.3	12.093 µg/L	12.093 ppb	10:10:45
3	Fe 238.204 Radial†	165.9	86.8	8.4640 µg/L	8.4640 ppb	10:10:45
3	K 766.490 Radial†	1704.8	49.1	18.353 µg/L	18.353 ppb	10:10:25
3	Mg 279.077 IEC†	72.9	22.1	15.708 µg/L	15.708 ppb	10:10:45
3	Na 589.592 Radial†	347.4	83.7	11.927 µg/L	11.927 ppb	10:10:25
3	Sr 421.552†	20.0	137.0	0.3010 µg/L	0.3010 ppb	10:10:25
3	Sc 361.383	1630259.2	1630259.2	100.97 %		10:11:38
3	Y 371.029	1069199.5	1069199.5	100.89 %		10:11:38
3	Ag 328.068†	1965.3	-45.9	-0.1843 µg/L	-0.1843 ppb	10:11:40
3	As 188.979†	-42.6	-6.6	-2.2897 µg/L	-2.2897 ppb	10:12:00
3	B 249.677†	2188.0	89.3	1.5504 µg/L	1.5504 ppb	10:12:00
3	Ba 233.527†	-230.5	77.7	0.3942 µg/L	0.3942 ppb	10:12:00
3	Be 313.107†	-653.7	113.9	0.0367 µg/L	0.0367 ppb	10:11:40
3	Cd 226.502†	-166.3	19.8	0.1653 µg/L	0.1653 ppb	10:12:00
3	Co 228.616†	-210.8	26.3	0.4572 µg/L	0.4572 ppb	10:12:00
3	Cr 267.716†	280.0	72.0	0.6995 µg/L	0.6995 ppb	10:12:00
3	Cu 324.752†	3643.3	93.5	0.3971 µg/L	0.3971 ppb	10:11:40
3	Mn 257.610†	295.4	173.1	0.2755 µg/L	0.2755 ppb	10:12:00
3	Mo 202.031†	14.8	28.5	1.0526 µg/L	1.0526 ppb	10:12:00
3	Ni 231.604†	-62.9	9.4	0.1456 µg/L	0.1456 ppb	10:12:00
3	P 214.914†	1.7	2.5	0.6590 µg/L	0.6590 ppb	10:12:00
3	Pb 220.353†	105.6	11.6	0.8720 µg/L	0.8720 ppb	10:12:00
3	S 181.975 Axial†	61.4	-7.5	-6.8046 µg/L	-6.8046 ppb	10:12:00
3	Sb 206.836†	111.8	-5.5	-0.8132 µg/L	-0.8132 ppb	10:12:00
3	Se 196.026†	36.0	-3.2	-1.39 µg/L	-1.39 ppb	10:12:00
3	SiO2†	2130.9	31.3	3.4865 µg/L	3.4865 ppb	10:12:00
3	Si 251.611†	779.6	104.2	1.8195 µg/L	1.8195 ppb	10:12:00
3	Sn 189.927†	-19.0	5.1	0.4496 µg/L	0.4496 ppb	10:12:00
3	Ti 334.940†	1338.9	237.5	0.2522 µg/L	0.2522 ppb	10:11:40
3	Tl 190.801†	-147.8	8.7	1.4244 µg/L	1.4244 ppb	10:12:00
3	U 409.014†	-42.6	-21.4	-1.2141 µg/L	-1.2141 ppb	10:11:40
3	V 292.402†	175.9	24.5	0.1588 µg/L	0.1588 ppb	10:11:40
3	Zn 213.857†	3591.2	42.0	0.2951 µg/L	0.2951 ppb	10:12:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1617167.4	100.16	%	0.808				0.81%
Sc RADIAL	121475.5	99.1	%	1.21				1.22%
Y 371.029	1060924.1	100.10	%	0.801				0.80%
Ag 328.068†	-47.2	-0.1970	µg/L	0.21369	-0.1970	ppb	0.21369	108.49%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	43.7	8.2254	µg/L	2.05459	8.2254	ppb	2.05459	24.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.0	-1.7495	µg/L	1.33770	-1.7495	ppb	1.33770	76.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	119.4	2.0737	µg/L	0.68188	2.0737	ppb	0.68188	32.88%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	61.4	0.3112	µg/L	0.11377	0.3112	ppb	0.11377	36.55%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	68.5	0.0209	µg/L	0.02529	0.0209	ppb	0.02529	120.89%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	111.6	10.523	µg/L	2.5673	10.523	ppb	2.5673	24.40%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	15.9	0.1324	µg/L	0.08777	0.1324	ppb	0.08777	66.29%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.9	0.3298	µg/L	0.12653	0.3298	ppb	0.12653	38.36%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              57.0      0.5568 µg/L       0.14259      0.5568 ppb        0.14259  25.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             155.8      0.6578 µg/L       0.33333      0.6578 ppb        0.33333  50.68%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       71.1      6.9336 µg/L       1.60677      6.9336 ppb        1.60677  23.17%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        34.0      12.707 µg/L       17.1823      12.707 ppb        17.1823 135.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          22.1      15.702 µg/L        1.5137      15.702 ppb         1.5137   9.64%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             105.3      0.1674 µg/L       0.09702      0.1674 ppb        0.09702  57.96%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              27.0      0.9954 µg/L       0.11289      0.9954 ppb        0.11289  11.34%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      109.2      15.558 µg/L        3.2659      15.558 ppb         3.2659  20.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -0.1     -0.0023 µg/L       0.15680     -0.0023 ppb        0.15680 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.3     -0.3804 µg/L       1.41018     -0.3804 ppb        1.41018 370.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               9.9      0.7442 µg/L       0.50781      0.7442 ppb        0.50781  68.23%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -6.2     -5.5717 µg/L       2.39809     -5.5717 ppb        2.39809  43.04%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -8.5     -1.2609 µg/L       1.15912     -1.2609 ppb        1.15912  91.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -9.6       -4.15 µg/L         2.658       -4.15 ppb          2.658  64.02%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    41.3      4.6072 µg/L       2.93466      4.6072 ppb        2.93466  63.70%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              95.2      1.6582 µg/L       0.25083      1.6582 ppb        0.25083  15.13%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.8      0.7691 µg/L       0.29119      0.7691 ppb        0.29119  37.86%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              18.0      0.0395 µg/L       0.22661      0.0395 ppb        0.22661 573.46%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             235.6      0.2515 µg/L       0.01308      0.2515 ppb        0.01308   5.20%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.6      0.4214 µg/L       1.19937      0.4214 ppb        1.19937 284.64%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -79.3     -4.5345 µg/L       5.55600     -4.5345 ppb        5.55600 122.53%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -22.2     -0.1247 µg/L       0.27698     -0.1247 ppb        0.27698 222.19%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              43.5      0.3065 µg/L       0.08914      0.3065 ppb        0.08914  29.08%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/30/2010 10:55:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123088.4	123088.4	100	%			10:55:38
1	Al 396.153Radial†	26202.7	26152.1	4931.0	µg/L	4931.0	ppb	10:55:38
1	Ca 317.933Radial†	52668.7	52109.3	4913.1	µg/L	4913.1	ppb	10:55:38
1	Fe 238.204 Radial†	51203.2	50921.0	4964.0	µg/L	4964.0	ppb	10:55:38
1	K 766.490 Radial†	15057.5	13305.3	4974.1	µg/L	4974.1	ppb	10:55:38
1	Mg 279.077 IEC†	6931.1	6851.7	4878.7	µg/L	4878.7	ppb	10:55:38
1	Na 589.592 Radial†	69686.4	69143.6	9857.2	µg/L	9857.2	ppb	10:55:36
1	Sr 421.552†	226617.1	225851.2	496.20	µg/L	496.20	ppb	10:55:36
1	Sc 361.383	1627305.3	1627305.3	100.79	%			10:55:51
1	Y 371.029	1063620.1	1063620.1	100.36	%			10:55:51
1	Ag 328.068†	126429.5	123452.0	502.22	µg/L	502.22	ppb	10:55:51
1	As 188.979†	1365.6	1390.6	491.82	µg/L	491.82	ppb	10:56:11
1	B 249.677†	30701.2	28384.2	491.64	µg/L	491.64	ppb	10:55:51
1	Ba 233.527†	98592.8	98130.6	497.59	µg/L	497.59	ppb	10:55:51
1	Be 313.107†	1552703.0	1541365.2	501.57	µg/L	501.57	ppb	10:55:51
1	Cd 226.502†	59426.6	59148.0	495.05	µg/L	495.05	ppb	10:55:51
1	Co 228.616†	28110.5	28126.5	489.82	µg/L	489.82	ppb	10:56:11
1	Cr 267.716†	51829.0	51219.9	497.02	µg/L	497.02	ppb	10:55:51
1	Cu 324.752†	120850.7	116394.2	494.47	µg/L	494.47	ppb	10:55:51
1	Mn 257.610†	314367.0	311797.9	497.09	µg/L	497.09	ppb	10:55:51
1	Mo 202.031†	13464.7	13373.7	493.85	µg/L	493.85	ppb	10:56:11
1	Ni 231.604†	31594.3	31419.9	487.18	µg/L	487.18	ppb	10:56:11
1	P 214.914†	8968.1	8899.0	2433.8	µg/L	2433.8	ppb	10:56:11
1	Pb 220.353†	6702.1	6556.9	491.11	µg/L	491.11	ppb	10:56:11
1	S 181.975 Axial†	1155.1	1077.7	978.98	µg/L	978.98	ppb	10:56:11
1	Sb 206.836†	3444.2	3301.1	492.72	µg/L	492.72	ppb	10:56:11
1	Se 196.026†	1161.9	1114.0	485	µg/L	485	ppb	10:56:11
1	SiO2†	49934.1	47465.8	5320.5	µg/L	5320.5	ppb	10:55:51
1	Si 251.611†	143970.0	142180.2	2495.4	µg/L	2495.4	ppb	10:55:51
1	Sn 189.927†	5582.1	5562.5	489.68	µg/L	489.68	ppb	10:56:11
1	Ti 334.940†	477914.9	473102.2	503.09	µg/L	503.09	ppb	10:55:51
1	Tl 190.801†	2851.3	2984.2	496.32	µg/L	496.32	ppb	10:56:11
1	U 409.014†	8698.1	8651.1	524.16	µg/L	524.16	ppb	10:55:51
1	V 292.402†	83369.8	82570.3	502.34	µg/L	502.34	ppb	10:55:51
1	Zn 213.857†	74191.9	70099.1	492.21	µg/L	492.21	ppb	10:55:51
2	Sc RADIAL	124310.7	124310.7	101	%			10:55:42
2	Al 396.153Radial†	26654.2	26340.8	4966.4	µg/L	4966.4	ppb	10:55:42
2	Ca 317.933Radial†	53605.4	52517.3	4951.6	µg/L	4951.6	ppb	10:55:42
2	Fe 238.204 Radial†	51913.5	51120.1	4983.4	µg/L	4983.4	ppb	10:55:42
2	K 766.490 Radial†	15340.8	13437.3	5023.5	µg/L	5023.5	ppb	10:55:42
2	Mg 279.077 IEC†	7075.0	6925.7	4931.4	µg/L	4931.4	ppb	10:55:42
2	Na 589.592 Radial†	69299.5	68079.5	9705.4	µg/L	9705.4	ppb	10:55:40
2	Sr 421.552†	225116.5	222151.7	488.07	µg/L	488.07	ppb	10:55:40
2	Sc 361.383	1617859.7	1617859.7	100.20	%			10:56:14
2	Y 371.029	1058248.9	1058248.9	99.852	%			10:56:14
2	Ag 328.068†	124466.8	122225.6	497.24	µg/L	497.24	ppb	10:56:14
2	As 188.979†	1393.5	1426.3	504.22	µg/L	504.22	ppb	10:56:34
2	B 249.677†	30263.2	28124.9	487.12	µg/L	487.12	ppb	10:56:14
2	Ba 233.527†	96757.3	96869.8	491.20	µg/L	491.20	ppb	10:56:14
2	Be 313.107†	1523217.6	1520933.3	494.93	µg/L	494.93	ppb	10:56:14
2	Cd 226.502†	58109.7	58178.1	486.93	µg/L	486.93	ppb	10:56:14
2	Co 228.616†	28300.5	28479.0	495.95	µg/L	495.95	ppb	10:56:34
2	Cr 267.716†	50844.5	50537.5	490.38	µg/L	490.38	ppb	10:56:14
2	Cu 324.752†	119028.9	115276.1	489.76	µg/L	489.76	ppb	10:56:14
2	Mn 257.610†	308881.9	308144.9	491.26	µg/L	491.26	ppb	10:56:14
2	Mo 202.031†	13566.9	13553.7	500.49	µg/L	500.49	ppb	10:56:34
2	Ni 231.604†	31887.6	31895.6	494.56	µg/L	494.56	ppb	10:56:34
2	P 214.914†	9033.2	9015.9	2465.9	µg/L	2465.9	ppb	10:56:34
2	Pb 220.353†	6766.6	6660.1	498.81	µg/L	498.81	ppb	10:56:34

2	S 181.975 Axial†	1160.4	1089.7	989.84 µg/L	989.84 ppb	10:56:34
2	Sb 206.836†	3458.6	3335.5	498.03 µg/L	498.03 ppb	10:56:34
2	Se 196.026†	1186.4	1145.2	499 µg/L	499 ppb	10:56:34
2	SiO2†	49209.7	47032.2	5271.3 µg/L	5271.3 ppb	10:56:14
2	Si 251.611†	141719.4	140768.1	2470.4 µg/L	2470.4 ppb	10:56:14
2	Sn 189.927†	5646.4	5659.0	498.14 µg/L	498.14 ppb	10:56:34
2	Ti 334.940†	469836.8	467808.8	497.45 µg/L	497.45 ppb	10:56:14
2	Tl 190.801†	2867.6	3017.0	501.53 µg/L	501.53 ppb	10:56:34
2	U 409.014†	8937.7	8940.6	540.31 µg/L	540.31 ppb	10:56:14
2	V 292.402†	81891.0	81577.5	496.43 µg/L	496.43 ppb	10:56:14
2	Zn 213.857†	72922.4	69261.8	486.24 µg/L	486.24 ppb	10:56:14
3	Sc RADIAL	122021.2	122021.2	99.5 %		10:55:47
3	Al 396.153Radial†	26083.1	26260.2	4951.2 µg/L	4951.2 ppb	10:55:47
3	Ca 317.933Radial†	52638.6	52537.9	4953.5 µg/L	4953.5 ppb	10:55:47
3	Fe 238.204 Radial†	50898.2	51060.7	4977.7 µg/L	4977.7 ppb	10:55:47
3	K 766.490 Radial†	14908.2	13286.4	4967.0 µg/L	4967.0 ppb	10:55:47
3	Mg 279.077 IEC†	6979.2	6960.5	4956.1 µg/L	4956.1 ppb	10:55:47
3	Na 589.592 Radial†	69990.1	70055.9	9987.3 µg/L	9987.3 ppb	10:55:44
3	Sr 421.552†	227425.3	228637.7	502.33 µg/L	502.33 ppb	10:55:44
3	Sc 361.383	1620834.1	1620834.1	100.38 %		10:56:37
3	Y 371.029	1059247.3	1059247.3	99.946 %		10:56:37
3	Ag 328.068†	125906.8	123432.2	502.15 µg/L	502.15 ppb	10:56:37
3	As 188.979†	1370.0	1400.3	495.25 µg/L	495.25 ppb	10:56:57
3	B 249.677†	30747.4	28551.9	494.54 µg/L	494.54 ppb	10:56:37
3	Ba 233.527†	98043.9	97974.3	496.80 µg/L	496.80 ppb	10:56:37
3	Be 313.107†	1547298.7	1542132.4	501.82 µg/L	501.82 ppb	10:56:37
3	Cd 226.502†	59247.4	59205.0	495.53 µg/L	495.53 ppb	10:56:37
3	Co 228.616†	28342.2	28468.7	495.78 µg/L	495.78 ppb	10:56:57
3	Cr 267.716†	51706.8	51303.4	497.83 µg/L	497.83 ppb	10:56:37
3	Cu 324.752†	120958.2	116980.0	496.97 µg/L	496.97 ppb	10:56:37
3	Mn 257.610†	313042.7	311724.0	496.97 µg/L	496.97 ppb	10:56:37
3	Mo 202.031†	13548.6	13510.6	498.90 µg/L	498.90 ppb	10:56:57
3	Ni 231.604†	31881.7	31831.2	493.56 µg/L	493.56 ppb	10:56:57
3	P 214.914†	9049.7	9015.8	2465.9 µg/L	2465.9 ppb	10:56:57
3	Pb 220.353†	6762.9	6644.1	497.62 µg/L	497.62 ppb	10:56:57
3	S 181.975 Axial†	1171.0	1098.1	997.44 µg/L	997.44 ppb	10:56:57
3	Sb 206.836†	3485.2	3355.6	500.91 µg/L	500.91 ppb	10:56:57
3	Se 196.026†	1187.2	1143.7	498 µg/L	498 ppb	10:56:57
3	SiO2†	49988.2	47717.5	5348.5 µg/L	5348.5 ppb	10:56:37
3	Si 251.611†	144049.7	142829.9	2506.7 µg/L	2506.7 ppb	10:56:37
3	Sn 189.927†	5648.1	5650.4	497.40 µg/L	497.40 ppb	10:56:57
3	Ti 334.940†	476060.5	473148.2	503.13 µg/L	503.13 ppb	10:56:37
3	Tl 190.801†	2877.2	3021.3	502.37 µg/L	502.37 ppb	10:56:57
3	U 409.014†	8805.1	8792.1	532.23 µg/L	532.23 ppb	10:56:37
3	V 292.402†	83102.2	82634.1	502.78 µg/L	502.78 ppb	10:56:37
3	Zn 213.857†	73895.5	70097.7	492.16 µg/L	492.16 ppb	10:56:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1621999.7	100.46	%	0.299				0.30%
Sc RADIAL	123140.1	100	%	0.9				0.93%
Y 371.029	1060372.1	100.05	%	0.270				0.27%
Ag 328.068†	123036.6	500.54	µg/L	2.855	500.54	ppb	2.855	0.57%
QC value within limits for Ag 328.068 Recovery = 100.11%								
Al 396.153Radial†	26251.0	4949.6	µg/L	17.78	4949.6	ppb	17.78	0.36%
QC value within limits for Al 396.153Radial Recovery = 98.99%								
As 188.979†	1405.7	497.10	µg/L	6.404	497.10	ppb	6.404	1.29%
QC value within limits for As 188.979 Recovery = 99.42%								
B 249.677†	28353.7	491.10	µg/L	3.741	491.10	ppb	3.741	0.76%
QC value within limits for B 249.677 Recovery = 98.22%								
Ba 233.527†	97658.2	495.19	µg/L	3.483	495.19	ppb	3.483	0.70%
QC value within limits for Ba 233.527 Recovery = 99.04%								
Be 313.107†	1534810.3	499.44	µg/L	3.909	499.44	ppb	3.909	0.78%
QC value within limits for Be 313.107 Recovery = 99.89%								
Ca 317.933Radial†	52388.2	4939.4	µg/L	22.79	4939.4	ppb	22.79	0.46%
QC value within limits for Ca 317.933Radial Recovery = 98.79%								
Cd 226.502†	58843.7	492.50	µg/L	4.833	492.50	ppb	4.833	0.98%
QC value within limits for Cd 226.502 Recovery = 98.50%								
Co 228.616†	28358.1	493.85	µg/L	3.488	493.85	ppb	3.488	0.71%

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   QC value within limits for Co 228.616  Recovery = 98.77%
Cr 267.716†            51020.2      495.08 µg/L         4.085      495.08 ppb          4.085   0.83%
   QC value within limits for Cr 267.716  Recovery = 99.02%
Cu 324.752†           116216.8      493.73 µg/L         3.661      493.73 ppb          3.661   0.74%
   QC value within limits for Cu 324.752  Recovery = 98.75%
Fe 238.204 Radial†     51033.9      4975.0 µg/L          9.96      4975.0 ppb           9.96   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.50%
K 766.490 Radial†      13343.0      4988.2 µg/L         30.77      4988.2 ppb          30.77   0.62%
   QC value within limits for K 766.490 Radial  Recovery = 99.76%
Mg 279.077 IEC†         6912.6      4922.1 µg/L         39.55      4922.1 ppb          39.55   0.80%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.44%
Mn 257.610†           310555.6      495.11 µg/L         3.331      495.11 ppb          3.331   0.67%
   QC value within limits for Mn 257.610  Recovery = 99.02%
Mo 202.031†            13479.3      497.75 µg/L         3.468      497.75 ppb          3.468   0.70%
   QC value within limits for Mo 202.031  Recovery = 99.55%
Na 589.592 Radial†     69093.0      9849.9 µg/L        141.11      9849.9 ppb         141.11   1.43%
   QC value within limits for Na 589.592 Radial  Recovery = 98.50%
Ni 231.604†            31715.6      491.77 µg/L         4.002      491.77 ppb          4.002   0.81%
   QC value within limits for Ni 231.604  Recovery = 98.35%
P 214.914†              8976.9      2455.2 µg/L         18.52      2455.2 ppb          18.52   0.75%
   QC value within limits for P 214.914  Recovery = 98.21%
Pb 220.353†             6620.4      495.84 µg/L         4.147      495.84 ppb          4.147   0.84%
   QC value within limits for Pb 220.353  Recovery = 99.17%
S 181.975 Axial†        1088.5      988.75 µg/L         9.279      988.75 ppb          9.279   0.94%
   QC value within limits for S 181.975 Axial  Recovery = 98.88%
Sb 206.836†             3330.7      497.22 µg/L         4.155      497.22 ppb          4.155   0.84%
   QC value within limits for Sb 206.836  Recovery = 99.44%
Se 196.026†             1134.3         494 µg/L           7.6         494 ppb            7.6   1.55%
   QC value within limits for Se 196.026  Recovery = 98.86%
SiO2†                  47405.2      5313.4 µg/L         39.07      5313.4 ppb          39.07   0.74%
   QC value within limits for SiO2  Recovery = 99.36%
Si 251.611†           141926.0      2490.8 µg/L         18.60      2490.8 ppb          18.60   0.75%
   QC value within limits for Si 251.611  Recovery = 99.63%
Sn 189.927†             5624.0      495.07 µg/L         4.683      495.07 ppb          4.683   0.95%
   QC value within limits for Sn 189.927  Recovery = 99.01%
Sr 421.552†           225546.9      495.53 µg/L         7.149      495.53 ppb          7.149   1.44%
   QC value within limits for Sr 421.552  Recovery = 99.11%
Ti 334.940†           471353.1      501.22 µg/L         3.270      501.22 ppb          3.270   0.65%
   QC value within limits for Ti 334.940  Recovery = 100.24%
Tl 190.801†             3007.5      500.07 µg/L         3.278      500.07 ppb          3.278   0.66%
   QC value within limits for Tl 190.801  Recovery = 100.01%
U 409.014†              8794.6      532.24 µg/L         8.076      532.24 ppb          8.076   1.52%
   QC value within limits for U 409.014  Recovery = 106.45%
V 292.402†             82260.6      500.51 µg/L         3.545      500.51 ppb          3.545   0.71%
   QC value within limits for V 292.402  Recovery = 100.10%
Zn 213.857†            69819.5      490.20 µg/L         3.434      490.20 ppb          3.434   0.70%
   QC value within limits for Zn 213.857  Recovery = 98.04%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/30/2010 10:57:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120791.8	120791.8	98.5	%			10:57:34
1	Al 396.153Radial†	-30.3	20.6	3.8816	µg/L	3.8816	ppb	10:57:54
1	Ca 317.933Radial†	350.3	1.3	0.1188	µg/L	0.1188	ppb	10:57:54
1	Fe 238.204 Radial†	82.1	0.6	0.0557	µg/L	0.0557	ppb	10:57:54
1	K 766.490 Radial†	1680.5	12.3	4.5899	µg/L	4.5899	ppb	10:57:34
1	Mg 279.077 IEC†	46.8	-4.9	-3.4588	µg/L	-3.4588	ppb	10:57:54
1	Na 589.592 Radial†	383.1	117.5	16.755	µg/L	16.755	ppb	10:57:34
1	Sr 421.552†	-199.2	-85.6	-0.1882	µg/L	-0.1882	ppb	10:57:34
1	Sc 361.383	1606018.8	1606018.8	99.467	%			10:58:42
1	Y 371.029	1054281.0	1054281.0	99.477	%			10:58:42
1	Ag 328.068†	1962.5	-19.3	-0.0946	µg/L	-0.0946	ppb	10:58:44
1	As 188.979†	-43.3	-7.9	-2.7601	µg/L	-2.7601	ppb	10:59:04
1	B 249.677†	2103.0	36.5	0.6344	µg/L	0.6344	ppb	10:59:04
1	Ba 233.527†	-306.2	-1.8	-0.0088	µg/L	-0.0088	ppb	10:59:04
1	Be 313.107†	-716.6	40.9	0.0086	µg/L	0.0086	ppb	10:58:44
1	Cd 226.502†	-151.0	32.8	0.2743	µg/L	0.2743	ppb	10:59:04
1	Co 228.616†	-223.3	10.5	0.1831	µg/L	0.1831	ppb	10:59:04
1	Cr 267.716†	199.2	-5.0	-0.0366	µg/L	-0.0366	ppb	10:59:04
1	Cu 324.752†	3470.6	-25.6	-0.1215	µg/L	-0.1215	ppb	10:58:44
1	Mn 257.610†	107.7	-11.1	-0.0176	µg/L	-0.0176	ppb	10:59:04
1	Mo 202.031†	-0.3	13.6	0.5007	µg/L	0.5007	ppb	10:59:04
1	Ni 231.604†	-99.7	-28.5	-0.4424	µg/L	-0.4424	ppb	10:59:04
1	P 214.914†	5.4	6.3	1.7105	µg/L	1.7105	ppb	10:59:04
1	Pb 220.353†	102.9	10.5	0.7956	µg/L	0.7956	ppb	10:59:04
1	S 181.975 Axial†	72.1	4.1	3.7333	µg/L	3.7333	ppb	10:59:04
1	Sb 206.836†	106.6	-9.1	-1.3431	µg/L	-1.3431	ppb	10:59:04
1	Se 196.026†	29.9	-8.9	-3.86	µg/L	-3.86	ppb	10:59:04
1	SiO2†	2080.2	12.2	1.3624	µg/L	1.3624	ppb	10:59:04
1	Si 251.611†	678.2	13.9	0.2411	µg/L	0.2411	ppb	10:59:04
1	Sn 189.927†	-27.5	-3.8	-0.3318	µg/L	-0.3318	ppb	10:59:04
1	Ti 334.940†	809.4	-274.8	-0.2859	µg/L	-0.2859	ppb	10:58:44
1	Tl 190.801†	-151.9	2.4	0.3887	µg/L	0.3887	ppb	10:59:04
1	U 409.014†	-293.4	-274.2	-15.646	µg/L	-15.646	ppb	10:58:44
1	V 292.402†	178.1	29.3	0.1707	µg/L	0.1707	ppb	10:58:44
1	Zn 213.857†	3518.2	22.3	0.1610	µg/L	0.1610	ppb	10:59:04
2	Sc RADIAL	121738.9	121738.9	99.3	%			10:57:56
2	Al 396.153Radial†	-30.8	20.4	3.8673	µg/L	3.8673	ppb	10:58:16
2	Ca 317.933Radial†	371.2	19.5	1.8381	µg/L	1.8381	ppb	10:58:16
2	Fe 238.204 Radial†	87.5	5.3	0.5184	µg/L	0.5184	ppb	10:58:16
2	K 766.490 Radial†	1622.2	-59.8	-22.370	µg/L	-22.370	ppb	10:57:56
2	Mg 279.077 IEC†	49.1	-3.0	-2.1499	µg/L	-2.1499	ppb	10:58:16
2	Na 589.592 Radial†	279.0	9.6	1.3922	µg/L	1.3922	ppb	10:57:56
2	Sr 421.552†	-181.7	-66.4	-0.1460	µg/L	-0.1460	ppb	10:57:56
2	Sc 361.383	1623819.8	1623819.8	100.57	%			10:59:06
2	Y 371.029	1065250.3	1065250.3	100.51	%			10:59:06
2	Ag 328.068†	1939.6	-63.7	-0.2668	µg/L	-0.2668	ppb	10:59:08
2	As 188.979†	-38.6	-2.8	-0.9913	µg/L	-0.9913	ppb	10:59:29
2	B 249.677†	2105.2	15.5	0.2685	µg/L	0.2685	ppb	10:59:29
2	Ba 233.527†	-295.4	12.3	0.0621	µg/L	0.0621	ppb	10:59:29
2	Be 313.107†	-689.3	75.9	0.0232	µg/L	0.0232	ppb	10:59:08
2	Cd 226.502†	-186.0	-0.4	-0.0034	µg/L	-0.0034	ppb	10:59:29
2	Co 228.616†	-220.9	15.4	0.2680	µg/L	0.2680	ppb	10:59:29
2	Cr 267.716†	189.4	-17.0	-0.1612	µg/L	-0.1612	ppb	10:59:29
2	Cu 324.752†	3583.1	48.0	0.1992	µg/L	0.1992	ppb	10:59:08
2	Mn 257.610†	130.0	9.8	0.0157	µg/L	0.0157	ppb	10:59:29
2	Mo 202.031†	-14.7	-0.7	-0.0276	µg/L	-0.0276	ppb	10:59:29
2	Ni 231.604†	-69.9	2.2	0.0340	µg/L	0.0340	ppb	10:59:29
2	P 214.914†	5.0	5.7	1.5659	µg/L	1.5659	ppb	10:59:29
2	Pb 220.353†	88.4	-5.1	-0.3779	µg/L	-0.3779	ppb	10:59:29

2	S 181.975 Axial†	69.5	0.8	0.6886 µg/L	0.6886 ppb	10:59:29
2	Sb 206.836†	118.2	1.3	0.1963 µg/L	0.1963 ppb	10:59:29
2	Se 196.026†	25.5	-13.5	-5.86 µg/L	-5.86 ppb	10:59:29
2	SiO2†	2053.8	-37.0	-4.1572 µg/L	-4.1572 ppb	10:59:29
2	Si 251.611†	693.0	21.1	0.3725 µg/L	0.3725 ppb	10:59:29
2	Sn 189.927†	-24.5	-0.5	-0.0421 µg/L	-0.0421 ppb	10:59:29
2	Ti 334.940†	888.4	-205.2	-0.2162 µg/L	-0.2162 ppb	10:59:08
2	Tl 190.801†	-160.4	-4.4	-0.7322 µg/L	-0.7322 ppb	10:59:29
2	U 409.014†	-110.3	-89.0	-5.1005 µg/L	-5.1005 ppb	10:59:08
2	V 292.402†	86.8	-63.5	-0.3852 µg/L	-0.3852 ppb	10:59:08
2	Zn 213.857†	3516.5	-18.2	-0.1292 µg/L	-0.1292 ppb	10:59:29
3	Sc RADIAL	121750.8	121750.8	99.3 %		10:58:18
3	Al 396.153Radial†	-52.9	-1.9	-0.3756 µg/L	-0.3756 ppb	10:58:38
3	Ca 317.933Radial†	341.7	-10.2	-0.9644 µg/L	-0.9644 ppb	10:58:38
3	Fe 238.204 Radial†	70.0	-12.3	-1.1988 µg/L	-1.1988 ppb	10:58:38
3	K 766.490 Radial†	1621.1	-61.0	-22.832 µg/L	-22.832 ppb	10:58:18
3	Mg 279.077 IEC†	63.8	11.9	8.4508 µg/L	8.4508 ppb	10:58:38
3	Na 589.592 Radial†	395.3	126.7	18.085 µg/L	18.085 ppb	10:58:18
3	Sr 421.552†	-123.2	-7.4	-0.0163 µg/L	-0.0163 ppb	10:58:18
3	Sc 361.383	1621911.0	1621911.0	100.45 %		10:59:31
3	Y 371.029	1063570.7	1063570.7	100.35 %		10:59:31
3	Ag 328.068†	2059.5	57.9	0.2378 µg/L	0.2378 ppb	10:59:33
3	As 188.979†	-44.3	-8.5	-2.9722 µg/L	-2.9722 ppb	10:59:53
3	B 249.677†	2122.1	34.8	0.6042 µg/L	0.6042 ppb	10:59:53
3	Ba 233.527†	-303.8	3.6	0.0181 µg/L	0.0181 ppb	10:59:53
3	Be 313.107†	-631.8	132.3	0.0444 µg/L	0.0444 ppb	10:59:33
3	Cd 226.502†	-185.5	-0.1	-0.0010 µg/L	-0.0010 ppb	10:59:53
3	Co 228.616†	-216.1	19.9	0.3462 µg/L	0.3462 ppb	10:59:53
3	Cr 267.716†	221.2	14.9	0.1405 µg/L	0.1405 ppb	10:59:53
3	Cu 324.752†	3549.6	18.9	0.0839 µg/L	0.0839 ppb	10:59:33
3	Mn 257.610†	104.2	-15.8	-0.0255 µg/L	-0.0255 ppb	10:59:53
3	Mo 202.031†	-2.1	11.8	0.4346 µg/L	0.4346 ppb	10:59:53
3	Ni 231.604†	-93.3	-21.2	-0.3280 µg/L	-0.3280 ppb	10:59:53
3	P 214.914†	3.5	4.2	1.1543 µg/L	1.1543 ppb	10:59:53
3	Pb 220.353†	117.3	23.8	1.7777 µg/L	1.7777 ppb	10:59:53
3	S 181.975 Axial†	62.8	-5.8	-5.2700 µg/L	-5.2700 ppb	10:59:53
3	Sb 206.836†	106.3	-10.4	-1.5441 µg/L	-1.5441 ppb	10:59:53
3	Se 196.026†	28.4	-10.6	-4.61 µg/L	-4.61 ppb	10:59:53
3	SiO2†	2053.0	-35.4	-3.9821 µg/L	-3.9821 ppb	10:59:53
3	Si 251.611†	682.5	11.5	0.2019 µg/L	0.2019 ppb	10:59:53
3	Sn 189.927†	-32.4	-8.4	-0.7349 µg/L	-0.7349 ppb	10:59:53
3	Ti 334.940†	972.4	-120.5	-0.1309 µg/L	-0.1309 ppb	10:59:33
3	Tl 190.801†	-139.9	15.8	2.5797 µg/L	2.5797 ppb	10:59:53
3	U 409.014†	57.7	78.2	4.4642 µg/L	4.4642 ppb	10:59:33
3	V 292.402†	143.4	-7.0	-0.0337 µg/L	-0.0337 ppb	10:59:33
3	Zn 213.857†	3505.7	-24.8	-0.1732 µg/L	-0.1732 ppb	10:59:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1617249.9	100.16	%	0.605				0.60%
Sc RADIAL	121427.2	99.0	%	0.45				0.45%
Y 371.029	1061034.0	100.11	%	0.557				0.56%
Ag 328.068†	-8.3	-0.0412	µg/L	0.25647	-0.0412	ppb	0.25647	622.79%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	13.0	2.4578	µg/L	2.45378	2.4578	ppb	2.45378	99.84%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.4	-2.2412	µg/L	1.08763	-2.2412	ppb	1.08763	48.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	29.0	0.5024	µg/L	0.20306	0.5024	ppb	0.20306	40.42%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.7	0.0238	µg/L	0.03582	0.0238	ppb	0.03582	150.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	83.0	0.0254	µg/L	0.01802	0.0254	ppb	0.01802	71.00%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.5	0.3308	µg/L	1.41325	0.3308	ppb	1.41325	427.17%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.8	0.0900	µg/L	0.15961	0.0900	ppb	0.15961	177.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	15.3	0.2658	µg/L	0.08158	0.2658	ppb	0.08158	30.69%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.4     -0.0191 µg/L       0.15162     -0.0191 ppb        0.15162 794.82%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                13.7      0.0539 µg/L       0.16244      0.0539 ppb        0.16244 301.40%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.1     -0.2082 µg/L       0.88850     -0.2082 ppb        0.88850 426.72%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -36.2     -13.537 µg/L       15.7004     -13.537 ppb        15.7004 115.98%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.3      0.9474 µg/L       6.53101      0.9474 ppb        6.53101 689.39%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -5.7     -0.0091 µg/L       0.02188     -0.0091 ppb        0.02188 240.27%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                8.2      0.3026 µg/L       0.28787      0.3026 ppb        0.28787  95.14%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        84.6      12.078 µg/L        9.2776      12.078 ppb         9.2776  76.82%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -15.8     -0.2455 µg/L       0.24867     -0.2455 ppb        0.24867 101.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 5.4      1.4769 µg/L       0.28857      1.4769 ppb        0.28857  19.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                9.7      0.7318 µg/L       1.07921      0.7318 ppb        1.07921 147.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.3     -0.2827 µg/L       4.57958     -0.2827 ppb        4.57958 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -6.0     -0.8970 µg/L       0.95212     -0.8970 ppb        0.95212 106.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -11.0      -4.77 µg/L         1.010       -4.77 ppb          1.010  21.16%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -20.0     -2.2589 µg/L       3.13743     -2.2589 ppb        3.13743 138.89%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                15.5      0.2719 µg/L       0.08937      0.2719 ppb        0.08937  32.88%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -4.2     -0.3696 µg/L       0.34795     -0.3696 ppb        0.34795  94.14%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -53.2     -0.1168 µg/L       0.08956     -0.1168 ppb        0.08956  76.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -200.2     -0.2110 µg/L       0.07761     -0.2110 ppb        0.07761  36.78%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.6      0.7454 µg/L       1.68455      0.7454 ppb        1.68455 225.99%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -95.0     -5.4273 µg/L      10.05895     -5.4273 ppb       10.05895 185.34%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -13.7     -0.0827 µg/L       0.28119     -0.0827 ppb        0.28119 339.90%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -6.9     -0.0471 µg/L       0.18157     -0.0471 ppb        0.18157 385.22%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/30/2010 11:34:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122725.0	122725.0	100	%			11:35:24
1	Al 396.153Radial†	26140.8	26167.6	4934.0	µg/L	4934.0	ppb	11:35:24
1	Ca 317.933Radial†	52483.8	52079.9	4910.3	µg/L	4910.3	ppb	11:35:24
1	Fe 238.204 Radial†	51027.2	50896.3	4961.6	µg/L	4961.6	ppb	11:35:24
1	K 766.490 Radial†	14996.2	13288.5	4967.8	µg/L	4967.8	ppb	11:35:24
1	Mg 279.077 IEC†	6919.9	6860.9	4885.2	µg/L	4885.2	ppb	11:35:24
1	Na 589.592 Radial†	70274.8	69937.1	9970.3	µg/L	9970.3	ppb	11:35:22
1	Sr 421.552†	228652.3	228553.0	502.14	µg/L	502.14	ppb	11:35:22
1	Sc 361.383	1633348.6	1633348.6	101.16	%			11:35:37
1	Y 371.029	1068529.3	1068529.3	100.82	%			11:35:37
1	Ag 328.068†	126495.7	123053.3	500.59	µg/L	500.59	ppb	11:35:37
1	As 188.979†	1359.4	1379.4	487.89	µg/L	487.89	ppb	11:35:57
1	B 249.677†	30760.0	28329.6	490.70	µg/L	490.70	ppb	11:35:37
1	Ba 233.527†	98163.8	97344.5	493.60	µg/L	493.60	ppb	11:35:37
1	Be 313.107†	1545745.0	1528786.8	497.48	µg/L	497.48	ppb	11:35:37
1	Cd 226.502†	59264.3	58769.5	491.88	µg/L	491.88	ppb	11:35:37
1	Co 228.616†	28176.0	28088.1	489.15	µg/L	489.15	ppb	11:35:57
1	Cr 267.716†	51622.9	50825.8	493.19	µg/L	493.19	ppb	11:35:37
1	Cu 324.752†	120989.9	116088.2	493.18	µg/L	493.18	ppb	11:35:37
1	Mn 257.610†	313905.5	310187.6	494.52	µg/L	494.52	ppb	11:35:37
1	Mo 202.031†	13488.1	13347.4	492.88	µg/L	492.88	ppb	11:35:57
1	Ni 231.604†	31656.3	31365.1	486.33	µg/L	486.33	ppb	11:35:57
1	P 214.914†	8982.3	8880.1	2428.7	µg/L	2428.7	ppb	11:35:57
1	Pb 220.353†	6719.4	6549.4	490.53	µg/L	490.53	ppb	11:35:57
1	S 181.975 Axial†	1159.1	1077.4	978.70	µg/L	978.70	ppb	11:35:57
1	Sb 206.836†	3434.7	3279.2	489.49	µg/L	489.49	ppb	11:35:57
1	Se 196.026†	1169.3	1117.0	487	µg/L	487	ppb	11:35:57
1	SiO2†	49887.0	47236.0	5294.6	µg/L	5294.6	ppb	11:35:37
1	Si 251.611†	143801.7	141485.3	2483.1	µg/L	2483.1	ppb	11:35:37
1	Sn 189.927†	5607.1	5566.7	490.05	µg/L	490.05	ppb	11:35:57
1	Ti 334.940†	477762.3	471196.9	501.06	µg/L	501.06	ppb	11:35:37
1	Tl 190.801†	2867.8	2990.0	497.22	µg/L	497.22	ppb	11:35:57
1	U 409.014†	8827.8	8747.3	529.50	µg/L	529.50	ppb	11:35:37
1	V 292.402†	83259.9	82155.7	499.83	µg/L	499.83	ppb	11:35:37
1	Zn 213.857†	74126.3	69761.8	489.83	µg/L	489.83	ppb	11:35:37
2	Sc RADIAL	123134.5	123134.5	100	%			11:35:28
2	Al 396.153Radial†	26304.8	26244.0	4948.4	µg/L	4948.4	ppb	11:35:28
2	Ca 317.933Radial†	52757.5	52178.1	4919.6	µg/L	4919.6	ppb	11:35:28
2	Fe 238.204 Radial†	51161.7	50860.6	4958.2	µg/L	4958.2	ppb	11:35:28
2	K 766.490 Radial†	14982.2	13224.7	4943.9	µg/L	4943.9	ppb	11:35:28
2	Mg 279.077 IEC†	6924.9	6842.9	4872.5	µg/L	4872.5	ppb	11:35:28
2	Na 589.592 Radial†	69601.1	69032.7	9841.4	µg/L	9841.4	ppb	11:35:26
2	Sr 421.552†	226136.3	225288.1	494.97	µg/L	494.97	ppb	11:35:26
2	Sc 361.383	1620321.2	1620321.2	100.35	%			11:36:00
2	Y 371.029	1059497.6	1059497.6	99.970	%			11:36:00
2	Ag 328.068†	125593.6	123159.7	501.00	µg/L	501.00	ppb	11:36:00
2	As 188.979†	1360.1	1390.9	491.90	µg/L	491.90	ppb	11:36:20
2	B 249.677†	30425.4	28240.7	489.15	µg/L	489.15	ppb	11:36:00
2	Ba 233.527†	97061.0	97025.8	491.99	µg/L	491.99	ppb	11:36:00
2	Be 313.107†	1528825.8	1524212.5	495.99	µg/L	495.99	ppb	11:36:00
2	Cd 226.502†	58426.1	58405.2	488.83	µg/L	488.83	ppb	11:36:00
2	Co 228.616†	28062.1	28198.5	491.07	µg/L	491.07	ppb	11:36:20
2	Cr 267.716†	51044.0	50659.2	491.57	µg/L	491.57	ppb	11:36:00
2	Cu 324.752†	119790.7	115854.8	492.19	µg/L	492.19	ppb	11:36:00
2	Mn 257.610†	310693.9	309482.2	493.40	µg/L	493.40	ppb	11:36:00
2	Mo 202.031†	13439.1	13405.7	495.03	µg/L	495.03	ppb	11:36:20
2	Ni 231.604†	31570.1	31530.9	488.91	µg/L	488.91	ppb	11:36:20
2	P 214.914†	8936.2	8905.6	2435.7	µg/L	2435.7	ppb	11:36:20
2	Pb 220.353†	6725.5	6608.9	494.98	µg/L	494.98	ppb	11:36:20

2	S 181.975 Axial†	1157.4	1084.9	985.48 µg/L	985.48 ppb	11:36:20
2	Sb 206.836†	3439.7	3311.4	494.34 µg/L	494.34 ppb	11:36:20
2	Se 196.026†	1168.1	1125.2	490 µg/L	490 ppb	11:36:20
2	SiO2†	49601.5	47348.0	5307.1 µg/L	5307.1 ppb	11:36:00
2	Si 251.611†	142670.6	141501.1	2483.4 µg/L	2483.4 ppb	11:36:00
2	Sn 189.927†	5574.5	5578.8	491.11 µg/L	491.11 ppb	11:36:20
2	Ti 334.940†	472844.9	470094.0	499.89 µg/L	499.89 ppb	11:36:00
2	Tl 190.801†	2835.4	2980.5	495.63 µg/L	495.63 ppb	11:36:20
2	U 409.014†	8750.2	8740.2	528.98 µg/L	528.98 ppb	11:36:00
2	V 292.402†	82272.5	81833.5	497.91 µg/L	497.91 ppb	11:36:00
2	Zn 213.857†	73119.8	69348.0	486.89 µg/L	486.89 ppb	11:36:00
3	Sc RADIAL	118201.1	118201.1	96.4 %		11:35:32
3	Al 396.153Radial†	25385.4	26383.6	4974.9 µg/L	4974.9 ppb	11:35:32
3	Ca 317.933Radial†	50500.0	52029.0	4905.5 µg/L	4905.5 ppb	11:35:32
3	Fe 238.204 Radial†	49033.3	50779.1	4950.2 µg/L	4950.2 ppb	11:35:32
3	K 766.490 Radial†	14522.5	13370.5	4998.4 µg/L	4998.4 ppb	11:35:32
3	Mg 279.077 IEC†	6648.7	6844.2	4873.3 µg/L	4873.3 ppb	11:35:32
3	Na 589.592 Radial†	69389.1	71705.4	10223 µg/L	10223 ppb	11:35:30
3	Sr 421.552†	225206.2	233721.3	513.50 µg/L	513.50 ppb	11:35:30
3	Sc 361.383	1634190.5	1634190.5	101.21 %		11:36:23
3	Y 371.029	1068026.2	1068026.2	100.77 %		11:36:23
3	Ag 328.068†	125940.4	122440.2	498.08 µg/L	498.08 ppb	11:36:23
3	As 188.979†	1354.2	1373.6	485.85 µg/L	485.85 ppb	11:36:43
3	B 249.677†	30739.2	28293.4	490.07 µg/L	490.07 ppb	11:36:23
3	Ba 233.527†	97863.7	96998.0	491.84 µg/L	491.84 ppb	11:36:23
3	Be 313.107†	1540654.6	1522970.1	495.58 µg/L	495.58 ppb	11:36:23
3	Cd 226.502†	59161.8	58638.0	490.78 µg/L	490.78 ppb	11:36:23
3	Co 228.616†	28119.1	28017.5	487.92 µg/L	487.92 ppb	11:36:43
3	Cr 267.716†	51544.1	50721.7	492.19 µg/L	492.19 ppb	11:36:23
3	Cu 324.752†	120816.6	115855.3	492.18 µg/L	492.18 ppb	11:36:23
3	Mn 257.610†	313119.1	309250.8	493.03 µg/L	493.03 ppb	11:36:23
3	Mo 202.031†	13461.7	13314.4	491.66 µg/L	491.66 ppb	11:36:43
3	Ni 231.604†	31618.1	31311.3	485.50 µg/L	485.50 ppb	11:36:43
3	P 214.914†	8965.1	8858.6	2422.8 µg/L	2422.8 ppb	11:36:43
3	Pb 220.353†	6739.1	6565.5	491.74 µg/L	491.74 ppb	11:36:43
3	S 181.975 Axial†	1162.1	1079.8	980.80 µg/L	980.80 ppb	11:36:43
3	Sb 206.836†	3451.6	3294.1	491.70 µg/L	491.70 ppb	11:36:43
3	Se 196.026†	1184.9	1131.8	493 µg/L	493 ppb	11:36:43
3	SiO2†	49918.0	47241.2	5295.2 µg/L	5295.2 ppb	11:36:23
3	Si 251.611†	143892.5	141501.8	2483.5 µg/L	2483.5 ppb	11:36:23
3	Sn 189.927†	5607.2	5564.0	489.80 µg/L	489.80 ppb	11:36:43
3	Ti 334.940†	475851.3	469065.5	498.80 µg/L	498.80 ppb	11:36:23
3	Tl 190.801†	2857.0	2977.9	495.20 µg/L	495.20 ppb	11:36:43
3	U 409.014†	8539.8	8458.3	512.83 µg/L	512.83 ppb	11:36:23
3	V 292.402†	82806.5	81665.3	496.86 µg/L	496.86 ppb	11:36:23
3	Zn 213.857†	74006.5	69605.7	488.74 µg/L	488.74 ppb	11:36:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1629286.8	100.91	%	0.482				0.48%
Sc RADIAL	121353.5	99.0	%	2.23				2.26%
Y 371.029	1065351.1	100.52	%	0.479				0.48%
Ag 328.068†	122884.4	499.89	µg/L	1.583	499.89	ppb	1.583	0.32%
QC value within limits for Ag 328.068 Recovery = 99.98%								
Al 396.153Radial†	26265.1	4952.4	µg/L	20.78	4952.4	ppb	20.78	0.42%
QC value within limits for Al 396.153Radial Recovery = 99.05%								
As 188.979†	1381.3	488.55	µg/L	3.078	488.55	ppb	3.078	0.63%
QC value within limits for As 188.979 Recovery = 97.71%								
B 249.677†	28287.9	489.97	µg/L	0.781	489.97	ppb	0.781	0.16%
QC value within limits for B 249.677 Recovery = 97.99%								
Ba 233.527†	97122.8	492.48	µg/L	0.976	492.48	ppb	0.976	0.20%
QC value within limits for Ba 233.527 Recovery = 98.50%								
Be 313.107†	1525323.2	496.35	µg/L	0.998	496.35	ppb	0.998	0.20%
QC value within limits for Be 313.107 Recovery = 99.27%								
Ca 317.933Radial†	52095.6	4911.8	µg/L	7.15	4911.8	ppb	7.15	0.15%
QC value within limits for Ca 317.933Radial Recovery = 98.24%								
Cd 226.502†	58604.2	490.50	µg/L	1.544	490.50	ppb	1.544	0.31%
QC value within limits for Cd 226.502 Recovery = 98.10%								
Co 228.616†	28101.4	489.38	µg/L	1.588	489.38	ppb	1.588	0.32%

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   QC value within limits for Co 228.616  Recovery = 97.88%
Cr 267.716†            50735.6      492.32 µg/L         0.816      492.32 ppb          0.816   0.17%
   QC value within limits for Cr 267.716  Recovery = 98.46%
Cu 324.752†           115932.7      492.52 µg/L         0.575      492.52 ppb          0.575   0.12%
   QC value within limits for Cu 324.752  Recovery = 98.50%
Fe 238.204 Radial†     50845.4      4956.7 µg/L          5.86      4956.7 ppb           5.86   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.13%
K 766.490 Radial†      13294.6      4970.1 µg/L         27.31      4970.1 ppb          27.31   0.55%
   QC value within limits for K 766.490 Radial  Recovery = 99.40%
Mg 279.077 IEC†         6849.4      4877.0 µg/L          7.13      4877.0 ppb           7.13   0.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.54%
Mn 257.610†           309640.2      493.65 µg/L         0.778      493.65 ppb          0.778   0.16%
   QC value within limits for Mn 257.610  Recovery = 98.73%
Mo 202.031†            13355.9      493.19 µg/L         1.706      493.19 ppb          1.706   0.35%
   QC value within limits for Mo 202.031  Recovery = 98.64%
Na 589.592 Radial†     70225.1       10011 µg/L         193.9       10011 ppb          193.9   1.94%
   QC value within limits for Na 589.592 Radial  Recovery = 100.11%
Ni 231.604†            31402.4      486.91 µg/L         1.775      486.91 ppb          1.775   0.36%
   QC value within limits for Ni 231.604  Recovery = 97.38%
P 214.914†              8881.4      2429.0 µg/L          6.44      2429.0 ppb           6.44   0.27%
   QC value within limits for P 214.914  Recovery = 97.16%
Pb 220.353†             6574.6      492.42 µg/L         2.299      492.42 ppb          2.299   0.47%
   QC value within limits for Pb 220.353  Recovery = 98.48%
S 181.975 Axial†        1080.7      981.66 µg/L         3.468      981.66 ppb          3.468   0.35%
   QC value within limits for S 181.975 Axial  Recovery = 98.17%
Sb 206.836†             3294.9      491.84 µg/L         2.429      491.84 ppb          2.429   0.49%
   QC value within limits for Sb 206.836  Recovery = 98.37%
Se 196.026†             1124.7         490 µg/L           3.2         490 ppb            3.2   0.65%
   QC value within limits for Se 196.026  Recovery = 98.02%
SiO2†                  47275.1      5299.0 µg/L          7.06      5299.0 ppb           7.06   0.13%
   QC value within limits for SiO2  Recovery = 99.09%
Si 251.611†           141496.1      2483.3 µg/L          0.16      2483.3 ppb           0.16   0.01%
   QC value within limits for Si 251.611  Recovery = 99.33%
Sn 189.927†             5569.8      490.32 µg/L         0.694      490.32 ppb          0.694   0.14%
   QC value within limits for Sn 189.927  Recovery = 98.06%
Sr 421.552†           229187.5      503.53 µg/L         9.343      503.53 ppb          9.343   1.86%
   QC value within limits for Sr 421.552  Recovery = 100.71%
Ti 334.940†           470118.8      499.92 µg/L         1.131      499.92 ppb          1.131   0.23%
   QC value within limits for Ti 334.940  Recovery = 99.98%
Tl 190.801†             2982.8      496.01 µg/L         1.065      496.01 ppb          1.065   0.21%
   QC value within limits for Tl 190.801  Recovery = 99.20%
U 409.014†              8648.6      523.77 µg/L         9.481      523.77 ppb          9.481   1.81%
   QC value within limits for U 409.014  Recovery = 104.75%
V 292.402†             81884.8      498.20 µg/L         1.505      498.20 ppb          1.505   0.30%
   QC value within limits for V 292.402  Recovery = 99.64%
Zn 213.857†            69571.8      488.49 µg/L         1.488      488.49 ppb          1.488   0.30%
   QC value within limits for Zn 213.857  Recovery = 97.70%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 4/30/2010 11:36:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123073.7	123073.7	100	%			11:37:23
1	Al 396.153Radial†	959.3	1007.1	190.31	µg/L	190.31	ppb	11:37:43
1	Ca 317.933Radial†	2481.3	2117.6	199.65	µg/L	199.65	ppb	11:37:43
1	Fe 238.204 Radial†	1114.2	1027.2	100.14	µg/L	100.14	ppb	11:37:43
1	K 766.490 Radial†	1988.3	287.2	107.32	µg/L	107.32	ppb	11:37:23
1	Mg 279.077 IEC†	482.9	428.7	304.89	µg/L	304.89	ppb	11:37:43
1	Na 589.592 Radial†	2329.0	2048.8	292.12	µg/L	292.12	ppb	11:37:23
1	Sr 421.552†	2195.2	2303.5	5.0597	µg/L	5.0597	ppb	11:37:23
1	Sc 361.383	1601190.7	1601190.7	99.168	%			11:38:31
1	Y 371.029	1051372.9	1051372.9	99.203	%			11:38:31
1	Ag 328.068†	3218.0	1252.7	5.1456	µg/L	5.1456	ppb	11:38:33
1	As 188.979†	43.9	79.9	27.927	µg/L	27.927	ppb	11:38:53
1	B 249.677†	4930.3	2893.9	50.282	µg/L	50.282	ppb	11:38:33
1	Ba 233.527†	699.6	1011.5	5.1297	µg/L	5.1297	ppb	11:38:53
1	Be 313.107†	14314.1	15195.5	4.9586	µg/L	4.9586	ppb	11:38:33
1	Cd 226.502†	408.1	596.1	4.9839	µg/L	4.9839	ppb	11:38:53
1	Co 228.616†	54.4	290.0	5.0472	µg/L	5.0472	ppb	11:38:53
1	Cr 267.716†	675.1	475.4	4.5745	µg/L	4.5745	ppb	11:38:53
1	Cu 324.752†	5639.9	2172.4	9.2679	µg/L	9.2679	ppb	11:38:33
1	Mn 257.610†	6318.1	6251.7	9.9587	µg/L	9.9587	ppb	11:38:53
1	Mo 202.031†	257.8	273.8	10.114	µg/L	10.114	ppb	11:38:53
1	Ni 231.604†	228.8	302.5	4.6901	µg/L	4.6901	ppb	11:38:53
1	P 214.914†	528.1	533.3	146.22	µg/L	146.22	ppb	11:38:53
1	Pb 220.353†	223.8	132.7	9.9080	µg/L	9.9080	ppb	11:38:53
1	S 181.975 Axial†	181.2	114.4	103.53	µg/L	103.53	ppb	11:38:53
1	Sb 206.836†	178.4	63.7	9.5762	µg/L	9.5762	ppb	11:38:53
1	Se 196.026†	87.4	49.3	21.5	µg/L	21.5	ppb	11:38:53
1	SiO2†	3896.1	1849.7	207.73	µg/L	207.73	ppb	11:38:53
1	Si 251.611†	6278.6	5663.4	99.591	µg/L	99.591	ppb	11:38:33
1	Sn 189.927†	82.1	106.7	9.3785	µg/L	9.3785	ppb	11:38:53
1	Ti 334.940†	5647.8	4606.6	4.8628	µg/L	4.8628	ppb	11:38:33
1	Tl 190.801†	-23.9	131.0	21.544	µg/L	21.544	ppb	11:38:53
1	U 409.014†	864.9	892.9	51.305	µg/L	51.305	ppb	11:38:33
1	V 292.402†	954.1	812.3	5.0206	µg/L	5.0206	ppb	11:38:33
1	Zn 213.857†	5015.6	1542.9	10.874	µg/L	10.874	ppb	11:38:53
2	Sc RADIAL	120402.2	120402.2	98.2	%			11:37:45
2	Al 396.153Radial†	976.4	1045.7	197.60	µg/L	197.60	ppb	11:38:05
2	Ca 317.933Radial†	2461.8	2152.5	202.95	µg/L	202.95	ppb	11:38:05
2	Fe 238.204 Radial†	1100.8	1038.2	101.21	µg/L	101.21	ppb	11:38:05
2	K 766.490 Radial†	1954.7	297.0	110.96	µg/L	110.96	ppb	11:37:45
2	Mg 279.077 IEC†	468.9	425.1	302.39	µg/L	302.39	ppb	11:38:05
2	Na 589.592 Radial†	2389.3	2161.7	308.22	µg/L	308.22	ppb	11:37:45
2	Sr 421.552†	2215.4	2372.6	5.2115	µg/L	5.2115	ppb	11:37:45
2	Sc 361.383	1603276.3	1603276.3	99.297	%			11:38:55
2	Y 371.029	1053102.0	1053102.0	99.366	%			11:38:55
2	Ag 328.068†	3203.5	1233.9	5.0635	µg/L	5.0635	ppb	11:38:57
2	As 188.979†	41.7	77.5	27.120	µg/L	27.120	ppb	11:39:17
2	B 249.677†	4846.0	2802.6	48.694	µg/L	48.694	ppb	11:38:57
2	Ba 233.527†	677.3	988.1	5.0113	µg/L	5.0113	ppb	11:39:17
2	Be 313.107†	14268.3	15130.6	4.9368	µg/L	4.9368	ppb	11:38:57
2	Cd 226.502†	399.9	587.3	4.9098	µg/L	4.9098	ppb	11:39:17
2	Co 228.616†	54.6	290.1	5.0488	µg/L	5.0488	ppb	11:39:17
2	Cr 267.716†	707.7	507.4	4.8864	µg/L	4.8864	ppb	11:39:17
2	Cu 324.752†	5731.2	2257.0	9.6243	µg/L	9.6243	ppb	11:38:57
2	Mn 257.610†	6323.5	6248.8	9.9542	µg/L	9.9542	ppb	11:39:17
2	Mo 202.031†	270.4	286.2	10.569	µg/L	10.569	ppb	11:39:17
2	Ni 231.604†	223.7	297.0	4.6050	µg/L	4.6050	ppb	11:39:17
2	P 214.914†	536.1	540.7	148.25	µg/L	148.25	ppb	11:39:17
2	Pb 220.353†	231.9	140.6	10.500	µg/L	10.500	ppb	11:39:17

2	S 181.975 Axial†	172.9	105.8	95.757 µg/L	95.757 ppb	11:39:17
2	Sb 206.836†	171.1	56.1	8.4459 µg/L	8.4459 ppb	11:39:17
2	Se 196.026†	98.2	60.0	26.1 µg/L	26.1 ppb	11:39:17
2	SiO2†	3904.0	1852.5	208.02 µg/L	208.02 ppb	11:39:17
2	Si 251.611†	6240.1	5616.3	98.750 µg/L	98.750 ppb	11:38:57
2	Sn 189.927†	91.1	115.7	10.163 µg/L	10.163 ppb	11:39:17
2	Ti 334.940†	5593.5	4544.5	4.7978 µg/L	4.7978 ppb	11:38:57
2	Tl 190.801†	-33.1	121.7	20.019 µg/L	20.019 ppb	11:39:17
2	U 409.014†	825.3	851.9	48.946 µg/L	48.946 ppb	11:38:57
2	V 292.402†	906.4	763.0	4.7292 µg/L	4.7292 ppb	11:38:57
2	Zn 213.857†	5019.8	1540.6	10.858 µg/L	10.858 ppb	11:39:17
3	Sc RADIAL	120603.1	120603.1	98.4 %		11:38:07
3	Al 396.153Radial†	996.3	1064.2	201.12 µg/L	201.12 ppb	11:38:27
3	Ca 317.933Radial†	2467.4	2154.1	203.10 µg/L	203.10 ppb	11:38:27
3	Fe 238.204 Radial†	1096.2	1031.6	100.57 µg/L	100.57 ppb	11:38:27
3	K 766.490 Radial†	1916.3	254.6	95.103 µg/L	95.103 ppb	11:38:07
3	Mg 279.077 IEC†	463.6	418.9	297.93 µg/L	297.93 ppb	11:38:27
3	Na 589.592 Radial†	2348.2	2115.9	301.70 µg/L	301.70 ppb	11:38:07
3	Sr 421.552†	2126.7	2278.7	5.0052 µg/L	5.0052 ppb	11:38:07
3	Sc 361.383	1590344.4	1590344.4	98.496 %		11:39:20
3	Y 371.029	1044548.5	1044548.5	98.559 %		11:39:20
3	Ag 328.068†	3099.1	1154.1	4.7508 µg/L	4.7508 ppb	11:39:22
3	As 188.979†	42.0	78.2	27.344 µg/L	27.344 ppb	11:39:42
3	B 249.677†	4900.8	2897.9	50.351 µg/L	50.351 ppb	11:39:22
3	Ba 233.527†	678.2	994.6	5.0440 µg/L	5.0440 ppb	11:39:42
3	Be 313.107†	14438.2	15419.9	5.0324 µg/L	5.0324 ppb	11:39:22
3	Cd 226.502†	401.6	592.3	4.9520 µg/L	4.9520 ppb	11:39:42
3	Co 228.616†	41.9	277.6	4.8318 µg/L	4.8318 ppb	11:39:42
3	Cr 267.716†	698.3	503.6	4.8463 µg/L	4.8463 ppb	11:39:42
3	Cu 324.752†	5695.2	2267.3	9.6714 µg/L	9.6714 ppb	11:39:22
3	Mn 257.610†	6372.3	6350.1	10.116 µg/L	10.116 ppb	11:39:42
3	Mo 202.031†	262.6	280.5	10.359 µg/L	10.359 ppb	11:39:42
3	Ni 231.604†	211.6	286.5	4.4425 µg/L	4.4425 ppb	11:39:42
3	P 214.914†	543.6	552.7	151.54 µg/L	151.54 ppb	11:39:42
3	Pb 220.353†	242.5	153.3	11.443 µg/L	11.443 ppb	11:39:42
3	S 181.975 Axial†	165.1	99.2	89.811 µg/L	89.811 ppb	11:39:42
3	Sb 206.836†	180.6	67.2	10.096 µg/L	10.096 ppb	11:39:42
3	Se 196.026†	92.6	55.2	24.0 µg/L	24.0 ppb	11:39:42
3	SiO2†	3887.7	1867.9	209.77 µg/L	209.77 ppb	11:39:42
3	Si 251.611†	6258.9	5686.5	99.992 µg/L	99.992 ppb	11:39:22
3	Sn 189.927†	85.7	110.9	9.7417 µg/L	9.7417 ppb	11:39:42
3	Ti 334.940†	5582.3	4579.0	4.8330 µg/L	4.8330 ppb	11:39:22
3	Tl 190.801†	-35.6	118.9	19.562 µg/L	19.562 ppb	11:39:42
3	U 409.014†	898.6	933.1	53.592 µg/L	53.592 ppb	11:39:22
3	V 292.402†	930.9	795.4	4.9243 µg/L	4.9243 ppb	11:39:22
3	Zn 213.857†	5002.3	1564.0	11.024 µg/L	11.024 ppb	11:39:42

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1598270.5	98.987	%	0.4300				0.43%
Sc RADIAL	121359.7	99.0	%	1.21				1.23%
Y 371.029	1049674.5	99.043	%	0.4267				0.43%
Ag 328.068†	1213.6	4.9866	µg/L	0.20829	4.9866	ppb	0.20829	4.18%
QC value within limits for Ag 328.068 Recovery = 99.73%								
Al 396.153Radial†	1039.0	196.34	µg/L	5.513	196.34	ppb	5.513	2.81%
QC value within limits for Al 396.153Radial Recovery = 98.17%								
As 188.979†	78.5	27.464	µg/L	0.4169	27.464	ppb	0.4169	1.52%
QC value within limits for As 188.979 Recovery = 91.55%								
B 249.677†	2864.8	49.775	µg/L	0.9373	49.775	ppb	0.9373	1.88%
QC value within limits for B 249.677 Recovery = 99.55%								
Ba 233.527†	998.1	5.0617	µg/L	0.06114	5.0617	ppb	0.06114	1.21%
QC value within limits for Ba 233.527 Recovery = 101.23%								
Be 313.107†	15248.7	4.9759	µg/L	0.05006	4.9759	ppb	0.05006	1.01%
QC value within limits for Be 313.107 Recovery = 99.52%								
Ca 317.933Radial†	2141.4	201.90	µg/L	1.949	201.90	ppb	1.949	0.97%
QC value within limits for Ca 317.933Radial Recovery = 100.95%								
Cd 226.502†	591.9	4.9486	µg/L	0.03715	4.9486	ppb	0.03715	0.75%
QC value within limits for Cd 226.502 Recovery = 98.97%								
Co 228.616†	285.9	4.9759	µg/L	0.12479	4.9759	ppb	0.12479	2.51%

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   QC value within limits for Co 228.616  Recovery = 99.52%
Cr 267.716†              495.5      4.7691 µg/L       0.16970      4.7691 ppb        0.16970   3.56%
   QC value within limits for Cr 267.716  Recovery = 95.38%
Cu 324.752†             2232.2      9.5212 µg/L       0.22066      9.5212 ppb        0.22066   2.32%
   QC value within limits for Cu 324.752  Recovery = 95.21%
Fe 238.204 Radial†      1032.3      100.64 µg/L         0.537      100.64 ppb          0.537   0.53%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.64%
K 766.490 Radial†        279.6      104.46 µg/L         8.307      104.46 ppb          8.307   7.95%
   QC value less than the lower limit for K 766.490 Radial  Recovery = 69.64%
Mg 279.077 IEC†          424.2      301.74 µg/L         3.524      301.74 ppb          3.524   1.17%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.58%
Mn 257.610†             6283.5      10.010 µg/L        0.0921      10.010 ppb         0.0921   0.92%
   QC value within limits for Mn 257.610  Recovery = 100.10%
Mo 202.031†              280.2      10.347 µg/L        0.2274      10.347 ppb         0.2274   2.20%
   QC value within limits for Mo 202.031  Recovery = 103.47%
Na 589.592 Radial†      2108.8      300.68 µg/L         8.098      300.68 ppb          8.098   2.69%
   QC value within limits for Na 589.592 Radial  Recovery = 100.23%
Ni 231.604†              295.3      4.5792 µg/L       0.12580      4.5792 ppb        0.12580   2.75%
   QC value within limits for Ni 231.604  Recovery = 91.58%
P 214.914†               542.2      148.67 µg/L         2.685      148.67 ppb          2.685   1.81%
   QC value within limits for P 214.914  Recovery = 99.11%
Pb 220.353†              142.2      10.617 µg/L        0.7742      10.617 ppb         0.7742   7.29%
   QC value within limits for Pb 220.353  Recovery = 106.17%
S 181.975 Axial†         106.4      96.366 µg/L        6.8799      96.366 ppb         6.8799   7.14%
   QC value within limits for S 181.975 Axial  Recovery = 96.37%
Sb 206.836†               62.3      9.3727 µg/L       0.84367      9.3727 ppb        0.84367   9.00%
   QC value within limits for Sb 206.836  Recovery = 93.73%
Se 196.026†               54.8        23.9 µg/L          2.34        23.9 ppb           2.34   9.80%
   QC value within limits for Se 196.026  Recovery = 79.57%
SiO2†                   1856.7      208.50 µg/L         1.102      208.50 ppb          1.102   0.53%
   QC value within limits for SiO2  Recovery = 97.89%
Si 251.611†             5655.4      99.445 µg/L        0.6338      99.445 ppb         0.6338   0.64%
   QC value within limits for Si 251.611  Recovery = 99.44%
Sn 189.927†              111.1      9.7612 µg/L       0.39269      9.7612 ppb        0.39269   4.02%
   QC value within limits for Sn 189.927  Recovery = 97.61%
Sr 421.552†             2318.3      5.0921 µg/L       0.10693      5.0921 ppb        0.10693   2.10%
   QC value within limits for Sr 421.552  Recovery = 101.84%
Ti 334.940†             4576.7      4.8312 µg/L       0.03253      4.8312 ppb        0.03253   0.67%
   QC value within limits for Ti 334.940  Recovery = 96.62%
Tl 190.801†              123.9      20.375 µg/L        1.0377      20.375 ppb         1.0377   5.09%
   QC value within limits for Tl 190.801  Recovery = 101.88%
U 409.014†               892.7      51.281 µg/L        2.3232      51.281 ppb         2.3232   4.53%
   QC value within limits for U 409.014  Recovery = 102.56%
V 292.402†               790.2      4.8914 µg/L       0.14848      4.8914 ppb        0.14848   3.04%
   QC value within limits for V 292.402  Recovery = 97.83%
Zn 213.857†             1549.1      10.918 µg/L        0.0919      10.918 ppb         0.0919   0.84%
   QC value within limits for Zn 213.857  Recovery = 109.18%
QC Failed.  Continue with analysis.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/30/2010 11:39:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120807.5	120807.5	98.5	%			11:40:19
1	Al 396.153Radial†	-74.0	-23.7	-4.4854	µg/L	-4.4854	ppb	11:40:39
1	Ca 317.933Radial†	355.6	6.6	0.6234	µg/L	0.6234	ppb	11:40:39
1	Fe 238.204 Radial†	86.4	5.0	0.4827	µg/L	0.4827	ppb	11:40:39
1	K 766.490 Radial†	1739.6	72.0	26.926	µg/L	26.926	ppb	11:40:19
1	Mg 279.077 IEC†	63.2	11.8	8.3561	µg/L	8.3561	ppb	11:40:39
1	Na 589.592 Radial†	136.8	-132.6	-18.932	µg/L	-18.932	ppb	11:40:19
1	Sr 421.552†	-146.0	-31.5	-0.0693	µg/L	-0.0693	ppb	11:40:19
1	Sc 361.383	1622359.3	1622359.3	100.48	%			11:41:27
1	Y 371.029	1063404.0	1063404.0	100.34	%			11:41:27
1	Ag 328.068†	2021.6	19.7	0.0835	µg/L	0.0835	ppb	11:41:29
1	As 188.979†	-42.3	-6.5	-2.2765	µg/L	-2.2765	ppb	11:41:49
1	B 249.677†	2061.0	-26.5	-0.4612	µg/L	-0.4612	ppb	11:41:49
1	Ba 233.527†	-283.2	24.1	0.1224	µg/L	0.1224	ppb	11:41:49
1	Be 313.107†	-470.7	292.9	0.0960	µg/L	0.0960	ppb	11:41:29
1	Cd 226.502†	-168.0	17.3	0.1451	µg/L	0.1451	ppb	11:41:49
1	Co 228.616†	-237.2	-1.0	-0.0173	µg/L	-0.0173	ppb	11:41:49
1	Cr 267.716†	194.0	-12.3	-0.1210	µg/L	-0.1210	ppb	11:41:49
1	Cu 324.752†	3513.4	-18.2	-0.0747	µg/L	-0.0747	ppb	11:41:29
1	Mn 257.610†	123.1	3.0	0.0045	µg/L	0.0045	ppb	11:41:49
1	Mo 202.031†	-16.1	-2.2	-0.0792	µg/L	-0.0792	ppb	11:41:49
1	Ni 231.604†	-80.4	-8.4	-0.1295	µg/L	-0.1295	ppb	11:41:49
1	P 214.914†	-3.0	-2.2	-0.6153	µg/L	-0.6153	ppb	11:41:49
1	Pb 220.353†	101.0	7.6	0.5615	µg/L	0.5615	ppb	11:41:49
1	S 181.975 Axial†	66.3	-2.4	-2.1549	µg/L	-2.1549	ppb	11:41:49
1	Sb 206.836†	102.6	-14.1	-2.1035	µg/L	-2.1035	ppb	11:41:49
1	Se 196.026†	36.4	-2.6	-1.13	µg/L	-1.13	ppb	11:41:49
1	SiO2†	2054.9	-34.1	-3.8186	µg/L	-3.8186	ppb	11:41:49
1	Si 251.611†	627.5	-43.4	-0.7577	µg/L	-0.7577	ppb	11:41:49
1	Sn 189.927†	-34.2	-10.2	-0.8945	µg/L	-0.8945	ppb	11:41:49
1	Ti 334.940†	890.0	-202.9	-0.2176	µg/L	-0.2176	ppb	11:41:29
1	Tl 190.801†	-152.2	3.6	0.5874	µg/L	0.5874	ppb	11:41:49
1	U 409.014†	21.8	42.5	2.4342	µg/L	2.4342	ppb	11:41:29
1	V 292.402†	172.5	21.9	0.1318	µg/L	0.1318	ppb	11:41:29
1	Zn 213.857†	3508.2	-23.2	-0.1638	µg/L	-0.1638	ppb	11:41:49
2	Sc RADIAL	121436.2	121436.2	99.0	%			11:40:41
2	Al 396.153Radial†	-66.1	-15.4	-2.9275	µg/L	-2.9275	ppb	11:41:02
2	Ca 317.933Radial†	367.5	16.7	1.5764	µg/L	1.5764	ppb	11:41:02
2	Fe 238.204 Radial†	75.1	-7.0	-0.6811	µg/L	-0.6811	ppb	11:41:02
2	K 766.490 Radial†	1602.1	-76.0	-28.436	µg/L	-28.436	ppb	11:40:41
2	Mg 279.077 IEC†	66.1	14.3	10.207	µg/L	10.207	ppb	11:41:02
2	Na 589.592 Radial†	275.2	6.5	0.9465	µg/L	0.9465	ppb	11:40:41
2	Sr 421.552†	-134.2	-18.9	-0.0416	µg/L	-0.0416	ppb	11:40:41
2	Sc 361.383	1627656.1	1627656.1	100.81	%			11:41:52
2	Y 371.029	1067257.3	1067257.3	100.70	%			11:41:52
2	Ag 328.068†	2025.2	16.7	0.0641	µg/L	0.0641	ppb	11:41:54
2	As 188.979†	-45.5	-9.6	-3.3369	µg/L	-3.3369	ppb	11:42:14
2	B 249.677†	2059.3	-34.9	-0.6084	µg/L	-0.6084	ppb	11:42:14
2	Ba 233.527†	-308.1	0.3	0.0016	µg/L	0.0016	ppb	11:42:14
2	Be 313.107†	-812.3	-44.5	-0.0147	µg/L	-0.0147	ppb	11:41:54
2	Cd 226.502†	-162.3	23.5	0.1970	µg/L	0.1970	ppb	11:42:14
2	Co 228.616†	-214.4	22.4	0.3903	µg/L	0.3903	ppb	11:42:14
2	Cr 267.716†	198.1	-8.9	-0.0856	µg/L	-0.0856	ppb	11:42:14
2	Cu 324.752†	3334.9	-206.6	-0.8752	µg/L	-0.8752	ppb	11:41:54
2	Mn 257.610†	109.3	-11.0	-0.0179	µg/L	-0.0179	ppb	11:42:14
2	Mo 202.031†	-3.0	10.9	0.4036	µg/L	0.4036	ppb	11:42:14
2	Ni 231.604†	-97.6	-25.1	-0.3894	µg/L	-0.3894	ppb	11:42:14
2	P 214.914†	10.2	10.9	3.0070	µg/L	3.0070	ppb	11:42:14
2	Pb 220.353†	110.6	16.7	1.2497	µg/L	1.2497	ppb	11:42:14

2	S 181.975 Axial†	64.3	-4.6	-4.1787 µg/L	-4.1787 ppb	11:42:14
2	Sb 206.836†	110.0	-7.1	-1.0479 µg/L	-1.0479 ppb	11:42:14
2	Se 196.026†	34.6	-4.5	-1.97 µg/L	-1.97 ppb	11:42:14
2	SiO2†	2076.6	-19.1	-2.1637 µg/L	-2.1637 ppb	11:42:14
2	Si 251.611†	640.8	-32.3	-0.5744 µg/L	-0.5744 ppb	11:42:14
2	Sn 189.927†	-24.4	-0.3	-0.0264 µg/L	-0.0264 ppb	11:42:14
2	Ti 334.940†	1024.3	-72.4	-0.0776 µg/L	-0.0776 ppb	11:41:54
2	Tl 190.801†	-155.6	0.7	0.1163 µg/L	0.1163 ppb	11:42:14
2	U 409.014†	-34.0	-13.0	-0.7506 µg/L	-0.7506 ppb	11:41:54
2	V 292.402†	121.0	-29.7	-0.1749 µg/L	-0.1749 ppb	11:41:54
2	Zn 213.857†	3512.2	-30.6	-0.2137 µg/L	-0.2137 ppb	11:42:14
3	Sc RADIAL	121508.8	121508.8	99.1 %		11:41:04
3	Al 396.153Radial†	-54.4	-3.5	-0.6670 µg/L	-0.6670 ppb	11:41:24
3	Ca 317.933Radial†	362.1	11.0	1.0417 µg/L	1.0417 ppb	11:41:24
3	Fe 238.204 Radial†	76.1	-6.0	-0.5817 µg/L	-0.5817 ppb	11:41:24
3	K 766.490 Radial†	1643.4	-35.3	-13.203 µg/L	-13.203 ppb	11:41:04
3	Mg 279.077 IEC†	55.5	3.5	2.5218 µg/L	2.5218 ppb	11:41:24
3	Na 589.592 Radial†	194.2	-75.5	-10.752 µg/L	-10.752 ppb	11:41:04
3	Sr 421.552†	-207.9	-93.2	-0.2048 µg/L	-0.2048 ppb	11:41:04
3	Sc 361.383	1606374.5	1606374.5	99.489 %		11:42:16
3	Y 371.029	1054648.2	1054648.2	99.512 %		11:42:16
3	Ag 328.068†	1951.5	-30.8	-0.1306 µg/L	-0.1306 ppb	11:42:18
3	As 188.979†	-37.9	-2.5	-0.8663 µg/L	-0.8663 ppb	11:42:38
3	B 249.677†	2104.7	37.8	0.6567 µg/L	0.6567 ppb	11:42:38
3	Ba 233.527†	-303.9	0.5	0.0026 µg/L	0.0026 ppb	11:42:38
3	Be 313.107†	-744.5	13.0	0.0023 µg/L	0.0023 ppb	11:42:18
3	Cd 226.502†	-174.7	8.9	0.0747 µg/L	0.0747 ppb	11:42:38
3	Co 228.616†	-240.5	-6.7	-0.1167 µg/L	-0.1167 ppb	11:42:38
3	Cr 267.716†	222.6	18.5	0.1841 µg/L	0.1841 ppb	11:42:38
3	Cu 324.752†	3570.7	74.2	0.3089 µg/L	0.3089 ppb	11:42:18
3	Mn 257.610†	125.3	6.5	0.0102 µg/L	0.0102 ppb	11:42:38
3	Mo 202.031†	-6.1	7.8	0.2880 µg/L	0.2880 ppb	11:42:38
3	Ni 231.604†	-72.4	-1.0	-0.0162 µg/L	-0.0162 ppb	11:42:38
3	P 214.914†	-7.7	-7.0	-1.9130 µg/L	-1.9130 ppb	11:42:38
3	Pb 220.353†	103.1	10.7	0.8050 µg/L	0.8050 ppb	11:42:38
3	S 181.975 Axial†	61.1	-7.0	-6.2882 µg/L	-6.2882 ppb	11:42:38
3	Sb 206.836†	107.5	-8.2	-1.2169 µg/L	-1.2169 ppb	11:42:38
3	Se 196.026†	25.7	-13.1	-5.68 µg/L	-5.68 ppb	11:42:38
3	SiO2†	2069.1	0.6	0.0462 µg/L	0.0462 ppb	11:42:38
3	Si 251.611†	660.7	-3.8	-0.0754 µg/L	-0.0754 ppb	11:42:38
3	Sn 189.927†	-16.4	7.4	0.6487 µg/L	0.6487 ppb	11:42:38
3	Ti 334.940†	908.1	-175.8	-0.1849 µg/L	-0.1849 ppb	11:42:18
3	Tl 190.801†	-157.5	-3.2	-0.5214 µg/L	-0.5214 ppb	11:42:38
3	U 409.014†	-130.5	-110.4	-6.3000 µg/L	-6.3000 ppb	11:42:18
3	V 292.402†	161.5	12.5	0.0750 µg/L	0.0750 ppb	11:42:18
3	Zn 213.857†	3514.9	18.2	0.1285 µg/L	0.1285 ppb	11:42:38

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1618796.6	100.26	%	0.686				0.68%
Sc RADIAL	121250.9	98.9	%	0.31				0.32%
Y 371.029	1061769.8	100.18	%	0.610				0.61%
Ag 328.068†	1.9	0.0057	µg/L	0.11840	0.0057	ppb	0.11840	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.2	-2.6933	µg/L	1.91990	-2.6933	ppb	1.91990	71.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.2	-2.1599	µg/L	1.23941	-2.1599	ppb	1.23941	57.38%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-7.9	-0.1377	µg/L	0.69187	-0.1377	ppb	0.69187	502.61%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.3	0.0422	µg/L	0.06943	0.0422	ppb	0.06943	164.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	87.1	0.0279	µg/L	0.05961	0.0279	ppb	0.05961	213.77%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	11.5	1.0805	µg/L	0.47766	1.0805	ppb	0.47766	44.21%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.6	0.1389	µg/L	0.06135	0.1389	ppb	0.06135	44.16%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.9	0.0855	µg/L	0.26867	0.0855	ppb	0.26867	314.38%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -0.9     -0.0075 µg/L      0.16688     -0.0075 ppb       0.16688 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -50.2     -0.2136 µg/L      0.60419     -0.2136 ppb       0.60419 282.80%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -2.7     -0.2600 µg/L      0.64512     -0.2600 ppb       0.64512 248.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -13.1     -4.9042 µg/L     28.59874     -4.9042 ppb      28.59874 583.15%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           9.9      7.0282 µg/L      4.01082      7.0282 ppb       4.01082  57.07%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -0.5     -0.0011 µg/L      0.01489     -0.0011 ppb       0.01489 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.5      0.2041 µg/L      0.25207      0.2041 ppb       0.25207 123.49%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -67.2     -9.5792 µg/L      9.99108     -9.5792 ppb       9.99108 104.30%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -11.5     -0.1784 µg/L      0.19137     -0.1784 ppb       0.19137 107.28%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.6      0.1595 µg/L      2.54986      0.1595 ppb       2.54986 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              11.7      0.8721 µg/L      0.34900      0.8721 ppb       0.34900  40.02%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -4.7     -4.2073 µg/L      2.06680     -4.2073 ppb       2.06680  49.12%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -9.8     -1.4561 µg/L      0.56699     -1.4561 ppb       0.56699  38.94%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -6.7      -2.93 µg/L        2.422       -2.93 ppb         2.422  82.79%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -17.5     -1.9787 µg/L      1.93908     -1.9787 ppb       1.93908  98.00%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -26.5     -0.4692 µg/L      0.35312     -0.4692 ppb       0.35312  75.27%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.0     -0.0907 µg/L      0.77363     -0.0907 ppb       0.77363 852.62%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -47.9     -0.1052 µg/L      0.08736     -0.1052 ppb       0.08736  83.01%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -150.4     -0.1600 µg/L      0.07325     -0.1600 ppb       0.07325  45.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.4      0.0607 µg/L      0.55647      0.0607 ppb       0.55647 916.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -27.0     -1.5388 µg/L      4.42009     -1.5388 ppb       4.42009 287.24%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                1.6      0.0106 µg/L      0.16319      0.0106 ppb       0.16319 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -11.9     -0.0830 µg/L      0.18486     -0.0830 ppb       0.18486 222.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/30/2010 12:00:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121678.7	121678.7	99.2	%			12:01:26
1	Al 396.153Radial†	26364.3	26617.3	5019.1	µg/L	5019.1	ppb	12:01:26
1	Ca 317.933Radial†	52640.4	52688.6	4967.7	µg/L	4967.7	ppb	12:01:26
1	Fe 238.204 Radial†	51087.0	51394.9	5010.2	µg/L	5010.2	ppb	12:01:26
1	K 766.490 Radial†	15077.5	13499.2	5046.5	µg/L	5046.5	ppb	12:01:26
1	Mg 279.077 IEC†	6887.3	6887.5	4904.1	µg/L	4904.1	ppb	12:01:26
1	Na 589.592 Radial†	71633.3	71909.7	10252	µg/L	10252	ppb	12:01:24
1	Sr 421.552†	232721.7	234617.9	515.46	µg/L	515.46	ppb	12:01:24
1	Sc 361.383	1647596.8	1647596.8	102.04	%			12:01:39
1	Y 371.029	1078677.0	1078677.0	101.78	%			12:01:39
1	Ag 328.068†	126925.4	122393.0	497.90	µg/L	497.90	ppb	12:01:39
1	As 188.979†	1373.6	1381.7	488.68	µg/L	488.68	ppb	12:01:59
1	B 249.677†	30703.5	28011.3	485.16	µg/L	485.16	ppb	12:01:39
1	Ba 233.527†	98605.9	96938.6	491.54	µg/L	491.54	ppb	12:01:39
1	Be 313.107†	1546043.7	1515865.4	493.28	µg/L	493.28	ppb	12:01:39
1	Cd 226.502†	59080.2	58082.5	486.12	µg/L	486.12	ppb	12:01:39
1	Co 228.616†	28469.3	28134.7	489.95	µg/L	489.95	ppb	12:01:59
1	Cr 267.716†	51824.2	50581.8	490.83	µg/L	490.83	ppb	12:01:39
1	Cu 324.752†	121451.7	115506.4	490.73	µg/L	490.73	ppb	12:01:39
1	Mn 257.610†	314409.6	307998.1	491.03	µg/L	491.03	ppb	12:01:39
1	Mo 202.031†	13669.8	13410.1	495.19	µg/L	495.19	ppb	12:01:59
1	Ni 231.604†	31989.1	31420.6	487.20	µg/L	487.20	ppb	12:01:59
1	P 214.914†	9025.7	8845.8	2419.2	µg/L	2419.2	ppb	12:01:59
1	Pb 220.353†	6766.8	6538.4	489.72	µg/L	489.72	ppb	12:01:59
1	S 181.975 Axial†	1196.3	1103.9	1002.7	µg/L	1002.7	ppb	12:01:59
1	Sb 206.836†	3481.7	3295.8	492.03	µg/L	492.03	ppb	12:01:59
1	Se 196.026†	1174.6	1112.2	485	µg/L	485	ppb	12:01:59
1	SiO2†	50203.8	47120.0	5281.5	µg/L	5281.5	ppb	12:01:39
1	Si 251.611†	144510.5	140950.6	2473.7	µg/L	2473.7	ppb	12:01:39
1	Sn 189.927†	5666.7	5577.2	490.96	µg/L	490.96	ppb	12:01:59
1	Ti 334.940†	479651.2	468963.8	498.68	µg/L	498.68	ppb	12:01:39
1	Tl 190.801†	2886.8	2984.1	496.19	µg/L	496.19	ppb	12:01:59
1	U 409.014†	8883.8	8726.7	528.09	µg/L	528.09	ppb	12:01:39
1	V 292.402†	83385.1	81566.6	496.30	µg/L	496.30	ppb	12:01:39
1	Zn 213.857†	74056.9	69060.1	484.86	µg/L	484.86	ppb	12:01:39
2	Sc RADIAL	124012.2	124012.2	101	%			12:01:30
2	Al 396.153Radial†	26768.9	26517.5	5000.3	µg/L	5000.3	ppb	12:01:30
2	Ca 317.933Radial†	53244.4	52287.7	4929.9	µg/L	4929.9	ppb	12:01:30
2	Fe 238.204 Radial†	51674.7	51007.3	4972.4	µg/L	4972.4	ppb	12:01:30
2	K 766.490 Radial†	15223.1	13357.4	4993.6	µg/L	4993.6	ppb	12:01:30
2	Mg 279.077 IEC†	7059.8	6927.5	4932.5	µg/L	4932.5	ppb	12:01:30
2	Na 589.592 Radial†	69549.3	68491.1	9764.1	µg/L	9764.1	ppb	12:01:28
2	Sr 421.552†	226216.0	223773.3	491.64	µg/L	491.64	ppb	12:01:28
2	Sc 361.383	1645360.2	1645360.2	101.90	%			12:02:02
2	Y 371.029	1076394.9	1076394.9	101.56	%			12:02:02
2	Ag 328.068†	126954.5	122590.7	498.71	µg/L	498.71	ppb	12:02:02
2	As 188.979†	1365.8	1375.9	486.65	µg/L	486.65	ppb	12:02:22
2	B 249.677†	30825.1	28171.6	487.95	µg/L	487.95	ppb	12:02:02
2	Ba 233.527†	98658.8	97121.8	492.47	µg/L	492.47	ppb	12:02:02
2	Be 313.107†	1551128.0	1522914.3	495.57	µg/L	495.57	ppb	12:02:02
2	Cd 226.502†	59411.4	58486.2	489.51	µg/L	489.51	ppb	12:02:02
2	Co 228.616†	28373.1	28078.2	488.98	µg/L	488.98	ppb	12:02:22
2	Cr 267.716†	51824.5	50651.1	491.50	µg/L	491.50	ppb	12:02:02
2	Cu 324.752†	121767.9	115978.4	492.71	µg/L	492.71	ppb	12:02:02
2	Mn 257.610†	315244.5	309236.3	493.00	µg/L	493.00	ppb	12:02:02
2	Mo 202.031†	13591.7	13351.7	493.04	µg/L	493.04	ppb	12:02:22
2	Ni 231.604†	31912.2	31387.8	486.69	µg/L	486.69	ppb	12:02:22
2	P 214.914†	9027.0	8859.2	2422.9	µg/L	2422.9	ppb	12:02:22
2	Pb 220.353†	6757.2	6538.0	489.69	µg/L	489.69	ppb	12:02:22

2	S 181.975 Axial†	1179.3	1088.9	989.10 µg/L	989.10 ppb	12:02:22
2	Sb 206.836†	3494.2	3312.8	494.51 µg/L	494.51 ppb	12:02:22
2	Se 196.026†	1187.0	1125.9	491 µg/L	491 ppb	12:02:22
2	SiO2†	50416.5	47395.6	5312.6 µg/L	5312.6 ppb	12:02:02
2	Si 251.611†	145024.7	141647.7	2486.0 µg/L	2486.0 ppb	12:02:02
2	Sn 189.927†	5635.0	5553.6	488.90 µg/L	488.90 ppb	12:02:22
2	Ti 334.940†	480407.4	470344.8	500.15 µg/L	500.15 ppb	12:02:02
2	Tl 190.801†	2907.8	3008.6	500.24 µg/L	500.24 ppb	12:02:22
2	U 409.014†	8748.4	8605.7	521.31 µg/L	521.31 ppb	12:02:02
2	V 292.402†	83587.8	81876.6	498.14 µg/L	498.14 ppb	12:02:02
2	Zn 213.857†	74045.0	69147.0	485.48 µg/L	485.48 ppb	12:02:02
3	Sc RADIAL	125485.1	125485.1	102 %		12:01:34
3	Al 396.153Radial†	26927.8	26362.1	4970.7 µg/L	4970.7 ppb	12:01:34
3	Ca 317.933Radial†	53932.0	52341.6	4935.0 µg/L	4935.0 ppb	12:01:34
3	Fe 238.204 Radial†	52368.9	51085.9	4980.1 µg/L	4980.1 ppb	12:01:34
3	K 766.490 Radial†	15498.5	13449.8	5028.1 µg/L	5028.1 ppb	12:01:34
3	Mg 279.077 IEC†	7117.5	6901.9	4914.4 µg/L	4914.4 ppb	12:01:34
3	Na 589.592 Radial†	70355.2	68471.4	9761.3 µg/L	9761.3 ppb	12:01:32
3	Sr 421.552†	229573.8	224428.8	493.08 µg/L	493.08 ppb	12:01:32
3	Sc 361.383	1634151.0	1634151.0	101.21 %		12:02:25
3	Y 371.029	1069717.2	1069717.2	100.93 %		12:02:25
3	Ag 328.068†	126120.8	122621.5	498.85 µg/L	498.85 ppb	12:02:25
3	As 188.979†	1357.6	1376.9	487.03 µg/L	487.03 ppb	12:02:45
3	B 249.677†	30650.9	28206.9	488.56 µg/L	488.56 ppb	12:02:25
3	Ba 233.527†	98023.5	97158.2	492.66 µg/L	492.66 ppb	12:02:25
3	Be 313.107†	1538716.7	1521092.2	494.98 µg/L	494.98 ppb	12:02:25
3	Cd 226.502†	59001.8	58481.4	489.47 µg/L	489.47 ppb	12:02:25
3	Co 228.616†	28333.7	28230.2	491.62 µg/L	491.62 ppb	12:02:45
3	Cr 267.716†	51526.5	50705.5	492.02 µg/L	492.02 ppb	12:02:25
3	Cu 324.752†	120801.8	115843.6	492.15 µg/L	492.15 ppb	12:02:25
3	Mn 257.610†	312907.9	309049.6	492.71 µg/L	492.71 ppb	12:02:25
3	Mo 202.031†	13577.5	13429.2	495.90 µg/L	495.90 ppb	12:02:45
3	Ni 231.604†	31860.4	31551.5	489.22 µg/L	489.22 ppb	12:02:45
3	P 214.914†	9011.5	8904.6	2435.4 µg/L	2435.4 ppb	12:02:45
3	Pb 220.353†	6761.2	6587.5	493.38 µg/L	493.38 ppb	12:02:45
3	S 181.975 Axial†	1192.2	1109.6	1007.8 µg/L	1007.8 ppb	12:02:45
3	Sb 206.836†	3485.1	3327.2	496.71 µg/L	496.71 ppb	12:02:45
3	Se 196.026†	1179.4	1126.5	491 µg/L	491 ppb	12:02:45
3	SiO2†	50020.2	47343.4	5306.6 µg/L	5306.6 ppb	12:02:25
3	Si 251.611†	143946.3	141558.4	2484.4 µg/L	2484.4 ppb	12:02:25
3	Sn 189.927†	5627.9	5584.5	491.61 µg/L	491.61 ppb	12:02:45
3	Ti 334.940†	476405.5	469624.4	499.38 µg/L	499.38 ppb	12:02:25
3	Tl 190.801†	2875.5	2996.3	498.21 µg/L	498.21 ppb	12:02:45
3	U 409.014†	8882.3	8797.0	532.28 µg/L	532.28 ppb	12:02:25
3	V 292.402†	83176.5	82032.9	499.12 µg/L	499.12 ppb	12:02:25
3	Zn 213.857†	73639.0	69244.3	486.15 µg/L	486.15 ppb	12:02:25

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1642369.3	101.72	%	0.446				0.44%
Sc RADIAL	123725.3	101	%	1.6				1.55%
Y 371.029	1074929.7	101.43	%	0.439				0.43%
Ag 328.068†	122535.1	498.49	µg/L	0.515	498.49	ppb	0.515	0.10%
QC value within limits for Ag 328.068 Recovery = 99.70%								
Al 396.153Radial†	26499.0	4996.7	µg/L	24.39	4996.7	ppb	24.39	0.49%
QC value within limits for Al 396.153Radial Recovery = 99.93%								
As 188.979†	1378.2	487.46	µg/L	1.079	487.46	ppb	1.079	0.22%
QC value within limits for As 188.979 Recovery = 97.49%								
B 249.677†	28129.9	487.22	µg/L	1.810	487.22	ppb	1.810	0.37%
QC value within limits for B 249.677 Recovery = 97.44%								
Ba 233.527†	97072.9	492.23	µg/L	0.597	492.23	ppb	0.597	0.12%
QC value within limits for Ba 233.527 Recovery = 98.45%								
Be 313.107†	1519957.3	494.61	µg/L	1.190	494.61	ppb	1.190	0.24%
QC value within limits for Be 313.107 Recovery = 98.92%								
Ca 317.933Radial†	52439.3	4944.2	µg/L	20.51	4944.2	ppb	20.51	0.41%
QC value within limits for Ca 317.933Radial Recovery = 98.88%								
Cd 226.502†	58350.0	488.36	µg/L	1.943	488.36	ppb	1.943	0.40%
QC value within limits for Cd 226.502 Recovery = 97.67%								
Co 228.616†	28147.7	490.18	µg/L	1.337	490.18	ppb	1.337	0.27%

```
   QC value within limits for Co 228.616  Recovery = 98.04%
Cr 267.716†            50646.1      491.45 µg/L        0.600      491.45 ppb          0.600   0.12%
   QC value within limits for Cr 267.716  Recovery = 98.29%
Cu 324.752†           115776.1      491.86 µg/L        1.025      491.86 ppb          1.025   0.21%
   QC value within limits for Cu 324.752  Recovery = 98.37%
Fe 238.204 Radial†     51162.7      4987.6 µg/L        19.98      4987.6 ppb          19.98   0.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.75%
K 766.490 Radial†      13435.4      5022.7 µg/L        26.90      5022.7 ppb          26.90   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 100.45%
Mg 279.077 IEC†         6905.6      4917.0 µg/L        14.39      4917.0 ppb          14.39   0.29%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.34%
Mn 257.610†           308761.3      492.25 µg/L        1.064      492.25 ppb          1.064   0.22%
   QC value within limits for Mn 257.610  Recovery = 98.45%
Mo 202.031†            13397.0      494.71 µg/L        1.490      494.71 ppb          1.490   0.30%
   QC value within limits for Mo 202.031  Recovery = 98.94%
Na 589.592 Radial†     69624.1      9925.7 µg/L       282.30      9925.7 ppb         282.30   2.84%
   QC value within limits for Na 589.592 Radial  Recovery = 99.26%
Ni 231.604†            31453.3      487.70 µg/L        1.342      487.70 ppb          1.342   0.28%
   QC value within limits for Ni 231.604  Recovery = 97.54%
P 214.914†              8869.9      2425.8 µg/L         8.44      2425.8 ppb           8.44   0.35%
   QC value within limits for P 214.914  Recovery = 97.03%
Pb 220.353†             6554.6      490.93 µg/L        2.123      490.93 ppb          2.123   0.43%
   QC value within limits for Pb 220.353  Recovery = 98.19%
S 181.975 Axial†        1100.8      999.87 µg/L        9.669      999.87 ppb          9.669   0.97%
   QC value within limits for S 181.975 Axial  Recovery = 99.99%
Sb 206.836†             3311.9      494.42 µg/L        2.337      494.42 ppb          2.337   0.47%
   QC value within limits for Sb 206.836  Recovery = 98.88%
Se 196.026†             1121.5         489 µg/L          3.5         489 ppb            3.5   0.72%
   QC value within limits for Se 196.026  Recovery = 97.75%
SiO2†                  47286.3      5300.2 µg/L        16.50      5300.2 ppb          16.50   0.31%
   QC value within limits for SiO2  Recovery = 99.12%
Si 251.611†           141385.6      2481.4 µg/L         6.70      2481.4 ppb           6.70   0.27%
   QC value within limits for Si 251.611  Recovery = 99.25%
Sn 189.927†             5571.8      490.49 µg/L        1.415      490.49 ppb          1.415   0.29%
   QC value within limits for Sn 189.927  Recovery = 98.10%
Sr 421.552†           227606.7      500.06 µg/L       13.360      500.06 ppb         13.360   2.67%
   QC value within limits for Sr 421.552  Recovery = 100.01%
Ti 334.940†           469644.4      499.41 µg/L        0.735      499.41 ppb          0.735   0.15%
   QC value within limits for Ti 334.940  Recovery = 99.88%
Tl 190.801†             2996.3      498.21 µg/L        2.023      498.21 ppb          2.023   0.41%
   QC value within limits for Tl 190.801  Recovery = 99.64%
U 409.014†              8709.8      527.23 µg/L        5.536      527.23 ppb          5.536   1.05%
   QC value within limits for U 409.014  Recovery = 105.45%
V 292.402†             81825.4      497.85 µg/L        1.430      497.85 ppb          1.430   0.29%
   QC value within limits for V 292.402  Recovery = 99.57%
Zn 213.857†            69150.5      485.50 µg/L        0.646      485.50 ppb          0.646   0.13%
   QC value within limits for Zn 213.857  Recovery = 97.10%
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 4/30/2010 12:02:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120733.0	120733.0	98.5	%			12:03:25
1	Al 396.153Radial†	994.1	1060.9	200.48	µg/L	200.48	ppb	12:03:45
1	Ca 317.933Radial†	2487.9	2172.2	204.81	µg/L	204.81	ppb	12:03:45
1	Fe 238.204 Radial†	1113.1	1047.6	102.12	µg/L	102.12	ppb	12:03:45
1	K 766.490 Radial†	2040.0	378.2	141.33	µg/L	141.33	ppb	12:03:25
1	Mg 279.077 IEC†	491.0	446.2	317.36	µg/L	317.36	ppb	12:03:45
1	Na 589.592 Radial†	2371.2	2136.7	304.61	µg/L	304.61	ppb	12:03:25
1	Sr 421.552†	2242.7	2394.2	5.2589	µg/L	5.2589	ppb	12:03:25
1	Sc 361.383	1605428.4	1605428.4	99.430	%			12:04:33
1	Y 371.029	1054473.7	1054473.7	99.496	%			12:04:33
1	Ag 328.068†	3270.1	1296.6	5.3189	µg/L	5.3189	ppb	12:04:35
1	As 188.979†	42.1	78.0	27.265	µg/L	27.265	ppb	12:04:55
1	B 249.677†	4928.4	2878.9	50.019	µg/L	50.019	ppb	12:04:35
1	Ba 233.527†	691.5	1001.4	5.0791	µg/L	5.0791	ppb	12:04:55
1	Be 313.107†	14627.2	15472.3	5.0473	µg/L	5.0473	ppb	12:04:35
1	Cd 226.502†	415.1	602.0	5.0336	µg/L	5.0336	ppb	12:04:55
1	Co 228.616†	71.1	306.6	5.3366	µg/L	5.3366	ppb	12:04:55
1	Cr 267.716†	696.4	495.1	4.7692	µg/L	4.7692	ppb	12:04:55
1	Cu 324.752†	5789.5	2307.9	9.8386	µg/L	9.8386	ppb	12:04:35
1	Mn 257.610†	6429.4	6346.7	10.110	µg/L	10.110	ppb	12:04:55
1	Mo 202.031†	268.7	284.1	10.493	µg/L	10.493	ppb	12:04:55
1	Ni 231.604†	254.1	327.2	5.0741	µg/L	5.0741	ppb	12:04:55
1	P 214.914†	541.8	545.7	149.62	µg/L	149.62	ppb	12:04:55
1	Pb 220.353†	246.0	154.4	11.535	µg/L	11.535	ppb	12:04:55
1	S 181.975 Axial†	186.4	119.1	107.83	µg/L	107.83	ppb	12:04:55
1	Sb 206.836†	180.2	65.0	9.7836	µg/L	9.7836	ppb	12:04:55
1	Se 196.026†	102.3	64.0	27.9	µg/L	27.9	ppb	12:04:55
1	SiO2†	3942.8	1886.3	211.83	µg/L	211.83	ppb	12:04:55
1	Si 251.611†	6322.5	5690.8	100.06	µg/L	100.06	ppb	12:04:35
1	Sn 189.927†	89.1	113.5	9.9724	µg/L	9.9724	ppb	12:04:55
1	Ti 334.940†	5775.6	4720.1	4.9845	µg/L	4.9845	ppb	12:04:35
1	Tl 190.801†	-50.4	104.4	17.184	µg/L	17.184	ppb	12:04:55
1	U 409.014†	786.1	811.4	46.664	µg/L	46.664	ppb	12:04:35
1	V 292.402†	1000.3	856.3	5.2859	µg/L	5.2859	ppb	12:04:35
1	Zn 213.857†	5064.3	1578.5	11.123	µg/L	11.123	ppb	12:04:55
2	Sc RADIAL	118270.7	118270.7	96.5	%			12:03:47
2	Al 396.153Radial†	964.8	1051.6	198.71	µg/L	198.71	ppb	12:04:07
2	Ca 317.933Radial†	2491.0	2228.0	210.07	µg/L	210.07	ppb	12:04:07
2	Fe 238.204 Radial†	1106.4	1064.2	103.74	µg/L	103.74	ppb	12:04:07
2	K 766.490 Radial†	2104.1	487.7	182.32	µg/L	182.32	ppb	12:03:47
2	Mg 279.077 IEC†	471.1	436.0	310.12	µg/L	310.12	ppb	12:04:07
2	Na 589.592 Radial†	2268.6	2080.4	296.55	µg/L	296.55	ppb	12:03:47
2	Sr 421.552†	2156.2	2351.9	5.1660	µg/L	5.1660	ppb	12:03:47
2	Sc 361.383	1631153.5	1631153.5	101.02	%			12:04:57
2	Y 371.029	1071027.8	1071027.8	101.06	%			12:04:57
2	Ag 328.068†	3217.1	1192.2	4.9111	µg/L	4.9111	ppb	12:04:59
2	As 188.979†	35.7	70.9	24.792	µg/L	24.792	ppb	12:05:19
2	B 249.677†	5005.6	2877.1	49.990	µg/L	49.990	ppb	12:04:59
2	Ba 233.527†	700.7	999.6	5.0700	µg/L	5.0700	ppb	12:05:19
2	Be 313.107†	14783.0	15394.6	5.0229	µg/L	5.0229	ppb	12:04:59
2	Cd 226.502†	409.7	590.1	4.9330	µg/L	4.9330	ppb	12:05:19
2	Co 228.616†	54.2	288.8	5.0258	µg/L	5.0258	ppb	12:05:19
2	Cr 267.716†	670.7	458.6	4.4127	µg/L	4.4127	ppb	12:05:19
2	Cu 324.752†	5871.7	2297.4	9.7965	µg/L	9.7965	ppb	12:04:59
2	Mn 257.610†	6416.1	6231.7	9.9265	µg/L	9.9265	ppb	12:05:19
2	Mo 202.031†	271.2	282.3	10.428	µg/L	10.428	ppb	12:05:19
2	Ni 231.604†	244.0	313.2	4.8566	µg/L	4.8566	ppb	12:05:19
2	P 214.914†	557.2	552.4	151.44	µg/L	151.44	ppb	12:05:19
2	Pb 220.353†	224.6	129.3	9.6585	µg/L	9.6585	ppb	12:05:19

2	S 181.975 Axial†	194.7	124.3	112.53 µg/L	112.53 ppb	12:05:19
2	Sb 206.836†	185.3	67.2	10.113 µg/L	10.113 ppb	12:05:19
2	Se 196.026†	88.2	48.4	21.1 µg/L	21.1 ppb	12:05:19
2	SiO2†	3890.4	1771.9	198.96 µg/L	198.96 ppb	12:05:19
2	Si 251.611†	6441.1	5707.9	100.37 µg/L	100.37 ppb	12:04:59
2	Sn 189.927†	86.2	109.2	9.5952 µg/L	9.5952 ppb	12:05:19
2	Ti 334.940†	5950.9	4802.0	5.0715 µg/L	5.0715 ppb	12:04:59
2	Tl 190.801†	-37.9	117.5	19.346 µg/L	19.346 ppb	12:05:19
2	U 409.014†	849.7	861.8	49.580 µg/L	49.580 ppb	12:04:59
2	V 292.402†	1127.5	966.3	5.9459 µg/L	5.9459 ppb	12:04:59
2	Zn 213.857†	5060.4	1494.3	10.528 µg/L	10.528 ppb	12:05:19
3	Sc RADIAL	120888.2	120888.2	98.6 %		12:04:09
3	Al 396.153Radial†	989.5	1055.0	199.37 µg/L	199.37 ppb	12:04:29
3	Ca 317.933Radial†	2482.6	2163.6	204.00 µg/L	204.00 ppb	12:04:29
3	Fe 238.204 Radial†	1128.9	1062.2	103.55 µg/L	103.55 ppb	12:04:29
3	K 766.490 Radial†	2069.8	405.7	151.65 µg/L	151.65 ppb	12:04:09
3	Mg 279.077 IEC†	458.2	412.3	293.28 µg/L	293.28 ppb	12:04:29
3	Na 589.592 Radial†	2475.3	2239.2	319.23 µg/L	319.23 ppb	12:04:09
3	Sr 421.552†	2136.0	2283.0	5.0145 µg/L	5.0145 ppb	12:04:09
3	Sc 361.383	1615683.6	1615683.6	100.07 %		12:05:22
3	Y 371.029	1061158.9	1061158.9	100.13 %		12:05:22
3	Ag 328.068†	3140.0	1145.7	4.7122 µg/L	4.7122 ppb	12:05:24
3	As 188.979†	48.0	83.5	29.212 µg/L	29.212 ppb	12:05:44
3	B 249.677†	4835.7	2754.8	47.862 µg/L	47.862 ppb	12:05:24
3	Ba 233.527†	698.6	1004.1	5.0926 µg/L	5.0926 ppb	12:05:44
3	Be 313.107†	14492.9	15244.7	4.9737 µg/L	4.9737 ppb	12:05:24
3	Cd 226.502†	430.6	614.8	5.1406 µg/L	5.1406 ppb	12:05:44
3	Co 228.616†	62.8	297.8	5.1838 µg/L	5.1838 ppb	12:05:44
3	Cr 267.716†	709.6	503.9	4.8533 µg/L	4.8533 ppb	12:05:44
3	Cu 324.752†	5635.2	2116.7	9.0296 µg/L	9.0296 ppb	12:05:24
3	Mn 257.610†	6422.8	6299.1	10.035 µg/L	10.035 ppb	12:05:44
3	Mo 202.031†	264.0	277.7	10.255 µg/L	10.255 ppb	12:05:44
3	Ni 231.604†	259.4	330.9	5.1312 µg/L	5.1312 ppb	12:05:44
3	P 214.914†	553.5	554.0	151.89 µg/L	151.89 ppb	12:05:44
3	Pb 220.353†	238.8	145.6	10.878 µg/L	10.878 ppb	12:05:44
3	S 181.975 Axial†	193.6	125.1	113.20 µg/L	113.20 ppb	12:05:44
3	Sb 206.836†	178.6	62.3	9.3680 µg/L	9.3680 ppb	12:05:44
3	Se 196.026†	97.5	58.6	25.5 µg/L	25.5 ppb	12:05:44
3	SiO2†	3907.2	1825.5	204.99 µg/L	204.99 ppb	12:05:44
3	Si 251.611†	6216.7	5544.7	97.492 µg/L	97.492 ppb	12:05:24
3	Sn 189.927†	91.6	115.4	10.144 µg/L	10.144 ppb	12:05:44
3	Ti 334.940†	5810.4	4718.0	4.9837 µg/L	4.9837 ppb	12:05:24
3	Tl 190.801†	-30.6	124.5	20.472 µg/L	20.472 ppb	12:05:44
3	U 409.014†	814.8	835.0	48.001 µg/L	48.001 ppb	12:05:24
3	V 292.402†	977.2	826.8	5.1074 µg/L	5.1074 ppb	12:05:24
3	Zn 213.857†	5062.8	1544.7	10.884 µg/L	10.884 ppb	12:05:44

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1617421.8	100.17	%	0.802				0.80%
Sc RADIAL	119964.0	97.8	%	1.20				1.22%
Y 371.029	1062220.1	100.23	%	0.786				0.78%
Ag 328.068†	1211.5	4.9807	µg/L	0.30928	4.9807	ppb	0.30928	6.21%
QC value within limits for Ag 328.068 Recovery = 99.61%								
Al 396.153Radial†	1055.8	199.52	µg/L	0.896	199.52	ppb	0.896	0.45%
QC value within limits for Al 396.153Radial Recovery = 99.76%								
As 188.979†	77.5	27.090	µg/L	2.2153	27.090	ppb	2.2153	8.18%
QC value within limits for As 188.979 Recovery = 90.30%								
B 249.677†	2836.9	49.291	µg/L	1.2369	49.291	ppb	1.2369	2.51%
QC value within limits for B 249.677 Recovery = 98.58%								
Ba 233.527†	1001.7	5.0806	µg/L	0.01134	5.0806	ppb	0.01134	0.22%
QC value within limits for Ba 233.527 Recovery = 101.61%								
Be 313.107†	15370.5	5.0146	µg/L	0.03749	5.0146	ppb	0.03749	0.75%
QC value within limits for Be 313.107 Recovery = 100.29%								
Ca 317.933Radial†	2188.0	206.29	µg/L	3.295	206.29	ppb	3.295	1.60%
QC value within limits for Ca 317.933Radial Recovery = 103.15%								
Cd 226.502†	602.3	5.0357	µg/L	0.10382	5.0357	ppb	0.10382	2.06%
QC value within limits for Cd 226.502 Recovery = 100.71%								
Co 228.616†	297.7	5.1821	µg/L	0.15543	5.1821	ppb	0.15543	3.00%

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   QC value within limits for Co 228.616  Recovery = 103.64%
Cr 267.716†              485.8      4.6784 µg/L       0.23392      4.6784 ppb        0.23392   5.00%
   QC value within limits for Cr 267.716  Recovery = 93.57%
Cu 324.752†             2240.7      9.5549 µg/L       0.45543      9.5549 ppb        0.45543   4.77%
   QC value within limits for Cu 324.752  Recovery = 95.55%
Fe 238.204 Radial†      1058.0      103.14 µg/L         0.884      103.14 ppb          0.884   0.86%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.14%
K 766.490 Radial†        423.9      158.43 µg/L        21.321      158.43 ppb         21.321  13.46%
   QC value within limits for K 766.490 Radial  Recovery = 105.62%
Mg 279.077 IEC†          431.5      306.92 µg/L        12.357      306.92 ppb         12.357   4.03%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.31%
Mn 257.610†             6292.5      10.024 µg/L        0.0921      10.024 ppb         0.0921   0.92%
   QC value within limits for Mn 257.610  Recovery = 100.24%
Mo 202.031†              281.4      10.392 µg/L        0.1228      10.392 ppb         0.1228   1.18%
   QC value within limits for Mo 202.031  Recovery = 103.92%
Na 589.592 Radial†      2152.1      306.80 µg/L        11.495      306.80 ppb         11.495   3.75%
   QC value within limits for Na 589.592 Radial  Recovery = 102.27%
Ni 231.604†              323.8      5.0206 µg/L       0.14489      5.0206 ppb        0.14489   2.89%
   QC value within limits for Ni 231.604  Recovery = 100.41%
P 214.914†               550.7      150.98 µg/L         1.206      150.98 ppb          1.206   0.80%
   QC value within limits for P 214.914  Recovery = 100.66%
Pb 220.353†              143.1      10.690 µg/L        0.9522      10.690 ppb         0.9522   8.91%
   QC value within limits for Pb 220.353  Recovery = 106.90%
S 181.975 Axial†         122.8      111.19 µg/L         2.925      111.19 ppb          2.925   2.63%
   QC value within limits for S 181.975 Axial  Recovery = 111.19%
Sb 206.836†               64.8      9.7550 µg/L       0.37358      9.7550 ppb        0.37358   3.83%
   QC value within limits for Sb 206.836  Recovery = 97.55%
Se 196.026†               57.0        24.8 µg/L          3.45        24.8 ppb           3.45  13.90%
   QC value within limits for Se 196.026  Recovery = 82.71%
SiO2†                   1827.9      205.26 µg/L         6.437      205.26 ppb          6.437   3.14%
   QC value within limits for SiO2  Recovery = 96.37%
Si 251.611†             5647.8      99.309 µg/L        1.5808      99.309 ppb         1.5808   1.59%
   QC value within limits for Si 251.611  Recovery = 99.31%
Sn 189.927†              112.7      9.9038 µg/L       0.28063      9.9038 ppb        0.28063   2.83%
   QC value within limits for Sn 189.927  Recovery = 99.04%
Sr 421.552†             2343.0      5.1465 µg/L       0.12334      5.1465 ppb        0.12334   2.40%
   QC value within limits for Sr 421.552  Recovery = 102.93%
Ti 334.940†             4746.7      5.0133 µg/L       0.05044      5.0133 ppb        0.05044   1.01%
   QC value within limits for Ti 334.940  Recovery = 100.27%
Tl 190.801†              115.5      19.001 µg/L        1.6707      19.001 ppb         1.6707   8.79%
   QC value within limits for Tl 190.801  Recovery = 95.00%
U 409.014†               836.1      48.082 µg/L        1.4596      48.082 ppb         1.4596   3.04%
   QC value within limits for U 409.014  Recovery = 96.16%
V 292.402†               883.1      5.4464 µg/L       0.44165      5.4464 ppb        0.44165   8.11%
   QC value within limits for V 292.402  Recovery = 108.93%
Zn 213.857†             1539.2      10.845 µg/L        0.2992      10.845 ppb         0.2992   2.76%
   QC value within limits for Zn 213.857  Recovery = 108.45%
All analyte(s) passed QC.
```

Sequence No.: 19 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/30/2010 12:05:51**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121221.4	121221.4	98.9	%			12:06:21
1	Al 396.153Radial†	-42.7	8.3	1.5474	µg/L	1.5474	ppb	12:06:41
1	Ca 317.933Radial†	352.4	2.1	0.1977	µg/L	0.1977	ppb	12:06:41
1	Fe 238.204 Radial†	94.4	12.7	1.2350	µg/L	1.2350	ppb	12:06:41
1	K 766.490 Radial†	1671.2	-3.2	-1.2083	µg/L	-1.2083	ppb	12:06:21
1	Mg 279.077 IEC†	75.7	24.1	17.145	µg/L	17.145	ppb	12:06:41
1	Na 589.592 Radial†	134.6	-135.3	-19.296	µg/L	-19.296	ppb	12:06:21
1	Sr 421.552†	-164.8	-50.0	-0.1100	µg/L	-0.1100	ppb	12:06:21
1	Sc 361.383	1622983.0	1622983.0	100.52	%			12:07:29
1	Y 371.029	1064990.1	1064990.1	100.49	%			12:07:29
1	Ag 328.068†	2026.8	24.1	0.1048	µg/L	0.1048	ppb	12:07:31
1	As 188.979†	-38.9	-3.2	-1.1045	µg/L	-1.1045	ppb	12:07:51
1	B 249.677†	2106.6	18.0	0.3131	µg/L	0.3131	ppb	12:07:51
1	Ba 233.527†	-338.6	-30.9	-0.1561	µg/L	-0.1561	ppb	12:07:51
1	Be 313.107†	-938.6	-172.4	-0.0547	µg/L	-0.0547	ppb	12:07:31
1	Cd 226.502†	-177.5	8.0	0.0670	µg/L	0.0670	ppb	12:07:51
1	Co 228.616†	-248.4	-12.1	-0.2104	µg/L	-0.2104	ppb	12:07:51
1	Cr 267.716†	199.1	-7.3	-0.0743	µg/L	-0.0743	ppb	12:07:51
1	Cu 324.752†	3535.6	2.6	0.0155	µg/L	0.0155	ppb	12:07:31
1	Mn 257.610†	123.8	3.7	0.0052	µg/L	0.0052	ppb	12:07:51
1	Mo 202.031†	-3.5	10.5	0.3860	µg/L	0.3860	ppb	12:07:51
1	Ni 231.604†	-66.2	5.9	0.0911	µg/L	0.0911	ppb	12:07:51
1	P 214.914†	21.1	21.8	5.9695	µg/L	5.9695	ppb	12:07:51
1	Pb 220.353†	107.3	13.8	1.0280	µg/L	1.0280	ppb	12:07:51
1	S 181.975 Axial†	65.9	-2.9	-2.5955	µg/L	-2.5955	ppb	12:07:51
1	Sb 206.836†	116.8	0.0	0.0079	µg/L	0.0079	ppb	12:07:51
1	Se 196.026†	39.1	0.0	0.016	µg/L	0.016	ppb	12:07:51
1	SiO2†	2032.6	-57.0	-6.4272	µg/L	-6.4272	ppb	12:07:51
1	Si 251.611†	661.4	-9.9	-0.1796	µg/L	-0.1796	ppb	12:07:51
1	Sn 189.927†	-25.4	-1.4	-0.1235	µg/L	-0.1235	ppb	12:07:51
1	Ti 334.940†	1073.1	-21.0	-0.0256	µg/L	-0.0256	ppb	12:07:31
1	Tl 190.801†	-155.9	0.0	0.0067	µg/L	0.0067	ppb	12:07:51
1	U 409.014†	59.8	80.3	4.5941	µg/L	4.5941	ppb	12:07:31
1	V 292.402†	184.0	33.3	0.2066	µg/L	0.2066	ppb	12:07:31
1	Zn 213.857†	3512.4	-20.5	-0.1456	µg/L	-0.1456	ppb	12:07:51
2	Sc RADIAL	120280.8	120280.8	98.1	%			12:06:43
2	Al 396.153Radial†	-66.9	-16.8	-3.2015	µg/L	-3.2015	ppb	12:07:03
2	Ca 317.933Radial†	350.6	3.0	0.2826	µg/L	0.2826	ppb	12:07:03
2	Fe 238.204 Radial†	79.8	-1.4	-0.1349	µg/L	-0.1349	ppb	12:07:03
2	K 766.490 Radial†	1588.6	-74.2	-27.756	µg/L	-27.756	ppb	12:06:43
2	Mg 279.077 IEC†	50.2	-1.3	-0.9061	µg/L	-0.9061	ppb	12:07:03
2	Na 589.592 Radial†	218.8	-48.3	-6.8665	µg/L	-6.8665	ppb	12:06:43
2	Sr 421.552†	-103.7	10.9	0.0240	µg/L	0.0240	ppb	12:06:43
2	Sc 361.383	1605718.3	1605718.3	99.448	%			12:07:54
2	Y 371.029	1053273.0	1053273.0	99.382	%			12:07:54
2	Ag 328.068†	2019.3	38.2	0.1666	µg/L	0.1666	ppb	12:07:56
2	As 188.979†	-39.9	-4.5	-1.5743	µg/L	-1.5743	ppb	12:08:16
2	B 249.677†	2085.1	18.9	0.3285	µg/L	0.3285	ppb	12:08:16
2	Ba 233.527†	-292.8	11.6	0.0590	µg/L	0.0590	ppb	12:08:16
2	Be 313.107†	-781.5	-24.5	-0.0061	µg/L	-0.0061	ppb	12:07:56
2	Cd 226.502†	-162.2	21.4	0.1791	µg/L	0.1791	ppb	12:08:16
2	Co 228.616†	-221.4	12.4	0.2163	µg/L	0.2163	ppb	12:08:16
2	Cr 267.716†	204.9	0.7	0.0024	µg/L	0.0024	ppb	12:08:16
2	Cu 324.752†	3501.5	6.1	0.0312	µg/L	0.0312	ppb	12:07:56
2	Mn 257.610†	140.3	21.7	0.0346	µg/L	0.0346	ppb	12:08:16
2	Mo 202.031†	-5.7	8.1	0.3006	µg/L	0.3006	ppb	12:08:16
2	Ni 231.604†	-81.6	-10.3	-0.1599	µg/L	-0.1599	ppb	12:08:16
2	P 214.914†	2.8	3.6	0.9736	µg/L	0.9736	ppb	12:08:16
2	Pb 220.353†	90.4	-2.0	-0.1572	µg/L	-0.1572	ppb	12:08:16

2	S 181.975 Axial†	79.1	11.2	10.105 µg/L	10.105 ppb	12:08:16
2	Sb 206.836†	111.8	-3.8	-0.5626 µg/L	-0.5626 ppb	12:08:16
2	Se 196.026†	26.6	-12.2	-5.27 µg/L	-5.27 ppb	12:08:16
2	SiO2†	2032.1	-35.8	-4.0281 µg/L	-4.0281 ppb	12:08:16
2	Si 251.611†	624.8	-39.7	-0.7004 µg/L	-0.7004 ppb	12:08:16
2	Sn 189.927†	-27.9	-4.1	-0.3641 µg/L	-0.3641 ppb	12:08:16
2	Ti 334.940†	862.9	-220.9	-0.2376 µg/L	-0.2376 ppb	12:07:56
2	Tl 190.801†	-153.3	0.9	0.1500 µg/L	0.1500 ppb	12:08:16
2	U 409.014†	87.0	108.2	6.2042 µg/L	6.2042 ppb	12:07:56
2	V 292.402†	224.7	76.1	0.4647 µg/L	0.4647 ppb	12:07:56
2	Zn 213.857†	3494.0	-1.4	-0.0092 µg/L	-0.0092 ppb	12:08:16
3	Sc RADIAL	119578.5	119578.5	97.5 %		12:07:06
3	Al 396.153Radial†	-62.5	-12.7	-2.4220 µg/L	-2.4220 ppb	12:07:26
3	Ca 317.933Radial†	359.7	14.5	1.3663 µg/L	1.3663 ppb	12:07:26
3	Fe 238.204 Radial†	75.5	-5.3	-0.5196 µg/L	-0.5196 ppb	12:07:26
3	K 766.490 Radial†	1576.0	-77.6	-29.026 µg/L	-29.026 ppb	12:07:06
3	Mg 279.077 IEC†	57.5	6.6	4.6815 µg/L	4.6815 ppb	12:07:26
3	Na 589.592 Radial†	240.4	-24.9	-3.5244 µg/L	-3.5244 ppb	12:07:06
3	Sr 421.552†	-170.7	-58.4	-0.1283 µg/L	-0.1283 ppb	12:07:06
3	Sc 361.383	1627417.9	1627417.9	100.79 %		12:08:18
3	Y 371.029	1068110.3	1068110.3	100.78 %		12:08:18
3	Ag 328.068†	2137.2	128.1	0.5091 µg/L	0.5091 ppb	12:08:20
3	As 188.979†	-36.8	-0.9	-0.3229 µg/L	-0.3229 ppb	12:08:40
3	B 249.677†	2121.7	27.2	0.4729 µg/L	0.4729 ppb	12:08:40
3	Ba 233.527†	-299.8	8.5	0.0438 µg/L	0.0438 ppb	12:08:40
3	Be 313.107†	-739.3	27.8	0.0061 µg/L	0.0061 ppb	12:08:20
3	Cd 226.502†	-173.1	12.8	0.1066 µg/L	0.1066 ppb	12:08:40
3	Co 228.616†	-230.9	5.9	0.1033 µg/L	0.1033 ppb	12:08:40
3	Cr 267.716†	192.8	-14.0	-0.1284 µg/L	-0.1284 ppb	12:08:40
3	Cu 324.752†	3516.3	-26.2	-0.1187 µg/L	-0.1187 ppb	12:08:20
3	Mn 257.610†	137.0	16.5	0.0261 µg/L	0.0261 ppb	12:08:40
3	Mo 202.031†	-3.4	10.5	0.3871 µg/L	0.3871 ppb	12:08:40
3	Ni 231.604†	-110.8	-38.2	-0.5927 µg/L	-0.5927 ppb	12:08:40
3	P 214.914†	-10.0	-9.1	-2.5210 µg/L	-2.5210 ppb	12:08:40
3	Pb 220.353†	103.9	10.1	0.7655 µg/L	0.7655 ppb	12:08:40
3	S 181.975 Axial†	82.7	13.7	12.396 µg/L	12.396 ppb	12:08:40
3	Sb 206.836†	114.7	-2.4	-0.3543 µg/L	-0.3543 ppb	12:08:40
3	Se 196.026†	30.6	-8.5	-3.70 µg/L	-3.70 ppb	12:08:40
3	SiO2†	2041.8	-53.4	-6.0031 µg/L	-6.0031 ppb	12:08:40
3	Si 251.611†	614.8	-57.9	-1.0183 µg/L	-1.0183 ppb	12:08:40
3	Sn 189.927†	-37.0	-12.8	-1.1230 µg/L	-1.1230 ppb	12:08:40
3	Ti 334.940†	1049.2	-47.6	-0.0470 µg/L	-0.0470 ppb	12:08:20
3	Tl 190.801†	-170.3	-13.9	-2.2709 µg/L	-2.2709 ppb	12:08:40
3	U 409.014†	-193.9	-171.6	-9.7631 µg/L	-9.7631 ppb	12:08:20
3	V 292.402†	244.3	92.6	0.5528 µg/L	0.5528 ppb	12:08:20
3	Zn 213.857†	3501.3	-41.0	-0.2864 µg/L	-0.2864 ppb	12:08:40

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1618706.4	100.25	%	0.710				0.71%
Sc RADIAL	120360.2	98.2	%	0.67				0.68%
Y 371.029	1062124.5	100.22	%	0.738				0.74%
Ag 328.068†	63.5	0.2601	µg/L	0.21779	0.2601	ppb	0.21779	83.72%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.1	-1.3587	µg/L	2.54671	-1.3587	ppb	2.54671	187.44%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.9	-1.0005	µg/L	0.63215	-1.0005	ppb	0.63215	63.18%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	21.4	0.3715	µg/L	0.08814	0.3715	ppb	0.08814	23.72%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.6	-0.0178	µg/L	0.12006	-0.0178	ppb	0.12006	674.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-56.4	-0.0182	µg/L	0.03217	-0.0182	ppb	0.03217	176.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.5	0.6155	µg/L	0.65159	0.6155	ppb	0.65159	105.86%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.1	0.1176	µg/L	0.05687	0.1176	ppb	0.05687	48.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.1	0.0364	µg/L	0.22108	0.0364	ppb	0.22108	608.00%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -6.9     -0.0668 µg/L       0.06574     -0.0668 ppb        0.06574  98.45%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -5.8     -0.0240 µg/L       0.08240     -0.0240 ppb        0.08240 342.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.0      0.1935 µg/L       0.92224      0.1935 ppb        0.92224 476.63%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -51.7     -19.330 µg/L       15.7069     -19.330 ppb        15.7069  81.26%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             9.8      6.9735 µg/L       9.24131      6.9735 ppb        9.24131 132.52%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                13.9      0.0220 µg/L       0.01511      0.0220 ppb        0.01511  68.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.7      0.3579 µg/L       0.04966      0.3579 ppb        0.04966  13.87%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -69.5     -9.8956 µg/L       8.31060     -9.8956 ppb        8.31060  83.98%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -14.2     -0.2205 µg/L       0.34589     -0.2205 ppb        0.34589 156.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  5.4      1.4741 µg/L       4.26732      1.4741 ppb        4.26732 289.50%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 7.3      0.5454 µg/L       0.62246      0.5454 ppb        0.62246 114.13%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            7.3      6.6350 µg/L       8.07546      6.6350 ppb        8.07546 121.71%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.1     -0.3030 µg/L       0.28869     -0.3030 ppb        0.28869  95.28%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -6.9      -2.99 µg/L         2.716       -2.99 ppb          2.716  90.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -48.7     -5.4861 µg/L       1.28035     -5.4861 ppb        1.28035  23.34%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -35.8     -0.6328 µg/L       0.42340     -0.6328 ppb        0.42340  66.91%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -6.1     -0.5369 µg/L       0.52162     -0.5369 ppb        0.52162  97.16%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -32.5     -0.0714 µg/L       0.08311     -0.0714 ppb        0.08311 116.36%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -96.5     -0.1034 µg/L       0.11672     -0.1034 ppb        0.11672 112.87%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -4.3     -0.7047 µg/L       1.35824     -0.7047 ppb        1.35824 192.73%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  5.6      0.3451 µg/L       8.79088      0.3451 ppb        8.79088 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 67.3      0.4080 µg/L       0.17994      0.4080 ppb        0.17994  44.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -21.0     -0.1471 µg/L       0.13862     -0.1471 ppb        0.13862  94.25%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/30/2010 12:11:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	124249.2	124249.2	101	%			12:12:32
1	Al 396.153Radial†	26533.5	26234.6	4946.4	µg/L	4946.4	ppb	12:12:32
1	Ca 317.933Radial†	53635.3	52573.0	4956.8	µg/L	4956.8	ppb	12:12:32
1	Fe 238.204 Radial†	52143.7	51372.6	5008.1	µg/L	5008.1	ppb	12:12:32
1	K 766.490 Radial†	15242.7	13347.9	4990.1	µg/L	4990.1	ppb	12:12:32
1	Mg 279.077 IEC†	7099.5	6953.4	4951.1	µg/L	4951.1	ppb	12:12:32
1	Na 589.592 Radial†	69113.6	67929.9	9684.1	µg/L	9684.1	ppb	12:12:30
1	Sr 421.552†	225304.0	222446.6	488.72	µg/L	488.72	ppb	12:12:30
1	Sc 361.383	1636487.5	1636487.5	101.35	%			12:12:45
1	Y 371.029	1069767.6	1069767.6	100.94	%			12:12:45
1	Ag 328.068†	126516.2	122833.7	499.72	µg/L	499.72	ppb	12:12:45
1	As 188.979†	1383.8	1400.9	495.44	µg/L	495.44	ppb	12:13:05
1	B 249.677†	30785.6	28296.5	490.10	µg/L	490.10	ppb	12:12:45
1	Ba 233.527†	98669.9	97657.7	495.19	µg/L	495.19	ppb	12:12:45
1	Be 313.107†	1552976.6	1532990.9	498.85	µg/L	498.85	ppb	12:12:45
1	Cd 226.502†	59583.9	58972.4	493.58	µg/L	493.58	ppb	12:12:45
1	Co 228.616†	28577.7	28431.0	495.12	µg/L	495.12	ppb	12:13:05
1	Cr 267.716†	51857.6	50959.5	494.49	µg/L	494.49	ppb	12:12:45
1	Cu 324.752†	121278.3	116143.3	493.43	µg/L	493.43	ppb	12:12:45
1	Mn 257.610†	315028.0	310700.0	495.34	µg/L	495.34	ppb	12:12:45
1	Mo 202.031†	13699.6	13530.5	499.64	µg/L	499.64	ppb	12:13:05
1	Ni 231.604†	32252.8	31893.6	494.53	µg/L	494.53	ppb	12:13:05
1	P 214.914†	9147.2	9025.8	2468.6	µg/L	2468.6	ppb	12:13:05
1	Pb 220.353†	6815.0	6631.0	496.64	µg/L	496.64	ppb	12:13:05
1	S 181.975 Axial†	1184.9	1100.7	999.82	µg/L	999.82	ppb	12:13:05
1	Sb 206.836†	3496.8	3333.8	497.72	µg/L	497.72	ppb	12:13:05
1	Se 196.026†	1197.0	1142.1	498	µg/L	498	ppb	12:13:05
1	SiO2†	50055.0	47307.1	5302.3	µg/L	5302.3	ppb	12:12:45
1	Si 251.611†	143980.2	141388.8	2481.3	µg/L	2481.3	ppb	12:12:45
1	Sn 189.927†	5709.3	5657.0	497.97	µg/L	497.97	ppb	12:13:05
1	Ti 334.940†	478505.6	471024.5	500.87	µg/L	500.87	ppb	12:12:45
1	Tl 190.801†	2913.4	3029.6	503.69	µg/L	503.69	ppb	12:13:05
1	U 409.014†	8816.9	8719.8	527.98	µg/L	527.98	ppb	12:12:45
1	V 292.402†	83572.8	82306.6	500.80	µg/L	500.80	ppb	12:12:45
1	Zn 213.857†	74528.5	70018.0	491.59	µg/L	491.59	ppb	12:12:45
2	Sc RADIAL	122906.5	122906.5	100	%			12:12:36
2	Al 396.153Radial†	26177.3	26165.4	4933.6	µg/L	4933.6	ppb	12:12:36
2	Ca 317.933Radial†	52804.2	52322.2	4933.2	µg/L	4933.2	ppb	12:12:36
2	Fe 238.204 Radial†	51205.1	50998.5	4971.6	µg/L	4971.6	ppb	12:12:36
2	K 766.490 Radial†	15106.4	13376.3	5000.6	µg/L	5000.6	ppb	12:12:36
2	Mg 279.077 IEC†	6928.8	6859.6	4884.2	µg/L	4884.2	ppb	12:12:36
2	Na 589.592 Radial†	70722.1	70279.7	10019	µg/L	10019	ppb	12:12:34
2	Sr 421.552†	229799.6	229360.3	503.91	µg/L	503.91	ppb	12:12:34
2	Sc 361.383	1647384.5	1647384.5	102.03	%			12:13:08
2	Y 371.029	1076579.2	1076579.2	101.58	%			12:13:08
2	Ag 328.068†	127111.2	122591.2	498.74	µg/L	498.74	ppb	12:13:08
2	As 188.979†	1378.0	1386.2	490.29	µg/L	490.29	ppb	12:13:28
2	B 249.677†	31096.0	28399.9	491.92	µg/L	491.92	ppb	12:13:08
2	Ba 233.527†	99436.7	97765.3	495.74	µg/L	495.74	ppb	12:13:08
2	Be 313.107†	1566004.4	1535624.5	499.70	µg/L	499.70	ppb	12:13:08
2	Cd 226.502†	60319.8	59304.8	496.36	µg/L	496.36	ppb	12:13:08
2	Co 228.616†	28430.0	28099.7	489.35	µg/L	489.35	ppb	12:13:28
2	Cr 267.716†	52374.2	51127.4	496.12	µg/L	496.12	ppb	12:13:08
2	Cu 324.752†	121749.9	115814.0	492.02	µg/L	492.02	ppb	12:13:08
2	Mn 257.610†	317784.8	311346.0	496.37	µg/L	496.37	ppb	12:13:08
2	Mo 202.031†	13592.4	13336.0	492.46	µg/L	492.46	ppb	12:13:28
2	Ni 231.604†	31999.1	31434.5	487.41	µg/L	487.41	ppb	12:13:28
2	P 214.914†	9091.1	8911.1	2437.2	µg/L	2437.2	ppb	12:13:28
2	Pb 220.353†	6801.7	6573.5	492.34	µg/L	492.34	ppb	12:13:28

2	S 181.975 Axial†	1177.6	1085.8	986.31 µg/L	986.31 ppb	12:13:28
2	Sb 206.836†	3467.8	3282.6	489.95 µg/L	489.95 ppb	12:13:28
2	Se 196.026†	1185.2	1122.8	489 µg/L	489 ppb	12:13:28
2	SiO2†	50705.5	47618.1	5337.6 µg/L	5337.6 ppb	12:13:08
2	Si 251.611†	145733.8	142167.8	2495.2 µg/L	2495.2 ppb	12:13:08
2	Sn 189.927†	5683.9	5594.8	492.51 µg/L	492.51 ppb	12:13:28
2	Ti 334.940†	481895.3	471223.9	501.09 µg/L	501.09 ppb	12:13:08
2	Tl 190.801†	2890.2	2987.8	496.88 µg/L	496.88 ppb	12:13:28
2	U 409.014†	8811.0	8656.5	524.38 µg/L	524.38 ppb	12:13:08
2	V 292.402†	84145.6	82322.5	500.83 µg/L	500.83 ppb	12:13:08
2	Zn 213.857†	75365.7	70352.2	494.00 µg/L	494.00 ppb	12:13:08
3	Sc RADIAL	122217.7	122217.7	99.7 %		12:12:40
3	Al 396.153Radial†	25929.0	26063.5	4914.1 µg/L	4914.1 ppb	12:12:40
3	Ca 317.933Radial†	52331.6	52144.9	4916.5 µg/L	4916.5 ppb	12:12:40
3	Fe 238.204 Radial†	50962.2	51042.7	4975.9 µg/L	4975.9 ppb	12:12:40
3	K 766.490 Radial†	14887.3	13241.4	4950.2 µg/L	4950.2 ppb	12:12:40
3	Mg 279.077 IEC†	6976.5	6946.4	4946.1 µg/L	4946.1 ppb	12:12:40
3	Na 589.592 Radial†	70409.5	70363.6	10031 µg/L	10031 ppb	12:12:38
3	Sr 421.552†	227653.3	228499.2	502.02 µg/L	502.02 ppb	12:12:38
3	Sc 361.383	1640848.9	1640848.9	101.62 %		12:13:31
3	Y 371.029	1072219.0	1072219.0	101.17 %		12:13:31
3	Ag 328.068†	126669.3	122652.6	498.99 µg/L	498.99 ppb	12:13:31
3	As 188.979†	1378.8	1392.3	492.42 µg/L	492.42 ppb	12:13:51
3	B 249.677†	30992.2	28419.1	492.24 µg/L	492.24 ppb	12:13:31
3	Ba 233.527†	98720.5	97448.7	494.13 µg/L	494.13 ppb	12:13:31
3	Be 313.107†	1556279.3	1532168.2	498.58 µg/L	498.58 ppb	12:13:31
3	Cd 226.502†	59875.6	59103.2	494.68 µg/L	494.68 ppb	12:13:31
3	Co 228.616†	28587.7	28365.9	493.98 µg/L	493.98 ppb	12:13:51
3	Cr 267.716†	51895.1	50860.4	493.53 µg/L	493.53 ppb	12:13:31
3	Cu 324.752†	121293.2	115839.8	492.13 µg/L	492.13 ppb	12:13:31
3	Mn 257.610†	315935.5	310766.8	495.44 µg/L	495.44 ppb	12:13:31
3	Mo 202.031†	13671.9	13467.3	497.30 µg/L	497.30 ppb	12:13:51
3	Ni 231.604†	32157.0	31714.8	491.76 µg/L	491.76 ppb	12:13:51
3	P 214.914†	9153.3	9007.8	2463.7 µg/L	2463.7 ppb	12:13:51
3	Pb 220.353†	6844.1	6641.8	497.45 µg/L	497.45 ppb	12:13:51
3	S 181.975 Axial†	1197.8	1110.3	1008.5 µg/L	1008.5 ppb	12:13:51
3	Sb 206.836†	3487.3	3315.4	494.95 µg/L	494.95 ppb	12:13:51
3	Se 196.026†	1187.7	1129.9	492 µg/L	492 ppb	12:13:51
3	SiO2†	50312.4	47429.2	5316.2 µg/L	5316.2 ppb	12:13:31
3	Si 251.611†	145002.4	142017.0	2492.4 µg/L	2492.4 ppb	12:13:31
3	Sn 189.927†	5691.0	5623.9	495.07 µg/L	495.07 ppb	12:13:51
3	Ti 334.940†	478868.2	470126.4	499.92 µg/L	499.92 ppb	12:13:31
3	Tl 190.801†	2898.1	3006.9	499.96 µg/L	499.96 ppb	12:13:51
3	U 409.014†	8758.2	8639.0	523.36 µg/L	523.36 ppb	12:13:31
3	V 292.402†	83768.7	82280.1	500.62 µg/L	500.62 ppb	12:13:31
3	Zn 213.857†	74692.3	69983.8	491.37 µg/L	491.37 ppb	12:13:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1641573.6	101.67	%	0.340				0.33%
Sc RADIAL	123124.5	100	%	0.8				0.84%
Y 371.029	1072855.3	101.23	%	0.326				0.32%
Ag 328.068†	122692.5	499.15	µg/L	0.509	499.15	ppb	0.509	0.10%
QC value within limits for Ag 328.068 Recovery = 99.83%								
Al 396.153Radial†	26154.5	4931.3	µg/L	16.27	4931.3	ppb	16.27	0.33%
QC value within limits for Al 396.153Radial Recovery = 98.63%								
As 188.979†	1393.1	492.72	µg/L	2.584	492.72	ppb	2.584	0.52%
QC value within limits for As 188.979 Recovery = 98.54%								
B 249.677†	28371.8	491.42	µg/L	1.152	491.42	ppb	1.152	0.23%
QC value within limits for B 249.677 Recovery = 98.28%								
Ba 233.527†	97623.9	495.02	µg/L	0.815	495.02	ppb	0.815	0.16%
QC value within limits for Ba 233.527 Recovery = 99.00%								
Be 313.107†	1533594.5	499.04	µg/L	0.587	499.04	ppb	0.587	0.12%
QC value within limits for Be 313.107 Recovery = 99.81%								
Ca 317.933Radial†	52346.7	4935.5	µg/L	20.28	4935.5	ppb	20.28	0.41%
QC value within limits for Ca 317.933Radial Recovery = 98.71%								
Cd 226.502†	59126.8	494.87	µg/L	1.402	494.87	ppb	1.402	0.28%
QC value within limits for Cd 226.502 Recovery = 98.97%								
Co 228.616†	28298.8	492.82	µg/L	3.053	492.82	ppb	3.053	0.62%

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   QC value within limits for Co 228.616  Recovery = 98.56%
Cr 267.716†            50982.4      494.72 µg/L         1.310      494.72 ppb          1.310   0.26%
   QC value within limits for Cr 267.716  Recovery = 98.94%
Cu 324.752†           115932.4      492.53 µg/L         0.782      492.53 ppb          0.782   0.16%
   QC value within limits for Cu 324.752  Recovery = 98.51%
Fe 238.204 Radial†     51137.9      4985.2 µg/L         19.93      4985.2 ppb          19.93   0.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.70%
K 766.490 Radial†      13321.9      4980.3 µg/L         26.62      4980.3 ppb          26.62   0.53%
   QC value within limits for K 766.490 Radial  Recovery = 99.61%
Mg 279.077 IEC†         6919.8      4927.1 µg/L         37.23      4927.1 ppb          37.23   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.54%
Mn 257.610†           310937.6      495.72 µg/L         0.568      495.72 ppb          0.568   0.11%
   QC value within limits for Mn 257.610  Recovery = 99.14%
Mo 202.031†            13444.6      496.47 µg/L         3.661      496.47 ppb          3.661   0.74%
   QC value within limits for Mo 202.031  Recovery = 99.29%
Na 589.592 Radial†     69524.4      9911.5 µg/L        197.05      9911.5 ppb         197.05   1.99%
   QC value within limits for Na 589.592 Radial  Recovery = 99.11%
Ni 231.604†            31681.0      491.23 µg/L         3.589      491.23 ppb          3.589   0.73%
   QC value within limits for Ni 231.604  Recovery = 98.25%
P 214.914†              8981.5      2456.5 µg/L         16.89      2456.5 ppb          16.89   0.69%
   QC value within limits for P 214.914  Recovery = 98.26%
Pb 220.353†             6615.4      495.48 µg/L         2.746      495.48 ppb          2.746   0.55%
   QC value within limits for Pb 220.353  Recovery = 99.10%
S 181.975 Axial†        1098.9      998.20 µg/L        11.170      998.20 ppb         11.170   1.12%
   QC value within limits for S 181.975 Axial  Recovery = 99.82%
Sb 206.836†             3310.6      494.21 µg/L         3.936      494.21 ppb          3.936   0.80%
   QC value within limits for Sb 206.836  Recovery = 98.84%
Se 196.026†             1131.6         493 µg/L           4.3         493 ppb            4.3   0.86%
   QC value within limits for Se 196.026  Recovery = 98.62%
SiO2†                  47451.5      5318.7 µg/L         17.77      5318.7 ppb          17.77   0.33%
   QC value within limits for SiO2  Recovery = 99.46%
Si 251.611†           141857.9      2489.6 µg/L          7.34      2489.6 ppb           7.34   0.29%
   QC value within limits for Si 251.611  Recovery = 99.59%
Sn 189.927†             5625.2      495.18 µg/L         2.730      495.18 ppb          2.730   0.55%
   QC value within limits for Sn 189.927  Recovery = 99.04%
Sr 421.552†           226768.7      498.22 µg/L         8.279      498.22 ppb          8.279   1.66%
   QC value within limits for Sr 421.552  Recovery = 99.64%
Ti 334.940†           470791.6      500.63 µg/L         0.624      500.63 ppb          0.624   0.12%
   QC value within limits for Ti 334.940  Recovery = 100.13%
Tl 190.801†             3008.1      500.17 µg/L         3.410      500.17 ppb          3.410   0.68%
   QC value within limits for Tl 190.801  Recovery = 100.03%
U 409.014†              8671.8      525.24 µg/L         2.427      525.24 ppb          2.427   0.46%
   QC value within limits for U 409.014  Recovery = 105.05%
V 292.402†             82303.1      500.75 µg/L         0.117      500.75 ppb          0.117   0.02%
   QC value within limits for V 292.402  Recovery = 100.15%
Zn 213.857†            70118.0      492.32 µg/L         1.463      492.32 ppb          1.463   0.30%
   QC value within limits for Zn 213.857  Recovery = 98.46%
All analyte(s) passed QC.
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Sequence No.: 22
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/30/2010 12:13:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123215.8	123215.8	100	%			12:14:28
1	Al 396.153Radial†	-69.8	-18.1	-3.4283	µg/L	-3.4283	ppb	12:14:48
1	Ca 317.933Radial†	362.1	5.9	0.5596	µg/L	0.5596	ppb	12:14:48
1	Fe 238.204 Radial†	84.8	1.6	0.1571	µg/L	0.1571	ppb	12:14:48
1	K 766.490 Radial†	1635.2	-66.4	-24.834	µg/L	-24.834	ppb	12:14:28
1	Mg 279.077 IEC†	57.7	5.0	3.5672	µg/L	3.5672	ppb	12:14:48
1	Na 589.592 Radial†	342.2	69.1	9.8746	µg/L	9.8746	ppb	12:14:28
1	Sr 421.552†	-228.3	-110.6	-0.2430	µg/L	-0.2430	ppb	12:14:28
1	Sc 361.383	1634916.2	1634916.2	101.26	%			12:15:49
1	Y 371.029	1072271.9	1072271.9	101.17	%			12:15:49
1	Ag 328.068†	2079.1	61.0	0.2283	µg/L	0.2283	ppb	12:15:51
1	As 188.979†	-44.3	-8.2	-2.8504	µg/L	-2.8504	ppb	12:16:12
1	B 249.677†	2125.9	21.8	0.3780	µg/L	0.3780	ppb	12:16:12
1	Ba 233.527†	-294.7	15.0	0.0755	µg/L	0.0755	ppb	12:16:12
1	Be 313.107†	-552.5	215.7	0.0677	µg/L	0.0677	ppb	12:15:51
1	Cd 226.502†	-179.7	7.1	0.0592	µg/L	0.0592	ppb	12:16:12
1	Co 228.616†	-230.3	7.6	0.1321	µg/L	0.1321	ppb	12:16:12
1	Cr 267.716†	185.8	-21.8	-0.2058	µg/L	-0.2058	ppb	12:16:12
1	Cu 324.752†	3401.5	-155.6	-0.6654	µg/L	-0.6654	ppb	12:15:51
1	Mn 257.610†	129.3	8.2	0.0130	µg/L	0.0130	ppb	12:16:12
1	Mo 202.031†	-8.9	5.1	0.1878	µg/L	0.1878	ppb	12:16:12
1	Ni 231.604†	-52.8	19.6	0.3035	µg/L	0.3035	ppb	12:16:12
1	P 214.914†	-1.9	-1.1	-0.3086	µg/L	-0.3086	ppb	12:16:12
1	Pb 220.353†	112.2	17.8	1.3387	µg/L	1.3387	ppb	12:16:12
1	S 181.975 Axial†	68.2	-1.0	-0.9237	µg/L	-0.9237	ppb	12:16:12
1	Sb 206.836†	116.7	-1.0	-0.1391	µg/L	-0.1391	ppb	12:16:12
1	Se 196.026†	32.8	-6.5	-2.83	µg/L	-2.83	ppb	12:16:12
1	SiO2†	2023.9	-80.4	-9.0437	µg/L	-9.0437	ppb	12:16:12
1	Si 251.611†	674.7	-1.6	-0.0286	µg/L	-0.0286	ppb	12:16:12
1	Sn 189.927†	-28.3	-4.1	-0.3599	µg/L	-0.3599	ppb	12:16:12
1	Ti 334.940†	945.6	-154.7	-0.1615	µg/L	-0.1615	ppb	12:15:51
1	Tl 190.801†	-154.8	2.2	0.3501	µg/L	0.3501	ppb	12:16:12
1	U 409.014†	-167.8	-145.0	-8.3074	µg/L	-8.3074	ppb	12:15:51
1	V 292.402†	57.6	-92.8	-0.5618	µg/L	-0.5618	ppb	12:15:51
1	Zn 213.857†	3529.5	-29.1	-0.2072	µg/L	-0.2072	ppb	12:16:12
2	Sc RADIAL	120867.9	120867.9	98.6	%			12:14:50
2	Al 396.153Radial†	-80.6	-30.4	-5.7719	µg/L	-5.7719	ppb	12:15:10
2	Ca 317.933Radial†	344.1	-5.3	-0.4953	µg/L	-0.4953	ppb	12:15:10
2	Fe 238.204 Radial†	76.0	-5.7	-0.5524	µg/L	-0.5524	ppb	12:15:10
2	K 766.490 Radial†	1595.0	-75.6	-28.283	µg/L	-28.283	ppb	12:14:50
2	Mg 279.077 IEC†	71.7	20.3	14.464	µg/L	14.464	ppb	12:15:10
2	Na 589.592 Radial†	397.1	131.4	18.765	µg/L	18.765	ppb	12:14:50
2	Sr 421.552†	-137.7	-23.0	-0.0506	µg/L	-0.0506	ppb	12:14:50
2	Sc 361.383	1622501.9	1622501.9	100.49	%			12:16:14
2	Y 371.029	1064152.6	1064152.6	100.41	%			12:16:14
2	Ag 328.068†	1987.1	-14.8	-0.0505	µg/L	-0.0505	ppb	12:16:16
2	As 188.979†	-38.6	-2.9	-0.9960	µg/L	-0.9960	ppb	12:16:36
2	B 249.677†	2143.7	55.6	0.9650	µg/L	0.9650	ppb	12:16:36
2	Ba 233.527†	-308.9	-1.4	-0.0063	µg/L	-0.0063	ppb	12:16:36
2	Be 313.107†	-939.8	-173.9	-0.0565	µg/L	-0.0565	ppb	12:16:16
2	Cd 226.502†	-183.2	2.3	0.0191	µg/L	0.0191	ppb	12:16:36
2	Co 228.616†	-218.4	17.8	0.3090	µg/L	0.3090	ppb	12:16:36
2	Cr 267.716†	195.8	-10.5	-0.1020	µg/L	-0.1020	ppb	12:16:36
2	Cu 324.752†	3585.5	53.2	0.2262	µg/L	0.2262	ppb	12:16:16
2	Mn 257.610†	111.2	-8.8	-0.0146	µg/L	-0.0146	ppb	12:16:36
2	Mo 202.031†	-3.5	10.4	0.3827	µg/L	0.3827	ppb	12:16:36
2	Ni 231.604†	-64.4	7.6	0.1186	µg/L	0.1186	ppb	12:16:36
2	P 214.914†	-6.3	-5.5	-1.5121	µg/L	-1.5121	ppb	12:16:36
2	Pb 220.353†	103.0	9.5	0.7111	µg/L	0.7111	ppb	12:16:36

2	S 181.975 Axial†	70.5	1.7	1.5593 µg/L	1.5593 ppb		12:16:36
2	Sb 206.836†	121.6	4.8	0.7190 µg/L	0.7190 ppb		12:16:36
2	Se 196.026†	35.3	-3.8	-1.64 µg/L	-1.64 ppb		12:16:36
2	SiO2†	2056.2	-33.0	-3.7241 µg/L	-3.7241 ppb		12:16:36
2	Si 251.611†	654.0	-17.1	-0.3089 µg/L	-0.3089 ppb		12:16:36
2	Sn 189.927†	-20.3	3.7	0.3205 µg/L	0.3205 ppb		12:16:36
2	Ti 334.940†	932.3	-160.9	-0.1725 µg/L	-0.1725 ppb		12:16:16
2	Tl 190.801†	-162.7	-6.8	-1.1162 µg/L	-1.1162 ppb		12:16:36
2	U 409.014†	-16.7	4.2	0.2805 µg/L	0.2805 ppb		12:16:16
2	V 292.402†	272.9	121.8	0.7354 µg/L	0.7354 ppb		12:16:16
2	Zn 213.857†	3532.2	0.3	0.0009 µg/L	0.0009 ppb		12:16:36
3	Sc RADIAL	122267.1	122267.1	99.7 %			12:15:12
3	Al 396.153Radial†	-79.9	-28.8	-5.4462 µg/L	-5.4462 ppb		12:15:32
3	Ca 317.933Radial†	368.9	15.6	1.4668 µg/L	1.4668 ppb		12:15:32
3	Fe 238.204 Radial†	80.3	-2.3	-0.2241 µg/L	-0.2241 ppb		12:15:32
3	K 766.490 Radial†	1531.5	-157.8	-59.034 µg/L	-59.034 ppb		12:15:12
3	Mg 279.077 IEC†	50.3	-2.0	-1.4438 µg/L	-1.4438 ppb		12:15:32
3	Na 589.592 Radial†	209.8	-61.0	-8.6513 µg/L	-8.6513 ppb		12:15:12
3	Sr 421.552†	-112.3	4.0	0.0088 µg/L	0.0088 ppb		12:15:12
3	Sc 361.383	1613102.4	1613102.4	99.906 %			12:16:38
3	Y 371.029	1057988.3	1057988.3	99.827 %			12:16:38
3	Ag 328.068†	1990.6	0.2	-0.0036 µg/L	-0.0036 ppb		12:16:40
3	As 188.979†	-44.4	-8.9	-3.0994 µg/L	-3.0994 ppb		12:17:00
3	B 249.677†	2127.7	51.9	0.9013 µg/L	0.9013 ppb		12:17:00
3	Ba 233.527†	-304.0	1.7	0.0087 µg/L	0.0087 ppb		12:17:00
3	Be 313.107†	-633.8	126.9	0.0400 µg/L	0.0400 ppb		12:16:40
3	Cd 226.502†	-196.6	-12.2	-0.1021 µg/L	-0.1021 ppb		12:17:00
3	Co 228.616†	-212.5	22.4	0.3894 µg/L	0.3894 ppb		12:17:00
3	Cr 267.716†	210.2	5.1	0.0531 µg/L	0.0531 ppb		12:17:00
3	Cu 324.752†	3553.9	42.5	0.1766 µg/L	0.1766 ppb		12:16:40
3	Mn 257.610†	114.2	-5.1	-0.0081 µg/L	-0.0081 ppb		12:17:00
3	Mo 202.031†	-14.0	-0.1	-0.0031 µg/L	-0.0031 ppb		12:17:00
3	Ni 231.604†	-65.4	6.2	0.0967 µg/L	0.0967 ppb		12:17:00
3	P 214.914†	1.0	1.8	0.4852 µg/L	0.4852 ppb		12:17:00
3	Pb 220.353†	96.7	3.9	0.2903 µg/L	0.2903 ppb		12:17:00
3	S 181.975 Axial†	71.2	2.8	2.5728 µg/L	2.5728 ppb		12:17:00
3	Sb 206.836†	110.8	-5.3	-0.7864 µg/L	-0.7864 ppb		12:17:00
3	Se 196.026†	31.8	-7.0	-3.06 µg/L	-3.06 ppb		12:17:00
3	SiO2†	2087.1	9.9	1.1166 µg/L	1.1166 ppb		12:17:00
3	Si 251.611†	642.9	-24.4	-0.4320 µg/L	-0.4320 ppb		12:17:00
3	Sn 189.927†	-21.7	2.2	0.1925 µg/L	0.1925 ppb		12:17:00
3	Ti 334.940†	1056.8	-30.8	-0.0310 µg/L	-0.0310 ppb		12:16:40
3	Tl 190.801†	-151.1	3.9	0.6292 µg/L	0.6292 ppb		12:17:00
3	U 409.014†	-94.2	-73.6	-4.1960 µg/L	-4.1960 ppb		12:16:40
3	V 292.402†	160.7	11.1	0.0640 µg/L	0.0640 ppb		12:16:40
3	Zn 213.857†	3569.6	58.2	0.4108 µg/L	0.4108 ppb		12:17:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1623506.8	100.55	%	0.678				0.67%
Sc RADIAL	122116.9	99.6	%	0.96				0.97%
Y 371.029	1064804.3	100.47	%	0.676				0.67%
Ag 328.068†	15.5	0.0581	µg/L	0.14931	0.0581	ppb	0.14931	257.13%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-25.7	-4.8821	µg/L	1.26952	-4.8821	ppb	1.26952	26.00%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.6	-2.3153	µg/L	1.14930	-2.3153	ppb	1.14930	49.64%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	43.1	0.7481	µg/L	0.32207	0.7481	ppb	0.32207	43.05%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.1	0.0260	µg/L	0.04352	0.0260	ppb	0.04352	167.65%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	56.2	0.0171	µg/L	0.06519	0.0171	ppb	0.06519	382.10%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.4	0.5104	µg/L	0.98202	0.5104	ppb	0.98202	192.41%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-1.0	-0.0079	µg/L	0.08399	-0.0079	ppb	0.08399	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	15.9	0.2768	µg/L	0.13165	0.2768	ppb	0.13165	47.56%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -9.1     -0.0849 µg/L       0.13031     -0.0849 ppb        0.13031 153.45%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -19.9     -0.0876 µg/L       0.50104     -0.0876 ppb        0.50104 572.24%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.1     -0.2065 µg/L       0.35509     -0.2065 ppb        0.35509 172.00%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -99.9     -37.384 µg/L       18.8287     -37.384 ppb        18.8287  50.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            7.8      5.5290 µg/L       8.13314      5.5290 ppb        8.13314 147.10%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -1.9     -0.0033 µg/L       0.01443     -0.0033 ppb        0.01443 442.56%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.1      0.1892 µg/L       0.19292      0.1892 ppb        0.19292 101.99%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        46.5      6.6629 µg/L      13.98767      6.6629 ppb       13.98767 209.93%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               11.2      0.1729 µg/L       0.11361      0.1729 ppb        0.11361  65.70%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.6     -0.4452 µg/L       1.00560     -0.4452 ppb        1.00560 225.90%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               10.4      0.7800 µg/L       0.52756      0.7800 ppb        0.52756  67.63%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.2      1.0695 µg/L       1.79901      1.0695 ppb        1.79901 168.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.5     -0.0688 µg/L       0.75518     -0.0688 ppb        0.75518 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -5.8      -2.51 µg/L         0.761       -2.51 ppb          0.761  30.27%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -34.5     -3.8838 µg/L       5.08203     -3.8838 ppb        5.08203 130.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -14.4     -0.2565 µg/L       0.20674     -0.2565 ppb        0.20674  80.60%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                0.6      0.0511 µg/L       0.36157      0.0511 ppb        0.36157 708.24%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -43.2     -0.0950 µg/L       0.13162     -0.0950 ppb        0.13162 138.61%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -115.5     -0.1217 µg/L       0.07874     -0.1217 ppb        0.07874  64.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.3     -0.0457 µg/L       0.93756     -0.0457 ppb        0.93756 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -71.4     -4.0743 µg/L       4.29527     -4.0743 ppb        4.29527 105.42%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                13.4      0.0792 µg/L       0.64874      0.0792 ppb        0.64874 819.15%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                9.8      0.0681 µg/L       0.31443      0.0681 ppb        0.31443 461.43%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/30/2010 13:19:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122245.5	122245.5	99.7	%			13:20:21
1	Al 396.153Radial†	26158.9	26288.1	4956.6	µg/L	4956.6	ppb	13:20:21
1	Ca 317.933Radial†	53134.4	52938.2	4991.3	µg/L	4991.3	ppb	13:20:21
1	Fe 238.204 Radial†	52520.9	52594.4	5127.2	µg/L	5127.2	ppb	13:20:21
1	K 766.490 Radial†	15020.0	13371.1	4998.7	µg/L	4998.7	ppb	13:20:21
1	Mg 279.077 IEC†	7028.1	6996.6	4981.7	µg/L	4981.7	ppb	13:20:21
1	Na 589.592 Radial†	69775.4	69711.6	9938.2	µg/L	9938.2	ppb	13:20:19
1	Sr 421.552†	226303.4	227093.2	498.93	µg/L	498.93	ppb	13:20:19
1	Sc 361.383	1626263.0	1626263.0	100.72	%			13:20:34
1	Y 371.029	1063219.9	1063219.9	100.32	%			13:20:34
1	Ag 328.068†	125888.3	122995.1	500.36	µg/L	500.36	ppb	13:20:34
1	As 188.979†	1374.1	1399.8	495.09	µg/L	495.09	ppb	13:20:54
1	B 249.677†	30766.1	28468.1	493.08	µg/L	493.08	ppb	13:20:34
1	Ba 233.527†	98134.8	97738.5	495.60	µg/L	495.60	ppb	13:20:34
1	Be 313.107†	1549158.7	1538833.6	500.75	µg/L	500.75	ppb	13:20:34
1	Cd 226.502†	59690.8	59448.2	497.55	µg/L	497.55	ppb	13:20:34
1	Co 228.616†	28432.3	28463.9	495.68	µg/L	495.68	ppb	13:20:54
1	Cr 267.716†	51684.1	51108.9	495.95	µg/L	495.95	ppb	13:20:34
1	Cu 324.752†	120636.7	116258.6	493.93	µg/L	493.93	ppb	13:20:34
1	Mn 257.610†	314476.7	312106.7	497.58	µg/L	497.58	ppb	13:20:34
1	Mo 202.031†	13569.1	13485.9	498.00	µg/L	498.00	ppb	13:20:54
1	Ni 231.604†	32368.7	32208.8	499.42	µg/L	499.42	ppb	13:20:34
1	P 214.914†	9110.3	9045.9	2474.1	µg/L	2474.1	ppb	13:20:54
1	Pb 220.353†	6774.9	6633.4	496.82	µg/L	496.82	ppb	13:20:54
1	S 181.975 Axial†	1171.5	1094.7	994.36	µg/L	994.36	ppb	13:20:54
1	Sb 206.836†	3472.4	3331.3	497.30	µg/L	497.30	ppb	13:20:54
1	Se 196.026†	1183.8	1136.5	495	µg/L	495	ppb	13:20:54
1	SiO2†	49797.5	47362.0	5308.5	µg/L	5308.5	ppb	13:20:34
1	Si 251.611†	143777.9	142081.1	2493.5	µg/L	2493.5	ppb	13:20:34
1	Sn 189.927†	5672.9	5656.2	497.91	µg/L	497.91	ppb	13:20:54
1	Ti 334.940†	476361.2	471863.6	501.77	µg/L	501.77	ppb	13:20:34
1	Tl 190.801†	2883.3	3017.8	501.76	µg/L	501.76	ppb	13:20:54
1	U 409.014†	8656.3	8615.1	522.00	µg/L	522.00	ppb	13:20:34
1	V 292.402†	83099.7	82355.2	501.07	µg/L	501.07	ppb	13:20:34
1	Zn 213.857†	74688.4	70639.1	495.94	µg/L	495.94	ppb	13:20:34
2	Sc RADIAL	123454.7	123454.7	101	%			13:20:25
2	Al 396.153Radial†	26261.3	26132.8	4927.1	µg/L	4927.1	ppb	13:20:25
2	Ca 317.933Radial†	53515.6	52794.8	4977.7	µg/L	4977.7	ppb	13:20:25
2	Fe 238.204 Radial†	52839.9	52395.2	5107.7	µg/L	5107.7	ppb	13:20:25
2	K 766.490 Radial†	15136.0	13338.8	4986.6	µg/L	4986.6	ppb	13:20:25
2	Mg 279.077 IEC†	7153.9	7052.5	5021.4	µg/L	5021.4	ppb	13:20:25
2	Na 589.592 Radial†	69529.6	68782.0	9805.6	µg/L	9805.6	ppb	13:20:23
2	Sr 421.552†	225774.0	224344.2	492.89	µg/L	492.89	ppb	13:20:23
2	Sc 361.383	1621494.9	1621494.9	100.43	%			13:20:57
2	Y 371.029	1060771.3	1060771.3	100.09	%			13:20:57
2	Ag 328.068†	126177.4	123650.6	503.01	µg/L	503.01	ppb	13:20:57
2	As 188.979†	1361.4	1391.2	492.11	µg/L	492.11	ppb	13:21:17
2	B 249.677†	30687.1	28479.3	493.28	µg/L	493.28	ppb	13:20:57
2	Ba 233.527†	98161.9	98052.0	497.19	µg/L	497.19	ppb	13:20:57
2	Be 313.107†	1544420.0	1538637.9	500.68	µg/L	500.68	ppb	13:20:57
2	Cd 226.502†	59405.8	59338.6	496.64	µg/L	496.64	ppb	13:20:57
2	Co 228.616†	28319.2	28434.2	495.17	µg/L	495.17	ppb	13:21:17
2	Cr 267.716†	51721.8	51297.3	497.78	µg/L	497.78	ppb	13:20:57
2	Cu 324.752†	120281.9	116257.5	493.92	µg/L	493.92	ppb	13:20:57
2	Mn 257.610†	313181.5	311735.1	496.99	µg/L	496.99	ppb	13:20:57
2	Mo 202.031†	13534.9	13491.4	498.20	µg/L	498.20	ppb	13:21:17
2	Ni 231.604†	32081.4	32017.2	496.45	µg/L	496.45	ppb	13:20:57
2	P 214.914†	9050.8	9013.2	2465.1	µg/L	2465.1	ppb	13:21:17
2	Pb 220.353†	6768.5	6646.9	497.83	µg/L	497.83	ppb	13:21:17

2	S 181.975 Axial†	1167.4	1094.1	993.84 µg/L	993.84 ppb	13:21:17
2	Sb 206.836†	3480.5	3349.5	499.99 µg/L	499.99 ppb	13:21:17
2	Se 196.026†	1179.3	1135.4	495 µg/L	495 ppb	13:21:17
2	SiO2†	49932.3	47641.6	5340.0 µg/L	5340.0 ppb	13:20:57
2	Si 251.611†	143955.0	142677.1	2504.0 µg/L	2504.0 ppb	13:20:57
2	Sn 189.927†	5645.0	5645.0	496.92 µg/L	496.92 ppb	13:21:17
2	Ti 334.940†	475339.9	472237.3	502.16 µg/L	502.16 ppb	13:20:57
2	Tl 190.801†	2870.7	3013.7	501.11 µg/L	501.11 ppb	13:21:17
2	U 409.014†	8585.9	8570.3	519.53 µg/L	519.53 ppb	13:20:57
2	V 292.402†	83094.2	82592.3	502.50 µg/L	502.50 ppb	13:20:57
2	Zn 213.857†	74266.5	70437.1	494.53 µg/L	494.53 ppb	13:20:57
3	Sc RADIAL	124501.9	124501.9	102 %		13:20:29
3	Al 396.153Radial†	26559.6	26207.3	4941.1 µg/L	4941.1 ppb	13:20:29
3	Ca 317.933Radial†	53918.4	52744.3	4973.0 µg/L	4973.0 ppb	13:20:29
3	Fe 238.204 Radial†	53120.9	52230.5	5091.7 µg/L	5091.7 ppb	13:20:29
3	K 766.490 Radial†	15149.9	13226.0	4944.4 µg/L	4944.4 ppb	13:20:29
3	Mg 279.077 IEC†	7162.9	7001.6	4985.3 µg/L	4985.3 ppb	13:20:29
3	Na 589.592 Radial†	69875.0	68541.4	9771.3 µg/L	9771.3 ppb	13:20:27
3	Sr 421.552†	227086.8	223751.1	491.59 µg/L	491.59 ppb	13:20:27
3	Sc 361.383	1626225.6	1626225.6	100.72 %		13:21:20
3	Y 371.029	1063718.7	1063718.7	100.37 %		13:21:20
3	Ag 328.068†	125334.6	122448.3	498.14 µg/L	498.14 ppb	13:21:20
3	As 188.979†	1377.4	1403.1	496.22 µg/L	496.22 ppb	13:21:40
3	B 249.677†	30744.3	28447.3	492.71 µg/L	492.71 ppb	13:21:20
3	Ba 233.527†	97865.5	97473.4	494.26 µg/L	494.26 ppb	13:21:20
3	Be 313.107†	1541544.1	1531308.8	498.30 µg/L	498.30 ppb	13:21:20
3	Cd 226.502†	59220.9	58983.0	493.66 µg/L	493.66 ppb	13:21:20
3	Co 228.616†	28537.8	28569.3	497.52 µg/L	497.52 ppb	13:21:40
3	Cr 267.716†	51438.3	50866.0	493.59 µg/L	493.59 ppb	13:21:20
3	Cu 324.752†	119981.6	115610.9	491.18 µg/L	491.18 ppb	13:21:20
3	Mn 257.610†	313095.3	310742.4	495.40 µg/L	495.40 ppb	13:21:20
3	Mo 202.031†	13656.1	13572.6	501.20 µg/L	501.20 ppb	13:21:40
3	Ni 231.604†	32027.3	31870.5	494.17 µg/L	494.17 ppb	13:21:20
3	P 214.914†	9159.2	9094.7	2487.5 µg/L	2487.5 ppb	13:21:40
3	Pb 220.353†	6815.6	6674.0	499.86 µg/L	499.86 ppb	13:21:40
3	S 181.975 Axial†	1176.4	1099.7	998.88 µg/L	998.88 ppb	13:21:40
3	Sb 206.836†	3496.9	3355.7	501.02 µg/L	501.02 ppb	13:21:40
3	Se 196.026†	1195.0	1147.6	500 µg/L	500 ppb	13:21:40
3	SiO2†	49838.2	47403.6	5313.1 µg/L	5313.1 ppb	13:21:20
3	Si 251.611†	143539.8	141847.9	2489.4 µg/L	2489.4 ppb	13:21:20
3	Sn 189.927†	5692.7	5676.0	499.64 µg/L	499.64 ppb	13:21:40
3	Ti 334.940†	474316.9	469844.8	499.62 µg/L	499.62 ppb	13:21:20
3	Tl 190.801†	2914.2	3048.5	506.75 µg/L	506.75 ppb	13:21:40
3	U 409.014†	8582.3	8541.9	517.74 µg/L	517.74 ppb	13:21:20
3	V 292.402†	82862.3	82121.5	499.69 µg/L	499.69 ppb	13:21:20
3	Zn 213.857†	74039.3	69996.3	491.43 µg/L	491.43 ppb	13:21:20

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1624661.2	100.62	%	0.170				0.17%
Sc RADIAL	123400.7	101	%	0.9				0.92%
Y 371.029	1062570.0	100.26	%	0.149				0.15%
Ag 328.068†	123031.3	500.51	µg/L	2.436	500.51	ppb	2.436	0.49%
QC value within limits for Ag 328.068 Recovery = 100.10%								
Al 396.153Radial†	26209.4	4941.6	µg/L	14.72	4941.6	ppb	14.72	0.30%
QC value within limits for Al 396.153Radial Recovery = 98.83%								
As 188.979†	1398.1	494.47	µg/L	2.123	494.47	ppb	2.123	0.43%
QC value within limits for As 188.979 Recovery = 98.89%								
B 249.677†	28464.9	493.02	µg/L	0.287	493.02	ppb	0.287	0.06%
QC value within limits for B 249.677 Recovery = 98.60%								
Ba 233.527†	97754.6	495.68	µg/L	1.468	495.68	ppb	1.468	0.30%
QC value within limits for Ba 233.527 Recovery = 99.14%								
Be 313.107†	1536260.1	499.91	µg/L	1.396	499.91	ppb	1.396	0.28%
QC value within limits for Be 313.107 Recovery = 99.98%								
Ca 317.933Radial†	52825.8	4980.7	µg/L	9.48	4980.7	ppb	9.48	0.19%
QC value within limits for Ca 317.933Radial Recovery = 99.61%								
Cd 226.502†	59256.6	495.95	µg/L	2.036	495.95	ppb	2.036	0.41%
QC value within limits for Cd 226.502 Recovery = 99.19%								
Co 228.616†	28489.1	496.12	µg/L	1.234	496.12	ppb	1.234	0.25%

```
   QC value within limits for Co 228.616  Recovery = 99.22%
Cr 267.716†            51090.7      495.78 µg/L        2.099      495.78 ppb          2.099   0.42%
   QC value within limits for Cr 267.716  Recovery = 99.16%
Cu 324.752†           116042.3      493.01 µg/L        1.585      493.01 ppb          1.585   0.32%
   QC value within limits for Cu 324.752  Recovery = 98.60%
Fe 238.204 Radial†     52406.7      5108.9 µg/L        17.76      5108.9 ppb          17.76   0.35%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.18%
K 766.490 Radial†      13312.0      4976.6 µg/L        28.50      4976.6 ppb          28.50   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 99.53%
Mg 279.077 IEC†         7016.9      4996.1 µg/L        21.98      4996.1 ppb          21.98   0.44%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.92%
Mn 257.610†           311528.1      496.66 µg/L        1.125      496.66 ppb          1.125   0.23%
   QC value within limits for Mn 257.610  Recovery = 99.33%
Mo 202.031†            13516.6      499.13 µg/L        1.789      499.13 ppb          1.789   0.36%
   QC value within limits for Mo 202.031  Recovery = 99.83%
Na 589.592 Radial†     69011.6      9838.3 µg/L        88.12      9838.3 ppb          88.12   0.90%
   QC value within limits for Na 589.592 Radial  Recovery = 98.38%
Ni 231.604†            32032.2      496.68 µg/L        2.630      496.68 ppb          2.630   0.53%
   QC value within limits for Ni 231.604  Recovery = 99.34%
P 214.914†              9051.3      2475.5 µg/L        11.27      2475.5 ppb          11.27   0.46%
   QC value within limits for P 214.914  Recovery = 99.02%
Pb 220.353†             6651.4      498.17 µg/L        1.549      498.17 ppb          1.549   0.31%
   QC value within limits for Pb 220.353  Recovery = 99.63%
S 181.975 Axial†        1096.1      995.69 µg/L        2.771      995.69 ppb          2.771   0.28%
   QC value within limits for S 181.975 Axial  Recovery = 99.57%
Sb 206.836†             3345.5      499.44 µg/L        1.921      499.44 ppb          1.921   0.38%
   QC value within limits for Sb 206.836  Recovery = 99.89%
Se 196.026†             1139.8         497 µg/L          2.9         497 ppb            2.9   0.59%
   QC value within limits for Se 196.026  Recovery = 99.35%
SiO2†                  47469.0      5320.5 µg/L        17.01      5320.5 ppb          17.01   0.32%
   QC value within limits for SiO2  Recovery = 99.50%
Si 251.611†           142202.0      2495.6 µg/L         7.56      2495.6 ppb           7.56   0.30%
   QC value within limits for Si 251.611  Recovery = 99.83%
Sn 189.927†             5659.1      498.15 µg/L        1.375      498.15 ppb          1.375   0.28%
   QC value within limits for Sn 189.927  Recovery = 99.63%
Sr 421.552†           225062.9      494.47 µg/L        3.918      494.47 ppb          3.918   0.79%
   QC value within limits for Sr 421.552  Recovery = 98.89%
Ti 334.940†           471315.3      501.18 µg/L        1.368      501.18 ppb          1.368   0.27%
   QC value within limits for Ti 334.940  Recovery = 100.24%
Tl 190.801†             3026.6      503.21 µg/L        3.085      503.21 ppb          3.085   0.61%
   QC value within limits for Tl 190.801  Recovery = 100.64%
U 409.014†              8575.8      519.76 µg/L        2.141      519.76 ppb          2.141   0.41%
   QC value within limits for U 409.014  Recovery = 103.95%
V 292.402†             82356.4      501.08 µg/L        1.406      501.08 ppb          1.406   0.28%
   QC value within limits for V 292.402  Recovery = 100.22%
Zn 213.857†            70357.5      493.96 µg/L        2.307      493.96 ppb          2.307   0.47%
   QC value within limits for Zn 213.857  Recovery = 98.79%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 4/30/2010 13:21:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122069.5	122069.5	99.6	%			13:22:19
1	Al 396.153Radial†	970.9	1026.6	194.01	µg/L	194.01	ppb	13:22:39
1	Ca 317.933Radial†	2486.2	2142.9	202.04	µg/L	202.04	ppb	13:22:39
1	Fe 238.204 Radial†	1641.4	1565.9	152.65	µg/L	152.65	ppb	13:22:39
1	K 766.490 Radial†	1916.2	231.1	86.319	µg/L	86.319	ppb	13:22:19
1	Mg 279.077 IEC†	483.0	432.7	307.72	µg/L	307.72	ppb	13:22:39
1	Na 589.592 Radial†	2290.7	2029.4	289.37	µg/L	289.37	ppb	13:22:19
1	Sr 421.552†	2226.2	2352.7	5.1677	µg/L	5.1677	ppb	13:22:19
1	Sc 361.383	1606083.6	1606083.6	99.471	%			13:23:27
1	Y 371.029	1054980.4	1054980.4	99.543	%			13:23:27
1	Ag 328.068†	3143.2	1167.6	4.7849	µg/L	4.7849	ppb	13:23:29
1	As 188.979†	41.5	77.3	27.051	µg/L	27.051	ppb	13:23:49
1	B 249.677†	4910.6	2859.0	49.674	µg/L	49.674	ppb	13:23:29
1	Ba 233.527†	667.0	976.5	4.9516	µg/L	4.9516	ppb	13:23:49
1	Be 313.107†	14353.3	15191.0	4.9536	µg/L	4.9536	ppb	13:23:29
1	Cd 226.502†	392.3	579.0	4.8349	µg/L	4.8349	ppb	13:23:49
1	Co 228.616†	49.8	285.1	4.9600	µg/L	4.9600	ppb	13:23:49
1	Cr 267.716†	706.9	505.3	4.8752	µg/L	4.8752	ppb	13:23:49
1	Cu 324.752†	5731.8	2247.5	9.5839	µg/L	9.5839	ppb	13:23:29
1	Mn 257.610†	6437.6	6352.4	10.119	µg/L	10.119	ppb	13:23:49
1	Mo 202.031†	249.3	264.6	9.7738	µg/L	9.7738	ppb	13:23:49
1	Ni 231.604†	242.5	315.5	4.8914	µg/L	4.8914	ppb	13:23:49
1	P 214.914†	532.2	535.8	146.89	µg/L	146.89	ppb	13:23:49
1	Pb 220.353†	241.7	150.0	11.209	µg/L	11.209	ppb	13:23:49
1	S 181.975 Axial†	171.6	104.2	94.300	µg/L	94.300	ppb	13:23:49
1	Sb 206.836†	163.0	47.7	7.1834	µg/L	7.1834	ppb	13:23:49
1	Se 196.026†	105.1	66.8	29.1	µg/L	29.1	ppb	13:23:49
1	SiO2†	3928.6	1870.3	210.05	µg/L	210.05	ppb	13:23:49
1	Si 251.611†	6333.9	5699.7	100.23	µg/L	100.23	ppb	13:23:29
1	Sn 189.927†	93.9	118.3	10.392	µg/L	10.392	ppb	13:23:49
1	Ti 334.940†	5828.4	4770.8	5.0421	µg/L	5.0421	ppb	13:23:29
1	Tl 190.801†	-28.5	126.5	20.798	µg/L	20.798	ppb	13:23:49
1	U 409.014†	662.7	687.0	39.518	µg/L	39.518	ppb	13:23:29
1	V 292.402†	904.7	759.7	4.6888	µg/L	4.6888	ppb	13:23:29
1	Zn 213.857†	5106.1	1618.4	11.401	µg/L	11.401	ppb	13:23:49
2	Sc RADIAL	122107.2	122107.2	99.6	%			13:22:41
2	Al 396.153Radial†	966.6	1022.0	193.13	µg/L	193.13	ppb	13:23:01
2	Ca 317.933Radial†	2512.5	2168.5	204.45	µg/L	204.45	ppb	13:23:01
2	Fe 238.204 Radial†	1344.8	1267.6	123.57	µg/L	123.57	ppb	13:23:01
2	K 766.490 Radial†	2039.5	354.3	132.42	µg/L	132.42	ppb	13:22:41
2	Mg 279.077 IEC†	497.7	447.3	318.14	µg/L	318.14	ppb	13:23:01
2	Na 589.592 Radial†	2335.7	2074.0	295.68	µg/L	295.68	ppb	13:22:41
2	Sr 421.552†	2165.0	2290.5	5.0310	µg/L	5.0310	ppb	13:22:41
2	Sc 361.383	1639437.0	1639437.0	101.54	%			13:23:51
2	Y 371.029	1076752.8	1076752.8	101.60	%			13:23:51
2	Ag 328.068†	3427.6	1383.4	5.6698	µg/L	5.6698	ppb	13:23:53
2	As 188.979†	45.7	80.6	28.181	µg/L	28.181	ppb	13:24:13
2	B 249.677†	5015.0	2861.4	49.715	µg/L	49.715	ppb	13:23:53
2	Ba 233.527†	686.7	982.3	4.9817	µg/L	4.9817	ppb	13:24:13
2	Be 313.107†	14664.6	15203.9	4.9606	µg/L	4.9606	ppb	13:23:53
2	Cd 226.502†	411.8	590.1	4.9315	µg/L	4.9315	ppb	13:24:13
2	Co 228.616†	68.0	302.0	5.2551	µg/L	5.2551	ppb	13:24:13
2	Cr 267.716†	724.9	508.6	4.8993	µg/L	4.8993	ppb	13:24:13
2	Cu 324.752†	5611.3	2011.5	8.5884	µg/L	8.5884	ppb	13:23:53
2	Mn 257.610†	6510.5	6292.5	10.023	µg/L	10.023	ppb	13:24:13
2	Mo 202.031†	256.2	266.2	9.8352	µg/L	9.8352	ppb	13:24:13
2	Ni 231.604†	233.6	301.7	4.6788	µg/L	4.6788	ppb	13:24:13
2	P 214.914†	574.9	567.0	155.46	µg/L	155.46	ppb	13:24:13
2	Pb 220.353†	230.9	134.4	10.039	µg/L	10.039	ppb	13:24:13

2	S 181.975 Axial†	172.1	101.1	91.549 µg/L	91.549 ppb	13:24:13
2	Sb 206.836†	186.9	67.8	10.188 µg/L	10.188 ppb	13:24:13
2	Se 196.026†	107.3	66.8	29.1 µg/L	29.1 ppb	13:24:13
2	SiO2†	3953.9	1814.9	203.82 µg/L	203.82 ppb	13:24:13
2	Si 251.611†	6390.5	5625.9	98.932 µg/L	98.932 ppb	13:23:53
2	Sn 189.927†	87.2	109.8	9.6481 µg/L	9.6481 ppb	13:24:13
2	Ti 334.940†	5779.4	4603.3	4.8592 µg/L	4.8592 ppb	13:23:53
2	Tl 190.801†	-33.7	121.9	20.058 µg/L	20.058 ppb	13:24:13
2	U 409.014†	841.2	849.2	48.816 µg/L	48.816 ppb	13:23:53
2	V 292.402†	1013.9	848.8	5.2338 µg/L	5.2338 ppb	13:23:53
2	Zn 213.857†	5151.0	1558.3	10.980 µg/L	10.980 ppb	13:24:13
3	Sc RADIAL	119916.7	119916.7	97.8 %		13:23:03
3	Al 396.153Radial†	991.2	1064.9	201.23 µg/L	201.23 ppb	13:23:23
3	Ca 317.933Radial†	2445.9	2146.5	202.38 µg/L	202.38 ppb	13:23:23
3	Fe 238.204 Radial†	1330.1	1277.2	124.51 µg/L	124.51 ppb	13:23:23
3	K 766.490 Radial†	1985.1	336.2	125.62 µg/L	125.62 ppb	13:23:03
3	Mg 279.077 IEC†	481.2	439.6	312.64 µg/L	312.64 ppb	13:23:23
3	Na 589.592 Radial†	2190.7	1968.5	280.65 µg/L	280.65 ppb	13:23:03
3	Sr 421.552†	2133.5	2298.0	5.0475 µg/L	5.0475 ppb	13:23:03
3	Sc 361.383	1613336.5	1613336.5	99.920 %		13:24:16
3	Y 371.029	1060177.4	1060177.4	100.03 %		13:24:16
3	Ag 328.068†	3230.9	1241.2	5.0974 µg/L	5.0974 ppb	13:24:18
3	As 188.979†	37.7	73.3	25.663 µg/L	25.663 ppb	13:24:38
3	B 249.677†	5075.9	3002.2	52.163 µg/L	52.163 ppb	13:24:18
3	Ba 233.527†	687.5	994.1	5.0412 µg/L	5.0412 ppb	13:24:38
3	Be 313.107†	14724.2	15497.3	5.0566 µg/L	5.0566 ppb	13:24:18
3	Cd 226.502†	407.0	591.9	4.9462 µg/L	4.9462 ppb	13:24:38
3	Co 228.616†	61.4	296.6	5.1606 µg/L	5.1606 ppb	13:24:38
3	Cr 267.716†	706.9	502.1	4.8348 µg/L	4.8348 ppb	13:24:38
3	Cu 324.752†	5733.9	2223.7	9.4883 µg/L	9.4883 ppb	13:24:18
3	Mn 257.610†	6549.3	6435.1	10.251 µg/L	10.251 ppb	13:24:38
3	Mo 202.031†	271.6	285.7	10.552 µg/L	10.552 ppb	13:24:38
3	Ni 231.604†	231.2	303.1	4.6992 µg/L	4.6992 ppb	13:24:38
3	P 214.914†	541.3	542.6	148.75 µg/L	148.75 ppb	13:24:38
3	Pb 220.353†	224.7	131.9	9.8487 µg/L	9.8487 ppb	13:24:38
3	S 181.975 Axial†	182.5	114.2	103.40 µg/L	103.40 ppb	13:24:38
3	Sb 206.836†	175.8	59.7	8.9950 µg/L	8.9950 ppb	13:24:38
3	Se 196.026†	99.6	60.8	26.5 µg/L	26.5 ppb	13:24:38
3	SiO2†	3961.8	1885.9	211.78 µg/L	211.78 ppb	13:24:38
3	Si 251.611†	6368.3	5705.4	100.32 µg/L	100.32 ppb	13:24:18
3	Sn 189.927†	91.2	115.2	10.122 µg/L	10.122 ppb	13:24:38
3	Ti 334.940†	5846.2	4762.3	5.0282 µg/L	5.0282 ppb	13:24:18
3	Tl 190.801†	-33.1	121.9	20.058 µg/L	20.058 ppb	13:24:38
3	U 409.014†	856.9	878.3	50.463 µg/L	50.463 ppb	13:24:18
3	V 292.402†	952.3	803.2	4.9686 µg/L	4.9686 ppb	13:24:18
3	Zn 213.857†	5187.0	1676.4	11.816 µg/L	11.816 ppb	13:24:38

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1619619.0	100.31	%	1.086				1.08%
Sc RADIAL	121364.5	99.0	%	1.02				1.03%
Y 371.029	1063970.2	100.39	%	1.073				1.07%
Ag 328.068†	1264.1	5.1841	µg/L	0.44876	5.1841	ppb	0.44876	8.66%
QC value within limits for Ag 328.068 Recovery = 103.68%								
Al 396.153Radial†	1037.8	196.12	µg/L	4.444	196.12	ppb	4.444	2.27%
QC value within limits for Al 396.153Radial Recovery = 98.06%								
As 188.979†	77.1	26.965	µg/L	1.2613	26.965	ppb	1.2613	4.68%
QC value within limits for As 188.979 Recovery = 89.88%								
B 249.677†	2907.5	50.517	µg/L	1.4252	50.517	ppb	1.4252	2.82%
QC value within limits for B 249.677 Recovery = 101.03%								
Ba 233.527†	984.3	4.9915	µg/L	0.04563	4.9915	ppb	0.04563	0.91%
QC value within limits for Ba 233.527 Recovery = 99.83%								
Be 313.107†	15297.4	4.9903	µg/L	0.05751	4.9903	ppb	0.05751	1.15%
QC value within limits for Be 313.107 Recovery = 99.81%								
Ca 317.933Radial†	2152.6	202.96	µg/L	1.306	202.96	ppb	1.306	0.64%
QC value within limits for Ca 317.933Radial Recovery = 101.48%								
Cd 226.502†	587.0	4.9042	µg/L	0.06042	4.9042	ppb	0.06042	1.23%
QC value within limits for Cd 226.502 Recovery = 98.08%								
Co 228.616†	294.6	5.1252	µg/L	0.15071	5.1252	ppb	0.15071	2.94%

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   QC value within limits for Co 228.616  Recovery = 102.50%
Cr 267.716†              505.3      4.8698 µg/L       0.03259      4.8698 ppb        0.03259   0.67%
   QC value within limits for Cr 267.716  Recovery = 97.40%
Cu 324.752†             2160.9      9.2202 µg/L       0.54923      9.2202 ppb        0.54923   5.96%
   QC value within limits for Cu 324.752  Recovery = 92.20%
Fe 238.204 Radial†      1370.2      133.57 µg/L        16.524      133.57 ppb         16.524  12.37%
   QC value greater than the upper limit for Fe 238.204 Radial  Recovery = 133.57%
K 766.490 Radial†        307.2      114.79 µg/L        24.887      114.79 ppb         24.887  21.68%
   QC value within limits for K 766.490 Radial  Recovery = 76.52%
Mg 279.077 IEC†          439.9      312.83 µg/L         5.210      312.83 ppb          5.210   1.67%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.28%
Mn 257.610†             6360.0      10.131 µg/L        0.1143      10.131 ppb         0.1143   1.13%
   QC value within limits for Mn 257.610  Recovery = 101.31%
Mo 202.031†              272.2      10.054 µg/L        0.4325      10.054 ppb         0.4325   4.30%
   QC value within limits for Mo 202.031  Recovery = 100.54%
Na 589.592 Radial†      2024.0      288.57 µg/L         7.547      288.57 ppb          7.547   2.62%
   QC value within limits for Na 589.592 Radial  Recovery = 96.19%
Ni 231.604†              306.8      4.7565 µg/L       0.11732      4.7565 ppb        0.11732   2.47%
   QC value within limits for Ni 231.604  Recovery = 95.13%
P 214.914†               548.5      150.36 µg/L         4.511      150.36 ppb          4.511   3.00%
   QC value within limits for P 214.914  Recovery = 100.24%
Pb 220.353†              138.8      10.366 µg/L        0.7365      10.366 ppb         0.7365   7.11%
   QC value within limits for Pb 220.353  Recovery = 103.66%
S 181.975 Axial†         106.5      96.415 µg/L        6.2000      96.415 ppb         6.2000   6.43%
   QC value within limits for S 181.975 Axial  Recovery = 96.41%
Sb 206.836†               58.4      8.7888 µg/L       1.51286      8.7888 ppb        1.51286  17.21%
   QC value within limits for Sb 206.836  Recovery = 87.89%
Se 196.026†               64.8        28.2 µg/L          1.50        28.2 ppb           1.50   5.32%
   QC value within limits for Se 196.026  Recovery = 94.03%
SiO2†                   1857.0      208.55 µg/L         4.186      208.55 ppb          4.186   2.01%
   QC value within limits for SiO2  Recovery = 97.91%
Si 251.611†             5677.0      99.827 µg/L        0.7764      99.827 ppb         0.7764   0.78%
   QC value within limits for Si 251.611  Recovery = 99.83%
Sn 189.927†              114.4      10.054 µg/L        0.3766      10.054 ppb         0.3766   3.75%
   QC value within limits for Sn 189.927  Recovery = 100.54%
Sr 421.552†             2313.7      5.0821 µg/L       0.07463      5.0821 ppb        0.07463   1.47%
   QC value within limits for Sr 421.552  Recovery = 101.64%
Ti 334.940†             4712.1      4.9765 µg/L       0.10181      4.9765 ppb        0.10181   2.05%
   QC value within limits for Ti 334.940  Recovery = 99.53%
Tl 190.801†              123.4      20.305 µg/L        0.4272      20.305 ppb         0.4272   2.10%
   QC value within limits for Tl 190.801  Recovery = 101.52%
U 409.014†               804.8      46.266 µg/L        5.9014      46.266 ppb         5.9014  12.76%
   QC value within limits for U 409.014  Recovery = 92.53%
V 292.402†               803.9      4.9637 µg/L       0.27254      4.9637 ppb        0.27254   5.49%
   QC value within limits for V 292.402  Recovery = 99.27%
Zn 213.857†             1617.7      11.399 µg/L        0.4177      11.399 ppb         0.4177   3.66%
   QC value within limits for Zn 213.857  Recovery = 113.99%
QC Failed.  Continue with analysis.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/30/2010 13:24:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123405.2	123405.2	101	%			13:25:15
1	Al 396.153Radial†	-27.1	24.5	4.6568	µg/L	4.6568	ppb	13:25:35
1	Ca 317.933Radial†	353.4	-3.3	-0.3083	µg/L	-0.3083	ppb	13:25:35
1	Fe 238.204 Radial†	275.2	190.6	18.582	µg/L	18.582	ppb	13:25:35
1	K 766.490 Radial†	1752.5	47.7	17.827	µg/L	17.827	ppb	13:25:15
1	Mg 279.077 IEC†	56.8	4.0	2.8358	µg/L	2.8358	ppb	13:25:35
1	Na 589.592 Radial†	429.2	155.0	22.096	µg/L	22.096	ppb	13:25:15
1	Sr 421.552†	-122.5	-5.1	-0.0112	µg/L	-0.0112	ppb	13:25:15
1	Sc 361.383	1589834.2	1589834.2	98.465	%			13:26:23
1	Y 371.029	1043612.4	1043612.4	98.471	%			13:26:23
1	Ag 328.068†	1862.3	-100.9	-0.4111	µg/L	-0.4111	ppb	13:26:25
1	As 188.979†	-40.7	-5.8	-2.0049	µg/L	-2.0049	ppb	13:26:45
1	B 249.677†	2102.9	57.9	1.0059	µg/L	1.0059	ppb	13:26:45
1	Ba 233.527†	-314.2	-13.2	-0.0673	µg/L	-0.0673	ppb	13:26:45
1	Be 313.107†	-486.8	267.0	0.0872	µg/L	0.0872	ppb	13:26:25
1	Cd 226.502†	-173.3	8.5	0.0692	µg/L	0.0692	ppb	13:26:45
1	Co 228.616†	-225.5	6.1	0.1048	µg/L	0.1048	ppb	13:26:45
1	Cr 267.716†	216.5	14.6	0.1407	µg/L	0.1407	ppb	13:26:45
1	Cu 324.752†	3386.6	-75.4	-0.3156	µg/L	-0.3156	ppb	13:26:25
1	Mn 257.610†	171.3	54.6	0.0869	µg/L	0.0869	ppb	13:26:45
1	Mo 202.031†	-18.8	-5.2	-0.1907	µg/L	-0.1907	ppb	13:26:45
1	Ni 231.604†	-98.4	-28.2	-0.4380	µg/L	-0.4380	ppb	13:26:45
1	P 214.914†	21.6	22.7	6.2082	µg/L	6.2082	ppb	13:26:45
1	Pb 220.353†	100.9	9.5	0.7075	µg/L	0.7075	ppb	13:26:45
1	S 181.975 Axial†	63.7	-3.7	-3.3082	µg/L	-3.3082	ppb	13:26:45
1	Sb 206.836†	111.6	-2.9	-0.4332	µg/L	-0.4332	ppb	13:26:45
1	Se 196.026†	28.8	-9.6	-4.16	µg/L	-4.16	ppb	13:26:45
1	SiO2†	2061.3	14.3	1.6379	µg/L	1.6379	ppb	13:26:45
1	Si 251.611†	578.9	-80.0	-1.3984	µg/L	-1.3984	ppb	13:26:45
1	Sn 189.927†	-39.4	-16.1	-1.4131	µg/L	-1.4131	ppb	13:26:45
1	Ti 334.940†	910.1	-164.3	-0.1757	µg/L	-0.1757	ppb	13:26:25
1	Tl 190.801†	-147.1	5.7	0.9280	µg/L	0.9280	ppb	13:26:45
1	U 409.014†	-1.9	18.8	1.0357	µg/L	1.0357	ppb	13:26:25
1	V 292.402†	54.4	-94.5	-0.5697	µg/L	-0.5697	ppb	13:26:25
1	Zn 213.857†	4386.3	939.9	6.6530	µg/L	6.6530	ppb	13:26:45
2	Sc RADIAL	119252.2	119252.2	97.3	%			13:25:37
2	Al 396.153Radial†	-58.4	-8.6	-1.6229	µg/L	-1.6229	ppb	13:25:58
2	Ca 317.933Radial†	345.5	0.8	0.0795	µg/L	0.0795	ppb	13:25:58
2	Fe 238.204 Radial†	287.8	213.1	20.774	µg/L	20.774	ppb	13:25:58
2	K 766.490 Radial†	1615.0	-33.1	-12.397	µg/L	-12.397	ppb	13:25:37
2	Mg 279.077 IEC†	75.6	25.3	17.980	µg/L	17.980	ppb	13:25:58
2	Na 589.592 Radial†	284.2	20.8	2.9729	µg/L	2.9729	ppb	13:25:37
2	Sr 421.552†	-193.6	-82.5	-0.1812	µg/L	-0.1812	ppb	13:25:37
2	Sc 361.383	1642102.0	1642102.0	101.70	%			13:26:48
2	Y 371.029	1077111.2	1077111.2	101.63	%			13:26:48
2	Ag 328.068†	1992.5	-33.1	-0.1302	µg/L	-0.1302	ppb	13:26:50
2	As 188.979†	-43.5	-7.2	-2.5036	µg/L	-2.5036	ppb	13:27:10
2	B 249.677†	2119.2	6.0	0.1040	µg/L	0.1040	ppb	13:27:10
2	Ba 233.527†	-294.4	16.5	0.0835	µg/L	0.0835	ppb	13:27:10
2	Be 313.107†	-760.3	13.7	0.0036	µg/L	0.0036	ppb	13:26:50
2	Cd 226.502†	-163.9	23.4	0.1934	µg/L	0.1934	ppb	13:27:10
2	Co 228.616†	-244.5	-5.3	-0.0932	µg/L	-0.0932	ppb	13:27:10
2	Cr 267.716†	217.9	9.0	0.0900	µg/L	0.0900	ppb	13:27:10
2	Cu 324.752†	3511.3	-62.2	-0.2625	µg/L	-0.2625	ppb	13:26:50
2	Mn 257.610†	281.4	157.2	0.2500	µg/L	0.2500	ppb	13:27:10
2	Mo 202.031†	-17.4	-3.2	-0.1164	µg/L	-0.1164	ppb	13:27:10
2	Ni 231.604†	-82.1	-9.0	-0.1399	µg/L	-0.1399	ppb	13:27:10
2	P 214.914†	5.4	6.1	1.6688	µg/L	1.6688	ppb	13:27:10
2	Pb 220.353†	95.7	1.1	0.0848	µg/L	0.0848	ppb	13:27:10

2	S 181.975 Axial†	68.4	-1.2	-1.0484 µg/L	-1.0484 ppb	13:27:10
2	Sb 206.836†	122.3	4.1	0.6022 µg/L	0.6022 ppb	13:27:10
2	Se 196.026†	22.8	-16.5	-7.14 µg/L	-7.14 ppb	13:27:10
2	SiO2†	2094.6	-19.6	-2.1923 µg/L	-2.1923 ppb	13:27:10
2	Si 251.611†	608.9	-69.2	-1.2135 µg/L	-1.2135 ppb	13:27:10
2	Sn 189.927†	-31.6	-7.2	-0.6315 µg/L	-0.6315 ppb	13:27:10
2	Ti 334.940†	895.4	-208.2	-0.2220 µg/L	-0.2220 ppb	13:26:50
2	Tl 190.801†	-149.8	7.7	1.2718 µg/L	1.2718 ppb	13:27:10
2	U 409.014†	-73.0	-51.0	-2.8824 µg/L	-2.8824 ppb	13:26:50
2	V 292.402†	245.1	91.3	0.5431 µg/L	0.5431 ppb	13:26:50
2	Zn 213.857†	4580.9	989.5	7.0015 µg/L	7.0015 ppb	13:27:10
3	Sc RADIAL	124357.5	124357.5	101 %		13:26:00
3	Al 396.153Radial†	-51.1	1.0	0.2079 µg/L	0.2079 ppb	13:26:20
3	Ca 317.933Radial†	378.4	18.8	1.7708 µg/L	1.7708 ppb	13:26:20
3	Fe 238.204 Radial†	287.2	200.4	19.537 µg/L	19.537 ppb	13:26:20
3	K 766.490 Radial†	1632.0	-84.5	-31.627 µg/L	-31.627 ppb	13:26:00
3	Mg 279.077 IEC†	58.3	5.0	3.5623 µg/L	3.5623 ppb	13:26:20
3	Na 589.592 Radial†	360.2	83.8	11.977 µg/L	11.977 ppb	13:26:00
3	Sr 421.552†	-144.2	-25.6	-0.0563 µg/L	-0.0563 ppb	13:26:00
3	Sc 361.383	1640068.0	1640068.0	101.58 %		13:27:12
3	Y 371.029	1075452.1	1075452.1	101.47 %		13:27:12
3	Ag 328.068†	1920.8	-101.3	-0.4175 µg/L	-0.4175 ppb	13:27:14
3	As 188.979†	-44.3	-8.0	-2.7830 µg/L	-2.7830 ppb	13:27:34
3	B 249.677†	2099.8	-10.6	-0.1845 µg/L	-0.1845 ppb	13:27:34
3	Ba 233.527†	-295.3	15.3	0.0770 µg/L	0.0770 ppb	13:27:34
3	Be 313.107†	-548.1	221.7	0.0694 µg/L	0.0694 ppb	13:27:14
3	Cd 226.502†	-160.0	27.0	0.2239 µg/L	0.2239 ppb	13:27:34
3	Co 228.616†	-220.9	17.6	0.3060 µg/L	0.3060 ppb	13:27:34
3	Cr 267.716†	231.1	22.2	0.2234 µg/L	0.2234 ppb	13:27:34
3	Cu 324.752†	3382.0	-185.3	-0.7889 µg/L	-0.7889 ppb	13:27:14
3	Mn 257.610†	461.8	335.2	0.5344 µg/L	0.5344 ppb	13:27:34
3	Mo 202.031†	-20.5	-6.3	-0.2320 µg/L	-0.2320 ppb	13:27:34
3	Ni 231.604†	-74.9	-2.0	-0.0313 µg/L	-0.0313 ppb	13:27:34
3	P 214.914†	9.2	9.9	2.6950 µg/L	2.6950 ppb	13:27:34
3	Pb 220.353†	98.4	3.9	0.2955 µg/L	0.2955 ppb	13:27:34
3	S 181.975 Axial†	61.5	-7.8	-7.0846 µg/L	-7.0846 ppb	13:27:34
3	Sb 206.836†	102.5	-15.3	-2.2872 µg/L	-2.2872 ppb	13:27:34
3	Se 196.026†	29.5	-9.9	-4.28 µg/L	-4.28 ppb	13:27:34
3	SiO2†	2078.8	-32.6	-3.6441 µg/L	-3.6441 ppb	13:27:34
3	Si 251.611†	648.0	-30.0	-0.5189 µg/L	-0.5189 ppb	13:27:34
3	Sn 189.927†	-34.3	-9.9	-0.8686 µg/L	-0.8686 ppb	13:27:34
3	Ti 334.940†	982.2	-121.6	-0.1262 µg/L	-0.1262 ppb	13:27:14
3	Tl 190.801†	-164.7	-7.0	-1.1502 µg/L	-1.1502 ppb	13:27:34
3	U 409.014†	-178.1	-154.6	-8.8232 µg/L	-8.8232 ppb	13:27:14
3	V 292.402†	160.9	8.6	0.0423 µg/L	0.0423 ppb	13:27:14
3	Zn 213.857†	4784.6	1195.6	8.4601 µg/L	8.4601 ppb	13:27:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1624001.4	100.58	%	1.834				1.82%
Sc RADIAL	122338.3	99.8	%	2.21				2.22%
Y 371.029	1065391.9	100.53	%	1.781				1.77%
Ag 328.068†	-78.4	-0.3196	µg/L	0.16408	-0.3196	ppb	0.16408	51.34%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.7	1.0806	µg/L	3.22953	1.0806	ppb	3.22953	298.87%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-7.0	-2.4305	µg/L	0.39415	-2.4305	ppb	0.39415	16.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	17.8	0.3085	µg/L	0.62096	0.3085	ppb	0.62096	201.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.2	0.0311	µg/L	0.08526	0.0311	ppb	0.08526	274.51%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	167.5	0.0534	µg/L	0.04404	0.0534	ppb	0.04404	82.46%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.5	0.5140	µg/L	1.10555	0.5140	ppb	1.10555	215.09%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.6	0.1622	µg/L	0.08193	0.1622	ppb	0.08193	50.52%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.1	0.1059	µg/L	0.19964	0.1059	ppb	0.19964	188.54%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              15.3      0.1513 µg/L       0.06733      0.1513 ppb        0.06733  44.49%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -107.6     -0.4557 µg/L       0.28979     -0.4557 ppb        0.28979  63.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      201.4      19.631 µg/L        1.0990      19.631 ppb         1.0990   5.60%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -23.3     -8.7323 µg/L      24.92997     -8.7323 ppb       24.92997 285.49%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          11.5      8.1260 µg/L       8.54153      8.1260 ppb        8.54153 105.11%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             182.3      0.2904 µg/L       0.22646      0.2904 ppb        0.22646  77.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -4.9     -0.1797 µg/L       0.05859     -0.1797 ppb        0.05859  32.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       86.5      12.349 µg/L        9.5671      12.349 ppb         9.5671  77.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -13.1     -0.2030 µg/L       0.21057     -0.2030 ppb        0.21057 103.71%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               12.9      3.5240 µg/L       2.38053      3.5240 ppb        2.38053  67.55%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               4.8      0.3626 µg/L       0.31674      0.3626 ppb        0.31674  87.36%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -4.2     -3.8137 µg/L       3.04968     -3.8137 ppb        3.04968  79.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.7     -0.7061 µg/L       1.46387     -0.7061 ppb        1.46387 207.33%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -12.0      -5.19 µg/L         1.689       -5.19 ppb          1.689  32.52%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -12.6     -1.3995 µg/L       2.72879     -1.3995 ppb        2.72879 194.98%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -59.7     -1.0436 µg/L       0.46374     -1.0436 ppb        0.46374  44.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -11.1     -0.9711 µg/L       0.40077     -0.9711 ppb        0.40077  41.27%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -37.7     -0.0829 µg/L       0.08809     -0.0829 ppb        0.08809 106.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -164.7     -0.1746 µg/L       0.04790     -0.1746 ppb        0.04790  27.43%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.1      0.3499 µg/L       1.31039      0.3499 ppb        1.31039 374.55%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -62.3     -3.5566 µg/L       4.96392     -3.5566 ppb        4.96392 139.57%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                1.8      0.0052 µg/L       0.55736      0.0052 ppb        0.55736 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            1041.7      7.3715 µg/L       0.95868      7.3715 ppb        0.95868  13.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/30/2010 13:30:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121729.0	121729.0	99.3	%			13:31:26
1	Al 396.153Radial†	25850.0	26088.3	4918.5	µg/L	4918.5	ppb	13:31:26
1	Ca 317.933Radial†	52266.0	52289.6	4930.1	µg/L	4930.1	ppb	13:31:26
1	Fe 238.204 Radial†	51385.3	51674.1	5037.5	µg/L	5037.5	ppb	13:31:26
1	K 766.490 Radial†	14795.9	13209.3	4938.2	µg/L	4938.2	ppb	13:31:26
1	Mg 279.077 IEC†	6958.4	6956.3	4953.2	µg/L	4953.2	ppb	13:31:26
1	Na 589.592 Radial†	69622.1	69854.1	9958.5	µg/L	9958.5	ppb	13:31:24
1	Sr 421.552†	226127.8	227879.4	500.66	µg/L	500.66	ppb	13:31:24
1	Sc 361.383	1613840.0	1613840.0	99.951	%			13:31:39
1	Y 371.029	1055011.2	1055011.2	99.546	%			13:31:39
1	Ag 328.068†	124484.0	122552.2	498.57	µg/L	498.57	ppb	13:31:39
1	As 188.979†	1364.6	1400.8	495.41	µg/L	495.41	ppb	13:31:59
1	B 249.677†	30309.0	28245.9	489.21	µg/L	489.21	ppb	13:31:39
1	Ba 233.527†	97264.8	97618.1	494.99	µg/L	494.99	ppb	13:31:39
1	Be 313.107†	1527667.0	1529171.2	497.60	µg/L	497.60	ppb	13:31:39
1	Cd 226.502†	58633.5	58846.5	492.52	µg/L	492.52	ppb	13:31:39
1	Co 228.616†	28404.2	28653.0	498.98	µg/L	498.98	ppb	13:31:59
1	Cr 267.716†	51156.0	50975.6	494.65	µg/L	494.65	ppb	13:31:39
1	Cu 324.752†	119203.4	115746.6	491.75	µg/L	491.75	ppb	13:31:39
1	Mn 257.610†	310487.5	310519.0	495.05	µg/L	495.05	ppb	13:31:39
1	Mo 202.031†	13569.9	13590.4	501.85	µg/L	501.85	ppb	13:31:59
1	Ni 231.604†	31970.8	32058.1	497.08	µg/L	497.08	ppb	13:31:59
1	P 214.914†	9094.0	9099.2	2488.7	µg/L	2488.7	ppb	13:31:59
1	Pb 220.353†	6810.7	6721.0	503.37	µg/L	503.37	ppb	13:31:59
1	S 181.975 Axial†	1177.4	1109.6	1007.9	µg/L	1007.9	ppb	13:31:59
1	Sb 206.836†	3483.2	3368.7	502.94	µg/L	502.94	ppb	13:31:59
1	Se 196.026†	1191.9	1153.6	503	µg/L	503	ppb	13:31:59
1	SiO2†	49255.9	47200.7	5290.2	µg/L	5290.2	ppb	13:31:39
1	Si 251.611†	141825.2	141226.2	2478.4	µg/L	2478.4	ppb	13:31:39
1	Sn 189.927†	5643.9	5670.6	499.16	µg/L	499.16	ppb	13:31:59
1	Ti 334.940†	470236.2	469376.3	499.12	µg/L	499.12	ppb	13:31:39
1	Tl 190.801†	2875.5	3032.0	504.03	µg/L	504.03	ppb	13:31:59
1	U 409.014†	8625.6	8650.6	523.96	µg/L	523.96	ppb	13:31:39
1	V 292.402†	82242.2	82132.4	499.77	µg/L	499.77	ppb	13:31:39
1	Zn 213.857†	73476.6	69997.6	491.42	µg/L	491.42	ppb	13:31:39
2	Sc RADIAL	120531.4	120531.4	98.3	%			13:31:30
2	Al 396.153Radial†	25676.2	26170.3	4934.1	µg/L	4934.1	ppb	13:31:30
2	Ca 317.933Radial†	51886.9	52427.0	4943.1	µg/L	4943.1	ppb	13:31:30
2	Fe 238.204 Radial†	50943.8	51739.2	5043.8	µg/L	5043.8	ppb	13:31:30
2	K 766.490 Radial†	14621.9	13180.5	4927.3	µg/L	4927.3	ppb	13:31:30
2	Mg 279.077 IEC†	6865.7	6931.6	4935.6	µg/L	4935.6	ppb	13:31:30
2	Na 589.592 Radial†	70120.4	71057.7	10130	µg/L	10130	ppb	13:31:28
2	Sr 421.552†	227373.7	231409.8	508.42	µg/L	508.42	ppb	13:31:28
2	Sc 361.383	1625841.3	1625841.3	100.69	%			13:32:02
2	Y 371.029	1062426.9	1062426.9	100.25	%			13:32:02
2	Ag 328.068†	125083.8	122228.6	497.25	µg/L	497.25	ppb	13:32:02
2	As 188.979†	1376.8	1402.9	496.12	µg/L	496.12	ppb	13:32:22
2	B 249.677†	30617.2	28328.2	490.64	µg/L	490.64	ppb	13:32:02
2	Ba 233.527†	97528.9	97162.1	492.68	µg/L	492.68	ppb	13:32:02
2	Be 313.107†	1535467.6	1525636.0	496.45	µg/L	496.45	ppb	13:32:02
2	Cd 226.502†	59163.4	58939.7	493.30	µg/L	493.30	ppb	13:32:02
2	Co 228.616†	28613.1	28650.8	498.94	µg/L	498.94	ppb	13:32:22
2	Cr 267.716†	51357.0	50797.4	492.93	µg/L	492.93	ppb	13:32:02
2	Cu 324.752†	119632.1	115291.9	489.82	µg/L	489.82	ppb	13:32:02
2	Mn 257.610†	311459.9	309191.8	492.93	µg/L	492.93	ppb	13:32:02
2	Mo 202.031†	13675.5	13595.0	502.02	µg/L	502.02	ppb	13:32:22
2	Ni 231.604†	32244.8	32094.1	497.64	µg/L	497.64	ppb	13:32:22
2	P 214.914†	9189.8	9127.2	2496.5	µg/L	2496.5	ppb	13:32:22
2	Pb 220.353†	6840.6	6700.4	501.84	µg/L	501.84	ppb	13:32:22

2	S 181.975 Axial†	1180.3	1103.8	1002.6 µg/L	1002.6 ppb	13:32:22
2	Sb 206.836†	3484.8	3344.5	499.37 µg/L	499.37 ppb	13:32:22
2	Se 196.026†	1202.8	1155.6	504 µg/L	504 ppb	13:32:22
2	SiO2†	49554.1	47133.1	5282.6 µg/L	5282.6 ppb	13:32:02
2	Si 251.611†	142924.1	141270.1	2479.2 µg/L	2479.2 ppb	13:32:02
2	Sn 189.927†	5707.3	5691.9	501.02 µg/L	501.02 ppb	13:32:22
2	Ti 334.940†	472432.6	468084.8	497.75 µg/L	497.75 ppb	13:32:02
2	Tl 190.801†	2905.4	3040.4	505.39 µg/L	505.39 ppb	13:32:22
2	U 409.014†	8570.8	8532.4	517.13 µg/L	517.13 ppb	13:32:02
2	V 292.402†	82650.0	81930.1	498.55 µg/L	498.55 ppb	13:32:02
2	Zn 213.857†	73850.6	69826.3	490.21 µg/L	490.21 ppb	13:32:02
3	Sc RADIAL	121266.0	121266.0	98.9 %		13:31:34
3	Al 396.153Radial†	25973.5	26312.6	4961.0 µg/L	4961.0 ppb	13:31:34
3	Ca 317.933Radial†	52522.9	52750.3	4973.5 µg/L	4973.5 ppb	13:31:34
3	Fe 238.204 Radial†	51500.0	51987.6	5068.0 µg/L	5068.0 ppb	13:31:34
3	K 766.490 Radial†	14838.8	13309.7	4975.7 µg/L	4975.7 ppb	13:31:34
3	Mg 279.077 IEC†	6911.8	6935.9	4938.7 µg/L	4938.7 ppb	13:31:34
3	Na 589.592 Radial†	69316.9	69813.3	9952.7 µg/L	9952.7 ppb	13:31:32
3	Sr 421.552†	224989.6	227598.1	500.04 µg/L	500.04 ppb	13:31:32
3	Sc 361.383	1623430.1	1623430.1	100.55 %		13:32:25
3	Y 371.029	1061405.2	1061405.2	100.15 %		13:32:25
3	Ag 328.068†	125718.7	123044.5	500.58 µg/L	500.58 ppb	13:32:25
3	As 188.979†	1379.7	1407.8	497.89 µg/L	497.89 ppb	13:32:45
3	B 249.677†	30804.3	28559.4	494.66 µg/L	494.66 ppb	13:32:25
3	Ba 233.527†	97979.5	97754.1	495.68 µg/L	495.68 ppb	13:32:25
3	Be 313.107†	1544502.8	1536886.9	500.12 µg/L	500.12 ppb	13:32:25
3	Cd 226.502†	59553.2	59414.8	497.28 µg/L	497.28 ppb	13:32:25
3	Co 228.616†	28577.3	28657.4	499.05 µg/L	499.05 ppb	13:32:45
3	Cr 267.716†	51685.2	51199.5	496.82 µg/L	496.82 ppb	13:32:25
3	Cu 324.752†	120377.6	116209.9	493.72 µg/L	493.72 ppb	13:32:25
3	Mn 257.610†	313632.0	311811.4	497.11 µg/L	497.11 ppb	13:32:25
3	Mo 202.031†	13678.1	13617.8	502.86 µg/L	502.86 ppb	13:32:45
3	Ni 231.604†	32209.1	32106.1	497.82 µg/L	497.82 ppb	13:32:45
3	P 214.914†	9177.7	9128.7	2496.8 µg/L	2496.8 ppb	13:32:45
3	Pb 220.353†	6829.3	6699.3	501.75 µg/L	501.75 ppb	13:32:45
3	S 181.975 Axial†	1181.2	1106.4	1005.0 µg/L	1005.0 ppb	13:32:45
3	Sb 206.836†	3488.0	3352.8	500.57 µg/L	500.57 ppb	13:32:45
3	Se 196.026†	1197.2	1151.8	502 µg/L	502 ppb	13:32:45
3	SiO2†	49955.3	47605.2	5335.7 µg/L	5335.7 ppb	13:32:25
3	Si 251.611†	143978.1	142529.2	2501.3 µg/L	2501.3 ppb	13:32:25
3	Sn 189.927†	5703.8	5696.8	501.46 µg/L	501.46 ppb	13:32:45
3	Ti 334.940†	474878.4	471214.2	501.07 µg/L	501.07 ppb	13:32:25
3	Tl 190.801†	2922.2	3061.5	508.90 µg/L	508.90 ppb	13:32:45
3	U 409.014†	8796.2	8769.3	530.86 µg/L	530.86 ppb	13:32:25
3	V 292.402†	83087.9	82487.5	501.93 µg/L	501.93 ppb	13:32:25
3	Zn 213.857†	74459.7	70541.1	495.26 µg/L	495.26 ppb	13:32:25

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1621037.1	100.40	%	0.393				0.39%
Sc RADIAL	121175.5	98.8	%	0.49				0.50%
Y 371.029	1059614.5	99.981	%	0.3792				0.38%
Ag 328.068†	122608.4	498.80	µg/L	1.678	498.80	ppb	1.678	0.34%
QC value within limits for Ag 328.068 Recovery = 99.76%								
Al 396.153Radial†	26190.4	4937.9	µg/L	21.48	4937.9	ppb	21.48	0.43%
QC value within limits for Al 396.153Radial Recovery = 98.76%								
As 188.979†	1403.8	496.47	µg/L	1.276	496.47	ppb	1.276	0.26%
QC value within limits for As 188.979 Recovery = 99.29%								
B 249.677†	28377.9	491.50	µg/L	2.825	491.50	ppb	2.825	0.57%
QC value within limits for B 249.677 Recovery = 98.30%								
Ba 233.527†	97511.4	494.45	µg/L	1.572	494.45	ppb	1.572	0.32%
QC value within limits for Ba 233.527 Recovery = 98.89%								
Be 313.107†	1530564.7	498.06	µg/L	1.874	498.06	ppb	1.874	0.38%
QC value within limits for Be 313.107 Recovery = 99.61%								
Ca 317.933Radial†	52489.0	4948.9	µg/L	22.30	4948.9	ppb	22.30	0.45%
QC value within limits for Ca 317.933Radial Recovery = 98.98%								
Cd 226.502†	59067.0	494.37	µg/L	2.551	494.37	ppb	2.551	0.52%
QC value within limits for Cd 226.502 Recovery = 98.87%								
Co 228.616†	28653.7	498.99	µg/L	0.060	498.99	ppb	0.060	0.01%

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   QC value within limits for Co 228.616  Recovery = 99.80%
Cr 267.716†            50990.8      494.80 µg/L         1.951      494.80 ppb          1.951   0.39%
   QC value within limits for Cr 267.716  Recovery = 98.96%
Cu 324.752†           115749.5      491.76 µg/L         1.951      491.76 ppb          1.951   0.40%
   QC value within limits for Cu 324.752  Recovery = 98.35%
Fe 238.204 Radial†     51800.3      5049.8 µg/L         16.13      5049.8 ppb          16.13   0.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.00%
K 766.490 Radial†      13233.1      4947.1 µg/L         25.38      4947.1 ppb          25.38   0.51%
   QC value within limits for K 766.490 Radial  Recovery = 98.94%
Mg 279.077 IEC†         6941.3      4942.5 µg/L          9.38      4942.5 ppb           9.38   0.19%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.85%
Mn 257.610†           310507.4      495.03 µg/L         2.089      495.03 ppb          2.089   0.42%
   QC value within limits for Mn 257.610  Recovery = 99.01%
Mo 202.031†            13601.1      502.24 µg/L         0.542      502.24 ppb          0.542   0.11%
   QC value within limits for Mo 202.031  Recovery = 100.45%
Na 589.592 Radial†     70241.7       10014 µg/L         100.9       10014 ppb          100.9   1.01%
   QC value within limits for Na 589.592 Radial  Recovery = 100.14%
Ni 231.604†            32086.1      497.51 µg/L         0.387      497.51 ppb          0.387   0.08%
   QC value within limits for Ni 231.604  Recovery = 99.50%
P 214.914†              9118.4      2494.0 µg/L          4.57      2494.0 ppb           4.57   0.18%
   QC value within limits for P 214.914  Recovery = 99.76%
Pb 220.353†             6706.9      502.32 µg/L         0.912      502.32 ppb          0.912   0.18%
   QC value within limits for Pb 220.353  Recovery = 100.46%
S 181.975 Axial†        1106.6      1005.2 µg/L          2.64      1005.2 ppb           2.64   0.26%
   QC value within limits for S 181.975 Axial  Recovery = 100.52%
Sb 206.836†             3355.3      500.96 µg/L         1.818      500.96 ppb          1.818   0.36%
   QC value within limits for Sb 206.836  Recovery = 100.19%
Se 196.026†             1153.7         503 µg/L           0.8         503 ppb            0.8   0.16%
   QC value within limits for Se 196.026  Recovery = 100.55%
SiO2†                  47313.0      5302.9 µg/L         28.71      5302.9 ppb          28.71   0.54%
   QC value within limits for SiO2  Recovery = 99.17%
Si 251.611†           141675.2      2486.3 µg/L         13.03      2486.3 ppb          13.03   0.52%
   QC value within limits for Si 251.611  Recovery = 99.45%
Sn 189.927†             5686.4      500.54 µg/L         1.223      500.54 ppb          1.223   0.24%
   QC value within limits for Sn 189.927  Recovery = 100.11%
Sr 421.552†           228962.5      503.04 µg/L         4.667      503.04 ppb          4.667   0.93%
   QC value within limits for Sr 421.552  Recovery = 100.61%
Ti 334.940†           469558.4      499.31 µg/L         1.671      499.31 ppb          1.671   0.33%
   QC value within limits for Ti 334.940  Recovery = 99.86%
Tl 190.801†             3044.6      506.11 µg/L         2.512      506.11 ppb          2.512   0.50%
   QC value within limits for Tl 190.801  Recovery = 101.22%
U 409.014†              8650.8      523.98 µg/L         6.867      523.98 ppb          6.867   1.31%
   QC value within limits for U 409.014  Recovery = 104.80%
V 292.402†             82183.3      500.08 µg/L         1.709      500.08 ppb          1.709   0.34%
   QC value within limits for V 292.402  Recovery = 100.02%
Zn 213.857†            70121.7      492.30 µg/L         2.638      492.30 ppb          2.638   0.54%
   QC value within limits for Zn 213.857  Recovery = 98.46%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/30/2010 13:32:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122452.0	122452.0	99.9	%			13:33:23
1	Al 396.153Radial†	-44.9	6.4	1.2151	µg/L	1.2151	ppb	13:33:43
1	Ca 317.933Radial†	363.5	9.6	0.9063	µg/L	0.9063	ppb	13:33:43
1	Fe 238.204 Radial†	258.1	175.6	17.119	µg/L	17.119	ppb	13:33:43
1	K 766.490 Radial†	1700.2	8.8	3.2856	µg/L	3.2856	ppb	13:33:23
1	Mg 279.077 IEC†	58.3	5.9	4.1864	µg/L	4.1864	ppb	13:33:43
1	Na 589.592 Radial†	365.6	94.7	13.501	µg/L	13.501	ppb	13:33:23
1	Sr 421.552†	-152.7	-36.3	-0.0797	µg/L	-0.0797	ppb	13:33:23
1	Sc 361.383	1614212.9	1614212.9	99.974	%			13:34:31
1	Y 371.029	1058862.3	1058862.3	99.910	%			13:34:31
1	Ag 328.068†	2264.5	272.8	1.0923	µg/L	1.0923	ppb	13:34:33
1	As 188.979†	-41.0	-5.5	-1.9001	µg/L	-1.9001	ppb	13:34:53
1	B 249.677†	2122.5	45.3	0.7861	µg/L	0.7861	ppb	13:34:53
1	Ba 233.527†	-304.7	1.3	0.0063	µg/L	0.0063	ppb	13:34:53
1	Be 313.107†	-822.5	-61.4	-0.0214	µg/L	-0.0214	ppb	13:34:33
1	Cd 226.502†	-162.5	22.0	0.1829	µg/L	0.1829	ppb	13:34:53
1	Co 228.616†	-221.6	13.4	0.2322	µg/L	0.2322	ppb	13:34:53
1	Cr 267.716†	223.4	18.2	0.1806	µg/L	0.1806	ppb	13:34:53
1	Cu 324.752†	3399.3	-114.6	-0.4867	µg/L	-0.4867	ppb	13:34:33
1	Mn 257.610†	152.5	33.1	0.0526	µg/L	0.0526	ppb	13:34:53
1	Mo 202.031†	-10.4	3.5	0.1303	µg/L	0.1303	ppb	13:34:53
1	Ni 231.604†	-61.2	10.5	0.1635	µg/L	0.1635	ppb	13:34:53
1	P 214.914†	7.0	7.8	2.1372	µg/L	2.1372	ppb	13:34:53
1	Pb 220.353†	116.4	23.5	1.7554	µg/L	1.7554	ppb	13:34:53
1	S 181.975 Axial†	62.3	-6.1	-5.5338	µg/L	-5.5338	ppb	13:34:53
1	Sb 206.836†	113.0	-3.2	-0.4780	µg/L	-0.4780	ppb	13:34:53
1	Se 196.026†	36.9	-2.0	-0.864	µg/L	-0.864	ppb	13:34:53
1	SiO2†	2057.3	-21.3	-2.4122	µg/L	-2.4122	ppb	13:34:53
1	Si 251.611†	647.7	-20.0	-0.3578	µg/L	-0.3578	ppb	13:34:53
1	Sn 189.927†	-18.8	5.1	0.4458	µg/L	0.4458	ppb	13:34:53
1	Ti 334.940†	935.7	-152.6	-0.1609	µg/L	-0.1609	ppb	13:34:33
1	Tl 190.801†	-164.4	-9.4	-1.5352	µg/L	-1.5352	ppb	13:34:53
1	U 409.014†	-103.0	-82.3	-4.6927	µg/L	-4.6927	ppb	13:34:33
1	V 292.402†	179.9	30.1	0.1783	µg/L	0.1783	ppb	13:34:33
1	Zn 213.857†	4363.8	850.2	6.0143	µg/L	6.0143	ppb	13:34:53
2	Sc RADIAL	122093.5	122093.5	99.6	%			13:33:45
2	Al 396.153Radial†	-73.8	-22.6	-4.2999	µg/L	-4.2999	ppb	13:34:05
2	Ca 317.933Radial†	349.7	-3.2	-0.2989	µg/L	-0.2989	ppb	13:34:05
2	Fe 238.204 Radial†	289.0	207.4	20.222	µg/L	20.222	ppb	13:34:05
2	K 766.490 Radial†	1592.6	-94.2	-35.249	µg/L	-35.249	ppb	13:33:45
2	Mg 279.077 IEC†	72.6	20.5	14.580	µg/L	14.580	ppb	13:34:05
2	Na 589.592 Radial†	326.1	56.1	8.0264	µg/L	8.0264	ppb	13:33:45
2	Sr 421.552†	-150.1	-34.1	-0.0750	µg/L	-0.0750	ppb	13:33:45
2	Sc 361.383	1614380.5	1614380.5	99.985	%			13:34:55
2	Y 371.029	1058839.8	1058839.8	99.908	%			13:34:55
2	Ag 328.068†	2259.1	267.2	1.0617	µg/L	1.0617	ppb	13:34:58
2	As 188.979†	-40.6	-5.0	-1.7473	µg/L	-1.7473	ppb	13:35:18
2	B 249.677†	2103.0	25.6	0.4425	µg/L	0.4425	ppb	13:35:18
2	Ba 233.527†	-315.9	-9.9	-0.0504	µg/L	-0.0504	ppb	13:35:18
2	Be 313.107†	-715.2	46.0	0.0119	µg/L	0.0119	ppb	13:34:58
2	Cd 226.502†	-186.3	-1.7	-0.0168	µg/L	-0.0168	ppb	13:35:18
2	Co 228.616†	-207.2	27.9	0.4837	µg/L	0.4837	ppb	13:35:18
2	Cr 267.716†	209.0	3.7	0.0447	µg/L	0.0447	ppb	13:35:18
2	Cu 324.752†	3419.2	-95.1	-0.4075	µg/L	-0.4075	ppb	13:34:58
2	Mn 257.610†	129.2	9.8	0.0150	µg/L	0.0150	ppb	13:35:18
2	Mo 202.031†	-8.3	5.6	0.2091	µg/L	0.2091	ppb	13:35:18
2	Ni 231.604†	-85.3	-13.6	-0.2109	µg/L	-0.2109	ppb	13:35:18
2	P 214.914†	-10.3	-9.6	-2.6361	µg/L	-2.6361	ppb	13:35:18
2	Pb 220.353†	102.5	9.5	0.7196	µg/L	0.7196	ppb	13:35:18

2	S 181.975 Axial†	63.6	-4.8	-4.3025 µg/L	-4.3025 ppb	13:35:18
2	Sb 206.836†	113.5	-2.7	-0.3991 µg/L	-0.3991 ppb	13:35:18
2	Se 196.026†	26.4	-12.4	-5.40 µg/L	-5.40 ppb	13:35:18
2	SiO2†	2047.8	-31.0	-3.4928 µg/L	-3.4928 ppb	13:35:18
2	Si 251.611†	661.1	-6.7	-0.1199 µg/L	-0.1199 ppb	13:35:18
2	Sn 189.927†	-26.7	-2.8	-0.2440 µg/L	-0.2440 ppb	13:35:18
2	Ti 334.940†	1176.2	87.8	0.0964 µg/L	0.0964 ppb	13:34:58
2	Tl 190.801†	-151.6	3.4	0.5625 µg/L	0.5625 ppb	13:35:18
2	U 409.014†	-197.4	-176.6	-10.084 µg/L	-10.084 ppb	13:34:58
2	V 292.402†	163.7	14.0	0.0771 µg/L	0.0771 ppb	13:34:58
2	Zn 213.857†	4357.9	843.8	5.9714 µg/L	5.9714 ppb	13:35:18
3	Sc RADIAL	122035.9	122035.9	99.5 %		13:34:07
3	Al 396.153Radial†	-109.2	-58.2	-11.030 µg/L	-11.030 ppb	13:34:27
3	Ca 317.933Radial†	373.8	21.2	2.0035 µg/L	2.0035 ppb	13:34:27
3	Fe 238.204 Radial†	288.9	207.4	20.221 µg/L	20.221 ppb	13:34:27
3	K 766.490 Radial†	1652.1	-33.7	-12.616 µg/L	-12.616 ppb	13:34:07
3	Mg 279.077 IEC†	60.9	8.8	6.2201 µg/L	6.2201 ppb	13:34:27
3	Na 589.592 Radial†	194.1	-76.4	-10.890 µg/L	-10.890 ppb	13:34:07
3	Sr 421.552†	-104.9	11.2	0.0245 µg/L	0.0245 ppb	13:34:07
3	Sc 361.383	1614714.6	1614714.6	100.01 %		13:35:20
3	Y 371.029	1058982.5	1058982.5	99.921 %		13:35:20
3	Ag 328.068†	1949.0	-43.4	-0.1722 µg/L	-0.1722 ppb	13:35:22
3	As 188.979†	-46.3	-10.7	-3.7258 µg/L	-3.7258 ppb	13:35:42
3	B 249.677†	2137.5	59.6	1.0352 µg/L	1.0352 ppb	13:35:42
3	Ba 233.527†	-315.5	-9.5	-0.0479 µg/L	-0.0479 ppb	13:35:42
3	Be 313.107†	-639.8	121.6	0.0383 µg/L	0.0383 ppb	13:35:22
3	Cd 226.502†	-193.0	-8.4	-0.0727 µg/L	-0.0727 ppb	13:35:42
3	Co 228.616†	-226.8	8.3	0.1426 µg/L	0.1426 ppb	13:35:42
3	Cr 267.716†	179.6	-25.7	-0.2457 µg/L	-0.2457 ppb	13:35:42
3	Cu 324.752†	3377.5	-137.5	-0.5825 µg/L	-0.5825 ppb	13:35:22
3	Mn 257.610†	162.1	42.7	0.0677 µg/L	0.0677 ppb	13:35:42
3	Mo 202.031†	-15.7	-1.8	-0.0640 µg/L	-0.0640 ppb	13:35:42
3	Ni 231.604†	-74.1	-2.4	-0.0376 µg/L	-0.0376 ppb	13:35:42
3	P 214.914†	31.7	32.4	8.8893 µg/L	8.8893 ppb	13:35:42
3	Pb 220.353†	81.0	-12.0	-0.8935 µg/L	-0.8935 ppb	13:35:42
3	S 181.975 Axial†	68.8	0.4	0.4029 µg/L	0.4029 ppb	13:35:42
3	Sb 206.836†	114.1	-2.1	-0.3101 µg/L	-0.3101 ppb	13:35:42
3	Se 196.026†	25.8	-13.1	-5.68 µg/L	-5.68 ppb	13:35:42
3	SiO2†	2076.5	-2.8	-0.2991 µg/L	-0.2991 ppb	13:35:42
3	Si 251.611†	632.3	-35.7	-0.6226 µg/L	-0.6226 ppb	13:35:42
3	Sn 189.927†	-32.1	-8.2	-0.7205 µg/L	-0.7205 ppb	13:35:42
3	Ti 334.940†	1125.5	36.9	0.0406 µg/L	0.0406 ppb	13:35:22
3	Tl 190.801†	-158.5	-3.4	-0.5471 µg/L	-0.5471 ppb	13:35:42
3	U 409.014†	-92.1	-71.3	-4.0409 µg/L	-4.0409 ppb	13:35:22
3	V 292.402†	253.1	103.3	0.6138 µg/L	0.6138 ppb	13:35:22
3	Zn 213.857†	4360.9	845.9	5.9849 µg/L	5.9849 ppb	13:35:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1614436.0	99.988	%	0.0158				0.02%
Sc RADIAL	122193.8	99.7	%	0.18				0.18%
Y 371.029	1058894.9	99.913	%	0.0072				0.01%
Ag 328.068†	165.5	0.6606	µg/L	0.72140	0.6606	ppb	0.72140	109.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-24.8	-4.7050	µg/L	6.13269	-4.7050	ppb	6.13269	130.34%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-7.1	-2.4577	µg/L	1.10084	-2.4577	ppb	1.10084	44.79%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	43.5	0.7546	µg/L	0.29763	0.7546	ppb	0.29763	39.44%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.0	-0.0306	µg/L	0.03205	-0.0306	ppb	0.03205	104.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	35.4	0.0096	µg/L	0.02992	0.0096	ppb	0.02992	311.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.2	0.8703	µg/L	1.15163	0.8703	ppb	1.15163	132.33%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.0	0.0311	µg/L	0.13437	0.0311	ppb	0.13437	431.65%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	16.5	0.2862	µg/L	0.17681	0.2862	ppb	0.17681	61.78%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -1.3     -0.0068 µg/L       0.21781     -0.0068 ppb        0.21781 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -115.8     -0.4922 µg/L       0.08764     -0.4922 ppb        0.08764  17.81%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      196.8      19.187 µg/L        1.7912      19.187 ppb         1.7912   9.34%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -39.7     -14.860 µg/L       19.3649     -14.860 ppb        19.3649 130.32%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          11.7      8.3288 µg/L       5.50827      8.3288 ppb        5.50827  66.14%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              28.5      0.0451 µg/L       0.02714      0.0451 ppb        0.02714  60.15%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.5      0.0918 µg/L       0.14058      0.0918 ppb        0.14058 153.11%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       24.8      3.5459 µg/L      12.79769      3.5459 ppb       12.79769 360.91%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -1.8     -0.0283 µg/L       0.18735     -0.0283 ppb        0.18735 661.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               10.2      2.7968 µg/L       5.79095      2.7968 ppb        5.79095 207.06%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               7.0      0.5271 µg/L       1.33491      0.5271 ppb        1.33491 253.23%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -3.5     -3.1445 µg/L       3.13318     -3.1445 ppb        3.13318  99.64%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.7     -0.3957 µg/L       0.08402     -0.3957 ppb        0.08402  21.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -9.2      -3.98 µg/L         2.704       -3.98 ppb          2.704  67.91%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -18.4     -2.0680 µg/L       1.62440     -2.0680 ppb        1.62440  78.55%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -20.8     -0.3668 µg/L       0.25147     -0.3668 ppb        0.25147  68.57%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -2.0     -0.1729 µg/L       0.58643     -0.1729 ppb        0.58643 339.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -19.7     -0.0434 µg/L       0.05887     -0.0434 ppb        0.05887 135.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -9.3     -0.0080 µg/L       0.13539     -0.0080 ppb        0.13539 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -3.1     -0.5066 µg/L       1.04941     -0.5066 ppb        1.04941 207.15%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -110.1     -6.2725 µg/L       3.31678     -6.2725 ppb        3.31678  52.88%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               49.1      0.2897 µg/L       0.28518      0.2897 ppb        0.28518  98.43%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             846.6      5.9902 µg/L       0.02192      5.9902 ppb        0.02192   0.37%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 6
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/30/2010 14:08:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121587.1	121587.1	99.2	%			14:09:03
1	Al 396.153Radial†	26008.3	26278.3	4954.4	µg/L	4954.4	ppb	14:09:03
1	Ca 317.933Radial†	53080.3	53172.2	5013.3	µg/L	5013.3	ppb	14:09:03
1	Fe 238.204 Radial†	52271.5	52628.1	5130.5	µg/L	5130.5	ppb	14:09:03
1	K 766.490 Radial†	14774.5	13205.1	4936.5	µg/L	4936.5	ppb	14:09:03
1	Mg 279.077 IEC†	7076.7	7083.8	5043.8	µg/L	5043.8	ppb	14:09:03
1	Na 589.592 Radial†	69932.5	70248.9	10015	µg/L	10015	ppb	14:09:01
1	Sr 421.552†	226344.7	228364.0	501.72	µg/L	501.72	ppb	14:09:01
1	Sc 361.383	1630189.8	1630189.8	100.96	%			14:09:16
1	Y 371.029	1065058.1	1065058.1	100.49	%			14:09:16
1	Ag 328.068†	125609.3	122417.7	498.02	µg/L	498.02	ppb	14:09:16
1	As 188.979†	1395.6	1417.8	501.38	µg/L	501.38	ppb	14:09:36
1	B 249.677†	30786.3	28414.6	492.13	µg/L	492.13	ppb	14:09:16
1	Ba 233.527†	98198.3	97566.7	494.73	µg/L	494.73	ppb	14:09:16
1	Be 313.107†	1548680.0	1534654.6	499.38	µg/L	499.38	ppb	14:09:16
1	Cd 226.502†	60051.8	59663.0	499.35	µg/L	499.35	ppb	14:09:16
1	Co 228.616†	28872.0	28831.4	502.08	µg/L	502.08	ppb	14:09:36
1	Cr 267.716†	51750.6	51051.2	495.40	µg/L	495.40	ppb	14:09:16
1	Cu 324.752†	120082.2	115420.9	490.37	µg/L	490.37	ppb	14:09:16
1	Mn 257.610†	314460.0	311338.2	496.35	µg/L	496.35	ppb	14:09:16
1	Mo 202.031†	13800.9	13683.0	505.27	µg/L	505.27	ppb	14:09:36
1	Ni 231.604†	32544.9	32305.9	500.92	µg/L	500.92	ppb	14:09:36
1	P 214.914†	9306.7	9218.6	2521.5	µg/L	2521.5	ppb	14:09:36
1	Pb 220.353†	6947.2	6787.9	508.38	µg/L	508.38	ppb	14:09:36
1	S 181.975 Axial†	1194.9	1115.1	1012.8	µg/L	1012.8	ppb	14:09:36
1	Sb 206.836†	3514.9	3365.2	502.47	µg/L	502.47	ppb	14:09:36
1	Se 196.026†	1209.7	1159.3	505	µg/L	505	ppb	14:09:36
1	SiO2†	50081.6	47524.3	5326.5	µg/L	5326.5	ppb	14:09:16
1	Si 251.611†	144079.3	142035.7	2492.6	µg/L	2492.6	ppb	14:09:16
1	Sn 189.927†	5790.5	5759.2	506.93	µg/L	506.93	ppb	14:09:36
1	Ti 334.940†	475513.0	469884.2	499.66	µg/L	499.66	ppb	14:09:16
1	Tl 190.801†	2947.9	3074.9	511.06	µg/L	511.06	ppb	14:09:36
1	U 409.014†	8427.6	8367.9	507.87	µg/L	507.87	ppb	14:09:16
1	V 292.402†	83243.5	82299.0	500.79	µg/L	500.79	ppb	14:09:16
1	Zn 213.857†	74743.4	70515.0	495.05	µg/L	495.05	ppb	14:09:16
2	Sc RADIAL	123374.3	123374.3	101	%			14:09:07
2	Al 396.153Radial†	26265.7	26154.2	4931.3	µg/L	4931.3	ppb	14:09:07
2	Ca 317.933Radial†	53785.7	53097.8	5006.3	µg/L	5006.3	ppb	14:09:07
2	Fe 238.204 Radial†	52976.0	52564.6	5124.3	µg/L	5124.3	ppb	14:09:07
2	K 766.490 Radial†	14910.1	13124.1	4906.3	µg/L	4906.3	ppb	14:09:07
2	Mg 279.077 IEC†	7131.8	7035.1	5009.0	µg/L	5009.0	ppb	14:09:07
2	Na 589.592 Radial†	70110.4	69404.2	9894.4	µg/L	9894.4	ppb	14:09:05
2	Sr 421.552†	227709.1	226413.5	497.44	µg/L	497.44	ppb	14:09:05
2	Sc 361.383	1640536.3	1640536.3	101.60	%			14:09:39
2	Y 371.029	1071738.3	1071738.3	101.12	%			14:09:39
2	Ag 328.068†	126179.4	122194.2	497.15	µg/L	497.15	ppb	14:09:39
2	As 188.979†	1372.6	1386.4	490.43	µg/L	490.43	ppb	14:09:59
2	B 249.677†	31066.7	28498.2	493.61	µg/L	493.61	ppb	14:09:39
2	Ba 233.527†	99071.8	97813.0	495.98	µg/L	495.98	ppb	14:09:39
2	Be 313.107†	1562282.1	1538368.0	500.59	µg/L	500.59	ppb	14:09:39
2	Cd 226.502†	60634.6	59861.5	501.01	µg/L	501.01	ppb	14:09:39
2	Co 228.616†	28671.8	28454.0	495.51	µg/L	495.51	ppb	14:09:59
2	Cr 267.716†	52128.7	51100.0	495.86	µg/L	495.86	ppb	14:09:39
2	Cu 324.752†	121034.5	115608.0	491.17	µg/L	491.17	ppb	14:09:39
2	Mn 257.610†	317160.3	312031.5	497.46	µg/L	497.46	ppb	14:09:39
2	Mo 202.031†	13657.4	13455.6	496.88	µg/L	496.88	ppb	14:09:59
2	Ni 231.604†	32298.8	31860.3	494.01	µg/L	494.01	ppb	14:09:59
2	P 214.914†	9218.0	9073.2	2481.6	µg/L	2481.6	ppb	14:09:59
2	Pb 220.353†	6874.2	6672.6	499.75	µg/L	499.75	ppb	14:09:59

2	S 181.975 Axial†	1184.5	1097.4	996.83 µg/L	996.83 ppb	14:09:59
2	Sb 206.836†	3507.4	3335.8	497.96 µg/L	497.96 ppb	14:09:59
2	Se 196.026†	1207.2	1149.3	501 µg/L	501 ppb	14:09:59
2	SiO2†	50552.5	47674.9	5343.8 µg/L	5343.8 ppb	14:09:39
2	Si 251.611†	145731.3	142761.6	2505.5 µg/L	2505.5 ppb	14:09:39
2	Sn 189.927†	5730.6	5664.0	498.58 µg/L	498.58 ppb	14:09:59
2	Ti 334.940†	478546.9	469900.0	499.68 µg/L	499.68 ppb	14:09:39
2	Tl 190.801†	2916.5	3025.5	503.01 µg/L	503.01 ppb	14:09:59
2	U 409.014†	8711.5	8594.7	520.86 µg/L	520.86 ppb	14:09:39
2	V 292.402†	83883.6	82408.9	501.38 µg/L	501.38 ppb	14:09:39
2	Zn 213.857†	75301.7	70597.6	495.68 µg/L	495.68 ppb	14:09:39
3	Sc RADIAL	125235.9	125235.9	102 %		14:09:11
3	Al 396.153Radial†	26351.4	25850.1	4873.4 µg/L	4873.4 ppb	14:09:11
3	Ca 317.933Radial†	54268.4	52775.9	4976.0 µg/L	4976.0 ppb	14:09:11
3	Fe 238.204 Radial†	53498.0	52293.2	5097.8 µg/L	5097.8 ppb	14:09:11
3	K 766.490 Radial†	15081.9	13072.0	4886.8 µg/L	4886.8 ppb	14:09:11
3	Mg 279.077 IEC†	7299.8	7094.3	5051.3 µg/L	5051.3 ppb	14:09:11
3	Na 589.592 Radial†	69460.2	67731.9	9655.9 µg/L	9655.9 ppb	14:09:09
3	Sr 421.552†	224898.8	220298.4	484.00 µg/L	484.00 ppb	14:09:09
3	Sc 361.383	1635990.2	1635990.2	101.32 %		14:10:02
3	Y 371.029	1068815.9	1068815.9	100.85 %		14:10:02
3	Ag 328.068†	126782.5	123134.5	500.97 µg/L	500.97 ppb	14:10:02
3	As 188.979†	1393.6	1411.0	499.02 µg/L	499.02 ppb	14:10:22
3	B 249.677†	31229.9	28744.3	497.86 µg/L	497.86 ppb	14:10:02
3	Ba 233.527†	99447.8	98455.0	499.23 µg/L	499.23 ppb	14:10:02
3	Be 313.107†	1564098.4	1544433.3	502.57 µg/L	502.57 ppb	14:10:02
3	Cd 226.502†	60846.0	60235.9	504.15 µg/L	504.15 ppb	14:10:02
3	Co 228.616†	28913.5	28771.0	501.03 µg/L	501.03 ppb	14:10:22
3	Cr 267.716†	52370.2	51480.9	499.56 µg/L	499.56 ppb	14:10:02
3	Cu 324.752†	120908.3	115814.5	492.05 µg/L	492.05 ppb	14:10:02
3	Mn 257.610†	317606.3	313339.1	499.54 µg/L	499.54 ppb	14:10:02
3	Mo 202.031†	13784.3	13618.2	502.88 µg/L	502.88 ppb	14:10:22
3	Ni 231.604†	32652.2	32297.5	500.79 µg/L	500.79 ppb	14:10:22
3	P 214.914†	9307.8	9187.1	2512.8 µg/L	2512.8 ppb	14:10:22
3	Pb 220.353†	6923.8	6740.4	504.82 µg/L	504.82 ppb	14:10:22
3	S 181.975 Axial†	1197.1	1113.1	1011.1 µg/L	1011.1 ppb	14:10:22
3	Sb 206.836†	3537.6	3375.2	503.87 µg/L	503.87 ppb	14:10:22
3	Se 196.026†	1219.6	1164.8	508 µg/L	508 ppb	14:10:22
3	SiO2†	50806.7	48064.0	5387.3 µg/L	5387.3 ppb	14:10:02
3	Si 251.611†	145848.9	143276.2	2514.5 µg/L	2514.5 ppb	14:10:02
3	Sn 189.927†	5784.1	5732.5	504.60 µg/L	504.60 ppb	14:10:22
3	Ti 334.940†	479153.3	471807.2	501.70 µg/L	501.70 ppb	14:10:02
3	Tl 190.801†	2926.2	3043.1	505.91 µg/L	505.91 ppb	14:10:22
3	U 409.014†	8844.0	8749.3	529.87 µg/L	529.87 ppb	14:10:02
3	V 292.402†	84154.7	82905.9	504.45 µg/L	504.45 ppb	14:10:02
3	Zn 213.857†	75606.1	71103.9	499.22 µg/L	499.22 ppb	14:10:02

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1635572.1	101.30	%	0.321				0.32%
Sc RADIAL	123399.1	101	%	1.5				1.48%
Y 371.029	1068537.4	100.82	%	0.316				0.31%
Ag 328.068†	122582.1	498.71	µg/L	2.004	498.71	ppb	2.004	0.40%
QC value within limits for Ag 328.068 Recovery = 99.74%								
Al 396.153Radial†	26094.2	4919.7	µg/L	41.72	4919.7	ppb	41.72	0.85%
QC value within limits for Al 396.153Radial Recovery = 98.39%								
As 188.979†	1405.1	496.94	µg/L	5.765	496.94	ppb	5.765	1.16%
QC value within limits for As 188.979 Recovery = 99.39%								
B 249.677†	28552.4	494.53	µg/L	2.977	494.53	ppb	2.977	0.60%
QC value within limits for B 249.677 Recovery = 98.91%								
Ba 233.527†	97944.9	496.65	µg/L	2.325	496.65	ppb	2.325	0.47%
QC value within limits for Ba 233.527 Recovery = 99.33%								
Be 313.107†	1539152.0	500.85	µg/L	1.609	500.85	ppb	1.609	0.32%
QC value within limits for Be 313.107 Recovery = 100.17%								
Ca 317.933Radial†	53015.3	4998.5	µg/L	19.86	4998.5	ppb	19.86	0.40%
QC value within limits for Ca 317.933Radial Recovery = 99.97%								
Cd 226.502†	59920.1	501.51	µg/L	2.438	501.51	ppb	2.438	0.49%
QC value within limits for Cd 226.502 Recovery = 100.30%								
Co 228.616†	28685.5	499.54	µg/L	3.529	499.54	ppb	3.529	0.71%

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   QC value within limits for Co 228.616  Recovery = 99.91%
Cr 267.716†            51210.7      496.94 µg/L         2.276      496.94 ppb          2.276   0.46%
   QC value within limits for Cr 267.716  Recovery = 99.39%
Cu 324.752†           115614.5      491.20 µg/L         0.840      491.20 ppb          0.840   0.17%
   QC value within limits for Cu 324.752  Recovery = 98.24%
Fe 238.204 Radial†     52495.3      5117.5 µg/L         17.34      5117.5 ppb          17.34   0.34%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.35%
K 766.490 Radial†      13133.8      4909.9 µg/L         25.06      4909.9 ppb          25.06   0.51%
   QC value within limits for K 766.490 Radial  Recovery = 98.20%
Mg 279.077 IEC†         7071.1      5034.7 µg/L         22.55      5034.7 ppb          22.55   0.45%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.69%
Mn 257.610†           312236.2      497.78 µg/L         1.620      497.78 ppb          1.620   0.33%
   QC value within limits for Mn 257.610  Recovery = 99.56%
Mo 202.031†            13585.6      501.68 µg/L         4.323      501.68 ppb          4.323   0.86%
   QC value within limits for Mo 202.031  Recovery = 100.34%
Na 589.592 Radial†     69128.3      9855.1 µg/L        182.68      9855.1 ppb         182.68   1.85%
   QC value within limits for Na 589.592 Radial  Recovery = 98.55%
Ni 231.604†            32154.6      498.58 µg/L         3.951      498.58 ppb          3.951   0.79%
   QC value within limits for Ni 231.604  Recovery = 99.72%
P 214.914†              9159.6      2505.3 µg/L         20.99      2505.3 ppb          20.99   0.84%
   QC value within limits for P 214.914  Recovery = 100.21%
Pb 220.353†             6733.6      504.31 µg/L         4.339      504.31 ppb          4.339   0.86%
   QC value within limits for Pb 220.353  Recovery = 100.86%
S 181.975 Axial†        1108.5      1006.9 µg/L          8.78      1006.9 ppb           8.78   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 100.69%
Sb 206.836†             3358.7      501.43 µg/L         3.090      501.43 ppb          3.090   0.62%
   QC value within limits for Sb 206.836  Recovery = 100.29%
Se 196.026†             1157.8         505 µg/L           3.4         505 ppb            3.4   0.68%
   QC value within limits for Se 196.026  Recovery = 100.90%
SiO2†                  47754.4      5352.5 µg/L         31.34      5352.5 ppb          31.34   0.59%
   QC value within limits for SiO2  Recovery = 100.09%
Si 251.611†           142691.2      2504.2 µg/L         11.01      2504.2 ppb          11.01   0.44%
   QC value within limits for Si 251.611  Recovery = 100.17%
Sn 189.927†             5718.5      503.37 µg/L         4.308      503.37 ppb          4.308   0.86%
   QC value within limits for Sn 189.927  Recovery = 100.67%
Sr 421.552†           225025.3      494.39 µg/L         9.246      494.39 ppb          9.246   1.87%
   QC value within limits for Sr 421.552  Recovery = 98.88%
Ti 334.940†           470530.4      500.34 µg/L         1.171      500.34 ppb          1.171   0.23%
   QC value within limits for Ti 334.940  Recovery = 100.07%
Tl 190.801†             3047.8      506.66 µg/L         4.074      506.66 ppb          4.074   0.80%
   QC value within limits for Tl 190.801  Recovery = 101.33%
U 409.014†              8570.6      519.53 µg/L        11.062      519.53 ppb         11.062   2.13%
   QC value within limits for U 409.014  Recovery = 103.91%
V 292.402†             82537.9      502.20 µg/L         1.963      502.20 ppb          1.963   0.39%
   QC value within limits for V 292.402  Recovery = 100.44%
Zn 213.857†            70738.8      496.65 µg/L         2.248      496.65 ppb          2.248   0.45%
   QC value within limits for Zn 213.857  Recovery = 99.33%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 4/30/2010 14:10:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122723.1	122723.1	100	%			14:11:00
1	Al 396.153Radial†	977.7	1028.2	194.32	µg/L	194.32	ppb	14:11:20
1	Ca 317.933Radial†	2522.4	2165.7	204.19	µg/L	204.19	ppb	14:11:20
1	Fe 238.204 Radial†	1284.5	1200.5	117.03	µg/L	117.03	ppb	14:11:20
1	K 766.490 Radial†	2112.9	417.4	156.02	µg/L	156.02	ppb	14:11:00
1	Mg 279.077 IEC†	500.7	447.9	318.52	µg/L	318.52	ppb	14:11:20
1	Na 589.592 Radial†	2384.8	2111.1	300.96	µg/L	300.96	ppb	14:11:00
1	Sr 421.552†	2270.9	2385.4	5.2396	µg/L	5.2396	ppb	14:11:00
1	Sc 361.383	1651132.7	1651132.7	102.26	%			14:12:22
1	Y 371.029	1082855.6	1082855.6	102.17	%			14:12:22
1	Ag 328.068†	3356.3	1289.8	5.2875	µg/L	5.2875	ppb	14:12:24
1	As 188.979†	51.5	86.0	30.060	µg/L	30.060	ppb	14:12:44
1	B 249.677†	4946.5	2759.4	47.943	µg/L	47.943	ppb	14:12:24
1	Ba 233.527†	656.0	947.5	4.8053	µg/L	4.8053	ppb	14:12:44
1	Be 313.107†	14556.3	14995.8	4.8913	µg/L	4.8913	ppb	14:12:24
1	Cd 226.502†	423.9	599.1	5.0070	µg/L	5.0070	ppb	14:12:44
1	Co 228.616†	55.4	289.3	5.0340	µg/L	5.0340	ppb	14:12:44
1	Cr 267.716†	735.0	513.4	4.9500	µg/L	4.9500	ppb	14:12:44
1	Cu 324.752†	5632.9	1993.5	8.5064	µg/L	8.5064	ppb	14:12:24
1	Mn 257.610†	6432.7	6171.0	9.8294	µg/L	9.8294	ppb	14:12:44
1	Mo 202.031†	258.9	267.1	9.8663	µg/L	9.8663	ppb	14:12:44
1	Ni 231.604†	241.5	307.9	4.7742	µg/L	4.7742	ppb	14:12:44
1	P 214.914†	545.6	534.3	146.50	µg/L	146.50	ppb	14:12:44
1	Pb 220.353†	251.4	152.9	11.418	µg/L	11.418	ppb	14:12:44
1	S 181.975 Axial†	182.0	109.6	99.245	µg/L	99.245	ppb	14:12:44
1	Sb 206.836†	178.0	57.9	8.7061	µg/L	8.7061	ppb	14:12:44
1	Se 196.026†	103.9	62.7	27.3	µg/L	27.3	ppb	14:12:44
1	SiO2†	3957.1	1790.5	201.08	µg/L	201.08	ppb	14:12:44
1	Si 251.611†	6311.8	5504.3	96.792	µg/L	96.792	ppb	14:12:24
1	Sn 189.927†	84.0	106.1	9.3228	µg/L	9.3228	ppb	14:12:44
1	Ti 334.940†	5792.0	4575.4	4.8317	µg/L	4.8317	ppb	14:12:24
1	Tl 190.801†	-33.4	122.5	20.144	µg/L	20.144	ppb	14:12:44
1	U 409.014†	747.3	751.5	43.240	µg/L	43.240	ppb	14:12:24
1	V 292.402†	1030.7	858.2	5.2878	µg/L	5.2878	ppb	14:12:24
1	Zn 213.857†	5079.9	1452.8	10.234	µg/L	10.234	ppb	14:12:44
2	Sc RADIAL	123071.1	123071.1	100	%			14:11:22
2	Al 396.153Radial†	992.8	1040.5	196.61	µg/L	196.61	ppb	14:11:42
2	Ca 317.933Radial†	2507.3	2143.6	202.11	µg/L	202.11	ppb	14:11:42
2	Fe 238.204 Radial†	1328.9	1241.1	120.99	µg/L	120.99	ppb	14:11:42
2	K 766.490 Radial†	1891.1	190.5	71.114	µg/L	71.114	ppb	14:11:22
2	Mg 279.077 IEC†	490.6	436.4	310.38	µg/L	310.38	ppb	14:11:42
2	Na 589.592 Radial†	2343.8	2063.6	294.26	µg/L	294.26	ppb	14:11:22
2	Sr 421.552†	2298.1	2406.1	5.2851	µg/L	5.2851	ppb	14:11:22
2	Sc 361.383	1614027.4	1614027.4	99.963	%			14:12:46
2	Y 371.029	1059326.1	1059326.1	99.953	%			14:12:46
2	Ag 328.068†	3076.9	1085.8	4.4614	µg/L	4.4614	ppb	14:12:48
2	As 188.979†	51.5	87.1	30.445	µg/L	30.445	ppb	14:13:08
2	B 249.677†	5023.3	2947.4	51.210	µg/L	51.210	ppb	14:12:48
2	Ba 233.527†	676.7	983.0	4.9853	µg/L	4.9853	ppb	14:13:08
2	Be 313.107†	14734.0	15500.7	5.0542	µg/L	5.0542	ppb	14:12:48
2	Cd 226.502†	429.2	613.9	5.1308	µg/L	5.1308	ppb	14:13:08
2	Co 228.616†	70.5	305.5	5.3170	µg/L	5.3170	ppb	14:13:08
2	Cr 267.716†	696.4	491.4	4.7397	µg/L	4.7397	ppb	14:13:08
2	Cu 324.752†	5657.0	2144.2	9.1417	µg/L	9.1417	ppb	14:12:48
2	Mn 257.610†	6434.2	6317.1	10.063	µg/L	10.063	ppb	14:13:08
2	Mo 202.031†	274.9	288.9	10.672	µg/L	10.672	ppb	14:13:08
2	Ni 231.604†	238.8	310.6	4.8157	µg/L	4.8157	ppb	14:13:08
2	P 214.914†	552.3	553.3	151.68	µg/L	151.68	ppb	14:13:08
2	Pb 220.353†	251.3	158.4	11.836	µg/L	11.836	ppb	14:13:08

2	S 181.975 Axial†	182.8	114.5	103.62 µg/L	103.62 ppb	14:13:08
2	Sb 206.836†	183.1	67.0	10.079 µg/L	10.079 ppb	14:13:08
2	Se 196.026†	99.7	60.8	26.5 µg/L	26.5 ppb	14:13:08
2	SiO2†	3927.4	1849.7	207.71 µg/L	207.71 ppb	14:13:08
2	Si 251.611†	6389.2	5723.7	100.65 µg/L	100.65 ppb	14:12:48
2	Sn 189.927†	84.2	108.1	9.5000 µg/L	9.5000 ppb	14:13:08
2	Ti 334.940†	5825.9	4739.5	5.0089 µg/L	5.0089 ppb	14:12:48
2	Tl 190.801†	-47.3	107.7	17.732 µg/L	17.732 ppb	14:13:08
2	U 409.014†	653.9	674.9	38.860 µg/L	38.860 ppb	14:12:48
2	V 292.402†	991.6	842.2	5.1958 µg/L	5.1958 ppb	14:12:48
2	Zn 213.857†	5073.9	1561.0	10.999 µg/L	10.999 ppb	14:13:08
3	Sc RADIAL	120715.6	120715.6	98.5 %		14:11:44
3	Al 396.153Radial†	992.3	1059.3	200.20 µg/L	200.20 ppb	14:12:04
3	Ca 317.933Radial†	2486.8	2171.5	204.74 µg/L	204.74 ppb	14:12:04
3	Fe 238.204 Radial†	1318.5	1256.4	122.48 µg/L	122.48 ppb	14:12:04
3	K 766.490 Radial†	2046.2	384.7	143.78 µg/L	143.78 ppb	14:11:44
3	Mg 279.077 IEC†	479.2	434.3	308.85 µg/L	308.85 ppb	14:12:04
3	Na 589.592 Radial†	2291.6	2056.1	293.12 µg/L	293.12 ppb	14:11:44
3	Sr 421.552†	2146.2	2296.5	5.0442 µg/L	5.0442 ppb	14:11:44
3	Sc 361.383	1611004.9	1611004.9	99.776 %		14:13:11
3	Y 371.029	1058156.9	1058156.9	99.843 %		14:13:11
3	Ag 328.068†	3255.8	1270.8	5.2220 µg/L	5.2220 ppb	14:13:13
3	As 188.979†	39.1	74.8	26.161 µg/L	26.161 ppb	14:13:33
3	B 249.677†	5017.2	2950.7	51.268 µg/L	51.268 ppb	14:13:13
3	Ba 233.527†	689.4	996.9	5.0554 µg/L	5.0554 ppb	14:13:33
3	Be 313.107†	14332.6	15126.1	4.9375 µg/L	4.9375 ppb	14:13:13
3	Cd 226.502†	431.7	617.2	5.1583 µg/L	5.1583 ppb	14:13:33
3	Co 228.616†	61.6	296.8	5.1654 µg/L	5.1654 ppb	14:13:33
3	Cr 267.716†	729.8	526.1	5.0629 µg/L	5.0629 ppb	14:13:33
3	Cu 324.752†	5936.0	2434.5	10.385 µg/L	10.385 ppb	14:13:13
3	Mn 257.610†	6500.6	6395.8	10.188 µg/L	10.188 ppb	14:13:33
3	Mo 202.031†	253.7	268.2	9.9053 µg/L	9.9053 ppb	14:13:33
3	Ni 231.604†	223.1	295.3	4.5795 µg/L	4.5795 ppb	14:13:33
3	P 214.914†	567.8	569.8	156.23 µg/L	156.23 ppb	14:13:33
3	Pb 220.353†	224.1	131.6	9.8219 µg/L	9.8219 ppb	14:13:33
3	S 181.975 Axial†	171.7	103.7	93.903 µg/L	93.903 ppb	14:13:33
3	Sb 206.836†	182.7	66.9	10.056 µg/L	10.056 ppb	14:13:33
3	Se 196.026†	105.9	67.2	29.3 µg/L	29.3 ppb	14:13:33
3	SiO2†	3934.3	1864.0	209.34 µg/L	209.34 ppb	14:13:33
3	Si 251.611†	6274.4	5620.6	98.834 µg/L	98.834 ppb	14:13:13
3	Sn 189.927†	92.8	116.9	10.274 µg/L	10.274 ppb	14:13:33
3	Ti 334.940†	5737.1	4661.4	4.9188 µg/L	4.9188 ppb	14:13:13
3	Tl 190.801†	-31.4	123.6	20.327 µg/L	20.327 ppb	14:13:33
3	U 409.014†	955.7	978.6	56.180 µg/L	56.180 ppb	14:13:13
3	V 292.402†	932.6	784.9	4.8569 µg/L	4.8569 ppb	14:13:13
3	Zn 213.857†	5113.1	1609.9	11.345 µg/L	11.345 ppb	14:13:33

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1625388.3	100.67	%	1.384				1.37%
Sc RADIAL	122169.9	99.6	%	1.04				1.04%
Y 371.029	1066779.6	100.66	%	1.315				1.31%
Ag 328.068†	1215.4	4.9903	µg/L	0.45920	4.9903	ppb	0.45920	9.20%
QC value within limits for Ag 328.068 Recovery = 99.81%								
Al 396.153Radial†	1042.7	197.04	µg/L	2.963	197.04	ppb	2.963	1.50%
QC value within limits for Al 396.153Radial Recovery = 98.52%								
As 188.979†	82.6	28.889	µg/L	2.3700	28.889	ppb	2.3700	8.20%
QC value within limits for As 188.979 Recovery = 96.30%								
B 249.677†	2885.8	50.140	µg/L	1.9032	50.140	ppb	1.9032	3.80%
QC value within limits for B 249.677 Recovery = 100.28%								
Ba 233.527†	975.8	4.9487	µg/L	0.12900	4.9487	ppb	0.12900	2.61%
QC value within limits for Ba 233.527 Recovery = 98.97%								
Be 313.107†	15207.5	4.9610	µg/L	0.08396	4.9610	ppb	0.08396	1.69%
QC value within limits for Be 313.107 Recovery = 99.22%								
Ca 317.933Radial†	2160.3	203.68	µg/L	1.389	203.68	ppb	1.389	0.68%
QC value within limits for Ca 317.933Radial Recovery = 101.84%								
Cd 226.502†	610.1	5.0987	µg/L	0.08060	5.0987	ppb	0.08060	1.58%
QC value within limits for Cd 226.502 Recovery = 101.97%								
Co 228.616†	297.2	5.1721	µg/L	0.14161	5.1721	ppb	0.14161	2.74%

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   QC value within limits for Co 228.616  Recovery = 103.44%
Cr 267.716†              510.3      4.9176 µg/L       0.16400      4.9176 ppb        0.16400   3.34%
   QC value within limits for Cr 267.716  Recovery = 98.35%
Cu 324.752†             2190.8      9.3445 µg/L       0.95581      9.3445 ppb        0.95581  10.23%
   QC value within limits for Cu 324.752  Recovery = 93.45%
Fe 238.204 Radial†      1232.7      120.17 µg/L         2.817      120.17 ppb          2.817   2.34%
   QC value within limits for Fe 238.204 Radial  Recovery = 120.17%
K 766.490 Radial†        330.9      123.64 µg/L        45.899      123.64 ppb         45.899  37.12%
   QC value within limits for K 766.490 Radial  Recovery = 82.43%
Mg 279.077 IEC†          439.5      312.58 µg/L         5.196      312.58 ppb          5.196   1.66%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.19%
Mn 257.610†             6294.6      10.027 µg/L        0.1821      10.027 ppb         0.1821   1.82%
   QC value within limits for Mn 257.610  Recovery = 100.27%
Mo 202.031†              274.7      10.148 µg/L        0.4541      10.148 ppb         0.4541   4.47%
   QC value within limits for Mo 202.031  Recovery = 101.48%
Na 589.592 Radial†      2077.0      296.12 µg/L         4.236      296.12 ppb          4.236   1.43%
   QC value within limits for Na 589.592 Radial  Recovery = 98.71%
Ni 231.604†              304.6      4.7231 µg/L       0.12609      4.7231 ppb        0.12609   2.67%
   QC value within limits for Ni 231.604  Recovery = 94.46%
P 214.914†               552.5      151.47 µg/L         4.869      151.47 ppb          4.869   3.21%
   QC value within limits for P 214.914  Recovery = 100.98%
Pb 220.353†              147.6      11.025 µg/L        1.0629      11.025 ppb         1.0629   9.64%
   QC value within limits for Pb 220.353  Recovery = 110.25%
S 181.975 Axial†         109.3      98.921 µg/L        4.8653      98.921 ppb         4.8653   4.92%
   QC value within limits for S 181.975 Axial  Recovery = 98.92%
Sb 206.836†               63.9      9.6137 µg/L       0.78607      9.6137 ppb        0.78607   8.18%
   QC value within limits for Sb 206.836  Recovery = 96.14%
Se 196.026†               63.6        27.7 µg/L          1.44        27.7 ppb           1.44   5.21%
   QC value within limits for Se 196.026  Recovery = 92.23%
SiO2†                   1834.7      206.04 µg/L         4.376      206.04 ppb          4.376   2.12%
   QC value within limits for SiO2  Recovery = 96.73%
Si 251.611†             5616.2      98.757 µg/L        1.9280      98.757 ppb         1.9280   1.95%
   QC value within limits for Si 251.611  Recovery = 98.76%
Sn 189.927†              110.4      9.6988 µg/L       0.50560      9.6988 ppb        0.50560   5.21%
   QC value within limits for Sn 189.927  Recovery = 96.99%
Sr 421.552†             2362.7      5.1896 µg/L       0.12798      5.1896 ppb        0.12798   2.47%
   QC value within limits for Sr 421.552  Recovery = 103.79%
Ti 334.940†             4658.8      4.9198 µg/L       0.08863      4.9198 ppb        0.08863   1.80%
   QC value within limits for Ti 334.940  Recovery = 98.40%
Tl 190.801†              117.9      19.401 µg/L        1.4483      19.401 ppb         1.4483   7.47%
   QC value within limits for Tl 190.801  Recovery = 97.01%
U 409.014†               801.6      46.093 µg/L        9.0052      46.093 ppb         9.0052  19.54%
   QC value within limits for U 409.014  Recovery = 92.19%
V 292.402†               828.4      5.1135 µg/L       0.22694      5.1135 ppb        0.22694   4.44%
   QC value within limits for V 292.402  Recovery = 102.27%
Zn 213.857†             1541.2      10.860 µg/L        0.5685      10.860 ppb         0.5685   5.24%
   QC value within limits for Zn 213.857  Recovery = 108.60%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/30/2010 14:13:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	122870.4	122870.4	100	%			14:14:10
1	Al 396.153Radial†	-19.4	32.1	6.0603	µg/L	6.0603	ppb	14:14:30
1	Ca 317.933Radial†	358.0	2.9	0.2696	µg/L	0.2696	ppb	14:14:30
1	Fe 238.204 Radial†	170.2	87.1	8.4907	µg/L	8.4907	ppb	14:14:30
1	K 766.490 Radial†	1722.8	25.6	9.5591	µg/L	9.5591	ppb	14:14:10
1	Mg 279.077 IEC†	68.3	15.8	11.206	µg/L	11.206	ppb	14:14:30
1	Na 589.592 Radial†	199.0	-72.9	-10.400	µg/L	-10.400	ppb	14:14:10
1	Sr 421.552†	-124.5	-7.7	-0.0169	µg/L	-0.0169	ppb	14:14:10
1	Sc 361.383	1637275.3	1637275.3	101.40	%			14:15:18
1	Y 371.029	1073023.5	1073023.5	101.25	%			14:15:18
1	Ag 328.068†	2104.1	82.7	0.3382	µg/L	0.3382	ppb	14:15:20
1	As 188.979†	-32.8	3.2	1.1360	µg/L	1.1360	ppb	14:15:40
1	B 249.677†	2106.3	-0.6	-0.0116	µg/L	-0.0116	ppb	14:15:40
1	Ba 233.527†	-324.3	-13.9	-0.0699	µg/L	-0.0699	ppb	14:15:40
1	Be 313.107†	-875.0	-101.6	-0.0331	µg/L	-0.0331	ppb	14:15:20
1	Cd 226.502†	-161.9	24.8	0.2071	µg/L	0.2071	ppb	14:15:40
1	Co 228.616†	-226.3	11.9	0.2074	µg/L	0.2074	ppb	14:15:40
1	Cr 267.716†	218.4	10.1	0.0986	µg/L	0.0986	ppb	14:15:40
1	Cu 324.752†	3489.9	-73.2	-0.3083	µg/L	-0.3083	ppb	14:15:20
1	Mn 257.610†	145.5	24.1	0.0380	µg/L	0.0380	ppb	14:15:40
1	Mo 202.031†	-6.3	7.7	0.2836	µg/L	0.2836	ppb	14:15:40
1	Ni 231.604†	-79.0	-6.2	-0.0961	µg/L	-0.0961	ppb	14:15:40
1	P 214.914†	1.2	1.9	0.5298	µg/L	0.5298	ppb	14:15:40
1	Pb 220.353†	103.6	9.2	0.6885	µg/L	0.6885	ppb	14:15:40
1	S 181.975 Axial†	72.3	2.9	2.6355	µg/L	2.6355	ppb	14:15:40
1	Sb 206.836†	105.2	-12.5	-1.8614	µg/L	-1.8614	ppb	14:15:40
1	Se 196.026†	32.3	-7.0	-3.05	µg/L	-3.05	ppb	14:15:40
1	SiO2†	2069.7	-38.0	-4.2849	µg/L	-4.2849	ppb	14:15:40
1	Si 251.611†	579.0	-97.0	-1.7119	µg/L	-1.7119	ppb	14:15:40
1	Sn 189.927†	-25.8	-1.5	-0.1363	µg/L	-0.1363	ppb	14:15:40
1	Ti 334.940†	970.8	-131.2	-0.1406	µg/L	-0.1406	ppb	14:15:20
1	Tl 190.801†	-169.7	-12.3	-2.0085	µg/L	-2.0085	ppb	14:15:40
1	U 409.014†	-24.6	-3.5	-0.1742	µg/L	-0.1742	ppb	14:15:20
1	V 292.402†	239.5	86.4	0.5213	µg/L	0.5213	ppb	14:15:20
1	Zn 213.857†	4337.2	762.5	5.3960	µg/L	5.3960	ppb	14:15:40
2	Sc RADIAL	122582.7	122582.7	100.0	%			14:14:32
2	Al 396.153Radial†	-49.1	2.3	0.4318	µg/L	0.4318	ppb	14:14:53
2	Ca 317.933Radial†	367.9	13.6	1.2815	µg/L	1.2815	ppb	14:14:53
2	Fe 238.204 Radial†	202.1	119.4	11.635	µg/L	11.635	ppb	14:14:53
2	K 766.490 Radial†	1655.9	-37.3	-13.953	µg/L	-13.953	ppb	14:14:32
2	Mg 279.077 IEC†	60.9	8.5	6.0076	µg/L	6.0076	ppb	14:14:53
2	Na 589.592 Radial†	264.7	-6.6	-0.9308	µg/L	-0.9308	ppb	14:14:32
2	Sr 421.552†	-3.2	113.4	0.2492	µg/L	0.2492	ppb	14:14:32
2	Sc 361.383	1611768.3	1611768.3	99.823	%			14:15:43
2	Y 371.029	1057388.9	1057388.9	99.771	%			14:15:43
2	Ag 328.068†	2090.8	102.2	0.3950	µg/L	0.3950	ppb	14:15:45
2	As 188.979†	-30.0	5.5	1.9253	µg/L	1.9253	ppb	14:16:05
2	B 249.677†	2133.4	59.5	1.0343	µg/L	1.0343	ppb	14:16:05
2	Ba 233.527†	-302.2	3.2	0.0163	µg/L	0.0163	ppb	14:16:05
2	Be 313.107†	-778.3	-18.4	-0.0101	µg/L	-0.0101	ppb	14:15:45
2	Cd 226.502†	-181.4	2.8	0.0223	µg/L	0.0223	ppb	14:16:05
2	Co 228.616†	-245.5	-10.9	-0.1904	µg/L	-0.1904	ppb	14:16:05
2	Cr 267.716†	223.4	18.4	0.1901	µg/L	0.1901	ppb	14:16:05
2	Cu 324.752†	3401.8	-107.0	-0.4627	µg/L	-0.4627	ppb	14:15:45
2	Mn 257.610†	133.1	13.9	0.0219	µg/L	0.0219	ppb	14:16:05
2	Mo 202.031†	-15.5	-1.6	-0.0600	µg/L	-0.0600	ppb	14:16:05
2	Ni 231.604†	-78.7	-7.1	-0.1104	µg/L	-0.1104	ppb	14:16:05
2	P 214.914†	21.5	22.3	6.1084	µg/L	6.1084	ppb	14:16:05
2	Pb 220.353†	120.2	27.5	2.0594	µg/L	2.0594	ppb	14:16:05

2	S 181.975 Axial†	56.2	-12.1	-10.972 µg/L	-10.972 ppb	14:16:05
2	Sb 206.836†	105.9	-10.2	-1.5197 µg/L	-1.5197 ppb	14:16:05
2	Se 196.026†	26.7	-12.1	-5.28 µg/L	-5.28 ppb	14:16:05
2	SiO2†	2072.3	-3.2	-0.3483 µg/L	-0.3483 ppb	14:16:05
2	Si 251.611†	608.6	-58.3	-1.0234 µg/L	-1.0234 ppb	14:16:05
2	Sn 189.927†	-28.5	-4.6	-0.4049 µg/L	-0.4049 ppb	14:16:05
2	Ti 334.940†	978.7	-108.2	-0.1101 µg/L	-0.1101 ppb	14:15:45
2	Tl 190.801†	-162.7	-7.9	-1.2918 µg/L	-1.2918 ppb	14:16:05
2	U 409.014†	-259.3	-239.0	-13.642 µg/L	-13.642 ppb	14:15:45
2	V 292.402†	168.9	19.5	0.1067 µg/L	0.1067 ppb	14:15:45
2	Zn 213.857†	4352.6	845.6	5.9840 µg/L	5.9840 ppb	14:16:05
3	Sc RADIAL	123564.4	123564.4	101 %		14:14:55
3	Al 396.153Radial†	-91.1	-39.0	-7.3752 µg/L	-7.3752 ppb	14:15:15
3	Ca 317.933Radial†	358.8	1.6	0.1549 µg/L	0.1549 ppb	14:15:15
3	Fe 238.204 Radial†	197.7	113.3	11.050 µg/L	11.050 ppb	14:15:15
3	K 766.490 Radial†	1735.4	28.4	10.646 µg/L	10.646 ppb	14:14:55
3	Mg 279.077 IEC†	49.1	-3.7	-2.6273 µg/L	-2.6273 ppb	14:15:15
3	Na 589.592 Radial†	129.9	-142.5	-20.339 µg/L	-20.339 ppb	14:14:55
3	Sr 421.552†	-196.9	-78.8	-0.1731 µg/L	-0.1731 ppb	14:14:55
3	Sc 361.383	1609662.0	1609662.0	99.693 %		14:16:07
3	Y 371.029	1056511.8	1056511.8	99.688 %		14:16:07
3	Ag 328.068†	2026.7	40.7	0.1456 µg/L	0.1456 ppb	14:16:09
3	As 188.979†	-39.1	-3.7	-1.2784 µg/L	-1.2784 ppb	14:16:29
3	B 249.677†	2140.4	69.3	1.2051 µg/L	1.2051 ppb	14:16:29
3	Ba 233.527†	-299.3	5.8	0.0290 µg/L	0.0290 ppb	14:16:29
3	Be 313.107†	-670.4	88.8	0.0249 µg/L	0.0249 ppb	14:16:09
3	Cd 226.502†	-177.5	6.5	0.0534 µg/L	0.0534 ppb	14:16:29
3	Co 228.616†	-247.2	-12.9	-0.2247 µg/L	-0.2247 ppb	14:16:29
3	Cr 267.716†	219.6	15.0	0.1561 µg/L	0.1561 ppb	14:16:29
3	Cu 324.752†	3479.2	-24.9	-0.1147 µg/L	-0.1147 ppb	14:16:09
3	Mn 257.610†	132.9	13.9	0.0223 µg/L	0.0223 ppb	14:16:29
3	Mo 202.031†	-16.0	-2.2	-0.0801 µg/L	-0.0801 ppb	14:16:29
3	Ni 231.604†	-72.1	-0.6	-0.0093 µg/L	-0.0093 ppb	14:16:29
3	P 214.914†	17.7	18.5	5.0663 µg/L	5.0663 ppb	14:16:29
3	Pb 220.353†	112.8	20.2	1.5155 µg/L	1.5155 ppb	14:16:29
3	S 181.975 Axial†	72.2	4.1	3.6654 µg/L	3.6654 ppb	14:16:29
3	Sb 206.836†	105.1	-10.8	-1.6119 µg/L	-1.6119 ppb	14:16:29
3	Se 196.026†	38.9	0.1	0.053 µg/L	0.053 ppb	14:16:29
3	SiO2†	2062.7	-10.0	-1.1241 µg/L	-1.1241 ppb	14:16:29
3	Si 251.611†	614.9	-51.2	-0.8985 µg/L	-0.8985 ppb	14:16:29
3	Sn 189.927†	-26.9	-3.1	-0.2730 µg/L	-0.2730 ppb	14:16:29
3	Ti 334.940†	808.8	-277.3	-0.2897 µg/L	-0.2897 ppb	14:16:09
3	Tl 190.801†	-167.6	-13.0	-2.1333 µg/L	-2.1333 ppb	14:16:29
3	U 409.014†	-249.1	-229.1	-13.093 µg/L	-13.093 ppb	14:16:09
3	V 292.402†	126.2	-23.2	-0.1492 µg/L	-0.1492 ppb	14:16:09
3	Zn 213.857†	4317.8	816.3	5.7759 µg/L	5.7759 ppb	14:16:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1619568.6	100.31	%	0.952				0.95%
Sc RADIAL	123005.9	100	%	0.4				0.41%
Y 371.029	1062308.0	100.23	%	0.877				0.87%
Ag 328.068†	75.2	0.2929	µg/L	0.13074	0.2929	ppb	0.13074	44.63%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.5	-0.2944	µg/L	6.74713	-0.2944	ppb	6.74713	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.7	0.5943	µg/L	1.66912	0.5943	ppb	1.66912	280.85%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	42.7	0.7426	µg/L	0.65871	0.7426	ppb	0.65871	88.70%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.6	-0.0082	µg/L	0.05381	-0.0082	ppb	0.05381	654.85%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-10.4	-0.0061	µg/L	0.02923	-0.0061	ppb	0.02923	480.05%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.0	0.5687	µg/L	0.62000	0.5687	ppb	0.62000	109.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.4	0.0943	µg/L	0.09895	0.0943	ppb	0.09895	104.94%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.9	-0.0692	µg/L	0.24016	-0.0692	ppb	0.24016	346.93%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.5      0.1482 µg/L       0.04625      0.1482 ppb        0.04625  31.20%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -68.3     -0.2952 µg/L       0.17439     -0.2952 ppb        0.17439  59.07%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        106.6      10.392 µg/L        1.6722      10.392 ppb         1.6722  16.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           5.6      2.0838 µg/L      13.89915      2.0838 ppb       13.89915 667.01%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             6.9      4.8621 µg/L       6.98748      4.8621 ppb        6.98748 143.71%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                17.3      0.0274 µg/L       0.00918      0.0274 ppb        0.00918  33.55%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.3      0.0478 µg/L       0.20443      0.0478 ppb        0.20443 427.28%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -74.0     -10.556 µg/L        9.7049     -10.556 ppb         9.7049  91.93%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -4.6     -0.0719 µg/L       0.05468     -0.0719 ppb        0.05468  76.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 14.2      3.9015 µg/L       2.96609      3.9015 ppb        2.96609  76.02%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                19.0      1.4211 µg/L       0.69032      1.4211 ppb        0.69032  48.58%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.7     -1.5569 µg/L       8.16964     -1.5569 ppb        8.16964 524.73%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -11.2     -1.6644 µg/L       0.17678     -1.6644 ppb        0.17678  10.62%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -6.3       -2.76 µg/L         2.678       -2.76 ppb          2.678  97.10%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -17.1     -1.9191 µg/L       2.08525     -1.9191 ppb        2.08525 108.66%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -68.8     -1.2113 µg/L       0.43802     -1.2113 ppb        0.43802  36.16%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.1     -0.2714 µg/L       0.13432     -0.2714 ppb        0.13432  49.50%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 9.0      0.0198 µg/L       0.21352      0.0198 ppb        0.21352 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -172.2     -0.1801 µg/L       0.09611     -0.1801 ppb        0.09611  53.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -11.1     -1.8112 µg/L       0.45410     -1.8112 ppb        0.45410  25.07%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -157.2     -8.9698 µg/L       7.62218     -8.9698 ppb        7.62218  84.98%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 27.6      0.1596 µg/L       0.33834      0.1596 ppb        0.33834 211.99%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               808.1      5.7186 µg/L       0.29813      5.7186 ppb        0.29813   5.21%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/30/2010 14:19:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	124422.4	124422.4	101	%			14:20:08
1	Al 396.153Radial†	26549.0	26213.5	4942.2	µg/L	4942.2	ppb	14:20:08
1	Ca 317.933Radial†	54161.4	53017.8	4998.8	µg/L	4998.8	ppb	14:20:08
1	Fe 238.204 Radial†	53275.3	52416.1	5109.8	µg/L	5109.8	ppb	14:20:08
1	K 766.490 Radial†	15257.8	13341.9	4987.8	µg/L	4987.8	ppb	14:20:08
1	Mg 279.077 IEC†	7119.7	6963.5	4958.3	µg/L	4958.3	ppb	14:20:08
1	Na 589.592 Radial†	70282.1	68986.5	9834.7	µg/L	9834.7	ppb	14:20:06
1	Sr 421.552†	228465.6	225252.7	494.89	µg/L	494.89	ppb	14:20:06
1	Sc 361.383	1629067.0	1629067.0	100.89	%			14:20:21
1	Y 371.029	1064732.0	1064732.0	100.46	%			14:20:21
1	Ag 328.068†	125633.7	122527.6	498.46	µg/L	498.46	ppb	14:20:21
1	As 188.979†	1384.3	1407.6	497.81	µg/L	497.81	ppb	14:20:41
1	B 249.677†	30810.8	28459.9	492.92	µg/L	492.92	ppb	14:20:21
1	Ba 233.527†	98114.9	97551.1	494.65	µg/L	494.65	ppb	14:20:21
1	Be 313.107†	1544906.3	1531971.5	498.51	µg/L	498.51	ppb	14:20:21
1	Cd 226.502†	59693.7	59349.1	496.72	µg/L	496.72	ppb	14:20:21
1	Co 228.616†	28729.9	28710.2	499.97	µg/L	499.97	ppb	14:20:41
1	Cr 267.716†	51775.0	51110.7	495.97	µg/L	495.97	ppb	14:20:21
1	Cu 324.752†	120084.2	115504.8	490.73	µg/L	490.73	ppb	14:20:21
1	Mn 257.610†	313816.6	310915.1	495.68	µg/L	495.68	ppb	14:20:21
1	Mo 202.031†	13715.5	13607.8	502.49	µg/L	502.49	ppb	14:20:41
1	Ni 231.604†	32369.9	32154.6	498.58	µg/L	498.58	ppb	14:20:41
1	P 214.914†	9182.2	9101.6	2489.4	µg/L	2489.4	ppb	14:20:41
1	Pb 220.353†	6904.3	6750.1	505.55	µg/L	505.55	ppb	14:20:41
1	S 181.975 Axial†	1181.1	1102.2	1001.2	µg/L	1001.2	ppb	14:20:41
1	Sb 206.836†	3516.8	3369.4	503.05	µg/L	503.05	ppb	14:20:41
1	Se 196.026†	1194.2	1144.7	499	µg/L	499	ppb	14:20:41
1	SiO2†	49797.5	47276.9	5298.8	µg/L	5298.8	ppb	14:20:21
1	Si 251.611†	143488.0	141548.0	2484.0	µg/L	2484.0	ppb	14:20:21
1	Sn 189.927†	5735.7	5708.8	502.51	µg/L	502.51	ppb	14:20:41
1	Ti 334.940†	474883.9	469585.3	499.35	µg/L	499.35	ppb	14:20:21
1	Tl 190.801†	2918.8	3048.1	506.66	µg/L	506.66	ppb	14:20:41
1	U 409.014†	8585.3	8530.0	517.05	µg/L	517.05	ppb	14:20:21
1	V 292.402†	82979.3	82093.9	499.54	µg/L	499.54	ppb	14:20:21
1	Zn 213.857†	74185.9	70013.4	491.52	µg/L	491.52	ppb	14:20:21
2	Sc RADIAL	123241.9	123241.9	101	%			14:20:12
2	Al 396.153Radial†	26230.5	26147.3	4929.8	µg/L	4929.8	ppb	14:20:12
2	Ca 317.933Radial†	53657.3	53027.5	4999.7	µg/L	4999.7	ppb	14:20:12
2	Fe 238.204 Radial†	52676.0	52322.8	5100.7	µg/L	5100.7	ppb	14:20:12
2	K 766.490 Radial†	15122.5	13351.3	4991.2	µg/L	4991.2	ppb	14:20:12
2	Mg 279.077 IEC†	7139.7	7050.6	5020.2	µg/L	5020.2	ppb	14:20:12
2	Na 589.592 Radial†	70590.1	69956.3	9973.1	µg/L	9973.1	ppb	14:20:10
2	Sr 421.552†	228675.1	227617.6	500.08	µg/L	500.08	ppb	14:20:10
2	Sc 361.383	1636727.7	1636727.7	101.37	%			14:20:44
2	Y 371.029	1069689.1	1069689.1	100.93	%			14:20:44
2	Ag 328.068†	126682.2	122979.2	500.28	µg/L	500.28	ppb	14:20:44
2	As 188.979†	1367.5	1384.6	489.80	µg/L	489.80	ppb	14:21:04
2	B 249.677†	31031.8	28535.0	494.24	µg/L	494.24	ppb	14:20:44
2	Ba 233.527†	98584.8	97559.4	494.69	µg/L	494.69	ppb	14:20:44
2	Be 313.107†	1553686.3	1533466.2	499.00	µg/L	499.00	ppb	14:20:44
2	Cd 226.502†	60044.2	59417.9	497.30	µg/L	497.30	ppb	14:20:44
2	Co 228.616†	28754.4	28601.1	498.07	µg/L	498.07	ppb	14:21:04
2	Cr 267.716†	51998.8	51091.3	495.78	µg/L	495.78	ppb	14:20:44
2	Cu 324.752†	121158.7	116007.7	492.86	µg/L	492.86	ppb	14:20:44
2	Mn 257.610†	315427.6	311048.5	495.89	µg/L	495.89	ppb	14:20:44
2	Mo 202.031†	13731.5	13559.9	500.73	µg/L	500.73	ppb	14:21:04
2	Ni 231.604†	32418.9	32052.8	497.00	µg/L	497.00	ppb	14:21:04
2	P 214.914†	9223.7	9099.9	2488.9	µg/L	2488.9	ppb	14:21:04
2	Pb 220.353†	6899.6	6713.4	502.81	µg/L	502.81	ppb	14:21:04

2	S 181.975 Axial†	1182.7	1098.3	997.69 µg/L	997.69 ppb	14:21:04
2	Sb 206.836†	3542.7	3378.6	504.39 µg/L	504.39 ppb	14:21:04
2	Se 196.026†	1196.4	1141.4	497 µg/L	497 ppb	14:21:04
2	SiO2†	50213.8	47456.6	5319.1 µg/L	5319.1 ppb	14:20:44
2	Si 251.611†	144751.1	142128.4	2494.3 µg/L	2494.3 ppb	14:20:44
2	Sn 189.927†	5739.8	5686.2	500.53 µg/L	500.53 ppb	14:21:04
2	Ti 334.940†	477877.1	470335.1	500.14 µg/L	500.14 ppb	14:20:44
2	Tl 190.801†	2937.2	3052.7	507.44 µg/L	507.44 ppb	14:21:04
2	U 409.014†	8580.4	8485.3	514.56 µg/L	514.56 ppb	14:20:44
2	V 292.402†	83537.9	82260.0	500.52 µg/L	500.52 ppb	14:20:44
2	Zn 213.857†	74831.5	70306.2	493.60 µg/L	493.60 ppb	14:20:44
3	Sc RADIAL	122750.4	122750.4	100 %		14:20:16
3	Al 396.153Radial†	26381.6	26402.7	4978.1 µg/L	4978.1 ppb	14:20:16
3	Ca 317.933Radial†	53459.5	53043.7	5001.2 µg/L	5001.2 ppb	14:20:16
3	Fe 238.204 Radial†	52408.7	52265.6	5095.1 µg/L	5095.1 ppb	14:20:16
3	K 766.490 Radial†	14927.7	13216.9	4941.0 µg/L	4941.0 ppb	14:20:16
3	Mg 279.077 IEC†	7152.4	7091.7	5049.4 µg/L	5049.4 ppb	14:20:16
3	Na 589.592 Radial†	69744.4	69392.7	9892.7 µg/L	9892.7 ppb	14:20:14
3	Sr 421.552†	225921.1	225777.7	496.04 µg/L	496.04 ppb	14:20:14
3	Sc 361.383	1642307.9	1642307.9	101.71 %		14:21:07
3	Y 371.029	1073302.3	1073302.3	101.27 %		14:21:07
3	Ag 328.068†	127437.1	123296.7	501.57 µg/L	501.57 ppb	14:21:07
3	As 188.979†	1392.3	1404.4	496.69 µg/L	496.69 ppb	14:21:27
3	B 249.677†	30861.6	28263.6	489.52 µg/L	489.52 ppb	14:21:07
3	Ba 233.527†	98622.9	97266.5	493.21 µg/L	493.21 ppb	14:21:07
3	Be 313.107†	1554955.5	1529506.1	497.71 µg/L	497.71 ppb	14:21:07
3	Cd 226.502†	59909.8	59084.5	494.51 µg/L	494.51 ppb	14:21:07
3	Co 228.616†	28844.8	28593.6	497.94 µg/L	497.94 ppb	14:21:27
3	Cr 267.716†	52030.4	50948.0	494.38 µg/L	494.38 ppb	14:21:07
3	Cu 324.752†	121214.0	115656.0	491.38 µg/L	491.38 ppb	14:21:07
3	Mn 257.610†	316280.1	310829.4	495.54 µg/L	495.54 ppb	14:21:07
3	Mo 202.031†	13798.8	13580.1	501.47 µg/L	501.47 ppb	14:21:27
3	Ni 231.604†	32490.5	32014.5	496.40 µg/L	496.40 ppb	14:21:27
3	P 214.914†	9226.3	9071.6	2481.1 µg/L	2481.1 ppb	14:21:27
3	Pb 220.353†	6885.7	6676.7	500.05 µg/L	500.05 ppb	14:21:27
3	S 181.975 Axial†	1192.8	1104.3	1003.1 µg/L	1003.1 ppb	14:21:27
3	Sb 206.836†	3526.8	3351.1	500.32 µg/L	500.32 ppb	14:21:27
3	Se 196.026†	1205.1	1145.9	499 µg/L	499 ppb	14:21:27
3	SiO2†	50439.5	47510.2	5325.1 µg/L	5325.1 ppb	14:21:07
3	Si 251.611†	145186.9	142071.7	2493.3 µg/L	2493.3 ppb	14:21:07
3	Sn 189.927†	5744.8	5671.8	499.27 µg/L	499.27 ppb	14:21:27
3	Ti 334.940†	478830.7	469670.9	499.42 µg/L	499.42 ppb	14:21:07
3	Tl 190.801†	2924.7	3030.4	503.79 µg/L	503.79 ppb	14:21:27
3	U 409.014†	8887.3	8758.2	530.10 µg/L	530.10 ppb	14:21:07
3	V 292.402†	83692.2	82131.7	499.76 µg/L	499.76 ppb	14:21:07
3	Zn 213.857†	74841.8	70065.5	491.90 µg/L	491.90 ppb	14:21:07

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1636034.2	101.33	%	0.412				0.41%
Sc RADIAL	123471.6	101	%	0.7				0.70%
Y 371.029	1069241.1	100.89	%	0.406				0.40%
Ag 328.068†	122934.5	500.10	µg/L	1.562	500.10	ppb	1.562	0.31%
QC value within limits for Ag 328.068 Recovery = 100.02%								
Al 396.153Radial†	26254.5	4950.0	µg/L	25.10	4950.0	ppb	25.10	0.51%
QC value within limits for Al 396.153Radial Recovery = 99.00%								
As 188.979†	1398.9	494.76	µg/L	4.337	494.76	ppb	4.337	0.88%
QC value within limits for As 188.979 Recovery = 98.95%								
B 249.677†	28419.5	492.23	µg/L	2.434	492.23	ppb	2.434	0.49%
QC value within limits for B 249.677 Recovery = 98.45%								
Ba 233.527†	97459.0	494.18	µg/L	0.845	494.18	ppb	0.845	0.17%
QC value within limits for Ba 233.527 Recovery = 98.84%								
Be 313.107†	1531648.0	498.41	µg/L	0.648	498.41	ppb	0.648	0.13%
QC value within limits for Be 313.107 Recovery = 99.68%								
Ca 317.933Radial†	53029.6	4999.9	µg/L	1.23	4999.9	ppb	1.23	0.02%
QC value within limits for Ca 317.933Radial Recovery = 100.00%								
Cd 226.502†	59283.8	496.18	µg/L	1.474	496.18	ppb	1.474	0.30%
QC value within limits for Cd 226.502 Recovery = 99.24%								
Co 228.616†	28635.0	498.66	µg/L	1.136	498.66	ppb	1.136	0.23%

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   QC value within limits for Co 228.616  Recovery = 99.73%
Cr 267.716†            51050.0      495.38 µg/L         0.869      495.38 ppb          0.869   0.18%
   QC value within limits for Cr 267.716  Recovery = 99.08%
Cu 324.752†           115722.8      491.66 µg/L         1.090      491.66 ppb          1.090   0.22%
   QC value within limits for Cu 324.752  Recovery = 98.33%
Fe 238.204 Radial†     52334.8      5101.9 µg/L          7.40      5101.9 ppb           7.40   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.04%
K 766.490 Radial†      13303.4      4973.3 µg/L         28.07      4973.3 ppb          28.07   0.56%
   QC value within limits for K 766.490 Radial  Recovery = 99.47%
Mg 279.077 IEC†         7035.3      5009.3 µg/L         46.53      5009.3 ppb          46.53   0.93%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.19%
Mn 257.610†           310931.0      495.70 µg/L         0.177      495.70 ppb          0.177   0.04%
   QC value within limits for Mn 257.610  Recovery = 99.14%
Mo 202.031†            13582.6      501.57 µg/L         0.886      501.57 ppb          0.886   0.18%
   QC value within limits for Mo 202.031  Recovery = 100.31%
Na 589.592 Radial†     69445.2      9900.2 µg/L         69.46      9900.2 ppb          69.46   0.70%
   QC value within limits for Na 589.592 Radial  Recovery = 99.00%
Ni 231.604†            32074.0      497.33 µg/L         1.123      497.33 ppb          1.123   0.23%
   QC value within limits for Ni 231.604  Recovery = 99.47%
P 214.914†              9091.1      2486.5 µg/L          4.63      2486.5 ppb           4.63   0.19%
   QC value within limits for P 214.914  Recovery = 99.46%
Pb 220.353†             6713.4      502.80 µg/L         2.747      502.80 ppb          2.747   0.55%
   QC value within limits for Pb 220.353  Recovery = 100.56%
S 181.975 Axial†        1101.6      1000.7 µg/L          2.73      1000.7 ppb           2.73   0.27%
   QC value within limits for S 181.975 Axial  Recovery = 100.07%
Sb 206.836†             3366.4      502.59 µg/L         2.073      502.59 ppb          2.073   0.41%
   QC value within limits for Sb 206.836  Recovery = 100.52%
Se 196.026†             1144.0         499 µg/L           1.0         499 ppb            1.0   0.20%
   QC value within limits for Se 196.026  Recovery = 99.71%
SiO2†                  47414.5      5314.3 µg/L         13.80      5314.3 ppb          13.80   0.26%
   QC value within limits for SiO2  Recovery = 99.38%
Si 251.611†           141916.0      2490.6 µg/L          5.66      2490.6 ppb           5.66   0.23%
   QC value within limits for Si 251.611  Recovery = 99.62%
Sn 189.927†             5688.9      500.77 µg/L         1.633      500.77 ppb          1.633   0.33%
   QC value within limits for Sn 189.927  Recovery = 100.15%
Sr 421.552†           226216.0      497.00 µg/L         2.729      497.00 ppb          2.729   0.55%
   QC value within limits for Sr 421.552  Recovery = 99.40%
Ti 334.940†           469863.8      499.64 µg/L         0.438      499.64 ppb          0.438   0.09%
   QC value within limits for Ti 334.940  Recovery = 99.93%
Tl 190.801†             3043.7      505.96 µg/L         1.923      505.96 ppb          1.923   0.38%
   QC value within limits for Tl 190.801  Recovery = 101.19%
U 409.014†              8591.2      520.57 µg/L         8.347      520.57 ppb          8.347   1.60%
   QC value within limits for U 409.014  Recovery = 104.11%
V 292.402†             82161.9      499.94 µg/L         0.512      499.94 ppb          0.512   0.10%
   QC value within limits for V 292.402  Recovery = 99.99%
Zn 213.857†            70128.4      492.34 µg/L         1.108      492.34 ppb          1.108   0.23%
   QC value within limits for Zn 213.857  Recovery = 98.47%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/30/2010 14:21:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123463.2	123463.2	101	%			14:22:04
1	Al 396.153Radial†	-30.8	20.9	3.9290	µg/L	3.9290	ppb	14:22:24
1	Ca 317.933Radial†	354.7	-2.1	-0.2005	µg/L	-0.2005	ppb	14:22:24
1	Fe 238.204 Radial†	101.1	17.6	1.7202	µg/L	1.7202	ppb	14:22:24
1	K 766.490 Radial†	1678.5	-26.6	-9.9664	µg/L	-9.9664	ppb	14:22:04
1	Mg 279.077 IEC†	82.4	29.4	20.944	µg/L	20.944	ppb	14:22:24
1	Na 589.592 Radial†	349.9	76.1	10.863	µg/L	10.863	ppb	14:22:04
1	Sr 421.552†	-117.0	0.4	0.0009	µg/L	0.0009	ppb	14:22:04
1	Sc 361.383	1620111.3	1620111.3	100.34	%			14:23:12
1	Y 371.029	1061511.1	1061511.1	100.16	%			14:23:12
1	Ag 328.068†	1743.4	-254.8	-1.0335	µg/L	-1.0335	ppb	14:23:14
1	As 188.979†	-40.6	-4.9	-1.7077	µg/L	-1.7077	ppb	14:23:34
1	B 249.677†	2106.9	22.0	0.3826	µg/L	0.3826	ppb	14:23:34
1	Ba 233.527†	-317.9	-10.8	-0.0549	µg/L	-0.0549	ppb	14:23:34
1	Be 313.107†	-442.0	320.8	0.1026	µg/L	0.1026	ppb	14:23:14
1	Cd 226.502†	-172.2	12.9	0.1079	µg/L	0.1079	ppb	14:23:34
1	Co 228.616†	-233.2	2.6	0.0458	µg/L	0.0458	ppb	14:23:34
1	Cr 267.716†	222.1	16.0	0.1597	µg/L	0.1597	ppb	14:23:34
1	Cu 324.752†	3473.6	-52.9	-0.2282	µg/L	-0.2282	ppb	14:23:14
1	Mn 257.610†	115.2	-4.6	-0.0082	µg/L	-0.0082	ppb	14:23:34
1	Mo 202.031†	0.6	14.4	0.5333	µg/L	0.5333	ppb	14:23:34
1	Ni 231.604†	-73.2	-1.3	-0.0194	µg/L	-0.0194	ppb	14:23:34
1	P 214.914†	15.8	16.5	4.5160	µg/L	4.5160	ppb	14:23:34
1	Pb 220.353†	77.1	-16.1	-1.1983	µg/L	-1.1983	ppb	14:23:34
1	S 181.975 Axial†	58.9	-9.7	-8.7850	µg/L	-8.7850	ppb	14:23:34
1	Sb 206.836†	109.2	-7.3	-1.0893	µg/L	-1.0893	ppb	14:23:34
1	Se 196.026†	28.0	-10.9	-4.75	µg/L	-4.75	ppb	14:23:34
1	SiO2†	2046.4	-39.6	-4.4701	µg/L	-4.4701	ppb	14:23:34
1	Si 251.611†	612.5	-57.5	-1.0172	µg/L	-1.0172	ppb	14:23:34
1	Sn 189.927†	-29.1	-5.1	-0.4459	µg/L	-0.4459	ppb	14:23:34
1	Ti 334.940†	1200.8	108.2	0.1158	µg/L	0.1158	ppb	14:23:14
1	Tl 190.801†	-158.2	-2.6	-0.4192	µg/L	-0.4192	ppb	14:23:34
1	U 409.014†	-124.1	-102.9	-5.8869	µg/L	-5.8869	ppb	14:23:14
1	V 292.402†	112.3	-37.8	-0.2251	µg/L	-0.2251	ppb	14:23:14
1	Zn 213.857†	4301.8	772.5	5.4671	µg/L	5.4671	ppb	14:23:34
2	Sc RADIAL	123748.5	123748.5	101	%			14:22:26
2	Al 396.153Radial†	-77.7	-25.6	-4.8682	µg/L	-4.8682	ppb	14:22:46
2	Ca 317.933Radial†	350.7	-6.9	-0.6475	µg/L	-0.6475	ppb	14:22:46
2	Fe 238.204 Radial†	114.3	30.5	2.9732	µg/L	2.9732	ppb	14:22:46
2	K 766.490 Radial†	1513.2	-194.3	-72.694	µg/L	-72.694	ppb	14:22:26
2	Mg 279.077 IEC†	49.6	-3.3	-2.3074	µg/L	-2.3074	ppb	14:22:46
2	Na 589.592 Radial†	206.6	-66.7	-9.4471	µg/L	-9.4471	ppb	14:22:26
2	Sr 421.552†	-85.3	32.1	0.0705	µg/L	0.0705	ppb	14:22:26
2	Sc 361.383	1615394.0	1615394.0	100.05	%			14:23:36
2	Y 371.029	1058865.7	1058865.7	99.910	%			14:23:36
2	Ag 328.068†	2125.7	132.4	0.5219	µg/L	0.5219	ppb	14:23:38
2	As 188.979†	-41.9	-6.3	-2.1914	µg/L	-2.1914	ppb	14:23:59
2	B 249.677†	2112.5	33.7	0.5852	µg/L	0.5852	ppb	14:23:59
2	Ba 233.527†	-272.7	33.4	0.1692	µg/L	0.1692	ppb	14:23:59
2	Be 313.107†	-634.8	126.9	0.0403	µg/L	0.0403	ppb	14:23:38
2	Cd 226.502†	-173.6	11.0	0.0920	µg/L	0.0920	ppb	14:23:59
2	Co 228.616†	-221.3	13.8	0.2409	µg/L	0.2409	ppb	14:23:59
2	Cr 267.716†	200.4	-5.0	-0.0465	µg/L	-0.0465	ppb	14:23:59
2	Cu 324.752†	3473.9	-42.6	-0.1823	µg/L	-0.1823	ppb	14:23:38
2	Mn 257.610†	121.1	1.6	0.0026	µg/L	0.0026	ppb	14:23:59
2	Mo 202.031†	-3.4	10.5	0.3863	µg/L	0.3863	ppb	14:23:59
2	Ni 231.604†	-73.8	-2.0	-0.0317	µg/L	-0.0317	ppb	14:23:59
2	P 214.914†	6.6	7.4	2.0280	µg/L	2.0280	ppb	14:23:59
2	Pb 220.353†	88.9	-4.1	-0.3067	µg/L	-0.3067	ppb	14:23:59

2	S 181.975 Axial†	68.7	0.3	0.2675	µg/L	0.2675 ppb	14:23:59
2	Sb 206.836†	103.3	-13.0	-1.9246	µg/L	-1.9246 ppb	14:23:59
2	Se 196.026†	30.4	-8.5	-3.67	µg/L	-3.67 ppb	14:23:59
2	SiO2†	2071.7	-8.4	-0.9570	µg/L	-0.9570 ppb	14:23:59
2	Si 251.611†	574.1	-94.1	-1.6638	µg/L	-1.6638 ppb	14:23:59
2	Sn 189.927†	-23.8	0.1	0.0071	µg/L	0.0071 ppb	14:23:59
2	Ti 334.940†	1112.3	23.2	0.0261	µg/L	0.0261 ppb	14:23:38
2	Tl 190.801†	-172.9	-17.7	-2.9013	µg/L	-2.9013 ppb	14:23:59
2	U 409.014†	-75.7	-54.9	-3.1665	µg/L	-3.1665 ppb	14:23:38
2	V 292.402†	63.5	-86.3	-0.5169	µg/L	-0.5169 ppb	14:23:38
2	Zn 213.857†	4360.0	843.2	5.9674	µg/L	5.9674 ppb	14:23:59
3	Sc RADIAL	122893.0	122893.0	100	%		14:22:48
3	Al 396.153Radial†	-59.7	-8.2	-1.5626	µg/L	-1.5626 ppb	14:23:08
3	Ca 317.933Radial†	374.4	19.2	1.8081	µg/L	1.8081 ppb	14:23:08
3	Fe 238.204 Radial†	100.2	17.2	1.6731	µg/L	1.6731 ppb	14:23:08
3	K 766.490 Radial†	1492.4	-204.6	-76.567	µg/L	-76.567 ppb	14:22:48
3	Mg 279.077 IEC†	75.6	23.0	16.338	µg/L	16.338 ppb	14:23:08
3	Na 589.592 Radial†	289.9	17.8	2.6135	µg/L	2.6135 ppb	14:22:48
3	Sr 421.552†	-80.8	36.0	0.0790	µg/L	0.0790 ppb	14:22:48
3	Sc 361.383	1626632.2	1626632.2	100.74	%		14:24:01
3	Y 371.029	1066962.3	1066962.3	100.67	%		14:24:01
3	Ag 328.068†	2059.4	51.9	0.2047	µg/L	0.2047 ppb	14:24:03
3	As 188.979†	-44.4	-8.5	-2.9539	µg/L	-2.9539 ppb	14:24:23
3	B 249.677†	2126.8	33.3	0.5782	µg/L	0.5782 ppb	14:24:23
3	Ba 233.527†	-312.1	-3.8	-0.0191	µg/L	-0.0191 ppb	14:24:23
3	Be 313.107†	-845.8	-78.3	-0.0261	µg/L	-0.0261 ppb	14:24:03
3	Cd 226.502†	-171.5	14.3	0.1197	µg/L	0.1197 ppb	14:24:23
3	Co 228.616†	-223.6	13.1	0.2279	µg/L	0.2279 ppb	14:24:23
3	Cr 267.716†	214.2	7.3	0.0717	µg/L	0.0717 ppb	14:24:23
3	Cu 324.752†	3377.0	-162.7	-0.6897	µg/L	-0.6897 ppb	14:24:03
3	Mn 257.610†	130.8	10.4	0.0159	µg/L	0.0159 ppb	14:24:23
3	Mo 202.031†	-5.5	8.5	0.3126	µg/L	0.3126 ppb	14:24:23
3	Ni 231.604†	-49.2	22.8	0.3540	µg/L	0.3540 ppb	14:24:23
3	P 214.914†	14.6	15.3	4.1939	µg/L	4.1939 ppb	14:24:23
3	Pb 220.353†	114.0	20.1	1.5064	µg/L	1.5064 ppb	14:24:23
3	S 181.975 Axial†	63.5	-5.3	-4.8318	µg/L	-4.8318 ppb	14:24:23
3	Sb 206.836†	113.4	-3.7	-0.5411	µg/L	-0.5411 ppb	14:24:23
3	Se 196.026†	30.1	-9.0	-3.89	µg/L	-3.89 ppb	14:24:23
3	SiO2†	2064.2	-30.2	-3.4106	µg/L	-3.4106 ppb	14:24:23
3	Si 251.611†	629.5	-43.1	-0.7664	µg/L	-0.7664 ppb	14:24:23
3	Sn 189.927†	-18.3	5.8	0.5048	µg/L	0.5048 ppb	14:24:23
3	Ti 334.940†	997.1	-98.9	-0.1058	µg/L	-0.1058 ppb	14:24:03
3	Tl 190.801†	-152.2	4.0	0.6497	µg/L	0.6497 ppb	14:24:23
3	U 409.014†	-55.0	-33.8	-1.9388	µg/L	-1.9388 ppb	14:24:03
3	V 292.402†	132.7	-18.1	-0.1065	µg/L	-0.1065 ppb	14:24:03
3	Zn 213.857†	4342.5	795.7	5.6290	µg/L	5.6290 ppb	14:24:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1620712.5	100.38	%	0.350				0.35%
Sc RADIAL	123368.2	101	%	0.4				0.35%
Y 371.029	1062446.4	100.25	%	0.390				0.39%
Ag 328.068†	-23.5	-0.1023	µg/L	0.82189	-0.1023	ppb	0.82189	803.52%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.3	-0.8339	µg/L	4.44365	-0.8339	ppb	4.44365	532.88%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.6	-2.2843	µg/L	0.62829	-2.2843	ppb	0.62829	27.50%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	29.7	0.5153	µg/L	0.11505	0.5153	ppb	0.11505	22.32%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.3	0.0317	µg/L	0.12036	0.0317	ppb	0.12036	379.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	123.1	0.0390	µg/L	0.06433	0.0390	ppb	0.06433	165.15%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.4	0.3201	µg/L	1.30793	0.3201	ppb	1.30793	408.64%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	12.7	0.1065	µg/L	0.01391	0.1065	ppb	0.01391	13.06%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.9	0.1716	µg/L	0.10909	0.1716	ppb	0.10909	63.59%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                6.1      0.0616 µg/L       0.10348      0.0616 ppb        0.10348 167.89%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -86.1     -0.3667 µg/L       0.28065     -0.3667 ppb        0.28065  76.53%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        21.8      2.1222 µg/L       0.73739      2.1222 ppb        0.73739  34.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -141.9     -53.076 µg/L       37.3842     -53.076 ppb        37.3842  70.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           16.4     11.658 µg/L       12.3120      11.658 ppb        12.3120 105.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                2.4      0.0034 µg/L       0.01208      0.0034 ppb        0.01208 352.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               11.1      0.4107 µg/L       0.11233      0.4107 ppb        0.11233  27.35%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         9.1      1.3431 µg/L      10.21434      1.3431 ppb       10.21434 760.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                6.5      0.1010 µg/L       0.21920      0.1010 ppb        0.21920 217.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                13.0      3.5793 µg/L       1.35309      3.5793 ppb        1.35309  37.80%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -0.0      0.0005 µg/L       1.37825      0.0005 ppb        1.37825 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.9     -4.4497 µg/L       4.53831     -4.4497 ppb        4.53831 101.99%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -8.0     -1.1850 µg/L       0.69669     -1.1850 ppb        0.69669  58.79%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -9.5       -4.11 µg/L         0.571       -4.11 ppb          0.571  13.92%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -26.1     -2.9459 µg/L       1.80204     -2.9459 ppb        1.80204  61.17%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -64.9     -1.1491 µg/L       0.46304     -1.1491 ppb        0.46304  40.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                0.3      0.0220 µg/L       0.47555      0.0220 ppb        0.47555 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               22.8      0.0502 µg/L       0.04287      0.0502 ppb        0.04287  85.46%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               10.8      0.0121 µg/L       0.11145      0.0121 ppb        0.11145 924.92%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -5.4     -0.8902 µg/L       1.82178     -0.8902 ppb        1.82178 204.64%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -63.9     -3.6641 µg/L       2.02050     -3.6641 ppb        2.02050  55.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -47.4     -0.2828 µg/L       0.21121     -0.2828 ppb        0.21121  74.69%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              803.8      5.6878 µg/L       0.25528      5.6878 ppb        0.25528   4.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/30/2010 15:09:12 **Plasma On Time: 4/26/2010 14:25:04**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\043010.sif
Batch ID:
Results Data Set: 043010
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/30/2010 15:09:15**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	121341.9	121341.9	99.0	%			15:09:47
1	Al 396.153Radial†	25851.1	26172.4	4934.5	µg/L	4934.5	ppb	15:09:47
1	Ca 317.933Radial†	52821.2	53018.5	4998.8	µg/L	4998.8	ppb	15:09:47
1	Fe 238.204 Radial†	51882.5	52341.6	5102.5	µg/L	5102.5	ppb	15:09:47
1	K 766.490 Radial†	14697.4	13157.3	4918.7	µg/L	4918.7	ppb	15:09:47
1	Mg 279.077 IEC†	7008.7	7029.5	5005.1	µg/L	5005.1	ppb	15:09:47
1	Na 589.592 Radial†	70082.4	70542.9	10057	µg/L	10057	ppb	15:09:45
1	Sr 421.552†	226620.1	229103.4	503.35	µg/L	503.35	ppb	15:09:45
1	Sc 361.383	1628085.2	1628085.2	100.83	%			15:10:00
1	Y 371.029	1063773.3	1063773.3	100.37	%			15:10:00
1	Ag 328.068†	126023.1	122988.9	500.37	µg/L	500.37	ppb	15:10:00
1	As 188.979†	1366.6	1390.8	491.96	µg/L	491.96	ppb	15:10:20
1	B 249.677†	30751.2	28419.2	492.22	µg/L	492.22	ppb	15:10:00
1	Ba 233.527†	98363.0	97855.7	496.20	µg/L	496.20	ppb	15:10:00
1	Be 313.107†	1548291.5	1536252.1	499.91	µg/L	499.91	ppb	15:10:00
1	Cd 226.502†	60006.5	59695.0	499.62	µg/L	499.62	ppb	15:10:00
1	Co 228.616†	28580.5	28579.3	497.69	µg/L	497.69	ppb	15:10:20
1	Cr 267.716†	51746.7	51113.5	495.99	µg/L	495.99	ppb	15:10:00
1	Cu 324.752†	120449.9	115939.2	492.58	µg/L	492.58	ppb	15:10:00
1	Mn 257.610†	314825.4	312103.1	497.57	µg/L	497.57	ppb	15:10:00
1	Mo 202.031†	13672.6	13573.5	501.23	µg/L	501.23	ppb	15:10:20
1	Ni 231.604†	32202.3	32007.8	496.30	µg/L	496.30	ppb	15:10:20
1	P 214.914†	9193.7	9118.4	2494.0	µg/L	2494.0	ppb	15:10:20
1	Pb 220.353†	6842.3	6692.7	501.25	µg/L	501.25	ppb	15:10:20
1	S 181.975 Axial†	1181.4	1103.2	1002.1	µg/L	1002.1	ppb	15:10:20
1	Sb 206.836†	3488.8	3343.8	499.20	µg/L	499.20	ppb	15:10:20
1	Se 196.026†	1196.9	1148.2	500	µg/L	500	ppb	15:10:20
1	SiO2†	49986.9	47494.5	5323.3	µg/L	5323.3	ppb	15:10:00
1	Si 251.611†	144275.5	142414.8	2499.4	µg/L	2499.4	ppb	15:10:00
1	Sn 189.927†	5695.6	5672.4	499.32	µg/L	499.32	ppb	15:10:20
1	Ti 334.940†	476294.6	471268.2	501.13	µg/L	501.13	ppb	15:10:00
1	Tl 190.801†	2892.5	3023.7	502.73	µg/L	502.73	ppb	15:10:20
1	U 409.014†	8887.7	8835.0	534.67	µg/L	534.67	ppb	15:10:00
1	V 292.402†	83487.6	82647.6	502.87	µg/L	502.87	ppb	15:10:00
1	Zn 213.857†	74721.3	70588.8	495.60	µg/L	495.60	ppb	15:10:00
2	Sc RADIAL	123798.5	123798.5	101	%			15:09:51
2	Al 396.153Radial†	26512.2	26308.9	4960.3	µg/L	4960.3	ppb	15:09:51
2	Ca 317.933Radial†	54181.9	53307.1	5026.0	µg/L	5026.0	ppb	15:09:51
2	Fe 238.204 Radial†	53182.2	52588.5	5126.6	µg/L	5126.6	ppb	15:09:51
2	K 766.490 Radial†	15206.7	13367.1	4997.2	µg/L	4997.2	ppb	15:09:51
2	Mg 279.077 IEC†	7213.4	7091.7	5049.4	µg/L	5049.4	ppb	15:09:51
2	Na 589.592 Radial†	68783.9	67851.7	9672.9	µg/L	9672.9	ppb	15:09:49
2	Sr 421.552†	223223.4	221195.4	485.97	µg/L	485.97	ppb	15:09:49
2	Sc 361.383	1624708.8	1624708.8	100.62	%			15:10:23
2	Y 371.029	1061902.4	1061902.4	100.20	%			15:10:23
2	Ag 328.068†	126332.5	123556.1	502.64	µg/L	502.64	ppb	15:10:23
2	As 188.979†	1369.2	1396.3	493.88	µg/L	493.88	ppb	15:10:43

2	B 249.677†	30830.5	28561.4	494.69 µg/L	494.69 ppb	15:10:23
2	Ba 233.527†	98382.1	98077.4	497.32 µg/L	497.32 ppb	15:10:23
2	Be 313.107†	1547807.9	1538962.6	500.79 µg/L	500.79 ppb	15:10:23
2	Cd 226.502†	59936.0	59748.5	500.07 µg/L	500.07 ppb	15:10:23
2	Co 228.616†	28718.4	28775.2	501.10 µg/L	501.10 ppb	15:10:43
2	Cr 267.716†	51827.8	51300.8	497.81 µg/L	497.81 ppb	15:10:23
2	Cu 324.752†	120846.2	116581.3	495.31 µg/L	495.31 ppb	15:10:23
2	Mn 257.610†	315192.6	313116.9	499.19 µg/L	499.19 ppb	15:10:23
2	Mo 202.031†	13696.3	13625.1	503.14 µg/L	503.14 ppb	15:10:43
2	Ni 231.604†	32344.1	32215.1	499.51 µg/L	499.51 ppb	15:10:43
2	P 214.914†	9204.1	9147.7	2502.0 µg/L	2502.0 ppb	15:10:43
2	Pb 220.353†	6866.2	6730.6	504.09 µg/L	504.09 ppb	15:10:43
2	S 181.975 Axial†	1188.0	1112.2	1010.3 µg/L	1010.3 ppb	15:10:43
2	Sb 206.836†	3500.9	3362.9	502.07 µg/L	502.07 ppb	15:10:43
2	Se 196.026†	1196.2	1149.9	501 µg/L	501 ppb	15:10:43
2	SiO2†	50347.1	47955.5	5375.1 µg/L	5375.1 ppb	15:10:23
2	Si 251.611†	144790.2	143223.6	2513.5 µg/L	2513.5 ppb	15:10:23
2	Sn 189.927†	5744.5	5732.7	504.62 µg/L	504.62 ppb	15:10:43
2	Ti 334.940†	476836.9	472788.8	502.74 µg/L	502.74 ppb	15:10:23
2	Tl 190.801†	2900.3	3037.4	504.97 µg/L	504.97 ppb	15:10:43
2	U 409.014†	8800.3	8766.5	530.73 µg/L	530.73 ppb	15:10:23
2	V 292.402†	83243.1	82576.7	502.46 µg/L	502.46 ppb	15:10:23
2	Zn 213.857†	74763.5	70784.8	496.97 µg/L	496.97 ppb	15:10:23
3	Sc RADIAL	123179.2	123179.2	100 %		15:09:55
3	Al 396.153Radial†	26271.7	26201.6	4940.2 µg/L	4940.2 ppb	15:09:55
3	Ca 317.933Radial†	53522.2	52920.2	4989.6 µg/L	4989.6 ppb	15:09:55
3	Fe 238.204 Radial†	52694.3	52367.7	5105.1 µg/L	5105.1 ppb	15:09:55
3	K 766.490 Radial†	15024.8	13261.7	4957.7 µg/L	4957.7 ppb	15:09:55
3	Mg 279.077 IEC†	7121.3	7035.9	5009.6 µg/L	5009.6 ppb	15:09:55
3	Na 589.592 Radial†	70494.5	69896.9	9964.6 µg/L	9964.6 ppb	15:09:53
3	Sr 421.552†	227944.9	227006.7	498.74 µg/L	498.74 ppb	15:09:53
3	Sc 361.383	1650226.3	1650226.3	102.20 %		15:10:46
3	Y 371.029	1077678.2	1077678.2	101.69 %		15:10:46
3	Ag 328.068†	127822.2	123072.3	500.67 µg/L	500.67 ppb	15:10:46
3	As 188.979†	1375.0	1380.9	488.51 µg/L	488.51 ppb	15:11:06
3	B 249.677†	31232.1	28480.6	493.30 µg/L	493.30 ppb	15:10:46
3	Ba 233.527†	99783.3	97936.6	496.60 µg/L	496.60 ppb	15:10:46
3	Be 313.107†	1570387.6	1537269.9	500.24 µg/L	500.24 ppb	15:10:46
3	Cd 226.502†	61178.2	60042.9	502.53 µg/L	502.53 ppb	15:10:46
3	Co 228.616†	28838.1	28451.1	495.46 µg/L	495.46 ppb	15:11:06
3	Cr 267.716†	52508.7	51170.6	496.55 µg/L	496.55 ppb	15:10:46
3	Cu 324.752†	121911.1	115766.2	491.84 µg/L	491.84 ppb	15:10:46
3	Mn 257.610†	319380.1	312370.5	498.00 µg/L	498.00 ppb	15:10:46
3	Mo 202.031†	13767.5	13484.3	497.94 µg/L	497.94 ppb	15:11:06
3	Ni 231.604†	32486.4	31857.2	493.97 µg/L	493.97 ppb	15:11:06
3	P 214.914†	9273.7	9074.4	2481.9 µg/L	2481.9 ppb	15:11:06
3	Pb 220.353†	6939.9	6697.2	501.59 µg/L	501.59 ppb	15:11:06
3	S 181.975 Axial†	1199.4	1105.1	1003.8 µg/L	1003.8 ppb	15:11:06
3	Sb 206.836†	3515.5	3323.5	496.12 µg/L	496.12 ppb	15:11:06
3	Se 196.026†	1209.3	1144.3	499 µg/L	499 ppb	15:11:06
3	SiO2†	51099.9	47918.3	5371.2 µg/L	5371.2 ppb	15:10:46
3	Si 251.611†	147195.1	143351.6	2515.9 µg/L	2515.9 ppb	15:10:46
3	Sn 189.927†	5740.4	5640.4	496.52 µg/L	496.52 ppb	15:11:06
3	Ti 334.940†	482758.0	471254.6	501.12 µg/L	501.12 ppb	15:10:46
3	Tl 190.801†	2916.7	3008.8	500.30 µg/L	500.30 ppb	15:11:06
3	U 409.014†	8680.7	8514.2	516.27 µg/L	516.27 ppb	15:10:46
3	V 292.402†	84400.0	82429.4	501.51 µg/L	501.51 ppb	15:10:46
3	Zn 213.857†	75898.7	70746.5	496.74 µg/L	496.74 ppb	15:10:46

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1634340.1	101.22	%	0.858				0.85%
Sc RADIAL	122773.2	100	%	1.0				1.04%
Y 371.029	1067784.7	100.75	%	0.813				0.81%
Ag 328.068†	123205.8	501.23	µg/L	1.233	501.23	ppb	1.233	0.25%
QC value within limits for Ag 328.068 Recovery = 100.25%								
Al 396.153Radial†	26227.7	4945.0	µg/L	13.54	4945.0	ppb	13.54	0.27%
QC value within limits for Al 396.153Radial Recovery = 98.90%								
As 188.979†	1389.3	491.45	µg/L	2.726	491.45	ppb	2.726	0.55%

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   QC value within limits for As 188.979  Recovery = 98.29%
B 249.677†            28487.1      493.40 µg/L        1.233      493.40 ppb          1.233   0.25%
   QC value within limits for B 249.677  Recovery = 98.68%
Ba 233.527†           97956.6      496.71 µg/L        0.569      496.71 ppb          0.569   0.11%
   QC value within limits for Ba 233.527  Recovery = 99.34%
Be 313.107†         1537494.9      500.31 µg/L        0.445      500.31 ppb          0.445   0.09%
   QC value within limits for Be 313.107  Recovery = 100.06%
Ca 317.933Radial†     53081.9      5004.8 µg/L        18.96      5004.8 ppb          18.96   0.38%
   QC value within limits for Ca 317.933Radial  Recovery = 100.10%
Cd 226.502†           59828.8      500.74 µg/L        1.568      500.74 ppb          1.568   0.31%
   QC value within limits for Cd 226.502  Recovery = 100.15%
Co 228.616†           28601.9      498.09 µg/L        2.841      498.09 ppb          2.841   0.57%
   QC value within limits for Co 228.616  Recovery = 99.62%
Cr 267.716†           51195.0      496.78 µg/L        0.932      496.78 ppb          0.932   0.19%
   QC value within limits for Cr 267.716  Recovery = 99.36%
Cu 324.752†          116095.6      493.24 µg/L        1.827      493.24 ppb          1.827   0.37%
   QC value within limits for Cu 324.752  Recovery = 98.65%
Fe 238.204 Radial†    52432.6      5111.4 µg/L        13.22      5111.4 ppb          13.22   0.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.23%
K 766.490 Radial†     13262.0      4957.9 µg/L        39.27      4957.9 ppb          39.27   0.79%
   QC value within limits for K 766.490 Radial  Recovery = 99.16%
Mg 279.077 IEC†        7052.4      5021.4 µg/L        24.37      5021.4 ppb          24.37   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.43%
Mn 257.610†          312530.1      498.25 µg/L        0.837      498.25 ppb          0.837   0.17%
   QC value within limits for Mn 257.610  Recovery = 99.65%
Mo 202.031†           13561.0      500.77 µg/L        2.629      500.77 ppb          2.629   0.52%
   QC value within limits for Mo 202.031  Recovery = 100.15%
Na 589.592 Radial†    69430.5      9898.1 µg/L       200.41      9898.1 ppb         200.41   2.02%
   QC value within limits for Na 589.592 Radial  Recovery = 98.98%
Ni 231.604†           32026.7      496.59 µg/L        2.786      496.59 ppb          2.786   0.56%
   QC value within limits for Ni 231.604  Recovery = 99.32%
P 214.914†             9113.5      2492.6 µg/L        10.12      2492.6 ppb          10.12   0.41%
   QC value within limits for P 214.914  Recovery = 99.70%
Pb 220.353†            6706.8      502.31 µg/L        1.551      502.31 ppb          1.551   0.31%
   QC value within limits for Pb 220.353  Recovery = 100.46%
S 181.975 Axial†       1106.9      1005.4 µg/L         4.31      1005.4 ppb           4.31   0.43%
   QC value within limits for S 181.975 Axial  Recovery = 100.54%
Sb 206.836†            3343.4      499.13 µg/L        2.974      499.13 ppb          2.974   0.60%
   QC value within limits for Sb 206.836  Recovery = 99.83%
Se 196.026†            1147.4         500 µg/L          1.2         500 ppb            1.2   0.25%
   QC value within limits for Se 196.026  Recovery = 100.01%
SiO2†                 47789.4      5356.5 µg/L        28.81      5356.5 ppb          28.81   0.54%
   QC value within limits for SiO2  Recovery = 100.17%
Si 251.611†          142996.7      2509.6 µg/L         8.96      2509.6 ppb           8.96   0.36%
   QC value within limits for Si 251.611  Recovery = 100.38%
Sn 189.927†            5681.8      500.15 µg/L        4.115      500.15 ppb          4.115   0.82%
   QC value within limits for Sn 189.927  Recovery = 100.03%
Sr 421.552†          225768.5      496.02 µg/L        9.002      496.02 ppb          9.002   1.81%
   QC value within limits for Sr 421.552  Recovery = 99.20%
Ti 334.940†          471770.6      501.66 µg/L        0.936      501.66 ppb          0.936   0.19%
   QC value within limits for Ti 334.940  Recovery = 100.33%
Tl 190.801†            3023.3      502.66 µg/L        2.335      502.66 ppb          2.335   0.46%
   QC value within limits for Tl 190.801  Recovery = 100.53%
U 409.014†             8705.2      527.23 µg/L        9.685      527.23 ppb          9.685   1.84%
   QC value within limits for U 409.014  Recovery = 105.45%
V 292.402†            82551.2      502.28 µg/L        0.695      502.28 ppb          0.695   0.14%
   QC value within limits for V 292.402  Recovery = 100.46%
Zn 213.857†           70706.7      496.44 µg/L        0.729      496.44 ppb          0.729   0.15%
   QC value within limits for Zn 213.857  Recovery = 99.29%
All analyte(s) passed QC.
```

Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/30/2010 15:11:15**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	124563.4	124563.4	102	%			15:11:44
1	Al 396.153Radial†	-46.2	5.9	1.1039	µg/L	1.1039	ppb	15:12:04
1	Ca 317.933Radial†	367.6	7.5	0.7090	µg/L	0.7090	ppb	15:12:04
1	Fe 238.204 Radial†	83.9	-0.2	-0.0156	µg/L	-0.0156	ppb	15:12:04
1	K 766.490 Radial†	1513.9	-203.4	-76.094	µg/L	-76.094	ppb	15:11:44
1	Mg 279.077 IEC†	61.4	8.0	5.7147	µg/L	5.7147	ppb	15:12:04
1	Na 589.592 Radial†	116.8	-156.4	-22.245	µg/L	-22.245	ppb	15:11:44
1	Sr 421.552†	-96.5	21.6	0.0475	µg/L	0.0475	ppb	15:11:44
1	Sc 361.383	1604978.9	1604978.9	99.403	%			15:13:06
1	Y 371.029	1052741.2	1052741.2	99.332	%			15:13:06
1	Ag 328.068†	1917.4	-63.4	-0.2683	µg/L	-0.2683	ppb	15:13:08
1	As 188.979†	-45.2	-9.9	-3.4522	µg/L	-3.4522	ppb	15:13:28
1	B 249.677†	2145.3	80.4	1.3978	µg/L	1.3978	ppb	15:13:28
1	Ba 233.527†	-308.4	-4.3	-0.0218	µg/L	-0.0218	ppb	15:13:28
1	Be 313.107†	-621.9	135.7	0.0420	µg/L	0.0420	ppb	15:13:08
1	Cd 226.502†	-179.1	4.4	0.0364	µg/L	0.0364	ppb	15:13:28
1	Co 228.616†	-240.0	-6.4	-0.1111	µg/L	-0.1111	ppb	15:13:28
1	Cr 267.716†	192.6	-11.6	-0.1070	µg/L	-0.1070	ppb	15:13:28
1	Cu 324.752†	3353.3	-141.4	-0.6045	µg/L	-0.6045	ppb	15:13:08
1	Mn 257.610†	130.3	11.7	0.0184	µg/L	0.0184	ppb	15:13:28
1	Mo 202.031†	-6.2	7.7	0.2839	µg/L	0.2839	ppb	15:13:28
1	Ni 231.604†	-80.2	-9.0	-0.1394	µg/L	-0.1394	ppb	15:13:28
1	P 214.914†	11.9	12.7	3.4985	µg/L	3.4985	ppb	15:13:28
1	Pb 220.353†	97.4	5.0	0.3812	µg/L	0.3812	ppb	15:13:28
1	S 181.975 Axial†	63.4	-4.6	-4.1456	µg/L	-4.1456	ppb	15:13:28
1	Sb 206.836†	112.8	-2.8	-0.4056	µg/L	-0.4056	ppb	15:13:28
1	Se 196.026†	25.0	-13.7	-5.95	µg/L	-5.95	ppb	15:13:28
1	SiO2†	2047.3	-19.6	-2.2061	µg/L	-2.2061	ppb	15:13:28
1	Si 251.611†	604.1	-60.2	-1.0632	µg/L	-1.0632	ppb	15:13:28
1	Sn 189.927†	-25.5	-1.7	-0.1524	µg/L	-0.1524	ppb	15:13:28
1	Ti 334.940†	927.3	-155.7	-0.1633	µg/L	-0.1633	ppb	15:13:08
1	Tl 190.801†	-167.0	-12.9	-2.1208	µg/L	-2.1208	ppb	15:13:28
1	U 409.014†	-145.4	-125.5	-7.1900	µg/L	-7.1900	ppb	15:13:08
1	V 292.402†	83.4	-65.9	-0.3979	µg/L	-0.3979	ppb	15:13:08
1	Zn 213.857†	4322.6	833.8	5.9026	µg/L	5.9026	ppb	15:13:28
2	Sc RADIAL	122610.6	122610.6	100	%			15:12:06
2	Al 396.153Radial†	-51.3	0.1	-0.0099	µg/L	-0.0099	ppb	15:12:26
2	Ca 317.933Radial†	368.0	13.6	1.2838	µg/L	1.2838	ppb	15:12:26
2	Fe 238.204 Radial†	86.6	3.8	0.3729	µg/L	0.3729	ppb	15:12:26
2	K 766.490 Radial†	1509.0	-184.5	-69.037	µg/L	-69.037	ppb	15:12:06
2	Mg 279.077 IEC†	71.5	19.0	13.544	µg/L	13.544	ppb	15:12:26
2	Na 589.592 Radial†	253.7	-17.7	-2.4649	µg/L	-2.4649	ppb	15:12:06
2	Sr 421.552†	-235.9	-119.3	-0.2622	µg/L	-0.2622	ppb	15:12:06
2	Sc 361.383	1633894.3	1633894.3	101.19	%			15:13:30
2	Y 371.029	1070151.2	1070151.2	100.97	%			15:13:30
2	Ag 328.068†	2136.3	118.9	0.4784	µg/L	0.4784	ppb	15:13:33
2	As 188.979†	-42.2	-6.1	-2.1288	µg/L	-2.1288	ppb	15:13:53
2	B 249.677†	2146.4	43.3	0.7524	µg/L	0.7524	ppb	15:13:53
2	Ba 233.527†	-288.0	21.4	0.1088	µg/L	0.1088	ppb	15:13:53
2	Be 313.107†	-584.5	183.7	0.0583	µg/L	0.0583	ppb	15:13:33
2	Cd 226.502†	-160.2	26.2	0.2197	µg/L	0.2197	ppb	15:13:53
2	Co 228.616†	-237.1	0.8	0.0141	µg/L	0.0141	ppb	15:13:53
2	Cr 267.716†	217.3	9.4	0.0950	µg/L	0.0950	ppb	15:13:53
2	Cu 324.752†	3491.8	-64.2	-0.2753	µg/L	-0.2753	ppb	15:13:33
2	Mn 257.610†	91.1	-29.4	-0.0475	µg/L	-0.0475	ppb	15:13:53
2	Mo 202.031†	6.2	20.0	0.7380	µg/L	0.7380	ppb	15:13:53
2	Ni 231.604†	-81.4	-8.7	-0.1346	µg/L	-0.1346	ppb	15:13:53
2	P 214.914†	28.5	28.9	7.9370	µg/L	7.9370	ppb	15:13:53
2	Pb 220.353†	112.0	17.7	1.3266	µg/L	1.3266	ppb	15:13:53

2	S 181.975 Axial†	69.2	-0.0	0.0034	µg/L	0.0034 ppb	15:13:53
2	Sb 206.836†	112.9	-4.7	-0.6898	µg/L	-0.6898 ppb	15:13:53
2	Se 196.026†	36.2	-3.1	-1.35	µg/L	-1.35 ppb	15:13:53
2	SiO2†	2066.2	-37.4	-4.2236	µg/L	-4.2236 ppb	15:13:53
2	Si 251.611†	635.1	-40.3	-0.7199	µg/L	-0.7199 ppb	15:13:53
2	Sn 189.927†	-25.0	-0.8	-0.0740	µg/L	-0.0740 ppb	15:13:53
2	Ti 334.940†	1089.6	-11.8	-0.0118	µg/L	-0.0118 ppb	15:13:33
2	Tl 190.801†	-157.6	-0.6	-0.0956	µg/L	-0.0956 ppb	15:13:53
2	U 409.014†	-105.3	-83.3	-4.7214	µg/L	-4.7214 ppb	15:13:33
2	V 292.402†	247.3	94.6	0.5730	µg/L	0.5730 ppb	15:13:33
2	Zn 213.857†	4335.0	769.1	5.4444	µg/L	5.4444 ppb	15:13:53
3	Sc RADIAL	122741.4	122741.4	100	%		15:12:28
3	Al 396.153Radial†	-43.3	8.1	1.5336	µg/L	1.5336 ppb	15:12:48
3	Ca 317.933Radial†	373.5	18.8	1.7727	µg/L	1.7727 ppb	15:12:48
3	Fe 238.204 Radial†	87.7	4.8	0.4672	µg/L	0.4672 ppb	15:12:48
3	K 766.490 Radial†	1500.2	-195.0	-72.960	µg/L	-72.960 ppb	15:12:28
3	Mg 279.077 IEC†	67.2	14.7	10.483	µg/L	10.483 ppb	15:12:48
3	Na 589.592 Radial†	376.0	104.2	14.921	µg/L	14.921 ppb	15:12:28
3	Sr 421.552†	-106.7	10.0	0.0219	µg/L	0.0219 ppb	15:12:28
3	Sc 361.383	1623008.8	1623008.8	100.52	%		15:13:55
3	Y 371.029	1064109.3	1064109.3	100.40	%		15:13:55
3	Ag 328.068†	1661.4	-339.5	-1.3573	µg/L	-1.3573 ppb	15:13:57
3	As 188.979†	-35.7	0.0	0.0041	µg/L	0.0041 ppb	15:14:17
3	B 249.677†	2131.9	43.1	0.7486	µg/L	0.7486 ppb	15:14:17
3	Ba 233.527†	-305.0	2.6	0.0133	µg/L	0.0133 ppb	15:14:17
3	Be 313.107†	-712.8	52.2	0.0180	µg/L	0.0180 ppb	15:13:57
3	Cd 226.502†	-167.2	18.2	0.1526	µg/L	0.1526 ppb	15:14:17
3	Co 228.616†	-231.5	4.8	0.0833	µg/L	0.0833 ppb	15:14:17
3	Cr 267.716†	201.9	-4.4	-0.0459	µg/L	-0.0459 ppb	15:14:17
3	Cu 324.752†	3440.0	-92.5	-0.3887	µg/L	-0.3887 ppb	15:13:57
3	Mn 257.610†	111.3	-8.7	-0.0143	µg/L	-0.0143 ppb	15:14:17
3	Mo 202.031†	-8.1	5.9	0.2171	µg/L	0.2171 ppb	15:14:17
3	Ni 231.604†	-78.4	-6.2	-0.0969	µg/L	-0.0969 ppb	15:14:17
3	P 214.914†	9.2	10.0	2.7402	µg/L	2.7402 ppb	15:14:17
3	Pb 220.353†	109.4	15.9	1.1815	µg/L	1.1815 ppb	15:14:17
3	S 181.975 Axial†	62.7	-6.0	-5.4225	µg/L	-5.4225 ppb	15:14:17
3	Sb 206.836†	109.0	-7.8	-1.1559	µg/L	-1.1559 ppb	15:14:17
3	Se 196.026†	23.9	-15.1	-6.54	µg/L	-6.54 ppb	15:14:17
3	SiO2†	2069.8	-20.0	-2.2729	µg/L	-2.2729 ppb	15:14:17
3	Si 251.611†	624.5	-46.7	-0.8299	µg/L	-0.8299 ppb	15:14:17
3	Sn 189.927†	-15.6	8.4	0.7350	µg/L	0.7350 ppb	15:14:17
3	Ti 334.940†	1035.1	-58.8	-0.0648	µg/L	-0.0648 ppb	15:13:57
3	Tl 190.801†	-149.5	6.3	1.0381	µg/L	1.0381 ppb	15:14:17
3	U 409.014†	39.9	60.5	3.4633	µg/L	3.4633 ppb	15:13:57
3	V 292.402†	181.3	30.6	0.1880	µg/L	0.1880 ppb	15:13:57
3	Zn 213.857†	4306.4	769.4	5.4459	µg/L	5.4459 ppb	15:14:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1620627.3	100.37	%	0.904				0.90%
Sc RADIAL	123305.1	101	%	0.9				0.89%
Y 371.029	1062333.9	100.24	%	0.834				0.83%
Ag 328.068†	-94.7	-0.3824	µg/L	0.92316	-0.3824	ppb	0.92316	241.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.7	0.8759	µg/L	0.79660	0.8759	ppb	0.79660	90.95%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.3	-1.8590	µg/L	1.74388	-1.8590	ppb	1.74388	93.81%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	55.6	0.9663	µg/L	0.37370	0.9663	ppb	0.37370	38.67%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.6	0.0335	µg/L	0.06756	0.0335	ppb	0.06756	201.93%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	123.9	0.0394	µg/L	0.02027	0.0394	ppb	0.02027	51.38%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	13.3	1.2552	µg/L	0.53243	1.2552	ppb	0.53243	42.42%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	16.3	0.1362	µg/L	0.09275	0.1362	ppb	0.09275	68.07%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-0.3	-0.0046	µg/L	0.09857	-0.0046	ppb	0.09857	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.2     -0.0193 µg/L       0.10360     -0.0193 ppb        0.10360 537.83%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -99.4     -0.4228 µg/L       0.16725     -0.4228 ppb        0.16725  39.56%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.8      0.2748 µg/L       0.25591      0.2748 ppb        0.25591  93.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -194.3     -72.697 µg/L        3.5357     -72.697 ppb         3.5357   4.86%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            13.9      9.9140 µg/L       3.94571      9.9140 ppb        3.94571  39.80%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -8.8     -0.0144 µg/L       0.03294     -0.0144 ppb        0.03294 228.14%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                11.2      0.4130 µg/L       0.28342      0.4130 ppb        0.28342  68.63%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -23.3     -3.2629 µg/L      18.59539     -3.2629 ppb       18.59539 569.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -8.0     -0.1236 µg/L       0.02330     -0.1236 ppb        0.02330  18.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 17.2      4.7253 µg/L       2.80716      4.7253 ppb        2.80716  59.41%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                12.9      0.9631 µg/L       0.50915      0.9631 ppb        0.50915  52.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.5     -3.1882 µg/L       2.83678     -3.1882 ppb        2.83678  88.98%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -5.1     -0.7505 µg/L       0.37881     -0.7505 ppb        0.37881  50.48%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -10.6       -4.61 µg/L         2.843       -4.61 ppb          2.843  61.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -25.7     -2.9009 µg/L       1.14600     -2.9009 ppb        1.14600  39.51%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -49.1     -0.8710 µg/L       0.17525     -0.8710 ppb        0.17525  20.12%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.9      0.1696 µg/L       0.49129      0.1696 ppb        0.49129 289.75%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -29.2     -0.0643 µg/L       0.17187     -0.0643 ppb        0.17187 267.50%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -75.5     -0.0800 µg/L       0.07688     -0.0800 ppb        0.07688  96.15%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.4     -0.3928 µg/L       1.60030     -0.3928 ppb        1.60030 407.44%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -49.4     -2.8160 µg/L       5.57636     -2.8160 ppb        5.57636 198.02%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 19.8      0.1210 µg/L       0.48890      0.1210 ppb        0.48890 404.04%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               790.8      5.5976 µg/L       0.26411      5.5976 ppb        0.26411   4.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/30/2010 16:01:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	124662.3	124662.3	102	%			16:01:49
1	Al 396.153Radial†	26445.0	26060.9	4913.3	µg/L	4913.3	ppb	16:01:49
1	Ca 317.933Radial†	53978.1	52734.7	4972.1	µg/L	4972.1	ppb	16:01:49
1	Fe 238.204 Radial†	52962.0	52007.0	5069.9	µg/L	5069.9	ppb	16:01:49
1	K 766.490 Radial†	15155.5	13212.4	4939.3	µg/L	4939.3	ppb	16:01:49
1	Mg 279.077 IEC†	7187.8	7017.0	4996.3	µg/L	4996.3	ppb	16:01:49
1	Na 589.592 Radial†	70198.9	68771.3	9804.1	µg/L	9804.1	ppb	16:01:47
1	Sr 421.552†	227589.4	223957.6	492.04	µg/L	492.04	ppb	16:01:47
1	Sc 361.383	1619923.4	1619923.4	100.33	%			16:02:16
1	Y 371.029	1057855.8	1057855.8	99.815	%			16:02:16
1	Ag 328.068†	125605.0	123201.9	501.22	µg/L	501.22	ppb	16:02:16
1	As 188.979†	1360.5	1391.6	492.24	µg/L	492.24	ppb	16:02:36
1	B 249.677†	30769.5	28591.1	495.20	µg/L	495.20	ppb	16:02:16
1	Ba 233.527†	97705.1	97691.5	495.36	µg/L	495.36	ppb	16:02:16
1	Be 313.107†	1539226.3	1534953.0	499.49	µg/L	499.49	ppb	16:02:16
1	Cd 226.502†	59388.6	59378.9	496.98	µg/L	496.98	ppb	16:02:16
1	Co 228.616†	28613.3	28754.8	500.75	µg/L	500.75	ppb	16:02:36
1	Cr 267.716†	51520.6	51146.7	496.31	µg/L	496.31	ppb	16:02:16
1	Cu 324.752†	120183.2	116275.3	494.00	µg/L	494.00	ppb	16:02:16
1	Mn 257.610†	312799.8	311657.2	496.86	µg/L	496.86	ppb	16:02:16
1	Mo 202.031†	13676.1	13645.2	503.88	µg/L	503.88	ppb	16:02:36
1	Ni 231.604†	32217.5	32183.9	499.03	µg/L	499.03	ppb	16:02:36
1	P 214.914†	9178.9	9149.7	2502.6	µg/L	2502.6	ppb	16:02:36
1	Pb 220.353†	6847.6	6732.3	504.21	µg/L	504.21	ppb	16:02:36
1	S 181.975 Axial†	1178.9	1106.7	1005.3	µg/L	1005.3	ppb	16:02:36
1	Sb 206.836†	3496.8	3369.2	503.03	µg/L	503.03	ppb	16:02:36
1	Se 196.026†	1204.4	1161.6	506	µg/L	506	ppb	16:02:36
1	SiO2†	50020.3	47777.5	5355.1	µg/L	5355.1	ppb	16:02:16
1	Si 251.611†	143779.3	142641.1	2503.3	µg/L	2503.3	ppb	16:02:16
1	Sn 189.927†	5706.0	5711.3	502.73	µg/L	502.73	ppb	16:02:36
1	Ti 334.940†	474401.5	471761.2	501.65	µg/L	501.65	ppb	16:02:16
1	Tl 190.801†	2888.7	3034.3	504.46	µg/L	504.46	ppb	16:02:36
1	U 409.014†	8712.3	8704.5	527.22	µg/L	527.22	ppb	16:02:16
1	V 292.402†	83080.7	82659.1	502.96	µg/L	502.96	ppb	16:02:16
1	Zn 213.857†	74076.4	70319.3	493.68	µg/L	493.68	ppb	16:02:16
2	Sc RADIAL	121314.9	121314.9	98.9	%			16:01:53
2	Al 396.153Radial†	25868.3	26195.7	4939.0	µg/L	4939.0	ppb	16:01:53
2	Ca 317.933Radial†	52815.8	53024.9	4999.4	µg/L	4999.4	ppb	16:01:53
2	Fe 238.204 Radial†	51965.0	52436.6	5111.8	µg/L	5111.8	ppb	16:01:53
2	K 766.490 Radial†	14755.6	13219.4	4941.9	µg/L	4941.9	ppb	16:01:53
2	Mg 279.077 IEC†	6970.9	6992.9	4979.0	µg/L	4979.0	ppb	16:01:53
2	Na 589.592 Radial†	70864.0	71348.6	10172	µg/L	10172	ppb	16:01:51
2	Sr 421.552†	229746.3	232313.9	510.40	µg/L	510.40	ppb	16:01:51
2	Sc 361.383	1633286.0	1633286.0	101.16	%			16:02:39
2	Y 371.029	1066125.1	1066125.1	100.59	%			16:02:39
2	Ag 328.068†	126836.8	123395.3	502.00	µg/L	502.00	ppb	16:02:39
2	As 188.979†	1368.3	1388.2	491.08	µg/L	491.08	ppb	16:02:59
2	B 249.677†	31115.6	28682.3	496.80	µg/L	496.80	ppb	16:02:39
2	Ba 233.527†	99022.2	98196.8	497.92	µg/L	497.92	ppb	16:02:39
2	Be 313.107†	1555150.3	1538143.2	500.52	µg/L	500.52	ppb	16:02:39
2	Cd 226.502†	60037.6	59536.2	498.29	µg/L	498.29	ppb	16:02:39
2	Co 228.616†	28605.7	28513.9	496.56	µg/L	496.56	ppb	16:02:59
2	Cr 267.716†	52230.7	51428.7	499.05	µg/L	499.05	ppb	16:02:39
2	Cu 324.752†	121401.4	116499.5	494.95	µg/L	494.95	ppb	16:02:39
2	Mn 257.610†	316588.4	312851.8	498.77	µg/L	498.77	ppb	16:02:39
2	Mo 202.031†	13671.8	13529.5	499.61	µg/L	499.61	ppb	16:02:59
2	Ni 231.604†	32191.3	31895.2	494.55	µg/L	494.55	ppb	16:02:59
2	P 214.914†	9197.0	9092.8	2486.9	µg/L	2486.9	ppb	16:02:59
2	Pb 220.353†	6849.2	6678.0	500.15	µg/L	500.15	ppb	16:02:59

2	S 181.975 Axial†	1163.8	1082.2	983.04 µg/L	983.04 ppb	16:02:59
2	Sb 206.836†	3512.2	3355.9	500.93 µg/L	500.93 ppb	16:02:59
2	Se 196.026†	1191.3	1138.8	496 µg/L	496 ppb	16:02:59
2	SiO2†	50706.6	48048.1	5385.7 µg/L	5385.7 ppb	16:02:39
2	Si 251.611†	146022.7	143686.4	2521.8 µg/L	2521.8 ppb	16:02:39
2	Sn 189.927†	5678.0	5637.0	496.23 µg/L	496.23 ppb	16:02:59
2	Ti 334.940†	479559.6	472991.8	502.97 µg/L	502.97 ppb	16:02:39
2	Tl 190.801†	2908.3	3030.1	503.81 µg/L	503.81 ppb	16:02:59
2	U 409.014†	8744.9	8665.7	525.02 µg/L	525.02 ppb	16:02:39
2	V 292.402†	83789.5	82682.4	503.06 µg/L	503.06 ppb	16:02:39
2	Zn 213.857†	74859.8	70489.7	494.91 µg/L	494.91 ppb	16:02:39
3	Sc RADIAL	122415.4	122415.4	99.8 %		16:01:57
3	Al 396.153Radial†	26123.7	26216.4	4943.0 µg/L	4943.0 ppb	16:01:57
3	Ca 317.933Radial†	52950.9	52680.3	4966.9 µg/L	4966.9 ppb	16:01:57
3	Fe 238.204 Radial†	52038.9	52038.5	5073.0 µg/L	5073.0 ppb	16:01:57
3	K 766.490 Radial†	14953.2	13283.4	4965.9 µg/L	4965.9 ppb	16:01:57
3	Mg 279.077 IEC†	7033.8	6992.5	4978.8 µg/L	4978.8 ppb	16:01:57
3	Na 589.592 Radial†	68630.3	68467.5	9760.7 µg/L	9760.7 ppb	16:01:55
3	Sr 421.552†	222851.4	223320.7	490.64 µg/L	490.64 ppb	16:01:55
3	Sc 361.383	1639957.4	1639957.4	101.57 %		16:03:02
3	Y 371.029	1071109.7	1071109.7	101.07 %		16:03:02
3	Ag 328.068†	126465.2	122519.4	498.44 µg/L	498.44 ppb	16:03:02
3	As 188.979†	1366.7	1381.1	488.54 µg/L	488.54 ppb	16:03:22
3	B 249.677†	31009.4	28452.7	492.82 µg/L	492.82 ppb	16:03:02
3	Ba 233.527†	98410.2	97196.0	492.85 µg/L	492.85 ppb	16:03:02
3	Be 313.107†	1550327.1	1527140.4	496.94 µg/L	496.94 ppb	16:03:02
3	Cd 226.502†	59894.9	59154.2	495.09 µg/L	495.09 ppb	16:03:02
3	Co 228.616†	28581.0	28374.6	494.13 µg/L	494.13 ppb	16:03:22
3	Cr 267.716†	51831.6	50825.6	493.20 µg/L	493.20 ppb	16:03:02
3	Cu 324.752†	121002.4	115618.5	491.21 µg/L	491.21 ppb	16:03:02
3	Mn 257.610†	314983.2	309998.2	494.22 µg/L	494.22 ppb	16:03:02
3	Mo 202.031†	13655.5	13458.4	496.98 µg/L	496.98 ppb	16:03:22
3	Ni 231.604†	32210.5	31784.6	492.84 µg/L	492.84 ppb	16:03:22
3	P 214.914†	9160.6	9019.8	2467.0 µg/L	2467.0 ppb	16:03:22
3	Pb 220.353†	6842.6	6644.0	497.61 µg/L	497.61 ppb	16:03:22
3	S 181.975 Axial†	1184.3	1097.6	997.02 µg/L	997.02 ppb	16:03:22
3	Sb 206.836†	3497.0	3326.8	496.64 µg/L	496.64 ppb	16:03:22
3	Se 196.026†	1195.7	1138.3	496 µg/L	496 ppb	16:03:22
3	SiO2†	50453.9	47595.4	5334.9 µg/L	5334.9 ppb	16:03:02
3	Si 251.611†	145364.7	142451.3	2500.1 µg/L	2500.1 ppb	16:03:02
3	Sn 189.927†	5685.7	5621.7	494.87 µg/L	494.87 ppb	16:03:22
3	Ti 334.940†	477847.2	469377.3	499.12 µg/L	499.12 ppb	16:03:02
3	Tl 190.801†	2907.4	3017.6	501.69 µg/L	501.69 ppb	16:03:22
3	U 409.014†	8798.6	8683.4	525.81 µg/L	525.81 ppb	16:03:02
3	V 292.402†	83551.7	82111.3	499.59 µg/L	499.59 ppb	16:03:02
3	Zn 213.857†	74734.2	70065.0	491.92 µg/L	491.92 ppb	16:03:02

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1631055.6	101.02	%	0.632				0.63%
Sc RADIAL	122797.6	100	%	1.4				1.39%
Y 371.029	1065030.2	100.49	%	0.632				0.63%
Ag 328.068†	123038.8	500.55	µg/L	1.870	500.55	ppb	1.870	0.37%
QC value within limits for Ag 328.068 Recovery = 100.11%								
Al 396.153Radial†	26157.7	4931.8	µg/L	16.16	4931.8	ppb	16.16	0.33%
QC value within limits for Al 396.153Radial Recovery = 98.64%								
As 188.979†	1387.0	490.62	µg/L	1.896	490.62	ppb	1.896	0.39%
QC value within limits for As 188.979 Recovery = 98.12%								
B 249.677†	28575.4	494.94	µg/L	2.004	494.94	ppb	2.004	0.40%
QC value within limits for B 249.677 Recovery = 98.99%								
Ba 233.527†	97694.8	495.38	µg/L	2.536	495.38	ppb	2.536	0.51%
QC value within limits for Ba 233.527 Recovery = 99.08%								
Be 313.107†	1533412.2	498.98	µg/L	1.841	498.98	ppb	1.841	0.37%
QC value within limits for Be 313.107 Recovery = 99.80%								
Ca 317.933Radial†	52813.3	4979.5	µg/L	17.47	4979.5	ppb	17.47	0.35%
QC value within limits for Ca 317.933Radial Recovery = 99.59%								
Cd 226.502†	59356.4	496.79	µg/L	1.606	496.79	ppb	1.606	0.32%
QC value within limits for Cd 226.502 Recovery = 99.36%								
Co 228.616†	28547.8	497.15	µg/L	3.349	497.15	ppb	3.349	0.67%

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   QC value within limits for Co 228.616  Recovery = 99.43%
Cr 267.716†            51133.7      496.19 µg/L         2.930      496.19 ppb          2.930   0.59%
   QC value within limits for Cr 267.716  Recovery = 99.24%
Cu 324.752†           116131.1      493.39 µg/L         1.942      493.39 ppb          1.942   0.39%
   QC value within limits for Cu 324.752  Recovery = 98.68%
Fe 238.204 Radial†     52160.7      5084.9 µg/L         23.35      5084.9 ppb          23.35   0.46%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.70%
K 766.490 Radial†      13238.4      4949.0 µg/L         14.65      4949.0 ppb          14.65   0.30%
   QC value within limits for K 766.490 Radial  Recovery = 98.98%
Mg 279.077 IEC†         7000.8      4984.7 µg/L         10.06      4984.7 ppb          10.06   0.20%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.69%
Mn 257.610†           311502.4      496.62 µg/L         2.286      496.62 ppb          2.286   0.46%
   QC value within limits for Mn 257.610  Recovery = 99.32%
Mo 202.031†            13544.4      500.15 µg/L         3.479      500.15 ppb          3.479   0.70%
   QC value within limits for Mo 202.031  Recovery = 100.03%
Na 589.592 Radial†     69529.1      9912.2 µg/L        225.78      9912.2 ppb         225.78   2.28%
   QC value within limits for Na 589.592 Radial  Recovery = 99.12%
Ni 231.604†            31954.6      495.47 µg/L         3.196      495.47 ppb          3.196   0.65%
   QC value within limits for Ni 231.604  Recovery = 99.09%
P 214.914†              9087.4      2485.5 µg/L         17.84      2485.5 ppb          17.84   0.72%
   QC value within limits for P 214.914  Recovery = 99.42%
Pb 220.353†             6684.7      500.66 µg/L         3.333      500.66 ppb          3.333   0.67%
   QC value within limits for Pb 220.353  Recovery = 100.13%
S 181.975 Axial†        1095.5      995.11 µg/L        11.229      995.11 ppb         11.229   1.13%
   QC value within limits for S 181.975 Axial  Recovery = 99.51%
Sb 206.836†             3350.6      500.20 µg/L         3.254      500.20 ppb          3.254   0.65%
   QC value within limits for Sb 206.836  Recovery = 100.04%
Se 196.026†             1146.2         500 µg/L           5.8         500 ppb            5.8   1.15%
   QC value within limits for Se 196.026  Recovery = 99.90%
SiO2†                  47807.0      5358.6 µg/L         25.61      5358.6 ppb          25.61   0.48%
   QC value within limits for SiO2  Recovery = 100.21%
Si 251.611†           142926.2      2508.4 µg/L         11.72      2508.4 ppb          11.72   0.47%
   QC value within limits for Si 251.611  Recovery = 100.34%
Sn 189.927†             5656.7      497.94 µg/L         4.204      497.94 ppb          4.204   0.84%
   QC value within limits for Sn 189.927  Recovery = 99.59%
Sr 421.552†           226530.7      497.70 µg/L        11.026      497.70 ppb         11.026   2.22%
   QC value within limits for Sr 421.552  Recovery = 99.54%
Ti 334.940†           471376.8      501.25 µg/L         1.956      501.25 ppb          1.956   0.39%
   QC value within limits for Ti 334.940  Recovery = 100.25%
Tl 190.801†             3027.3      503.32 µg/L         1.448      503.32 ppb          1.448   0.29%
   QC value within limits for Tl 190.801  Recovery = 100.66%
U 409.014†              8684.6      526.02 µg/L         1.117      526.02 ppb          1.117   0.21%
   QC value within limits for U 409.014  Recovery = 105.20%
V 292.402†             82484.3      501.87 µg/L         1.977      501.87 ppb          1.977   0.39%
   QC value within limits for V 292.402  Recovery = 100.37%
Zn 213.857†            70291.4      493.51 µg/L         1.502      493.51 ppb          1.502   0.30%
   QC value within limits for Zn 213.857  Recovery = 98.70%
All analyte(s) passed QC.
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Sequence No.: 8 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/30/2010 16:03:31**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123593.6	123593.6	101	%			16:04:00
1	Al 396.153Radial†	-32.4	19.2	3.6259	µg/L	3.6259	ppb	16:04:20
1	Ca 317.933Radial†	361.8	4.6	0.4358	µg/L	0.4358	ppb	16:04:20
1	Fe 238.204 Radial†	94.8	11.3	1.1006	µg/L	1.1006	ppb	16:04:20
1	K 766.490 Radial†	1617.7	-88.7	-33.205	µg/L	-33.205	ppb	16:04:00
1	Mg 279.077 IEC†	74.1	21.1	15.021	µg/L	15.021	ppb	16:04:20
1	Na 589.592 Radial†	280.4	6.7	0.9900	µg/L	0.9900	ppb	16:04:00
1	Sr 421.552†	-138.6	-20.9	-0.0460	µg/L	-0.0460	ppb	16:04:00
1	Sc 361.383	1614104.6	1614104.6	99.968	%			16:05:22
1	Y 371.029	1057786.8	1057786.8	99.808	%			16:05:22
1	Ag 328.068†	1944.4	-47.3	-0.1941	µg/L	-0.1941	ppb	16:05:24
1	As 188.979†	-32.6	3.0	1.0535	µg/L	1.0535	ppb	16:05:44
1	B 249.677†	2121.2	44.2	0.7658	µg/L	0.7658	ppb	16:05:44
1	Ba 233.527†	-304.9	1.0	0.0052	µg/L	0.0052	ppb	16:05:44
1	Be 313.107†	-631.0	130.2	0.0410	µg/L	0.0410	ppb	16:05:24
1	Cd 226.502†	-166.7	17.8	0.1490	µg/L	0.1490	ppb	16:05:44
1	Co 228.616†	-206.9	28.1	0.4886	µg/L	0.4886	ppb	16:05:44
1	Cr 267.716†	219.4	14.1	0.1407	µg/L	0.1407	ppb	16:05:44
1	Cu 324.752†	3440.7	-73.0	-0.3119	µg/L	-0.3119	ppb	16:05:24
1	Mn 257.610†	121.2	1.8	0.0023	µg/L	0.0023	ppb	16:05:44
1	Mo 202.031†	-2.3	11.6	0.4284	µg/L	0.4284	ppb	16:05:44
1	Ni 231.604†	-79.4	-7.7	-0.1197	µg/L	-0.1197	ppb	16:05:44
1	P 214.914†	-2.7	-1.9	-0.5304	µg/L	-0.5304	ppb	16:05:44
1	Pb 220.353†	114.9	22.0	1.6441	µg/L	1.6441	ppb	16:05:44
1	S 181.975 Axial†	60.6	-7.8	-7.0518	µg/L	-7.0518	ppb	16:05:44
1	Sb 206.836†	107.2	-9.0	-1.3318	µg/L	-1.3318	ppb	16:05:44
1	Se 196.026†	19.7	-19.2	-8.34	µg/L	-8.34	ppb	16:05:44
1	SiO2†	2107.0	28.5	3.2028	µg/L	3.2028	ppb	16:05:44
1	Si 251.611†	643.4	-24.4	-0.4334	µg/L	-0.4334	ppb	16:05:44
1	Sn 189.927†	-26.2	-2.4	-0.2069	µg/L	-0.2069	ppb	16:05:44
1	Ti 334.940†	1249.6	161.4	0.1725	µg/L	0.1725	ppb	16:05:24
1	Tl 190.801†	-159.5	-4.4	-0.7268	µg/L	-0.7268	ppb	16:05:44
1	U 409.014†	-100.2	-79.4	-4.5291	µg/L	-4.5291	ppb	16:05:24
1	V 292.402†	170.3	20.6	0.1254	µg/L	0.1254	ppb	16:05:24
1	Zn 213.857†	4495.5	982.1	6.9519	µg/L	6.9519	ppb	16:05:44
2	Sc RADIAL	121994.5	121994.5	99.5	%			16:04:22
2	Al 396.153Radial†	-46.1	5.1	0.9493	µg/L	0.9493	ppb	16:04:42
2	Ca 317.933Radial†	362.0	9.5	0.8919	µg/L	0.8919	ppb	16:04:42
2	Fe 238.204 Radial†	86.5	4.2	0.4077	µg/L	0.4077	ppb	16:04:42
2	K 766.490 Radial†	1605.4	-80.1	-29.970	µg/L	-29.970	ppb	16:04:22
2	Mg 279.077 IEC†	56.1	4.0	2.8231	µg/L	2.8231	ppb	16:04:42
2	Na 589.592 Radial†	355.2	85.6	12.241	µg/L	12.241	ppb	16:04:22
2	Sr 421.552†	-48.3	68.1	0.1496	µg/L	0.1496	ppb	16:04:22
2	Sc 361.383	1638831.0	1638831.0	101.50	%			16:05:46
2	Y 371.029	1073983.6	1073983.6	101.34	%			16:05:46
2	Ag 328.068†	1990.8	-30.9	-0.1200	µg/L	-0.1200	ppb	16:05:49
2	As 188.979†	-44.1	-7.8	-2.7273	µg/L	-2.7273	ppb	16:06:09
2	B 249.677†	2119.7	10.6	0.1832	µg/L	0.1832	ppb	16:06:09
2	Ba 233.527†	-303.0	7.5	0.0384	µg/L	0.0384	ppb	16:06:09
2	Be 313.107†	-893.0	-118.5	-0.0400	µg/L	-0.0400	ppb	16:05:49
2	Cd 226.502†	-185.4	1.9	0.0161	µg/L	0.0161	ppb	16:06:09
2	Co 228.616†	-222.8	15.5	0.2705	µg/L	0.2705	ppb	16:06:09
2	Cr 267.716†	216.8	8.3	0.0845	µg/L	0.0845	ppb	16:06:09
2	Cu 324.752†	3225.1	-337.4	-1.4323	µg/L	-1.4323	ppb	16:05:49
2	Mn 257.610†	138.1	16.6	0.0264	µg/L	0.0264	ppb	16:06:09
2	Mo 202.031†	-3.6	10.3	0.3814	µg/L	0.3814	ppb	16:06:09
2	Ni 231.604†	-76.2	-3.3	-0.0516	µg/L	-0.0516	ppb	16:06:09
2	P 214.914†	12.6	13.2	3.6235	µg/L	3.6235	ppb	16:06:09
2	Pb 220.353†	107.8	13.2	0.9922	µg/L	0.9922	ppb	16:06:09

2	S 181.975 Axial†	60.4	-8.8	-7.9979 µg/L	-7.9979 ppb	16:06:09
2	Sb 206.836†	125.7	7.6	1.1412 µg/L	1.1412 ppb	16:06:09
2	Se 196.026†	33.0	-6.3	-2.75 µg/L	-2.75 ppb	16:06:09
2	SiO2†	2086.1	-23.8	-2.6878 µg/L	-2.6878 ppb	16:06:09
2	Si 251.611†	662.9	-14.9	-0.2662 µg/L	-0.2662 ppb	16:06:09
2	Sn 189.927†	-25.5	-1.2	-0.1077 µg/L	-0.1077 ppb	16:06:09
2	Ti 334.940†	986.8	-116.3	-0.1221 µg/L	-0.1221 ppb	16:05:49
2	Tl 190.801†	-157.2	0.2	0.0351 µg/L	0.0351 ppb	16:06:09
2	U 409.014†	-106.2	-83.9	-4.7422 µg/L	-4.7422 ppb	16:05:49
2	V 292.402†	291.5	137.5	0.8264 µg/L	0.8264 ppb	16:05:49
2	Zn 213.857†	4491.2	910.1	6.4423 µg/L	6.4423 ppb	16:06:09
3	Sc RADIAL	122276.9	122276.9	99.7 %		16:04:44
3	Al 396.153Radial†	-46.7	4.6	0.8519 µg/L	0.8519 ppb	16:05:04
3	Ca 317.933Radial†	369.8	16.5	1.5538 µg/L	1.5538 ppb	16:05:04
3	Fe 238.204 Radial†	81.7	-0.9	-0.0878 µg/L	-0.0878 ppb	16:05:04
3	K 766.490 Radial†	1524.5	-164.9	-61.714 µg/L	-61.714 ppb	16:04:44
3	Mg 279.077 IEC†	65.1	12.8	9.1310 µg/L	9.1310 ppb	16:05:04
3	Na 589.592 Radial†	258.0	-12.7	-1.7513 µg/L	-1.7513 ppb	16:04:44
3	Sr 421.552†	-195.4	-79.3	-0.1742 µg/L	-0.1742 ppb	16:04:44
3	Sc 361.383	1635132.1	1635132.1	101.27 %		16:06:11
3	Y 371.029	1070960.9	1070960.9	101.05 %		16:06:11
3	Ag 328.068†	2134.5	115.5	0.4665 µg/L	0.4665 ppb	16:06:13
3	As 188.979†	-46.1	-9.9	-3.4548 µg/L	-3.4548 ppb	16:06:33
3	B 249.677†	2054.0	-49.5	-0.8615 µg/L	-0.8615 ppb	16:06:33
3	Ba 233.527†	-306.8	3.1	0.0159 µg/L	0.0159 ppb	16:06:33
3	Be 313.107†	-592.4	176.4	0.0571 µg/L	0.0571 ppb	16:06:13
3	Cd 226.502†	-171.5	15.2	0.1277 µg/L	0.1277 ppb	16:06:33
3	Co 228.616†	-227.3	10.6	0.1842 µg/L	0.1842 ppb	16:06:33
3	Cr 267.716†	200.4	-7.4	-0.0708 µg/L	-0.0708 ppb	16:06:33
3	Cu 324.752†	3376.6	-180.5	-0.7651 µg/L	-0.7651 ppb	16:06:13
3	Mn 257.610†	128.2	7.1	0.0110 µg/L	0.0110 ppb	16:06:33
3	Mo 202.031†	-6.4	7.5	0.2783 µg/L	0.2783 ppb	16:06:33
3	Ni 231.604†	-70.3	2.3	0.0351 µg/L	0.0351 ppb	16:06:33
3	P 214.914†	23.5	24.0	6.5895 µg/L	6.5895 ppb	16:06:33
3	Pb 220.353†	91.6	-2.5	-0.1874 µg/L	-0.1874 ppb	16:06:33
3	S 181.975 Axial†	64.8	-4.4	-4.0057 µg/L	-4.0057 ppb	16:06:33
3	Sb 206.836†	113.7	-3.9	-0.5783 µg/L	-0.5783 ppb	16:06:33
3	Se 196.026†	35.9	-3.4	-1.48 µg/L	-1.48 ppb	16:06:33
3	SiO2†	2060.3	-44.7	-5.0380 µg/L	-5.0380 ppb	16:06:33
3	Si 251.611†	654.8	-21.3	-0.3785 µg/L	-0.3785 ppb	16:06:33
3	Sn 189.927†	-25.7	-1.4	-0.1273 µg/L	-0.1273 ppb	16:06:33
3	Ti 334.940†	1033.7	-67.9	-0.0725 µg/L	-0.0725 ppb	16:06:13
3	Tl 190.801†	-167.9	-10.7	-1.7555 µg/L	-1.7555 ppb	16:06:33
3	U 409.014†	-39.9	-18.6	-1.0431 µg/L	-1.0431 ppb	16:06:13
3	V 292.402†	206.8	54.5	0.3289 µg/L	0.3289 ppb	16:06:13
3	Zn 213.857†	4461.7	891.0	6.3061 µg/L	6.3061 ppb	16:06:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1629355.9	100.91	%	0.826				0.82%
Sc RADIAL	122621.7	100	%	0.7				0.70%
Y 371.029	1067577.1	100.73	%	0.813				0.81%
Ag 328.068†	12.4	0.0508	µg/L	0.36191	0.0508	ppb	0.36191	712.52%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.6	1.8090	µg/L	1.57420	1.8090	ppb	1.57420	87.02%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.9	-1.7095	µg/L	2.42032	-1.7095	ppb	2.42032	141.58%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1.7	0.0292	µg/L	0.82450	0.0292	ppb	0.82450	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.8	0.0198	µg/L	0.01696	0.0198	ppb	0.01696	85.50%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	62.7	0.0193	µg/L	0.05201	0.0193	ppb	0.05201	268.87%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.2	0.9605	µg/L	0.56214	0.9605	ppb	0.56214	58.53%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.7	0.0976	µg/L	0.07140	0.0976	ppb	0.07140	73.16%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.1	0.3144	µg/L	0.15687	0.3144	ppb	0.15687	49.89%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                5.0      0.0515 µg/L       0.10958      0.0515 ppb        0.10958 212.84%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -196.9     -0.8364 µg/L       0.56364     -0.8364 ppb        0.56364  67.39%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         4.9      0.4735 µg/L       0.59694      0.4735 ppb        0.59694 126.06%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -111.3     -41.630 µg/L       17.4685     -41.630 ppb        17.4685  41.96%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           12.6      8.9916 µg/L       6.09999      8.9916 ppb        6.09999  67.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                8.5      0.0132 µg/L       0.01221      0.0132 ppb        0.01221  92.24%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.8      0.3627 µg/L       0.07681      0.3627 ppb        0.07681  21.18%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        26.6      3.8267 µg/L       7.41513      3.8267 ppb        7.41513 193.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -2.9     -0.0454 µg/L       0.07759     -0.0454 ppb        0.07759 170.81%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                11.7      3.2275 µg/L       3.57646      3.2275 ppb        3.57646 110.81%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               10.9      0.8163 µg/L       0.92836      0.8163 ppb        0.92836 113.73%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -7.0     -6.3518 µg/L       2.08615     -6.3518 ppb        2.08615  32.84%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -1.8     -0.2563 µg/L       1.26757     -0.2563 ppb        1.26757 494.56%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -9.7       -4.19 µg/L         3.651       -4.19 ppb          3.651  87.14%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -13.3     -1.5077 µg/L       4.24529     -1.5077 ppb        4.24529 281.58%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -20.2     -0.3594 µg/L       0.08523     -0.3594 ppb        0.08523  23.71%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -1.7     -0.1473 µg/L       0.05254     -0.1473 ppb        0.05254  35.67%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -10.7     -0.0235 µg/L       0.16306     -0.0235 ppb        0.16306 692.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -7.6     -0.0074 µg/L       0.15774     -0.0074 ppb        0.15774 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -5.0     -0.8157 µg/L       0.89860     -0.8157 ppb        0.89860 110.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -60.7     -3.4381 µg/L       2.07693     -3.4381 ppb        2.07693  60.41%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                70.8      0.4269 µg/L       0.36062      0.4269 ppb        0.36062  84.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              927.7      6.5668 µg/L       0.34039      6.5668 ppb        0.34039   5.18%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/30/2010 16:28:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	125061.4	125061.4	102	%			16:29:16
1	Al 396.153Radial†	26524.4	26055.7	4912.1	µg/L	4912.1	ppb	16:29:16
1	Ca 317.933Radial†	54161.5	52745.1	4973.1	µg/L	4973.1	ppb	16:29:16
1	Fe 238.204 Radial†	53227.8	52101.3	5079.1	µg/L	5079.1	ppb	16:29:16
1	K 766.490 Radial†	15050.4	13061.8	4882.9	µg/L	4882.9	ppb	16:29:16
1	Mg 279.077 IEC†	7171.6	6978.5	4969.1	µg/L	4969.1	ppb	16:29:16
1	Na 589.592 Radial†	71216.3	69548.5	9915.0	µg/L	9915.0	ppb	16:29:14
1	Sr 421.552†	231488.4	227065.9	498.87	µg/L	498.87	ppb	16:29:14
1	Sc 361.383	1621357.0	1621357.0	100.42	%			16:29:29
1	Y 371.029	1059605.8	1059605.8	99.980	%			16:29:29
1	Ag 328.068†	125875.1	123360.2	501.86	µg/L	501.86	ppb	16:29:29
1	As 188.979†	1373.4	1403.3	496.31	µg/L	496.31	ppb	16:29:49
1	B 249.677†	30645.6	28440.6	492.58	µg/L	492.58	ppb	16:29:29
1	Ba 233.527†	97791.7	97691.6	495.37	µg/L	495.37	ppb	16:29:29
1	Be 313.107†	1541209.5	1535571.4	499.69	µg/L	499.69	ppb	16:29:29
1	Cd 226.502†	59485.8	59423.3	497.35	µg/L	497.35	ppb	16:29:29
1	Co 228.616†	28808.3	28923.8	503.69	µg/L	503.69	ppb	16:29:49
1	Cr 267.716†	51618.7	51199.1	496.81	µg/L	496.81	ppb	16:29:29
1	Cu 324.752†	120332.2	116317.8	494.19	µg/L	494.19	ppb	16:29:29
1	Mn 257.610†	313304.9	311884.6	497.23	µg/L	497.23	ppb	16:29:29
1	Mo 202.031†	13768.0	13724.7	506.81	µg/L	506.81	ppb	16:29:49
1	Ni 231.604†	31958.9	31897.9	494.60	µg/L	494.60	ppb	16:29:29
1	P 214.914†	9244.9	9207.3	2518.4	µg/L	2518.4	ppb	16:29:49
1	Pb 220.353†	6868.1	6746.6	505.29	µg/L	505.29	ppb	16:29:49
1	S 181.975 Axial†	1194.7	1121.3	1018.5	µg/L	1018.5	ppb	16:29:49
1	Sb 206.836†	3531.8	3400.9	507.80	µg/L	507.80	ppb	16:29:49
1	Se 196.026†	1212.0	1168.0	509	µg/L	509	ppb	16:29:49
1	SiO2†	50277.7	47989.8	5378.8	µg/L	5378.8	ppb	16:29:29
1	Si 251.611†	144635.3	143366.9	2516.0	µg/L	2516.0	ppb	16:29:29
1	Sn 189.927†	5748.2	5748.2	505.98	µg/L	505.98	ppb	16:29:49
1	Ti 334.940†	475624.1	472560.6	502.50	µg/L	502.50	ppb	16:29:29
1	Tl 190.801†	2906.5	3049.5	506.94	µg/L	506.94	ppb	16:29:49
1	U 409.014†	8870.1	8854.0	535.73	µg/L	535.73	ppb	16:29:29
1	V 292.402†	83069.2	82574.5	502.49	µg/L	502.49	ppb	16:29:29
1	Zn 213.857†	74189.9	70367.1	494.05	µg/L	494.05	ppb	16:29:29
2	Sc RADIAL	123229.1	123229.1	101	%			16:29:20
2	Al 396.153Radial†	26025.2	25945.7	4891.4	µg/L	4891.4	ppb	16:29:20
2	Ca 317.933Radial†	53109.1	52487.6	4948.8	µg/L	4948.8	ppb	16:29:20
2	Fe 238.204 Radial†	52105.1	51760.1	5045.8	µg/L	5045.8	ppb	16:29:20
2	K 766.490 Radial†	14971.3	13202.5	4935.6	µg/L	4935.6	ppb	16:29:20
2	Mg 279.077 IEC†	7053.1	6965.2	4959.6	µg/L	4959.6	ppb	16:29:20
2	Na 589.592 Radial†	70716.6	70089.4	9992.1	µg/L	9992.1	ppb	16:29:18
2	Sr 421.552†	229306.2	228269.2	501.52	µg/L	501.52	ppb	16:29:18
2	Sc 361.383	1634497.9	1634497.9	101.23	%			16:29:52
2	Y 371.029	1067944.4	1067944.4	100.77	%			16:29:52
2	Ag 328.068†	126677.6	123145.1	500.98	µg/L	500.98	ppb	16:29:52
2	As 188.979†	1386.1	1404.9	496.84	µg/L	496.84	ppb	16:30:12
2	B 249.677†	30825.0	28372.4	491.40	µg/L	491.40	ppb	16:29:52
2	Ba 233.527†	98643.2	97749.8	495.66	µg/L	495.66	ppb	16:29:52
2	Be 313.107†	1552106.8	1533996.8	499.17	µg/L	499.17	ppb	16:29:52
2	Cd 226.502†	59937.6	59393.4	497.10	µg/L	497.10	ppb	16:29:52
2	Co 228.616†	28948.6	28831.7	502.09	µg/L	502.09	ppb	16:30:12
2	Cr 267.716†	51949.3	51112.3	495.98	µg/L	495.98	ppb	16:29:52
2	Cu 324.752†	121017.1	116030.9	492.96	µg/L	492.96	ppb	16:29:52
2	Mn 257.610†	315771.5	311812.7	497.11	µg/L	497.11	ppb	16:29:52
2	Mo 202.031†	13809.4	13655.4	504.25	µg/L	504.25	ppb	16:30:12
2	Ni 231.604†	32363.3	32041.5	496.82	µg/L	496.82	ppb	16:29:52
2	P 214.914†	9312.4	9200.0	2516.4	µg/L	2516.4	ppb	16:30:12
2	Pb 220.353†	6922.1	6745.0	505.16	µg/L	505.16	ppb	16:30:12

2	S 181.975 Axial†	1200.7	1117.7	1015.3 µg/L	1015.3 ppb	16:30:12
2	Sb 206.836†	3543.9	3384.6	505.34 µg/L	505.34 ppb	16:30:12
2	Se 196.026†	1203.3	1149.7	501 µg/L	501 ppb	16:30:12
2	SiO2†	50574.0	47880.0	5366.5 µg/L	5366.5 ppb	16:29:52
2	Si 251.611†	145549.5	143111.9	2511.6 µg/L	2511.6 ppb	16:29:52
2	Sn 189.927†	5781.5	5735.1	504.83 µg/L	504.83 ppb	16:30:12
2	Ti 334.940†	478280.1	471376.4	501.25 µg/L	501.25 ppb	16:29:52
2	Tl 190.801†	2930.3	3049.7	506.96 µg/L	506.96 ppb	16:30:12
2	U 409.014†	8807.5	8721.1	528.11 µg/L	528.11 ppb	16:29:52
2	V 292.402†	83620.3	82453.9	501.74 µg/L	501.74 ppb	16:29:52
2	Zn 213.857†	74876.4	70451.3	494.63 µg/L	494.63 ppb	16:29:52
3	Sc RADIAL	122403.4	122403.4	99.8 %		16:29:24
3	Al 396.153Radial†	26136.0	26231.4	4945.5 µg/L	4945.5 ppb	16:29:24
3	Ca 317.933Radial†	53247.5	52982.6	4995.5 µg/L	4995.5 ppb	16:29:24
3	Fe 238.204 Radial†	52460.8	52466.2	5114.7 µg/L	5114.7 ppb	16:29:24
3	K 766.490 Radial†	14837.8	13169.2	4923.1 µg/L	4923.1 ppb	16:29:24
3	Mg 279.077 IEC†	7075.7	7035.2	5009.3 µg/L	5009.3 ppb	16:29:24
3	Na 589.592 Radial†	70655.6	70503.0	10051 µg/L	10051 ppb	16:29:22
3	Sr 421.552†	229357.0	229859.2	505.01 µg/L	505.01 ppb	16:29:22
3	Sc 361.383	1630294.2	1630294.2	100.97 %		16:30:15
3	Y 371.029	1064567.7	1064567.7	100.45 %		16:30:15
3	Ag 328.068†	125524.0	122325.3	497.65 µg/L	497.65 ppb	16:30:15
3	As 188.979†	1376.7	1399.0	494.82 µg/L	494.82 ppb	16:30:35
3	B 249.677†	30698.4	28325.5	490.58 µg/L	490.58 ppb	16:30:15
3	Ba 233.527†	97840.8	97206.4	492.90 µg/L	492.90 ppb	16:30:15
3	Be 313.107†	1540905.9	1526857.0	496.85 µg/L	496.85 ppb	16:30:15
3	Cd 226.502†	59517.4	59129.9	494.89 µg/L	494.89 ppb	16:30:15
3	Co 228.616†	28861.2	28818.8	501.86 µg/L	501.86 ppb	16:30:35
3	Cr 267.716†	51664.8	50962.9	494.54 µg/L	494.54 ppb	16:30:15
3	Cu 324.752†	120008.4	115340.2	490.04 µg/L	490.04 ppb	16:30:15
3	Mn 257.610†	313093.8	309965.1	494.16 µg/L	494.16 ppb	16:30:15
3	Mo 202.031†	13774.3	13655.8	504.27 µg/L	504.27 ppb	16:30:35
3	Ni 231.604†	32044.5	31808.3	493.21 µg/L	493.21 ppb	16:30:15
3	P 214.914†	9289.9	9201.4	2516.8 µg/L	2516.8 ppb	16:30:35
3	Pb 220.353†	6885.2	6726.0	503.75 µg/L	503.75 ppb	16:30:35
3	S 181.975 Axial†	1188.5	1108.7	1007.1 µg/L	1007.1 ppb	16:30:35
3	Sb 206.836†	3545.2	3394.9	506.88 µg/L	506.88 ppb	16:30:35
3	Se 196.026†	1190.3	1140.0	497 µg/L	497 ppb	16:30:35
3	SiO2†	50226.6	47664.7	5342.3 µg/L	5342.3 ppb	16:30:15
3	Si 251.611†	144812.3	142752.5	2505.2 µg/L	2505.2 ppb	16:30:15
3	Sn 189.927†	5760.9	5729.5	504.32 µg/L	504.32 ppb	16:30:35
3	Ti 334.940†	474328.2	468680.7	498.38 µg/L	498.38 ppb	16:30:15
3	Tl 190.801†	2932.6	3059.5	508.52 µg/L	508.52 ppb	16:30:35
3	U 409.014†	8600.7	8538.8	517.53 µg/L	517.53 ppb	16:30:15
3	V 292.402†	83017.3	82069.6	499.41 µg/L	499.41 ppb	16:30:15
3	Zn 213.857†	74264.0	70035.5	491.71 µg/L	491.71 ppb	16:30:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1628716.4	100.87	%	0.416				0.41%
Sc RADIAL	123564.6	101	%	1.1				1.10%
Y 371.029	1064039.3	100.40	%	0.396				0.39%
Ag 328.068†	122943.5	500.16	µg/L	2.224	500.16	ppb	2.224	0.44%
QC value within limits for Ag 328.068 Recovery = 100.03%								
Al 396.153Radial†	26077.6	4916.4	µg/L	27.30	4916.4	ppb	27.30	0.56%
QC value within limits for Al 396.153Radial Recovery = 98.33%								
As 188.979†	1402.4	495.99	µg/L	1.049	495.99	ppb	1.049	0.21%
QC value within limits for As 188.979 Recovery = 99.20%								
B 249.677†	28379.5	491.52	µg/L	1.002	491.52	ppb	1.002	0.20%
QC value within limits for B 249.677 Recovery = 98.30%								
Ba 233.527†	97549.3	494.64	µg/L	1.513	494.64	ppb	1.513	0.31%
QC value within limits for Ba 233.527 Recovery = 98.93%								
Be 313.107†	1532141.7	498.57	µg/L	1.513	498.57	ppb	1.513	0.30%
QC value within limits for Be 313.107 Recovery = 99.71%								
Ca 317.933Radial†	52738.4	4972.4	µg/L	23.35	4972.4	ppb	23.35	0.47%
QC value within limits for Ca 317.933Radial Recovery = 99.45%								
Cd 226.502†	59315.5	496.44	µg/L	1.356	496.44	ppb	1.356	0.27%
QC value within limits for Cd 226.502 Recovery = 99.29%								
Co 228.616†	28858.1	502.55	µg/L	0.997	502.55	ppb	0.997	0.20%

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   QC value within limits for Co 228.616  Recovery = 100.51%
Cr 267.716†            51091.4      495.78 µg/L         1.152      495.78 ppb          1.152   0.23%
   QC value within limits for Cr 267.716  Recovery = 99.16%
Cu 324.752†           115896.3      492.39 µg/L         2.132      492.39 ppb          2.132   0.43%
   QC value within limits for Cu 324.752  Recovery = 98.48%
Fe 238.204 Radial†     52109.2      5079.9 µg/L         34.42      5079.9 ppb          34.42   0.68%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.60%
K 766.490 Radial†      13144.5      4913.9 µg/L         27.51      4913.9 ppb          27.51   0.56%
   QC value within limits for K 766.490 Radial  Recovery = 98.28%
Mg 279.077 IEC†         6993.0      4979.3 µg/L         26.37      4979.3 ppb          26.37   0.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.59%
Mn 257.610†           311220.8      496.17 µg/L         1.736      496.17 ppb          1.736   0.35%
   QC value within limits for Mn 257.610  Recovery = 99.23%
Mo 202.031†            13678.6      505.11 µg/L         1.472      505.11 ppb          1.472   0.29%
   QC value within limits for Mo 202.031  Recovery = 101.02%
Na 589.592 Radial†     70047.0      9986.1 µg/L         68.25      9986.1 ppb          68.25   0.68%
   QC value within limits for Na 589.592 Radial  Recovery = 99.86%
Ni 231.604†            31915.9      494.88 µg/L         1.824      494.88 ppb          1.824   0.37%
   QC value within limits for Ni 231.604  Recovery = 98.98%
P 214.914†              9202.9      2517.2 µg/L          1.04      2517.2 ppb           1.04   0.04%
   QC value within limits for P 214.914  Recovery = 100.69%
Pb 220.353†             6739.2      504.73 µg/L         0.851      504.73 ppb          0.851   0.17%
   QC value within limits for Pb 220.353  Recovery = 100.95%
S 181.975 Axial†        1115.9      1013.6 µg/L          5.90      1013.6 ppb           5.90   0.58%
   QC value within limits for S 181.975 Axial  Recovery = 101.36%
Sb 206.836†             3393.5      506.68 µg/L         1.240      506.68 ppb          1.240   0.24%
   QC value within limits for Sb 206.836  Recovery = 101.34%
Se 196.026†             1152.6         502 µg/L           6.2         502 ppb            6.2   1.23%
   QC value within limits for Se 196.026  Recovery = 100.45%
SiO2†                  47844.8      5362.6 µg/L         18.57      5362.6 ppb          18.57   0.35%
   QC value within limits for SiO2  Recovery = 100.28%
Si 251.611†           143077.1      2510.9 µg/L          5.42      2510.9 ppb           5.42   0.22%
   QC value within limits for Si 251.611  Recovery = 100.44%
Sn 189.927†             5737.6      505.04 µg/L         0.850      505.04 ppb          0.850   0.17%
   QC value within limits for Sn 189.927  Recovery = 101.01%
Sr 421.552†           228398.1      501.80 µg/L         3.078      501.80 ppb          3.078   0.61%
   QC value within limits for Sr 421.552  Recovery = 100.36%
Ti 334.940†           470872.6      500.71 µg/L         2.115      500.71 ppb          2.115   0.42%
   QC value within limits for Ti 334.940  Recovery = 100.14%
Tl 190.801†             3052.9      507.47 µg/L         0.905      507.47 ppb          0.905   0.18%
   QC value within limits for Tl 190.801  Recovery = 101.49%
U 409.014†              8704.7      527.12 µg/L         9.137      527.12 ppb          9.137   1.73%
   QC value within limits for U 409.014  Recovery = 105.42%
V 292.402†             82366.0      501.21 µg/L         1.605      501.21 ppb          1.605   0.32%
   QC value within limits for V 292.402  Recovery = 100.24%
Zn 213.857†            70284.6      493.46 µg/L         1.547      493.46 ppb          1.547   0.31%
   QC value within limits for Zn 213.857  Recovery = 98.69%
All analyte(s) passed QC.
```

Sequence No.: 18 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/30/2010 16:30:42**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123236.8	123236.8	101	%			16:31:11
1	Al 396.153Radial†	-39.7	12.0	2.2589	µg/L	2.2589	ppb	16:31:31
1	Ca 317.933Radial†	366.3	10.1	0.9513	µg/L	0.9513	ppb	16:31:31
1	Fe 238.204 Radial†	99.9	16.6	1.6152	µg/L	1.6152	ppb	16:31:31
1	K 766.490 Radial†	1705.4	3.2	1.1942	µg/L	1.1942	ppb	16:31:11
1	Mg 279.077 IEC†	49.6	-3.0	-2.1617	µg/L	-2.1617	ppb	16:31:31
1	Na 589.592 Radial†	233.6	-39.0	-5.5668	µg/L	-5.5668	ppb	16:31:11
1	Sr 421.552†	-7.2	109.5	0.2405	µg/L	0.2405	ppb	16:31:11
1	Sc 361.383	1639969.0	1639969.0	101.57	%			16:32:19
1	Y 371.029	1074498.0	1074498.0	101.38	%			16:32:19
1	Ag 328.068†	1692.3	-326.2	-1.3085	µg/L	-1.3085	ppb	16:32:21
1	As 188.979†	-38.0	-1.9	-0.6467	µg/L	-0.6467	ppb	16:32:41
1	B 249.677†	2097.5	-12.6	-0.2197	µg/L	-0.2197	ppb	16:32:41
1	Ba 233.527†	-313.3	-2.4	-0.0120	µg/L	-0.0120	ppb	16:32:41
1	Be 313.107†	-603.6	167.1	0.0538	µg/L	0.0538	ppb	16:32:21
1	Cd 226.502†	-174.6	12.7	0.1059	µg/L	0.1059	ppb	16:32:41
1	Co 228.616†	-238.7	0.0	0.0004	µg/L	0.0004	ppb	16:32:41
1	Cr 267.716†	201.0	-7.4	-0.0706	µg/L	-0.0706	ppb	16:32:41
1	Cu 324.752†	3398.4	-168.9	-0.7167	µg/L	-0.7167	ppb	16:32:21
1	Mn 257.610†	110.9	-10.3	-0.0163	µg/L	-0.0163	ppb	16:32:41
1	Mo 202.031†	-9.0	5.0	0.1853	µg/L	0.1853	ppb	16:32:41
1	Ni 231.604†	-70.6	2.2	0.0343	µg/L	0.0343	ppb	16:32:41
1	P 214.914†	21.1	21.5	5.9179	µg/L	5.9179	ppb	16:32:41
1	Pb 220.353†	104.0	9.5	0.7094	µg/L	0.7094	ppb	16:32:41
1	S 181.975 Axial†	66.5	-3.0	-2.6684	µg/L	-2.6684	ppb	16:32:41
1	Sb 206.836†	103.8	-14.0	-2.0843	µg/L	-2.0843	ppb	16:32:41
1	Se 196.026†	28.1	-11.3	-4.89	µg/L	-4.89	ppb	16:32:41
1	SiO2†	2104.0	-7.7	-0.8718	µg/L	-0.8718	ppb	16:32:41
1	Si 251.611†	668.3	-9.9	-0.1775	µg/L	-0.1775	ppb	16:32:41
1	Sn 189.927†	-24.2	0.0	0.0018	µg/L	0.0018	ppb	16:32:41
1	Ti 334.940†	1033.6	-71.0	-0.0746	µg/L	-0.0746	ppb	16:32:21
1	Tl 190.801†	-161.1	-3.6	-0.5815	µg/L	-0.5815	ppb	16:32:41
1	U 409.014†	-54.4	-32.8	-1.8544	µg/L	-1.8544	ppb	16:32:21
1	V 292.402†	210.0	57.0	0.3422	µg/L	0.3422	ppb	16:32:21
1	Zn 213.857†	4537.4	952.5	6.7413	µg/L	6.7413	ppb	16:32:41
2	Sc RADIAL	122560.5	122560.5	100.0	%			16:31:33
2	Al 396.153Radial†	-44.2	7.2	1.3466	µg/L	1.3466	ppb	16:31:53
2	Ca 317.933Radial†	359.4	5.3	0.4951	µg/L	0.4951	ppb	16:31:53
2	Fe 238.204 Radial†	84.2	1.5	0.1459	µg/L	0.1459	ppb	16:31:53
2	K 766.490 Radial†	1686.0	-6.9	-2.5857	µg/L	-2.5857	ppb	16:31:33
2	Mg 279.077 IEC†	54.7	2.3	1.6560	µg/L	1.6560	ppb	16:31:53
2	Na 589.592 Radial†	283.1	11.9	1.6949	µg/L	1.6949	ppb	16:31:33
2	Sr 421.552†	-268.7	-152.2	-0.3345	µg/L	-0.3345	ppb	16:31:33
2	Sc 361.383	1633992.9	1633992.9	101.20	%			16:32:43
2	Y 371.029	1070413.3	1070413.3	101.00	%			16:32:43
2	Ag 328.068†	1824.9	-189.0	-0.7674	µg/L	-0.7674	ppb	16:32:45
2	As 188.979†	-48.9	-12.8	-4.4522	µg/L	-4.4522	ppb	16:33:06
2	B 249.677†	2110.4	7.7	0.1332	µg/L	0.1332	ppb	16:33:06
2	Ba 233.527†	-294.6	14.9	0.0756	µg/L	0.0756	ppb	16:33:06
2	Be 313.107†	-651.5	117.5	0.0361	µg/L	0.0361	ppb	16:32:45
2	Cd 226.502†	-187.7	-0.9	-0.0078	µg/L	-0.0078	ppb	16:33:06
2	Co 228.616†	-232.8	5.0	0.0877	µg/L	0.0877	ppb	16:33:06
2	Cr 267.716†	224.7	16.7	0.1675	µg/L	0.1675	ppb	16:33:06
2	Cu 324.752†	3426.8	-128.6	-0.5504	µg/L	-0.5504	ppb	16:32:45
2	Mn 257.610†	127.9	6.9	0.0110	µg/L	0.0110	ppb	16:33:06
2	Mo 202.031†	-4.1	9.8	0.3632	µg/L	0.3632	ppb	16:33:06
2	Ni 231.604†	-79.9	-7.2	-0.1120	µg/L	-0.1120	ppb	16:33:06
2	P 214.914†	11.9	12.5	3.4311	µg/L	3.4311	ppb	16:33:06
2	Pb 220.353†	106.7	12.4	0.9344	µg/L	0.9344	ppb	16:33:06

2	S 181.975 Axial†	63.7	-5.5	-4.9316 µg/L	-4.9316 ppb	16:33:06
2	Sb 206.836†	124.0	6.3	0.9395 µg/L	0.9395 ppb	16:33:06
2	Se 196.026†	34.9	-4.4	-1.92 µg/L	-1.92 ppb	16:33:06
2	SiO2†	2104.3	0.2	0.0258 µg/L	0.0258 ppb	16:33:06
2	Si 251.611†	716.4	40.0	0.7058 µg/L	0.7058 ppb	16:33:06
2	Sn 189.927†	-34.2	-9.9	-0.8709 µg/L	-0.8709 ppb	16:33:06
2	Ti 334.940†	1029.8	-71.0	-0.0728 µg/L	-0.0728 ppb	16:32:45
2	Tl 190.801†	-151.0	5.9	0.9678 µg/L	0.9678 ppb	16:33:06
2	U 409.014†	-147.8	-125.3	-7.1487 µg/L	-7.1487 ppb	16:32:45
2	V 292.402†	160.0	8.4	0.0500 µg/L	0.0500 ppb	16:32:45
2	Zn 213.857†	4534.8	966.2	6.8394 µg/L	6.8394 ppb	16:33:06
3	Sc RADIAL	123957.1	123957.1	101 %		16:31:55
3	Al 396.153Radial†	-53.0	-1.0	-0.1891 µg/L	-0.1891 ppb	16:32:15
3	Ca 317.933Radial†	372.1	13.8	1.2972 µg/L	1.2972 ppb	16:32:15
3	Fe 238.204 Radial†	78.4	-5.3	-0.5144 µg/L	-0.5144 ppb	16:32:15
3	K 766.490 Radial†	1619.1	-92.1	-34.449 µg/L	-34.449 ppb	16:31:55
3	Mg 279.077 IEC†	64.6	11.4	8.1268 µg/L	8.1268 ppb	16:32:15
3	Na 589.592 Radial†	379.9	104.4	14.914 µg/L	14.914 ppb	16:31:55
3	Sr 421.552†	-40.7	76.3	0.1677 µg/L	0.1677 ppb	16:31:55
3	Sc 361.383	1624222.6	1624222.6	100.59 %		16:33:08
3	Y 371.029	1063742.8	1063742.8	100.37 %		16:33:08
3	Ag 328.068†	1883.2	-120.2	-0.5054 µg/L	-0.5054 ppb	16:33:10
3	As 188.979†	-44.9	-9.1	-3.1582 µg/L	-3.1582 ppb	16:33:30
3	B 249.677†	2099.9	9.7	0.1680 µg/L	0.1680 ppb	16:33:30
3	Ba 233.527†	-313.6	-5.8	-0.0299 µg/L	-0.0299 ppb	16:33:30
3	Be 313.107†	-717.5	48.0	0.0130 µg/L	0.0130 ppb	16:33:10
3	Cd 226.502†	-183.8	1.8	0.0154 µg/L	0.0154 ppb	16:33:30
3	Co 228.616†	-225.6	10.8	0.1879 µg/L	0.1879 ppb	16:33:30
3	Cr 267.716†	224.5	17.9	0.1798 µg/L	0.1798 ppb	16:33:30
3	Cu 324.752†	3382.5	-152.3	-0.6517 µg/L	-0.6517 ppb	16:33:10
3	Mn 257.610†	122.6	2.4	0.0035 µg/L	0.0035 ppb	16:33:30
3	Mo 202.031†	-10.1	3.9	0.1430 µg/L	0.1430 ppb	16:33:30
3	Ni 231.604†	-73.8	-1.6	-0.0249 µg/L	-0.0249 ppb	16:33:30
3	P 214.914†	35.4	35.9	9.8678 µg/L	9.8678 ppb	16:33:30
3	Pb 220.353†	100.7	7.2	0.5429 µg/L	0.5429 ppb	16:33:30
3	S 181.975 Axial†	57.3	-11.5	-10.361 µg/L	-10.361 ppb	16:33:30
3	Sb 206.836†	124.8	7.8	1.1648 µg/L	1.1648 ppb	16:33:30
3	Se 196.026†	33.1	-5.9	-2.58 µg/L	-2.58 ppb	16:33:30
3	SiO2†	2099.6	8.0	0.9000 µg/L	0.9000 ppb	16:33:30
3	Si 251.611†	682.8	10.8	0.1891 µg/L	0.1891 ppb	16:33:30
3	Sn 189.927†	-24.4	-0.4	-0.0310 µg/L	-0.0310 ppb	16:33:30
3	Ti 334.940†	1077.2	-17.8	-0.0161 µg/L	-0.0161 ppb	16:33:10
3	Tl 190.801†	-152.9	3.1	0.5030 µg/L	0.5030 ppb	16:33:30
3	U 409.014†	-171.9	-150.1	-8.6294 µg/L	-8.6294 ppb	16:33:10
3	V 292.402†	-16.7	-166.3	-1.0021 µg/L	-1.0021 ppb	16:33:10
3	Zn 213.857†	4527.9	986.4	6.9814 µg/L	6.9814 ppb	16:33:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1632728.2	101.12	%	0.492				0.49%
Sc RADIAL	123251.5	101	%	0.6				0.57%
Y 371.029	1069551.4	100.92	%	0.512				0.51%
Ag 328.068†	-211.8	-0.8605	µg/L	0.40958	-0.8605	ppb	0.40958	47.60%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.1	1.1388	µg/L	1.23716	1.1388	ppb	1.23716	108.64%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-7.9	-2.7524	µg/L	1.93491	-2.7524	ppb	1.93491	70.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1.6	0.0272	µg/L	0.21451	0.0272	ppb	0.21451	789.88%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.2	0.0112	µg/L	0.05647	0.0112	ppb	0.05647	502.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	110.9	0.0343	µg/L	0.02043	0.0343	ppb	0.02043	59.58%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.7	0.9146	µg/L	0.40230	0.9146	ppb	0.40230	43.99%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.5	0.0378	µg/L	0.06010	0.0378	ppb	0.06010	158.86%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.3	0.0920	µg/L	0.09382	0.0920	ppb	0.09382	101.97%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.0      0.0922 µg/L       0.14113      0.0922 ppb        0.14113 153.04%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -149.9     -0.6396 µg/L       0.08382     -0.6396 ppb        0.08382  13.11%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          4.3      0.4156 µg/L       1.09007      0.4156 ppb        1.09007 262.32%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -31.9     -11.947 µg/L       19.5790     -11.947 ppb        19.5790 163.88%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.6      2.5404 µg/L       5.20095      2.5404 ppb        5.20095 204.73%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -0.3     -0.0006 µg/L       0.01408     -0.0006 ppb        0.01408 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 6.2      0.2305 µg/L       0.11690      0.2305 ppb        0.11690  50.72%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         25.7      3.6808 µg/L      10.38400      3.6808 ppb       10.38400 282.11%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -2.2     -0.0342 µg/L       0.07357     -0.0342 ppb        0.07357 215.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 23.3      6.4056 µg/L       3.24594      6.4056 ppb        3.24594  50.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 9.7      0.7289 µg/L       0.19648      0.7289 ppb        0.19648  26.96%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -6.6     -5.9870 µg/L       3.95339     -5.9870 ppb        3.95339  66.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.0      0.0067 µg/L       1.81433      0.0067 ppb        1.81433 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -7.2       -3.13 µg/L         1.558       -3.13 ppb          1.558  49.80%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       0.2      0.0180 µg/L       0.88589      0.0180 ppb        0.88589 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                13.6      0.2391 µg/L       0.44374      0.2391 ppb        0.44374 185.57%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.4     -0.3000 µg/L       0.49465     -0.3000 ppb        0.49465 164.88%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                11.2      0.0246 µg/L       0.31306      0.0246 ppb        0.31306 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -53.3     -0.0545 µg/L       0.03327     -0.0545 ppb        0.03327  61.02%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.8      0.2964 µg/L       0.79505      0.2964 ppb        0.79505 268.24%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -102.7     -5.8775 µg/L       3.56191     -5.8775 ppb        3.56191  60.60%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -33.7     -0.2033 µg/L       0.70705     -0.2033 ppb        0.70705 347.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              968.4      6.8540 µg/L       0.12070      6.8540 ppb        0.12070   1.76%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/30/2010 16:48:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	124960.0	124960.0	102	%			16:48:59
1	Al 396.153Radial†	26387.0	25942.0	4891.0	µg/L	4891.0	ppb	16:48:59
1	Ca 317.933Radial†	53920.6	52551.9	4954.8	µg/L	4954.8	ppb	16:48:59
1	Fe 238.204 Radial†	53030.7	51950.3	5064.4	µg/L	5064.4	ppb	16:48:59
1	K 766.490 Radial†	15020.6	13044.5	4876.5	µg/L	4876.5	ppb	16:48:59
1	Mg 279.077 IEC†	7196.9	7009.1	4990.6	µg/L	4990.6	ppb	16:48:59
1	Na 589.592 Radial†	70284.8	68691.1	9792.7	µg/L	9792.7	ppb	16:48:57
1	Sr 421.552†	229760.3	225554.4	495.55	µg/L	495.55	ppb	16:48:57
1	Sc 361.383	1626329.1	1626329.1	100.72	%			16:49:12
1	Y 371.029	1062525.3	1062525.3	100.26	%			16:49:12
1	Ag 328.068†	125330.6	122436.4	498.11	µg/L	498.11	ppb	16:49:12
1	As 188.979†	1353.0	1378.8	487.73	µg/L	487.73	ppb	16:49:32
1	B 249.677†	30669.4	28370.9	491.39	µg/L	491.39	ppb	16:49:12
1	Ba 233.527†	97821.9	97423.9	494.01	µg/L	494.01	ppb	16:49:12
1	Be 313.107†	1535682.0	1525391.4	496.37	µg/L	496.37	ppb	16:49:12
1	Cd 226.502†	59318.3	59076.0	494.44	µg/L	494.44	ppb	16:49:12
1	Co 228.616†	28485.7	28515.7	496.59	µg/L	496.59	ppb	16:49:32
1	Cr 267.716†	51416.8	50841.5	493.35	µg/L	493.35	ppb	16:49:12
1	Cu 324.752†	120503.7	116121.7	493.34	µg/L	493.34	ppb	16:49:12
1	Mn 257.610†	312871.2	310500.1	495.02	µg/L	495.02	ppb	16:49:12
1	Mo 202.031†	13593.7	13509.8	498.88	µg/L	498.88	ppb	16:49:32
1	Ni 231.604†	32111.1	31951.7	495.43	µg/L	495.43	ppb	16:49:32
1	P 214.914†	9107.7	9042.9	2473.2	µg/L	2473.2	ppb	16:49:32
1	Pb 220.353†	6807.6	6665.6	499.22	µg/L	499.22	ppb	16:49:32
1	S 181.975 Axial†	1183.9	1106.9	1005.5	µg/L	1005.5	ppb	16:49:32
1	Sb 206.836†	3484.9	3343.6	499.18	µg/L	499.18	ppb	16:49:32
1	Se 196.026†	1183.2	1135.8	495	µg/L	495	ppb	16:49:32
1	SiO2†	43047.7	40658.7	4554.2	µg/L	4554.2	ppb	16:49:12
1	Si 251.611†	123568.2	122011.0	2139.9	µg/L	2139.9	ppb	16:49:12
1	Sn 189.927†	5645.0	5628.3	495.44	µg/L	495.44	ppb	16:49:32
1	Ti 334.940†	473038.5	468545.6	498.23	µg/L	498.23	ppb	16:49:12
1	Tl 190.801†	2881.4	3015.7	501.37	µg/L	501.37	ppb	16:49:32
1	U 409.014†	8759.9	8717.6	527.79	µg/L	527.79	ppb	16:49:12
1	V 292.402†	82911.3	82164.9	499.93	µg/L	499.93	ppb	16:49:12
1	Zn 213.857†	73741.3	69695.9	489.29	µg/L	489.29	ppb	16:49:12
2	Sc RADIAL	123026.7	123026.7	100	%			16:49:03
2	Al 396.153Radial†	26148.5	26111.1	4923.0	µg/L	4923.0	ppb	16:49:03
2	Ca 317.933Radial†	53607.3	53071.1	5003.8	µg/L	5003.8	ppb	16:49:03
2	Fe 238.204 Radial†	52593.9	52332.7	5101.7	µg/L	5101.7	ppb	16:49:03
2	K 766.490 Radial†	15168.7	13423.6	5018.3	µg/L	5018.3	ppb	16:49:03
2	Mg 279.077 IEC†	7135.1	7058.4	5025.6	µg/L	5025.6	ppb	16:49:03
2	Na 589.592 Radial†	69815.6	69307.2	9880.5	µg/L	9880.5	ppb	16:49:01
2	Sr 421.552†	228268.2	227610.1	500.07	µg/L	500.07	ppb	16:49:01
2	Sc 361.383	1632924.0	1632924.0	101.13	%			16:49:35
2	Y 371.029	1066572.2	1066572.2	100.64	%			16:49:35
2	Ag 328.068†	125760.4	122358.8	497.80	µg/L	497.80	ppb	16:49:35
2	As 188.979†	1342.5	1363.0	482.24	µg/L	482.24	ppb	16:49:55
2	B 249.677†	30911.5	28487.3	493.42	µg/L	493.42	ppb	16:49:35
2	Ba 233.527†	98337.6	97541.6	494.60	µg/L	494.60	ppb	16:49:35
2	Be 313.107†	1547435.5	1530855.7	498.15	µg/L	498.15	ppb	16:49:35
2	Cd 226.502†	59921.5	59434.6	497.44	µg/L	497.44	ppb	16:49:35
2	Co 228.616†	28558.8	28473.8	495.86	µg/L	495.86	ppb	16:49:55
2	Cr 267.716†	51786.4	51000.7	494.89	µg/L	494.89	ppb	16:49:35
2	Cu 324.752†	120922.4	116052.5	493.06	µg/L	493.06	ppb	16:49:35
2	Mn 257.610†	314791.2	311144.1	496.04	µg/L	496.04	ppb	16:49:35
2	Mo 202.031†	13633.8	13494.9	498.33	µg/L	498.33	ppb	16:49:55
2	Ni 231.604†	32184.2	31895.3	494.56	µg/L	494.56	ppb	16:49:55
2	P 214.914†	9149.0	9047.2	2474.4	µg/L	2474.4	ppb	16:49:55
2	Pb 220.353†	6834.5	6665.0	499.17	µg/L	499.17	ppb	16:49:55

2	S 181.975 Axial†	1179.0	1097.4	996.85 µg/L	996.85 ppb	16:49:55
2	Sb 206.836†	3487.0	3331.7	497.37 µg/L	497.37 ppb	16:49:55
2	Se 196.026†	1188.7	1136.5	495 µg/L	495 ppb	16:49:55
2	SiO2†	43319.9	40755.3	4565.1 µg/L	4565.1 ppb	16:49:35
2	Si 251.611†	124593.1	122528.9	2149.0 µg/L	2149.0 ppb	16:49:35
2	Sn 189.927†	5663.8	5624.2	495.09 µg/L	495.09 ppb	16:49:55
2	Ti 334.940†	475345.5	468930.0	498.64 µg/L	498.64 ppb	16:49:35
2	Tl 190.801†	2900.5	3023.1	502.59 µg/L	502.59 ppb	16:49:55
2	U 409.014†	8794.3	8716.5	527.74 µg/L	527.74 ppb	16:49:35
2	V 292.402†	83296.9	82213.7	500.22 µg/L	500.22 ppb	16:49:35
2	Zn 213.857†	74298.7	69951.3	491.10 µg/L	491.10 ppb	16:49:35
3	Sc RADIAL	123973.1	123973.1	101 %		16:49:07
3	Al 396.153Radial†	26395.0	26156.0	4931.4 µg/L	4931.4 ppb	16:49:07
3	Ca 317.933Radial†	54013.7	53065.1	5003.2 µg/L	5003.2 ppb	16:49:07
3	Fe 238.204 Radial†	53121.0	52453.8	5113.5 µg/L	5113.5 ppb	16:49:07
3	K 766.490 Radial†	15186.7	13326.0	4981.8 µg/L	4981.8 ppb	16:49:07
3	Mg 279.077 IEC†	7136.1	7005.1	4987.8 µg/L	4987.8 ppb	16:49:07
3	Na 589.592 Radial†	69421.0	68385.9	9749.1 µg/L	9749.1 ppb	16:49:05
3	Sr 421.552†	226302.6	223929.4	491.98 µg/L	491.98 ppb	16:49:05
3	Sc 361.383	1632157.3	1632157.3	101.09 %		16:49:58
3	Y 371.029	1065946.1	1065946.1	100.58 %		16:49:58
3	Ag 328.068†	125039.7	121704.3	495.17 µg/L	495.17 ppb	16:49:58
3	As 188.979†	1367.3	1388.2	491.01 µg/L	491.01 ppb	16:50:18
3	B 249.677†	30749.8	28341.7	490.87 µg/L	490.87 ppb	16:49:58
3	Ba 233.527†	97959.6	97213.3	492.94 µg/L	492.94 ppb	16:49:58
3	Be 313.107†	1539393.2	1523618.5	495.80 µg/L	495.80 ppb	16:49:58
3	Cd 226.502†	59386.2	58932.8	493.24 µg/L	493.24 ppb	16:49:58
3	Co 228.616†	28754.8	28681.0	499.46 µg/L	499.46 ppb	16:50:18
3	Cr 267.716†	51612.0	50852.3	493.46 µg/L	493.46 ppb	16:49:58
3	Cu 324.752†	120529.2	115719.7	491.65 µg/L	491.65 ppb	16:49:58
3	Mn 257.610†	313385.1	309899.3	494.06 µg/L	494.06 ppb	16:49:58
3	Mo 202.031†	13684.1	13551.0	500.40 µg/L	500.40 ppb	16:50:18
3	Ni 231.604†	32407.2	32130.8	498.21 µg/L	498.21 ppb	16:50:18
3	P 214.914†	9230.7	9132.3	2497.8 µg/L	2497.8 ppb	16:50:18
3	Pb 220.353†	6879.2	6712.4	502.71 µg/L	502.71 ppb	16:50:18
3	S 181.975 Axial†	1190.4	1109.2	1007.5 µg/L	1007.5 ppb	16:50:18
3	Sb 206.836†	3503.4	3349.6	500.09 µg/L	500.09 ppb	16:50:18
3	Se 196.026†	1202.5	1150.7	501 µg/L	501 ppb	16:50:18
3	SiO2†	43281.4	40737.3	4563.0 µg/L	4563.0 ppb	16:49:58
3	Si 251.611†	124198.4	122196.3	2143.1 µg/L	2143.1 ppb	16:49:58
3	Sn 189.927†	5688.2	5651.0	497.43 µg/L	497.43 ppb	16:50:18
3	Ti 334.940†	472875.6	466707.4	496.28 µg/L	496.28 ppb	16:49:58
3	Tl 190.801†	2894.7	3018.7	501.83 µg/L	501.83 ppb	16:50:18
3	U 409.014†	8735.3	8662.2	524.65 µg/L	524.65 ppb	16:49:58
3	V 292.402†	83304.9	82260.2	500.52 µg/L	500.52 ppb	16:49:58
3	Zn 213.857†	74007.3	69697.6	489.28 µg/L	489.28 ppb	16:49:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1630470.2	100.98	%	0.223				0.22%
Sc RADIAL	123986.6	101	%	0.8				0.78%
Y 371.029	1065014.5	100.49	%	0.206				0.20%
Ag 328.068†	122166.5	497.03	µg/L	1.615	497.03	ppb	1.615	0.32%
QC value within limits for Ag 328.068 Recovery = 99.41%								
Al 396.153Radial†	26069.7	4915.1	µg/L	21.36	4915.1	ppb	21.36	0.43%
QC value within limits for Al 396.153Radial Recovery = 98.30%								
As 188.979†	1376.7	486.99	µg/L	4.428	486.99	ppb	4.428	0.91%
QC value within limits for As 188.979 Recovery = 97.40%								
B 249.677†	28400.0	491.89	µg/L	1.344	491.89	ppb	1.344	0.27%
QC value within limits for B 249.677 Recovery = 98.38%								
Ba 233.527†	97392.9	493.85	µg/L	0.842	493.85	ppb	0.842	0.17%
QC value within limits for Ba 233.527 Recovery = 98.77%								
Be 313.107†	1526621.8	496.77	µg/L	1.228	496.77	ppb	1.228	0.25%
QC value within limits for Be 313.107 Recovery = 99.35%								
Ca 317.933Radial†	52896.0	4987.3	µg/L	28.10	4987.3	ppb	28.10	0.56%
QC value within limits for Ca 317.933Radial Recovery = 99.75%								
Cd 226.502†	59147.8	495.04	µg/L	2.164	495.04	ppb	2.164	0.44%
QC value within limits for Cd 226.502 Recovery = 99.01%								
Co 228.616†	28556.9	497.30	µg/L	1.905	497.30	ppb	1.905	0.38%

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   QC value within limits for Co 228.616  Recovery = 99.46%
Cr 267.716†            50898.2      493.90 µg/L         0.863      493.90 ppb          0.863   0.17%
   QC value within limits for Cr 267.716  Recovery = 98.78%
Cu 324.752†           115964.6      492.68 µg/L         0.908      492.68 ppb          0.908   0.18%
   QC value within limits for Cu 324.752  Recovery = 98.54%
Fe 238.204 Radial†     52245.6      5093.2 µg/L         25.62      5093.2 ppb          25.62   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.86%
K 766.490 Radial†      13264.7      4958.9 µg/L         73.64      4958.9 ppb          73.64   1.48%
   QC value within limits for K 766.490 Radial  Recovery = 99.18%
Mg 279.077 IEC†         7024.2      5001.3 µg/L         21.09      5001.3 ppb          21.09   0.42%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.03%
Mn 257.610†           310514.5      495.04 µg/L         0.992      495.04 ppb          0.992   0.20%
   QC value within limits for Mn 257.610  Recovery = 99.01%
Mo 202.031†            13518.6      499.20 µg/L         1.071      499.20 ppb          1.071   0.21%
   QC value within limits for Mo 202.031  Recovery = 99.84%
Na 589.592 Radial†     68794.7      9807.4 µg/L         66.91      9807.4 ppb          66.91   0.68%
   QC value within limits for Na 589.592 Radial  Recovery = 98.07%
Ni 231.604†            31992.6      496.06 µg/L         1.906      496.06 ppb          1.906   0.38%
   QC value within limits for Ni 231.604  Recovery = 99.21%
P 214.914†              9074.2      2481.8 µg/L         13.84      2481.8 ppb          13.84   0.56%
   QC value within limits for P 214.914  Recovery = 99.27%
Pb 220.353†             6681.0      500.37 µg/L         2.031      500.37 ppb          2.031   0.41%
   QC value within limits for Pb 220.353  Recovery = 100.07%
S 181.975 Axial†        1104.5      1003.3 µg/L          5.65      1003.3 ppb           5.65   0.56%
   QC value within limits for S 181.975 Axial  Recovery = 100.33%
Sb 206.836†             3341.6      498.88 µg/L         1.385      498.88 ppb          1.385   0.28%
   QC value within limits for Sb 206.836  Recovery = 99.78%
Se 196.026†             1141.0         497 µg/L           3.6         497 ppb            3.6   0.73%
   QC value within limits for Se 196.026  Recovery = 99.45%
SiO2†                  40717.1      4560.7 µg/L          5.77      4560.7 ppb           5.77   0.13%
   QC value less than the lower limit for SiO2  Recovery = 85.29%
Si 251.611†           122245.4      2144.0 µg/L          4.63      2144.0 ppb           4.63   0.22%
   QC value less than the lower limit for Si 251.611  Recovery = 85.76%
Sn 189.927†             5634.5      495.99 µg/L         1.264      495.99 ppb          1.264   0.25%
   QC value within limits for Sn 189.927  Recovery = 99.20%
Sr 421.552†           225698.0      495.87 µg/L         4.053      495.87 ppb          4.053   0.82%
   QC value within limits for Sr 421.552  Recovery = 99.17%
Ti 334.940†           468061.0      497.72 µg/L         1.262      497.72 ppb          1.262   0.25%
   QC value within limits for Ti 334.940  Recovery = 99.54%
Tl 190.801†             3019.2      501.93 µg/L         0.617      501.93 ppb          0.617   0.12%
   QC value within limits for Tl 190.801  Recovery = 100.39%
U 409.014†              8698.8      526.73 µg/L         1.802      526.73 ppb          1.802   0.34%
   QC value within limits for U 409.014  Recovery = 105.35%
V 292.402†             82212.9      500.22 µg/L         0.292      500.22 ppb          0.292   0.06%
   QC value within limits for V 292.402  Recovery = 100.04%
Zn 213.857†            69781.6      489.89 µg/L         1.048      489.89 ppb          1.048   0.21%
   QC value within limits for Zn 213.857  Recovery = 97.98%
QC Failed.  Continue with analysis.
```

Sequence No.: 8 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/30/2010 16:50:27**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123769.0	123769.0	101	%			16:50:56
1	Al 396.153Radial†	-48.9	3.0	0.5423	µg/L	0.5423	ppb	16:51:16
1	Ca 317.933Radial†	378.0	20.1	1.8930	µg/L	1.8930	ppb	16:51:16
1	Fe 238.204 Radial†	97.2	13.5	1.3173	µg/L	1.3173	ppb	16:51:16
1	K 766.490 Radial†	1632.7	-76.1	-28.479	µg/L	-28.479	ppb	16:50:56
1	Mg 279.077 IEC†	77.3	24.2	17.198	µg/L	17.198	ppb	16:51:16
1	Na 589.592 Radial†	318.0	43.7	6.2512	µg/L	6.2512	ppb	16:50:56
1	Sr 421.552†	-171.5	-53.3	-0.1172	µg/L	-0.1172	ppb	16:50:56
1	Sc 361.383	1632768.1	1632768.1	101.12	%			16:52:18
1	Y 371.029	1068470.1	1068470.1	100.82	%			16:52:18
1	Ag 328.068†	1778.5	-233.5	-0.9420	µg/L	-0.9420	ppb	16:52:20
1	As 188.979†	-40.5	-4.4	-1.5477	µg/L	-1.5477	ppb	16:52:40
1	B 249.677†	2129.4	28.0	0.4863	µg/L	0.4863	ppb	16:52:40
1	Ba 233.527†	-224.6	83.9	0.4252	µg/L	0.4252	ppb	16:52:40
1	Be 313.107†	-297.3	467.3	0.1505	µg/L	0.1505	ppb	16:52:20
1	Cd 226.502†	-160.4	25.9	0.2167	µg/L	0.2167	ppb	16:52:40
1	Co 228.616†	-221.0	16.5	0.2872	µg/L	0.2872	ppb	16:52:40
1	Cr 267.716†	215.0	7.3	0.0741	µg/L	0.0741	ppb	16:52:40
1	Cu 324.752†	3446.7	-106.4	-0.4537	µg/L	-0.4537	ppb	16:52:20
1	Mn 257.610†	172.2	50.9	0.0805	µg/L	0.0805	ppb	16:52:40
1	Mo 202.031†	-2.2	11.7	0.4313	µg/L	0.4313	ppb	16:52:40
1	Ni 231.604†	-70.4	2.0	0.0317	µg/L	0.0317	ppb	16:52:40
1	P 214.914†	24.7	25.2	6.9195	µg/L	6.9195	ppb	16:52:40
1	Pb 220.353†	102.4	8.3	0.6271	µg/L	0.6271	ppb	16:52:40
1	S 181.975 Axial†	64.3	-4.8	-4.3110	µg/L	-4.3110	ppb	16:52:40
1	Sb 206.836†	115.7	-1.8	-0.2616	µg/L	-0.2616	ppb	16:52:40
1	Se 196.026†	32.1	-7.2	-3.11	µg/L	-3.11	ppb	16:52:40
1	SiO2†	2155.2	52.1	5.8521	µg/L	5.8521	ppb	16:52:40
1	Si 251.611†	880.8	203.1	3.5731	µg/L	3.5731	ppb	16:52:40
1	Sn 189.927†	-24.3	-0.1	-0.0085	µg/L	-0.0085	ppb	16:52:40
1	Ti 334.940†	1059.1	-41.2	-0.0433	µg/L	-0.0433	ppb	16:52:20
1	Tl 190.801†	-153.0	3.8	0.6253	µg/L	0.6253	ppb	16:52:40
1	U 409.014†	-106.8	-84.9	-4.8360	µg/L	-4.8360	ppb	16:52:20
1	V 292.402†	180.7	28.9	0.1750	µg/L	0.1750	ppb	16:52:20
1	Zn 213.857†	4509.8	944.9	6.6872	µg/L	6.6872	ppb	16:52:40
2	Sc RADIAL	122747.4	122747.4	100	%			16:51:18
2	Al 396.153Radial†	-30.3	21.1	3.9852	µg/L	3.9852	ppb	16:51:38
2	Ca 317.933Radial†	381.2	26.5	2.4956	µg/L	2.4956	ppb	16:51:38
2	Fe 238.204 Radial†	104.9	22.0	2.1458	µg/L	2.1458	ppb	16:51:38
2	K 766.490 Radial†	1703.2	7.7	2.8778	µg/L	2.8778	ppb	16:51:18
2	Mg 279.077 IEC†	59.6	7.1	5.0715	µg/L	5.0715	ppb	16:51:38
2	Na 589.592 Radial†	226.3	-45.3	-6.4677	µg/L	-6.4677	ppb	16:51:18
2	Sr 421.552†	-116.3	0.4	0.0009	µg/L	0.0009	ppb	16:51:18
2	Sc 361.383	1601388.4	1601388.4	99.180	%			16:52:42
2	Y 371.029	1050253.5	1050253.5	99.097	%			16:52:42
2	Ag 328.068†	2141.5	166.9	0.6701	µg/L	0.6701	ppb	16:52:45
2	As 188.979†	-39.4	-4.2	-1.4515	µg/L	-1.4515	ppb	16:53:05
2	B 249.677†	2105.9	45.6	0.7918	µg/L	0.7918	ppb	16:53:05
2	Ba 233.527†	-263.8	40.0	0.2033	µg/L	0.2033	ppb	16:53:05
2	Be 313.107†	-410.0	347.9	0.1113	µg/L	0.1113	ppb	16:52:45
2	Cd 226.502†	-163.1	20.1	0.1684	µg/L	0.1684	ppb	16:53:05
2	Co 228.616†	-222.4	10.8	0.1881	µg/L	0.1881	ppb	16:53:05
2	Cr 267.716†	233.3	29.9	0.2957	µg/L	0.2957	ppb	16:53:05
2	Cu 324.752†	3299.4	-188.1	-0.8010	µg/L	-0.8010	ppb	16:52:45
2	Mn 257.610†	153.6	35.4	0.0563	µg/L	0.0563	ppb	16:53:05
2	Mo 202.031†	-2.9	11.0	0.4064	µg/L	0.4064	ppb	16:53:05
2	Ni 231.604†	-63.4	7.8	0.1212	µg/L	0.1212	ppb	16:53:05
2	P 214.914†	17.2	18.1	4.9710	µg/L	4.9710	ppb	16:53:05
2	Pb 220.353†	68.1	-24.3	-1.8093	µg/L	-1.8093	ppb	16:53:05

2	S 181.975 Axial†	61.0	-6.9	-6.1956 µg/L	-6.1956 ppb		16:53:05
2	Sb 206.836†	116.5	1.3	0.1869 µg/L	0.1869 ppb		16:53:05
2	Se 196.026†	21.2	-17.5	-7.60 µg/L	-7.60 ppb		16:53:05
2	SiO2†	2146.7	85.3	9.6057 µg/L	9.6057 ppb		16:53:05
2	Si 251.611†	784.1	122.6	2.1625 µg/L	2.1625 ppb		16:53:05
2	Sn 189.927†	-35.6	-12.0	-1.0493 µg/L	-1.0493 ppb		16:53:05
2	Ti 334.940†	1065.2	-14.6	-0.0135 µg/L	-0.0135 ppb		16:52:45
2	Tl 190.801†	-162.2	-8.5	-1.3830 µg/L	-1.3830 ppb		16:53:05
2	U 409.014†	-126.6	-106.9	-6.0702 µg/L	-6.0702 ppb		16:52:45
2	V 292.402†	250.2	102.5	0.6167 µg/L	0.6167 ppb		16:52:45
2	Zn 213.857†	4536.4	1059.2	7.4956 µg/L	7.4956 ppb		16:53:05
3	Sc RADIAL	124083.7	124083.7	101 %			16:51:40
3	Al 396.153Radial†	-63.6	-11.4	-2.1910 µg/L	-2.1910 ppb		16:52:00
3	Ca 317.933Radial†	398.4	39.3	3.7056 µg/L	3.7056 ppb		16:52:00
3	Fe 238.204 Radial†	91.7	7.9	0.7664 µg/L	0.7664 ppb		16:52:00
3	K 766.490 Radial†	1495.3	-216.1	-80.835 µg/L	-80.835 ppb		16:51:40
3	Mg 279.077 IEC†	47.4	-5.5	-3.9290 µg/L	-3.9290 ppb		16:52:00
3	Na 589.592 Radial†	265.6	-9.0	-1.2073 µg/L	-1.2073 ppb		16:51:40
3	Sr 421.552†	-239.8	-120.4	-0.2645 µg/L	-0.2645 ppb		16:51:40
3	Sc 361.383	1619294.1	1619294.1	100.29 %			16:53:07
3	Y 371.029	1060829.0	1060829.0	100.10 %			16:53:07
3	Ag 328.068†	1826.7	-170.9	-0.6868 µg/L	-0.6868 ppb		16:53:09
3	As 188.979†	-34.8	0.9	0.3052 µg/L	0.3052 ppb		16:53:29
3	B 249.677†	2134.4	50.5	0.8763 µg/L	0.8763 ppb		16:53:29
3	Ba 233.527†	-299.5	7.4	0.0378 µg/L	0.0378 ppb		16:53:29
3	Be 313.107†	-450.2	312.4	0.1003 µg/L	0.1003 ppb		16:53:09
3	Cd 226.502†	-155.7	29.3	0.2453 µg/L	0.2453 ppb		16:53:29
3	Co 228.616†	-205.5	30.2	0.5257 µg/L	0.5257 ppb		16:53:29
3	Cr 267.716†	221.3	15.3	0.1524 µg/L	0.1524 ppb		16:53:29
3	Cu 324.752†	3352.8	-171.6	-0.7303 µg/L	-0.7303 ppb		16:53:09
3	Mn 257.610†	138.0	18.2	0.0292 µg/L	0.0292 ppb		16:53:29
3	Mo 202.031†	1.8	15.7	0.5781 µg/L	0.5781 ppb		16:53:29
3	Ni 231.604†	-34.8	37.0	0.5731 µg/L	0.5731 ppb		16:53:29
3	P 214.914†	11.6	12.3	3.3730 µg/L	3.3730 ppb		16:53:29
3	Pb 220.353†	115.2	21.9	1.6408 µg/L	1.6408 ppb		16:53:29
3	S 181.975 Axial†	65.0	-3.6	-3.2103 µg/L	-3.2103 ppb		16:53:29
3	Sb 206.836†	132.5	15.9	2.3751 µg/L	2.3751 ppb		16:53:29
3	Se 196.026†	30.2	-8.8	-3.82 µg/L	-3.82 ppb		16:53:29
3	SiO2†	2124.8	39.6	4.4463 µg/L	4.4463 ppb		16:53:29
3	Si 251.611†	756.0	85.9	1.5103 µg/L	1.5103 ppb		16:53:29
3	Sn 189.927†	-30.8	-6.8	-0.5986 µg/L	-0.5986 ppb		16:53:29
3	Ti 334.940†	1056.6	-35.0	-0.0351 µg/L	-0.0351 ppb		16:53:09
3	Tl 190.801†	-162.8	-7.3	-1.1940 µg/L	-1.1940 ppb		16:53:29
3	U 409.014†	-99.0	-78.0	-4.4260 µg/L	-4.4260 ppb		16:53:09
3	V 292.402†	223.2	72.8	0.4408 µg/L	0.4408 ppb		16:53:09
3	Zn 213.857†	4533.8	1005.9	7.1158 µg/L	7.1158 ppb		16:53:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1617816.9	100.20	%	0.975				0.97%
Sc RADIAL	123533.4	101	%	0.6				0.57%
Y 371.029	1059850.9	100.00	%	0.863				0.86%
Ag 328.068†	-79.2	-0.3196	µg/L	0.86655	-0.3196	ppb	0.86655	271.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.2	0.7789	µg/L	3.09490	0.7789	ppb	3.09490	397.37%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.6	-0.8980	µg/L	1.04313	-0.8980	ppb	1.04313	116.16%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	41.4	0.7181	µg/L	0.20520	0.7181	ppb	0.20520	28.57%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	43.8	0.2221	µg/L	0.19441	0.2221	ppb	0.19441	87.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	375.9	0.1207	µg/L	0.02642	0.1207	ppb	0.02642	21.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	28.6	2.6981	µg/L	0.92314	2.6981	ppb	0.92314	34.21%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	25.1	0.2101	µg/L	0.03886	0.2101	ppb	0.03886	18.49%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	19.2	0.3337	µg/L	0.17355	0.3337	ppb	0.17355	52.01%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                17.5      0.1741 µg/L       0.11240      0.1741 ppb        0.11240  64.56%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -155.4     -0.6617 µg/L       0.18354     -0.6617 ppb        0.18354  27.74%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         14.5      1.4098 µg/L       0.69435      1.4098 ppb        0.69435  49.25%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -94.8    -35.479 µg/L       42.2933    -35.479 ppb        42.2933 119.21%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            8.6      6.1136 µg/L      10.60209      6.1136 ppb       10.60209 173.42%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                34.8      0.0553 µg/L       0.02564      0.0553 ppb        0.02564  46.37%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.8      0.4719 µg/L       0.09276      0.4719 ppb        0.09276  19.66%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -3.5     -0.4746 µg/L       6.39104     -0.4746 ppb        6.39104 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                15.6      0.2420 µg/L       0.29022      0.2420 ppb        0.29022 119.92%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 18.5      5.0878 µg/L       1.77612      5.0878 ppb        1.77612  34.91%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.0      0.1529 µg/L       1.77325      0.1529 ppb        1.77325 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -5.1     -4.5723 µg/L       1.50973     -4.5723 ppb        1.50973  33.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.1      0.7668 µg/L       1.41073      0.7668 ppb        1.41073 183.97%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -11.1       -4.84 µg/L         2.412       -4.84 ppb          2.412  49.84%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      59.0      6.6347 µg/L       2.66724      6.6347 ppb        2.66724  40.20%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               137.2      2.4153 µg/L       1.05438      2.4153 ppb        1.05438  43.65%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -6.3     -0.5521 µg/L       0.52193     -0.5521 ppb        0.52193  94.53%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -57.8     -0.1269 µg/L       0.13298     -0.1269 ppb        0.13298 104.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -30.3     -0.0306 µg/L       0.01541     -0.0306 ppb        0.01541  50.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -4.0     -0.6506 µg/L       1.10896     -0.6506 ppb        1.10896 170.46%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -89.9     -5.1107 µg/L       0.85583     -5.1107 ppb        0.85583  16.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 68.1      0.4108 µg/L       0.22236      0.4108 ppb        0.22236  54.12%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              1003.3      7.0995 µg/L       0.40445      7.0995 ppb        0.40445   5.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: 1202105373|979294|1
Analyst: CYL1
Initial Sample Wt:
Dilution:

Autosampler Location: 407
Date Collected: 4/30/2010 16:53:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202105373|979294|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123303.5	123303.5	101	%			16:54:09
1	Al 396.153Radial†	-31.1	20.5	3.8786	µg/L	3.8786	ppb	16:54:29
1	Ca 317.933Radial†	440.2	83.3	7.8584	µg/L	7.8584	ppb	16:54:29
1	Fe 238.204 Radial†	107.3	23.9	2.3290	µg/L	2.3290	ppb	16:54:29
1	K 766.490 Radial†	1662.2	-40.7	-15.242	µg/L	-15.242	ppb	16:54:09
1	Mg 279.077 IEC†	61.5	8.7	6.1982	µg/L	6.1982	ppb	16:54:29
1	Na 589.592 Radial†	433.3	159.5	22.756	µg/L	22.756	ppb	16:54:09
1	Sr 421.552†	-191.2	-73.5	-0.1615	µg/L	-0.1615	ppb	16:54:09
1	Sc 361.383	1647443.2	1647443.2	102.03	%			16:55:17
1	Y 371.029	1077947.3	1077947.3	101.71	%			16:55:17
1	Ag 328.068†	1755.8	-271.5	-1.0911	µg/L	-1.0911	ppb	16:55:19
1	As 188.979†	-36.7	-0.4	-0.1378	µg/L	-0.1378	ppb	16:55:39
1	B 249.677†	2145.7	25.2	0.4384	µg/L	0.4384	ppb	16:55:39
1	Ba 233.527†	-279.2	32.4	0.1639	µg/L	0.1639	ppb	16:55:39
1	Be 313.107†	-656.4	118.0	0.0389	µg/L	0.0389	ppb	16:55:19
1	Cd 226.502†	-162.8	25.0	0.2091	µg/L	0.2091	ppb	16:55:39
1	Co 228.616†	-246.4	-6.4	-0.1118	µg/L	-0.1118	ppb	16:55:39
1	Cr 267.716†	210.3	0.8	0.0061	µg/L	0.0061	ppb	16:55:39
1	Cu 324.752†	3468.8	-115.1	-0.4857	µg/L	-0.4857	ppb	16:55:19
1	Mn 257.610†	168.7	45.9	0.0729	µg/L	0.0729	ppb	16:55:39
1	Mo 202.031†	-9.2	4.8	0.1788	µg/L	0.1788	ppb	16:55:39
1	Ni 231.604†	-94.8	-21.2	-0.3287	µg/L	-0.3287	ppb	16:55:39
1	P 214.914†	26.0	26.3	7.2035	µg/L	7.2035	ppb	16:55:39
1	Pb 220.353†	122.2	26.8	2.0007	µg/L	2.0007	ppb	16:55:39
1	S 181.975 Axial†	71.5	1.7	1.5216	µg/L	1.5216	ppb	16:55:39
1	Sb 206.836†	108.2	-10.2	-1.5151	µg/L	-1.5151	ppb	16:55:39
1	Se 196.026†	37.2	-2.4	-1.05	µg/L	-1.05	ppb	16:55:39
1	SiO2†	2227.2	103.7	11.683	µg/L	11.683	ppb	16:55:39
1	Si 251.611†	1151.0	460.2	8.1116	µg/L	8.1116	ppb	16:55:39
1	Sn 189.927†	-35.0	-10.4	-0.9102	µg/L	-0.9102	ppb	16:55:39
1	Ti 334.940†	1141.2	29.9	0.0308	µg/L	0.0308	ppb	16:55:19
1	Tl 190.801†	-161.6	-3.3	-0.5426	µg/L	-0.5426	ppb	16:55:39
1	U 409.014†	10.4	31.0	1.7579	µg/L	1.7579	ppb	16:55:19
1	V 292.402†	118.9	-33.2	-0.1967	µg/L	-0.1967	ppb	16:55:19
1	Zn 213.857†	3559.8	-25.9	-0.1811	µg/L	-0.1811	ppb	16:55:39
2	Sc RADIAL	125373.5	125373.5	102	%			16:54:31
2	Al 396.153Radial†	-43.4	8.9	1.6946	µg/L	1.6946	ppb	16:54:51
2	Ca 317.933Radial†	456.8	92.4	8.7095	µg/L	8.7095	ppb	16:54:51
2	Fe 238.204 Radial†	104.9	19.8	1.9330	µg/L	1.9330	ppb	16:54:51
2	K 766.490 Radial†	1638.4	-91.2	-34.143	µg/L	-34.143	ppb	16:54:31
2	Mg 279.077 IEC†	67.6	13.7	9.7127	µg/L	9.7127	ppb	16:54:51
2	Na 589.592 Radial†	341.1	62.2	8.8987	µg/L	8.8987	ppb	16:54:31
2	Sr 421.552†	-153.2	-33.2	-0.0731	µg/L	-0.0731	ppb	16:54:31
2	Sc 361.383	1623598.5	1623598.5	100.56	%			16:55:41
2	Y 371.029	1061866.1	1061866.1	100.19	%			16:55:41
2	Ag 328.068†	1700.7	-301.0	-1.2116	µg/L	-1.2116	ppb	16:55:44
2	As 188.979†	-42.7	-6.8	-2.3813	µg/L	-2.3813	ppb	16:56:04
2	B 249.677†	2156.9	67.3	1.1693	µg/L	1.1693	ppb	16:56:04
2	Ba 233.527†	-279.0	28.5	0.1443	µg/L	0.1443	ppb	16:56:04
2	Be 313.107†	-597.2	167.4	0.0542	µg/L	0.0542	ppb	16:55:44
2	Cd 226.502†	-173.0	12.6	0.1048	µg/L	0.1048	ppb	16:56:04
2	Co 228.616†	-242.6	-6.2	-0.1082	µg/L	-0.1082	ppb	16:56:04
2	Cr 267.716†	233.1	26.5	0.2579	µg/L	0.2579	ppb	16:56:04
2	Cu 324.752†	3394.8	-138.8	-0.5880	µg/L	-0.5880	ppb	16:55:44
2	Mn 257.610†	166.4	46.0	0.0730	µg/L	0.0730	ppb	16:56:04
2	Mo 202.031†	-14.0	-0.0	-0.0006	µg/L	-0.0006	ppb	16:56:04
2	Ni 231.604†	-82.2	-10.0	-0.1558	µg/L	-0.1558	ppb	16:56:04
2	P 214.914†	30.1	30.7	8.4388	µg/L	8.4388	ppb	16:56:04
2	Pb 220.353†	103.0	9.5	0.7088	µg/L	0.7088	ppb	16:56:04

2	S 181.975 Axial†	78.8	10.0	9.0308	µg/L	9.0308 ppb	16:56:04
2	Sb 206.836†	114.7	-2.1	-0.3230	µg/L	-0.3230 ppb	16:56:04
2	Se 196.026†	28.0	-11.1	-4.81	µg/L	-4.81 ppb	16:56:04
2	SiO2†	2234.0	142.5	16.038	µg/L	16.038 ppb	16:56:04
2	Si 251.611†	1139.5	465.2	8.1966	µg/L	8.1966 ppb	16:56:04
2	Sn 189.927†	-22.6	1.4	0.1254	µg/L	0.1254 ppb	16:56:04
2	Ti 334.940†	1243.4	147.9	0.1572	µg/L	0.1572 ppb	16:55:44
2	Tl 190.801†	-166.6	-10.6	-1.7390	µg/L	-1.7390 ppb	16:56:04
2	U 409.014†	-37.0	-16.0	-0.9215	µg/L	-0.9215 ppb	16:55:44
2	V 292.402†	135.2	-15.3	-0.0919	µg/L	-0.0919 ppb	16:55:44
2	Zn 213.857†	3527.2	-7.0	-0.0484	µg/L	-0.0484 ppb	16:56:04
3	Sc RADIAL	124506.7	124506.7	102	%		16:54:53
3	Al 396.153Radial†	-43.6	8.5	1.5984	µg/L	1.5984 ppb	16:55:13
3	Ca 317.933Radial†	462.1	100.7	9.4989	µg/L	9.4989 ppb	16:55:13
3	Fe 238.204 Radial†	110.2	25.7	2.5051	µg/L	2.5051 ppb	16:55:13
3	K 766.490 Radial†	1548.4	-168.8	-63.155	µg/L	-63.155 ppb	16:54:53
3	Mg 279.077 IEC†	51.5	-1.7	-1.1895	µg/L	-1.1895 ppb	16:55:13
3	Na 589.592 Radial†	334.8	58.3	8.3692	µg/L	8.3692 ppb	16:54:53
3	Sr 421.552†	-142.5	-23.7	-0.0522	µg/L	-0.0522 ppb	16:54:53
3	Sc 361.383	1629532.6	1629532.6	100.92	%		16:56:06
3	Y 371.029	1066306.1	1066306.1	100.61	%		16:56:06
3	Ag 328.068†	1941.2	-68.9	-0.2779	µg/L	-0.2779 ppb	16:56:08
3	As 188.979†	-42.1	-6.1	-2.1388	µg/L	-2.1388 ppb	16:56:28
3	B 249.677†	2156.0	58.6	1.0169	µg/L	1.0169 ppb	16:56:28
3	Ba 233.527†	-282.0	26.5	0.1344	µg/L	0.1344 ppb	16:56:28
3	Be 313.107†	-442.7	322.7	0.1050	µg/L	0.1050 ppb	16:56:08
3	Cd 226.502†	-168.9	17.2	0.1436	µg/L	0.1436 ppb	16:56:28
3	Co 228.616†	-222.2	14.9	0.2601	µg/L	0.2601 ppb	16:56:28
3	Cr 267.716†	219.8	12.4	0.1208	µg/L	0.1208 ppb	16:56:28
3	Cu 324.752†	3346.0	-199.5	-0.8442	µg/L	-0.8442 ppb	16:56:08
3	Mn 257.610†	158.6	37.7	0.0602	µg/L	0.0602 ppb	16:56:28
3	Mo 202.031†	-8.6	5.4	0.1993	µg/L	0.1993 ppb	16:56:28
3	Ni 231.604†	-59.3	12.9	0.2005	µg/L	0.2005 ppb	16:56:28
3	P 214.914†	17.1	17.8	4.8816	µg/L	4.8816 ppb	16:56:28
3	Pb 220.353†	103.8	9.9	0.7405	µg/L	0.7405 ppb	16:56:28
3	S 181.975 Axial†	75.6	6.5	5.8588	µg/L	5.8588 ppb	16:56:28
3	Sb 206.836†	107.5	-9.7	-1.4432	µg/L	-1.4432 ppb	16:56:28
3	Se 196.026†	29.5	-9.6	-4.16	µg/L	-4.16 ppb	16:56:28
3	SiO2†	2232.7	133.1	14.975	µg/L	14.975 ppb	16:56:28
3	Si 251.611†	1159.5	481.0	8.4714	µg/L	8.4714 ppb	16:56:28
3	Sn 189.927†	-22.5	1.6	0.1421	µg/L	0.1421 ppb	16:56:28
3	Ti 334.940†	1172.4	73.1	0.0781	µg/L	0.0781 ppb	16:56:08
3	Tl 190.801†	-160.0	-3.5	-0.5717	µg/L	-0.5717 ppb	16:56:28
3	U 409.014†	-20.6	0.3	0.0137	µg/L	0.0137 ppb	16:56:08
3	V 292.402†	137.6	-13.5	-0.0786	µg/L	-0.0786 ppb	16:56:08
3	Zn 213.857†	3561.8	14.5	0.1017	µg/L	0.1017 ppb	16:56:28

Mean Data: 1202105373|979294|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1633524.8	101.17	%	0.769				0.76%
Sc RADIAL	124394.6	101	%	0.8				0.84%
Y 371.029	1068706.5	100.84	%	0.784				0.78%
Ag 328.068†	-213.8	-0.8602	µg/L	0.50791	-0.8602	ppb	0.50791	59.05%
Al 396.153Radial†	12.7	2.3905	µg/L	1.28960	2.3905	ppb	1.28960	53.95%
As 188.979†	-4.5	-1.5526	µg/L	1.23127	-1.5526	ppb	1.23127	79.30%
B 249.677†	50.3	0.8749	µg/L	0.38556	0.8749	ppb	0.38556	44.07%
Ba 233.527†	29.1	0.1476	µg/L	0.01504	0.1476	ppb	0.01504	10.20%
Be 313.107†	202.7	0.0660	µg/L	0.03459	0.0660	ppb	0.03459	52.39%
Ca 317.933Radial†	92.2	8.6889	µg/L	0.82040	8.6889	ppb	0.82040	9.44%
Cd 226.502†	18.2	0.1525	µg/L	0.05272	0.1525	ppb	0.05272	34.57%
Co 228.616†	0.8	0.0134	µg/L	0.21371	0.0134	ppb	0.21371	>999.9%
Cr 267.716†	13.2	0.1283	µg/L	0.12609	0.1283	ppb	0.12609	98.30%
Cu 324.752†	-151.1	-0.6393	µg/L	0.18467	-0.6393	ppb	0.18467	28.89%
Fe 238.204 Radial†	23.1	2.2557	µg/L	0.29299	2.2557	ppb	0.29299	12.99%
K 766.490 Radial†	-100.3	-37.514	µg/L	24.1336	-37.514	ppb	24.1336	64.33%
Mg 279.077 IEC†	6.9	4.9071	µg/L	5.56459	4.9071	ppb	5.56459	113.40%
Mn 257.610†	43.2	0.0687	µg/L	0.00739	0.0687	ppb	0.00739	10.75%
Mo 202.031†	3.4	0.1259	µg/L	0.10997	0.1259	ppb	0.10997	87.38%
Na 589.592 Radial†	93.3	13.341	µg/L	8.1575	13.341	ppb	8.1575	61.15%

Ni 231.604†	-6.1	-0.0947	µg/L	0.26984	-0.0947	ppb	0.26984 284.95%
P 214.914†	24.9	6.8413	µg/L	1.80604	6.8413	ppb	1.80604 26.40%
Pb 220.353†	15.4	1.1500	µg/L	0.73688	1.1500	ppb	0.73688 64.08%
S 181.975 Axial†	6.0	5.4704	µg/L	3.76965	5.4704	ppb	3.76965 68.91%
Sb 206.836†	-7.3	-1.0938	µg/L	0.66850	-1.0938	ppb	0.66850 61.12%
Se 196.026†	-7.7	-3.34	µg/L	2.012	-3.34	ppb	2.012 60.24%
SiO2†	126.5	14.232	µg/L	2.2710	14.232	ppb	2.2710 15.96%
Si 251.611†	468.8	8.2599	µg/L	0.18805	8.2599	ppb	0.18805 2.28%
Sn 189.927†	-2.4	-0.2142	µg/L	0.60278	-0.2142	ppb	0.60278 281.37%
Sr 421.552†	-43.5	-0.0956	µg/L	0.05802	-0.0956	ppb	0.05802 60.68%
Ti 334.940†	83.6	0.0887	µg/L	0.06389	0.0887	ppb	0.06389 72.03%
Tl 190.801†	-5.8	-0.9511	µg/L	0.68249	-0.9511	ppb	0.68249 71.76%
U 409.014†	5.1	0.2834	µg/L	1.35986	0.2834	ppb	1.35986 479.87%
V 292.402†	-20.7	-0.1224	µg/L	0.06471	-0.1224	ppb	0.06471 52.86%
Zn 213.857†	-6.1	-0.0426	µg/L	0.14147	-0.0426	ppb	0.14147 331.99%

Sequence No.: 10
Sample ID: 1202105374|979294|1
Analyst: CYL1
Initial Sample Wt:
Dilution:

Autosampler Location: 408
Date Collected: 4/30/2010 16:56:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202105374|979294|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123785.0	123785.0	101	%			16:57:08
1	Al 396.153Radial†	25522.3	25331.3	4775.9	µg/L	4775.9	ppb	16:57:08
1	Ca 317.933Radial†	52911.1	52054.2	4907.9	µg/L	4907.9	ppb	16:57:08
1	Fe 238.204 Radial†	51899.3	51323.5	5003.3	µg/L	5003.3	ppb	16:57:08
1	K 766.490 Radial†	14729.6	12896.1	4821.9	µg/L	4821.9	ppb	16:57:08
1	Mg 279.077 IEC†	6998.0	6879.1	4898.0	µg/L	4898.0	ppb	16:57:08
1	Na 589.592 Radial†	33986.2	33392.0	4758.2	µg/L	4758.2	ppb	16:57:08
1	Sr 421.552†	223152.9	221149.8	485.87	µg/L	485.87	ppb	16:57:06
1	Sc 361.383	1628023.6	1628023.6	100.83	%			16:57:34
1	Y 371.029	1062465.3	1062465.3	100.25	%			16:57:34
1	Ag 328.068†	121268.7	118278.4	481.19	µg/L	481.19	ppb	16:57:34
1	As 188.979†	1313.4	1338.1	473.36	µg/L	473.36	ppb	16:57:54
1	B 249.677†	29915.1	27591.2	477.88	µg/L	477.88	ppb	16:57:34
1	Ba 233.527†	96506.0	96017.7	486.87	µg/L	486.87	ppb	16:57:34
1	Be 313.107†	1497086.3	1485526.6	483.41	µg/L	483.41	ppb	16:57:34
1	Cd 226.502†	58378.4	58082.5	486.12	µg/L	486.12	ppb	16:57:34
1	Co 228.616†	27790.2	27796.6	484.06	µg/L	484.06	ppb	16:57:54
1	Cr 267.716†	49826.6	49211.2	477.52	µg/L	477.52	ppb	16:57:34
1	Cu 324.752†	117006.3	112528.5	478.11	µg/L	478.11	ppb	16:57:34
1	Mn 257.610†	302296.0	299688.7	477.78	µg/L	477.78	ppb	16:57:34
1	Mo 202.031†	13263.4	13168.1	486.26	µg/L	486.26	ppb	16:57:54
1	Ni 231.604†	31073.1	30889.1	478.95	µg/L	478.95	ppb	16:57:54
1	P 214.914†	1816.8	1802.6	486.28	µg/L	486.28	ppb	16:57:54
1	Pb 220.353†	6689.1	6541.1	489.87	µg/L	489.87	ppb	16:57:54
1	S 181.975 Axial†	5480.8	5367.3	4858.9	µg/L	4858.9	ppb	16:57:54
1	Sb 206.836†	3362.3	3218.4	480.54	µg/L	480.54	ppb	16:57:54
1	Se 196.026†	1126.8	1078.7	470	µg/L	470	ppb	16:57:54
1	SiO2†	90936.6	88109.0	9894.6	µg/L	9894.6	ppb	16:57:34
1	Si 251.611†	266486.9	263625.7	4635.4	µg/L	4635.4	ppb	16:57:34
1	Sn 189.927†	5487.5	5466.2	481.16	µg/L	481.16	ppb	16:57:54
1	Ti 334.940†	456358.1	451513.7	480.11	µg/L	480.11	ppb	16:57:34
1	Tl 190.801†	2791.9	2924.1	486.06	µg/L	486.06	ppb	16:57:54
1	U 409.014†	8711.4	8660.5	523.37	µg/L	523.37	ppb	16:57:34
1	V 292.402†	79845.8	79038.9	480.99	µg/L	480.99	ppb	16:57:34
1	Zn 213.857†	71235.1	67134.1	471.28	µg/L	471.28	ppb	16:57:34
2	Sc RADIAL	123574.3	123574.3	101	%			16:57:12
2	Al 396.153Radial†	25566.6	25418.4	4792.3	µg/L	4792.3	ppb	16:57:12
2	Ca 317.933Radial†	52575.0	51810.0	4884.9	µg/L	4884.9	ppb	16:57:12
2	Fe 238.204 Radial†	51789.2	51302.0	5001.2	µg/L	5001.2	ppb	16:57:12
2	K 766.490 Radial†	14723.8	12915.2	4829.0	µg/L	4829.0	ppb	16:57:12
2	Mg 279.077 IEC†	6985.2	6878.2	4897.3	µg/L	4897.3	ppb	16:57:12
2	Na 589.592 Radial†	34072.0	33534.5	4778.6	µg/L	4778.6	ppb	16:57:12
2	Sr 421.552†	223933.1	222300.7	488.40	µg/L	488.40	ppb	16:57:10
2	Sc 361.383	1617753.4	1617753.4	100.19	%			16:57:57
2	Y 371.029	1056810.7	1056810.7	99.716	%			16:57:57
2	Ag 328.068†	121142.5	118916.0	483.76	µg/L	483.76	ppb	16:57:57
2	As 188.979†	1308.9	1341.9	474.71	µg/L	474.71	ppb	16:58:18
2	B 249.677†	29964.5	27828.8	482.01	µg/L	482.01	ppb	16:57:57
2	Ba 233.527†	96357.7	96477.4	489.20	µg/L	489.20	ppb	16:57:57
2	Be 313.107†	1493099.0	1490972.8	485.17	µg/L	485.17	ppb	16:57:57
2	Cd 226.502†	58179.8	58251.8	487.54	µg/L	487.54	ppb	16:57:57
2	Co 228.616†	27684.4	27865.9	485.27	µg/L	485.27	ppb	16:58:18
2	Cr 267.716†	49819.6	49517.9	480.51	µg/L	480.51	ppb	16:57:57
2	Cu 324.752†	116616.8	112876.5	479.57	µg/L	479.57	ppb	16:57:57
2	Mn 257.610†	301985.9	301282.4	480.32	µg/L	480.32	ppb	16:57:57
2	Mo 202.031†	13208.7	13197.1	487.33	µg/L	487.33	ppb	16:58:18
2	Ni 231.604†	30899.9	30911.9	479.31	µg/L	479.31	ppb	16:58:18
2	P 214.914†	1803.3	1800.6	485.72	µg/L	485.72	ppb	16:58:18
2	Pb 220.353†	6669.7	6563.9	491.58	µg/L	491.58	ppb	16:58:18

2	S 181.975 Axial†	5472.9	5393.9	4883.0	µg/L	4883.0 ppb	16:58:18
2	Sb 206.836†	3359.6	3236.9	483.26	µg/L	483.26 ppb	16:58:18
2	Se 196.026†	1098.1	1057.1	461	µg/L	461 ppb	16:58:18
2	SiO2†	90906.6	88651.7	9955.6	µg/L	9955.6 ppb	16:57:57
2	Si 251.611†	266247.0	265064.2	4660.7	µg/L	4660.7 ppb	16:57:57
2	Sn 189.927†	5466.5	5479.8	482.37	µg/L	482.37 ppb	16:58:18
2	Ti 334.940†	455206.5	453237.6	481.95	µg/L	481.95 ppb	16:57:57
2	Tl 190.801†	2778.4	2928.1	486.75	µg/L	486.75 ppb	16:58:18
2	U 409.014†	8454.4	8458.9	511.99	µg/L	511.99 ppb	16:57:57
2	V 292.402†	79684.0	79380.2	483.05	µg/L	483.05 ppb	16:57:57
2	Zn 213.857†	71101.4	67449.1	473.51	µg/L	473.51 ppb	16:57:57
3	Sc RADIAL	124314.8	124314.8	101	%		16:57:16
3	Al 396.153Radial†	25703.9	25402.7	4789.2	µg/L	4789.2 ppb	16:57:16
3	Ca 317.933Radial†	52990.3	51908.9	4894.2	µg/L	4894.2 ppb	16:57:16
3	Fe 238.204 Radial†	52051.0	51254.1	4996.5	µg/L	4996.5 ppb	16:57:16
3	K 766.490 Radial†	14781.2	12884.8	4817.6	µg/L	4817.6 ppb	16:57:16
3	Mg 279.077 IEC†	6967.9	6819.9	4855.9	µg/L	4855.9 ppb	16:57:16
3	Na 589.592 Radial†	34185.8	33445.3	4765.8	µg/L	4765.8 ppb	16:57:16
3	Sr 421.552†	219384.1	216490.6	475.64	µg/L	475.64 ppb	16:57:14
3	Sc 361.383	1619189.2	1619189.2	100.28	%		16:58:21
3	Y 371.029	1057149.5	1057149.5	99.748	%		16:58:21
3	Ag 328.068†	121388.1	119053.7	484.32	µg/L	484.32 ppb	16:58:21
3	As 188.979†	1310.4	1342.2	474.83	µg/L	474.83 ppb	16:58:41
3	B 249.677†	29926.7	27764.6	480.88	µg/L	480.88 ppb	16:58:21
3	Ba 233.527†	96428.8	96463.0	489.12	µg/L	489.12 ppb	16:58:21
3	Be 313.107†	1500373.9	1496905.9	487.11	µg/L	487.11 ppb	16:58:21
3	Cd 226.502†	58308.1	58328.2	488.18	µg/L	488.18 ppb	16:58:21
3	Co 228.616†	27826.9	27983.5	487.32	µg/L	487.32 ppb	16:58:41
3	Cr 267.716†	49930.8	49584.8	481.15	µg/L	481.15 ppb	16:58:21
3	Cu 324.752†	116879.9	113035.6	480.25	µg/L	480.25 ppb	16:58:21
3	Mn 257.610†	302928.4	301955.0	481.39	µg/L	481.39 ppb	16:58:21
3	Mo 202.031†	13276.3	13252.8	489.38	µg/L	489.38 ppb	16:58:41
3	Ni 231.604†	31081.7	31065.8	481.69	µg/L	481.69 ppb	16:58:41
3	P 214.914†	1806.4	1802.1	486.13	µg/L	486.13 ppb	16:58:41
3	Pb 220.353†	6682.7	6570.9	492.11	µg/L	492.11 ppb	16:58:41
3	S 181.975 Axial†	5504.2	5420.3	4906.9	µg/L	4906.9 ppb	16:58:41
3	Sb 206.836†	3373.6	3247.9	484.92	µg/L	484.92 ppb	16:58:41
3	Se 196.026†	1113.1	1071.0	467	µg/L	467 ppb	16:58:41
3	SiO2†	91440.8	89103.9	10006	µg/L	10006 ppb	16:58:21
3	Si 251.611†	267744.5	266321.8	4682.8	µg/L	4682.8 ppb	16:58:21
3	Sn 189.927†	5507.2	5515.5	485.50	µg/L	485.50 ppb	16:58:41
3	Ti 334.940†	457207.9	454830.5	483.65	µg/L	483.65 ppb	16:58:21
3	Tl 190.801†	2788.4	2935.7	488.00	µg/L	488.00 ppb	16:58:41
3	U 409.014†	8565.4	8562.0	517.90	µg/L	517.90 ppb	16:58:21
3	V 292.402†	79806.1	79431.4	483.39	µg/L	483.39 ppb	16:58:21
3	Zn 213.857†	71302.5	67586.7	474.47	µg/L	474.47 ppb	16:58:21

Mean Data: 1202105374|979294|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1621655.4	100.44	%	0.344				0.34%
Sc RADIAL	123891.4	101	%	0.3				0.31%
Y 371.029	1058808.5	99.905	%	0.2992				0.30%
Ag 328.068†	118749.3	483.09	µg/L	1.671	483.09	ppb	1.671	0.35%
Al 396.153Radial†	25384.1	4785.8	µg/L	8.74	4785.8	ppb	8.74	0.18%
As 188.979†	1340.8	474.30	µg/L	0.817	474.30	ppb	0.817	0.17%
B 249.677†	27728.2	480.26	µg/L	2.133	480.26	ppb	2.133	0.44%
Ba 233.527†	96319.4	488.40	µg/L	1.325	488.40	ppb	1.325	0.27%
Be 313.107†	1491135.1	485.23	µg/L	1.851	485.23	ppb	1.851	0.38%
Ca 317.933Radial†	51924.4	4895.7	µg/L	11.58	4895.7	ppb	11.58	0.24%
Cd 226.502†	58220.9	487.28	µg/L	1.054	487.28	ppb	1.054	0.22%
Co 228.616†	27882.0	485.55	µg/L	1.646	485.55	ppb	1.646	0.34%
Cr 267.716†	49438.0	479.73	µg/L	1.937	479.73	ppb	1.937	0.40%
Cu 324.752†	112813.5	479.31	µg/L	1.095	479.31	ppb	1.095	0.23%
Fe 238.204 Radial†	51293.2	5000.3	µg/L	3.46	5000.3	ppb	3.46	0.07%
K 766.490 Radial†	12898.7	4822.8	µg/L	5.74	4822.8	ppb	5.74	0.12%
Mg 279.077 IEC†	6859.1	4883.7	µg/L	24.10	4883.7	ppb	24.10	0.49%
Mn 257.610†	300975.4	479.83	µg/L	1.857	479.83	ppb	1.857	0.39%
Mo 202.031†	13206.0	487.66	µg/L	1.587	487.66	ppb	1.587	0.33%
Na 589.592 Radial†	33457.3	4767.5	µg/L	10.26	4767.5	ppb	10.26	0.22%

Ni 231.604†	30955.6	479.99 µg/L	1.491	479.99 ppb	1.491	0.31%
P 214.914†	1801.8	486.05 µg/L	0.289	486.05 ppb	0.289	0.06%
Pb 220.353†	6558.6	491.19 µg/L	1.171	491.19 ppb	1.171	0.24%
S 181.975 Axial†	5393.8	4882.9 µg/L	23.99	4882.9 ppb	23.99	0.49%
Sb 206.836†	3234.4	482.91 µg/L	2.213	482.91 ppb	2.213	0.46%
Se 196.026†	1068.9	466 µg/L	4.8	466 ppb	4.8	1.02%
SiO2†	88621.5	9952.2 µg/L	55.98	9952.2 ppb	55.98	0.56%
Si 251.611†	265003.9	4659.6 µg/L	23.74	4659.6 ppb	23.74	0.51%
Sn 189.927†	5487.2	483.01 µg/L	2.241	483.01 ppb	2.241	0.46%
Sr 421.552†	219980.4	483.30 µg/L	6.760	483.30 ppb	6.760	1.40%
Ti 334.940†	453193.9	481.90 µg/L	1.768	481.90 ppb	1.768	0.37%
Tl 190.801†	2929.3	486.94 µg/L	0.986	486.94 ppb	0.986	0.20%
U 409.014†	8560.4	517.75 µg/L	5.691	517.75 ppb	5.691	1.10%
V 292.402†	79283.5	482.48 µg/L	1.299	482.48 ppb	1.299	0.27%
Zn 213.857†	67390.0	473.08 µg/L	1.635	473.08 ppb	1.635	0.35%

Sequence No.: 11
Sample ID: 251870001|979294|1
Analyst: CYL1
Initial Sample Wt:
Dilution:

Autosampler Location: 409
Date Collected: 4/30/2010 16:58:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 251870001|979294|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	124180.1	124180.1	101	%			16:59:21
1	Al 396.153Radial†	66702.4	65910.0	12484	µg/L	12484	ppb	16:59:21
1	Ca 317.933Radial†	1480267.5	1461187.4	137770	µg/L	137770	ppb	16:59:19
1	Fe 238.204 Radial†	255739.0	252421.1	24607	µg/L	24607	ppb	16:59:21
1	K 766.490 Radial†	112019.2	108908.6	40704	µg/L	40704	ppb	16:59:21
1	Mg 279.077 IEC†	20296.0	19986.8	14188	µg/L	14188	ppb	16:59:21
1	Na 589.592 Radial†	603746.2	595837.3	84945	µg/L	84945	ppb	16:59:19
1	Sr 421.552†	374119.7	369503.6	810.80	µg/L	810.80	ppb	16:59:19
1	Sc 361.383	1600164.6	1600164.6	99.104	%			16:59:33
1	Y 371.029	1055867.2	1055867.2	99.627	%			16:59:33
1	Ag 328.068†	2308.0	336.6	-2.1162	µg/L	-2.1162	ppb	16:59:33
1	As 188.979†	-35.8	-0.5	5.9273	µg/L	5.9273	ppb	16:59:53
1	B 249.677†	10261.5	8276.5	143.78	µg/L	143.78	ppb	16:59:53
1	Ba 233.527†	75244.1	76230.0	385.94	µg/L	385.94	ppb	16:59:33
1	Be 313.107†	8346.0	9182.7	2.9905	µg/L	2.9905	ppb	16:59:33
1	Cd 226.502†	143.9	329.8	0.1978	µg/L	0.1978	ppb	16:59:53
1	Co 228.616†	974.2	1218.0	20.305	µg/L	20.305	ppb	16:59:53
1	Cr 267.716†	5759.5	5606.2	54.779	µg/L	54.779	ppb	16:59:53
1	Cu 324.752†	7025.6	3574.3	19.126	µg/L	19.126	ppb	16:59:53
1	Mn 257.610†	832131.9	839532.2	1338.4	µg/L	1338.4	ppb	16:59:33
1	Mo 202.031†	710.6	730.9	28.214	µg/L	28.214	ppb	16:59:53
1	Ni 231.604†	3043.3	3142.5	48.727	µg/L	48.727	ppb	16:59:53
1	P 214.914†	5981.6	6036.4	1642.3	µg/L	1642.3	ppb	16:59:53
1	Pb 220.353†	427.2	338.1	25.831	µg/L	25.831	ppb	16:59:53
1	S 181.975 Axial†	31446.5	31662.3	28639	µg/L	28639	ppb	16:59:53
1	Sb 206.836†	123.7	8.6	0.5249	µg/L	0.5249	ppb	16:59:53
1	Se 196.026†	14.5	-24.3	-1.98	µg/L	-1.98	ppb	16:59:53
1	SiO2†	1207655.9	1216490.1	136900	µg/L	136900	ppb	16:59:33
1	Si 251.611†	3552483.1	3583918.0	63148	µg/L	63148	ppb	16:59:33
1	Sn 189.927†	-39.5	-16.0	-0.0037	µg/L	-0.0037	ppb	16:59:53
1	Ti 334.940†	386780.3	389186.9	416.79	µg/L	416.79	ppb	16:59:33
1	Tl 190.801†	-222.1	-69.0	-3.4324	µg/L	-3.4324	ppb	16:59:53
1	U 409.014†	166.1	188.4	22.465	µg/L	22.465	ppb	16:59:33
1	V 292.402†	8087.4	8010.7	45.636	µg/L	45.636	ppb	16:59:53
1	Zn 213.857†	54990.9	51973.1	363.90	µg/L	363.90	ppb	16:59:33
2	Sc RADIAL	124655.3	124655.3	102	%			16:59:25
2	Al 396.153Radial†	66537.6	65496.8	12406	µg/L	12406	ppb	16:59:25
2	Ca 317.933Radial†	1472574.6	1448049.0	136530	µg/L	136530	ppb	16:59:23
2	Fe 238.204 Radial†	255355.9	251081.7	24477	µg/L	24477	ppb	16:59:25
2	K 766.490 Radial†	112177.8	108642.9	40605	µg/L	40605	ppb	16:59:25
2	Mg 279.077 IEC†	20188.0	19804.2	14058	µg/L	14058	ppb	16:59:25
2	Na 589.592 Radial†	602391.5	592232.4	84431	µg/L	84431	ppb	16:59:23
2	Sr 421.552†	372945.0	366940.0	805.17	µg/L	805.17	ppb	16:59:23
2	Sc 361.383	1601264.3	1601264.3	99.173	%			16:59:56
2	Y 371.029	1057134.2	1057134.2	99.747	%			16:59:56
2	Ag 328.068†	2361.4	388.8	-1.8750	µg/L	-1.8750	ppb	16:59:56
2	As 188.979†	-47.3	-12.2	1.8479	µg/L	1.8479	ppb	17:00:16
2	B 249.677†	10199.2	8206.5	142.57	µg/L	142.57	ppb	17:00:16
2	Ba 233.527†	74884.7	75815.5	383.84	µg/L	383.84	ppb	16:59:56
2	Be 313.107†	8471.3	9303.3	3.0287	µg/L	3.0287	ppb	16:59:56
2	Cd 226.502†	125.9	311.5	0.0588	µg/L	0.0588	ppb	17:00:16
2	Co 228.616†	949.5	1192.4	19.864	µg/L	19.864	ppb	17:00:16
2	Cr 267.716†	5764.4	5607.2	54.789	µg/L	54.789	ppb	17:00:16
2	Cu 324.752†	7031.1	3574.9	19.103	µg/L	19.103	ppb	17:00:16
2	Mn 257.610†	828875.4	835671.9	1332.2	µg/L	1332.2	ppb	16:59:56
2	Mo 202.031†	688.7	708.3	27.373	µg/L	27.373	ppb	17:00:16
2	Ni 231.604†	3058.3	3155.5	48.929	µg/L	48.929	ppb	17:00:16
2	P 214.914†	5985.4	6036.1	1642.3	µg/L	1642.3	ppb	17:00:16
2	Pb 220.353†	443.7	354.5	27.047	µg/L	27.047	ppb	17:00:16

2	S 181.975 Axial†	31467.2	31661.3	28638	µg/L	28638	ppb	17:00:16
2	Sb 206.836†	122.3	7.1	0.2924	µg/L	0.2924	ppb	17:00:16
2	Se 196.026†	10.1	-28.7	-3.96	µg/L	-3.96	ppb	17:00:16
2	SiO2†	1201548.3	1209494.6	136110	µg/L	136110	ppb	16:59:56
2	Si 251.611†	3534713.0	3563537.8	62788	µg/L	62788	ppb	16:59:56
2	Sn 189.927†	-34.8	-11.2	0.4073	µg/L	0.4073	ppb	17:00:16
2	Ti 334.940†	384263.1	386380.7	413.78	µg/L	413.78	ppb	16:59:56
2	Tl 190.801†	-221.8	-68.5	-3.4009	µg/L	-3.4009	ppb	17:00:16
2	U 409.014†	109.1	130.7	19.115	µg/L	19.115	ppb	16:59:56
2	V 292.402†	8109.0	8026.9	45.739	µg/L	45.739	ppb	17:00:16
2	Zn 213.857†	54827.6	51770.3	362.49	µg/L	362.49	ppb	16:59:56
3	Sc RADIAL	124201.4	124201.4	101	%			16:59:29
3	Al 396.153Radial†	66385.6	65586.0	12423	µg/L	12423	ppb	16:59:29
3	Ca 317.933Radial†	1483073.1	1463705.9	138010	µg/L	138010	ppb	16:59:27
3	Fe 238.204 Radial†	255017.7	251665.6	24534	µg/L	24534	ppb	16:59:29
3	K 766.490 Radial†	111997.3	108867.9	40688	µg/L	40688	ppb	16:59:29
3	Mg 279.077 IEC†	20113.8	19803.5	14058	µg/L	14058	ppb	16:59:29
3	Na 589.592 Radial†	605867.5	597828.9	85229	µg/L	85229	ppb	16:59:27
3	Sr 421.552†	376019.5	371315.6	814.78	µg/L	814.78	ppb	16:59:27
3	Sc 361.383	1602744.7	1602744.7	99.264	%			17:00:19
3	Y 371.029	1058452.5	1058452.5	99.871	%			17:00:19
3	Ag 328.068†	2595.0	621.9	-0.9790	µg/L	-0.9790	ppb	17:00:19
3	As 188.979†	-43.0	-7.7	3.4013	µg/L	3.4013	ppb	17:00:39
3	B 249.677†	10186.8	8184.6	142.18	µg/L	142.18	ppb	17:00:39
3	Ba 233.527†	75014.2	75876.2	384.15	µg/L	384.15	ppb	17:00:19
3	Be 313.107†	8302.5	9125.3	2.9714	µg/L	2.9714	ppb	17:00:19
3	Cd 226.502†	140.6	326.1	0.1750	µg/L	0.1750	ppb	17:00:39
3	Co 228.616†	990.6	1233.0	20.568	µg/L	20.568	ppb	17:00:39
3	Cr 267.716†	5800.2	5637.8	55.086	µg/L	55.086	ppb	17:00:39
3	Cu 324.752†	7027.8	3565.0	19.072	µg/L	19.072	ppb	17:00:39
3	Mn 257.610†	831596.4	837641.0	1335.4	µg/L	1335.4	ppb	17:00:19
3	Mo 202.031†	668.1	686.9	26.586	µg/L	26.586	ppb	17:00:39
3	Ni 231.604†	3053.0	3147.4	48.802	µg/L	48.802	ppb	17:00:39
3	P 214.914†	5982.5	6027.7	1640.0	µg/L	1640.0	ppb	17:00:39
3	Pb 220.353†	434.0	344.2	26.273	µg/L	26.273	ppb	17:00:39
3	S 181.975 Axial†	31435.3	31599.9	28583	µg/L	28583	ppb	17:00:39
3	Sb 206.836†	124.9	9.6	0.6522	µg/L	0.6522	ppb	17:00:39
3	Se 196.026†	28.2	-10.5	3.96	µg/L	3.96	ppb	17:00:39
3	SiO2†	1203504.1	1210345.8	136210	µg/L	136210	ppb	17:00:19
3	Si 251.611†	3539196.1	3564762.0	62810	µg/L	62810	ppb	17:00:19
3	Sn 189.927†	-38.6	-15.0	0.0594	µg/L	0.0594	ppb	17:00:39
3	Ti 334.940†	381415.8	383154.4	410.39	µg/L	410.39	ppb	17:00:19
3	Tl 190.801†	-209.7	-56.1	-1.4029	µg/L	-1.4029	ppb	17:00:39
3	U 409.014†	145.6	167.5	21.264	µg/L	21.264	ppb	17:00:19
3	V 292.402†	8062.2	7972.2	45.402	µg/L	45.402	ppb	17:00:39
3	Zn 213.857†	55079.5	51973.0	363.90	µg/L	363.90	ppb	17:00:19

Mean Data: 251870001|979294|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1601391.2	99.180	%	0.0802				0.08%
Sc RADIAL	124345.6	101	%	0.2				0.22%
Y 371.029	1057151.3	99.748	%	0.1220				0.12%
Ag 328.068†	449.1	-1.6567	µg/L	0.59921	-1.6567	ppb	0.59921	36.17%
Al 396.153Radial†	65664.3	12437	µg/L	41.2	12437	ppb	41.2	0.33%
As 188.979†	-6.8	3.7255	µg/L	2.05893	3.7255	ppb	2.05893	55.27%
B 249.677†	8222.5	142.84	µg/L	0.835	142.84	ppb	0.835	0.58%
Ba 233.527†	75973.9	384.65	µg/L	1.134	384.65	ppb	1.134	0.29%
Be 313.107†	9203.8	2.9969	µg/L	0.02916	2.9969	ppb	0.02916	0.97%
Ca 317.933Radial†	1457647.4	137430	µg/L	792.7	137430	ppb	792.7	0.58%
Cd 226.502†	322.5	0.1438	µg/L	0.07456	0.1438	ppb	0.07456	51.84%
Co 228.616†	1214.5	20.245	µg/L	0.3557	20.245	ppb	0.3557	1.76%
Cr 267.716†	5617.1	54.885	µg/L	0.1746	54.885	ppb	0.1746	0.32%
Cu 324.752†	3571.4	19.100	µg/L	0.0273	19.100	ppb	0.0273	0.14%
Fe 238.204 Radial†	251722.8	24539	µg/L	65.5	24539	ppb	65.5	0.27%
K 766.490 Radial†	108806.5	40666	µg/L	53.3	40666	ppb	53.3	0.13%
Mg 279.077 IEC†	19864.8	14101	µg/L	75.1	14101	ppb	75.1	0.53%
Mn 257.610†	837615.1	1335.3	µg/L	3.08	1335.3	ppb	3.08	0.23%
Mo 202.031†	708.7	27.391	µg/L	0.8142	27.391	ppb	0.8142	2.97%
Na 589.592 Radial†	595299.5	84868	µg/L	404.6	84868	ppb	404.6	0.48%

Ni 231.604†	3148.5	48.819	µg/L	0.1021	48.819	ppb	0.1021	0.21%
P 214.914†	6033.4	1641.5	µg/L	1.36	1641.5	ppb	1.36	0.08%
Pb 220.353†	345.6	26.384	µg/L	0.6154	26.384	ppb	0.6154	2.33%
S 181.975 Axial†	31641.2	28620	µg/L	32.3	28620	ppb	32.3	0.11%
Sb 206.836†	8.4	0.4898	µg/L	0.18242	0.4898	ppb	0.18242	37.24%
Se 196.026†	-21.2	-0.659	µg/L	4.1234	-0.659	ppb	4.1234	625.94%
SiO2†	1212110.2	136400	µg/L	429.5	136400	ppb	429.5	0.31%
Concentration greater than upper limit for SiO2.								
Si 251.611†	3570739.3	62915	µg/L	201.4	62915	ppb	201.4	0.32%
Concentration greater than upper limit for Si 251.611.								
Sn 189.927†	-14.0	0.1543	µg/L	0.22136	0.1543	ppb	0.22136	143.41%
Sr 421.552†	369253.1	810.25	µg/L	4.825	810.25	ppb	4.825	0.60%
Ti 334.940†	386240.7	413.65	µg/L	3.205	413.65	ppb	3.205	0.77%
Tl 190.801†	-64.5	-2.7454	µg/L	1.16279	-2.7454	ppb	1.16279	42.35%
U 409.014†	162.2	20.948	µg/L	1.6970	20.948	ppb	1.6970	8.10%
V 292.402†	8003.3	45.593	µg/L	0.1726	45.593	ppb	0.1726	0.38%
Zn 213.857†	51905.5	363.43	µg/L	0.816	363.43	ppb	0.816	0.22%

Sequence No.: 12
Sample ID: 1202105375|979294|1
Analyst: CYL1
Initial Sample Wt:
Dilution:

Autosampler Location: 410
Date Collected: 4/30/2010 17:00:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202105375|979294|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123527.9	123527.9	101	%			17:01:19
1	Al 396.153Radial†	50042.8	49722.0	9417.5	µg/L	9417.5	ppb	17:01:19
1	Ca 317.933Radial†	1367441.3	1356916.8	127940	µg/L	127940	ppb	17:01:17
1	Fe 238.204 Radial†	225128.1	223371.0	21775	µg/L	21775	ppb	17:01:19
1	K 766.490 Radial†	104704.7	102232.5	38209	µg/L	38209	ppb	17:01:19
1	Mg 279.077 IEC†	18273.6	18085.3	12839	µg/L	12839	ppb	17:01:19
1	Na 589.592 Radial†	561788.4	557338.8	79456	µg/L	79456	ppb	17:01:17
1	Sr 421.552†	345786.2	343331.0	753.37	µg/L	753.37	ppb	17:01:17
1	Sc 361.383	1603211.6	1603211.6	99.293	%			17:01:45
1	Y 371.029	1058160.0	1058160.0	99.843	%			17:01:45
1	Ag 328.068†	2290.3	314.4	-1.9616	µg/L	-1.9616	ppb	17:01:45
1	As 188.979†	-47.4	-12.2	1.1836	µg/L	1.1836	ppb	17:02:05
1	B 249.677†	9663.9	7654.9	132.98	µg/L	132.98	ppb	17:02:05
1	Ba 233.527†	69196.2	69994.8	354.38	µg/L	354.38	ppb	17:01:45
1	Be 313.107†	7487.2	8301.9	2.7067	µg/L	2.7067	ppb	17:01:45
1	Cd 226.502†	100.9	286.1	0.1279	µg/L	0.1279	ppb	17:02:05
1	Co 228.616†	877.7	1119.0	18.697	µg/L	18.697	ppb	17:02:05
1	Cr 267.716†	5258.1	5090.2	49.701	µg/L	49.701	ppb	17:02:05
1	Cu 324.752†	6512.4	3044.0	16.438	µg/L	16.438	ppb	17:02:05
1	Mn 257.610†	777543.3	782959.2	1248.2	µg/L	1248.2	ppb	17:01:45
1	Mo 202.031†	649.4	668.0	25.753	µg/L	25.753	ppb	17:02:05
1	Ni 231.604†	2788.5	2880.0	44.657	µg/L	44.657	ppb	17:02:05
1	P 214.914†	5539.8	5580.0	1518.3	µg/L	1518.3	ppb	17:02:05
1	Pb 220.353†	414.4	324.3	24.550	µg/L	24.550	ppb	17:02:05
1	S 181.975 Axial†	29609.2	29751.6	26911	µg/L	26911	ppb	17:02:05
1	Sb 206.836†	131.3	16.1	1.7268	µg/L	1.7268	ppb	17:02:05
1	Se 196.026†	21.8	-17.0	0.213	µg/L	0.213	ppb	17:02:05
1	SiO2†	1024826.6	1030043.3	115920	µg/L	115920	ppb	17:01:45
1	Si 251.611†	3017735.4	3038550.8	53538	µg/L	53538	ppb	17:01:45
1	Sn 189.927†	-38.9	-15.2	-0.2959	µg/L	-0.2959	ppb	17:02:05
1	Ti 334.940†	288860.8	289828.7	310.85	µg/L	310.85	ppb	17:01:45
1	Tl 190.801†	-209.8	-56.2	-2.6634	µg/L	-2.6634	ppb	17:02:05
1	U 409.014†	325.1	348.2	30.931	µg/L	30.931	ppb	17:01:45
1	V 292.402†	7243.8	7145.6	40.799	µg/L	40.799	ppb	17:02:05
1	Zn 213.857†	51751.1	48604.8	340.38	µg/L	340.38	ppb	17:01:45
2	Sc RADIAL	123861.4	123861.4	101	%			17:01:23
2	Al 396.153Radial†	50361.4	49903.6	9452.0	µg/L	9452.0	ppb	17:01:23
2	Ca 317.933Radial†	1377164.9	1362887.0	128500	µg/L	128500	ppb	17:01:21
2	Fe 238.204 Radial†	226132.9	223763.9	21814	µg/L	21814	ppb	17:01:23
2	K 766.490 Radial†	105217.1	102459.8	38294	µg/L	38294	ppb	17:01:23
2	Mg 279.077 IEC†	18327.4	18089.7	12842	µg/L	12842	ppb	17:01:23
2	Na 589.592 Radial†	565399.1	559411.3	79752	µg/L	79752	ppb	17:01:21
2	Sr 421.552†	348413.3	345007.3	757.05	µg/L	757.05	ppb	17:01:21
2	Sc 361.383	1588404.3	1588404.3	98.376	%			17:02:08
2	Y 371.029	1046660.6	1046660.6	98.758	%			17:02:08
2	Ag 328.068†	2233.0	277.6	-2.1167	µg/L	-2.1167	ppb	17:02:08
2	As 188.979†	-46.8	-11.9	1.2782	µg/L	1.2782	ppb	17:02:28
2	B 249.677†	9729.3	7812.1	135.71	µg/L	135.71	ppb	17:02:28
2	Ba 233.527†	68480.3	69916.7	353.99	µg/L	353.99	ppb	17:02:08
2	Be 313.107†	7574.0	8460.3	2.7572	µg/L	2.7572	ppb	17:02:08
2	Cd 226.502†	77.9	263.7	-0.0634	µg/L	-0.0634	ppb	17:02:28
2	Co 228.616†	875.0	1124.5	18.790	µg/L	18.790	ppb	17:02:28
2	Cr 267.716†	5296.8	5178.9	50.567	µg/L	50.567	ppb	17:02:28
2	Cu 324.752†	6523.9	3116.8	16.749	µg/L	16.749	ppb	17:02:28
2	Mn 257.610†	769099.3	781675.8	1246.2	µg/L	1246.2	ppb	17:02:08
2	Mo 202.031†	639.2	663.7	25.597	µg/L	25.597	ppb	17:02:28
2	Ni 231.604†	2813.5	2931.6	45.457	µg/L	45.457	ppb	17:02:28
2	P 214.914†	5587.5	5680.6	1545.9	µg/L	1545.9	ppb	17:02:28
2	Pb 220.353†	369.7	282.9	21.457	µg/L	21.457	ppb	17:02:28

2	S 181.975 Axial†	29896.6	30321.7	27427 µg/L	27427 ppb	17:02:28
2	Sb 206.836†	125.7	11.5	1.0389 µg/L	1.0389 ppb	17:02:28
2	Se 196.026†	15.5	-23.2	-2.46 µg/L	-2.46 ppb	17:02:28
2	SiO2†	1012186.2	1026815.8	115550 µg/L	115550 ppb	17:02:08
2	Si 251.611†	2981043.5	3029585.1	53380 µg/L	53380 ppb	17:02:08
2	Sn 189.927†	-22.1	1.4	1.1634 µg/L	1.1634 ppb	17:02:28
2	Ti 334.940†	285636.7	289263.3	310.27 µg/L	310.27 ppb	17:02:08
2	Tl 190.801†	-209.3	-57.7	-2.9092 µg/L	-2.9092 ppb	17:02:28
2	U 409.014†	261.7	286.8	27.480 µg/L	27.480 ppb	17:02:08
2	V 292.402†	7327.4	7298.6	41.714 µg/L	41.714 ppb	17:02:28
2	Zn 213.857†	51142.1	48471.6	339.43 µg/L	339.43 ppb	17:02:08
3	Sc RADIAL	123035.8	123035.8	100 %		17:01:27
3	Al 396.153Radial†	49880.9	49759.3	9424.6 µg/L	9424.6 ppb	17:01:27
3	Ca 317.933Radial†	1397342.9	1392143.2	131260 µg/L	131260 ppb	17:01:25
3	Fe 238.204 Radial†	224566.8	223705.4	21808 µg/L	21808 ppb	17:01:27
3	K 766.490 Radial†	104488.2	102432.3	38283 µg/L	38283 ppb	17:01:27
3	Mg 279.077 IEC†	18078.0	17962.8	12752 µg/L	12752 ppb	17:01:27
3	Na 589.592 Radial†	572796.2	570538.6	81339 µg/L	81339 ppb	17:01:25
3	Sr 421.552†	352159.9	351055.3	770.31 µg/L	770.31 ppb	17:01:25
3	Sc 361.383	1610966.6	1610966.6	99.773 %		17:02:31
3	Y 371.029	1062169.4	1062169.4	100.22 %		17:02:31
3	Ag 328.068†	2318.4	331.4	-1.9941 µg/L	-1.9941 ppb	17:02:31
3	As 188.979†	-38.2	-2.7	4.4981 µg/L	4.4981 ppb	17:02:51
3	B 249.677†	9756.7	7701.2	133.79 µg/L	133.79 ppb	17:02:51
3	Ba 233.527†	69678.9	70143.2	355.14 µg/L	355.14 ppb	17:02:31
3	Be 313.107†	7526.8	8305.2	2.7040 µg/L	2.7040 ppb	17:02:31
3	Cd 226.502†	88.2	273.0	0.0144 µg/L	0.0144 ppb	17:02:51
3	Co 228.616†	856.4	1093.4	18.250 µg/L	18.250 ppb	17:02:51
3	Cr 267.716†	5296.7	5103.4	49.840 µg/L	49.840 ppb	17:02:51
3	Cu 324.752†	6516.6	3016.6	16.314 µg/L	16.314 ppb	17:02:51
3	Mn 257.610†	783745.2	785405.5	1252.1 µg/L	1252.1 ppb	17:02:31
3	Mo 202.031†	645.2	660.6	25.482 µg/L	25.482 ppb	17:02:51
3	Ni 231.604†	2809.3	2887.4	44.772 µg/L	44.772 ppb	17:02:51
3	P 214.914†	5590.6	5604.1	1524.9 µg/L	1524.9 ppb	17:02:51
3	Pb 220.353†	426.7	334.7	25.334 µg/L	25.334 ppb	17:02:51
3	S 181.975 Axial†	29794.6	29793.9	26949 µg/L	26949 ppb	17:02:51
3	Sb 206.836†	123.4	7.5	0.4464 µg/L	0.4464 ppb	17:02:51
3	Se 196.026†	17.0	-21.9	-1.91 µg/L	-1.91 ppb	17:02:51
3	SiO2†	1032097.8	1032362.4	116180 µg/L	116180 ppb	17:02:31
3	Si 251.611†	3039983.9	3046219.3	53673 µg/L	53673 ppb	17:02:31
3	Sn 189.927†	-33.9	-10.1	0.1554 µg/L	0.1554 ppb	17:02:51
3	Ti 334.940†	290309.0	289879.7	311.01 µg/L	311.01 ppb	17:02:31
3	Tl 190.801†	-206.9	-52.3	-2.0130 µg/L	-2.0130 ppb	17:02:51
3	U 409.014†	110.9	132.0	18.751 µg/L	18.751 ppb	17:02:31
3	V 292.402†	7289.6	7156.4	40.850 µg/L	40.850 ppb	17:02:51
3	Zn 213.857†	52255.2	48859.1	342.15 µg/L	342.15 ppb	17:02:31

Mean Data: 1202105375|979294|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1600860.8	99.148	%	0.7100				0.72%
Sc RADIAL	123475.0	101	%	0.3				0.34%
Y 371.029	1055663.3	99.608	%	0.7596				0.76%
Ag 328.068†	307.8	-2.0241	µg/L	0.08180	-2.0241	ppb	0.08180	4.04%
Al 396.153Radial†	49795.0	9431.4	µg/L	18.17	9431.4	ppb	18.17	0.19%
As 188.979†	-8.9	2.3200	µg/L	1.88692	2.3200	ppb	1.88692	81.33%
B 249.677†	7722.7	134.16	µg/L	1.404	134.16	ppb	1.404	1.05%
Ba 233.527†	70018.2	354.50	µg/L	0.582	354.50	ppb	0.582	0.16%
Be 313.107†	8355.8	2.7226	µg/L	0.02994	2.7226	ppb	0.02994	1.10%
Ca 317.933Radial†	1370649.0	129230	µg/L	1777.5	129230	ppb	1777.5	1.38%
Cd 226.502†	274.3	0.0263	µg/L	0.09620	0.0263	ppb	0.09620	366.06%
Co 228.616†	1112.3	18.579	µg/L	0.2887	18.579	ppb	0.2887	1.55%
Cr 267.716†	5124.1	50.036	µg/L	0.4650	50.036	ppb	0.4650	0.93%
Cu 324.752†	3059.1	16.500	µg/L	0.2242	16.500	ppb	0.2242	1.36%
Fe 238.204 Radial†	223613.4	21799	µg/L	20.7	21799	ppb	20.7	0.09%
K 766.490 Radial†	102374.9	38262	µg/L	46.2	38262	ppb	46.2	0.12%
Mg 279.077 IEC†	18046.0	12811	µg/L	51.2	12811	ppb	51.2	0.40%
Mn 257.610†	783346.8	1248.8	µg/L	3.02	1248.8	ppb	3.02	0.24%
Mo 202.031†	664.1	25.611	µg/L	0.1365	25.611	ppb	0.1365	0.53%
Na 589.592 Radial†	562429.5	80182	µg/L	1012.4	80182	ppb	1012.4	1.26%

Ni 231.604†	2899.7	44.962 µg/L	0.4327	44.962 ppb	0.4327	0.96%
P 214.914†	5621.6	1529.7 µg/L	14.41	1529.7 ppb	14.41	0.94%
Pb 220.353†	314.0	23.781 µg/L	2.0497	23.781 ppb	2.0497	8.62%
S 181.975 Axial†	29955.7	27096 µg/L	287.3	27096 ppb	287.3	1.06%
Sb 206.836†	11.7	1.0707 µg/L	0.64080	1.0707 ppb	0.64080	59.85%
Se 196.026†	-20.7	-1.39 µg/L	1.413	-1.39 ppb	1.413	101.87%
SiO2†	1029740.5	115880 µg/L	313.5	115880 ppb	313.5	0.27%
Concentration greater than upper limit for SiO2.						
Si 251.611†	3038118.4	53531 µg/L	146.7	53531 ppb	146.7	0.27%
Concentration greater than upper limit for Si 251.611.						
Sn 189.927†	-8.0	0.3410 µg/L	0.74711	0.3410 ppb	0.74711	219.12%
Sr 421.552†	346464.6	760.24 µg/L	8.914	760.24 ppb	8.914	1.17%
Ti 334.940†	289657.2	310.71 µg/L	0.390	310.71 ppb	0.390	0.13%
Tl 190.801†	-55.4	-2.5285 µg/L	0.46308	-2.5285 ppb	0.46308	18.31%
U 409.014†	255.6	25.721 µg/L	6.2780	25.721 ppb	6.2780	24.41%
V 292.402†	7200.2	41.121 µg/L	0.5141	41.121 ppb	0.5141	1.25%
Zn 213.857†	48645.2	340.65 µg/L	1.380	340.65 ppb	1.380	0.41%

Sequence No.: 13
Sample ID: 1202105376|979294|1
Analyst: CYL1
Initial Sample Wt:
Dilution:

Autosampler Location: 411
Date Collected: 4/30/2010 17:02:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202105376|979294|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	124862.2	124862.2	102	%			17:03:31
1	Al 396.153Radial†	92035.1	90425.8	17106	µg/L	17106	ppb	17:03:31
1	Ca 317.933Radial†	1406442.1	1380709.3	130180	µg/L	130180	ppb	17:03:29
1	Fe 238.204 Radial†	282752.6	277567.7	27059	µg/L	27059	ppb	17:03:31
1	K 766.490 Radial†	117941.4	114119.7	42654	µg/L	42654	ppb	17:03:31
1	Mg 279.077 IEC†	25483.0	24970.7	17741	µg/L	17741	ppb	17:03:31
1	Na 589.592 Radial†	589914.8	578998.7	82542	µg/L	82542	ppb	17:03:29
1	Sr 421.552†	559196.7	549222.9	1205.7	µg/L	1205.7	ppb	17:03:29
1	Sc 361.383	1594368.8	1594368.8	98.745	%			17:03:44
1	Y 371.029	1047786.0	1047786.0	98.865	%			17:03:44
1	Ag 328.068†	119175.8	118697.6	479.56	µg/L	479.56	ppb	17:03:46
1	As 188.979†	1278.6	1330.4	475.97	µg/L	475.97	ppb	17:04:06
1	B 249.677†	36648.8	35036.7	607.30	µg/L	607.30	ppb	17:03:46
1	Ba 233.527†	160727.9	163075.9	826.36	µg/L	826.36	ppb	17:03:46
1	Be 313.107†	1422899.0	1441738.0	469.15	µg/L	469.15	ppb	17:03:44
1	Cd 226.502†	54557.0	55434.7	461.64	µg/L	461.64	ppb	17:03:46
1	Co 228.616†	27010.6	27588.8	479.64	µg/L	479.64	ppb	17:04:06
1	Cr 267.716†	52321.5	52780.9	512.51	µg/L	512.51	ppb	17:03:46
1	Cu 324.752†	120103.9	118115.0	505.30	µg/L	505.30	ppb	17:03:46
1	Mn 257.610†	1042924.1	1056054.8	1683.6	µg/L	1683.6	ppb	17:03:44
1	Mo 202.031†	13237.1	13419.1	496.64	µg/L	496.64	ppb	17:04:06
1	Ni 231.604†	31827.3	32303.3	500.88	µg/L	500.88	ppb	17:03:46
1	P 214.914†	7178.4	7270.3	1974.2	µg/L	1974.2	ppb	17:04:06
1	Pb 220.353†	6560.0	6550.4	491.09	µg/L	491.09	ppb	17:04:06
1	S 181.975 Axial†	34273.6	34640.6	31337	µg/L	31337	ppb	17:04:06
1	Sb 206.836†	3137.5	3061.1	456.38	µg/L	456.38	ppb	17:04:06
1	Se 196.026†	1044.7	1019.1	452	µg/L	452	ppb	17:04:06
1	SiO2†	1226362.4	1239863.9	139510	µg/L	139510	ppb	17:03:44
1	Si 251.611†	3623297.6	3668662.8	64631	µg/L	64631	ppb	17:03:44
1	Sn 189.927†	5163.5	5253.0	463.57	µg/L	463.57	ppb	17:04:06
1	Ti 334.940†	752492.9	760964.6	811.81	µg/L	811.81	ppb	17:03:44
1	Tl 190.801†	2551.9	2739.5	462.51	µg/L	462.51	ppb	17:04:06
1	U 409.014†	8138.4	8262.5	510.72	µg/L	510.72	ppb	17:03:46
1	V 292.402†	83707.1	84620.9	512.10	µg/L	512.10	ppb	17:03:46
1	Zn 213.857†	115141.7	113089.8	793.12	µg/L	793.12	ppb	17:03:46
2	Sc RADIAL	122506.4	122506.4	99.9	%			17:03:35
2	Al 396.153Radial†	90560.6	90688.0	17156	µg/L	17156	ppb	17:03:35
2	Ca 317.933Radial†	1410916.6	1411745.8	133110	µg/L	133110	ppb	17:03:33
2	Fe 238.204 Radial†	278135.7	278286.2	27129	µg/L	27129	ppb	17:03:35
2	K 766.490 Radial†	116234.9	114638.8	42847	µg/L	42847	ppb	17:03:35
2	Mg 279.077 IEC†	25014.2	24982.8	17749	µg/L	17749	ppb	17:03:35
2	Na 589.592 Radial†	591145.4	591369.9	84306	µg/L	84306	ppb	17:03:33
2	Sr 421.552†	559778.9	560365.1	1230.2	µg/L	1230.2	ppb	17:03:33
2	Sc 361.383	1596551.4	1596551.4	98.881	%			17:04:09
2	Y 371.029	1049579.4	1049579.4	99.034	%			17:04:09
2	Ag 328.068†	119579.7	118941.1	480.45	µg/L	480.45	ppb	17:04:11
2	As 188.979†	1263.4	1313.3	470.01	µg/L	470.01	ppb	17:04:31
2	B 249.677†	36723.9	35061.9	607.75	µg/L	607.75	ppb	17:04:11
2	Ba 233.527†	161351.6	163484.1	828.42	µg/L	828.42	ppb	17:04:11
2	Be 313.107†	1421513.8	1438367.1	468.05	µg/L	468.05	ppb	17:04:09
2	Cd 226.502†	54539.8	55341.7	460.85	µg/L	460.85	ppb	17:04:11
2	Co 228.616†	26881.9	27421.3	476.72	µg/L	476.72	ppb	17:04:31
2	Cr 267.716†	52515.9	52905.0	513.73	µg/L	513.73	ppb	17:04:11
2	Cu 324.752†	120762.2	118614.5	507.42	µg/L	507.42	ppb	17:04:11
2	Mn 257.610†	1040115.6	1051770.6	1676.7	µg/L	1676.7	ppb	17:04:09
2	Mo 202.031†	13123.1	13285.6	491.72	µg/L	491.72	ppb	17:04:31
2	Ni 231.604†	31859.5	32291.9	500.71	µg/L	500.71	ppb	17:04:11
2	P 214.914†	7136.0	7217.6	1959.6	µg/L	1959.6	ppb	17:04:31
2	Pb 220.353†	6487.1	6467.5	484.89	µg/L	484.89	ppb	17:04:31

2	S 181.975 Axial†	34059.7	34376.9	31099	µg/L	31099 ppb	17:04:31
2	Sb 206.836†	3093.8	3012.6	449.06	µg/L	449.06 ppb	17:04:31
2	Se 196.026†	1032.5	1005.3	446	µg/L	446 ppb	17:04:31
2	SiO2†	1222518.1	1234278.3	138880	µg/L	138880 ppb	17:04:09
2	Si 251.611†	3612023.7	3652245.1	64342	µg/L	64342 ppb	17:04:09
2	Sn 189.927†	5115.2	5197.0	458.66	µg/L	458.66 ppb	17:04:31
2	Ti 334.940†	751889.5	759312.5	810.13	µg/L	810.13 ppb	17:04:09
2	Tl 190.801†	2552.9	2736.9	462.07	µg/L	462.07 ppb	17:04:31
2	U 409.014†	7996.1	8107.4	501.92	µg/L	501.92 ppb	17:04:11
2	V 292.402†	83793.8	84592.6	511.87	µg/L	511.87 ppb	17:04:11
2	Zn 213.857†	115845.6	113642.2	796.99	µg/L	796.99 ppb	17:04:11
3	Sc RADIAL	123200.0	123200.0	100	%		17:03:39
3	Al 396.153Radial†	91011.9	90626.9	17144	µg/L	17144 ppb	17:03:39
3	Ca 317.933Radial†	1396146.4	1389096.2	130970	µg/L	130970 ppb	17:03:37
3	Fe 238.204 Radial†	280169.0	278742.5	27173	µg/L	27173 ppb	17:03:39
3	K 766.490 Radial†	117144.7	114889.4	42942	µg/L	42942 ppb	17:03:39
3	Mg 279.077 IEC†	25228.5	25055.1	17800	µg/L	17800 ppb	17:03:39
3	Na 589.592 Radial†	585690.0	582609.7	83056	µg/L	83056 ppb	17:03:37
3	Sr 421.552†	554214.2	551672.8	1211.1	µg/L	1211.1 ppb	17:03:37
3	Sc 361.383	1602585.8	1602585.8	99.254	%		17:04:34
3	Y 371.029	1054031.9	1054031.9	99.454	%		17:04:34
3	Ag 328.068†	119352.5	118256.8	477.73	µg/L	477.73 ppb	17:04:36
3	As 188.979†	1266.1	1311.2	469.28	µg/L	469.28 ppb	17:04:56
3	B 249.677†	36564.5	34761.5	602.52	µg/L	602.52 ppb	17:04:36
3	Ba 233.527†	160760.5	162274.2	822.29	µg/L	822.29 ppb	17:04:36
3	Be 313.107†	1423324.5	1434778.3	466.89	µg/L	466.89 ppb	17:04:34
3	Cd 226.502†	54439.3	55032.8	458.26	µg/L	458.26 ppb	17:04:36
3	Co 228.616†	27113.5	27552.2	478.99	µg/L	478.99 ppb	17:04:56
3	Cr 267.716†	52421.5	52610.0	510.86	µg/L	510.86 ppb	17:04:36
3	Cu 324.752†	120031.8	117418.7	502.37	µg/L	502.37 ppb	17:04:36
3	Mn 257.610†	1042588.9	1050301.7	1674.4	µg/L	1674.4 ppb	17:04:34
3	Mo 202.031†	13245.9	13359.3	494.44	µg/L	494.44 ppb	17:04:56
3	Ni 231.604†	31833.2	32144.0	498.41	µg/L	498.41 ppb	17:04:36
3	P 214.914†	7199.5	7254.4	1969.7	µg/L	1969.7 ppb	17:04:56
3	Pb 220.353†	6543.1	6499.3	487.26	µg/L	487.26 ppb	17:04:56
3	S 181.975 Axial†	34366.3	34556.1	31261	µg/L	31261 ppb	17:04:56
3	Sb 206.836†	3117.9	3025.1	451.00	µg/L	451.00 ppb	17:04:56
3	Se 196.026†	1043.0	1012.0	449	µg/L	449 ppb	17:04:56
3	SiO2†	1225636.7	1232764.9	138710	µg/L	138710 ppb	17:04:34
3	Si 251.611†	3619513.7	3646036.6	64233	µg/L	64233 ppb	17:04:34
3	Sn 189.927†	5162.1	5224.8	461.08	µg/L	461.08 ppb	17:04:56
3	Ti 334.940†	752294.6	756857.5	807.45	µg/L	807.45 ppb	17:04:34
3	Tl 190.801†	2561.9	2736.2	461.89	µg/L	461.89 ppb	17:04:56
3	U 409.014†	8131.2	8213.1	507.67	µg/L	507.67 ppb	17:04:36
3	V 292.402†	83628.8	84107.2	508.98	µg/L	508.98 ppb	17:04:36
3	Zn 213.857†	115173.2	112523.6	789.11	µg/L	789.11 ppb	17:04:36

Mean Data: 1202105376|979294|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1597835.3	98.960	%	0.2636				0.27%
Sc RADIAL	123522.9	101	%	1.0				0.98%
Y 371.029	1050465.8	99.117	%	0.3034				0.31%
Ag 328.068†	118631.8	479.25	µg/L	1.387	479.25	ppb	1.387	0.29%
Al 396.153Radial†	90580.2	17135	µg/L	26.1	17135	ppb	26.1	0.15%
As 188.979†	1318.3	471.76	µg/L	3.669	471.76	ppb	3.669	0.78%
B 249.677†	34953.4	605.86	µg/L	2.899	605.86	ppb	2.899	0.48%
Ba 233.527†	162944.8	825.69	µg/L	3.120	825.69	ppb	3.120	0.38%
Be 313.107†	1438294.4	468.03	µg/L	1.133	468.03	ppb	1.133	0.24%
Ca 317.933Radial†	1393850.4	131420	µg/L	1513.8	131420	ppb	1513.8	1.15%
Cd 226.502†	55269.7	460.25	µg/L	1.768	460.25	ppb	1.768	0.38%
Co 228.616†	27520.8	478.45	µg/L	1.532	478.45	ppb	1.532	0.32%
Cr 267.716†	52765.3	512.37	µg/L	1.440	512.37	ppb	1.440	0.28%
Cu 324.752†	118049.4	505.03	µg/L	2.536	505.03	ppb	2.536	0.50%
Fe 238.204 Radial†	278198.8	27120	µg/L	57.7	27120	ppb	57.7	0.21%
K 766.490 Radial†	114549.3	42814	µg/L	146.7	42814	ppb	146.7	0.34%
Mg 279.077 IEC†	25002.9	17763	µg/L	32.4	17763	ppb	32.4	0.18%
Mn 257.610†	1052709.0	1678.2	µg/L	4.77	1678.2	ppb	4.77	0.28%
Mo 202.031†	13354.7	494.26	µg/L	2.467	494.26	ppb	2.467	0.50%
Na 589.592 Radial†	584326.1	83301	µg/L	907.3	83301	ppb	907.3	1.09%

Ni 231.604†	32246.4	500.00 µg/L	1.378	500.00 ppb	1.378	0.28%
P 214.914†	7247.4	1967.8 µg/L	7.45	1967.8 ppb	7.45	0.38%
Pb 220.353†	6505.7	487.75 µg/L	3.125	487.75 ppb	3.125	0.64%
S 181.975 Axial†	34524.5	31232 µg/L	121.8	31232 ppb	121.8	0.39%
Sb 206.836†	3033.0	452.15 µg/L	3.789	452.15 ppb	3.789	0.84%
Se 196.026†	1012.1	449 µg/L	3.0	449 ppb	3.0	0.66%
SiO2†	1235635.7	139030 µg/L	420.7	139030 ppb	420.7	0.30%
Concentration greater than upper limit for SiO2.						
Si 251.611†	3655648.2	64402 µg/L	206.0	64402 ppb	206.0	0.32%
Concentration greater than upper limit for Si 251.611.						
Sn 189.927†	5224.9	461.10 µg/L	2.455	461.10 ppb	2.455	0.53%
Sr 421.552†	553753.6	1215.7 µg/L	12.85	1215.7 ppb	12.85	1.06%
Ti 334.940†	759044.9	809.80 µg/L	2.197	809.80 ppb	2.197	0.27%
Tl 190.801†	2737.5	462.16 µg/L	0.317	462.16 ppb	0.317	0.07%
U 409.014†	8194.3	506.77 µg/L	4.469	506.77 ppb	4.469	0.88%
V 292.402†	84440.2	510.98 µg/L	1.742	510.98 ppb	1.742	0.34%
Zn 213.857†	113085.2	793.07 µg/L	3.942	793.07 ppb	3.942	0.50%

Sequence No.: 14
Sample ID: 1202105377|979294|5
Analyst: CYL1
Initial Sample Wt:
Dilution:

Autosampler Location: 412
Date Collected: 4/30/2010 17:05:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202105377|979294|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	125007.3	125007.3	102	%			17:05:33
1	Al 396.153Radial†	13808.7	13595.2	2575.0	µg/L	2575.0	ppb	17:05:36
1	Ca 317.933Radial†	305177.1	298968.4	28188	µg/L	28188	ppb	17:05:33
1	Fe 238.204 Radial†	53255.1	52150.7	5083.9	µg/L	5083.9	ppb	17:05:36
1	K 766.490 Radial†	23833.1	21682.4	8103.3	µg/L	8103.3	ppb	17:05:33
1	Mg 279.077 IEC†	4294.6	4159.8	2953.0	µg/L	2953.0	ppb	17:05:36
1	Na 589.592 Radial†	124810.4	122144.7	17414	µg/L	17414	ppb	17:05:33
1	Sr 421.552†	77525.7	76155.1	167.11	µg/L	167.11	ppb	17:05:33
1	Sc 361.383	1622926.7	1622926.7	100.51	%			17:06:01
1	Y 371.029	1061657.0	1061657.0	100.17	%			17:06:01
1	Ag 328.068†	1766.1	-235.2	-1.6677	µg/L	-1.6677	ppb	17:06:04
1	As 188.979†	-41.3	-5.5	-0.6636	µg/L	-0.6636	ppb	17:06:24
1	B 249.677†	3747.2	1650.3	28.667	µg/L	28.667	ppb	17:06:24
1	Ba 233.527†	15473.1	15699.9	79.486	µg/L	79.486	ppb	17:06:04
1	Be 313.107†	1321.6	2076.2	0.6733	µg/L	0.6733	ppb	17:06:04
1	Cd 226.502†	-106.4	78.7	0.1290	µg/L	0.1290	ppb	17:06:24
1	Co 228.616†	39.7	274.5	4.5930	µg/L	4.5930	ppb	17:06:24
1	Cr 267.716†	1344.0	1131.8	11.067	µg/L	11.067	ppb	17:06:24
1	Cu 324.752†	4169.3	633.1	3.4987	µg/L	3.4987	ppb	17:06:04
1	Mn 257.610†	174527.1	173514.8	276.61	µg/L	276.61	ppb	17:06:04
1	Mo 202.031†	143.0	156.1	6.0182	µg/L	6.0182	ppb	17:06:24
1	Ni 231.604†	580.8	649.5	10.072	µg/L	10.072	ppb	17:06:24
1	P 214.914†	1240.6	1235.1	336.00	µg/L	336.00	ppb	17:06:24
1	Pb 220.353†	189.7	95.8	7.2784	µg/L	7.2784	ppb	17:06:24
1	S 181.975 Axial†	6543.3	6441.4	5826.4	µg/L	5826.4	ppb	17:06:24
1	Sb 206.836†	122.9	6.0	0.7480	µg/L	0.7480	ppb	17:06:24
1	Se 196.026†	29.8	-9.2	-2.23	µg/L	-2.23	ppb	17:06:24
1	SiO2†	249443.2	246088.1	27693	µg/L	27693	ppb	17:06:04
1	Si 251.611†	742918.2	738449.9	13011	µg/L	13011	ppb	17:06:01
1	Sn 189.927†	-27.9	-3.8	-0.0544	µg/L	-0.0544	ppb	17:06:24
1	Ti 334.940†	80166.8	78668.1	84.254	µg/L	84.254	ppb	17:06:04
1	Tl 190.801†	-166.9	-11.0	-0.1910	µg/L	-0.1910	ppb	17:06:24
1	U 409.014†	-142.1	-120.6	-4.4881	µg/L	-4.4881	ppb	17:06:04
1	V 292.402†	1783.8	1624.9	9.2439	µg/L	9.2439	ppb	17:06:04
1	Zn 213.857†	14479.4	10890.5	76.266	µg/L	76.266	ppb	17:06:04
2	Sc RADIAL	124012.7	124012.7	101	%			17:05:38
2	Al 396.153Radial†	13864.1	13758.6	2606.0	µg/L	2606.0	ppb	17:05:40
2	Ca 317.933Radial†	304977.6	301171.6	28396	µg/L	28396	ppb	17:05:38
2	Fe 238.204 Radial†	53305.1	52619.1	5129.6	µg/L	5129.6	ppb	17:05:40
2	K 766.490 Radial†	23880.2	21916.4	8190.8	µg/L	8190.8	ppb	17:05:38
2	Mg 279.077 IEC†	4271.0	4170.2	2960.4	µg/L	2960.4	ppb	17:05:40
2	Na 589.592 Radial†	124396.0	122716.7	17495	µg/L	17495	ppb	17:05:38
2	Sr 421.552†	76992.5	76237.7	167.29	µg/L	167.29	ppb	17:05:38
2	Sc 361.383	1633114.4	1633114.4	101.15	%			17:06:26
2	Y 371.029	1067907.1	1067907.1	100.76	%			17:06:26
2	Ag 328.068†	2062.9	47.3	-0.5299	µg/L	-0.5299	ppb	17:06:28
2	As 188.979†	-39.0	-3.0	0.2408	µg/L	0.2408	ppb	17:06:48
2	B 249.677†	3736.7	1616.6	28.083	µg/L	28.083	ppb	17:06:48
2	Ba 233.527†	15599.7	15729.1	79.634	µg/L	79.634	ppb	17:06:28
2	Be 313.107†	1439.8	2184.8	0.7107	µg/L	0.7107	ppb	17:06:28
2	Cd 226.502†	-90.6	95.0	0.2606	µg/L	0.2606	ppb	17:06:48
2	Co 228.616†	20.3	255.1	4.2526	µg/L	4.2526	ppb	17:06:48
2	Cr 267.716†	1368.8	1148.0	11.221	µg/L	11.221	ppb	17:06:48
2	Cu 324.752†	4118.6	557.2	3.1893	µg/L	3.1893	ppb	17:06:28
2	Mn 257.610†	175183.1	173080.3	275.92	µg/L	275.92	ppb	17:06:28
2	Mo 202.031†	151.4	163.6	6.2945	µg/L	6.2945	ppb	17:06:48
2	Ni 231.604†	566.7	632.0	9.7990	µg/L	9.7990	ppb	17:06:48
2	P 214.914†	1248.0	1234.6	335.85	µg/L	335.85	ppb	17:06:48
2	Pb 220.353†	191.1	96.0	7.2905	µg/L	7.2905	ppb	17:06:48

2	S 181.975 Axial†	6558.1	6415.4	5802.9	µg/L	5802.9	ppb	17:06:48
2	Sb 206.836†	119.9	2.3	0.1969	µg/L	0.1969	ppb	17:06:48
2	Se 196.026†	33.5	-5.8	-0.739	µg/L	-0.739	ppb	17:06:48
2	SiO2†	252041.4	247108.7	27808	µg/L	27808	ppb	17:06:28
2	Si 251.611†	741622.1	732557.8	12907	µg/L	12907	ppb	17:06:26
2	Sn 189.927†	-21.8	2.3	0.4937	µg/L	0.4937	ppb	17:06:48
2	Ti 334.940†	82564.9	80541.5	86.251	µg/L	86.251	ppb	17:06:28
2	Tl 190.801†	-169.9	-12.9	-0.4910	µg/L	-0.4910	ppb	17:06:48
2	U 409.014†	-25.9	-4.8	2.1187	µg/L	2.1187	ppb	17:06:28
2	V 292.402†	1798.4	1628.3	9.2658	µg/L	9.2658	ppb	17:06:28
2	Zn 213.857†	14472.2	10793.6	75.577	µg/L	75.577	ppb	17:06:28
3	Sc RADIAL	124533.1	124533.1	102	%			17:05:42
3	Al 396.153Radial†	13817.3	13655.3	2586.4	µg/L	2586.4	ppb	17:05:44
3	Ca 317.933Radial†	304325.1	299269.1	28216	µg/L	28216	ppb	17:05:42
3	Fe 238.204 Radial†	53459.9	52551.2	5123.0	µg/L	5123.0	ppb	17:05:44
3	K 766.490 Radial†	23744.9	21684.5	8104.1	µg/L	8104.1	ppb	17:05:42
3	Mg 279.077 IEC†	4224.8	4107.1	2915.5	µg/L	2915.5	ppb	17:05:44
3	Na 589.592 Radial†	124271.9	122080.5	17405	µg/L	17405	ppb	17:05:42
3	Sr 421.552†	77422.1	76342.5	167.52	µg/L	167.52	ppb	17:05:42
3	Sc 361.383	1621180.8	1621180.8	100.41	%			17:06:50
3	Y 371.029	1060032.6	1060032.6	100.02	%			17:06:50
3	Ag 328.068†	2039.5	39.0	-0.5633	µg/L	-0.5633	ppb	17:06:52
3	As 188.979†	-43.0	-7.2	-1.2479	µg/L	-1.2479	ppb	17:07:12
3	B 249.677†	3755.6	1662.6	28.883	µg/L	28.883	ppb	17:07:12
3	Ba 233.527†	15520.1	15763.4	79.808	µg/L	79.808	ppb	17:06:52
3	Be 313.107†	1311.6	2067.6	0.6711	µg/L	0.6711	ppb	17:06:52
3	Cd 226.502†	-117.2	67.8	0.0342	µg/L	0.0342	ppb	17:07:12
3	Co 228.616†	25.1	260.1	4.3393	µg/L	4.3393	ppb	17:07:12
3	Cr 267.716†	1349.4	1138.6	11.133	µg/L	11.133	ppb	17:07:12
3	Cu 324.752†	3937.7	406.9	2.5468	µg/L	2.5468	ppb	17:06:52
3	Mn 257.610†	175434.6	174605.7	278.36	µg/L	278.36	ppb	17:06:52
3	Mo 202.031†	149.5	162.7	6.2633	µg/L	6.2633	ppb	17:07:12
3	Ni 231.604†	596.1	665.4	10.318	µg/L	10.318	ppb	17:07:12
3	P 214.914†	1229.4	1225.2	333.28	µg/L	333.28	ppb	17:07:12
3	Pb 220.353†	178.9	85.3	6.4910	µg/L	6.4910	ppb	17:07:12
3	S 181.975 Axial†	6530.8	6436.0	5821.5	µg/L	5821.5	ppb	17:07:12
3	Sb 206.836†	124.4	7.7	0.9991	µg/L	0.9991	ppb	17:07:12
3	Se 196.026†	24.2	-14.7	-4.62	µg/L	-4.62	ppb	17:07:12
3	SiO2†	250431.8	247339.9	27834	µg/L	27834	ppb	17:06:52
3	Si 251.611†	743344.6	739670.6	13033	µg/L	13033	ppb	17:06:50
3	Sn 189.927†	-24.5	-0.5	0.2404	µg/L	0.2404	ppb	17:07:12
3	Ti 334.940†	80991.0	79574.9	85.222	µg/L	85.222	ppb	17:06:52
3	Tl 190.801†	-164.4	-8.6	0.2084	µg/L	0.2084	ppb	17:07:12
3	U 409.014†	-111.1	-89.9	-2.7201	µg/L	-2.7201	ppb	17:06:52
3	V 292.402†	1814.7	1657.6	9.4393	µg/L	9.4393	ppb	17:06:52
3	Zn 213.857†	14399.9	10826.9	75.812	µg/L	75.812	ppb	17:06:52

Mean Data: 1202105377|979294|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1625740.6	100.69	%	0.399				0.40%
Sc RADIAL	124517.7	102	%	0.4				0.40%
Y 371.029	1063198.9	100.32	%	0.392				0.39%
Ag 328.068†	-49.6	-0.9203	µg/L	0.64748	-0.9203	ppb	0.64748	70.35%
Al 396.153Radial†	13669.7	2589.1	µg/L	15.65	2589.1	ppb	15.65	0.60%
As 188.979†	-5.2	-0.5569	µg/L	0.75004	-0.5569	ppb	0.75004	134.68%
B 249.677†	1643.2	28.544	µg/L	0.4137	28.544	ppb	0.4137	1.45%
Ba 233.527†	15730.8	79.643	µg/L	0.1608	79.643	ppb	0.1608	0.20%
Be 313.107†	2109.5	0.6850	µg/L	0.02224	0.6850	ppb	0.02224	3.25%
Ca 317.933Radial†	299803.0	28267	µg/L	112.6	28267	ppb	112.6	0.40%
Cd 226.502†	80.5	0.1413	µg/L	0.11367	0.1413	ppb	0.11367	80.47%
Co 228.616†	263.2	4.3950	µg/L	0.17690	4.3950	ppb	0.17690	4.03%
Cr 267.716†	1139.4	11.140	µg/L	0.0771	11.140	ppb	0.0771	0.69%
Cu 324.752†	532.4	3.0782	µg/L	0.48555	3.0782	ppb	0.48555	15.77%
Fe 238.204 Radial†	52440.3	5112.2	µg/L	24.67	5112.2	ppb	24.67	0.48%
K 766.490 Radial†	21761.1	8132.8	µg/L	50.29	8132.8	ppb	50.29	0.62%
Mg 279.077 IEC†	4145.7	2942.9	µg/L	24.06	2942.9	ppb	24.06	0.82%
Mn 257.610†	173733.6	276.96	µg/L	1.254	276.96	ppb	1.254	0.45%
Mo 202.031†	160.8	6.1920	µg/L	0.15128	6.1920	ppb	0.15128	2.44%
Na 589.592 Radial†	122314.0	17438	µg/L	49.9	17438	ppb	49.9	0.29%

Ni 231.604†	649.0	10.063	µg/L	0.2596	10.063	ppb	0.2596	2.58%
P 214.914†	1231.6	335.04	µg/L	1.529	335.04	ppb	1.529	0.46%
Pb 220.353†	92.3	7.0200	µg/L	0.45813	7.0200	ppb	0.45813	6.53%
S 181.975 Axial†	6431.0	5817.0	µg/L	12.39	5817.0	ppb	12.39	0.21%
Sb 206.836†	5.3	0.6480	µg/L	0.41035	0.6480	ppb	0.41035	63.32%
Se 196.026†	-9.9	-2.53	µg/L	1.957	-2.53	ppb	1.957	77.32%
SiO2†	246845.6	27779	µg/L	75.0	27779	ppb	75.0	0.27%
Si 251.611†	736892.8	12984	µg/L	67.0	12984	ppb	67.0	0.52%
Sn 189.927†	-0.7	0.2266	µg/L	0.27429	0.2266	ppb	0.27429	121.06%
Sr 421.552†	76245.1	167.30	µg/L	0.206	167.30	ppb	0.206	0.12%
Ti 334.940†	79594.9	85.242	µg/L	0.9985	85.242	ppb	0.9985	1.17%
Tl 190.801†	-10.8	-0.1579	µg/L	0.35089	-0.1579	ppb	0.35089	222.26%
U 409.014†	-71.8	-1.6965	µg/L	3.42027	-1.6965	ppb	3.42027	201.60%
V 292.402†	1636.9	9.3163	µg/L	0.10706	9.3163	ppb	0.10706	1.15%
Zn 213.857†	10837.0	75.885	µg/L	0.3504	75.885	ppb	0.3504	0.46%

Sequence No.: 15
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/30/2010 17:07:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	124248.9	124248.9	101	%			17:07:53
1	Al 396.153Radial†	26351.8	26055.4	4912.6	µg/L	4912.6	ppb	17:07:53
1	Ca 317.933Radial†	53839.6	52774.8	4975.9	µg/L	4975.9	ppb	17:07:53
1	Fe 238.204 Radial†	53065.2	52282.1	5096.7	µg/L	5096.7	ppb	17:07:53
1	K 766.490 Radial†	15246.9	13352.1	4991.6	µg/L	4991.6	ppb	17:07:53
1	Mg 279.077 IEC†	7132.7	6986.2	4974.2	µg/L	4974.2	ppb	17:07:53
1	Na 589.592 Radial†	70460.4	69259.2	9873.6	µg/L	9873.6	ppb	17:07:51
1	Sr 421.552†	228672.2	225770.9	496.03	µg/L	496.03	ppb	17:07:51
1	Sc 361.383	1637741.3	1637741.3	101.43	%			17:08:06
1	Y 371.029	1068993.6	1068993.6	100.87	%			17:08:06
1	Ag 328.068†	126742.8	122961.5	500.27	µg/L	500.27	ppb	17:08:06
1	As 188.979†	1371.8	1388.0	490.96	µg/L	490.96	ppb	17:08:26
1	B 249.677†	30886.5	28372.8	491.43	µg/L	491.43	ppb	17:08:06
1	Ba 233.527†	98891.9	97802.0	495.92	µg/L	495.92	ppb	17:08:06
1	Be 313.107†	1557556.1	1536332.8	499.93	µg/L	499.93	ppb	17:08:06
1	Cd 226.502†	60286.6	59620.3	498.99	µg/L	498.99	ppb	17:08:06
1	Co 228.616†	28613.6	28444.8	495.35	µg/L	495.35	ppb	17:08:26
1	Cr 267.716†	52112.8	51171.9	496.56	µg/L	496.56	ppb	17:08:06
1	Cu 324.752†	121691.3	116458.8	494.78	µg/L	494.78	ppb	17:08:06
1	Mn 257.610†	317147.4	312551.5	498.29	µg/L	498.29	ppb	17:08:06
1	Mo 202.031†	13611.8	13433.5	496.07	µg/L	496.07	ppb	17:08:26
1	Ni 231.604†	32237.3	31854.0	493.92	µg/L	493.92	ppb	17:08:26
1	P 214.914†	9175.7	9047.0	2474.3	µg/L	2474.3	ppb	17:08:26
1	Pb 220.353†	6858.8	6669.0	499.47	µg/L	499.47	ppb	17:08:26
1	S 181.975 Axial†	1176.6	1091.6	991.59	µg/L	991.59	ppb	17:08:26
1	Sb 206.836†	3490.4	3324.9	496.31	µg/L	496.31	ppb	17:08:26
1	Se 196.026†	1184.7	1129.1	492	µg/L	492	ppb	17:08:26
1	SiO2†	43586.6	40892.3	4580.6	µg/L	4580.6	ppb	17:08:06
1	Si 251.611†	125568.0	123127.7	2159.6	µg/L	2159.6	ppb	17:08:06
1	Sn 189.927†	5662.5	5606.5	493.54	µg/L	493.54	ppb	17:08:26
1	Ti 334.940†	478185.7	470347.6	500.15	µg/L	500.15	ppb	17:08:06
1	Tl 190.801†	2912.6	3026.6	503.21	µg/L	503.21	ppb	17:08:26
1	U 409.014†	8817.9	8714.2	527.82	µg/L	527.82	ppb	17:08:06
1	V 292.402†	84127.0	82789.8	503.67	µg/L	503.67	ppb	17:08:06
1	Zn 213.857†	74697.1	70128.0	492.36	µg/L	492.36	ppb	17:08:06
2	Sc RADIAL	123610.3	123610.3	101	%			17:07:58
2	Al 396.153Radial†	26031.3	25871.8	4877.7	µg/L	4877.7	ppb	17:07:58
2	Ca 317.933Radial†	53327.8	52541.5	4953.9	µg/L	4953.9	ppb	17:07:58
2	Fe 238.204 Radial†	52403.7	51896.5	5059.1	µg/L	5059.1	ppb	17:07:58
2	K 766.490 Radial†	15125.1	13309.0	4975.4	µg/L	4975.4	ppb	17:07:58
2	Mg 279.077 IEC†	7055.0	6945.4	4945.3	µg/L	4945.3	ppb	17:07:58
2	Na 589.592 Radial†	71457.1	70607.0	10066	µg/L	10066	ppb	17:07:56
2	Sr 421.552†	232697.0	230929.0	507.36	µg/L	507.36	ppb	17:07:56
2	Sc 361.383	1623786.0	1623786.0	100.57	%			17:08:29
2	Y 371.029	1061059.8	1061059.8	100.12	%			17:08:29
2	Ag 328.068†	125173.5	122475.0	498.27	µg/L	498.27	ppb	17:08:29
2	As 188.979†	1357.3	1385.2	489.99	µg/L	489.99	ppb	17:08:49
2	B 249.677†	30697.2	28446.3	492.70	µg/L	492.70	ppb	17:08:29
2	Ba 233.527†	97369.4	97126.1	492.50	µg/L	492.50	ppb	17:08:29
2	Be 313.107†	1535566.4	1527664.3	497.11	µg/L	497.11	ppb	17:08:29
2	Cd 226.502†	59200.3	59050.9	494.23	µg/L	494.23	ppb	17:08:29
2	Co 228.616†	28491.0	28565.4	497.45	µg/L	497.45	ppb	17:08:49
2	Cr 267.716†	51507.6	51011.7	495.00	µg/L	495.00	ppb	17:08:29
2	Cu 324.752†	120262.0	116068.7	493.12	µg/L	493.12	ppb	17:08:29
2	Mn 257.610†	312689.6	310806.0	495.51	µg/L	495.51	ppb	17:08:29
2	Mo 202.031†	13572.5	13509.8	498.88	µg/L	498.88	ppb	17:08:49
2	Ni 231.604†	32126.9	32017.4	496.45	µg/L	496.45	ppb	17:08:49
2	P 214.914†	9153.1	9102.3	2489.5	µg/L	2489.5	ppb	17:08:49
2	Pb 220.353†	6796.1	6664.8	499.16	µg/L	499.16	ppb	17:08:49

2	S 181.975 Axial†	1163.7	1088.7	989.00 µg/L	989.00 ppb	17:08:49
2	Sb 206.836†	3473.8	3338.0	498.32 µg/L	498.32 ppb	17:08:49
2	Se 196.026†	1195.2	1149.6	501 µg/L	501 ppb	17:08:49
2	SiO2†	43375.6	41051.7	4598.4 µg/L	4598.4 ppb	17:08:29
2	Si 251.611†	124296.4	122927.2	2156.0 µg/L	2156.0 ppb	17:08:29
2	Sn 189.927†	5652.7	5644.7	496.88 µg/L	496.88 ppb	17:08:49
2	Ti 334.940†	472728.6	468973.0	498.69 µg/L	498.69 ppb	17:08:29
2	Tl 190.801†	2899.2	3038.0	505.02 µg/L	505.02 ppb	17:08:49
2	U 409.014†	8712.8	8684.4	525.92 µg/L	525.92 ppb	17:08:29
2	V 292.402†	82836.5	82219.4	500.27 µg/L	500.27 ppb	17:08:29
2	Zn 213.857†	73633.9	69703.7	489.34 µg/L	489.34 ppb	17:08:29
3	Sc RADIAL	122458.3	122458.3	99.9 %		17:08:02
3	Al 396.153Radial†	25927.4	26010.8	4904.0 µg/L	4904.0 ppb	17:08:02
3	Ca 317.933Radial†	53107.7	52818.8	4980.0 µg/L	4980.0 ppb	17:08:02
3	Fe 238.204 Radial†	52044.0	52025.3	5071.7 µg/L	5071.7 ppb	17:08:02
3	K 766.490 Radial†	15004.7	13329.6	4983.2 µg/L	4983.2 ppb	17:08:02
3	Mg 279.077 IEC†	7002.9	6959.1	4955.1 µg/L	4955.1 ppb	17:08:02
3	Na 589.592 Radial†	70130.4	69945.4	9971.5 µg/L	9971.5 ppb	17:08:00
3	Sr 421.552†	228349.7	228747.7	502.57 µg/L	502.57 ppb	17:08:00
3	Sc 361.383	1629159.1	1629159.1	100.90 %		17:08:53
3	Y 371.029	1063357.3	1063357.3	100.33 %		17:08:53
3	Ag 328.068†	125654.8	122541.6	498.55 µg/L	498.55 ppb	17:08:53
3	As 188.979†	1364.2	1387.6	490.83 µg/L	490.83 ppb	17:09:13
3	B 249.677†	30848.5	28495.6	493.55 µg/L	493.55 ppb	17:08:53
3	Ba 233.527†	98076.1	97507.1	494.43 µg/L	494.43 ppb	17:08:53
3	Be 313.107†	1546212.1	1533179.2	498.91 µg/L	498.91 ppb	17:08:53
3	Cd 226.502†	59706.8	59358.7	496.81 µg/L	496.81 ppb	17:08:53
3	Co 228.616†	28629.7	28609.4	498.22 µg/L	498.22 ppb	17:09:13
3	Cr 267.716†	51755.8	51088.8	495.75 µg/L	495.75 ppb	17:08:53
3	Cu 324.752†	120674.5	116083.1	493.18 µg/L	493.18 ppb	17:08:53
3	Mn 257.610†	314057.6	311136.3	496.03 µg/L	496.03 ppb	17:08:53
3	Mo 202.031†	13603.1	13495.6	498.35 µg/L	498.35 ppb	17:09:13
3	Ni 231.604†	32311.2	32094.7	497.65 µg/L	497.65 ppb	17:09:13
3	P 214.914†	9171.5	9090.4	2486.3 µg/L	2486.3 ppb	17:09:13
3	Pb 220.353†	6850.8	6696.7	501.54 µg/L	501.54 ppb	17:09:13
3	S 181.975 Axial†	1178.5	1099.6	998.81 µg/L	998.81 ppb	17:09:13
3	Sb 206.836†	3477.3	3330.1	497.12 µg/L	497.12 ppb	17:09:13
3	Se 196.026†	1188.2	1138.8	496 µg/L	496 ppb	17:09:13
3	SiO2†	43810.2	41340.2	4630.9 µg/L	4630.9 ppb	17:08:53
3	Si 251.611†	125713.4	123924.0	2173.6 µg/L	2173.6 ppb	17:08:53
3	Sn 189.927†	5672.8	5646.1	497.01 µg/L	497.01 ppb	17:09:13
3	Ti 334.940†	474522.1	469200.1	498.93 µg/L	498.93 ppb	17:08:53
3	Tl 190.801†	2902.7	3031.9	504.03 µg/L	504.03 ppb	17:09:13
3	U 409.014†	8797.4	8739.7	529.13 µg/L	529.13 ppb	17:08:53
3	V 292.402†	83286.9	82394.1	501.31 µg/L	501.31 ppb	17:08:53
3	Zn 213.857†	74093.9	69918.1	490.85 µg/L	490.85 ppb	17:08:53

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1630228.8	100.97	%	0.436				0.43%
Sc RADIAL	123439.2	101	%	0.7				0.74%
Y 371.029	1064470.2	100.44	%	0.385				0.38%
Ag 328.068†	122659.3	499.03	µg/L	1.080	499.03	ppb	1.080	0.22%
QC value within limits for Ag 328.068 Recovery = 99.81%								
Al 396.153Radial†	25979.4	4898.1	µg/L	18.19	4898.1	ppb	18.19	0.37%
QC value within limits for Al 396.153Radial Recovery = 97.96%								
As 188.979†	1387.0	490.59	µg/L	0.528	490.59	ppb	0.528	0.11%
QC value within limits for As 188.979 Recovery = 98.12%								
B 249.677†	28438.2	492.56	µg/L	1.069	492.56	ppb	1.069	0.22%
QC value within limits for B 249.677 Recovery = 98.51%								
Ba 233.527†	97478.4	494.28	µg/L	1.717	494.28	ppb	1.717	0.35%
QC value within limits for Ba 233.527 Recovery = 98.86%								
Be 313.107†	1532392.1	498.65	µg/L	1.428	498.65	ppb	1.428	0.29%
QC value within limits for Be 313.107 Recovery = 99.73%								
Ca 317.933Radial†	52711.7	4969.9	µg/L	14.05	4969.9	ppb	14.05	0.28%
QC value within limits for Ca 317.933Radial Recovery = 99.40%								
Cd 226.502†	59343.3	496.68	µg/L	2.384	496.68	ppb	2.384	0.48%
QC value within limits for Cd 226.502 Recovery = 99.34%								
Co 228.616†	28539.9	497.01	µg/L	1.482	497.01	ppb	1.482	0.30%

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   QC value within limits for Co 228.616  Recovery = 99.40%
Cr 267.716†            51090.8      495.77 µg/L         0.778      495.77 ppb          0.778   0.16%
   QC value within limits for Cr 267.716  Recovery = 99.15%
Cu 324.752†           116203.5      493.69 µg/L         0.939      493.69 ppb          0.939   0.19%
   QC value within limits for Cu 324.752  Recovery = 98.74%
Fe 238.204 Radial†     52068.0      5075.9 µg/L         19.13      5075.9 ppb          19.13   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.52%
K 766.490 Radial†      13330.3      4983.4 µg/L          8.08      4983.4 ppb           8.08   0.16%
   QC value within limits for K 766.490 Radial  Recovery = 99.67%
Mg 279.077 IEC†         6963.6      4958.2 µg/L         14.70      4958.2 ppb          14.70   0.30%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.16%
Mn 257.610†           311497.9      496.61 µg/L         1.478      496.61 ppb          1.478   0.30%
   QC value within limits for Mn 257.610  Recovery = 99.32%
Mo 202.031†            13479.7      497.77 µg/L         1.495      497.77 ppb          1.495   0.30%
   QC value within limits for Mo 202.031  Recovery = 99.55%
Na 589.592 Radial†     69937.2      9970.3 µg/L         96.13      9970.3 ppb          96.13   0.96%
   QC value within limits for Na 589.592 Radial  Recovery = 99.70%
Ni 231.604†            31988.7      496.00 µg/L         1.906      496.00 ppb          1.906   0.38%
   QC value within limits for Ni 231.604  Recovery = 99.20%
P 214.914†              9079.9      2483.4 µg/L          8.01      2483.4 ppb           8.01   0.32%
   QC value within limits for P 214.914  Recovery = 99.34%
Pb 220.353†             6676.8      500.06 µg/L         1.296      500.06 ppb          1.296   0.26%
   QC value within limits for Pb 220.353  Recovery = 100.01%
S 181.975 Axial†        1093.3      993.13 µg/L         5.086      993.13 ppb          5.086   0.51%
   QC value within limits for S 181.975 Axial  Recovery = 99.31%
Sb 206.836†             3331.0      497.25 µg/L         1.012      497.25 ppb          1.012   0.20%
   QC value within limits for Sb 206.836  Recovery = 99.45%
Se 196.026†             1139.2         496 µg/L           4.4         496 ppb            4.4   0.90%
   QC value within limits for Se 196.026  Recovery = 99.29%
SiO2†                  41094.7      4603.3 µg/L         25.50      4603.3 ppb          25.50   0.55%
   QC value less than the lower limit for SiO2  Recovery = 86.08%
Si 251.611†           123326.3      2163.1 µg/L          9.28      2163.1 ppb           9.28   0.43%
   QC value less than the lower limit for Si 251.611  Recovery = 86.52%
Sn 189.927†             5632.4      495.81 µg/L         1.969      495.81 ppb          1.969   0.40%
   QC value within limits for Sn 189.927  Recovery = 99.16%
Sr 421.552†           228482.5      501.98 µg/L         5.689      501.98 ppb          5.689   1.13%
   QC value within limits for Sr 421.552  Recovery = 100.40%
Ti 334.940†           469506.9      499.26 µg/L         0.783      499.26 ppb          0.783   0.16%
   QC value within limits for Ti 334.940  Recovery = 99.85%
Tl 190.801†             3032.1      504.09 µg/L         0.908      504.09 ppb          0.908   0.18%
   QC value within limits for Tl 190.801  Recovery = 100.82%
U 409.014†              8712.8      527.62 µg/L         1.618      527.62 ppb          1.618   0.31%
   QC value within limits for U 409.014  Recovery = 105.52%
V 292.402†             82467.7      501.75 µg/L         1.740      501.75 ppb          1.740   0.35%
   QC value within limits for V 292.402  Recovery = 100.35%
Zn 213.857†            69916.6      490.85 µg/L         1.508      490.85 ppb          1.508   0.31%
   QC value within limits for Zn 213.857  Recovery = 98.17%
QC Failed.  Continue with analysis.
```

Sequence No.: 16
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/30/2010 17:09:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	123656.2	123656.2	101	%			17:09:50
1	Al 396.153Radial†	-58.5	-6.6	-1.2631	µg/L	-1.2631	ppb	17:10:10
1	Ca 317.933Radial†	428.0	70.1	6.6076	µg/L	6.6076	ppb	17:10:10
1	Fe 238.204 Radial†	118.1	34.3	3.3432	µg/L	3.3432	ppb	17:10:10
1	K 766.490 Radial†	1731.5	23.3	8.7272	µg/L	8.7272	ppb	17:09:50
1	Mg 279.077 IEC†	63.7	10.7	7.6352	µg/L	7.6352	ppb	17:10:10
1	Na 589.592 Radial†	390.4	115.7	16.495	µg/L	16.495	ppb	17:09:50
1	Sr 421.552†	-34.4	82.5	0.1812	µg/L	0.1812	ppb	17:09:50
1	Sc 361.383	1631129.2	1631129.2	101.02	%			17:10:58
1	Y 371.029	1068233.0	1068233.0	100.79	%			17:10:58
1	Ag 328.068†	2048.3	35.3	0.1414	µg/L	0.1414	ppb	17:11:00
1	As 188.979†	-46.5	-10.4	-3.6326	µg/L	-3.6326	ppb	17:11:20
1	B 249.677†	2142.0	42.6	0.7398	µg/L	0.7398	ppb	17:11:20
1	Ba 233.527†	-297.8	11.2	0.0568	µg/L	0.0568	ppb	17:11:20
1	Be 313.107†	-448.0	317.8	0.1042	µg/L	0.1042	ppb	17:11:00
1	Cd 226.502†	-185.9	0.5	0.0038	µg/L	0.0038	ppb	17:11:20
1	Co 228.616†	-232.6	4.8	0.0838	µg/L	0.0838	ppb	17:11:20
1	Cr 267.716†	216.4	8.9	0.0841	µg/L	0.0841	ppb	17:11:20
1	Cu 324.752†	3377.7	-171.3	-0.7227	µg/L	-0.7227	ppb	17:11:00
1	Mn 257.610†	126.9	6.2	0.0095	µg/L	0.0095	ppb	17:11:20
1	Mo 202.031†	-1.4	12.5	0.4630	µg/L	0.4630	ppb	17:11:20
1	Ni 231.604†	-79.2	-6.7	-0.1033	µg/L	-0.1033	ppb	17:11:20
1	P 214.914†	4.2	5.0	1.3544	µg/L	1.3544	ppb	17:11:20
1	Pb 220.353†	85.2	-8.7	-0.6466	µg/L	-0.6466	ppb	17:11:20
1	S 181.975 Axial†	67.4	-1.7	-1.5326	µg/L	-1.5326	ppb	17:11:20
1	Sb 206.836†	114.2	-3.2	-0.4709	µg/L	-0.4709	ppb	17:11:20
1	Se 196.026†	30.7	-8.5	-3.66	µg/L	-3.66	ppb	17:11:20
1	SiO2†	2079.3	-20.9	-2.3542	µg/L	-2.3542	ppb	17:11:20
1	Si 251.611†	718.5	43.3	0.7615	µg/L	0.7615	ppb	17:11:20
1	Sn 189.927†	-32.5	-8.2	-0.7228	µg/L	-0.7228	ppb	17:11:20
1	Ti 334.940†	1020.2	-78.7	-0.0853	µg/L	-0.0853	ppb	17:11:00
1	Tl 190.801†	-148.6	8.0	1.3036	µg/L	1.3036	ppb	17:11:20
1	U 409.014†	24.8	45.3	2.5676	µg/L	2.5676	ppb	17:11:00
1	V 292.402†	103.5	-47.3	-0.2773	µg/L	-0.2773	ppb	17:11:00
1	Zn 213.857†	4490.0	929.8	6.5809	µg/L	6.5809	ppb	17:11:20
2	Sc RADIAL	123215.7	123215.7	100	%			17:10:12
2	Al 396.153Radial†	-25.4	26.2	4.9448	µg/L	4.9448	ppb	17:10:32
2	Ca 317.933Radial†	427.3	70.9	6.6809	µg/L	6.6809	ppb	17:10:32
2	Fe 238.204 Radial†	98.9	15.6	1.5207	µg/L	1.5207	ppb	17:10:32
2	K 766.490 Radial†	1772.5	70.2	26.253	µg/L	26.253	ppb	17:10:12
2	Mg 279.077 IEC†	71.3	18.5	13.142	µg/L	13.142	ppb	17:10:32
2	Na 589.592 Radial†	437.3	163.7	23.328	µg/L	23.328	ppb	17:10:12
2	Sr 421.552†	-153.8	-36.4	-0.0801	µg/L	-0.0801	ppb	17:10:12
2	Sc 361.383	1648601.9	1648601.9	102.10	%			17:11:22
2	Y 371.029	1078910.2	1078910.2	101.80	%			17:11:22
2	Ag 328.068†	1919.0	-112.9	-0.4680	µg/L	-0.4680	ppb	17:11:25
2	As 188.979†	-50.8	-14.2	-4.9384	µg/L	-4.9384	ppb	17:11:45
2	B 249.677†	2113.1	-8.2	-0.1429	µg/L	-0.1429	ppb	17:11:45
2	Ba 233.527†	-320.3	-7.8	-0.0394	µg/L	-0.0394	ppb	17:11:45
2	Be 313.107†	-543.3	229.2	0.0716	µg/L	0.0716	ppb	17:11:25
2	Cd 226.502†	-166.1	21.9	0.1827	µg/L	0.1827	ppb	17:11:45
2	Co 228.616†	-227.3	12.5	0.2173	µg/L	0.2173	ppb	17:11:45
2	Cr 267.716†	241.0	30.7	0.3052	µg/L	0.3052	ppb	17:11:45
2	Cu 324.752†	3325.9	-257.5	-1.0977	µg/L	-1.0977	ppb	17:11:25
2	Mn 257.610†	139.2	16.9	0.0264	µg/L	0.0264	ppb	17:11:45
2	Mo 202.031†	-8.1	6.0	0.2203	µg/L	0.2203	ppb	17:11:45
2	Ni 231.604†	-96.5	-22.8	-0.3541	µg/L	-0.3541	ppb	17:11:45
2	P 214.914†	36.8	36.8	10.112	µg/L	10.112	ppb	17:11:45
2	Pb 220.353†	95.4	0.5	0.0446	µg/L	0.0446	ppb	17:11:45

2	S 181.975 Axial†	67.9	-1.9	-1.6764 µg/L	-1.6764 ppb	17:11:45
2	Sb 206.836†	131.1	12.2	1.8112 µg/L	1.8112 ppb	17:11:45
2	Se 196.026†	25.5	-13.9	-6.04 µg/L	-6.04 ppb	17:11:45
2	SiO2†	2095.1	-27.2	-3.0553 µg/L	-3.0553 ppb	17:11:45
2	Si 251.611†	726.0	43.1	0.7625 µg/L	0.7625 ppb	17:11:45
2	Sn 189.927†	-36.5	-11.8	-1.0360 µg/L	-1.0360 ppb	17:11:45
2	Ti 334.940†	1103.7	-7.6	-0.0051 µg/L	-0.0051 ppb	17:11:25
2	Tl 190.801†	-139.5	18.5	3.0230 µg/L	3.0230 ppb	17:11:45
2	U 409.014†	-196.2	-171.4	-9.7970 µg/L	-9.7970 ppb	17:11:25
2	V 292.402†	119.0	-33.2	-0.2026 µg/L	-0.2026 ppb	17:11:25
2	Zn 213.857†	4476.7	869.6	6.1577 µg/L	6.1577 ppb	17:11:45
3	Sc RADIAL	123420.6	123420.6	101 %		17:10:34
3	Al 396.153Radial†	-48.5	3.2	0.5753 µg/L	0.5753 ppb	17:10:54
3	Ca 317.933Radial†	393.0	36.1	3.3998 µg/L	3.3998 ppb	17:10:54
3	Fe 238.204 Radial†	98.6	15.1	1.4745 µg/L	1.4745 ppb	17:10:54
3	K 766.490 Radial†	1705.8	1.0	0.3892 µg/L	0.3892 ppb	17:10:34
3	Mg 279.077 IEC†	56.3	3.5	2.5155 µg/L	2.5155 ppb	17:10:54
3	Na 589.592 Radial†	235.3	-37.6	-5.3656 µg/L	-5.3656 ppb	17:10:34
3	Sr 421.552†	-112.8	4.6	0.0100 µg/L	0.0100 ppb	17:10:34
3	Sc 361.383	1624651.9	1624651.9	100.62 %		17:11:47
3	Y 371.029	1063956.7	1063956.7	100.39 %		17:11:47
3	Ag 328.068†	2128.6	123.2	0.5074 µg/L	0.5074 ppb	17:11:49
3	As 188.979†	-38.1	-2.2	-0.7822 µg/L	-0.7822 ppb	17:12:09
3	B 249.677†	2097.5	6.8	0.1170 µg/L	0.1170 ppb	17:12:09
3	Ba 233.527†	-306.0	1.9	0.0103 µg/L	0.0103 ppb	17:12:09
3	Be 313.107†	-607.4	157.7	0.0529 µg/L	0.0529 ppb	17:11:49
3	Cd 226.502†	-161.7	23.9	0.1996 µg/L	0.1996 ppb	17:12:09
3	Co 228.616†	-227.0	9.5	0.1646 µg/L	0.1646 ppb	17:12:09
3	Cr 267.716†	194.6	-12.0	-0.1198 µg/L	-0.1198 ppb	17:12:09
3	Cu 324.752†	3481.0	-55.3	-0.2296 µg/L	-0.2296 ppb	17:11:49
3	Mn 257.610†	142.6	22.3	0.0355 µg/L	0.0355 ppb	17:12:09
3	Mo 202.031†	5.1	19.0	0.7012 µg/L	0.7012 ppb	17:12:09
3	Ni 231.604†	-83.9	-11.7	-0.1813 µg/L	-0.1813 ppb	17:12:09
3	P 214.914†	29.3	30.0	8.2133 µg/L	8.2133 ppb	17:12:09
3	Pb 220.353†	88.8	-4.7	-0.3557 µg/L	-0.3557 ppb	17:12:09
3	S 181.975 Axial†	71.1	2.3	2.0813 µg/L	2.0813 ppb	17:12:09
3	Sb 206.836†	113.0	-3.9	-0.5669 µg/L	-0.5669 ppb	17:12:09
3	Se 196.026†	27.5	-11.5	-4.99 µg/L	-4.99 ppb	17:12:09
3	SiO2†	2137.0	44.7	5.0124 µg/L	5.0124 ppb	17:12:09
3	Si 251.611†	701.8	29.5	0.5120 µg/L	0.5120 ppb	17:12:09
3	Sn 189.927†	-26.5	-2.4	-0.2148 µg/L	-0.2148 ppb	17:12:09
3	Ti 334.940†	927.5	-166.8	-0.1798 µg/L	-0.1798 ppb	17:11:49
3	Tl 190.801†	-163.5	-7.4	-1.2099 µg/L	-1.2099 ppb	17:12:09
3	U 409.014†	70.5	90.9	5.2172 µg/L	5.2172 ppb	17:11:49
3	V 292.402†	238.2	86.9	0.5322 µg/L	0.5322 ppb	17:11:49
3	Zn 213.857†	4517.5	974.8	6.9001 µg/L	6.9001 ppb	17:12:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1634794.3	101.25	%	0.767				0.76%
Sc RADIAL	123430.8	101	%	0.2				0.18%
Y 371.029	1070366.6	101.00	%	0.727				0.72%
Ag 328.068†	15.2	0.0603	µg/L	0.49273	0.0603	ppb	0.49273	817.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.6	1.4190	µg/L	3.18882	1.4190	ppb	3.18882	224.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-9.0	-3.1178	µg/L	2.12540	-3.1178	ppb	2.12540	68.17%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	13.7	0.2380	µg/L	0.45363	0.2380	ppb	0.45363	190.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.8	0.0092	µg/L	0.04810	0.0092	ppb	0.04810	520.06%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	234.9	0.0762	µg/L	0.02596	0.0762	ppb	0.02596	34.07%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	59.0	5.5628	µg/L	1.87354	5.5628	ppb	1.87354	33.68%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	15.4	0.1287	µg/L	0.10850	0.1287	ppb	0.10850	84.30%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.9	0.1552	µg/L	0.06722	0.1552	ppb	0.06722	43.30%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.2      0.0898 µg/L       0.21260      0.0898 ppb        0.21260 236.67%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -161.4     -0.6833 µg/L       0.43538     -0.6833 ppb        0.43538  63.71%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         21.7      2.1128 µg/L       1.06578      2.1128 ppb        1.06578  50.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          31.5      11.790 µg/L       13.2010      11.790 ppb        13.2010 111.97%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            10.9      7.7643 µg/L       5.31448      7.7643 ppb        5.31448  68.45%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                15.1      0.0238 µg/L       0.01318      0.0238 ppb        0.01318  55.39%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.5      0.4615 µg/L       0.24048      0.4615 ppb        0.24048  52.11%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         80.6      11.486 µg/L       14.9884      11.486 ppb        14.9884 130.49%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -13.7     -0.2129 µg/L       0.12833     -0.2129 ppb        0.12833  60.28%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 23.9      6.5599 µg/L       4.60703      6.5599 ppb        4.60703  70.23%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.3     -0.3192 µg/L       0.34704     -0.3192 ppb        0.34704 108.72%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.4     -0.3759 µg/L       2.12918     -0.3759 ppb        2.12918 566.41%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.7      0.2578 µg/L       1.34616      0.2578 ppb        1.34616 522.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -11.3       -4.90 µg/L         1.191       -4.90 ppb          1.191  24.32%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      -1.1     -0.1324 µg/L       4.46927     -0.1324 ppb        4.46927 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                38.6      0.6787 µg/L       0.14437      0.6787 ppb        0.14437  21.27%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -7.5     -0.6579 µg/L       0.41444     -0.6579 ppb        0.41444  63.00%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                16.9      0.0370 µg/L       0.13274      0.0370 ppb        0.13274 358.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -84.4     -0.0901 µg/L       0.08745     -0.0901 ppb        0.08745  97.07%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.4      1.0389 µg/L       2.12885      1.0389 ppb        2.12885 204.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -11.8     -0.6708 µg/L       8.01384     -0.6708 ppb        8.01384 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  2.1      0.0174 µg/L       0.44736      0.0174 ppb        0.44736 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               924.7      6.5462 µg/L       0.37243      6.5462 ppb        0.37243   5.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS#3 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, May 13, 2010 10:26:55
Sample Description:
Method File: C:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.8711
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	194.0	194.001	9.301	4.8
	Mg	24.0	2904.1	2904.095	51.825	1.8
	Co	58.9	18768.3	18768.322	191.284	1.0
	Rh	102.9	44640.4	44640.444	451.567	1.0
	In	114.9	53916.4	53916.360	531.441	1.0
	Pb	208.0	51066.3	51066.312	348.138	0.7
⌈>	Ba	137.9	60123.3	60123.261	305.573	0.5
⌊	Ba++	69.0	1527.2	0.025	0.001	2.5
⌈>	Ce	139.9	71869.3	71869.345	776.589	1.1
⌊	CeO	155.9	1883.7	0.026	0.001	2.3
	Bkgd	220.0	10.7	10.700	2.885	27.0

Current Optimization File Data

Current Value	Description
0.99	Nebulizer Gas Flow
6.30	Lens Voltage
1450.00	ICP RF Power
-1825.00	Analog Stage Voltage
950.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-7.00	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	6.3	403.3
Co	59	21	6.3	38546.3
In	115	21	7.3	190328.5

Instrument Tuning Report

File Name: 100513.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
He	3.016	3.025	588	2060	0.674	
Be	9.012	9.079	2064	2040	0.763	
Mg	23.985	23.979	5708	2110	0.625	
Mg	24.986	24.879	5895	2020	0.685	
Mg	25.983	26.078	6216	2140	0.743	
Co	58.933	58.978	14211	2115	0.707	
Rh	102.905	102.978	24918	2165	0.727	
In	114.904	114.929	27832	2180	0.725	
Ce	139.905	139.928	33919	2220	0.689	
Pb	205.975	205.977	49991	2280	0.779	
Pb	206.976	207.029	50272	2310	0.787	
Pb	207.977	208.078	50498	2300	0.737	
U	238.050	238.076	57847	2340	0.755	

ICPMS#3 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, May 13, 2010 12:21:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\Blank.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		251006	
	U	238		ug/L		84	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, May 13, 2010 12:23:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\Standard 1.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		252010	252009.946
⌊	U	238	10.000	ug/L	0.681	153762	0.610

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, May 13, 2010 12:24:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\Standard 2.052

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		250898	250898.252
⌊	U	238	**99.936**	**ug/L**	1.395	1436979	5.729

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, May 13, 2010 12:26:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 1.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		255440	255440.425
	U	238	53.107	ug/L	1.068	777610	3.045

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		101.8			
	U	238	106.213				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, May 13, 2010 12:28:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 2.054

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		248310	248310.367
⌊	U	238	0.009	ug/L	14.216	215	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		98.9			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, May 13, 2010 12:29:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 3.055

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		251375	251374.707
	U	238	**0.225**	ug/L	0.453	3332	0.013

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		100.1			
	U	238	112.707				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, May 13, 2010 12:31:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 4.056

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		235064	235063.530
⌊	U	238	0.004	ug/L	23.748	128	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		93.6			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, May 13, 2010 12:33:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 5.057

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		239085	239084.703
	U	238	19.897	ug/L	2.172	272635	1.141

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		95.3			
	U	238	99.486				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 13, 2010 12:35:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 6.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		259784	259784.191
	U	238	51.608	ug/L	1.293	768460	2.959

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		103.5			
	U	238	103.216				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 13, 2010 12:36:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 7.059

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		254231	254230.648
	U	238	**0.008**	**ug/L**	10.554	195	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		101.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 13, 2010 12:50:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 6.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		248178	248177.853
	U	238	52.194	ug/L	0.792	742663	2.992

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		98.9			
	U	238	104.388				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 13, 2010 12:52:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 7.067

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		253310	253310.290
	U	238	0.008	ug/L	21.218	197	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		100.9			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202105362
Sample Date/Time: Thursday, May 13, 2010 12:53:58
Sample Type:
Sample Description: ARSL 6020 MB
Number of Replicates: 3
Batch ID: 979291|1|prb
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\1202105362.068

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		300962	300961.668
	U	238	**0.016**	**ug/L**	6.613	384	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		119.9			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202105363
Sample Date/Time: Thursday, May 13, 2010 12:55:59
Sample Type:
Sample Description: ARSL 6020 LCS
Number of Replicates: 3
Batch ID: 979291|1|prb
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\1202105363.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		299865	299864.528
⌊	U	238	51.468	ug/L	2.192	884438	2.951

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		119.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 251870001
Sample Date/Time: Thursday, May 13, 2010 12:58:01
Sample Type:
Sample Description: ARSL 6020
Number of Replicates: 3
Batch ID: 979291|1|prb
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\251870001.070

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		294394	294393.623
	U	238	**3.133**	**ug/L**	2.109	52967	0.180

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		117.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202105364
Sample Date/Time: Thursday, May 13, 2010 13:00:04
Sample Type:
Sample Description: ARSL 6020 DUP
Number of Replicates: 3
Batch ID: 979291|1|prb
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\1202105364.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		288621	288620.649
⌊	U	238	3.353	ug/L	2.236	55542	0.192

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		115.0			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202105365
Sample Date/Time: Thursday, May 13, 2010 13:02:05
Sample Type:
Sample Description: ARSL 6020 MS
Number of Replicates: 3
Batch ID: 979291|1|prb
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\1202105365.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		287941	287941.399
	U	238	51.635	ug/L	2.355	851955	2.960

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		114.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202105366
Sample Date/Time: Thursday, May 13, 2010 13:04:05
Sample Type:
Sample Description: ARSL 6020 SDILT
Number of Replicates: 3
Batch ID: 979291|5|prb
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\1202105366.073

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		272316	272315.668
⌊	U	238	**0.680**	**ug/L**	3.496	10697	0.039

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		108.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 13, 2010 13:06:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 6.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		269160	269160.007
	U	238	50.672	ug/L	0.692	781883	2.905

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		107.2			
	U	238	101.344				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 13, 2010 13:07:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100513\QC Std 7.075

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		264038	264038.124
⌊	U	238	0.013	ug/L	3.742	280	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		105.2			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, May 10, 2010 14:04:22
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1273
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2772.5	2772.469	132.237	4.8
	Mg	24.0	33335.1	33335.065	780.472	2.3
	Co	58.9	65823.1	65823.104	555.234	0.8
	Rh	102.9	122706.6	122706.590	1365.604	1.1
	In	114.9	172301.8	172301.763	2043.017	1.2
	Pb	208.0	203736.0	203736.038	4403.081	2.2
⌈>	Ba	137.9	173981.5	173981.478	3336.610	1.9
⌊	Ba++	69.0	2493.1	0.014	0.000	2.6
⌈>	Ce	139.9	209260.6	209260.650	3537.385	1.7
⌊	CeO	155.9	4772.5	0.023	0.001	2.5
	Bkgd	220.0	25.3	25.300	6.191	24.5

Current Optimization File Data

Current Value	Description
0.84	Nebulizer Gas Flow
6.75	Lens Voltage
1450.00	ICP RF Power
-1812.50	Analog Stage Voltage
1300.00	Pulse Stage Voltage
200.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	10.8	3544.1
Co	59	21	11.3	64721.6
In	115	21	12.5	165360.2

ICPMS #5 Instrument Tuning Report

File Name: 100510.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.1	610	2072	0.528
Be	9.0	9.0	2052	2088	0.598
Mg	24.0	24.0	5695	2085	0.574
Mg	25.0	25.0	5947	2085	0.597
Mg	26.0	26.0	6181	2100	0.581
Co	58.9	58.9	14191	2125	0.561
Rh	102.9	102.9	24878	2180	0.575
In	114.9	114.9	27792	2200	0.579
Ce	139.9	139.9	33876	2220	0.583
Pb	206.0	206.0	49948	2305	0.575
Pb	207.0	207.0	50171	2240	0.632
Pb	208.0	208.0	50451	2280	0.689
U	238.1	238.1	57735	2295	0.684

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, May 10, 2010 18:14:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		45	
	Be	9		ug/L		14	
	B	11		ug/L		461	
	Na	23		ug/L		19347	
	Mg	24		ug/L		3334	
	Al	27		ug/L		11338	
	P	31		ug/L		6423	
	K	39		ug/L		470982	
	Ca	43		ug/L		350	
>	Sc	45		ug/L		964757	
	Ti	47		ug/L		255	
	V	51		ug/L		-3547	
	Cr	52		ug/L		-3182	
	Cr	53		ug/L		94684	
	Mn	55		ug/L		806	
	Fe	57		ug/L		3546	
	Co	59		ug/L		93	
	Ni	60		ug/L		85	
	Cu	63		ug/L		171	
	Cu	65		ug/L		117	
	Zn	66		ug/L		945	
	Zn	67		ug/L		11258	
	Zn	68		ug/L		1727	
>	Ge	74		ug/L		428521	
	As	75		ug/L		-295	
	Se	77		ug/L		4836	
	Se	82		ug/L		-22	
	Kr	83		ug/L		98	
	Sr	88		ug/L		360	
	Y	89		ug/L		53	
	Mo	98		ug/L		84	
	Ag	107		ug/L		54	
	Cd	111		ug/L		25	
	Cd	114		ug/L		37	
>	In	115		ug/L		279668	
	Sn	120		ug/L		218	
	Sb	121		ug/L		129	
	Sb	123		ug/L		116	
	Ba	135		ug/L		44	
	Ba	137		ug/L		60	
	Ho	165		ug/L		80	
>	Lu	175		ug/L		531983	
	Tl	205		ug/L		2818	
	Pb	208		ug/L		1232	
	Bi	209		ug/L		479	
	Th	232		ug/L		1858	
	U	238		ug/L		490	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Linear Thru Zero	
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Linear Thru Zero	
Ti	47	Simple Linear	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Simple Linear	
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	
Pb	208	Simple Linear	
Bi	209	Simple Linear	
Th	232	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, May 10, 2010 18:20:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.000**	**ug/L**	3.360	15949	0.017
	Be	9	**10.000**	**ug/L**	4.227	4706	0.005
	B	11	**20.000**	**ug/L**	0.953	10668	0.011
	Na	23	**1000.000**	**ug/L**	7.250	4859807	5.135
	Mg	24	**1000.000**	**ug/L**	7.188	3826744	4.057
	Al	27	**1000.000**	**ug/L**	3.175	4925899	5.212
	P	31	**1000.000**	**ug/L**	1.395	249958	0.258
	K	39	**1000.000**	**ug/L**	7.601	6649965	6.567
	Ca	43	**1000.000**	**ug/L**	1.549	14643	0.015
>	Sc	45		**ug/L**		942970	942970.465
	Ti	47	**10.000**	**ug/L**	2.114	7114	0.007
	V	51	**10.000**	**ug/L**	5.045	74626	0.083
	Cr	52	**10.000**	**ug/L**	3.354	55173	0.062
	Cr	53		**ug/L**		98048	0.006
	Mn	55	**10.000**	**ug/L**	2.410	100873	0.106
	Fe	57	**1000.000**	**ug/L**	0.202	209446	0.218
	Co	59	**10.000**	**ug/L**	1.116	78483	0.083
	Ni	60	**10.000**	**ug/L**	2.113	16900	0.018
	Cu	63		**ug/L**		39727	0.042
	Cu	65	**10.000**	**ug/L**	1.906	19319	0.020
	Zn	66	**10.000**	**ug/L**	1.312	13974	0.031
	Zn	67		**ug/L**		12642	0.004
	Zn	68		**ug/L**		11032	0.022
>	Ge	74		**ug/L**		424577	424576.815
	As	75	**10.000**	**ug/L**	3.555	11961	0.029
	Se	77		**ug/L**		5580	0.002
	Se	82	**10.000**	**ug/L**	0.907	1257	0.003
	Kr	83		**ug/L**		77	-0.000
	Sr	88	**10.000**	**ug/L**	0.446	155709	0.564
	Y	89		**ug/L**		61	0.000
	Mo	98	**10.000**	**ug/L**	1.551	36675	0.133
	Ag	107	**10.000**	**ug/L**	1.032	66722	0.242
	Cd	111	**10.000**	**ug/L**	1.983	16648	0.060
	Cd	114		**ug/L**		40007	0.145
>	In	115		**ug/L**		275396	275396.490
	Sn	120	**10.000**	**ug/L**	2.314	73518	0.266
	Sb	121	**10.000**	**ug/L**	0.856	63419	0.230
	Sb	123		**ug/L**		49861	0.181
	Ba	135		**ug/L**		18925	0.037
	Ba	137	**10.000**	**ug/L**	2.340	33094	0.065
	Ho	165		**ug/L**		90	0.000
>	Lu	175		**ug/L**		507299	507298.907
	Tl	205	**10.000**	**ug/L**	2.411	241293	0.470
	Pb	208	**10.000**	**ug/L**	1.905	434889	0.855
	Bi	209		**ug/L**		542	0.000
	Th	232	**10.000**	**ug/L**	7.261	508246	0.998
	U	238	**10.000**	**ug/L**	2.542	563504	1.110

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, May 10, 2010 18:26:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.992**	**ug/L**	3.948	156125	0.167
	Be	9	**99.978**	**ug/L**	0.599	45441	0.049
	B	11	**199.956**	**ug/L**	4.309	99312	0.106
	Na	23	**10002.135**	**ug/L**	7.074	48961129	52.477
	Mg	24	**9990.901**	**ug/L**	3.756	34645138	37.149
	Al	27	**9990.945**	**ug/L**	2.613	44553749	47.749
	P	31	**9988.822**	**ug/L**	1.605	2171892	2.322
	K	39	**9989.269**	**ug/L**	4.448	55687666	59.239
	Ca	43	**9995.705**	**ug/L**	1.306	135881	0.145
>	Sc	45		**ug/L**		932645	932645.143
	Ti	47	**99.980**	**ug/L**	1.919	66797	0.071
	V	51	**99.895**	**ug/L**	1.473	695254	0.749
	Cr	52	**99.944**	**ug/L**	0.249	542933	0.585
	Cr	53		**ug/L**		151334	0.064
	Mn	55	**99.935**	**ug/L**	2.158	930054	0.996
	Fe	57	**9986.299**	**ug/L**	2.225	1792459	1.919
	Co	59	**99.935**	**ug/L**	1.209	727723	0.780
	Ni	60	**99.934**	**ug/L**	0.789	156067	0.167
	Cu	63		**ug/L**		366418	0.393
	Cu	65	**99.932**	**ug/L**	1.855	177797	0.191
	Zn	66	**99.972**	**ug/L**	0.621	124181	0.299
	Zn	67		**ug/L**		30334	0.047
	Zn	68		**ug/L**		89983	0.214
>	Ge	74		**ug/L**		412887	412886.511
	As	75	**99.994**	**ug/L**	1.602	118153	0.287
	Se	77		**ug/L**		13740	0.022
	Se	82	**99.994**	**ug/L**	1.783	12343	0.030
	Kr	83		**ug/L**		113	0.000
	Sr	88	**99.915**	**ug/L**	1.657	1400468	5.194
	Y	89		**ug/L**		183	0.000
	Mo	98	**99.974**	**ug/L**	1.217	349049	1.295
	Ag	107	**99.929**	**ug/L**	1.700	609003	2.259
	Cd	111	**99.967**	**ug/L**	0.942	157580	0.584
	Cd	114		**ug/L**		371115	1.377
>	In	115		**ug/L**		269584	269583.783
	Sn	120	**99.949**	**ug/L**	1.823	682750	2.532
	Sb	121	**99.960**	**ug/L**	1.345	595535	2.209
	Sb	123		**ug/L**		470039	1.743
	Ba	135		**ug/L**		181290	0.361
	Ba	137	**99.970**	**ug/L**	1.281	317809	0.632
	Ho	165		**ug/L**		103	0.000
>	Lu	175		**ug/L**		502700	502700.420
	Tl	205	**99.880**	**ug/L**	1.655	2111134	4.195
	Pb	208	**99.879**	**ug/L**	2.178	3829987	7.619
	Bi	209		**ug/L**		1302	0.002
	Th	232	**99.944**	**ug/L**	3.540	4748877	9.448
	U	238	**99.866**	**ug/L**	3.780	4913239	9.778

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
Sc	45					
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
In	115					
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
Lu	175					
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, May 10, 2010 18:32:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.202**	ug/L	5.456	79590	0.086
	Be	9	**51.608**	ug/L	0.956	23354	0.025
	B	11	**106.882**	ug/L	1.496	53052	0.057
	Na	23	**5209.928**	ug/L	5.112	25393399	27.334
	Mg	24	**5440.466**	ug/L	3.980	18779554	20.229
	Al	27	**4989.948**	ug/L	3.821	22152562	23.848
	P	31	**5295.370**	ug/L	0.517	1148963	1.231
	K	39	**5299.716**	ug/L	8.197	29643625	31.429
	Ca	43	**5145.740**	ug/L	1.521	69800	0.075
>	Sc	45		ug/L		928332	928331.589
	Ti	47	**50.788**	ug/L	0.934	33896	0.036
	V	51	**52.512**	ug/L	0.371	362187	0.394
	Cr	52	**51.786**	ug/L	0.538	278544	0.303
	Cr	53		ug/L		121688	0.033
	Mn	55	**54.395**	ug/L	1.287	504227	0.542
	Fe	57	**5477.005**	ug/L	1.875	980119	1.052
	Co	59	**51.693**	ug/L	0.608	374747	0.404
	Ni	60	**53.250**	ug/L	0.962	82812	0.089
	Cu	63		ug/L		194862	0.210
	Cu	65	**53.557**	ug/L	1.441	94912	0.102
	Zn	66	**51.697**	ug/L	1.360	65216	0.154
	Zn	67		ug/L		20861	0.024
	Zn	68		ug/L		47952	0.111
>	Ge	74		ug/L		416443	416443.338
	As	75	**52.161**	ug/L	1.026	62026	0.150
	Se	77		ug/L		9530	0.012
	Se	82	**52.367**	ug/L	1.188	6509	0.016
	Kr	83		ug/L		94	-0.000
	Sr	88	**53.478**	ug/L	0.782	755117	2.780
	Y	89		ug/L		91	0.000
	Mo	98	**50.548**	ug/L	0.648	177793	0.655
	Ag	107	**51.281**	ug/L	1.832	314776	1.159
	Cd	111	**52.108**	ug/L	1.368	82736	0.305
	Cd	114		ug/L		198951	0.733
>	In	115		ug/L		271519	271519.465
	Sn	120	**51.623**	ug/L	0.563	355285	1.308
	Sb	121	**51.413**	ug/L	0.953	308559	1.136
	Sb	123		ug/L		245272	0.903
	Ba	135		ug/L		93396	0.182
	Ba	137	**50.893**	ug/L	2.530	164668	0.322
	Ho	165		ug/L		101	0.000
>	Lu	175		ug/L		511587	511586.557
	Tl	205	**52.891**	ug/L	2.002	1139030	2.222
	Pb	208	**53.628**	ug/L	1.187	2093752	4.091
	Bi	209		ug/L		541	0.000
	Th	232	**50.459**	ug/L	2.086	2441650	4.770
	U	238	**52.201**	ug/L	2.519	2614721	5.111

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	102.403				
	Be	9	103.216				
	B	11	106.882				
	Na	23	104.199				
	Mg	24	108.809				
	Al	27	98.811				
	P	31	105.907				
	K	39	105.994				
	Ca	43	102.915				
>	Sc	45		96.2			
	Ti	47	101.576				
	V	51	105.024				
	Cr	52	103.572				
	Cr	53					
	Mn	55	108.790				
	Fe	57	109.540				
	Co	59	103.386				
	Ni	60	106.500				
	Cu	63					
	Cu	65	107.113				
	Zn	66	103.394				
	Zn	67					
	Zn	68					
>	Ge	74		97.2			
	As	75	104.322				
	Se	77					
	Se	82	104.734				
	Kr	83					
	Sr	88	106.956				
	Y	89					
	Mo	98	101.097				
	Ag	107	102.562				
	Cd	111	104.216				
	Cd	114					
>	In	115		97.1			
	Sn	120	103.247				
	Sb	121	102.826				
	Sb	123					
	Ba	135					
	Ba	137	101.786				
	Ho	165					
>	Lu	175		96.2			
	Tl	205	105.782				
	Pb	208	107.256				
	Bi	209					
	Th	232	100.917				
	U	238	104.403				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, May 10, 2010 18:38:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.012**	ug/L	25.687	63	0.000
	Be	9	**0.017**	ug/L	18.850	22	0.000
	B	11	**4.749**	ug/L	13.689	2783	0.003
	Na	23	**-0.323**	ug/L	245.788	17010	-0.002
	Mg	24	**0.328**	ug/L	57.502	4334	0.001
	Al	27	**0.022**	ug/L	1099.665	11004	0.000
	P	31	**-0.036**	ug/L	8065.843	6168	-0.000
	K	39	**-1.524**	ug/L	126.503	444820	-0.009
	Ca	43	**-0.677**	ug/L	600.414	328	-0.000
>	Sc	45		ug/L		928567	928567.296
	Ti	47	**0.018**	ug/L	86.798	257	0.000
	V	51	**0.635**	ug/L	128.519	953	0.005
	Cr	52	**-0.037**	ug/L	124.281	-3262	-0.000
	Cr	53		ug/L		89689	-0.002
	Mn	55	**0.004**	ug/L	102.518	809	0.000
	Fe	57	**0.128**	ug/L	118.594	3436	0.000
	Co	59	**0.002**	ug/L	134.415	103	0.000
	Ni	60	**-0.002**	ug/L	78.179	79	-0.000
	Cu	63		ug/L		204	0.000
	Cu	65	**0.004**	ug/L	87.398	120	0.000
	Zn	66	**-0.059**	ug/L	26.636	841	-0.000
	Zn	67		ug/L		10491	-0.001
	Zn	68		ug/L		1604	-0.000
>	Ge	74		ug/L		415139	415138.716
	As	75	**-0.063**	ug/L	263.116	-361	-0.000
	Se	77		ug/L		4606	-0.000
	Se	82	**0.139**	ug/L	69.989	-4	0.000
	Kr	83		ug/L		98	0.000
	Sr	88	**0.003**	ug/L	34.711	383	0.000
	Y	89		ug/L		55	0.000
	Mo	98	**0.042**	ug/L	16.499	226	0.001
	Ag	107	**0.002**	ug/L	152.552	62	0.000
	Cd	111	**0.001**	ug/L	384.802	25	0.000
	Cd	114		ug/L		50	0.000
>	In	115		ug/L		268646	268646.265
	Sn	120	**0.036**	ug/L	13.518	457	0.001
	Sb	121	**0.028**	ug/L	9.202	293	0.001
	Sb	123		ug/L		248	0.001
	Ba	135		ug/L		48	0.000
	Ba	137	**0.001**	ug/L	430.302	60	0.000
	Ho	165		ug/L		95	0.000
>	Lu	175		ug/L		511780	511779.780
	Tl	205	**0.426**	ug/L	18.294	11892	0.018
	Pb	208	**0.004**	ug/L	15.029	1354	0.000
	Bi	209		ug/L		473	0.000
	Th	232	**0.255**	ug/L	13.844	14147	0.024
	U	238	**0.008**	ug/L	26.815	884	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			96.2		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			96.9		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			96.1		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			96.2		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, May 10, 2010 18:44:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**12.351**	ug/L	2.749	19141	0.021
	Be	9	**0.668**	ug/L	6.988	314	0.000
	B	11	**19.899**	ug/L	2.679	10185	0.011
	Na	23	**295.917**	ug/L	6.839	1452453	1.553
	Mg	24	**21.853**	ug/L	6.355	78214	0.081
	Al	27	**42.595**	ug/L	21.395	199084	0.204
	P	31	**71.186**	ug/L	3.055	21431	0.017
	K	39	**402.868**	ug/L	6.184	2656678	2.389
	Ca	43	**255.313**	ug/L	3.589	3764	0.004
>	Sc	45		ug/L		923654	923653.632
	Ti	47	**9.918**	ug/L	0.255	6782	0.007
	V	51	**13.100**	ug/L	4.031	87336	0.098
	Cr	52	**12.532**	ug/L	1.847	64748	0.073
	Cr	53		ug/L		97155	0.007
	Mn	55	**6.816**	ug/L	0.745	63549	0.068
	Fe	57	**138.186**	ug/L	1.710	27913	0.027
	Co	59	**1.300**	ug/L	1.811	9466	0.010
	Ni	60	**2.647**	ug/L	2.433	4172	0.004
	Cu	63		ug/L		5218	0.005
	Cu	65	**1.364**	ug/L	1.863	2513	0.003
	Zn	66	**12.939**	ug/L	1.193	16926	0.039
	Zn	67		ug/L		12900	0.005
	Zn	68		ug/L		12923	0.027
>	Ge	74		ug/L		414387	414386.853
	As	75	**6.610**	ug/L	3.205	7571	0.019
	Se	77		ug/L		5228	0.001
	Se	82	**6.472**	ug/L	4.237	783	0.002
	Kr	83		ug/L		99	0.000
	Sr	88	**13.580**	ug/L	0.124	189629	0.706
	Y	89		ug/L		51	0.000
	Mo	98	**0.640**	ug/L	1.470	2303	0.008
	Ag	107	**1.153**	ug/L	1.362	7039	0.026
	Cd	111	**1.336**	ug/L	1.392	2118	0.008
	Cd	114		ug/L		4908	0.018
>	In	115		ug/L		268140	268139.555
	Sn	120	**6.391**	ug/L	0.966	43616	0.162
	Sb	121	**3.547**	ug/L	2.099	21144	0.078
	Sb	123		ug/L		16597	0.061
	Ba	135		ug/L		4516	0.009
	Ba	137	**2.522**	ug/L	2.091	8071	0.016
	Ho	165		ug/L		100	0.000
>	Lu	175		ug/L		502700	502700.184
	Tl	205	**1.517**	ug/L	3.731	34681	0.064
	Pb	208	**2.746**	ug/L	1.722	106456	0.209
	Bi	209		ug/L		457	0.000
	Th	232	**1.339**	ug/L	7.006	65375	0.127
	U	238	**0.401**	ug/L	1.158	20208	0.039

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	0.9999
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	123.509				
	Be	9	133.562				
	B	11	132.658				
	Na	23	118.367				
	Mg	24	145.688				
	Al	27	141.982				
	P	31	142.372				
	K	39	134.289				
	Ca	43	127.656				
>	Sc	45			95.7		
	Ti	47	99.175				
	V	51	131.000				
	Cr	52	125.319				
	Cr	53					
	Mn	55	136.327				
	Fe	57	138.186				
	Co	59	130.043				
	Ni	60	132.326				
	Cu	63					
	Cu	65	136.351				
	Zn	66	129.391				
	Zn	67					
	Zn	68					
>	Ge	74			96.7		
	As	75	132.206				
	Se	77					
	Se	82	129.448				
	Kr	83					
	Sr	88	135.798				
	Y	89					
	Mo	98	128.009				
	Ag	107	115.275				
	Cd	111	133.583				
	Cd	114					
>	In	115			95.9		
	Sn	120	127.814				
	Sb	121	118.249				
	Sb	123					
	Ba	135					
	Ba	137	126.079				
	Ho	165					
>	Lu	175			94.5		
	Tl	205	151.679				
	Pb	208	137.310				
	Bi	209					
	Th	232	133.919				
	U	238	200.606				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Be	9	CRDL is out of limits
QC Std 3	B	11	CRDL is out of limits
QC Std 3	Mg	24	CRDL is out of limits
QC Std 3	Al	27	CRDL is out of limits
QC Std 3	P	31	CRDL is out of limits
QC Std 3	K	39	CRDL is out of limits
QC Std 3	V	51	CRDL is out of limits

QC Std 3	Mn	55CRDL is out of limits
QC Std 3	Fe	57CRDL is out of limits
QC Std 3	Co	59CRDL is out of limits
QC Std 3	Ni	60CRDL is out of limits
QC Std 3	Cu	65CRDL is out of limits
QC Std 3	As	75CRDL is out of limits
QC Std 3	Sr	88CRDL is out of limits
QC Std 3	Cd	111CRDL is out of limits
QC Std 3	Tl	205CRDL is out of limits
QC Std 3	Pb	208CRDL is out of limits
QC Std 3	Th	232CRDL is out of limits
QC Std 3	U	238CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, May 10, 2010 18:50:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.140**	ug/L	5.259	251	0.000
	Be	9	**0.098**	ug/L	9.959	56	0.000
	B	11	**2.333**	ug/L	7.982	1527	0.001
	Na	23	**97218.275**	ug/L	2.988	454259699	510.060
	Mg	24	**99969.828**	ug/L	4.873	331155920	371.719
	Al	27	**98456.167**	ug/L	0.488	419083702	470.548
	P	31	**95133.253**	ug/L	1.403	19700002	22.115
	K	39	**101643.236**	ug/L	7.317	536973084	602.772
	Ca	43	**93839.652**	ug/L	0.811	1215436	1.364
>	Sc	45		ug/L		890582	890582.221
	Ti	47	**1445.206**	ug/L	1.262	918883	1.032
	V	51	**0.816**	ug/L	5.953	2173	0.006
	Cr	52	**2.654**	ug/L	1.353	10909	0.016
	Cr	53		ug/L		79548	-0.009
	Mn	55	**5.836**	ug/L	1.575	52560	0.058
	Fe	57	**96178.639**	ug/L	1.595	16457209	18.477
	Co	59	**0.272**	ug/L	3.777	1975	0.002
	Ni	60	**3.289**	ug/L	4.496	4979	0.006
	Cu	63		ug/L		7723	0.008
	Cu	65	**3.137**	ug/L	1.649	5433	0.006
	Zn	66	**3.658**	ug/L	4.015	5047	0.011
	Zn	67		ug/L		10581	0.001
	Zn	68		ug/L		2280	0.002
>	Ge	74		ug/L		384556	384555.897
	As	75	**0.028**	ug/L	1313.435	-232	0.000
	Se	77		ug/L		5944	0.004
	Se	82	**-1.237**	ug/L	5.014	-162	-0.000
	Kr	83		ug/L		312	0.001
	Sr	88	**3.186**	ug/L	1.418	42620	0.166
	Y	89		ug/L		426	0.001
	Mo	98	**2007.405**	ug/L	0.910	6637959	25.993
	Ag	107	**0.126**	ug/L	8.372	773	0.003
	Cd	111	**0.451**	ug/L	8.669	697	0.003
	Cd	114		ug/L		10684	0.042
>	In	115		ug/L		255389	255389.171
	Sn	120	**0.304**	ug/L	3.247	2164	0.008
	Sb	121	**0.075**	ug/L	17.293	538	0.002
	Sb	123		ug/L		438	0.001
	Ba	135		ug/L		1278	0.003
	Ba	137	**0.753**	ug/L	3.806	2218	0.005
	Ho	165		ug/L		10457	0.023
>	Lu	175		ug/L		454813	454812.768
	Tl	205	**0.111**	ug/L	6.541	4532	0.005
	Pb	208	**0.241**	ug/L	2.942	9403	0.018
	Bi	209		ug/L		6401	0.013
	Th	232	**0.523**	ug/L	39.285	24052	0.049
	U	238	**0.005**	ug/L	17.152	651	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	0.9999
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	97.218				
	Mg	24	99.970				
	Al	27	98.456				
	P	31	95.133				
	K	39	101.643				
	Ca	43	93.840				
>	Sc	45			92.3		
	Ti	47	72.260				
	V	51					
	Cr	52	80.432				
	Cr	53					
	Mn	55	100.612				
	Fe	57	96.179				
	Co	59	115.655				
	Ni	60	99.357				
	Cu	63					
	Cu	65	93.908				
	Zn	66	97.285				
	Zn	67					
	Zn	68					
>	Ge	74			89.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	107.633				
	Y	89					
	Mo	98	100.370				
	Ag	107					
	Cd	111	101.679				
	Cd	114					
>	In	115			91.3		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	94.380				
	Ho	165					
>	Lu	175			85.5		
	Tl	205					
	Pb	208	127.355				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, May 10, 2010 18:56:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.597**	**ug/L**	2.327	32169	0.036
	Be	9	**18.982**	**ug/L**	1.817	8231	0.009
	B	11	**18.868**	**ug/L**	1.699	9316	0.010
	Na	23	**99947.769**	**ug/L**	5.543	466209534	524.381
	Mg	24	**99076.215**	**ug/L**	4.541	327470267	368.397
	Al	27	**97431.653**	**ug/L**	2.685	413912285	465.652
	P	31	**93697.629**	**ug/L**	1.746	19364673	21.781
	K	39	**99663.444**	**ug/L**	4.075	525539115	591.031
	Ca	43	**93502.132**	**ug/L**	1.438	1208513	1.360
>	Sc	45		**ug/L**		888684	888684.228
	Ti	47	**1437.079**	**ug/L**	0.522	911792	1.026
	V	51	**21.690**	**ug/L**	1.625	141303	0.163
	Cr	52	**22.756**	**ug/L**	1.102	115524	0.133
	Cr	53		**ug/L**		96704	0.011
	Mn	55	**26.122**	**ug/L**	1.260	232217	0.260
	Fe	57	**98384.275**	**ug/L**	0.457	16800487	18.901
	Co	59	**19.152**	**ug/L**	0.508	132964	0.150
	Ni	60	**21.744**	**ug/L**	1.084	32419	0.036
	Cu	63		**ug/L**		71505	0.080
	Cu	65	**21.434**	**ug/L**	1.311	36430	0.041
	Zn	66	**22.209**	**ug/L**	1.120	26470	0.066
	Zn	67		**ug/L**		14316	0.011
	Zn	68		**ug/L**		17616	0.042
>	Ge	74		**ug/L**		386242	386242.485
	As	75	**20.612**	**ug/L**	0.330	22572	0.059
	Se	77		**ug/L**		7915	0.009
	Se	82	**19.683**	**ug/L**	2.767	2257	0.006
	Kr	83		**ug/L**		330	0.001
	Sr	88	**25.571**	**ug/L**	1.144	343541	1.329
	Y	89		**ug/L**		454	0.002
	Mo	98	**2018.515**	**ug/L**	1.962	6747427	26.137
	Ag	107	**19.307**	**ug/L**	1.937	112742	0.436
	Cd	111	**20.108**	**ug/L**	1.884	30372	0.118
	Cd	114		**ug/L**		80758	0.313
>	In	115		**ug/L**		258238	258237.881
	Sn	120	**20.613**	**ug/L**	1.595	135012	0.522
	Sb	121	**19.961**	**ug/L**	1.734	113981	0.441
	Sb	123		**ug/L**		89691	0.347
	Ba	135		**ug/L**		35417	0.074
	Ba	137	**20.908**	**ug/L**	1.668	63135	0.132
	Ho	165		**ug/L**		10724	0.022
>	Lu	175		**ug/L**		477124	477123.538
	Tl	205	**20.529**	**ug/L**	1.969	413937	0.862
	Pb	208	**21.151**	**ug/L**	1.164	770885	1.613
	Bi	209		**ug/L**		6535	0.013
	Th	232	**21.706**	**ug/L**	1.611	980701	2.052
	U	238	**22.270**	**ug/L**	1.420	1040779	2.180

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	0.9999
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	107.983				
	Be	9	94.912				
	B	11	94.338				
	Na	23	99.948				
	Mg	24	99.076				
	Al	27	97.432				
	P	31	93.698				
	K	39	99.663				
	Ca	43	93.502				
>	Sc	45		92.1			
	Ti	47	71.854				
	V	51	108.450				
	Cr	52	97.667				
	Cr	53					
	Mn	55	101.247				
	Fe	57	98.384				
	Co	59	94.645				
	Ni	60	93.284				
	Cu	63					
	Cu	65	91.835				
	Zn	66	93.473				
	Zn	67					
	Zn	68					
>	Ge	74		90.1			
	As	75	103.062				
	Se	77					
	Se	82	98.415				
	Kr	83					
	Sr	88	111.372				
	Y	89					
	Mo	98	100.926				
	Ag	107	96.536				
	Cd	111	98.355				
	Cd	114					
>	In	115		92.3			
	Sn	120	103.066				
	Sb	121	99.803				
	Sb	123					
	Ba	135					
	Ba	137	100.528				
	Ho	165					
>	Lu	175		89.7			
	Tl	205	102.647				
	Pb	208	104.765				
	Bi	209					
	Th	232	108.532				
	U	238	111.352				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Ti	47	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, May 10, 2010 19:03:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**56.062**	**ug/L**	3.042	86161	0.094
	Be	9	**50.532**	**ug/L**	1.433	22606	0.025
	B	11	**99.141**	**ug/L**	3.359	48684	0.053
	Na	23	**4996.288**	**ug/L**	6.713	24086386	26.213
	Mg	24	**5188.653**	**ug/L**	3.953	17714170	19.293
	Al	27	**5277.715**	**ug/L**	7.427	23150173	25.224
	P	31	**5192.185**	**ug/L**	1.613	1113901	1.207
	K	39	**5559.186**	**ug/L**	8.716	30702325	32.967
	Ca	43	**5108.672**	**ug/L**	0.628	68501	0.074
>	Sc	45		**ug/L**		917749	917748.832
	Ti	47	**49.388**	**ug/L**	1.156	32595	0.035
	V	51	**51.113**	**ug/L**	1.018	348410	0.383
	Cr	52	**51.135**	**ug/L**	1.130	271887	0.300
	Cr	53		**ug/L**		133727	0.048
	Mn	55	**52.472**	**ug/L**	1.543	480963	0.523
	Fe	57	**5300.296**	**ug/L**	2.023	938017	1.018
	Co	59	**50.070**	**ug/L**	0.825	358857	0.391
	Ni	60	**51.519**	**ug/L**	0.443	79216	0.086
	Cu	63		**ug/L**		187833	0.204
	Cu	65	**52.314**	**ug/L**	0.729	91658	0.100
	Zn	66	**50.690**	**ug/L**	0.434	62744	0.151
	Zn	67		**ug/L**		21188	0.026
	Zn	68		**ug/L**		46117	0.109
>	Ge	74		**ug/L**		408526	408525.576
	As	75	**51.945**	**ug/L**	1.949	60579	0.149
	Se	77		**ug/L**		10204	0.014
	Se	82	**52.521**	**ug/L**	0.948	6404	0.016
	Kr	83		**ug/L**		88	-0.000
	Sr	88	**54.222**	**ug/L**	2.227	760587	2.819
	Y	89		**ug/L**		81	0.000
	Mo	98	**51.542**	**ug/L**	2.297	180077	0.667
	Ag	107	**51.472**	**ug/L**	1.057	313922	1.164
	Cd	111	**52.537**	**ug/L**	3.386	82855	0.307
	Cd	114		**ug/L**		197085	0.731
>	In	115		**ug/L**		269793	269793.388
	Sn	120	**51.886**	**ug/L**	3.388	354655	1.314
	Sb	121	**51.668**	**ug/L**	2.092	308036	1.142
	Sb	123		**ug/L**		247540	0.917
	Ba	135		**ug/L**		92572	0.178
	Ba	137	**49.960**	**ug/L**	1.125	163932	0.316
	Ho	165		**ug/L**		97	0.000
>	Lu	175		**ug/L**		518680	518679.591
	Tl	205	**52.356**	**ug/L**	1.863	1143325	2.199
	Pb	208	**52.760**	**ug/L**	0.609	2088637	4.025
	Bi	209		**ug/L**		550	0.000
	Th	232	**50.575**	**ug/L**	2.662	2481573	4.781
	U	238	**52.776**	**ug/L**	1.996	2680576	5.167

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	112.123				
	Be	9	101.064				
	B	11	99.141				
	Na	23	99.926				
	Mg	24	103.773				
	Al	27	104.509				
	P	31	103.844				
	K	39	111.184				
	Ca	43	102.173				
>	Sc	45		95.1			
	Ti	47	98.775				
	V	51	102.226				
	Cr	52	102.270				
	Cr	53					
	Mn	55	104.945				
	Fe	57	106.006				
	Co	59	100.139				
	Ni	60	103.038				
	Cu	63					
	Cu	65	104.629				
	Zn	66	101.379				
	Zn	67					
	Zn	68					
>	Ge	74		95.3			
	As	75	103.890				
	Se	77					
	Se	82	105.042				
	Kr	83					
	Sr	88	108.445				
	Y	89					
	Mo	98	103.083				
	Ag	107	102.943				
	Cd	111	105.074				
	Cd	114					
>	In	115		96.5			
	Sn	120	103.773				
	Sb	121	103.336				
	Sb	123					
	Ba	135					
	Ba	137	99.920				
	Ho	165					
>	Lu	175		97.5			
	Tl	205	104.711				
	Pb	208	105.520				
	Bi	209					
	Th	232	101.151				
	U	238	105.551				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, May 10, 2010 19:09:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.013**	**ug/L**	47.019	64	0.000
	Be	9	**0.011**	**ug/L**	79.341	19	0.000
	B	11	**2.874**	**ug/L**	16.936	1861	0.002
	Na	23	**1.318**	**ug/L**	139.620	25024	0.007
	Mg	24	**0.326**	**ug/L**	140.929	4334	0.001
	Al	27	**1.075**	**ug/L**	91.960	15676	0.005
	P	31	**-3.203**	**ug/L**	16.136	5503	-0.001
	K	39	**-3.611**	**ug/L**	154.830	434179	-0.021
	Ca	43	**3.298**	**ug/L**	82.924	382	0.000
>	Sc	45		**ug/L**		930882	930882.425
	Ti	47	**0.160**	**ug/L**	10.901	352	0.000
	V	51	**-0.280**	**ug/L**	42.667	-5367	-0.002
	Cr	52	**-0.085**	**ug/L**	117.401	-3531	-0.001
	Cr	53		**ug/L**		103310	0.013
	Mn	55	**0.014**	**ug/L**	17.031	910	0.000
	Fe	57	**2.045**	**ug/L**	47.050	3785	0.000
	Co	59	**0.000**	**ug/L**	70.073	92	0.000
	Ni	60	**-0.007**	**ug/L**	95.253	71	-0.000
	Cu	63		**ug/L**		191	0.000
	Cu	65	**0.011**	**ug/L**	66.719	133	0.000
	Zn	66	**-0.068**	**ug/L**	25.528	821	-0.000
	Zn	67		**ug/L**		11169	0.001
	Zn	68		**ug/L**		1457	-0.000
>	Ge	74		**ug/L**		410455	410454.817
	As	75	**0.183**	**ug/L**	48.755	-68	0.001
	Se	77		**ug/L**		5691	0.003
	Se	82	**0.161**	**ug/L**	126.598	-1	0.000
	Kr	83		**ug/L**		95	0.000
	Sr	88	**0.001**	**ug/L**	159.337	366	0.000
	Y	89		**ug/L**		42	-0.000
	Mo	98	**0.076**	**ug/L**	3.942	352	0.001
	Ag	107	**0.001**	**ug/L**	44.269	59	0.000
	Cd	111	**-0.004**	**ug/L**	132.614	18	-0.000
	Cd	114		**ug/L**		49	0.000
>	In	115		**ug/L**		274643	274642.538
	Sn	120	**0.024**	**ug/L**	7.616	384	0.001
	Sb	121	**0.030**	**ug/L**	26.800	307	0.001
	Sb	123		**ug/L**		249	0.000
	Ba	135		**ug/L**		44	0.000
	Ba	137	**-0.000**	**ug/L**	28041.761	60	-0.000
	Ho	165		**ug/L**		89	0.000
>	Lu	175		**ug/L**		531603	531602.985
	Tl	205	**0.353**	**ug/L**	19.720	10707	0.015
	Pb	208	**0.003**	**ug/L**	43.048	1343	0.000
	Bi	209		**ug/L**		433	-0.000
	Th	232	**0.089**	**ug/L**	16.622	6334	0.008
	U	238	**0.007**	**ug/L**	9.616	830	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	0.9999
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Monday, May 10, 2010 19:15:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 10.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**1008.714**	ug/L	4.864	1402257	1.689
	Be	9	**970.928**	ug/L	2.449	392950	0.473
	B	11	**1.304**	ug/L	13.031	971	0.001
	Na	23	**51702.276**	ug/L	4.283	225553135	271.258
	Mg	24	**50584.777**	ug/L	4.762	156271686	188.090
	Al	27	**50833.499**	ug/L	2.801	201884176	242.947
	P	31	**23992.421**	ug/L	3.557	4638970	5.577
	K	39	**50568.245**	ug/L	5.341	249641667	299.883
	Ca	43	**49606.099**	ug/L	2.553	599493	0.721
>	Sc	45		ug/L		830969	830968.512
	Ti	47	**42.720**	ug/L	3.023	25545	0.030
	V	51	**933.298**	ug/L	1.730	5811597	6.999
	Cr	52	**935.511**	ug/L	1.931	4550149	5.480
	Cr	53		ug/L		645079	0.678
	Mn	55	**945.264**	ug/L	1.317	7831006	9.425
	Fe	57	**50739.174**	ug/L	2.780	8099539	9.748
	Co	59	**869.539**	ug/L	1.511	5640003	6.789
	Ni	60	**876.616**	ug/L	1.732	1218875	1.467
	Cu	63		ug/L		2896452	3.486
	Cu	65	**859.532**	ug/L	1.494	1361677	1.639
	Zn	66	**2319.755**	ug/L	1.260	2533473	6.928
	Zn	67		ug/L		396097	1.057
	Zn	68		ug/L		1662075	4.542
>	Ge	74		ug/L		365605	365605.105
	As	75	**920.951**	ug/L	1.210	965485	2.642
	Se	77		ug/L		44143	0.109
	Se	82	**489.796**	ug/L	1.058	53598	0.147
	Kr	83		ug/L		178	0.000
	Sr	88	**1019.730**	ug/L	0.754	12625442	53.008
	Y	89		ug/L		348	0.001
	Mo	98	**1020.287**	ug/L	1.625	3146379	13.211
	Ag	107	**239.303**	ug/L	0.388	1288455	5.410
	Cd	111	**938.046**	ug/L	1.974	1306102	5.484
	Cd	114		ug/L		3238011	13.596
>	In	115		ug/L		238173	238172.527
	Sn	120	**966.944**	ug/L	1.537	5833895	24.495
	Sb	121	**251.646**	ug/L	1.127	1324350	5.560
	Sb	123		ug/L		1056884	4.437
	Ba	135		ug/L		1474902	3.215
	Ba	137	**942.660**	ug/L	2.419	2734611	5.961
	Ho	165		ug/L		299	0.001
>	Lu	175		ug/L		458842	458842.012
	Tl	205	**476.578**	ug/L	3.281	9184185	20.017
	Pb	208	**4885.980**	ug/L	1.582	170989768	372.706
	Bi	209		ug/L		2633	0.005
	Th	232	**2427.554**	ug/L	0.925	105289225	229.486
	U	238	**5186.209**	ug/L	0.558	232990346	507.783

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	100.871				
	Be	9	97.093				
	B	11					
	Na	23	103.405				
	Mg	24	101.170				
	Al	27	101.667				
	P	31	95.970				
	K	39	101.136				
	Ca	43	99.212				
>	Sc	45		86.1			
	Ti	47					
	V	51	93.330				
	Cr	52	93.551				
	Cr	53					
	Mn	55	94.526				
	Fe	57	101.478				
	Co	59	86.954				
	Ni	60	87.662				
	Cu	63					
	Cu	65	85.953				
	Zn	66	92.790				
	Zn	67					
	Zn	68					
>	Ge	74		85.3			
	As	75	92.095				
	Se	77					
	Se	82	97.959				
	Kr	83					
	Sr	88	101.973				
	Y	89					
	Mo	98	102.029				
	Ag	107	95.721				
	Cd	111	93.805				
	Cd	114					
>	In	115		85.2			
	Sn	120	96.694				
	Sb	121	100.658				
	Sb	123					
	Ba	135					
	Ba	137	94.266				
	Ho	165					
>	Lu	175		86.3			
	Tl	205	95.316				
	Pb	208	97.720				
	Bi	209					
	Th	232	97.102				
	U	238	103.724				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Monday, May 10, 2010 19:21:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 11.012

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.447**	**ug/L**	2.885	72987	0.083
	Be	9	**49.154**	**ug/L**	0.264	21115	0.024
	B	11	**94.045**	**ug/L**	1.364	44356	0.050
	Na	23	**5061.672**	**ug/L**	7.159	23422506	26.556
	Mg	24	**5131.526**	**ug/L**	0.954	16815792	19.081
	Al	27	**5441.216**	**ug/L**	7.557	22923302	26.005
	P	31	**5174.230**	**ug/L**	1.256	1065713	1.203
	K	39	**5468.627**	**ug/L**	12.143	29008404	32.430
	Ca	43	**5045.178**	**ug/L**	2.629	64956	0.073
>	Sc	45		**ug/L**		881164	881163.591
	Ti	47	**47.086**	**ug/L**	1.121	29846	0.034
	V	51	**50.907**	**ug/L**	2.331	333160	0.382
	Cr	52	**50.515**	**ug/L**	0.175	257827	0.296
	Cr	53		**ug/L**		114168	0.031
	Mn	55	**53.005**	**ug/L**	1.665	466415	0.528
	Fe	57	**5299.956**	**ug/L**	1.644	900423	1.018
	Co	59	**49.710**	**ug/L**	0.242	342065	0.388
	Ni	60	**51.609**	**ug/L**	0.674	76188	0.086
	Cu	63		**ug/L**		179679	0.204
	Cu	65	**51.111**	**ug/L**	0.797	85976	0.097
	Zn	66	**51.832**	**ug/L**	0.199	60787	0.155
	Zn	67		**ug/L**		19411	0.024
	Zn	68		**ug/L**		44340	0.111
>	Ge	74		**ug/L**		387183	387182.608
	As	75	**51.584**	**ug/L**	1.917	57019	0.148
	Se	77		**ug/L**		9137	0.012
	Se	82	**50.593**	**ug/L**	2.346	5845	0.015
	Kr	83		**ug/L**		94	0.000
	Sr	88	**53.525**	**ug/L**	0.835	703048	2.782
	Y	89		**ug/L**		83	0.000
	Mo	98	**49.679**	**ug/L**	2.130	162537	0.643
	Ag	107	**50.999**	**ug/L**	0.179	291224	1.153
	Cd	111	**51.758**	**ug/L**	1.500	76451	0.303
	Cd	114		**ug/L**		184063	0.729
>	In	115		**ug/L**		252567	252566.755
	Sn	120	**52.015**	**ug/L**	0.792	333007	1.318
	Sb	121	**52.393**	**ug/L**	0.386	292505	1.158
	Sb	123		**ug/L**		230830	0.914
	Ba	135		**ug/L**		86344	0.182
	Ba	137	**50.686**	**ug/L**	0.738	152119	0.321
	Ho	165		**ug/L**		110	0.000
>	Lu	175		**ug/L**		474452	474451.912
	Tl	205	**54.042**	**ug/L**	1.708	1079271	2.270
	Pb	208	**53.688**	**ug/L**	0.348	1944092	4.095
	Bi	209		**ug/L**		544	0.000
	Th	232	**51.816**	**ug/L**	0.612	2325541	4.898
	U	238	**52.714**	**ug/L**	1.395	2448834	5.161

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	0.9999
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	98.894				
	Be	9	98.307				
	B	11	94.045				
	Na	23	101.233				
	Mg	24	102.631				
	Al	27	107.747				
	P	31	103.485				
	K	39	109.373				
	Ca	43	100.904				
>	Sc	45		91.3			
	Ti	47	94.173				
	V	51	101.815				
	Cr	52	101.030				
	Cr	53					
	Mn	55	106.010				
	Fe	57	105.999				
	Co	59	99.420				
	Ni	60	103.217				
	Cu	63					
	Cu	65	102.221				
	Zn	66	103.664				
	Zn	67					
	Zn	68					
>	Ge	74		90.4			
	As	75	103.169				
	Se	77					
	Se	82	101.186				
	Kr	83					
	Sr	88	107.050				
	Y	89					
	Mo	98	99.357				
	Ag	107	101.998				
	Cd	111	103.516				
	Cd	114					
>	In	115		90.3			
	Sn	120	104.030				
	Sb	121	104.785				
	Sb	123					
	Ba	135					
	Ba	137	101.371				
	Ho	165					
>	Lu	175		89.2			
	Tl	205	108.083				
	Pb	208	107.377				
	Bi	209					
	Th	232	103.632				
	U	238	105.427				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Monday, May 10, 2010 19:27:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 12.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.060**	ug/L	17.730	128	0.000
	Be	9	**0.026**	ug/L	11.026	24	0.000
	B	11	**2.905**	ug/L	15.587	1761	0.002
	Na	23	**3.237**	ug/L	15.425	32370	0.017
	Mg	24	**1.620**	ug/L	54.197	8336	0.006
	Al	27	**1.853**	ug/L	10.976	18011	0.009
	P	31	**-1.347**	ug/L	208.606	5544	-0.000
	K	39	**-0.177**	ug/L	1089.014	425581	-0.001
	Ca	43	**4.258**	ug/L	49.135	371	0.000
>	Sc	45		ug/L		873876	873876.470
	Ti	47	**0.047**	ug/L	86.112	260	0.000
	V	51	**0.096**	ug/L	428.276	-2541	0.001
	Cr	52	**0.086**	ug/L	112.298	-2437	0.001
	Cr	53		ug/L		85809	0.000
	Mn	55	**0.012**	ug/L	41.198	834	0.000
	Fe	57	**2.610**	ug/L	24.823	3648	0.001
	Co	59	**0.011**	ug/L	27.580	160	0.000
	Ni	60	**0.009**	ug/L	95.420	91	0.000
	Cu	63		ug/L		302	0.000
	Cu	65	**0.050**	ug/L	23.799	189	0.000
	Zn	66	**-0.068**	ug/L	28.837	768	-0.000
	Zn	67		ug/L		9771	-0.001
	Zn	68		ug/L		1479	-0.000
>	Ge	74		ug/L		383579	383579.409
	As	75	**0.132**	ug/L	334.734	-120	0.000
	Se	77		ug/L		4841	0.001
	Se	82	**0.160**	ug/L	5.685	-1	0.000
	Kr	83		ug/L		97	0.000
	Sr	88	**0.009**	ug/L	45.703	439	0.000
	Y	89		ug/L		52	0.000
	Mo	98	**0.136**	ug/L	3.422	515	0.002
	Ag	107	**0.006**	ug/L	31.316	81	0.000
	Cd	111	**0.001**	ug/L	752.143	24	0.000
	Cd	114		ug/L		58	0.000
>	In	115		ug/L		249704	249703.585
	Sn	120	**0.153**	ug/L	4.114	1164	0.004
	Sb	121	**0.053**	ug/L	7.548	406	0.001
	Sb	123		ug/L		317	0.001
	Ba	135		ug/L		60	0.000
	Ba	137	**0.008**	ug/L	88.917	74	0.000
	Ho	165		ug/L		71	0.000
>	Lu	175		ug/L		465055	465054.945
	Tl	205	**1.020**	ug/L	10.823	22404	0.043
	Pb	208	**0.034**	ug/L	57.420	2269	0.003
	Bi	209		ug/L		401	-0.000
	Th	232	**0.252**	ug/L	9.903	12733	0.024
	U	238	**0.065**	ug/L	22.757	3368	0.006

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	0.9999
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		90.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		89.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		89.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		87.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 12	Tl	205	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202105362
Sample Date/Time: Monday, May 10, 2010 19:33:39
Sample Type:
Sample Description: ARSL 6020 MB
Number of Replicates: 3
Batch ID: 979291|1|skj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\1202105362.014

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.125**	**ug/L**	8.426	216	0.000
	Be	9	**0.008**	**ug/L**	181.940	16	0.000
	B	11	**1.759**	**ug/L**	9.758	1189	0.001
	Na	23	**3.125**	**ug/L**	38.895	30700	0.016
	Mg	24	**-0.188**	**ug/L**	257.155	2334	-0.001
	Al	27	**-0.136**	**ug/L**	662.969	9337	-0.001
	P	31	**-2.721**	**ug/L**	16.843	5080	-0.001
	K	39	**5.743**	**ug/L**	86.012	440365	0.034
	Ca	43	**13.378**	**ug/L**	9.758	470	0.000
>	Sc	45		**ug/L**		843207	843207.028
	Ti	47	**0.360**	**ug/L**	19.005	439	0.000
	V	51	**-1.458**	**ug/L**	14.018	-12322	-0.011
	Cr	52	**-0.219**	**ug/L**	55.440	-3864	-0.001
	Cr	53		**ug/L**		209667	0.150
	Mn	55	**0.113**	**ug/L**	7.491	1658	0.001
	Fe	57	**3.295**	**ug/L**	8.677	3632	0.001
	Co	59	**0.007**	**ug/L**	46.670	126	0.000
	Ni	60	**0.032**	**ug/L**	4.177	120	0.000
	Cu	63		**ug/L**		650	0.001
	Cu	65	**0.140**	**ug/L**	1.622	328	0.000
	Zn	66	**0.244**	**ug/L**	41.356	1080	0.001
	Zn	67		**ug/L**		37278	0.075
	Zn	68		**ug/L**		2589	0.003
>	Ge	74		**ug/L**		368504	368504.432
	As	75	**-0.860**	**ug/L**	70.269	-1162	-0.002
	Se	77		**ug/L**		13859	0.026
	Se	82	**0.236**	**ug/L**	76.013	8	0.000
	Kr	83		**ug/L**		80	-0.000
	Sr	88	**0.006**	**ug/L**	30.369	413	0.000
	Y	89		**ug/L**		44	-0.000
	Mo	98	**0.074**	**ug/L**	4.465	322	0.001
	Ag	107	**-0.001**	**ug/L**	94.803	41	-0.000
	Cd	111	**-0.001**	**ug/L**	380.409	21	-0.000
	Cd	114		**ug/L**		38	0.000
>	In	115		**ug/L**		255914	255914.171
	Sn	120	**0.204**	**ug/L**	22.757	1522	0.005
	Sb	121	**0.032**	**ug/L**	7.506	297	0.001
	Sb	123		**ug/L**		251	0.001
	Ba	135		**ug/L**		65	0.000
	Ba	137	**0.011**	**ug/L**	24.519	90	0.000
	Ho	165		**ug/L**		87	0.000
>	Lu	175		**ug/L**		495355	495354.999
	Tl	205	**0.312**	**ug/L**	2.439	9116	0.013
	Pb	208	**-0.002**	**ug/L**	53.457	1072	-0.000
	Bi	209		**ug/L**		371	-0.000
	Th	232	**0.218**	**ug/L**	14.469	11958	0.021
	U	238	**0.017**	**ug/L**	2.635	1301	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		87.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		86.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		93.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202105363
Sample Date/Time: Monday, May 10, 2010 19:39:44
Sample Type:
Sample Description: ARSL 6020 LCS
Number of Replicates: 3
Batch ID: 979291|1|skj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\1202105363.015

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.236**	ug/L	2.979	71074	0.084
	Be	9	**51.626**	ug/L	0.189	21257	0.025
	B	11	**97.632**	ug/L	2.924	44123	0.052
	Na	23	**1897.443**	ug/L	12.928	8428161	9.955
	Mg	24	**2017.916**	ug/L	5.405	6340475	7.503
	Al	27	**1917.890**	ug/L	7.941	7750910	9.166
	P	31	**1965.956**	ug/L	2.988	391620	0.457
	K	39	**2108.382**	ug/L	6.909	10974096	12.503
	Ca	43	**1915.937**	ug/L	2.796	23837	0.028
>	Sc	45		ug/L		844619	844619.065
	Ti	47	**40.160**	ug/L	2.500	24432	0.029
	V	51	**43.548**	ug/L	4.553	272768	0.327
	Cr	52	**46.465**	ug/L	1.062	227106	0.272
	Cr	53		ug/L		237489	0.183
	Mn	55	**49.057**	ug/L	2.336	413813	0.489
	Fe	57	**2064.652**	ug/L	2.316	338103	0.397
	Co	59	**46.801**	ug/L	0.658	308694	0.365
	Ni	60	**47.582**	ug/L	1.184	67335	0.080
	Cu	63		ug/L		159523	0.189
	Cu	65	**48.450**	ug/L	1.167	78124	0.092
	Zn	66	**49.445**	ug/L	0.814	55798	0.148
	Zn	67		ug/L		47830	0.102
	Zn	68		ug/L		41526	0.108
>	Ge	74		ug/L		372303	372302.646
	As	75	**48.148**	ug/L	1.285	51158	0.138
	Se	77		ug/L		17813	0.037
	Se	82	**51.461**	ug/L	3.387	5718	0.015
	Kr	83		ug/L		95	0.000
	Sr	88	**50.743**	ug/L	1.796	665039	2.638
	Y	89		ug/L		61	0.000
	Mo	98	**47.619**	ug/L	2.583	155455	0.617
	Ag	107	**50.234**	ug/L	1.732	286223	1.136
	Cd	111	**49.594**	ug/L	2.087	73088	0.290
	Cd	114		ug/L		177005	0.702
>	In	115		ug/L		252029	252028.620
	Sn	120	**50.107**	ug/L	1.490	320075	1.269
	Sb	121	**51.157**	ug/L	1.722	284966	1.130
	Sb	123		ug/L		226429	0.898
	Ba	135		ug/L		83715	0.169
	Ba	137	**46.929**	ug/L	2.496	146942	0.297
	Ho	165		ug/L		107	0.000
>	Lu	175		ug/L		495088	495088.257
	Tl	205	**44.616**	ug/L	3.219	930069	1.874
	Pb	208	**48.868**	ug/L	2.567	1846149	3.728
	Bi	209		ug/L		1493814	3.017
	Th	232	**46.585**	ug/L	4.040	2181043	4.404
	U	238	**48.104**	ug/L	4.369	2331104	4.710

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		87.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		86.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		93.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 251870001
Sample Date/Time: Monday, May 10, 2010 19:45:50
Sample Type:
Sample Description: ARSL 6020
Number of Replicates: 3
Batch ID: 979291|1|skj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\251870001.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**89.258**	ug/L	0.469	141104	0.149
	Be	9	**2.071**	ug/L	1.619	967	0.001
	B	11	**106.904**	ug/L	0.832	53952	0.057
	Na	23	**66825.510**	ug/L	2.686	330944041	350.603
	Mg	24	**11336.676**	ug/L	6.605	39805052	42.153
	Al	27	**10182.026**	ug/L	2.155	45946054	48.663
	P	31	**1279.317**	ug/L	1.534	287026	0.297
	K	39	**31759.584**	ug/L	2.906	178285228	188.343
	Ca	43	**103403.528**	ug/L	0.691	1419656	1.504
>	Sc	45		ug/L		943970	943970.016
	Ti	47	**271.790**	ug/L	2.225	183372	0.194
	V	51	**34.022**	ug/L	2.530	237409	0.255
	Cr	52	**43.880**	ug/L	1.368	239519	0.257
	Cr	53		ug/L		222092	0.137
	Mn	55	**1021.970**	ug/L	3.131	9620297	10.190
	Fe	57	**20266.230**	ug/L	1.548	3678440	3.893
	Co	59	**16.017**	ug/L	0.439	118131	0.125
	Ni	60	**39.053**	ug/L	0.747	61784	0.065
	Cu	63		ug/L		68388	0.072
	Cu	65	**18.060**	ug/L	2.015	32620	0.034
	Zn	66	**312.455**	ug/L	1.303	347643	0.933
	Zn	67		ug/L		93294	0.225
	Zn	68		ug/L		255224	0.683
>	Ge	74		ug/L		371679	371678.559
	As	75	**0.040**	ug/L	4785.844	-201	0.000
	Se	77		ug/L		22169	0.048
	Se	82	**0.759**	ug/L	15.272	66	0.000
	Kr	83		ug/L		268	0.000
	Sr	88	**756.032**	ug/L	0.761	9705816	39.300
	Y	89		ug/L		201380	0.815
	Mo	98	**26.419**	ug/L	1.927	84535	0.342
	Ag	107	**0.161**	ug/L	8.515	946	0.004
	Cd	111	**0.307**	ug/L	17.836	465	0.002
	Cd	114		ug/L		605	0.002
>	In	115		ug/L		246971	246970.675
	Sn	120	**0.649**	ug/L	2.580	4252	0.016
	Sb	121	**1.240**	ug/L	0.540	6879	0.027
	Sb	123		ug/L		5830	0.023
	Ba	135		ug/L		580138	1.253
	Ba	137	**343.974**	ug/L	1.481	1007144	2.175
	Ho	165		ug/L		15990	0.034
>	Lu	175		ug/L		463047	463047.021
	Tl	205	**0.813**	ug/L	10.168	18254	0.034
	Pb	208	**21.544**	ug/L	0.816	762108	1.643
	Bi	209		ug/L		6735	0.014
	Th	232	**6.409**	ug/L	2.349	282091	0.606
	U	238	**3.480**	ug/L	0.924	158185	0.341

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			97.8		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			86.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			88.3		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			87.0		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
K 39 Upper, S, EEE	Na	23	Sample is out of limits (over linear range)
	Ca	43	Sample is out of limits (over linear range)
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202105364
Sample Date/Time: Monday, May 10, 2010 19:51:55
Sample Type:
Sample Description: ARSL 6020 DUP
Number of Replicates: 3
Batch ID: 979291|1|skj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\1202105364.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**92.924**	ug/L	0.890	155662	0.156
	Be	9	**2.142**	ug/L	4.573	1058	0.001
	B	11	**110.233**	ug/L	1.807	58932	0.058
	Na	23	**67993.654**	ug/L	3.517	356835350	356.732
	Mg	24	**12129.503**	ug/L	7.123	45149249	45.101
	Al	27	**11726.366**	ug/L	3.414	56089988	56.043
	P	31	**1303.623**	ug/L	0.527	309791	0.303
	K	39	**33075.890**	ug/L	5.047	196706623	196.149
	Ca	43	**104040.748**	ug/L	0.121	1513566	1.513
>	Sc	45		ug/L		1000286	1000286.162
	Ti	47	**307.811**	ug/L	0.751	220038	0.220
	V	51	**37.384**	ug/L	2.815	276827	0.280
	Cr	52	**45.470**	ug/L	0.781	263141	0.266
	Cr	53		ug/L		243726	0.146
	Mn	55	**1037.366**	ug/L	0.674	10347581	10.343
	Fe	57	**21320.531**	ug/L	0.365	4100950	4.096
	Co	59	**16.651**	ug/L	2.153	130129	0.130
	Ni	60	**40.527**	ug/L	1.839	67940	0.068
	Cu	63		ug/L		78025	0.078
	Cu	65	**19.440**	ug/L	1.660	37201	0.037
	Zn	66	**319.797**	ug/L	1.256	375869	0.955
	Zn	67		ug/L		100535	0.230
	Zn	68		ug/L		275223	0.697
>	Ge	74		ug/L		392710	392710.367
	As	75	**0.947**	ug/L	70.986	802	0.003
	Se	77		ug/L		25046	0.052
	Se	82	**0.433**	ug/L	69.676	31	0.000
	Kr	83		ug/L		304	0.001
	Sr	88	**779.168**	ug/L	1.537	10410983	40.503
	Y	89		ug/L		223901	0.871
	Mo	98	**27.546**	ug/L	2.712	91726	0.357
	Ag	107	**0.184**	ug/L	3.055	1118	0.004
	Cd	111	**0.317**	ug/L	9.063	499	0.002
	Cd	114		ug/L		665	0.002
>	In	115		ug/L		257059	257059.318
	Sn	120	**0.764**	ug/L	2.660	5173	0.019
	Sb	121	**1.267**	ug/L	1.328	7312	0.028
	Sb	123		ug/L		6229	0.024
	Ba	135		ug/L		633282	1.295
	Ba	137	**356.251**	ug/L	0.937	1101259	2.253
	Ho	165		ug/L		17887	0.036
>	Lu	175		ug/L		488828	488828.303
	Tl	205	**0.403**	ug/L	8.213	10857	0.017
	Pb	208	**21.652**	ug/L	0.608	808516	1.652
	Bi	209		ug/L		7469	0.014
	Th	232	**6.590**	ug/L	1.446	306254	0.623
	U	238	**3.569**	ug/L	0.732	171242	0.349

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		91.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
K 39 Upper, S, EEE	Na	23	Sample is out of limits (over linear range)
	Ca	43	Sample is out of limits (over linear range)
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202105365
Sample Date/Time: Monday, May 10, 2010 19:58:01
Sample Type:
Sample Description: ARSL 6020 MS
Number of Replicates: 3
Batch ID: 979291|1|skj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\1202105365.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**135.746**	ug/L	0.776	227884	0.227
	Be	9	**42.476**	ug/L	1.605	20763	0.021
	B	11	**180.624**	ug/L	1.969	96490	0.096
	Na	23	**64771.950**	ug/L	4.070	340736267	339.829
	Mg	24	**13296.283**	ug/L	4.069	49572032	49.440
	Al	27	**14401.036**	ug/L	6.468	69018531	68.826
	P	31	**2767.046**	ug/L	1.900	651565	0.643
	K	39	**32432.740**	ug/L	2.429	193318780	192.335
	Ca	43	**100224.669**	ug/L	1.094	1461397	1.457
>	Sc	45		ug/L		1002564	1002564.205
	Ti	47	**342.110**	ug/L	0.976	245074	0.244
	V	51	**73.729**	ug/L	2.038	550681	0.553
	Cr	52	**84.081**	ug/L	0.543	490476	0.493
	Cr	53		ug/L		276739	0.178
	Mn	55	**1011.170**	ug/L	0.682	10108831	10.082
	Fe	57	**21674.958**	ug/L	1.108	4178462	4.164
	Co	59	**54.124**	ug/L	1.151	423750	0.423
	Ni	60	**76.067**	ug/L	1.803	127725	0.127
	Cu	63		ug/L		225046	0.224
	Cu	65	**56.715**	ug/L	0.626	108536	0.108
	Zn	66	**341.549**	ug/L	1.105	403550	1.020
	Zn	67		ug/L		105988	0.242
	Zn	68		ug/L		298807	0.753
>	Ge	74		ug/L		394771	394771.123
	As	75	**73.573**	ug/L	1.650	83041	0.211
	Se	77		ug/L		28417	0.061
	Se	82	**18.504**	ug/L	2.988	2168	0.006
	Kr	83		ug/L		350	0.001
	Sr	88	**809.950**	ug/L	0.492	10727138	42.103
	Y	89		ug/L		215252	0.845
	Mo	98	**75.552**	ug/L	1.297	249322	0.978
	Ag	107	**46.928**	ug/L	0.733	270336	1.061
	Cd	111	**10.280**	ug/L	1.738	15335	0.060
	Cd	114		ug/L		34111	0.134
>	In	115		ug/L		254779	254778.533
	Sn	120	**48.911**	ug/L	0.559	315888	1.239
	Sb	121	**173.971**	ug/L	1.294	979500	3.844
	Sb	123		ug/L		786935	3.088
	Ba	135		ug/L		695377	1.378
	Ba	137	**374.793**	ug/L	1.852	1196134	2.370
	Ho	165		ug/L		17485	0.034
>	Lu	175		ug/L		504739	504739.489
	Tl	205	**79.670**	ug/L	3.386	1691127	3.346
	Pb	208	**55.494**	ug/L	1.404	2137534	4.233
	Bi	209		ug/L		7177	0.013
	Th	232	**48.880**	ug/L	1.693	2333697	4.621
	U	238	**49.417**	ug/L	1.736	2442177	4.838

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		92.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		94.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
K 39 Upper, S, EEE	Na	23	Sample is out of limits (over linear range)
	Ca	43	Sample is out of limits (over linear range)
	Ti	47	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202105366
Sample Date/Time: Monday, May 10, 2010 20:04:07
Sample Type:
Sample Description: ARSL 6020 SDILT
Number of Replicates: 3
Batch ID: 979291|5|skj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\1202105366.019

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.807**	ug/L	1.399	33229	0.037
	Be	9	**0.495**	ug/L	4.404	233	0.000
	B	11	**29.559**	ug/L	0.841	14680	0.016
	Na	23	**15099.926**	ug/L	5.398	72030950	79.222
	Mg	24	**2858.833**	ug/L	2.458	9666201	10.630
	Al	27	**2449.843**	ug/L	5.400	10653617	11.708
	P	31	**301.351**	ug/L	3.271	69734	0.070
	K	39	**7459.490**	ug/L	4.382	40654114	44.237
	Ca	43	**24618.543**	ug/L	0.932	325726	0.358
>	Sc	45		ug/L		909034	909033.718
	Ti	47	**63.068**	ug/L	1.743	41161	0.045
	V	51	**8.130**	ug/L	6.570	52083	0.061
	Cr	52	**10.448**	ug/L	1.379	52636	0.061
	Cr	53		ug/L		146432	0.063
	Mn	55	**228.211**	ug/L	2.170	2069267	2.275
	Fe	57	**4811.405**	ug/L	1.743	843614	0.924
	Co	59	**3.684**	ug/L	1.527	26233	0.029
	Ni	60	**9.159**	ug/L	0.624	14015	0.015
	Cu	63		ug/L		15067	0.016
	Cu	65	**4.147**	ug/L	2.863	7298	0.008
	Zn	66	**69.267**	ug/L	0.905	82358	0.207
	Zn	67		ug/L		29203	0.048
	Zn	68		ug/L		60509	0.150
>	Ge	74		ug/L		393920	393919.830
	As	75	**0.096**	ug/L	467.608	-163	0.000
	Se	77		ug/L		10609	0.016
	Se	82	**0.379**	ug/L	41.767	25	0.000
	Kr	83		ug/L		122	0.000
	Sr	88	**152.224**	ug/L	2.761	2046784	7.913
	Y	89		ug/L		44082	0.170
	Mo	98	**5.511**	ug/L	0.866	18537	0.071
	Ag	107	**0.031**	ug/L	8.437	231	0.001
	Cd	111	**0.054**	ug/L	4.459	105	0.000
	Cd	114		ug/L		170	0.001
>	In	115		ug/L		258656	258655.908
	Sn	120	**0.164**	ug/L	2.179	1273	0.004
	Sb	121	**0.282**	ug/L	2.421	1730	0.006
	Sb	123		ug/L		1432	0.005
	Ba	135		ug/L		128692	0.251
	Ba	137	**70.307**	ug/L	3.075	228349	0.445
	Ho	165		ug/L		3734	0.007
>	Lu	175		ug/L		513654	513654.296
	Tl	205	**1.320**	ug/L	14.974	31249	0.055
	Pb	208	**4.424**	ug/L	2.151	174476	0.337
	Bi	209		ug/L		1965	0.003
	Th	232	**1.232**	ug/L	2.583	61610	0.116
	U	238	**0.701**	ug/L	2.812	35735	0.069

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		94.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Monday, May 10, 2010 20:10:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 8.020

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**56.035**	**ug/L**	4.431	79436	0.094
	Be	9	**50.143**	**ug/L**	2.321	20693	0.024
	B	11	**93.012**	**ug/L**	3.396	42150	0.049
	Na	23	**4600.278**	**ug/L**	5.184	20458387	24.136
	Mg	24	**5014.699**	**ug/L**	3.937	15796478	18.646
	Al	27	**5133.753**	**ug/L**	5.298	20794443	24.536
	P	31	**5071.993**	**ug/L**	1.453	1003851	1.179
	K	39	**5234.195**	**ug/L**	5.764	26679262	31.040
	Ca	43	**4952.865**	**ug/L**	1.838	61295	0.072
>	Sc	45		**ug/L**		846720	846719.743
	Ti	47	**47.057**	**ug/L**	1.863	28658	0.034
	V	51	**49.887**	**ug/L**	1.509	313618	0.374
	Cr	52	**50.178**	**ug/L**	2.344	246014	0.294
	Cr	53		**ug/L**		138857	0.066
	Mn	55	**52.349**	**ug/L**	2.745	442583	0.522
	Fe	57	**5222.094**	**ug/L**	2.215	852567	1.003
	Co	59	**49.401**	**ug/L**	2.285	326571	0.386
	Ni	60	**50.495**	**ug/L**	1.078	71625	0.085
	Cu	63		**ug/L**		168792	0.199
	Cu	65	**51.497**	**ug/L**	1.413	83243	0.098
	Zn	66	**50.761**	**ug/L**	1.752	57750	0.152
	Zn	67		**ug/L**		20229	0.028
	Zn	68		**ug/L**		42518	0.109
>	Ge	74		**ug/L**		375486	375485.529
	As	75	**51.575**	**ug/L**	2.082	55294	0.148
	Se	77		**ug/L**		10090	0.016
	Se	82	**51.188**	**ug/L**	0.669	5737	0.015
	Kr	83		**ug/L**		102	0.000
	Sr	88	**54.532**	**ug/L**	1.953	694728	2.835
	Y	89		**ug/L**		85	0.000
	Mo	98	**50.993**	**ug/L**	1.192	161815	0.660
	Ag	107	**51.650**	**ug/L**	0.309	286077	1.168
	Cd	111	**52.305**	**ug/L**	2.610	74920	0.306
	Cd	114		**ug/L**		178435	0.728
>	In	115		**ug/L**		244980	244979.677
	Sn	120	**51.984**	**ug/L**	1.871	322742	1.317
	Sb	121	**53.395**	**ug/L**	1.867	289089	1.180
	Sb	123		**ug/L**		228074	0.931
	Ba	135		**ug/L**		83915	0.176
	Ba	137	**48.951**	**ug/L**	0.993	147740	0.310
	Ho	165		**ug/L**		99	0.000
>	Lu	175		**ug/L**		477112	477112.466
	Tl	205	**52.205**	**ug/L**	1.739	1048622	2.193
	Pb	208	**53.098**	**ug/L**	0.748	1933539	4.050
	Bi	209		**ug/L**		615	0.000
	Th	232	**50.713**	**ug/L**	1.411	2288829	4.794
	U	238	**52.719**	**ug/L**	1.583	2462962	5.162

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	112.069				
	Be	9	100.286				
	B	11	93.012				
	Na	23	92.006				
	Mg	24	100.294				
	Al	27	101.658				
	P	31	101.440				
	K	39	104.684				
	Ca	43	99.057				
>	Sc	45		87.8			
	Ti	47	94.113				
	V	51	99.774				
	Cr	52	100.356				
	Cr	53					
	Mn	55	104.697				
	Fe	57	104.442				
	Co	59	98.802				
	Ni	60	100.990				
	Cu	63					
	Cu	65	102.994				
	Zn	66	101.521				
	Zn	67					
	Zn	68					
>	Ge	74		87.6			
	As	75	103.150				
	Se	77					
	Se	82	102.376				
	Kr	83					
	Sr	88	109.063				
	Y	89					
	Mo	98	101.987				
	Ag	107	103.301				
	Cd	111	104.610				
	Cd	114					
>	In	115		87.6			
	Sn	120	103.968				
	Sb	121	106.790				
	Sb	123					
	Ba	135					
	Ba	137	97.902				
	Ho	165					
>	Lu	175		89.7			
	Tl	205	104.410				
	Pb	208	106.196				
	Bi	209					
	Th	232	101.426				
	U	238	105.439				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Li	7	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Monday, May 10, 2010 20:16:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100510\QC Std 9.021

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.046**	ug/L	14.976	104	0.000
	Be	9	**0.025**	ug/L	34.842	23	0.000
	B	11	**4.427**	ug/L	15.641	2370	0.002
	Na	23	**6.638**	ug/L	16.493	46074	0.035
	Mg	24	**1.185**	ug/L	71.107	6668	0.004
	Al	27	**2.599**	ug/L	10.625	20348	0.012
	P	31	**-3.389**	ug/L	43.859	4943	-0.001
	K	39	**5.619**	ug/L	131.105	438311	0.033
	Ca	43	**9.367**	ug/L	18.919	419	0.000
>	Sc	45		ug/L		841290	841290.051
	Ti	47	**0.043**	ug/L	123.148	247	0.000
	V	51	**0.489**	ug/L	29.015	-5	0.004
	Cr	52	**-0.148**	ug/L	54.478	-3493	-0.001
	Cr	53		ug/L		107077	0.029
	Mn	55	**0.083**	ug/L	20.625	1395	0.001
	Fe	57	**4.005**	ug/L	20.098	3737	0.001
	Co	59	**0.015**	ug/L	18.724	181	0.000
	Ni	60	**0.016**	ug/L	56.377	96	0.000
	Cu	63		ug/L		207	0.000
	Cu	65	**0.022**	ug/L	6.907	137	0.000
	Zn	66	**0.021**	ug/L	114.448	842	0.000
	Zn	67		ug/L		10429	0.002
	Zn	68		ug/L		1474	-0.000
>	Ge	74		ug/L		371846	371846.232
	As	75	**0.108**	ug/L	236.161	-142	0.000
	Se	77		ug/L		5686	0.004
	Se	82	**0.145**	ug/L	51.942	-2	0.000
	Kr	83		ug/L		95	0.000
	Sr	88	**0.034**	ug/L	19.000	759	0.002
	Y	89		ug/L		58	0.000
	Mo	98	**0.051**	ug/L	30.625	238	0.001
	Ag	107	**0.013**	ug/L	23.379	118	0.000
	Cd	111	**0.012**	ug/L	47.332	39	0.000
	Cd	114		ug/L		82	0.000
>	In	115		ug/L		247565	247564.812
	Sn	120	**0.052**	ug/L	6.403	519	0.001
	Sb	121	**0.039**	ug/L	28.522	325	0.001
	Sb	123		ug/L		244	0.001
	Ba	135		ug/L		74	0.000
	Ba	137	**0.019**	ug/L	27.419	112	0.000
	Ho	165		ug/L		94	0.000
>	Lu	175		ug/L		481911	481910.897
	Tl	205	**0.585**	ug/L	7.096	14392	0.025
	Pb	208	**0.018**	ug/L	14.570	1781	0.001
	Bi	209		ug/L		467	0.000
	Th	232	**0.151**	ug/L	14.237	8570	0.014
	U	238	**0.025**	ug/L	7.530	1620	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		87.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		86.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		88.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		90.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, May 12, 2010 12:53:17
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1574
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1572.5	1572.487	35.708	2.3
	Mg	24.0	21180.1	21180.111	883.533	4.2
	Co	58.9	74112.0	74111.976	1085.432	1.5
	Rh	102.9	148644.8	148644.757	950.787	0.6
	In	114.9	207191.1	207191.132	1519.583	0.7
	Pb	208.0	229596.0	229596.006	2028.481	0.9
⌈>	Ba	137.9	211380.3	211380.295	2841.765	1.3
⌊	Ba++	69.0	3535.6	0.017	0.000	2.0
⌈>	Ce	139.9	261912.0	261911.970	3051.122	1.2
⌊	CeO	155.9	5838.3	0.022	0.001	2.4
	Bkgd	220.0	23.8	23.800	3.290	13.8

Current Optimization File Data

Current Value	Description
0.84	Nebulizer Gas Flow
6.75	Lens Voltage
1450.00	ICP RF Power
-1812.50	Analog Stage Voltage
1300.00	Pulse Stage Voltage
200.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	10.8	3569.8
Co	59	21	12.3	74376.8
In	115	21	13.8	206522.1

ICPMS #5 Instrument Tuning Report

File Name: 100512.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	610	2072	0.552
Be	9.0	9.0	2060	2088	0.599
Mg	24.0	24.0	5693	2085	0.605
Mg	25.0	25.0	5943	2085	0.621
Mg	26.0	26.0	6181	2100	0.615
Co	58.9	58.9	14190	2125	0.579
Rh	102.9	102.9	24877	2180	0.590
In	114.9	114.9	27793	2200	0.604
Ce	139.9	139.9	33875	2220	0.594
Pb	206.0	206.0	49948	2305	0.576
Pb	207.0	206.9	50171	2240	0.669
Pb	208.0	207.9	50426	2280	0.709
U	238.1	238.0	57726	2295	0.703

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, May 12, 2010 16:44:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl and u.mth
Dataset File: C:\elandata\Dataset\100512\Blank.055

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		594714	
	Tl	205		ug/L		2883	
	U	238		ug/L		548	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, May 12, 2010 16:47:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl and u.mth
Dataset File: C:\elandata\Dataset\100512\Standard 1.056

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		586120	586120.208
	Tl	205	**10.000**	**ug/L**	1.495	248959	0.420
	U	238	**10.000**	**ug/L**	2.016	496091	0.846

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, May 12, 2010 16:49:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl and u.mth
Dataset File: C:\elandata\Dataset\100512\Standard 2.057

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		602879	602878.513
|	Tl	205	99.880	ug/L	1.137	2260927	3.746
⌊	U	238	99.875	ug/L	0.596	4525670	7.506

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175					
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, May 12, 2010 16:52:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl and u.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 1.058

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		578477	578477.176
	Tl	205	**52.680**	**ug/L**	0.718	1145735	1.976
	U	238	**53.204**	**ug/L**	0.437	2313685	3.999

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		97.3			
	Tl	205	105.361				
	U	238	106.409				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, May 12, 2010 16:55:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl and u.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 2.059

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Lu	175		ug/L		611777	611776.627
Tl	205	0.107	ug/L	4.907	5415	0.004
U	238	0.011	ug/L	6.013	1077	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Lu	175		102.9			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, May 12, 2010 16:58:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl and u.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 3.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		615224	615224.118
	Tl	205	**1.278**	ug/L	1.975	32458	0.048
	U	238	**0.377**	ug/L	2.238	17974	0.028

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		103.4			
	Tl	205	127.796				
	U	238	188.292				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, May 12, 2010 17:00:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl and u.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 4.061

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		565920	565919.693
	Tl	205	**-0.006**	**ug/L**	55.523	2611	-0.000
	U	238	**-0.007**	**ug/L**	6.042	227	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		95.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, May 12, 2010 17:03:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl and u.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 5.062

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		564323	564322.622
	Tl	205	**19.586**	**ug/L**	1.701	417304	0.735
	U	238	**22.299**	**ug/L**	0.799	946339	1.676

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		94.9			
	Tl	205	97.932				
	U	238	111.495				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 12, 2010 17:06:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl and u.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 6.063

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		588220	588219.615
	Tl	205	**50.491**	**ug/L**	0.366	1116696	1.893
	U	238	**51.235**	**ug/L**	0.180	2265558	3.851

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		98.9			
	Tl	205	100.982				
	U	238	102.470				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 12, 2010 17:08:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl and u.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 7.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		584119	584119.339
	Tl	205	0.099	ug/L	2.156	5000	0.004
	U	238	0.009	ug/L	3.696	938	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		98.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202105362
Sample Date/Time: Wednesday, May 12, 2010 17:11:36
Sample Type:
Sample Description: ARSL 6020 MB
Number of Replicates: 3
Batch ID: 979291|1|skj
Method File: c:\elandata\Method\tl and u.mth
Dataset File: C:\elandata\Dataset\100512\1202105362.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		545504	545503.762
	Tl	205	-0.020	ug/L	14.594	2244	-0.001
	U	238	0.013	ug/L	3.960	1047	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		91.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202105363
Sample Date/Time: Wednesday, May 12, 2010 17:14:17
Sample Type:
Sample Description: ARSL 6020 LCS
Number of Replicates: 3
Batch ID: 979291|1|skj
Method File: c:\elandata\Method\tl and u.mth
Dataset File: C:\elandata\Dataset\100512\1202105363.066

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		548345	548344.592
	Tl	205	**47.446**	**ug/L**	0.857	978548	1.779
	U	238	**53.105**	**ug/L**	0.368	2189189	3.991

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		92.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 251870001
Sample Date/Time: Wednesday, May 12, 2010 17:16:58
Sample Type:
Sample Description: ARSL 6020
Number of Replicates: 3
Batch ID: 979291|1|skj
Method File: c:\elandata\Method\tl and u.mth
Dataset File: C:\elandata\Dataset\100512\251870001.067

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Lu	175		ug/L		510862	510862.463
Tl	205	0.556	ug/L	2.625	13128	0.021
U	238	3.838	ug/L	1.070	147805	0.288

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Lu	175		85.9			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202105364
Sample Date/Time: Wednesday, May 12, 2010 17:19:39
Sample Type:
Sample Description: ARSL 6020 DUP
Number of Replicates: 3
Batch ID: 979291|1|skj
Method File: c:\elandata\Method\tl and u.mth
Dataset File: C:\elandata\Dataset\100512\1202105364.068

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Lu	175		ug/L		537283	537282.636
Tl	205	**0.200**	ug/L	6.498	6636	0.007
U	238	**3.811**	ug/L	1.906	154406	0.286

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Lu	175		90.3			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202105365
Sample Date/Time: Wednesday, May 12, 2010 17:22:21
Sample Type:
Sample Description: ARSL 6020 MS
Number of Replicates: 3
Batch ID: 979291|1|skj
Method File: c:\elandata\Method\tl and u.mth
Dataset File: C:\elandata\Dataset\100512\1202105365.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		549724	549724.147
|	Tl	205	**82.549**	ug/L	0.363	1704626	3.096
⌊	U	238	**51.810**	ug/L	0.847	2140998	3.894

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		92.4			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202105366
Sample Date/Time: Wednesday, May 12, 2010 17:25:04
Sample Type:
Sample Description: ARSL 6020 SDILT
Number of Replicates: 3
Batch ID: 979291|5|skj
Method File: c:\elandata\Method\tl and u.mth
Dataset File: C:\elandata\Dataset\100512\1202105366.070

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		574874	574874.133
	Tl	205	**0.787**	**ug/L**	3.687	19771	0.030
	U	238	**0.723**	**ug/L**	2.420	31773	0.054

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
>	Lu	175		96.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, May 12, 2010 17:27:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl and u.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 6.071

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		596764	596764.433
	Tl	205	**50.780**	**ug/L**	0.590	1139315	1.904
	U	238	**50.651**	**ug/L**	1.033	2271785	3.807

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		100.3			
	Tl	205	101.561				
	U	238	101.302				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, May 12, 2010 17:30:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl and u.mth
Dataset File: C:\elandata\Dataset\100512\QC Std 7.072

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		592369	592369.296
	Tl	205	**0.266**	**ug/L**	0.332	8780	0.010
	U	238	**0.009**	**ug/L**	2.113	928	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		99.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\050310W1.SIF
Batch ID:
Results Data Set: 050310W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 2/8/2010 13:04:57**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 5/3/2010 09:14:10**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0004	0.0023	0.0004	09:15:12	Yes
2		[0.00]	0.0004	0.0020	0.0004	09:15:48	Yes
Mean:		[0.00]	0.0004				
SD:		0.00	0.0000				
%RSD:		0.00	5.04				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 5/3/2010 09:16:07**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0021	0.0139	0.0025	09:17:07	Yes
2		[0.2]	0.0020	0.0137	0.0024	09:17:42	Yes
Mean:		[0.2]	0.0020				
SD:		0.0	0.0000				
%RSD:		0.0	0.92				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01021 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 5/3/2010 09:18:01**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0051	0.0314	0.0055	09:19:02	Yes
2		[0.5]	0.0051	0.0308	0.0055	09:19:37	Yes
Mean:		[0.5]	0.0051				
SD:		0.0	0.0000				
%RSD:		0.0	0.89				

Standard number 2 applied. [0.5]
Correlation Coef.: 1.000000 Slope: 0.01020 Intercept: 0.00000

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 5/3/2010 09:19:56**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0212	0.1226	0.0216	09:20:58	Yes
2		[2.0]	0.0210	0.1201	0.0214	09:21:33	Yes
Mean:		[2.0]	0.0211				
SD:		0.0	0.0001				
%RSD:		0.0	0.68				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999967 Slope: 0.01057 Intercept: -0.00008

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 5/3/2010 09:21:53**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0518	0.2957	0.0522	09:22:54	Yes
2		[5.0]	0.0513	0.2916	0.0517	09:23:29	Yes
Mean:		[5.0]	0.0516				
SD:		0.0	0.0004				
%RSD:		0.0	0.78				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999951 Slope: 0.01033 Intercept: 0.00005

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 5/3/2010 09:23:49**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1036	0.5920	0.1040	09:24:50	Yes
2		[10.0]	0.1030	0.5844	0.1034	09:25:24	Yes
Mean:		[10.0]	0.1033				
SD:		0.0	0.0004				
%RSD:		0.0	0.42				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999989 Slope: 0.01033 Intercept: 0.00005

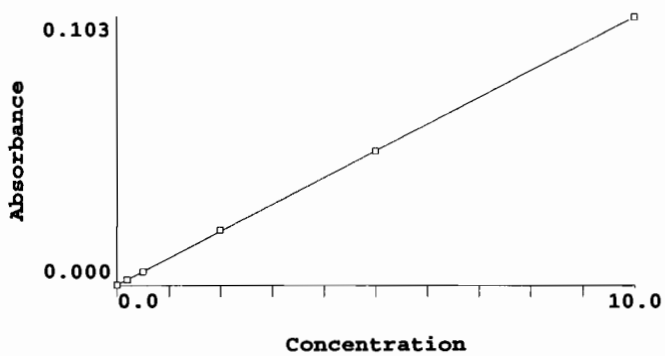

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.005	0.00	5.0
S0.2	0.0020	0.2	0.193	0.00	0.9
S0.5	0.0051	0.5	0.489	0.00	0.9
S2.0	0.0211	2.0	2.037	0.00	0.7

S5.0	0.0516	5.0	4.987	0.00	0.8
S10.0	0.1033	10.0	10.000	0.00	0.4

Correlation Coef.: 0.999989 Slope: 0.01033 Intercept: 0.00005

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 5/3/2010 09:25:43**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.070	5.070	0.0524	0.2971	0.0528	09:26:44	Yes
2	5.054	5.054	0.0522	0.2958	0.0526	09:27:19	Yes
Mean:	5.062	5.062	0.0523				
SD:	0.011	0.011	0.0001				
%RSD:	0.224	0.224	0.22				

QC value within limits for Hg 253.7 Recovery = 101.24%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 5/3/2010 09:27:39**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0001	0.0018	0.0005	09:28:40	Yes
2	-0.002	-0.002	0.0000	0.0018	0.0004	09:29:15	Yes
Mean:	0.000	0.000	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	457.4	457.4	42.40				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 5/3/2010 09:29:35**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.195	0.195	0.0021	0.0132	0.0025	09:30:36	Yes
2	0.194	0.194	0.0021	0.0133	0.0025	09:31:12	Yes
Mean:	0.195	0.195	0.0021				
SD:	0.001	0.001	0.0000				
%RSD:	0.668	0.668	0.65				

QC value within limits for Hg 253.7 Recovery = 97.28%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 5/3/2010 09:31:32**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.109	5.109	0.0528	0.2984	0.0532	09:32:33	Yes
2	5.089	5.089	0.0526	0.2952	0.0530	09:33:07	Yes
Mean:	5.099	5.099	0.0527				
SD:	0.015	0.015	0.0001				
%RSD:	0.285	0.285	0.28				

QC value within limits for Hg 253.7 Recovery = 101.98%
All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 5/3/2010 09:33:26**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.006	-0.006	-0.0000	0.0015	0.0004	09:34:27	Yes
2	-0.003	-0.003	0.0000	0.0019	0.0004	09:35:02	Yes
Mean:	-0.005	-0.005	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	55.18	55.18	536.14				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202105565|979366|1 **Date Collected: 5/3/2010 09:35:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202105565|979366|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0019	0.0004	09:36:23	Yes
2	-0.003	-0.003	0.0000	0.0017	0.0004	09:36:58	Yes
Mean:	-0.003	-0.003	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	20.73	20.73	32.84				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202105566|979366|1 **Date Collected: 5/3/2010 09:37:18**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202105566|979366|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.037	2.037	0.0211	0.1197	0.0215	09:38:20	Yes
2	2.034	2.034	0.0211	0.1191	0.0215	09:38:55	Yes
Mean:	2.035	2.035	0.0211				
SD:	0.002	0.002	0.0000				
%RSD:	0.114	0.114	0.11				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 251870001|979366|1 **Date Collected: 5/3/2010 09:39:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 251870001|979366|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.007	-0.007	-0.0000	0.0016	0.0004	09:40:16	Yes
2	-0.007	-0.007	-0.0000	0.0017	0.0004	09:40:50	Yes
Mean:	-0.007	-0.007	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	6.763	6.763	26.22				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202105567|979366|1 **Date Collected: 5/3/2010 09:41:10**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202105567|979366|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.005	-0.005	0.0000	0.0018	0.0004	09:42:10	Yes
2	-0.007	-0.007	-0.0000	0.0018	0.0004	09:42:45	Yes
Mean:	-0.006	-0.006	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	23.36	23.36	141.43				

Sequence No.: 16 **Autosampler Location: 16**
Sample ID: 1202105568|979366|1 **Date Collected: 5/3/2010 09:43:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202105568|979366|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.019	2.019	0.0209	0.1180	0.0213	09:44:04	Yes
2	2.016	2.016	0.0209	0.1177	0.0213	09:44:39	Yes
Mean:	2.017	2.017	0.0209				
SD:	0.002	0.002	0.0000				
%RSD:	0.090	0.090	0.09				

Sequence No.: 17 **Autosampler Location: 17**
Sample ID: ~~1202405569|979366~~|5 **Date Collected: 5/3/2010 09:44:58**
Analyst: JXL **Data Type: Original**

1202105569|979366|5 MPO 5/3/10

Replicate Data: 1202405569|979366|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	0.0000	0.0018	0.0004	09:45:59	Yes
2	-0.038	-0.038	-0.0003	-0.0009	0.0001	09:46:34	Yes
Mean:	-0.020	-0.020	-0.0002				
SD:	0.025	0.025	0.0003				
%RSD:	123.0	123.0	164.45				

Sequence No.: 18 **Autosampler Location: 18**
Sample ID: 1202100672|977316|1 **Date Collected: 5/3/2010 09:46:53**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202100672|977316|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0000	0.0020	0.0004	09:47:53	Yes
2	0.000	0.000	0.0001	0.0022	0.0005	09:48:28	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	113.9	113.9	32.63				

Sequence No.: 19 **Autosampler Location: 19**
Sample ID: 1202100673|977316|1 **Date Collected: 5/3/2010 09:48:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202100673|977316|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.064	2.064	0.0214	0.1202	0.0218	09:49:48	Yes
2	2.041	2.041	0.0211	0.1183	0.0215	09:50:22	Yes
Mean:	2.053	2.053	0.0213				
SD:	0.016	0.016	0.0002				
%RSD:	0.795	0.795	0.79				

Sequence No.: 20 **Autosampler Location: 20**
Sample ID: 251350001|977316|1 **Date Collected: 5/3/2010 09:50:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 251350001|977316|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0001	0.0027	0.0005	09:51:43	Yes
2	0.006	0.006	0.0001	0.0027	0.0005	09:52:18	Yes
Mean:	0.006	0.006	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	6.726	6.726	3.52				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 1202100674|977316|1 **Date Collected: 5/3/2010 09:52:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202100674|977316|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0001	0.0023	0.0005	09:53:39	Yes
2	0.002	0.002	0.0001	0.0021	0.0005	09:54:13	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	3.674	3.674	0.86				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 5/3/2010 09:54:33**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.130	5.130	0.0530	0.2928	0.0534	09:55:34	Yes
2	5.108	5.108	0.0528	0.2907	0.0532	09:56:08	Yes
Mean:	5.119	5.119	0.0529				
SD:	0.015	0.015	0.0002				
%RSD:	0.301	0.301	0.30				

QC value within limits for Hg 253.7 Recovery = 102.39%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 5/3/2010 09:56:27**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	0.0000	0.0015	0.0004	09:57:28	Yes
2	-0.001	-0.001	0.0000	0.0020	0.0005	09:58:03	Yes
Mean:	-0.003	-0.003	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	113.7	113.7	139.03				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 1202100675|977316|1 **Date Collected: 5/3/2010 09:58:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202100675|977316|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.135	2.135	0.0221	0.1232	0.0225	09:59:23	Yes
2	2.116	2.116	0.0219	0.1219	0.0223	09:59:58	Yes

Miscellaneous

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **979365.0** Verified by: _____

Analyst: Tara Griffin

Method: EPA 245.1/245.2 Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: No analytical instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202105566	Mercury working intermediate standard for LCS/MS	WHG100430-13	.2	mL
MS	1202105568	Mercury working intermediate standard for LCS/MS	WHG100430-13	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202105565 MB	30-APR-2010 10:50:00	Water	20	20	1	<2
1202105566 LCS	30-APR-2010 10:50:00	Water	20	20	1	<2
251870001	30-APR-2010 10:50:00	Water	20	20	1	<2
1202105567 DUP (251870001)	30-APR-2010 10:50:00	Water	20	20	1	<2
1202105568 MS (251870001)	30-APR-2010 10:50:00	Water	20	20	1	<2
1202105569 SDILT (251870001)	30-APR-2010 10:50:00	Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1238798	Sulfuric Acid, Concentrated	1 mL
1297371-1	NITRIC ACID	.5 mL
1300341-C	Hg reducing agent	1 mL
1304599-C	5% KMnO4 solution	3 mL
1305049-C	5% Potassium Persulfate	1.5 mL
WHG100430-01a	Mercury Working 1st Source CAL 0.2/CRA	20 uL
WHG100430-02	Mercury Working 1st Source CAL 0.5	50 mL
WHG100430-03	Mercury Working 1st Source CAL 2.0	200 uL
WHG100430-04	Mercury Working 1st Source CAL 5.0/CCV	500 uL
WHG100430-05	Mercury Working 1st Source CAL 10.0	1 mL
WHG100430-06	Mercury Working 2nd Source 5.0/ICV	500 uL

Comments:

Digestion Start Date: 30-APR-10 10:50

Digestion End Date: 30-APR-10 12:50

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **979290.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Metals Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202105363	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).	UI1303462-B	.5	mL
LCS	1202105363	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	UI1303464-A	.5	mL
MS	1202105365	ICP-MS DOE liquid Spike Solution A	UI1268752-A	.5	mL
MS	1202105365	ICP-MS DOE Liquid Spike Solution B	UI1268755-B	.5	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202105362 MB	30-APR-2010 08:45:00	Water	50	50	1	<2
1202105363 LCS	30-APR-2010 08:45:00	Water	50	50	1	<2
251870001	30-APR-2010 08:45:00	Water	50	50	1	<2
1202105364 DUP (251870001)	30-APR-2010 08:45:00	Water	50	50	1	<2
1202105365 MS (251870001)	30-APR-2010 08:45:00	Water	50	50	1	<2
1202105366 SDILT (251870001)	30-APR-2010 08:45:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1298333	HYDROCHLORIC ACID	2.5 mL
1302252	Nitric Acid CONC.	1 mL

Comments:

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **979293.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Metals Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202105374	Metals Spike Mix I	UI1303466-01	.25	mL
LCS	1202105374	Metals Spike Mix II	U11303468-06	.25	mL
MS	1202105376	Metals Spike Mix I	U11303466-01	.25	mL
MS	1202105376	Metals Spike Mix II	U11303468-06	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202105373 MB	30-APR-2010 08:45:00	Water	50	50	1	<2
1202105374 LCS	30-APR-2010 08:45:00	Water	50	50	1	<2
251870001	30-APR-2010 08:45:00	Water	50	50	1	<2
1202105375 DUP (251870001)	30-APR-2010 08:45:00	Water	50	50	1	<2
1202105376 MS (251870001)	30-APR-2010 08:45:00	Water	50	50	1	<2
1202105377 SDILT (251870001)	30-APR-2010 08:45:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1298333	HYDROCHLORIC ACID	2.5 mL
1302252	Nitric Acid CONC.	1 mL

Comments:

DER Report No.: 823456
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
30-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3005/6010B	Liquid	LANL
Batch ID:	**Sample Numbers:**		
979294	See Below		

Potentially affected work order(s)(SDG): 251870(10-2937)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202105376MS 2. Failed RPD for DUP: QC 1202105375DUP	1. The matrix spike recovery failed outside of the control limits for magnesium and manganese due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for aluminum due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Christopher Louviere 30-APR-10

Data Validator/Group Leader:

Louise Smith 03-MAY-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
13-MAY-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3005/6020 DOE-AL	Liquid	LANL
Batch ID:	**Sample Numbers:**		
979291	See Below		

Potentially affected work order(s)(SDG): 251870(10-2937)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202105365MS	The matrix spike recovery failed outside of the control limits for Ni due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Samantha Jacobs 14-MAY-10

Data Validator/Group Leader:

Jamie Johnson 14-MAY-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L

Analyte	Concentration	Analyte	Concentration
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L

Analyte	Concentration	Analyte	Concentration
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI100317-06 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-MAR-10 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019161
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI100317-07 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-MAR-10 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019162
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI100317-08 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-MAR-10 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019163
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI

Standard Logbook

Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI100325-42 **Opened:** 22-APR-10 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 25-MAR-10 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 22-APR-11 **Lot Number :** 1018562
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI100329-40 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008325
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI100329-41 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008323
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI100329-42 **Opened:** 01-APR-10 **Amount :** 200 mL
Name: SILICON **Received:** 29-MAR-10 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 01-APR-11 **Lot Number :** 1004838
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100331-42 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 31-MAR-10 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 08-APR-11 **Lot Number :** 1019414
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L

Analyte	Concentration	Analyte	Concentration
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100405-60 **Opened:** 05-APR-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 05-APR-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019464
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Standard Logbook

Serial ID: UI100405-61 **Opened:** 05-APR-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 05-APR-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019464
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI100406-48 **Opened:** 16-APR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 08-APR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 16-APR-11 **Lot Number :** 1019510
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100407-49.16 **Opened:** 30-APR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 08-APR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 01-MAY-10 **Lot Number :** 1019511
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L

Analyte	Concentration	Analyte	Concentration
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100414-42 **Opened:** 10-MAY-10 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 14-APR-10 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 11-MAY-11 **Lot Number :** 0924316
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI100419-40 **Opened:** 27-APR-10 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 16-APR-10 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 27-APR-11 **Lot Number :** 4004186
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI100419-41 **Opened:** 27-APR-10 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 16-APR-10 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 27-APR-11 **Lot Number :** 4004524
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L

Analyte	Concentration	Analyte	Concentration
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI100428-41 **Opened:** 29-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 28-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 29-APR-11 **Lot Number :** 1019565
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100509-11 **Opened:** 09-MAY-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 09-MAY-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 09-MAY-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI1268752-A **Opened:** 11-FEB-10 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 11-FEB-10 **Lot Number :** 1017434
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI1268755-B **Opened:** 11-FEB-10 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 11-FEB-10 **Lot Number :** 1017434
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI1303462-B **Opened:** 19-APR-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 19-APR-10 **Lot Number :** 1018914
Type: Source Material **Expires:** 19-APR-11
Employee: Bryan Davis
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Standard Logbook

Serial ID: UI1303464-A **Opened:** 19-APR-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 19-APR-10 **Lot Number :** 1018914
Type: Source Material **Expires:** 19-APR-11
Employee: Bryan Davis
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI1303466-01 **Opened:** 19-APR-10 **Lot Number :** 1019097
Name: METALSPIKE-1 **Received:** 19-APR-10
Type: Source Material **Expires:** 19-APR-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI1303468-06 **Opened:** 19-APR-10 **Lot Number :** 1018913
Name: METALSPIKE-2 **Received:** 19-APR-10
Type: Source Material **Expires:** 19-APR-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100415-03 **Opened:** 15-APR-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100430-01 **Opened:** 30-APR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 30-APR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 01-MAY-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100430-02 **Opened:** 30-APR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 30-APR-10 **Solvent :** 2% HNO3-1297371
Type: Intermediate **Expires:** 01-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: WHG100430-01a **Opened:** 30-APR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 30-APR-10 **Solvent :** 2% HNO3-1297371
Type: Working **Expires:** 06-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100430-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100430-02 **Opened:** 30-APR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 30-APR-10 **Solvent :** 2% HNO3-1297371
Type: Working **Expires:** 06-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100430-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100430-03 **Opened:** 30-APR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 30-APR-10 **Solvent :** 2% HNO3-1297371
Type: Working **Expires:** 06-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100430-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100430-04 **Opened:** 30-APR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 30-APR-10 **Solvent :** 2% HNO3-1297371
Type: Working **Expires:** 06-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100430-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Standard Logbook

Serial ID: WHG100430-05 **Opened:** 30-APR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 30-APR-10 **Solvent :** 2% HNO3-1297371
Type: Working **Expires:** 06-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100430-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100430-06 **Opened:** 30-APR-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 30-APR-10 **Solvent :** 2% HNO3-1297371
Type: Working **Expires:** 06-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100430-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100430-13 **Opened:** 30-APR-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 30-APR-10 **Solvent :** 2% HNO3-1297371
Type: Working **Expires:** 06-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100430-42 **Opened:** 30-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 01-MAY-10 **Solvent :** 3%HCL and 1%HNO3 -1306637
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100430-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100430-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100430-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100430-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100430-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100430-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100430-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100430-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100430-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100430-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100430-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100430-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100430-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100430-43 **Opened:** 30-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 01-MAY-10 **Solvent :** 3%HCL and 1%HNO3 -1306637
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI100329-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100331-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI100414-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L

Serial ID: WI100430-44 **Opened:** 30-APR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 29-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 01-MAY-10 **Solvent :** 3%HCL and 1 %HNO3-1306637
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI100329-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100331-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100430-45 **Opened:** 30-APR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 25-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 01-MAY-10 **Solvent :** 3%HCL and 1%HNO3 -1306637
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100325-42	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI100325-42	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI100325-42	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI100325-42	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI100414-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100430-46 **Opened:** 30-APR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 30-APR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 01-MAY-10 **Solvent :** 3%HCL AND 1%HNO3-1306637
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals

Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI100329-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI100419-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI100419-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100419-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100419-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100419-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100419-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI100419-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100419-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100419-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100419-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI100419-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100419-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI100419-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI100419-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI100419-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI100419-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100419-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100419-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI100419-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI100419-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100419-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100419-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100419-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI100419-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI100419-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100419-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100419-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100419-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100419-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100419-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L

Serial ID: WI100430-47 **Opened:** 30-APR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-MAY-10 **Solvent :** 3%HCL &1%HNO3-1306637
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100510-04 **Opened:** 10-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 10-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 11-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1336568
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100510-04A **Opened:** 10-MAY-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 10-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 11-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100510-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100510-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100510-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100510-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100510-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100510-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100510-05 **Opened:** 10-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 10-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 11-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100510-06 **Opened:** 10-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 10-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 11-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100510-07 **Opened:** 10-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 10-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 11-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1336568
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100510-08 **Opened:** 10-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 10-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 11-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100510-70 **Opened:** 10-MAY-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 10-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 11-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100405-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100512-04 **Opened:** 12-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 12-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 13-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1336568
Supplier: GEL

Standard Logbook

Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100512-04A **Opened:** 12-MAY-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 12-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 13-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100512-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100512-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100512-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100512-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100512-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100512-05 **Opened:** 12-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 12-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 13-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100512-06 **Opened:** 12-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 12-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 13-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100512-07 **Opened:** 12-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 12-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 13-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1336568
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100512-08 **Opened:** 12-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 12-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 13-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100513-04 **Opened:** 13-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 13-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 14-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1336568
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100513-04A **Opened:** 13-MAY-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 13-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 14-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100513-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100513-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100513-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100513-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100513-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100513-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100513-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100513-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100513-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100513-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100513-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100513-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100513-05 **Opened:** 13-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 13-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 14-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100513-06 **Opened:** 13-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 13-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 14-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100513-07 **Opened:** 13-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 13-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 14-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1336568
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100513-08 **Opened:** 13-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 13-MAY-10 **Pipet Id :** 1758088
Type: Working **Expires:** 14-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1336568
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100509-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Carbon	2000 mg/L	5 mL	50 mL	200000 ug/L
UI100509-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100509-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100509-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100509-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-08
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1238798 **Opened:** 07-DEC-09 **Lot Number :** H10002
Name: B-H2SO4-MER **Received:** 07-DEC-09
Type: Reagent/Solvent **Expires:** 07-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated

Comments: None

Serial ID: 1297371-1 **Opened:** 06-APR-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 06-APR-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 06-APR-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1298333 **Opened:** 07-APR-10 **Lot Number :** J07033
Name: I-HCL **Received:** 07-APR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 07-APR-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1298761-A **Opened:** 08-APR-10 **Lot Number :** 094946
Name: B-NH2OH.HCl-MER **Received:** 08-APR-10
Type: Reagent/Solvent **Expires:** 08-APR-11
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1300341-C **Opened:** 12-APR-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 12-APR-10
Type: Reagent/Solvent **Expires:** 12-OCT-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1298761-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1302252 **Opened:** 15-APR-10 **Lot Number :** J 10027 L
Name: I-HNO3 **Received:** 15-APR-10
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: BAKER

Standard Logbook

Description: Nitric Acid CONC.
Comments: None

Serial ID: 1302255 **Opened:** 15-APR-10 **Lot Number :** J07033
Name: I-HCL **Received:** 15-APR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1304599-C **Opened:** 21-APR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 21-APR-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1305049-C **Opened:** 21-APR-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 21-APR-10
Type: Reagent/Solvent **Expires:** 21-OCT-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1306637 **Opened:** 26-APR-10 **Amount :** 8 L
Name: B-ICP-RINSE SOLN **Received:** 15-APR-10 **Solvent :** 3%HCL+1%HNO3
Type: Reagent/Solvent **Expires:** 01-MAY-10
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	80 mL		N/A
1302255	I-HCL	36.5-38.0	240 mL		N/A

Standard Logbook

Serial ID: 1336568 **Opened:** 10-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 10-MAY-10
Type: Reagent/Solvent **Expires:** 17-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1302255	I-HCL	36.5-38.0	80 mL	8 l	N/A

Monday, March 08, 2010

REQUEST NUMBER: 10-2323

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Danny Coleman
American Radiation Services - Primary
1726 Wooddale Court
Baton Rouge, LA 70806

These Samples are on:
LANL Request Number:10-2323
Per Agreement Number:126310041
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/8/2010
TURNAROUND/REPORT DUE: 4/7/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:600M4	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		2	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	

Final Page of REQUEST NUMBER 10-2323

Monday, March 08, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2323C

REQUEST NUMBER: 10-2323

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Danny Coleman
American Radiation Services - Primary
1726 Wooddale Court
Baton Rouge, LA 70806

TURNAROUND/REPORT DUE: 4/7/2010
TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13782	1	GLASS	ASBESTOS	Ice	S
RE46-10-13783	1	GLASS	ASBESTOS	Ice	S
RE46-10-13777	1	GLASS	ASBESTOS	Ice	S
RE46-10-13777	2	GLASS	ASBESTOS	Ice	S
RE46-10-13775	1	GLASS	ASBESTOS	Ice	S
RE46-10-13776	1	GLASS	ASBESTOS	Ice	S
RE46-10-13781	1	GLASS	ASBESTOS	Ice	S
RE46-10-13779	1	GLASS	ASBESTOS	Ice	S
RE46-10-13780	1	GLASS	ASBESTOS	Ice	S
RE46-10-13778	1	GLASS	ASBESTOS	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	3/8/10	1400	Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13775 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/3/10 4 3/4/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		0934	SUB-MEDIA:	SOIL	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611737	OK	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1-2	3-3-10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: weak red tuff & coarse sandy fill (2.5YR 5/2) w/ some gravel

SAMPLE COMMENTS: beneath asphalt, hit tuff @ 10"

LOCATION DESC: 6f-1

FIELD SCREENING/MEASUREMENT RESULTS: Background: PID: 0.0ppm α: 15 β: 942 Samples MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** J. Romero

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
J. Aysondo Romero	3/4/10 1635	Sherri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13776 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	~~ALLH~~ 3/3/10	Qbt 3
TIME COLLECTED (HH:MM)		1005	SUB-MEDIA:	SOIL	N
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611737	OK	FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	OK
TOP DEPTH:	0	3	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	41	SCREEN/PORT DESC:		NA
FIELD MATRIX:	SR 3/3/10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	2 3/3/10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: gray tuff (2.5 YR 5/2), Red tuff (2.5 YR 4/6)

SAMPLE COMMENTS: beneath asphalt, abrupt contact between gray & Red tuff @ 3.5'

LOCATION DESC: 6f-1

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.0ppm Background: α: 15 β: 942 Samples MDA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** J. ROMERO

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. ROMERO	3/4/10 1635	(Printed Name) Sherri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13777 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		0950	SUB-MEDIA:	SOIL	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611738	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
2		ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: wet dark reddish brown coarse sediment w/ some gravel (5YR 3/2)

SAMPLE COMMENTS: beneath asphalt, sample very wet, water filling hole slowly

LOCATION DESC: 6f-2

FIELD SCREENING/MEASUREMENT RESULTS: PID: NA, sample too wet Background: α: 15 β: 942 Samples MDA

COLLECTED BY (PRINT) J. Romero REVIEWED BY (PRINT) M SHERWOOD

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. ROMERO	3/4/10 1635	(Printed Name) Sheri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13780 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	~~ALLH~~ 3/4/10	Qbt 3
TIME COLLECTED (HH:MM)		1050	SUB-MEDIA:	SOIL	N
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611739	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:		
FIELD MATRIX:	~~S~~ R 3/4/10		EXCAVATED: YES / NO / NA	NA	

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
2	MS 3/5/10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: gray tuff (2.5 YR 5/2)

SAMPLE COMMENTS: tuff @ 2ft

LOCATION DESC: 6f-3

FIELD SCREENING/MEASUREMENT RESULTS: Background: α:15 β:942 Samples LMDA

PID: 0.4ppm

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Shendo

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
M. Shendo	3/4/10 1635	Sherri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13786 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1037	SUB-MEDIA:	OTHER	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611737	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH <2
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH >12

SAMPLE DESC: QC Sample of
RE46-10-13775

SAMPLE COMMENTS: NA

LOCATION DESC: Gx-1

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature) [signature]	3/4/10 1635	(Printed Name) Sheri Sherwood (Signature) Sheri Sherwood	3/4/10 1635
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13784 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		0934	SUB-MEDIA:	OTHER	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	UNK	46-611737	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 2		8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of

RE46-10-13775

SAMPLE COMMENTS: NA

LOCATION DESC: 6f-1

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) L Andress **REVIEWED BY (PRINT)** M. Shenda

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Jane Andress	3/4/10	(Printed Name) Sherri Sherwood	3/4/10
(Signature) Jane Andress	1635	(Signature) Sherri Sherwood	1635
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13785 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1029	SUB-MEDIA:	OTHER	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611737	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH <2
1		SW-846:6850	250 ML POLY	Ice	Y	~~pH >12~~ 3/4/10
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH >12

SAMPLE DESC: QC Sample of RE46-10-13775

SAMPLE COMMENTS: NA

LOCATION DESC: 6f-1

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature) [signature]	3/4/10 1635	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	3/4/10 1635
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13783 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		0934	SUB-MEDIA:	SOIL	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	~~OK~~ 46-611737 3/3/10	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	QC	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: ——— ~~COMPOSITE~~ TIME INTERVAL: ——— WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

3/10

SAMPLE DESC: QC Sample of
RE46-10-13775

SAMPLE COMMENTS: NA

LOCATION DESC: 6f-1

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/4/10 1635	(Printed Name) Sherri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13782 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	~~ALLH~~ 3/4/10	Qlot 3
TIME COLLECTED (HH:MM)		1105	SUB-MEDIA:	SOIL	N
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611740	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	2'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	3'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	SR 3/4/10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	3/9/10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Reddish gray tuff (2.5 YR 5/1)

SAMPLE COMMENTS:

LOCATION DESC: 6f-4

FIELD SCREENING/MEASUREMENT RESULTS: Background: Samples < MDA

PID: 3.8ppm

α: 15 dpm

β: 942

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
Lane Andress	3/4/10 1635	Sherri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13781 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1650	SUB-MEDIA:	SOIL	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611740	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	3/5/10	ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: brown coarse sediment (7.5 YR 4/2)

SAMPLE COMMENTS: tuff @ 4",

LOCATION DESC: 6 of 4

FIELD SCREENING/MEASUREMENT RESULTS: PID: 24ppm 3/4/10 Background: α: 15 β: 942 Samples < MDA

COLLECTED BY (PRINT) J. Romero REVIEWED BY (PRINT) M. Shendo

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
M. Shendo	3/4/10 1635	Sheri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13779 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1030	SUB-MEDIA:	SOIL	OK
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611739	OK	FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	OK
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: dark reddish gray very coarse sediment fill/ gravel (5YR 4/2)

SAMPLE COMMENTS: sample very moist, small plant roots present

LOCATION DESC: 6f-3

FIELD SCREENING/MEASUREMENT RESULTS: PID: 4.9 ppm Background: α: 15 β: 942 Samples <MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Shenda

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
M. Shenda	3/4/10 1635	Sheri Sherwood	3/4/10 1635

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2673 **EVENT NAME:** SMWU 46-006(f),46-007, 46-008(g), 46-001

SAMPLE ID: RE46-10-13778 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3/4/10	MEDIA:	~~ALLH~~ RA 3/4/10	Qbt3
TIME COLLECTED (HH:MM)		1020	SUB-MEDIA:	SOIL	N
PRS ID:	46-006(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611738	OK	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	3'	SAMPLE USAGE:	INV	OK
BOTTOM DEPTH:	0	4'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ RA 3/4/10		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8081A+8082	250 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+TPH-DRO	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
2		ASBESTOS	125 ML GLASS	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: ~~fr coarse~~ wet tuff, dark reddish gray (5YR 4/2) 3/4/10

SAMPLE COMMENTS: beneath asphalt, very wet water seeping into hole tuff @ 2 ft, red tuff @ 4 ft

LOCATION DESC: 6f-2

FIELD SCREENING/MEASUREMENT RESULTS: PID: NA sample too wet

Background: α: 15 β: 942

Samples < MDA

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** M. Shende

RELINQUISHED BY (Printed Name)	Date/Time	RECEIVED BY (Printed Name)	Date/Time
M. Shende	3/4/10 1635	Sherri Sherwood Sherri Sherwood	3/4/10 1635

2609 North River Road, Port Allen, Louisiana 70767
(800) 401-4277 -- FAX (225) 381-2996

10-2323

American Radiation Services, Inc.

Laboratory Analysis Report

ARS1-10-00501

Asbestos Analysis Report

Prepared for:

Los Alamos National Laboratory

Keith Greene
Drop Point MS H865 TA-3, Bldg 271
Los Alamos, NM 87545

kgreene@lanl.gov

Phone: 505-665-9966
Fax: 505-665-9972

Project Manager Review

Management Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client

Contact Person: Questions regarding this analytical report should be addressed to:

Project Manager

ProjectManagers@amrad.com

Phone: 225.381.2991
Fax: 225.381.2996

LELAP Cert# 01949 **NELAP Cert# E87558**

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

March 18, 2010

LANL
Keith Greene
Drop Point MS H865
Los Alamos, NM 87545

Request Number: 10-2323
LANL Sample ID: RE46-10-13775; RE46-10-13776; RE46-10-13777; RE46-10-13778; RE46-10-13779; RE46-10-13780; RE46-10-13781; RE46-10-13782; RE46-10-13783.

Dear Mr. Greene;

On March 9, 2010, ARS International received nine (9) solid samples to be analyzed for Asbestos.

The samples were submitted to Materials and Chemistry Laboratory, Inc. in Oak Ridge, Tennessee for analysis.

If you have any questions please do not hesitate to call at 225.381.2991 or email ProjectManagers@amrad.com.

Sincerely,

Virgene Mulligan
Laboratory Management
ARS International

ARS INTERNATIONAL
2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

COVER PAGE

18980SOW0-8S
Statement of Work for Analytical Laboratories

PROJECT SAMPLE IDENTIFICATION
CROSS-REFERENCE
TO ARS SAMPLE LABORATORY IDs

Subcontract (LANL Agreement Number) 126310041

Request Number	LANL PROJECT SAMPLE ID NUMBER	Laboratory SAMPLE ID NUMBER(S)
10-2323	RE46-10-13775	100311-024
10-2323	RE46-10-13776	100311-025
10-2323	RE46-10-13777	100311-026
10-2323	RE46-10-13778	100311-027
10-2323	RE46-10-13779	100311-028
10-2323	RE46-10-13780	100311-029
10-2323	RE46-10-13781	100311-030
10-2323	RE46-10-13782	100311-031
10-2323	RE46-10-13783	100311-032

ANALYTICAL METHODS

Asbestos analyses were performed using **NIOSH Method 9002, EPA:600M4**

ANALYTICAL RESULTS

Data is reported as positive or negative for asbestos. A positive result indicates presence >1%.

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767

1 (800) 401-4277 • Fax (225) 381-2996

American Radiation Services Project Manager/Laboratory Director's Comments:
"I certify that this sample data package is in compliance with SOW requirements, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this sample data package and the computer-readable EDD, as applicable, submitted on diskette or by modem, has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature."

"I certify that this electronic image and all hardcopies produced from this image accurately represent the data and is in compliance with the LANL specific requirements, both technically and for completeness, other than the conditions detailed above or in the sample data package narrative. Release, by submission through email, the data contained in this electronic image and the computer-readable EDD (as applicable), has been authorized by the laboratory Manager/Technical Director or the Manager's designee."

Virginia Mullegan	Laboratory Management, ARS International	March 18, 2010
Signature	**Title**	**Date**

Form 1

Date Printed: 3/15/2010

Materials and Chemistry Laboratory, Inc.
Asbestos Laboratory
East Tennessee Technology Park
Oak Ridge, TN 37830-1702

MCL ID: 100311-024 ***Customer Sample ID:*** RE49-10-13775

Contact: Virgene Mulligan
Client: ARS International
2609 North River Road
Port Allen, Louisiana 70767
Sample received from: Virgene Mulligan

Request Number: 80056
Date Received: 3/11/2010
Date Analyzed: 3/15/2010
Date Completed: 3/15/2010
Approved by: Stevenson 3/15/2010
Date Issued: 3/15/2010
Program Manager: RJ Stevenson (#701642)

Sample Analyses Results

This sample was **NEGATIVE** for asbestos (Positive is >1%)

No fibers found.

EPA/600/R-93/116 Method *
Asbestos in Bulk Building Materials

Analyst: Samuel Travaglini # 712049

QA File Number: ID264

Samuel Travaglini
Analyst

Robert Stevenson
Approver

AIHA Accredited Laboratory
Number 102797

EPA/600/R-93/116 Method
*** July, 1993**

MCLInc Project Number: ARS002257 M

Phone: (865) 576-4138
Website: www.MCL-inc.com

Materials and Chemistry Laboratory, Inc.
Asbestos Laboratory
East Tennessee Technology Park
Oak Ridge, TN 37830-1702

MCL ID: 100311-025 ***Customer Sample ID:*** RE49-10-13776

Contact: Virgene Mulligan
Client: ARS International
2609 North River Road
Port Allen, Louisiana 70767
Sample received from: Virgene Mulligan

Request Number: 80056
Date Received: 3/11/2010
Date Analyzed: 3/15/2010
Date Completed: 3/15/2010
Approved by: Stevenson 3/15/2010
Date Issued: 3/15/2010
Program Manager: RJ Stevenson (#701642)

Sample Analyses Results

This sample was **NEGATIVE** for asbestos (Positive is >1%)

No fibers found.

EPA/600/R-93/116 Method *
Asbestos in Bulk Building Materials

Analyst: Samuel Travaglini # 712049

QA File Number: ID264

Samuel Travaglini
Analyst

Robert Stevenson
Approver

AIHA Accredited Laboratory
Number 102797

EPA/600/R-93/116 Method
*** July, 1993**

MCLInc Project Number: ARS002257 M

Phone: (865) 576-4138
Website: www.MCL-inc.com

Date Printed: 3/15/2010

Materials and Chemistry Laboratory, Inc.
Asbestos Laboratory
East Tennessee Technology Park
Oak Ridge, TN 37830-1702

MCL ID: 100311-026 *Customer Sample ID:* RE49-10-13777

Contact: Virgene Mulligan
Client: ARS International
2609 North River Road
Port Allen, Louisiana 70767
Sample received from: Virgene Mulligan

Request Number: 80056
Date Received: 3/11/2010
Date Analyzed: 3/15/2010
Date Completed: 3/15/2010
Approved by: Stevenson 3/15/2010
Date Issued: 3/15/2010
Program Manager: RJ Stevenson (#701642)

Sample Analyses Results

This sample was **NEGATIVE** for asbestos (Positive is >1%)

No fibers found.

EPA/600/R-93/116 Method *
Asbestos in Bulk Building Materials

Analyst: Samuel Travaglini # 712049

QA File Number: ID264

Samuel Travaglini
Analyst

Robert Stevenson
Approver

AIHA Accredited Laboratory
Number 102797

EPA/600/R-93/116 Method * July, 1993

MCLinc Project Number: ARS002257 M

Phone: (865) 576-4138
Website: www.MCL-inc.com

Materials and Chemistry Laboratory, Inc.
Asbestos Laboratory
East Tennessee Technology Park
Oak Ridge, TN 37830-1702

MCL ID: 100311-027 ***Customer Sample ID:*** RE49-10-1377B

Contact: Virgene Mulligan
Client: ARS International
2609 North River Road
Port Allen, Louisiana 70767
Sample received from: Virgene Mulligan

Request Number: 80056
Date Received: 3/11/2010
Date Analyzed: 3/15/2010
Date Completed: 3/15/2010
Approved by: Stevenson 3/15/2010
Date Issued: 3/15/2010
Program Manager: RJ Stevenson (#701642)

Sample Analyses Results

This sample was **NEGATIVE** for asbestos (Positive is >1%)

No fibers found.

EPA/600/R-93/116 Method *
Asbestos in Bulk Building Materials

Analyst: Samuel Travaglini # 712049

QA File Number: ID264

Samuel Travaglini
Analyst

Robert Stevenson
Approver

AIHA Accredited Laboratory
Number 102797

EPA/600/R-93/116 Method
*** July, 1993**

MCLinc Project Number: ARS002257 M

Phone: (865) 576-4138
Website: www.MCL-inc.com

Date Printed: 3/15/2010

Materials and Chemistry Laboratory, Inc.
Asbestos Laboratory
East Tennessee Technology Park
Oak Ridge, TN 37830-1702

MCL ID: 100311-028 *Customer Sample ID:* RE49-10-13779

Contact: Virgene Mulligan
Client: ARS International
2609 North River Road
Port Allen, Louisiana 70767
Sample received from: Virgene Mulligan

Request Number: 80056
Date Received: 3/11/2010
Date Analyzed: 3/15/2010
Date Completed: 3/15/2010
Approved by: Stevenson 3/15/2010
Date Issued: 3/15/2010
Program Manager: RJ Stevenson (#701642)

Sample Analyses Results

This sample was **NEGATIVE** for asbestos (Positive is >1%)

No fibers found.

EPA/600/R-93/116 Method *
Asbestos in Bulk Building Materials

Analyst: Samuel Travaglini # 712049

QA File Number: ID264

Samuel Travaglini
Analyst

Robert Stevenson
Approver

AIHA Accredited Laboratory
Number 102797

EPA/600/R-93/116 Method
*** July, 1993**

MCLinc Project Number: ARS002257 M

Phone: (865) 576-4138
Website: www.MCL-inc.com

Materials and Chemistry Laboratory, Inc.
Asbestos Laboratory
East Tennessee Technology Park
Oak Ridge, TN 37830-1702

MCL ID: 100311-029

Customer Sample ID: RE49-10-13780

Contact: Virgene Mulligan
Client: ARS International
2609 North River Road
Port Allen, Louisiana 70767

Sample received from: Virgene Mulligan

Request Number: 80056
Date Received: 3/11/2010
Date Analyzed: 3/15/2010
Date Completed: 3/15/2010
Approved by: Stevenson 3/15/2010
Date Issued: 3/15/2010
Program Manager: RJ Stevenson (#701642)

Sample Analyses Results

This sample was **NEGATIVE** for asbestos (Positive is >1%)

No fibers found.

EPA/600/R-93/116 Method *
Asbestos in Bulk Building Materials

Analyst: Samuel Travaglini # 712049

QA File Number: ID264

Samuel Travaglini
Analyst

Robert Stevenson
Approver

AIHA Accredited Laboratory
Number 102797

EPA/600/R-93/116 Method * July, 1993

MCLinc Project Number: ARS002257 M

Phone: (865) 576-4138
Website: www.MCL-inc.com

Materials and Chemistry Laboratory, Inc.
Asbestos Laboratory
East Tennessee Technology Park
Oak Ridge, TN 37830-1702

MCL ID: 100311-030 ***Customer Sample ID:*** RE49-10-13781

Contact: Virgene Mulligan
Client: ARS International
2609 North River Road
Port Allen, Louisiana 70767
Sample received from: Virgene Mulligan

Request Number: 80056
Date Received: 3/11/2010
Date Analyzed: 3/15/2010
Date Completed: 3/15/2010
Approved by: Stevenson 3/15/2010
Date Issued: 3/15/2010
Program Manager: RJ Stevenson (#701642)

Sample Analyses Results

This sample was **NEGATIVE** for asbestos (Positive is >1%)

No fibers found.

EPA/600/R-93/116 Method *
Asbestos in Bulk Building Materials

Analyst: Samuel Travaglini # 712049

QA File Number: ID266

Samuel Travaglini
Analyst

Robert Stevenson
Approver

AIHA Accredited Laboratory
Number 102797

EPA/600/R-93/116 Method * July, 1993

MCLinc Project Number: ARS002257 M

Phone: (865) 576-4138
Website: www.MCL-inc.com

Date Printed: 3/15/2010

Materials and Chemistry Laboratory, Inc.
Asbestos Laboratory
East Tennessee Technology Park
Oak Ridge, TN 37830-1702

MCL ID: 100311-031 *Customer Sample ID:* RE49-10-13782

Contact: Virgene Mulligan
Client: ARS International
2609 North River Road
Port Allen, Louisiana 70767
Sample received from: Virgene Mulligan

Request Number: 80056
Date Received: 3/11/2010
Date Analyzed: 3/15/2010
Date Completed: 3/15/2010
Approved by: Stevenson 3/15/2010
Date Issued: 3/15/2010
Program Manager: RJ Stevenson (#701642)

Sample Analyses Results

This sample was **NEGATIVE** for asbestos (Positive is >1%)

No fibers found.

EPA/600/R-93/116 Method *
Asbestos in Bulk Building Materials

Analyst: Samuel Travaglini # 712049

QA File Number: ID266

Samuel Travaglini
Analyst

Robert Stevenson
Approver

AIHA Accredited Laboratory
Number 102797

EPA/600/R-93/116 Method * July, 1993

MCLinc Project Number: ARS002257 M

Phone: (865) 576-4138
Website: www.MCL-inc.com

Materials and Chemistry Laboratory, Inc.
Asbestos Laboratory
East Tennessee Technology Park
Oak Ridge, TN 37830-1702

MCL ID: **100311-032** ***Customer Sample ID:*** **RE49-10-13783**

Contact: Virgene Mulligan
Client: ARS International
2609 North River Road
Port Allen, Louisiana 70767
Sample received from: Virgene Mulligan

Request Number: 80056
Date Received: 3/11/2010
Date Analyzed: 3/15/2010
Date Completed: 3/15/2010
Approved by: Stevenson 3/15/2010
Date Issued: 3/15/2010
Program Manager: RJ Stevenson (#701642)

Sample Analyses Results

This sample was **NEGATIVE** for asbestos (Positive is >1%)

No fibers found.

EPA/600/R-93/116 Method *
Asbestos in Bulk Building Materials

Analyst: Samuel Travaglini # 712049

QA File Number: ID266

Samuel Travaglini
Analyst

Robert Stevenson
Approver

AIHA Accredited Laboratory
Number 102797

EPA/600/R-93/116 Method
*** July, 1993**

MCLinc Project Number: ARS002257 M

Phone: (865) 576-4138
Website: www.MCL-inc.com

Monday, March 08, 2010

REQUEST NUMBER: 10-2323

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Danny Coleman
American Radiation Services - Primary
1726 Wooddale Court
Baton Rouge, LA 70806

These Samples are on:
LANL Request Number:10-2323
Per Agreement Number:126310041
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/8/2010
TURNAROUND/REPORT DUE: 4/7/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:600M4	1	RE46-10-13775	S	3/4/2010	
		1	RE46-10-13776	S	3/4/2010	
		1	RE46-10-13777	S	3/4/2010	
		2	RE46-10-13777	S	3/4/2010	
		1	RE46-10-13778	S	3/4/2010	
		1	RE46-10-13779	S	3/4/2010	
		1	RE46-10-13780	S	3/4/2010	
		1	RE46-10-13781	S	3/4/2010	
		1	RE46-10-13782	S	3/4/2010	

Final Page of REQUEST NUMBER 10-2323

Monday, March 08, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2323C

REQUEST NUMBER: 10-2323

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Danny Coleman

American Radiation Services - Primary

1726 Wooddale Court

Baton Rouge, LA 70806

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/7/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13782	1	GLASS	ASBESTOS	Ice	S
RE46-10-13783	1	GLASS	ASBESTOS	Ice	S
RE46-10-13777	1	GLASS	ASBESTOS	Ice	S
RE46-10-13777	2	GLASS	ASBESTOS	Ice	S
RE46-10-13775	1	GLASS	ASBESTOS	Ice	S
RE46-10-13776	1	GLASS	ASBESTOS	Ice	S
RE46-10-13781	1	GLASS	ASBESTOS	Ice	S
RE46-10-13779	1	GLASS	ASBESTOS	Ice	S
RE46-10-13780	1	GLASS	ASBESTOS	Ice	S
RE46-10-13778	1	GLASS	ASBESTOS	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	3/8/10	1400	William Stickle	[illegible]	3-9-10	11:09
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Friday, March 05, 2010

REQUEST NUMBER: 10-2320

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2320
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/5/2010
TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	HASL-300:AM-241	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	HASL-300:ISOPU	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	

Friday, March 05, 2010

REQUEST NUMBER: 10-2320

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOPU	1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	HASL-300:ISOTH	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	HASL-300:ISOU	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	SW-846:6010B	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	SW-846:8082	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	SW-846:8270C	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	SW-846:9012A	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	

Final Page of REQUEST NUMBER 10-2320

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2320C

REQUEST NUMBER: 10-2320

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-12931	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12931	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12931	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12932	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12932	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12932	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12934	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12934	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12934	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12933	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12933	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12933	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
	3/5/10	5:00			
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2638 **EVENT NAME:** SWMU 46-004(d2), 46-004(g), 46-004(h)

SAMPLE ID: RE46-10-12931 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-5-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1000	SUB-MEDIA:	SOIL	↓
PRS ID:	46-004(d2)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	46-611485	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ____ COMPOSITE TIME INTERVAL: ____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ____ BOREHOLE DIRECTION: ____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: weakred weathered tuff f:11. 2.5YR 5/2

SAMPLE COMMENTS: Tuff at .9'

LOCATION DESC: 4d2-19

FIELD SCREENING/MEASUREMENT RESULTS: PID: 21.3 ppm
Background α: 17 dpm
Screening β: 1185
Samples < MDA

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** M. Ward

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Ward	3-5-10	(Printed Name) Sherri Sherwood	3-5-10
(Signature)	1200	(Signature) Sherri Sherwood	1200
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2638 **EVENT NAME:** SWMU 46-004(d2), 46-004(g), 46-004(h)

SAMPLE ID: RE46-10-12932 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-5-10	MEDIA:	~~ALLH~~	Qbt 3
TIME COLLECTED (HH:MM)		1004	SUB-MEDIA:	~~SOIL~~	NA
PRS ID:	46-004(d2)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	46-611485	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ——— COMPOSITE TIME INTERVAL: ——— WATER FLOWING: YES / NO / ~~UNK~~

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: ——— BOREHOLE DIRECTION: ———

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Light gray tuff. 5YR 7/1

SAMPLE COMMENTS: NA

LOCATION DESC: 4d2-19

FIELD SCREENING/MEASUREMENT RESULTS: PID: 6.5 ppm
Background screening: α: 17 dpm β: 1185 samples < MDA

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** M. Marek

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [signature]	3-5-10 1200	(Printed Name) Sheri Sherwood	3-5-10 1200
(Signature)		(Signature) Sheri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2638 **EVENT NAME:** SWMU 46-004(d2), 46-004(g), 46-004(h)

SAMPLE ID: RE46-10-12933 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-5-10	MEDIA:	ALLH	ok
TIME COLLECTED (HH:MM)		0950	SUB-MEDIA:	SOIL	OK
PRS ID:	46-004(d2)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	46-611486		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Brown weathered tuff f.:11. 7.5YR 4/4

SAMPLE COMMENTS: NA

LOCATION DESC: 4d2-20

FIELD SCREENING/MEASUREMENT RESULTS: PID: 2.7 ppm

Background Screening: α: 17 dpm β: 1185 Samples < MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Shenda

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [signature]	3-5-10 1200	(Printed Name) Sherri Sherwood	3-5-10 1200
(Signature)		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2638 **EVENT NAME:** SWMU 46-004(d2), 46-004(g), 46-004(h)

SAMPLE ID: RE46-10-12934 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		MW 3-5-10 Ø 3-5-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		09:59	SUB-MEDIA:	SOIL	↓
PRS ID:	46-004(d2)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611486	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	MS 3/4/10 Ø 1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ ISOPU/TH/U	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Brown weathered tuff. 7.5YR 4/4

SAMPLE COMMENTS: Quartz sand at 9'

LOCATION DESC: 4d2-20

FIELD SCREENING/MEASUREMENT RESULTS: PID: 0.4 ppm

Background screening α: 17 β: 1185 dpm Samples < MDA

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** M. Stands

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck	3-5-10	(Printed Name) Sherri Sherwood	3-5-10
(Signature)	1200	(Signature) Sherri Sherwood	1200
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2320 VALIDATION DATE: 05/20/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV %Ds were > 20% for pyridine and 2-methyl-4,6-dinitrophenol. For the CCV associated with all samples except RE46-10-12933, the %Ds were >20% for benzyl alcohol, 2,4-dimethylphenol; 4-chloroaniline and 2,4-dinitrophenol. Also, for the CCV associated with sample -12933, the %Ds were >20% for n-methyl-n-nitrosomethylamine; bis(2-chloroethyl)ether; benzyl alcohol, 2,4-dimethylphenol; 4-chloroaniline; 2,4-dinitrophenol; 4-nitrophenol; 4-nitroaniline; 2-methyl-4,6-dinitrophenol; dibenz(a,h)anthracene and benzo(ghi)perylene. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The LCS %R was < the laboratory LAL but ≥10% for benzyl alcohol. The associated sample results were NDs and, thus, were qualified UJ,V12a.
3. The MS/MSD %Rs and/or RPDs for several compounds did not meet laboratory acceptance criteria. Since the analysis of an MS or MSD was not required for SVOCs, no sample data were qualified as a result. It should be noted that the parent sample for the QC analyses was from another LANL RN, and the parent sample raw data were not included in the data package. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 05/25/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 05/20/10

DATA VALIDATION COVER SHEET

5115-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5115-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2320	**Date Collected:**	03/05/2010 12:00	**Matrix:**	S
Lab Sample ID:	248867001	**Date Received:**	03/06/2010 09:15	**%Moisture:**	18.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12931	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966400	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/25/2010 00:01	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 21:03	**Aliquot:**	30.15 g	**Final Volume:**	1 mL
Data File:	s7c2436.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	409	ug/kg	81.7	409	
108-95-2	Phenol	U	409	ug/kg	81.7	409	
95-57-8	2-Chlorophenol	U	409	ug/kg	81.7	409	
106-46-7	1,4-Dichlorobenzene	U	409	ug/kg	81.7	409	
621-64-7	N-Nitrosodipropylamine	U	409	ug/kg	81.7	409	
59-50-7	4-Chloro-3-methylphenol	U	409	ug/kg	81.7	409	
83-32-9	Acenaphthene	U	40.9	ug/kg	13.5	40.9	
121-14-2	2,4-Dinitrotoluene	U	409	ug/kg	40.9	409	
100-02-7	4-Nitrophenol	U	409	ug/kg	135	409	
87-86-5	Pentachlorophenol	U	409	ug/kg	102	409	
129-00-0	Pyrene		195	ug/kg	12.3	40.9	
110-86-1	Pyridine	U	409	ug/kg	81.7	409	UJ,SV7c
62-53-3	Aniline	U	409	ug/kg	123	409	
111-44-4	bis(2-Chloroethyl) ether	U	409	ug/kg	81.7	409	
541-73-1	1,3-Dichlorobenzene	U	409	ug/kg	81.7	409	
100-51-6	Benzyl alcohol	U	409	ug/kg	123	409	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	409	ug/kg	81.7	409	
108-60-1	bis(2-Chloroisopropyl)ether	U	409	ug/kg	81.7	409	
95-48-7	o-Cresol	U	409	ug/kg	81.7	409	
65794-96-9	m,p-Cresols	U	409	ug/kg	123	409	
67-72-1	Hexachloroethane	U	409	ug/kg	81.7	409	
98-95-3	Nitrobenzene	U	409	ug/kg	81.7	409	
78-59-1	Isophorone	U	409	ug/kg	81.7	409	
88-75-5	2-Nitrophenol	U	409	ug/kg	81.7	409	
105-67-9	2,4-Dimethylphenol	U	409	ug/kg	143	409	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	409	ug/kg	81.7	409	
120-83-2	2,4-Dichlorophenol	U	409	ug/kg	81.7	409	
65-85-0	Benzoic acid	U	817	ug/kg	204	817	
91-20-3	Naphthalene	U	40.9	ug/kg	12.3	40.9	
106-47-8	4-Chloroaniline	U	409	ug/kg	81.7	409	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	409	ug/kg	81.7	409	
91-57-6	2-Methylnaphthalene	U	40.9	ug/kg	8.17	40.9	
77-47-4	Hexachlorocyclopentadiene	U	409	ug/kg	81.7	409	
88-06-2	2,4,6-Trichlorophenol	U	409	ug/kg	81.7	409	
95-95-4	2,4,5-Trichlorophenol	U	409	ug/kg	81.7	409	
91-58-7	2-Chloronaphthalene	U	40.9	ug/kg	13.5	40.9	
88-74-4	2-Nitroaniline	U	409	ug/kg	81.7	409	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	409	ug/kg	81.7	409	

P.S. 5/20/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2320	**Date Collected:**	03/05/2010 12:00	**Matrix:**	S
Lab Sample ID:	248867001	**Date Received:**	03/06/2010 09:15	**%Moisture:**	18.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12931	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966400	**Inst:**	MSD7.1	**Dilution:**	1
Run Date:	03/25/2010 00:01	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 21:03	**Aliquot:**	30.15 g	**Final Volume:**	1 mL
Data File:	s7c2436.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	409	ug/kg	81.7	409	
606-20-2	2,6-Dinitrotoluene	U	409	ug/kg	40.9	409	
208-96-8	Acenaphthylene	U	40.9	ug/kg	12.3	40.9	
51-28-5	2,4-Dinitrophenol	U	817	ug/kg	155	817	UJ,SV7c
132-64-9	Dibenzofuran	U	409	ug/kg	81.7	409	
84-66-2	Diethylphthalate	U	409	ug/kg	81.7	409	
86-73-7	Fluorene	U	40.9	ug/kg	12.3	40.9	
7005-72-3	4-Chlorophenylphenylether	U	409	ug/kg	81.7	409	
534-52-1	2-Methyl-4,6-dinitrophenol	U	409	ug/kg	81.7	409	UJ,SV7c
100-01-6	4-Nitroaniline	U	409	ug/kg	123	409	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	409	ug/kg	81.7	409	
122-66-7	Azobenzene	U	409	ug/kg	81.7	409	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	409	ug/kg	81.7	409	
118-74-1	Hexachlorobenzene	U	409	ug/kg	81.7	409	
85-01-8	Phenanthrene		123	ug/kg	12.3	40.9	
120-12-7	Anthracene	J	26.4	ug/kg	8.17	40.9	
84-74-2	Di-n-butylphthalate	U	409	ug/kg	81.7	409	
206-44-0	Fluoranthene		204	ug/kg	12.3	40.9	
85-68-7	Butylbenzylphthalate	U	409	ug/kg	81.7	409	
56-55-3	Benzo(a)anthracene		104	ug/kg	12.3	40.9	
91-94-1	3,3'-Dichlorobenzidine	U	409	ug/kg	123	409	
218-01-9	Chrysene		103	ug/kg	12.3	40.9	
117-81-7	bis(2-Ethylhexyl)phthalate	J	149	ug/kg	81.7	409	
117-84-0	Di-n-octylphthalate	U	409	ug/kg	81.7	409	
205-99-2	Benzo(b)fluoranthene		180	ug/kg	12.3	40.9	
207-08-9	Benzo(k)fluoranthene	U	40.9	ug/kg	12.3	40.9	
50-32-8	Benzo(a)pyrene		101	ug/kg	12.3	40.9	
193-39-5	Indeno(1,2,3-cd)pyrene		46.9	ug/kg	12.3	40.9	
53-70-3	Dibenzo(a,h)anthracene	J	18.0	ug/kg	12.3	40.9	
191-24-2	Benzo(ghi)perylene		58.7	ug/kg	12.3	40.9	
120-82-1	1,2,4-Trichlorobenzene	U	409	ug/kg	81.7	409	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.21	478	ug/kg		J
	Unknown Aldol Condensate	2.86	445	ug/kg		J

P.S. 5/20/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2320	**Date Collected:**	03/05/2010 12:00	**Matrix:**	S
Lab Sample ID:	248867001	**Date Received:**	03/06/2010 09:15	**%Moisture:**	18.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12931	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966400	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/25/2010 00:01	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 21:03	**Aliquot:**	30.15 g	**Final Volume:**	1 mL
Data File:	s7c2436.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
80-56-8	.alpha.-Pinene	3.4	214	ug/kg	97	NJ
13466-78-9	3-Carene	3.78	336	ug/kg	96	NJ
	Unknown	6.92	257	ug/kg		J
301-02-0	9-Octadecenamide, (Z)-	8.9	270	ug/kg	93	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2320	**Date Collected:**	03/05/2010 12:00	**Matrix:**	S
Lab Sample ID:	248867002	**Date Received:**	03/06/2010 09:15	**%Moisture:**	17.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12932	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966400	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/25/2010 00:44	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 21:03	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	s7c2438.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	402	ug/kg	80.3	402	
108-95-2	Phenol	U	402	ug/kg	80.3	402	
95-57-8	2-Chlorophenol	U	402	ug/kg	80.3	402	
106-46-7	1,4-Dichlorobenzene	U	402	ug/kg	80.3	402	
621-64-7	N-Nitrosodipropylamine	U	402	ug/kg	80.3	402	
59-50-7	4-Chloro-3-methylphenol	U	402	ug/kg	80.3	402	
83-32-9	Acenaphthene	U	40.2	ug/kg	13.3	40.2	
121-14-2	2,4-Dinitrotoluene	U	402	ug/kg	40.2	402	
100-02-7	4-Nitrophenol	U	402	ug/kg	133	402	
87-86-5	Pentachlorophenol	U	402	ug/kg	100	402	
129-00-0	Pyrene		89.7	ug/kg	12.0	40.2	
110-86-1	Pyridine	U	402	ug/kg	80.3	402	UJ,SV7c
62-53-3	Aniline	U	402	ug/kg	120	402	
111-44-4	bis(2-Chloroethyl) ether	U	402	ug/kg	80.3	402	
541-73-1	1,3-Dichlorobenzene	U	402	ug/kg	80.3	402	
100-51-6	Benzyl alcohol	U	402	ug/kg	120	402	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	402	ug/kg	80.3	402	
108-60-1	bis(2-Chloroisopropyl)ether	U	402	ug/kg	80.3	402	
95-48-7	o-Cresol	U	402	ug/kg	80.3	402	
65794-96-9	m,p-Cresols	U	402	ug/kg	120	402	
67-72-1	Hexachloroethane	U	402	ug/kg	80.3	402	
98-95-3	Nitrobenzene	U	402	ug/kg	80.3	402	
78-59-1	Isophorone	U	402	ug/kg	80.3	402	
88-75-5	2-Nitrophenol	U	402	ug/kg	80.3	402	
105-67-9	2,4-Dimethylphenol	U	402	ug/kg	141	402	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	402	ug/kg	80.3	402	
120-83-2	2,4-Dichlorophenol	U	402	ug/kg	80.3	402	
65-85-0	Benzoic acid	U	803	ug/kg	201	803	
91-20-3	Naphthalene	U	40.2	ug/kg	12.0	40.2	
106-47-8	4-Chloroaniline	U	402	ug/kg	80.3	402	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	402	ug/kg	80.3	402	
91-57-6	2-Methylnaphthalene	U	40.2	ug/kg	8.03	40.2	
77-47-4	Hexachlorocyclopentadiene	U	402	ug/kg	80.3	402	
88-06-2	2,4,6-Trichlorophenol	U	402	ug/kg	80.3	402	
95-95-4	2,4,5-Trichlorophenol	U	402	ug/kg	80.3	402	
91-58-7	2-Chloronaphthalene	U	40.2	ug/kg	13.3	40.2	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	402	ug/kg	80.3	402	
99-09-2	3-Nitroaniline	U	402	ug/kg	80.3	402	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2320	**Date Collected:**	03/05/2010 12:00	**Matrix:**	S
Lab Sample ID:	248867002	**Date Received:**	03/06/2010 09:15	**%Moisture:**	17.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12932	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966400	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/25/2010 00:44	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 21:03	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	s7c2438.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	402	ug/kg	80.3	402	
606-20-2	2,6-Dinitrotoluene	U	402	ug/kg	40.2	402	
208-96-8	Acenaphthylene	U	40.2	ug/kg	12.0	40.2	
51-28-5	2,4-Dinitrophenol	U	803	ug/kg	153	803	UJ,SV7c
132-64-9	Dibenzofuran	U	402	ug/kg	80.3	402	
84-66-2	Diethylphthalate	U	402	ug/kg	80.3	402	
86-73-7	Fluorene	U	40.2	ug/kg	12.0	40.2	
7005-72-3	4-Chlorophenylphenylether	U	402	ug/kg	80.3	402	
534-52-1	2-Methyl-4,6-dinitrophenol	U	402	ug/kg	80.3	402	UJ,SV7c
100-01-6	4-Nitroaniline	U	402	ug/kg	120	402	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	402	ug/kg	80.3	402	
122-66-7	Azobenzene	U	402	ug/kg	80.3	402	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	402	ug/kg	80.3	402	
118-74-1	Hexachlorobenzene	U	402	ug/kg	80.3	402	
85-01-8	Phenanthrene		54.4	ug/kg	12.0	40.2	
120-12-7	Anthracene	J	14.2	ug/kg	8.03	40.2	
84-74-2	Di-n-butylphthalate	U	402	ug/kg	80.3	402	
206-44-0	Fluoranthene		90.5	ug/kg	12.0	40.2	
85-68-7	Butylbenzylphthalate	U	402	ug/kg	80.3	402	
56-55-3	Benzo(a)anthracene		48.4	ug/kg	12.0	40.2	
91-94-1	3,3'-Dichlorobenzidine	U	402	ug/kg	120	402	
218-01-9	Chrysene		43.5	ug/kg	12.0	40.2	
117-81-7	bis(2-Ethylhexyl)phthalate	U	402	ug/kg	80.3	402	
117-84-0	Di-n-octylphthalate	U	402	ug/kg	80.3	402	
205-99-2	Benzo(b)fluoranthene		59.9	ug/kg	12.0	40.2	
207-08-9	Benzo(k)fluoranthene	J	22.9	ug/kg	12.0	40.2	
50-32-8	Benzo(a)pyrene		42.4	ug/kg	12.0	40.2	
193-39-5	Indeno(1,2,3-cd)pyrene	J	22.0	ug/kg	12.0	40.2	
53-70-3	Dibenzo(a,h)anthracene	U	40.2	ug/kg	12.0	40.2	
191-24-2	Benzo(ghi)perylene	J	26.1	ug/kg	12.0	40.2	
120-82-1	1,2,4-Trichlorobenzene	U	402	ug/kg	80.3	402	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.86	517	ug/kg		J
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.67	331	ug/kg	99	NJ

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2320	**Date Collected:**	03/05/2010 12:00	**Matrix:**	S
Lab Sample ID:	248867002	**Date Received:**	03/06/2010 09:15	**%Moisture:**	17.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12932	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966400	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/25/2010 00:44	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 21:03	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	s7c2438.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
301-02-0	9-Octadecenamide, (Z)-	8.89	285	ug/kg	95	NJ
	Unknown	10.49	2530	ug/kg		J
	Unknown	12.9	255	ug/kg		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2320	**Date Collected:**	03/05/2010 12:00	**Matrix:**	S
Lab Sample ID:	248867004	**Date Received:**	03/06/2010 09:15	**%Moisture:**	15.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12933	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966400	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/25/2010 20:18	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 21:03	**Aliquot:**	30.11 g	**Final Volume:**	1 mL
Data File:	s7c2523.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	395	ug/kg	79.0	395	UJ,SV7c
108-95-2	Phenol	U	395	ug/kg	79.0	395	
95-57-8	2-Chlorophenol	U	395	ug/kg	79.0	395	
106-46-7	1,4-Dichlorobenzene	U	395	ug/kg	79.0	395	
621-64-7	N-Nitrosodipropylamine	U	395	ug/kg	79.0	395	
59-50-7	4-Chloro-3-methylphenol	U	395	ug/kg	79.0	395	
83-32-9	Acenaphthene	U	39.5	ug/kg	13.0	39.5	
121-14-2	2,4-Dinitrotoluene	U	395	ug/kg	39.5	395	
100-02-7	4-Nitrophenol	U	395	ug/kg	130	395	UJ,SV7c
87-86-5	Pentachlorophenol	U	395	ug/kg	98.8	395	
129-00-0	Pyrene	J	18.2	ug/kg	11.9	39.5	
110-86-1	Pyridine	U	395	ug/kg	79.0	395	UJ,SV7c
62-53-3	Aniline	U	395	ug/kg	119	395	
111-44-4	bis(2-Chloroethyl) ether	U	395	ug/kg	79.0	395	UJ,SV7c
541-73-1	1,3-Dichlorobenzene	U	395	ug/kg	79.0	395	
100-51-6	Benzyl alcohol	U	395	ug/kg	119	395	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	395	ug/kg	79.0	395	
108-60-1	bis(2-Chloroisopropyl)ether	U	395	ug/kg	79.0	395	
95-48-7	o-Cresol	U	395	ug/kg	79.0	395	
65794-96-9	m,p-Cresols	U	395	ug/kg	119	395	
67-72-1	Hexachloroethane	U	395	ug/kg	79.0	395	
98-95-3	Nitrobenzene	U	395	ug/kg	79.0	395	
78-59-1	Isophorone	U	395	ug/kg	79.0	395	
88-75-5	2-Nitrophenol	U	395	ug/kg	79.0	395	
105-67-9	2,4-Dimethylphenol	U	395	ug/kg	138	395	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	395	ug/kg	79.0	395	
120-83-2	2,4-Dichlorophenol	U	395	ug/kg	79.0	395	
65-85-0	Benzoic acid	U	790	ug/kg	198	790	
91-20-3	Naphthalene	U	39.5	ug/kg	11.9	39.5	
106-47-8	4-Chloroaniline	U	395	ug/kg	79.0	395	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	395	ug/kg	79.0	395	
91-57-6	2-Methylnaphthalene	U	39.5	ug/kg	7.90	39.5	
77-47-4	Hexachlorocyclopentadiene	U	395	ug/kg	79.0	395	
88-06-2	2,4,6-Trichlorophenol	U	395	ug/kg	79.0	395	
95-95-4	2,4,5-Trichlorophenol	U	395	ug/kg	79.0	395	
91-58-7	2-Chloronaphthalene	U	39.5	ug/kg	13.0	39.5	
88-74-4	2-Nitroaniline	U	395	ug/kg	79.0	395	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	395	ug/kg	79.0	395	

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2320	**Date Collected:**	03/05/2010 12:00	**Matrix:**	S
Lab Sample ID:	248867004	**Date Received:**	03/06/2010 09:15	**%Moisture:**	15.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12933	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966400	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/25/2010 20:18	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 21:03	**Aliquot:**	30.11 g	**Final Volume:**	1 mL
Data File:	s7c2523.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	395	ug/kg	79.0	395	
606-20-2	2,6-Dinitrotoluene	U	395	ug/kg	39.5	395	
208-96-8	Acenaphthylene	U	39.5	ug/kg	11.9	39.5	
51-28-5	2,4-Dinitrophenol	U	790	ug/kg	150	790	UJ,SV7c
132-64-9	Dibenzofuran	U	395	ug/kg	79.0	395	
84-66-2	Diethylphthalate	U	395	ug/kg	79.0	395	
86-73-7	Fluorene	U	39.5	ug/kg	11.9	39.5	
7005-72-3	4-Chlorophenylphenylether	U	395	ug/kg	79.0	395	
534-52-1	2-Methyl-4,6-dinitrophenol	U	395	ug/kg	79.0	395	UJ,SV7c
100-01-6	4-Nitroaniline	U	395	ug/kg	119	395	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	395	ug/kg	79.0	395	
122-66-7	Azobenzene	U	395	ug/kg	79.0	395	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	395	ug/kg	79.0	395	
118-74-1	Hexachlorobenzene	U	395	ug/kg	79.0	395	
85-01-8	Phenanthrene	J	14.4	ug/kg	11.9	39.5	
120-12-7	Anthracene	U	39.5	ug/kg	7.90	39.5	
84-74-2	Di-n-butylphthalate	U	395	ug/kg	79.0	395	
206-44-0	Fluoranthene	J	22.4	ug/kg	11.9	39.5	
85-68-7	Butylbenzylphthalate	U	395	ug/kg	79.0	395	
56-55-3	Benzo(a)anthracene	J	15.7	ug/kg	11.9	39.5	
91-94-1	3,3'-Dichlorobenzidine	U	395	ug/kg	119	395	
218-01-9	Chrysene	U	39.5	ug/kg	11.9	39.5	
117-81-7	bis(2-Ethylhexyl)phthalate	U	395	ug/kg	79.0	395	
117-84-0	Di-n-octylphthalate	U	395	ug/kg	79.0	395	
205-99-2	Benzo(b)fluoranthene	J	15.2	ug/kg	11.9	39.5	
207-08-9	Benzo(k)fluoranthene	U	39.5	ug/kg	11.9	39.5	
50-32-8	Benzo(a)pyrene	U	39.5	ug/kg	11.9	39.5	
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.5	ug/kg	11.9	39.5	
53-70-3	Dibenzo(a,h)anthracene	U	39.5	ug/kg	11.9	39.5	UJ,SV7c
191-24-2	Benzo(ghi)perylene	U	39.5	ug/kg	11.9	39.5	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	395	ug/kg	79.0	395	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.88	464	ug/kg		J
	Unknown	8.91	234	ug/kg		J

P.S. 5/20/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2320	**Date Collected:**	03/05/2010 12:00	**Matrix:**	S
Lab Sample ID:	248867003	**Date Received:**	03/06/2010 09:15	**%Moisture:**	15.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12934	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966400	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/24/2010 21:08	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 21:03	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s7c2428.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	394	ug/kg	78.8	394	
108-95-2	Phenol	U	394	ug/kg	78.8	394	
95-57-8	2-Chlorophenol	U	394	ug/kg	78.8	394	
106-46-7	1,4-Dichlorobenzene	U	394	ug/kg	78.8	394	
621-64-7	N-Nitrosodipropylamine	U	394	ug/kg	78.8	394	
59-50-7	4-Chloro-3-methylphenol	U	394	ug/kg	78.8	394	
83-32-9	Acenaphthene	U	39.4	ug/kg	13.0	39.4	
121-14-2	2,4-Dinitrotoluene	U	394	ug/kg	39.4	394	
100-02-7	4-Nitrophenol	U	394	ug/kg	130	394	
87-86-5	Pentachlorophenol	U	394	ug/kg	98.5	394	
129-00-0	Pyrene	U	39.4	ug/kg	11.8	39.4	
110-86-1	Pyridine	U	394	ug/kg	78.8	394	UJ,SV7c
62-53-3	Aniline	U	394	ug/kg	118	394	
111-44-4	bis(2-Chloroethyl) ether	U	394	ug/kg	78.8	394	
541-73-1	1,3-Dichlorobenzene	U	394	ug/kg	78.8	394	
100-51-6	Benzyl alcohol	U	394	ug/kg	118	394	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	394	ug/kg	78.8	394	
108-60-1	bis(2-Chloroisopropyl)ether	U	394	ug/kg	78.8	394	
95-48-7	o-Cresol	U	394	ug/kg	78.8	394	
65794-96-9	m,p-Cresols	U	394	ug/kg	118	394	
67-72-1	Hexachloroethane	U	394	ug/kg	78.8	394	
98-95-3	Nitrobenzene	U	394	ug/kg	78.8	394	
78-59-1	Isophorone	U	394	ug/kg	78.8	394	
88-75-5	2-Nitrophenol	U	394	ug/kg	78.8	394	
105-67-9	2,4-Dimethylphenol	U	394	ug/kg	138	394	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	394	ug/kg	78.8	394	
120-83-2	2,4-Dichlorophenol	U	394	ug/kg	78.8	394	
65-85-0	Benzoic acid	U	788	ug/kg	197	788	
91-20-3	Naphthalene	U	39.4	ug/kg	11.8	39.4	
106-47-8	4-Chloroaniline	U	394	ug/kg	78.8	394	UJ,SV7c
87-68-3	Hexachlorobutadiene	U	394	ug/kg	78.8	394	
91-57-6	2-Methylnaphthalene	U	39.4	ug/kg	7.88	39.4	
77-47-4	Hexachlorocyclopentadiene	U	394	ug/kg	78.8	394	
88-06-2	2,4,6-Trichlorophenol	U	394	ug/kg	78.8	394	
95-95-4	2,4,5-Trichlorophenol	U	394	ug/kg	78.8	394	
91-58-7	2-Chloronaphthalene	U	39.4	ug/kg	13.0	39.4	
88-74-4	2-Nitroaniline	U	394	ug/kg	78.8	394	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	394	ug/kg	78.8	394	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2320	**Date Collected:**	03/05/2010 12:00	**Matrix:**	S
Lab Sample ID:	248867003	**Date Received:**	03/06/2010 09:15	**%Moisture:**	15.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12934	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966400	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/24/2010 21:08	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 21:03	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s7c2428.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	394	ug/kg	78.8	394	
606-20-2	2,6-Dinitrotoluene	U	394	ug/kg	39.4	394	
208-96-8	Acenaphthylene	U	39.4	ug/kg	11.8	39.4	
51-28-5	2,4-Dinitrophenol	U	788	ug/kg	150	788	UJ,SV7c
132-64-9	Dibenzofuran	U	394	ug/kg	78.8	394	
84-66-2	Diethylphthalate	U	394	ug/kg	78.8	394	
86-73-7	Fluorene	U	39.4	ug/kg	11.8	39.4	
7005-72-3	4-Chlorophenylphenylether	U	394	ug/kg	78.8	394	
534-52-1	2-Methyl-4,6-dinitrophenol	U	394	ug/kg	78.8	394	UJ,SV7c
100-01-6	4-Nitroaniline	U	394	ug/kg	118	394	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	394	ug/kg	78.8	394	
122-66-7	Azobenzene	U	394	ug/kg	78.8	394	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	394	ug/kg	78.8	394	
118-74-1	Hexachlorobenzene	U	394	ug/kg	78.8	394	
85-01-8	Phenanthrene	U	39.4	ug/kg	11.8	39.4	
120-12-7	Anthracene	U	39.4	ug/kg	7.88	39.4	
84-74-2	Di-n-butylphthalate	U	394	ug/kg	78.8	394	
206-44-0	Fluoranthene	U	39.4	ug/kg	11.8	39.4	
85-68-7	Butylbenzylphthalate	U	394	ug/kg	78.8	394	
56-55-3	Benzo(a)anthracene	U	39.4	ug/kg	11.8	39.4	
91-94-1	3,3'-Dichlorobenzidine	U	394	ug/kg	118	394	
218-01-9	Chrysene	U	39.4	ug/kg	11.8	39.4	
117-81-7	bis(2-Ethylhexyl)phthalate	U	394	ug/kg	78.8	394	
117-84-0	Di-n-octylphthalate	U	394	ug/kg	78.8	394	
205-99-2	Benzo(b)fluoranthene	U	39.4	ug/kg	11.8	39.4	
207-08-9	Benzo(k)fluoranthene	U	39.4	ug/kg	11.8	39.4	
50-32-8	Benzo(a)pyrene	U	39.4	ug/kg	11.8	39.4	
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.4	ug/kg	11.8	39.4	
53-70-3	Dibenzo(a,h)anthracene	U	39.4	ug/kg	11.8	39.4	
191-24-2	Benzo(ghi)perylene	U	39.4	ug/kg	11.8	39.4	
120-82-1	1,2,4-Trichlorobenzene	U	394	ug/kg	78.8	394	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.86	329	ug/kg		J
4630-07-3	Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	5.67	256	ug/kg	98	NJ

P.S. 5/20/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2320	**Date Collected:**	03/05/2010 12:00	**Matrix:**	S
Lab Sample ID:	248867003	**Date Received:**	03/06/2010 09:15	**%Moisture:**	15.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12934	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966400	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/24/2010 21:08	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 21:03	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s7c2428.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
301-02-0	9-Octadecenamide, (Z)-	8.89	263	ug/kg	84	NJ

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2320 VALIDATION DATE: 05/20/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS and MSD %R calculations were performed incorrectly. The parent sample result was < the MDL and, thus, a result of 0 µg/kg should have been used to calculate the %Rs. The laboratory subtracted the parent sample concentration. The %Rs were within the acceptance limits when calculated correctly. No sample results were qualified.
2. It should be noted that the parent sample for the QC analyses was from another LANL RN. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 05/25/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 05/20/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☐	☒	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☐	☒	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

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LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12931

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2320

GEL Sample ID: 248867001

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.616	2.46	0.616	ug/kg	U	1	28-MAR-10 17:57	per0328030a
	Perchlorate Isotope Ratio						1	28-MAR-10 17:57	per0328030a
14797-73-0	Perchlorate-101	.616	2.46	0.616	ug/kg	U	1	28-MAR-10 17:57	per0328030a
	Perchlorate-O(18)			6.13	ug/kg		1	28-MAR-10 17:57	per0328030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

D.S. 5/20/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12932

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2320

GEL Sample ID: 248867002

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.605	2.42	0.605	ug/kg	U	1	28-MAR-10 18:06	per0328031a
	Perchlorate Isotope Ratio						1	28-MAR-10 18:06	per0328031a
14797-73-0	Perchlorate-101	.605	2.42	0.605	ug/kg	U	1	28-MAR-10 18:06	per0328031a
	Perchlorate-O(18)			5.99	ug/kg		1	28-MAR-10 18:06	per0328031a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

P.S. 5/20/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46–10–12934

Date Received: 06–MAR–10

GEL Job No (SDG): 10–2320

GEL Sample ID: 248867003

Date Filtered: 19–MAR–10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.592	2.37	0.592	ug/kg	U	1	28–MAR–10 18:15	per0328032a
	Perchlorate Isotope Ratio						1	28–MAR–10 18:15	per0328032a
14797–73–0	Perchlorate–101	.592	2.37	0.592	ug/kg	U	1	28–MAR–10 18:15	per0328032a
	Perchlorate–O(18)			5.80	ug/kg		1	28–MAR–10 18:15	per0328032a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

P.S. 5/20/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12933

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2320

GEL Sample ID: 248867004

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.595	2.38	0.595	ug/kg	U	1	28-MAR-10 18:23	per0328033a
	Perchlorate Isotope Ratio						1	28-MAR-10 18:23	per0328033a
14797-73-0	Perchlorate-101	.595	2.38	0.595	ug/kg	U	1	28-MAR-10 18:23	per0328033a
	Perchlorate-O(18)			5.91	ug/kg		1	28-MAR-10 18:23	per0328033a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

P.S. 5/20/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2320 VALIDATION DATE: 05/20/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS/MSD %Rs and/or RPDs for aroclor 1016 and aroclor 1260 did not meet laboratory acceptance criteria. Since the analysis of an MS or MSD was not required for PCBs, no sample data were qualified as a result. It should be noted that the MS/MSD analyses were performed on a LANL parent sample from another RN, and the parent sample raw data were not included in the data package. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 05/25/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 05/20/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

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Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

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Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	**32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.**	**UJ, R, P15**	**R, P15**
☒	☐	☐	**33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.**	**U, U_LAB**	**J, J_LAB, NQ, NQ**
☐	☒	☐	**34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.**	**UJ, R, P19**	**J, R, P19**

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12931**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968935**	**Inst:**	**ECD1A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 11:31**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 20:20**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**034f3401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	034b3401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	41.0	ug/kg	13.7	41.0	1
11104–28–2	Aroclor–1221	U	41.0	ug/kg	13.7	41.0	1
11141–16–5	Aroclor–1232	U	41.0	ug/kg	13.7	41.0	1
53469–21–9	Aroclor–1242	U	41.0	ug/kg	13.7	41.0	1
12672–29–6	Aroclor–1248	U	41.0	ug/kg	13.7	41.0	1
11097–69–1	Aroclor–1254		92.5	ug/kg	13.7	41.0	1
11096–82–5	Aroclor–1260	P	60.1	ug/kg	13.7	41.0	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12932**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968935**	**Inst:**	**ECD1A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 11:44**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 20:20**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	035b3501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	40.1	ug/kg	13.3	40.1	1
11104–28–2	Aroclor–1221	U	40.1	ug/kg	13.3	40.1	1
11141–16–5	Aroclor–1232	U	40.1	ug/kg	13.3	40.1	1
53469–21–9	Aroclor–1242	U	40.1	ug/kg	13.3	40.1	1
12672–29–6	Aroclor–1248	U	40.1	ug/kg	13.3	40.1	1
11097–69–1	Aroclor–1254	U	40.1	ug/kg	13.3	40.1	1
11096–82–5	Aroclor–1260	U	40.1	ug/kg	13.3	40.1	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**15.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12933**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 01:06**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**086f8601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	086b8601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.96	ug/kg	1.32	3.96	1
11104–28–2	Aroclor–1221	U	3.96	ug/kg	1.32	3.96	1
11141–16–5	Aroclor–1232	U	3.96	ug/kg	1.32	3.96	1
53469–21–9	Aroclor–1242	U	3.96	ug/kg	1.32	3.96	1
12672–29–6	Aroclor–1248	U	3.96	ug/kg	1.32	3.96	1
11097–69–1	Aroclor–1254		6.70	ug/kg	1.32	3.96	1
11096–82–5	Aroclor–1260		4.50	ug/kg	1.32	3.96	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**15.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12934**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 00:54**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**085f8501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	085b8501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.94	ug/kg	1.31	3.94	1
11104-28-2	Aroclor-1221	U	3.94	ug/kg	1.31	3.94	1
11141-16-5	Aroclor-1232	U	3.94	ug/kg	1.31	3.94	1
53469-21-9	Aroclor-1242	U	3.94	ug/kg	1.31	3.94	1
12672-29-6	Aroclor-1248	U	3.94	ug/kg	1.31	3.94	1
11097-69-1	Aroclor-1254	J	2.70	ug/kg	1.31	3.94	1
11096-82-5	Aroclor-1260	J	1.90	ug/kg	1.31	3.94	1

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2320 VALIDATION DATE: 05/20/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Total CN only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the matrix QC analysis was performed on a LANL sample from another RN. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 05/25/10

VALIDATOR'S SIGNATURE: ### Mr. Peter Steves DATE: 05/20/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2320

Client Sample ID:	RE46-10-12931	Project:	LANL01004
Sample ID:	248867001	Client ID:	LANL010
Matrix:	S		
Collect Date:	05-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	18.8%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	74.8	275	ug/kg	1	AXC2 03/15/10	1328	962258	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1557	962257

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

P.S. 5/20/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2320

Client Sample ID:	RE46-10-12932	Project:	LANL01004
Sample ID:	248867002	Client ID:	LANL010
Matrix:	S		
Collect Date:	05-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	17.3%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	74.8	275	ug/kg	1	AXC2 03/15/10	1328	962258	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1557	962257

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

P.S. 5/20/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2320

Client Sample ID:	RE46-10-12934	Project:	LANL01004
Sample ID:	248867003	Client ID:	LANL010
Matrix:	S		
Collect Date:	05-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	15.5%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	71.9	264	ug/kg	1	AXC2 03/15/10	1329	962258	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1557	962257

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

P.S. 5/20/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2320

Client Sample ID:	RE46-10-12933	Project:	LANL01004
Sample ID:	248867004	Client ID:	LANL010
Matrix:	S		
Collect Date:	05-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	15.9%		

ameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis										
)012A Cyanide, Total "Dry Weight Corrected"										
nide, Total	U	ND	80.9	297	ug/kg	1	AXC2 03/15/10	1330	962258	1

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1557	962257

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	

P.S. 5/20/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2320 VALIDATION DATE: 05/20/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the MB, K was detected. The associated result for sample RE46-10-12932 was a detect >5X but ≤50X the MB concentration and, thus, was qualified J,I4a. The remaining associated results were detects >50X the MB concentration and, thus, were not qualified, based on professional judgment.
2. In the ICB/CCBs, K was detected. The associated sample results were detects >5X the greatest associated blank concentration and, thus, were not qualified.
3. The MS %Rs were > the laboratory UAL for Mg and K. The associated sample results were detects and, thus, were qualified J+,I6b. Also, the MS %Rs were > the laboratory UAL for Al, Fe and Mn. However, the associated parent sample concentrations were >4X the spike concentrations. Thus, the associated sample results were not qualified, based on professional judgment.
4. It should be noted the matrix QC analyses <u>except</u> for Hg were performed on a LANL sample from another RN, and the parent sample raw data were not included in the data package. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 05/25/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 05/20/10

DATA VALIDATION COVER SHEET

5118-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2320 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248867001 **BASIS:** Dry Weight **DATE COLLECTED** 05-MAR-10

CLIENT ID: RE46-10-12931 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	2520000	ug/kg		8010	23600	23600	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-36-0	Antimony	1180	ug/kg	U	389	1180	1180	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-38-2	Arsenic	1290	ug/kg		240	1200	1200	2	MS	RMJ	05/06/10 05:02	100505-3	964018
7440-39-3	Barium	29000	ug/kg		118	589	589	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-41-7	Beryllium	397	ug/kg		24	120	120	2	MS	RMJ	05/06/10 05:02	100505-3	964018
7440-43-9	Cadmium	716	ug/kg		118	589	589	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-70-2	Calcium	1130000	ug/kg		9420	29400	29400	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-47-3	Chromium	7710	ug/kg		177	589	589	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-48-4	Cobalt	1940	ug/kg		177	589	589	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-50-8	Copper	39200	ug/kg		353	1180	1180	1	P	HSC	04/05/10 13:10	040510-1	964016
7439-89-6	Iron	8040000	ug/kg		9420	29400	29400	1	P	HSC	04/05/10 13:10	040510-1	964016
7439-92-1	Lead	25100	ug/kg		294	1180	1180	1	P	HSC	04/05/10 13:10	040510-1	964016
7439-95-4	Magnesium J+,I6b	769000	ug/kg		10000	35300	35300	1	P	HSC	04/05/10 13:10	040510-1	964016
7439-96-5	Manganese	300000	ug/kg		236	1180	1180	1	P	HSC	04/05/10 13:10	040510-1	964016
7439-97-6	Mercury	231	ug/kg	N	4.37	12.9	12.9	1	AV	JXL1	03/24/10 11:24	032410S1-4	968185
7440-02-0	Nickel	3850	ug/kg		120	479	479	2	MS	RMJ	05/06/10 05:02	100505-3	964018
7440-09-7	Potassium J+,I6b	502000	ug/kg		7540	29400	29400	1	P	HSC	04/05/10 13:10	040510-1	964016
7782-49-2	Selenium	1200	ug/kg	U	599	1200	1200	2	MS	RMJ	05/06/10 05:02	100505-3	964018
7440-22-4	Silver	589	ug/kg	U	118	589	589	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-23-5	Sodium	114000	ug/kg		8240	29400	29400	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-28-0	Thallium	240	ug/kg	U	71.9	240	240	2	MS	RMJ	05/06/10 05:02	100505-3	964018
7440-62-2	Vanadium	7190	ug/kg		118	589	589	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-66-6	Zinc	120000	ug/kg		384	1160	1160	1	P	HSC	04/07/10 14:19	040710-2	972603

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964016	964015	SW846 3050B	0.523	g	50	mL	04/02/10	LYH1
964018	964017	SW846 3050B	0.514	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.575	g	30	mL	03/23/10	TXB3
972603	972602	SW846 3050B	0.529	g	50	mL	04/07/10	AXG2

P.S. 5/20/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2320 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248867002 **BASIS:** Dry Weight **DATE COLLECTED** 05-MAR-10

CLIENT ID: RE46-10-12932 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	1720000	ug/kg		8220	24200	24200	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-36-0	Antimony	1210	ug/kg	U	399	1210	1210	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-38-2	Arsenic	1150	ug/kg	J	235	1180	1180	2	MS	RMJ	05/06/10 05:07	100505-3	964018
7440-39-3	Barium	13100	ug/kg		121	605	605	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-41-7	Beryllium	328	ug/kg		23.5	118	118	2	MS	RMJ	05/06/10 05:07	100505-3	964018
7440-43-9	Cadmium	210	ug/kg	J	121	605	605	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-70-2	Calcium	658000	ug/kg		9680	30200	30200	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-47-3	Chromium	5280	ug/kg		181	605	605	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-48-4	Cobalt	1090	ug/kg		181	605	605	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-50-8	Copper	16500	ug/kg		363	1210	1210	1	P	HSC	04/05/10 13:12	040510-1	964016
7439-89-6	Iron	7150000	ug/kg		9680	30200	30200	1	P	HSC	04/05/10 13:12	040510-1	964016
7439-92-1	Lead	21200	ug/kg		302	1210	1210	1	P	HSC	04/05/10 13:12	040510-1	964016
7439-95-4	Magnesium J+,I6b	310000	ug/kg		10300	36300	36300	1	P	HSC	04/05/10 13:12	040510-1	964016
7439-96-5	Manganese	290000	ug/kg		242	1210	1210	1	P	HSC	04/05/10 13:12	040510-1	964016
7439-97-6	Mercury	177	ug/kg	N	4.37	12.8	12.8	1	AV	JXL1	03/24/10 11:33	032410S1-4	968185
7440-02-0	Nickel	2430	ug/kg		118	471	471	2	MS	RMJ	05/06/10 05:07	100505-3	964018
7440-09-7	Potassium J,I4a	261000	ug/kg		7740	30200	30200	1	P	HSC	04/05/10 13:12	040510-1	964016
7782-49-2	Selenium	1180	ug/kg	U	588	1180	1180	2	MS	RMJ	05/06/10 05:07	100505-3	964018
7440-22-4	Silver	605	ug/kg	U	121	605	605	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-23-5	Sodium	124000	ug/kg		8470	30200	30200	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-28-0	Thallium	235	ug/kg	U	70.6	235	235	2	MS	RMJ	05/06/10 05:07	100505-3	964018
7440-62-2	Vanadium	3950	ug/kg		121	605	605	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-66-6	Zinc	45100	ug/kg		394	1200	1200	1	P	HSC	04/07/10 14:21	040710-2	972603

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964016	964015	SW846 3050B	0.5	g	50	mL	04/02/10	LYH1
964018	964017	SW846 3050B	0.514	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.565	g	30	mL	03/23/10	TXB3
972603	972602	SW846 3050B	0.506	g	50	mL	04/07/10	AXG2

P.S. 5/20/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2320 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248867003 **BASIS:** Dry Weight **DATE COLLECTED** 05-MAR-10

CLIENT ID: RE46-10-12934 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	6010000	ug/kg		6840	20100	20100	1	P	HSC	04/05/10 13:14	040510-1	964016
7440-36-0	Antimony	1010	ug/kg	U	332	1010	1010	1	P	HSC	04/05/10 13:14	040510-1	964016
7440-38-2	Arsenic	1160	ug/kg		203	1020	1020	2	MS	RMJ	05/06/10 05:11	100505-3	964018
7440-39-3	Barium	57100	ug/kg		101	503	503	1	P	HSC	04/05/10 13:14	040510-1	964016
7440-41-7	Beryllium	494	ug/kg		20.3	102	102	2	MS	RMJ	05/06/10 05:11	100505-3	964018
7440-43-9	Cadmium	503	ug/kg	U	101	503	503	1	P	HSC	04/05/10 13:14	040510-1	964016
7440-70-2	Calcium	2230000	ug/kg		8050	25200	25200	1	P	HSC	04/05/10 13:14	040510-1	964016
7440-47-3	Chromium	5810	ug/kg		151	503	503	1	P	HSC	04/05/10 13:14	040510-1	964016
7440-48-4	Cobalt	2380	ug/kg		151	503	503	1	P	HSC	04/05/10 13:14	040510-1	964016
7440-50-8	Copper	3430	ug/kg		302	1010	1010	1	P	HSC	04/05/10 13:14	040510-1	964016
7439-89-6	Iron	8770000	ug/kg		8050	25200	25200	1	P	HSC	04/05/10 13:14	040510-1	964016
7439-92-1	Lead	6880	ug/kg		252	1010	1010	1	P	HSC	04/05/10 13:14	040510-1	964016
7439-95-4	Magnesium J+,I6b	1200000	ug/kg		8550	30200	30200	1	P	HSC	04/05/10 13:14	040510-1	964016
7439-96-5	Manganese	216000	ug/kg		201	1010	1010	1	P	HSC	04/05/10 13:14	040510-1	964016
7439-97-6	Mercury	244	ug/kg	N	4.66	13.7	13.7	1	AV	JXL1	03/24/10 11:34	032410S1-4	968185
7440-02-0	Nickel	3870	ug/kg		102	406	406	2	MS	RMJ	05/06/10 05:11	100505-3	964018
7440-09-7	Potassium J+,I6b	650000	ug/kg		6440	25200	25200	1	P	HSC	04/05/10 13:14	040510-1	964016
7782-49-2	Selenium	1020	ug/kg	U	508	1020	1020	2	MS	RMJ	05/06/10 05:11	100505-3	964018
7440-22-4	Silver	503	ug/kg	U	101	503	503	1	P	HSC	04/05/10 13:14	040510-1	964016
7440-23-5	Sodium	78000	ug/kg		7050	25200	25200	1	P	HSC	04/05/10 13:14	040510-1	964016
7440-28-0	Thallium	82.6	ug/kg	J	60.9	203	203	2	MS	RMJ	05/06/10 05:11	100505-3	964018
7440-62-2	Vanadium	11700	ug/kg		101	503	503	1	P	HSC	04/05/10 13:14	040510-1	964016
7440-66-6	Zinc	21700	ug/kg		387	1170	1170	1	P	HSC	04/07/10 14:23	040710-2	972603

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964016	964015	SW846 3050B	0.588	g	50	mL	04/02/10	LYH1
964018	964017	SW846 3050B	0.583	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.518	g	30	mL	03/23/10	TXB3
972603	972602	SW846 3050B	0.504	g	50	mL	04/07/10	AXG2

P.S. 5/20/10

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2320 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248867004 **BASIS:** Dry Weight **DATE COLLECTED** 05-MAR-10

CLIENT ID: RE46-10-12933 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic: Batch
7429-90-5	Aluminum	4740000	ug/kg		7780	22900	22900	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-36-0	Antimony	1140	ug/kg	U	377	1140	1140	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-38-2	Arsenic	976	ug/kg	J	219	1090	1090	2	MS	RMJ	05/06/10 05:15	100505-3	964018
7440-39-3	Barium	40800	ug/kg		114	572	572	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-41-7	Beryllium	466	ug/kg		21.9	109	109	2	MS	RMJ	05/06/10 05:15	100505-3	964018
7440-43-9	Cadmium	572	ug/kg	U	114	572	572	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-70-2	Calcium	1450000	ug/kg		9150	28600	28600	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-47-3	Chromium	3700	ug/kg		172	572	572	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-48-4	Cobalt	1670	ug/kg		172	572	572	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-50-8	Copper	4110	ug/kg		343	1140	1140	1	P	HSC	04/05/10 13:16	040510-1	964016
7439-89-6	Iron	9490000	ug/kg		9150	28600	28600	1	P	HSC	04/05/10 13:16	040510-1	964016
7439-92-1	Lead	11900	ug/kg		286	1140	1140	1	P	HSC	04/05/10 13:16	040510-1	964016
7439-95-4	Magnesium J+,I6b	894000	ug/kg		9720	34300	34300	1	P	HSC	04/05/10 13:16	040510-1	964016
7439-96-5	Manganese	305000	ug/kg		229	1140	1140	1	P	HSC	04/05/10 13:16	040510-1	964016
7439-97-6	Mercury	872	ug/kg	N	9.07	26.7	26.7	2	AV	JXL1	03/24/10 14:05	032410S1-4	968185
7440-02-0	Nickel	2830	ug/kg		109	437	437	2	MS	RMJ	05/06/10 05:15	100505-3	964018
7440-09-7	Potassium J+,I6b	609000	ug/kg		7320	28600	28600	1	P	HSC	04/05/10 13:16	040510-1	964016
7782-49-2	Selenium	1090	ug/kg	U	547	1090	1090	2	MS	RMJ	05/06/10 05:15	100505-3	964018
7440-22-4	Silver	572	ug/kg	U	114	572	572	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-23-5	Sodium	93700	ug/kg		8010	28600	28600	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-28-0	Thallium	219	ug/kg	U	65.6	219	219	2	MS	RMJ	05/06/10 05:15	100505-3	964018
7440-62-2	Vanadium	8570	ug/kg		114	572	572	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-66-6	Zinc	22400	ug/kg		370	1120	1120	1	P	HSC	04/07/10 14:25	040710-2	972603

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964016	964015	SW846 3050B	0.52	g	50	mL	04/02/10	LYH1
964018	964017	SW846 3050B	0.544	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.535	g	30	mL	03/23/10	TXB3
972603	972602	SW846 3050B	0.531	g	50	mL	04/07/10	AXG2

P.S. 5/20/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2320 VALIDATION DATE: 05/20/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. All gamma-spec results that were rejected by the laboratory due to interference were qualified R,R5a. In the duplicate and sample several results were also rejected by the laboratory. No data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 05/25/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 05/20/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☐	☒	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-12931
Sample ID: 248867001
Matrix: S
Collect Date: 05-MAR-10
Receive Date: 06-MAR-10
Collector: Client
Moisture: 18.8%

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtc
metric Solids													
Received"													
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	-0.00415		0.0213	+/-0.00255	0.050	pCi/g		AYB1	03/29/10	2147	965811	2
PU "Dry Weight Corrected"													
nium-238	U	-0.00699		0.0247	+/-0.00461	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
nium-239/240	U	0.0098		0.0208	+/-0.00478	0.050	pCi/g						
'H "Dry Weight Corrected"													
um-228		1.53		0.174	+/-0.159	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
um-230		0.881		0.218	+/-0.105	0.100	pCi/g						
um-232		1.36		0.093	+/-0.143	0.100	pCi/g						
J "Dry Weight Corrected"													
ium-233/234		1.71		0.132	+/-0.155	0.100	pCi/g		AYB1	04/02/10	1137	971197	6
ium-235/236		0.0812		0.0808	+/-0.0225	0.100	pCi/g						
ium-238		0.863		0.093	+/-0.0905	0.100	pCi/g						
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
icium-241	U	-0.0252		0.330	+/-0.0965	0.200	pCi/g		MXR1	03/24/10	2033	962633	8
uth-211	UI	3.83	R,R5a	0.398	+/-0.303		pCi/g						
uth-214		1.17		0.140	+/-0.103	0.200	pCi/g						
ium-109	UI	2.48	R,R5a	1.88	+/-0.596		pCi/g						
m-139	U	0.00997		0.0615	+/-0.0185	0.050	pCi/g						
m-134	UI	0.141	R,R5a	0.101	+/-0.0479	0.100	pCi/g						
m-137	UI	0.126	R,R5a	0.0927	+/-0.0246	0.100	pCi/g						
lt-60	U	-0.0193		0.0676	+/-0.0213	0.100	pCi/g						
ium-152	U	0.00124		0.194	+/-0.0666	0.200	pCi/g						
anum-140	U	-0.056		0.201	+/-0.0648		pCi/g						
-212		1.84		0.117	+/-0.111	0.100	pCi/g						
-214		1.39		0.146	+/-0.117	0.100	pCi/g						
ury-203	U	0.028		0.0856	+/-0.0246	0.100	pCi/g						
sium-40		35.2		0.585	+/-2.16	1.00	pCi/g						
m-223	U	0.0653		1.22	+/-0.415		pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-12931
Sample ID: 248867001

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtc
Gamma Spec Analysis													
AMA SPEC "Dry Weight Corrected"													
ım-224	UI	4.78	R,R5a	1.25	+/-0.778		pCi/g						
ım-226		1.17		0.140	+/-0.103		pCi/g						
ım-228		1.69		0.280	+/-0.213	0.500	pCi/g						
enium-106	U	-0.102		0.570	+/-0.172	0.800	pCi/g						
ım-22	U	-0.0499		0.072	+/-0.024	0.080	pCi/g						
tium-85	U	-0.18		0.0871	+/-0.0321		pCi/g						
ium-208		0.586		0.0684	+/-0.0518	0.080	pCi/g						
um-227	U	0.00176		0.485	+/-0.142		pCi/g						
um-231	U	0.0653		1.22	+/-0.415		pCi/g						
um-234	U	0.746		2.93	+/-0.855	2.00	pCi/g						
13	U	0.0304		0.0909	+/-0.0265	0.100	pCi/g						
ium-235	U	0.341		0.450	+/-0.134	0.500	pCi/g						
ım-88	U	-0.0065		0.0602	+/-0.0191	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
icium-243 Tracer	AM241 "Dry Weight Corrected"	86.5	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	90.1	(50%-105%)
ım-229 Tracer	ISOTH "Dry Weight Corrected"	85.0	(50%-105%)
ım-232 Tracer	ISOU "Dry Weight Corrected"	72.9	(50%-105%)

s:
J is calculated at the 67% confidence level (1-sigma).
: Qualifiers in this report are defined as follows :

Analyte is a surrogate compound

P.S. 5/20/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID:	RE46-10-12932	Project:	LANL01004
Sample ID:	248867002	Client ID:	LANL010
Matrix:	S		
Collect Date:	05-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	17.3%		

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtc
metric Solids													
Received"													
ılpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	-0.00165		0.0206	+/-0.00225	0.050	pCi/g		AYB1	03/29/10	2147	965811	2
PU "Dry Weight Corrected"													
nium-238	U	0.00853		0.0242	+/-0.00636	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
nium-239/240	U	0.0109		0.0204	+/-0.00451	0.050	pCi/g						
'H "Dry Weight Corrected"													
um-228		1.26		0.162	+/-0.133	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
um-230		0.971		0.203	+/-0.110	0.100	pCi/g						
um-232		1.21		0.0865	+/-0.128	0.100	pCi/g						
J "Dry Weight Corrected"													
ium-233/234		0.748		0.188	+/-0.0912	0.100	pCi/g		AYB1	04/02/10	1137	971197	6
ium-235/236	U	0.00823		0.115	+/-0.0143	0.100	pCi/g						
ium-238		0.878		0.132	+/-0.102	0.100	pCi/g						
Gamma Spec Analysis													
4MA SPEC "Dry Weight Corrected"													
icium-241	U	-0.0101		0.198	+/-0.0621	0.200	pCi/g		MXR1	03/24/10	2037	962633	8
uth-211	UI	3.23	R,R5a	0.274	+/-0.265		pCi/g						
uth-214		1.12		0.0931	+/-0.0887	0.200	pCi/g						
ıium-109	UI	2.84	R,R5a	1.04	+/-0.394		pCi/g						
m-139	U	-0.00235		0.0455	+/-0.013	0.050	pCi/g						
ım-134	UI	0.0855	R,R5a	0.071	+/-0.0197	0.100	pCi/g						
ım-137	U	0.00757		0.0533	+/-0.0157	0.100	pCi/g						
lt-60	U	-0.0122		0.0495	+/-0.0154	0.100	pCi/g						
ɔium-152	U	0.055		0.141	+/-0.0481	0.200	pCi/g						
ıanum-140	U	-0.175		0.124	+/-0.0488		pCi/g						
-212		1.63		0.0793	+/-0.118	0.100	pCi/g						
-214		1.17		0.101	+/-0.101	0.100	pCi/g						
ury-203	U	0.0361		0.0539	+/-0.0204	0.100	pCi/g						
sium-40		29.2		0.456	+/-1.49	1.00	pCi/g						
ım-223	U	-0.211		0.881	+/-0.299		pCi/g						
ım-224	UI	4.24	R,R5a	0.849	+/-0.625		pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-12932
Sample ID: 248867002

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtc
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
m-226		1.12		0.0931	+/-0.0887		pCi/g						
m-228		1.65		0.183	+/-0.164	0.500	pCi/g						
nium-106	U	-0.0995		0.408	+/-0.124	0.800	pCi/g						
m-22	U	0.0141		0.060	+/-0.0175	0.080	pCi/g						
tium-85	UI	0.144	R,R5a	0.071	+/-0.0198		pCi/g						
ium-208		0.487		0.0487	+/-0.0397	0.080	pCi/g						
um-227	U	-0.195		0.363	+/-0.113		pCi/g						
um-231	U	-0.211		0.881	+/-0.299		pCi/g						
um-234		1.88		1.67	+/-0.920	2.00	pCi/g						
13	U	-0.00942		0.0624	+/-0.0186	0.100	pCi/g						
ium-235	U	0.167		0.304	+/-0.0858	0.500	pCi/g						
m-88	U	0.0162		0.0445	+/-0.0125	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
icium-243 Tracer	AM241 "Dry Weight Corrected"	87.8	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	81.9	(50%-105%)
m-229 Tracer	ISOTH "Dry Weight Corrected"	88.6	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	49.8 *	(50%-105%)

s:
J is calculated at the 67% confidence level (1-sigma).
: Qualifiers in this report are defined as follows :

Analyte is a surrogate compound
Result is less than value reported

P.S. 5/20/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-12934
Sample ID: 248867003
Matrix: S
Collect Date: 05-MAR-10
Receive Date: 06-MAR-10
Collector: Client
Moisture: 15.5%

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
metric Solids													
Received"													
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	0.00204		0.0223	+/-0.00244	0.050	pCi/g		AYB1	03/29/10	2146	965811	2
PU "Dry Weight Corrected"													
nium-238	U	0.0042		0.0268	+/-0.008	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
nium-239/240	U	0.0101		0.0226	+/-0.00455	0.050	pCi/g						
TH "Dry Weight Corrected"													
um-228	U	0.0354		0.158	+/-0.0303	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
um-230	U	0.00981		0.198	+/-0.0132	0.100	pCi/g						
um-232	U	-0.00151		0.0844	+/-0.0072	0.100	pCi/g						
J "Dry Weight Corrected"													
ium-233/234		2.64		0.181	+/-0.241	0.100	pCi/g		AYB1	04/02/10	1137	971197	6
ium-235/236		0.111		0.111	+/-0.0309	0.100	pCi/g						
ium-238		0.938		0.127	+/-0.106	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
icium-241	U	0.0325		0.129	+/-0.0425	0.200	pCi/g		MXR1	03/24/10	2051	962633	8
uth-211	UI	4.38	R,R5a	0.446	+/-0.313		pCi/g						
uth-214		1.33		0.164	+/-0.124	0.200	pCi/g						
ium-109	UI	2.23	R,R5a	1.32	+/-0.620		pCi/g						
m-139	U	-0.00662		0.0612	+/-0.0189	0.050	pCi/g						
m-134	U	0.103		0.125	+/-0.0343	0.100	pCi/g						
m-137	U	-0.0152		0.0861	+/-0.0274	0.100	pCi/g						
lt-60	U	0.0232		0.0843	+/-0.0247	0.100	pCi/g						
ium-152	U	-0.173		0.193	+/-0.0738	0.200	pCi/g						
anum-140	U	-0.0925		0.184	+/-0.0639		pCi/g						
-212		1.93		0.115	+/-0.126	0.100	pCi/g						
-214		1.59		0.157	+/-0.122	0.100	pCi/g						
ury-203	U	0.0419		0.0874	+/-0.0284	0.100	pCi/g						
sium-40		34.4		0.688	+/-1.52	1.00	pCi/g						
m-223	U	-0.341		1.34	+/-0.475		pCi/g						
m-224	UI	4.23	R,R5a	1.23	+/-0.775		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-12934
Sample ID: 248867003

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtc
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
m-226		1.33		0.164	+/-0.124		pCi/g						
m-228		1.58		0.362	+/-0.217	0.500	pCi/g						
nium-106	U	0.0737		0.724	+/-0.221	0.800	pCi/g						
m-22	U	0.0221		0.111	+/-0.0335	0.080	pCi/g						
tium-85	U	0.0868		0.0917	+/-0.0284		pCi/g						
ium-208		0.550		0.0839	+/-0.0536	0.080	pCi/g						
um-227	U	0.0341		0.546	+/-0.161		pCi/g						
um-231	U	-0.341		1.34	+/-0.475		pCi/g						
um-234	U	1.25		1.25	+/-0.621	2.00	pCi/g						
13	U	-0.00426		0.0962	+/-0.0292	0.100	pCi/g						
ium-235	UI	0.505	R,R5a	0.459	+/-0.139	0.500	pCi/g						
m-88	U	0.0354		0.0784	+/-0.0204	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
cium-243 Tracer	AM241 "Dry Weight Corrected"	82.6	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	80.9	(50%-105%)
m-229 Tracer	ISOTH "Dry Weight Corrected"	90.4	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	53.1	(50%-105%)

s:
J is calculated at the 67% confidence level (1-sigma).
: Qualifiers in this report are defined as follows :

Analyte is a surrogate compound
Result is less than value reported

P.S. 5/20/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-12933
Sample ID: 248867004
Matrix: S
Collect Date: 05-MAR-10
Receive Date: 06-MAR-10
Collector: Client
Moisture: 15.9%

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd
metric Solids													
Received"													
lpha Spec Analysis													
'41 "Dry Weight Corrected"													
icium-241	U	-0.000954		0.0245	+/-0.00206	0.050	pCi/g		AYB1	03/29/10	2146	965811	2
PU "Dry Weight Corrected"													
nium-238	U	0.00534		0.023	+/-0.0071	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
nium-239/240	U	0.00395		0.0195	+/-0.00326	0.050	pCi/g						
TH "Dry Weight Corrected"													
um-228		1.54		0.168	+/-0.156	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
um-230		0.916		0.210	+/-0.107	0.100	pCi/g						
um-232		1.25		0.0897	+/-0.133	0.100	pCi/g						
J "Dry Weight Corrected"													
ium-233/234		0.898		0.158	+/-0.098	0.100	pCi/g		AYB1	04/02/10	1137	971197	6
ium-235/236	U	0.0346		0.0965	+/-0.0157	0.100	pCi/g						
ium-238		0.840		0.111	+/-0.0933	0.100	pCi/g						
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
icium-241	U	-0.182		0.389	+/-0.116	0.200	pCi/g		MXR1	03/24/10	2258	962633	8
uth-211	UI	4.54	R,R5a	0.331	+/-0.308		pCi/g						
uth-214		1.39		0.103	+/-0.106	0.200	pCi/g						
ium-109	UI	4.47	R,R5a	1.28	+/-0.605		pCi/g						
m-139	U	-0.000485		0.0486	+/-0.0157	0.050	pCi/g						
m-134	UI	0.118	R,R5a	0.0806	+/-0.0249	0.100	pCi/g						
m-137	U	0.0108		0.0582	+/-0.0169	0.100	pCi/g						
lt-60	U	-0.0101		0.0577	+/-0.0184	0.100	pCi/g						
ium-152	U	-0.102		0.153	+/-0.0589	0.200	pCi/g						
anum-140	U	0.0727		0.158	+/-0.0483		pCi/g						
-212		1.98		0.0857	+/-0.131	0.100	pCi/g						
-214		1.65		0.117	+/-0.121	0.100	pCi/g						
ury-203	U	0.00444		0.0685	+/-0.0201	0.100	pCi/g						
sium-40		35.7		0.514	+/-1.92	1.00	pCi/g						
m-223	U	0.239		1.05	+/-0.353		pCi/g						
m-224	UI	4.58	R,R5a	0.918	+/-0.614		pCi/g						

P.S. 5/20/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-12933
Sample ID: 248867004

Project: LANL01004
Client ID: LANL010

meter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtc
Gamma Spec Analysis													
MA SPEC "Dry Weight Corrected"													
m-226		1.39		0.103	+/-0.106		pCi/g						
m-228		2.03		0.215	+/-0.194	0.500	pCi/g						
nium-106	U	0.0551		0.465	+/-0.142	0.800	pCi/g						
m-22	U	0.0322		0.0689	+/-0.0202	0.080	pCi/g						
tium-85	UI	0.188	R,R5a	0.0766	+/-0.0229		pCi/g						
ium-208		0.580		0.0535	+/-0.0476	0.080	pCi/g						
um-227	U	0.236		0.422	+/-0.121		pCi/g						
um-231	U	0.239		1.05	+/-0.353		pCi/g						
um-234	U	1.58		3.17	+/-0.940	2.00	pCi/g						
13	U	-0.0503		0.0708	+/-0.0224	0.100	pCi/g						
ium-235	U	0.0897		0.338	+/-0.105	0.500	pCi/g						
m-88	U	-0.0222		0.0348	+/-0.0127	0.100	pCi/g						

ollowing Analytical Methods were performed

od	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, Th-01-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

ogate/Tracer recovery	Test	Recovery%	Acceptable Limits
icium-243 Tracer	AM241 "Dry Weight Corrected"	72.4	(50%-105%)
ium-236 Tracer	ISOPU "Dry Weight Corrected"	82.4	(50%-105%)
m-229 Tracer	ISOTH "Dry Weight Corrected"	87.0	(50%-105%)
m-232 Tracer	ISOU "Dry Weight Corrected"	60.9	(50%-105%)

s:
J is calculated at the 67% confidence level (1-sigma).
: Qualifiers in this report are defined as follows :

Analyte is a surrogate compound
Result is less than value reported

P.S. 5/20/10

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2320C

REQUEST NUMBER: 10-2320

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248867 /.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-12931	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12931	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12931	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12932	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12932	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12932	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12934	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12934	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12934	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12933	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12933	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12933	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/5/10	5:00	Greg Tyler		3-6-10	0915
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Friday, March 05, 2010

REQUEST NUMBER: 10-2320

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-2320
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/5/2010
TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	HASL-300:AM-241	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	HASL-300:ISOPU	1	RE46-10-12931	S	3/5/2010	

Friday, March 05, 2010

REQUEST NUMBER: 10-2320

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOPU	1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	HASL-300:ISOTH	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	HASL-300:ISOU	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	SW-846:6010B	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	SW-846:8082	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	SW-846:8270C	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	SW-846:9012A	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	

Final Page of REQUEST NUMBER 10-2320

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

March 12, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 248867
SDG: 10-2320

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 06, 2010, and analyzed for GC Semivolatile PCB, GC/MS Semivolatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Valerie Davis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2320
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 248867
SDG: 10-2320

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 248867
SDG # : 10-2320

March 12, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 06, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 11C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
248867001	RE46-10-12931
248867002	RE46-10-12932
248867003	RE46-10-12934
248867004	RE46-10-12933

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile PCB, GC/MS Semivolatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Valerie Davis

Valerie Davis

Project Manager

List of current GEL Certifications as of 12 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2320C

REQUEST NUMBER: 10-2320

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

248867 /.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-12931	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12931	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12931	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12932	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12932	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12932	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12934	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12934	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12934	1	POLY	Metals+ClO4+CN	Ice	S
RE46-10-12933	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-12933	1	POLY	AM241+GS+ISOPU/TH/U	None	S
RE46-10-12933	1	POLY	Metals+ClO4+CN	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/5/10	8:00	Greg Tyler		3-6-10	0915
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Friday, March 05, 2010

REQUEST NUMBER: 10-2320

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-2320
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/5/2010
TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	HASL-300:AM-241	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	HASL-300:ISOPU	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	

Friday, March 05, 2010

REQUEST NUMBER: 10-2320

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOPU	1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	HASL-300:ISOTH	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	HASL-300:ISOU	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	SW-846:6010B	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	SW-846:8082	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	SW-846:8270C	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	
	SW-846:9012A	1	RE46-10-12931	S	3/5/2010	
		1	RE46-10-12932	S	3/5/2010	
		1	RE46-10-12933	S	3/5/2010	
		1	RE46-10-12934	S	3/5/2010	

Final Page of REQUEST NUMBER 10-2320

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2320**
Received By: Greg Tyler	**Date Received: 3/6/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **2,3,5C** **11C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:
7209 7850 3782 2C
7209 7850 3808 3C
7209 7850 3793 5C
7209 7850 3771 11C

PM (or PMA) review: Initials _____ Date 3/8/10

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05MAR10
ACTWGT: 31.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

2°

FedEx Express

SATURDAY ### A1
PRIORITY OVERNIGHT

3 of 3
MPS# 0263 7209 7850 3782
Matr# 7209 7850 3766 0201

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SC-US
CHS

X0 CHSA

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SATURDAY ### A1
PRIORITY OVERNIGHT

2 of 2
MPS# 0263 7209 7850 3808
Matr# 7209 7850 3793 0201

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SC-US
CHS

X0 CHSA

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SATURDAY ### A1
PRIORITY OVERNIGHT

1 of 2
TRK# 0201 7209 7850 3793
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LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

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TO VALERIE DAVIS
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SATURDAY ### A1
PRIORITY OVERNIGHT

2 of 3
MPS# 0263 7209 7850 3771
Matr# 7209 7850 3760 0201

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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2320

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	966400
Prep Batch Number:	966349

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
248867001	RE46-10-12931
248867002	RE46-10-12932
248867003	RE46-10-12934
248867004	RE46-10-12933
1202073901	Method Blank (MB)
1202073902	Laboratory Control Sample (LCS)
1202073903	249101002(RE16-10-3742) Matrix Spike (MS)
1202073904	249101002(RE16-10-3742) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various

calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
LCS 1202073902 failed spike recovery limits for Benzyl alcohol at 21% (SPC limits: 27%-108%). Benzyl alcohol accounted for less than 5% of the total number of requested spike analytes. That satisfied the clients acceptance criteria and the data were reported.

QC Sample Designation
The non-SDG sample 249101002 (RE16-10-3742) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
The MS(1202073903) and MSD(1202073904) both recovered Benzyl alcohol at 0% (SPC limits: 19%-112%). Therefore, the failure was attributed to sample matrix interference.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD failed recovery limits for multiple spiking analytes not confirmed by the MS, resulting in multiple RPD failures. As the LCS and MS met acceptance criteria, these failures were attributed to random laboratory error limited to the MSD. The data have been reported.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent differences (RPD) were not within the acceptance limits. The failures were attributed to random laboratory error (see the MSD recovery statement above).

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 810232. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the

analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD7.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Beachamp **Date:** 4-1-10

Roadmap for LANL 10-2320 SVOA

This roadmap was analyzed by jos00786 on 03-26-2010, 14:40.
This roadmap was reviewed by bar00895 on 03-29-2010, 14:34.
This roadmap was packaged by CHA01131 on 03-30-2010, 14:54.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD7.i/s032410a.b/s7c2428.d	248867003	24-MAR-2010	21:08	10-2320.sub	RE46-10-12934	1	966400	
■	N	/chem/MSD7.i/s032410a.b/s7c2429.d	248867004	24-MAR-2010	21:30	10-2320.sub	RE46-10-12933	1	966400	DUSE: see rerun s7c2523
■	N	/chem/MSD7.i/s032410a.b/s7c2434.d	248867001	24-MAR-2010	23:18	10-2320.sub	RE46-10-12931DL	10	966400	DUSE: see s7c2436
■	N	/chem/MSD7.i/s032410a.b/s7c2435.d	248867002	24-MAR-2010	23:39	10-2320.sub	RE46-10-12932DL	10	966400	DUSE: see s7c2438
☐	N	/chem/MSD7.i/s032410a.b/s7c2436.d	248867001	25-MAR-2010	00:01	10-2320.sub	RE46-10-12931	1	966400	
☐	N	/chem/MSD7.i/s032410a.b/s7c2438.d	248867002	25-MAR-2010	00:44	10-2320.sub	RE46-10-12932	1	966400	
■	N	/chem/MSD7.i/s032410a.b/s7c2440.d	248867001	25-MAR-2010	01:27	10-2320.sub	RE46-10-12931	1	966400	DUSE: see s7c2436
■	N	/chem/MSD7.i/s032410a.b/s7c2442.d	248867002	25-MAR-2010	02:10	10-2320.sub	RE46-10-12932	1	966400	DUSE: see s7c2438
■	N	/chem/MSD7.i/s032510.b/s7c2522.d	248867003	25-MAR-2010	19:56	10-2320.sub	RE46-10-12934	1	966400	DUSE: rerun not needed - see s7c2428
☐	N	/chem/MSD7.i/s032510.b/s7c2523.d	248867004	25-MAR-2010	20:18	10-2320.sub	RE46-10-12933	1	966400	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD7.i/s032410a.b/s7c2414-1.d	1202073901	mb	24-MAR-2010	16:06	10-2320.sub	SBLK01	1	966400	
☐	N	/chem/MSD7.i/s032410a.b/s7c2415-1.d	1202073902	lcs	24-MAR-2010	16:28	10-2320.sub	SBLK01LCS	1	966400	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2320	**Date Collected:**	03/05/2010 12:00	**Matrix:**	S
Lab Sample ID:	248867001	**Date Received:**	03/06/2010 09:15	**%Moisture:**	18.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12931	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966400	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/25/2010 00:01	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 21:03	**Aliquot:**	30.15 g	**Final Volume:**	1 mL
Data File:	s7c2436.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	409	ug/kg	81.7	409
108-95-2	Phenol	U	409	ug/kg	81.7	409
95-57-8	2-Chlorophenol	U	409	ug/kg	81.7	409
106-46-7	1,4-Dichlorobenzene	U	409	ug/kg	81.7	409
621-64-7	N-Nitrosodipropylamine	U	409	ug/kg	81.7	409
59-50-7	4-Chloro-3-methylphenol	U	409	ug/kg	81.7	409
83-32-9	Acenaphthene	U	40.9	ug/kg	13.5	40.9
121-14-2	2,4-Dinitrotoluene	U	409	ug/kg	40.9	409
100-02-7	4-Nitrophenol	U	409	ug/kg	135	409
87-86-5	Pentachlorophenol	U	409	ug/kg	102	409
129-00-0	Pyrene		195	ug/kg	12.3	40.9
110-86-1	Pyridine	U	409	ug/kg	81.7	409
62-53-3	Aniline	U	409	ug/kg	123	409
111-44-4	bis(2-Chloroethyl) ether	U	409	ug/kg	81.7	409
541-73-1	1,3-Dichlorobenzene	U	409	ug/kg	81.7	409
100-51-6	Benzyl alcohol	U	409	ug/kg	123	409
95-50-1	1,2-Dichlorobenzene	U	409	ug/kg	81.7	409
108-60-1	bis(2-Chloroisopropyl)ether	U	409	ug/kg	81.7	409
95-48-7	o-Cresol	U	409	ug/kg	81.7	409
65794-96-9	m,p-Cresols	U	409	ug/kg	123	409
67-72-1	Hexachloroethane	U	409	ug/kg	81.7	409
98-95-3	Nitrobenzene	U	409	ug/kg	81.7	409
78-59-1	Isophorone	U	409	ug/kg	81.7	409
88-75-5	2-Nitrophenol	U	409	ug/kg	81.7	409
105-67-9	2,4-Dimethylphenol	U	409	ug/kg	143	409
111-91-1	bis(2-Chloroethoxy)methane	U	409	ug/kg	81.7	409
120-83-2	2,4-Dichlorophenol	U	409	ug/kg	81.7	409
65-85-0	Benzoic acid	U	817	ug/kg	204	817
91-20-3	Naphthalene	U	40.9	ug/kg	12.3	40.9
106-47-8	4-Chloroaniline	U	409	ug/kg	81.7	409
87-68-3	Hexachlorobutadiene	U	409	ug/kg	81.7	409
91-57-6	2-Methylnaphthalene	U	40.9	ug/kg	8.17	40.9
77-47-4	Hexachlorocyclopentadiene	U	409	ug/kg	81.7	409
88-06-2	2,4,6-Trichlorophenol	U	409	ug/kg	81.7	409
95-95-4	2,4,5-Trichlorophenol	U	409	ug/kg	81.7	409
91-58-7	2-Chloronaphthalene	U	40.9	ug/kg	13.5	40.9
88-74-4	2-Nitroaniline	U	409	ug/kg	81.7	409
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	409	ug/kg	81.7	409

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12931**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 00:01**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2436.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	409	ug/kg	81.7	409
606-20-2	2,6-Dinitrotoluene	U	409	ug/kg	40.9	409
208-96-8	Acenaphthylene	U	40.9	ug/kg	12.3	40.9
51-28-5	2,4-Dinitrophenol	U	817	ug/kg	155	817
132-64-9	Dibenzofuran	U	409	ug/kg	81.7	409
84-66-2	Diethylphthalate	U	409	ug/kg	81.7	409
86-73-7	Fluorene	U	40.9	ug/kg	12.3	40.9
7005-72-3	4-Chlorophenylphenylether	U	409	ug/kg	81.7	409
534-52-1	2-Methyl-4,6-dinitrophenol	U	409	ug/kg	81.7	409
100-01-6	4-Nitroaniline	U	409	ug/kg	123	409
	p-Nitroaniline					
122-39-4	Diphenylamine	U	409	ug/kg	81.7	409
122-66-7	Azobenzene	U	409	ug/kg	81.7	409
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	409	ug/kg	81.7	409
118-74-1	Hexachlorobenzene	U	409	ug/kg	81.7	409
85-01-8	Phenanthrene		123	ug/kg	12.3	40.9
120-12-7	Anthracene	J	26.4	ug/kg	8.17	40.9
84-74-2	Di-n-butylphthalate	U	409	ug/kg	81.7	409
206-44-0	Fluoranthene		204	ug/kg	12.3	40.9
85-68-7	Butylbenzylphthalate	U	409	ug/kg	81.7	409
56-55-3	Benzo(a)anthracene		104	ug/kg	12.3	40.9
91-94-1	3,3'-Dichlorobenzidine	U	409	ug/kg	123	409
218-01-9	Chrysene		103	ug/kg	12.3	40.9
117-81-7	bis(2-Ethylhexyl)phthalate	J	149	ug/kg	81.7	409
117-84-0	Di-n-octylphthalate	U	409	ug/kg	81.7	409
205-99-2	Benzo(b)fluoranthene		180	ug/kg	12.3	40.9
207-08-9	Benzo(k)fluoranthene	U	40.9	ug/kg	12.3	40.9
50-32-8	Benzo(a)pyrene		101	ug/kg	12.3	40.9
193-39-5	Indeno(1,2,3-cd)pyrene		46.9	ug/kg	12.3	40.9
53-70-3	Dibenzo(a,h)anthracene	J	18.0	ug/kg	12.3	40.9
191-24-2	Benzo(ghi)perylene		58.7	ug/kg	12.3	40.9
120-82-1	1,2,4-Trichlorobenzene	U	409	ug/kg	81.7	409

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.21	478	ug/kg		J
	Unknown Aldol Condensate	2.86	445	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12931**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 00:01**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2436.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
80-56-8	.alpha.-Pinene	3.4	214	ug/kg	97	NJ
13466-78-9	3-Carene	3.78	336	ug/kg	96	NJ
	Unknown	6.92	257	ug/kg		J
301-02-0	9-Octadecenamide, (Z)-	8.9	270	ug/kg	93	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12932**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 00:44**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2438.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	402	ug/kg	80.3	402
108-95-2	Phenol	U	402	ug/kg	80.3	402
95-57-8	2-Chlorophenol	U	402	ug/kg	80.3	402
106-46-7	1,4-Dichlorobenzene	U	402	ug/kg	80.3	402
621-64-7	N-Nitrosodipropylamine	U	402	ug/kg	80.3	402
59-50-7	4-Chloro-3-methylphenol	U	402	ug/kg	80.3	402
83-32-9	Acenaphthene	U	40.2	ug/kg	13.3	40.2
121-14-2	2,4-Dinitrotoluene	U	402	ug/kg	40.2	402
100-02-7	4-Nitrophenol	U	402	ug/kg	133	402
87-86-5	Pentachlorophenol	U	402	ug/kg	100	402
129-00-0	Pyrene		89.7	ug/kg	12.0	40.2
110-86-1	Pyridine	U	402	ug/kg	80.3	402
62-53-3	Aniline	U	402	ug/kg	120	402
111-44-4	bis(2-Chloroethyl) ether	U	402	ug/kg	80.3	402
541-73-1	1,3-Dichlorobenzene	U	402	ug/kg	80.3	402
100-51-6	Benzyl alcohol	U	402	ug/kg	120	402
95-50-1	1,2-Dichlorobenzene	U	402	ug/kg	80.3	402
108-60-1	bis(2-Chloroisopropyl)ether	U	402	ug/kg	80.3	402
95-48-7	o-Cresol	U	402	ug/kg	80.3	402
65794-96-9	m,p-Cresols	U	402	ug/kg	120	402
67-72-1	Hexachloroethane	U	402	ug/kg	80.3	402
98-95-3	Nitrobenzene	U	402	ug/kg	80.3	402
78-59-1	Isophorone	U	402	ug/kg	80.3	402
88-75-5	2-Nitrophenol	U	402	ug/kg	80.3	402
105-67-9	2,4-Dimethylphenol	U	402	ug/kg	141	402
111-91-1	bis(2-Chloroethoxy)methane	U	402	ug/kg	80.3	402
120-83-2	2,4-Dichlorophenol	U	402	ug/kg	80.3	402
65-85-0	Benzoic acid	U	803	ug/kg	201	803
91-20-3	Naphthalene	U	40.2	ug/kg	12.0	40.2
106-47-8	4-Chloroaniline	U	402	ug/kg	80.3	402
87-68-3	Hexachlorobutadiene	U	402	ug/kg	80.3	402
91-57-6	2-Methylnaphthalene	U	40.2	ug/kg	8.03	40.2
77-47-4	Hexachlorocyclopentadiene	U	402	ug/kg	80.3	402
88-06-2	2,4,6-Trichlorophenol	U	402	ug/kg	80.3	402
95-95-4	2,4,5-Trichlorophenol	U	402	ug/kg	80.3	402
91-58-7	2-Chloronaphthalene	U	40.2	ug/kg	13.3	40.2
88-74-4	2-Nitroaniline	U	402	ug/kg	80.3	402
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	402	ug/kg	80.3	402

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12932**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 00:44**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2438.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	402	ug/kg	80.3	402
606-20-2	2,6-Dinitrotoluene	U	402	ug/kg	40.2	402
208-96-8	Acenaphthylene	U	40.2	ug/kg	12.0	40.2
51-28-5	2,4-Dinitrophenol	U	803	ug/kg	153	803
132-64-9	Dibenzofuran	U	402	ug/kg	80.3	402
84-66-2	Diethylphthalate	U	402	ug/kg	80.3	402
86-73-7	Fluorene	U	40.2	ug/kg	12.0	40.2
7005-72-3	4-Chlorophenylphenylether	U	402	ug/kg	80.3	402
534-52-1	2-Methyl-4,6-dinitrophenol	U	402	ug/kg	80.3	402
100-01-6	4-Nitroaniline	U	402	ug/kg	120	402
	p-Nitroaniline					
122-39-4	Diphenylamine	U	402	ug/kg	80.3	402
122-66-7	Azobenzene	U	402	ug/kg	80.3	402
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	402	ug/kg	80.3	402
118-74-1	Hexachlorobenzene	U	402	ug/kg	80.3	402
85-01-8	Phenanthrene		54.4	ug/kg	12.0	40.2
120-12-7	Anthracene	J	14.2	ug/kg	8.03	40.2
84-74-2	Di-n-butylphthalate	U	402	ug/kg	80.3	402
206-44-0	Fluoranthene		90.5	ug/kg	12.0	40.2
85-68-7	Butylbenzylphthalate	U	402	ug/kg	80.3	402
56-55-3	Benzo(a)anthracene		48.4	ug/kg	12.0	40.2
91-94-1	3,3'-Dichlorobenzidine	U	402	ug/kg	120	402
218-01-9	Chrysene		43.5	ug/kg	12.0	40.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	402	ug/kg	80.3	402
117-84-0	Di-n-octylphthalate	U	402	ug/kg	80.3	402
205-99-2	Benzo(b)fluoranthene		59.9	ug/kg	12.0	40.2
207-08-9	Benzo(k)fluoranthene	J	22.9	ug/kg	12.0	40.2
50-32-8	Benzo(a)pyrene		42.4	ug/kg	12.0	40.2
193-39-5	Indeno(1,2,3-cd)pyrene	J	22.0	ug/kg	12.0	40.2
53-70-3	Dibenzo(a,h)anthracene	U	40.2	ug/kg	12.0	40.2
191-24-2	Benzo(ghi)perylene	J	26.1	ug/kg	12.0	40.2
120-82-1	1,2,4-Trichlorobenzene	U	402	ug/kg	80.3	402

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.86	517	ug/kg		J
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.67	331	ug/kg	99	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2320	**Date Collected:**	03/05/2010 12:00	**Matrix:**	S
Lab Sample ID:	248867002	**Date Received:**	03/06/2010 09:15	**%Moisture:**	17.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12932	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966400	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/25/2010 00:44	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 21:03	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	s7c2438.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
301-02-0	9-Octadecenamide, (Z)-	8.89	285	ug/kg	95	NJ
	Unknown	10.49	2530	ug/kg		J
	Unknown	12.9	255	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**15.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12933**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 20:18**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2523.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	395	ug/kg	79.0	395
108-95-2	Phenol	U	395	ug/kg	79.0	395
95-57-8	2-Chlorophenol	U	395	ug/kg	79.0	395
106-46-7	1,4-Dichlorobenzene	U	395	ug/kg	79.0	395
621-64-7	N-Nitrosodipropylamine	U	395	ug/kg	79.0	395
59-50-7	4-Chloro-3-methylphenol	U	395	ug/kg	79.0	395
83-32-9	Acenaphthene	U	39.5	ug/kg	13.0	39.5
121-14-2	2,4-Dinitrotoluene	U	395	ug/kg	39.5	395
100-02-7	4-Nitrophenol	U	395	ug/kg	130	395
87-86-5	Pentachlorophenol	U	395	ug/kg	98.8	395
129-00-0	Pyrene	J	18.2	ug/kg	11.9	39.5
110-86-1	Pyridine	U	395	ug/kg	79.0	395
62-53-3	Aniline	U	395	ug/kg	119	395
111-44-4	bis(2-Chloroethyl) ether	U	395	ug/kg	79.0	395
541-73-1	1,3-Dichlorobenzene	U	395	ug/kg	79.0	395
100-51-6	Benzyl alcohol	U	395	ug/kg	119	395
95-50-1	1,2-Dichlorobenzene	U	395	ug/kg	79.0	395
108-60-1	bis(2-Chloroisopropyl)ether	U	395	ug/kg	79.0	395
95-48-7	o-Cresol	U	395	ug/kg	79.0	395
65794-96-9	m,p-Cresols	U	395	ug/kg	119	395
67-72-1	Hexachloroethane	U	395	ug/kg	79.0	395
98-95-3	Nitrobenzene	U	395	ug/kg	79.0	395
78-59-1	Isophorone	U	395	ug/kg	79.0	395
88-75-5	2-Nitrophenol	U	395	ug/kg	79.0	395
105-67-9	2,4-Dimethylphenol	U	395	ug/kg	138	395
111-91-1	bis(2-Chloroethoxy)methane	U	395	ug/kg	79.0	395
120-83-2	2,4-Dichlorophenol	U	395	ug/kg	79.0	395
65-85-0	Benzoic acid	U	790	ug/kg	198	790
91-20-3	Naphthalene	U	39.5	ug/kg	11.9	39.5
106-47-8	4-Chloroaniline	U	395	ug/kg	79.0	395
87-68-3	Hexachlorobutadiene	U	395	ug/kg	79.0	395
91-57-6	2-Methylnaphthalene	U	39.5	ug/kg	7.90	39.5
77-47-4	Hexachlorocyclopentadiene	U	395	ug/kg	79.0	395
88-06-2	2,4,6-Trichlorophenol	U	395	ug/kg	79.0	395
95-95-4	2,4,5-Trichlorophenol	U	395	ug/kg	79.0	395
91-58-7	2-Chloronaphthalene	U	39.5	ug/kg	13.0	39.5
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	395	ug/kg	79.0	395
99-09-2	3-Nitroaniline	U	395	ug/kg	79.0	395

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**15.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12933**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 20:18**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2523.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	395	ug/kg	79.0	395
606-20-2	2,6-Dinitrotoluene	U	395	ug/kg	39.5	395
208-96-8	Acenaphthylene	U	39.5	ug/kg	11.9	39.5
51-28-5	2,4-Dinitrophenol	U	790	ug/kg	150	790
132-64-9	Dibenzofuran	U	395	ug/kg	79.0	395
84-66-2	Diethylphthalate	U	395	ug/kg	79.0	395
86-73-7	Fluorene	U	39.5	ug/kg	11.9	39.5
7005-72-3	4-Chlorophenylphenylether	U	395	ug/kg	79.0	395
534-52-1	2-Methyl-4,6-dinitrophenol	U	395	ug/kg	79.0	395
100-01-6	4-Nitroaniline	U	395	ug/kg	119	395
	p-Nitroaniline					
122-39-4	Diphenylamine	U	395	ug/kg	79.0	395
122-66-7	Azobenzene	U	395	ug/kg	79.0	395
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	395	ug/kg	79.0	395
118-74-1	Hexachlorobenzene	U	395	ug/kg	79.0	395
85-01-8	Phenanthrene	J	14.4	ug/kg	11.9	39.5
120-12-7	Anthracene	U	39.5	ug/kg	7.90	39.5
84-74-2	Di-n-butylphthalate	U	395	ug/kg	79.0	395
206-44-0	Fluoranthene	J	22.4	ug/kg	11.9	39.5
85-68-7	Butylbenzylphthalate	U	395	ug/kg	79.0	395
56-55-3	Benzo(a)anthracene	J	15.7	ug/kg	11.9	39.5
91-94-1	3,3'-Dichlorobenzidine	U	395	ug/kg	119	395
218-01-9	Chrysene	U	39.5	ug/kg	11.9	39.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	395	ug/kg	79.0	395
117-84-0	Di-n-octylphthalate	U	395	ug/kg	79.0	395
205-99-2	Benzo(b)fluoranthene	J	15.2	ug/kg	11.9	39.5
207-08-9	Benzo(k)fluoranthene	U	39.5	ug/kg	11.9	39.5
50-32-8	Benzo(a)pyrene	U	39.5	ug/kg	11.9	39.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.5	ug/kg	11.9	39.5
53-70-3	Dibenzo(a,h)anthracene	U	39.5	ug/kg	11.9	39.5
191-24-2	Benzo(ghi)perylene	U	39.5	ug/kg	11.9	39.5
120-82-1	1,2,4-Trichlorobenzene	U	395	ug/kg	79.0	395

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.88	464	ug/kg		J
	Unknown	8.91	234	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**15.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12934**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 21:08**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2428.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	394	ug/kg	78.8	394
108-95-2	Phenol	U	394	ug/kg	78.8	394
95-57-8	2-Chlorophenol	U	394	ug/kg	78.8	394
106-46-7	1,4-Dichlorobenzene	U	394	ug/kg	78.8	394
621-64-7	N-Nitrosodipropylamine	U	394	ug/kg	78.8	394
59-50-7	4-Chloro-3-methylphenol	U	394	ug/kg	78.8	394
83-32-9	Acenaphthene	U	39.4	ug/kg	13.0	39.4
121-14-2	2,4-Dinitrotoluene	U	394	ug/kg	39.4	394
100-02-7	4-Nitrophenol	U	394	ug/kg	130	394
87-86-5	Pentachlorophenol	U	394	ug/kg	98.5	394
129-00-0	Pyrene	U	39.4	ug/kg	11.8	39.4
110-86-1	Pyridine	U	394	ug/kg	78.8	394
62-53-3	Aniline	U	394	ug/kg	118	394
111-44-4	bis(2-Chloroethyl) ether	U	394	ug/kg	78.8	394
541-73-1	1,3-Dichlorobenzene	U	394	ug/kg	78.8	394
100-51-6	Benzyl alcohol	U	394	ug/kg	118	394
95-50-1	1,2-Dichlorobenzene	U	394	ug/kg	78.8	394
108-60-1	bis(2-Chloroisopropyl)ether	U	394	ug/kg	78.8	394
95-48-7	o-Cresol	U	394	ug/kg	78.8	394
65794-96-9	m,p-Cresols	U	394	ug/kg	118	394
67-72-1	Hexachloroethane	U	394	ug/kg	78.8	394
98-95-3	Nitrobenzene	U	394	ug/kg	78.8	394
78-59-1	Isophorone	U	394	ug/kg	78.8	394
88-75-5	2-Nitrophenol	U	394	ug/kg	78.8	394
105-67-9	2,4-Dimethylphenol	U	394	ug/kg	138	394
111-91-1	bis(2-Chloroethoxy)methane	U	394	ug/kg	78.8	394
120-83-2	2,4-Dichlorophenol	U	394	ug/kg	78.8	394
65-85-0	Benzoic acid	U	788	ug/kg	197	788
91-20-3	Naphthalene	U	39.4	ug/kg	11.8	39.4
106-47-8	4-Chloroaniline	U	394	ug/kg	78.8	394
87-68-3	Hexachlorobutadiene	U	394	ug/kg	78.8	394
91-57-6	2-Methylnaphthalene	U	39.4	ug/kg	7.88	39.4
77-47-4	Hexachlorocyclopentadiene	U	394	ug/kg	78.8	394
88-06-2	2,4,6-Trichlorophenol	U	394	ug/kg	78.8	394
95-95-4	2,4,5-Trichlorophenol	U	394	ug/kg	78.8	394
91-58-7	2-Chloronaphthalene	U	39.4	ug/kg	13.0	39.4
88-74-4	2-Nitroaniline	U	394	ug/kg	78.8	394
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	394	ug/kg	78.8	394

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**15.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12934**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 21:08**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2428.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	394	ug/kg	78.8	394
606-20-2	2,6-Dinitrotoluene	U	394	ug/kg	39.4	394
208-96-8	Acenaphthylene	U	39.4	ug/kg	11.8	39.4
51-28-5	2,4-Dinitrophenol	U	788	ug/kg	150	788
132-64-9	Dibenzofuran	U	394	ug/kg	78.8	394
84-66-2	Diethylphthalate	U	394	ug/kg	78.8	394
86-73-7	Fluorene	U	39.4	ug/kg	11.8	39.4
7005-72-3	4-Chlorophenylphenylether	U	394	ug/kg	78.8	394
534-52-1	2-Methyl-4,6-dinitrophenol	U	394	ug/kg	78.8	394
100-01-6	4-Nitroaniline	U	394	ug/kg	118	394
	p-Nitroaniline					
122-39-4	Diphenylamine	U	394	ug/kg	78.8	394
122-66-7	Azobenzene	U	394	ug/kg	78.8	394
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	394	ug/kg	78.8	394
118-74-1	Hexachlorobenzene	U	394	ug/kg	78.8	394
85-01-8	Phenanthrene	U	39.4	ug/kg	11.8	39.4
120-12-7	Anthracene	U	39.4	ug/kg	7.88	39.4
84-74-2	Di-n-butylphthalate	U	394	ug/kg	78.8	394
206-44-0	Fluoranthene	U	39.4	ug/kg	11.8	39.4
85-68-7	Butylbenzylphthalate	U	394	ug/kg	78.8	394
56-55-3	Benzo(a)anthracene	U	39.4	ug/kg	11.8	39.4
91-94-1	3,3'-Dichlorobenzidine	U	394	ug/kg	118	394
218-01-9	Chrysene	U	39.4	ug/kg	11.8	39.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	394	ug/kg	78.8	394
117-84-0	Di-n-octylphthalate	U	394	ug/kg	78.8	394
205-99-2	Benzo(b)fluoranthene	U	39.4	ug/kg	11.8	39.4
207-08-9	Benzo(k)fluoranthene	U	39.4	ug/kg	11.8	39.4
50-32-8	Benzo(a)pyrene	U	39.4	ug/kg	11.8	39.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.4	ug/kg	11.8	39.4
53-70-3	Dibenzo(a,h)anthracene	U	39.4	ug/kg	11.8	39.4
191-24-2	Benzo(ghi)perylene	U	39.4	ug/kg	11.8	39.4
120-82-1	1,2,4-Trichlorobenzene	U	394	ug/kg	78.8	394

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.86	329	ug/kg		J
4630-07-3	Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	5.67	256	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2320	**Date Collected:**	03/05/2010 12:00	**Matrix:**	S
Lab Sample ID:	248867003	**Date Received:**	03/06/2010 09:15	**%Moisture:**	15.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12934	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966400	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/24/2010 21:08	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 21:03	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s7c2428.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
301-02-0	9-Octadecenamide, (Z)-	8.89	263	ug/kg	84	NJ

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-2320

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202073901	MB for batch 966349	66	63	70	77	76	94
1202073902	LCS for batch 966349	71	69	73	75	88	92
248867003	RE46-10-12934	54	44	62	72	53	84
248867001	RE46-10-12931	49	45	55	60	46	68
248867002	RE46-10-12932	51	47	58	65	56	81
248867004	RE46-10-12933	53	49	61	67	69	77

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(29%-99%)
PHL	=	Phenol-d5	(33%-98%)
NBZ	=	Nitrobenzene-d5	(31%-105%)
FBP	=	2-Fluorobiphenyl	(25%-109%)
TBP	=	2,4,6-Tribromophenol	(37%-106%)
TPH	=	p-Terphenyl-d14	(13%-150%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2320
Client ID: LCS for batch 966349
Lab Sample ID: 1202073902
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/24/2010 16:28
Prep Batch ID: 966349
Batch ID: 966400
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	910	55	22-114
108-95-2	LCS	Phenol	1670	0.0	1130	68	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1300	78	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1220	73	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1240	75	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1230	74	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	1330	80	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1360	81	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	1160	69	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	1540	93	27-116
129-00-0	LCS	Pyrene	1670	0.0	1310	79	42-113
110-86-1	LCS	Pyridine	1670	0.0	962	58	8-125
62-53-3	LCS	Aniline	1670	0.0	978	59	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1020	61	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1130	68	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	358	21 *	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1250	75	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1130	68	28-117
95-48-7	LCS	o-Cresol	1670	0.0	1230	74	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1460	87	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	1180	71	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	1260	75	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2320
Client ID: LCS for batch 966349
Lab Sample ID: 1202073902
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/24/2010 16:28
Prep Batch ID 966349
Batch ID: 966400
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1140	68	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	1280	77	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	932	56	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1120	67	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1250	75	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	2970	89	22-138
91-20-3	LCS	Naphthalene	1670	0.0	1210	73	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	1030	62	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1360	81	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1240	74	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1040	63	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1380	83	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1540	93	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1190	72	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1200	72	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1190	71	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	1440	87	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1340	81	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	1300	78	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1540	92	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	1330	80	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	1560	94	51-126

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2320
Client ID: LCS for batch 966349
Lab Sample ID: 1202073902
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/24/2010 16:28
Prep Batch ID: 966349
Batch ID: 966400
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1370	82	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1400	84	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1400	84	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1460	87	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	1300	78	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1350	81	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1360	81	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1300	78	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	1330	80	46-107
120-12-7	LCS	Anthracene	1670	0.0	1320	79	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1500	90	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1360	82	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1430	86	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1270	76	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1320	79	36-103
218-01-9	LCS	Chrysene	1670	0.0	1380	83	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1430	86	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1370	82	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1290	78	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1430	86	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1400	84	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1760	106	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2320
Client ID: LCS for batch 966349
Lab Sample ID: 1202073902
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/24/2010 16:28
Dilution: 1
Prep Batch ID: 966349
Batch ID: 966400

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1840	111	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1690	102	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1220	73	32-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2320
Client ID: RE16-10-3742MS
Lab Sample ID: 1202073903
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 2.5
Analysis Date: 03/25/2010 18:29
Prep Batch ID 966349
Batch ID: 966400

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1700	0.00	U	686	40	27-98
108-95-2	MS	Phenol	1700	0.00	U	874	51	33-94
95-57-8	MS	2-Chlorophenol	1700	0.00	U	1010	59	29-96
106-46-7	MS	1,4-Dichlorobenzene	1700	0.00	U	945	55	27-96
621-64-7	MS	N-Nitrosodipropylamine	1700	0.00	U	1000	59	29-102
59-50-7	MS	4-Chloro-3-methylphenol	1700	0.00	U	1030	61	29-110
83-32-9	MS	Acenaphthene	1700	0.00	U	1090	64	17-109
121-14-2	MS	2,4-Dinitrotoluene	1700	0.00	U	1080	64	33-107
100-02-7	MS	4-Nitrophenol	1700	0.00	U	743	44	15-110
87-86-5	MS	Pentachlorophenol	1700	0.00	U	997	59	23-110
129-00-0	MS	Pyrene	1700	0.00	U	946	56	24-118
110-86-1	MS	Pyridine	1700	0.00	U	677	40	25-102
62-53-3	MS	Aniline	1700	0.00	U	707	42	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	1700	0.00	U	805	47	29-96
541-73-1	MS	1,3-Dichlorobenzene	1700	0.00	U	889	52	26-97
100-51-6	MS	Benzyl alcohol	1700	0.00	U	0.00	0 *	19-112
95-50-1	MS	1,2-Dichlorobenzene	1700	0.00	U	977	57	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	1700	0.00	U	888	52	28-103
95-48-7	MS	o-Cresol	1700	0.00	U	999	59	32-107
65794-96-9	MS	m,p-Cresols	1700	0.00	U	1040	61	33-115
67-72-1	MS	Hexachloroethane	1700	0.00	U	958	56	25-100
98-95-3	MS	Nitrobenzene	1700	0.00	U	1060	62	27-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	10-2320	**Sample Type:**	Matrix Spike
Client ID:	RE16-10-3742MS	**Matrix:**	S
Lab Sample ID:	1202073903	**%Moisture:**	2.5
Instrument:	MSD7.I	**Analysis Date:**	03/25/2010 18:29
Analyst:	JMB3	**Prep Batch ID:**	966349
Inj. Vol:	.5 uL	**Batch ID:**	966400

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1700	0.00	U	955	56	29-104
88-75-5	MS	2-Nitrophenol	1700	0.00	U	1050	62	26-102
105-67-9	MS	2,4-Dimethylphenol	1700	0.00	U	784	46	22-104
111-91-1	MS	bis(2-Chloroethoxy)methane	1700	0.00	U	907	53	27-101
120-83-2	MS	2,4-Dichlorophenol	1700	0.00	U	1030	60	26-103
65-85-0	MS	Benzoic acid	3410	0.00	U	1850	54	13-131
91-20-3	MS	Naphthalene	1700	0.00	U	1000	59	23-103
106-47-8	MS	4-Chloroaniline	1700	0.00	U	866	51	26-103
87-68-3	MS	Hexachlorobutadiene	1700	0.00	U	1100	65	28-101
91-57-6	MS	2-Methylnaphthalene	1700	0.00	U	1030	60	27-106
77-47-4	MS	Hexachlorocyclopentadiene	1700	0.00	U	844	50	24-117
88-06-2	MS	2,4,6-Trichlorophenol	1700	0.00	U	1090	64	26-105
95-95-4	MS	2,4,5-Trichlorophenol	1700	0.00	U	1260	74	30-110
91-58-7	MS	2-Chloronaphthalene	1700	0.00	U	997	59	28-102
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1700	0.00	U	1010	60	33-106
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1700	0.00	U	980	58	33-116
131-11-3	MS	Dimethylphthalate	1700	0.00	U	1180	69	38-113
606-20-2	MS	2,6-Dinitrotoluene	1700	0.00	U	1090	64	29-107
208-96-8	MS	Acenaphthylene	1700	0.00	U	1090	64	25-108
51-28-5	MS	2,4-Dinitrophenol	1700	0.00	U	931	55	14-102
132-64-9	MS	Dibenzofuran	1700	0.00	U	1110	65	35-112
84-66-2	MS	Diethylphthalate	1700	0.00	U	1270	75	36-122

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2320
Client ID: RE16-10-3742MS
Lab Sample ID: 1202073903
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 2.5
Analysis Date: 03/25/2010 18:29
Prep Batch ID 966349
Batch ID: 966400

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1700	0.00	U	1140	67	33-105
7005-72-3	MS	4-Chlorophenylphenylether	1700	0.00	U	1160	68	30-110
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1700	0.00	U	976	57	26-97
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1700	0.00	U	1210	71	28-135
122-39-4	MS	Diphenylamine	1700	0.00	U	1060	62	33-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1700	0.00	U	1140	67	31-113
101-55-3	MS	4-Bromophenylphenylether	1700	0.00	U	1120	66	31-109
118-74-1	MS	Hexachlorobenzene	1700	0.00	U	1060	62	37-99
85-01-8	MS	Phenanthrene	1700	0.00	U	1100	65	29-109
120-12-7	MS	Anthracene	1700	0.00	U	1080	63	19-118
84-74-2	MS	Di-n-butylphthalate	1700	0.00	U	1220	71	39-123
206-44-0	MS	Fluoranthene	1700	0.00	U	1140	67	33-114
85-68-7	MS	Butylbenzylphthalate	1700	0.00	U	1080	64	35-131
56-55-3	MS	Benzo(a)anthracene	1700	0.00	U	1020	60	30-111
91-94-1	MS	3,3'-Dichlorobenzidine	1700	0.00	U	1020	60	30-124
218-01-9	MS	Chrysene	1700	0.00	U	1040	61	32-108
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1700	0.00	U	1150	68	37-129
117-84-0	MS	Di-n-octylphthalate	1700	0.00	U	1170	69	31-143
205-99-2	MS	Benzo(b)fluoranthene	1700	0.00	U	1090	64	29-118
207-08-9	MS	Benzo(k)fluoranthene	1700	0.00	U	1180	70	32-118
50-32-8	MS	Benzo(a)pyrene	1700	0.00	U	1130	67	33-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1700	0.00	U	1150	68	29-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2320
Client ID: RE16-10-3742MS
Lab Sample ID: 1202073903
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 2.5
Analysis Date: 03/25/2010 18:29
Prep Batch ID: 966349
Batch ID: 966400

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1700	0.00	U	1190	70	27-119
191-24-2	MS	Benzo(ghi)perylene	1700	0.00	U	1080	64	28-112
120-82-1	MS	1,2,4-Trichlorobenzene	1700	0.00	U	994	58	28-99

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2320
Client ID: RE16-10-3742MSD
Lab Sample ID: 1202073904
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 2.5
Analysis Date: 03/25/2010 18:51
Prep Batch ID: 966349
Batch ID: 966400
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1700	0.00	U	442	26 *	27-98	43 *	0-30
108-95-2	MSD Phenol	1700	0.00	U	516	30 *	33-94	51 *	0-30
95-57-8	MSD 2-Chlorophenol	1700	0.00	U	612	36	29-96	49 *	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1700	0.00	U	580	34	27-96	48 *	0-30
621-64-7	MSD N-Nitrosodipropylamine	1700	0.00	U	628	37	29-102	46 *	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1700	0.00	U	667	39	29-110	43 *	0-30
83-32-9	MSD Acenaphthene	1700	0.00	U	668	39	17-109	48 *	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1700	0.00	U	781	46	33-107	33 *	0-30
100-02-7	MSD 4-Nitrophenol	1700	0.00	U	422	25	15-110	55 *	0-30
87-86-5	MSD Pentachlorophenol	1700	0.00	U	535	31	23-110	60 *	0-30
129-00-0	MSD Pyrene	1700	0.00	U	642	38	24-118	38 *	0-30
110-86-1	MSD Pyridine	1700	0.00	U	392	23 *	25-102	54 *	0-30
62-53-3	MSD Aniline	1700	0.00	U	527	31	18-109	29	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1700	0.00	U	491	29	29-96	49 *	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1700	0.00	U	554	33	26-97	47 *	0-30
100-51-6	MSD Benzyl alcohol	1700	0.00	U	0.00	0 *	19-112	0	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1700	0.00	U	594	35	30-97	49 *	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1700	0.00	U	551	32	28-103	47 *	0-30
95-48-7	MSD o-Cresol	1700	0.00	U	587	34	32-107	52 *	0-30
65794-96-9	MSD m,p-Cresols	1700	0.00	U	689	40	33-115	41 *	0-30
67-72-1	MSD Hexachloroethane	1700	0.00	U	578	34	25-100	50 *	0-30
98-95-3	MSD Nitrobenzene	1700	0.00	U	671	39	27-106	45 *	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2320
Client ID: RE16-10-3742MSD
Lab Sample ID: 1202073904
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 2.5
Analysis Date: 03/25/2010 18:51
Prep Batch ID: 966349
Batch ID: 966400
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD	Isophorone	1700	0.00	U	596	35	29-104	46 *	0-30
88-75-5	MSD	2-Nitrophenol	1700	0.00	U	677	40	26-102	44 *	0-30
105-67-9	MSD	2,4-Dimethylphenol	1700	0.00	U	400	24	22-104	65 *	0-30
111-91-1	MSD	bis(2-Chloroethoxy)methane	1700	0.00	U	568	33	27-101	46 *	0-30
120-83-2	MSD	2,4-Dichlorophenol	1700	0.00	U	653	38	26-103	44 *	0-30
65-85-0	MSD	Benzoic acid	3400	0.00	U	1110	33	13-131	50 *	0-30
91-20-3	MSD	Naphthalene	1700	0.00	U	632	37	23-103	45 *	0-30
106-47-8	MSD	4-Chloroaniline	1700	0.00	U	586	34	26-103	39 *	0-30
87-68-3	MSD	Hexachlorobutadiene	1700	0.00	U	680	40	28-101	48 *	0-30
91-57-6	MSD	2-Methylnaphthalene	1700	0.00	U	647	38	27-106	46 *	0-30
77-47-4	MSD	Hexachlorocyclopentadiene	1700	0.00	U	536	31	24-117	45 *	0-30
88-06-2	MSD	2,4,6-Trichlorophenol	1700	0.00	U	653	38	26-105	51 *	0-30
95-95-4	MSD	2,4,5-Trichlorophenol	1700	0.00	U	842	50	30-110	40 *	0-30
91-58-7	MSD	2-Chloronaphthalene	1700	0.00	U	606	36	28-102	49 *	0-30
88-74-4	MSD	2-Nitroaniline *o-Nitroaniline*	1700	0.00	U	675	40	33-106	40 *	0-30
99-09-2	MSD	3-Nitroaniline *m-Nitroaniline*	1700	0.00	U	698	41	33-116	34 *	0-30
131-11-3	MSD	Dimethylphthalate	1700	0.00	U	773	45	38-113	42 *	0-30
606-20-2	MSD	2,6-Dinitrotoluene	1700	0.00	U	722	42	29-107	41 *	0-30
208-96-8	MSD	Acenaphthylene	1700	0.00	U	680	40	25-108	47 *	0-30
51-28-5	MSD	2,4-Dinitrophenol	1700	0.00	U	777	46	14-102	18	0-30
132-64-9	MSD	Dibenzofuran	1700	0.00	U	701	41	35-112	45 *	0-30
84-66-2	MSD	Diethylphthalate	1700	0.00	U	860	51	36-122	38 *	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2320
Client ID: RE16-10-3742MSD
Lab Sample ID: 1202073904
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 2.5
Analysis Date: 03/25/2010 18:51
Prep Batch ID: 966349
Batch ID: 966400
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1700	0.00	U	727	43	33-105	44 *	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1700	0.00	U	715	42	30-110	47 *	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1700	0.00	U	754	44	26-97	26	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1700	0.00	U	906	53	28-135	29	0-30
122-39-4	MSD	Diphenylamine	1700	0.00	U	734	43	33-109	36 *	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1700	0.00	U	765	45	31-113	39 *	0-30
101-55-3	MSD	4-Bromophenylphenylether	1700	0.00	U	739	43	31-109	41 *	0-30
118-74-1	MSD	Hexachlorobenzene	1700	0.00	U	717	42	37-99	39 *	0-30
85-01-8	MSD	Phenanthrene	1700	0.00	U	764	45	29-109	36 *	0-30
120-12-7	MSD	Anthracene	1700	0.00	U	781	46	19-118	32 *	0-30
84-74-2	MSD	Di-n-butylphthalate	1700	0.00	U	848	50	39-123	36 *	0-30
206-44-0	MSD	Fluoranthene	1700	0.00	U	835	49	33-114	31 *	0-30
85-68-7	MSD	Butylbenzylphthalate	1700	0.00	U	734	43	35-131	38 *	0-30
56-55-3	MSD	Benzo(a)anthracene	1700	0.00	U	743	44	30-111	31 *	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1700	0.00	U	753	44	30-124	31 *	0-30
218-01-9	MSD	Chrysene	1700	0.00	U	762	45	32-108	31 *	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1700	0.00	U	796	47	37-129	37 *	0-30
117-84-0	MSD	Di-n-octylphthalate	1700	0.00	U	774	46	31-143	41 *	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1700	0.00	U	804	47	29-118	30	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1700	0.00	U	810	48	32-118	38 *	0-30
50-32-8	MSD	Benzo(a)pyrene	1700	0.00	U	827	49	33-115	31 *	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1700	0.00	U	915	54	29-114	23	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2320
Client ID: RE16-10-3742MSD
Lab Sample ID: 1202073904
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 2.5
Analysis Date: 03/25/2010 18:51
Dilution: 1
Prep Batch ID: 966349
Batch ID: 966400

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD	Dibenzo(a,h)anthracene	1700	0.00	U	949	56	27-119	23	0-30
191-24-2	MSD	Benzo(ghi)perylene	1700	0.00	U	873	51	28-112	22	0-30
120-82-1	MSD	1,2,4-Trichlorobenzene	1700	0.00	U	624	37	28-99	46 *	0-30

Method Blank Summary

SDG Number:	10-2320	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 966349	Instrument ID:	MSD7.I	Data File:	s7c2414-1.d
Lab Sample ID:	1202073901	Prep Date:	03/17/2010 21:03	Analyzed:	03/24/10 16:06
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 966349	1202073902	s7c2415-1.d	03/24/10	1628
02	RE46-10-12934	248867003	s7c2428.d	03/24/10	2108
03	RE46-10-12931	248867001	s7c2436.d	03/25/10	0001
04	RE46-10-12932	248867002	s7c2438.d	03/25/10	0044
07	RE46-10-12933	248867004	s7c2523.d	03/25/10	2018

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2320

Instrument ID: MSD7.I **Injection Date/Time:** 26-FEB-10 10:23

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s022610.b/s7b2601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	59.4
68	Less than 2% of mass 69	0.6
69	Mass 69 Relative Abundance	48.9
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	54.1
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.2
365	Greater than 1% of mass 198	2.7
441	Present, but less than mass 443	79.7
442	Greater than 40% of mass 198	71.6
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100225-08	s7b2603.d	26-FEB-10 11:07
MEGA040	WBN100225-05.1	s7b2606.d	26-FEB-10 12:19
MEGA050	WBN100225-04	s7b2607.d	26-FEB-10 12:43
MEGA080	WBN100225-03	s7b2608.d	26-FEB-10 13:07
MEGA100	WBN100225-02	s7b2609.d	26-FEB-10 13:32
MEGA120	WBN100225-01	s7b2610.d	26-FEB-10 13:56
MEGA010	WBN100225-07	s7b2612.d	26-FEB-10 14:44
MEGA020	WBN100225-06	s7b2613.d	26-FEB-10 15:08
MEGAICV	WBN100225-09.1	s7b2614.d	26-FEB-10 15:33

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2320

Instrument ID: MSD7.I **Injection Date/Time:** 26-FEB-10 16:00

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s022610.b/s7b2615.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	59
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	49.2
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	55.5
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.7
441	Present, but less than mass 443	78.7
442	Greater than 40% of mass 198	68.1
443	17 - 23% of mass 442	19.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN100218-01	s7b2617.d	26-FEB-10 16:34
AP020	WBN100218-02	s7b2618.d	26-FEB-10 16:56
AP040	WBN100218-03.1	s7b2619.d	26-FEB-10 17:17
AP050	WBN100218-04	s7b2620.d	26-FEB-10 17:39
AP080	WBN100218-05	s7b2621.d	26-FEB-10 18:00
AP100	WBN100218-06	s7b2622.d	26-FEB-10 18:22
AP120	WBN100218-07	s7b2623.d	26-FEB-10 18:43
APICV	WBN100218-08.1	s7b2638.d	27-FEB-10 00:07

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2320

Instrument ID: MSD7.I **Injection Date/Time:** 24-MAR-10 15:06

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s032410a.b/s7c2411.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	55.2
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	48.2
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	54.5
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.8
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	80.7
442	Greater than 40% of mass 198	63
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-05.4	s7c2412.d	24-MAR-10 15:19
APCVS	WBN100312-03.3	s7c2413.d	24-MAR-10 15:43
SBLK01	1202073901	s7c2414-1.d	24-MAR-10 16:06
SBLK01LCS	1202073902	s7c2415-1.d	24-MAR-10 16:28
RE46-10-12934	248867003	s7c2428.d	24-MAR-10 21:08
RE46-10-12931	248867001	s7c2436.d	25-MAR-10 00:01
RE46-10-12932	248867002	s7c2438.d	25-MAR-10 00:44

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2320

Instrument ID: MSD7.I **Injection Date/Time:** 25-MAR-10 11:45

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s032510.b/s7c2501.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	59.5
68	Less than 2% of mass 69	1.4
69	Mass 69 Relative Abundance	50.8
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	56
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	24
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	76.8
442	Greater than 40% of mass 198	60.1
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
APCVS	WBN100312-03.3	s7c2503.d	25-MAR-10 12:22
MEGACVS	WBN100309-05.4	s7c2504.d	25-MAR-10 12:43
RE46-10-12933	248867004	s7c2523.d	25-MAR-10 20:18

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2320

Instrument: MSD7.I

STD Analysis Time: 24-MAR-10 15:19

GC Column: J&W DB-5MS

Data File: s7c2412.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	307934		3.83	1259065		4.69	635935		5.94	1165031		7.1	792830		9.5	464510		11.1
Upper Limit	615868		4.33	2518130		5.19	1271870		6.44	2330062		7.6	1585660		10	929020		11.6
Lower Limit	153967		3.33	629533		4.19	317968		5.44	582516		6.6	396415		9	232255		10.6
Sample ID																		
BLK01	251151		3.82	951035		4.68	543905		5.94	967143		7.1	678661		9.49	436576		11.1
BLK01LCS	244234		3.82	1020555		4.69	541034		5.94	1031468		7.1	756594		9.49	518669		11.1
RE46-10-12934	256840		3.82	940088		4.68	501322		5.94	894990		7.09	604664		9.48	371467		11.1
RE46-10-12931	265703		3.82	977916		4.68	520592		5.94	905016		7.09	544765		9.49	261534		11.1
RE46-10-12932	278148		3.82	995560		4.68	545560		5.94	960850		7.1	536406		9.49	238689		11.1

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2320

Instrument: MSD7.I

STD Analysis Time: 25-MAR-10 12:43

GC Column: J&W DB-5MS

Data File: s7c2504.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	261850		3.84	1045515		4.7	551996		5.95	1023126		7.11	808005		9.51	595172		11.1
Upper Limit	523700		4.34	2091030		5.2	1103992		6.45	2046252		7.61	1616010		10.0	1190344		11.6
Lower Limit	130925		3.34	522758		4.2	275998		5.45	511563		6.61	404003		9.01	297586		10.6
Sample ID																		
RE46-10-12933	271549		3.83	1024187		4.69	589751		5.94	1089286		7.11	955677		9.5	640812		11.1

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12931**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 00:01**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2436.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	409	ug/kg	81.7	409
108-95-2	Phenol	U	409	ug/kg	81.7	409
95-57-8	2-Chlorophenol	U	409	ug/kg	81.7	409
106-46-7	1,4-Dichlorobenzene	U	409	ug/kg	81.7	409
621-64-7	N-Nitrosodipropylamine	U	409	ug/kg	81.7	409
59-50-7	4-Chloro-3-methylphenol	U	409	ug/kg	81.7	409
83-32-9	Acenaphthene	U	40.9	ug/kg	13.5	40.9
121-14-2	2,4-Dinitrotoluene	U	409	ug/kg	40.9	409
100-02-7	4-Nitrophenol	U	409	ug/kg	135	409
87-86-5	Pentachlorophenol	U	409	ug/kg	102	409
129-00-0	Pyrene		195	ug/kg	12.3	40.9
110-86-1	Pyridine	U	409	ug/kg	81.7	409
62-53-3	Aniline	U	409	ug/kg	123	409
111-44-4	bis(2-Chloroethyl) ether	U	409	ug/kg	81.7	409
541-73-1	1,3-Dichlorobenzene	U	409	ug/kg	81.7	409
100-51-6	Benzyl alcohol	U	409	ug/kg	123	409
95-50-1	1,2-Dichlorobenzene	U	409	ug/kg	81.7	409
108-60-1	bis(2-Chloroisopropyl)ether	U	409	ug/kg	81.7	409
95-48-7	o-Cresol	U	409	ug/kg	81.7	409
65794-96-9	m,p-Cresols	U	409	ug/kg	123	409
67-72-1	Hexachloroethane	U	409	ug/kg	81.7	409
98-95-3	Nitrobenzene	U	409	ug/kg	81.7	409
78-59-1	Isophorone	U	409	ug/kg	81.7	409
88-75-5	2-Nitrophenol	U	409	ug/kg	81.7	409
105-67-9	2,4-Dimethylphenol	U	409	ug/kg	143	409
111-91-1	bis(2-Chloroethoxy)methane	U	409	ug/kg	81.7	409
120-83-2	2,4-Dichlorophenol	U	409	ug/kg	81.7	409
65-85-0	Benzoic acid	U	817	ug/kg	204	817
91-20-3	Naphthalene	U	40.9	ug/kg	12.3	40.9
106-47-8	4-Chloroaniline	U	409	ug/kg	81.7	409
87-68-3	Hexachlorobutadiene	U	409	ug/kg	81.7	409
91-57-6	2-Methylnaphthalene	U	40.9	ug/kg	8.17	40.9
77-47-4	Hexachlorocyclopentadiene	U	409	ug/kg	81.7	409
88-06-2	2,4,6-Trichlorophenol	U	409	ug/kg	81.7	409
95-95-4	2,4,5-Trichlorophenol	U	409	ug/kg	81.7	409
91-58-7	2-Chloronaphthalene	U	40.9	ug/kg	13.5	40.9
88-74-4	2-Nitroaniline	U	409	ug/kg	81.7	409
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	409	ug/kg	81.7	409

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12931**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 00:01**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2436.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	409	ug/kg	81.7	409
606-20-2	2,6-Dinitrotoluene	U	409	ug/kg	40.9	409
208-96-8	Acenaphthylene	U	40.9	ug/kg	12.3	40.9
51-28-5	2,4-Dinitrophenol	U	817	ug/kg	155	817
132-64-9	Dibenzofuran	U	409	ug/kg	81.7	409
84-66-2	Diethylphthalate	U	409	ug/kg	81.7	409
86-73-7	Fluorene	U	40.9	ug/kg	12.3	40.9
7005-72-3	4-Chlorophenylphenylether	U	409	ug/kg	81.7	409
534-52-1	2-Methyl-4,6-dinitrophenol	U	409	ug/kg	81.7	409
100-01-6	4-Nitroaniline	U	409	ug/kg	123	409
	p-Nitroaniline					
122-39-4	Diphenylamine	U	409	ug/kg	81.7	409
122-66-7	Azobenzene	U	409	ug/kg	81.7	409
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	409	ug/kg	81.7	409
118-74-1	Hexachlorobenzene	U	409	ug/kg	81.7	409
85-01-8	Phenanthrene		123	ug/kg	12.3	40.9
120-12-7	Anthracene	J	26.4	ug/kg	8.17	40.9
84-74-2	Di-n-butylphthalate	U	409	ug/kg	81.7	409
206-44-0	Fluoranthene		204	ug/kg	12.3	40.9
85-68-7	Butylbenzylphthalate	U	409	ug/kg	81.7	409
56-55-3	Benzo(a)anthracene		104	ug/kg	12.3	40.9
91-94-1	3,3'-Dichlorobenzidine	U	409	ug/kg	123	409
218-01-9	Chrysene		103	ug/kg	12.3	40.9
117-81-7	bis(2-Ethylhexyl)phthalate	J	149	ug/kg	81.7	409
117-84-0	Di-n-octylphthalate	U	409	ug/kg	81.7	409
205-99-2	Benzo(b)fluoranthene		180	ug/kg	12.3	40.9
207-08-9	Benzo(k)fluoranthene	U	40.9	ug/kg	12.3	40.9
50-32-8	Benzo(a)pyrene		101	ug/kg	12.3	40.9
193-39-5	Indeno(1,2,3-cd)pyrene		46.9	ug/kg	12.3	40.9
53-70-3	Dibenzo(a,h)anthracene	J	18.0	ug/kg	12.3	40.9
191-24-2	Benzo(ghi)perylene		58.7	ug/kg	12.3	40.9
120-82-1	1,2,4-Trichlorobenzene	U	409	ug/kg	81.7	409

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.21	478	ug/kg		J
	Unknown Aldol Condensate	2.86	445	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12931**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 00:01**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30.15 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2436.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
80-56-8	.alpha.-Pinene	3.4	214	ug/kg	97	NJ
13466-78-9	3-Carene	3.78	336	ug/kg	96	NJ
	Unknown	6.92	257	ug/kg		J
301-02-0	9-Octadecenamide, (Z)-	8.9	270	ug/kg	93	NJ

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Data file : /chem/MSD7.i/s032410a.b/s7c2436.d
Lab Smp Id: 248867001 Client Smp ID: RE46-10-12931
Inj Date : 25-MAR-2010 00:01
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248867001|966400|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Meth Date : 25-Mar-2010 08:37 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2320.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.15000	weight of sample
M	18.83160	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.821	3.826	(1.000)	265703	40.0000	
* 29 Naphthalene-d8	136	4.683	4.688	(1.000)	977916	40.0000	
* 46 Acenaphthene-d10	164	5.935	5.940	(1.000)	520592	40.0000	
* 67 Phenanthrene-d10	188	7.091	7.101	(1.000)	905016	40.0000	
* 91 Chrysene-d12	240	9.489	9.499	(1.000)	544765	40.0000	
* 98 Perylene-d12	264	11.073	11.083	(1.000)	261534	40.0000	
$ 3 2-Fluorophenol	112	3.022	3.017	(0.791)	338165	48.9651	2000
$ 5 Phenol-d5	99	3.542	3.547	(0.927)	391550	45.2192	1850
$ 20 Nitrobenzene-d5	82	4.178	4.187	(0.892)	202950	27.5159	1120
$ 39 2-Fluorobiphenyl	172	5.425	5.430	(0.914)	392288	30.2364	1240
$ 60 2,4,6-Tribromophenol	329	6.528	6.532	(1.100)	68595	45.5792	1860
$ 81 p-Terphenyl-d14	244	8.463	8.473	(0.892)	330541	33.8684	1380

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	8.357	8.367	(0.881)	82153	4.77355	195
68 Phenanthrene	178	7.110	7.120	(1.003)	55807	3.00500	123
69 Anthracene	178	7.154	7.163	(1.009)	12147	0.64582	26.4(a)
76 Fluoranthene	202	8.146	8.155	(1.149)	100808	4.99230	204
89 Benzo(a)anthracene	228	9.475	9.484	(0.998)	33204	2.54250	104
92 Chrysene	228	9.508	9.523	(1.002)	29222	2.51457	103
93 bis(2-Ethylhexyl)phthalate	149	9.422	9.426	(0.993)	37832	3.64983	149(a)
95 Benzo(b)fluoranthene	252	10.592	10.601	(0.956)	32287	4.40207	180
97 Benzo(a)pyrene	252	11.001	11.011	(0.993)	14836	2.46690	101
99 Indeno(1,2,3-cd)pyrene	276	12.715	12.735	(1.148)	4960	1.14692	46.9
100 Dibenzo(a,h)anthracene	278	12.720	12.744	(1.149)	1506	0.43943	18.0(a)
101 Benzo(ghi)perylene	276	13.216	13.235	(1.194)	5179	1.43598	58.7

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s7c2436.d
Report Date: 03/25/2010 08:50
Lab. ID: 248867001 SampleType: SAMPLE
Injection Date: 25-MAR-2010 00:01
Operator: JMB3 Instrument: MSD7.i
Sample Info: |248867001|966400|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100319-01|
Comment:
Method used: /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2320
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	28712	3.55	3.61	80-120	100	(T)
93	1148	3.50	3.61	190-250	4	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	32883	4.18	4.07	80-120	100	(T)
42	30619	4.18	4.07	74-134	93	(T)
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	9980	5.67	5.54	80-120	100	(T)
164	504	5.67	5.54	3- 63	5	(T)
127	973	5.67	5.54	9- 69	10	(T)
42 o-Nitroaniline				CAS#: 88-74-4		
65	15730	5.67	5.60	80-120	100	(T)
92	16434	5.67	5.60	31- 91	104	(QT)
138	925	5.67	5.60	73-133	6	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	94478	5.94	5.71	80-120	100	(T)
164	520592	5.94	5.71	0- 40	551	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	66676	5.94	5.77	80-120	100	(T)
63	1563	5.94	5.76	67-127	2	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	66676	5.94	6.06	80-120	100	(T)
89	1206	5.94	6.06	45-105	2	(QT)
63	1563	5.94	6.06	26- 86	2	(QT)
68 Phenanthrene			CAS#: 85-01-8			
178	55807	7.11	7.12	80-120	100	( )
179	10114	7.11	7.12	0- 46	18	( )
176	10059	7.11	7.12	0- 49	18	( )
69 Anthracene			CAS#: 120-12-7			
178	12147	7.15	7.16	80-120	100	( )
179	2537	7.15	7.16	0- 46	21	( )
176	2438	7.15	7.16	0- 48	20	( )
76 Fluoranthene			CAS#: 206-44-0			
202	100808	8.15	8.16	80-120	100	( )
203	17289	8.15	8.16	0- 47	17	( )
101	8983	8.15	8.15	0- 39	9	( )
79 Pyrene			CAS#: 129-00-0			
202	82153	8.36	8.37	80-120	100	( )
200	16970	8.36	8.37	0- 50	21	( )
101	9448	8.36	8.37	0- 41	12	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	33204	9.47	9.48	80-120	100	( )
226	8774	9.47	9.48	0- 56	26	( )
229	9673	9.47	9.48	0- 50	29	( )
92 Chrysene			CAS#: 218-01-9			
228	29222	9.51	9.52	80-120	100	( )
229	7519	9.51	9.52	0- 50	26	( )
226	8690	9.51	9.52	0- 59	30	( )
93 bis(2-Ethylhexyl)phthalate			CAS#: 117-81-7			
149	37832	9.42	9.43	80-120	100	( )
167	10764	9.42	9.43	1- 61	28	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	32287	10.59	10.60	80-120	100	( )
253	8841	10.59	10.60	0- 52	27	( )
125	2622	10.59	10.60	0- 40	8	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	32287	10.59	10.63	80-120	100	( )
253	8841	10.59	10.63	0- 52	27	( )
125	2622	10.59	10.63	0- 40	8	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	14836	11.00	11.01	80-120	100	( )
253	4092	11.00	11.01	0- 52	28	( )
125	2126	11.00	11.01	0- 40	14	( )
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	4960	12.72	12.73	80-120	100	( )
138	1283	12.71	12.73	0- 58	26	( )
100 Dibenzo(a,h)anthracene			CAS#: 53-70-3			
278	1506	12.72	12.74	80-120	100	( )
139	255	12.73	12.74	0- 48	17	( )
101 Benzo(ghi)perylene			CAS#: 191-24-2			
276	5179	13.22	13.24	80-120	100	( )
138	1698	13.21	13.24	0- 55	33	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

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Data file : /chem/MSD7.i/s032410a.b/s7c2436.d
Lab Smp Id: 248867001 Client Smp ID: RE46-10-12931
Inj Date : 25-MAR-2010 00:01
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248867001|966400|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Meth Date : 25-Mar-2010 08:37 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2320.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.15000	weight of sample
M	18.83160	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.821	1739862	40.000
* 67 Phenanthrene-d10	7.091	2517114	40.000
* 91 Chrysene-d12	9.489	1678640	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	========	======
Unknown				CAS #:			
2.208	509042	11.7030381	478	0		0	10
Unknown Aldol Condensate				CAS #:			
2.863	474110	10.8999376	445	0		0	10
.alpha.-Pinene				CAS #: 80-56-8			
3.398	227844	5.23821614	214	97	NIST05.L	15178	10
3-Carene				CAS #: 13466-78-9			
3.783	357140	8.21076762	336	96	NIST05.L	15156	10
Unknown				CAS #:			
6.918	395480	6.28465060	257	0		0	67
9-Octadecenamide, (Z)-				CAS #: 301-02-0			
8.897	277208	6.60552827	270	93	NIST05.L	112656	91

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d
Date : 25-MAR-2010 00:01
Client ID: RE46-10-12931
Sample Info: |2488670011966400|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD7.i

Operator: JMB3
Column diameter: 0.20

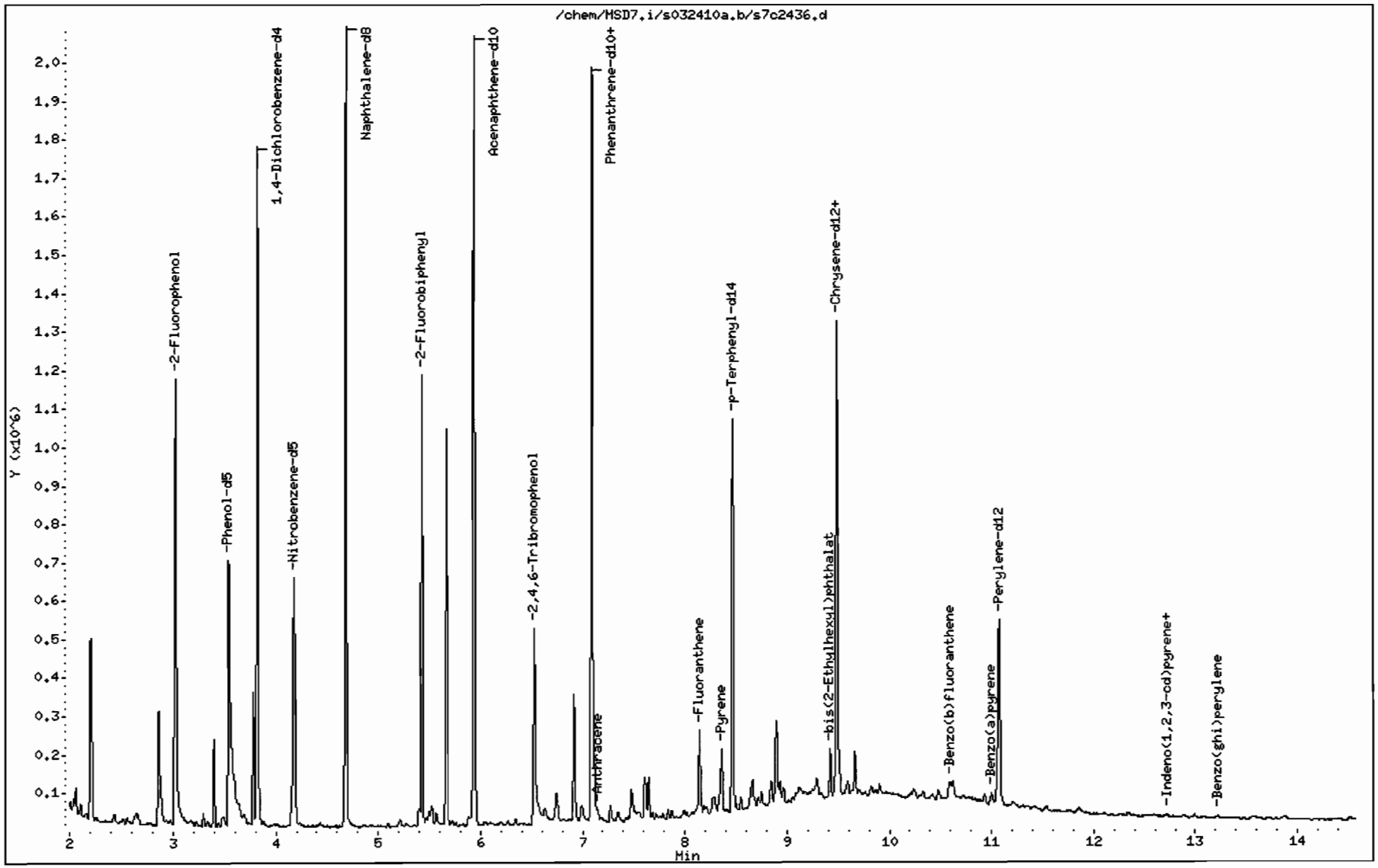

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d

Date : 25-MAR-2010 00:01

Client ID: RE46-10-12931

Instrument: MSD7.i

Sample Info: |248867001|966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 195 ug/Kg

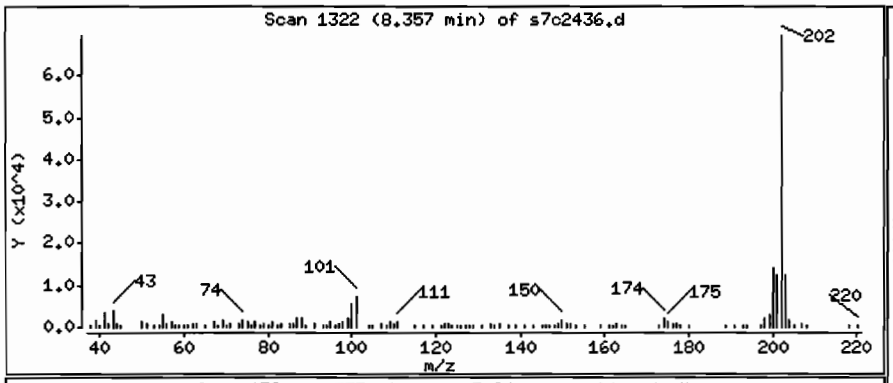

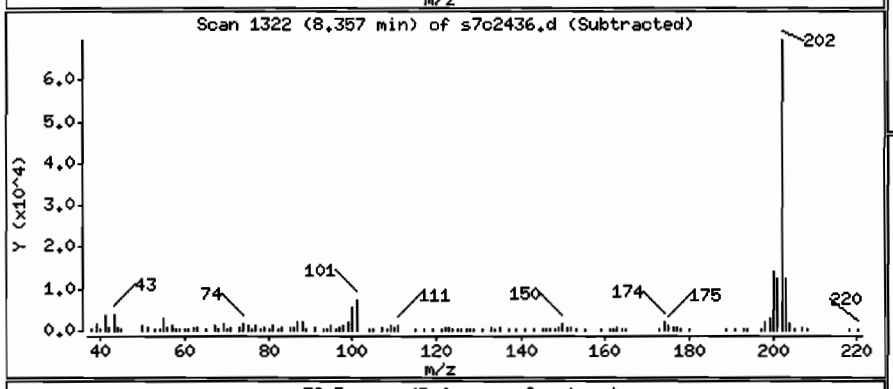

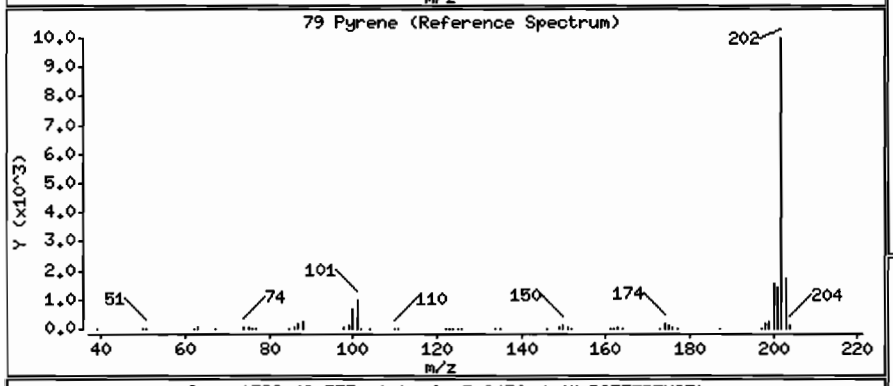

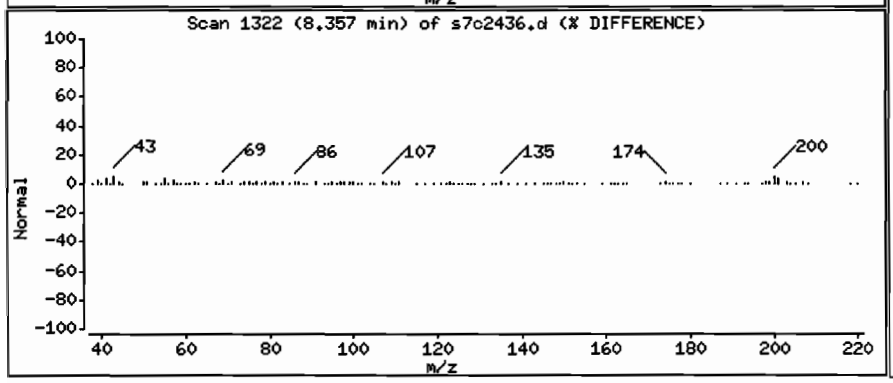

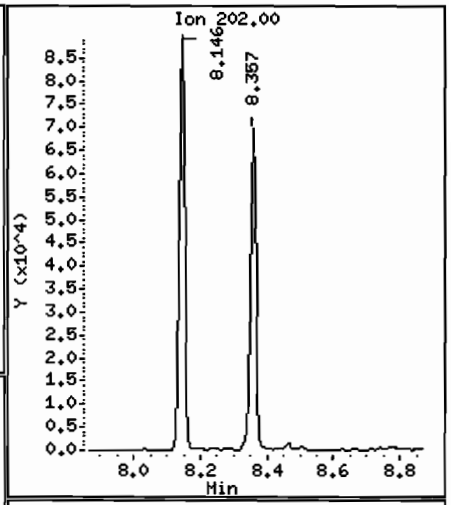

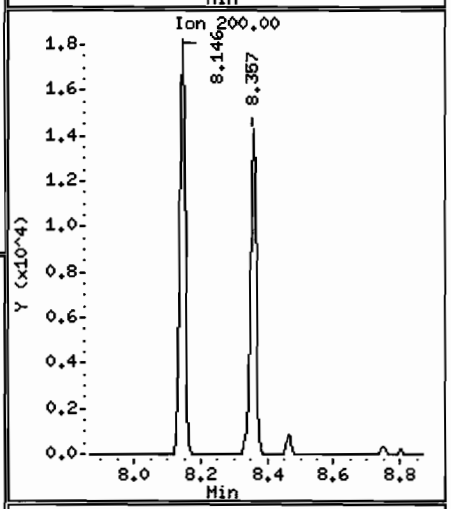

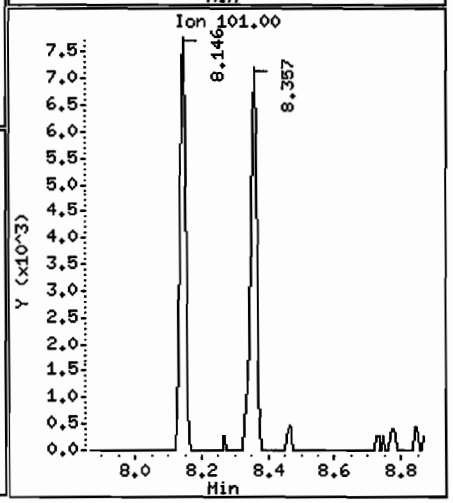

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d

Date : 25-MAR-2010 00:01

Client ID: RE46-10-12931

Instrument: MSD7.i

Sample Info: |2488670011966400111SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 123 ug/Kg

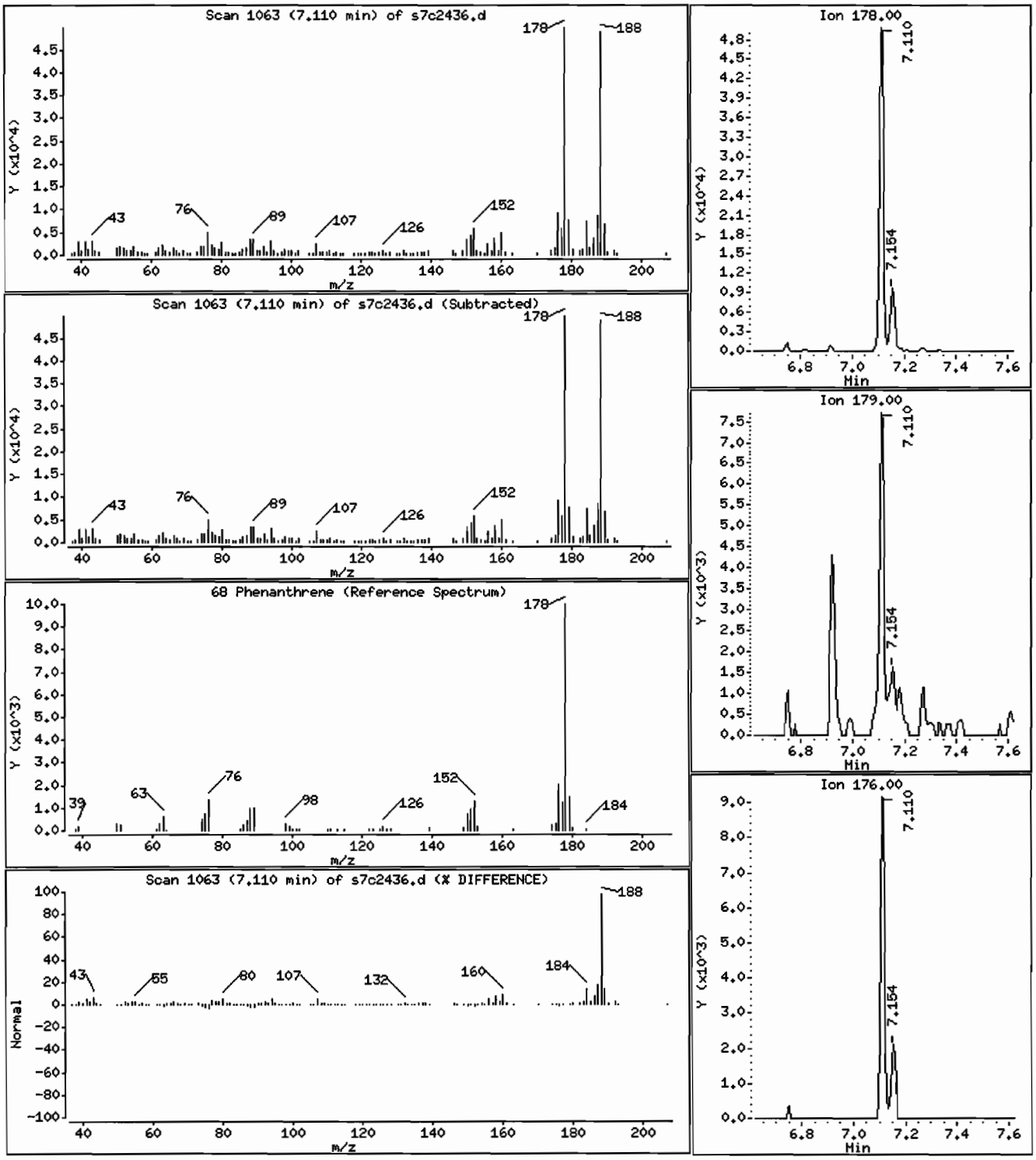

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d

Date : 25-MAR-2010 00:01

Client ID: RE46-10-12931

Instrument: MSD7.i

Sample Info: |2488670001|966400|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 26.4 ug/Kg

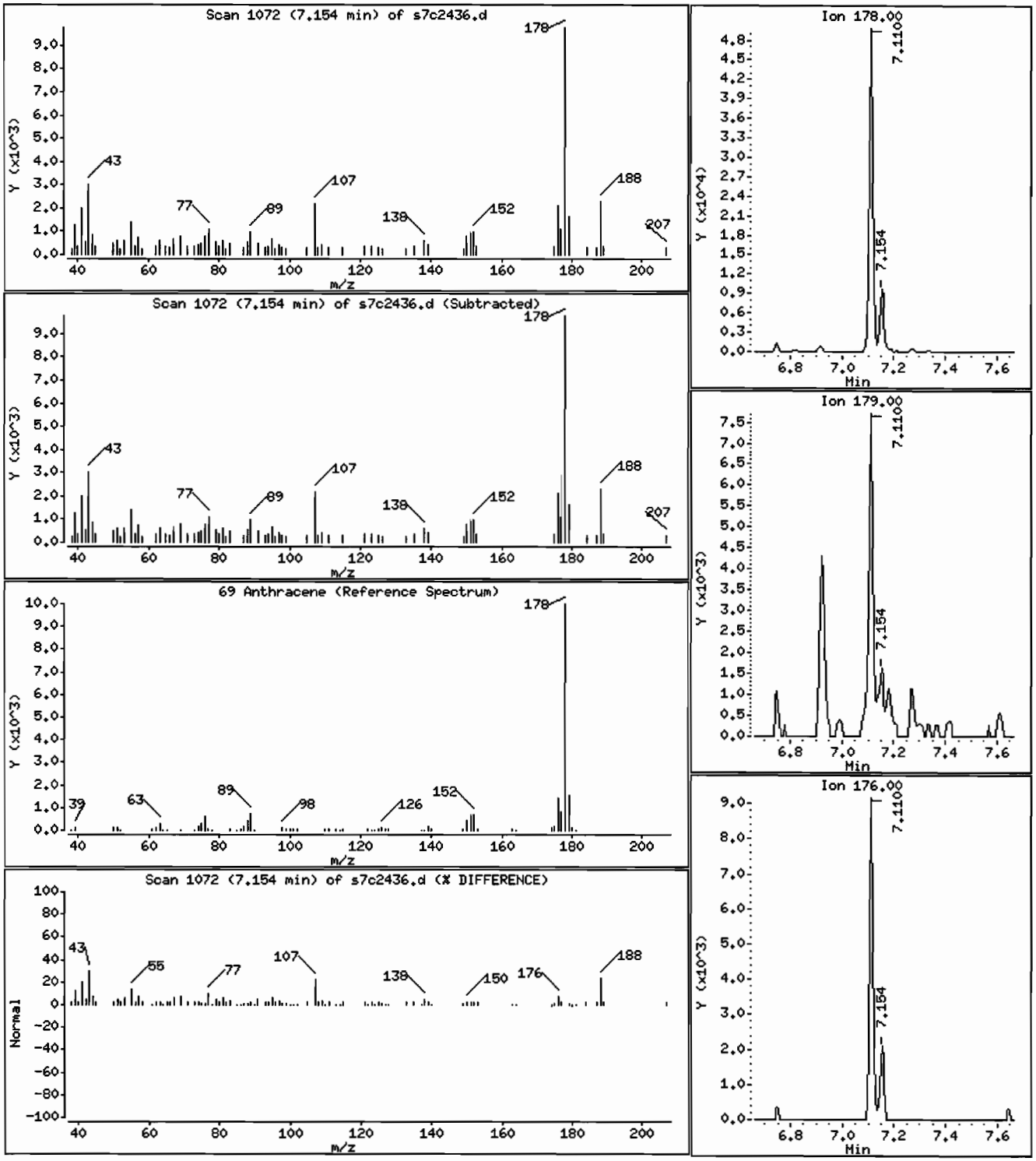

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d

Date : 25-MAR-2010 00:01

Client ID: RE46-10-12931

Instrument: MSD7.i

Sample Info: 1248867001|966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 204 ug/Kg

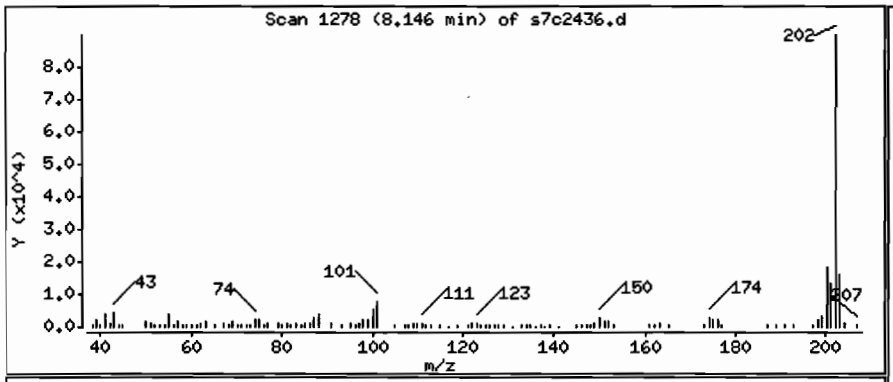

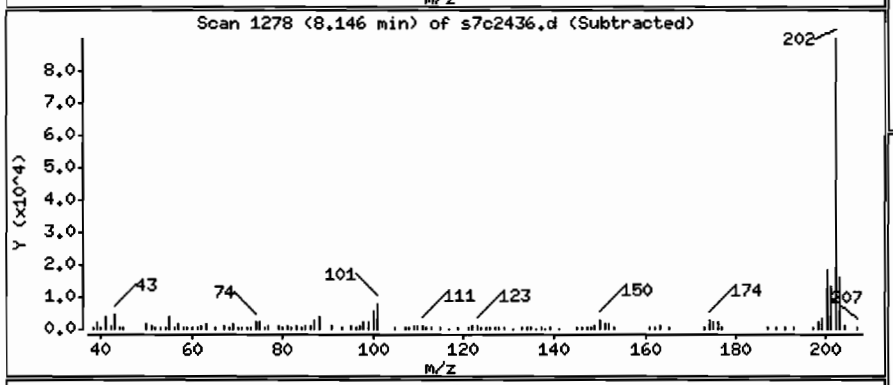

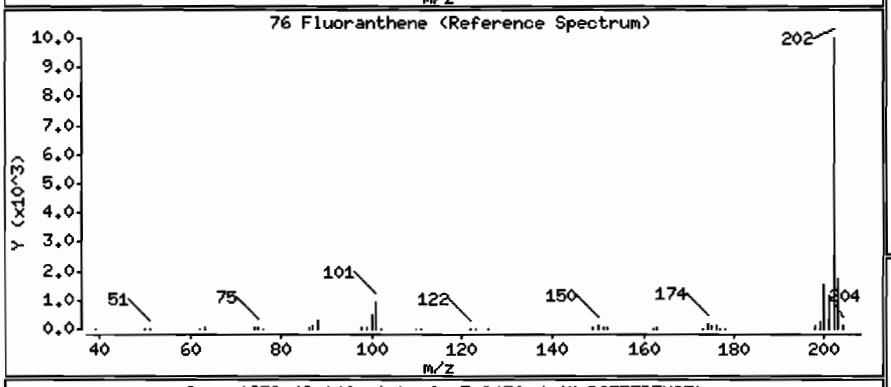

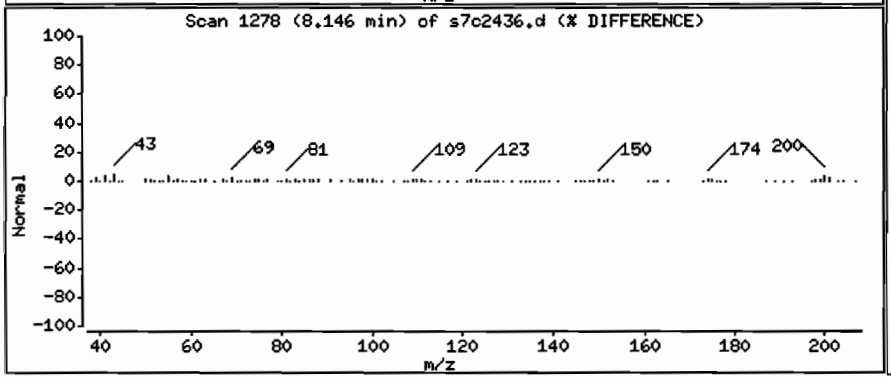

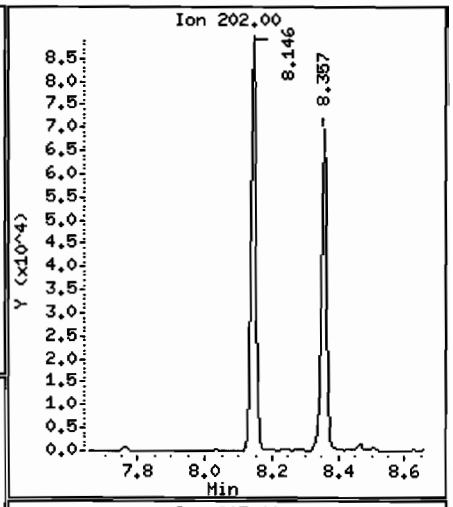

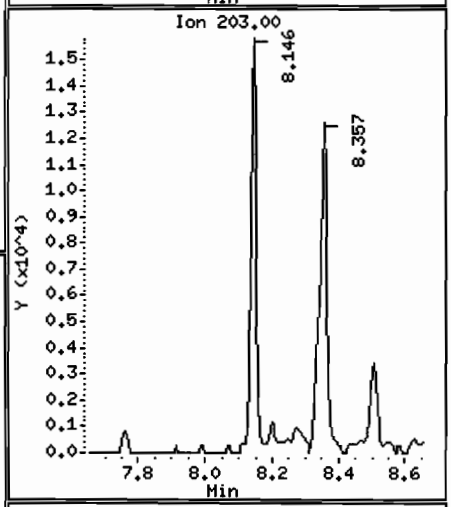

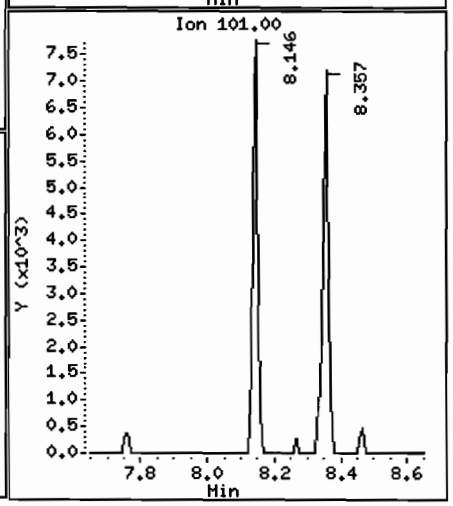

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d

Date : 25-MAR-2010 00:01

Client ID: RE46-10-12931

Instrument: MSD7.i

Sample Info: 1248867001|966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 104 ug/Kg

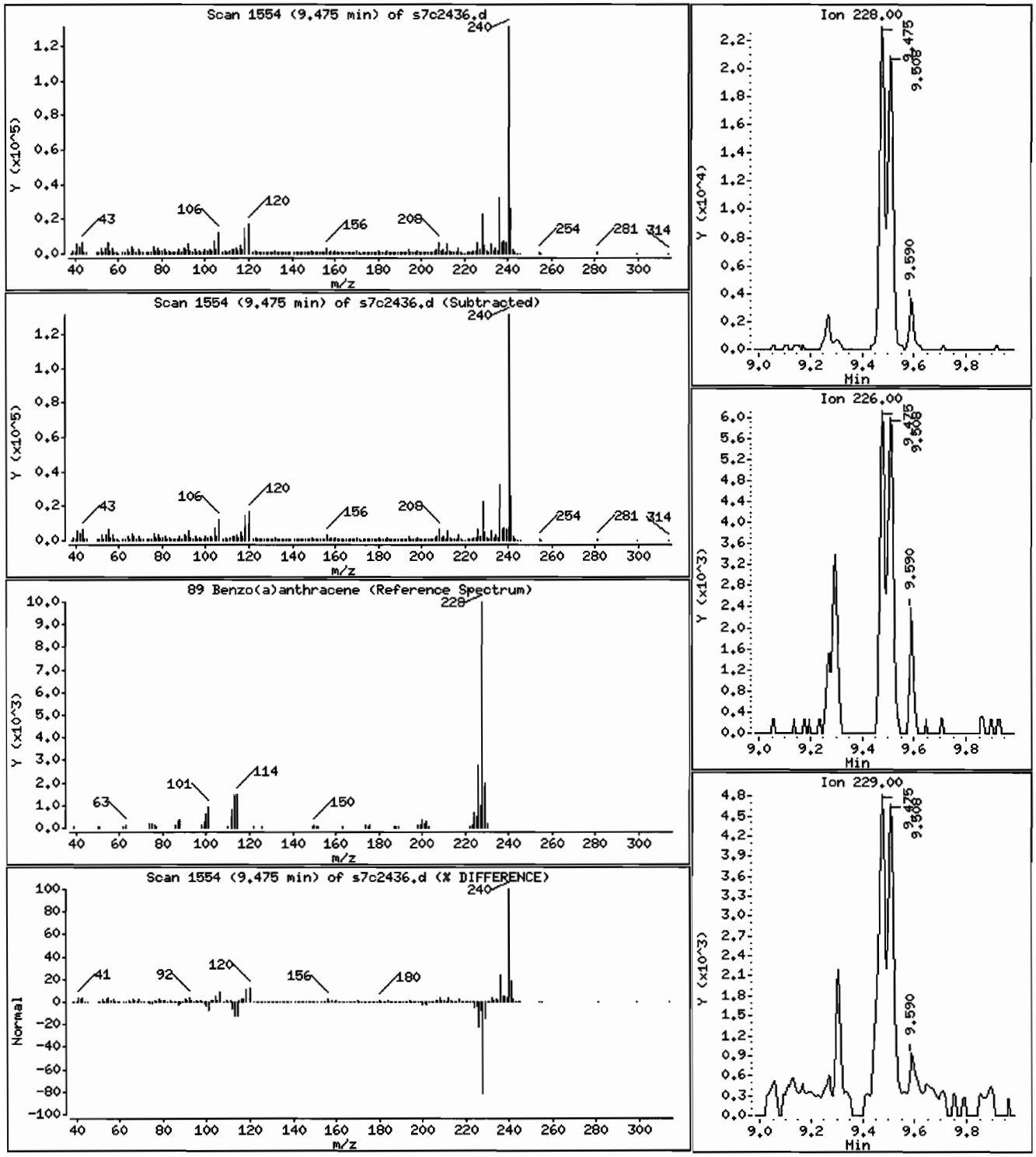

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d

Date : 25-MAR-2010 00:01

Client ID: RE46-10-12931

Instrument: MSD7.i

Sample Info: |248867001|966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 103 ug/Kg

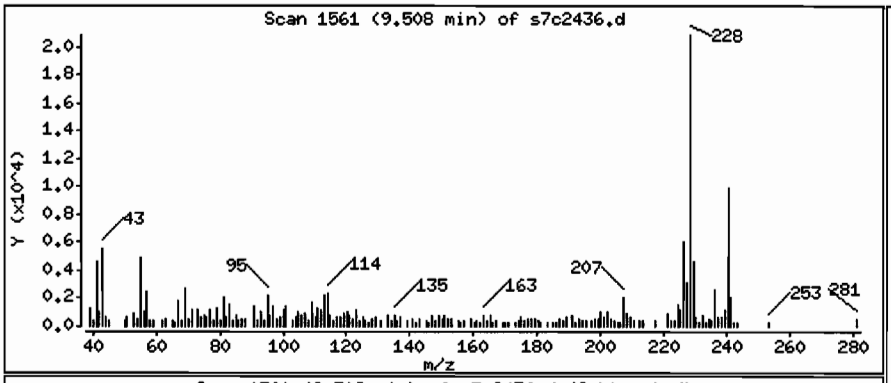

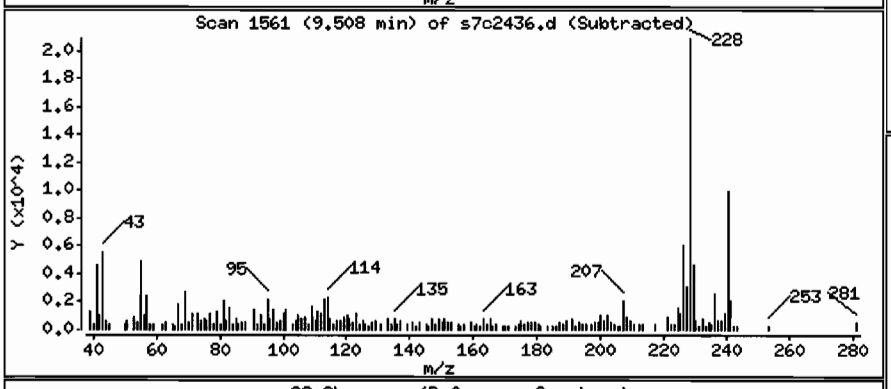

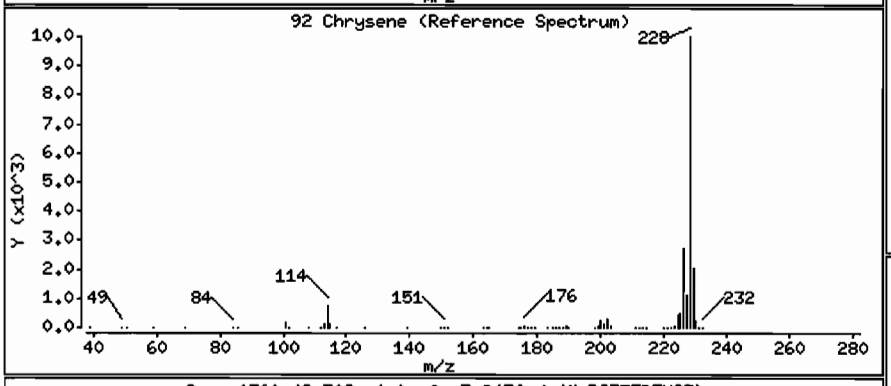

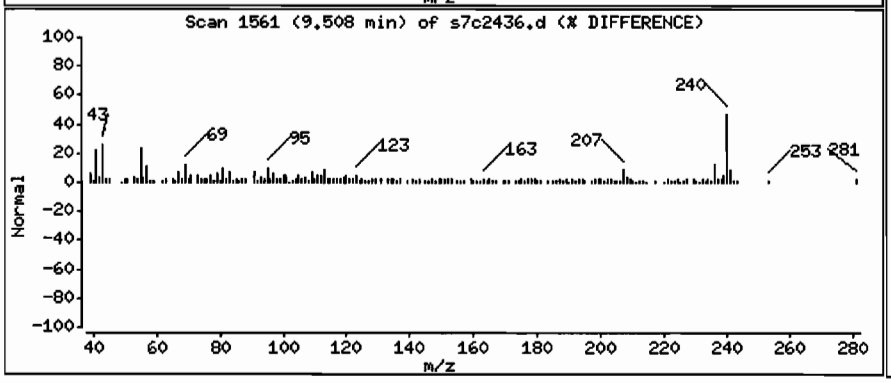

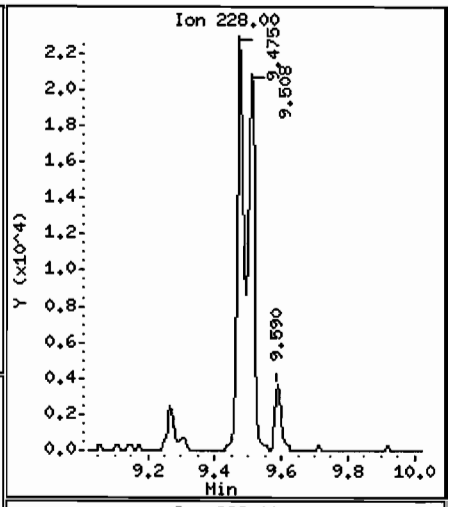

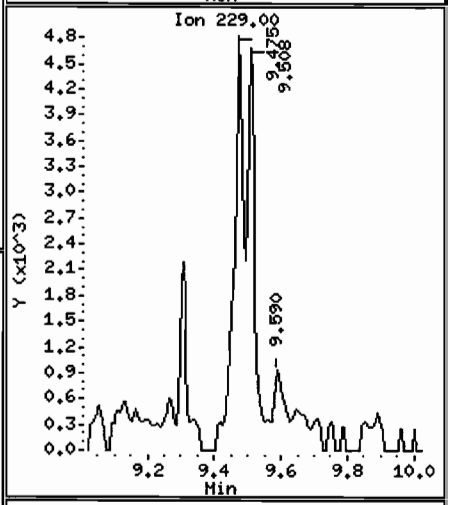

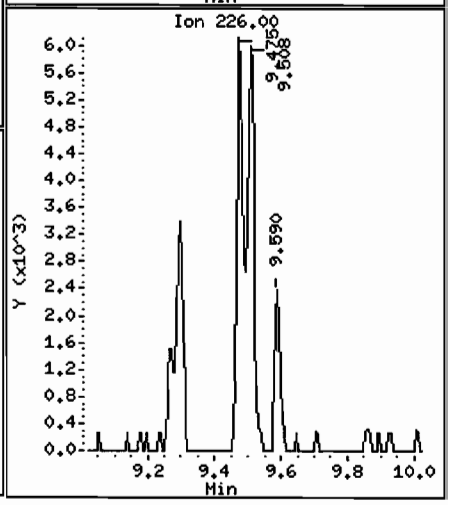

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d

Date : 25-MAR-2010 00:01

Client ID: RE46-10-12931

Instrument: MSD7.i

Sample Info: !248867001!966400!1!SVMI1!LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 149 ug/Kg

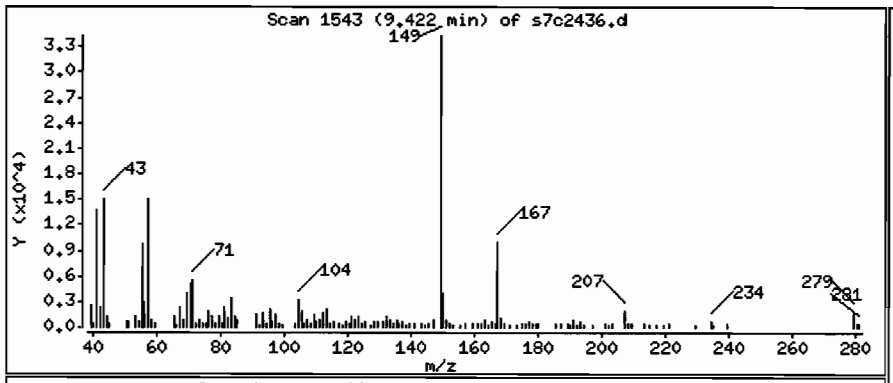

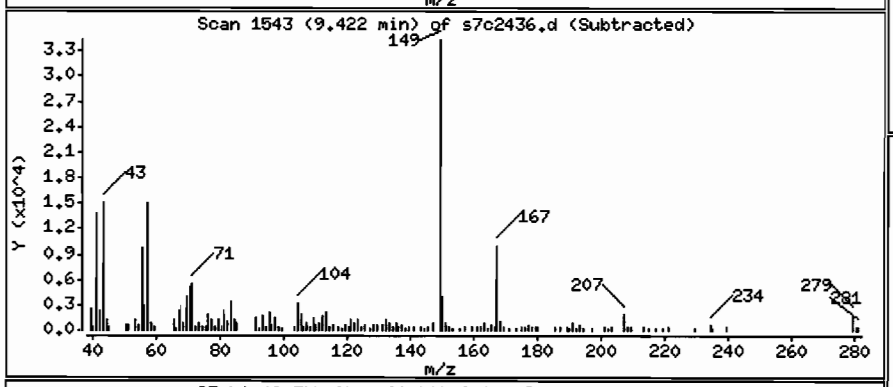

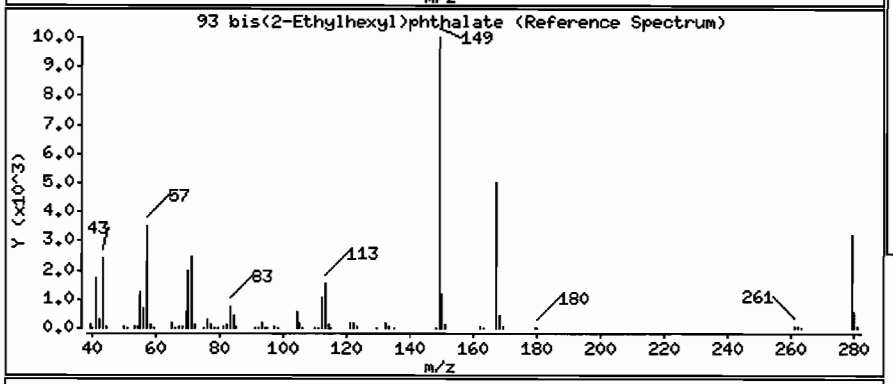

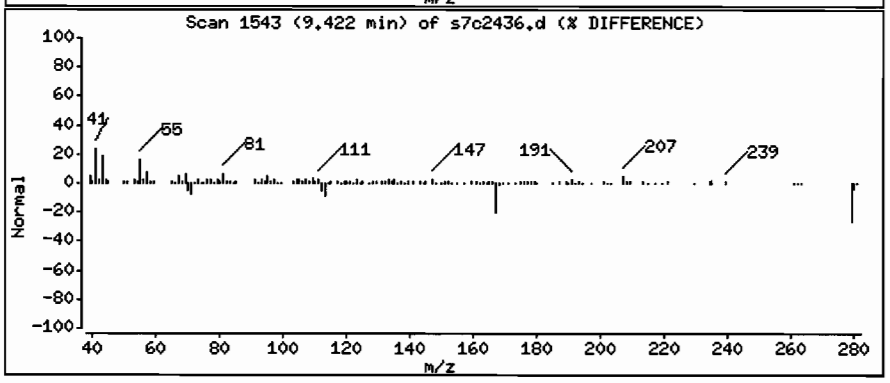

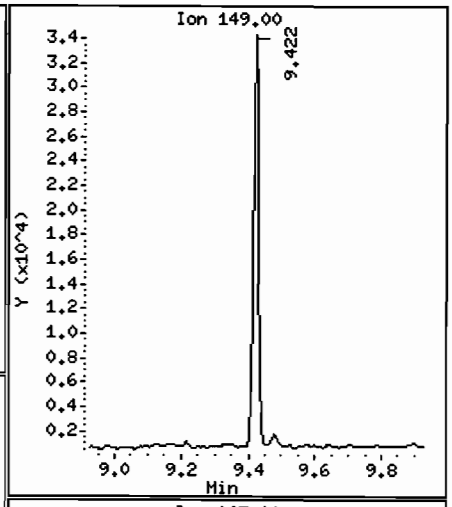

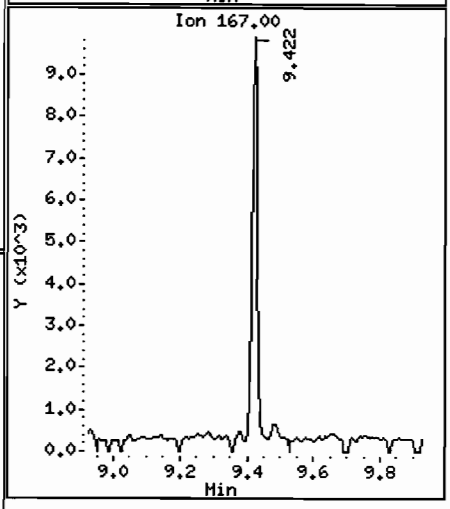

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d

Date : 25-MAR-2010 00:01

Client ID: RE46-10-12931

Instrument: MSD7.i

Sample Info: |248867001|966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 180 ug/Kg

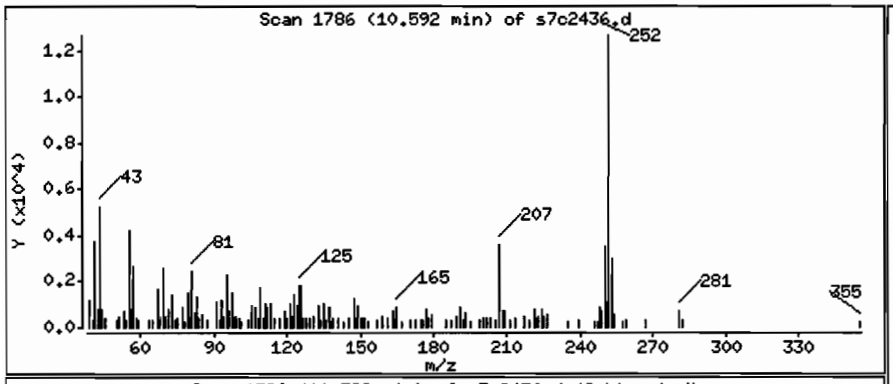

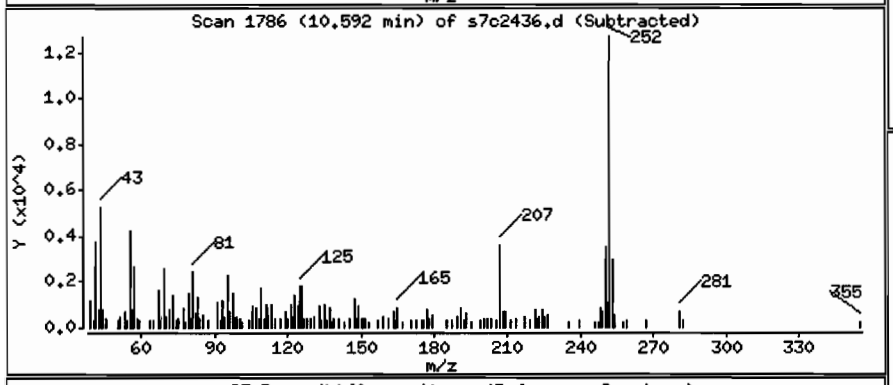

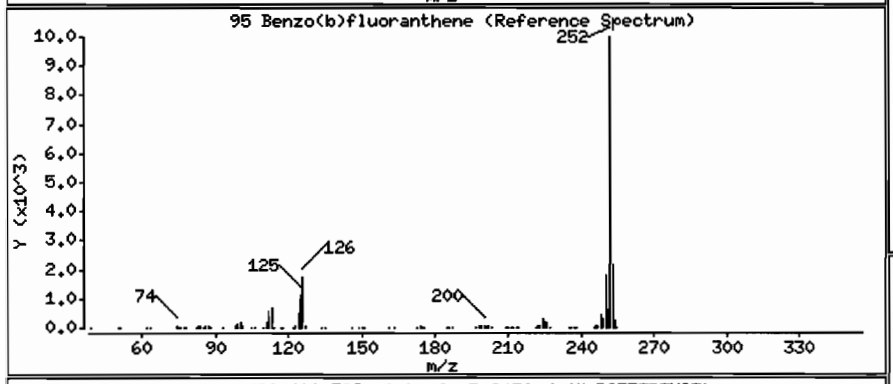

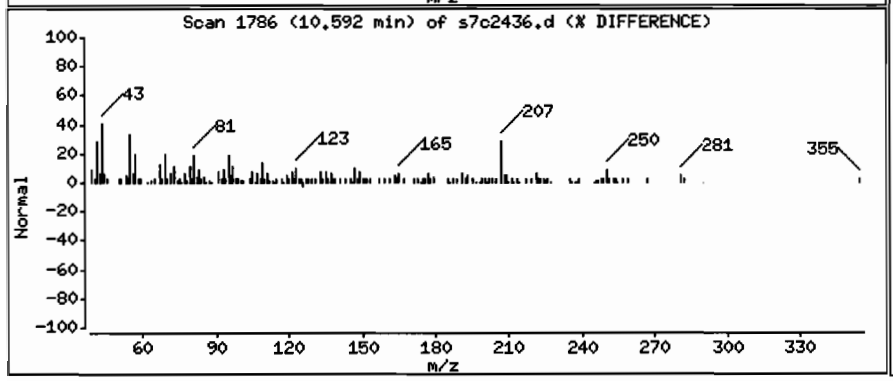

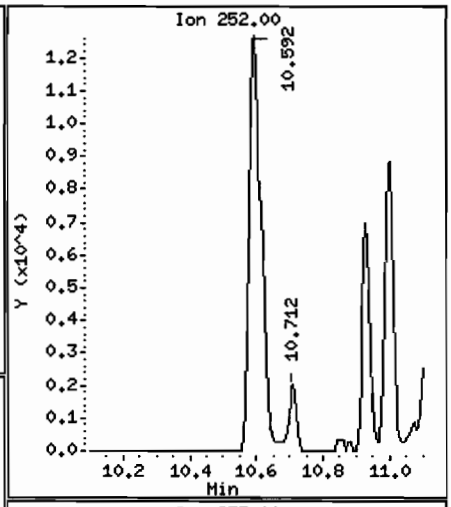

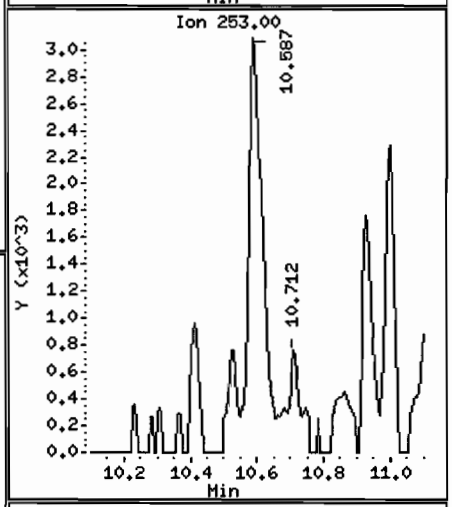

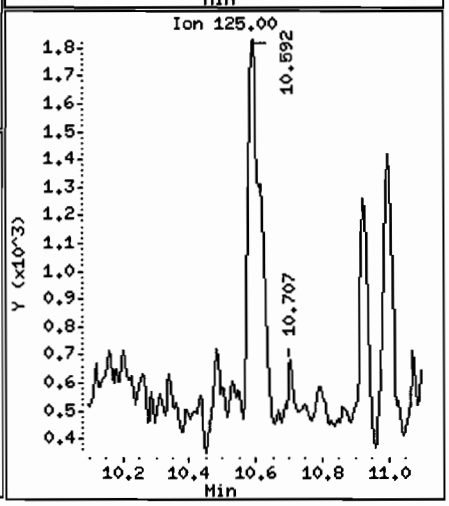

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d

Date : 25-MAR-2010 00:01

Client ID: RE46-10-12931

Instrument: MSD7.i

Sample Info: 1248867001|966400|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 101 ug/Kg

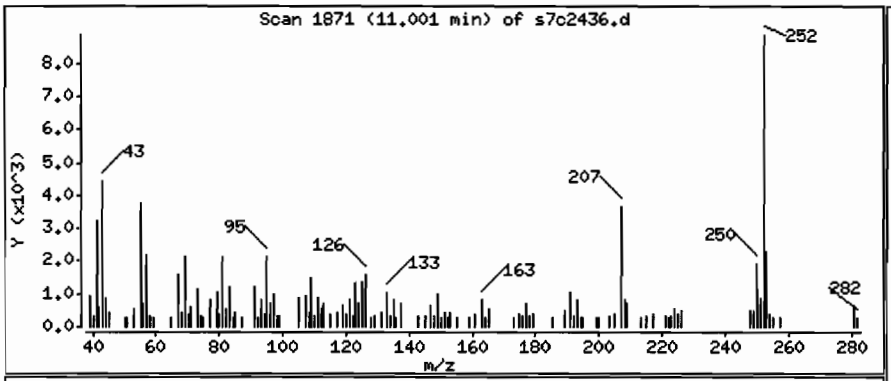

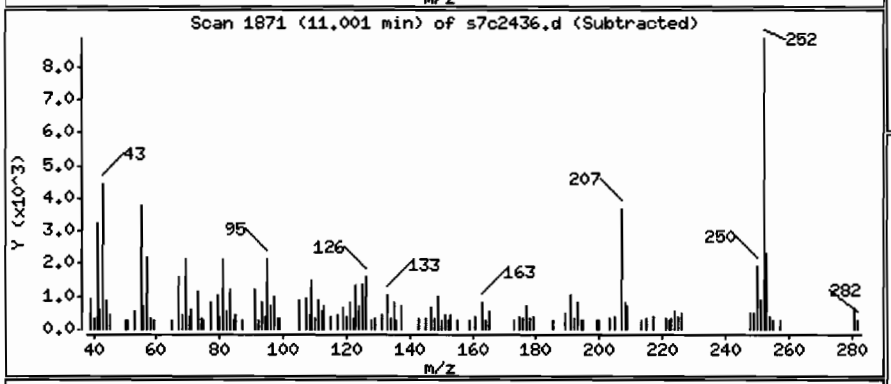

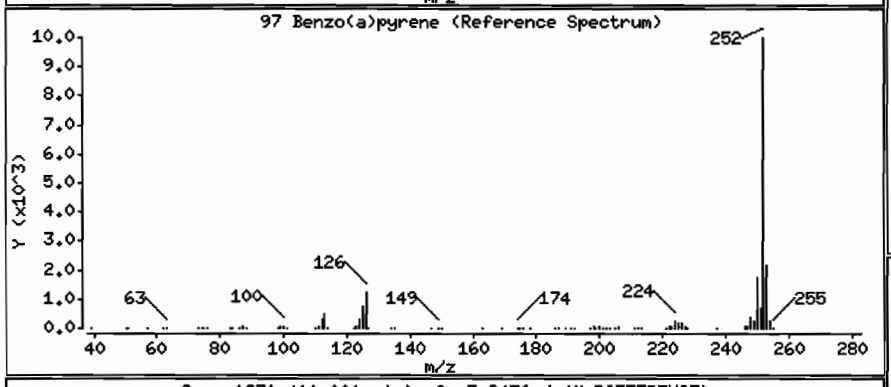

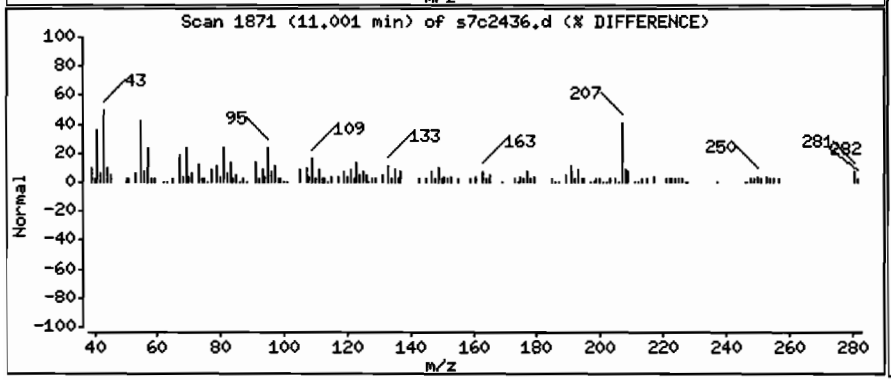

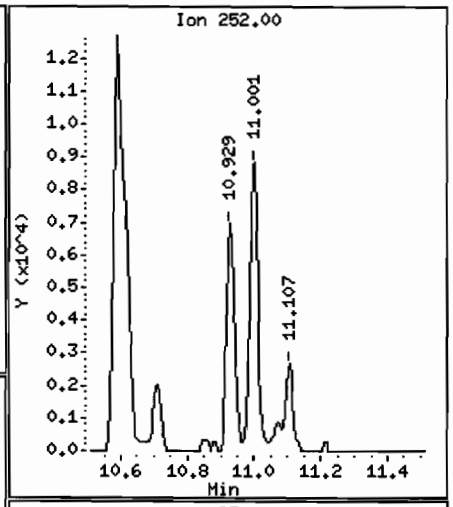

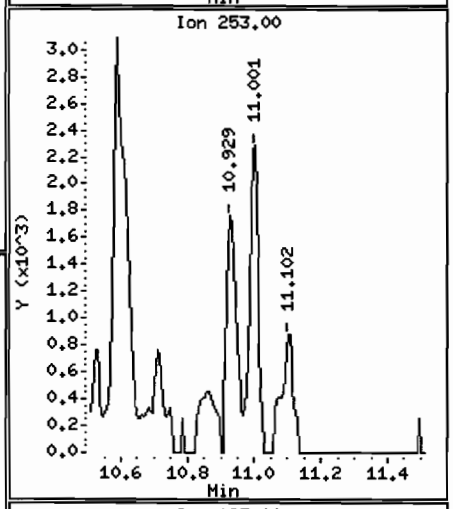

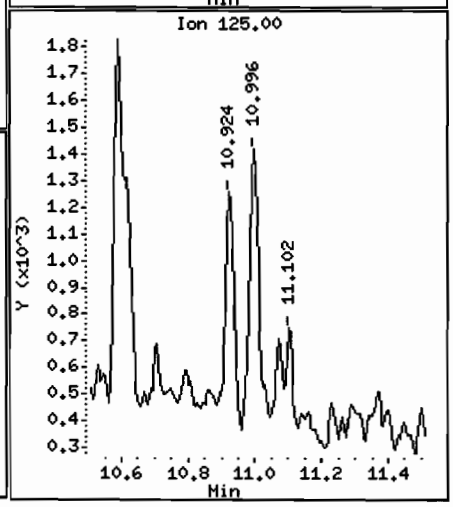

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d

Date : 25-MAR-2010 00:01

Client ID: RE46-10-12931

Instrument: MSD7.i

Sample Info: |248867001|966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 46.9 ug/Kg

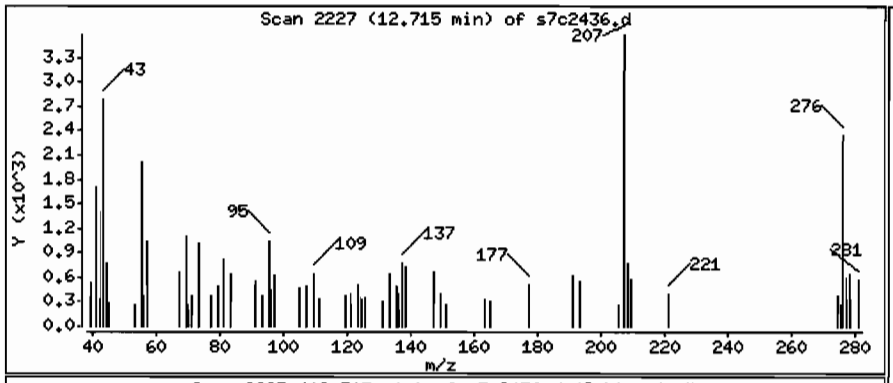

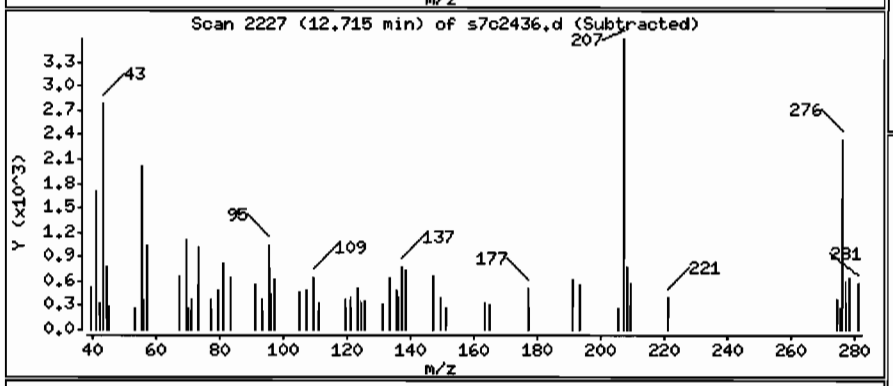

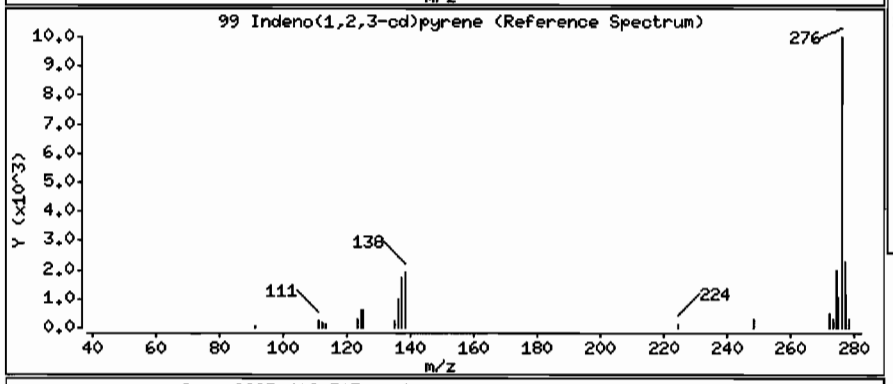

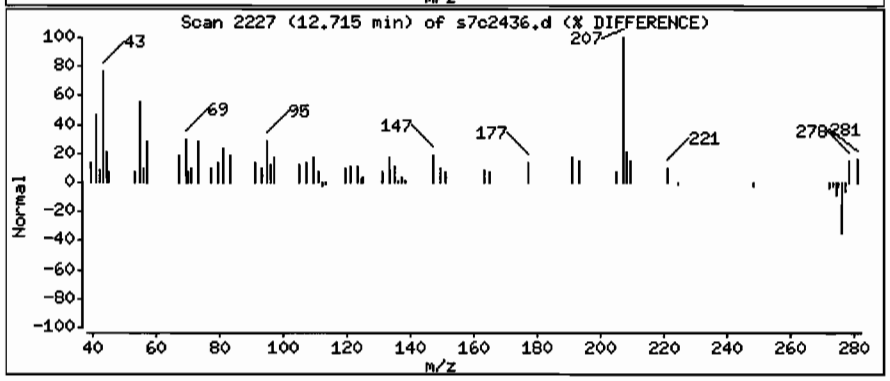

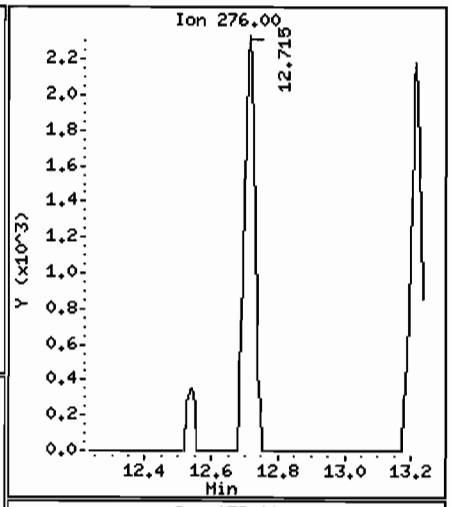

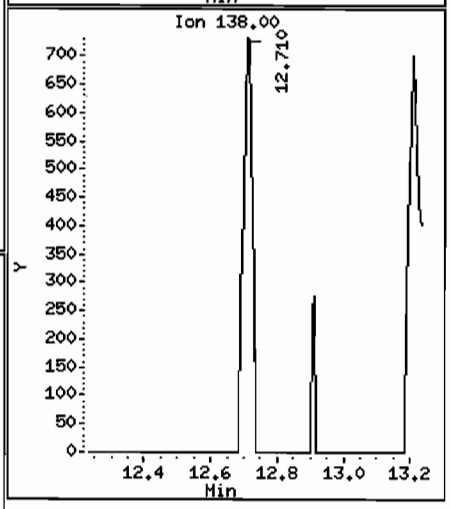

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d

Date : 25-MAR-2010 00:01

Client ID: RE46-10-12931

Instrument: MSD7.i

Sample Info: |2488670011966400|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

100 Dibenzo(a,h)anthracene

Concentration: 18.0 ug/Kg

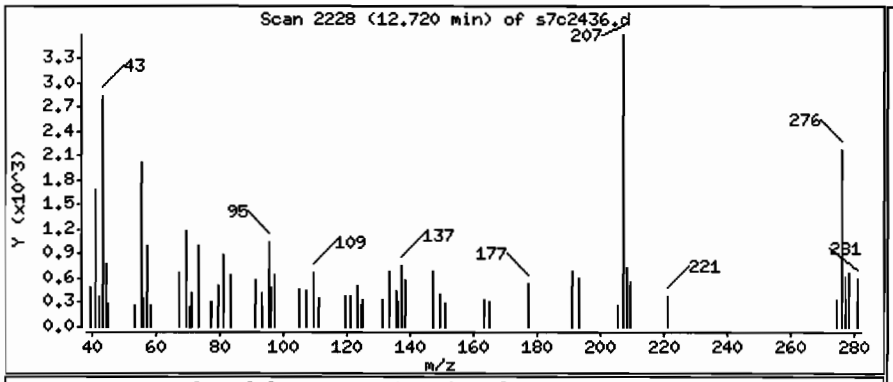

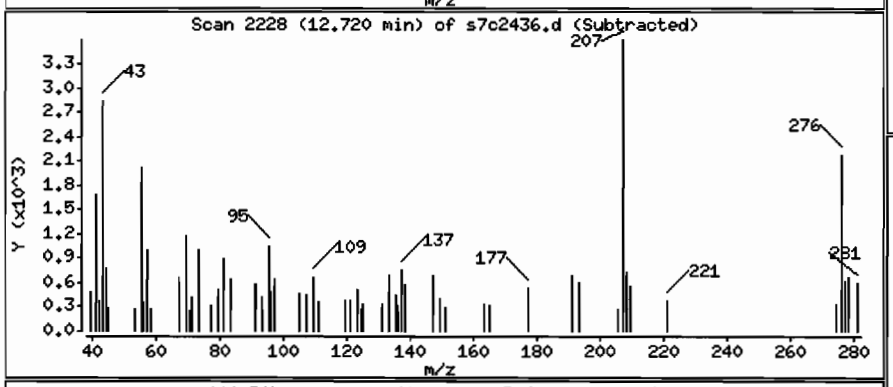

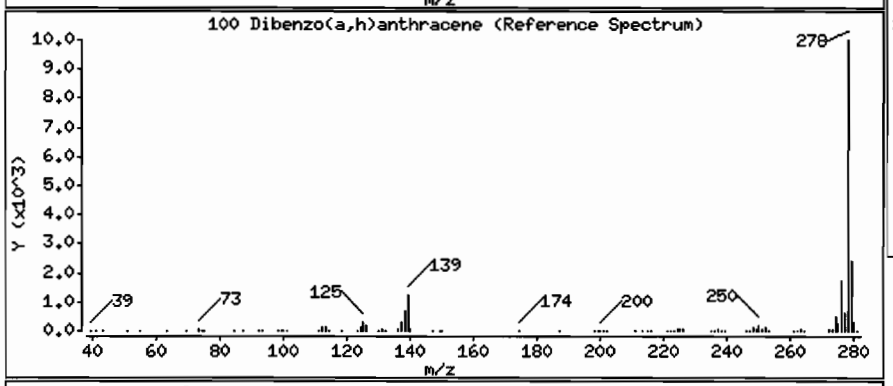

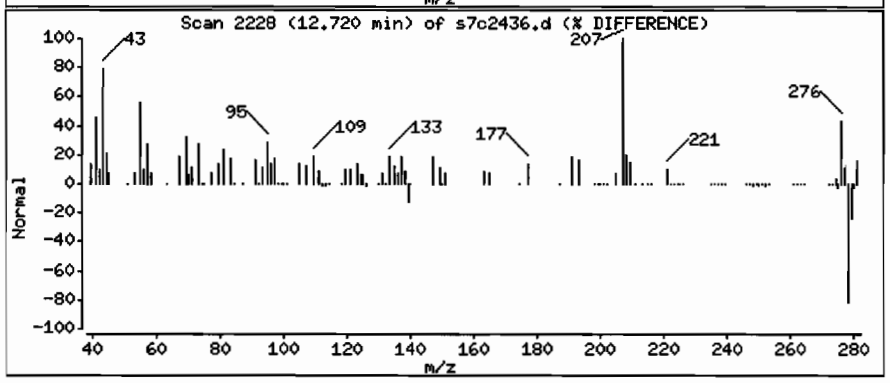

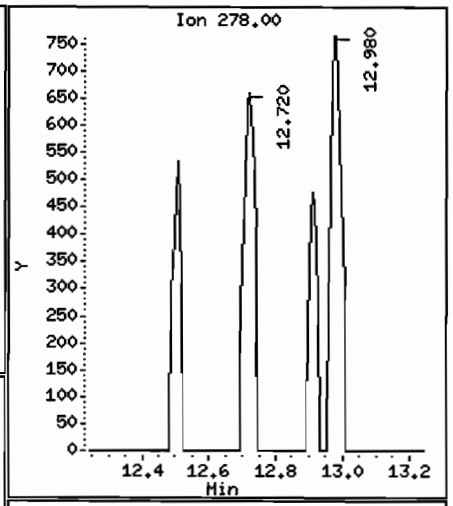

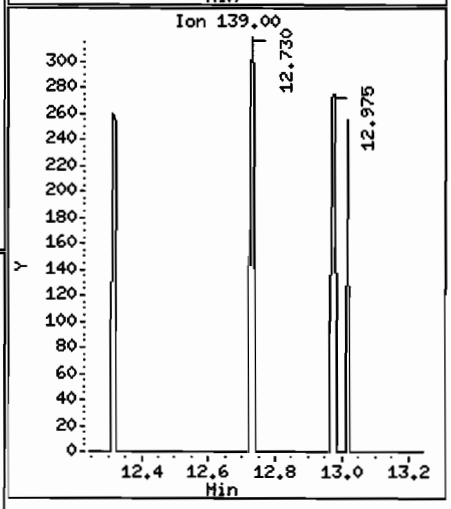

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d

Date : 25-MAR-2010 00:01

Client ID: RE46-10-12931

Instrument: MSD7.i

Sample Info: 1248867001|966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 58.7 ug/Kg

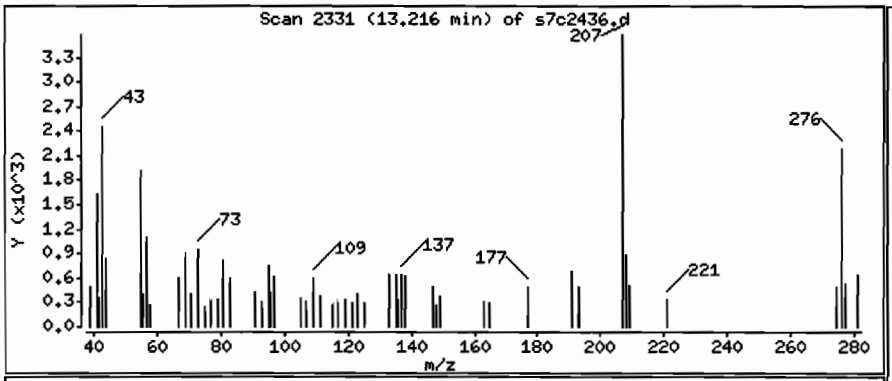

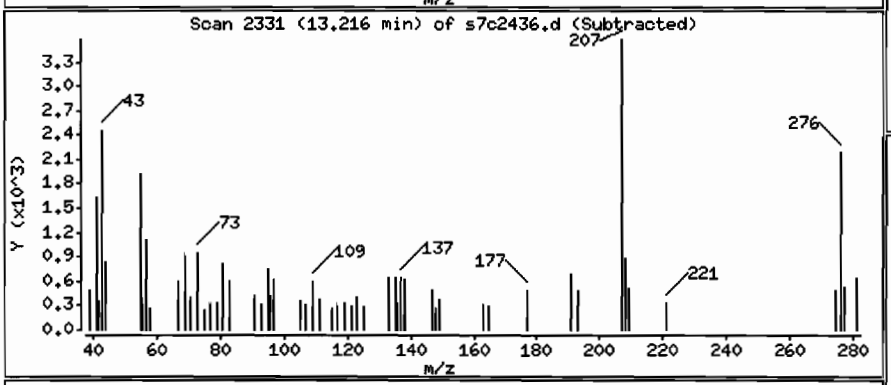

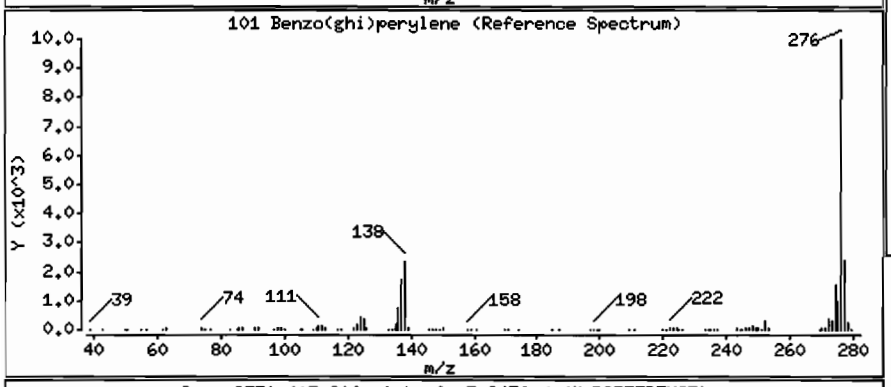

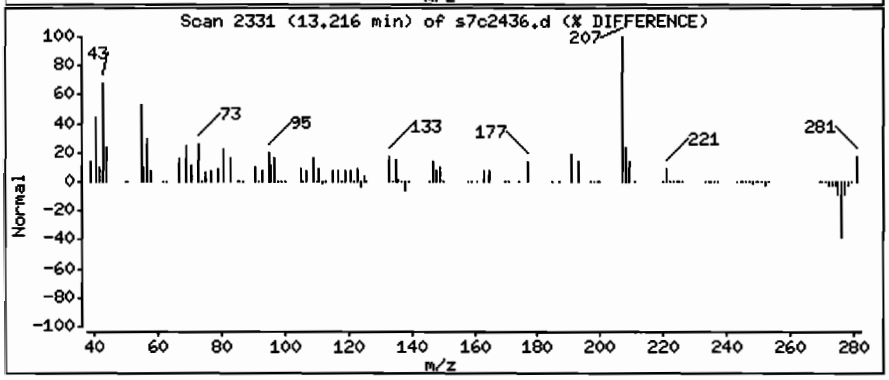

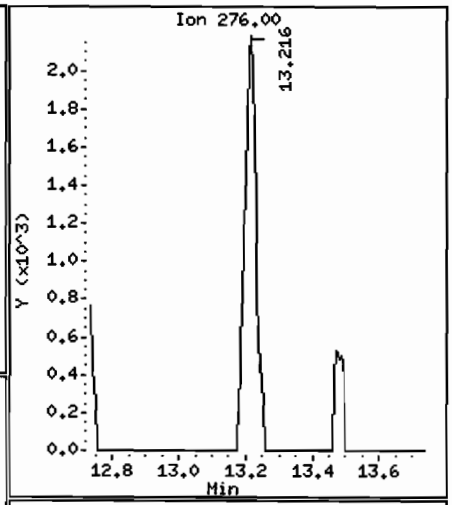

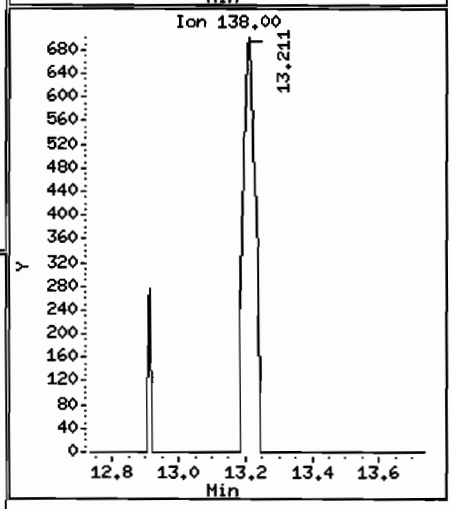

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d

Date : 25-MAR-2010 00:01

Client ID: RE46-10-12931

Instrument: MSD7.i

Sample Info: |248867001|966400|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Methyl 3-butenoate	3724-55-8	NIST05.L	3590	78	C5H8O2	100
Cyclopropanecarboxylic acid, methyl este	2868-37-3	NIST05.L	3669	50	C5H8O2	100
2-Propenoic acid, 2-methyl-, methyl este	80-62-6	NIST05.L	3670	47	C5H8O2	100

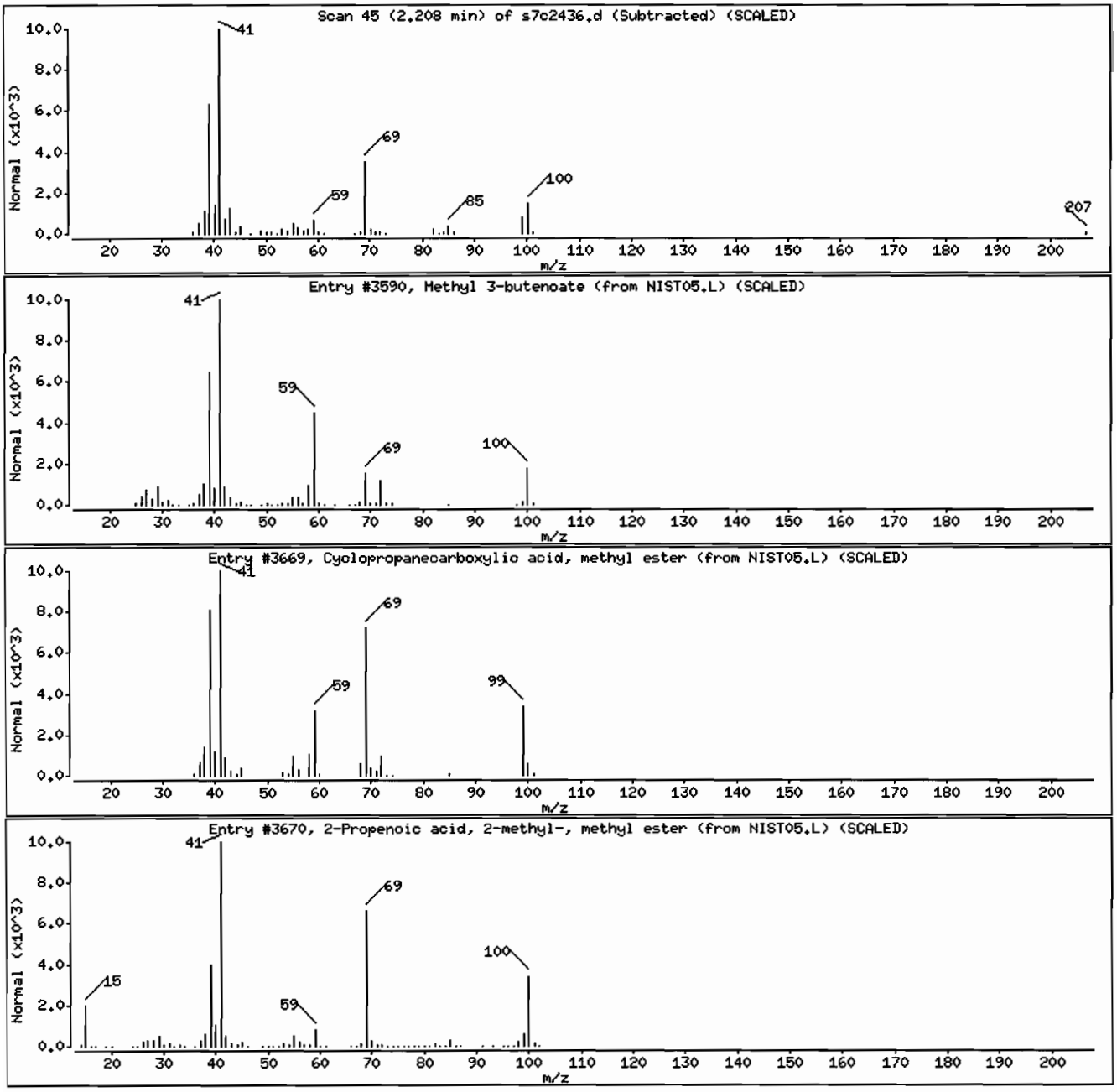

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d

Date : 25-MAR-2010 00:01

Client ID: RE46-10-12931

Instrument: MSD7.i

Sample Info: 1248867001|966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116

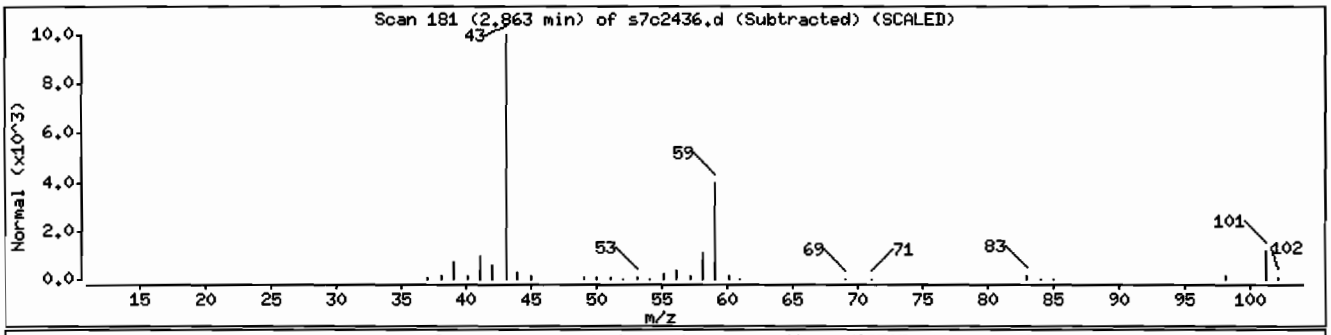

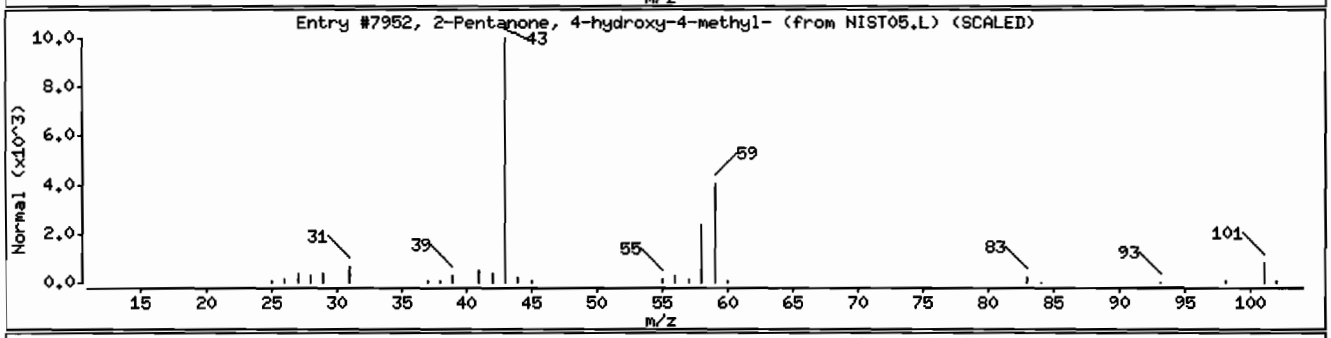

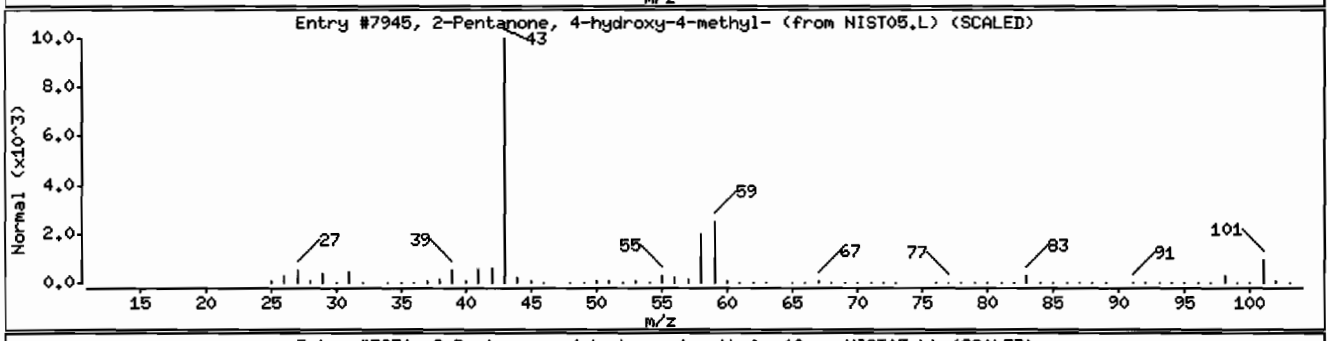

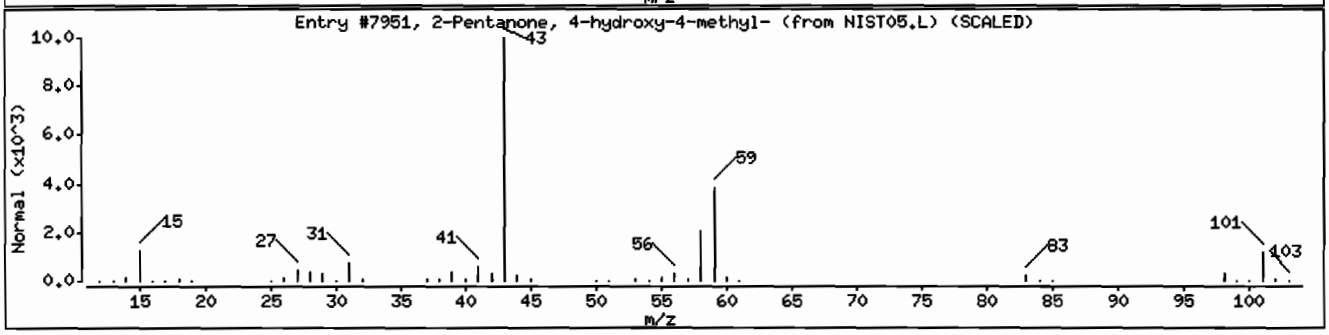

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d

Date : 25-MAR-2010 00:01

Client ID: RE46-10-12931

Instrument: MSD7.i

Sample Info: |2488670011966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.alpha.-Pinene	80-56-8	NIST05.L	15178	97	C10H16	136
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15188	96	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	2437-95-8	NIST05.L	15376	96	C10H16	136

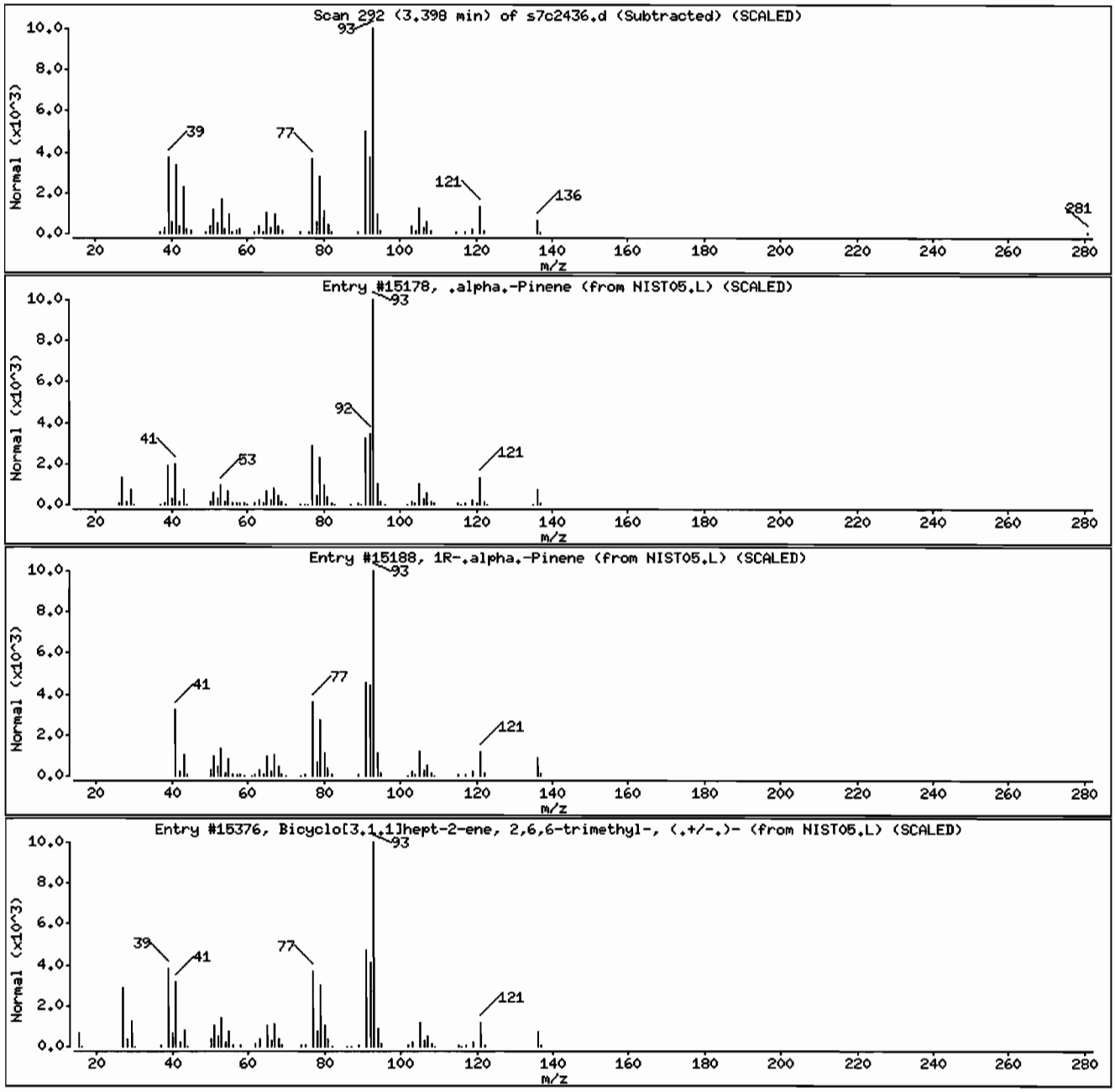

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d

Date : 25-MAR-2010 00:01

Client ID: RE46-10-12931

Instrument: MSD7.i

Sample Info: |248867001|966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Carene	13466-78-9	NIST05.L	15156	96	C10H16	136
3-Carene	13466-78-9	NIST05.L	15151	95	C10H16	136
1S-.alpha.-Pinene	7785-26-4	NIST05.L	15185	93	C10H16	136

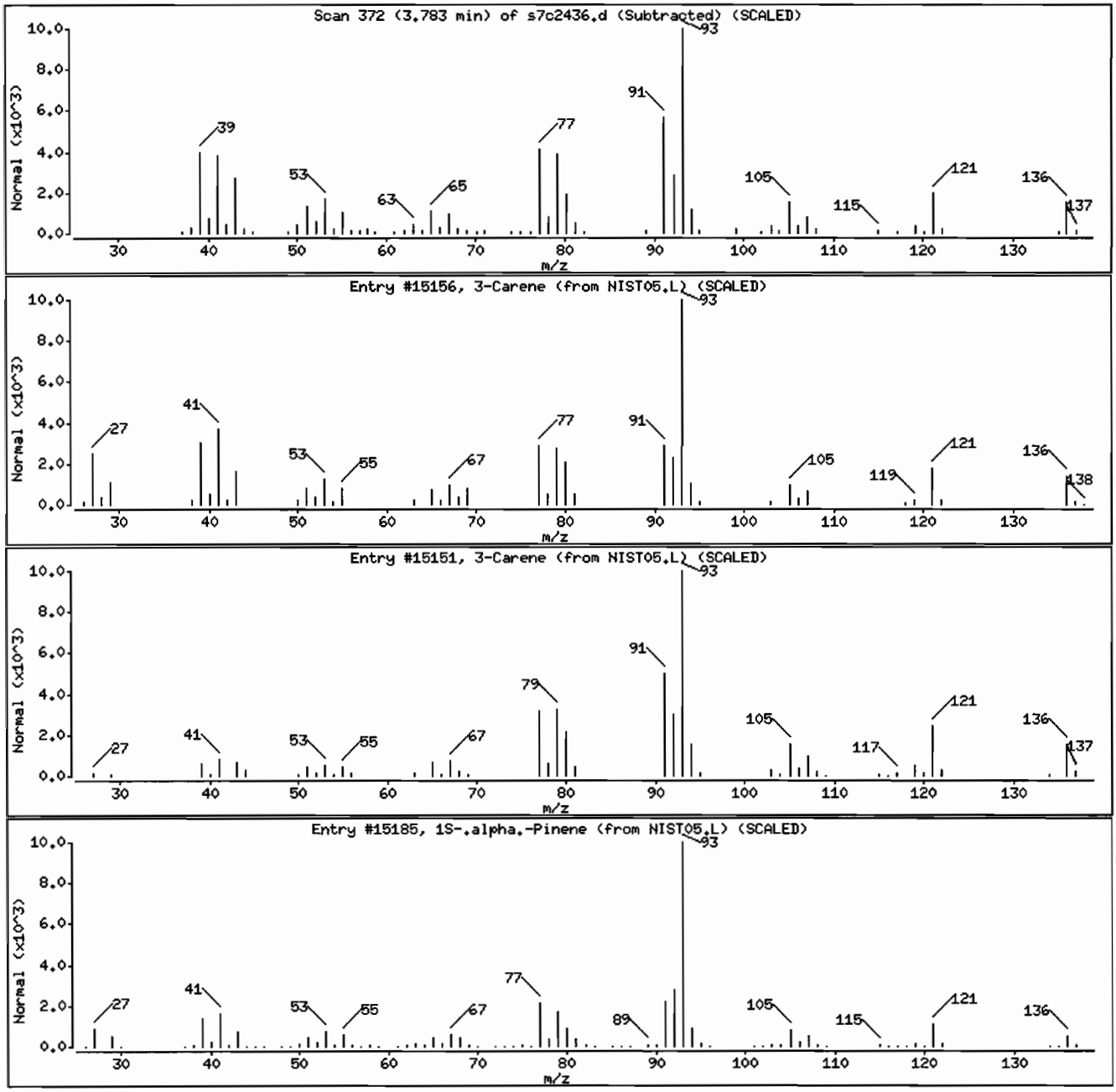

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d

Date : 25-MAR-2010 00:01

Client ID: RE46-10-12931 Instrument: MSD7.i

Sample Info: |2488670001|966400|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3,4-Pentadienal	4009-55-6	NIST05.L	1141	47	C5H6O	82
4-Cyclopropylnorcarane	1000222-73-9	NIST05.L	15207	45	C10H16	136
6-Nonynoic acid	56630-31-0	NIST05.L	26459	40	C9H14O2	154

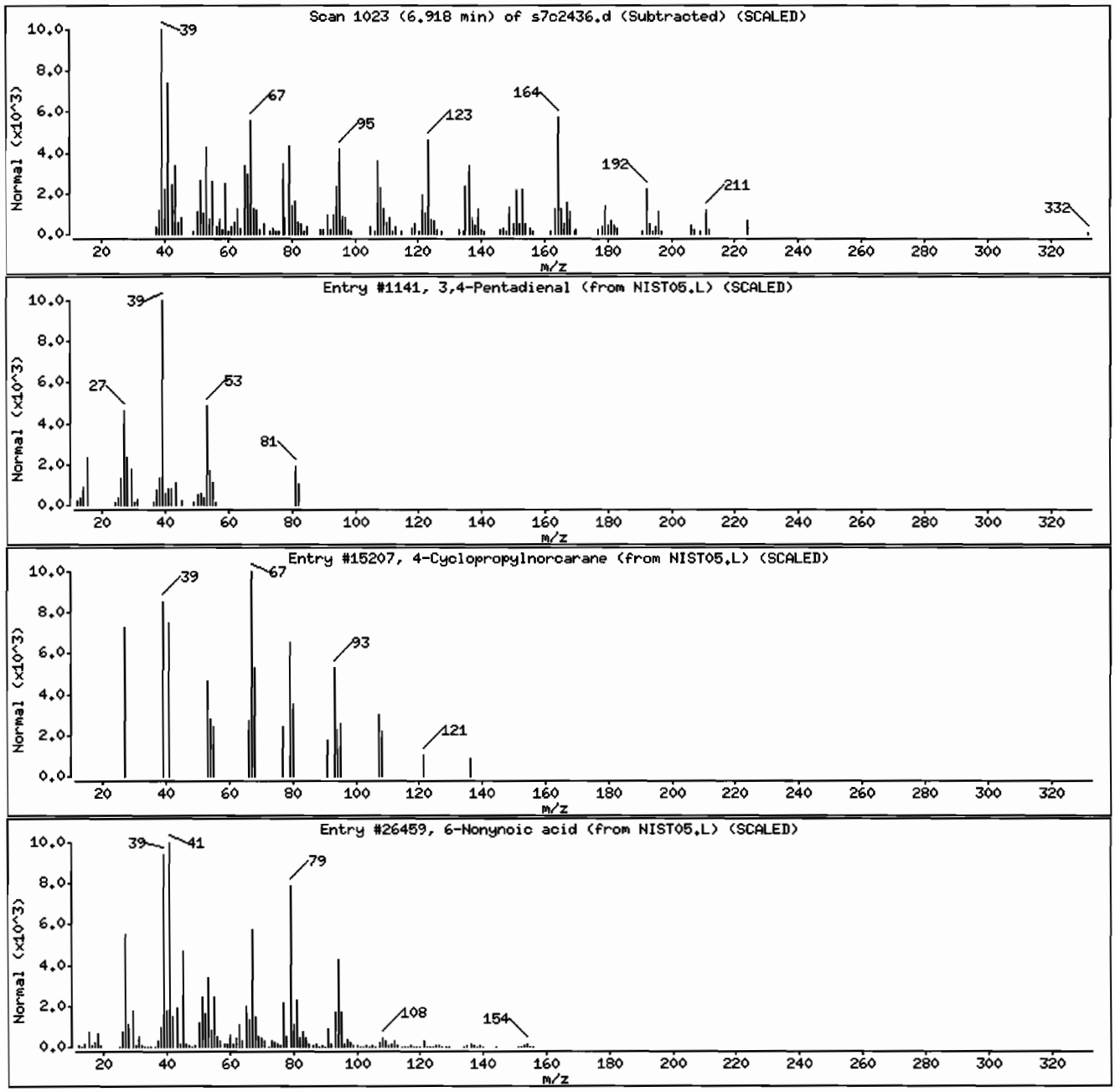

Data File: /chem/MSD7.i/s032410a.b/s7c2436.d

Date : 25-MAR-2010 00:01

Client ID: RE46-10-12931

Instrument: MSD7.i

Sample Info: |2488670011966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	93	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	92	C18H35NO	281
trans-2,7-Dimethyl-4,6-octadien-2-ol	1000281-69-5	NIST05.L	25673	43	C10H18O	154

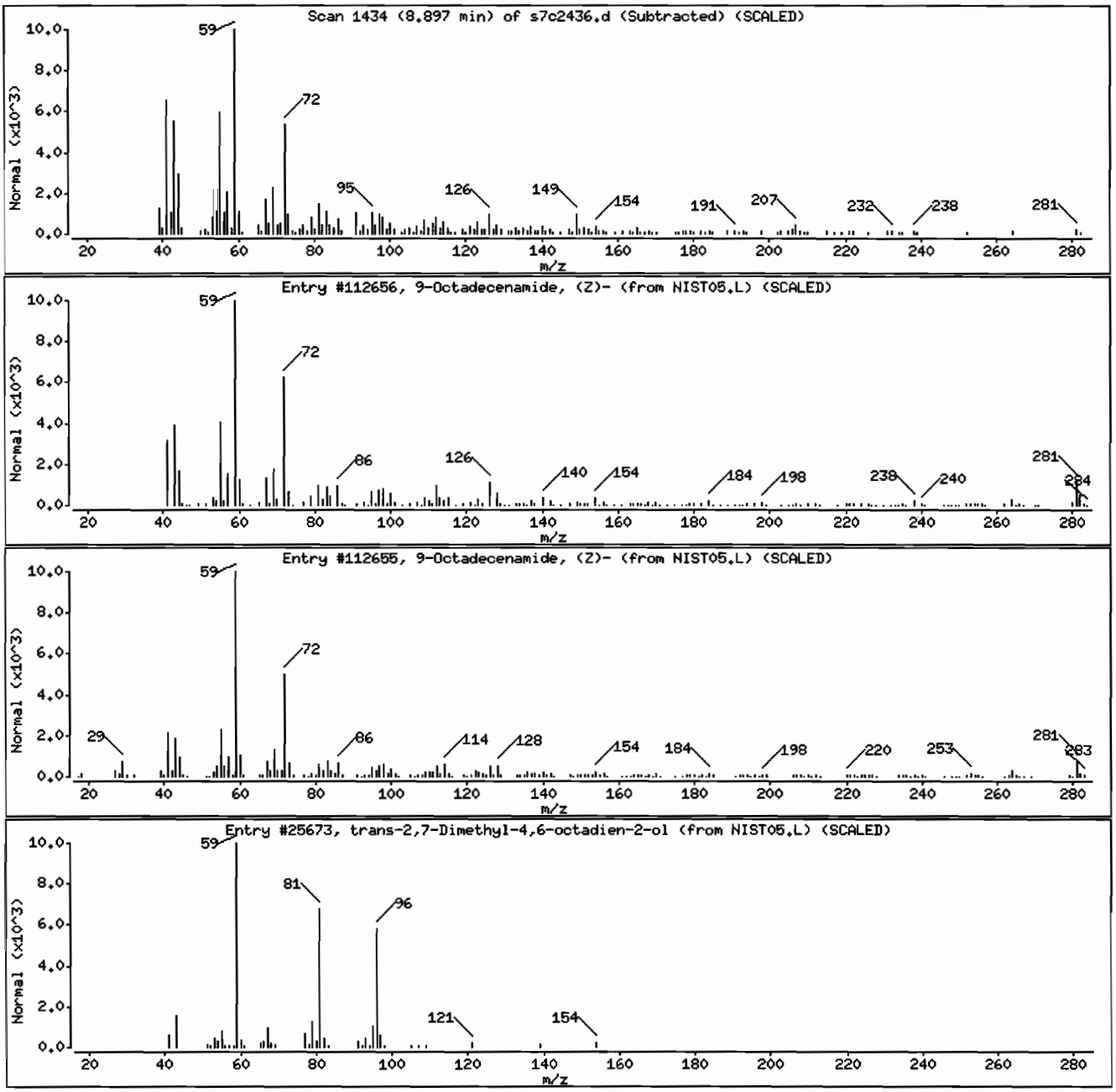

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12932**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 00:44**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2438.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	402	ug/kg	80.3	402
108-95-2	Phenol	U	402	ug/kg	80.3	402
95-57-8	2-Chlorophenol	U	402	ug/kg	80.3	402
106-46-7	1,4-Dichlorobenzene	U	402	ug/kg	80.3	402
621-64-7	N-Nitrosodipropylamine	U	402	ug/kg	80.3	402
59-50-7	4-Chloro-3-methylphenol	U	402	ug/kg	80.3	402
83-32-9	Acenaphthene	U	40.2	ug/kg	13.3	40.2
121-14-2	2,4-Dinitrotoluene	U	402	ug/kg	40.2	402
100-02-7	4-Nitrophenol	U	402	ug/kg	133	402
87-86-5	Pentachlorophenol	U	402	ug/kg	100	402
129-00-0	Pyrene		89.7	ug/kg	12.0	40.2
110-86-1	Pyridine	U	402	ug/kg	80.3	402
62-53-3	Aniline	U	402	ug/kg	120	402
111-44-4	bis(2-Chloroethyl) ether	U	402	ug/kg	80.3	402
541-73-1	1,3-Dichlorobenzene	U	402	ug/kg	80.3	402
100-51-6	Benzyl alcohol	U	402	ug/kg	120	402
95-50-1	1,2-Dichlorobenzene	U	402	ug/kg	80.3	402
108-60-1	bis(2-Chloroisopropyl)ether	U	402	ug/kg	80.3	402
95-48-7	o-Cresol	U	402	ug/kg	80.3	402
65794-96-9	m,p-Cresols	U	402	ug/kg	120	402
67-72-1	Hexachloroethane	U	402	ug/kg	80.3	402
98-95-3	Nitrobenzene	U	402	ug/kg	80.3	402
78-59-1	Isophorone	U	402	ug/kg	80.3	402
88-75-5	2-Nitrophenol	U	402	ug/kg	80.3	402
105-67-9	2,4-Dimethylphenol	U	402	ug/kg	141	402
111-91-1	bis(2-Chloroethoxy)methane	U	402	ug/kg	80.3	402
120-83-2	2,4-Dichlorophenol	U	402	ug/kg	80.3	402
65-85-0	Benzoic acid	U	803	ug/kg	201	803
91-20-3	Naphthalene	U	40.2	ug/kg	12.0	40.2
106-47-8	4-Chloroaniline	U	402	ug/kg	80.3	402
87-68-3	Hexachlorobutadiene	U	402	ug/kg	80.3	402
91-57-6	2-Methylnaphthalene	U	40.2	ug/kg	8.03	40.2
77-47-4	Hexachlorocyclopentadiene	U	402	ug/kg	80.3	402
88-06-2	2,4,6-Trichlorophenol	U	402	ug/kg	80.3	402
95-95-4	2,4,5-Trichlorophenol	U	402	ug/kg	80.3	402
91-58-7	2-Chloronaphthalene	U	40.2	ug/kg	13.3	40.2
88-74-4	2-Nitroaniline	U	402	ug/kg	80.3	402
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	402	ug/kg	80.3	402

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12932**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 00:44**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2438.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	402	ug/kg	80.3	402
606-20-2	2,6-Dinitrotoluene	U	402	ug/kg	40.2	402
208-96-8	Acenaphthylene	U	40.2	ug/kg	12.0	40.2
51-28-5	2,4-Dinitrophenol	U	803	ug/kg	153	803
132-64-9	Dibenzofuran	U	402	ug/kg	80.3	402
84-66-2	Diethylphthalate	U	402	ug/kg	80.3	402
86-73-7	Fluorene	U	40.2	ug/kg	12.0	40.2
7005-72-3	4-Chlorophenylphenylether	U	402	ug/kg	80.3	402
534-52-1	2-Methyl-4,6-dinitrophenol	U	402	ug/kg	80.3	402
100-01-6	4-Nitroaniline	U	402	ug/kg	120	402
	p-Nitroaniline					
122-39-4	Diphenylamine	U	402	ug/kg	80.3	402
122-66-7	Azobenzene	U	402	ug/kg	80.3	402
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	402	ug/kg	80.3	402
118-74-1	Hexachlorobenzene	U	402	ug/kg	80.3	402
85-01-8	Phenanthrene		54.4	ug/kg	12.0	40.2
120-12-7	Anthracene	J	14.2	ug/kg	8.03	40.2
84-74-2	Di-n-butylphthalate	U	402	ug/kg	80.3	402
206-44-0	Fluoranthene		90.5	ug/kg	12.0	40.2
85-68-7	Butylbenzylphthalate	U	402	ug/kg	80.3	402
56-55-3	Benzo(a)anthracene		48.4	ug/kg	12.0	40.2
91-94-1	3,3'-Dichlorobenzidine	U	402	ug/kg	120	402
218-01-9	Chrysene		43.5	ug/kg	12.0	40.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	402	ug/kg	80.3	402
117-84-0	Di-n-octylphthalate	U	402	ug/kg	80.3	402
205-99-2	Benzo(b)fluoranthene		59.9	ug/kg	12.0	40.2
207-08-9	Benzo(k)fluoranthene	J	22.9	ug/kg	12.0	40.2
50-32-8	Benzo(a)pyrene		42.4	ug/kg	12.0	40.2
193-39-5	Indeno(1,2,3-cd)pyrene	J	22.0	ug/kg	12.0	40.2
53-70-3	Dibenzo(a,h)anthracene	U	40.2	ug/kg	12.0	40.2
191-24-2	Benzo(ghi)perylene	J	26.1	ug/kg	12.0	40.2
120-82-1	1,2,4-Trichlorobenzene	U	402	ug/kg	80.3	402

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.86	517	ug/kg		J
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.67	331	ug/kg	99	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12932**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 00:44**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2438.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
301-02-0	9-Octadecenamide, (Z)-	8.89	285	ug/kg	95	NJ
	Unknown	10.49	2530	ug/kg		J
	Unknown	12.9	255	ug/kg		J

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032410a.b/s7c2438.d
Lab Smp Id: 248867002 Client Smp ID: RE46-10-12932
Inj Date : 25-MAR-2010 00:44
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248867002|966400|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Meth Date : 25-Mar-2010 08:37 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2320.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.12000	weight of sample
M	17.32130	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.821	3.826	(1.000)	278148	40.0000	
* 29 Naphthalene-d8	136	4.683	4.688	(1.000)	995560	40.0000	
* 46 Acenaphthene-d10	164	5.935	5.940	(1.000)	545560	40.0000	
* 67 Phenanthrene-d10	188	7.096	7.101	(1.000)	960850	40.0000	
* 91 Chrysene-d12	240	9.489	9.499	(1.000)	536406	40.0000	
* 98 Perylene-d12	264	11.073	11.083	(1.000)	238689	40.0000	
$ 3 2-Fluorophenol	112	3.027	3.017	(0.792)	366776	50.7318	2040
$ 5 Phenol-d5	99	3.547	3.547	(0.928)	429518	47.3847	1900
$ 20 Nitrobenzene-d5	82	4.183	4.187	(0.893)	216205	28.7935	1160
$ 39 2-Fluorobiphenyl	172	5.425	5.430	(0.914)	439303	32.3106	1300
$ 60 2,4,6-Tribromophenol	329	6.528	6.532	(1.100)	88741	56.2669	2260
$ 81 p-Terphenyl-d14	244	8.468	8.473	(0.892)	387795	40.3540	1620

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	8.357	8.367	(0.881)	37866	2.23451	89.7
68 Phenanthrene	178	7.110	7.120	(1.002)	26690	1.35365	54.4
69 Anthracene	178	7.154	7.163	(1.008)	7038	0.35245	14.2(a)
76 Fluoranthene	202	8.146	8.155	(1.148)	48342	2.25492	90.5
89 Benzo(a)anthracene	228	9.479	9.484	(0.999)	15488	1.20443	48.4
92 Chrysene	228	9.508	9.523	(1.002)	12398	1.08348	43.5
95 Benzo(b)fluoranthene	252	10.592	10.601	(0.956)	9988	1.49212	59.9
96 Benzo(k)fluoranthene	252	10.621	10.630	(0.959)	3580	0.56908	22.8(aQ)
97 Benzo(a)pyrene	252	11.001	11.011	(0.993)	5793	1.05544	42.4
99 Indeno(1,2,3-cd)pyrene	276	12.715	12.735	(1.148)	2159	0.54701	22.0(a)
101 Benzo(ghi)perylene	276	13.216	13.235	(1.194)	2137	0.64924	26.1(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

SV REPORT

Data file: s7c2438.d
Report Date: 03/25/2010 08:50
Lab. ID: 248867002 SampleType: SAMPLE
Injection Date: 25-MAR-2010 00:44
Operator: JMB3 Instrument: MSD7.i
Sample Info: |248867002|966400|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100319-01|
Comment:
Method used: /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2320
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	31504	3.55	3.61	80-120	100	(T)
93	1122	3.60	3.61	190-250	4	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	35860	4.18	4.07	80-120	100	(T)
42	29903	4.18	4.07	74-134	83	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	99001	5.94	5.71	80-120	100	(T)
164	545560	5.94	5.71	0- 40	551	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	71796	5.94	5.77	80-120	100	(T)
63	1068	5.94	5.76	67-127	1	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	71796	5.94	6.06	80-120	100	(T)
89	1070	5.94	6.06	45-105	1	(QT)
63	1068	5.94	6.06	26- 86	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	309	6.52	6.37	80-120	100	(T)
105	993	6.53	6.37	12- 72	321	(QT)
51	1579	6.52	6.37	46-106	510	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
68 Phenanthrene			CAS#: 85-01-8			
178	26690	7.11	7.12	80-120	100	( )
179	5237	7.11	7.12	0- 46	20	( )
176	4941	7.11	7.12	0- 49	19	( )
69 Anthracene			CAS#: 120-12-7			
178	7038	7.15	7.16	80-120	100	( )
179	1694	7.15	7.16	0- 46	24	( )
176	1089	7.15	7.16	0- 48	15	( )
76 Fluoranthene			CAS#: 206-44-0			
202	48342	8.15	8.16	80-120	100	( )
203	8659	8.15	8.16	0- 47	18	( )
101	4650	8.15	8.15	0- 39	10	( )
79 Pyrene			CAS#: 129-00-0			
202	37866	8.36	8.37	80-120	100	( )
200	7749	8.36	8.37	0- 50	20	( )
101	4832	8.36	8.37	0- 41	13	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	15488	9.48	9.48	80-120	100	( )
226	3932	9.48	9.48	0- 56	25	( )
229	4372	9.48	9.48	0- 50	28	( )
92 Chrysene			CAS#: 218-01-9			
228	12398	9.51	9.52	80-120	100	( )
229	2891	9.51	9.52	0- 50	23	( )
226	3600	9.51	9.52	0- 59	29	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	9988	10.59	10.60	80-120	100	( )
253	2241	10.59	10.60	0- 52	22	( )
125	1539	10.59	10.60	0- 40	15	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	3580	10.62	10.63	80-120	100	( )
253	1647	10.61	10.63	0- 52	46	( )
125	1592	10.62	10.63	0- 40	44	(Q)
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	5793	11.00	11.01	80-120	100	( )
253	1679	11.00	11.01	0- 52	29	( )
125	414	11.00	11.01	0- 40	7	( )
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	2159	12.72	12.73	80-120	100	( )
138	534	12.72	12.73	0- 58	25	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
101	Benzo(ghi)perylene			CAS#: 191-24-2		
276	2137	13.22	13.24	80-120	100	( )
138	984	13.23	13.24	0- 55	46	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s032410a.b/s7c2438.d
Lab Smp Id: 248867002 Client Smp ID: RE46-10-12932
Inj Date : 25-MAR-2010 00:44
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248867002|966400|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Meth Date : 25-Mar-2010 08:37 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2320.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.12000	weight of sample
M	17.32130	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.821	1836377	40.000
* 46 Acenaphthene-d10	5.935	2344039	40.000
* 91 Chrysene-d12	9.489	1550603	40.000
* 98 Perylene-d12	11.073	727119	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUANT QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.863	591191	12.8773372	517	0		0	10
1,4-Methanoazulene, decahydro-4,8,8-trim					CAS #: 475-20-7		
5.666	483664	8.25351416	331	99	NIST05.L	60024	46
9-Octadecenamide, (Z)-					CAS #: 301-02-0		
8.892	274795	7.08871605	285	95	NIST05.L	112656	91
Unknown					CAS #:		
10.486	1146090	63.0482646	2530	0		0	98
Unknown					CAS #:		
12.898	115527	6.35530790	255	0		0	98

Data File: /chem/MSD7.i/s032410a.b/s7o2438.d
Date : 25-MAR-2010 00:44
Client ID: RE46-10-12932
Sample Info: 1248867002|966400|1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

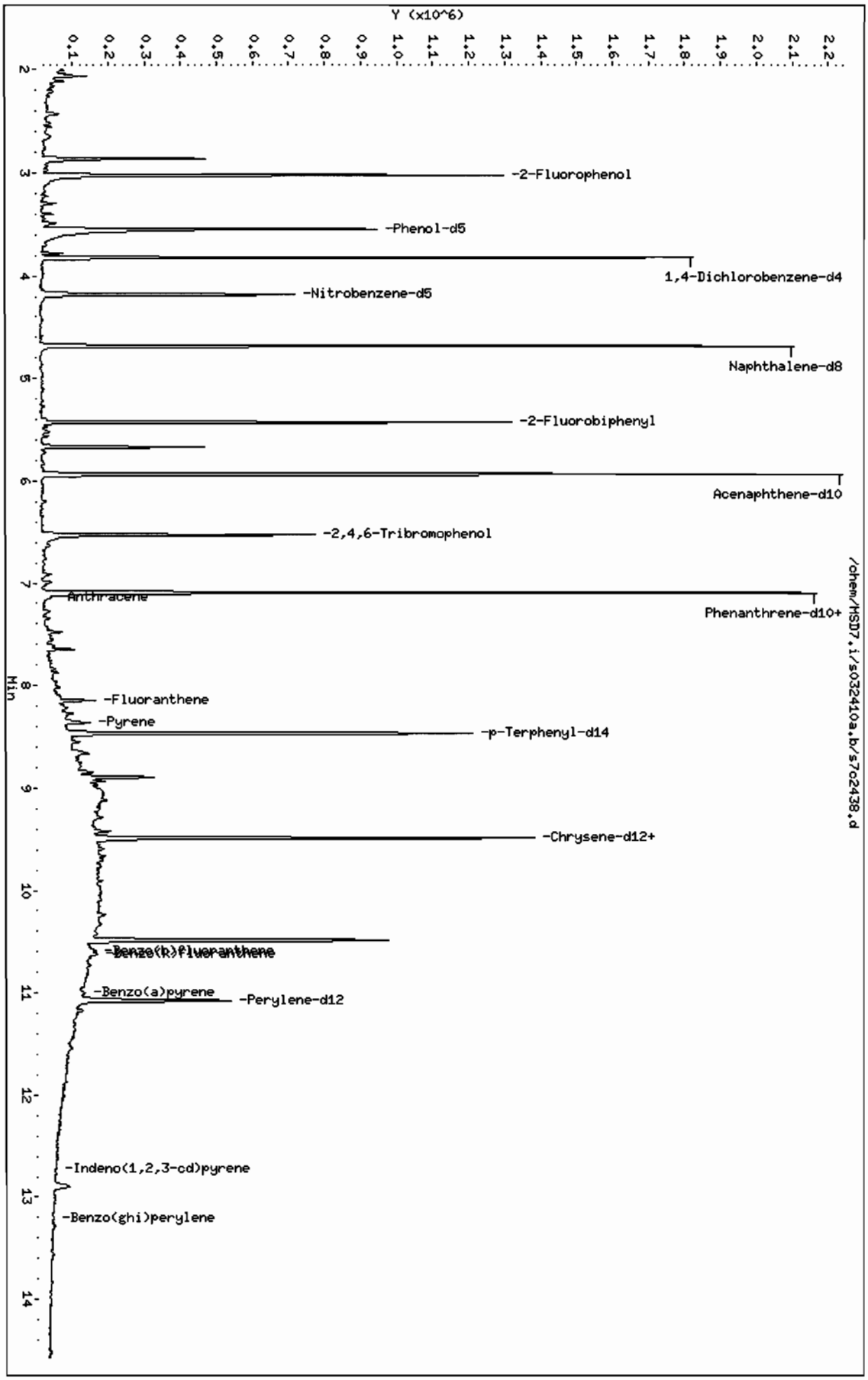

Page 1

Data File: /chem/MSD7.i/s032410a.b/s7c2438.d

Date : 25-MAR-2010 00:44

Client ID: RE46-10-12932

Instrument: MSD7.i

Sample Info: |2488670021966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 89.7 ug/Kg

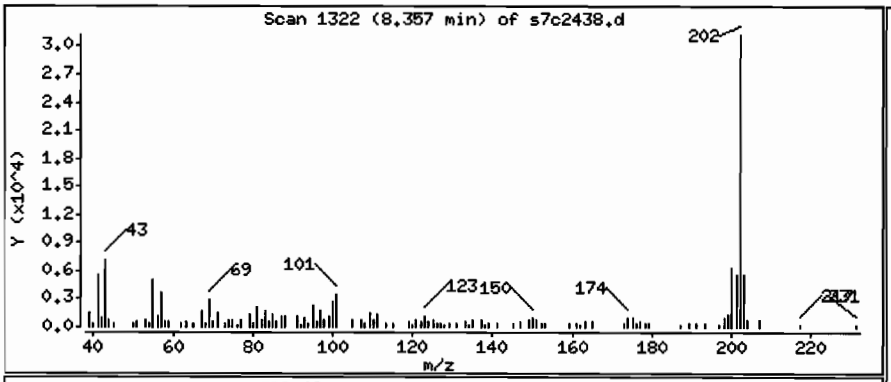

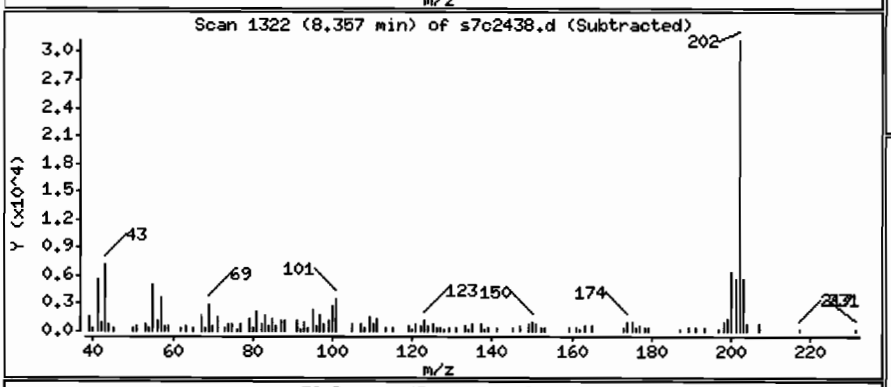

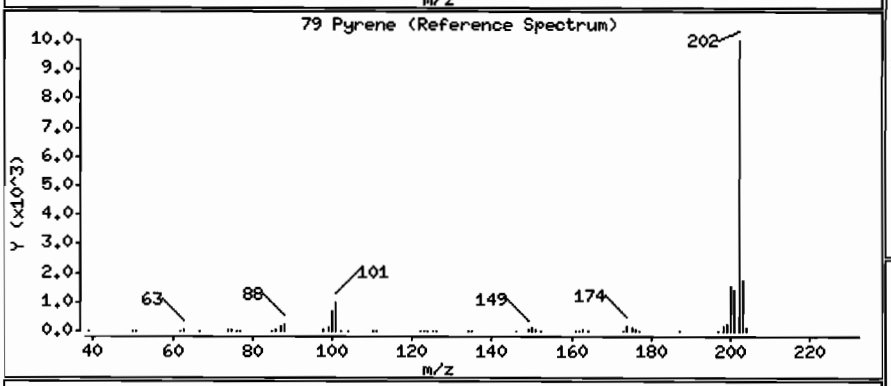

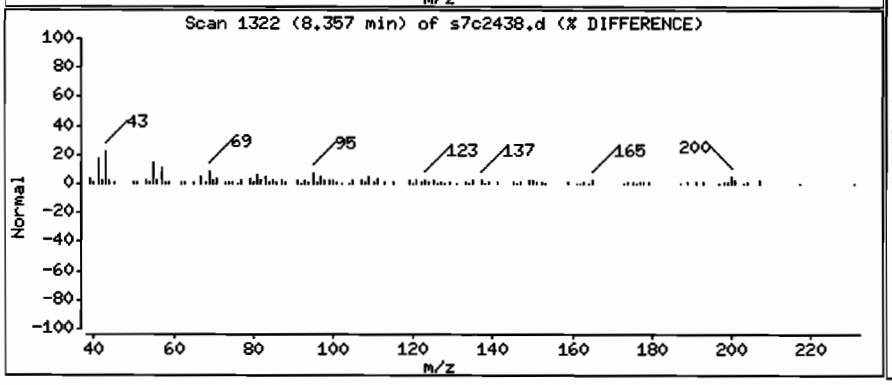

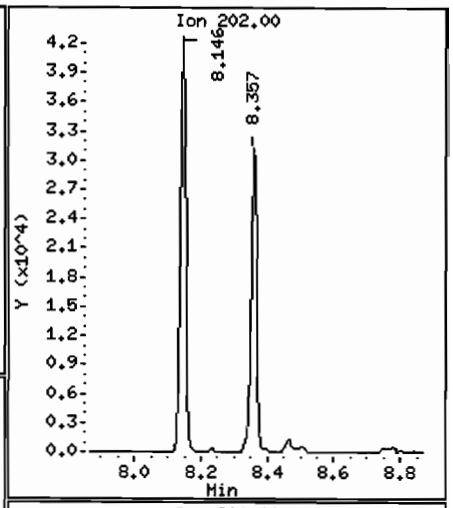

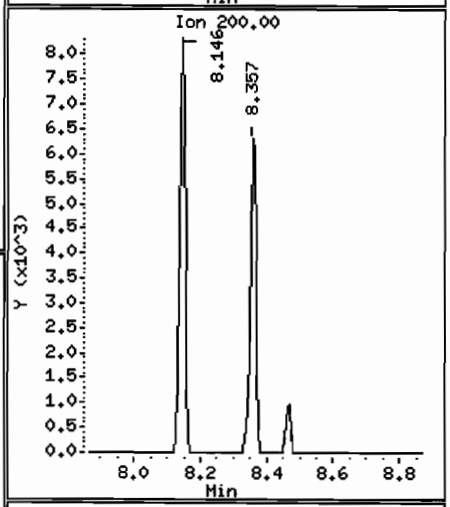

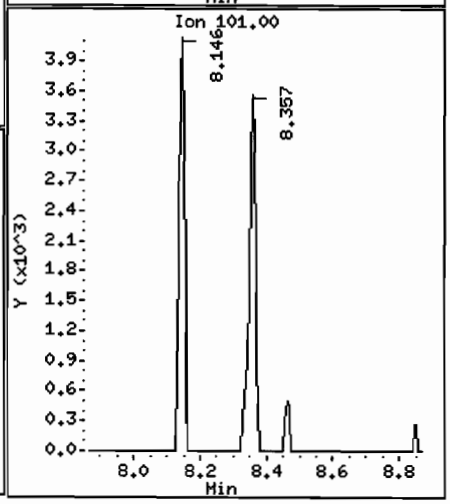

Data File: /chem/MSD7.i/s032410a.b/s7c2438.d

Date : 25-MAR-2010 00:44

Client ID: RE46-10-12932

Instrument: MSD7.i

Sample Info: |2488670021966400|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 54.4 ug/Kg

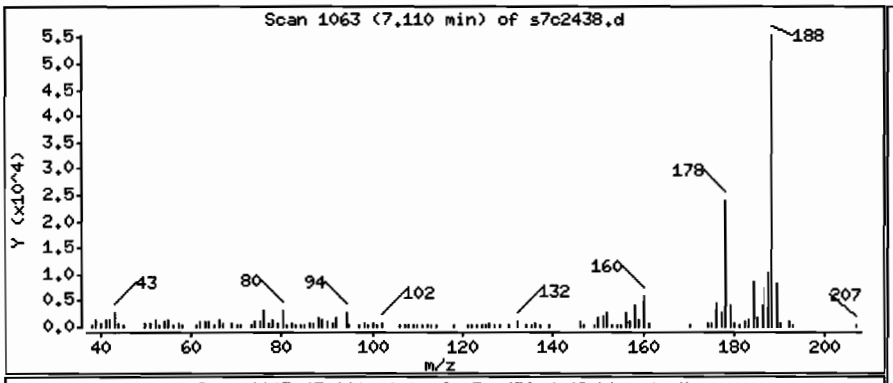

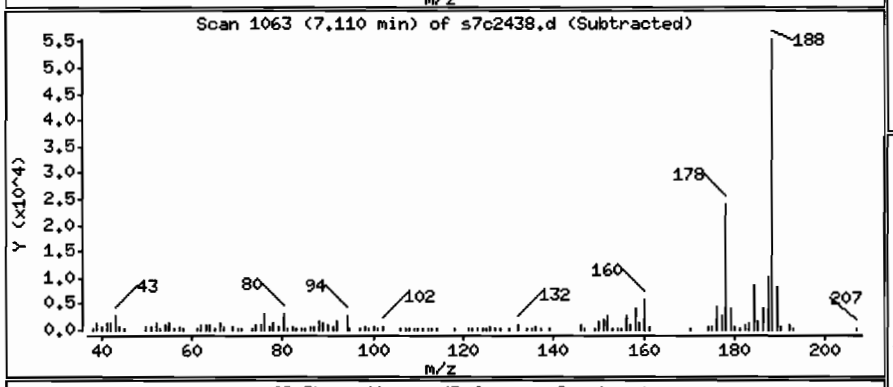

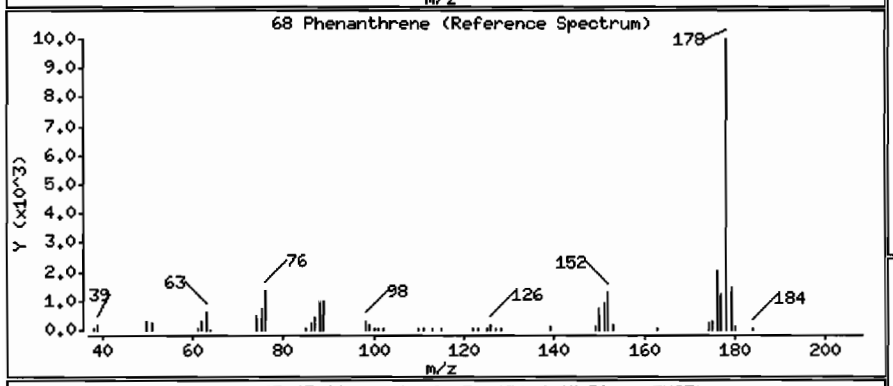

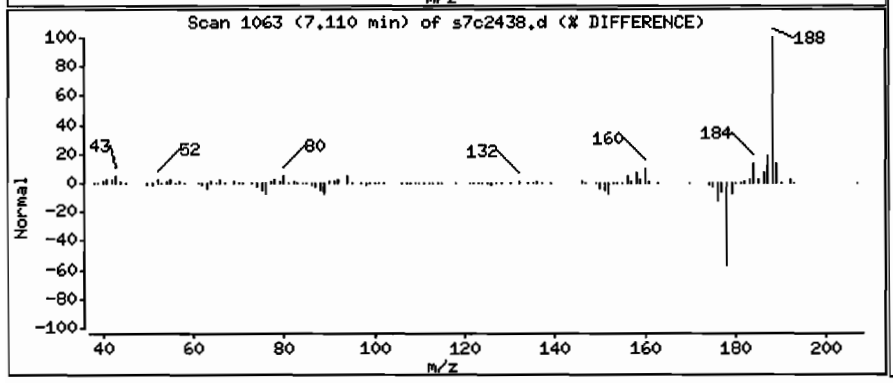

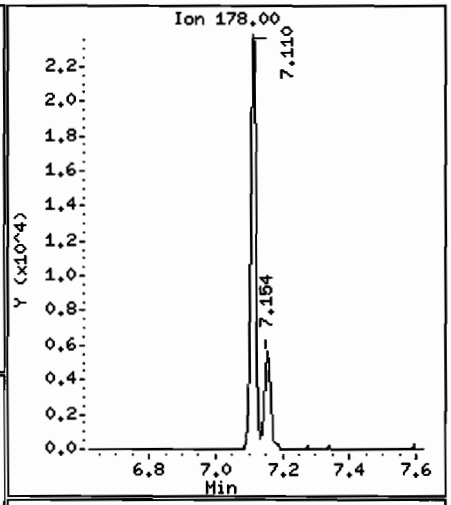

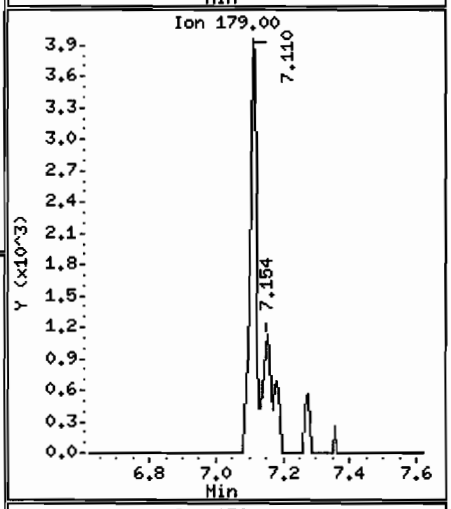

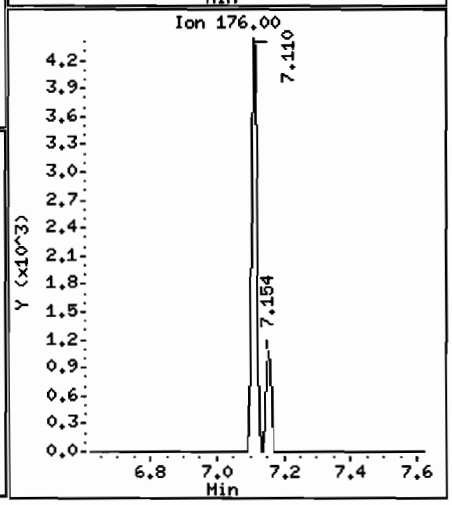

Data File: /chem/MSD7.i/s032410a.b/s7c2438.d

Date : 25-MAR-2010 00:44

Client ID: RE46-10-12932

Instrument: MSD7.i

Sample Info: 1248867002|966400|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 14.2 ug/Kg

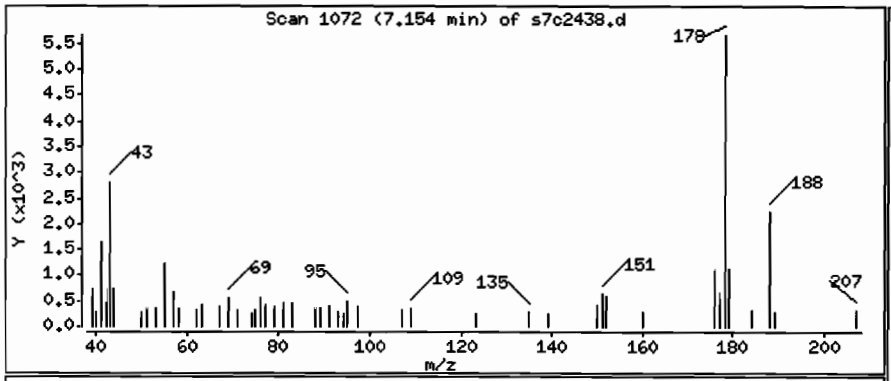

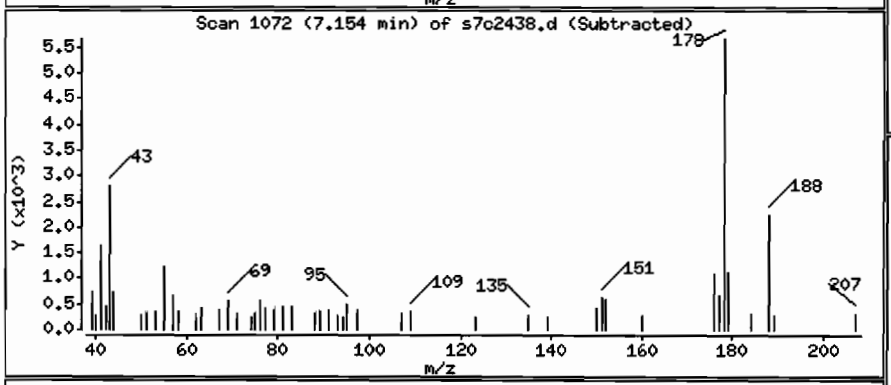

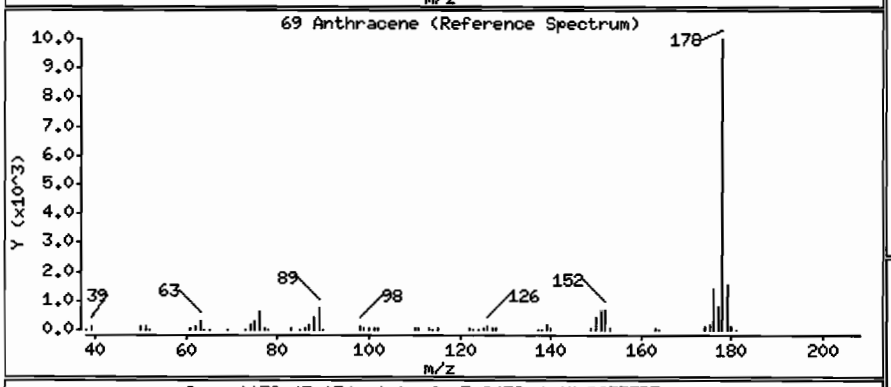

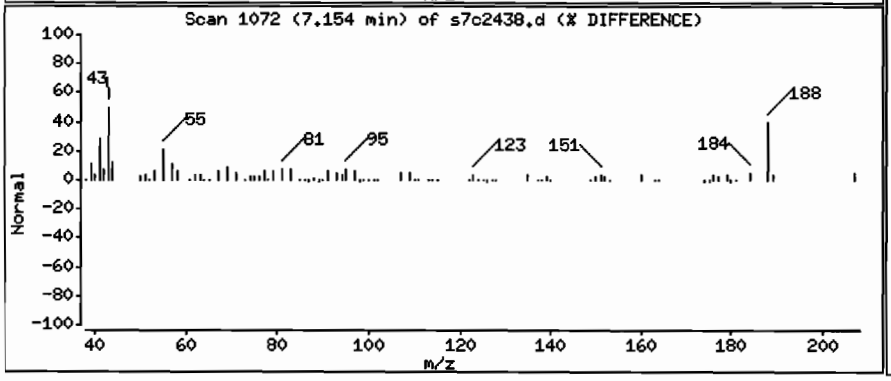

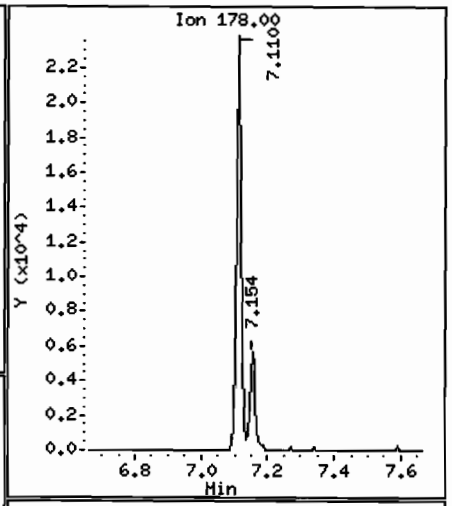

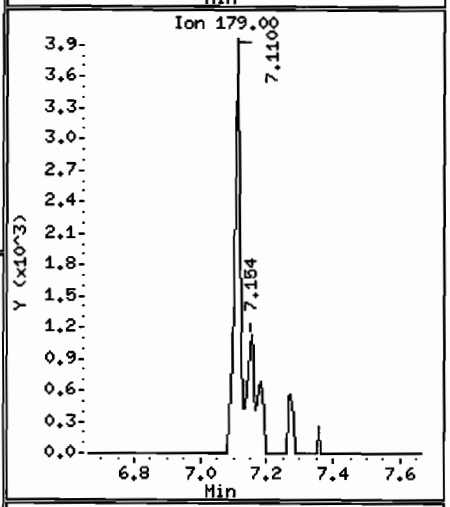

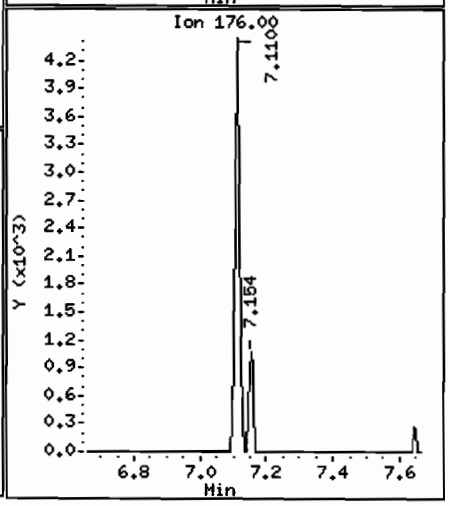

Data File: /chem/MSD7.i/s032410a.b/s7c2438.d

Date : 25-MAR-2010 00:44

Client ID: RE46-10-12932

Instrument: MSD7.i

Sample Info: 1248867002|966400|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 90.5 ug/Kg

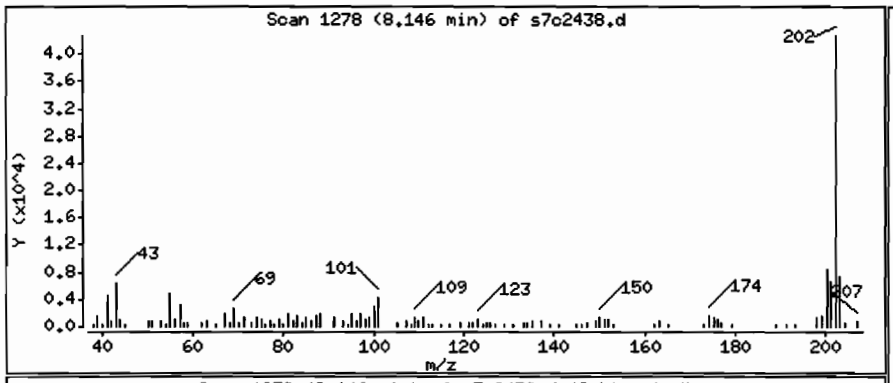

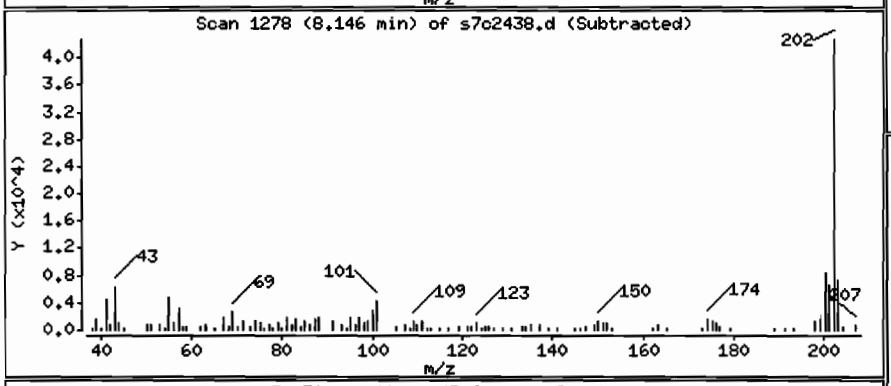

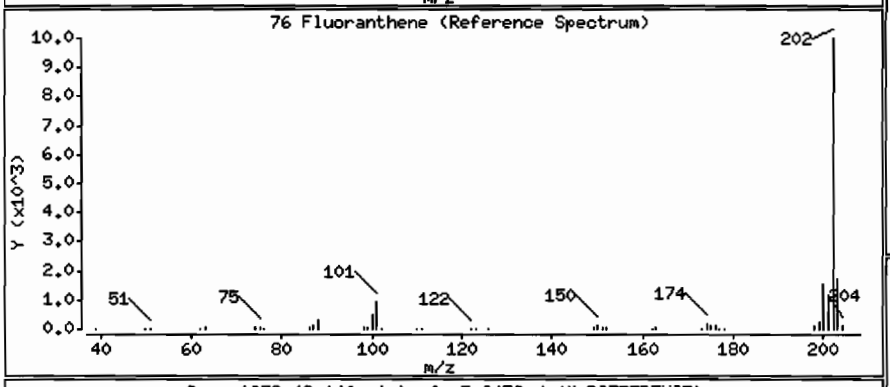

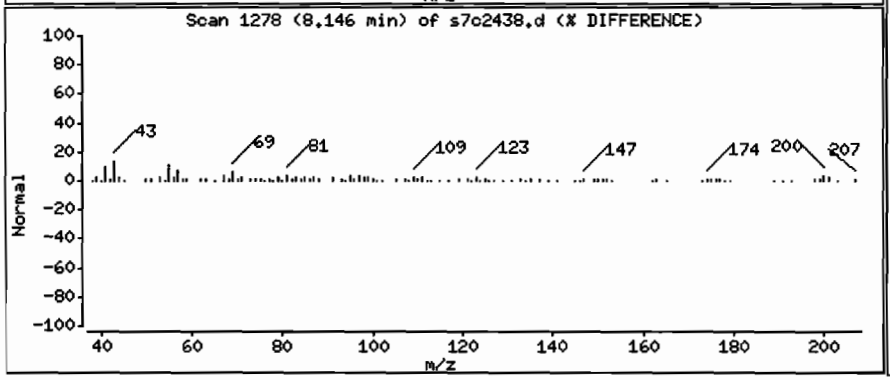

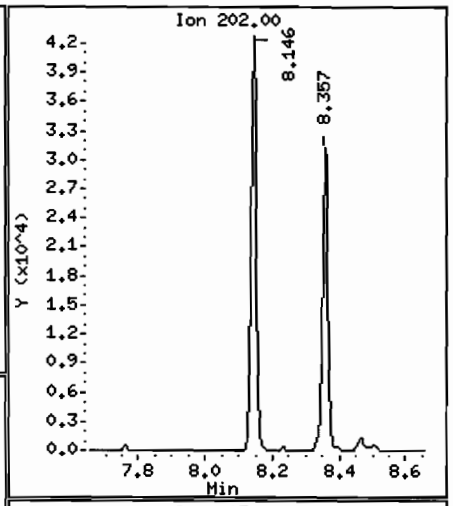

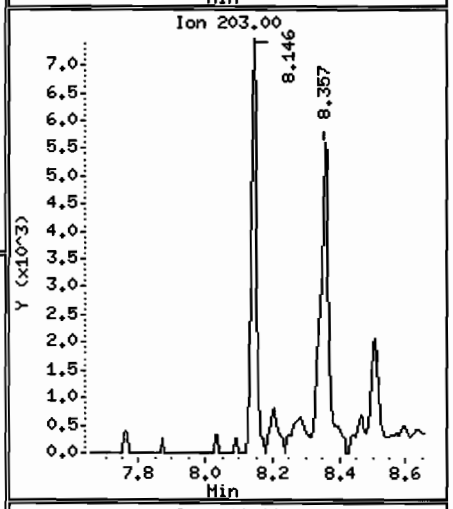

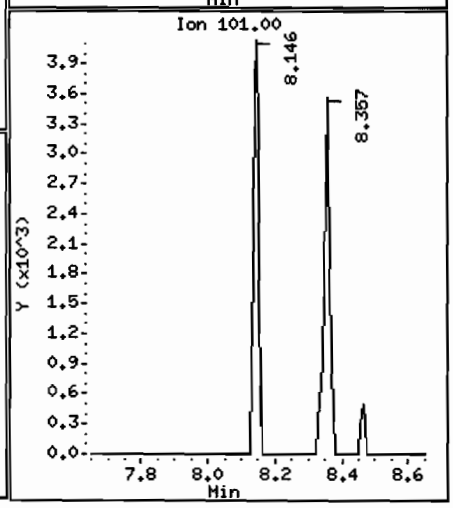

Data File: /chem/MSD7.i/s032410a.b/s7c2438.d

Date : 25-MAR-2010 00:44

Client ID: RE46-10-12932 Instrument: MSD7.i

Sample Info: |2488867002|96640011|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

89 Benzo(a)anthracene Concentration: 48.4 ug/Kg

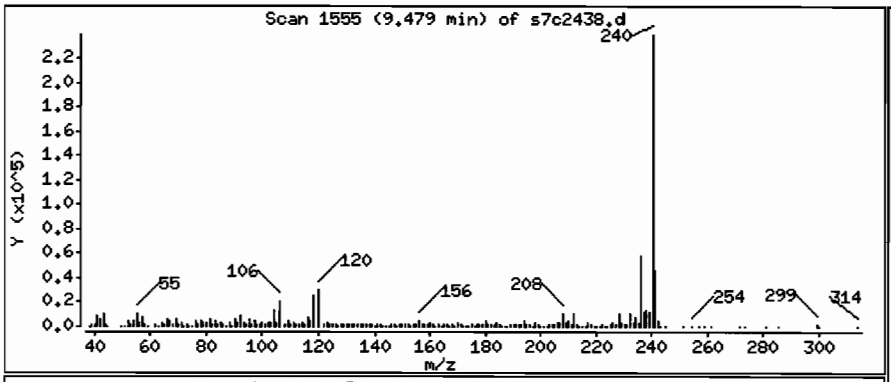

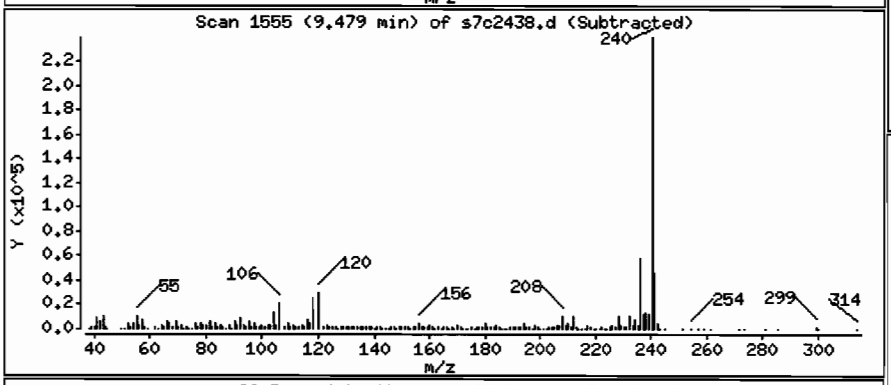

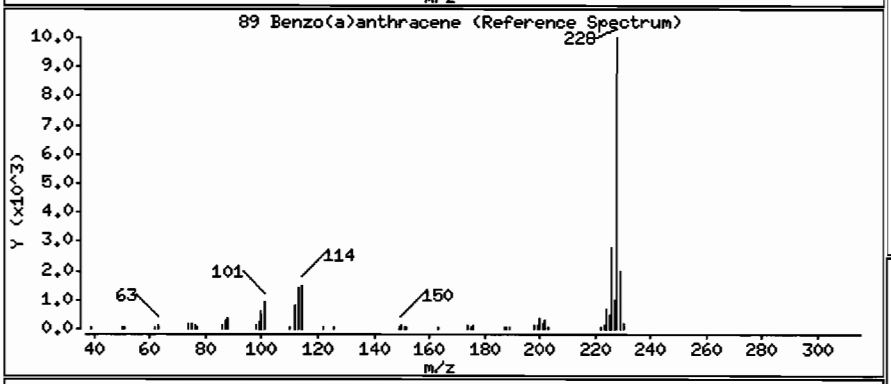

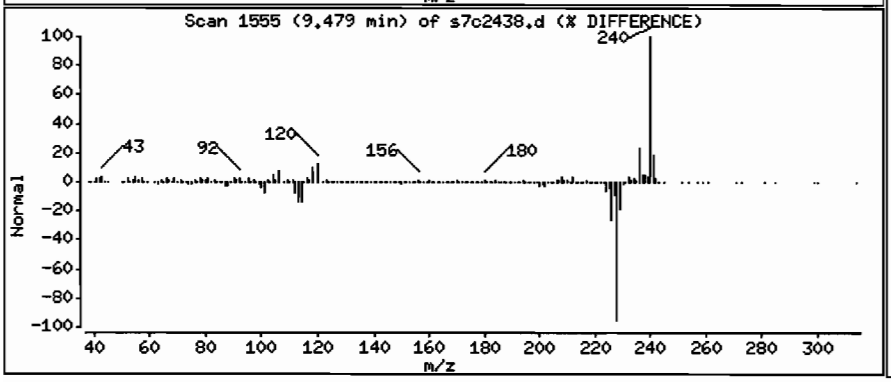

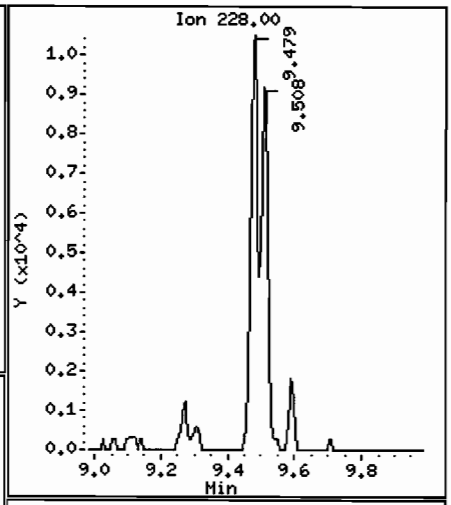

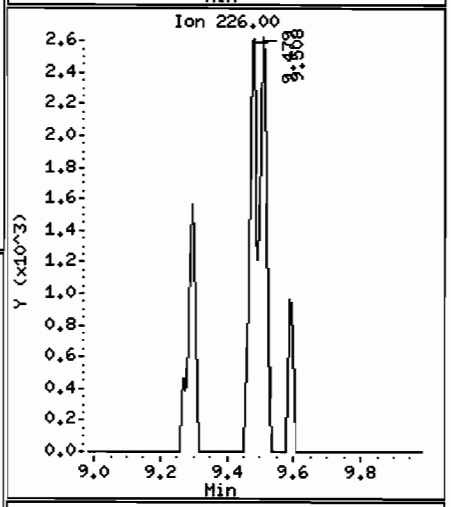

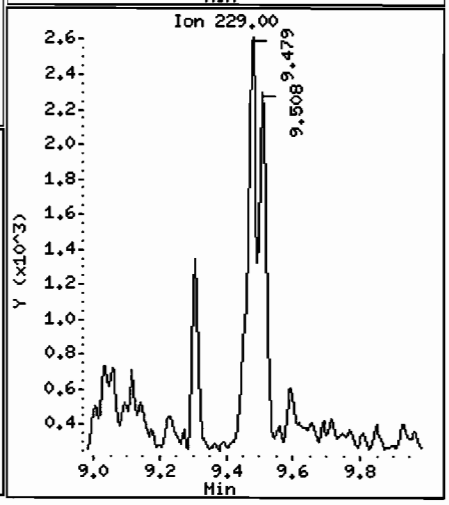

Data File: /chem/MSD7.i/s032410a.b/s7c2438.d

Date : 25-MAR-2010 00:44

Client ID: RE46-10-12932

Instrument: MSD7.i

Sample Info: |2488670021966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 43.5 ug/Kg

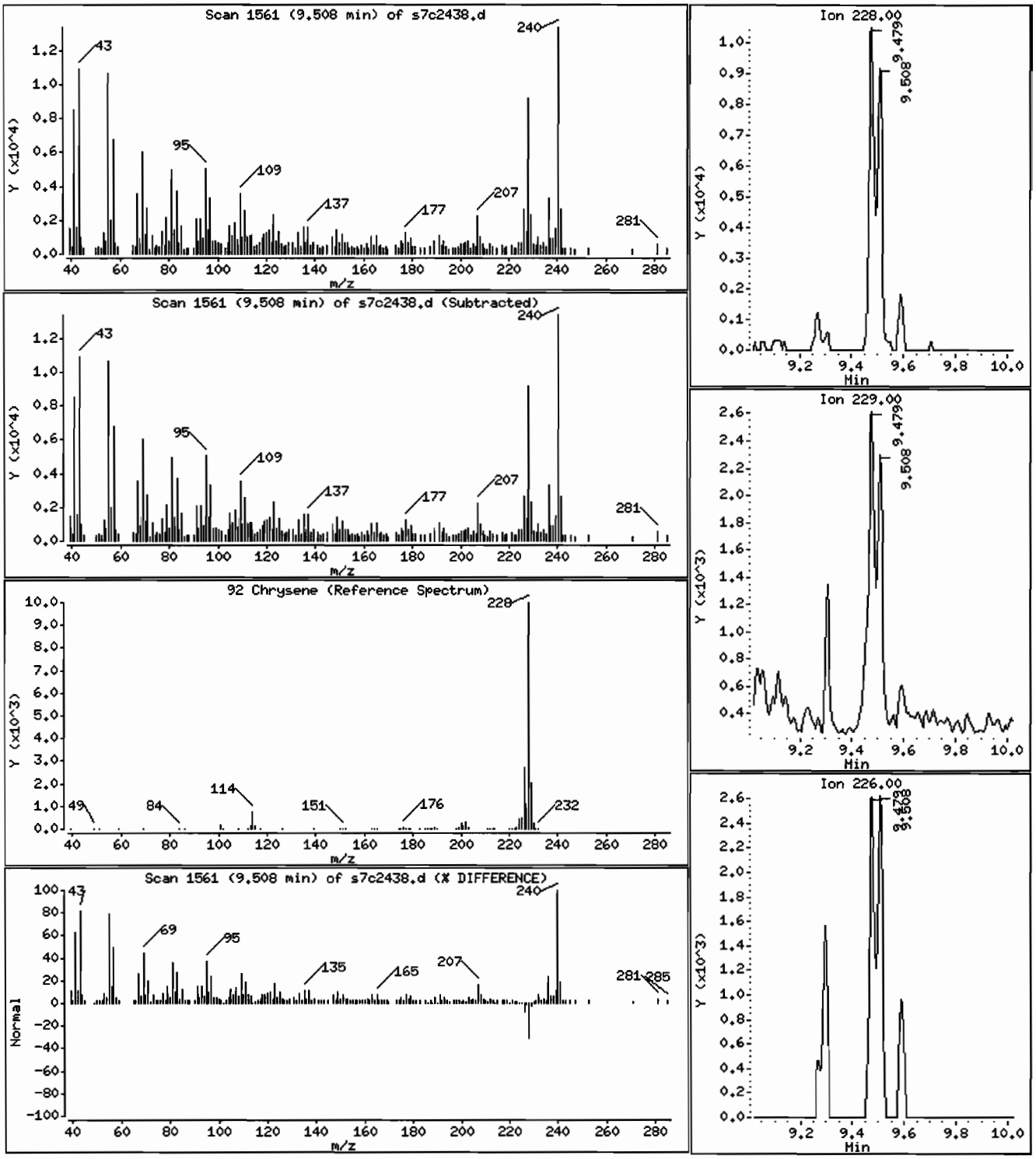

Data File: /chem/MSD7.i/s032410a.b/s7c2438.d

Date : 25-MAR-2010 00:44

Client ID: RE46-10-12932

Instrument: MSD7.i

Sample Info: 1248867002196640011ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 59.9 ug/Kg

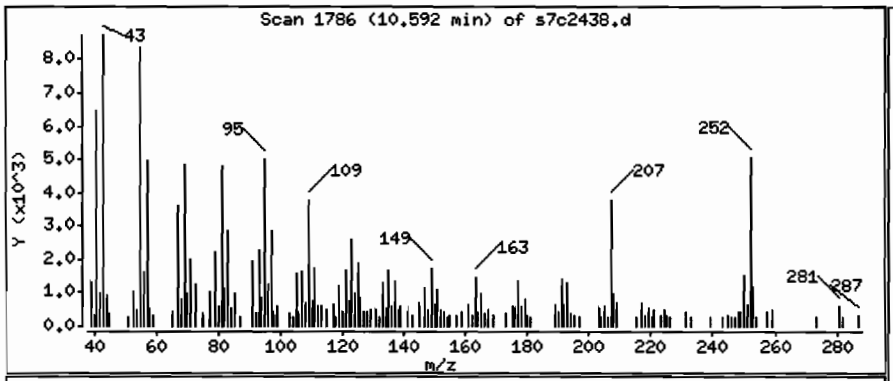

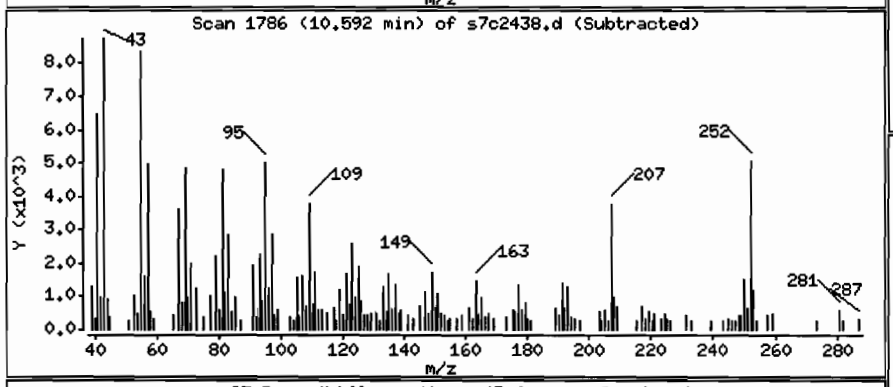

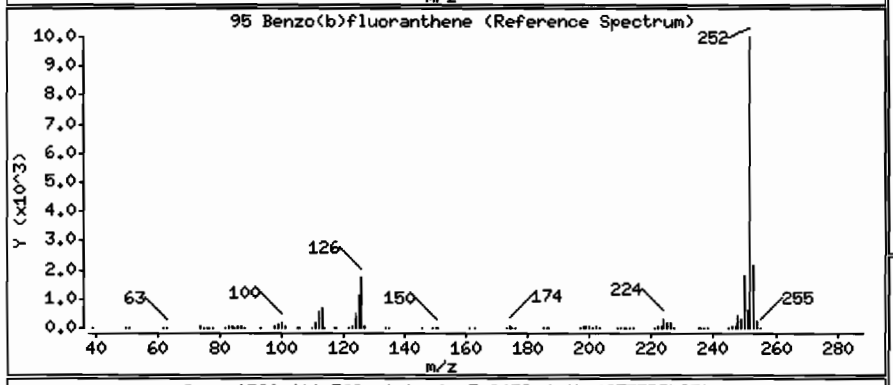

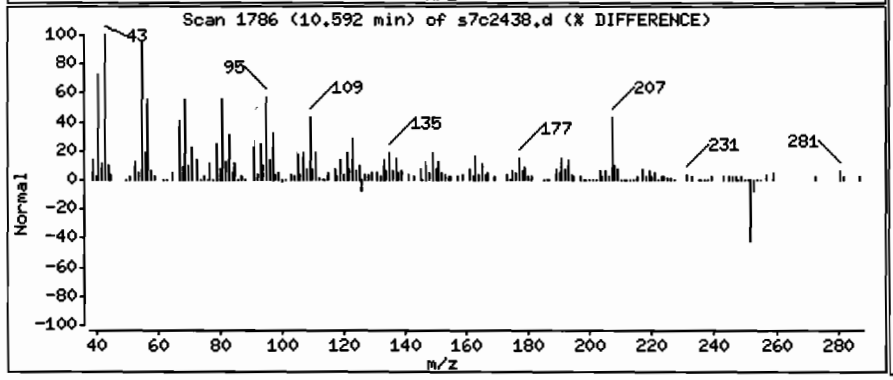

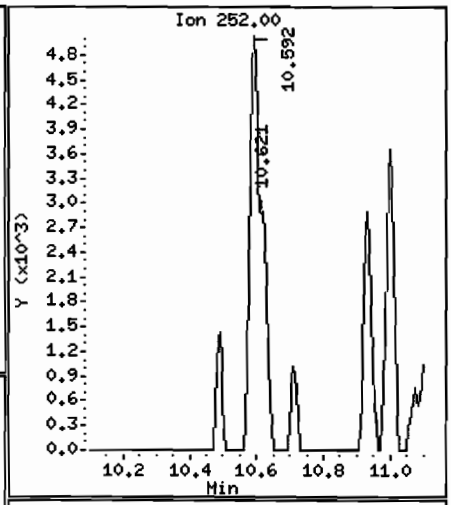

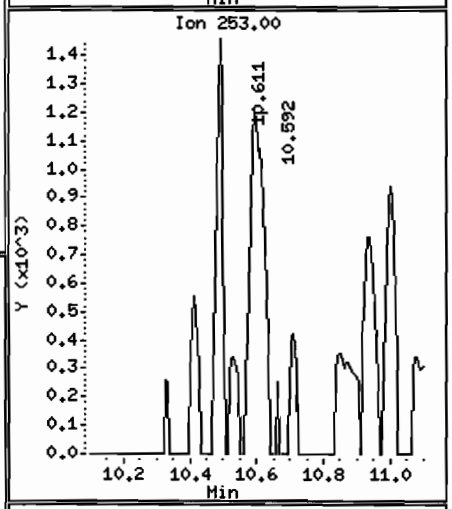

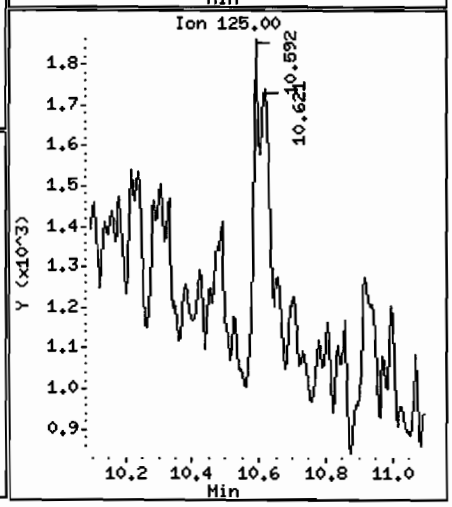

Data File: /chem/MSD7.i/s032410a.b/s7c2438.d

Date : 25-MAR-2010 00:44

Client ID: RE46-10-12932

Instrument: MSD7.i

Sample Info: |2488670021966400|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

96 Benzo(k)fluoranthene

Concentration: 22.8 ug/Kg

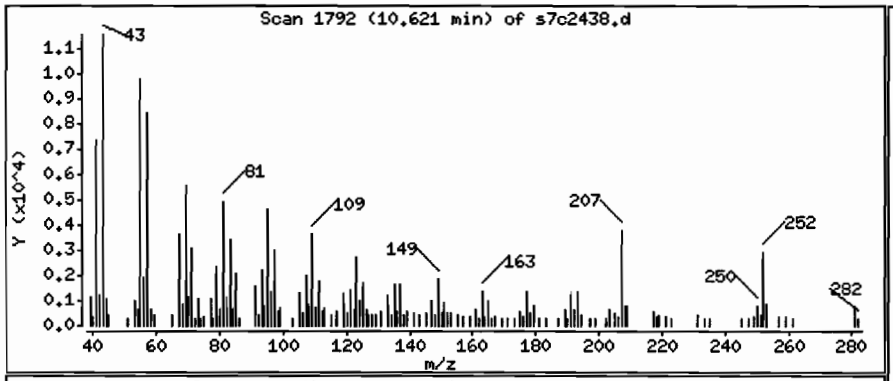

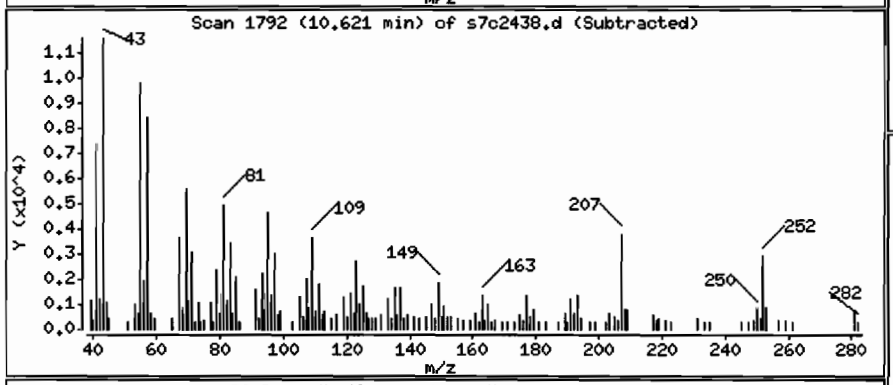

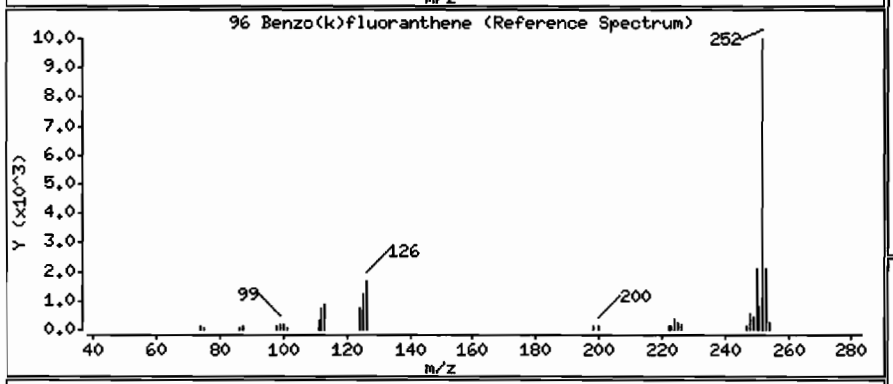

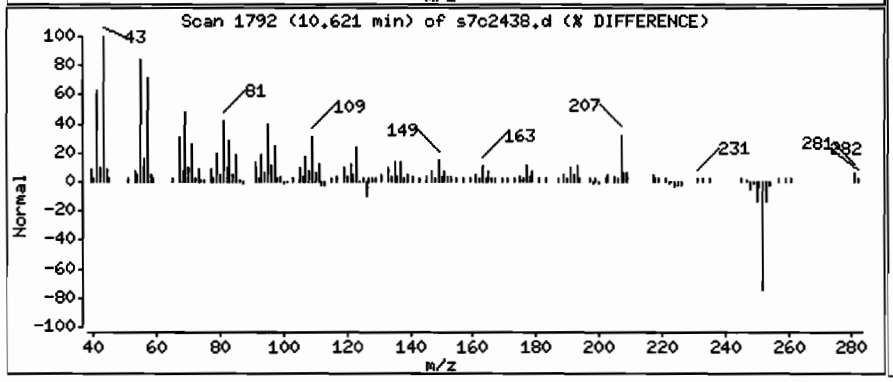

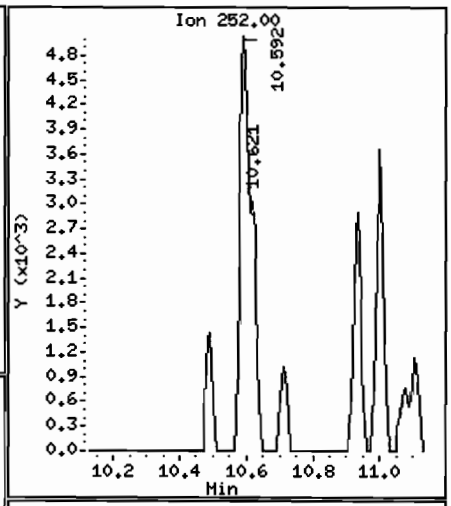

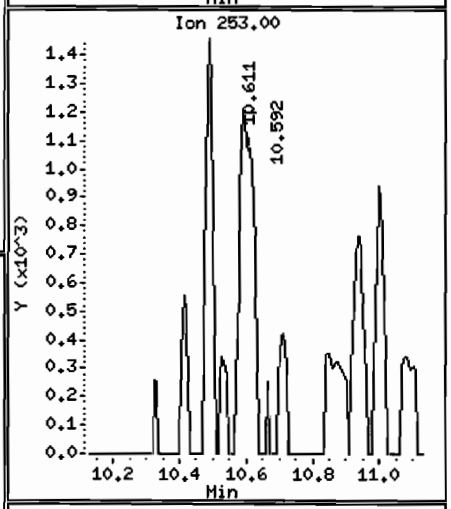

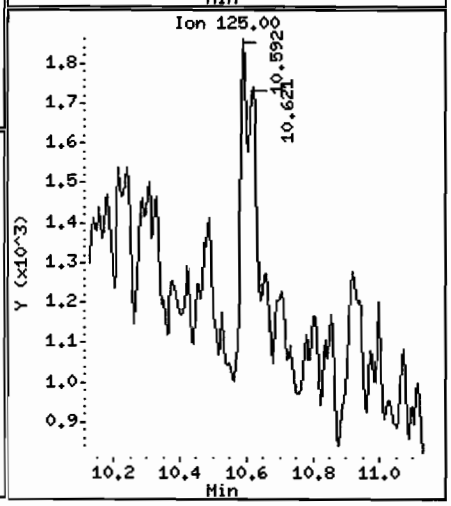

Data File: /chem/MSD7.i/s032410a.b/s7c2438.d

Date : 25-MAR-2010 00:44

Client ID: RE46-10-12932

Instrument: MSD7.i

Sample Info: |2488670021966400|1|SVH|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 42.4 ug/Kg

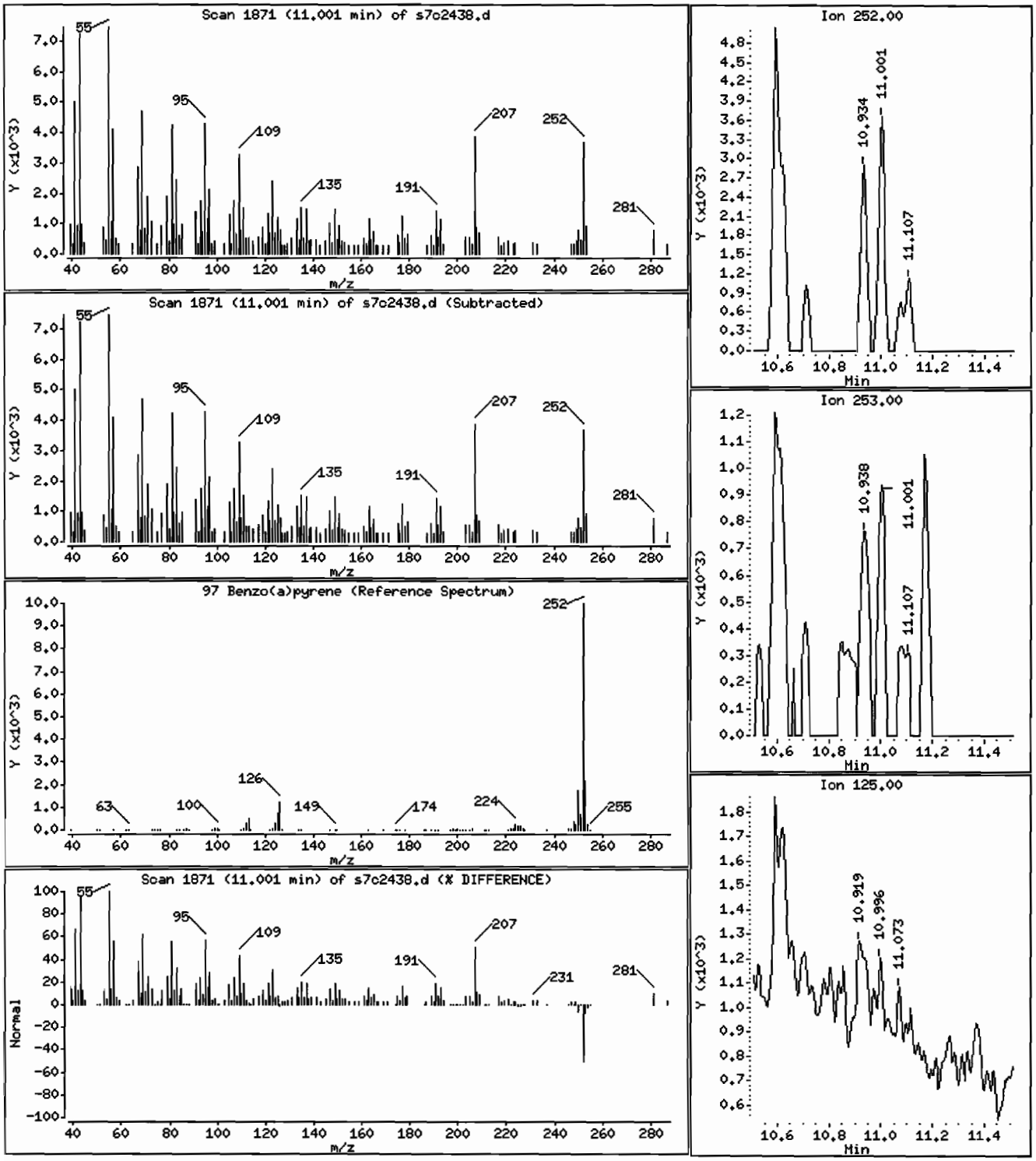

Data File: /chem/MSD7.i/s032410a.b/s7c2438.d

Date : 25-MAR-2010 00:44

Client ID: RE46-10-12932

Instrument: MSD7.i

Sample Info: 1248867002|966400|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 22.0 ug/Kg

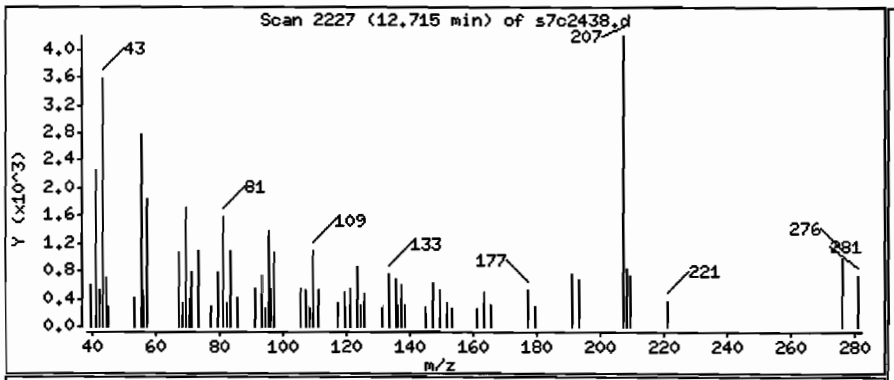

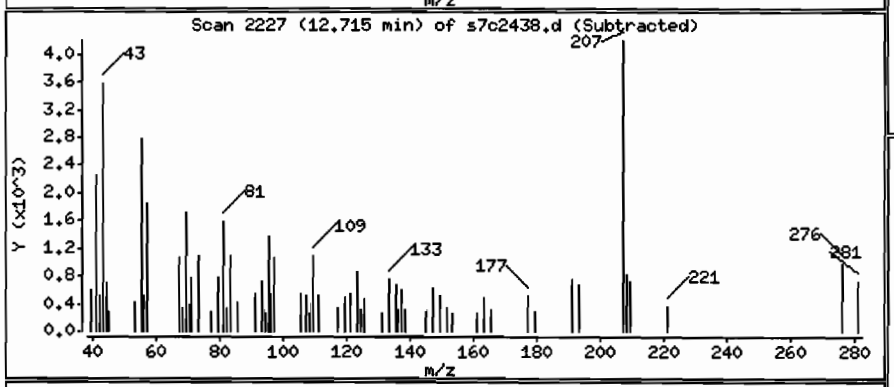

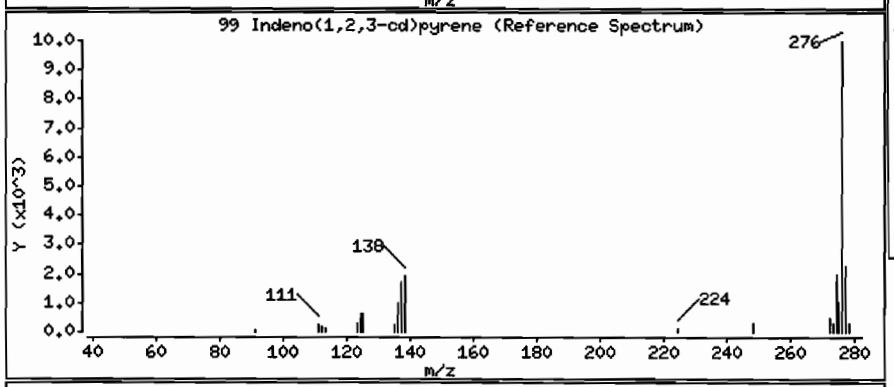

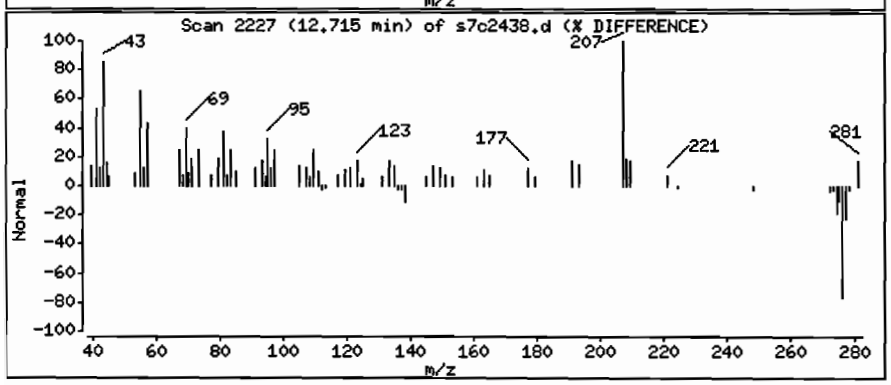

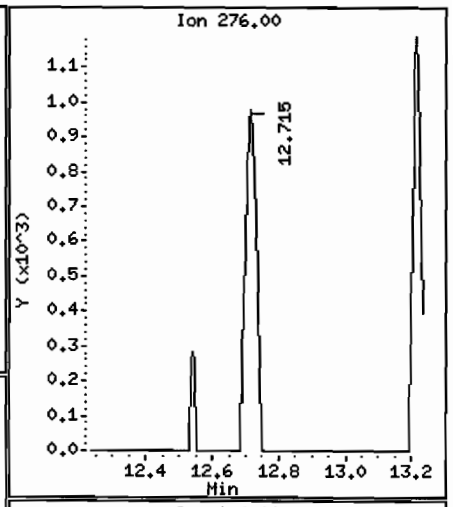

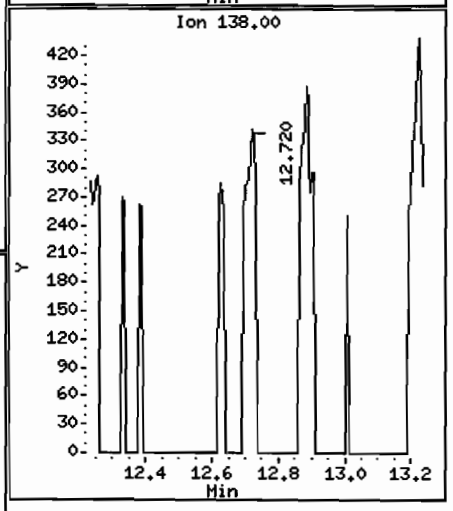

Data File: /chem/MSD7.i/s032410a.b/s7c2438.d

Date : 25-MAR-2010 00:44

Client ID: RE46-10-12932

Instrument: MSD7.i

Sample Info: |2488670021966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 26.1 ug/Kg

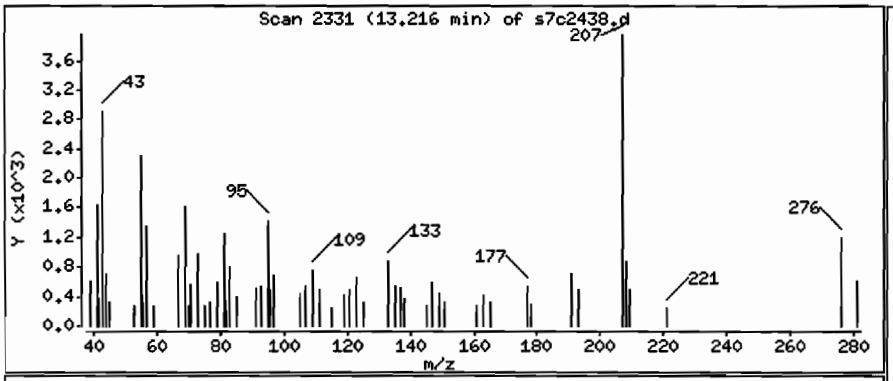

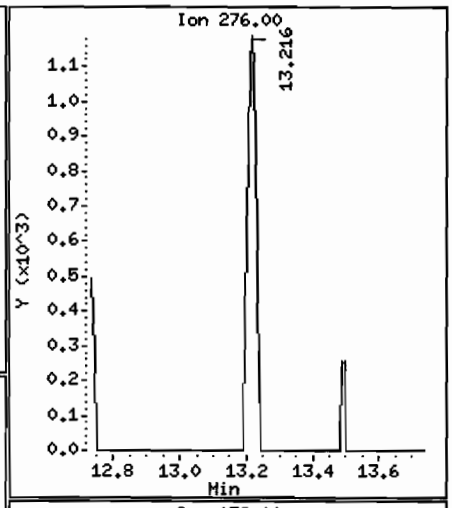

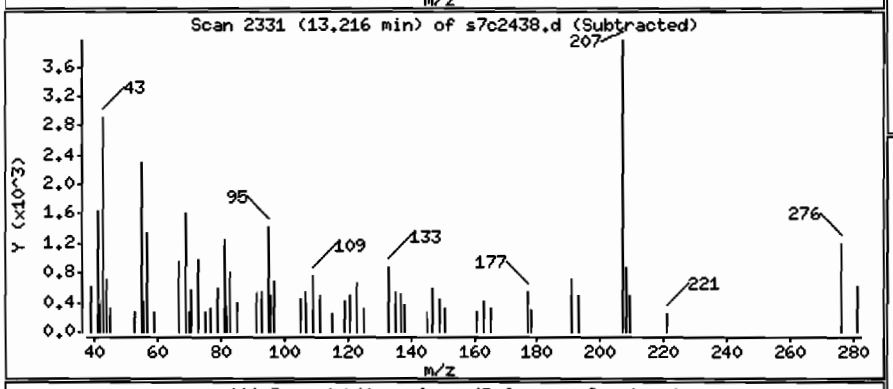

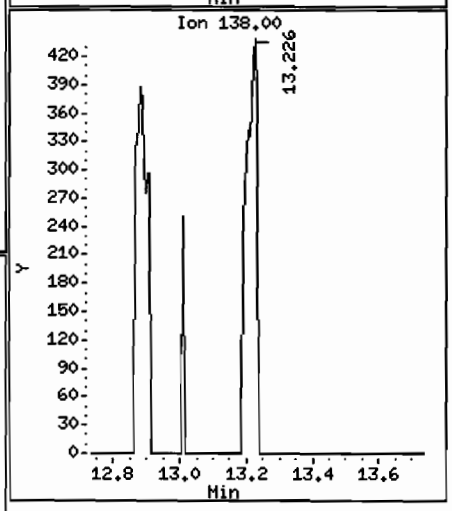

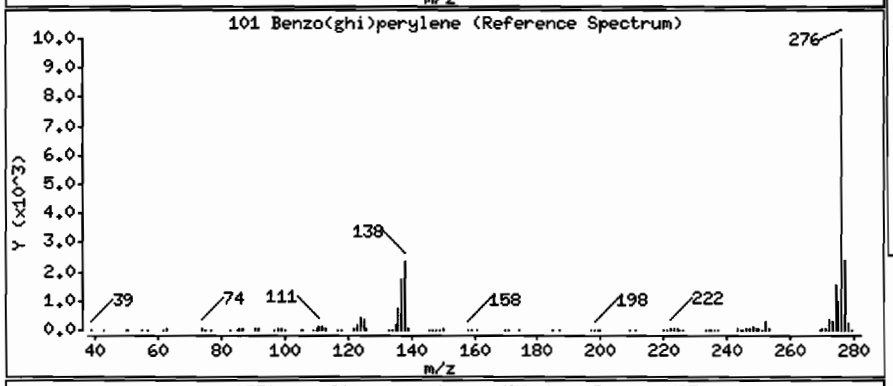

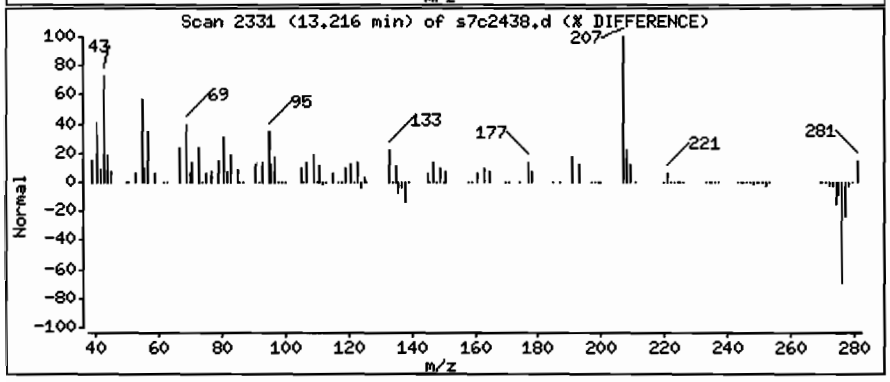

Data File: /chem/MSD7.i/s032410a.b/s7c2438.d

Date : 25-MAR-2010 00:44

Client ID: RE46-10-12932

Instrument: MSD7.i

Sample Info: 1248867002|966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116

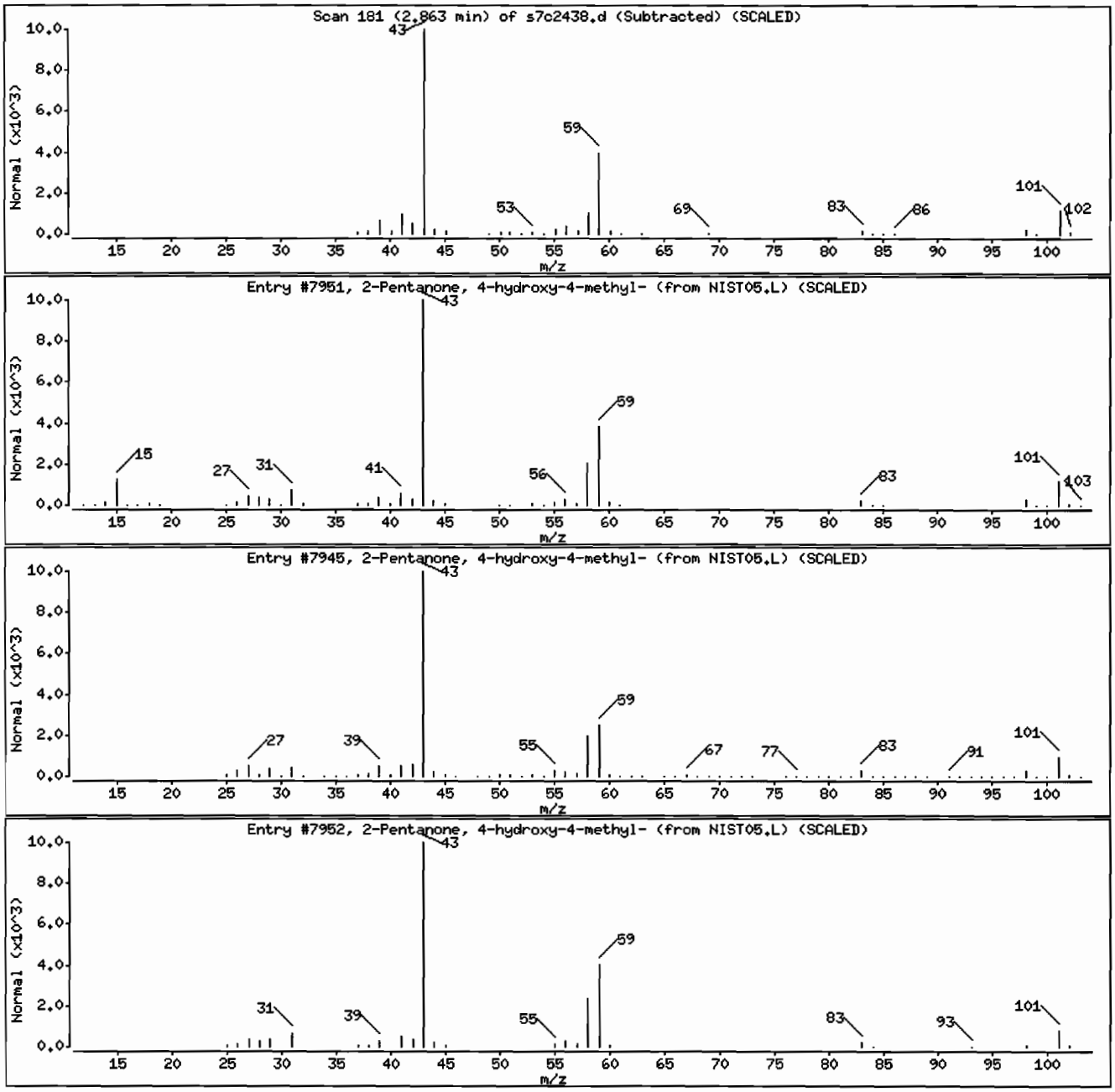

Data File: /chem/MSD7.i/s032410a.b/s7c2438.d

Date : 25-MAR-2010 00:44

Client ID: RE46-10-12932

Instrument: MSD7.i

Sample Info: |2488670021966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60024	99	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60047	96	C15H24	204
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60018	96	C15H24	204

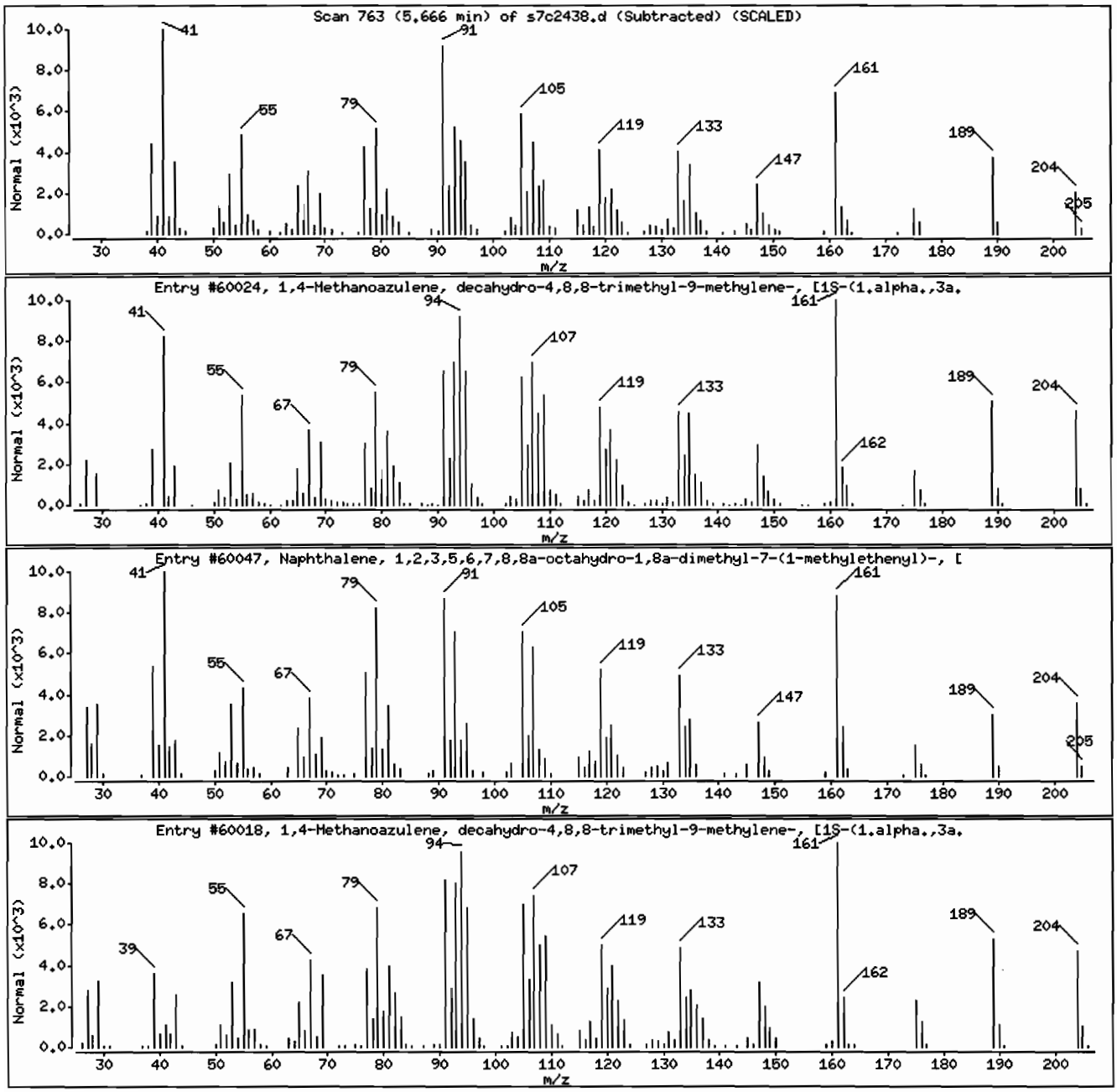

Data File: /chem/MSD7.i/s032410a.b/s7c2438.d

Date : 25-MAR-2010 00:44

Client ID: RE46-10-12932

Instrument: MSD7.i

Sample Info: 1248867002|966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112656	95	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	93	C18H35NO	281
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112657	35	C18H35NO	281

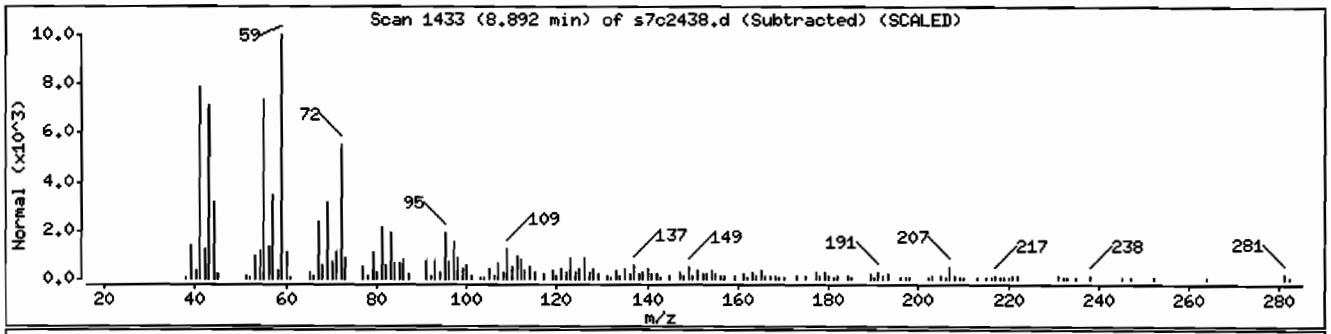

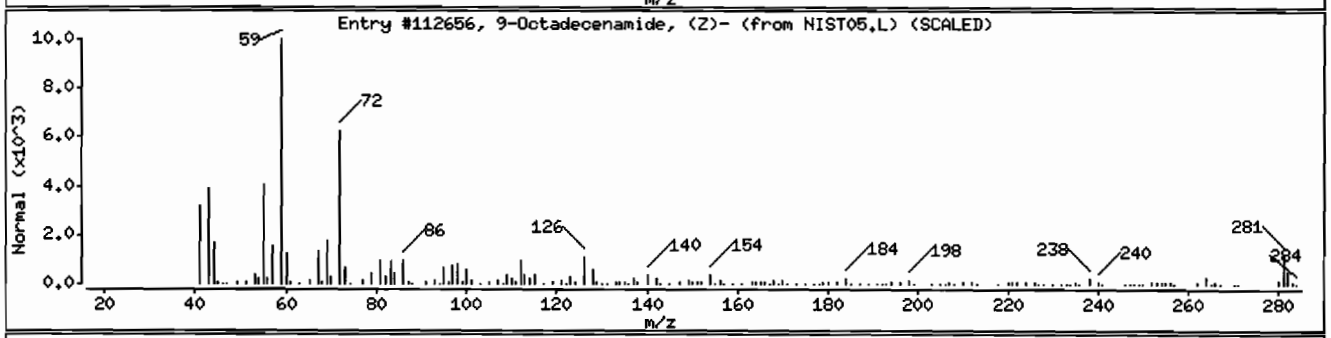

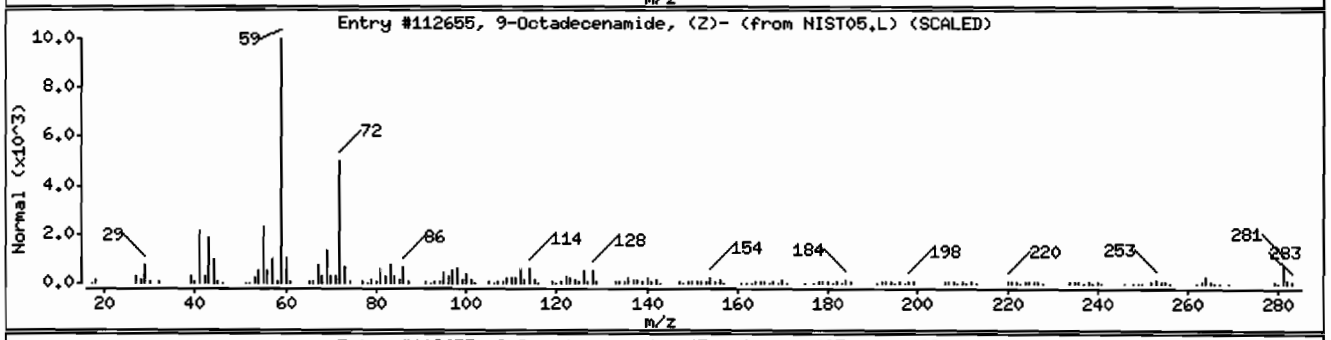

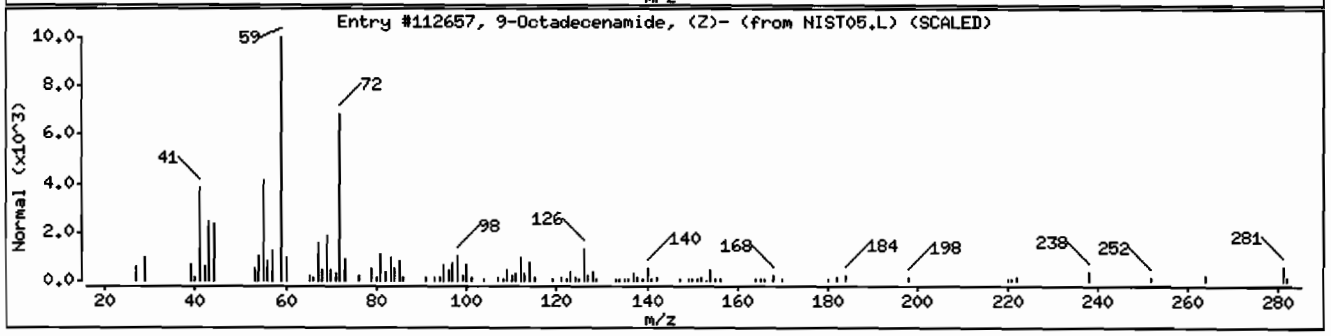

Data File: /chem/MSD7.i/s032410a.b/s7c2438.d

Date : 25-MAR-2010 00:44

Client ID: RE46-10-12932 Instrument: MSD7.i

Sample Info: 1248867002196640011ISVM11LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,1-Diphenyl-1-methoxyethane	40743-08-6	NIST05.L	66029	25	C15H16O	212
4-(4-Methyl-2,4-diphenyl-2-pentyl)phenol	52379-26-7	NIST05.L	142639	20	C24H26O	330
p,p'-Ditolylamine	620-93-9	NIST05.L	55093	18	C14H15N	197

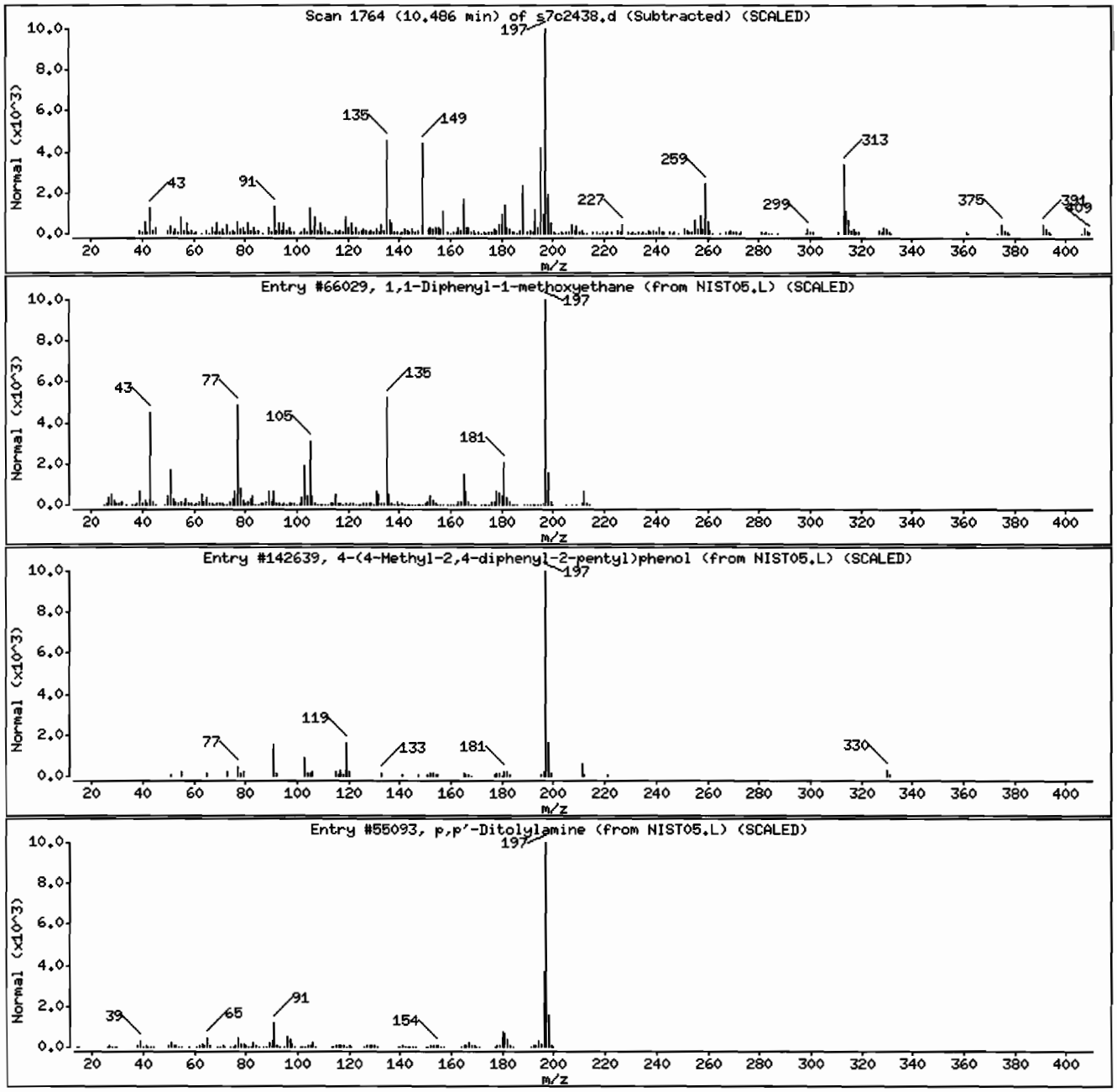

Data File: /chem/MSD7.i/s032410a.b/s7c2438.d

Date : 25-MAR-2010 00:44

Client ID: RE46-10-12932

Instrument: MSD7.i

Sample Info: 1248867002|966400|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Neopentylidenecyclohexane	39546-80-0	NIST05.L	24397	27	C11H20	152
Bicyclo[2.2.1]heptane, 2,2,3-trimethyl-	473-19-8	NIST05.L	16403	25	C10H18	138
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73121	25	C6H18O3Si3	222

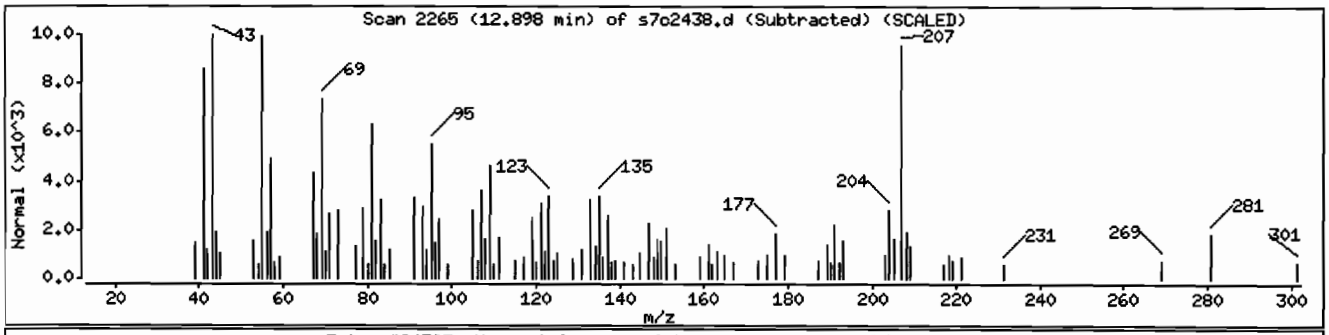

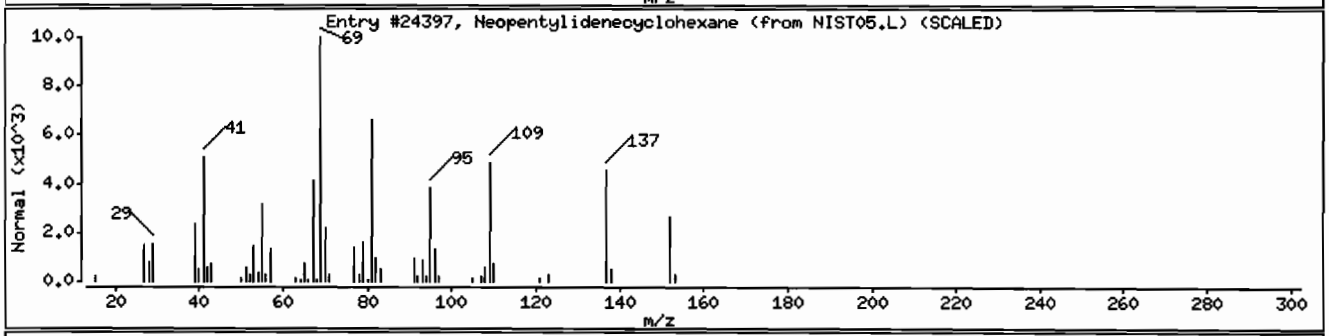

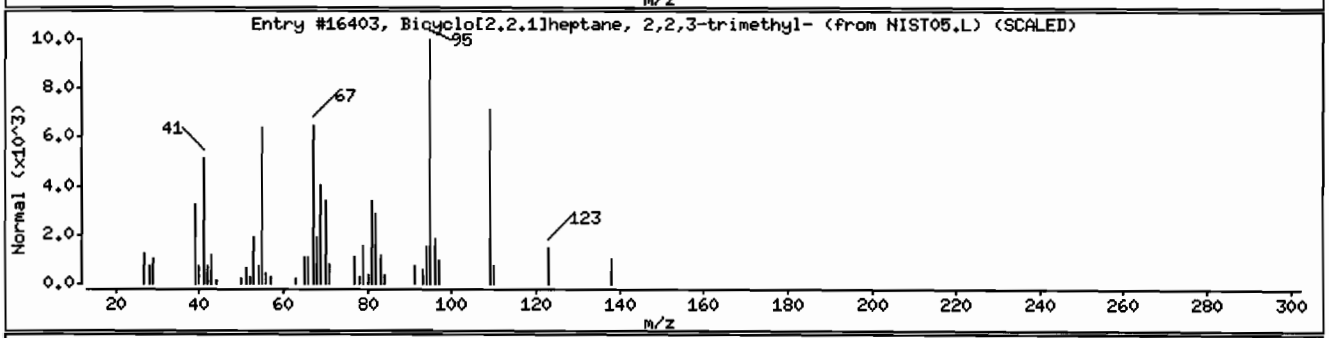

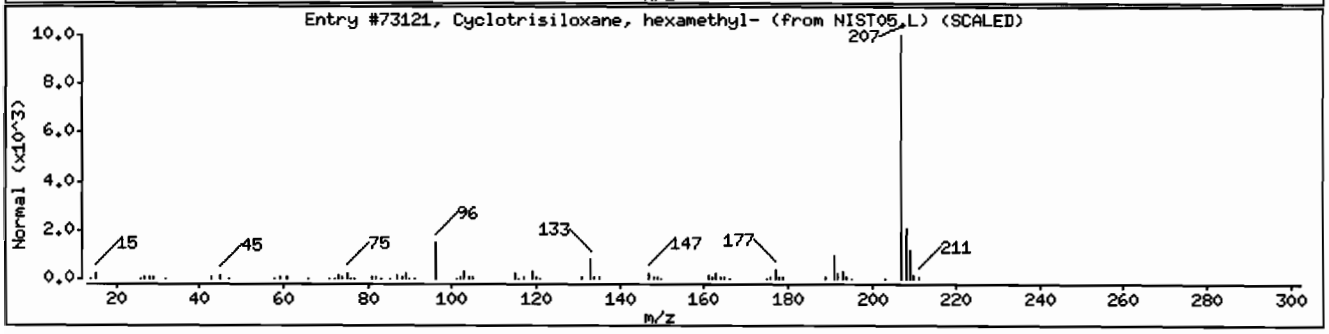

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**15.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12933**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 20:18**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2523.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	395	ug/kg	79.0	395
108-95-2	Phenol	U	395	ug/kg	79.0	395
95-57-8	2-Chlorophenol	U	395	ug/kg	79.0	395
106-46-7	1,4-Dichlorobenzene	U	395	ug/kg	79.0	395
621-64-7	N-Nitrosodipropylamine	U	395	ug/kg	79.0	395
59-50-7	4-Chloro-3-methylphenol	U	395	ug/kg	79.0	395
83-32-9	Acenaphthene	U	39.5	ug/kg	13.0	39.5
121-14-2	2,4-Dinitrotoluene	U	395	ug/kg	39.5	395
100-02-7	4-Nitrophenol	U	395	ug/kg	130	395
87-86-5	Pentachlorophenol	U	395	ug/kg	98.8	395
129-00-0	Pyrene	J	18.2	ug/kg	11.9	39.5
110-86-1	Pyridine	U	395	ug/kg	79.0	395
62-53-3	Aniline	U	395	ug/kg	119	395
111-44-4	bis(2-Chloroethyl) ether	U	395	ug/kg	79.0	395
541-73-1	1,3-Dichlorobenzene	U	395	ug/kg	79.0	395
100-51-6	Benzyl alcohol	U	395	ug/kg	119	395
95-50-1	1,2-Dichlorobenzene	U	395	ug/kg	79.0	395
108-60-1	bis(2-Chloroisopropyl)ether	U	395	ug/kg	79.0	395
95-48-7	o-Cresol	U	395	ug/kg	79.0	395
65794-96-9	m,p-Cresols	U	395	ug/kg	119	395
67-72-1	Hexachloroethane	U	395	ug/kg	79.0	395
98-95-3	Nitrobenzene	U	395	ug/kg	79.0	395
78-59-1	Isophorone	U	395	ug/kg	79.0	395
88-75-5	2-Nitrophenol	U	395	ug/kg	79.0	395
105-67-9	2,4-Dimethylphenol	U	395	ug/kg	138	395
111-91-1	bis(2-Chloroethoxy)methane	U	395	ug/kg	79.0	395
120-83-2	2,4-Dichlorophenol	U	395	ug/kg	79.0	395
65-85-0	Benzoic acid	U	790	ug/kg	198	790
91-20-3	Naphthalene	U	39.5	ug/kg	11.9	39.5
106-47-8	4-Chloroaniline	U	395	ug/kg	79.0	395
87-68-3	Hexachlorobutadiene	U	395	ug/kg	79.0	395
91-57-6	2-Methylnaphthalene	U	39.5	ug/kg	7.90	39.5
77-47-4	Hexachlorocyclopentadiene	U	395	ug/kg	79.0	395
88-06-2	2,4,6-Trichlorophenol	U	395	ug/kg	79.0	395
95-95-4	2,4,5-Trichlorophenol	U	395	ug/kg	79.0	395
91-58-7	2-Chloronaphthalene	U	39.5	ug/kg	13.0	39.5
88-74-4	2-Nitroaniline	U	395	ug/kg	79.0	395
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	395	ug/kg	79.0	395

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**15.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12933**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 20:18**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2523.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	395	ug/kg	79.0	395
606-20-2	2,6-Dinitrotoluene	U	395	ug/kg	39.5	395
208-96-8	Acenaphthylene	U	39.5	ug/kg	11.9	39.5
51-28-5	2,4-Dinitrophenol	U	790	ug/kg	150	790
132-64-9	Dibenzofuran	U	395	ug/kg	79.0	395
84-66-2	Diethylphthalate	U	395	ug/kg	79.0	395
86-73-7	Fluorene	U	39.5	ug/kg	11.9	39.5
7005-72-3	4-Chlorophenylphenylether	U	395	ug/kg	79.0	395
534-52-1	2-Methyl-4,6-dinitrophenol	U	395	ug/kg	79.0	395
100-01-6	4-Nitroaniline	U	395	ug/kg	119	395
	p-Nitroaniline					
122-39-4	Diphenylamine	U	395	ug/kg	79.0	395
122-66-7	Azobenzene	U	395	ug/kg	79.0	395
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	395	ug/kg	79.0	395
118-74-1	Hexachlorobenzene	U	395	ug/kg	79.0	395
85-01-8	Phenanthrene	J	14.4	ug/kg	11.9	39.5
120-12-7	Anthracene	U	39.5	ug/kg	7.90	39.5
84-74-2	Di-n-butylphthalate	U	395	ug/kg	79.0	395
206-44-0	Fluoranthene	J	22.4	ug/kg	11.9	39.5
85-68-7	Butylbenzylphthalate	U	395	ug/kg	79.0	395
56-55-3	Benzo(a)anthracene	J	15.7	ug/kg	11.9	39.5
91-94-1	3,3'-Dichlorobenzidine	U	395	ug/kg	119	395
218-01-9	Chrysene	U	39.5	ug/kg	11.9	39.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	395	ug/kg	79.0	395
117-84-0	Di-n-octylphthalate	U	395	ug/kg	79.0	395
205-99-2	Benzo(b)fluoranthene	J	15.2	ug/kg	11.9	39.5
207-08-9	Benzo(k)fluoranthene	U	39.5	ug/kg	11.9	39.5
50-32-8	Benzo(a)pyrene	U	39.5	ug/kg	11.9	39.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.5	ug/kg	11.9	39.5
53-70-3	Dibenzo(a,h)anthracene	U	39.5	ug/kg	11.9	39.5
191-24-2	Benzo(ghi)perylene	U	39.5	ug/kg	11.9	39.5
120-82-1	1,2,4-Trichlorobenzene	U	395	ug/kg	79.0	395

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.88	464	ug/kg		J
	Unknown	8.91	234	ug/kg		J

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032510.b/s7c2523.d
Lab Smp Id: 248867004 Client Smp ID: RE46-10-12933
Inj Date : 25-MAR-2010 20:18
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248867004|966400|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032510.b/MSD7-M8270C-AQA-022610.m
Meth Date : 25-Mar-2010 14:25 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2320.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.11000	weight of sample
M	15.92490	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.831	3.836	(1.000)	271549	40.0000	
* 29 Naphthalene-d8	136	4.693	4.698	(1.000)	1024187	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	589751	40.0000	
* 67 Phenanthrene-d10	188	7.105	7.110	(1.000)	1089286	40.0000	
* 91 Chrysene-d12	240	9.503	9.508	(1.000)	955677	40.0000	
* 98 Perylene-d12	264	11.097	11.102	(1.000)	640812	40.0000	
$ 3 2-Fluorophenol	112	3.037	3.032	(0.793)	377478	53.4809	2110
$ 5 Phenol-d5	99	3.557	3.557	(0.928)	431452	48.7547	1920
$ 20 Nitrobenzene-d5	82	4.192	4.197	(0.893)	236025	30.5545	1210
$ 39 2-Fluorobiphenyl	172	5.439	5.439	(0.915)	494686	33.6577	1330
$ 60 2,4,6-Tribromophenol	329	6.537	6.542	(1.100)	118121	69.2835	2740
$ 81 p-Terphenyl-d14	244	8.483	8.483	(0.893)	658268	38.4476	1520

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	8.372	8.377	(0.881)	13891	0.46010	18.2(a)
68 Phenanthrene	178	7.125	7.130	(1.003)	8166	0.36533	14.4(a)
76 Fluoranthene	202	8.155	8.165	(1.148)	13765	0.56637	22.4(a)
89 Benzo(a)anthracene	228	9.494	9.494	(0.999)	9121	0.39812	15.7(a)
95 Benzo(b)fluoranthene	252	10.606	10.611	(0.956)	6934	0.38584	15.2(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s7c2523.d
Report Date: 03/26/2010 09:13
Lab. ID: 248867004 SampleType: SAMPLE
Injection Date: 25-MAR-2010 20:18
Operator: JMB3 Instrument: MSD7.i
Sample Info: |248867004|966400|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100319-01|
Comment:
Method used: /chem/MSD7.i/s032510.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2320
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	28618	3.56	3.62	80-120	100	(T)
93	281	3.41	3.62	172-232	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	38453	4.19	4.08	80-120	100	(T)
42	33024	4.19	4.08	77-137	86	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	107581	5.94	5.72	80-120	100	(T)
164	589751	5.94	5.72	0- 40	548	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	76303	5.94	5.77	80-120	100	(T)
63	1205	5.94	5.77	73-133	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	76303	5.94	6.07	80-120	100	(T)
89	1238	5.94	6.07	48-108	2	(QT)
63	1205	5.94	6.07	28- 88	2	(QT)
53 Fluorene			CAS#: 86-73-7			
166	6305	6.54	6.36	80-120	100	(T)
165	6620	6.54	6.36	63-123	105	(T)
167	2022	6.54	6.36	0- 43	32	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	294	6.54	6.38	80-120	100	(T)
105	1404	6.54	6.38	11- 71	477	(QT)
51	1196	6.54	6.38	41-101	406	(QT)
68 Phenanthrene				CAS#: 85-01-8		
178	8166	7.12	7.13	80-120	100	( )
179	2019	7.12	7.13	0- 46	25	( )
176	1430	7.12	7.13	0- 49	18	( )
69 Anthracene				CAS#: 120-12-7		
178	8166	7.12	7.17	80-120	100	( )
179	2019	7.12	7.17	0- 46	25	( )
176	1430	7.12	7.17	0- 48	18	( )
76 Fluoranthene				CAS#: 206-44-0		
202	13765	8.16	8.16	80-120	100	( )
203	2468	8.16	8.16	0- 48	18	( )
101	1224	8.16	8.16	0- 39	9	( )
79 Pyrene				CAS#: 129-00-0		
202	13891	8.37	8.38	80-120	100	( )
200	2633	8.37	8.38	0- 50	19	( )
101	1212	8.37	8.38	0- 41	9	( )
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	9121	9.49	9.49	80-120	100	( )
226	1906	9.49	9.49	0- 56	21	( )
229	2616	9.49	9.49	0- 50	29	( )
92 Chrysene				CAS#: 218-01-9		
228	9121	9.49	9.53	80-120	100	( )
229	2616	9.49	9.53	0- 50	29	( )
226	1906	9.49	9.53	0- 58	21	( )
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	6934	10.61	10.61	80-120	100	( )
253	1309	10.61	10.61	0- 51	19	( )
125	668	10.61	10.61	0- 39	10	( )
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	6934	10.61	10.64	80-120	100	( )
253	1309	10.61	10.64	0- 54	19	( )
125	668	10.61	10.64	0- 40	10	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s032510.b/s7c2523.d
Lab Smp Id: 248867004 Client Smp ID: RE46-10-12933
Inj Date : 25-MAR-2010 20:18
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248867004|966400|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032510.b/MSD7-M8270C-AQA-022610.m
Meth Date : 25-Mar-2010 14:25 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2320.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.11000	weight of sample
M	15.92490	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.831	1842764	40.000
* 91 Chrysene-d12	9.503	2578236	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.878	541351	11.7508468	464	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
8.906	382203	5.92968703	234	0		0	91

Data File: /chem/MSD7.i/s032510.b/s7c2523.d
Date : 25-MAR-2010 20:18
Client ID: RE46-10-12933
Sample Info: |248867004|966400|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

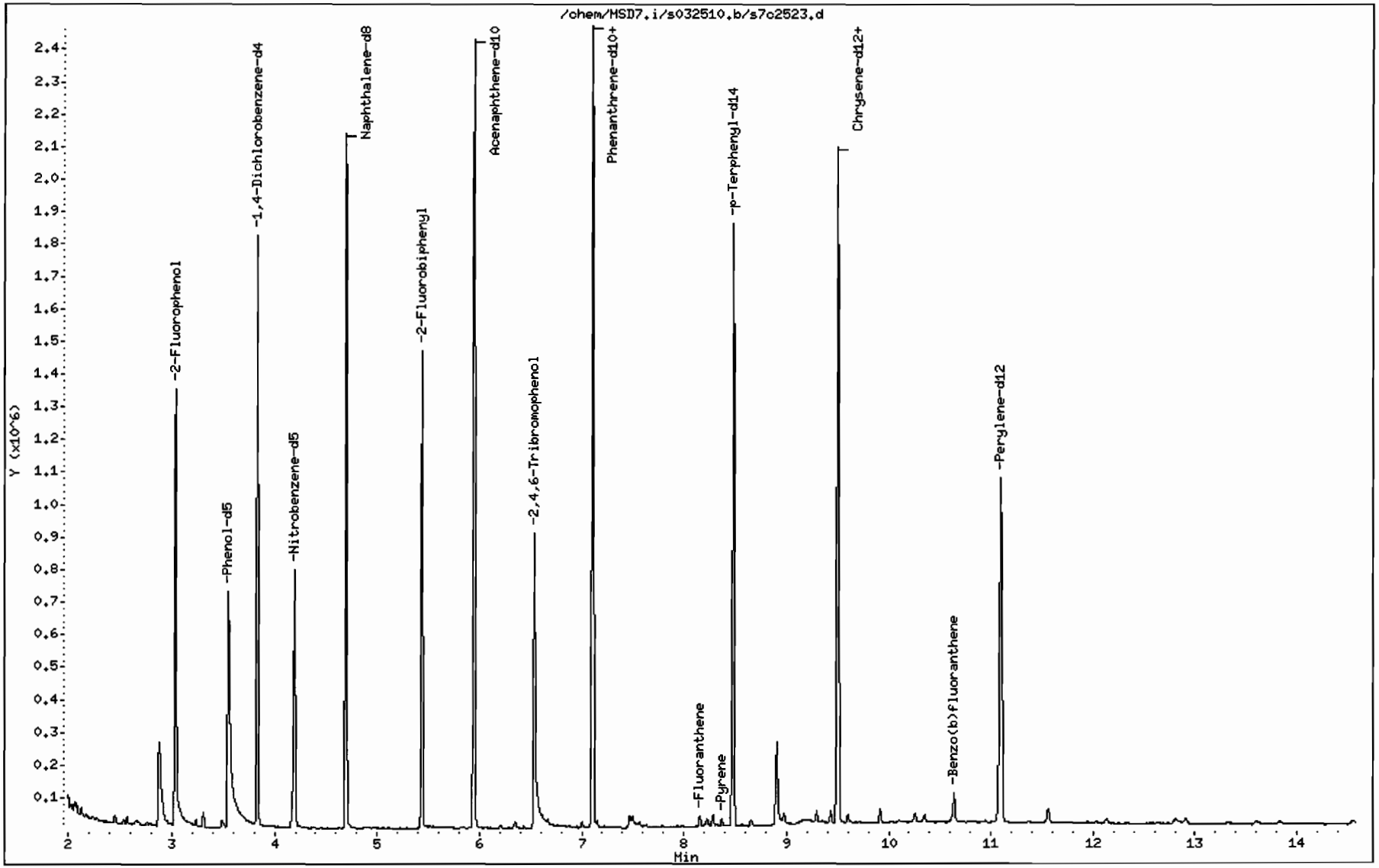

Data File: /chem/MSD7.i/s032510.b/s7c2523.d

Date : 25-MAR-2010 20:18

Client ID: RE46-10-12933

Instrument: MSD7.i

Sample Info: |2488670041966400|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 18.2 ug/Kg

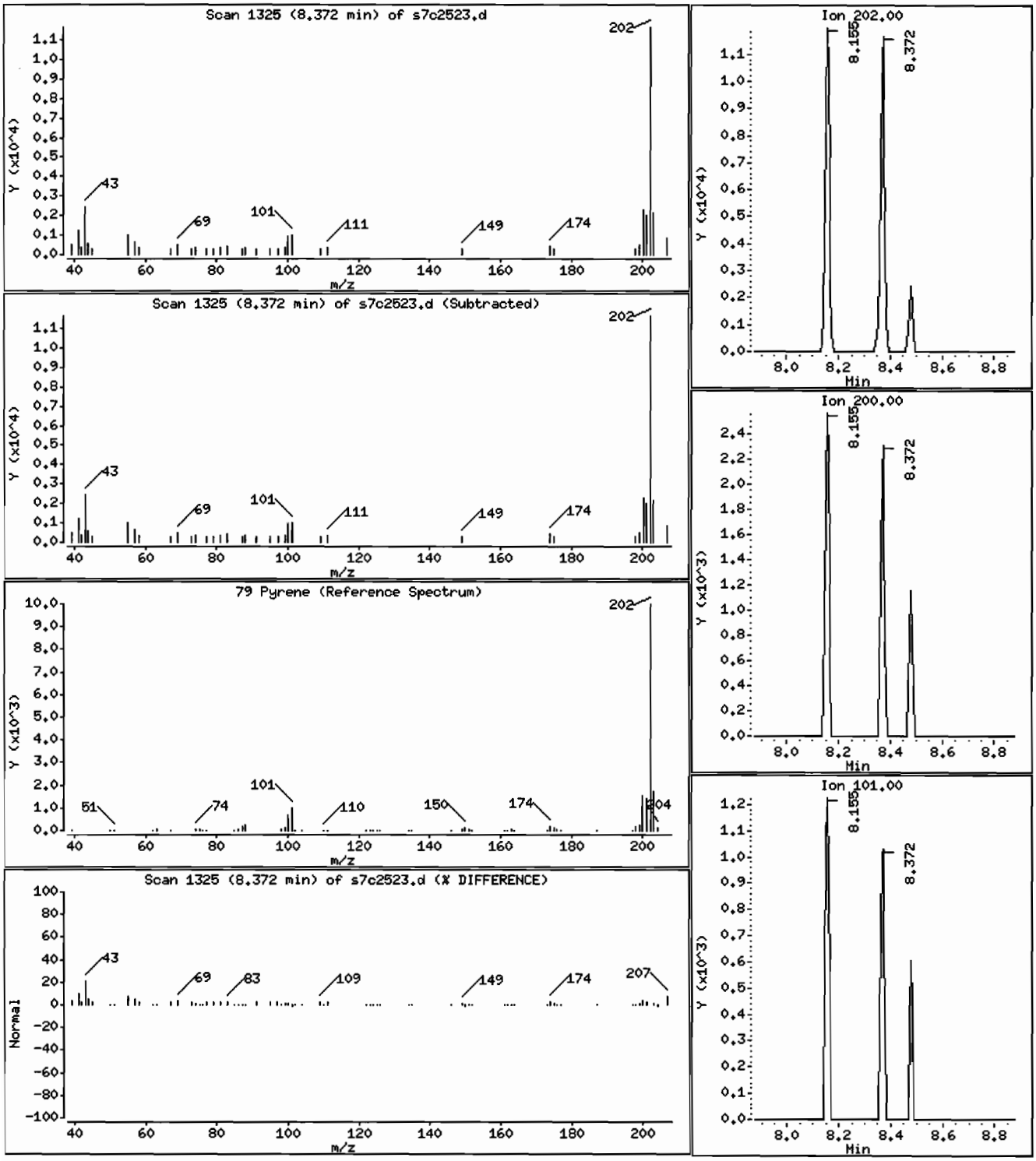

Data File: /chem/MSD7.i/s032510.b/s7c2523.d

Date : 25-MAR-2010 20:18

Client ID: RE46-10-12933

Instrument: MSD7.i

Sample Info: |2488670041966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 14.4 ug/Kg

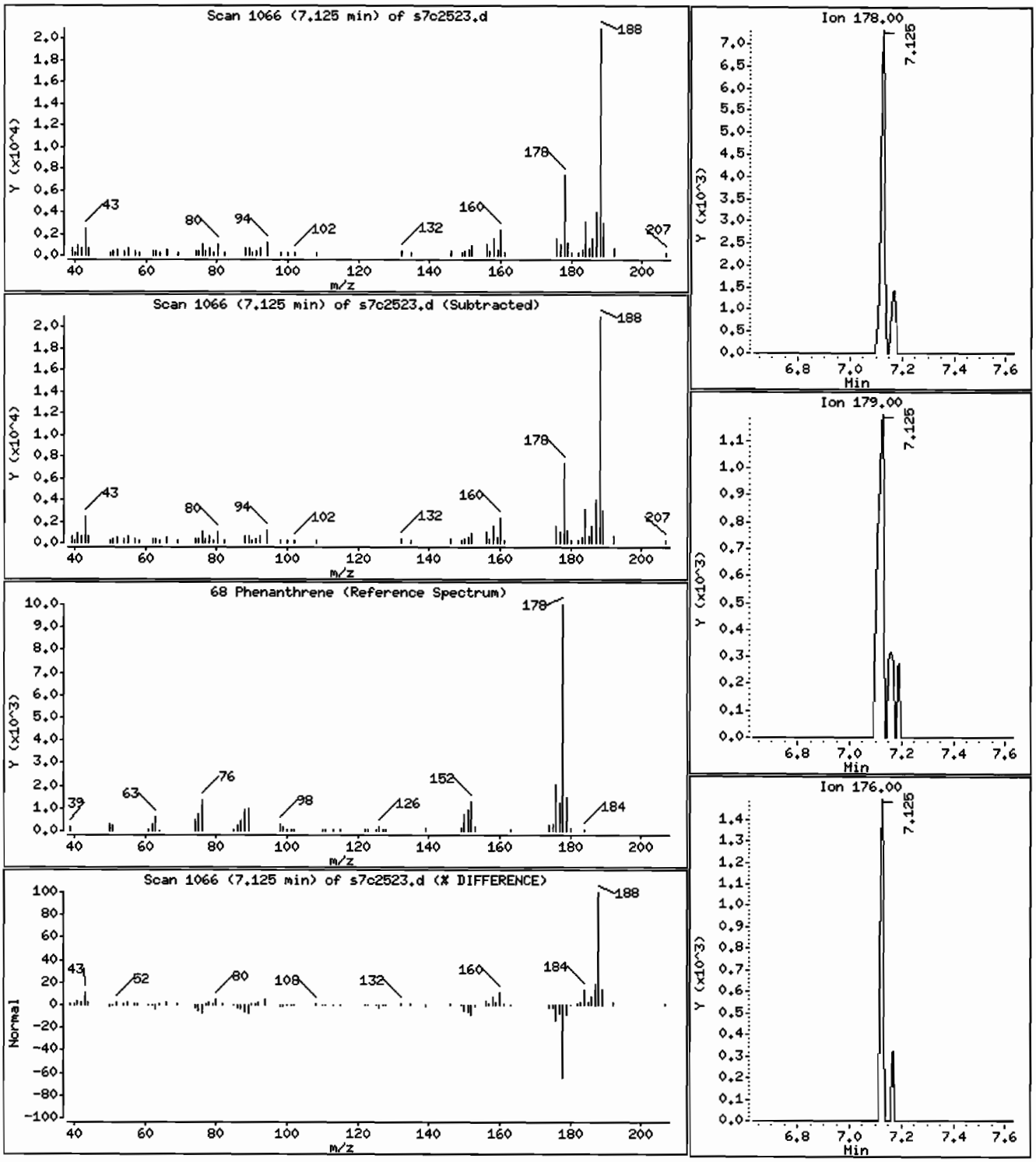

Data File: /chem/MSD7.i/s032510.b/s7c2523.d

Date : 25-MAR-2010 20:18

Client ID: RE46-10-12933

Instrument: MSD7.i

Sample Info: |2488670041966400|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 22.4 ug/Kg

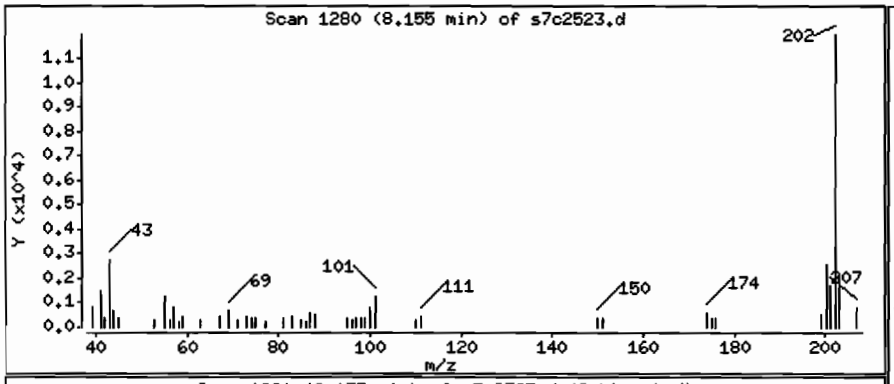

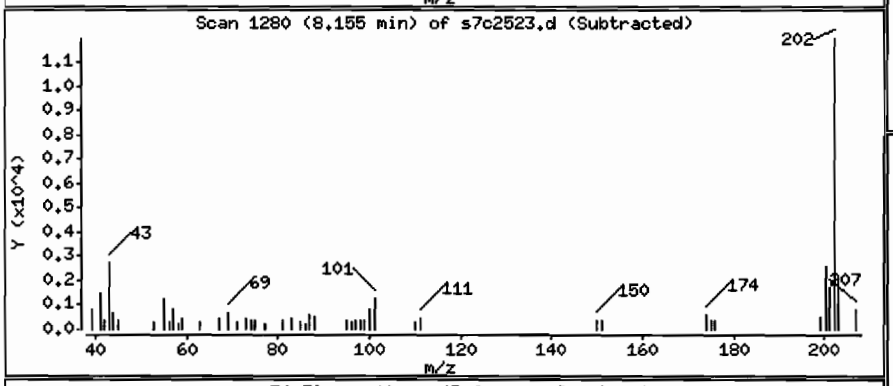

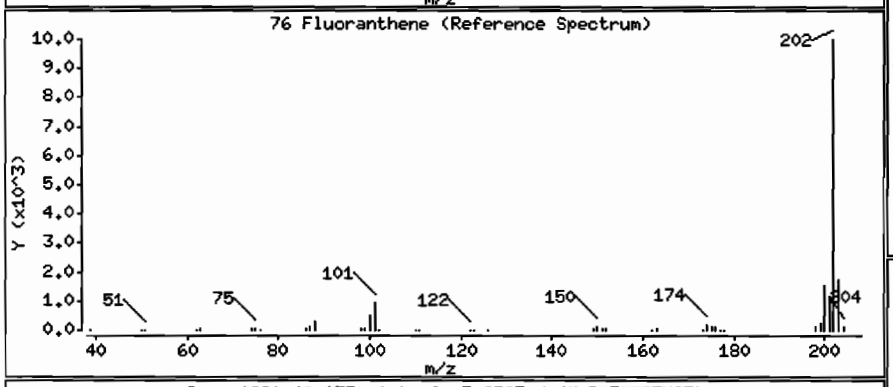

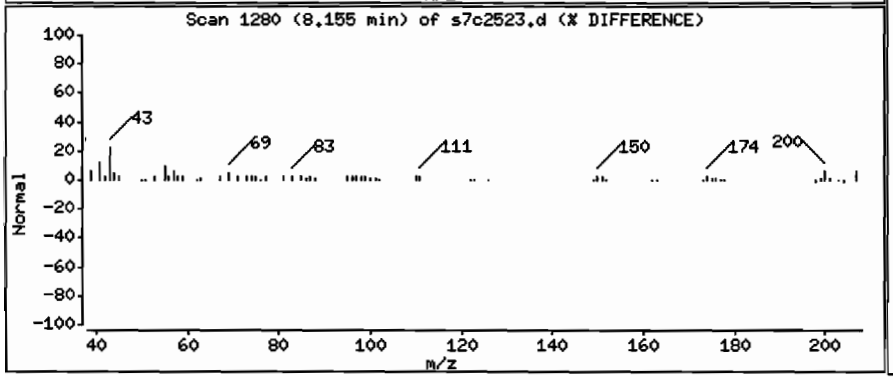

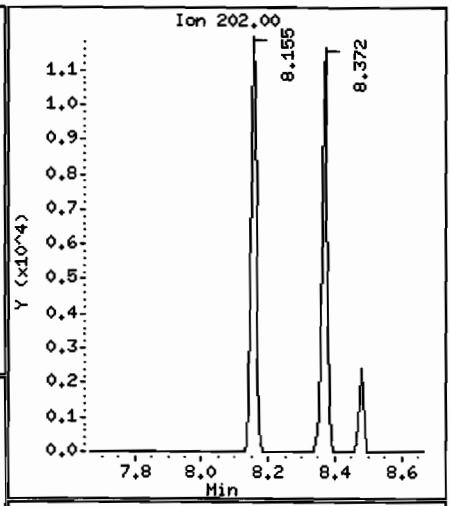

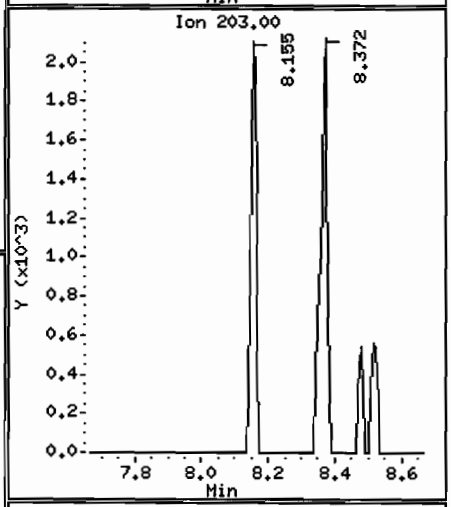

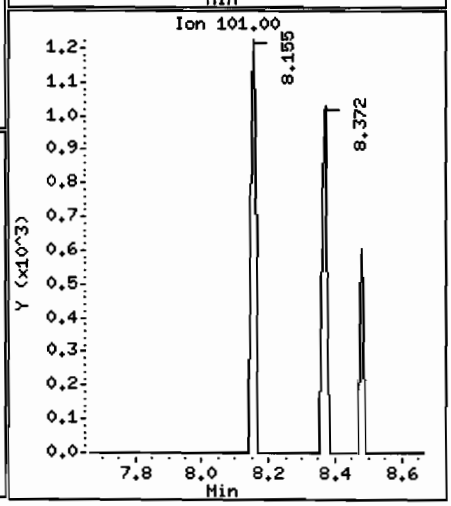

Data File: /chem/MSD7.i/s032510.b/s7c2523.d

Date : 25-MAR-2010 20:18

Client ID: RE46-10-12933

Instrument: MSD7.i

Sample Info: |2488670041966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 15.7 ug/Kg

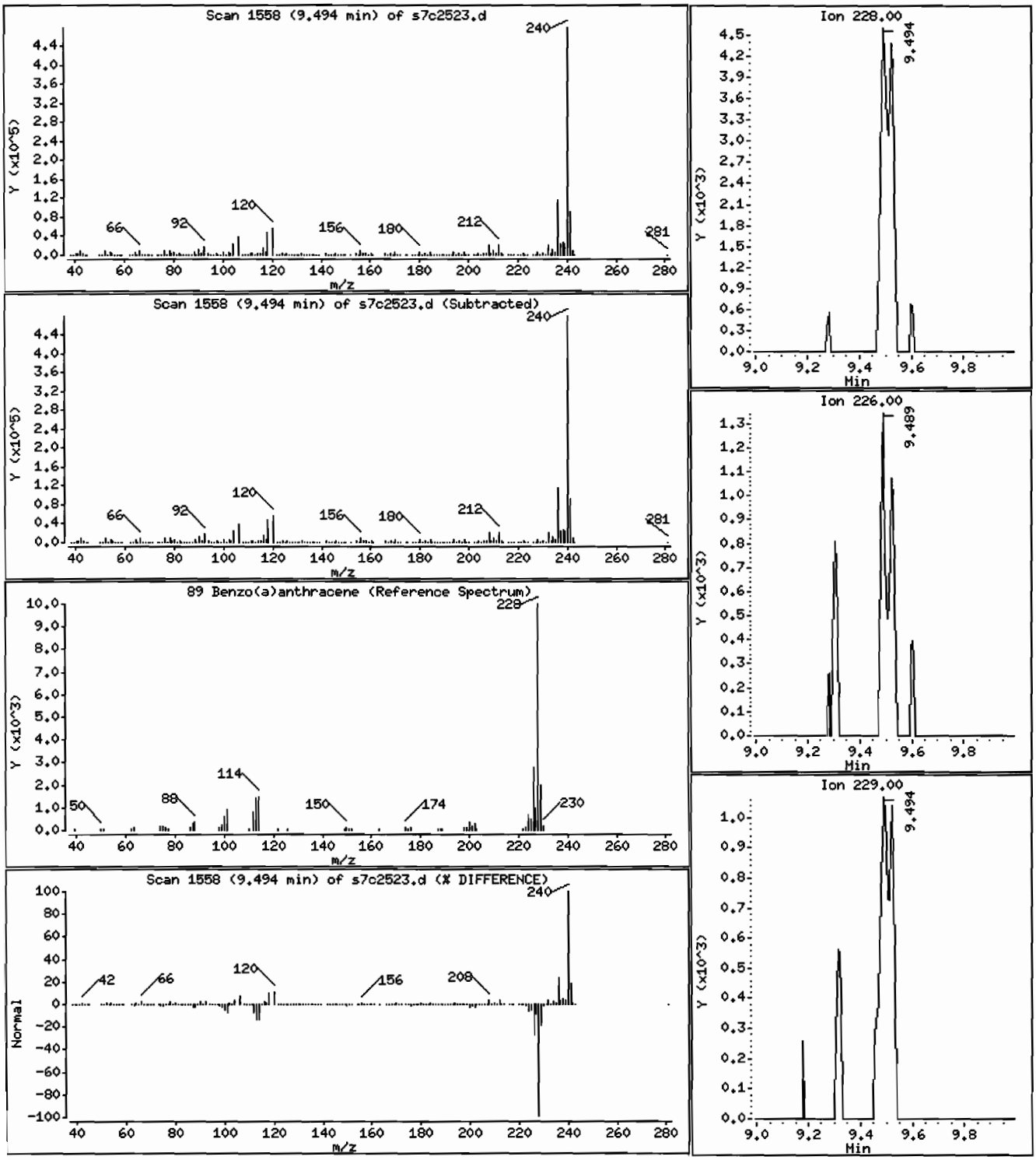

Data File: /chem/MSD7.i/s032510.b/s7c2523.d

Date : 25-MAR-2010 20:18

Client ID: RE46-10-12933

Instrument: MSD7.i

Sample Info: |2488670041966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 15.2 ug/Kg

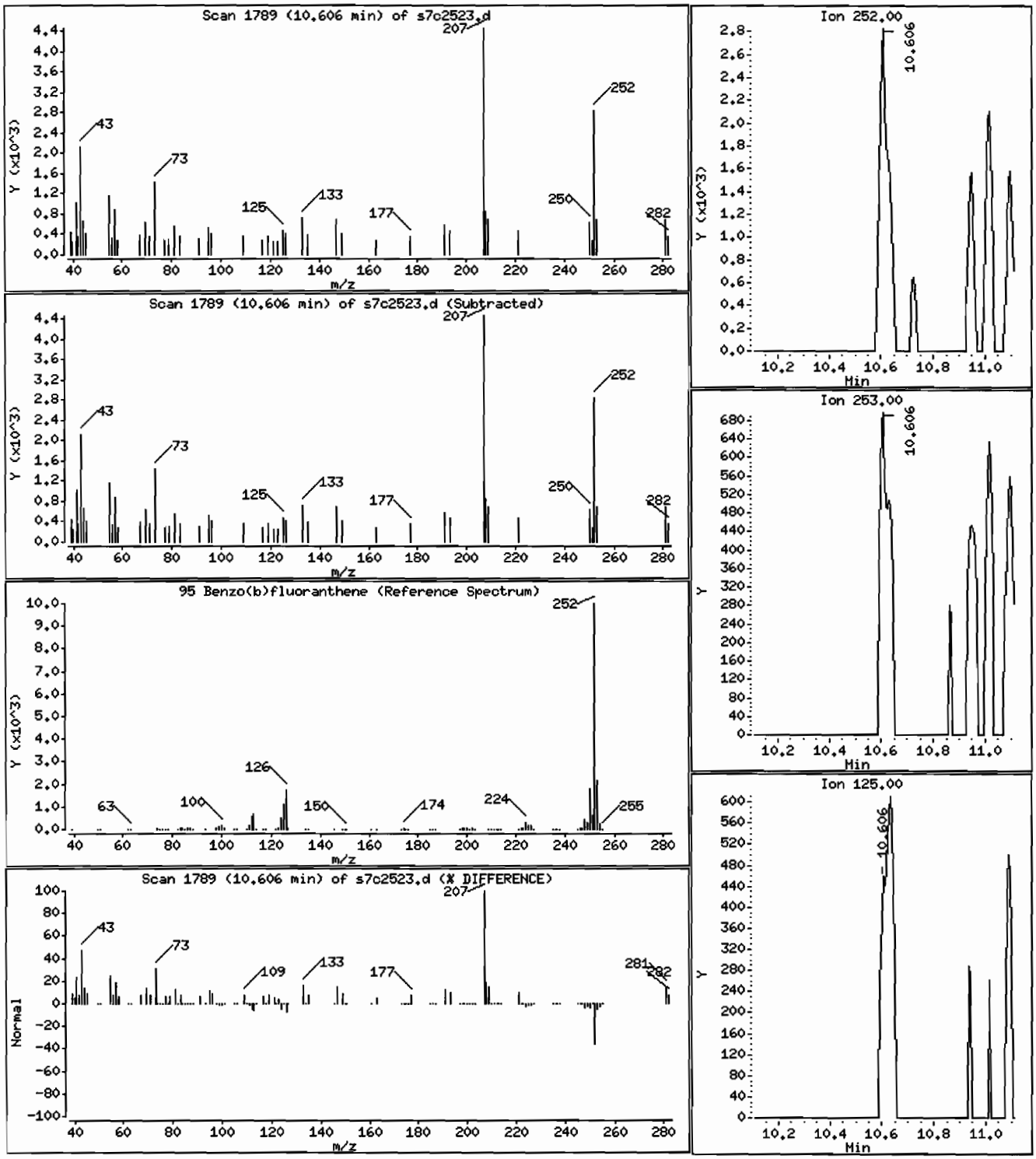

Data File: /chem/MSD7.i/s032510.b/s7c2523.d

Date : 25-MAR-2010 20:18

Client ID: RE46-10-12933

Instrument: MSD7.i

Sample Info: 1248867004|966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	45	C6H12O2	116

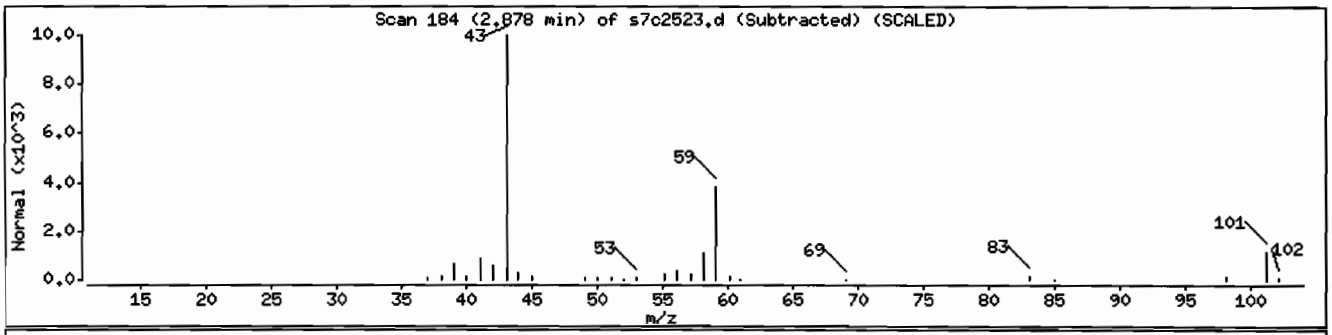

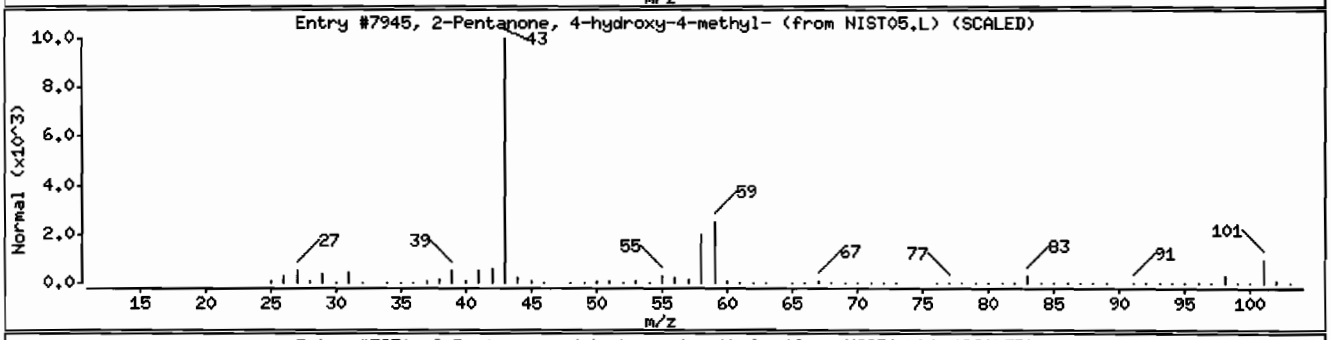

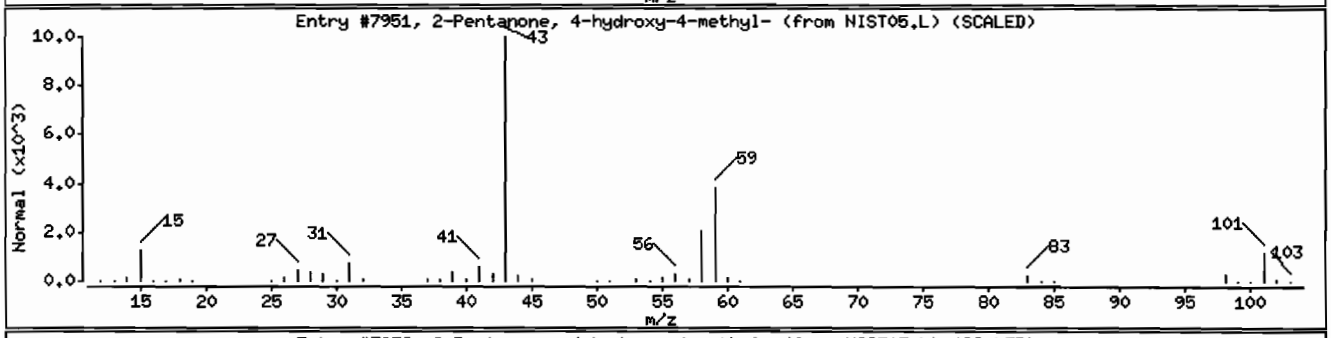

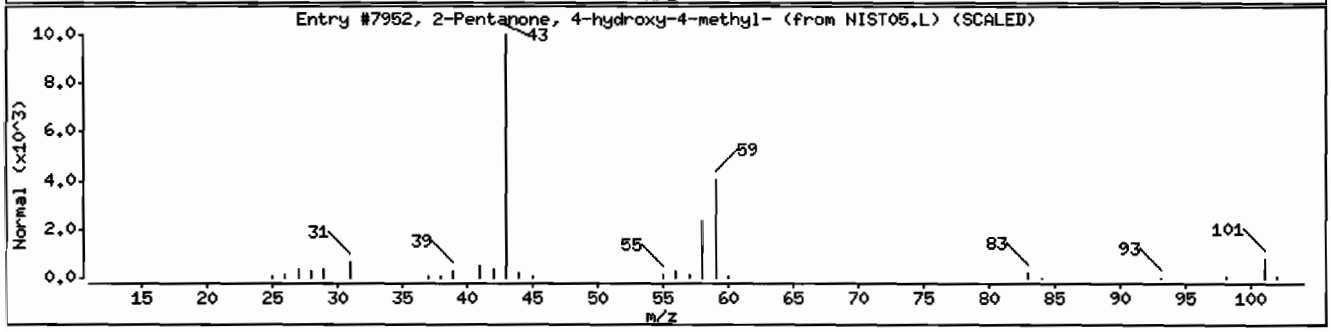

Data File: /chem/MSD7.i/s032510.b/s7c2523.d

Date : 25-MAR-2010 20:18

Client ID: RE46-10-12933

Instrument: MSD7.i

Sample Info: |2488670041966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
7-Nonenamide	90949-53-4	NIST05.L	26953	72	C9H17NO	155
Pentanamide, 4-methyl-	1119-29-5	NIST05.L	7606	64	C6H13NO	115
Hexadecanamide	629-54-9	NIST05.L	95461	59	C16H33NO	255

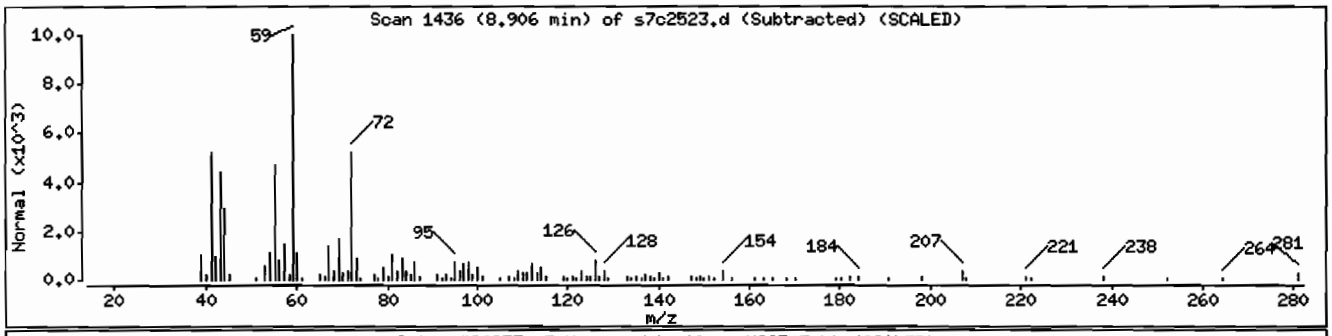

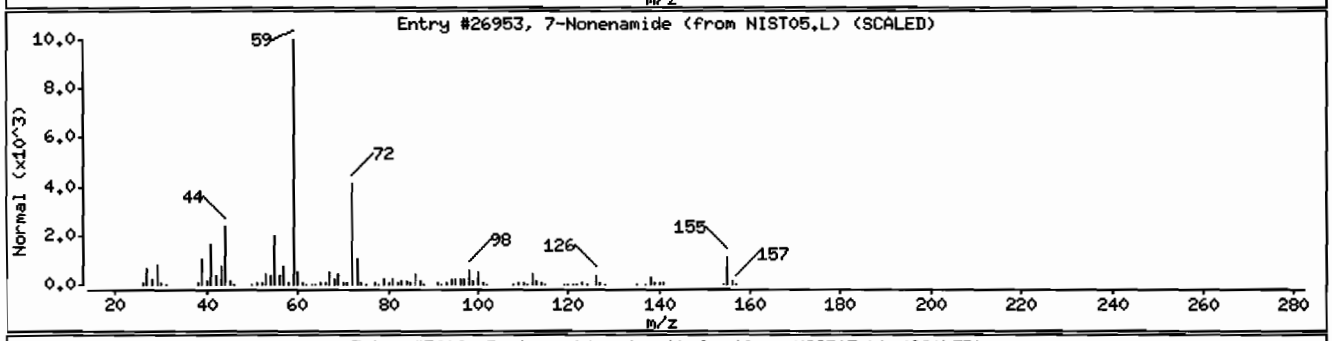

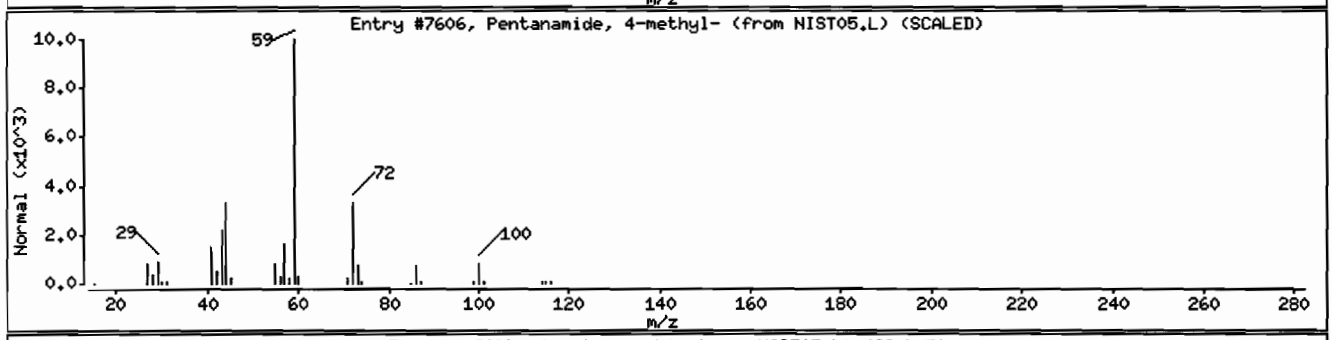

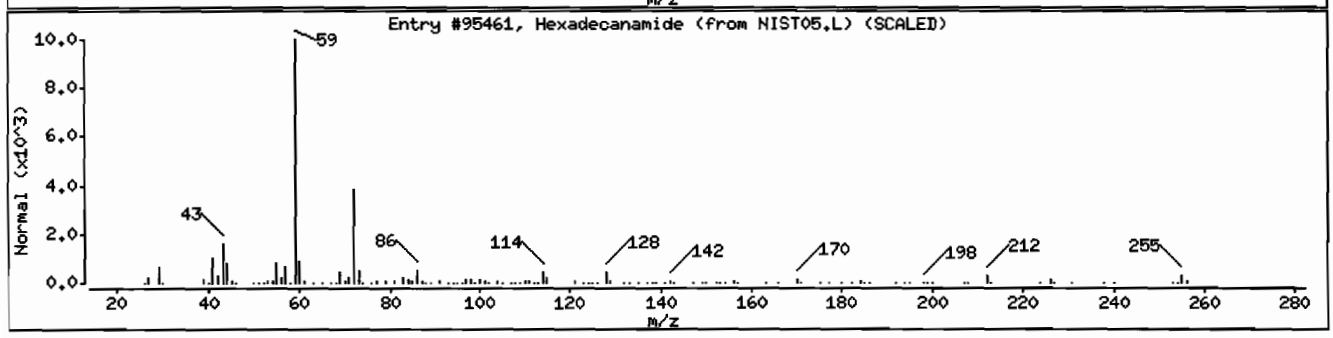

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**15.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12934**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 21:08**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2428.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	394	ug/kg	78.8	394
108-95-2	Phenol	U	394	ug/kg	78.8	394
95-57-8	2-Chlorophenol	U	394	ug/kg	78.8	394
106-46-7	1,4-Dichlorobenzene	U	394	ug/kg	78.8	394
621-64-7	N-Nitrosodipropylamine	U	394	ug/kg	78.8	394
59-50-7	4-Chloro-3-methylphenol	U	394	ug/kg	78.8	394
83-32-9	Acenaphthene	U	39.4	ug/kg	13.0	39.4
121-14-2	2,4-Dinitrotoluene	U	394	ug/kg	39.4	394
100-02-7	4-Nitrophenol	U	394	ug/kg	130	394
87-86-5	Pentachlorophenol	U	394	ug/kg	98.5	394
129-00-0	Pyrene	U	39.4	ug/kg	11.8	39.4
110-86-1	Pyridine	U	394	ug/kg	78.8	394
62-53-3	Aniline	U	394	ug/kg	118	394
111-44-4	bis(2-Chloroethyl) ether	U	394	ug/kg	78.8	394
541-73-1	1,3-Dichlorobenzene	U	394	ug/kg	78.8	394
100-51-6	Benzyl alcohol	U	394	ug/kg	118	394
95-50-1	1,2-Dichlorobenzene	U	394	ug/kg	78.8	394
108-60-1	bis(2-Chloroisopropyl)ether	U	394	ug/kg	78.8	394
95-48-7	o-Cresol	U	394	ug/kg	78.8	394
65794-96-9	m,p-Cresols	U	394	ug/kg	118	394
67-72-1	Hexachloroethane	U	394	ug/kg	78.8	394
98-95-3	Nitrobenzene	U	394	ug/kg	78.8	394
78-59-1	Isophorone	U	394	ug/kg	78.8	394
88-75-5	2-Nitrophenol	U	394	ug/kg	78.8	394
105-67-9	2,4-Dimethylphenol	U	394	ug/kg	138	394
111-91-1	bis(2-Chloroethoxy)methane	U	394	ug/kg	78.8	394
120-83-2	2,4-Dichlorophenol	U	394	ug/kg	78.8	394
65-85-0	Benzoic acid	U	788	ug/kg	197	788
91-20-3	Naphthalene	U	39.4	ug/kg	11.8	39.4
106-47-8	4-Chloroaniline	U	394	ug/kg	78.8	394
87-68-3	Hexachlorobutadiene	U	394	ug/kg	78.8	394
91-57-6	2-Methylnaphthalene	U	39.4	ug/kg	7.88	39.4
77-47-4	Hexachlorocyclopentadiene	U	394	ug/kg	78.8	394
88-06-2	2,4,6-Trichlorophenol	U	394	ug/kg	78.8	394
95-95-4	2,4,5-Trichlorophenol	U	394	ug/kg	78.8	394
91-58-7	2-Chloronaphthalene	U	39.4	ug/kg	13.0	39.4
88-74-4	2-Nitroaniline	U	394	ug/kg	78.8	394
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	394	ug/kg	78.8	394

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**15.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12934**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 21:08**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2428.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	394	ug/kg	78.8	394
606-20-2	2,6-Dinitrotoluene	U	394	ug/kg	39.4	394
208-96-8	Acenaphthylene	U	39.4	ug/kg	11.8	39.4
51-28-5	2,4-Dinitrophenol	U	788	ug/kg	150	788
132-64-9	Dibenzofuran	U	394	ug/kg	78.8	394
84-66-2	Diethylphthalate	U	394	ug/kg	78.8	394
86-73-7	Fluorene	U	39.4	ug/kg	11.8	39.4
7005-72-3	4-Chlorophenylphenylether	U	394	ug/kg	78.8	394
534-52-1	2-Methyl-4,6-dinitrophenol	U	394	ug/kg	78.8	394
100-01-6	4-Nitroaniline	U	394	ug/kg	118	394
	p-Nitroaniline					
122-39-4	Diphenylamine	U	394	ug/kg	78.8	394
122-66-7	Azobenzene	U	394	ug/kg	78.8	394
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	394	ug/kg	78.8	394
118-74-1	Hexachlorobenzene	U	394	ug/kg	78.8	394
85-01-8	Phenanthrene	U	39.4	ug/kg	11.8	39.4
120-12-7	Anthracene	U	39.4	ug/kg	7.88	39.4
84-74-2	Di-n-butylphthalate	U	394	ug/kg	78.8	394
206-44-0	Fluoranthene	U	39.4	ug/kg	11.8	39.4
85-68-7	Butylbenzylphthalate	U	394	ug/kg	78.8	394
56-55-3	Benzo(a)anthracene	U	39.4	ug/kg	11.8	39.4
91-94-1	3,3'-Dichlorobenzidine	U	394	ug/kg	118	394
218-01-9	Chrysene	U	39.4	ug/kg	11.8	39.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	394	ug/kg	78.8	394
117-84-0	Di-n-octylphthalate	U	394	ug/kg	78.8	394
205-99-2	Benzo(b)fluoranthene	U	39.4	ug/kg	11.8	39.4
207-08-9	Benzo(k)fluoranthene	U	39.4	ug/kg	11.8	39.4
50-32-8	Benzo(a)pyrene	U	39.4	ug/kg	11.8	39.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.4	ug/kg	11.8	39.4
53-70-3	Dibenzo(a,h)anthracene	U	39.4	ug/kg	11.8	39.4
191-24-2	Benzo(ghi)perylene	U	39.4	ug/kg	11.8	39.4
120-82-1	1,2,4-Trichlorobenzene	U	394	ug/kg	78.8	394

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.86	329	ug/kg		J
4630-07-3	Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	5.67	256	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2320	**Date Collected:**	03/05/2010 12:00	**Matrix:**	S
Lab Sample ID:	248867003	**Date Received:**	03/06/2010 09:15	**%Moisture:**	15.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12934	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966400	**Inst:**	MSD7.I	**Dilution:**	1
Run Date:	03/24/2010 21:08	**Analyst:**	JMB3	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 21:03	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s7c2428.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
301-02-0	9-Octadecenamide, (Z)-	8.89	263	ug/kg	84	NJ

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032410a.b/s7c2428.d
Lab Smp Id: 248867003 Client Smp ID: RE46-10-12934
Inj Date : 24-MAR-2010 21:08
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248867003|966400|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Meth Date : 25-Mar-2010 08:37 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2320.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	15.51260	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.821	3.826	(1.000)	256840	40.0000	
* 29 Naphthalene-d8	136	4.683	4.688	(1.000)	940088	40.0000	
* 46 Acenaphthene-d10	164	5.935	5.940	(1.000)	501322	40.0000	
* 67 Phenanthrene-d10	188	7.091	7.101	(1.000)	894990	40.0000	
* 91 Chrysene-d12	240	9.484	9.499	(1.000)	604664	40.0000	
* 98 Perylene-d12	264	11.073	11.083	(1.000)	371467	40.0000	
$ 3 2-Fluorophenol	112	3.022	3.017	(0.791)	359607	53.8667	2120
$ 5 Phenol-d5	99	3.542	3.547	(0.927)	371958	44.4389	1750
$ 20 Nitrobenzene-d5	82	4.183	4.187	(0.893)	218504	30.8167	1210
$ 39 2-Fluorobiphenyl	172	5.425	5.430	(0.914)	447983	35.8565	1410
$ 60 2,4,6-Tribromophenol	329	6.528	6.532	(1.100)	77042	53.1597	2090
$ 81 p-Terphenyl-d14	244	8.463	8.473	(0.892)	453938	41.9045	1650

ION RATIO REPORT

SV REPORT

Data file: s7c2428.d
Report Date: 03/25/2010 08:48
Lab. ID: 248867003 SampleType: SAMPLE
Injection Date: 24-MAR-2010 21:08
Operator: JMB3 Instrument: MSD7.i
Sample Info: |248867003|966400|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100319-01|
Comment:
Method used: /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2320
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	34515	4.18	4.07	80-120	100	(T)
42	29623	4.18	4.07	74-134	86	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	92051	5.94	5.71	80-120	100	(T)
164	501322	5.94	5.71	0- 40	545	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	66102	5.94	5.77	80-120	100	(T)
63	1022	5.94	5.76	67-127	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	66102	5.94	6.06	80-120	100	(T)
89	1056	5.94	6.06	45-105	2	(QT)
63	1022	5.94	6.06	26- 86	2	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	145	6.52	6.37	80-120	100	(T)
105	838	6.52	6.37	12- 72	577	(QT)
51	861	6.52	6.37	46-106	592	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

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Data file : /chem/MSD7.i/s032410a.b/s7c2428.d
Lab Smp Id: 248867003 Client Smp ID: RE46-10-12934
Inj Date : 24-MAR-2010 21:08
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |248867003|966400|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100319-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Meth Date : 25-Mar-2010 08:37 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2320.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	15.51260	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.821	1745366	40.000
* 46 Acenaphthene-d10	5.935	2192042	40.000
* 91 Chrysene-d12	9.484	1653796	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.863	364464	8.35271760	329	0		0	10
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-					CAS #: 4630-07-3		
5.666	356340	6.50243716	256	98	NIST05.L	60047	46
9-Octadecenamide, (Z)-					CAS #: 301-02-0		
8.892	276145	6.67905934	263	84	NIST05.L	112655	91

Data File: /chem/MSD7.i/s032410a.b/s7o2428.d
Date : 24-MAR-2010 21:08
Client ID: RE46-10-12934
Sample Info: 1248867003196640011|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD7.i

Operator: JMB3
Column diameter: 0.20

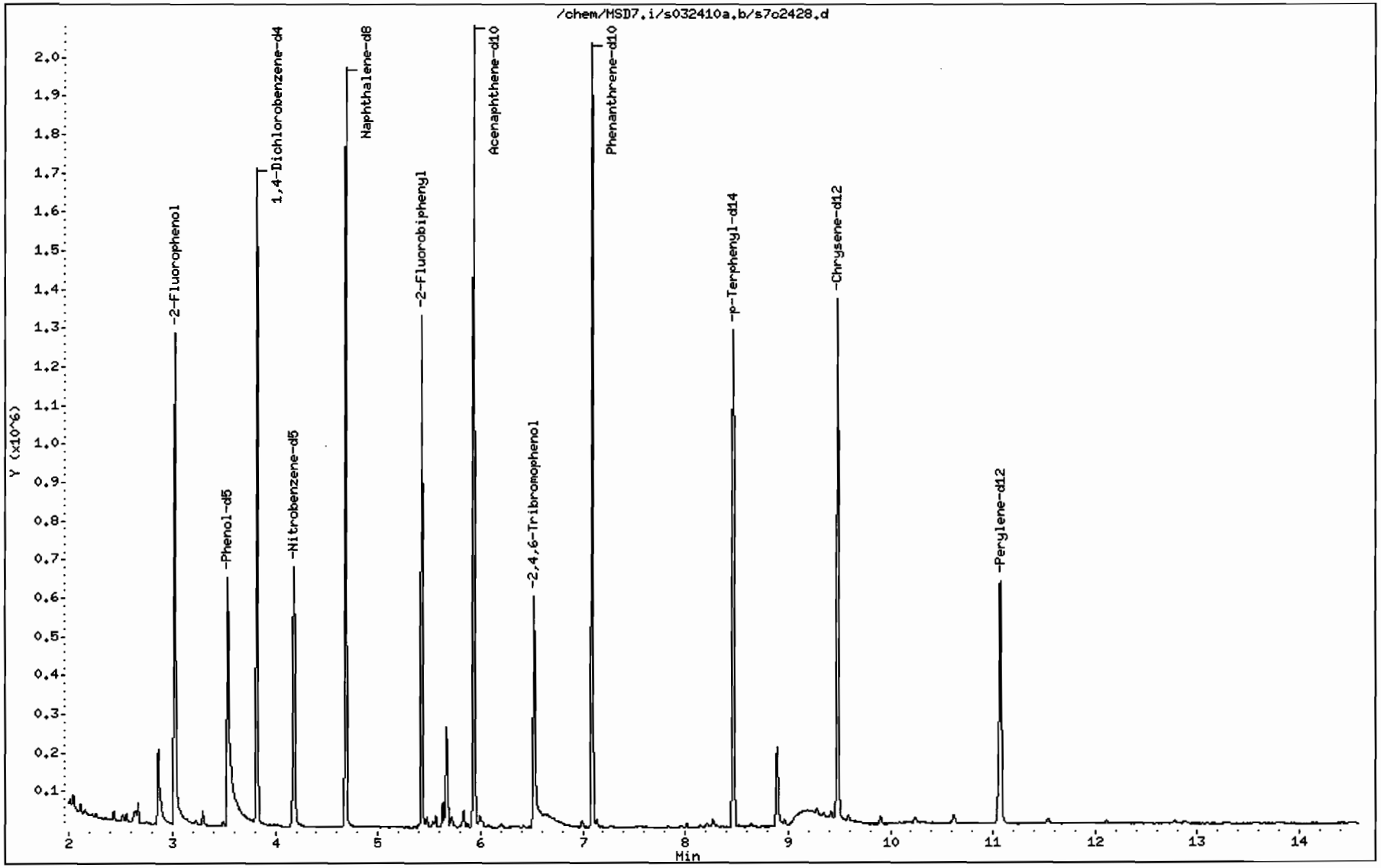

Data File: /chem/MSD7.i/s032410a.b/s7c2428.d

Date : 24-MAR-2010 21:08

Client ID: RE46-10-12934

Instrument: MSD7.i

Sample Info: |2488670031966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	42	C6H12O2	116

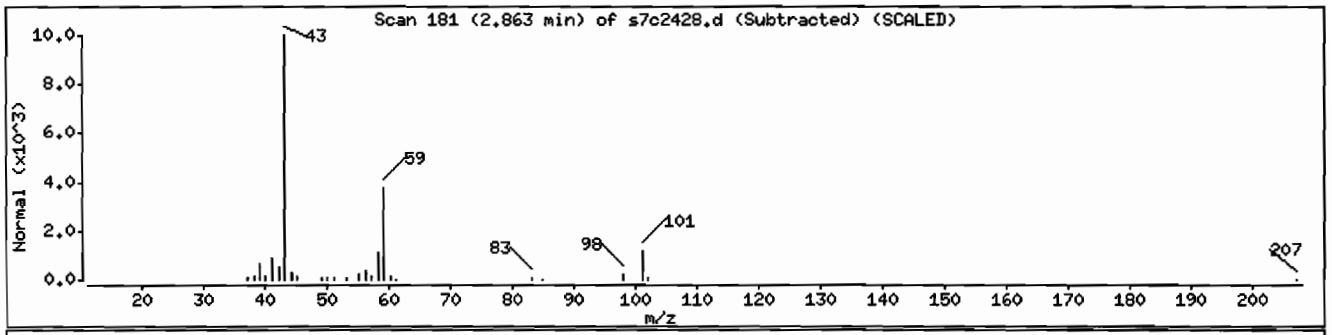

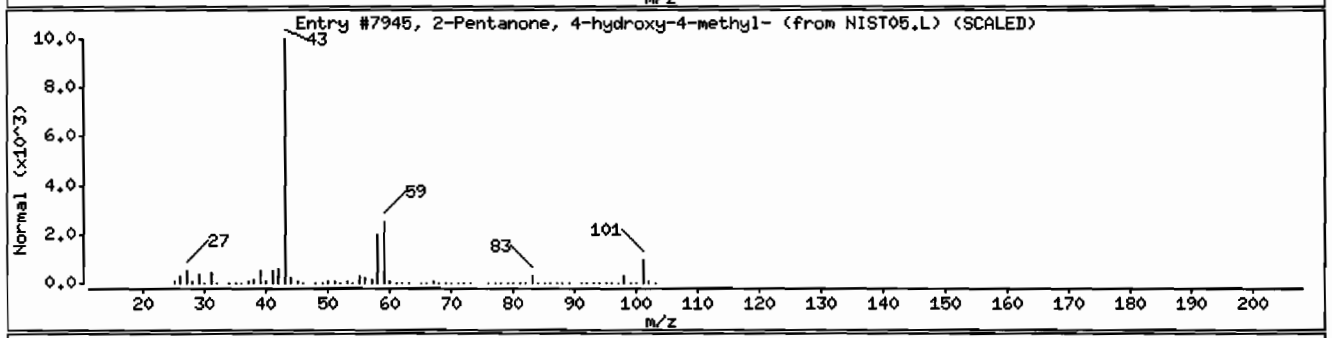

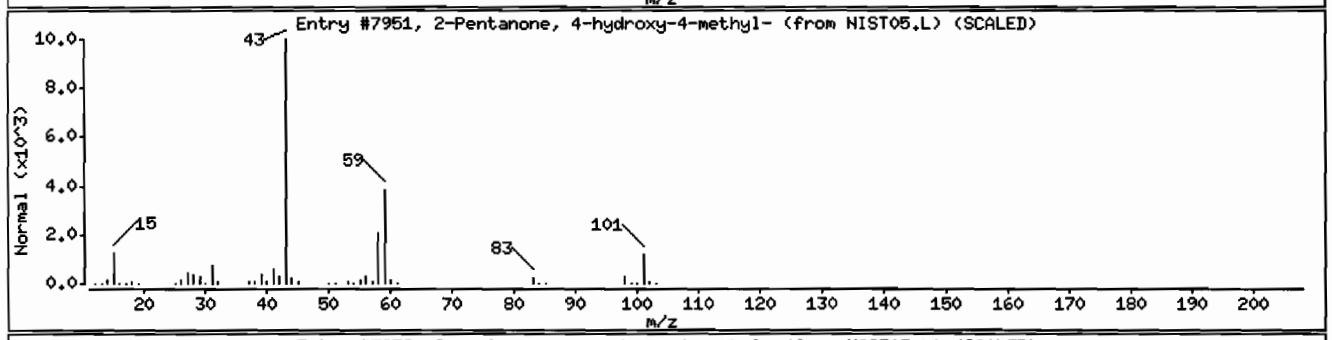

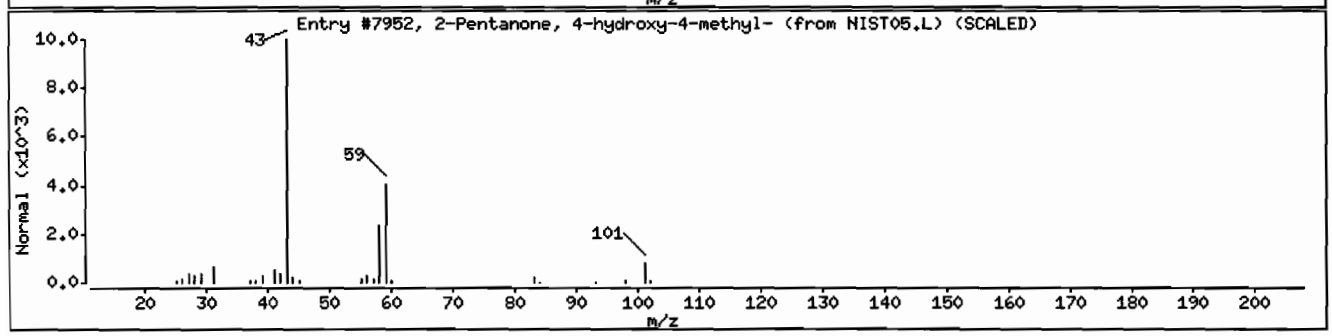

Data File: /chem/MSD7.i/s032410a.b/s7c2428.d

Date : 24-MAR-2010 21:08

Client ID: RE46-10-12934

Instrument: MSD7.i

Sample Info: |2488670031966400|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60047	98	C15H24	204
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60020	97	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60046	96	C15H24	204

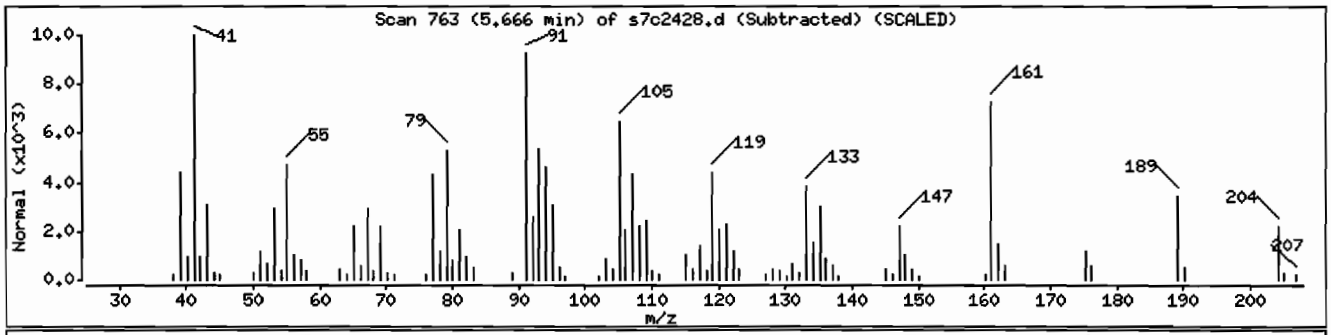

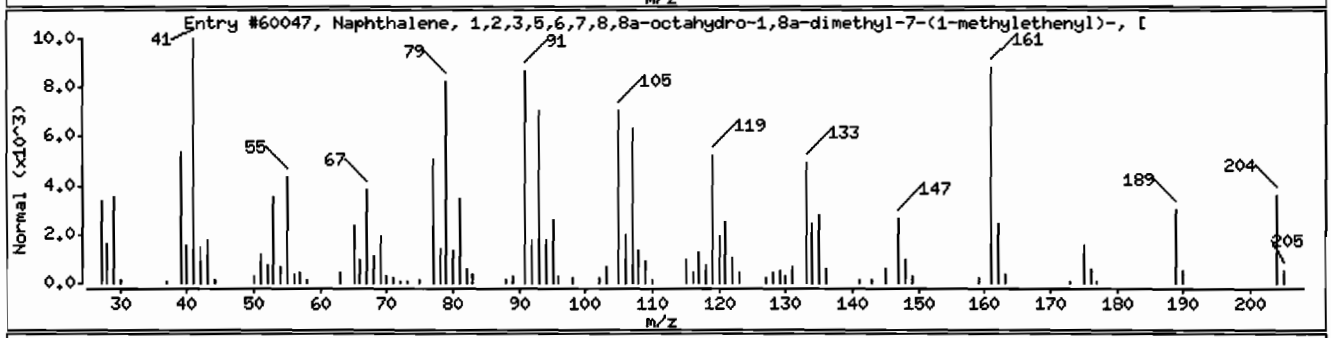

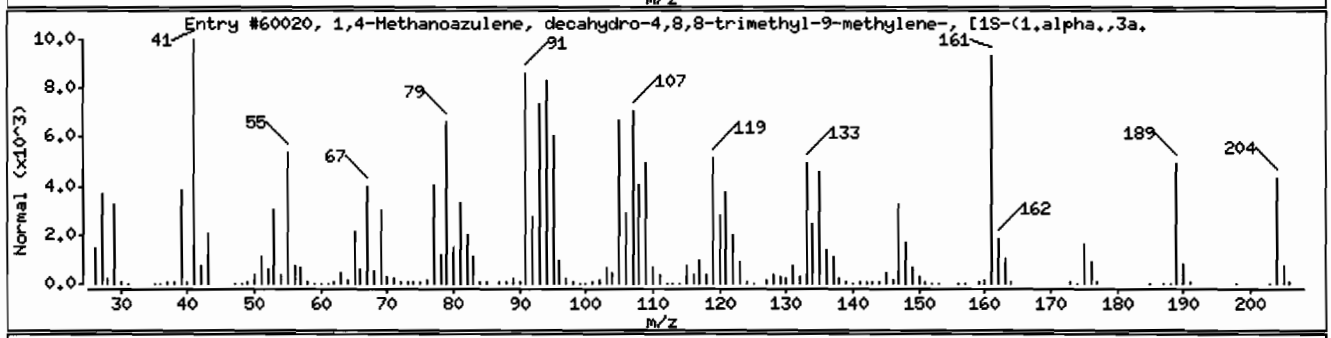

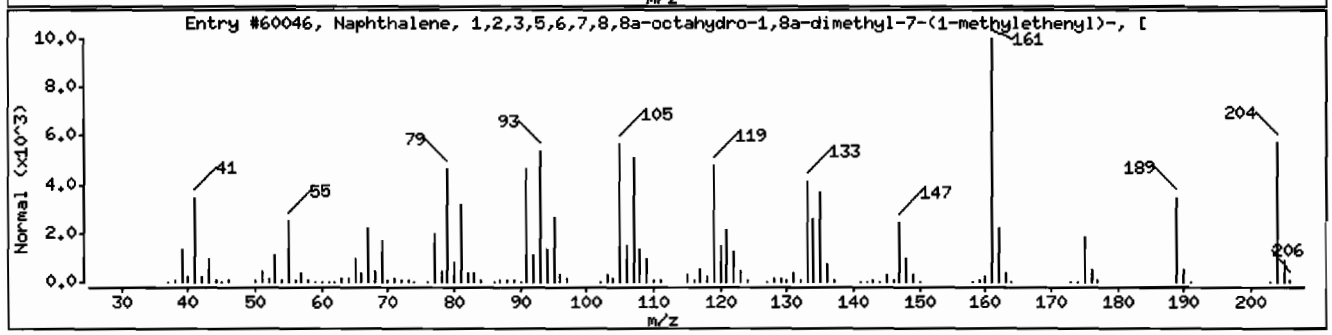

Data File: /chem/MSD7.i/s032410a.b/s7c2428.d

Date : 24-MAR-2010 21:08

Client ID: RE46-10-12934 Instrument: MSD7.i

Sample Info: |2488670031966400|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	84	C18H35NO	281
Tetradecanamide	638-58-4	NIST05.L	76595	72	C14H29NO	227
Hexadecanamide	629-54-9	NIST05.L	95460	59	C16H33NO	255

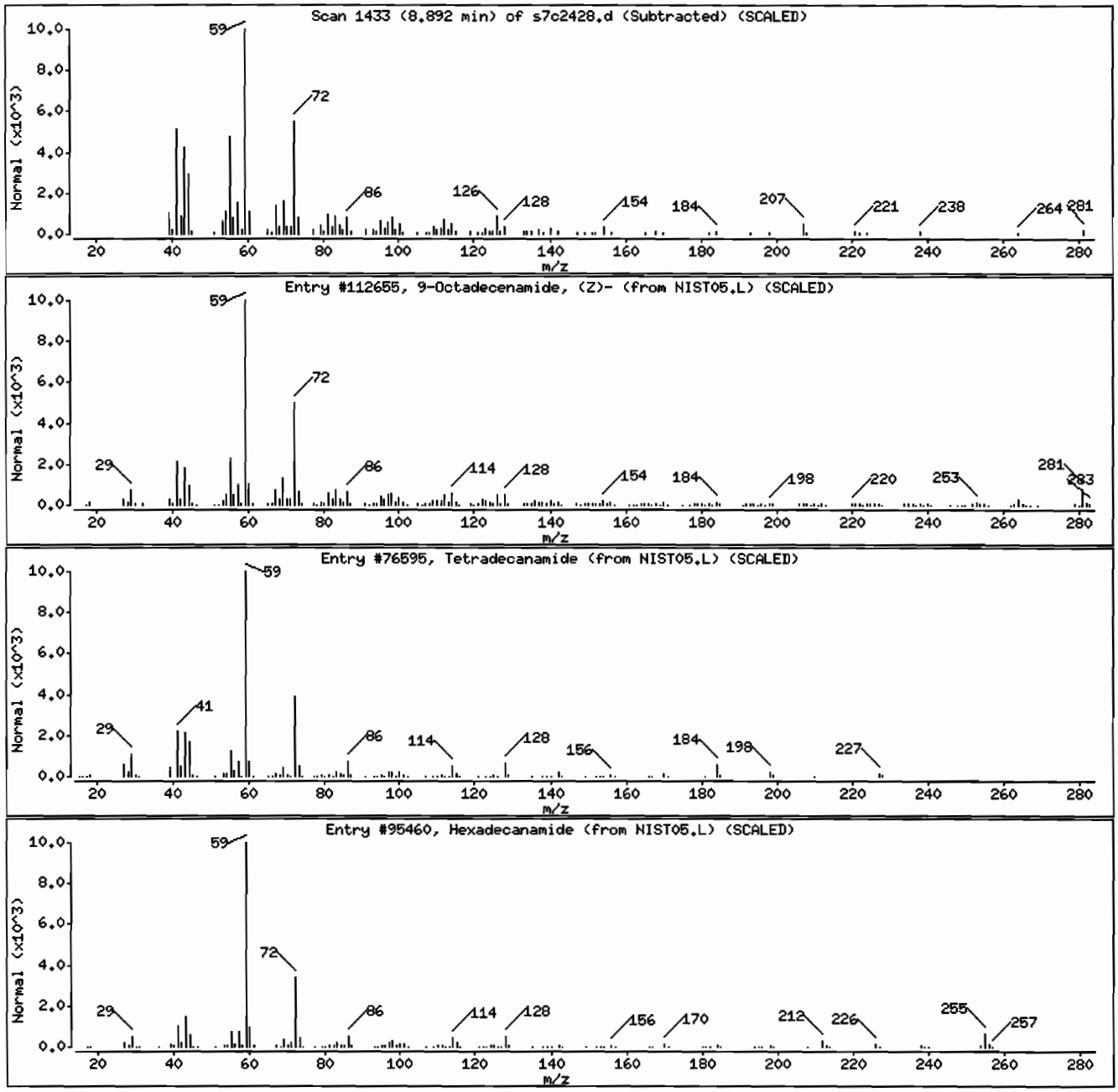

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 25-Mar-2010 08:36

Calibration History

Method : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Start Cal Date: 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
26-FEB-2010 11:07	MEGA	/chem/MSD7.i/s022610.b/s7b2603.d
Cal Level: 2 , Cal Amount: 10.00000		
26-FEB-2010 21:36	NEV	/chem/MSD7.i/s022610.b/s7b2631.d
26-FEB-2010 19:05	PEST	/chem/MSD7.i/s022610.b/s7b2624.d
26-FEB-2010 16:34	AP12	/chem/MSD7.i/s022610.b/s7b2617.d
26-FEB-2010 14:44	MEGA	/chem/MSD7.i/s022610.b/s7b2612.d
Cal Level: 3 , Cal Amount: 20.00000		
26-FEB-2010 21:58	NEV	/chem/MSD7.i/s022610.b/s7b2632.d
26-FEB-2010 19:26	PEST	/chem/MSD7.i/s022610.b/s7b2625.d
26-FEB-2010 16:56	AP12	/chem/MSD7.i/s022610.b/s7b2618.d
26-FEB-2010 15:08	MEGA	/chem/MSD7.i/s022610.b/s7b2613.d
Cal Level: 4 , Cal Amount: 40.00000		
26-FEB-2010 22:19	NEV	/chem/MSD7.i/s022610.b/s7b2633.d
26-FEB-2010 19:48	PEST	/chem/MSD7.i/s022610.b/s7b2626.d
26-FEB-2010 17:17	AP12	/chem/MSD7.i/s022610.b/s7b2619.d
26-FEB-2010 12:19	MEGA	/chem/MSD7.i/s022610.b/s7b2606.d
Cal Level: 5 , Cal Amount: 50.00000		
26-FEB-2010 22:40	NEV	/chem/MSD7.i/s022610.b/s7b2634.d
26-FEB-2010 20:09	PEST	/chem/MSD7.i/s022610.b/s7b2627.d
26-FEB-2010 17:39	AP12	/chem/MSD7.i/s022610.b/s7b2620.d
26-FEB-2010 12:43	MEGA	/chem/MSD7.i/s022610.b/s7b2607.d
Cal Level: 6 , Cal Amount: 80.00000		
26-FEB-2010 23:02	NEV	/chem/MSD7.i/s022610.b/s7b2635.d
26-FEB-2010 20:31	PEST	/chem/MSD7.i/s022610.b/s7b2628.d
26-FEB-2010 18:00	AP12	/chem/MSD7.i/s022610.b/s7b2621.d
26-FEB-2010 13:07	MEGA	/chem/MSD7.i/s022610.b/s7b2608.d
Cal Level: 7 , Cal Amount: 100.00000		
26-FEB-2010 23:24	NEV	/chem/MSD7.i/s022610.b/s7b2636.d
26-FEB-2010 20:52	PEST	/chem/MSD7.i/s022610.b/s7b2629.d
26-FEB-2010 18:22	AP12	/chem/MSD7.i/s022610.b/s7b2622.d
26-FEB-2010 13:32	MEGA	/chem/MSD7.i/s022610.b/s7b2609.d

Cal Level: 8 , Cal Amount: 120.00000		
26-FEB-2010 23:46	NEV	/chem/MSD7.i/s022610.b/s7b2637.d
26-FEB-2010 21:14	PEST	/chem/MSD7.i/s022610.b/s7b2630.d
26-FEB-2010 18:43	AP12	/chem/MSD7.i/s022610.b/s7b2623.d
26-FEB-2010 13:56	MEGA	/chem/MSD7.i/s022610.b/s7b2610.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
24-MAR-2010 15:43	AP12	/chem/MSD7.i/s032410a.b/s7c2413.d
Ccal Level: 4 , Ccal Amount: 40.0		
24-MAR-2010 15:19	MEGA	/chem/MSD7.i/s032410a.b/s7c2412.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Cal Date : 24-Mar-2010 15:57 jos00786

Calibration File Names:
Level 1: /chem/MSD7.i/s022610.b/s7b2603.d
Level 2: /chem/MSD7.i/s022610.b/s7b2631.d
Level 3: /chem/MSD7.i/s022610.b/s7b2632.d
Level 4: /chem/MSD7.i/s022610.b/s7b2633.d
Level 5: /chem/MSD7.i/s022610.b/s7b2634.d
Level 6: /chem/MSD7.i/s022610.b/s7b2635.d
Level 7: /chem/MSD7.i/s022610.b/s7b2636.d
Level 8: /chem/MSD7.i/s022610.b/s7b2637.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.70129	0.69307	0.69919	0.69205	0.70435					
	0.72207	0.68805					AVRG		0.70001		1.61027
2 Pyridine	+++++	0.94944	0.95786	0.97202	0.96726	0.96770					
	0.98956	0.94873					AVRG		0.96465		1.47919
4 Aniline	+++++	0.63884	0.62715	0.61554	0.61939	0.61456					
	0.63008	0.60716					AVRG		0.62182		1.73598
209 Benzaldehyde	+++++	0.95833	0.92226	0.84939	0.85637	0.79340					
	0.79412	0.72945					AVRG		0.84333		9.38003
6 Phenol	+++++	1.32624	1.33308	1.29840	1.28556	1.27125					
	1.30161	1.24826					AVRG		1.29492		2.29936

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Method file : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Cal Date : 24-Mar-2010 15:57 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	+++++	1.10103	1.14462	1.07089	1.07731	1.02082					
	1.03135	0.97582					AVRG		1.06026		5.26596
8 2-Chlorophenol	+++++	1.05514	1.03806	0.97770	0.97692	0.96049					
	0.98254	0.94585					AVRG		0.99096		4.06684
203 n-Decane	+++++	2.18082	2.07044	1.82788	1.73590	1.49542					
	+++++	+++++					AVRG		1.86209		14.62211
9 1,3-Dichlorobenzene	+++++	1.32145	1.29459	1.24409	1.22768	1.22115					
	1.22709	1.17739					AVRG		1.24478		3.88965
11 1,4-Dichlorobenzene	+++++	1.25354	1.24697	1.20326	1.18250	1.16238					
	1.17850	1.13378					AVRG		1.19442		3.65492
12 Benzyl alcohol	+++++	0.67067	0.67376	0.66588	0.67064	0.67714					
	0.69639	0.66876					AVRG		0.67475		1.51022
13 1,2-Dichlorobenzene	+++++	1.18780	1.16188	1.10021	1.10063	1.06192					
	1.06520	1.01341					AVRG		1.09872		5.47171
14 bis(2-Chloroisopropyl)ether	+++++	2.84346	2.77975	2.54436	2.49732	2.25102					
	2.22248	2.05488					AVRG		2.45618		12.00760
15 o-Cresol	+++++	0.82975	0.83763	0.79686	0.80251	0.77550					
	0.77566	0.73522					AVRG		0.79330		4.42431

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Cal Date : 24-Mar-2010 15:57 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.19544	1.16930	1.11939	1.09905	1.06063					
	1.05199	1.05015					AVRG		1.10656		5.25990
17 N-Nitrosodipropylamine	+++++	0.78986	0.78126	0.76761	0.76071	0.69101					
	0.68312	0.68292					AVRG		0.73664		6.60276
18 m,p-Cresols	+++++	1.06688	1.08137	1.06240	1.06282	1.06806					
	1.09460	1.06712					AVRG		1.07190		1.10409
19 Hexachloroethane	+++++	0.47830	0.48853	0.45909	0.46017	0.45910					
	0.46127	0.44002					AVRG		0.46378		3.35369
21 Nitrobenzene	+++++	0.32599	0.31564	0.28441	0.27994	0.26223					
	0.25178	0.23906					AVRG		0.27987		11.47927
22 Isophorone	+++++	0.60055	0.58304	0.55409	0.54916	0.51583					
	0.50295	0.47946					AVRG		0.54073		8.06835
23 2-Nitrophenol	+++++	0.15519	0.14330	0.13006	0.13093	0.12549					
	0.12051	0.11450					AVRG		0.13143		10.52994
24 2,4-Dimethylphenol	+++++	114168	218277	376135	452448	745396					
	905563	998411					WLINR	-0.12517	0.21482		0.99550
25 bis(2-Chloroethoxy)methane	+++++	0.33736	0.32731	0.30205	0.29544	0.27901					
	0.27212	0.25761					AVRG		0.29584		9.81641

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Method file : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Cal Date : 24-Mar-2010 15:57 jos00786

Compound	1 Level 1 / 100 Level 7	10 Level 2 / 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
26 2,4-Dichlorophenol	+++++	0.23284	0.23115	0.21499	0.21340	0.20610					
	0.19857	0.18877					AVRG		0.21226		7.61142
27 Benzoic acid	+++++	+++++	0.09399	0.10823	0.11656	0.13120					
	0.13489	0.14008					AVRG		0.12083		14.68354
28 1,2,4-Trichlorobenzene	+++++	0.29769	0.28901	0.26508	0.25660	0.24189					
	0.23181	0.21987					AVRG		0.25742		11.19881
30 Naphthalene	0.86793	0.85653	0.82594	0.76646	0.74263	0.69647					
	0.66692	0.62198					AVRG		0.75561		11.96904
204 alpha-Terpineol	+++++	0.36073	0.33018	0.30395	0.29238	0.25678					
	+++++	+++++					AVRG		0.30880		12.69973
31 4-Chloroaniline	+++++	0.39138	0.38394	0.36323	0.35125	0.34226					
	0.33031	0.31443					AVRG		0.35383		7.86879
189 Caprolactam	+++++	0.07270	0.07721	0.07751	0.07660	0.07453					
	0.07119	0.07132					AVRG		0.07444		3.68543
32 Hexachlorobutadiene	+++++	0.15432	0.14969	0.13784	0.13578	0.12669					
	0.12160	0.11448					AVRG		0.13434		10.80519
33 4-Chloro-3-methylphenol	+++++	0.23968	0.24055	0.23641	0.23018	0.22561					
	0.21618	0.20719					AVRG		0.22797		5.51338

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Method file : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Cal Date : 24-Mar-2010 15:57 jos00786

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
34 2-Methylnaphthalene	0.60775	0.60694	0.59172	0.55334	0.53860	0.50400					
	0.48115	0.45486					AVRG		0.54229		10.77312
35 1-Methylnaphthalene	0.59454	0.58640	0.56002	0.52389	0.50625	0.47447					
	0.45314	0.42590					AVRG		0.51558		12.04862
36 Hexachlorocyclopentadiene	+++++	0.17760	0.20342	0.20161	0.19061	0.22063					
	0.18724	0.17253					AVRG		0.19338		8.54937
208 1,1'-Biphenyl	+++++	1.26811	1.22170	1.13538	1.10081	1.02216					
	0.99895	0.96709					AVRG		1.10203		10.36141
205 2,3-Dichloroaniline	+++++	0.55167	0.53296	0.49182	0.48955	0.47670					
	0.46688	0.45276					AVRG		0.49462		7.19612
37 2,4,6-Trichlorophenol	+++++	0.28591	0.29017	0.28397	0.28642	0.27709					
	0.27579	0.26511					AVRG		0.28064		3.05262
38 2,4,5-Trichlorophenol	+++++	0.30067	0.30400	0.27441	0.27725	0.27297					
	0.27188	0.27453					AVRG		0.28225		4.90941
40 2-Chloronaphthalene	0.98968	0.98865	0.96920	0.92181	0.91661	0.88930					
	0.87923	0.85223					AVRG		0.92584		5.61667
42 o-Nitroaniline	+++++	0.32650	0.33651	0.32632	0.33065	0.32955					
	0.32556	0.31936					AVRG		0.32778		1.61097

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Cal Date : 24-Mar-2010 15:57 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.22126	0.24562	0.23943	0.24325	0.24756					
	0.23907	0.23834					AVRG		0.23922		3.62078
43 Dimethylphthalate	+++++	1.14209	1.13350	1.05960	1.05899	1.02333					
	1.02706	0.99596					AVRG		1.06293		5.23993
44 2,6-Dinitrotoluene	+++++	0.26499	0.26039	0.24328	0.24493	0.23535					
	0.23967	0.22978					AVRG		0.24549		5.23468
45 Acenaphthylene	1.61531	1.62844	1.56002	1.45485	1.44949	1.39892					
	1.39129	1.34156					AVRG		1.47998		7.30956
47 Acenaphthene	0.94291	0.93284	0.92839	0.86375	0.86944	0.84726					
	0.85153	0.80716					AVRG		0.88041		5.54006
48 2,4-Dinitrophenol	+++++	+++++	22189	53016	65432	148984					
	192071	221189					LINR	0.35875	0.10576		0.99409
49 Dibenzofuran	+++++	1.35809	1.33389	1.22166	1.23984	1.19392					
	1.18290	1.13131					AVRG		1.23737		6.61916
50 2,4-Dinitrotoluene	+++++	0.32035	0.33058	0.31874	0.32457	0.32389					
	0.32862	0.31860					AVRG		0.32362		1.46117
51 Diethylphthalate	+++++	1.16778	1.15242	1.07866	1.08210	1.05762					
	1.05225	1.02521					AVRG		1.08801		4.86063

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Cal Date : 24-Mar-2010 15:57 jos00786

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
52 4-Nitrophenol	+++++	0.12189	0.15319	0.16924	0.16712	0.17578					
	0.17989	0.17224					AVRG		0.16277		12.22482
53 Fluorene	1.15003	1.14913	1.10994	1.00309	1.00564	0.97807					
	0.97276	0.93722					AVRG		1.03823		8.16853
54 4-Chlorophenylphenylether	+++++	0.55230	0.54732	0.51155	0.51708	0.50214					
	0.50180	0.47955					AVRG		0.51596		5.03023
55 2-Methyl-4,6-dinitrophenol	+++++	14243	47063	96235	119327	243903					
	311718	360208					LINR	0.20375	0.08692		0.99607
56 p-Nitroaniline	+++++	0.16936	0.20880	0.22482	0.21785	0.23101					
	0.23233	0.22347					AVRG		0.21538		10.12479
133 Diphenylamine	+++++	0.52306	0.50517	0.46428	0.46066	0.45126					
	0.45503	0.43996					AVRG		0.47134		6.50344
58 1,2-Diphenylhydrazine	+++++	0.65962	0.63737	0.59463	0.58510	0.56518					
	0.56834	0.54070					AVRG		0.59299		7.08469
59 Tributylphosphate	+++++	1.33867	1.16678	1.14080	1.10893	1.04610					
	1.01650	0.99882					AVRG		1.11666		10.42695
61 4-Bromophenylphenylether	+++++	0.17755	0.17375	0.16178	0.16189	0.15944					
	0.16098	0.15611					AVRG		0.16450		4.82846

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
63 Hexachlorobenzene	+++++	0.17131	0.16786	0.15738	0.15772	0.15513						
	0.15658	0.15273					AVRG		0.15982		4.34833	
207 Atrazine	+++++	0.04508	0.04317	0.03751	0.03999	0.03673						
	0.03600	0.03123					AVRG		0.03853		12.10180	
65 Pentachlorophenol	+++++	0.05499	0.07351	0.07546	0.07788	0.08148						
	0.08346	0.08259					AVRG		0.07563		12.99894	
206 n-Octadecane	+++++	0.66517	0.62877	0.54339	0.51312	0.41990						
	0.38282	0.35591					AVRG		0.50130		23.99535	<-
68 Phenanthrene	0.92440	0.87829	0.87153	0.80635	0.79576	0.77327						
	0.77180	0.74515					AVRG		0.82082		7.68182	
69 Anthracene	0.90440	0.90373	0.89117	0.81712	0.81109	0.79018						
	0.78315	0.74963					AVRG		0.83131		7.25516	
72 Di-n-butylphthalate	+++++	1.13584	1.12517	1.05910	1.04864	1.00051						
	0.99703	0.95438					AVRG		1.04581		6.45939	
76 Fluoranthene	0.90224	0.97031	0.96017	0.89278	0.88802	0.86786						
	0.84840	0.81005					AVRG		0.89248		6.00409	
77 Benzidine	+++++	0.40653	0.36246	0.36565	0.35403	0.36544						
	0.41263	0.35213					AVRG		0.37412		6.64046	

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Cal Date : 24-Mar-2010 15:57 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.32405	1.35159	1.31284	1.20723	1.21760	1.15073					
	1.26280	1.28250					AVRG		1.26367		5.36819
85 Butylbenzylphthalate	+++++	0.59662	0.60220	0.59072	0.60132	0.58013					
	0.61922	0.61621					AVRG		0.60092		2.27892
89 Benzo(a)anthracene	1.05093	0.96816	0.96328	0.93178	0.93105	0.93332					
	0.96025	0.93255					AVRG		0.95891		4.21524
90 3,3'-Dichlorobenzidine	+++++	0.26681	0.28620	0.29510	0.27316	0.27699					
	0.29106	0.26436					AVRG		0.27910		4.28355
92 Chrysene	0.89020	0.89976	0.89113	0.83925	0.84009	0.82315					
	0.84100	0.80174					AVRG		0.85329		4.21177
93 bis(2-Ethylhexyl)phthalate	+++++	0.80809	0.78600	0.73624	0.76057	0.74158					
	0.75155	0.74362					AVRG		0.76109		3.48672
94 Di-n-octylphthalate	+++++	1.52295	1.51090	1.49260	1.57749	1.70881					
	1.68585	1.74490					AVRG		1.60621		6.52248
95 Benzo(b)fluoranthene	1.02704	1.09919	1.10279	1.13249	1.13619	1.13403					
	1.17324	1.16918					AVRG		1.12177		4.15603
96 Benzo(k)fluoranthene	1.03689	1.14562	1.11676	0.99048	1.02425	1.04585					
	1.04682	1.02719					AVRG		1.05423		4.86067

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INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Cal Date : 24-Mar-2010 15:57 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.82018	0.92251	0.95324	0.92574	0.93085	0.93108					
	0.94872	0.92614					AVRG		0.91981		4.54058
99 Indeno(1,2,3-cd)pyrene	0.61793	0.62224	0.69390	0.69944	0.67832	0.64625					
	0.68582	0.64752					AVRG		0.66143		4.85925
100 Dibenzo(a,h)anthracene	0.47565	0.47818	0.54251	0.56597	0.53673	0.52054					
	0.55040	0.52332					AVRG		0.52416		6.20836
101 Benzo(ghi)perylene	0.56533	0.53785	0.58606	0.57992	0.55056	0.51978					
	0.55186	0.52150					AVRG		0.55161		4.48630
102 1,4-Dioxane	+++++	0.36384	0.36610	0.33417	0.33077	0.31979					
	0.31717	0.31403					AVRG		0.33513		6.45342
103 Methyl methacrylate	+++++	0.21020	0.20726	0.19621	0.19212	0.18889					
	0.18592	0.18875					AVRG		0.19562		4.88183
104 Ethyl methacrylate	+++++	0.79610	0.79733	0.75341	0.75358	0.72166					
	0.71755	0.72015					AVRG		0.75140		4.58534
105 2-Picoline	+++++	1.22561	1.21665	1.13966	1.12899	1.08441					
	1.07670	1.07757					AVRG		1.13566		5.59082
106 N-Nitrosomethylethylamine	+++++	0.47452	0.46462	0.43928	0.44021	0.42769					
	0.42281	0.42081					AVRG		0.44142		4.71501

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.54758	0.54286	0.49884	0.51161	0.49538					
	0.49709	0.45892					AVRG		0.50747		6.00086
108 N-Nitrosodiethylamine	+++++	0.49539	0.49681	0.46847	0.46768	0.45500					
	0.45400	0.45358					AVRG		0.47013		3.99967
109 Ethyl Methanesulfonate	+++++	0.65591	0.64231	0.61640	0.62051	0.60576					
	0.60616	0.59583					AVRG		0.62041		3.46816
110 Pentachloroethane	+++++	0.33091	0.32767	0.30927	0.31189	0.29650					
	0.29355	0.28904					AVRG		0.30840		5.34098
111 N-Nitrosopyrrolidine	+++++	0.51068	0.50360	0.49590	0.49956	0.48726					
	0.47931	0.47906					AVRG		0.49363		2.46520
113 N-Nitrosomorpholine	+++++	0.93269	0.89548	0.84559	0.81841	0.76963					
	0.74142	0.69563					AVRG		0.81412		10.39747
114 o-Toluidine	+++++	1.66749	1.62690	1.57357	1.54322	1.47535					
	1.45788	1.43454					AVRG		1.53985		5.74695
115 N-Nitrosopiperidine	+++++	0.13839	0.13649	0.13206	0.12980	0.12760					
	0.12960	0.12740					AVRG		0.13162		3.26869
116 a,a-Dimethylphenethylamine	+++++	0.91907	0.96417	0.99553	0.99366	0.99806					
	1.00353	0.99978					AVRG		0.98197		3.12063

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.13478	0.13459	0.13266	0.13072	0.12464					
	0.12191	0.12398					AVRG		0.12904		4.19259
118 2,6-Dichlorophenol	+++++	0.20253	0.20749	0.20261	0.20410	0.20112					
	0.20199	0.19907					AVRG		0.20270		1.29027
119 Hexachloropropene	+++++	0.10438	0.10831	0.10725	0.10671	0.10478					
	0.10645	0.09827					AVRG		0.10516		3.16694
120 p-Phenylenediamine	+++++	0.25668	0.25068	0.22690	0.21252	0.19855					
	0.19547	+++++					AVRG		0.22347		11.63559
121 N-Nitrosodi-n-butylamine	+++++	0.23441	0.23451	0.20097	0.18967	0.18327					
	0.18394	0.17781					AVRG		0.20065		12.05548
122 Safrole	+++++	0.20181	0.19524	0.18624	0.18455	0.17874					
	0.17654	0.17363					AVRG		0.18525		5.52554
123 1,2,4,5-Tetrachlorobenzene	+++++	0.44061	0.42948	0.40210	0.39235	0.37114					
	0.36184	0.35421					AVRG		0.39310		8.45898
124 Isosafrole	+++++	0.35170	0.34949	0.33088	0.32487	0.31439					
	0.31016	0.30561					AVRG		0.32673		5.63612
125 1,4-Naphthoquinone	+++++	84638	151030	288344	333563	495061					
	+++++	+++++					LINR	-0.21821	0.24057		0.99067

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.16835	0.17531	0.16597	0.17132	0.16929					
	0.16971	0.16651					AVRG		0.16950		1.86258
127 Pentachlorobenzene	+++++	0.37874	0.37429	0.35898	0.35476	0.34124					
	0.33507	0.33064					AVRG		0.35339		5.31101
128 1-Naphthylamine	+++++	0.93808	0.91662	0.87727	0.86662	0.82419					
	0.81523	0.76509					AVRG		0.85758		7.04454
129 2-Naphthylamine	+++++	1.00958	0.98980	0.95445	0.92796	0.89640					
	0.87021	0.81954					AVRG		0.92399		7.28200
130 2,3,4,6-Tetrachlorophenol	+++++	0.21848	0.23607	0.22847	0.23258	0.23782					
	0.24128	0.23864					AVRG		0.23333		3.33623
131 5-Nitro-o-toluidine	+++++	0.26504	0.27296	0.28000	0.27202	0.27408					
	0.27596	0.26950					AVRG		0.27279		1.74037
132 Thionazin	+++++	0.15991	0.16333	0.16125	0.15716	0.15263					
	0.15093	0.15034					AVRG		0.15651		3.35420
134 Sulfotepp	+++++	0.08069	0.08457	0.08225	0.08109	0.08247					
	0.08302	0.08521					AVRG		0.08276		2.01929
135 Phorate	+++++	0.38094	0.39212	0.38013	0.37064	0.35768					
	0.35368	0.35136					AVRG		0.36950		4.24438

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.09043	0.10798	0.11736	0.11408	0.12051					
	0.12517	0.12301					AVRG		0.11408		10.44181
137 Phenacetin	+++++	0.25499	0.26014	0.25425	0.24643	0.24758					
	0.25182	0.24676					AVRG		0.25171		2.03791
138 Diallate	+++++	0.24308	0.23259	0.21969	0.22000	0.21354					
	0.20757	0.20177					AVRG		0.21975		6.48800
139 Dimethoate	+++++	0.19708	0.21294	0.21778	0.21356	0.21259					
	0.21588	0.21951					AVRG		0.21276		3.47043
140 4-Aminobiphenyl	+++++	0.52229	0.52744	0.56450	0.55560	0.53372					
	0.51979	0.49365					AVRG		0.53100		4.44590
141 Pentachloronitrobenzene	+++++	0.06861	0.06544	0.05979	0.05907	0.05327					
	0.04994	0.04776					AVRG		0.05770		13.49738
142 Pronamide	+++++	0.27668	0.26559	0.24232	0.23613	0.21408					
	0.19922	0.18795					AVRG		0.23171		14.29562
143 Dinoseb	+++++	21314	69548	148150	183225	380967					
	493335	540450					LINR	0.20422	0.13388		0.99412
144 Disulfoton	+++++	0.27927	0.28869	0.28141	0.27781	0.27141					
	0.26930	0.27042					AVRG		0.27690		2.53496

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	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.16580	0.18496	0.19619	0.19321	0.19447					
	0.19781	0.20132					AVRG		0.19054		6.30793
146 4-Nitroquinoline-1-oxide	+++++	0.02797	0.02417	0.02069	0.01676	0.01596					
	0.01632	0.01115					AVRG		0.01900		29.85349 <-
147 Methapyrilene	+++++	0.53870	0.51095	0.46211	0.46851	0.42818					
	0.41014	0.36742					AVRG		0.45514		12.92653
148 Isodrin	+++++	0.11198	0.10591	0.10106	0.10099	0.09653					
	0.09427	0.09263					AVRG		0.10048		6.77327
149 Aramite	+++++	0.04288	0.04473	0.04328	0.04492	0.04294					
	0.04216	0.03955					AVRG		0.04292		4.18340
150 Kepone	+++++	0.06821	0.06688	0.06300	0.06292	0.06376					
	0.06429	0.06037					AVRG		0.06421		4.07909
151 p-(Dimethylamino)azobenzene	+++++	0.31886	0.31858	0.30561	0.32564	0.30896					
	0.29295	0.31135					AVRG		0.31171		3.43876
152 Chlorobenzilate	+++++	0.28015	0.27293	0.26692	0.28307	0.27552					
	0.25667	0.28081					AVRG		0.27373		3.40002
153 3,3'-Dimethylbenzidine	+++++	0.54411	0.53267	0.52587	0.52765	0.52481					
	0.53500	0.48082					AVRG		0.52442		3.87777

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	100 Level 7	120 Level 8									
154 Famphur	+++++	0.39508	0.41129	0.40963	0.41295	0.41166					
	0.40965	0.43249					AVRG		0.41182		2.65732
155 2-Acetylaminofluorene	+++++	0.26940	0.30220	0.33126	0.30846	0.31630					
	0.33855	0.30308					AVRG		0.30989		7.29418
157 7,12Dimethylbenz(a)anthracene	+++++	0.52071	0.52087	0.48902	0.53422	0.51784					
	0.48120	0.52556					AVRG		0.51277		3.85020
158 3-Methylcholanthrene	+++++	0.37699	0.38496	0.38662	0.36457	0.36689					
	0.36907	0.35258					AVRG		0.37167		3.24545
26 Phthalic anhydride	+++++	19947	70183	158750	199408	349686					
	444882	524437					LINR	0.08827	0.11204		0.99920
173 Carbazole	0.74030	0.66266	0.66768	0.67537	0.66904	0.68801					
	0.68838	0.65933					AVRG		0.68135		3.83434
174 Hexachlorophene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-
179 Dibenzo(a,e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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	100 Level 7	120 Level 8										
184 p-Benzoquinone	+++++	0.19714	0.23527	0.25694	0.31440	0.23557						
	0.31801	0.30125					AVRG		0.26551		17.51997	<-
191 Parathion	+++++	0.05144	0.05751	0.06005	0.05987	0.06048						
	0.06192	0.06233					AVRG		0.05908		6.29535	
192 Methoxychlor	+++++	0.56403	0.62279	0.57547	0.58466	0.59921						
	0.60284	0.57646					AVRG		0.58935		3.40697	
210 m-Toluidine	+++++	1.18361	1.14196	1.27790	1.40428	1.45000						
	1.57819	1.58735					AVRG		1.37475		13.05381	
211 p-Toluidine	+++++	1.19395	1.14859	1.22108	1.12140	1.12246						
	1.05038	0.88521					AVRG		1.10616		10.11699	
212 Cis Diallate	+++++	0.24942	0.23954	0.22264	0.22308	0.21957						
	0.22207	0.21623					AVRG		0.22751		5.34742	
213 Trans Diallate	+++++	0.28598	0.27364	0.25845	0.25883	0.25122						
	0.24420	0.23737					AVRG		0.25853		6.48800	
214 1,4-Dinitrobenzene	+++++	0.18254	0.19379	0.19206	0.19366	0.19651						
	0.20200	0.19895					AVRG		0.19422		3.18627	
215 2-Ethoxyethanol	+++++	0.93089	0.91998	0.93387	0.92416	0.93722						
	0.95789	0.91578					AVRG		0.93140		1.49848	

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	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	0.12024	0.12176	0.13402	0.13327	0.14612					
	0.14401	0.13627					AVRG		0.13367		7.42615
226 2,2'-Dichlorobenzil	+++++	0.74065	0.73565	0.70509	+++++	0.72929					
	0.68011	0.68665					AVRG		0.71291		3.64786
227 4-Chlorothioanisole	+++++	0.24526	0.24532	0.24448	+++++	0.24005					
	0.23939	0.23754					AVRG		0.24201		1.41023
228 4-Chlorothiophenol	+++++	44415	134478	332577	+++++	710506					
	861327	1051275					LINR	0.12298	0.22403		0.99993
229 bis(p-Chlorophenyl)sulfone	+++++	0.43969	0.42531	0.39518	+++++	0.40060					
	0.37609	0.37535					AVRG		0.40204		6.48066
230 bis(p-Chlorophenyl)disulfide	+++++	0.15840	0.15651	0.15172	+++++	0.15893					
	0.15153	0.15686					AVRG		0.15566		2.08939
231 Diphenyl disulfide	+++++	0.21133	0.20952	0.20464	+++++	0.20130					
	0.19738	0.19810					AVRG		0.20371		2.86119
232 Diphenyl sulfide	+++++	0.80314	0.78782	0.74734	+++++	0.71349					
	0.70255	0.67955					AVRG		0.73898		6.65171
233 Phenyl sulfone	+++++	0.41846	0.41107	0.39335	+++++	0.38576					
	0.38088	0.37013					AVRG		0.39328		4.68458

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	100 Level 7	120 Level 8										
234 Hydroxymethyl phthalimide	+++++	34368	69527	111795	+++++	219245						
	238854	310774					LINR	-0.17168	0.10332		0.99434	
235 Phthalic acid	+++++	10272	35793	103964	+++++	317426						
	377273	+++++					LINR	0.28377	0.10603		0.99240	
236 Thiophenol	+++++	0.72677	0.87316	0.98094	+++++	1.05176						
	1.04045	1.04474					AVRG		0.95297		13.61346	
237 bis(Chloromethyl)ether	+++++	0.87445	0.86289	0.81012	+++++	0.81952						
	0.78408	0.78451					AVRG		0.82259		4.68064	
238 Octachlorostyrene	+++++	0.05791	0.05657	0.05363	+++++	0.05348						
	0.05255	0.05173					AVRG		0.05431		4.42948	
239 Dibenzo(a,h)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
240 Benzo(j)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
241 Dibenzo(a,j)acridine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
242 Dibenz(a,h)acridine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Cal Date : 24-Mar-2010 15:57 jos00786

Compound	1 Level 1 / 100 Level 7	10 Level 2 / 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
243 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
244 2,4-Toluene Diisocyanate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
245 Dibenzo(a,i)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
246 1-Nitropyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
247 5-Methylchrysene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
248 Dibenzo(a,l)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
249 7H-Dibenzo(c,g)carbazole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
250 1-Hexanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
251 Propylene glycol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Cal Date : 24-Mar-2010 15:57 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
M 222 Trichlorophenols	+++++	0.29329	0.29709	0.27919	0.28184	0.27503						
	0.27383	0.26982					AVRG		0.28144		3.62457	
M 223 Tetrachlorophenols	+++++	0.21848	0.23607	0.22847	0.23258	0.23782						
	0.24128	0.23864					AVRG		0.23333		3.33623	
M 224 Benzo(b,k)fluoranthene	1.03196	1.12240	1.10977	1.06149	1.08022	1.08994						
	1.11003	1.09819					AVRG		1.08800		2.72527	
M 225 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 3 2-Fluorophenol	+++++	1.02520	1.04766	1.03008	1.03008	1.04425						
	1.06812	1.03245					AVRG		1.03969		1.43708	
$ 5 Phenol-d5	+++++	1.28367	1.32223	1.29638	1.30385	1.30539						
	1.33151	1.28181					AVRG		1.30355		1.41909	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.34547	0.33539	0.30609	0.30256	0.28769						
	0.27238	0.26228					AVRG		0.30169		10.19977	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Cal Date : 24-Mar-2010 15:57 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
$ 39 2-Fluorobiphenyl	+++++	1.14787	1.07616	0.99829	0.98540	0.94271					
	0.93181	0.89582					AVRG		0.99687		8.84048
$ 60 2,4,6-Tribromophenol	+++++	0.10553	0.11240	0.11152	0.11625	0.11870					
	0.12293	0.12210					AVRG		0.11563		5.40333
$ 81 p-Terphenyl-d14	+++++	0.74292	0.72004	0.68997	0.69903	0.67156					
	0.74275	0.74998					AVRG		0.71661		4.24404

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Cal Date : 24-Mar-2010 15:57 jos00786

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 26-FEB-2010 15:33
Lab File ID: s7b2614.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.03969	1.02471	1.02471	0.000	-1.44120	60.00000	Averaged
$ 5 Phenol-d5	1.30355	1.24864	1.24864	0.000	-4.21259	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.30169	0.31799	0.31799	0.000	5.40220	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.99687	1.05207	1.05207	0.000	5.53779	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11563	0.11567	0.11567	0.000	0.03425	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.71661	0.79589	0.79589	0.000	11.06334	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.70001	0.65798	0.65798	0.000	-6.00450	60.00000	Averaged
2 Pyridine	0.96465	0.72626	0.72626	0.000	-24.71254	60.00000	Averaged
4 Aniline	0.62182	0.56215	0.56215	0.000	-9.59489	60.00000	Averaged
6 Phenol	1.29492	1.27998	1.27998	0.001	-1.15360	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06026	0.99193	0.99193	0.000	-6.44459	60.00000	Averaged
8 2-Chlorophenol	0.99096	0.96977	0.96977	0.000	-2.13776	60.00000	Averaged
203 n-Decane	1.86209	1.65806	1.65806	0.000	-10.95712	60.00000	Averaged
9 1,3-Dichlorobenzene	1.24478	1.24430	1.24430	0.000	-0.03834	60.00000	Averaged
11 1,4-Dichlorobenzene	1.19442	1.15499	1.15499	0.001	-3.30123	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.09872	1.05382	1.05382	0.000	-4.08631	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.45618	2.41690	2.41690	0.000	-1.59921	60.00000	Averaged
12 Benzyl alcohol	0.67475	0.65730	0.65730	0.000	-2.58575	60.00000	Averaged
15 o-Cresol	0.79330	0.75691	0.75691	0.000	-4.58754	60.00000	Averaged
18 m,p-Cresols	1.07190	1.06639	1.06639	0.000	-0.51397	60.00000	Averaged
17 N-Nitrosodipropylamine	0.73664	0.73992	0.73992	0.050	0.44576	60.00000	Averaged spcc
19 Hexachloroethane	0.46378	0.45091	0.45091	0.000	-2.77548	60.00000	Averaged
21 Nitrobenzene	0.27987	0.28434	0.28434	0.000	1.60052	60.00000	Averaged
22 Isophorone	0.54073	0.52607	0.52607	0.000	-2.71011	60.00000	Averaged
23 2-Nitrophenol	0.13143	0.13812	0.13812	0.001	5.09665	20.00000	Averaged ccc
24 2,4-Dimethylphenol	43.02153	40.00000	0.25793	0.000	7.55381	60.00000	Wt Linear
25 bis(2-Chloroethoxy)methane	0.29584	0.27846	0.27846	0.000	-5.87687	60.00000	Averaged
26 2,4-Dichlorophenol	0.21226	0.22457	0.22457	0.001	5.80057	20.00000	Averaged ccc
27 Benzoic acid	0.12083	0.13464	0.13464	0.000	11.43046	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.25742	0.26054	0.26054	0.000	1.21085	60.00000	Averaged
30 Naphthalene	0.75561	0.72974	0.72974	0.000	-3.42291	60.00000	Averaged
204 alpha-Terpineol	0.30880	0.27565	0.27565	0.000	-10.73794	60.00000	Averaged
31 4-Chloroaniline	0.35383	0.33113	0.33113	0.000	-6.41578	60.00000	Averaged
32 Hexachlorobutadiene	0.13434	0.14044	0.14044	0.001	4.53770	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.22797	0.23911	0.23911	0.001	4.88549	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54229	0.55783	0.55783	0.000	2.86468	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 26-FEB-2010 15:33
Lab File ID: s7b2614.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.51558	0.51162	0.51162	0.000	-0.76796	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.19338	0.18004	0.18004	0.050	-6.89835	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.49462	0.48886	0.48886	0.000	-1.16475	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.28064	0.29372	0.29372	0.001	4.66295	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.28225	0.31248	0.31248	0.000	10.71318	60.00000	Averaged	
40 2-Chloronaphthalene	0.92584	0.93034	0.93034	0.000	0.48600	60.00000	Averaged	
42 o-Nitroaniline	0.32778	0.32450	0.32450	0.000	-1.00006	60.00000	Averaged	
41 m-Nitroaniline	0.23922	0.23795	0.23795	0.000	-0.52859	60.00000	Averaged	
43 Dimethylphthalate	1.06293	1.06181	1.06181	0.000	-0.10595	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.24549	0.24572	0.24572	0.000	0.09588	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.32362	0.32061	0.32061	0.000	-0.93059	60.00000	Averaged	
45 Acenaphthylene	1.47998	1.47925	1.47925	0.000	-0.04942	60.00000	Averaged	
47 Acenaphthene	0.88041	0.84456	0.84456	0.001	-4.07267	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	40.39092	40.00000	0.06885	0.050	0.97730	60.00000	Linear	spcc
49 Dibenzofuran	1.23737	1.25843	1.25843	0.000	1.70156	60.00000	Averaged	
51 Diethylphthalate	1.08801	1.08709	1.08709	0.000	-0.08413	60.00000	Averaged	
52 4-Nitrophenol	0.16277	0.17018	0.17018	0.050	4.55207	60.00000	Averaged	spcc
53 Fluorene	1.03823	0.98765	0.98765	0.000	-4.87233	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.51596	0.50557	0.50557	0.000	-2.01472	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	49.60025	40.00000	0.09008	0.000	24.00062	60.00000	Linear	
56 p-Nitroaniline	0.21538	0.21035	0.21035	0.000	-2.33542	60.00000	Averaged	
133 Diphenylamine	0.47134	0.46815	0.46815	0.001	-0.67705	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.59299	0.59852	0.59852	0.000	0.93248	60.00000	Averaged	
61 4-Bromophenylphenylether	0.16450	0.15861	0.15861	0.000	-3.58149	60.00000	Averaged	
63 Hexachlorobenzene	0.15982	0.15792	0.15792	0.000	-1.18714	60.00000	Averaged	
65 Pentachlorophenol	0.07563	0.08477	0.08477	0.001	12.08882	20.00000	Averaged	ccc
206 n-Octadecane	0.50130	0.54494	0.54494	0.000	8.70577	60.00000	Averaged	
68 Phenanthrene	0.82082	0.79129	0.79129	0.000	-3.59795	60.00000	Averaged	
69 Anthracene	0.83131	0.80745	0.80745	0.000	-2.86980	60.00000	Averaged	
72 Di-n-butylphthalate	1.04581	1.05484	1.05484	0.000	0.86325	60.00000	Averaged	
76 Fluoranthene	0.89248	0.89895	0.89895	0.001	0.72511	20.00000	Averaged	ccc
79 Pyrene	1.26367	1.20352	1.20352	0.000	-4.76014	60.00000	Averaged	
85 Butylbenzylphthalate	0.60092	0.60984	0.60984	0.000	1.48432	60.00000	Averaged	
89 Benzo(a)anthracene	0.95891	0.88471	0.88471	0.000	-7.73823	60.00000	Averaged	
92 Chrysene	0.85329	0.81713	0.81713	0.000	-4.23770	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.76109	0.74913	0.74913	0.000	-1.57123	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 26-FEB-2010 15:33
Lab File ID: s7b2614.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.60621	1.58412	1.58412	0.001	-1.37539	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.12177	1.06463	1.06463	0.000	-5.09364	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.05423	1.04564	1.04564	0.000	-0.81471	60.00000	Averaged	
	97 Benzo(a)pyrene	0.91981	0.90053	0.90053	0.001	-2.09622	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.66143	0.60388	0.60388	0.000	-8.69961	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.52416	0.47011	0.47011	0.000	-10.31204	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.55161	0.49780	0.49780	0.000	-9.75514	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16950	0.17152	0.17152	0.000	1.19636	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.23333	0.23665	0.23665	0.000	1.42249	60.00000	Averaged	
	143 Dinoseb	41.77834	40.00000	0.11249	0.000	4.44585	60.00000	Linear	
	173 Carbazole	0.68135	0.69533	0.69533	0.000	2.05237	60.00000	Averaged	
	184 p-Benzoquinone	0.26551	0.19230	0.19230	0.000	-27.57330	60.00000	Averaged	
	192 Methoxychlor	0.58935	0.62587	0.62587	0.000	6.19688	60.00000	Averaged	
	211 p-Toluidine	1.10616	0.97036	0.97036	0.000	-12.27617	60.00000	Averaged	
	210 m-Toluidine	1.37475	1.21251	1.21251	0.000	-11.80169	60.00000	Averaged	
	215 2-Ethoxyethanol	0.93140	0.93581	0.93581	0.000	0.47324	60.00000	Averaged	
	26 Phthalic anhydride	51.56333	40.00000	0.13454	0.000	28.90832	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.19422	0.19244	0.19244	0.000	-0.91506	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.13367	0.13777	0.13777	0.000	3.06814	60.00000	Averaged	
M	222 Trichlorophenols	0.28144	0.30310	0.30310	0.000	7.69664	60.00000	Averaged	
M	223 Tetrachlorophenols	0.23333	0.23665	0.23665	0.000	1.42249	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.08800	1.05514	1.05514	0.000	-3.02057	60.00000	Averaged	

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s022610.b/s7b2614.d
Lab Smp Id: WBN100225-09.1 Client Smp ID: MEGAICV
Inj Date : 26-FEB-2010 15:33
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100225-09.1|ICV|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN100217-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m
Meth Date : 27-Feb-2010 08:41 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 15:08 Cal File: s7b2613.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.951	3.947	(1.000)	398783	40.0000	
* 29 Naphthalene-d8	136	4.818	4.818	(1.000)	1519686	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.070	(1.000)	819814	40.0000	
* 67 Phenanthrene-d10	188	7.250	7.245	(1.000)	1483884	40.0000	
* 91 Chrysene-d12	240	9.658	9.653	(1.000)	1119677	40.0000	
* 98 Perylene-d12	264	11.338	11.333	(1.000)	753913	40.0000	
$ 3 2-Fluorophenol	112	3.133	3.133	(0.793)	408636	40.0000	39.4
$ 5 Phenol-d5	99	3.663	3.658	(0.927)	497935	40.0000	38.3
$ 20 Nitrobenzene-d5	82	4.313	4.312	(0.895)	483245	40.0000	42.2
$ 39 2-Fluorobiphenyl	172	5.560	5.560	(0.915)	862503	40.0000	42.2
$ 60 2,4,6-Tribromophenol	329	6.672	6.672	(1.098)	94831	40.0000	40.0
$ 81 p-Terphenyl-d14	244	8.622	8.622	(0.893)	891139	40.0000	44.4
1 N-Methyl-N-nitrosomethylamine	74	2.444	2.444	(0.619)	262390	40.0000	37.6
2 Pyridine	79	2.473	2.478	(0.626)	289621	40.0000	30.1
4 Aniline	66	3.735	3.735	(0.945)	224177	40.0000	36.2
6 Phenol	94	3.672	3.667	(0.929)	510433	40.0000	39.5
7 bis(2-Chloroethyl) ether	63	3.749	3.749	(0.949)	395566	40.0000	37.4
8 2-Chlorophenol	128	3.817	3.812	(0.966)	386729	40.0000	39.1
203 n-Decane	43	3.802	3.802	(0.962)	661206	40.0000	35.6
9 1,3-Dichlorobenzene	146	3.918	3.918	(0.991)	496206	40.0000	40.0
11 1,4-Dichlorobenzene	146	3.966	3.961	(1.004)	460590	40.0000	38.7
13 1,2-Dichlorobenzene	146	4.067	4.067	(1.029)	420246	40.0000	38.4
14 bis(2-Chloroisopropyl)ether	45	4.096	4.096	(1.037)	963819	40.0000	39.4
12 Benzyl alcohol	108	4.014	4.014	(1.016)	262120	40.0000	39.0
15 o-Cresol	107	4.067	4.067	(1.029)	301843	40.0000	38.2
18 m,p-Cresols	107	4.168	4.168	(1.055)	425256	40.0000	39.8
17 N-Nitrosodipropylamine	70	4.192	4.192	(1.061)	295069	40.0000	40.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
19 Hexachloroethane	117	4.298	4.298	(1.088)	179815	40.0000	38.9
21 Nitrobenzene	77	4.327	4.327	(0.898)	432114	40.0000	40.6
22 Isophorone	82	4.481	4.486	(0.930)	799464	40.0000	38.9
23 2-Nitrophenol	139	4.544	4.544	(0.943)	209904	40.0000	42.0
24 2,4-Dimethylphenol	122	4.534	4.534	(0.941)	391978	40.0000	43.0
25 bis(2-Chloroethoxy)methane	93	4.601	4.601	(0.955)	423168	40.0000	37.6
26 2,4-Dichlorophenol	162	4.703	4.703	(0.976)	341282	40.0000	42.3
27 Benzoic acid	105	4.592	4.592	(0.953)	204606	40.0000	44.6
28 1,2,4-Trichlorobenzene	180	4.770	4.770	(0.990)	395939	40.0000	40.5
30 Naphthalene	128	4.837	4.837	(1.004)	1108980	40.0000	38.6
204 alpha-Terpineol	59	4.809	4.808	(0.998)	418894	40.0000	35.7
31 4-Chloroaniline	127	4.847	4.847	(1.006)	503209	40.0000	37.4
32 Hexachlorobutadiene	225	4.900	4.900	(1.017)	213421	40.0000	41.8
33 4-Chloro-3-methylphenol	107	5.155	5.155	(1.070)	363372	40.0000	42.0
34 2-Methylnaphthalene	142	5.314	5.314	(1.103)	847725	40.0000	41.1
35 1-Methylnaphthalene	142	5.391	5.391	(1.119)	777496	40.0000	39.7
36 Hexachlorocyclopentadiene	237	5.420	5.420	(0.892)	147596	40.0000	37.2
205 2,3-Dichloroaniline	161	5.512	5.512	(0.907)	400773	40.0000	39.5
37 2,4,6-Trichlorophenol	196	5.502	5.502	(0.906)	240799	40.0000	41.9
38 2,4,5-Trichlorophenol	196	5.526	5.526	(0.910)	256177	40.0000	44.3
40 2-Chloronaphthalene	162	5.670	5.670	(0.933)	762704	40.0000	40.2
42 o-Nitroaniline	65	5.723	5.723	(0.942)	266029	40.0000	39.6
41 m-Nitroaniline	138	6.022	6.022	(0.991)	195077	40.0000	39.8
43 Dimethylphthalate	163	5.839	5.839	(0.961)	870483	40.0000	40.0
44 2,6-Dinitrotoluene	165	5.892	5.892	(0.970)	201445	40.0000	40.0
50 2,4-Dinitrotoluene	165	6.186	6.186	(1.018)	262842	40.0000	39.6
45 Acenaphthylene	152	5.974	5.974	(0.983)	1212713	40.0000	40.0
47 Acenaphthene	154	6.099	6.099	(1.004)	692379	40.0000	38.4
48 2,4-Dinitrophenol	184	6.089	6.089	(1.002)	56443	40.0000	40.4
49 Dibenzofuran	168	6.224	6.224	(1.025)	1031677	40.0000	40.7
51 Diethylphthalate	149	6.345	6.345	(1.044)	891212	40.0000	40.0
52 4-Nitrophenol	139	6.104	6.104	(1.005)	139513	40.0000	41.8
53 Fluorene	166	6.489	6.489	(1.068)	809688	40.0000	38.0
54 4-Chlorophenylphenylether	204	6.460	6.460	(1.063)	414472	40.0000	39.2
55 2-Methyl-4,6-dinitrophenol	198	6.499	6.499	(0.896)	133661	40.0000	49.6
56 p-Nitroaniline	138	6.479	6.484	(1.067)	172445	40.0000	39.1
133 Diphenylamine	169	6.552	6.552	(0.904)	694684	40.0000	39.7
58 1,2-Diphenylhydrazine	77	6.590	6.585	(0.909)	888138	40.0000	40.4
61 4-Bromophenylphenylether	248	6.850	6.850	(0.945)	235353	40.0000	38.6
63 Hexachlorobenzene	284	6.922	6.922	(0.955)	234334	40.0000	39.5
65 Pentachlorophenol	266	7.072	7.067	(0.975)	125785	40.0000	44.8
206 n-Octadecane	57	7.062	7.062	(0.974)	808626	40.0000	43.5
68 Phenanthrene	178	7.269	7.269	(1.003)	1174179	40.0000	38.6
69 Anthracene	178	7.313	7.312	(1.009)	1198165	40.0000	38.8
72 Di-n-butylphthalate	149	7.669	7.669	(1.058)	1565255	40.0000	40.3
76 Fluoranthene	202	8.309	8.309	(1.146)	1333938	40.0000	40.3
79 Pyrene	202	8.526	8.526	(0.883)	1347549	40.0000	38.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
85 Butylbenzylphthalate	149	9.056	9.056	(0.938)	682818	40.0000	40.6
89 Benzo(a)anthracene	228	9.643	9.643	(0.998)	990591	40.0000	36.9
92 Chrysene	228	9.682	9.682	(1.002)	914923	40.0000	38.3
93 bis(2-Ethylhexyl)phthalate	149	9.581	9.580	(0.992)	838787	40.0000	39.4
94 Di-n-octylphthalate	149	10.235	10.240	(0.903)	1194290	40.0000	39.4
95 Benzo(b)fluoranthene	252	10.818	10.818	(0.954)	802637	40.0000	38.0
96 Benzo(k)fluoranthene	252	10.852	10.857	(0.957)	788325	40.0000	39.7
97 Benzo(a)pyrene	252	11.256	11.256	(0.993)	678918	40.0000	39.2
99 Indeno(1,2,3-cd)pyrene	276	13.091	13.096	(1.155)	455276	40.0000	36.5
100 Dibenzo(a,h)anthracene	278	13.105	13.110	(1.156)	354422	40.0000	35.9
101 Benzo(ghi)perylene	276	13.625	13.635	(1.202)	375295	40.0000	36.1
126 m-Dinitrobenzene	168	5.873	5.873	(0.967)	140617	40.0000	40.5
130 2,3,4,6-Tetrachlorophenol	232	6.301	6.301	(1.037)	194010	40.0000	40.6
143 Dinoseb	211	7.192	7.192	(0.992)	166919	40.0000	41.8
173 Carbazole	167	7.423	7.428	(1.024)	1031789	40.0000	40.8
184 p-Benzoquinone	54	3.431	3.431	(0.868)	76686	40.0000	29.0
192 Methoxychlor	227	9.528	9.527	(0.987)	700776	40.0000	42.5
211 p-Toluidine	106	4.226	4.226	(1.069)	386963	40.0000	35.1
210 m-Toluidine	106	4.250	4.250	(1.076)	483528	40.0000	35.3
215 2-Ethoxyethanol	59	2.290	2.290	(0.580)	373183	40.0000	40.2
26 Phthalic anhydride	104	5.348	5.348	(1.110)	204452	40.0000	51.6
214 1,4-Dinitrobenzene	75	5.815	5.815	(0.957)	157765	40.0000	39.6
216 Methylenebis(2-chloroaniline)	231	9.585	9.585	(0.993)	154259	40.0000	41.2
M 222 Trichlorophenols	196				496977	80.0000	86.2
M 223 Tetrachlorophenols	232				194010	40.0000	40.6
M 224 Benzo(b,k)fluoranthene	252				1590962	80.0000	77.6

Data File: /chem/MSD7.i/s022610.b/s7b2614.d
Date : 26-FEB-2010 15:33
Client ID: MEGAICV
Sample Info: IWBN100225-09.1|ICV|1|SVMF|1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

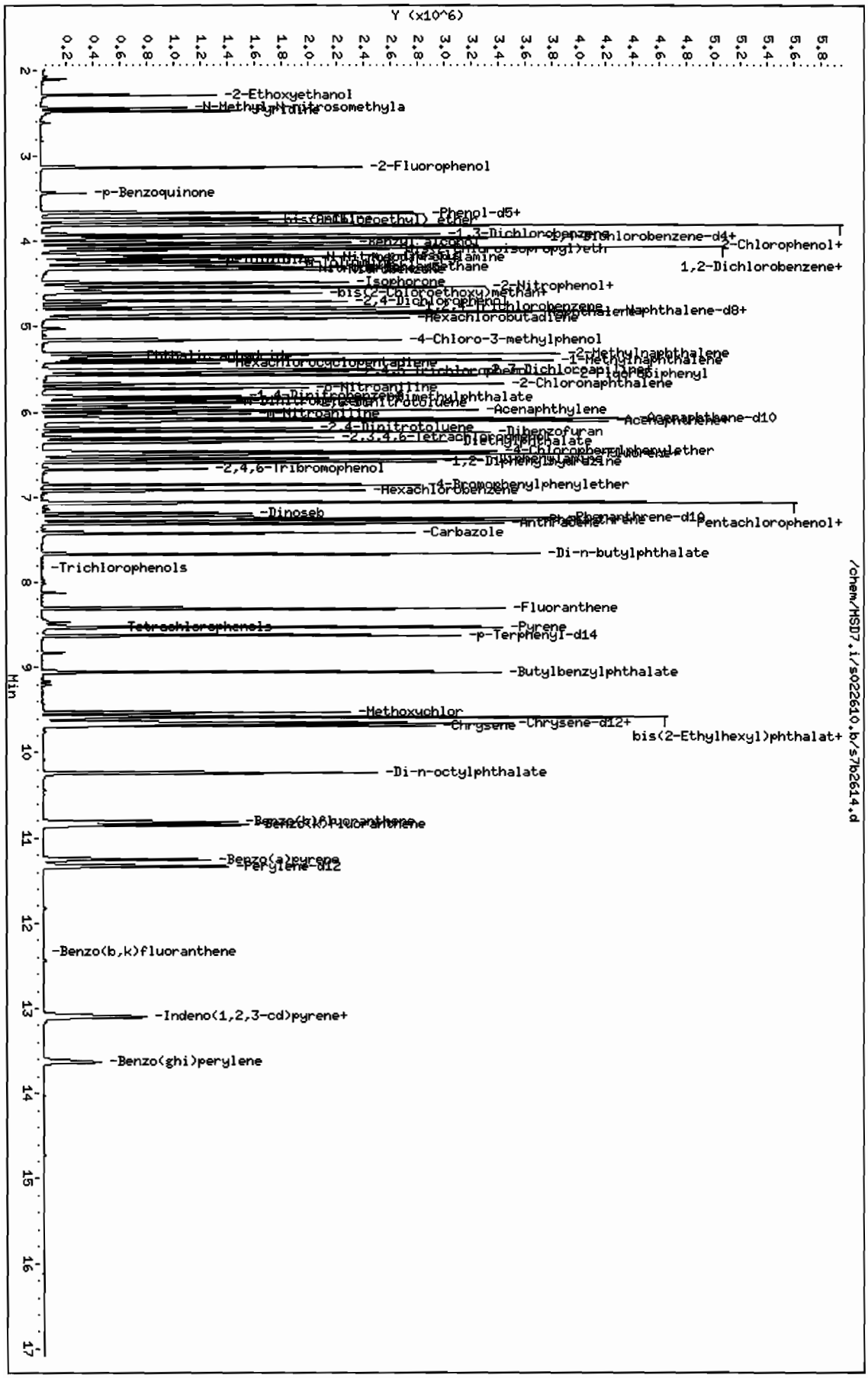

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 27-FEB-2010 00:07
Lab File ID: s7b2638.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84333	0.72762	0.72762	0.000	-13.72062	60.00000	Averaged
16 Acetophenone	1.10656	1.09035	1.09035	0.000	-1.46517	60.00000	Averaged
189 Caprolactam	0.07444	0.08269	0.08269	0.000	11.09028	60.00000	Averaged
208 1,1'-Biphenyl	1.10203	1.18702	1.18702	0.000	7.71210	60.00000	Averaged
207 Atrazine	0.03853	0.04597	0.04597	0.000	19.30469	60.00000	Averaged
77 Benzidine	0.37412	0.37290	0.37290	0.000	-0.32808	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27910	0.28354	0.28354	0.000	1.59226	60.00000	Averaged
102 1,4-Dioxane	0.33513	0.40939	0.40939	0.000	22.16131	60.00000	Averaged
103 Methyl methacrylate	0.19562	0.23961	0.23961	0.000	22.48803	60.00000	Averaged
104 Ethyl methacrylate	0.75140	0.90901	0.90901	0.000	20.97589	60.00000	Averaged
105 2-Picoline	1.13566	1.16769	1.16769	0.000	2.82042	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44142	0.47438	0.47438	0.000	7.46654	60.00000	Averaged
107 Methyl methanesulfonate	0.50747	0.54617	0.54617	0.000	7.62707	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47013	0.49911	0.49911	0.000	6.16504	60.00000	Averaged
109 Ethyl Methanesulfonate	0.62041	0.76141	0.76141	0.000	22.72687	60.00000	Averaged
110 Pentachloroethane	0.30840	0.42036	0.42036	0.000	36.30233	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49363	0.51936	0.51936	0.000	5.21438	60.00000	Averaged
113 N-Nitrosomorpholine	0.81412	0.89271	0.89271	0.000	9.65373	60.00000	Averaged
114 o-Toluidine	1.53985	1.58233	1.58233	0.000	2.75855	60.00000	Averaged
115 N-Nitrosopiperidine	0.13162	0.14324	0.14324	0.000	8.82907	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.98197	1.03595	1.03595	0.000	5.49667	60.00000	Averaged
118 2,6-Dichlorophenol	0.20270	0.18717	0.18717	0.000	-7.66350	60.00000	Averaged
119 Hexachloropropene	0.10516	0.16353	0.16353	0.000	55.49743	60.00000	Averaged
120 p-Phenylenediamine	0.22347	0.22273	0.22273	0.000	-0.33095	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.20065	0.21517	0.21517	0.000	7.23239	60.00000	Averaged
122 Safrole	0.18525	0.22522	0.22522	0.000	21.57952	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.39310	0.44447	0.44447	0.000	13.06636	60.00000	Averaged
124 Isosafrole	0.32673	0.44824	0.44824	0.000	37.18926	60.00000	Averaged
125 1,4-Naphthoquinone	42.42497	40.00000	0.30765	0.000	6.06244	60.00000	Linear
127 Pentachlorobenzene	0.35339	0.38326	0.38326	0.000	8.45157	60.00000	Averaged
128 1-Naphthylamine	0.85758	0.95943	0.95943	0.000	11.87595	60.00000	Averaged
129 2-Naphthylamine	0.92399	1.06906	1.06906	0.000	15.70067	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27279	0.29252	0.29252	0.000	7.23152	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11408	0.15190	0.15190	0.000	33.15347	60.00000	Averaged
137 Phenacetin	0.25171	0.26740	0.26740	0.000	6.23101	60.00000	Averaged
138 Diallate	0.21975	0.22151	0.22151	0.000	0.80197	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 27-FEB-2010 00:07
Lab File ID: s7b2638.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.22751	0.29963	0.29963	0.000	31.70163	60.00000	Averaged
213 Trans Diallate	0.25853	0.26060	0.26060	0.000	0.80197	60.00000	Averaged
140 4-Aminobiphenyl	0.53100	0.61459	0.61459	0.000	15.74304	60.00000	Averaged
141 Pentachloronitrobenzene	0.05770	0.06484	0.06484	0.000	12.37888	60.00000	Averaged
142 Pronamide	0.23171	0.26428	0.26428	0.000	14.05423	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01900	0.02204	0.02204	0.000	15.97890	60.00000	Averaged
147 Methapyrilene	0.45514	0.56955	0.56955	0.000	25.13562	60.00000	Averaged
148 Isodrin	0.10048	0.10103	0.10103	0.000	0.54771	60.00000	Averaged
149 Aramite	0.04292	0.04771	0.04771	0.000	11.14909	60.00000	Averaged
150 Kepone	0.06421	0.06503	0.06503	0.000	1.28262	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31171	0.34212	0.34212	0.000	9.75602	60.00000	Averaged
152 Chlorobenzilate	0.27373	0.25521	0.25521	0.000	-6.76399	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52442	0.55141	0.55141	0.000	5.14612	60.00000	Averaged
155 2-Acetylaminofluorene	0.30989	0.30947	0.30947	0.000	-0.13679	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51277	0.54729	0.54729	0.000	6.73130	60.00000	Averaged
158 3-Methylcholanthrene	0.37167	0.40941	0.40941	0.000	10.15366	60.00000	Averaged

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Data file : /chem/MSD7.i/s022610.b/s7b2638.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV
Inj Date : 27-FEB-2010 00:07
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100218-08.1|ICV|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN100217-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m
Meth Date : 01-Mar-2010 10:44 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 38 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.952	3.952	(1.000)	457703	40.0000	
* 29 Naphthalene-d8	136	4.818	4.818	(1.000)	1628008	40.0000	
* 46 Acenaphthene-d10	164	6.070	6.070	(1.000)	931821	40.0000	
* 67 Phenanthrene-d10	188	7.245	7.245	(1.000)	1617850	40.0000	
* 91 Chrysene-d12	240	9.653	9.653	(1.000)	1288003	40.0000	
* 98 Perylene-d12	264	11.333	11.333	(1.000)	857015	40.0000	
209 Benzaldehyde	77	3.672	3.672	(0.929)	333034	40.0000	34.5
16 Acetophenone	105	4.202	4.202	(1.063)	499057	40.0000	39.4
189 Caprolactam	113	5.093	5.093	(1.057)	134623	40.0000	44.4
208 1,1'-Biphenyl	154	5.642	5.642	(0.929)	1106090	40.0000	43.1
207 Atrazine	173	6.947	6.947	(0.959)	74372	40.0000	47.7
77 Benzidine	184	8.396	8.396	(0.870)	480291	40.0000	39.9
90 3,3'-Dichlorobenzidine	252	9.590	9.590	(0.994)	365203	40.0000	40.6
102 1,4-Dioxane	88	2.290	2.290	(0.580)	187381	40.0000	48.9
103 Methyl methacrylate	100	2.285	2.285	(0.578)	109670	40.0000	49.0
104 Ethyl methacrylate	69	2.656	2.656	(0.672)	416056	40.0000	48.4
105 2-Picoline	93	2.844	2.844	(0.720)	534455	40.0000	41.1
106 N-Nitrosomethylethylamine	88	2.887	2.887	(0.731)	217124	40.0000	43.0
107 Methyl methanesulfonate	80	3.042	3.042	(0.770)	249986	40.0000	43.0
108 N-Nitrosodiethylamine	102	3.277	3.277	(0.829)	228446	40.0000	42.5
109 Ethyl Methanesulfonate	79	3.436	3.436	(0.870)	348500	40.0000	49.1
110 Pentachloroethane	167	3.773	3.773	(0.955)	192400	40.0000	54.5
111 N-Nitrosopyrrolidine	100	4.188	4.188	(1.060)	237715	40.0000	42.1
113 N-Nitrosomorpholine	56	4.212	4.212	(1.066)	408598	40.0000	43.9
114 o-Toluidine	106	4.226	4.226	(1.069)	724237	40.0000	41.1
115 N-Nitrosopiperidine	114	4.428	4.428	(0.919)	233195	40.0000	43.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.684	4.684	(0.972)	1686530	40.0000	42.2
118 2,6-Dichlorophenol	162	4.857	4.857	(1.008)	304708	40.0000	36.9
119 Hexachloropropene	213	4.891	4.891	(1.015)	266225	40.0000	62.2
120 p-Phenylenediamine	108	5.093	5.093	(1.057)	362600	40.0000	39.9
121 N-Nitrosodi-n-butylamine	84	5.064	5.064	(1.051)	350292	40.0000	42.9
122 Safrole	162	5.228	5.228	(1.085)	366667	40.0000	48.6
123 1,2,4,5-Tetrachlorobenzene	216	5.430	5.430	(0.894)	414165	40.0000	45.2
124 Isosafrole	162	5.598	5.598	(0.922)	417676	40.0000	54.9
125 1,4-Naphthoquinone	158	5.786	5.786	(0.953)	286671	40.0000	42.4
127 Pentachlorobenzene	250	6.191	6.191	(1.020)	357126	40.0000	43.4
128 1-Naphthylamine	143	6.277	6.277	(1.034)	894018	40.0000	44.8
129 2-Naphthylamine	143	6.335	6.335	(1.044)	996175	40.0000	46.3
131 5-Nitro-o-toluidine	152	6.475	6.475	(1.067)	272578	40.0000	42.9
136 1,3,5-Trinitrobenzene	75	6.720	6.720	(0.928)	245746	40.0000	53.3
137 Phenacetin	108	6.769	6.769	(0.934)	432605	40.0000	42.5(Q)
138 Diallate	86	6.759	6.759	(0.933)	358370	40.0000	40.3
212 Cis Diallate	86	6.836	6.836	(0.944)	72714	6.00000	7.9
213 Trans Diallate	86	6.759	6.759	(0.933)	358370	34.0000	34.3
140 4-Aminobiphenyl	169	7.062	7.062	(0.975)	994319	40.0000	46.3
141 Pentachloronitrobenzene	237	7.082	7.082	(0.977)	104897	40.0000	45.0(Q)
142 Pronamide	173	7.077	7.077	(0.977)	427557	40.0000	45.6
146 4-Nitroquinoline-1-oxide	101	7.910	7.910	(1.092)	35650	40.0000	46.4
147 Methapyrilene	58	7.948	7.948	(1.097)	921442	40.0000	50.0
148 Isodrin	193	8.175	8.175	(1.128)	163454	40.0000	40.2
149 Aramite	185	8.569	8.569	(1.183)	77182	40.0000	44.4
150 Kepone	272	9.162	9.162	(1.264)	105206	40.0000	40.5
151 p-(Dimethylamino)azobenzene	120	8.752	8.752	(0.907)	440648	40.0000	43.9
152 Chlorobenzilate	251	8.781	8.781	(0.910)	328712	40.0000	37.3
153 3,3'-Dimethylbenzidine	212	9.065	9.065	(0.939)	710215	40.0000	42.0
155 2-Acetylaminofluorene	181	9.311	9.311	(0.965)	398598	40.0000	39.9
157 7,12Dimethylbenz(a)anthracene	256	10.794	10.794	(0.952)	469035	40.0000	42.7
158 3-Methylcholanthrene	268	11.738	11.738	(1.036)	350866	40.0000	44.1

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s022610.b/s7b2638.d
Date : 27-FEB-2010 00:07
Client ID: APICV
Sample Info: IWBN100218-08.1|ICV|1|SVHF|1|APICV

Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

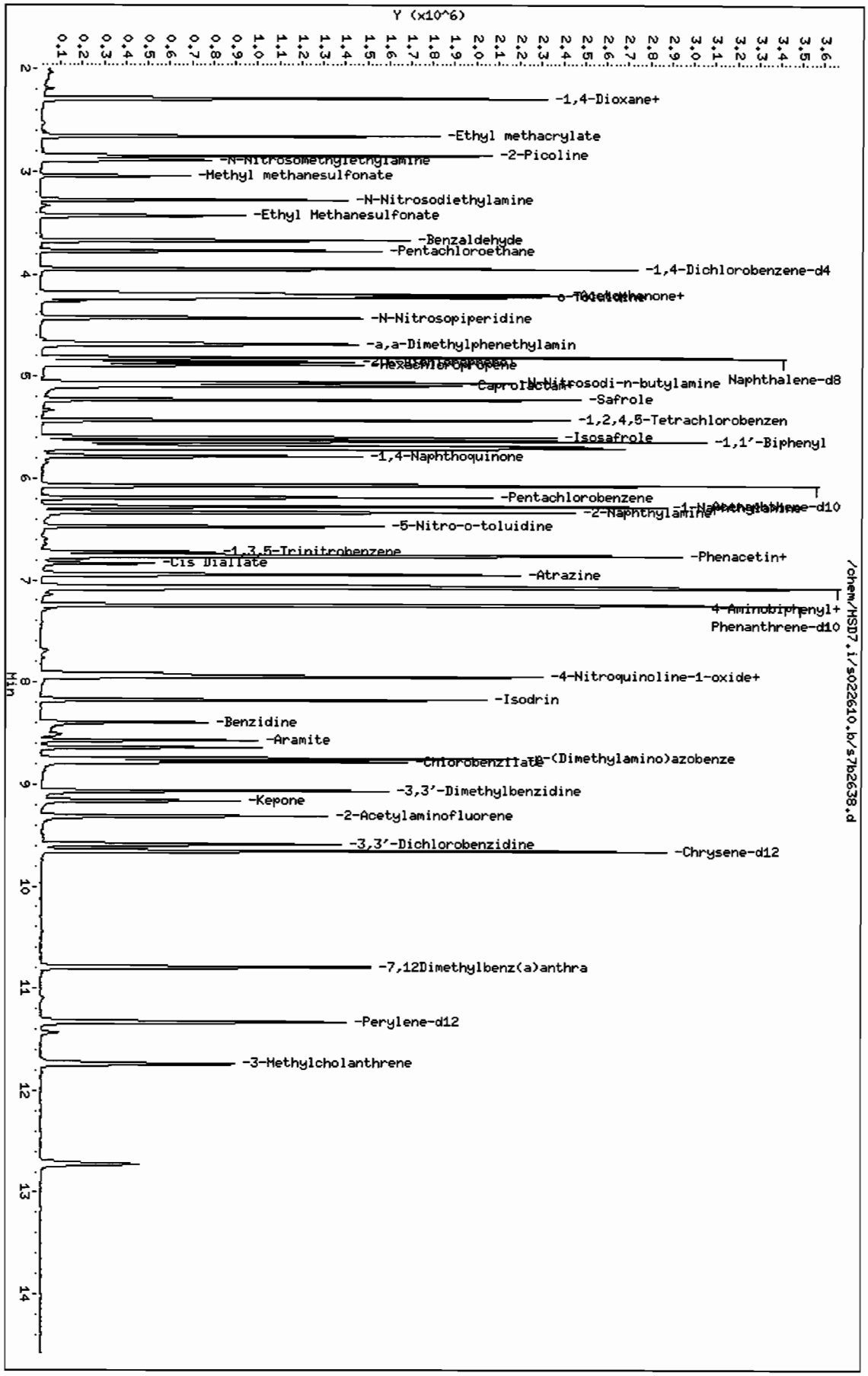

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Data file : /chem/MSD7.i/s032410a.b/s7c2412.d
Lab Smp Id: WBN100309-05.4 Client Smp ID: MEGACVS
Inj Date : 24-MAR-2010 15:19
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100309-05.4|CVS|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN100319-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Meth Date : 25-Mar-2010 08:37 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.826	3.826	(1.000)	307934	40.0000	
* 29 Naphthalene-d8	136	4.688	4.688	(1.000)	1259065	40.0000	
* 46 Acenaphthene-d10	164	5.940	5.940	(1.000)	635935	40.0000	
* 67 Phenanthrene-d10	188	7.101	7.101	(1.000)	1165031	40.0000	
* 91 Chrysene-d12	240	9.499	9.499	(1.000)	792830	40.0000	
* 98 Perylene-d12	264	11.083	11.083	(1.000)	464510	40.0000	
$ 3 2-Fluorophenol	112	3.017	3.017	(0.789)	281883	40.0000	35.2
$ 5 Phenol-d5	99	3.547	3.547	(0.927)	369292	40.0000	36.8
$ 20 Nitrobenzene-d5	82	4.187	4.187	(0.893)	329539	40.0000	34.7
$ 39 2-Fluorobiphenyl	172	5.430	5.430	(0.914)	695084	40.0000	43.8
$ 60 2,4,6-Tribromophenol	329	6.532	6.532	(1.100)	76124	40.0000	41.4
$ 81 p-Terphenyl-d14	244	8.473	8.473	(0.892)	635397	40.0000	44.7
1 N-Methyl-N-nitrosomethylamine	74	2.338	2.338	(0.611)	172803	40.0000	32.1
2 Pyridine	79	2.367	2.367	(0.619)	255746	40.0000	34.4
4 Aniline	66	3.610	3.610	(0.943)	167787	40.0000	35.0
6 Phenol	94	3.557	3.557	(0.930)	355181	40.0000	35.6
7 bis(2-Chloroethyl) ether	63	3.629	3.629	(0.948)	275836	40.0000	33.8
8 2-Chlorophenol	128	3.691	3.691	(0.965)	300358	40.0000	39.4
203 n-Decane	43	3.677	3.677	(0.961)	523251	40.0000	36.5
9 1,3-Dichlorobenzene	146	3.793	3.793	(0.991)	362764	40.0000	37.8
11 1,4-Dichlorobenzene	146	3.836	3.836	(1.003)	375557	40.0000	40.8
13 1,2-Dichlorobenzene	146	3.937	3.937	(1.029)	347256	40.0000	41.0
14 bis(2-Chloroisopropyl)ether	45	3.971	3.971	(1.038)	640087	40.0000	33.8
12 Benzyl alcohol	108	3.894	3.894	(1.018)	88545	40.0000	17.0
15 o-Cresol	107	3.947	3.947	(1.031)	234988	40.0000	38.5
18 m,p-Cresols	107	4.053	4.053	(1.059)	292209	40.0000	35.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.072	4.072	(1.064)	217079	40.0000	38.3
19 Hexachloroethane	117	4.163	4.163	(1.088)	143016	40.0000	40.0
21 Nitrobenzene	77	4.202	4.202	(0.896)	337938	40.0000	38.4
22 Isophorone	82	4.356	4.356	(0.929)	610936	40.0000	35.9
23 2-Nitrophenol	139	4.414	4.414	(0.941)	171976	40.0000	41.6
24 2,4-Dimethylphenol	122	4.409	4.409	(0.940)	231203	40.0000	29.2
25 bis(2-Chloroethoxy)methane	93	4.476	4.476	(0.955)	327244	40.0000	35.1
26 2,4-Dichlorophenol	162	4.577	4.577	(0.976)	260970	40.0000	39.0
27 Benzoic acid	105	4.476	4.476	(0.955)	126966	40.0000	33.4
28 1,2,4-Trichlorobenzene	180	4.640	4.640	(0.990)	320329	40.0000	39.5
30 Naphthalene	128	4.707	4.707	(1.004)	915004	40.0000	38.5
204 alpha-Terpineol	59	4.683	4.683	(0.999)	315190	40.0000	32.4
31 4-Chloroaniline	127	4.722	4.722	(1.007)	318836	40.0000	28.6
32 Hexachlorobutadiene	225	4.770	4.770	(1.017)	185151	40.0000	43.8
33 4-Chloro-3-methylphenol	107	5.040	5.040	(1.075)	278457	40.0000	38.8
34 2-Methylnaphthalene	142	5.184	5.184	(1.106)	665630	40.0000	39.0
35 1-Methylnaphthalene	142	5.256	5.256	(1.121)	637271	40.0000	39.3
36 Hexachlorocyclopentadiene	237	5.285	5.285	(0.890)	117622	40.0000	38.2
205 2,3-Dichloroaniline	161	5.382	5.382	(0.906)	342836	40.0000	43.6
37 2,4,6-Trichlorophenol	196	5.377	5.377	(0.905)	196090	40.0000	43.9
38 2,4,5-Trichlorophenol	196	5.401	5.401	(0.909)	210905	40.0000	47.0
40 2-Chloronaphthalene	162	5.536	5.536	(0.932)	614473	40.0000	41.7
42 o-Nitroaniline	65	5.598	5.598	(0.942)	196729	40.0000	37.8
41 m-Nitroaniline	138	5.892	5.892	(0.992)	148382	40.0000	39.0
43 Dimethylphthalate	163	5.709	5.709	(0.961)	723677	40.0000	42.8
44 2,6-Dinitrotoluene	165	5.767	5.767	(0.971)	163970	40.0000	42.0
50 2,4-Dinitrotoluene	165	6.061	6.061	(1.020)	214795	40.0000	41.7
45 Acenaphthylene	152	5.844	5.844	(0.984)	965420	40.0000	41.0
47 Acenaphthene	154	5.964	5.964	(1.004)	620576	40.0000	44.3
48 2,4-Dinitrophenol	184	5.969	5.969	(1.005)	62589	40.0000	51.6
49 Dibenzofuran	168	6.089	6.089	(1.025)	834876	40.0000	42.4
51 Diethylphthalate	149	6.215	6.215	(1.046)	768961	40.0000	44.4
52 4-Nitrophenol	139	5.993	5.993	(1.009)	101633	40.0000	39.3
53 Fluorene	166	6.349	6.349	(1.069)	732748	40.0000	44.4
54 4-Chlorophenylphenylether	204	6.325	6.325	(1.065)	355066	40.0000	43.3
55 2-Methyl-4,6-dinitrophenol	198	6.369	6.369	(0.897)	92470	40.0000	44.7
56 p-Nitroaniline	138	6.349	6.349	(1.069)	127374	40.0000	37.2
133 Diphenylamine	169	6.412	6.412	(0.903)	580751	40.0000	42.3
58 1,2-Diphenylhydrazine	77	6.451	6.451	(0.908)	700983	40.0000	40.6
61 4-Bromophenylphenylether	248	6.711	6.711	(0.945)	212351	40.0000	44.3
63 Hexachlorobenzene	284	6.778	6.778	(0.955)	201556	40.0000	43.3
65 Pentachlorophenol	266	6.927	6.927	(0.976)	96071	40.0000	43.6
206 n-Octadecane	57	6.922	6.922	(0.975)	575706	40.0000	39.4
68 Phenanthrene	178	7.120	7.120	(1.003)	1024426	40.0000	42.8
69 Anthracene	178	7.163	7.163	(1.009)	1040937	40.0000	43.0
72 Di-n-butylphthalate	149	7.524	7.524	(1.060)	1337759	40.0000	43.9
76 Fluoranthene	202	8.155	8.155	(1.149)	1099896	40.0000	42.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
79 Pyrene	202	8.367	8.367	(0.881)	1135065	40.0000	45.3
85 Butylbenzylphthalate	149	8.902	8.902	(0.937)	517786	40.0000	43.5
89 Benzo(a)anthracene	228	9.484	9.484	(0.998)	750250	40.0000	39.5
92 Chrysene	228	9.523	9.523	(1.003)	661786	40.0000	39.1
93 bis(2-Ethylhexyl)phthalate	149	9.426	9.426	(0.992)	628712	40.0000	41.7
94 Di-n-octylphthalate	149	10.057	10.057	(0.907)	845627	40.0000	45.3
95 Benzo(b)fluoranthene	252	10.601	10.601	(0.957)	555069	40.0000	42.6
96 Benzo(k)fluoranthene	252	10.630	10.630	(0.959)	528603	40.0000	43.2
97 Benzo(a)pyrene	252	11.011	11.011	(0.993)	454346	40.0000	42.5
99 Indeno(1,2,3-cd)pyrene	276	12.735	12.735	(1.149)	352825	40.0000	45.9
100 Dibenzo(a,h)anthracene	278	12.744	12.744	(1.150)	285040	40.0000	46.8
101 Benzo(ghi)perylene	276	13.235	13.235	(1.194)	288848	40.0000	45.1
126 m-Dinitrobenzene	168	5.752	5.752	(0.968)	108924	40.0000	40.4
130 2,3,4,6-Tetrachlorophenol	232	6.171	6.171	(1.039)	172827	40.0000	46.6
143 Dinoseb	211	7.052	7.052	(0.993)	136637	40.0000	43.2
173 Carbazole	167	7.279	7.279	(1.025)	718370	40.0000	36.2
184 p-Benzoquinone	54	3.316	3.316	(0.867)	59864	40.0000	29.3
192 Methoxychlor	227	9.373	9.373	(0.987)	548177	40.0000	46.9
211 p-Toluidine	106	4.101	4.101	(1.072)	308443	40.0000	36.2
210 m-Toluidine	106	4.125	4.125	(1.078)	310345	40.0000	29.3
215 2-Ethoxyethanol	59	2.184	2.184	(0.571)	149256	40.0000	20.8
179 Dibenzo(a,e)pyrene	302	17.044	17.044	(1.538)	78709	40.0000	
26 Phthalic anhydride	104	5.223	5.223	(1.114)	92085	40.0000	29.6
214 1,4-Dinitrobenzene	75	5.695	5.695	(0.959)	151445	40.0000	49.0
216 Methylenebis(2-chloroaniline)	231	9.431	9.431	(0.993)	108480	40.0000	40.9
M 222 Trichlorophenols	196				406995	80.0000	91.0
M 223 Tetrachlorophenols	232				172827	40.0000	46.6
M 224 Benzo(b,k)fluoranthene	252				1083672	80.0000	85.8

Data File: /chem/MSD7.i/s032410a.b/s7c2412.d
Date : 24-MAR-2010 15:19
Client ID: MEGACVS
Sample Info: IWBM100309-05,4ICVS1ISVHF11MEGACVS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

Column phase: J&W DB-5MS

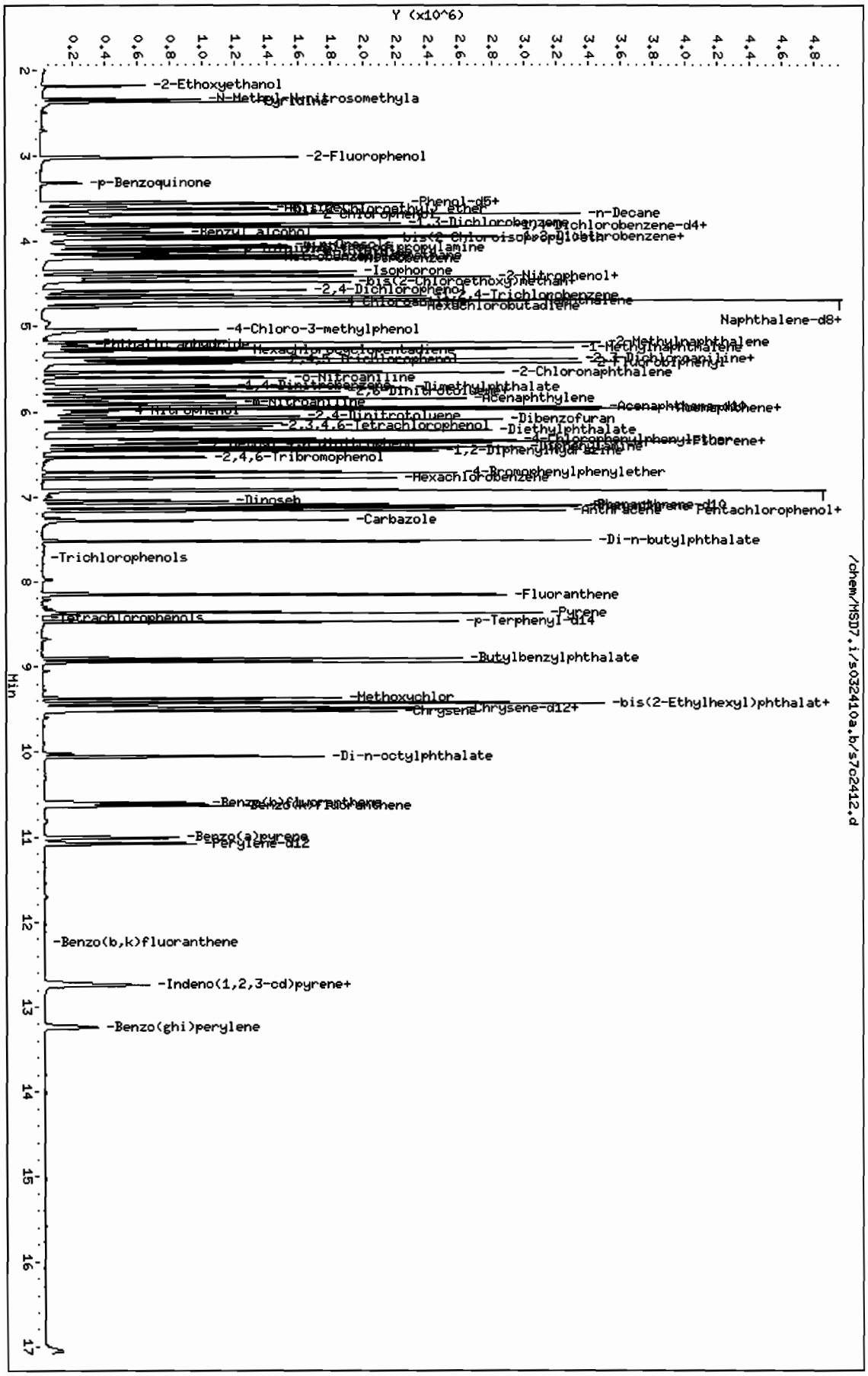

/chem/MSD7.i/s032410a.b/s7c2412.d

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 24-MAR-2010 15:43
Lab File ID: s7c2413.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100312-03.3 Quant Type: ISTD
Method: /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84333	0.77945	0.77945	0.000	-7.57464	60.00000	Averaged
16 Acetophenone	1.10656	1.10669	1.10669	0.000	0.01138	60.00000	Averaged
189 Caprolactam	0.07444	0.06969	0.06969	0.000	-6.37513	60.00000	Averaged
208 1,1'-Biphenyl	1.10203	1.13744	1.13744	0.000	3.21302	60.00000	Averaged
207 Atrazine	0.03853	0.04037	0.04037	0.000	4.76105	60.00000	Averaged
77 Benzidine	0.37412	0.26631	0.26631	0.000	-28.81717	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27910	0.28361	0.28361	0.000	1.61797	60.00000	Averaged
102 1,4-Dioxane	0.33513	0.29826	0.29826	0.000	-11.00081	60.00000	Averaged
103 Methyl methacrylate	0.19562	0.16803	0.16803	0.000	-14.10159	60.00000	Averaged
104 Ethyl methacrylate	0.75140	0.66498	0.66498	0.000	-11.50110	60.00000	Averaged
105 2-Picoline	1.13566	0.99433	0.99433	0.000	-12.44427	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44142	0.37113	0.37113	0.000	-15.92405	60.00000	Averaged
107 Methyl methanesulfonate	0.50747	0.47630	0.47630	0.000	-6.14197	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47013	0.42469	0.42469	0.000	-9.66621	60.00000	Averaged
109 Ethyl Methanesulfonate	0.62041	0.52351	0.52351	0.000	-15.61904	60.00000	Averaged
110 Pentachloroethane	0.30840	0.31034	0.31034	0.000	0.62753	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49363	0.44481	0.44481	0.000	-9.88944	60.00000	Averaged
113 N-Nitrosomorpholine	0.81412	0.70161	0.70161	0.000	-13.81940	60.00000	Averaged
114 o-Toluidine	1.53985	1.38638	1.38638	0.000	-9.96636	60.00000	Averaged
115 N-Nitrosopiperidine	0.13162	0.11243	0.11243	0.000	-14.58215	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.98197	0.68829	0.68829	0.000	-29.90724	60.00000	Averaged
118 2,6-Dichlorophenol	0.20270	0.19872	0.19872	0.000	-1.96596	60.00000	Averaged
119 Hexachloropropene	0.10516	0.08932	0.08932	0.000	-15.06862	60.00000	Averaged
120 p-Phenylenediamine	0.22347	0.20570	0.20570	0.000	-7.94909	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.20065	0.18194	0.18194	0.000	-9.32517	60.00000	Averaged
122 Safrole	0.18525	0.18249	0.18249	0.000	-1.48986	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.39310	0.42944	0.42944	0.000	9.24210	60.00000	Averaged
124 Isosafrole	0.32673	0.31839	0.31839	0.000	-2.55209	60.00000	Averaged
125 1,4-Naphthoquinone	39.55280	40.00000	0.29037	0.000	-1.11799	60.00000	Linear
127 Pentachlorobenzene	0.35339	0.37374	0.37374	0.000	5.75731	60.00000	Averaged
128 1-Naphthylamine	0.85758	0.85457	0.85457	0.000	-0.35122	60.00000	Averaged
129 2-Naphthylamine	0.92399	0.87050	0.87050	0.000	-5.78871	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27279	0.25400	0.25400	0.000	-6.89109	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11408	0.12689	0.12689	0.000	11.23036	60.00000	Averaged
137 Phenacetin	0.25171	0.24920	0.24920	0.000	-0.99565	60.00000	Averaged
138 Diallate	0.21975	0.21148	0.21148	0.000	-3.76285	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 24-MAR-2010 15:43
Lab File ID: s7c2413.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100312-03.3 Quant Type: ISTD
Method: /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.22751	0.19763	0.19763	0.000	-13.13277	60.00000	Averaged
213 Trans Diallate	0.25853	0.24880	0.24880	0.000	-3.76285	60.00000	Averaged
140 4-Aminobiphenyl	0.53100	0.44068	0.44068	0.000	-17.00830	60.00000	Averaged
141 Pentachloronitrobenzene	0.05770	0.07943	0.07943	0.000	37.66793	60.00000	Averaged
142 Pronamide	0.23171	0.27620	0.27620	0.000	19.20132	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01900	0.01067	0.01067	0.000	-43.84285	60.00000	Averaged
147 Methapyrilene	0.45514	0.45056	0.45056	0.000	-1.00809	60.00000	Averaged
148 Isodrin	0.10048	0.10858	0.10858	0.000	8.06089	60.00000	Averaged
149 Aramite	0.04292	0.04291	0.04291	0.000	-0.03636	60.00000	Averaged
150 Kepone	0.06421	0.06720	0.06720	0.000	4.66968	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31171	0.32311	0.32311	0.000	3.65726	60.00000	Averaged
152 Chlorobenzilate	0.27373	0.31412	0.31412	0.000	14.75687	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52442	0.49561	0.49561	0.000	-5.49316	60.00000	Averaged
155 2-Acetylaminofluorene	0.30989	0.32546	0.32546	0.000	5.02172	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51277	0.54160	0.54160	0.000	5.62257	60.00000	Averaged
158 3-Methylcholanthrene	0.37167	0.39474	0.39474	0.000	6.20676	60.00000	Averaged

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Data file : /chem/MSD7.i/s032410a.b/s7c2413.d
Lab Smp Id: WBN100312-03.3 Client Smp ID: APCVS
Inj Date : 24-MAR-2010 15:43
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100312-03.3|CVS|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN100319-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Meth Date : 25-Mar-2010 08:36 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.821	3.821	(1.000)	261018	40.0000	
* 29 Naphthalene-d8	136	4.688	4.688	(1.000)	960896	40.0000	
* 46 Acenaphthene-d10	164	5.935	5.935	(1.000)	551650	40.0000	
* 67 Phenanthrene-d10	188	7.096	7.096	(1.000)	971338	40.0000	
* 91 Chrysene-d12	240	9.489	9.489	(1.000)	726449	40.0000	
* 98 Perylene-d12	264	11.078	11.078	(1.000)	471538	40.0000	
209 Benzaldehyde	77	3.552	3.552	(0.929)	203451	40.0000	37.0
16 Acetophenone	105	4.077	4.077	(1.067)	288866	40.0000	40.0
189 Caprolactam	113	4.963	4.963	(1.059)	66966	40.0000	37.4
208 1,1'-Biphenyl	154	5.507	5.507	(0.928)	627468	40.0000	41.3
207 Atrazine	173	6.807	6.807	(0.959)	39209	40.0000	41.9
77 Benzidine	184	8.247	8.247	(0.869)	193462	40.0000	28.5
90 3,3'-Dichlorobenzidine	252	9.431	9.431	(0.994)	206031	40.0000	40.6
102 1,4-Dioxane	88	2.179	2.179	(0.570)	77851	40.0000	35.6
103 Methyl methacrylate	100	2.170	2.170	(0.568)	43860	40.0000	34.4
104 Ethyl methacrylate	69	2.536	2.536	(0.664)	173571	40.0000	35.4
105 2-Picoline	93	2.728	2.728	(0.714)	259539	40.0000	35.0
106 N-Nitrosomethylethylamine	88	2.772	2.772	(0.725)	96871	40.0000	33.6
107 Methyl methanesulfonate	80	2.931	2.931	(0.767)	124323	40.0000	37.5
108 N-Nitrosodiethylamine	102	3.162	3.162	(0.827)	110851	40.0000	36.1
109 Ethyl Methanesulfonate	79	3.316	3.316	(0.868)	136645	40.0000	33.8
110 Pentachloroethane	167	3.648	3.648	(0.955)	81004	40.0000	40.2
111 N-Nitrosopyrrolidine	100	4.062	4.062	(1.063)	116103	40.0000	36.0
113 N-Nitrosomorpholine	56	4.081	4.081	(1.068)	183134	40.0000	34.5
114 o-Toluidine	106	4.101	4.101	(1.073)	361871	40.0000	36.0
115 N-Nitrosopiperidine	114	4.298	4.298	(0.917)	108030	40.0000	34.2
116 a,a-Dimethylphenethylamine	58	4.544	4.544	(0.969)	661376	40.0000	28.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
118 2,6-Dichlorophenol	162	4.731	4.731	(1.009)	190945	40.0000	39.2
119 Hexachloropropene	213	4.756	4.756	(1.014)	85825	40.0000	34.0
120 p-Phenylenediamine	108	4.967	4.967	(1.060)	197659	40.0000	36.8
121 N-Nitrosodi-n-butylamine	84	4.934	4.934	(1.052)	174828	40.0000	36.3(H)
122 Safrole	162	5.097	5.097	(1.087)	175353	40.0000	39.4
123 1,2,4,5-Tetrachlorobenzene	216	5.300	5.300	(0.893)	236898	40.0000	43.7
124 Isosafrole	162	5.468	5.468	(0.921)	175640	40.0000	39.0
125 1,4-Naphthoquinone	158	5.656	5.656	(0.953)	160184	40.0000	39.6
127 Pentachlorobenzene	250	6.056	6.056	(1.020)	206171	40.0000	42.3
128 1-Naphthylamine	143	6.142	6.142	(1.035)	471425	40.0000	39.8(H)
129 2-Naphthylamine	143	6.200	6.200	(1.045)	480213	40.0000	37.7
131 5-Nitro-o-toluidine	152	6.335	6.335	(1.067)	140117	40.0000	37.2
136 1,3,5-Trinitrobenzene	75	6.605	6.605	(0.931)	123251	40.0000	44.5
137 Phenacetin	108	6.633	6.633	(0.935)	242062	40.0000	39.6(Q)
138 Diallate	86	6.614	6.614	(0.932)	205418	40.0000	38.5
212 Cis Diallate	86	6.691	6.691	(0.943)	28795	6.00000	5.2
213 Trans Diallate	86	6.614	6.614	(0.932)	205418	34.0000	32.7
140 4-Aminobiphenyl	169	6.918	6.918	(0.975)	428053	40.0000	33.2
141 Pentachloronitrobenzene	237	6.937	6.937	(0.978)	77152	40.0000	55.1(Q)
142 Pronamide	173	6.932	6.932	(0.977)	268285	40.0000	47.7
146 4-Nitroquinoline-1-oxide	101	7.760	7.760	(1.094)	10364	40.0000	22.5
147 Methapyrilene	58	7.799	7.799	(1.099)	437642	40.0000	39.6(H)
148 Isodrin	193	8.011	8.011	(1.129)	105469	40.0000	43.2
149 Aramite	185	8.415	8.415	(1.186)	41676	40.0000	40.0(H)
150 Kepone	272	8.993	8.993	(1.267)	65277	40.0000	41.9
151 p-(Dimethylamino)azobenzene	120	8.593	8.593	(0.906)	234721	40.0000	41.5
152 Chlorobenzilate	251	8.627	8.627	(0.909)	228191	40.0000	45.9
153 3,3'-Dimethylbenzidine	212	8.911	8.911	(0.939)	360038	40.0000	37.8
155 2-Acetylaminofluorene	181	9.157	9.157	(0.965)	236427	40.0000	42.0
157 7,12Dimethylbenz(a)anthracene	256	10.568	10.568	(0.954)	255387	40.0000	42.2(H)
158 3-Methylcholanthrene	268	11.458	11.458	(1.034)	186133	40.0000	42.5(H)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD7.i/s032410a.b/s7o2413.d
Date : 24-MAR-2010 15:43
Client ID: APCVS
Sample Info: IWBN100312-03,3ICVS1I1SVHF11IAPCVS
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

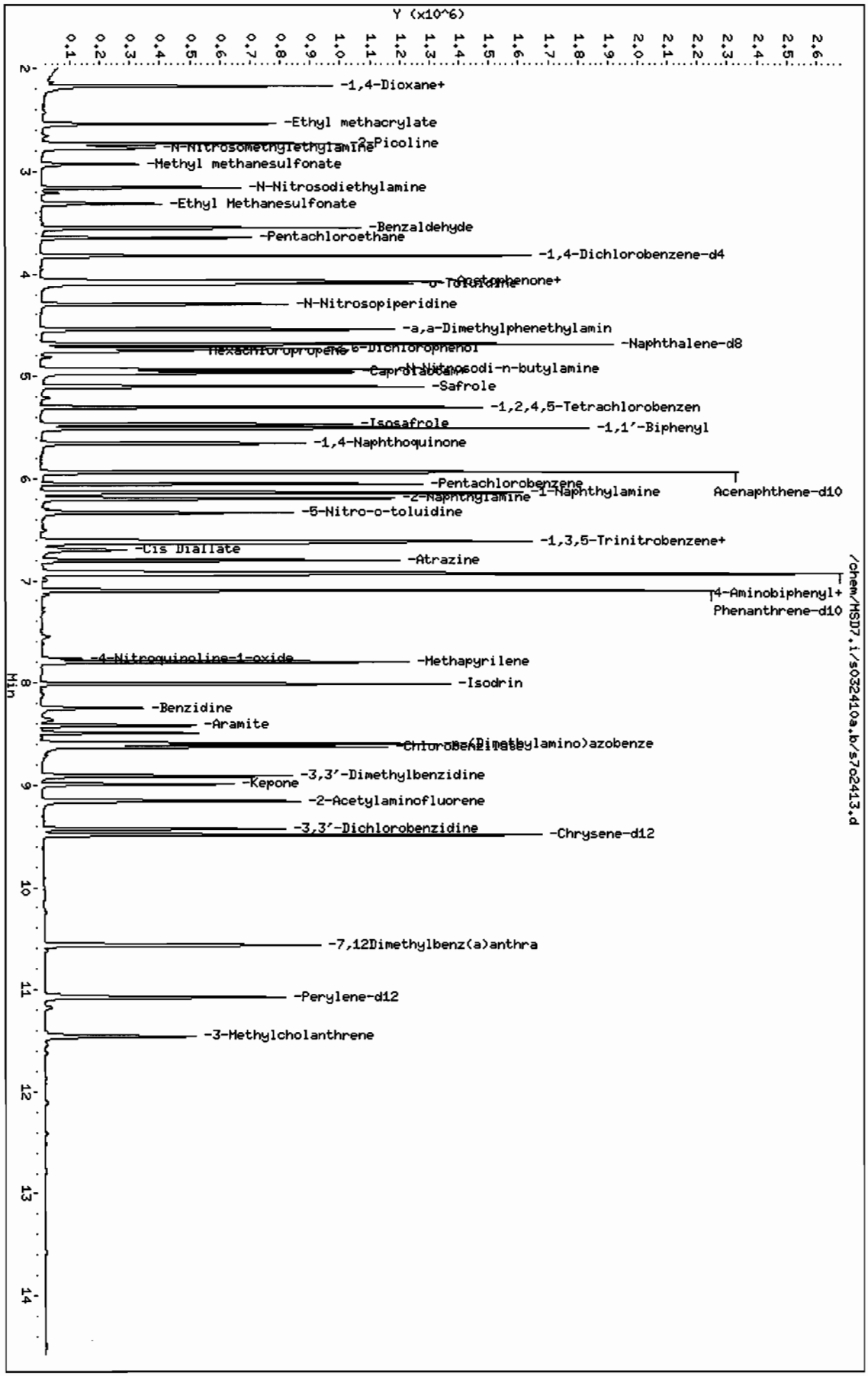

Page 1

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 25-MAR-2010 12:22
Lab File ID: s7c2503.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100312-03.3 Quant Type: ISTD
Method: /chem/MSD7.i/s032510.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84333	0.75668	0.75668	0.000	-10.27499	60.00000	Averaged
16 Acetophenone	1.10656	1.07224	1.07224	0.000	-3.10151	60.00000	Averaged
189 Caprolactam	0.07444	0.06662	0.06662	0.000	-10.50325	60.00000	Averaged
208 1,1'-Biphenyl	1.10203	1.09754	1.09754	0.000	-0.40762	60.00000	Averaged
207 Atrazine	0.03853	0.03888	0.03888	0.000	0.90302	60.00000	Averaged
77 Benzidine	0.37412	0.24040	0.24040	0.000	-35.74295	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27910	0.27424	0.27424	0.000	-1.73925	60.00000	Averaged
102 1,4-Dioxane	0.33513	0.30213	0.30213	0.000	-9.84562	60.00000	Averaged
103 Methyl methacrylate	0.19562	0.16724	0.16724	0.000	-14.50912	60.00000	Averaged
104 Ethyl methacrylate	0.75140	0.64940	0.64940	0.000	-13.57471	60.00000	Averaged
105 2-Picoline	1.13566	0.97942	0.97942	0.000	-13.75754	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44142	0.36747	0.36747	0.000	-16.75227	60.00000	Averaged
107 Methyl methanesulfonate	0.50747	0.46533	0.46533	0.000	-8.30378	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47013	0.41613	0.41613	0.000	-11.48588	60.00000	Averaged
109 Ethyl Methanesulfonate	0.62041	0.50180	0.50180	0.000	-19.11861	60.00000	Averaged
110 Pentachloroethane	0.30840	0.31682	0.31682	0.000	2.72867	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49363	0.42966	0.42966	0.000	-12.95785	60.00000	Averaged
113 N-Nitrosomorpholine	0.81412	0.71376	0.71376	0.000	-12.32812	60.00000	Averaged
114 o-Toluidine	1.53985	1.35908	1.35908	0.000	-11.73935	60.00000	Averaged
115 N-Nitrosopiperidine	0.13162	0.10923	0.10923	0.000	-17.01124	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.98197	0.66597	0.66597	0.000	-32.18014	60.00000	Averaged
118 2,6-Dichlorophenol	0.20270	0.19237	0.19237	0.000	-5.09721	60.00000	Averaged
119 Hexachloropropene	0.10516	0.11255	0.11255	0.000	7.02030	60.00000	Averaged
120 p-Phenylenediamine	0.22347	0.20093	0.20093	0.000	-10.08368	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.20065	0.17769	0.17769	0.000	-11.44367	60.00000	Averaged
122 Safrole	0.18525	0.17441	0.17441	0.000	-5.85307	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.39310	0.41535	0.41535	0.000	5.65856	60.00000	Averaged
124 Isosafrole	0.32673	0.30409	0.30409	0.000	-6.93039	60.00000	Averaged
125 1,4-Naphthoquinone	39.40819	40.00000	0.28950	0.000	-1.47952	60.00000	Linear
127 Pentachlorobenzene	0.35339	0.35827	0.35827	0.000	1.38075	60.00000	Averaged
128 1-Naphthylamine	0.85758	0.83611	0.83611	0.000	-2.50461	60.00000	Averaged
129 2-Naphthylamine	0.92399	0.84866	0.84866	0.000	-8.15224	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27279	0.24642	0.24642	0.000	-9.66742	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11408	0.14988	0.14988	0.000	31.38635	60.00000	Averaged
137 Phenacetin	0.25171	0.24172	0.24172	0.000	-3.96904	60.00000	Averaged
138 Diallate	0.21975	0.20440	0.20440	0.000	-6.98409	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 25-MAR-2010 12:22
Lab File ID: s7c2503.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100312-03.3 Quant Type: ISTD
Method: /chem/MSD7.i/s032510.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.22751	0.19051	0.19051	0.000	-16.26242	60.00000	Averaged
213 Trans Diallate	0.25853	0.24047	0.24047	0.000	-6.98409	60.00000	Averaged
140 4-Aminobiphenyl	0.53100	0.48047	0.48047	0.000	-9.51486	60.00000	Averaged
141 Pentachloronitrobenzene	0.05770	0.08020	0.08020	0.000	39.00118	60.00000	Averaged
142 Pronamide	0.23171	0.27120	0.27120	0.000	17.04275	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01900	0.01614	0.01614	0.000	-15.04427	60.00000	Averaged
147 Methapyrilene	0.45514	0.42775	0.42775	0.000	-6.01867	60.00000	Averaged
148 Isodrin	0.10048	0.10863	0.10863	0.000	8.10492	60.00000	Averaged
149 Aramite	0.04292	0.04193	0.04193	0.000	-2.31904	60.00000	Averaged
150 Kepone	0.06421	0.07341	0.07341	0.000	14.34376	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31171	0.29454	0.29454	0.000	-5.50886	60.00000	Averaged
152 Chlorobenzilate	0.27373	0.28929	0.28929	0.000	5.68689	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52442	0.45929	0.45929	0.000	-12.41962	60.00000	Averaged
155 2-Acetylaminofluorene	0.30989	0.32313	0.32313	0.000	4.26977	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51277	0.52509	0.52509	0.000	2.40216	60.00000	Averaged
158 3-Methylcholanthrene	0.37167	0.39455	0.39455	0.000	6.15570	60.00000	Averaged

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Data file : /chem/MSD7.i/s032510.b/s7c2503.d
Lab Smp Id: WBN100312-03.3 Client Smp ID: APCVS
Inj Date : 25-MAR-2010 12:22
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100312-03.3|CVS|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN100319-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032510.b/MSD7-M8270C-AQA-022610.m
Meth Date : 25-Mar-2010 14:25 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.836	3.836	(1.000)	283083	40.0000	
* 29 Naphthalene-d8	136	4.698	4.698	(1.000)	1042130	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	598464	40.0000	
* 67 Phenanthrene-d10	188	7.110	7.110	(1.000)	1053308	40.0000	
* 91 Chrysene-d12	240	9.504	9.508	(1.000)	878674	40.0000	
* 98 Perylene-d12	264	11.098	11.102	(1.000)	645235	40.0000	
209 Benzaldehyde	77	3.562	3.562	(0.928)	214203	40.0000	35.9
16 Acetophenone	105	4.086	4.086	(1.065)	303534	40.0000	38.8
189 Caprolactam	113	4.977	4.977	(1.059)	69425	40.0000	35.8
208 1,1'-Biphenyl	154	5.517	5.517	(0.928)	656837	40.0000	39.8
207 Atrazine	173	6.817	6.817	(0.959)	40952	40.0000	40.4
77 Benzidine	184	8.256	8.256	(0.869)	211234	40.0000	25.7
90 3,3'-Dichlorobenzidine	252	9.441	9.441	(0.993)	240971	40.0000	39.3
102 1,4-Dioxane	88	2.204	2.204	(0.574)	85528	40.0000	36.1(H)
103 Methyl methacrylate	100	2.199	2.199	(0.573)	47342	40.0000	34.2
104 Ethyl methacrylate	69	2.555	2.555	(0.666)	183833	40.0000	34.6
105 2-Picoline	93	2.748	2.748	(0.716)	277257	40.0000	34.5
106 N-Nitrosomethylethylamine	88	2.786	2.786	(0.726)	104025	40.0000	33.3
107 Methyl methanesulfonate	80	2.940	2.940	(0.767)	131727	40.0000	36.7
108 N-Nitrosodiethylamine	102	3.172	3.172	(0.827)	117800	40.0000	35.4
109 Ethyl Methanesulfonate	79	3.326	3.326	(0.867)	142050	40.0000	32.4
110 Pentachloroethane	167	3.658	3.658	(0.954)	89686	40.0000	41.1
111 N-Nitrosopyrrolidine	100	4.077	4.077	(1.063)	121630	40.0000	34.8
113 N-Nitrosomorpholine	56	4.096	4.096	(1.068)	202052	40.0000	35.1
114 o-Toluidine	106	4.111	4.111	(1.072)	384733	40.0000	35.3
115 N-Nitrosopiperidine	114	4.313	4.313	(0.918)	113831	40.0000	33.2
116 a,a-Dimethylphenethylamine	58	4.553	4.553	(0.969)	694029	40.0000	27.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
118 2,6-Dichlorophenol	162	4.741	4.741	(1.009)	200473	40.0000	38.0
119 Hexachloropropene	213	4.765	4.765	(1.014)	117289	40.0000	42.8
120 p-Phenylenediamine	108	4.977	4.977	(1.059)	209398	40.0000	36.0
121 N-Nitrosodi-n-butylamine	84	4.944	4.944	(1.052)	185178	40.0000	35.4
122 Safrole	162	5.112	5.112	(1.088)	181754	40.0000	37.6
123 1,2,4,5-Tetrachlorobenzene	216	5.309	5.309	(0.893)	248571	40.0000	42.3
124 Isosafrole	162	5.478	5.478	(0.921)	181984	40.0000	37.2
125 1,4-Naphthoquinone	158	5.666	5.666	(0.953)	173257	40.0000	39.4
127 Pentachlorobenzene	250	6.066	6.066	(1.020)	214411	40.0000	40.6
128 1-Naphthylamine	143	6.152	6.152	(1.035)	500379	40.0000	39.0
129 2-Naphthylamine	143	6.210	6.210	(1.045)	507895	40.0000	36.7
131 5-Nitro-o-toluidine	152	6.350	6.350	(1.068)	147475	40.0000	36.1
136 1,3,5-Trinitrobenzene	75	6.610	6.610	(0.930)	157871	40.0000	52.6
137 Phenacetin	108	6.643	6.643	(0.934)	254606	40.0000	38.4(Q)
138 Diallate	86	6.629	6.629	(0.932)	215297	40.0000	37.2
212 Cis Diallate	86	6.706	6.706	(0.943)	30100	6.00000	5.0
213 Trans Diallate	86	6.629	6.629	(0.932)	215297	34.0000	31.6
140 4-Aminobiphenyl	169	6.927	6.927	(0.974)	506087	40.0000	36.2
141 Pentachloronitrobenzene	237	6.947	6.947	(0.977)	84473	40.0000	55.6(Q)
142 Pronamide	173	6.947	6.947	(0.977)	285657	40.0000	46.8
146 4-Nitroquinoline-1-oxide	101	7.775	7.775	(1.093)	17002	40.0000	34.0
147 Methapyrilene	58	7.809	7.809	(1.098)	450553	40.0000	37.6
148 Isodrin	193	8.025	8.025	(1.129)	114416	40.0000	43.2
149 Aramite	185	8.430	8.430	(1.186)	44161	40.0000	39.1
150 Kepone	272	9.003	9.003	(1.266)	77328	40.0000	45.7
151 p-(Dimethylamino)azobenzene	120	8.608	8.608	(0.906)	258801	40.0000	37.8
152 Chlorobenzilate	251	8.637	8.637	(0.909)	254193	40.0000	42.3
153 3,3'-Dimethylbenzidine	212	8.921	8.921	(0.939)	403566	40.0000	35.0
155 2-Acetylaminofluorene	181	9.167	9.167	(0.965)	283922	40.0000	41.7
157 7,12Dimethylbenz(a)anthracene	256	10.587	10.587	(0.954)	338807	40.0000	41.0
158 3-Methylcholanthrene	268	11.478	11.478	(1.034)	254575	40.0000	42.5

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD7.i/s032510.b/s7o2503.d
Date : 25-MAR-2010 12:22
Client ID: APCVS
Sample Info: IWBM100312-03,3|CVS11|SVHF11|APCVS
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

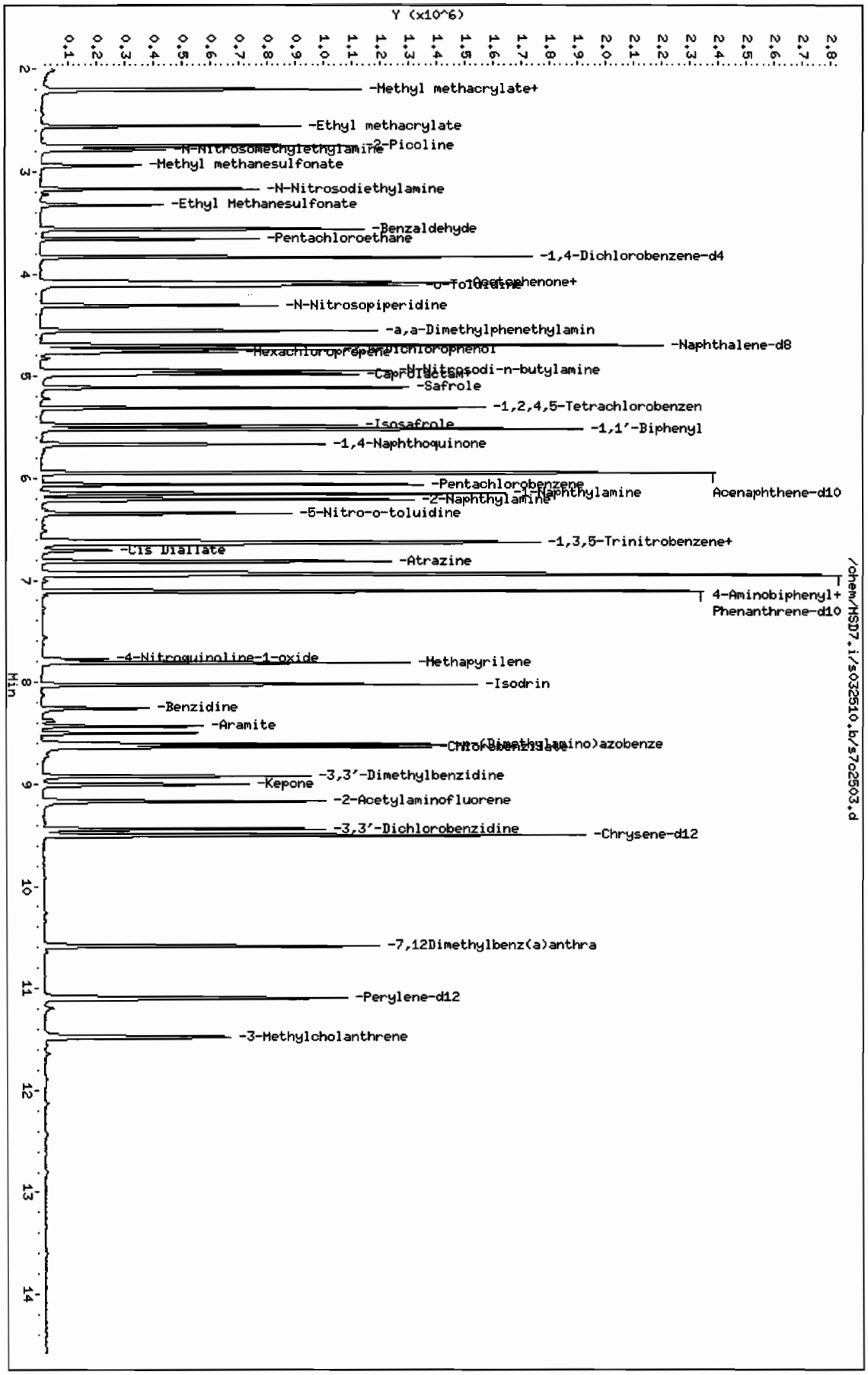

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 25-MAR-2010 12:43
Lab File ID: s7c2504.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100309-05.4 Quant Type: ISTD
Method: /chem/MSD7.i/s032510.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.03969	0.88156	0.88156	0.000	-15.20939	60.00000	Averaged
$ 5 Phenol-d5	1.30355	1.13766	1.13766	0.000	-12.72608	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.30169	0.27385	0.27385	0.000	-9.22816	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.99687	1.06653	1.06653	0.000	6.98804	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11563	0.11419	0.11419	0.000	-1.25011	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.71661	0.69669	0.69669	0.000	-2.77886	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.70001	0.54900	0.54900	0.000	-21.57296	60.00000	Averaged
2 Pyridine	0.96465	0.78793	0.78793	0.000	-18.31997	60.00000	Averaged
4 Aniline	0.62182	0.54051	0.54051	0.000	-13.07590	60.00000	Averaged
6 Phenol	1.29492	1.09926	1.09926	0.001	-15.10989	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06026	0.84151	0.84151	0.000	-20.63222	60.00000	Averaged
8 2-Chlorophenol	0.99096	0.93521	0.93521	0.000	-5.62528	60.00000	Averaged
203 n-Decane	1.86209	1.74342	1.74342	0.000	-6.37325	60.00000	Averaged
9 1,3-Dichlorobenzene	1.24478	1.19782	1.19782	0.000	-3.77222	60.00000	Averaged
11 1,4-Dichlorobenzene	1.19442	1.20122	1.20122	0.001	0.56946	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.09872	1.12485	1.12485	0.000	2.37788	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.45618	2.10500	2.10500	0.000	-14.29808	60.00000	Averaged
12 Benzyl alcohol	0.67475	0.30293	0.30293	0.000	-55.10435	60.00000	Averaged
15 o-Cresol	0.79330	0.73572	0.73572	0.000	-7.25936	60.00000	Averaged
18 m,p-Cresols	1.07190	0.88166	0.88166	0.000	-17.74743	60.00000	Averaged
17 N-Nitrosodipropylamine	0.73664	0.70348	0.70348	0.050	-4.50218	60.00000	Averaged spcc
19 Hexachloroethane	0.46378	0.48219	0.48219	0.000	3.96875	60.00000	Averaged
21 Nitrobenzene	0.27987	0.26420	0.26420	0.000	-5.59875	60.00000	Averaged
22 Isophorone	0.54073	0.49952	0.49952	0.000	-7.62072	60.00000	Averaged
23 2-Nitrophenol	0.13143	0.13713	0.13713	0.001	4.33862	20.00000	Averaged ccc
24 2,4-Dimethylphenol	28.02627	40.00000	0.17740	0.000	-29.93432	60.00000	Wt Linear
25 bis(2-Chloroethoxy)methane	0.29584	0.26050	0.26050	0.000	-11.94805	60.00000	Averaged
26 2,4-Dichlorophenol	0.21226	0.20648	0.20648	0.001	-2.72307	20.00000	Averaged ccc
27 Benzoic acid	0.12083	0.11169	0.11169	0.000	-7.55803	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.25742	0.26131	0.26131	0.000	1.50957	60.00000	Averaged
30 Naphthalene	0.75561	0.73594	0.73594	0.000	-2.60295	60.00000	Averaged
204 alpha-Terpineol	0.30880	0.25396	0.25396	0.000	-17.75973	60.00000	Averaged
31 4-Chloroaniline	0.35383	0.25932	0.25932	0.000	-26.71010	60.00000	Averaged
32 Hexachlorobutadiene	0.13434	0.15042	0.15042	0.001	11.96581	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.22797	0.21954	0.21954	0.001	-3.70088	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54229	0.53394	0.53394	0.000	-1.54059	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 25-MAR-2010 12:43
Lab File ID: s7c2504.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100309-05.4 Quant Type: ISTD
Method: /chem/MSD7.i/s032510.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.51558	0.51573	0.51573	0.000	0.03005	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.19338	0.18089	0.18089	0.050	-6.45864	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.49462	0.52342	0.52342	0.000	5.82280	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.28064	0.29712	0.29712	0.001	5.87168	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.28225	0.31441	0.31441	0.000	11.39601	60.00000	Averaged
40 2-Chloronaphthalene	0.92584	0.93883	0.93883	0.000	1.40301	60.00000	Averaged
42 o-Nitroaniline	0.32778	0.30398	0.30398	0.000	-7.26111	60.00000	Averaged
41 m-Nitroaniline	0.23922	0.20512	0.20512	0.000	-14.25277	60.00000	Averaged
43 Dimethylphthalate	1.06293	1.09496	1.09496	0.000	3.01281	60.00000	Averaged
44 2,6-Dinitrotoluene	0.24549	0.24711	0.24711	0.000	0.65986	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32362	0.32202	0.32202	0.000	-0.49409	60.00000	Averaged
45 Acenaphthylene	1.47998	1.45757	1.45757	0.000	-1.51472	60.00000	Averaged
47 Acenaphthene	0.88041	0.97273	0.97273	0.001	10.48558	20.00000	Averaged ccc
48 2,4-Dinitrophenol	54.64074	40.00000	0.10652	0.050	36.60184	60.00000	Linear spcc
49 Dibenzofuran	1.23737	1.28464	1.28464	0.000	3.81971	60.00000	Averaged
51 Diethylphthalate	1.08801	1.18302	1.18302	0.000	8.73318	60.00000	Averaged
52 4-Nitrophenol	0.16277	0.08731	0.08731	0.050	-46.35773	60.00000	Averaged spcc
53 Fluorene	1.03823	1.10457	1.10457	0.000	6.38965	60.00000	Averaged
54 4-Chlorophenylphenylether	0.51596	0.55339	0.55339	0.000	7.25370	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	48.69615	40.00000	0.08811	0.000	21.74038	60.00000	Linear
56 p-Nitroaniline	0.21538	0.16669	0.16669	0.000	-22.60724	60.00000	Averaged
133 Diphenylamine	0.47134	0.46133	0.46133	0.001	-2.12368	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.59299	0.57461	0.57461	0.000	-3.10061	60.00000	Averaged
61 4-Bromophenylphenylether	0.16450	0.17543	0.17543	0.000	6.64595	60.00000	Averaged
63 Hexachlorobenzene	0.15982	0.16783	0.16783	0.000	5.01564	60.00000	Averaged
65 Pentachlorophenol	0.07563	0.07588	0.07588	0.001	0.33438	20.00000	Averaged ccc
206 n-Octadecane	0.50130	0.48241	0.48241	0.000	-3.76692	60.00000	Averaged
68 Phenanthrene	0.82082	0.84948	0.84948	0.000	3.49198	60.00000	Averaged
69 Anthracene	0.83131	0.84694	0.84694	0.000	1.88021	60.00000	Averaged
72 Di-n-butylphthalate	1.04581	1.12114	1.12114	0.000	7.20309	60.00000	Averaged
76 Fluoranthene	0.89248	0.94218	0.94218	0.001	5.56872	20.00000	Averaged ccc
79 Pyrene	1.26367	1.24016	1.24016	0.000	-1.86010	60.00000	Averaged
85 Butylbenzylphthalate	0.60092	0.61194	0.61194	0.000	1.83489	60.00000	Averaged
89 Benzo(a)anthracene	0.95891	0.90300	0.90300	0.000	-5.83099	60.00000	Averaged
92 Chrysene	0.85329	0.82512	0.82512	0.000	-3.30163	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.76109	0.83372	0.83372	0.000	9.54297	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 25-MAR-2010 12:43
Lab File ID: s7c2504.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100309-05.4 Quant Type: ISTD
Method: /chem/MSD7.i/s032510.b/MSD7-M8270C-AQA-022610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.60621	1.68228	1.68228	0.001	4.73555	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.12177	1.13191	1.13191	0.000	0.90443	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.05423	0.99610	0.99610	0.000	-5.51407	60.00000	Averaged	
	97 Benzo(a)pyrene	0.91981	0.93039	0.93039	0.001	1.15079	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.66143	0.78747	0.78747	0.000	19.05653	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.52416	0.63377	0.63377	0.000	20.91026	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.55161	0.67272	0.67272	0.000	21.95599	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16950	0.16281	0.16281	0.000	-3.94171	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.23333	0.24324	0.24324	0.000	4.24635	60.00000	Averaged	
	143 Dinoseb	48.61029	40.00000	0.13535	0.000	21.52572	60.00000	Linear	
	173 Carbazole	0.68135	0.52003	0.52003	0.000	-23.67639	60.00000	Averaged	
	184 p-Benzoquinone	0.26551	0.14046	0.14046	0.000	-47.09763	60.00000	Averaged	
	192 Methoxychlor	0.58935	0.73131	0.73131	0.000	24.08791	60.00000	Averaged	
	211 p-Toluidine	1.10616	0.91492	0.91492	0.000	-17.28790	60.00000	Averaged	
	210 m-Toluidine	1.37475	1.10176	1.10176	0.000	-19.85734	60.00000	Averaged	
	215 2-Ethoxyethanol	0.93140	0.49169	0.49169	0.000	-47.20985	60.00000	Averaged	
	26 Phthalic anhydride	36.72452	40.00000	0.09297	0.000	-8.18870	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.19422	0.20212	0.20212	0.000	4.06930	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.13367	0.10728	0.10728	0.000	-19.74165	60.00000	Averaged	
M	222 Trichlorophenols	0.28144	0.30576	0.30576	0.000	8.64167	60.00000	Averaged	
M	223 Tetrachlorophenols	0.23333	0.24324	0.24324	0.000	4.24635	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.08800	1.06401	1.06401	0.000	-2.20522	60.00000	Averaged	

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Data file : /chem/MSD7.i/s032510.b/s7c2504.d
Lab Smp Id: WBN100309-05.4 Client Smp ID: MEGACVS
Inj Date : 25-MAR-2010 12:43
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100309-05.4|CVS|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN100319-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032510.b/MSD7-M8270C-AQA-022610.m
Meth Date : 25-Mar-2010 14:25 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.836	3.836	(1.000)	261850	40.0000	
* 29 Naphthalene-d8	136	4.698	4.698	(1.000)	1045515	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	551996	40.0000	
* 67 Phenanthrene-d10	188	7.110	7.110	(1.000)	1023126	40.0000	
* 91 Chrysene-d12	240	9.508	9.508	(1.000)	808005	40.0000	
* 98 Perylene-d12	264	11.102	11.102	(1.000)	595172	40.0000	
$ 3 2-Fluorophenol	112	3.032	3.032	(0.790)	230837	40.0000	33.9
$ 5 Phenol-d5	99	3.557	3.557	(0.927)	297896	40.0000	34.9
$ 20 Nitrobenzene-d5	82	4.197	4.197	(0.893)	286316	40.0000	36.3
$ 39 2-Fluorobiphenyl	172	5.439	5.439	(0.914)	588719	40.0000	42.8
$ 60 2,4,6-Tribromophenol	329	6.542	6.542	(1.100)	63032	40.0000	39.5
$ 81 p-Terphenyl-d14	244	8.483	8.483	(0.892)	562933	40.0000	38.9
1 N-Methyl-N-nitrosomethylamine	74	2.353	2.353	(0.613)	143755	40.0000	31.4
2 Pyridine	79	2.382	2.382	(0.621)	206319	40.0000	32.7
4 Aniline	66	3.624	3.624	(0.945)	141532	40.0000	34.8
6 Phenol	94	3.566	3.566	(0.930)	287840	40.0000	34.0
7 bis(2-Chloroethyl) ether	63	3.638	3.638	(0.949)	220349	40.0000	31.7
8 2-Chlorophenol	128	3.701	3.701	(0.965)	244886	40.0000	37.7
203 n-Decane	43	3.687	3.687	(0.961)	456514	40.0000	37.4
9 1,3-Dichlorobenzene	146	3.802	3.802	(0.991)	313650	40.0000	38.5
11 1,4-Dichlorobenzene	146	3.845	3.845	(1.002)	314540	40.0000	40.2
13 1,2-Dichlorobenzene	146	3.951	3.951	(1.030)	294541	40.0000	41.0
14 bis(2-Chloroisopropyl)ether	45	3.980	3.980	(1.038)	551193	40.0000	34.3
12 Benzyl alcohol	108	3.903	3.903	(1.018)	79323	40.0000	18.0
15 o-Cresol	107	3.956	3.956	(1.031)	192647	40.0000	37.1
18 m,p-Cresols	107	4.057	4.057	(1.058)	230863	40.0000	32.9
17 N-Nitrosodipropylamine	70	4.081	4.081	(1.064)	184205	40.0000	38.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
19 Hexachloroethane	117	4.178	4.178	(1.089)	126261	40.0000	41.6
21 Nitrobenzene	77	4.211	4.211	(0.896)	276221	40.0000	37.8
22 Isophorone	82	4.366	4.366	(0.929)	522255	40.0000	37.0
23 2-Nitrophenol	139	4.423	4.423	(0.942)	143369	40.0000	41.7
24 2,4-Dimethylphenol	122	4.418	4.418	(0.941)	185477	40.0000	28.0
25 bis(2-Chloroethoxy)methane	93	4.486	4.486	(0.955)	272353	40.0000	35.2
26 2,4-Dichlorophenol	162	4.587	4.587	(0.976)	215880	40.0000	38.9
27 Benzoic acid	105	4.486	4.486	(0.955)	116778	40.0000	37.0
28 1,2,4-Trichlorobenzene	180	4.650	4.650	(0.990)	273203	40.0000	40.6
30 Naphthalene	128	4.717	4.717	(1.004)	769435	40.0000	39.0
204 alpha-Terpineol	59	4.693	4.693	(0.999)	265521	40.0000	32.9
31 4-Chloroaniline	127	4.731	4.731	(1.007)	271123	40.0000	29.3
32 Hexachlorobutadiene	225	4.780	4.780	(1.017)	157263	40.0000	44.8
33 4-Chloro-3-methylphenol	107	5.044	5.044	(1.074)	229528	40.0000	38.5
34 2-Methylnaphthalene	142	5.194	5.194	(1.106)	558242	40.0000	39.4
35 1-Methylnaphthalene	142	5.271	5.271	(1.122)	539204	40.0000	40.0
36 Hexachlorocyclopentadiene	237	5.300	5.300	(0.891)	99849	40.0000	37.4
205 2,3-Dichloroaniline	161	5.391	5.391	(0.906)	288926	40.0000	42.3
37 2,4,6-Trichlorophenol	196	5.386	5.386	(0.905)	164007	40.0000	42.3
38 2,4,5-Trichlorophenol	196	5.410	5.410	(0.909)	173553	40.0000	44.6
40 2-Chloronaphthalene	162	5.550	5.550	(0.933)	518229	40.0000	40.6
42 o-Nitroaniline	65	5.608	5.608	(0.943)	167794	40.0000	37.1
41 m-Nitroaniline	138	5.902	5.902	(0.992)	113227	40.0000	34.3
43 Dimethylphthalate	163	5.719	5.719	(0.961)	604411	40.0000	41.2
44 2,6-Dinitrotoluene	165	5.772	5.772	(0.970)	136401	40.0000	40.3
50 2,4-Dinitrotoluene	165	6.070	6.070	(1.020)	177756	40.0000	39.8
45 Acenaphthylene	152	5.853	5.853	(0.984)	804571	40.0000	39.4
47 Acenaphthene	154	5.974	5.974	(1.004)	536942	40.0000	44.2
48 2,4-Dinitrophenol	184	5.974	5.974	(1.004)	58801	40.0000	54.6
49 Dibenzofuran	168	6.099	6.099	(1.025)	709114	40.0000	41.5
51 Diethylphthalate	149	6.224	6.224	(1.046)	653024	40.0000	43.5
52 4-Nitrophenol	139	5.998	5.998	(1.008)	48196	40.0000	21.4
53 Fluorene	166	6.359	6.359	(1.069)	609720	40.0000	42.6
54 4-Chlorophenylphenylether	204	6.335	6.335	(1.065)	305469	40.0000	42.9
55 2-Methyl-4,6-dinitrophenol	198	6.378	6.378	(0.897)	90148	40.0000	48.7
56 p-Nitroaniline	138	6.359	6.359	(1.069)	92010	40.0000	31.0
133 Diphenylamine	169	6.422	6.422	(0.903)	472003	40.0000	39.2
58 1,2-Diphenylhydrazine	77	6.460	6.460	(0.909)	587895	40.0000	38.8
61 4-Bromophenylphenylether	248	6.720	6.720	(0.945)	179487	40.0000	42.6
63 Hexachlorobenzene	284	6.788	6.788	(0.955)	171714	40.0000	42.0
65 Pentachlorophenol	266	6.937	6.937	(0.976)	77633	40.0000	40.1
206 n-Octadecane	57	6.932	6.932	(0.975)	493570	40.0000	38.5
68 Phenanthrene	178	7.130	7.130	(1.003)	869128	40.0000	41.4
69 Anthracene	178	7.173	7.173	(1.009)	866525	40.0000	40.8
72 Di-n-butylphthalate	149	7.534	7.534	(1.060)	1147066	40.0000	42.9
76 Fluoranthene	202	8.165	8.165	(1.148)	963967	40.0000	42.2
79 Pyrene	202	8.377	8.377	(0.881)	1002058	40.0000	39.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
85 Butylbenzylphthalate	149	8.911	8.911	(0.937)	494452	40.0000	40.7
89 Benzo(a)anthracene	228	9.494	9.494	(0.998)	729629	40.0000	37.7
92 Chrysene	228	9.532	9.532	(1.003)	666700	40.0000	38.7
93 bis(2-Ethylhexyl)phthalate	149	9.436	9.436	(0.992)	673652	40.0000	43.8
94 Di-n-octylphthalate	149	10.067	10.067	(0.907)	1001244	40.0000	41.9
95 Benzo(b)fluoranthene	252	10.611	10.611	(0.956)	673683	40.0000	40.4
96 Benzo(k)fluoranthene	252	10.645	10.645	(0.959)	592852	40.0000	37.8(H)
97 Benzo(a)pyrene	252	11.025	11.025	(0.993)	553743	40.0000	40.5
99 Indeno(1,2,3-cd)pyrene	276	12.759	12.759	(1.149)	468681	40.0000	47.6
100 Dibenzo(a,h)anthracene	278	12.768	12.768	(1.150)	377200	40.0000	48.4
101 Benzo(ghi)perylene	276	13.259	13.259	(1.194)	400383	40.0000	48.8
126 m-Dinitrobenzene	168	5.757	5.757	(0.968)	89873	40.0000	38.4
130 2,3,4,6-Tetrachlorophenol	232	6.181	6.181	(1.039)	134268	40.0000	41.7
143 Dinoseb	211	7.062	7.062	(0.993)	138484	40.0000	48.6
173 Carbazole	167	7.288	7.288	(1.025)	532054	40.0000	30.5
184 p-Benzoquinone	54	3.325	3.325	(0.867)	36780	40.0000	21.2
192 Methoxychlor	227	9.383	9.383	(0.987)	590906	40.0000	49.6
211 p-Toluidine	106	4.115	4.115	(1.073)	239573	40.0000	33.1
210 m-Toluidine	106	4.134	4.134	(1.078)	288497	40.0000	32.0
215 2-Ethoxyethanol	59	2.199	2.199	(0.573)	128748	40.0000	21.1
26 Phthalic anhydride	104	5.232	5.232	(1.114)	97205	40.0000	36.7
214 1,4-Dinitrobenzene	75	5.699	5.699	(0.958)	111570	40.0000	41.6
216 Methylenebis(2-chloroaniline)	231	9.441	9.441	(0.993)	86684	40.0000	32.1
M 222 Trichlorophenols	196				337560	80.0000	86.9
M 223 Tetrachlorophenols	232				134268	40.0000	41.7
M 224 Benzo(b,k)fluoranthene	252				1266535	80.0000	78.2

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD7.i/s032510.b/s7c2504.d

Date : 25-MAR-2010 12:43

Client ID: MEGACVS

Sample Info: |WBN100309-05.4|CVS|1|SVMF|1|MEGACVS

Column phase: J&W DB-5MS

Page 1

Instrument: MSD7.i

Operator: JMB3

Column diameter: 0.20

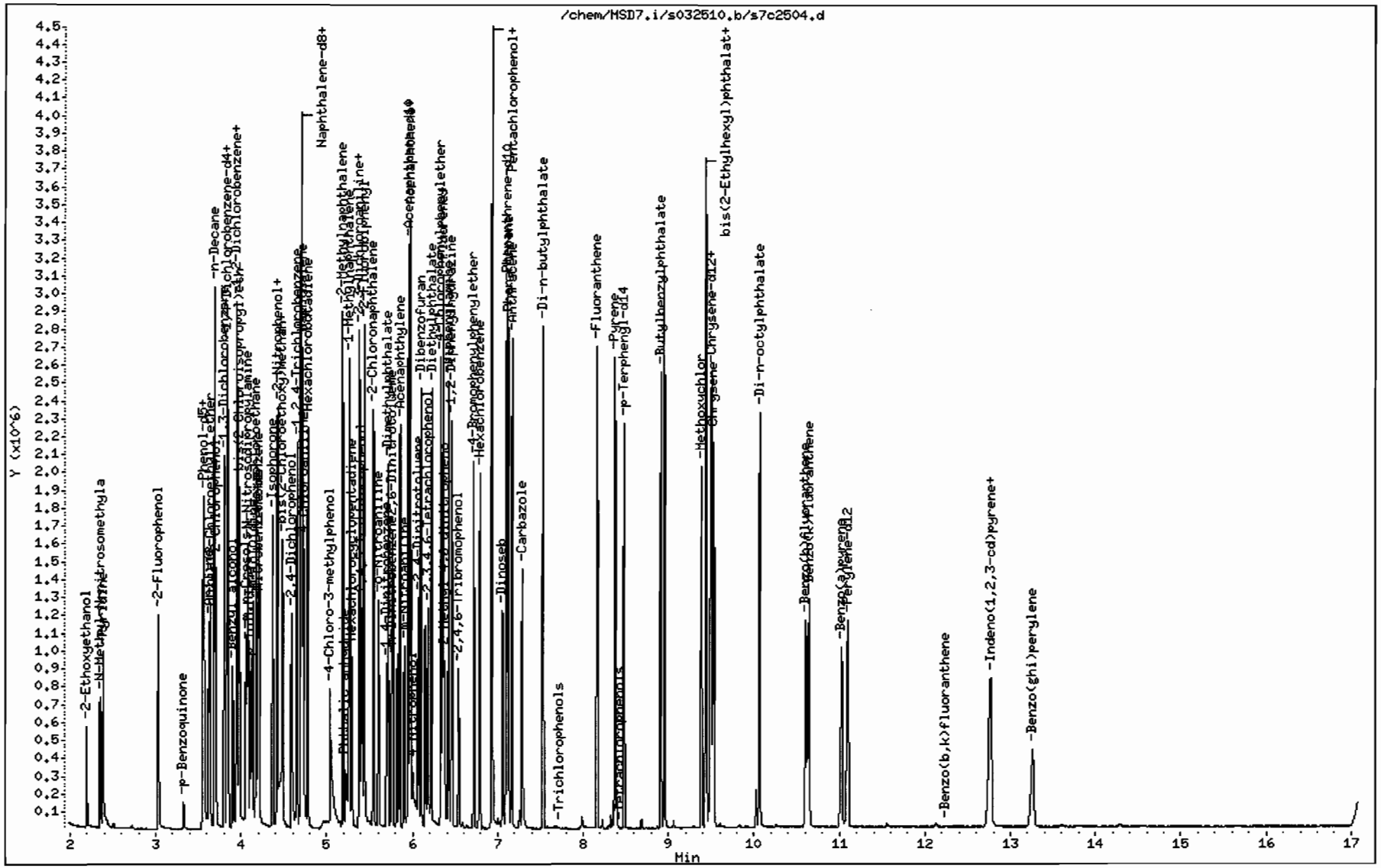

QC Data

Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

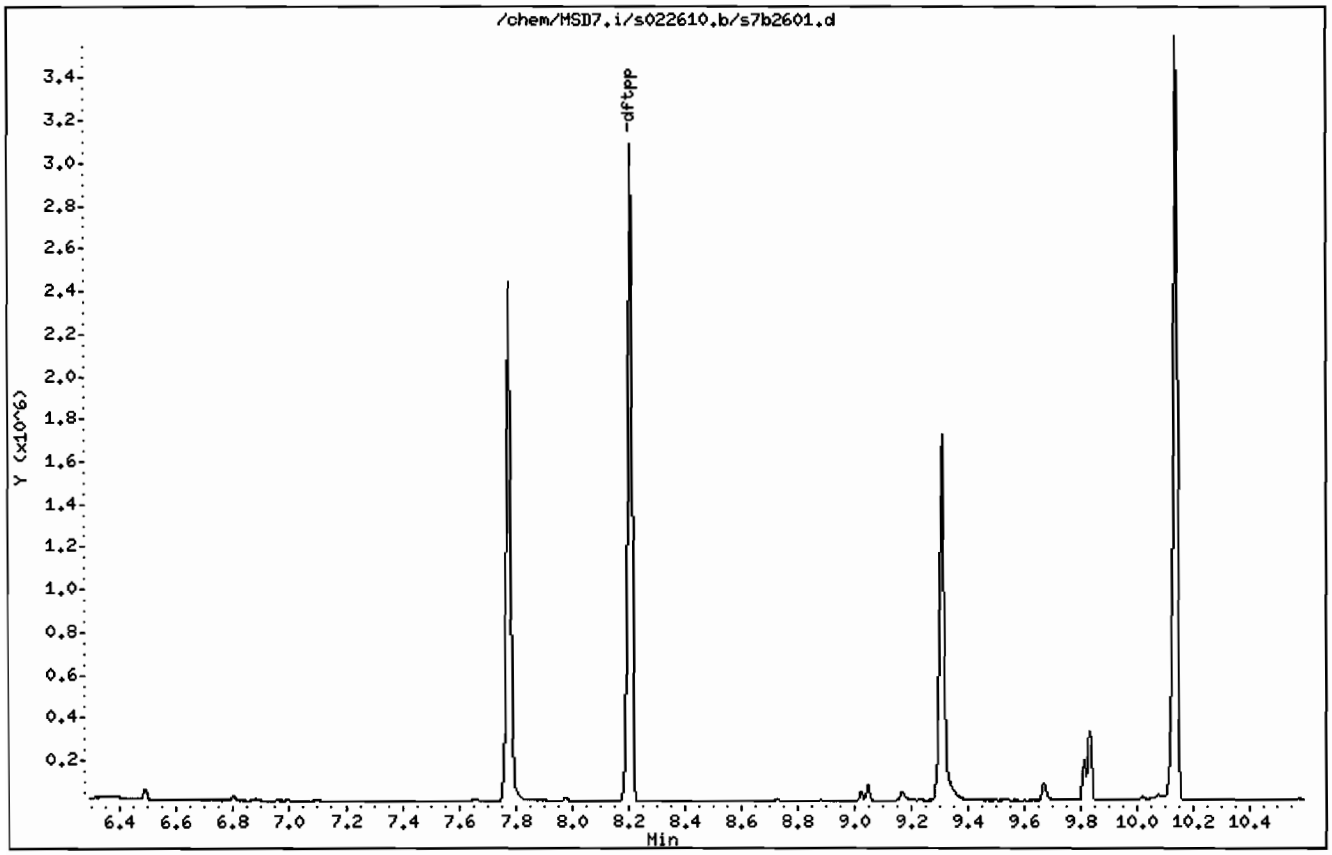

Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

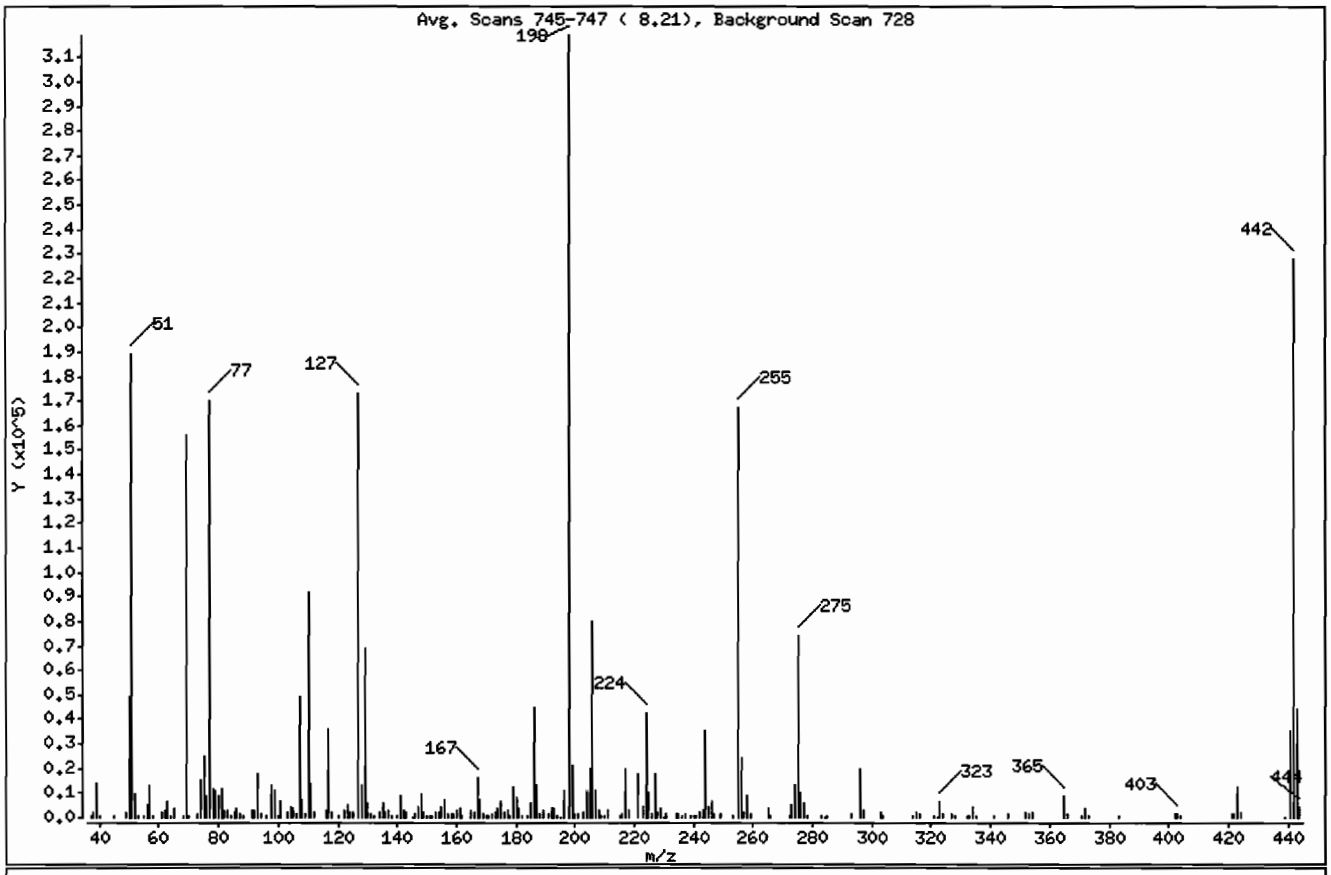

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	59.41
68	Less than 2.00% of mass 69	0.28 (0.57)
69	Mass 69 relative abundance	48.94
70	Less than 2.00% of mass 69	0.28 (0.58)
127	40.00 - 60.00% of mass 198	54.14
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.65
275	10.00 - 30.00% of mass 198	23.16
365	Greater than 1.00% of mass 198	2.69
441	Present, but less than mass 443	10.95
442	Greater than 40.00% of mass 198	71.59
443	17.00 - 23.00% of mass 442	13.73 (19.18)

Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2601.d
Spectrum: Avg. Scans 745-747 (8.21), Background Scan 728
Location of Maximum: 198.00
Number of points: 228

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	852	117.00	35928	184.00	921	259.00	1456
38.00	2311	118.00	2505	185.00	5984	265.00	3673
39.00	13932	120.00	682	186.00	44920	266.00	602
40.00	778	122.00	3034	187.00	13079	272.00	686
45.00	617	123.00	4902	188.00	1326	273.00	5148
49.00	1836	124.00	2350	189.00	2753	274.00	13060
50.00	49024	125.00	2075	191.00	1303	275.00	73880
51.00	189504	127.00	172736	192.00	3677	276.00	10097
52.00	9606	128.00	13398	193.00	3924	277.00	5801
53.00	380	129.00	68952	194.00	852	278.00	937
55.00	641	130.00	5708	195.00	213	283.00	683
56.00	5212	131.00	1162	196.00	10681	284.00	363
57.00	12872	132.00	774	198.00	319040	285.00	980
58.00	597	134.00	2028	199.00	21208	293.00	1331
61.00	2326	135.00	5642	200.00	1647	296.00	19728
62.00	2698	136.00	2275	201.00	1773	297.00	2776
63.00	6781	137.00	2609	203.00	2366	303.00	2464
64.00	1046	138.00	715	204.00	10630	304.00	574
65.00	3631	140.00	969	205.00	19512	314.00	904
68.00	888	141.00	8721	206.00	79824	315.00	2209
69.00	156160	142.00	2698	207.00	10932	316.00	1138
70.00	900	143.00	1961	208.00	3049	321.00	715
73.00	1515	145.00	363	209.00	797	322.00	167
74.00	15266	146.00	1578	210.00	844	323.00	6440
75.00	24672	147.00	4519	211.00	3224	324.00	1313
76.00	8506	148.00	9607	215.00	827	327.00	1174
77.00	169984	149.00	1988	216.00	1701	328.00	565
78.00	11795	150.00	396	217.00	20024	332.00	397
79.00	11177	151.00	1094	218.00	2713	333.00	714
80.00	8792	152.00	647	221.00	17472	334.00	4276
81.00	12077	153.00	2565	223.00	4593	335.00	1100
82.00	3170	154.00	2159	224.00	42376	341.00	531
83.00	3008	155.00	4724	225.00	10621	346.00	1286
84.00	636	156.00	7141	226.00	1169	352.00	1989
85.00	2044	157.00	1513	227.00	17440	353.00	1401

Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2601.d
Spectrum: Avg. Scans 745-747 (8.21), Background Scan 728
Location of Maximum: 198.00
Number of points: 228

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	3508	158.00	1749	228.00	2469	354.00	2183
87.00	1630	159.00	1243	229.00	3883	365.00	8577
88.00	419	160.00	2579	230.00	356	366.00	1114
91.00	2741	161.00	3950	231.00	1525	371.00	644
92.00	3230	162.00	1019	234.00	1203	372.00	3384
93.00	17792	165.00	2876	235.00	1368	373.00	853
94.00	1291	166.00	2290	236.00	770	383.00	796
96.00	998	167.00	15920	237.00	1366	402.00	1481
98.00	13554	168.00	7335	239.00	754	403.00	1754
99.00	10824	169.00	1371	240.00	398	404.00	734
100.00	976	170.00	409	241.00	1037	421.00	1467
101.00	6705	171.00	753	242.00	2373	422.00	1498
103.00	2265	172.00	1523	243.00	2625	423.00	12418
104.00	4074	173.00	1979	244.00	35000	424.00	2370
105.00	3826	174.00	3403	245.00	4542	439.00	178
106.00	1433	175.00	6519	246.00	6439	441.00	34928
107.00	49056	176.00	1866	247.00	1293	442.00	228416
108.00	7671	177.00	3004	249.00	1244	443.00	43808
109.00	1301	178.00	1078	253.00	913	444.00	4114
110.00	91472	179.00	12442	255.00	167552		
111.00	13914	180.00	8233	256.00	24184		
112.00	1881	181.00	3774	257.00	1884		
116.00	2779	182.00	632	258.00	9098		

Data File: /chem/MSD7.i/s022610.b/s7b2615.d

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

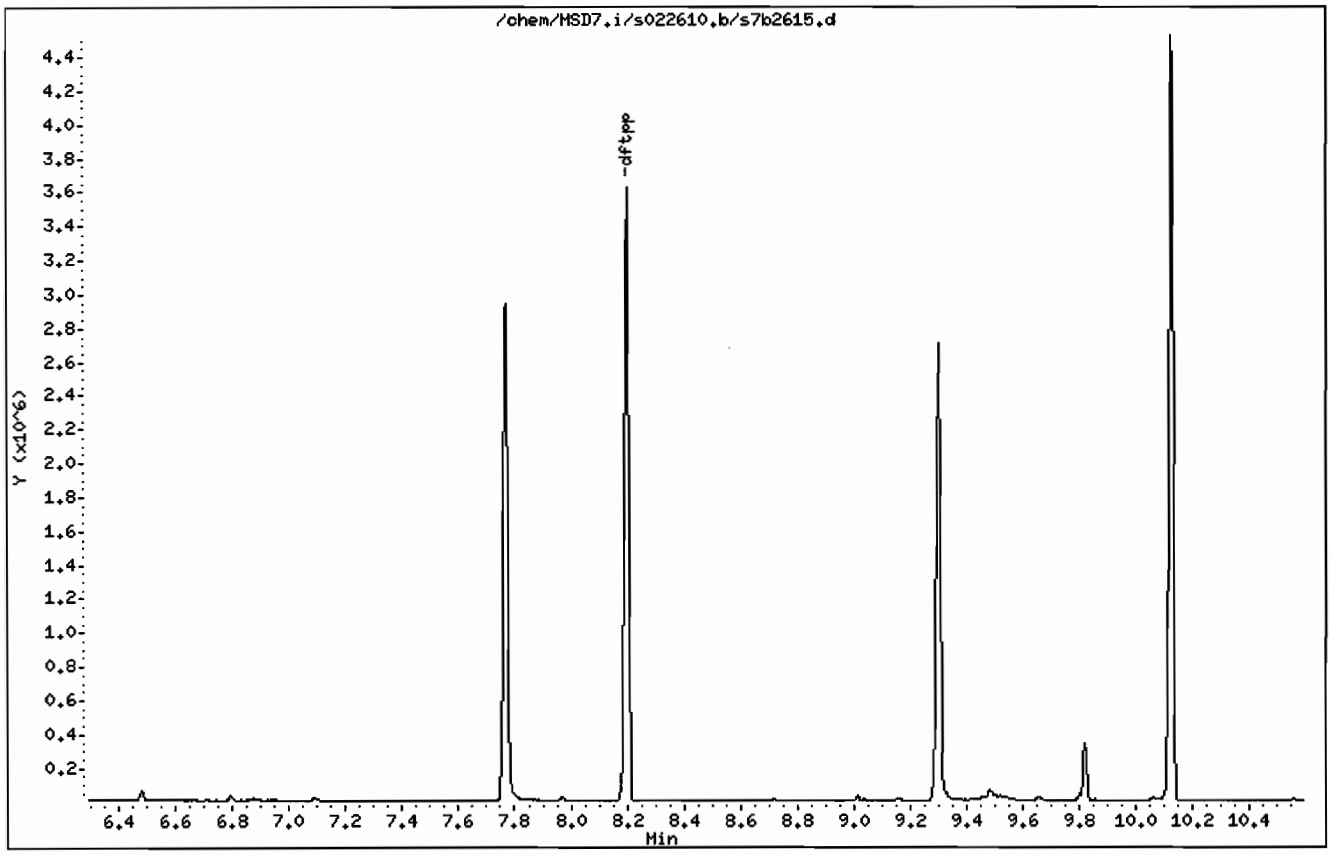

Data File: /chem/MSD7.i/s022610.b/s7b2615.d

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

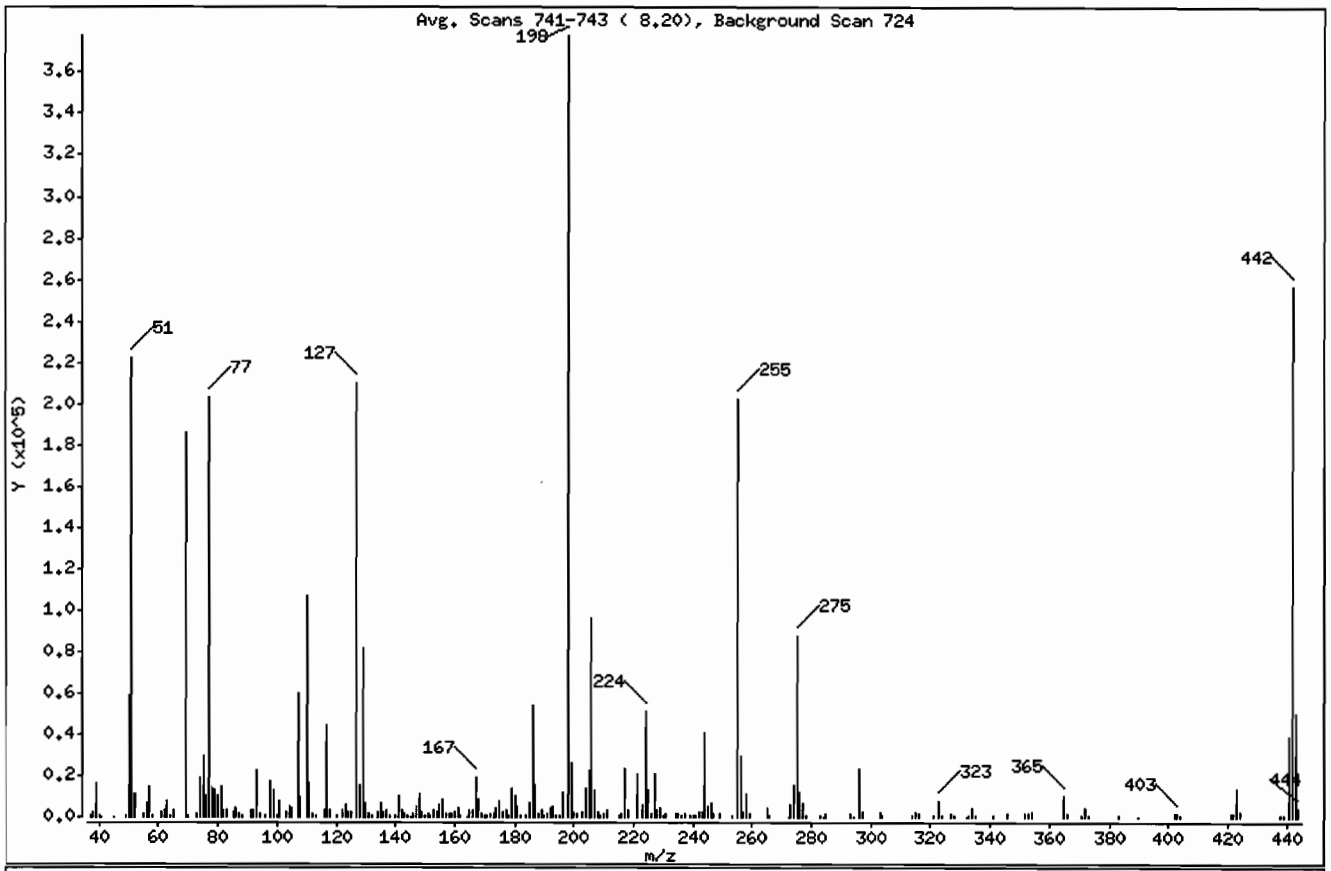

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	58.98
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	49.16
70	Less than 2.00% of mass 69	0.23 (0.48)
127	40.00 - 60.00% of mass 198	55.53
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.90
275	10.00 - 30.00% of mass 198	23.32
365	Greater than 1.00% of mass 198	2.65
441	Present, but less than mass 443	10.42
442	Greater than 40.00% of mass 198	68.13
443	17.00 - 23.00% of mass 442	13.23 (19.42)

Data File: /chem/MSD7.i/s022610.b/s7b2615.d

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2615.d
Spectrum: Avg. Scans 741-743 (8.20), Background Scan 724
Location of Maximum: 198.00
Number of points: 230

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1029	122.00	3738	185.00	6817	259.00	1573
38.00	2784	123.00	5796	186.00	54064	265.00	4325
39.00	16736	124.00	2600	187.00	15706	266.00	746
40.00	804	125.00	2612	188.00	1673	272.00	197
41.00	215	127.00	209728	189.00	3494	273.00	6106
45.00	168	128.00	15827	190.00	586	274.00	15839
49.00	1187	129.00	81240	191.00	1632	275.00	88080
50.00	59008	130.00	6686	192.00	4589	276.00	11832
51.00	222720	131.00	1427	193.00	4997	277.00	7181
52.00	11067	132.00	774	194.00	1040	278.00	1002
55.00	1479	134.00	2449	195.00	704	283.00	768
56.00	6807	135.00	6597	196.00	12441	284.00	411
57.00	14992	136.00	2742	198.00	377728	285.00	1383
58.00	682	137.00	3143	199.00	26056	293.00	1754
61.00	2681	138.00	765	200.00	2198	294.00	170
62.00	3163	140.00	1042	201.00	1902	296.00	23352
63.00	8062	141.00	10317	203.00	2941	297.00	3003
64.00	939	142.00	3584	204.00	13735	303.00	2912
65.00	3873	143.00	2145	205.00	22256	304.00	698
69.00	185664	144.00	648	206.00	96224	314.00	1230
70.00	883	145.00	345	207.00	12868	315.00	2658
73.00	1613	146.00	1896	208.00	3012	316.00	1427
74.00	18712	147.00	5046	209.00	1028	321.00	683
75.00	29592	148.00	11656	210.00	1417	323.00	8017
76.00	10277	149.00	2428	211.00	3685	324.00	1216
77.00	203520	150.00	602	215.00	982	327.00	1441
78.00	14043	151.00	1527	216.00	2051	328.00	748
79.00	13422	152.00	713	217.00	23848	332.00	363
80.00	10653	153.00	3096	218.00	3211	333.00	806
81.00	14622	154.00	2344	221.00	20792	334.00	4623
82.00	3466	155.00	5720	223.00	5862	335.00	1233
83.00	3303	156.00	8256	224.00	50920	341.00	795
85.00	2661	157.00	1579	225.00	13061	346.00	1522
86.00	3911	158.00	1721	226.00	1598	352.00	1965
87.00	1716	159.00	1403	227.00	20944	353.00	1542

Date : 26-FEB-2010 16:00

Client ID: DFTPP Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s7b2615.d
Spectrum: Avg. Scans 741-743 (8.20), Background Scan 724
Location of Maximum: 198.00
Number of points: 230

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	720	160.00	3002	228.00	3044	354.00	2372
91.00	3449	161.00	4728	229.00	4594	365.00	10014
92.00	3788	162.00	1233	230.00	617	366.00	1587
93.00	22184	164.00	176	231.00	1861	371.00	636
94.00	1680	165.00	3703	234.00	1383	372.00	3986
96.00	1049	166.00	3066	235.00	1556	373.00	896
98.00	17120	167.00	18856	236.00	1121	383.00	902
99.00	13353	168.00	9050	237.00	1622	390.00	167
100.00	1116	169.00	1603	239.00	883	402.00	1434
101.00	7543	170.00	665	240.00	677	403.00	2148
103.00	2685	171.00	809	241.00	1127	404.00	602
104.00	5030	172.00	1695	242.00	2573	421.00	1921
105.00	4545	173.00	2042	243.00	2934	422.00	1955
107.00	59544	174.00	4069	244.00	40392	423.00	14077
108.00	9676	175.00	7514	245.00	5448	424.00	2851
110.00	106720	176.00	2522	246.00	7235	438.00	613
111.00	16672	177.00	3771	247.00	1622	439.00	1021
112.00	2022	178.00	1302	249.00	1526	441.00	39344
113.00	647	179.00	14261	253.00	985	442.00	257344
116.00	3383	180.00	9998	255.00	202432	443.00	49984
117.00	44664	181.00	4790	256.00	29912	444.00	4586
118.00	3115	182.00	817	257.00	2724		
120.00	706	184.00	1225	258.00	11156		

Data File: /chem/MSD7.i/s032410a.b/s7c2411.d

Date : 24-MAR-2010 15:06

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

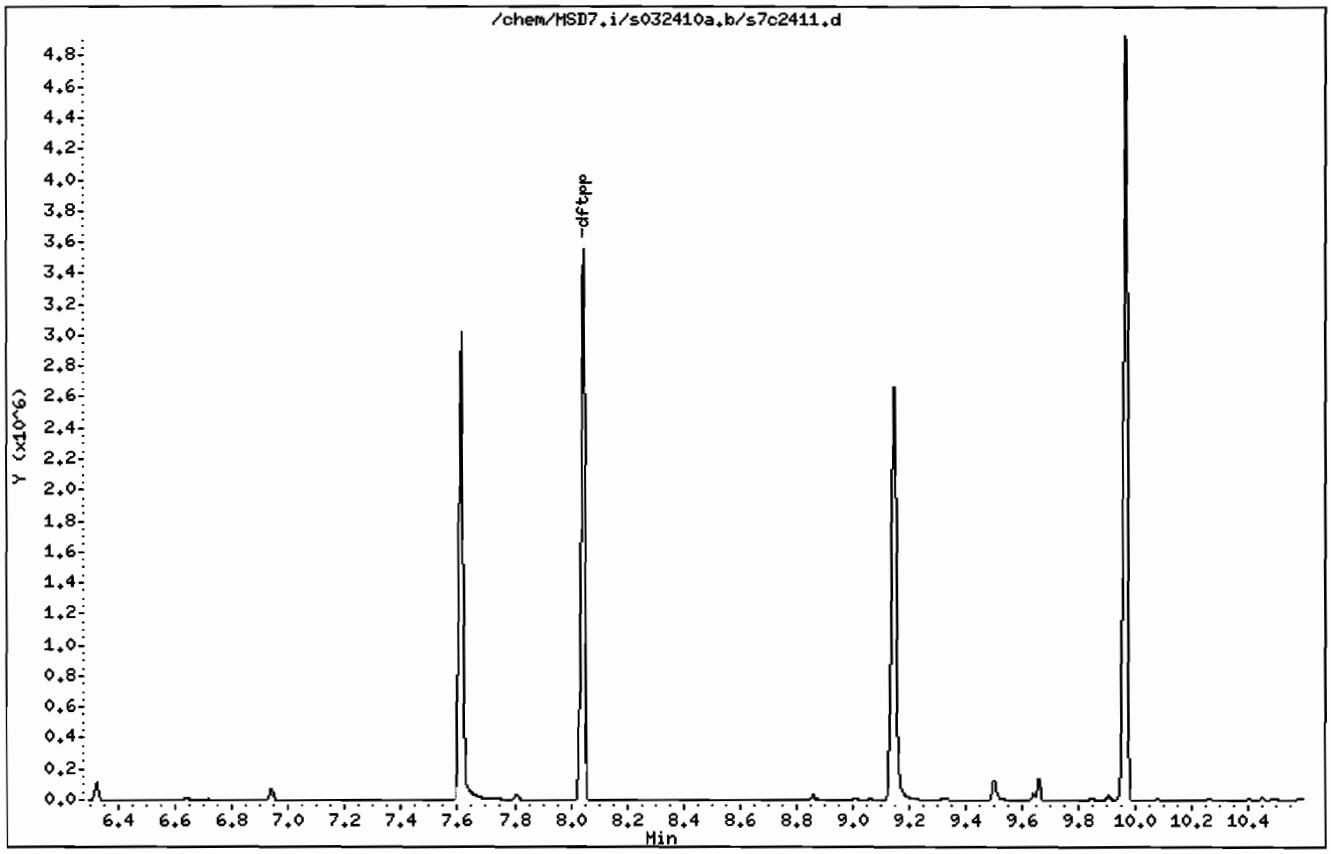

Data File: /chem/MSD7.i/s032410a.b/s7c2411.d

Date : 24-MAR-2010 15:06

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01,2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

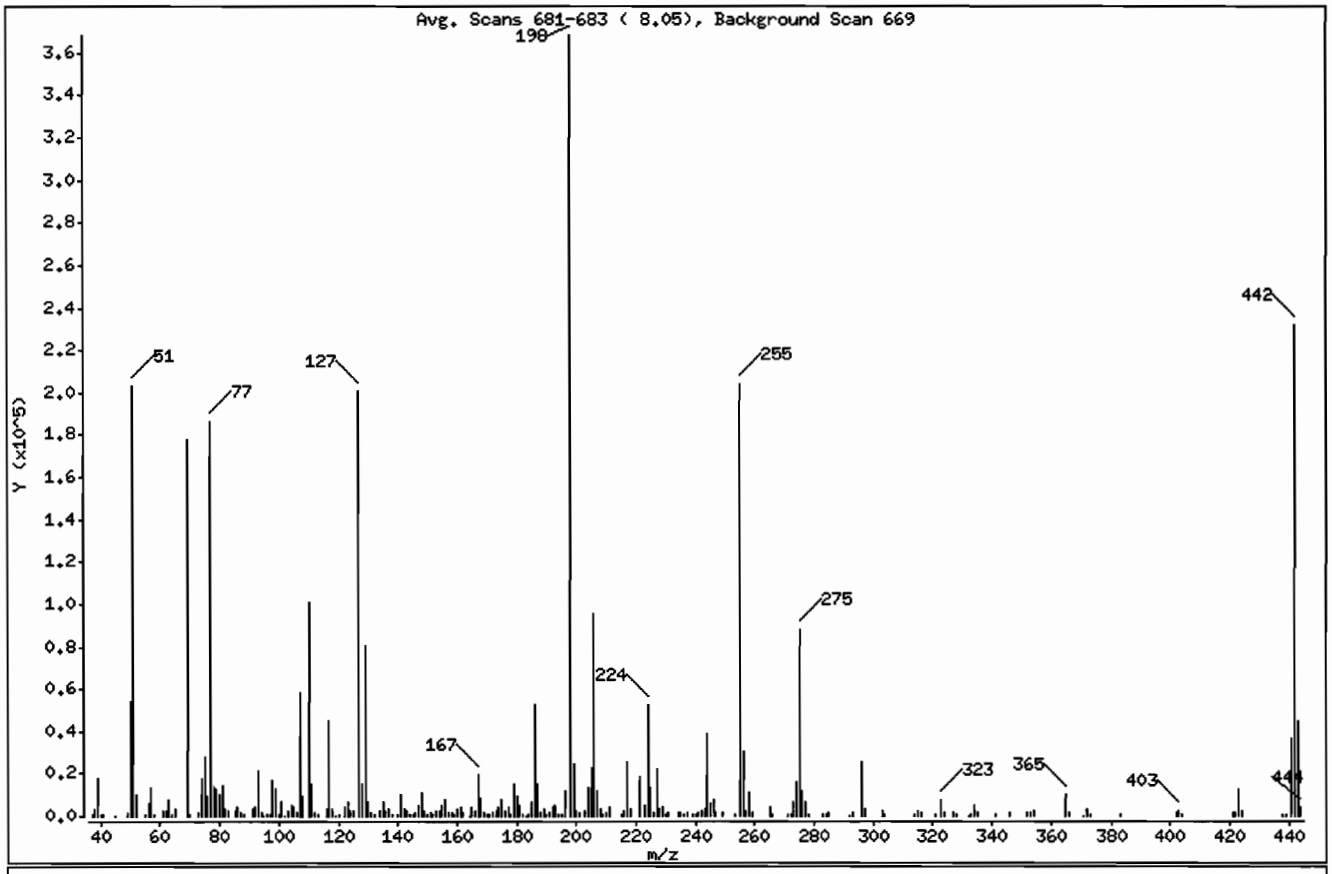

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	55.18
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	48.18
70	Less than 2.00% of mass 69	0.25 (0.52)
127	40.00 - 60.00% of mass 198	54.46
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.60
275	10.00 - 30.00% of mass 198	23.80
365	Greater than 1.00% of mass 198	2.78
441	Present, but less than mass 443	9.78
442	Greater than 40.00% of mass 198	62.96
443	17.00 - 23.00% of mass 442	12.12 (19.26)

Data File: /chem/MSD7.i/s032410a.b/s7c2411.d

Date : 24-MAR-2010 15:06

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7c2411.d
Spectrum: Avg. Scans 681-683 (8.05), Background Scan 669
Location of Maximum: 198.00
Number of points: 236

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	947	118.00	3324	183.00	357	259.00	1759
38.00	3053	119.00	403	184.00	1240	265.00	4571
39.00	17656	120.00	860	185.00	6913	266.00	893
40.00	754	122.00	4197	186.00	52504	271.00	549
41.00	644	123.00	6411	187.00	15534	272.00	778
45.00	378	124.00	2526	188.00	1453	273.00	6495
49.00	1690	125.00	2650	189.00	3485	274.00	16237
50.00	54248	127.00	200576	190.00	594	275.00	87656
51.00	203200	128.00	15482	191.00	1581	276.00	11713
52.00	10119	129.00	80704	192.00	4491	277.00	6914
55.00	1063	130.00	6422	193.00	5479	278.00	1196
56.00	6203	131.00	1367	194.00	989	283.00	821
57.00	13822	132.00	653	195.00	745	284.00	575
58.00	448	134.00	2473	196.00	12003	285.00	1374
61.00	2305	135.00	6462	198.00	368256	292.00	170
62.00	2848	136.00	2662	199.00	24288	293.00	1774
63.00	7268	137.00	3043	200.00	2134	296.00	25272
64.00	900	138.00	702	201.00	1636	297.00	3082
65.00	3239	140.00	1021	203.00	2380	303.00	2791
69.00	177408	141.00	9753	204.00	13968	304.00	730
70.00	931	142.00	3136	205.00	23128	314.00	1132
73.00	1668	143.00	2213	206.00	95368	315.00	2713
74.00	17552	144.00	580	207.00	12122	316.00	1311
75.00	28072	145.00	549	208.00	3146	321.00	854
76.00	9371	146.00	1870	209.00	933	323.00	7461
77.00	186304	147.00	4755	210.00	1545	324.00	1347
78.00	13124	148.00	11163	211.00	3941	327.00	1441
79.00	12740	149.00	2220	215.00	1067	328.00	735
80.00	9920	150.00	628	216.00	2366	332.00	345
81.00	14320	151.00	1548	217.00	25040	333.00	853
82.00	3692	152.00	653	218.00	3073	334.00	4851
83.00	2730	153.00	2897	221.00	18384	335.00	1335
85.00	2319	154.00	2245	223.00	5460	341.00	685
86.00	4189	155.00	5469	224.00	52376	346.00	1640
87.00	1643	156.00	7586	225.00	13365	352.00	1940

Data File: /chem/MSD7.i/s032410a.b/s7c2411.d

Date : 24-MAR-2010 15:06

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7c2411.d
Spectrum: Avg. Scans 681-683 (8.05), Background Scan 669
Location of Maximum: 198.00
Number of points: 236

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	649	157.00	1670	226.00	1334	353.00	1516
91.00	3105	158.00	1729	227.00	21688	354.00	2157
92.00	3836	159.00	1188	228.00	3112	365.00	10230
93.00	21520	160.00	3148	229.00	4414	366.00	1395
94.00	1466	161.00	4191	230.00	635	371.00	390
95.00	174	162.00	1316	231.00	1829	372.00	3693
96.00	981	164.00	355	234.00	1451	373.00	983
97.00	539	165.00	3880	235.00	1531	383.00	885
98.00	16960	166.00	2848	236.00	956	402.00	1478
99.00	12308	167.00	19072	237.00	1638	403.00	2129
100.00	1051	168.00	8187	239.00	969	404.00	570
101.00	7177	169.00	1492	240.00	778	421.00	2000
102.00	170	170.00	609	241.00	1305	422.00	1656
103.00	2311	171.00	754	242.00	2649	423.00	12749
104.00	4708	172.00	1739	243.00	3218	424.00	2500
105.00	4499	173.00	2226	244.00	39168	438.00	647
106.00	1676	174.00	4185	245.00	5580	439.00	1021
107.00	58000	175.00	8000	246.00	7431	441.00	36024
108.00	8991	176.00	2379	247.00	1631	442.00	231872
110.00	100800	177.00	3840	249.00	1635	443.00	44648
111.00	15441	178.00	1252	253.00	1133	444.00	4033
112.00	1965	179.00	14959	255.00	203648		
113.00	778	180.00	9685	256.00	30776		
116.00	3495	181.00	5064	257.00	2332		
117.00	45280	182.00	805	258.00	11381		

Data File: /chem/MSD7.i/s032510.b/s7c2501.d

Date : 25-MAR-2010 11:45

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

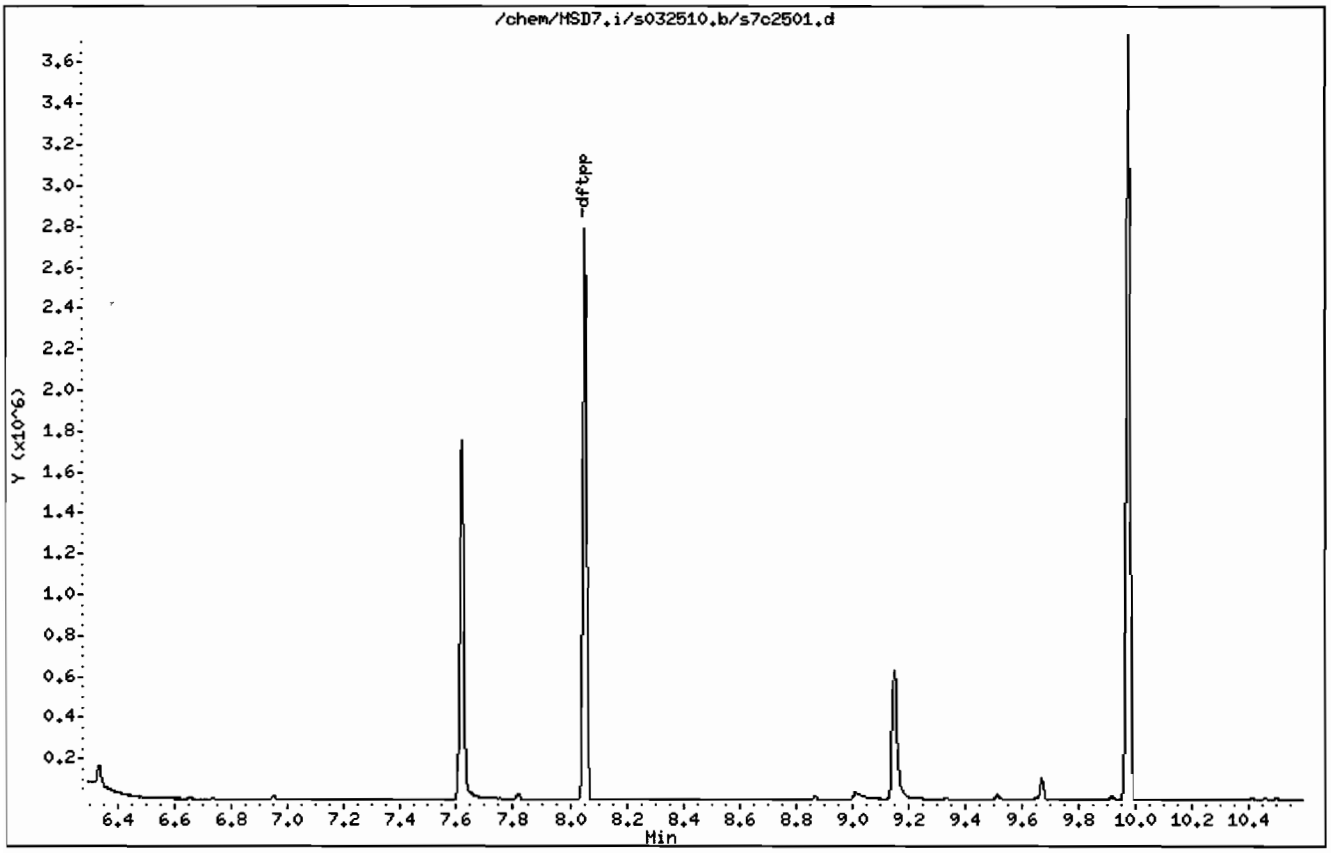

Data File: /chem/MSD7.i/s032510.b/s7c2501.d

Date : 25-MAR-2010 11:45

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

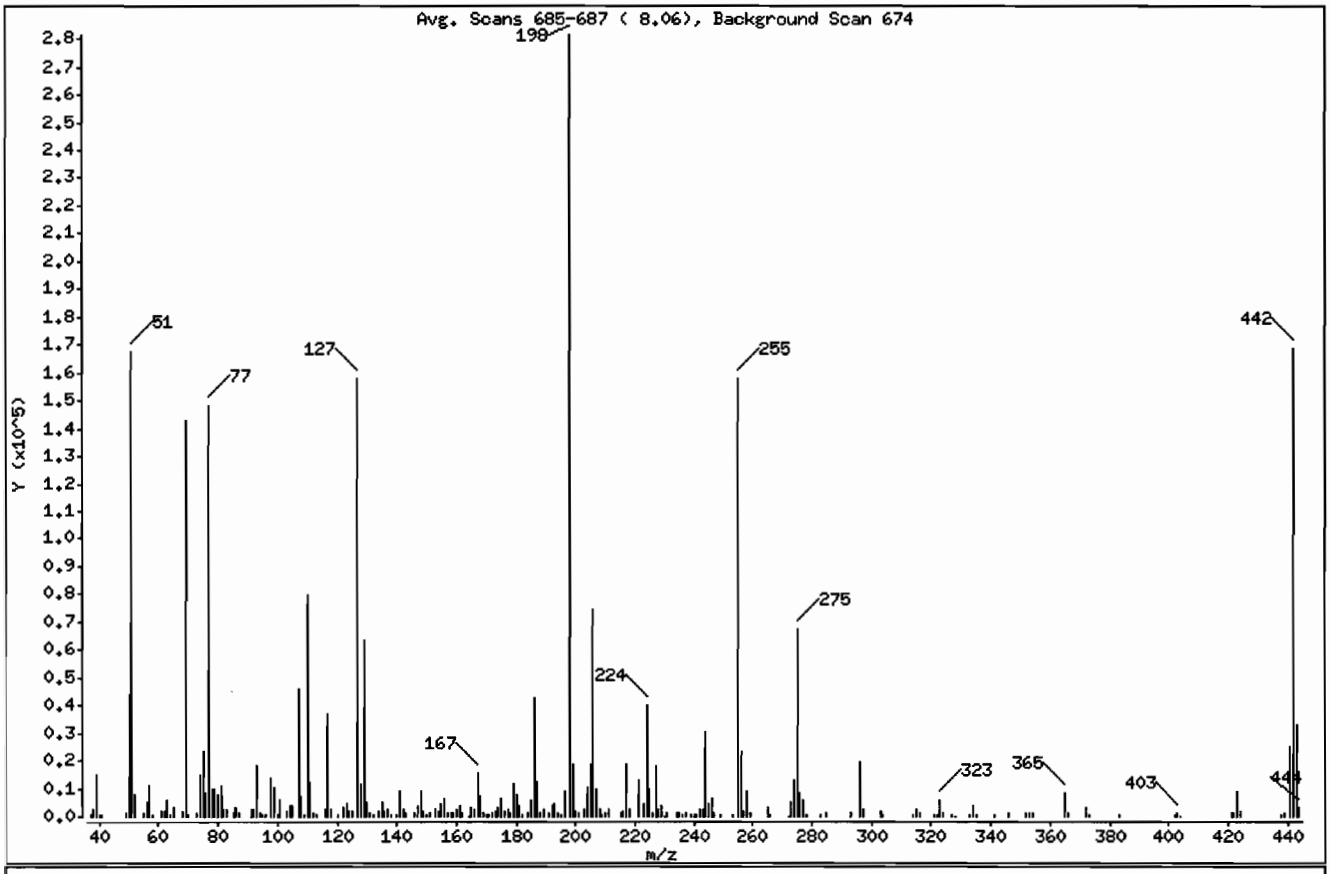

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	59.53
68	Less than 2.00% of mass 69	0.70 (1.37)
69	Mass 69 relative abundance	50.79
70	Less than 2.00% of mass 69	0.26 (0.51)
127	40.00 - 60.00% of mass 198	56.00
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.66
275	10.00 - 30.00% of mass 198	23.99
365	Greater than 1.00% of mass 198	2.92
441	Present, but less than mass 443	8.92
442	Greater than 40.00% of mass 198	60.07
443	17.00 - 23.00% of mass 442	11.62 (19.34)

Data File: /chem/MSD7.i/s032510.b/s7c2501.d

Date : 25-MAR-2010 11:45

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7c2501.d
Spectrum: Avg. Scans 685-687 (8.06), Background Scan 674
Location of Maximum: 198.00
Number of points: 223

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	708	117.00	36728	182.00	561	256.00	23552
38.00	2428	118.00	2655	184.00	1028	257.00	1804
39.00	14936	120.00	639	185.00	6115	258.00	9291
40.00	662	122.00	3071	186.00	42800	259.00	1500
41.00	420	123.00	4701	187.00	12307	265.00	3326
49.00	1468	124.00	2076	188.00	1240	266.00	424
50.00	44160	125.00	1946	189.00	2640	272.00	175
51.00	167488	127.00	157568	191.00	1196	273.00	4998
52.00	7848	128.00	11822	192.00	3632	274.00	12748
55.00	1058	129.00	63488	193.00	4294	275.00	67504
56.00	4958	130.00	5042	194.00	1018	276.00	8449
57.00	11285	131.00	1289	195.00	409	277.00	5791
58.00	529	132.00	408	196.00	8964	278.00	939
61.00	1944	134.00	1932	198.00	281408	283.00	703
62.00	2151	135.00	5101	199.00	18752	285.00	1115
63.00	5915	136.00	2186	200.00	1660	293.00	1237
64.00	684	137.00	2493	201.00	1296	296.00	19120
65.00	2979	138.00	389	203.00	2417	297.00	2457
68.00	1960	140.00	805	204.00	10644	303.00	2158
69.00	142912	141.00	8992	205.00	18856	304.00	675
70.00	727	142.00	2400	206.00	74104	314.00	944
73.00	1294	143.00	1565	207.00	9470	315.00	2378
74.00	14759	146.00	1204	208.00	2628	316.00	1014
75.00	23408	147.00	3862	209.00	729	321.00	801
76.00	8107	148.00	9000	210.00	1191	322.00	358
77.00	147904	149.00	1812	211.00	2893	323.00	5838
78.00	10007	150.00	372	215.00	1024	324.00	1038
79.00	9873	151.00	1156	216.00	1914	327.00	799
80.00	7872	153.00	2656	217.00	19080	328.00	184
81.00	11023	154.00	1859	218.00	2529	333.00	643
82.00	2789	155.00	4520	221.00	13250	334.00	3892
83.00	2791	156.00	6756	223.00	4469	335.00	793
85.00	1615	157.00	1345	224.00	39976	341.00	570
86.00	3409	158.00	1405	225.00	9988	346.00	1144
87.00	1468	159.00	1072	226.00	1266	352.00	1521

Data File: /chem/MSD7.i/s032510.b/s7c2501.d

Date : 25-MAR-2010 11:45

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100306-01.2|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7c2501.d
Spectrum: Avg. Scans 685-687 (8.06), Background Scan 674
Location of Maximum: 198.00
Number of points: 223

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	2559	160.00	2506	227.00	17808	353.00	1226
92.00	2707	161.00	3932	228.00	2575	354.00	1498
93.00	17848	162.00	996	229.00	3619	365.00	8204
94.00	1107	164.00	173	230.00	183	366.00	1251
95.00	344	165.00	2987	231.00	1543	372.00	3134
96.00	771	166.00	2444	234.00	1365	373.00	902
98.00	13756	167.00	15361	235.00	1162	383.00	647
99.00	10397	168.00	6846	236.00	789	402.00	821
100.00	782	169.00	1554	237.00	1261	403.00	1459
101.00	5995	170.00	627	239.00	765	404.00	177
103.00	2193	171.00	731	240.00	366	421.00	1505
104.00	4006	172.00	1465	241.00	956	422.00	1061
105.00	3599	173.00	1878	242.00	2404	423.00	8778
107.00	46120	174.00	3310	243.00	2661	424.00	1761
108.00	7211	175.00	6201	244.00	30632	438.00	427
109.00	663	176.00	1677	245.00	4363	439.00	1223
110.00	79336	177.00	2770	246.00	6444	441.00	25096
111.00	11996	178.00	1162	247.00	1372	442.00	169024
112.00	1511	179.00	11638	249.00	953	443.00	32688
113.00	364	180.00	7782	253.00	896	444.00	2958
116.00	2641	181.00	3723	255.00	157760		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202073901**				
Client Sample:	**QC for batch 966349**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966349**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 16:06**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2414-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	333	ug/kg	66.7	333
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202073901**				
Client Sample:	**QC for batch 966349**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966349**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 16:06**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2414-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.86	548	ug/kg		J

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Data file : /chem/MSD7.i/s032410a.b/s7c2414-1.d
Lab Smp Id: 1202073901 Client Smp ID: SBLK01
Inj Date : 24-MAR-2010 16:06
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202073901|966400|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100319-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Meth Date : 25-Mar-2010 08:37 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2320.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.821	3.826	(1.000)	251151	40.0000	
* 29 Naphthalene-d8	136	4.683	4.688	(1.000)	951035	40.0000	
* 46 Acenaphthene-d10	164	5.935	5.940	(1.000)	543905	40.0000	
* 67 Phenanthrene-d10	188	7.096	7.101	(1.000)	967143	40.0000	
* 91 Chrysene-d12	240	9.489	9.499	(1.000)	678661	40.0000	
* 98 Perylene-d12	264	11.078	11.083	(1.000)	436576	40.0000	
$ 3 2-Fluorophenol	112	3.022	3.017	(0.791)	433812	66.4541	2220
$ 5 Phenol-d5	99	3.542	3.547	(0.927)	515788	63.0186	2100
$ 20 Nitrobenzene-d5	82	4.183	4.187	(0.893)	250246	34.8872	1160
$ 39 2-Fluorobiphenyl	172	5.425	5.430	(0.914)	520124	38.3713	1280
$ 60 2,4,6-Tribromophenol	329	6.528	6.532	(1.100)	119926	76.2714	2540
$ 81 p-Terphenyl-d14	244	8.468	8.473	(0.892)	569304	46.8241	1560

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s032410a.b/s7c2414-1.d
Lab Smp Id: 1202073901 Client Smp ID: SBLK01
Inj Date : 24-MAR-2010 16:06
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202073901|966400|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100319-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Meth Date : 25-Mar-2010 08:37 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2320.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.821	1664289	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.858	684196	16.4441490	548	0		0	10

Data File: /chem/MSD7.i/s032410a.b/s7c2414-1.d

Page 1

Date : 24-MAR-2010 16:06

Client ID: SBLK01

Instrument: MSD7.i

Sample Info: |1202073901|966400|1|SVM|1|MB

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

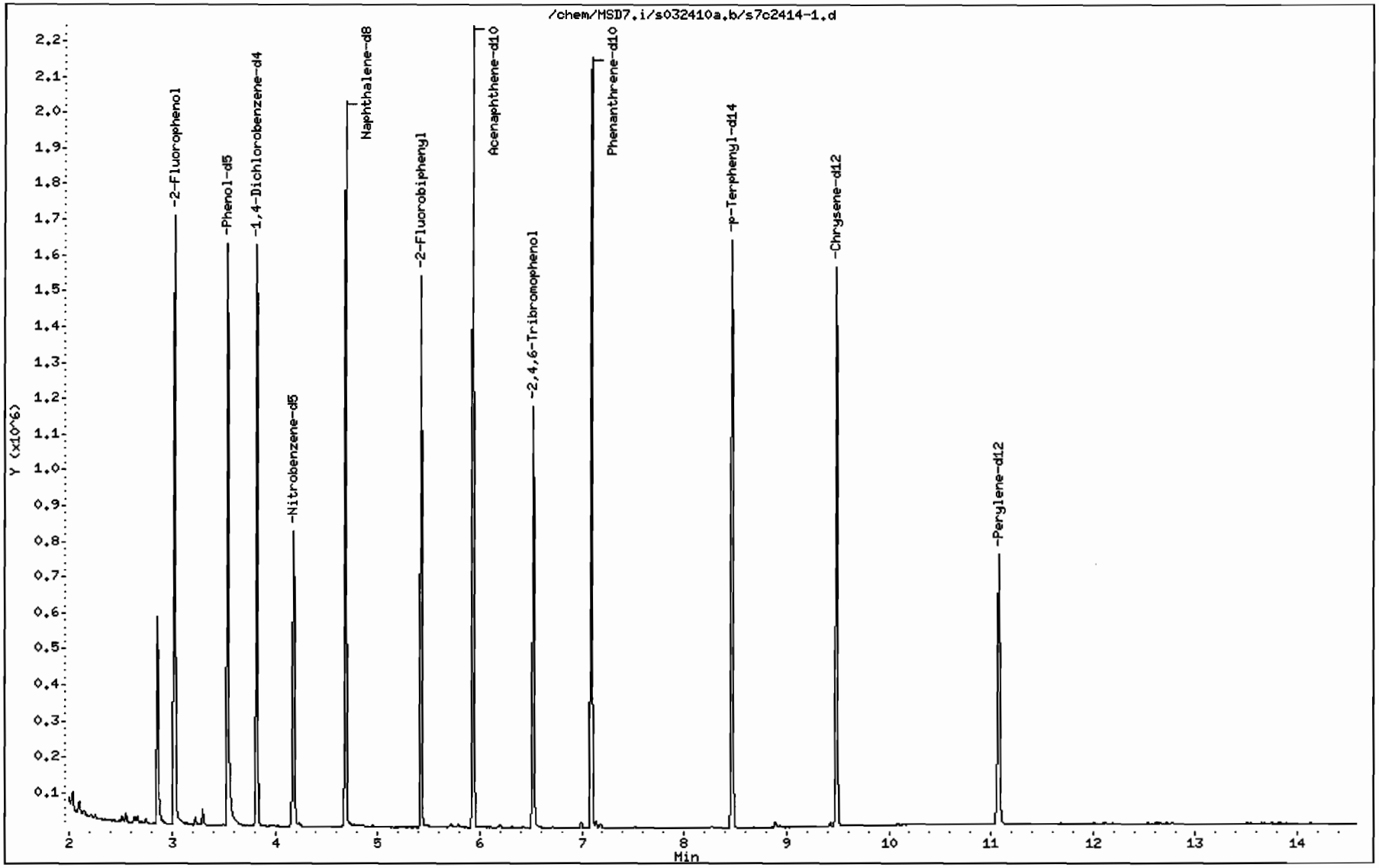

Data File: /chem/MSD7.i/s032410a.b/s7c2414-1.d

Date : 24-MAR-2010 16:06

Client ID: SBLK01

Instrument: MSD7.i

Sample Info: 1120207390119664001 1SVH1 1MB

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116

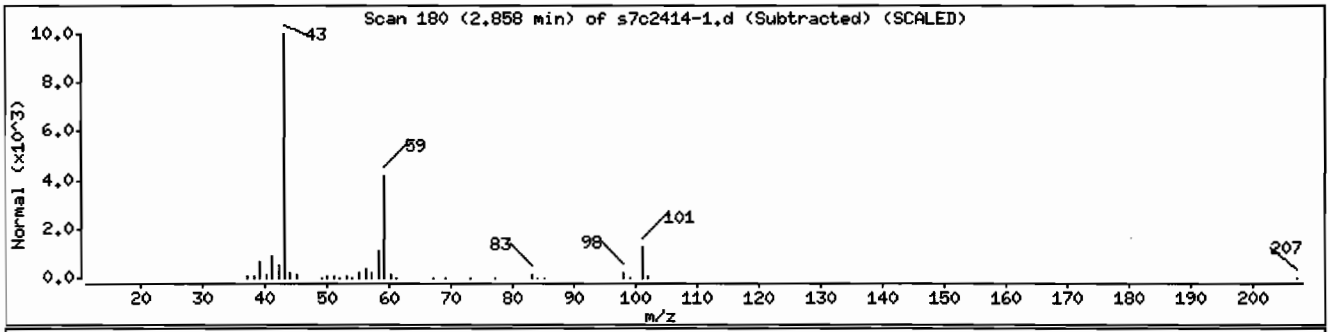

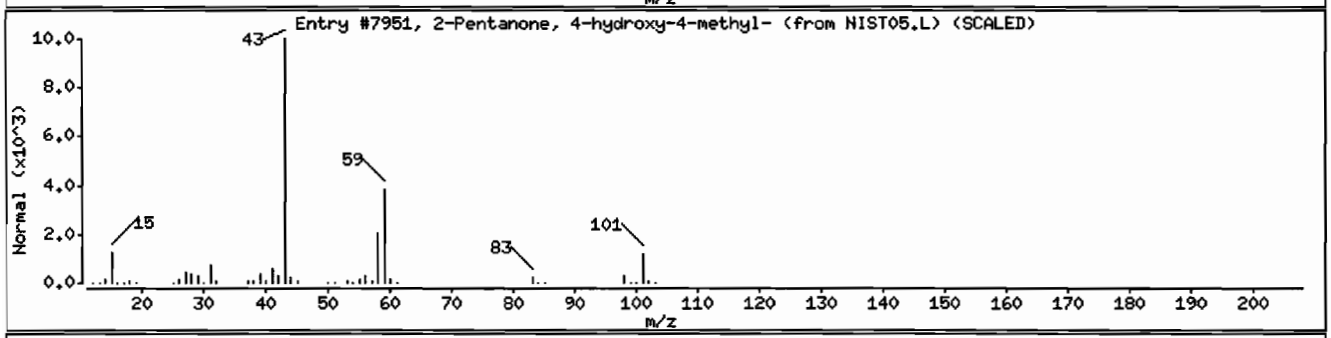

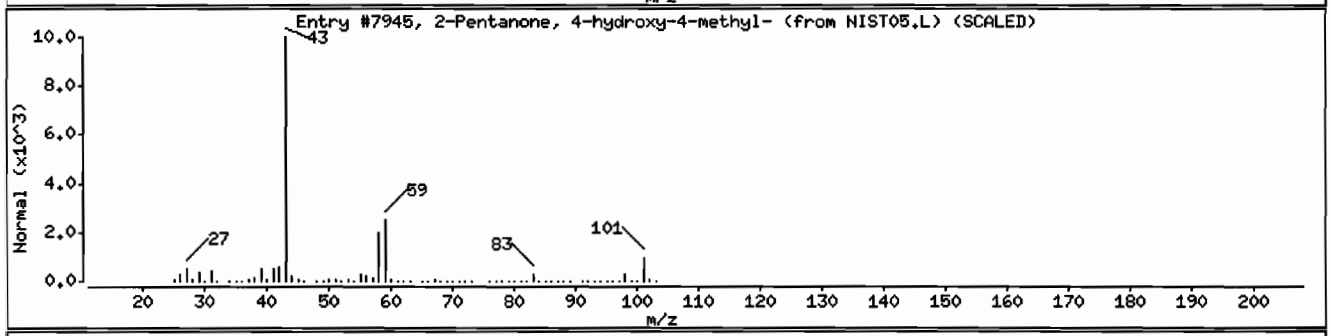

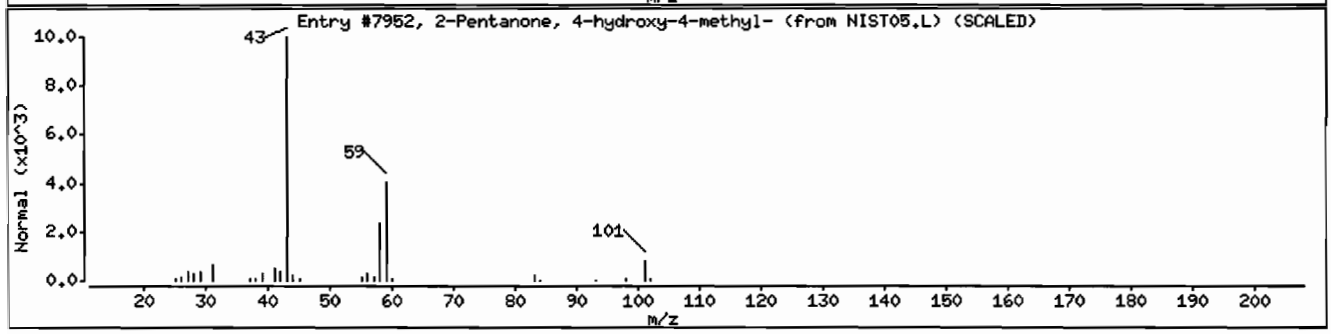

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202073902**				
Client Sample:	**QC for batch 966349**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966349**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 16:28**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2415-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		910	ug/kg	66.7	333
108-95-2	Phenol		1130	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1300	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1220	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1240	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1230	ug/kg	66.7	333
83-32-9	Acenaphthene		1330	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1360	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1160	ug/kg	110	333
87-86-5	Pentachlorophenol		1540	ug/kg	83.3	333
129-00-0	Pyrene		1310	ug/kg	10.0	33.3
110-86-1	Pyridine		962	ug/kg	66.7	333
62-53-3	Aniline		978	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1020	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1130	ug/kg	66.7	333
100-51-6	Benzyl alcohol		358	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1250	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1130	ug/kg	66.7	333
95-48-7	o-Cresol		1230	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1460	ug/kg	100	333
67-72-1	Hexachloroethane		1180	ug/kg	66.7	333
98-95-3	Nitrobenzene		1260	ug/kg	66.7	333
78-59-1	Isophorone		1140	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1280	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		932	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1120	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1250	ug/kg	66.7	333
65-85-0	Benzoic acid		2970	ug/kg	167	667
91-20-3	Naphthalene		1210	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1030	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1360	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1240	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1040	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1380	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1540	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1190	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1200	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1190	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2320**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202073902**				
Client Sample:	**QC for batch 966349**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966349**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966400**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 16:28**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 21:03**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c2415-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1440	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1340	ug/kg	33.3	333
208-96-8	Acenaphthylene		1300	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1540	ug/kg	127	667
132-64-9	Dibenzofuran		1330	ug/kg	66.7	333
84-66-2	Diethylphthalate		1560	ug/kg	66.7	333
86-73-7	Fluorene		1370	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1400	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1400	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1460	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1300	ug/kg	66.7	333
122-66-7	Azobenzene		1350	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1360	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1300	ug/kg	66.7	333
85-01-8	Phenanthrene		1330	ug/kg	10.0	33.3
120-12-7	Anthracene		1320	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1500	ug/kg	66.7	333
206-44-0	Fluoranthene		1360	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1430	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1270	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1320	ug/kg	100	333
218-01-9	Chrysene		1380	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1430	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1370	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1290	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1430	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1400	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1760	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1840	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1690	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1220	ug/kg	66.7	333

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032410a.b/s7c2415-1.d
Lab Smp Id: 1202073902 Client Smp ID: SBLK01LCS
Inj Date : 24-MAR-2010 16:28
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202073902|966400|1|SVM|1|LCS
Misc Info : |MSD8270_S|WBN100319-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032410a.b/MSD7-M8270C-AQA-022610.m
Meth Date : 25-Mar-2010 08:37 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2320.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.821	3.826	(1.000)	244234	40.0000	
* 29 Naphthalene-d8	136	4.688	4.688	(1.000)	1020555	40.0000	
* 46 Acenaphthene-d10	164	5.935	5.940	(1.000)	541034	40.0000	
* 67 Phenanthrene-d10	188	7.096	7.101	(1.000)	1031468	40.0000	
* 91 Chrysene-d12	240	9.494	9.499	(1.000)	756594	40.0000	
* 98 Perylene-d12	264	11.083	11.083	(1.000)	518669	40.0000	
$ 3 2-Fluorophenol	112	3.022	3.017	(0.791)	453853	71.4931	2380
$ 5 Phenol-d5	99	3.547	3.547	(0.928)	546598	68.6743	2290
$ 20 Nitrobenzene-d5	82	4.187	4.187	(0.893)	282328	36.6786	1220
$ 39 2-Fluorobiphenyl	172	5.430	5.430	(0.915)	508790	37.7344	1260
$ 60 2,4,6-Tribromophenol	329	6.532	6.532	(1.101)	136961	87.5677	2920
$ 81 p-Terphenyl-d14	244	8.468	8.473	(0.892)	621044	45.8181	1530

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.557	3.557	(0.931)	268982	34.0201	1130
8 2-Chlorophenol	128	3.691	3.691	(0.966)	235972	38.9995	1300
11 1,4-Dichlorobenzene	146	3.836	3.836	(1.004)	267685	36.7046	1220
17 N-Nitrosodipropylamine	70	4.062	4.072	(1.063)	167552	37.2519	1240(Q)
28 1,2,4-Trichlorobenzene	180	4.635	4.640	(0.989)	239891	36.5249	1220
33 4-Chloro-3-methylphenol	107	5.045	5.040	(1.076)	214992	36.9626	1230
47 Acenaphthene	154	5.964	5.964	(1.005)	475624	39.9405	1330
50 2,4-Dinitrotoluene	165	6.056	6.061	(1.020)	178355	40.7456	1360
52 4-Nitrophenol	139	6.003	5.993	(1.011)	76434	34.7179	1160
65 Pentachlorophenol	266	6.927	6.927	(0.976)	90280	46.2944	1540
79 Pyrene	202	8.362	8.367	(0.881)	942627	39.4370	1310
2 Pyridine	79	2.387	2.367	(0.624)	170015	28.8649	962
4 Aniline	66	3.605	3.610	(0.943)	111395	29.3398	978(Q)
7 bis(2-Chloroethyl) ether	63	3.624	3.629	(0.948)	198665	30.6875	1020
9 1,3-Dichlorobenzene	146	3.788	3.793	(0.991)	257962	33.9404	1130
12 Benzyl alcohol	108	3.894	3.894	(1.019)	44246	10.7395	358(R)
13 1,2-Dichlorobenzene	146	3.937	3.937	(1.030)	252256	37.6018	1250
14 bis(2-Chloroisopropyl)ether	45	3.966	3.971	(1.038)	507126	33.8150	1130
15 o-Cresol	107	3.947	3.947	(1.033)	178639	36.8800	1230(Q)
18 m,p-Cresols	107	4.048	4.053	(1.059)	286148	43.7212	1460
19 Hexachloroethane	117	4.163	4.163	(1.089)	99950	35.2958	1180
21 Nitrobenzene	77	4.197	4.202	(0.895)	269255	37.7084	1260
22 Isophorone	82	4.351	4.356	(0.928)	470257	34.0864	1140
23 2-Nitrophenol	139	4.414	4.414	(0.941)	128540	38.3338	1280
24 2,4-Dimethylphenol	122	4.409	4.409	(0.940)	180671	27.9573	932
25 bis(2-Chloroethoxy)methane	93	4.472	4.476	(0.954)	254282	33.6881	1120
26 2,4-Dichlorophenol	162	4.577	4.577	(0.976)	203584	37.5920	1250
27 Benzoic acid	105	4.486	4.476	(0.957)	274371	89.0021	2970
30 Naphthalene	128	4.703	4.707	(1.003)	701708	36.3986	1210
31 4-Chloroaniline	127	4.722	4.722	(1.007)	277864	30.7797	1020
32 Hexachlorobutadiene	225	4.765	4.770	(1.016)	139350	40.6555	1360
34 2-Methylnaphthalene	142	5.184	5.184	(1.106)	512844	37.0658	1240
36 Hexachlorocyclopentadiene	237	5.285	5.285	(0.890)	81793	31.2714	1040
37 2,4,6-Trichlorophenol	196	5.377	5.377	(0.906)	157422	41.4719	1380
38 2,4,5-Trichlorophenol	196	5.406	5.401	(0.911)	176924	46.3442	1540
40 2-Chloronaphthalene	162	5.536	5.536	(0.933)	448868	35.8442	1190
42 o-Nitroaniline	65	5.593	5.598	(0.942)	159039	35.8724	1200
41 m-Nitroaniline	138	5.892	5.892	(0.993)	115663	35.7467	1190
43 Dimethylphthalate	163	5.704	5.709	(0.961)	621929	43.2585	1440
44 2,6-Dinitrotoluene	165	5.762	5.767	(0.971)	133792	40.2940	1340
45 Acenaphthylene	152	5.839	5.844	(0.984)	783311	39.1302	1300
48 2,4-Dinitrophenol	184	5.964	5.969	(1.005)	45393	46.0837	1540(Q)
49 Dibenzofuran	168	6.085	6.089	(1.025)	668437	39.9389	1330
51 Diethylphthalate	149	6.210	6.215	(1.046)	690244	46.9037	1560
53 Fluorene	166	6.345	6.349	(1.069)	579154	41.2415	1370
54 4-Chlorophenylphenylether	204	6.321	6.325	(1.065)	293151	42.0057	1400
55 2-Methyl-4,6-dinitrophenol	198	6.369	6.369	(0.898)	75660	41.9046	1400

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56	p-Nitroaniline	138	6.350	6.349	(1.070)	127263	43.6856	1460
133	Diphenylamine	169	6.412	6.412	(0.904)	474759	39.0606	1300
58	1,2-Diphenylhydrazine	77	6.446	6.451	(0.908)	619075	40.4854	1350
61	4-Bromophenylphenylether	248	6.706	6.711	(0.945)	172700	40.7134	1360
63	Hexachlorobenzene	284	6.778	6.778	(0.955)	160198	38.8722	1300
68	Phenanthrene	178	7.120	7.120	(1.003)	846692	40.0020	1330
69	Anthracene	178	7.158	7.163	(1.009)	846227	39.4756	1320
72	Di-n-butylphthalate	149	7.524	7.524	(1.060)	1211442	44.9216	1500
76	Fluoranthene	202	8.150	8.155	(1.149)	939118	40.8062	1360
85	Butylbenzylphthalate	149	8.902	8.902	(0.938)	489139	43.0344	1430
89	Benzo(a)anthracene	228	9.479	9.484	(0.998)	691099	38.1028	1270
90	3,3'-Dichlorobenzidine	252	9.431	9.431	(0.993)	208846	39.5609	1320
92	Chrysene	228	9.518	9.523	(1.003)	670389	41.5362	1380
93	bis(2-Ethylhexyl)phthalate	149	9.426	9.426	(0.993)	616724	42.8401	1430
94	Di-n-octylphthalate	149	10.052	10.057	(0.907)	856170	41.1080	1370
95	Benzo(b)fluoranthene	252	10.597	10.601	(0.956)	564765	38.8271	1290
96	Benzo(k)fluoranthene	252	10.630	10.630	(0.959)	587245	42.9588	1430
97	Benzo(a)pyrene	252	11.006	11.011	(0.993)	499902	41.9139	1400
99	Indeno(1,2,3-cd)pyrene	276	12.739	12.735	(1.149)	452769	52.7916	1760
100	Dibenzo(a,h)anthracene	278	12.749	12.744	(1.150)	375717	55.2795	1840
101	Benzo(ghi)perylene	276	13.235	13.235	(1.194)	363654	50.8426	1690
1	N-Methyl-N-nitrosomethylamine	74	2.348	2.338	(0.614)	116698	27.3031	910

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD7.i/s032410a.b/s7c2415-1.d
Date : 24-MAR-2010 16:28
Client ID: SBLK01LCS
Sample Info: 1120207390219664001 1|SVMI11LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

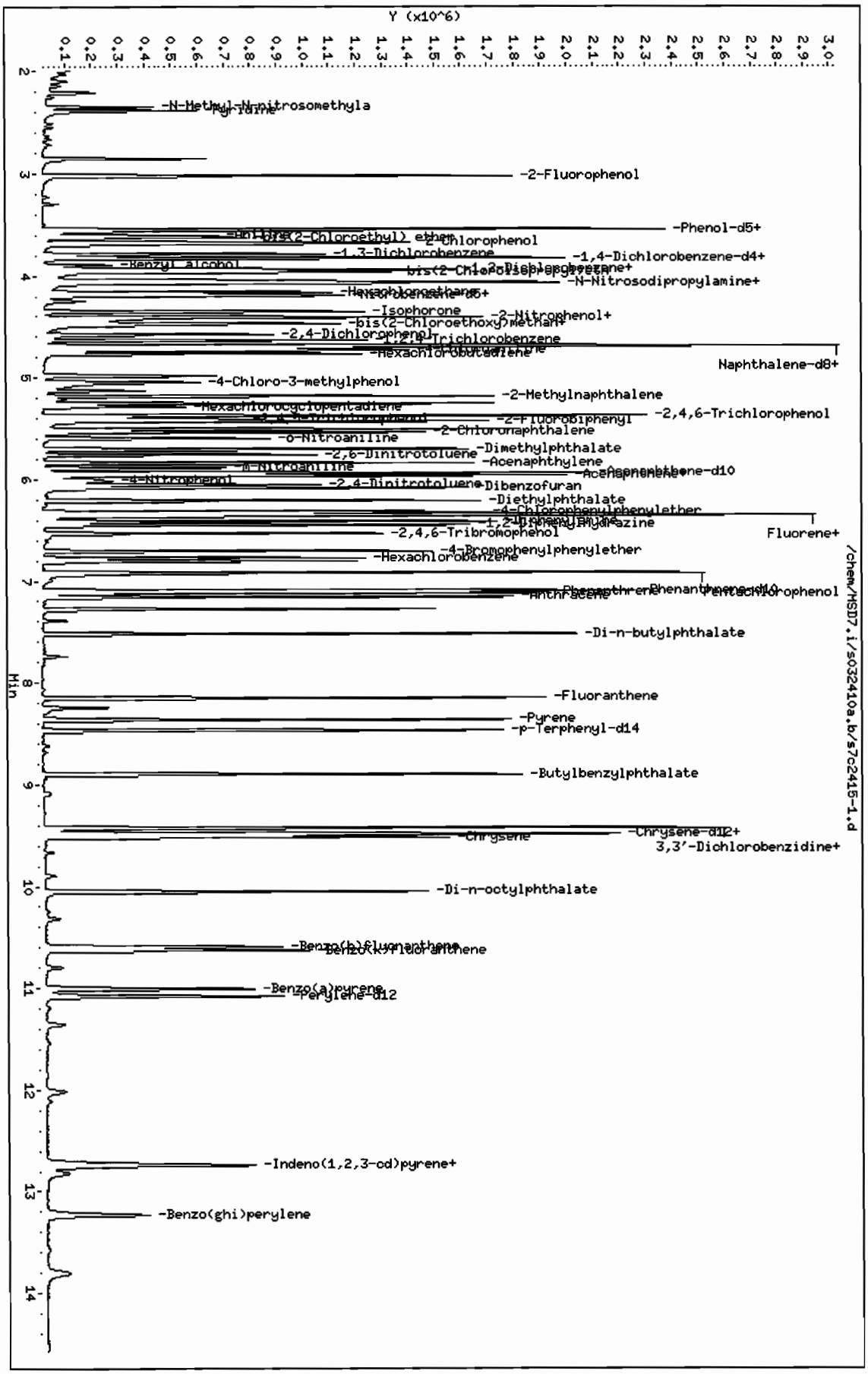

Page 1

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 966349 **Verified by:** _____

Analyst: Alberto Velasco

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202073901 MB	17-MAR-2010 21:03:00	30	1	0.03333
1202073902 LCS	17-MAR-2010 21:03:00	30	1	0.03333
248867001	17-MAR-2010 21:03:00	30.15	1	0.03317
248867002	17-MAR-2010 21:03:00	30.12	1	0.0332
248867003	17-MAR-2010 21:03:00	30.05	1	0.03328
248867004	17-MAR-2010 21:03:00	30.11	1	0.03321
249055001	17-MAR-2010 21:03:00	30.03	1	0.0333
249055002	17-MAR-2010 21:03:00	30.02	1	0.03331
249060002	17-MAR-2010 21:03:00	30.12	1	0.0332
249060003	17-MAR-2010 21:03:00	30.17	1	0.03315
249061002	17-MAR-2010 21:03:00	30.17	1	0.03315
249061003	17-MAR-2010 21:03:00	30.02	1	0.03331
249061004	17-MAR-2010 21:03:00	30.14	1	0.03318
249061005	17-MAR-2010 21:03:00	30.02	1	0.03331
249101002	17-MAR-2010 21:03:00	30.15	1	0.03317
1202073903 MS (249101002)	17-MAR-2010 21:03:00	30.13	1	0.03319
1202073904 MSD (249101002)	17-MAR-2010 21:03:00	30.14	1	0.03318
249101003	17-MAR-2010 21:03:00	30.14	1	0.03318
249101004	17-MAR-2010 21:03:00	30.14	1	0.03318
249101005	17-MAR-2010 21:03:00	30.06	1	0.03327
249101006	17-MAR-2010 21:03:00	30.07	1	0.03326

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202073902	BNA LCS w/o Benzidine 50ppm	UE100310-17	1	mL
LCS	1202073902	BENZIDINE LCS	UE100310-23	1	mL
MS	1202073903	BNA LCS w/o Benzidine 50ppm	UE100310-17	1	mL
MS	1202073903	BENZIDINE LCS	UE100310-23	1	mL
MSD	1202073904	BNA LCS w/o Benzidine 50ppm	UE100310-17	1	mL
MSD	1202073904	BENZIDINE LCS	UE100310-23	1	mL
SURR	All	BNA for all Surrogate	UE100310-10	1	mL
REGNT	All	Acetone	1273823-B1	150	mL
REGNT	All	Methylene Chloride	1287549-D	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: AJS

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD7

DATE: 03/26/2010 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 2000 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100319-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s032410a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s7c2411.d	WBN100306-01.2	JMB3	24-MAR-2010 15:06	DFTPP	s032410	1.0	DFTPP	8270c TUNE: PASSES
s7c2412.d	WBN100309-05.4	JMB3	24-MAR-2010 15:19	CVS	s032410	1.0	MEGACVS	8270c MEGA CVS (IS1: 307934)
s7c2413.d	WBN100312-03.3	JMB3	24-MAR-2010 15:43	CVS	s032410a	1.0	APCVS	8270c AP CVS
s7c2414-1.d	1202073901	JMB3	24-MAR-2010 16:06	966400	10-2320	1.0	MB	
s7c2414-2.d	1202073901	JMB3	24-MAR-2010 16:06	966400	10-2349	1.0	MB	
s7c2414-3.d	1202073901	JMB3	24-MAR-2010 16:06	966400	10-2351	1.0	MB	
s7c2414-4.d	1202073901	JMB3	24-MAR-2010 16:06	966400	10-2352	1.0	MB	
s7c2414.d	1202073901	JMB3	24-MAR-2010 16:06	966400	10-2366	1.0	MB	
s7c2415-1.d	1202073902	JMB3	24-MAR-2010 16:28	966400	10-2320	1.0	LCS	
s7c2415-2.d	1202073902	JMB3	24-MAR-2010 16:28	966400	10-2349	1.0	LCS	
s7c2415-3.d	1202073902	JMB3	24-MAR-2010 16:28	966400	10-2351	1.0	LCS	
s7c2415-4.d	1202073902	JMB3	24-MAR-2010 16:28	966400	10-2352	1.0	LCS	
s7c2415.d	1202073902	JMB3	24-MAR-2010 16:28	966400	10-2366	1.0	LCS	
s7c2416.d	249057003	JMB3	24-MAR-2010 16:49	965816	10-2350	10.0	LANL	REPORT: diluted results of s7c2328 for OR hits
s7c2417.d	249061002	JMB3	24-MAR-2010 17:11	966400	10-2352	1.0	LANL	
s7c2418.d	249061003	JMB3	24-MAR-2010 17:33	966400	10-2352	1.0	LANL	REPORT: fails surr - rx s1c2820 passes out of hold
s7c2419.d	249061004	JMB3	24-MAR-2010 17:54	966400	10-2352	1.0	LANL	
s7c2420.d	249061005	JMB3	24-MAR-2010 18:15	966400	10-2352	1.0	LANL	
s7c2421.d	249101002	JMB3	24-MAR-2010 18:37	966400	10-2366	1.0	LANL	

s7c2422.d	1202073903	JMB3	24-MAR-2010 18:58	966400	10-2366	1.0	MS_LANL	DUSE: see rerun s7c2518
s7c2423.d	1202073904	JMB3	24-MAR-2010 19:20	966400	10-2366	1.0	MSD_LANL	DUSE: see rerun s7c2519
s7c2424.d	249101003	JMB3	24-MAR-2010 19:41	966400	10-2366	1.0	LANL	DUSE: see rerun s7c2520
s7c2425.d	249101004	JMB3	24-MAR-2010 20:03	966400	10-2366	1.0	LANL	
s7c2426.d	249101005	JMB3	24-MAR-2010 20:25	966400	10-2366	1.0	LANL	
s7c2427.d	249101006	JMB3	24-MAR-2010 20:47	966400	10-2366	1.0	LANL	DUSE: see rerun s7c2521
s7c2428.d	248867003	JMB3	24-MAR-2010 21:08	966400	10-2320	1.0	LANL	
s7c2429.d	248867004	JMB3	24-MAR-2010 21:30	966400	10-2320	1.0	LANL	DUSE: see rerun s7c2523
s7c2430.d	249055001	JMB3	24-MAR-2010 21:51	966400	10-2349	1.0	LANL	REPORT: fails surr - rx s1c2821 passes out of hold
s7c2431.d	249055002	JMB3	24-MAR-2010 22:13	966400	10-2349	1.0	LANL	REPORT: fails surr - rx s1c2822 passes out of hold
s7c2432.d	249060002	JMB3	24-MAR-2010 22:34	966400	10-2351	1.0	LANL	
s7c2433.d	249060003	JMB3	24-MAR-2010 22:56	966400	10-2351	1.0	LANL	
s7c2434.d	248867001	JMB3	24-MAR-2010 23:18	966400	10-2320	10.0	LANL	DUSE: see s7c2436
s7c2435.d	248867002	JMB3	24-MAR-2010 23:39	966400	10-2320	10.0	LANL	DUSE: see s7c2438
s7c2436.d	248867001	JMB3	25-MAR-2010 00:01	966400	10-2320	1.0	LANL	
s7c2437.d	INSTBLANK	JMB3	25-MAR-2010 00:22		s032410a	1.0		
s7c2438.d	248867002	JMB3	25-MAR-2010 00:44	966400	10-2320	1.0	LANL	
s7c2439.d	INSTBLANK	JMB3	25-MAR-2010 01:06		s032410a	1.0		
s7c2440.d	248867001	JMB3	25-MAR-2010 01:27	966400	10-2320	1.0	LANL	DUSE: see s7c2436
s7c2441.d	INSTBLANK	JMB3	25-MAR-2010 01:49		s032410a	1.0		
s7c2442.d	248867002	JMB3	25-MAR-2010 02:10	966400	10-2320	1.0	LANL	DUSE: see s7c2438
s7c2443.d	INSTBLANK	JMB3	25-MAR-2010 02:32		s032410a	1.0		

Instrument Batch: /chem/MSD7.i/s032410a.b

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD7

DATE: 03/25/2010 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 2000 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100319-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s032510.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s7c2501-D.d	WBN100306-01.2	JMB3	25-MAR-2010 11:45	DFTPP	s032510	1.0	DFTPP	8270d TUNE: PASSES
s7c2501.d	WBN100306-01.2	JMB3	25-MAR-2010 11:45	DFTPP	s032510	1.0	DFTPP	8270c TUNE: PASSES
s7c2502.d	WBN100309-05.4	JMB3	25-MAR-2010 11:57	CVS	s032510	1.0	MEGACVS	DUSE: see s7c2504
s7c2503.d	WBN100312-03.3	JMB3	25-MAR-2010 12:22	CVS	s032510	1.0	APCVS	8270c AP CVS
s7c2504-D.d	WBN100309-05.4	JMB3	25-MAR-2010 12:43	CVS	s032510	1.0	MEGACVS	8270d MEGA CVS (IS1: 261850)
s7c2504.d	WBN100309-05.4	JMB3	25-MAR-2010 12:43	CVS	s032510	1.0	MEGACVS	8270c MEGA CVS
s7c2505.d	1202079229	JMB3	25-MAR-2010 13:49	968553	249671	1.0	MB	
s7c2506.d	1202079230	JMB3	25-MAR-2010 14:10	968553	249671	1.0	LCS	
s7c2507.d	1202079729	JMB3	25-MAR-2010 14:31	968553	249671	1.0	LCS	
s7c2508.d	249671001	JMB3	25-MAR-2010 14:53	968553	249671	1.0	SNDC	
s7c2509.d	249671002	JMB3	25-MAR-2010 15:14	968553	249671	1.0	SNDC	
s7c2510-1.d	1202076813	JMB3	25-MAR-2010 15:36	968497	EUI-7561	1.0	TB	
s7c2510.d	1202076813	JMB3	25-MAR-2010 15:36	968497	EUI-7568	1.0	TB	
s7c2511-1.d	1202079119	JMB3	25-MAR-2010 15:57	968497	EUI-7561	1.0	MB	
s7c2511.d	1202079119	JMB3	25-MAR-2010 15:57	968497	EUI-7568	1.0	MB	
s7c2512-1.d	1202079120	JMB3	25-MAR-2010 16:19	968497	EUI-7561	1.0	LCS	
s7c2512.d	1202079120	JMB3	25-MAR-2010 16:19	968497	EUI-7568	1.0	LCS	
s7c2513.d	249661001	JMB3	25-MAR-2010 16:41	968497	EUI-7561	1.0	CARE	
s7c2514.d	249717001	JMB3	25-MAR-2010 17:02	968497	EUI-7568	1.0	CARE	

s7c2515.d	1202079121	JMB3	25-MAR-2010 17:24	968497	EUI-7568	1.0	MS_CARE	
s7c2516.d	1202079122	JMB3	25-MAR-2010 17:46	968497	EUI-7568	1.0	MSD_CARE	
s7c2517.d	249061003	JMB3	25-MAR-2010 18:08	966400	10-2352	1.0	LANL	DUSE: rerun of s7c2418 - still fails surr
s7c2518.d	1202073903	JMB3	25-MAR-2010 18:29	966400	10-2366	1.0	MS_LANL	
s7c2519.d	1202073904	JMB3	25-MAR-2010 18:51	966400	10-2366	1.0	MSD_LANL	
s7c2520.d	249101003	JMB3	25-MAR-2010 19:13	966400	10-2366	1.0	LANL	
s7c2521.d	249101006	JMB3	25-MAR-2010 19:34	966400	10-2366	1.0	LANL	
s7c2522.d	248867003	JMB3	25-MAR-2010 19:56	966400	10-2320	1.0	LANL	DUSE: rerun not needed - see s7c2428
s7c2523.d	248867004	JMB3	25-MAR-2010 20:18	966400	10-2320	1.0	LANL	
s7c2524.d	249055001	JMB3	25-MAR-2010 20:39	966400	10-2349	1.0	LANL	DUSE: rerun of s7c2430 - still fails surr
s7c2525.d	249055002	JMB3	25-MAR-2010 21:01	966400	10-2349	1.0	LANL	DUSE: rerun of s7c2431 - still fails surr
s7c2526.d	DXNSTD	JMB3	25-MAR-2010 21:24	-------	s032510	1.0	DXNSTD	DIOXIN SCREEN STANDARD AT 500PPB
s7c2527.d	1202074348	JMB3	25-MAR-2010 21:37	966600	249277	1.0	MB	
s7c2528.d	249277001	JMB3	25-MAR-2010 21:51	966600	249277	1.0	SCEG	
s7c2529.d	249277002	JMB3	25-MAR-2010 22:05	966600	249277	1.0	SCEG	

Instrument Batch: /chem/MSD7.i/s032510.b

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD7

DATE: 02/25/2010 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1965 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100217-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s022610.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s7b2601-D.d	WBN100207-01	JMB3	26-FEB-2010 10:23	DFTPP	s022610	1.0	DFTPP	8270d TUNE: MEGA
s7b2601.d	WBN100207-01	JMB3	26-FEB-2010 10:23	DFTPP	s022610	1.0	DFTPP	8270c TUNE: MEGA
s7b2602.d	INSTBLANK	JMB3	26-FEB-2010 10:35	IB	s022610	1.0	INSTBLANK	
s7b2603.d	WBN100225-08	JMB3	26-FEB-2010 11:07	ICAL	s022610	1.0	MEGA001	
s7b2604.d	WBN100225-07	JMB3	26-FEB-2010 11:31	ICAL	s022610	1.0	MEGA010	DUSE: see s7b2612
s7b2605.d	WBN100225-06	JMB3	26-FEB-2010 11:55	ICAL	s022610	1.0	MEGA020	DUSE: see s7b2613
s7b2606.d	WBN100225-05.1	JMB3	26-FEB-2010 12:19	ICAL	s022610	1.0	MEGA040	
s7b2607.d	WBN100225-04	JMB3	26-FEB-2010 12:43	ICAL	s022610	1.0	MEGA050	
s7b2608.d	WBN100225-03	JMB3	26-FEB-2010 13:07	ICAL	s022610	1.0	MEGA080	
s7b2609.d	WBN100225-02	JMB3	26-FEB-2010 13:32	ICAL	s022610	1.0	MEGA100	
s7b2610.d	WBN100225-01	JMB3	26-FEB-2010 13:56	ICAL	s022610	1.0	MEGA120	
s7b2611.d	INSTBLANK	JMB3	26-FEB-2010 14:19	IB	s022610	1.0	INSTBLANK	
s7b2612-D.d	WBN100225-07	JMB3	26-FEB-2010 14:44	ICAL	s022610	1.0	MEGA010	8270d
s7b2612.d	WBN100225-07	JMB3	26-FEB-2010 14:44	ICAL	s022610	1.0	MEGA010	
s7b2613-D.d	WBN100225-06	JMB3	26-FEB-2010 15:08	ICAL	s022610	1.0	MEGA020	8270d
s7b2613.d	WBN100225-06	JMB3	26-FEB-2010 15:08	ICAL	s022610	1.0	MEGA020	
s7b2614-625.d	WBN100225-09.1	JMB3	26-FEB-2010 15:33	ICV	s022610	1.0	MEGAICV	625 MEGA ICV
s7b2614-D.d	WBN100225-09.1	JMB3	26-FEB-2010 15:33	ICV	s022610	1.0	MEGAICV	8270d MEGA ICV
s7b2614.d	WBN100225-09.1	JMB3	26-FEB-2010 15:33	ICV	s022610	1.0	MEGAICV	8270c MEGA ICV

s7b2615-D.d	WBN100207-01	JMB3	26-FEB-2010 16:00	DFTPP	s022610	1.0	DFTPP	8270d TUNE: AP - PEST - NEV
s7b2615.d	WBN100207-01	JMB3	26-FEB-2010 16:00	DFTPP	s022610	1.0	DFTPP	8270c TUNE: AP - PEST - NEV
s7b2616.d	INSTBLANK	JMB3	26-FEB-2010 16:13	IB	s022610	1.0	INSTBLANK	
s7b2617-D.d	WBN100218-01	JMB3	26-FEB-2010 16:34	ICAL	s022610	1.0	AP010	8270d
s7b2617.d	WBN100218-01	JMB3	26-FEB-2010 16:34	ICAL	s022610	1.0	AP010	
s7b2618.d	WBN100218-02	JMB3	26-FEB-2010 16:56	ICAL	s022610	1.0	AP020	
s7b2619.d	WBN100218-03.1	JMB3	26-FEB-2010 17:17	ICAL	s022610	1.0	AP040	
s7b2620.d	WBN100218-04	JMB3	26-FEB-2010 17:39	ICAL	s022610	1.0	AP050	
s7b2621.d	WBN100218-05	JMB3	26-FEB-2010 18:00	ICAL	s022610	1.0	AP080	
s7b2622.d	WBN100218-06	JMB3	26-FEB-2010 18:22	ICAL	s022610	1.0	AP100	
s7b2623.d	WBN100218-07	JMB3	26-FEB-2010 18:43	ICAL	s022610	1.0	AP120	
s7b2624.d	WBN100205-25	JMB3	26-FEB-2010 19:05	ICAL	s022610	1.0	PEST010	
s7b2625.d	WBN100205-24	JMB3	26-FEB-2010 19:26	ICAL	s022610	1.0	PEST020	
s7b2626.d	WBN100205-23.1	JMB3	26-FEB-2010 19:48	ICAL	s022610	1.0	PEST040	
s7b2627.d	WBN100205-22	JMB3	26-FEB-2010 20:09	ICAL	s022610	1.0	PEST050	
s7b2628.d	WBN100205-21	JMB3	26-FEB-2010 20:31	ICAL	s022610	1.0	PEST080	
s7b2629.d	WBN100205-20	JMB3	26-FEB-2010 20:52	ICAL	s022610	1.0	PEST100	
s7b2630.d	WBN100205-19	JMB3	26-FEB-2010 21:14	ICAL	s022610	1.0	PEST120	
s7b2631.d	UBN100127-01	JMB3	26-FEB-2010 21:36	ICAL	s022610	1.0	NEV010	
s7b2632.d	UBN100127-02	JMB3	26-FEB-2010 21:58	ICAL	s022610	1.0	NEV020	
s7b2633.d	UBN100127-03	JMB3	26-FEB-2010 22:19	ICAL	s022610	1.0	NEV040	
s7b2634.d	UBN100127-04	JMB3	26-FEB-2010 22:40	ICAL	s022610	1.0	NEV050	
s7b2635.d	UBN100127-05	JMB3	26-FEB-2010 23:02	ICAL	s022610	1.0	NEV080	
s7b2636.d	UBN100127-06	JMB3	26-FEB-2010 23:24	ICAL	s022610	1.0	NEV100	
s7b2637.d	UBN100127-07	JMB3	26-FEB-2010 23:46	ICAL	s022610	1.0	NEV120	
s7b2638-625.d	WBN100218-08.1	JMB3	27-FEB-2010 00:07	ICV	s022610	1.0	APICV	625 AP ICV
s7b2638-D.d	WBN100218-08.1	JMB3	27-FEB-2010 00:07	ICV	s022610	1.0	APICV	8270d AP ICV

s7b2638.d	WBN100218-08.1	JMB3	27-FEB-2010 00:07	ICV	s022610	1.0	APICV	8270d AP ICV
s7b2639-625.d	WBN100205-26.1	JMB3	27-FEB-2010 00:29	ICV	s022610	1.0	PESTICV	625 PEST ICV
s7b2639-D.d	WBN100205-26.1	JMB3	27-FEB-2010 00:29	ICV	s022610	1.0	PESTICV	8270d PEST ICV
s7b2639.d	WBN100205-26.1	JMB3	27-FEB-2010 00:29	ICV	s022610	1.0	PESTICV	8270c PEST ICV
s7b2640-625.d	WBN100225-05.2	JMB3	27-FEB-2010 00:50	CVS	s022610	1.0	MEGACVS	DUSE: 625 MEGA CVS - fails some analytes >20%
s7b2641-625.d	WBN100218-03.1	JMB3	27-FEB-2010 01:15	CVS	s022610	1.0	APCVS	DUSE: 625 AP CVS
s7b2642-625.d	WBN100225-05.1	JMB3	27-FEB-2010 08:38	CVS	s022610	1.0	MEGACVS	DUSE: 625 MEGA CVS - fails some analytes >20%

Instrument Batch: /chem/MSD7.i/s022610.b

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
26-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
966400	See Below		

Potentially affected work order(s)(SDG): 248867(10-2320),249055(10-2349),249060(10-2351),249061(10-2352),249101(10-2366)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for LCS/LCSD

Failed Yield for Surrogates

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The MS(1202073903) and MSD(1202073904) both recovered Benzyl alcohol at 0% (SPC limits: 19%-112%). The MSD also failed recovery limits for additional spiked analytes and surrogates. Please see the QC summary report for the specific failures.	1. The Benzyl alcohol failure was attributed to sample matrix interference. As the LCS and MS met their acceptance criteria, the multiple failures displayed in the MSD failures were attributed to random lab error.
2. Multiple MS(1202073903)/MSD(1202073904) RPD values were outside of the established acceptance limits. Please see the QC summary report for specific failures.	2. The failures were attributed to the failures displayed in the MSD (see item #1 above).
3. The LCS(1202073902) recovered Benzyl alcohol at 21% (limits: 27%-108%).	3. Benzyl alcohol accounts for less than 5% of the total number of requested spiking analytes. The data have been reported. Please note that Benzyl alcohol is known to be a poor responder as stated in the Method and is subject to erratic chromatography behavior. This may account for the low recoveries of the analyte in the LCS (as well as in the MS and MSD).
4. Samples 249055001 and 249055002 (LANL 10-2349), and sample 249061003 (LANL 10-2352) failed surrogate recovery limits. Please see the QC summary report for specific failures.	4. The indicated samples were re-extracted out of holding and passed surrogate recovery limits. Data from both sets of analyses are reported.

Originator's Name:

Josh Brooks 30-MAR-10

Data Validator/Group Leader:

Daniel Beacham 30-MAR-10

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s032510.b/s7c2518.d
Lab Smp Id: 1202073903 Client Smp ID: RE16-10-3742MS
Inj Date : 25-MAR-2010 18:29
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202073903|966400|1|SVM|1|MS_LANL
Misc Info : |MSD8270_S|WBN100319-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032510.b/MSD7-M8270C-AQA-022610.m
Meth Date : 25-Mar-2010 14:25 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 17 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2366.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.13000	weight of sample
M	2.52920	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.831	3.836	(1.000)	259225	40.0000	
* 29 Naphthalene-d8	136	4.698	4.698	(1.000)	1032076	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	545673	40.0000	
* 67 Phenanthrene-d10	188	7.110	7.110	(1.000)	1033860	40.0000	
* 91 Chrysene-d12	240	9.508	9.508	(1.000)	875404	40.0000	
* 98 Perylene-d12	264	11.097	11.102	(1.000)	562245	40.0000	
$ 3 2-Fluorophenol	112	3.037	3.032	(0.793)	345915	51.3390	1750
$ 5 Phenol-d5	99	3.557	3.557	(0.928)	422156	49.9722	1700
$ 20 Nitrobenzene-d5	82	4.192	4.197	(0.892)	223065	28.6560	976
$ 39 2-Fluorobiphenyl	172	5.439	5.439	(0.914)	406418	29.8857	1020
$ 60 2,4,6-Tribromophenol	329	6.542	6.542	(1.100)	99151	62.8545	2140
$ 81 p-Terphenyl-d14	244	8.478	8.483	(0.892)	477940	30.4749	1040

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.561	3.566	(0.930)	215373	25.6645	874
8 2-Chlorophenol	128	3.701	3.701	(0.966)	189968	29.5807	1010
11 1,4-Dichlorobenzene	146	3.846	3.845	(1.004)	214711	27.7383	944
17 N-Nitrosodipropylamine	70	4.072	4.081	(1.063)	140586	29.4490	1000(Q)
28 1,2,4-Trichlorobenzene	180	4.645	4.650	(0.989)	193892	29.1917	994
33 4-Chloro-3-methylphenol	107	5.059	5.044	(1.077)	178319	30.3154	1030
47 Acenaphthene	154	5.969	5.974	(1.003)	383119	31.8989	1090
50 2,4-Dinitrotoluene	165	6.065	6.070	(1.019)	140575	31.8417	1080
52 4-Nitrophenol	139	6.017	5.998	(1.011)	48437	21.8141	743(Q)
65 Pentachlorophenol	266	6.942	6.937	(0.976)	57241	29.2845	997
79 Pyrene	202	8.377	8.377	(0.881)	768692	27.7953	946
2 Pyridine	79	2.411	2.382	(0.629)	124349	19.8909	677
4 Aniline	66	3.619	3.624	(0.945)	83675	20.7643	707(Q)
7 bis(2-Chloroethyl) ether	63	3.634	3.638	(0.948)	162432	23.6396	805(Q)
9 1,3-Dichlorobenzene	146	3.797	3.802	(0.991)	210671	26.1153	889
13 1,2-Dichlorobenzene	146	3.947	3.951	(1.030)	204320	28.6950	977
14 bis(2-Chloroisopropyl)ether	45	3.976	3.980	(1.038)	414920	26.0668	888
15 o-Cresol	107	3.956	3.956	(1.033)	150830	29.3380	999
18 m,p-Cresols	107	4.053	4.057	(1.058)	212691	30.6182	1040
19 Hexachloroethane	117	4.173	4.178	(1.089)	84585	28.1425	958
21 Nitrobenzene	77	4.207	4.211	(0.895)	223864	31.0016	1060
22 Isophorone	82	4.361	4.366	(0.928)	391438	28.0565	955
23 2-Nitrophenol	139	4.419	4.423	(0.941)	104987	30.9602	1050
24 2,4-Dimethylphenol	122	4.419	4.418	(0.941)	155364	23.0235	784
25 bis(2-Chloroethoxy)methane	93	4.481	4.486	(0.954)	203430	26.6502	907
26 2,4-Dichlorophenol	162	4.587	4.587	(0.976)	164899	30.1088	1020
27 Benzoic acid	105	4.486	4.486	(0.955)	169544	54.3838	1850
30 Naphthalene	128	4.712	4.717	(1.003)	573030	29.3920	1000
31 4-Chloroaniline	127	4.732	4.731	(1.007)	232102	25.4235	866
32 Hexachlorobutadiene	225	4.775	4.780	(1.016)	112445	32.4398	1100
34 2-Methylnaphthalene	142	5.194	5.194	(1.106)	422388	30.1873	1030
36 Hexachlorocyclopentadiene	237	5.295	5.300	(0.890)	65383	24.7850	844
37 2,4,6-Trichlorophenol	196	5.386	5.386	(0.905)	123003	32.1290	1090
38 2,4,5-Trichlorophenol	196	5.420	5.410	(0.911)	142928	37.1209	1260
40 2-Chloronaphthalene	162	5.545	5.550	(0.932)	369877	29.2853	997
42 o-Nitroaniline	65	5.603	5.608	(0.942)	133095	29.7653	1010
41 m-Nitroaniline	138	5.897	5.902	(0.991)	93946	28.7880	980
43 Dimethylphthalate	163	5.714	5.719	(0.960)	503818	34.7453	1180
44 2,6-Dinitrotoluene	165	5.767	5.772	(0.969)	107370	32.0616	1090
45 Acenaphthylene	152	5.849	5.853	(0.983)	647326	32.0622	1090
48 2,4-Dinitrophenol	184	5.974	5.974	(1.004)	18754	27.3494	931(Q)
49 Dibenzofuran	168	6.094	6.099	(1.024)	551348	32.6628	1110
51 Diethylphthalate	149	6.220	6.224	(1.045)	552998	37.2580	1270
53 Fluorene	166	6.354	6.359	(1.068)	472349	33.3500	1140
54 4-Chlorophenylphenylether	204	6.330	6.335	(1.064)	239775	34.0653	1160
55 2-Methyl-4,6-dinitrophenol	198	6.374	6.378	(0.896)	46102	28.6702	976
56 p-Nitroaniline	138	6.354	6.359	(1.068)	104655	35.6196	1210

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.422	6.422	(0.903)	378391	31.0600	1060
58 1,2-Diphenylhydrazine	77	6.455	6.460	(0.908)	511120	33.3481	1140
61 4-Bromophenylphenylether	248	6.715	6.720	(0.944)	139926	32.9107	1120
63 Hexachlorobenzene	284	6.788	6.788	(0.955)	128890	31.2029	1060
68 Phenanthrene	178	7.130	7.130	(1.003)	686310	32.3497	1100
69 Anthracene	178	7.173	7.173	(1.009)	680665	31.6789	1080
72 Di-n-butylphthalate	149	7.534	7.534	(1.060)	965983	35.7368	1220
76 Fluoranthene	202	8.160	8.165	(1.148)	770829	33.4163	1140
85 Butylbenzylphthalate	149	8.911	8.911	(0.937)	418253	31.8037	1080
89 Benzo(a)anthracene	228	9.494	9.494	(0.998)	628237	29.9361	1020
90 3,3'-Dichlorobenzidine	252	9.446	9.441	(0.993)	183775	30.0871	1020
92 Chrysene	228	9.532	9.532	(1.003)	572230	30.6425	1040
93 bis(2-Ethylhexyl)phthalate	149	9.436	9.436	(0.992)	562842	33.7910	1150
94 Di-n-octylphthalate	149	10.067	10.067	(0.907)	775491	34.3485	1170
95 Benzo(b)fluoranthene	252	10.611	10.611	(0.956)	503148	31.9100	1090
96 Benzo(k)fluoranthene	252	10.645	10.645	(0.959)	515349	34.7776	1180
97 Benzo(a)pyrene	252	11.025	11.025	(0.993)	430787	33.3197	1130
99 Indeno(1,2,3-cd)pyrene	276	12.749	12.759	(1.149)	314535	33.8315	1150
100 Dibenzo(a,h)anthracene	278	12.764	12.768	(1.150)	258491	35.0844	1190
101 Benzo(ghi)perylene	276	13.250	13.259	(1.194)	246494	31.7915	1080
1 N-Methyl-N-nitrosomethylamine	74	2.367	2.353	(0.618)	91434	20.1552	686

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s032510.b/s7o2518.d
Date : 25-MAR-2010 18:29
Client ID: RE16-10-3742MS
Sample Info: 1120207390319664001|SVM11|MS_LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

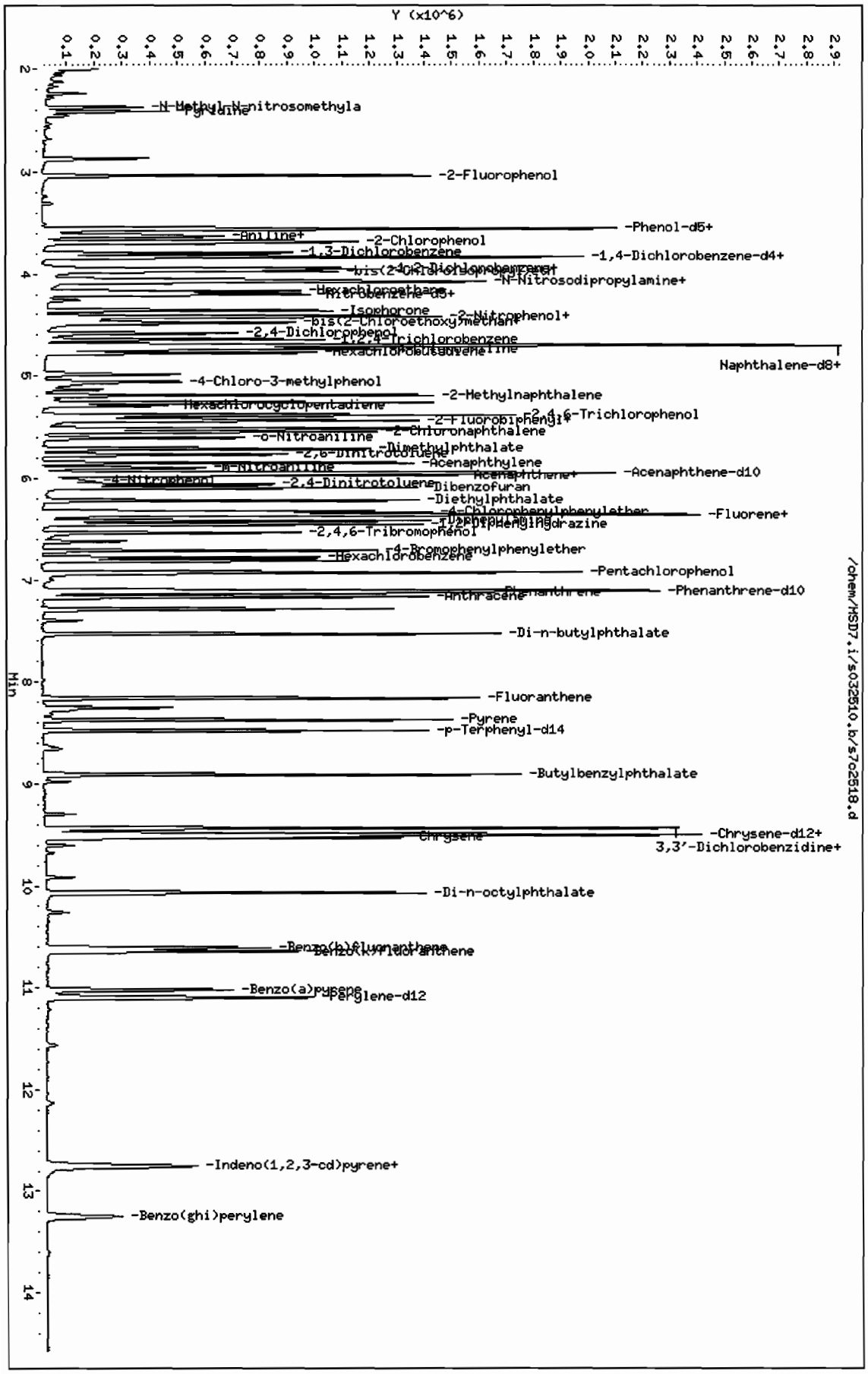

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Data file : /chem/MSD7.i/s032510.b/s7c2519.d
Lab Smp Id: 1202073904 Client Smp ID: RE16-10-3742MSD
Inj Date : 25-MAR-2010 18:51
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202073904|966400|1|SVM|1|MSD_LANL
Misc Info : |MSD8270_S|WBN100319-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s032510.b/MSD7-M8270C-AQA-022610.m
Meth Date : 25-Mar-2010 14:25 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 18 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2366.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.14000	weight of sample
M	2.52920	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.831	3.836	(1.000)	297065	40.0000	
* 29 Naphthalene-d8	136	4.693	4.698	(1.000)	1141351	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	626757	40.0000	
* 67 Phenanthrene-d10	188	7.106	7.110	(1.000)	1190063	40.0000	
* 91 Chrysene-d12	240	9.504	9.508	(1.000)	1094843	40.0000	
* 98 Perylene-d12	264	11.102	11.102	(1.000)	755552	40.0000	
$ 3 2-Fluorophenol	112	3.032	3.032	(0.791)	239546	31.0236	1060
$ 5 Phenol-d5	99	3.552	3.557	(0.927)	298288	30.8118	1050(R)
$ 20 Nitrobenzene-d5	82	4.192	4.197	(0.893)	163801	19.0280	648
$ 39 2-Fluorobiphenyl	172	5.439	5.439	(0.915)	299311	19.1623	652
$ 60 2,4,6-Tribromophenol	329	6.542	6.542	(1.100)	78175	43.1460	1470
$ 81 p-Terphenyl-d14	244	8.478	8.483	(0.892)	426682	21.7536	740

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.561	3.566	(0.930)	145911	15.1724	516(R)
8 2-Chlorophenol	128	3.696	3.701	(0.965)	132240	17.9687	612
11 1,4-Dichlorobenzene	146	3.841	3.845	(1.002)	151150	17.0396	580
17 N-Nitrosodipropylamine	70	4.067	4.081	(1.062)	100991	18.4602	628(Q)
28 1,2,4-Trichlorobenzene	180	4.645	4.650	(0.990)	134754	18.3457	624
33 4-Chloro-3-methylphenol	107	5.059	5.044	(1.078)	127422	19.5885	667
47 Acenaphthene	154	5.969	5.974	(1.004)	270575	19.6138	668
50 2,4-Dinitrotoluene	165	6.061	6.070	(1.019)	116308	22.9367	781
52 4-Nitrophenol	139	6.027	5.998	(1.014)	31618	12.3973	422(Q)
65 Pentachlorophenol	266	6.942	6.937	(0.977)	35378	15.7237	535
79 Pyrene	202	8.372	8.377	(0.881)	652421	18.8627	642
2 Pyridine	79	2.415	2.382	(0.630)	82419	11.5044	392(R)
4 Aniline	66	3.614	3.624	(0.943)	71454	15.4730	527(Q)
7 bis(2-Chloroethyl) ether	63	3.629	3.638	(0.947)	113487	14.4125	490(R)
9 1,3-Dichlorobenzene	146	3.797	3.802	(0.991)	150421	16.2714	554
13 1,2-Dichlorobenzene	146	3.942	3.951	(1.029)	142382	17.4492	594
14 bis(2-Chloroisopropyl)ether	45	3.976	3.980	(1.038)	295192	16.1828	551
15 o-Cresol	107	3.956	3.956	(1.033)	101616	17.2477	587
18 m,p-Cresols	107	4.053	4.057	(1.058)	161076	20.2342	689
19 Hexachloroethane	117	4.173	4.178	(1.089)	58473	16.9766	578
21 Nitrobenzene	77	4.207	4.211	(0.896)	157361	19.7056	671
22 Isophorone	82	4.356	4.366	(0.928)	270334	17.5212	596
23 2-Nitrophenol	139	4.419	4.423	(0.942)	74565	19.8836	677
24 2,4-Dimethylphenol	122	4.419	4.418	(0.942)	102799	11.7641	400(Q)
25 bis(2-Chloroethoxy)methane	93	4.481	4.486	(0.955)	140854	16.6858	568
26 2,4-Dichlorophenol	162	4.582	4.587	(0.976)	116209	19.1871	653
27 Benzoic acid	105	4.472	4.486	(0.953)	112727	32.6969	1110
30 Naphthalene	128	4.712	4.717	(1.004)	400615	18.5811	632
31 4-Chloroaniline	127	4.727	4.731	(1.007)	173771	17.2118	586
32 Hexachlorobutadiene	225	4.775	4.780	(1.017)	76521	19.9623	680
34 2-Methylnaphthalene	142	5.189	5.194	(1.106)	294142	19.0092	647
36 Hexachlorocyclopentadiene	237	5.295	5.300	(0.891)	47680	15.7359	536
37 2,4,6-Trichlorophenol	196	5.382	5.386	(0.905)	84366	19.1859	653
38 2,4,5-Trichlorophenol	196	5.420	5.410	(0.912)	109458	24.7504	842
40 2-Chloronaphthalene	162	5.545	5.550	(0.933)	258168	17.7962	606
42 o-Nitroaniline	65	5.603	5.608	(0.942)	101858	19.8325	675
41 m-Nitroaniline	138	5.897	5.902	(0.992)	76861	20.5056	698
43 Dimethylphthalate	163	5.709	5.719	(0.960)	378442	22.7224	773
44 2,6-Dinitrotoluene	165	5.767	5.772	(0.970)	81553	21.2019	722
45 Acenaphthylene	152	5.849	5.853	(0.984)	463055	19.9681	680
48 2,4-Dinitrophenol	184	5.974	5.974	(1.005)	14038	22.8217	777(Q)
49 Dibenzofuran	168	6.094	6.099	(1.025)	399242	20.5919	701
51 Diethylphthalate	149	6.220	6.224	(1.046)	430851	25.2730	860
53 Fluorene	166	6.354	6.359	(1.069)	347618	21.3682	727
54 4-Chlorophenylphenylether	204	6.330	6.335	(1.065)	169933	21.0194	715
55 2-Methyl-4,6-dinitrophenol	198	6.374	6.378	(0.897)	36222	22.1565	754
56 p-Nitroaniline	138	6.354	6.359	(1.069)	89866	26.6292	906

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.422	6.422	(0.904)	302498	21.5712	734
58 1,2-Diphenylhydrazine	77	6.455	6.460	(0.908)	396616	22.4807	765
61 4-Bromophenylphenylether	248	6.716	6.720	(0.945)	106292	21.7186	739
63 Hexachlorobenzene	284	6.783	6.788	(0.955)	100120	21.0566	717
68 Phenanthrene	178	7.130	7.130	(1.003)	547767	22.4304	764
69 Anthracene	178	7.168	7.173	(1.009)	567565	22.9479	781
72 Di-n-butylphthalate	149	7.529	7.534	(1.060)	775412	24.9213	848
76 Fluoranthene	202	8.160	8.165	(1.148)	651645	24.5416	835
85 Butylbenzylphthalate	149	8.911	8.911	(0.938)	354685	21.5644	734
89 Benzo(a)anthracene	228	9.489	9.494	(0.998)	572606	21.8164	743
90 3,3'-Dichlorobenzidine	252	9.446	9.441	(0.994)	168982	22.1203	753
92 Chrysene	228	9.528	9.532	(1.003)	522572	22.3747	762
93 bis(2-Ethylhexyl)phthalate	149	9.436	9.436	(0.993)	486913	23.3734	796
94 Di-n-octylphthalate	149	10.067	10.067	(0.907)	690245	22.7507	774
95 Benzo(b)fluoranthene	252	10.606	10.611	(0.955)	500273	23.6102	804
96 Benzo(k)fluoranthene	252	10.640	10.645	(0.958)	473586	23.7825	810
97 Benzo(a)pyrene	252	11.020	11.025	(0.993)	422068	24.2930	827
99 Indeno(1,2,3-cd)pyrene	276	12.749	12.759	(1.148)	335863	26.8829	915
100 Dibenzo(a,h)anthracene	278	12.764	12.768	(1.150)	275992	27.8757	949
101 Benzo(ghi)perylene	276	13.250	13.259	(1.193)	267155	25.6406	873
1 N-Methyl-N-nitrosomethylamine	74	2.377	2.353	(0.620)	67465	12.9772	442(R)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD7.i/s032510.b/s7c2519.d
Date : 25-MAR-2010 18:51
Client ID: RE16-10-3742MSD
Sample Info: 1120207390419664001|1|SVM11|MSD_LANL
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Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JHB3
Column diameter: 0.20

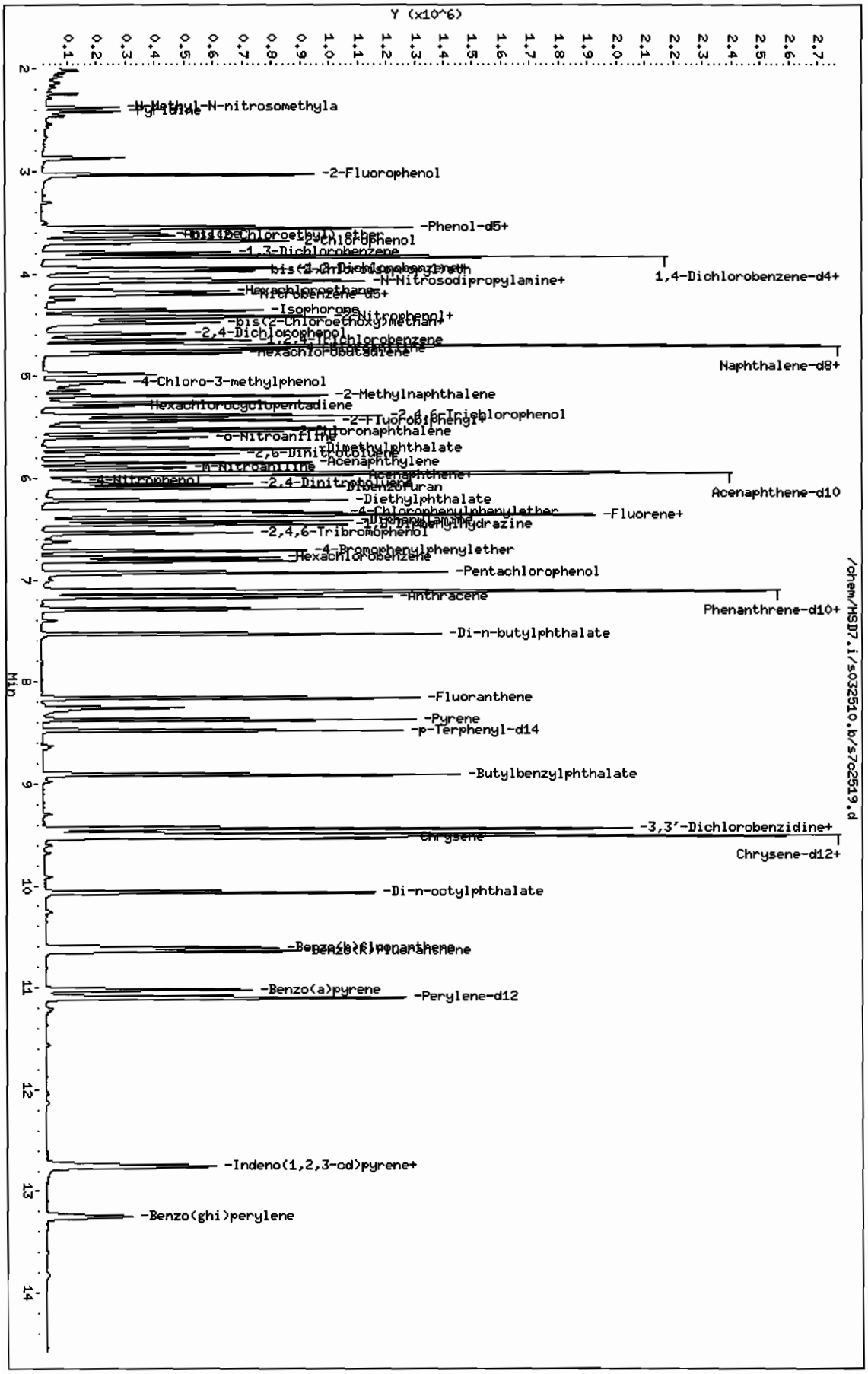

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2320

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	964450
Prep Batch Number:	964449

Sample Analysis

Sample ID	Client ID
248867001	RE46-10-12931
248867002	RE46-10-12932
248867003	RE46-10-12934
248867004	RE46-10-12933
1202069102	Interference Check Sample (ICS)
1202069098	Method Blank (MB)
1202069099	Laboratory Control Sample (LCS)
1202069100	248863002(RE46-10-12930) Matrix Spike (MS)
1202069101	248863002(RE46-10-12930) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

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Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 248863002 (RE46-10-12930) from SDG 10-2315 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

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Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
The SDG required re-analysis due to failure of a bracketing CCV/CRI. The re-analysis passed acceptance criteria and is reported.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

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Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather Mace **Date:** 04/01/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12931

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2320

GEL Sample ID: 248867001

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.616	2.46	0.616	ug/kg	U	1	28-MAR-10 17:57	per0328030a
	Perchlorate Isotope Ratio						1	28-MAR-10 17:57	per0328030a
14797-73-0	Perchlorate-101	.616	2.46	0.616	ug/kg	U	1	28-MAR-10 17:57	per0328030a
	Perchlorate-O(18)			6.13	ug/kg		1	28-MAR-10 17:57	per0328030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12932

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2320

GEL Sample ID: 248867002

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.605	2.42	0.605	ug/kg	U	1	28-MAR-10 18:06	per0328031a
	Perchlorate Isotope Ratio						1	28-MAR-10 18:06	per0328031a
14797-73-0	Perchlorate-101	.605	2.42	0.605	ug/kg	U	1	28-MAR-10 18:06	per0328031a
	Perchlorate-O(18)			5.99	ug/kg		1	28-MAR-10 18:06	per0328031a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12934

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2320

GEL Sample ID: 248867003

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.592	2.37	0.592	ug/kg	U	1	28-MAR-10 18:15	per0328032a
	Perchlorate Isotope Ratio						1	28-MAR-10 18:15	per0328032a
14797-73-0	Perchlorate-101	.592	2.37	0.592	ug/kg	U	1	28-MAR-10 18:15	per0328032a
	Perchlorate-O(18)			5.80	ug/kg		1	28-MAR-10 18:15	per0328032a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12933

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2320

GEL Sample ID: 248867004

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.595	2.38	0.595	ug/kg	U	1	28-MAR-10 18:23	per0328033a
	Perchlorate Isotope Ratio						1	28-MAR-10 18:23	per0328033a
14797-73-0	Perchlorate-101	.595	2.38	0.595	ug/kg	U	1	28-MAR-10 18:23	per0328033a
	Perchlorate-O(18)			5.91	ug/kg		1	28-MAR-10 18:23	per0328033a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2320

Extract Batch Code: 964449

Date Filtered: 19–MAR–10

Matrix: SOIL

Sample ID: 1202069099

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.99	ug/kg	99.3		70 – 130
Perchlorate Isotope Ratio		3.25				–
Perchlorate–101	2.00	1.95	ug/kg	97.7		70 – 130
Perchlorate–O(18)		5.01	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2320

Extract Batch Code: 964449

Date Filtered: 19–MAR–10

Matrix: SOIL

Sample ID: 1202069102

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.27	ug/kg	113		70 – 130
Perchlorate Isotope Ratio		3.31				
Perchlorate–101	2.00	2.19	ug/kg	110		70 – 130
Perchlorate–O(18)		5.43	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Tuesday, March 30, 2010 12:46:03 PM Eastern Standard Time
Printed: Tuesday, March 30, 2010 12:46:36 PM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032810a.mdb 29 Mar 2010 09:32:17
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032810a.cdb 29 Mar 2010 09:32:40

Name: per0328017a
Date: 28-Mar-2010
Time: 16:06:59
ID: 1202069102 | LANC | 964450 | Solas | ICS | 1 |
Vial: 1:3,E

CW 03-30-10

Perchlorate

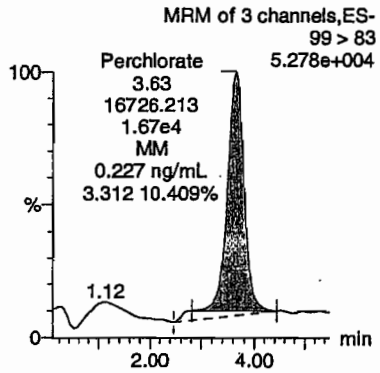

Perchlorate

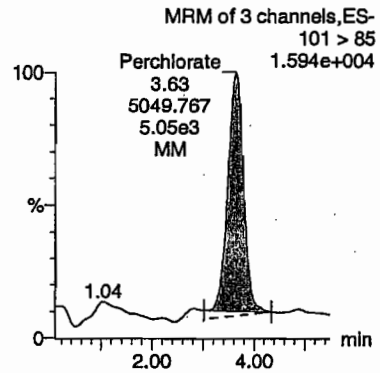

Perchlorate-101

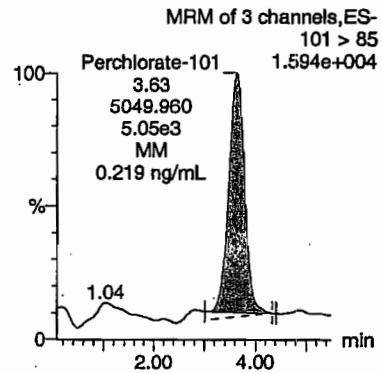

Perchlorate-O(18)

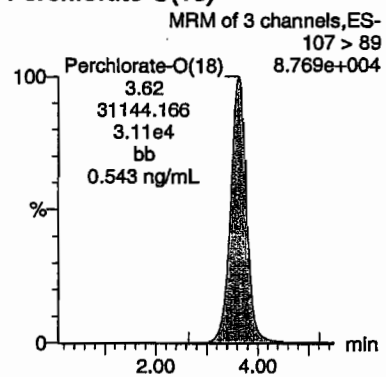

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202069102	Perchlorate	99 > 83	3.63	16726.213	16726.213	MM	30-Mar-10	12:44:48	0.2269	113.43	13.43	383.646	3.31
1202069102	Perchlorate-101	101 > 85	3.63	5049.960	5049.960	MM	30-Mar-10	12:46:03	0.2192	109.62	9.62	187.196	
1202069102	Perchlorate-O(18)	107 > 89	3.62	31144.166	31144.166	bb			0.5432	108.64	8.64	7675.1...	

MMT 3/30/10

$$\frac{16726.213}{5049.960} = 3.3121$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–2320

Extract Batch Code: 964449

Date Extracted: 19–MAR–10

GEL MS/PS ID: 1202069100

Client ID: RE46–10–12930

GEL MSD/PSD ID: 1202069101

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.18	0.444	ug/kg	2.44	91.4	2.48	93.1	1.51	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.21		3.23		0		–
Perchlorate–101	2.18	0.387	ug/kg	2.43	93.6	2.46	94.8	1.08	30	75 – 125
Perchlorate–O(18)	0	5.38	ug/kg	5.34		5.49		2.73		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2320

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	28–MAR–10	per0328001a	IPB001
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328001a	IPB001
Perchlorate	0.00	0	NA	28–MAR–10	per0328002a	IPB001
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328002a	IPB001

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032810a.mdb 29 Mar 2010 09:32:17
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032810a.cdb 29 Mar 2010 09:32:40

Name: per0328001a
Date: 28-Mar-2010
Time: 13:50:13
ID: IPB001
Vial: 1:1,A

CWJ 03-29-10

Perchlorate

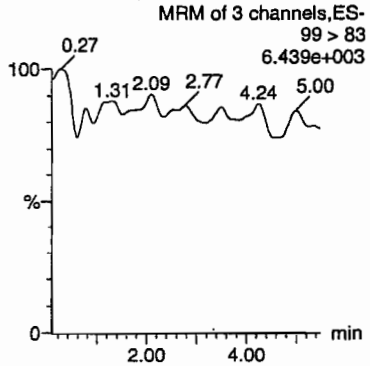

Perchlorate

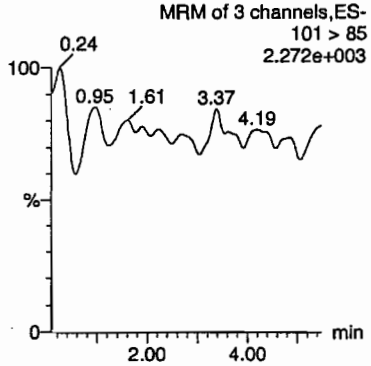

Perchlorate-101

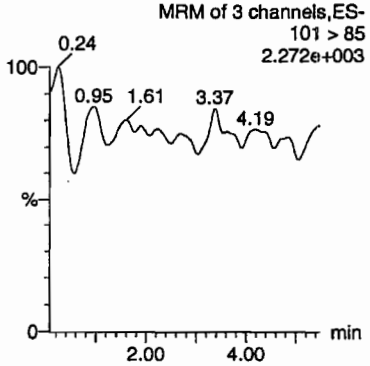

Perchlorate-O(18)

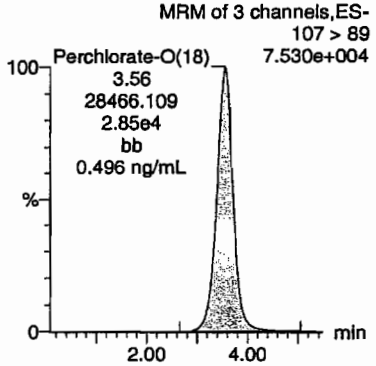

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.56	28466.109	28466.109	bb			0.4965	99.30	-0.70	8068.7...	

MM 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328002a
Date: 28-Mar-2010
Time: 13:58:57
ID: IPB001
Vial: 1:1,A

CWO 03-29-10

Perchlorate

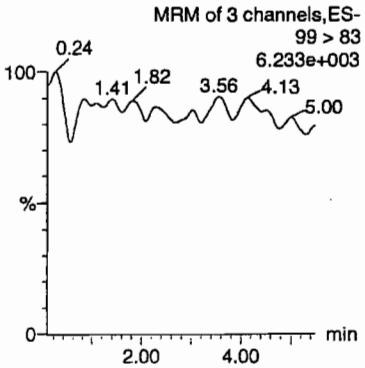

Perchlorate

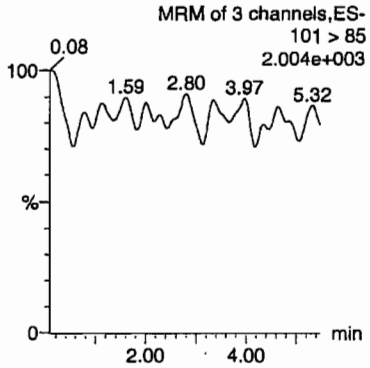

Perchlorate-101

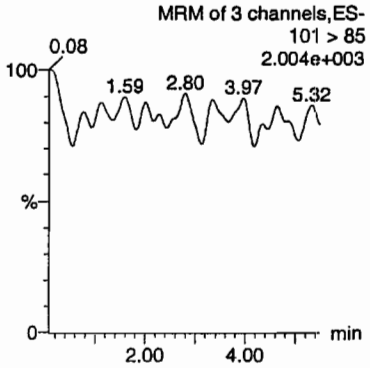

Perchlorate-O(18)

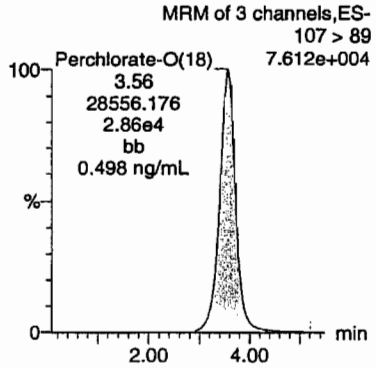

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.56	28556.176	28556.176	bb			0.4981	99.61	-0.39	617.780	

MJT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2320

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	28–MAR–10	per0328008a	IPB002
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328008a	IPB002
Perchlorate	0.00	0	NA	28–MAR–10	per0328010a	IPB003
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328010a	IPB003
Perchlorate	0.00	0	NA	28–MAR–10	per0328014a	IPB004
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328014a	IPB004
Perchlorate	0.00	0	NA	28–MAR–10	per0328023a	IPB005
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328023a	IPB005
Perchlorate	0.00	0	NA	28–MAR–10	per0328036a	IPB006
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328036a	IPB006

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328008a
Date: 28-Mar-2010
Time: 14:50:04
ID: IPB002
Vial: 1:1,A

CWW 03-29-10

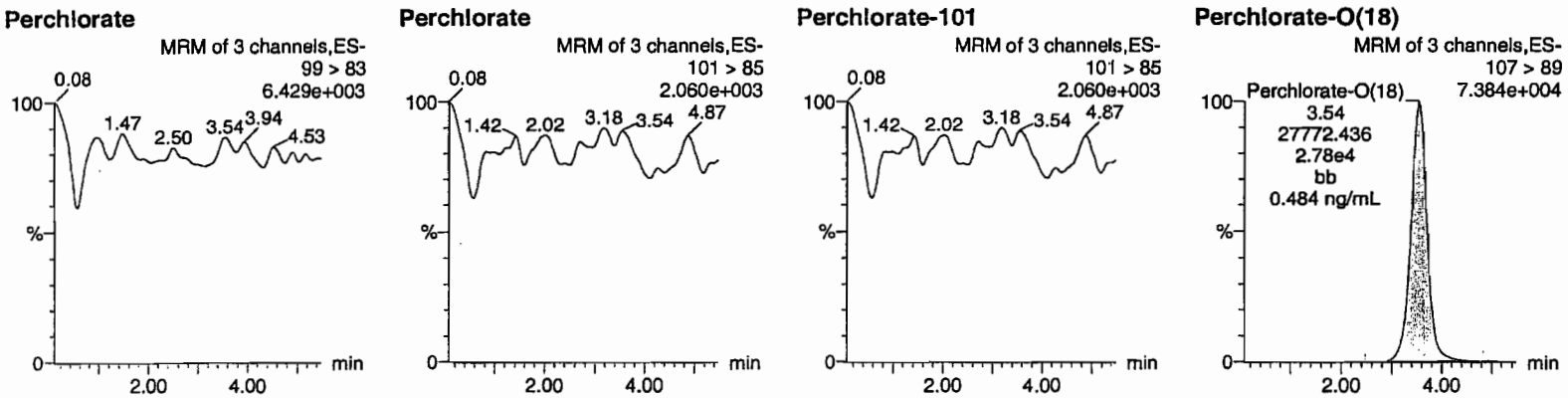

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	3.54	27772.436	27772.436	bb			0.4844	96.88	-3.12	4963.3...	

MAT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328010a
Date: 28-Mar-2010
Time: 15:07:08
ID: IPB003
Vial: 1:1,A

CWW 03-29-10

Perchlorate

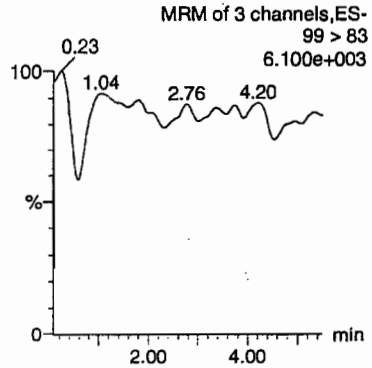

Perchlorate

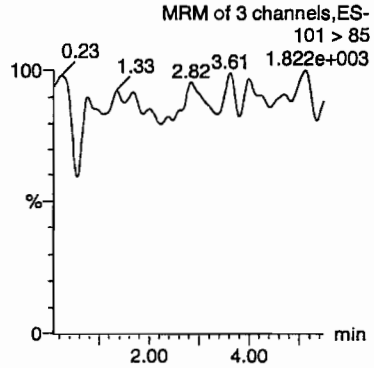

Perchlorate-101

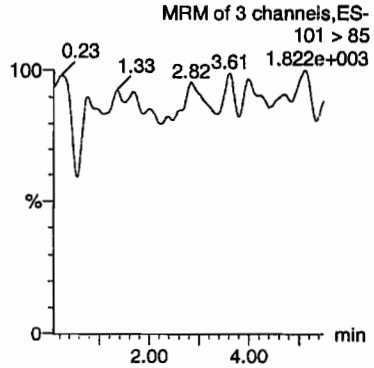

Perchlorate-O(18)

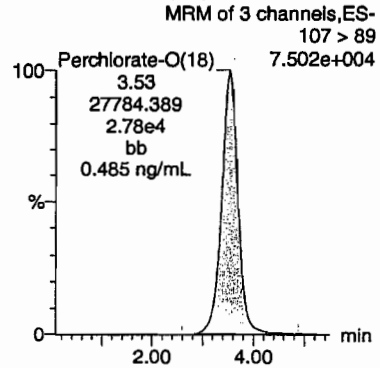

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	3.53	27784.389	27784.389	bb			0.4846 ✓	96.92 ✓	-3.08	5153.3...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328014a
Date: 28-Mar-2010
Time: 15:41:19
ID: IPB004
Vial: 1:1,A

CWW
03-29-10

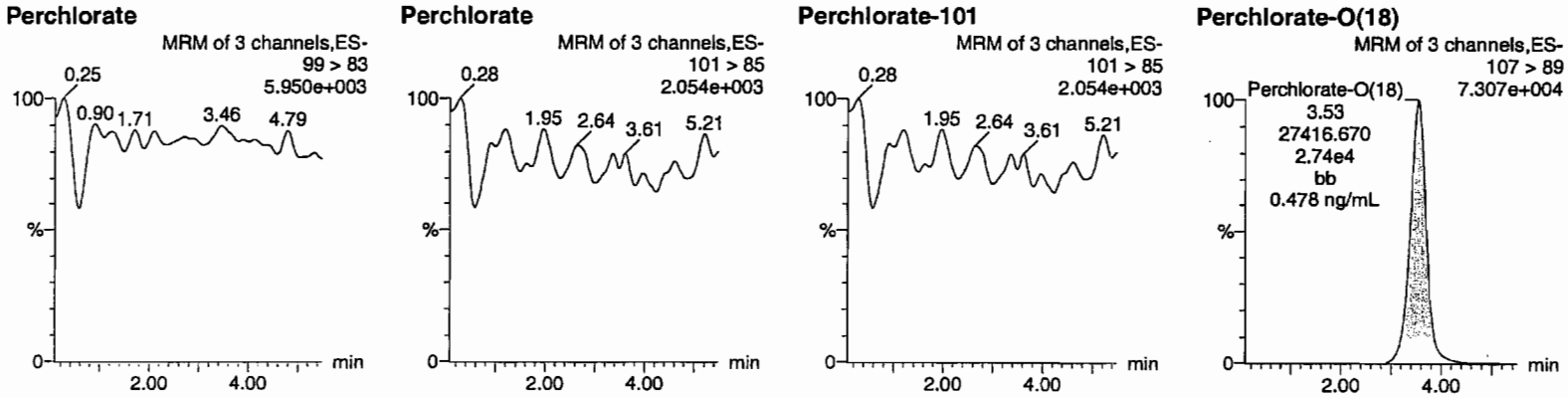

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	3.53	27416.670	27416.670	bb			0.4782	95.64	-4.36	1369.3...	

MATT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328023a
Date: 28-Mar-2010
Time: 16:58:12
ID: IPB005
Vial: 1:1,A

CWW 03-29-10

Perchlorate

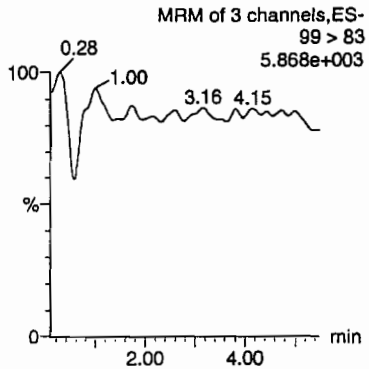

Perchlorate

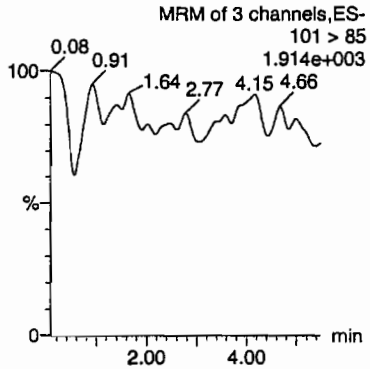

Perchlorate-101

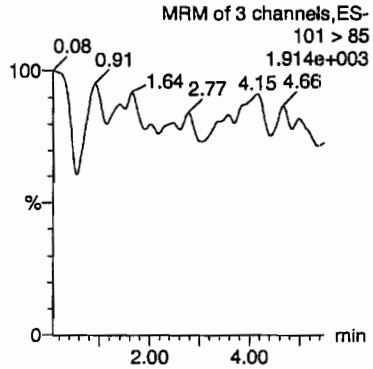

Perchlorate-O(18)

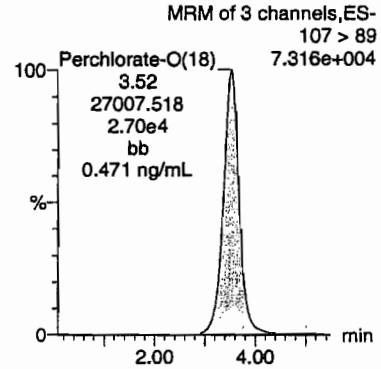

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	3.52	27007.518	27007.518	bb			0.4711	94.21	-5.79	913.616	

MAT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328036a
Date: 28-Mar-2010
Time: 18:49:11
ID: IPB006
Vial: 1:1,A

CWD
03-29-10

Perchlorate

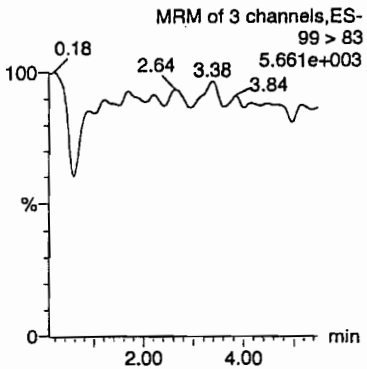

Perchlorate

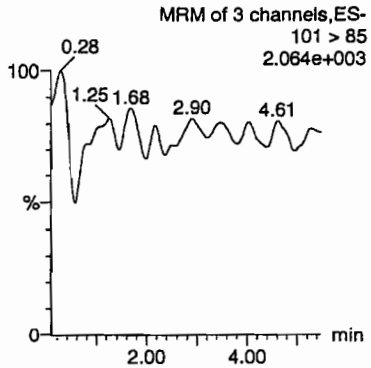

Perchlorate-101

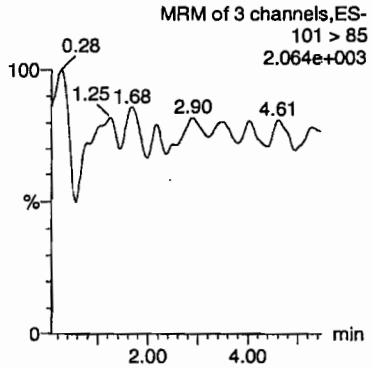

Perchlorate-O(18)

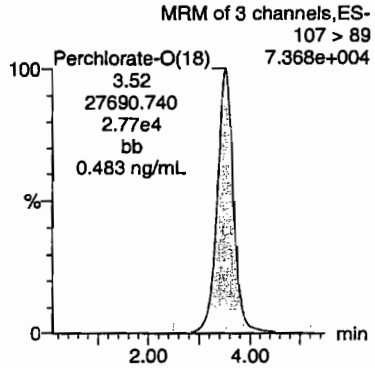

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	3.52	27690.740	27690.740	bb			0.4830	96.59	-3.41	10009....	

MAT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nainb.rcf
;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWW 01-07-08

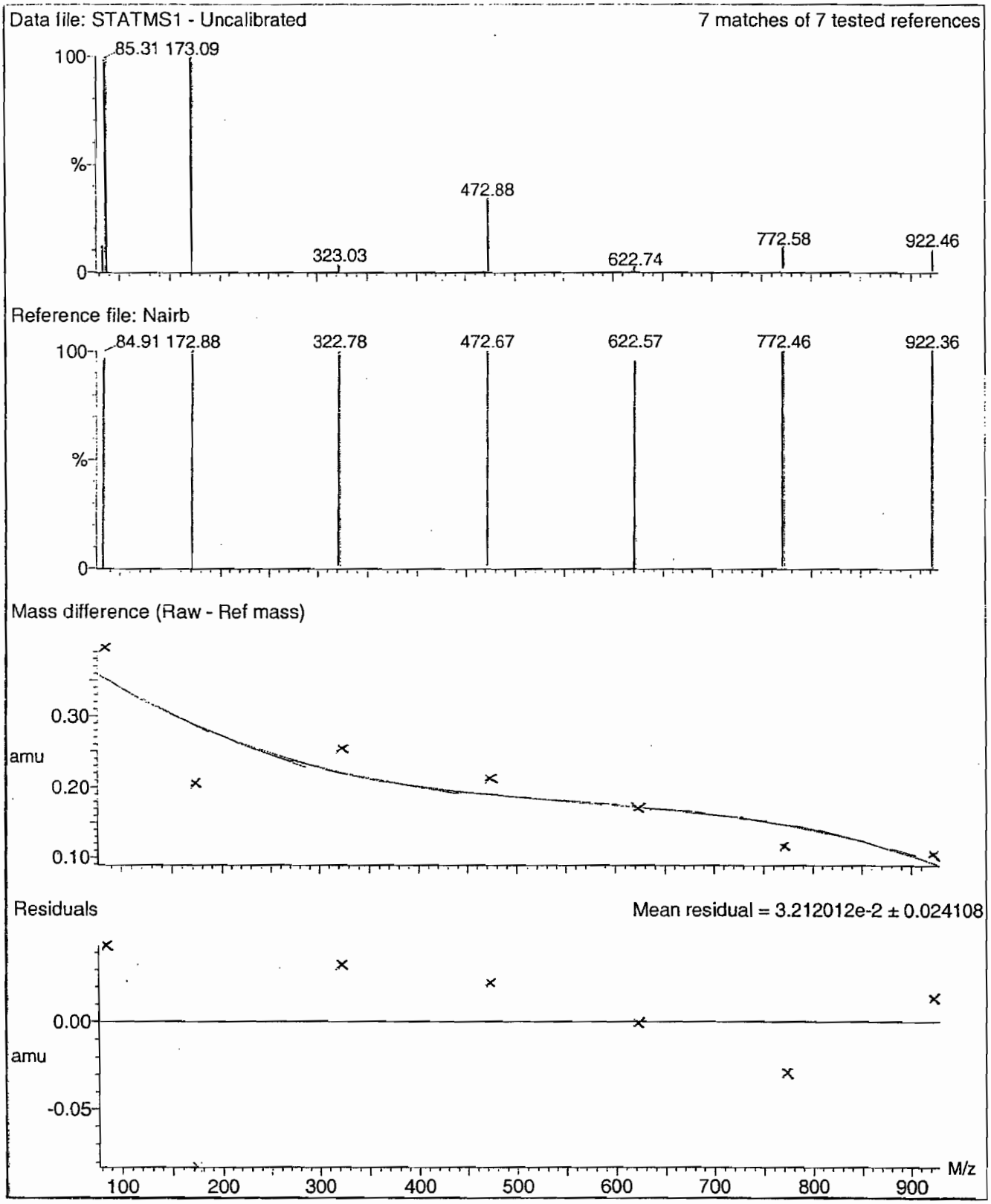

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

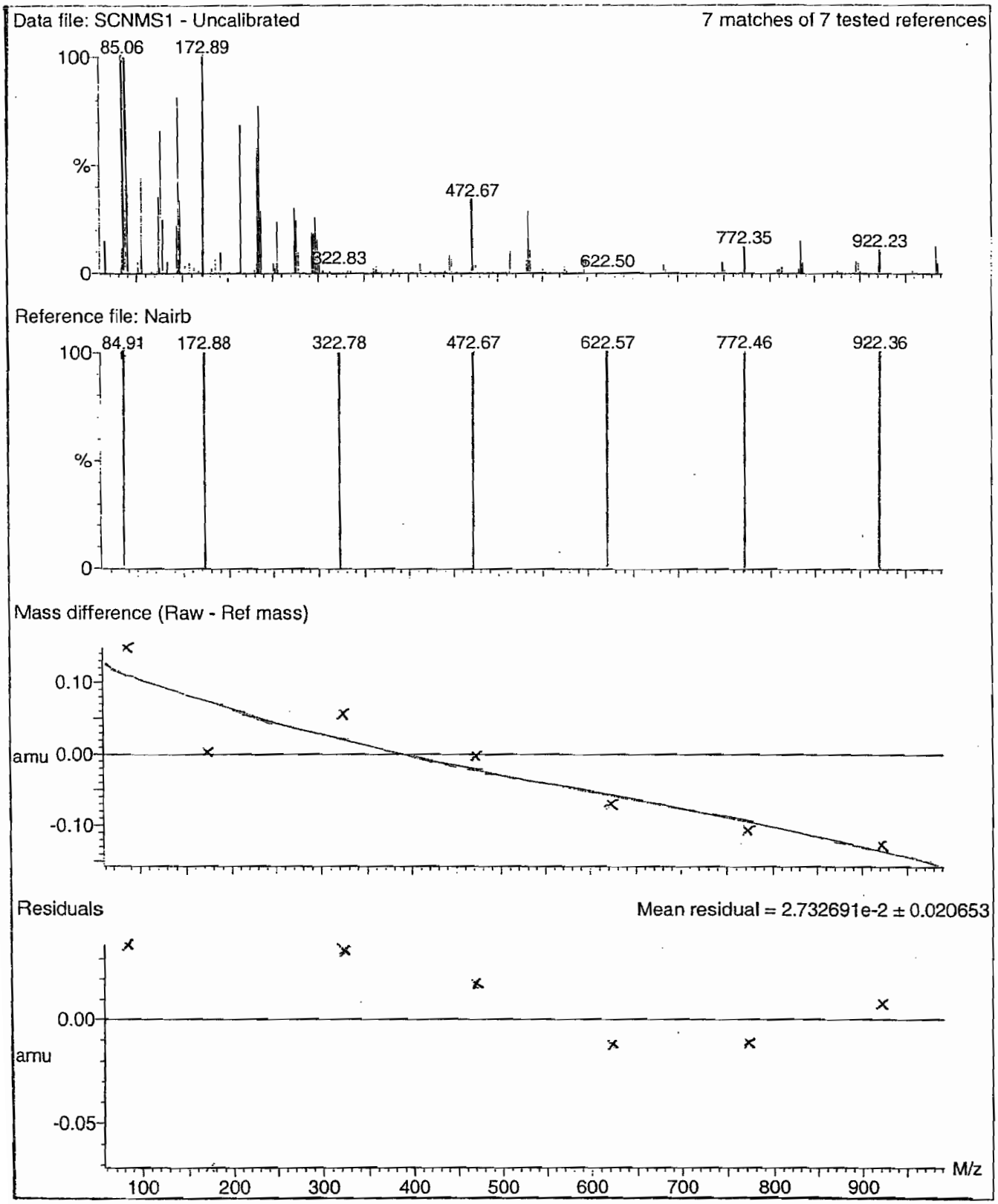

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

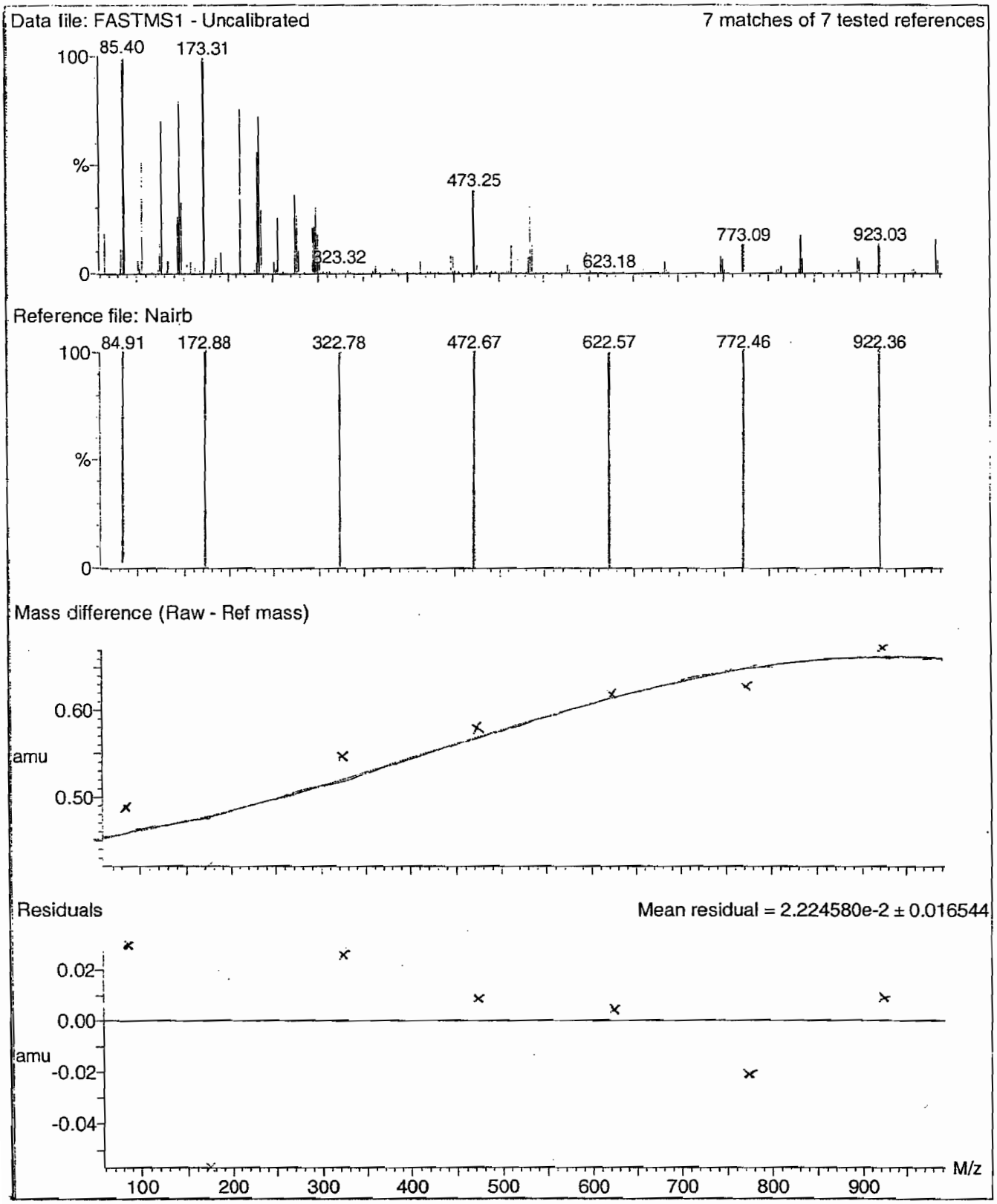

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

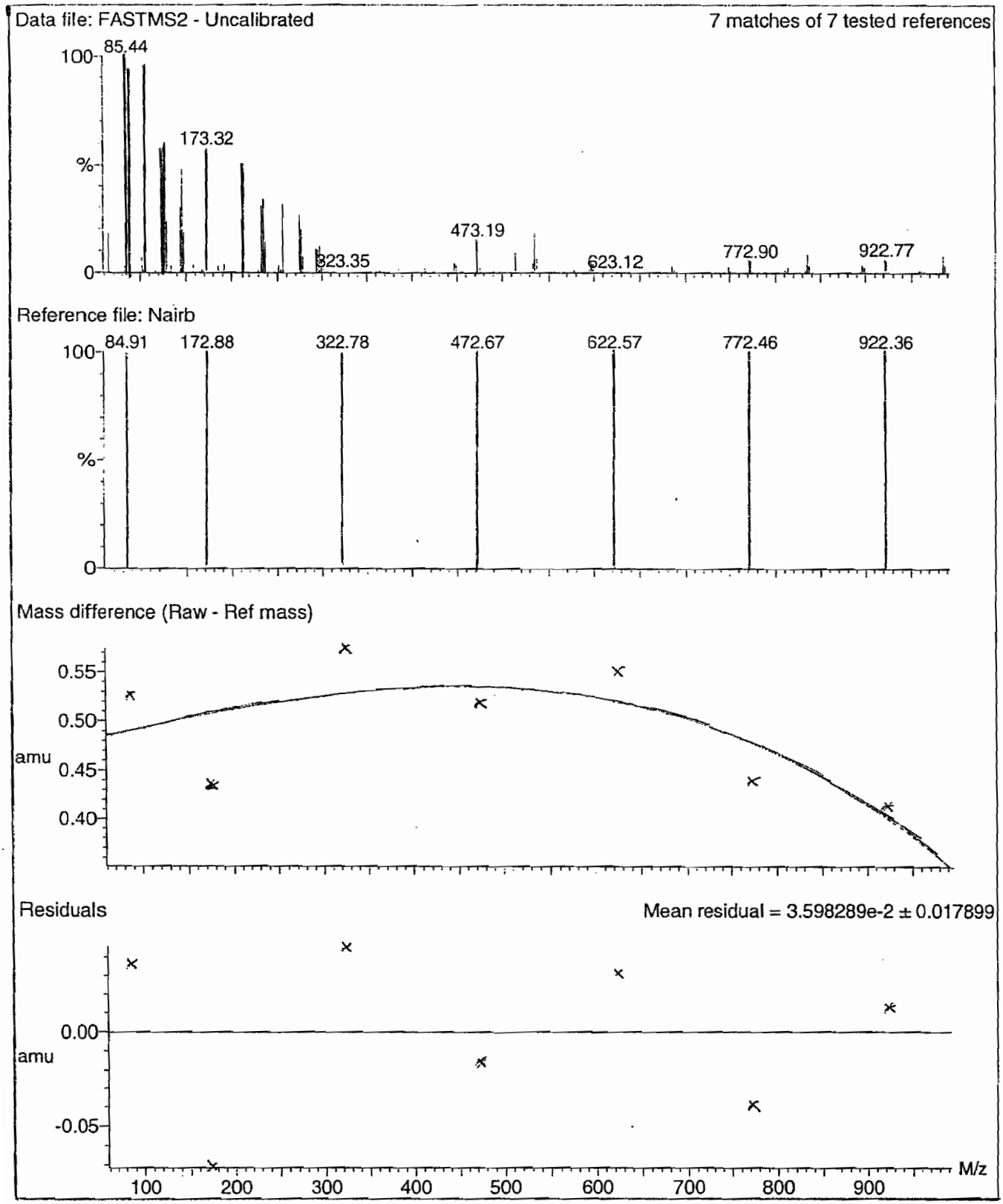

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

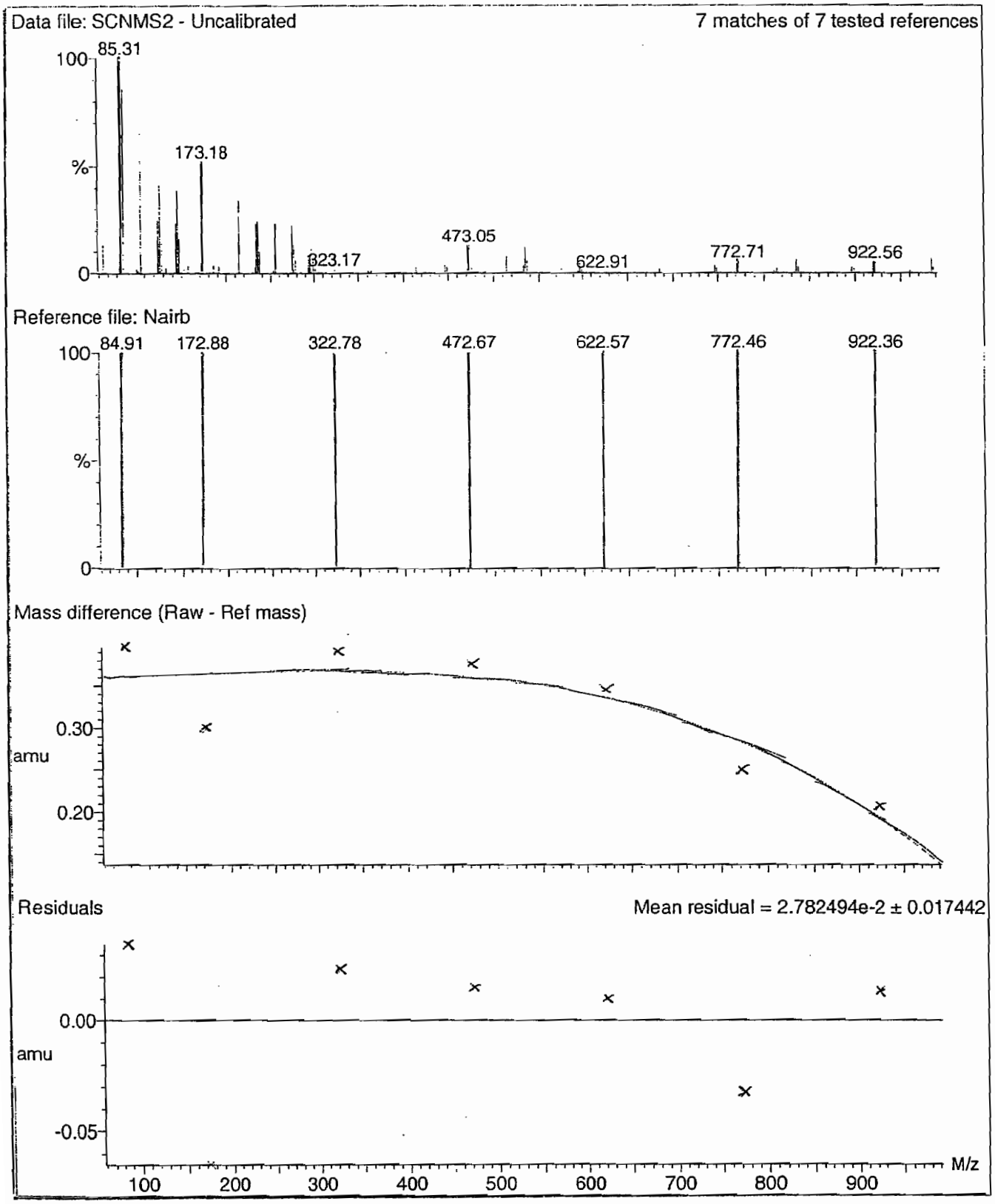

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

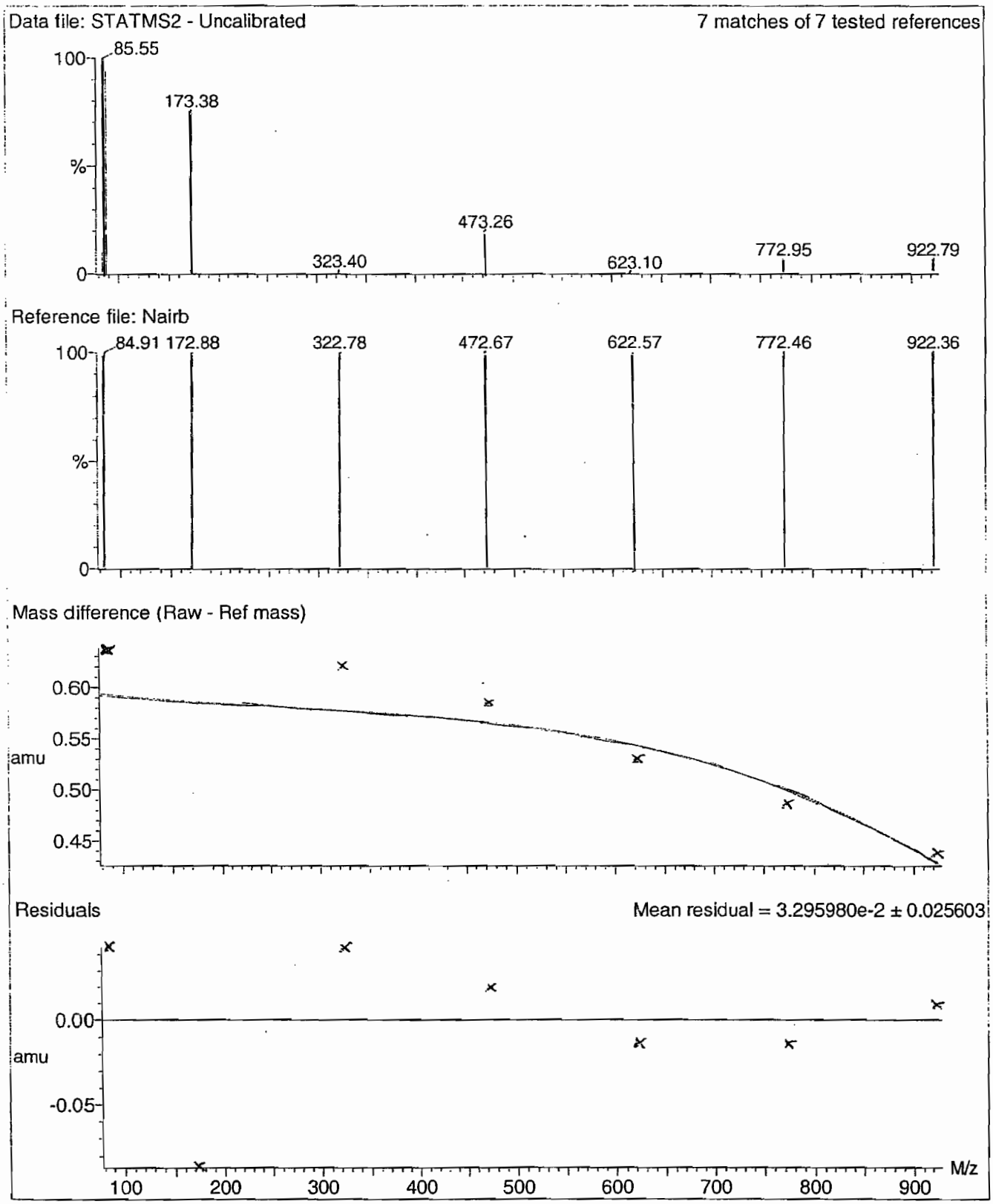

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Sunday, March 28, 2010 11:58:51 Eastern Standard Time

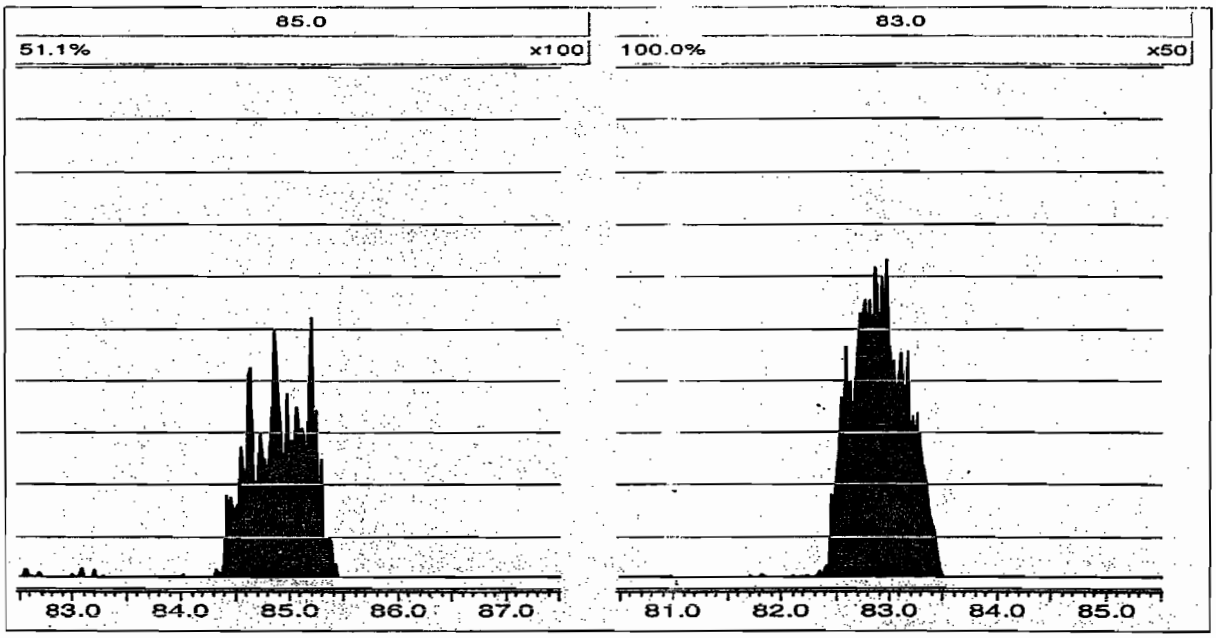

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2320

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0328006a**	**28–MAR–10**	**28421.6**				
Lower Area Limit			**14210.8**				
Upper Area Limit			**56843.2**				
1202069098	per0328015a	28–MAR–10 15:49	27626.8	3.53			
1202069099	per0328016a	28–MAR–10 15:58	28717.2	3.53	3.54503	1.004	
1202069102	per0328017a	28–MAR–10 16:06	31144.2	3.62	3.63188	1.003	
248867001	per0328030a	28–MAR–10 17:57	28519.2	3.52	3.53257	1.004	
248867002	per0328031a	28–MAR–10 18:06	28394.7	3.52	3.53252	1.004	
248867003	per0328032a	28–MAR–10 18:15	28117.8	3.52	3.54502	1.007	
248867004	per0328033a	28–MAR–10 18:23	28511	3.52	3.54505	1.007	

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12931

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2320

GEL Sample ID: 248867001

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.616	2.46	0.616	ug/kg	U	1	28-MAR-10 17:57	per0328030a
	Perchlorate Isotope Ratio						1	28-MAR-10 17:57	per0328030a
14797-73-0	Perchlorate-101	.616	2.46	0.616	ug/kg	U	1	28-MAR-10 17:57	per0328030a
	Perchlorate-O(18)			6.13	ug/kg		1	28-MAR-10 17:57	per0328030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328030a
Date: 28-Mar-2010
Time: 17:57:56
ID: 248867001
Vial: 1:5,C

|LANL| 964450 | 3320 | 1 | na

03-29-10

Perchlorate

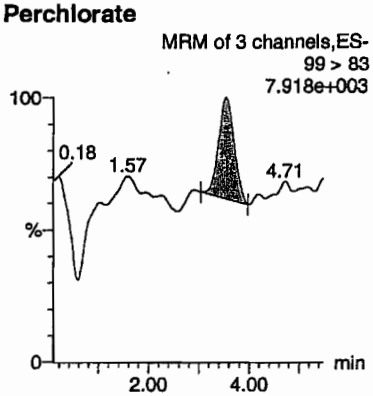

Perchlorate

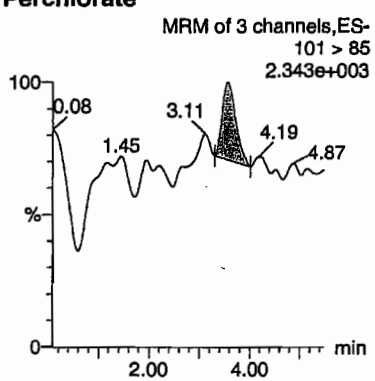

Perchlorate-101

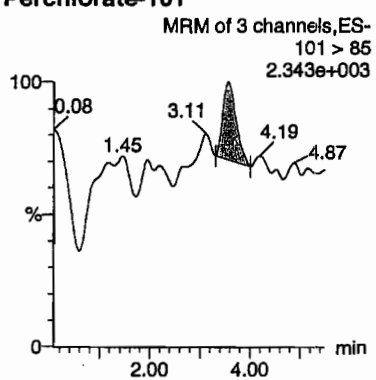

Perchlorate-O(18)

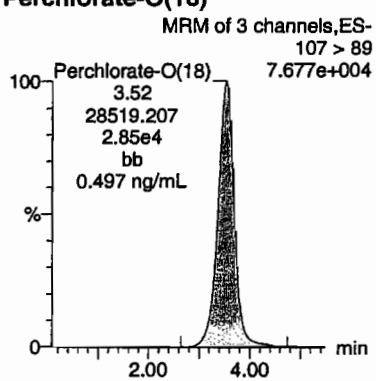

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248867001	Perchlorate	99 > 83	3.53	1081.729	1081.729	bb			0.0147			20.599	5.07
248867001	Perchlorate-101	101 > 85	3.56	213.175	213.175	bb			0.0093			7.789	
248867001	Perchlorate-O(18)	107 > 89	3.52	28519.207	28519.207	bb			0.4974	99.48	-0.52	1875.4...	

0.494
<0.050
MAT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12932

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2320

GEL Sample ID: 248867002

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.605	2.42	0.605	ug/kg	U	1	28-MAR-10 18:06	per0328031a
	Perchlorate Isotope Ratio						1	28-MAR-10 18:06	per0328031a
14797-73-0	Perchlorate-101	.605	2.42	0.605	ug/kg	U	1	28-MAR-10 18:06	per0328031a
	Perchlorate-O(18)			5.99	ug/kg		1	28-MAR-10 18:06	per0328031a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328031a
Date: 28-Mar-2010
Time: 18:06:29
ID: 248867002
Vial: 1:5,D

|LANL|964450|50120|11|

CWW 03-29-10

Perchlorate

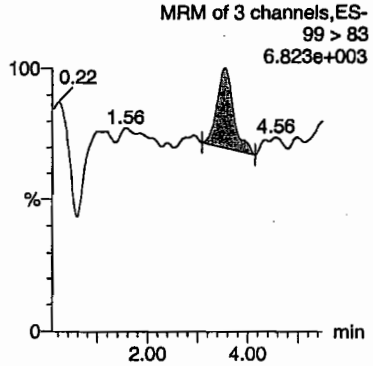

Perchlorate

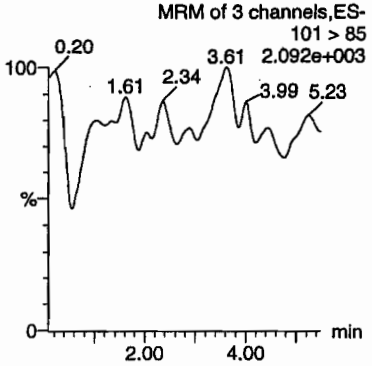

Perchlorate-101

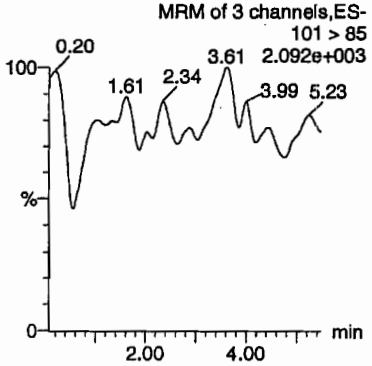

Perchlorate-O(18)

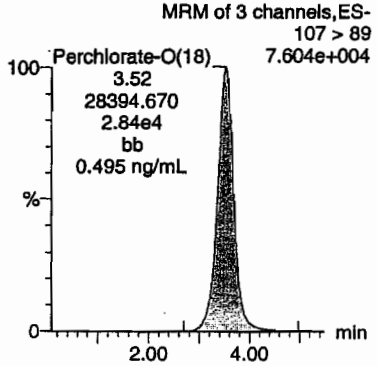

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248867002	Perchlorate	99 > 83	3.53	780.952	780.952	bb			0.0106			14.640	0.00
248867002	Perchlorate-101	101 > 85											
248867002	Perchlorate-O(18)	107 > 89	3.52	28394.670	28394.670	bb			0.4953	✓99.05	-0.95	2291.2...	

MJT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12934

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2320

GEL Sample ID: 248867003

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.592	2.37	0.592	ug/kg	U	1	28-MAR-10 18:15	per0328032a
	Perchlorate Isotope Ratio						1	28-MAR-10 18:15	per0328032a
14797-73-0	Perchlorate-101	.592	2.37	0.592	ug/kg	U	1	28-MAR-10 18:15	per0328032a
	Perchlorate-O(18)			5.80	ug/kg		1	28-MAR-10 18:15	per0328032a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328032a
Date: 28-Mar-2010
Time: 18:15:01
ID: 248867003
Vial: 1:5,E

|LANL|964450|50120|1|

CW 03-29-10

Perchlorate

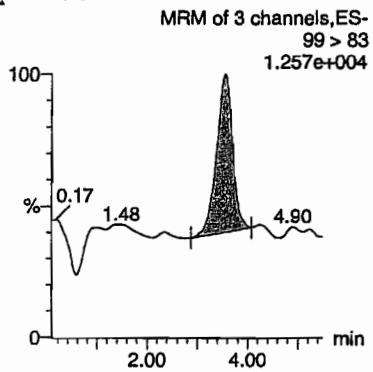

Perchlorate

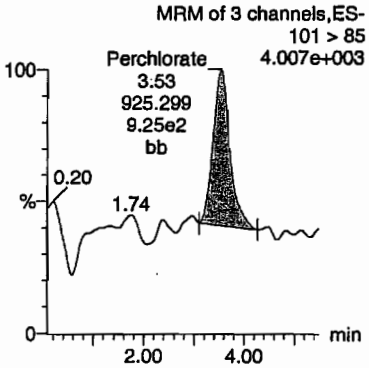

Perchlorate-101

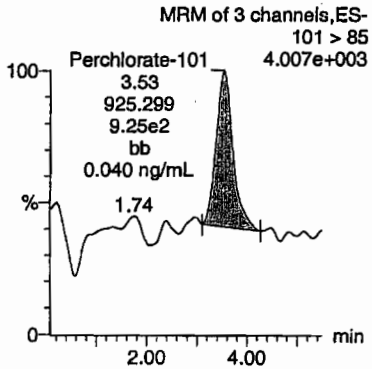

Perchlorate-O(18)

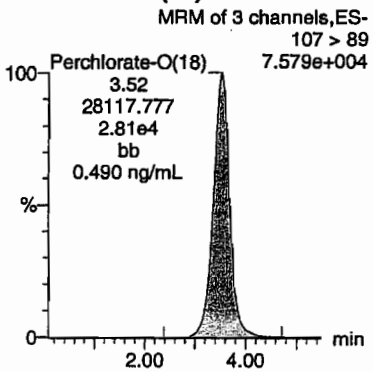

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248867003	Perchlorate	99 > 83	3.55	2780.149	2780.149	bb			0.0377			50.407	3.00
248867003	Perchlorate-101	101 > 85	3.53	925.299	925.299	bb			0.0402			17.092	
248867003	Perchlorate-O(18)	107 > 89	3.52	28117.777	28117.777	bb			0.4904	98.08	-1.92	2269.3...	

MJT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-12933

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2320

GEL Sample ID: 248867004

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.595	2.38	0.595	ug/kg	U	1	28-MAR-10 18:23	per0328033a
	Perchlorate Isotope Ratio						1	28-MAR-10 18:23	per0328033a
14797-73-0	Perchlorate-101	.595	2.38	0.595	ug/kg	U	1	28-MAR-10 18:23	per0328033a
	Perchlorate-O(18)			5.91	ug/kg		1	28-MAR-10 18:23	per0328033a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328033a
Date: 28-Mar-2010
Time: 18:23:33
ID: 248867004
Vial: 1:5,F

|LANL|964450|50120|11|

CWW 03-29-10

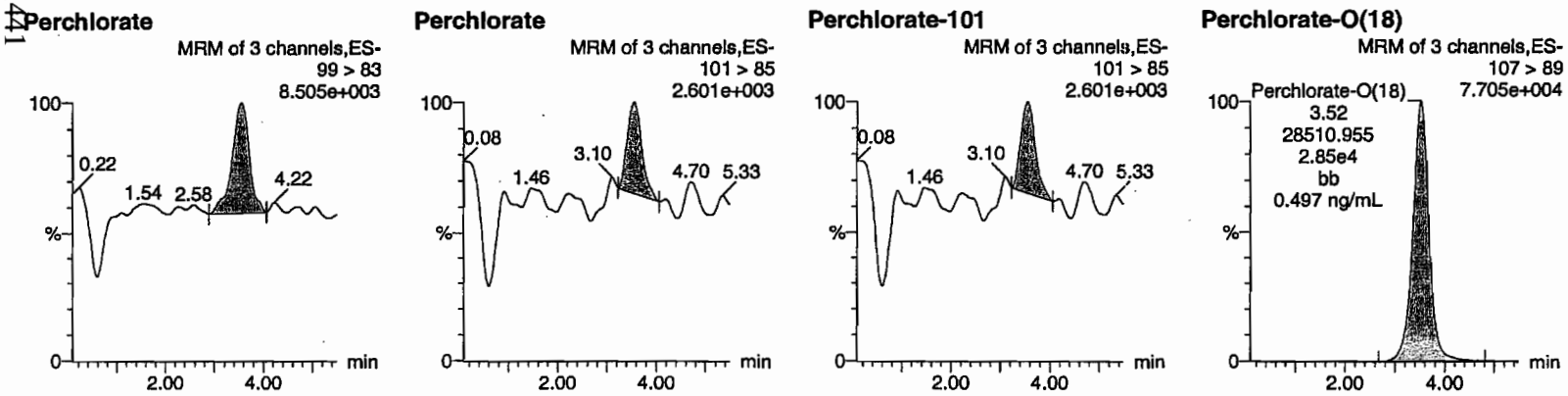

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248867004	Perchlorate	99 > 83	3.55	1479.538	1479.538	bb			0.0201			17.508	4.84
248867004	Perchlorate-101	101 > 85	3.55	305.596	305.596	bb			0.0133			4.975	
248867004	Perchlorate-O(18)	107 > 89	3.52	28510.955	28510.955	bb			0.4973	99.46	-0.54	2644.1...	

- OK
< 0.050
MAT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2320

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 28–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 73726.48

Response Type: External Standard

Curve Type: RF

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2320

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 28–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 23033

Response Type: External Standard

Curve Type: RF

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032810a.mdb 29 Mar 2010 09:32:17
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032810a.cdb 29 Mar 2010 09:32:40

Compound name: Perchlorate
Response Factor: 73726.5
RRF SD: 1732.62, % Relative SD: 2.35006
Response type: External Std, Area
Curve type: RF

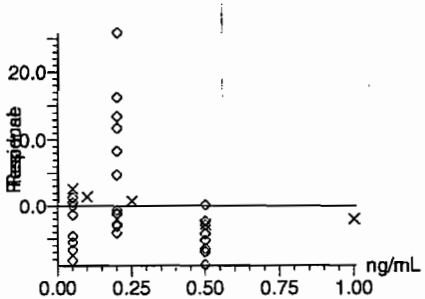

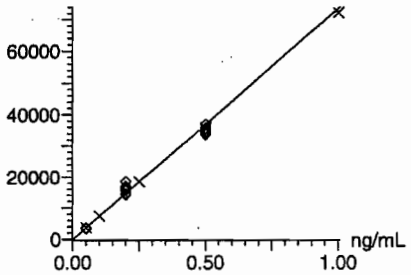

CWD
03-29-10

Compound name: Perchlorate-101
Response Factor: 23033
RRF SD: 903.383, % Relative SD: 3.92213
Response type: External Std, Area
Curve type: RF

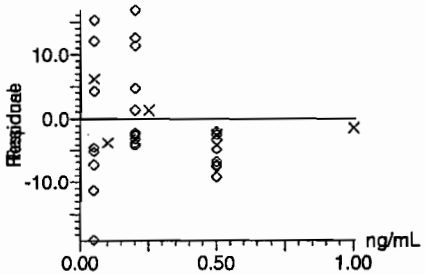

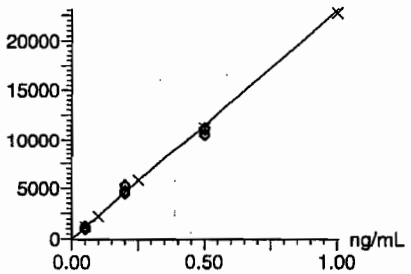

MMT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 57333.8
RRF SD: 1178.71, % Relative SD: 2.05586
Response type: External Std, Area
Curve type: RF

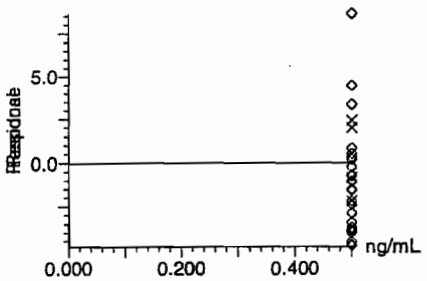

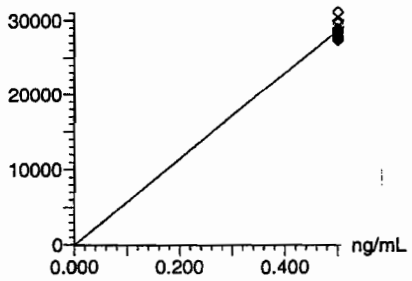

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2320

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	97.61	28–MAR–10 14:58	per0328009a
Perchlorate Isotope Ratio		3.19		28–MAR–10 14:58	per0328009a
Perchlorate–101	.5	.49	98.08	28–MAR–10 14:58	per0328009a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Pass

CWW 03-29-10

Name: per0328009a
Date: 28-Mar-2010
Time: 14:58:36
ID: WCL100326-06ICV
Vial: 1:2,A

Perchlorate

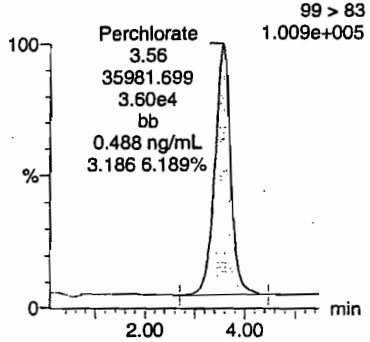

Perchlorate

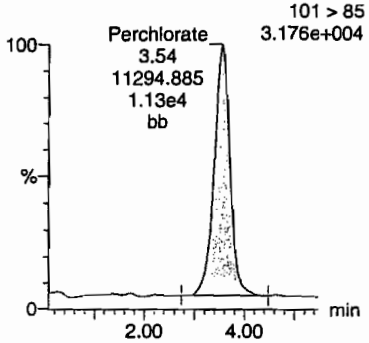

Perchlorate-101

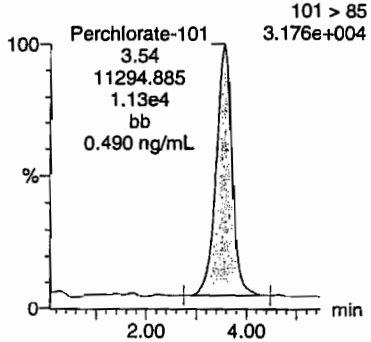

Perchlorate-O(18)

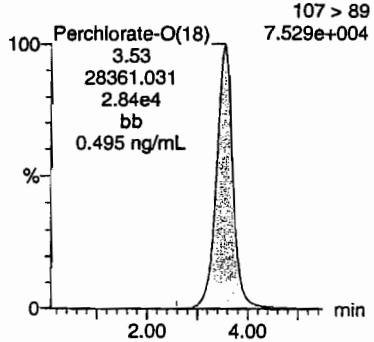

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06ICV	Perchlorate	99 > 83	3.56	35981.699	35981.699	bb			0.4880	97.61	-2.39	915.246	3.19
WCL100326-06ICV	Perchlorate-101	101 > 85	3.54	11294.885	11294.885	bb			0.4904	98.08	-1.92	276.628	
WCL100326-06ICV	Perchlorate-O(18)	107 > 89	3.53	28361.031	28361.031	bb			0.4947	98.93	-1.07	3706.3...	

LMT 3/30/10

$$\frac{35981.699}{73726.5} = 0.4880$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2320

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.47	94.8	28–MAR–10 16:49	per0328022a
Perchlorate Isotope Ratio		3.28		28–MAR–10 16:49	per0328022a
Perchlorate–101	.5	.46	92.59	28–MAR–10 16:49	per0328022a
Perchlorate	.5	.5	100.11	28–MAR–10 18:40	per0328035a
Perchlorate Isotope Ratio		3.31		28–MAR–10 18:40	per0328035a
Perchlorate–101	.5	.48	96.74	28–MAR–10 18:40	per0328035a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Page 297 of 1441

Name: per0328022a
Date: 28-Mar-2010
Time: 16:49:40
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
03-29-10

Perchlorate

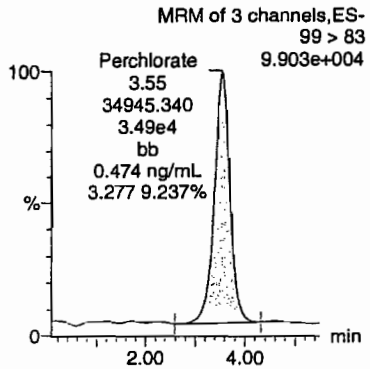

Perchlorate

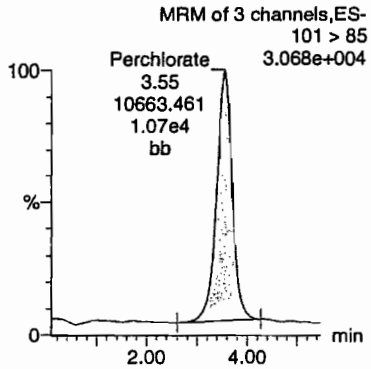

Perchlorate-101

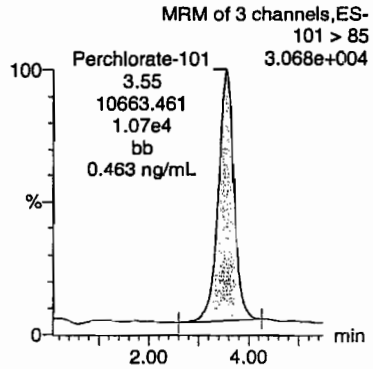

Perchlorate-O(18)

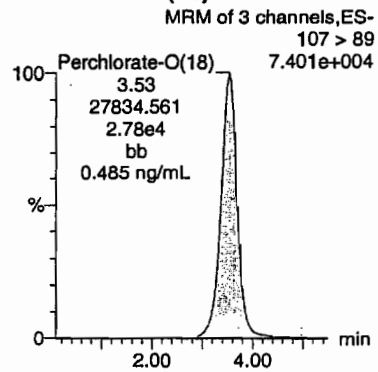

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.55	34945.340	34945.340	bb			0.4740	94.80	-5.20	432.965	3.28
WCL100326-06CCV	Perchlorate-101	101 > 85	3.55	10663.461	10663.461	bb			0.4630	92.59	-7.41	677.245	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.53	27834.561	27834.561	bb			0.4855	97.10	-2.90	5758.9...	

MM 7/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Page 298 of 144

Name: per0328035a
Date: 28-Mar-2010
Time: 18:40:39
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
03-29-10

Perchlorate

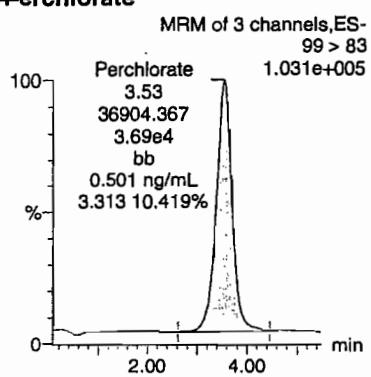

Perchlorate

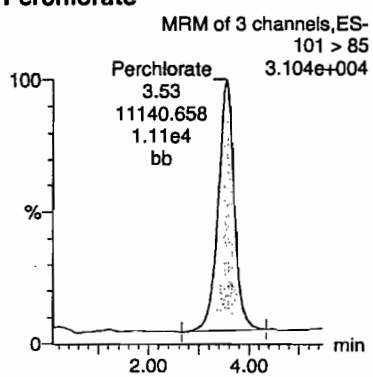

Perchlorate-101

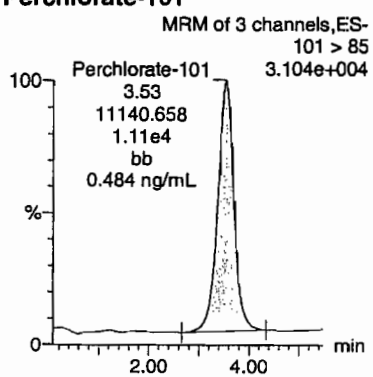

Perchlorate-O(18)

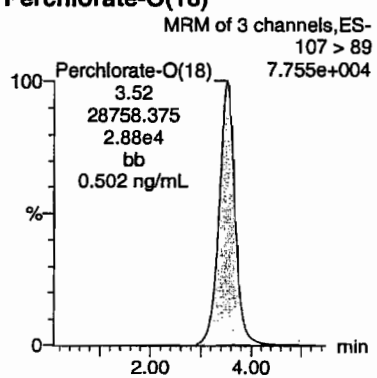

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.53	36904.367	36904.367	bb			0.5006	100.11	0.11	986.950	3.31
WCL100326-06CCV	Perchlorate-101	101 > 85	3.53	11140.658	11140.658	bb			0.4837	96.74	-3.26	547.613	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.52	28758.375	28758.375	bb			0.5016	100.32	0.32	150.701	

MATT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2320

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	94.53	28–MAR–10 15:15	per0328011a
Perchlorate Isotope Ratio		2.7		28–MAR–10 15:15	per0328011a
Perchlorate–101	.05	.06	112.08	28–MAR–10 15:15	per0328011a
Perchlorate	.05	.05	98.65	28–MAR–10 17:06	per0328024a
Perchlorate Isotope Ratio		3.41		28–MAR–10 17:06	per0328024a
Perchlorate–101	.05	.05	92.66	28–MAR–10 17:06	per0328024a
Perchlorate	.05	.05	93.38	28–MAR–10 18:57	per0328037a
Perchlorate Isotope Ratio		3.15		28–MAR–10 18:57	per0328037a
Perchlorate–101	.05	.05	94.74	28–MAR–10 18:57	per0328037a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328011a
Date: 28-Mar-2010
Time: 15:15:40
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
and
03-29-10

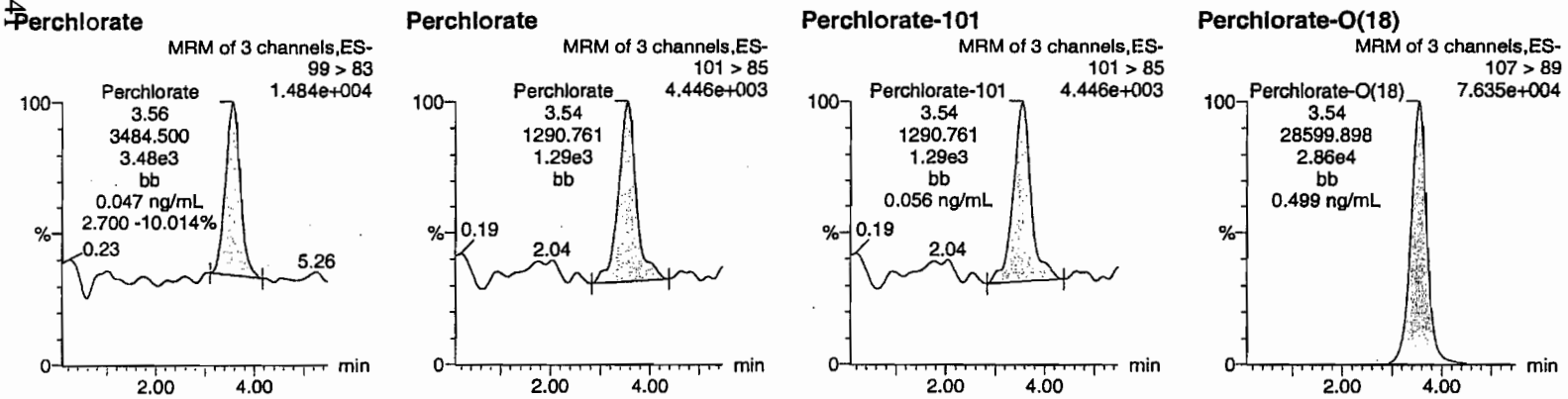

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.56	3484.500	3484.500	bb			0.0473	94.53	-5.47	43.366	2.70
WCL100326-07CRI	Perchlorate-101	101 > 85	3.54	1290.761	1290.761	bb			0.0560	112.08	12.08	18.604	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.54	28599.898	28599.898	bb			0.4988	99.77	-0.23	3124.1...	

MMT 3/30/10

$$\frac{3484.500}{1290.761} = 2.6996$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Page 30 of 441

Name: per0328024a
Date: 28-Mar-2010
Time: 17:06:44
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
aw
03-29-10

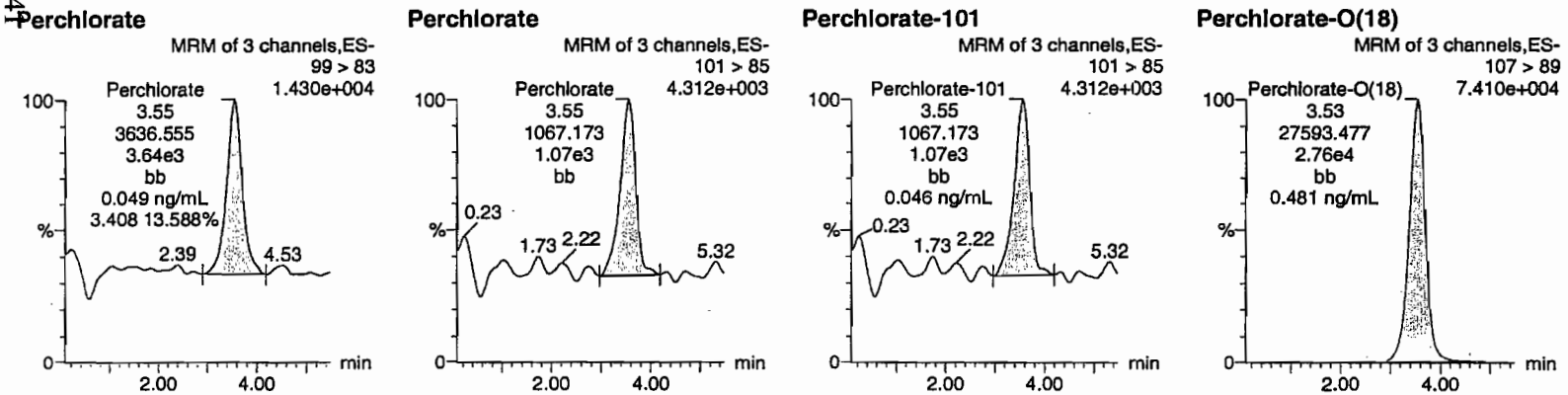

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.55	3636.555	3636.555	bb			0.0493	98.65	-1.35	51.357	3.41
WCL100326-07CRI	Perchlorate-101	101 > 85	3.55	1067.173	1067.173	bb			0.0463	92.66	-7.34	20.263	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.53	27593.477	27593.477	bb			0.4813	96.26	-3.74	1525.0...	

MMT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328037a
Date: 28-Mar-2010
Time: 18:57:43
ID: WCL100326-07CRI
Vial: 1:2,B

Pers
03-29-10

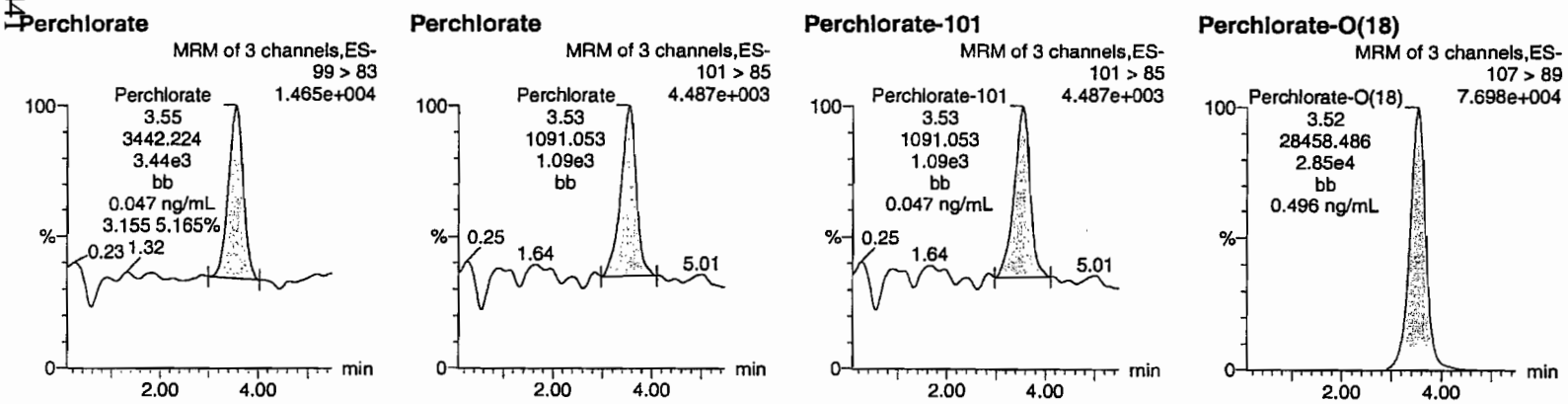

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.55	3442.224	3442.224	bb			0.0467	93.38	-6.62	71.164	3.15
WCL100326-07CRI	Perchlorate-101	101 > 85	3.53	1091.053	1091.053	bb			0.0474	94.74	-5.26	28.828	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.52	28458.486	28458.486	bb			0.4964	99.27	-0.73	6519.7...	

MJP
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 19-MAR-10

GEL Job No (SDG): 10-2320

GEL Sample ID: 1202069098

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	28-MAR-10 15:49	per0328015a
	Perchlorate Isotope Ratio						1	28-MAR-10 15:49	per0328015a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	28-MAR-10 15:49	per0328015a
	Perchlorate-O(18)			4.82	ug/kg		1	28-MAR-10 15:49	per0328015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328015a
Date: 28-Mar-2010
Time: 15:49:54
ID: 1202069098
Vial: 1:3,C

|LANC|964450|50120|MB|1|RA

CWD 03-29-10

Perchlorate

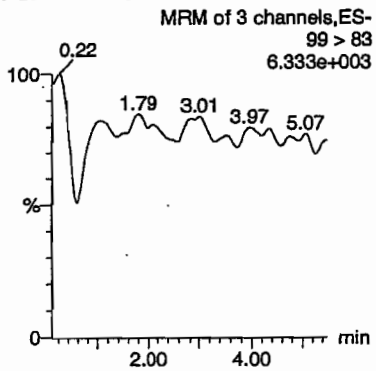

Perchlorate

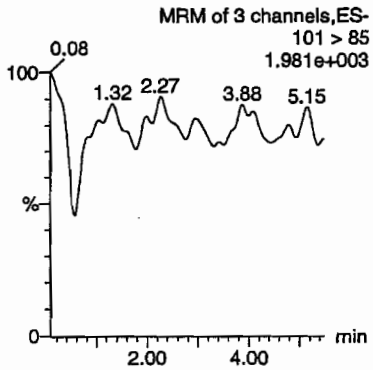

Perchlorate-101

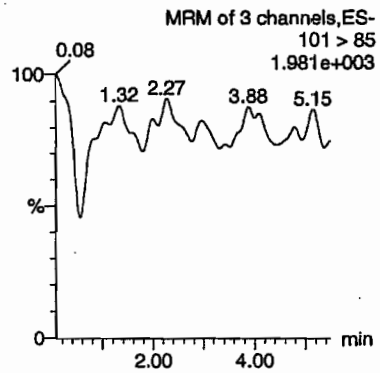

Perchlorate-O(18)

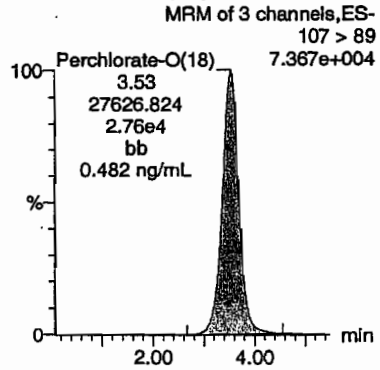

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	Conc ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202069098	Perchlorate	99 > 83											0.00
1202069098	Perchlorate-101	101 > 85											
1202069098	Perchlorate-O(18)	107 > 89	3.53	27626.824	27626.824	bb			0.4819	96.37	-3.63	1342.5...	

MAT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 19–MAR–10

GEL Job No (SDG): 10–2320

GEL Sample ID: 1202069099

Date Filtered: 19–MAR–10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.5	2	1.99	ug/kg	J	1	28–MAR–10 15:58	per0328016a
	Perchlorate Isotope Ratio			3.25			1	28–MAR–10 15:58	per0328016a
14797–73–0	Perchlorate–101	.5	2	1.95	ug/kg	J	1	28–MAR–10 15:58	per0328016a
	Perchlorate–O(18)			5.01	ug/kg		1	28–MAR–10 15:58	per0328016a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328016a
Date: 28-Mar-2010
Time: 15:58:26
ID: 1202069099
Vial: 1:3,D

|LANL|964450|SDLCD|LCS|1|

CWO 03-29-10

Perchlorate

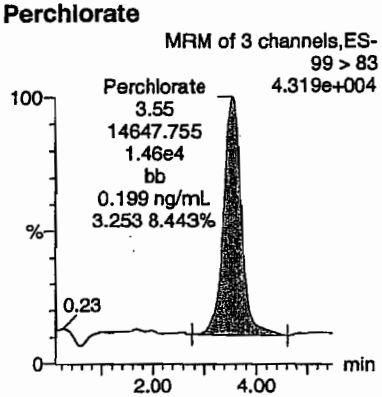

Perchlorate

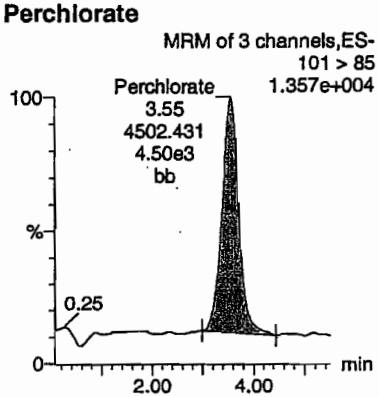

Perchlorate-101

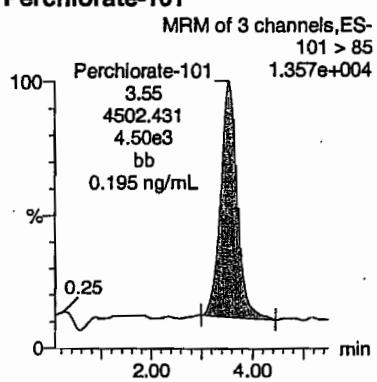

Perchlorate-O(18)

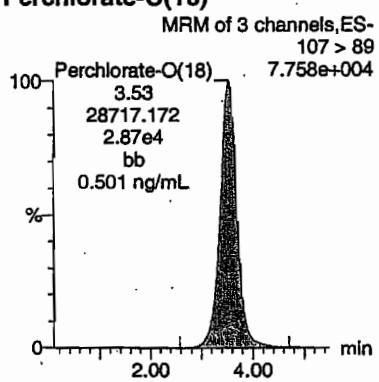

ID	Name	Trace	RT	Area	Response	Flags	Modifiers	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202069099	Perchlorate	99 > 83	3.55	14647.755	14647.755	bb			0.1987	99.34	-0.66	189.751	3.25
1202069099	Perchlorate-101	101 > 85	3.55	4502.431	4502.431	bb			0.1955	97.74	-2.26	143.529	
1202069099	Perchlorate-O(18)	107 > 89	3.53	28717.172	28717.172	bb			0.5009	100.18	0.18	2220.8...	

MHT 3/30/10

$$\frac{14647.755}{73726.5} = 0.1987$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 964449 **Verified by:** _____

Analyst: Kaylie Westmoreland

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202069098 MB	19-MAR-2010 14:27:00	2	20	10
1202069099 LCS	19-MAR-2010 14:27:00	2	20	10
248863001	19-MAR-2010 14:27:00	2	20	10
248863002	19-MAR-2010 14:27:00	2	20	10
1202069100 MS (248863002)	19-MAR-2010 14:27:00	2	20	10
1202069101 MSD (248863002)	19-MAR-2010 14:27:00	2	20	10
248863003	19-MAR-2010 14:27:00	2	20	10
248863004	19-MAR-2010 14:27:00	2	20	10
248865001	19-MAR-2010 14:27:00	2	20	10
248866001	19-MAR-2010 14:27:00	2	20	10
248866002	19-MAR-2010 14:27:00	2	20	10
248867001	19-MAR-2010 14:27:00	2	20	10
248867002	19-MAR-2010 14:27:00	2	20	10
248867003	19-MAR-2010 14:27:00	2	20	10
248867004	19-MAR-2010 14:27:00	2	20	10
249055001	19-MAR-2010 14:27:00	2	20	10
249055002	19-MAR-2010 14:27:00	2	20	10
249057002	19-MAR-2010 14:27:00	2	20	10
249057003	19-MAR-2010 14:27:00	2	20	10
249064002	19-MAR-2010 14:27:00	2	20	10
249064003	19-MAR-2010 14:27:00	2	20	10
249064004	19-MAR-2010 14:27:00	2	20	10
249064005	19-MAR-2010 14:27:00	2	20	10
1202069102 ICS	19-MAR-2010 14:27:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202069102	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
LCS	1202069099	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
MS	1202069100	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
MSD	1202069101	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL

Comments:

Desalting Cartridges used: 100224-1-Ba & 100223-1-H

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS#2

Date: 03/28/10
Extr. Injection Volume: 20uL
Sequence Number: per032810a
Initial Calibration Date: 03/28/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1284736
Standard-Samp Reagent Lot#:: 1284736

Reviewed BY: [illegible]
Date: 3/30/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100326-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0328001a	IPB001	CWW	3/28/2010 13:50			1		USE	B
per0328002a	IPB001	CWW	3/28/2010 13:58			1		USE	B
per0328003a	WCLICAL-01	CWW	3/28/2010 14:07			1		USE	I
per0328004a	WCLICAL-02	CWW	3/28/2010 14:16			1		USE	I
per0328005a	WCLICAL-03	CWW	3/28/2010 14:24			1		USE	I
per0328006a	WCLICAL-04	CWW	3/28/2010 14:33			1		USE	I
per0328007a	WCLICAL-05	CWW	3/28/2010 14:41			1		USE	I
per0328008a	IPB002	CWW	3/28/2010 14:50			1		USE	B
per0328009a	WCLICV	CWW	3/28/2010 14:58			1		USE	C
per0328010a	IPB003	CWW	3/28/2010 15:07			1		USE	B
per0328011a	WCLCRI	CWW	3/28/2010 15:15			1		USE	C
per0328012a	249376001	CWW	3/28/2010 15:24	966566	10-2446	1	LANL	USE	S
per0328013a	249376004	CWW	3/28/2010 15:32	966566	10-2446	1	LANL	USE	S
per0328014a	IPB004	CWW	3/28/2010 15:41			1		USE	B
per0328015a	1202069098	CWW	3/28/2010 15:49	964450	VARIOUS	1	LANL	USE	S
per0328016a	1202069099	CWW	3/28/2010 15:58	964450	VARIOUS	1	LANL	USE	S
per0328017a	1202069102	CWW	3/28/2010 16:06	964450	VARIOUS	1	LANL	USE	S
per0328018a	248863001	CWW	3/28/2010 16:15	964450	10-2315	1	LANL	USE	S
per0328019a	248863002	CWW	3/28/2010 16:24	964450	10-2315	1	LANL	USE	S
per0328020a	1202069100	CWW	3/28/2010 16:32	964450	10-2315	1	LANL	USE	S
per0328021a	1202069101	CWW	3/28/2010 16:41	964450	10-2315	1	LANL	USE	S
per0328022a	WCLCCV	CWW	3/28/2010 16:49			1		USE	C
per0328023a	IPB005	CWW	3/28/2010 16:58			1		USE	B
per0328024a	WCLCRI	CWW	3/28/2010 17:06			1		USE	C
per0328025a	248863003	CWW	3/28/2010 17:15	964450	10-2315	1	LANL	USE	S
per0328026a	248863004	CWW	3/28/2010 17:23	964450	10-2315	1	LANL	USE	S
per0328027a	248865001	CWW	3/28/2010 17:32	964450	10-2318	1	LANL	USE	S
per0328028a	248866001	CWW	3/28/2010 17:40	964450	10-2319	1	LANL	USE	S
per0328029a	248866002	CWW	3/28/2010 17:49	964450	10-2319	1	LANL	USE	S

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per0328030a	248867001	CWW	3/28/2010 17:57	964450	10-2320	1	LANL	USE	S
per0328031a	248867002	CWW	3/28/2010 18:06	964450	10-2320	1	LANL	USE	S
per0328032a	248867003	CWW	3/28/2010 18:15	964450	10-2320	1	LANL	USE	S
per0328033a	248867004	CWW	3/28/2010 18:23	964450	10-2320	1	LANL	USE	S
per0328034a	249055001	CWW	3/28/2010 18:32	964450	10-2349	1	LANL	USE	S
per0328035a	WCLCCV	CWW	3/28/2010 18:40			1		USE	C
per0328036a	IPB006	CWW	3/28/2010 18:49			1		USE	B
per0328037a	WCLCRI	CWW	3/28/2010 18:57			1		USE	C
per0328038a	1202068347	CWW	3/28/2010 19:06	964122	VARIOUS	1	LANL	USE	S
per0328039a	1202068348	CWW	3/28/2010 19:15	964122	VARIOUS	1	LANL	USE	S
per0328040a	1202068351	CWW	3/28/2010 19:23	964122	VARIOUS	1	LANL	USE	S
per0328041a	248814001	CWW	3/28/2010 19:32	964122	10-2303	1	LANL	USE	S
per0328042a	248814002	CWW	3/28/2010 19:40	964122	10-2303	1	LANL	USE	S
per0328043a	248814003	CWW	3/28/2010 19:49	964122	10-2303	1	LANL	USE	S
per0328044a	248814004	CWW	3/28/2010 19:57	964122	10-2303	1	LANL	USE	S
per0328045a	248814005	CWW	3/28/2010 20:06	964122	10-2303	1	LANL	USE	S
per0328046a	248814006	CWW	3/28/2010 20:14	964122	10-2303	1	LANL	USE	S
per0328047a	248814007	CWW	3/28/2010 20:23	964122	10-2303	1	LANL	USE	S
per0328048a	WCLCCV	CWW	3/28/2010 20:31			1		USE	C
per0328049a	IPB007	CWW	3/28/2010 20:40			1		USE	B
per0328050a	WCLCRI	CWW	3/28/2010 20:49			1		USE	C
per0328051a	248814008	CWW	3/28/2010 20:57	964122	10-2303	1	LANL	USE	S
per0328052a	248814009	CWW	3/28/2010 21:06	964122	10-2303	1	LANL	USE	S
per0328053a	248860001	CWW	3/28/2010 21:14	964122	10-2313	1	LANL	USE	S
per0328054a	1202068349	CWW	3/28/2010 21:23	964122	10-2313	1	LANL	USE	S
per0328055a	1202068350	CWW	3/28/2010 21:31	964122	10-2313	1	LANL	USE	S
per0328056a	248860002	CWW	3/28/2010 21:40	964122	10-2313	1	LANL	USE	S
per0328057a	248860003	CWW	3/28/2010 21:48	964122	10-2313	1	LANL	USE	S
per0328058a	248860004	CWW	3/28/2010 21:57	964122	10-2313	1	LANL	USE	S
per0328059a	248860005	CWW	3/28/2010 22:05	964122	10-2313	1	LANL	USE	S
per0328060a	248860006	CWW	3/28/2010 22:14	964122	10-2313	1	LANL	USE	S
per0328061a	WCLCCV	CWW	3/28/2010 22:23			1		USE	C
per0328062a	IPB008	CWW	3/28/2010 22:31			1		USE	B
per0328063a	WCLCRI	CWW	3/28/2010 22:40			1		USE	C
per0328064a	248860007	CWW	3/28/2010 22:48	964122	10-2313	1	LANL	USE	S
per0328065a	248860008	CWW	3/28/2010 22:57	964122	10-2313	1	LANL	USE	S
per0328066a	248860009	CWW	3/28/2010 23:06	964122	10-2313	1	LANL	USE	S

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per0328067a	IPB009	CWW	3/28/2010 23:14			1		USE	B
per0328068a	1202069103	CWW	3/28/2010 23:23	964453	10-2357	1	LANL	USE	S
per0328069a	1202069104	CWW	3/28/2010 23:32	964453	10-2357	1	LANL	USE	S
per0328070a	1202069107	CWW	3/28/2010 23:40	964453	10-2357	1	LANL	USE	S
per0328071a	249076003	CWW	3/28/2010 23:49	964453	10-2357	1	LANL	USE	S
per0328072a	1202069105	CWW	3/28/2010 23:57	964453	10-2357	1	LANL	USE	S
per0328073a	1202069106	CWW	3/29/2010 0:06	964453	10-2357	1	LANL	USE	S
per0328074a	WCLCCV	CWW	3/29/2010 0:15			1		USE	C
per0328075a	IPB010	CWW	3/29/2010 0:23			1		USE	B
per0328076a	WCLCRI	CWW	3/29/2010 0:32			1		USE	C
per0328077a	249076004	CWW	3/29/2010 0:41	964453	10-2357	1	LANL	USE	S
per0328078a	249076005	CWW	3/29/2010 0:50	964453	10-2357	1	LANL	USE	S
per0328079a	249076006	CWW	3/29/2010 0:58	964453	10-2357	1	LANL	USE	S
per0328080a	249076007	CWW	3/29/2010 1:07	964453	10-2357	1	LANL	USE	S
per0328081a	249076008	CWW	3/29/2010 1:15	964453	10-2357	1	LANL	USE	S
per0328082a	249076009	CWW	3/29/2010 1:24	964453	10-2357	1	LANL	USE	S
per0328083a	249076010	CWW	3/29/2010 1:32	964453	10-2357	1	LANL	USE	S
per0328084a	249076011	CWW	3/29/2010 1:41	964453	10-2357	1	LANL	USE	S
per0328085a	249076012	CWW	3/29/2010 1:49	964453	10-2357	1	LANL	USE	S
per0328086a	249076013	CWW	3/29/2010 1:58	964453	10-2357	1	LANL	USE	S
per0328087a	WCLCCV	CWW	3/29/2010 2:07			1		USE	C
per0328088a	IPB011	CWW	3/29/2010 2:15			1		USE	B
per0328089a	WCLCRI	CWW	3/29/2010 2:24			1		USE	C
per0328090a	249076014	CWW	3/29/2010 2:32	964453	10-2357	1	LANL	USE	S
per0328091a	249076015	CWW	3/29/2010 2:41	964453	10-2357	1	LANL	USE	S
per0328092a	249076016	CWW	3/29/2010 2:50	964453	10-2357	1	LANL	USE	S
per0328093a	249076017	CWW	3/29/2010 2:58	964453	10-2357	1	LANL	USE	S
per0328094a	249076018	CWW	3/29/2010 3:07	964453	10-2357	1	LANL	USE	S
per0328095a	249076019	CWW	3/29/2010 3:15	964453	10-2357	1	LANL	USE	S
per0328096a	249076020	CWW	3/29/2010 3:24	964453	10-2357	1	LANL	USE	S
per0328097a	WCLCCV	CWW	3/29/2010 3:33			1		USE	C
per0328098a	IPB012	CWW	3/29/2010 3:41			1		USE	B
per0328099a	WCLCRI	CWW	3/29/2010 3:50			1		USE	C

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328020a
Date: 28-Mar-2010
Time: 16:32:35
ID: 1202069100
Vial: 1:4,B

|LZNL|964450|SD120|MS|1|RA

CWJ 03-29-10

Perchlorate

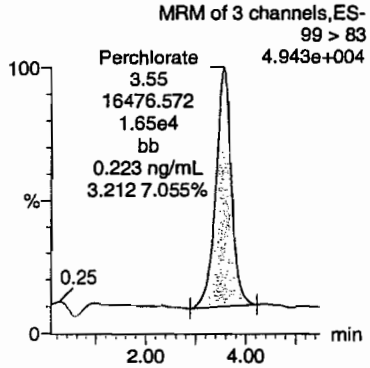

Perchlorate

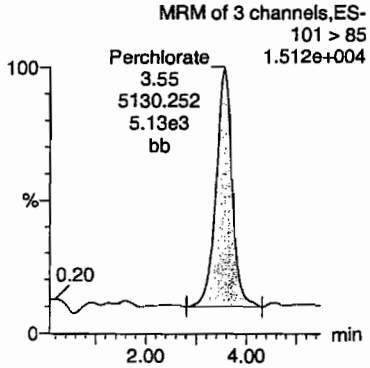

Perchlorate-101

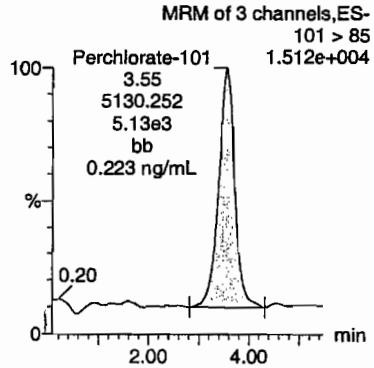

Perchlorate-O(18)

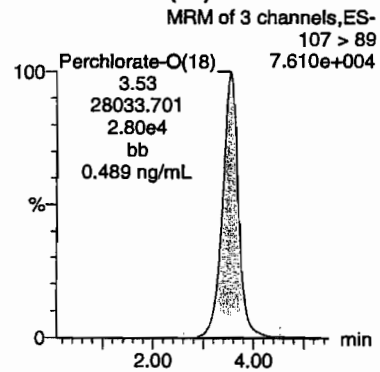

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202069100	Perchlorate	99 > 83	3.55	16476.572	16476.572	bb			0.2235	111.74	11.74	415.614	3.21
1202069100	Perchlorate-101	101 > 85	3.55	5130.252	5130.252	bb			0.2227	111.37	11.37	223.625	
1202069100	Perchlorate-O(18)	107 > 89	3.53	28033.701	28033.701	bb			0.4890	97.79	-2.21	2506.9...	

MATT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328021a
Date: 28-Mar-2010
Time: 16:41:07
ID: 1202069101
Vial: 1:4,C

|LANL|964450|50120|750|1|QA

03-24-10

Perchlorate

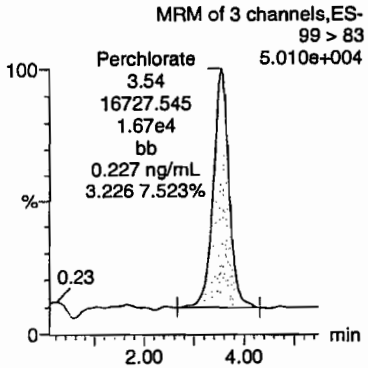

Perchlorate

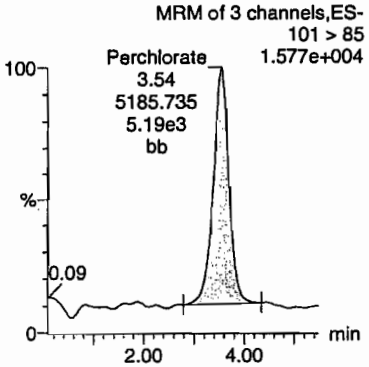

Perchlorate-101

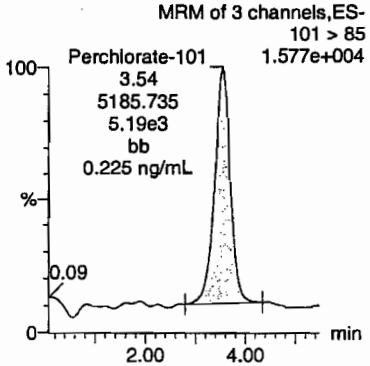

Perchlorate-O(18)

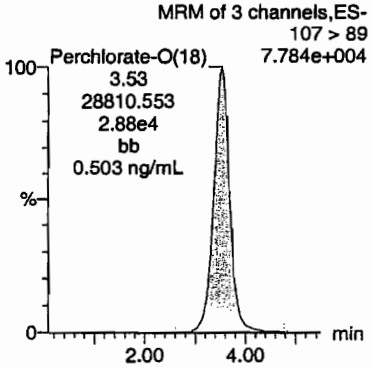

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202069101	Perchlorate	99 > 83	3.54	16727.545	16727.545	bb			0.2269	113.44	13.44	246.005	3.23
1202069101	Perchlorate-101	101 > 85	3.54	5185.735	5185.735	bb			0.2251	112.57	12.57	104.512	
1202069101	Perchlorate-O(18)	107 > 89	3.53	28810.553	28810.553	bb			0.5025	100.50	0.50	11052....	

MM 3/30/10

$$\frac{16727.545 \mid 10 \mid 100}{73726.5 \mid \mid 41.54} = 2.48$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2320

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	967400, 968935
Prep Batch Number:	967399, 968933

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
248867003	RE46-10-12934
248867004	RE46-10-12933
1202076363	Method Blank (MB) (Batch 967400)
1202076364	Laboratory Control Sample (LCS) (Batch 967400)
1202076365	248863002(RE46-10-12930) Matrix Spike (MS) (Batch 967400)
1202076366	248863002(RE46-10-12930) Matrix Spike Duplicate (MSD) (Batch 967400)
248867001	RE46-10-12931
248867002	RE46-10-12932
1202080259	Method Blank (MB) (Batch 968935)
1202080260	Laboratory Control Sample (LCS) (Batch 968935)
1202080261	Laboratory Control Sample Duplicate (LCSD) (Batch 968935)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Samples 248867001 (RE46-10-12931) and 248867002 (RE46-10-12932) did not meet the surrogate recovery acceptance criteria and were re-extracted within the holding time. The re-extractions passed surrogate recovery and will be reported. See DER #808719 located in the Miscellaneous Data section.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery
The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement
The RPD(s) between the LCS and LCSD met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-2315) was selected for the matrix spike and matrix spike duplicate analysis in batch 967400. A Form III and QC raw data are included in the package summarizing the results.

The matrix spike and matrix spike duplicate analysis was not performed for batch 968935. The LCS and LCSD analysis was performed to measure the precision and accuracy for this batch.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the

specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
Samples 248867001 (RE46-10-12931) and 248867002 (RE46-10-12932) were diluted at 1:10 due to the oily matrix of the extracts.

Sample Re-extraction/Re-analysis
Samples 248867001 (RE46-10-12931) and 248867002 (RE46-10-12932) were re-extracted within holding time due to surrogate failure. The re-extractions passed surrogate and will be reported.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data Exception Report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. DER # 808719 was generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the LCSD is from the same analytical column as the LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method

8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: _____ **Date:** 04-02-10

Roadmap for LANL 10-2320 PCB

This roadmap was analyzed by yip00818 on 03-25-2010, 15:28.
This roadmap was packaged by yml on 04-02-2010, 06:55.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd1a.i/032310a.b/025f2501.d	248867001	sample	23-MAR-2010	12:14	10-2320.sub	RE46-10-12931	1.00000	967400	DUSE RR RE SURROGATE LOW
■	N	/chem/ecd1a.i/032310a.b/083f8301.d	248867001	sample	24-MAR-2010	00:28	10-2320.sub	RE46-10-12931	1.00000	967400	RE SURROGATE LOW
□	N	/chem/ecd1a.i/032510.b/034f3401.d	248867001	sample	25-MAR-2010	11:31	10-2320.sub	RE46-10-12931	10.00000	968935	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/032310a.b/026f2601.d	248867002	sample	23-MAR-2010	12:26	10-2320.sub	RE46-10-12932	1.00000	967400	DUSE RR RE SURROGATE LOW
■	N	/chem/ecd1a.i/032310a.b/084f8401.d	248867002	sample	24-MAR-2010	00:41	10-2320.sub	RE46-10-12932	1.00000	967400	RE SURROGATE LOW
□	N	/chem/ecd1a.i/032510.b/035f3501.d	248867002	sample	25-MAR-2010	11:44	10-2320.sub	RE46-10-12932	10.00000	968935	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/032310a.b/027f2701.d	248867003	sample	23-MAR-2010	12:39	10-2320.sub	RE46-10-12934	1.00000	967400	DUSE RR
□	N	/chem/ecd1a.i/032310a.b/085f8501.d	248867003	sample	24-MAR-2010	00:54	10-2320.sub	RE46-10-12934	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/032310a.b/028f2801.d	248867004	sample	23-MAR-2010	12:52	10-2320.sub	RE46-10-12933	1.00000	967400	DUSE RR
□	N	/chem/ecd1a.i/032310a.b/086f8601.d	248867004	sample	24-MAR-2010	01:06	10-2320.sub	RE46-10-12933	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd1a.i/032310a.b/025b2501.d	248867001	sample	23-MAR-2010	12:14	10-2320.sub	RE46-10-12931	1.00000	967400	DUSE RR RE SURROGATE LOW
■	N	/chem/ecd1a.i/032310a.b/083b8301.d	248867001	sample	24-MAR-2010	00:28	10-2320.sub	RE46-10-12931	1.00000	967400	RE SURROGATE LOW
□	N	/chem/ecd1a.i/032510.b/034b3401.d	248867001	sample	25-MAR-2010	11:31	10-2320.sub	RE46-10-12931	10.00000	968935	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/032310a.b/026b2601.d	248867002	sample	23-MAR-2010	12:26	10-2320.sub	RE46-10-12932	1.00000	967400	DUSE RR RE SURROGATE LOW
■	N	/chem/ecd1a.i/032310a.b/084b8401.d	248867002	sample	24-MAR-2010	00:41	10-2320.sub	RE46-10-12932	1.00000	967400	RE SURROGATE LOW
□	N	/chem/ecd1a.i/032510.b/035b3501.d	248867002	sample	25-MAR-2010	11:44	10-2320.sub	RE46-10-12932	10.00000	968935	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/032310a.b/027b2701.d	248867003	sample	23-MAR-2010	12:39	10-2320.sub	RE46-10-12934	1.00000	967400	DUSE RR
□	N	/chem/ecd1a.i/032310a.b/085b8501.d	248867003	sample	24-MAR-2010	00:54	10-2320.sub	RE46-10-12934	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/032310a.b/028b2801.d	248867004	sample	23-MAR-2010	12:52	10-2320.sub	RE46-10-12933	1.00000	967400	DUSE RR
□	N	/chem/ecd1a.i/032310a.b/086b8601.d	248867004	sample	24-MAR-2010	01:06	10-2320.sub	RE46-10-12933	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd1a.i/032310a.b/012f1201-3.d	1202076363	mb	23-MAR-2010	09:39	10-2320.sub	PBLK01	1.00000	967400	

☐	N	/chem/ecd1a.i/032510.b/030f3001-1.d	1202080259	mb	25-MAR-2010	10:47	10-2320.sub	PBLK02	1.00000	968935	
☐	N	/chem/ecd1a.i/032310a.b/013f1301-3.d	1202076364	lcs	23-MAR-2010	09:49	10-2320.sub	PBLK01LCS	1.00000	967400	
☐	N	/chem/ecd1a.i/032510.b/031f3101-1.d	1202080260	lcs	25-MAR-2010	10:57	10-2320.sub	PBLK02LCS	1.00000	968935	
☐	N	/chem/ecd1a.i/032510.b/032f3201-1.d	1202080261	lcsd	25-MAR-2010	11:08	10-2320.sub	PBLK02LCSD	1.00000	968935	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/032310a.b/012b1201-3.d	1202076363	mh	23-MAR-2010	09:39	10-2320.sub	PBLK01	1.00000	967400	
☐	N	/chem/ecd1a.i/032510.b/030b3001-1.d	1202080259	mb	25-MAR-2010	10:47	10-2320.sub	PBLK02	1.00000	968935	
☐	N	/chem/ecd1a.i/032310a.b/013b1301-3.d	1202076364	lcs	23-MAR-2010	09:49	10-2320.sub	PBLK01LCS	1.00000	967400	
☐	N	/chem/ecd1a.i/032510.b/031b3101-1.d	1202080260	lcs	25-MAR-2010	10:57	10-2320.sub	PBLK02LCS	1.00000	968935	
☐	N	/chem/ecd1a.i/032510.b/032b3201-1.d	1202080261	lcsd	25-MAR-2010	11:08	10-2320.sub	PBLK02LCSD	1.00000	968935	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12931**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968935**	**Inst:**	**ECD1A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 11:31**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 20:20**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**034f3401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	034b3401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	41.0	ug/kg	13.7	41.0	1
11104–28–2	Aroclor–1221	U	41.0	ug/kg	13.7	41.0	1
11141–16–5	Aroclor–1232	U	41.0	ug/kg	13.7	41.0	1
53469–21–9	Aroclor–1242	U	41.0	ug/kg	13.7	41.0	1
12672–29–6	Aroclor–1248	U	41.0	ug/kg	13.7	41.0	1
11097–69–1	Aroclor–1254		92.5	ug/kg	13.7	41.0	1
11096–82–5	Aroclor–1260	P	60.1	ug/kg	13.7	41.0	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2320	**Date Collected:**	03/05/2010 12:00	**Matrix:**	S
Lab Sample ID:	248867002	**Date Received:**	03/06/2010 09:15	**%Moisture:**	17.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–12932	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	968935	**Inst:**	ECD1A.I	**Dilution:**	10
Run Date:	03/25/2010 11:44	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/24/2010 20:20	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	035f3501.d	**Column:**	1 CLP1	**Level:**	LOW
	035b3501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	40.1	ug/kg	13.3	40.1	1
11104–28–2	Aroclor–1221	U	40.1	ug/kg	13.3	40.1	1
11141–16–5	Aroclor–1232	U	40.1	ug/kg	13.3	40.1	1
53469–21–9	Aroclor–1242	U	40.1	ug/kg	13.3	40.1	1
12672–29–6	Aroclor–1248	U	40.1	ug/kg	13.3	40.1	1
11097–69–1	Aroclor–1254	U	40.1	ug/kg	13.3	40.1	1
11096–82–5	Aroclor–1260	U	40.1	ug/kg	13.3	40.1	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**15.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12933**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 01:06**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**086f8601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	086b8601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.96	ug/kg	1.32	3.96	1
11104–28–2	Aroclor–1221	U	3.96	ug/kg	1.32	3.96	1
11141–16–5	Aroclor–1232	U	3.96	ug/kg	1.32	3.96	1
53469–21–9	Aroclor–1242	U	3.96	ug/kg	1.32	3.96	1
12672–29–6	Aroclor–1248	U	3.96	ug/kg	1.32	3.96	1
11097–69–1	Aroclor–1254		6.70	ug/kg	1.32	3.96	1
11096–82–5	Aroclor–1260		4.50	ug/kg	1.32	3.96	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2320	**Date Collected:**	03/05/2010 12:00	**Matrix:**	S
Lab Sample ID:	248867003	**Date Received:**	03/06/2010 09:15	**%Moisture:**	15.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–12934	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967400	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/24/2010 00:54	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 11:11	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	085f8501.d	**Column:**	1 CLP1	**Level:**	LOW
	085b8501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.94	ug/kg	1.31	3.94	1
11104–28–2	Aroclor–1221	U	3.94	ug/kg	1.31	3.94	1
11141–16–5	Aroclor–1232	U	3.94	ug/kg	1.31	3.94	1
53469–21–9	Aroclor–1242	U	3.94	ug/kg	1.31	3.94	1
12672–29–6	Aroclor–1248	U	3.94	ug/kg	1.31	3.94	1
11097–69–1	Aroclor–1254	J	2.70	ug/kg	1.31	3.94	1
11096–82–5	Aroclor–1260	J	1.90	ug/kg	1.31	3.94	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–2320

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
1202076363	MB for batch 967399	71		68		86		78	
1202076364	LCS for batch 967399	77		73		85		78	
248867003	RE46–10–12934	56		50		71		66	
248867004	RE46–10–12933	50		48		56		54	
1202080259	MB for batch 968933	70		66		79		73	
1202080260	LCS for batch 968933	72		67		83		78	
1202080261	LCSD for batch 968933	73		68		81		76	
248867001	RE46–10–12931	54	D	55	D	47	D	61	D
248867002	RE46–10–12932	74	D	76	D	77	D	78	D

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%–120%)
DCB = Decachlorobiphenyl	(30%–116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2320
Client ID: LCS for batch 967399
Lab Sample ID: 1202076364
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 09:49
Prep Batch ID: 967399
Batch ID: 967400
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	23.8	71	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	27.3	82	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2320
Client ID: LCS for batch 968933
Lab Sample ID: 1202080260
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/25/2010 10:57
Dilution: 1
Prep Batch ID: 968933
Batch ID: 968935

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	23.7	71	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	25.8	77	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2320
Client ID: LCSD for batch 968933
Lab Sample ID: 1202080261
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample Duplicate
Matrix: SOIL
Analysis Date: 03/25/2010 11:08
Dilution: 1
Prep Batch ID: 968933
Batch ID: 968935

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	LCSD Aroclor–1016	33.3	0.0	22.4	67	39–102	6	0–21
11096–82–5	LCSD Aroclor–1260	33.3	0.0	25.6	77	45–118	1	0–22

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2315
Client ID: RE46–10–12930MS
Lab Sample ID: 1202076365
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 8.5
Analysis Date: 03/23/2010 10:25
Prep Batch ID: 967399
Batch ID: 967400

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674–11–2	MS	Aroclor–1016	36.4	0.00	U	18.0	49	23–119
11096–82–5	MS	Aroclor–1260	36.4	0.00	U	22.4	62	28–124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10–2315**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE46–10–12930MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202076366**	**%Moisture:**	**8.5**
Instrument:	**ECD1A.I**	**Analysis Date:**	**03/23/2010 10:37**
Analyst:	**YS1**	**Prep Batch ID:**	**967399**
Inj. Vol:	**1 uL**	**Batch ID:**	**967400**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	36.4	0.00	U	21.3	59	23–119	17	0–28
11096–82–5	MSD Aroclor–1260	36.4	0.00	U	25.9	71	28–124	15	0–30

Method Blank Summary

SDG Number:	10-2320	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 967399	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	012b1201-1.d 012f1201-1.d
Lab Sample ID:	1202076363				
Column:	CLP2 CLP1	Prep Date:	03/22/2010 11:11	Analyzed:	03/23/10 09:39
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 967399	1202076364	013f1301-1.d 013b1301-1.d	03/23/10	0949
04 RE46-10-12934	248867003	085f8501.d 085b8501.d	03/24/10	0054
05 RE46-10-12933	248867004	086f8601.d 086b8601.d	03/24/10	0106

Method Blank Summary

SDG Number:	10–2320	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 968933	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	030b3001–1.d 030f3001–1.d
Lab Sample ID:	1202080259				
Column:	CLP2 CLP1	Prep Date:	03/24/2010 20:20	Analyzed:	03/25/10 10:47
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 968933	1202080260	031f3101–1.d 031b3101–1.d	03/25/10	1057
02 LCSD for batch 968933	1202080261	032f3201–1.d 032b3201–1.d	03/25/10	1108
03 RE46–10–12931	248867001	034f3401.d 034b3401.d	03/25/10	1131
04 RE46–10–12932	248867002	035f3501.d 035b3501.d	03/25/10	1144

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**18.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12931**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968935**	**Inst:**	**ECD1A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 11:31**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 20:20**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**034f3401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	034b3401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	41.0	ug/kg	13.7	41.0	1
11104–28–2	Aroclor–1221	U	41.0	ug/kg	13.7	41.0	1
11141–16–5	Aroclor–1232	U	41.0	ug/kg	13.7	41.0	1
53469–21–9	Aroclor–1242	U	41.0	ug/kg	13.7	41.0	1
12672–29–6	Aroclor–1248	U	41.0	ug/kg	13.7	41.0	1
11097–69–1	Aroclor–1254		92.5	ug/kg	13.7	41.0	1
11096–82–5	Aroclor–1260	P	60.1	ug/kg	13.7	41.0	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/034f3401.d
Lab Smp Id: 248867001 Client Smp ID: RE46-10-12931
Inj Date : 25-MAR-2010 11:31
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248867001|10|
Misc Info : |ECD82P_1S|968935|SVA|LANL|SOIL|RE46-10-12931|||
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:00 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 34
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2320.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	18.83160	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.910	0.000	4237060	10.8776	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.211	5.211	0.000	2763679	9.30750	3.8	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.204	3.204	0.000	2943513	221.952	91.1	80.00- 120.00	100.00
3.359	3.359	0.000	2762747	154.921	63.6	114.55- 154.55	93.86
3.591	3.593	-0.002	5390546	240.958	98.9	154.38- 194.38	183.13
3.755	3.756	-0.001	2840699	172.267	70.7	109.00- 149.00	96.51

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.863	3.865	-0.002	5388750	337.548	138	111.47- 151.47	183.07
Average of Peak Concentrations =					92.5		
7 Aroclor-1260					CAS #: 11096-82-5		
3.700	3.700	0.000	2882547	157.258	64.5	80.00- 120.00	100.00
3.863	3.862	0.001	5388750	200.401	82.2	128.31- 168.31	186.94
4.025	4.024	0.001	8479699	299.474	123	139.26- 179.26	294.17
4.092	4.092	0.000	679183	42.0342	17.2	69.45- 109.45	23.56
4.234	4.235	-0.001	555857	33.0618	13.6	73.28- 113.28	19.28
Average of Peak Concentrations =					60.1		

Data File: /chem/ecd1a.i/032510.b/034f3401.d

Page 1

Date : 25-MAR-2010 11:31

Client ID: RE46-10-12931

Instrument: ecd1a.i

Sample Info: |2488670011101|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

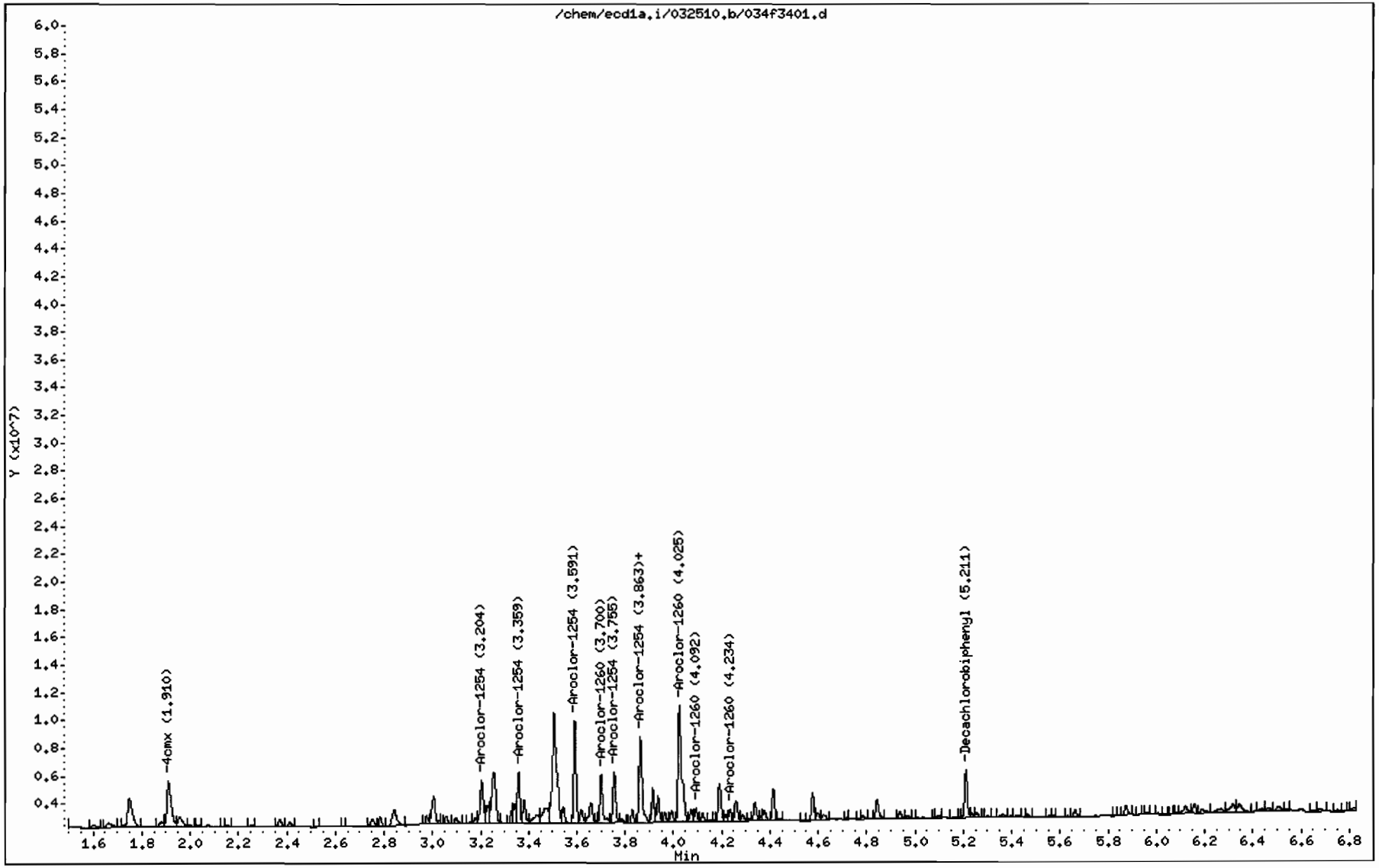

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/034b3401.d
Lab Smp Id: 248867001 Client Smp ID: RE46-10-12931
Inj Date : 25-MAR-2010 11:31
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248867001|10|
Misc Info : |ECD82P_1S|968935|SVA|LANL|SOIL|RE46-10-12931|||
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:00 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 34
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2320.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	18.83160	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.267	2.267	0.000	2874558	10.9577	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.907	5.906	0.001	2269178	12.1234	5.0	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.371	3.369	0.002	608093	100.992	41.4	80.00- 120.00	100.00
3.791	3.791	0.000	1712436	158.269	65.0	161.89- 201.89	281.61
3.908	3.908	0.000	2056402	172.320	70.7	180.34- 220.34	338.17
4.183	4.184	-0.001	3906413	237.591	97.5	260.37- 300.37	642.40

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.320	4.319	0.001	1915100	158.070	64.9	191.96- 231.96	314.94
Average of Peak Concentrations =					67.9		
7 Aroclor-1260					CAS #: 11096-82-5		
4.300	4.299	0.001	2010869	153.733	63.1	80.00- 120.00	100.00(a)
4.425	4.424	0.001	2290267	147.293	60.4	102.79- 142.79	113.89
4.693	4.689	0.004	886186	74.4940	30.6	72.08- 112.08	44.07
4.863	4.862	0.001	630731	51.3239	21.1	75.01- 115.01	31.37
5.011	5.010	0.001	1553615	58.8610	24.2	191.84- 231.84	77.26
Average of Peak Concentrations =					39.9		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/032510.b/034b3401.d
Date : 25-MAR-2010 11:31
Client ID: RE46-10-12931
Sample Info: |2488670011|10|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

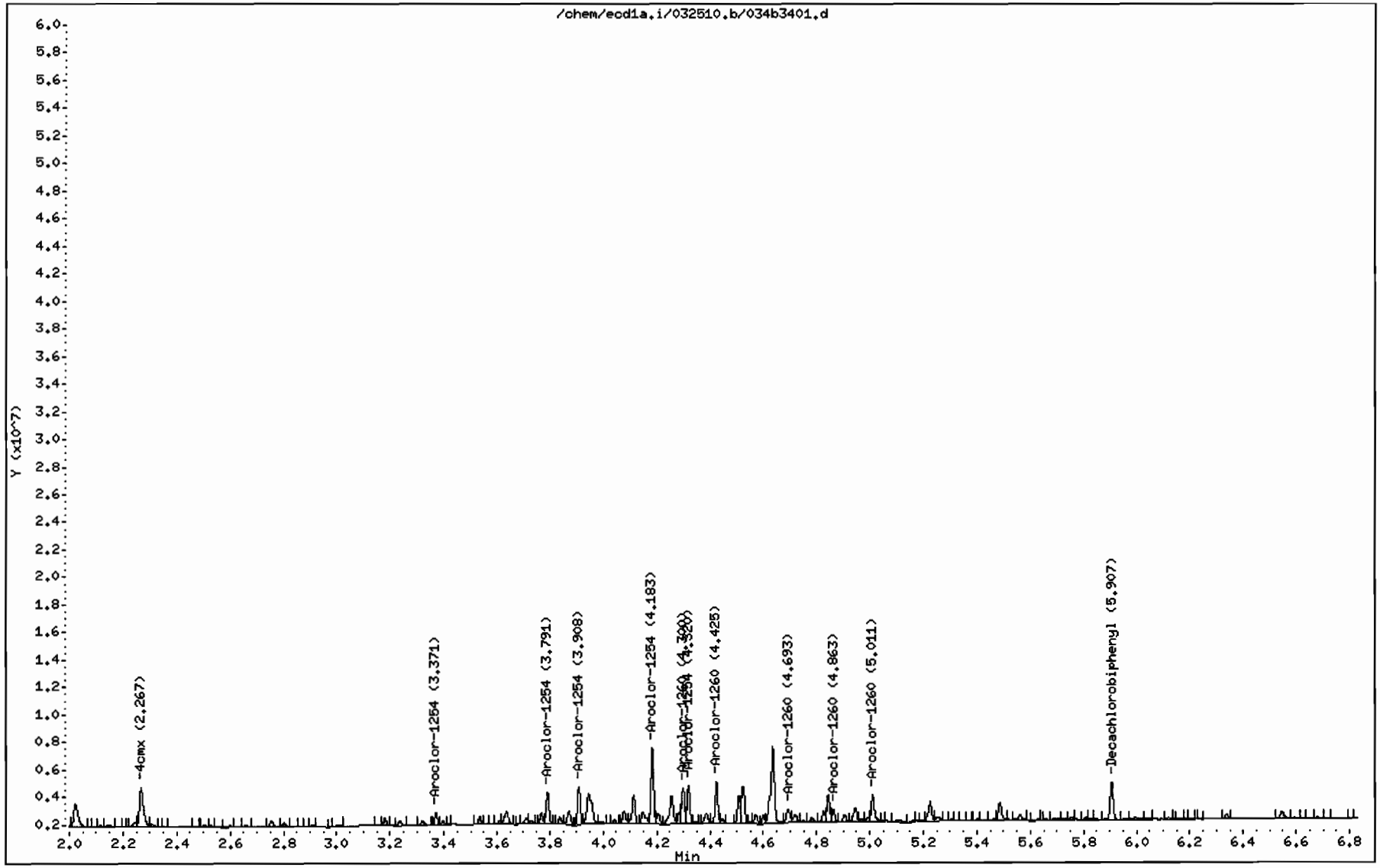

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**17.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12932**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968935**	**Inst:**	**ECD1A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 11:44**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 20:20**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	035b3501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	40.1	ug/kg	13.3	40.1	1
11104–28–2	Aroclor–1221	U	40.1	ug/kg	13.3	40.1	1
11141–16–5	Aroclor–1232	U	40.1	ug/kg	13.3	40.1	1
53469–21–9	Aroclor–1242	U	40.1	ug/kg	13.3	40.1	1
12672–29–6	Aroclor–1248	U	40.1	ug/kg	13.3	40.1	1
11097–69–1	Aroclor–1254	U	40.1	ug/kg	13.3	40.1	1
11096–82–5	Aroclor–1260	U	40.1	ug/kg	13.3	40.1	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/035f3501.d
Lab Smp Id: 248867002 Client Smp ID: RE46-10-12932
Inj Date : 25-MAR-2010 11:44
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248867002|10|
Misc Info : |ECD82P_1S|968935|SVA|LANL|SOIL|RE46-10-12932|||
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:00 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 35
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2320.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weight of sample extracted (g)
M	17.32130	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.912	1.910	0.002	5747503	14.7552	5.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.210	5.211	-0.001	4562283	15.3648	6.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032510.b/035f3501.d

Date : 25-MAR-2010 11:44

Client ID: RE46-10-12932

Sample Info: |2488670021101

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

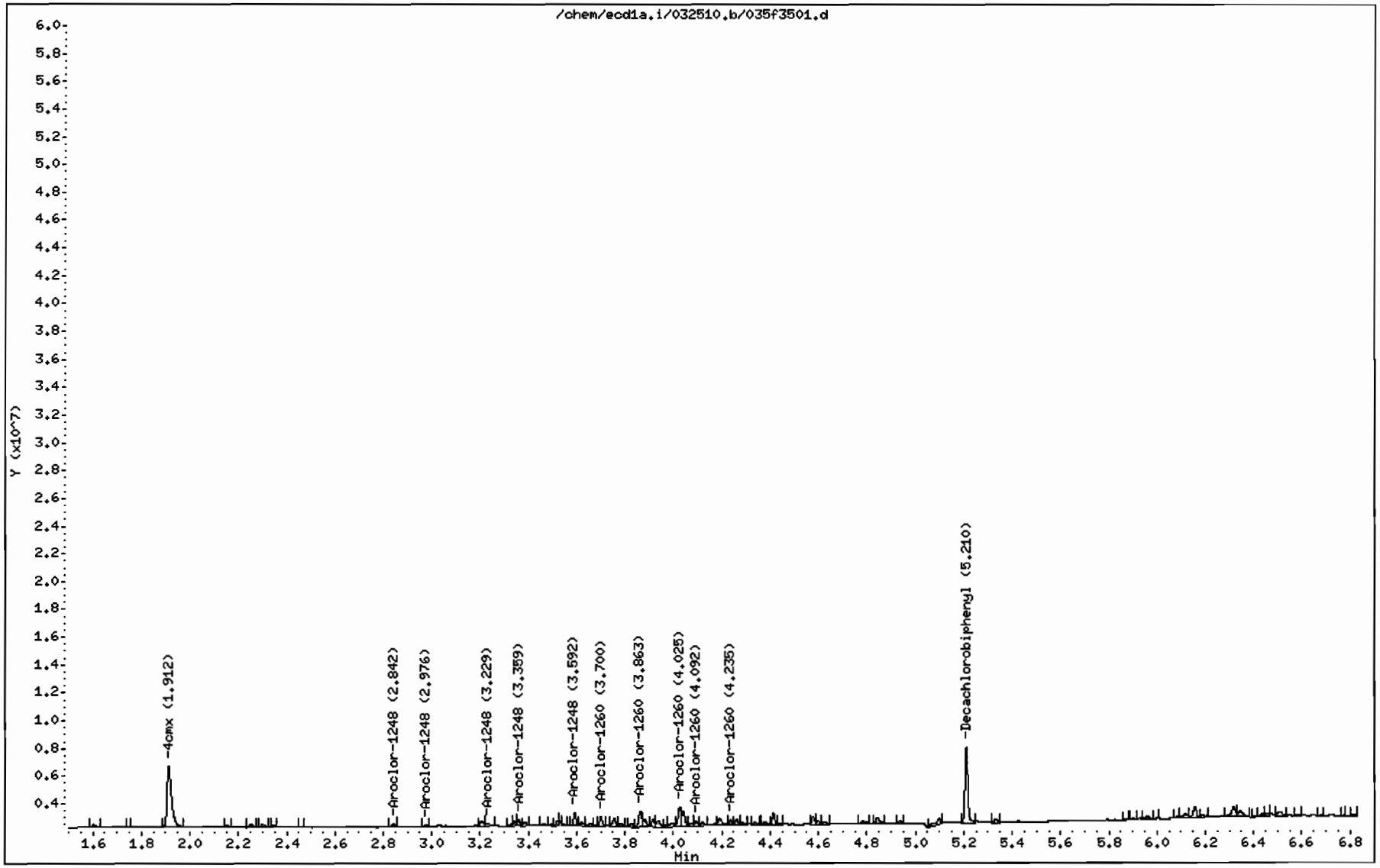

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/035b3501.d
Lab Smp Id: 248867002 Client Smp ID: RE46-10-12932
Inj Date : 25-MAR-2010 11:44
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248867002|10|
Misc Info : |ECD82P_1S|968935|SVA|LANL|SOIL|RE46-10-12932|||
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 13:57 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 35
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2320.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weight of sample extracted (g)
M	17.32130	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.268	2.267	0.001	3971672	15.1398	6.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.906	5.906	0.000	2904430	15.5173	6.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032510.b/035b3501.d

Date : 25-MAR-2010 11:44

Client ID: RE46-10-12932

Sample Info: |2488670021101

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

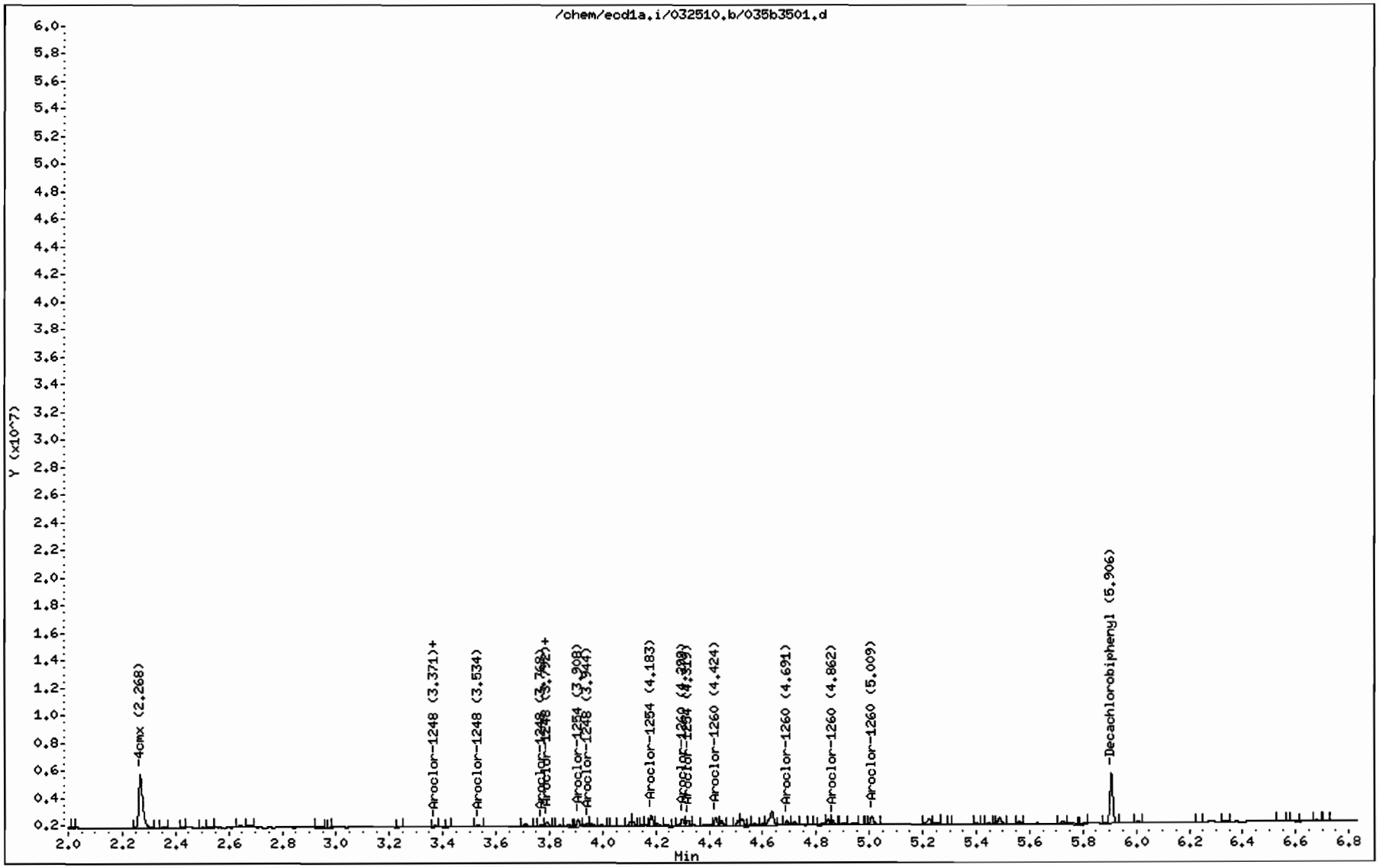

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867004**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**15.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12933**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 01:06**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**086f8601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	086b8601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.96	ug/kg	1.32	3.96	1
11104–28–2	Aroclor–1221	U	3.96	ug/kg	1.32	3.96	1
11141–16–5	Aroclor–1232	U	3.96	ug/kg	1.32	3.96	1
53469–21–9	Aroclor–1242	U	3.96	ug/kg	1.32	3.96	1
12672–29–6	Aroclor–1248	U	3.96	ug/kg	1.32	3.96	1
11097–69–1	Aroclor–1254		6.70	ug/kg	1.32	3.96	1
11096–82–5	Aroclor–1260		4.50	ug/kg	1.32	3.96	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/086f8601.d
Lab Smp Id: 248867004 Client Smp ID: RE46-10-12933
Inj Date : 24-MAR-2010 01:06
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248867004|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-12933|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:58 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 86
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2320.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	15.92490	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	39286455	100.858	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.217	-0.003	33131342	111.579	4.4	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.205	3.208	-0.003	2065863	155.774	6.2	80.00- 120.00	100.00
3.360	3.363	-0.003	2278205	127.750	5.1	113.89- 153.89	110.28
3.594	3.597	-0.003	3588853	160.422	6.4	156.06- 196.06	173.72
3.757	3.759	-0.002	2309703	140.066	5.6	110.77- 150.77	111.80

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.865	3.868	-0.003	4026884	252.241	10.0	110.30- 150.30	194.93
Average of Peak Concentrations =					6.6		
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.705	-0.003	2127886	116.087	4.6	80.00- 120.00	100.00
3.865	3.867	-0.002	4026884	149.755	5.9	127.34- 167.34	189.24
4.027	4.030	-0.003	6300860	222.525	8.8	138.27- 178.27	296.11
4.094	4.097	-0.003	670951	41.5247	1.6	69.18- 109.18	31.53
4.237	4.240	-0.003	582400	34.6405	1.4	72.92- 112.92	27.37
Average of Peak Concentrations =					4.5		

Data File: /chem/ecd1a.i/032310a.b/086f8601.d
Date : 24-MAR-2010 01:06
Client ID: RE46-10-12933
Sample Info: 1248867004|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

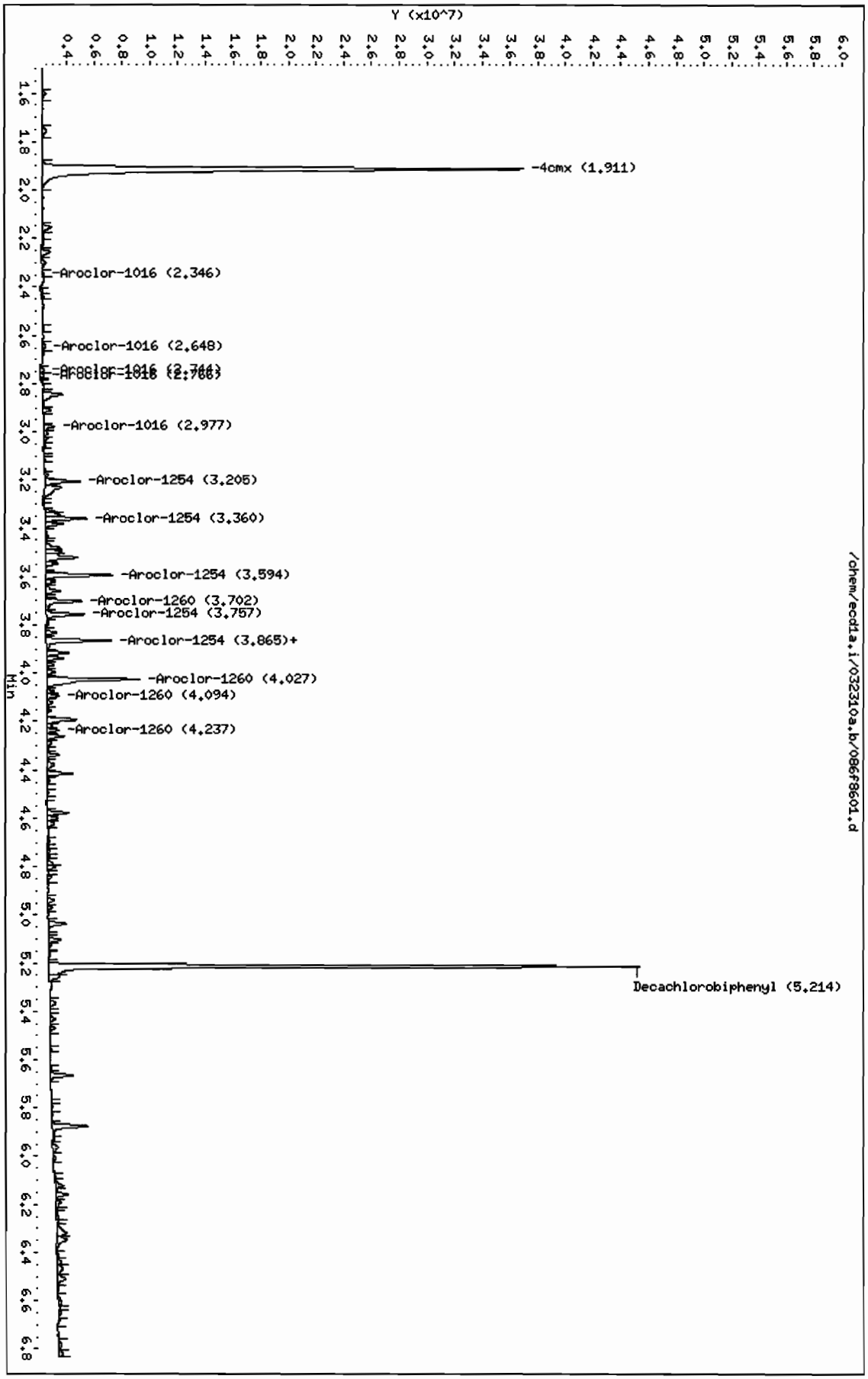

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/086b8601.d
Lab Smp Id: 248867004 Client Smp ID: RE46-10-12933
Inj Date : 24-MAR-2010 01:06
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248867004|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-12933|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 06:13 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 86
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2320.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	15.92490	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	25112247	95.7267	3.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	20278127	108.339	4.3	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.372	3.373	-0.001	840233	139.545	5.5	80.00- 120.00	100.00
3.794	3.795	-0.001	1579430	145.976	5.8	161.92- 201.92	187.98
3.910	3.912	-0.002	1689227	141.552	5.6	181.59- 221.59	201.04
4.185	4.188	-0.003	2613201	158.937	6.3	261.95- 301.95	311.01

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.322	4.323	-0.001	1555553	128.393	5.1	185.16- 225.16	185.13
Average of Peak Concentrations =					5.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.301	4.304	-0.003	1884730	144.090	5.7	80.00- 120.00	100.00(a)
4.427	4.428	-0.001	1950726	125.456	5.0	102.14- 142.14	103.50
4.694	4.695	-0.001	768431	64.5954	2.6	72.00- 112.00	40.77
4.865	4.867	-0.002	529387	43.0774	1.7	76.18- 116.18	28.09
5.013	5.015	-0.002	1295523	49.0828	1.9	193.67- 233.67	68.74
Average of Peak Concentrations =					3.4		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/032310a.b/086b8601.d

Date : 24-MAR-2010 01:06

Client ID: RE46-10-12933

Sample Info: |248867004|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

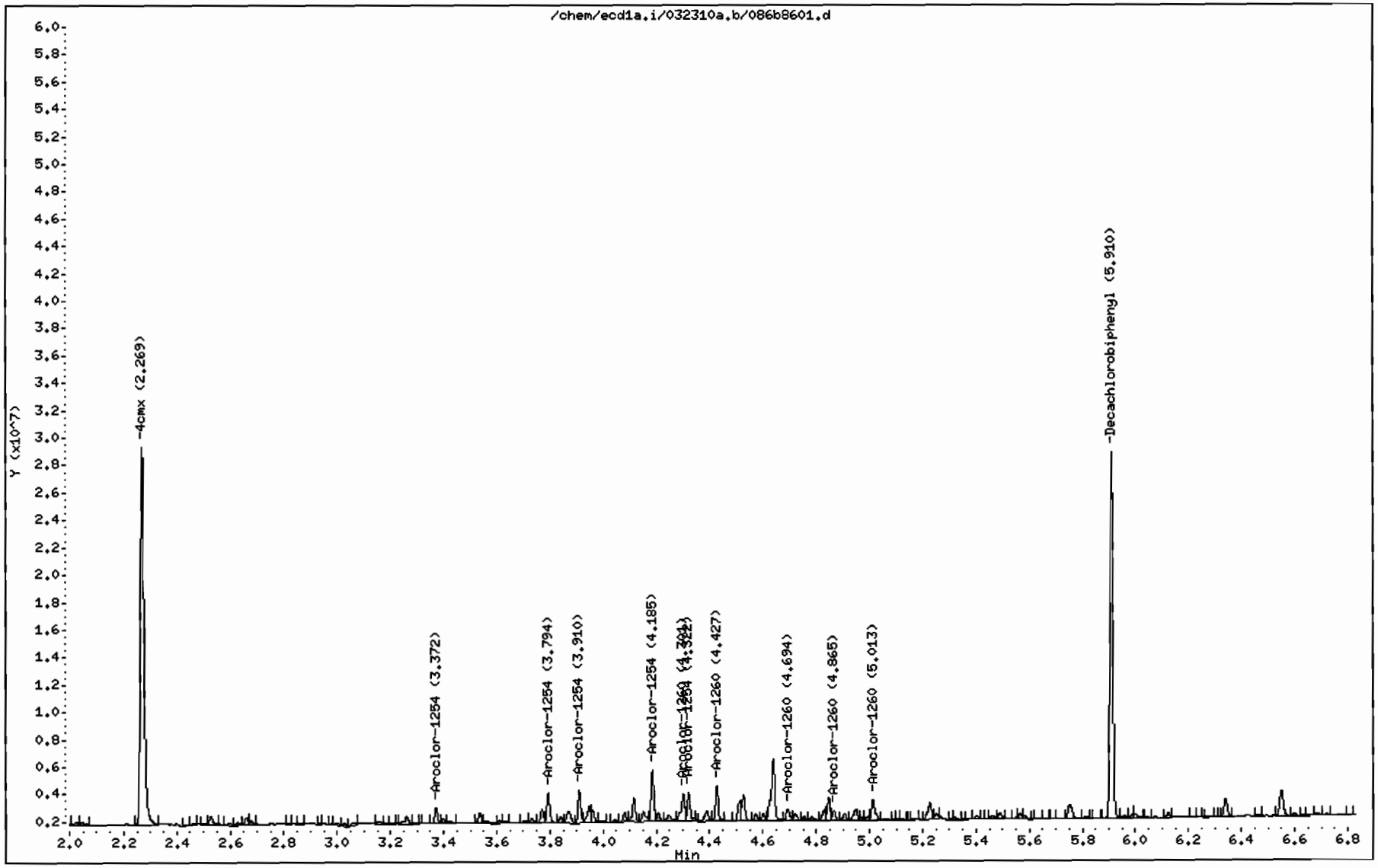

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2320**	**Date Collected:**	**03/05/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248867003**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**15.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12934**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 00:54**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**085f8501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	085b8501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.94	ug/kg	1.31	3.94	1
11104–28–2	Aroclor–1221	U	3.94	ug/kg	1.31	3.94	1
11141–16–5	Aroclor–1232	U	3.94	ug/kg	1.31	3.94	1
53469–21–9	Aroclor–1242	U	3.94	ug/kg	1.31	3.94	1
12672–29–6	Aroclor–1248	U	3.94	ug/kg	1.31	3.94	1
11097–69–1	Aroclor–1254	J	2.70	ug/kg	1.31	3.94	1
11096–82–5	Aroclor–1260	J	1.90	ug/kg	1.31	3.94	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/085f8501.d
Lab Smp Id: 248867003 Client Smp ID: RE46-10-12934
Inj Date : 24-MAR-2010 00:54
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248867003|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-12934|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:58 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 85
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2320.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	15.51260	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	43868695	112.622	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.217	-0.004	41979206	141.377	5.6	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.206	3.208	-0.002	947885	71.4740	2.8	80.00- 120.00	100.00(a)
3.360	3.363	-0.003	866892	48.6108	1.9	113.89- 153.89	91.46
3.594	3.597	-0.003	1266035	56.5919	2.2	156.06- 196.06	133.56
3.756	3.759	-0.003	1061421	64.3674	2.5	110.77- 150.77	111.98

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.864	3.868	-0.004	1696608	106.274	4.2	110.30- 150.30	178.99
Average of Peak Concentrations =					2.7		
7 Aroclor-1260					CAS #: 11096-82-5		
3.701	3.705	-0.004	816292	44.5329	1.8	80.00- 120.00	100.00(a)
3.864	3.867	-0.003	1696608	63.0948	2.5	127.34- 167.34	207.84
4.026	4.030	-0.004	2596174	91.6880	3.6	138.27- 178.27	318.04
4.094	4.097	-0.003	353644	21.8868	0.86	69.18- 109.18	43.32
4.235	4.240	-0.005	345903	20.5739	0.81	72.92- 112.92	42.37
Average of Peak Concentrations =					1.9		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/032310a.b/085f8501.d

Page 1

Date : 24-MAR-2010 00:54

Client ID: RE46-10-12934

Instrument: ecd1a.i

Sample Info: |248867003|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

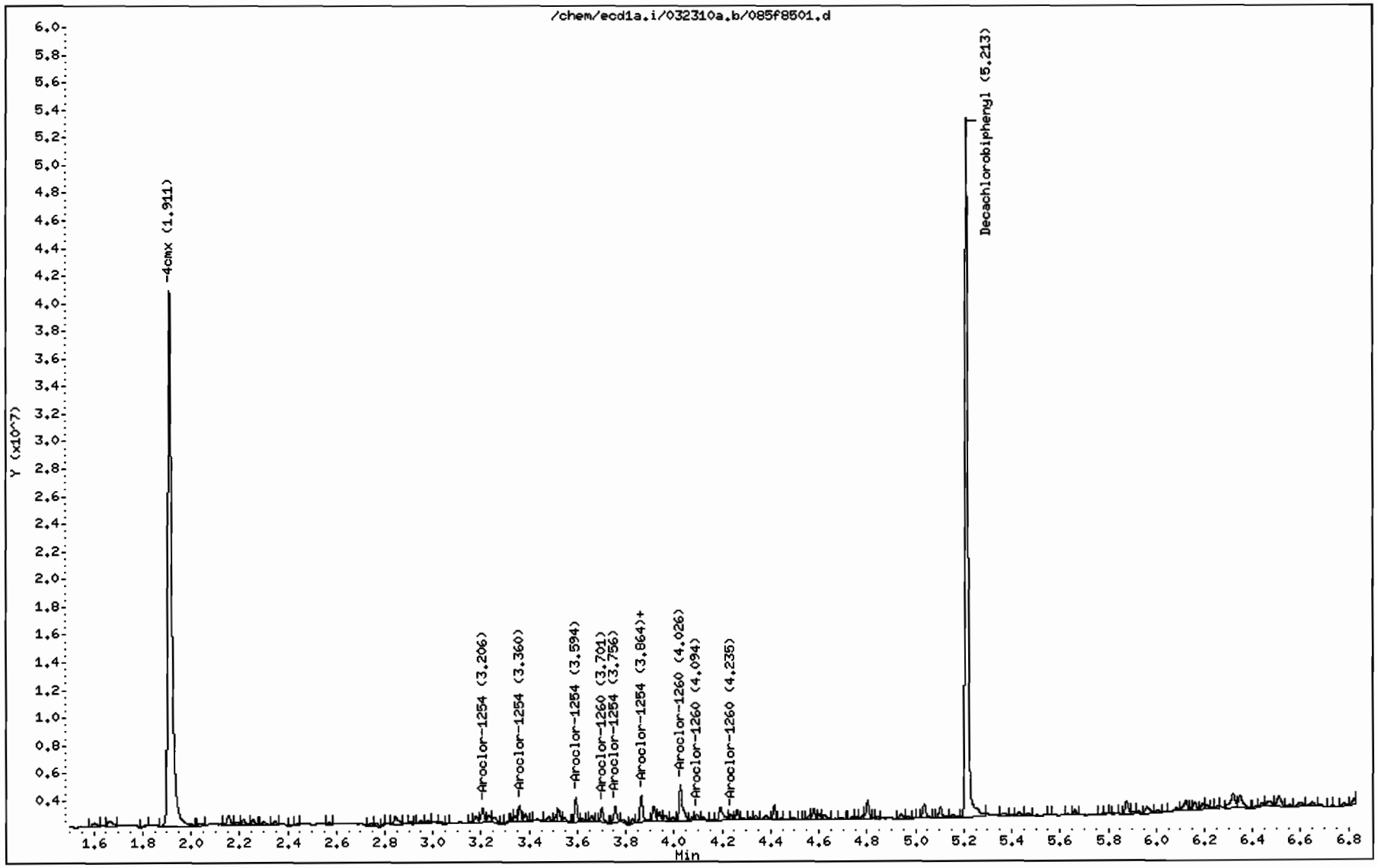

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/085b8501.d
Lab Smp Id: 248867003 Client Smp ID: RE46-10-12934
Inj Date : 24-MAR-2010 00:54
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248867003|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-12934|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 06:13 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 85
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2320.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	15.51260	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	26415461	100.695	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.909	5.912	-0.003	24620578	131.539	5.2	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.372	3.373	-0.001	342403	56.8661	2.2	80.00- 120.00	100.00(a)
3.794	3.795	-0.001	604621	55.8810	2.2	161.92- 201.92	176.58
3.910	3.912	-0.002	675296	56.5877	2.2	181.59- 221.59	197.22
4.185	4.188	-0.003	928924	56.4977	2.2	261.95- 301.95	271.30

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.323	4.323	0.000	822980	67.9278	2.7	185.16- 225.16	240.35
Average of Peak Concentrations =					2.3		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	591666	45.2336	1.8	80.00- 120.00	100.00(a)
4.427	4.428	-0.001	850521	54.6993	2.2	102.14- 142.14	143.75
4.694	4.695	-0.001	395084	33.2113	1.3	72.00- 112.00	66.77
4.866	4.867	-0.001	253730	20.6466	0.81	76.18- 116.18	42.88
5.013	5.015	-0.002	687756	26.0567	1.0	193.67- 233.67	116.24
Average of Peak Concentrations =					1.4		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/032310a.b/085b8501.d
Date : 24-MAR-2010 00:54
Client ID: RE46-10-12934
Sample Info: 1248867003111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

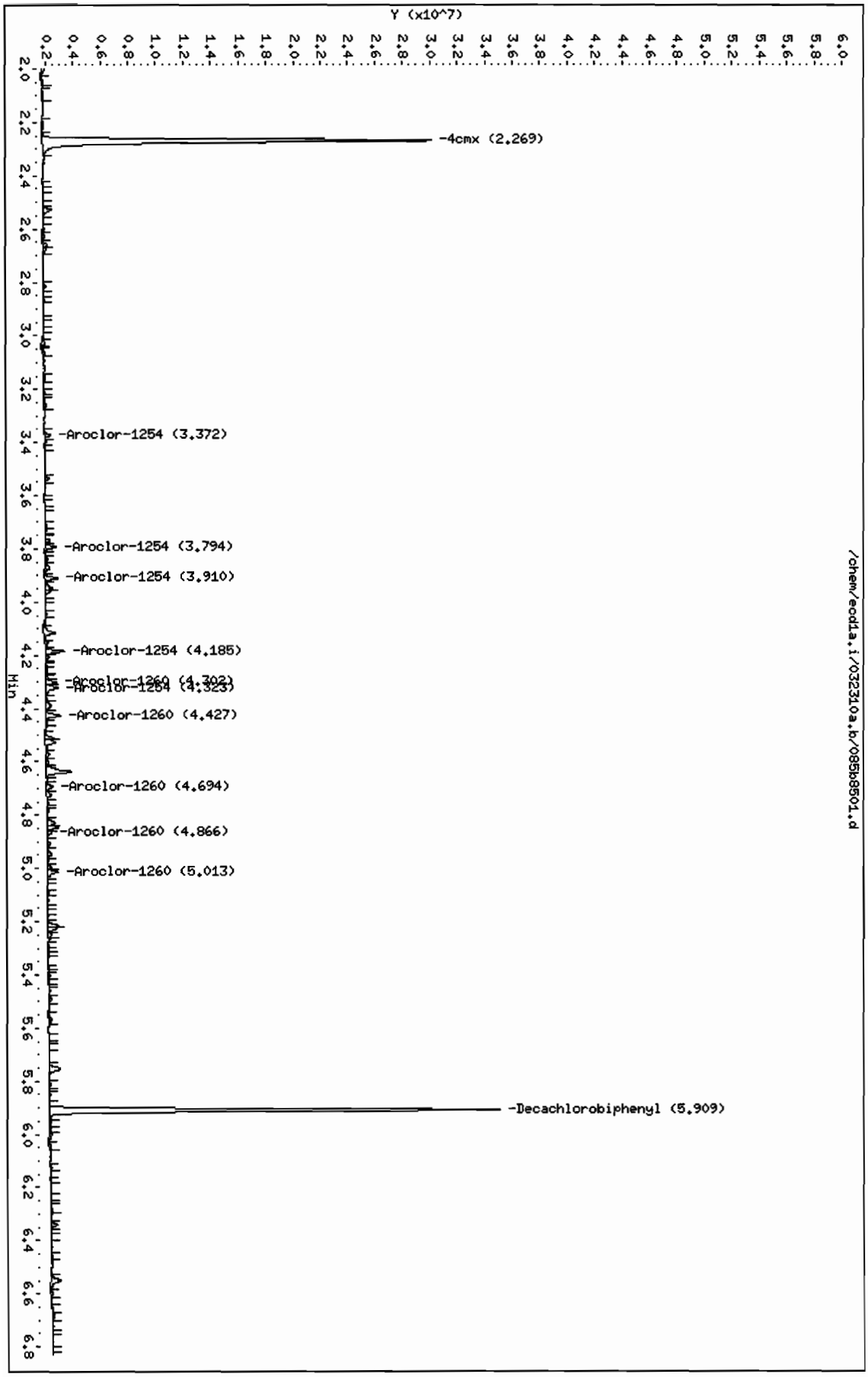

Page 1

STANDARDS DATA

Report Date: 25-Mar-2010 05:51

Calibration History

Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032f3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029f2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023f2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017f1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033f3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030f3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024f2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018f1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034f3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031f3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025f2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019f1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035f3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032f3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026f2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020f2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014f1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009f0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008f0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007f0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010f1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036f3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033f3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027f2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021f2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 07:53	AR1660	/chem/ecd1a.i/032310a.b/002f0201.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 01:19	AR1660	/chem/ecd1a.i/032310a.b/087f8701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 23:38	AR1660	/chem/ecd1a.i/032310a.b/079f7901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 21:06	AR1660	/chem/ecd1a.i/032310a.b/067f6701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 18:35	AR1660	/chem/ecd1a.i/032310a.b/055f5501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:03	AR1660	/chem/ecd1a.i/032310a.b/048f4801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 15:17	AR1660	/chem/ecd1a.i/032310a.b/040f4001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:25	AR1660	/chem/ecd1a.i/032310a.b/031f3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:04	AR1660	/chem/ecd1a.i/032310a.b/029f2901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 11:28	AR1660	/chem/ecd1a.i/032310a.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:07	AR1262	/chem/ecd1a.i/032310a.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:56	AR1221	/chem/ecd1a.i/032310a.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:46	AR1232	/chem/ecd1a.i/032310a.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:35	AR1268	/chem/ecd1a.i/032310a.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:25	AR1248	/chem/ecd1a.i/032310a.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:14	AR1242	/chem/ecd1a.i/032310a.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:04	AR1254	/chem/ecd1a.i/032310a.b/003f0301.d

Report Date: 24-Mar-2010 08:34

Calibration History

Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029b2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023b2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017b1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030b3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024b2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018b1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031b3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025b2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019b1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032b3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026b2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020b2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014b1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009b0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008b0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007b0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010b1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033b3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027b2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021b2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 01:19	AR1660	/chem/ecd1a.i/032310a.b/087b8701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 23:38	AR1660	/chem/ecd1a.i/032310a.b/079b7901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 21:06	AR1660	/chem/ecd1a.i/032310a.b/067b6701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 18:35	AR1660	/chem/ecd1a.i/032310a.b/055b5501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:03	AR1660	/chem/ecd1a.i/032310a.b/048b4801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 15:17	AR1660	/chem/ecd1a.i/032310a.b/040b4001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:25	AR1660	/chem/ecd1a.i/032310a.b/031b3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:04	AR1660	/chem/ecd1a.i/032310a.b/029b2901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 11:28	AR1660	/chem/ecd1a.i/032310a.b/021b2101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:07	AR1262	/chem/ecd1a.i/032310a.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:56	AR1221	/chem/ecd1a.i/032310a.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:46	AR1232	/chem/ecd1a.i/032310a.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:35	AR1268	/chem/ecd1a.i/032310a.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:25	AR1248	/chem/ecd1a.i/032310a.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:14	AR1242	/chem/ecd1a.i/032310a.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:04	AR1254	/chem/ecd1a.i/032310a.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 07:53	AR1660	/chem/ecd1a.i/032310a.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Mar-2010 05:50 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.365	2.335-2.395	1.518e+04
	2.651	2.621-2.681	1.894e+04
	2.732	2.702-2.762	1.244e+04
	2.770	2.740-2.800	7.348e+03
	2.980	2.950-3.010	9.518e+03
63 4,4-DDD	3.888	3.868-3.908	3.140e+05
64 4,4-DDE	3.539	3.519-3.559	3.727e+05
62 4,4-DDT	4.052	4.032-4.072	2.363e+05
2 Aroclor-1221	2.025	1.994-2.054	4.466e+03
	2.117	2.087-2.147	2.447e+03
	2.143	2.113-2.173	1.083e+04
3 Aroclor-1232	2.364	2.334-2.394	6.667e+03
	2.651	2.621-2.681	8.344e+03
	2.731	2.701-2.761	5.531e+03
	2.845	2.816-2.876	2.649e+03
	3.232	3.202-3.262	3.555e+03
4 Aroclor-1242	2.364	2.334-2.394	1.233e+04
	2.652	2.622-2.682	1.490e+04
	2.769	2.739-2.799	5.896e+03
	2.979	2.949-3.009	7.735e+03
	3.233	3.203-3.263	7.285e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m

	Compound	RT	RT Window	RF
	5 Aroclor-1248	2.847	2.817-2.877	1.000e+04
		2.979	2.949-3.009	1.314e+04
		3.233	3.203-3.263	1.430e+04
		3.365	3.335-3.395	1.190e+04
		3.597	3.567-3.627	8.005e+03
	6 Aroclor-1254	3.208	3.178-3.238	1.326e+04
		3.363	3.333-3.393	1.783e+04
		3.597	3.567-3.627	2.237e+04
		3.759	3.729-3.789	1.649e+04
		3.868	3.838-3.898	1.596e+04
	7 Aroclor-1260	3.705	3.675-3.735	1.833e+04
		3.867	3.837-3.897	2.689e+04
		4.030	4.000-4.060	2.832e+04
		4.097	4.067-4.127	1.616e+04
		4.240	4.210-4.270	1.681e+04
	8 Aroclor-1262	3.704	3.674-3.734	1.423e+04
		3.866	3.836-3.896	1.874e+04
		4.097	4.067-4.127	2.315e+04
		4.239	4.209-4.269	2.110e+04
		4.418	4.388-4.448	4.350e+04
	9 Aroclor-1268	4.604	4.574-4.634	4.848e+04
		4.627	4.597-4.657	5.448e+04
		4.739	4.709-4.769	3.862e+04
		4.942	4.912-4.972	1.635e+04
		5.107	5.077-5.137	1.121e+05
M	10 Aroclor-Total	1.000	0.980-1.020	
	11 4cmx	1.913	1.883-1.943	3.895e+05
	12 Decachlorobiphenyl	5.217	5.187-5.247	2.969e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Mar-2010 06:13 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.165	3.135-3.195	1.258e+04
	3.248	3.218-3.278	8.634e+03
	3.311	3.281-3.341	5.287e+03
	3.538	3.508-3.568	6.893e+03
	3.614	3.584-3.644	6.423e+03
62 4,4-DDT	4.642	4.622-4.662	7.489e+04
63 4,4-DDE	4.111	4.091-4.131	2.469e+05
64 4,4-DDD	4.455	4.435-4.475	1.989e+05
2 Aroclor-1221	2.466	2.436-2.496	3.250e+03
	2.560	2.530-2.590	2.084e+03
	2.601	2.571-2.631	7.320e+03
3 Aroclor-1232	2.867	2.837-2.897	5.054e+03
	3.165	3.135-3.195	5.712e+03
	3.247	3.217-3.277	3.888e+03
	3.538	3.508-3.568	2.840e+03
	3.771	3.741-3.801	2.821e+03
4 Aroclor-1242	3.165	3.135-3.195	1.014e+04
	3.248	3.218-3.278	7.097e+03
	3.538	3.508-3.568	5.514e+03
	3.772	3.742-3.802	5.722e+03
	3.799	3.769-3.829	6.370e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.374	3.344-3.404	7.604e+03
	3.538	3.509-3.568	9.470e+03
	3.772	3.742-3.802	1.093e+04
	3.799	3.769-3.829	1.216e+04
	3.936	3.906-3.966	1.181e+04
6 Aroclor-1254	3.373	3.343-3.403	6.021e+03
	3.795	3.765-3.825	1.082e+04
	3.912	3.882-3.942	1.193e+04
	4.188	4.158-4.218	1.644e+04
	4.323	4.293-4.353	1.212e+04
7 Aroclor-1260	4.304	4.274-4.334	1.308e+04
	4.428	4.398-4.458	1.555e+04
	4.695	4.665-4.725	1.190e+04
	4.867	4.837-4.897	1.229e+04
	5.015	4.985-5.045	2.639e+04
8 Aroclor-1262	4.428	4.398-4.458	1.160e+04
	4.693	4.663-4.723	1.620e+04
	4.866	4.836-4.896	1.484e+04
	5.013	4.983-5.043	2.937e+04
	5.227	5.197-5.257	2.065e+04
9 Aroclor-1268	5.226	5.196-5.256	3.730e+04
	5.254	5.224-5.284	3.492e+04
	5.403	5.373-5.433	2.658e+04
	5.568	5.538-5.598	1.223e+04
	5.760	5.730-5.790	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.270	2.240-2.300	2.623e+05
$ 12 Decachlorobiphenyl	5.912	5.882-5.942	1.872e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Cal Date : 25-Mar-2010 05:50 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032f3201.d
Level 2: /chem/ecd1a.i/022210.b/033f3301.d
Level 3: /chem/ecd1a.i/022210.b/034f3401.d
Level 4: /chem/ecd1a.i/022210.b/035f3501.d
Level 5: /chem/ecd1a.i/022210.b/036f3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	17517	15916	14941	14342	13168	15177	10.833
(2)	20378	19291	18809	18310	17891	18936	5.082
(3)	13830	13020	12255	11836	11271	12442	8.071
(4)	7957	7573	7201	7091	6919	7348	5.665
(5)	10680	9850	9332	8998	8729	9518	8.119
63 4,4-DDD	+++++	+++++	+++++	313980	+++++	313980	0.000
64 4,4-DDE	+++++	+++++	+++++	372684	+++++	372684	0.000
62 4,4-DDT	+++++	+++++	+++++	236265	+++++	236265	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4466	+++++	4466	0.000
(2)	+++++	+++++	+++++	2447	+++++	2447	0.000
(3)	+++++	+++++	+++++	10828	+++++	10828	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6667	+++++	6667	0.000
(2)	+++++	+++++	+++++	8344	+++++	8344	0.000
(3)	+++++	+++++	+++++	5531	+++++	5531	0.000
(4)	+++++	+++++	+++++	2649	+++++	2649	0.000
(5)	+++++	+++++	+++++	3555	+++++	3555	0.000
4 Aroclor-1242(1)	14179	12973	12200	11692	10617	12332	10.871
(2)	16141	15119	14927	14559	13766	14903	5.801
(3)	6352	6182	5816	5703	5424	5896	6.324
(4)	8823	8005	7582	7293	6975	7735	9.260
(5)	7955	7511	7149	7022	6787	7285	6.273
5 Aroclor-1248(1)	11183	10572	9738	9526	8980	10000	8.748
(2)	14876	13683	12753	12517	11873	13140	8.885
(3)	15448	14508	14083	13911	13564	14303	5.068
(4)	13161	12385	11501	11480	10960	11898	7.335
(5)	8649	8385	7955	7608	7427	8005	6.411

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Cal Date : 25-Mar-2010 05:50 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	15079	13757	12872	12576	12027	13262	8.998
(2)	20126	18408	17163	17147	16322	17833	8.313
(3)	24516	23104	21642	21571	21024	22371	6.372
(4)	18056	17097	15691	15840	15766	16490	6.365
(5)	18024	16683	15151	15091	14874	15964	8.504
7 Aroclor-1260(1)	20231	18737	18018	17739	16925	18330	6.792
(2)	29345	27114	26401	26314	25275	26890	5.656
(3)	30716	28501	27786	27176	27398	28315	5.062
(4)	17775	16311	15776	15627	15300	16158	6.034
(5)	18203	16850	16463	16434	16114	16813	4.876
8 Aroclor-1262(1)	+++++	+++++	+++++	14232	+++++	14232	0.000
(2)	+++++	+++++	+++++	18742	+++++	18742	0.000
(3)	+++++	+++++	+++++	23151	+++++	23151	0.000
(4)	+++++	+++++	+++++	21098	+++++	21098	0.000
(5)	+++++	+++++	+++++	43500	+++++	43500	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 4cmx	407603	391717	384007	385362	378927	389523	2.846
12 Decachlorobiphenyl	324859	292709	291687	292552	282844	296930	5.438

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Cal Date : 24-Mar-2010 06:13 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032b3201.d
Level 2: /chem/ecd1a.i/022210.b/033b3301.d
Level 3: /chem/ecd1a.i/022210.b/034b3401.d
Level 4: /chem/ecd1a.i/022210.b/035b3501.d
Level 5: /chem/ecd1a.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14376	12782	12025	12307	11436	12585	8.846
(2)	10090	9074	8445	8099	7462	8634	11.594
(3)	6137	5472	5151	4973	4701	5287	10.435
(4)	7962	7103	6817	6522	6060	6893	10.318
(5)	7497	6686	6263	5965	5703	6423	10.948
62 4,4-DDT	+++++	+++++	+++++	74891	+++++	74891	0.000
63 4,4-DDE	+++++	+++++	+++++	246875	+++++	246875	0.000
64 4,4-DDD	+++++	+++++	+++++	198885	+++++	198885	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3250	+++++	3250	0.000
(2)	+++++	+++++	+++++	2084	+++++	2084	0.000
(3)	+++++	+++++	+++++	7320	+++++	7320	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	5054	+++++	5054	0.000
(2)	+++++	+++++	+++++	5712	+++++	5712	0.000
(3)	+++++	+++++	+++++	3888	+++++	3888	0.000
(4)	+++++	+++++	+++++	2840	+++++	2840	0.000
(5)	+++++	+++++	+++++	2821	+++++	2821	0.000
4 Aroclor-1242(1)	11230	10514	10117	9526	9309	10139	7.634
(2)	8350	7546	6909	6642	6036	7097	12.487
(3)	6442	5836	5387	5177	4727	5514	11.868
(4)	6626	6011	5573	5400	4999	5722	10.877
(5)	7365	6655	6241	6005	5582	6370	10.658
5 Aroclor-1248(1)	9056	8166	7435	6980	6383	7604	13.684
(2)	11093	10088	9257	8814	8097	9470	12.242
(3)	12505	11602	10677	10284	9581	10930	10.466
(4)	13890	12873	11986	11379	10657	12157	10.405
(5)	13590	12468	11541	11009	10453	11812	10.502

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Cal Date : 24-Mar-2010 06:13 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7300	6493	5824	5480	5009	6021	14.886
(2)	12825	11548	10490	9974	9262	10820	12.909
(3)	14182	12643	11550	11031	10262	11934	12.788
(4)	19027	17317	15983	15442	14439	16442	10.826
(5)	14064	13049	11651	11174	10640	12116	11.634
7 Aroclor-1260(1)	15189	13569	12744	12369	11530	13080	10.610
(2)	17885	16016	15152	14853	13838	15549	9.776
(3)	13812	12250	11562	11271	10585	11896	10.311
(4)	14218	12635	11954	11625	11015	12289	9.981
(5)	29595	26825	25949	25629	23976	26395	7.824
8 Aroclor-1262(1)	+++++	+++++	+++++	11597	+++++	11597	0.000
(2)	+++++	+++++	+++++	16200	+++++	16200	0.000
(3)	+++++	+++++	+++++	14838	+++++	14838	0.000
(4)	+++++	+++++	+++++	29366	+++++	29366	0.000
(5)	+++++	+++++	+++++	20651	+++++	20651	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	286554	267083	258607	255362	244057	262333	6.044
$ 12 Decachlorobiphenyl	217815	191410	181026	177515	168101	187173	10.178

Report Date: 26-Mar-2010 14:20

Calibration History

Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032f3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029f2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023f2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017f1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033f3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030f3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024f2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018f1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034f3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031f3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025f2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019f1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035f3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032f3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026f2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020f2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014f1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009f0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008f0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007f0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010f1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036f3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033f3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027f2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021f2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 1000 |

25-MAR-2010 12:09	AR1660	/chem/ecd1a.i/032510.b/037f3701.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 13:44	AR1660	/chem/ecd1a.i/032510.b/046f4601.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 10:26	AR1660	/chem/ecd1a.i/032510.b/028f2801.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 09:27	AR1660	/chem/ecd1a.i/032510.b/023f2301.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 06:41	AR1262	/chem/ecd1a.i/032510.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 06:31	AR1221	/chem/ecd1a.i/032510.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 06:20	AR1232	/chem/ecd1a.i/032510.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 06:10	AR1268	/chem/ecd1a.i/032510.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 05:59	AR1248	/chem/ecd1a.i/032510.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 05:49	AR1242	/chem/ecd1a.i/032510.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 05:38	AR1254	/chem/ecd1a.i/032510.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 05:28	AR1660	/chem/ecd1a.i/032510.b/002f0201.d

Report Date: 29-Mar-2010 10:02

Calibration History

Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029b2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023b2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017b1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030b3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024b2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018b1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031b3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025b2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019b1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032b3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026b2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020b2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014b1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009b0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008b0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007b0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010b1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033b3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027b2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021b2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 1000 |

25-MAR-2010 13:44	AR1660	/chem/ecd1a.i/032510.b/046b4601.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 12:09	AR1660	/chem/ecd1a.i/032510.b/037b3701.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 10:26	AR1660	/chem/ecd1a.i/032510.b/028b2801.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 09:27	AR1660	/chem/ecd1a.i/032510.b/023b2301.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 05:28	AR1660	/chem/ecd1a.i/032510.b/002b0201.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 06:41	AR1262	/chem/ecd1a.i/032510.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 06:31	AR1221	/chem/ecd1a.i/032510.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 06:20	AR1232	/chem/ecd1a.i/032510.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 06:10	AR1268	/chem/ecd1a.i/032510.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 05:59	AR1248	/chem/ecd1a.i/032510.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 05:49	AR1242	/chem/ecd1a.i/032510.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
25-MAR-2010 05:38	AR1254	/chem/ecd1a.i/032510.b/003b0301.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Mar-2010 14:17 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.361	2.331-2.391	1.518e+04
	2.647	2.617-2.677	1.894e+04
	2.727	2.697-2.757	1.244e+04
	2.765	2.735-2.795	7.348e+03
	2.975	2.945-3.005	9.518e+03
63 4,4-DDD	3.888	3.868-3.908	3.140e+05
64 4,4-DDE	3.539	3.519-3.559	3.727e+05
62 4,4-DDT	4.052	4.032-4.072	2.363e+05
2 Aroclor-1221	2.023	1.993-2.053	4.466e+03
	2.115	2.085-2.145	2.447e+03
	2.140	2.110-2.170	1.083e+04
3 Aroclor-1232	2.364	2.334-2.394	6.667e+03
	2.649	2.619-2.679	8.344e+03
	2.730	2.700-2.760	5.531e+03
	2.844	2.814-2.874	2.649e+03
	3.230	3.200-3.260	3.555e+03
4 Aroclor-1242	2.362	2.332-2.392	1.233e+04
	2.648	2.618-2.678	1.490e+04
	2.767	2.737-2.797	5.896e+03
	2.976	2.946-3.006	7.735e+03
	3.229	3.199-3.259	7.285e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.843	2.813-2.873	1.000e+04
	2.976	2.946-3.006	1.314e+04
	3.229	3.199-3.259	1.430e+04
	3.361	3.331-3.391	1.190e+04
	3.593	3.563-3.623	8.005e+03
6 Aroclor-1254	3.204	3.174-3.234	1.326e+04
	3.359	3.329-3.389	1.783e+04
	3.593	3.563-3.623	2.237e+04
	3.756	3.726-3.786	1.649e+04
	3.865	3.835-3.895	1.596e+04
7 Aroclor-1260	3.700	3.670-3.730	1.833e+04
	3.862	3.832-3.892	2.689e+04
	4.024	3.994-4.054	2.832e+04
	4.092	4.062-4.122	1.616e+04
	4.235	4.205-4.265	1.681e+04
8 Aroclor-1262	3.702	3.672-3.732	1.423e+04
	3.865	3.835-3.895	1.874e+04
	4.095	4.065-4.125	2.315e+04
	4.237	4.207-4.267	2.110e+04
	4.417	4.387-4.447	4.350e+04
9 Aroclor-1268	4.600	4.570-4.630	4.848e+04
	4.623	4.593-4.653	5.448e+04
	4.736	4.706-4.766	3.862e+04
	4.938	4.908-4.968	1.635e+04
	5.104	5.074-5.133	1.121e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.910	1.880-1.940	3.895e+05
$ 12 Decachlorobiphenyl	5.211	5.181-5.241	2.969e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Mar-2010 14:16 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.161	3.131-3.191	1.258e+04
	3.244	3.214-3.274	8.634e+03
	3.307	3.277-3.337	5.287e+03
	3.534	3.504-3.564	6.893e+03
	3.609	3.579-3.639	6.423e+03
62 4,4-DDT	4.642	4.622-4.662	7.489e+04
63 4,4-DDE	4.111	4.091-4.131	2.469e+05
64 4,4-DDD	4.455	4.435-4.475	1.989e+05
2 Aroclor-1221	2.464	2.434-2.494	3.250e+03
	2.559	2.529-2.589	2.084e+03
	2.599	2.569-2.629	7.320e+03
3 Aroclor-1232	2.865	2.835-2.895	5.054e+03
	3.162	3.132-3.192	5.712e+03
	3.245	3.215-3.275	3.888e+03
	3.535	3.505-3.565	2.840e+03
	3.770	3.740-3.800	2.821e+03
4 Aroclor-1242	3.162	3.132-3.192	1.014e+04
	3.245	3.215-3.275	7.097e+03
	3.535	3.505-3.565	5.514e+03
	3.769	3.739-3.799	5.722e+03
	3.797	3.767-3.827	6.370e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.370	3.340-3.400	7.604e+03
	3.534	3.504-3.564	9.470e+03
	3.769	3.739-3.799	1.093e+04
	3.796	3.766-3.826	1.216e+04
	3.933	3.903-3.963	1.181e+04
6 Aroclor-1254	3.369	3.339-3.399	6.021e+03
	3.791	3.761-3.821	1.082e+04
	3.908	3.878-3.938	1.193e+04
	4.184	4.154-4.214	1.644e+04
	4.319	4.289-4.349	1.212e+04
7 Aroclor-1260	4.299	4.269-4.329	1.308e+04
	4.424	4.394-4.454	1.555e+04
	4.689	4.659-4.719	1.190e+04
	4.862	4.832-4.892	1.229e+04
	5.010	4.980-5.040	2.639e+04
8 Aroclor-1262	4.426	4.396-4.456	1.160e+04
	4.692	4.662-4.722	1.620e+04
	4.865	4.835-4.895	1.484e+04
	5.012	4.982-5.042	2.937e+04
	5.224	5.194-5.254	2.065e+04
9 Aroclor-1268	5.222	5.192-5.252	3.730e+04
	5.249	5.219-5.279	3.492e+04
	5.399	5.369-5.429	2.658e+04
	5.564	5.534-5.593	1.223e+04
	5.756	5.726-5.786	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.267	2.237-2.297	2.623e+05
$ 12 Decachlorobiphenyl	5.906	5.876-5.936	1.872e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Cal Date : 25-Mar-2010 14:17 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032f3201.d
Level 2: /chem/ecd1a.i/022210.b/033f3301.d
Level 3: /chem/ecd1a.i/022210.b/034f3401.d
Level 4: /chem/ecd1a.i/022210.b/035f3501.d
Level 5: /chem/ecd1a.i/022210.b/036f3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	17517	15916	14941	14342	13168	15177	10.833
(2)	20378	19291	18809	18310	17891	18936	5.082
(3)	13830	13020	12255	11836	11271	12442	8.071
(4)	7957	7573	7201	7091	6919	7348	5.665
(5)	10680	9850	9332	8998	8729	9518	8.119
63 4,4-DDD	+++++	+++++	+++++	313980	+++++	313980	0.000
64 4,4-DDE	+++++	+++++	+++++	372684	+++++	372684	0.000
62 4,4-DDT	+++++	+++++	+++++	236265	+++++	236265	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4466	+++++	4466	0.000
(2)	+++++	+++++	+++++	2447	+++++	2447	0.000
(3)	+++++	+++++	+++++	10828	+++++	10828	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6667	+++++	6667	0.000
(2)	+++++	+++++	+++++	8344	+++++	8344	0.000
(3)	+++++	+++++	+++++	5531	+++++	5531	0.000
(4)	+++++	+++++	+++++	2649	+++++	2649	0.000
(5)	+++++	+++++	+++++	3555	+++++	3555	0.000
4 Aroclor-1242(1)	14179	12973	12200	11692	10617	12332	10.871
(2)	16141	15119	14927	14559	13766	14903	5.801
(3)	6352	6182	5816	5703	5424	5896	6.324
(4)	8823	8005	7582	7293	6975	7735	9.260
(5)	7955	7511	7149	7022	6787	7285	6.273
5 Aroclor-1248(1)	11183	10572	9738	9526	8980	10000	8.748
(2)	14876	13683	12753	12517	11873	13140	8.885
(3)	15448	14508	14083	13911	13564	14303	5.068
(4)	13161	12385	11501	11480	10960	11898	7.335
(5)	8649	8385	7955	7608	7427	8005	6.411

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Cal Date : 25-Mar-2010 14:17 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	15079	13757	12872	12576	12027	13262	8.998
(2)	20126	18408	17163	17147	16322	17833	8.313
(3)	24516	23104	21642	21571	21024	22371	6.372
(4)	18056	17097	15691	15840	15766	16490	6.365
(5)	18024	16683	15151	15091	14874	15964	8.504
7 Aroclor-1260(1)	20231	18737	18018	17739	16925	18330	6.792
(2)	29345	27114	26401	26314	25275	26890	5.656
(3)	30716	28501	27786	27176	27398	28315	5.062
(4)	17775	16311	15776	15627	15300	16158	6.034
(5)	18203	16850	16463	16434	16114	16813	4.876
8 Aroclor-1262(1)	+++++	+++++	+++++	14232	+++++	14232	0.000
(2)	+++++	+++++	+++++	18742	+++++	18742	0.000
(3)	+++++	+++++	+++++	23151	+++++	23151	0.000
(4)	+++++	+++++	+++++	21098	+++++	21098	0.000
(5)	+++++	+++++	+++++	43500	+++++	43500	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	407603	391717	384007	385362	378927	389523	2.846
$ 12 Decachlorobiphenyl	324859	292709	291687	292552	282844	296930	5.438

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Cal Date : 25-Mar-2010 14:16 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032b3201.d
Level 2: /chem/ecd1a.i/022210.b/033b3301.d
Level 3: /chem/ecd1a.i/022210.b/034b3401.d
Level 4: /chem/ecd1a.i/022210.b/035b3501.d
Level 5: /chem/ecd1a.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	___ RRF	% RSD
1 Aroclor-1016(1)	14376	12782	12025	12307	11436	12585	8.846
(2)	10090	9074	8445	8099	7462	8634	11.594
(3)	6137	5472	5151	4973	4701	5287	10.435
(4)	7962	7103	6817	6522	6060	6893	10.318
(5)	7497	6686	6263	5965	5703	6423	10.948
62 4,4-DDT	+++++	+++++	+++++	74891	+++++	74891	0.000
63 4,4-DDE	+++++	+++++	+++++	246875	+++++	246875	0.000
64 4,4-DDD	+++++	+++++	+++++	198885	+++++	198885	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3250	+++++	3250	0.000
(2)	+++++	+++++	+++++	2084	+++++	2084	0.000
(3)	+++++	+++++	+++++	7320	+++++	7320	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	5054	+++++	5054	0.000
(2)	+++++	+++++	+++++	5712	+++++	5712	0.000
(3)	+++++	+++++	+++++	3888	+++++	3888	0.000
(4)	+++++	+++++	+++++	2840	+++++	2840	0.000
(5)	+++++	+++++	+++++	2821	+++++	2821	0.000
4 Aroclor-1242(1)	11230	10514	10117	9526	9309	10139	7.634
(2)	8350	7546	6909	6642	6036	7097	12.487
(3)	6442	5836	5387	5177	4727	5514	11.868
(4)	6626	6011	5573	5400	4999	5722	10.877
(5)	7365	6655	6241	6005	5582	6370	10.658
5 Aroclor-1248(1)	9056	8166	7435	6980	6383	7604	13.684
(2)	11093	10088	9257	8814	8097	9470	12.242
(3)	12505	11602	10677	10284	9581	10930	10.466
(4)	13890	12873	11986	11379	10657	12157	10.405
(5)	13590	12468	11541	11009	10453	11812	10.502

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Cal Date : 25-Mar-2010 14:16 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7300	6493	5824	5480	5009	6021	14.886
(2)	12825	11548	10490	9974	9262	10820	12.909
(3)	14182	12643	11550	11031	10262	11934	12.788
(4)	19027	17317	15983	15442	14439	16442	10.826
(5)	14064	13049	11651	11174	10640	12116	11.634
7 Aroclor-1260(1)	15189	13569	12744	12369	11530	13080	10.610
(2)	17885	16016	15152	14853	13838	15549	9.776
(3)	13812	12250	11562	11271	10585	11896	10.311
(4)	14218	12635	11954	11625	11015	12289	9.981
(5)	29595	26825	25949	25629	23976	26395	7.824
8 Aroclor-1262(1)	+++++	+++++	+++++	11597	+++++	11597	0.000
(2)	+++++	+++++	+++++	16200	+++++	16200	0.000
(3)	+++++	+++++	+++++	14838	+++++	14838	0.000
(4)	+++++	+++++	+++++	29366	+++++	29366	0.000
(5)	+++++	+++++	+++++	20651	+++++	20651	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	286554	267083	258607	255362	244057	262333	6.044
$ 12 Decachlorobiphenyl	217815	191410	181026	177515	168101	187173	10.178

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 0753

Lab File ID: 002F0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14904.311	0.01	-1.8	15.0
(2)	18935.774	19020.221	0.01	0.4	15.0
(3)	12442.153	11642.075	0.01	-6.4	15.0
(4)	7348.319	7018.562	0.01	-4.5	15.0
(5)	9517.775	9050.522	0.01	-4.9	15.0
Aroclor-1260	18330.091	18974.465	0.01	3.5	15.0
(2)	26889.831	28338.650	0.01	5.4	15.0
(3)	28315.304	30220.801	0.01	6.7	15.0
(4)	16157.873	17084.331	0.01	5.7	15.0
(5)	16812.669	17877.749	0.01	6.3	15.0
4cmx	389523.02	413156.93	0.01	6.1	15.0
Decachlorobiphenyl	296930.38	316393.35	0.01	6.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 0753

Lab File ID: 002B0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11580.435	0.01	-8.0	15.0
(2)	8634.207	7799.455	0.01	-9.7	15.0
(3)	5286.637	4831.888	0.01	-8.6	15.0
(4)	6892.719	6341.985	0.01	-8.0	15.0
(5)	6422.564	5935.096	0.01	-7.6	15.0
Aroclor-1260	13080.231	12744.147	0.01	-2.6	15.0
(2)	15549.023	15548.972	0.01	-0.0	15.0
(3)	11896.069	11720.380	0.01	-1.5	15.0
(4)	12289.216	12237.561	0.01	-0.4	15.0
(5)	26394.638	27173.631	0.01	3.0	15.0
4cmx	262332.66	262353.40	0.01	0.0	15.0
Decachlorobiphenyl	187173.38	185867.43	0.01	-0.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 0804

Lab File ID: 003F0301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	13261.954	12967.036	0.01	-2.2	15.0
(2)	17833.306	17361.430	0.01	-2.6	15.0
(3)	22371.301	22829.689	0.01	2.0	15.0
(4)	16490.050	16956.788	0.01	2.8	15.0
(5)	15964.418	16896.192	0.01	5.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 0804

Lab File ID: 003B0301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6021.217	5514.362	0.01	-8.4	15.0
(2)	10819.790	10031.897	0.01	-7.3	15.0
(3)	11933.626	11116.209	0.01	-6.8	15.0
(4)	16441.788	15547.782	0.01	-5.4	15.0
(5)	12115.517	11313.436	0.01	-6.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 1128

Lab File ID: 021F2101 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14292.984	0.01	-5.8	15.0
(2)	18935.774	18014.082	0.01	-4.9	15.0
(3)	12442.153	11433.112	0.01	-8.1	15.0
(4)	7348.319	6916.561	0.01	-5.9	15.0
(5)	9517.775	8921.011	0.01	-6.3	15.0
Aroclor-1260	18330.091	18917.452	0.01	3.2	15.0
(2)	26889.831	27896.153	0.01	3.7	15.0
(3)	28315.304	29772.954	0.01	5.1	15.0
(4)	16157.873	16821.466	0.01	4.1	15.0
(5)	16812.669	17522.638	0.01	4.2	15.0
4cmx	389523.02	401450.50	0.01	3.1	15.0
Decachlorobiphenyl	296930.38	291093.56	0.01	-2.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 1128

Lab File ID: 021B2101 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11869.406	0.01	-5.7	15.0
(2)	8634.207	7752.072	0.01	-10.2	15.0
(3)	5286.637	4807.813	0.01	-9.0	15.0
(4)	6892.719	6307.203	0.01	-8.5	15.0
(5)	6422.564	5822.450	0.01	-9.3	15.0
Aroclor-1260	13080.231	12629.591	0.01	-3.4	15.0
(2)	15549.023	15357.793	0.01	-1.2	15.0
(3)	11896.069	11596.776	0.01	-2.5	15.0
(4)	12289.216	12072.542	0.01	-1.8	15.0
(5)	26394.638	26797.242	0.01	1.5	15.0
4cmx	262332.66	259327.12	0.01	-1.1	15.0
Decachlorobiphenyl	187173.38	181181.45	0.01	-3.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 2338

Lab File ID: 079F7901 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14379.541	0.01	-5.2	15.0
(2)	18935.774	18602.702	0.01	-1.8	15.0
(3)	12442.153	11876.851	0.01	-4.5	15.0
(4)	7348.319	7153.706	0.01	-2.6	15.0
(5)	9517.775	9272.354	0.01	-2.6	15.0
Aroclor-1260	18330.091	19660.522	0.01	7.2	15.0
(2)	26889.831	28967.741	0.01	7.7	15.0
(3)	28315.304	31116.278	0.01	9.9	15.0
(4)	16157.873	17534.054	0.01	8.5	15.0
(5)	16812.669	18269.510	0.01	8.7	15.0
4cmx	389523.02	417722.67	0.01	7.2	15.0
Decachlorobiphenyl	296930.38	319225.04	0.01	7.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 2338

Lab File ID: 079B7901 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11821.083	0.01	-6.1	15.0
(2)	8634.207	7840.838	0.01	-9.2	15.0
(3)	5286.637	4872.606	0.01	-7.8	15.0
(4)	6892.719	6399.096	0.01	-7.2	15.0
(5)	6422.564	6030.329	0.01	-6.1	15.0
Aroclor-1260	13080.231	12871.935	0.01	-1.6	15.0
(2)	15549.023	15721.868	0.01	1.1	15.0
(3)	11896.069	11842.754	0.01	-0.4	15.0
(4)	12289.216	12380.125	0.01	0.7	15.0
(5)	26394.638	27503.255	0.01	4.2	15.0
4cmx	262332.66	261980.72	0.01	-0.1	15.0
Decachlorobiphenyl	187173.38	187550.07	0.01	0.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 0119

Lab File ID: 087F8701 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14921.737	0.01	-1.7	15.0
(2)	18935.774	19417.235	0.01	2.5	15.0
(3)	12442.153	12005.247	0.01	-3.5	15.0
(4)	7348.319	7247.016	0.01	-1.4	15.0
(5)	9517.775	9351.865	0.01	-1.7	15.0
Aroclor-1260	18330.091	19418.246	0.01	5.9	15.0
(2)	26889.831	29065.691	0.01	8.1	15.0
(3)	28315.304	31108.220	0.01	9.9	15.0
(4)	16157.873	17468.704	0.01	8.1	15.0
(5)	16812.669	18258.720	0.01	8.6	15.0
4cmx	389523.02	421827.93	0.01	8.3	15.0
Decachlorobiphenyl	296930.38	314551.30	0.01	5.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 0119

Lab File ID: 087B8701 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	12423.500	0.01	-1.3	15.0
(2)	8634.207	7956.806	0.01	-7.8	15.0
(3)	5286.637	4949.334	0.01	-6.4	15.0
(4)	6892.719	6476.113	0.01	-6.0	15.0
(5)	6422.564	5949.076	0.01	-7.4	15.0
Aroclor-1260	13080.231	12976.110	0.01	-0.8	15.0
(2)	15549.023	15877.009	0.01	2.1	15.0
(3)	11896.069	11906.941	0.01	0.1	15.0
(4)	12289.216	12323.745	0.01	0.3	15.0
(5)	26394.638	27612.520	0.01	4.6	15.0
4cmx	262332.66	268346.39	0.01	2.3	15.0
Decachlorobiphenyl	187173.38	186673.79	0.01	-0.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

Instrument ID: ECD1A Calibration Date: 03/25/10 Time: 0528

Lab File ID: 002F0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14589.566	0.01	-3.9	15.0
(2)	18935.774	18756.674	0.01	-0.9	15.0
(3)	12442.153	11593.920	0.01	-6.8	15.0
(4)	7348.319	6963.555	0.01	-5.2	15.0
(5)	9517.775	8874.475	0.01	-6.8	15.0
Aroclor-1260	18330.091	18589.252	0.01	1.4	15.0
(2)	26889.831	27581.026	0.01	2.6	15.0
(3)	28315.304	29481.031	0.01	4.1	15.0
(4)	16157.873	16685.252	0.01	3.3	15.0
(5)	16812.669	17360.654	0.01	3.2	15.0
4cmx	389523.02	418561.13	0.01	7.4	15.0
Decachlorobiphenyl	296930.38	315777.66	0.01	6.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

Instrument ID: ECD1A Calibration Date: 03/25/10 Time: 0528

Lab File ID: 002B0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11747.342	0.01	-6.6	15.0
(2)	8634.207	7814.731	0.01	-9.5	15.0
(3)	5286.637	4818.974	0.01	-8.8	15.0
(4)	6892.719	6167.712	0.01	-10.5	15.0
(5)	6422.564	5923.164	0.01	-7.8	15.0
Aroclor-1260	13080.231	12832.813	0.01	-1.9	15.0
(2)	15549.023	15664.888	0.01	0.7	15.0
(3)	11896.069	11826.610	0.01	-0.6	15.0
(4)	12289.216	12290.315	0.01	0.0	15.0
(5)	26394.638	27280.290	0.01	3.4	15.0
4cmx	262332.66	267786.20	0.01	2.1	15.0
Decachlorobiphenyl	187173.38	192101.66	0.01	2.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

Instrument ID: ECD1A Calibration Date: 03/25/10 Time: 0538

Lab File ID: 003F0301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	13261.954	12741.217	0.01	-3.9	15.0
(2)	17833.306	17143.351	0.01	-3.9	15.0
(3)	22371.301	22218.593	0.01	-0.7	15.0
(4)	16490.050	16436.259	0.01	-0.3	15.0
(5)	15964.418	16751.210	0.01	4.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

Instrument ID: ECD1A Calibration Date: 03/25/10 Time: 0538

Lab File ID: 003B0301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6021.217	5545.194	0.01	-7.9	15.0
(2)	10819.790	10086.059	0.01	-6.8	15.0
(3)	11933.626	11109.350	0.01	-6.9	15.0
(4)	16441.788	15547.011	0.01	-5.4	15.0
(5)	12115.517	11753.589	0.01	-3.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

Instrument ID: ECD1A Calibration Date: 03/25/10 Time: 1026

Lab File ID: 028F2801 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14712.751	0.01	-3.0	15.0
(2)	18935.774	18693.026	0.01	-1.3	15.0
(3)	12442.153	11643.911	0.01	-6.4	15.0
(4)	7348.319	7050.056	0.01	-4.0	15.0
(5)	9517.775	9101.881	0.01	-4.4	15.0
Aroclor-1260	18330.091	18885.324	0.01	3.0	15.0
(2)	26889.831	28062.112	0.01	4.4	15.0
(3)	28315.304	30094.246	0.01	6.3	15.0
(4)	16157.873	17025.182	0.01	5.4	15.0
(5)	16812.669	17670.317	0.01	5.1	15.0
4cmx	389523.02	419247.35	0.01	7.6	15.0
Decachlorobiphenyl	296930.38	318496.62	0.01	7.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

Instrument ID: ECD1A Calibration Date: 03/25/10 Time: 1026

Lab File ID: 028B2801 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	12129.697	0.01	-3.6	15.0
(2)	8634.207	7798.446	0.01	-9.7	15.0
(3)	5286.637	4833.083	0.01	-8.6	15.0
(4)	6892.719	6385.988	0.01	-7.4	15.0
(5)	6422.564	6043.433	0.01	-5.9	15.0
Aroclor-1260	13080.231	12823.274	0.01	-2.0	15.0
(2)	15549.023	15717.711	0.01	1.1	15.0
(3)	11896.069	11865.206	0.01	-0.2	15.0
(4)	12289.216	12280.274	0.01	-0.1	15.0
(5)	26394.638	27462.132	0.01	4.0	15.0
4cmx	262332.66	265939.76	0.01	1.4	15.0
Decachlorobiphenyl	187173.38	192515.21	0.01	2.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

Instrument ID: ECD1A Calibration Date: 03/25/10 Time: 1209

Lab File ID: 037F3701 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	15182.835	0.01	0.0	15.0
(2)	18935.774	19644.621	0.01	3.7	15.0
(3)	12442.153	12091.177	0.01	-2.8	15.0
(4)	7348.319	7289.124	0.01	-0.8	15.0
(5)	9517.775	9272.000	0.01	-2.6	15.0
Aroclor-1260	18330.091	19582.367	0.01	6.8	15.0
(2)	26889.831	29042.968	0.01	8.0	15.0
(3)	28315.304	31186.822	0.01	10.1	15.0
(4)	16157.873	17516.907	0.01	8.4	15.0
(5)	16812.669	18266.420	0.01	8.6	15.0
4cmx	389523.02	435155.71	0.01	11.7	15.0
Decachlorobiphenyl	296930.38	326663.07	0.01	10.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

Instrument ID: ECD1A Calibration Date: 03/25/10 Time: 1209

Lab File ID: 037B3701 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	12496.893	0.01	-0.7	15.0
(2)	8634.207	7968.120	0.01	-7.7	15.0
(3)	5286.637	4949.155	0.01	-6.4	15.0
(4)	6892.719	6307.501	0.01	-8.5	15.0
(5)	6422.564	5992.558	0.01	-6.7	15.0
Aroclor-1260	13080.231	13078.449	0.01	-0.0	15.0
(2)	15549.023	16058.379	0.01	3.3	15.0
(3)	11896.069	12042.699	0.01	1.2	15.0
(4)	12289.216	12426.191	0.01	1.1	15.0
(5)	26394.638	27705.419	0.01	5.0	15.0
4cmx	262332.66	273494.19	0.01	4.2	15.0
Decachlorobiphenyl	187173.38	193045.96	0.01	3.1	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/002f0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 23-MAR-2010 07:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:52 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.913	0.000	41315693	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.217	5.217	0.000	31639335	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.365	2.365	0.000	14904311	1000.00	982	80.00- 120.00	100.00
2.651	2.651	0.000	19020221	1000.00	1000	107.62- 147.62	127.62
2.732	2.732	0.000	11642075	1000.00	936	58.11- 98.11	78.11
2.770	2.770	0.000	7018562	1000.00	955	27.09- 67.09	47.09
2.980	2.980	0.000	9050522	1000.00	951	40.72- 80.72	60.72
Average of Peak Amounts =					966		
7 Aroclor-1260					CAS #: 11096-82-5		
3.705	3.705	0.000	18974465	1000.00	1040	80.00- 120.00	100.00
3.867	3.867	0.000	28338650	1000.00	1050	129.35- 169.35	149.35
4.030	4.030	0.000	30220801	1000.00	1070	139.27- 179.27	159.27
4.097	4.097	0.000	17084331	1000.00	1060	70.04- 110.04	90.04
4.240	4.240	0.000	17877749	1000.00	1060	74.22- 114.22	94.22
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecdia.i/032310a.b/0026F0201.d
Date : 23-MAR-2010 07:53
Client ID: AR166001
Sample Info: IWAR100222-60 01

Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

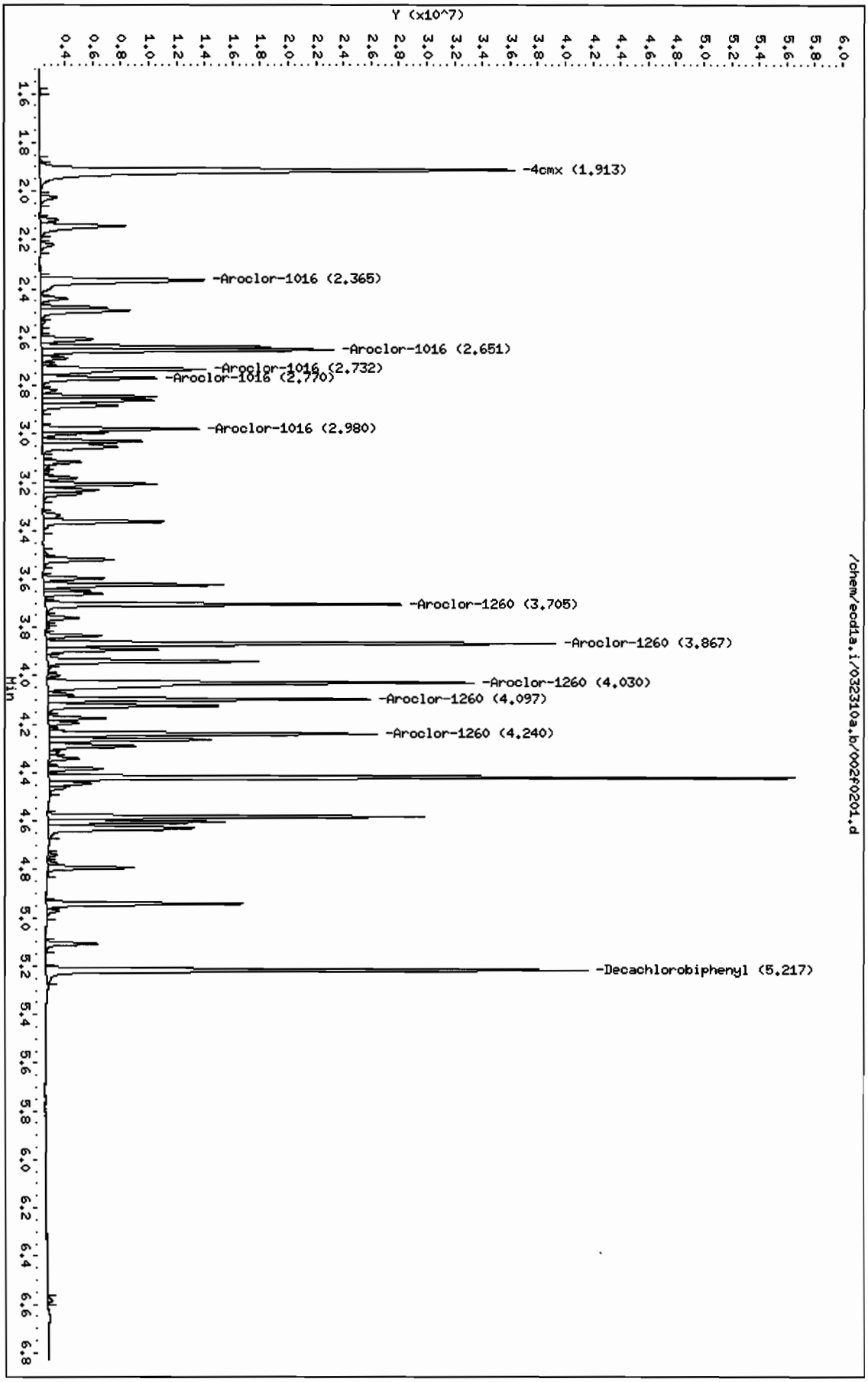

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/002b0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 23-MAR-2010 07:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	26235340	100.000	100	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.912	5.912	0.000	18586743	100.000	99.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.165	3.165	0.000	11580435	1000.00	920	80.00- 120.00	100.00(M)
3.248	3.248	0.000	7799455	1000.00	903	45.31- 85.31	67.35
3.311	3.311	0.000	4831888	1000.00	914	20.51- 60.51	41.72
3.538	3.538	0.000	6341985	1000.00	920	33.14- 73.14	54.76
3.614	3.614	0.000	5935096	1000.00	924	29.05- 69.05	51.25
Average of Peak Amounts =					916		
7 Aroclor-1260					CAS #: 11096-82-5		
4.304	4.304	0.000	12744147	1000.00	974	80.00- 120.00	100.00
4.428	4.428	0.000	15548972	1000.00	1000	101.60- 141.60	122.01
4.695	4.695	0.000	11720380	1000.00	985	71.82- 111.82	91.97
4.867	4.867	0.000	12237561	1000.00	996	75.59- 115.59	96.02
5.015	5.015	0.000	27173631	1000.00	1030	192.18- 232.18	213.22
Average of Peak Amounts =					997		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/002b0201.d
Date : 23-MAR-2010 07:53
Client ID: AR166001
Sample Info: IWAR100222-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

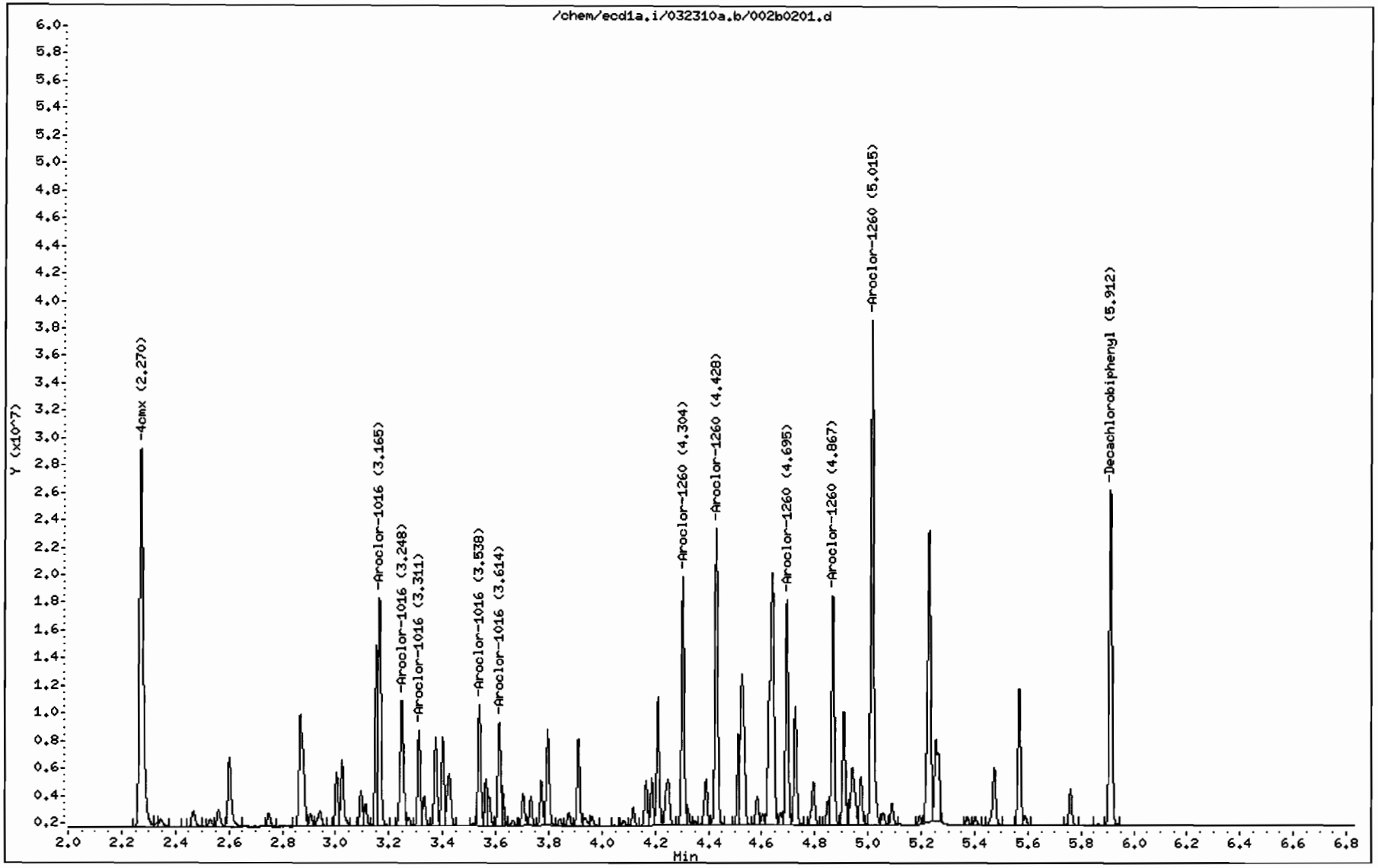

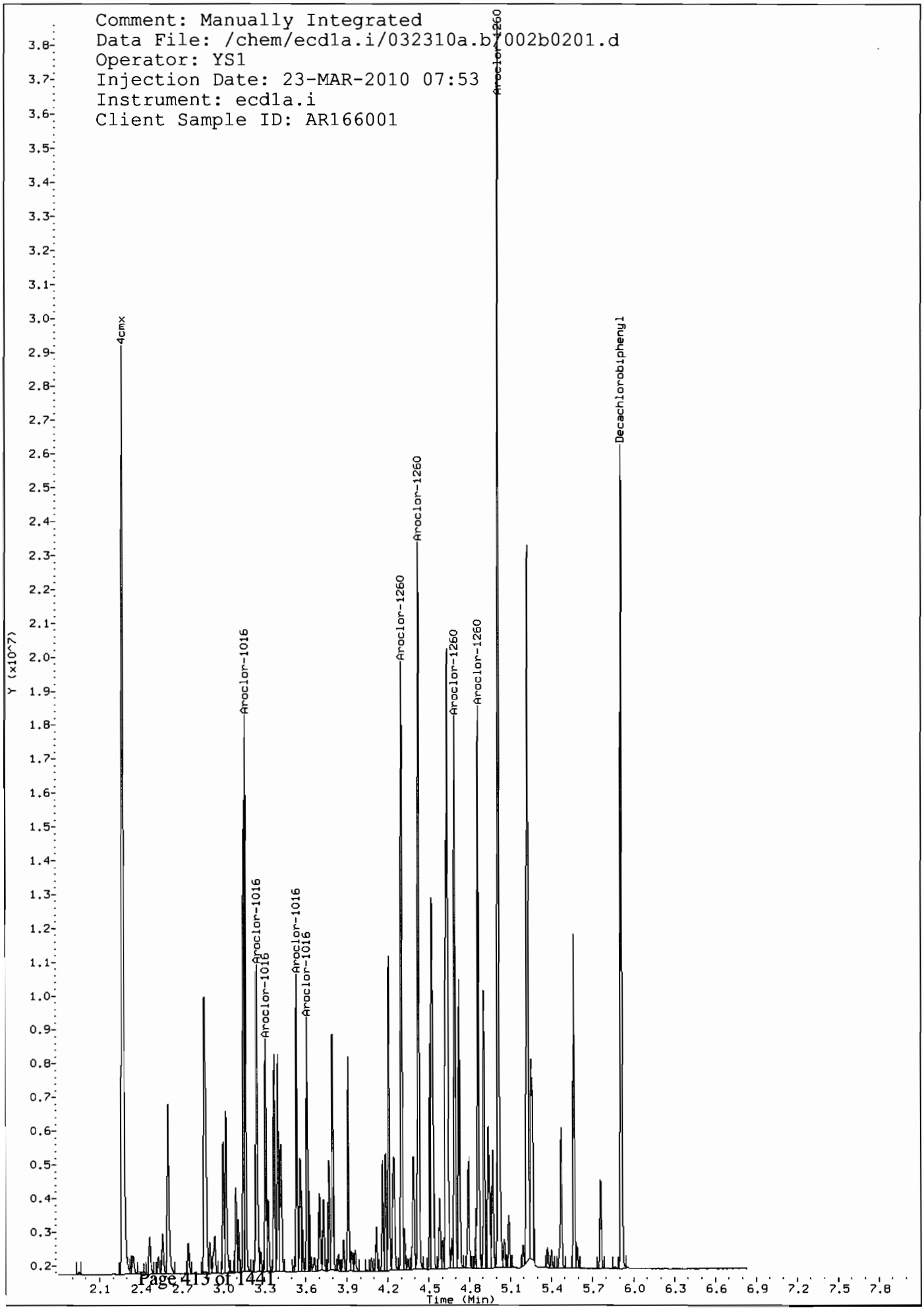
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/002b0201.d
Operator: YS1
Injection Date: 23-MAR-2010 07:53
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

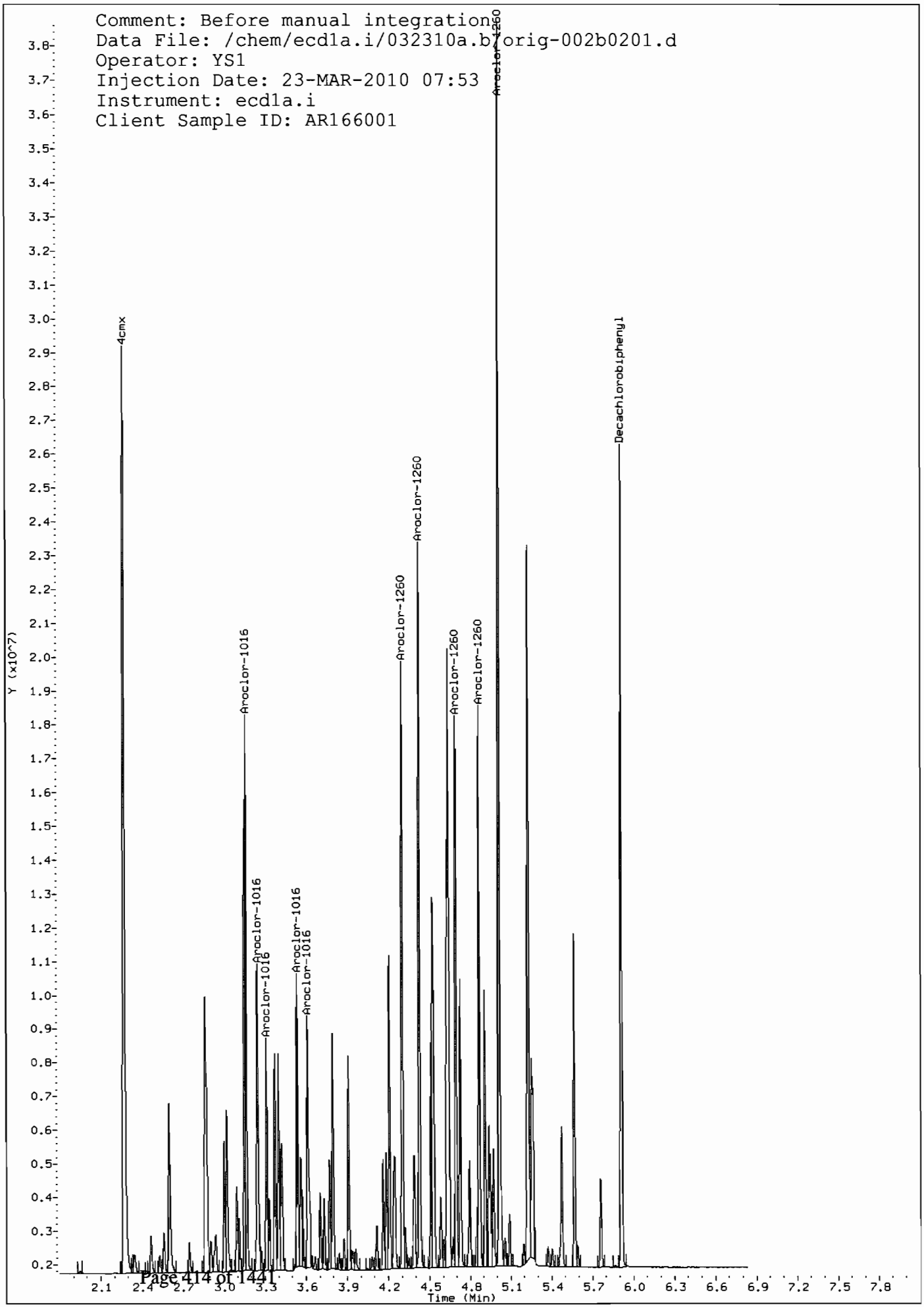
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Data File: /chem/ecd1a.i/032310a.b/orig-002b0201.d
Operator: YS1
Injection Date: 23-MAR-2010 07:53
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 23-MAR-2010 08:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.208	3.208	0.000	12967036	1000.00	978	80.00- 120.00	100.00
3.363	3.363	0.000	17361430	1000.00	974	113.89- 153.89	133.89
3.597	3.597	0.000	22829689	1000.00	1020	156.06- 196.06	176.06
3.759	3.759	0.000	16956788	1000.00	1030	110.77- 150.77	130.77
3.868	3.868	0.000	16896192	1000.00	1060	110.30- 150.30	130.30

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032310a.b/003f0301.d
Date : 23-MAR-2010 08:04
Client ID: AR125401
Sample Info: IWAR100219-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

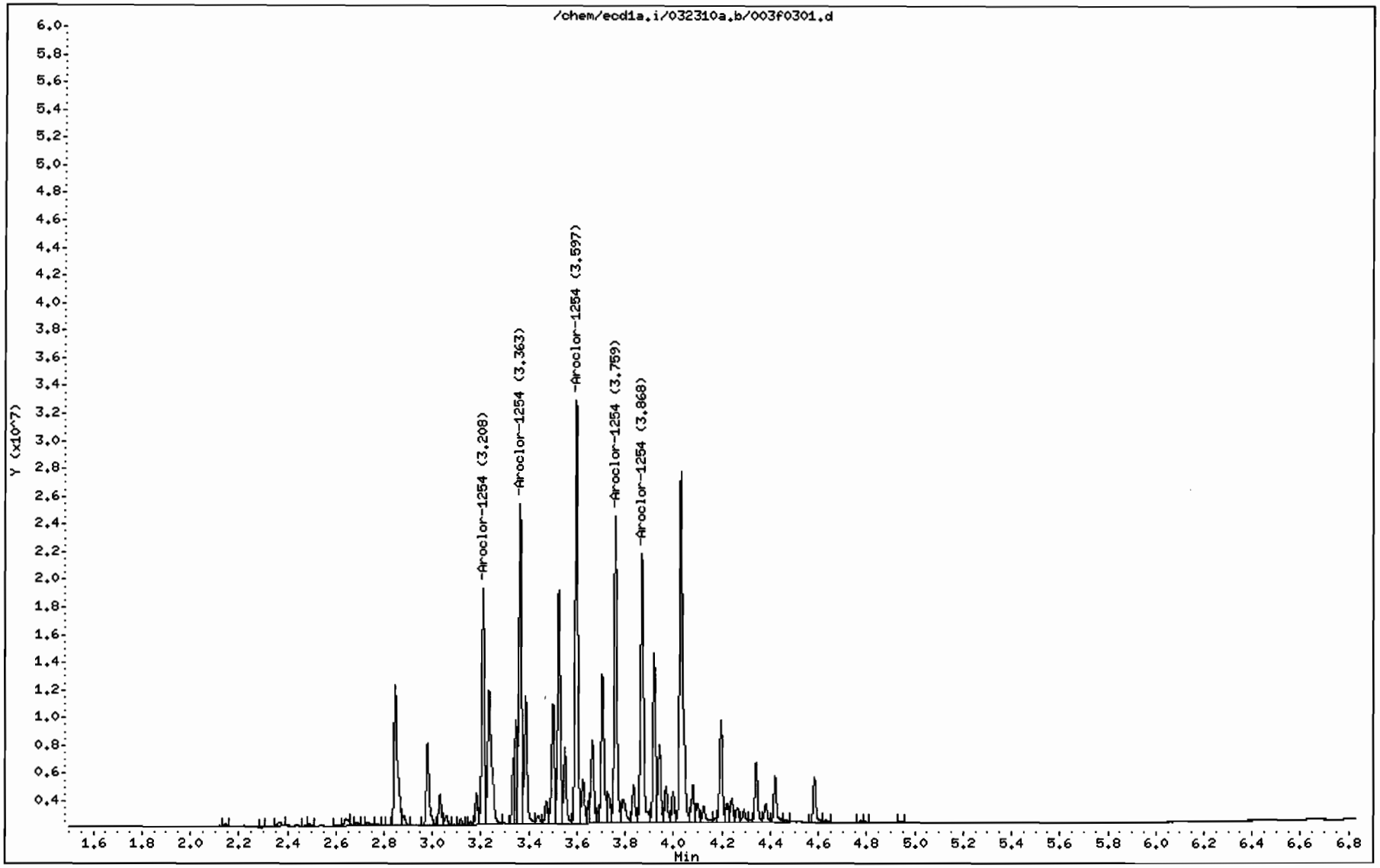

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 23-MAR-2010 08:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.373	3.373	0.000	5514362	1000.00	916	80.00- 120.00	100.00
3.795	3.795	0.000	10031897	1000.00	927	161.92- 201.92	181.92
3.912	3.912	0.000	11116209	1000.00	932	181.59- 221.59	201.59
4.188	4.188	0.000	15547782	1000.00	946	261.95- 301.95	281.95
4.323	4.323	0.000	11313436	1000.00	934	185.16- 225.16	205.16
Average of Peak Amounts =					931		

Data File: /chem/ecd1a.i/032310a.b/003b0301.d

Page 1

Date : 23-MAR-2010 08:04

Client ID: AR125401

Instrument: ecd1a.i

Sample Info: IWAR100219-54

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

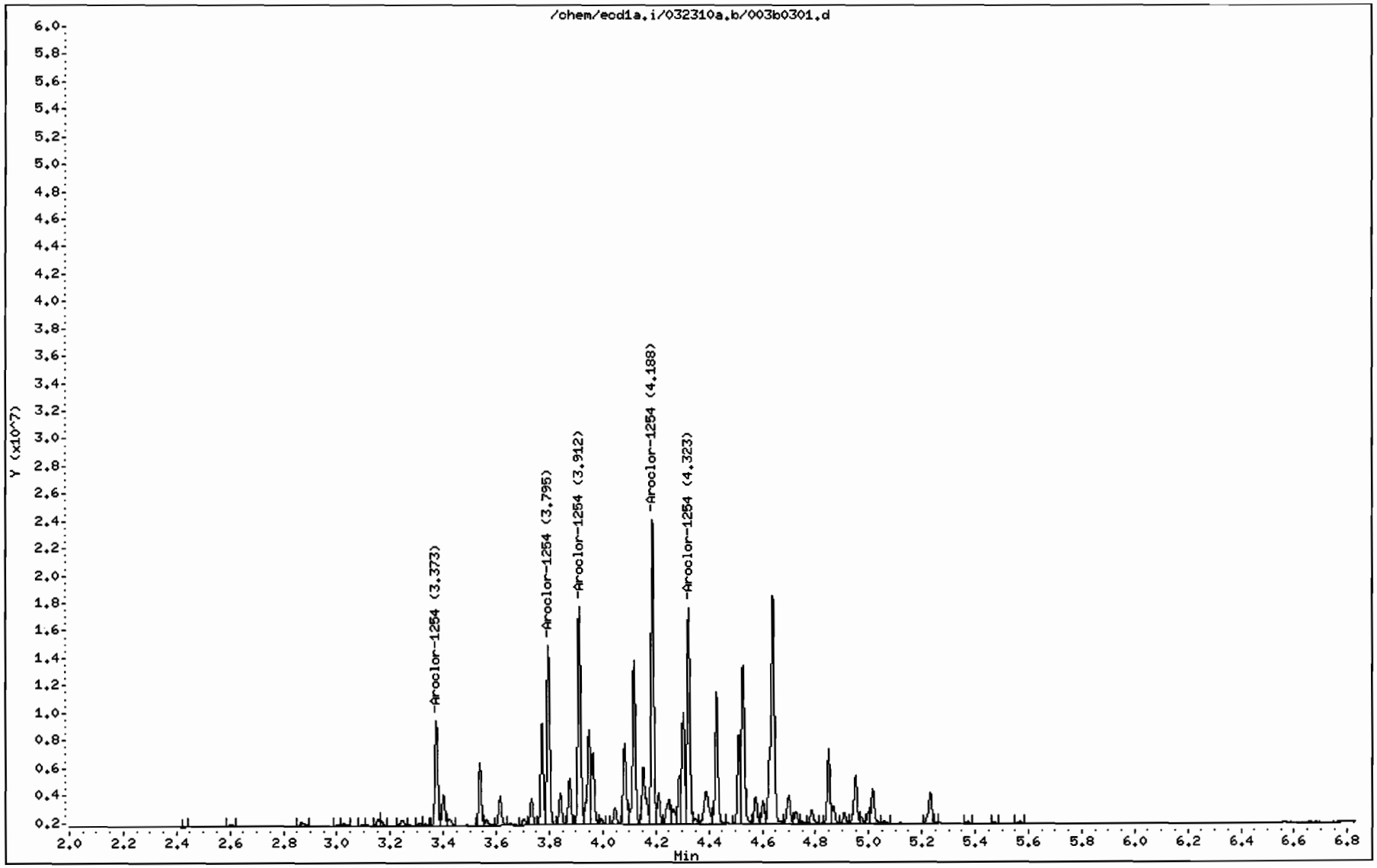

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/004f0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 23-MAR-2010 08:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.364	2.364	0.000	12529932	1000.00	1020	80.00- 120.00	100.00
2.652	2.652	0.000	15449624	1000.00	1040	103.30- 143.30	123.30
2.769	2.769	0.000	5907302	1000.00	1000	27.15- 67.15	47.15
2.979	2.979	0.000	7663511	1000.00	991	41.16- 81.16	61.16
3.233	3.233	0.000	7372131	1000.00	1010	38.84- 78.84	58.84

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032310a.b/004f0401.d

Date : 23-MAR-2010 08:14

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

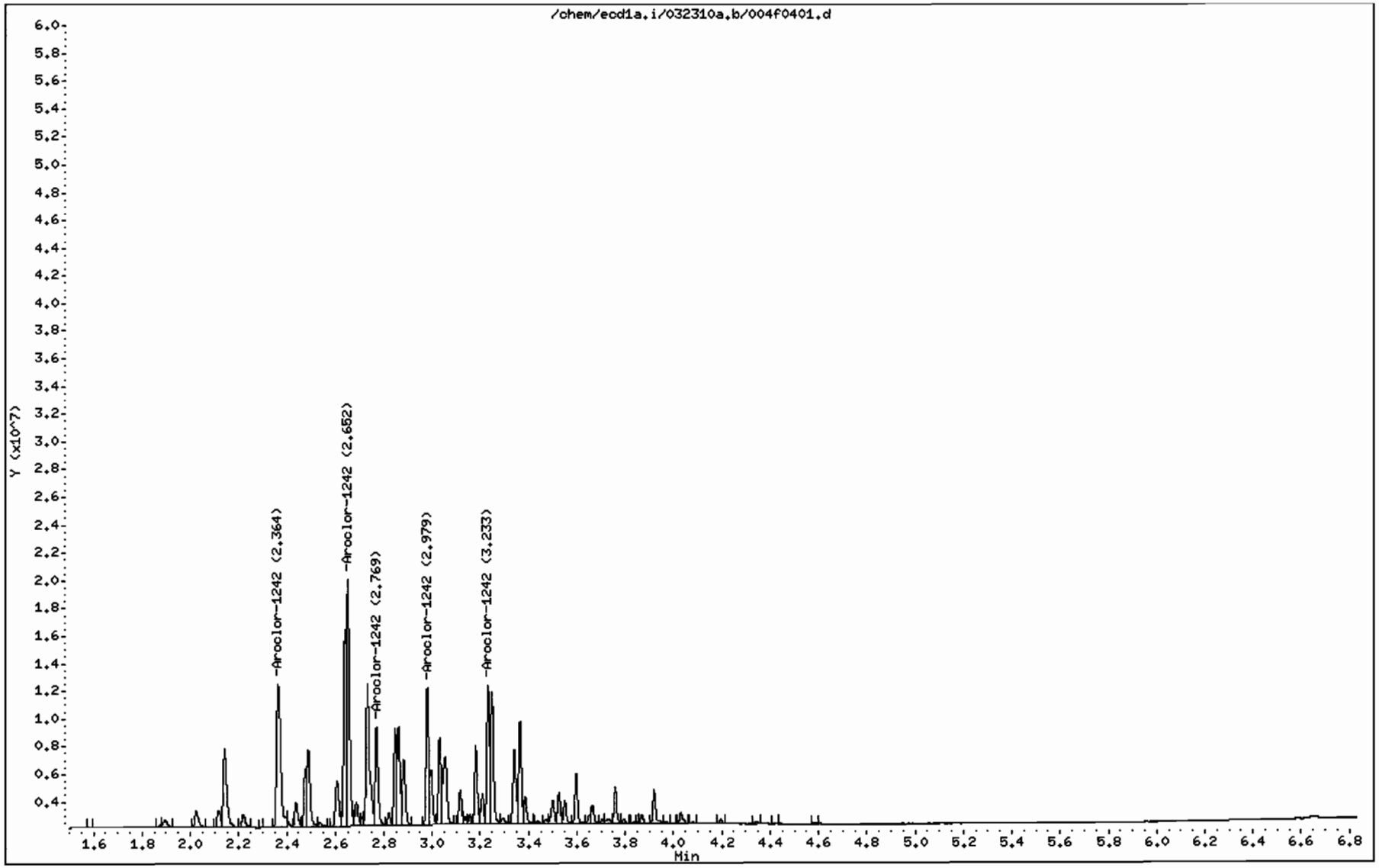

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/004b0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 23-MAR-2010 08:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.165	3.165	0.000	9989319	1000.00	985	80.00- 120.00	100.00
3.248	3.248	0.000	6594356	1000.00	929	46.01- 86.01	66.01
3.538	3.538	0.000	5227592	1000.00	948	32.33- 72.33	52.33
3.772	3.772	0.000	5504861	1000.00	962	35.11- 75.11	55.11
3.799	3.799	0.000	6141848	1000.00	964	41.48- 81.48	61.48
		Average of Peak Amounts =			958		

Data File: /chem/ecd1a.i/032310a.b/004b0401.d

Date : 23-MAR-2010 08:14

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

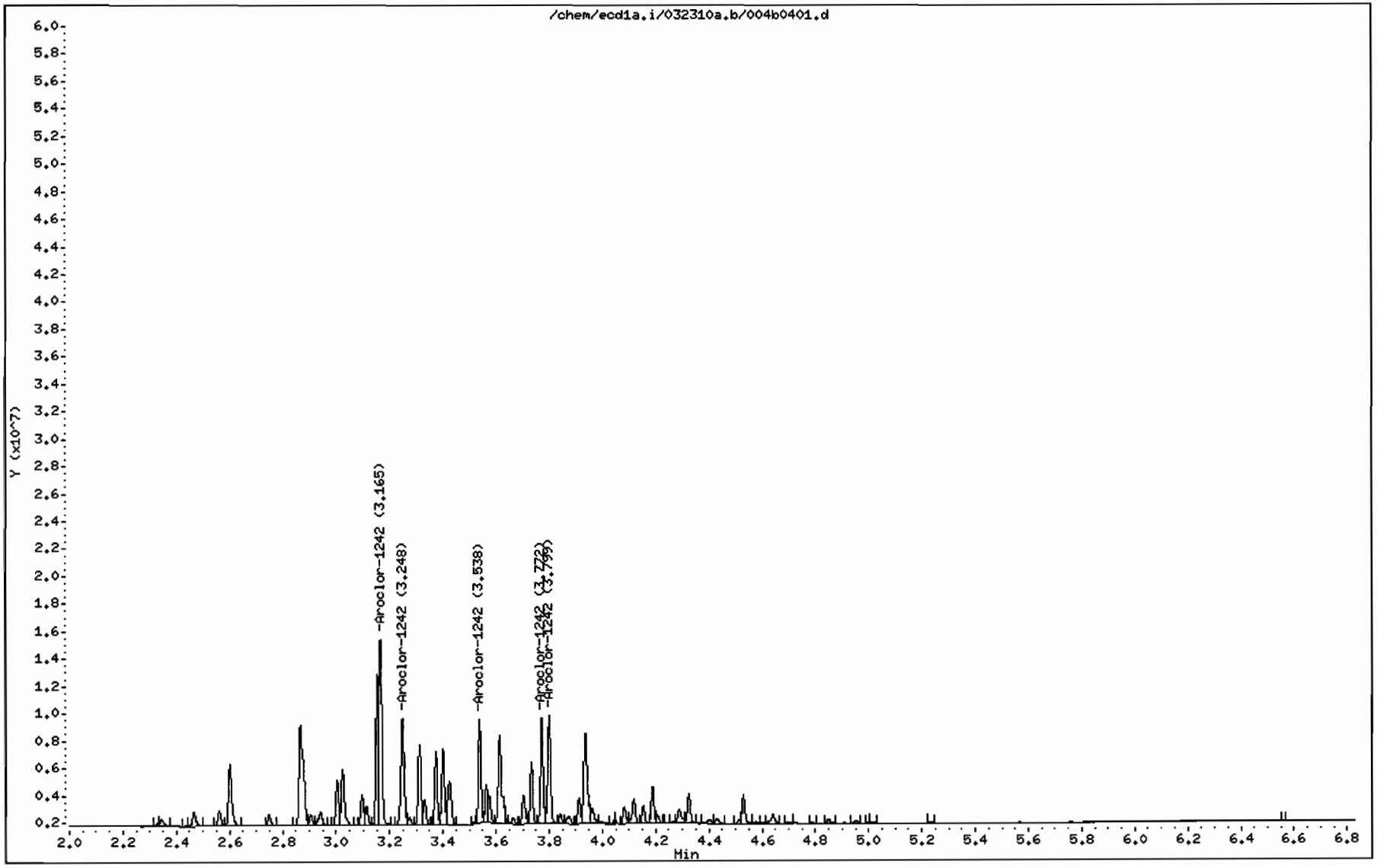

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 23-MAR-2010 08:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
2.847	2.847	0.000	10050677	1000.00	1000	80.00- 120.00	100.00
2.979	2.979	0.000	13265173	1000.00	1010	111.98- 151.98	131.98
3.233	3.233	0.000	14344935	1000.00	1000	122.73- 162.73	142.73
3.365	3.365	0.000	11923879	1000.00	1000	98.64- 138.64	118.64
3.597	3.597	0.000	7748802	1000.00	968	57.10- 97.10	77.10
Average of Peak Amounts =					998		

Data File: /chem/ecd1a.i/032310a.b/005f0501.d
Date : 23-MAR-2010 08:25
Client ID: AR124801
Sample Info: IWAR100223-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

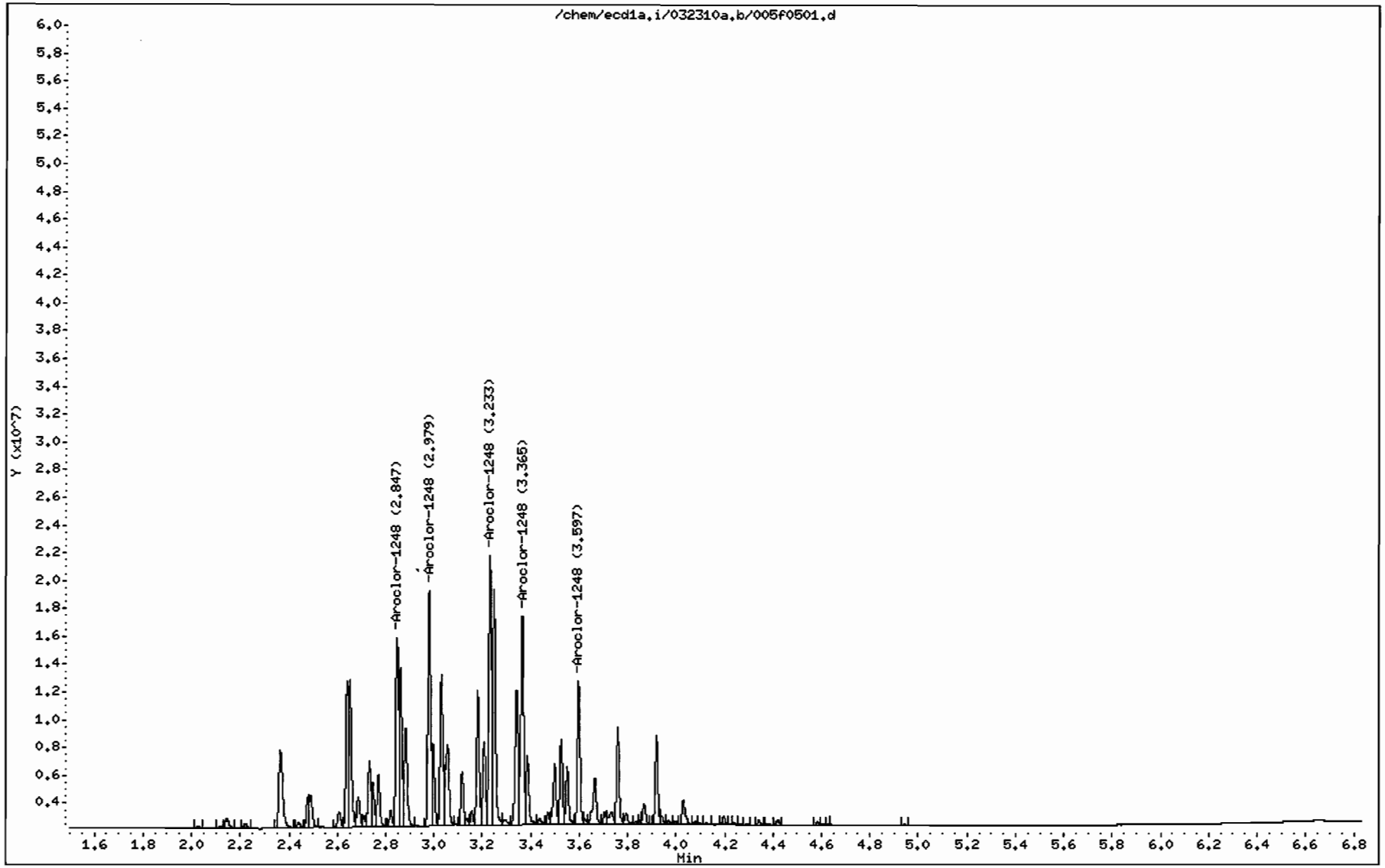

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 23-MAR-2010 08:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.374	3.374	0.000	7199782	1000.00	947	80.00- 120.00	100.00
3.538	3.538	0.000	9052406	1000.00	956	105.73- 145.73	125.73
3.772	3.772	0.000	10456838	1000.00	957	125.24- 165.24	145.24
3.799	3.799	0.000	11728900	1000.00	965	142.91- 182.91	162.91
3.936	3.936	0.000	11323085	1000.00	958	137.27- 177.27	157.27
Average of Peak Amounts =					957		

Data File: /chem/ecd1a.i/032310a.b/005b0501.d
Date : 23-MAR-2010 08:25
Client ID: AR124801
Sample Info: IWAR100223-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

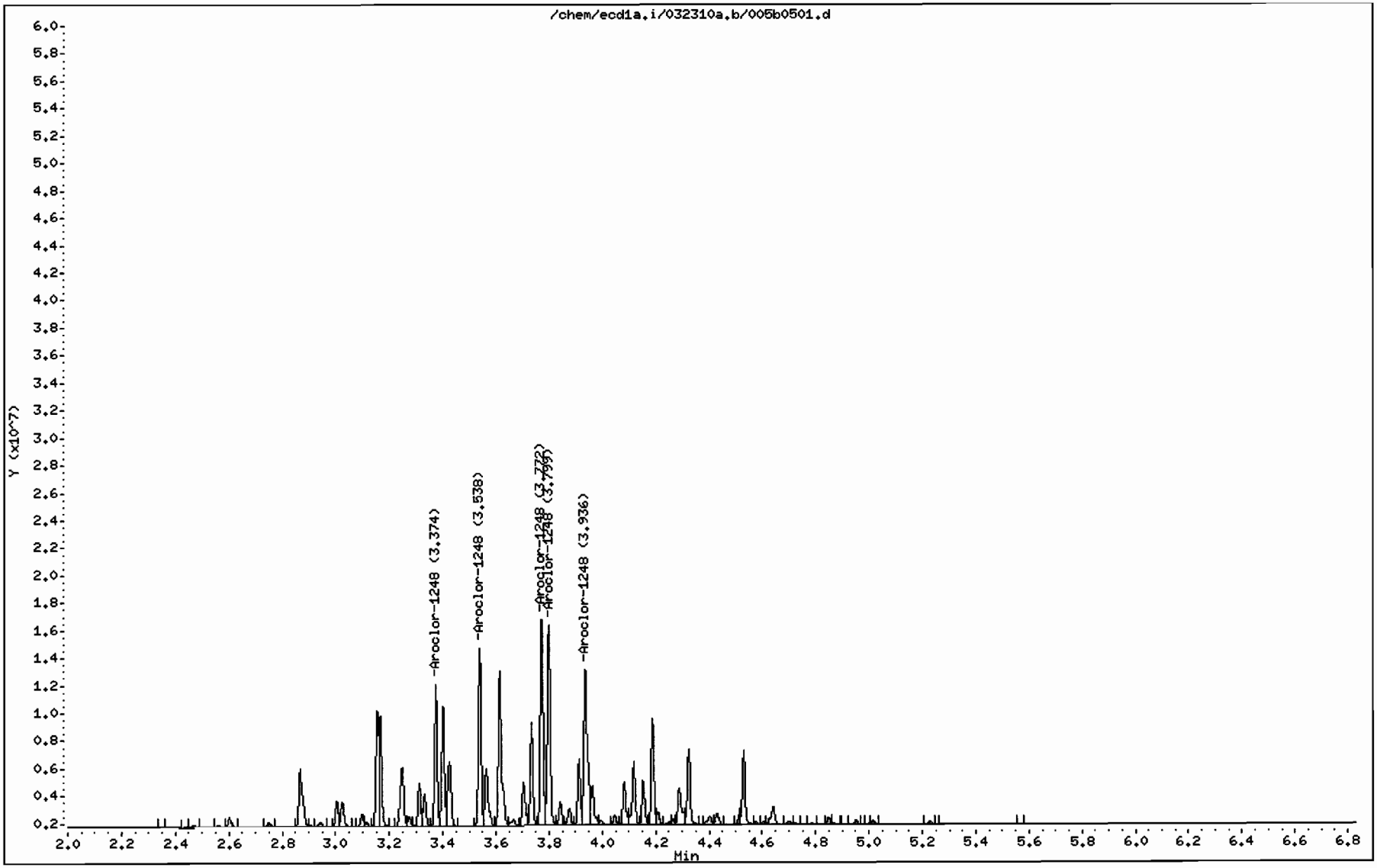

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/007f0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 23-MAR-2010 08:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.364	2.364	0.000	7062304	1000.00	1060	80.00- 120.00	100.00
2.651	2.651	0.000	9115443	1000.00	1090	109.07- 149.07	129.07
2.731	2.731	0.000	5834361	1000.00	1050	62.61- 102.61	82.61
2.845	2.845	0.000	2821856	1000.00	1060	19.96- 59.96	39.96
3.232	3.232	0.000	3909059	1000.00	1100	35.35- 75.35	55.35

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd1a.i/032310a.b/007f0701.d
Date : 23-MAR-2010 08:46
Client ID: AR123201
Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

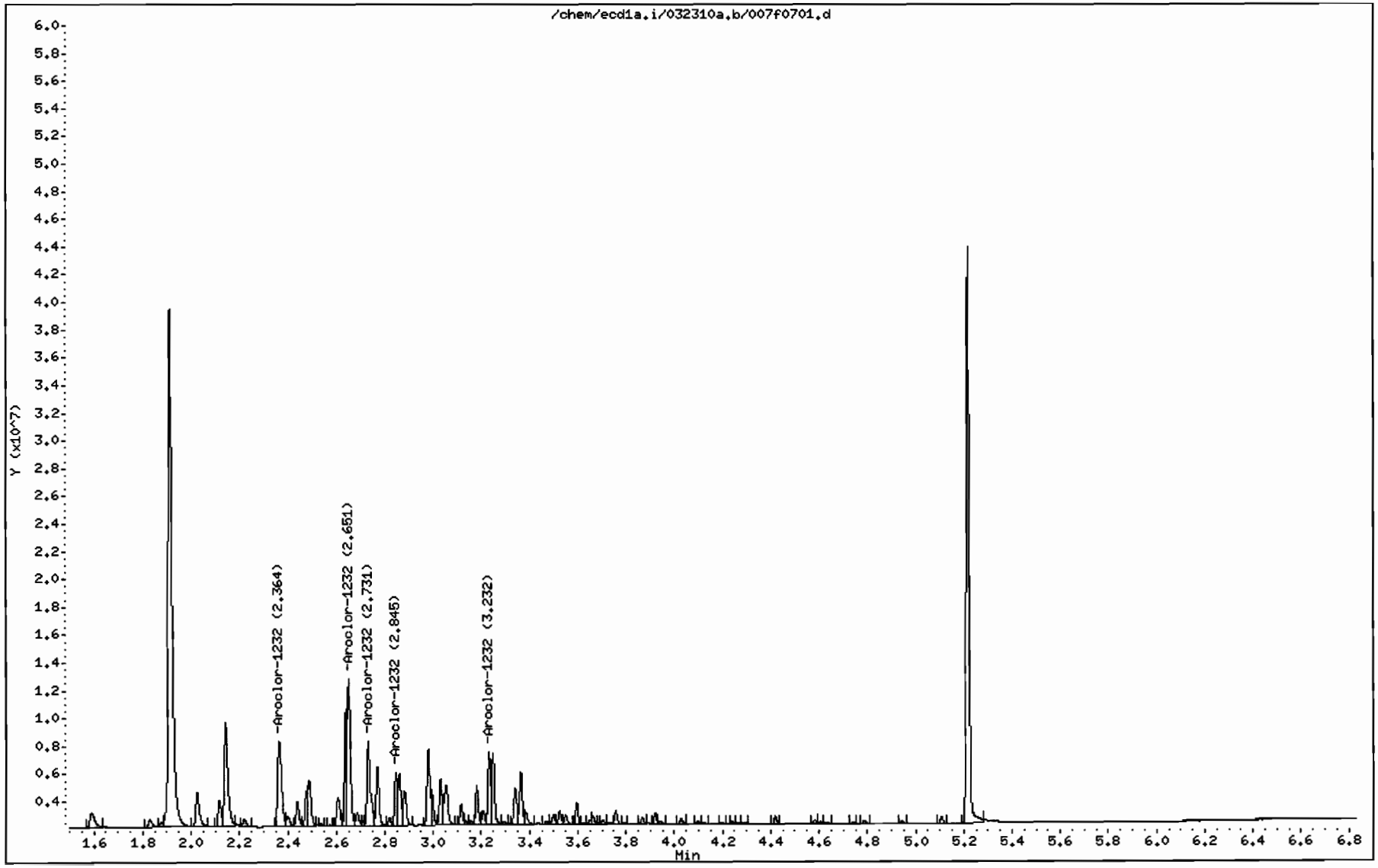

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/007b0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 23-MAR-2010 08:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.867	2.867	0.000	5247172	1000.00	1040	80.00- 120.00	100.00
3.165	3.165	0.000	5974577	1000.00	1040	93.86- 133.86	113.86
3.247	3.247	0.000	4031708	1000.00	1040	56.84- 96.84	76.84
3.538	3.538	0.000	3003761	1000.00	1060	37.25- 77.25	57.25
3.771	3.771	0.000	2991304	1000.00	1060	37.01- 77.01	57.01

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/032310a.b/007b0701.d

Page 1

Date : 23-MAR-2010 08:46

Client ID: AR123201

Instrument: ecd1a.i

Sample Info: IWAR100104-32

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

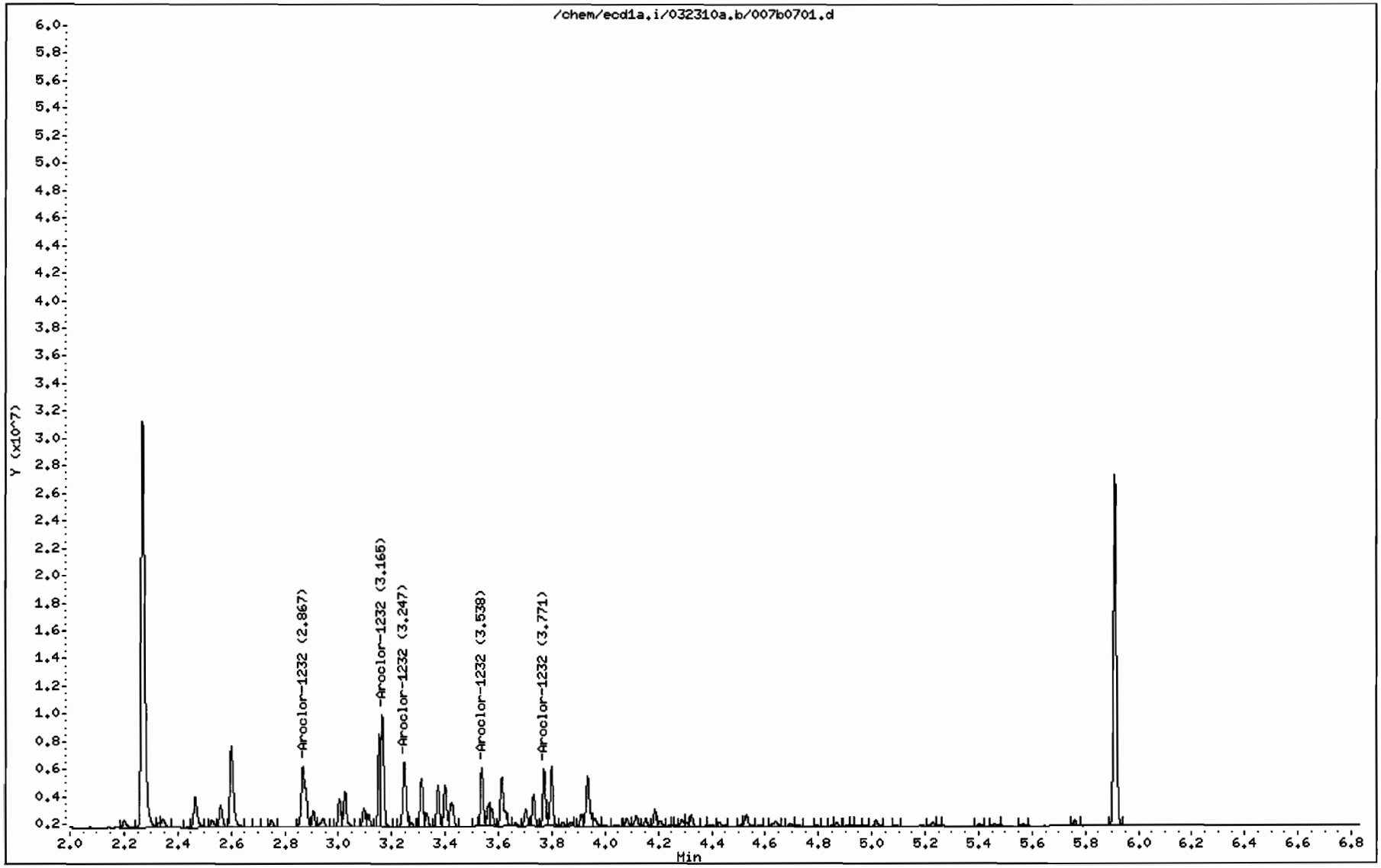

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/008f0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 23-MAR-2010 08:56
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.025	2.025	0.000	4670074	1000.00	1040	80.00- 120.00	100.00
2.117	2.117	0.000	2571490	1000.00	1050	35.06- 75.06	55.06
2.143	2.143	0.000	11386000	1000.00	1050	223.81- 263.81	243.81

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/032310a.b/008f0801.d

Page 1

Date : 23-MAR-2010 08:56

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: IWAR100104-21

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

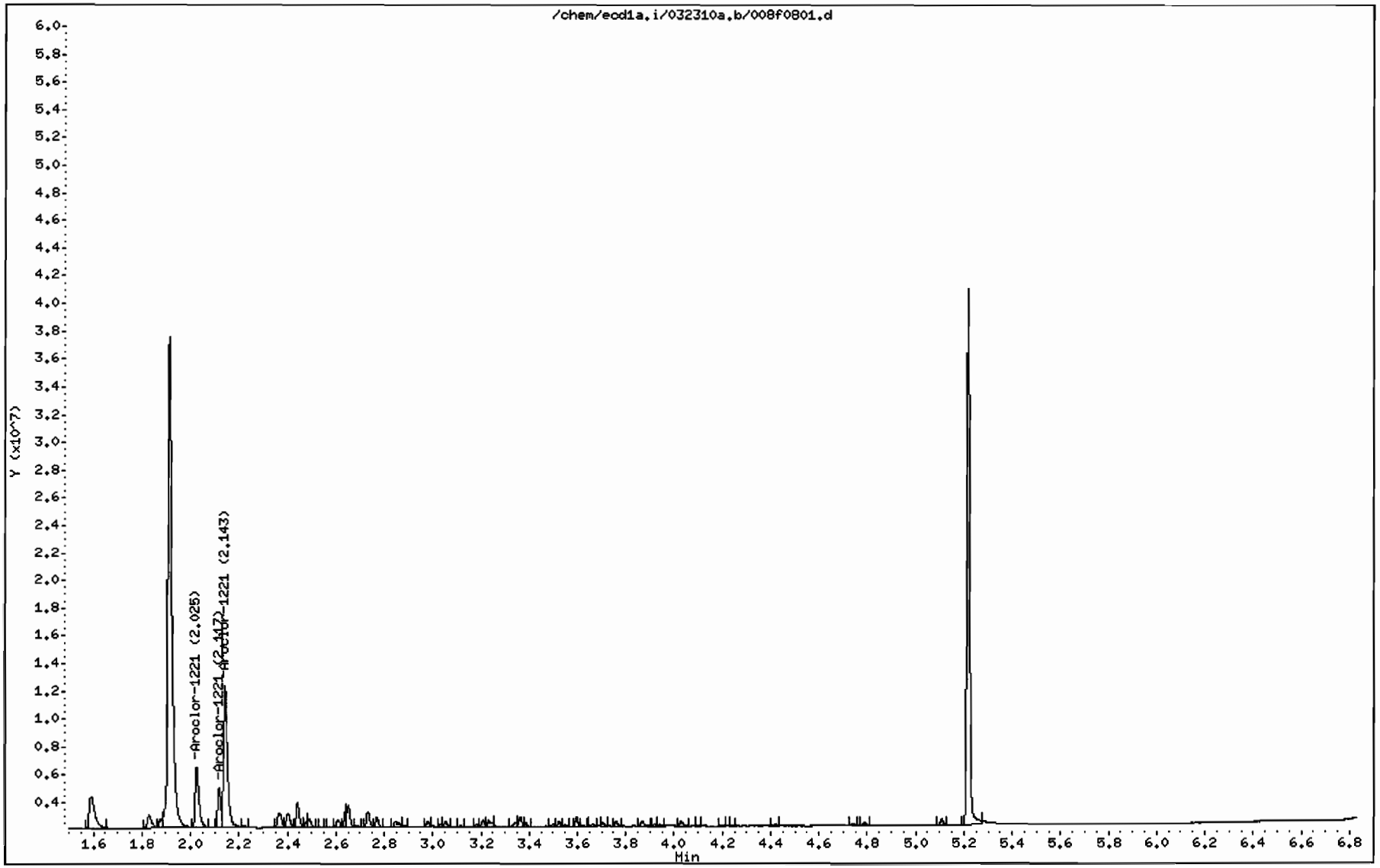

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/008b0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 23-MAR-2010 08:56
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.466	2.466	0.000	3437472	1000.00	1060	80.00- 120.00	100.00
2.560	2.560	0.000	2167005	1000.00	1040	43.04- 83.04	63.04
2.601	2.601	0.000	7383393	1000.00	1010	194.79- 234.79	214.79

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/032310a.b/008b0801.d

Page 1

Date : 23-MAR-2010 08:56

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: IWAR100104-21

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

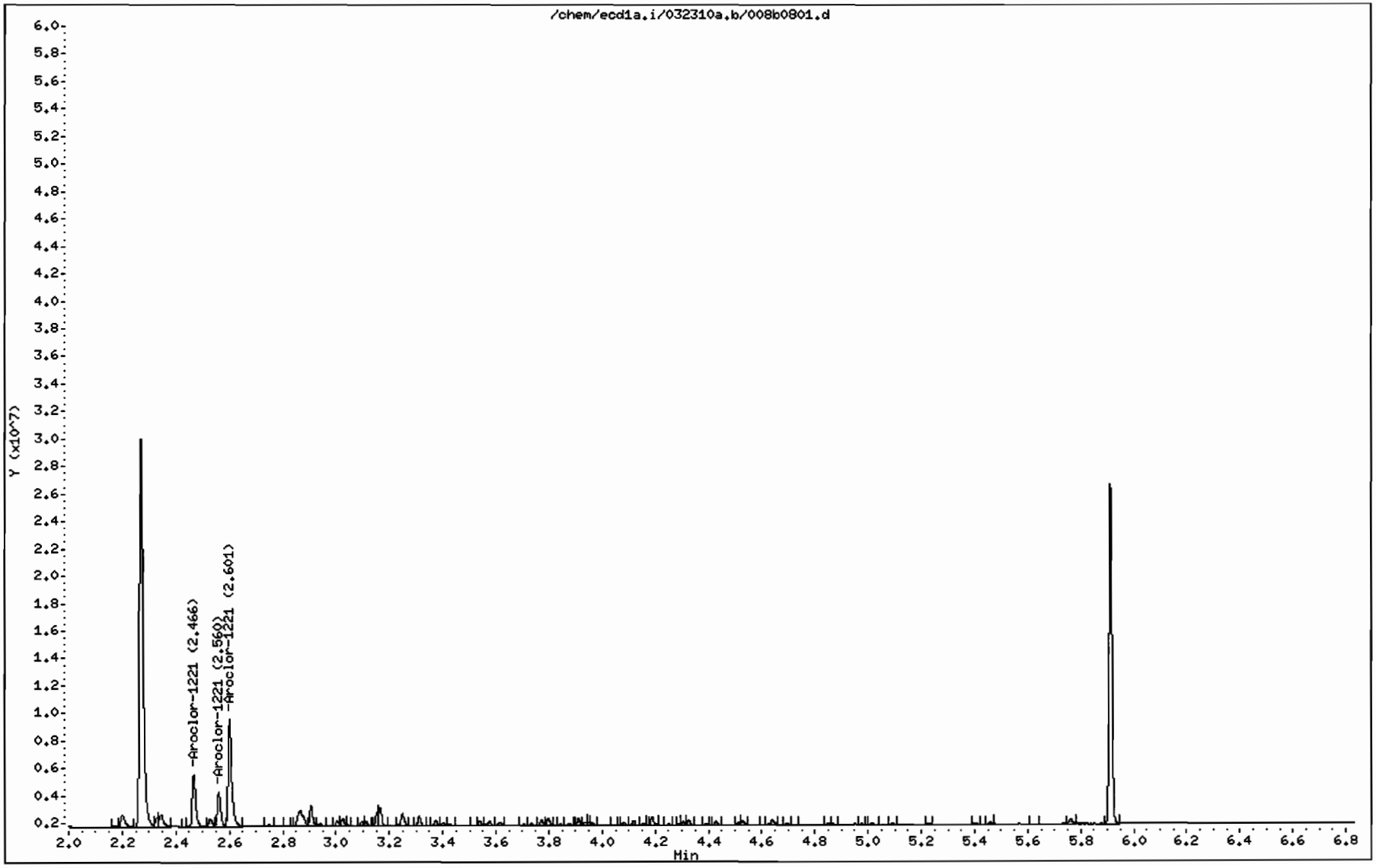

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/021f2101.d
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002
Inj Date : 23-MAR-2010 11:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:54 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	40145050	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	29109356	100.000	98.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.365	-0.001	14292984	1000.00	942	80.00- 120.00	100.00
2.650	2.651	-0.001	18014082	1000.00	951	106.03- 146.03	126.03
2.731	2.732	-0.001	11433112	1000.00	919	59.99- 99.99	79.99
2.768	2.770	-0.002	6916561	1000.00	941	28.39- 68.39	48.39
2.978	2.980	-0.002	8921011	1000.00	937	42.42- 82.42	62.42
Average of Peak Amounts =					938		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	18917452	1000.00	1030	80.00- 120.00	100.00
3.866	3.867	-0.001	27896153	1000.00	1040	127.46- 167.46	147.46
4.027	4.030	-0.003	29772954	1000.00	1050	137.38- 177.38	157.38
4.096	4.097	-0.001	16821466	1000.00	1040	68.92- 108.92	88.92
4.238	4.240	-0.002	17522638	1000.00	1040	72.63- 112.63	92.63
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd1a.i/032310a.b/021f2101.d

Date : 23-MAR-2010 11:28

Client ID: AR166002

Sample Info: IWAR100222-60 02

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

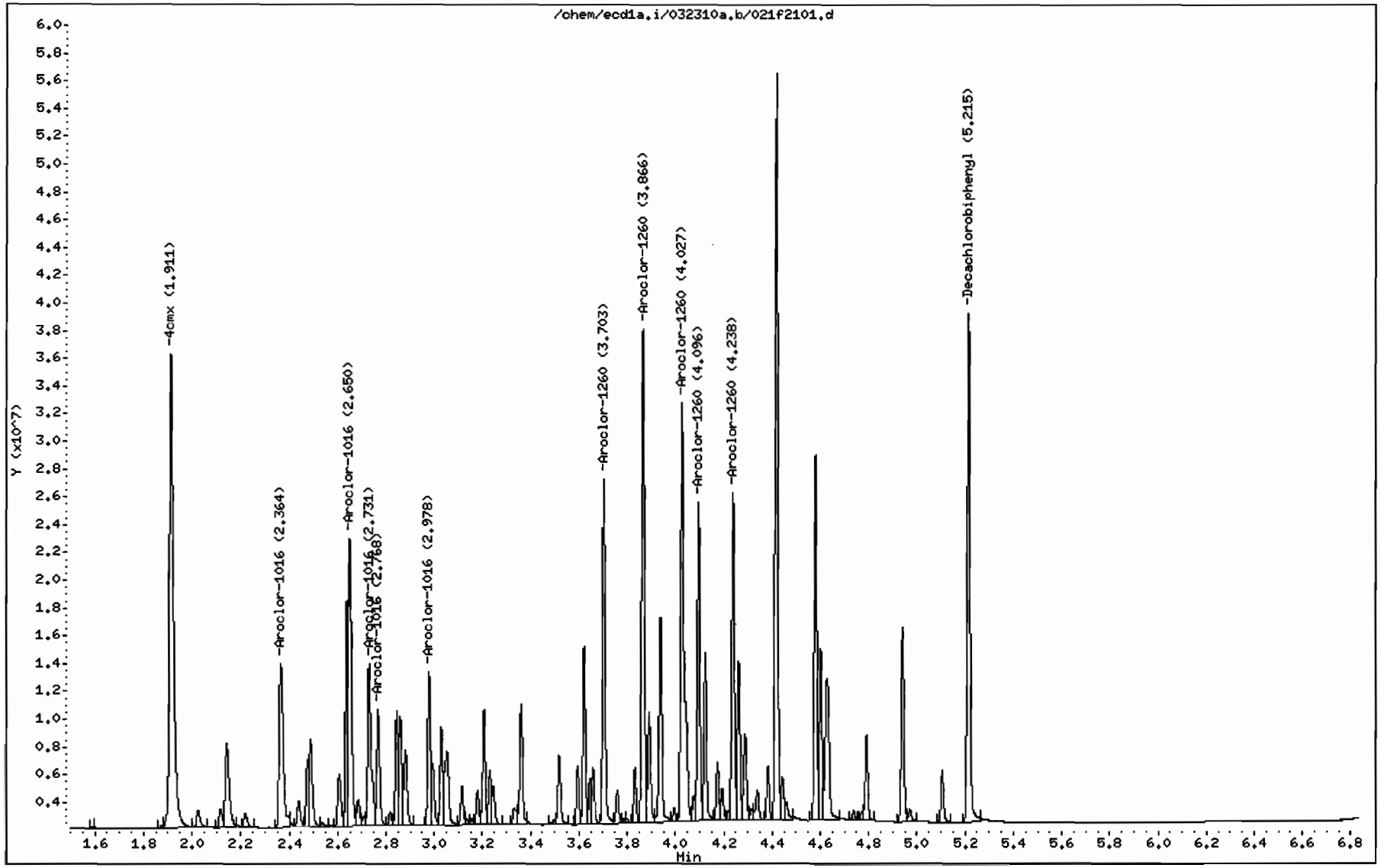

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/021b2101.d
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002
Inj Date : 23-MAR-2010 11:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	25932712	100.000	98.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	18118145	100.000	96.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	11869406	1000.00	943	80.00- 120.00	100.00(M)
3.247	3.248	-0.001	7752072	1000.00	898	45.31- 85.31	65.31
3.311	3.311	0.000	4807813	1000.00	909	20.51- 60.51	40.51
3.537	3.538	-0.001	6307202	1000.00	915	31.09- 71.09	53.14
3.612	3.614	-0.002	5822449	1000.00	906	37.88- 77.88	59.40
Average of Peak Amounts =					914		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	12629591	1000.00	966	80.00- 120.00	100.00
4.427	4.428	-0.001	15357793	1000.00	988	101.60- 141.60	121.60
4.693	4.695	-0.002	11596776	1000.00	975	71.82- 111.82	91.82
4.866	4.867	-0.001	12072542	1000.00	982	75.59- 115.59	95.59
5.013	5.015	-0.002	26797242	1000.00	1020	192.18- 232.18	212.18
Average of Peak Amounts =					985		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/021b2101.d
Date : 23-MAR-2010 11:28
Client ID: AR166002
Sample Info: IWAR100222-60 02

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

Column phase: CLP2

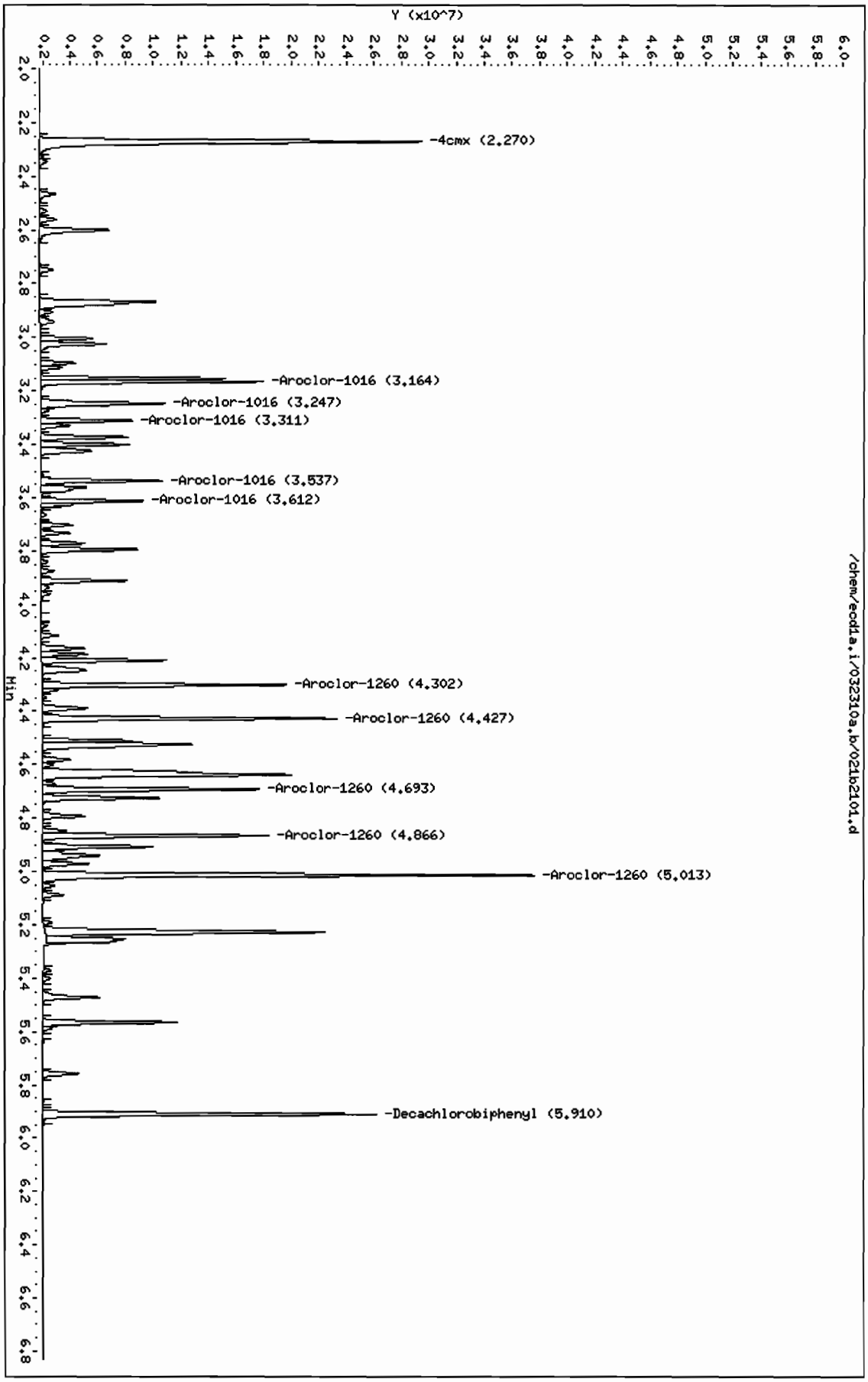

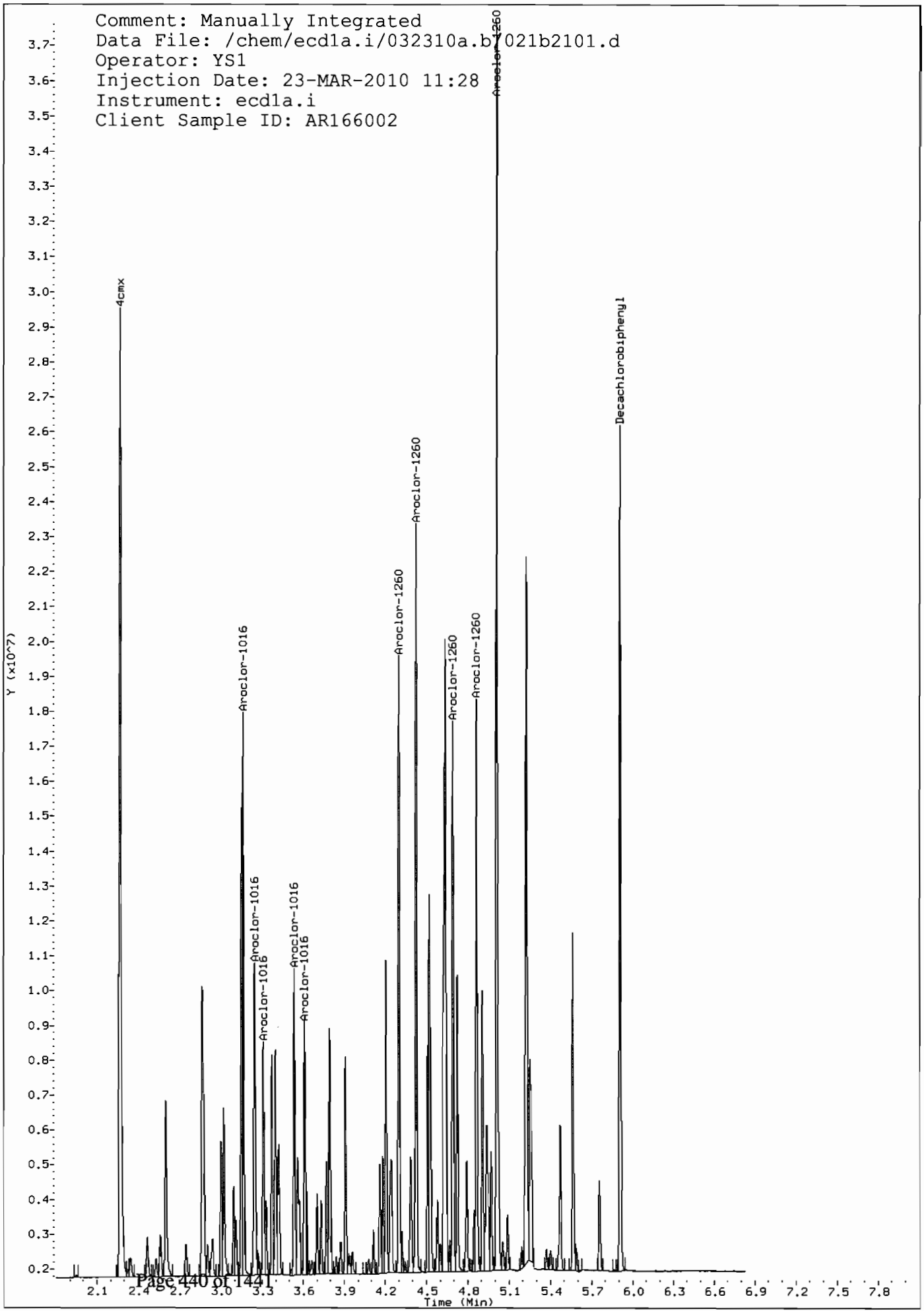
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/021b2101.d
Operator: YS1
Injection Date: 23-MAR-2010 11:28
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

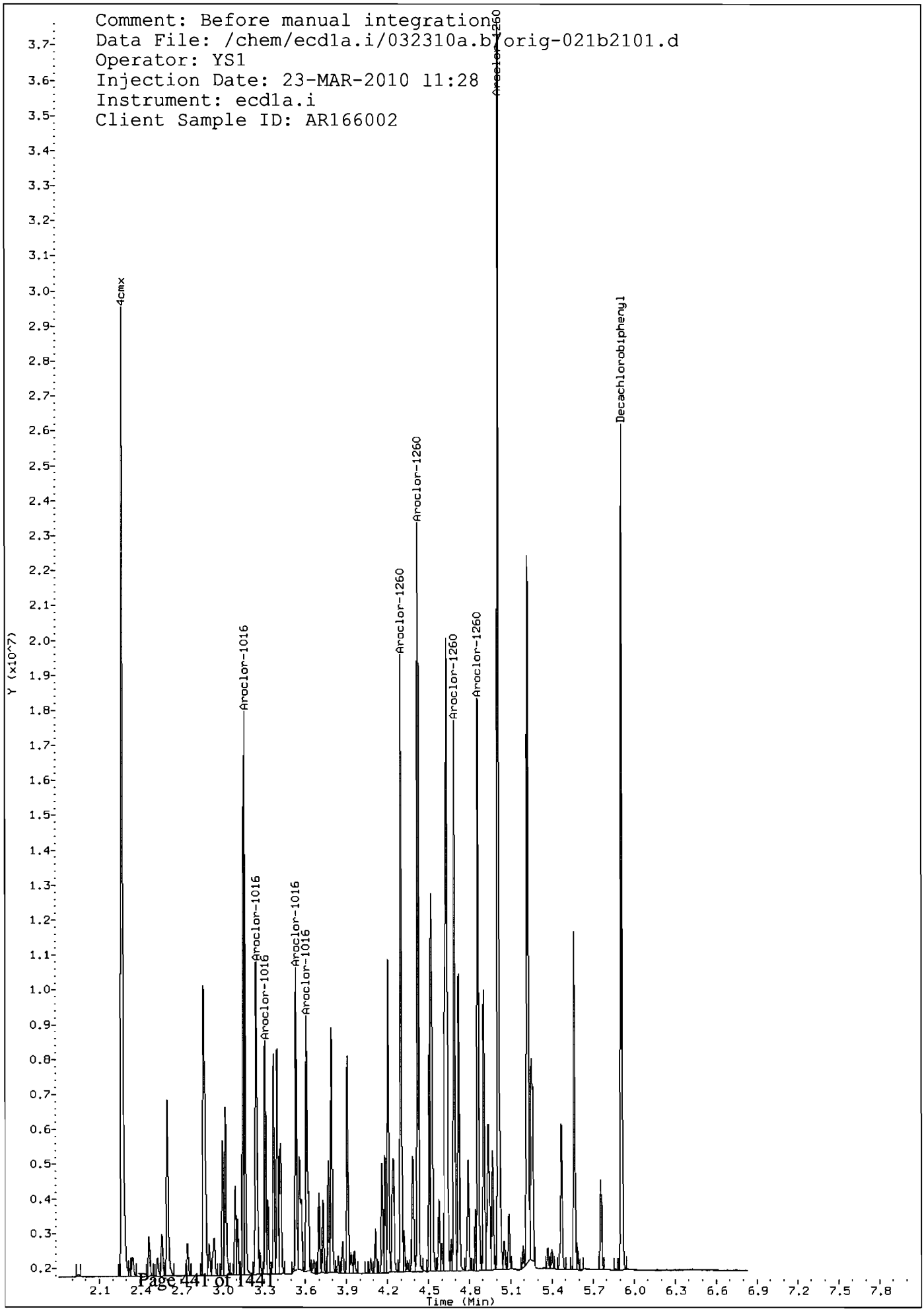
Comment: Before manual integration
Data File: /chem/ecd1a.i/032310a.b/orig-021b2101.d
Operator: YS1
Injection Date: 23-MAR-2010 11:28
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/079f7901.d
Lab Smp Id: WAR100222-60 09 Client Smp ID: AR166009
Inj Date : 23-MAR-2010 23:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 09
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:58 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 79 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpc1p1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	41772267	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.217	-0.004	31922504	100.000	108	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.365	-0.002	14379541	1000.00	947	80.00- 120.00	100.00
2.649	2.651	-0.002	18602702	1000.00	982	109.37- 149.37	129.37
2.730	2.732	-0.002	11876851	1000.00	954	62.60- 102.60	82.60
2.768	2.770	-0.002	7153706	1000.00	974	29.75- 69.75	49.75
2.978	2.980	-0.002	9272354	1000.00	974	44.48- 84.48	64.48
Average of Peak Amounts =					966		
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.705	-0.003	19660522	1000.00	1070	80.00- 120.00	100.00
3.864	3.867	-0.003	28967741	1000.00	1080	127.34- 167.34	147.34
4.027	4.030	-0.003	31116278	1000.00	1100	138.27- 178.27	158.27
4.094	4.097	-0.003	17534054	1000.00	1080	69.18- 109.18	89.18
4.237	4.240	-0.003	18269510	1000.00	1090	72.92- 112.92	92.92
Average of Peak Amounts =					1.08e+03		

Data File: /chem/ecd1a.i/032310a.b/079f7901.d
Date : 23-MAR-2010 23:38
Client ID: AR166009
Sample Info: IWAR100222-60 09

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

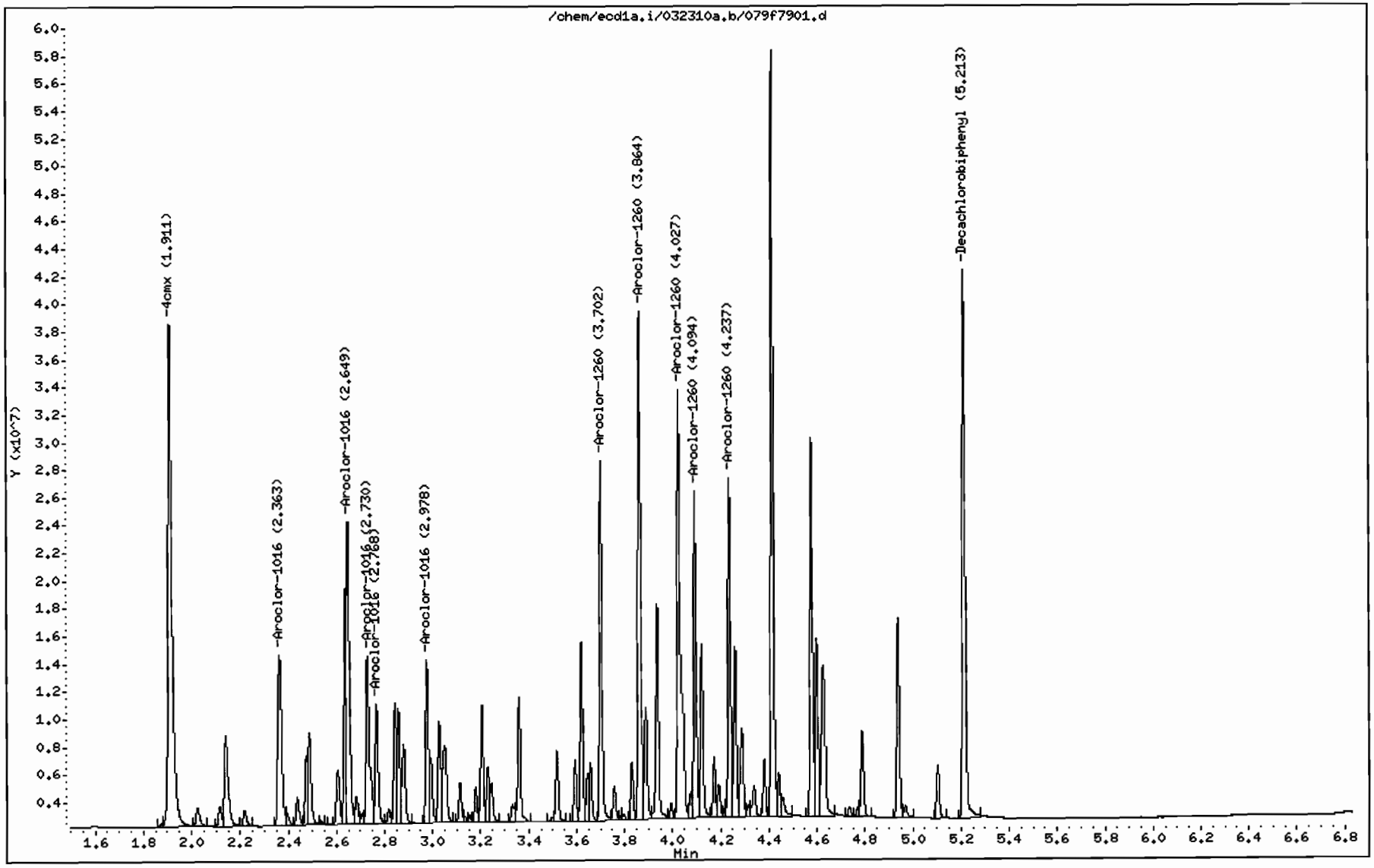

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/079b7901.d
Lab Smp Id: WAR100222-60 09 Client Smp ID: AR166009
Inj Date : 23-MAR-2010 23:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 09
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 06:13 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 79 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	26198072	100.000	99.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	18755007	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	11821083	1000.00	939	80.00- 120.00	100.00(M)
3.247	3.248	-0.001	7840838	1000.00	908	46.33- 86.33	66.33
3.310	3.311	-0.001	4872606	1000.00	922	21.22- 61.22	41.22
3.537	3.538	-0.001	6399096	1000.00	928	34.13- 74.13	54.13
3.613	3.614	-0.001	6030329	1000.00	939	31.01- 71.01	51.01
Average of Peak Amounts =					927		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	12871935	1000.00	984	80.00- 120.00	100.00
4.427	4.428	-0.001	15721868	1000.00	1010	102.14- 142.14	122.14
4.693	4.695	-0.002	11842754	1000.00	996	72.00- 112.00	92.00
4.866	4.867	-0.001	12380125	1000.00	1010	76.18- 116.18	96.18
5.013	5.015	-0.002	27503255	1000.00	1040	193.67- 233.67	213.67
Average of Peak Amounts =					1.01e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/079b7901.d
Date : 23-MAR-2010 23:38
Client ID: AR166009
Sample Info: IWAR100222-60 09
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

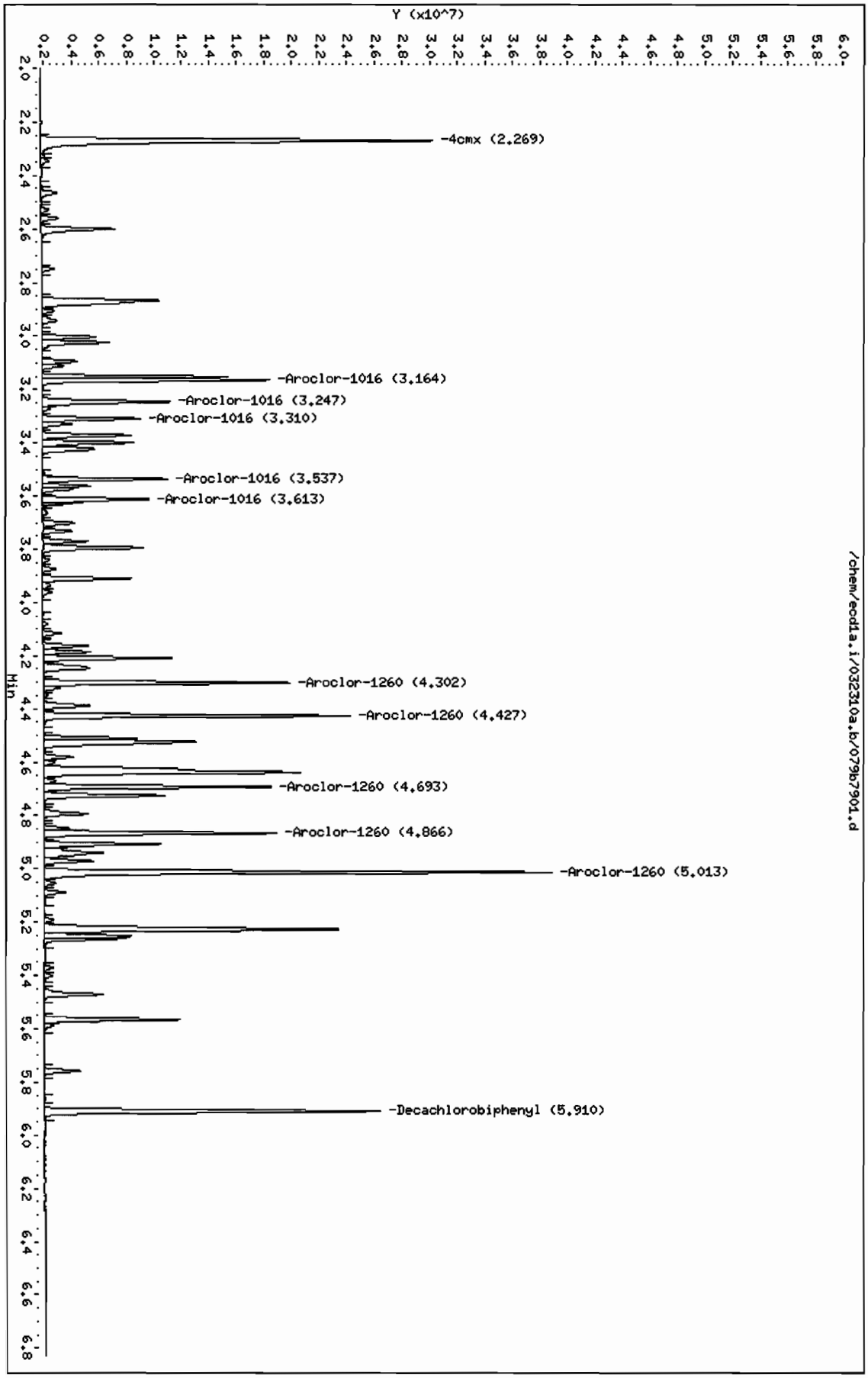

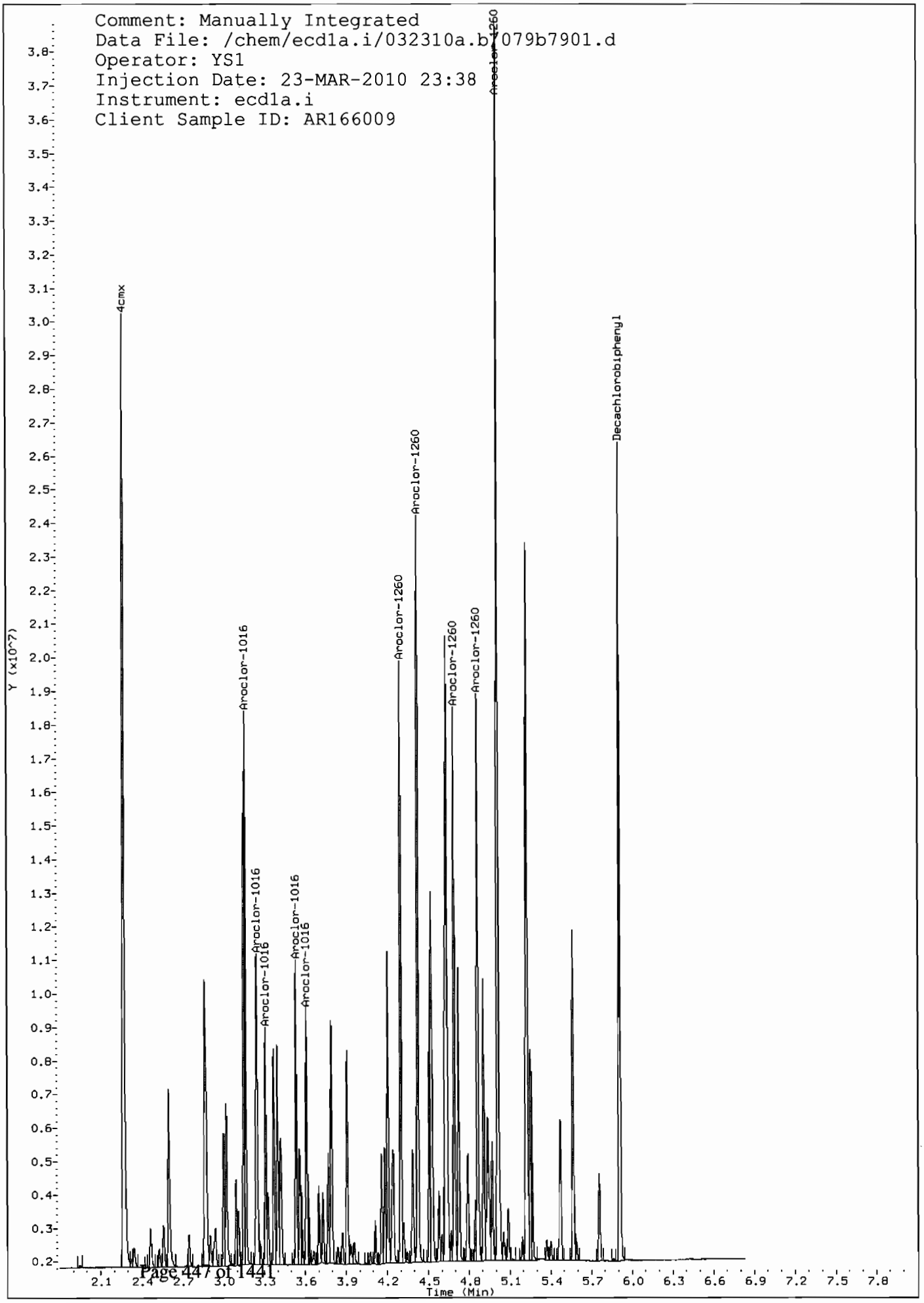
Comment: Manually Integrated
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Operator: YS1
Injection Date: 23-MAR-2010 23:38
Instrument: ecd1a.i
Client Sample ID: AR166009
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

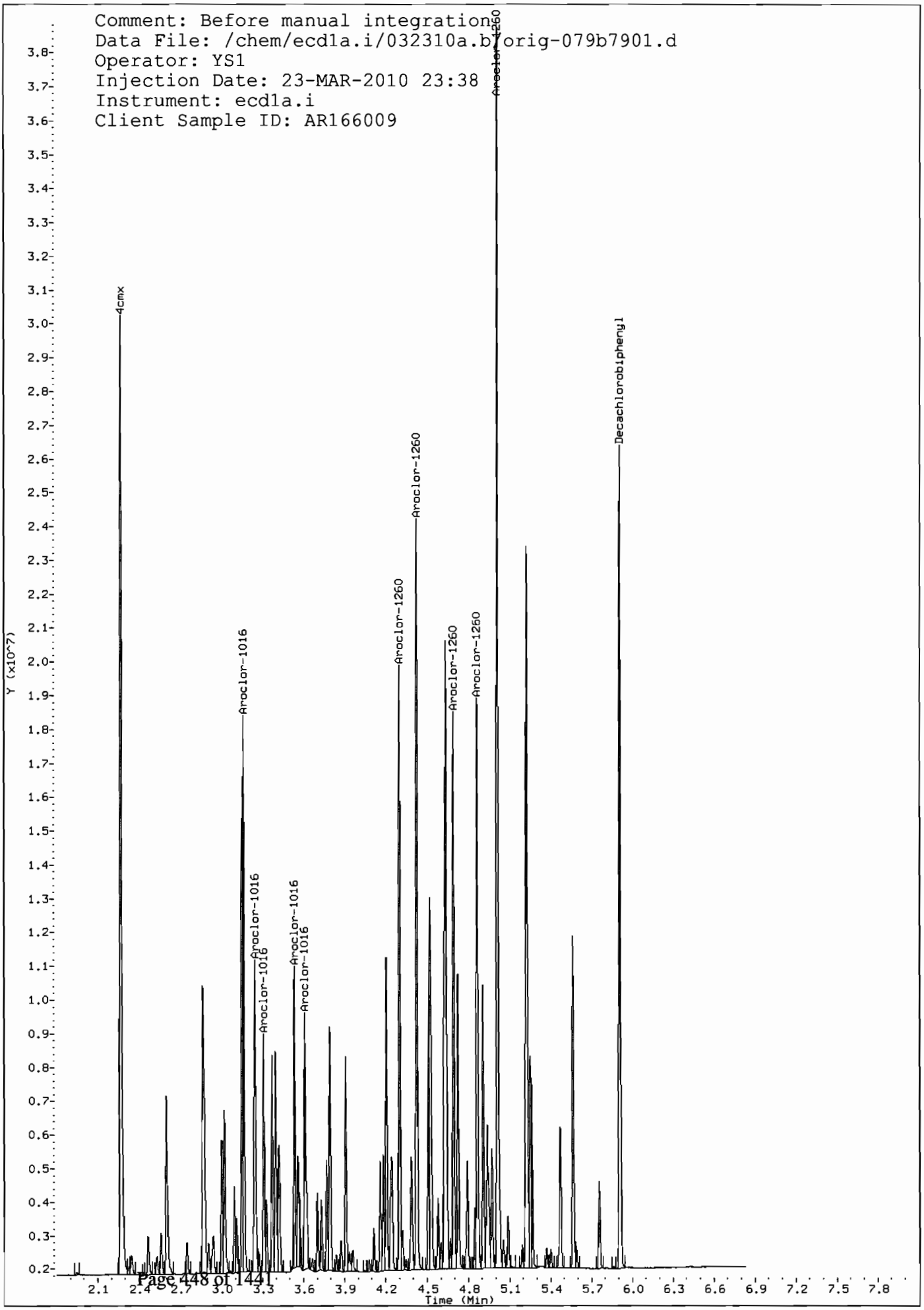
Comment: Before manual integration
Data File: /chem/ecd1a.i/032310a.b/orig-079b7901.d
Operator: YS1
Injection Date: 23-MAR-2010 23:38
Instrument: ecd1a.i
Client Sample ID: AR166009
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/087f8701.d
Lab Smp Id: WAR100222-60 10 Client Smp ID: AR166010
Inj Date : 24-MAR-2010 01:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 10
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:58 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 87 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.913	-0.003	42182793	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	31455130	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.365	-0.002	14921737	1000.00	983	80.00- 120.00	100.00
2.650	2.651	-0.001	19417235	1000.00	1020	110.13- 150.13	130.13
2.729	2.732	-0.003	12005247	1000.00	965	60.45- 100.45	80.45
2.768	2.770	-0.002	7247016	1000.00	986	28.57- 68.57	48.57
2.978	2.980	-0.002	9351865	1000.00	982	42.67- 82.67	62.67
Average of Peak Amounts =					988		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	19418246	1000.00	1060	80.00- 120.00	100.00
3.865	3.867	-0.002	29065691	1000.00	1080	129.68- 169.68	149.68
4.027	4.030	-0.003	31108220	1000.00	1100	140.20- 180.20	160.20
4.095	4.097	-0.002	17468704	1000.00	1080	69.96- 109.96	89.96
4.238	4.240	-0.002	18258720	1000.00	1090	74.03- 114.03	94.03
Average of Peak Amounts =					1.08e+03		

Data File: /chem/ecd1a.i/032310a.b/087f8701.d
Date : 24-MAR-2010 01:19
Client ID: AR166010
Sample Info: IWAR100222-60 10
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

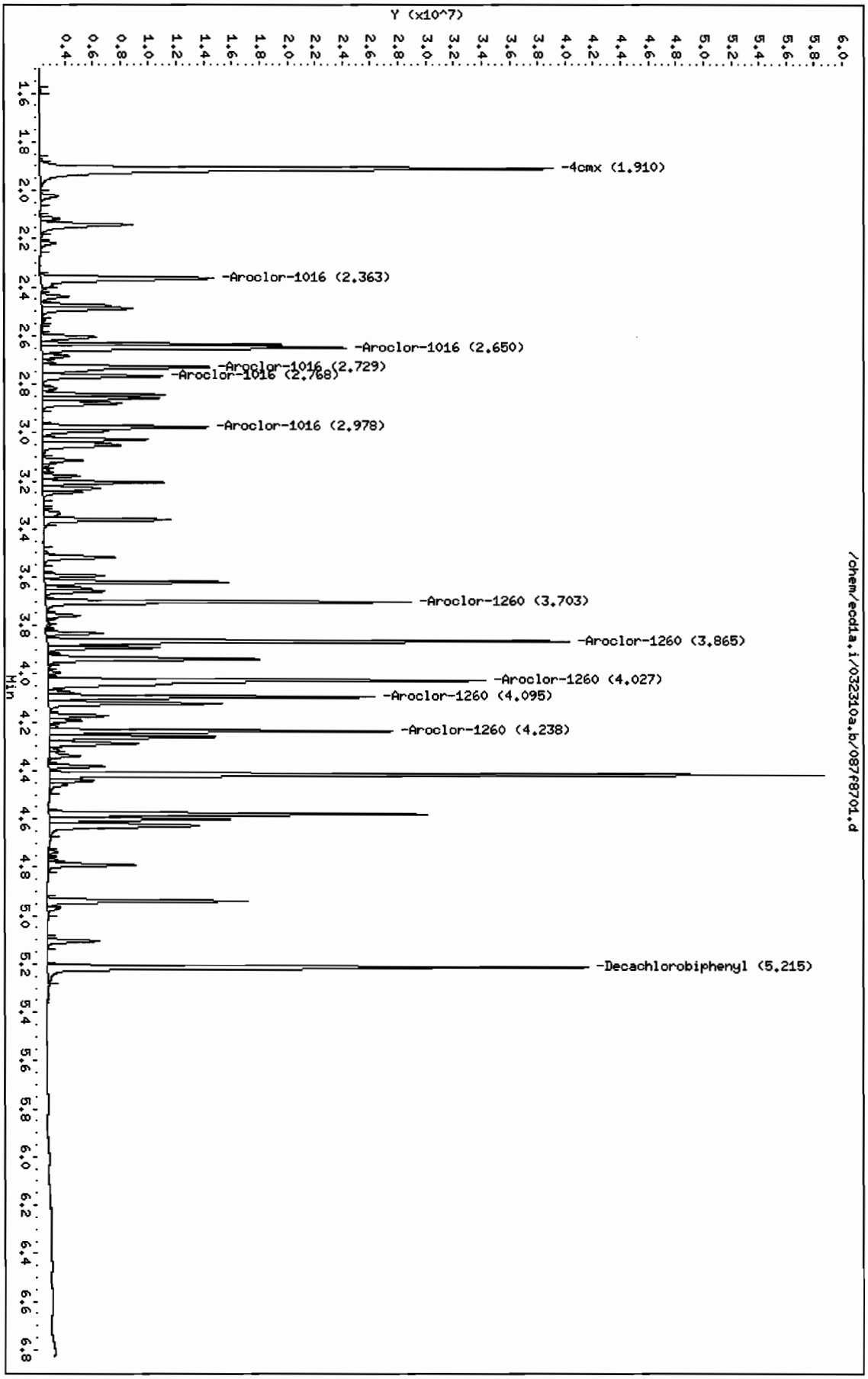

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/087b8701.d
Lab Smp Id: WAR100222-60 10 Client Smp ID: AR166010
Inj Date : 24-MAR-2010 01:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 10
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 06:13 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 87 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	26834639	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	18667379	100.000	99.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	12423500	1000.00	987	80.00- 120.00	100.00(M)
3.247	3.248	-0.001	7956806	1000.00	922	46.33- 86.33	64.05
3.310	3.311	-0.001	4949334	1000.00	936	21.22- 61.22	39.84
3.537	3.538	-0.001	6476113	1000.00	940	34.13- 74.13	52.13
3.613	3.614	-0.001	5949076	1000.00	926	31.01- 71.01	58.13
Average of Peak Amounts =					942		
7 Aroclor-1260					CAS #: 11096-82-5		
4.303	4.304	-0.001	12976110	1000.00	992	80.00- 120.00	100.00
4.427	4.428	-0.001	15877009	1000.00	1020	102.14- 142.14	122.36
4.693	4.695	-0.002	11906941	1000.00	1000	72.00- 112.00	91.76
4.866	4.867	-0.001	12323745	1000.00	1000	76.18- 116.18	94.97
5.014	5.015	-0.001	27612520	1000.00	1050	193.67- 233.67	212.80
Average of Peak Amounts =					1.01e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/087b8701.d
Date : 24-MAR-2010 01:19
Client ID: AR166010
Sample Info: IWAR100222-60 10

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

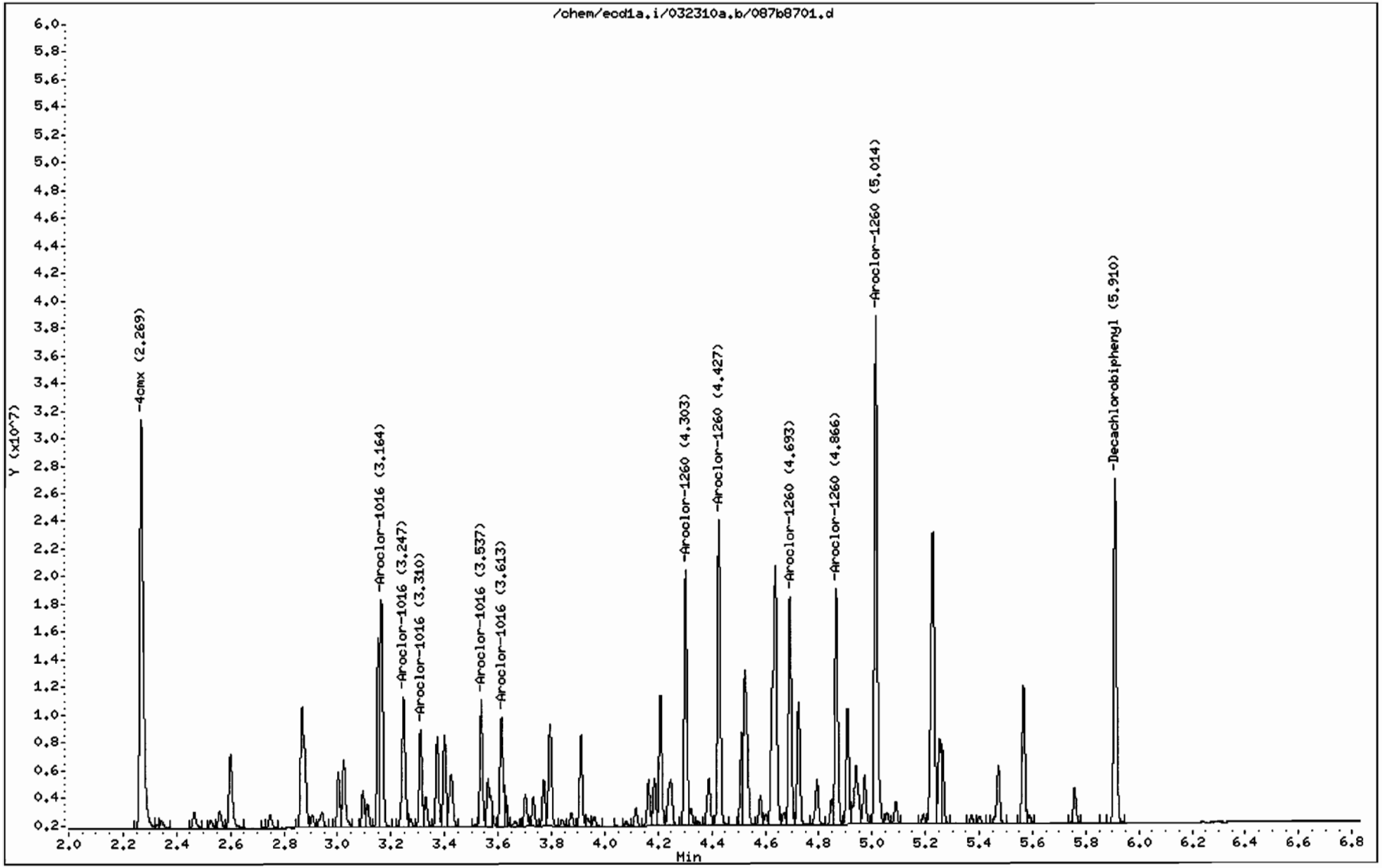

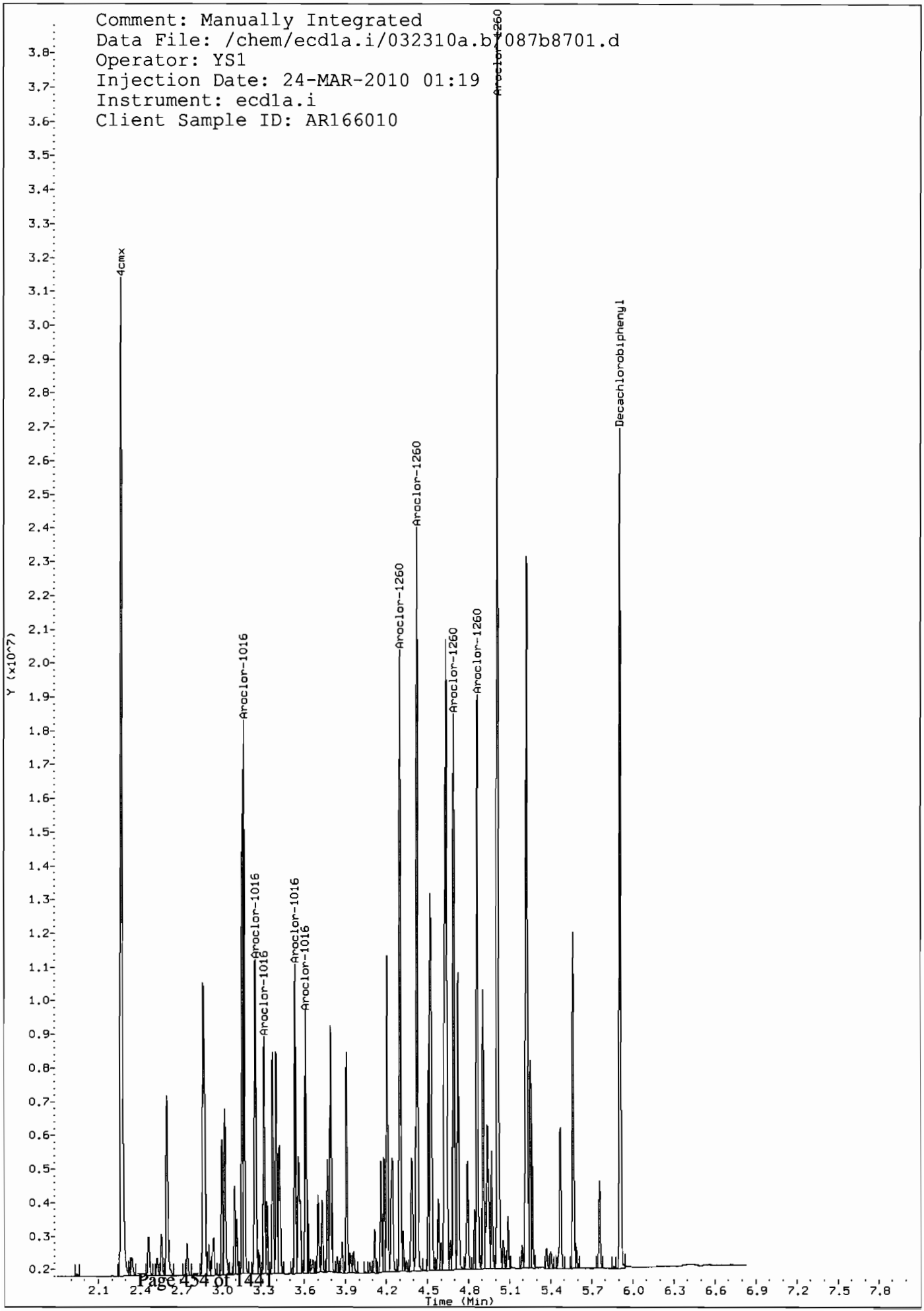
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/087b8701.d
Operator: YS1
Injection Date: 24-MAR-2010 01:19
Instrument: ecd1a.i
Client Sample ID: AR166010
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

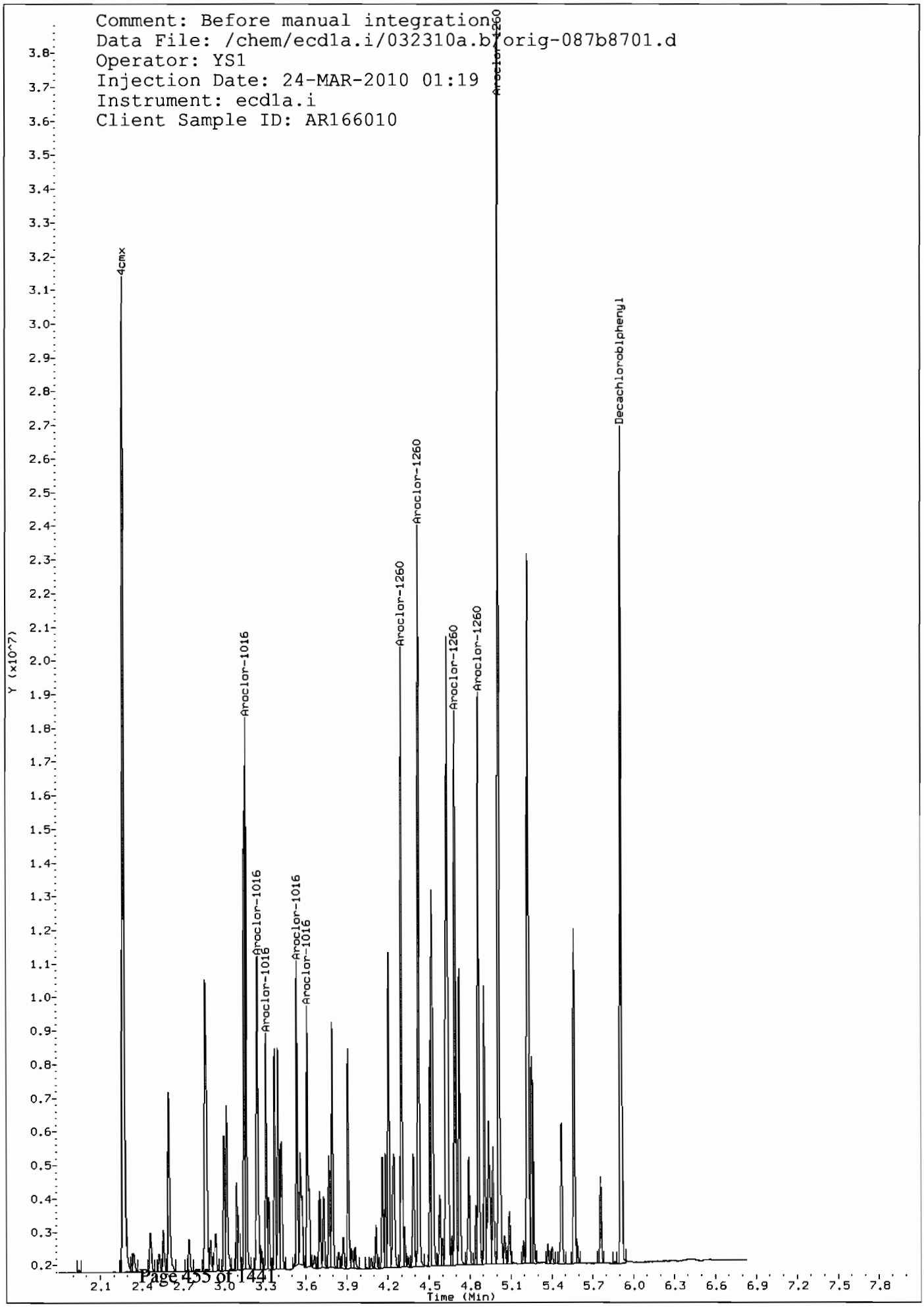
Comment: Before manual integration
Data File: /chem/ecd1a.i/032310a.b/orig-087b8701.d
Operator: YS1
Injection Date: 24-MAR-2010 01:19
Instrument: ecd1a.i
Client Sample ID: AR166010
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/002f0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 25-MAR-2010 05:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.910	0.000	41856113	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.211	5.211	0.000	31577766	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.361	2.361	0.000	14589566	1000.00	961	80.00- 120.00	100.00
2.647	2.647	0.000	18756674	1000.00	990	109.39- 149.39	128.56
2.727	2.727	0.000	11593920	1000.00	932	59.64- 99.64	79.47
2.765	2.765	0.000	6963555	1000.00	948	28.01- 68.01	47.73
2.975	2.975	0.000	8874475	1000.00	932	41.07- 81.07	60.83
Average of Peak Amounts =					953		
7 Aroclor-1260					CAS #: 11096-82-5		
3.700	3.700	0.000	18589252	1000.00	1010	80.00- 120.00	100.00
3.862	3.862	0.000	27581026	1000.00	1020	128.31- 168.31	148.37
4.024	4.024	0.000	29481031	1000.00	1040	139.26- 179.26	158.59
4.092	4.092	0.000	16685252	1000.00	1030	69.45- 109.45	89.76
4.235	4.235	0.000	17360654	1000.00	1030	73.28- 113.28	93.39
Average of Peak Amounts =					1.03e+03		

Data File: /chem/ecd1a.i/032510.b/002f0201.d

Date : 25-MAR-2010 05:28

Client ID: AR166001

Sample Info: |WAR100222-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

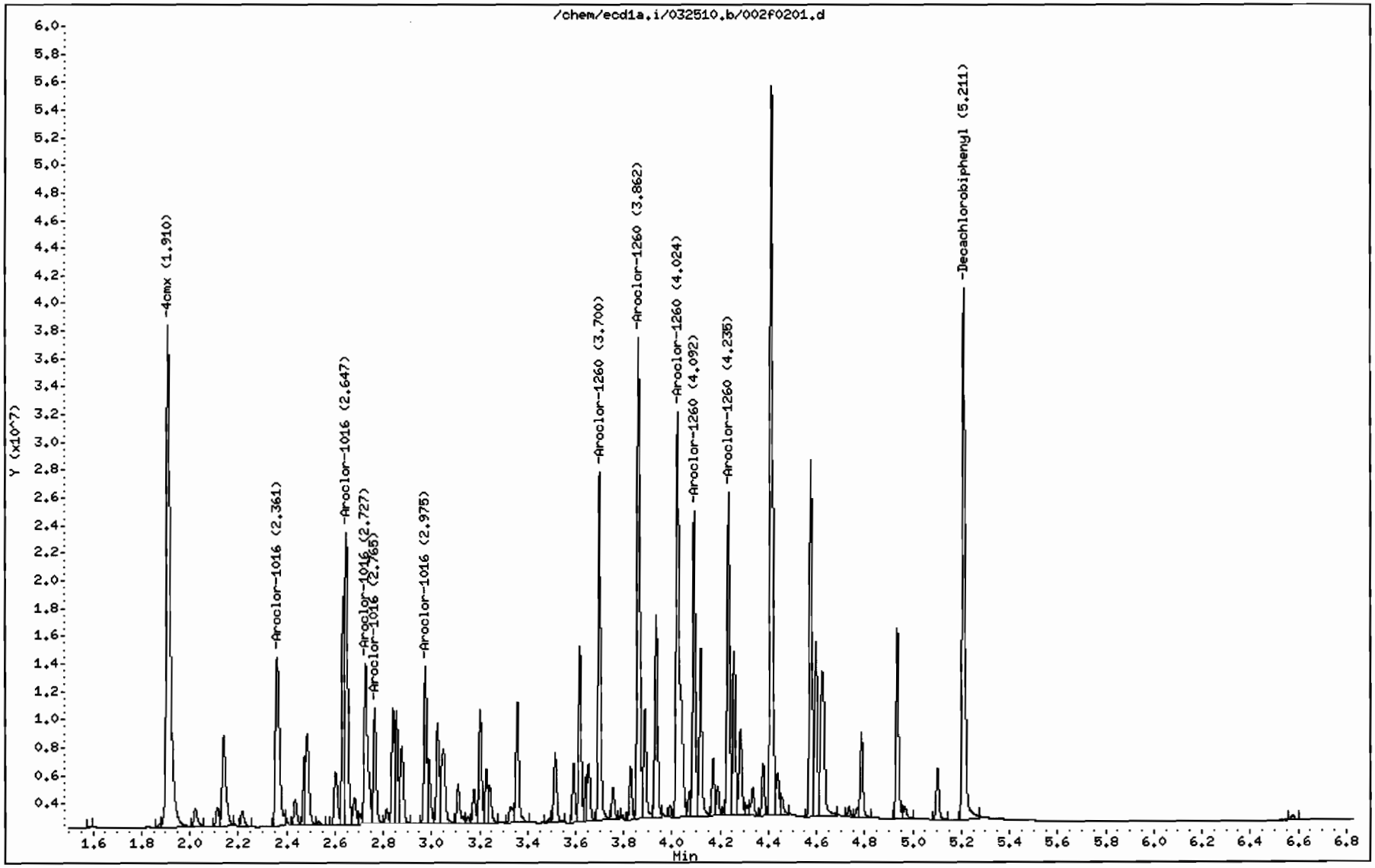

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/002b0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 25-MAR-2010 05:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.267	2.267	0.000	26778620	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.906	5.906	0.000	19210166	100.000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.161	3.161	0.000	11747342	1000.00	933	80.00- 120.00	100.00(M)
3.244	3.244	0.000	7814731	1000.00	905	46.40- 86.40	66.52
3.307	3.307	0.000	4818974	1000.00	912	21.43- 61.43	41.02
3.534	3.534	0.000	6167712	1000.00	895	34.28- 74.28	52.50
3.609	3.609	0.000	5923163	1000.00	922	30.28- 70.28	61.29
Average of Peak Amounts =					913		
7 Aroclor-1260					CAS #: 11096-82-5		
4.299	4.299	0.000	12832813	1000.00	981	80.00- 120.00	100.00
4.424	4.424	0.000	15664888	1000.00	1010	102.07- 142.07	122.07
4.689	4.689	0.000	11826610	1000.00	994	71.88- 111.88	92.16
4.862	4.862	0.000	12290315	1000.00	1000	75.24- 115.24	95.77
5.010	5.010	0.000	27280290	1000.00	1030	192.99- 232.99	212.58
Average of Peak Amounts =					1e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032510.b/002b0201.d

Date : 25-MAR-2010 05:28

Client ID: AR166001

Sample Info: IWAR100222-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

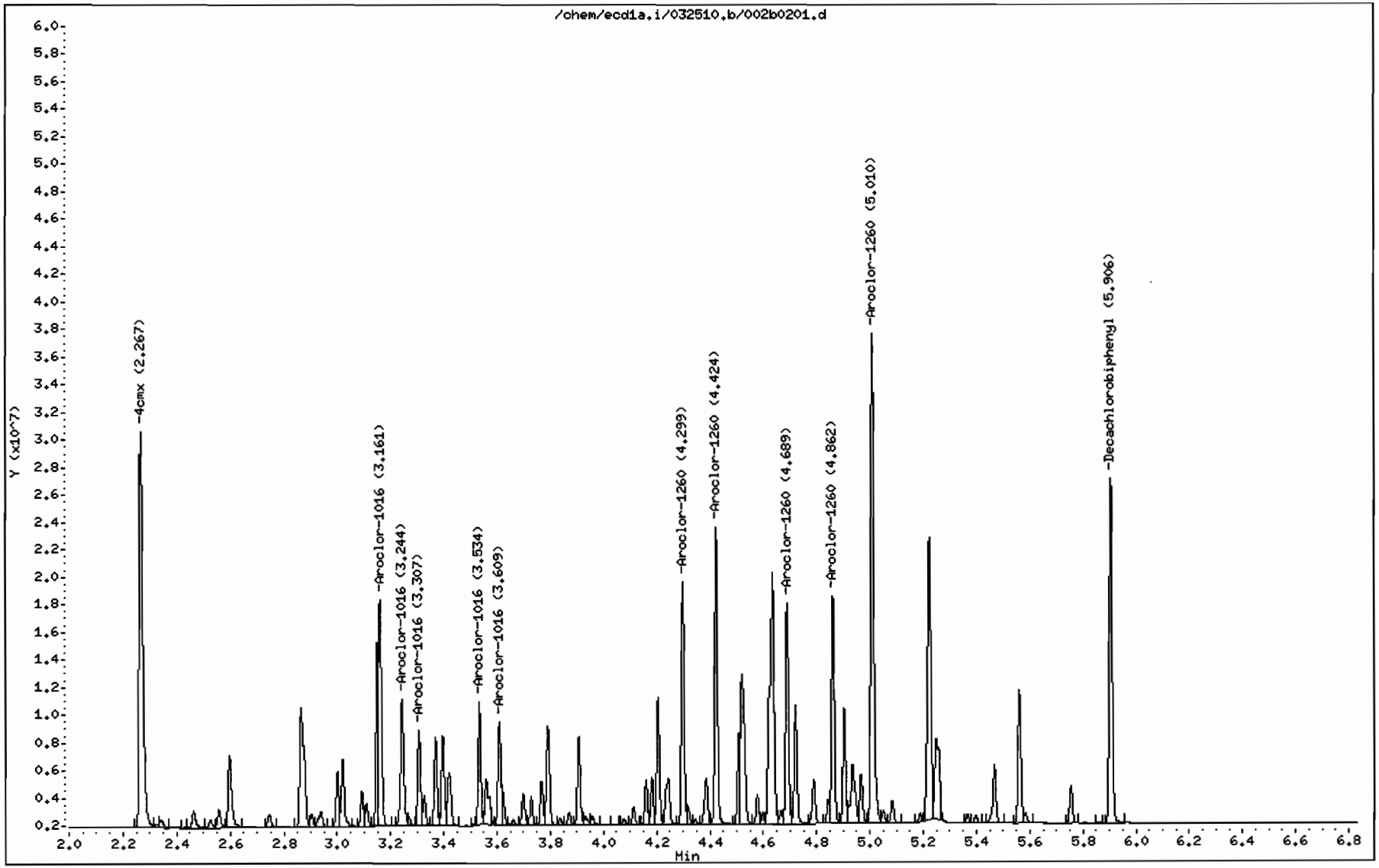

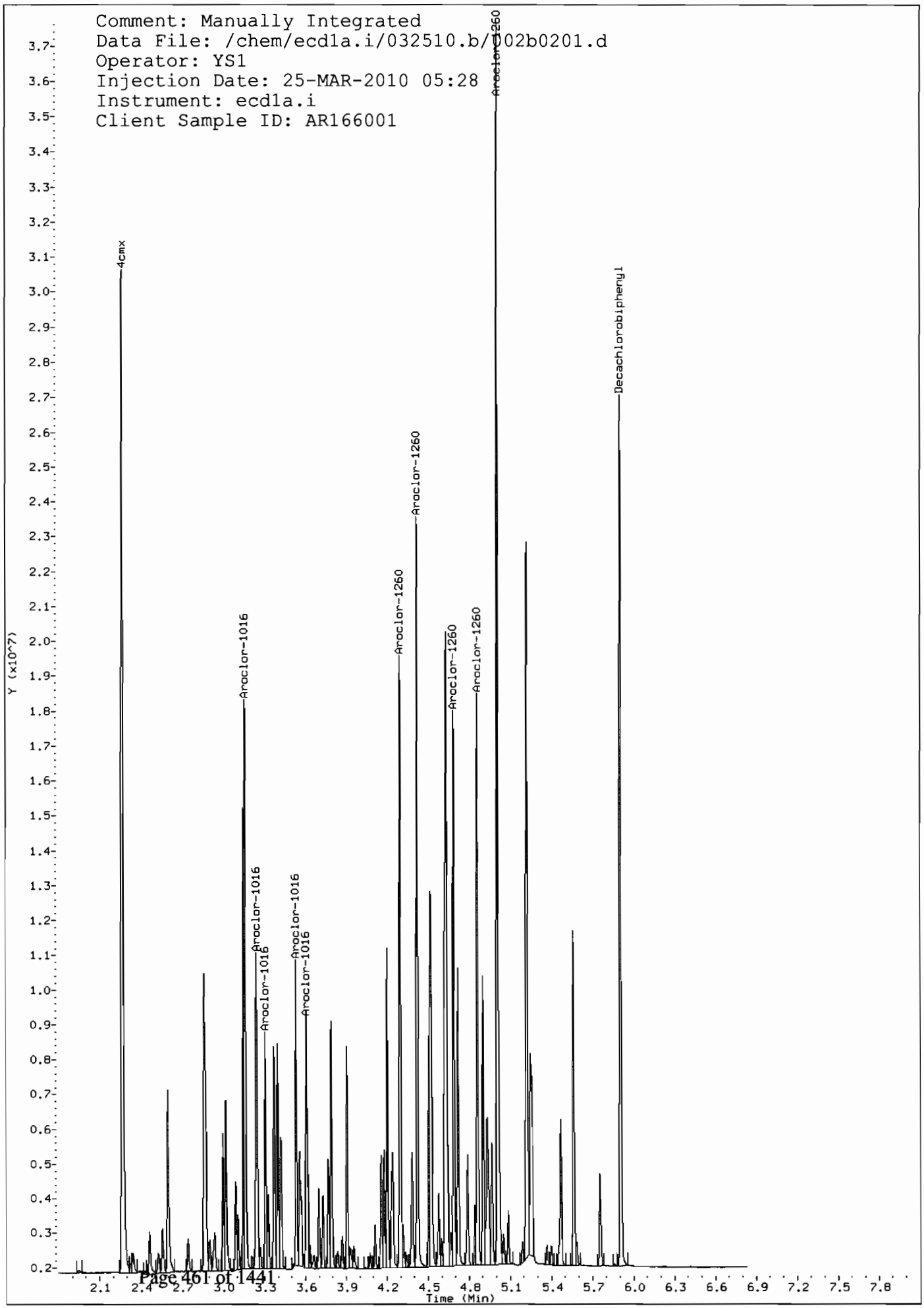
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032510.b/002b0201.d
Operator: YS1
Injection Date: 25-MAR-2010 05:28
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

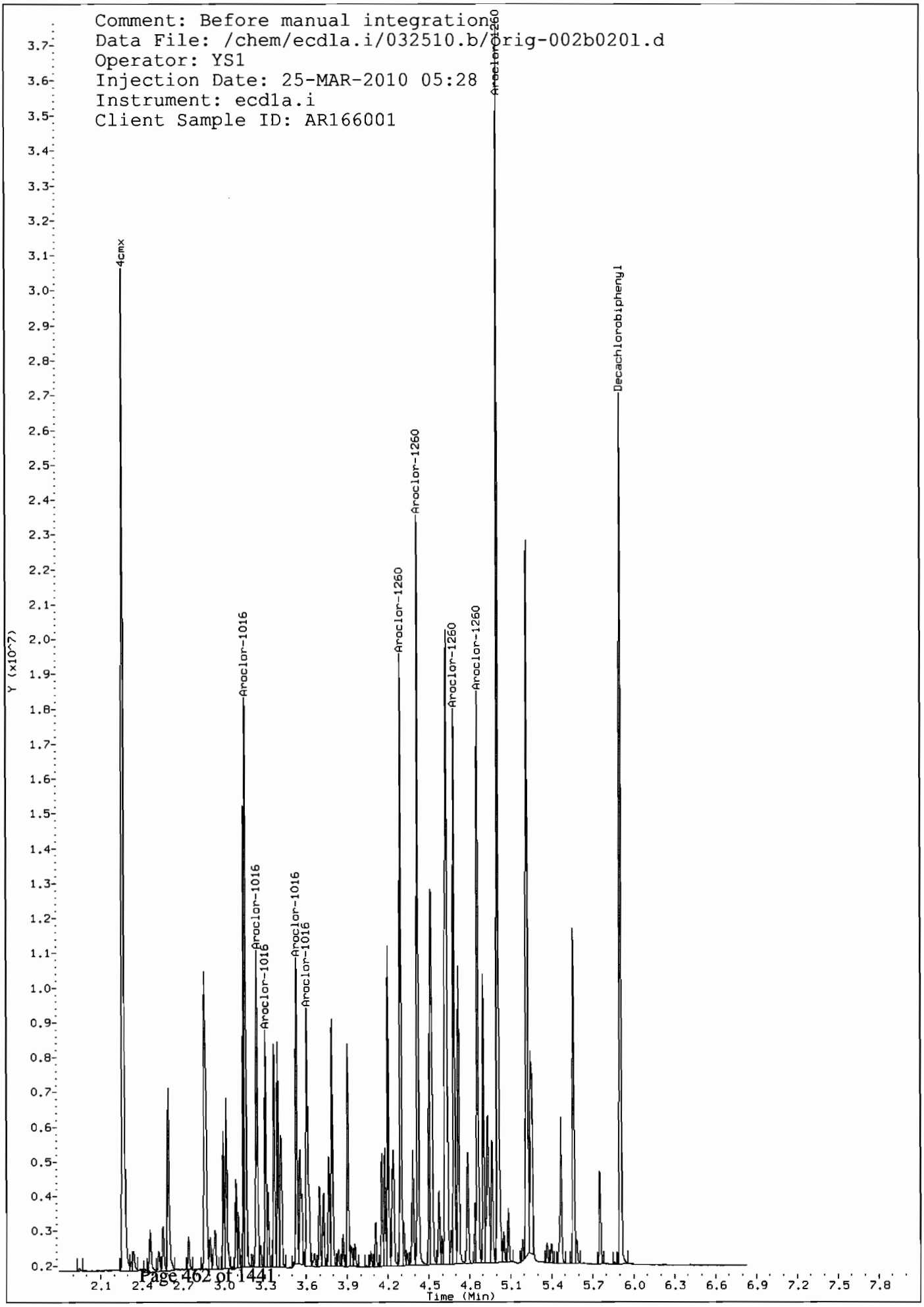
Comment: Before manual integration
Data File: /chem/ecd1a.i/032510.b/orig-002b0201.d
Operator: YS1
Injection Date: 25-MAR-2010 05:28
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 25-MAR-2010 05:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.204	3.204	0.000	12741217	1000.00	961	80.00- 120.00	100.00
3.359	3.359	0.000	17143351	1000.00	961	114.55- 154.55	134.55
3.593	3.593	0.000	22218593	1000.00	993	154.38- 194.38	174.38
3.756	3.756	0.000	16436259	1000.00	997	109.00- 149.00	129.00
3.865	3.865	0.000	16751210	1000.00	1050	111.47- 151.47	131.47
Average of Peak Amounts =					992		

Data File: /chem/ecd1a.i/032510.b/003f0301.d

Date : 25-MAR-2010 05:38

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

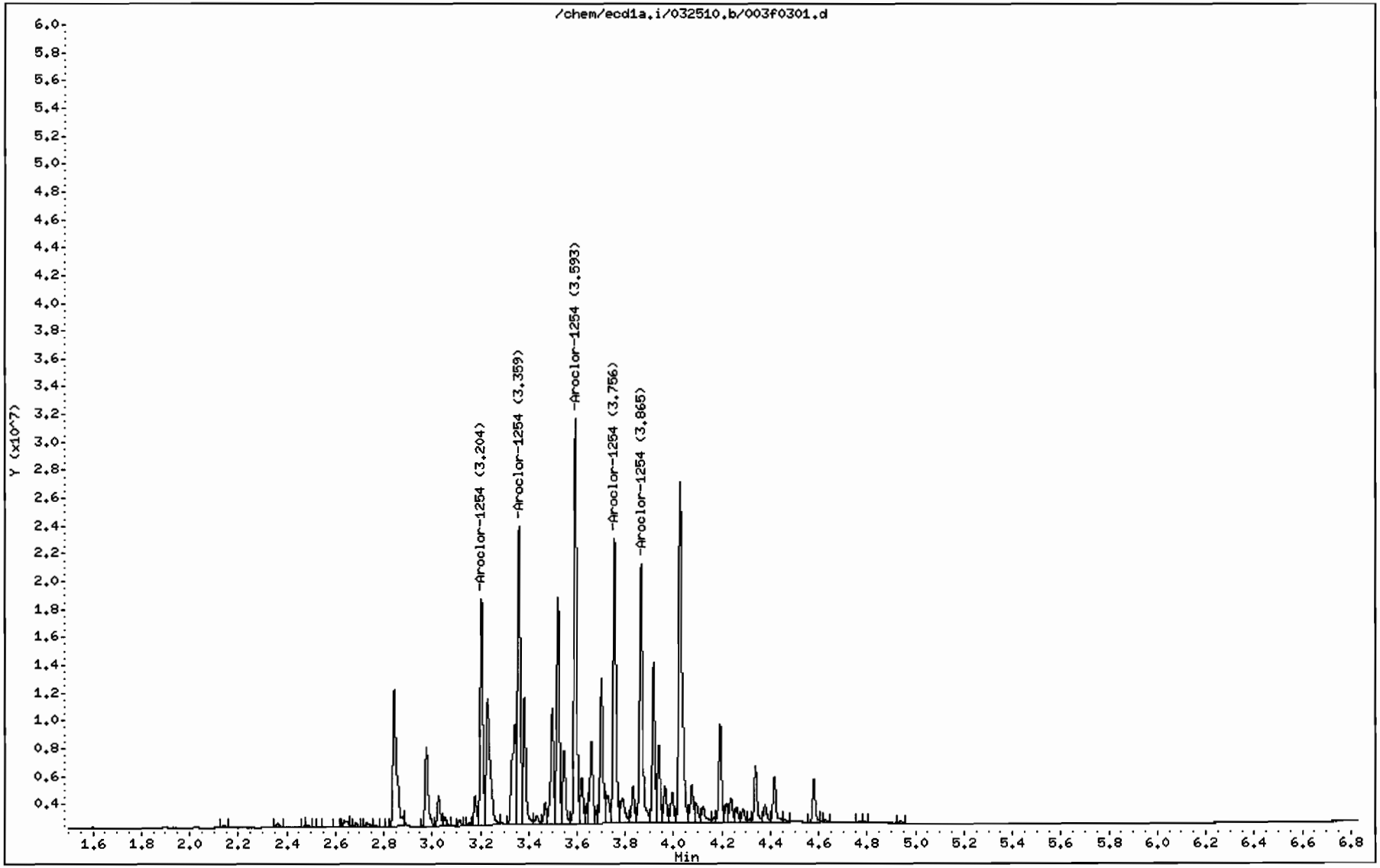

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 25-MAR-2010 05:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.369	3.369	0.000	5545194	1000.00	921	80.00- 120.00	100.00
3.791	3.791	0.000	10086059	1000.00	932	161.89- 201.89	181.89
3.908	3.908	0.000	11109350	1000.00	931	180.34- 220.34	200.34
4.184	4.184	0.000	15547011	1000.00	946	260.37- 300.37	280.37
4.319	4.319	0.000	11753589	1000.00	970	191.96- 231.96	211.96
			Average of Peak Amounts =		940		

Data File: /chem/ecd1a.i/032510.b/003b0301.d
Date : 25-MAR-2010 05:38
Client ID: AR125401
Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

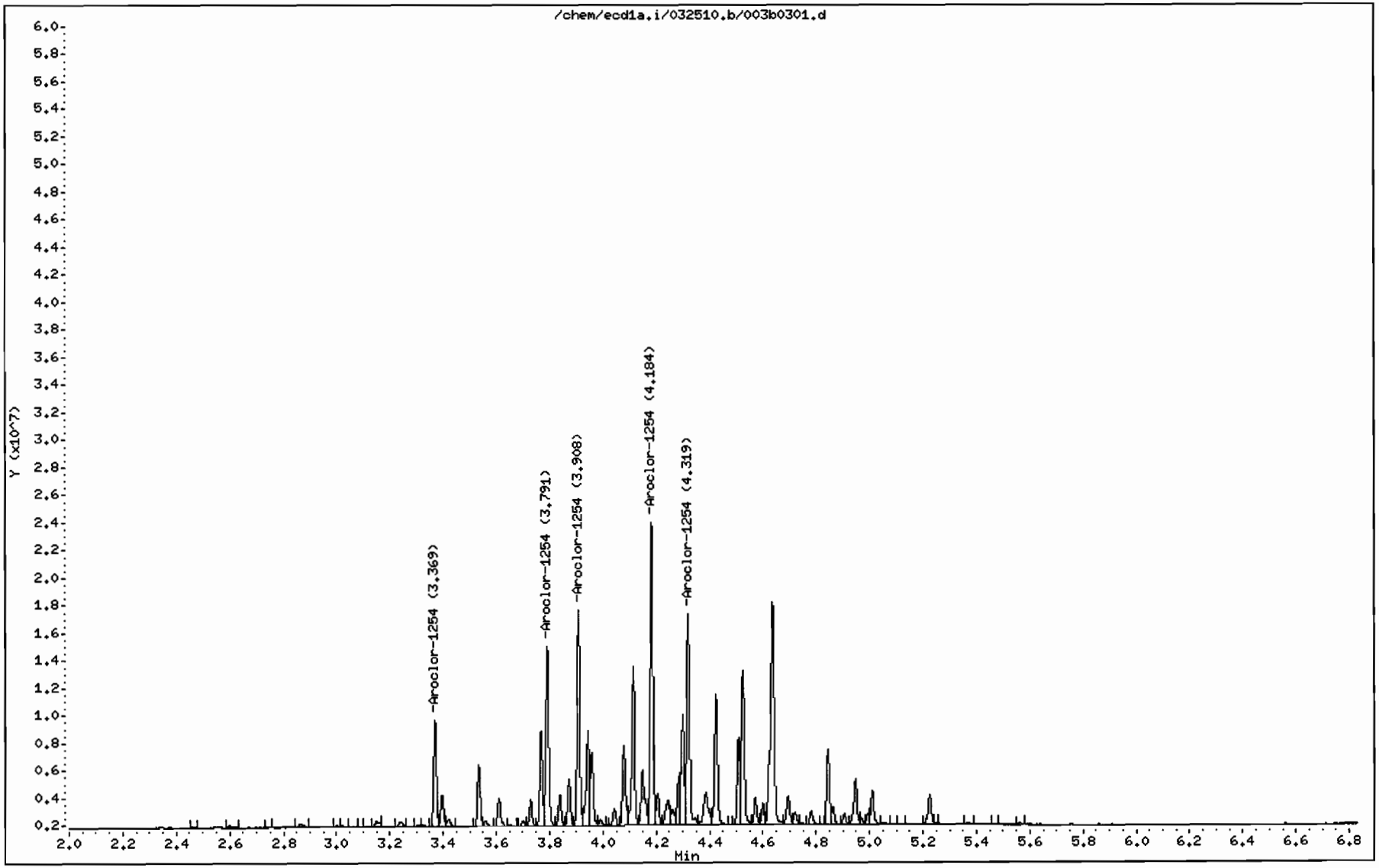

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/004f0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 25-MAR-2010 05:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.362	2.362	0.000	13076449	1000.00	1060	80.00- 120.00	100.00
2.648	2.648	0.000	16216596	1000.00	1090	104.01- 144.01	124.01
2.767	2.767	0.000	6142196	1000.00	1040	26.97- 66.97	46.97
2.976	2.976	0.000	7756934	1000.00	1000	39.32- 79.32	59.32
3.229	3.229	0.000	7321166	1000.00	1000	35.99- 75.99	55.99

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/032510.b/004f0401.d
Date : 25-MAR-2010 05:49
Client ID: AR124201
Sample Info: IWAR100219-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

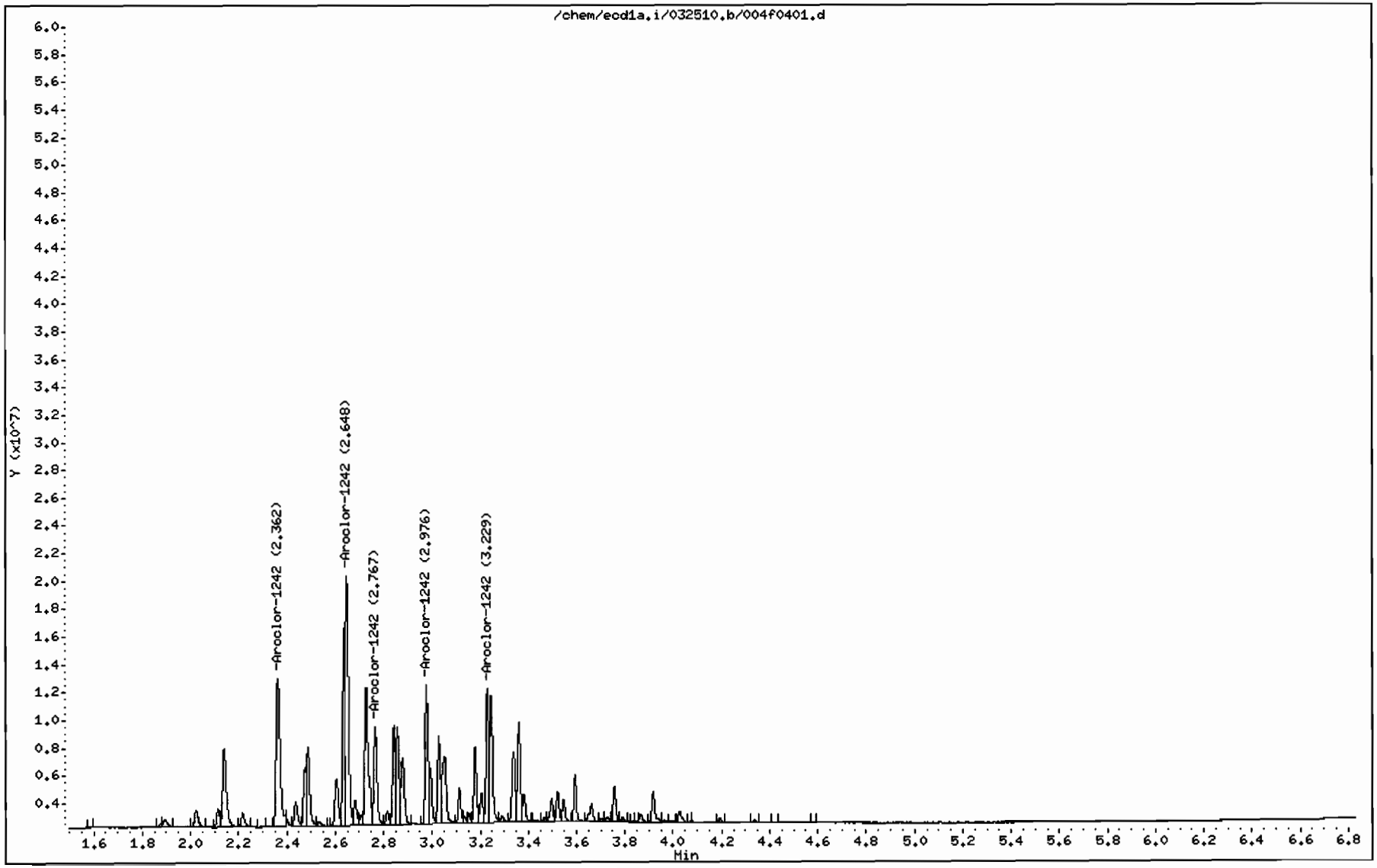

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/004b0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 25-MAR-2010 05:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.162	3.162	0.000	10561120	1000.00	1040	80.00- 120.00	100.00
3.245	3.245	0.000	6862133	1000.00	967	44.98- 84.98	64.98
3.535	3.535	0.000	5443854	1000.00	987	31.55- 71.55	51.55
3.769	3.769	0.000	5633083	1000.00	984	33.34- 73.34	53.34
3.797	3.797	0.000	6382451	1000.00	1000	40.43- 80.43	60.43
		Average of Peak Amounts =			996		

Data File: /chem/ecd1a.i/032510.b/004b0401.d

Date : 25-MAR-2010 05:49

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

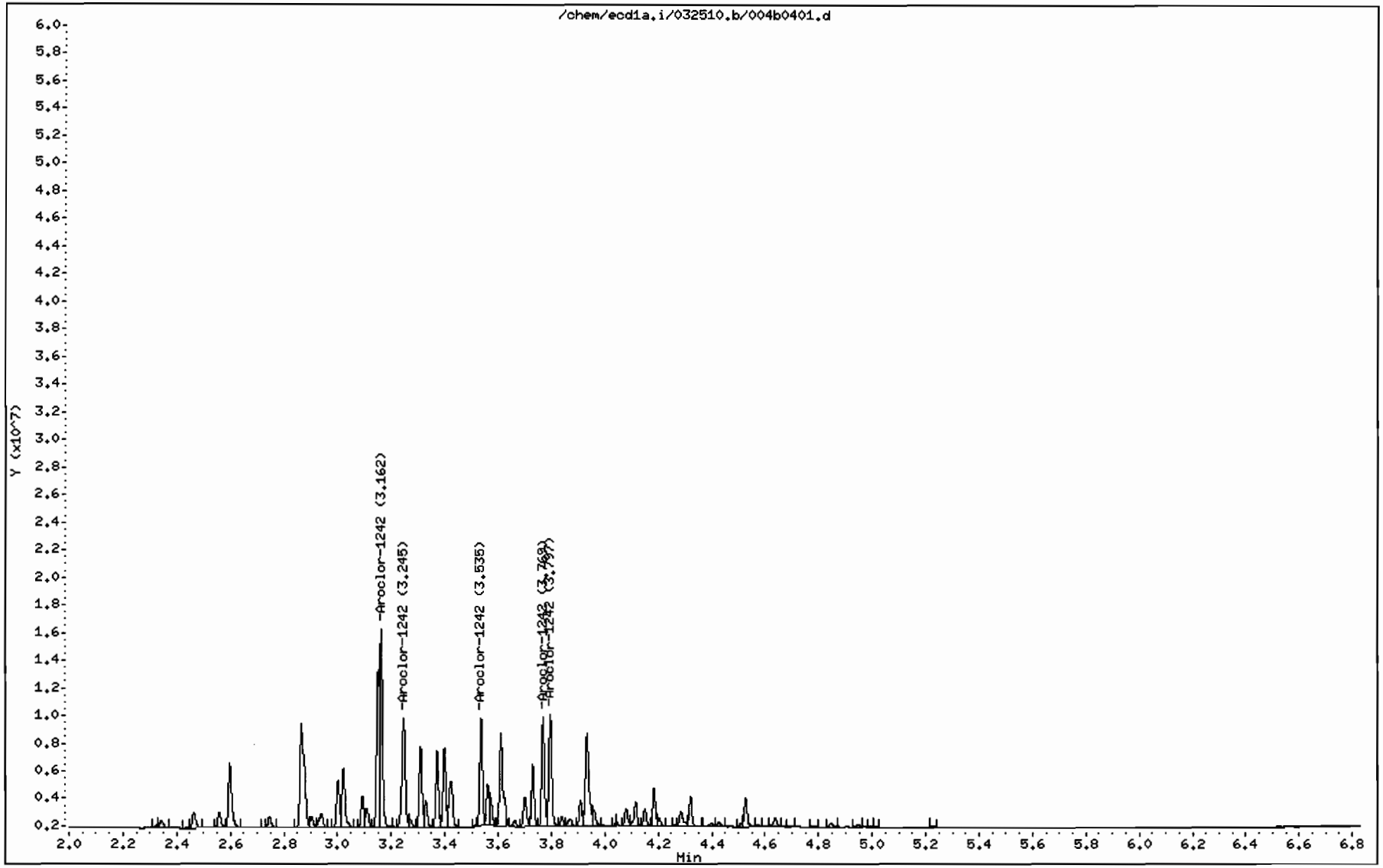

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 25-MAR-2010 05:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
2.843	2.843	0.000	9867227	1000.00	987	80.00- 120.00	100.00
2.976	2.976	0.000	13399471	1000.00	1020	115.80- 155.80	135.80
3.229	3.229	0.000	14257070	1000.00	997	124.49- 164.49	144.49
3.361	3.361	0.000	11546842	1000.00	970	97.02- 137.02	117.02
3.593	3.593	0.000	7606610	1000.00	950	57.09- 97.09	77.09
Average of Peak Amounts =					985		

Data File: /chem/ecd1a.i/032510.b/005f0501.d
Date : 25-MAR-2010 05:59
Client ID: AR124801
Sample Info: IWAR100223-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

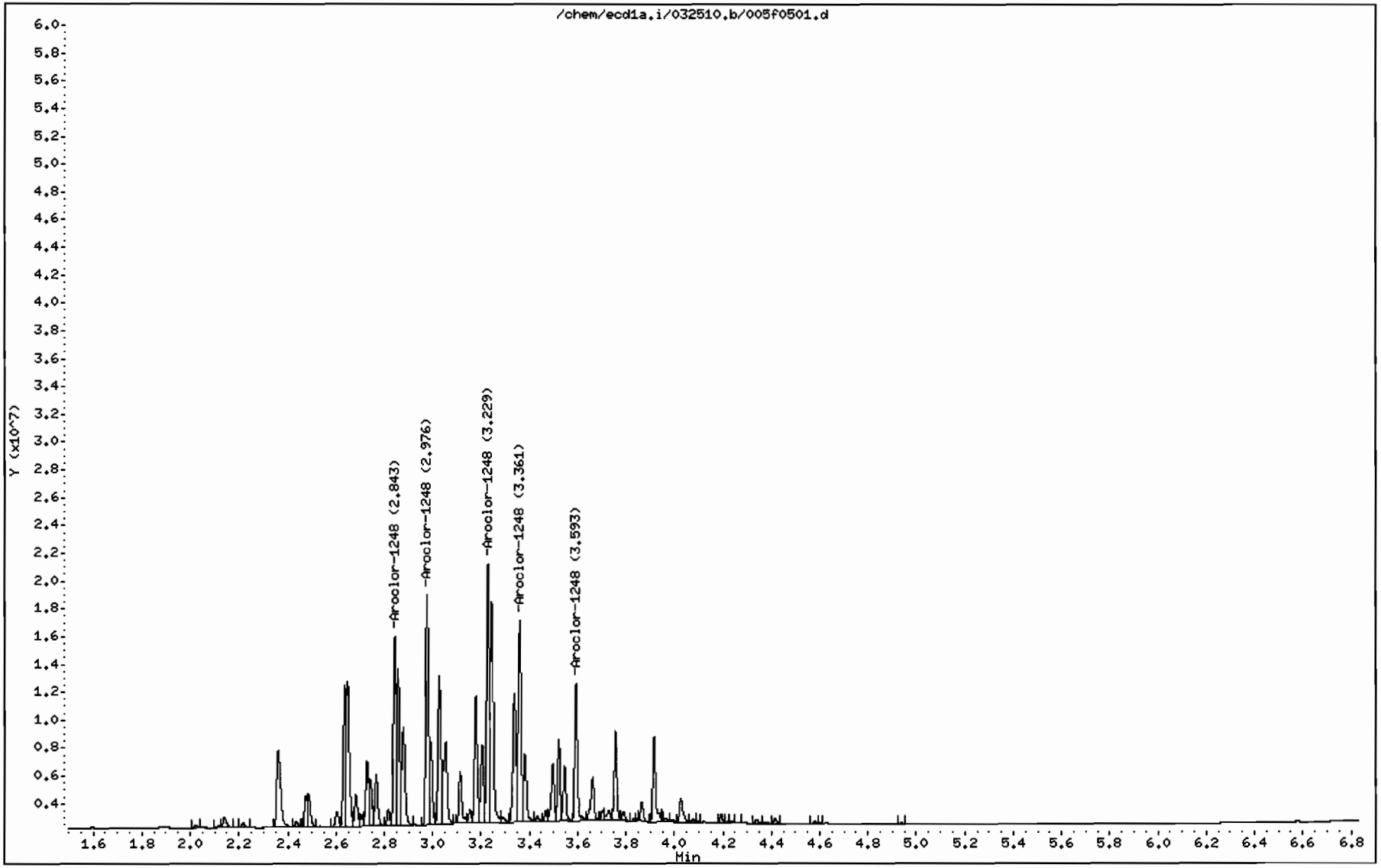

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 25-MAR-2010 05:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.370	3.370	0.000	7370949	1000.00	969	80.00- 120.00	100.00
3.534	3.534	0.000	9263824	1000.00	978	105.68- 145.68	125.68
3.769	3.769	0.000	10633859	1000.00	973	124.27- 164.27	144.27
3.796	3.796	0.000	12002970	1000.00	987	142.84- 182.84	162.84
3.933	3.933	0.000	11432912	1000.00	968	135.11- 175.11	155.11
		Average of Peak Amounts =			975		

Data File: /chem/ecd1a.i/032510.b/005b0501.d

Date : 25-MAR-2010 05:59

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

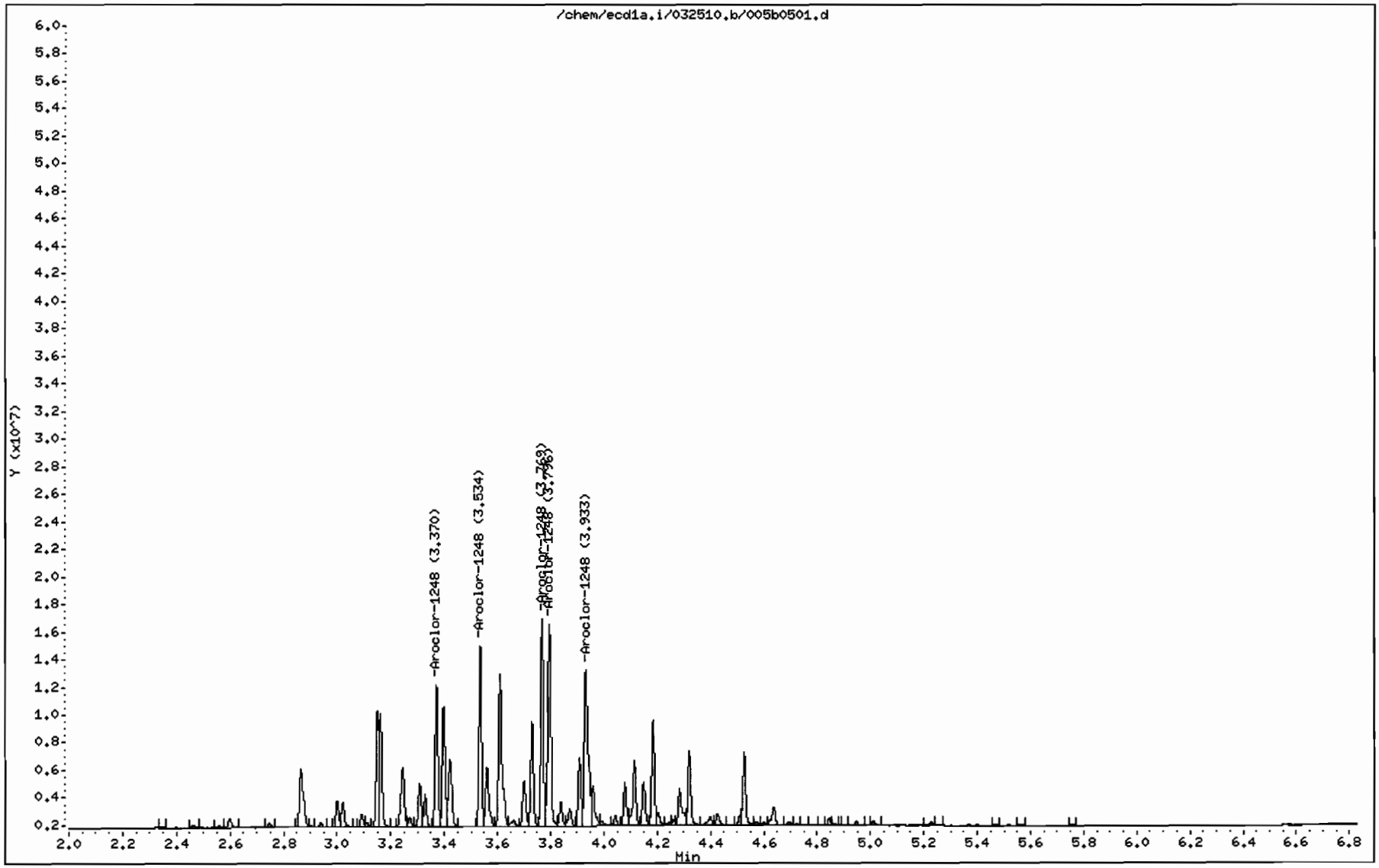

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/007f0701.d
Lab Smp Id: WAR100323-32 Client Smp ID: AR123201
Inj Date : 25-MAR-2010 06:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100323-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.364	2.364	0.000	6975788	1000.00	1050	80.00- 120.00	100.00
2.649	2.649	0.000	9399818	1000.00	1130	114.75- 154.75	134.75
2.730	2.730	0.000	5692871	1000.00	1030	61.61- 101.61	81.61
2.844	2.844	0.000	2705322	1000.00	1020	18.78- 58.78	38.78
3.230	3.230	0.000	3593253	1000.00	1010	31.51- 71.51	51.51

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/032510.b/007f0701.d

Date : 25-MAR-2010 06:20

Client ID: AR123201

Sample Info: IWAR100323-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

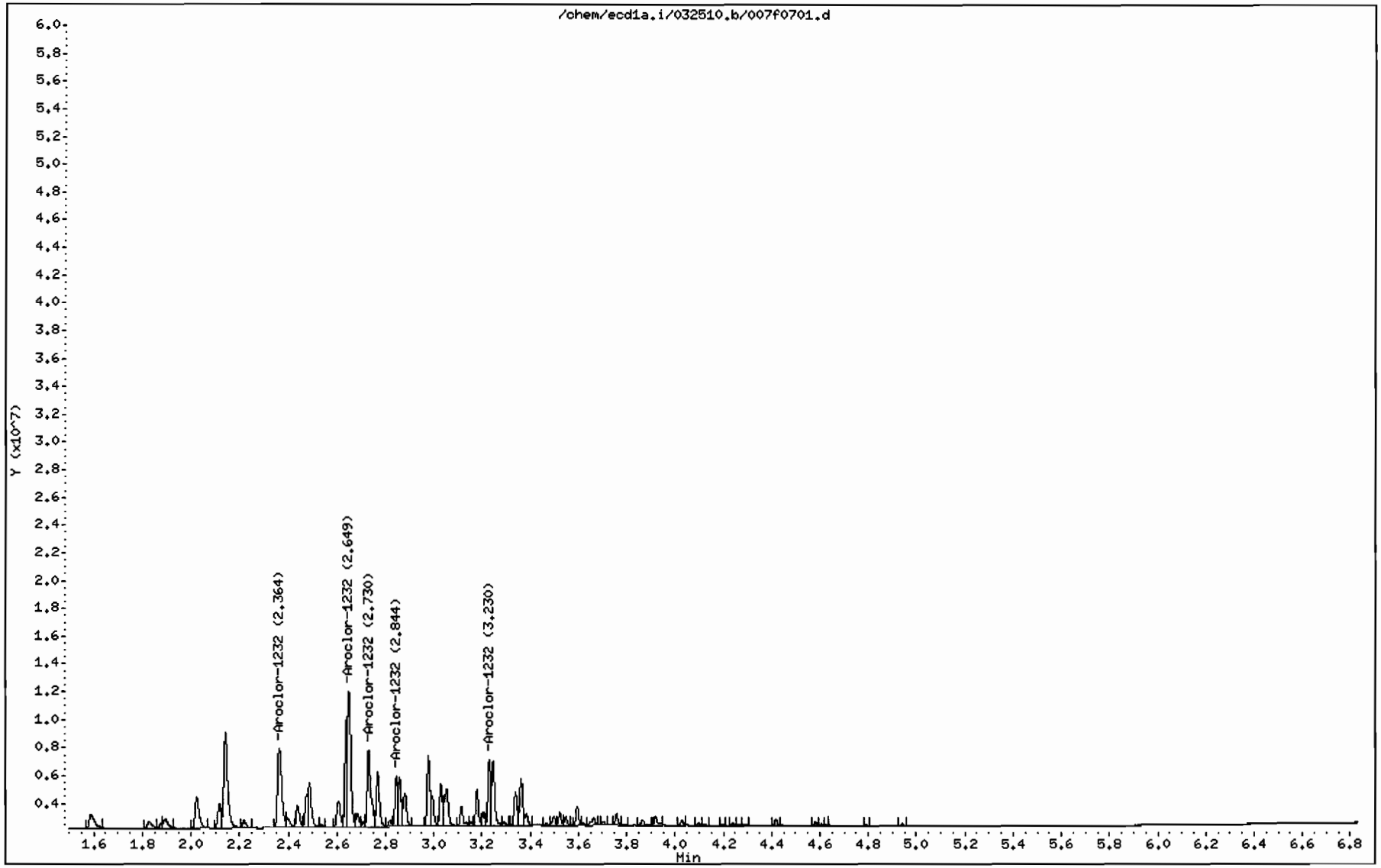

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/007b0701.d
Lab Smp Id: WAR100323-32 Client Smp ID: AR123201
Inj Date : 25-MAR-2010 06:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100323-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.865	2.865	0.000	5194181	1000.00	1030	80.00- 120.00	100.00
3.162	3.162	0.000	6127702	1000.00	1070	97.97- 137.97	117.97
3.245	3.245	0.000	3981330	1000.00	1020	56.65- 96.65	76.65
3.535	3.535	0.000	2964593	1000.00	1040	37.08- 77.08	57.08
3.770	3.770	0.000	2934244	1000.00	1040	36.49- 76.49	56.49

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/032510.b/007b0701.d

Date : 25-MAR-2010 06:20

Client ID: AR123201

Sample Info: IWAR100323-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

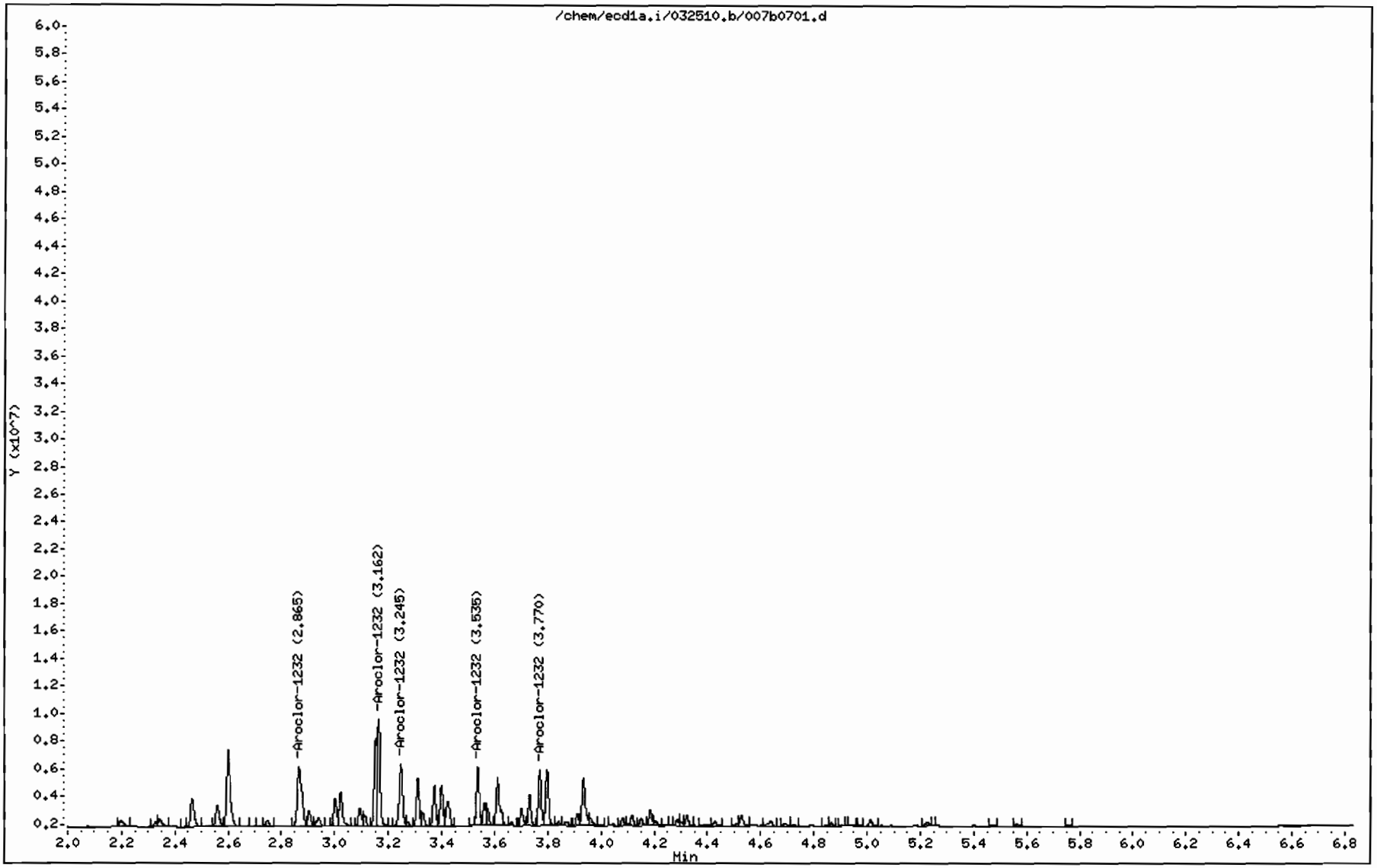

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/008f0801.d
Lab Smp Id: WAR100323-21 Client Smp ID: AR122101
Inj Date : 25-MAR-2010 06:31
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100323-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.023	2.023	0.000	4577430	1000.00	1020	80.00- 120.00	100.00
2.115	2.115	0.000	2483523	1000.00	1010	34.26- 74.26	54.26
2.140	2.140	0.000	10579455	1000.00	977	211.12- 251.12	231.12

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032510.b/008f0801.d

Date : 25-MAR-2010 06:31

Client ID: AR122101

Sample Info: IWAR100323-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

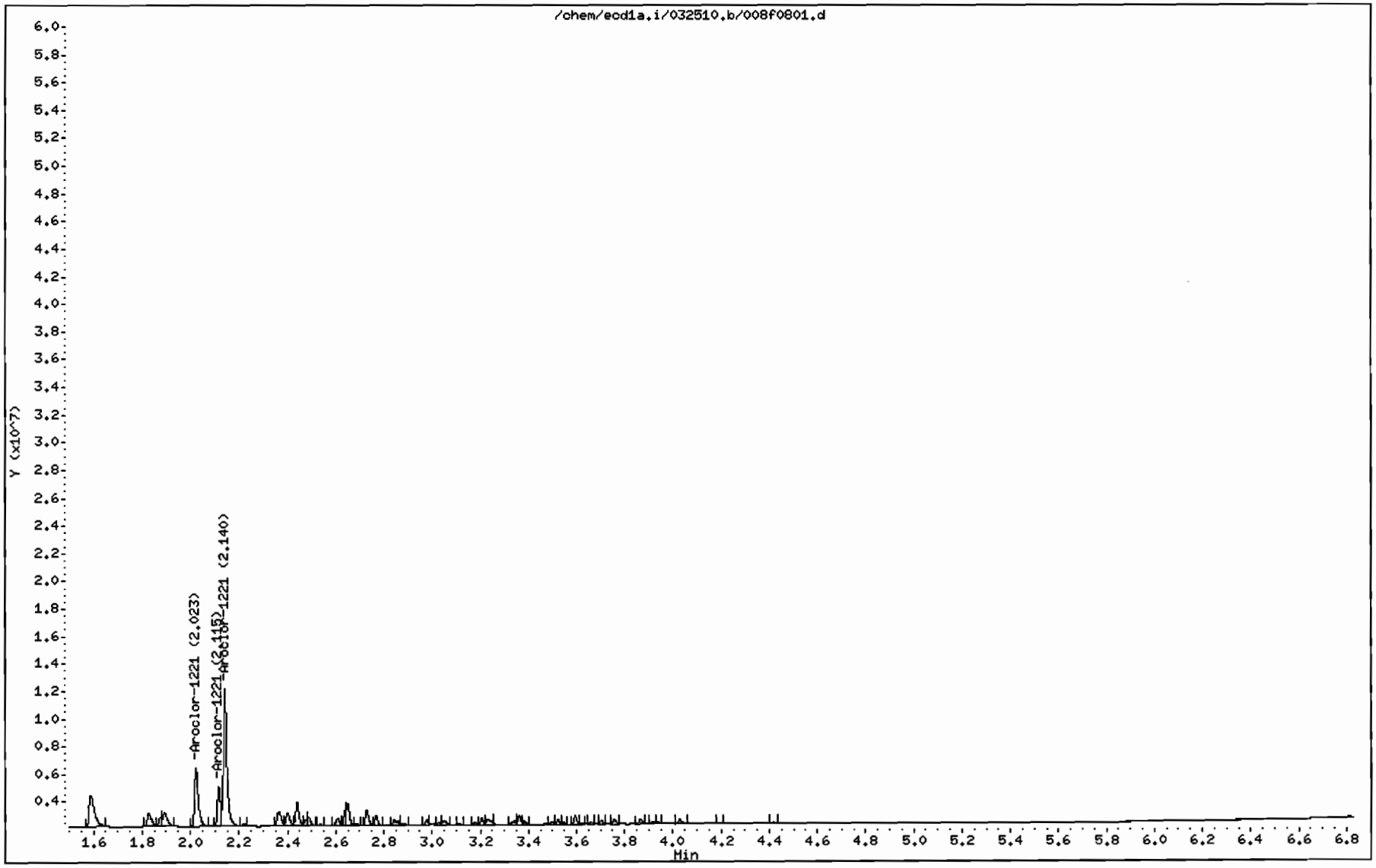

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/008b0801.d
Lab Smp Id: WAR100323-21 Client Smp ID: AR12101
Inj Date : 25-MAR-2010 06:31
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100323-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.464	2.464	0.000	3296438	1000.00	1010	80.00- 120.00	100.00
2.559	2.559	0.000	2103411	1000.00	1010	43.81- 83.81	63.81
2.599	2.599	0.000	7148167	1000.00	976	196.85- 236.85	216.85
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd1a.i/032510.b/008b0801.d

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Date : 25-MAR-2010 06:31

Client ID: AR12101

Instrument: ecd1a.i

Sample Info: IWAR100323-21

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

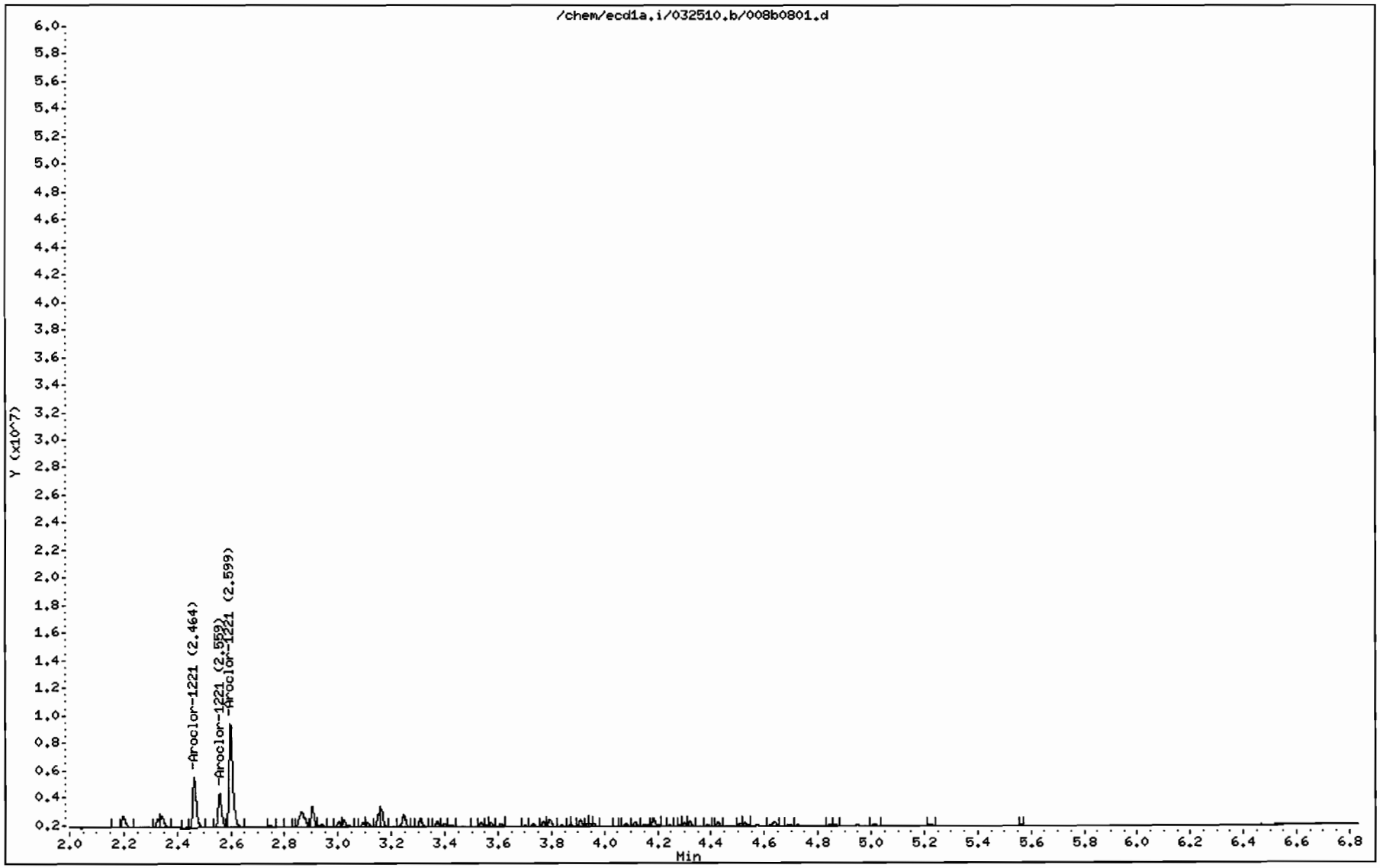

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/028f2801.d
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003
Inj Date : 25-MAR-2010 10:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 11:02 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 28 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpc1p1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.910	0.000	41924735	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.211	5.211	0.000	31849662	100.000	107	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.362	2.361	0.001	14712751	1000.00	969	80.00- 120.00	100.00
2.647	2.647	0.000	18693026	1000.00	987	107.05- 147.05	127.05
2.727	2.727	0.000	11643911	1000.00	936	59.14- 99.14	79.14
2.765	2.765	0.000	7050056	1000.00	959	27.92- 67.92	47.92
2.975	2.975	0.000	9101881	1000.00	956	41.86- 81.86	61.86
Average of Peak Amounts =					962		
7 Aroclor-1260					CAS #: 11096-82-5		
3.700	3.700	0.000	18885324	1000.00	1030	80.00- 120.00	100.00
3.862	3.862	0.000	28062112	1000.00	1040	128.59- 168.59	148.59
4.024	4.024	0.000	30094246	1000.00	1060	139.35- 179.35	159.35
4.092	4.092	0.000	17025182	1000.00	1050	70.15- 110.15	90.15
4.235	4.235	0.000	17670317	1000.00	1050	73.57- 113.57	93.57
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd1a.i/032510.b/028f2801.d
Date : 25-MAR-2010 10:26
Client ID: AR166003
Sample Info: IWAR100222-60 03

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

Column phase: CLP1

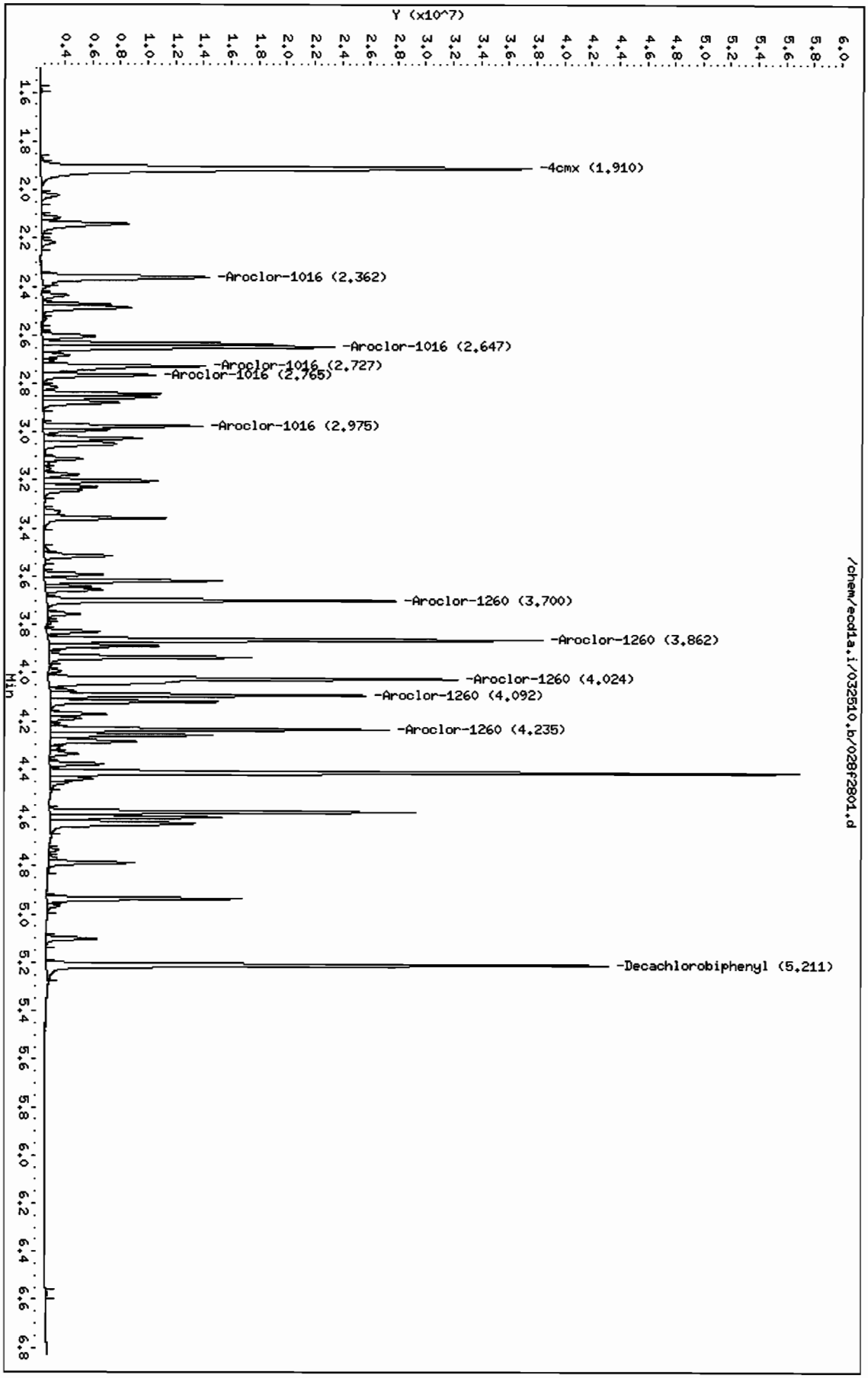

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/028b2801.d
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003
Inj Date : 25-MAR-2010 10:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 11:02 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 28 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.267	2.267	0.000	26593976	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.907	5.906	0.001	19251521	100.000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.161	3.161	0.000	12129697	1000.00	964	80.00- 120.00	100.00(M)
3.244	3.244	0.000	7798446	1000.00	903	44.29- 84.29	64.29
3.307	3.307	0.000	4833083	1000.00	914	19.85- 59.85	39.85
3.534	3.534	0.000	6385988	1000.00	926	32.65- 72.65	52.65
3.609	3.609	0.000	6043433	1000.00	941	29.82- 69.82	49.82
Average of Peak Amounts =					930		
7 Aroclor-1260					CAS #: 11096-82-5		
4.299	4.299	0.000	12823274	1000.00	980	80.00- 120.00	100.00
4.424	4.424	0.000	15717711	1000.00	1010	102.57- 142.57	122.57
4.689	4.689	0.000	11865206	1000.00	997	72.53- 112.53	92.53
4.862	4.862	0.000	12280274	1000.00	999	75.77- 115.77	95.77
5.010	5.010	0.000	27462132	1000.00	1040	194.16- 234.16	214.16
Average of Peak Amounts =					1.01e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032510.b/028b2801.d

Date : 25-MAR-2010 10:26

Client ID: AR166003

Sample Info: IWAR100222-60 03

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

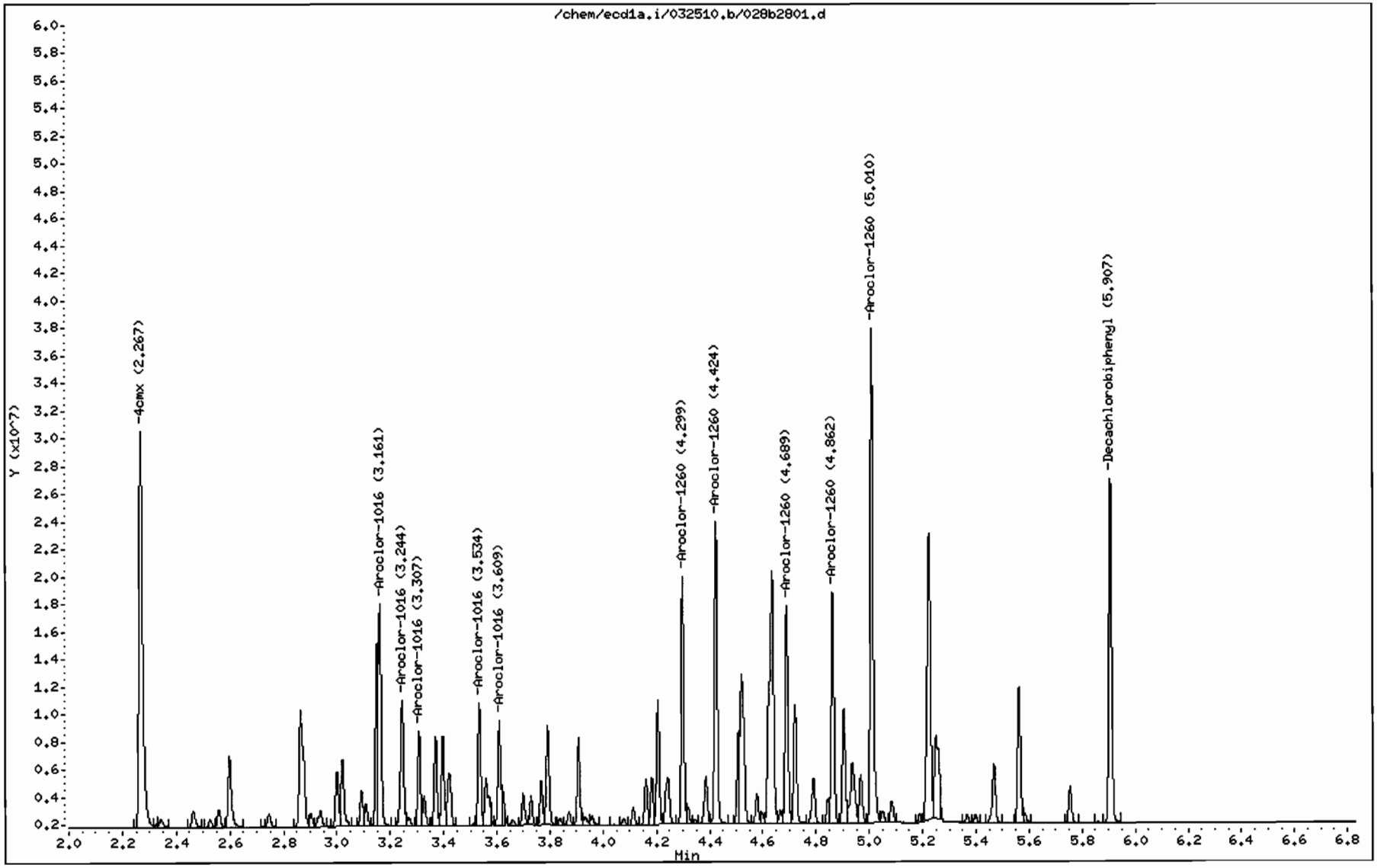

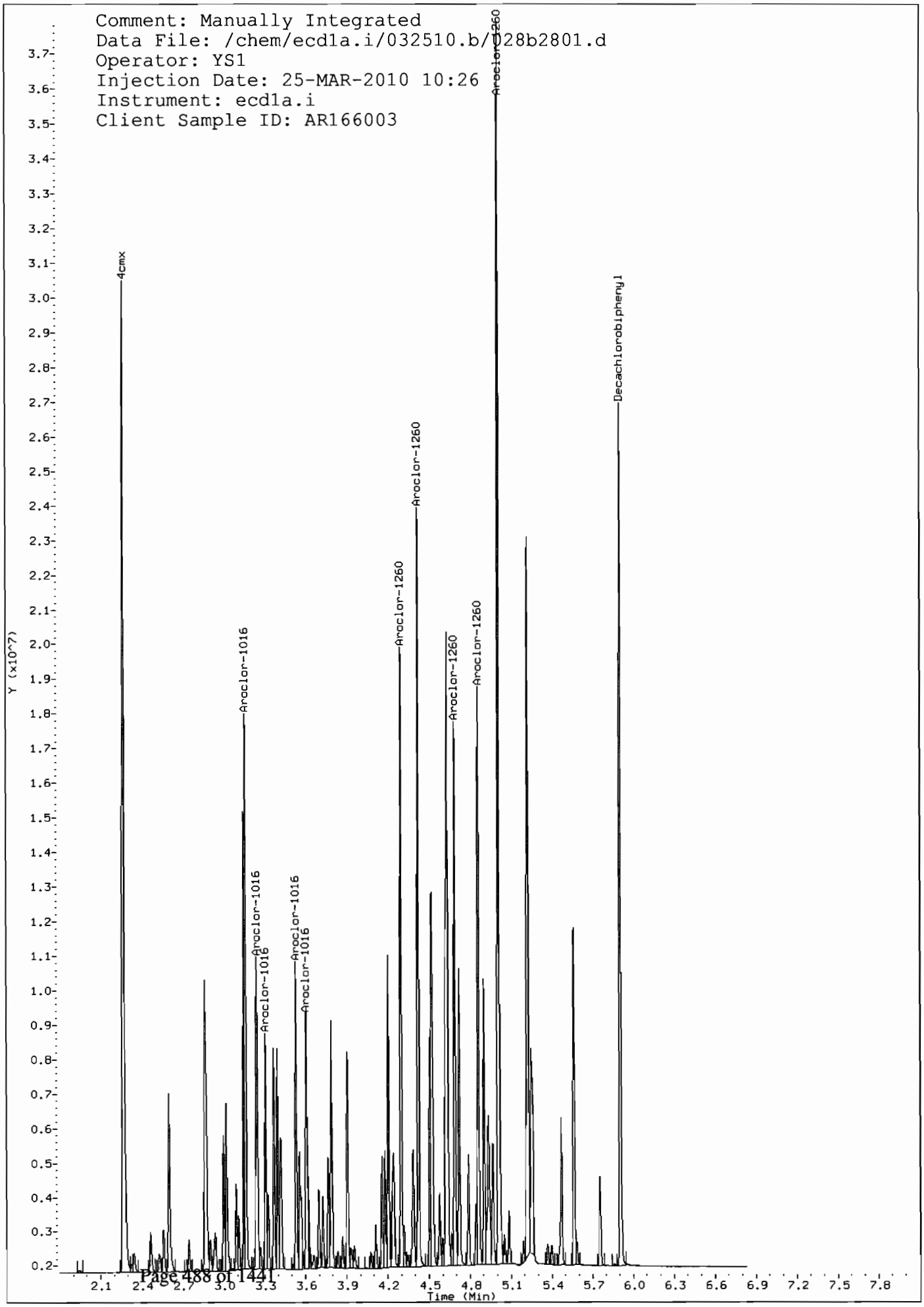
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032510.b/028b2801.d
Operator: YS1
Injection Date: 25-MAR-2010 10:26
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

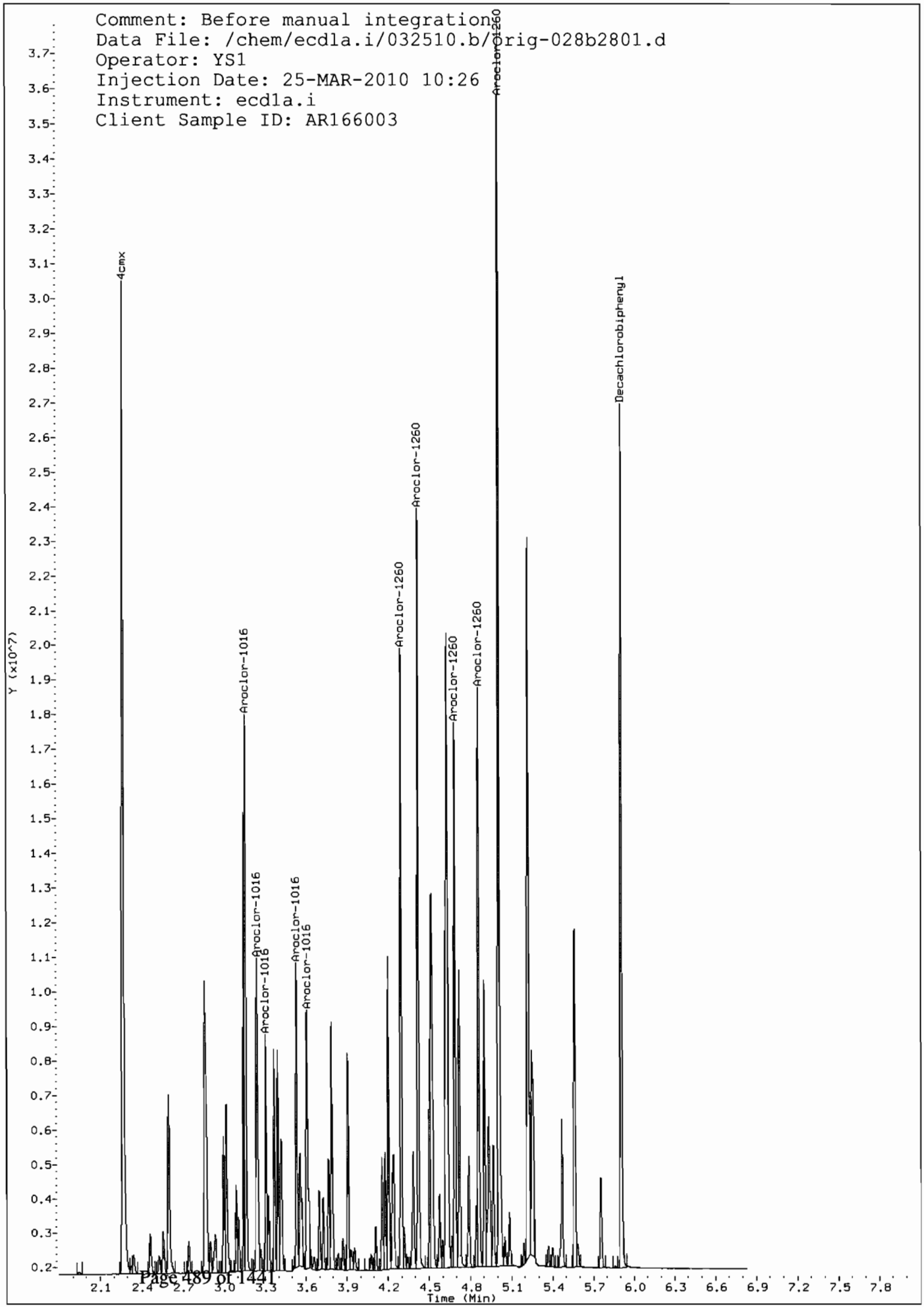
Comment: Before manual integration
Data File: /chem/ecd1a.i/032510.b/orig-028b2801.d
Operator: YS1
Injection Date: 25-MAR-2010 10:26
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/037f3701.d
Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004
Inj Date : 25-MAR-2010 12:09
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 37 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.910	0.000	43515571	100.000	112	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.211	5.211	0.000	32666307	100.000	110	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.361	2.361	0.000	15182835	1000.00	1000	80.00- 120.00	100.00
2.647	2.647	0.000	19644621	1000.00	1040	109.39- 149.39	129.39
2.728	2.727	0.001	12091177	1000.00	972	59.64- 99.64	79.64
2.766	2.765	0.001	7289124	1000.00	992	28.01- 68.01	48.01
2.975	2.975	0.000	9272000	1000.00	974	41.07- 81.07	61.07
Average of Peak Amounts =					995		
7 Aroclor-1260					CAS #: 11096-82-5		
3.700	3.700	0.000	19582367	1000.00	1070	80.00- 120.00	100.00
3.862	3.862	0.000	29042968	1000.00	1080	128.31- 168.31	148.31
4.024	4.024	0.000	31186822	1000.00	1100	139.26- 179.26	159.26
4.092	4.092	0.000	17516907	1000.00	1080	69.45- 109.45	89.45
4.235	4.235	0.000	18266420	1000.00	1090	73.28- 113.28	93.28
Average of Peak Amounts =					1.08e+03		

Data File: /chem/ecd1a.i/032510.b/037f3701.d
Date : 25-MAR-2010 12:09
Client ID: AR166004
Sample Info: IWAR100222-60 04

Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

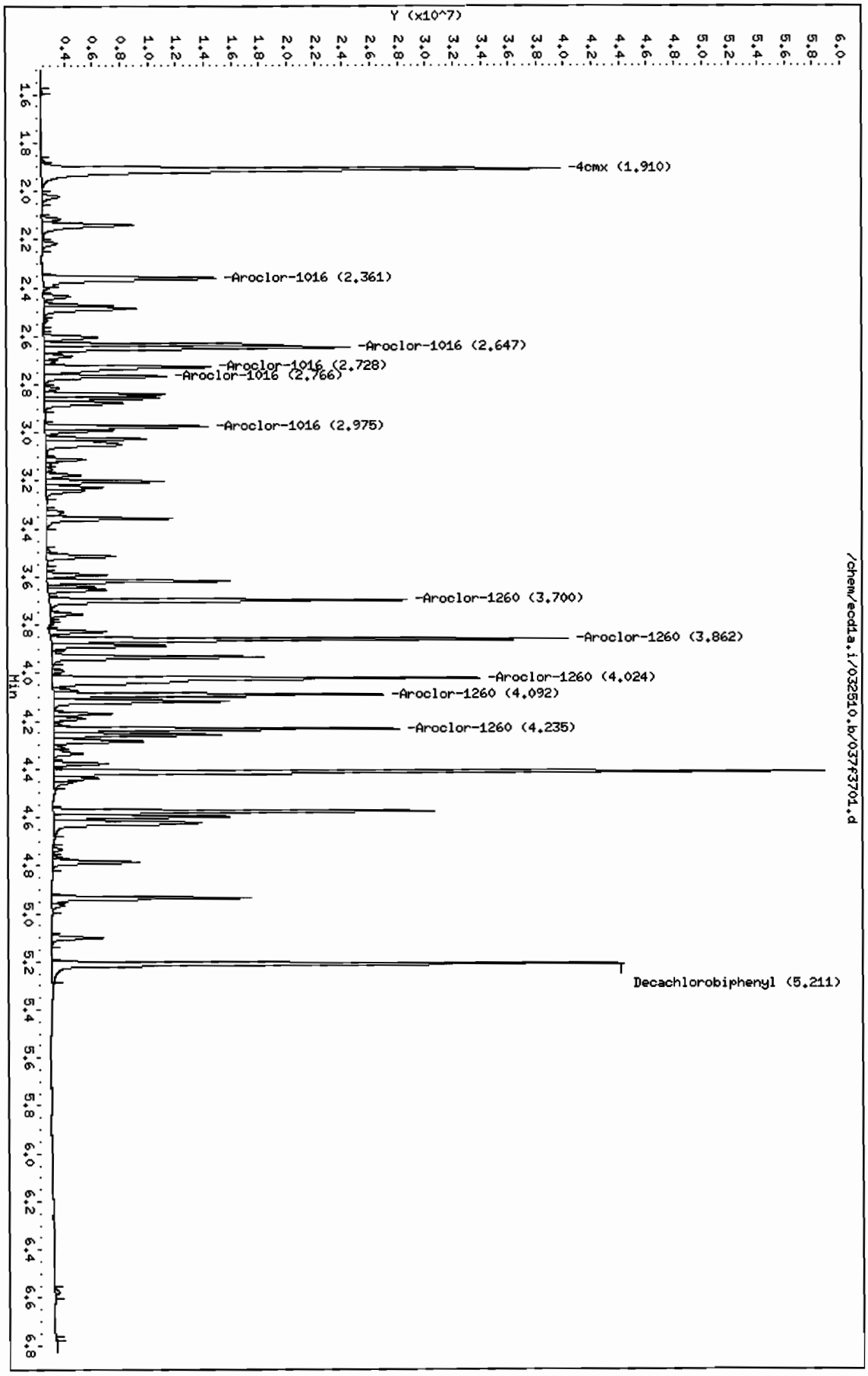

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/037b3701.d
Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004
Inj Date : 25-MAR-2010 12:09
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 37 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.267	2.267	0.000	27349419	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.906	5.906	0.000	19304596	100.000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.161	3.161	0.000	12496893	1000.00	993	80.00- 120.00	100.00(M)
3.244	3.244	0.000	7968120	1000.00	923	43.76- 83.76	63.76
3.307	3.307	0.000	4949155	1000.00	936	19.60- 59.60	39.60
3.534	3.534	0.000	6307501	1000.00	915	30.47- 70.47	50.47
3.609	3.609	0.000	5992558	1000.00	933	27.95- 67.95	47.95
Average of Peak Amounts =					940		
7 Aroclor-1260					CAS #: 11096-82-5		
4.299	4.299	0.000	13078449	1000.00	1000	80.00- 120.00	100.00
4.423	4.424	-0.001	16058379	1000.00	1030	102.79- 142.79	122.79
4.689	4.689	0.000	12042699	1000.00	1010	72.08- 112.08	92.08
4.862	4.862	0.000	12426191	1000.00	1010	75.01- 115.01	95.01
5.009	5.010	-0.001	27705419	1000.00	1050	191.84- 231.84	211.84
Average of Peak Amounts =					1.02e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032510.b/037b3701.d

Date : 25-MAR-2010 12:09

Client ID: AR166004

Sample Info: IWAR100222-60 04

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

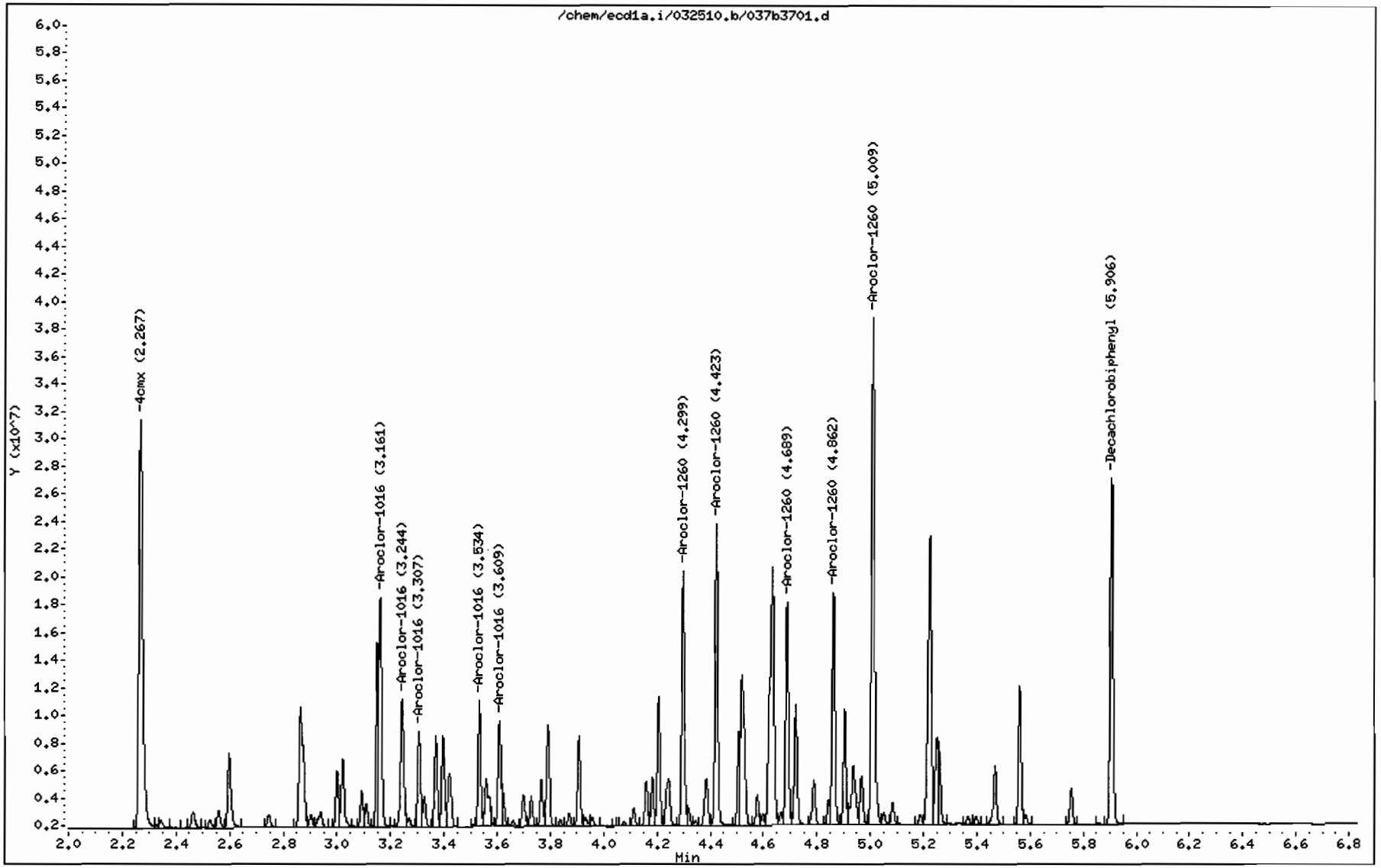

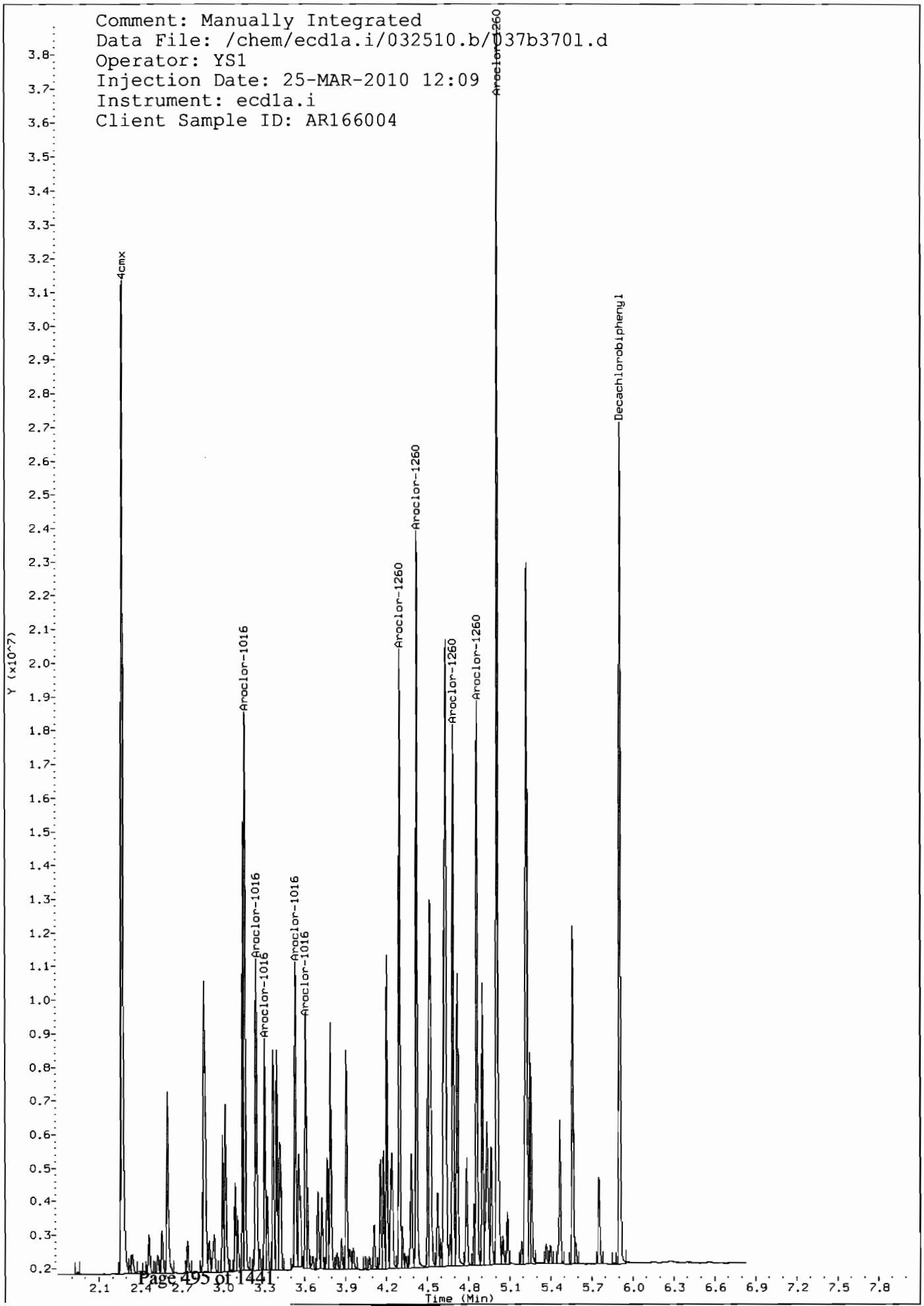
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032510.b/037b3701.d
Operator: YS1
Injection Date: 25-MAR-2010 12:09
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

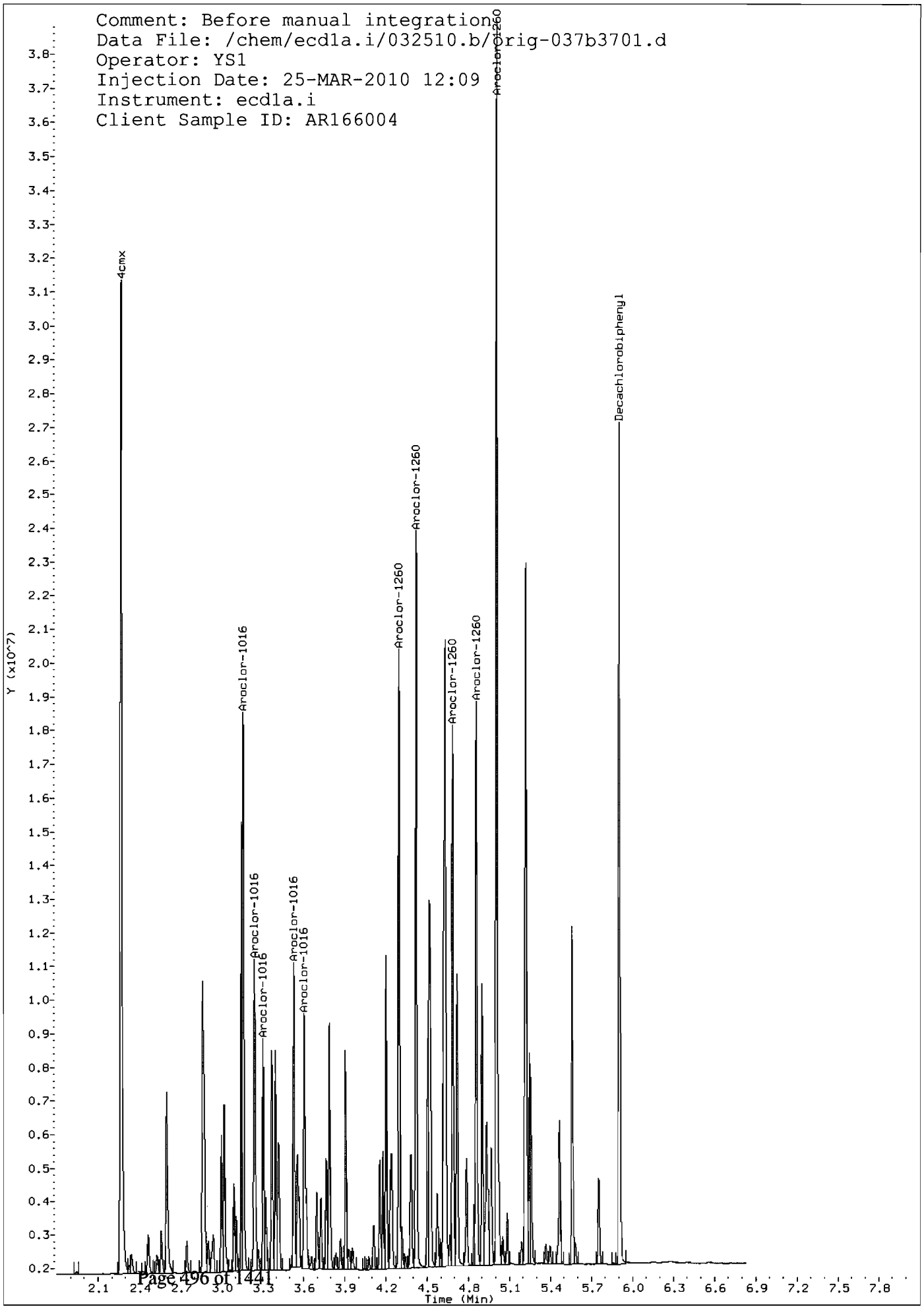
Comment: Before manual integration
Data File: /chem/ecd1a.i/032510.b/orig-037b3701.d
Operator: YS1
Injection Date: 25-MAR-2010 12:09
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10	1446	1.91	5.23
02	ZZZZZ	ZZZZZ	03/11/10	1456	1.92	5.22
03	ZZZZZ	ZZZZZ	03/11/10	1507		
04	ZZZZZ	ZZZZZ	03/11/10	1517		
05	ZZZZZ	ZZZZZ	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	1.92	5.22
12	AR166002	WAR100311-02	03/11/10	1641	1.92	5.22
13	AR166003	WAR100311-03	03/11/10	1652	1.92	5.22
14	AR166004	WAR100311-04	03/11/10	1702	1.91	5.22
15	AR166005	IAR100311-01	03/11/10	1713	1.92	5.22
16	AR166001	WAR100222-60	03/11/10	1724	1.91	5.22
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	1.91	5.22
04	ZZZZZ	ZZZZZ	03/11/10	2054	1.92	5.22
05	ZZZZZ	ZZZZZ	03/11/10	2105	1.92	5.22
06	ZZZZZ	ZZZZZ	03/11/10	2115	1.92	5.22
07	ZZZZZ	ZZZZZ	03/11/10	2126	1.92	5.22
08	ZZZZZ	ZZZZZ	03/11/10	2136	1.92	5.22
09	ZZZZZ	ZZZZZ	03/11/10	2147	1.92	5.22
10	ZZZZZ	ZZZZZ	03/11/10	2157	1.92	5.22
11	ZZZZZ	ZZZZZ	03/11/10	2208	1.92	5.22
12	ZZZZZ	ZZZZZ	03/11/10	2218	1.92	5.22
13	ZZZZZ	ZZZZZ	03/11/10	2229	1.92	5.22
14	AR166002	WAR100222-60	03/11/10	2239	1.91	5.22
15	PIBLK03	WAR100219-99	03/11/10	2250	1.91	5.22
16	ZZZZZ	ZZZZZ	03/11/10	2300	1.90	5.23
17	ZZZZZ	ZZZZZ	03/11/10	2311	1.92	5.22
18	ZZZZZ	ZZZZZ	03/11/10	2321	1.91	5.22
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10	1446	2.27	5.92
02	ZZZZZ	ZZZZZ	03/11/10	1456	2.27	5.92
03	ZZZZZ	ZZZZZ	03/11/10	1507		
04	ZZZZZ	ZZZZZ	03/11/10	1517		
05	ZZZZZ	ZZZZZ	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	2.27	5.92
12	AR166002	WAR100311-02	03/11/10	1641	2.27	5.92
13	AR166003	WAR100311-03	03/11/10	1652	2.27	5.92
14	AR166004	WAR100311-04	03/11/10	1702	2.27	5.92
15	AR166005	IAR100311-01	03/11/10	1713	2.27	5.92
16	AR166001	WAR100222-60	03/11/10	1724	2.27	5.92
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	2.27	5.92
04	ZZZZZ	ZZZZZ	03/11/10	2054	2.28	5.92
05	ZZZZZ	ZZZZZ	03/11/10	2105	2.28	5.92
06	ZZZZZ	ZZZZZ	03/11/10	2115	2.28	5.92
07	ZZZZZ	ZZZZZ	03/11/10	2126	2.28	5.92
08	ZZZZZ	ZZZZZ	03/11/10	2136	2.28	5.92
09	ZZZZZ	ZZZZZ	03/11/10	2147	2.28	5.92
10	ZZZZZ	ZZZZZ	03/11/10	2157	2.28	5.92
11	ZZZZZ	ZZZZZ	03/11/10	2208	2.28	5.92
12	ZZZZZ	ZZZZZ	03/11/10	2218	2.28	5.92
13	ZZZZZ	ZZZZZ	03/11/10	2229	2.28	5.92
14	AR166002	WAR100222-60	03/11/10	2239	2.27	5.92
15	PIBLK03	WAR100219-99	03/11/10	2250	2.27	5.92
16	ZZZZZ	ZZZZZ	03/11/10	2300		5.92
17	ZZZZZ	ZZZZZ	03/11/10	2311		5.23*
18	ZZZZZ	ZZZZZ	03/11/10	2321		
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/23/10	0743	1.91	5.22
02	AR166001	WAR100222-60	03/23/10	0753	1.91	5.22
03	AR125401	WAR100219-54	03/23/10	0804		
04	AR124201	WAR100219-42	03/23/10	0814		
05	AR124801	WAR100223-48	03/23/10	0825		
06	AR126801	WAR100107-68	03/23/10	0835		
07	AR123201	WAR100104-32	03/23/10	0846		
08	AR122101	WAR100104-21	03/23/10	0856		
09	AR126201	WAR100104-62	03/23/10	0907		
10	DDTANALOGSTD	WAR091219-DD	03/23/10	0918		
11	PIBLK02	WAR100219-99	03/23/10	0928	1.91	5.22
12	PBLK01	1202076363	03/23/10	0939	1.91	5.22
13	PBLK01LCS	1202076364	03/23/10	0949	1.91	5.22
14	ZZZZZ	ZZZZZ	03/23/10	1000	1.91	5.22
15	ZZZZZ	ZZZZZ	03/23/10	1012	1.91	5.22
16	ZZZZZ	ZZZZZ	03/23/10	1025	1.91	5.22
17	ZZZZZ	ZZZZZ	03/23/10	1037	1.91	5.22
18	ZZZZZ	ZZZZZ	03/23/10	1050	1.91	5.21
19	ZZZZZ	ZZZZZ	03/23/10	1103	1.91	5.21
20	ZZZZZ	ZZZZZ	03/23/10	1115	1.91	5.21
21	AR166002	WAR100222-60	03/23/10	1128	1.91	5.21
22	PIBLK03	WAR100219-99	03/23/10	1138	1.91	5.22
23	ZZZZZ	ZZZZZ	03/23/10	1149	1.91	5.22
24	ZZZZZ	ZZZZZ	03/23/10	1201	1.91	5.21
25	ZZZZZ	ZZZZZ	03/23/10	1214	1.91	5.21
26	ZZZZZ	ZZZZZ	03/23/10	1226	1.91	5.21
27	ZZZZZ	ZZZZZ	03/23/10	1239	1.91	5.21
28	ZZZZZ	ZZZZZ	03/23/10	1252	1.91	5.21
29	AR166003	WAR100222-60	03/23/10	1304	1.91	5.21
30	PIBLK04	WAR100219-99	03/23/10	1315	1.91	5.22
31	AR166004	WAR100222-60	03/23/10	1325	1.91	5.22
32	PIBLK05	WAR100219-99	03/23/10	1336	1.91	5.22

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/23/10	1346	1.91	5.21
02	ZZZZZ	ZZZZZ	03/23/10	1359	1.91	5.21
03	ZZZZZ	ZZZZZ	03/23/10	1412	1.91	5.21
04	ZZZZZ	ZZZZZ	03/23/10	1424	1.91	5.21
05	ZZZZZ	ZZZZZ	03/23/10	1437	1.91	5.21
06	ZZZZZ	ZZZZZ	03/23/10	1450	1.91	5.21
07	ZZZZZ	ZZZZZ	03/23/10	1502	1.91	5.21
08	AR166005	WAR100222-60	03/23/10	1517	1.91	5.21
09	PIBLK06	WAR100219-99	03/23/10	1527	1.91	5.22
10	ZZZZZ	ZZZZZ	03/23/10	1540	1.91	5.21
11	ZZZZZ	ZZZZZ	03/23/10	1552	1.91	5.21
12	ZZZZZ	ZZZZZ	03/23/10	1605	1.91	
13	ZZZZZ	ZZZZZ	03/23/10	1619	1.91	5.21
14	ZZZZZ	ZZZZZ	03/23/10	1634	1.91	5.21
15	ZZZZZ	ZZZZZ	03/23/10	1648	1.91	5.21
16	AR166006	WAR100222-60	03/23/10	1703	1.91	5.21
17	PIBLK07	WAR100219-99	03/23/10	1715	1.91	5.21
18	ZZZZZ	ZZZZZ	03/23/10	1728	1.91	5.21
19	ZZZZZ	ZZZZZ	03/23/10	1741	1.91	5.21
20	ZZZZZ	ZZZZZ	03/23/10	1753	1.91	5.21
21	ZZZZZ	ZZZZZ	03/23/10	1806	1.91	5.22
22	ZZZZZ	ZZZZZ	03/23/10	1820	1.91	5.21
23	AR166007	WAR100222-60	03/23/10	1835	1.91	5.21
24	PIBLK08	WAR100219-99	03/23/10	1847	1.91	5.21
25	ZZZZZ	ZZZZZ	03/23/10	1900	1.91	5.21
26	ZZZZZ	ZZZZZ	03/23/10	1913	1.91	5.21
27	ZZZZZ	ZZZZZ	03/23/10	1925	1.91	5.21
28	ZZZZZ	ZZZZZ	03/23/10	1938	1.91	5.21
29	ZZZZZ	ZZZZZ	03/23/10	1950	1.91	5.21
30	ZZZZZ	ZZZZZ	03/23/10	2003	1.91	5.21
31	ZZZZZ	ZZZZZ	03/23/10	2016	1.91	5.21
32	ZZZZZ	ZZZZZ	03/23/10	2028	1.91	5.21

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/23/10	2041	1.91	5.21
02	ZZZZZ	ZZZZZ	03/23/10	2054	1.91	5.21
03	AR166008	WAR100222-60	03/23/10	2106	1.91	5.21
04	PIBLK09	WAR100219-99	03/23/10	2119	1.91	5.21
05	ZZZZZ	ZZZZZ	03/23/10	2132	1.91	5.21
06	ZZZZZ	ZZZZZ	03/23/10	2144	1.91	5.21
07	ZZZZZ	ZZZZZ	03/23/10	2157	1.91	5.21
08	ZZZZZ	ZZZZZ	03/23/10	2209	1.91	5.21
09	ZZZZZ	ZZZZZ	03/23/10	2222	1.91	5.21
10	ZZZZZ	ZZZZZ	03/23/10	2235	1.91	5.21
11	ZZZZZ	ZZZZZ	03/23/10	2247	1.91	5.21
12	ZZZZZ	ZZZZZ	03/23/10	2300	1.91	5.21
13	ZZZZZ	ZZZZZ	03/23/10	2313	1.91	5.21
14	ZZZZZ	ZZZZZ	03/23/10	2325	1.91	5.21
15	AR166009	WAR100222-60	03/23/10	2338	1.91	5.21
16	PIBLK10	WAR100219-99	03/23/10	2350	1.91	5.21
17	ZZZZZ	ZZZZZ	03/24/10	0003	1.91	5.21
18	ZZZZZ	ZZZZZ	03/24/10	0016	1.91	5.21
19	ZZZZZ	ZZZZZ	03/24/10	0028	1.91	5.21
20	ZZZZZ	ZZZZZ	03/24/10	0041	1.91	5.21
21	RE46-10-12934	248867003	03/24/10	0054	1.91	5.21
22	RE46-10-12933	248867004	03/24/10	0106	1.91	5.21
23	AR166010	WAR100222-60	03/24/10	0119	1.91	5.21
24	PIBLK011	WAR100219-99	03/24/10	0131	1.91	5.21
25	ZZZZZ	ZZZZZ	03/24/10	0242		
26	ZZZZZ	ZZZZZ	03/24/10	0352	1.91	5.21
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/23/10	0743	2.27	5.91
02	AR166001	WAR100222-60	03/23/10	0753	2.27	5.91
03	AR125401	WAR100219-54	03/23/10	0804		
04	AR124201	WAR100219-42	03/23/10	0814		
05	AR124801	WAR100223-48	03/23/10	0825		
06	AR126801	WAR100107-68	03/23/10	0835		
07	AR123201	WAR100104-32	03/23/10	0846		
08	AR122101	WAR100104-21	03/23/10	0856		
09	AR126201	WAR100104-62	03/23/10	0907		
10	DDTANALOGSTD	WAR091219-DD	03/23/10	0918		
11	PIBLK02	WAR100219-99	03/23/10	0928	2.27	5.91
12	PBLK01	1202076363	03/23/10	0939	2.27	5.91
13	PBLK01LCS	1202076364	03/23/10	0949	2.27	5.91
14	ZZZZZ	ZZZZZ	03/23/10	1000	2.27	5.91
15	ZZZZZ	ZZZZZ	03/23/10	1012	2.27	5.91
16	ZZZZZ	ZZZZZ	03/23/10	1025	2.27	5.91
17	ZZZZZ	ZZZZZ	03/23/10	1037	2.27	5.91
18	ZZZZZ	ZZZZZ	03/23/10	1050	2.27	5.91
19	ZZZZZ	ZZZZZ	03/23/10	1103	2.27	5.91
20	ZZZZZ	ZZZZZ	03/23/10	1115	2.27	5.91
21	AR166002	WAR100222-60	03/23/10	1128	2.27	5.91
22	PIBLK03	WAR100219-99	03/23/10	1138	2.27	5.91
23	ZZZZZ	ZZZZZ	03/23/10	1149	2.27	5.91
24	ZZZZZ	ZZZZZ	03/23/10	1201	2.27	5.91
25	ZZZZZ	ZZZZZ	03/23/10	1214	2.27	5.91
26	ZZZZZ	ZZZZZ	03/23/10	1226	2.27	5.91
27	ZZZZZ	ZZZZZ	03/23/10	1239	2.27	5.91
28	ZZZZZ	ZZZZZ	03/23/10	1252	2.27	5.91
29	AR166003	WAR100222-60	03/23/10	1304	2.27	5.91
30	PIBLK04	WAR100219-99	03/23/10	1315	2.27	5.91
31	AR166004	WAR100222-60	03/23/10	1325	2.27	5.91
32	PIBLK05	WAR100219-99	03/23/10	1336	2.27	5.91

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/23/10	1346	2.27	5.91
02	ZZZZZ	ZZZZZ	03/23/10	1359	2.27	5.91
03	ZZZZZ	ZZZZZ	03/23/10	1412	2.27	5.91
04	ZZZZZ	ZZZZZ	03/23/10	1424	2.27	5.91
05	ZZZZZ	ZZZZZ	03/23/10	1437	2.27	5.91
06	ZZZZZ	ZZZZZ	03/23/10	1450	2.27	5.91
07	ZZZZZ	ZZZZZ	03/23/10	1502	2.27	5.91
08	AR166005	WAR100222-60	03/23/10	1517	2.27	5.91
09	PIBLK06	WAR100219-99	03/23/10	1527	2.27	5.91
10	ZZZZZ	ZZZZZ	03/23/10	1540	2.27	5.91
11	ZZZZZ	ZZZZZ	03/23/10	1552	2.27	5.91
12	ZZZZZ	ZZZZZ	03/23/10	1605	2.27	
13	ZZZZZ	ZZZZZ	03/23/10	1619	2.27	5.91
14	ZZZZZ	ZZZZZ	03/23/10	1634	2.27	5.91
15	ZZZZZ	ZZZZZ	03/23/10	1648	2.27	5.91
16	AR166006	WAR100222-60	03/23/10	1703	2.27	5.91
17	PIBLK07	WAR100219-99	03/23/10	1715	2.27	5.91
18	ZZZZZ	ZZZZZ	03/23/10	1728	2.27	5.91
19	ZZZZZ	ZZZZZ	03/23/10	1741	2.27	5.91
20	ZZZZZ	ZZZZZ	03/23/10	1753	2.27	5.91
21	ZZZZZ	ZZZZZ	03/23/10	1806	2.27	5.91
22	ZZZZZ	ZZZZZ	03/23/10	1820	2.27	5.91
23	AR166007	WAR100222-60	03/23/10	1835	2.27	5.91
24	PIBLK08	WAR100219-99	03/23/10	1847	2.27	5.91
25	ZZZZZ	ZZZZZ	03/23/10	1900	2.27	5.91
26	ZZZZZ	ZZZZZ	03/23/10	1913	2.27	5.91
27	ZZZZZ	ZZZZZ	03/23/10	1925	2.27	5.91
28	ZZZZZ	ZZZZZ	03/23/10	1938	2.27	5.91
29	ZZZZZ	ZZZZZ	03/23/10	1950	2.27	5.91
30	ZZZZZ	ZZZZZ	03/23/10	2003	2.27	5.91
31	ZZZZZ	ZZZZZ	03/23/10	2016	2.27	5.91
32	ZZZZZ	ZZZZZ	03/23/10	2028	2.27	5.91

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/23/10	2041	2.27	5.91
02	ZZZZZ	ZZZZZ	03/23/10	2054	2.27	5.91
03	AR166008	WAR100222-60	03/23/10	2106	2.27	5.91
04	PIBLK09	WAR100219-99	03/23/10	2119	2.27	5.91
05	ZZZZZ	ZZZZZ	03/23/10	2132	2.27	5.91
06	ZZZZZ	ZZZZZ	03/23/10	2144	2.27	5.91
07	ZZZZZ	ZZZZZ	03/23/10	2157	2.27	5.91
08	ZZZZZ	ZZZZZ	03/23/10	2209	2.27	5.91
09	ZZZZZ	ZZZZZ	03/23/10	2222	2.27	5.91
10	ZZZZZ	ZZZZZ	03/23/10	2235	2.27	5.91
11	ZZZZZ	ZZZZZ	03/23/10	2247	2.27	5.91
12	ZZZZZ	ZZZZZ	03/23/10	2300	2.27	5.91
13	ZZZZZ	ZZZZZ	03/23/10	2313	2.27	5.91
14	ZZZZZ	ZZZZZ	03/23/10	2325	2.27	5.91
15	AR166009	WAR100222-60	03/23/10	2338	2.27	5.91
16	PIBLK10	WAR100219-99	03/23/10	2350	2.27	5.91
17	ZZZZZ	ZZZZZ	03/24/10	0003	2.27	5.91
18	ZZZZZ	ZZZZZ	03/24/10	0016	2.27	5.91
19	ZZZZZ	ZZZZZ	03/24/10	0028	2.27	5.91
20	ZZZZZ	ZZZZZ	03/24/10	0041	2.27	5.91
21	RE46-10-12934	248867003	03/24/10	0054	2.27	5.91
22	RE46-10-12933	248867004	03/24/10	0106	2.27	5.91
23	AR166010	WAR100222-60	03/24/10	0119	2.27	5.91
24	PIBLK11	WAR100219-99	03/24/10	0131	2.27	5.91
25	ZZZZZ	ZZZZZ	03/24/10	0242		
26	ZZZZZ	ZZZZZ	03/24/10	0352	2.27	5.91
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.21

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/25/10	0517	1.91	5.21
02	AR166001	WAR100222-60	03/25/10	0528	1.91	5.21
03	AR125401	WAR100219-54	03/25/10	0538		
04	AR124201	WAR100219-42	03/25/10	0549		
05	AR124801	WAR100223-48	03/25/10	0559		
06	AR126801	WAR100323-68	03/25/10	0610		
07	AR123201	WAR100323-32	03/25/10	0620		
08	AR122101	WAR100323-21	03/25/10	0631		
09	AR126201	WAR100323-62	03/25/10	0641		
10	DDTANALOGSTD	WAR100323-DD	03/25/10	0652		
11	PIBLK02	WAR100219-99	03/25/10	0702	1.91	5.21
12	ZZZZZ	ZZZZZ	03/25/10	0713	1.91	5.21
13	ZZZZZ	ZZZZZ	03/25/10	0723	1.91	5.21
14	ZZZZZ	ZZZZZ	03/25/10	0734	1.91	5.21
15	ZZZZZ	ZZZZZ	03/25/10	0746	1.91	5.21
16	ZZZZZ	ZZZZZ	03/25/10	0759	1.91	5.21
17	ZZZZZ	ZZZZZ	03/25/10	0811	1.91	5.21
18	ZZZZZ	ZZZZZ	03/25/10	0826	1.91	5.21
19	ZZZZZ	ZZZZZ	03/25/10	0839	1.91	5.21
20	ZZZZZ	ZZZZZ	03/25/10	0851	1.91	5.21
21	ZZZZZ	ZZZZZ	03/25/10	0904	1.91	5.21
22	PIBLK03	WAR100219-99	03/25/10	0917	1.91	5.21
23	AR166002	WAR100222-60	03/25/10	0927	1.91	5.21
24	PIBLK04	WAR100219-99	03/25/10	0938	1.91	5.21
25	ZZZZZ	ZZZZZ	03/25/10	0948		
26	ZZZZZ	ZZZZZ	03/25/10	1001	1.91	5.21
27	ZZZZZ	ZZZZZ	03/25/10	1013	1.91	5.21
28	AR166003	WAR100222-60	03/25/10	1026	1.91	5.21
29	PIBLK05	WAR100219-99	03/25/10	1036	1.91	5.21
30	PBLK02	1202080259	03/25/10	1047	1.91	5.21
31	PBLK02LCS	1202080260	03/25/10	1057	1.91	5.21
32	PBLK02LCSD	1202080261	03/25/10	1108	1.91	5.21

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.21

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/25/10	1118	1.91	5.21
02	RE46-10-12931	248867001	03/25/10	1131	1.91	5.21
03	RE46-10-12932	248867002	03/25/10	1144	1.91	5.21
04	ZZZZZ	ZZZZZ	03/25/10	1156	1.91	5.21
05	AR166004	WAR100222-60	03/25/10	1209	1.91	5.21
06	PIBLK06	WAR100219-99	03/25/10	1219	1.91	5.21
07	ZZZZZ	ZZZZZ	03/25/10	1230	1.91	5.21
08	ZZZZZ	ZZZZZ	03/25/10	1240	1.91	5.21
09	ZZZZZ	ZZZZZ	03/25/10	1251	1.91	5.21
10	ZZZZZ	ZZZZZ	03/25/10	1302	1.91	5.21
11	ZZZZZ	ZZZZZ	03/25/10	1312	1.91	5.21
12	ZZZZZ	ZZZZZ	03/25/10	1323	1.91	5.21
13	ZZZZZ	ZZZZZ	03/25/10	1333	1.91	5.21
14	AR166005	WAR100222-60	03/25/10	1344	1.91	5.21
15	PIBLK07	WAR100219-99	03/25/10	1354	1.91	5.21
16						
17						
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28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/25/10	0517	2.26	5.90
02	AR166001	WAR100222-60	03/25/10	0528	2.27	5.91
03	AR125401	WAR100219-54	03/25/10	0538		
04	AR124201	WAR100219-42	03/25/10	0549		
05	AR124801	WAR100223-48	03/25/10	0559		
06	AR126801	WAR100323-68	03/25/10	0610		
07	AR123201	WAR100323-32	03/25/10	0620		
08	AR12101	WAR100323-21	03/25/10	0631		
09	AR126201	WAR100323-62	03/25/10	0641		
10	DDTANALOGSTD	WAR100323-DD	03/25/10	0652		
11	PIBLK02	WAR100219-99	03/25/10	0702	2.27	5.91
12	ZZZZZ	ZZZZZ	03/25/10	0713	2.27	5.91
13	ZZZZZ	ZZZZZ	03/25/10	0723	2.27	5.91
14	ZZZZZ	ZZZZZ	03/25/10	0734	2.27	5.91
15	ZZZZZ	ZZZZZ	03/25/10	0746	2.27	5.91
16	ZZZZZ	ZZZZZ	03/25/10	0759	2.27	5.91
17	ZZZZZ	ZZZZZ	03/25/10	0811	2.27	5.91
18	ZZZZZ	ZZZZZ	03/25/10	0826	2.27	5.91
19	ZZZZZ	ZZZZZ	03/25/10	0839	2.27	5.91
20	ZZZZZ	ZZZZZ	03/25/10	0851	2.27	5.91
21	ZZZZZ	ZZZZZ	03/25/10	0904	2.27	5.91
22	PIBLK03	WAR100219-99	03/25/10	0917	2.27	5.91
23	AR166002	WAR100222-60	03/25/10	0927	2.27	5.91
24	PIBLK04	WAR100219-99	03/25/10	0938	2.27	5.91
25	ZZZZZ	ZZZZZ	03/25/10	0948		
26	ZZZZZ	ZZZZZ	03/25/10	1001	2.27	5.91
27	ZZZZZ	ZZZZZ	03/25/10	1013	2.27	5.91
28	AR166003	WAR100222-60	03/25/10	1026	2.27	5.91
29	PIBLK05	WAR100219-99	03/25/10	1036	2.27	5.91
30	PBLK02	1202080259	03/25/10	1047	2.27	5.91
31	PBLK02LCS	1202080260	03/25/10	1057	2.27	5.91
32	PBLK02LCSD	1202080261	03/25/10	1108	2.27	5.91

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2320

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/25/10	1118	2.27	5.91
02	RE46-10-12931	248867001	03/25/10	1131	2.27	5.91
03	RE46-10-12932	248867002	03/25/10	1144	2.27	5.91
04	ZZZZZ	ZZZZZ	03/25/10	1156	2.27	5.91
05	AR166004	WAR100222-60	03/25/10	1209	2.27	5.91
06	PIBLK06	WAR100219-99	03/25/10	1219	2.27	5.91
07	ZZZZZ	ZZZZZ	03/25/10	1230	2.27	5.91
08	ZZZZZ	ZZZZZ	03/25/10	1240	2.27	5.91
09	ZZZZZ	ZZZZZ	03/25/10	1251	2.27	5.91
10	ZZZZZ	ZZZZZ	03/25/10	1302	2.27	5.91
11	ZZZZZ	ZZZZZ	03/25/10	1312	2.27	5.91
12	ZZZZZ	ZZZZZ	03/25/10	1323	2.27	5.91
13	ZZZZZ	ZZZZZ	03/25/10	1333	2.27	5.91
14	AR166005	WAR100222-60	03/25/10	1344	2.27	5.91
15	PIBLK07	WAR100219-99	03/25/10	1354	2.27	5.91
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–2320 **Client ID:** LCS for batch 967399

Lab Sample ID: 1202076364

Data File:	013f1301.d	**Data File:**	013b1301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 09:49	**Analyzed:**	23–MAR–10 09:49

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							5.14
Column 1	1	2.36	2.33 – 2.39	24.4		ug/kg	
	2	2.65	2.62 – 2.68	24.3		ug/kg	
	3	2.73	2.7 – 2.76	23.2		ug/kg	
	4	2.77	2.74 – 2.8	23.4		ug/kg	
	5	2.98	2.95 – 3.01	23.7		ug/kg	
					23.8		
Column 2	1	3.17	3.13 – 3.19	23.3		ug/kg	
	2	3.25	3.22 – 3.28	22.5		ug/kg	
	3	3.31	3.28 – 3.34	21.3		ug/kg	
	4	3.54	3.51 – 3.57	23		ug/kg	
	5	3.61	3.58 – 3.64	22.9		ug/kg	
					22.6		
Aroclor–1260							5.4
Column 1	1	3.71	3.68 – 3.74	26.4		ug/kg	
	2	3.87	3.84 – 3.9	27.2		ug/kg	
	3	4.03	4 – 4.06	27.9		ug/kg	
	4	4.1	4.07 – 4.13	27.5		ug/kg	
	5	4.24	4.21 – 4.27	27.6		ug/kg	
					27.3		
Column 2	1	4.3	4.27 – 4.33	24.9		ug/kg	
	2	4.43	4.4 – 4.46	25.8		ug/kg	
	3	4.69	4.66 – 4.72	25.6		ug/kg	
	4	4.87	4.84 – 4.9	25.9		ug/kg	
	5	5.02	4.98 – 5.04	27		ug/kg	
					25.9		

Identification Summary

SDG Number: 10–2320 **Client ID:** LCS for batch 968933

Lab Sample ID: 1202080260

Data File:	031f3101.d	**Data File:**	031b3101.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	25–MAR–10 10:57	**Analyzed:**	25–MAR–10 10:57

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							9.45
Column 1	1	2.36	2.33 – 2.39	23.4		ug/kg	
	2	2.65	2.62 – 2.68	22.8		ug/kg	
	3	2.73	2.7 – 2.76	21.5		ug/kg	
	4	2.77	2.73 – 2.79	22.1		ug/kg	
	5	2.98	2.94 – 3	28.6		ug/kg	
					23.7		
Column 2	1	3.16	3.13 – 3.19	22.3		ug/kg	
	2	3.25	3.21 – 3.27	21.2		ug/kg	
	3	3.31	3.28 – 3.34	20.9		ug/kg	
	4	3.54	3.5 – 3.56	21.6		ug/kg	
	5	3.61	3.58 – 3.64	21.8		ug/kg	
					21.5		
Aroclor–1260							3.33
Column 1	1	3.7	3.67 – 3.73	24.8		ug/kg	
	2	3.86	3.83 – 3.89	25.5		ug/kg	
	3	4.03	3.99 – 4.05	26.2		ug/kg	
	4	4.09	4.06 – 4.12	26.1		ug/kg	
	5	4.24	4.2 – 4.26	26.2		ug/kg	
					25.7		
Column 2	1	4.3	4.27 – 4.33	23.8		ug/kg	
	2	4.43	4.39 – 4.45	24.7		ug/kg	
	3	4.69	4.66 – 4.72	24.6		ug/kg	
	4	4.86	4.83 – 4.89	25		ug/kg	
	5	5.01	4.98 – 5.04	26.4		ug/kg	
					24.9		

Identification Summary

SDG Number: 10–2320 **Client ID:** LCSD for batch 968933

Lab Sample ID: 1202080261

Data File:	032f3201.d	**Data File:**	032b3201.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	25–MAR–10 11:08	**Analyzed:**	25–MAR–10 11:08

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							4.64
Column 1	1	2.36	2.33 – 2.39	22.8		ug/kg	
	2	2.65	2.62 – 2.68	23		ug/kg	
	3	2.73	2.7 – 2.76	21.7		ug/kg	
	4	2.77	2.73 – 2.79	21.8		ug/kg	
	5	2.98	2.94 – 3	22.5		ug/kg	
					22.4		
Column 2	1	3.16	3.13 – 3.19	22.1		ug/kg	
	2	3.24	3.21 – 3.27	21.3		ug/kg	
	3	3.31	3.28 – 3.34	21		ug/kg	
	4	3.54	3.5 – 3.56	21		ug/kg	
	5	3.61	3.58 – 3.64	21.2		ug/kg	
					21.3		
Aroclor–1260							3.63
Column 1	1	3.7	3.67 – 3.73	24.9		ug/kg	
	2	3.86	3.83 – 3.89	25.5		ug/kg	
	3	4.03	3.99 – 4.05	26		ug/kg	
	4	4.09	4.06 – 4.12	25.8		ug/kg	
	5	4.24	4.2 – 4.26	25.9		ug/kg	
					25.6		
Column 2	1	4.3	4.27 – 4.33	23.8		ug/kg	
	2	4.43	4.39 – 4.45	24.7		ug/kg	
	3	4.69	4.66 – 4.72	24.6		ug/kg	
	4	4.86	4.83 – 4.89	24.6		ug/kg	
	5	5.01	4.98 – 5.04	26		ug/kg	
					24.7		

Identification Summary

SDG Number: 10–2320 **Client ID:** RE46–10–12931

Lab Sample ID: 248867001

Data File:	034f3401.d	**Data File:**	034b3401.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	25–MAR–10 11:31	**Analyzed:**	25–MAR–10 11:31

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							30.7
Column 1	1	3.2	3.17 – 3.23	91.1		ug/kg	
	2	3.36	3.33 – 3.39	63.6		ug/kg	
	3	3.59	3.56 – 3.62	98.9		ug/kg	
	4	3.75	3.73 – 3.79	70.7		ug/kg	
	5	3.86	3.84 – 3.9	139		ug/kg	
					92.6		
Column 2	1	3.37	3.34 – 3.4	41.4		ug/kg	
	2	3.79	3.76 – 3.82	65		ug/kg	
	3	3.91	3.88 – 3.94	70.7		ug/kg	
	4	4.18	4.15 – 4.21	97.5		ug/kg	
	5	4.32	4.29 – 4.35	64.9		ug/kg	
					67.9		
Aroclor–1260							40.5
Column 1	1	3.7	3.67 – 3.73	64.5		ug/kg	
	2	3.86	3.83 – 3.89	82.2		ug/kg	
	3	4.02	3.99 – 4.05	123		ug/kg	
	4	4.09	4.06 – 4.12	17.3		ug/kg	
	5	4.23	4.2 – 4.26	13.6		ug/kg	
					60.1		
Column 2	1	4.3	4.27 – 4.33	63.1		ug/kg	
	2	4.42	4.39 – 4.45	60.4		ug/kg	
	3	4.69	4.66 – 4.72	30.6		ug/kg	
	4	4.86	4.83 – 4.89	21.1		ug/kg	
	5	5.01	4.98 – 5.04	24.2		ug/kg	
					39.9		

Identification Summary

SDG Number: 10–2320 **Client ID:** RE46–10–12933

Lab Sample ID: 248867004

Data File:	086f8601.d	**Data File:**	086b8601.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	24–MAR–10 01:06	**Analyzed:**	24–MAR–10 01:06

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							15.7
Column 1	1	3.21	3.18 – 3.24	6.18		ug/kg	
	2	3.36	3.33 – 3.39	5.06		ug/kg	
	3	3.59	3.57 – 3.63	6.36		ug/kg	
	4	3.76	3.73 – 3.79	5.55		ug/kg	
	5	3.87	3.84 – 3.9	10		ug/kg	
					6.63		
Column 2	1	3.37	3.34 – 3.4	5.53		ug/kg	
	2	3.79	3.77 – 3.83	5.79		ug/kg	
	3	3.91	3.88 – 3.94	5.61		ug/kg	
	4	4.19	4.16 – 4.22	6.3		ug/kg	
	5	4.32	4.29 – 4.35	5.09		ug/kg	
					5.66		
Aroclor–1260							27.9
Column 1	1	3.7	3.68 – 3.74	4.6		ug/kg	
	2	3.87	3.84 – 3.9	5.94		ug/kg	
	3	4.03	4 – 4.06	8.82		ug/kg	
	4	4.09	4.07 – 4.13	1.65		ug/kg	
	5	4.24	4.21 – 4.27	1.37		ug/kg	
					4.48		
Column 2	1	4.3	4.27 – 4.33	5.71		ug/kg	
	2	4.43	4.4 – 4.46	4.97		ug/kg	
	3	4.69	4.66 – 4.72	2.56		ug/kg	
	4	4.87	4.84 – 4.9	1.71		ug/kg	
	5	5.01	4.98 – 5.04	1.95		ug/kg	
					3.38		

Identification Summary

SDG Number: 10–2320 **Client ID:** RE46–10–12934

Lab Sample ID: 248867003

Data File:	085f8501.d	**Data File:**	085b8501.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	24–MAR–10 00:54	**Analyzed:**	24–MAR–10 00:54

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							16.7
Column 1	1	3.21	3.18 – 3.24	2.82		ug/kg	
	2	3.36	3.33 – 3.39	1.92		ug/kg	
	3	3.59	3.57 – 3.63	2.23		ug/kg	
	4	3.76	3.73 – 3.79	2.54		ug/kg	
	5	3.86	3.84 – 3.9	4.19		ug/kg	
					2.74		
Column 2	1	3.37	3.34 – 3.4	2.24		ug/kg	
	2	3.79	3.77 – 3.83	2.2		ug/kg	
	3	3.91	3.88 – 3.94	2.23		ug/kg	
	4	4.19	4.16 – 4.22	2.23		ug/kg	
	5	4.32	4.29 – 4.35	2.68		ug/kg	
					2.32		
Aroclor–1260							29.4
Column 1	1	3.7	3.68 – 3.74	1.76		ug/kg	
	2	3.86	3.84 – 3.9	2.49		ug/kg	
	3	4.03	4 – 4.06	3.61		ug/kg	
	4	4.09	4.07 – 4.13	.863		ug/kg	
	5	4.24	4.21 – 4.27	.811		ug/kg	
					1.91		
Column 2	1	4.3	4.27 – 4.33	1.78		ug/kg	
	2	4.43	4.4 – 4.46	2.16		ug/kg	
	3	4.69	4.66 – 4.72	1.31		ug/kg	
	4	4.87	4.84 – 4.9	.814		ug/kg	
	5	5.01	4.98 – 5.04	1.03		ug/kg	
					1.42		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2320**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076363**				
Client Sample:	**QC for batch 967399**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 967399**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 09:39**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**012f1201–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	012b1201–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/012f1201-3.d
Lab Smp Id: 1202076363 Client Smp ID: PBLK01
Inj Date : 23-MAR-2010 09:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076363|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2320.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.913	0.000	55677539	142.938	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.216	5.217	-0.001	50797679	171.076	5.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/012f1201-3.d
Date : 23-MAR-2010 09:39
Client ID: PBLK01
Sample Info: |120207636311|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

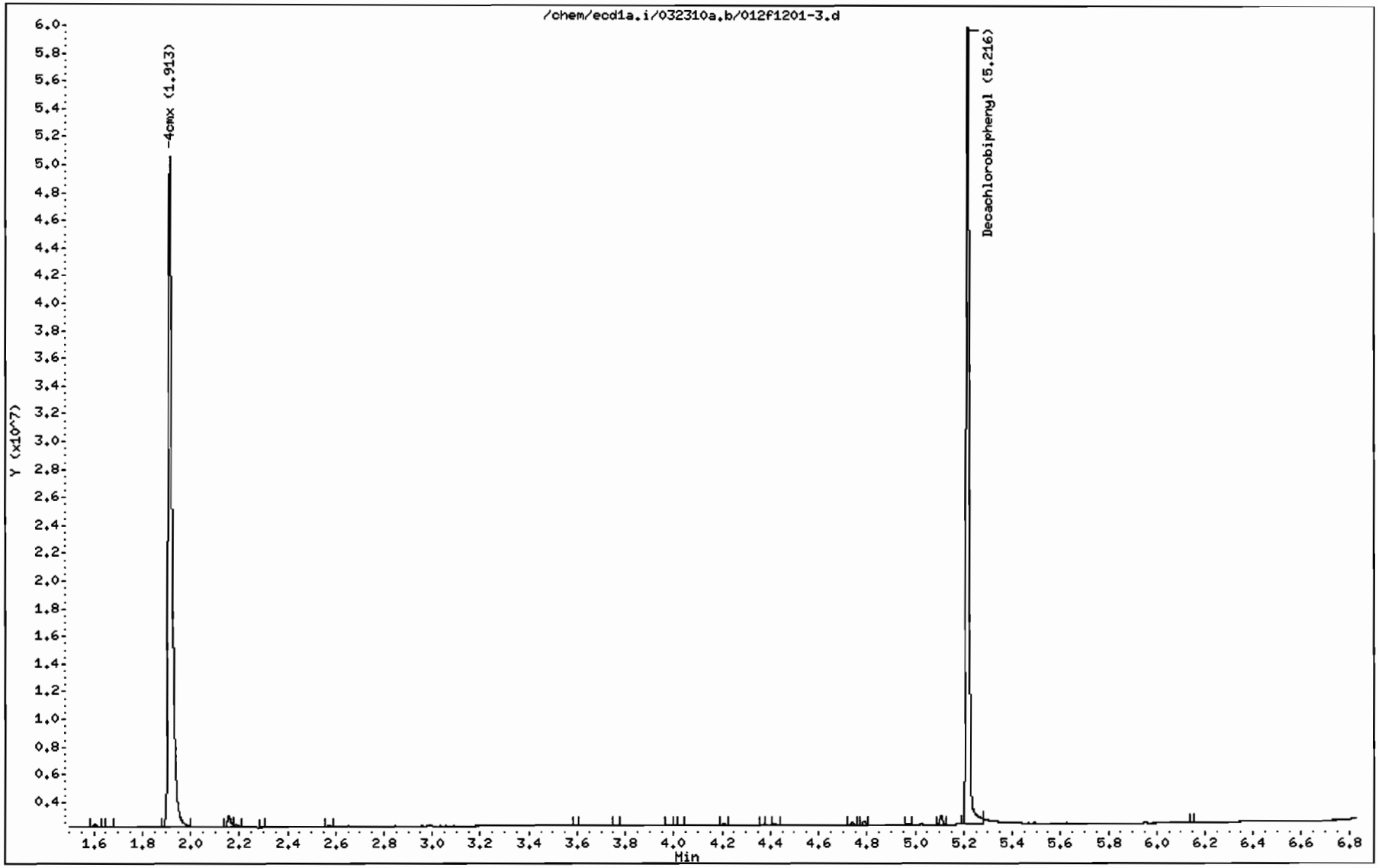

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/012b1201-3.d
Lab Smp Id: 1202076363 Client Smp ID: PBLK01
Inj Date : 23-MAR-2010 09:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076363|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2320.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	35680599	136.013	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.912	-0.001	29195098	155.979	5.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/012b1201-3.d

Page 1

Date : 23-MAR-2010 09:39

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: |1202076363|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

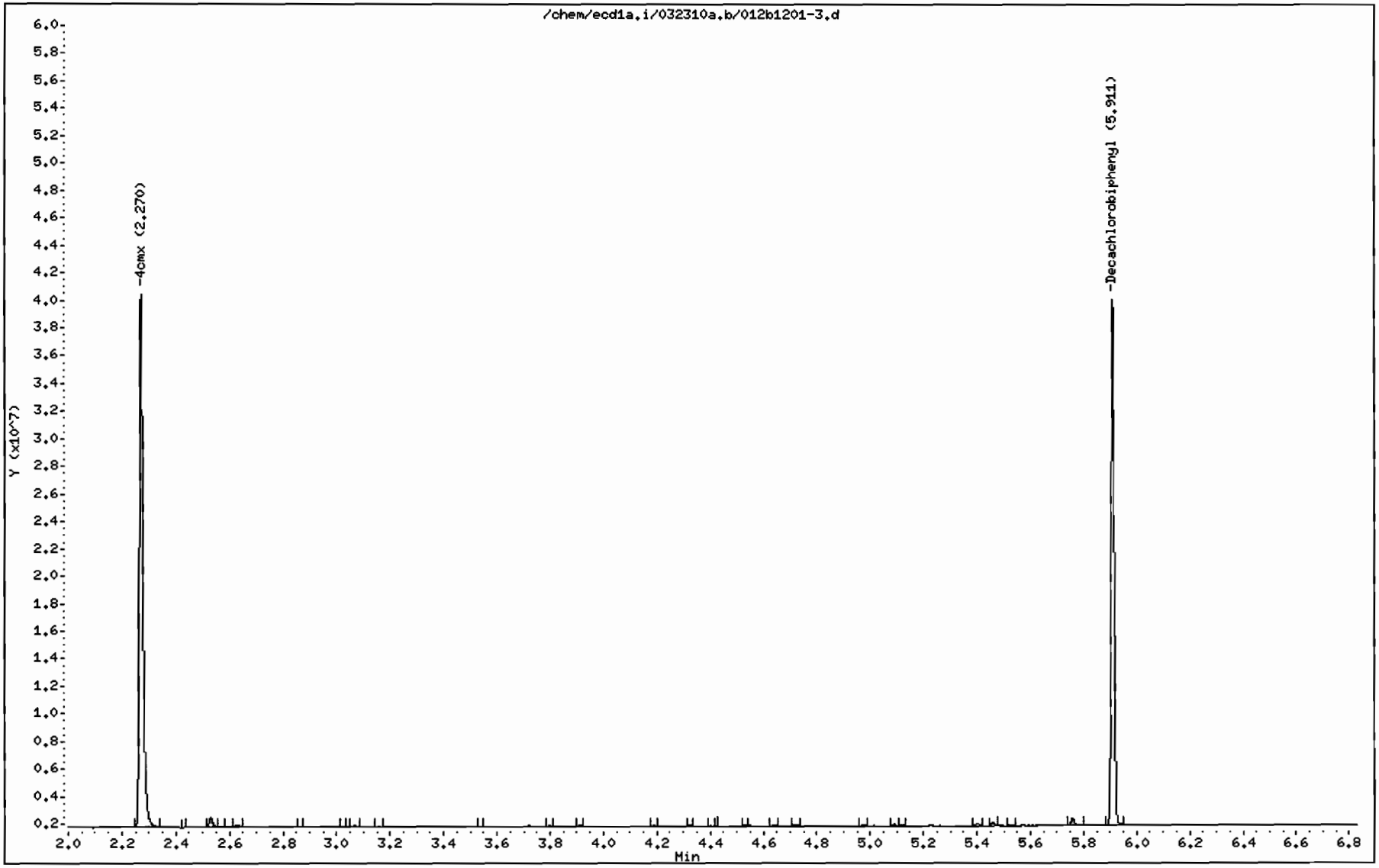

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2320**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202080259**				
Client Sample:	**QC for batch 968933**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 968933**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968935**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 10:47**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 20:20**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**030f3001–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	030b3001–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/030f3001-1.d
Lab Smp Id: 1202080259 Client Smp ID: PBLK02
Inj Date : 25-MAR-2010 10:47
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202080259|1|
Misc Info : |ECD82P_1S|968935|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 30 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2320.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.909	1.910	-0.001	54256551	139.290	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.211	0.002	46990852	158.255	5.3	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032510.b/030f3001-1.d

Page 1

Date : 25-MAR-2010 10:47

Client ID: PBLK02

Instrument: ecd1a.i

Sample Info: |1202080259|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

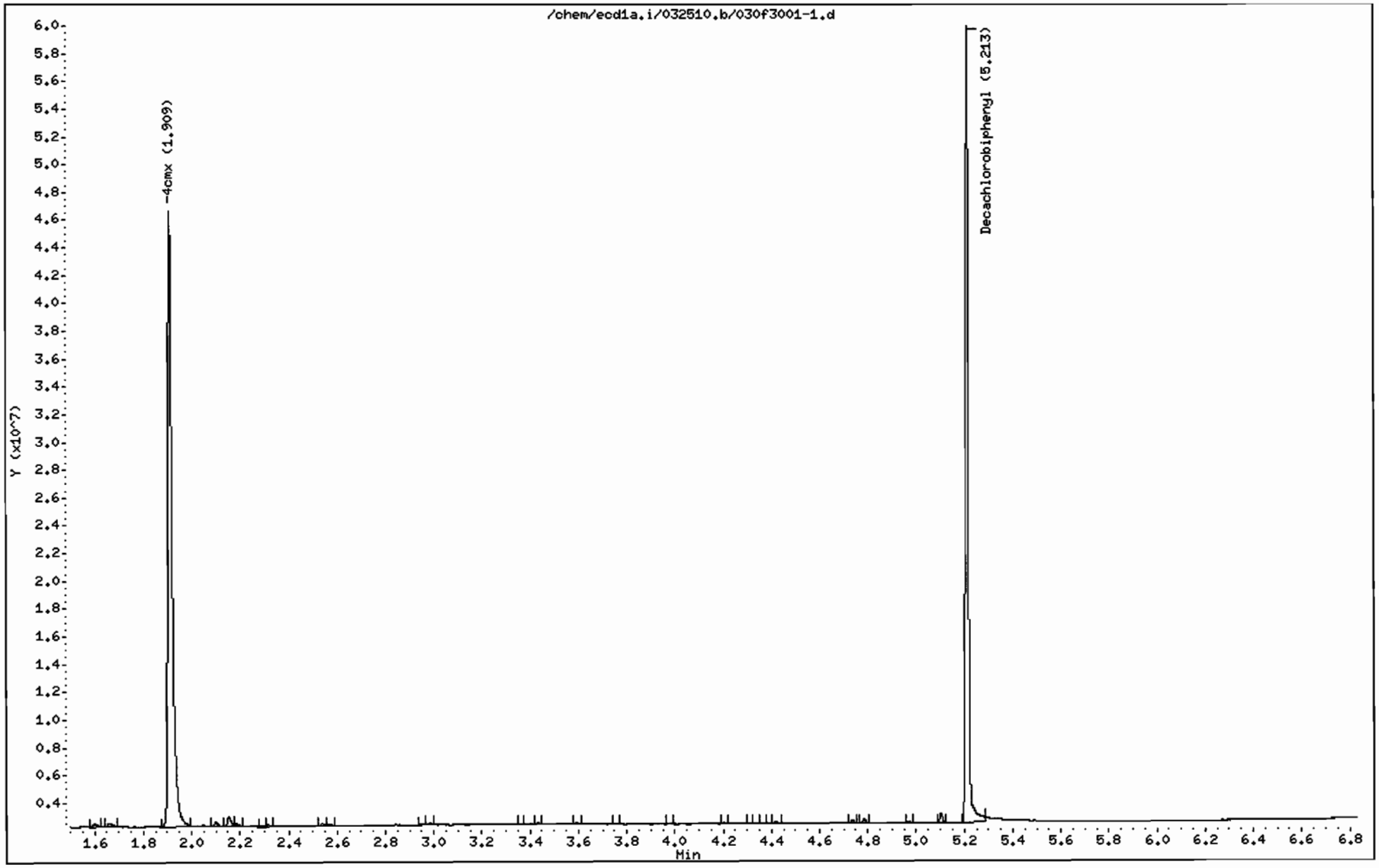

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/030b3001-1.d
Lab Smp Id: 1202080259 Client Smp ID: PBLK02
Inj Date : 25-MAR-2010 10:47
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202080259|1|
Misc Info : |ECD82P_1S|968935|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 30 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2320.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.267	2.267	0.000	34569008	131.775	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.907	5.906	0.001	27484991	146.842	4.9	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032510.b/030b3001-1.d

Date : 25-MAR-2010 10:47

Client ID: PBLK02

Sample Info: |120208025911|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

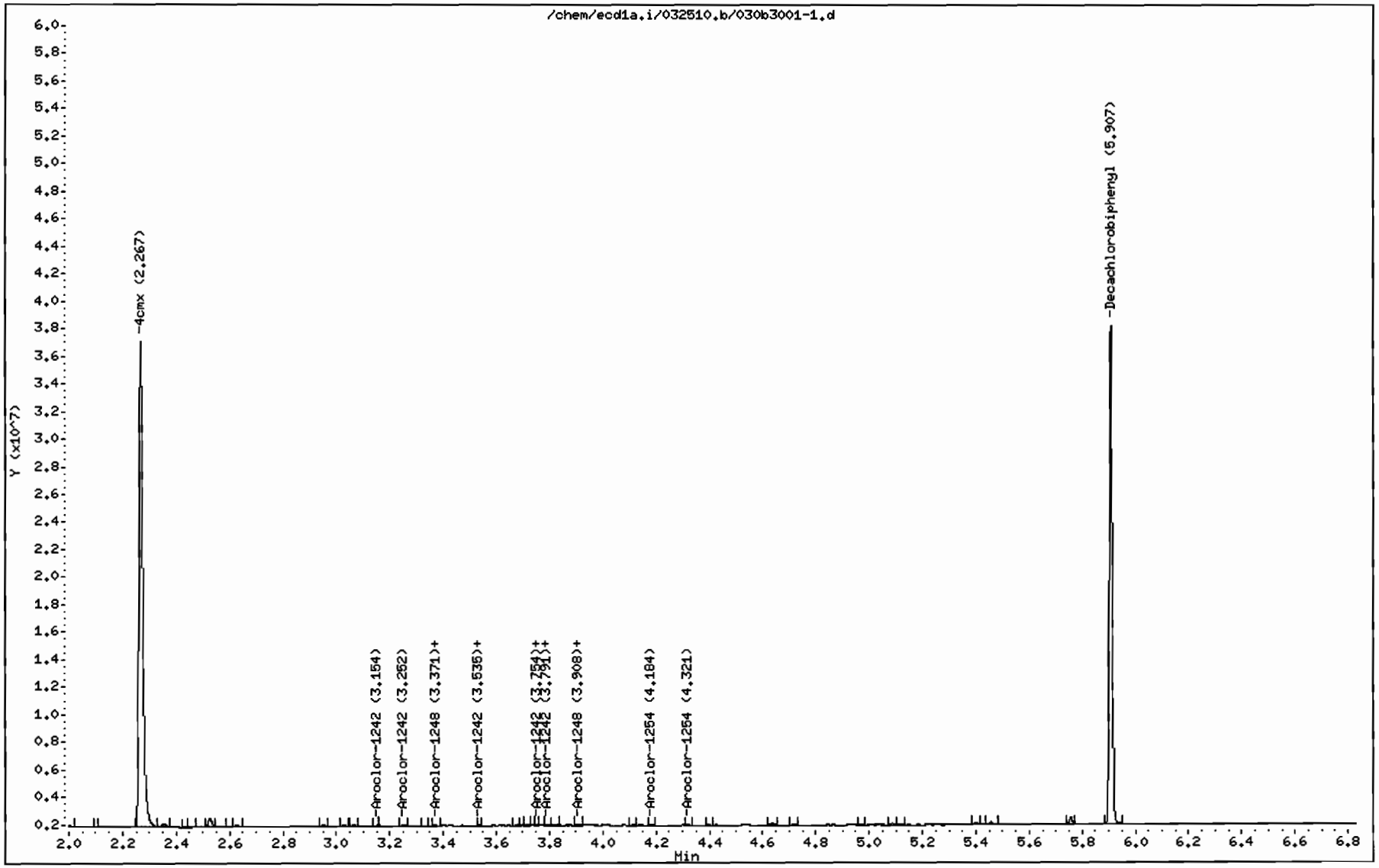

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2320**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076364**				
Client Sample:	**QC for batch 967399**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967399**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 09:49**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**013f1301–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	013b1301–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		23.8	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		27.3	ug/kg	1.11	3.33	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/013f1301-3.d
Lab Smp Id: 1202076364 Client Smp ID: PBLK01LCS
Inj Date : 23-MAR-2010 09:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076364|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2320.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.913	0.000	59940461	153.882	5.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.217	5.217	0.000	50553608	170.254	5.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.365	-0.001	11111108	732.111	24.4	80.00- 120.00	100.00
2.652	2.651	0.001	13777452	727.589	24.2	107.62- 147.62	124.00
2.732	2.732	0.000	8677264	697.409	23.2	58.11- 98.11	78.10
2.769	2.770	-0.001	5163605	702.692	23.4	27.09- 67.09	46.47

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.980	2.980	0.000	6764549	710.728	23.7	40.72- 80.72	60.88
Average of Peak Concentrations =					23.8		
7 Aroclor-1260					CAS #: 11096-82-5		
3.705	3.705	0.000	14522007	792.250	26.4	80.00- 120.00	100.00
3.868	3.867	0.001	21910267	814.816	27.2	129.35- 169.35	150.88
4.029	4.030	-0.001	23662778	835.689	27.8	139.27- 179.27	162.94
4.098	4.097	0.001	13316018	824.119	27.5	70.04- 110.04	91.70
4.240	4.240	0.000	13902474	826.905	27.6	74.22- 114.22	95.73
Average of Peak Concentrations =					27.3		

Data File: /chem/ecd1a.i/032310a.b/013f1301-3.d
Date : 23-MAR-2010 09:49
Client ID: PBLK01LCS
Sample Info: 1120207636411I
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

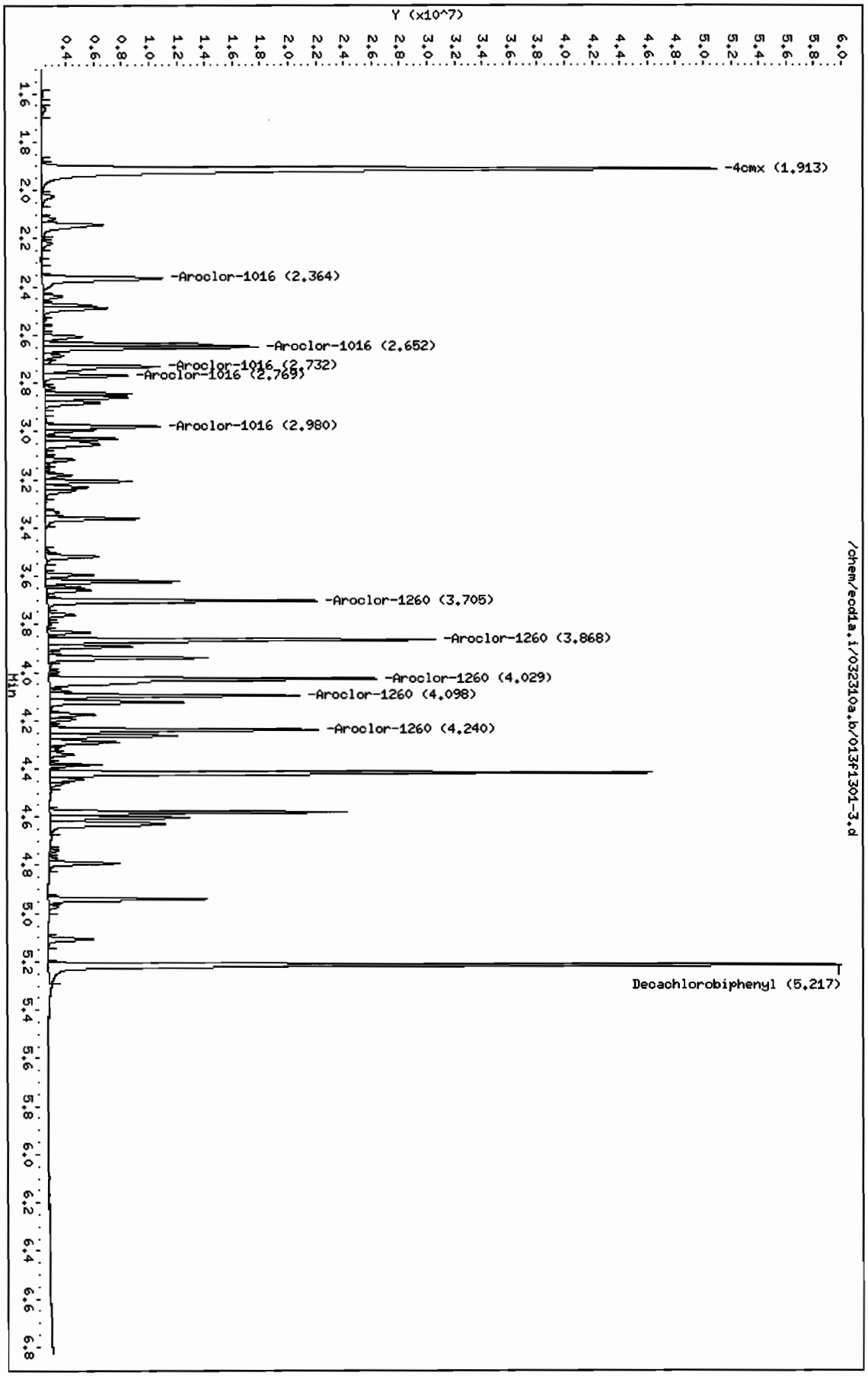

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/013b1301-3.d
Lab Smp Id: 1202076364 Client Smp ID: PBLK01LCS
Inj Date : 23-MAR-2010 09:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076364|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2320.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	38124510	145.329	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.912	5.912	0.000	29193722	155.972	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.165	3.165	0.000	8815970	700.515	23.4	80.00- 120.00	100.00(M)
3.248	3.248	0.000	5826181	674.779	22.5	45.31- 85.31	66.09
3.311	3.311	0.000	3380212	639.388	21.3	20.51- 60.51	38.34
3.538	3.538	0.000	4755018	689.861	23.0	33.14- 73.14	53.94

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.613	3.614	-0.001	4412224	686.988	22.9	29.05- 69.05	50.05
Average of Peak Concentrations =					22.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.303	4.304	-0.001	9774555	747.277	24.9	80.00- 120.00	100.00
4.428	4.428	0.000	12027985	773.552	25.8	101.60- 141.60	123.05
4.693	4.695	-0.002	9150944	769.241	25.6	71.82- 111.82	93.62
4.867	4.867	0.000	9545846	776.766	25.9	75.59- 115.59	97.66
5.015	5.015	0.000	21419564	811.512	27.0	192.18- 232.18	219.14
Average of Peak Concentrations =					25.8		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/013b1301-3.d
Date : 23-MAR-2010 09:49
Client ID: PBLK01LCS
Sample Info: |1202076364|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

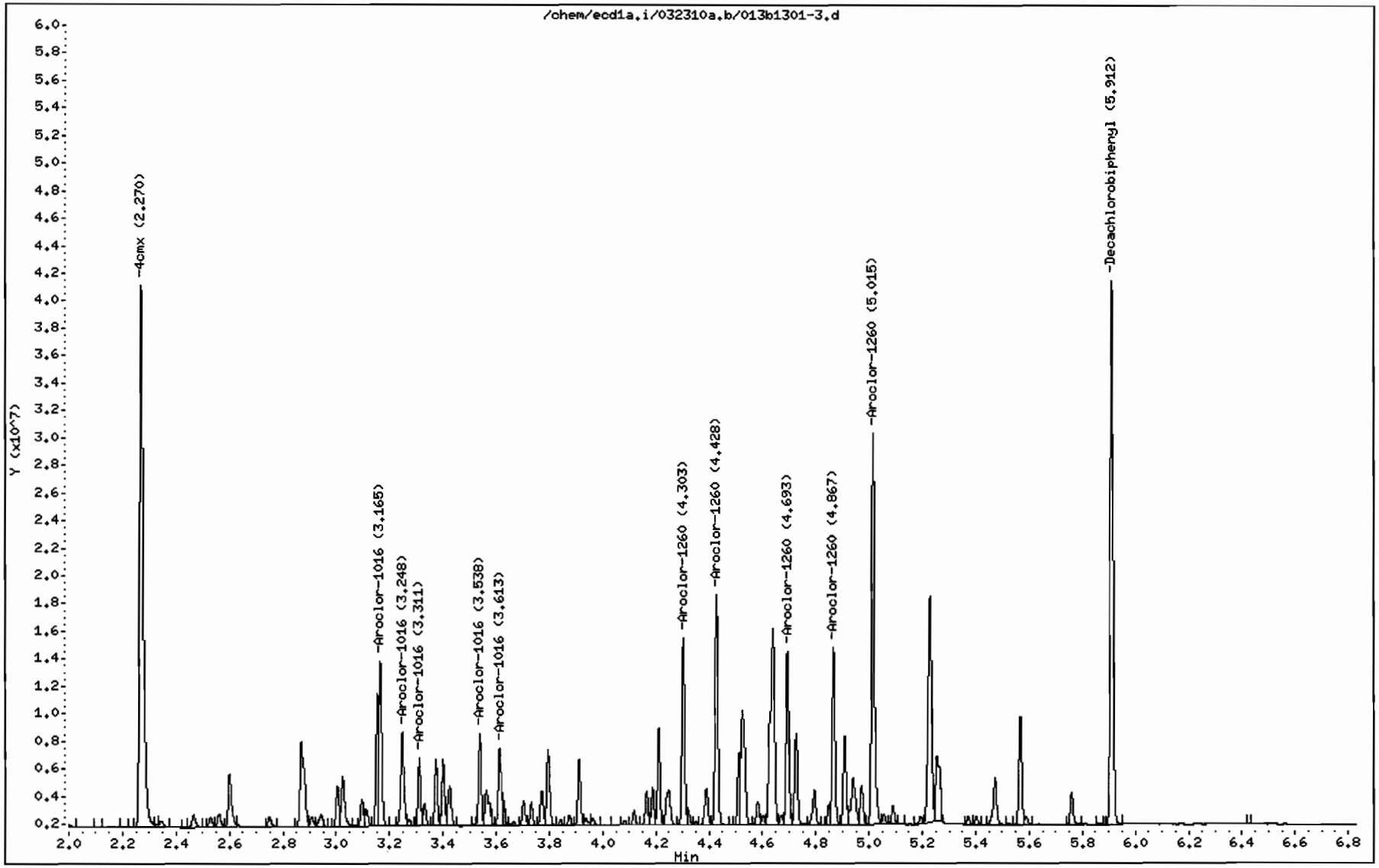

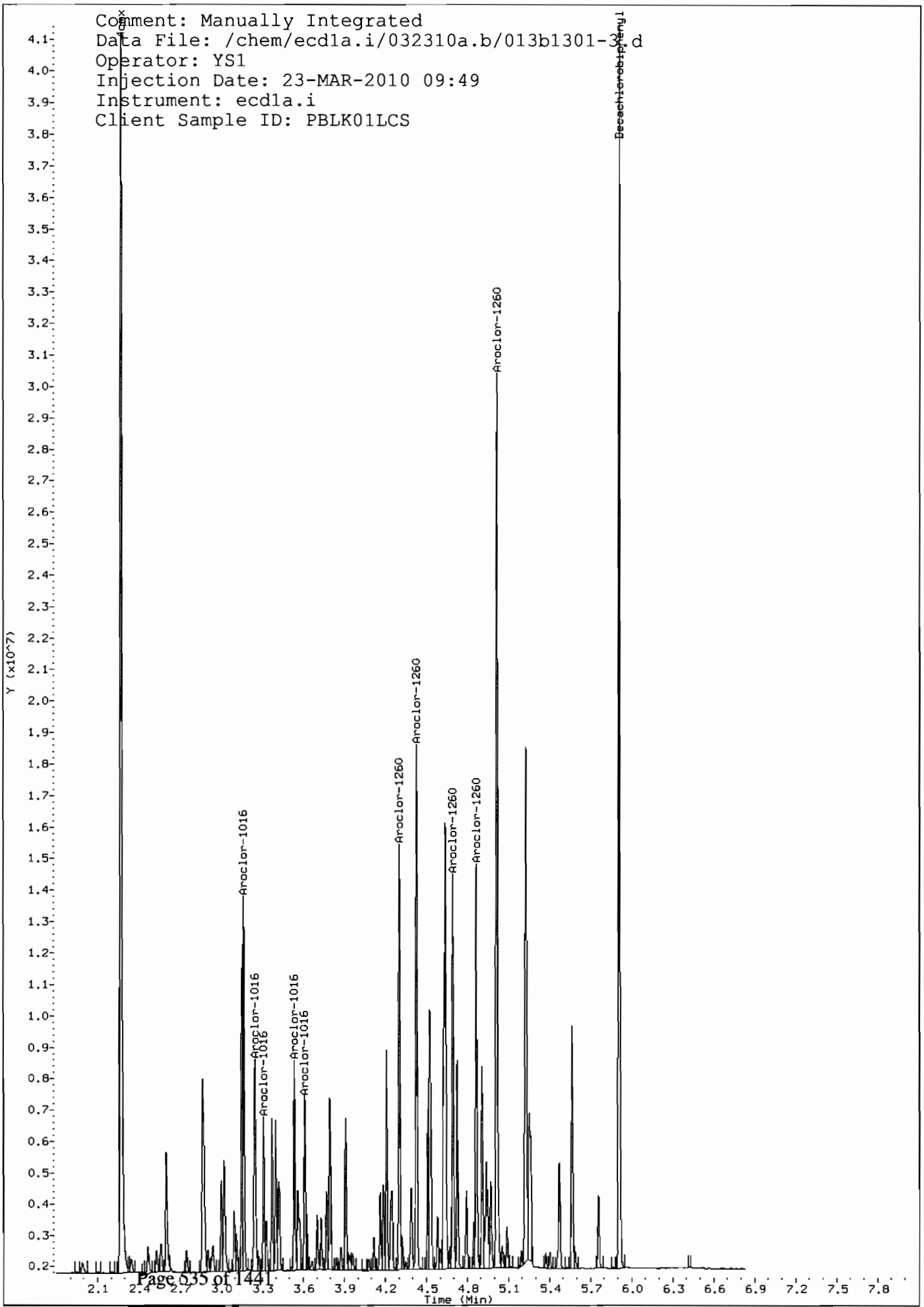
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/013b1301-3.d
Operator: YS1
Injection Date: 23-MAR-2010 09:49
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
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Y (x10^7)
Time (Min)

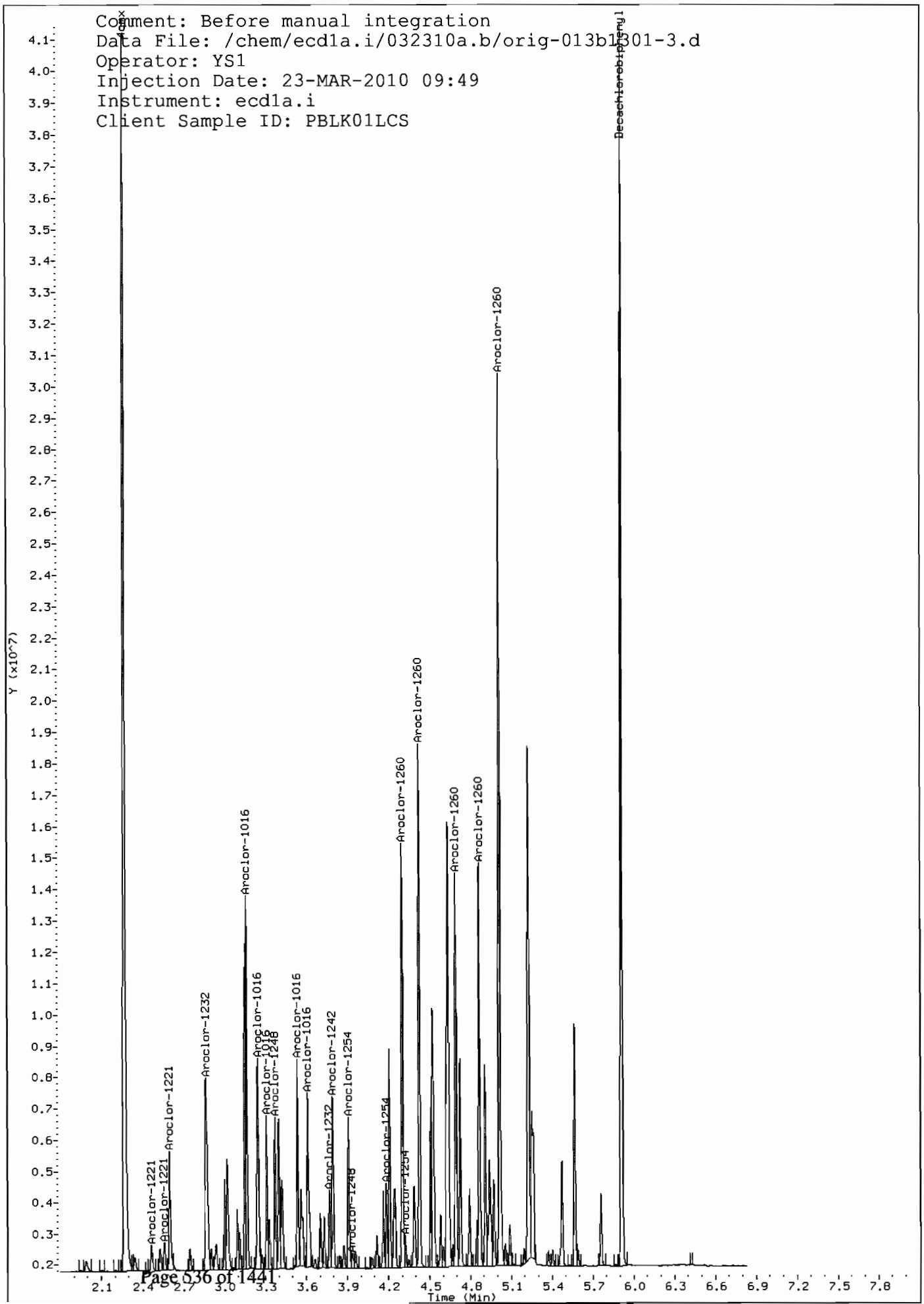
Comment: Before manual integration
Data File: /chem/ecd1a.i/032310a.b/orig-013b1301-3.d
Operator: YS1
Injection Date: 23-MAR-2010 09:49
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1242
Aroclor-1254
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2320**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202080260**				
Client Sample:	**QC for batch 968933**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 968933**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968935**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 10:57**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 20:20**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**031f3101–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	031b3101–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		23.7	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		25.8	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/031f3101-1.d
Lab Smp Id: 1202080260 Client Smp ID: PBLK02LCS
Inj Date : 25-MAR-2010 10:57
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202080260|1|
Misc Info : |ECD82P_1S|968935|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 31 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2320.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.910	0.001	55914200	143.545	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.211	0.002	49324690	166.115	5.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.361	0.002	10655564	702.095	23.4	80.00- 120.00	100.00
2.649	2.647	0.002	12928412	682.751	22.8	109.39- 149.39	121.33
2.729	2.727	0.002	8033017	645.629	21.5	59.64- 99.64	75.39
2.767	2.765	0.002	4878429	663.884	22.1	28.01- 68.01	45.78

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.977	2.975	0.002	8154317	856.746	28.6	41.07- 81.07	76.53
Average of Peak Concentrations =					23.7		
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.700	0.002	13651748	744.773	24.8	80.00- 120.00	100.00
3.864	3.862	0.002	20566900	764.858	25.5	128.31- 168.31	150.65
4.026	4.024	0.002	22220149	784.740	26.2	139.26- 179.26	162.76
4.093	4.092	0.001	12635626	782.010	26.1	69.45- 109.45	92.56
4.236	4.235	0.001	13221886	786.424	26.2	73.28- 113.28	96.85
Average of Peak Concentrations =					25.8		

Data File: /chem/ecd1a.i/032510.b/031f3101-1.d
Date : 25-MAR-2010 10:57
Client ID: PBLK02LCS
Sample Info: 1120208026011|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

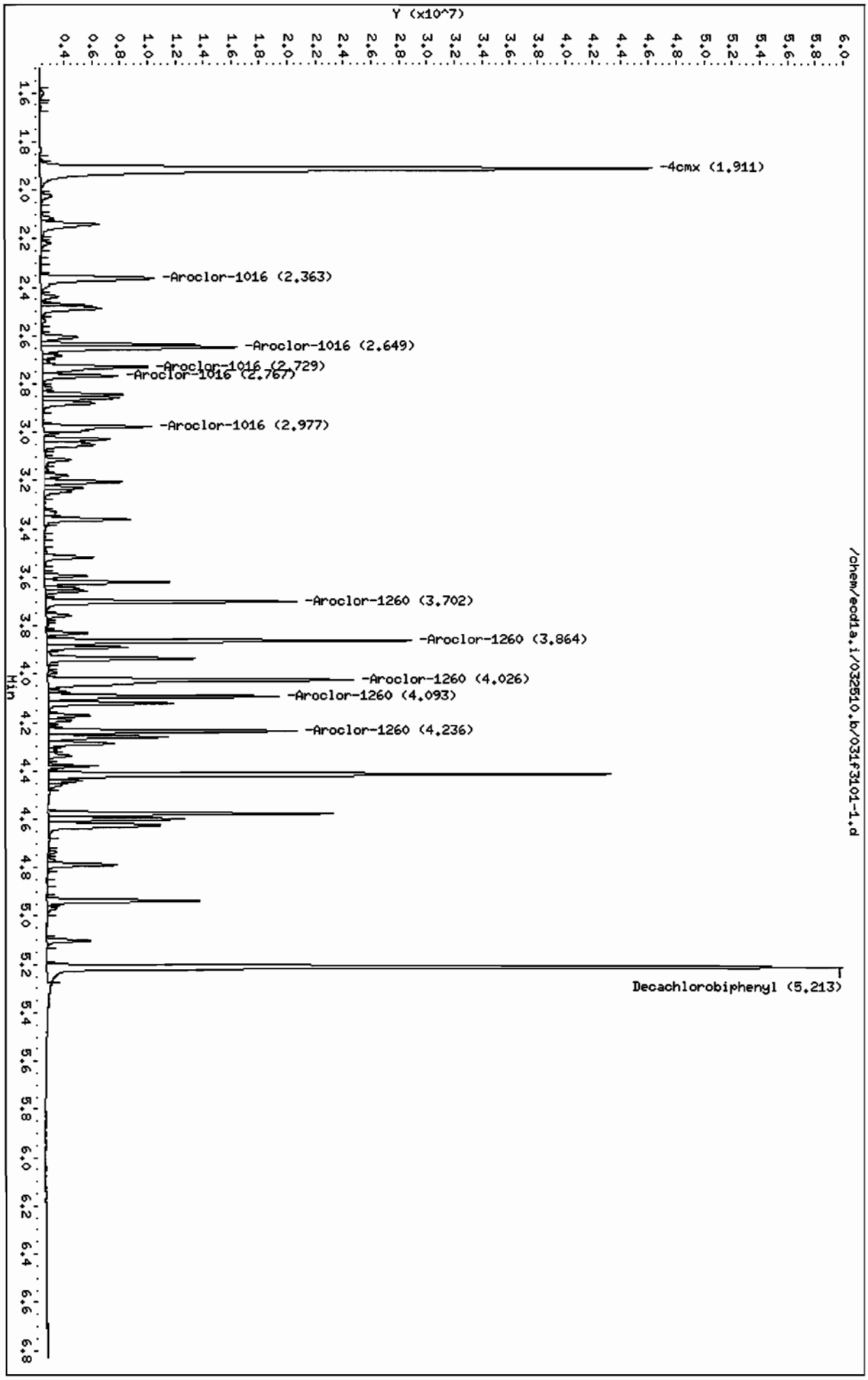

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/031b3101-1.d
Lab Smp Id: 1202080260 Client Smp ID: PBLK02LCS
Inj Date : 25-MAR-2010 10:57
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202080260|1|
Misc Info : |ECD82P_1S|968935|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 31 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2320.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.268	2.267	0.001	35413581	134.995	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.907	5.906	0.001	29222277	156.124	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.162	3.161	0.001	8402187	667.636	22.2	80.00- 120.00	100.00(M)
3.245	3.244	0.001	5481624	634.873	21.2	46.40- 86.40	65.24
3.308	3.307	0.001	3316056	627.252	20.9	21.43- 61.43	39.47
3.535	3.534	0.001	4457466	646.692	21.6	34.28- 74.28	53.05

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.610	3.609	0.001	4201530	654.183	21.8	30.28- 70.28	50.01
Average of Peak Concentrations =					21.5		
7 Aroclor-1260					CAS #: 11096-82-5		
4.300	4.299	0.001	9323765	712.813	23.8	80.00- 120.00	100.00
4.425	4.424	0.001	11539926	742.164	24.7	102.07- 142.07	123.77
4.690	4.689	0.001	8789694	738.874	24.6	71.88- 111.88	94.27
4.863	4.862	0.001	9221762	750.395	25.0	75.24- 115.24	98.91
5.010	5.010	0.000	20900941	791.863	26.4	192.99- 232.99	224.17
Average of Peak Concentrations =					24.9		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032510.b/031b3101-1.d
Date : 25-MAR-2010 10:57
Client ID: PBLK02LCS
Sample Info: 1120208026011
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

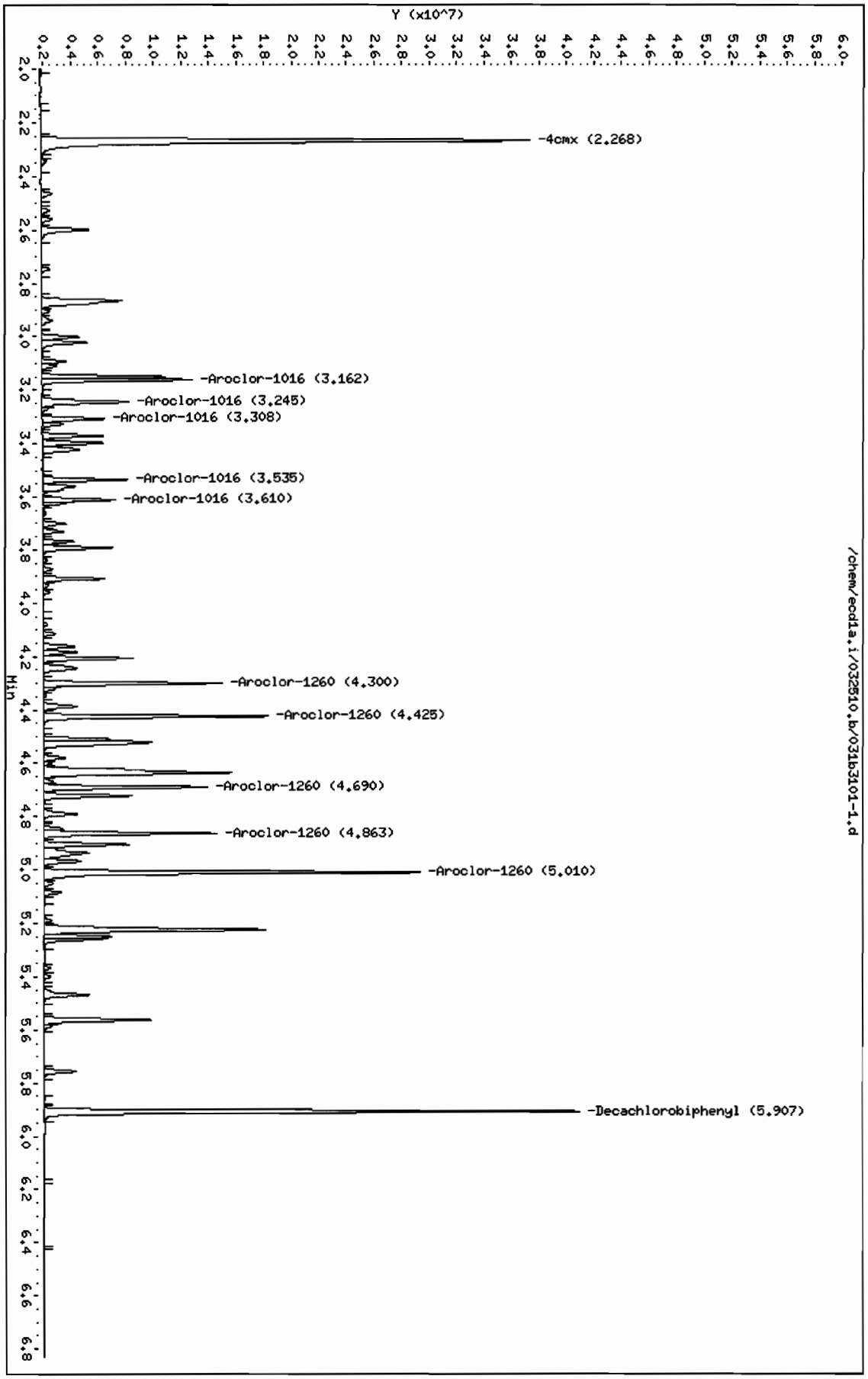

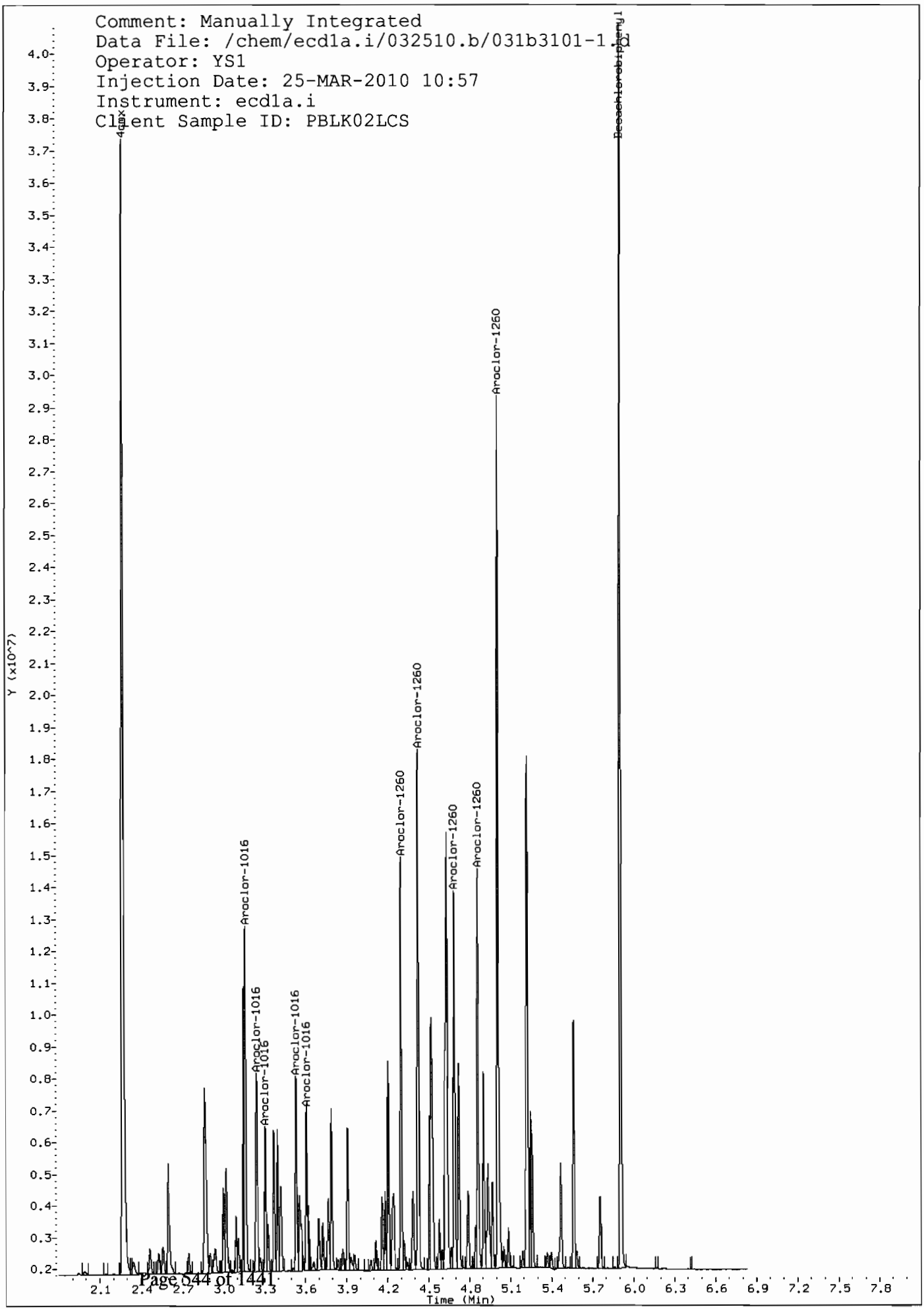
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032510.b/031b3101-1.d
Operator: YS1
Injection Date: 25-MAR-2010 10:57
Instrument: ecd1a.i
Client Sample ID: PBLK02LCS
4,4'-DDE
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
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Y (x10^7)
Time (Min)

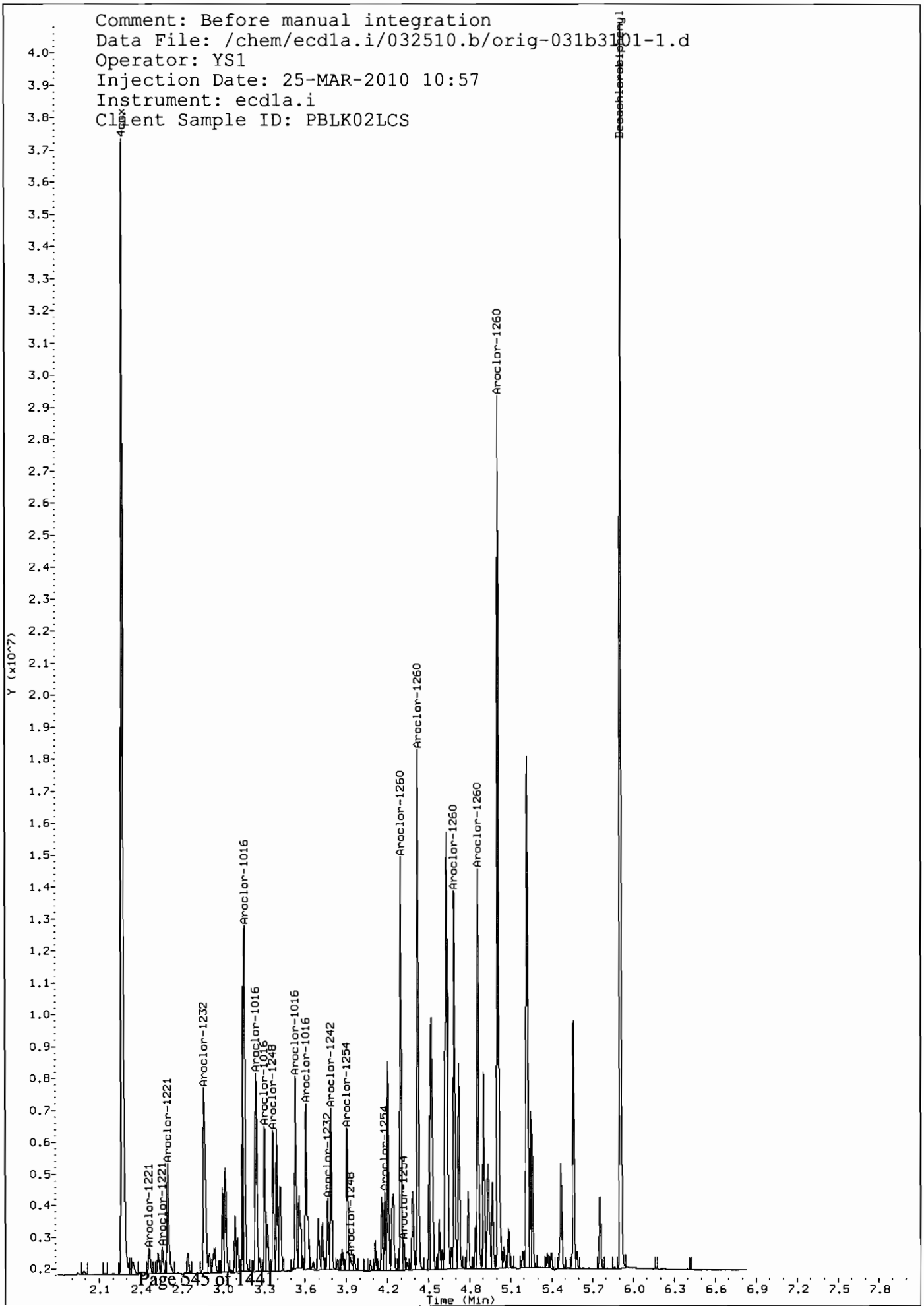
Comment: Before manual integration
Data File: /chem/ecd1a.i/032510.b/orig-031b3101-1.d
Operator: YS1
Injection Date: 25-MAR-2010 10:57
Instrument: ecd1a.i
Client Sample ID: PBLK02LCS
4,4'-DDE
Decachlorobiphenyl
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1232
Aroclor-1016
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Aroclor-1016
Aroclor-1248
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Aroclor-1016
Aroclor-1232
Aroclor-1242
Aroclor-1254
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2320**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202080261**				
Client Sample:	**QC for batch 968933**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCSD for batch 968933**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**968935**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 11:08**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 20:20**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**032f3201–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	032b3201–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		22.4	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		25.6	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/032f3201-1.d
Lab Smp Id: 1202080261 Client Smp ID: PBLK02LCSD
Inj Date : 25-MAR-2010 11:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202080261|1|
Misc Info : |ECD82P_1S|968935|SVA|QC A|SOIL|LCSD|||
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 14:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 32 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2320.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.910	0.000	56666035	145.475	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.211	0.003	47938124	161.446	5.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.361	0.002	10385313	684.289	22.8	80.00- 120.00	100.00
2.649	2.647	0.002	13069687	690.211	23.0	109.39- 149.39	125.85
2.729	2.727	0.002	8110787	651.880	21.7	59.64- 99.64	78.10
2.766	2.765	0.001	4804043	653.761	21.8	28.01- 68.01	46.26

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.977	2.975	0.002	6415148	674.018	22.5	41.07- 81.07	61.77
Average of Peak Concentrations =					22.4		
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.700	0.002	13710156	747.959	24.9	80.00- 120.00	100.00
3.864	3.862	0.002	20550759	764.258	25.5	128.31- 168.31	149.89
4.026	4.024	0.002	22123241	781.317	26.0	139.26- 179.26	161.36
4.094	4.092	0.002	12525265	775.180	25.8	69.45- 109.45	91.36
4.237	4.235	0.002	13052443	776.346	25.9	73.28- 113.28	95.20
Average of Peak Concentrations =					25.6		

Data File: /chem/ecd1a.i/032510.b/032f3201-1.d
Date : 25-MAR-2010 11:08
Client ID: PBLK02LCSD
Sample Info: |1202080261|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

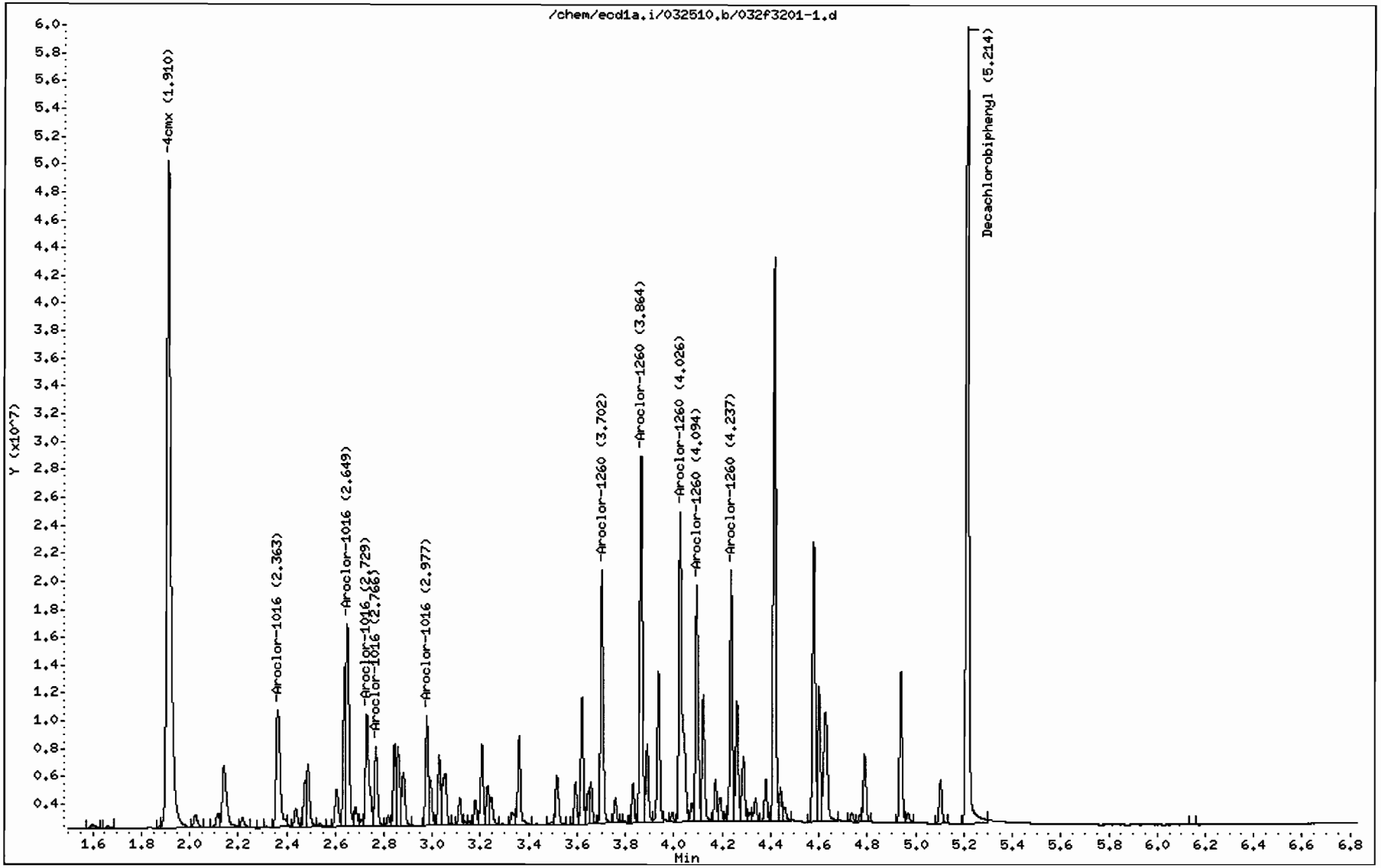

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032510.b/032b3201-1.d
Lab Smp Id: 1202080261 Client Smp ID: PBLK02LCSD
Inj Date : 25-MAR-2010 11:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202080261|1|
Misc Info : |ECD82P_1S|968935|SVA|QC A|SOIL|LCSD|||
Comment :
Method : /chem/ecd1a.i/032510.b/ECD1-B-8082-031110b.m
Meth Date : 25-Mar-2010 14:16 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 32 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2320.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.268	2.267	0.001	35868699	136.730	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.908	5.906	0.002	28493628	152.231	5.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.162	3.161	0.001	8356145	663.978	22.1	80.00- 120.00	100.00(M)
3.244	3.244	0.000	5530072	640.484	21.3	46.40- 86.40	66.18
3.308	3.307	0.001	3332247	630.315	21.0	21.43- 61.43	39.88
3.535	3.534	0.001	4341480	629.865	21.0	34.28- 74.28	51.96

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.610	3.609	0.001	4094676	637.545	21.2	30.28- 70.28	49.00
Average of Peak Concentrations =					21.3		
7 Aroclor-1260					CAS #: 11096-82-5		
4.300	4.299	0.001	9324204	712.847	23.8	80.00- 120.00	100.00
4.425	4.424	0.001	11503053	739.793	24.6	102.07- 142.07	123.37
4.691	4.689	0.002	8775094	737.647	24.6	71.88- 111.88	94.11
4.864	4.862	0.002	9078281	738.719	24.6	75.24- 115.24	97.36
5.012	5.010	0.002	20559900	778.942	26.0	192.99- 232.99	220.50
Average of Peak Concentrations =					24.7		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032510.b/032b3201-1.d
Date : 25-MAR-2010 11:08
Client ID: PBLK02LCSD
Sample Info: !120208026111!
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YSI
Column diameter: 0.25

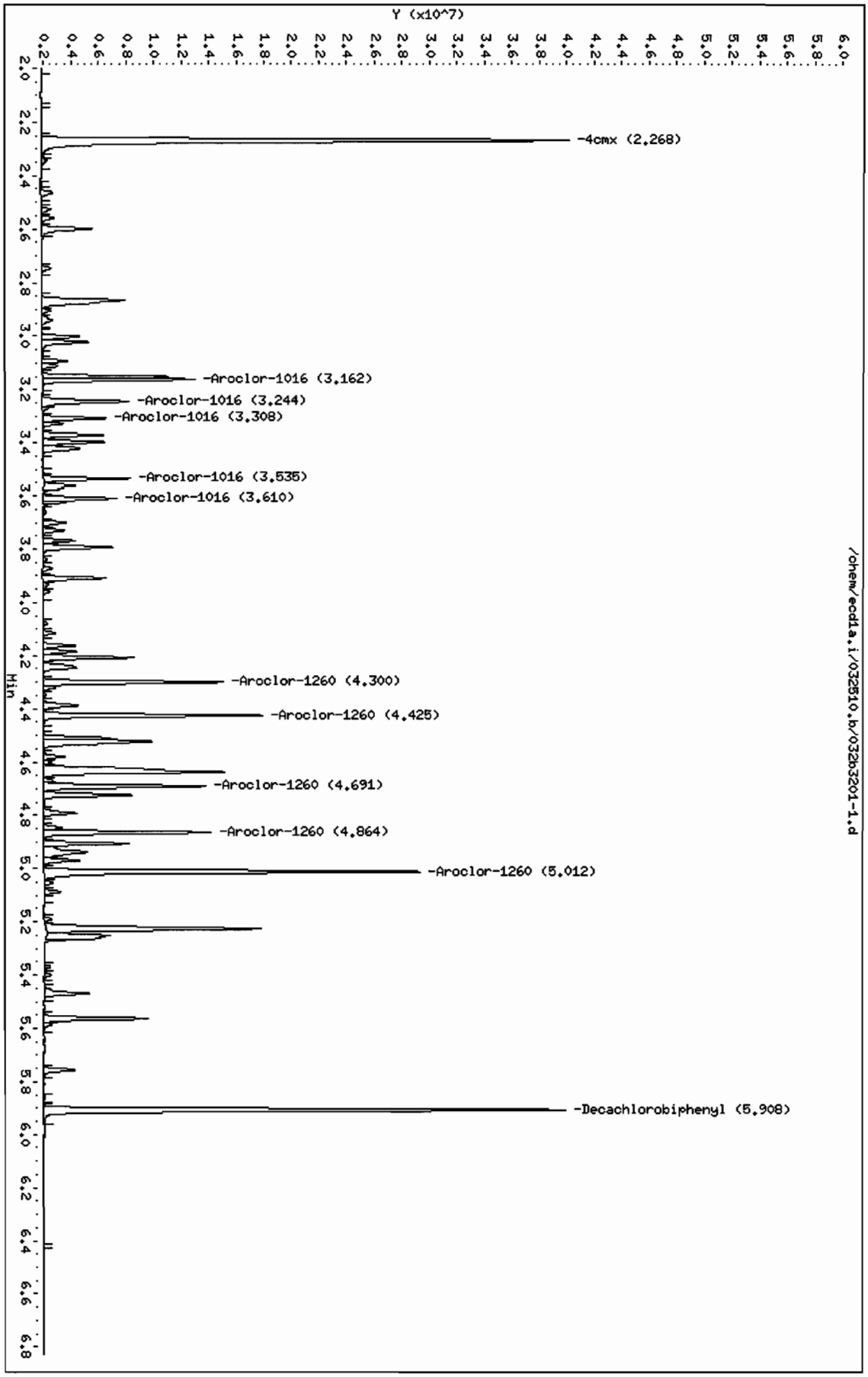

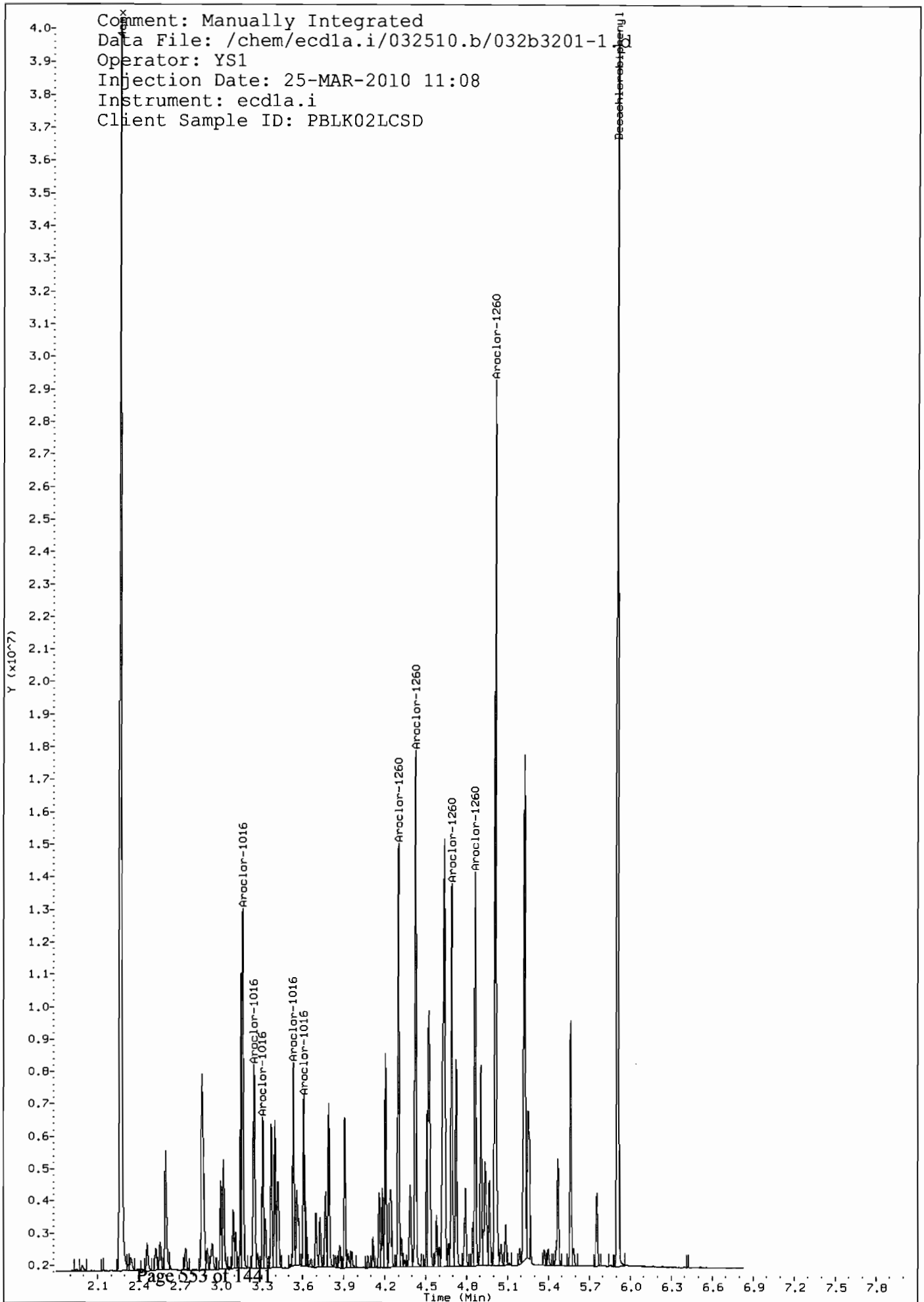
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032510.b/032b3201-1.d
Operator: YS1
Injection Date: 25-MAR-2010 11:08
Instrument: ecd1a.i
Client Sample ID: PBLK02LCSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
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Y (x10^7)
Time (Min)

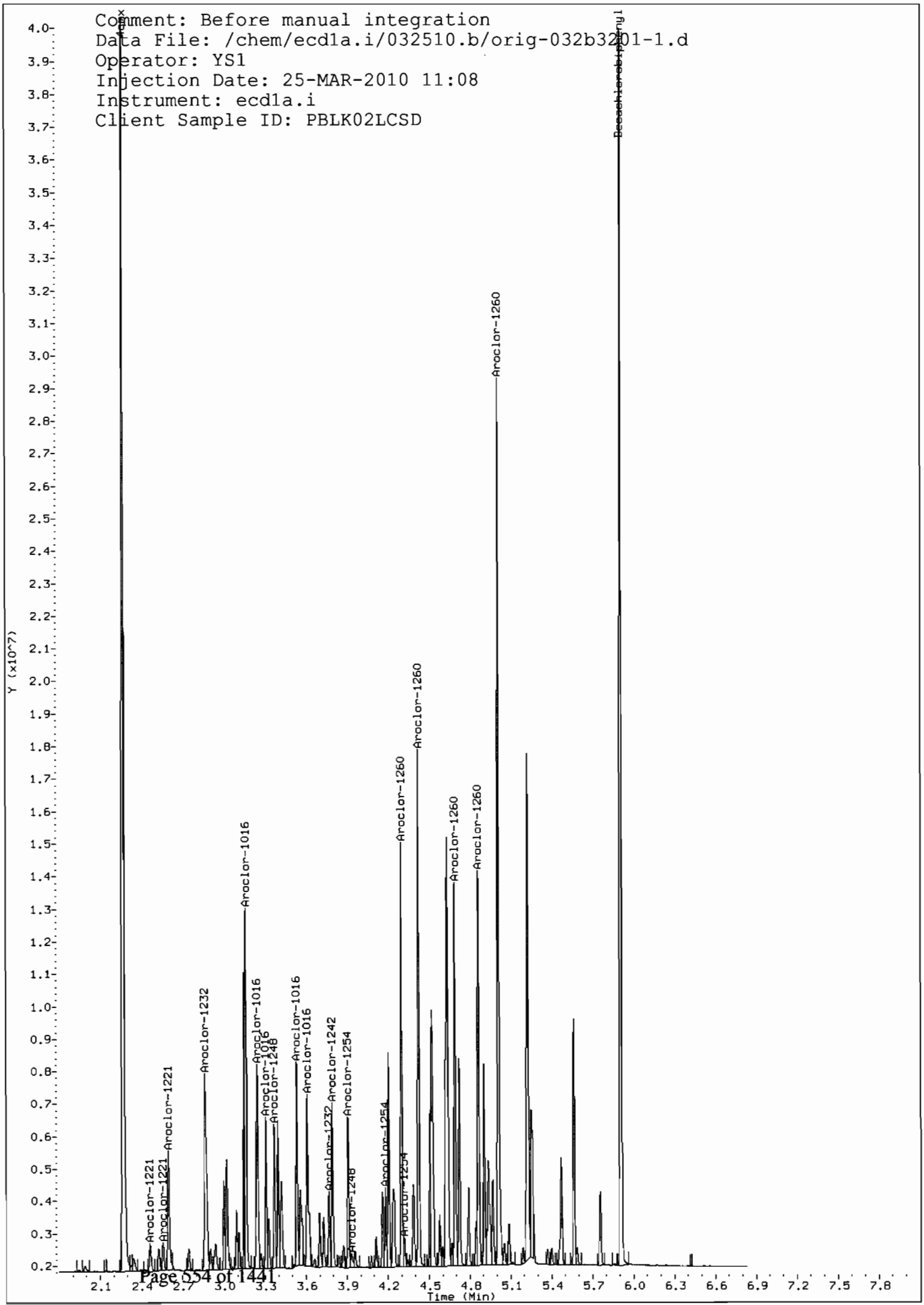
Comment: Before manual integration
Data File: /chem/ecd1a.i/032510.b/orig-032b3201-1.d
Operator: YS1
Injection Date: 25-MAR-2010 11:08
Instrument: ecd1a.i
Client Sample ID: PBLK02LCSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1232
Aroclor-1221
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Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1232
Aroclor-1254
Aroclor-1248
Aroclor-1254
Aroclor-1254
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/12/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/031110b.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	11-MAR-2010 14:46		031110b	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	11-MAR-2010 14:56		031110b	1.0		DUSE RE-ICAL
003f0301.d	WAR100219-54	YS1	11-MAR-2010 15:07		031110b	1.0		DUSE RE-ICAL
004f0401.d	WAR100219-42	YS1	11-MAR-2010 15:17		031110b	1.0		DUSE RE-ICAL
005f0501.d	WAR100223-48	YS1	11-MAR-2010 15:28		031110b	1.0		DUSE RE-ICAL
006f0601.d	WAR100107-68	YS1	11-MAR-2010 15:38		031110b	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	11-MAR-2010 15:49		031110b	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	11-MAR-2010 15:59		031110b	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	11-MAR-2010 16:10		031110b	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	11-MAR-2010 16:21		031110b	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100311-01	YS1	11-MAR-2010 16:31		031110b	1.0		AR1660 I-CAL LEVEL 1
012f1201.d	WAR100311-02	YS1	11-MAR-2010 16:41		031110b	1.0		AR1660 I-CAL LEVEL 2
013f1301.d	WAR100311-03	YS1	11-MAR-2010 16:52		031110b	1.0		AR1660 I-CAL LEVEL 3
014f1401.d	WAR100311-04	YS1	11-MAR-2010 17:02		031110b	1.0		AR1660 I-CAL LEVEL 4
015f1501.d	IAR100311-01	YS1	11-MAR-2010 17:13		031110b	1.0		AR1660 I-CAL LEVEL 5

Instrument Batch: /chem/ecd1a.i/031110b.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100222-60 01	YS1	11-MAR-2010 17:24		031110b		1.0	PASSED ON BOTH COLUMNS
017f1701.d	WAR100311-05	YS1	11-MAR-2010 17:34		031110b		1.0	AR1254 I-CAL LEVEL 1
018f1801.d	WAR100311-06	YS1	11-MAR-2010 17:45		031110b		1.0	AR1254 I-CAL LEVEL 2
019f1901.d	WAR100311-07	YS1	11-MAR-2010 17:55		031110b		1.0	AR1254 I-CAL LEVEL 3
020f2001.d	WAR100311-08	YS1	11-MAR-2010 18:06		031110b		1.0	AR1254 I-CAL LEVEL 4
021f2101.d	IAR100219-02	YS1	11-MAR-2010 18:16		031110b		1.0	AR1254 I-CAL LEVEL 5
022f2201.d	WAR100219-54	YS1	11-MAR-2010 18:27		031110b		1.0	PASSED ON BOTH COLUMNS
023f2301.d	WAR100311-09	YS1	11-MAR-2010 18:37		031110b		1.0	AR1242 I-CAL LEVEL 1
024f2401.d	WAR100311-10	YS1	11-MAR-2010 18:48		031110b		1.0	AR1242 I-CAL LEVEL 2
025f2501.d	WAR100311-11	YS1	11-MAR-2010 18:58		031110b		1.0	AR1242 I-CAL LEVEL 3
026f2601.d	WAR100311-12	YS1	11-MAR-2010 19:09		031110b		1.0	AR1242 I-CAL LEVEL 4
027f2701.d	IAR100219-01	YS1	11-MAR-2010 19:19		031110b		1.0	AR1242 I-CAL LEVEL 5
028f2801.d	WAR100219-42	YS1	11-MAR-2010 19:30		031110b		1.0	PASSED ON BOTH COLUMNS
029f2901.d	WAR100311-13	YS1	11-MAR-2010 19:40		031110b		1.0	AR1248 I-CAL LEVEL 1
030f3001.d	WAR100311-14	YS1	11-MAR-2010 19:51		031110b		1.0	AR1248 I-CAL LEVEL 2
031f3101.d	WAR100311-15	YS1	11-MAR-2010 20:01		031110b		1.0	AR1248 I-CAL LEVEL 3
032f3201.d	WAR100311-16	YS1	11-MAR-2010 20:12		031110b		1.0	AR1248 I-CAL LEVEL 4
033f3301.d	IAR100211-01	YS1	11-MAR-2010 20:22		031110b		1.0	AR1248 I-CAL LEVEL 5
034f3401.d	WAR100223-48	YS1	11-MAR-2010 20:33		031110b		1.0	PASSED ON BOTH COLUMNS
035f3501.d	WAR100219-99 02	YS1	11-MAR-2010 20:44		031110b		1.0	CLEAN

Instrument Batch: /chem/ecd1a.i/031110b.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202067743	YS1	11-MAR-2010 20:54	963869	246954	1.0	MB	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
037f3701.d	1202067744	YS1	11-MAR-2010 21:05	963869	246954	1.0	LCS	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
038f3801.d	246954003	YS1	11-MAR-2010 21:15	963869	246954	1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
039f3901.d	1202067745	YS1	11-MAR-2010 21:26	963869	246954	1.0	MS	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
040f4001.d	1202067746	YS1	11-MAR-2010 21:36	963869	246954	1.0	MSD	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT

041f4101.d	246954006	YS1	11-MAR-2010 21:47	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
042f4201.d	246954007	YS1	11-MAR-2010 21:57	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
043f4301.d	246954009	YS1	11-MAR-2010 22:08	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
044f4401.d	246954012	YS1	11-MAR-2010 22:18	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
045f4501.d	246954014	YS1	11-MAR-2010 22:29	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
046f4601.d	WAR100222-60 02	YS1	11-MAR-2010 22:39		031110b		1.0		PASSED ON BOTH COLUMNS
046f4901.d	WAR100222-60 03	YS1	11-MAR-2010 23:11		031110b		1.0		CLEAN
047f4701.d	WAR100219-99 03	YS1	11-MAR-2010 22:50		031210		1.0		
047f5001.d	WAR100219-99 04	YS1	11-MAR-2010 23:21		031110b		1.0		
048f4801.d	WE100311-07SCR	YS1	11-MAR-2010 23:00		031110b		1.0		LCS CSREEN FOR PREP

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/24/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/032310a.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	23-MAR-2010 07:43		032310a	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	23-MAR-2010 07:53		032310a	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YS1	23-MAR-2010 08:04		032310a	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YS1	23-MAR-2010 08:14		032310a	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR100223-48	YS1	23-MAR-2010 08:25		032310a	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100107-68	YS1	23-MAR-2010 08:35		032310a	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	23-MAR-2010 08:46		032310a	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	23-MAR-2010 08:56		032310a	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	23-MAR-2010 09:07		032310a	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	23-MAR-2010 09:18		032310a	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100219-99 02	YS1	23-MAR-2010 09:28		032310a	1.0		CLEAN
012f1201.d	1202076363	YS1	23-MAR-2010 09:39	967400	10-2315	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202076364	YS1	23-MAR-2010 09:49	967400	10-2315	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	248863001	YS1	23-MAR-2010 10:00	967400	10-2315	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	248863002	YS1	23-MAR-2010 10:12		032310a	1.0		UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/032310a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	1202076365	YS1	23-MAR-2010 10:25	967400	10-2315		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
017f1701.d	1202076366	YS1	23-MAR-2010 10:37	967400	10-2315		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	248863003	YS1	23-MAR-2010 10:50	967400	10-2315		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	248863004	YS1	23-MAR-2010 11:03	967400	10-2315		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	248865001	YS1	23-MAR-2010 11:15	967400	10-2318		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	WAR100222-60 02	YS1	23-MAR-2010 11:28		032310a		1.0		PASSED ON BOTH COLUMNS
022f2201.d	WAR100219-99 03	YS1	23-MAR-2010 11:38		032310a		1.0		CLEAN
023f2301.d	248866001	YS1	23-MAR-2010 11:49	967400	10-2319		1.0	LANL	DUSE
024f2401.d	248866002	YS1	23-MAR-2010 12:01	967400	10-2319		1.0	LANL	DUSE RR
025f2501.d	248867001	YS1	23-MAR-2010 12:14	967400	10-2320		1.0	LANL	DUSE RR RE SURROGATE LOW
026f2601.d	248867002	YS1	23-MAR-2010 12:26	967400	10-2320		1.0	LANL	DUSE RR RE SURROGATE LOW
027f2701.d	248867003	YS1	23-MAR-2010 12:39	967400	10-2320		1.0	LANL	DUSE RR
028f2801.d	248867004	YS1	23-MAR-2010 12:52	967400	10-2320		1.0	LANL	DUSE RR
029f2901.d	WAR100222-60 03	YS1	23-MAR-2010 13:04		032310a		1.0		AR1016 LOW ON BACK
030f3001.d	WAR100219-99 04	YS1	23-MAR-2010 13:15		032310a		1.0		CLEAN
031f3101.d	WAR100222-60 05	YS1	23-MAR-2010 13:25		032310a		1.0		PASSED ON BOTH COLUMNS
032f3201.d	WAR100219-99 06	YS1	23-MAR-2010 13:36		032310a		1.0		CLEAN
033f3301.d	249180001	YS1	23-MAR-2010 13:46	967400	10-2398		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	249180002	YS1	23-MAR-2010 13:59	967400	10-2398		1.0	LANL	RE SURROGATE LOW
035f3501.d	249180003	YS1	23-MAR-2010 14:12	967400	10-2398		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/032310a.b Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	249180004	YS1	23-MAR-2010 14:24	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	249180005	YS1	23-MAR-2010 14:37	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	249180006	YS1	23-MAR-2010 14:50	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	249180008	YS1	23-MAR-2010 15:02	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	WAR100222-60 05	YS1	23-MAR-2010 15:17		032310a	1.0		PASSED ON BOTH COLUMNS

041f4101.d	WAR100219-99 06	YS1	23-MAR-2010 15:27		032310a		1.0		CLEAN
042f4201.d	1202077651	YS1	23-MAR-2010 15:40	967870	249699		1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
043f4301.d	1202077652	YS1	23-MAR-2010 15:52	967870	249699		1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
044f4401.d	249572001	YS1	23-MAR-2010 16:05	967870	249572		10.0	ENRG	UPLOAD BOTH COLUMNS, USE FRONT
045f4501.d	249699001	YS1	23-MAR-2010 16:19	967870	249699		5.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
046f4601.d	1202077653	YS1	23-MAR-2010 16:34	967870	249699		5.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
047f4701.d	1202077654	YS1	23-MAR-2010 16:48	967870	249699		5.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
048f4801.d	WAR100222-60 06	YS1	23-MAR-2010 17:03		032310a		1.0		PASSED ON BOTH COLUMNS
049f4901.d	WAR100219-99 07	YS1	23-MAR-2010 17:15		032310a		1.0		CLEAN
050f5001.d	249699002	YS1	23-MAR-2010 17:28	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
051f5101.d	249699003	YS1	23-MAR-2010 17:41	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
052f5201.d	249699004	YS1	23-MAR-2010 17:53	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
053f5301.d	249699005	YS1	23-MAR-2010 18:06	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
054f5401.d	249699006	YS1	23-MAR-2010 18:20	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
055f5501.d	WAR100222-60 07	YS1	23-MAR-2010 18:35		032310a		1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/032310a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	WAR100219-99 08	YS1	23-MAR-2010 18:47		032310a		1.0		CLEAN
057f5701.d	1202076035	YS1	23-MAR-2010 19:00	967272	10-2261		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	1202076036	YS1	23-MAR-2010 19:13	967272	10-2261		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	248689001	YS1	23-MAR-2010 19:25	967272	10-2261		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	1202076037	YS1	23-MAR-2010 19:38	967272	10-2261		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	1202076038	YS1	23-MAR-2010 19:50	967272	10-2261		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
062f6201.d	248689003	YS1	23-MAR-2010 20:03	967272	10-2261		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	248689005	YS1	23-MAR-2010 20:16	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	248689006	YS1	23-MAR-2010 20:28	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	248689007	YS1	23-MAR-2010 20:41	967272	10-2261		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	248689008	YS1	23-MAR-2010 20:54	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	WAR100222-60 08	YS1	23-MAR-2010 21:06		032310a		1.0		PASSED ON BOTH COLUMNS
068f6801.d	WAR100219-99 09	YS1	23-MAR-2010 21:19		032310a		1.0		CLEAN
069f6901.d	248689009	YS1	23-MAR-2010 21:32	967272	10-2261		50.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	248689010	YS1	23-MAR-2010 21:44	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	248689011	YS1	23-MAR-2010 21:57	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
072f7201.d	248689012	YS1	23-MAR-2010 22:09	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	248689013	YS1	23-MAR-2010 22:22	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	248689014	YS1	23-MAR-2010 22:35	967272	10-2261		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	248689015	YS1	23-MAR-2010 22:47	967272	10-2261		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	248689016	YS1	23-MAR-2010 23:00	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	248689017	YS1	23-MAR-2010 23:13	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	248689018	YS1	23-MAR-2010 23:25	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	WAR100222-60 09	YS1	23-MAR-2010 23:38		032310a	1.0		PASSED ON BOTH COLUMNS
080f8001.d	WAR100219-99 10	YS1	23-MAR-2010 23:50		032310a	1.0		CLEAN
081f8101.d	248866001	YS1	24-MAR-2010 00:03	967400	10-2319	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	248866002	YS1	24-MAR-2010 00:16	967400	10-2319	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
083f8301.d	248867001	YS1	24-MAR-2010 00:28	967400	10-2320	1.0	LANL	RE SURROGATE LOW
084f8401.d	248867002	YS1	24-MAR-2010 00:41	967400	10-2320	1.0	LANL	RE SURROGATE LOW
085f8501.d	248867003	YS1	24-MAR-2010 00:54	967400	10-2320	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	248867004	YS1	24-MAR-2010 01:06	967400	10-2320	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	WAR100222-60 10	YS1	24-MAR-2010 01:19		032310a	1.0		PASSED ON BOTH COLUMNS
088f8801.d	WAR100219-99 11	YS1	24-MAR-2010 01:31		032310a	1.0		CLEAN
089f8901.d		YS1	24-MAR-2010 02:42		032310a	1.0		DUSE SCREEN

090f9001.d		YS1	24-MAR-2010 03:52	032310a	1.0	DUSE SCREEN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/25/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/032510.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	25-MAR-2010 05:17		032510	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	25-MAR-2010 05:28		032510	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YS1	25-MAR-2010 05:38		032510	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YS1	25-MAR-2010 05:49		032510	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR100223-48	YS1	25-MAR-2010 05:59		032510	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100323-68	YS1	25-MAR-2010 06:10		032510	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100323-32	YS1	25-MAR-2010 06:20		032510	1.0		PATTERN ONLY
008f0801.d	WAR100323-21	YS1	25-MAR-2010 06:31		032510	1.0		PATTERN ONLY
009f0901.d	WAR100323-62	YS1	25-MAR-2010 06:41		032510	1.0		PATTERN ONLY
010f1001.d	WAR100323-DDT	YS1	25-MAR-2010 06:52		032510	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100219-99 02	YS1	25-MAR-2010 07:02		032510	1.0		CLEAN
012f1201.d	1202079111	YS1	25-MAR-2010 07:13	968491	EUI-7532R	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202079112	YS1	25-MAR-2010 07:23	968491	EUI-7532R	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	249568001	YS1	25-MAR-2010 07:34	968491	EUI-7532R	1.0	CARE	DUSE RR 5X
015f1501.d	249569001	YS1	25-MAR-2010 07:46	968491	EUI-7541R	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/032510.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	1202079113	YS1	25-MAR-2010 07:59	968491	EUI-7541R	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
017f1701.d	1202079114	YS1	25-MAR-2010 08:11	968491	EUI-7541R	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	249569001	YS1	25-MAR-2010 08:26	968491	EUI-7541R	1.0	CARE	DUSE USE ORIGINAL RUN FILE 15
019f1901.d	249569002	YS1	25-MAR-2010 08:39	968491	EUI-7541R	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	249571001	YS1	25-MAR-2010 08:51	968491	EUI-7554R	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	249664001	YS1	25-MAR-2010 09:04	968491	EUI-7564	1.0	CARE	DUSE RR 5X
022f2201.d	WAR100219-99 03	YS1	25-MAR-2010 09:17		032510	1.0		CLEAN
023f2301.d	WAR100222-60 02	YS1	25-MAR-2010 09:27		032510	1.0		PASSED ON BOTH COLUMNS
024f2401.d	WAR100219-99 04	YS1	25-MAR-2010 09:38		032510	1.0		CLEAN
025f2501.d	249665001	YS1	25-MAR-2010 09:48	968491	EUI-7565	100.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	249568001	YS1	25-MAR-2010 10:01	968491	EUI-7532R	5.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	249664001	YS1	25-MAR-2010 10:13	968491	EUI-7564	5.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	WAR100222-60 03	YS1	25-MAR-2010 10:26		032510	1.0		PASSED ON BOTH COLUMNS
029f2901.d	WAR100219-99 05	YS1	25-MAR-2010 10:36		032510	1.0		CLEAN
030f3001.d	1202080259	YS1	25-MAR-2010 10:47	968935	10-2279	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	1202080260	YS1	25-MAR-2010 10:57	968935	10-2279	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	1202080261	YS1	25-MAR-2010 11:08	968935	10-2279	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	248747002	YS1	25-MAR-2010 11:18	968935	10-2279	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	248867001	YS1	25-MAR-2010 11:31	968935	10-2320	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	248867002	YS1	25-MAR-2010 11:44	968935	10-2320	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/032510.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	249180002	YS1	25-MAR-2010 11:56	968935	10-2398	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	WAR100222-60 04	YS1	25-MAR-2010 12:09		032510	1.0		PASSED ON BOTH COLUMNS
038f3801.d	WAR100219-99 06	YS1	25-MAR-2010 12:19		032510	1.0		CLEAN
039f3901.d	1202081692	YS1	25-MAR-2010 12:30	969518	032510	1.0	QC A	UPLOAD BOTH COLUMNS
040f4001.d	1202081693	YS1	25-MAR-2010 12:40	969518	032510	1.0	QC A	UPLOAD BOTH COLUMNS

041f4101.d	1202081694	YS1	25-MAR-2010 12:51	969518	032510		1.0	QC A	UPLOAD BOTH COLUMNS
042f4201.d	1202081695	YS1	25-MAR-2010 13:02	969518	032510		1.0	QC A	UPLOAD BOTH COLUMNS
043f4301.d	1202081696	YS1	25-MAR-2010 13:12	969518	032510		1.0	QC A	UPLOAD BOTH COLUMNS
044f4401.d	1202081697	YS1	25-MAR-2010 13:23	969518	032510		1.0	QC A	UPLOAD BOTH COLUMNS
045f4501.d	249991001	YS1	25-MAR-2010 13:33	969518	032510		1.0	QC A	UPLOAD BOTH COLUMNS
046f4601.d	WAR100222-60 05	YS1	25-MAR-2010 13:44		032510		1.0		PASSED ON BOTH COLUMNS
047f4701.d	WAR100219-99 07	YS1	25-MAR-2010 13:54		032510		1.0		CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/016b1601.d
Lab Smp Id: 1202076365 Client Smp ID: RE46-10-12930MS
Inj Date : 23-MAR-2010 10:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076365|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 16 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	23544458	89.7504	3.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.912	-0.001	21341456	114.020	4.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	6432404	511.118	18.6	80.00- 120.00	100.00(M)
3.246	3.248	-0.002	4305536	498.660	18.2	45.31- 85.31	66.94
3.310	3.311	-0.001	2619092	495.417	18.0	20.51- 60.51	40.72
3.537	3.538	-0.001	3430764	497.737	18.1	31.09- 71.09	53.34

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.612	3.614	-0.002	2837720	441.836	16.1	37.88- 77.88	54.31
Average of Peak Concentrations =					17.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	8098250	619.121	22.5	80.00- 120.00	100.00(M)
4.427	4.428	-0.001	8587128	552.262	20.1	101.60- 141.60	106.04
4.693	4.695	-0.002	7202376	605.442	22.0	71.82- 111.82	88.94
4.866	4.867	-0.001	7186212	584.758	21.3	75.59- 115.59	88.74
5.014	5.015	-0.001	16513408	625.635	22.8	192.18- 232.18	203.91
Average of Peak Concentrations =					21.7		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/016b1601.d

Page 1

Date : 23-MAR-2010 10:25

Client ID: RE46-10-12930MS

Instrument: ecd1a.i

Sample Info: |1202076365|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

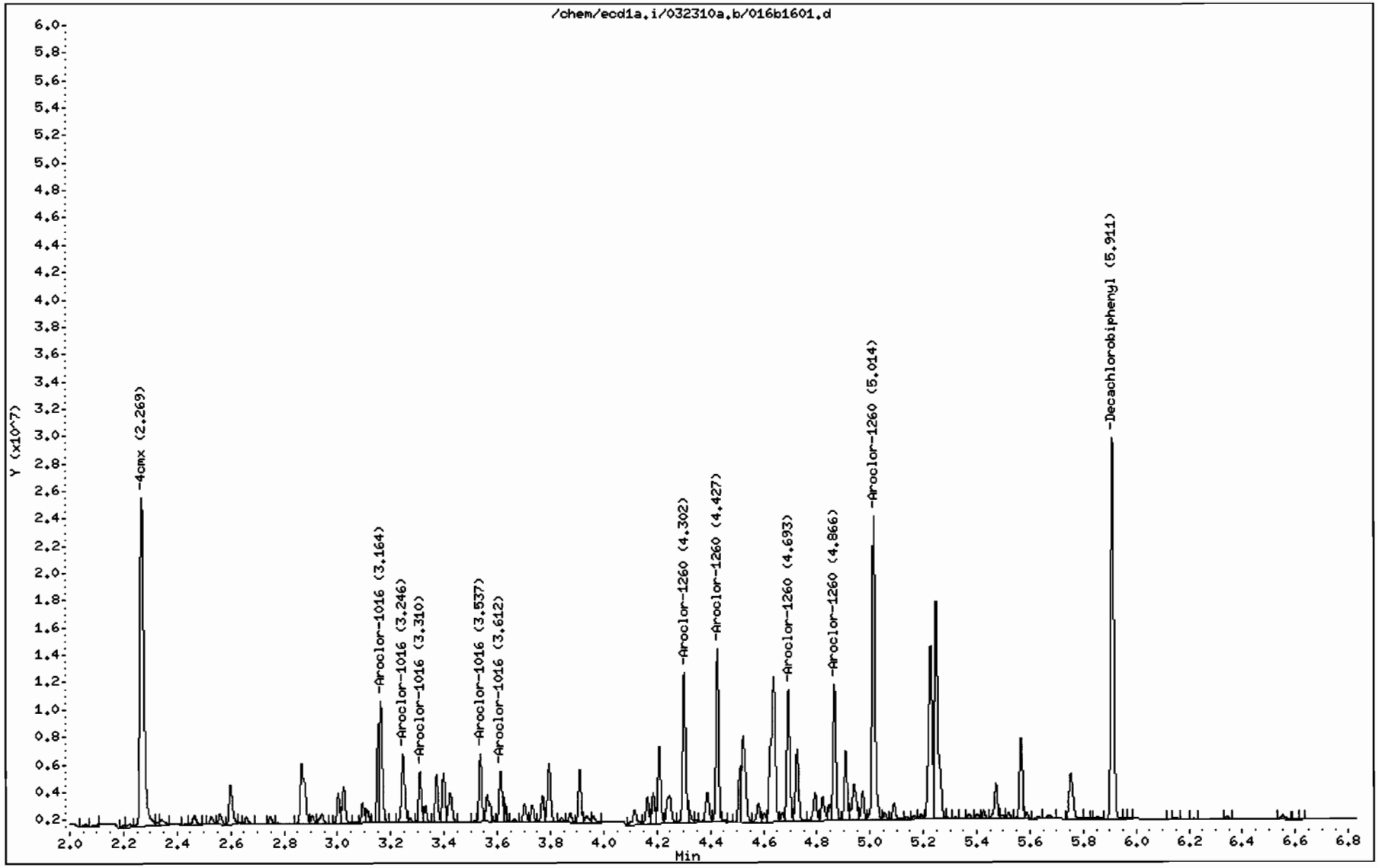

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/016f1601.d
Lab Smp Id: 1202076365 Client Smp ID: RE46-10-12930MS
Inj Date : 23-MAR-2010 10:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076365|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 16 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.913	-0.003	38311340	98.3545	3.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	33890889	114.137	4.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.365	-0.002	7409790	488.231	17.8	80.00- 120.00	100.00
2.650	2.651	-0.001	10039875	530.207	19.3	107.62- 147.62	135.49
2.730	2.732	-0.002	6163757	495.393	18.0	58.11- 98.11	83.18
2.768	2.770	-0.002	3669626	499.383	18.2	27.09- 67.09	49.52

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.978	2.980	-0.002	4381218	460.320	16.8	40.72- 80.72	59.13
			Average of Peak Concentrations =		18.0		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	11269491	614.808	22.4	80.00- 120.00	100.00
3.865	3.867	-0.002	16550116	615.479	22.4	129.35- 169.35	146.86
4.027	4.030	-0.003	17484112	617.479	22.5	139.27- 179.27	155.15
4.095	4.097	-0.002	10164870	629.097	22.9	70.04- 110.04	90.20
4.238	4.240	-0.002	10013847	595.613	21.7	74.22- 114.22	88.86
			Average of Peak Concentrations =		22.4		

Data File: /chem/ecd1a.i/032310a.b/016f1601.d
Date : 23-MAR-2010 10:25
Client ID: RE46-10-12930MS
Sample Info: |1202076365|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

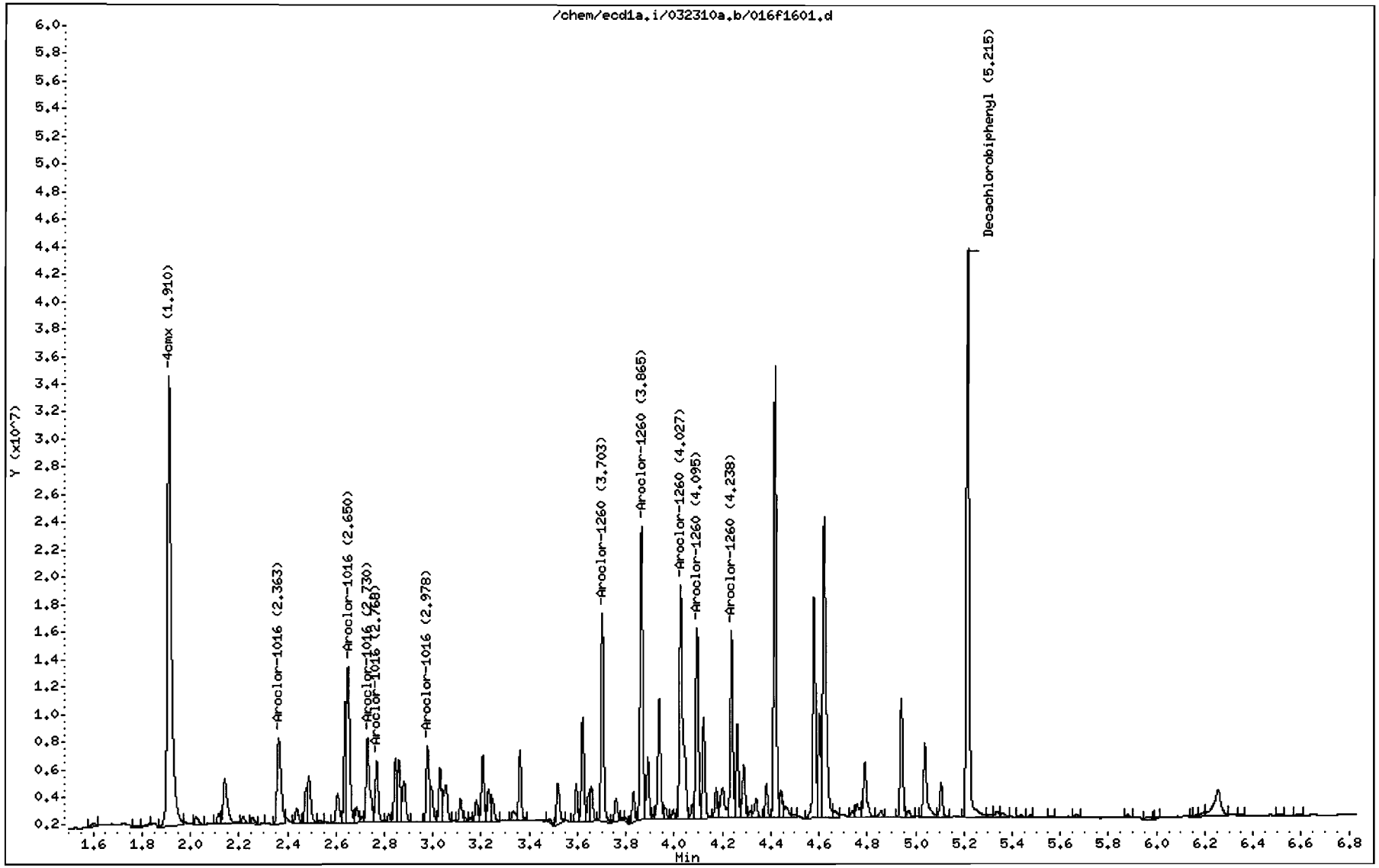

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/017b1701.d
Lab Smp Id: 1202076366 Client Smp ID: RE46-10-12930MSD
Inj Date : 23-MAR-2010 10:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076366|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 17 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	30645536	116.819	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	25077158	133.978	4.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	7682155	610.423	22.2	80.00- 120.00	100.00(M)
3.247	3.248	-0.001	5009387	580.179	21.1	45.31- 85.31	65.21
3.310	3.311	-0.001	3050696	577.058	21.0	20.51- 60.51	39.71
3.537	3.538	-0.001	3967793	575.650	21.0	31.09- 71.09	51.65

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.612	3.614	-0.002	3481107	542.012	19.7	37.88- 77.88	55.05
Average of Peak Concentrations =					21.0		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	8714119	666.205	24.2	80.00- 120.00	100.00
4.427	4.428	-0.001	10606333	682.122	24.8	101.60- 141.60	121.71
4.693	4.695	-0.002	8095314	680.503	24.8	71.82- 111.82	92.90
4.866	4.867	-0.001	8341264	678.747	24.7	75.59- 115.59	95.72
5.014	5.015	-0.001	18790623	711.911	25.9	192.18- 232.18	215.63
Average of Peak Concentrations =					24.9		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/017b1701.d

Date : 23-MAR-2010 10:37

Client ID: RE46-10-12930MSD

Sample Info: |1202076366|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

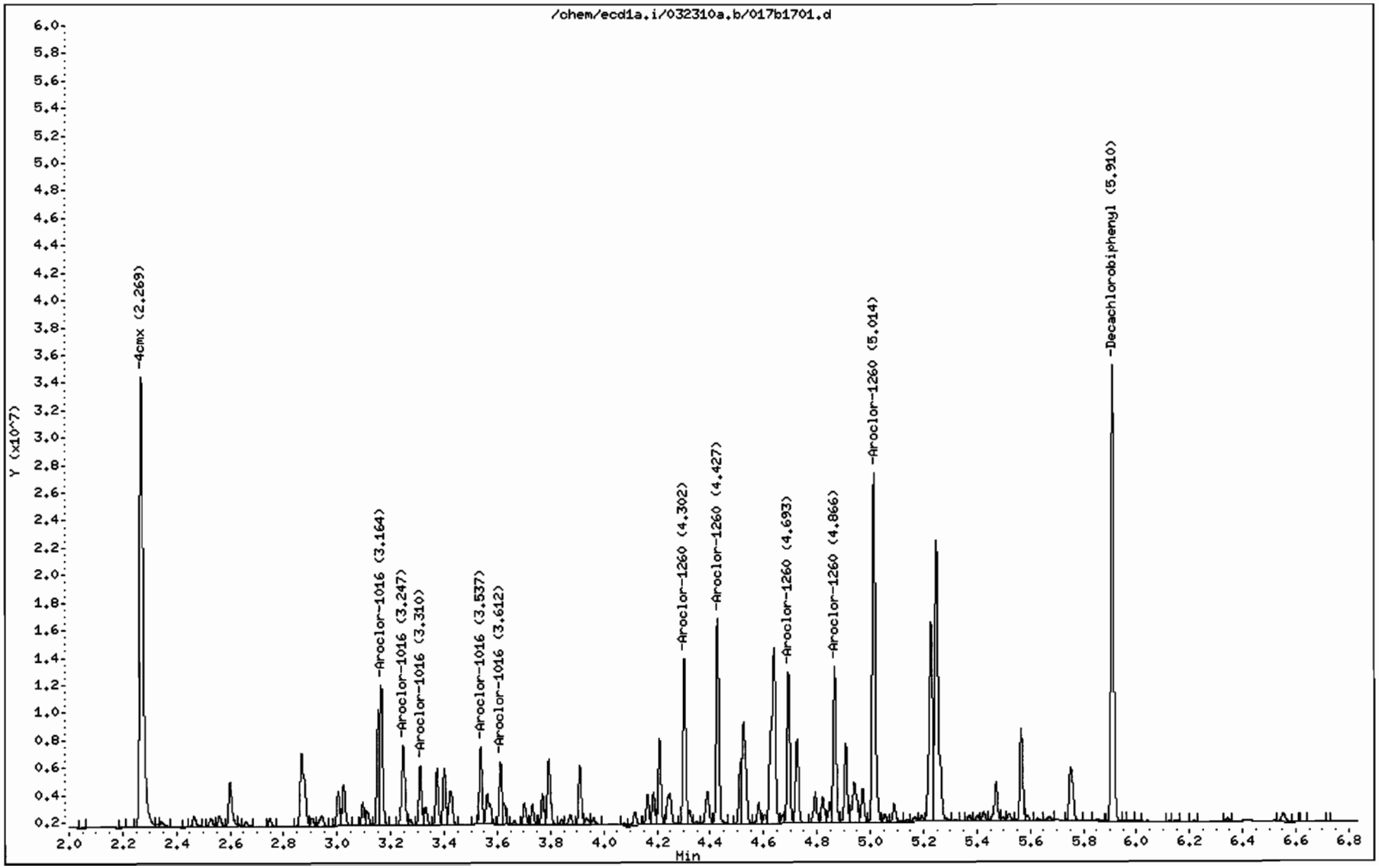

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/017f1701.d
Lab Smp Id: 1202076366 Client Smp ID: RE46-10-12930MSD
Inj Date : 23-MAR-2010 10:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076366|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 17 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2244.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	47813392	122.749	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	43027538	144.908	5.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.365	-0.002	9107248	600.077	21.8	80.00- 120.00	100.00
2.650	2.651	-0.001	11740813	620.033	22.6	107.62- 147.62	128.92
2.730	2.732	-0.002	7057387	567.216	20.6	58.11- 98.11	77.49
2.768	2.770	-0.002	4170651	567.565	20.7	27.09- 67.09	45.79

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.978	2.980	-0.002	5475533	575.295	20.9	40.72- 80.72	60.12
Average of Peak Concentrations =					21.3		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	12582459	686.437	25.0	80.00- 120.00	100.00
3.865	3.867	-0.002	19194350	713.814	26.0	129.35- 169.35	152.55
4.028	4.030	-0.002	20553278	725.872	26.4	139.27- 179.27	163.35
4.095	4.097	-0.002	11550117	714.829	26.0	70.04- 110.04	91.80
4.238	4.240	-0.002	11954440	711.038	25.9	74.22- 114.22	95.01
Average of Peak Concentrations =					25.9		

Data File: /chem/ecd1a.i/032310a.b/017f1701.d
Date : 23-MAR-2010 10:37
Client ID: RE46-10-12930MSD
Sample Info: 1120207636611
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

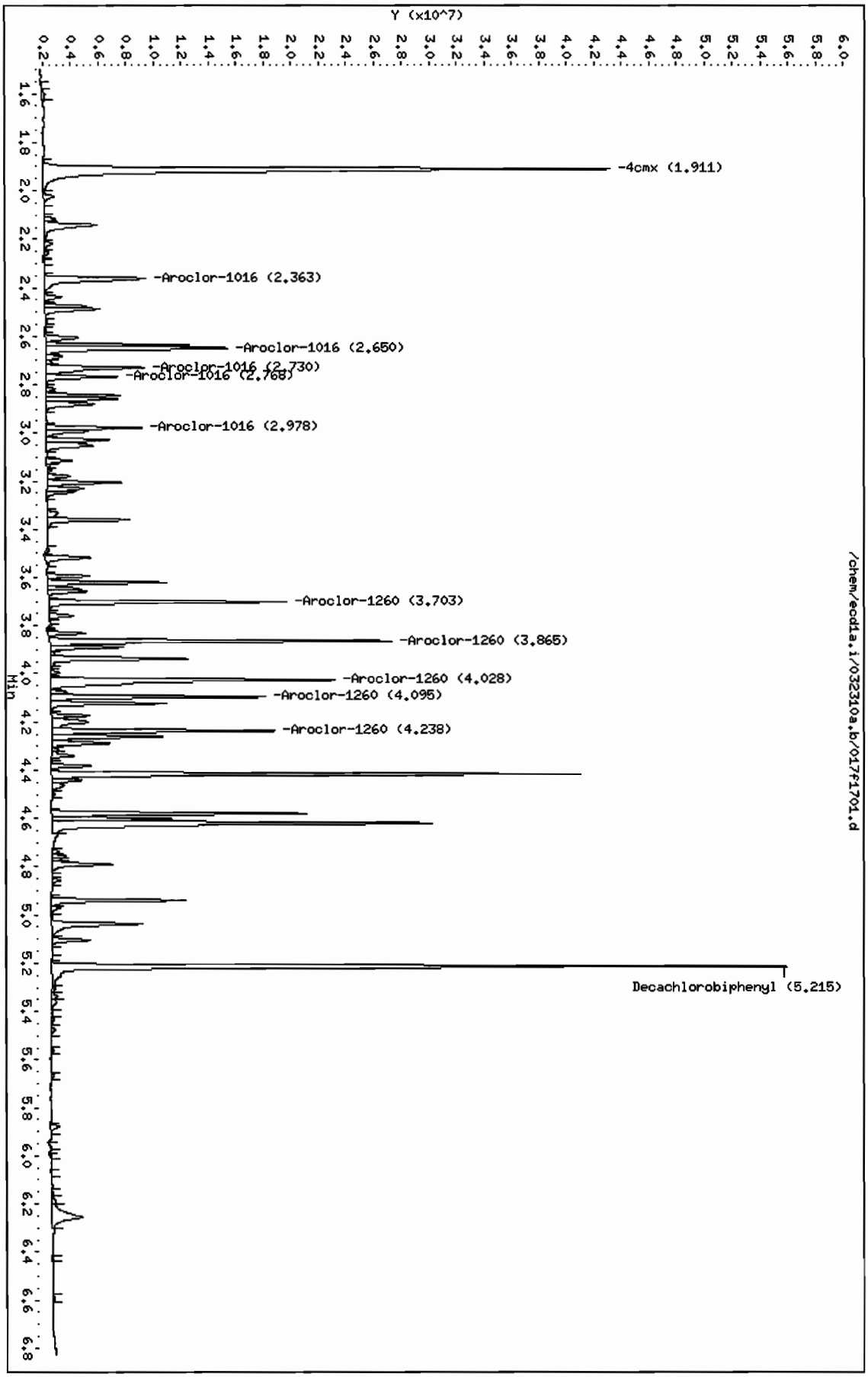

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 967399 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202076363 MB	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
1202076364 LCS	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
248863001	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
248863002	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
1202076365 MS (248863002)	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
1202076366 MSD (248863002)	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248863003	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
248863004	22-MAR-2010 11:11:00	30.04	H2SO4/KMnl		1	8	1	0.03329
248865001	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248866001	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248866002	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
248867001	22-MAR-2010 11:11:00	30.08	H2SO4/KMnl		1	8	1	0.03324
248867002	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
248867003	22-MAR-2010 11:11:00	30.02	H2SO4/KMnl		1	8	1	0.03331
248867004	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
249180001	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
249180002	22-MAR-2010 11:11:00	30.01	H2SO4/KMnl		1	8	1	0.03332
249180003	22-MAR-2010 11:11:00	30.07	H2SO4/KMnl		1	8	1	0.03326
249180004	22-MAR-2010 11:11:00	30.09	H2SO4/KMnl		1	8	1	0.03323
249180005	22-MAR-2010 11:11:00	30.09	H2SO4/KMnl		1	8	1	0.03323
249180006	22-MAR-2010 11:11:00	30	H2SO4/KMnl		1	8	1	0.03333
249180008	22-MAR-2010 11:11:00	30.09	H2SO4/KMnl		1	8	1	0.03323

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202076364	PCB Laboratory Control	WE100311-07	1	mL
MS	1202076365	PCB Laboratory Control	WE100311-07	1	mL
MSD	1202076366	PCB Laboratory Control	WE100311-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100310-16	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1273823-B1	150	mL
REGNT	All	Hexane	1279341-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 03/22/2010
Clean up Initials: RWH
Verified By: JAM
Final Solvent: Hexane
Clean Up SOP: GL-OA-E-037

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 968933 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL–OA–E–010 REV# 18

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202080259 MB	24–MAR–2010 20:20:00	30	H2SO4/KMl2		2	9	1	0.03333
1202080260 LCS	24–MAR–2010 20:20:00	30	H2SO4/KMl2		2	9	1	0.03333
1202080261 LCSD	24–MAR–2010 20:20:00	30	H2SO4/KMl2		2	9	1	0.03333
248747002 – 3	24–MAR–2010 20:20:00	30.07	H2SO4/KMl2		2	9	1	0.03326
248867001 – 2	24–MAR–2010 20:20:00	30.02	H2SO4/KMl2		2	9	1	0.03331
248867002 – 2	24–MAR–2010 20:20:00	30.17	H2SO4/KMl2		2	9	1	0.03315
249180002 – 2	24–MAR–2010 20:20:00	30.07	H2SO4/KMl2		2	9	1	0.03326

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202080260	PCB Laboratory Control	WE100311–07	1	mL
LCSD	1202080261	PCB Laboratory Control	WE100311–07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100310–16	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1289815–B1	150	mL
REGNT	All	Hexane	1289823–B2	150	mL
REGNT	All	5% Potassium Permanganate	B1275177–F	5	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 3/24/10

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL–OA–E–037

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8082	Solid	LANL
Batch ID:	**Sample Numbers:**		
967400	See Below		

Potentially affected work order(s)(SDG): 248863(10-2315),248865(10-2318),248866(10-2319),248867(10-2320),249180(10-2398)

Application Issues:

Failed Yield for Surrogates

Specification and Requirements Exception Description:	DER Disposition:
1. Samples 248867001, -002, and 249180002 did not meet surrogate recovery acceptance criteria.	1. Samples 248867001 and -002 were re-extracted and the failures did not confirm. The re-extracted data were reported.

Originator's Name:

Yiping Shi 24-MAR-10

Data Validator/Group Leader:

Cameron Bearden 02-APR-10

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2320

Sample Analysis

Sample ID	Client ID
248867001	RE46-10-12931
248867002	RE46-10-12932
248867003	RE46-10-12934
248867004	RE46-10-12933
1202068109	Method Blank (MB) **ICP**
1202089225	Method Blank (MB) **ICP**
1202068114	Laboratory Control Sample (LCS)
1202089226	Laboratory Control Sample (LCS)
1202068111	248866001(RE46-10-11885L) Serial Dilution (SD)
1202068110	248866001(RE46-10-11885D) Sample Duplicate (DUP)
1202068112	248866001(RE46-10-11885S) Matrix Spike (MS)
1202068113	248866001(RE46-10-11885SD) Matrix Spike Duplicate (MSD)
1202068115	Method Blank (MB) **ICP-MS**
1202068120	Laboratory Control Sample (LCS)
1202068117	248866001(RE46-10-11885L) Serial Dilution (SD)
1202068116	248866001(RE46-10-11885D) Sample Duplicate (DUP)
1202068118	248866001(RE46-10-11885S) Matrix Spike (MS)
1202068119	248866001(RE46-10-11885SD) Matrix Spike Duplicate (MSD)
1202078437	Method Blank (MB) **CVAA**
1202078438	Laboratory Control Sample (LCS)

1202078441	248867001(RE46-10-12931L) Serial Dilution (SD)
1202078439	248867001(RE46-10-12931D) Sample Duplicate (DUP)
1202078440	248867001(RE46-10-12931S) Matrix Spike (MS)
1202078442	248867001(RE46-10-12931SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	964016, 972603, 964018 and 968185
Prep Batch :	964015, 972602, 964017 and 968184
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 20, GL-MA-E-014 REV# 21, GL-MA-E-009 REV# 19 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic

absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits with the exception of mercury, which recovered outside of the advisory limits of 70-130%.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 248866001 (RE46-10-11885) and 248867001 (RE46-10-12931).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of magnesium and potassium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD did not meet the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of magnesium, potassium and mercury, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exception of lead, as indicated by the "*" qualifier.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS. The sample 248867004 (RE46-10-12933) required a dilution for mercury in order to bring over range concentrations within the linear calibration range of the instrument.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not

generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 809015 and 814045. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 5/6/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2320 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248867001 **BASIS:** Dry Weight **DATE COLLECTED** 05-MAR-10

CLIENT ID: RE46-10-12931 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2520000	ug/kg		8010	23600	23600	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-36-0	Antimony	1180	ug/kg	U	389	1180	1180	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-38-2	Arsenic	1290	ug/kg		240	1200	1200	2	MS	RMJ	05/06/10 05:02	100505-3	964018
7440-39-3	Barium	29000	ug/kg		118	589	589	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-41-7	Beryllium	397	ug/kg		24	120	120	2	MS	RMJ	05/06/10 05:02	100505-3	964018
7440-43-9	Cadmium	716	ug/kg		118	589	589	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-70-2	Calcium	1130000	ug/kg		9420	29400	29400	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-47-3	Chromium	7710	ug/kg		177	589	589	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-48-4	Cobalt	1940	ug/kg		177	589	589	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-50-8	Copper	39200	ug/kg		353	1180	1180	1	P	HSC	04/05/10 13:10	040510-1	964016
7439-89-6	Iron	8040000	ug/kg		9420	29400	29400	1	P	HSC	04/05/10 13:10	040510-1	964016
7439-92-1	Lead	25100	ug/kg		294	1180	1180	1	P	HSC	04/05/10 13:10	040510-1	964016
7439-95-4	Magnesium	769000	ug/kg		10000	35300	35300	1	P	HSC	04/05/10 13:10	040510-1	964016
7439-96-5	Manganese	300000	ug/kg		236	1180	1180	1	P	HSC	04/05/10 13:10	040510-1	964016
7439-97-6	Mercury	231	ug/kg	N	4.37	12.9	12.9	1	AV	JXL1	03/24/10 11:24	032410S1-4	968185
7440-02-0	Nickel	3850	ug/kg		120	479	479	2	MS	RMJ	05/06/10 05:02	100505-3	964018
7440-09-7	Potassium	502000	ug/kg		7540	29400	29400	1	P	HSC	04/05/10 13:10	040510-1	964016
7782-49-2	Selenium	1200	ug/kg	U	599	1200	1200	2	MS	RMJ	05/06/10 05:02	100505-3	964018
7440-22-4	Silver	589	ug/kg	U	118	589	589	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-23-5	Sodium	114000	ug/kg		8240	29400	29400	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-28-0	Thallium	240	ug/kg	U	71.9	240	240	2	MS	RMJ	05/06/10 05:02	100505-3	964018
7440-62-2	Vanadium	7190	ug/kg		118	589	589	1	P	HSC	04/05/10 13:10	040510-1	964016
7440-66-6	Zinc	120000	ug/kg		384	1160	1160	1	P	HSC	04/07/10 14:19	040710-2	972603

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964016	964015	SW846 3050B	0.523	g	50	mL	04/02/10	LYH1
964018	964017	SW846 3050B	0.514	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.575	g	30	mL	03/23/10	TXB3
972603	972602	SW846 3050B	0.529	g	50	mL	04/07/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2320 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248867002 **BASIS:** Dry Weight **DATE COLLECTED** 05-MAR-10

CLIENT ID: RE46-10-12932 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1720000	ug/kg		8220	24200	24200	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-36-0	Antimony	1210	ug/kg	U	399	1210	1210	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-38-2	Arsenic	1150	ug/kg	J	235	1180	1180	2	MS	RMJ	05/06/10 05:07	100505-3	964018
7440-39-3	Barium	13100	ug/kg		121	605	605	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-41-7	Beryllium	328	ug/kg		23.5	118	118	2	MS	RMJ	05/06/10 05:07	100505-3	964018
7440-43-9	Cadmium	210	ug/kg	J	121	605	605	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-70-2	Calcium	658000	ug/kg		9680	30200	30200	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-47-3	Chromium	5280	ug/kg		181	605	605	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-48-4	Cobalt	1090	ug/kg		181	605	605	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-50-8	Copper	16500	ug/kg		363	1210	1210	1	P	HSC	04/05/10 13:12	040510-1	964016
7439-89-6	Iron	7150000	ug/kg		9680	30200	30200	1	P	HSC	04/05/10 13:12	040510-1	964016
7439-92-1	Lead	21200	ug/kg		302	1210	1210	1	P	HSC	04/05/10 13:12	040510-1	964016
7439-95-4	Magnesium	310000	ug/kg		10300	36300	36300	1	P	HSC	04/05/10 13:12	040510-1	964016
7439-96-5	Manganese	290000	ug/kg		242	1210	1210	1	P	HSC	04/05/10 13:12	040510-1	964016
7439-97-6	Mercury	177	ug/kg	N	4.37	12.8	12.8	1	AV	JXL1	03/24/10 11:33	032410S1-4	968185
7440-02-0	Nickel	2430	ug/kg		118	471	471	2	MS	RMJ	05/06/10 05:07	100505-3	964018
7440-09-7	Potassium	261000	ug/kg		7740	30200	30200	1	P	HSC	04/05/10 13:12	040510-1	964016
7782-49-2	Selenium	1180	ug/kg	U	588	1180	1180	2	MS	RMJ	05/06/10 05:07	100505-3	964018
7440-22-4	Silver	605	ug/kg	U	121	605	605	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-23-5	Sodium	124000	ug/kg		8470	30200	30200	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-28-0	Thallium	235	ug/kg	U	70.6	235	235	2	MS	RMJ	05/06/10 05:07	100505-3	964018
7440-62-2	Vanadium	3950	ug/kg		121	605	605	1	P	HSC	04/05/10 13:12	040510-1	964016
7440-66-6	Zinc	45100	ug/kg		394	1200	1200	1	P	HSC	04/07/10 14:21	040710-2	972603

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964016	964015	SW846 3050B	0.5	g	50	mL	04/02/10	LYH1
964018	964017	SW846 3050B	0.514	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.565	g	30	mL	03/23/10	TXB3
972603	972602	SW846 3050B	0.506	g	50	mL	04/07/10	AXG2

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–2320 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248867003 **BASIS:** Dry Weight **DATE COLLECTED** 05–MAR–10

CLIENT ID: RE46–10–12934 **LEVEL:** Low **DATE RECEIVED** 06–MAR–10

MATRIX: SOIL **%SOLIDS:** 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429–90–5	Aluminum	6010000	ug/kg		6840	20100	20100	1	P	HSC	04/05/10 13:14	040510–1	964016
7440–36–0	Antimony	1010	ug/kg	U	332	1010	1010	1	P	HSC	04/05/10 13:14	040510–1	964016
7440–38–2	Arsenic	1160	ug/kg		203	1020	1020	2	MS	RMJ	05/06/10 05:11	100505–3	964018
7440–39–3	Barium	57100	ug/kg		101	503	503	1	P	HSC	04/05/10 13:14	040510–1	964016
7440–41–7	Beryllium	494	ug/kg		20.3	102	102	2	MS	RMJ	05/06/10 05:11	100505–3	964018
7440–43–9	Cadmium	503	ug/kg	U	101	503	503	1	P	HSC	04/05/10 13:14	040510–1	964016
7440–70–2	Calcium	2230000	ug/kg		8050	25200	25200	1	P	HSC	04/05/10 13:14	040510–1	964016
7440–47–3	Chromium	5810	ug/kg		151	503	503	1	P	HSC	04/05/10 13:14	040510–1	964016
7440–48–4	Cobalt	2380	ug/kg		151	503	503	1	P	HSC	04/05/10 13:14	040510–1	964016
7440–50–8	Copper	3430	ug/kg		302	1010	1010	1	P	HSC	04/05/10 13:14	040510–1	964016
7439–89–6	Iron	8770000	ug/kg		8050	25200	25200	1	P	HSC	04/05/10 13:14	040510–1	964016
7439–92–1	Lead	6880	ug/kg		252	1010	1010	1	P	HSC	04/05/10 13:14	040510–1	964016
7439–95–4	Magnesium	1200000	ug/kg		8550	30200	30200	1	P	HSC	04/05/10 13:14	040510–1	964016
7439–96–5	Manganese	216000	ug/kg		201	1010	1010	1	P	HSC	04/05/10 13:14	040510–1	964016
7439–97–6	Mercury	244	ug/kg	N	4.66	13.7	13.7	1	AV	JXL1	03/24/10 11:34	032410S1–4	968185
7440–02–0	Nickel	3870	ug/kg		102	406	406	2	MS	RMJ	05/06/10 05:11	100505–3	964018
7440–09–7	Potassium	650000	ug/kg		6440	25200	25200	1	P	HSC	04/05/10 13:14	040510–1	964016
7782–49–2	Selenium	1020	ug/kg	U	508	1020	1020	2	MS	RMJ	05/06/10 05:11	100505–3	964018
7440–22–4	Silver	503	ug/kg	U	101	503	503	1	P	HSC	04/05/10 13:14	040510–1	964016
7440–23–5	Sodium	78000	ug/kg		7050	25200	25200	1	P	HSC	04/05/10 13:14	040510–1	964016
7440–28–0	Thallium	82.6	ug/kg	J	60.9	203	203	2	MS	RMJ	05/06/10 05:11	100505–3	964018
7440–62–2	Vanadium	11700	ug/kg		101	503	503	1	P	HSC	04/05/10 13:14	040510–1	964016
7440–66–6	Zinc	21700	ug/kg		387	1170	1170	1	P	HSC	04/07/10 14:23	040710–2	972603

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964016	964015	SW846 3050B	0.588	g	50	mL	04/02/10	LYH1
964018	964017	SW846 3050B	0.583	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.518	g	30	mL	03/23/10	TXB3
972603	972602	SW846 3050B	0.504	g	50	mL	04/07/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2320 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248867004 **BASIS:** Dry Weight **DATE COLLECTED** 05-MAR-10

CLIENT ID: RE46-10-12933 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4740000	ug/kg		7780	22900	22900	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-36-0	Antimony	1140	ug/kg	U	377	1140	1140	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-38-2	Arsenic	976	ug/kg	J	219	1090	1090	2	MS	RMJ	05/06/10 05:15	100505-3	964018
7440-39-3	Barium	40800	ug/kg		114	572	572	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-41-7	Beryllium	466	ug/kg		21.9	109	109	2	MS	RMJ	05/06/10 05:15	100505-3	964018
7440-43-9	Cadmium	572	ug/kg	U	114	572	572	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-70-2	Calcium	1450000	ug/kg		9150	28600	28600	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-47-3	Chromium	3700	ug/kg		172	572	572	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-48-4	Cobalt	1670	ug/kg		172	572	572	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-50-8	Copper	4110	ug/kg		343	1140	1140	1	P	HSC	04/05/10 13:16	040510-1	964016
7439-89-6	Iron	9490000	ug/kg		9150	28600	28600	1	P	HSC	04/05/10 13:16	040510-1	964016
7439-92-1	Lead	11900	ug/kg		286	1140	1140	1	P	HSC	04/05/10 13:16	040510-1	964016
7439-95-4	Magnesium	894000	ug/kg		9720	34300	34300	1	P	HSC	04/05/10 13:16	040510-1	964016
7439-96-5	Manganese	305000	ug/kg		229	1140	1140	1	P	HSC	04/05/10 13:16	040510-1	964016
7439-97-6	Mercury	872	ug/kg	N	9.07	26.7	26.7	2	AV	JXL1	03/24/10 14:05	032410S1-4	968185
7440-02-0	Nickel	2830	ug/kg		109	437	437	2	MS	RMJ	05/06/10 05:15	100505-3	964018
7440-09-7	Potassium	609000	ug/kg		7320	28600	28600	1	P	HSC	04/05/10 13:16	040510-1	964016
7782-49-2	Selenium	1090	ug/kg	U	547	1090	1090	2	MS	RMJ	05/06/10 05:15	100505-3	964018
7440-22-4	Silver	572	ug/kg	U	114	572	572	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-23-5	Sodium	93700	ug/kg		8010	28600	28600	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-28-0	Thallium	219	ug/kg	U	65.6	219	219	2	MS	RMJ	05/06/10 05:15	100505-3	964018
7440-62-2	Vanadium	8570	ug/kg		114	572	572	1	P	HSC	04/05/10 13:16	040510-1	964016
7440-66-6	Zinc	22400	ug/kg		370	1120	1120	1	P	HSC	04/07/10 14:25	040710-2	972603

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964016	964015	SW846 3050B	0.52	g	50	mL	04/02/10	LYH1
964018	964017	SW846 3050B	0.544	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.535	g	30	mL	03/23/10	TXB3
972603	972602	SW846 3050B	0.531	g	50	mL	04/07/10	AXG2

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2320

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.12	ug/L	5	ug/L	102.4	90.0 – 110.0	AV	24–MAR–10 09:36	032410S1–4
	Aluminum	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Antimony	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Barium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Calcium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Cobalt	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Copper	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Iron	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Magnesium	5270	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Manganese	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Potassium	2540	ug/L	2500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Silver	259	ug/L	250	ug/L	103.6	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Sodium	2530	ug/L	2500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Zinc	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	07–APR–10 12:57	040710–2
	Arsenic	53.5	ug/L	50	ug/L	106.9	90.0 – 110.0	MS	06–MAY–10 03:48	100505–3
	Beryllium	53.8	ug/L	50	ug/L	107.6	90.0 – 110.0	MS	06–MAY–10 03:48	100505–3
	Nickel	53.6	ug/L	50	ug/L	107.2	90.0 – 110.0	MS	06–MAY–10 03:48	100505–3
	Selenium	54.6	ug/L	50	ug/L	109.2	90.0 – 110.0	MS	06–MAY–10 03:48	100505–3
	Thallium	52.8	ug/L	50	ug/L	105.7	90.0 – 110.0	MS	06–MAY–10 03:48	100505–3
CCV01										
	Mercury	5.03	ug/L	5	ug/L	100.6	80.0 – 120.0	AV	24–MAR–10 09:41	032410S1–4
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Antimony	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Barium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Cadmium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Calcium	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 10:36	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2320

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Cobalt	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Lead	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Magnesium	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Potassium	5650	ug/L	5000	ug/L	113	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Silver	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Sodium	10100	ug/L	10000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Vanadium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Zinc	495	ug/L	500	ug/L	99	90.0 – 110.0	P	07–APR–10 13:19	040710–2
	Arsenic	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	06–MAY–10 04:10	100505–3
	Beryllium	50.5	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	06–MAY–10 04:10	100505–3
	Nickel	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	06–MAY–10 04:10	100505–3
	Selenium	53.1	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	06–MAY–10 04:10	100505–3
	Thallium	51.2	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	06–MAY–10 04:10	100505–3
CCV02										
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 – 120.0	AV	24–MAR–10 10:01	032410S1–4
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Antimony	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Chromium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Copper	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Lead	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Magnesium	5180	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	05–APR–10 10:49	040510–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2320

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05-APR-10 10:49	040510-1
	Potassium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05-APR-10 10:49	040510-1
	Silver	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05-APR-10 10:49	040510-1
	Sodium	9950	ug/L	10000	ug/L	99.5	90.0 – 110.0	P	05-APR-10 10:49	040510-1
	Vanadium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05-APR-10 10:49	040510-1
	Zinc	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	07-APR-10 13:49	040710-2
	Arsenic	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	06-MAY-10 04:49	100505-3
	Beryllium	53.5	ug/L	50	ug/L	107	90.0 – 110.0	MS	06-MAY-10 04:49	100505-3
	Nickel	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	06-MAY-10 04:49	100505-3
	Selenium	51.5	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	06-MAY-10 04:49	100505-3
	Thallium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	06-MAY-10 04:49	100505-3
CCV03										
	Mercury	5.29	ug/L	5	ug/L	105.7	80.0 – 120.0	AV	24-MAR-10 10:21	032410S1-4
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05-APR-10 11:21	040510-1
	Antimony	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05-APR-10 11:21	040510-1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05-APR-10 11:21	040510-1
	Cadmium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05-APR-10 11:21	040510-1
	Calcium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	05-APR-10 11:21	040510-1
	Chromium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05-APR-10 11:21	040510-1
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05-APR-10 11:21	040510-1
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05-APR-10 11:21	040510-1
	Iron	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05-APR-10 11:21	040510-1
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05-APR-10 11:21	040510-1
	Magnesium	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	05-APR-10 11:21	040510-1
	Manganese	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05-APR-10 11:21	040510-1
	Potassium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	05-APR-10 11:21	040510-1
	Silver	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05-APR-10 11:21	040510-1
	Sodium	9980	ug/L	10000	ug/L	99.8	90.0 – 110.0	P	05-APR-10 11:21	040510-1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05-APR-10 11:21	040510-1
	Zinc	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	07-APR-10 14:12	040710-2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2320

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	52	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	06–MAY–10 05:20	100505–3
	Beryllium	52.6	ug/L	50	ug/L	105.3	90.0 – 110.0	MS	06–MAY–10 05:20	100505–3
	Nickel	49	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	06–MAY–10 05:20	100505–3
	Selenium	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	06–MAY–10 05:20	100505–3
	Thallium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	06–MAY–10 05:20	100505–3
CCV04										
	Mercury	4.88	ug/L	5	ug/L	97.6	80.0 – 120.0	AV	24–MAR–10 10:41	032410S1–4
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Antimony	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Barium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Cadmium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Chromium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Lead	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Manganese	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Potassium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Sodium	10000	ug/L	10000	ug/L	100.1	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Zinc	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	07–APR–10 14:27	040710–2
CCV05										
	Mercury	5.19	ug/L	5	ug/L	103.7	80.0 – 120.0	AV	24–MAR–10 11:01	032410S1–4
	Aluminum	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Barium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Cadmium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2320

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Chromium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Copper	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Iron	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Manganese	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Silver	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 11:52	040510–1
CCV06										
	Mercury	5.2	ug/L	5	ug/L	104	80.0 – 120.0	AV	24–MAR–10 11:21	032410S1–4
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Antimony	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Barium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Cadmium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Chromium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Copper	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Iron	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Lead	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Magnesium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Manganese	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Potassium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Silver	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2320

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV07										
	Mercury	5.11	ug/L	5	ug/L	102.2	80.0 – 120.0	AV	24–MAR–10 11:41	032410S1–4
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Antimony	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Cadmium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Chromium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Copper	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Lead	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Magnesium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Potassium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Silver	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Sodium	9960	ug/L	10000	ug/L	99.6	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Vanadium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 12:41	040510–1
CCV08										
	Mercury	5.36	ug/L	5	ug/L	107.2	80.0 – 120.0	AV	24–MAR–10 12:01	032410S1–4
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Barium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Cadmium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Calcium	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Chromium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Cobalt	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Iron	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Lead	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 13:02	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2320

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Silver	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Sodium	10000	ug/L	10000	ug/L	100.2	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Vanadium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:02	040510–1
CCV09										
	Mercury	5.29	ug/L	5	ug/L	105.8	80.0 – 120.0	AV	24–MAR–10 12:22	032410S1–4
	Aluminum	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Antimony	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Cadmium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Chromium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Copper	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Lead	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Potassium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Silver	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Sodium	10100	ug/L	10000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 13:19	040510–1
	Vanadium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 13:19	040510–1
CCV10										
	Mercury	5.38	ug/L	5	ug/L	107.6	80.0 – 120.0	AV	24–MAR–10 12:42	032410S1–4
CCV11										
	Mercury	5.36	ug/L	5	ug/L	107.1	80.0 – 120.0	AV	24–MAR–10 13:02	032410S1–4
CCV12										
	Mercury	5.32	ug/L	5	ug/L	106.4	80.0 – 120.0	AV	24–MAR–10 13:23	032410S1–4

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2320

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV13										
	Mercury	5.44	ug/L	5	ug/L	108.8	80.0 – 120.0	AV	24–MAR–10 13:43	032410S1–4
CCV14										
	Mercury	5.12	ug/L	5	ug/L	102.4	80.0 – 120.0	AV	24–MAR–10 14:17	032410S1–4

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-2320

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.129	ug/L	.2	ug/L	64.5	70.0 – 130.0	AV	24-MAR-10 09:39	032410S1-4
	Nickel	2.2	ug/L	2	ug/L	109.9	70.0 – 130.0	MS	06-MAY-10 03:57	100505-3
	Thallium	1.1	ug/L	1	ug/L	109.5	70.0 – 130.0	MS	06-MAY-10 03:57	100505-3
	Arsenic	5.52	ug/L	5	ug/L	110.4	70.0 – 130.0	MS	06-MAY-10 03:57	100505-3
	Beryllium	.555	ug/L	.5	ug/L	111	70.0 – 130.0	MS	06-MAY-10 03:57	100505-3
	Selenium	5.81	ug/L	5	ug/L	116.1	70.0 – 130.0	MS	06-MAY-10 03:57	100505-3
PQL01										
	Aluminum	206	ug/L	200	ug/L	103	70.0 – 130.0	P	05-APR-10 10:28	040510-1
	Iron	104	ug/L	100	ug/L	103.9	70.0 – 130.0	P	05-APR-10 10:28	040510-1
	Lead	9.5	ug/L	10	ug/L	95	70.0 – 130.0	P	05-APR-10 10:28	040510-1
	Manganese	10.5	ug/L	10	ug/L	104.5	70.0 – 130.0	P	05-APR-10 10:28	040510-1
	Silver	4.82	ug/L	5	ug/L	96.4	70.0 – 130.0	P	05-APR-10 10:28	040510-1
	Antimony	7.08	ug/L	10	ug/L	70.8	70.0 – 130.0	P	05-APR-10 10:28	040510-1
	Cadmium	5.13	ug/L	5	ug/L	102.6	70.0 – 130.0	P	05-APR-10 10:28	040510-1
	Cobalt	5.33	ug/L	5	ug/L	106.7	70.0 – 130.0	P	05-APR-10 10:28	040510-1
	Vanadium	5.27	ug/L	5	ug/L	105.5	70.0 – 130.0	P	05-APR-10 10:28	040510-1
	Calcium	206	ug/L	200	ug/L	103.1	70.0 – 130.0	P	05-APR-10 10:28	040510-1
	Copper	10.3	ug/L	10	ug/L	102.9	70.0 – 130.0	P	05-APR-10 10:28	040510-1
	Chromium	5.01	ug/L	5	ug/L	100.1	70.0 – 130.0	P	05-APR-10 10:28	040510-1
	Barium	5.09	ug/L	5	ug/L	101.8	70.0 – 130.0	P	05-APR-10 10:28	040510-1
	Sodium	277	ug/L	300	ug/L	92.3	70.0 – 130.0	P	05-APR-10 10:28	040510-1
	Potassium	150	ug/L	150	ug/L	100.3	70.0 – 130.0	P	05-APR-10 10:28	040510-1
	Magnesium	329	ug/L	300	ug/L	109.5	70.0 – 130.0	P	05-APR-10 10:28	040510-1
	Zinc	9.83	ug/L	10	ug/L	98.3	70.0 – 130.0	P	07-APR-10 13:02	040710-2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2320

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	–0.078	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 09:37	032410S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 10:25	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:25	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:25	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:25	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:25	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 10:25	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:25	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 10:25	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 10:25	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 10:25	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 10:25	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 10:25	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	07–APR–10 12:59	040710–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	06–MAY–10 03:52	100505–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	06–MAY–10 03:52	100505–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	06–MAY–10 03:52	100505–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	06–MAY–10 03:52	100505–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	06–MAY–10 03:52	100505–3
CCB01										
	Mercury	–0.081	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 09:42	032410S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 10:38	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:38	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:38	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:38	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2320

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:38	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 10:38	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:38	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 10:38	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 10:38	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 10:38	040510–1
	Potassium	236.18	+/–250	J	64.0	250	SOL	P	05–APR–10 10:38	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–1
	Sodium	98.65	+/–250	J	70.0	250	SOL	P	05–APR–10 10:38	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	07–APR–10 13:21	040710–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	06–MAY–10 04:14	100505–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	06–MAY–10 04:14	100505–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	06–MAY–10 04:14	100505–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	06–MAY–10 04:14	100505–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	06–MAY–10 04:14	100505–3
CCB02										
	Mercury	–0.081	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 10:02	032410S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 10:51	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:51	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:51	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:51	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:51	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 10:51	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:51	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 10:51	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 10:51	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 10:51	040510–1
	Potassium	70.41	+/–250	J	64.0	250	SOL	P	05–APR–10 10:51	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2320

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 10:51	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	07–APR–10 13:51	040710–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	06–MAY–10 04:54	100505–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	06–MAY–10 04:54	100505–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	06–MAY–10 04:54	100505–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	06–MAY–10 04:54	100505–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	06–MAY–10 04:54	100505–3
CCB03										
	Mercury	–0.077	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 10:22	032410S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 11:23	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:23	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:23	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:23	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:23	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 11:23	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:23	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 11:23	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 11:23	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 11:23	040510–1
	Potassium	85.5	+/–250	J	64.0	250	SOL	P	05–APR–10 11:23	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 11:23	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	07–APR–10 14:14	040710–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	06–MAY–10 05:24	100505–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	06–MAY–10 05:24	100505–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	06–MAY–10 05:24	100505–3

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2320

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	06–MAY–10 05:24	100505–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	06–MAY–10 05:24	100505–3
CCB04										
	Mercury	–0.083	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 10:42	032410S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 11:31	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:31	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:31	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:31	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:31	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 11:31	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:31	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 11:31	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 11:31	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 11:31	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 11:31	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 11:31	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	07–APR–10 14:29	040710–2
CCB05										
	Mercury	–0.084	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 11:03	032410S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 11:54	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:54	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:54	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:54	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:54	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:54	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:54	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 11:54	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2320

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:54	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 11:54	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 11:54	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 11:54	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 11:54	040510–1
	Silver	–1.55	+/–5	J	1.0	5.0	SOL	P	05–APR–10 11:54	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 11:54	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:54	040510–1
CCB06										
	Mercury	–0.09	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 11:23	032410S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 12:18	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 12:18	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:18	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 12:18	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 12:18	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 12:18	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:18	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 12:18	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 12:18	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 12:18	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 12:18	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 12:18	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–1
CCB07										
	Mercury	–0.088	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 11:43	032410S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 12:43	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 12:43	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:43	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2320

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:43	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:43	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 12:43	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 12:43	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 12:43	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:43	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 12:43	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 12:43	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 12:43	040510–1
	Potassium	84.07	+/–250	J	64.0	250	SOL	P	05–APR–10 12:43	040510–1
	Silver	–1.25	+/–5	J	1.0	5.0	SOL	P	05–APR–10 12:43	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 12:43	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:43	040510–1
CCB08										
	Mercury	–0.086	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 12:03	032410S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 13:04	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:04	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:04	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:04	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:04	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:04	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:04	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 13:04	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:04	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:04	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:04	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:04	040510–1
	Potassium	87.68	+/–250	J	64.0	250	SOL	P	05–APR–10 13:04	040510–1
	Silver	–1.14	+/–5	J	1.0	5.0	SOL	P	05–APR–10 13:04	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 13:04	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:04	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2320

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB09										
	Mercury	–0.088	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 12:23	032410S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 13:21	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:21	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:21	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:21	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:21	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 13:21	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:21	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:21	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:21	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:21	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 13:21	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 13:21	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–1
CCB10										
	Mercury	–0.092	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 12:44	032410S1–4
CCB11										
	Mercury	–0.092	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 13:04	032410S1–4
CCB12										
	Mercury	–0.092	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 13:24	032410S1–4
CCB13										
	Mercury	–0.096	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 13:45	032410S1–4
CCB14										
	Mercury	–0.091	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 14:18	032410S1–4

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2320

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202068109								
	Iron	7720	ug/kg	+/–24100	U	P	7720	24100
	Lead	241	ug/kg	+/–965	U	P	241	965
	Magnesium	8200	ug/kg	+/–29000	U	P	8200	29000
	Manganese	193	ug/kg	+/–965	U	P	193	965
	Potassium	8020	ug/kg	+/–24100	J	P	6180	24100
	Silver	–119	ug/kg	+/–483	J	P	96.5	483
	Sodium	6760	ug/kg	+/–24100	U	P	6760	24100
	Vanadium	96.5	ug/kg	+/–483	U	P	96.5	483
	Aluminum	6560	ug/kg	+/–19300	U	P	6560	19300
	Copper	290	ug/kg	+/–965	U	P	290	965
	Cobalt	145	ug/kg	+/–483	U	P	145	483
	Chromium	145	ug/kg	+/–483	U	P	145	483
	Calcium	7720	ug/kg	+/–24100	U	P	7720	24100
	Cadmium	96.5	ug/kg	+/–483	U	P	96.5	483
	Barium	96.5	ug/kg	+/–483	U	P	96.5	483
	Antimony	319	ug/kg	+/–965	U	P	319	965
1202068115								
	Arsenic	200	ug/kg	+/–1000	U	MS	200	1000
	Beryllium	20	ug/kg	+/–100	U	MS	20	100
	Nickel	100	ug/kg	+/–400	U	MS	100	400
	Selenium	500	ug/kg	+/–1000	U	MS	500	1000
	Thallium	60	ug/kg	+/–200	U	MS	60	200
1202078437								
	Mercury	–4.37	ug/kg	+/–10.3	J	AV	3.5	10.3
1202089225								
	Zinc	324	ug/kg	+/–980	U	P	324	980

METALS
–4–
Interference Check Sample

SDG No: 10–2320

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	507000	ug/L	500000	ug/L	101	80.0 – 120.0	05–APR–10 10:30	040510–1
	Antimony	2.46	ug/L					05–APR–10 10:30	040510–1
	Barium	0.214	ug/L					05–APR–10 10:30	040510–1
	Cadmium	–1.98	ug/L					05–APR–10 10:30	040510–1
	Calcium	489000	ug/L	500000	ug/L	97.8	80.0 – 120.0	05–APR–10 10:30	040510–1
	Chromium	0.825	ug/L					05–APR–10 10:30	040510–1
	Cobalt	–6.2	ug/L					05–APR–10 10:30	040510–1
	Copper	2.05	ug/L					05–APR–10 10:30	040510–1
	Iron	192000	ug/L	200000	ug/L	95.9	80.0 – 120.0	05–APR–10 10:30	040510–1
	Lead	–2.28	ug/L					05–APR–10 10:30	040510–1
	Magnesium	488000	ug/L	500000	ug/L	97.6	80.0 – 120.0	05–APR–10 10:30	040510–1
	Manganese	2.95	ug/L					05–APR–10 10:30	040510–1
	Potassium	–150.0	ug/L					05–APR–10 10:30	040510–1
	Silver	–1.56	ug/L					05–APR–10 10:30	040510–1
	Sodium	72.8	ug/L					05–APR–10 10:30	040510–1
	Vanadium	1.44	ug/L					05–APR–10 10:30	040510–1
ICSAB01									
	Aluminum	510000	ug/L	500000	ug/L	102	80.0 – 120.0	05–APR–10 10:32	040510–1
	Antimony	518	ug/L	500	ug/L	104	80.0 – 120.0	05–APR–10 10:32	040510–1
	Barium	505	ug/L	500	ug/L	101	80.0 – 120.0	05–APR–10 10:32	040510–1
	Cadmium	483	ug/L	500	ug/L	96.6	80.0 – 120.0	05–APR–10 10:32	040510–1
	Calcium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	05–APR–10 10:32	040510–1
	Chromium	493	ug/L	500	ug/L	98.6	80.0 – 120.0	05–APR–10 10:32	040510–1
	Cobalt	452	ug/L	500	ug/L	90.4	80.0 – 120.0	05–APR–10 10:32	040510–1
	Copper	544	ug/L	500	ug/L	109	80.0 – 120.0	05–APR–10 10:32	040510–1
	Iron	193000	ug/L	200000	ug/L	96.5	80.0 – 120.0	05–APR–10 10:32	040510–1
	Lead	472	ug/L	500	ug/L	94.4	80.0 – 120.0	05–APR–10 10:32	040510–1
	Magnesium	491000	ug/L	500000	ug/L	98.2	80.0 – 120.0	05–APR–10 10:32	040510–1
	Manganese	486	ug/L	500	ug/L	97.3	80.0 – 120.0	05–APR–10 10:32	040510–1

METALS
–4–
Interference Check Sample

SDG No: 10–2320

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Potassium	5510	ug/L	5000	ug/L	110	80.0 – 120.0	05–APR–10 10:32	040510–1
	Silver	271	ug/L	250	ug/L	108	80.0 – 120.0	05–APR–10 10:32	040510–1
	Sodium	5380	ug/L	5000	ug/L	108	80.0 – 120.0	05–APR–10 10:32	040510–1
	Vanadium	520	ug/L	500	ug/L	104	80.0 – 120.0	05–APR–10 10:32	040510–1

METALS
–4–
Interference Check Sample

SDG No: 10–2320

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Zinc	7.81	ug/L					07–APR–10 13:04	040710–2
ICSAB01									
	Zinc	493	ug/L	500	ug/L	98.7	80.0 – 120.0	07–APR–10 13:07	040710–2

METALS
–4–
Interference Check Sample

SDG No: 10–2320

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.567	ug/L					06–MAY–10 04:01	100505–3
	Beryllium	0.095	ug/L					06–MAY–10 04:01	100505–3
	Nickel	3.0	ug/L					06–MAY–10 04:01	100505–3
	Selenium	–1.86	ug/L					06–MAY–10 04:01	100505–3
	Thallium	–0.048	ug/L					06–MAY–10 04:01	100505–3
ICSAB01									
	Arsenic	20.4	ug/L	20	ug/L	102	80.0 – 120.0	06–MAY–10 04:06	100505–3
	Beryllium	19.1	ug/L	20	ug/L	95.3	80.0 – 120.0	06–MAY–10 04:06	100505–3
	Nickel	21.4	ug/L	23.31	ug/L	91.8	80.0 – 120.0	06–MAY–10 04:06	100505–3
	Selenium	19.6	ug/L	20	ug/L	98.2	80.0 – 120.0	06–MAY–10 04:06	100505–3
	Thallium	18.2	ug/L	20	ug/L	91.2	80.0 – 120.0	06–MAY–10 04:06	100505–3

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2320 **Client ID** RE46–10–11885S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 96.1

Sample ID: 248866001 **Spike ID:** 1202068112

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/kg	75–125	49500		338	U	51900	95.3		P
Barium	ug/kg	75–125	81400		23200		51900	112		P
Cadmium	ug/kg	75–125	54400		102	U	51900	105		P
Calcium	ug/kg	75–125	1240000		661000		519000	111		P
Chromium	ug/kg	75–125	55500		2550		51900	102		P
Cobalt	ug/kg	75–125	54000		1120		51900	102		P
Copper	ug/kg	75–125	58200		1950		51900	108		P
Iron	ug/kg		9130000		8330000		519000	153	N/A	P
Lead	ug/kg	75–125	62100		10900		51900	98.6		P
Magnesium	ug/kg	75–125	1350000		595000		519000	144	N	P
Manganese	ug/kg		415000		310000		51900	202	N/A	P
Potassium	ug/kg	75–125	1150000		422000		519000	141	N	P
Silver	ug/kg	75–125	54500		102	U	51900	105		P
Sodium	ug/kg	75–125	650000		108000		519000	104		P
Vanadium	ug/kg	75–125	59300		6130		51900	102		P
Zinc	ug/kg	75–125	70900		19000		51200	101		P
Aluminum	ug/kg		5030000		3410000		519000	312	N/A	P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2320 **Client ID:** RE46–10–11885SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 96.1

Sample ID: 248866001 **Spike ID:** 1202068113

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		5090000		3410000		515000	328	N/A	P
Antimony	ug/kg	75–125	49700		338	U	51500	96.4		P
Barium	ug/kg	75–125	78600		23200		51500	108		P
Cadmium	ug/kg	75–125	53900		102	U	51500	105		P
Calcium	ug/kg	75–125	1240000		661000		515000	112		P
Chromium	ug/kg	75–125	55600		2550		51500	103		P
Cobalt	ug/kg	75–125	53800		1120		51500	102		P
Copper	ug/kg	75–125	57700		1950		51500	108		P
Iron	ug/kg		8740000		8330000		515000	78.2	N/A	P
Lead	ug/kg	75–125	62600		10900		51500	100		P
Magnesium	ug/kg	75–125	1260000		595000		515000	129	N	P
Manganese	ug/kg		352000		310000		51500	81.2	N/A	P
Potassium	ug/kg	75–125	1090000		422000		515000	130	N	P
Silver	ug/kg	75–125	54000		102	U	51500	105		P
Sodium	ug/kg	75–125	631000		108000		515000	101		P
Vanadium	ug/kg	75–125	59000		6130		51500	103		P
Zinc	ug/kg	75–125	71000		19000		50500	103		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2320 **Client ID** RE46–10–11885S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 96.1

Sample ID: 248866001 **Spike ID:** 1202068118

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	9570		1360		8220	99.8		MS
Beryllium	ug/kg	75–125	5360		336		5140	97.8		MS
Nickel	ug/kg	75–125	6850		1800		5140	98.2		MS
Selenium	ug/kg	75–125	2080		514	U	2060	95.9		MS
Thallium	ug/kg	75–125	9530		69.5	J	10300	92		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2320 **Client ID** RE46–10–11885SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 96.1

Sample ID: 248866001 **Spike ID:** 1202068119

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	9530		1360		8100	101		MS
Beryllium	ug/kg	75–125	5200		336		5060	96.1		MS
Nickel	ug/kg	75–125	6630		1800		5060	95.5		MS
Selenium	ug/kg	75–125	1900		514	U	2020	88.3		MS
Thallium	ug/kg	75–125	9200		69.5	J	10100	90.2		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2320 **Client ID** RE46–10–12931S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 81

Sample ID: 248867001 **Spike ID:** 1202078440

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	370		231		128	109		AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2320 **Client ID** RE46–10–12931SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 81

Sample ID: 248867001 **Spike ID:** 1202078442

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	411		231		138	130	N	AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2320

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–11885D

Sample ID: 248866001 **Duplicate ID:** 1202068110 **Percent Solids for Dup:** 96.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	3410000		3140000		8.29		P
Antimony	ug/kg		338	U	343	U			P
Barium	ug/kg	+/–20%	23200		22700		2.12		P
Cadmium	ug/kg		102	U	104	U			P
Calcium	ug/kg	+/–20%	661000		592000		10.9		P
Chromium	ug/kg	+/–519	2550		2350		8.17		P
Cobalt	ug/kg	+/–519	1120		1140		2.29		P
Copper	ug/kg	+/–1040	1950		1900		2.73		P
Iron	ug/kg	+/–20%	8330000		8510000		2.07		P
Lead	ug/kg	+/–20%	10900		14200		25.9	*	P
Magnesium	ug/kg	+/–20%	595000		541000		9.57		P
Manganese	ug/kg	+/–20%	310000		327000		5.3		P
Potassium	ug/kg	+/–20%	422000		397000		6.09		P
Silver	ug/kg		102	U	104	U			P
Sodium	ug/kg	+/–26000	108000		107000		1.14		P
Vanadium	ug/kg	+/–20%	6130		5610		8.77		P
Zinc	ug/kg	+/–20%	19000		21600		12.9		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2320

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–11885SD

Sample ID: 1202068112 **Duplicate ID:** 1202068113 **Percent Solids for Dup:** 96.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	5030000		5090000		1.29		P
Antimony	ug/kg	+/–20	49500		49700		.317		P
Barium	ug/kg	+/–20	81400		78600		3.58		P
Cadmium	ug/kg	+/–20	54400		53900		.9		P
Calcium	ug/kg	+/–20	1240000		1240000		.193		P
Chromium	ug/kg	+/–20	55500		55600		.268		P
Cobalt	ug/kg	+/–20	54000		53800		.363		P
Copper	ug/kg	+/–20	58200		57700		.804		P
Iron	ug/kg	+/–20	9130000		8740000		4.4		P
Lead	ug/kg	+/–20	62100		62600		.724		P
Magnesium	ug/kg	+/–20	1350000		1260000		6.38		P
Manganese	ug/kg	+/–20	415000		352000		16.4		P
Potassium	ug/kg	+/–20	1150000		1090000		5.72		P
Silver	ug/kg	+/–20	54500		54000		.885		P
Sodium	ug/kg	+/–20	650000		631000		3.06		P
Vanadium	ug/kg	+/–20	59300		59000		.458		P
Zinc	ug/kg	+/–20	70900		71000		.159		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2320

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–11885D

Sample ID: 248866001 **Duplicate ID:** 1202068116 **Percent Solids for Dup:** 96.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–1020	1360		1580		15.1		MS
Beryllium	ug/kg	+/–102	336		357		5.94		MS
Nickel	ug/kg	+/–410	1800		2160		18.5		MS
Selenium	ug/kg		514	U	512	U			MS
Thallium	ug/kg		69.5	J	61.4	U	200		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2320

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–11885SD

Sample ID: 1202068118 **Duplicate ID:** 1202068119 **Percent Solids for Dup:** 96.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	9570		9530		.464		MS
Beryllium	ug/kg	+/–20	5360		5200		3.07		MS
Nickel	ug/kg	+/–20	6850		6630		3.27		MS
Selenium	ug/kg	+/–20	2080		1900		9.33		MS
Thallium	ug/kg	+/–20	9530		9200		3.55		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2320

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12931D

Sample ID: 248867001 **Duplicate ID:** 1202078439 **Percent Solids for Dup:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20%	231		192		18.7		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2320

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12931SD

Sample ID: 1202078440 **Duplicate ID:** 1202078442 **Percent Solids for Dup:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	370		411		10.3		AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2320

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202068114								
	Magnesium	ug/kg	3980000	4080000		102	79–122	P
	Manganese	ug/kg	556000	551000		99.2	81–119	P
	Potassium	ug/kg	4280000	4500000		105	74–127	P
	Silver	ug/kg	30000	31300		104	66–134	P
	Sodium	ug/kg	1020000	982000		96.7	74–127	P
	Vanadium	ug/kg	115000	129000		113	79–121	P
	Aluminum	ug/kg	10500000	11000000		105	56–144	P
	Antimony	ug/kg	172000	161000		93.5	71–130	P
	Barium	ug/kg	197000	193000		97.7	80–120	P
	Cadmium	ug/kg	60500	59200		98	81–120	P
	Calcium	ug/kg	9830000	9910000		101	83–117	P
	Chromium	ug/kg	235000	238000		101	80–120	P
	Cobalt	ug/kg	90800	91700		101	81–120	P
	Copper	ug/kg	173000	184000		106	81–118	P
	Iron	ug/kg	17900000	22000000		123	51–149	P
	Lead	ug/kg	85700	86200		101	79–121	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2320

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202068120								
	Arsenic	ug/kg	104000	102000		97.7	78-123	MS
	Beryllium	ug/kg	77600	74600		96.1	84-116	MS
	Nickel	ug/kg	134000	138000		103	78-123	MS
	Selenium	ug/kg	286000	285000		99.8	77-123	MS
	Thallium	ug/kg	121000	116000		95.7	78-122	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2320

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202078438								
	Mercury	ug/kg	5150	5520		107	71.6–128.3	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2320

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202089226								
	Zinc	ug/kg	594000	543000		91.4	80–121	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2320 **Client ID** RE46–10–11885L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248866001 **Serial Dilution ID:** 1202068111

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	33300		33100		.601		10	P
Antimony	3.3	U	16.5	U				P
Barium	226		222		1.77		10	P
Cadmium	1	U	5	U				P
Calcium	6450		6350		1.55		10	P
Chromium	24.9		24.6	J	1.2			P
Cobalt	10.9		11.6	J	5.96			P
Copper	19.1		15	U	100			P
Iron	81400		80000		1.72		10	P
Lead	107		104		2.8			P
Magnesium	5810		5800		.172		10	P
Manganese	3030		3020		.495		10	P
Potassium	4120		4190		1.58		10	P
Silver	1	U	5	U				P
Sodium	1060		1020	J	4.25			P
Vanadium	59.9		56		6.51		10	P
Zinc	183		180		1.64		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2320 **Client ID:** RE46–10–11885L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248866001 **Serial Dilution ID:** 1202068117

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	6.62		7.2	J	8.76			MS
Beryllium	1.64		1.66	J	1.22			MS
Nickel	8.75		8.65	J	1.14			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.338	J	1.5	U	100			MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2320 **Client ID:** RE46–10–12931L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248867001 **Serial Dilution ID:** 1202078441

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	3.6		3.44		4.44		10	AV

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-2320 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 964015							
1202068109	MB for batch 964015	MB	S	02-APR-10	.518g	50mL	
1202068114	LCS for batch 964015	LCS	S	02-APR-10	.505g	50mL	
1202068112	RE46-10-11885S	MS	S	02-APR-10	.501g	50mL	
1202068113	RE46-10-11885SD	MSD	S	02-APR-10	.505g	50mL	
1202068110	RE46-10-11885D	DUP	S	02-APR-10	.501g	50mL	
248867001	RE46-10-12931	SAMPLE	S	02-APR-10	.523g	50mL	
248867002	RE46-10-12932	SAMPLE	S	02-APR-10	.5g	50mL	
248867003	RE46-10-12934	SAMPLE	S	02-APR-10	.588g	50mL	
248867004	RE46-10-12933	SAMPLE	S	02-APR-10	.52g	50mL	
Batch Number 972602							
1202089225	MB for batch 972602	MB	S	07-APR-10	.51g	50mL	
1202089226	LCS for batch 972602	LCS	S	07-APR-10	.521g	50mL	
1202068112	RE46-10-11885S	MS	S	07-APR-10	.508g	50mL	
1202068113	RE46-10-11885SD	MSD	S	07-APR-10	.515g	50mL	
1202068110	RE46-10-11885D	DUP	S	07-APR-10	.521g	50mL	
248867001	RE46-10-12931	SAMPLE	S	07-APR-10	.529g	50mL	
248867002	RE46-10-12932	SAMPLE	S	07-APR-10	.506g	50mL	
248867003	RE46-10-12934	SAMPLE	S	07-APR-10	.504g	50mL	
248867004	RE46-10-12933	SAMPLE	S	07-APR-10	.531g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2320 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	964017						
1202068115	MB for batch 964017	MB	S	13–MAR–10	.5g	50mL	
1202068120	LCS for batch 964017	LCS	S	13–MAR–10	.503g	50mL	
1202068118	RE46–10–11885S	MS	S	13–MAR–10	.506g	50mL	
1202068119	RE46–10–11885SD	MSD	S	13–MAR–10	.514g	50mL	
1202068116	RE46–10–11885D	DUP	S	13–MAR–10	.508g	50mL	
248867001	RE46–10–12931	SAMPLE	S	13–MAR–10	.514g	50mL	
248867002	RE46–10–12932	SAMPLE	S	13–MAR–10	.514g	50mL	
248867003	RE46–10–12934	SAMPLE	S	13–MAR–10	.583g	50mL	
248867004	RE46–10–12933	SAMPLE	S	13–MAR–10	.544g	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-2320 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	968184						
1202078437	MB for batch 968184	MB	S	23-MAR-10	.583g	30mL	
1202078438	LCS for batch 968184	LCS	S	23-MAR-10	.203g	30mL	
1202078440	RE46-10-12931S	MS	S	23-MAR-10	.578g	30mL	
1202078442	RE46-10-12931SD	MSD	S	23-MAR-10	.537g	30mL	
1202078439	RE46-10-12931D	DUP	S	23-MAR-10	.539g	30mL	
248867001	RE46-10-12931	SAMPLE	S	23-MAR-10	.575g	30mL	
248867002	RE46-10-12932	SAMPLE	S	23-MAR-10	.565g	30mL	
248867003	RE46-10-12934	SAMPLE	S	23-MAR-10	.518g	30mL	
248867004	RE46-10-12933	SAMPLE	S	23-MAR-10	.535g	30mL	

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 06–MAY–10 **End Date:** 06–MAY–10

Client Sdg: 10–2320
Method MS
Data File: 100505–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	03:35:00			X		X											X		X			X		
S10	1	03:39:00			X		X											X		X			X		
S100	1	03:44:00			X		X											X		X			X		
ICV01	1	03:48:00			X		X											X		X			X		
ICB01	1	03:52:00			X		X											X		X			X		
CRDL01	1	03:57:00			X		X											X		X			X		
ICSA01	1	04:01:00			X		X											X		X			X		
ICSAB01	1	04:06:00			X		X											X		X			X		
CCV01	1	04:10:00			X		X											X		X			X		
CCB01	1	04:14:00			X		X											X		X			X		
1202068115	2	04:19:00			X		X											X		X			X		
1202068120	40	04:23:00			X		X											X		X			X		
ZZZZZZ	2	04:27:00																							
1202068116	2	04:32:00			X		X											X		X			X		
1202068118	2	04:36:00			X		X											X		X			X		
1202068119	2	04:40:00			X		X											X		X			X		
1202068117	10	04:45:00			X		X											X		X			X		
CCV02	1	04:49:00			X		X											X		X			X		
CCB02	1	04:54:00			X		X											X		X			X		
ZZZZZZ	2	04:58:00																							
248867001	2	05:02:00			X		X											X		X			X		
248867002	2	05:07:00			X		X											X		X			X		
248867003	2	05:11:00			X		X											X		X			X		
248867004	2	05:15:00			X		X											X		X			X		
CCV03	1	05:20:00			X		X											X		X			X		
CCB03	1	05:24:00			X		X											X		X			X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 24–MAR–10 **End Date:** 24–MAR–10

Client Sdg: 10–2320
Method AV
Data File: 032410S1–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	09:26:00															X								
S0.2	1	09:27:00															X								
S0.5	1	09:29:00															X								
S2.0	1	09:31:00															X								
S5.0	1	09:32:00															X								
S10.0	1	09:34:00															X								
ICV01	1	09:36:00															X								
ICB01	1	09:37:00															X								
CRDL01	1	09:39:00															X								
CCV01	1	09:41:00															X								
CCB01	1	09:42:00															X								
ZZZZZZ	1	09:44:00																							
ZZZZZZ	10	09:46:00																							
ZZZZZZ	1	09:47:00																							
ZZZZZZ	1	09:49:00																							
ZZZZZZ	1	09:51:00																							
ZZZZZZ	1	09:52:00																							
ZZZZZZ	5	09:54:00																							
ZZZZZZ	1	09:56:00																							
ZZZZZZ	1	09:57:00																							
ZZZZZZ	1	09:59:00																							
CCV02	1	10:01:00															X								
CCB02	1	10:02:00															X								
ZZZZZZ	1	10:04:00																							
ZZZZZZ	1	10:06:00																							
ZZZZZZ	1	10:07:00																							
ZZZZZZ	1	10:09:00																							
ZZZZZZ	1	10:11:00																							
ZZZZZZ	1	10:12:00																							
ZZZZZZ	1	10:14:00																							
ZZZZZZ	1	10:16:00																							
ZZZZZZ	1	10:17:00																							
ZZZZZZ	10	10:19:00																							
CCV03	1	10:21:00															X								
CCB03	1	10:22:00															X								
ZZZZZZ	1	10:24:00																							
ZZZZZZ	1	10:26:00																							
ZZZZZZ	1	10:27:00																							
ZZZZZZ	1	10:29:00																							
ZZZZZZ	1	10:31:00																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	10:32:00																							
ZZZZZZ	1	10:34:00																							
ZZZZZZ	1	10:36:00																							
ZZZZZZ	5	10:37:00																							
ZZZZZZ	1	10:39:00																							
CCV04	1	10:41:00														X									
CCB04	1	10:42:00														X									
ZZZZZZ	1	10:44:00																							
ZZZZZZ	1	10:46:00																							
ZZZZZZ	1	10:47:00																							
1202078437	1	10:49:00														X									
1202078438	10	10:51:00														X									
ZZZZZZ	1	10:52:00																							
ZZZZZZ	1	10:54:00																							
ZZZZZZ	1	10:56:00																							
ZZZZZZ	1	10:58:00																							
ZZZZZZ	1	10:59:00																							
CCV05	1	11:01:00														X									
CCB05	1	11:03:00														X									
ZZZZZZ	1	11:04:00																							
ZZZZZZ	1	11:06:00																							
ZZZZZZ	1	11:08:00																							
ZZZZZZ	1	11:09:00																							
ZZZZZZ	1	11:11:00																							
ZZZZZZ	1	11:13:00																							
ZZZZZZ	1	11:14:00																							
ZZZZZZ	1	11:16:00																							
ZZZZZZ	1	11:18:00																							
ZZZZZZ	1	11:19:00																							
CCV06	1	11:21:00														X									
CCB06	1	11:23:00														X									
248867001	1	11:24:00														X									
1202078439	1	11:26:00														X									
1202078440	1	11:28:00														X									
1202078442	1	11:29:00														X									
1202078441	5	11:31:00														X									
248867002	1	11:33:00														X									
248867003	1	11:34:00														X									
ZZZZZZ	1	11:36:00																							
ZZZZZZ	1	11:38:00																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	11:39:00																							
CCV07	1	11:41:00															X								
CCB07	1	11:43:00															X								
ZZZZZZ	1	11:44:00																							
ZZZZZZ	1	11:46:00																							
ZZZZZZ	1	11:48:00																							
ZZZZZZ	1	11:50:00																							
ZZZZZZ	5	11:51:00																							
ZZZZZZ	1	11:53:00																							
ZZZZZZ	1	11:55:00																							
ZZZZZZ	1	11:56:00																							
ZZZZZZ	1	11:58:00																							
ZZZZZZ	1	12:00:00																							
CCV08	1	12:01:00															X								
CCB08	1	12:03:00															X								
ZZZZZZ	1	12:05:00																							
ZZZZZZ	1	12:06:00																							
ZZZZZZ	1	12:08:00																							
ZZZZZZ	1	12:10:00																							
ZZZZZZ	1	12:11:00																							
ZZZZZZ	1	12:13:00																							
ZZZZZZ	1	12:15:00																							
ZZZZZZ	1	12:17:00																							
ZZZZZZ	1	12:18:00																							
ZZZZZZ	1	12:20:00																							
CCV09	1	12:22:00															X								
CCB09	1	12:23:00															X								
ZZZZZZ	1	12:25:00																							
ZZZZZZ	5	12:27:00																							
ZZZZZZ	1	12:28:00																							
ZZZZZZ	1	12:30:00																							
ZZZZZZ	1	12:32:00																							
ZZZZZZ	1	12:33:00																							
ZZZZZZ	1	12:35:00																							
ZZZZZZ	1	12:37:00																							
ZZZZZZ	1	12:39:00																							
ZZZZZZ	1	12:40:00																							
CCV10	1	12:42:00															X								
CCB10	1	12:44:00															X								
ZZZZZZ	1	12:45:00																							

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	12:47:00																							
ZZZZZZ	1	12:49:00																							
ZZZZZZ	1	12:50:00																							
ZZZZZZ	1	12:52:00																							
ZZZZZZ	5	12:54:00																							
ZZZZZZ	1	12:55:00																							
ZZZZZZ	1	12:57:00																							
ZZZZZZ	1	12:59:00																							
ZZZZZZ	1	13:01:00																							
CCV11	1	13:02:00														X									
CCB11	1	13:04:00														X									
ZZZZZZ	1	13:06:00																							
ZZZZZZ	1	13:07:00																							
ZZZZZZ	1	13:09:00																							
ZZZZZZ	1	13:11:00																							
ZZZZZZ	1	13:12:00																							
ZZZZZZ	1	13:14:00																							
ZZZZZZ	1	13:16:00																							
ZZZZZZ	1	13:18:00																							
ZZZZZZ	1	13:19:00																							
ZZZZZZ	1	13:21:00																							
CCV12	1	13:23:00														X									
CCB12	1	13:24:00														X									
ZZZZZZ	1	13:26:00																							
ZZZZZZ	1	13:28:00																							
ZZZZZZ	1	13:29:00																							
ZZZZZZ	1	13:31:00																							
ZZZZZZ	1	13:33:00																							
ZZZZZZ	1	13:35:00																							
ZZZZZZ	1	13:36:00																							
ZZZZZZ	1	13:38:00																							
ZZZZZZ	5	13:40:00																							
ZZZZZZ	1	13:41:00																							
CCV13	1	13:43:00														X									
CCB13	1	13:45:00														X									
ZZZZZZ	1	13:47:00																							
ZZZZZZ	100	13:48:00																							
ZZZZZZ	2	14:00:00																							
ZZZZZZ	50	14:01:00																							
ZZZZZZ	10	14:03:00																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
248867004	2	14:05:00															X								
ZZZZZZ	2	14:06:00																							
ZZZZZZ	1	14:08:00																							
ZZZZZZ	1	14:10:00																							
ZZZZZZ	1	14:12:00																							
ZZZZZZ	1	14:13:00																							
ZZZZZZ	5	14:15:00																							
CCV14	1	14:17:00															X								
CCB14	1	14:18:00															X								

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 05–APR–10 **End Date:** 05–APR–10

Client Sdg: 10–2320
Method P
Data File: 040510–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	10:13:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
S0.1	1	10:16:46		X		X		X		X	X	X		X		X			X		X			X	
S0.5	1	10:18:43	X	X		X		X	X	X	X	X		X	X	X			X		X			X	
SCAL	1	10:20:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
S10	1	10:22:45	X						X				X		X							X			
ICV01	1	10:23:35	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
ICB01	1	10:25:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
PQL01	1	10:28:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
ICSA01	1	10:30:46	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
ICSAB01	1	10:32:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
LR01	1	10:33:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
LR02	1	10:34:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCV01	1	10:36:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCB01	1	10:38:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCV02	1	10:49:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCB02	1	10:51:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
ZZZZZZ	1	10:59:53																							
ZZZZZZ	1	11:02:52																							
ZZZZZZ	1	11:04:51																							
ZZZZZZ	1	11:06:48																							
ZZZZZZ	1	11:09:00																							
ZZZZZZ	5	11:11:00																							
ZZZZZZ	1	11:14:06																							
ZZZZZZ	1	11:16:04																							
ZZZZZZ	1	11:18:02																							
ZZZZZZ	1	11:20:17																							
CCV03	1	11:21:36	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCB03	1	11:23:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
ZZZZZZ	50	11:26:32																							
CCV04	1	11:29:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCB04	1	11:31:43	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
ZZZZZZ	1	11:39:33																							
ZZZZZZ	1	11:42:30																							
ZZZZZZ	1	11:43:52																							
ZZZZZZ	1	11:45:56																							
ZZZZZZ	1	11:48:00																							
ZZZZZZ	1	11:49:08																							
ZZZZZZ	5	11:50:20																							
CCV05	1	11:52:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCB05	1	11:54:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	11:57:21																						
ZZZZZZ	1	11:59:22																						
ZZZZZZ	1	12:01:21																						
ZZZZZZ	1	12:03:34																						
ZZZZZZ	1	12:05:52																						
ZZZZZZ	1	12:08:09																						
ZZZZZZ	1	12:10:08																						
ZZZZZZ	1	12:12:12																						
ZZZZZZ	1	12:14:30																						
CCV06	1	12:16:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCB06	1	12:18:49	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
ZZZZZZ	1	12:21:45																						
ZZZZZZ	1	12:23:45																						
ZZZZZZ	1	12:26:05																						
ZZZZZZ	1	12:28:05																						
ZZZZZZ	1	12:30:03																						
ZZZZZZ	1	12:32:23																						
ZZZZZZ	1	12:34:21																						
ZZZZZZ	1	12:36:40																						
ZZZZZZ	1	12:38:52																						
CCV07	1	12:41:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCB07	1	12:43:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
1202068109	1	12:47:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
1202068114	1	12:50:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
ZZZZZZ	1	12:52:06																						
1202068110	1	12:54:12	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
1202068112	1	12:56:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
1202068113	1	12:58:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
1202068111	5	13:00:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCV08	1	13:02:50	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCB08	1	13:04:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
ZZZZZZ	1	13:08:02																						
248867001	1	13:10:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
248867002	1	13:12:31	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
248867003	1	13:14:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
248867004	1	13:16:57	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCV09	1	13:19:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCB09	1	13:21:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 07–APR–10 **End Date:** 07–APR–10

Client Sdg: 10–2320
Method P
Data File: 040710–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	12:46:56																							X
S0.1	1	12:50:07																							X
S0.5	1	12:52:18																							X
SCAL	1	12:54:31																							X
S10	1	12:56:50																							
ICV01	1	12:57:40																							X
ICB01	1	12:59:39																							X
PQL01	1	13:02:34																							X
ICSA01	1	13:04:50																							X
ICSAB01	1	13:07:04																							X
LR01	1	13:08:24																							X
LR02	1	13:09:29																							X
ZZZZZZ	1	13:11:10																							
ZZZZZZ	1	13:13:11																							
CCV01	1	13:19:38																							X
CCB01	1	13:21:38																							X
ZZZZZZ	1	13:33:56																							
ZZZZZZ	1	13:37:08																							
ZZZZZZ	1	13:38:17																							
ZZZZZZ	1	13:40:15																							
ZZZZZZ	1	13:42:27																							
ZZZZZZ	1	13:43:32																							
ZZZZZZ	5	13:44:52																							
ZZZZZZ	5	13:47:09																							
CCV02	1	13:49:11																							X
CCB02	1	13:51:12																							X
1202089225	1	13:58:24																							X
1202089226	1	14:01:36																							X
ZZZZZZ	1	14:02:59																							
1202068110	1	14:05:12																							X
1202068112	1	14:07:24																							X
1202068113	1	14:08:42																							X
1202068111	5	14:09:47																							X
CCV03	1	14:12:04																							X
CCB03	1	14:14:06																							X
ZZZZZZ	1	14:17:17																							
248867001	1	14:19:17																							X
248867002	1	14:21:29																							X
248867003	1	14:23:28																							X
248867004	1	14:25:41																							X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
CCV04	1	14:27:53																							X
CCB04	1	14:29:54																							X

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2320

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2320

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2320

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2320
Effective Dates: 22-MAR-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2320
Contract: LANL01004
Instrument: OPTIMA4
Effective Dates: 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2320
Effective Dates: 22-MAR-10

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2320
Effective Dates: 22-MAR-10

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2320
Effective Dates: 22-MAR-10

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2320
Contract: LANL01004
Instrument: OPTIMA4
Effective Dates: 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–2320

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2320

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 050610

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

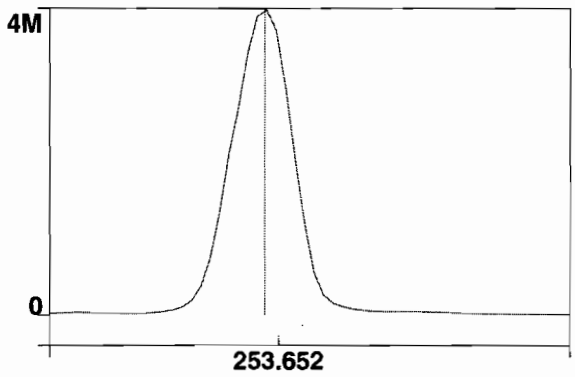

Intensity: 4397858.7 cps
Conc:

1

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Analysis Begun

Start Time: 4/5/2010 10:13:47 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 4/5/2010 10:13:47**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	141345.5	141345.5	101	%	10:14:20
1	Al 396.153Radial†	-71.7	-71.1	[0.00]	µg/L	10:14:40
1	Ca 317.933Radial†	562.0	557.0	[0.00]	µg/L	10:14:40
1	Fe 238.204 Radial†	133.2	132.1	[0.00]	µg/L	10:14:40
1	K 766.490 Radial†	1511.3	1497.9	[0.00]	µg/L	10:14:20
1	Mg 279.077 IEC†	180.5	178.9	[0.00]	µg/L	10:14:40
1	Na 589.592 Radial†	981.7	973.0	[0.00]	µg/L	10:14:20
1	Sr 421.552†	-166.0	-164.6	[0.00]	µg/L	10:14:20
1	Sc 361.383	1809917.0	1809917.0	100.32	%	10:15:28
1	Y 371.029	1061056.9	1061056.9	100.36	%	10:15:28
1	Ag 328.068†	4631.5	4616.7	[0.00]	µg/L	10:15:30
1	As 188.979†	-28.2	-28.1	[0.00]	µg/L	10:15:50
1	B 249.677†	4081.8	4068.8	[0.00]	µg/L	10:15:30
1	Ba 233.527†	-140.2	-139.8	[0.00]	µg/L	10:15:50
1	Be 313.107†	-1250.1	-1246.2	[0.00]	µg/L	10:15:30
1	Cd 226.502†	-99.6	-99.3	[0.00]	µg/L	10:15:50
1	Co 228.616†	-189.2	-188.6	[0.00]	µg/L	10:15:50
1	Cr 267.716†	232.1	231.3	[0.00]	µg/L	10:15:50
1	Cu 324.752†	3023.5	3013.9	[0.00]	µg/L	10:15:30
1	Mn 257.610†	175.2	174.7	[0.00]	µg/L	10:15:50
1	Mo 202.031†	-46.7	-46.6	[0.00]	µg/L	10:15:50
1	Ni 231.604†	-85.5	-85.2	[0.00]	µg/L	10:15:50
1	P 214.914†	-41.4	-41.3	[0.00]	µg/L	10:15:50
1	Pb 220.353†	103.1	102.8	[0.00]	µg/L	10:15:50
1	S 181.975 Axial†	82.1	81.8	[0.00]	µg/L	10:15:50
1	Sb 206.836†	104.3	104.0	[0.00]	µg/L	10:15:50
1	Se 196.026†	2.3	2.3	[0.00]	µg/L	10:15:50
1	SiO2†	1729.4	1723.9	[0.00]	µg/L	10:15:50
1	Si 251.611†	902.0	899.1	[0.00]	µg/L	10:15:30
1	Sn 189.927†	-6.6	-6.6	[0.00]	µg/L	10:15:50
1	Ti 334.940†	626.5	624.5	[0.00]	µg/L	10:15:30
1	Tl 190.801†	-120.7	-120.3	[0.00]	µg/L	10:15:50
1	U 409.014†	-208.2	-207.6	[0.00]	µg/L	10:15:30
1	V 292.402†	491.5	490.0	[0.00]	µg/L	10:15:30
1	Zn 213.857†	493.7	492.1	[0.00]	µg/L	10:15:50
2	Sc RADIAL	138787.4	138787.4	99.1	%	10:14:42
2	Al 396.153Radial†	-93.8	-94.7	[0.00]	µg/L	10:15:02
2	Ca 317.933Radial†	579.9	585.4	[0.00]	µg/L	10:15:02
2	Fe 238.204 Radial†	118.7	119.8	[0.00]	µg/L	10:15:02
2	K 766.490 Radial†	1516.0	1530.3	[0.00]	µg/L	10:14:42
2	Mg 279.077 IEC†	160.6	162.1	[0.00]	µg/L	10:15:02
2	Na 589.592 Radial†	883.5	891.9	[0.00]	µg/L	10:14:42
2	Sr 421.552†	-276.7	-279.3	[0.00]	µg/L	10:14:42
2	Sc 361.383	1802726.4	1802726.4	99.921	%	10:15:52
2	Y 371.029	1056514.6	1056514.6	99.926	%	10:15:52
2	Ag 328.068†	4445.4	4448.9	[0.00]	µg/L	10:15:54
2	As 188.979†	-17.6	-17.6	[0.00]	µg/L	10:16:14

2	B 249.677†	4098.2	4101.4	[0.00]	µg/L	10:15:54
2	Ba 233.527†	-137.4	-137.5	[0.00]	µg/L	10:16:14
2	Be 313.107†	-919.9	-920.6	[0.00]	µg/L	10:15:54
2	Cd 226.502†	-97.2	-97.3	[0.00]	µg/L	10:16:14
2	Co 228.616†	-212.6	-212.8	[0.00]	µg/L	10:16:14
2	Cr 267.716†	221.8	222.0	[0.00]	µg/L	10:16:14
2	Cu 324.752†	3087.1	3089.6	[0.00]	µg/L	10:15:54
2	Mn 257.610†	185.6	185.7	[0.00]	µg/L	10:16:14
2	Mo 202.031†	-31.7	-31.7	[0.00]	µg/L	10:16:14
2	Ni 231.604†	-105.8	-105.9	[0.00]	µg/L	10:16:14
2	P 214.914†	-25.3	-25.4	[0.00]	µg/L	10:16:14
2	Pb 220.353†	104.3	104.3	[0.00]	µg/L	10:16:14
2	S 181.975 Axial†	94.0	94.1	[0.00]	µg/L	10:16:14
2	Sb 206.836†	82.5	82.6	[0.00]	µg/L	10:16:14
2	Se 196.026†	-0.8	-0.8	[0.00]	µg/L	10:16:14
2	SiO2†	1742.2	1743.6	[0.00]	µg/L	10:16:14
2	Si 251.611†	730.3	730.9	[0.00]	µg/L	10:15:54
2	Sn 189.927†	-6.8	-6.8	[0.00]	µg/L	10:16:14
2	Ti 334.940†	782.7	783.4	[0.00]	µg/L	10:15:54
2	Tl 190.801†	-114.4	-114.5	[0.00]	µg/L	10:16:14
2	U 409.014†	-209.5	-209.7	[0.00]	µg/L	10:15:54
2	V 292.402†	334.7	335.0	[0.00]	µg/L	10:15:54
2	Zn 213.857†	495.4	495.8	[0.00]	µg/L	10:16:14
3	Sc RADIAL	140146.0	140146.0	100	%	10:15:04
3	Al 396.153Radial†	-69.9	-69.8	[0.00]	µg/L	10:15:24
3	Ca 317.933Radial†	572.2	572.0	[0.00]	µg/L	10:15:24
3	Fe 238.204 Radial†	100.1	100.0	[0.00]	µg/L	10:15:24
3	K 766.490 Radial†	1453.7	1453.2	[0.00]	µg/L	10:15:04
3	Mg 279.077 IEC†	176.4	176.3	[0.00]	µg/L	10:15:24
3	Na 589.592 Radial†	993.1	992.7	[0.00]	µg/L	10:15:04
3	Sr 421.552†	-169.7	-169.6	[0.00]	µg/L	10:15:04
3	Sc 361.383	1799815.0	1799815.0	99.760	%	10:16:16
3	Y 371.029	1054320.2	1054320.2	99.718	%	10:16:16
3	Ag 328.068†	4618.7	4629.8	[0.00]	µg/L	10:16:19
3	As 188.979†	-10.0	-10.0	[0.00]	µg/L	10:16:39
3	B 249.677†	4015.5	4025.2	[0.00]	µg/L	10:16:19
3	Ba 233.527†	-155.9	-156.3	[0.00]	µg/L	10:16:39
3	Be 313.107†	-1105.7	-1108.4	[0.00]	µg/L	10:16:19
3	Cd 226.502†	-113.2	-113.5	[0.00]	µg/L	10:16:39
3	Co 228.616†	-229.0	-229.5	[0.00]	µg/L	10:16:39
3	Cr 267.716†	245.8	246.4	[0.00]	µg/L	10:16:39
3	Cu 324.752†	2997.6	3004.8	[0.00]	µg/L	10:16:19
3	Mn 257.610†	193.3	193.8	[0.00]	µg/L	10:16:39
3	Mo 202.031†	-37.4	-37.5	[0.00]	µg/L	10:16:39
3	Ni 231.604†	-96.4	-96.6	[0.00]	µg/L	10:16:39
3	P 214.914†	-10.4	-10.4	[0.00]	µg/L	10:16:39
3	Pb 220.353†	103.0	103.3	[0.00]	µg/L	10:16:39
3	S 181.975 Axial†	90.6	90.9	[0.00]	µg/L	10:16:39
3	Sb 206.836†	82.4	82.6	[0.00]	µg/L	10:16:39
3	Se 196.026†	16.9	16.9	[0.00]	µg/L	10:16:39
3	SiO2†	1745.6	1749.8	[0.00]	µg/L	10:16:39
3	Si 251.611†	669.5	671.1	[0.00]	µg/L	10:16:19
3	Sn 189.927†	19.0	19.1	[0.00]	µg/L	10:16:39
3	Ti 334.940†	1058.6	1061.1	[0.00]	µg/L	10:16:19
3	Tl 190.801†	-107.8	-108.0	[0.00]	µg/L	10:16:39
3	U 409.014†	-72.6	-72.8	[0.00]	µg/L	10:16:19
3	V 292.402†	443.7	444.7	[0.00]	µg/L	10:16:19
3	Zn 213.857†	519.8	521.1	[0.00]	µg/L	10:16:39

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1804152.8	5199.83	0.29%	100.00	%
Sc RADIAL	140093.0	1279.85	0.91%	100.0	%
Y 371.029	1057297.2	3435.88	0.32%	100.00	%
Ag 328.068†	4565.2	100.87	2.21%	[0.00]	µg/L
Al 396.153Radial†	-78.5	14.00	17.83%	[0.00]	µg/L
As 188.979†	-18.6	9.07	48.89%	[0.00]	µg/L
B 249.677†	4065.1	38.25	0.94%	[0.00]	µg/L
Ba 233.527†	-144.5	10.26	7.10%	[0.00]	µg/L

Be 313.107†	-1091.7	163.40	14.97%	[0.00]	µg/L
Ca 317.933Radial†	571.4	14.18	2.48%	[0.00]	µg/L
Cd 226.502†	-103.4	8.84	8.55%	[0.00]	µg/L
Co 228.616†	-210.3	20.61	9.80%	[0.00]	µg/L
Cr 267.716†	233.2	12.30	5.28%	[0.00]	µg/L
Cu 324.752†	3036.1	46.52	1.53%	[0.00]	µg/L
Fe 238.204 Radial†	117.3	16.16	13.77%	[0.00]	µg/L
K 766.490 Radial†	1493.8	38.73	2.59%	[0.00]	µg/L
Mg 279.077 IEC†	172.5	9.01	5.22%	[0.00]	µg/L
Mn 257.610†	184.7	9.58	5.18%	[0.00]	µg/L
Mo 202.031†	-38.6	7.49	19.42%	[0.00]	µg/L
Na 589.592 Radial†	952.5	53.45	5.61%	[0.00]	µg/L
Ni 231.604†	-95.9	10.38	10.83%	[0.00]	µg/L
P 214.914†	-25.7	15.43	60.06%	[0.00]	µg/L
Pb 220.353†	103.5	0.81	0.78%	[0.00]	µg/L
S 181.975 Axial†	88.9	6.36	7.15%	[0.00]	µg/L
Sb 206.836†	89.7	12.37	13.78%	[0.00]	µg/L
Se 196.026†	6.2	9.46	153.73%	[0.00]	µg/L
SiO2†	1739.1	13.54	0.78%	[0.00]	µg/L
Si 251.611†	767.0	118.25	15.42%	[0.00]	µg/L
Sn 189.927†	1.9	14.90	789.79%	[0.00]	µg/L
Sr 421.552†	-204.5	64.82	31.70%	[0.00]	µg/L
Ti 334.940†	823.0	220.99	26.85%	[0.00]	µg/L
Tl 190.801†	-114.3	6.14	5.38%	[0.00]	µg/L
U 409.014†	-163.4	78.42	48.00%	[0.00]	µg/L
V 292.402†	423.2	79.68	18.83%	[0.00]	µg/L
Zn 213.857†	503.0	15.77	3.14%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 4/5/2010 10:16:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139125.6	139125.6	99.3	%	10:17:17
1	K 766.490 Radial†	4201.0	2736.4	[1000]	µg/L	10:17:17
1	Sr 421.552†	43301.9	43807.5	[100]	µg/L	10:17:17
1	Sc 361.383	1787922.4	1787922.4	99.100	%	10:17:25
1	Y 371.029	1045378.7	1045378.7	98.873	%	10:17:25
1	Ag 328.068†	29278.8	24979.4	[100]	µg/L	10:17:27
1	As 188.979†	269.9	290.9	[100]	µg/L	10:17:47
1	B 249.677†	10470.2	6500.1	[100]	µg/L	10:17:27
1	Ba 233.527†	22677.6	23028.0	[100]	µg/L	10:17:27
1	Be 313.107†	339780.2	343956.4	[100]	µg/L	10:17:25
1	Cd 226.502†	14950.1	15189.2	[100]	µg/L	10:17:27
1	Co 228.616†	7586.0	7865.2	[100]	µg/L	10:17:47
1	Cr 267.716†	11980.0	11855.6	[100]	µg/L	10:17:27
1	Cu 324.752†	27030.3	24239.6	[100]	µg/L	10:17:27
1	Mn 257.610†	77870.5	78392.6	[100]	µg/L	10:17:27
1	Mo 202.031†	3044.8	3111.0	[100]	µg/L	10:17:47
1	Ni 231.604†	8145.6	8315.5	[100]	µg/L	10:17:27
1	P 214.914†	2132.7	2177.8	[500]	µg/L	10:17:47
1	Pb 220.353†	1754.2	1666.6	[100]	µg/L	10:17:47
1	S 181.975 Axial†	320.2	234.2	[200]	µg/L	10:17:47
1	Sb 206.836†	856.2	774.3	[100]	µg/L	10:17:47
1	Se 196.026†	271.1	267.4	[100]	µg/L	10:17:47
1	SiO2†	11802.6	10170.7	[1069.5]	µg/L	10:17:27
1	Si 251.611†	32208.0	31733.4	[500]	µg/L	10:17:27
1	Sn 189.927†	1460.8	1472.2	[100]	µg/L	10:17:47
1	Ti 334.940†	97532.1	97594.5	[100]	µg/L	10:17:27
1	Tl 190.801†	651.1	771.2	[100]	µg/L	10:17:47
1	U 409.014†	1450.2	1626.7	[100]	µg/L	10:17:27
1	V 292.402†	19578.5	19333.0	[100]	µg/L	10:17:27
1	Zn 213.857†	17573.4	17230.0	[100]	µg/L	10:17:27
2	Sc RADIAL	139393.7	139393.7	99.5	%	10:17:19
2	K 766.490 Radial†	4071.1	2597.8	[1000]	µg/L	10:17:19
2	Sr 421.552†	43490.4	43913.0	[100]	µg/L	10:17:19
2	Sc 361.383	1810051.8	1810051.8	100.33	%	10:17:49
2	Y 371.029	1057261.6	1057261.6	99.997	%	10:17:49
2	Ag 328.068†	29153.6	24493.4	[100]	µg/L	10:17:51
2	As 188.979†	282.4	300.0	[100]	µg/L	10:18:11
2	B 249.677†	10334.4	6235.5	[100]	µg/L	10:17:51
2	Ba 233.527†	22670.7	22741.4	[100]	µg/L	10:17:51
2	Be 313.107†	345851.8	345816.4	[100]	µg/L	10:17:49
2	Cd 226.502†	14777.3	14832.5	[100]	µg/L	10:17:51
2	Co 228.616†	7580.5	7766.1	[100]	µg/L	10:18:11
2	Cr 267.716†	11835.9	11564.1	[100]	µg/L	10:17:51
2	Cu 324.752†	26968.9	23844.9	[100]	µg/L	10:17:51
2	Mn 257.610†	77589.5	77151.9	[100]	µg/L	10:17:51
2	Mo 202.031†	3039.5	3068.1	[100]	µg/L	10:18:11
2	Ni 231.604†	8167.1	8236.4	[100]	µg/L	10:17:51
2	P 214.914†	2136.5	2155.2	[500]	µg/L	10:18:11
2	Pb 220.353†	1760.7	1651.5	[100]	µg/L	10:18:11
2	S 181.975 Axial†	328.5	238.5	[200]	µg/L	10:18:11
2	Sb 206.836†	849.0	756.5	[100]	µg/L	10:18:11
2	Se 196.026†	270.8	263.7	[100]	µg/L	10:18:11
2	SiO2†	11845.9	10068.2	[1069.5]	µg/L	10:17:51
2	Si 251.611†	32133.9	31262.1	[500]	µg/L	10:17:51
2	Sn 189.927†	1448.7	1442.0	[100]	µg/L	10:18:11
2	Ti 334.940†	97204.0	96064.2	[100]	µg/L	10:17:51
2	Tl 190.801†	624.5	736.7	[100]	µg/L	10:18:11
2	U 409.014†	1369.3	1528.2	[100]	µg/L	10:17:51
2	V 292.402†	19503.3	19016.5	[100]	µg/L	10:17:51

2	Zn 213.857†	17334.5	16775.0	[100]	µg/L	10:17:51
3	Sc RADIAL	139506.2	139506.2	99.6	%	10:17:21
3	K 766.490 Radial†	4050.2	2573.4	[1000]	µg/L	10:17:21
3	Sr 421.552†	43526.0	43913.6	[100]	µg/L	10:17:21
3	Sc 361.383	1784413.8	1784413.8	98.906	%	10:18:13
3	Y 371.029	1042010.1	1042010.1	98.554	%	10:18:13
3	Ag 328.068†	29725.5	25489.2	[100]	µg/L	10:18:15
3	As 188.979†	279.2	300.8	[100]	µg/L	10:18:35
3	B 249.677†	10468.9	6519.6	[100]	µg/L	10:18:15
3	Ba 233.527†	23077.9	23477.7	[100]	µg/L	10:18:15
3	Be 313.107†	340163.6	345018.2	[100]	µg/L	10:18:13
3	Cd 226.502†	15190.7	15462.1	[100]	µg/L	10:18:15
3	Co 228.616†	7560.7	7854.6	[100]	µg/L	10:18:35
3	Cr 267.716†	12082.6	11983.0	[100]	µg/L	10:18:15
3	Cu 324.752†	27791.7	25063.0	[100]	µg/L	10:18:15
3	Mn 257.610†	79356.0	80049.1	[100]	µg/L	10:18:15
3	Mo 202.031†	3030.9	3103.0	[100]	µg/L	10:18:35
3	Ni 231.604†	8277.7	8465.2	[100]	µg/L	10:18:15
3	P 214.914†	2104.3	2153.2	[500]	µg/L	10:18:35
3	Pb 220.353†	1742.8	1658.6	[100]	µg/L	10:18:35
3	S 181.975 Axial†	334.2	248.9	[200]	µg/L	10:18:35
3	Sb 206.836†	850.6	770.3	[100]	µg/L	10:18:35
3	Se 196.026†	268.2	265.0	[100]	µg/L	10:18:35
3	SiO2†	12111.5	10506.4	[1069.5]	µg/L	10:18:15
3	Si 251.611†	32912.6	32509.7	[500]	µg/L	10:18:15
3	Sn 189.927†	1471.6	1486.0	[100]	µg/L	10:18:35
3	Ti 334.940†	99214.9	99489.4	[100]	µg/L	10:18:15
3	Tl 190.801†	647.7	769.1	[100]	µg/L	10:18:35
3	U 409.014†	1258.3	1435.6	[100]	µg/L	10:18:15
3	V 292.402†	19749.3	19544.6	[100]	µg/L	10:18:15
3	Zn 213.857†	17875.8	17570.6	[100]	µg/L	10:18:15

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1794129.3	13900.45	0.77%	99.444	%
Sc RADIAL	139341.9	195.52	0.14%	99.5	%
Y 371.029	1048216.8	8012.07	0.76%	99.141	%
Ag 328.068†	24987.3	497.93	1.99%	[100]	µg/L
As 188.979†	297.3	5.50	1.85%	[100]	µg/L
B 249.677†	6418.4	158.67	2.47%	[100]	µg/L
Ba 233.527†	23082.4	371.18	1.61%	[100]	µg/L
Be 313.107†	344930.4	933.09	0.27%	[100]	µg/L
Cd 226.502†	15161.2	315.73	2.08%	[100]	µg/L
Co 228.616†	7828.6	54.43	0.70%	[100]	µg/L
Cr 267.716†	11800.9	214.74	1.82%	[100]	µg/L
Cu 324.752†	24382.5	621.49	2.55%	[100]	µg/L
K 766.490 Radial†	2635.9	87.91	3.34%	[1000]	µg/L
Mn 257.610†	78531.2	1453.57	1.85%	[100]	µg/L
Mo 202.031†	3094.1	22.79	0.74%	[100]	µg/L
Ni 231.604†	8339.0	116.20	1.39%	[100]	µg/L
P 214.914†	2162.1	13.62	0.63%	[500]	µg/L
Pb 220.353†	1658.9	7.56	0.46%	[100]	µg/L
S 181.975 Axial†	240.6	7.56	3.14%	[200]	µg/L
Sb 206.836†	767.0	9.36	1.22%	[100]	µg/L
Se 196.026†	265.4	1.87	0.71%	[100]	µg/L
SiO2†	10248.4	229.21	2.24%	[1069.5]	µg/L
Si 251.611†	31835.1	629.94	1.98%	[500]	µg/L
Sn 189.927†	1466.7	22.48	1.53%	[100]	µg/L
Sr 421.552†	43878.0	61.08	0.14%	[100]	µg/L
Ti 334.940†	97716.0	1715.86	1.76%	[100]	µg/L
Tl 190.801†	759.0	19.35	2.55%	[100]	µg/L
U 409.014†	1530.2	95.58	6.25%	[100]	µg/L
V 292.402†	19298.0	265.76	1.38%	[100]	µg/L
Zn 213.857†	17191.8	399.18	2.32%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 4/5/2010 10:18:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	140889.5	140889.5	101	%	10:19:14
1	Al 396.153Radial†	24220.4	24162.1	[5000]	µg/L	10:19:14
1	Ca 317.933Radial†	76005.1	75004.0	[5000]	µg/L	10:19:14
1	K 766.490 Radial†	14239.3	12665.0	[5000]	µg/L	10:19:14
1	Mg 279.077 IEC†	11509.4	11271.9	[5000]	µg/L	10:19:14
1	Sr 421.552†	210637.5	209651.1	[500]	µg/L	10:19:12
1	Sc 361.383	1784374.4	1784374.4	98.904	%	10:19:27
1	Y 371.029	1033889.2	1033889.2	97.786	%	10:19:27
1	Ag 328.068†	125108.2	121929.8	[500]	µg/L	10:19:27
1	As 188.979†	1453.4	1488.1	[500]	µg/L	10:19:47
1	B 249.677†	35710.1	32040.8	[500]	µg/L	10:19:27
1	Ba 233.527†	112243.1	113631.8	[500]	µg/L	10:19:27
1	Be 313.107†	1716024.7	1736137.2	[500]	µg/L	10:19:27
1	Cd 226.502†	74131.2	75056.2	[500]	µg/L	10:19:27
1	Co 228.616†	37990.1	38621.5	[500]	µg/L	10:19:27
1	Cr 267.716†	57961.7	58371.0	[500]	µg/L	10:19:27
1	Cu 324.752†	121855.7	120170.2	[500]	µg/L	10:19:27
1	Mn 257.610†	376432.9	380420.6	[500]	µg/L	10:19:27
1	Mo 202.031†	15177.4	15384.2	[500]	µg/L	10:19:47
1	Ni 231.604†	39962.4	40501.3	[500]	µg/L	10:19:27
1	P 214.914†	10759.6	10904.6	[2500]	µg/L	10:19:47
1	Pb 220.353†	8251.5	8239.5	[500]	µg/L	10:19:47
1	S 181.975 Axial†	1269.7	1194.8	[1000]	µg/L	10:19:47
1	Sb 206.836†	3940.0	3893.9	[500]	µg/L	10:19:47
1	Se 196.026†	1265.4	1273.2	[500]	µg/L	10:19:47
1	SiO2†	51424.7	50255.6	[5347.5]	µg/L	10:19:27
1	Si 251.611†	157621.6	158601.7	[2500]	µg/L	10:19:27
1	Sn 189.927†	7160.0	7237.4	[500]	µg/L	10:19:47
1	Ti 334.940†	483114.1	487646.0	[500]	µg/L	10:19:27
1	Tl 190.801†	3546.4	3700.0	[500]	µg/L	10:19:47
1	U 409.014†	7287.7	7531.8	[500]	µg/L	10:19:27
1	V 292.402†	96138.3	96780.7	[500]	µg/L	10:19:27
1	Zn 213.857†	84347.2	84779.1	[500]	µg/L	10:19:27
2	Sc RADIAL	138468.7	138468.7	98.8	%	10:19:18
2	Al 396.153Radial†	23978.5	24338.3	[5000]	µg/L	10:19:18
2	Ca 317.933Radial†	74778.0	75083.7	[5000]	µg/L	10:19:18
2	K 766.490 Radial†	14166.1	12838.5	[5000]	µg/L	10:19:18
2	Mg 279.077 IEC†	11391.8	11353.0	[5000]	µg/L	10:19:18
2	Sr 421.552†	211261.0	213943.6	[500]	µg/L	10:19:16
2	Sc 361.383	1766889.2	1766889.2	97.935	%	10:19:50
2	Y 371.029	1024585.0	1024585.0	96.906	%	10:19:50
2	Ag 328.068†	123756.3	121801.2	[500]	µg/L	10:19:50
2	As 188.979†	1438.9	1487.8	[500]	µg/L	10:20:10
2	B 249.677†	35488.1	32171.4	[500]	µg/L	10:19:50
2	Ba 233.527†	111071.8	113558.9	[500]	µg/L	10:19:50
2	Be 313.107†	1696070.7	1732932.4	[500]	µg/L	10:19:50
2	Cd 226.502†	73034.6	74678.2	[500]	µg/L	10:19:50
2	Co 228.616†	37302.4	38299.4	[500]	µg/L	10:19:50
2	Cr 267.716†	57219.6	58193.2	[500]	µg/L	10:19:50
2	Cu 324.752†	120326.7	119828.2	[500]	µg/L	10:19:50
2	Mn 257.610†	372256.6	379922.7	[500]	µg/L	10:19:50
2	Mo 202.031†	15119.8	15477.2	[500]	µg/L	10:20:10
2	Ni 231.604†	39549.3	40479.3	[500]	µg/L	10:19:50
2	P 214.914†	10712.4	10964.0	[2500]	µg/L	10:20:10
2	Pb 220.353†	8202.8	8272.3	[500]	µg/L	10:20:10
2	S 181.975 Axial†	1257.6	1195.2	[1000]	µg/L	10:20:10
2	Sb 206.836†	3905.6	3898.3	[500]	µg/L	10:20:10
2	Se 196.026†	1247.8	1267.9	[500]	µg/L	10:20:10
2	SiO2†	50930.2	50265.3	[5347.5]	µg/L	10:19:50

2	Si 251.611†	155571.9	158085.9	[2500]	µg/L	10:19:50
2	Sn 189.927†	7125.7	7274.1	[500]	µg/L	10:20:10
2	Ti 334.940†	478384.9	487651.0	[500]	µg/L	10:19:50
2	Tl 190.801†	3514.3	3702.7	[500]	µg/L	10:20:10
2	U 409.014†	6992.6	7303.4	[500]	µg/L	10:19:50
2	V 292.402†	95133.6	96716.8	[500]	µg/L	10:19:50
2	Zn 213.857†	83229.4	84481.7	[500]	µg/L	10:19:50
3	Sc RADIAL	140766.3	140766.3	100	%	10:19:22
3	Al 396.153Radial†	24151.9	24114.9	[5000]	µg/L	10:19:22
3	Ca 317.933Radial†	75881.7	74947.3	[5000]	µg/L	10:19:22
3	K 766.490 Radial†	14167.2	12605.6	[5000]	µg/L	10:19:22
3	Mg 279.077 IEC†	11441.7	11214.6	[5000]	µg/L	10:19:22
3	Sr 421.552†	210189.9	209388.9	[500]	µg/L	10:19:20
3	Sc 361.383	1763888.5	1763888.5	97.768	%	10:20:13
3	Y 371.029	1022018.7	1022018.7	96.663	%	10:20:13
3	Ag 328.068†	123587.5	121843.4	[500]	µg/L	10:20:13
3	As 188.979†	1445.8	1497.3	[500]	µg/L	10:20:33
3	B 249.677†	35619.8	32367.8	[500]	µg/L	10:20:13
3	Ba 233.527†	110853.9	113528.9	[500]	µg/L	10:20:13
3	Be 313.107†	1698086.3	1737940.2	[500]	µg/L	10:20:13
3	Cd 226.502†	72949.0	74717.6	[500]	µg/L	10:20:13
3	Co 228.616†	37273.2	38334.3	[500]	µg/L	10:20:13
3	Cr 267.716†	57178.4	58250.4	[500]	µg/L	10:20:13
3	Cu 324.752†	120255.8	119964.8	[500]	µg/L	10:20:13
3	Mn 257.610†	371797.5	380099.8	[500]	µg/L	10:20:13
3	Mo 202.031†	15118.6	15502.3	[500]	µg/L	10:20:33
3	Ni 231.604†	39356.5	40350.8	[500]	µg/L	10:20:13
3	P 214.914†	10731.2	11001.8	[2500]	µg/L	10:20:33
3	Pb 220.353†	8211.7	8295.7	[500]	µg/L	10:20:33
3	S 181.975 Axial†	1263.9	1203.8	[1000]	µg/L	10:20:33
3	Sb 206.836†	3912.4	3912.0	[500]	µg/L	10:20:33
3	Se 196.026†	1265.8	1288.6	[500]	µg/L	10:20:33
3	SiO2†	51139.1	50567.4	[5347.5]	µg/L	10:20:13
3	Si 251.611†	155385.6	158165.5	[2500]	µg/L	10:20:13
3	Sn 189.927†	7157.9	7319.4	[500]	µg/L	10:20:33
3	Ti 334.940†	478003.2	488091.5	[500]	µg/L	10:20:13
3	Tl 190.801†	3508.4	3702.8	[500]	µg/L	10:20:33
3	U 409.014†	7057.3	7381.7	[500]	µg/L	10:20:13
3	V 292.402†	94875.9	96618.4	[500]	µg/L	10:20:13
3	Zn 213.857†	83345.0	84744.5	[500]	µg/L	10:20:13

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1771717.4	11063.51	0.62%	98.202	%
Sc RADIAL	140041.5	1363.47	0.97%	100.0	%
Y 371.029	1026831.0	6245.79	0.61%	97.118	%
Ag 328.068†	121858.1	65.55	0.05%	[500]	µg/L
Al 396.153Radial†	24205.1	117.77	0.49%	[5000]	µg/L
As 188.979†	1491.1	5.44	0.36%	[500]	µg/L
B 249.677†	32193.3	164.59	0.51%	[500]	µg/L
Ba 233.527†	113573.2	52.90	0.05%	[500]	µg/L
Be 313.107†	1735670.0	2536.38	0.15%	[500]	µg/L
Ca 317.933Radial†	75011.7	68.50	0.09%	[5000]	µg/L
Cd 226.502†	74817.4	207.79	0.28%	[500]	µg/L
Co 228.616†	38418.4	176.73	0.46%	[500]	µg/L
Cr 267.716†	58271.5	90.76	0.16%	[500]	µg/L
Cu 324.752†	119987.7	172.15	0.14%	[500]	µg/L
K 766.490 Radial†	12703.1	121.01	0.95%	[5000]	µg/L
Mg 279.077 IEC†	11279.8	69.56	0.62%	[5000]	µg/L
Mn 257.610†	380147.7	252.39	0.07%	[500]	µg/L
Mo 202.031†	15454.6	62.19	0.40%	[500]	µg/L
Ni 231.604†	40443.8	81.27	0.20%	[500]	µg/L
P 214.914†	10956.8	49.03	0.45%	[2500]	µg/L
Pb 220.353†	8269.2	28.26	0.34%	[500]	µg/L
S 181.975 Axial†	1198.0	5.06	0.42%	[1000]	µg/L
Sb 206.836†	3901.4	9.46	0.24%	[500]	µg/L
Se 196.026†	1276.6	10.73	0.84%	[500]	µg/L
SiO2†	50362.7	177.29	0.35%	[5347.5]	µg/L
Si 251.611†	158284.4	277.66	0.18%	[2500]	µg/L

Sn 189.927†	7277.0	41.07	0.56%	[500] µg/L
Sr 421.552†	210994.5	2557.30	1.21%	[500] µg/L
Ti 334.940†	487796.2	255.79	0.05%	[500] µg/L
Tl 190.801†	3701.8	1.60	0.04%	[500] µg/L
U 409.014†	7405.7	116.08	1.57%	[500] µg/L
V 292.402†	96705.3	81.74	0.08%	[500] µg/L
Zn 213.857†	84668.5	162.65	0.19%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 4/5/2010 10:20:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	138521.2	138521.2	98.9	%	10:21:12
1	Al 396.153Radial†	47739.4	48359.6	[10000]	µg/L	10:21:12
1	Ca 317.933Radial†	147603.9	148707.2	[10000]	µg/L	10:21:12
1	Fe 238.204 Radial†	132955.6	134346.9	[10000]	µg/L	10:21:12
1	K 766.490 Radial†	26494.7	25301.6	[10000]	µg/L	10:21:12
1	Mg 279.077 IEC†	22115.4	22193.9	[10000]	µg/L	10:21:12
1	Na 589.592 Radial†	64423.3	64201.8	[10000]	µg/L	10:21:12
1	Sr 421.552†	421705.7	426695.0	[1000]	µg/L	10:21:10
1	Sc 361.383	1787517.3	1787517.3	99.078	%	10:21:25
1	Y 371.029	1030588.8	1030588.8	97.474	%	10:21:25
1	Ag 328.068†	247472.6	245210.6	[1000]	µg/L	10:21:27
1	As 188.979†	2895.1	2940.6	[1000]	µg/L	10:21:47
1	B 249.677†	67826.5	64392.6	[1000]	µg/L	10:21:27
1	Ba 233.527†	223075.2	225295.8	[1000]	µg/L	10:21:27
1	Be 313.107†	3410791.6	3443625.8	[1000]	µg/L	10:21:25
1	Cd 226.502†	146771.7	148241.0	[1000]	µg/L	10:21:27
1	Co 228.616†	74870.3	75777.4	[1000]	µg/L	10:21:27
1	Cr 267.716†	114942.2	115778.7	[1000]	µg/L	10:21:27
1	Cu 324.752†	240746.6	239950.9	[1000]	µg/L	10:21:27
1	Mn 257.610†	744414.1	751157.3	[1000]	µg/L	10:21:25
1	Mo 202.031†	30103.8	30422.6	[1000]	µg/L	10:21:47
1	Ni 231.604†	79132.1	79964.5	[1000]	µg/L	10:21:27
1	P 214.914†	21254.4	21477.9	[5000]	µg/L	10:21:47
1	Pb 220.353†	16098.9	16145.3	[1000]	µg/L	10:21:47
1	S 181.975 Axial†	2437.0	2370.8	[2000]	µg/L	10:21:47
1	Sb 206.836†	7748.6	7731.0	[1000]	µg/L	10:21:47
1	Se 196.026†	2500.5	2517.6	[1000]	µg/L	10:21:47
1	SiO2†	102325.7	101538.9	[10695]	µg/L	10:21:27
1	Si 251.611†	316394.8	318572.3	[5000]	µg/L	10:21:27
1	Sn 189.927†	14188.1	14318.3	[1000]	µg/L	10:21:47
1	Ti 334.940†	964390.5	972542.5	[1000]	µg/L	10:21:25
1	Tl 190.801†	7109.4	7289.9	[1000]	µg/L	10:21:47
1	U 409.014†	15951.4	16263.2	[1000]	µg/L	10:21:27
1	V 292.402†	192075.9	193440.2	[1000]	µg/L	10:21:27
1	Zn 213.857†	166493.8	167540.3	[1000]	µg/L	10:21:27
2	Sc RADIAL	137587.7	137587.7	98.2	%	10:21:16
2	Al 396.153Radial†	47286.5	48226.0	[10000]	µg/L	10:21:16
2	Ca 317.933Radial†	146236.4	148327.7	[10000]	µg/L	10:21:16
2	Fe 238.204 Radial†	132132.0	134420.6	[10000]	µg/L	10:21:16
2	K 766.490 Radial†	26206.6	25190.0	[10000]	µg/L	10:21:16
2	Mg 279.077 IEC†	21947.0	22174.2	[10000]	µg/L	10:21:16
2	Na 589.592 Radial†	64079.1	64293.4	[10000]	µg/L	10:21:16
2	Sr 421.552†	418133.3	425951.3	[1000]	µg/L	10:21:14
2	Sc 361.383	1788077.8	1788077.8	99.109	%	10:21:50
2	Y 371.029	1031083.9	1031083.9	97.521	%	10:21:50
2	Ag 328.068†	245852.5	243497.5	[1000]	µg/L	10:21:52
2	As 188.979†	2920.6	2965.4	[1000]	µg/L	10:22:12
2	B 249.677†	67486.4	64027.9	[1000]	µg/L	10:21:52
2	Ba 233.527†	221407.1	223542.1	[1000]	µg/L	10:21:52
2	Be 313.107†	3418889.0	3450717.0	[1000]	µg/L	10:21:50
2	Cd 226.502†	145207.6	146616.4	[1000]	µg/L	10:21:52
2	Co 228.616†	73965.8	74841.1	[1000]	µg/L	10:21:52
2	Cr 267.716†	114087.3	114879.7	[1000]	µg/L	10:21:52
2	Cu 324.752†	238734.9	237845.0	[1000]	µg/L	10:21:52
2	Mn 257.610†	745639.7	752158.3	[1000]	µg/L	10:21:50
2	Mo 202.031†	30297.9	30608.8	[1000]	µg/L	10:22:12
2	Ni 231.604†	78509.5	79311.2	[1000]	µg/L	10:21:52
2	P 214.914†	21418.7	21637.0	[5000]	µg/L	10:22:12
2	Pb 220.353†	16212.2	16254.5	[1000]	µg/L	10:22:12

2	S 181.975 Axial†	2451.4	2384.5	[2000]	µg/L	10:22:12
2	Sb 206.836†	7810.0	7790.5	[1000]	µg/L	10:22:12
2	Se 196.026†	2535.5	2552.1	[1000]	µg/L	10:22:12
2	SiO2†	101458.8	100631.9	[10695]	µg/L	10:21:52
2	Si 251.611†	313775.9	315829.7	[5000]	µg/L	10:21:52
2	Sn 189.927†	14324.6	14451.5	[1000]	µg/L	10:22:12
2	Ti 334.940†	965317.9	973173.2	[1000]	µg/L	10:21:50
2	Tl 190.801†	7148.1	7326.6	[1000]	µg/L	10:22:12
2	U 409.014†	15724.4	16029.1	[1000]	µg/L	10:21:52
2	V 292.402†	190884.5	192177.3	[1000]	µg/L	10:21:52
2	Zn 213.857†	165290.1	166273.1	[1000]	µg/L	10:21:52
3	Sc RADIAL	139275.7	139275.7	99.4	%	10:21:20
3	Al 396.153Radial†	47754.7	48113.5	[10000]	µg/L	10:21:20
3	Ca 317.933Radial†	148116.2	148413.8	[10000]	µg/L	10:21:20
3	Fe 238.204 Radial†	133471.4	134137.3	[10000]	µg/L	10:21:20
3	K 766.490 Radial†	26397.5	25058.6	[10000]	µg/L	10:21:20
3	Mg 279.077 IEC†	22321.0	22279.5	[10000]	µg/L	10:21:20
3	Na 589.592 Radial†	64773.3	64200.9	[10000]	µg/L	10:21:20
3	Sr 421.552†	417779.7	420435.7	[1000]	µg/L	10:21:18
3	Sc 361.383	1807535.5	1807535.5	100.19	%	10:22:15
3	Y 371.029	1042236.8	1042236.8	98.576	%	10:22:15
3	Ag 328.068†	249483.7	244451.6	[1000]	µg/L	10:22:17
3	As 188.979†	2931.8	2944.9	[1000]	µg/L	10:22:37
3	B 249.677†	68615.7	64422.1	[1000]	µg/L	10:22:17
3	Ba 233.527†	224580.6	224304.8	[1000]	µg/L	10:22:17
3	Be 313.107†	3453157.0	3447786.3	[1000]	µg/L	10:22:15
3	Cd 226.502†	147846.5	147673.2	[1000]	µg/L	10:22:17
3	Co 228.616†	75097.4	75167.1	[1000]	µg/L	10:22:17
3	Cr 267.716†	115767.2	115317.3	[1000]	µg/L	10:22:17
3	Cu 324.752†	242135.7	238646.5	[1000]	µg/L	10:22:17
3	Mn 257.610†	754003.5	752407.7	[1000]	µg/L	10:22:15
3	Mo 202.031†	30459.8	30441.4	[1000]	µg/L	10:22:37
3	Ni 231.604†	79738.5	79685.1	[1000]	µg/L	10:22:17
3	P 214.914†	21516.4	21501.8	[5000]	µg/L	10:22:37
3	Pb 220.353†	16270.1	16136.2	[1000]	µg/L	10:22:37
3	S 181.975 Axial†	2455.6	2362.1	[2000]	µg/L	10:22:37
3	Sb 206.836†	7815.0	7710.7	[1000]	µg/L	10:22:37
3	Se 196.026†	2541.3	2530.4	[1000]	µg/L	10:22:37
3	SiO2†	102897.8	100966.2	[10695]	µg/L	10:22:17
3	Si 251.611†	318548.9	317185.7	[5000]	µg/L	10:22:17
3	Sn 189.927†	14399.1	14370.3	[1000]	µg/L	10:22:37
3	Ti 334.940†	976267.5	973617.4	[1000]	µg/L	10:22:15
3	Tl 190.801†	7181.7	7282.5	[1000]	µg/L	10:22:37
3	U 409.014†	15907.0	16040.6	[1000]	µg/L	10:22:17
3	V 292.402†	193637.0	192851.4	[1000]	µg/L	10:22:17
3	Zn 213.857†	167762.6	166945.7	[1000]	µg/L	10:22:17

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1794376.9	11399.19	0.64%	99.458	%
Sc RADIAL	138461.6	845.59	0.61%	98.8	%
Y 371.029	1034636.5	6586.69	0.64%	97.857	%
Ag 328.068†	244386.6	858.36	0.35%	[1000]	µg/L
Al 396.153Radial†	48233.0	123.22	0.26%	[10000]	µg/L
As 188.979†	2950.3	13.27	0.45%	[1000]	µg/L
B 249.677†	64280.9	219.57	0.34%	[1000]	µg/L
Ba 233.527†	224380.9	879.34	0.39%	[1000]	µg/L
Be 313.107†	3447376.3	3563.34	0.10%	[1000]	µg/L
Ca 317.933Radial†	148482.9	198.99	0.13%	[10000]	µg/L
Cd 226.502†	147510.2	824.46	0.56%	[1000]	µg/L
Co 228.616†	75261.9	475.26	0.63%	[1000]	µg/L
Cr 267.716†	115325.3	449.55	0.39%	[1000]	µg/L
Cu 324.752†	238814.2	1062.92	0.45%	[1000]	µg/L
Fe 238.204 Radial†	134301.6	146.99	0.11%	[10000]	µg/L
K 766.490 Radial†	25183.4	121.63	0.48%	[10000]	µg/L
Mg 279.077 IEC†	22215.9	56.02	0.25%	[10000]	µg/L
Mn 257.610†	751907.8	661.81	0.09%	[1000]	µg/L
Mo 202.031†	30490.9	102.54	0.34%	[1000]	µg/L
Na 589.592 Radial†	64232.0	53.14	0.08%	[10000]	µg/L

Ni 231.604†	79653.6	327.78	0.41%	[1000]	µg/L
P 214.914†	21538.9	85.80	0.40%	[5000]	µg/L
Pb 220.353†	16178.7	65.80	0.41%	[1000]	µg/L
S 181.975 Axial†	2372.5	11.31	0.48%	[2000]	µg/L
Sb 206.836†	7744.1	41.45	0.54%	[1000]	µg/L
Se 196.026†	2533.4	17.42	0.69%	[1000]	µg/L
SiO2†	101045.6	458.71	0.45%	[10695]	µg/L
Si 251.611†	317195.9	1371.33	0.43%	[5000]	µg/L
Sn 189.927†	14380.0	67.17	0.47%	[1000]	µg/L
Sr 421.552†	424360.7	3419.43	0.81%	[1000]	µg/L
Ti 334.940†	973111.1	540.12	0.06%	[1000]	µg/L
Tl 190.801†	7299.7	23.64	0.32%	[1000]	µg/L
U 409.014†	16111.0	131.96	0.82%	[1000]	µg/L
V 292.402†	192823.0	631.90	0.33%	[1000]	µg/L
Zn 213.857†	166919.7	633.98	0.38%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 4/5/2010 10:22:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	137102.1	137102.1	97.9	%	10:23:14
1	Al 396.153Radial†	232459.5	237609.2	[50000]	µg/L	10:23:14
1	Ca 317.933Radial†	719831.0	734962.7	[50000]	µg/L	10:23:14
1	Fe 238.204 Radial†	262262.3	267866.3	[20000]	µg/L	10:23:14
1	Mg 279.077 IEC†	106118.0	108260.5	[50000]	µg/L	10:23:14
1	Na 589.592 Radial†	127559.4	129389.6	[20000]	µg/L	10:23:14
1	Sc 361.383	1750599.2	1750599.2	97.032	%	10:23:22
1	Y 371.029	1010808.0	1010808.0	95.603	%	10:23:22
2	Sc RADIAL	136704.4	136704.4	97.6	%	10:23:16
2	Al 396.153Radial†	231023.6	236828.7	[50000]	µg/L	10:23:16
2	Ca 317.933Radial†	713826.0	730948.6	[50000]	µg/L	10:23:16
2	Fe 238.204 Radial†	260455.2	266793.9	[20000]	µg/L	10:23:16
2	Mg 279.077 IEC†	105162.9	107597.2	[50000]	µg/L	10:23:16
2	Na 589.592 Radial†	126553.4	128737.8	[20000]	µg/L	10:23:16
2	Sc 361.383	1767118.9	1767118.9	97.947	%	10:23:25
2	Y 371.029	1019622.9	1019622.9	96.437	%	10:23:25
3	Sc RADIAL	137409.9	137409.9	98.1	%	10:23:18
3	Al 396.153Radial†	232827.3	237451.9	[50000]	µg/L	10:23:18
3	Ca 317.933Radial†	721449.1	734964.4	[50000]	µg/L	10:23:18
3	Fe 238.204 Radial†	263160.9	268182.0	[20000]	µg/L	10:23:18
3	Mg 279.077 IEC†	106621.9	108531.3	[50000]	µg/L	10:23:18
3	Na 589.592 Radial†	127827.4	129370.8	[20000]	µg/L	10:23:18
3	Sc 361.383	1753846.2	1753846.2	97.212	%	10:23:28
3	Y 371.029	1011915.1	1011915.1	95.708	%	10:23:28

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1757188.1	8752.21	0.50%	97.397	%
Sc RADIAL	137072.1	353.73	0.26%	97.8	%
Y 371.029	1014115.3	4801.69	0.47%	95.916	%
Al 396.153Radial†	237296.6	412.77	0.17%	[50000]	µg/L
Ca 317.933Radial†	733625.3	2318.04	0.32%	[50000]	µg/L
Fe 238.204 Radial†	267614.1	727.59	0.27%	[20000]	µg/L
Mg 279.077 IEC†	108129.7	480.63	0.44%	[50000]	µg/L
Na 589.592 Radial†	129166.1	371.00	0.29%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	244.3	0.00000	0.999997	
Al 396.153Radial	3	Lin Thru 0	0.0	4.750	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	2.957	0.00000	0.999991	
B 249.677	3	Lin Thru 0	0.0	64.30	0.00000	1.000000	
Ba 233.527	3	Lin Thru 0	0.0	225.0	0.00000	0.999985	
Be 313.107	3	Lin Thru 0	0.0	3452	0.00000	0.999996	
Ca 317.933Radial	3	Lin Thru 0	0.0	14.68	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	148.0	0.00000	0.999981	
Co 228.616	3	Lin Thru 0	0.0	75.60	0.00000	0.999960	
Cr 267.716	3	Lin Thru 0	0.0	115.6	0.00000	0.999989	
Cu 324.752	3	Lin Thru 0	0.0	239.1	0.00000	0.999997	
Fe 238.204 Radia	2	Lin Thru 0	0.0	13.39	0.00000	0.999999	
K 766.490 Radial	3	Lin Thru 0	0.0	2.524	0.00000	0.999986	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.166	0.00000	0.999978	
Mn 257.610	3	Lin Thru 0	0.0	753.8	0.00000	0.999983	
Mo 202.031	3	Lin Thru 0	0.0	30.58	0.00000	0.999985	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.451	0.00000	0.999998	

Ni 231.604	3	Lin Thru 0	0.0	79.93	0.00000	0.999974
P 214.914	3	Lin Thru 0	0.0	4.323	0.00000	0.999976
Pb 220.353	3	Lin Thru 0	0.0	16.25	0.00000	0.999959
S 181.975 Axial	3	Lin Thru 0	0.0	1.189	0.00000	0.999992
Sb 206.836	3	Lin Thru 0	0.0	7.755	0.00000	0.999995
Se 196.026	3	Lin Thru 0	0.0	2.538	0.00000	0.999987
SiO2	3	Lin Thru 0	0.0	9.443	0.00000	0.999998
Si 251.611	3	Lin Thru 0	0.0	63.42	0.00000	1.000000
Sn 189.927	3	Lin Thru 0	0.0	14.42	0.00000	0.999987
Sr 421.552	3	Lin Thru 0	0.0	424.0	0.00000	0.999993
Ti 334.940	3	Lin Thru 0	0.0	973.6	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	7.323	0.00000	0.999979
U 409.014	3	Lin Thru 0	0.0	15.85	0.00000	0.999462
V 292.402	3	Lin Thru 0	0.0	192.9	0.00000	0.999999
Zn 213.857	3	Lin Thru 0	0.0	167.4	0.00000	0.999981

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 4/5/2010 10:23:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140523.3	140523.3	100	%			10:24:07
1	Al 396.153Radial†	24438.5	24442.2	5121.2	µg/L	5121.2	ppb	10:24:07
1	Ca 317.933Radial†	74783.5	73983.1	5038.9	µg/L	5038.9	ppb	10:24:07
1	Fe 238.204 Radial†	68030.6	67704.9	5056.2	µg/L	5056.2	ppb	10:24:07
1	K 766.490 Radial†	8010.1	6491.7	2569.4	µg/L	2569.4	ppb	10:24:07
1	Mg 279.077 IEC†	11573.0	11365.1	5256.4	µg/L	5256.4	ppb	10:24:07
1	Na 589.592 Radial†	17343.2	16337.6	2530.2	µg/L	2530.2	ppb	10:24:07
1	Sr 421.552†	225106.1	224621.2	529.72	µg/L	529.72	ppb	10:24:05
1	Sc 361.383	1811067.9	1811067.9	100.38	%			10:24:20
1	Y 371.029	1053070.2	1053070.2	99.600	%			10:24:20
1	Ag 328.068†	66564.0	61744.7	259.05	µg/L	259.05	ppb	10:24:20
1	As 188.979†	1394.2	1407.4	483.32	µg/L	483.32	ppb	10:24:40
1	B 249.677†	37900.4	33690.5	522.17	µg/L	522.17	ppb	10:24:20
1	Ba 233.527†	115320.6	115024.8	511.69	µg/L	511.69	ppb	10:24:20
1	Be 313.107†	892073.7	889759.3	257.88	µg/L	257.88	ppb	10:24:20
1	Cd 226.502†	74846.1	74663.7	504.32	µg/L	504.32	ppb	10:24:20
1	Co 228.616†	38714.5	38776.9	513.26	µg/L	513.26	ppb	10:24:20
1	Cr 267.716†	57458.5	57005.9	493.05	µg/L	493.05	ppb	10:24:20
1	Cu 324.752†	125966.4	122449.3	513.72	µg/L	513.72	ppb	10:24:20
1	Mn 257.610†	386772.5	385111.0	510.65	µg/L	510.65	ppb	10:24:20
1	Mo 202.031†	16355.4	16331.5	534.57	µg/L	534.57	ppb	10:24:40
1	Ni 231.604†	39957.0	39900.4	499.20	µg/L	499.20	ppb	10:24:20
1	P 214.914†	10952.7	10936.6	2521.1	µg/L	2521.1	ppb	10:24:40
1	Pb 220.353†	8370.6	8235.2	508.44	µg/L	508.44	ppb	10:24:40
1	S 181.975 Axial†	3038.8	2938.3	2476.4	µg/L	2476.4	ppb	10:24:40
1	Sb 206.836†	3984.8	3879.9	502.09	µg/L	502.09	ppb	10:24:40
1	Se 196.026†	6435.0	6404.3	2530	µg/L	2530	ppb	10:24:40
1	SiO2†	100095.5	97974.2	10352	µg/L	10352	ppb	10:24:20
1	Si 251.611†	309334.8	307386.6	4836.5	µg/L	4836.5	ppb	10:24:20
1	Sn 189.927†	7699.8	7668.5	533.57	µg/L	533.57	ppb	10:24:40
1	Ti 334.940†	481280.6	478620.0	490.93	µg/L	490.93	ppb	10:24:20
1	Tl 190.801†	3769.5	3869.4	535.81	µg/L	535.81	ppb	10:24:40
1	U 409.014†	7018.0	7154.6	482.25	µg/L	482.25	ppb	10:24:20
1	V 292.402†	97850.1	97053.2	509.98	µg/L	509.98	ppb	10:24:20
1	Zn 213.857†	86050.7	85219.1	504.95	µg/L	504.95	ppb	10:24:20
2	Sc RADIAL	141521.6	141521.6	101	%			10:24:11
2	Al 396.153Radial†	24648.2	24477.9	5128.8	µg/L	5128.8	ppb	10:24:11
2	Ca 317.933Radial†	75579.4	74245.0	5056.8	µg/L	5056.8	ppb	10:24:11
2	Fe 238.204 Radial†	68747.0	67935.7	5073.4	µg/L	5073.4	ppb	10:24:11
2	K 766.490 Radial†	8086.3	6510.9	2577.0	µg/L	2577.0	ppb	10:24:11
2	Mg 279.077 IEC†	11660.2	11370.0	5258.6	µg/L	5258.6	ppb	10:24:11
2	Na 589.592 Radial†	17495.8	16366.7	2534.7	µg/L	2534.7	ppb	10:24:11
2	Sr 421.552†	225995.0	223918.1	528.06	µg/L	528.06	ppb	10:24:09
2	Sc 361.383	1803387.2	1803387.2	99.958	%			10:24:43
2	Y 371.029	1048161.1	1048161.1	99.136	%			10:24:43
2	Ag 328.068†	66375.0	61838.0	259.41	µg/L	259.41	ppb	10:24:43
2	As 188.979†	1372.6	1391.8	478.02	µg/L	478.02	ppb	10:25:03
2	B 249.677†	37478.9	33429.7	518.10	µg/L	518.10	ppb	10:24:43
2	Ba 233.527†	114759.5	114952.8	511.37	µg/L	511.37	ppb	10:24:43
2	Be 313.107†	886689.4	888157.6	257.41	µg/L	257.41	ppb	10:24:43
2	Cd 226.502†	74557.3	74692.3	504.51	µg/L	504.51	ppb	10:24:43
2	Co 228.616†	38671.9	38898.6	514.87	µg/L	514.87	ppb	10:24:43
2	Cr 267.716†	57014.3	56805.3	491.33	µg/L	491.33	ppb	10:24:43
2	Cu 324.752†	124971.6	121988.6	511.78	µg/L	511.78	ppb	10:24:43
2	Mn 257.610†	384842.3	384821.0	510.26	µg/L	510.26	ppb	10:24:43
2	Mo 202.031†	16218.2	16263.6	532.35	µg/L	532.35	ppb	10:25:03
2	Ni 231.604†	39961.4	40074.3	501.38	µg/L	501.38	ppb	10:24:43
2	P 214.914†	10845.8	10876.1	2507.2	µg/L	2507.2	ppb	10:25:03
2	Pb 220.353†	8298.4	8198.4	506.19	µg/L	506.19	ppb	10:25:03

2	S 181.975 Axial†	2999.7	2912.0	2454.3 µg/L	2454.3 ppb	10:25:03
2	Sb 206.836†	3927.6	3839.5	496.87 µg/L	496.87 ppb	10:25:03
2	Se 196.026†	6386.0	6382.6	2520 µg/L	2520 ppb	10:25:03
2	SiO2†	99482.5	97785.7	10332 µg/L	10332 ppb	10:24:43
2	Si 251.611†	307517.6	306881.1	4828.6 µg/L	4828.6 ppb	10:24:43
2	Sn 189.927†	7645.8	7647.2	532.09 µg/L	532.09 ppb	10:25:03
2	Ti 334.940†	478739.3	478119.5	490.43 µg/L	490.43 ppb	10:24:43
2	Tl 190.801†	3725.8	3841.6	532.00 µg/L	532.00 ppb	10:25:03
2	U 409.014†	6667.8	6834.0	462.00 µg/L	462.00 ppb	10:24:43
2	V 292.402†	97411.1	97029.3	509.81 µg/L	509.81 ppb	10:24:43
2	Zn 213.857†	85869.6	85403.1	506.04 µg/L	506.04 ppb	10:24:43
3	Sc RADIAL	140619.3	140619.3	100 %		10:24:15
3	Al 396.153Radial†	24689.2	24675.4	5170.3 µg/L	5170.3 ppb	10:24:15
3	Ca 317.933Radial†	75209.3	74356.3	5064.3 µg/L	5064.3 ppb	10:24:15
3	Fe 238.204 Radial†	68498.2	68124.5	5087.5 µg/L	5087.5 ppb	10:24:15
3	K 766.490 Radial†	7806.5	6283.5	2486.9 µg/L	2486.9 ppb	10:24:15
3	Mg 279.077 IEC†	11680.4	11464.3	5302.2 µg/L	5302.2 ppb	10:24:15
3	Na 589.592 Radial†	17364.6	16347.1	2531.7 µg/L	2531.7 ppb	10:24:15
3	Sr 421.552†	224592.5	223956.3	528.15 µg/L	528.15 ppb	10:24:13
3	Sc 361.383	1807264.5	1807264.5	100.17 %		10:25:06
3	Y 371.029	1050693.9	1050693.9	99.375 %		10:25:06
3	Ag 328.068†	66243.0	61563.8	258.30 µg/L	258.30 ppb	10:25:06
3	As 188.979†	1388.9	1405.1	482.54 µg/L	482.54 ppb	10:25:26
3	B 249.677†	37737.0	33606.9	520.86 µg/L	520.86 ppb	10:25:06
3	Ba 233.527†	115014.8	114961.3	511.41 µg/L	511.41 ppb	10:25:06
3	Be 313.107†	890592.0	890150.3	257.99 µg/L	257.99 ppb	10:25:06
3	Cd 226.502†	74469.1	74444.2	502.83 µg/L	502.83 ppb	10:25:06
3	Co 228.616†	38759.6	38903.2	514.93 µg/L	514.93 ppb	10:25:06
3	Cr 267.716†	57275.1	56943.2	492.52 µg/L	492.52 ppb	10:25:06
3	Cu 324.752†	125282.2	122030.3	511.96 µg/L	511.96 ppb	10:25:06
3	Mn 257.610†	385605.2	384756.6	510.17 µg/L	510.17 ppb	10:25:06
3	Mo 202.031†	16300.9	16311.4	533.91 µg/L	533.91 ppb	10:25:26
3	Ni 231.604†	39880.4	39907.6	499.29 µg/L	499.29 ppb	10:25:06
3	P 214.914†	10929.8	10936.7	2521.2 µg/L	2521.2 ppb	10:25:26
3	Pb 220.353†	8313.7	8195.9	506.04 µg/L	506.04 ppb	10:25:26
3	S 181.975 Axial†	3024.1	2930.0	2469.4 µg/L	2469.4 ppb	10:25:26
3	Sb 206.836†	3985.2	3888.6	503.21 µg/L	503.21 ppb	10:25:26
3	Se 196.026†	6418.8	6401.6	2520 µg/L	2520 ppb	10:25:26
3	SiO2†	99707.6	97796.8	10334 µg/L	10334 ppb	10:25:06
3	Si 251.611†	308174.3	306876.6	4828.4 µg/L	4828.4 ppb	10:25:06
3	Sn 189.927†	7722.0	7706.8	536.23 µg/L	536.23 ppb	10:25:26
3	Ti 334.940†	480594.4	478943.9	491.27 µg/L	491.27 ppb	10:25:06
3	Tl 190.801†	3769.9	3877.6	536.93 µg/L	536.93 ppb	10:25:26
3	U 409.014†	6753.8	6905.5	466.53 µg/L	466.53 ppb	10:25:06
3	V 292.402†	97691.0	97099.6	510.20 µg/L	510.20 ppb	10:25:06
3	Zn 213.857†	85980.5	85329.5	505.61 µg/L	505.61 ppb	10:25:06

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807239.8	100.17	%	0.213				0.21%
Sc RADIAL	140888.1	101	%	0.4				0.39%
Y 371.029	1050641.7	99.371	%	0.2322				0.23%
Ag 328.068†	61715.5	258.92	µg/L	0.568	258.92	ppb	0.568	0.22%
QC value within limits for Ag 328.068 Recovery = 103.57%								
Al 396.153Radial†	24531.8	5140.1	µg/L	26.43	5140.1	ppb	26.43	0.51%
QC value within limits for Al 396.153Radial Recovery = 102.80%								
As 188.979†	1401.4	481.30	µg/L	2.864	481.30	ppb	2.864	0.60%
QC value within limits for As 188.979 Recovery = 96.26%								
B 249.677†	33575.7	520.38	µg/L	2.073	520.38	ppb	2.073	0.40%
QC value within limits for B 249.677 Recovery = 104.08%								
Ba 233.527†	114979.6	511.49	µg/L	0.175	511.49	ppb	0.175	0.03%
QC value within limits for Ba 233.527 Recovery = 102.30%								
Be 313.107†	889355.7	257.76	µg/L	0.308	257.76	ppb	0.308	0.12%
QC value within limits for Be 313.107 Recovery = 103.10%								
Ca 317.933Radial†	74194.8	5053.3	µg/L	13.05	5053.3	ppb	13.05	0.26%
QC value within limits for Ca 317.933Radial Recovery = 101.07%								
Cd 226.502†	74600.1	503.88	µg/L	0.919	503.88	ppb	0.919	0.18%
QC value within limits for Cd 226.502 Recovery = 100.78%								
Co 228.616†	38859.6	514.36	µg/L	0.946	514.36	ppb	0.946	0.18%

```
   QC value within limits for Co 228.616  Recovery = 102.87%
Cr 267.716†            56918.2      492.30 µg/L         0.880      492.30 ppb          0.880   0.18%
   QC value within limits for Cr 267.716  Recovery = 98.46%
Cu 324.752†           122156.1      512.49 µg/L         1.072      512.49 ppb          1.072   0.21%
   QC value within limits for Cu 324.752  Recovery = 102.50%
Fe 238.204 Radial†     67921.7      5072.3 µg/L         15.69      5072.3 ppb          15.69   0.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.45%
K 766.490 Radial†       6428.7      2544.4 µg/L         49.99      2544.4 ppb          49.99   1.96%
   QC value within limits for K 766.490 Radial  Recovery = 101.78%
Mg 279.077 IEC†        11399.8      5272.4 µg/L         25.80      5272.4 ppb          25.80   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.45%
Mn 257.610†           384896.2      510.36 µg/L         0.251      510.36 ppb          0.251   0.05%
   QC value within limits for Mn 257.610  Recovery = 102.07%
Mo 202.031†            16302.2      533.61 µg/L         1.140      533.61 ppb          1.140   0.21%
   QC value within limits for Mo 202.031  Recovery = 106.72%
Na 589.592 Radial†     16350.4      2532.2 µg/L          2.29      2532.2 ppb           2.29   0.09%
   QC value within limits for Na 589.592 Radial  Recovery = 101.29%
Ni 231.604†            39960.8      499.96 µg/L         1.231      499.96 ppb          1.231   0.25%
   QC value within limits for Ni 231.604  Recovery = 99.99%
P 214.914†             10916.5      2516.5 µg/L          8.09      2516.5 ppb           8.09   0.32%
   QC value within limits for P 214.914  Recovery = 100.66%
Pb 220.353†             8209.8      506.89 µg/L         1.346      506.89 ppb          1.346   0.27%
   QC value within limits for Pb 220.353  Recovery = 101.38%
S 181.975 Axial†        2926.8      2466.7 µg/L         11.31      2466.7 ppb          11.31   0.46%
   QC value within limits for S 181.975 Axial  Recovery = 98.67%
Sb 206.836†             3869.3      500.72 µg/L         3.381      500.72 ppb          3.381   0.68%
   QC value within limits for Sb 206.836  Recovery = 100.14%
Se 196.026†             6396.1        2520 µg/L           4.7        2520 ppb            4.7   0.19%
   QC value within limits for Se 196.026  Recovery = 100.88%
SiO2†                  97852.2       10339 µg/L          11.2       10339 ppb           11.2   0.11%
   QC value within limits for SiO2  Recovery = 96.68%
Si 251.611†           307048.1      4831.2 µg/L          4.61      4831.2 ppb           4.61   0.10%
   QC value within limits for Si 251.611  Recovery = 96.62%
Sn 189.927†             7674.1      533.96 µg/L         2.097      533.96 ppb          2.097   0.39%
   QC value within limits for Sn 189.927  Recovery = 106.79%
Sr 421.552†           224165.2      528.65 µg/L         0.933      528.65 ppb          0.933   0.18%
   QC value within limits for Sr 421.552  Recovery = 105.73%
Ti 334.940†           478561.1      490.88 µg/L         0.423      490.88 ppb          0.423   0.09%
   QC value within limits for Ti 334.940  Recovery = 98.18%
Tl 190.801†             3862.9      534.91 µg/L         2.585      534.91 ppb          2.585   0.48%
   QC value within limits for Tl 190.801  Recovery = 106.98%
U 409.014†              6964.7      470.26 µg/L        10.624      470.26 ppb         10.624   2.26%
   QC value within limits for U 409.014  Recovery = 94.05%
V 292.402†             97060.7      510.00 µg/L         0.194      510.00 ppb          0.194   0.04%
   QC value within limits for V 292.402  Recovery = 102.00%
Zn 213.857†            85317.2      505.54 µg/L         0.546      505.54 ppb          0.546   0.11%
   QC value within limits for Zn 213.857  Recovery = 101.11%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 4/5/2010 10:25:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139162.3	139162.3	99.3	%			10:26:03
1	Al 396.153Radial†	-53.9	24.2	5.0642	µg/L	5.0642	ppb	10:26:23
1	Ca 317.933Radial†	571.7	4.0	0.2745	µg/L	0.2745	ppb	10:26:23
1	Fe 238.204 Radial†	117.8	1.3	0.0992	µg/L	0.0992	ppb	10:26:23
1	K 766.490 Radial†	1466.1	-17.9	-7.0792	µg/L	-7.0792	ppb	10:26:03
1	Mg 279.077 IEC†	183.5	12.3	5.6777	µg/L	5.6777	ppb	10:26:23
1	Na 589.592 Radial†	1119.8	174.8	27.100	µg/L	27.100	ppb	10:26:03
1	Sr 421.552†	-218.0	-14.9	-0.0352	µg/L	-0.0352	ppb	10:26:03
1	Sc 361.383	1806325.2	1806325.2	100.12	%			10:27:25
1	Y 371.029	1059354.7	1059354.7	100.19	%			10:27:25
1	Ag 328.068†	4398.9	-171.5	-0.7202	µg/L	-0.7202	ppb	10:27:27
1	As 188.979†	-12.8	5.7	1.9434	µg/L	1.9434	ppb	10:27:47
1	B 249.677†	4126.0	55.9	0.8673	µg/L	0.8673	ppb	10:27:27
1	Ba 233.527†	-124.3	20.4	0.0910	µg/L	0.0910	ppb	10:27:47
1	Be 313.107†	-698.4	394.1	0.1093	µg/L	0.1093	ppb	10:27:27
1	Cd 226.502†	-64.2	39.2	0.2652	µg/L	0.2652	ppb	10:27:47
1	Co 228.616†	-177.9	32.6	0.4308	µg/L	0.4308	ppb	10:27:47
1	Cr 267.716†	212.7	-20.7	-0.1666	µg/L	-0.1666	ppb	10:27:47
1	Cu 324.752†	2961.2	-78.4	-0.3410	µg/L	-0.3410	ppb	10:27:27
1	Mn 257.610†	244.5	59.5	0.0787	µg/L	0.0787	ppb	10:27:47
1	Mo 202.031†	-12.2	26.4	0.8620	µg/L	0.8620	ppb	10:27:47
1	Ni 231.604†	-79.6	16.4	0.2058	µg/L	0.2058	ppb	10:27:47
1	P 214.914†	-21.4	4.3	0.9939	µg/L	0.9939	ppb	10:27:47
1	Pb 220.353†	93.3	-10.3	-0.6182	µg/L	-0.6182	ppb	10:27:47
1	S 181.975 Axial†	95.5	6.5	5.4827	µg/L	5.4827	ppb	10:27:47
1	Sb 206.836†	70.6	-19.2	-2.4625	µg/L	-2.4625	ppb	10:27:47
1	Se 196.026†	27.2	21.0	8.26	µg/L	8.26	ppb	10:27:47
1	SiO2†	1772.8	31.6	3.3130	µg/L	3.3130	ppb	10:27:47
1	Si 251.611†	695.9	-72.0	-1.1503	µg/L	-1.1503	ppb	10:27:27
1	Sn 189.927†	9.8	7.9	0.5516	µg/L	0.5516	ppb	10:27:47
1	Ti 334.940†	991.0	166.8	0.1776	µg/L	0.1776	ppb	10:27:27
1	Tl 190.801†	-103.3	11.1	1.5149	µg/L	1.5149	ppb	10:27:47
1	U 409.014†	-420.2	-256.4	-16.169	µg/L	-16.169	ppb	10:27:27
1	V 292.402†	453.0	29.2	0.1483	µg/L	0.1483	ppb	10:27:27
1	Zn 213.857†	541.6	38.0	0.2259	µg/L	0.2259	ppb	10:27:47
2	Sc RADIAL	142818.3	142818.3	102	%			10:26:25
2	Al 396.153Radial†	-102.5	-22.0	-4.6648	µg/L	-4.6648	ppb	10:26:45
2	Ca 317.933Radial†	573.3	-9.1	-0.6188	µg/L	-0.6188	ppb	10:26:45
2	Fe 238.204 Radial†	110.9	-8.5	-0.6347	µg/L	-0.6347	ppb	10:26:45
2	K 766.490 Radial†	1687.2	161.2	63.862	µg/L	63.862	ppb	10:26:25
2	Mg 279.077 IEC†	188.6	12.6	5.8246	µg/L	5.8246	ppb	10:26:45
2	Na 589.592 Radial†	1002.2	30.6	4.6847	µg/L	4.6847	ppb	10:26:25
2	Sr 421.552†	-146.6	60.6	0.1430	µg/L	0.1430	ppb	10:26:25
2	Sc 361.383	1814818.2	1814818.2	100.59	%			10:27:49
2	Y 371.029	1063959.1	1063959.1	100.63	%			10:27:49
2	Ag 328.068†	4390.0	-201.0	-0.8229	µg/L	-0.8229	ppb	10:27:52
2	As 188.979†	-4.3	14.3	4.8359	µg/L	4.8359	ppb	10:28:12
2	B 249.677†	4308.2	217.8	3.3850	µg/L	3.3850	ppb	10:27:52
2	Ba 233.527†	-108.5	36.7	0.1631	µg/L	0.1631	ppb	10:28:12
2	Be 313.107†	-1008.5	89.1	0.0263	µg/L	0.0263	ppb	10:27:52
2	Cd 226.502†	-90.1	13.8	0.0933	µg/L	0.0933	ppb	10:28:12
2	Co 228.616†	-172.6	38.7	0.5117	µg/L	0.5117	ppb	10:28:12
2	Cr 267.716†	241.1	6.5	0.0544	µg/L	0.0544	ppb	10:28:12
2	Cu 324.752†	3110.8	56.4	0.2376	µg/L	0.2376	ppb	10:27:52
2	Mn 257.610†	185.1	-0.7	-0.0012	µg/L	-0.0012	ppb	10:28:12
2	Mo 202.031†	-16.1	22.5	0.7373	µg/L	0.7373	ppb	10:28:12
2	Ni 231.604†	-83.2	13.2	0.1649	µg/L	0.1649	ppb	10:28:12
2	P 214.914†	-11.2	14.6	3.3643	µg/L	3.3643	ppb	10:28:12
2	Pb 220.353†	102.7	-1.3	-0.0807	µg/L	-0.0807	ppb	10:28:12

2	S 181.975 Axial†	103.8	14.2	11.975 µg/L	11.975 ppb	10:28:12
2	Sb 206.836†	96.2	5.9	0.7677 µg/L	0.7677 ppb	10:28:12
2	Se 196.026†	20.8	14.5	5.71 µg/L	5.71 ppb	10:28:12
2	SiO2†	1717.4	-31.8	-3.3984 µg/L	-3.3984 ppb	10:28:12
2	Si 251.611†	740.6	-30.8	-0.4998 µg/L	-0.4998 ppb	10:27:52
2	Sn 189.927†	13.1	11.2	0.7737 µg/L	0.7737 ppb	10:28:12
2	Ti 334.940†	875.6	47.5	0.0476 µg/L	0.0476 ppb	10:27:52
2	Tl 190.801†	-113.0	1.9	0.2561 µg/L	0.2561 ppb	10:28:12
2	U 409.014†	-138.0	26.2	1.6406 µg/L	1.6406 ppb	10:27:52
2	V 292.402†	389.3	-36.2	-0.1786 µg/L	-0.1786 ppb	10:27:52
2	Zn 213.857†	534.3	28.2	0.1669 µg/L	0.1669 ppb	10:28:12
3	Sc RADIAL	140073.3	140073.3	100.0 %		10:26:47
3	Al 396.153Radial†	-42.9	35.6	7.4623 µg/L	7.4623 ppb	10:27:07
3	Ca 317.933Radial†	561.5	-9.9	-0.6724 µg/L	-0.6724 ppb	10:27:07
3	Fe 238.204 Radial†	131.4	14.1	1.0507 µg/L	1.0507 ppb	10:27:07
3	K 766.490 Radial†	1577.5	83.9	33.259 µg/L	33.259 ppb	10:26:47
3	Mg 279.077 IEC†	160.6	-11.8	-5.4397 µg/L	-5.4397 ppb	10:27:07
3	Na 589.592 Radial†	1138.5	186.1	28.821 µg/L	28.821 ppb	10:26:47
3	Sr 421.552†	-238.5	-34.1	-0.0803 µg/L	-0.0803 ppb	10:26:47
3	Sc 361.383	1801432.9	1801432.9	99.849 %		10:28:14
3	Y 371.029	1056501.4	1056501.4	99.925 %		10:28:14
3	Ag 328.068†	4278.5	-280.2	-1.1531 µg/L	-1.1531 ppb	10:28:16
3	As 188.979†	-13.5	5.0	1.6981 µg/L	1.6981 ppb	10:28:36
3	B 249.677†	4216.2	157.5	2.4477 µg/L	2.4477 ppb	10:28:16
3	Ba 233.527†	-133.7	10.6	0.0474 µg/L	0.0474 ppb	10:28:36
3	Be 313.107†	-1028.1	62.1	0.0170 µg/L	0.0170 ppb	10:28:16
3	Cd 226.502†	-90.6	12.6	0.0850 µg/L	0.0850 ppb	10:28:36
3	Co 228.616†	-185.7	24.3	0.3210 µg/L	0.3210 ppb	10:28:36
3	Cr 267.716†	246.4	13.6	0.1197 µg/L	0.1197 ppb	10:28:36
3	Cu 324.752†	2983.7	-48.0	-0.2030 µg/L	-0.2030 ppb	10:28:16
3	Mn 257.610†	209.1	24.6	0.0329 µg/L	0.0329 ppb	10:28:36
3	Mo 202.031†	-14.8	23.7	0.7753 µg/L	0.7753 ppb	10:28:36
3	Ni 231.604†	-104.2	-8.4	-0.1054 µg/L	-0.1054 ppb	10:28:36
3	P 214.914†	-1.5	24.2	5.6067 µg/L	5.6067 ppb	10:28:36
3	Pb 220.353†	90.7	-12.6	-0.7708 µg/L	-0.7708 ppb	10:28:36
3	S 181.975 Axial†	101.2	12.4	10.478 µg/L	10.478 ppb	10:28:36
3	Sb 206.836†	86.9	-2.7	-0.3424 µg/L	-0.3424 ppb	10:28:36
3	Se 196.026†	17.0	10.8	4.26 µg/L	4.26 ppb	10:28:36
3	SiO2†	1768.5	32.1	3.3679 µg/L	3.3679 ppb	10:28:36
3	Si 251.611†	1260.7	495.6	7.8002 µg/L	7.8002 ppb	10:28:16
3	Sn 189.927†	11.5	9.6	0.6680 µg/L	0.6680 ppb	10:28:36
3	Ti 334.940†	917.1	95.5	0.0997 µg/L	0.0997 ppb	10:28:16
3	Tl 190.801†	-97.8	16.4	2.2310 µg/L	2.2310 ppb	10:28:36
3	U 409.014†	-212.8	-49.8	-3.1540 µg/L	-3.1540 ppb	10:28:16
3	V 292.402†	387.5	-35.2	-0.1760 µg/L	-0.1760 ppb	10:28:16
3	Zn 213.857†	530.2	28.0	0.1681 µg/L	0.1681 ppb	10:28:36

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807525.4	100.19	%	0.375				0.37%
Sc RADIAL	140684.7	100	%	1.4				1.35%
Y 371.029	1059938.4	100.25	%	0.356				0.36%
Ag 328.068†	-217.6	-0.8988	µg/L	0.22619	-0.8988	ppb	0.22619	25.17%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.6	2.6206	µg/L	6.42222	2.6206	ppb	6.42222	245.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.3	2.8258	µg/L	1.74509	2.8258	ppb	1.74509	61.76%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	143.7	2.2333	µg/L	1.27245	2.2333	ppb	1.27245	56.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	22.6	0.1005	µg/L	0.05843	0.1005	ppb	0.05843	58.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	181.8	0.0509	µg/L	0.05080	0.0509	ppb	0.05080	99.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-5.0	-0.3389	µg/L	0.53188	-0.3389	ppb	0.53188	156.95%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	21.9	0.1479	µg/L	0.10171	0.1479	ppb	0.10171	68.79%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	31.8	0.4212	µg/L	0.09568	0.4212	ppb	0.09568	22.72%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -0.2      0.0025 µg/L       0.15007      0.0025 ppb        0.15007 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -23.3     -0.1021 µg/L       0.30215     -0.1021 ppb        0.30215 295.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.3      0.1717 µg/L       0.84503      0.1717 ppb        0.84503 492.06%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          75.8      30.014 µg/L       35.5819      30.014 ppb        35.5819 118.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             4.3      2.0209 µg/L       6.46146      2.0209 ppb        6.46146 319.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                27.8      0.0368 µg/L       0.04010      0.0368 ppb        0.04010 108.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                24.2      0.7916 µg/L       0.06391      0.7916 ppb        0.06391   8.07%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        130.5      20.202 µg/L       13.4657      20.202 ppb        13.4657  66.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.1      0.0884 µg/L       0.16910      0.0884 ppb        0.16910 191.25%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 14.4      3.3216 µg/L       2.30669      3.3216 ppb        2.30669  69.44%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -8.1     -0.4899 µg/L       0.36249     -0.4899 ppb        0.36249  73.99%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           11.1      9.3117 µg/L       3.39955      9.3117 ppb        3.39955  36.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -5.4     -0.6791 µg/L       1.64121     -0.6791 ppb        1.64121 241.69%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                15.4        6.08 µg/L         2.027        6.08 ppb          2.027  33.35%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      10.6      1.0942 µg/L       3.89080      1.0942 ppb        3.89080 355.59%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               131.0      2.0500 µg/L       4.99041      2.0500 ppb        4.99041 243.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 9.6      0.6644 µg/L       0.11114      0.6644 ppb        0.11114  16.73%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 3.9      0.0092 µg/L       0.11809      0.0092 ppb        0.11809 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               103.3      0.1083 µg/L       0.06541      0.1083 ppb        0.06541  60.41%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 9.8      1.3340 µg/L       0.99980      1.3340 ppb        0.99980  74.95%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -93.3     -5.8942 µg/L       9.21571     -5.8942 ppb        9.21571 156.35%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -14.1     -0.0688 µg/L       0.18804     -0.0688 ppb        0.18804 273.40%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                31.4      0.1870 µg/L       0.03374      0.1870 ppb        0.03374  18.04%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 4/5/2010 10:28:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141650.4	141650.4	101	%			10:29:14
1	Al 396.153Radial†	1036.5	1103.7	231.88	µg/L	231.88	ppb	10:29:16
1	Ca 317.933Radial†	3603.3	2992.2	203.80	µg/L	203.80	ppb	10:29:16
1	Fe 238.204 Radial†	1560.7	1426.2	106.51	µg/L	106.51	ppb	10:29:16
1	K 766.490 Radial†	1826.1	312.3	123.57	µg/L	123.57	ppb	10:29:14
1	Mg 279.077 IEC†	874.5	692.5	319.90	µg/L	319.90	ppb	10:29:16
1	Na 589.592 Radial†	2732.4	1749.8	271.13	µg/L	271.13	ppb	10:29:16
1	Sr 421.552†	2186.1	2366.5	5.5797	µg/L	5.5797	ppb	10:29:16
1	Sc 361.383	1814341.7	1814341.7	100.56	%			10:29:28
1	Y 371.029	1064064.3	1064064.3	100.64	%			10:29:28
1	Ag 328.068†	5622.7	1026.0	4.3223	µg/L	4.3223	ppb	10:29:30
1	As 188.979†	87.6	105.7	35.836	µg/L	35.836	ppb	10:29:50
1	B 249.677†	7343.1	3236.7	50.319	µg/L	50.319	ppb	10:29:30
1	Ba 233.527†	999.3	1138.3	5.0652	µg/L	5.0652	ppb	10:29:50
1	Be 313.107†	16066.6	17068.1	4.9590	µg/L	4.9590	ppb	10:29:30
1	Cd 226.502†	646.2	745.9	5.0326	µg/L	5.0326	ppb	10:29:50
1	Co 228.616†	185.3	394.5	5.2190	µg/L	5.2190	ppb	10:29:50
1	Cr 267.716†	839.1	601.2	5.1628	µg/L	5.1628	ppb	10:29:50
1	Cu 324.752†	5479.5	2412.6	10.159	µg/L	10.159	ppb	10:29:30
1	Mn 257.610†	8022.8	7793.0	10.325	µg/L	10.325	ppb	10:29:30
1	Mo 202.031†	281.7	318.7	10.434	µg/L	10.434	ppb	10:29:50
1	Ni 231.604†	303.7	397.9	4.9784	µg/L	4.9784	ppb	10:29:50
1	P 214.914†	630.3	652.4	150.78	µg/L	150.78	ppb	10:29:50
1	Pb 220.353†	271.2	166.2	10.231	µg/L	10.231	ppb	10:29:50
1	S 181.975 Axial†	205.7	115.7	97.385	µg/L	97.385	ppb	10:29:50
1	Sb 206.836†	154.6	64.1	8.3550	µg/L	8.3550	ppb	10:29:50
1	Se 196.026†	110.2	103.4	40.8	µg/L	40.8	ppb	10:29:50
1	SiO2†	3822.7	2062.2	217.92	µg/L	217.92	ppb	10:29:30
1	Si 251.611†	7510.5	6701.3	105.46	µg/L	105.46	ppb	10:29:30
1	Sn 189.927†	160.1	157.3	10.927	µg/L	10.927	ppb	10:29:50
1	Ti 334.940†	5734.4	4879.2	4.9689	µg/L	4.9689	ppb	10:29:30
1	Tl 190.801†	38.0	152.0	20.859	µg/L	20.859	ppb	10:29:50
1	U 409.014†	615.0	774.9	49.286	µg/L	49.286	ppb	10:29:30
1	V 292.402†	1571.6	1139.6	6.0534	µg/L	6.0534	ppb	10:29:30
1	Zn 213.857†	2274.8	1759.0	10.457	µg/L	10.457	ppb	10:29:50
2	Sc RADIAL	141759.5	141759.5	101	%			10:29:18
2	Al 396.153Radial†	796.2	865.4	181.72	µg/L	181.72	ppb	10:29:20
2	Ca 317.933Radial†	3683.3	3068.5	209.00	µg/L	209.00	ppb	10:29:20
2	Fe 238.204 Radial†	1485.2	1350.5	100.85	µg/L	100.85	ppb	10:29:20
2	K 766.490 Radial†	1933.5	417.0	165.07	µg/L	165.07	ppb	10:29:18
2	Mg 279.077 IEC†	921.2	737.9	340.89	µg/L	340.89	ppb	10:29:20
2	Na 589.592 Radial†	2783.2	1797.9	278.55	µg/L	278.55	ppb	10:29:20
2	Sr 421.552†	2129.2	2308.6	5.4432	µg/L	5.4432	ppb	10:29:20
2	Sc 361.383	1776563.5	1776563.5	98.471	%			10:29:52
2	Y 371.029	1041330.5	1041330.5	98.490	%			10:29:52
2	Ag 328.068†	5648.1	1170.6	4.9166	µg/L	4.9166	ppb	10:29:54
2	As 188.979†	73.8	93.5	31.726	µg/L	31.726	ppb	10:30:14
2	B 249.677†	7226.4	3273.5	50.889	µg/L	50.889	ppb	10:29:54
2	Ba 233.527†	1019.4	1179.8	5.2489	µg/L	5.2489	ppb	10:30:14
2	Be 313.107†	16021.3	17361.8	5.0486	µg/L	5.0486	ppb	10:29:54
2	Cd 226.502†	661.1	774.7	5.2281	µg/L	5.2281	ppb	10:30:14
2	Co 228.616†	198.3	411.7	5.4466	µg/L	5.4466	ppb	10:30:14
2	Cr 267.716†	776.3	555.1	4.7513	µg/L	4.7513	ppb	10:30:14
2	Cu 324.752†	5385.0	2432.5	10.254	µg/L	10.254	ppb	10:29:54
2	Mn 257.610†	8036.2	7976.3	10.567	µg/L	10.567	ppb	10:29:54
2	Mo 202.031†	269.0	311.7	10.207	µg/L	10.207	ppb	10:30:14
2	Ni 231.604†	339.1	440.3	5.5085	µg/L	5.5085	ppb	10:30:14
2	P 214.914†	631.8	667.3	154.21	µg/L	154.21	ppb	10:30:14
2	Pb 220.353†	260.3	160.9	9.8917	µg/L	9.8917	ppb	10:30:14

2	S 181.975 Axial†	213.7	128.1	107.82 µg/L	107.82 ppb	10:30:14
2	Sb 206.836†	134.3	46.7	6.1115 µg/L	6.1115 ppb	10:30:14
2	Se 196.026†	85.8	81.0	32.0 µg/L	32.0 ppb	10:30:14
2	SiO2†	3765.3	2084.6	220.32 µg/L	220.32 ppb	10:29:54
2	Si 251.611†	7495.9	6845.3	107.74 µg/L	107.74 ppb	10:29:54
2	Sn 189.927†	145.1	145.5	10.110 µg/L	10.110 ppb	10:30:14
2	Ti 334.940†	5701.4	4966.9	5.0513 µg/L	5.0513 ppb	10:29:54
2	Tl 190.801†	42.7	157.6	21.607 µg/L	21.607 ppb	10:30:14
2	U 409.014†	837.2	1013.6	64.273 µg/L	64.273 ppb	10:29:54
2	V 292.402†	1281.9	878.6	4.7076 µg/L	4.7076 ppb	10:29:54
2	Zn 213.857†	2244.8	1776.7	10.559 µg/L	10.559 ppb	10:30:14
3	Sc RADIAL	141499.9	141499.9	101 %		10:29:22
3	Al 396.153Radial†	902.8	972.4	204.30 µg/L	204.30 ppb	10:29:24
3	Ca 317.933Radial†	3625.9	3018.4	205.58 µg/L	205.58 ppb	10:29:24
3	Fe 238.204 Radial†	1528.3	1395.8	104.24 µg/L	104.24 ppb	10:29:24
3	K 766.490 Radial†	1924.1	411.1	162.76 µg/L	162.76 ppb	10:29:22
3	Mg 279.077 IEC†	884.8	703.6	325.00 µg/L	325.00 ppb	10:29:24
3	Na 589.592 Radial†	2796.7	1816.3	281.40 µg/L	281.40 ppb	10:29:24
3	Sr 421.552†	2078.5	2262.3	5.3339 µg/L	5.3339 ppb	10:29:24
3	Sc 361.383	1809314.5	1809314.5	100.29 %		10:30:16
3	Y 371.029	1060913.4	1060913.4	100.34 %		10:30:16
3	Ag 328.068†	5830.0	1248.2	5.2210 µg/L	5.2210 ppb	10:30:18
3	As 188.979†	82.3	100.6	34.129 µg/L	34.129 ppb	10:30:38
3	B 249.677†	7300.8	3214.9	49.979 µg/L	49.979 ppb	10:30:18
3	Ba 233.527†	972.1	1113.9	4.9559 µg/L	4.9559 ppb	10:30:38
3	Be 313.107†	16413.7	17458.6	5.0723 µg/L	5.0723 ppb	10:30:18
3	Cd 226.502†	657.5	759.0	5.1213 µg/L	5.1213 ppb	10:30:38
3	Co 228.616†	193.3	403.1	5.3320 µg/L	5.3320 ppb	10:30:38
3	Cr 267.716†	830.2	594.7	5.1050 µg/L	5.1050 ppb	10:30:38
3	Cu 324.752†	5532.4	2480.5	10.443 µg/L	10.443 ppb	10:30:18
3	Mn 257.610†	8096.9	7889.1	10.452 µg/L	10.452 ppb	10:30:18
3	Mo 202.031†	245.6	283.5	9.2820 µg/L	9.2820 ppb	10:30:38
3	Ni 231.604†	321.4	416.4	5.2097 µg/L	5.2097 ppb	10:30:38
3	P 214.914†	632.2	656.1	151.62 µg/L	151.62 ppb	10:30:38
3	Pb 220.353†	240.3	136.1	8.3755 µg/L	8.3755 ppb	10:30:38
3	S 181.975 Axial†	210.4	120.9	101.79 µg/L	101.79 ppb	10:30:38
3	Sb 206.836†	142.1	52.0	6.7786 µg/L	6.7786 ppb	10:30:38
3	Se 196.026†	92.7	86.3	34.1 µg/L	34.1 ppb	10:30:38
3	SiO2†	3995.7	2245.2	237.35 µg/L	237.35 ppb	10:30:18
3	Si 251.611†	7591.6	6803.0	107.09 µg/L	107.09 ppb	10:30:18
3	Sn 189.927†	145.0	142.7	9.9131 µg/L	9.9131 ppb	10:30:38
3	Ti 334.940†	5766.5	4927.0	5.0173 µg/L	5.0173 ppb	10:30:18
3	Tl 190.801†	41.5	155.7	21.346 µg/L	21.346 ppb	10:30:38
3	U 409.014†	624.1	785.7	49.910 µg/L	49.910 ppb	10:30:18
3	V 292.402†	1376.7	949.5	5.0570 µg/L	5.0570 ppb	10:30:18
3	Zn 213.857†	2245.7	1736.3	10.320 µg/L	10.320 ppb	10:30:38

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1800073.2	99.774	%	1.1371				1.14%
Sc RADIAL	141636.6	101	%	0.1				0.09%
Y 371.029	1055436.1	99.824	%	1.1649				1.17%
Ag 328.068†	1148.3	4.8200	µg/L	0.45709	4.8200	ppb	0.45709	9.48%
QC value within limits for Ag 328.068 Recovery = 96.40%								
Al 396.153Radial†	980.5	205.96	µg/L	25.124	205.96	ppb	25.124	12.20%
QC value within limits for Al 396.153Radial Recovery = 102.98%								
As 188.979†	99.9	33.897	µg/L	2.0651	33.897	ppb	2.0651	6.09%
QC value within limits for As 188.979 Recovery = 112.99%								
B 249.677†	3241.7	50.396	µg/L	0.4603	50.396	ppb	0.4603	0.91%
QC value within limits for B 249.677 Recovery = 100.79%								
Ba 233.527†	1144.0	5.0900	µg/L	0.14810	5.0900	ppb	0.14810	2.91%
QC value within limits for Ba 233.527 Recovery = 101.80%								
Be 313.107†	17296.2	5.0266	µg/L	0.05978	5.0266	ppb	0.05978	1.19%
QC value within limits for Be 313.107 Recovery = 100.53%								
Ca 317.933Radial†	3026.4	206.12	µg/L	2.642	206.12	ppb	2.642	1.28%
QC value within limits for Ca 317.933Radial Recovery = 103.06%								
Cd 226.502†	759.9	5.1273	µg/L	0.09792	5.1273	ppb	0.09792	1.91%
QC value within limits for Cd 226.502 Recovery = 102.55%								
Co 228.616†	403.1	5.3325	µg/L	0.11382	5.3325	ppb	0.11382	2.13%

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   QC value within limits for Co 228.616  Recovery = 106.65%
Cr 267.716†              583.7      5.0064 µg/L       0.22276      5.0064 ppb        0.22276   4.45%
   QC value within limits for Cr 267.716  Recovery = 100.13%
Cu 324.752†             2441.9      10.285 µg/L        0.1448      10.285 ppb         0.1448   1.41%
   QC value within limits for Cu 324.752  Recovery = 102.85%
Fe 238.204 Radial†      1390.8      103.87 µg/L         2.845      103.87 ppb          2.845   2.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.87%
K 766.490 Radial†        380.1      150.47 µg/L        23.319      150.47 ppb         23.319  15.50%
   QC value within limits for K 766.490 Radial  Recovery = 100.31%
Mg 279.077 IEC†          711.3      328.59 µg/L        10.947      328.59 ppb         10.947   3.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.53%
Mn 257.610†             7886.1      10.448 µg/L        0.1212      10.448 ppb         0.1212   1.16%
   QC value within limits for Mn 257.610  Recovery = 104.48%
Mo 202.031†              304.6      9.9743 µg/L       0.61026      9.9743 ppb        0.61026   6.12%
   QC value within limits for Mo 202.031  Recovery = 99.74%
Na 589.592 Radial†      1788.0      277.03 µg/L         5.304      277.03 ppb          5.304   1.91%
   QC value within limits for Na 589.592 Radial  Recovery = 92.34%
Ni 231.604†              418.2      5.2322 µg/L       0.26577      5.2322 ppb        0.26577   5.08%
   QC value within limits for Ni 231.604  Recovery = 104.64%
P 214.914†               658.6      152.20 µg/L         1.789      152.20 ppb          1.789   1.18%
   QC value within limits for P 214.914  Recovery = 101.47%
Pb 220.353†              154.4      9.4994 µg/L       0.98805      9.4994 ppb        0.98805  10.40%
   QC value within limits for Pb 220.353  Recovery = 94.99%
S 181.975 Axial†         121.5      102.33 µg/L         5.237      102.33 ppb          5.237   5.12%
   QC value within limits for S 181.975 Axial  Recovery = 102.33%
Sb 206.836†               54.2      7.0817 µg/L       1.15204      7.0817 ppb        1.15204  16.27%
   QC value within limits for Sb 206.836  Recovery = 70.82%
Se 196.026†               90.2        35.6 µg/L          4.62        35.6 ppb           4.62  12.96%
   QC value within limits for Se 196.026  Recovery = 118.81%
SiO2†                   2130.7      225.20 µg/L        10.592      225.20 ppb         10.592   4.70%
   QC value within limits for SiO2  Recovery = 105.73%
Si 251.611†             6783.2      106.76 µg/L         1.174      106.76 ppb          1.174   1.10%
   QC value within limits for Si 251.611  Recovery = 106.76%
Sn 189.927†              148.5      10.317 µg/L        0.5376      10.317 ppb         0.5376   5.21%
   QC value within limits for Sn 189.927  Recovery = 103.17%
Sr 421.552†             2312.5      5.4523 µg/L       0.12318      5.4523 ppb        0.12318   2.26%
   QC value within limits for Sr 421.552  Recovery = 109.05%
Ti 334.940†             4924.4      5.0125 µg/L       0.04145      5.0125 ppb        0.04145   0.83%
   QC value within limits for Ti 334.940  Recovery = 100.25%
Tl 190.801†              155.1      21.271 µg/L        0.3801      21.271 ppb         0.3801   1.79%
   QC value within limits for Tl 190.801  Recovery = 106.35%
U 409.014†               858.1      54.490 µg/L        8.4787      54.490 ppb         8.4787  15.56%
   QC value within limits for U 409.014  Recovery = 108.98%
V 292.402†               989.2      5.2727 µg/L       0.69837      5.2727 ppb        0.69837  13.25%
   QC value within limits for V 292.402  Recovery = 105.45%
Zn 213.857†             1757.4      10.445 µg/L        0.1201      10.445 ppb         0.1201   1.15%
   QC value within limits for Zn 213.857  Recovery = 104.45%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 4/5/2010 10:30:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128118.6	128118.6	91.5	%			10:31:19
1	Al 396.153Radial†	2213795.6	2420782.5	509660	µg/L	509660	ppb	10:31:17
1	Ca 317.933Radial†	6606069.4	7222922.0	491950	µg/L	491950	ppb	10:31:17
1	Fe 238.204 Radial†	2362080.3	2582730.5	192880	µg/L	192880	ppb	10:31:17
1	K 766.490 Radial†	1496.6	142.7	-187.26	µg/L	-187.26	ppb	10:31:19
1	Mg 279.077 IEC†	972171.2	1062860.9	490600	µg/L	490600	ppb	10:31:17
1	Na 589.592 Radial†	1170.1	326.9	50.623	µg/L	50.623	ppb	10:31:19
1	Sr 421.552†	4658.8	5298.7	8.6462	µg/L	8.6462	ppb	10:31:19
1	Sc 361.383	1581772.1	1581772.1	87.674	%			10:31:32
1	Y 371.029	913048.3	913048.3	86.357	%			10:31:32
1	Ag 328.068†	6751.4	3135.4	-0.7645	µg/L	-0.7645	ppb	10:31:32
1	As 188.979†	-94.1	-88.8	13.191	µg/L	13.191	ppb	10:31:52
1	B 249.677†	4066.1	572.6	8.8918	µg/L	8.8918	ppb	10:31:32
1	Ba 233.527†	383.0	581.4	0.1203	µg/L	0.1203	ppb	10:31:52
1	Be 313.107†	-291.7	759.0	0.2135	µg/L	0.2135	ppb	10:31:32
1	Cd 226.502†	2322.1	2751.9	-1.6829	µg/L	-1.6829	ppb	10:31:52
1	Co 228.616†	65.4	284.9	-6.2907	µg/L	-6.2907	ppb	10:31:52
1	Cr 267.716†	227.8	26.6	0.9599	µg/L	0.9599	ppb	10:31:52
1	Cu 324.752†	-5602.2	-9426.0	1.9087	µg/L	1.9087	ppb	10:31:32
1	Mn 257.610†	15226.9	17182.9	2.8255	µg/L	2.8255	ppb	10:31:32
1	Mo 202.031†	-533.4	-569.8	-2.0372	µg/L	-2.0372	ppb	10:31:52
1	Ni 231.604†	109.0	220.2	2.7550	µg/L	2.7550	ppb	10:31:52
1	P 214.914†	152.0	199.0	28.356	µg/L	28.356	ppb	10:31:52
1	Pb 220.353†	-270.6	-412.1	0.0388	µg/L	0.0388	ppb	10:31:52
1	S 181.975 Axial†	175.6	111.3	93.501	µg/L	93.501	ppb	10:31:52
1	Sb 206.836†	130.3	58.9	1.5033	µg/L	1.5033	ppb	10:31:52
1	Se 196.026†	-137.9	-163.4	2.51	µg/L	2.51	ppb	10:31:52
1	SiO2†	1649.9	142.7	15.602	µg/L	15.602	ppb	10:31:52
1	Si 251.611†	499.7	-197.1	-2.8776	µg/L	-2.8776	ppb	10:31:52
1	Sn 189.927†	36.3	39.5	2.8247	µg/L	2.8247	ppb	10:31:52
1	Ti 334.940†	21726.4	23957.9	-2.5303	µg/L	-2.5303	ppb	10:31:32
1	Tl 190.801†	-162.0	-70.5	-9.1790	µg/L	-9.1790	ppb	10:31:52
1	U 409.014†	-433.0	-330.5	-42.174	µg/L	-42.174	ppb	10:31:32
1	V 292.402†	4095.4	4247.9	1.4397	µg/L	1.4397	ppb	10:31:32
1	Zn 213.857†	4191.7	4278.1	8.9566	µg/L	8.9566	ppb	10:31:52
2	Sc RADIAL	127837.7	127837.7	91.3	%			10:31:24
2	Al 396.153Radial†	2210404.0	2422384.5	510000	µg/L	510000	ppb	10:31:22
2	Ca 317.933Radial†	6599761.5	7231881.1	492560	µg/L	492560	ppb	10:31:22
2	Fe 238.204 Radial†	2358861.0	2584877.7	193040	µg/L	193040	ppb	10:31:22
2	K 766.490 Radial†	1627.9	290.2	-129.07	µg/L	-129.07	ppb	10:31:24
2	Mg 279.077 IEC†	971105.4	1064028.7	491140	µg/L	491140	ppb	10:31:22
2	Na 589.592 Radial†	1340.9	516.9	80.019	µg/L	80.019	ppb	10:31:24
2	Sr 421.552†	4691.9	5346.2	8.7534	µg/L	8.7534	ppb	10:31:24
2	Sc 361.383	1601726.0	1601726.0	88.780	%			10:31:55
2	Y 371.029	924331.0	924331.0	87.424	%			10:31:55
2	Ag 328.068†	6732.2	3017.9	-1.2361	µg/L	-1.2361	ppb	10:31:55
2	As 188.979†	-100.4	-94.5	11.292	µg/L	11.292	ppb	10:32:15
2	B 249.677†	4142.1	600.4	9.3234	µg/L	9.3234	ppb	10:31:55
2	Ba 233.527†	415.6	612.7	0.2573	µg/L	0.2573	ppb	10:32:15
2	Be 313.107†	-658.4	350.1	0.1024	µg/L	0.1024	ppb	10:31:55
2	Cd 226.502†	2287.7	2680.2	-2.1849	µg/L	-2.1849	ppb	10:32:15
2	Co 228.616†	80.1	300.6	-6.0911	µg/L	-6.0911	ppb	10:32:15
2	Cr 267.716†	216.7	10.9	0.8039	µg/L	0.8039	ppb	10:32:15
2	Cu 324.752†	-5526.1	-9260.6	2.6582	µg/L	2.6582	ppb	10:31:55
2	Mn 257.610†	15435.0	17201.0	2.8276	µg/L	2.8276	ppb	10:31:55
2	Mo 202.031†	-532.0	-560.7	-1.7223	µg/L	-1.7223	ppb	10:32:15
2	Ni 231.604†	77.9	183.6	2.2975	µg/L	2.2975	ppb	10:32:15
2	P 214.914†	142.5	186.2	25.349	µg/L	25.349	ppb	10:32:15
2	Pb 220.353†	-320.0	-463.9	-3.1465	µg/L	-3.1465	ppb	10:32:15

2	S 181.975 Axial†	177.0	110.4	92.750	µg/L	92.750 ppb	10:32:15
2	Sb 206.836†	126.2	52.5	0.6818	µg/L	0.6818 ppb	10:32:15
2	Se 196.026†	-144.5	-168.9	0.419	µg/L	0.419 ppb	10:32:15
2	SiO2†	1619.4	85.0	9.4740	µg/L	9.4740 ppb	10:32:15
2	Si 251.611†	519.4	-182.0	-2.6482	µg/L	-2.6482 ppb	10:32:15
2	Sn 189.927†	45.3	49.1	3.4897	µg/L	3.4897 ppb	10:32:15
2	Ti 334.940†	22275.7	24268.0	-2.2496	µg/L	-2.2496 ppb	10:31:55
2	Tl 190.801†	-159.0	-64.8	-8.4026	µg/L	-8.4026 ppb	10:32:15
2	U 409.014†	-99.2	51.7	-18.085	µg/L	-18.085 ppb	10:31:55
2	V 292.402†	4098.2	4192.9	1.1561	µg/L	1.1561 ppb	10:31:55
2	Zn 213.857†	4180.5	4205.9	8.5109	µg/L	8.5109 ppb	10:32:15
3	Sc RADIAL	129703.1	129703.1	92.6	%		10:31:28
3	Al 396.153Radial†	2204567.2	2381242.2	501340	µg/L	501340 ppb	10:31:26
3	Ca 317.933Radial†	6568361.1	7093946.8	483160	µg/L	483160 ppb	10:31:26
3	Fe 238.204 Radial†	2348182.8	2536166.2	189400	µg/L	189400 ppb	10:31:26
3	K 766.490 Radial†	1631.7	268.7	-133.18	µg/L	-133.18 ppb	10:31:28
3	Mg 279.077 IEC†	966514.2	1043764.2	481780	µg/L	481780 ppb	10:31:26
3	Na 589.592 Radial†	1406.4	566.5	87.719	µg/L	87.719 ppb	10:31:28
3	Sr 421.552†	4640.9	5217.1	8.5226	µg/L	8.5226 ppb	10:31:28
3	Sc 361.383	1627878.3	1627878.3	90.230	%		10:32:18
3	Y 371.029	938743.5	938743.5	88.787	%		10:32:18
3	Ag 328.068†	6471.5	2607.1	-2.6885	µg/L	-2.6885 ppb	10:32:18
3	As 188.979†	-94.2	-85.8	13.417	µg/L	13.417 ppb	10:32:38
3	B 249.677†	4197.3	586.7	9.1112	µg/L	9.1112 ppb	10:32:18
3	Ba 233.527†	414.2	603.6	0.2637	µg/L	0.2637 ppb	10:32:38
3	Be 313.107†	-313.0	744.8	0.2077	µg/L	0.2077 ppb	10:32:18
3	Cd 226.502†	2287.7	2638.8	-2.0823	µg/L	-2.0823 ppb	10:32:38
3	Co 228.616†	59.7	276.5	-6.2204	µg/L	-6.2204 ppb	10:32:38
3	Cr 267.716†	209.3	-1.3	0.7104	µg/L	0.7104 ppb	10:32:38
3	Cu 324.752†	-5671.6	-9321.9	1.5944	µg/L	1.5944 ppb	10:32:18
3	Mn 257.610†	15670.2	17182.3	3.1834	µg/L	3.1834 ppb	10:32:18
3	Mo 202.031†	-504.6	-520.7	-0.7299	µg/L	-0.7299 ppb	10:32:38
3	Ni 231.604†	88.9	194.5	2.4329	µg/L	2.4329 ppb	10:32:38
3	P 214.914†	123.4	162.4	20.381	µg/L	20.381 ppb	10:32:38
3	Pb 220.353†	-328.2	-467.2	-3.7410	µg/L	-3.7410 ppb	10:32:38
3	S 181.975 Axial†	164.9	93.8	78.776	µg/L	78.776 ppb	10:32:38
3	Sb 206.836†	159.1	86.7	5.2093	µg/L	5.2093 ppb	10:32:38
3	Se 196.026†	-150.6	-173.0	-2.48	µg/L	-2.48 ppb	10:32:38
3	SiO2†	1645.7	84.8	9.4396	µg/L	9.4396 ppb	10:32:38
3	Si 251.611†	506.5	-205.7	-3.0292	µg/L	-3.0292 ppb	10:32:38
3	Sn 189.927†	26.5	27.5	1.9892	µg/L	1.9892 ppb	10:32:38
3	Ti 334.940†	22768.4	24410.9	-1.5733	µg/L	-1.5733 ppb	10:32:18
3	Tl 190.801†	-138.4	-39.1	-4.8829	µg/L	-4.8829 ppb	10:32:38
3	U 409.014†	-530.1	-424.2	-47.679	µg/L	-47.679 ppb	10:32:18
3	V 292.402†	4198.6	4230.0	1.7250	µg/L	1.7250 ppb	10:32:18
3	Zn 213.857†	4221.9	4176.0	8.6627	µg/L	8.6627 ppb	10:32:38

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1603792.1	88.894	%	1.2816				1.44%
Sc RADIAL	128553.1	91.8	%	0.72				0.78%
Y 371.029	925374.3	87.523	%	1.2181				1.39%
Ag 328.068†	2920.1	-1.5630	µg/L	1.00280	-1.5630	ppb	1.00280	64.16%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2408136.4	507000	µg/L	4906.5	507000	ppb	4906.5	0.97%
QC value within limits for Al 396.153Radial Recovery = 101.40%								
As 188.979†	-89.7	12.634	µg/L	1.1672	12.634	ppb	1.1672	9.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	586.6	9.1088	µg/L	0.21580	9.1088	ppb	0.21580	2.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	599.2	0.2138	µg/L	0.08101	0.2138	ppb	0.08101	37.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	618.0	0.1745	µg/L	0.06254	0.1745	ppb	0.06254	35.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7182916.7	489220	µg/L	5256.7	489220	ppb	5256.7	1.07%
QC value within limits for Ca 317.933Radial Recovery = 97.84%								
Cd 226.502†	2690.3	-1.9834	µg/L	0.26521	-1.9834	ppb	0.26521	13.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	287.3	-6.2008	µg/L	0.10120	-6.2008	ppb	0.10120	1.63%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              12.1      0.8247 µg/L       0.12605      0.8247 ppb        0.12605  15.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -9336.2      2.0538 µg/L       0.54654      2.0538 ppb        0.54654  26.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2567924.8      191770 µg/L        2055.5      191770 ppb         2055.5   1.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.89%
K 766.490 Radial†        233.8     -149.84 µg/L        32.478     -149.84 ppb         32.478  21.68%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1056884.6      487840 µg/L        5251.7      487840 ppb         5251.7   1.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.57%
Mn 257.610†            17188.8      2.9455 µg/L       0.20606      2.9455 ppb        0.20606   7.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -550.4     -1.4964 µg/L       0.68228     -1.4964 ppb        0.68228  45.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       470.1      72.787 µg/L       19.5769      72.787 ppb        19.5769  26.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              199.4      2.4952 µg/L       0.23503      2.4952 ppb        0.23503   9.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               182.6      24.695 µg/L        4.0272      24.695 ppb         4.0272  16.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -447.7     -2.2829 µg/L       2.03252     -2.2829 ppb        2.03252  89.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         105.2      88.342 µg/L        8.2929      88.342 ppb         8.2929   9.39%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               66.0      2.4648 µg/L       2.41204      2.4648 ppb        2.41204  97.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -168.5       0.151 µg/L        2.5033       0.151 ppb         2.5033 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    104.2      11.505 µg/L        3.5481      11.505 ppb         3.5481  30.84%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -195.0     -2.8517 µg/L       0.19180     -2.8517 ppb        0.19180   6.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               38.7      2.7679 µg/L       0.75190      2.7679 ppb        0.75190  27.17%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             5287.3      8.6407 µg/L       0.11552      8.6407 ppb        0.11552   1.34%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            24212.2     -2.1177 µg/L       0.49194     -2.1177 ppb        0.49194  23.23%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -58.1     -7.4882 µg/L       2.28939     -7.4882 ppb        2.28939  30.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -234.3     -35.979 µg/L       15.7394     -35.979 ppb        15.7394  43.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             4223.6      1.4403 µg/L       0.28444      1.4403 ppb        0.28444  19.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            4220.0      8.7101 µg/L       0.22657      8.7101 ppb        0.22657   2.60%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 4/5/2010 10:32:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128019.8	128019.8	91.4	%			10:33:20
1	Al 396.153Radial†	2214899.0	2423858.2	510290	µg/L	510290	ppb	10:33:18
1	Ca 317.933Radial†	6539945.8	7156137.6	487400	µg/L	487400	ppb	10:33:18
1	Fe 238.204 Radial†	2362815.2	2585528.2	193090	µg/L	193090	ppb	10:33:18
1	K 766.490 Radial†	14647.9	14535.5	5515.6	µg/L	5515.6	ppb	10:33:20
1	Mg 279.077 IEC†	974260.6	1065967.9	492040	µg/L	492040	ppb	10:33:20
1	Na 589.592 Radial†	32736.9	34871.7	5400.3	µg/L	5400.3	ppb	10:33:20
1	Sr 421.552†	200734.4	219869.6	514.74	µg/L	514.74	ppb	10:33:20
1	Sc 361.383	1596681.5	1596681.5	88.500	%			10:33:33
1	Y 371.029	922181.2	922181.2	87.221	%			10:33:33
1	Ag 328.068†	64143.4	67913.0	271.20	µg/L	271.20	ppb	10:33:33
1	As 188.979†	1228.9	1407.2	525.28	µg/L	525.28	ppb	10:33:35
1	B 249.677†	33489.8	33776.3	523.69	µg/L	523.69	ppb	10:33:33
1	Ba 233.527†	100868.2	114119.4	505.26	µg/L	505.26	ppb	10:33:33
1	Be 313.107†	749032.7	847453.0	245.64	µg/L	245.64	ppb	10:33:33
1	Cd 226.502†	65812.0	74466.9	483.20	µg/L	483.20	ppb	10:33:33
1	Co 228.616†	30517.4	34693.1	449.43	µg/L	449.43	ppb	10:33:35
1	Cr 267.716†	50564.5	56901.6	492.70	µg/L	492.70	ppb	10:33:35
1	Cu 324.752†	108957.7	120079.4	544.37	µg/L	544.37	ppb	10:33:33
1	Mn 257.610†	338390.3	382175.7	486.95	µg/L	486.95	ppb	10:33:33
1	Mo 202.031†	12995.7	14722.9	498.30	µg/L	498.30	ppb	10:33:35
1	Ni 231.604†	32630.8	36966.7	462.50	µg/L	462.50	ppb	10:33:35
1	P 214.914†	10002.4	11327.8	2595.9	µg/L	2595.9	ppb	10:33:35
1	Pb 220.353†	6487.9	7227.4	471.57	µg/L	471.57	ppb	10:33:35
1	S 181.975 Axial†	2976.8	3274.7	2758.9	µg/L	2758.9	ppb	10:33:35
1	Sb 206.836†	3581.5	3957.2	505.52	µg/L	505.52	ppb	10:33:35
1	Se 196.026†	5381.4	6074.5	2460	µg/L	2460	ppb	10:33:35
1	SiO2†	95028.9	105637.8	11166	µg/L	11166	ppb	10:33:33
1	Si 251.611†	294883.1	332432.9	5232.5	µg/L	5232.5	ppb	10:33:33
1	Sn 189.927†	6210.9	7016.0	488.46	µg/L	488.46	ppb	10:33:35
1	Ti 334.940†	461750.7	520927.2	507.28	µg/L	507.28	ppb	10:33:33
1	Tl 190.801†	2890.5	3380.4	469.95	µg/L	469.95	ppb	10:33:35
1	U 409.014†	7089.3	8173.8	526.30	µg/L	526.30	ppb	10:33:33
1	V 292.402†	91601.8	103081.2	520.84	µg/L	520.84	ppb	10:33:33
1	Zn 213.857†	77574.0	87150.9	500.68	µg/L	500.68	ppb	10:33:33
2	Sc RADIAL	126403.7	126403.7	90.2	%			10:33:24
2	Al 396.153Radial†	2203106.6	2441777.1	514060	µg/L	514060	ppb	10:33:22
2	Ca 317.933Radial†	6488979.1	7191150.9	489780	µg/L	489780	ppb	10:33:22
2	Fe 238.204 Radial†	2345597.7	2599503.8	194130	µg/L	194130	ppb	10:33:22
2	K 766.490 Radial†	14463.1	14535.7	5514.5	µg/L	5514.5	ppb	10:33:24
2	Mg 279.077 IEC†	957123.1	1060605.1	489570	µg/L	489570	ppb	10:33:24
2	Na 589.592 Radial†	32172.3	34703.9	5374.3	µg/L	5374.3	ppb	10:33:24
2	Sr 421.552†	197937.5	219578.3	514.03	µg/L	514.03	ppb	10:33:24
2	Sc 361.383	1581820.4	1581820.4	87.677	%			10:33:38
2	Y 371.029	914057.4	914057.4	86.452	%			10:33:38
2	Ag 328.068†	63616.7	67993.2	271.43	µg/L	271.43	ppb	10:33:38
2	As 188.979†	1284.1	1483.2	551.30	µg/L	551.30	ppb	10:33:40
2	B 249.677†	33289.7	33903.6	525.64	µg/L	525.64	ppb	10:33:38
2	Ba 233.527†	99713.8	113873.6	504.16	µg/L	504.16	ppb	10:33:38
2	Be 313.107†	739555.2	844594.9	244.81	µg/L	244.81	ppb	10:33:38
2	Cd 226.502†	64961.3	74195.3	481.25	µg/L	481.25	ppb	10:33:38
2	Co 228.616†	30729.7	35259.2	456.87	µg/L	456.87	ppb	10:33:40
2	Cr 267.716†	50663.4	57551.2	498.39	µg/L	498.39	ppb	10:33:40
2	Cu 324.752†	107715.1	119818.9	543.36	µg/L	543.36	ppb	10:33:38
2	Mn 257.610†	334418.8	381238.2	485.80	µg/L	485.80	ppb	10:33:38
2	Mo 202.031†	13147.6	15034.1	508.47	µg/L	508.47	ppb	10:33:40
2	Ni 231.604†	32935.7	37660.8	471.18	µg/L	471.18	ppb	10:33:40
2	P 214.914†	10097.2	11542.1	2645.6	µg/L	2645.6	ppb	10:33:40
2	Pb 220.353†	6531.5	7346.1	479.11	µg/L	479.11	ppb	10:33:40

2	S 181.975 Axial†	2995.8	3327.9	2803.8 µg/L	2803.8 ppb	10:33:40
2	Sb 206.836†	3745.1	4181.8	534.53 µg/L	534.53 ppb	10:33:40
2	Se 196.026†	5400.3	6153.2	2490 µg/L	2490 ppb	10:33:40
2	SiO2†	93970.9	105439.9	11145 µg/L	11145 ppb	10:33:38
2	Si 251.611†	291728.5	331965.3	5224.9 µg/L	5224.9 ppb	10:33:38
2	Sn 189.927†	6321.6	7208.2	501.79 µg/L	501.79 ppb	10:33:40
2	Ti 334.940†	457210.2	520650.3	507.26 µg/L	507.26 ppb	10:33:38
2	Tl 190.801†	2885.4	3405.2	473.28 µg/L	473.28 ppb	10:33:40
2	U 409.014†	6901.3	8034.6	517.25 µg/L	517.25 ppb	10:33:38
2	V 292.402†	90427.2	102714.0	518.95 µg/L	518.95 ppb	10:33:38
2	Zn 213.857†	76624.2	86891.1	499.00 µg/L	499.00 ppb	10:33:38
3	Sc RADIAL	128673.7	128673.7	91.8 %		10:33:28
3	Al 396.153Radial†	2211074.6	2407376.9	506820 µg/L	506820 ppb	10:33:26
3	Ca 317.933Radial†	6514056.0	7091580.2	483000 µg/L	483000 ppb	10:33:26
3	Fe 238.204 Radial†	2355764.0	2564711.1	191530 µg/L	191530 ppb	10:33:26
3	K 766.490 Radial†	14678.7	14487.6	5498.2 µg/L	5498.2 ppb	10:33:28
3	Mg 279.077 IEC†	977848.9	1064456.5	491350 µg/L	491350 ppb	10:33:28
3	Na 589.592 Radial†	32762.8	34717.8	5376.4 µg/L	5376.4 ppb	10:33:28
3	Sr 421.552†	201341.9	219414.6	513.70 µg/L	513.70 ppb	10:33:28
3	Sc 361.383	1602537.7	1602537.7	88.825 %		10:33:43
3	Y 371.029	925694.1	925694.1	87.553 %		10:33:43
3	Ag 328.068†	64236.0	67752.3	270.66 µg/L	270.66 ppb	10:33:43
3	As 188.979†	1257.5	1434.3	534.05 µg/L	534.05 ppb	10:33:45
3	B 249.677†	33647.4	33815.4	524.30 µg/L	524.30 ppb	10:33:43
3	Ba 233.527†	101063.2	113922.5	504.40 µg/L	504.40 ppb	10:33:43
3	Be 313.107†	751090.5	846676.9	245.41 µg/L	245.41 ppb	10:33:43
3	Cd 226.502†	66103.1	74522.9	483.74 µg/L	483.74 ppb	10:33:43
3	Co 228.616†	30595.5	34655.1	449.01 µg/L	449.01 ppb	10:33:45
3	Cr 267.716†	50288.4	56382.0	488.16 µg/L	488.16 ppb	10:33:45
3	Cu 324.752†	109381.3	120106.5	544.23 µg/L	544.23 ppb	10:33:43
3	Mn 257.610†	339181.7	381669.4	486.31 µg/L	486.31 ppb	10:33:43
3	Mo 202.031†	13013.7	14689.5	497.13 µg/L	497.13 ppb	10:33:45
3	Ni 231.604†	32496.9	36681.3	458.93 µg/L	458.93 ppb	10:33:45
3	P 214.914†	10072.5	11365.5	2604.9 µg/L	2604.9 ppb	10:33:45
3	Pb 220.353†	6417.3	7121.2	464.87 µg/L	464.87 ppb	10:33:45
3	S 181.975 Axial†	3006.9	3296.3	2777.1 µg/L	2777.1 ppb	10:33:45
3	Sb 206.836†	3648.9	4018.3	513.51 µg/L	513.51 ppb	10:33:45
3	Se 196.026†	5398.0	6071.0	2460 µg/L	2460 ppb	10:33:45
3	SiO2†	95329.6	105583.9	11160 µg/L	11160 ppb	10:33:43
3	Si 251.611†	295739.0	332178.9	5228.4 µg/L	5228.4 ppb	10:33:43
3	Sn 189.927†	6344.0	7140.3	497.08 µg/L	497.08 ppb	10:33:45
3	Ti 334.940†	463293.2	520757.1	507.05 µg/L	507.05 ppb	10:33:43
3	Tl 190.801†	2903.4	3383.0	470.31 µg/L	470.31 ppb	10:33:45
3	U 409.014†	7023.4	8070.4	519.96 µg/L	519.96 ppb	10:33:43
3	V 292.402†	92013.4	103166.3	521.41 µg/L	521.41 ppb	10:33:43
3	Zn 213.857†	77780.4	87063.0	500.33 µg/L	500.33 ppb	10:33:43

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1593679.9	88.334	%	0.5920				0.67%
Sc RADIAL	127699.1	91.2	%	0.83				0.92%
Y 371.029	920644.2	87.075	%	0.5645				0.65%
Ag 328.068†	67886.2	271.10	µg/L	0.393	271.10	ppb	0.393	0.15%
QC value within limits for Ag 328.068 Recovery = 108.44%								
Al 396.153Radial†	2424337.4	510390	µg/L	3622.0	510390	ppb	3622.0	0.71%
QC value within limits for Al 396.153Radial Recovery = 102.08%								
As 188.979†	1441.5	536.88	µg/L	13.237	536.88	ppb	13.237	2.47%
QC value within limits for As 188.979 Recovery = 107.38%								
B 249.677†	33831.8	524.54	µg/L	1.000	524.54	ppb	1.000	0.19%
QC value within limits for B 249.677 Recovery = 104.91%								
Ba 233.527†	113971.8	504.61	µg/L	0.579	504.61	ppb	0.579	0.11%
QC value within limits for Ba 233.527 Recovery = 100.92%								
Be 313.107†	846241.6	245.29	µg/L	0.429	245.29	ppb	0.429	0.18%
QC value within limits for Be 313.107 Recovery = 98.12%								
Ca 317.933Radial†	7146289.6	486730	µg/L	3440.2	486730	ppb	3440.2	0.71%
QC value within limits for Ca 317.933Radial Recovery = 97.35%								
Cd 226.502†	74395.1	482.73	µg/L	1.305	482.73	ppb	1.305	0.27%
QC value within limits for Cd 226.502 Recovery = 96.55%								
Co 228.616†	34869.1	451.77	µg/L	4.420	451.77	ppb	4.420	0.98%

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   QC value within limits for Co 228.616  Recovery = 90.35%
Cr 267.716†            56944.9      493.08 µg/L         5.125      493.08 ppb          5.125   1.04%
   QC value within limits for Cr 267.716  Recovery = 98.62%
Cu 324.752†           120001.6      543.99 µg/L         0.546      543.99 ppb          0.546   0.10%
   QC value within limits for Cu 324.752  Recovery = 108.80%
Fe 238.204 Radial†   2583247.7      192920 µg/L        1307.5      192920 ppb         1307.5   0.68%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.46%
K 766.490 Radial†      14519.6      5509.4 µg/L          9.72      5509.4 ppb           9.72   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 110.19%
Mg 279.077 IEC†      1063676.5      490990 µg/L        1277.3      490990 ppb         1277.3   0.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.20%
Mn 257.610†           381694.4      486.35 µg/L         0.575      486.35 ppb          0.575   0.12%
   QC value within limits for Mn 257.610  Recovery = 97.27%
Mo 202.031†            14815.5      501.30 µg/L         6.238      501.30 ppb          6.238   1.24%
   QC value within limits for Mo 202.031  Recovery = 100.26%
Na 589.592 Radial†     34764.5      5383.7 µg/L         14.43      5383.7 ppb          14.43   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 107.67%
Ni 231.604†            37102.9      464.20 µg/L         6.303      464.20 ppb          6.303   1.36%
   QC value within limits for Ni 231.604  Recovery = 92.84%
P 214.914†             11411.8      2615.5 µg/L         26.48      2615.5 ppb          26.48   1.01%
   QC value within limits for P 214.914  Recovery = 104.62%
Pb 220.353†             7231.6      471.85 µg/L         7.120      471.85 ppb          7.120   1.51%
   QC value within limits for Pb 220.353  Recovery = 94.37%
S 181.975 Axial†        3299.6      2779.9 µg/L         22.57      2779.9 ppb          22.57   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 111.20%
Sb 206.836†             4052.4      517.86 µg/L        14.982      517.86 ppb         14.982   2.89%
   QC value within limits for Sb 206.836  Recovery = 103.57%
Se 196.026†             6099.5        2470 µg/L         18.7        2470 ppb           18.7   0.76%
   QC value within limits for Se 196.026  Recovery = 98.82%
SiO2†                 105553.8       11157 µg/L         11.1       11157 ppb           11.1   0.10%
   QC value within limits for SiO2  Recovery = 104.32%
Si 251.611†           332192.4      5228.6 µg/L         3.80      5228.6 ppb          3.80   0.07%
   QC value within limits for Si 251.611  Recovery = 104.57%
Sn 189.927†             7121.5      495.78 µg/L         6.759      495.78 ppb          6.759   1.36%
   QC value within limits for Sn 189.927  Recovery = 99.16%
Sr 421.552†           219620.8      514.16 µg/L         0.530      514.16 ppb          0.530   0.10%
   QC value within limits for Sr 421.552  Recovery = 102.83%
Ti 334.940†           520778.2      507.19 µg/L         0.127      507.19 ppb          0.127   0.02%
   QC value within limits for Ti 334.940  Recovery = 101.44%
Tl 190.801†             3389.5      471.18 µg/L         1.829      471.18 ppb          1.829   0.39%
   QC value within limits for Tl 190.801  Recovery = 94.24%
U 409.014†              8093.0      521.17 µg/L         4.641      521.17 ppb          4.641   0.89%
   QC value within limits for U 409.014  Recovery = 104.23%
V 292.402†            102987.2      520.40 µg/L         1.288      520.40 ppb          1.288   0.25%
   QC value within limits for V 292.402  Recovery = 104.08%
Zn 213.857†            87035.0      500.01 µg/L         0.885      500.01 ppb          0.885   0.18%
   QC value within limits for Zn 213.857  Recovery = 100.00%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 4/5/2010 10:33:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	126559.3	126559.3	90.3	%			10:34:25
1	Al 396.153Radial†	2128657.4	2356365.3	496100	µg/L	496100	ppb	10:34:22
1	Ca 317.933Radial†	6314300.7	6988953.2	476010	µg/L	476010	ppb	10:34:22
1	Fe 238.204 Radial†	5465694.5	6050054.8	451810	µg/L	451810	ppb	10:34:22
1	K 766.490 Radial†	1793.1	491.1	-123.38	µg/L	-123.38	ppb	10:34:25
1	Mg 279.077 IEC†	925975.9	1024823.3	472810	µg/L	472810	ppb	10:34:22
1	Na 589.592 Radial†	2921252.7	3232686.2	501090	µg/L	501090	ppb	10:34:22
1	Sr 421.552†	4654.3	5356.4	8.9072	µg/L	8.9072	ppb	10:34:25
1	Sc 361.383	1546919.1	1546919.1	85.742	%			10:34:38
1	Y 371.029	889839.0	889839.0	84.162	%			10:34:38
1	Ag 328.068†	3005.5	-1059.9	1.4083	µg/L	1.4083	ppb	10:34:38
1	As 188.979†	-255.7	-279.7	6.6904	µg/L	6.6904	ppb	10:34:40
1	B 249.677†	4737.5	1460.2	22.664	µg/L	22.664	ppb	10:34:38
1	Ba 233.527†	794.9	1071.6	-1.0098	µg/L	-1.0098	ppb	10:34:40
1	Be 313.107†	-14682.0	-16031.7	0.3428	µg/L	0.3428	ppb	10:34:38
1	Cd 226.502†	5844.0	6919.2	-0.7482	µg/L	-0.7482	ppb	10:34:40
1	Co 228.616†	652.2	971.0	-10.720	µg/L	-10.720	ppb	10:34:40
1	Cr 267.716†	351.0	176.1	-1.5441	µg/L	-1.5441	ppb	10:34:40
1	Cu 324.752†	-15692.1	-21337.7	2.9748	µg/L	2.9748	ppb	10:34:40
1	Mn 257.610†	17073.7	19728.1	6.2222	µg/L	6.2222	ppb	10:34:38
1	Mo 202.031†	-894.4	-1004.5	-6.3291	µg/L	-6.3291	ppb	10:34:40
1	Ni 231.604†	193.6	321.7	4.0242	µg/L	4.0242	ppb	10:34:40
1	P 214.914†	900.7	1076.2	52.946	µg/L	52.946	ppb	10:34:40
1	Pb 220.353†	11.4	-90.1	-1.6997	µg/L	-1.6997	ppb	10:34:40
1	S 181.975 Axial†	192.8	136.0	114.13	µg/L	114.13	ppb	10:34:40
1	Sb 206.836†	124.5	55.5	-2.2629	µg/L	-2.2629	ppb	10:34:40
1	Se 196.026†	-394.4	-466.1	-11.0	µg/L	-11.0	ppb	10:34:40
1	SiO2†	1859.0	429.1	46.249	µg/L	46.249	ppb	10:34:40
1	Si 251.611†	-1930.6	-3018.7	-47.219	µg/L	-47.219	ppb	10:34:40
1	Sn 189.927†	106.6	122.4	8.5822	µg/L	8.5822	ppb	10:34:40
1	Ti 334.940†	23243.8	26285.9	-5.8854	µg/L	-5.8854	ppb	10:34:38
1	Tl 190.801†	-201.7	-121.0	-15.915	µg/L	-15.915	ppb	10:34:40
1	U 409.014†	224009.3	261422.7	16417	µg/L	16417	ppb	10:34:38
1	V 292.402†	7774.1	8643.6	7.8652	µg/L	7.8652	ppb	10:34:40
1	Zn 213.857†	8281.3	9155.3	10.683	µg/L	10.683	ppb	10:34:40
2	Sc RADIAL	125637.5	125637.5	89.7	%			10:34:29
2	Al 396.153Radial†	2139692.1	2385957.6	502330	µg/L	502330	ppb	10:34:27
2	Ca 317.933Radial†	6354290.4	7084825.6	482540	µg/L	482540	ppb	10:34:27
2	Fe 238.204 Radial†	5498978.2	6131557.8	457900	µg/L	457900	ppb	10:34:27
2	K 766.490 Radial†	1725.0	429.7	-152.02	µg/L	-152.02	ppb	10:34:29
2	Mg 279.077 IEC†	932671.5	1039809.6	479730	µg/L	479730	ppb	10:34:27
2	Na 589.592 Radial†	2940679.8	3278073.6	508130	µg/L	508130	ppb	10:34:27
2	Sr 421.552†	4574.3	5305.0	8.7348	µg/L	8.7348	ppb	10:34:29
2	Sc 361.383	1550512.3	1550512.3	85.941	%			10:34:42
2	Y 371.029	892357.6	892357.6	84.400	%			10:34:42
2	Ag 328.068†	3032.7	-1036.3	1.2903	µg/L	1.2903	ppb	10:34:42
2	As 188.979†	-211.5	-227.5	25.707	µg/L	25.707	ppb	10:34:44
2	B 249.677†	4893.9	1629.4	25.298	µg/L	25.298	ppb	10:34:42
2	Ba 233.527†	603.9	847.2	-2.0851	µg/L	-2.0851	ppb	10:34:44
2	Be 313.107†	-14522.2	-15806.1	0.4095	µg/L	0.4095	ppb	10:34:42
2	Cd 226.502†	5739.3	6781.5	-2.3191	µg/L	-2.3191	ppb	10:34:44
2	Co 228.616†	595.5	903.2	-11.935	µg/L	-11.935	ppb	10:34:44
2	Cr 267.716†	342.7	165.6	-1.5126	µg/L	-1.5126	ppb	10:34:44
2	Cu 324.752†	-15930.4	-21572.5	3.0692	µg/L	3.0692	ppb	10:34:44
2	Mn 257.610†	17146.9	19767.1	5.9836	µg/L	5.9836	ppb	10:34:42
2	Mo 202.031†	-828.5	-925.5	-3.3760	µg/L	-3.3760	ppb	10:34:44
2	Ni 231.604†	188.2	314.8	3.9390	µg/L	3.9390	ppb	10:34:44
2	P 214.914†	1023.7	1216.9	82.738	µg/L	82.738	ppb	10:34:44
2	Pb 220.353†	73.4	-18.1	2.9268	µg/L	2.9268	ppb	10:34:44

2	S 181.975 Axial†	158.3	95.2	79.867 µg/L	79.867 ppb	10:34:44
2	Sb 206.836†	173.2	111.9	4.9301 µg/L	4.9301 ppb	10:34:44
2	Se 196.026†	-374.2	-441.6	0.817 µg/L	0.817 ppb	10:34:44
2	SiO2†	1834.7	395.7	42.620 µg/L	42.620 ppb	10:34:44
2	Si 251.611†	-1956.2	-3043.3	-47.651 µg/L	-47.651 ppb	10:34:44
2	Sn 189.927†	124.7	143.2	10.027 µg/L	10.027 ppb	10:34:44
2	Ti 334.940†	23738.1	26798.3	-5.7543 µg/L	-5.7543 ppb	10:34:42
2	Tl 190.801†	-179.8	-95.0	-12.363 µg/L	-12.363 ppb	10:34:44
2	U 409.014†	224589.1	261491.9	16421 µg/L	16421 ppb	10:34:42
2	V 292.402†	7601.7	8422.0	6.1036 µg/L	6.1036 ppb	10:34:44
2	Zn 213.857†	8434.0	9310.7	11.011 µg/L	11.011 ppb	10:34:44
3	Sc RADIAL	125009.8	125009.8	89.2 %		10:34:33
3	Al 396.153Radial†	2147785.3	2407007.4	506760 µg/L	506760 ppb	10:34:31
3	Ca 317.933Radial†	6365764.1	7133261.2	485840 µg/L	485840 ppb	10:34:31
3	Fe 238.204 Radial†	5518715.6	6184465.3	461850 µg/L	461850 ppb	10:34:31
3	K 766.490 Radial†	1705.0	416.9	-159.53 µg/L	-159.53 ppb	10:34:33
3	Mg 279.077 IEC†	935614.4	1048329.5	483660 µg/L	483660 ppb	10:34:31
3	Na 589.592 Radial†	2945186.3	3299588.6	511460 µg/L	511460 ppb	10:34:31
3	Sr 421.552†	4533.1	5284.5	8.6605 µg/L	8.6605 ppb	10:34:33
3	Sc 361.383	1555977.3	1555977.3	86.244 %		10:34:47
3	Y 371.029	894540.6	894540.6	84.606 %		10:34:47
3	Ag 328.068†	3170.4	-889.1	1.7502 µg/L	1.7502 ppb	10:34:47
3	As 188.979†	-206.6	-220.9	28.849 µg/L	28.849 ppb	10:34:49
3	B 249.677†	4646.7	1322.7	20.528 µg/L	20.528 ppb	10:34:47
3	Ba 233.527†	637.3	883.5	-1.9741 µg/L	-1.9741 ppb	10:34:49
3	Be 313.107†	-14782.6	-16048.7	0.3304 µg/L	0.3304 ppb	10:34:47
3	Cd 226.502†	5726.3	6743.0	-2.9943 µg/L	-2.9943 ppb	10:34:49
3	Co 228.616†	615.1	923.5	-11.872 µg/L	-11.872 ppb	10:34:49
3	Cr 267.716†	615.1	480.0	1.3198 µg/L	1.3198 ppb	10:34:49
3	Cu 324.752†	-15376.1	-20864.6	6.6877 µg/L	6.6877 ppb	10:34:49
3	Mn 257.610†	17099.2	19641.7	5.6509 µg/L	5.6509 ppb	10:34:47
3	Mo 202.031†	-820.9	-913.3	-2.7493 µg/L	-2.7493 ppb	10:34:49
3	Ni 231.604†	272.9	412.4	5.1591 µg/L	5.1591 ppb	10:34:49
3	P 214.914†	953.1	1130.8	61.063 µg/L	61.063 ppb	10:34:49
3	Pb 220.353†	-35.1	-144.1	-4.6591 µg/L	-4.6591 ppb	10:34:49
3	S 181.975 Axial†	122.3	52.9	44.250 µg/L	44.250 ppb	10:34:49
3	Sb 206.836†	70.4	-8.1	-10.659 µg/L	-10.659 ppb	10:34:49
3	Se 196.026†	-357.0	-420.1	10.6 µg/L	10.6 ppb	10:34:49
3	SiO2†	2030.3	615.0	65.880 µg/L	65.880 ppb	10:34:49
3	Si 251.611†	-2018.3	-3107.2	-48.643 µg/L	-48.643 ppb	10:34:49
3	Sn 189.927†	86.3	98.2	6.9028 µg/L	6.9028 ppb	10:34:49
3	Ti 334.940†	23731.5	26693.7	-6.0852 µg/L	-6.0852 ppb	10:34:47
3	Tl 190.801†	-184.9	-100.1	-13.064 µg/L	-13.064 ppb	10:34:49
3	U 409.014†	224984.1	261032.0	16391 µg/L	16391 ppb	10:34:47
3	V 292.402†	7659.0	8457.3	5.8662 µg/L	5.8662 ppb	10:34:49
3	Zn 213.857†	8212.2	9019.0	8.8832 µg/L	8.8832 ppb	10:34:49

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1551136.2	85.976	%	0.2528				0.29%
Sc RADIAL	125735.5	89.8	%	0.56				0.62%
Y 371.029	892245.7	84.389	%	0.2225				0.26%
Ag 328.068†	-995.1	1.4829	µg/L	0.23886	1.4829	ppb	0.23886	16.11%
Al 396.153Radial†	2383110.1	501730	µg/L	5356.1	501730	ppb	5356.1	1.07%
QC value within limits for Al 396.153Radial Recovery = 100.35%								
As 188.979†	-242.7	20.416	µg/L	11.9898	20.416	ppb	11.9898	58.73%
B 249.677†	1470.8	22.830	µg/L	2.3893	22.830	ppb	2.3893	10.47%
Ba 233.527†	934.1	-1.6897	µg/L	0.59142	-1.6897	ppb	0.59142	35.00%
Be 313.107†	-15962.2	0.3609	µg/L	0.04251	0.3609	ppb	0.04251	11.78%
Ca 317.933Radial†	7069013.4	481460	µg/L	5002.1	481460	ppb	5002.1	1.04%
QC value within limits for Ca 317.933Radial Recovery = 96.29%								
Cd 226.502†	6814.5	-2.0205	µg/L	1.15241	-2.0205	ppb	1.15241	57.03%
Co 228.616†	932.6	-11.509	µg/L	0.6841	-11.509	ppb	0.6841	5.94%
Cr 267.716†	273.9	-0.5790	µg/L	1.64446	-0.5790	ppb	1.64446	284.03%
Cu 324.752†	-21258.2	4.2439	µg/L	2.11693	4.2439	ppb	2.11693	49.88%
Fe 238.204 Radial†	6122026.0	457190	µg/L	5056.6	457190	ppb	5056.6	1.11%
QC value within limits for Fe 238.204 Radial Recovery = 91.44%								
K 766.490 Radial†	445.9	-144.98	µg/L	19.077	-144.98	ppb	19.077	13.16%
Mg 279.077 IEC†	1037654.1	478730	µg/L	5490.6	478730	ppb	5490.6	1.15%

QC value within limits for Mg 279.077 IEC Recovery = 95.75%

Mn 257.610†	19712.3	5.9522 µg/L	0.28693	5.9522 ppb	0.28693	4.82%
Mo 202.031†	-947.8	-4.1515 µg/L	1.91175	-4.1515 ppb	1.91175	46.05%
Na 589.592 Radial†	3270116.1	506890 µg/L	5294.1	506890 ppb	5294.1	1.04%

QC value within limits for Na 589.592 Radial Recovery = 101.38%

Ni 231.604†	349.6	4.3741 µg/L	0.68113	4.3741 ppb	0.68113	15.57%
P 214.914†	1141.3	65.582 µg/L	15.4013	65.582 ppb	15.4013	23.48%
Pb 220.353†	-84.1	-1.1440 µg/L	3.82337	-1.1440 ppb	3.82337	334.21%
S 181.975 Axial†	94.7	79.414 µg/L	34.9395	79.414 ppb	34.9395	44.00%
Sb 206.836†	53.1	-2.6640 µg/L	7.80248	-2.6640 ppb	7.80248	292.88%
Se 196.026†	-442.6	0.161 µg/L	10.8059	0.161 ppb	10.8059	>999.9%
SiO2†	479.9	51.583 µg/L	12.5135	51.583 ppb	12.5135	24.26%
Si 251.611†	-3056.4	-47.838 µg/L	0.7304	-47.838 ppb	0.7304	1.53%
Sn 189.927†	121.3	8.5039 µg/L	1.56348	8.5039 ppb	1.56348	18.39%
Sr 421.552†	5315.3	8.7675 µg/L	0.12654	8.7675 ppb	0.12654	1.44%
Ti 334.940†	26592.6	-5.9083 µg/L	0.16664	-5.9083 ppb	0.16664	2.82%
Tl 190.801†	-105.3	-13.781 µg/L	1.8816	-13.781 ppb	1.8816	13.65%
U 409.014†	261315.5	16410 µg/L	16.3	16410 ppb	16.3	0.10%

QC value within limits for U 409.014 Recovery = 109.40%

V 292.402†	8507.6	6.6117 µg/L	1.09206	6.6117 ppb	1.09206	16.52%
Zn 213.857†	9161.7	10.192 µg/L	1.1457	10.192 ppb	1.1457	11.24%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 4/5/2010 10:34:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137041.1	137041.1	97.8	%			10:35:30
1	Al 396.153Radial†	2091.5	2216.6	10.244	µg/L	10.244	ppb	10:35:32
1	Ca 317.933Radial†	1536.0	998.8	68.025	µg/L	68.025	ppb	10:35:32
1	Fe 238.204 Radial†	-466.5	-594.2	-44.377	µg/L	-44.377	ppb	10:35:32
1	K 766.490 Radial†	729152.1	743896.6	294770	µg/L	294770	ppb	10:35:30
1	Mg 279.077 IEC†	-410.3	-591.9	-32.847	µg/L	-32.847	ppb	10:35:32
1	Na 589.592 Radial†	3206.4	2325.3	98.292	µg/L	98.292	ppb	10:35:32
1	Sr 421.552†	3999711.8	4088990.0	9643.7	µg/L	9643.7	ppb	10:35:28
1	Sc 361.383	1745097.4	1745097.4	96.727	%			10:35:54
1	Y 371.029	997842.0	997842.0	94.377	%			10:35:54
1	Ag 328.068†	-24011.8	-29389.6	-1.6157	µg/L	-1.6157	ppb	10:35:56
1	As 188.979†	28702.2	29692.0	10298	µg/L	10298	ppb	10:35:56
1	B 249.677†	314525.9	321104.5	4960.9	µg/L	4960.9	ppb	10:35:54
1	Ba 233.527†	3126133.6	3232068.9	14376	µg/L	14376	ppb	10:35:54
1	Be 313.107†	9652994.7	9980751.1	2891.0	µg/L	2891.0	ppb	10:35:50
1	Cd 226.502†	1393887.8	1441161.4	9744.7	µg/L	9744.7	ppb	10:35:54
1	Co 228.616†	690506.6	714084.2	9464.3	µg/L	9464.3	ppb	10:35:54
1	Cr 267.716†	2688558.7	2779308.4	24048	µg/L	24048	ppb	10:35:54
1	Cu 324.752†	4655201.0	4809700.5	20122	µg/L	20122	ppb	10:35:54
1	Mn 257.610†	6823928.3	7054670.5	9358.4	µg/L	9358.4	ppb	10:35:54
1	Mo 202.031†	290630.9	300504.6	9831.1	µg/L	9831.1	ppb	10:35:56
1	Ni 231.604†	756062.1	781743.7	9780.6	µg/L	9780.6	ppb	10:35:54
1	P 214.914†	64200.1	66398.4	15124	µg/L	15124	ppb	10:35:56
1	Pb 220.353†	374053.0	386607.7	23821	µg/L	23821	ppb	10:35:54
1	S 181.975 Axial†	60131.3	62077.3	52306	µg/L	52306	ppb	10:35:56
1	Sb 206.836†	76342.9	78836.7	9977.5	µg/L	9977.5	ppb	10:35:56
1	Se 196.026†	24244.9	25059.2	9870	µg/L	9870	ppb	10:35:56
1	SiO2†	922460.8	951938.4	100380	µg/L	100380	ppb	10:35:54
1	Si 251.611†	2889117.4	2986120.3	46891	µg/L	46891	ppb	10:35:54
1	Sn 189.927†	139315.0	144027.6	10024	µg/L	10024	ppb	10:35:56
1	Ti 334.940†	9511207.1	9832250.5	10091	µg/L	10091	ppb	10:35:50
1	Tl 190.801†	67486.0	69884.1	9695.8	µg/L	9695.8	ppb	10:35:56
1	U 409.014†	-9077.0	-9220.8	28.768	µg/L	28.768	ppb	10:35:56
1	V 292.402†	1875279.5	1938317.1	10241	µg/L	10241	ppb	10:35:54
1	Zn 213.857†	2352726.7	2431841.8	14447	µg/L	14447	ppb	10:35:54
2	Sc RADIAL	136238.0	136238.0	97.2	%			10:35:36
2	Al 396.153Radial†	2330.1	2474.6	66.653	µg/L	66.653	ppb	10:35:38
2	Ca 317.933Radial†	1811.3	1291.1	87.936	µg/L	87.936	ppb	10:35:38
2	Fe 238.204 Radial†	-254.9	-379.5	-28.338	µg/L	-28.338	ppb	10:35:38
2	K 766.490 Radial†	723379.4	742354.0	294150	µg/L	294150	ppb	10:35:36
2	Mg 279.077 IEC†	-266.5	-446.5	33.185	µg/L	33.185	ppb	10:35:38
2	Na 589.592 Radial†	3288.8	2429.3	114.95	µg/L	114.95	ppb	10:35:38
2	Sr 421.552†	4058247.0	4173281.4	9842.5	µg/L	9842.5	ppb	10:35:34
2	Sc 361.383	1743215.3	1743215.3	96.622	%			10:36:04
2	Y 371.029	995676.7	995676.7	94.172	%			10:36:04
2	Ag 328.068†	-23853.7	-29252.8	-0.9419	µg/L	-0.9419	ppb	10:36:06
2	As 188.979†	28504.8	29519.8	10240	µg/L	10240	ppb	10:36:06
2	B 249.677†	314697.3	321633.0	4969.1	µg/L	4969.1	ppb	10:36:04
2	Ba 233.527†	3124556.7	3233926.1	14384	µg/L	14384	ppb	10:36:04
2	Be 313.107†	9596946.2	9933517.7	2877.3	µg/L	2877.3	ppb	10:36:00
2	Cd 226.502†	1394309.9	1443154.1	9758.1	µg/L	9758.1	ppb	10:36:04
2	Co 228.616†	690666.8	715020.7	9476.7	µg/L	9476.7	ppb	10:36:04
2	Cr 267.716†	2690044.7	2783847.2	24087	µg/L	24087	ppb	10:36:04
2	Cu 324.752†	4658450.0	4818259.0	20158	µg/L	20158	ppb	10:36:04
2	Mn 257.610†	6824028.9	7062391.3	9368.6	µg/L	9368.6	ppb	10:36:04
2	Mo 202.031†	288983.5	299124.1	9785.9	µg/L	9785.9	ppb	10:36:06
2	Ni 231.604†	755753.2	782267.9	9787.1	µg/L	9787.1	ppb	10:36:04
2	P 214.914†	63999.8	66262.8	15093	µg/L	15093	ppb	10:36:06
2	Pb 220.353†	374105.8	387079.9	23849	µg/L	23849	ppb	10:36:04

2	S 181.975 Axial†	59808.2	61810.0	52081 µg/L	52081 ppb	10:36:06
2	Sb 206.836†	75810.5	78370.9	9916.1 µg/L	9916.1 ppb	10:36:06
2	Se 196.026†	24043.8	24878.2	9800 µg/L	9800 ppb	10:36:06
2	SiO2†	925226.3	955830.3	100800 µg/L	100800 ppb	10:36:04
2	Si 251.611†	2896126.6	2996599.3	47057 µg/L	47057 ppb	10:36:04
2	Sn 189.927†	138237.6	143068.1	9957.6 µg/L	9957.6 ppb	10:36:06
2	Ti 334.940†	9462409.3	9792363.1	10050 µg/L	10050 ppb	10:36:00
2	Tl 190.801†	67159.9	69621.9	9659.6 µg/L	9659.6 ppb	10:36:06
2	U 409.014†	-9085.7	-9240.0	28.141 µg/L	28.141 ppb	10:36:06
2	V 292.402†	1875085.9	1940209.9	10251 µg/L	10251 ppb	10:36:04
2	Zn 213.857†	2353882.7	2435664.2	14470 µg/L	14470 ppb	10:36:04
3	Sc RADIAL	137851.9	137851.9	98.4 %		10:35:43
3	Al 396.153Radial†	2181.4	2295.5	27.169 µg/L	27.169 ppb	10:35:45
3	Ca 317.933Radial†	1189.0	636.9	43.378 µg/L	43.378 ppb	10:35:45
3	Fe 238.204 Radial†	-552.2	-678.5	-50.673 µg/L	-50.673 ppb	10:35:45
3	K 766.490 Radial†	736719.2	747202.5	296080 µg/L	296080 ppb	10:35:43
3	Mg 279.077 IEC†	-281.6	-458.6	28.539 µg/L	28.539 ppb	10:35:45
3	Na 589.592 Radial†	3006.3	2102.7	62.614 µg/L	62.614 ppb	10:35:45
3	Sr 421.552†	4060800.1	4127022.4	9733.4 µg/L	9733.4 ppb	10:35:41
3	Sc 361.383	1752934.8	1752934.8	97.161 %		10:36:13
3	Y 371.029	1001396.2	1001396.2	94.713 %		10:36:13
3	Ag 328.068†	-24151.3	-29422.1	-1.6137 µg/L	-1.6137 ppb	10:36:15
3	As 188.979†	28800.2	29660.2	10288 µg/L	10288 ppb	10:36:15
3	B 249.677†	317129.0	322329.8	4979.9 µg/L	4979.9 ppb	10:36:13
3	Ba 233.527†	3143064.1	3235044.1	14389 µg/L	14389 ppb	10:36:13
3	Be 313.107†	9593258.2	9874649.9	2860.3 µg/L	2860.3 ppb	10:36:10
3	Cd 226.502†	1403189.2	1444291.5	9765.8 µg/L	9765.8 ppb	10:36:13
3	Co 228.616†	695082.1	715601.6	9484.4 µg/L	9484.4 ppb	10:36:13
3	Cr 267.716†	2703738.1	2782503.9	24075 µg/L	24075 ppb	10:36:13
3	Cu 324.752†	4685820.8	4819697.1	20164 µg/L	20164 ppb	10:36:13
3	Mn 257.610†	6866217.2	7066652.6	9374.3 µg/L	9374.3 ppb	10:36:13
3	Mo 202.031†	291726.8	300289.2	9824.0 µg/L	9824.0 ppb	10:36:15
3	Ni 231.604†	761256.4	783595.0	9803.7 µg/L	9803.7 ppb	10:36:13
3	P 214.914†	64499.6	66409.8	15127 µg/L	15127 ppb	10:36:15
3	Pb 220.353†	376414.3	387309.1	23863 µg/L	23863 ppb	10:36:13
3	S 181.975 Axial†	60499.1	62177.8	52391 µg/L	52391 ppb	10:36:15
3	Sb 206.836†	76694.5	78845.7	9978.2 µg/L	9978.2 ppb	10:36:15
3	Se 196.026†	24393.5	25100.1	9890 µg/L	9890 ppb	10:36:15
3	SiO2†	931438.5	956914.6	100910 µg/L	100910 ppb	10:36:13
3	Si 251.611†	2916872.0	3001331.5	47131 µg/L	47131 ppb	10:36:13
3	Sn 189.927†	139983.2	144071.4	10027 µg/L	10027 ppb	10:36:15
3	Ti 334.940†	9456296.8	9731772.1	9987.4 µg/L	9987.4 ppb	10:36:10
3	Tl 190.801†	68171.4	70277.5	9748.5 µg/L	9748.5 ppb	10:36:15
3	U 409.014†	-8744.7	-8836.8	53.587 µg/L	53.587 ppb	10:36:15
3	V 292.402†	1885383.9	1940048.7	10251 µg/L	10251 ppb	10:36:13
3	Zn 213.857†	2368680.6	2437386.7	14480 µg/L	14480 ppb	10:36:13

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1747082.5	96.837	%	0.2857				0.30%
Sc RADIAL	137043.7	97.8	%	0.58				0.59%
Y 371.029	998304.9	94.420	%	0.2731				0.29%
Ag 328.068†	-29354.8	-1.3904	µg/L	0.38842	-1.3904	ppb	0.38842	27.94%
Al 396.153Radial†	2328.9	34.689	µg/L	28.9466	34.689	ppb	28.9466	83.45%
As 188.979†	29624.0	10276	µg/L	30.9	10276	ppb	30.9	0.30%
QC value within limits for As 188.979 Recovery = 102.76%								
B 249.677†	321689.1	4970.0	µg/L	9.52	4970.0	ppb	9.52	0.19%
QC value within limits for B 249.677 Recovery = 99.40%								
Ba 233.527†	3233679.7	14383	µg/L	6.7	14383	ppb	6.7	0.05%
QC value within limits for Ba 233.527 Recovery = 95.88%								
Be 313.107†	9929639.6	2876.2	µg/L	15.39	2876.2	ppb	15.39	0.54%
QC value within limits for Be 313.107 Recovery = 95.87%								
Ca 317.933Radial†	975.6	66.446	µg/L	22.3211	66.446	ppb	22.3211	33.59%
Cd 226.502†	1442869.0	9756.2	µg/L	10.71	9756.2	ppb	10.71	0.11%
QC value within limits for Cd 226.502 Recovery = 97.56%								
Co 228.616†	714902.2	9475.1	µg/L	10.14	9475.1	ppb	10.14	0.11%
QC value within limits for Co 228.616 Recovery = 94.75%								
Cr 267.716†	2781886.5	24070	µg/L	20.2	24070	ppb	20.2	0.08%
QC value within limits for Cr 267.716 Recovery = 96.28%								

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Cu 324.752†          4815885.5       20148 µg/L          22.6       20148 ppb          22.6   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.74%
Fe 238.204 Radial†      -550.7     -41.129 µg/L       11.5159     -41.129 ppb       11.5159  28.00%
K 766.490 Radial†     744484.4      295000 µg/L         981.6      295000 ppb         981.6   0.33%
   QC value within limits for K 766.490 Radial  Recovery = 98.33%
Mg 279.077 IEC†         -499.0      9.6261 µg/L      36.85576      9.6261 ppb      36.85576 382.87%
Mn 257.610†          7061238.1      9367.1 µg/L          8.06      9367.1 ppb          8.06   0.09%
   QC value within limits for Mn 257.610  Recovery = 93.67%
Mo 202.031†           299972.6      9813.7 µg/L         24.29      9813.7 ppb         24.29   0.25%
   QC value within limits for Mo 202.031  Recovery = 98.14%
Na 589.592 Radial†      2285.8      91.953 µg/L       26.7387      91.953 ppb       26.7387  29.08%
Ni 231.604†           782535.6      9790.5 µg/L         11.94      9790.5 ppb         11.94   0.12%
   QC value within limits for Ni 231.604  Recovery = 97.90%
P 214.914†             66357.0      15115 µg/L          19.1       15115 ppb          19.1   0.13%
   QC value within limits for P 214.914  Recovery = 100.76%
Pb 220.353†           386998.9      23844 µg/L          21.9       23844 ppb          21.9   0.09%
   QC value within limits for Pb 220.353  Recovery = 95.38%
S 181.975 Axial†       62021.7      52259 µg/L         160.1       52259 ppb         160.1   0.31%
   QC value within limits for S 181.975 Axial  Recovery = 104.52%
Sb 206.836†            78684.4      9957.3 µg/L         35.64      9957.3 ppb         35.64   0.36%
   QC value within limits for Sb 206.836  Recovery = 99.57%
Se 196.026†            25012.5       9850 µg/L          46.5        9850 ppb          46.5   0.47%
   QC value within limits for Se 196.026  Recovery = 98.54%
SiO2†                 954894.4     100700 µg/L         277.6      100700 ppb         277.6   0.28%
   QC value within limits for SiO2  Recovery = 94.11%
Si 251.611†          2994683.7      47026 µg/L         122.9       47026 ppb         122.9   0.26%
   QC value within limits for Si 251.611  Recovery = 94.05%
Sn 189.927†           143722.4      10003 µg/L          39.3       10003 ppb          39.3   0.39%
   QC value within limits for Sn 189.927  Recovery = 100.03%
Sr 421.552†          4129764.6      9739.9 µg/L         99.56      9739.9 ppb         99.56   1.02%
   QC value within limits for Sr 421.552  Recovery = 97.40%
Ti 334.940†          9785461.9      10043 µg/L          52.0       10043 ppb          52.0   0.52%
   QC value within limits for Ti 334.940  Recovery = 100.43%
Tl 190.801†            69927.8      9701.3 µg/L         44.70      9701.3 ppb         44.70   0.46%
   QC value within limits for Tl 190.801  Recovery = 97.01%
U 409.014†             -9099.2      36.832 µg/L       14.5139      36.832 ppb       14.5139  39.41%
V 292.402†           1939525.2      10248 µg/L           5.4       10248 ppb           5.4   0.05%
   QC value within limits for V 292.402  Recovery = 102.48%
Zn 213.857†          2434964.2      14466 µg/L          16.8       14466 ppb          16.8   0.12%
   QC value within limits for Zn 213.857  Recovery = 96.44%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 10:36:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139383.4	139383.4	99.5	%			10:36:57
1	Al 396.153Radial†	23983.0	24183.6	5067.9	µg/L	5067.9	ppb	10:36:57
1	Ca 317.933Radial†	74884.5	74694.3	5087.4	µg/L	5087.4	ppb	10:36:57
1	Fe 238.204 Radial†	67324.3	67549.7	5044.6	µg/L	5044.6	ppb	10:36:57
1	K 766.490 Radial†	15793.3	14379.9	5693.8	µg/L	5693.8	ppb	10:36:57
1	Mg 279.077 IEC†	11375.8	11261.3	5207.8	µg/L	5207.8	ppb	10:36:57
1	Na 589.592 Radial†	66012.0	65395.6	10132	µg/L	10132	ppb	10:36:57
1	Sr 421.552†	209942.4	211215.7	498.11	µg/L	498.11	ppb	10:36:54
1	Sc 361.383	1775532.0	1775532.0	98.414	%			10:37:23
1	Y 371.029	1029238.8	1029238.8	97.346	%			10:37:23
1	Ag 328.068†	123713.3	121142.4	502.16	µg/L	502.16	ppb	10:37:23
1	As 188.979†	1429.2	1470.7	504.76	µg/L	504.76	ppb	10:37:43
1	B 249.677†	36189.7	32707.9	506.91	µg/L	506.91	ppb	10:37:23
1	Ba 233.527†	111189.9	113126.7	503.24	µg/L	503.24	ppb	10:37:23
1	Be 313.107†	1690082.4	1718417.5	497.92	µg/L	497.92	ppb	10:37:23
1	Cd 226.502†	73455.3	74742.7	504.85	µg/L	504.85	ppb	10:37:23
1	Co 228.616†	37411.0	38224.4	505.95	µg/L	505.95	ppb	10:37:23
1	Cr 267.716†	57380.8	58072.6	502.27	µg/L	502.27	ppb	10:37:23
1	Cu 324.752†	120937.5	119850.9	502.85	µg/L	502.85	ppb	10:37:23
1	Mn 257.610†	372256.9	378072.8	501.31	µg/L	501.31	ppb	10:37:23
1	Mo 202.031†	15240.8	15525.1	508.19	µg/L	508.19	ppb	10:37:43
1	Ni 231.604†	39405.2	40136.3	502.16	µg/L	502.16	ppb	10:37:23
1	P 214.914†	10778.6	10978.0	2530.9	µg/L	2530.9	ppb	10:37:43
1	Pb 220.353†	8349.3	8380.4	517.30	µg/L	517.30	ppb	10:37:43
1	S 181.975 Axial†	1311.1	1243.3	1050.2	µg/L	1050.2	ppb	10:37:43
1	Sb 206.836†	3923.4	3896.9	503.72	µg/L	503.72	ppb	10:37:43
1	Se 196.026†	1279.8	1294.3	512	µg/L	512	ppb	10:37:43
1	SiO2†	51119.4	50204.3	5294.7	µg/L	5294.7	ppb	10:37:23
1	Si 251.611†	156377.4	158131.1	2483.4	µg/L	2483.4	ppb	10:37:23
1	Sn 189.927†	7206.6	7320.9	509.48	µg/L	509.48	ppb	10:37:43
1	Ti 334.940†	478294.1	485181.0	497.67	µg/L	497.67	ppb	10:37:23
1	Tl 190.801†	3555.2	3726.8	516.38	µg/L	516.38	ppb	10:37:43
1	U 409.014†	7075.5	7352.9	494.46	µg/L	494.46	ppb	10:37:23
1	V 292.402†	95137.0	96247.3	505.57	µg/L	505.57	ppb	10:37:23
1	Zn 213.857†	83877.0	84726.1	502.00	µg/L	502.00	ppb	10:37:23
2	Sc RADIAL	141237.6	141237.6	101	%			10:37:01
2	Al 396.153Radial†	24351.7	24232.9	5078.4	µg/L	5078.4	ppb	10:37:01
2	Ca 317.933Radial†	76105.1	74916.9	5102.5	µg/L	5102.5	ppb	10:37:01
2	Fe 238.204 Radial†	68422.0	67750.2	5059.5	µg/L	5059.5	ppb	10:37:01
2	K 766.490 Radial†	15816.9	14194.9	5620.5	µg/L	5620.5	ppb	10:37:01
2	Mg 279.077 IEC†	11511.1	11245.3	5200.4	µg/L	5200.4	ppb	10:37:01
2	Na 589.592 Radial†	66852.4	65358.1	10126	µg/L	10126	ppb	10:37:01
2	Sr 421.552†	212339.4	210823.0	497.18	µg/L	497.18	ppb	10:36:59
2	Sc 361.383	1787375.4	1787375.4	99.070	%			10:37:47
2	Y 371.029	1037117.1	1037117.1	98.091	%			10:37:47
2	Ag 328.068†	124828.0	121434.6	503.37	µg/L	503.37	ppb	10:37:47
2	As 188.979†	1441.0	1473.1	505.57	µg/L	505.57	ppb	10:38:07
2	B 249.677†	36397.3	32673.8	506.38	µg/L	506.38	ppb	10:37:47
2	Ba 233.527†	111984.0	113179.7	503.48	µg/L	503.48	ppb	10:37:47
2	Be 313.107†	1706153.7	1723260.5	499.32	µg/L	499.32	ppb	10:37:47
2	Cd 226.502†	74191.2	74991.0	506.53	µg/L	506.53	ppb	10:37:47
2	Co 228.616†	37736.8	38301.3	506.97	µg/L	506.97	ppb	10:37:47
2	Cr 267.716†	57858.9	58168.8	503.11	µg/L	503.11	ppb	10:37:47
2	Cu 324.752†	122047.6	120157.1	504.13	µg/L	504.13	ppb	10:37:47
2	Mn 257.610†	375557.0	378897.5	502.41	µg/L	502.41	ppb	10:37:47
2	Mo 202.031†	15314.4	15496.7	507.27	µg/L	507.27	ppb	10:38:07
2	Ni 231.604†	39844.4	40314.3	504.38	µg/L	504.38	ppb	10:37:47
2	P 214.914†	10818.6	10945.8	2523.4	µg/L	2523.4	ppb	10:38:07
2	Pb 220.353†	8374.4	8349.6	515.41	µg/L	515.41	ppb	10:38:07

2	S 181.975 Axial†	1316.2	1239.6	1047.1 µg/L	1047.1 ppb	10:38:07
2	Sb 206.836†	3951.4	3898.7	503.93 µg/L	503.93 ppb	10:38:07
2	Se 196.026†	1293.2	1299.1	514 µg/L	514 ppb	10:38:07
2	SiO2†	51601.8	50347.1	5309.9 µg/L	5309.9 ppb	10:37:47
2	Si 251.611†	157616.5	158329.0	2486.6 µg/L	2486.6 ppb	10:37:47
2	Sn 189.927†	7228.2	7294.2	507.63 µg/L	507.63 ppb	10:38:07
2	Ti 334.940†	482143.4	485846.0	498.36 µg/L	498.36 ppb	10:37:47
2	Tl 190.801†	3577.4	3725.3	516.20 µg/L	516.20 ppb	10:38:07
2	U 409.014†	6994.8	7223.9	486.47 µg/L	486.47 ppb	10:37:47
2	V 292.402†	96271.3	96751.8	508.18 µg/L	508.18 ppb	10:37:47
2	Zn 213.857†	84512.0	84802.3	502.44 µg/L	502.44 ppb	10:37:47
3	Sc RADIAL	139619.7	139619.7	99.7 %		10:37:05
3	Al 396.153Radial†	23966.5	24126.3	5056.2 µg/L	5056.2 ppb	10:37:05
3	Ca 317.933Radial†	75181.7	74865.1	5099.0 µg/L	5099.0 ppb	10:37:05
3	Fe 238.204 Radial†	67379.8	67490.9	5040.2 µg/L	5040.2 ppb	10:37:05
3	K 766.490 Radial†	15656.1	14215.4	5628.6 µg/L	5628.6 ppb	10:37:05
3	Mg 279.077 IEC†	11320.1	11186.0	5172.9 µg/L	5172.9 ppb	10:37:05
3	Na 589.592 Radial†	66307.8	65580.0	10160 µg/L	10160 ppb	10:37:05
3	Sr 421.552†	212426.4	213350.9	503.14 µg/L	503.14 ppb	10:37:03
3	Sc 361.383	1796359.2	1796359.2	99.568 %		10:38:10
3	Y 371.029	1041972.3	1041972.3	98.551 %		10:38:10
3	Ag 328.068†	125764.0	121744.4	504.65 µg/L	504.65 ppb	10:38:10
3	As 188.979†	1434.8	1459.5	500.98 µg/L	500.98 ppb	10:38:30
3	B 249.677†	36503.8	32597.0	505.17 µg/L	505.17 ppb	10:38:10
3	Ba 233.527†	113116.0	113751.3	506.02 µg/L	506.02 ppb	10:38:10
3	Be 313.107†	1721963.8	1730526.4	501.43 µg/L	501.43 ppb	10:38:10
3	Cd 226.502†	75117.4	75546.7	510.29 µg/L	510.29 ppb	10:38:10
3	Co 228.616†	38112.7	38488.4	509.44 µg/L	509.44 ppb	10:38:10
3	Cr 267.716†	58452.0	58472.4	505.73 µg/L	505.73 ppb	10:38:10
3	Cu 324.752†	122851.6	120348.5	504.93 µg/L	504.93 ppb	10:38:10
3	Mn 257.610†	379092.5	380552.5	504.60 µg/L	504.60 ppb	10:38:10
3	Mo 202.031†	15195.9	15300.4	500.85 µg/L	500.85 ppb	10:38:30
3	Ni 231.604†	40229.0	40499.4	506.70 µg/L	506.70 ppb	10:38:10
3	P 214.914†	10704.5	10776.6	2484.3 µg/L	2484.3 ppb	10:38:30
3	Pb 220.353†	8282.2	8214.7	507.09 µg/L	507.09 ppb	10:38:30
3	S 181.975 Axial†	1291.3	1208.0	1020.5 µg/L	1020.5 ppb	10:38:30
3	Sb 206.836†	3926.1	3853.4	497.95 µg/L	497.95 ppb	10:38:30
3	Se 196.026†	1271.1	1270.5	503 µg/L	503 ppb	10:38:30
3	SiO2†	51964.0	50450.4	5321.1 µg/L	5321.1 ppb	10:38:10
3	Si 251.611†	159117.7	159041.0	2497.9 µg/L	2497.9 ppb	10:38:10
3	Sn 189.927†	7158.9	7188.1	500.28 µg/L	500.28 ppb	10:38:30
3	Ti 334.940†	486018.7	487304.3	499.85 µg/L	499.85 ppb	10:38:10
3	Tl 190.801†	3533.3	3662.9	507.69 µg/L	507.69 ppb	10:38:30
3	U 409.014†	7097.1	7291.2	490.73 µg/L	490.73 ppb	10:38:10
3	V 292.402†	96745.9	96742.4	508.08 µg/L	508.08 ppb	10:38:10
3	Zn 213.857†	85472.9	85340.8	505.64 µg/L	505.64 ppb	10:38:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786422.2	99.017	%	0.5790				0.58%
Sc RADIAL	140080.2	100.0	%	0.72				0.72%
Y 371.029	1036109.4	97.996	%	0.6078				0.62%
Ag 328.068†	121440.5	503.39	µg/L	1.245	503.39	ppb	1.245	0.25%
QC value within limits for Ag 328.068 Recovery = 100.68%								
Al 396.153Radial†	24180.9	5067.5	µg/L	11.08	5067.5	ppb	11.08	0.22%
QC value within limits for Al 396.153Radial Recovery = 101.35%								
As 188.979†	1467.8	503.77	µg/L	2.452	503.77	ppb	2.452	0.49%
QC value within limits for As 188.979 Recovery = 100.75%								
B 249.677†	32659.6	506.15	µg/L	0.889	506.15	ppb	0.889	0.18%
QC value within limits for B 249.677 Recovery = 101.23%								
Ba 233.527†	113352.6	504.25	µg/L	1.539	504.25	ppb	1.539	0.31%
QC value within limits for Ba 233.527 Recovery = 100.85%								
Be 313.107†	1724068.1	499.56	µg/L	1.765	499.56	ppb	1.765	0.35%
QC value within limits for Be 313.107 Recovery = 99.91%								
Ca 317.933Radial†	74825.4	5096.3	µg/L	7.93	5096.3	ppb	7.93	0.16%
QC value within limits for Ca 317.933Radial Recovery = 101.93%								
Cd 226.502†	75093.5	507.22	µg/L	2.784	507.22	ppb	2.784	0.55%
QC value within limits for Cd 226.502 Recovery = 101.44%								
Co 228.616†	38338.0	507.45	µg/L	1.798	507.45	ppb	1.798	0.35%

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   QC value within limits for Co 228.616  Recovery = 101.49%
Cr 267.716†            58237.9      503.70 µg/L         1.806      503.70 ppb          1.806   0.36%
   QC value within limits for Cr 267.716  Recovery = 100.74%
Cu 324.752†           120118.8      503.97 µg/L         1.048      503.97 ppb          1.048   0.21%
   QC value within limits for Cu 324.752  Recovery = 100.79%
Fe 238.204 Radial†     67596.9      5048.1 µg/L         10.15      5048.1 ppb          10.15   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.96%
K 766.490 Radial†      14263.4      5647.7 µg/L         40.19      5647.7 ppb          40.19   0.71%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 112.95%
Mg 279.077 IEC†        11230.9      5193.7 µg/L         18.41      5193.7 ppb          18.41   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.87%
Mn 257.610†           379174.3      502.77 µg/L         1.676      502.77 ppb          1.676   0.33%
   QC value within limits for Mn 257.610  Recovery = 100.55%
Mo 202.031†            15440.7      505.43 µg/L         4.001      505.43 ppb          4.001   0.79%
   QC value within limits for Mo 202.031  Recovery = 101.09%
Na 589.592 Radial†     65444.6       10139 µg/L          18.4       10139 ppb           18.4   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 101.39%
Ni 231.604†            40316.7      504.41 µg/L         2.272      504.41 ppb          2.272   0.45%
   QC value within limits for Ni 231.604  Recovery = 100.88%
P 214.914†             10900.2      2512.9 µg/L         25.04      2512.9 ppb          25.04   1.00%
   QC value within limits for P 214.914  Recovery = 100.51%
Pb 220.353†             8314.9      513.27 µg/L         5.432      513.27 ppb          5.432   1.06%
   QC value within limits for Pb 220.353  Recovery = 102.65%
S 181.975 Axial†        1230.3      1039.3 µg/L         16.35      1039.3 ppb          16.35   1.57%
   QC value within limits for S 181.975 Axial  Recovery = 103.93%
Sb 206.836†             3883.0      501.87 µg/L         3.396      501.87 ppb          3.396   0.68%
   QC value within limits for Sb 206.836  Recovery = 100.37%
Se 196.026†             1288.0         510 µg/L           6.0         510 ppb            6.0   1.19%
   QC value within limits for Se 196.026  Recovery = 101.93%
SiO2†                  50333.9      5308.6 µg/L         13.25      5308.6 ppb          13.25   0.25%
   QC value within limits for SiO2  Recovery = 99.27%
Si 251.611†           158500.4      2489.3 µg/L          7.63      2489.3 ppb           7.63   0.31%
   QC value within limits for Si 251.611  Recovery = 99.57%
Sn 189.927†             7267.7      505.80 µg/L         4.871      505.80 ppb          4.871   0.96%
   QC value within limits for Sn 189.927  Recovery = 101.16%
Sr 421.552†           211796.5      499.47 µg/L         3.208      499.47 ppb          3.208   0.64%
   QC value within limits for Sr 421.552  Recovery = 99.89%
Ti 334.940†           486110.4      498.63 µg/L         1.117      498.63 ppb          1.117   0.22%
   QC value within limits for Ti 334.940  Recovery = 99.73%
Tl 190.801†             3705.0      513.42 µg/L         4.965      513.42 ppb          4.965   0.97%
   QC value within limits for Tl 190.801  Recovery = 102.68%
U 409.014†              7289.3      490.55 µg/L         3.999      490.55 ppb          3.999   0.82%
   QC value within limits for U 409.014  Recovery = 98.11%
V 292.402†             96580.5      507.28 µg/L         1.474      507.28 ppb          1.474   0.29%
   QC value within limits for V 292.402  Recovery = 101.46%
Zn 213.857†            84956.4      503.36 µg/L         1.987      503.36 ppb          1.987   0.39%
   QC value within limits for Zn 213.857  Recovery = 100.67%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 10:38:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139909.9	139909.9	99.9	%			10:39:07
1	Al 396.153Radial†	-55.8	22.7	4.7099	µg/L	4.7099	ppb	10:39:27
1	Ca 317.933Radial†	668.4	97.8	6.6613	µg/L	6.6613	ppb	10:39:27
1	Fe 238.204 Radial†	168.4	51.3	3.8306	µg/L	3.8306	ppb	10:39:27
1	K 766.490 Radial†	2181.0	690.0	273.40	µg/L	273.40	ppb	10:39:07
1	Mg 279.077 IEC†	195.0	22.8	10.561	µg/L	10.561	ppb	10:39:27
1	Na 589.592 Radial†	1624.4	674.0	104.23	µg/L	104.23	ppb	10:39:07
1	Sr 421.552†	-97.8	106.5	0.2512	µg/L	0.2512	ppb	10:39:07
1	Sc 361.383	1822724.3	1822724.3	101.03	%			10:40:15
1	Y 371.029	1067929.9	1067929.9	101.01	%			10:40:15
1	Ag 328.068†	4558.5	-53.1	-0.2451	µg/L	-0.2451	ppb	10:40:17
1	As 188.979†	-17.1	1.6	0.5599	µg/L	0.5599	ppb	10:40:37
1	B 249.677†	4426.7	316.4	4.9210	µg/L	4.9210	ppb	10:40:17
1	Ba 233.527†	-125.1	20.7	0.0922	µg/L	0.0922	ppb	10:40:37
1	Be 313.107†	-581.3	516.4	0.1437	µg/L	0.1437	ppb	10:40:17
1	Cd 226.502†	-17.4	86.1	0.5819	µg/L	0.5819	ppb	10:40:37
1	Co 228.616†	-210.1	2.3	0.0304	µg/L	0.0304	ppb	10:40:37
1	Cr 267.716†	230.3	-5.3	-0.0307	µg/L	-0.0307	ppb	10:40:37
1	Cu 324.752†	3295.4	225.7	0.9289	µg/L	0.9289	ppb	10:40:17
1	Mn 257.610†	310.3	122.4	0.1620	µg/L	0.1620	ppb	10:40:37
1	Mo 202.031†	6.0	44.5	1.4552	µg/L	1.4552	ppb	10:40:37
1	Ni 231.604†	-50.2	46.2	0.5783	µg/L	0.5783	ppb	10:40:37
1	P 214.914†	-9.3	16.5	3.7864	µg/L	3.7864	ppb	10:40:37
1	Pb 220.353†	119.1	14.4	0.9040	µg/L	0.9040	ppb	10:40:37
1	S 181.975 Axial†	105.7	15.7	13.183	µg/L	13.183	ppb	10:40:37
1	Sb 206.836†	87.7	-2.9	-0.3534	µg/L	-0.3534	ppb	10:40:37
1	Se 196.026†	26.3	19.9	7.82	µg/L	7.82	ppb	10:40:37
1	SiO2†	1818.1	60.4	6.3488	µg/L	6.3488	ppb	10:40:37
1	Si 251.611†	861.5	85.7	1.3276	µg/L	1.3276	ppb	10:40:17
1	Sn 189.927†	11.7	9.7	0.6739	µg/L	0.6739	ppb	10:40:37
1	Ti 334.940†	1159.3	324.5	0.3406	µg/L	0.3406	ppb	10:40:17
1	Tl 190.801†	-101.6	13.7	1.8777	µg/L	1.8777	ppb	10:40:37
1	U 409.014†	-475.4	-307.2	-19.402	µg/L	-19.402	ppb	10:40:17
1	V 292.402†	369.8	-57.2	-0.2953	µg/L	-0.2953	ppb	10:40:17
1	Zn 213.857†	703.4	193.2	1.1494	µg/L	1.1494	ppb	10:40:37
2	Sc RADIAL	139104.0	139104.0	99.3	%			10:39:29
2	Al 396.153Radial†	-55.3	22.9	4.7868	µg/L	4.7868	ppb	10:39:49
2	Ca 317.933Radial†	656.3	89.5	6.0970	µg/L	6.0970	ppb	10:39:49
2	Fe 238.204 Radial†	153.3	37.1	2.7712	µg/L	2.7712	ppb	10:39:49
2	K 766.490 Radial†	2053.7	574.5	227.64	µg/L	227.64	ppb	10:39:29
2	Mg 279.077 IEC†	181.1	9.9	4.5998	µg/L	4.5998	ppb	10:39:49
2	Na 589.592 Radial†	1651.7	711.0	110.00	µg/L	110.00	ppb	10:39:29
2	Sr 421.552†	-28.2	176.1	0.4153	µg/L	0.4153	ppb	10:39:29
2	Sc 361.383	1814086.1	1814086.1	100.55	%			10:40:39
2	Y 371.029	1063810.2	1063810.2	100.62	%			10:40:39
2	Ag 328.068†	4519.4	-70.5	-0.3026	µg/L	-0.3026	ppb	10:40:41
2	As 188.979†	-16.7	1.9	0.6543	µg/L	0.6543	ppb	10:41:02
2	B 249.677†	4194.0	105.9	1.6449	µg/L	1.6449	ppb	10:40:41
2	Ba 233.527†	36.7	181.1	0.8048	µg/L	0.8048	ppb	10:41:02
2	Be 313.107†	-830.7	265.6	0.0742	µg/L	0.0742	ppb	10:40:41
2	Cd 226.502†	-39.0	64.5	0.4361	µg/L	0.4361	ppb	10:41:02
2	Co 228.616†	-158.3	52.9	0.7000	µg/L	0.7000	ppb	10:41:02
2	Cr 267.716†	280.5	45.7	0.4025	µg/L	0.4025	ppb	10:41:02
2	Cu 324.752†	3051.0	-1.8	-0.0141	µg/L	-0.0141	ppb	10:40:41
2	Mn 257.610†	250.3	64.2	0.0850	µg/L	0.0850	ppb	10:41:02
2	Mo 202.031†	-19.1	19.6	0.6409	µg/L	0.6409	ppb	10:41:02
2	Ni 231.604†	-77.8	18.5	0.2318	µg/L	0.2318	ppb	10:41:02
2	P 214.914†	-30.8	-4.9	-1.1366	µg/L	-1.1366	ppb	10:41:02
2	Pb 220.353†	140.7	36.5	2.2529	µg/L	2.2529	ppb	10:41:02

2	S 181.975 Axial†	114.2	24.6	20.708 µg/L	20.708 ppb	10:41:02
2	Sb 206.836†	82.1	-8.1	-1.0413 µg/L	-1.0413 ppb	10:41:02
2	Se 196.026†	31.3	24.9	9.81 µg/L	9.81 ppb	10:41:02
2	SiO2†	1765.7	17.0	1.7661 µg/L	1.7661 ppb	10:41:02
2	Si 251.611†	858.7	87.0	1.3574 µg/L	1.3574 ppb	10:40:41
2	Sn 189.927†	15.3	13.3	0.9228 µg/L	0.9228 ppb	10:41:02
2	Ti 334.940†	912.5	84.5	0.0902 µg/L	0.0902 ppb	10:40:41
2	Tl 190.801†	-111.6	3.3	0.4502 µg/L	0.4502 ppb	10:41:02
2	U 409.014†	-310.7	-145.6	-9.2038 µg/L	-9.2038 ppb	10:40:41
2	V 292.402†	384.0	-41.3	-0.2124 µg/L	-0.2124 ppb	10:40:41
2	Zn 213.857†	665.6	159.0	0.9477 µg/L	0.9477 ppb	10:41:02
3	Sc RADIAL	140352.9	140352.9	100 %		10:39:51
3	Al 396.153Radial†	-12.8	65.8	13.824 µg/L	13.824 ppb	10:40:11
3	Ca 317.933Radial†	842.6	269.6	18.359 µg/L	18.359 ppb	10:40:11
3	Fe 238.204 Radial†	290.3	172.4	12.876 µg/L	12.876 ppb	10:40:11
3	K 766.490 Radial†	2021.3	523.7	207.51 µg/L	207.51 ppb	10:39:51
3	Mg 279.077 IEC†	235.2	62.3	28.777 µg/L	28.777 ppb	10:40:11
3	Na 589.592 Radial†	1483.6	528.4	81.714 µg/L	81.714 ppb	10:39:51
3	Sr 421.552†	-224.6	-19.7	-0.0465 µg/L	-0.0465 ppb	10:39:51
3	Sc 361.383	1797177.6	1797177.6	99.613 %		10:41:04
3	Y 371.029	1054450.3	1054450.3	99.731 %		10:41:04
3	Ag 328.068†	4482.2	-65.5	-0.2803 µg/L	-0.2803 ppb	10:41:06
3	As 188.979†	-10.0	8.5	2.8805 µg/L	2.8805 ppb	10:41:26
3	B 249.677†	4185.2	136.3	2.1188 µg/L	2.1188 ppb	10:41:06
3	Ba 233.527†	-139.1	4.9	0.0218 µg/L	0.0218 ppb	10:41:26
3	Be 313.107†	-828.9	259.6	0.0717 µg/L	0.0717 ppb	10:41:06
3	Cd 226.502†	-11.5	91.8	0.6190 µg/L	0.6190 ppb	10:41:26
3	Co 228.616†	-203.6	5.9	0.0772 µg/L	0.0772 ppb	10:41:26
3	Cr 267.716†	250.1	17.9	0.1638 µg/L	0.1638 ppb	10:41:26
3	Cu 324.752†	3091.9	67.8	0.2766 µg/L	0.2766 ppb	10:41:06
3	Mn 257.610†	263.6	79.9	0.1048 µg/L	0.1048 ppb	10:41:26
3	Mo 202.031†	-21.8	16.7	0.5458 µg/L	0.5458 ppb	10:41:26
3	Ni 231.604†	-72.9	22.7	0.2843 µg/L	0.2843 ppb	10:41:26
3	P 214.914†	-18.9	6.8	1.5610 µg/L	1.5610 ppb	10:41:26
3	Pb 220.353†	128.4	25.5	1.5787 µg/L	1.5787 ppb	10:41:26
3	S 181.975 Axial†	101.9	13.4	11.251 µg/L	11.251 ppb	10:41:26
3	Sb 206.836†	70.7	-18.7	-2.4055 µg/L	-2.4055 ppb	10:41:26
3	Se 196.026†	9.9	3.8	1.49 µg/L	1.49 ppb	10:41:26
3	SiO2†	1766.7	34.5	3.6151 µg/L	3.6151 ppb	10:41:26
3	Si 251.611†	977.5	214.2	3.3608 µg/L	3.3608 ppb	10:41:06
3	Sn 189.927†	23.7	21.9	1.5170 µg/L	1.5170 ppb	10:41:26
3	Ti 334.940†	715.0	-105.2	-0.1052 µg/L	-0.1052 ppb	10:41:06
3	Tl 190.801†	-104.0	9.9	1.3480 µg/L	1.3480 ppb	10:41:26
3	U 409.014†	-346.8	-184.8	-11.650 µg/L	-11.650 ppb	10:41:06
3	V 292.402†	466.6	45.2	0.2316 µg/L	0.2316 ppb	10:41:06
3	Zn 213.857†	652.7	152.2	0.9057 µg/L	0.9057 ppb	10:41:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1811329.4	100.40	%	0.720				0.72%
Sc RADIAL	139788.9	99.8	%	0.45				0.45%
Y 371.029	1062063.4	100.45	%	0.653				0.65%
Ag 328.068†	-63.1	-0.2760	µg/L	0.02898	-0.2760	ppb	0.02898	10.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	37.1	7.7736	µg/L	5.23994	7.7736	ppb	5.23994	67.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.0	1.3649	µg/L	1.31341	1.3649	ppb	1.31341	96.23%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	186.2	2.8949	µg/L	1.77056	2.8949	ppb	1.77056	61.16%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	68.9	0.3062	µg/L	0.43321	0.3062	ppb	0.43321	141.46%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	347.2	0.0965	µg/L	0.04090	0.0965	ppb	0.04090	42.38%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	152.3	10.373	µg/L	6.9226	10.373	ppb	6.9226	66.74%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	80.8	0.5457	µg/L	0.09672	0.5457	ppb	0.09672	17.73%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.4	0.2692	µg/L	0.37385	0.2692	ppb	0.37385	138.88%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                19.4      0.1785 µg/L       0.21700      0.1785 ppb        0.21700 121.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                97.2      0.3971 µg/L       0.48288      0.3971 ppb        0.48288 121.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         86.9      6.4926 µg/L       5.55342      6.4926 ppb        5.55342  85.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         596.1      236.18 µg/L        33.767      236.18 ppb         33.767  14.30%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            31.7      14.646 µg/L       12.5959      14.646 ppb        12.5959  86.00%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                88.9      0.1173 µg/L       0.03997      0.1173 ppb        0.03997  34.08%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                26.9      0.8806 µg/L       0.49988      0.8806 ppb        0.49988  56.76%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        637.8      98.649 µg/L       14.9470      98.649 ppb        14.9470  15.15%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                29.2      0.3648 µg/L       0.18676      0.3648 ppb        0.18676  51.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  6.1      1.4036 µg/L       2.46530      1.4036 ppb        2.46530 175.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                25.4      1.5785 µg/L       0.67449      1.5785 ppb        0.67449  42.73%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           17.9      15.047 µg/L        4.9964      15.047 ppb         4.9964  33.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -9.9     -1.2667 µg/L       1.04446     -1.2667 ppb        1.04446  82.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                16.2        6.37 µg/L         4.348        6.37 ppb          4.348  68.22%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      37.3      3.9100 µg/L       2.30555      3.9100 ppb        2.30555  58.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               129.0      2.0153 µg/L       1.16537      2.0153 ppb        1.16537  57.83%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                15.0      1.0379 µg/L       0.43318      1.0379 ppb        0.43318  41.74%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                87.7      0.2067 µg/L       0.23409      0.2067 ppb        0.23409 113.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               101.2      0.1085 µg/L       0.22346      0.1085 ppb        0.22346 205.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 9.0      1.2253 µg/L       0.72161      1.2253 ppb        0.72161  58.89%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -212.6     -13.419 µg/L        5.3243     -13.419 ppb         5.3243  39.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -17.8     -0.0920 µg/L       0.28332     -0.0920 ppb        0.28332 307.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               168.2      1.0009 µg/L       0.13030      1.0009 ppb        0.13030  13.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Analysis Begun

Start Time: 4/5/2010 10:49:36 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 4/5/2010 9:54:36**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/5/2010 10:49:38**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139913.8	139913.8	99.9	%			10:50:08
1	Al 396.153Radial†	24335.8	24445.5	5123.4	µg/L	5123.4	ppb	10:50:10
1	Ca 317.933Radial†	76124.3	75650.4	5152.5	µg/L	5152.5	ppb	10:50:10
1	Fe 238.204 Radial†	68091.5	68061.4	5082.8	µg/L	5082.8	ppb	10:50:10

1	K 766.490 Radial†	14510.4	13035.1	5161.0 µg/L	5161.0 ppb	10:50:10
1	Mg 279.077 IEC†	11429.7	11271.9	5212.6 µg/L	5212.6 ppb	10:50:10
1	Na 589.592 Radial†	64869.2	63999.8	9915.9 µg/L	9915.9 ppb	10:50:08
1	Sr 421.552†	210128.9	210602.6	496.66 µg/L	496.66 ppb	10:50:08
1	Sc 361.383	1793135.3	1793135.3	99.389 %		10:50:37
1	Y 371.029	1039795.9	1039795.9	98.345 %		10:50:37
1	Ag 328.068†	125023.0	121226.0	502.50 µg/L	502.50 ppb	10:50:37
1	As 188.979†	1415.1	1442.4	495.14 µg/L	495.14 ppb	10:50:57
1	B 249.677†	35686.1	31840.2	493.41 µg/L	493.41 ppb	10:50:37
1	Ba 233.527†	111774.5	112605.9	500.92 µg/L	500.92 ppb	10:50:37
1	Be 313.107†	1706398.9	1717975.2	497.80 µg/L	497.80 ppb	10:50:37
1	Cd 226.502†	74086.4	74645.0	504.19 µg/L	504.19 ppb	10:50:37
1	Co 228.616†	37804.3	38246.8	506.24 µg/L	506.24 ppb	10:50:37
1	Cr 267.716†	57747.6	57869.2	500.50 µg/L	500.50 ppb	10:50:37
1	Cu 324.752†	121662.9	119374.4	500.87 µg/L	500.87 ppb	10:50:37
1	Mn 257.610†	376107.2	378233.4	501.52 µg/L	501.52 ppb	10:50:37
1	Mo 202.031†	15189.8	15321.7	501.54 µg/L	501.54 ppb	10:50:57
1	Ni 231.604†	39897.8	40238.8	503.44 µg/L	503.44 ppb	10:50:37
1	P 214.914†	10795.7	10887.8	2510.0 µg/L	2510.0 ppb	10:50:57
1	Pb 220.353†	8262.9	8210.2	506.81 µg/L	506.81 ppb	10:50:57
1	S 181.975 Axial†	1275.8	1194.7	1009.3 µg/L	1009.3 ppb	10:50:57
1	Sb 206.836†	3955.2	3889.8	502.71 µg/L	502.71 ppb	10:50:57
1	Se 196.026†	1278.3	1280.0	507 µg/L	507 ppb	10:50:57
1	SiO2†	51569.1	50146.9	5288.9 µg/L	5288.9 ppb	10:50:37
1	Si 251.611†	157499.0	157699.7	2476.8 µg/L	2476.8 ppb	10:50:37
1	Sn 189.927†	7167.7	7209.8	501.78 µg/L	501.78 ppb	10:50:57
1	Ti 334.940†	482524.4	484666.2	497.14 µg/L	497.14 ppb	10:50:37
1	Tl 190.801†	3542.3	3678.3	509.75 µg/L	509.75 ppb	10:50:57
1	U 409.014†	7309.8	7518.1	504.80 µg/L	504.80 ppb	10:50:37
1	V 292.402†	95824.9	95990.5	504.17 µg/L	504.17 ppb	10:50:37
1	Zn 213.857†	84530.8	84547.2	500.92 µg/L	500.92 ppb	10:50:37
2	Sc RADIAL	140341.7	140341.7	100 %		10:50:12
2	Al 396.153Radial†	23928.8	23965.0	5022.0 µg/L	5022.0 ppb	10:50:14
2	Ca 317.933Radial†	74480.6	73777.1	5024.9 µg/L	5024.9 ppb	10:50:14
2	Fe 238.204 Radial†	66810.1	66574.4	4971.7 µg/L	4971.7 ppb	10:50:14
2	K 766.490 Radial†	14217.3	12698.3	5027.6 µg/L	5027.6 ppb	10:50:14
2	Mg 279.077 IEC†	11311.0	11118.6	5141.9 µg/L	5141.9 ppb	10:50:14
2	Na 589.592 Radial†	65359.5	64291.2	9961.2 µg/L	9961.2 ppb	10:50:12
2	Sr 421.552†	211237.8	211067.9	497.76 µg/L	497.76 ppb	10:50:12
2	Sc 361.383	1774369.1	1774369.1	98.349 %		10:51:01
2	Y 371.029	1029276.4	1029276.4	97.350 %		10:51:01
2	Ag 328.068†	123578.9	121088.1	501.92 µg/L	501.92 ppb	10:51:01
2	As 188.979†	1412.6	1454.9	499.35 µg/L	499.35 ppb	10:51:21
2	B 249.677†	35412.9	31942.2	495.00 µg/L	495.00 ppb	10:51:01
2	Ba 233.527†	110497.4	112496.7	500.44 µg/L	500.44 ppb	10:51:01
2	Be 313.107†	1682989.4	1712331.0	496.16 µg/L	496.16 ppb	10:51:01
2	Cd 226.502†	73151.3	74482.6	503.10 µg/L	503.10 ppb	10:51:01
2	Co 228.616†	37344.3	38181.4	505.38 µg/L	505.38 ppb	10:51:01
2	Cr 267.716†	57138.9	57864.8	500.47 µg/L	500.47 ppb	10:51:01
2	Cu 324.752†	120116.3	119096.4	499.68 µg/L	499.68 ppb	10:51:01
2	Mn 257.610†	370927.0	376968.5	499.85 µg/L	499.85 ppb	10:51:01
2	Mo 202.031†	15145.9	15438.7	505.36 µg/L	505.36 ppb	10:51:21
2	Ni 231.604†	39443.9	40201.8	502.98 µg/L	502.98 ppb	10:51:01
2	P 214.914†	10729.6	10935.4	2521.1 µg/L	2521.1 ppb	10:51:21
2	Pb 220.353†	8260.4	8295.6	512.08 µg/L	512.08 ppb	10:51:21
2	S 181.975 Axial†	1287.9	1220.6	1031.1 µg/L	1031.1 ppb	10:51:21
2	Sb 206.836†	3928.5	3904.8	504.71 µg/L	504.71 ppb	10:51:21
2	Se 196.026†	1280.0	1295.4	512 µg/L	512 ppb	10:51:21
2	SiO2†	50796.5	49910.0	5263.7 µg/L	5263.7 ppb	10:51:01
2	Si 251.611†	155366.4	157207.3	2468.9 µg/L	2468.9 ppb	10:51:01
2	Sn 189.927†	7141.4	7259.3	505.21 µg/L	505.21 ppb	10:51:21
2	Ti 334.940†	476326.0	483498.4	495.95 µg/L	495.95 ppb	10:51:01
2	Tl 190.801†	3543.4	3717.2	515.05 µg/L	515.05 ppb	10:51:21
2	U 409.014†	6925.4	7205.0	485.08 µg/L	485.08 ppb	10:51:01
2	V 292.402†	94927.6	96097.8	504.77 µg/L	504.77 ppb	10:51:01
2	Zn 213.857†	83208.3	84102.0	498.28 µg/L	498.28 ppb	10:51:01
3	Sc RADIAL	137926.0	137926.0	98.5 %		10:50:16
3	Al 396.153Radial†	23743.5	24195.1	5070.7 µg/L	5070.7 ppb	10:50:18
3	Ca 317.933Radial†	74096.5	74689.2	5087.0 µg/L	5087.0 ppb	10:50:18
3	Fe 238.204 Radial†	66279.1	67203.1	5018.7 µg/L	5018.7 ppb	10:50:18
3	K 766.490 Radial†	14171.0	12899.8	5107.4 µg/L	5107.4 ppb	10:50:18

3	Mg 279.077 IEC†	11189.8	11193.2	5176.3 µg/L	5176.3 ppb	10:50:18
3	Na 589.592 Radial†	64370.5	64429.3	9982.5 µg/L	9982.5 ppb	10:50:16
3	Sr 421.552†	208116.7	211590.8	498.99 µg/L	498.99 ppb	10:50:16
3	Sc 361.383	1790832.9	1790832.9	99.262 %		10:51:24
3	Y 371.029	1039510.2	1039510.2	98.318 %		10:51:24
3	Ag 328.068†	124982.2	121346.7	502.99 µg/L	502.99 ppb	10:51:24
3	As 188.979†	1432.6	1461.8	501.68 µg/L	501.68 ppb	10:51:44
3	B 249.677†	35516.0	31715.1	491.47 µg/L	491.47 ppb	10:51:24
3	Ba 233.527†	111713.2	112688.6	501.29 µg/L	501.29 ppb	10:51:24
3	Be 313.107†	1700513.3	1714253.1	496.72 µg/L	496.72 ppb	10:51:24
3	Cd 226.502†	73950.4	74603.7	503.92 µg/L	503.92 ppb	10:51:24
3	Co 228.616†	37761.3	38252.5	506.32 µg/L	506.32 ppb	10:51:24
3	Cr 267.716†	57636.2	57831.7	500.18 µg/L	500.18 ppb	10:51:24
3	Cu 324.752†	121402.4	119269.2	500.42 µg/L	500.42 ppb	10:51:24
3	Mn 257.610†	375337.1	377944.0	501.14 µg/L	501.14 ppb	10:51:24
3	Mo 202.031†	15165.8	15317.2	501.39 µg/L	501.39 ppb	10:51:44
3	Ni 231.604†	39837.7	40229.9	503.33 µg/L	503.33 ppb	10:51:24
3	P 214.914†	10769.4	10875.2	2507.2 µg/L	2507.2 ppb	10:51:44
3	Pb 220.353†	8292.5	8250.7	509.30 µg/L	509.30 ppb	10:51:44
3	S 181.975 Axial†	1280.9	1201.5	1015.0 µg/L	1015.0 ppb	10:51:44
3	Sb 206.836†	3936.5	3876.1	500.96 µg/L	500.96 ppb	10:51:44
3	Se 196.026†	1299.1	1302.6	515 µg/L	515 ppb	10:51:44
3	SiO2†	51317.0	49959.6	5269.1 µg/L	5269.1 ppb	10:51:24
3	Si 251.611†	156975.7	157376.2	2471.7 µg/L	2471.7 ppb	10:51:24
3	Sn 189.927†	7161.2	7212.6	501.97 µg/L	501.97 ppb	10:51:44
3	Ti 334.940†	481658.8	484418.3	496.89 µg/L	496.89 ppb	10:51:24
3	Tl 190.801†	3540.4	3681.0	510.11 µg/L	510.11 ppb	10:51:44
3	U 409.014†	7215.7	7432.8	499.47 µg/L	499.47 ppb	10:51:24
3	V 292.402†	95838.7	96128.3	504.89 µg/L	504.89 ppb	10:51:24
3	Zn 213.857†	84238.2	84361.7	499.82 µg/L	499.82 ppb	10:51:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786112.4	99.000	%	0.5673				0.57%
Sc RADIAL	139393.8	99.5	%	0.92				0.92%
Y 371.029	1036194.2	98.004	%	0.5668				0.58%
Ag 328.068†	121220.3	502.47	µg/L	0.538	502.47	ppb	0.538	0.11%
QC value within limits for Ag 328.068 Recovery = 100.49%								
Al 396.153Radial†	24201.9	5072.0	µg/L	50.69	5072.0	ppb	50.69	1.00%
QC value within limits for Al 396.153Radial Recovery = 101.44%								
As 188.979†	1453.0	498.73	µg/L	3.315	498.73	ppb	3.315	0.66%
QC value within limits for As 188.979 Recovery = 99.75%								
B 249.677†	31832.5	493.29	µg/L	1.771	493.29	ppb	1.771	0.36%
QC value within limits for B 249.677 Recovery = 98.66%								
Ba 233.527†	112597.1	500.89	µg/L	0.427	500.89	ppb	0.427	0.09%
QC value within limits for Ba 233.527 Recovery = 100.18%								
Be 313.107†	1714853.1	496.89	µg/L	0.834	496.89	ppb	0.834	0.17%
QC value within limits for Be 313.107 Recovery = 99.38%								
Ca 317.933Radial†	74705.6	5088.1	µg/L	63.80	5088.1	ppb	63.80	1.25%
QC value within limits for Ca 317.933Radial Recovery = 101.76%								
Cd 226.502†	74577.1	503.74	µg/L	0.565	503.74	ppb	0.565	0.11%
QC value within limits for Cd 226.502 Recovery = 100.75%								
Co 228.616†	38226.9	505.98	µg/L	0.521	505.98	ppb	0.521	0.10%
QC value within limits for Co 228.616 Recovery = 101.20%								
Cr 267.716†	57855.2	500.38	µg/L	0.179	500.38	ppb	0.179	0.04%
QC value within limits for Cr 267.716 Recovery = 100.08%								
Cu 324.752†	119246.7	500.32	µg/L	0.605	500.32	ppb	0.605	0.12%
QC value within limits for Cu 324.752 Recovery = 100.06%								
Fe 238.204 Radial†	67279.6	5024.4	µg/L	55.74	5024.4	ppb	55.74	1.11%
QC value within limits for Fe 238.204 Radial Recovery = 100.49%								
K 766.490 Radial†	12877.8	5098.6	µg/L	67.14	5098.6	ppb	67.14	1.32%
QC value within limits for K 766.490 Radial Recovery = 101.97%								
Mg 279.077 IEC†	11194.5	5176.9	µg/L	35.31	5176.9	ppb	35.31	0.68%
QC value within limits for Mg 279.077 IEC Recovery = 103.54%								
Mn 257.610†	377715.3	500.84	µg/L	0.878	500.84	ppb	0.878	0.18%
QC value within limits for Mn 257.610 Recovery = 100.17%								
Mo 202.031†	15359.2	502.77	µg/L	2.250	502.77	ppb	2.250	0.45%
QC value within limits for Mo 202.031 Recovery = 100.55%								
Na 589.592 Radial†	64240.1	9953.2	µg/L	34.02	9953.2	ppb	34.02	0.34%

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   QC value within limits for Na 589.592 Radial  Recovery = 99.53%
Ni 231.604†            40223.5      503.25 µg/L         0.242      503.25 ppb          0.242   0.05%
   QC value within limits for Ni 231.604  Recovery = 100.65%
P 214.914†             10899.5      2512.8 µg/L          7.37      2512.8 ppb           7.37   0.29%
   QC value within limits for P 214.914  Recovery = 100.51%
Pb 220.353†             8252.2      509.40 µg/L         2.637      509.40 ppb          2.637   0.52%
   QC value within limits for Pb 220.353  Recovery = 101.88%
S 181.975 Axial†        1205.6      1018.5 µg/L         11.31      1018.5 ppb          11.31   1.11%
   QC value within limits for S 181.975 Axial  Recovery = 101.85%
Sb 206.836†             3890.2      502.79 µg/L         1.880      502.79 ppb          1.880   0.37%
   QC value within limits for Sb 206.836  Recovery = 100.56%
Se 196.026†             1292.7         511 µg/L           4.5         511 ppb            4.5   0.89%
   QC value within limits for Se 196.026  Recovery = 102.29%
SiO2†                  50005.5      5273.9 µg/L         13.29      5273.9 ppb          13.29   0.25%
   QC value within limits for SiO2  Recovery = 98.62%
Si 251.611†           157427.7      2472.4 µg/L          3.98      2472.4 ppb           3.98   0.16%
   QC value within limits for Si 251.611  Recovery = 98.90%
Sn 189.927†             7227.3      502.98 µg/L         1.927      502.98 ppb          1.927   0.38%
   QC value within limits for Sn 189.927  Recovery = 100.60%
Sr 421.552†           211087.1      497.80 µg/L         1.166      497.80 ppb          1.166   0.23%
   QC value within limits for Sr 421.552  Recovery = 99.56%
Ti 334.940†           484194.3      496.66 µg/L         0.627      496.66 ppb          0.627   0.13%
   QC value within limits for Ti 334.940  Recovery = 99.33%
Tl 190.801†             3692.2      511.63 µg/L         2.962      511.63 ppb          2.962   0.58%
   QC value within limits for Tl 190.801  Recovery = 102.33%
U 409.014†              7385.3      496.45 µg/L        10.200      496.45 ppb         10.200   2.05%
   QC value within limits for U 409.014  Recovery = 99.29%
V 292.402†             96072.2      504.61 µg/L         0.383      504.61 ppb          0.383   0.08%
   QC value within limits for V 292.402  Recovery = 100.92%
Zn 213.857†            84337.0      499.68 µg/L         1.328      499.68 ppb          1.328   0.27%
   QC value within limits for Zn 213.857  Recovery = 99.94%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 10:51:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141670.1	141670.1	101	%			10:52:20
1	Al 396.153Radial†	-83.7	-4.2	-0.9279	µg/L	-0.9279	ppb	10:52:40
1	Ca 317.933Radial†	599.3	21.2	1.4420	µg/L	1.4420	ppb	10:52:40
1	Fe 238.204 Radial†	137.4	18.5	1.3846	µg/L	1.3846	ppb	10:52:40
1	K 766.490 Radial†	1758.8	245.4	97.233	µg/L	97.233	ppb	10:52:20
1	Mg 279.077 IEC†	184.3	9.8	4.5283	µg/L	4.5283	ppb	10:52:40
1	Na 589.592 Radial†	1104.6	139.8	21.576	µg/L	21.576	ppb	10:52:20
1	Sr 421.552†	-36.3	168.6	0.3976	µg/L	0.3976	ppb	10:52:20
1	Sc 361.383	1813398.6	1813398.6	100.51	%			10:53:28
1	Y 371.029	1064259.3	1064259.3	100.66	%			10:53:28
1	Ag 328.068†	4348.3	-239.0	-1.0007	µg/L	-1.0007	ppb	10:53:30
1	As 188.979†	-15.0	3.6	1.2220	µg/L	1.2220	ppb	10:53:50
1	B 249.677†	4013.1	-72.5	-1.1296	µg/L	-1.1296	ppb	10:53:30
1	Ba 233.527†	-146.0	-0.7	-0.0036	µg/L	-0.0036	ppb	10:53:50
1	Be 313.107†	-909.5	186.9	0.0514	µg/L	0.0514	ppb	10:53:30
1	Cd 226.502†	-65.4	38.2	0.2586	µg/L	0.2586	ppb	10:53:50
1	Co 228.616†	-181.4	29.8	0.3948	µg/L	0.3948	ppb	10:53:50
1	Cr 267.716†	242.1	7.7	0.0733	µg/L	0.0733	ppb	10:53:50
1	Cu 324.752†	3041.7	-9.9	-0.0485	µg/L	-0.0485	ppb	10:53:30
1	Mn 257.610†	243.5	57.6	0.0762	µg/L	0.0762	ppb	10:53:50
1	Mo 202.031†	-14.2	24.4	0.7983	µg/L	0.7983	ppb	10:53:50
1	Ni 231.604†	-58.3	37.9	0.4745	µg/L	0.4745	ppb	10:53:50
1	P 214.914†	0.8	26.5	6.1321	µg/L	6.1321	ppb	10:53:50
1	Pb 220.353†	99.2	-4.8	-0.2869	µg/L	-0.2869	ppb	10:53:50
1	S 181.975 Axial†	102.5	13.1	10.998	µg/L	10.998	ppb	10:53:50
1	Sb 206.836†	75.3	-14.9	-1.9041	µg/L	-1.9041	ppb	10:53:50
1	Se 196.026†	27.7	21.5	8.44	µg/L	8.44	ppb	10:53:50
1	SiO2†	1765.5	17.4	1.8071	µg/L	1.8071	ppb	10:53:50
1	Si 251.611†	842.0	70.7	1.0963	µg/L	1.0963	ppb	10:53:30
1	Sn 189.927†	18.8	16.8	1.1641	µg/L	1.1641	ppb	10:53:50
1	Ti 334.940†	736.5	-90.2	-0.0892	µg/L	-0.0892	ppb	10:53:30
1	Tl 190.801†	-110.4	4.4	0.5942	µg/L	0.5942	ppb	10:53:50
1	U 409.014†	-310.6	-145.7	-9.2474	µg/L	-9.2474	ppb	10:53:30
1	V 292.402†	247.2	-177.3	-0.9167	µg/L	-0.9167	ppb	10:53:30
1	Zn 213.857†	582.2	76.3	0.4523	µg/L	0.4523	ppb	10:53:50
2	Sc RADIAL	141550.1	141550.1	101	%			10:52:42
2	Al 396.153Radial†	-103.9	-24.3	-5.1425	µg/L	-5.1425	ppb	10:53:02
2	Ca 317.933Radial†	612.8	35.0	2.3868	µg/L	2.3868	ppb	10:53:02
2	Fe 238.204 Radial†	136.7	17.9	1.3400	µg/L	1.3400	ppb	10:53:02
2	K 766.490 Radial†	1645.6	134.9	53.442	µg/L	53.442	ppb	10:52:42
2	Mg 279.077 IEC†	180.9	6.6	3.0454	µg/L	3.0454	ppb	10:53:02
2	Na 589.592 Radial†	1113.1	149.1	23.066	µg/L	23.066	ppb	10:52:42
2	Sr 421.552†	-129.3	76.5	0.1805	µg/L	0.1805	ppb	10:52:42
2	Sc 361.383	1826504.8	1826504.8	101.24	%			10:53:52
2	Y 371.029	1070413.5	1070413.5	101.24	%			10:53:52
2	Ag 328.068†	4552.2	-68.7	-0.3004	µg/L	-0.3004	ppb	10:53:54
2	As 188.979†	-7.7	11.0	3.7209	µg/L	3.7209	ppb	10:54:15
2	B 249.677†	4155.1	39.1	0.6079	µg/L	0.6079	ppb	10:53:54
2	Ba 233.527†	-156.7	-10.3	-0.0451	µg/L	-0.0451	ppb	10:54:15
2	Be 313.107†	-768.8	332.3	0.0902	µg/L	0.0902	ppb	10:53:54
2	Cd 226.502†	-86.9	17.5	0.1182	µg/L	0.1182	ppb	10:54:15
2	Co 228.616†	-197.2	15.5	0.2048	µg/L	0.2048	ppb	10:54:15
2	Cr 267.716†	231.2	-4.9	-0.0259	µg/L	-0.0259	ppb	10:54:15
2	Cu 324.752†	2973.2	-99.3	-0.4315	µg/L	-0.4315	ppb	10:53:54
2	Mn 257.610†	229.2	41.6	0.0551	µg/L	0.0551	ppb	10:54:15
2	Mo 202.031†	-14.9	23.8	0.7802	µg/L	0.7802	ppb	10:54:15
2	Ni 231.604†	-87.6	9.4	0.1172	µg/L	0.1172	ppb	10:54:15
2	P 214.914†	-16.9	9.0	2.0871	µg/L	2.0871	ppb	10:54:15
2	Pb 220.353†	114.8	9.9	0.6284	µg/L	0.6284	ppb	10:54:15

2	S 181.975 Axial†	96.9	6.8	5.6986 µg/L	5.6986 ppb		10:54:15
2	Sb 206.836†	77.0	-13.6	-1.7438 µg/L	-1.7438 ppb		10:54:15
2	Se 196.026†	13.2	6.9	2.71 µg/L	2.71 ppb		10:54:15
2	SiO2†	1765.2	4.6	0.4503 µg/L	0.4503 ppb		10:54:15
2	Si 251.611†	950.8	172.1	2.6998 µg/L	2.6998 ppb		10:53:54
2	Sn 189.927†	11.4	9.3	0.6478 µg/L	0.6478 ppb		10:54:15
2	Ti 334.940†	883.6	49.7	0.0592 µg/L	0.0592 ppb		10:53:54
2	Tl 190.801†	-117.7	-2.0	-0.2677 µg/L	-0.2677 ppb		10:54:15
2	U 409.014†	-489.5	-320.1	-20.174 µg/L	-20.174 ppb		10:53:54
2	V 292.402†	523.4	93.7	0.4799 µg/L	0.4799 ppb		10:53:54
2	Zn 213.857†	565.4	55.5	0.3309 µg/L	0.3309 ppb		10:54:15
3	Sc RADIAL	142279.1	142279.1	102 %			10:53:04
3	Al 396.153Radial†	-36.3	42.8	8.9841 µg/L	8.9841 ppb		10:53:24
3	Ca 317.933Radial†	638.4	57.1	3.8913 µg/L	3.8913 ppb		10:53:24
3	Fe 238.204 Radial†	130.1	10.8	0.8067 µg/L	0.8067 ppb		10:53:24
3	K 766.490 Radial†	1672.4	152.9	60.565 µg/L	60.565 ppb		10:53:04
3	Mg 279.077 IEC†	179.9	4.6	2.1596 µg/L	2.1596 ppb		10:53:24
3	Na 589.592 Radial†	1204.2	233.2	36.090 µg/L	36.090 ppb		10:53:04
3	Sr 421.552†	-216.4	-8.6	-0.0204 µg/L	-0.0204 ppb		10:53:04
3	Sc 361.383	1821134.7	1821134.7	100.94 %			10:54:17
3	Y 371.029	1067416.4	1067416.4	100.96 %			10:54:17
3	Ag 328.068†	4428.0	-178.4	-0.7477 µg/L	-0.7477 ppb		10:54:19
3	As 188.979†	-0.3	18.3	6.1862 µg/L	6.1862 ppb		10:54:39
3	B 249.677†	4120.7	17.2	0.2651 µg/L	0.2651 ppb		10:54:19
3	Ba 233.527†	-140.1	5.7	0.0253 µg/L	0.0253 ppb		10:54:39
3	Be 313.107†	-1101.7	0.3	-0.0027 µg/L	-0.0027 ppb		10:54:19
3	Cd 226.502†	-64.2	39.8	0.2688 µg/L	0.2688 ppb		10:54:39
3	Co 228.616†	-170.5	41.4	0.5478 µg/L	0.5478 ppb		10:54:39
3	Cr 267.716†	246.8	11.3	0.1049 µg/L	0.1049 ppb		10:54:39
3	Cu 324.752†	2931.1	-132.4	-0.5609 µg/L	-0.5609 ppb		10:54:19
3	Mn 257.610†	235.1	48.2	0.0638 µg/L	0.0638 ppb		10:54:39
3	Mo 202.031†	-18.0	20.8	0.6798 µg/L	0.6798 ppb		10:54:39
3	Ni 231.604†	-78.9	17.7	0.2221 µg/L	0.2221 ppb		10:54:39
3	P 214.914†	-27.0	-1.1	-0.2442 µg/L	-0.2442 ppb		10:54:39
3	Pb 220.353†	129.6	25.0	1.5464 µg/L	1.5464 ppb		10:54:39
3	S 181.975 Axial†	87.4	-2.3	-1.9536 µg/L	-1.9536 ppb		10:54:39
3	Sb 206.836†	68.5	-21.9	-2.8119 µg/L	-2.8119 ppb		10:54:39
3	Se 196.026†	13.2	6.9	2.72 µg/L	2.72 ppb		10:54:39
3	SiO2†	1743.9	-11.4	-1.2328 µg/L	-1.2328 ppb		10:54:39
3	Si 251.611†	890.2	114.8	1.8008 µg/L	1.8008 ppb		10:54:19
3	Sn 189.927†	4.0	2.0	0.1418 µg/L	0.1418 ppb		10:54:39
3	Ti 334.940†	863.5	32.4	0.0370 µg/L	0.0370 ppb		10:54:19
3	Tl 190.801†	-91.1	24.0	3.2706 µg/L	3.2706 ppb		10:54:39
3	U 409.014†	-314.6	-148.3	-9.3884 µg/L	-9.3884 ppb		10:54:19
3	V 292.402†	334.9	-91.5	-0.4730 µg/L	-0.4730 ppb		10:54:19
3	Zn 213.857†	586.6	78.2	0.4657 µg/L	0.4657 ppb		10:54:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1820346.0	100.90	%	0.365				0.36%
Sc RADIAL	141833.1	101	%	0.3				0.28%
Y 371.029	1067363.1	100.95	%	0.291				0.29%
Ag 328.068†	-162.1	-0.6829	µg/L	0.35465	-0.6829	ppb	0.35465	51.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.8	0.9712	µg/L	7.25229	0.9712	ppb	7.25229	746.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.0	3.7097	µg/L	2.48209	3.7097	ppb	2.48209	66.91%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-5.4	-0.0855	µg/L	0.92028	-0.0855	ppb	0.92028	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.8	-0.0078	µg/L	0.03539	-0.0078	ppb	0.03539	454.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	173.2	0.0463	µg/L	0.04666	0.0463	ppb	0.04666	100.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	37.8	2.5734	µg/L	1.23526	2.5734	ppb	1.23526	48.00%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	31.8	0.2152	µg/L	0.08414	0.2152	ppb	0.08414	39.10%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	28.9	0.3825	µg/L	0.17184	0.3825	ppb	0.17184	44.93%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                4.7      0.0508 µg/L       0.06822      0.0508 ppb        0.06822 134.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -80.5     -0.3470 µg/L       0.26645     -0.3470 ppb        0.26645  76.80%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        15.8      1.1771 µg/L       0.32152      1.1771 ppb        0.32152  27.31%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        177.7      70.413 µg/L       23.4978      70.413 ppb        23.4978  33.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            7.0      3.2444 µg/L       1.19683      3.2444 ppb        1.19683  36.89%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               49.1      0.0650 µg/L       0.01060      0.0650 ppb        0.01060  16.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               23.0      0.7528 µg/L       0.06383      0.7528 ppb        0.06383   8.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       174.0      26.911 µg/L        7.9840      26.911 ppb         7.9840  29.67%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               21.7      0.2713 µg/L       0.18366      0.2713 ppb        0.18366  67.70%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                11.5      2.6583 µg/L       3.22633      2.6583 ppb        3.22633 121.37%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               10.0      0.6293 µg/L       0.91663      0.6293 ppb        0.91663 145.66%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.8      4.9143 µg/L       6.51134      4.9143 ppb        6.51134 132.50%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -16.8     -2.1533 µg/L       0.57596     -2.1533 ppb        0.57596  26.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               11.8        4.62 µg/L         3.307        4.62 ppb          3.307  71.52%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      3.5      0.3415 µg/L       1.52287      0.3415 ppb        1.52287 445.90%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              119.2      1.8656 µg/L       0.80375      1.8656 ppb        0.80375  43.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                9.4      0.6512 µg/L       0.51119      0.6512 ppb        0.51119  78.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               78.8      0.1859 µg/L       0.20905      0.1859 ppb        0.20905 112.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -2.7      0.0023 µg/L       0.08007      0.0023 ppb        0.08007 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.8      1.1990 µg/L       1.84510      1.1990 ppb        1.84510 153.88%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -204.7     -12.937 µg/L        6.2683     -12.937 ppb         6.2683  48.45%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -58.3     -0.3033 µg/L       0.71357     -0.3033 ppb        0.71357 235.30%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               70.0      0.4163 µg/L       0.07427      0.4163 ppb        0.07427  17.84%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 11:21:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141040.3	141040.3	101	%			11:22:09
1	Al 396.153Radial†	24409.0	24323.6	5097.8	µg/L	5097.8	ppb	11:22:09
1	Ca 317.933Radial†	76494.1	75408.8	5136.0	µg/L	5136.0	ppb	11:22:09
1	Fe 238.204 Radial†	68480.3	67903.0	5070.9	µg/L	5070.9	ppb	11:22:09
1	K 766.490 Radial†	14280.8	12691.1	5024.6	µg/L	5024.6	ppb	11:22:09
1	Mg 279.077 IEC†	11579.1	11328.8	5238.8	µg/L	5238.8	ppb	11:22:09
1	Na 589.592 Radial†	66009.6	64613.7	10011	µg/L	10011	ppb	11:22:09
1	Sr 421.552†	210495.4	209286.0	493.55	µg/L	493.55	ppb	11:22:07
1	Sc 361.383	1816427.9	1816427.9	100.68	%			11:22:22
1	Y 371.029	1053499.6	1053499.6	99.641	%			11:22:22
1	Ag 328.068†	126787.2	121365.2	503.06	µg/L	503.06	ppb	11:22:22
1	As 188.979†	1432.3	1441.2	494.75	µg/L	494.75	ppb	11:22:42
1	B 249.677†	36301.8	31991.4	495.75	µg/L	495.75	ppb	11:22:22
1	Ba 233.527†	113688.4	113064.7	502.97	µg/L	502.97	ppb	11:22:22
1	Be 313.107†	1728485.7	1717896.6	497.77	µg/L	497.77	ppb	11:22:22
1	Cd 226.502†	75741.0	75332.5	508.84	µg/L	508.84	ppb	11:22:22
1	Co 228.616†	38593.7	38543.2	510.16	µg/L	510.16	ppb	11:22:22
1	Cr 267.716†	58850.7	58219.8	503.55	µg/L	503.55	ppb	11:22:22
1	Cu 324.752†	123618.1	119746.6	502.41	µg/L	502.41	ppb	11:22:22
1	Mn 257.610†	382701.1	379930.1	503.77	µg/L	503.77	ppb	11:22:22
1	Mo 202.031†	15349.1	15283.9	500.31	µg/L	500.31	ppb	11:22:42
1	Ni 231.604†	40779.7	40600.1	507.96	µg/L	507.96	ppb	11:22:22
1	P 214.914†	10933.3	10885.1	2509.4	µg/L	2509.4	ppb	11:22:42
1	Pb 220.353†	8382.2	8222.1	507.55	µg/L	507.55	ppb	11:22:42
1	S 181.975 Axial†	1340.9	1242.9	1049.8	µg/L	1049.8	ppb	11:22:42
1	Sb 206.836†	3988.1	3871.5	500.30	µg/L	500.30	ppb	11:22:42
1	Se 196.026†	1298.4	1283.4	508	µg/L	508	ppb	11:22:42
1	SiO2†	52507.6	50413.7	5317.2	µg/L	5317.2	ppb	11:22:22
1	Si 251.611†	160362.8	158512.0	2489.6	µg/L	2489.6	ppb	11:22:22
1	Sn 189.927†	7264.7	7213.7	502.05	µg/L	502.05	ppb	11:22:42
1	Ti 334.940†	489360.0	485230.0	497.72	µg/L	497.72	ppb	11:22:22
1	Tl 190.801†	3577.9	3668.0	508.34	µg/L	508.34	ppb	11:22:42
1	U 409.014†	7028.1	7144.0	481.34	µg/L	481.34	ppb	11:22:22
1	V 292.402†	97527.7	96445.4	506.51	µg/L	506.51	ppb	11:22:22
1	Zn 213.857†	86086.0	85001.3	503.61	µg/L	503.61	ppb	11:22:22
2	Sc RADIAL	140362.8	140362.8	100	%			11:22:13
2	Al 396.153Radial†	23994.0	24026.5	5035.4	µg/L	5035.4	ppb	11:22:13
2	Ca 317.933Radial†	75703.7	74986.7	5107.3	µg/L	5107.3	ppb	11:22:13
2	Fe 238.204 Radial†	67887.7	67639.9	5051.3	µg/L	5051.3	ppb	11:22:13
2	K 766.490 Radial†	14188.6	12667.6	5015.4	µg/L	5015.4	ppb	11:22:13
2	Mg 279.077 IEC†	11412.1	11217.7	5187.4	µg/L	5187.4	ppb	11:22:13
2	Na 589.592 Radial†	65526.4	64447.9	9985.5	µg/L	9985.5	ppb	11:22:13
2	Sr 421.552†	212221.3	212017.8	500.00	µg/L	500.00	ppb	11:22:11
2	Sc 361.383	1822952.6	1822952.6	101.04	%			11:22:45
2	Y 371.029	1056667.8	1056667.8	99.940	%			11:22:45
2	Ag 328.068†	127363.5	121484.9	503.55	µg/L	503.55	ppb	11:22:45
2	As 188.979†	1413.7	1417.7	486.78	µg/L	486.78	ppb	11:23:05
2	B 249.677†	36625.3	32182.4	498.72	µg/L	498.72	ppb	11:22:45
2	Ba 233.527†	113738.1	112709.7	501.39	µg/L	501.39	ppb	11:22:45
2	Be 313.107†	1736282.8	1719468.5	498.22	µg/L	498.22	ppb	11:22:45
2	Cd 226.502†	75997.8	75317.4	508.74	µg/L	508.74	ppb	11:22:45
2	Co 228.616†	38755.6	38566.2	510.47	µg/L	510.47	ppb	11:22:45
2	Cr 267.716†	58889.6	58049.1	502.07	µg/L	502.07	ppb	11:22:45
2	Cu 324.752†	124191.5	119874.7	502.95	µg/L	502.95	ppb	11:22:45
2	Mn 257.610†	383492.8	379353.2	503.01	µg/L	503.01	ppb	11:22:45
2	Mo 202.031†	15289.1	15170.0	496.58	µg/L	496.58	ppb	11:23:05
2	Ni 231.604†	40792.4	40467.6	506.30	µg/L	506.30	ppb	11:22:45
2	P 214.914†	10865.3	10778.9	2484.8	µg/L	2484.8	ppb	11:23:05
2	Pb 220.353†	8356.5	8166.8	504.14	µg/L	504.14	ppb	11:23:05

2	S 181.975 Axial†	1317.5	1215.0	1026.3 µg/L	1026.3 ppb	11:23:05
2	Sb 206.836†	3989.8	3858.9	498.64 µg/L	498.64 ppb	11:23:05
2	Se 196.026†	1292.5	1273.0	504 µg/L	504 ppb	11:23:05
2	SiO2†	52617.3	50335.6	5309.1 µg/L	5309.1 ppb	11:22:45
2	Si 251.611†	161042.3	158614.5	2491.3 µg/L	2491.3 ppb	11:22:45
2	Sn 189.927†	7218.4	7142.0	497.08 µg/L	497.08 ppb	11:23:05
2	Ti 334.940†	491016.9	485130.1	497.62 µg/L	497.62 ppb	11:22:45
2	Tl 190.801†	3563.0	3640.5	504.59 µg/L	504.59 ppb	11:23:05
2	U 409.014†	7078.9	7169.2	482.92 µg/L	482.92 ppb	11:22:45
2	V 292.402†	97821.4	96389.4	506.18 µg/L	506.18 ppb	11:22:45
2	Zn 213.857†	86262.7	84870.1	502.83 µg/L	502.83 ppb	11:22:45
3	Sc RADIAL	143001.6	143001.6	102 %		11:22:17
3	Al 396.153Radial†	24644.0	24221.3	5076.1 µg/L	5076.1 ppb	11:22:17
3	Ca 317.933Radial†	78183.6	76021.9	5177.8 µg/L	5177.8 ppb	11:22:17
3	Fe 238.204 Radial†	69547.5	68015.6	5079.4 µg/L	5079.4 ppb	11:22:17
3	K 766.490 Radial†	14471.6	12683.5	5021.6 µg/L	5021.6 ppb	11:22:17
3	Mg 279.077 IEC†	11800.4	11388.0	5266.2 µg/L	5266.2 ppb	11:22:17
3	Na 589.592 Radial†	66551.9	64245.7	9954.1 µg/L	9954.1 ppb	11:22:17
3	Sr 421.552†	214170.2	210018.5	495.28 µg/L	495.28 ppb	11:22:15
3	Sc 361.383	1819175.6	1819175.6	100.83 %		11:23:08
3	Y 371.029	1054990.0	1054990.0	99.782 %		11:23:08
3	Ag 328.068†	126763.1	121151.2	502.18 µg/L	502.18 ppb	11:23:08
3	As 188.979†	1453.0	1459.5	500.95 µg/L	500.95 ppb	11:23:28
3	B 249.677†	36308.1	31943.1	495.01 µg/L	495.01 ppb	11:23:08
3	Ba 233.527†	113415.6	112623.6	501.00 µg/L	501.00 ppb	11:23:08
3	Be 313.107†	1728129.7	1714950.5	496.92 µg/L	496.92 ppb	11:23:08
3	Cd 226.502†	75536.4	75016.0	506.70 µg/L	506.70 ppb	11:23:08
3	Co 228.616†	38368.3	38261.8	506.44 µg/L	506.44 ppb	11:23:08
3	Cr 267.716†	58689.9	57972.0	501.40 µg/L	501.40 ppb	11:23:08
3	Cu 324.752†	123527.9	119471.7	501.27 µg/L	501.27 ppb	11:23:08
3	Mn 257.610†	381380.1	378046.0	501.27 µg/L	501.27 ppb	11:23:08
3	Mo 202.031†	15453.7	15364.7	502.95 µg/L	502.95 ppb	11:23:28
3	Ni 231.604†	40568.0	40328.9	504.56 µg/L	504.56 ppb	11:23:08
3	P 214.914†	10991.1	10926.0	2518.9 µg/L	2518.9 ppb	11:23:28
3	Pb 220.353†	8421.5	8248.5	509.18 µg/L	509.18 ppb	11:23:28
3	S 181.975 Axial†	1335.2	1235.2	1043.4 µg/L	1043.4 ppb	11:23:28
3	Sb 206.836†	3992.9	3870.3	500.21 µg/L	500.21 ppb	11:23:28
3	Se 196.026†	1303.1	1286.2	509 µg/L	509 ppb	11:23:28
3	SiO2†	52338.0	50166.7	5291.0 µg/L	5291.0 ppb	11:23:08
3	Si 251.611†	160206.1	158116.1	2483.3 µg/L	2483.3 ppb	11:23:08
3	Sn 189.927†	7300.5	7238.3	503.75 µg/L	503.75 ppb	11:23:28
3	Ti 334.940†	489632.7	484766.3	497.24 µg/L	497.24 ppb	11:23:08
3	Tl 190.801†	3611.4	3695.8	512.14 µg/L	512.14 ppb	11:23:28
3	U 409.014†	7124.9	7229.4	486.64 µg/L	486.64 ppb	11:23:08
3	V 292.402†	97408.0	96180.4	505.16 µg/L	505.16 ppb	11:23:08
3	Zn 213.857†	85808.4	84596.9	501.21 µg/L	501.21 ppb	11:23:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1819518.7	100.85	%	0.182				0.18%
Sc RADIAL	141468.2	101	%	1.0				0.97%
Y 371.029	1055052.4	99.788	%	0.1499				0.15%
Ag 328.068†	121333.8	502.93	µg/L	0.697	502.93	ppb	0.697	0.14%
QC value within limits for Ag 328.068 Recovery = 100.59%								
Al 396.153Radial†	24190.4	5069.8	µg/L	31.67	5069.8	ppb	31.67	0.62%
QC value within limits for Al 396.153Radial Recovery = 101.40%								
As 188.979†	1439.4	494.16	µg/L	7.101	494.16	ppb	7.101	1.44%
QC value within limits for As 188.979 Recovery = 98.83%								
B 249.677†	32039.0	496.50	µg/L	1.963	496.50	ppb	1.963	0.40%
QC value within limits for B 249.677 Recovery = 99.30%								
Ba 233.527†	112799.3	501.79	µg/L	1.040	501.79	ppb	1.040	0.21%
QC value within limits for Ba 233.527 Recovery = 100.36%								
Be 313.107†	1717438.5	497.64	µg/L	0.664	497.64	ppb	0.664	0.13%
QC value within limits for Be 313.107 Recovery = 99.53%								
Ca 317.933Radial†	75472.5	5140.4	µg/L	35.45	5140.4	ppb	35.45	0.69%
QC value within limits for Ca 317.933Radial Recovery = 102.81%								
Cd 226.502†	75222.0	508.09	µg/L	1.209	508.09	ppb	1.209	0.24%
QC value within limits for Cd 226.502 Recovery = 101.62%								
Co 228.616†	38457.0	509.02	µg/L	2.244	509.02	ppb	2.244	0.44%

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   QC value within limits for Co 228.616  Recovery = 101.80%
Cr 267.716†            58080.3      502.34 µg/L        1.099      502.34 ppb          1.099   0.22%
   QC value within limits for Cr 267.716  Recovery = 100.47%
Cu 324.752†           119697.7      502.21 µg/L        0.858      502.21 ppb          0.858   0.17%
   QC value within limits for Cu 324.752  Recovery = 100.44%
Fe 238.204 Radial†     67852.9      5067.2 µg/L        14.40      5067.2 ppb          14.40   0.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.34%
K 766.490 Radial†      12680.7      5020.5 µg/L         4.74      5020.5 ppb           4.74   0.09%
   QC value within limits for K 766.490 Radial  Recovery = 100.41%
Mg 279.077 IEC†        11311.5      5230.8 µg/L        39.99      5230.8 ppb          39.99   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.62%
Mn 257.610†           379109.8      502.69 µg/L        1.281      502.69 ppb          1.281   0.25%
   QC value within limits for Mn 257.610  Recovery = 100.54%
Mo 202.031†            15272.9      499.95 µg/L        3.200      499.95 ppb          3.200   0.64%
   QC value within limits for Mo 202.031  Recovery = 99.99%
Na 589.592 Radial†     64435.8      9983.6 µg/L        28.56      9983.6 ppb          28.56   0.29%
   QC value within limits for Na 589.592 Radial  Recovery = 99.84%
Ni 231.604†            40465.5      506.27 µg/L        1.697      506.27 ppb          1.697   0.34%
   QC value within limits for Ni 231.604  Recovery = 101.25%
P 214.914†             10863.3      2504.4 µg/L        17.56      2504.4 ppb          17.56   0.70%
   QC value within limits for P 214.914  Recovery = 100.17%
Pb 220.353†             8212.5      506.96 µg/L        2.574      506.96 ppb          2.574   0.51%
   QC value within limits for Pb 220.353  Recovery = 101.39%
S 181.975 Axial†        1231.0      1039.8 µg/L        12.13      1039.8 ppb          12.13   1.17%
   QC value within limits for S 181.975 Axial  Recovery = 103.98%
Sb 206.836†             3866.9      499.72 µg/L        0.933      499.72 ppb          0.933   0.19%
   QC value within limits for Sb 206.836  Recovery = 99.94%
Se 196.026†             1280.9         507 µg/L          2.7         507 ppb            2.7   0.54%
   QC value within limits for Se 196.026  Recovery = 101.36%
SiO2†                  50305.3      5305.8 µg/L        13.45      5305.8 ppb          13.45   0.25%
   QC value within limits for SiO2  Recovery = 99.22%
Si 251.611†           158414.2      2488.1 µg/L         4.21      2488.1 ppb           4.21   0.17%
   QC value within limits for Si 251.611  Recovery = 99.52%
Sn 189.927†             7198.0      500.96 µg/L        3.467      500.96 ppb          3.467   0.69%
   QC value within limits for Sn 189.927  Recovery = 100.19%
Sr 421.552†           210440.8      496.28 µg/L        3.335      496.28 ppb          3.335   0.67%
   QC value within limits for Sr 421.552  Recovery = 99.26%
Ti 334.940†           485042.1      497.53 µg/L        0.253      497.53 ppb          0.253   0.05%
   QC value within limits for Ti 334.940  Recovery = 99.51%
Tl 190.801†             3668.1      508.36 µg/L        3.777      508.36 ppb          3.777   0.74%
   QC value within limits for Tl 190.801  Recovery = 101.67%
U 409.014†              7180.9      483.63 µg/L        2.721      483.63 ppb          2.721   0.56%
   QC value within limits for U 409.014  Recovery = 96.73%
V 292.402†             96338.4      505.95 µg/L        0.705      505.95 ppb          0.705   0.14%
   QC value within limits for V 292.402  Recovery = 101.19%
Zn 213.857†            84822.7      502.55 µg/L        1.222      502.55 ppb          1.222   0.24%
   QC value within limits for Zn 213.857  Recovery = 100.51%
All analyte(s) passed QC.
```

Sequence No.: 12 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/5/2010 11:23:37**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141293.1	141293.1	101	%			11:24:06
1	Al 396.153Radial†	-45.2	33.8	7.0875	µg/L	7.0875	ppb	11:24:26
1	Ca 317.933Radial†	756.0	178.1	12.133	µg/L	12.133	ppb	11:24:26
1	Fe 238.204 Radial†	183.7	64.9	4.8434	µg/L	4.8434	ppb	11:24:26
1	K 766.490 Radial†	1708.7	200.4	79.382	µg/L	79.382	ppb	11:24:06
1	Mg 279.077 IEC†	206.5	32.3	14.933	µg/L	14.933	ppb	11:24:26
1	Na 589.592 Radial†	1047.2	85.8	13.224	µg/L	13.224	ppb	11:24:06
1	Sr 421.552†	-265.7	-59.0	-0.1392	µg/L	-0.1392	ppb	11:24:06
1	Sc 361.383	1793973.7	1793973.7	99.436	%			11:25:14
1	Y 371.029	1053310.8	1053310.8	99.623	%			11:25:14
1	Ag 328.068†	4289.1	-251.7	-1.0408	µg/L	-1.0408	ppb	11:25:16
1	As 188.979†	-4.9	13.7	4.6199	µg/L	4.6199	ppb	11:25:36
1	B 249.677†	4002.5	-40.0	-0.6228	µg/L	-0.6228	ppb	11:25:16
1	Ba 233.527†	-152.4	-8.7	-0.0386	µg/L	-0.0386	ppb	11:25:36
1	Be 313.107†	-860.3	226.6	0.0631	µg/L	0.0631	ppb	11:25:16
1	Cd 226.502†	-76.4	26.5	0.1788	µg/L	0.1788	ppb	11:25:36
1	Co 228.616†	-185.8	23.4	0.3095	µg/L	0.3095	ppb	11:25:36
1	Cr 267.716†	224.4	-7.5	-0.0584	µg/L	-0.0584	ppb	11:25:36
1	Cu 324.752†	3049.8	31.0	0.1242	µg/L	0.1242	ppb	11:25:16
1	Mn 257.610†	236.1	52.7	0.0693	µg/L	0.0693	ppb	11:25:36
1	Mo 202.031†	-24.7	13.8	0.4505	µg/L	0.4505	ppb	11:25:36
1	Ni 231.604†	-63.4	32.1	0.4021	µg/L	0.4021	ppb	11:25:36
1	P 214.914†	-13.8	11.8	2.7270	µg/L	2.7270	ppb	11:25:36
1	Pb 220.353†	76.5	-26.5	-1.6236	µg/L	-1.6236	ppb	11:25:36
1	S 181.975 Axial†	113.1	24.8	20.861	µg/L	20.861	ppb	11:25:36
1	Sb 206.836†	73.4	-15.9	-2.0389	µg/L	-2.0389	ppb	11:25:36
1	Se 196.026†	15.5	9.5	3.72	µg/L	3.72	ppb	11:25:36
1	SiO2†	1701.2	-28.2	-3.0134	µg/L	-3.0134	ppb	11:25:36
1	Si 251.611†	724.3	-38.6	-0.6193	µg/L	-0.6193	ppb	11:25:16
1	Sn 189.927†	12.5	10.7	0.7388	µg/L	0.7388	ppb	11:25:36
1	Ti 334.940†	700.7	-118.4	-0.1190	µg/L	-0.1190	ppb	11:25:16
1	Tl 190.801†	-117.6	-4.0	-0.5510	µg/L	-0.5510	ppb	11:25:36
1	U 409.014†	-293.2	-131.5	-8.2980	µg/L	-8.2980	ppb	11:25:16
1	V 292.402†	423.5	2.7	0.0124	µg/L	0.0124	ppb	11:25:16
1	Zn 213.857†	555.4	55.5	0.3283	µg/L	0.3283	ppb	11:25:36
2	Sc RADIAL	141208.0	141208.0	101	%			11:24:28
2	Al 396.153Radial†	-80.1	-1.0	-0.2395	µg/L	-0.2395	ppb	11:24:48
2	Ca 317.933Radial†	668.6	91.8	6.2554	µg/L	6.2554	ppb	11:24:48
2	Fe 238.204 Radial†	151.6	33.1	2.4698	µg/L	2.4698	ppb	11:24:48
2	K 766.490 Radial†	1653.5	146.6	58.099	µg/L	58.099	ppb	11:24:28
2	Mg 279.077 IEC†	171.1	-2.7	-1.2452	µg/L	-1.2452	ppb	11:24:48
2	Na 589.592 Radial†	1120.3	158.9	24.585	µg/L	24.585	ppb	11:24:28
2	Sr 421.552†	-172.5	33.3	0.0785	µg/L	0.0785	ppb	11:24:28
2	Sc 361.383	1798032.0	1798032.0	99.661	%			11:25:38
2	Y 371.029	1055630.4	1055630.4	99.842	%			11:25:38
2	Ag 328.068†	4410.8	-139.4	-0.5643	µg/L	-0.5643	ppb	11:25:40
2	As 188.979†	-0.7	17.8	6.0338	µg/L	6.0338	ppb	11:26:01
2	B 249.677†	4005.6	-45.9	-0.7141	µg/L	-0.7141	ppb	11:25:40
2	Ba 233.527†	-173.9	-30.0	-0.1330	µg/L	-0.1330	ppb	11:26:01
2	Be 313.107†	-589.5	500.2	0.1463	µg/L	0.1463	ppb	11:25:40
2	Cd 226.502†	-58.3	44.8	0.3028	µg/L	0.3028	ppb	11:26:01
2	Co 228.616†	-197.0	12.7	0.1672	µg/L	0.1672	ppb	11:26:01
2	Cr 267.716†	239.6	7.2	0.0584	µg/L	0.0584	ppb	11:26:01
2	Cu 324.752†	2931.5	-94.6	-0.3915	µg/L	-0.3915	ppb	11:25:40
2	Mn 257.610†	251.7	67.8	0.0900	µg/L	0.0900	ppb	11:26:01
2	Mo 202.031†	-15.2	23.3	0.7623	µg/L	0.7623	ppb	11:26:01
2	Ni 231.604†	-59.7	36.0	0.4499	µg/L	0.4499	ppb	11:26:01
2	P 214.914†	-4.0	21.7	5.0142	µg/L	5.0142	ppb	11:26:01
2	Pb 220.353†	87.7	-15.5	-0.9533	µg/L	-0.9533	ppb	11:26:01

2	S 181.975 Axial†	118.5	30.0	25.213 µg/L	25.213 ppb	11:26:01
2	Sb 206.836†	86.0	-3.4	-0.4255 µg/L	-0.4255 ppb	11:26:01
2	Se 196.026†	15.3	9.2	3.64 µg/L	3.64 ppb	11:26:01
2	SiO2†	1751.4	18.3	1.9044 µg/L	1.9044 ppb	11:26:01
2	Si 251.611†	779.4	15.0	0.2236 µg/L	0.2236 ppb	11:25:40
2	Sn 189.927†	9.4	7.6	0.5263 µg/L	0.5263 ppb	11:26:01
2	Ti 334.940†	648.1	-172.7	-0.1791 µg/L	-0.1791 ppb	11:25:40
2	Tl 190.801†	-110.6	3.3	0.4500 µg/L	0.4500 ppb	11:26:01
2	U 409.014†	-87.6	75.5	4.7647 µg/L	4.7647 ppb	11:25:40
2	V 292.402†	430.7	8.9	0.0575 µg/L	0.0575 ppb	11:25:40
2	Zn 213.857†	536.3	35.1	0.2068 µg/L	0.2068 ppb	11:26:01
3	Sc RADIAL	140558.5	140558.5	100 %		11:24:50
3	Al 396.153Radial†	-104.7	-25.8	-5.4846 µg/L	-5.4846 ppb	11:25:10
3	Ca 317.933Radial†	659.5	85.9	5.8477 µg/L	5.8477 ppb	11:25:10
3	Fe 238.204 Radial†	147.7	29.9	2.2317 µg/L	2.2317 ppb	11:25:10
3	K 766.490 Radial†	1800.1	300.4	119.02 µg/L	119.02 ppb	11:24:50
3	Mg 279.077 IEC†	183.8	10.7	4.9742 µg/L	4.9742 ppb	11:25:10
3	Na 589.592 Radial†	1201.3	244.8	37.847 µg/L	37.847 ppb	11:24:50
3	Sr 421.552†	-157.1	47.9	0.1129 µg/L	0.1129 ppb	11:24:50
3	Sc 361.383	1800005.3	1800005.3	99.770 %		11:26:03
3	Y 371.029	1056603.6	1056603.6	99.934 %		11:26:03
3	Ag 328.068†	4398.7	-156.4	-0.6614 µg/L	-0.6614 ppb	11:26:05
3	As 188.979†	-12.9	5.6	1.9114 µg/L	1.9114 ppb	11:26:25
3	B 249.677†	3886.0	-170.2	-2.6470 µg/L	-2.6470 ppb	11:26:05
3	Ba 233.527†	-172.1	-27.9	-0.1240 µg/L	-0.1240 ppb	11:26:25
3	Be 313.107†	-830.7	259.1	0.0711 µg/L	0.0711 ppb	11:26:05
3	Cd 226.502†	-92.8	10.4	0.0702 µg/L	0.0702 ppb	11:26:25
3	Co 228.616†	-192.2	17.7	0.2332 µg/L	0.2332 ppb	11:26:25
3	Cr 267.716†	225.4	-7.3	-0.0532 µg/L	-0.0532 ppb	11:26:25
3	Cu 324.752†	3072.5	43.5	0.1716 µg/L	0.1716 ppb	11:26:05
3	Mn 257.610†	219.6	35.4	0.0468 µg/L	0.0468 ppb	11:26:25
3	Mo 202.031†	-5.8	32.7	1.0701 µg/L	1.0701 ppb	11:26:25
3	Ni 231.604†	-59.0	36.7	0.4594 µg/L	0.4594 ppb	11:26:25
3	P 214.914†	-1.6	24.0	5.5473 µg/L	5.5473 ppb	11:26:25
3	Pb 220.353†	107.7	4.5	0.2875 µg/L	0.2875 ppb	11:26:25
3	S 181.975 Axial†	116.0	27.3	22.974 µg/L	22.974 ppb	11:26:25
3	Sb 206.836†	88.3	-1.2	-0.1451 µg/L	-0.1451 ppb	11:26:25
3	Se 196.026†	28.6	22.5	8.86 µg/L	8.86 ppb	11:26:25
3	SiO2†	1757.4	22.4	2.3373 µg/L	2.3373 ppb	11:26:25
3	Si 251.611†	758.0	-7.3	-0.1291 µg/L	-0.1291 ppb	11:26:05
3	Sn 189.927†	1.3	-0.6	-0.0409 µg/L	-0.0409 ppb	11:26:25
3	Ti 334.940†	605.0	-216.6	-0.2174 µg/L	-0.2174 ppb	11:26:05
3	Tl 190.801†	-112.0	2.0	0.2678 µg/L	0.2678 ppb	11:26:25
3	U 409.014†	-368.7	-206.1	-13.034 µg/L	-13.034 ppb	11:26:05
3	V 292.402†	338.2	-84.2	-0.4346 µg/L	-0.4346 ppb	11:26:05
3	Zn 213.857†	556.0	54.3	0.3205 µg/L	0.3205 ppb	11:26:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1797337.0	99.622	%	0.1705				0.17%
Sc RADIAL	141019.9	101	%	0.3				0.28%
Y 371.029	1055181.6	99.800	%	0.1600				0.16%
Ag 328.068†	-182.5	-0.7555	µg/L	0.25179	-0.7555	ppb	0.25179	33.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.3	0.4545	µg/L	6.31472	0.4545	ppb	6.31472	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	12.4	4.1884	µg/L	2.09482	4.1884	ppb	2.09482	50.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-85.3	-1.3280	µg/L	1.14326	-1.3280	ppb	1.14326	86.09%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-22.2	-0.0985	µg/L	0.05209	-0.0985	ppb	0.05209	52.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	328.6	0.0935	µg/L	0.04591	0.0935	ppb	0.04591	49.09%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	118.6	8.0786	µg/L	3.51690	8.0786	ppb	3.51690	43.53%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.2	0.1839	µg/L	0.11642	0.1839	ppb	0.11642	63.29%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.9	0.2366	µg/L	0.07122	0.2366	ppb	0.07122	30.10%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.5     -0.0177 µg/L       0.06601     -0.0177 ppb        0.06601 372.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -6.7     -0.0319 µg/L       0.31231     -0.0319 ppb        0.31231 979.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       42.6      3.1816 µg/L       1.44406      3.1816 ppb        1.44406  45.39%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       215.8      85.499 µg/L       30.9164      85.499 ppb        30.9164  36.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          13.4      6.2207 µg/L       8.16082      6.2207 ppb        8.16082 131.19%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              52.0      0.0687 µg/L       0.02163      0.0687 ppb        0.02163  31.49%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              23.3      0.7610 µg/L       0.30978      0.7610 ppb        0.30978  40.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      163.2      25.219 µg/L       12.3238      25.219 ppb        12.3238  48.87%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              34.9      0.4371 µg/L       0.03068      0.4371 ppb        0.03068   7.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               19.2      4.4295 µg/L       1.49832      4.4295 ppb        1.49832  33.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -12.5     -0.7631 µg/L       0.96966     -0.7631 ppb        0.96966 127.06%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         27.4      23.016 µg/L        2.1761      23.016 ppb         2.1761   9.45%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -6.8     -0.8698 µg/L       1.02211     -0.8698 ppb        1.02211 117.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              13.7       5.41 µg/L         2.992        5.41 ppb          2.992  55.36%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     4.1      0.4094 µg/L       2.97212      0.4094 ppb        2.97212 725.93%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -10.3     -0.1749 µg/L       0.42334     -0.1749 ppb        0.42334 242.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               5.9      0.4081 µg/L       0.40308      0.4081 ppb        0.40308  98.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               7.4      0.0174 µg/L       0.13673      0.0174 ppb        0.13673 785.52%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -169.2     -0.1718 µg/L       0.04956     -0.1718 ppb        0.04956  28.85%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.4      0.0556 µg/L       0.53317      0.0556 ppb        0.53317 959.22%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -87.4     -5.5223 µg/L       9.21810     -5.5223 ppb        9.21810 166.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -24.2     -0.1216 µg/L       0.27200     -0.1216 ppb        0.27200 223.77%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              48.3      0.2852 µg/L       0.06801      0.2852 ppb        0.06801  23.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 11:29:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136820.5	136820.5	97.7	%			11:30:02
1	Al 396.153Radial†	23381.9	24019.7	5033.7	µg/L	5033.7	ppb	11:30:02
1	Ca 317.933Radial†	73543.2	74730.7	5089.8	µg/L	5089.8	ppb	11:30:02
1	Fe 238.204 Radial†	65942.1	67402.0	5033.5	µg/L	5033.5	ppb	11:30:02
1	K 766.490 Radial†	13830.9	12667.9	5015.5	µg/L	5015.5	ppb	11:30:02
1	Mg 279.077 IEC†	10996.3	11086.9	5127.2	µg/L	5127.2	ppb	11:30:02
1	Na 589.592 Radial†	63933.4	64510.1	9995.1	µg/L	9995.1	ppb	11:30:02
1	Sr 421.552†	208111.8	213293.9	503.01	µg/L	503.01	ppb	11:30:00
1	Sc 361.383	1761858.7	1761858.7	97.656	%			11:30:29
1	Y 371.029	1023300.8	1023300.8	96.785	%			11:30:29
1	Ag 328.068†	123043.0	121431.6	503.36	µg/L	503.36	ppb	11:30:29
1	As 188.979†	1388.4	1440.3	494.45	µg/L	494.45	ppb	11:30:49
1	B 249.677†	34891.3	31663.7	490.67	µg/L	490.67	ppb	11:30:29
1	Ba 233.527†	109659.6	112436.6	500.17	µg/L	500.17	ppb	11:30:29
1	Be 313.107†	1663606.1	1704633.4	493.93	µg/L	493.93	ppb	11:30:29
1	Cd 226.502†	72443.0	74285.4	501.76	µg/L	501.76	ppb	11:30:29
1	Co 228.616†	37156.2	38258.5	506.40	µg/L	506.40	ppb	11:30:29
1	Cr 267.716†	56866.6	57998.5	501.62	µg/L	501.62	ppb	11:30:29
1	Cu 324.752†	119606.6	119441.7	501.14	µg/L	501.14	ppb	11:30:29
1	Mn 257.610†	369411.0	378094.1	501.34	µg/L	501.34	ppb	11:30:29
1	Mo 202.031†	14945.3	15342.7	502.23	µg/L	502.23	ppb	11:30:49
1	Ni 231.604†	39345.7	40386.1	505.28	µg/L	505.28	ppb	11:30:29
1	P 214.914†	10584.6	10864.3	2504.6	µg/L	2504.6	ppb	11:30:49
1	Pb 220.353†	8129.7	8221.4	507.50	µg/L	507.50	ppb	11:30:49
1	S 181.975 Axial†	1251.2	1192.3	1007.2	µg/L	1007.2	ppb	11:30:49
1	Sb 206.836†	3883.3	3886.8	502.34	µg/L	502.34	ppb	11:30:49
1	Se 196.026†	1258.6	1282.6	508	µg/L	508	ppb	11:30:49
1	SiO2†	50604.3	50080.0	5281.8	µg/L	5281.8	ppb	11:30:29
1	Si 251.611†	154407.4	157347.0	2471.2	µg/L	2471.2	ppb	11:30:29
1	Sn 189.927†	7042.6	7209.8	501.78	µg/L	501.78	ppb	11:30:49
1	Ti 334.940†	474109.2	484667.3	497.15	µg/L	497.15	ppb	11:30:29
1	Tl 190.801†	3462.4	3659.8	507.23	µg/L	507.23	ppb	11:30:49
1	U 409.014†	7134.3	7468.9	501.82	µg/L	501.82	ppb	11:30:29
1	V 292.402†	94537.5	96383.6	506.22	µg/L	506.22	ppb	11:30:29
1	Zn 213.857†	82762.2	84245.9	499.12	µg/L	499.12	ppb	11:30:29
2	Sc RADIAL	135237.7	135237.7	96.5	%			11:30:06
2	Al 396.153Radial†	23012.6	23917.3	5012.0	µg/L	5012.0	ppb	11:30:06
2	Ca 317.933Radial†	72368.9	74395.7	5067.0	µg/L	5067.0	ppb	11:30:06
2	Fe 238.204 Radial†	65011.4	67228.1	5020.5	µg/L	5020.5	ppb	11:30:06
2	K 766.490 Radial†	13826.8	12829.4	5079.5	µg/L	5079.5	ppb	11:30:06
2	Mg 279.077 IEC†	10869.4	11087.2	5127.4	µg/L	5127.4	ppb	11:30:06
2	Na 589.592 Radial†	63379.2	64702.1	10025	µg/L	10025	ppb	11:30:06
2	Sr 421.552†	206760.8	214388.3	505.59	µg/L	505.59	ppb	11:30:04
2	Sc 361.383	1755213.5	1755213.5	97.287	%			11:30:52
2	Y 371.029	1018804.5	1018804.5	96.359	%			11:30:52
2	Ag 328.068†	123276.3	122148.4	506.27	µg/L	506.27	ppb	11:30:52
2	As 188.979†	1380.0	1437.0	493.33	µg/L	493.33	ppb	11:31:12
2	B 249.677†	35110.1	32023.9	496.27	µg/L	496.27	ppb	11:30:52
2	Ba 233.527†	109680.5	112883.2	502.16	µg/L	502.16	ppb	11:30:52
2	Be 313.107†	1662352.6	1709794.5	495.42	µg/L	495.42	ppb	11:30:52
2	Cd 226.502†	72424.8	74547.5	503.54	µg/L	503.54	ppb	11:30:52
2	Co 228.616†	36976.6	38217.9	505.86	µg/L	505.86	ppb	11:30:52
2	Cr 267.716†	56640.8	57986.9	501.53	µg/L	501.53	ppb	11:30:52
2	Cu 324.752†	119400.5	119693.6	502.18	µg/L	502.18	ppb	11:30:52
2	Mn 257.610†	369192.4	379301.6	502.95	µg/L	502.95	ppb	11:30:52
2	Mo 202.031†	14979.7	15435.9	505.27	µg/L	505.27	ppb	11:31:12
2	Ni 231.604†	39164.5	40352.4	504.86	µg/L	504.86	ppb	11:30:52
2	P 214.914†	10589.4	10910.3	2515.2	µg/L	2515.2	ppb	11:31:12
2	Pb 220.353†	8151.8	8275.6	510.85	µg/L	510.85	ppb	11:31:12

2	S 181.975 Axial†	1255.2	1201.3	1014.9 µg/L	1014.9 ppb	11:31:12
2	Sb 206.836†	3899.6	3918.6	506.49 µg/L	506.49 ppb	11:31:12
2	Se 196.026†	1256.7	1285.6	509 µg/L	509 ppb	11:31:12
2	SiO2†	50502.9	50172.0	5291.5 µg/L	5291.5 ppb	11:30:52
2	Si 251.611†	154149.6	157680.6	2476.4 µg/L	2476.4 ppb	11:30:52
2	Sn 189.927†	7052.2	7247.0	504.36 µg/L	504.36 ppb	11:31:12
2	Ti 334.940†	473721.0	486106.4	498.63 µg/L	498.63 ppb	11:30:52
2	Tl 190.801†	3489.8	3701.4	512.92 µg/L	512.92 ppb	11:31:12
2	U 409.014†	6870.2	7225.1	486.41 µg/L	486.41 ppb	11:30:52
2	V 292.402†	94056.9	96256.2	505.58 µg/L	505.58 ppb	11:30:52
2	Zn 213.857†	82670.1	84472.1	500.47 µg/L	500.47 ppb	11:30:52
3	Sc RADIAL	136682.0	136682.0	97.6 %		11:30:10
3	Al 396.153Radial†	23255.0	23913.8	5011.8 µg/L	5011.8 ppb	11:30:10
3	Ca 317.933Radial†	72929.5	74178.0	5052.2 µg/L	5052.2 ppb	11:30:10
3	Fe 238.204 Radial†	65673.7	67195.3	5018.1 µg/L	5018.1 ppb	11:30:10
3	K 766.490 Radial†	13914.0	12767.5	5055.0 µg/L	5055.0 ppb	11:30:10
3	Mg 279.077 IEC†	10922.9	11023.0	5097.5 µg/L	5097.5 ppb	11:30:10
3	Na 589.592 Radial†	63890.3	64532.2	9998.5 µg/L	9998.5 ppb	11:30:10
3	Sr 421.552†	204882.1	210199.5	495.71 µg/L	495.71 ppb	11:30:08
3	Sc 361.383	1786609.6	1786609.6	99.028 %		11:31:15
3	Y 371.029	1036752.1	1036752.1	98.057 %		11:31:15
3	Ag 328.068†	125411.5	122077.8	506.02 µg/L	506.02 ppb	11:31:15
3	As 188.979†	1367.3	1399.2	480.54 µg/L	480.54 ppb	11:31:36
3	B 249.677†	35832.7	32119.5	497.75 µg/L	497.75 ppb	11:31:15
3	Ba 233.527†	111666.9	112908.0	502.27 µg/L	502.27 ppb	11:31:15
3	Be 313.107†	1695198.1	1712935.5	496.34 µg/L	496.34 ppb	11:31:15
3	Cd 226.502†	74018.8	74849.0	505.58 µg/L	505.58 ppb	11:31:15
3	Co 228.616†	37808.9	38390.5	508.15 µg/L	508.15 ppb	11:31:15
3	Cr 267.716†	57773.9	58108.0	502.57 µg/L	502.57 ppb	11:31:15
3	Cu 324.752†	121645.6	119804.0	502.66 µg/L	502.66 ppb	11:31:15
3	Mn 257.610†	375989.4	379496.6	503.20 µg/L	503.20 ppb	11:31:15
3	Mo 202.031†	14922.1	15107.2	494.52 µg/L	494.52 ppb	11:31:36
3	Ni 231.604†	40047.6	40536.7	507.16 µg/L	507.16 ppb	11:31:15
3	P 214.914†	10509.5	10638.3	2452.3 µg/L	2452.3 ppb	11:31:36
3	Pb 220.353†	8093.3	8069.3	498.12 µg/L	498.12 ppb	11:31:36
3	S 181.975 Axial†	1250.7	1174.0	991.82 µg/L	991.82 ppb	11:31:36
3	Sb 206.836†	3860.6	3808.8	492.14 µg/L	492.14 ppb	11:31:36
3	Se 196.026†	1237.7	1243.7	492 µg/L	492 ppb	11:31:36
3	SiO2†	51543.0	50310.1	5306.6 µg/L	5306.6 ppb	11:31:15
3	Si 251.611†	157269.9	158047.2	2482.4 µg/L	2482.4 ppb	11:31:15
3	Sn 189.927†	6987.1	7053.8	490.96 µg/L	490.96 ppb	11:31:36
3	Ti 334.940†	482315.1	486228.0	498.75 µg/L	498.75 ppb	11:31:15
3	Tl 190.801†	3458.2	3606.4	499.96 µg/L	499.96 ppb	11:31:36
3	U 409.014†	7182.1	7416.0	498.57 µg/L	498.57 ppb	11:31:15
3	V 292.402†	96118.6	96639.1	507.47 µg/L	507.47 ppb	11:31:15
3	Zn 213.857†	84371.3	84696.8	501.80 µg/L	501.80 ppb	11:31:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1767893.9	97.990	%	0.9171				0.94%
Sc RADIAL	136246.7	97.3	%	0.63				0.64%
Y 371.029	1026285.8	97.067	%	0.8833				0.91%
Ag 328.068†	121885.9	505.21	µg/L	1.611	505.21	ppb	1.611	0.32%
QC value within limits for Ag 328.068 Recovery = 101.04%								
Al 396.153Radial†	23950.3	5019.2	µg/L	12.60	5019.2	ppb	12.60	0.25%
QC value within limits for Al 396.153Radial Recovery = 100.38%								
As 188.979†	1425.5	489.44	µg/L	7.730	489.44	ppb	7.730	1.58%
QC value within limits for As 188.979 Recovery = 97.89%								
B 249.677†	31935.7	494.90	µg/L	3.736	494.90	ppb	3.736	0.75%
QC value within limits for B 249.677 Recovery = 98.98%								
Ba 233.527†	112742.6	501.53	µg/L	1.179	501.53	ppb	1.179	0.24%
QC value within limits for Ba 233.527 Recovery = 100.31%								
Be 313.107†	1709121.1	495.23	µg/L	1.213	495.23	ppb	1.213	0.25%
QC value within limits for Be 313.107 Recovery = 99.05%								
Ca 317.933Radial†	74434.8	5069.7	µg/L	18.96	5069.7	ppb	18.96	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.39%								
Cd 226.502†	74560.6	503.63	µg/L	1.907	503.63	ppb	1.907	0.38%
QC value within limits for Cd 226.502 Recovery = 100.73%								
Co 228.616†	38288.9	506.80	µg/L	1.195	506.80	ppb	1.195	0.24%

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   QC value within limits for Co 228.616  Recovery = 101.36%
Cr 267.716†            58031.1      501.91 µg/L         0.576      501.91 ppb          0.576   0.11%
   QC value within limits for Cr 267.716  Recovery = 100.38%
Cu 324.752†           119646.4      501.99 µg/L         0.773      501.99 ppb          0.773   0.15%
   QC value within limits for Cu 324.752  Recovery = 100.40%
Fe 238.204 Radial†     67275.1      5024.1 µg/L          8.30      5024.1 ppb           8.30   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.48%
K 766.490 Radial†      12754.9      5050.0 µg/L         32.29      5050.0 ppb          32.29   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 101.00%
Mg 279.077 IEC†        11065.7      5117.4 µg/L         17.20      5117.4 ppb          17.20   0.34%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.35%
Mn 257.610†           378964.1      502.50 µg/L         1.008      502.50 ppb          1.008   0.20%
   QC value within limits for Mn 257.610  Recovery = 100.50%
Mo 202.031†            15295.3      500.67 µg/L         5.540      500.67 ppb          5.540   1.11%
   QC value within limits for Mo 202.031  Recovery = 100.13%
Na 589.592 Radial†     64581.5       10006 µg/L          16.3       10006 ppb           16.3   0.16%
   QC value within limits for Na 589.592 Radial  Recovery = 100.06%
Ni 231.604†            40425.1      505.77 µg/L         1.228      505.77 ppb          1.228   0.24%
   QC value within limits for Ni 231.604  Recovery = 101.15%
P 214.914†             10804.3      2490.7 µg/L         33.68      2490.7 ppb          33.68   1.35%
   QC value within limits for P 214.914  Recovery = 99.63%
Pb 220.353†             8188.8      505.49 µg/L         6.598      505.49 ppb          6.598   1.31%
   QC value within limits for Pb 220.353  Recovery = 101.10%
S 181.975 Axial†        1189.2      1004.6 µg/L         11.74      1004.6 ppb          11.74   1.17%
   QC value within limits for S 181.975 Axial  Recovery = 100.46%
Sb 206.836†             3871.4      500.32 µg/L         7.384      500.32 ppb          7.384   1.48%
   QC value within limits for Sb 206.836  Recovery = 100.06%
Se 196.026†             1270.6         503 µg/L           9.2         503 ppb            9.2   1.83%
   QC value within limits for Se 196.026  Recovery = 100.56%
SiO2†                  50187.3      5293.3 µg/L         12.47      5293.3 ppb          12.47   0.24%
   QC value within limits for SiO2  Recovery = 98.99%
Si 251.611†           157691.6      2476.7 µg/L          5.61      2476.7 ppb           5.61   0.23%
   QC value within limits for Si 251.611  Recovery = 99.07%
Sn 189.927†             7170.2      499.03 µg/L         7.107      499.03 ppb          7.107   1.42%
   QC value within limits for Sn 189.927  Recovery = 99.81%
Sr 421.552†           212627.3      501.43 µg/L         5.124      501.43 ppb          5.124   1.02%
   QC value within limits for Sr 421.552  Recovery = 100.29%
Ti 334.940†           485667.3      498.17 µg/L         0.894      498.17 ppb          0.894   0.18%
   QC value within limits for Ti 334.940  Recovery = 99.63%
Tl 190.801†             3655.9      506.70 µg/L         6.497      506.70 ppb          6.497   1.28%
   QC value within limits for Tl 190.801  Recovery = 101.34%
U 409.014†              7370.0      495.60 µg/L         8.123      495.60 ppb          8.123   1.64%
   QC value within limits for U 409.014  Recovery = 99.12%
V 292.402†             96426.3      506.43 µg/L         0.959      506.43 ppb          0.959   0.19%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†            84471.6      500.46 µg/L         1.341      500.46 ppb          1.341   0.27%
   QC value within limits for Zn 213.857  Recovery = 100.09%
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 11:31:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138159.9	138159.9	98.6	%			11:32:12
1	Al 396.153Radial†	-61.5	16.2	3.3756	µg/L	3.3756	ppb	11:32:32
1	Ca 317.933Radial†	624.1	61.4	4.1810	µg/L	4.1810	ppb	11:32:32
1	Fe 238.204 Radial†	140.2	24.8	1.8552	µg/L	1.8552	ppb	11:32:32
1	K 766.490 Radial†	1534.9	62.6	24.798	µg/L	24.798	ppb	11:32:12
1	Mg 279.077 IEC†	179.7	9.7	4.5034	µg/L	4.5034	ppb	11:32:32
1	Na 589.592 Radial†	1043.8	105.9	16.389	µg/L	16.389	ppb	11:32:12
1	Sr 421.552†	-179.3	22.7	0.0534	µg/L	0.0534	ppb	11:32:12
1	Sc 361.383	1781153.8	1781153.8	98.725	%			11:33:20
1	Y 371.029	1046438.9	1046438.9	98.973	%			11:33:20
1	Ag 328.068†	4305.8	-203.7	-0.8261	µg/L	-0.8261	ppb	11:33:22
1	As 188.979†	-14.7	3.7	1.2615	µg/L	1.2615	ppb	11:33:42
1	B 249.677†	4014.2	0.9	0.0135	µg/L	0.0135	ppb	11:33:22
1	Ba 233.527†	-154.2	-11.6	-0.0515	µg/L	-0.0515	ppb	11:33:42
1	Be 313.107†	-880.1	200.2	0.0595	µg/L	0.0595	ppb	11:33:22
1	Cd 226.502†	-65.4	37.1	0.2509	µg/L	0.2509	ppb	11:33:42
1	Co 228.616†	-204.8	2.9	0.0380	µg/L	0.0380	ppb	11:33:42
1	Cr 267.716†	266.8	37.0	0.3162	µg/L	0.3162	ppb	11:33:42
1	Cu 324.752†	3004.2	6.9	0.0333	µg/L	0.0333	ppb	11:33:22
1	Mn 257.610†	246.8	65.3	0.0864	µg/L	0.0864	ppb	11:33:42
1	Mo 202.031†	-18.2	20.2	0.6594	µg/L	0.6594	ppb	11:33:42
1	Ni 231.604†	-84.6	10.2	0.1272	µg/L	0.1272	ppb	11:33:42
1	P 214.914†	15.3	41.2	9.5223	µg/L	9.5223	ppb	11:33:42
1	Pb 220.353†	128.5	26.7	1.6394	µg/L	1.6394	ppb	11:33:42
1	S 181.975 Axial†	105.9	18.3	15.402	µg/L	15.402	ppb	11:33:42
1	Sb 206.836†	71.8	-17.0	-2.1882	µg/L	-2.1882	ppb	11:33:42
1	Se 196.026†	18.2	12.3	4.86	µg/L	4.86	ppb	11:33:42
1	SiO2†	1722.8	6.0	0.6150	µg/L	0.6150	ppb	11:33:42
1	Si 251.611†	862.6	106.7	1.6733	µg/L	1.6733	ppb	11:33:22
1	Sn 189.927†	1.7	-0.1	-0.0097	µg/L	-0.0097	ppb	11:33:42
1	Ti 334.940†	863.4	51.5	0.0505	µg/L	0.0505	ppb	11:33:22
1	Tl 190.801†	-111.9	1.0	0.1319	µg/L	0.1319	ppb	11:33:42
1	U 409.014†	-82.1	80.2	5.0710	µg/L	5.0710	ppb	11:33:22
1	V 292.402†	445.9	28.4	0.1587	µg/L	0.1587	ppb	11:33:22
1	Zn 213.857†	555.3	59.4	0.3540	µg/L	0.3540	ppb	11:33:42
2	Sc RADIAL	139520.5	139520.5	99.6	%			11:32:34
2	Al 396.153Radial†	-62.2	16.1	3.3819	µg/L	3.3819	ppb	11:32:54
2	Ca 317.933Radial†	618.3	49.3	3.3610	µg/L	3.3610	ppb	11:32:54
2	Fe 238.204 Radial†	116.3	-0.6	-0.0425	µg/L	-0.0425	ppb	11:32:54
2	K 766.490 Radial†	1507.1	19.4	7.7040	µg/L	7.7040	ppb	11:32:34
2	Mg 279.077 IEC†	162.8	-9.0	-4.1536	µg/L	-4.1536	ppb	11:32:54
2	Na 589.592 Radial†	902.2	-46.6	-7.2284	µg/L	-7.2284	ppb	11:32:34
2	Sr 421.552†	-170.6	33.2	0.0783	µg/L	0.0783	ppb	11:32:34
2	Sc 361.383	1778496.6	1778496.6	98.578	%			11:33:44
2	Y 371.029	1044974.2	1044974.2	98.834	%			11:33:44
2	Ag 328.068†	4406.6	-95.0	-0.3921	µg/L	-0.3921	ppb	11:33:46
2	As 188.979†	-16.8	1.5	0.5201	µg/L	0.5201	ppb	11:34:07
2	B 249.677†	4054.0	47.4	0.7352	µg/L	0.7352	ppb	11:33:46
2	Ba 233.527†	-128.3	14.4	0.0638	µg/L	0.0638	ppb	11:34:07
2	Be 313.107†	-889.2	189.7	0.0561	µg/L	0.0561	ppb	11:33:46
2	Cd 226.502†	-87.2	14.9	0.1006	µg/L	0.1006	ppb	11:34:07
2	Co 228.616†	-169.3	38.5	0.5098	µg/L	0.5098	ppb	11:34:07
2	Cr 267.716†	240.7	10.9	0.0915	µg/L	0.0915	ppb	11:34:07
2	Cu 324.752†	2937.7	-56.0	-0.2311	µg/L	-0.2311	ppb	11:33:46
2	Mn 257.610†	253.5	72.4	0.0962	µg/L	0.0962	ppb	11:34:07
2	Mo 202.031†	-33.8	4.2	0.1384	µg/L	0.1384	ppb	11:34:07
2	Ni 231.604†	-90.7	3.9	0.0487	µg/L	0.0487	ppb	11:34:07
2	P 214.914†	-2.7	23.0	5.3134	µg/L	5.3134	ppb	11:34:07
2	Pb 220.353†	131.4	29.8	1.8340	µg/L	1.8340	ppb	11:34:07

2	S 181.975 Axial†	114.8	27.6	23.201 µg/L	23.201 ppb		11:34:07
2	Sb 206.836†	68.7	-20.1	-2.5886 µg/L	-2.5886 ppb		11:34:07
2	Se 196.026†	18.4	12.5	4.94 µg/L	4.94 ppb		11:34:07
2	SiO2†	1743.1	29.2	3.0894 µg/L	3.0894 ppb		11:34:07
2	Si 251.611†	796.1	40.6	0.6399 µg/L	0.6399 ppb		11:33:46
2	Sn 189.927†	-2.6	-4.5	-0.3128 µg/L	-0.3128 ppb		11:34:07
2	Ti 334.940†	844.0	33.2	0.0330 µg/L	0.0330 ppb		11:33:46
2	Tl 190.801†	-114.1	-1.5	-0.2079 µg/L	-0.2079 ppb		11:34:07
2	U 409.014†	-102.8	59.1	3.6912 µg/L	3.6912 ppb		11:33:46
2	V 292.402†	292.6	-126.4	-0.6508 µg/L	-0.6508 ppb		11:33:46
2	Zn 213.857†	543.9	48.8	0.2911 µg/L	0.2911 ppb		11:34:07
3	Sc RADIAL	137468.8	137468.8	98.1 %			11:32:56
3	Al 396.153Radial†	-87.5	-10.6	-2.2710 µg/L	-2.2710 ppb		11:33:16
3	Ca 317.933Radial†	616.0	56.3	3.8368 µg/L	3.8368 ppb		11:33:16
3	Fe 238.204 Radial†	143.0	28.5	2.1256 µg/L	2.1256 ppb		11:33:16
3	K 766.490 Radial†	1510.4	45.4	17.993 µg/L	17.993 ppb		11:32:56
3	Mg 279.077 IEC†	199.4	30.8	14.227 µg/L	14.227 ppb		11:33:16
3	Na 589.592 Radial†	1098.6	167.1	25.880 µg/L	25.880 ppb		11:32:56
3	Sr 421.552†	-193.6	7.2	0.0170 µg/L	0.0170 ppb		11:32:56
3	Sc 361.383	1779132.2	1779132.2	98.613 %			11:34:09
3	Y 371.029	1044870.8	1044870.8	98.825 %			11:34:09
3	Ag 328.068†	4229.2	-276.5	-1.1269 µg/L	-1.1269 ppb		11:34:11
3	As 188.979†	-17.5	0.8	0.2907 µg/L	0.2907 ppb		11:34:31
3	B 249.677†	3990.5	-18.6	-0.2896 µg/L	-0.2896 ppb		11:34:11
3	Ba 233.527†	-154.2	-11.8	-0.0516 µg/L	-0.0516 ppb		11:34:31
3	Be 313.107†	-593.1	490.3	0.1402 µg/L	0.1402 ppb		11:34:11
3	Cd 226.502†	-73.3	29.1	0.1961 µg/L	0.1961 ppb		11:34:31
3	Co 228.616†	-185.1	22.6	0.2982 µg/L	0.2982 ppb		11:34:31
3	Cr 267.716†	239.5	9.7	0.0891 µg/L	0.0891 ppb		11:34:31
3	Cu 324.752†	2819.0	-177.5	-0.7467 µg/L	-0.7467 ppb		11:34:11
3	Mn 257.610†	209.3	27.5	0.0359 µg/L	0.0359 ppb		11:34:31
3	Mo 202.031†	-14.5	23.9	0.7807 µg/L	0.7807 ppb		11:34:31
3	Ni 231.604†	-105.7	-11.3	-0.1412 µg/L	-0.1412 ppb		11:34:31
3	P 214.914†	-8.3	17.3	3.9969 µg/L	3.9969 ppb		11:34:31
3	Pb 220.353†	108.5	6.6	0.4124 µg/L	0.4124 ppb		11:34:31
3	S 181.975 Axial†	100.0	12.5	10.490 µg/L	10.490 ppb		11:34:31
3	Sb 206.836†	62.3	-26.5	-3.4066 µg/L	-3.4066 ppb		11:34:31
3	Se 196.026†	28.1	22.3	8.80 µg/L	8.80 ppb		11:34:31
3	SiO2†	1743.7	29.1	3.0701 µg/L	3.0701 ppb		11:34:31
3	Si 251.611†	764.4	8.1	0.1206 µg/L	0.1206 ppb		11:34:11
3	Sn 189.927†	-4.6	-6.6	-0.4567 µg/L	-0.4567 ppb		11:34:31
3	Ti 334.940†	707.4	-105.6	-0.1070 µg/L	-0.1070 ppb		11:34:11
3	Tl 190.801†	-118.5	-5.9	-0.8018 µg/L	-0.8018 ppb		11:34:31
3	U 409.014†	-257.2	-97.5	-6.0915 µg/L	-6.0915 ppb		11:34:11
3	V 292.402†	616.0	201.4	1.0480 µg/L	1.0480 ppb		11:34:11
3	Zn 213.857†	551.8	56.6	0.3393 µg/L	0.3393 ppb		11:34:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1779594.2	98.639	%	0.0769				0.08%
Sc RADIAL	138383.1	98.8	%	0.75				0.75%
Y 371.029	1045428.0	98.877	%	0.0829				0.08%
Ag 328.068†	-191.7	-0.7817	µg/L	0.36941	-0.7817	ppb	0.36941	47.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.2	1.4955	µg/L	3.26187	1.4955	ppb	3.26187	218.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.0	0.6908	µg/L	0.50742	0.6908	ppb	0.50742	73.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	9.9	0.1530	µg/L	0.52644	0.1530	ppb	0.52644	343.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.0	-0.0131	µg/L	0.06661	-0.0131	ppb	0.06661	508.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	293.4	0.0853	µg/L	0.04758	0.0853	ppb	0.04758	55.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	55.7	3.7930	µg/L	0.41176	3.7930	ppb	0.41176	10.86%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.0	0.1825	µg/L	0.07603	0.1825	ppb	0.07603	41.65%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	21.3	0.2820	µg/L	0.23633	0.2820	ppb	0.23633	83.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.2      0.1656 µg/L       0.13041      0.1656 ppb        0.13041  78.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -75.6     -0.3148 µg/L       0.39666     -0.3148 ppb        0.39666 125.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       17.6      1.3128 µg/L       1.18141      1.3128 ppb        1.18141  89.99%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        42.5      16.832 µg/L        8.6058      16.832 ppb         8.6058  51.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          10.5      4.8589 µg/L       9.19547      4.8589 ppb        9.19547 189.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              55.1      0.0729 µg/L       0.03238      0.0729 ppb        0.03238  44.45%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              16.1      0.5262 µg/L       0.34124      0.5262 ppb        0.34124  64.85%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       75.4      11.680 µg/L       17.0493      11.680 ppb        17.0493 145.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.9      0.0115 µg/L       0.13797      0.0115 ppb        0.13797 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               27.2      6.2776 µg/L       2.88612      6.2776 ppb        2.88612  45.98%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              21.0      1.2953 µg/L       0.77073      1.2953 ppb        0.77073  59.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         19.4      16.364 µg/L        6.4098      16.364 ppb         6.4098  39.17%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -21.2     -2.7278 µg/L       0.62103     -2.7278 ppb        0.62103  22.77%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              15.7        6.20 µg/L         2.250        6.20 ppb          2.250  36.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    21.4      2.2582 µg/L       1.42305      2.2582 ppb        1.42305  63.02%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              51.8      0.8113 µg/L       0.79039      0.8113 ppb        0.79039  97.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -3.7     -0.2597 µg/L       0.22815     -0.2597 ppb        0.22815  87.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              21.0      0.0496 µg/L       0.03085      0.0496 ppb        0.03085  62.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -7.0     -0.0079 µg/L       0.08634     -0.0079 ppb        0.08634 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.1     -0.2926 µg/L       0.47261     -0.2926 ppb        0.47261 161.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               13.9      0.8902 µg/L       6.08556      0.8902 ppb        6.08556 683.60%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               34.5      0.1853 µg/L       0.84970      0.1853 ppb        0.84970 458.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              54.9      0.3281 µg/L       0.03289      0.3281 ppb        0.03289  10.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/5/2010 11:52:23**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136406.2	136406.2	97.4	%			11:52:57
1	Al 396.153Radial†	23313.8	24022.4	5034.4	µg/L	5034.4	ppb	11:52:57
1	Ca 317.933Radial†	72574.7	73964.8	5037.7	µg/L	5037.7	ppb	11:52:57
1	Fe 238.204 Radial†	65230.3	66876.0	4994.3	µg/L	4994.3	ppb	11:52:57
1	K 766.490 Radial†	13928.2	12810.9	5072.2	µg/L	5072.2	ppb	11:52:57
1	Mg 279.077 IEC†	10849.4	10970.1	5073.3	µg/L	5073.3	ppb	11:52:57
1	Na 589.592 Radial†	63560.6	64326.0	9966.5	µg/L	9966.5	ppb	11:52:57
1	Sr 421.552†	209457.2	215322.9	507.79	µg/L	507.79	ppb	11:52:55
1	Sc 361.383	1772450.0	1772450.0	98.243	%			11:53:10
1	Y 371.029	1029159.8	1029159.8	97.339	%			11:53:10
1	Ag 328.068†	123371.7	121013.3	501.63	µg/L	501.63	ppb	11:53:10
1	As 188.979†	1363.6	1406.6	482.99	µg/L	482.99	ppb	11:53:30
1	B 249.677†	35057.5	31619.4	490.00	µg/L	490.00	ppb	11:53:10
1	Ba 233.527†	109674.1	111780.3	497.26	µg/L	497.26	ppb	11:53:10
1	Be 313.107†	1662161.0	1692982.8	490.56	µg/L	490.56	ppb	11:53:10
1	Cd 226.502†	72458.7	73858.1	498.88	µg/L	498.88	ppb	11:53:10
1	Co 228.616†	37051.9	37924.9	501.98	µg/L	501.98	ppb	11:53:10
1	Cr 267.716†	56912.9	57697.7	499.01	µg/L	499.01	ppb	11:53:10
1	Cu 324.752†	119955.7	119065.2	499.57	µg/L	499.57	ppb	11:53:10
1	Mn 257.610†	369739.3	376167.9	498.79	µg/L	498.79	ppb	11:53:10
1	Mo 202.031†	14945.8	15251.7	499.25	µg/L	499.25	ppb	11:53:30
1	Ni 231.604†	39204.9	40002.1	500.48	µg/L	500.48	ppb	11:53:10
1	P 214.914†	10533.6	10747.7	2477.7	µg/L	2477.7	ppb	11:53:30
1	Pb 220.353†	8092.8	8134.1	502.11	µg/L	502.11	ppb	11:53:30
1	S 181.975 Axial†	1246.7	1180.1	996.97	µg/L	996.97	ppb	11:53:30
1	Sb 206.836†	3881.5	3861.2	499.01	µg/L	499.01	ppb	11:53:30
1	Se 196.026†	1261.7	1278.2	506	µg/L	506	ppb	11:53:30
1	SiO2†	50814.8	49984.6	5271.9	µg/L	5271.9	ppb	11:53:10
1	Si 251.611†	154915.3	156919.1	2464.5	µg/L	2464.5	ppb	11:53:10
1	Sn 189.927†	6999.7	7123.1	495.75	µg/L	495.75	ppb	11:53:30
1	Ti 334.940†	474357.0	482018.6	494.42	µg/L	494.42	ppb	11:53:10
1	Tl 190.801†	3467.1	3643.4	504.96	µg/L	504.96	ppb	11:53:30
1	U 409.014†	7358.8	7653.8	513.30	µg/L	513.30	ppb	11:53:10
1	V 292.402†	94510.7	95778.0	503.06	µg/L	503.06	ppb	11:53:10
1	Zn 213.857†	82854.1	83833.1	496.69	µg/L	496.69	ppb	11:53:10
2	Sc RADIAL	137493.5	137493.5	98.1	%			11:53:01
2	Al 396.153Radial†	23368.5	23888.8	5006.2	µg/L	5006.2	ppb	11:53:01
2	Ca 317.933Radial†	73166.7	73978.6	5038.6	µg/L	5038.6	ppb	11:53:01
2	Fe 238.204 Radial†	65779.5	66905.9	4996.5	µg/L	4996.5	ppb	11:53:01
2	K 766.490 Radial†	13916.8	12686.1	5022.7	µg/L	5022.7	ppb	11:53:01
2	Mg 279.077 IEC†	10945.0	10979.5	5077.6	µg/L	5077.6	ppb	11:53:01
2	Na 589.592 Radial†	64104.8	64364.3	9972.5	µg/L	9972.5	ppb	11:53:01
2	Sr 421.552†	208104.5	212243.5	500.53	µg/L	500.53	ppb	11:52:59
2	Sc 361.383	1762317.1	1762317.1	97.681	%			11:53:33
2	Y 371.029	1024172.1	1024172.1	96.867	%			11:53:33
2	Ag 328.068†	122813.7	121164.0	502.22	µg/L	502.22	ppb	11:53:33
2	As 188.979†	1372.1	1423.3	488.62	µg/L	488.62	ppb	11:53:53
2	B 249.677†	34852.8	31615.0	489.94	µg/L	489.94	ppb	11:53:33
2	Ba 233.527†	108849.1	111577.6	496.35	µg/L	496.35	ppb	11:53:33
2	Be 313.107†	1649149.0	1689389.9	489.51	µg/L	489.51	ppb	11:53:33
2	Cd 226.502†	71871.9	73681.4	497.68	µg/L	497.68	ppb	11:53:33
2	Co 228.616†	36650.3	37730.6	499.41	µg/L	499.41	ppb	11:53:33
2	Cr 267.716†	56379.7	57484.9	497.18	µg/L	497.18	ppb	11:53:33
2	Cu 324.752†	118788.7	118572.6	497.49	µg/L	497.49	ppb	11:53:33
2	Mn 257.610†	366667.7	375187.3	497.49	µg/L	497.49	ppb	11:53:33
2	Mo 202.031†	14922.5	15315.3	501.33	µg/L	501.33	ppb	11:53:53
2	Ni 231.604†	38942.5	39962.9	499.99	µg/L	499.99	ppb	11:53:33
2	P 214.914†	10533.2	10809.0	2491.8	µg/L	2491.8	ppb	11:53:53
2	Pb 220.353†	8076.9	8165.1	504.04	µg/L	504.04	ppb	11:53:53

2	S 181.975 Axial†	1255.9	1196.8	1011.1 µg/L	1011.1 ppb	11:53:53
2	Sb 206.836†	3856.9	3858.7	498.76 µg/L	498.76 ppb	11:53:53
2	Se 196.026†	1242.7	1266.0	501 µg/L	501 ppb	11:53:53
2	SiO2†	50210.7	49663.6	5237.8 µg/L	5237.8 ppb	11:53:33
2	Si 251.611†	153979.2	156867.5	2463.7 µg/L	2463.7 ppb	11:53:33
2	Sn 189.927†	6986.3	7150.3	497.63 µg/L	497.63 ppb	11:53:53
2	Ti 334.940†	470900.5	481256.2	493.65 µg/L	493.65 ppb	11:53:33
2	Tl 190.801†	3449.9	3646.1	505.33 µg/L	505.33 ppb	11:53:53
2	U 409.014†	6983.1	7312.3	491.76 µg/L	491.76 ppb	11:53:33
2	V 292.402†	94029.1	95838.0	503.37 µg/L	503.37 ppb	11:53:33
2	Zn 213.857†	82143.5	83590.5	495.24 µg/L	495.24 ppb	11:53:33
3	Sc RADIAL	138379.3	138379.3	98.8 %		11:53:05
3	Al 396.153Radial†	23410.6	23779.0	4983.1 µg/L	4983.1 ppb	11:53:05
3	Ca 317.933Radial†	73615.3	73955.5	5037.0 µg/L	5037.0 ppb	11:53:05
3	Fe 238.204 Radial†	66155.3	66857.2	4992.8 µg/L	4992.8 ppb	11:53:05
3	K 766.490 Radial†	14062.6	12742.9	5045.3 µg/L	5045.3 ppb	11:53:05
3	Mg 279.077 IEC†	10984.3	10947.9	5063.0 µg/L	5063.0 ppb	11:53:05
3	Na 589.592 Radial†	64456.7	64302.4	9962.9 µg/L	9962.9 ppb	11:53:05
3	Sr 421.552†	211075.5	213893.9	504.42 µg/L	504.42 ppb	11:53:03
3	Sc 361.383	1773926.9	1773926.9	98.325 %		11:53:56
3	Y 371.029	1030484.0	1030484.0	97.464 %		11:53:56
3	Ag 328.068†	123843.7	121388.7	503.13 µg/L	503.13 ppb	11:53:56
3	As 188.979†	1369.1	1411.0	484.48 µg/L	484.48 ppb	11:54:16
3	B 249.677†	35237.3	31772.6	492.38 µg/L	492.38 ppb	11:53:56
3	Ba 233.527†	110079.9	112100.1	498.68 µg/L	498.68 ppb	11:53:56
3	Be 313.107†	1667071.7	1696568.6	491.59 µg/L	491.59 ppb	11:53:56
3	Cd 226.502†	72710.6	74052.8	500.20 µg/L	500.20 ppb	11:53:56
3	Co 228.616†	37053.9	37895.5	501.60 µg/L	501.60 ppb	11:53:56
3	Cr 267.716†	56941.0	57678.0	498.86 µg/L	498.86 ppb	11:53:56
3	Cu 324.752†	119958.3	118966.2	499.13 µg/L	499.13 ppb	11:53:56
3	Mn 257.610†	370604.0	376734.0	499.54 µg/L	499.54 ppb	11:53:56
3	Mo 202.031†	15013.3	15307.7	501.08 µg/L	501.08 ppb	11:54:16
3	Ni 231.604†	39324.7	40090.7	501.58 µg/L	501.58 ppb	11:53:56
3	P 214.914†	10576.2	10782.1	2485.6 µg/L	2485.6 ppb	11:54:16
3	Pb 220.353†	8159.7	8195.3	505.90 µg/L	505.90 ppb	11:54:16
3	S 181.975 Axial†	1240.8	1173.0	991.06 µg/L	991.06 ppb	11:54:16
3	Sb 206.836†	3890.0	3866.5	499.73 µg/L	499.73 ppb	11:54:16
3	Se 196.026†	1246.9	1262.0	499 µg/L	499 ppb	11:54:16
3	SiO2†	51031.8	50162.2	5290.6 µg/L	5290.6 ppb	11:53:56
3	Si 251.611†	155506.1	157388.8	2471.9 µg/L	2471.9 ppb	11:53:56
3	Sn 189.927†	7037.4	7155.4	498.00 µg/L	498.00 ppb	11:54:16
3	Ti 334.940†	475812.6	483097.0	495.55 µg/L	495.55 ppb	11:53:56
3	Tl 190.801†	3486.4	3660.1	507.26 µg/L	507.26 ppb	11:54:16
3	U 409.014†	6861.5	7141.7	481.01 µg/L	481.01 ppb	11:53:56
3	V 292.402†	94660.9	95850.6	503.43 µg/L	503.43 ppb	11:53:56
3	Zn 213.857†	83073.1	83985.6	497.59 µg/L	497.59 ppb	11:53:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769564.7	98.083	%	0.3503				0.36%
Sc RADIAL	137426.3	98.1	%	0.71				0.72%
Y 371.029	1027938.6	97.223	%	0.3148				0.32%
Ag 328.068†	121188.7	502.32	µg/L	0.756	502.32	ppb	0.756	0.15%
QC value within limits for Ag 328.068 Recovery = 100.46%								
Al 396.153Radial†	23896.8	5007.9	µg/L	25.71	5007.9	ppb	25.71	0.51%
QC value within limits for Al 396.153Radial Recovery = 100.16%								
As 188.979†	1413.6	485.36	µg/L	2.918	485.36	ppb	2.918	0.60%
QC value within limits for As 188.979 Recovery = 97.07%								
B 249.677†	31669.0	490.77	µg/L	1.393	490.77	ppb	1.393	0.28%
QC value within limits for B 249.677 Recovery = 98.15%								
Ba 233.527†	111819.3	497.43	µg/L	1.171	497.43	ppb	1.171	0.24%
QC value within limits for Ba 233.527 Recovery = 99.49%								
Be 313.107†	1692980.5	490.55	µg/L	1.038	490.55	ppb	1.038	0.21%
QC value within limits for Be 313.107 Recovery = 98.11%								
Ca 317.933Radial†	73966.3	5037.8	µg/L	0.79	5037.8	ppb	0.79	0.02%
QC value within limits for Ca 317.933Radial Recovery = 100.76%								
Cd 226.502†	73864.1	498.92	µg/L	1.256	498.92	ppb	1.256	0.25%
QC value within limits for Cd 226.502 Recovery = 99.78%								
Co 228.616†	37850.3	501.00	µg/L	1.386	501.00	ppb	1.386	0.28%

```
   QC value within limits for Co 228.616  Recovery = 100.20%
Cr 267.716†            57620.2      498.35 µg/L         1.014      498.35 ppb          1.014   0.20%
   QC value within limits for Cr 267.716  Recovery = 99.67%
Cu 324.752†           118868.0      498.73 µg/L         1.096      498.73 ppb          1.096   0.22%
   QC value within limits for Cu 324.752  Recovery = 99.75%
Fe 238.204 Radial†     66879.7      4994.5 µg/L          1.83      4994.5 ppb           1.83   0.04%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.89%
K 766.490 Radial†      12746.7      5046.7 µg/L         24.75      5046.7 ppb          24.75   0.49%
   QC value within limits for K 766.490 Radial  Recovery = 100.93%
Mg 279.077 IEC†        10965.8      5071.3 µg/L          7.49      5071.3 ppb           7.49   0.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.43%
Mn 257.610†           376029.8      498.61 µg/L         1.038      498.61 ppb          1.038   0.21%
   QC value within limits for Mn 257.610  Recovery = 99.72%
Mo 202.031†            15291.6      500.55 µg/L         1.135      500.55 ppb          1.135   0.23%
   QC value within limits for Mo 202.031  Recovery = 100.11%
Na 589.592 Radial†     64330.9      9967.3 µg/L          4.85      9967.3 ppb           4.85   0.05%
   QC value within limits for Na 589.592 Radial  Recovery = 99.67%
Ni 231.604†            40018.5      500.68 µg/L         0.819      500.68 ppb          0.819   0.16%
   QC value within limits for Ni 231.604  Recovery = 100.14%
P 214.914†             10779.6      2485.0 µg/L          7.11      2485.0 ppb           7.11   0.29%
   QC value within limits for P 214.914  Recovery = 99.40%
Pb 220.353†             8164.8      504.01 µg/L         1.894      504.01 ppb          1.894   0.38%
   QC value within limits for Pb 220.353  Recovery = 100.80%
S 181.975 Axial†        1183.3      999.69 µg/L        10.271      999.69 ppb         10.271   1.03%
   QC value within limits for S 181.975 Axial  Recovery = 99.97%
Sb 206.836†             3862.2      499.17 µg/L         0.507      499.17 ppb          0.507   0.10%
   QC value within limits for Sb 206.836  Recovery = 99.83%
Se 196.026†             1268.7         502 µg/L           3.3         502 ppb            3.3   0.66%
   QC value within limits for Se 196.026  Recovery = 100.40%
SiO2†                  49936.8      5266.8 µg/L         26.77      5266.8 ppb          26.77   0.51%
   QC value within limits for SiO2  Recovery = 98.49%
Si 251.611†           157058.5      2466.7 µg/L          4.52      2466.7 ppb           4.52   0.18%
   QC value within limits for Si 251.611  Recovery = 98.67%
Sn 189.927†             7142.9      497.13 µg/L         1.207      497.13 ppb          1.207   0.24%
   QC value within limits for Sn 189.927  Recovery = 99.43%
Sr 421.552†           213820.1      504.25 µg/L         3.634      504.25 ppb          3.634   0.72%
   QC value within limits for Sr 421.552  Recovery = 100.85%
Ti 334.940†           482123.9      494.54 µg/L         0.953      494.54 ppb          0.953   0.19%
   QC value within limits for Ti 334.940  Recovery = 98.91%
Tl 190.801†             3649.9      505.85 µg/L         1.234      505.85 ppb          1.234   0.24%
   QC value within limits for Tl 190.801  Recovery = 101.17%
U 409.014†              7369.3      495.36 µg/L        16.441      495.36 ppb         16.441   3.32%
   QC value within limits for U 409.014  Recovery = 99.07%
V 292.402†             95822.2      503.28 µg/L         0.199      503.28 ppb          0.199   0.04%
   QC value within limits for V 292.402  Recovery = 100.66%
Zn 213.857†            83803.0      496.51 µg/L         1.184      496.51 ppb          1.184   0.24%
   QC value within limits for Zn 213.857  Recovery = 99.30%
All analyte(s) passed QC.
```

Sequence No.: 9 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/5/2010 11:54:25**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139389.9	139389.9	99.5	%			11:54:54
1	Al 396.153Radial†	-84.0	-5.9	-1.2593	µg/L	-1.2593	ppb	11:55:14
1	Ca 317.933Radial†	644.5	76.3	5.1950	µg/L	5.1950	ppb	11:55:14
1	Fe 238.204 Radial†	160.6	44.1	3.2902	µg/L	3.2902	ppb	11:55:14
1	K 766.490 Radial†	1607.6	121.9	48.305	µg/L	48.305	ppb	11:54:54
1	Mg 279.077 IEC†	175.1	3.6	1.6593	µg/L	1.6593	ppb	11:55:14
1	Na 589.592 Radial†	1147.4	200.7	31.068	µg/L	31.068	ppb	11:54:54
1	Sr 421.552†	-289.7	-86.7	-0.2046	µg/L	-0.2046	ppb	11:54:54
1	Sc 361.383	1803679.3	1803679.3	99.974	%			11:56:02
1	Y 371.029	1059662.4	1059662.4	100.22	%			11:56:02
1	Ag 328.068†	4030.2	-533.9	-2.1911	µg/L	-2.1911	ppb	11:56:04
1	As 188.979†	-11.4	7.1	2.4097	µg/L	2.4097	ppb	11:56:24
1	B 249.677†	4005.8	-58.3	-0.9066	µg/L	-0.9066	ppb	11:56:04
1	Ba 233.527†	-141.6	2.9	0.0132	µg/L	0.0132	ppb	11:56:24
1	Be 313.107†	-854.4	237.1	0.0672	µg/L	0.0672	ppb	11:56:04
1	Cd 226.502†	-87.6	15.7	0.1061	µg/L	0.1061	ppb	11:56:24
1	Co 228.616†	-200.7	9.6	0.1266	µg/L	0.1266	ppb	11:56:24
1	Cr 267.716†	259.2	26.0	0.2290	µg/L	0.2290	ppb	11:56:24
1	Cu 324.752†	2917.7	-117.6	-0.4953	µg/L	-0.4953	ppb	11:56:04
1	Mn 257.610†	254.2	69.5	0.0921	µg/L	0.0921	ppb	11:56:24
1	Mo 202.031†	-24.6	14.0	0.4572	µg/L	0.4572	ppb	11:56:24
1	Ni 231.604†	-52.1	43.7	0.5473	µg/L	0.5473	ppb	11:56:24
1	P 214.914†	3.0	28.7	6.6281	µg/L	6.6281	ppb	11:56:24
1	Pb 220.353†	103.6	0.2	0.0141	µg/L	0.0141	ppb	11:56:24
1	S 181.975 Axial†	87.0	-1.9	-1.6322	µg/L	-1.6322	ppb	11:56:24
1	Sb 206.836†	75.3	-14.4	-1.8542	µg/L	-1.8542	ppb	11:56:24
1	Se 196.026†	25.6	19.4	7.65	µg/L	7.65	ppb	11:56:24
1	SiO2†	1766.5	27.9	2.9396	µg/L	2.9396	ppb	11:56:24
1	Si 251.611†	936.0	169.2	2.6606	µg/L	2.6606	ppb	11:56:04
1	Sn 189.927†	4.7	2.8	0.1940	µg/L	0.1940	ppb	11:56:24
1	Ti 334.940†	790.9	-31.9	-0.0308	µg/L	-0.0308	ppb	11:56:04
1	Tl 190.801†	-109.3	4.9	0.6728	µg/L	0.6728	ppb	11:56:24
1	U 409.014†	-240.1	-76.8	-4.8425	µg/L	-4.8425	ppb	11:56:04
1	V 292.402†	433.4	10.3	0.0553	µg/L	0.0553	ppb	11:56:04
1	Zn 213.857†	610.2	107.4	0.6379	µg/L	0.6379	ppb	11:56:24
2	Sc RADIAL	139282.4	139282.4	99.4	%			11:55:16
2	Al 396.153Radial†	-42.2	36.1	7.5894	µg/L	7.5894	ppb	11:55:36
2	Ca 317.933Radial†	638.7	70.9	4.8316	µg/L	4.8316	ppb	11:55:36
2	Fe 238.204 Radial†	158.2	41.9	3.1259	µg/L	3.1259	ppb	11:55:36
2	K 766.490 Radial†	1707.0	223.2	88.420	µg/L	88.420	ppb	11:55:16
2	Mg 279.077 IEC†	177.7	6.3	2.9217	µg/L	2.9217	ppb	11:55:36
2	Na 589.592 Radial†	1039.6	93.2	14.364	µg/L	14.364	ppb	11:55:16
2	Sr 421.552†	-106.1	97.7	0.2305	µg/L	0.2305	ppb	11:55:16
2	Sc 361.383	1821566.7	1821566.7	100.97	%			11:56:26
2	Y 371.029	1068824.4	1068824.4	101.09	%			11:56:26
2	Ag 328.068†	4339.7	-267.0	-1.1089	µg/L	-1.1089	ppb	11:56:28
2	As 188.979†	-18.8	-0.1	-0.0164	µg/L	-0.0164	ppb	11:56:49
2	B 249.677†	4055.1	-48.8	-0.7607	µg/L	-0.7607	ppb	11:56:28
2	Ba 233.527†	-123.2	22.5	0.0996	µg/L	0.0996	ppb	11:56:49
2	Be 313.107†	-844.8	255.0	0.0729	µg/L	0.0729	ppb	11:56:28
2	Cd 226.502†	-65.9	38.1	0.2575	µg/L	0.2575	ppb	11:56:49
2	Co 228.616†	-177.6	34.4	0.4555	µg/L	0.4555	ppb	11:56:49
2	Cr 267.716†	273.2	37.4	0.3256	µg/L	0.3256	ppb	11:56:49
2	Cu 324.752†	3023.7	-41.3	-0.1746	µg/L	-0.1746	ppb	11:56:28
2	Mn 257.610†	559.5	369.5	0.4900	µg/L	0.4900	ppb	11:56:49
2	Mo 202.031†	-27.6	11.2	0.3677	µg/L	0.3677	ppb	11:56:49
2	Ni 231.604†	-57.5	39.0	0.4875	µg/L	0.4875	ppb	11:56:49
2	P 214.914†	21.5	47.0	10.874	µg/L	10.874	ppb	11:56:49
2	Pb 220.353†	83.8	-20.4	-1.2522	µg/L	-1.2522	ppb	11:56:49

2	S 181.975 Axial†	95.6	5.8	4.8821 µg/L	4.8821 ppb		11:56:49
2	Sb 206.836†	69.7	-20.7	-2.6649 µg/L	-2.6649 ppb		11:56:49
2	Se 196.026†	22.8	16.4	6.45 µg/L	6.45 ppb		11:56:49
2	SiO2†	1841.3	84.6	8.9537 µg/L	8.9537 ppb		11:56:49
2	Si 251.611†	927.3	151.4	2.3842 µg/L	2.3842 ppb		11:56:28
2	Sn 189.927†	-2.1	-4.0	-0.2757 µg/L	-0.2757 ppb		11:56:49
2	Ti 334.940†	628.9	-200.1	-0.2043 µg/L	-0.2043 ppb		11:56:28
2	Tl 190.801†	-115.8	-0.5	-0.0731 µg/L	-0.0731 ppb		11:56:49
2	U 409.014†	-218.4	-53.0	-3.3981 µg/L	-3.3981 ppb		11:56:28
2	V 292.402†	237.2	-188.3	-0.9729 µg/L	-0.9729 ppb		11:56:28
2	Zn 213.857†	635.0	125.9	0.7484 µg/L	0.7484 ppb		11:56:49
3	Sc RADIAL	139340.4	139340.4	99.5 %			11:55:38
3	Al 396.153Radial†	-77.3	0.8	0.1277 µg/L	0.1277 ppb		11:55:58
3	Ca 317.933Radial†	597.0	28.7	1.9576 µg/L	1.9576 ppb		11:55:58
3	Fe 238.204 Radial†	155.3	38.9	2.9027 µg/L	2.9027 ppb		11:55:58
3	K 766.490 Radial†	1502.8	17.1	6.7800 µg/L	6.7800 ppb		11:55:38
3	Mg 279.077 IEC†	194.6	23.2	10.746 µg/L	10.746 ppb		11:55:58
3	Na 589.592 Radial†	1106.6	160.1	24.810 µg/L	24.810 ppb		11:55:38
3	Sr 421.552†	-124.6	79.2	0.1869 µg/L	0.1869 ppb		11:55:38
3	Sc 361.383	1797247.0	1797247.0	99.617 %			11:56:51
3	Y 371.029	1055174.4	1055174.4	99.799 %			11:56:51
3	Ag 328.068†	4221.6	-327.3	-1.3518 µg/L	-1.3518 ppb		11:56:53
3	As 188.979†	-9.7	8.8	2.9796 µg/L	2.9796 ppb		11:57:13
3	B 249.677†	3829.7	-220.7	-3.4338 µg/L	-3.4338 ppb		11:56:53
3	Ba 233.527†	-151.6	-7.6	-0.0339 µg/L	-0.0339 ppb		11:57:13
3	Be 313.107†	-753.4	335.5	0.0958 µg/L	0.0958 ppb		11:56:53
3	Cd 226.502†	-87.6	15.5	0.1044 µg/L	0.1044 ppb		11:57:13
3	Co 228.616†	-191.7	17.9	0.2362 µg/L	0.2362 ppb		11:57:13
3	Cr 267.716†	227.7	-4.6	-0.0368 µg/L	-0.0368 ppb		11:57:13
3	Cu 324.752†	2886.9	-138.1	-0.5806 µg/L	-0.5806 ppb		11:56:53
3	Mn 257.610†	271.2	87.5	0.1156 µg/L	0.1156 ppb		11:57:13
3	Mo 202.031†	-6.1	32.4	1.0600 µg/L	1.0600 ppb		11:57:13
3	Ni 231.604†	-73.4	22.2	0.2780 µg/L	0.2780 ppb		11:57:13
3	P 214.914†	3.6	29.3	6.7857 µg/L	6.7857 ppb		11:57:13
3	Pb 220.353†	60.8	-42.4	-2.6054 µg/L	-2.6054 ppb		11:57:13
3	S 181.975 Axial†	106.0	17.5	14.706 µg/L	14.706 ppb		11:57:13
3	Sb 206.836†	79.7	-9.8	-1.2426 µg/L	-1.2426 ppb		11:57:13
3	Se 196.026†	15.7	9.6	3.78 µg/L	3.78 ppb		11:57:13
3	SiO2†	1829.5	97.4	10.277 µg/L	10.277 ppb		11:57:13
3	Si 251.611†	1111.0	348.3	5.4721 µg/L	5.4721 ppb		11:56:53
3	Sn 189.927†	13.7	11.9	0.8234 µg/L	0.8234 ppb		11:57:13
3	Ti 334.940†	717.7	-102.5	-0.1043 µg/L	-0.1043 ppb		11:56:53
3	Tl 190.801†	-119.4	-5.6	-0.7640 µg/L	-0.7640 ppb		11:57:13
3	U 409.014†	-232.3	-69.9	-4.4392 µg/L	-4.4392 ppb		11:56:53
3	V 292.402†	319.0	-103.0	-0.5260 µg/L	-0.5260 ppb		11:56:53
3	Zn 213.857†	589.3	88.6	0.5275 µg/L	0.5275 ppb		11:57:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807497.7	100.19	%	0.698				0.70%
Sc RADIAL	139337.6	99.5	%	0.04				0.04%
Y 371.029	1061220.4	100.37	%	0.658				0.66%
Ag 328.068†	-376.1	-1.5506	µg/L	0.56784	-1.5506	ppb	0.56784	36.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.4	2.1526	µg/L	4.75922	2.1526	ppb	4.75922	221.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.3	1.7910	µg/L	1.59094	1.7910	ppb	1.59094	88.83%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-109.3	-1.7004	µg/L	1.50298	-1.7004	ppb	1.50298	88.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.0	0.0263	µg/L	0.06770	0.0263	ppb	0.06770	257.26%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	275.9	0.0786	µg/L	0.01517	0.0786	ppb	0.01517	19.29%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	58.7	3.9947	µg/L	1.77355	3.9947	ppb	1.77355	44.40%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.1	0.1560	µg/L	0.08793	0.1560	ppb	0.08793	56.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.6	0.2728	µg/L	0.16746	0.2728	ppb	0.16746	61.39%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.6      0.1726 µg/L       0.18768      0.1726 ppb        0.18768 108.74%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -99.0     -0.4168 µg/L       0.21408     -0.4168 ppb        0.21408  51.36%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       41.6      3.1063 µg/L       0.19449      3.1063 ppb        0.19449   6.26%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       120.7      47.835 µg/L       40.8218      47.835 ppb        40.8218  85.34%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          11.0      5.1091 µg/L       4.92266      5.1091 ppb        4.92266  96.35%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             175.5      0.2326 µg/L       0.22323      0.2326 ppb        0.22323  95.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              19.2      0.6283 µg/L       0.37654      0.6283 ppb        0.37654  59.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      151.3      23.414 µg/L        8.4391      23.414 ppb         8.4391  36.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              35.0      0.4376 µg/L       0.14140      0.4376 ppb        0.14140  32.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               35.0      8.0960 µg/L       2.40728      8.0960 ppb        2.40728  29.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -20.9     -1.2812 µg/L       1.30999     -1.2812 ppb        1.30999 102.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          7.1      5.9853 µg/L       8.22482      5.9853 ppb        8.22482 137.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -14.9     -1.9206 µg/L       0.71350     -1.9206 ppb        0.71350  37.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              15.1        5.96 µg/L         1.979        5.96 ppb          1.979  33.19%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    70.0      7.3902 µg/L       3.91074      7.3902 ppb        3.91074  52.92%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             222.9      3.5056 µg/L       1.70860      3.5056 ppb        1.70860  48.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.6      0.2472 µg/L       0.55145      0.2472 ppb        0.55145 223.04%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              30.1      0.0709 µg/L       0.23957      0.0709 ppb        0.23957 337.83%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -111.5     -0.1132 µg/L       0.08709     -0.1132 ppb        0.08709  76.96%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.4     -0.0548 µg/L       0.71858     -0.0548 ppb        0.71858 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -66.5     -4.2266 µg/L       0.74532     -4.2266 ppb        0.74532  17.63%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -93.6     -0.4812 µg/L       0.51557     -0.4812 ppb        0.51557 107.15%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             107.3      0.6379 µg/L       0.11045      0.6379 ppb        0.11045  17.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 12:16:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138173.1	138173.1	98.6	%			12:17:08
1	Al 396.153Radial†	23436.3	23840.5	4995.9	µg/L	4995.9	ppb	12:17:08
1	Ca 317.933Radial†	73829.7	74284.1	5059.4	µg/L	5059.4	ppb	12:17:08
1	Fe 238.204 Radial†	66677.7	67486.8	5039.9	µg/L	5039.9	ppb	12:17:08
1	K 766.490 Radial†	14215.5	12919.2	5115.1	µg/L	5115.1	ppb	12:17:08
1	Mg 279.077 IEC†	11111.0	11092.9	5130.0	µg/L	5130.0	ppb	12:17:08
1	Na 589.592 Radial†	64510.7	64454.5	9986.4	µg/L	9986.4	ppb	12:17:08
1	Sr 421.552†	208276.3	211374.6	498.48	µg/L	498.48	ppb	12:17:05
1	Sc 361.383	1771153.0	1771153.0	98.171	%			12:17:34
1	Y 371.029	1029832.2	1029832.2	97.402	%			12:17:34
1	Ag 328.068†	123736.1	121476.4	503.55	µg/L	503.55	ppb	12:17:34
1	As 188.979†	1382.2	1426.5	489.79	µg/L	489.79	ppb	12:17:54
1	B 249.677†	35147.2	31736.9	491.81	µg/L	491.81	ppb	12:17:34
1	Ba 233.527†	110394.8	112596.2	500.88	µg/L	500.88	ppb	12:17:34
1	Be 313.107†	1668216.9	1700390.5	492.70	µg/L	492.70	ppb	12:17:34
1	Cd 226.502†	72697.5	74155.4	500.88	µg/L	500.88	ppb	12:17:34
1	Co 228.616†	37260.4	38164.9	505.16	µg/L	505.16	ppb	12:17:34
1	Cr 267.716†	57133.8	57965.1	501.33	µg/L	501.33	ppb	12:17:34
1	Cu 324.752†	120539.2	119749.0	502.44	µg/L	502.44	ppb	12:17:34
1	Mn 257.610†	371828.3	378571.5	501.98	µg/L	501.98	ppb	12:17:34
1	Mo 202.031†	15099.0	15418.9	504.72	µg/L	504.72	ppb	12:17:54
1	Ni 231.604†	39340.9	40169.8	502.57	µg/L	502.57	ppb	12:17:34
1	P 214.914†	10642.4	10866.4	2505.0	µg/L	2505.0	ppb	12:17:54
1	Pb 220.353†	8192.1	8241.3	508.72	µg/L	508.72	ppb	12:17:54
1	S 181.975 Axial†	1246.0	1180.3	997.22	µg/L	997.22	ppb	12:17:54
1	Sb 206.836†	3907.2	3890.3	502.82	µg/L	502.82	ppb	12:17:54
1	Se 196.026†	1267.0	1284.5	508	µg/L	508	ppb	12:17:54
1	SiO2†	51163.3	50377.5	5313.3	µg/L	5313.3	ppb	12:17:34
1	Si 251.611†	156323.1	158468.6	2488.8	µg/L	2488.8	ppb	12:17:34
1	Sn 189.927†	7092.0	7222.2	502.64	µg/L	502.64	ppb	12:17:54
1	Ti 334.940†	477558.9	485633.6	498.13	µg/L	498.13	ppb	12:17:34
1	Tl 190.801†	3523.3	3703.2	513.18	µg/L	513.18	ppb	12:17:54
1	U 409.014†	7278.5	7577.4	508.67	µg/L	508.67	ppb	12:17:34
1	V 292.402†	95032.0	96379.4	506.23	µg/L	506.23	ppb	12:17:34
1	Zn 213.857†	83125.8	84171.6	498.69	µg/L	498.69	ppb	12:17:34
2	Sc RADIAL	136709.1	136709.1	97.6	%			12:17:12
2	Al 396.153Radial†	23297.2	23952.4	5019.6	µg/L	5019.6	ppb	12:17:12
2	Ca 317.933Radial†	72959.0	74193.5	5053.2	µg/L	5053.2	ppb	12:17:12
2	Fe 238.204 Radial†	65851.7	67364.3	5030.7	µg/L	5030.7	ppb	12:17:12
2	K 766.490 Radial†	13849.6	12698.6	5027.7	µg/L	5027.7	ppb	12:17:12
2	Mg 279.077 IEC†	10906.9	11004.4	5089.1	µg/L	5089.1	ppb	12:17:12
2	Na 589.592 Radial†	64040.2	64672.9	10020	µg/L	10020	ppb	12:17:12
2	Sr 421.552†	208577.2	213944.5	504.54	µg/L	504.54	ppb	12:17:10
2	Sc 361.383	1790471.7	1790471.7	99.242	%			12:17:58
2	Y 371.029	1040499.0	1040499.0	98.411	%			12:17:58
2	Ag 328.068†	125354.8	121747.5	504.66	µg/L	504.66	ppb	12:17:58
2	As 188.979†	1362.5	1391.5	477.93	µg/L	477.93	ppb	12:18:18
2	B 249.677†	35724.9	31932.7	494.85	µg/L	494.85	ppb	12:17:58
2	Ba 233.527†	111665.0	112662.7	501.18	µg/L	501.18	ppb	12:17:58
2	Be 313.107†	1689440.1	1703440.9	493.59	µg/L	493.59	ppb	12:17:58
2	Cd 226.502†	73727.4	74394.1	502.50	µg/L	502.50	ppb	12:17:58
2	Co 228.616†	37877.1	38376.8	507.96	µg/L	507.96	ppb	12:17:58
2	Cr 267.716†	57789.1	57997.4	501.61	µg/L	501.61	ppb	12:17:58
2	Cu 324.752†	121820.0	119714.7	502.29	µg/L	502.29	ppb	12:17:58
2	Mn 257.610†	376181.4	378871.2	502.38	µg/L	502.38	ppb	12:17:58
2	Mo 202.031†	15140.8	15295.0	500.67	µg/L	500.67	ppb	12:18:18
2	Ni 231.604†	39919.1	40320.1	504.45	µg/L	504.45	ppb	12:17:58
2	P 214.914†	10675.0	10782.2	2485.6	µg/L	2485.6	ppb	12:18:18
2	Pb 220.353†	8199.1	8158.3	503.61	µg/L	503.61	ppb	12:18:18

2	S 181.975 Axial†	1250.2	1170.9	989.23 µg/L	989.23 ppb	12:18:18
2	Sb 206.836†	3900.5	3840.6	496.34 µg/L	496.34 ppb	12:18:18
2	Se 196.026†	1261.8	1265.3	501 µg/L	501 ppb	12:18:18
2	SiO2†	51903.6	50561.1	5332.9 µg/L	5332.9 ppb	12:17:58
2	Si 251.611†	158711.3	159157.0	2499.8 µg/L	2499.8 ppb	12:17:58
2	Sn 189.927†	7069.7	7121.8	495.68 µg/L	495.68 ppb	12:18:18
2	Ti 334.940†	483377.5	486248.0	498.77 µg/L	498.77 ppb	12:17:58
2	Tl 190.801†	3525.8	3667.0	508.23 µg/L	508.23 ppb	12:18:18
2	U 409.014†	7276.7	7495.6	503.52 µg/L	503.52 ppb	12:17:58
2	V 292.402†	96108.6	96419.7	506.39 µg/L	506.39 ppb	12:17:58
2	Zn 213.857†	84041.9	84181.0	498.73 µg/L	498.73 ppb	12:17:58
3	Sc RADIAL	137430.0	137430.0	98.1 %		12:17:16
3	Al 396.153Radial†	23488.3	24022.0	5034.0 µg/L	5034.0 ppb	12:17:16
3	Ca 317.933Radial†	73707.4	74564.2	5078.5 µg/L	5078.5 ppb	12:17:16
3	Fe 238.204 Radial†	66294.6	67461.9	5038.0 µg/L	5038.0 ppb	12:17:16
3	K 766.490 Radial†	13997.9	12775.3	5058.1 µg/L	5058.1 ppb	12:17:16
3	Mg 279.077 IEC†	10912.3	10951.3	5064.7 µg/L	5064.7 ppb	12:17:16
3	Na 589.592 Radial†	64249.5	64542.0	10000 µg/L	10000 ppb	12:17:16
3	Sr 421.552†	206570.3	210777.5	497.07 µg/L	497.07 ppb	12:17:14
3	Sc 361.383	1791956.4	1791956.4	99.324 %		12:18:21
3	Y 371.029	1040969.8	1040969.8	98.456 %		12:18:21
3	Ag 328.068†	125471.1	121760.0	504.71 µg/L	504.71 ppb	12:18:21
3	As 188.979†	1389.7	1417.7	486.83 µg/L	486.83 ppb	12:18:41
3	B 249.677†	35714.4	31892.3	494.22 µg/L	494.22 ppb	12:18:21
3	Ba 233.527†	112011.5	112918.4	502.32 µg/L	502.32 ppb	12:18:21
3	Be 313.107†	1691084.9	1703686.5	493.66 µg/L	493.66 ppb	12:18:21
3	Cd 226.502†	73961.0	74567.8	503.67 µg/L	503.67 ppb	12:18:21
3	Co 228.616†	37900.0	38368.2	507.85 µg/L	507.85 ppb	12:18:21
3	Cr 267.716†	57873.2	58033.9	501.93 µg/L	501.93 ppb	12:18:21
3	Cu 324.752†	121881.7	119675.2	502.12 µg/L	502.12 ppb	12:18:21
3	Mn 257.610†	376942.5	379323.3	502.98 µg/L	502.98 ppb	12:18:21
3	Mo 202.031†	15340.9	15483.8	506.84 µg/L	506.84 ppb	12:18:41
3	Ni 231.604†	40041.2	40409.6	505.57 µg/L	505.57 ppb	12:18:21
3	P 214.914†	10860.3	10960.0	2526.7 µg/L	2526.7 ppb	12:18:41
3	Pb 220.353†	8326.6	8279.8	511.10 µg/L	511.10 ppb	12:18:41
3	S 181.975 Axial†	1272.4	1192.1	1007.2 µg/L	1007.2 ppb	12:18:41
3	Sb 206.836†	3964.4	3901.7	504.31 µg/L	504.31 ppb	12:18:41
3	Se 196.026†	1279.4	1281.9	507 µg/L	507 ppb	12:18:41
3	SiO2†	52183.1	50799.2	5357.8 µg/L	5357.8 ppb	12:18:21
3	Si 251.611†	159232.7	159549.5	2505.8 µg/L	2505.8 ppb	12:18:21
3	Sn 189.927†	7190.1	7237.1	503.67 µg/L	503.67 ppb	12:18:41
3	Ti 334.940†	483431.3	485898.6	498.41 µg/L	498.41 ppb	12:18:21
3	Tl 190.801†	3579.1	3717.8	515.16 µg/L	515.16 ppb	12:18:41
3	U 409.014†	7290.1	7503.1	504.01 µg/L	504.01 ppb	12:18:21
3	V 292.402†	96227.3	96459.0	506.66 µg/L	506.66 ppb	12:18:21
3	Zn 213.857†	84398.4	84469.8	500.45 µg/L	500.45 ppb	12:18:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1784527.0	98.912	%	0.6433				0.65%
Sc RADIAL	137437.4	98.1	%	0.52				0.53%
Y 371.029	1037100.3	98.090	%	0.5957				0.61%
Ag 328.068†	121661.3	504.31	µg/L	0.654	504.31	ppb	0.654	0.13%
QC value within limits for Ag 328.068 Recovery = 100.86%								
Al 396.153Radial†	23938.3	5016.5	µg/L	19.24	5016.5	ppb	19.24	0.38%
QC value within limits for Al 396.153Radial Recovery = 100.33%								
As 188.979†	1411.9	484.85	µg/L	6.176	484.85	ppb	6.176	1.27%
QC value within limits for As 188.979 Recovery = 96.97%								
B 249.677†	31854.0	493.63	µg/L	1.602	493.63	ppb	1.602	0.32%
QC value within limits for B 249.677 Recovery = 98.73%								
Ba 233.527†	112725.8	501.46	µg/L	0.757	501.46	ppb	0.757	0.15%
QC value within limits for Ba 233.527 Recovery = 100.29%								
Be 313.107†	1702506.0	493.32	µg/L	0.531	493.32	ppb	0.531	0.11%
QC value within limits for Be 313.107 Recovery = 98.66%								
Ca 317.933Radial†	74347.3	5063.7	µg/L	13.16	5063.7	ppb	13.16	0.26%
QC value within limits for Ca 317.933Radial Recovery = 101.27%								
Cd 226.502†	74372.4	502.35	µg/L	1.400	502.35	ppb	1.400	0.28%
QC value within limits for Cd 226.502 Recovery = 100.47%								
Co 228.616†	38303.3	506.99	µg/L	1.587	506.99	ppb	1.587	0.31%

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   QC value within limits for Co 228.616  Recovery = 101.40%
Cr 267.716†            57998.8      501.62 µg/L         0.300      501.62 ppb          0.300   0.06%
   QC value within limits for Cr 267.716  Recovery = 100.32%
Cu 324.752†           119713.0      502.28 µg/L         0.157      502.28 ppb          0.157   0.03%
   QC value within limits for Cu 324.752  Recovery = 100.46%
Fe 238.204 Radial†     67437.7      5036.2 µg/L          4.83      5036.2 ppb           4.83   0.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.72%
K 766.490 Radial†      12797.7      5066.9 µg/L         44.38      5066.9 ppb          44.38   0.88%
   QC value within limits for K 766.490 Radial  Recovery = 101.34%
Mg 279.077 IEC†        11016.2      5094.6 µg/L         33.02      5094.6 ppb          33.02   0.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.89%
Mn 257.610†           378922.0      502.44 µg/L         0.503      502.44 ppb          0.503   0.10%
   QC value within limits for Mn 257.610  Recovery = 100.49%
Mo 202.031†            15399.3      504.08 µg/L         3.137      504.08 ppb          3.137   0.62%
   QC value within limits for Mo 202.031  Recovery = 100.82%
Na 589.592 Radial†     64556.5       10002 µg/L          17.1       10002 ppb           17.1   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 100.02%
Ni 231.604†            40299.8      504.20 µg/L         1.516      504.20 ppb          1.516   0.30%
   QC value within limits for Ni 231.604  Recovery = 100.84%
P 214.914†             10869.5      2505.8 µg/L         20.57      2505.8 ppb          20.57   0.82%
   QC value within limits for P 214.914  Recovery = 100.23%
Pb 220.353†             8226.4      507.81 µg/L         3.830      507.81 ppb          3.830   0.75%
   QC value within limits for Pb 220.353  Recovery = 101.56%
S 181.975 Axial†        1181.1      997.87 µg/L         8.980      997.87 ppb          8.980   0.90%
   QC value within limits for S 181.975 Axial  Recovery = 99.79%
Sb 206.836†             3877.5      501.16 µg/L         4.237      501.16 ppb          4.237   0.85%
   QC value within limits for Sb 206.836  Recovery = 100.23%
Se 196.026†             1277.2         505 µg/L           4.1         505 ppb            4.1   0.81%
   QC value within limits for Se 196.026  Recovery = 101.08%
SiO2†                  50579.3      5334.7 µg/L         22.34      5334.7 ppb          22.34   0.42%
   QC value within limits for SiO2  Recovery = 99.76%
Si 251.611†           159058.4      2498.2 µg/L          8.62      2498.2 ppb           8.62   0.35%
   QC value within limits for Si 251.611  Recovery = 99.93%
Sn 189.927†             7193.7      500.66 µg/L         4.348      500.66 ppb          4.348   0.87%
   QC value within limits for Sn 189.927  Recovery = 100.13%
Sr 421.552†           212032.2      500.03 µg/L         3.969      500.03 ppb          3.969   0.79%
   QC value within limits for Sr 421.552  Recovery = 100.01%
Ti 334.940†           485926.7      498.44 µg/L         0.319      498.44 ppb          0.319   0.06%
   QC value within limits for Ti 334.940  Recovery = 99.69%
Tl 190.801†             3696.0      512.19 µg/L         3.570      512.19 ppb          3.570   0.70%
   QC value within limits for Tl 190.801  Recovery = 102.44%
U 409.014†              7525.4      505.40 µg/L         2.841      505.40 ppb          2.841   0.56%
   QC value within limits for U 409.014  Recovery = 101.08%
V 292.402†             96419.4      506.43 µg/L         0.219      506.43 ppb          0.219   0.04%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†            84274.1      499.29 µg/L         1.005      499.29 ppb          1.005   0.20%
   QC value within limits for Zn 213.857  Recovery = 99.86%
All analyte(s) passed QC.
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Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 12:18:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140761.4	140761.4	100	%			12:19:18
1	Al 396.153Radial†	-73.7	5.2	1.0818	µg/L	1.0818	ppb	12:19:38
1	Ca 317.933Radial†	682.8	108.1	7.3604	µg/L	7.3604	ppb	12:19:38
1	Fe 238.204 Radial†	164.0	45.9	3.4255	µg/L	3.4255	ppb	12:19:38
1	K 766.490 Radial†	1670.2	168.5	66.774	µg/L	66.774	ppb	12:19:18
1	Mg 279.077 IEC†	159.2	-14.0	-6.4612	µg/L	-6.4612	ppb	12:19:38
1	Na 589.592 Radial†	1062.0	104.4	16.125	µg/L	16.125	ppb	12:19:18
1	Sr 421.552†	-212.6	-7.1	-0.0169	µg/L	-0.0169	ppb	12:19:18
1	Sc 361.383	1793257.1	1793257.1	99.396	%			12:20:26
1	Y 371.029	1054149.0	1054149.0	99.702	%			12:20:26
1	Ag 328.068†	4339.0	-199.8	-0.8254	µg/L	-0.8254	ppb	12:20:28
1	As 188.979†	-4.3	14.2	4.8058	µg/L	4.8058	ppb	12:20:48
1	B 249.677†	3947.0	-94.2	-1.4648	µg/L	-1.4648	ppb	12:20:28
1	Ba 233.527†	-155.4	-11.8	-0.0523	µg/L	-0.0523	ppb	12:20:48
1	Be 313.107†	-700.9	386.5	0.1098	µg/L	0.1098	ppb	12:20:28
1	Cd 226.502†	-69.6	33.4	0.2252	µg/L	0.2252	ppb	12:20:48
1	Co 228.616†	-201.5	7.5	0.0994	µg/L	0.0994	ppb	12:20:48
1	Cr 267.716†	296.8	65.3	0.5712	µg/L	0.5712	ppb	12:20:48
1	Cu 324.752†	2928.5	-89.9	-0.3813	µg/L	-0.3813	ppb	12:20:28
1	Mn 257.610†	255.1	71.9	0.0956	µg/L	0.0956	ppb	12:20:48
1	Mo 202.031†	-35.2	3.1	0.1021	µg/L	0.1021	ppb	12:20:48
1	Ni 231.604†	-76.5	18.9	0.2366	µg/L	0.2366	ppb	12:20:48
1	P 214.914†	10.1	35.8	8.2902	µg/L	8.2902	ppb	12:20:48
1	Pb 220.353†	120.7	17.9	1.1096	µg/L	1.1096	ppb	12:20:48
1	S 181.975 Axial†	96.2	7.8	6.6016	µg/L	6.6016	ppb	12:20:48
1	Sb 206.836†	100.6	11.5	1.4806	µg/L	1.4806	ppb	12:20:48
1	Se 196.026†	21.5	15.5	6.09	µg/L	6.09	ppb	12:20:48
1	SiO2†	1959.7	232.5	24.621	µg/L	24.621	ppb	12:20:48
1	Si 251.611†	1212.9	453.2	7.1445	µg/L	7.1445	ppb	12:20:28
1	Sn 189.927†	3.8	2.0	0.1355	µg/L	0.1355	ppb	12:20:48
1	Ti 334.940†	610.5	-208.8	-0.2110	µg/L	-0.2110	ppb	12:20:28
1	Tl 190.801†	-105.3	8.3	1.1328	µg/L	1.1328	ppb	12:20:48
1	U 409.014†	-274.2	-112.5	-7.0945	µg/L	-7.0945	ppb	12:20:28
1	V 292.402†	440.1	19.6	0.1000	µg/L	0.1000	ppb	12:20:28
1	Zn 213.857†	567.3	67.7	0.4026	µg/L	0.4026	ppb	12:20:48
2	Sc RADIAL	140927.4	140927.4	101	%			12:19:40
2	Al 396.153Radial†	-17.8	60.9	12.799	µg/L	12.799	ppb	12:20:00
2	Ca 317.933Radial†	745.5	169.6	11.554	µg/L	11.554	ppb	12:20:00
2	Fe 238.204 Radial†	572.5	451.8	33.741	µg/L	33.741	ppb	12:20:00
2	K 766.490 Radial†	1510.5	7.7	3.0501	µg/L	3.0501	ppb	12:19:40
2	Mg 279.077 IEC†	179.6	6.1	2.8107	µg/L	2.8107	ppb	12:20:00
2	Na 589.592 Radial†	1290.2	330.1	51.159	µg/L	51.159	ppb	12:19:40
2	Sr 421.552†	-200.2	5.5	0.0129	µg/L	0.0129	ppb	12:19:40
2	Sc 361.383	1797905.6	1797905.6	99.654	%			12:20:50
2	Y 371.029	1055651.2	1055651.2	99.844	%			12:20:50
2	Ag 328.068†	4546.9	-2.4	-0.0256	µg/L	-0.0256	ppb	12:20:52
2	As 188.979†	-15.2	3.3	1.1095	µg/L	1.1095	ppb	12:21:13
2	B 249.677†	3898.7	-152.9	-2.3781	µg/L	-2.3781	ppb	12:20:52
2	Ba 233.527†	-169.3	-25.4	-0.1128	µg/L	-0.1128	ppb	12:21:13
2	Be 313.107†	-804.8	284.1	0.0779	µg/L	0.0779	ppb	12:20:52
2	Cd 226.502†	-97.2	5.8	0.0361	µg/L	0.0361	ppb	12:21:13
2	Co 228.616†	-205.9	3.6	0.0462	µg/L	0.0462	ppb	12:21:13
2	Cr 267.716†	221.4	-11.0	-0.0830	µg/L	-0.0830	ppb	12:21:13
2	Cu 324.752†	2993.4	-32.3	-0.1422	µg/L	-0.1422	ppb	12:20:52
2	Mn 257.610†	242.6	58.7	0.0777	µg/L	0.0777	ppb	12:21:13
2	Mo 202.031†	-24.5	14.0	0.4601	µg/L	0.4601	ppb	12:21:13
2	Ni 231.604†	-62.9	32.8	0.4103	µg/L	0.4103	ppb	12:21:13
2	P 214.914†	4.7	30.4	7.0168	µg/L	7.0168	ppb	12:21:13
2	Pb 220.353†	100.3	-2.8	-0.1609	µg/L	-0.1609	ppb	12:21:13

2	S 181.975 Axial†	95.9	7.3	6.1755 µg/L	6.1755 ppb	12:21:13
2	Sb 206.836†	81.0	-8.4	-1.0806 µg/L	-1.0806 ppb	12:21:13
2	Se 196.026†	18.0	11.9	4.69 µg/L	4.69 ppb	12:21:13
2	SiO2†	1920.7	188.3	19.928 µg/L	19.928 ppb	12:21:13
2	Si 251.611†	1349.5	587.2	9.2535 µg/L	9.2535 ppb	12:20:52
2	Sn 189.927†	0.7	-1.2	-0.0837 µg/L	-0.0837 ppb	12:21:13
2	Ti 334.940†	868.6	48.7	0.0560 µg/L	0.0560 ppb	12:20:52
2	Tl 190.801†	-93.1	20.9	2.8555 µg/L	2.8555 ppb	12:21:13
2	U 409.014†	-392.1	-230.1	-14.511 µg/L	-14.511 ppb	12:20:52
2	V 292.402†	466.3	44.7	0.2229 µg/L	0.2229 ppb	12:20:52
2	Zn 213.857†	578.9	77.9	0.4592 µg/L	0.4592 ppb	12:21:13
3	Sc RADIAL	137308.2	137308.2	98.0 %		12:20:02
3	Al 396.153Radial†	-65.9	11.3	2.3545 µg/L	2.3545 ppb	12:20:22
3	Ca 317.933Radial†	664.5	106.5	7.2566 µg/L	7.2566 ppb	12:20:22
3	Fe 238.204 Radial†	190.2	76.7	5.7301 µg/L	5.7301 ppb	12:20:22
3	K 766.490 Radial†	1567.9	105.9	41.946 µg/L	41.946 ppb	12:20:02
3	Mg 279.077 IEC†	188.8	20.2	9.3189 µg/L	9.3189 ppb	12:20:22
3	Na 589.592 Radial†	1125.3	195.6	30.288 µg/L	30.288 ppb	12:20:02
3	Sr 421.552†	68.6	274.5	0.6472 µg/L	0.6472 ppb	12:20:02
3	Sc 361.383	1810912.5	1810912.5	100.37 %		12:21:15
3	Y 371.029	1062136.4	1062136.4	100.46 %		12:21:15
3	Ag 328.068†	4349.1	-232.3	-0.9622 µg/L	-0.9622 ppb	12:21:17
3	As 188.979†	-10.5	8.1	2.7398 µg/L	2.7398 ppb	12:21:37
3	B 249.677†	4079.2	-1.2	-0.0184 µg/L	-0.0184 ppb	12:21:17
3	Ba 233.527†	-145.3	-0.2	-0.0009 µg/L	-0.0009 ppb	12:21:37
3	Be 313.107†	-583.7	510.2	0.1456 µg/L	0.1456 ppb	12:21:17
3	Cd 226.502†	-84.1	19.5	0.1318 µg/L	0.1318 ppb	12:21:37
3	Co 228.616†	-201.2	9.8	0.1294 µg/L	0.1294 ppb	12:21:37
3	Cr 267.716†	247.4	13.3	0.1205 µg/L	0.1205 ppb	12:21:37
3	Cu 324.752†	2887.9	-159.0	-0.6698 µg/L	-0.6698 ppb	12:21:17
3	Mn 257.610†	215.0	29.5	0.0387 µg/L	0.0387 ppb	12:21:37
3	Mo 202.031†	-24.6	14.1	0.4603 µg/L	0.4603 ppb	12:21:37
3	Ni 231.604†	-37.9	58.2	0.7276 µg/L	0.7276 ppb	12:21:37
3	P 214.914†	4.2	29.9	6.9204 µg/L	6.9204 ppb	12:21:37
3	Pb 220.353†	90.3	-13.5	-0.8254 µg/L	-0.8254 ppb	12:21:37
3	S 181.975 Axial†	92.5	3.2	2.7332 µg/L	2.7332 ppb	12:21:37
3	Sb 206.836†	86.8	-3.3	-0.4176 µg/L	-0.4176 ppb	12:21:37
3	Se 196.026†	17.2	11.0	4.34 µg/L	4.34 ppb	12:21:37
3	SiO2†	1924.5	178.2	18.853 µg/L	18.853 ppb	12:21:37
3	Si 251.611†	1376.2	604.0	9.5169 µg/L	9.5169 ppb	12:21:17
3	Sn 189.927†	4.7	2.8	0.1960 µg/L	0.1960 ppb	12:21:37
3	Ti 334.940†	625.3	-200.0	-0.2031 µg/L	-0.2031 ppb	12:21:17
3	Tl 190.801†	-137.8	-23.0	-3.1476 µg/L	-3.1476 ppb	12:21:37
3	U 409.014†	-276.3	-111.9	-7.0712 µg/L	-7.0712 ppb	12:21:17
3	V 292.402†	387.3	-37.4	-0.1938 µg/L	-0.1938 ppb	12:21:17
3	Zn 213.857†	557.3	52.2	0.3067 µg/L	0.3067 ppb	12:21:37

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1800691.8	99.808	%	0.5072				0.51%
Sc RADIAL	139665.7	99.7	%	1.46				1.46%
Y 371.029	1057312.2	100.00	%	0.401				0.40%
Ag 328.068†	-144.8	-0.6044	µg/L	0.50591	-0.6044	ppb	0.50591	83.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	25.8	5.4118	µg/L	6.42909	5.4118	ppb	6.42909	118.80%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.5	2.8851	µg/L	1.85242	2.8851	ppb	1.85242	64.21%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-82.7	-1.2871	µg/L	1.18982	-1.2871	ppb	1.18982	92.44%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-12.4	-0.0553	µg/L	0.05604	-0.0553	ppb	0.05604	101.26%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	393.6	0.1111	µg/L	0.03389	0.1111	ppb	0.03389	30.50%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	128.1	8.7237	µg/L	2.45179	8.7237	ppb	2.45179	28.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.6	0.1310	µg/L	0.09458	0.1310	ppb	0.09458	72.20%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.0	0.0917	µg/L	0.04215	0.0917	ppb	0.04215	45.98%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                22.5      0.2029 µg/L       0.33475      0.2029 ppb        0.33475 164.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -93.7     -0.3978 µg/L       0.26421     -0.3978 ppb        0.26421  66.42%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        191.5      14.299 µg/L       16.8767      14.299 ppb        16.8767 118.03%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          94.0      37.256 µg/L       32.1195      37.256 ppb        32.1195  86.21%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             4.1      1.8895 µg/L       7.93033      1.8895 ppb        7.93033 419.71%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                53.4      0.0707 µg/L       0.02908      0.0707 ppb        0.02908  41.15%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.4      0.3408 µg/L       0.20677      0.3408 ppb        0.20677  60.67%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        210.0      32.524 µg/L       17.6236      32.524 ppb        17.6236  54.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                36.6      0.4582 µg/L       0.24899      0.4582 ppb        0.24899  54.34%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 32.1      7.4091 µg/L       0.76452      7.4091 ppb        0.76452  10.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.5      0.0411 µg/L       0.98319      0.0411 ppb        0.98319 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            6.1      5.1701 µg/L       2.12113      5.1701 ppb        2.12113  41.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.1     -0.0059 µg/L       1.32934     -0.0059 ppb        1.32934 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                12.8        5.04 µg/L         0.925        5.04 ppb          0.925  18.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     199.7      21.134 µg/L        3.0669      21.134 ppb         3.0669  14.51%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               548.1      8.6383 µg/L       1.30031      8.6383 ppb        1.30031  15.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.2      0.0826 µg/L       0.14718      0.0826 ppb        0.14718 178.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                90.9      0.2144 µg/L       0.37513      0.2144 ppb        0.37513 174.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -120.0     -0.1194 µg/L       0.15194     -0.1194 ppb        0.15194 127.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.1      0.2803 µg/L       3.09104      0.2803 ppb        3.09104 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -151.5     -9.5590 µg/L       4.28885     -9.5590 ppb        4.28885  44.87%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  9.0      0.0430 µg/L       0.21409      0.0430 ppb        0.21409 497.46%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                65.9      0.3895 µg/L       0.07706      0.3895 ppb        0.07706  19.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 12:41:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138943.7	138943.7	99.2	%			12:41:37
1	Al 396.153Radial†	23385.0	23657.0	4957.1	µg/L	4957.1	ppb	12:41:37
1	Ca 317.933Radial†	74173.8	74215.8	5054.8	µg/L	5054.8	ppb	12:41:37
1	Fe 238.204 Radial†	66887.9	67323.8	5027.7	µg/L	5027.7	ppb	12:41:37
1	K 766.490 Radial†	14097.2	12720.0	5036.2	µg/L	5036.2	ppb	12:41:37
1	Mg 279.077 IEC†	11043.2	10962.1	5069.7	µg/L	5069.7	ppb	12:41:37
1	Na 589.592 Radial†	64657.0	64239.3	9953.1	µg/L	9953.1	ppb	12:41:37
1	Sr 421.552†	211693.9	213649.4	503.85	µg/L	503.85	ppb	12:41:35
1	Sc 361.383	1787262.5	1787262.5	99.064	%			12:42:04
1	Y 371.029	1038840.9	1038840.9	98.254	%			12:42:04
1	Ag 328.068†	124468.7	121079.8	501.88	µg/L	501.88	ppb	12:42:04
1	As 188.979†	1396.1	1427.8	490.22	µg/L	490.22	ppb	12:42:24
1	B 249.677†	35476.1	31746.2	491.96	µg/L	491.96	ppb	12:42:04
1	Ba 233.527†	110950.2	112143.2	498.87	µg/L	498.87	ppb	12:42:04
1	Be 313.107†	1677200.9	1694142.7	490.89	µg/L	490.89	ppb	12:42:04
1	Cd 226.502†	73260.7	74056.4	500.22	µg/L	500.22	ppb	12:42:04
1	Co 228.616†	37543.3	38108.4	504.41	µg/L	504.41	ppb	12:42:04
1	Cr 267.716†	57568.9	57879.7	500.60	µg/L	500.60	ppb	12:42:04
1	Cu 324.752†	121037.2	119144.9	499.89	µg/L	499.89	ppb	12:42:04
1	Mn 257.610†	373450.2	376794.7	499.62	µg/L	499.62	ppb	12:42:04
1	Mo 202.031†	15337.0	15520.5	508.04	µg/L	508.04	ppb	12:42:24
1	Ni 231.604†	39650.9	40121.5	501.97	µg/L	501.97	ppb	12:42:04
1	P 214.914†	10862.9	10991.3	2534.0	µg/L	2534.0	ppb	12:42:24
1	Pb 220.353†	8349.5	8324.9	513.88	µg/L	513.88	ppb	12:42:24
1	S 181.975 Axial†	1278.6	1201.7	1015.3	µg/L	1015.3	ppb	12:42:24
1	Sb 206.836†	3947.3	3894.9	503.47	µg/L	503.47	ppb	12:42:24
1	Se 196.026†	1287.7	1293.7	512	µg/L	512	ppb	12:42:24
1	SiO2†	51490.8	50238.3	5298.4	µg/L	5298.4	ppb	12:42:04
1	Si 251.611†	157278.3	157997.6	2481.3	µg/L	2481.3	ppb	12:42:04
1	Sn 189.927†	7193.9	7260.0	505.25	µg/L	505.25	ppb	12:42:24
1	Ti 334.940†	480256.1	483971.6	496.44	µg/L	496.44	ppb	12:42:04
1	Tl 190.801†	3552.9	3700.7	512.80	µg/L	512.80	ppb	12:42:24
1	U 409.014†	7139.5	7370.3	495.42	µg/L	495.42	ppb	12:42:04
1	V 292.402†	95339.2	95817.0	503.34	µg/L	503.34	ppb	12:42:04
1	Zn 213.857†	83855.8	84145.3	498.54	µg/L	498.54	ppb	12:42:04
2	Sc RADIAL	141291.3	141291.3	101	%			12:41:41
2	Al 396.153Radial†	23752.9	23630.0	4951.4	µg/L	4951.4	ppb	12:41:41
2	Ca 317.933Radial†	75646.8	74433.7	5069.6	µg/L	5069.6	ppb	12:41:41
2	Fe 238.204 Radial†	68330.6	67633.8	5050.8	µg/L	5050.8	ppb	12:41:41
2	K 766.490 Radial†	14268.2	12653.4	5009.8	µg/L	5009.8	ppb	12:41:41
2	Mg 279.077 IEC†	11450.1	11180.6	5170.6	µg/L	5170.6	ppb	12:41:41
2	Na 589.592 Radial†	65910.3	64398.8	9977.9	µg/L	9977.9	ppb	12:41:41
2	Sr 421.552†	211423.7	209835.0	494.85	µg/L	494.85	ppb	12:41:39
2	Sc 361.383	1793839.4	1793839.4	99.428	%			12:42:27
2	Y 371.029	1042511.0	1042511.0	98.602	%			12:42:27
2	Ag 328.068†	125087.0	121241.0	502.53	µg/L	502.53	ppb	12:42:27
2	As 188.979†	1395.9	1422.5	488.43	µg/L	488.43	ppb	12:42:47
2	B 249.677†	35898.2	32039.5	496.51	µg/L	496.51	ppb	12:42:27
2	Ba 233.527†	111421.2	112206.3	499.15	µg/L	499.15	ppb	12:42:27
2	Be 313.107†	1687036.9	1697828.0	491.95	µg/L	491.95	ppb	12:42:27
2	Cd 226.502†	74020.0	74548.9	503.54	µg/L	503.54	ppb	12:42:27
2	Co 228.616†	37859.8	38287.8	506.78	µg/L	506.78	ppb	12:42:27
2	Cr 267.716†	57911.5	58011.3	501.75	µg/L	501.75	ppb	12:42:27
2	Cu 324.752†	121562.8	119225.6	500.23	µg/L	500.23	ppb	12:42:27
2	Mn 257.610†	375840.4	377816.5	500.97	µg/L	500.97	ppb	12:42:27
2	Mo 202.031†	15373.5	15500.4	507.39	µg/L	507.39	ppb	12:42:47
2	Ni 231.604†	40030.6	40356.6	504.91	µg/L	504.91	ppb	12:42:27
2	P 214.914†	10881.6	10969.9	2529.0	µg/L	2529.0	ppb	12:42:47
2	Pb 220.353†	8348.9	8293.4	511.95	µg/L	511.95	ppb	12:42:47

2	S 181.975 Axial†	1279.7	1198.2	1012.3 µg/L	1012.3 ppb	12:42:47
2	Sb 206.836†	3977.5	3910.6	505.48 µg/L	505.48 ppb	12:42:47
2	Se 196.026†	1301.1	1302.4	515 µg/L	515 ppb	12:42:47
2	SiO2†	51742.6	50301.0	5305.0 µg/L	5305.0 ppb	12:42:27
2	Si 251.611†	158432.1	158575.9	2490.5 µg/L	2490.5 ppb	12:42:27
2	Sn 189.927†	7228.0	7267.6	505.78 µg/L	505.78 ppb	12:42:47
2	Ti 334.940†	481660.7	483606.9	496.06 µg/L	496.06 ppb	12:42:27
2	Tl 190.801†	3584.9	3719.8	515.40 µg/L	515.40 ppb	12:42:47
2	U 409.014†	6924.3	7127.5	480.13 µg/L	480.13 ppb	12:42:27
2	V 292.402†	95806.2	95933.8	503.93 µg/L	503.93 ppb	12:42:27
2	Zn 213.857†	84371.3	84353.4	499.76 µg/L	499.76 ppb	12:42:27
3	Sc RADIAL	140960.0	140960.0	101 %		12:41:45
3	Al 396.153Radial†	23658.9	23591.9	4943.6 µg/L	4943.6 ppb	12:41:45
3	Ca 317.933Radial†	75426.6	74391.2	5066.7 µg/L	5066.7 ppb	12:41:45
3	Fe 238.204 Radial†	67958.0	67422.7	5035.1 µg/L	5035.1 ppb	12:41:45
3	K 766.490 Radial†	14351.0	12768.9	5055.5 µg/L	5055.5 ppb	12:41:45
3	Mg 279.077 IEC†	11270.8	11029.0	5100.5 µg/L	5100.5 ppb	12:41:45
3	Na 589.592 Radial†	65596.5	64240.5	9953.3 µg/L	9953.3 ppb	12:41:45
3	Sr 421.552†	211471.7	210375.5	496.12 µg/L	496.12 ppb	12:41:43
3	Sc 361.383	1802636.7	1802636.7	99.916 %		12:42:50
3	Y 371.029	1046785.0	1046785.0	99.006 %		12:42:50
3	Ag 328.068†	125848.1	121388.8	503.18 µg/L	503.18 ppb	12:42:50
3	As 188.979†	1381.4	1401.1	481.20 µg/L	481.20 ppb	12:43:10
3	B 249.677†	36130.3	32095.6	497.38 µg/L	497.38 ppb	12:42:50
3	Ba 233.527†	112457.4	112696.5	501.33 µg/L	501.33 ppb	12:42:50
3	Be 313.107†	1700233.2	1702754.8	493.39 µg/L	493.39 ppb	12:42:50
3	Cd 226.502†	74872.6	75038.9	506.86 µg/L	506.86 ppb	12:42:50
3	Co 228.616†	38226.2	38468.7	509.18 µg/L	509.18 ppb	12:42:50
3	Cr 267.716†	58249.2	58065.0	502.20 µg/L	502.20 ppb	12:42:50
3	Cu 324.752†	122344.5	119411.3	501.02 µg/L	501.02 ppb	12:42:50
3	Mn 257.610†	378788.4	378922.2	502.44 µg/L	502.44 ppb	12:42:50
3	Mo 202.031†	15294.8	15346.2	502.34 µg/L	502.34 ppb	12:43:10
3	Ni 231.604†	40405.7	40535.6	507.15 µg/L	507.15 ppb	12:42:50
3	P 214.914†	10816.0	10850.7	2501.4 µg/L	2501.4 ppb	12:43:10
3	Pb 220.353†	8301.3	8204.9	506.47 µg/L	506.47 ppb	12:43:10
3	S 181.975 Axial†	1290.2	1202.4	1015.8 µg/L	1015.8 ppb	12:43:10
3	Sb 206.836†	3940.4	3854.0	498.09 µg/L	498.09 ppb	12:43:10
3	Se 196.026†	1295.0	1289.9	510 µg/L	510 ppb	12:43:10
3	SiO2†	52249.6	50554.4	5332.1 µg/L	5332.1 ppb	12:42:50
3	Si 251.611†	159808.9	159176.3	2500.1 µg/L	2500.1 ppb	12:42:50
3	Sn 189.927†	7164.9	7169.1	498.95 µg/L	498.95 ppb	12:43:10
3	Ti 334.940†	485644.3	485229.7	497.72 µg/L	497.72 ppb	12:42:50
3	Tl 190.801†	3544.7	3662.0	507.52 µg/L	507.52 ppb	12:43:10
3	U 409.014†	7287.7	7457.2	501.07 µg/L	501.07 ppb	12:42:50
3	V 292.402†	96696.3	96354.4	506.07 µg/L	506.07 ppb	12:42:50
3	Zn 213.857†	84912.9	84481.4	500.51 µg/L	500.51 ppb	12:42:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1794579.6	99.469	%	0.4276				0.43%
Sc RADIAL	140398.3	100	%	0.9				0.90%
Y 371.029	1042712.3	98.621	%	0.3760				0.38%
Ag 328.068†	121236.5	502.53	µg/L	0.652	502.53	ppb	0.652	0.13%
QC value within limits for Ag 328.068 Recovery = 100.51%								
Al 396.153Radial†	23626.3	4950.7	µg/L	6.75	4950.7	ppb	6.75	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.01%								
As 188.979†	1417.1	486.61	µg/L	4.777	486.61	ppb	4.777	0.98%
QC value within limits for As 188.979 Recovery = 97.32%								
B 249.677†	31960.4	495.28	µg/L	2.910	495.28	ppb	2.910	0.59%
QC value within limits for B 249.677 Recovery = 99.06%								
Ba 233.527†	112348.7	499.78	µg/L	1.346	499.78	ppb	1.346	0.27%
QC value within limits for Ba 233.527 Recovery = 99.96%								
Be 313.107†	1698241.9	492.08	µg/L	1.253	492.08	ppb	1.253	0.25%
QC value within limits for Be 313.107 Recovery = 98.42%								
Ca 317.933Radial†	74346.9	5063.7	µg/L	7.87	5063.7	ppb	7.87	0.16%
QC value within limits for Ca 317.933Radial Recovery = 101.27%								
Cd 226.502†	74548.0	503.54	µg/L	3.321	503.54	ppb	3.321	0.66%
QC value within limits for Cd 226.502 Recovery = 100.71%								
Co 228.616†	38288.3	506.79	µg/L	2.384	506.79	ppb	2.384	0.47%

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   QC value within limits for Co 228.616  Recovery = 101.36%
Cr 267.716†            57985.3      501.51 µg/L         0.825      501.51 ppb          0.825   0.16%
   QC value within limits for Cr 267.716  Recovery = 100.30%
Cu 324.752†           119260.6      500.38 µg/L         0.577      500.38 ppb          0.577   0.12%
   QC value within limits for Cu 324.752  Recovery = 100.08%
Fe 238.204 Radial†     67460.1      5037.9 µg/L        11.82      5037.9 ppb         11.82   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.76%
K 766.490 Radial†      12714.1      5033.8 µg/L        22.98      5033.8 ppb         22.98   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 100.68%
Mg 279.077 IEC†        11057.2      5113.6 µg/L        51.68      5113.6 ppb         51.68   1.01%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.27%
Mn 257.610†           377844.5      501.01 µg/L         1.411      501.01 ppb          1.411   0.28%
   QC value within limits for Mn 257.610  Recovery = 100.20%
Mo 202.031†            15455.7      505.92 µg/L         3.118      505.92 ppb          3.118   0.62%
   QC value within limits for Mo 202.031  Recovery = 101.18%
Na 589.592 Radial†     64292.9      9961.4 µg/L        14.24      9961.4 ppb         14.24   0.14%
   QC value within limits for Na 589.592 Radial  Recovery = 99.61%
Ni 231.604†            40337.9      504.68 µg/L         2.598      504.68 ppb          2.598   0.51%
   QC value within limits for Ni 231.604  Recovery = 100.94%
P 214.914†             10937.3      2521.5 µg/L        17.53      2521.5 ppb         17.53   0.70%
   QC value within limits for P 214.914  Recovery = 100.86%
Pb 220.353†             8274.4      510.77 µg/L         3.842      510.77 ppb          3.842   0.75%
   QC value within limits for Pb 220.353  Recovery = 102.15%
S 181.975 Axial†        1200.8      1014.4 µg/L         1.89      1014.4 ppb          1.89   0.19%
   QC value within limits for S 181.975 Axial  Recovery = 101.44%
Sb 206.836†             3886.5      502.35 µg/L         3.823      502.35 ppb          3.823   0.76%
   QC value within limits for Sb 206.836  Recovery = 100.47%
Se 196.026†             1295.4         513 µg/L          2.5         513 ppb            2.5   0.49%
   QC value within limits for Se 196.026  Recovery = 102.51%
SiO2†                  50364.6      5311.8 µg/L        17.87      5311.8 ppb         17.87   0.34%
   QC value within limits for SiO2  Recovery = 99.33%
Si 251.611†           158583.3      2490.6 µg/L         9.35      2490.6 ppb          9.35   0.38%
   QC value within limits for Si 251.611  Recovery = 99.62%
Sn 189.927†             7232.2      503.33 µg/L         3.801      503.33 ppb          3.801   0.76%
   QC value within limits for Sn 189.927  Recovery = 100.67%
Sr 421.552†           211286.6      498.27 µg/L         4.868      498.27 ppb          4.868   0.98%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           484269.4      496.74 µg/L         0.872      496.74 ppb          0.872   0.18%
   QC value within limits for Ti 334.940  Recovery = 99.35%
Tl 190.801†             3694.2      511.90 µg/L         4.014      511.90 ppb          4.014   0.78%
   QC value within limits for Tl 190.801  Recovery = 102.38%
U 409.014†              7318.3      492.21 µg/L        10.834      492.21 ppb         10.834   2.20%
   QC value within limits for U 409.014  Recovery = 98.44%
V 292.402†             96035.1      504.45 µg/L         1.439      504.45 ppb          1.439   0.29%
   QC value within limits for V 292.402  Recovery = 100.89%
Zn 213.857†            84326.7      499.60 µg/L         0.995      499.60 ppb          0.995   0.20%
   QC value within limits for Zn 213.857  Recovery = 99.92%
All analyte(s) passed QC.
```

Sequence No.: 31
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 12:43:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139295.5	139295.5	99.4	%			12:43:47
1	Al 396.153Radial†	-24.0	54.4	11.413	µg/L	11.413	ppb	12:44:07
1	Ca 317.933Radial†	708.0	140.6	9.5778	µg/L	9.5778	ppb	12:44:07
1	Fe 238.204 Radial†	178.6	62.3	4.6540	µg/L	4.6540	ppb	12:44:07
1	K 766.490 Radial†	1724.7	240.8	95.403	µg/L	95.403	ppb	12:43:47
1	Mg 279.077 IEC†	154.2	-17.4	-8.0256	µg/L	-8.0256	ppb	12:44:07
1	Na 589.592 Radial†	1146.9	201.0	31.071	µg/L	31.071	ppb	12:43:47
1	Sr 421.552†	-159.3	44.3	0.1044	µg/L	0.1044	ppb	12:43:47
1	Sc 361.383	1814807.9	1814807.9	100.59	%			12:45:09
1	Y 371.029	1064526.0	1064526.0	100.68	%			12:45:09
1	Ag 328.068†	4340.5	-250.2	-1.0252	µg/L	-1.0252	ppb	12:45:11
1	As 188.979†	-4.6	14.0	4.7451	µg/L	4.7451	ppb	12:45:31
1	B 249.677†	3969.3	-119.1	-1.8538	µg/L	-1.8538	ppb	12:45:11
1	Ba 233.527†	-20.5	124.2	0.5521	µg/L	0.5521	ppb	12:45:31
1	Be 313.107†	-903.9	193.2	0.0555	µg/L	0.0555	ppb	12:45:11
1	Cd 226.502†	-45.4	58.2	0.3932	µg/L	0.3932	ppb	12:45:31
1	Co 228.616†	-189.8	21.6	0.2862	µg/L	0.2862	ppb	12:45:31
1	Cr 267.716†	288.0	53.1	0.4609	µg/L	0.4609	ppb	12:45:31
1	Cu 324.752†	2935.8	-117.5	-0.4923	µg/L	-0.4923	ppb	12:45:11
1	Mn 257.610†	640.2	451.7	0.5996	µg/L	0.5996	ppb	12:45:31
1	Mo 202.031†	-13.9	24.8	0.8103	µg/L	0.8103	ppb	12:45:31
1	Ni 231.604†	-64.1	32.2	0.4024	µg/L	0.4024	ppb	12:45:31
1	P 214.914†	7.0	32.7	7.5584	µg/L	7.5584	ppb	12:45:31
1	Pb 220.353†	106.9	2.9	0.1807	µg/L	0.1807	ppb	12:45:31
1	S 181.975 Axial†	96.9	7.4	6.2672	µg/L	6.2672	ppb	12:45:31
1	Sb 206.836†	87.7	-2.6	-0.3244	µg/L	-0.3244	ppb	12:45:31
1	Se 196.026†	26.1	19.8	7.80	µg/L	7.80	ppb	12:45:31
1	SiO2†	1980.3	229.6	24.283	µg/L	24.283	ppb	12:45:31
1	Si 251.611†	2172.1	1392.3	21.940	µg/L	21.940	ppb	12:45:11
1	Sn 189.927†	10.1	8.1	0.5652	µg/L	0.5652	ppb	12:45:31
1	Ti 334.940†	1494.6	662.8	0.6822	µg/L	0.6822	ppb	12:45:11
1	Tl 190.801†	-118.2	-3.2	-0.4323	µg/L	-0.4323	ppb	12:45:31
1	U 409.014†	-188.8	-24.3	-1.5258	µg/L	-1.5258	ppb	12:45:11
1	V 292.402†	442.4	16.6	0.0943	µg/L	0.0943	ppb	12:45:11
1	Zn 213.857†	614.8	108.2	0.6437	µg/L	0.6437	ppb	12:45:31
2	Sc RADIAL	138151.7	138151.7	98.6	%			12:44:09
2	Al 396.153Radial†	-28.6	49.5	10.400	µg/L	10.400	ppb	12:44:29
2	Ca 317.933Radial†	742.9	181.9	12.386	µg/L	12.386	ppb	12:44:29
2	Fe 238.204 Radial†	502.8	392.6	29.316	µg/L	29.316	ppb	12:44:29
2	K 766.490 Radial†	1718.3	248.6	98.510	µg/L	98.510	ppb	12:44:09
2	Mg 279.077 IEC†	166.2	-4.0	-1.8376	µg/L	-1.8376	ppb	12:44:29
2	Na 589.592 Radial†	1104.7	167.7	25.905	µg/L	25.905	ppb	12:44:09
2	Sr 421.552†	-237.6	-36.5	-0.0861	µg/L	-0.0861	ppb	12:44:09
2	Sc 361.383	1813927.3	1813927.3	100.54	%			12:45:33
2	Y 371.029	1065006.3	1065006.3	100.73	%			12:45:33
2	Ag 328.068†	4086.9	-500.2	-2.0568	µg/L	-2.0568	ppb	12:45:35
2	As 188.979†	-20.8	-2.2	-0.7245	µg/L	-0.7245	ppb	12:45:56
2	B 249.677†	4066.5	-20.5	-0.3191	µg/L	-0.3191	ppb	12:45:35
2	Ba 233.527†	-100.7	44.4	0.1967	µg/L	0.1967	ppb	12:45:56
2	Be 313.107†	-633.5	461.7	0.1333	µg/L	0.1333	ppb	12:45:35
2	Cd 226.502†	-83.8	20.0	0.1325	µg/L	0.1325	ppb	12:45:56
2	Co 228.616†	-218.2	-6.7	-0.0897	µg/L	-0.0897	ppb	12:45:56
2	Cr 267.716†	249.0	14.5	0.1273	µg/L	0.1273	ppb	12:45:56
2	Cu 324.752†	2868.6	-183.0	-0.7626	µg/L	-0.7626	ppb	12:45:35
2	Mn 257.610†	225.9	40.0	0.0530	µg/L	0.0530	ppb	12:45:56
2	Mo 202.031†	-20.8	17.9	0.5857	µg/L	0.5857	ppb	12:45:56
2	Ni 231.604†	-73.9	22.4	0.2807	µg/L	0.2807	ppb	12:45:56
2	P 214.914†	7.4	33.1	7.6380	µg/L	7.6380	ppb	12:45:56
2	Pb 220.353†	90.2	-13.8	-0.8438	µg/L	-0.8438	ppb	12:45:56

2	S 181.975 Axial†	103.9	14.4	12.116 µg/L	12.116 ppb		12:45:56
2	Sb 206.836†	79.0	-11.2	-1.4372 µg/L	-1.4372 ppb		12:45:56
2	Se 196.026†	14.3	8.1	3.20 µg/L	3.20 ppb		12:45:56
2	SiO2†	1902.6	153.3	16.209 µg/L	16.209 ppb		12:45:56
2	Si 251.611†	1085.1	312.2	4.9121 µg/L	4.9121 ppb		12:45:35
2	Sn 189.927†	8.1	6.2	0.4318 µg/L	0.4318 ppb		12:45:56
2	Ti 334.940†	966.6	138.4	0.1433 µg/L	0.1433 ppb		12:45:35
2	Tl 190.801†	-96.1	18.7	2.5507 µg/L	2.5507 ppb		12:45:56
2	U 409.014†	-189.8	-25.4	-1.6406 µg/L	-1.6406 ppb		12:45:35
2	V 292.402†	317.1	-107.8	-0.5566 µg/L	-0.5566 ppb		12:45:35
2	Zn 213.857†	578.6	72.5	0.4285 µg/L	0.4285 ppb		12:45:56
3	Sc RADIAL	141342.2	141342.2	101 %			12:44:31
3	Al 396.153Radial†	-59.8	19.3	4.0212 µg/L	4.0212 ppb		12:44:51
3	Ca 317.933Radial†	684.0	106.5	7.2532 µg/L	7.2532 ppb		12:44:51
3	Fe 238.204 Radial†	177.9	59.0	4.4051 µg/L	4.4051 ppb		12:44:51
3	K 766.490 Radial†	1655.6	147.2	58.309 µg/L	58.309 ppb		12:44:31
3	Mg 279.077 IEC†	175.6	1.6	0.7607 µg/L	0.7607 ppb		12:44:51
3	Na 589.592 Radial†	1005.0	43.6	6.7004 µg/L	6.7004 ppb		12:44:31
3	Sr 421.552†	-148.4	57.4	0.1354 µg/L	0.1354 ppb		12:44:31
3	Sc 361.383	1826132.7	1826132.7	101.22 %			12:45:58
3	Y 371.029	1071945.3	1071945.3	101.39 %			12:45:58
3	Ag 328.068†	4453.8	-164.9	-0.6788 µg/L	-0.6788 ppb		12:46:00
3	As 188.979†	-27.7	-8.8	-2.9706 µg/L	-2.9706 ppb		12:46:20
3	B 249.677†	4032.4	-81.3	-1.2660 µg/L	-1.2660 ppb		12:46:00
3	Ba 233.527†	-117.7	28.3	0.1260 µg/L	0.1260 ppb		12:46:20
3	Be 313.107†	-753.2	347.6	0.0996 µg/L	0.0996 ppb		12:46:00
3	Cd 226.502†	-68.5	35.7	0.2410 µg/L	0.2410 ppb		12:46:20
3	Co 228.616†	-184.1	28.5	0.3763 µg/L	0.3763 ppb		12:46:20
3	Cr 267.716†	261.7	25.3	0.2219 µg/L	0.2219 ppb		12:46:20
3	Cu 324.752†	2902.4	-168.6	-0.7073 µg/L	-0.7073 ppb		12:46:00
3	Mn 257.610†	415.2	225.4	0.2990 µg/L	0.2990 ppb		12:46:20
3	Mo 202.031†	-17.0	21.8	0.7128 µg/L	0.7128 ppb		12:46:20
3	Ni 231.604†	-77.7	19.2	0.2398 µg/L	0.2398 ppb		12:46:20
3	P 214.914†	9.4	34.9	8.0864 µg/L	8.0864 ppb		12:46:20
3	Pb 220.353†	110.2	5.4	0.3368 µg/L	0.3368 ppb		12:46:20
3	S 181.975 Axial†	89.8	-0.2	-0.1722 µg/L	-0.1722 ppb		12:46:20
3	Sb 206.836†	88.9	-1.9	-0.2318 µg/L	-0.2318 ppb		12:46:20
3	Se 196.026†	27.2	20.7	8.15 µg/L	8.15 ppb		12:46:20
3	SiO2†	1966.3	203.5	21.525 µg/L	21.525 ppb		12:46:20
3	Si 251.611†	1407.5	623.6	9.8201 µg/L	9.8201 ppb		12:46:00
3	Sn 189.927†	9.5	7.5	0.5164 µg/L	0.5164 ppb		12:46:20
3	Ti 334.940†	647.9	-182.9	-0.1863 µg/L	-0.1863 ppb		12:46:00
3	Tl 190.801†	-112.6	3.0	0.4095 µg/L	0.4095 ppb		12:46:20
3	U 409.014†	-222.9	-56.9	-3.5823 µg/L	-3.5823 ppb		12:46:00
3	V 292.402†	444.1	15.5	0.0861 µg/L	0.0861 ppb		12:46:00
3	Zn 213.857†	601.9	91.7	0.5458 µg/L	0.5458 ppb		12:46:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1818289.3	100.78	%	0.377				0.37%
Sc RADIAL	139596.5	99.6	%	1.15				1.16%
Y 371.029	1067159.2	100.93	%	0.393				0.39%
Ag 328.068†	-305.1	-1.2536	µg/L	0.71682	-1.2536	ppb	0.71682	57.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	41.1	8.6113	µg/L	4.00722	8.6113	ppb	4.00722	46.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.0	0.3500	µg/L	3.96848	0.3500	ppb	3.96848	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-73.7	-1.1463	µg/L	0.77432	-1.1463	ppb	0.77432	67.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	65.6	0.2916	µg/L	0.22839	0.2916	ppb	0.22839	78.32%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	334.1	0.0961	µg/L	0.03900	0.0961	ppb	0.03900	40.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	143.0	9.7391	µg/L	2.57028	9.7391	ppb	2.57028	26.39%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	38.0	0.2556	µg/L	0.13096	0.2556	ppb	0.13096	51.24%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	14.5	0.1909	µg/L	0.24721	0.1909	ppb	0.24721	129.48%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                31.0      0.2701 µg/L       0.17191      0.2701 ppb        0.17191  63.66%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -156.4     -0.6540 µg/L       0.14282     -0.6540 ppb        0.14282  21.84%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        171.3      12.792 µg/L       14.3110      12.792 ppb        14.3110 111.88%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         212.2      84.074 µg/L       22.3671      84.074 ppb        22.3671  26.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -6.6     -3.0342 µg/L       4.51367     -3.0342 ppb        4.51367 148.76%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               239.1      0.3172 µg/L       0.27371      0.3172 ppb        0.27371  86.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                21.5      0.7029 µg/L       0.11261      0.7029 ppb        0.11261  16.02%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        137.4      21.225 µg/L       12.8415      21.225 ppb        12.8415  60.50%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                24.6      0.3076 µg/L       0.08459      0.3076 ppb        0.08459  27.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 33.6      7.7609 µg/L       0.28464      7.7609 ppb        0.28464   3.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -1.8     -0.1088 µg/L       0.64132     -0.1088 ppb        0.64132 589.57%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            7.2      6.0705 µg/L       6.14666      6.0705 ppb        6.14666 101.25%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -5.2     -0.6645 µg/L       0.67080     -0.6645 ppb        0.67080 100.95%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                16.2        6.38 µg/L         2.765        6.38 ppb          2.765  43.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     195.5      20.672 µg/L        4.1037      20.672 ppb         4.1037  19.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               776.0      12.224 µg/L        8.7650      12.224 ppb         8.7650  71.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.3      0.5044 µg/L       0.06747      0.5044 ppb        0.06747  13.37%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                21.7      0.0512 µg/L       0.11992      0.0512 ppb        0.11992 234.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               206.1      0.2130 µg/L       0.43842      0.2130 ppb        0.43842 205.79%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.2      0.8426 µg/L       1.53797      0.8426 ppb        1.53797 182.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -35.5     -2.2496 µg/L       1.15564     -2.2496 ppb        1.15564  51.37%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -25.2     -0.1254 µg/L       0.37347     -0.1254 ppb        0.37347 297.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                90.8      0.5394 µg/L       0.10772      0.5394 ppb        0.10772  19.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 4/5/2010 12:47:02 **Plasma On Time:** 3/29/2010 18:07:58
Logged In Analyst: optima4 **Technique:** ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 077C0022701 **Autosampler Model:** AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location:** 301
Sample ID: 1202068109|964016|1 **Date Collected:** 4/5/2010 12:47:04
Analyst: HSC **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202068109|964016|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	134390.9	134390.9	95.9	%			12:47:35
1	Al 396.153Radial†	-85.8	-10.9	-2.3251	µg/L	-2.3251	ppb	12:47:55
1	Ca 317.933Radial†	771.1	232.4	15.829	µg/L	15.829	ppb	12:47:55
1	Fe 238.204 Radial†	585.5	493.1	36.821	µg/L	36.821	ppb	12:47:55
1	K 766.490 Radial†	1751.0	331.4	131.33	µg/L	131.33	ppb	12:47:35
1	Mg 279.077 IEC†	185.9	21.3	9.8124	µg/L	9.8124	ppb	12:47:55
1	Na 589.592 Radial†	1150.0	246.3	38.060	µg/L	38.060	ppb	12:47:35
1	Sr 421.552†	-264.5	-71.2	-0.1680	µg/L	-0.1680	ppb	12:47:35
1	Sc 361.383	1730672.3	1730672.3	95.927	%			12:48:43
1	Y 371.029	1015006.0	1015006.0	96.000	%			12:48:43
1	Ag 328.068†	4117.4	-273.0	-1.1250	µg/L	-1.1250	ppb	12:48:45
1	As 188.979†	-19.1	-1.4	-0.4610	µg/L	-0.4610	ppb	12:49:05
1	B 249.677†	4090.7	199.2	3.0971	µg/L	3.0971	ppb	12:48:45
1	Ba 233.527†	-126.0	13.2	0.0579	µg/L	0.0579	ppb	12:49:05
1	Be 313.107†	-764.8	294.5	0.0852	µg/L	0.0852	ppb	12:48:45
1	Cd 226.502†	-83.0	16.8	0.1100	µg/L	0.1100	ppb	12:49:05
1	Co 228.616†	-184.5	17.9	0.2352	µg/L	0.2352	ppb	12:49:05
1	Cr 267.716†	248.0	25.3	0.2197	µg/L	0.2197	ppb	12:49:05
1	Cu 324.752†	2825.2	-91.0	-0.3751	µg/L	-0.3751	ppb	12:48:45
1	Mn 257.610†	730.6	576.9	0.7647	µg/L	0.7647	ppb	12:49:05
1	Mo 202.031†	-21.1	16.6	0.5446	µg/L	0.5446	ppb	12:49:05
1	Ni 231.604†	-63.6	29.6	0.3698	µg/L	0.3698	ppb	12:49:05
1	P 214.914†	10.8	36.9	8.5223	µg/L	8.5223	ppb	12:49:05
1	Pb 220.353†	116.4	17.8	1.0982	µg/L	1.0982	ppb	12:49:05
1	S 181.975 Axial†	87.8	2.6	2.2248	µg/L	2.2248	ppb	12:49:05
1	Sb 206.836†	89.2	3.3	0.4309	µg/L	0.4309	ppb	12:49:05
1	Se 196.026†	14.6	9.1	3.60	µg/L	3.60	ppb	12:49:05
1	SiO2†	2328.1	687.9	72.819	µg/L	72.819	ppb	12:48:45
1	Si 251.611†	2637.0	1981.9	31.240	µg/L	31.240	ppb	12:48:45
1	Sn 189.927†	12.9	11.6	0.8025	µg/L	0.8025	ppb	12:49:05
1	Ti 334.940†	975.7	194.1	0.1990	µg/L	0.1990	ppb	12:48:45
1	Tl 190.801†	-116.1	-6.8	-0.9277	µg/L	-0.9277	ppb	12:49:05
1	U 409.014†	-162.7	-6.3	-0.4304	µg/L	-0.4304	ppb	12:48:45
1	V 292.402†	308.4	-101.8	-0.5252	µg/L	-0.5252	ppb	12:48:45
1	Zn 213.857†	801.4	332.5	1.9795	µg/L	1.9795	ppb	12:49:05
2	Sc RADIAL	134098.7	134098.7	95.7	%			12:47:57
2	Al 396.153Radial†	-67.7	7.8	1.6489	µg/L	1.6489	ppb	12:48:17
2	Ca 317.933Radial†	786.2	249.9	17.019	µg/L	17.019	ppb	12:48:17
2	Fe 238.204 Radial†	599.4	508.9	38.006	µg/L	38.006	ppb	12:48:17
2	K 766.490 Radial†	1561.5	137.5	54.461	µg/L	54.461	ppb	12:47:57
2	Mg 279.077 IEC†	168.3	3.4	1.5466	µg/L	1.5466	ppb	12:48:17
2	Na 589.592 Radial†	1154.8	253.9	39.312	µg/L	39.312	ppb	12:47:57
2	Sr 421.552†	-177.0	19.6	0.0461	µg/L	0.0461	ppb	12:47:57
2	Sc 361.383	1750409.6	1750409.6	97.021	%			12:49:07
2	Y 371.029	1025730.6	1025730.6	97.014	%			12:49:07
2	Ag 328.068†	4257.0	-177.4	-0.7181	µg/L	-0.7181	ppb	12:49:10
2	As 188.979†	-13.2	4.9	1.6858	µg/L	1.6858	ppb	12:49:30

2	B 249.677†	4226.9	291.6	4.5336 µg/L	4.5336 ppb		12:49:10
2	Ba 233.527†	-122.5	18.3	0.0805 µg/L	0.0805 ppb		12:49:30
2	Be 313.107†	-887.8	176.6	0.0543 µg/L	0.0543 ppb		12:49:10
2	Cd 226.502†	-84.9	15.8	0.1032 µg/L	0.1032 ppb		12:49:30
2	Co 228.616†	-185.5	19.1	0.2514 µg/L	0.2514 ppb		12:49:30
2	Cr 267.716†	263.0	37.9	0.3203 µg/L	0.3203 ppb		12:49:30
2	Cu 324.752†	2858.5	-89.9	-0.3616 µg/L	-0.3616 ppb		12:49:10
2	Mn 257.610†	753.9	592.3	0.7855 µg/L	0.7855 ppb		12:49:30
2	Mo 202.031†	-36.7	0.8	0.0261 µg/L	0.0261 ppb		12:49:30
2	Ni 231.604†	-64.1	29.9	0.3737 µg/L	0.3737 ppb		12:49:30
2	P 214.914†	14.4	40.6	9.3678 µg/L	9.3678 ppb		12:49:30
2	Pb 220.353†	128.9	29.4	1.8029 µg/L	1.8029 ppb		12:49:30
2	S 181.975 Axial†	104.3	18.5	15.601 µg/L	15.601 ppb		12:49:30
2	Sb 206.836†	91.7	4.8	0.6159 µg/L	0.6159 ppb		12:49:30
2	Se 196.026†	1.6	-4.5	-1.76 µg/L	-1.76 ppb		12:49:30
2	SiO2†	2376.6	710.5	75.232 µg/L	75.232 ppb		12:49:10
2	Si 251.611†	2735.4	2052.4	32.361 µg/L	32.361 ppb		12:49:10
2	Sn 189.927†	7.5	5.8	0.4040 µg/L	0.4040 ppb		12:49:30
2	Ti 334.940†	1161.2	373.9	0.3800 µg/L	0.3800 ppb		12:49:10
2	Tl 190.801†	-125.3	-14.9	-2.0311 µg/L	-2.0311 ppb		12:49:30
2	U 409.014†	0.2	163.5	10.299 µg/L	10.299 ppb		12:49:10
2	V 292.402†	352.1	-60.3	-0.3085 µg/L	-0.3085 ppb		12:49:10
2	Zn 213.857†	782.9	303.9	1.8091 µg/L	1.8091 ppb		12:49:30
3	Sc RADIAL	136533.9	136533.9	97.5 %			12:48:19
3	Al 396.153Radial†	-71.5	5.1	1.0986 µg/L	1.0986 ppb		12:48:39
3	Ca 317.933Radial†	774.5	223.3	15.205 µg/L	15.205 ppb		12:48:39
3	Fe 238.204 Radial†	639.6	539.0	40.249 µg/L	40.249 ppb		12:48:39
3	K 766.490 Radial†	1499.1	44.4	17.591 µg/L	17.591 ppb		12:48:19
3	Mg 279.077 IEC†	204.3	37.1	17.104 µg/L	17.104 ppb		12:48:39
3	Na 589.592 Radial†	1206.7	285.7	44.265 µg/L	44.265 ppb		12:48:19
3	Sr 421.552†	-174.8	25.1	0.0591 µg/L	0.0591 ppb		12:48:19
3	Sc 361.383	1759770.5	1759770.5	97.540 %			12:49:32
3	Y 371.029	1031933.0	1031933.0	97.601 %			12:49:32
3	Ag 328.068†	4314.2	-142.1	-0.5930 µg/L	-0.5930 ppb		12:49:34
3	As 188.979†	-15.2	3.0	1.0264 µg/L	1.0264 ppb		12:49:54
3	B 249.677†	4217.0	258.2	4.0162 µg/L	4.0162 ppb		12:49:34
3	Ba 233.527†	-77.0	65.6	0.2913 µg/L	0.2913 ppb		12:49:54
3	Be 313.107†	-853.3	216.9	0.0586 µg/L	0.0586 ppb		12:49:34
3	Cd 226.502†	-86.1	15.1	0.0978 µg/L	0.0978 ppb		12:49:54
3	Co 228.616†	-207.3	-2.2	-0.0311 µg/L	-0.0311 ppb		12:49:54
3	Cr 267.716†	215.6	-12.1	-0.0929 µg/L	-0.0929 ppb		12:49:54
3	Cu 324.752†	2802.9	-162.5	-0.6848 µg/L	-0.6848 ppb		12:49:34
3	Mn 257.610†	831.2	667.5	0.8846 µg/L	0.8846 ppb		12:49:54
3	Mo 202.031†	-46.9	-9.5	-0.3100 µg/L	-0.3100 ppb		12:49:54
3	Ni 231.604†	-68.6	25.6	0.3197 µg/L	0.3197 ppb		12:49:54
3	P 214.914†	25.1	51.4	11.880 µg/L	11.880 ppb		12:49:54
3	Pb 220.353†	91.5	-9.7	-0.5857 µg/L	-0.5857 ppb		12:49:54
3	S 181.975 Axial†	92.4	5.8	4.8879 µg/L	4.8879 ppb		12:49:54
3	Sb 206.836†	92.6	5.2	0.6732 µg/L	0.6732 ppb		12:49:54
3	Se 196.026†	15.3	9.5	3.74 µg/L	3.74 ppb		12:49:54
3	SiO2†	2282.6	601.1	63.664 µg/L	63.664 ppb		12:49:34
3	Si 251.611†	2721.6	2023.2	31.906 µg/L	31.906 ppb		12:49:34
3	Sn 189.927†	4.1	2.3	0.1633 µg/L	0.1633 ppb		12:49:54
3	Ti 334.940†	1252.6	461.2	0.4785 µg/L	0.4785 ppb		12:49:34
3	Tl 190.801†	-120.9	-9.7	-1.3108 µg/L	-1.3108 ppb		12:49:54
3	U 409.014†	-374.9	-221.0	-13.913 µg/L	-13.913 ppb		12:49:34
3	V 292.402†	518.5	108.4	0.5439 µg/L	0.5439 ppb		12:49:34
3	Zn 213.857†	793.2	310.2	1.8472 µg/L	1.8472 ppb		12:49:54

Mean Data: 1202068109|964016|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1746950.8	96.829	%	0.8233				0.85%
Sc RADIAL	135007.8	96.4	%	0.95				0.98%
Y 371.029	1024223.2	96.872	%	0.8100				0.84%
Ag 328.068†	-197.5	-0.8120	µg/L	0.27813	-0.8120	ppb	0.27813	34.25%
Al 396.153Radial†	0.7	0.1408	µg/L	2.15323	0.1408	ppb	2.15323	>999.9%
As 188.979†	2.2	0.7504	µg/L	1.09968	0.7504	ppb	1.09968	146.55%
B 249.677†	249.7	3.8823	µg/L	0.72755	3.8823	ppb	0.72755	18.74%
Ba 233.527†	32.3	0.1433	µg/L	0.12873	0.1433	ppb	0.12873	89.85%

Be 313.107†	229.3	0.0660	µg/L	0.01673	0.0660	ppb	0.01673 25.33%
Ca 317.933Radial†	235.2	16.018	µg/L	0.9213	16.018	ppb	0.9213 5.75%
Cd 226.502†	15.9	0.1037	µg/L	0.00609	0.1037	ppb	0.00609 5.87%
Co 228.616†	11.6	0.1518	µg/L	0.15863	0.1518	ppb	0.15863 104.46%
Cr 267.716†	17.0	0.1490	µg/L	0.21549	0.1490	ppb	0.21549 144.60%
Cu 324.752†	-114.4	-0.4738	µg/L	0.18281	-0.4738	ppb	0.18281 38.58%
Fe 238.204 Radial†	513.6	38.359	µg/L	1.7410	38.359	ppb	1.7410 4.54%
K 766.490 Radial†	171.1	67.793	µg/L	58.0275	67.793	ppb	58.0275 85.60%
Mg 279.077 IEC†	20.6	9.4876	µg/L	7.78372	9.4876	ppb	7.78372 82.04%
Mn 257.610†	612.2	0.8116	µg/L	0.06406	0.8116	ppb	0.06406 7.89%
Mo 202.031†	2.6	0.0869	µg/L	0.43055	0.0869	ppb	0.43055 495.50%
Na 589.592 Radial†	262.0	40.545	µg/L	3.2815	40.545	ppb	3.2815 8.09%
Ni 231.604†	28.3	0.3544	µg/L	0.03009	0.3544	ppb	0.03009 8.49%
P 214.914†	43.0	9.9234	µg/L	1.74647	9.9234	ppb	1.74647 17.60%
Pb 220.353†	12.5	0.7718	µg/L	1.22732	0.7718	ppb	1.22732 159.02%
S 181.975 Axial†	9.0	7.5713	µg/L	7.08035	7.5713	ppb	7.08035 93.52%
Sb 206.836†	4.5	0.5734	µg/L	0.12663	0.5734	ppb	0.12663 22.09%
Se 196.026†	4.7	1.86	µg/L	3.132	1.86	ppb	3.132 168.54%
SiO2†	666.5	70.571	µg/L	6.1027	70.571	ppb	6.1027 8.65%
Si 251.611†	2019.2	31.836	µg/L	0.5636	31.836	ppb	0.5636 1.77%
Sn 189.927†	6.6	0.4566	µg/L	0.32280	0.4566	ppb	0.32280 70.69%
Sr 421.552†	-8.8	-0.0209	µg/L	0.12755	-0.0209	ppb	0.12755 609.47%
Ti 334.940†	343.1	0.3525	µg/L	0.14171	0.3525	ppb	0.14171 40.20%
Tl 190.801†	-10.5	-1.4232	µg/L	0.56024	-1.4232	ppb	0.56024 39.37%
U 409.014†	-21.2	-1.3481	µg/L	12.13246	-1.3481	ppb	12.13246 899.98%
V 292.402†	-17.9	-0.0966	µg/L	0.56518	-0.0966	ppb	0.56518 585.23%
Zn 213.857†	315.6	1.8786	µg/L	0.08944	1.8786	ppb	0.08944 4.76%

Sequence No.: 2
Sample ID: 1202068114|964016|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 302
Date Collected: 4/5/2010 12:50:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068114|964016|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	286576.2	286576.2	205	%			12:50:32
1	Al 396.153Radial†	46576.6	22847.6	4801.7	µg/L	4801.7	ppb	12:50:34
1	Ca 317.933Radial†	148256.8	71904.0	4897.3	µg/L	4897.3	ppb	12:50:34
1	Fe 238.204 Radial†	401495.0	196153.8	14649	µg/L	14649	ppb	12:50:32
1	K 766.490 Radial†	11893.6	4320.4	1709.7	µg/L	1709.7	ppb	12:50:34
1	Mg 279.077 IEC†	8209.8	3840.9	1765.4	µg/L	1765.4	ppb	12:50:34
1	Na 589.592 Radial†	7907.9	2913.3	450.06	µg/L	450.06	ppb	12:50:34
1	Sr 421.552†	168846.1	82745.0	195.11	µg/L	195.11	ppb	12:50:32
Saturated within auto integration window (code 4)								
1	Sc 361.383	3290617.7	3290617.7	182.39	%			12:50:46
1	Y 371.029	1943012.6	1943012.6	183.77	%			12:50:46
1	Ag 328.068†	11985.9	2006.4	8.9085	µg/L	8.9085	ppb	12:50:48
1	As 188.979†	1821.1	1017.0	349.42	µg/L	349.42	ppb	12:51:08
1	B 249.677†	13656.7	3422.5	52.719	µg/L	52.719	ppb	12:50:48
1	Ba 233.527†	53014.0	29210.6	129.76	µg/L	129.76	ppb	12:50:48
1	Be 313.107†	316001.3	174346.3	50.497	µg/L	50.497	ppb	12:50:48
1	Cd 226.502†	18579.3	10289.9	68.040	µg/L	68.040	ppb	12:51:08
Saturated within auto integration window (code 4)								
1	Co 228.616†	19708.6	11016.0	145.11	µg/L	145.11	ppb	12:51:08
Saturated within auto integration window (code 4)								
1	Cr 267.716†	37024.3	20066.2	174.06	µg/L	174.06	ppb	12:50:48
1	Cu 324.752†	59281.6	29466.3	125.50	µg/L	125.50	ppb	12:50:48
1	Mn 257.610†	457926.3	250883.3	332.70	µg/L	332.70	ppb	12:50:48
1	Mo 202.031†	10166.9	5612.8	184.20	µg/L	184.20	ppb	12:51:08
1	Ni 231.604†	10999.4	6126.6	76.651	µg/L	76.651	ppb	12:51:08
Saturated within auto integration window (code 4)								
1	P 214.914†	12826.4	7058.0	1623.6	µg/L	1623.6	ppb	12:51:08
1	Pb 220.353†	7544.6	4033.0	248.81	µg/L	248.81	ppb	12:51:08
1	S 181.975 Axial†	3242.7	1689.0	1422.4	µg/L	1422.4	ppb	12:51:08
1	Sb 206.836†	6170.0	3293.1	425.17	µg/L	425.17	ppb	12:51:08
1	Se 196.026†	4636.9	2536.1	1000	µg/L	1000	ppb	12:51:08
1	SiO2†	83787.3	44199.1	4670.3	µg/L	4670.3	ppb	12:50:48
1	Si 251.611†	256261.6	139734.0	2198.7	µg/L	2198.7	ppb	12:50:48
1	Sn 189.927†	9226.0	5056.5	351.68	µg/L	351.68	ppb	12:51:08
1	Ti 334.940†	498080.0	272260.2	279.57	µg/L	279.57	ppb	12:50:48
Saturated within auto integration window (code 4)								
1	Tl 190.801†	5355.4	3050.5	420.14	µg/L	420.14	ppb	12:51:08
1	U 409.014†	-918.1	-340.0	-17.727	µg/L	-17.727	ppb	12:50:48
1	V 292.402†	30703.8	16410.8	85.883	µg/L	85.883	ppb	12:50:48
1	Zn 213.857†	116726.9	63495.1	377.22	µg/L	377.22	ppb	12:50:48
2	Sc RADIAL	255621.0	255621.0	182	%			12:50:36
2	Al 396.153Radial†	120271.3	65993.2	13871	µg/L	13871	ppb	12:50:38
Saturated within auto integration window (code 4)								
2	Ca 317.933Radial†	301783.9	164821.1	11226	µg/L	11226	ppb	12:50:38
Saturated within auto integration window (code 4)								
2	Fe 238.204 Radial†	244113.3	133668.9	9982.3	µg/L	9982.3	ppb	12:50:36
2	K 766.490 Radial†	46569.3	24028.5	9514.9	µg/L	9514.9	ppb	12:50:38
2	Mg 279.077 IEC†	34772.3	18884.5	8723.4	µg/L	8723.4	ppb	12:50:38
2	Na 589.592 Radial†	30228.2	15614.0	2411.8	µg/L	2411.8	ppb	12:50:38
2	Sr 421.552†	100115.3	55072.6	129.80	µg/L	129.80	ppb	12:50:36
2	Sc 361.383	1779084.9	1779084.9	98.611	%			12:51:10
2	Y 371.029	1110541.2	1110541.2	105.04	%			12:51:10
2	Ag 328.068†	84913.5	81544.8	349.53	µg/L	349.53	ppb	12:51:12
2	As 188.979†	3072.9	3134.7	1090.4	µg/L	1090.4	ppb	12:51:32
2	B 249.677†	110310.3	107799.4	1675.5	µg/L	1675.5	ppb	12:51:12
2	Ba 233.527†	440550.2	446902.3	1987.3	µg/L	1987.3	ppb	12:51:12
2	Be 313.107†	618749.0	628559.2	181.99	µg/L	181.99	ppb	12:51:12
Saturated within auto integration window (code 4)								
2	Cd 226.502†	18562.9	18927.9	126.92	µg/L	126.92	ppb	12:51:32

	Saturated within auto integration window (code 4)						
2	Co 228.616†	20989.1	21495.1	286.28	µg/L	286.28 ppb	12:51:32
	Saturated within auto integration window (code 4)						
2	Cr 267.716†	318400.5	322653.7	2792.2	µg/L	2792.2 ppb	12:51:12
2	Cu 324.752†	470316.0	473906.8	1983.8	µg/L	1983.8 ppb	12:51:12
	Saturated within auto integration window (code 4)						
2	Mn 257.610†	822733.4	834141.3	1106.2	µg/L	1106.2 ppb	12:51:12
	Saturated within auto integration window (code 4)						
2	Mo 202.031†	15125.8	15377.5	503.93	µg/L	503.93 ppb	12:51:32
	Saturated within auto integration window (code 4)						
2	Ni 231.604†	7147.8	7344.4	91.888	µg/L	91.888 ppb	12:51:32
	Saturated within auto integration window (code 4)						
2	P 214.914†	14001.7	14224.7	3269.2	µg/L	3269.2 ppb	12:51:32
	Saturated within auto integration window (code 4)						
2	Pb 220.353†	10857.0	10906.5	673.67	µg/L	673.67 ppb	12:51:32
	Saturated within auto integration window (code 4)						
2	S 181.975 Axial†	5446.2	5434.0	4575.7	µg/L	4575.7 ppb	12:51:32
2	Sb 206.836†	10140.3	10193.4	1283.6	µg/L	1283.6 ppb	12:51:32
2	Se 196.026†	7967.9	8074.0	3180	µg/L	3180 ppb	12:51:32
2	SiO2†	555349.6	561435.6	59425	µg/L	59425 ppb	12:51:12
	Saturated within auto integration window (code 4)						
2	Si 251.611†	755703.0	765584.1	12059	µg/L	12059 ppb	12:51:12
	Saturated within auto integration window (code 4)						
2	Sn 189.927†	15071.4	15281.9	1062.9	µg/L	1062.9 ppb	12:51:32
2	Ti 334.940†	836043.5	847000.6	868.69	µg/L	868.69 ppb	12:51:12
	Saturated within auto integration window (code 4)						
2	Tl 190.801†	8854.8	9093.9	1262.3	µg/L	1262.3 ppb	12:51:32
2	U 409.014†	-4488.4	-4388.3	-195.20	µg/L	-195.20 ppb	12:51:12
2	V 292.402†	263584.4	266875.1	1398.4	µg/L	1398.4 ppb	12:51:12
2	Zn 213.857†	684220.7	693358.6	4138.2	µg/L	4138.2 ppb	12:51:12
	Saturated within auto integration window (code 4)						
3	Sc RADIAL	281862.5	281862.5	201	%		12:50:40
3	Al 396.153Radial†	55647.3	27736.7	5816.1	µg/L	5816.1 ppb	12:50:42
3	Ca 317.933Radial†	176727.5	87266.7	5943.6	µg/L	5943.6 ppb	12:50:42
3	Fe 238.204 Radial†	402441.7	199906.7	14929	µg/L	14929 ppb	12:50:40
3	K 766.490 Radial†	14051.4	5490.1	2172.8	µg/L	2172.8 ppb	12:50:42
3	Mg 279.077 IEC†	9738.7	4667.9	2154.9	µg/L	2154.9 ppb	12:50:42
3	Na 589.592 Radial†	9241.3	3640.7	562.40	µg/L	562.40 ppb	12:50:42
3	Sr 421.552†	168572.6	83989.4	198.04	µg/L	198.04 ppb	12:50:40
	Saturated within auto integration window (code 4)						
3	Sc 361.383	1775248.8	1775248.8	98.398	%		12:51:35
3	Y 371.029	1108205.5	1108205.5	104.81	%		12:51:35
3	Ag 328.068†	84977.5	81795.9	350.71	µg/L	350.71 ppb	12:51:37
3	As 188.979†	3078.6	3147.3	1095.8	µg/L	1095.8 ppb	12:51:57
3	B 249.677†	110633.0	108369.1	1684.3	µg/L	1684.3 ppb	12:51:37
3	Ba 233.527†	440897.1	448220.1	1993.1	µg/L	1993.1 ppb	12:51:37
3	Be 313.107†	619916.3	631101.3	182.74	µg/L	182.74 ppb	12:51:37
	Saturated within auto integration window (code 4)						
3	Cd 226.502†	18625.9	19032.5	127.10	µg/L	127.10 ppb	12:51:57
	Saturated within auto integration window (code 4)						
3	Co 228.616†	21006.1	21558.4	286.87	µg/L	286.87 ppb	12:51:57
	Saturated within auto integration window (code 4)						
3	Cr 267.716†	318529.1	323482.1	2799.6	µg/L	2799.6 ppb	12:51:37
3	Cu 324.752†	471401.6	476040.7	1993.3	µg/L	1993.3 ppb	12:51:37
	Saturated within auto integration window (code 4)						
3	Mn 257.610†	823524.6	836748.2	1109.9	µg/L	1109.9 ppb	12:51:37
	Saturated within auto integration window (code 4)						
3	Mo 202.031†	15137.4	15422.4	505.47	µg/L	505.47 ppb	12:51:57
	Saturated within auto integration window (code 4)						
3	Ni 231.604†	7179.9	7392.7	92.491	µg/L	92.491 ppb	12:51:57
	Saturated within auto integration window (code 4)						
3	P 214.914†	14039.3	14293.6	3279.9	µg/L	3279.9 ppb	12:51:57
	Saturated within auto integration window (code 4)						
3	Pb 220.353†	10880.2	10953.9	675.92	µg/L	675.92 ppb	12:51:57
	Saturated within auto integration window (code 4)						
3	S 181.975 Axial†	5439.0	5438.7	4579.6	µg/L	4579.6 ppb	12:51:57
3	Sb 206.836†	10147.9	10223.4	1287.3	µg/L	1287.3 ppb	12:51:57
3	Se 196.026†	8019.6	8144.0	3210	µg/L	3210 ppb	12:51:57
3	SiO2†	555275.3	562577.0	59546	µg/L	59546 ppb	12:51:37
	Saturated within auto integration window (code 4)						
3	Si 251.611†	756063.1	767606.0	12091	µg/L	12091 ppb	12:51:37

Saturated within auto integration window (code 4)

3	Sn 189.927†	15073.2	15316.8	1065.4 µg/L	1065.4 ppb	12:51:57
3	Ti 334.940†	837223.6	850032.0	872.19 µg/L	872.19 ppb	12:51:37

Saturated within auto integration window (code 4)

3	Tl 190.801†	8874.4	9133.1	1267.7 µg/L	1267.7 ppb	12:51:57
3	U 409.014†	-4243.9	-4149.7	-181.30 µg/L	-181.30 ppb	12:51:37
3	V 292.402†	263600.6	267469.2	1401.0 µg/L	1401.0 ppb	12:51:37
3	Zn 213.857†	685446.0	696103.2	4153.9 µg/L	4153.9 ppb	12:51:37

Saturated within auto integration window (code 4)

Mean Data: 1202068114|964016|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2281650.5	126.47	%	48.432				38.30%
Sc RADIAL	274686.5	196	%	11.9				6.07%
Internal Standard Check greater than the upper limit for Sc RADIAL. Recovery = 196.1%								
Y 371.029	1387253.1	131.21	%	45.522				34.69%
Ag 328.068†	55115.7	236.38	µg/L	197.000	236.38	ppb	197.000	83.34%
Al 396.153Radial†	38859.1	8162.8	µg/L	4969.03	8162.8	ppb	4969.03	60.87%
Saturated within auto integration window (code 4)								
As 188.979†	2433.0	845.19	µg/L	429.358	845.19	ppb	429.358	50.80%
B 249.677†	73197.0	1137.5	µg/L	939.47	1137.5	ppb	939.47	82.59%
Ba 233.527†	308111.0	1370.1	µg/L	1074.14	1370.1	ppb	1074.14	78.40%
Be 313.107†	478002.2	138.41	µg/L	76.135	138.41	ppb	76.135	55.01%
Saturated within auto integration window (code 4)								
Ca 317.933Radial†	107997.3	7355.6	µg/L	3392.29	7355.6	ppb	3392.29	46.12%
Saturated within auto integration window (code 4)								
Cd 226.502†	16083.4	107.35	µg/L	34.047	107.35	ppb	34.047	31.71%
Saturated within auto integration window (code 4)								
Co 228.616†	18023.2	239.42	µg/L	81.673	239.42	ppb	81.673	34.11%
Saturated within auto integration window (code 4)								
Cr 267.716†	222067.3	1922.0	µg/L	1513.75	1922.0	ppb	1513.75	78.76%
Cu 324.752†	326471.3	1367.5	µg/L	1075.64	1367.5	ppb	1075.64	78.66%
Saturated within auto integration window (code 4)								
Fe 238.204 Radial†	176576.5	13187	µg/L	2778.5	13187	ppb	2778.5	21.07%
K 766.490 Radial†	11279.7	4465.8	µg/L	4378.78	4465.8	ppb	4378.78	98.05%
Mg 279.077 IEC†	9131.1	4214.6	µg/L	3909.63	4214.6	ppb	3909.63	92.76%
Mn 257.610†	640591.0	849.57	µg/L	447.628	849.57	ppb	447.628	52.69%
Saturated within auto integration window (code 4)								
Mo 202.031†	12137.5	397.87	µg/L	185.042	397.87	ppb	185.042	46.51%
Saturated within auto integration window (code 4)								
Na 589.592 Radial†	7389.3	1141.4	µg/L	1101.63	1141.4	ppb	1101.63	96.51%
Ni 231.604†	6954.6	87.010	µg/L	8.9762	87.010	ppb	8.9762	10.32%
Saturated within auto integration window (code 4)								
P 214.914†	11858.8	2724.2	µg/L	953.16	2724.2	ppb	953.16	34.99%
Saturated within auto integration window (code 4)								
Pb 220.353†	8631.1	532.80	µg/L	245.943	532.80	ppb	245.943	46.16%
Saturated within auto integration window (code 4)								
S 181.975 Axial†	4187.2	3525.9	µg/L	1821.65	3525.9	ppb	1821.65	51.67%
Sb 206.836†	7903.3	998.69	µg/L	496.684	998.69	ppb	496.684	49.73%
Se 196.026†	6251.4	2470	µg/L	1267.1	2470	ppb	1267.1	51.36%
SiO2†	389403.9	41214	µg/L	31647.7	41214	ppb	31647.7	76.79%
Saturated within auto integration window (code 4)								
Si 251.611†	557641.4	8782.6	µg/L	5701.89	8782.6	ppb	5701.89	64.92%
Saturated within auto integration window (code 4)								
Sn 189.927†	11885.0	826.66	µg/L	411.349	826.66	ppb	411.349	49.76%
Sr 421.552†	73935.7	174.32	µg/L	38.582	174.32	ppb	38.582	22.13%
Saturated within auto integration window (code 4)								
Ti 334.940†	656430.9	673.48	µg/L	341.147	673.48	ppb	341.147	50.65%
Saturated within auto integration window (code 4)								
Tl 190.801†	7092.5	983.36	µg/L	487.769	983.36	ppb	487.769	49.60%
U 409.014†	-2959.3	-131.41	µg/L	98.697	-131.41	ppb	98.697	75.11%
Concentration less than lower limit for U 409.014.								
V 292.402†	183585.0	961.74	µg/L	758.512	961.74	ppb	758.512	78.87%
Zn 213.857†	484318.9	2889.8	µg/L	2175.95	2889.8	ppb	2175.95	75.30%
Saturated within auto integration window (code 4)								

Internal Standard Check failed. Continue with analysis.

Sequence No.: 4
Sample ID: 1202068110|964016|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 304
Date Collected: 4/5/2010 12:54:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068110|964016|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140430.9	140430.9	100	%			12:54:44
1	Al 396.153Radial†	301236.8	300590.4	63285	µg/L	63285	ppb	12:54:42
1	Ca 317.933Radial†	388473.5	386967.2	26356	µg/L	26356	ppb	12:54:44
1	Fe 238.204 Radial†	1465637.2	1461993.0	109180	µg/L	109180	ppb	12:54:42
1	K 766.490 Radial†	17432.1	15896.4	6278.6	µg/L	6278.6	ppb	12:54:44
1	Mg 279.077 IEC†	20029.4	19808.7	9052.9	µg/L	9052.9	ppb	12:54:44
1	Na 589.592 Radial†	22439.6	21433.1	3316.7	µg/L	3316.7	ppb	12:54:44
1	Sr 421.552†	63710.0	63761.2	150.17	µg/L	150.17	ppb	12:54:44
1	Sc 361.383	1795512.2	1795512.2	99.521	%			12:55:11
1	Y 371.029	1151925.5	1151925.5	108.95	%			12:55:11
1	Ag 328.068†	4227.8	-317.0	-1.3629	µg/L	-1.3629	ppb	12:55:13
1	As 188.979†	-32.4	-14.0	20.436	µg/L	20.436	ppb	12:55:33
1	B 249.677†	4772.8	730.6	11.220	µg/L	11.220	ppb	12:55:13
1	Ba 233.527†	163643.4	164575.4	730.24	µg/L	730.24	ppb	12:55:13
1	Be 313.107†	34285.2	35541.9	10.187	µg/L	10.187	ppb	12:55:13
1	Cd 226.502†	1575.9	1686.9	-0.0462	µg/L	-0.0462	ppb	12:55:33
1	Co 228.616†	2854.4	3078.5	35.759	µg/L	35.759	ppb	12:55:33
1	Cr 267.716†	8452.9	8260.3	74.946	µg/L	74.946	ppb	12:55:33
1	Cu 324.752†	18477.9	15530.7	80.835	µg/L	80.835	ppb	12:55:13
1	Mn 257.610†	1687193.7	1695128.3	2248.0	µg/L	2248.0	ppb	12:55:11
1	Mo 202.031†	20.7	59.4	6.4942	µg/L	6.4942	ppb	12:55:33
1	Ni 231.604†	5607.3	5730.2	71.692	µg/L	71.692	ppb	12:55:33
1	P 214.914†	13910.0	14002.7	3178.2	µg/L	3178.2	ppb	12:55:33
1	Pb 220.353†	843.0	743.6	53.492	µg/L	53.492	ppb	12:55:33
1	S 181.975 Axial†	580.8	494.7	416.21	µg/L	416.21	ppb	12:55:33
1	Sb 206.836†	37.8	-51.7	-9.2015	µg/L	-9.2015	ppb	12:55:33
1	Se 196.026†	-66.5	-73.0	8.78	µg/L	8.78	ppb	12:55:33
1	SiO2†	572150.9	573165.2	60697	µg/L	60697	ppb	12:55:13
1	Si 251.611†	1779725.6	1787523.2	28187	µg/L	28187	ppb	12:55:11
1	Sn 189.927†	-111.9	-114.4	10.061	µg/L	10.061	ppb	12:55:33
1	Ti 334.940†	5171058.0	5195119.9	5335.9	µg/L	5335.9	ppb	12:55:11
1	Tl 190.801†	-566.5	-454.9	-1.4741	µg/L	-1.4741	ppb	12:55:33
1	U 409.014†	-5812.0	-5676.6	-355.99	µg/L	-355.99	ppb	12:55:13
1	V 292.402†	38546.8	38309.1	182.17	µg/L	182.17	ppb	12:55:13
1	Zn 213.857†	52435.3	52184.6	303.28	µg/L	303.28	ppb	12:55:13
2	Sc RADIAL	139257.0	139257.0	99.4	%			12:54:48
2	Al 396.153Radial†	300783.9	302668.0	63722	µg/L	63722	ppb	12:54:46
2	Ca 317.933Radial†	385624.6	387368.0	26383	µg/L	26383	ppb	12:54:48
2	Fe 238.204 Radial†	1463639.2	1472307.9	109950	µg/L	109950	ppb	12:54:46
2	K 766.490 Radial†	17436.0	16046.8	6338.1	µg/L	6338.1	ppb	12:54:48
2	Mg 279.077 IEC†	19915.0	19862.1	9076.8	µg/L	9076.8	ppb	12:54:48
2	Na 589.592 Radial†	22307.2	21488.6	3325.2	µg/L	3325.2	ppb	12:54:48
2	Sr 421.552†	63470.0	64055.5	150.87	µg/L	150.87	ppb	12:54:48
2	Sc 361.383	1796940.8	1796940.8	99.600	%			12:55:36
2	Y 371.029	1152767.9	1152767.9	109.03	%			12:55:36
2	Ag 328.068†	4111.5	-437.2	-1.8854	µg/L	-1.8854	ppb	12:55:38
2	As 188.979†	-24.7	-6.2	23.258	µg/L	23.258	ppb	12:55:58
2	B 249.677†	4799.2	753.3	11.573	µg/L	11.573	ppb	12:55:38
2	Ba 233.527†	163002.5	163801.2	726.78	µg/L	726.78	ppb	12:55:38
2	Be 313.107†	34055.1	35283.5	10.111	µg/L	10.111	ppb	12:55:38
2	Cd 226.502†	1599.6	1709.4	0.0254	µg/L	0.0254	ppb	12:55:58
2	Co 228.616†	2879.7	3101.5	36.020	µg/L	36.020	ppb	12:55:58
2	Cr 267.716†	8456.4	8257.1	74.947	µg/L	74.947	ppb	12:55:58
2	Cu 324.752†	18423.3	15461.2	80.652	µg/L	80.652	ppb	12:55:38
2	Mn 257.610†	1694988.7	1701606.8	2256.6	µg/L	2256.6	ppb	12:55:36
2	Mo 202.031†	38.9	77.7	7.1219	µg/L	7.1219	ppb	12:55:58
2	Ni 231.604†	5634.5	5753.0	71.977	µg/L	71.977	ppb	12:55:58
2	P 214.914†	13899.0	13980.5	3172.7	µg/L	3172.7	ppb	12:55:58
2	Pb 220.353†	837.8	737.7	53.154	µg/L	53.154	ppb	12:55:58

2	S 181.975 Axial†	573.2	486.6	409.35	µg/L	409.35 ppb	12:55:58
2	Sb 206.836†	76.0	-13.4	-4.2647	µg/L	-4.2647 ppb	12:55:58
2	Se 196.026†	-73.3	-79.8	6.36	µg/L	6.36 ppb	12:55:58
2	SiO2†	567840.2	568380.1	60190	µg/L	60190 ppb	12:55:38
2	Si 251.611†	1786699.7	1793103.6	28275	µg/L	28275 ppb	12:55:36
2	Sn 189.927†	-113.4	-115.7	10.021	µg/L	10.021 ppb	12:55:58
2	Ti 334.940†	5189935.6	5209942.3	5351.1	µg/L	5351.1 ppb	12:55:36
2	Tl 190.801†	-561.2	-449.2	-0.5279	µg/L	-0.5279 ppb	12:55:58
2	U 409.014†	-5912.8	-5773.2	-362.28	µg/L	-362.28 ppb	12:55:38
2	V 292.402†	38331.9	38062.5	180.80	µg/L	180.80 ppb	12:55:38
2	Zn 213.857†	52092.3	51798.4	300.90	µg/L	300.90 ppb	12:55:38
3	Sc RADIAL	139145.3	139145.3	99.3	%		12:54:53
3	Al 396.153Radial†	298803.7	300917.3	63354	µg/L	63354 ppb	12:54:50
3	Ca 317.933Radial†	384016.9	386060.8	26294	µg/L	26294 ppb	12:54:53
3	Fe 238.204 Radial†	1461081.3	1470914.8	109850	µg/L	109850 ppb	12:54:50
3	K 766.490 Radial†	17474.9	16100.1	6359.3	µg/L	6359.3 ppb	12:54:53
3	Mg 279.077 IEC†	19786.6	19748.9	9024.7	µg/L	9024.7 ppb	12:54:53
3	Na 589.592 Radial†	22174.1	21372.6	3307.3	µg/L	3307.3 ppb	12:54:53
3	Sr 421.552†	63282.2	63917.7	150.54	µg/L	150.54 ppb	12:54:53
3	Sc 361.383	1821454.1	1821454.1	100.96	%		12:56:01
3	Y 371.029	1167086.4	1167086.4	110.38	%		12:56:01
3	Ag 328.068†	4413.5	-193.5	-0.9035	µg/L	-0.9035 ppb	12:56:03
3	As 188.979†	-23.3	-4.5	23.793	µg/L	23.793 ppb	12:56:23
3	B 249.677†	4770.3	659.8	10.120	µg/L	10.120 ppb	12:56:03
3	Ba 233.527†	162691.7	161290.9	715.63	µg/L	715.63 ppb	12:56:03
3	Be 313.107†	34090.5	34858.4	9.9936	µg/L	9.9936 ppb	12:56:03
3	Cd 226.502†	1623.3	1711.2	0.0478	µg/L	0.0478 ppb	12:56:23
3	Co 228.616†	2882.0	3064.9	35.530	µg/L	35.530 ppb	12:56:23
3	Cr 267.716†	8500.3	8186.3	74.314	µg/L	74.314 ppb	12:56:23
3	Cu 324.752†	18197.4	14988.4	78.675	µg/L	78.675 ppb	12:56:03
3	Mn 257.610†	1716679.3	1700188.5	2254.7	µg/L	2254.7 ppb	12:56:01
3	Mo 202.031†	36.6	74.8	7.0219	µg/L	7.0219 ppb	12:56:23
3	Ni 231.604†	5635.8	5678.2	71.041	µg/L	71.041 ppb	12:56:23
3	P 214.914†	14029.7	13922.1	3159.2	µg/L	3159.2 ppb	12:56:23
3	Pb 220.353†	876.6	764.9	54.775	µg/L	54.775 ppb	12:56:23
3	S 181.975 Axial†	591.9	497.4	418.44	µg/L	418.44 ppb	12:56:23
3	Sb 206.836†	74.8	-15.6	-4.5468	µg/L	-4.5468 ppb	12:56:23
3	Se 196.026†	-71.9	-77.4	7.28	µg/L	7.28 ppb	12:56:23
3	SiO2†	566960.0	559835.6	59285	µg/L	59285 ppb	12:56:03
3	Si 251.611†	1809742.6	1791785.5	28254	µg/L	28254 ppb	12:56:01
3	Sn 189.927†	-134.9	-135.5	8.5999	µg/L	8.5999 ppb	12:56:23
3	Ti 334.940†	5247709.1	5197040.1	5337.8	µg/L	5337.8 ppb	12:56:01
3	Tl 190.801†	-576.8	-457.0	-1.7548	µg/L	-1.7548 ppb	12:56:23
3	U 409.014†	-5667.5	-5450.3	-342.10	µg/L	-342.10 ppb	12:56:03
3	V 292.402†	38139.8	37354.3	177.16	µg/L	177.16 ppb	12:56:03
3	Zn 213.857†	52049.3	51051.9	296.45	µg/L	296.45 ppb	12:56:03

Mean Data: 1202068110|964016|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1804635.7	100.03	%	0.808				0.81%
Sc RADIAL	139611.1	99.7	%	0.51				0.51%
Y 371.029	1157259.9	109.45	%	0.806				0.74%
Ag 328.068†	-315.9	-1.3839	µg/L	0.49127	-1.3839	ppb	0.49127	35.50%
Al 396.153Radial†	301391.9	63454	µg/L	235.2	63454	ppb	235.2	0.37%
As 188.979†	-8.2	22.496	µg/L	1.8038	22.496	ppb	1.8038	8.02%
B 249.677†	714.6	10.971	µg/L	0.7577	10.971	ppb	0.7577	6.91%
Ba 233.527†	163222.5	724.22	µg/L	7.637	724.22	ppb	7.637	1.05%
Be 313.107†	35228.0	10.097	µg/L	0.0975	10.097	ppb	0.0975	0.97%
Ca 317.933Radial†	386798.7	26344	µg/L	45.6	26344	ppb	45.6	0.17%
Cd 226.502†	1702.5	0.0090	µg/L	0.04910	0.0090	ppb	0.04910	545.20%
Co 228.616†	3081.6	35.770	µg/L	0.2450	35.770	ppb	0.2450	0.69%
Cr 267.716†	8234.6	74.736	µg/L	0.3652	74.736	ppb	0.3652	0.49%
Cu 324.752†	15326.8	80.054	µg/L	1.1980	80.054	ppb	1.1980	1.50%
Fe 238.204 Radial†	1468405.2	109660	µg/L	418.0	109660	ppb	418.0	0.38%
K 766.490 Radial†	16014.5	6325.3	µg/L	41.86	6325.3	ppb	41.86	0.66%
Mg 279.077 IEC†	19806.6	9051.5	µg/L	26.11	9051.5	ppb	26.11	0.29%
Mn 257.610†	1698974.5	2253.1	µg/L	4.52	2253.1	ppb	4.52	0.20%
Mo 202.031†	70.6	6.8793	µg/L	0.33726	6.8793	ppb	0.33726	4.90%
Na 589.592 Radial†	21431.4	3316.4	µg/L	9.00	3316.4	ppb	9.00	0.27%

Ni 231.604†	5720.5	71.570 µg/L	0.4796	71.570 ppb	0.4796	0.67%
P 214.914†	13968.4	3170.0 µg/L	9.81	3170.0 ppb	9.81	0.31%
Pb 220.353†	748.7	53.807 µg/L	0.8555	53.807 ppb	0.8555	1.59%
S 181.975 Axial†	492.9	414.67 µg/L	4.735	414.67 ppb	4.735	1.14%
Sb 206.836†	-26.9	-6.0043 µg/L	2.77240	-6.0043 ppb	2.77240	46.17%
Se 196.026†	-76.7	7.47 µg/L	1.217	7.47 ppb	1.217	16.29%
SiO2†	567127.0	60058 µg/L	715.1	60058 ppb	715.1	1.19%
Si 251.611†	1790804.1	28239 µg/L	46.0	28239 ppb	46.0	0.16%
Sn 189.927†	-121.9	9.5606 µg/L	0.83227	9.5606 ppb	0.83227	8.71%
Sr 421.552†	63911.4	150.53 µg/L	0.347	150.53 ppb	0.347	0.23%
Ti 334.940†	5200700.7	5341.6 µg/L	8.28	5341.6 ppb	8.28	0.16%
Tl 190.801†	-453.7	-1.2523 µg/L	0.64281	-1.2523 ppb	0.64281	51.33%
U 409.014†	-5633.4	-353.46 µg/L	10.323	-353.46 ppb	10.323	2.92%
Concentration less than lower limit for U 409.014.						
V 292.402†	37908.6	180.05 µg/L	2.588	180.05 ppb	2.588	1.44%
Zn 213.857†	51678.3	300.21 µg/L	3.466	300.21 ppb	3.466	1.15%

Sequence No.: 5
Sample ID: 1202068112|964016|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 305
Date Collected: 4/5/2010 12:56:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068112|964016|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	291103.7	291103.7	208	%			12:57:00
1	Al 396.153Radial†	75667.5	36493.4	7680.8	µg/L	7680.8	ppb	12:57:02
1	Ca 317.933Radial†	74762.4	35407.8	2411.6	µg/L	2411.6	ppb	12:57:02
1	Fe 238.204 Radial†	181689.1	87320.1	6521.0	µg/L	6521.0	ppb	12:57:00
1	K 766.490 Radial†	6736.9	1748.3	690.41	µg/L	690.41	ppb	12:57:02
1	Mg 279.077 IEC†	5031.9	2249.2	1034.2	µg/L	1034.2	ppb	12:57:02
1	Na 589.592 Radial†	11224.6	4449.3	689.06	µg/L	689.06	ppb	12:57:02
1	Sr 421.552†	50423.0	24470.4	57.694	µg/L	57.694	ppb	12:57:02
1	Sc 361.383	3771637.9	3771637.9	209.05	%			12:57:15
1	Y 371.029	2240947.1	2240947.1	211.95	%			12:57:15
1	Ag 328.068†	23115.9	6492.3	27.060	µg/L	27.060	ppb	12:57:15
1	As 188.979†	244.5	135.5	47.850	µg/L	47.850	ppb	12:57:35
1	B 249.677†	8095.8	-192.5	-3.1877	µg/L	-3.1877	ppb	12:57:15
1	Ba 233.527†	45174.5	21753.7	96.657	µg/L	96.657	ppb	12:57:15
1	Be 313.107†	268145.1	129358.2	37.477	µg/L	37.477	ppb	12:57:15
1	Cd 226.502†	11303.9	5510.6	36.585	µg/L	36.585	ppb	12:57:15
1	Co 228.616†	8358.7	4208.7	55.434	µg/L	55.434	ppb	12:57:35
1	Cr 267.716†	11028.3	5042.1	43.792	µg/L	43.792	ppb	12:57:15
1	Cu 324.752†	25358.5	9094.1	39.061	µg/L	39.061	ppb	12:57:15
1	Mn 257.610†	349609.4	167050.0	221.54	µg/L	221.54	ppb	12:57:15
1	Mo 202.031†	3230.8	1584.0	52.098	µg/L	52.098	ppb	12:57:35
1	Ni 231.604†	9542.7	4660.6	58.310	µg/L	58.310	ppb	12:57:35
1	P 214.914†	2711.2	1322.6	302.68	µg/L	302.68	ppb	12:57:35
1	Pb 220.353†	1924.4	817.1	51.263	µg/L	51.263	ppb	12:57:35
1	S 181.975 Axial†	1276.9	521.9	439.49	µg/L	439.49	ppb	12:57:35
1	Sb 206.836†	746.0	267.1	34.557	µg/L	34.557	ppb	12:57:35
1	Se 196.026†	222.5	100.3	41.8	µg/L	41.8	ppb	12:57:35
1	SiO2†	107897.1	49873.2	5279.3	µg/L	5279.3	ppb	12:57:15
1	Si 251.611†	334443.5	159213.1	2509.6	µg/L	2509.6	ppb	12:57:15
1	Sn 189.927†	1433.8	684.0	48.985	µg/L	48.985	ppb	12:57:35
1	Ti 334.940†	932546.0	445257.8	457.27	µg/L	457.27	ppb	12:57:15
1	Tl 190.801†	536.7	371.0	55.939	µg/L	55.939	ppb	12:57:35
1	U 409.014†	179.8	249.3	18.760	µg/L	18.760	ppb	12:57:15
1	V 292.402†	22033.4	10116.4	52.055	µg/L	52.055	ppb	12:57:15
1	Zn 213.857†	19989.9	9059.1	53.345	µg/L	53.345	ppb	12:57:15
2	Sc RADIAL	262118.8	262118.8	187	%			12:57:04
2	Al 396.153Radial†	114893.7	61485.1	12938	µg/L	12938	ppb	12:57:06
Saturated within auto integration window (code 4)								
2	Ca 317.933Radial†	159441.2	84644.1	5765.0	µg/L	5765.0	ppb	12:57:06
2	Fe 238.204 Radial†	247169.9	131986.0	9856.6	µg/L	9856.6	ppb	12:57:04
2	K 766.490 Radial†	12769.6	5331.1	2108.0	µg/L	2108.0	ppb	12:57:06
2	Mg 279.077 IEC†	10868.7	5636.5	2597.6	µg/L	2597.6	ppb	12:57:06
2	Na 589.592 Radial†	22585.6	11118.7	1721.6	µg/L	1721.6	ppb	12:57:06
2	Sr 421.552†	75339.8	40470.9	95.404	µg/L	95.404	ppb	12:57:06
Saturated within auto integration window (code 4)								
2	Sc 361.383	3242487.4	3242487.4	179.72	%			12:57:38
2	Y 371.029	1930593.0	1930593.0	182.60	%			12:57:38
2	Ag 328.068†	37533.8	16319.0	67.761	µg/L	67.761	ppb	12:57:38
2	As 188.979†	669.7	391.2	135.76	µg/L	135.76	ppb	12:57:58
2	B 249.677†	11770.2	2483.9	38.098	µg/L	38.098	ppb	12:57:38
2	Ba 233.527†	76934.3	42951.6	190.90	µg/L	190.90	ppb	12:57:38
2	Be 313.107†	461455.7	257850.4	74.699	µg/L	74.699	ppb	12:57:38
2	Cd 226.502†	19268.1	10824.3	72.196	µg/L	72.196	ppb	12:57:38
2	Co 228.616†	20399.8	11560.9	152.62	µg/L	152.62	ppb	12:57:58
2	Cr 267.716†	18658.5	10148.5	88.032	µg/L	88.032	ppb	12:57:38
2	Cu 324.752†	41458.2	20031.7	85.401	µg/L	85.401	ppb	12:57:38
2	Mn 257.610†	593516.9	330054.1	437.70	µg/L	437.70	ppb	12:57:38
2	Mo 202.031†	7807.0	4382.5	143.80	µg/L	143.80	ppb	12:57:58
2	Ni 231.604†	22835.9	12802.0	160.17	µg/L	160.17	ppb	12:57:58

2	P 214.914†	7009.2	3925.6	903.07 µg/L	903.07 ppb	12:57:58
2	Pb 220.353†	4580.8	2445.4	152.49 µg/L	152.49 ppb	12:57:58
2	S 181.975 Axial†	3274.3	1732.9	1459.1 µg/L	1459.1 ppb	12:57:58
2	Sb 206.836†	1762.4	890.9	115.78 µg/L	115.78 ppb	12:57:58
2	Se 196.026†	576.3	314.5	127 µg/L	127 ppb	12:57:58
2	SiO2†	182020.9	99539.2	10535 µg/L	10535 ppb	12:57:38
2	Si 251.611†	567490.4	314990.4	4964.2 µg/L	4964.2 ppb	12:57:38
2	Sn 189.927†	3561.9	1980.0	140.41 µg/L	140.41 ppb	12:57:58
2	Ti 334.940†	1593046.7	885564.3	909.44 µg/L	909.44 ppb	12:57:38
2	Tl 190.801†	1504.8	951.6	140.22 µg/L	140.22 ppb	12:57:58
2	U 409.014†	326.9	345.3	28.590 µg/L	28.590 ppb	12:57:38
2	V 292.402†	37261.6	20309.5	105.25 µg/L	105.25 ppb	12:57:38
2	Zn 213.857†	33874.0	18344.8	108.03 µg/L	108.03 ppb	12:57:38
3	Sc RADIAL	257760.1	257760.1	184 %		12:57:08
3	Al 396.153Radial†	40749.4	22225.9	4657.1 µg/L	4657.1 ppb	12:57:10
3	Ca 317.933Radial†	41259.3	21853.1	1488.4 µg/L	1488.4 ppb	12:57:10
3	Fe 238.204 Radial†	229166.6	124435.1	9292.7 µg/L	9292.7 ppb	12:57:08
3	K 766.490 Radial†	4171.3	773.3	305.00 µg/L	305.00 ppb	12:57:10
3	Mg 279.077 IEC†	2846.2	1374.5	638.37 µg/L	638.37 ppb	12:57:10
3	Na 589.592 Radial†	6340.4	2493.5	386.24 µg/L	386.24 ppb	12:57:10
3	Sr 421.552†	27731.6	15276.7	36.018 µg/L	36.018 ppb	12:57:10
3	Sc 361.383	1792334.9	1792334.9	99.345 %		12:58:01
3	Y 371.029	1123390.3	1123390.3	106.25 %		12:58:01
3	Ag 328.068†	121997.9	118237.1	491.12 µg/L	491.12 ppb	12:58:01
3	As 188.979†	1311.7	1338.9	461.47 µg/L	461.47 ppb	12:58:21
3	B 249.677†	35942.4	32114.2	497.65 µg/L	497.65 ppb	12:58:01
3	Ba 233.527†	263579.5	265462.0	1180.4 µg/L	1180.4 ppb	12:58:01
3	Be 313.107†	1671524.1	1683637.2	487.74 µg/L	487.74 ppb	12:58:01
3	Cd 226.502†	72453.7	73034.8	492.87 µg/L	492.87 ppb	12:58:01
3	Co 228.616†	38396.4	38859.8	514.81 µg/L	514.81 ppb	12:58:21
3	Cr 267.716†	63124.1	63307.1	547.57 µg/L	547.57 ppb	12:58:01
3	Cu 324.752†	136446.1	134309.7	563.53 µg/L	563.53 ppb	12:58:01
3	Mn 257.610†	2029503.4	2042700.4	2709.7 µg/L	2709.7 ppb	12:58:01
3	Mo 202.031†	14481.5	14615.6	478.59 µg/L	478.59 ppb	12:58:21
3	Ni 231.604†	40693.7	41057.9	513.69 µg/L	513.69 ppb	12:58:21
Saturated within auto integration window (code 4)						
3	P 214.914†	13490.0	13604.7	3134.8 µg/L	3134.8 ppb	12:58:21
3	Pb 220.353†	8515.9	8468.5	528.85 µg/L	528.85 ppb	12:58:21
3	S 181.975 Axial†	6330.1	6282.9	5289.6 µg/L	5289.6 ppb	12:58:21
3	Sb 206.836†	3266.3	3198.1	412.64 µg/L	412.64 ppb	12:58:21
3	Se 196.026†	1137.1	1138.5	452 µg/L	452 ppb	12:58:21
3	SiO2†	665231.2	667878.4	70707 µg/L	70707 ppb	12:58:01
3	Si 251.611†	2070603.1	2083488.8	32845 µg/L	32845 ppb	12:58:01
3	Sn 189.927†	6691.1	6733.3	484.24 µg/L	484.24 ppb	12:58:21
3	Ti 334.940†	4931449.3	4963142.2	5097.3 µg/L	5097.3 ppb	12:58:01
Saturated within auto integration window (code 4)						
3	Tl 190.801†	2960.7	3094.5	483.03 µg/L	483.03 ppb	12:58:21
3	U 409.014†	1357.6	1529.9	149.10 µg/L	149.10 ppb	12:58:01
3	V 292.402†	125837.9	126244.4	655.97 µg/L	655.97 ppb	12:58:01
3	Zn 213.857†	124514.0	124832.0	743.44 µg/L	743.44 ppb	12:58:01

Mean Data: 1202068112|964016|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2935486.7	162.71	%	56.799				34.91%
Internal Standard Check greater than the upper limit for Sc 361.383. Recovery = 162.7%								
Sc RADIAL	270327.5	193	%	12.9				6.70%
Internal Standard Check greater than the upper limit for Sc RADIAL. Recovery = 193.0%								
Y 371.029	1764976.8	166.93	%	54.563				32.69%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 166.9%								
Ag 328.068†	47016.1	195.31	µg/L	256.982	195.31	ppb	256.982	131.57%
Al 396.153Radial†	40068.1	8425.4	µg/L	4190.42	8425.4	ppb	4190.42	49.74%
Saturated within auto integration window (code 4)								
As 188.979†	621.9	215.03	µg/L	217.904	215.03	ppb	217.904	101.34%
B 249.677†	11468.5	177.52	µg/L	278.007	177.52	ppb	278.007	156.61%
Ba 233.527†	110055.7	489.31	µg/L	600.335	489.31	ppb	600.335	122.69%
Be 313.107†	690281.9	199.97	µg/L	249.906	199.97	ppb	249.906	124.97%
Ca 317.933Radial†	47301.6	3221.7	µg/L	2250.46	3221.7	ppb	2250.46	69.85%
Cd 226.502†	29789.9	200.55	µg/L	253.781	200.55	ppb	253.781	126.54%
Co 228.616†	18209.8	240.95	µg/L	242.092	240.95	ppb	242.092	100.47%

Cr 267.716†	26165.9	226.46 µg/L	278.962	226.46 ppb	278.962	123.18%
Cu 324.752†	54478.5	229.33 µg/L	290.349	229.33 ppb	290.349	126.61%
Fe 238.204 Radial†	114580.4	8556.8 µg/L	1785.44	8556.8 ppb	1785.44	20.87%
K 766.490 Radial†	2617.6	1034.5 µg/L	949.45	1034.5 ppb	949.45	91.78%
Mg 279.077 IEC†	3086.7	1423.4 µg/L	1036.00	1423.4 ppb	1036.00	72.78%
Mn 257.610†	846601.5	1123.0 µg/L	1378.38	1123.0 ppb	1378.38	122.74%
Mo 202.031†	6860.7	224.83 µg/L	224.494	224.83 ppb	224.494	99.85%
Na 589.592 Radial†	6020.5	932.30 µg/L	700.125	932.30 ppb	700.125	75.10%
Ni 231.604†	19506.9	244.06 µg/L	238.997	244.06 ppb	238.997	97.93%
Saturated within auto integration window (code 4)						
P 214.914†	6284.3	1446.9 µg/L	1492.34	1446.9 ppb	1492.34	103.14%
Pb 220.353†	3910.3	244.20 µg/L	251.655	244.20 ppb	251.655	103.05%
S 181.975 Axial†	2845.9	2396.1 µg/L	2557.22	2396.1 ppb	2557.22	106.73%
Sb 206.836†	1452.0	187.66 µg/L	199.028	187.66 ppb	199.028	106.06%
Se 196.026†	517.8	207 µg/L	216.3	207 ppb	216.3	104.50%
SiO2†	272430.2	28840 µg/L	36352.4	28840 ppb	36352.4	126.05%
Si 251.611†	852564.1	13440 µg/L	16850.2	13440 ppb	16850.2	125.38%
Sn 189.927†	3132.4	224.54 µg/L	229.500	224.54 ppb	229.500	102.21%
Sr 421.552†	26739.3	63.039 µg/L	30.0517	63.039 ppb	30.0517	47.67%
Saturated within auto integration window (code 4)						
Ti 334.940†	2097988.1	2154.7 µg/L	2558.40	2154.7 ppb	2558.40	118.74%
Saturated within auto integration window (code 4)						
Tl 190.801†	1472.4	226.40 µg/L	226.212	226.40 ppb	226.212	99.92%
U 409.014†	708.2	65.482 µg/L	72.5782	65.482 ppb	72.5782	110.84%
V 292.402†	52223.4	271.09 µg/L	334.375	271.09 ppb	334.375	123.34%
Zn 213.857†	50745.3	301.61 µg/L	383.616	301.61 ppb	383.616	127.19%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 6
Sample ID: 1202068113|964016|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 306
Date Collected: 4/5/2010 12:58:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068113|964016|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	274201.6	274201.6	196	%			12:58:58
1	Al 396.153Radial†	7496.1	3908.4	800.29	µg/L	800.29	ppb	12:59:18
1	Ca 317.933Radial†	33294.7	16439.2	1119.7	µg/L	1119.7	ppb	12:59:18
1	Fe 238.204 Radial†	38469.2	19537.1	1459.0	µg/L	1459.0	ppb	12:59:18
1	K 766.490 Radial†	1393.7	-781.7	-310.24	µg/L	-310.24	ppb	12:58:58
1	Mg 279.077 IEC†	6118.4	2953.5	1374.4	µg/L	1374.4	ppb	12:59:18
1	Na 589.592 Radial†	862.8	-511.7	-79.043	µg/L	-79.043	ppb	12:58:58
1	Sr 421.552†	-68.5	169.5	0.3909	µg/L	0.3909	ppb	12:58:58
1	Sc 361.383	1754136.2	1754136.2	97.228	%			13:00:09
1	Y 371.029	1139105.9	1139105.9	107.74	%			13:00:09
1	Ag 328.068†	122167.7	121086.0	503.27	µg/L	503.27	ppb	13:00:09
1	As 188.979†	1280.4	1335.4	458.89	µg/L	458.89	ppb	13:00:11
1	B 249.677†	35352.6	32295.5	500.37	µg/L	500.37	ppb	13:00:09
1	Ba 233.527†	324208.0	333596.8	1483.4	µg/L	1483.4	ppb	13:00:09
1	Be 313.107†	1679374.3	1728350.9	500.66	µg/L	500.66	ppb	13:00:09
1	Cd 226.502†	72495.3	74665.7	504.76	µg/L	504.76	ppb	13:00:09
1	Co 228.616†	39621.3	40961.3	543.32	µg/L	543.32	ppb	13:00:11
1	Cr 267.716†	65755.2	67396.9	582.38	µg/L	582.38	ppb	13:00:11
1	Cu 324.752†	136137.7	136983.4	573.52	µg/L	573.52	ppb	13:00:09
1	Mn 257.610†	3195920.9	3286863.0	4360.1	µg/L	4360.1	ppb	13:00:09
1	Mo 202.031†	14406.9	14856.2	486.19	µg/L	486.19	ppb	13:00:11
1	Ni 231.604†	47167.1	48607.9	608.15	µg/L	608.15	ppb	13:00:11
1	P 214.914†	24485.2	25209.0	5823.6	µg/L	5823.6	ppb	13:00:11
1	Pb 220.353†	8705.2	8850.0	556.66	µg/L	556.66	ppb	13:00:11
1	S 181.975 Axial†	6322.6	6414.0	5400.0	µg/L	5400.0	ppb	13:00:11
1	Sb 206.836†	3158.4	3158.8	407.42	µg/L	407.42	ppb	13:00:11
1	Se 196.026†	1128.0	1154.0	455	µg/L	455	ppb	13:00:11
1	SiO2†	575416.7	590084.8	62468	µg/L	62468	ppb	13:00:09
1	Si 251.611†	1793879.0	1844261.8	29072	µg/L	29072	ppb	13:00:09
1	Sn 189.927†	6623.9	6810.9	500.35	µg/L	500.35	ppb	13:00:11
1	Ti 334.940†	7839924.2	8062644.8	8280.7	µg/L	8280.7	ppb	13:00:06
1	Tl 190.801†	2705.9	2897.3	492.82	µg/L	492.82	ppb	13:00:11
1	U 409.014†	-332.3	-178.4	58.665	µg/L	58.665	ppb	13:00:09
1	V 292.402†	139283.4	142831.7	739.98	µg/L	739.98	ppb	13:00:09
1	Zn 213.857†	151700.8	155523.3	928.57	µg/L	928.57	ppb	13:00:09
2	Sc RADIAL	300365.4	300365.4	214	%			12:59:20
2	Al 396.153Radial†	15433.5	7276.9	1509.5	µg/L	1509.5	ppb	12:59:40
Saturated within auto integration window (code 4)								
2	Ca 317.933Radial†	47413.7	21542.7	1467.3	µg/L	1467.3	ppb	12:59:40
2	Fe 238.204 Radial†	68704.8	31927.2	2384.3	µg/L	2384.3	ppb	12:59:40
Saturated within auto integration window (code 4)								
2	K 766.490 Radial†	9517.3	2945.1	1166.1	µg/L	1166.1	ppb	12:59:20
2	Mg 279.077 IEC†	7003.3	3093.9	1438.4	µg/L	1438.4	ppb	12:59:40
2	Na 589.592 Radial†	17256.6	7096.1	1098.9	µg/L	1098.9	ppb	12:59:20
2	Sr 421.552†	73330.2	34406.3	81.135	µg/L	81.135	ppb	12:59:20
2	Sc 361.383	1762873.0	1762873.0	97.712	%			13:00:16
2	Y 371.029	1145211.6	1145211.6	108.32	%			13:00:16
2	Ag 328.068†	122077.7	120371.2	500.29	µg/L	500.29	ppb	13:00:16
2	As 188.979†	1310.9	1360.2	467.45	µg/L	467.45	ppb	13:00:18
2	B 249.677†	35495.3	32261.3	499.84	µg/L	499.84	ppb	13:00:16
2	Ba 233.527†	324433.3	332174.9	1477.1	µg/L	1477.1	ppb	13:00:16
2	Be 313.107†	1679052.8	1719461.5	498.08	µg/L	498.08	ppb	13:00:16
2	Cd 226.502†	72601.4	74404.8	502.90	µg/L	502.90	ppb	13:00:16
2	Co 228.616†	39832.7	40975.8	543.45	µg/L	543.45	ppb	13:00:18
2	Cr 267.716†	65936.8	67247.5	581.13	µg/L	581.13	ppb	13:00:18
2	Cu 324.752†	136372.3	136529.5	571.75	µg/L	571.75	ppb	13:00:16
2	Mn 257.610†	3195701.8	3270348.2	4338.2	µg/L	4338.2	ppb	13:00:16
2	Mo 202.031†	14466.9	14844.2	485.83	µg/L	485.83	ppb	13:00:18
2	Ni 231.604†	47386.1	48591.6	607.94	µg/L	607.94	ppb	13:00:18

2	P 214.914†	24553.3	25154.0	5810.4 µg/L	5810.4 ppb	13:00:18
2	Pb 220.353†	8646.9	8745.9	550.29 µg/L	550.29 ppb	13:00:18
2	S 181.975 Axial†	6305.1	6363.8	5357.7 µg/L	5357.7 ppb	13:00:18
2	Sb 206.836†	3132.1	3115.7	401.85 µg/L	401.85 ppb	13:00:18
2	Se 196.026†	1115.9	1135.8	448 µg/L	448 ppb	13:00:18
2	SiO2†	575181.4	586910.8	62132 µg/L	62132 ppb	13:00:16
2	Si 251.611†	1791991.8	1833186.4	28898 µg/L	28898 ppb	13:00:16
2	Sn 189.927†	6551.2	6702.7	492.89 µg/L	492.89 ppb	13:00:18
2	Ti 334.940†	7892435.7	8076423.5	8294.9 µg/L	8294.9 ppb	13:00:14
2	Tl 190.801†	2718.8	2896.8	492.81 µg/L	492.81 ppb	13:00:18
2	U 409.014†	-368.7	-214.0	55.877 µg/L	55.877 ppb	13:00:16
2	V 292.402†	139295.8	142134.3	736.24 µg/L	736.24 ppb	13:00:16
2	Zn 213.857†	151789.3	154840.6	924.41 µg/L	924.41 ppb	13:00:16
3	Sc RADIAL	248818.2	248818.2	178 %		12:59:42
3	Al 396.153Radial†	10919.9	6226.8	1288.6 µg/L	1288.6 ppb	13:00:02
Saturated within auto integration window (code 4)						
3	Ca 317.933Radial†	73261.2	40677.0	2770.5 µg/L	2770.5 ppb	13:00:02
Saturated within auto integration window (code 4)						
3	Fe 238.204 Radial†	64457.4	36174.3	2701.5 µg/L	2701.5 ppb	13:00:02
Saturated within auto integration window (code 4)						
3	K 766.490 Radial†	10558.7	4451.1	1762.1 µg/L	1762.1 ppb	12:59:42
3	Mg 279.077 IEC†	28846.3	16069.0	7429.1 µg/L	7429.1 ppb	13:00:02
3	Na 589.592 Radial†	19342.6	9938.0	1538.9 µg/L	1538.9 ppb	12:59:42
3	Sr 421.552†	82930.0	46896.8	110.58 µg/L	110.58 ppb	12:59:42
3	Sc 361.383	1769957.2	1769957.2	98.105 %		13:00:24
3	Y 371.029	1150482.9	1150482.9	108.81 %		13:00:24
3	Ag 328.068†	123222.5	121038.0	503.04 µg/L	503.04 ppb	13:00:24
3	As 188.979†	1341.8	1386.3	476.34 µg/L	476.34 ppb	13:00:26
3	B 249.677†	35942.8	32572.1	504.68 µg/L	504.68 ppb	13:00:24
3	Ba 233.527†	327881.2	334360.4	1486.8 µg/L	1486.8 ppb	13:00:24
3	Be 313.107†	1698436.3	1732341.8	501.81 µg/L	501.81 ppb	13:00:24
3	Cd 226.502†	73353.3	74873.9	506.04 µg/L	506.04 ppb	13:00:24
3	Co 228.616†	39716.6	40694.2	539.72 µg/L	539.72 ppb	13:00:26
3	Cr 267.716†	65890.2	66930.0	578.32 µg/L	578.32 ppb	13:00:26
3	Cu 324.752†	137579.0	137201.0	574.76 µg/L	574.76 ppb	13:00:24
3	Mn 257.610†	3230694.7	3292927.2	4367.9 µg/L	4367.9 ppb	13:00:24
3	Mo 202.031†	14429.2	14746.6	482.76 µg/L	482.76 ppb	13:00:26
3	Ni 231.604†	47316.4	48326.5	604.62 µg/L	604.62 ppb	13:00:26
3	P 214.914†	24554.3	25054.4	5787.1 µg/L	5787.1 ppb	13:00:26
3	Pb 220.353†	8706.4	8771.1	551.87 µg/L	551.87 ppb	13:00:26
3	S 181.975 Axial†	6248.9	6280.7	5287.8 µg/L	5287.8 ppb	13:00:26
3	Sb 206.836†	3138.1	3109.0	401.00 µg/L	401.00 ppb	13:00:26
3	Se 196.026†	1133.1	1148.8	454 µg/L	454 ppb	13:00:26
3	SiO2†	581702.8	591202.2	62587 µg/L	62587 ppb	13:00:24
3	Si 251.611†	1812971.7	1847231.4	29119 µg/L	29119 ppb	13:00:24
3	Sn 189.927†	6639.0	6765.3	497.36 µg/L	497.36 ppb	13:00:26
3	Ti 334.940†	7958570.7	8111507.5	8330.4 µg/L	8330.4 ppb	13:00:21
3	Tl 190.801†	2768.0	2935.8	498.64 µg/L	498.64 ppb	13:00:26
3	U 409.014†	-552.2	-399.5	44.731 µg/L	44.731 ppb	13:00:24
3	V 292.402†	141113.7	143416.8	742.77 µg/L	742.77 ppb	13:00:24
3	Zn 213.857†	153425.8	155887.0	930.65 µg/L	930.65 ppb	13:00:24

Mean Data: 1202068113|964016|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1762322.1	97.681	%	0.4393				0.45%
Sc RADIAL	274461.7	196	%	18.4				9.39%
Internal Standard Check greater than the upper limit for Sc RADIAL. Recovery = 195.9%								
Y 371.029	1144933.5	108.29	%	0.539				0.50%
Ag 328.068†	120831.7	502.20	µg/L	1.658	502.20	ppb	1.658	0.33%
Al 396.153Radial†	5804.0	1199.5	µg/L	362.90	1199.5	ppb	362.90	30.26%
Saturated within auto integration window (code 4)								
As 188.979†	1360.6	467.56	µg/L	8.721	467.56	ppb	8.721	1.87%
B 249.677†	32376.3	501.63	µg/L	2.658	501.63	ppb	2.658	0.53%
Ba 233.527†	333377.4	1482.4	µg/L	4.93	1482.4	ppb	4.93	0.33%
Be 313.107†	1726718.1	500.18	µg/L	1.909	500.18	ppb	1.909	0.38%
Ca 317.933Radial†	26219.7	1785.8	µg/L	870.29	1785.8	ppb	870.29	48.73%
Saturated within auto integration window (code 4)								
Cd 226.502†	74648.1	504.57	µg/L	1.577	504.57	ppb	1.577	0.31%
Co 228.616†	40877.1	542.16	µg/L	2.116	542.16	ppb	2.116	0.39%

Cr 267.716†	67191.5	580.61 µg/L	2.079	580.61 ppb	2.079	0.36%
Cu 324.752†	136904.6	573.34 µg/L	1.510	573.34 ppb	1.510	0.26%
Fe 238.204 Radial†	29212.9	2181.6 µg/L	645.56	2181.6 ppb	645.56	29.59%
Saturated within auto integration window (code 4)						
K 766.490 Radial†	2204.9	872.66 µg/L	1066.882	872.66 ppb	1066.882	122.26%
Mg 279.077 IEC†	7372.1	3414.0 µg/L	3477.37	3414.0 ppb	3477.37	101.86%
Mn 257.610†	3283379.5	4355.4 µg/L	15.41	4355.4 ppb	15.41	0.35%
Mo 202.031†	14815.7	484.93 µg/L	1.883	484.93 ppb	1.883	0.39%
Na 589.592 Radial†	5507.5	852.92 µg/L	836.552	852.92 ppb	836.552	98.08%
Ni 231.604†	48508.6	606.90 µg/L	1.976	606.90 ppb	1.976	0.33%
P 214.914†	25139.1	5807.0 µg/L	18.48	5807.0 ppb	18.48	0.32%
Pb 220.353†	8789.0	552.94 µg/L	3.318	552.94 ppb	3.318	0.60%
S 181.975 Axial†	6352.8	5348.5 µg/L	56.64	5348.5 ppb	56.64	1.06%
Sb 206.836†	3127.8	403.42 µg/L	3.488	403.42 ppb	3.488	0.86%
Se 196.026†	1146.2	452 µg/L	3.6	452 ppb	3.6	0.79%
SiO2†	589399.3	62396 µg/L	235.8	62396 ppb	235.8	0.38%
Si 251.611†	1841559.8	29030 µg/L	116.7	29030 ppb	116.7	0.40%
Sn 189.927†	6759.6	496.87 µg/L	3.753	496.87 ppb	3.753	0.76%
Sr 421.552†	27157.5	64.036 µg/L	57.0511	64.036 ppb	57.0511	89.09%
Ti 334.940†	8083525.3	8302.0 µg/L	25.63	8302.0 ppb	25.63	0.31%
Tl 190.801†	2909.9	494.76 µg/L	3.364	494.76 ppb	3.364	0.68%
U 409.014†	-264.0	53.091 µg/L	7.3730	53.091 ppb	7.3730	13.89%
V 292.402†	142794.3	739.66 µg/L	3.275	739.66 ppb	3.275	0.44%
Zn 213.857†	155417.0	927.88 µg/L	3.176	927.88 ppb	3.176	0.34%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 7
Sample ID: 1202068111|964016|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 307
Date Collected: 4/5/2010 13:00:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068111|964016|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135143.9	135143.9	96.5	%			13:01:04
1	Al 396.153Radial†	65546.5	68025.4	14322	µg/L	14322	ppb	13:01:04
1	Ca 317.933Radial†	68035.1	69955.1	4764.6	µg/L	4764.6	ppb	13:01:06
1	Fe 238.204 Radial†	318147.6	329681.1	24620	µg/L	24620	ppb	13:01:04
1	K 766.490 Radial†	5435.2	4140.5	1636.2	µg/L	1636.2	ppb	13:01:06
1	Mg 279.077 IEC†	5378.4	5402.9	2473.6	µg/L	2473.6	ppb	13:01:06
1	Na 589.592 Radial†	6387.9	5669.3	877.33	µg/L	877.33	ppb	13:01:06
1	Sr 421.552†	13133.3	13818.7	32.554	µg/L	32.554	ppb	13:01:06
1	Sc 361.383	1769009.5	1769009.5	98.052	%			13:01:32
1	Y 371.029	1053779.0	1053779.0	99.667	%			13:01:32
1	Ag 328.068†	4053.2	-431.4	-1.7667	µg/L	-1.7667	ppb	13:01:34
1	As 188.979†	-14.5	3.7	6.9336	µg/L	6.9336	ppb	13:01:54
1	B 249.677†	4267.8	287.4	4.4355	µg/L	4.4355	ppb	13:01:34
1	Ba 233.527†	36124.8	36987.0	164.11	µg/L	164.11	ppb	13:01:34
1	Be 313.107†	7420.8	8660.0	2.4890	µg/L	2.4890	ppb	13:01:34
1	Cd 226.502†	304.3	413.7	0.2150	µg/L	0.2150	ppb	13:01:54
1	Co 228.616†	534.2	755.1	8.8684	µg/L	8.8684	ppb	13:01:54
1	Cr 267.716†	1990.2	1796.5	16.301	µg/L	16.301	ppb	13:01:54
1	Cu 324.752†	5144.4	2210.5	12.851	µg/L	12.851	ppb	13:01:34
1	Mn 257.610†	399535.4	407287.9	540.12	µg/L	540.12	ppb	13:01:34
1	Mo 202.031†	-12.5	25.8	1.8767	µg/L	1.8767	ppb	13:01:54
1	Ni 231.604†	1188.0	1307.5	16.358	µg/L	16.358	ppb	13:01:54
1	P 214.914†	3144.7	3232.9	734.18	µg/L	734.18	ppb	13:01:54
1	Pb 220.353†	259.3	161.0	11.543	µg/L	11.543	ppb	13:01:54
1	S 181.975 Axial†	163.2	77.5	65.195	µg/L	65.195	ppb	13:01:54
1	Sb 206.836†	78.1	-10.1	-1.8569	µg/L	-1.8569	ppb	13:01:54
1	Se 196.026†	6.7	0.6	8.73	µg/L	8.73	ppb	13:01:54
1	SiO2†	114255.9	114786.6	12156	µg/L	12156	ppb	13:01:34
1	Si 251.611†	350699.9	356899.9	5627.9	µg/L	5627.9	ppb	13:01:34
1	Sn 189.927†	-10.0	-12.0	2.9592	µg/L	2.9592	ppb	13:01:54
1	Ti 334.940†	1074914.2	1095445.6	1125.1	µg/L	1125.1	ppb	13:01:32
1	Tl 190.801†	-185.6	-75.0	2.7136	µg/L	2.7136	ppb	13:01:54
1	U 409.014†	-1164.9	-1024.7	-64.122	µg/L	-64.122	ppb	13:01:34
1	V 292.402†	8462.7	8207.6	38.931	µg/L	38.931	ppb	13:01:34
1	Zn 213.857†	11384.2	11107.4	64.414	µg/L	64.414	ppb	13:01:34
2	Sc RADIAL	136031.8	136031.8	97.1	%			13:01:08
2	Al 396.153Radial†	66544.4	68609.7	14445	µg/L	14445	ppb	13:01:08
2	Ca 317.933Radial†	69741.7	71252.4	4852.9	µg/L	4852.9	ppb	13:01:10
2	Fe 238.204 Radial†	322134.6	331634.5	24766	µg/L	24766	ppb	13:01:08
2	K 766.490 Radial†	5503.2	4173.7	1649.4	µg/L	1649.4	ppb	13:01:10
2	Mg 279.077 IEC†	5442.1	5432.2	2487.0	µg/L	2487.0	ppb	13:01:10
2	Na 589.592 Radial†	6488.0	5729.2	886.60	µg/L	886.60	ppb	13:01:10
2	Sr 421.552†	13440.1	14045.8	33.089	µg/L	33.089	ppb	13:01:10
2	Sc 361.383	1769098.6	1769098.6	98.057	%			13:01:56
2	Y 371.029	1053224.1	1053224.1	99.615	%			13:01:56
2	Ag 328.068†	4323.1	-156.4	-0.6580	µg/L	-0.6580	ppb	13:01:58
2	As 188.979†	-8.8	9.5	8.9321	µg/L	8.9321	ppb	13:02:18
2	B 249.677†	4040.9	55.8	0.8332	µg/L	0.8332	ppb	13:01:58
2	Ba 233.527†	36072.8	36932.1	163.87	µg/L	163.87	ppb	13:01:58
2	Be 313.107†	7359.0	8596.5	2.4672	µg/L	2.4672	ppb	13:01:58
2	Cd 226.502†	317.1	426.8	0.2878	µg/L	0.2878	ppb	13:02:18
2	Co 228.616†	544.5	765.6	8.9998	µg/L	8.9998	ppb	13:02:18
2	Cr 267.716†	2004.0	1810.5	16.437	µg/L	16.437	ppb	13:02:18
2	Cu 324.752†	5107.9	2173.0	12.707	µg/L	12.707	ppb	13:01:58
2	Mn 257.610†	395726.9	403383.4	534.94	µg/L	534.94	ppb	13:01:58
2	Mo 202.031†	-22.4	15.8	1.5549	µg/L	1.5549	ppb	13:02:18
2	Ni 231.604†	1188.9	1308.3	16.369	µg/L	16.369	ppb	13:02:18
2	P 214.914†	3196.9	3285.9	746.38	µg/L	746.38	ppb	13:02:18
2	Pb 220.353†	230.8	132.0	9.7651	µg/L	9.7651	ppb	13:02:18

2	S 181.975 Axial†	146.0	60.0	50.442 µg/L	50.442 ppb	13:02:18
2	Sb 206.836†	72.1	-16.2	-2.6554 µg/L	-2.6554 ppb	13:02:18
2	Se 196.026†	11.4	5.5	10.7 µg/L	10.7 ppb	13:02:18
2	SiO2†	112848.5	113345.5	12003 µg/L	12003 ppb	13:01:58
2	Si 251.611†	347017.3	353126.4	5568.4 µg/L	5568.4 ppb	13:01:58
2	Sn 189.927†	-5.8	-7.8	3.2557 µg/L	3.2557 ppb	13:02:18
2	Ti 334.940†	1075253.2	1095736.0	1125.4 µg/L	1125.4 ppb	13:01:56
2	Tl 190.801†	-202.8	-92.5	0.3152 µg/L	0.3152 ppb	13:02:18
2	U 409.014†	-1342.4	-1205.6	-75.610 µg/L	-75.610 ppb	13:01:58
2	V 292.402†	8442.7	8186.8	38.797 µg/L	38.797 ppb	13:01:58
2	Zn 213.857†	11382.2	11104.8	64.385 µg/L	64.385 ppb	13:01:58
3	Sc RADIAL	136056.1	136056.1	97.1 %		13:01:12
3	Al 396.153Radial†	66712.7	68770.6	14479 µg/L	14479 ppb	13:01:12
3	Ca 317.933Radial†	69530.3	71021.9	4837.2 µg/L	4837.2 ppb	13:01:14
3	Fe 238.204 Radial†	322328.9	331775.3	24777 µg/L	24777 ppb	13:01:12
3	K 766.490 Radial†	5589.7	4261.7	1684.2 µg/L	1684.2 ppb	13:01:14
3	Mg 279.077 IEC†	5408.3	5396.4	2470.5 µg/L	2470.5 ppb	13:01:14
3	Na 589.592 Radial†	6525.9	5767.0	892.43 µg/L	892.43 ppb	13:01:14
3	Sr 421.552†	13379.4	13980.9	32.936 µg/L	32.936 ppb	13:01:14
3	Sc 361.383	1770537.3	1770537.3	98.137 %		13:02:21
3	Y 371.029	1054059.4	1054059.4	99.694 %		13:02:21
3	Ag 328.068†	4275.1	-208.8	-0.8666 µg/L	-0.8666 ppb	13:02:23
3	As 188.979†	-14.6	3.7	6.9509 µg/L	6.9509 ppb	13:02:43
3	B 249.677†	4295.3	311.7	4.8127 µg/L	4.8127 ppb	13:02:23
3	Ba 233.527†	36286.1	37119.6	164.70 µg/L	164.70 ppb	13:02:23
3	Be 313.107†	7128.0	8355.1	2.3969 µg/L	2.3969 ppb	13:02:23
3	Cd 226.502†	284.7	393.5	0.0619 µg/L	0.0619 ppb	13:02:43
3	Co 228.616†	531.7	752.1	8.8212 µg/L	8.8212 ppb	13:02:43
3	Cr 267.716†	2001.6	1806.4	16.401 µg/L	16.401 ppb	13:02:43
3	Cu 324.752†	5116.0	2177.0	12.723 µg/L	12.723 ppb	13:02:23
3	Mn 257.610†	401044.6	408474.1	541.70 µg/L	541.70 ppb	13:02:23
3	Mo 202.031†	-29.0	9.0	1.3336 µg/L	1.3336 ppb	13:02:43
3	Ni 231.604†	1191.9	1310.4	16.395 µg/L	16.395 ppb	13:02:43
3	P 214.914†	3164.4	3250.2	738.11 µg/L	738.11 ppb	13:02:43
3	Pb 220.353†	269.9	171.5	12.198 µg/L	12.198 ppb	13:02:43
3	S 181.975 Axial†	152.4	66.4	55.868 µg/L	55.868 ppb	13:02:43
3	Sb 206.836†	77.1	-11.2	-2.0108 µg/L	-2.0108 ppb	13:02:43
3	Se 196.026†	-11.6	-18.0	1.43 µg/L	1.43 ppb	13:02:43
3	SiO2†	114689.6	115128.0	12192 µg/L	12192 ppb	13:02:23
3	Si 251.611†	352183.5	358103.1	5646.9 µg/L	5646.9 ppb	13:02:23
3	Sn 189.927†	-22.2	-24.5	2.0890 µg/L	2.0890 ppb	13:02:43
3	Ti 334.940†	1073682.4	1093244.4	1122.8 µg/L	1122.8 ppb	13:02:21
3	Tl 190.801†	-196.7	-86.2	1.1754 µg/L	1.1754 ppb	13:02:43
3	U 409.014†	-1363.6	-1226.1	-76.820 µg/L	-76.820 ppb	13:02:23
3	V 292.402†	8594.9	8334.9	39.562 µg/L	39.562 ppb	13:02:23
3	Zn 213.857†	11479.3	11194.2	64.917 µg/L	64.917 ppb	13:02:23

Mean Data: 1202068111|964016|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769548.4	98.082	%	0.0475				0.05%
Sc RADIAL	135743.9	96.9	%	0.37				0.38%
Y 371.029	1053687.5	99.659	%	0.0402				0.04%
Ag 328.068†	-265.6	-1.0971	µg/L	0.58922	-1.0971	ppb	0.58922	53.71%
Al 396.153Radial†	68468.6	14415	µg/L	82.6	14415	ppb	82.6	0.57%
As 188.979†	5.6	7.6056	µg/L	1.14887	7.6056	ppb	1.14887	15.11%
B 249.677†	218.3	3.3605	µg/L	2.19681	3.3605	ppb	2.19681	65.37%
Ba 233.527†	37012.9	164.23	µg/L	0.428	164.23	ppb	0.428	0.26%
Be 313.107†	8537.2	2.4510	µg/L	0.04817	2.4510	ppb	0.04817	1.97%
Ca 317.933Radial†	70743.1	4818.2	µg/L	47.14	4818.2	ppb	47.14	0.98%
Cd 226.502†	411.3	0.1882	µg/L	0.11533	0.1882	ppb	0.11533	61.27%
Co 228.616†	757.6	8.8965	µg/L	0.09256	8.8965	ppb	0.09256	1.04%
Cr 267.716†	1804.5	16.380	µg/L	0.0705	16.380	ppb	0.0705	0.43%
Cu 324.752†	2186.8	12.760	µg/L	0.0791	12.760	ppb	0.0791	0.62%
Fe 238.204 Radial†	331030.3	24721	µg/L	87.4	24721	ppb	87.4	0.35%
K 766.490 Radial†	4192.0	1656.6	µg/L	24.80	1656.6	ppb	24.80	1.50%
Mg 279.077 IEC†	5410.5	2477.0	µg/L	8.78	2477.0	ppb	8.78	0.35%
Mn 257.610†	406381.8	538.92	µg/L	3.534	538.92	ppb	3.534	0.66%
Mo 202.031†	16.8	1.5884	µg/L	0.27312	1.5884	ppb	0.27312	17.19%
Na 589.592 Radial†	5721.8	885.45	µg/L	7.620	885.45	ppb	7.620	0.86%

Ni 231.604†	1308.7	16.374	µg/L	0.0191	16.374	ppb	0.0191	0.12%
P 214.914†	3256.3	739.56	µg/L	6.226	739.56	ppb	6.226	0.84%
Pb 220.353†	154.8	11.169	µg/L	1.2591	11.169	ppb	1.2591	11.27%
S 181.975 Axial†	67.9	57.168	µg/L	7.4619	57.168	ppb	7.4619	13.05%
Sb 206.836†	-12.5	-2.1744	µg/L	0.42361	-2.1744	ppb	0.42361	19.48%
Se 196.026†	-4.0	6.95	µg/L	4.878	6.95	ppb	4.878	70.20%
SiO2†	114420.0	12117	µg/L	100.2	12117	ppb	100.2	0.83%
Si 251.611†	356043.1	5614.4	µg/L	40.95	5614.4	ppb	40.95	0.73%
Sn 189.927†	-14.8	2.7679	µg/L	0.60640	2.7679	ppb	0.60640	21.91%
Sr 421.552†	13948.5	32.859	µg/L	0.2755	32.859	ppb	0.2755	0.84%
Ti 334.940†	1094808.6	1124.4	µg/L	1.40	1124.4	ppb	1.40	0.12%
Tl 190.801†	-84.6	1.4014	µg/L	1.21506	1.4014	ppb	1.21506	86.71%
U 409.014†	-1152.1	-72.184	µg/L	7.0079	-72.184	ppb	7.0079	9.71%
Concentration less than lower limit for U 409.014.								
V 292.402†	8243.1	39.096	µg/L	0.4088	39.096	ppb	0.4088	1.05%
Zn 213.857†	11135.5	64.572	µg/L	0.2989	64.572	ppb	0.2989	0.46%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 13:02:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	134951.4	134951.4	96.3	%			13:03:24
1	Al 396.153Radial†	23289.9	24255.8	5083.2	µg/L	5083.2	ppb	13:03:24
1	Ca 317.933Radial†	72439.3	74627.7	5082.8	µg/L	5082.8	ppb	13:03:24
1	Fe 238.204 Radial†	67478.3	69931.9	5222.5	µg/L	5222.5	ppb	13:03:24
1	K 766.490 Radial†	13543.3	12565.5	4974.9	µg/L	4974.9	ppb	13:03:24
1	Mg 279.077 IEC†	10775.3	11013.4	5093.2	µg/L	5093.2	ppb	13:03:24
1	Na 589.592 Radial†	62921.0	64365.7	9972.8	µg/L	9972.8	ppb	13:03:24
1	Sr 421.552†	205304.6	213331.0	503.09	µg/L	503.09	ppb	13:03:22
1	Sc 361.383	1747605.0	1747605.0	96.866	%			13:03:37
1	Y 371.029	1016171.2	1016171.2	96.110	%			13:03:37
1	Ag 328.068†	122620.9	122023.4	505.79	µg/L	505.79	ppb	13:03:37
1	As 188.979†	1327.3	1388.8	477.11	µg/L	477.11	ppb	13:03:57
1	B 249.677†	34851.3	31913.8	494.56	µg/L	494.56	ppb	13:03:37
1	Ba 233.527†	109210.3	112888.6	502.18	µg/L	502.18	ppb	13:03:37
1	Be 313.107†	1644176.8	1698469.7	492.15	µg/L	492.15	ppb	13:03:37
1	Cd 226.502†	72177.9	74616.7	503.98	µg/L	503.98	ppb	13:03:37
1	Co 228.616†	36906.9	38311.4	507.09	µg/L	507.09	ppb	13:03:37
1	Cr 267.716†	56644.2	58243.8	503.75	µg/L	503.75	ppb	13:03:37
1	Cu 324.752†	119066.1	119882.6	503.02	µg/L	503.02	ppb	13:03:37
1	Mn 257.610†	367985.1	379707.4	503.48	µg/L	503.48	ppb	13:03:37
1	Mo 202.031†	14958.8	15481.4	506.77	µg/L	506.77	ppb	13:03:57
1	Ni 231.604†	38996.7	40354.4	504.88	µg/L	504.88	ppb	13:03:37
1	P 214.914†	10523.6	10889.8	2510.3	µg/L	2510.3	ppb	13:03:57
1	Pb 220.353†	8084.3	8242.5	508.80	µg/L	508.80	ppb	13:03:57
1	S 181.975 Axial†	1239.5	1190.7	1005.9	µg/L	1005.9	ppb	13:03:57
1	Sb 206.836†	3857.3	3892.4	503.08	µg/L	503.08	ppb	13:03:57
1	Se 196.026†	1236.0	1269.9	503	µg/L	503	ppb	13:03:57
1	SiO2†	50367.9	50258.6	5300.7	µg/L	5300.7	ppb	13:03:37
1	Si 251.611†	154270.2	158495.0	2489.2	µg/L	2489.2	ppb	13:03:37
1	Sn 189.927†	6951.6	7174.6	499.34	µg/L	499.34	ppb	13:03:57
1	Ti 334.940†	472854.0	487331.3	499.88	µg/L	499.88	ppb	13:03:37
1	Tl 190.801†	3479.8	3706.7	513.66	µg/L	513.66	ppb	13:03:57
1	U 409.014†	7164.5	7559.7	507.55	µg/L	507.55	ppb	13:03:37
1	V 292.402†	93886.7	96501.4	506.87	µg/L	506.87	ppb	13:03:37
1	Zn 213.857†	82263.2	84422.0	500.15	µg/L	500.15	ppb	13:03:37
2	Sc RADIAL	136378.3	136378.3	97.3	%			13:03:28
2	Al 396.153Radial†	23164.1	23873.6	5003.0	µg/L	5003.0	ppb	13:03:28
2	Ca 317.933Radial†	73120.8	74541.0	5076.9	µg/L	5076.9	ppb	13:03:28
2	Fe 238.204 Radial†	66011.8	67692.5	5055.2	µg/L	5055.2	ppb	13:03:28
2	K 766.490 Radial†	13942.8	12828.8	5079.2	µg/L	5079.2	ppb	13:03:28
2	Mg 279.077 IEC†	10946.2	11071.9	5120.2	µg/L	5120.2	ppb	13:03:28
2	Na 589.592 Radial†	63956.9	64746.4	10032	µg/L	10032	ppb	13:03:28
2	Sr 421.552†	206101.6	211919.9	499.77	µg/L	499.77	ppb	13:03:26
2	Sc 361.383	1771467.8	1771467.8	98.188	%			13:04:00
2	Y 371.029	1029278.3	1029278.3	97.350	%			13:04:00
2	Ag 328.068†	124739.5	122475.9	507.68	µg/L	507.68	ppb	13:04:00
2	As 188.979†	1335.0	1378.2	473.48	µg/L	473.48	ppb	13:04:20
2	B 249.677†	35593.5	32185.1	498.77	µg/L	498.77	ppb	13:04:00
2	Ba 233.527†	110782.0	112970.6	502.55	µg/L	502.55	ppb	13:04:00
2	Be 313.107†	1676433.8	1708457.1	495.04	µg/L	495.04	ppb	13:04:00
2	Cd 226.502†	73710.5	75173.8	507.77	µg/L	507.77	ppb	13:04:00
2	Co 228.616†	37538.3	38441.2	508.82	µg/L	508.82	ppb	13:04:00
2	Cr 267.716†	57589.1	58418.4	505.25	µg/L	505.25	ppb	13:04:00
2	Cu 324.752†	121161.9	120361.3	505.01	µg/L	505.01	ppb	13:04:00
2	Mn 257.610†	374378.3	381101.1	505.33	µg/L	505.33	ppb	13:04:00
2	Mo 202.031†	14962.8	15277.5	500.10	µg/L	500.10	ppb	13:04:20
2	Ni 231.604†	39677.3	40505.3	506.77	µg/L	506.77	ppb	13:04:00
2	P 214.914†	10538.1	10758.2	2480.0	µg/L	2480.0	ppb	13:04:20
2	Pb 220.353†	8094.8	8140.7	502.52	µg/L	502.52	ppb	13:04:20

2	S 181.975 Axial†	1234.8	1168.6	987.34 µg/L	987.34 ppb	13:04:20
2	Sb 206.836†	3877.6	3859.4	498.71 µg/L	498.71 ppb	13:04:20
2	Se 196.026†	1247.8	1264.7	500 µg/L	500 ppb	13:04:20
2	SiO2†	51515.2	50726.6	5350.5 µg/L	5350.5 ppb	13:04:00
2	Si 251.611†	157474.7	159613.2	2507.0 µg/L	2507.0 ppb	13:04:00
2	Sn 189.927†	6980.0	7106.9	494.65 µg/L	494.65 ppb	13:04:20
2	Ti 334.940†	480399.5	488440.2	501.01 µg/L	501.01 ppb	13:04:00
2	Tl 190.801†	3461.6	3639.8	504.55 µg/L	504.55 ppb	13:04:20
2	U 409.014†	7360.0	7659.1	514.00 µg/L	514.00 ppb	13:04:00
2	V 292.402†	95569.5	96909.6	508.95 µg/L	508.95 ppb	13:04:00
2	Zn 213.857†	83892.2	84937.1	503.23 µg/L	503.23 ppb	13:04:00
3	Sc RADIAL	136580.0	136580.0	97.5 %		13:03:32
3	Al 396.153Radial†	23330.5	24009.1	5031.4 µg/L	5031.4 ppb	13:03:32
3	Ca 317.933Radial†	73424.8	74741.9	5090.6 µg/L	5090.6 ppb	13:03:32
3	Fe 238.204 Radial†	66275.6	67863.0	5068.0 µg/L	5068.0 ppb	13:03:32
3	K 766.490 Radial†	13976.3	12842.0	5084.5 µg/L	5084.5 ppb	13:03:32
3	Mg 279.077 IEC†	10895.7	11003.5	5088.7 µg/L	5088.7 ppb	13:03:32
3	Na 589.592 Radial†	64278.6	64979.3	10068 µg/L	10068 ppb	13:03:32
3	Sr 421.552†	204269.4	209727.8	494.60 µg/L	494.60 ppb	13:03:30
3	Sc 361.383	1762008.4	1762008.4	97.664 %		13:04:23
3	Y 371.029	1024064.8	1024064.8	96.857 %		13:04:23
3	Ag 328.068†	124016.1	122417.3	507.42 µg/L	507.42 ppb	13:04:23
3	As 188.979†	1344.0	1394.7	479.06 µg/L	479.06 ppb	13:04:43
3	B 249.677†	35445.3	32228.0	499.43 µg/L	499.43 ppb	13:04:23
3	Ba 233.527†	110194.8	112975.1	502.57 µg/L	502.57 ppb	13:04:23
3	Be 313.107†	1665423.2	1706349.1	494.43 µg/L	494.43 ppb	13:04:23
3	Cd 226.502†	73240.4	75095.6	507.24 µg/L	507.24 ppb	13:04:23
3	Co 228.616†	37379.4	38483.8	509.38 µg/L	509.38 ppb	13:04:23
3	Cr 267.716†	57383.5	58522.8	506.16 µg/L	506.16 ppb	13:04:23
3	Cu 324.752†	120292.6	120133.7	504.04 µg/L	504.04 ppb	13:04:23
3	Mn 257.610†	372242.5	380961.2	505.15 µg/L	505.15 ppb	13:04:23
3	Mo 202.031†	14975.1	15371.8	503.18 µg/L	503.18 ppb	13:04:43
3	Ni 231.604†	39454.9	40494.5	506.64 µg/L	506.64 ppb	13:04:23
3	P 214.914†	10535.7	10813.4	2492.7 µg/L	2492.7 ppb	13:04:43
3	Pb 220.353†	8095.0	8185.1	505.27 µg/L	505.27 ppb	13:04:43
3	S 181.975 Axial†	1246.4	1187.3	1003.0 µg/L	1003.0 ppb	13:04:43
3	Sb 206.836†	3832.0	3833.9	495.46 µg/L	495.46 ppb	13:04:43
3	Se 196.026†	1246.8	1270.5	503 µg/L	503 ppb	13:04:43
3	SiO2†	51309.1	50797.2	5357.8 µg/L	5357.8 ppb	13:04:23
3	Si 251.611†	156783.5	159766.5	2509.4 µg/L	2509.4 ppb	13:04:23
3	Sn 189.927†	6968.1	7132.9	496.45 µg/L	496.45 ppb	13:04:43
3	Ti 334.940†	477556.5	488155.9	500.73 µg/L	500.73 ppb	13:04:23
3	Tl 190.801†	3456.2	3653.1	506.37 µg/L	506.37 ppb	13:04:43
3	U 409.014†	7095.8	7428.9	499.46 µg/L	499.46 ppb	13:04:23
3	V 292.402†	95062.9	96913.4	508.99 µg/L	508.99 ppb	13:04:23
3	Zn 213.857†	83296.3	84785.6	502.33 µg/L	502.33 ppb	13:04:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1760360.4	97.573	%	0.6660				0.68%
Sc RADIAL	135969.9	97.1	%	0.63				0.65%
Y 371.029	1023171.4	96.772	%	0.6241				0.64%
Ag 328.068†	122305.5	506.97	µg/L	1.022	506.97	ppb	1.022	0.20%
QC value within limits for Ag 328.068 Recovery = 101.39%								
Al 396.153Radial†	24046.2	5039.2	µg/L	40.64	5039.2	ppb	40.64	0.81%
QC value within limits for Al 396.153Radial Recovery = 100.78%								
As 188.979†	1387.2	476.55	µg/L	2.835	476.55	ppb	2.835	0.59%
QC value within limits for As 188.979 Recovery = 95.31%								
B 249.677†	32109.0	497.59	µg/L	2.645	497.59	ppb	2.645	0.53%
QC value within limits for B 249.677 Recovery = 99.52%								
Ba 233.527†	112944.8	502.43	µg/L	0.217	502.43	ppb	0.217	0.04%
QC value within limits for Ba 233.527 Recovery = 100.49%								
Be 313.107†	1704425.3	493.87	µg/L	1.525	493.87	ppb	1.525	0.31%
QC value within limits for Be 313.107 Recovery = 98.77%								
Ca 317.933Radial†	74636.9	5083.4	µg/L	6.86	5083.4	ppb	6.86	0.14%
QC value within limits for Ca 317.933Radial Recovery = 101.67%								
Cd 226.502†	74962.0	506.33	µg/L	2.049	506.33	ppb	2.049	0.40%
QC value within limits for Cd 226.502 Recovery = 101.27%								
Co 228.616†	38412.1	508.43	µg/L	1.193	508.43	ppb	1.193	0.23%

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   QC value within limits for Co 228.616  Recovery = 101.69%
Cr 267.716†            58395.0      505.05 µg/L         1.219      505.05 ppb          1.219   0.24%
   QC value within limits for Cr 267.716  Recovery = 101.01%
Cu 324.752†           120125.9      504.02 µg/L         0.993      504.02 ppb          0.993   0.20%
   QC value within limits for Cu 324.752  Recovery = 100.80%
Fe 238.204 Radial†     68495.8      5115.2 µg/L         93.09      5115.2 ppb          93.09   1.82%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.30%
K 766.490 Radial†      12745.4      5046.2 µg/L         61.80      5046.2 ppb          61.80   1.22%
   QC value within limits for K 766.490 Radial  Recovery = 100.92%
Mg 279.077 IEC†        11029.6      5100.7 µg/L         17.03      5100.7 ppb          17.03   0.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.01%
Mn 257.610†           380589.9      504.65 µg/L         1.018      504.65 ppb          1.018   0.20%
   QC value within limits for Mn 257.610  Recovery = 100.93%
Mo 202.031†            15376.9      503.35 µg/L         3.340      503.35 ppb          3.340   0.66%
   QC value within limits for Mo 202.031  Recovery = 100.67%
Na 589.592 Radial†     64697.1       10024 µg/L          48.0       10024 ppb           48.0   0.48%
   QC value within limits for Na 589.592 Radial  Recovery = 100.24%
Ni 231.604†            40451.4      506.10 µg/L         1.053      506.10 ppb          1.053   0.21%
   QC value within limits for Ni 231.604  Recovery = 101.22%
P 214.914†             10820.5      2494.3 µg/L         15.23      2494.3 ppb          15.23   0.61%
   QC value within limits for P 214.914  Recovery = 99.77%
Pb 220.353†             8189.4      505.53 µg/L         3.148      505.53 ppb          3.148   0.62%
   QC value within limits for Pb 220.353  Recovery = 101.11%
S 181.975 Axial†        1182.2      998.77 µg/L        10.007      998.77 ppb         10.007   1.00%
   QC value within limits for S 181.975 Axial  Recovery = 99.88%
Sb 206.836†             3861.9      499.08 µg/L         3.825      499.08 ppb          3.825   0.77%
   QC value within limits for Sb 206.836  Recovery = 99.82%
Se 196.026†             1268.4         502 µg/L           1.3         502 ppb            1.3   0.25%
   QC value within limits for Se 196.026  Recovery = 100.39%
SiO2†                  50594.1      5336.3 µg/L         31.11      5336.3 ppb          31.11   0.58%
   QC value within limits for SiO2  Recovery = 99.79%
Si 251.611†           159291.6      2501.9 µg/L         11.00      2501.9 ppb          11.00   0.44%
   QC value within limits for Si 251.611  Recovery = 100.07%
Sn 189.927†             7138.1      496.81 µg/L         2.368      496.81 ppb          2.368   0.48%
   QC value within limits for Sn 189.927  Recovery = 99.36%
Sr 421.552†           211659.6      499.15 µg/L         4.282      499.15 ppb          4.282   0.86%
   QC value within limits for Sr 421.552  Recovery = 99.83%
Ti 334.940†           487975.8      500.54 µg/L         0.590      500.54 ppb          0.590   0.12%
   QC value within limits for Ti 334.940  Recovery = 100.11%
Tl 190.801†             3666.5      508.19 µg/L         4.821      508.19 ppb          4.821   0.95%
   QC value within limits for Tl 190.801  Recovery = 101.64%
U 409.014†              7549.2      507.00 µg/L         7.282      507.00 ppb          7.282   1.44%
   QC value within limits for U 409.014  Recovery = 101.40%
V 292.402†             96774.8      508.27 µg/L         1.211      508.27 ppb          1.211   0.24%
   QC value within limits for V 292.402  Recovery = 101.65%
Zn 213.857†            84714.9      501.90 µg/L         1.582      501.90 ppb          1.582   0.32%
   QC value within limits for Zn 213.857  Recovery = 100.38%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 13:04:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136290.1	136290.1	97.3	%			13:05:20
1	Al 396.153Radial†	-69.6	7.0	1.4282	µg/L	1.4282	ppb	13:05:40
1	Ca 317.933Radial†	692.3	140.1	9.5452	µg/L	9.5452	ppb	13:05:40
1	Fe 238.204 Radial†	192.6	80.7	6.0268	µg/L	6.0268	ppb	13:05:40
1	K 766.490 Radial†	1641.5	193.5	76.683	µg/L	76.683	ppb	13:05:20
1	Mg 279.077 IEC†	175.0	7.4	3.4314	µg/L	3.4314	ppb	13:05:40
1	Na 589.592 Radial†	1048.0	124.7	19.264	µg/L	19.264	ppb	13:05:20
1	Sr 421.552†	-137.5	63.2	0.1489	µg/L	0.1489	ppb	13:05:20
1	Sc 361.383	1782656.2	1782656.2	98.808	%			13:06:42
1	Y 371.029	1047247.8	1047247.8	99.050	%			13:06:42
1	Ag 328.068†	4249.4	-264.5	-1.0842	µg/L	-1.0842	ppb	13:06:44
1	As 188.979†	-22.1	-3.8	-1.2845	µg/L	-1.2845	ppb	13:07:04
1	B 249.677†	4129.8	114.4	1.7792	µg/L	1.7792	ppb	13:06:44
1	Ba 233.527†	-153.9	-11.2	-0.0495	µg/L	-0.0495	ppb	13:07:04
1	Be 313.107†	-783.7	298.6	0.0863	µg/L	0.0863	ppb	13:06:44
1	Cd 226.502†	-60.9	41.7	0.2814	µg/L	0.2814	ppb	13:07:04
1	Co 228.616†	-197.9	10.1	0.1327	µg/L	0.1327	ppb	13:07:04
1	Cr 267.716†	268.3	38.3	0.3322	µg/L	0.3322	ppb	13:07:04
1	Cu 324.752†	2855.2	-146.5	-0.6124	µg/L	-0.6124	ppb	13:06:44
1	Mn 257.610†	251.5	69.8	0.0924	µg/L	0.0924	ppb	13:07:04
1	Mo 202.031†	-10.5	27.9	0.9129	µg/L	0.9129	ppb	13:07:04
1	Ni 231.604†	-80.3	14.7	0.1834	µg/L	0.1834	ppb	13:07:04
1	P 214.914†	8.1	33.9	7.8275	µg/L	7.8275	ppb	13:07:04
1	Pb 220.353†	78.1	-24.4	-1.4965	µg/L	-1.4965	ppb	13:07:04
1	S 181.975 Axial†	97.0	9.3	7.8229	µg/L	7.8229	ppb	13:07:04
1	Sb 206.836†	91.7	3.1	0.4072	µg/L	0.4072	ppb	13:07:04
1	Se 196.026†	28.3	22.5	8.88	µg/L	8.88	ppb	13:07:04
1	SiO2†	1885.5	169.1	17.875	µg/L	17.875	ppb	13:07:04
1	Si 251.611†	1309.0	557.8	8.7808	µg/L	8.7808	ppb	13:06:44
1	Sn 189.927†	7.5	5.7	0.3950	µg/L	0.3950	ppb	13:07:04
1	Ti 334.940†	1019.9	209.2	0.2150	µg/L	0.2150	ppb	13:06:44
1	Tl 190.801†	-114.7	-1.8	-0.2448	µg/L	-0.2448	ppb	13:07:04
1	U 409.014†	-171.8	-10.6	-0.6689	µg/L	-0.6689	ppb	13:06:44
1	V 292.402†	411.2	-7.0	-0.0268	µg/L	-0.0268	ppb	13:06:44
1	Zn 213.857†	594.7	98.9	0.5892	µg/L	0.5892	ppb	13:07:04
2	Sc RADIAL	136851.1	136851.1	97.7	%			13:05:42
2	Al 396.153Radial†	-103.9	-27.8	-5.8900	µg/L	-5.8900	ppb	13:06:02
2	Ca 317.933Radial†	675.5	120.0	8.1746	µg/L	8.1746	ppb	13:06:02
2	Fe 238.204 Radial†	167.9	54.5	4.0720	µg/L	4.0720	ppb	13:06:02
2	K 766.490 Radial†	1638.3	183.3	72.608	µg/L	72.608	ppb	13:05:42
2	Mg 279.077 IEC†	187.9	19.9	9.2236	µg/L	9.2236	ppb	13:06:02
2	Na 589.592 Radial†	1294.8	372.9	57.744	µg/L	57.744	ppb	13:05:42
2	Sr 421.552†	-154.5	46.3	0.1092	µg/L	0.1092	ppb	13:05:42
2	Sc 361.383	1800370.9	1800370.9	99.790	%			13:07:07
2	Y 371.029	1056939.0	1056939.0	99.966	%			13:07:07
2	Ag 328.068†	4328.8	-227.3	-0.9428	µg/L	-0.9428	ppb	13:07:09
2	As 188.979†	-8.8	9.7	3.2929	µg/L	3.2929	ppb	13:07:29
2	B 249.677†	4165.2	108.8	1.6915	µg/L	1.6915	ppb	13:07:09
2	Ba 233.527†	-134.5	9.7	0.0431	µg/L	0.0431	ppb	13:07:29
2	Be 313.107†	-900.8	189.1	0.0532	µg/L	0.0532	ppb	13:07:09
2	Cd 226.502†	-87.7	15.4	0.1042	µg/L	0.1042	ppb	13:07:29
2	Co 228.616†	-202.1	7.8	0.1025	µg/L	0.1025	ppb	13:07:29
2	Cr 267.716†	263.2	30.5	0.2678	µg/L	0.2678	ppb	13:07:29
2	Cu 324.752†	2938.4	-91.6	-0.3863	µg/L	-0.3863	ppb	13:07:09
2	Mn 257.610†	356.5	172.5	0.2285	µg/L	0.2285	ppb	13:07:29
2	Mo 202.031†	-17.0	21.6	0.7059	µg/L	0.7059	ppb	13:07:29
2	Ni 231.604†	-43.4	52.4	0.6558	µg/L	0.6558	ppb	13:07:29
2	P 214.914†	3.0	28.7	6.6395	µg/L	6.6395	ppb	13:07:29
2	Pb 220.353†	108.5	5.3	0.3325	µg/L	0.3325	ppb	13:07:29

2	S 181.975 Axial†	90.0	1.3	1.0862 µg/L	1.0862 ppb		13:07:29
2	Sb 206.836†	98.1	8.6	1.1191 µg/L	1.1191 ppb		13:07:29
2	Se 196.026†	25.4	19.3	7.59 µg/L	7.59 ppb		13:07:29
2	SiO2†	1870.0	134.8	14.250 µg/L	14.250 ppb		13:07:29
2	Si 251.611†	1273.5	509.1	8.0160 µg/L	8.0160 ppb		13:07:09
2	Sn 189.927†	8.7	6.8	0.4730 µg/L	0.4730 ppb		13:07:29
2	Ti 334.940†	814.0	-7.3	-0.0060 µg/L	-0.0060 ppb		13:07:09
2	Tl 190.801†	-113.8	0.2	0.0291 µg/L	0.0291 ppb		13:07:29
2	U 409.014†	-242.9	-80.0	-5.0782 µg/L	-5.0782 ppb		13:07:09
2	V 292.402†	326.1	-96.5	-0.4955 µg/L	-0.4955 ppb		13:07:09
2	Zn 213.857†	622.6	120.9	0.7175 µg/L	0.7175 ppb		13:07:29
3	Sc RADIAL	134763.0	134763.0	96.2 %			13:06:04
3	Al 396.153Radial†	-98.1	-23.5	-4.9608 µg/L	-4.9608 ppb		13:06:24
3	Ca 317.933Radial†	689.2	145.0	9.8746 µg/L	9.8746 ppb		13:06:24
3	Fe 238.204 Radial†	163.4	52.6	3.9274 µg/L	3.9274 ppb		13:06:24
3	K 766.490 Radial†	1713.1	287.0	113.73 µg/L	113.73 ppb		13:06:04
3	Mg 279.077 IEC†	185.0	19.8	9.1679 µg/L	9.1679 ppb		13:06:24
3	Na 589.592 Radial†	1061.3	150.7	23.261 µg/L	23.261 ppb		13:06:04
3	Sr 421.552†	-202.2	-5.7	-0.0136 µg/L	-0.0136 ppb		13:06:04
3	Sc 361.383	1779169.5	1779169.5	98.615 %			13:07:31
3	Y 371.029	1045675.5	1045675.5	98.901 %			13:07:31
3	Ag 328.068†	4167.3	-339.4	-1.3915 µg/L	-1.3915 ppb		13:07:33
3	As 188.979†	-16.5	1.8	0.6281 µg/L	0.6281 ppb		13:07:53
3	B 249.677†	4105.7	98.2	1.5263 µg/L	1.5263 ppb		13:07:33
3	Ba 233.527†	-156.0	-13.7	-0.0604 µg/L	-0.0604 ppb		13:07:53
3	Be 313.107†	-846.5	233.3	0.0659 µg/L	0.0659 ppb		13:07:33
3	Cd 226.502†	-55.4	47.2	0.3186 µg/L	0.3186 ppb		13:07:53
3	Co 228.616†	-190.5	17.1	0.2261 µg/L	0.2261 ppb		13:07:53
3	Cr 267.716†	277.0	47.7	0.4170 µg/L	0.4170 ppb		13:07:53
3	Cu 324.752†	2979.0	-15.3	-0.0678 µg/L	-0.0678 ppb		13:07:33
3	Mn 257.610†	253.7	72.5	0.0958 µg/L	0.0958 ppb		13:07:53
3	Mo 202.031†	-27.2	10.9	0.3585 µg/L	0.3585 ppb		13:07:53
3	Ni 231.604†	-64.3	30.7	0.3841 µg/L	0.3841 ppb		13:07:53
3	P 214.914†	-3.9	21.8	5.0264 µg/L	5.0264 ppb		13:07:53
3	Pb 220.353†	85.7	-16.5	-1.0125 µg/L	-1.0125 ppb		13:07:53
3	S 181.975 Axial†	96.0	8.5	7.1344 µg/L	7.1344 ppb		13:07:53
3	Sb 206.836†	89.9	1.4	0.1833 µg/L	0.1833 ppb		13:07:53
3	Se 196.026†	24.3	18.4	7.26 µg/L	7.26 ppb		13:07:53
3	SiO2†	1922.0	209.9	22.217 µg/L	22.217 ppb		13:07:53
3	Si 251.611†	1301.3	552.6	8.7095 µg/L	8.7095 ppb		13:07:33
3	Sn 189.927†	0.2	-1.7	-0.1193 µg/L	-0.1193 ppb		13:07:53
3	Ti 334.940†	753.7	-58.7	-0.0586 µg/L	-0.0586 ppb		13:07:33
3	Tl 190.801†	-106.1	6.7	0.9126 µg/L	0.9126 ppb		13:07:53
3	U 409.014†	-250.6	-90.7	-5.7025 µg/L	-5.7025 ppb		13:07:33
3	V 292.402†	497.3	81.0	0.4213 µg/L	0.4213 ppb		13:07:33
3	Zn 213.857†	570.3	75.3	0.4464 µg/L	0.4464 ppb		13:07:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787398.9	99.071	%	0.6301				0.64%
Sc RADIAL	135968.1	97.1	%	0.77				0.79%
Y 371.029	1049954.1	99.305	%	0.5769				0.58%
Ag 328.068†	-277.1	-1.1395	µg/L	0.22941	-1.1395	ppb	0.22941	20.13%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.8	-3.1409	µg/L	3.98409	-3.1409	ppb	3.98409	126.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.6	0.8788	µg/L	2.29896	0.8788	ppb	2.29896	261.60%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	107.1	1.6657	µg/L	0.12840	1.6657	ppb	0.12840	7.71%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.0	-0.0222	µg/L	0.05687	-0.0222	ppb	0.05687	255.61%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	240.3	0.0685	µg/L	0.01668	0.0685	ppb	0.01668	24.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	135.0	9.1981	µg/L	0.90158	9.1981	ppb	0.90158	9.80%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	34.8	0.2347	µg/L	0.11455	0.2347	ppb	0.11455	48.80%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.6	0.1538	µg/L	0.06444	0.1538	ppb	0.06444	41.91%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              38.8      0.3390 µg/L       0.07485      0.3390 ppb        0.07485  22.08%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -84.5     -0.3555 µg/L       0.27361     -0.3555 ppb        0.27361  76.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       62.6      4.6754 µg/L       1.17256      4.6754 ppb        1.17256  25.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       221.3      87.675 µg/L       22.6597      87.675 ppb        22.6597  25.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          15.7      7.2743 µg/L       3.32818      7.2743 ppb        3.32818  45.75%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             104.9      0.1389 µg/L       0.07760      0.1389 ppb        0.07760  55.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              20.1      0.6591 µg/L       0.28014      0.6591 ppb        0.28014  42.50%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      216.1      33.423 µg/L       21.1576      33.423 ppb        21.1576  63.30%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              32.6      0.4078 µg/L       0.23709      0.4078 ppb        0.23709  58.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               28.1      6.4978 µg/L       1.40594      6.4978 ppb        1.40594  21.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -11.9     -0.7255 µg/L       0.94768     -0.7255 ppb        0.94768 130.63%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.4      5.3479 µg/L       3.70673      5.3479 ppb        3.70673  69.31%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.4      0.5698 µg/L       0.48864      0.5698 ppb        0.48864  85.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              20.1        7.91 µg/L         0.855        7.91 ppb          0.855  10.80%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   171.3      18.114 µg/L        3.9889      18.114 ppb         3.9889  22.02%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             539.8      8.5021 µg/L       0.42246      8.5021 ppb        0.42246   4.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.6      0.2496 µg/L       0.32182      0.2496 ppb        0.32182 128.96%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              34.6      0.0815 µg/L       0.08471      0.0815 ppb        0.08471 103.94%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              47.7      0.0501 µg/L       0.14519      0.0501 ppb        0.14519 289.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.7      0.2323 µg/L       0.60486      0.2323 ppb        0.60486 260.40%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -60.4     -3.8165 µg/L       2.74372     -3.8165 ppb        2.74372  71.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -7.5     -0.0337 µg/L       0.45841     -0.0337 ppb        0.45841 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              98.4      0.5844 µg/L       0.13562      0.5844 ppb        0.13562  23.21%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: 248867001|964016|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 309
Date Collected: 4/5/2010 13:10:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248867001|964016|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139835.1	139835.1	99.8	%			13:10:50
1	Al 396.153Radial†	139323.2	139658.7	29403	µg/L	29403	ppb	13:10:50
1	Ca 317.933Radial†	105525.8	105149.0	7161.6	µg/L	7161.6	ppb	13:10:50
1	Fe 238.204 Radial†	899150.2	900691.2	67263	µg/L	67263	ppb	13:10:48
1	K 766.490 Radial†	10395.6	8921.0	3526.6	µg/L	3526.6	ppb	13:10:50
1	Mg 279.077 IEC†	10848.5	10696.1	4881.1	µg/L	4881.1	ppb	13:10:50
1	Na 589.592 Radial†	4189.9	3245.1	499.87	µg/L	499.87	ppb	13:10:50
1	Sr 421.552†	18260.5	18498.6	43.572	µg/L	43.572	ppb	13:10:50
1	Sc 361.383	1792495.8	1792495.8	99.354	%			13:11:17
1	Y 371.029	1283142.2	1283142.2	121.36	%			13:11:17
1	Ag 328.068†	4010.2	-528.9	-2.9449	µg/L	-2.9449	ppb	13:11:17
1	As 188.979†	8.1	26.7	24.292	µg/L	24.292	ppb	13:11:37
1	B 249.677†	4481.2	445.2	6.8982	µg/L	6.8982	ppb	13:11:17
1	Ba 233.527†	574979.0	578862.7	2572.1	µg/L	2572.1	ppb	13:11:17
1	Be 313.107†	20964.5	22192.6	6.3023	µg/L	6.3023	ppb	13:11:17
1	Cd 226.502†	925.8	1035.2	-0.0657	µg/L	-0.0657	ppb	13:11:37
1	Co 228.616†	344.7	557.2	6.3960	µg/L	6.3960	ppb	13:11:37
1	Cr 267.716†	2108.1	1888.6	18.652	µg/L	18.652	ppb	13:11:37
1	Cu 324.752†	6750.6	3758.3	25.308	µg/L	25.308	ppb	13:11:17
1	Mn 257.610†	936538.2	942444.0	1249.8	µg/L	1249.8	ppb	13:11:17
1	Mo 202.031†	1.5	40.0	4.0795	µg/L	4.0795	ppb	13:11:37
1	Ni 231.604†	1775.1	1882.6	23.553	µg/L	23.553	ppb	13:11:37
1	P 214.914†	5016.9	5075.2	1134.7	µg/L	1134.7	ppb	13:11:37
1	Pb 220.353†	404.4	303.5	20.066	µg/L	20.066	ppb	13:11:37
1	S 181.975 Axial†	803.4	719.7	605.46	µg/L	605.46	ppb	13:11:37
1	Sb 206.836†	100.0	10.9	0.2454	µg/L	0.2454	ppb	13:11:37
1	Se 196.026†	-42.7	-49.1	3.58	µg/L	3.58	ppb	13:11:37
1	SiO2†	600587.1	602753.8	63830	µg/L	63830	ppb	13:11:17
1	Si 251.611†	1870391.4	1881788.0	29674	µg/L	29674	ppb	13:11:17
1	Sn 189.927†	92.9	91.6	9.9891	µg/L	9.9891	ppb	13:11:37
1	Ti 334.940†	1042911.3	1048870.6	1077.2	µg/L	1077.2	ppb	13:11:17
1	Tl 190.801†	-271.7	-159.2	-7.2979	µg/L	-7.2979	ppb	13:11:37
1	U 409.014†	-6742.8	-6623.3	-421.51	µg/L	-421.51	ppb	13:11:17
1	V 292.402†	11581.8	11233.9	49.932	µg/L	49.932	ppb	13:11:37
1	Zn 213.857†	65557.5	65480.9	384.75	µg/L	384.75	ppb	13:11:17
2	Sc RADIAL	138224.4	138224.4	98.7	%			13:10:54
2	Al 396.153Radial†	138456.9	140407.1	29561	µg/L	29561	ppb	13:10:54
2	Ca 317.933Radial†	104094.5	104930.3	7146.7	µg/L	7146.7	ppb	13:10:54
2	Fe 238.204 Radial†	895860.0	907853.0	67798	µg/L	67798	ppb	13:10:52
2	K 766.490 Radial†	10380.8	9027.4	3568.7	µg/L	3568.7	ppb	13:10:54
2	Mg 279.077 IEC†	10816.8	10790.6	4924.3	µg/L	4924.3	ppb	13:10:54
2	Na 589.592 Radial†	4079.2	3181.9	490.03	µg/L	490.03	ppb	13:10:54
2	Sr 421.552†	18103.2	18552.4	43.699	µg/L	43.699	ppb	13:10:54
2	Sc 361.383	1787806.9	1787806.9	99.094	%			13:11:40
2	Y 371.029	1279676.2	1279676.2	121.03	%			13:11:40
2	Ag 328.068†	4227.3	-299.2	-2.0158	µg/L	-2.0158	ppb	13:11:40
2	As 188.979†	3.6	22.2	22.879	µg/L	22.879	ppb	13:12:00
2	B 249.677†	4610.2	587.2	9.1060	µg/L	9.1060	ppb	13:11:40
2	Ba 233.527†	574805.2	580205.2	2578.1	µg/L	2578.1	ppb	13:11:40
2	Be 313.107†	20565.2	21845.0	6.1996	µg/L	6.1996	ppb	13:11:40
2	Cd 226.502†	917.1	1028.8	-0.1649	µg/L	-0.1649	ppb	13:12:00
2	Co 228.616†	353.6	567.1	6.5047	µg/L	6.5047	ppb	13:12:00
2	Cr 267.716†	2102.6	1888.6	18.675	µg/L	18.675	ppb	13:12:00
2	Cu 324.752†	6584.6	3608.7	24.756	µg/L	24.756	ppb	13:11:40
2	Mn 257.610†	935111.2	943476.2	1251.2	µg/L	1251.2	ppb	13:11:40
2	Mo 202.031†	21.3	60.1	4.7564	µg/L	4.7564	ppb	13:12:00
2	Ni 231.604†	1787.5	1899.8	23.769	µg/L	23.769	ppb	13:12:00
2	P 214.914†	4954.2	5025.2	1122.8	µg/L	1122.8	ppb	13:12:00
2	Pb 220.353†	416.4	316.7	20.874	µg/L	20.874	ppb	13:12:00

2	S 181.975 Axial†	802.1	720.5	606.12 µg/L	606.12 ppb	13:12:00
2	Sb 206.836†	89.4	0.5	-1.1009 µg/L	-1.1009 ppb	13:12:00
2	Se 196.026†	-43.8	-50.4	3.27 µg/L	3.27 ppb	13:12:00
2	SiO2†	600627.0	604379.5	64002 µg/L	64002 ppb	13:11:40
2	Si 251.611†	1870152.0	1886483.7	29748 µg/L	29748 ppb	13:11:40
2	Sn 189.927†	95.1	94.1	10.150 µg/L	10.150 ppb	13:12:00
2	Ti 334.940†	1038104.4	1046772.8	1075.1 µg/L	1075.1 ppb	13:11:40
2	Tl 190.801†	-257.3	-145.4	-5.4364 µg/L	-5.4364 ppb	13:12:00
2	U 409.014†	-6828.0	-6727.1	-428.17 µg/L	-428.17 ppb	13:11:40
2	V 292.402†	11555.2	11237.6	49.899 µg/L	49.899 ppb	13:12:00
2	Zn 213.857†	65186.5	65279.5	383.49 µg/L	383.49 ppb	13:11:40
3	Sc RADIAL	140045.7	140045.7	100.0 %		13:10:58
3	Al 396.153Radial†	140204.1	140330.0	29544 µg/L	29544 ppb	13:10:58
3	Ca 317.933Radial†	105842.5	105306.8	7172.3 µg/L	7172.3 ppb	13:10:58
3	Fe 238.204 Radial†	900164.9	900351.2	67238 µg/L	67238 ppb	13:10:56
3	K 766.490 Radial†	10449.5	8959.3	3541.7 µg/L	3541.7 ppb	13:10:58
3	Mg 279.077 IEC†	10991.8	10823.1	4939.8 µg/L	4939.8 ppb	13:10:58
3	Na 589.592 Radial†	4178.5	3227.4	497.12 µg/L	497.12 ppb	13:10:58
3	Sr 421.552†	18290.9	18501.5	43.579 µg/L	43.579 ppb	13:10:58
3	Sc 361.383	1818427.2	1818427.2	100.79 %		13:12:03
3	Y 371.029	1299506.2	1299506.2	122.91 %		13:12:03
3	Ag 328.068†	3792.8	-802.2	-4.0707 µg/L	-4.0707 ppb	13:12:03
3	As 188.979†	7.2	25.7	23.926 µg/L	23.926 ppb	13:12:23
3	B 249.677†	4537.7	436.9	6.7707 µg/L	6.7707 ppb	13:12:03
3	Ba 233.527†	580910.0	576494.4	2561.6 µg/L	2561.6 ppb	13:12:03
3	Be 313.107†	21178.2	22103.7	6.2773 µg/L	6.2773 ppb	13:12:03
3	Cd 226.502†	920.3	1016.4	-0.1902 µg/L	-0.1902 ppb	13:12:23
3	Co 228.616†	321.9	529.7	6.0231 µg/L	6.0231 ppb	13:12:23
3	Cr 267.716†	2121.0	1871.2	18.499 µg/L	18.499 ppb	13:12:23
3	Cu 324.752†	6596.5	3508.6	24.263 µg/L	24.263 ppb	13:12:03
3	Mn 257.610†	944877.7	937275.8	1243.0 µg/L	1243.0 ppb	13:12:03
3	Mo 202.031†	-19.5	19.2	3.3975 µg/L	3.3975 ppb	13:12:23
3	Ni 231.604†	1778.4	1860.3	23.275 µg/L	23.275 ppb	13:12:23
3	P 214.914†	4960.8	4947.6	1105.2 µg/L	1105.2 ppb	13:12:23
3	Pb 220.353†	411.0	304.4	20.110 µg/L	20.110 ppb	13:12:23
3	S 181.975 Axial†	810.8	715.5	601.95 µg/L	601.95 ppb	13:12:23
3	Sb 206.836†	86.7	-3.7	-1.6505 µg/L	-1.6505 ppb	13:12:23
3	Se 196.026†	-38.9	-44.8	5.30 µg/L	5.30 ppb	13:12:23
3	SiO2†	607327.3	600820.8	63626 µg/L	63626 ppb	13:12:03
3	Si 251.611†	1890913.1	1875302.6	29571 µg/L	29571 ppb	13:12:03
3	Sn 189.927†	80.1	77.6	8.9813 µg/L	8.9813 ppb	13:12:23
3	Ti 334.940†	1048416.5	1039363.6	1067.5 µg/L	1067.5 ppb	13:12:03
3	Tl 190.801†	-271.9	-155.4	-6.9099 µg/L	-6.9099 ppb	13:12:23
3	U 409.014†	-6802.5	-6585.7	-419.24 µg/L	-419.24 ppb	13:12:03
3	V 292.402†	11554.5	11040.6	48.936 µg/L	48.936 ppb	13:12:23
3	Zn 213.857†	65973.0	64952.1	381.59 µg/L	381.59 ppb	13:12:03

Mean Data: 248867001|964016|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1799576.6	99.746	%	0.9141				0.92%
Sc RADIAL	139368.4	99.5	%	0.71				0.71%
Y 371.029	1287441.5	121.77	%	1.002				0.82%
Ag 328.068†	-543.4	-3.0105	µg/L	1.02903	-3.0105	ppb	1.02903	34.18%
Al 396.153Radial†	140131.9	29503	µg/L	86.7	29503	ppb	86.7	0.29%
As 188.979†	24.9	23.699	µg/L	0.7336	23.699	ppb	0.7336	3.10%
B 249.677†	489.8	7.5917	µg/L	1.31303	7.5917	ppb	1.31303	17.30%
Ba 233.527†	578520.8	2570.6	µg/L	8.35	2570.6	ppb	8.35	0.32%
Be 313.107†	22047.1	6.2597	µg/L	0.05353	6.2597	ppb	0.05353	0.86%
Ca 317.933Radial†	105128.7	7160.2	µg/L	12.88	7160.2	ppb	12.88	0.18%
Cd 226.502†	1026.8	-0.1403	µg/L	0.06577	-0.1403	ppb	0.06577	46.89%
Co 228.616†	551.3	6.3079	µg/L	0.25256	6.3079	ppb	0.25256	4.00%
Cr 267.716†	1882.8	18.608	µg/L	0.0957	18.608	ppb	0.0957	0.51%
Cu 324.752†	3625.2	24.776	µg/L	0.5228	24.776	ppb	0.5228	2.11%
Fe 238.204 Radial†	902965.1	67433	µg/L	316.4	67433	ppb	316.4	0.47%
K 766.490 Radial†	8969.2	3545.6	µg/L	21.34	3545.6	ppb	21.34	0.60%
Mg 279.077 IEC†	10769.9	4915.1	µg/L	30.40	4915.1	ppb	30.40	0.62%
Mn 257.610†	941065.3	1248.0	µg/L	4.41	1248.0	ppb	4.41	0.35%
Mo 202.031†	39.8	4.0778	µg/L	0.67944	4.0778	ppb	0.67944	16.66%
Na 589.592 Radial†	3218.1	495.67	µg/L	5.077	495.67	ppb	5.077	1.02%

Ni 231.604†	1880.9	23.532	µg/L	0.2477	23.532	ppb	0.2477	1.05%
P 214.914†	5016.0	1120.9	µg/L	14.82	1120.9	ppb	14.82	1.32%
Pb 220.353†	308.2	20.350	µg/L	0.4544	20.350	ppb	0.4544	2.23%
S 181.975 Axial†	718.6	604.51	µg/L	2.245	604.51	ppb	2.245	0.37%
Sb 206.836†	2.6	-0.8353	µg/L	0.97542	-0.8353	ppb	0.97542	116.77%
Se 196.026†	-48.1	4.05	µg/L	1.089	4.05	ppb	1.089	26.89%
SiO2†	602651.3	63819	µg/L	188.6	63819	ppb	188.6	0.30%
Si 251.611†	1881191.4	29664	µg/L	88.5	29664	ppb	88.5	0.30%
Sn 189.927†	87.8	9.7069	µg/L	0.63351	9.7069	ppb	0.63351	6.53%
Sr 421.552†	18517.5	43.617	µg/L	0.0714	43.617	ppb	0.0714	0.16%
Ti 334.940†	1045002.3	1073.2	µg/L	5.13	1073.2	ppb	5.13	0.48%
Tl 190.801†	-153.3	-6.5481	µg/L	0.98212	-6.5481	ppb	0.98212	15.00%
U 409.014†	-6645.4	-422.97	µg/L	4.644	-422.97	ppb	4.644	1.10%
Concentration less than lower limit for U 409.014.								
V 292.402†	11170.7	49.589	µg/L	0.5660	49.589	ppb	0.5660	1.14%
Zn 213.857†	65237.5	383.27	µg/L	1.588	383.27	ppb	1.588	0.41%

Sequence No.: 12
Sample ID: 248867002|964016|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 310
Date Collected: 4/5/2010 13:12:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248867002|964016|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139660.6	139660.6	99.7	%			13:13:01
1	Al 396.153Radial†	140328.7	140841.7	29652	µg/L	29652	ppb	13:13:01
1	Ca 317.933Radial†	98096.2	97828.5	6663.0	µg/L	6663.0	ppb	13:13:03
1	Fe 238.204 Radial†	1182204.3	1185746.9	88551	µg/L	88551	ppb	13:13:01
1	K 766.490 Radial†	10039.3	8576.6	3390.1	µg/L	3390.1	ppb	13:13:03
1	Mg 279.077 IEC†	9702.0	9559.6	4338.2	µg/L	4338.2	ppb	13:13:03
1	Na 589.592 Radial†	4854.1	3916.6	604.08	µg/L	604.08	ppb	13:13:03
1	Sr 421.552†	79843.5	80295.1	189.32	µg/L	189.32	ppb	13:13:01
1	Sc 361.383	1820940.4	1820940.4	100.93	%			13:13:30
1	Y 371.029	1192673.1	1192673.1	112.80	%			13:13:30
1	Ag 328.068†	3925.6	-675.8	-3.9382	µg/L	-3.9382	ppb	13:13:30
1	As 188.979†	6.3	24.8	28.418	µg/L	28.418	ppb	13:13:50
1	B 249.677†	4906.3	795.9	12.340	µg/L	12.340	ppb	13:13:30
1	Ba 233.527†	90655.5	89964.2	398.77	µg/L	398.77	ppb	13:13:30
1	Be 313.107†	23454.6	24330.1	6.8944	µg/L	6.8944	ppb	13:13:30
1	Cd 226.502†	1228.0	1320.0	-0.3813	µg/L	-0.3813	ppb	13:13:50
1	Co 228.616†	626.3	830.9	6.7676	µg/L	6.7676	ppb	13:13:50
1	Cr 267.716†	2136.3	1883.4	19.341	µg/L	19.341	ppb	13:13:50
1	Cu 324.752†	4359.6	1283.3	17.970	µg/L	17.970	ppb	13:13:30
1	Mn 257.610†	1182391.6	1171306.2	1553.4	µg/L	1553.4	ppb	13:13:30
1	Mo 202.031†	76.3	114.2	7.3348	µg/L	7.3348	ppb	13:13:50
1	Ni 231.604†	1518.8	1600.7	20.027	µg/L	20.027	ppb	13:13:50
1	P 214.914†	7290.0	7248.5	1623.1	µg/L	1623.1	ppb	13:13:50
1	Pb 220.353†	464.0	356.2	22.874	µg/L	22.874	ppb	13:13:50
1	S 181.975 Axial†	553.7	459.7	386.73	µg/L	386.73	ppb	13:13:50
1	Sb 206.836†	94.6	4.1	-0.8858	µg/L	-0.8858	ppb	13:13:50
1	Se 196.026†	-59.5	-65.1	4.58	µg/L	4.58	ppb	13:13:50
1	SiO2†	564559.9	557616.0	59050	µg/L	59050	ppb	13:13:30
1	Si 251.611†	1758177.3	1741201.3	27457	µg/L	27457	ppb	13:13:30
1	Sn 189.927†	74.9	72.3	9.0640	µg/L	9.0640	ppb	13:13:50
1	Ti 334.940†	1180431.5	1168725.8	1200.4	µg/L	1200.4	ppb	13:13:30
1	Tl 190.801†	-276.8	-160.0	-5.4547	µg/L	-5.4547	ppb	13:13:50
1	U 409.014†	-8280.5	-8040.8	-514.22	µg/L	-514.22	ppb	13:13:30
1	V 292.402†	10553.1	10032.5	41.310	µg/L	41.310	ppb	13:13:50
1	Zn 213.857†	56099.3	55079.1	320.46	µg/L	320.46	ppb	13:13:30
2	Sc RADIAL	137563.9	137563.9	98.2	%			13:13:05
2	Al 396.153Radial†	138304.8	140926.1	29670	µg/L	29670	ppb	13:13:05
2	Ca 317.933Radial†	98410.5	99648.4	6787.0	µg/L	6787.0	ppb	13:13:07
2	Fe 238.204 Radial†	1156501.6	1177646.4	87946	µg/L	87946	ppb	13:13:05
2	K 766.490 Radial†	10008.9	8699.1	3438.7	µg/L	3438.7	ppb	13:13:07
2	Mg 279.077 IEC†	9680.9	9686.5	4397.3	µg/L	4397.3	ppb	13:13:07
2	Na 589.592 Radial†	4786.7	3922.2	604.91	µg/L	604.91	ppb	13:13:07
2	Sr 421.552†	78736.7	80388.8	189.54	µg/L	189.54	ppb	13:13:05
2	Sc 361.383	1831390.5	1831390.5	101.51	%			13:13:53
2	Y 371.029	1199972.2	1199972.2	113.49	%			13:13:53
2	Ag 328.068†	4101.7	-524.4	-3.3050	µg/L	-3.3050	ppb	13:13:53
2	As 188.979†	14.8	33.1	31.087	µg/L	31.087	ppb	13:14:13
2	B 249.677†	4776.1	639.9	9.9150	µg/L	9.9150	ppb	13:13:53
2	Ba 233.527†	91403.0	90188.1	399.78	µg/L	399.78	ppb	13:13:53
2	Be 313.107†	23699.9	24439.1	6.9295	µg/L	6.9295	ppb	13:13:53
2	Cd 226.502†	1235.0	1320.0	-0.3171	µg/L	-0.3171	ppb	13:14:13
2	Co 228.616†	611.0	812.3	6.5540	µg/L	6.5540	ppb	13:14:13
2	Cr 267.716†	2106.3	1841.7	18.950	µg/L	18.950	ppb	13:14:13
2	Cu 324.752†	4389.9	1288.5	17.915	µg/L	17.915	ppb	13:13:53
2	Mn 257.610†	1190874.0	1172977.8	1555.6	µg/L	1555.6	ppb	13:13:53
2	Mo 202.031†	72.8	110.3	7.1830	µg/L	7.1830	ppb	13:14:13
2	Ni 231.604†	1568.5	1641.1	20.532	µg/L	20.532	ppb	13:14:13
2	P 214.914†	7299.2	7216.3	1616.1	µg/L	1616.1	ppb	13:14:13
2	Pb 220.353†	447.3	337.2	21.713	µg/L	21.713	ppb	13:14:13

2	S 181.975 Axial†	545.6	448.6	377.41	µg/L	377.41 ppb	13:14:13
2	Sb 206.836†	79.4	-11.5	-2.8773	µg/L	-2.8773 ppb	13:14:13
2	Se 196.026†	-49.4	-54.8	8.45	µg/L	8.45 ppb	13:14:13
2	SiO2†	568061.7	557874.0	59077	µg/L	59077 ppb	13:13:53
2	Si 251.611†	1770163.7	1743069.6	27486	µg/L	27486 ppb	13:13:53
2	Sn 189.927†	74.2	71.2	8.9890	µg/L	8.9890 ppb	13:14:13
2	Ti 334.940†	1187312.4	1168830.9	1200.5	µg/L	1200.5 ppb	13:13:53
2	Tl 190.801†	-290.0	-171.4	-7.0060	µg/L	-7.0060 ppb	13:14:13
2	U 409.014†	-8140.3	-7855.9	-502.39	µg/L	-502.39 ppb	13:13:53
2	V 292.402†	10601.7	10020.8	41.318	µg/L	41.318 ppb	13:14:13
2	Zn 213.857†	56629.9	55284.7	321.75	µg/L	321.75 ppb	13:13:53
3	Sc RADIAL	137927.7	137927.7	98.5	%		13:13:09
3	Al 396.153Radial†	138184.9	140432.7	29566	µg/L	29566 ppb	13:13:09
3	Ca 317.933Radial†	97355.5	98312.4	6696.0	µg/L	6696.0 ppb	13:13:11
3	Fe 238.204 Radial†	1158473.3	1176542.4	87863	µg/L	87863 ppb	13:13:09
3	K 766.490 Radial†	9929.8	8591.9	3396.2	µg/L	3396.2 ppb	13:13:11
3	Mg 279.077 IEC†	9609.2	9587.6	4351.7	µg/L	4351.7 ppb	13:13:11
3	Na 589.592 Radial†	4826.2	3949.5	609.17	µg/L	609.17 ppb	13:13:11
3	Sr 421.552†	78995.8	80440.4	189.66	µg/L	189.66 ppb	13:13:09
3	Sc 361.383	1792098.6	1792098.6	99.332	%		13:14:16
3	Y 371.029	1174914.5	1174914.5	111.12	%		13:14:16
3	Ag 328.068†	3937.9	-600.8	-3.6147	µg/L	-3.6147 ppb	13:14:16
3	As 188.979†	9.8	28.4	29.478	µg/L	29.478 ppb	13:14:36
3	B 249.677†	4725.7	692.3	10.728	µg/L	10.728 ppb	13:14:16
3	Ba 233.527†	89081.6	89825.4	398.17	µg/L	398.17 ppb	13:14:16
3	Be 313.107†	23364.1	24613.0	6.9757	µg/L	6.9757 ppb	13:14:16
3	Cd 226.502†	1217.8	1329.4	-0.2453	µg/L	-0.2453 ppb	13:14:36
3	Co 228.616†	618.7	833.2	6.8335	µg/L	6.8335 ppb	13:14:36
3	Cr 267.716†	2084.8	1865.6	19.166	µg/L	19.166 ppb	13:14:36
3	Cu 324.752†	4195.0	1187.1	17.467	µg/L	17.467 ppb	13:14:16
3	Mn 257.610†	1163353.9	1170994.3	1553.0	µg/L	1553.0 ppb	13:14:16
3	Mo 202.031†	97.6	136.9	8.0496	µg/L	8.0496 ppb	13:14:36
3	Ni 231.604†	1533.1	1639.3	20.509	µg/L	20.509 ppb	13:14:36
3	P 214.914†	7334.9	7409.9	1660.9	µg/L	1660.9 ppb	13:14:36
3	Pb 220.353†	426.5	326.0	21.033	µg/L	21.033 ppb	13:14:36
3	S 181.975 Axial†	546.8	461.6	388.33	µg/L	388.33 ppb	13:14:36
3	Sb 206.836†	82.3	-6.9	-2.2751	µg/L	-2.2751 ppb	13:14:36
3	Se 196.026†	-56.7	-63.3	5.06	µg/L	5.06 ppb	13:14:36
3	SiO2†	554534.8	556525.7	58935	µg/L	58935 ppb	13:14:16
3	Si 251.611†	1727844.5	1738699.5	27417	µg/L	27417 ppb	13:14:16
3	Sn 189.927†	75.2	73.8	9.1651	µg/L	9.1651 ppb	13:14:36
3	Ti 334.940†	1161727.8	1168718.9	1200.4	µg/L	1200.4 ppb	13:14:16
3	Tl 190.801†	-275.3	-162.9	-5.8466	µg/L	-5.8466 ppb	13:14:36
3	U 409.014†	-8183.7	-8075.4	-516.17	µg/L	-516.17 ppb	13:14:16
3	V 292.402†	10638.6	10287.0	42.707	µg/L	42.707 ppb	13:14:36
3	Zn 213.857†	55225.9	55094.4	320.62	µg/L	320.62 ppb	13:14:16

Mean Data: 248867002|964016|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1814809.8	100.59	%	1.128				1.12%
Sc RADIAL	138384.1	98.8	%	0.80				0.81%
Y 371.029	1189186.6	112.47	%	1.219				1.08%
Ag 328.068†	-600.3	-3.6193	µg/L	0.31660	-3.6193	ppb	0.31660	8.75%
Al 396.153Radial†	140733.5	29629	µg/L	55.6	29629	ppb	55.6	0.19%
As 188.979†	28.8	29.661	µg/L	1.3439	29.661	ppb	1.3439	4.53%
B 249.677†	709.4	10.995	µg/L	1.2342	10.995	ppb	1.2342	11.23%
Ba 233.527†	89992.6	398.91	µg/L	0.813	398.91	ppb	0.813	0.20%
Be 313.107†	24460.7	6.9332	µg/L	0.04076	6.9332	ppb	0.04076	0.59%
Ca 317.933Radial†	98596.4	6715.3	µg/L	64.20	6715.3	ppb	64.20	0.96%
Cd 226.502†	1323.1	-0.3146	µg/L	0.06802	-0.3146	ppb	0.06802	21.62%
Co 228.616†	825.4	6.7183	µg/L	0.14613	6.7183	ppb	0.14613	2.18%
Cr 267.716†	1863.6	19.153	µg/L	0.1961	19.153	ppb	0.1961	1.02%
Cu 324.752†	1253.0	17.784	µg/L	0.2763	17.784	ppb	0.2763	1.55%
Fe 238.204 Radial†	1179978.6	88120	µg/L	375.3	88120	ppb	375.3	0.43%
K 766.490 Radial†	8622.5	3408.3	µg/L	26.43	3408.3	ppb	26.43	0.78%
Mg 279.077 IEC†	9611.2	4362.4	µg/L	30.97	4362.4	ppb	30.97	0.71%
Mn 257.610†	1171759.4	1554.0	µg/L	1.41	1554.0	ppb	1.41	0.09%
Mo 202.031†	120.4	7.5225	µg/L	0.46279	7.5225	ppb	0.46279	6.15%
Na 589.592 Radial†	3929.4	606.06	µg/L	2.732	606.06	ppb	2.732	0.45%

Ni 231.604†	1627.0	20.356	µg/L	0.2852	20.356	ppb	0.2852	1.40%
P 214.914†	7291.6	1633.4	µg/L	24.10	1633.4	ppb	24.10	1.48%
Pb 220.353†	339.8	21.873	µg/L	0.9313	21.873	ppb	0.9313	4.26%
S 181.975 Axial†	456.6	384.15	µg/L	5.898	384.15	ppb	5.898	1.54%
Sb 206.836†	-4.8	-2.0127	µg/L	1.02135	-2.0127	ppb	1.02135	50.75%
Se 196.026†	-61.1	6.03	µg/L	2.105	6.03	ppb	2.105	34.90%
SiO2†	557338.6	59021	µg/L	75.8	59021	ppb	75.8	0.13%
Si 251.611†	1740990.2	27453	µg/L	34.6	27453	ppb	34.6	0.13%
Sn 189.927†	72.4	9.0727	µg/L	0.08833	9.0727	ppb	0.08833	0.97%
Sr 421.552†	80374.8	189.51	µg/L	0.173	189.51	ppb	0.173	0.09%
Ti 334.940†	1168758.6	1200.4	µg/L	0.06	1200.4	ppb	0.06	0.01%
Tl 190.801†	-164.8	-6.1024	µg/L	0.80666	-6.1024	ppb	0.80666	13.22%
U 409.014†	-7990.7	-510.93	µg/L	7.456	-510.93	ppb	7.456	1.46%
Concentration less than lower limit for U 409.014.								
V 292.402†	10113.4	41.778	µg/L	0.8042	41.778	ppb	0.8042	1.92%
Zn 213.857†	55152.7	320.94	µg/L	0.702	320.94	ppb	0.702	0.22%

Sequence No.: 13
Sample ID: 248867003|964016|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 311
Date Collected: 4/5/2010 13:14:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248867003|964016|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138464.4	138464.4	98.8	%			13:15:14
1	Al 396.153Radial†	111899.7	113294.4	23852	µg/L	23852	ppb	13:15:14
1	Ca 317.933Radial†	90237.0	90726.8	6179.3	µg/L	6179.3	ppb	13:15:16
1	Fe 238.204 Radial†	953410.6	964506.8	72029	µg/L	72029	ppb	13:15:14
1	K 766.490 Radial†	9268.1	7883.3	3116.8	µg/L	3116.8	ppb	13:15:16
1	Mg 279.077 IEC†	9086.8	9021.2	4103.7	µg/L	4103.7	ppb	13:15:16
1	Na 589.592 Radial†	5830.7	4946.8	764.01	µg/L	764.01	ppb	13:15:16
1	Sr 421.552†	45238.4	45974.9	108.38	µg/L	108.38	ppb	13:15:14
1	Sc 361.383	1795805.4	1795805.4	99.537	%			13:15:43
1	Y 371.029	1175464.8	1175464.8	111.18	%			13:15:43
1	Ag 328.068†	4194.0	-351.6	-2.4495	µg/L	-2.4495	ppb	13:15:43
1	As 188.979†	1.0	19.6	22.969	µg/L	22.969	ppb	13:16:03
1	B 249.677†	4523.5	479.4	7.4141	µg/L	7.4141	ppb	13:15:43
1	Ba 233.527†	105567.5	106202.8	471.16	µg/L	471.16	ppb	13:15:43
1	Be 313.107†	18060.2	19235.9	5.4593	µg/L	5.4593	ppb	13:15:43
1	Cd 226.502†	1008.5	1116.5	-0.0188	µg/L	-0.0188	ppb	13:16:03
1	Co 228.616†	692.3	905.9	8.6931	µg/L	8.6931	ppb	13:16:03
1	Cr 267.716†	2433.4	2211.5	21.423	µg/L	21.423	ppb	13:16:03
1	Cu 324.752†	4310.7	1294.6	15.716	µg/L	15.716	ppb	13:15:43
1	Mn 257.610†	1413341.0	1419725.9	1883.0	µg/L	1883.0	ppb	13:15:43
1	Mo 202.031†	49.7	88.6	5.8371	µg/L	5.8371	ppb	13:16:03
1	Ni 231.604†	1519.6	1622.6	20.301	µg/L	20.301	ppb	13:16:03
1	P 214.914†	6181.1	6235.5	1398.7	µg/L	1398.7	ppb	13:16:03
1	Pb 220.353†	365.1	263.3	17.086	µg/L	17.086	ppb	13:16:03
1	S 181.975 Axial†	241.8	154.0	129.56	µg/L	129.56	ppb	13:16:03
1	Sb 206.836†	72.1	-17.3	-3.4559	µg/L	-3.4559	ppb	13:16:03
1	Se 196.026†	-42.4	-48.8	5.42	µg/L	5.42	ppb	13:16:03
1	SiO2†	493501.7	494056.6	52319	µg/L	52319	ppb	13:15:43
1	Si 251.611†	1540350.4	1546743.3	24390	µg/L	24390	ppb	13:15:43
1	Sn 189.927†	40.1	38.4	6.3375	µg/L	6.3375	ppb	13:16:03
1	Ti 334.940†	1057528.8	1061621.5	1090.3	µg/L	1090.3	ppb	13:15:43
1	Tl 190.801†	-280.7	-167.8	-6.7938	µg/L	-6.7938	ppb	13:16:03
1	U 409.014†	-6049.8	-5914.6	-374.31	µg/L	-374.31	ppb	13:15:43
1	V 292.402†	9947.4	9570.4	40.854	µg/L	40.854	ppb	13:16:03
1	Zn 213.857†	28389.3	28018.3	160.41	µg/L	160.41	ppb	13:16:03
2	Sc RADIAL	140365.8	140365.8	100	%			13:15:18
2	Al 396.153Radial†	113663.7	113521.3	23900	µg/L	23900	ppb	13:15:18
2	Ca 317.933Radial†	90454.8	89707.5	6109.9	µg/L	6109.9	ppb	13:15:20
2	Fe 238.204 Radial†	974553.8	972542.1	72629	µg/L	72629	ppb	13:15:18
2	K 766.490 Radial†	9400.9	7888.9	3119.0	µg/L	3119.0	ppb	13:15:20
2	Mg 279.077 IEC†	9120.0	8929.8	4061.0	µg/L	4061.0	ppb	13:15:20
2	Na 589.592 Radial†	5816.5	4852.6	749.42	µg/L	749.42	ppb	13:15:20
2	Sr 421.552†	45908.8	46024.1	108.50	µg/L	108.50	ppb	13:15:18
2	Sc 361.383	1811460.9	1811460.9	100.41	%			13:16:06
2	Y 371.029	1185587.2	1185587.2	112.13	%			13:16:06
2	Ag 328.068†	4004.6	-576.8	-3.3835	µg/L	-3.3835	ppb	13:16:06
2	As 188.979†	-7.4	11.2	20.259	µg/L	20.259	ppb	13:16:26
2	B 249.677†	4515.6	432.3	6.6814	µg/L	6.6814	ppb	13:16:06
2	Ba 233.527†	106978.3	106691.2	473.33	µg/L	473.33	ppb	13:16:06
2	Be 313.107†	18232.0	19250.2	5.4615	µg/L	5.4615	ppb	13:16:06
2	Cd 226.502†	998.2	1097.5	-0.2103	µg/L	-0.2103	ppb	13:16:26
2	Co 228.616†	690.9	898.4	8.5653	µg/L	8.5653	ppb	13:16:26
2	Cr 267.716†	2389.3	2146.5	20.886	µg/L	20.886	ppb	13:16:26
2	Cu 324.752†	4459.0	1404.9	16.259	µg/L	16.259	ppb	13:16:06
2	Mn 257.610†	1427040.0	1421098.0	1884.8	µg/L	1884.8	ppb	13:16:06
2	Mo 202.031†	50.7	89.0	5.8754	µg/L	5.8754	ppb	13:16:26
2	Ni 231.604†	1516.5	1606.3	20.096	µg/L	20.096	ppb	13:16:26
2	P 214.914†	6161.5	6162.3	1381.4	µg/L	1381.4	ppb	13:16:26
2	Pb 220.353†	368.4	263.5	17.085	µg/L	17.085	ppb	13:16:26

2	S 181.975 Axial†	237.1	147.3	123.90	µg/L	123.90 ppb	13:16:26
2	Sb 206.836†	74.4	-15.6	-3.2332	µg/L	-3.2332 ppb	13:16:26
2	Se 196.026†	-44.3	-50.2	5.04	µg/L	5.04 ppb	13:16:26
2	SiO2†	499022.4	495270.1	52448	µg/L	52448 ppb	13:16:06
2	Si 251.611†	1556800.7	1549753.0	24438	µg/L	24438 ppb	13:16:06
2	Sn 189.927†	43.4	41.3	6.5444	µg/L	6.5444 ppb	13:16:26
2	Ti 334.940†	1067516.7	1062387.0	1091.1	µg/L	1091.1 ppb	13:16:06
2	Tl 190.801†	-269.1	-153.7	-4.8669	µg/L	-4.8669 ppb	13:16:26
2	U 409.014†	-6205.8	-6017.4	-380.94	µg/L	-380.94 ppb	13:16:06
2	V 292.402†	10003.2	9539.6	40.624	µg/L	40.624 ppb	13:16:26
2	Zn 213.857†	28369.3	27751.8	158.76	µg/L	158.76 ppb	13:16:26
3	Sc RADIAL	136899.8	136899.8	97.7	%		13:15:22
3	Al 396.153Radial†	110830.6	113494.3	23894	µg/L	23894 ppb	13:15:22
3	Ca 317.933Radial†	90217.0	91749.9	6249.0	µg/L	6249.0 ppb	13:15:24
3	Fe 238.204 Radial†	945192.6	967121.8	72224	µg/L	72224 ppb	13:15:22
3	K 766.490 Radial†	9272.7	7995.2	3161.1	µg/L	3161.1 ppb	13:15:24
3	Mg 279.077 IEC†	9015.6	9053.4	4118.4	µg/L	4118.4 ppb	13:15:24
3	Na 589.592 Radial†	5722.7	4903.7	757.29	µg/L	757.29 ppb	13:15:24
3	Sr 421.552†	44849.5	46100.1	108.68	µg/L	108.68 ppb	13:15:22
3	Sc 361.383	1813329.7	1813329.7	100.51	%		13:16:29
3	Y 371.029	1186621.5	1186621.5	112.23	%		13:16:29
3	Ag 328.068†	4014.5	-571.0	-3.3627	µg/L	-3.3627 ppb	13:16:29
3	As 188.979†	9.5	28.0	25.854	µg/L	25.854 ppb	13:16:49
3	B 249.677†	4512.3	424.3	6.5591	µg/L	6.5591 ppb	13:16:29
3	Ba 233.527†	106944.7	106548.0	472.69	µg/L	472.69 ppb	13:16:29
3	Be 313.107†	18064.6	19064.9	5.4086	µg/L	5.4086 ppb	13:16:29
3	Cd 226.502†	988.8	1087.1	-0.2382	µg/L	-0.2382 ppb	13:16:49
3	Co 228.616†	668.6	875.5	8.2834	µg/L	8.2834 ppb	13:16:49
3	Cr 267.716†	2468.1	2222.4	21.526	µg/L	21.526 ppb	13:16:49
3	Cu 324.752†	4191.8	1134.5	15.072	µg/L	15.072 ppb	13:16:29
3	Mn 257.610†	1430015.8	1422594.1	1886.8	µg/L	1886.8 ppb	13:16:29
3	Mo 202.031†	60.3	98.6	6.1734	µg/L	6.1734 ppb	13:16:49
3	Ni 231.604†	1516.8	1605.0	20.081	µg/L	20.081 ppb	13:16:49
3	P 214.914†	6203.0	6197.3	1389.7	µg/L	1389.7 ppb	13:16:49
3	Pb 220.353†	385.7	280.3	18.127	µg/L	18.127 ppb	13:16:49
3	S 181.975 Axial†	241.4	151.2	127.26	µg/L	127.26 ppb	13:16:49
3	Sb 206.836†	88.7	-1.5	-1.4136	µg/L	-1.4136 ppb	13:16:49
3	Se 196.026†	-44.7	-50.7	4.73	µg/L	4.73 ppb	13:16:49
3	SiO2†	499534.1	495266.9	52448	µg/L	52448 ppb	13:16:29
3	Si 251.611†	1559197.7	1550539.8	24450	µg/L	24450 ppb	13:16:29
3	Sn 189.927†	36.3	34.3	6.0536	µg/L	6.0536 ppb	13:16:49
3	Ti 334.940†	1068019.9	1061791.9	1090.5	µg/L	1090.5 ppb	13:16:29
3	Tl 190.801†	-275.7	-160.0	-5.7210	µg/L	-5.7210 ppb	13:16:49
3	U 409.014†	-6170.4	-5975.8	-378.22	µg/L	-378.22 ppb	13:16:29
3	V 292.402†	9939.6	9466.1	40.294	µg/L	40.294 ppb	13:16:49
3	Zn 213.857†	28428.5	27781.7	158.98	µg/L	158.98 ppb	13:16:49

Mean Data: 248867003|964016|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1806865.3	100.15	%	0.533				0.53%
Sc RADIAL	138576.7	98.9	%	1.24				1.25%
Y 371.029	1182557.9	111.85	%	0.583				0.52%
Ag 328.068†	-499.8	-3.0652	µg/L	0.53329	-3.0652	ppb	0.53329	17.40%
Al 396.153Radial†	113436.7	23882	µg/L	26.1	23882	ppb	26.1	0.11%
As 188.979†	19.6	23.027	µg/L	2.7979	23.027	ppb	2.7979	12.15%
B 249.677†	445.3	6.8849	µg/L	0.46238	6.8849	ppb	0.46238	6.72%
Ba 233.527†	106480.7	472.39	µg/L	1.112	472.39	ppb	1.112	0.24%
Be 313.107†	19183.7	5.4432	µg/L	0.02992	5.4432	ppb	0.02992	0.55%
Ca 317.933Radial†	90728.1	6179.4	µg/L	69.55	6179.4	ppb	69.55	1.13%
Cd 226.502†	1100.4	-0.1558	µg/L	0.11944	-0.1558	ppb	0.11944	76.68%
Co 228.616†	893.3	8.5139	µg/L	0.20960	8.5139	ppb	0.20960	2.46%
Cr 267.716†	2193.5	21.278	µg/L	0.3434	21.278	ppb	0.3434	1.61%
Cu 324.752†	1278.0	15.682	µg/L	0.5941	15.682	ppb	0.5941	3.79%
Fe 238.204 Radial†	968056.9	72294	µg/L	306.1	72294	ppb	306.1	0.42%
K 766.490 Radial†	7922.5	3132.3	µg/L	24.98	3132.3	ppb	24.98	0.80%
Mg 279.077 IEC†	9001.5	4094.4	µg/L	29.83	4094.4	ppb	29.83	0.73%
Mn 257.610†	1421139.3	1884.9	µg/L	1.90	1884.9	ppb	1.90	0.10%
Mo 202.031†	92.1	5.9620	µg/L	0.18408	5.9620	ppb	0.18408	3.09%
Na 589.592 Radial†	4901.0	756.91	µg/L	7.306	756.91	ppb	7.306	0.97%

Ni 231.604†	1611.3	20.159	µg/L	0.1228	20.159	ppb	0.1228	0.61%
P 214.914†	6198.4	1390.0	µg/L	8.67	1390.0	ppb	8.67	0.62%
Pb 220.353†	269.0	17.433	µg/L	0.6015	17.433	ppb	0.6015	3.45%
S 181.975 Axial†	150.8	126.91	µg/L	2.846	126.91	ppb	2.846	2.24%
Sb 206.836†	-11.4	-2.7009	µg/L	1.12037	-2.7009	ppb	1.12037	41.48%
Se 196.026†	-49.9	5.07	µg/L	0.345	5.07	ppb	0.345	6.81%
SiO2†	494864.5	52405	µg/L	74.1	52405	ppb	74.1	0.14%
Si 251.611†	1549012.0	24426	µg/L	31.6	24426	ppb	31.6	0.13%
Sn 189.927†	38.0	6.3118	µg/L	0.24643	6.3118	ppb	0.24643	3.90%
Sr 421.552†	46033.0	108.52	µg/L	0.148	108.52	ppb	0.148	0.14%
Ti 334.940†	1061933.4	1090.7	µg/L	0.41	1090.7	ppb	0.41	0.04%
Tl 190.801†	-160.5	-5.7939	µg/L	0.96553	-5.7939	ppb	0.96553	16.66%
U 409.014†	-5969.3	-377.82	µg/L	3.330	-377.82	ppb	3.330	0.88%
Concentration less than lower limit for U 409.014.								
V 292.402†	9525.4	40.590	µg/L	0.2815	40.590	ppb	0.2815	0.69%
Zn 213.857†	27850.6	159.38	µg/L	0.897	159.38	ppb	0.897	0.56%

Sequence No.: 14
Sample ID: 248867004|964016|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 312
Date Collected: 4/5/2010 13:16:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248867004|964016|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139538.3	139538.3	99.6	%			13:17:27
1	Al 396.153Radial†	88211.6	88640.7	18662	µg/L	18662	ppb	13:17:27
1	Ca 317.933Radial†	83167.1	82926.2	5648.0	µg/L	5648.0	ppb	13:17:29
1	Fe 238.204 Radial†	828364.2	831539.4	62099	µg/L	62099	ppb	13:17:27
1	K 766.490 Radial†	8746.7	7287.7	2882.1	µg/L	2882.1	ppb	13:17:29
1	Mg 279.077 IEC†	7864.2	7723.0	3512.8	µg/L	3512.8	ppb	13:17:29
1	Na 589.592 Radial†	6993.7	6069.0	938.18	µg/L	938.18	ppb	13:17:29
1	Sr 421.552†	15777.9	16045.1	37.798	µg/L	37.798	ppb	13:17:29
1	Sc 361.383	1816834.5	1816834.5	100.70	%			13:17:55
1	Y 371.029	1429331.8	1429331.8	135.19	%			13:17:55
1	Ag 328.068†	3847.5	-744.5	-4.0406	µg/L	-4.0406	ppb	13:17:58
1	As 188.979†	40.9	59.1	34.043	µg/L	34.043	ppb	13:18:18
1	B 249.677†	4397.5	301.7	4.6498	µg/L	4.6498	ppb	13:17:58
1	Ba 233.527†	63813.8	63512.9	281.54	µg/L	281.54	ppb	13:17:58
1	Be 313.107†	19237.1	20194.5	5.6662	µg/L	5.6662	ppb	13:17:58
1	Cd 226.502†	804.6	902.3	-0.4232	µg/L	-0.4232	ppb	13:18:18
1	Co 228.616†	703.5	908.9	9.0630	µg/L	9.0630	ppb	13:18:18
1	Cr 267.716†	1625.1	1380.5	14.245	µg/L	14.245	ppb	13:17:58
1	Cu 324.752†	4523.4	1455.7	14.734	µg/L	14.734	ppb	13:17:58
1	Mn 257.610†	936665.0	929942.2	1233.3	µg/L	1233.3	ppb	13:17:55
1	Mo 202.031†	-9.6	29.0	3.4873	µg/L	3.4873	ppb	13:18:18
1	Ni 231.604†	1389.5	1475.7	18.463	µg/L	18.463	ppb	13:18:18
1	P 214.914†	7528.3	7501.4	1697.2	µg/L	1697.2	ppb	13:18:18
1	Pb 220.353†	382.5	276.4	17.841	µg/L	17.841	ppb	13:18:18
1	S 181.975 Axial†	223.1	132.6	111.60	µg/L	111.60	ppb	13:18:18
1	Sb 206.836†	55.2	-34.9	-5.4786	µg/L	-5.4786	ppb	13:18:18
1	Se 196.026†	-32.7	-38.6	5.74	µg/L	5.74	ppb	13:18:18
1	SiO2†	448435.1	443565.8	46973	µg/L	46973	ppb	13:17:55
1	Si 251.611†	1399740.8	1389203.4	21906	µg/L	21906	ppb	13:17:55
1	Sn 189.927†	60.8	58.5	7.1828	µg/L	7.1828	ppb	13:18:18
1	Ti 334.940†	909804.9	902631.4	927.17	µg/L	927.17	ppb	13:17:55
1	Tl 190.801†	-279.5	-163.2	-9.4610	µg/L	-9.4610	ppb	13:18:18
1	U 409.014†	-9858.2	-9626.0	-610.26	µg/L	-610.26	ppb	13:17:55
1	V 292.402†	10824.4	10325.6	45.759	µg/L	45.759	ppb	13:17:58
1	Zn 213.857†	28254.2	27554.0	158.57	µg/L	158.57	ppb	13:17:58
2	Sc RADIAL	138958.7	138958.7	99.2	%			13:17:31
2	Al 396.153Radial†	88188.5	88986.9	18735	µg/L	18735	ppb	13:17:31
2	Ca 317.933Radial†	85279.6	85404.3	5816.8	µg/L	5816.8	ppb	13:17:33
2	Fe 238.204 Radial†	823868.6	830476.3	62019	µg/L	62019	ppb	13:17:31
2	K 766.490 Radial†	8836.4	7414.8	2932.4	µg/L	2932.4	ppb	13:17:33
2	Mg 279.077 IEC†	8080.4	7973.9	3628.7	µg/L	3628.7	ppb	13:17:33
2	Na 589.592 Radial†	7087.2	6192.5	957.28	µg/L	957.28	ppb	13:17:33
2	Sr 421.552†	15972.0	16306.9	38.414	µg/L	38.414	ppb	13:17:33
2	Sc 361.383	1813462.9	1813462.9	100.52	%			13:18:20
2	Y 371.029	1425363.9	1425363.9	134.81	%			13:18:20
2	Ag 328.068†	3754.2	-830.2	-4.3811	µg/L	-4.3811	ppb	13:18:22
2	As 188.979†	40.1	58.4	33.793	µg/L	33.793	ppb	13:18:42
2	B 249.677†	4522.8	434.5	6.7150	µg/L	6.7150	ppb	13:18:22
2	Ba 233.527†	64808.8	64620.6	286.47	µg/L	286.47	ppb	13:18:22
2	Be 313.107†	19598.0	20589.1	5.7844	µg/L	5.7844	ppb	13:18:22
2	Cd 226.502†	834.1	933.2	-0.2062	µg/L	-0.2062	ppb	13:18:42
2	Co 228.616†	696.7	903.5	9.0004	µg/L	9.0004	ppb	13:18:42
2	Cr 267.716†	1633.6	1392.0	14.330	µg/L	14.330	ppb	13:18:22
2	Cu 324.752†	4597.9	1538.2	15.081	µg/L	15.081	ppb	13:18:22
2	Mn 257.610†	934716.4	929732.9	1233.0	µg/L	1233.0	ppb	13:18:20
2	Mo 202.031†	-17.7	21.0	3.2234	µg/L	3.2234	ppb	13:18:42
2	Ni 231.604†	1404.7	1493.4	18.685	µg/L	18.685	ppb	13:18:42
2	P 214.914†	7531.3	7518.3	1701.2	µg/L	1701.2	ppb	13:18:42
2	Pb 220.353†	413.9	308.3	19.800	µg/L	19.800	ppb	13:18:42

2	S 181.975 Axial†	227.3	137.2	115.41 µg/L	115.41 ppb	13:18:42
2	Sb 206.836†	57.6	-32.5	-5.1678 µg/L	-5.1678 ppb	13:18:42
2	Se 196.026†	-44.0	-50.0	1.26 µg/L	1.26 ppb	13:18:42
2	SiO2†	447371.7	443335.8	46948 µg/L	46948 ppb	13:18:20
2	Si 251.611†	1396647.8	1388710.5	21898 µg/L	21898 ppb	13:18:20
2	Sn 189.927†	50.9	48.7	6.5056 µg/L	6.5056 ppb	13:18:42
2	Ti 334.940†	908411.0	902924.3	927.47 µg/L	927.47 ppb	13:18:20
2	Tl 190.801†	-267.7	-152.1	-7.9368 µg/L	-7.9368 ppb	13:18:42
2	U 409.014†	-9635.3	-9422.5	-597.40 µg/L	-597.40 ppb	13:18:20
2	V 292.402†	10777.3	10298.8	45.634 µg/L	45.634 ppb	13:18:22
2	Zn 213.857†	28799.6	28148.7	162.13 µg/L	162.13 ppb	13:18:22
3	Sc RADIAL	136771.3	136771.3	97.6 %		13:17:35
3	Al 396.153Radial†	87035.9	89228.3	18786 µg/L	18786 ppb	13:17:35
3	Ca 317.933Radial†	83432.7	84887.5	5781.6 µg/L	5781.6 ppb	13:17:37
3	Fe 238.204 Radial†	809510.6	829053.5	61913 µg/L	61913 ppb	13:17:35
3	K 766.490 Radial†	8715.4	7433.3	2939.7 µg/L	2939.7 ppb	13:17:37
3	Mg 279.077 IEC†	7858.5	7877.0	3584.0 µg/L	3584.0 ppb	13:17:37
3	Na 589.592 Radial†	6869.2	6083.5	940.37 µg/L	940.37 ppb	13:17:37
3	Sr 421.552†	15808.8	16397.2	38.627 µg/L	38.627 ppb	13:17:37
3	Sc 361.383	1818746.9	1818746.9	100.81 %		13:18:45
3	Y 371.029	1431214.0	1431214.0	135.37 %		13:18:45
3	Ag 328.068†	3997.2	-600.0	-3.4626 µg/L	-3.4626 ppb	13:18:47
3	As 188.979†	39.7	57.9	33.592 µg/L	33.592 ppb	13:19:07
3	B 249.677†	4489.8	388.6	6.0024 µg/L	6.0024 ppb	13:18:47
3	Ba 233.527†	63174.7	62812.3	278.43 µg/L	278.43 ppb	13:18:47
3	Be 313.107†	18983.3	19922.7	5.5903 µg/L	5.5903 ppb	13:18:47
3	Cd 226.502†	853.1	949.6	-0.0841 µg/L	-0.0841 ppb	13:19:07
3	Co 228.616†	703.0	907.6	9.0530 µg/L	9.0530 ppb	13:19:07
3	Cr 267.716†	1641.1	1394.7	14.352 µg/L	14.352 ppb	13:18:47
3	Cu 324.752†	4362.0	1290.9	14.028 µg/L	14.028 ppb	13:18:47
3	Mn 257.610†	939712.2	931987.0	1236.0 µg/L	1236.0 ppb	13:18:45
3	Mo 202.031†	-6.0	32.7	3.6005 µg/L	3.6005 ppb	13:19:07
3	Ni 231.604†	1370.2	1455.1	18.205 µg/L	18.205 ppb	13:19:07
3	P 214.914†	7514.7	7480.1	1692.4 µg/L	1692.4 ppb	13:19:07
3	Pb 220.353†	402.2	295.5	19.026 µg/L	19.026 ppb	13:19:07
3	S 181.975 Axial†	217.9	127.3	107.07 µg/L	107.07 ppb	13:19:07
3	Sb 206.836†	70.4	-19.9	-3.5396 µg/L	-3.5396 ppb	13:19:07
3	Se 196.026†	-26.1	-32.0	8.29 µg/L	8.29 ppb	13:19:07
3	SiO2†	449737.4	444389.5	47060 µg/L	47060 ppb	13:18:45
3	Si 251.611†	1403926.8	1391894.3	21949 µg/L	21949 ppb	13:18:45
3	Sn 189.927†	52.5	50.2	6.6161 µg/L	6.6161 ppb	13:19:07
3	Ti 334.940†	912596.0	904450.1	929.04 µg/L	929.04 ppb	13:18:45
3	Tl 190.801†	-260.6	-144.2	-6.8576 µg/L	-6.8576 ppb	13:19:07
3	U 409.014†	-9719.9	-9478.6	-601.00 µg/L	-601.00 ppb	13:18:45
3	V 292.402†	10478.6	9971.3	43.948 µg/L	43.948 ppb	13:18:47
3	Zn 213.857†	27915.4	27188.4	156.41 µg/L	156.41 ppb	13:18:47

Mean Data: 248867004|964016|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1816348.1	100.68	%	0.148				0.15%
Sc RADIAL	138422.8	98.8	%	1.04				1.05%
Y 371.029	1428636.5	135.12	%	0.282				0.21%
Ag 328.068†	-724.9	-3.9614	µg/L	0.46432	-3.9614	ppb	0.46432	11.72%
Al 396.153Radial†	88952.0	18728	µg/L	62.2	18728	ppb	62.2	0.33%
As 188.979†	58.5	33.809	µg/L	0.2255	33.809	ppb	0.2255	0.67%
B 249.677†	374.9	5.7890	µg/L	1.04898	5.7890	ppb	1.04898	18.12%
Ba 233.527†	63648.6	282.15	µg/L	4.053	282.15	ppb	4.053	1.44%
Be 313.107†	20235.4	5.6803	µg/L	0.09783	5.6803	ppb	0.09783	1.72%
Ca 317.933Radial†	84406.0	5748.8	µg/L	89.04	5748.8	ppb	89.04	1.55%
Cd 226.502†	928.4	-0.2378	µg/L	0.17176	-0.2378	ppb	0.17176	72.22%
Co 228.616†	906.7	9.0388	µg/L	0.03364	9.0388	ppb	0.03364	0.37%
Cr 267.716†	1389.1	14.309	µg/L	0.0564	14.309	ppb	0.0564	0.39%
Cu 324.752†	1428.3	14.614	µg/L	0.5369	14.614	ppb	0.5369	3.67%
Fe 238.204 Radial†	830356.4	62010	µg/L	93.1	62010	ppb	93.1	0.15%
K 766.490 Radial†	7378.6	2918.0	µg/L	31.38	2918.0	ppb	31.38	1.08%
Mg 279.077 IEC†	7858.0	3575.2	µg/L	58.45	3575.2	ppb	58.45	1.64%
Mn 257.610†	930554.0	1234.1	µg/L	1.65	1234.1	ppb	1.65	0.13%
Mo 202.031†	27.5	3.4371	µg/L	0.19349	3.4371	ppb	0.19349	5.63%
Na 589.592 Radial†	6115.0	945.27	µg/L	10.452	945.27	ppb	10.452	1.11%

Ni 231.604†	1474.7	18.451	µg/L	0.2401	18.451	ppb	0.2401	1.30%
P 214.914†	7499.9	1696.9	µg/L	4.38	1696.9	ppb	4.38	0.26%
Pb 220.353†	293.4	18.889	µg/L	0.9867	18.889	ppb	0.9867	5.22%
S 181.975 Axial†	132.4	111.36	µg/L	4.172	111.36	ppb	4.172	3.75%
Sb 206.836†	-29.1	-4.7287	µg/L	1.04142	-4.7287	ppb	1.04142	22.02%
Se 196.026†	-40.2	5.10	µg/L	3.563	5.10	ppb	3.563	69.90%
SiO2†	443763.7	46994	µg/L	58.7	46994	ppb	58.7	0.12%
Si 251.611†	1389936.1	21918	µg/L	27.0	21918	ppb	27.0	0.12%
Sn 189.927†	52.5	6.7682	µg/L	0.36329	6.7682	ppb	0.36329	5.37%
Sr 421.552†	16249.7	38.279	µg/L	0.4307	38.279	ppb	0.4307	1.13%
Ti 334.940†	903335.3	927.89	µg/L	1.002	927.89	ppb	1.002	0.11%
Tl 190.801†	-153.2	-8.0851	µg/L	1.30800	-8.0851	ppb	1.30800	16.18%
U 409.014†	-9509.0	-602.89	µg/L	6.635	-602.89	ppb	6.635	1.10%
Concentration less than lower limit for U 409.014.								
V 292.402†	10198.6	45.113	µg/L	1.0114	45.113	ppb	1.0114	2.24%
Zn 213.857†	27630.4	159.04	µg/L	2.887	159.04	ppb	2.887	1.82%

Sequence No.: 15
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 13:19:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137686.1	137686.1	98.3	%			13:19:48
1	Al 396.153Radial†	23316.9	23803.1	4987.8	µg/L	4987.8	ppb	13:19:48
1	Ca 317.933Radial†	74157.5	74882.4	5100.2	µg/L	5100.2	ppb	13:19:48
1	Fe 238.204 Radial†	66808.5	67859.0	5067.7	µg/L	5067.7	ppb	13:19:48
1	K 766.490 Radial†	14132.5	12885.8	5101.8	µg/L	5101.8	ppb	13:19:48
1	Mg 279.077 IEC†	11014.2	11034.3	5103.1	µg/L	5103.1	ppb	13:19:48
1	Na 589.592 Radial†	64546.9	64722.7	10028	µg/L	10028	ppb	13:19:48
1	Sr 421.552†	206906.3	210727.7	496.95	µg/L	496.95	ppb	13:19:46
1	Sc 361.383	1764151.9	1764151.9	97.783	%			13:20:15
1	Y 371.029	1025388.3	1025388.3	96.982	%			13:20:15
1	Ag 328.068†	124481.4	122738.8	508.77	µg/L	508.77	ppb	13:20:15
1	As 188.979†	1356.8	1406.2	482.95	µg/L	482.95	ppb	13:20:35
1	B 249.677†	35498.9	32238.7	499.59	µg/L	499.59	ppb	13:20:15
1	Ba 233.527†	110006.0	112644.9	501.10	µg/L	501.10	ppb	13:20:15
1	Be 313.107†	1665582.9	1704440.6	493.88	µg/L	493.88	ppb	13:20:15
1	Cd 226.502†	73149.4	74911.4	505.99	µg/L	505.99	ppb	13:20:15
1	Co 228.616†	37552.7	38614.5	511.11	µg/L	511.11	ppb	13:20:15
1	Cr 267.716†	57324.6	58391.2	505.01	µg/L	505.01	ppb	13:20:15
1	Cu 324.752†	120503.1	120199.3	504.34	µg/L	504.34	ppb	13:20:15
1	Mn 257.610†	372460.1	380720.6	504.83	µg/L	504.83	ppb	13:20:15
1	Mo 202.031†	15163.3	15545.7	508.87	µg/L	508.87	ppb	13:20:35
1	Ni 231.604†	39504.5	40496.1	506.66	µg/L	506.66	ppb	13:20:15
1	P 214.914†	10657.2	10924.5	2518.4	µg/L	2518.4	ppb	13:20:35
1	Pb 220.353†	8249.2	8332.7	514.35	µg/L	514.35	ppb	13:20:35
1	S 181.975 Axial†	1263.9	1203.6	1016.9	µg/L	1016.9	ppb	13:20:35
1	Sb 206.836†	3896.7	3895.3	503.47	µg/L	503.47	ppb	13:20:35
1	Se 196.026†	1255.4	1277.8	506	µg/L	506	ppb	13:20:35
1	SiO2†	51270.6	50694.0	5346.7	µg/L	5346.7	ppb	13:20:15
1	Si 251.611†	156815.2	159603.8	2506.7	µg/L	2506.7	ppb	13:20:15
1	Sn 189.927†	7047.2	7205.1	501.46	µg/L	501.46	ppb	13:20:35
1	Ti 334.940†	478947.9	488984.7	501.57	µg/L	501.57	ppb	13:20:15
1	Tl 190.801†	3509.9	3703.8	513.29	µg/L	513.29	ppb	13:20:35
1	U 409.014†	7443.5	7775.6	521.38	µg/L	521.38	ppb	13:20:15
1	V 292.402†	95292.2	97029.7	509.66	µg/L	509.66	ppb	13:20:15
1	Zn 213.857†	83586.8	84979.1	503.48	µg/L	503.48	ppb	13:20:15
2	Sc RADIAL	135969.5	135969.5	97.1	%			13:19:52
2	Al 396.153Radial†	23142.4	23922.8	5013.1	µg/L	5013.1	ppb	13:19:52
2	Ca 317.933Radial†	73314.9	74966.9	5105.9	µg/L	5105.9	ppb	13:19:52
2	Fe 238.204 Radial†	66100.3	67987.6	5077.3	µg/L	5077.3	ppb	13:19:52
2	K 766.490 Radial†	13867.7	12794.5	5065.6	µg/L	5065.6	ppb	13:19:52
2	Mg 279.077 IEC†	10929.6	11088.6	5128.1	µg/L	5128.1	ppb	13:19:52
2	Na 589.592 Radial†	63867.1	64851.5	10048	µg/L	10048	ppb	13:19:52
2	Sr 421.552†	206242.2	212701.3	501.61	µg/L	501.61	ppb	13:19:50
2	Sc 361.383	1752479.1	1752479.1	97.136	%			13:20:38
2	Y 371.029	1020334.9	1020334.9	96.504	%			13:20:38
2	Ag 328.068†	123684.4	122766.2	508.86	µg/L	508.86	ppb	13:20:38
2	As 188.979†	1330.5	1388.3	476.91	µg/L	476.91	ppb	13:20:58
2	B 249.677†	35109.4	32079.5	497.12	µg/L	497.12	ppb	13:20:38
2	Ba 233.527†	109687.7	113066.5	502.98	µg/L	502.98	ppb	13:20:38
2	Be 313.107†	1653797.6	1703653.3	493.65	µg/L	493.65	ppb	13:20:38
2	Cd 226.502†	72583.7	74827.3	505.42	µg/L	505.42	ppb	13:20:38
2	Co 228.616†	37169.0	38475.2	509.27	µg/L	509.27	ppb	13:20:38
2	Cr 267.716†	56900.5	58345.1	504.61	µg/L	504.61	ppb	13:20:38
2	Cu 324.752†	119629.2	120120.5	504.01	µg/L	504.01	ppb	13:20:38
2	Mn 257.610†	370314.3	381048.7	505.26	µg/L	505.26	ppb	13:20:38
2	Mo 202.031†	15009.0	15490.1	507.05	µg/L	507.05	ppb	13:20:58
2	Ni 231.604†	39199.8	40451.5	506.10	µg/L	506.10	ppb	13:20:38
2	P 214.914†	10555.4	10892.3	2511.0	µg/L	2511.0	ppb	13:20:58
2	Pb 220.353†	8124.2	8260.3	509.89	µg/L	509.89	ppb	13:20:58

2	S 181.975 Axial†	1239.3	1187.0	1002.8 µg/L	1002.8 ppb	13:20:58
2	Sb 206.836†	3878.5	3903.1	504.46 µg/L	504.46 ppb	13:20:58
2	Se 196.026†	1243.7	1274.2	504 µg/L	504 ppb	13:20:58
2	SiO2†	50994.2	50758.8	5353.6 µg/L	5353.6 ppb	13:20:38
2	Si 251.611†	156234.2	160073.9	2514.1 µg/L	2514.1 ppb	13:20:38
2	Sn 189.927†	6997.5	7202.0	501.25 µg/L	501.25 ppb	13:20:58
2	Ti 334.940†	475750.2	488955.2	501.54 µg/L	501.54 ppb	13:20:38
2	Tl 190.801†	3489.7	3706.8	513.71 µg/L	513.71 ppb	13:20:58
2	U 409.014†	7342.0	7721.8	517.90 µg/L	517.90 ppb	13:20:38
2	V 292.402†	94395.8	96755.9	508.22 µg/L	508.22 ppb	13:20:38
2	Zn 213.857†	82925.5	84867.6	502.82 µg/L	502.82 ppb	13:20:38
3	Sc RADIAL	135910.8	135910.8	97.0 %		13:19:56
3	Al 396.153Radial†	23011.1	23797.7	4986.6 µg/L	4986.6 ppb	13:19:56
3	Ca 317.933Radial†	73016.0	74691.3	5087.2 µg/L	5087.2 ppb	13:19:56
3	Fe 238.204 Radial†	65816.6	67724.5	5057.6 µg/L	5057.6 ppb	13:19:56
3	K 766.490 Radial†	14014.9	12952.4	5128.2 µg/L	5128.2 ppb	13:19:56
3	Mg 279.077 IEC†	10852.5	11014.0	5093.7 µg/L	5093.7 ppb	13:19:56
3	Na 589.592 Radial†	64017.8	65035.2	10076 µg/L	10076 ppb	13:19:56
3	Sr 421.552†	207445.1	214032.9	504.75 µg/L	504.75 ppb	13:19:54
3	Sc 361.383	1757185.4	1757185.4	97.397 %		13:21:01
3	Y 371.029	1021114.7	1021114.7	96.578 %		13:21:01
3	Ag 328.068†	123757.2	122499.9	507.77 µg/L	507.77 ppb	13:21:01
3	As 188.979†	1359.9	1414.8	485.88 µg/L	485.88 ppb	13:21:21
3	B 249.677†	35071.9	31944.2	495.02 µg/L	495.02 ppb	13:21:01
3	Ba 233.527†	109828.9	112909.1	502.28 µg/L	502.28 ppb	13:21:01
3	Be 313.107†	1657683.2	1703082.7	493.48 µg/L	493.48 ppb	13:21:01
3	Cd 226.502†	72559.6	74602.4	503.91 µg/L	503.91 ppb	13:21:01
3	Co 228.616†	37343.2	38551.6	510.28 µg/L	510.28 ppb	13:21:01
3	Cr 267.716†	57083.6	58376.2	504.88 µg/L	504.88 ppb	13:21:01
3	Cu 324.752†	120203.7	120380.4	505.08 µg/L	505.08 ppb	13:21:01
3	Mn 257.610†	371130.2	380865.4	505.02 µg/L	505.02 ppb	13:21:01
3	Mo 202.031†	15160.4	15604.2	510.78 µg/L	510.78 ppb	13:21:21
3	Ni 231.604†	39383.3	40531.9	507.10 µg/L	507.10 ppb	13:21:01
3	P 214.914†	10656.5	10967.1	2528.2 µg/L	2528.2 ppb	13:21:21
3	Pb 220.353†	8194.0	8309.5	512.94 µg/L	512.94 ppb	13:21:21
3	S 181.975 Axial†	1261.5	1206.3	1019.2 µg/L	1019.2 ppb	13:21:21
3	Sb 206.836†	3887.7	3901.9	504.35 µg/L	504.35 ppb	13:21:21
3	Se 196.026†	1265.5	1293.2	512 µg/L	512 ppb	13:21:21
3	SiO2†	51195.4	50824.7	5360.4 µg/L	5360.4 ppb	13:21:01
3	Si 251.611†	156725.4	160147.5	2515.2 µg/L	2515.2 ppb	13:21:01
3	Sn 189.927†	7043.2	7229.6	503.16 µg/L	503.16 ppb	13:21:21
3	Ti 334.940†	476862.5	488785.4	501.37 µg/L	501.37 ppb	13:21:01
3	Tl 190.801†	3501.8	3709.6	514.09 µg/L	514.09 ppb	13:21:21
3	U 409.014†	7209.4	7565.4	508.05 µg/L	508.05 ppb	13:21:01
3	V 292.402†	94694.8	96802.7	508.50 µg/L	508.50 ppb	13:21:01
3	Zn 213.857†	83190.2	84910.8	503.07 µg/L	503.07 ppb	13:21:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1757938.8	97.438	%	0.3255				0.33%
Sc RADIAL	136522.1	97.5	%	0.72				0.74%
Y 371.029	1022279.3	96.688	%	0.2573				0.27%
Ag 328.068†	122668.3	508.47	µg/L	0.610	508.47	ppb	0.610	0.12%
QC value within limits for Ag 328.068 Recovery = 101.69%								
Al 396.153Radial†	23841.2	4995.8	µg/L	14.96	4995.8	ppb	14.96	0.30%
QC value within limits for Al 396.153Radial Recovery = 99.92%								
As 188.979†	1403.1	481.91	µg/L	4.574	481.91	ppb	4.574	0.95%
QC value within limits for As 188.979 Recovery = 96.38%								
B 249.677†	32087.5	497.25	µg/L	2.291	497.25	ppb	2.291	0.46%
QC value within limits for B 249.677 Recovery = 99.45%								
Ba 233.527†	112873.5	502.12	µg/L	0.946	502.12	ppb	0.946	0.19%
QC value within limits for Ba 233.527 Recovery = 100.42%								
Be 313.107†	1703725.5	493.67	µg/L	0.199	493.67	ppb	0.199	0.04%
QC value within limits for Be 313.107 Recovery = 98.73%								
Ca 317.933Radial†	74846.9	5097.7	µg/L	9.62	5097.7	ppb	9.62	0.19%
QC value within limits for Ca 317.933Radial Recovery = 101.95%								
Cd 226.502†	74780.4	505.11	µg/L	1.079	505.11	ppb	1.079	0.21%
QC value within limits for Cd 226.502 Recovery = 101.02%								
Co 228.616†	38547.1	510.22	µg/L	0.922	510.22	ppb	0.922	0.18%

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   QC value within limits for Co 228.616  Recovery = 102.04%
Cr 267.716†            58370.8      504.83 µg/L         0.204      504.83 ppb          0.204   0.04%
   QC value within limits for Cr 267.716  Recovery = 100.97%
Cu 324.752†           120233.4      504.47 µg/L         0.551      504.47 ppb          0.551   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.89%
Fe 238.204 Radial†     67857.1      5067.5 µg/L          9.82      5067.5 ppb           9.82   0.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.35%
K 766.490 Radial†      12877.5      5098.6 µg/L         31.42      5098.6 ppb          31.42   0.62%
   QC value within limits for K 766.490 Radial  Recovery = 101.97%
Mg 279.077 IEC†        11045.6      5108.3 µg/L         17.77      5108.3 ppb          17.77   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.17%
Mn 257.610†           380878.2      505.04 µg/L         0.218      505.04 ppb          0.218   0.04%
   QC value within limits for Mn 257.610  Recovery = 101.01%
Mo 202.031†            15546.7      508.90 µg/L         1.865      508.90 ppb          1.865   0.37%
   QC value within limits for Mo 202.031  Recovery = 101.78%
Na 589.592 Radial†     64869.8       10051 µg/L          24.3       10051 ppb           24.3   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 100.51%
Ni 231.604†            40493.2      506.62 µg/L         0.504      506.62 ppb          0.504   0.10%
   QC value within limits for Ni 231.604  Recovery = 101.32%
P 214.914†             10928.0      2519.2 µg/L          8.66      2519.2 ppb           8.66   0.34%
   QC value within limits for P 214.914  Recovery = 100.77%
Pb 220.353†             8300.9      512.39 µg/L         2.280      512.39 ppb          2.280   0.44%
   QC value within limits for Pb 220.353  Recovery = 102.48%
S 181.975 Axial†        1199.0      1012.9 µg/L          8.84      1012.9 ppb           8.84   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 101.29%
Sb 206.836†             3900.1      504.09 µg/L         0.541      504.09 ppb          0.541   0.11%
   QC value within limits for Sb 206.836  Recovery = 100.82%
Se 196.026†             1281.7         507 µg/L           4.0         507 ppb            4.0   0.78%
   QC value within limits for Se 196.026  Recovery = 101.44%
SiO2†                  50759.2      5353.6 µg/L          6.88      5353.6 ppb           6.88   0.13%
   QC value within limits for SiO2  Recovery = 100.11%
Si 251.611†           159941.7      2512.0 µg/L          4.64      2512.0 ppb           4.64   0.18%
   QC value within limits for Si 251.611  Recovery = 100.48%
Sn 189.927†             7212.2      501.96 µg/L         1.049      501.96 ppb          1.049   0.21%
   QC value within limits for Sn 189.927  Recovery = 100.39%
Sr 421.552†           212487.3      501.10 µg/L         3.922      501.10 ppb          3.922   0.78%
   QC value within limits for Sr 421.552  Recovery = 100.22%
Ti 334.940†           488908.4      501.50 µg/L         0.107      501.50 ppb          0.107   0.02%
   QC value within limits for Ti 334.940  Recovery = 100.30%
Tl 190.801†             3706.8      513.69 µg/L         0.398      513.69 ppb          0.398   0.08%
   QC value within limits for Tl 190.801  Recovery = 102.74%
U 409.014†              7687.6      515.78 µg/L         6.915      515.78 ppb          6.915   1.34%
   QC value within limits for U 409.014  Recovery = 103.16%
V 292.402†             96862.8      508.79 µg/L         0.765      508.79 ppb          0.765   0.15%
   QC value within limits for V 292.402  Recovery = 101.76%
Zn 213.857†            84919.2      503.12 µg/L         0.334      503.12 ppb          0.334   0.07%
   QC value within limits for Zn 213.857  Recovery = 100.62%
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 13:21:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136365.9	136365.9	97.3	%			13:21:58
1	Al 396.153Radial†	-72.1	4.4	0.9330	µg/L	0.9330	ppb	13:22:18
1	Ca 317.933Radial†	710.4	158.4	10.786	µg/L	10.786	ppb	13:22:18
1	Fe 238.204 Radial†	185.7	73.4	5.4841	µg/L	5.4841	ppb	13:22:18
1	K 766.490 Radial†	1496.4	43.5	17.215	µg/L	17.215	ppb	13:21:58
1	Mg 279.077 IEC†	179.8	12.2	5.6498	µg/L	5.6498	ppb	13:22:18
1	Na 589.592 Radial†	1238.6	319.9	49.578	µg/L	49.578	ppb	13:21:58
1	Sr 421.552†	-142.4	58.2	0.1373	µg/L	0.1373	ppb	13:21:58
1	Sc 361.383	1782820.6	1782820.6	98.818	%			13:23:20
1	Y 371.029	1046910.4	1046910.4	99.018	%			13:23:20
1	Ag 328.068†	4406.6	-105.9	-0.4491	µg/L	-0.4491	ppb	13:23:22
1	As 188.979†	-21.0	-2.7	-0.9151	µg/L	-0.9151	ppb	13:23:42
1	B 249.677†	4073.3	56.8	0.8834	µg/L	0.8834	ppb	13:23:22
1	Ba 233.527†	-120.0	23.1	0.1023	µg/L	0.1023	ppb	13:23:42
1	Be 313.107†	-879.3	201.9	0.0560	µg/L	0.0560	ppb	13:23:22
1	Cd 226.502†	-86.3	16.0	0.1078	µg/L	0.1078	ppb	13:23:42
1	Co 228.616†	-193.5	14.5	0.1920	µg/L	0.1920	ppb	13:23:42
1	Cr 267.716†	232.1	1.6	0.0206	µg/L	0.0206	ppb	13:23:42
1	Cu 324.752†	2948.4	-52.4	-0.2248	µg/L	-0.2248	ppb	13:23:22
1	Mn 257.610†	249.3	67.6	0.0894	µg/L	0.0894	ppb	13:23:42
1	Mo 202.031†	-36.3	1.9	0.0612	µg/L	0.0612	ppb	13:23:42
1	Ni 231.604†	-71.5	23.5	0.2943	µg/L	0.2943	ppb	13:23:42
1	P 214.914†	2.4	28.1	6.5138	µg/L	6.5138	ppb	13:23:42
1	Pb 220.353†	104.5	2.3	0.1466	µg/L	0.1466	ppb	13:23:42
1	S 181.975 Axial†	101.8	14.1	11.895	µg/L	11.895	ppb	13:23:42
1	Sb 206.836†	82.9	-5.8	-0.7459	µg/L	-0.7459	ppb	13:23:42
1	Se 196.026†	22.2	16.4	6.44	µg/L	6.44	ppb	13:23:42
1	SiO2†	1856.7	139.8	14.797	µg/L	14.797	ppb	13:23:42
1	Si 251.611†	1252.8	500.7	7.8907	µg/L	7.8907	ppb	13:23:22
1	Sn 189.927†	11.8	10.1	0.6995	µg/L	0.6995	ppb	13:23:42
1	Ti 334.940†	676.1	-138.8	-0.1394	µg/L	-0.1394	ppb	13:23:22
1	Tl 190.801†	-128.9	-16.2	-2.2162	µg/L	-2.2162	ppb	13:23:42
1	U 409.014†	-290.7	-130.8	-8.2823	µg/L	-8.2823	ppb	13:23:22
1	V 292.402†	334.4	-84.8	-0.4449	µg/L	-0.4449	ppb	13:23:22
1	Zn 213.857†	588.1	92.2	0.5479	µg/L	0.5479	ppb	13:23:42
2	Sc RADIAL	136466.1	136466.1	97.4	%			13:22:20
2	Al 396.153Radial†	-51.5	25.6	5.3864	µg/L	5.3864	ppb	13:22:40
2	Ca 317.933Radial†	690.1	137.0	9.3304	µg/L	9.3304	ppb	13:22:40
2	Fe 238.204 Radial†	194.0	81.9	6.1145	µg/L	6.1145	ppb	13:22:40
2	K 766.490 Radial†	1714.5	266.3	105.52	µg/L	105.52	ppb	13:22:20
2	Mg 279.077 IEC†	156.6	-11.7	-5.4114	µg/L	-5.4114	ppb	13:22:40
2	Na 589.592 Radial†	1009.5	83.8	12.901	µg/L	12.901	ppb	13:22:20
2	Sr 421.552†	-151.7	48.8	0.1149	µg/L	0.1149	ppb	13:22:20
2	Sc 361.383	1782019.7	1782019.7	98.773	%			13:23:44
2	Y 371.029	1046998.5	1046998.5	99.026	%			13:23:44
2	Ag 328.068†	4298.3	-213.5	-0.8812	µg/L	-0.8812	ppb	13:23:47
2	As 188.979†	-7.3	11.2	3.7928	µg/L	3.7928	ppb	13:24:07
2	B 249.677†	4202.2	189.2	2.9424	µg/L	2.9424	ppb	13:23:47
2	Ba 233.527†	-153.9	-11.3	-0.0501	µg/L	-0.0501	ppb	13:24:07
2	Be 313.107†	-724.1	358.6	0.1019	µg/L	0.1019	ppb	13:23:47
2	Cd 226.502†	-57.2	45.5	0.3068	µg/L	0.3068	ppb	13:24:07
2	Co 228.616†	-193.9	14.0	0.1851	µg/L	0.1851	ppb	13:24:07
2	Cr 267.716†	283.6	53.9	0.4715	µg/L	0.4715	ppb	13:24:07
2	Cu 324.752†	2861.1	-139.5	-0.5881	µg/L	-0.5881	ppb	13:23:47
2	Mn 257.610†	304.8	123.9	0.1645	µg/L	0.1645	ppb	13:24:07
2	Mo 202.031†	-31.6	6.5	0.2141	µg/L	0.2141	ppb	13:24:07
2	Ni 231.604†	-54.3	41.0	0.5126	µg/L	0.5126	ppb	13:24:07
2	P 214.914†	3.2	28.9	6.6884	µg/L	6.6884	ppb	13:24:07
2	Pb 220.353†	117.1	15.1	0.9372	µg/L	0.9372	ppb	13:24:07

2	S 181.975 Axial†	101.7	14.1	11.829 µg/L	11.829 ppb	13:24:07
2	Sb 206.836†	78.2	-10.5	-1.3618 µg/L	-1.3618 ppb	13:24:07
2	Se 196.026†	18.6	12.6	4.97 µg/L	4.97 ppb	13:24:07
2	SiO2†	1894.3	178.7	18.911 µg/L	18.911 ppb	13:24:07
2	Si 251.611†	1331.3	580.8	9.1530 µg/L	9.1530 ppb	13:23:47
2	Sn 189.927†	8.7	6.9	0.4812 µg/L	0.4812 ppb	13:24:07
2	Ti 334.940†	731.4	-82.6	-0.0816 µg/L	-0.0816 ppb	13:23:47
2	Tl 190.801†	-109.0	4.0	0.5399 µg/L	0.5399 ppb	13:24:07
2	U 409.014†	-264.9	-104.9	-6.6122 µg/L	-6.6122 ppb	13:23:47
2	V 292.402†	436.0	18.2	0.0935 µg/L	0.0935 ppb	13:23:47
2	Zn 213.857†	590.3	94.6	0.5614 µg/L	0.5614 ppb	13:24:07
3	Sc RADIAL	137955.3	137955.3	98.5 %		13:22:42
3	Al 396.153Radial†	-70.3	7.2	1.4865 µg/L	1.4865 ppb	13:23:02
3	Ca 317.933Radial†	685.5	124.6	8.4893 µg/L	8.4893 ppb	13:23:02
3	Fe 238.204 Radial†	230.4	116.7	8.7157 µg/L	8.7157 ppb	13:23:02
3	K 766.490 Radial†	1451.8	-19.5	-7.7271 µg/L	-7.7271 ppb	13:22:42
3	Mg 279.077 IEC†	174.1	4.3	2.0013 µg/L	2.0013 ppb	13:23:02
3	Na 589.592 Radial†	1037.1	100.7	15.611 µg/L	15.611 ppb	13:22:42
3	Sr 421.552†	-254.5	-54.0	-0.1273 µg/L	-0.1273 ppb	13:22:42
3	Sc 361.383	1782300.1	1782300.1	98.789 %		13:24:09
3	Y 371.029	1047376.2	1047376.2	99.062 %		13:24:09
3	Ag 328.068†	4223.0	-290.4	-1.2135 µg/L	-1.2135 ppb	13:24:11
3	As 188.979†	-17.7	0.6	0.2088 µg/L	0.2088 ppb	13:24:31
3	B 249.677†	4033.8	18.1	0.2811 µg/L	0.2811 ppb	13:24:11
3	Ba 233.527†	-156.8	-14.2	-0.0638 µg/L	-0.0638 ppb	13:24:31
3	Be 313.107†	-613.6	470.6	0.1332 µg/L	0.1332 ppb	13:24:11
3	Cd 226.502†	-76.8	25.6	0.1726 µg/L	0.1726 ppb	13:24:31
3	Co 228.616†	-205.6	2.2	0.0282 µg/L	0.0282 ppb	13:24:31
3	Cr 267.716†	280.8	51.0	0.4490 µg/L	0.4490 ppb	13:24:31
3	Cu 324.752†	2839.1	-162.2	-0.6856 µg/L	-0.6856 ppb	13:24:11
3	Mn 257.610†	230.8	49.0	0.0648 µg/L	0.0648 ppb	13:24:31
3	Mo 202.031†	-22.6	15.7	0.5131 µg/L	0.5131 ppb	13:24:31
3	Ni 231.604†	-61.1	34.0	0.4255 µg/L	0.4255 ppb	13:24:31
3	P 214.914†	10.7	36.5	8.4493 µg/L	8.4493 ppb	13:24:31
3	Pb 220.353†	119.2	17.2	1.0651 µg/L	1.0651 ppb	13:24:31
3	S 181.975 Axial†	88.3	0.5	0.4233 µg/L	0.4233 ppb	13:24:31
3	Sb 206.836†	75.7	-13.1	-1.6875 µg/L	-1.6875 ppb	13:24:31
3	Se 196.026†	28.9	23.1	9.09 µg/L	9.09 ppb	13:24:31
3	SiO2†	1947.0	231.8	24.527 µg/L	24.527 ppb	13:24:31
3	Si 251.611†	1312.9	562.0	8.8525 µg/L	8.8525 ppb	13:24:11
3	Sn 189.927†	6.2	4.4	0.3051 µg/L	0.3051 ppb	13:24:31
3	Ti 334.940†	636.8	-178.4	-0.1791 µg/L	-0.1791 ppb	13:24:11
3	Tl 190.801†	-114.6	-1.7	-0.2417 µg/L	-0.2417 ppb	13:24:31
3	U 409.014†	-323.8	-164.4	-10.433 µg/L	-10.433 ppb	13:24:11
3	V 292.402†	230.1	-190.3	-0.9870 µg/L	-0.9870 ppb	13:24:11
3	Zn 213.857†	593.7	98.0	0.5817 µg/L	0.5817 ppb	13:24:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1782380.1	98.793	%	0.0225				0.02%
Sc RADIAL	136929.1	97.7	%	0.64				0.65%
Y 371.029	1047095.0	99.035	%	0.0234				0.02%
Ag 328.068†	-203.3	-0.8480	µg/L	0.38329	-0.8480	ppb	0.38329	45.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.4	2.6020	µg/L	2.42724	2.6020	ppb	2.42724	93.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.0288	µg/L	2.45877	1.0288	ppb	2.45877	238.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	88.1	1.3690	µg/L	1.39550	1.3690	ppb	1.39550	101.94%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.8	-0.0039	µg/L	0.09218	-0.0039	ppb	0.09218	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	343.7	0.0970	µg/L	0.03883	0.0970	ppb	0.03883	40.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	140.0	9.5354	µg/L	1.16212	9.5354	ppb	1.16212	12.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	29.0	0.1957	µg/L	0.10147	0.1957	ppb	0.10147	51.84%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.2	0.1351	µg/L	0.09266	0.1351	ppb	0.09266	68.56%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                35.5      0.3137 µg/L       0.25407      0.3137 ppb        0.25407  80.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -118.0     -0.4995 µg/L       0.24283     -0.4995 ppb        0.24283  48.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         90.7      6.7714 µg/L       1.71300      6.7714 ppb        1.71300  25.30%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          96.8     38.335 µg/L       59.5038     38.335 ppb        59.5038 155.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.6      0.7465 µg/L       5.63634      0.7465 ppb        5.63634 755.00%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                80.1      0.1062 µg/L       0.05193      0.1062 ppb        0.05193  48.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.0      0.2628 µg/L       0.22982      0.2628 ppb        0.22982  87.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        168.1     26.030 µg/L       20.4379     26.030 ppb        20.4379  78.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                32.8      0.4108 µg/L       0.10989      0.4108 ppb        0.10989  26.75%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 31.2      7.2172 µg/L       1.07061      7.2172 ppb        1.07061  14.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                11.5      0.7163 µg/L       0.49748      0.7163 ppb        0.49748  69.45%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            9.6      8.0489 µg/L       6.60400      8.0489 ppb        6.60400  82.05%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -9.8     -1.2650 µg/L       0.47821     -1.2650 ppb        0.47821  37.80%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                17.4        6.83 µg/L         2.087        6.83 ppb          2.087  30.55%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     183.4     19.412 µg/L        4.8846     19.412 ppb         4.8846  25.16%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               547.8      8.6321 µg/L       0.65940      8.6321 ppb        0.65940   7.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.1      0.4953 µg/L       0.19755      0.4953 ppb        0.19755  39.89%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                17.7      0.0416 µg/L       0.14674      0.0416 ppb        0.14674 352.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -133.3     -0.1333 µg/L       0.04905     -0.1333 ppb        0.04905  36.79%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -4.6     -0.6393 µg/L       1.42042     -0.6393 ppb        1.42042 222.17%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -133.4     -8.4424 µg/L       1.91529     -8.4424 ppb        1.91529  22.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -85.7     -0.4461 µg/L       0.54029     -0.4461 ppb        0.54029 121.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                94.9      0.5636 µg/L       0.01701      0.5636 ppb        0.01701   3.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/7/2010 12:46:53 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040710.sif
Batch ID:
Results Data Set: 040710
Results Library: C:\pe\optima4\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 4/7/2010 11:36:55**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 4/7/2010 12:46:56**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	128947.2	128947.2	100	%	12:47:26
1	Al 396.153Radial†	-75.9	-75.7	[0.00]	µg/L	12:47:46
1	Ca 317.933Radial†	480.3	478.6	[0.00]	µg/L	12:47:46
1	Fe 238.204 Radial†	127.6	127.1	[0.00]	µg/L	12:47:46

1	K 766.490 Radial†	1637.7	1632.1	[0.00]	µg/L	12:47:26
1	Mg 279.077 IEC†	166.5	165.9	[0.00]	µg/L	12:47:46
1	Na 589.592 Radial†	885.1	882.0	[0.00]	µg/L	12:47:26
1	Sr 421.552†	14.6	14.5	[0.00]	µg/L	12:47:26
1	Sc 361.383	1738893.0	1738893.0	101.04	%	12:48:48
1	Y 371.029	1005959.7	1005959.7	101.00	%	12:48:48
1	Ag 328.068†	4575.9	4528.6	[0.00]	µg/L	12:48:50
1	As 188.979†	-8.3	-8.2	[0.00]	µg/L	12:49:10
1	B 249.677†	3925.3	3884.8	[0.00]	µg/L	12:48:50
1	Ba 233.527†	-149.4	-147.9	[0.00]	µg/L	12:49:10
1	Be 313.107†	-1104.3	-1092.9	[0.00]	µg/L	12:48:50
1	Cd 226.502†	-88.9	-88.0	[0.00]	µg/L	12:49:10
1	Co 228.616†	-184.3	-182.4	[0.00]	µg/L	12:49:10
1	Cr 267.716†	283.3	280.3	[0.00]	µg/L	12:49:10
1	Cu 324.752†	3082.3	3050.5	[0.00]	µg/L	12:48:50
1	Mn 257.610†	149.3	147.7	[0.00]	µg/L	12:49:10
1	Mo 202.031†	-25.8	-25.6	[0.00]	µg/L	12:49:10
1	Ni 231.604†	-95.0	-94.1	[0.00]	µg/L	12:49:10
1	P 214.914†	9.4	9.3	[0.00]	µg/L	12:49:10
1	Pb 220.353†	104.1	103.0	[0.00]	µg/L	12:49:10
1	S 181.975 Axial†	324.9	321.5	[0.00]	µg/L	12:49:10
1	Sb 206.836†	84.6	83.8	[0.00]	µg/L	12:49:10
1	Se 196.026†	19.2	19.0	[0.00]	µg/L	12:49:10
1	SiO2†	1824.9	1806.1	[0.00]	µg/L	12:48:50
1	Si 251.611†	736.7	729.1	[0.00]	µg/L	12:48:50
1	Sn 189.927†	2.7	2.7	[0.00]	µg/L	12:49:10
1	Ti 334.940†	769.5	761.6	[0.00]	µg/L	12:48:50
1	Tl 190.801†	-109.3	-108.1	[0.00]	µg/L	12:49:10
1	U 409.014†	-439.0	-434.4	[0.00]	µg/L	12:48:50
1	V 292.402†	423.8	419.4	[0.00]	µg/L	12:48:50
1	Zn 213.857†	592.8	586.7	[0.00]	µg/L	12:49:10
2	Sc RADIAL	129958.7	129958.7	101	%	12:47:48
2	Al 396.153Radial†	-90.5	-89.5	[0.00]	µg/L	12:48:08
2	Ca 317.933Radial†	520.1	514.2	[0.00]	µg/L	12:48:08
2	Fe 238.204 Radial†	122.8	121.4	[0.00]	µg/L	12:48:08
2	K 766.490 Radial†	1455.3	1439.0	[0.00]	µg/L	12:47:48
2	Mg 279.077 IEC†	152.1	150.4	[0.00]	µg/L	12:48:08
2	Na 589.592 Radial†	1044.3	1032.6	[0.00]	µg/L	12:47:48
2	Sr 421.552†	-92.1	-91.0	[0.00]	µg/L	12:47:48
2	Sc 361.383	1711533.2	1711533.2	99.455	%	12:49:12
2	Y 371.029	990444.4	990444.4	99.446	%	12:49:12
2	Ag 328.068†	4597.1	4622.3	[0.00]	µg/L	12:49:14
2	As 188.979†	-0.2	-0.2	[0.00]	µg/L	12:49:34
2	B 249.677†	4041.9	4064.1	[0.00]	µg/L	12:49:14
2	Ba 233.527†	-139.4	-140.1	[0.00]	µg/L	12:49:34
2	Be 313.107†	-949.2	-954.4	[0.00]	µg/L	12:49:14
2	Cd 226.502†	-74.3	-74.7	[0.00]	µg/L	12:49:34
2	Co 228.616†	-213.3	-214.5	[0.00]	µg/L	12:49:34
2	Cr 267.716†	255.5	256.9	[0.00]	µg/L	12:49:34
2	Cu 324.752†	3273.6	3291.6	[0.00]	µg/L	12:49:14
2	Mn 257.610†	179.3	180.3	[0.00]	µg/L	12:49:34
2	Mo 202.031†	-13.2	-13.2	[0.00]	µg/L	12:49:34
2	Ni 231.604†	-107.2	-107.8	[0.00]	µg/L	12:49:34
2	P 214.914†	-15.9	-15.9	[0.00]	µg/L	12:49:34
2	Pb 220.353†	135.0	135.8	[0.00]	µg/L	12:49:34
2	S 181.975 Axial†	329.8	331.6	[0.00]	µg/L	12:49:34
2	Sb 206.836†	70.4	70.8	[0.00]	µg/L	12:49:34
2	Se 196.026†	18.3	18.4	[0.00]	µg/L	12:49:34
2	SiO2†	1757.9	1767.5	[0.00]	µg/L	12:49:14
2	Si 251.611†	644.9	648.4	[0.00]	µg/L	12:49:14
2	Sn 189.927†	2.0	2.0	[0.00]	µg/L	12:49:34
2	Ti 334.940†	726.0	730.0	[0.00]	µg/L	12:49:14
2	Tl 190.801†	-118.9	-119.6	[0.00]	µg/L	12:49:34
2	U 409.014†	-200.3	-201.4	[0.00]	µg/L	12:49:14
2	V 292.402†	192.5	193.6	[0.00]	µg/L	12:49:14
2	Zn 213.857†	615.2	618.6	[0.00]	µg/L	12:49:34
3	Sc RADIAL	126604.5	126604.5	98.5	%	12:48:10
3	Al 396.153Radial†	-90.4	-91.7	[0.00]	µg/L	12:48:30
3	Ca 317.933Radial†	518.9	526.7	[0.00]	µg/L	12:48:30
3	Fe 238.204 Radial†	113.9	115.6	[0.00]	µg/L	12:48:30
3	K 766.490 Radial†	1599.5	1623.5	[0.00]	µg/L	12:48:10

3	Mg 279.077 IEC†	170.4	172.9	[0.00]	µg/L	12:48:30
3	Na 589.592 Radial†	863.8	876.7	[0.00]	µg/L	12:48:10
3	Sr 421.552†	-236.8	-240.4	[0.00]	µg/L	12:48:10
3	Sc 361.383	1712332.8	1712332.8	99.501	%	12:49:36
3	Y 371.029	991471.9	991471.9	99.550	%	12:49:36
3	Ag 328.068†	4627.1	4650.3	[0.00]	µg/L	12:49:38
3	As 188.979†	-17.3	-17.4	[0.00]	µg/L	12:49:59
3	B 249.677†	4017.7	4037.8	[0.00]	µg/L	12:49:38
3	Ba 233.527†	-131.3	-131.9	[0.00]	µg/L	12:49:59
3	Be 313.107†	-978.6	-983.5	[0.00]	µg/L	12:49:38
3	Cd 226.502†	-100.6	-101.1	[0.00]	µg/L	12:49:59
3	Co 228.616†	-189.0	-190.0	[0.00]	µg/L	12:49:59
3	Cr 267.716†	248.2	249.5	[0.00]	µg/L	12:49:59
3	Cu 324.752†	3202.1	3218.2	[0.00]	µg/L	12:49:38
3	Mn 257.610†	192.9	193.9	[0.00]	µg/L	12:49:59
3	Mo 202.031†	-21.8	-21.9	[0.00]	µg/L	12:49:59
3	Ni 231.604†	-71.2	-71.5	[0.00]	µg/L	12:49:59
3	P 214.914†	-10.3	-10.3	[0.00]	µg/L	12:49:59
3	Pb 220.353†	100.5	101.0	[0.00]	µg/L	12:49:59
3	S 181.975 Axial†	323.3	325.0	[0.00]	µg/L	12:49:59
3	Sb 206.836†	86.0	86.4	[0.00]	µg/L	12:49:59
3	Se 196.026†	24.0	24.2	[0.00]	µg/L	12:49:59
3	SiO2†	1785.8	1794.8	[0.00]	µg/L	12:49:38
3	Si 251.611†	589.9	592.9	[0.00]	µg/L	12:49:38
3	Sn 189.927†	12.8	12.9	[0.00]	µg/L	12:49:59
3	Ti 334.940†	818.1	822.2	[0.00]	µg/L	12:49:38
3	Tl 190.801†	-119.8	-120.4	[0.00]	µg/L	12:49:59
3	U 409.014†	-236.9	-238.1	[0.00]	µg/L	12:49:38
3	V 292.402†	503.6	506.1	[0.00]	µg/L	12:49:38
3	Zn 213.857†	594.0	597.0	[0.00]	µg/L	12:49:59

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1720919.7	15570.51	0.90%	100.00	%
Sc RADIAL	128503.5	1720.57	1.34%	100	%
Y 371.029	995958.7	8676.33	0.87%	100.00	%
Ag 328.068†	4600.4	63.76	1.39%	[0.00]	µg/L
Al 396.153Radial†	-85.6	8.71	10.17%	[0.00]	µg/L
As 188.979†	-8.6	8.61	99.91%	[0.00]	µg/L
B 249.677†	3995.6	96.86	2.42%	[0.00]	µg/L
Ba 233.527†	-140.0	7.98	5.70%	[0.00]	µg/L
Be 313.107†	-1010.3	73.02	7.23%	[0.00]	µg/L
Ca 317.933Radial†	506.5	24.95	4.93%	[0.00]	µg/L
Cd 226.502†	-87.9	13.18	14.99%	[0.00]	µg/L
Co 228.616†	-195.6	16.79	8.58%	[0.00]	µg/L
Cr 267.716†	262.2	16.12	6.15%	[0.00]	µg/L
Cu 324.752†	3186.7	123.58	3.88%	[0.00]	µg/L
Fe 238.204 Radial†	121.4	5.76	4.75%	[0.00]	µg/L
K 766.490 Radial†	1564.8	109.08	6.97%	[0.00]	µg/L
Mg 279.077 IEC†	163.1	11.54	7.08%	[0.00]	µg/L
Mn 257.610†	174.0	23.74	13.64%	[0.00]	µg/L
Mo 202.031†	-20.2	6.33	31.26%	[0.00]	µg/L
Na 589.592 Radial†	930.5	88.53	9.51%	[0.00]	µg/L
Ni 231.604†	-91.1	18.28	20.07%	[0.00]	µg/L
P 214.914†	-5.7	13.25	234.04%	[0.00]	µg/L
Pb 220.353†	113.3	19.50	17.21%	[0.00]	µg/L
S 181.975 Axial†	326.0	5.13	1.57%	[0.00]	µg/L
Sb 206.836†	80.3	8.39	10.44%	[0.00]	µg/L
Se 196.026†	20.5	3.19	15.54%	[0.00]	µg/L
SiO2†	1789.5	19.81	1.11%	[0.00]	µg/L
Si 251.611†	656.8	68.49	10.43%	[0.00]	µg/L
Sn 189.927†	5.9	6.07	103.27%	[0.00]	µg/L
Sr 421.552†	-105.6	128.07	121.25%	[0.00]	µg/L
Ti 334.940†	771.3	46.84	6.07%	[0.00]	µg/L
Tl 190.801†	-116.0	6.87	5.92%	[0.00]	µg/L
U 409.014†	-291.3	125.28	43.00%	[0.00]	µg/L
V 292.402†	373.0	161.32	43.25%	[0.00]	µg/L
Zn 213.857†	600.7	16.29	2.71%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 4/7/2010 12:50:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	129551.9	129551.9	101	%	12:50:38
1	K 766.490 Radial†	4206.4	2607.5	[1000]	µg/L	12:50:38
1	Sr 421.552†	45572.7	45309.5	[100]	µg/L	12:50:38
1	Sc 361.383	1729881.5	1729881.5	100.52	%	12:51:00
1	Y 371.029	998168.2	998168.2	100.22	%	12:51:00
1	Ag 328.068†	30725.0	25965.4	[100]	µg/L	12:51:02
1	As 188.979†	278.8	286.0	[100]	µg/L	12:51:22
1	B 249.677†	10965.0	6912.6	[100]	µg/L	12:51:02
1	Ba 233.527†	24100.3	24115.4	[100]	µg/L	12:51:02
1	Be 313.107†	373479.3	372554.8	[100]	µg/L	12:51:00
1	Cd 226.502†	16208.2	16212.2	[100]	µg/L	12:51:02
1	Co 228.616†	8100.1	8253.7	[100]	µg/L	12:51:22
1	Cr 267.716†	12761.1	12432.7	[100]	µg/L	12:51:02
1	Cu 324.752†	28970.7	25633.8	[100]	µg/L	12:51:02
1	Mn 257.610†	83389.3	82783.4	[100]	µg/L	12:51:02
1	Mo 202.031†	3214.5	3218.1	[100]	µg/L	12:51:22
1	Ni 231.604†	8811.7	8857.1	[100]	µg/L	12:51:02
1	P 214.914†	2274.7	2268.6	[500]	µg/L	12:51:22
1	Pb 220.353†	1873.6	1750.6	[100]	µg/L	12:51:22
1	S 181.975 Axial†	360.9	33.0	[200]	µg/L	12:51:22
1	Sb 206.836†	903.3	818.3	[100]	µg/L	12:51:22
1	Se 196.026†	289.1	267.1	[100]	µg/L	12:51:22
1	SiO2†	12655.9	10800.9	[1069.5]	µg/L	12:51:02
1	Si 251.611†	34913.9	34076.2	[500]	µg/L	12:51:02
1	Sn 189.927†	1544.4	1530.5	[100]	µg/L	12:51:22
1	Ti 334.940†	103273.7	101967.5	[100]	µg/L	12:51:02
1	Tl 190.801†	685.3	797.8	[100]	µg/L	12:51:22
1	U 409.014†	1604.9	1887.9	[100]	µg/L	12:51:02
1	V 292.402†	21295.9	20812.6	[100]	µg/L	12:51:02
1	Zn 213.857†	19351.3	18650.3	[100]	µg/L	12:51:02
2	Sc RADIAL	128120.4	128120.4	99.7	%	12:50:40
2	K 766.490 Radial†	4210.8	2658.5	[1000]	µg/L	12:50:40
2	Sr 421.552†	45066.0	45306.4	[100]	µg/L	12:50:40
2	Sc 361.383	1716545.6	1716545.6	99.746	%	12:51:24
2	Y 371.029	990909.5	990909.5	99.493	%	12:51:24
2	Ag 328.068†	31165.7	26644.7	[100]	µg/L	12:51:26
2	As 188.979†	301.7	311.1	[100]	µg/L	12:51:46
2	B 249.677†	11059.1	7091.7	[100]	µg/L	12:51:26
2	Ba 233.527†	24239.2	24441.0	[100]	µg/L	12:51:26
2	Be 313.107†	371434.7	373391.4	[100]	µg/L	12:51:24
2	Cd 226.502†	16273.6	16403.0	[100]	µg/L	12:51:26
2	Co 228.616†	8181.8	8398.3	[100]	µg/L	12:51:46
2	Cr 267.716†	12898.3	12669.0	[100]	µg/L	12:51:26
2	Cu 324.752†	28893.4	25780.3	[100]	µg/L	12:51:26
2	Mn 257.610†	84137.1	84177.5	[100]	µg/L	12:51:26
2	Mo 202.031†	3231.1	3259.6	[100]	µg/L	12:51:46
2	Ni 231.604†	8862.8	8976.5	[100]	µg/L	12:51:26
2	P 214.914†	2318.1	2329.6	[500]	µg/L	12:51:46
2	Pb 220.353†	1873.8	1765.3	[100]	µg/L	12:51:46
2	S 181.975 Axial†	382.1	57.0	[200]	µg/L	12:51:46
2	Sb 206.836†	913.8	835.8	[100]	µg/L	12:51:46
2	Se 196.026†	287.5	267.7	[100]	µg/L	12:51:46
2	SiO2†	12612.7	10855.3	[1069.5]	µg/L	12:51:26
2	Si 251.611†	35065.1	34497.7	[500]	µg/L	12:51:26
2	Sn 189.927†	1552.5	1550.6	[100]	µg/L	12:51:46
2	Ti 334.940†	103839.6	103332.9	[100]	µg/L	12:51:26
2	Tl 190.801†	689.7	807.5	[100]	µg/L	12:51:46
2	U 409.014†	1651.3	1946.8	[100]	µg/L	12:51:26
2	V 292.402†	21246.8	20928.0	[100]	µg/L	12:51:26

2	Zn 213.857†	19530.2	18979.2	[100]	µg/L	12:51:26
3	Sc RADIAL	128681.2	128681.2	100	%	12:50:42
3	K 766.490 Radial†	4215.5	2644.8	[1000]	µg/L	12:50:42
3	Sr 421.552†	45229.4	45272.6	[100]	µg/L	12:50:42
3	Sc 361.383	1720351.8	1720351.8	99.967	%	12:51:48
3	Y 371.029	993057.2	993057.2	99.709	%	12:51:48
3	Ag 328.068†	31105.0	26514.9	[100]	µg/L	12:51:50
3	As 188.979†	300.4	309.1	[100]	µg/L	12:52:10
3	B 249.677†	11048.3	7056.4	[100]	µg/L	12:51:50
3	Ba 233.527†	24475.0	24623.1	[100]	µg/L	12:51:50
3	Be 313.107†	370103.5	371236.0	[100]	µg/L	12:51:48
3	Cd 226.502†	16396.5	16489.8	[100]	µg/L	12:51:50
3	Co 228.616†	8227.5	8425.8	[100]	µg/L	12:52:10
3	Cr 267.716†	13021.5	12763.6	[100]	µg/L	12:51:50
3	Cu 324.752†	29147.7	25970.5	[100]	µg/L	12:51:50
3	Mn 257.610†	84794.8	84648.8	[100]	µg/L	12:51:50
3	Mo 202.031†	3257.9	3279.3	[100]	µg/L	12:52:10
3	Ni 231.604†	8918.1	9012.1	[100]	µg/L	12:51:50
3	P 214.914†	2323.1	2329.5	[500]	µg/L	12:52:10
3	Pb 220.353†	1914.5	1801.9	[100]	µg/L	12:52:10
3	S 181.975 Axial†	374.9	49.0	[200]	µg/L	12:52:10
3	Sb 206.836†	912.6	832.6	[100]	µg/L	12:52:10
3	Se 196.026†	277.1	256.7	[100]	µg/L	12:52:10
3	SiO2†	12853.0	11067.8	[1069.5]	µg/L	12:51:50
3	Si 251.611†	35544.4	34899.3	[500]	µg/L	12:51:50
3	Sn 189.927†	1580.5	1575.1	[100]	µg/L	12:52:10
3	Ti 334.940†	104812.6	104076.0	[100]	µg/L	12:51:50
3	Tl 190.801†	697.7	814.0	[100]	µg/L	12:52:10
3	U 409.014†	1583.0	1874.9	[100]	µg/L	12:51:50
3	V 292.402†	21444.4	21078.4	[100]	µg/L	12:51:50
3	Zn 213.857†	19813.4	19219.2	[100]	µg/L	12:51:50

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1722259.6	6869.62	0.40%	100.08	%
Sc RADIAL	128784.5	721.35	0.56%	100	%
Y 371.029	994044.9	3728.79	0.38%	99.808	%
Ag 328.068†	26375.0	360.63	1.37%	[100]	µg/L
As 188.979†	302.1	13.98	4.63%	[100]	µg/L
B 249.677†	7020.2	94.89	1.35%	[100]	µg/L
Ba 233.527†	24393.2	257.19	1.05%	[100]	µg/L
Be 313.107†	372394.1	1086.68	0.29%	[100]	µg/L
Cd 226.502†	16368.3	142.01	0.87%	[100]	µg/L
Co 228.616†	8359.3	92.43	1.11%	[100]	µg/L
Cr 267.716†	12621.8	170.39	1.35%	[100]	µg/L
Cu 324.752†	25794.9	168.83	0.65%	[100]	µg/L
K 766.490 Radial†	2636.9	26.43	1.00%	[1000]	µg/L
Mn 257.610†	83869.9	970.02	1.16%	[100]	µg/L
Mo 202.031†	3252.3	31.22	0.96%	[100]	µg/L
Ni 231.604†	8948.6	81.18	0.91%	[100]	µg/L
P 214.914†	2309.2	35.23	1.53%	[500]	µg/L
Pb 220.353†	1772.6	26.39	1.49%	[100]	µg/L
S 181.975 Axial†	46.3	12.22	26.37%	[200]	µg/L
Sb 206.836†	828.9	9.30	1.12%	[100]	µg/L
Se 196.026†	263.8	6.18	2.34%	[100]	µg/L
SiO2†	10908.0	141.03	1.29%	[1069.5]	µg/L
Si 251.611†	34491.1	411.59	1.19%	[500]	µg/L
Sn 189.927†	1552.1	22.33	1.44%	[100]	µg/L
Sr 421.552†	45296.2	20.49	0.05%	[100]	µg/L
Ti 334.940†	103125.5	1069.45	1.04%	[100]	µg/L
Tl 190.801†	806.5	8.15	1.01%	[100]	µg/L
U 409.014†	1903.2	38.35	2.01%	[100]	µg/L
V 292.402†	20939.7	133.31	0.64%	[100]	µg/L
Zn 213.857†	18949.6	285.59	1.51%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 4/7/2010 12:52:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	131056.7	131056.7	102	%	12:52:49
1	Al 396.153Radial†	24477.0	24085.7	[5000]	µg/L	12:52:49
1	Ca 317.933Radial†	76360.2	74366.1	[5000]	µg/L	12:52:49
1	K 766.490 Radial†	14893.2	13038.2	[5000]	µg/L	12:52:49
1	Mg 279.077 IEC†	11586.3	11197.5	[5000]	µg/L	12:52:49
1	Sr 421.552†	220085.3	215903.2	[500]	µg/L	12:52:47
1	Sc 361.383	1712313.9	1712313.9	99.500	%	12:53:16
1	Y 371.029	980604.2	980604.2	98.458	%	12:53:16
1	Ag 328.068†	132520.5	128586.1	[500]	µg/L	12:53:16
1	As 188.979†	1526.0	1542.3	[500]	µg/L	12:53:36
1	B 249.677†	38574.3	34772.6	[500]	µg/L	12:53:16
1	Ba 233.527†	117718.8	118450.4	[500]	µg/L	12:53:16
1	Be 313.107†	1829843.1	1840049.9	[500]	µg/L	12:53:16
1	Cd 226.502†	79549.0	80036.7	[500]	µg/L	12:53:16
1	Co 228.616†	40418.0	40816.7	[500]	µg/L	12:53:16
1	Cr 267.716†	60872.4	60916.1	[500]	µg/L	12:53:16
1	Cu 324.752†	128590.4	126050.0	[500]	µg/L	12:53:16
1	Mn 257.610†	399482.2	401316.0	[500]	µg/L	12:53:16
1	Mo 202.031†	16260.8	16362.8	[500]	µg/L	12:53:36
1	Ni 231.604†	42483.8	42788.4	[500]	µg/L	12:53:16
1	P 214.914†	11725.1	11789.7	[2500]	µg/L	12:53:36
1	Pb 220.353†	8861.4	8792.6	[500]	µg/L	12:53:36
1	S 181.975 Axial†	1397.9	1078.9	[1000]	µg/L	12:53:36
1	Sb 206.836†	4264.3	4205.4	[500]	µg/L	12:53:36
1	Se 196.026†	1374.1	1360.5	[500]	µg/L	12:53:36
1	SiO2†	55597.0	54087.0	[5347.5]	µg/L	12:53:16
1	Si 251.611†	171199.5	171403.1	[2500]	µg/L	12:53:16
1	Sn 189.927†	7749.2	7782.2	[500]	µg/L	12:53:36
1	Ti 334.940†	509726.9	511517.5	[500]	µg/L	12:53:16
1	Tl 190.801†	3792.5	3927.6	[500]	µg/L	12:53:36
1	U 409.014†	7647.7	7977.5	[500]	µg/L	12:53:16
1	V 292.402†	102583.4	102725.9	[500]	µg/L	12:53:16
1	Zn 213.857†	90807.7	90663.3	[500]	µg/L	12:53:16
2	Sc RADIAL	129059.1	129059.1	100	%	12:52:53
2	Al 396.153Radial†	24213.1	24194.5	[5000]	µg/L	12:52:53
2	Ca 317.933Radial†	75337.6	74506.7	[5000]	µg/L	12:52:53
2	K 766.490 Radial†	14752.2	13123.8	[5000]	µg/L	12:52:53
2	Mg 279.077 IEC†	11359.7	11147.8	[5000]	µg/L	12:52:53
2	Sr 421.552†	221684.2	220835.3	[500]	µg/L	12:52:51
2	Sc 361.383	1715371.8	1715371.8	99.678	%	12:53:39
2	Y 371.029	982318.1	982318.1	98.630	%	12:53:39
2	Ag 328.068†	133154.8	128985.0	[500]	µg/L	12:53:39
2	As 188.979†	1513.1	1526.6	[500]	µg/L	12:53:59
2	B 249.677†	38661.3	34790.8	[500]	µg/L	12:53:39
2	Ba 233.527†	118169.8	118692.0	[500]	µg/L	12:53:39
2	Be 313.107†	1835076.1	1842021.4	[500]	µg/L	12:53:39
2	Cd 226.502†	80106.9	80453.9	[500]	µg/L	12:53:39
2	Co 228.616†	40648.7	40975.8	[500]	µg/L	12:53:39
2	Cr 267.716†	61220.9	61156.7	[500]	µg/L	12:53:39
2	Cu 324.752†	128842.6	126072.5	[500]	µg/L	12:53:39
2	Mn 257.610†	400789.4	401911.7	[500]	µg/L	12:53:39
2	Mo 202.031†	16206.2	16278.8	[500]	µg/L	12:53:59
2	Ni 231.604†	42804.0	43033.5	[500]	µg/L	12:53:39
2	P 214.914†	11697.6	11741.1	[2500]	µg/L	12:53:59
2	Pb 220.353†	8855.6	8771.0	[500]	µg/L	12:53:59
2	S 181.975 Axial†	1399.9	1078.4	[1000]	µg/L	12:53:59
2	Sb 206.836†	4266.2	4199.7	[500]	µg/L	12:53:59
2	Se 196.026†	1393.6	1377.6	[500]	µg/L	12:53:59
2	SiO2†	55850.8	54242.0	[5347.5]	µg/L	12:53:39

2	Si 251.611†	172018.6	171918.2	[2500]	µg/L	12:53:39
2	Sn 189.927†	7718.8	7737.9	[500]	µg/L	12:53:59
2	Ti 334.940†	511680.4	512564.1	[500]	µg/L	12:53:39
2	Tl 190.801†	3773.4	3901.6	[500]	µg/L	12:53:59
2	U 409.014†	7310.1	7625.1	[500]	µg/L	12:53:39
2	V 292.402†	103200.1	103160.8	[500]	µg/L	12:53:39
2	Zn 213.857†	91032.4	90726.1	[500]	µg/L	12:53:39
3	Sc RADIAL	130605.8	130605.8	102	%	12:52:57
3	Al 396.153Radial†	24299.0	23993.5	[5000]	µg/L	12:52:57
3	Ca 317.933Radial†	76104.0	74372.4	[5000]	µg/L	12:52:57
3	K 766.490 Radial†	15097.9	13290.0	[5000]	µg/L	12:52:57
3	Mg 279.077 IEC†	11617.8	11267.7	[5000]	µg/L	12:52:57
3	Sr 421.552†	220205.0	216766.0	[500]	µg/L	12:52:55
3	Sc 361.383	1719552.0	1719552.0	99.921	%	12:54:02
3	Y 371.029	985894.1	985894.1	98.989	%	12:54:02
3	Ag 328.068†	132754.7	128259.9	[500]	µg/L	12:54:02
3	As 188.979†	1499.6	1509.5	[500]	µg/L	12:54:22
3	B 249.677†	38748.9	34784.2	[500]	µg/L	12:54:02
3	Ba 233.527†	118158.6	118392.6	[500]	µg/L	12:54:02
3	Be 313.107†	1839405.3	1841878.6	[500]	µg/L	12:54:02
3	Cd 226.502†	79998.0	80149.6	[500]	µg/L	12:54:02
3	Co 228.616†	40686.2	40914.2	[500]	µg/L	12:54:02
3	Cr 267.716†	61311.2	61097.7	[500]	µg/L	12:54:02
3	Cu 324.752†	128932.4	125848.2	[500]	µg/L	12:54:02
3	Mn 257.610†	401218.0	401363.2	[500]	µg/L	12:54:02
3	Mo 202.031†	16064.0	16097.0	[500]	µg/L	12:54:22
3	Ni 231.604†	42825.4	42950.5	[500]	µg/L	12:54:02
3	P 214.914†	11530.9	11545.7	[2500]	µg/L	12:54:22
3	Pb 220.353†	8765.3	8659.0	[500]	µg/L	12:54:22
3	S 181.975 Axial†	1364.4	1039.4	[1000]	µg/L	12:54:22
3	Sb 206.836†	4225.8	4148.8	[500]	µg/L	12:54:22
3	Se 196.026†	1373.9	1354.5	[500]	µg/L	12:54:22
3	SiO2†	55876.4	54131.4	[5347.5]	µg/L	12:54:02
3	Si 251.611†	172274.6	171754.8	[2500]	µg/L	12:54:02
3	Sn 189.927†	7625.6	7625.8	[500]	µg/L	12:54:22
3	Ti 334.940†	512141.1	511777.2	[500]	µg/L	12:54:02
3	Tl 190.801†	3728.2	3847.2	[500]	µg/L	12:54:22
3	U 409.014†	7562.5	7859.8	[500]	µg/L	12:54:02
3	V 292.402†	103129.4	102838.4	[500]	µg/L	12:54:02
3	Zn 213.857†	91331.7	90803.6	[500]	µg/L	12:54:02

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1715745.9	3633.52	0.21%	99.699	%
Sc RADIAL	130240.6	1047.67	0.80%	101	%
Y 371.029	982938.8	2699.01	0.27%	98.693	%
Ag 328.068†	128610.3	363.18	0.28%	[500]	µg/L
Al 396.153Radial†	24091.3	100.61	0.42%	[5000]	µg/L
As 188.979†	1526.1	16.42	1.08%	[500]	µg/L
B 249.677†	34782.5	9.24	0.03%	[500]	µg/L
Ba 233.527†	118511.7	158.81	0.13%	[500]	µg/L
Be 313.107†	1841316.6	1099.38	0.06%	[500]	µg/L
Ca 317.933Radial†	74415.1	79.41	0.11%	[5000]	µg/L
Cd 226.502†	80213.4	215.79	0.27%	[500]	µg/L
Co 228.616†	40902.3	80.21	0.20%	[500]	µg/L
Cr 267.716†	61056.8	125.37	0.21%	[500]	µg/L
Cu 324.752†	125990.2	123.51	0.10%	[500]	µg/L
K 766.490 Radial†	13150.7	128.04	0.97%	[5000]	µg/L
Mg 279.077 IEC†	11204.4	60.28	0.54%	[5000]	µg/L
Mn 257.610†	401530.3	331.14	0.08%	[500]	µg/L
Mo 202.031†	16246.2	135.85	0.84%	[500]	µg/L
Ni 231.604†	42924.2	124.66	0.29%	[500]	µg/L
P 214.914†	11692.2	129.12	1.10%	[2500]	µg/L
Pb 220.353†	8740.9	71.72	0.82%	[500]	µg/L
S 181.975 Axial†	1065.6	22.66	2.13%	[1000]	µg/L
Sb 206.836†	4184.6	31.16	0.74%	[500]	µg/L
Se 196.026†	1364.2	12.02	0.88%	[500]	µg/L
SiO2†	54153.5	79.84	0.15%	[5347.5]	µg/L
Si 251.611†	171692.0	263.22	0.15%	[2500]	µg/L

Sn 189.927†	7715.3	80.61	1.04%	[500] µg/L
Sr 421.552†	217834.9	2634.04	1.21%	[500] µg/L
Ti 334.940†	511952.9	544.99	0.11%	[500] µg/L
Tl 190.801†	3892.1	41.01	1.05%	[500] µg/L
U 409.014†	7820.8	179.42	2.29%	[500] µg/L
V 292.402†	102908.4	225.73	0.22%	[500] µg/L
Zn 213.857†	90731.0	70.29	0.08%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 4/7/2010 12:54:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	129761.3	129761.3	101	%	12:55:02
1	Al 396.153Radial†	48331.4	47948.6	[10000]	µg/L	12:55:02
1	Ca 317.933Radial†	150306.4	148342.9	[10000]	µg/L	12:55:02
1	Fe 238.204 Radial†	137156.9	135706.0	[10000]	µg/L	12:55:02
1	K 766.490 Radial†	27950.1	26114.3	[10000]	µg/L	12:55:02
1	Mg 279.077 IEC†	22563.8	22182.0	[10000]	µg/L	12:55:02
1	Na 589.592 Radial†	69124.2	67523.7	[10000]	µg/L	12:55:02
1	Sr 421.552†	435184.5	431071.6	[1000]	µg/L	12:55:00
1	Sc 361.383	1722812.0	1722812.0	100.11	%	12:55:29
1	Y 371.029	981937.6	981937.6	98.592	%	12:55:29
1	Ag 328.068†	260646.6	255759.9	[1000]	µg/L	12:55:31
1	As 188.979†	3023.1	3028.4	[1000]	µg/L	12:55:51
1	B 249.677†	73057.4	68981.6	[1000]	µg/L	12:55:31
1	Ba 233.527†	233926.4	233809.5	[1000]	µg/L	12:55:31
1	Be 313.107†	3647398.3	3644402.3	[1000]	µg/L	12:55:29
1	Cd 226.502†	157901.7	157816.2	[1000]	µg/L	12:55:31
1	Co 228.616†	79953.5	80061.3	[1000]	µg/L	12:55:31
1	Cr 267.716†	121701.6	121305.7	[1000]	µg/L	12:55:31
1	Cu 324.752†	255112.5	251645.6	[1000]	µg/L	12:55:31
1	Mn 257.610†	794094.9	793048.7	[1000]	µg/L	12:55:29
1	Mo 202.031†	31805.4	31790.7	[1000]	µg/L	12:55:51
1	Ni 231.604†	84360.0	84358.5	[1000]	µg/L	12:55:31
1	P 214.914†	22938.8	22919.3	[5000]	µg/L	12:55:51
1	Pb 220.353†	17146.5	17014.4	[1000]	µg/L	12:55:51
1	S 181.975 Axial†	2611.9	2283.0	[2000]	µg/L	12:55:51
1	Sb 206.836†	8272.4	8183.0	[1000]	µg/L	12:55:51
1	Se 196.026†	2667.8	2644.3	[1000]	µg/L	12:55:51
1	SiO2†	108859.2	106950.2	[10695]	µg/L	12:55:31
1	Si 251.611†	338703.9	337675.0	[5000]	µg/L	12:55:31
1	Sn 189.927†	15125.2	15102.8	[1000]	µg/L	12:55:51
1	Ti 334.940†	1016493.9	1014606.1	[1000]	µg/L	12:55:29
1	Tl 190.801†	7508.9	7616.7	[1000]	µg/L	12:55:51
1	U 409.014†	17211.9	17484.3	[1000]	µg/L	12:55:31
1	V 292.402†	206156.4	205556.9	[1000]	µg/L	12:55:31
1	Zn 213.857†	178896.1	178098.9	[1000]	µg/L	12:55:31
2	Sc RADIAL	129384.6	129384.6	101	%	12:55:06
2	Al 396.153Radial†	48251.9	48008.9	[10000]	µg/L	12:55:06
2	Ca 317.933Radial†	149878.9	148351.7	[10000]	µg/L	12:55:06
2	Fe 238.204 Radial†	136669.0	135616.9	[10000]	µg/L	12:55:06
2	K 766.490 Radial†	27986.6	26231.1	[10000]	µg/L	12:55:06
2	Mg 279.077 IEC†	22429.2	22113.4	[10000]	µg/L	12:55:06
2	Na 589.592 Radial†	68833.3	67434.1	[10000]	µg/L	12:55:06
2	Sr 421.552†	435815.1	432952.8	[1000]	µg/L	12:55:04
2	Sc 361.383	1705641.2	1705641.2	99.112	%	12:55:54
2	Y 371.029	972269.4	972269.4	97.621	%	12:55:54
2	Ag 328.068†	262379.3	260129.2	[1000]	µg/L	12:55:56
2	As 188.979†	3011.8	3047.4	[1000]	µg/L	12:56:16
2	B 249.677†	73527.0	70190.1	[1000]	µg/L	12:55:56
2	Ba 233.527†	235631.6	237882.3	[1000]	µg/L	12:55:56
2	Be 313.107†	3623782.3	3657253.0	[1000]	µg/L	12:55:54
2	Cd 226.502†	158877.7	160388.8	[1000]	µg/L	12:55:56
2	Co 228.616†	80429.6	81345.6	[1000]	µg/L	12:55:56
2	Cr 267.716†	122317.9	123151.3	[1000]	µg/L	12:55:56
2	Cu 324.752†	256430.7	255541.0	[1000]	µg/L	12:55:56
2	Mn 257.610†	787245.4	794123.3	[1000]	µg/L	12:55:54
2	Mo 202.031†	31814.6	32119.8	[1000]	µg/L	12:56:16
2	Ni 231.604†	84878.5	85730.0	[1000]	µg/L	12:55:56
2	P 214.914†	22879.9	23090.5	[5000]	µg/L	12:56:16
2	Pb 220.353†	17130.8	17170.9	[1000]	µg/L	12:56:16

2	S 181.975 Axial†	2590.1	2287.3	[2000]	µg/L	12:56:16
2	Sb 206.836†	8291.2	8285.1	[1000]	µg/L	12:56:16
2	Se 196.026†	2686.3	2689.8	[1000]	µg/L	12:56:16
2	SiO2†	109762.2	108956.0	[10695]	µg/L	12:55:56
2	Si 251.611†	341112.0	343510.7	[5000]	µg/L	12:55:56
2	Sn 189.927†	15111.7	15241.2	[1000]	µg/L	12:56:16
2	Ti 334.940†	1008275.2	1016535.7	[1000]	µg/L	12:55:54
2	Tl 190.801†	7503.7	7686.9	[1000]	µg/L	12:56:16
2	U 409.014†	16898.6	17341.2	[1000]	µg/L	12:55:56
2	V 292.402†	207487.1	208972.7	[1000]	µg/L	12:55:56
2	Zn 213.857†	180126.7	181139.5	[1000]	µg/L	12:55:56
3	Sc RADIAL	128620.3	128620.3	100	%	12:55:11
3	Al 396.153Radial†	48136.3	48178.2	[10000]	µg/L	12:55:11
3	Ca 317.933Radial†	149086.9	148444.9	[10000]	µg/L	12:55:11
3	Fe 238.204 Radial†	135518.3	135273.8	[10000]	µg/L	12:55:11
3	K 766.490 Radial†	27672.7	26082.7	[10000]	µg/L	12:55:11
3	Mg 279.077 IEC†	22377.0	22193.6	[10000]	µg/L	12:55:11
3	Na 589.592 Radial†	68287.9	67295.3	[10000]	µg/L	12:55:11
3	Sr 421.552†	431594.6	431308.1	[1000]	µg/L	12:55:08
3	Sc 361.383	1705651.7	1705651.7	99.113	%	12:56:19
3	Y 371.029	972586.6	972586.6	97.653	%	12:56:19
3	Ag 328.068†	261054.7	258791.1	[1000]	µg/L	12:56:21
3	As 188.979†	3023.9	3059.6	[1000]	µg/L	12:56:41
3	B 249.677†	73147.3	69806.5	[1000]	µg/L	12:56:21
3	Ba 233.527†	234476.6	236715.5	[1000]	µg/L	12:56:21
3	Be 313.107†	3624999.5	3658458.6	[1000]	µg/L	12:56:19
3	Cd 226.502†	158015.6	159517.9	[1000]	µg/L	12:56:21
3	Co 228.616†	80162.5	81075.7	[1000]	µg/L	12:56:21
3	Cr 267.716†	121784.1	122612.0	[1000]	µg/L	12:56:21
3	Cu 324.752†	255212.9	254310.7	[1000]	µg/L	12:56:21
3	Mn 257.610†	787450.2	794325.1	[1000]	µg/L	12:56:19
3	Mo 202.031†	31891.9	32197.6	[1000]	µg/L	12:56:41
3	Ni 231.604†	84194.3	85039.1	[1000]	µg/L	12:56:21
3	P 214.914†	22977.8	23189.1	[5000]	µg/L	12:56:41
3	Pb 220.353†	17212.4	17253.2	[1000]	µg/L	12:56:41
3	S 181.975 Axial†	2598.8	2296.0	[2000]	µg/L	12:56:41
3	Sb 206.836†	8312.3	8306.4	[1000]	µg/L	12:56:41
3	Se 196.026†	2709.7	2713.5	[1000]	µg/L	12:56:41
3	SiO2†	108767.0	107951.2	[10695]	µg/L	12:56:21
3	Si 251.611†	338856.7	341233.2	[5000]	µg/L	12:56:21
3	Sn 189.927†	15152.5	15282.3	[1000]	µg/L	12:56:41
3	Ti 334.940†	1007852.0	1016102.4	[1000]	µg/L	12:56:19
3	Tl 190.801†	7508.7	7692.0	[1000]	µg/L	12:56:41
3	U 409.014†	17028.2	17472.0	[1000]	µg/L	12:56:21
3	V 292.402†	206256.7	207730.0	[1000]	µg/L	12:56:21
3	Zn 213.857†	178944.1	179945.1	[1000]	µg/L	12:56:21

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1711368.3	9910.55	0.58%	99.445	%
Sc RADIAL	129255.4	581.36	0.45%	101	%
Y 371.029	975597.9	5492.68	0.56%	97.956	%
Ag 328.068†	258226.7	2238.65	0.87%	[1000]	µg/L
Al 396.153Radial†	48045.2	119.05	0.25%	[10000]	µg/L
As 188.979†	3045.1	15.73	0.52%	[1000]	µg/L
B 249.677†	69659.4	617.54	0.89%	[1000]	µg/L
Ba 233.527†	236135.8	2097.38	0.89%	[1000]	µg/L
Be 313.107†	3653371.3	7790.77	0.21%	[1000]	µg/L
Ca 317.933Radial†	148379.8	56.53	0.04%	[10000]	µg/L
Cd 226.502†	159241.0	1308.49	0.82%	[1000]	µg/L
Co 228.616†	80827.6	677.15	0.84%	[1000]	µg/L
Cr 267.716†	122356.4	949.02	0.78%	[1000]	µg/L
Cu 324.752†	253832.4	1991.26	0.78%	[1000]	µg/L
Fe 238.204 Radial†	135532.2	228.17	0.17%	[10000]	µg/L
K 766.490 Radial†	26142.7	78.19	0.30%	[10000]	µg/L
Mg 279.077 IEC†	22163.0	43.35	0.20%	[10000]	µg/L
Mn 257.610†	793832.3	686.15	0.09%	[1000]	µg/L
Mo 202.031†	32036.1	215.99	0.67%	[1000]	µg/L
Na 589.592 Radial†	67417.7	115.04	0.17%	[10000]	µg/L

Ni 231.604†	85042.5	685.75	0.81%	[1000]	µg/L
P 214.914†	23066.3	136.53	0.59%	[5000]	µg/L
Pb 220.353†	17146.2	121.31	0.71%	[1000]	µg/L
S 181.975 Axial†	2288.8	6.66	0.29%	[2000]	µg/L
Sb 206.836†	8258.2	65.96	0.80%	[1000]	µg/L
Se 196.026†	2682.6	35.15	1.31%	[1000]	µg/L
SiO2†	107952.5	1002.89	0.93%	[10695]	µg/L
Si 251.611†	340806.3	2941.17	0.86%	[5000]	µg/L
Sn 189.927†	15208.8	94.07	0.62%	[1000]	µg/L
Sr 421.552†	431777.5	1024.67	0.24%	[1000]	µg/L
Ti 334.940†	1015748.1	1012.42	0.10%	[1000]	µg/L
Tl 190.801†	7665.2	42.07	0.55%	[1000]	µg/L
U 409.014†	17432.5	79.28	0.45%	[1000]	µg/L
V 292.402†	207419.9	1728.84	0.83%	[1000]	µg/L
Zn 213.857†	179727.8	1531.93	0.85%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 4/7/2010 12:56:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	127734.9	127734.9	99.4	%	12:57:19
1	Al 396.153Radial†	234105.6	235599.8	[50000]	µg/L	12:57:19
1	Ca 317.933Radial†	725174.7	729031.5	[50000]	µg/L	12:57:19
1	Fe 238.204 Radial†	267688.2	269177.5	[20000]	µg/L	12:57:19
1	Mg 279.077 IEC†	107442.6	107926.0	[50000]	µg/L	12:57:19
1	Na 589.592 Radial†	135058.9	134941.1	[20000]	µg/L	12:57:19
1	Sc 361.383	1671976.2	1671976.2	97.156	%	12:57:27
1	Y 371.029	954012.2	954012.2	95.788	%	12:57:27
2	Sc RADIAL	127857.8	127857.8	99.5	%	12:57:21
2	Al 396.153Radial†	235019.2	236291.6	[50000]	µg/L	12:57:21
2	Ca 317.933Radial†	727442.7	730609.5	[50000]	µg/L	12:57:21
2	Fe 238.204 Radial†	268810.0	270046.0	[20000]	µg/L	12:57:21
2	Mg 279.077 IEC†	107849.2	108230.7	[50000]	µg/L	12:57:21
2	Na 589.592 Radial†	135462.0	135215.5	[20000]	µg/L	12:57:21
2	Sc 361.383	1670810.5	1670810.5	97.088	%	12:57:30
2	Y 371.029	953804.0	953804.0	95.767	%	12:57:30
3	Sc RADIAL	126764.5	126764.5	98.6	%	12:57:23
3	Al 396.153Radial†	232042.6	235311.3	[50000]	µg/L	12:57:23
3	Ca 317.933Radial†	715681.9	724993.0	[50000]	µg/L	12:57:23
3	Fe 238.204 Radial†	264498.0	268005.0	[20000]	µg/L	12:57:23
3	Mg 279.077 IEC†	105884.3	107173.7	[50000]	µg/L	12:57:23
3	Na 589.592 Radial†	133593.1	134495.2	[20000]	µg/L	12:57:23
3	Sc 361.383	1671727.2	1671727.2	97.142	%	12:57:32
3	Y 371.029	954746.3	954746.3	95.862	%	12:57:32

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1671504.6	613.87	0.04%	97.129	%
Sc RADIAL	127452.4	598.89	0.47%	99.2	%
Y 371.029	954187.5	495.01	0.05%	95.806	%
Al 396.153Radial†	235734.3	503.78	0.21%	[50000]	µg/L
Ca 317.933Radial†	728211.4	2896.68	0.40%	[50000]	µg/L
Fe 238.204 Radial†	269076.1	1024.30	0.38%	[20000]	µg/L
Mg 279.077 IEC†	107776.8	544.07	0.50%	[50000]	µg/L
Na 589.592 Radial†	134883.9	363.55	0.27%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	258.1	0.00000	0.999997	
Al 396.153Radial	3	Lin Thru 0	0.0	4.719	0.00000	0.999991	
As 188.979	3	Lin Thru 0	0.0	3.046	0.00000	0.999999	
B 249.677	3	Lin Thru 0	0.0	69.64	0.00000	1.000000	
Ba 233.527	3	Lin Thru 0	0.0	236.4	0.00000	0.999995	
Be 313.107	3	Lin Thru 0	0.0	3660	0.00000	0.999994	
Ca 317.933Radial	3	Lin Thru 0	0.0	14.58	0.00000	0.999991	
Cd 226.502	3	Lin Thru 0	0.0	159.5	0.00000	0.999993	
Co 228.616	3	Lin Thru 0	0.0	81.04	0.00000	0.999985	
Cr 267.716	3	Lin Thru 0	0.0	122.3	0.00000	0.999996	
Cu 324.752	3	Lin Thru 0	0.0	253.5	0.00000	0.999995	
Fe 238.204 Radia	2	Lin Thru 0	0.0	13.47	0.00000	0.999996	
K 766.490 Radial	3	Lin Thru 0	0.0	2.618	0.00000	0.999997	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.159	0.00000	0.999979	
Mn 257.610	3	Lin Thru 0	0.0	796.0	0.00000	0.999978	
Mo 202.031	3	Lin Thru 0	0.0	32.13	0.00000	0.999983	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.744	0.00000	1.000000	

Ni 231.604	3	Lin Thru 0	0.0	85.24	0.00000	0.999983
P 214.914	3	Lin Thru 0	0.0	4.626	0.00000	0.999985
Pb 220.353	3	Lin Thru 0	0.0	17.22	0.00000	0.999966
S 181.975 Axial	3	Lin Thru 0	0.0	1.121	0.00000	0.997102
Sb 206.836	3	Lin Thru 0	0.0	8.280	0.00000	0.999986
Se 196.026	3	Lin Thru 0	0.0	2.691	0.00000	0.999975
SiO2	3	Lin Thru 0	0.0	10.10	0.00000	0.999999
Si 251.611	3	Lin Thru 0	0.0	68.27	0.00000	0.999995
Sn 189.927	3	Lin Thru 0	0.0	15.26	0.00000	0.999982
Sr 421.552	3	Lin Thru 0	0.0	432.7	0.00000	0.999985
Ti 334.940	3	Lin Thru 0	0.0	1017	0.00000	0.999994
Tl 190.801	3	Lin Thru 0	0.0	7.692	0.00000	0.999972
U 409.014	3	Lin Thru 0	0.0	17.09	0.00000	0.999078
V 292.402	3	Lin Thru 0	0.0	207.1	0.00000	0.999995
Zn 213.857	3	Lin Thru 0	0.0	180.1	0.00000	0.999982

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 4/7/2010 12:57:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130353.4	130353.4	101	%			12:58:12
1	Al 396.153Radial†	24797.8	24531.5	5173.1	µg/L	5173.1	ppb	12:58:12
1	Ca 317.933Radial†	75121.8	73549.2	5045.3	µg/L	5045.3	ppb	12:58:12
1	Fe 238.204 Radial†	69191.3	68088.0	5053.4	µg/L	5053.4	ppb	12:58:12
1	K 766.490 Radial†	8178.0	6497.1	2479.1	µg/L	2479.1	ppb	12:58:12
1	Mg 279.077 IEC†	11987.2	11654.0	5407.7	µg/L	5407.7	ppb	12:58:12
1	Na 589.592 Radial†	18224.3	17035.2	2523.9	µg/L	2523.9	ppb	12:58:12
1	Sr 421.552†	231442.2	228263.3	527.47	µg/L	527.47	ppb	12:58:10
1	Sc 361.383	1725151.7	1725151.7	100.25	%			12:58:25
1	Y 371.029	990353.1	990353.1	99.437	%			12:58:25
1	Ag 328.068†	70462.9	65689.6	260.94	µg/L	260.94	ppb	12:58:25
1	As 188.979†	1433.8	1438.9	479.63	µg/L	479.63	ppb	12:58:45
1	B 249.677†	39971.3	35877.7	513.38	µg/L	513.38	ppb	12:58:25
1	Ba 233.527†	119674.9	119521.3	506.08	µg/L	506.08	ppb	12:58:25
1	Be 313.107†	973074.7	971697.9	265.64	µg/L	265.64	ppb	12:58:25
1	Cd 226.502†	79465.5	79358.4	497.22	µg/L	497.22	ppb	12:58:25
1	Co 228.616†	41099.7	41194.5	508.63	µg/L	508.63	ppb	12:58:25
1	Cr 267.716†	59829.6	59420.5	485.58	µg/L	485.58	ppb	12:58:25
1	Cu 324.752†	131759.0	128249.0	507.47	µg/L	507.47	ppb	12:58:25
1	Mn 257.610†	419095.4	417893.3	524.75	µg/L	524.75	ppb	12:58:25
1	Mo 202.031†	17520.7	17497.9	545.06	µg/L	545.06	ppb	12:58:45
1	Ni 231.604†	43513.7	43498.0	510.31	µg/L	510.31	ppb	12:58:25
1	P 214.914†	11600.4	11577.6	2494.0	µg/L	2494.0	ppb	12:58:45
1	Pb 220.353†	8749.9	8615.2	502.20	µg/L	502.20	ppb	12:58:45
1	S 181.975 Axial†	3324.1	2989.9	2670.6	µg/L	2670.6	ppb	12:58:45
1	Sb 206.836†	4290.9	4200.0	509.30	µg/L	509.30	ppb	12:58:45
1	Se 196.026†	6856.0	6818.7	2540	µg/L	2540	ppb	12:58:45
1	SiO2†	106764.8	104713.4	10343	µg/L	10343	ppb	12:58:25
1	Si 251.611†	332499.8	331027.3	4837.9	µg/L	4837.9	ppb	12:58:25
1	Sn 189.927†	8328.2	8301.9	545.90	µg/L	545.90	ppb	12:58:45
1	Ti 334.940†	514647.2	512613.5	503.15	µg/L	503.15	ppb	12:58:25
1	Tl 190.801†	4059.8	4165.9	549.22	µg/L	549.22	ppb	12:58:45
1	U 409.014†	7309.8	7583.2	475.06	µg/L	475.06	ppb	12:58:25
1	V 292.402†	106530.1	105895.7	518.30	µg/L	518.30	ppb	12:58:25
1	Zn 213.857†	94419.8	93587.5	515.44	µg/L	515.44	ppb	12:58:25
2	Sc RADIAL	131052.3	131052.3	102	%			12:58:16
2	Al 396.153Radial†	24892.1	24493.6	5165.2	µg/L	5165.2	ppb	12:58:16
2	Ca 317.933Radial†	75714.2	73735.1	5058.1	µg/L	5058.1	ppb	12:58:16
2	Fe 238.204 Radial†	69610.6	68135.4	5056.9	µg/L	5056.9	ppb	12:58:16
2	K 766.490 Radial†	8434.6	6705.7	2558.8	µg/L	2558.8	ppb	12:58:16
2	Mg 279.077 IEC†	12112.6	11713.9	5435.4	µg/L	5435.4	ppb	12:58:16
2	Na 589.592 Radial†	18513.2	17222.7	2551.6	µg/L	2551.6	ppb	12:58:16
2	Sr 421.552†	234256.8	229806.4	531.04	µg/L	531.04	ppb	12:58:14
2	Sc 361.383	1740362.3	1740362.3	101.13	%			12:58:48
2	Y 371.029	999237.5	999237.5	100.33	%			12:58:48
2	Ag 328.068†	70770.6	65379.5	259.75	µg/L	259.75	ppb	12:58:48
2	As 188.979†	1431.8	1424.4	474.89	µg/L	474.89	ppb	12:59:08
2	B 249.677†	40456.9	36009.4	515.28	µg/L	515.28	ppb	12:58:48
2	Ba 233.527†	120819.0	119609.3	506.45	µg/L	506.45	ppb	12:58:48
2	Be 313.107†	982769.1	972800.3	265.95	µg/L	265.95	ppb	12:58:48
2	Cd 226.502†	80342.6	79532.9	498.32	µg/L	498.32	ppb	12:58:48
2	Co 228.616†	41434.9	41167.7	508.29	µg/L	508.29	ppb	12:58:48
2	Cr 267.716†	60403.3	59466.2	485.94	µg/L	485.94	ppb	12:58:48
2	Cu 324.752†	132583.7	127915.8	506.16	µg/L	506.16	ppb	12:58:48
2	Mn 257.610†	422651.3	417755.6	524.58	µg/L	524.58	ppb	12:58:48
2	Mo 202.031†	17556.6	17380.7	541.41	µg/L	541.41	ppb	12:59:08
2	Ni 231.604†	44109.1	43707.5	512.77	µg/L	512.77	ppb	12:58:48
2	P 214.914†	11619.9	11495.8	2476.3	µg/L	2476.3	ppb	12:59:08
2	Pb 220.353†	8811.3	8599.6	501.28	µg/L	501.28	ppb	12:59:08

2	S 181.975 Axial†	3336.4	2973.1	2655.5 µg/L	2655.5 ppb		12:59:08
2	Sb 206.836†	4299.0	4170.6	505.69 µg/L	505.69 ppb		12:59:08
2	Se 196.026†	6847.6	6750.6	2510 µg/L	2510 ppb		12:59:08
2	SiO2†	107892.9	104898.1	10362 µg/L	10362 ppb		12:58:48
2	Si 251.611†	335787.0	331378.9	4843.2 µg/L	4843.2 ppb		12:58:48
2	Sn 189.927†	8343.4	8244.3	542.13 µg/L	542.13 ppb		12:59:08
2	Ti 334.940†	519602.1	513026.0	503.55 µg/L	503.55 ppb		12:58:48
2	Tl 190.801†	4060.6	4131.3	544.73 µg/L	544.73 ppb		12:59:08
2	U 409.014†	7499.5	7707.0	482.33 µg/L	482.33 ppb		12:58:48
2	V 292.402†	107554.2	105979.6	518.68 µg/L	518.68 ppb		12:58:48
2	Zn 213.857†	95530.7	93862.7	516.95 µg/L	516.95 ppb		12:58:48
3	Sc RADIAL	131288.7	131288.7	102 %			12:58:20
3	Al 396.153Radial†	24966.0	24522.0	5171.1 µg/L	5171.1 ppb		12:58:20
3	Ca 317.933Radial†	76132.9	74011.2	5077.0 µg/L	5077.0 ppb		12:58:20
3	Fe 238.204 Radial†	70069.4	68461.5	5081.1 µg/L	5081.1 ppb		12:58:20
3	K 766.490 Radial†	8425.6	6682.0	2549.8 µg/L	2549.8 ppb		12:58:20
3	Mg 279.077 IEC†	12251.6	11828.6	5488.6 µg/L	5488.6 ppb		12:58:20
3	Na 589.592 Radial†	18652.0	17325.9	2566.9 µg/L	2566.9 ppb		12:58:20
3	Sr 421.552†	233030.0	228192.0	527.31 µg/L	527.31 ppb		12:58:18
3	Sc 361.383	1734680.9	1734680.9	100.80 %			12:59:11
3	Y 371.029	995612.9	995612.9	99.965 %			12:59:11
3	Ag 328.068†	70630.9	65470.1	260.11 µg/L	260.11 ppb		12:59:11
3	As 188.979†	1443.3	1440.4	480.16 µg/L	480.16 ppb		12:59:31
3	B 249.677†	40323.8	36008.3	515.26 µg/L	515.26 ppb		12:59:11
3	Ba 233.527†	120552.5	119736.2	506.99 µg/L	506.99 ppb		12:59:11
3	Be 313.107†	980299.7	973533.3	266.15 µg/L	266.15 ppb		12:59:11
3	Cd 226.502†	80260.6	79711.9	499.44 µg/L	499.44 ppb		12:59:11
3	Co 228.616†	41418.4	41285.5	509.75 µg/L	509.75 ppb		12:59:11
3	Cr 267.716†	60334.1	59593.3	486.98 µg/L	486.98 ppb		12:59:11
3	Cu 324.752†	132076.2	127841.7	505.88 µg/L	505.88 ppb		12:59:11
3	Mn 257.610†	421787.5	418267.5	525.22 µg/L	525.22 ppb		12:59:11
3	Mo 202.031†	17614.4	17494.9	544.97 µg/L	544.97 ppb		12:59:31
3	Ni 231.604†	44127.8	43868.9	514.67 µg/L	514.67 ppb		12:59:11
3	P 214.914†	11738.8	11651.4	2509.9 µg/L	2509.9 ppb		12:59:31
3	Pb 220.353†	8808.1	8625.0	502.76 µg/L	502.76 ppb		12:59:31
3	S 181.975 Axial†	3357.9	3005.2	2684.2 µg/L	2684.2 ppb		12:59:31
3	Sb 206.836†	4352.8	4237.9	513.86 µg/L	513.86 ppb		12:59:31
3	Se 196.026†	6898.7	6823.4	2540 µg/L	2540 ppb		12:59:31
3	SiO2†	107809.2	105164.5	10388 µg/L	10388 ppb		12:59:11
3	Si 251.611†	335166.3	331850.6	4850.0 µg/L	4850.0 ppb		12:59:11
3	Sn 189.927†	8394.5	8322.0	547.22 µg/L	547.22 ppb		12:59:31
3	Ti 334.940†	517632.5	512754.8	503.28 µg/L	503.28 ppb		12:59:11
3	Tl 190.801†	4084.9	4168.5	549.57 µg/L	549.57 ppb		12:59:31
3	U 409.014†	7465.8	7697.9	481.84 µg/L	481.84 ppb		12:59:11
3	V 292.402†	107361.9	106137.2	519.48 µg/L	519.48 ppb		12:59:11
3	Zn 213.857†	95632.5	94273.1	519.21 µg/L	519.21 ppb		12:59:11

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733398.3	100.73	%	0.447				0.44%
Sc RADIAL	130898.1	102	%	0.4				0.37%
Y 371.029	995067.8	99.911	%	0.4485				0.45%
Ag 328.068†	65513.1	260.26	µg/L	0.610	260.26	ppb	0.610	0.23%
QC value within limits for Ag 328.068 Recovery = 104.11%								
Al 396.153Radial†	24515.7	5169.8	µg/L	4.09	5169.8	ppb	4.09	0.08%
QC value within limits for Al 396.153Radial Recovery = 103.40%								
As 188.979†	1434.6	478.23	µg/L	2.905	478.23	ppb	2.905	0.61%
QC value within limits for As 188.979 Recovery = 95.65%								
B 249.677†	35965.2	514.64	µg/L	1.086	514.64	ppb	1.086	0.21%
QC value within limits for B 249.677 Recovery = 102.93%								
Ba 233.527†	119622.3	506.51	µg/L	0.457	506.51	ppb	0.457	0.09%
QC value within limits for Ba 233.527 Recovery = 101.30%								
Be 313.107†	972677.2	265.91	µg/L	0.254	265.91	ppb	0.254	0.10%
QC value within limits for Be 313.107 Recovery = 106.37%								
Ca 317.933Radial†	73765.2	5060.1	µg/L	15.95	5060.1	ppb	15.95	0.32%
QC value within limits for Ca 317.933Radial Recovery = 101.20%								
Cd 226.502†	79534.4	498.33	µg/L	1.107	498.33	ppb	1.107	0.22%
QC value within limits for Cd 226.502 Recovery = 99.67%								
Co 228.616†	41215.9	508.89	µg/L	0.761	508.89	ppb	0.761	0.15%

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   QC value within limits for Co 228.616  Recovery = 101.78%
Cr 267.716†            59493.3      486.17 µg/L        0.730      486.17 ppb          0.730   0.15%
   QC value within limits for Cr 267.716  Recovery = 97.23%
Cu 324.752†           128002.1      506.50 µg/L        0.850      506.50 ppb          0.850   0.17%
   QC value within limits for Cu 324.752  Recovery = 101.30%
Fe 238.204 Radial†     68228.3      5063.8 µg/L        15.09      5063.8 ppb          15.09   0.30%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.28%
K 766.490 Radial†       6628.3      2529.3 µg/L        43.63      2529.3 ppb          43.63   1.72%
   QC value within limits for K 766.490 Radial  Recovery = 101.17%
Mg 279.077 IEC†        11732.2      5443.9 µg/L        41.10      5443.9 ppb          41.10   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.88%
Mn 257.610†           417972.1      524.85 µg/L        0.331      524.85 ppb          0.331   0.06%
   QC value within limits for Mn 257.610  Recovery = 104.97%
Mo 202.031†            17457.8      543.82 µg/L        2.080      543.82 ppb          2.080   0.38%
   QC value within limits for Mo 202.031  Recovery = 108.76%
Na 589.592 Radial†     17194.6      2547.5 µg/L        21.81      2547.5 ppb          21.81   0.86%
   QC value within limits for Na 589.592 Radial  Recovery = 101.90%
Ni 231.604†            43691.5      512.58 µg/L        2.182      512.58 ppb          2.182   0.43%
   QC value within limits for Ni 231.604  Recovery = 102.52%
P 214.914†             11574.9      2493.4 µg/L        16.82      2493.4 ppb          16.82   0.67%
   QC value within limits for P 214.914  Recovery = 99.74%
Pb 220.353†             8613.3      502.08 µg/L        0.749      502.08 ppb          0.749   0.15%
   QC value within limits for Pb 220.353  Recovery = 100.42%
S 181.975 Axial†        2989.4      2670.1 µg/L        14.36      2670.1 ppb          14.36   0.54%
   QC value within limits for S 181.975 Axial  Recovery = 106.80%
Sb 206.836†             4202.9      509.62 µg/L        4.095      509.62 ppb          4.095   0.80%
   QC value within limits for Sb 206.836  Recovery = 101.92%
Se 196.026†             6797.6        2530 µg/L         15.1        2530 ppb           15.1   0.60%
   QC value within limits for Se 196.026  Recovery = 101.12%
SiO2†                 104925.3       10364 µg/L         22.4       10364 ppb           22.4   0.22%
   QC value within limits for SiO2  Recovery = 96.91%
Si 251.611†           331419.0      4843.7 µg/L         6.04      4843.7 ppb           6.04   0.12%
   QC value within limits for Si 251.611  Recovery = 96.87%
Sn 189.927†             8289.4      545.08 µg/L        2.642      545.08 ppb          2.642   0.48%
   QC value within limits for Sn 189.927  Recovery = 109.02%
Sr 421.552†           228753.9      528.60 µg/L        2.108      528.60 ppb          2.108   0.40%
   QC value within limits for Sr 421.552  Recovery = 105.72%
Ti 334.940†           512798.1      503.33 µg/L        0.204      503.33 ppb          0.204   0.04%
   QC value within limits for Ti 334.940  Recovery = 100.67%
Tl 190.801†             4155.2      547.84 µg/L        2.699      547.84 ppb          2.699   0.49%
   QC value within limits for Tl 190.801  Recovery = 109.57%
U 409.014†              7662.7      479.74 µg/L        4.061      479.74 ppb          4.061   0.85%
   QC value within limits for U 409.014  Recovery = 95.95%
V 292.402†            106004.2      518.82 µg/L        0.599      518.82 ppb          0.599   0.12%
   QC value within limits for V 292.402  Recovery = 103.76%
Zn 213.857†            93907.8      517.20 µg/L        1.900      517.20 ppb          1.900   0.37%
   QC value within limits for Zn 213.857  Recovery = 103.44%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 4/7/2010 12:59:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130289.0	130289.0	101	%			13:00:08
1	Al 396.153Radial†	-95.4	-8.5	-1.8150	µg/L	-1.8150	ppb	13:00:28
1	Ca 317.933Radial†	510.6	-2.9	-0.2003	µg/L	-0.2003	ppb	13:00:28
1	Fe 238.204 Radial†	129.4	6.3	0.4651	µg/L	0.4651	ppb	13:00:28
1	K 766.490 Radial†	1627.3	40.2	15.341	µg/L	15.341	ppb	13:00:08
1	Mg 279.077 IEC†	178.2	12.7	5.8899	µg/L	5.8899	ppb	13:00:28
1	Na 589.592 Radial†	963.6	19.9	2.9440	µg/L	2.9440	ppb	13:00:08
1	Sr 421.552†	-118.5	-11.2	-0.0259	µg/L	-0.0259	ppb	13:00:08
1	Sc 361.383	1732499.4	1732499.4	100.67	%			13:01:16
1	Y 371.029	1002175.0	1002175.0	100.62	%			13:01:16
1	Ag 328.068†	4379.0	-250.7	-0.9554	µg/L	-0.9554	ppb	13:01:18
1	As 188.979†	-10.9	-2.2	-0.7345	µg/L	-0.7345	ppb	13:01:38
1	B 249.677†	4298.6	274.3	3.9382	µg/L	3.9382	ppb	13:01:18
1	Ba 233.527†	-75.6	64.9	0.2752	µg/L	0.2752	ppb	13:01:38
1	Be 313.107†	-531.1	482.7	0.1327	µg/L	0.1327	ppb	13:01:18
1	Cd 226.502†	-23.6	64.5	0.4044	µg/L	0.4044	ppb	13:01:38
1	Co 228.616†	-196.5	0.4	0.0054	µg/L	0.0054	ppb	13:01:38
1	Cr 267.716†	246.6	-17.3	-0.1432	µg/L	-0.1432	ppb	13:01:38
1	Cu 324.752†	3320.8	111.9	0.4439	µg/L	0.4439	ppb	13:01:18
1	Mn 257.610†	321.7	145.6	0.1826	µg/L	0.1826	ppb	13:01:38
1	Mo 202.031†	-7.6	12.7	0.3961	µg/L	0.3961	ppb	13:01:38
1	Ni 231.604†	-72.9	18.7	0.2196	µg/L	0.2196	ppb	13:01:38
1	P 214.914†	-5.2	0.5	0.0918	µg/L	0.0918	ppb	13:01:38
1	Pb 220.353†	121.2	7.1	0.4120	µg/L	0.4120	ppb	13:01:38
1	S 181.975 Axial†	122.7	-204.1	-182.01	µg/L	-182.01	ppb	13:01:38
1	Sb 206.836†	86.1	5.2	0.6427	µg/L	0.6427	ppb	13:01:38
1	Se 196.026†	28.1	7.4	2.75	µg/L	2.75	ppb	13:01:38
1	SiO2†	1780.4	-20.9	-2.0859	µg/L	-2.0859	ppb	13:01:18
1	Si 251.611†	853.0	190.5	2.7829	µg/L	2.7829	ppb	13:01:18
1	Sn 189.927†	10.4	4.5	0.2930	µg/L	0.2930	ppb	13:01:38
1	Ti 334.940†	1085.4	306.9	0.3000	µg/L	0.3000	ppb	13:01:18
1	Tl 190.801†	-106.6	10.1	1.3285	µg/L	1.3285	ppb	13:01:38
1	U 409.014†	-245.9	47.1	2.8149	µg/L	2.8149	ppb	13:01:18
1	V 292.402†	594.4	217.4	1.0547	µg/L	1.0547	ppb	13:01:18
1	Zn 213.857†	635.3	30.3	0.1666	µg/L	0.1666	ppb	13:01:38
2	Sc RADIAL	129267.7	129267.7	101	%			13:00:30
2	Al 396.153Radial†	-59.8	26.2	5.5286	µg/L	5.5286	ppb	13:00:50
2	Ca 317.933Radial†	480.4	-29.0	-1.9897	µg/L	-1.9897	ppb	13:00:50
2	Fe 238.204 Radial†	127.6	5.4	0.4029	µg/L	0.4029	ppb	13:00:50
2	K 766.490 Radial†	1555.9	-18.1	-6.9341	µg/L	-6.9341	ppb	13:00:30
2	Mg 279.077 IEC†	160.3	-3.7	-1.7039	µg/L	-1.7039	ppb	13:00:50
2	Na 589.592 Radial†	1117.2	180.2	26.722	µg/L	26.722	ppb	13:00:30
2	Sr 421.552†	-77.7	28.3	0.0655	µg/L	0.0655	ppb	13:00:30
2	Sc 361.383	1731079.9	1731079.9	100.59	%			13:01:40
2	Y 371.029	1001314.9	1001314.9	100.54	%			13:01:40
2	Ag 328.068†	4275.6	-350.0	-1.3433	µg/L	-1.3433	ppb	13:01:42
2	As 188.979†	-12.1	-3.4	-1.1090	µg/L	-1.1090	ppb	13:02:03
2	B 249.677†	4087.9	68.4	0.9830	µg/L	0.9830	ppb	13:01:42
2	Ba 233.527†	-152.4	-11.5	-0.0487	µg/L	-0.0487	ppb	13:02:03
2	Be 313.107†	-1001.0	15.1	0.0078	µg/L	0.0078	ppb	13:01:42
2	Cd 226.502†	-43.9	44.3	0.2774	µg/L	0.2774	ppb	13:02:03
2	Co 228.616†	-227.1	-30.1	-0.3717	µg/L	-0.3717	ppb	13:02:03
2	Cr 267.716†	272.2	8.3	0.0586	µg/L	0.0586	ppb	13:02:03
2	Cu 324.752†	3076.9	-127.9	-0.4949	µg/L	-0.4949	ppb	13:01:42
2	Mn 257.610†	182.7	7.6	0.0097	µg/L	0.0097	ppb	13:02:03
2	Mo 202.031†	-8.0	12.3	0.3825	µg/L	0.3825	ppb	13:02:03
2	Ni 231.604†	-119.0	-27.2	-0.3189	µg/L	-0.3189	ppb	13:02:03
2	P 214.914†	-29.8	-23.9	-5.1700	µg/L	-5.1700	ppb	13:02:03
2	Pb 220.353†	95.9	-17.9	-1.0472	µg/L	-1.0472	ppb	13:02:03

2	S 181.975 Axial†	121.6	-205.1	-182.92	µg/L	-182.92 ppb	13:02:03
2	Sb 206.836†	91.9	11.0	1.3388	µg/L	1.3388 ppb	13:02:03
2	Se 196.026†	30.0	9.3	3.46	µg/L	3.46 ppb	13:02:03
2	SiO2†	1772.1	-27.7	-2.7660	µg/L	-2.7660 ppb	13:01:42
2	Si 251.611†	718.4	57.4	0.8317	µg/L	0.8317 ppb	13:01:42
2	Sn 189.927†	14.3	8.4	0.5474	µg/L	0.5474 ppb	13:02:03
2	Ti 334.940†	712.7	-62.7	-0.0665	µg/L	-0.0665 ppb	13:01:42
2	Tl 190.801†	-113.5	3.2	0.4152	µg/L	0.4152 ppb	13:02:03
2	U 409.014†	-86.1	205.7	12.029	µg/L	12.029 ppb	13:01:42
2	V 292.402†	339.4	-35.6	-0.1595	µg/L	-0.1595 ppb	13:01:42
2	Zn 213.857†	587.5	-16.7	-0.0901	µg/L	-0.0901 ppb	13:02:03
3	Sc RADIAL	130192.9	130192.9	101	%		13:00:52
3	Al 396.153Radial†	-87.4	-0.6	-0.1836	µg/L	-0.1836 ppb	13:01:12
3	Ca 317.933Radial†	486.1	-26.7	-1.8347	µg/L	-1.8347 ppb	13:01:12
3	Fe 238.204 Radial†	117.6	-5.3	-0.3929	µg/L	-0.3929 ppb	13:01:12
3	K 766.490 Radial†	1648.4	62.1	23.727	µg/L	23.727 ppb	13:00:52
3	Mg 279.077 IEC†	176.7	11.3	5.2710	µg/L	5.2710 ppb	13:01:12
3	Na 589.592 Radial†	1089.0	144.4	21.393	µg/L	21.393 ppb	13:00:52
3	Sr 421.552†	-53.5	52.8	0.1221	µg/L	0.1221 ppb	13:00:52
3	Sc 361.383	1718692.1	1718692.1	99.871	%		13:02:05
3	Y 371.029	994450.4	994450.4	99.849	%		13:02:05
3	Ag 328.068†	4647.4	53.0	0.2128	µg/L	0.2128 ppb	13:02:07
3	As 188.979†	-3.3	5.4	1.7621	µg/L	1.7621 ppb	13:02:27
3	B 249.677†	4120.4	130.1	1.8688	µg/L	1.8688 ppb	13:02:07
3	Ba 233.527†	-117.5	22.3	0.0950	µg/L	0.0950 ppb	13:02:27
3	Be 313.107†	-864.8	144.4	0.0402	µg/L	0.0402 ppb	13:02:07
3	Cd 226.502†	-68.9	18.9	0.1190	µg/L	0.1190 ppb	13:02:27
3	Co 228.616†	-199.9	-4.5	-0.0559	µg/L	-0.0559 ppb	13:02:27
3	Cr 267.716†	242.3	-19.7	-0.1627	µg/L	-0.1627 ppb	13:02:27
3	Cu 324.752†	2893.1	-289.9	-1.1413	µg/L	-1.1413 ppb	13:02:07
3	Mn 257.610†	182.4	8.6	0.0106	µg/L	0.0106 ppb	13:02:27
3	Mo 202.031†	14.7	35.0	1.0900	µg/L	1.0900 ppb	13:02:27
3	Ni 231.604†	-55.6	35.5	0.4162	µg/L	0.4162 ppb	13:02:27
3	P 214.914†	-6.6	-0.9	-0.1874	µg/L	-0.1874 ppb	13:02:27
3	Pb 220.353†	127.7	14.6	0.8498	µg/L	0.8498 ppb	13:02:27
3	S 181.975 Axial†	120.3	-205.6	-183.34	µg/L	-183.34 ppb	13:02:27
3	Sb 206.836†	84.3	4.1	0.5166	µg/L	0.5166 ppb	13:02:27
3	Se 196.026†	29.9	9.5	3.52	µg/L	3.52 ppb	13:02:27
3	SiO2†	1793.6	6.5	0.5940	µg/L	0.5940 ppb	13:02:07
3	Si 251.611†	687.5	31.6	0.4415	µg/L	0.4415 ppb	13:02:07
3	Sn 189.927†	21.5	15.7	1.0301	µg/L	1.0301 ppb	13:02:27
3	Ti 334.940†	1002.6	232.6	0.2272	µg/L	0.2272 ppb	13:02:07
3	Tl 190.801†	-117.1	-1.2	-0.1504	µg/L	-0.1504 ppb	13:02:27
3	U 409.014†	-247.4	43.6	2.5709	µg/L	2.5709 ppb	13:02:07
3	V 292.402†	444.6	72.2	0.3606	µg/L	0.3606 ppb	13:02:07
3	Zn 213.857†	588.7	-11.3	-0.0642	µg/L	-0.0642 ppb	13:02:27

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1727423.8	100.38	%	0.441				0.44%
Sc RADIAL	129916.6	101	%	0.4				0.43%
Y 371.029	999313.4	100.34	%	0.425				0.42%
Ag 328.068†	-182.5	-0.6953	µg/L	0.80998	-0.6953	ppb	0.80998	116.49%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.7	1.1767	µg/L	3.85613	1.1767	ppb	3.85613	327.71%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.0271	µg/L	1.56080	-0.0271	ppb	1.56080	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	157.6	2.2633	µg/L	1.51656	2.2633	ppb	1.51656	67.01%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	25.2	0.1072	µg/L	0.16229	0.1072	ppb	0.16229	151.45%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	214.1	0.0602	µg/L	0.06484	0.0602	ppb	0.06484	107.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-19.6	-1.3415	µg/L	0.99139	-1.3415	ppb	0.99139	73.90%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	42.6	0.2669	µg/L	0.14299	0.2669	ppb	0.14299	53.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-11.4	-0.1407	µg/L	0.20234	-0.1407	ppb	0.20234	143.79%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -9.5     -0.0824 µg/L       0.12249     -0.0824 ppb        0.12249 148.58%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -102.0     -0.3974 µg/L       0.79707     -0.3974 ppb        0.79707 200.56%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        2.1      0.1584 µg/L       0.47841      0.1584 ppb        0.47841 302.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        28.0      10.711 µg/L       15.8464      10.711 ppb        15.8464 147.94%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           6.8      3.1524 µg/L       4.21697      3.1524 ppb        4.21697 133.77%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              53.9      0.0676 µg/L       0.09960      0.0676 ppb        0.09960 147.24%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              20.0      0.6229 µg/L       0.40460      0.6229 ppb        0.40460  64.96%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      114.8      17.020 µg/L       12.4777      17.020 ppb        12.4777  73.31%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               9.0      0.1057 µg/L       0.38056      0.1057 ppb        0.38056 360.17%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.1     -1.7552 µg/L       2.96062     -1.7552 ppb        2.96062 168.68%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               1.3      0.0715 µg/L       0.99331      0.0715 ppb        0.99331 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -205.0     -182.76 µg/L         0.683     -182.76 ppb          0.683   0.37%
   QC value less than the lower limit for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.8      0.8327 µg/L       0.44279      0.8327 ppb        0.44279  53.18%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               8.7        3.24 µg/L         0.428        3.24 ppb          0.428  13.18%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -14.1     -1.4193 µg/L       1.77642     -1.4193 ppb        1.77642 125.16%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              93.2      1.3520 µg/L       1.25441      1.3520 ppb        1.25441  92.78%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.5      0.6235 µg/L       0.37439      0.6235 ppb        0.37439  60.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              23.3      0.0539 µg/L       0.07471      0.0539 ppb        0.07471 138.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             158.9      0.1536 µg/L       0.19404      0.1536 ppb        0.19404 126.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               4.0      0.5311 µg/L       0.74622      0.5311 ppb        0.74622 140.51%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               98.8      5.8049 µg/L       5.39155      5.8049 ppb        5.39155  92.88%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               84.7      0.4186 µg/L       0.60920      0.4186 ppb        0.60920 145.54%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               0.8      0.0041 µg/L       0.14134      0.0041 ppb        0.14134 >999.9%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 4/7/2010 13:02:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128552.9	128552.9	100	%			13:03:04
1	Al 396.153Radial†	943.5	1028.8	217.59	µg/L	217.59	ppb	13:03:06
1	Ca 317.933Radial†	3643.9	3136.0	215.12	µg/L	215.12	ppb	13:03:06
1	Fe 238.204 Radial†	1497.8	1375.8	102.11	µg/L	102.11	ppb	13:03:06
1	K 766.490 Radial†	1938.7	373.1	142.39	µg/L	142.39	ppb	13:03:04
1	Mg 279.077 IEC†	851.6	688.2	318.93	µg/L	318.93	ppb	13:03:06
1	Na 589.592 Radial†	2959.8	2028.2	300.62	µg/L	300.62	ppb	13:03:06
1	Sr 421.552†	2113.2	2218.0	5.1241	µg/L	5.1241	ppb	13:03:06
1	Sc 361.383	1743724.4	1743724.4	101.33	%			13:03:32
1	Y 371.029	1008527.5	1008527.5	101.26	%			13:03:32
1	Ag 328.068†	5813.0	1136.5	4.5247	µg/L	4.5247	ppb	13:03:34
1	As 188.979†	73.8	81.4	26.828	µg/L	26.828	ppb	13:03:54
1	B 249.677†	7573.1	3478.5	49.930	µg/L	49.930	ppb	13:03:34
1	Ba 233.527†	1031.8	1158.3	4.9045	µg/L	4.9045	ppb	13:03:54
1	Be 313.107†	16794.3	17584.9	4.8240	µg/L	4.8240	ppb	13:03:34
1	Cd 226.502†	715.0	793.6	4.9667	µg/L	4.9667	ppb	13:03:54
1	Co 228.616†	182.4	375.7	4.6357	µg/L	4.6357	ppb	13:03:54
1	Cr 267.716†	875.1	601.4	4.8655	µg/L	4.8655	ppb	13:03:54
1	Cu 324.752†	5784.8	2522.4	10.029	µg/L	10.029	ppb	13:03:34
1	Mn 257.610†	8335.1	8052.1	10.103	µg/L	10.103	ppb	13:03:34
1	Mo 202.031†	272.6	289.3	9.0155	µg/L	9.0155	ppb	13:03:54
1	Ni 231.604†	331.7	418.5	4.9093	µg/L	4.9093	ppb	13:03:54
1	P 214.914†	678.2	675.0	145.77	µg/L	145.77	ppb	13:03:54
1	Pb 220.353†	275.8	158.9	9.2219	µg/L	9.2219	ppb	13:03:54
1	S 181.975 Axial†	220.6	-108.3	-96.502	µg/L	-96.502	ppb	13:03:54
1	Sb 206.836†	160.6	78.1	9.5112	µg/L	9.5112	ppb	13:03:54
1	Se 196.026†	91.3	69.6	26.0	µg/L	26.0	ppb	13:03:54
1	SiO2†	4000.7	2159.0	213.34	µg/L	213.34	ppb	13:03:34
1	Si 251.611†	7874.8	7115.0	104.04	µg/L	104.04	ppb	13:03:34
1	Sn 189.927†	148.8	141.0	9.2568	µg/L	9.2568	ppb	13:03:54
1	Ti 334.940†	5899.7	5051.3	4.9167	µg/L	4.9167	ppb	13:03:34
1	Tl 190.801†	46.3	161.7	21.111	µg/L	21.111	ppb	13:03:54
1	U 409.014†	795.6	1076.5	63.288	µg/L	63.288	ppb	13:03:34
1	V 292.402†	1284.3	894.4	4.4598	µg/L	4.4598	ppb	13:03:34
1	Zn 213.857†	2394.5	1762.4	9.7355	µg/L	9.7355	ppb	13:03:54
2	Sc RADIAL	128778.8	128778.8	100	%			13:03:08
2	Al 396.153Radial†	928.8	1012.5	214.12	µg/L	214.12	ppb	13:03:10
2	Ca 317.933Radial†	3537.2	3023.1	207.38	µg/L	207.38	ppb	13:03:10
2	Fe 238.204 Radial†	1465.9	1341.4	99.555	µg/L	99.555	ppb	13:03:10
2	K 766.490 Radial†	2001.6	432.5	165.07	µg/L	165.07	ppb	13:03:08
2	Mg 279.077 IEC†	800.1	635.4	294.48	µg/L	294.48	ppb	13:03:10
2	Na 589.592 Radial†	2928.6	1991.9	295.22	µg/L	295.22	ppb	13:03:10
2	Sr 421.552†	2166.1	2267.1	5.2375	µg/L	5.2375	ppb	13:03:10
2	Sc 361.383	1724473.4	1724473.4	100.21	%			13:03:56
2	Y 371.029	998170.6	998170.6	100.22	%			13:03:56
2	Ag 328.068†	5962.7	1349.9	5.3278	µg/L	5.3278	ppb	13:03:58
2	As 188.979†	75.1	83.5	27.523	µg/L	27.523	ppb	13:04:19
2	B 249.677†	7612.7	3601.5	51.696	µg/L	51.696	ppb	13:03:58
2	Ba 233.527†	1065.9	1203.7	5.0971	µg/L	5.0971	ppb	13:04:19
2	Be 313.107†	16754.5	17730.3	4.8567	µg/L	4.8567	ppb	13:03:58
2	Cd 226.502†	720.2	806.6	5.0491	µg/L	5.0491	ppb	13:04:19
2	Co 228.616†	173.5	368.7	4.5505	µg/L	4.5505	ppb	13:04:19
2	Cr 267.716†	923.9	659.7	5.3609	µg/L	5.3609	ppb	13:04:19
2	Cu 324.752†	5408.8	2210.9	8.7796	µg/L	8.7796	ppb	13:03:58
2	Mn 257.610†	8388.2	8196.9	10.285	µg/L	10.285	ppb	13:03:58
2	Mo 202.031†	279.9	299.5	9.3334	µg/L	9.3334	ppb	13:04:19
2	Ni 231.604†	359.9	450.3	5.2825	µg/L	5.2825	ppb	13:04:19
2	P 214.914†	649.4	653.7	141.19	µg/L	141.19	ppb	13:04:19
2	Pb 220.353†	284.1	170.2	9.8951	µg/L	9.8951	ppb	13:04:19

2	S 181.975 Axial†	207.4	-119.1	-106.08	µg/L	-106.08 ppb	13:04:19
2	Sb 206.836†	149.8	69.2	8.4268	µg/L	8.4268 ppb	13:04:19
2	Se 196.026†	115.4	94.7	35.3	µg/L	35.3 ppb	13:04:19
2	SiO2†	3989.6	2191.9	216.58	µg/L	216.58 ppb	13:03:58
2	Si 251.611†	8019.3	7346.0	107.41	µg/L	107.41 ppb	13:03:58
2	Sn 189.927†	170.1	163.8	10.756	µg/L	10.756 ppb	13:04:19
2	Ti 334.940†	5720.8	4937.7	4.8162	µg/L	4.8162 ppb	13:03:58
2	Tl 190.801†	52.2	168.1	21.944	µg/L	21.944 ppb	13:04:19
2	U 409.014†	390.0	680.5	40.136	µg/L	40.136 ppb	13:03:58
2	V 292.402†	1348.4	972.6	4.8273	µg/L	4.8273 ppb	13:03:58
2	Zn 213.857†	2391.7	1786.0	9.8653	µg/L	9.8653 ppb	13:04:19
3	Sc RADIAL	128809.4	128809.4	100	%		13:03:12
3	Al 396.153Radial†	955.5	1038.9	219.68	µg/L	219.68 ppb	13:03:14
3	Ca 317.933Radial†	3594.2	3079.1	211.22	µg/L	211.22 ppb	13:03:14
3	Fe 238.204 Radial†	1571.3	1446.2	107.33	µg/L	107.33 ppb	13:03:14
3	K 766.490 Radial†	1976.5	407.0	155.31	µg/L	155.31 ppb	13:03:12
3	Mg 279.077 IEC†	865.1	699.9	324.40	µg/L	324.40 ppb	13:03:14
3	Na 589.592 Radial†	3010.2	2072.6	307.20	µg/L	307.20 ppb	13:03:14
3	Sr 421.552†	2230.8	2331.2	5.3856	µg/L	5.3856 ppb	13:03:14
3	Sc 361.383	1722331.2	1722331.2	100.08	%		13:04:21
3	Y 371.029	996524.8	996524.8	100.06	%		13:04:21
3	Ag 328.068†	6038.9	1433.5	5.6857	µg/L	5.6857 ppb	13:04:23
3	As 188.979†	78.9	87.4	28.800	µg/L	28.800 ppb	13:04:43
3	B 249.677†	7480.2	3478.6	49.931	µg/L	49.931 ppb	13:04:23
3	Ba 233.527†	1047.3	1186.4	5.0242	µg/L	5.0242 ppb	13:04:43
3	Be 313.107†	17052.8	18049.1	4.9515	µg/L	4.9515 ppb	13:04:23
3	Cd 226.502†	734.7	822.0	5.1441	µg/L	5.1441 ppb	13:04:43
3	Co 228.616†	182.7	378.2	4.6670	µg/L	4.6670 ppb	13:04:43
3	Cr 267.716†	860.9	597.9	4.8359	µg/L	4.8359 ppb	13:04:43
3	Cu 324.752†	5683.2	2491.8	9.9106	µg/L	9.9106 ppb	13:04:23
3	Mn 257.610†	8588.7	8407.7	10.549	µg/L	10.549 ppb	13:04:23
3	Mo 202.031†	295.1	315.2	9.8203	µg/L	9.8203 ppb	13:04:43
3	Ni 231.604†	318.6	409.5	4.8043	µg/L	4.8043 ppb	13:04:43
3	P 214.914†	686.9	692.0	149.45	µg/L	149.45 ppb	13:04:43
3	Pb 220.353†	276.9	163.4	9.4811	µg/L	9.4811 ppb	13:04:43
3	S 181.975 Axial†	223.4	-102.8	-91.578	µg/L	-91.578 ppb	13:04:43
3	Sb 206.836†	153.4	72.9	8.8964	µg/L	8.8964 ppb	13:04:43
3	Se 196.026†	100.7	80.1	29.9	µg/L	29.9 ppb	13:04:43
3	SiO2†	4099.2	2306.4	227.90	µg/L	227.90 ppb	13:04:23
3	Si 251.611†	8074.2	7410.8	108.35	µg/L	108.35 ppb	13:04:23
3	Sn 189.927†	164.4	158.4	10.398	µg/L	10.398 ppb	13:04:43
3	Ti 334.940†	5907.5	5131.4	4.9940	µg/L	4.9940 ppb	13:04:23
3	Tl 190.801†	43.8	159.8	20.872	µg/L	20.872 ppb	13:04:43
3	U 409.014†	821.0	1111.6	65.377	µg/L	65.377 ppb	13:04:23
3	V 292.402†	1401.7	1027.5	5.1111	µg/L	5.1111 ppb	13:04:23
3	Zn 213.857†	2392.0	1789.3	9.8850	µg/L	9.8850 ppb	13:04:43

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1730176.3	100.54	%	0.685				0.68%
Sc RADIAL	128713.7	100	%	0.1				0.11%
Y 371.029	1001074.3	100.51	%	0.653				0.65%
Ag 328.068†	1306.7	5.1794	µg/L	0.59454	5.1794	ppb	0.59454	11.48%
QC value within limits for Ag 328.068 Recovery = 103.59%								
Al 396.153Radial†	1026.7	217.13	µg/L	2.811	217.13	ppb	2.811	1.29%
QC value within limits for Al 396.153Radial Recovery = 108.57%								
As 188.979†	84.1	27.717	µg/L	1.0004	27.717	ppb	1.0004	3.61%
QC value within limits for As 188.979 Recovery = 92.39%								
B 249.677†	3519.5	50.519	µg/L	1.0196	50.519	ppb	1.0196	2.02%
QC value within limits for B 249.677 Recovery = 101.04%								
Ba 233.527†	1182.8	5.0086	µg/L	0.09727	5.0086	ppb	0.09727	1.94%
QC value within limits for Ba 233.527 Recovery = 100.17%								
Be 313.107†	17788.1	4.8774	µg/L	0.06620	4.8774	ppb	0.06620	1.36%
QC value within limits for Be 313.107 Recovery = 97.55%								
Ca 317.933Radial†	3079.4	211.24	µg/L	3.871	211.24	ppb	3.871	1.83%
QC value within limits for Ca 317.933Radial Recovery = 105.62%								
Cd 226.502†	807.4	5.0533	µg/L	0.08879	5.0533	ppb	0.08879	1.76%
QC value within limits for Cd 226.502 Recovery = 101.07%								
Co 228.616†	374.2	4.6177	µg/L	0.06025	4.6177	ppb	0.06025	1.30%

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   QC value within limits for Co 228.616  Recovery = 92.35%
Cr 267.716†              619.7      5.0208 µg/L       0.29493      5.0208 ppb        0.29493   5.87%
   QC value within limits for Cr 267.716  Recovery = 100.42%
Cu 324.752†             2408.3      9.5729 µg/L       0.68958      9.5729 ppb        0.68958   7.20%
   QC value within limits for Cu 324.752  Recovery = 95.73%
Fe 238.204 Radial†      1387.8      103.00 µg/L         3.963      103.00 ppb          3.963   3.85%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.00%
K 766.490 Radial†        404.2      154.26 µg/L        11.376      154.26 ppb         11.376   7.37%
   QC value within limits for K 766.490 Radial  Recovery = 102.84%
Mg 279.077 IEC†          674.5      312.60 µg/L        15.932      312.60 ppb         15.932   5.10%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.20%
Mn 257.610†             8218.9      10.312 µg/L        0.2245      10.312 ppb         0.2245   2.18%
   QC value within limits for Mn 257.610  Recovery = 103.12%
Mo 202.031†              301.3      9.3897 µg/L       0.40538      9.3897 ppb        0.40538   4.32%
   QC value within limits for Mo 202.031  Recovery = 93.90%
Na 589.592 Radial†      2030.9      301.01 µg/L         5.997      301.01 ppb          5.997   1.99%
   QC value within limits for Na 589.592 Radial  Recovery = 100.34%
Ni 231.604†              426.1      4.9987 µg/L       0.25135      4.9987 ppb        0.25135   5.03%
   QC value within limits for Ni 231.604  Recovery = 99.97%
P 214.914†               673.6      145.47 µg/L         4.138      145.47 ppb          4.138   2.84%
   QC value within limits for P 214.914  Recovery = 96.98%
Pb 220.353†              164.2      9.5327 µg/L       0.33957      9.5327 ppb        0.33957   3.56%
   QC value within limits for Pb 220.353  Recovery = 95.33%
S 181.975 Axial†        -110.1     -98.053 µg/L        7.3740     -98.053 ppb         7.3740   7.52%
   QC value less than the lower limit for S 181.975 Axial  Recovery = -98.05%
Sb 206.836†               73.4      8.9448 µg/L       0.54382      8.9448 ppb        0.54382   6.08%
   QC value within limits for Sb 206.836  Recovery = 89.45%
Se 196.026†               81.5        30.4 µg/L          4.67        30.4 ppb           4.67  15.38%
   QC value within limits for Se 196.026  Recovery = 101.18%
SiO2†                   2219.1      219.27 µg/L         7.643      219.27 ppb          7.643   3.49%
   QC value within limits for SiO2  Recovery = 102.94%
Si 251.611†             7290.6      106.60 µg/L         2.268      106.60 ppb          2.268   2.13%
   QC value within limits for Si 251.611  Recovery = 106.60%
Sn 189.927†              154.4      10.137 µg/L        0.7829      10.137 ppb         0.7829   7.72%
   QC value within limits for Sn 189.927  Recovery = 101.37%
Sr 421.552†             2272.1      5.2491 µg/L       0.13115      5.2491 ppb        0.13115   2.50%
   QC value within limits for Sr 421.552  Recovery = 104.98%
Ti 334.940†             5040.1      4.9090 µg/L       0.08916      4.9090 ppb        0.08916   1.82%
   QC value within limits for Ti 334.940  Recovery = 98.18%
Tl 190.801†              163.2      21.309 µg/L        0.5625      21.309 ppb         0.5625   2.64%
   QC value within limits for Tl 190.801  Recovery = 106.54%
U 409.014†               956.2      56.267 µg/L       14.0089      56.267 ppb        14.0089  24.90%
   QC value within limits for U 409.014  Recovery = 112.53%
V 292.402†               964.8      4.7994 µg/L       0.32655      4.7994 ppb        0.32655   6.80%
   QC value within limits for V 292.402  Recovery = 95.99%
Zn 213.857†             1779.3      9.8286 µg/L       0.08121      9.8286 ppb        0.08121   0.83%
   QC value within limits for Zn 213.857  Recovery = 98.29%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 4/7/2010 13:04:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	119640.6	119640.6	93.1	%			13:05:23
1	Al 396.153Radial†	2250031.9	2416798.5	512130	µg/L	512130	ppb	13:05:21
1	Ca 317.933Radial†	6726755.4	7224562.7	495590	µg/L	495590	ppb	13:05:21
1	Fe 238.204 Radial†	2438309.8	2618816.9	194370	µg/L	194370	ppb	13:05:21
1	K 766.490 Radial†	1685.7	245.7	-151.59	µg/L	-151.59	ppb	13:05:23
1	Mg 279.077 IEC†	997330.8	1071049.4	496000	µg/L	496000	ppb	13:05:21
1	Na 589.592 Radial†	1617.5	806.9	119.57	µg/L	119.57	ppb	13:05:23
1	Sr 421.552†	4920.4	5390.6	8.5784	µg/L	8.5784	ppb	13:05:23
1	Sc 361.383	1524382.6	1524382.6	88.580	%			13:05:50
1	Y 371.029	869034.7	869034.7	87.256	%			13:05:50
1	Ag 328.068†	7424.8	3781.7	1.0101	µg/L	1.0101	ppb	13:05:50
1	As 188.979†	-107.3	-112.5	6.6284	µg/L	6.6284	ppb	13:06:10
1	B 249.677†	4222.0	770.8	11.054	µg/L	11.054	ppb	13:05:50
1	Ba 233.527†	407.3	599.8	0.0553	µg/L	0.0553	ppb	13:06:10
1	Be 313.107†	-408.1	549.5	0.1552	µg/L	0.1552	ppb	13:05:50
1	Cd 226.502†	2441.5	2844.2	-2.6075	µg/L	-2.6075	ppb	13:06:10
1	Co 228.616†	97.4	305.6	-6.3658	µg/L	-6.3658	ppb	13:06:10
1	Cr 267.716†	178.4	-60.9	0.1892	µg/L	0.1892	ppb	13:06:10
1	Cu 324.752†	-5865.5	-9808.5	3.0350	µg/L	3.0350	ppb	13:05:50
1	Mn 257.610†	16117.3	18021.3	2.4527	µg/L	2.4527	ppb	13:05:50
1	Mo 202.031†	-537.0	-586.0	-1.4818	µg/L	-1.4818	ppb	13:06:10
1	Ni 231.604†	114.2	220.1	2.5821	µg/L	2.5821	ppb	13:06:10
1	P 214.914†	117.4	138.2	11.718	µg/L	11.718	ppb	13:06:10
1	Pb 220.353†	-327.4	-482.8	-2.5690	µg/L	-2.5690	ppb	13:06:10
1	S 181.975 Axial†	177.6	-125.5	-112.05	µg/L	-112.05	ppb	13:06:10
1	Sb 206.836†	124.0	59.7	1.1045	µg/L	1.1045	ppb	13:06:10
1	Se 196.026†	-156.6	-197.3	-5.85	µg/L	-5.85	ppb	13:06:10
1	SiO2†	1694.3	123.3	12.674	µg/L	12.674	ppb	13:06:10
1	Si 251.611†	510.5	-80.4	-0.9576	µg/L	-0.9576	ppb	13:06:10
1	Sn 189.927†	51.9	52.7	3.5385	µg/L	3.5385	ppb	13:06:10
1	Ti 334.940†	22928.2	25113.1	-2.8154	µg/L	-2.8154	ppb	13:05:50
1	Tl 190.801†	-150.4	-53.7	-6.5237	µg/L	-6.5237	ppb	13:06:10
1	U 409.014†	-3.8	287.0	-4.6495	µg/L	-4.6495	ppb	13:05:50
1	V 292.402†	4554.9	4769.1	2.3183	µg/L	2.3183	ppb	13:05:50
1	Zn 213.857†	4422.1	4391.5	7.6332	µg/L	7.6332	ppb	13:06:10
2	Sc RADIAL	119003.9	119003.9	92.6	%			13:05:28
2	Al 396.153Radial†	2247032.3	2426489.1	514190	µg/L	514190	ppb	13:05:26
2	Ca 317.933Radial†	6682736.2	7215684.5	494980	µg/L	494980	ppb	13:05:26
2	Fe 238.204 Radial†	2421284.7	2614444.3	194040	µg/L	194040	ppb	13:05:26
2	K 766.490 Radial†	1486.3	40.0	-230.36	µg/L	-230.36	ppb	13:05:28
2	Mg 279.077 IEC†	988195.8	1066916.3	494080	µg/L	494080	ppb	13:05:26
2	Na 589.592 Radial†	1458.8	644.8	95.600	µg/L	95.600	ppb	13:05:28
2	Sr 421.552†	4703.0	5184.0	8.1058	µg/L	8.1058	ppb	13:05:28
2	Sc 361.383	1532473.1	1532473.1	89.050	%			13:06:13
2	Y 371.029	872925.8	872925.8	87.647	%			13:06:13
2	Ag 328.068†	7070.7	3339.8	-0.7111	µg/L	-0.7111	ppb	13:06:13
2	As 188.979†	-90.6	-93.1	12.920	µg/L	12.920	ppb	13:06:33
2	B 249.677†	4263.2	791.9	11.358	µg/L	11.358	ppb	13:06:13
2	Ba 233.527†	451.7	647.2	0.2595	µg/L	0.2595	ppb	13:06:33
2	Be 313.107†	-180.4	807.7	0.2226	µg/L	0.2226	ppb	13:06:13
2	Cd 226.502†	2450.7	2840.0	-2.5999	µg/L	-2.5999	ppb	13:06:33
2	Co 228.616†	83.3	289.1	-6.5519	µg/L	-6.5519	ppb	13:06:33
2	Cr 267.716†	200.5	-37.1	0.4034	µg/L	0.4034	ppb	13:06:33
2	Cu 324.752†	-5767.0	-9662.9	3.5016	µg/L	3.5016	ppb	13:06:13
2	Mn 257.610†	16249.0	18073.2	2.5946	µg/L	2.5946	ppb	13:06:13
2	Mo 202.031†	-527.2	-571.8	-1.0903	µg/L	-1.0903	ppb	13:06:33
2	Ni 231.604†	117.5	223.1	2.6170	µg/L	2.6170	ppb	13:06:33
2	P 214.914†	123.3	144.2	13.662	µg/L	13.662	ppb	13:06:33
2	Pb 220.353†	-338.6	-493.5	-3.0398	µg/L	-3.0398	ppb	13:06:33

2	S 181.975 Axial†	150.2	-157.3	-140.44 µg/L	-140.44 ppb	13:06:33
2	Sb 206.836†	115.4	49.3	-0.1586 µg/L	-0.1586 ppb	13:06:33
2	Se 196.026†	-159.8	-200.0	-6.97 µg/L	-6.97 ppb	13:06:33
2	SiO2†	1693.8	112.6	11.614 µg/L	11.614 ppb	13:06:33
2	Si 251.611†	470.1	-128.9	-1.6676 µg/L	-1.6676 ppb	13:06:33
2	Sn 189.927†	40.5	39.6	2.6796 µg/L	2.6796 ppb	13:06:33
2	Ti 334.940†	22857.6	24897.1	-2.8834 µg/L	-2.8834 ppb	13:06:13
2	Tl 190.801†	-178.9	-84.9	-10.586 µg/L	-10.586 ppb	13:06:33
2	U 409.014†	-163.2	108.1	-15.135 µg/L	-15.135 ppb	13:06:13
2	V 292.402†	4367.5	4531.5	1.2040 µg/L	1.2040 ppb	13:06:13
2	Zn 213.857†	4474.3	4423.8	7.8861 µg/L	7.8861 ppb	13:06:33
3	Sc RADIAL	117977.5	117977.5	91.8 %		13:05:32
3	Al 396.153Radial†	2245111.7	2445507.1	518220 µg/L	518220 ppb	13:05:30
3	Ca 317.933Radial†	6691999.2	7288555.5	499980 µg/L	499980 ppb	13:05:30
3	Fe 238.204 Radial†	2424695.7	2640906.6	196000 µg/L	196000 ppb	13:05:30
3	K 766.490 Radial†	1745.0	335.8	-119.62 µg/L	-119.62 ppb	13:05:32
3	Mg 279.077 IEC†	989981.8	1078145.2	499280 µg/L	499280 ppb	13:05:30
3	Na 589.592 Radial†	1592.8	804.4	119.17 µg/L	119.17 ppb	13:05:32
3	Sr 421.552†	4732.0	5259.9	8.2420 µg/L	8.2420 ppb	13:05:32
3	Sc 361.383	1518993.8	1518993.8	88.266 %		13:06:36
3	Y 371.029	865744.6	865744.6	86.926 %		13:06:36
3	Ag 328.068†	6709.8	3001.3	-2.1519 µg/L	-2.1519 ppb	13:06:36
3	As 188.979†	-85.6	-88.4	14.907 µg/L	14.907 ppb	13:06:56
3	B 249.677†	4065.4	610.3	8.7503 µg/L	8.7503 ppb	13:06:36
3	Ba 233.527†	486.6	691.3	0.4206 µg/L	0.4206 ppb	13:06:56
3	Be 313.107†	-458.6	490.7	0.1374 µg/L	0.1374 ppb	13:06:36
3	Cd 226.502†	2486.6	2905.1	-2.3980 µg/L	-2.3980 ppb	13:06:56
3	Co 228.616†	79.4	285.5	-6.6984 µg/L	-6.6984 ppb	13:06:56
3	Cr 267.716†	227.9	-4.1	0.6744 µg/L	0.6744 ppb	13:06:56
3	Cu 324.752†	-5773.4	-9727.7	3.6765 µg/L	3.6765 ppb	13:06:36
3	Mn 257.610†	16209.6	18190.4	2.5305 µg/L	2.5305 ppb	13:06:36
3	Mo 202.031†	-543.0	-594.9	-1.6361 µg/L	-1.6361 ppb	13:06:56
3	Ni 231.604†	115.1	221.5	2.5990 µg/L	2.5990 ppb	13:06:56
3	P 214.914†	158.9	185.7	22.209 µg/L	22.209 ppb	13:06:56
3	Pb 220.353†	-325.9	-482.5	-2.2204 µg/L	-2.2204 ppb	13:06:56
3	S 181.975 Axial†	184.8	-116.7	-104.20 µg/L	-104.20 ppb	13:06:56
3	Sb 206.836†	114.5	49.4	-0.2180 µg/L	-0.2180 ppb	13:06:56
3	Se 196.026†	-157.5	-199.0	-5.92 µg/L	-5.92 ppb	13:06:56
3	SiO2†	1662.4	94.0	9.7893 µg/L	9.7893 ppb	13:06:56
3	Si 251.611†	560.7	-21.6	-0.0860 µg/L	-0.0860 ppb	13:06:56
3	Sn 189.927†	40.5	40.0	2.7051 µg/L	2.7051 ppb	13:06:56
3	Ti 334.940†	22883.9	25154.7	-2.9255 µg/L	-2.9255 ppb	13:06:36
3	Tl 190.801†	-176.2	-83.6	-10.411 µg/L	-10.411 ppb	13:06:56
3	U 409.014†	-93.4	185.5	-10.812 µg/L	-10.812 ppb	13:06:36
3	V 292.402†	4417.6	4631.8	1.4774 µg/L	1.4774 ppb	13:06:36
3	Zn 213.857†	4467.4	4460.6	7.9021 µg/L	7.9021 ppb	13:06:56

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1525283.2	88.632	%	0.3942				0.44%
Sc RADIAL	118874.0	92.5	%	0.65				0.71%
Y 371.029	869235.0	87.276	%	0.3609				0.41%
Ag 328.068†	3374.3	-0.6176	µg/L	1.58308	-0.6176	ppb	1.58308	256.31%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2429598.2	514850	µg/L	3094.8	514850	ppb	3094.8	0.60%
QC value within limits for Al 396.153Radial Recovery = 102.97%								
As 188.979†	-98.0	11.485	µg/L	4.3219	11.485	ppb	4.3219	37.63%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	724.3	10.387	µg/L	1.4258	10.387	ppb	1.4258	13.73%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	646.1	0.2451	µg/L	0.18305	0.2451	ppb	0.18305	74.67%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	616.0	0.1717	µg/L	0.04495	0.1717	ppb	0.04495	26.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7242934.2	496850	µg/L	2727.3	496850	ppb	2727.3	0.55%
QC value within limits for Ca 317.933Radial Recovery = 99.37%								
Cd 226.502†	2863.1	-2.5351	µg/L	0.11882	-2.5351	ppb	0.11882	4.69%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	293.4	-6.5387	µg/L	0.16673	-6.5387	ppb	0.16673	2.55%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -34.0      0.4223 µg/L       0.24319      0.4223 ppb        0.24319  57.58%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -9733.0      3.4044 µg/L       0.33164      3.4044 ppb        0.33164   9.74%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2624722.6      194800 µg/L        1052.8      194800 ppb         1052.8   0.54%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.40%
K 766.490 Radial†        207.2     -167.19 µg/L        56.997     -167.19 ppb         56.997  34.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1072037.0      496450 µg/L        2630.0      496450 ppb         2630.0   0.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.29%
Mn 257.610†            18095.0      2.5259 µg/L       0.07110      2.5259 ppb        0.07110   2.81%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -584.2     -1.4027 µg/L       0.28133     -1.4027 ppb        0.28133  20.06%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       752.0      111.44 µg/L        13.724      111.44 ppb         13.724  12.31%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              221.6      2.5994 µg/L       0.01747      2.5994 ppb        0.01747   0.67%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               156.0      15.863 µg/L        5.5808      15.863 ppb         5.5808  35.18%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -486.3     -2.6098 µg/L       0.41122     -2.6098 ppb        0.41122  15.76%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -133.2     -118.90 µg/L        19.063     -118.90 ppb         19.063  16.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               52.8      0.2426 µg/L       0.74696      0.2426 ppb        0.74696 307.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -198.7       -6.25 µg/L         0.624       -6.25 ppb          0.624   9.99%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    109.9      11.359 µg/L        1.4593      11.359 ppb         1.4593  12.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -77.0     -0.9037 µg/L       0.79216     -0.9037 ppb        0.79216  87.65%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               44.1      2.9744 µg/L       0.48867      2.9744 ppb        0.48867  16.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             5278.1      8.3087 µg/L       0.24327      8.3087 ppb        0.24327   2.93%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            25055.0     -2.8748 µg/L       0.05556     -2.8748 ppb        0.05556   1.93%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -74.1     -9.1738 µg/L       2.29669     -9.1738 ppb        2.29669  25.04%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               193.5     -10.199 µg/L        5.2696     -10.199 ppb         5.2696  51.67%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              4644.1      1.6666 µg/L       0.58074      1.6666 ppb        0.58074  34.85%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             4425.3      7.8071 µg/L       0.15085      7.8071 ppb        0.15085   1.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 4/7/2010 13:07:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120215.6	120215.6	93.6	%			13:07:36
1	Al 396.153Radial†	2239458.0	2393934.9	507260	µg/L	507260	ppb	13:07:34
1	Ca 317.933Radial†	6588218.8	7041912.9	483060	µg/L	483060	ppb	13:07:34
1	Fe 238.204 Radial†	2413601.0	2579876.5	191480	µg/L	191480	ppb	13:07:34
1	K 766.490 Radial†	15549.3	15056.4	5509.6	µg/L	5509.6	ppb	13:07:36
1	Mg 279.077 IEC†	990657.5	1058791.6	490330	µg/L	490330	ppb	13:07:36
1	Na 589.592 Radial†	35109.8	36599.8	5422.1	µg/L	5422.1	ppb	13:07:36
1	Sr 421.552†	208016.8	222463.4	510.33	µg/L	510.33	ppb	13:07:36
1	Sc 361.383	1530444.1	1530444.1	88.932	%			13:08:04
1	Y 371.029	873398.8	873398.8	87.694	%			13:08:04
1	Ag 328.068†	67009.7	70749.1	267.33	µg/L	267.33	ppb	13:08:04
1	As 188.979†	1292.1	1461.6	528.76	µg/L	528.76	ppb	13:08:06
1	B 249.677†	35821.6	36284.4	519.39	µg/L	519.39	ppb	13:08:04
1	Ba 233.527†	104559.1	117712.3	496.03	µg/L	496.03	ppb	13:08:04
1	Be 313.107†	790756.8	890183.0	243.38	µg/L	243.38	ppb	13:08:04
1	Cd 226.502†	69782.8	78555.7	472.57	µg/L	472.57	ppb	13:08:04
1	Co 228.616†	32931.4	37225.6	449.92	µg/L	449.92	ppb	13:08:06
1	Cr 267.716†	53460.0	59851.3	489.63	µg/L	489.63	ppb	13:08:06
1	Cu 324.752†	114121.0	125137.5	535.46	µg/L	535.46	ppb	13:08:04
1	Mn 257.610†	355857.6	399972.9	482.51	µg/L	482.51	ppb	13:08:04
1	Mo 202.031†	13794.1	15531.1	500.08	µg/L	500.08	ppb	13:08:06
1	Ni 231.604†	35112.6	39573.8	464.28	µg/L	464.28	ppb	13:08:06
1	P 214.914†	10908.8	12272.2	2628.8	µg/L	2628.8	ppb	13:08:06
1	Pb 220.353†	6893.8	7638.5	470.44	µg/L	470.44	ppb	13:08:06
1	S 181.975 Axial†	3206.2	3279.2	2928.0	µg/L	2928.0	ppb	13:08:06
1	Sb 206.836†	3860.5	4260.6	509.90	µg/L	509.90	ppb	13:08:06
1	Se 196.026†	5749.8	6444.9	2460	µg/L	2460	ppb	13:08:06
1	SiO2†	100016.1	110674.4	10936	µg/L	10936	ppb	13:08:04
1	Si 251.611†	311761.9	349906.3	5115.6	µg/L	5115.6	ppb	13:08:04
1	Sn 189.927†	6681.1	7506.8	493.86	µg/L	493.86	ppb	13:08:06
1	Ti 334.940†	479603.1	538522.1	501.55	µg/L	501.55	ppb	13:08:04
1	Tl 190.801†	3001.3	3490.9	462.02	µg/L	462.02	ppb	13:08:06
1	U 409.014†	7063.8	8234.3	491.94	µg/L	491.94	ppb	13:08:04
1	V 292.402†	97042.0	108746.6	511.79	µg/L	511.79	ppb	13:08:04
1	Zn 213.857†	82289.9	91930.8	490.65	µg/L	490.65	ppb	13:08:04
2	Sc RADIAL	119725.2	119725.2	93.2	%			13:07:41
2	Al 396.153Radial†	2264154.3	2430248.8	514960	µg/L	514960	ppb	13:07:39
2	Ca 317.933Radial†	6706063.1	7197248.1	493720	µg/L	493720	ppb	13:07:39
2	Fe 238.204 Radial†	2458900.6	2639066.9	195870	µg/L	195870	ppb	13:07:39
2	K 766.490 Radial†	15394.6	14958.4	5468.5	µg/L	5468.5	ppb	13:07:41
2	Mg 279.077 IEC†	982845.6	1054745.3	488450	µg/L	488450	ppb	13:07:41
2	Na 589.592 Radial†	34831.2	36454.5	5400.6	µg/L	5400.6	ppb	13:07:41
2	Sr 421.552†	206620.8	221875.9	508.89	µg/L	508.89	ppb	13:07:41
2	Sc 361.383	1535664.7	1535664.7	89.235	%			13:08:09
2	Y 371.029	876446.5	876446.5	88.000	%			13:08:09
2	Ag 328.068†	67238.0	70748.8	267.04	µg/L	267.04	ppb	13:08:09
2	As 188.979†	1325.0	1493.4	540.24	µg/L	540.24	ppb	13:08:11
2	B 249.677†	35953.9	36295.7	519.54	µg/L	519.54	ppb	13:08:09
2	Ba 233.527†	105267.7	118106.6	497.64	µg/L	497.64	ppb	13:08:09
2	Be 313.107†	796460.2	893551.5	244.31	µg/L	244.31	ppb	13:08:09
2	Cd 226.502†	70365.0	78941.4	474.52	µg/L	474.52	ppb	13:08:09
2	Co 228.616†	33289.7	37501.2	453.09	µg/L	453.09	ppb	13:08:11
2	Cr 267.716†	53875.6	60112.7	491.93	µg/L	491.93	ppb	13:08:11
2	Cu 324.752†	115117.6	125818.1	538.75	µg/L	538.75	ppb	13:08:09
2	Mn 257.610†	358430.7	401496.1	484.49	µg/L	484.49	ppb	13:08:09
2	Mo 202.031†	13946.5	15649.2	503.90	µg/L	503.90	ppb	13:08:11
2	Ni 231.604†	35509.5	39884.3	467.92	µg/L	467.92	ppb	13:08:11
2	P 214.914†	10884.0	12202.6	2612.5	µg/L	2612.5	ppb	13:08:11
2	Pb 220.353†	6917.4	7638.6	470.77	µg/L	470.77	ppb	13:08:11

2	S 181.975 Axial†	3187.0	3245.5	2898.0 µg/L	2898.0 ppb	13:08:11
2	Sb 206.836†	3874.9	4262.0	509.99 µg/L	509.99 ppb	13:08:11
2	Se 196.026†	5871.9	6559.7	2510 µg/L	2510 ppb	13:08:11
2	SiO2†	100480.1	110812.1	10949 µg/L	10949 ppb	13:08:09
2	Si 251.611†	313604.6	350779.5	5128.3 µg/L	5128.3 ppb	13:08:09
2	Sn 189.927†	6768.5	7579.2	498.61 µg/L	498.61 ppb	13:08:11
2	Ti 334.940†	481242.5	538525.9	501.97 µg/L	501.97 ppb	13:08:09
2	Tl 190.801†	3114.3	3606.0	476.96 µg/L	476.96 ppb	13:08:11
2	U 409.014†	7407.8	8592.7	512.34 µg/L	512.34 ppb	13:08:09
2	V 292.402†	97243.6	108601.6	510.68 µg/L	510.68 ppb	13:08:09
2	Zn 213.857†	83175.8	92609.0	493.95 µg/L	493.95 ppb	13:08:09
3	Sc RADIAL	120508.9	120508.9	93.8 %		13:07:45
3	Al 396.153Radial†	2242803.9	2391677.4	506790 µg/L	506790 ppb	13:07:43
3	Ca 317.933Radial†	6603032.5	7040571.8	482970 µg/L	482970 ppb	13:07:43
3	Fe 238.204 Radial†	2421570.6	2582096.5	191640 µg/L	191640 ppb	13:07:43
3	K 766.490 Radial†	15696.0	15172.4	5554.0 µg/L	5554.0 ppb	13:07:45
3	Mg 279.077 IEC†	994183.4	1059974.6	490880 µg/L	490880 ppb	13:07:45
3	Na 589.592 Radial†	35145.1	36546.1	5414.1 µg/L	5414.1 ppb	13:07:45
3	Sr 421.552†	208074.2	221983.5	509.22 µg/L	509.22 ppb	13:07:45
3	Sc 361.383	1556427.3	1556427.3	90.442 %		13:08:14
3	Y 371.029	887696.2	887696.2	89.130 %		13:08:14
3	Ag 328.068†	68312.3	70931.5	268.08 µg/L	268.08 ppb	13:08:14
3	As 188.979†	1294.2	1439.6	521.43 µg/L	521.43 ppb	13:08:16
3	B 249.677†	36406.1	36258.1	519.05 µg/L	519.05 ppb	13:08:14
3	Ba 233.527†	106624.7	118033.4	497.38 µg/L	497.38 ppb	13:08:14
3	Be 313.107†	807945.7	894344.4	244.53 µg/L	244.53 ppb	13:08:14
3	Cd 226.502†	71640.8	79300.2	477.21 µg/L	477.21 ppb	13:08:14
3	Co 228.616†	32708.1	36360.5	439.24 µg/L	439.24 ppb	13:08:16
3	Cr 267.716†	52899.7	58228.3	476.34 µg/L	476.34 ppb	13:08:16
3	Cu 324.752†	116431.1	125549.4	537.13 µg/L	537.13 ppb	13:08:14
3	Mn 257.610†	363568.0	401818.0	484.81 µg/L	484.81 ppb	13:08:14
3	Mo 202.031†	13725.7	15196.5	489.69 µg/L	489.69 ppb	13:08:16
3	Ni 231.604†	34738.2	38500.7	451.69 µg/L	451.69 ppb	13:08:16
3	P 214.914†	10795.4	11941.9	2557.2 µg/L	2557.2 ppb	13:08:16
3	Pb 220.353†	6979.0	7603.3	468.31 µg/L	468.31 ppb	13:08:16
3	S 181.975 Axial†	3167.8	3176.5	2836.4 µg/L	2836.4 ppb	13:08:16
3	Sb 206.836†	3774.4	4093.0	489.70 µg/L	489.70 ppb	13:08:16
3	Se 196.026†	5703.5	6285.7	2400 µg/L	2400 ppb	13:08:16
3	SiO2†	102071.1	111069.1	10975 µg/L	10975 ppb	13:08:14
3	Si 251.611†	318591.8	351605.6	5140.7 µg/L	5140.7 ppb	13:08:14
3	Sn 189.927†	6635.5	7330.9	482.34 µg/L	482.34 ppb	13:08:16
3	Ti 334.940†	489408.1	540360.4	503.30 µg/L	503.30 ppb	13:08:14
3	Tl 190.801†	2989.7	3421.7	453.10 µg/L	453.10 ppb	13:08:16
3	U 409.014†	7599.9	8694.4	518.92 µg/L	518.92 ppb	13:08:14
3	V 292.402†	98916.4	108997.5	512.83 µg/L	512.83 ppb	13:08:14
3	Zn 213.857†	84400.7	92720.0	495.09 µg/L	495.09 ppb	13:08:14

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1540845.4	89.536	%	0.7987				0.89%
Sc RADIAL	120149.9	93.5	%	0.31				0.33%
Y 371.029	879180.5	88.275	%	0.7561				0.86%
Ag 328.068†	70809.8	267.48	µg/L	0.537	267.48	ppb	0.537	0.20%
QC value within limits for Ag 328.068 Recovery = 106.99%								
Al 396.153Radial†	2405287.0	509670	µg/L	4586.9	509670	ppb	4586.9	0.90%
QC value within limits for Al 396.153Radial Recovery = 101.93%								
As 188.979†	1464.9	530.14	µg/L	9.476	530.14	ppb	9.476	1.79%
QC value within limits for As 188.979 Recovery = 106.03%								
B 249.677†	36279.4	519.33	µg/L	0.251	519.33	ppb	0.251	0.05%
QC value within limits for B 249.677 Recovery = 103.87%								
Ba 233.527†	117950.8	497.02	µg/L	0.866	497.02	ppb	0.866	0.17%
QC value within limits for Ba 233.527 Recovery = 99.40%								
Be 313.107†	892693.0	244.07	µg/L	0.608	244.07	ppb	0.608	0.25%
QC value within limits for Be 313.107 Recovery = 97.63%								
Ca 317.933Radial†	7093244.3	486580	µg/L	6178.8	486580	ppb	6178.8	1.27%
QC value within limits for Ca 317.933Radial Recovery = 97.32%								
Cd 226.502†	78932.5	474.77	µg/L	2.331	474.77	ppb	2.331	0.49%
QC value within limits for Cd 226.502 Recovery = 94.95%								
Co 228.616†	37029.1	447.42	µg/L	7.260	447.42	ppb	7.260	1.62%

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   QC value within limits for Co 228.616  Recovery = 89.48%
Cr 267.716†            59397.4      485.97 µg/L        8.413      485.97 ppb         8.413   1.73%
   QC value within limits for Cr 267.716  Recovery = 97.19%
Cu 324.752†           125501.7      537.11 µg/L        1.647      537.11 ppb         1.647   0.31%
   QC value within limits for Cu 324.752  Recovery = 107.42%
Fe 238.204 Radial†   2600346.6      192990 µg/L       2490.1      192990 ppb        2490.1   1.29%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.50%
K 766.490 Radial†      15062.4      5510.7 µg/L        42.72      5510.7 ppb         42.72   0.78%
   QC value within limits for K 766.490 Radial  Recovery = 110.21%
Mg 279.077 IEC†      1057837.1      489890 µg/L       1272.2      489890 ppb        1272.2   0.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.98%
Mn 257.610†           401095.7      483.94 µg/L        1.244      483.94 ppb         1.244   0.26%
   QC value within limits for Mn 257.610  Recovery = 96.79%
Mo 202.031†            15458.9      497.89 µg/L        7.355      497.89 ppb         7.355   1.48%
   QC value within limits for Mo 202.031  Recovery = 99.58%
Na 589.592 Radial†     36533.5      5412.3 µg/L        10.87      5412.3 ppb         10.87   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 108.25%
Ni 231.604†            39319.6      461.29 µg/L        8.517      461.29 ppb         8.517   1.85%
   QC value within limits for Ni 231.604  Recovery = 92.26%
P 214.914†             12138.9      2599.5 µg/L        37.53      2599.5 ppb         37.53   1.44%
   QC value within limits for P 214.914  Recovery = 103.98%
Pb 220.353†             7626.8      469.84 µg/L        1.336      469.84 ppb         1.336   0.28%
   QC value within limits for Pb 220.353  Recovery = 93.97%
S 181.975 Axial†        3233.7      2887.5 µg/L        46.71      2887.5 ppb         46.71   1.62%
   QC value within limits for S 181.975 Axial  Recovery = 115.50%
Sb 206.836†             4205.2      503.20 µg/L       11.690      503.20 ppb        11.690   2.32%
   QC value within limits for Sb 206.836  Recovery = 100.64%
Se 196.026†             6430.1        2460 µg/L         51.8        2460 ppb          51.8   2.11%
   QC value within limits for Se 196.026  Recovery = 98.27%
SiO2†                 110851.9       10953 µg/L         20.1       10953 ppb          20.1   0.18%
   QC value within limits for SiO2  Recovery = 102.42%
Si 251.611†           350763.8      5128.2 µg/L        12.55      5128.2 ppb         12.55   0.24%
   QC value within limits for Si 251.611  Recovery = 102.56%
Sn 189.927†             7472.3      491.61 µg/L        8.366      491.61 ppb         8.366   1.70%
   QC value within limits for Sn 189.927  Recovery = 98.32%
Sr 421.552†           222107.6      509.48 µg/L        0.755      509.48 ppb         0.755   0.15%
   QC value within limits for Sr 421.552  Recovery = 101.90%
Ti 334.940†           539136.2      502.28 µg/L        0.915      502.28 ppb         0.915   0.18%
   QC value within limits for Ti 334.940  Recovery = 100.46%
Tl 190.801†             3506.2      464.02 µg/L       12.055      464.02 ppb        12.055   2.60%
   QC value within limits for Tl 190.801  Recovery = 92.80%
U 409.014†              8507.1      507.73 µg/L       14.069      507.73 ppb        14.069   2.77%
   QC value within limits for U 409.014  Recovery = 101.55%
V 292.402†            108781.9      511.77 µg/L        1.074      511.77 ppb         1.074   0.21%
   QC value within limits for V 292.402  Recovery = 102.35%
Zn 213.857†            92419.9      493.23 µg/L        2.306      493.23 ppb         2.306   0.47%
   QC value within limits for Zn 213.857  Recovery = 98.65%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 4/7/2010 13:08:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	117489.3	117489.3	91.4	%			13:08:56
1	Al 396.153Radial†	2204243.6	2410968.9	510900	µg/L	510900	ppb	13:08:54
1	Ca 317.933Radial†	6564397.8	7179279.4	492480	µg/L	492480	ppb	13:08:54
1	Fe 238.204 Radial†	5760144.2	6300015.2	467580	µg/L	467580	ppb	13:08:54
1	K 766.490 Radial†	1979.0	599.6	-99.829	µg/L	-99.829	ppb	13:08:56
1	Mg 279.077 IEC†	973622.9	1064733.4	492840	µg/L	492840	ppb	13:08:54
1	Na 589.592 Radial†	3203770.2	3503181.4	519470	µg/L	519470	ppb	13:08:54
1	Sr 421.552†	4944.5	5513.6	8.8872	µg/L	8.8872	ppb	13:08:56
1	Sc 361.383	1495530.6	1495530.6	86.903	%			13:09:09
1	Y 371.029	851410.8	851410.8	85.487	%			13:09:09
1	Ag 328.068†	3355.1	-739.7	1.6847	µg/L	1.6847	ppb	13:09:09
1	As 188.979†	-240.6	-268.2	16.801	µg/L	16.801	ppb	13:09:11
1	B 249.677†	4925.7	1672.5	23.977	µg/L	23.977	ppb	13:09:09
1	Ba 233.527†	810.9	1073.1	-1.4341	µg/L	-1.4341	ppb	13:09:11
1	Be 313.107†	-15564.3	-16899.7	0.2011	µg/L	0.2011	ppb	13:09:09
1	Cd 226.502†	6136.4	7149.1	-4.3498	µg/L	-4.3498	ppb	13:09:11
1	Co 228.616†	602.3	888.7	-13.421	µg/L	-13.421	ppb	13:09:11
1	Cr 267.716†	636.8	470.5	1.5174	µg/L	1.5174	ppb	13:09:11
1	Cu 324.752†	-16910.6	-22645.9	5.2655	µg/L	5.2655	ppb	13:09:09
1	Mn 257.610†	18055.8	20603.0	5.0985	µg/L	5.0985	ppb	13:09:09
1	Mo 202.031†	-904.6	-1020.7	-4.2540	µg/L	-4.2540	ppb	13:09:11
1	Ni 231.604†	208.9	331.6	3.8897	µg/L	3.8897	ppb	13:09:11
1	P 214.914†	915.5	1059.1	25.467	µg/L	25.467	ppb	13:09:11
1	Pb 220.353†	46.6	-59.6	1.2067	µg/L	1.2067	ppb	13:09:11
1	S 181.975 Axial†	219.5	-73.5	-65.796	µg/L	-65.796	ppb	13:09:11
1	Sb 206.836†	130.2	69.5	-1.3488	µg/L	-1.3488	ppb	13:09:11
1	Se 196.026†	-328.8	-398.8	29.4	µg/L	29.4	ppb	13:09:11
1	SiO2†	1829.8	316.1	32.117	µg/L	32.117	ppb	13:09:11
1	Si 251.611†	-2098.6	-3071.6	-44.604	µg/L	-44.604	ppb	13:09:11
1	Sn 189.927†	75.9	81.5	5.4308	µg/L	5.4308	ppb	13:09:11
1	Ti 334.940†	24393.5	27298.6	-7.0296	µg/L	-7.0296	ppb	13:09:09
1	Tl 190.801†	-166.6	-75.7	-9.2255	µg/L	-9.2255	ppb	13:09:11
1	U 409.014†	236502.1	272436.3	15859	µg/L	15859	ppb	13:09:09
1	V 292.402†	8534.4	9447.6	6.6653	µg/L	6.6653	ppb	13:09:11
1	Zn 213.857†	8761.5	9481.2	7.0576	µg/L	7.0576	ppb	13:09:11
2	Sc RADIAL	119794.0	119794.0	93.2	%			13:09:01
2	Al 396.153Radial†	2223432.4	2385170.5	505430	µg/L	505430	ppb	13:08:59
2	Ca 317.933Radial†	6578344.4	7056109.9	484030	µg/L	484030	ppb	13:08:59
2	Fe 238.204 Radial†	5764771.7	6183772.4	458950	µg/L	458950	ppb	13:08:59
2	K 766.490 Radial†	1895.8	468.8	-144.65	µg/L	-144.65	ppb	13:09:01
2	Mg 279.077 IEC†	973303.1	1043903.1	483190	µg/L	483190	ppb	13:08:59
2	Na 589.592 Radial†	3205123.8	3437218.7	509690	µg/L	509690	ppb	13:08:59
2	Sr 421.552†	4892.9	5354.3	8.5851	µg/L	8.5851	ppb	13:09:01
2	Sc 361.383	1508171.2	1508171.2	87.638	%			13:09:14
2	Y 371.029	858298.1	858298.1	86.178	%			13:09:14
2	Ag 328.068†	3406.8	-713.0	2.0690	µg/L	2.0690	ppb	13:09:14
2	As 188.979†	-293.5	-326.2	-4.1807	µg/L	-4.1807	ppb	13:09:16
2	B 249.677†	4724.4	1395.3	19.993	µg/L	19.993	ppb	13:09:14
2	Ba 233.527†	620.6	848.1	-2.2743	µg/L	-2.2743	ppb	13:09:16
2	Be 313.107†	-15630.5	-16825.1	0.2244	µg/L	0.2244	ppb	13:09:14
2	Cd 226.502†	6242.5	7211.0	-3.0546	µg/L	-3.0546	ppb	13:09:16
2	Co 228.616†	670.0	960.1	-12.090	µg/L	-12.090	ppb	13:09:16
2	Cr 267.716†	522.7	334.2	0.2142	µg/L	0.2142	ppb	13:09:16
2	Cu 324.752†	-17008.2	-22594.1	3.9613	µg/L	3.9613	ppb	13:09:14
2	Mn 257.610†	18430.6	20856.5	5.8223	µg/L	5.8223	ppb	13:09:14
2	Mo 202.031†	-812.1	-906.4	-1.2147	µg/L	-1.2147	ppb	13:09:16
2	Ni 231.604†	264.0	392.4	4.6035	µg/L	4.6035	ppb	13:09:16
2	P 214.914†	1016.7	1165.7	53.160	µg/L	53.160	ppb	13:09:16
2	Pb 220.353†	2.6	-110.2	-1.7873	µg/L	-1.7873	ppb	13:09:16

2	S 181.975 Axial†	157.5	-146.3	-130.71	µg/L	-130.71 ppb	13:09:16
2	Sb 206.836†	214.2	164.1	10.302	µg/L	10.302 ppb	13:09:16
2	Se 196.026†	-370.8	-443.7	9.78	µg/L	9.78 ppb	13:09:16
2	SiO2†	2013.3	507.8	50.951	µg/L	50.951 ppb	13:09:16
2	Si 251.611†	-1854.0	-2772.3	-40.288	µg/L	-40.288 ppb	13:09:16
2	Sn 189.927†	119.4	130.3	8.6412	µg/L	8.6412 ppb	13:09:16
2	Ti 334.940†	26702.7	29698.2	-4.1092	µg/L	-4.1092 ppb	13:09:14
2	Tl 190.801†	-239.1	-156.8	-19.745	µg/L	-19.745 ppb	13:09:16
2	U 409.014†	238647.0	272602.8	15870	µg/L	15870 ppb	13:09:14
2	V 292.402†	8569.9	9405.8	7.4102	µg/L	7.4102 ppb	13:09:16
2	Zn 213.857†	8896.7	9550.9	8.3432	µg/L	8.3432 ppb	13:09:16
3	Sc RADIAL	119198.7	119198.7	92.8	%		13:09:05
3	Al 396.153Radial†	2185064.1	2355718.5	499190	µg/L	499190 ppb	13:09:03
3	Ca 317.933Radial†	6475644.1	6980634.3	478860	µg/L	478860 ppb	13:09:03
3	Fe 238.204 Radial†	5678665.7	6121827.9	454350	µg/L	454350 ppb	13:09:03
3	K 766.490 Radial†	2202.1	809.1	-11.222	µg/L	-11.222 ppb	13:09:05
3	Mg 279.077 IEC†	957986.7	1032605.3	477960	µg/L	477960 ppb	13:09:03
3	Na 589.592 Radial†	3163319.4	3409321.5	505560	µg/L	505560 ppb	13:09:03
3	Sr 421.552†	4648.6	5117.2	8.0775	µg/L	8.0775 ppb	13:09:05
3	Sc 361.383	1505014.3	1505014.3	87.454	%		13:09:19
3	Y 371.029	856854.0	856854.0	86.033	%		13:09:19
3	Ag 328.068†	3175.4	-969.5	1.2576	µg/L	1.2576 ppb	13:09:19
3	As 188.979†	-248.4	-275.4	11.438	µg/L	11.438 ppb	13:09:21
3	B 249.677†	4677.7	1353.2	19.386	µg/L	19.386 ppb	13:09:19
3	Ba 233.527†	697.0	937.0	-1.8410	µg/L	-1.8410 ppb	13:09:21
3	Be 313.107†	-15538.2	-16756.9	0.2499	µg/L	0.2499 ppb	13:09:19
3	Cd 226.502†	6306.0	7298.6	-2.0218	µg/L	-2.0218 ppb	13:09:21
3	Co 228.616†	721.2	1020.2	-11.109	µg/L	-11.109 ppb	13:09:21
3	Cr 267.716†	271.5	48.2	-2.2375	µg/L	-2.2375 ppb	13:09:21
3	Cu 324.752†	-16882.6	-22491.3	3.5751	µg/L	3.5751 ppb	13:09:19
3	Mn 257.610†	18420.9	20889.5	6.0834	µg/L	6.0834 ppb	13:09:19
3	Mo 202.031†	-902.6	-1011.8	-4.7729	µg/L	-4.7729 ppb	13:09:21
3	Ni 231.604†	282.7	414.3	4.8611	µg/L	4.8611 ppb	13:09:21
3	P 214.914†	1075.6	1235.5	70.018	µg/L	70.018 ppb	13:09:21
3	Pb 220.353†	6.3	-106.0	-1.8048	µg/L	-1.8048 ppb	13:09:21
3	S 181.975 Axial†	159.4	-143.8	-128.50	µg/L	-128.50 ppb	13:09:21
3	Sb 206.836†	148.9	89.9	1.4230	µg/L	1.4230 ppb	13:09:21
3	Se 196.026†	-423.5	-504.8	-14.5	µg/L	-14.5 ppb	13:09:21
3	SiO2†	1721.8	179.3	18.533	µg/L	18.533 ppb	13:09:21
3	Si 251.611†	-2067.2	-3020.6	-43.876	µg/L	-43.876 ppb	13:09:21
3	Sn 189.927†	108.9	118.7	7.8819	µg/L	7.8819 ppb	13:09:21
3	Ti 334.940†	27771.0	30983.7	-2.5630	µg/L	-2.5630 ppb	13:09:19
3	Tl 190.801†	-174.8	-83.8	-10.259	µg/L	-10.259 ppb	13:09:21
3	U 409.014†	238487.0	272991.0	15894	µg/L	15894 ppb	13:09:19
3	V 292.402†	8443.5	9281.7	7.2663	µg/L	7.2663 ppb	13:09:21
3	Zn 213.857†	8970.1	9656.2	9.3575	µg/L	9.3575 ppb	13:09:21

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1502905.4	87.332	%	0.3823				0.44%
Sc RADIAL	118827.3	92.5	%	0.93				1.01%
Y 371.029	855521.0	85.899	%	0.3647				0.42%
Ag 328.068†	-807.4	1.6704	µg/L	0.40592	1.6704	ppb	0.40592	24.30%
Al 396.153Radial†	2383952.7	505170	µg/L	5858.2	505170	ppb	5858.2	1.16%
QC value within limits for Al 396.153Radial Recovery = 101.03%								
As 188.979†	-290.0	8.0194	µg/L	10.90055	8.0194	ppb	10.90055	135.93%
B 249.677†	1473.7	21.119	µg/L	2.4940	21.119	ppb	2.4940	11.81%
Ba 233.527†	952.7	-1.8498	µg/L	0.42015	-1.8498	ppb	0.42015	22.71%
Be 313.107†	-16827.3	0.2252	µg/L	0.02442	0.2252	ppb	0.02442	10.84%
Ca 317.933Radial†	7072007.9	485130	µg/L	6878.5	485130	ppb	6878.5	1.42%
QC value within limits for Ca 317.933Radial Recovery = 97.03%								
Cd 226.502†	7219.6	-3.1421	µg/L	1.16645	-3.1421	ppb	1.16645	37.12%
Co 228.616†	956.3	-12.206	µg/L	1.1605	-12.206	ppb	1.1605	9.51%
Cr 267.716†	284.3	-0.1686	µg/L	1.90651	-0.1686	ppb	1.90651	>999.9%
Cu 324.752†	-22577.1	4.2673	µg/L	0.88577	4.2673	ppb	0.88577	20.76%
Fe 238.204 Radial†	6201871.8	460290	µg/L	6714.0	460290	ppb	6714.0	1.46%
QC value within limits for Fe 238.204 Radial Recovery = 92.06%								
K 766.490 Radial†	625.9	-85.235	µg/L	67.9025	-85.235	ppb	67.9025	79.67%
Mg 279.077 IEC†	1047080.6	484660	µg/L	7544.3	484660	ppb	7544.3	1.56%

QC value within limits for Mg 279.077 IEC Recovery = 96.93%

Mn 257.610†	20783.0	5.6681 µg/L	0.51022	5.6681 ppb	0.51022	9.00%
Mo 202.031†	-979.6	-3.4139 µg/L	1.92216	-3.4139 ppb	1.92216	56.30%
Na 589.592 Radial†	3449907.2	511570 µg/L	7147.3	511570 ppb	7147.3	1.40%

QC value within limits for Na 589.592 Radial Recovery = 102.31%

Ni 231.604†	379.4	4.4514 µg/L	0.50321	4.4514 ppb	0.50321	11.30%
P 214.914†	1153.5	49.548 µg/L	22.4942	49.548 ppb	22.4942	45.40%
Pb 220.353†	-92.0	-0.7952 µg/L	1.73366	-0.7952 ppb	1.73366	218.02%
S 181.975 Axial†	-121.2	-108.33 µg/L	36.855	-108.33 ppb	36.855	34.02%
Sb 206.836†	107.8	3.4586 µg/L	6.08606	3.4586 ppb	6.08606	175.97%
Se 196.026†	-449.1	8.23 µg/L	22.002	8.23 ppb	22.002	267.24%
SiO2†	334.4	33.867 µg/L	16.2798	33.867 ppb	16.2798	48.07%
Si 251.611†	-2954.9	-42.923 µg/L	2.3102	-42.923 ppb	2.3102	5.38%
Sn 189.927†	110.2	7.3180 µg/L	1.67786	7.3180 ppb	1.67786	22.93%
Sr 421.552†	5328.4	8.5166 µg/L	0.40913	8.5166 ppb	0.40913	4.80%
Ti 334.940†	29326.9	-4.5673 µg/L	2.26825	-4.5673 ppb	2.26825	49.66%
Tl 190.801†	-105.4	-13.077 µg/L	5.7980	-13.077 ppb	5.7980	44.34%
U 409.014†	272676.7	15874 µg/L	17.8	15874 ppb	17.8	0.11%

QC value within limits for U 409.014 Recovery = 105.83%

V 292.402†	9378.4	7.1139 µg/L	0.39512	7.1139 ppb	0.39512	5.55%
Zn 213.857†	9562.8	8.2528 µg/L	1.15260	8.2528 ppb	1.15260	13.97%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 4/7/2010 13:09:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128076.8	128076.8	99.7	%			13:10:03
1	Al 396.153Radial†	2942.7	3038.1	191.07	µg/L	191.07	ppb	13:10:05
1	Ca 317.933Radial†	3341.9	2846.5	195.27	µg/L	195.27	ppb	13:10:05
1	Fe 238.204 Radial†	776.3	657.5	48.801	µg/L	48.801	ppb	13:10:05
1	K 766.490 Radial†	776314.7	777336.1	296970	µg/L	296970	ppb	13:10:03
1	Mg 279.077 IEC†	-73.9	-237.2	128.53	µg/L	128.53	ppb	13:10:05
1	Na 589.592 Radial†	3504.2	2585.4	119.27	µg/L	119.27	ppb	13:10:05
1	Sr 421.552†	4212524.2	4226663.8	9767.7	µg/L	9767.7	ppb	13:10:01
1	Sc 361.383	1672860.1	1672860.1	97.207	%			13:10:41
1	Y 371.029	944279.1	944279.1	94.811	%			13:10:41
1	Ag 328.068†	-24458.3	-29761.4	2.4646	µg/L	2.4646	ppb	13:10:43
1	As 188.979†	29970.5	30840.2	10378	µg/L	10378	ppb	13:10:43
1	B 249.677†	339369.7	345123.9	4922.8	µg/L	4922.8	ppb	13:10:41
1	Ba 233.527†	3085881.9	3174676.1	13440	µg/L	13440	ppb	13:10:41
1	Be 313.107†	10269395.2	10565434.7	2886.8	µg/L	2886.8	ppb	13:10:37
1	Cd 226.502†	1495086.0	1538126.2	9647.4	µg/L	9647.4	ppb	13:10:41
1	Co 228.616†	739365.6	760802.4	9405.2	µg/L	9405.2	ppb	13:10:41
1	Cr 267.716†	2839216.2	2920521.8	23875	µg/L	23875	ppb	13:10:41
1	Cu 324.752†	4929271.5	5067697.6	19996	µg/L	19996	ppb	13:10:41
1	Mn 257.610†	7249115.7	7457201.4	9368.1	µg/L	9368.1	ppb	13:10:41
1	Mo 202.031†	304430.2	313196.4	9751.0	µg/L	9751.0	ppb	13:10:43
1	Ni 231.604†	806431.6	829690.7	9733.9	µg/L	9733.9	ppb	13:10:41
1	P 214.914†	68804.8	70787.2	15068	µg/L	15068	ppb	13:10:43
1	Pb 220.353†	395233.1	406474.4	23642	µg/L	23642	ppb	13:10:41
1	S 181.975 Axial†	64173.7	65691.3	58657	µg/L	58657	ppb	13:10:43
1	Sb 206.836†	80714.7	82953.3	9830.9	µg/L	9830.9	ppb	13:10:43
1	Se 196.026†	25963.6	26689.0	9920	µg/L	9920	ppb	13:10:43
1	SiO2†	988902.1	1015522.8	100110	µg/L	100110	ppb	13:10:41
1	Si 251.611†	3111283.4	3200010.6	46677	µg/L	46677	ppb	13:10:41
1	Sn 189.927†	147065.5	151284.7	9950.7	µg/L	9950.7	ppb	13:10:43
1	Ti 334.940†	9923003.3	10207309.8	10024	µg/L	10024	ppb	13:10:37
1	Tl 190.801†	71165.3	73325.9	9684.0	µg/L	9684.0	ppb	13:10:43
1	U 409.014†	-8490.7	-8443.3	112.09	µg/L	112.09	ppb	13:10:43
1	V 292.402†	2006363.3	2063631.0	10157	µg/L	10157	ppb	13:10:41
1	Zn 213.857†	2514836.9	2586484.9	14281	µg/L	14281	ppb	13:10:41
2	Sc RADIAL	128751.2	128751.2	100	%			13:10:09
2	Al 396.153Radial†	2277.3	2358.6	49.708	µg/L	49.708	ppb	13:10:11
2	Ca 317.933Radial†	1461.7	952.4	65.332	µg/L	65.332	ppb	13:10:11
2	Fe 238.204 Radial†	-382.0	-502.7	-37.308	µg/L	-37.308	ppb	13:10:11
2	K 766.490 Radial†	784164.7	781091.0	298400	µg/L	298400	ppb	13:10:09
2	Mg 279.077 IEC†	-376.9	-539.3	-12.723	µg/L	-12.723	ppb	13:10:11
2	Na 589.592 Radial†	3040.8	2104.5	46.684	µg/L	46.684	ppb	13:10:11
2	Sr 421.552†	4187514.1	4179562.4	9658.9	µg/L	9658.9	ppb	13:10:07
2	Sc 361.383	1678933.3	1678933.3	97.560	%			13:10:51
2	Y 371.029	948060.2	948060.2	95.191	%			13:10:51
2	Ag 328.068†	-24421.6	-29632.8	2.9782	µg/L	2.9782	ppb	13:10:53
2	As 188.979†	29767.7	30520.7	10273	µg/L	10273	ppb	13:10:53
2	B 249.677†	341512.7	346057.7	4936.2	µg/L	4936.2	ppb	13:10:51
2	Ba 233.527†	3100706.9	3178388.7	13456	µg/L	13456	ppb	13:10:51
2	Be 313.107†	10304141.9	10562836.1	2886.1	µg/L	2886.1	ppb	13:10:47
2	Cd 226.502†	1503285.1	1540966.9	9665.3	µg/L	9665.3	ppb	13:10:51
2	Co 228.616†	743185.2	761966.3	9419.6	µg/L	9419.6	ppb	13:10:51
2	Cr 267.716†	2852413.3	2923483.6	23899	µg/L	23899	ppb	13:10:51
2	Cu 324.752†	4945342.9	5065828.3	19989	µg/L	19989	ppb	13:10:51
2	Mn 257.610†	7281276.1	7463190.8	9375.6	µg/L	9375.6	ppb	13:10:51
2	Mo 202.031†	303759.8	311376.5	9694.4	µg/L	9694.4	ppb	13:10:53
2	Ni 231.604†	811621.7	832009.7	9761.1	µg/L	9761.1	ppb	13:10:51
2	P 214.914†	68629.2	70351.1	14974	µg/L	14974	ppb	13:10:53
2	Pb 220.353†	397774.7	407608.9	23708	µg/L	23708	ppb	13:10:51

2	S 181.975 Axial†	63921.2	65193.7	58213 µg/L	58213 ppb	13:10:53
2	Sb 206.836†	80635.8	82572.0	9783.7 µg/L	9783.7 ppb	13:10:53
2	Se 196.026†	25789.6	26414.0	9810 µg/L	9810 ppb	13:10:53
2	SiO2†	995415.6	1018519.3	100410 µg/L	100410 ppb	13:10:51
2	Si 251.611†	3129887.7	3207502.5	46788 µg/L	46788 ppb	13:10:51
2	Sn 189.927†	147022.2	150693.0	9911.9 µg/L	9911.9 ppb	13:10:53
2	Ti 334.940†	9940883.5	10188711.9	10006 µg/L	10006 ppb	13:10:47
2	Tl 190.801†	71029.9	72922.2	9631.3 µg/L	9631.3 ppb	13:10:53
2	U 409.014†	-8669.7	-8595.2	103.35 µg/L	103.35 ppb	13:10:53
2	V 292.402†	2014062.5	2064056.7	10159 µg/L	10159 ppb	13:10:51
2	Zn 213.857†	2526872.5	2589463.3	14297 µg/L	14297 ppb	13:10:51
3	Sc RADIAL	128614.7	128614.7	100 %		13:10:16
3	Al 396.153Radial†	2270.8	2354.5	43.298 µg/L	43.298 ppb	13:10:18
3	Ca 317.933Radial†	1112.3	604.8	41.488 µg/L	41.488 ppb	13:10:18
3	Fe 238.204 Radial†	-619.2	-740.0	-54.924 µg/L	-54.924 ppb	13:10:18
3	K 766.490 Radial†	781816.2	779575.4	297820 µg/L	297820 ppb	13:10:16
3	Mg 279.077 IEC†	-375.9	-538.6	-9.4894 µg/L	-9.4894 ppb	13:10:18
3	Na 589.592 Radial†	2860.5	1927.5	20.952 µg/L	20.952 ppb	13:10:18
3	Sr 421.552†	4212106.7	4208570.4	9725.9 µg/L	9725.9 ppb	13:10:14
3	Sc 361.383	1674505.4	1674505.4	97.303 %		13:11:00
3	Y 371.029	944919.4	944919.4	94.875 %		13:11:00
3	Ag 328.068†	-24689.1	-29973.8	1.5712 µg/L	1.5712 ppb	13:11:02
3	As 188.979†	30158.6	31003.2	10432 µg/L	10432 ppb	13:11:02
3	B 249.677†	340239.1	345674.3	4930.7 µg/L	4930.7 ppb	13:11:00
3	Ba 233.527†	3088700.5	3174453.8	13439 µg/L	13439 ppb	13:11:00
3	Be 313.107†	10312246.4	10599093.7	2896.0 µg/L	2896.0 ppb	13:10:57
3	Cd 226.502†	1499051.7	1540690.7	9663.5 µg/L	9663.5 ppb	13:11:00
3	Co 228.616†	740211.9	760924.9	9406.7 µg/L	9406.7 ppb	13:11:00
3	Cr 267.716†	2842554.9	2921083.2	23880 µg/L	23880 ppb	13:11:00
3	Cu 324.752†	4926595.6	5059965.3	19966 µg/L	19966 ppb	13:11:00
3	Mn 257.610†	7254322.2	7455225.0	9365.6 µg/L	9365.6 ppb	13:11:00
3	Mo 202.031†	306689.2	315210.3	9813.7 µg/L	9813.7 ppb	13:11:02
3	Ni 231.604†	808675.1	831181.2	9751.3 µg/L	9751.3 ppb	13:11:00
3	P 214.914†	69339.0	71266.6	15172 µg/L	15172 ppb	13:11:02
3	Pb 220.353†	396497.1	407374.1	23695 µg/L	23695 ppb	13:11:00
3	S 181.975 Axial†	64567.2	66030.9	58960 µg/L	58960 ppb	13:11:02
3	Sb 206.836†	81394.9	83570.7	9906.4 µg/L	9906.4 ppb	13:11:02
3	Se 196.026†	26109.4	26812.6	9960 µg/L	9960 ppb	13:11:02
3	SiO2†	992430.1	1018149.0	100370 µg/L	100370 ppb	13:11:00
3	Si 251.611†	3121474.0	3207338.9	46783 µg/L	46783 ppb	13:11:00
3	Sn 189.927†	148159.4	152260.2	10015 µg/L	10015 ppb	13:11:02
3	Ti 334.940†	9958822.4	10234091.8	10050 µg/L	10050 ppb	13:10:57
3	Tl 190.801†	71488.7	73586.3	9718.0 µg/L	9718.0 ppb	13:11:02
3	U 409.014†	-8483.3	-8427.1	112.65 µg/L	112.65 ppb	13:11:02
3	V 292.402†	2007005.4	2062263.0	10151 µg/L	10151 ppb	13:11:00
3	Zn 213.857†	2517901.7	2587092.6	14284 µg/L	14284 ppb	13:11:00

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1675432.9	97.357	%	0.1825				0.19%
Sc RADIAL	128480.9	100.0	%	0.28				0.28%
Y 371.029	945752.9	94.959	%	0.2032				0.21%
Ag 328.068†	-29789.3	2.3380	µg/L	0.71199	2.3380	ppb	0.71199	30.45%
Al 396.153Radial†	2583.7	94.693	µg/L	83.5300	94.693	ppb	83.5300	88.21%
As 188.979†	30788.0	10361	µg/L	80.6	10361	ppb	80.6	0.78%
QC value within limits for As 188.979 Recovery = 103.61%								
B 249.677†	345618.6	4929.9	µg/L	6.72	4929.9	ppb	6.72	0.14%
QC value within limits for B 249.677 Recovery = 98.60%								
Ba 233.527†	3175839.5	13445	µg/L	9.3	13445	ppb	9.3	0.07%
QC value less than the lower limit for Ba 233.527 Recovery = 89.63%								
Be 313.107†	10575788.2	2889.6	µg/L	5.53	2889.6	ppb	5.53	0.19%
QC value within limits for Be 313.107 Recovery = 96.32%								
Ca 317.933Radial†	1467.9	100.70	µg/L	82.764	100.70	ppb	82.764	82.19%
Cd 226.502†	1539927.9	9658.7	µg/L	9.83	9658.7	ppb	9.83	0.10%
QC value within limits for Cd 226.502 Recovery = 96.59%								
Co 228.616†	761231.2	9410.5	µg/L	7.90	9410.5	ppb	7.90	0.08%
QC value within limits for Co 228.616 Recovery = 94.10%								
Cr 267.716†	2921696.2	23885	µg/L	12.9	23885	ppb	12.9	0.05%
QC value within limits for Cr 267.716 Recovery = 95.54%								

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Cu 324.752†          5064497.1       19984 µg/L          15.9       19984 ppb           15.9   0.08%
   QC value within limits for Cu 324.752  Recovery = 99.92%
Fe 238.204 Radial†      -195.1     -14.477 µg/L       55.5038     -14.477 ppb        55.5038 383.39%
K 766.490 Radial†     779334.2      297730 µg/L         721.7      297730 ppb          721.7   0.24%
   QC value within limits for K 766.490 Radial  Recovery = 99.24%
Mg 279.077 IEC†         -438.4      35.440 µg/L       80.6370      35.440 ppb        80.6370 227.53%
Mn 257.610†          7458539.1      9369.8 µg/L          5.21      9369.8 ppb           5.21   0.06%
   QC value within limits for Mn 257.610  Recovery = 93.70%
Mo 202.031†           313261.0      9753.0 µg/L         59.68      9753.0 ppb          59.68   0.61%
   QC value within limits for Mo 202.031  Recovery = 97.53%
Na 589.592 Radial†      2205.8      62.301 µg/L       50.9844      62.301 ppb        50.9844  81.84%
Ni 231.604†           830960.5      9748.7 µg/L         13.79      9748.7 ppb          13.79   0.14%
   QC value within limits for Ni 231.604  Recovery = 97.49%
P 214.914†             70801.6       15072 µg/L          98.9       15072 ppb          98.9   0.66%
   QC value within limits for P 214.914  Recovery = 100.48%
Pb 220.353†           407152.5       23682 µg/L          34.8       23682 ppb          34.8   0.15%
   QC value within limits for Pb 220.353  Recovery = 94.73%
S 181.975 Axial†       65638.6       58610 µg/L         375.9       58610 ppb         375.9   0.64%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = 117.22%
Sb 206.836†            83032.0      9840.3 µg/L         61.91      9840.3 ppb          61.91   0.63%
   QC value within limits for Sb 206.836  Recovery = 98.40%
Se 196.026†            26638.5        9900 µg/L          75.8        9900 ppb          75.8   0.77%
   QC value within limits for Se 196.026  Recovery = 98.98%
SiO2†                1017397.0      100300 µg/L         161.9      100300 ppb         161.9   0.16%
   QC value within limits for SiO2  Recovery = 93.74%
Si 251.611†          3204950.7       46750 µg/L          62.6       46750 ppb          62.6   0.13%
   QC value within limits for Si 251.611  Recovery = 93.50%
Sn 189.927†           151412.6      9959.1 µg/L         51.95      9959.1 ppb          51.95   0.52%
   QC value within limits for Sn 189.927  Recovery = 99.59%
Sr 421.552†          4204932.2      9717.5 µg/L         54.91      9717.5 ppb          54.91   0.57%
   QC value within limits for Sr 421.552  Recovery = 97.17%
Ti 334.940†         10210037.8       10027 µg/L          22.4       10027 ppb          22.4   0.22%
   QC value within limits for Ti 334.940  Recovery = 100.27%
Tl 190.801†            73278.2      9677.8 µg/L         43.71      9677.8 ppb          43.71   0.45%
   QC value within limits for Tl 190.801  Recovery = 96.78%
U 409.014†             -8488.5      109.37 µg/L         5.213      109.37 ppb          5.213   4.77%
V 292.402†           2063316.9       10156 µg/L           4.0       10156 ppb           4.0   0.04%
   QC value within limits for V 292.402  Recovery = 101.56%
Zn 213.857†          2587680.3       14288 µg/L           8.6       14288 ppb           8.6   0.06%
   QC value within limits for Zn 213.857  Recovery = 95.25%
QC Failed.  Continue with analysis.
```

==========

Analysis Begun

Start Time: 4/7/2010 13:19:36 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040710.sif
Batch ID:
Results Data Set: 040710
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 4/7/2010 12:50:00**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/7/2010 13:19:38**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	129281.3	129281.3	101	%			13:20:10
1	Al 396.153Radial†	24128.7	24069.1	5077.0	µg/L	5077.0	ppb	13:20:10
1	Ca 317.933Radial†	75246.8	74287.5	5096.0	µg/L	5096.0	ppb	13:20:10
1	Fe 238.204 Radial†	68581.9	68047.8	5050.4	µg/L	5050.4	ppb	13:20:10

1	K 766.490 Radial†	14994.7	13339.7	5092.0 µg/L	5092.0 ppb	13:20:10
1	Mg 279.077 IEC†	11262.4	11031.5	5118.3 µg/L	5118.3 ppb	13:20:10
1	Na 589.592 Radial†	69257.0	67909.9	10066 µg/L	10066 ppb	13:20:10
1	Sr 421.552†	216851.8	215652.7	498.33 µg/L	498.33 ppb	13:20:08
1	Sc 361.383	1698187.0	1698187.0	98.679 %		13:20:23
1	Y 371.029	972484.7	972484.7	97.643 %		13:20:23
1	Ag 328.068†	129690.3	126826.0	497.62 µg/L	497.62 ppb	13:20:23
1	As 188.979†	1475.4	1503.8	500.91 µg/L	500.91 ppb	13:20:43
1	B 249.677†	37814.5	34325.1	491.12 µg/L	491.12 ppb	13:20:23
1	Ba 233.527†	115872.4	117563.5	497.77 µg/L	497.77 ppb	13:20:23
1	Be 313.107†	1799261.4	1824357.4	498.63 µg/L	498.63 ppb	13:20:23
1	Cd 226.502†	78169.1	79303.4	496.87 µg/L	496.87 ppb	13:20:23
1	Co 228.616†	39847.0	40576.0	500.99 µg/L	500.99 ppb	13:20:23
1	Cr 267.716†	60073.0	60614.9	495.33 µg/L	495.33 ppb	13:20:23
1	Cu 324.752†	127160.1	125675.5	497.31 µg/L	497.31 ppb	13:20:23
1	Mn 257.610†	393443.8	398536.7	500.45 µg/L	500.45 ppb	13:20:23
1	Mo 202.031†	15925.4	16158.9	503.37 µg/L	503.37 ppb	13:20:43
1	Ni 231.604†	41903.2	42555.3	499.25 µg/L	499.25 ppb	13:20:23
1	P 214.914†	11495.8	11655.3	2511.0 µg/L	2511.0 ppb	13:20:43
1	Pb 220.353†	8730.3	8733.9	508.96 µg/L	508.96 ppb	13:20:43
1	S 181.975 Axial†	1356.7	1048.8	939.42 µg/L	939.42 ppb	13:20:43
1	Sb 206.836†	4185.1	4160.8	503.73 µg/L	503.73 ppb	13:20:43
1	Se 196.026†	1362.1	1359.9	507 µg/L	507 ppb	13:20:43
1	SiO2†	54174.3	53110.1	5236.2 µg/L	5236.2 ppb	13:20:23
1	Si 251.611†	166313.3	167882.9	2449.1 µg/L	2449.1 ppb	13:20:23
1	Sn 189.927†	7595.0	7690.8	505.82 µg/L	505.82 ppb	13:20:43
1	Ti 334.940†	500483.1	506411.6	497.07 µg/L	497.07 ppb	13:20:23
1	Tl 190.801†	3727.3	3893.2	513.55 µg/L	513.55 ppb	13:20:43
1	U 409.014†	7302.9	7692.0	480.18 µg/L	480.18 ppb	13:20:23
1	V 292.402†	101011.9	101991.0	499.07 µg/L	499.07 ppb	13:20:23
1	Zn 213.857†	89019.5	89610.4	493.44 µg/L	493.44 ppb	13:20:23
2	Sc RADIAL	129116.4	129116.4	100 %		13:20:14
2	Al 396.153Radial†	23951.9	23923.8	5046.3 µg/L	5046.3 ppb	13:20:14
2	Ca 317.933Radial†	74863.2	74001.3	5076.3 µg/L	5076.3 ppb	13:20:14
2	Fe 238.204 Radial†	68240.7	67795.4	5031.7 µg/L	5031.7 ppb	13:20:14
2	K 766.490 Radial†	14814.1	13178.9	5030.6 µg/L	5030.6 ppb	13:20:14
2	Mg 279.077 IEC†	11328.8	11111.9	5155.6 µg/L	5155.6 ppb	13:20:14
2	Na 589.592 Radial†	68839.7	67582.5	10017 µg/L	10017 ppb	13:20:14
2	Sr 421.552†	214531.4	213618.6	493.63 µg/L	493.63 ppb	13:20:12
2	Sc 361.383	1705374.4	1705374.4	99.097 %		13:20:46
2	Y 371.029	976761.7	976761.7	98.073 %		13:20:46
2	Ag 328.068†	130724.3	127315.4	499.53 µg/L	499.53 ppb	13:20:46
2	As 188.979†	1490.6	1512.8	503.89 µg/L	503.89 ppb	13:21:06
2	B 249.677†	38277.9	34631.3	495.51 µg/L	495.51 ppb	13:20:46
2	Ba 233.527†	116858.8	118064.0	499.89 µg/L	499.89 ppb	13:20:46
2	Be 313.107†	1810511.9	1828025.8	499.63 µg/L	499.63 ppb	13:20:46
2	Cd 226.502†	79223.9	80034.0	501.46 µg/L	501.46 ppb	13:20:46
2	Co 228.616†	40075.2	40636.1	501.73 µg/L	501.73 ppb	13:20:46
2	Cr 267.716†	60635.8	60926.3	497.88 µg/L	497.88 ppb	13:20:46
2	Cu 324.752†	127596.5	125572.9	496.90 µg/L	496.90 ppb	13:20:46
2	Mn 257.610†	396172.1	399609.4	501.79 µg/L	501.79 ppb	13:20:46
2	Mo 202.031†	15948.4	16114.0	501.98 µg/L	501.98 ppb	13:21:06
2	Ni 231.604†	42301.4	42778.1	501.87 µg/L	501.87 ppb	13:20:46
2	P 214.914†	11537.6	11648.5	2509.5 µg/L	2509.5 ppb	13:21:06
2	Pb 220.353†	8753.3	8719.9	508.15 µg/L	508.15 ppb	13:21:06
2	S 181.975 Axial†	1347.8	1034.1	926.27 µg/L	926.27 ppb	13:21:06
2	Sb 206.836†	4203.5	4161.5	503.76 µg/L	503.76 ppb	13:21:06
2	Se 196.026†	1355.9	1347.8	503 µg/L	503 ppb	13:21:06
2	SiO2†	54609.8	53318.1	5256.9 µg/L	5256.9 ppb	13:20:46
2	Si 251.611†	167887.9	168761.5	2462.0 µg/L	2462.0 ppb	13:20:46
2	Sn 189.927†	7618.1	7681.6	505.22 µg/L	505.22 ppb	13:21:06
2	Ti 334.940†	503181.1	506996.6	497.65 µg/L	497.65 ppb	13:20:46
2	Tl 190.801†	3738.6	3888.7	512.98 µg/L	512.98 ppb	13:21:06
2	U 409.014†	7228.1	7585.3	474.04 µg/L	474.04 ppb	13:20:46
2	V 292.402†	101798.2	102353.1	500.81 µg/L	500.81 ppb	13:20:46
2	Zn 213.857†	89879.6	90098.1	496.13 µg/L	496.13 ppb	13:20:46
3	Sc RADIAL	128539.4	128539.4	100 %		13:20:19
3	Al 396.153Radial†	23844.7	23923.6	5046.4 µg/L	5046.4 ppb	13:20:19
3	Ca 317.933Radial†	74359.0	73831.7	5064.7 µg/L	5064.7 ppb	13:20:19
3	Fe 238.204 Radial†	67648.4	67508.1	5010.4 µg/L	5010.4 ppb	13:20:19
3	K 766.490 Radial†	14713.2	13144.2	5017.4 µg/L	5017.4 ppb	13:20:19

3	Mg 279.077 IEC†	11298.0	11131.8	5164.7 µg/L	5164.7 ppb	13:20:19
3	Na 589.592 Radial†	68321.2	67371.7	9985.8 µg/L	9985.8 ppb	13:20:19
3	Sr 421.552†	217124.9	217169.9	501.83 µg/L	501.83 ppb	13:20:17
3	Sc 361.383	1719482.9	1719482.9	99.917 %		13:21:09
3	Y 371.029	984126.6	984126.6	98.812 %		13:21:09
3	Ag 328.068†	131481.1	126990.5	498.28 µg/L	498.28 ppb	13:21:09
3	As 188.979†	1487.1	1497.0	498.66 µg/L	498.66 ppb	13:21:30
3	B 249.677†	38495.0	34531.7	494.07 µg/L	494.07 ppb	13:21:09
3	Ba 233.527†	117406.2	117644.3	498.11 µg/L	498.11 ppb	13:21:09
3	Be 313.107†	1826304.1	1828840.4	499.86 µg/L	499.86 ppb	13:21:09
3	Cd 226.502†	79610.9	79765.4	499.78 µg/L	499.78 ppb	13:21:09
3	Co 228.616†	40535.9	40765.4	503.33 µg/L	503.33 ppb	13:21:09
3	Cr 267.716†	60974.3	60763.0	496.54 µg/L	496.54 ppb	13:21:09
3	Cu 324.752†	128613.3	125534.0	496.75 µg/L	496.75 ppb	13:21:09
3	Mn 257.610†	398920.3	399079.7	501.13 µg/L	501.13 ppb	13:21:09
3	Mo 202.031†	15962.8	15996.4	498.32 µg/L	498.32 ppb	13:21:30
3	Ni 231.604†	42556.8	42683.5	500.76 µg/L	500.76 ppb	13:21:09
3	P 214.914†	11549.3	11564.6	2491.4 µg/L	2491.4 ppb	13:21:30
3	Pb 220.353†	8792.6	8686.6	506.20 µg/L	506.20 ppb	13:21:30
3	S 181.975 Axial†	1385.3	1060.4	949.72 µg/L	949.72 ppb	13:21:30
3	Sb 206.836†	4218.1	4141.3	501.29 µg/L	501.29 ppb	13:21:30
3	Se 196.026†	1376.8	1357.5	507 µg/L	507 ppb	13:21:30
3	SiO2†	55045.9	53302.5	5255.4 µg/L	5255.4 ppb	13:21:09
3	Si 251.611†	169177.2	168661.7	2460.6 µg/L	2460.6 ppb	13:21:09
3	Sn 189.927†	7641.3	7641.8	502.61 µg/L	502.61 ppb	13:21:30
3	Ti 334.940†	507058.3	506710.7	497.36 µg/L	497.36 ppb	13:21:09
3	Tl 190.801†	3736.3	3855.5	508.64 µg/L	508.64 ppb	13:21:30
3	U 409.014†	7445.2	7742.7	483.26 µg/L	483.26 ppb	13:21:09
3	V 292.402†	102656.3	102369.1	500.86 µg/L	500.86 ppb	13:21:09
3	Zn 213.857†	90577.3	90052.2	495.88 µg/L	495.88 ppb	13:21:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1707681.4	99.231	%	0.6295				0.63%
Sc RADIAL	128979.0	100	%	0.3				0.30%
Y 371.029	977791.0	98.176	%	0.5913				0.60%
Ag 328.068†	127044.0	498.48	µg/L	0.970	498.48	ppb	0.970	0.19%
QC value within limits for Ag 328.068 Recovery = 99.70%								
Al 396.153Radial†	23972.2	5056.6	µg/L	17.71	5056.6	ppb	17.71	0.35%
QC value within limits for Al 396.153Radial Recovery = 101.13%								
As 188.979†	1504.5	501.15	µg/L	2.625	501.15	ppb	2.625	0.52%
QC value within limits for As 188.979 Recovery = 100.23%								
B 249.677†	34496.0	493.57	µg/L	2.240	493.57	ppb	2.240	0.45%
QC value within limits for B 249.677 Recovery = 98.71%								
Ba 233.527†	117757.3	498.59	µg/L	1.137	498.59	ppb	1.137	0.23%
QC value within limits for Ba 233.527 Recovery = 99.72%								
Be 313.107†	1827074.5	499.37	µg/L	0.652	499.37	ppb	0.652	0.13%
QC value within limits for Be 313.107 Recovery = 99.87%								
Ca 317.933Radial†	74040.2	5079.0	µg/L	15.80	5079.0	ppb	15.80	0.31%
QC value within limits for Ca 317.933Radial Recovery = 101.58%								
Cd 226.502†	79700.9	499.37	µg/L	2.318	499.37	ppb	2.318	0.46%
QC value within limits for Cd 226.502 Recovery = 99.87%								
Co 228.616†	40659.2	502.02	µg/L	1.196	502.02	ppb	1.196	0.24%
QC value within limits for Co 228.616 Recovery = 100.40%								
Cr 267.716†	60768.1	496.59	µg/L	1.275	496.59	ppb	1.275	0.26%
QC value within limits for Cr 267.716 Recovery = 99.32%								
Cu 324.752†	125594.1	496.99	µg/L	0.290	496.99	ppb	0.290	0.06%
QC value within limits for Cu 324.752 Recovery = 99.40%								
Fe 238.204 Radial†	67783.8	5030.8	µg/L	20.04	5030.8	ppb	20.04	0.40%
QC value within limits for Fe 238.204 Radial Recovery = 100.62%								
K 766.490 Radial†	13220.9	5046.7	µg/L	39.82	5046.7	ppb	39.82	0.79%
QC value within limits for K 766.490 Radial Recovery = 100.93%								
Mg 279.077 IEC†	11091.7	5146.2	µg/L	24.55	5146.2	ppb	24.55	0.48%
QC value within limits for Mg 279.077 IEC Recovery = 102.92%								
Mn 257.610†	399075.2	501.12	µg/L	0.673	501.12	ppb	0.673	0.13%
QC value within limits for Mn 257.610 Recovery = 100.22%								
Mo 202.031†	16089.8	501.22	µg/L	2.611	501.22	ppb	2.611	0.52%
QC value within limits for Mo 202.031 Recovery = 100.24%								
Na 589.592 Radial†	67621.3	10023	µg/L	40.2	10023	ppb	40.2	0.40%

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   QC value within limits for Na 589.592 Radial  Recovery = 100.23%
Ni 231.604†            42672.3      500.63 µg/L         1.312      500.63 ppb          1.312   0.26%
   QC value within limits for Ni 231.604  Recovery = 100.13%
P 214.914†             11622.8      2504.0 µg/L         10.89      2504.0 ppb          10.89   0.43%
   QC value within limits for P 214.914  Recovery = 100.16%
Pb 220.353†             8713.5      507.77 µg/L         1.418      507.77 ppb          1.418   0.28%
   QC value within limits for Pb 220.353  Recovery = 101.55%
S 181.975 Axial†        1047.8      938.47 µg/L        11.750      938.47 ppb         11.750   1.25%
   QC value within limits for S 181.975 Axial  Recovery = 93.85%
Sb 206.836†             4154.6      502.93 µg/L         1.419      502.93 ppb          1.419   0.28%
   QC value within limits for Sb 206.836  Recovery = 100.59%
Se 196.026†             1355.0         506 µg/L           2.4         506 ppb            2.4   0.47%
   QC value within limits for Se 196.026  Recovery = 101.13%
SiO2†                  53243.6      5249.5 µg/L         11.54      5249.5 ppb          11.54   0.22%
   QC value within limits for SiO2  Recovery = 98.17%
Si 251.611†           168435.4      2457.2 µg/L          7.08      2457.2 ppb           7.08   0.29%
   QC value within limits for Si 251.611  Recovery = 98.29%
Sn 189.927†             7671.4      504.55 µg/L         1.707      504.55 ppb          1.707   0.34%
   QC value within limits for Sn 189.927  Recovery = 100.91%
Sr 421.552†           215480.4      497.93 µg/L         4.118      497.93 ppb          4.118   0.83%
   QC value within limits for Sr 421.552  Recovery = 99.59%
Ti 334.940†           506706.3      497.36 µg/L         0.287      497.36 ppb          0.287   0.06%
   QC value within limits for Ti 334.940  Recovery = 99.47%
Tl 190.801†             3879.1      511.72 µg/L         2.684      511.72 ppb          2.684   0.52%
   QC value within limits for Tl 190.801  Recovery = 102.34%
U 409.014†              7673.3      479.16 µg/L         4.693      479.16 ppb          4.693   0.98%
   QC value within limits for U 409.014  Recovery = 95.83%
V 292.402†            102237.7      500.25 µg/L         1.018      500.25 ppb          1.018   0.20%
   QC value within limits for V 292.402  Recovery = 100.05%
Zn 213.857†            89920.2      495.15 µg/L         1.489      495.15 ppb          1.489   0.30%
   QC value within limits for Zn 213.857  Recovery = 99.03%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/7/2010 13:21:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	129500.5	129500.5	101	%			13:22:07
1	Al 396.153Radial†	-91.2	-4.9	-1.0492	µg/L	-1.0492	ppb	13:22:27
1	Ca 317.933Radial†	549.5	38.7	2.6566	µg/L	2.6566	ppb	13:22:27
1	Fe 238.204 Radial†	141.0	18.6	1.3775	µg/L	1.3775	ppb	13:22:27
1	K 766.490 Radial†	1890.5	311.1	118.83	µg/L	118.83	ppb	13:22:07
1	Mg 279.077 IEC†	195.4	30.8	14.286	µg/L	14.286	ppb	13:22:27
1	Na 589.592 Radial†	1323.8	383.1	56.708	µg/L	56.708	ppb	13:22:07
1	Sr 421.552†	-14.5	91.3	0.2109	µg/L	0.2109	ppb	13:22:07
1	Sc 361.383	1721905.3	1721905.3	100.06	%			13:23:29
1	Y 371.029	996423.8	996423.8	100.05	%			13:23:29
1	Ag 328.068†	4735.2	132.0	0.5321	µg/L	0.5321	ppb	13:23:31
1	As 188.979†	-17.9	-9.2	-3.0327	µg/L	-3.0327	ppb	13:23:51
1	B 249.677†	4155.2	157.3	2.2584	µg/L	2.2584	ppb	13:23:31
1	Ba 233.527†	-127.8	12.3	0.0525	µg/L	0.0525	ppb	13:23:51
1	Be 313.107†	-1047.2	-36.3	-0.0072	µg/L	-0.0072	ppb	13:23:31
1	Cd 226.502†	-17.8	70.2	0.4399	µg/L	0.4399	ppb	13:23:51
1	Co 228.616†	-196.1	-0.4	-0.0046	µg/L	-0.0046	ppb	13:23:51
1	Cr 267.716†	252.1	-10.3	-0.0913	µg/L	-0.0913	ppb	13:23:51
1	Cu 324.752†	3227.4	38.9	0.1613	µg/L	0.1613	ppb	13:23:31
1	Mn 257.610†	250.6	76.5	0.0955	µg/L	0.0955	ppb	13:23:51
1	Mo 202.031†	-8.8	11.5	0.3578	µg/L	0.3578	ppb	13:23:51
1	Ni 231.604†	-66.1	25.1	0.2940	µg/L	0.2940	ppb	13:23:51
1	P 214.914†	-13.0	-7.3	-1.5809	µg/L	-1.5809	ppb	13:23:51
1	Pb 220.353†	103.4	-10.0	-0.5838	µg/L	-0.5838	ppb	13:23:51
1	S 181.975 Axial†	271.3	-54.9	-48.945	µg/L	-48.945	ppb	13:23:51
1	Sb 206.836†	76.5	-3.9	-0.4581	µg/L	-0.4581	ppb	13:23:51
1	Se 196.026†	16.5	-4.1	-1.50	µg/L	-1.50	ppb	13:23:51
1	SiO2†	1685.1	-105.3	-10.441	µg/L	-10.441	ppb	13:23:31
1	Si 251.611†	810.8	153.5	2.2419	µg/L	2.2419	ppb	13:23:31
1	Sn 189.927†	9.7	3.9	0.2528	µg/L	0.2528	ppb	13:23:51
1	Ti 334.940†	857.5	85.8	0.0796	µg/L	0.0796	ppb	13:23:31
1	Tl 190.801†	-106.9	9.2	1.1987	µg/L	1.1987	ppb	13:23:51
1	U 409.014†	-137.1	154.3	9.0724	µg/L	9.0724	ppb	13:23:31
1	V 292.402†	538.7	165.3	0.8075	µg/L	0.8075	ppb	13:23:31
1	Zn 213.857†	716.5	115.4	0.6383	µg/L	0.6383	ppb	13:23:51
2	Sc RADIAL	129217.1	129217.1	101	%			13:22:29
2	Al 396.153Radial†	-33.4	52.4	11.077	µg/L	11.077	ppb	13:22:49
2	Ca 317.933Radial†	611.0	101.1	6.9345	µg/L	6.9345	ppb	13:22:49
2	Fe 238.204 Radial†	199.5	77.0	5.7127	µg/L	5.7127	ppb	13:22:49
2	K 766.490 Radial†	1967.3	391.6	149.57	µg/L	149.57	ppb	13:22:29
2	Mg 279.077 IEC†	179.9	15.8	7.3325	µg/L	7.3325	ppb	13:22:49
2	Na 589.592 Radial†	1415.9	477.6	70.693	µg/L	70.693	ppb	13:22:29
2	Sr 421.552†	-49.9	56.0	0.1294	µg/L	0.1294	ppb	13:22:29
2	Sc 361.383	1738399.8	1738399.8	101.02	%			13:23:53
2	Y 371.029	1006412.3	1006412.3	101.05	%			13:23:53
2	Ag 328.068†	4819.3	170.4	0.6651	µg/L	0.6651	ppb	13:23:55
2	As 188.979†	-17.8	-9.0	-2.9572	µg/L	-2.9572	ppb	13:24:16
2	B 249.677†	3995.1	-40.7	-0.5832	µg/L	-0.5832	ppb	13:23:55
2	Ba 233.527†	-169.9	-28.2	-0.1191	µg/L	-0.1191	ppb	13:24:16
2	Be 313.107†	-781.9	236.2	0.0650	µg/L	0.0650	ppb	13:23:55
2	Cd 226.502†	-24.8	63.4	0.3971	µg/L	0.3971	ppb	13:24:16
2	Co 228.616†	-213.9	-16.2	-0.2000	µg/L	-0.2000	ppb	13:24:16
2	Cr 267.716†	262.5	-2.4	-0.0207	µg/L	-0.0207	ppb	13:24:16
2	Cu 324.752†	3369.4	148.7	0.5890	µg/L	0.5890	ppb	13:23:55
2	Mn 257.610†	214.4	38.3	0.0478	µg/L	0.0478	ppb	13:24:16
2	Mo 202.031†	0.3	20.6	0.6406	µg/L	0.6406	ppb	13:24:16
2	Ni 231.604†	-76.6	15.3	0.1790	µg/L	0.1790	ppb	13:24:16
2	P 214.914†	-4.5	1.3	0.2630	µg/L	0.2630	ppb	13:24:16
2	Pb 220.353†	133.0	18.4	1.0705	µg/L	1.0705	ppb	13:24:16

2	S 181.975 Axial†	257.9	-70.8	-63.096 µg/L	-63.096 ppb	13:24:16
2	Sb 206.836†	76.8	-4.3	-0.5115 µg/L	-0.5115 ppb	13:24:16
2	Se 196.026†	12.0	-8.6	-3.20 µg/L	-3.20 ppb	13:24:16
2	SiO2†	1711.3	-95.4	-9.4718 µg/L	-9.4718 ppb	13:23:55
2	Si 251.611†	614.1	-48.8	-0.7288 µg/L	-0.7288 ppb	13:23:55
2	Sn 189.927†	17.1	11.0	0.7232 µg/L	0.7232 ppb	13:24:16
2	Ti 334.940†	612.4	-165.0	-0.1633 µg/L	-0.1633 ppb	13:23:55
2	Tl 190.801†	-115.8	1.4	0.1877 µg/L	0.1877 ppb	13:24:16
2	U 409.014†	-265.6	28.4	1.6728 µg/L	1.6728 ppb	13:23:55
2	V 292.402†	426.2	48.9	0.2432 µg/L	0.2432 ppb	13:23:55
2	Zn 213.857†	666.3	58.8	0.3243 µg/L	0.3243 ppb	13:24:16
3	Sc RADIAL	128063.0	128063.0	99.7 %		13:22:51
3	Al 396.153Radial†	-62.4	23.0	4.8355 µg/L	4.8355 ppb	13:23:11
3	Ca 317.933Radial†	526.3	21.6	1.4812 µg/L	1.4812 ppb	13:23:11
3	Fe 238.204 Radial†	151.6	30.7	2.2784 µg/L	2.2784 ppb	13:23:11
3	K 766.490 Radial†	1825.6	267.0	102.00 µg/L	102.00 ppb	13:22:51
3	Mg 279.077 IEC†	192.1	29.7	13.791 µg/L	13.791 ppb	13:23:11
3	Na 589.592 Radial†	1476.5	551.1	81.629 µg/L	81.629 ppb	13:22:51
3	Sr 421.552†	-179.9	-74.9	-0.1732 µg/L	-0.1732 ppb	13:22:51
3	Sc 361.383	1739393.1	1739393.1	101.07 %		13:24:18
3	Y 371.029	1006715.8	1006715.8	101.08 %		13:24:18
3	Ag 328.068†	4618.2	-31.3	-0.1233 µg/L	-0.1233 ppb	13:24:20
3	As 188.979†	-10.6	-1.8	-0.6077 µg/L	-0.6077 ppb	13:24:40
3	B 249.677†	4073.8	35.0	0.5029 µg/L	0.5029 ppb	13:24:20
3	Ba 233.527†	-147.0	-5.5	-0.0232 µg/L	-0.0232 ppb	13:24:40
3	Be 313.107†	-666.3	351.1	0.0972 µg/L	0.0972 ppb	13:24:20
3	Cd 226.502†	-27.6	60.6	0.3796 µg/L	0.3796 ppb	13:24:40
3	Co 228.616†	-218.7	-20.7	-0.2559 µg/L	-0.2559 ppb	13:24:40
3	Cr 267.716†	207.4	-57.0	-0.4697 µg/L	-0.4697 ppb	13:24:40
3	Cu 324.752†	3204.1	-16.6	-0.0618 µg/L	-0.0618 ppb	13:24:20
3	Mn 257.610†	235.6	59.1	0.0737 µg/L	0.0737 ppb	13:24:40
3	Mo 202.031†	7.6	27.8	0.8654 µg/L	0.8654 ppb	13:24:40
3	Ni 231.604†	-72.4	19.4	0.2281 µg/L	0.2281 ppb	13:24:40
3	P 214.914†	-3.7	2.0	0.4315 µg/L	0.4315 ppb	13:24:40
3	Pb 220.353†	89.4	-24.8	-1.4430 µg/L	-1.4430 ppb	13:24:40
3	S 181.975 Axial†	269.3	-59.6	-53.122 µg/L	-53.122 ppb	13:24:40
3	Sb 206.836†	88.7	7.4	0.9195 µg/L	0.9195 ppb	13:24:40
3	Se 196.026†	26.3	5.5	2.04 µg/L	2.04 ppb	13:24:40
3	SiO2†	1688.1	-119.3	-11.853 µg/L	-11.853 ppb	13:24:20
3	Si 251.611†	658.7	-5.1	-0.0936 µg/L	-0.0936 ppb	13:24:20
3	Sn 189.927†	24.1	18.0	1.1781 µg/L	1.1781 ppb	13:24:40
3	Ti 334.940†	787.7	8.1	0.0054 µg/L	0.0054 ppb	13:24:20
3	Tl 190.801†	-124.7	-7.4	-0.9615 µg/L	-0.9615 ppb	13:24:40
3	U 409.014†	-224.7	69.0	4.0030 µg/L	4.0030 ppb	13:24:20
3	V 292.402†	255.4	-120.4	-0.5719 µg/L	-0.5719 ppb	13:24:20
3	Zn 213.857†	671.7	63.8	0.3527 µg/L	0.3527 ppb	13:24:40

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733232.7	100.72	%	0.571				0.57%
Sc RADIAL	128926.9	100	%	0.6				0.59%
Y 371.029	1003184.0	100.73	%	0.588				0.58%
Ag 328.068†	90.4	0.3580	µg/L	0.42204	0.3580	ppb	0.42204	117.90%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	23.5	4.9545	µg/L	6.06414	4.9545	ppb	6.06414	122.40%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.7	-2.1992	µg/L	1.37879	-2.1992	ppb	1.37879	62.70%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.5	0.7260	µg/L	1.43391	0.7260	ppb	1.43391	197.50%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.1	-0.0299	µg/L	0.08598	-0.0299	ppb	0.08598	287.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	183.7	0.0517	µg/L	0.05345	0.0517	ppb	0.05345	103.44%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	53.8	3.6908	µg/L	2.86994	3.6908	ppb	2.86994	77.76%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	64.7	0.4055	µg/L	0.03100	0.4055	ppb	0.03100	7.64%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-12.4	-0.1535	µg/L	0.13190	-0.1535	ppb	0.13190	85.93%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -23.3     -0.1939 µg/L       0.24144     -0.1939 ppb        0.24144 124.52%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               57.0      0.2295 µg/L       0.33071      0.2295 ppb        0.33071 144.08%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        42.1      3.1229 µg/L       2.28765      3.1229 ppb        2.28765  73.26%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        323.2      123.47 µg/L        24.121      123.47 ppb         24.121  19.54%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           25.5      11.803 µg/L        3.8794      11.803 ppb         3.8794  32.87%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               57.9      0.0723 µg/L       0.02387      0.0723 ppb        0.02387  33.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               19.9      0.6213 µg/L       0.25434      0.6213 ppb        0.25434  40.94%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       470.6      69.677 µg/L       12.4916      69.677 ppb        12.4916  17.93%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               19.9      0.2337 µg/L       0.05769      0.2337 ppb        0.05769  24.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -1.3     -0.2955 µg/L       1.11640     -0.2955 ppb        1.11640 377.79%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -5.5     -0.3187 µg/L       1.27756     -0.3187 ppb        1.27756 400.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -61.7     -55.054 µg/L        7.2706     -55.054 ppb         7.2706  13.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.2     -0.0167 µg/L       0.81123     -0.0167 ppb        0.81123 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.4      -0.889 µg/L        2.6729      -0.889 ppb         2.6729 300.61%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -106.7     -10.589 µg/L        1.1976     -10.589 ppb         1.1976  11.31%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               33.2      0.4732 µg/L       1.56437      0.4732 ppb        1.56437 330.61%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               11.0      0.7180 µg/L       0.46268      0.7180 ppb        0.46268  64.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               24.1      0.0557 µg/L       0.20237      0.0557 ppb        0.20237 363.29%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -23.7     -0.0261 µg/L       0.12443     -0.0261 ppb        0.12443 476.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                1.1      0.1416 µg/L       1.08084      0.1416 ppb        1.08084 763.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                83.9      4.9161 µg/L       3.78337      4.9161 ppb        3.78337  76.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                31.3      0.1596 µg/L       0.69346      0.1596 ppb        0.69346 434.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               79.3      0.4384 µg/L       0.17362      0.4384 ppb        0.17362  39.60%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/7/2010 13:49:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130988.5	130988.5	102	%			13:49:45
1	Al 396.153Radial†	24311.4	23935.8	5048.8	µg/L	5048.8	ppb	13:49:45
1	Ca 317.933Radial†	76169.7	74218.1	5091.2	µg/L	5091.2	ppb	13:49:45
1	Fe 238.204 Radial†	69399.5	67961.5	5044.0	µg/L	5044.0	ppb	13:49:45
1	K 766.490 Radial†	15087.6	13236.5	5052.6	µg/L	5052.6	ppb	13:49:45
1	Mg 279.077 IEC†	11553.6	11171.3	5183.1	µg/L	5183.1	ppb	13:49:45
1	Na 589.592 Radial†	70086.7	67826.6	10053	µg/L	10053	ppb	13:49:45
1	Sr 421.552†	220715.3	216633.6	500.59	µg/L	500.59	ppb	13:49:43
1	Sc 361.383	1711704.2	1711704.2	99.465	%			13:49:58
1	Y 371.029	980674.9	980674.9	98.465	%			13:49:58
1	Ag 328.068†	131441.4	127548.6	500.45	µg/L	500.45	ppb	13:49:58
1	As 188.979†	1504.9	1521.6	506.78	µg/L	506.78	ppb	13:50:18
1	B 249.677†	38039.3	34248.5	490.01	µg/L	490.01	ppb	13:49:58
1	Ba 233.527†	117257.0	118028.3	499.74	µg/L	499.74	ppb	13:49:58
1	Be 313.107†	1818217.6	1829016.8	499.91	µg/L	499.91	ppb	13:49:58
1	Cd 226.502†	79048.5	79562.0	498.50	µg/L	498.50	ppb	13:49:58
1	Co 228.616†	40292.7	40705.2	502.58	µg/L	502.58	ppb	13:49:58
1	Cr 267.716†	60853.0	60918.4	497.81	µg/L	497.81	ppb	13:49:58
1	Cu 324.752†	128048.9	125551.5	496.83	µg/L	496.83	ppb	13:49:58
1	Mn 257.610†	398032.8	400001.8	502.28	µg/L	502.28	ppb	13:49:58
1	Mo 202.031†	16037.9	16144.5	502.93	µg/L	502.93	ppb	13:50:18
1	Ni 231.604†	42260.2	42578.9	499.53	µg/L	499.53	ppb	13:49:58
1	P 214.914†	11538.3	11606.1	2500.3	µg/L	2500.3	ppb	13:50:18
1	Pb 220.353†	8796.9	8731.0	508.79	µg/L	508.79	ppb	13:50:18
1	S 181.975 Axial†	1352.9	1034.1	926.34	µg/L	926.34	ppb	13:50:18
1	Sb 206.836†	4222.1	4164.5	504.14	µg/L	504.14	ppb	13:50:18
1	Se 196.026†	1357.1	1343.9	502	µg/L	502	ppb	13:50:18
1	SiO2†	55049.1	53556.0	5280.4	µg/L	5280.4	ppb	13:49:58
1	Si 251.611†	169319.6	169574.4	2473.9	µg/L	2473.9	ppb	13:49:58
1	Sn 189.927†	7629.9	7665.1	504.14	µg/L	504.14	ppb	13:50:18
1	Ti 334.940†	506799.3	508756.6	499.37	µg/L	499.37	ppb	13:49:58
1	Tl 190.801†	3732.8	3868.9	510.42	µg/L	510.42	ppb	13:50:18
1	U 409.014†	7479.6	7811.2	487.26	µg/L	487.26	ppb	13:49:58
1	V 292.402†	102187.3	102364.4	500.88	µg/L	500.88	ppb	13:49:58
1	Zn 213.857†	89846.3	89729.2	494.10	µg/L	494.10	ppb	13:49:58
2	Sc RADIAL	129850.7	129850.7	101	%			13:49:49
2	Al 396.153Radial†	24275.4	24109.1	5085.3	µg/L	5085.3	ppb	13:49:49
2	Ca 317.933Radial†	75608.6	74317.5	5098.0	µg/L	5098.0	ppb	13:49:49
2	Fe 238.204 Radial†	69287.7	68447.4	5080.1	µg/L	5080.1	ppb	13:49:49
2	K 766.490 Radial†	14853.9	13135.0	5013.8	µg/L	5013.8	ppb	13:49:49
2	Mg 279.077 IEC†	11493.5	11211.1	5201.6	µg/L	5201.6	ppb	13:49:49
2	Na 589.592 Radial†	69470.4	67819.2	10052	µg/L	10052	ppb	13:49:49
2	Sr 421.552†	218799.3	216634.7	500.60	µg/L	500.60	ppb	13:49:47
2	Sc 361.383	1715920.8	1715920.8	99.710	%			13:50:21
2	Y 371.029	982922.2	982922.2	98.691	%			13:50:21
2	Ag 328.068†	132035.7	127819.9	501.52	µg/L	501.52	ppb	13:50:21
2	As 188.979†	1515.7	1528.7	509.13	µg/L	509.13	ppb	13:50:41
2	B 249.677†	38239.3	34355.2	491.54	µg/L	491.54	ppb	13:50:21
2	Ba 233.527†	117487.8	117970.1	499.50	µg/L	499.50	ppb	13:50:21
2	Be 313.107†	1826676.2	1833008.0	501.00	µg/L	501.00	ppb	13:50:21
2	Cd 226.502†	79538.1	79857.7	500.35	µg/L	500.35	ppb	13:50:21
2	Co 228.616†	40458.7	40772.2	503.41	µg/L	503.41	ppb	13:50:21
2	Cr 267.716†	60839.2	60754.2	496.47	µg/L	496.47	ppb	13:50:21
2	Cu 324.752†	128535.2	125723.0	497.51	µg/L	497.51	ppb	13:50:21
2	Mn 257.610†	399094.9	400083.6	502.39	µg/L	502.39	ppb	13:50:21
2	Mo 202.031†	16218.8	16286.3	507.34	µg/L	507.34	ppb	13:50:41
2	Ni 231.604†	42543.4	42758.5	501.64	µg/L	501.64	ppb	13:50:21
2	P 214.914†	11724.7	11764.6	2534.6	µg/L	2534.6	ppb	13:50:41
2	Pb 220.353†	8902.7	8815.4	513.70	µg/L	513.70	ppb	13:50:41

2	S 181.975 Axial†	1377.4	1055.4	945.31 µg/L	945.31 ppb	13:50:41
2	Sb 206.836†	4296.0	4228.2	511.92 µg/L	511.92 ppb	13:50:41
2	Se 196.026†	1382.5	1366.0	510 µg/L	510 ppb	13:50:41
2	SiO2†	55259.5	53631.1	5287.6 µg/L	5287.6 ppb	13:50:21
2	Si 251.611†	170028.3	169866.8	2478.0 µg/L	2478.0 ppb	13:50:21
2	Sn 189.927†	7732.6	7749.2	509.66 µg/L	509.66 ppb	13:50:41
2	Ti 334.940†	507539.3	508246.6	498.87 µg/L	498.87 ppb	13:50:21
2	Tl 190.801†	3788.7	3915.8	516.52 µg/L	516.52 ppb	13:50:41
2	U 409.014†	7512.6	7825.8	488.20 µg/L	488.20 ppb	13:50:21
2	V 292.402†	102750.8	102677.1	502.43 µg/L	502.43 ppb	13:50:21
2	Zn 213.857†	90345.2	90007.7	495.62 µg/L	495.62 ppb	13:50:21
3	Sc RADIAL	129487.0	129487.0	101 %		13:49:53
3	Al 396.153Radial†	24337.3	24238.1	5113.0 µg/L	5113.0 ppb	13:49:53
3	Ca 317.933Radial†	75366.9	74287.9	5096.0 µg/L	5096.0 ppb	13:49:53
3	Fe 238.204 Radial†	68864.8	68220.4	5063.2 µg/L	5063.2 ppb	13:49:53
3	K 766.490 Radial†	14824.5	13147.0	5018.4 µg/L	5018.4 ppb	13:49:53
3	Mg 279.077 IEC†	11412.0	11162.2	5178.8 µg/L	5178.8 ppb	13:49:53
3	Na 589.592 Radial†	69312.5	67855.5	10058 µg/L	10058 ppb	13:49:53
3	Sr 421.552†	219205.7	217646.2	502.94 µg/L	502.94 ppb	13:49:51
3	Sc 361.383	1717511.1	1717511.1	99.802 %		13:50:44
3	Y 371.029	983952.2	983952.2	98.794 %		13:50:44
3	Ag 328.068†	132321.5	127983.7	502.14 µg/L	502.14 ppb	13:50:44
3	As 188.979†	1488.7	1500.3	499.80 µg/L	499.80 ppb	13:51:04
3	B 249.677†	38513.4	34594.3	494.97 µg/L	494.97 ppb	13:50:44
3	Ba 233.527†	117796.9	118170.7	500.34 µg/L	500.34 ppb	13:50:44
3	Be 313.107†	1830746.2	1835389.8	501.64 µg/L	501.64 ppb	13:50:44
3	Cd 226.502†	79742.4	79988.5	501.17 µg/L	501.17 ppb	13:50:44
3	Co 228.616†	40604.3	40880.5	504.75 µg/L	504.75 ppb	13:50:44
3	Cr 267.716†	61338.1	61197.6	500.10 µg/L	500.10 ppb	13:50:44
3	Cu 324.752†	128918.9	125988.0	498.55 µg/L	498.55 ppb	13:50:44
3	Mn 257.610†	400073.2	400693.3	503.15 µg/L	503.15 ppb	13:50:44
3	Mo 202.031†	15993.7	16045.7	499.85 µg/L	499.85 ppb	13:51:04
3	Ni 231.604†	42717.5	42893.4	503.22 µg/L	503.22 ppb	13:50:44
3	P 214.914†	11522.0	11550.5	2488.3 µg/L	2488.3 ppb	13:51:04
3	Pb 220.353†	8769.1	8673.3	505.43 µg/L	505.43 ppb	13:51:04
3	S 181.975 Axial†	1360.9	1037.6	929.41 µg/L	929.41 ppb	13:51:04
3	Sb 206.836†	4213.6	4141.7	501.30 µg/L	501.30 ppb	13:51:04
3	Se 196.026†	1382.3	1364.5	509 µg/L	509 ppb	13:51:04
3	SiO2†	55498.5	53819.1	5306.6 µg/L	5306.6 ppb	13:50:44
3	Si 251.611†	170609.7	170291.5	2484.4 µg/L	2484.4 ppb	13:50:44
3	Sn 189.927†	7610.2	7619.4	501.15 µg/L	501.15 ppb	13:51:04
3	Ti 334.940†	508548.4	508786.4	499.40 µg/L	499.40 ppb	13:50:44
3	Tl 190.801†	3712.8	3836.2	506.17 µg/L	506.17 ppb	13:51:04
3	U 409.014†	7403.1	7709.1	481.33 µg/L	481.33 ppb	13:50:44
3	V 292.402†	102681.4	102512.1	501.57 µg/L	501.57 ppb	13:50:44
3	Zn 213.857†	90688.6	90267.9	497.06 µg/L	497.06 ppb	13:50:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1715045.4	99.659	%	0.1744				0.17%
Sc RADIAL	130108.8	101	%	0.6				0.60%
Y 371.029	982516.4	98.650	%	0.1683				0.17%
Ag 328.068†	127784.1	501.37	µg/L	0.853	501.37	ppb	0.853	0.17%
QC value within limits for Ag 328.068 Recovery = 100.27%								
Al 396.153Radial†	24094.3	5082.4	µg/L	32.20	5082.4	ppb	32.20	0.63%
QC value within limits for Al 396.153Radial Recovery = 101.65%								
As 188.979†	1516.9	505.23	µg/L	4.853	505.23	ppb	4.853	0.96%
QC value within limits for As 188.979 Recovery = 101.05%								
B 249.677†	34399.3	492.17	µg/L	2.539	492.17	ppb	2.539	0.52%
QC value within limits for B 249.677 Recovery = 98.43%								
Ba 233.527†	118056.4	499.86	µg/L	0.435	499.86	ppb	0.435	0.09%
QC value within limits for Ba 233.527 Recovery = 99.97%								
Be 313.107†	1832471.5	500.85	µg/L	0.879	500.85	ppb	0.879	0.18%
QC value within limits for Be 313.107 Recovery = 100.17%								
Ca 317.933Radial†	74274.5	5095.1	µg/L	3.50	5095.1	ppb	3.50	0.07%
QC value within limits for Ca 317.933Radial Recovery = 101.90%								
Cd 226.502†	79802.8	500.01	µg/L	1.369	500.01	ppb	1.369	0.27%
QC value within limits for Cd 226.502 Recovery = 100.00%								
Co 228.616†	40786.0	503.58	µg/L	1.092	503.58	ppb	1.092	0.22%

```
   QC value within limits for Co 228.616  Recovery = 100.72%
Cr 267.716†            60956.7      498.12 µg/L         1.835      498.12 ppb          1.835   0.37%
   QC value within limits for Cr 267.716  Recovery = 99.62%
Cu 324.752†           125754.2      497.63 µg/L         0.867      497.63 ppb          0.867   0.17%
   QC value within limits for Cu 324.752  Recovery = 99.53%
Fe 238.204 Radial†     68209.8      5062.4 µg/L         18.04      5062.4 ppb          18.04   0.36%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.25%
K 766.490 Radial†      13172.8      5028.3 µg/L         21.19      5028.3 ppb          21.19   0.42%
   QC value within limits for K 766.490 Radial  Recovery = 100.57%
Mg 279.077 IEC†        11181.6      5187.8 µg/L         12.13      5187.8 ppb          12.13   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.76%
Mn 257.610†           400259.5      502.61 µg/L         0.475      502.61 ppb          0.475   0.09%
   QC value within limits for Mn 257.610  Recovery = 100.52%
Mo 202.031†            16158.8      503.38 µg/L         3.764      503.38 ppb          3.764   0.75%
   QC value within limits for Mo 202.031  Recovery = 100.68%
Na 589.592 Radial†     67833.8       10054 µg/L           2.9       10054 ppb            2.9   0.03%
   QC value within limits for Na 589.592 Radial  Recovery = 100.54%
Ni 231.604†            42743.6      501.46 µg/L         1.851      501.46 ppb          1.851   0.37%
   QC value within limits for Ni 231.604  Recovery = 100.29%
P 214.914†             11640.4      2507.7 µg/L         24.00      2507.7 ppb          24.00   0.96%
   QC value within limits for P 214.914  Recovery = 100.31%
Pb 220.353†             8739.9      509.31 µg/L         4.159      509.31 ppb          4.159   0.82%
   QC value within limits for Pb 220.353  Recovery = 101.86%
S 181.975 Axial†        1042.4      933.69 µg/L        10.182      933.69 ppb         10.182   1.09%
   QC value within limits for S 181.975 Axial  Recovery = 93.37%
Sb 206.836†             4178.1      505.78 µg/L         5.501      505.78 ppb          5.501   1.09%
   QC value within limits for Sb 206.836  Recovery = 101.16%
Se 196.026†             1358.2         507 µg/L           4.6         507 ppb            4.6   0.91%
   QC value within limits for Se 196.026  Recovery = 101.37%
SiO2†                  53668.7      5291.5 µg/L         13.52      5291.5 ppb          13.52   0.26%
   QC value within limits for SiO2  Recovery = 98.95%
Si 251.611†           169910.9      2478.8 µg/L          5.32      2478.8 ppb           5.32   0.21%
   QC value within limits for Si 251.611  Recovery = 99.15%
Sn 189.927†             7677.9      504.98 µg/L         4.316      504.98 ppb          4.316   0.85%
   QC value within limits for Sn 189.927  Recovery = 101.00%
Sr 421.552†           216971.5      501.38 µg/L         1.350      501.38 ppb          1.350   0.27%
   QC value within limits for Sr 421.552  Recovery = 100.28%
Ti 334.940†           508596.5      499.21 µg/L         0.300      499.21 ppb          0.300   0.06%
   QC value within limits for Ti 334.940  Recovery = 99.84%
Tl 190.801†             3873.7      511.03 µg/L         5.204      511.03 ppb          5.204   1.02%
   QC value within limits for Tl 190.801  Recovery = 102.21%
U 409.014†              7782.0      485.60 µg/L         3.724      485.60 ppb          3.724   0.77%
   QC value within limits for U 409.014  Recovery = 97.12%
V 292.402†            102517.9      501.63 µg/L         0.775      501.63 ppb          0.775   0.15%
   QC value within limits for V 292.402  Recovery = 100.33%
Zn 213.857†            90001.6      495.59 µg/L         1.482      495.59 ppb          1.482   0.30%
   QC value within limits for Zn 213.857  Recovery = 99.12%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/7/2010 13:51:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130432.5	130432.5	102	%			13:51:41
1	Al 396.153Radial†	-69.4	17.3	3.6730	µg/L	3.6730	ppb	13:52:01
1	Ca 317.933Radial†	513.3	-0.9	-0.0585	µg/L	-0.0585	ppb	13:52:01
1	Fe 238.204 Radial†	154.4	30.7	2.2807	µg/L	2.2807	ppb	13:52:01
1	K 766.490 Radial†	1737.9	147.3	56.269	µg/L	56.269	ppb	13:51:41
1	Mg 279.077 IEC†	179.2	13.5	6.2453	µg/L	6.2453	ppb	13:52:01
1	Na 589.592 Radial†	1231.4	282.8	41.879	µg/L	41.879	ppb	13:51:41
1	Sr 421.552†	-130.6	-23.0	-0.0532	µg/L	-0.0532	ppb	13:51:41
1	Sc 361.383	1732207.3	1732207.3	100.66	%			13:53:03
1	Y 371.029	1002492.5	1002492.5	100.66	%			13:53:03
1	Ag 328.068†	4868.2	236.0	0.9256	µg/L	0.9256	ppb	13:53:05
1	As 188.979†	-10.0	-1.3	-0.4314	µg/L	-0.4314	ppb	13:53:26
1	B 249.677†	4080.5	58.4	0.8377	µg/L	0.8377	ppb	13:53:05
1	Ba 233.527†	-138.5	2.4	0.0105	µg/L	0.0105	ppb	13:53:26
1	Be 313.107†	-783.1	232.3	0.0636	µg/L	0.0636	ppb	13:53:05
1	Cd 226.502†	-48.4	39.8	0.2495	µg/L	0.2495	ppb	13:53:26
1	Co 228.616†	-193.6	3.3	0.0403	µg/L	0.0403	ppb	13:53:26
1	Cr 267.716†	290.8	26.7	0.2183	µg/L	0.2183	ppb	13:53:26
1	Cu 324.752†	3215.9	8.2	0.0332	µg/L	0.0332	ppb	13:53:05
1	Mn 257.610†	243.6	68.1	0.0853	µg/L	0.0853	ppb	13:53:26
1	Mo 202.031†	-26.3	-5.9	-0.1828	µg/L	-0.1828	ppb	13:53:26
1	Ni 231.604†	-93.9	-2.2	-0.0258	µg/L	-0.0258	ppb	13:53:26
1	P 214.914†	-10.7	-4.9	-1.0680	µg/L	-1.0680	ppb	13:53:26
1	Pb 220.353†	121.8	7.8	0.4507	µg/L	0.4507	ppb	13:53:26
1	S 181.975 Axial†	316.1	-12.0	-10.695	µg/L	-10.695	ppb	13:53:26
1	Sb 206.836†	71.6	-9.2	-1.1121	µg/L	-1.1121	ppb	13:53:26
1	Se 196.026†	16.2	-4.4	-1.64	µg/L	-1.64	ppb	13:53:26
1	SiO2†	1815.9	14.6	1.4536	µg/L	1.4536	ppb	13:53:05
1	Si 251.611†	829.4	167.2	2.4537	µg/L	2.4537	ppb	13:53:05
1	Sn 189.927†	1.3	-4.5	-0.2980	µg/L	-0.2980	ppb	13:53:26
1	Ti 334.940†	840.7	63.9	0.0621	µg/L	0.0621	ppb	13:53:05
1	Tl 190.801†	-113.7	3.1	0.4113	µg/L	0.4113	ppb	13:53:26
1	U 409.014†	-286.3	6.8	0.4509	µg/L	0.4509	ppb	13:53:05
1	V 292.402†	558.9	182.2	0.8788	µg/L	0.8788	ppb	13:53:05
1	Zn 213.857†	655.6	50.6	0.2807	µg/L	0.2807	ppb	13:53:26
2	Sc RADIAL	130857.8	130857.8	102	%			13:52:03
2	Al 396.153Radial†	-99.1	-11.6	-2.4667	µg/L	-2.4667	ppb	13:52:23
2	Ca 317.933Radial†	538.6	22.3	1.5321	µg/L	1.5321	ppb	13:52:23
2	Fe 238.204 Radial†	164.8	40.4	2.9994	µg/L	2.9994	ppb	13:52:23
2	K 766.490 Radial†	1607.1	13.3	5.0812	µg/L	5.0812	ppb	13:52:03
2	Mg 279.077 IEC†	162.5	-3.5	-1.6369	µg/L	-1.6369	ppb	13:52:23
2	Na 589.592 Radial†	1160.2	208.8	30.964	µg/L	30.964	ppb	13:52:03
2	Sr 421.552†	-17.4	88.5	0.2045	µg/L	0.2045	ppb	13:52:03
2	Sc 361.383	1717419.4	1717419.4	99.797	%			13:53:28
2	Y 371.029	993844.5	993844.5	99.788	%			13:53:28
2	Ag 328.068†	4668.6	77.7	0.3000	µg/L	0.3000	ppb	13:53:30
2	As 188.979†	-13.9	-5.3	-1.7516	µg/L	-1.7516	ppb	13:53:50
2	B 249.677†	4103.8	116.6	1.6742	µg/L	1.6742	ppb	13:53:30
2	Ba 233.527†	-164.2	-24.6	-0.1042	µg/L	-0.1042	ppb	13:53:50
2	Be 313.107†	-817.2	191.4	0.0533	µg/L	0.0533	ppb	13:53:30
2	Cd 226.502†	-41.3	46.5	0.2916	µg/L	0.2916	ppb	13:53:50
2	Co 228.616†	-197.4	-2.2	-0.0270	µg/L	-0.0270	ppb	13:53:50
2	Cr 267.716†	225.9	-35.9	-0.2958	µg/L	-0.2958	ppb	13:53:50
2	Cu 324.752†	3325.7	145.7	0.5778	µg/L	0.5778	ppb	13:53:30
2	Mn 257.610†	258.8	85.4	0.1073	µg/L	0.1073	ppb	13:53:50
2	Mo 202.031†	-21.5	-1.3	-0.0403	µg/L	-0.0403	ppb	13:53:50
2	Ni 231.604†	-64.5	26.5	0.3112	µg/L	0.3112	ppb	13:53:50
2	P 214.914†	-8.0	-2.4	-0.5161	µg/L	-0.5161	ppb	13:53:50
2	Pb 220.353†	106.4	-6.7	-0.3916	µg/L	-0.3916	ppb	13:53:50

2	S 181.975 Axial†	322.7	-2.7	-2.4321 µg/L	-2.4321 ppb		13:53:50
2	Sb 206.836†	95.5	15.3	1.8548 µg/L	1.8548 ppb		13:53:50
2	Se 196.026†	30.5	10.1	3.75 µg/L	3.75 ppb		13:53:50
2	SiO2†	1857.4	71.8	7.1036 µg/L	7.1036 ppb		13:53:30
2	Si 251.611†	778.6	123.4	1.8076 µg/L	1.8076 ppb		13:53:30
2	Sn 189.927†	6.6	0.8	0.0518 µg/L	0.0518 ppb		13:53:50
2	Ti 334.940†	786.5	16.8	0.0155 µg/L	0.0155 ppb		13:53:30
2	Tl 190.801†	-112.7	3.1	0.3983 µg/L	0.3983 ppb		13:53:50
2	U 409.014†	-235.7	55.1	3.2022 µg/L	3.2022 ppb		13:53:30
2	V 292.402†	285.8	-86.7	-0.4184 µg/L	-0.4184 ppb		13:53:30
2	Zn 213.857†	659.8	60.4	0.3324 µg/L	0.3324 ppb		13:53:50
3	Sc RADIAL	128046.0	128046.0	99.6 %			13:52:25
3	Al 396.153Radial†	-93.8	-8.5	-1.8424 µg/L	-1.8424 ppb		13:52:45
3	Ca 317.933Radial†	507.7	2.9	0.2011 µg/L	0.2011 ppb		13:52:45
3	Fe 238.204 Radial†	154.5	33.6	2.4959 µg/L	2.4959 ppb		13:52:45
3	K 766.490 Radial†	1679.7	120.9	46.182 µg/L	46.182 ppb		13:52:25
3	Mg 279.077 IEC†	171.0	8.6	3.9929 µg/L	3.9929 ppb		13:52:45
3	Na 589.592 Radial†	1174.7	248.4	36.792 µg/L	36.792 ppb		13:52:25
3	Sr 421.552†	-51.3	54.2	0.1251 µg/L	0.1251 ppb		13:52:25
3	Sc 361.383	1738640.5	1738640.5	101.03 %			13:53:52
3	Y 371.029	1004823.8	1004823.8	100.89 %			13:53:52
3	Ag 328.068†	4483.3	-162.8	-0.6214 µg/L	-0.6214 ppb		13:53:54
3	As 188.979†	-5.7	3.0	0.9919 µg/L	0.9919 ppb		13:54:14
3	B 249.677†	4112.9	75.5	1.0838 µg/L	1.0838 ppb		13:53:54
3	Ba 233.527†	-139.4	2.0	0.0090 µg/L	0.0090 ppb		13:54:14
3	Be 313.107†	-605.9	410.6	0.1136 µg/L	0.1136 ppb		13:53:54
3	Cd 226.502†	-47.1	41.3	0.2587 µg/L	0.2587 ppb		13:54:14
3	Co 228.616†	-209.3	-11.6	-0.1427 µg/L	-0.1427 ppb		13:54:14
3	Cr 267.716†	230.2	-34.4	-0.2851 µg/L	-0.2851 ppb		13:54:14
3	Cu 324.752†	3111.3	-107.2	-0.4185 µg/L	-0.4185 ppb		13:53:54
3	Mn 257.610†	283.0	106.2	0.1332 µg/L	0.1332 ppb		13:54:14
3	Mo 202.031†	4.2	24.4	0.7602 µg/L	0.7602 ppb		13:54:14
3	Ni 231.604†	-72.9	19.0	0.2228 µg/L	0.2228 ppb		13:54:14
3	P 214.914†	-0.9	4.8	1.0283 µg/L	1.0283 ppb		13:54:14
3	Pb 220.353†	98.1	-16.2	-0.9402 µg/L	-0.9402 ppb		13:54:14
3	S 181.975 Axial†	323.9	-5.4	-4.8325 µg/L	-4.8325 ppb		13:54:14
3	Sb 206.836†	90.5	9.3	1.1348 µg/L	1.1348 ppb		13:54:14
3	Se 196.026†	24.4	3.7	1.38 µg/L	1.38 ppb		13:54:14
3	SiO2†	1704.6	-102.3	-10.148 µg/L	-10.148 ppb		13:53:54
3	Si 251.611†	861.9	196.3	2.8641 µg/L	2.8641 ppb		13:53:54
3	Sn 189.927†	8.1	2.2	0.1436 µg/L	0.1436 ppb		13:54:14
3	Ti 334.940†	783.1	3.9	0.0016 µg/L	0.0016 ppb		13:53:54
3	Tl 190.801†	-111.4	5.8	0.7585 µg/L	0.7585 ppb		13:54:14
3	U 409.014†	-211.0	82.5	4.8466 µg/L	4.8466 ppb		13:53:54
3	V 292.402†	440.9	63.4	0.3155 µg/L	0.3155 ppb		13:53:54
3	Zn 213.857†	657.8	50.3	0.2781 µg/L	0.2781 ppb		13:54:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729422.4	100.49	%	0.632				0.63%
Sc RADIAL	129778.8	101	%	1.2				1.17%
Y 371.029	1000386.9	100.44	%	0.581				0.58%
Ag 328.068†	50.3	0.2014	µg/L	0.77818	0.2014	ppb	0.77818	386.41%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.0	-0.2120	µg/L	3.37899	-0.2120	ppb	3.37899	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.2	-0.3970	µg/L	1.37211	-0.3970	ppb	1.37211	345.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	83.5	1.1986	µg/L	0.42986	1.1986	ppb	0.42986	35.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.7	-0.0283	µg/L	0.06580	-0.0283	ppb	0.06580	232.75%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	278.1	0.0768	µg/L	0.03228	0.0768	ppb	0.03228	42.01%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.1	0.5582	µg/L	0.85335	0.5582	ppb	0.85335	152.87%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	42.6	0.2666	µg/L	0.02211	0.2666	ppb	0.02211	8.29%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.5	-0.0432	µg/L	0.09256	-0.0432	ppb	0.09256	214.42%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -14.5     -0.1208 µg/L       0.29378     -0.1208 ppb        0.29378 243.11%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               15.6      0.0642 µg/L       0.49885      0.0642 ppb        0.49885 777.44%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        34.9      2.5920 µg/L       0.36886      2.5920 ppb        0.36886  14.23%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         93.8      35.844 µg/L       27.1145      35.844 ppb        27.1145  75.65%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            6.2      2.8671 µg/L       4.05991      2.8671 ppb        4.05991 141.60%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               86.5      0.1086 µg/L       0.02399      0.1086 ppb        0.02399  22.10%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.7      0.1791 µg/L       0.50829      0.1791 ppb        0.50829 283.87%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       246.7      36.545 µg/L        5.4618      36.545 ppb         5.4618  14.95%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               14.4      0.1694 µg/L       0.17474      0.1694 ppb        0.17474 103.15%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.8     -0.1853 µg/L       1.08659     -0.1853 ppb        1.08659 586.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -5.0     -0.2937 µg/L       0.70062     -0.2937 ppb        0.70062 238.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -6.7     -5.9864 µg/L       4.25038     -5.9864 ppb        4.25038  71.00%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.1      0.6259 µg/L       1.54754      0.6259 ppb        1.54754 247.27%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.1        1.16 µg/L         2.704        1.16 ppb          2.704 232.56%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -5.3     -0.5301 µg/L       8.79497     -0.5301 ppb        8.79497 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              162.3      2.3752 µg/L       0.53259      2.3752 ppb        0.53259  22.42%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.5     -0.0342 µg/L       0.23300     -0.0342 ppb        0.23300 681.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               39.9      0.0922 µg/L       0.13196      0.0922 ppb        0.13196 143.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               28.2      0.0264 µg/L       0.03169      0.0264 ppb        0.03169 120.06%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.0      0.5227 µg/L       0.20429      0.5227 ppb        0.20429  39.08%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                48.2      2.8332 µg/L       2.22095      2.8332 ppb        2.22095  78.39%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                53.0      0.2586 µg/L       0.65048      0.2586 ppb        0.65048 251.52%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               53.8      0.2970 µg/L       0.03062      0.2970 ppb        0.03062  10.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 4/7/2010 13:58:22 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040710.sif
Batch ID:
Results Data Set: 040710
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 301**
Sample ID: 1202089225|972603|1 **Date Collected: 4/7/2010 13:58:24**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202089225|972603|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	126158.1	126158.1	98.2	%			13:58:55
1	Al 396.153Radial†	-84.9	-0.9	-0.1423	µg/L	-0.1423	ppb	13:59:15
1	Ca 317.933Radial†	702.6	209.2	14.349	µg/L	14.349	ppb	13:59:15
1	Fe 238.204 Radial†	848.0	742.3	55.096	µg/L	55.096	ppb	13:59:15
1	K 766.490 Radial†	1475.5	-61.9	-23.673	µg/L	-23.673	ppb	13:58:55
1	Mg 279.077 IEC†	177.9	18.1	8.3169	µg/L	8.3169	ppb	13:59:15
1	Na 589.592 Radial†	1601.0	700.3	103.87	µg/L	103.87	ppb	13:58:55
1	Sr 421.552†	-48.1	56.6	0.1307	µg/L	0.1307	ppb	13:58:55
1	Sc 361.383	1686932.0	1686932.0	98.025	%			14:00:17
1	Y 371.029	975808.9	975808.9	97.977	%			14:00:17
1	Ag 328.068†	4674.8	168.6	0.6531	µg/L	0.6531	ppb	14:00:19
1	As 188.979†	-14.9	-6.6	-2.1463	µg/L	-2.1463	ppb	14:00:39
1	B 249.677†	4012.9	98.2	1.4107	µg/L	1.4107	ppb	14:00:19
1	Ba 233.527†	-74.7	63.8	0.2691	µg/L	0.2691	ppb	14:00:39
1	Be 313.107†	-815.7	178.1	0.0483	µg/L	0.0483	ppb	14:00:19
1	Cd 226.502†	-73.6	12.8	0.0747	µg/L	0.0747	ppb	14:00:39
1	Co 228.616†	-202.9	-11.3	-0.1423	µg/L	-0.1423	ppb	14:00:39
1	Cr 267.716†	292.9	36.6	0.3016	µg/L	0.3016	ppb	14:00:39
1	Cu 324.752†	3282.7	162.1	0.6467	µg/L	0.6467	ppb	14:00:19
1	Mn 257.610†	974.4	820.1	1.0298	µg/L	1.0298	ppb	14:00:39
1	Mo 202.031†	-46.3	-27.0	-0.8373	µg/L	-0.8373	ppb	14:00:39
1	Ni 231.604†	-81.3	8.2	0.0960	µg/L	0.0960	ppb	14:00:39
1	P 214.914†	26.1	32.3	6.9456	µg/L	6.9456	ppb	14:00:39
1	Pb 220.353†	88.4	-23.1	-1.3442	µg/L	-1.3442	ppb	14:00:39
1	S 181.975 Axial†	309.4	-10.4	-9.2819	µg/L	-9.2819	ppb	14:00:39
1	Sb 206.836†	88.7	10.2	1.2129	µg/L	1.2129	ppb	14:00:39
1	Se 196.026†	31.5	11.7	4.35	µg/L	4.35	ppb	14:00:39
1	SiO2†	2148.6	402.4	39.865	µg/L	39.865	ppb	14:00:19
1	Si 251.611†	2086.0	1471.2	21.562	µg/L	21.562	ppb	14:00:19
1	Sn 189.927†	5.6	-0.2	-0.0109	µg/L	-0.0109	ppb	14:00:39
1	Ti 334.940†	1038.3	287.9	0.2831	µg/L	0.2831	ppb	14:00:19
1	Tl 190.801†	-106.0	7.9	1.0360	µg/L	1.0360	ppb	14:00:39
1	U 409.014†	-305.6	-20.4	-1.1869	µg/L	-1.1869	ppb	14:00:19
1	V 292.402†	407.0	42.2	0.1894	µg/L	0.1894	ppb	14:00:19
1	Zn 213.857†	1120.7	542.6	3.0047	µg/L	3.0047	ppb	14:00:39
2	Sc RADIAL	126575.8	126575.8	98.5	%			13:59:17
2	Al 396.153Radial†	-68.2	16.4	3.4725	µg/L	3.4725	ppb	13:59:37
2	Ca 317.933Radial†	727.1	231.7	15.893	µg/L	15.893	ppb	13:59:37
2	Fe 238.204 Radial†	861.8	753.5	55.924	µg/L	55.924	ppb	13:59:37
2	K 766.490 Radial†	1662.0	122.5	46.781	µg/L	46.781	ppb	13:59:17
2	Mg 279.077 IEC†	160.4	-0.2	-0.1480	µg/L	-0.1480	ppb	13:59:37
2	Na 589.592 Radial†	1711.0	806.6	119.57	µg/L	119.57	ppb	13:59:17
2	Sr 421.552†	-97.7	6.4	0.0147	µg/L	0.0147	ppb	13:59:17
2	Sc 361.383	1674481.6	1674481.6	97.302	%			14:00:41
2	Y 371.029	968155.7	968155.7	97.208	%			14:00:41
2	Ag 328.068†	4556.1	82.0	0.3255	µg/L	0.3255	ppb	14:00:43
2	As 188.979†	-5.8	2.6	0.8783	µg/L	0.8783	ppb	14:01:03

2	B 249.677†	4042.9	159.4	2.2899 µg/L	2.2899 ppb		14:00:43
2	Ba 233.527†	-109.9	27.1	0.1136 µg/L	0.1136 ppb		14:01:03
2	Be 313.107†	-625.9	367.0	0.1034 µg/L	0.1034 ppb		14:00:43
2	Cd 226.502†	-42.6	44.1	0.2710 µg/L	0.2710 ppb		14:01:03
2	Co 228.616†	-208.2	-18.3	-0.2291 µg/L	-0.2291 ppb		14:01:03
2	Cr 267.716†	303.7	49.9	0.4013 µg/L	0.4013 ppb		14:01:03
2	Cu 324.752†	3133.6	33.7	0.1495 µg/L	0.1495 ppb		14:00:43
2	Mn 257.610†	1008.3	862.3	1.0831 µg/L	1.0831 ppb		14:01:03
2	Mo 202.031†	-21.3	-1.7	-0.0495 µg/L	-0.0495 ppb		14:01:03
2	Ni 231.604†	-66.2	23.1	0.2705 µg/L	0.2705 ppb		14:01:03
2	P 214.914†	-19.7	-14.6	-3.1855 µg/L	-3.1855 ppb		14:01:03
2	Pb 220.353†	99.8	-10.7	-0.6287 µg/L	-0.6287 ppb		14:01:03
2	S 181.975 Axial†	326.0	9.0	8.0206 µg/L	8.0206 ppb		14:01:03
2	Sb 206.836†	87.5	9.6	1.1498 µg/L	1.1498 ppb		14:01:03
2	Se 196.026†	21.7	1.8	0.700 µg/L	0.700 ppb		14:01:03
2	SiO2†	2133.1	402.8	39.874 µg/L	39.874 ppb		14:00:43
2	Si 251.611†	1885.3	1280.8	18.758 µg/L	18.758 ppb		14:00:43
2	Sn 189.927†	13.9	8.4	0.5528 µg/L	0.5528 ppb		14:01:03
2	Ti 334.940†	763.5	13.5	0.0093 µg/L	0.0093 ppb		14:00:43
2	Tl 190.801†	-109.3	3.7	0.4849 µg/L	0.4849 ppb		14:01:03
2	U 409.014†	-113.7	174.4	10.183 µg/L	10.183 ppb		14:00:43
2	V 292.402†	299.6	-65.1	-0.3123 µg/L	-0.3123 ppb		14:00:43
2	Zn 213.857†	1151.5	582.7	3.2266 µg/L	3.2266 ppb		14:01:03
3	Sc RADIAL	127354.5	127354.5	99.1 %			13:59:39
3	Al 396.153Radial†	-88.7	-3.8	-0.7929 µg/L	-0.7929 ppb		13:59:59
3	Ca 317.933Radial†	714.2	214.1	14.685 µg/L	14.685 ppb		13:59:59
3	Fe 238.204 Radial†	872.4	758.9	56.325 µg/L	56.325 ppb		13:59:59
3	K 766.490 Radial†	1629.7	79.5	30.367 µg/L	30.367 ppb		13:59:39
3	Mg 279.077 IEC†	158.5	-3.1	-1.4998 µg/L	-1.4998 ppb		13:59:59
3	Na 589.592 Radial†	1751.2	836.5	124.02 µg/L	124.02 ppb		13:59:39
3	Sr 421.552†	143.5	250.4	0.5785 µg/L	0.5785 ppb		13:59:39
3	Sc 361.383	1708500.8	1708500.8	99.278 %			14:01:06
3	Y 371.029	987821.4	987821.4	99.183 %			14:01:06
3	Ag 328.068†	4572.8	5.6	0.0147 µg/L	0.0147 ppb		14:01:08
3	As 188.979†	-17.6	-9.1	-2.9828 µg/L	-2.9828 ppb		14:01:28
3	B 249.677†	4169.6	204.3	2.9333 µg/L	2.9333 ppb		14:01:08
3	Ba 233.527†	-99.1	40.2	0.1692 µg/L	0.1692 ppb		14:01:28
3	Be 313.107†	-873.4	130.6	0.0336 µg/L	0.0336 ppb		14:01:08
3	Cd 226.502†	-66.3	21.2	0.1271 µg/L	0.1271 ppb		14:01:28
3	Co 228.616†	-181.1	13.2	0.1607 µg/L	0.1607 ppb		14:01:28
3	Cr 267.716†	289.9	29.8	0.2504 µg/L	0.2504 ppb		14:01:28
3	Cu 324.752†	3329.0	166.4	0.6593 µg/L	0.6593 ppb		14:01:08
3	Mn 257.610†	964.6	797.7	1.0020 µg/L	1.0020 ppb		14:01:28
3	Mo 202.031†	-33.0	-13.0	-0.4028 µg/L	-0.4028 ppb		14:01:28
3	Ni 231.604†	-49.1	41.6	0.4884 µg/L	0.4884 ppb		14:01:28
3	P 214.914†	-6.4	-0.8	-0.2075 µg/L	-0.2075 ppb		14:01:28
3	Pb 220.353†	98.2	-14.4	-0.8318 µg/L	-0.8318 ppb		14:01:28
3	S 181.975 Axial†	312.7	-11.1	-9.9055 µg/L	-9.9055 ppb		14:01:28
3	Sb 206.836†	79.5	-0.2	-0.0334 µg/L	-0.0334 ppb		14:01:28
3	Se 196.026†	13.3	-7.1	-2.64 µg/L	-2.64 ppb		14:01:28
3	SiO2†	2110.8	336.6	33.323 µg/L	33.323 ppb		14:01:08
3	Si 251.611†	1886.3	1243.2	18.208 µg/L	18.208 ppb		14:01:08
3	Sn 189.927†	21.5	15.7	1.0319 µg/L	1.0319 ppb		14:01:28
3	Ti 334.940†	923.7	159.2	0.1596 µg/L	0.1596 ppb		14:01:08
3	Tl 190.801†	-114.6	0.6	0.0848 µg/L	0.0848 ppb		14:01:28
3	U 409.014†	-403.2	-114.8	-6.7127 µg/L	-6.7127 ppb		14:01:08
3	V 292.402†	409.1	39.0	0.1747 µg/L	0.1747 ppb		14:01:08
3	Zn 213.857†	1160.5	568.2	3.1443 µg/L	3.1443 ppb		14:01:28

Mean Data: 1202089225|972603|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1689971.5	98.202	%	1.0002				1.02%
Sc RADIAL	126696.1	98.6	%	0.47				0.48%
Y 371.029	977262.0	98.123	%	0.9953				1.01%
Ag 328.068†	85.4	0.3311	µg/L	0.31921	0.3311	ppb	0.31921	96.41%
Al 396.153Radial†	3.9	0.8458	µg/L	2.29796	0.8458	ppb	2.29796	271.69%
As 188.979†	-4.4	-1.4169	µg/L	2.03124	-1.4169	ppb	2.03124	143.36%
B 249.677†	154.0	2.2113	µg/L	0.76437	2.2113	ppb	0.76437	34.57%
Ba 233.527†	43.7	0.1840	µg/L	0.07881	0.1840	ppb	0.07881	42.83%

Be 313.107†	225.2	0.0618	µg/L	0.03676	0.0618	ppb	0.03676	59.51%
Ca 317.933Radial†	218.3	14.976	µg/L	0.8119	14.976	ppb	0.8119	5.42%
Cd 226.502†	26.1	0.1576	µg/L	0.10165	0.1576	ppb	0.10165	64.50%
Co 228.616†	-5.5	-0.0702	µg/L	0.20469	-0.0702	ppb	0.20469	291.39%
Cr 267.716†	38.7	0.3178	µg/L	0.07673	0.3178	ppb	0.07673	24.15%
Cu 324.752†	120.8	0.4852	µg/L	0.29073	0.4852	ppb	0.29073	59.92%
Fe 238.204 Radial†	751.6	55.782	µg/L	0.6268	55.782	ppb	0.6268	1.12%
K 766.490 Radial†	46.7	17.825	µg/L	36.8631	17.825	ppb	36.8631	206.81%
Mg 279.077 IEC†	4.9	2.2230	µg/L	5.32054	2.2230	ppb	5.32054	239.34%
Mn 257.610†	826.7	1.0383	µg/L	0.04124	1.0383	ppb	0.04124	3.97%
Mo 202.031†	-13.9	-0.4298	µg/L	0.39459	-0.4298	ppb	0.39459	91.80%
Na 589.592 Radial†	781.1	115.82	µg/L	10.586	115.82	ppb	10.586	9.14%
Ni 231.604†	24.3	0.2849	µg/L	0.19661	0.2849	ppb	0.19661	69.00%
P 214.914†	5.6	1.1842	µg/L	5.20697	1.1842	ppb	5.20697	439.71%
Pb 220.353†	-16.0	-0.9349	µg/L	0.36871	-0.9349	ppb	0.36871	39.44%
S 181.975 Axial†	-4.2	-3.7223	µg/L	10.17440	-3.7223	ppb	10.17440	273.34%
Sb 206.836†	6.5	0.7764	µg/L	0.70202	0.7764	ppb	0.70202	90.42%
Se 196.026†	2.1	0.802	µg/L	3.4975	0.802	ppb	3.4975	435.88%
SiO2†	380.6	37.687	µg/L	3.7795	37.687	ppb	3.7795	10.03%
Si 251.611†	1331.8	19.509	µg/L	1.7985	19.509	ppb	1.7985	9.22%
Sn 189.927†	8.0	0.5246	µg/L	0.52197	0.5246	ppb	0.52197	99.51%
Sr 421.552†	104.5	0.2413	µg/L	0.29771	0.2413	ppb	0.29771	123.36%
Ti 334.940†	153.5	0.1507	µg/L	0.13708	0.1507	ppb	0.13708	90.99%
Tl 190.801†	4.1	0.5352	µg/L	0.47762	0.5352	ppb	0.47762	89.24%
U 409.014†	13.1	0.7610	µg/L	8.61440	0.7610	ppb	8.61440	>999.9%
V 292.402†	5.4	0.0172	µg/L	0.28552	0.0172	ppb	0.28552	>999.9%
Zn 213.857†	564.5	3.1252	µg/L	0.11217	3.1252	ppb	0.11217	3.59%

Sequence No.: 2
Sample ID: 1202089226|972603|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 302
Date Collected: 4/7/2010 14:01:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202089226|972603|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130600.6	130600.6	102	%			14:02:08
1	Al 396.153Radial†	367023.4	361215.5	76520	µg/L	76520	ppb	14:02:08
1	Ca 317.933Radial†	1390140.7	1367311.8	93795	µg/L	93795	ppb	14:02:08
1	Fe 238.204 Radial†	2512465.6	2472000.0	183470	µg/L	183470	ppb	14:02:06
1	K 766.490 Radial†	105763.0	102499.9	39119	µg/L	39119	ppb	14:02:08
1	Mg 279.077 IEC†	79029.0	77597.0	35802	µg/L	35802	ppb	14:02:08
1	Na 589.592 Radial†	66175.1	64182.1	9482.5	µg/L	9482.5	ppb	14:02:08
1	Sr 421.552†	989075.0	973298.5	2248.5	µg/L	2248.5	ppb	14:02:06
1	Sc 361.383	1700036.7	1700036.7	98.787	%			14:02:37
1	Y 371.029	1048136.6	1048136.6	105.24	%			14:02:37
1	Ag 328.068†	80863.0	77255.9	308.70	µg/L	308.70	ppb	14:02:37
1	As 188.979†	3052.3	3098.4	1081.0	µg/L	1081.0	ppb	14:02:39
1	B 249.677†	98206.9	95417.7	1367.0	µg/L	1367.0	ppb	14:02:37
1	Ba 233.527†	428442.2	433845.1	1834.0	µg/L	1834.0	ppb	14:02:37
1	Be 313.107†	2779750.2	2814906.5	769.09	µg/L	769.09	ppb	14:02:37
1	Cd 226.502†	92025.3	93243.7	565.88	µg/L	565.88	ppb	14:02:37
1	Co 228.616†	70482.4	71543.8	875.43	µg/L	875.43	ppb	14:02:37
1	Cr 267.716†	271977.2	275055.9	2253.7	µg/L	2253.7	ppb	14:02:37
1	Cu 324.752†	439490.7	441702.5	1770.5	µg/L	1770.5	ppb	14:02:37
1	Mn 257.610†	4083658.4	4133647.3	5191.0	µg/L	5191.0	ppb	14:02:37
1	Mo 202.031†	16011.0	16228.0	513.39	µg/L	513.39	ppb	14:02:39
1	Ni 231.604†	106782.6	108185.4	1269.2	µg/L	1269.2	ppb	14:02:37
1	P 214.914†	37299.0	37762.9	8040.3	µg/L	8040.3	ppb	14:02:39
1	Pb 220.353†	13991.5	14050.1	823.61	µg/L	823.61	ppb	14:02:39
1	S 181.975 Axial†	4683.8	4415.3	3941.2	µg/L	3941.2	ppb	14:02:39
1	Sb 206.836†	14352.6	14448.6	1719.3	µg/L	1719.3	ppb	14:02:39
1	Se 196.026†	7483.0	7554.4	2870	µg/L	2870	ppb	14:02:39
1	SiO2†	153066.4	153157.2	15133	µg/L	15133	ppb	14:02:37
1	Si 251.611†	478101.4	483317.5	7065.8	µg/L	7065.8	ppb	14:02:37
1	Sn 189.927†	15910.5	16100.1	1075.2	µg/L	1075.2	ppb	14:02:39
1	Ti 334.940†	5893702.4	5965328.4	5861.6	µg/L	5861.6	ppb	14:02:37
1	Tl 190.801†	8487.5	8707.8	1208.8	µg/L	1208.8	ppb	14:02:39
1	U 409.014†	-4139.0	-3898.6	-165.04	µg/L	-165.04	ppb	14:02:37
1	V 292.402†	248311.5	250988.6	1201.8	µg/L	1201.8	ppb	14:02:37
1	Zn 213.857†	1010361.9	1022172.2	5648.1	µg/L	5648.1	ppb	14:02:37
2	Sc RADIAL	130016.4	130016.4	101	%			14:02:12
2	Al 396.153Radial†	366092.2	361917.9	76669	µg/L	76669	ppb	14:02:12
2	Ca 317.933Radial†	1382327.9	1365736.1	93687	µg/L	93687	ppb	14:02:12
2	Fe 238.204 Radial†	2562306.9	2532369.6	187950	µg/L	187950	ppb	14:02:10
2	K 766.490 Radial†	105025.3	102238.3	39019	µg/L	39019	ppb	14:02:12
2	Mg 279.077 IEC†	78397.1	77321.7	35670	µg/L	35670	ppb	14:02:12
2	Na 589.592 Radial†	66174.5	64474.0	9525.9	µg/L	9525.9	ppb	14:02:12
2	Sr 421.552†	1003518.5	991946.9	2291.6	µg/L	2291.6	ppb	14:02:10
2	Sc 361.383	1704765.1	1704765.1	99.061	%			14:02:43
2	Y 371.029	1052299.3	1052299.3	105.66	%			14:02:43
2	Ag 328.068†	81371.3	77542.0	309.82	µg/L	309.82	ppb	14:02:43
2	As 188.979†	3011.1	3048.2	1065.6	µg/L	1065.6	ppb	14:02:45
2	B 249.677†	98721.2	95661.1	1370.5	µg/L	1370.5	ppb	14:02:43
2	Ba 233.527†	430063.4	434278.7	1835.8	µg/L	1835.8	ppb	14:02:43
2	Be 313.107†	2786330.4	2813744.3	768.77	µg/L	768.77	ppb	14:02:43
2	Cd 226.502†	92798.5	93765.8	568.68	µg/L	568.68	ppb	14:02:43
2	Co 228.616†	70743.3	71609.3	876.01	µg/L	876.01	ppb	14:02:43
2	Cr 267.716†	273005.4	275330.2	2256.1	µg/L	2256.1	ppb	14:02:43
2	Cu 324.752†	441128.4	442121.9	1772.8	µg/L	1772.8	ppb	14:02:43
2	Mn 257.610†	4100089.8	4138768.9	5197.4	µg/L	5197.4	ppb	14:02:43
2	Mo 202.031†	16065.2	16237.7	513.87	µg/L	513.87	ppb	14:02:45
2	Ni 231.604†	107093.6	108199.6	1269.4	µg/L	1269.4	ppb	14:02:43
2	P 214.914†	37586.8	37948.6	8077.4	µg/L	8077.4	ppb	14:02:45
2	Pb 220.353†	13985.2	14004.4	820.82	µg/L	820.82	ppb	14:02:45

2	S 181.975 Axial†	4702.9	4421.4	3946.7	µg/L	3946.7 ppb	14:02:45
2	Sb 206.836†	14506.4	14563.6	1733.1	µg/L	1733.1 ppb	14:02:45
2	Se 196.026†	7559.6	7610.7	2890	µg/L	2890 ppb	14:02:45
2	SiO2†	156451.0	156144.1	15428	µg/L	15428 ppb	14:02:43
2	Si 251.611†	489149.9	493128.3	7209.5	µg/L	7209.5 ppb	14:02:43
2	Sn 189.927†	15930.6	16075.6	1073.5	µg/L	1073.5 ppb	14:02:45
2	Ti 334.940†	5906333.6	5961531.6	5857.9	µg/L	5857.9 ppb	14:02:43
2	Tl 190.801†	8434.2	8630.2	1198.7	µg/L	1198.7 ppb	14:02:45
2	U 409.014†	-4229.4	-3978.1	-170.50	µg/L	-170.50 ppb	14:02:43
2	V 292.402†	249641.0	251633.6	1204.4	µg/L	1204.4 ppb	14:02:43
2	Zn 213.857†	1015612.4	1024635.7	5661.3	µg/L	5661.3 ppb	14:02:43
3	Sc RADIAL	130460.5	130460.5	102	%		14:02:17
3	Al 396.153Radial†	366297.9	360888.6	76451	µg/L	76451 ppb	14:02:17
3	Ca 317.933Radial†	1391335.0	1369956.7	93976	µg/L	93976 ppb	14:02:17
3	Fe 238.204 Radial†	2510613.7	2472829.8	183530	µg/L	183530 ppb	14:02:15
3	K 766.490 Radial†	105724.9	102574.0	39147	µg/L	39147 ppb	14:02:17
3	Mg 279.077 IEC†	79157.9	77807.4	35899	µg/L	35899 ppb	14:02:17
3	Na 589.592 Radial†	66728.8	64797.4	9573.7	µg/L	9573.7 ppb	14:02:17
3	Sr 421.552†	990246.7	975497.3	2253.6	µg/L	2253.6 ppb	14:02:15
3	Sc 361.383	1708152.3	1708152.3	99.258	%		14:02:49
3	Y 371.029	1054180.4	1054180.4	105.85	%		14:02:49
3	Ag 328.068†	81640.5	77650.3	310.24	µg/L	310.24 ppb	14:02:49
3	As 188.979†	3025.2	3056.4	1067.3	µg/L	1067.3 ppb	14:02:51
3	B 249.677†	99108.3	95853.5	1373.2	µg/L	1373.2 ppb	14:02:49
3	Ba 233.527†	431302.4	434666.1	1837.5	µg/L	1837.5 ppb	14:02:49
3	Be 313.107†	2794225.8	2816121.2	769.42	µg/L	769.42 ppb	14:02:49
3	Cd 226.502†	92847.8	93629.7	568.29	µg/L	568.29 ppb	14:02:49
3	Co 228.616†	70834.5	71559.6	875.63	µg/L	875.63 ppb	14:02:49
3	Cr 267.716†	273582.3	275364.9	2256.2	µg/L	2256.2 ppb	14:02:49
3	Cu 324.752†	441694.8	441809.4	1770.9	µg/L	1770.9 ppb	14:02:49
3	Mn 257.610†	4112663.8	4143229.5	5203.0	µg/L	5203.0 ppb	14:02:49
3	Mo 202.031†	16160.5	16301.5	515.68	µg/L	515.68 ppb	14:02:51
3	Ni 231.604†	107713.1	108609.3	1274.2	µg/L	1274.2 ppb	14:02:49
3	P 214.914†	37547.1	37833.4	8055.4	µg/L	8055.4 ppb	14:02:51
3	Pb 220.353†	14036.0	14027.7	822.30	µg/L	822.30 ppb	14:02:51
3	S 181.975 Axial†	4712.7	4421.9	3947.2	µg/L	3947.2 ppb	14:02:51
3	Sb 206.836†	14509.8	14537.9	1730.1	µg/L	1730.1 ppb	14:02:51
3	Se 196.026†	7606.6	7643.0	2900	µg/L	2900 ppb	14:02:51
3	SiO2†	154717.3	154084.3	15224	µg/L	15224 ppb	14:02:49
3	Si 251.611†	483139.4	486093.8	7106.5	µg/L	7106.5 ppb	14:02:49
3	Sn 189.927†	15871.6	15984.3	1067.5	µg/L	1067.5 ppb	14:02:51
3	Ti 334.940†	5915756.0	5959201.5	5855.6	µg/L	5855.6 ppb	14:02:49
3	Tl 190.801†	8510.2	8689.8	1206.5	µg/L	1206.5 ppb	14:02:51
3	U 409.014†	-4221.7	-3962.0	-168.58	µg/L	-168.58 ppb	14:02:49
3	V 292.402†	249847.4	251341.8	1203.5	µg/L	1203.5 ppb	14:02:49
3	Zn 213.857†	1019078.1	1026094.3	5669.8	µg/L	5669.8 ppb	14:02:49

Mean Data: 1202089226|972603|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1704318.0	99.035	%	0.2369				0.24%
Sc RADIAL	130359.2	101	%	0.2				0.23%
Y 371.029	1051538.8	105.58	%	0.311				0.29%
Ag 328.068†	77482.7	309.59	µg/L	0.793	309.59	ppb	0.793	0.26%
Al 396.153Radial†	361340.7	76546	µg/L	111.5	76546	ppb	111.5	0.15%
As 188.979†	3067.7	1071.3	µg/L	8.46	1071.3	ppb	8.46	0.79%
B 249.677†	95644.1	1370.2	µg/L	3.14	1370.2	ppb	3.14	0.23%
Ba 233.527†	434263.3	1835.8	µg/L	1.74	1835.8	ppb	1.74	0.09%
Be 313.107†	2814924.0	769.09	µg/L	0.325	769.09	ppb	0.325	0.04%
Ca 317.933Radial†	1367668.2	93819	µg/L	146.3	93819	ppb	146.3	0.16%
Cd 226.502†	93546.4	567.62	µg/L	1.519	567.62	ppb	1.519	0.27%
Co 228.616†	71570.9	875.69	µg/L	0.293	875.69	ppb	0.293	0.03%
Cr 267.716†	275250.3	2255.3	µg/L	1.42	2255.3	ppb	1.42	0.06%
Cu 324.752†	441877.9	1771.4	µg/L	1.22	1771.4	ppb	1.22	0.07%
Fe 238.204 Radial†	2492399.8	184980	µg/L	2569.3	184980	ppb	2569.3	1.39%
K 766.490 Radial†	102437.4	39095	µg/L	67.4	39095	ppb	67.4	0.17%
Mg 279.077 IEC†	77575.4	35790	µg/L	114.8	35790	ppb	114.8	0.32%
Mn 257.610†	4138548.6	5197.1	µg/L	6.02	5197.1	ppb	6.02	0.12%
Mo 202.031†	16255.7	514.31	µg/L	1.210	514.31	ppb	1.210	0.24%
Na 589.592 Radial†	64484.5	9527.4	µg/L	45.63	9527.4	ppb	45.63	0.48%

Ni 231.604†	108331.4	1270.9	µg/L	2.82	1270.9	ppb	2.82	0.22%
P 214.914†	37848.3	8057.7	µg/L	18.66	8057.7	ppb	18.66	0.23%
Pb 220.353†	14027.4	822.25	µg/L	1.397	822.25	ppb	1.397	0.17%
S 181.975 Axial†	4419.5	3945.0	µg/L	3.32	3945.0	ppb	3.32	0.08%
Sb 206.836†	14516.7	1727.5	µg/L	7.25	1727.5	ppb	7.25	0.42%
Se 196.026†	7602.7	2890	µg/L	16.8	2890	ppb	16.8	0.58%
SiO2†	154461.9	15262	µg/L	151.4	15262	ppb	151.4	0.99%
Si 251.611†	487513.2	7127.3	µg/L	74.08	7127.3	ppb	74.08	1.04%
Sn 189.927†	16053.3	1072.1	µg/L	4.01	1072.1	ppb	4.01	0.37%
Sr 421.552†	980247.6	2264.6	µg/L	23.55	2264.6	ppb	23.55	1.04%
Ti 334.940†	5962020.5	5858.4	µg/L	3.04	5858.4	ppb	3.04	0.05%
Tl 190.801†	8675.9	1204.7	µg/L	5.28	1204.7	ppb	5.28	0.44%
U 409.014†	-3946.2	-168.04	µg/L	2.770	-168.04	ppb	2.770	1.65%
Concentration less than lower limit for U 409.014.								
V 292.402†	251321.3	1203.2	µg/L	1.35	1203.2	ppb	1.35	0.11%
Zn 213.857†	1024300.8	5659.7	µg/L	10.95	5659.7	ppb	10.95	0.19%

Sequence No.: 4
Sample ID: 1202068110|972603|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 304
Date Collected: 4/7/2010 14:05:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068110|972603|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	129895.2	129895.2	101	%			14:05:44
1	Al 396.153Radial†	82704.3	81903.9	17355	µg/L	17355	ppb	14:05:42
1	Ca 317.933Radial†	87168.5	85728.0	5880.8	µg/L	5880.8	ppb	14:05:44
1	Fe 238.204 Radial†	859681.4	850349.4	63112	µg/L	63112	ppb	14:05:42
1	K 766.490 Radial†	8881.9	7221.9	2753.5	µg/L	2753.5	ppb	14:05:44
1	Mg 279.077 IEC†	8094.4	7844.6	3580.1	µg/L	3580.1	ppb	14:05:44
1	Na 589.592 Radial†	9202.8	8173.8	1209.6	µg/L	1209.6	ppb	14:05:44
1	Sr 421.552†	18713.5	18618.6	42.981	µg/L	42.981	ppb	14:05:44
1	Sc 361.383	1714543.1	1714543.1	99.629	%			14:06:11
1	Y 371.029	1174455.8	1174455.8	117.92	%			14:06:11
1	Ag 328.068†	4408.5	-175.5	-1.7873	µg/L	-1.7873	ppb	14:06:11
1	As 188.979†	19.0	27.7	23.422	µg/L	23.422	ppb	14:06:31
1	B 249.677†	4293.6	314.0	4.4670	µg/L	4.4670	ppb	14:06:11
1	Ba 233.527†	51395.2	51726.3	218.06	µg/L	218.06	ppb	14:06:11
1	Be 313.107†	17377.4	18452.3	4.9409	µg/L	4.9409	ppb	14:06:11
1	Cd 226.502†	932.3	1023.7	-0.2097	µg/L	-0.2097	ppb	14:06:31
1	Co 228.616†	761.4	959.9	8.7698	µg/L	8.7698	ppb	14:06:31
1	Cr 267.716†	2056.8	1802.2	16.495	µg/L	16.495	ppb	14:06:31
1	Cu 324.752†	4863.7	1695.0	15.707	µg/L	15.707	ppb	14:06:11
1	Mn 257.610†	2111060.3	2118737.6	2661.4	µg/L	2661.4	ppb	14:06:11
1	Mo 202.031†	260.1	281.4	11.336	µg/L	11.336	ppb	14:06:31
1	Ni 231.604†	1604.3	1701.4	19.961	µg/L	19.961	ppb	14:06:31
1	P 214.914†	2156.0	2169.7	429.96	µg/L	429.96	ppb	14:06:31
1	Pb 220.353†	1484.7	1376.9	80.907	µg/L	80.907	ppb	14:06:31
1	S 181.975 Axial†	419.2	94.7	84.559	µg/L	84.559	ppb	14:06:31
1	Sb 206.836†	86.8	6.8	-0.0654	µg/L	-0.0654	ppb	14:06:31
1	Se 196.026†	-34.6	-55.3	1.04	µg/L	1.04	ppb	14:06:31
1	SiO2†	131107.2	129805.3	12850	µg/L	12850	ppb	14:06:11
1	Si 251.611†	408584.9	409447.7	5997.2	µg/L	5997.2	ppb	14:06:11
1	Sn 189.927†	289.7	284.9	22.805	µg/L	22.805	ppb	14:06:31
1	Ti 334.940†	1242410.2	1246259.6	1224.8	µg/L	1224.8	ppb	14:06:11
1	Tl 190.801†	-307.8	-192.9	-5.5978	µg/L	-5.5978	ppb	14:06:31
1	U 409.014†	-5985.3	-5716.3	-328.44	µg/L	-328.44	ppb	14:06:11
1	V 292.402†	10762.0	10429.0	42.488	µg/L	42.488	ppb	14:06:31
1	Zn 213.857†	40402.0	39951.6	215.71	µg/L	215.71	ppb	14:06:11
2	Sc RADIAL	130453.8	130453.8	102	%			14:05:48
2	Al 396.153Radial†	83303.1	82143.3	17406	µg/L	17406	ppb	14:05:46
2	Ca 317.933Radial†	87415.4	85602.0	5872.1	µg/L	5872.1	ppb	14:05:48
2	Fe 238.204 Radial†	863887.1	850850.6	63149	µg/L	63149	ppb	14:05:46
2	K 766.490 Radial†	8826.2	7129.4	2718.2	µg/L	2718.2	ppb	14:05:48
2	Mg 279.077 IEC†	8095.9	7811.8	3564.9	µg/L	3564.9	ppb	14:05:48
2	Na 589.592 Radial†	9183.2	8115.4	1201.0	µg/L	1201.0	ppb	14:05:48
2	Sr 421.552†	18649.0	18475.8	42.651	µg/L	42.651	ppb	14:05:48
2	Sc 361.383	1735289.2	1735289.2	100.83	%			14:06:33
2	Y 371.029	1188552.9	1188552.9	119.34	%			14:06:33
2	Ag 328.068†	4393.1	-243.7	-2.0363	µg/L	-2.0363	ppb	14:06:33
2	As 188.979†	29.5	37.9	26.774	µg/L	26.774	ppb	14:06:54
2	B 249.677†	4360.6	328.9	4.6813	µg/L	4.6813	ppb	14:06:33
2	Ba 233.527†	52178.9	51886.9	218.74	µg/L	218.74	ppb	14:06:33
2	Be 313.107†	17748.4	18611.8	4.9916	µg/L	4.9916	ppb	14:06:33
2	Cd 226.502†	930.0	1010.2	-0.2981	µg/L	-0.2981	ppb	14:06:54
2	Co 228.616†	768.2	957.4	8.7382	µg/L	8.7382	ppb	14:06:54
2	Cr 267.716†	2057.6	1778.3	16.279	µg/L	16.279	ppb	14:06:54
2	Cu 324.752†	4905.1	1677.7	15.663	µg/L	15.663	ppb	14:06:33
2	Mn 257.610†	2147260.4	2129305.6	2674.6	µg/L	2674.6	ppb	14:06:33
2	Mo 202.031†	268.5	286.5	11.496	µg/L	11.496	ppb	14:06:54
2	Ni 231.604†	1613.5	1691.3	19.842	µg/L	19.842	ppb	14:06:54
2	P 214.914†	2185.5	2173.1	430.67	µg/L	430.67	ppb	14:06:54
2	Pb 220.353†	1515.1	1389.2	81.608	µg/L	81.608	ppb	14:06:54

2	S 181.975 Axial†	432.5	102.9	91.828	µg/L	91.828 ppb	14:06:54
2	Sb 206.836†	94.8	13.7	0.7628	µg/L	0.7628 ppb	14:06:54
2	Se 196.026†	-40.0	-60.2	-0.743	µg/L	-0.743 ppb	14:06:54
2	SiO2†	137069.6	134145.1	13280	µg/L	13280 ppb	14:06:33
2	Si 251.611†	427237.6	423042.9	6196.4	µg/L	6196.4 ppb	14:06:33
2	Sn 189.927†	278.7	270.5	21.862	µg/L	21.862 ppb	14:06:54
2	Ti 334.940†	1257653.5	1246468.0	1225.0	µg/L	1225.0 ppb	14:06:33
2	Tl 190.801†	-299.1	-180.6	-3.9624	µg/L	-3.9624 ppb	14:06:54
2	U 409.014†	-5650.3	-5312.2	-304.78	µg/L	-304.78 ppb	14:06:33
2	V 292.402†	10713.7	10252.0	41.646	µg/L	41.646 ppb	14:06:54
2	Zn 213.857†	41126.7	40185.4	217.00	µg/L	217.00 ppb	14:06:33
3	Sc RADIAL	131469.1	131469.1	102	%		14:05:52
3	Al 396.153Radial†	83523.8	81725.3	17318	µg/L	17318 ppb	14:05:50
3	Ca 317.933Radial†	87824.6	85336.9	5853.9	µg/L	5853.9 ppb	14:05:52
3	Fe 238.204 Radial†	864268.2	844650.7	62689	µg/L	62689 ppb	14:05:50
3	K 766.490 Radial†	9094.1	7324.1	2792.6	µg/L	2792.6 ppb	14:05:52
3	Mg 279.077 IEC†	8164.1	7816.9	3567.6	µg/L	3567.6 ppb	14:05:52
3	Na 589.592 Radial†	9276.7	8137.0	1204.1	µg/L	1204.1 ppb	14:05:52
3	Sr 421.552†	18842.7	18523.2	42.761	µg/L	42.761 ppb	14:05:52
3	Sc 361.383	1707266.3	1707266.3	99.207	%		14:06:56
3	Y 371.029	1169519.9	1169519.9	117.43	%		14:06:56
3	Ag 328.068†	4532.8	-31.4	-1.2256	µg/L	-1.2256 ppb	14:06:56
3	As 188.979†	28.6	37.5	26.540	µg/L	26.540 ppb	14:07:16
3	B 249.677†	4394.6	434.2	6.1921	µg/L	6.1921 ppb	14:06:56
3	Ba 233.527†	51143.4	51692.4	217.92	µg/L	217.92 ppb	14:06:56
3	Be 313.107†	17390.9	18540.3	4.9644	µg/L	4.9644 ppb	14:06:56
3	Cd 226.502†	923.4	1018.7	-0.1961	µg/L	-0.1961 ppb	14:07:16
3	Co 228.616†	782.8	984.7	9.0975	µg/L	9.0975 ppb	14:07:16
3	Cr 267.716†	2074.7	1829.1	16.701	µg/L	16.701 ppb	14:07:16
3	Cu 324.752†	4931.3	1783.9	15.995	µg/L	15.995 ppb	14:06:56
3	Mn 257.610†	2103993.0	2120645.1	2663.8	µg/L	2663.8 ppb	14:06:56
3	Mo 202.031†	274.7	297.2	11.811	µg/L	11.811 ppb	14:07:16
3	Ni 231.604†	1602.3	1706.3	20.018	µg/L	20.018 ppb	14:07:16
3	P 214.914†	2183.1	2206.2	438.12	µg/L	438.12 ppb	14:07:16
3	Pb 220.353†	1507.9	1406.7	82.646	µg/L	82.646 ppb	14:07:16
3	S 181.975 Axial†	423.5	100.9	90.030	µg/L	90.030 ppb	14:07:16
3	Sb 206.836†	90.2	10.6	0.4020	µg/L	0.4020 ppb	14:07:16
3	Se 196.026†	-38.7	-59.5	-0.675	µg/L	-0.675 ppb	14:07:16
3	SiO2†	132755.5	132027.7	13070	µg/L	13070 ppb	14:06:56
3	Si 251.611†	413470.8	416120.7	6095.0	µg/L	6095.0 ppb	14:06:56
3	Sn 189.927†	286.4	282.8	22.662	µg/L	22.662 ppb	14:07:16
3	Ti 334.940†	1235572.6	1244682.5	1223.3	µg/L	1223.3 ppb	14:06:56
3	Tl 190.801†	-294.2	-180.5	-3.9910	µg/L	-3.9910 ppb	14:07:16
3	U 409.014†	-5987.2	-5743.7	-329.93	µg/L	-329.93 ppb	14:06:56
3	V 292.402†	10761.3	10474.3	42.758	µg/L	42.758 ppb	14:07:16
3	Zn 213.857†	40386.0	40108.3	216.62	µg/L	216.62 ppb	14:06:56

Mean Data: 1202068110|972603|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1719032.8	99.890	%	0.8450				0.85%
Sc RADIAL	130606.0	102	%	0.6				0.61%
Y 371.029	1177509.5	118.23	%	0.992				0.84%
Ag 328.068†	-150.2	-1.6831	µg/L	0.41529	-1.6831	ppb	0.41529	24.67%
Al 396.153Radial†	81924.2	17360	µg/L	44.5	17360	ppb	44.5	0.26%
As 188.979†	34.4	25.579	µg/L	1.8709	25.579	ppb	1.8709	7.31%
B 249.677†	359.0	5.1134	µg/L	0.94025	5.1134	ppb	0.94025	18.39%
Ba 233.527†	51768.5	218.24	µg/L	0.437	218.24	ppb	0.437	0.20%
Be 313.107†	18534.8	4.9656	µg/L	0.02537	4.9656	ppb	0.02537	0.51%
Ca 317.933Radial†	85555.6	5868.9	µg/L	13.70	5868.9	ppb	13.70	0.23%
Cd 226.502†	1017.5	-0.2346	µg/L	0.05540	-0.2346	ppb	0.05540	23.61%
Co 228.616†	967.3	8.8685	µg/L	0.19896	8.8685	ppb	0.19896	2.24%
Cr 267.716†	1803.2	16.492	µg/L	0.2110	16.492	ppb	0.2110	1.28%
Cu 324.752†	1718.9	15.788	µg/L	0.1800	15.788	ppb	0.1800	1.14%
Fe 238.204 Radial†	848616.9	62983	µg/L	255.6	62983	ppb	255.6	0.41%
K 766.490 Radial†	7225.1	2754.8	µg/L	37.22	2754.8	ppb	37.22	1.35%
Mg 279.077 IEC†	7824.4	3570.9	µg/L	8.13	3570.9	ppb	8.13	0.23%
Mn 257.610†	2122896.1	2666.6	µg/L	7.08	2666.6	ppb	7.08	0.27%
Mo 202.031†	288.3	11.548	µg/L	0.2417	11.548	ppb	0.2417	2.09%
Na 589.592 Radial†	8142.0	1204.9	µg/L	4.36	1204.9	ppb	4.36	0.36%

Ni 231.604†	1699.6	19.940	µg/L	0.0898	19.940	ppb	0.0898	0.45%
P 214.914†	2183.0	432.92	µg/L	4.521	432.92	ppb	4.521	1.04%
Pb 220.353†	1390.9	81.720	µg/L	0.8750	81.720	ppb	0.8750	1.07%
S 181.975 Axial†	99.5	88.806	µg/L	3.7863	88.806	ppb	3.7863	4.26%
Sb 206.836†	10.4	0.3665	µg/L	0.41526	0.3665	ppb	0.41526	113.32%
Se 196.026†	-58.3	-0.126	µg/L	1.0097	-0.126	ppb	1.0097	800.04%
SiO2†	131992.7	13067	µg/L	214.8	13067	ppb	214.8	1.64%
Si 251.611†	416203.8	6096.2	µg/L	99.58	6096.2	ppb	99.58	1.63%
Sn 189.927†	279.4	22.443	µg/L	0.5080	22.443	ppb	0.5080	2.26%
Sr 421.552†	18539.2	42.798	µg/L	0.1680	42.798	ppb	0.1680	0.39%
Ti 334.940†	1245803.3	1224.4	µg/L	0.96	1224.4	ppb	0.96	0.08%
Tl 190.801†	-184.7	-4.5170	µg/L	0.93604	-4.5170	ppb	0.93604	20.72%
U 409.014†	-5590.8	-321.05	µg/L	14.114	-321.05	ppb	14.114	4.40%
Concentration less than lower limit for U 409.014.								
V 292.402†	10385.1	42.297	µg/L	0.5800	42.297	ppb	0.5800	1.37%
Zn 213.857†	40081.7	216.44	µg/L	0.665	216.44	ppb	0.665	0.31%

Sequence No.: 5
Sample ID: 1202068112|972603|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 305
Date Collected: 4/7/2010 14:07:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068112|972603|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130589.4	130589.4	102	%			14:07:56
1	Al 396.153Radial†	178879.5	176107.9	37296	µg/L	37296	ppb	14:07:56
1	Ca 317.933Radial†	156512.2	153505.7	10530	µg/L	10530	ppb	14:07:56
1	Fe 238.204 Radial†	875782.2	861671.9	63952	µg/L	63952	ppb	14:07:54
1	K 766.490 Radial†	23079.9	21146.4	8066.6	µg/L	8066.6	ppb	14:07:56
1	Mg 279.077 IEC†	21803.9	21292.5	9820.6	µg/L	9820.6	ppb	14:07:56
1	Na 589.592 Radial†	40822.0	39239.4	5811.5	µg/L	5811.5	ppb	14:07:56
1	Sr 421.552†	229923.1	226356.2	523.02	µg/L	523.02	ppb	14:07:54
1	Sc 361.383	1713104.7	1713104.7	99.546	%			14:08:23
1	Y 371.029	1185156.9	1185156.9	119.00	%			14:08:23
1	Ag 328.068†	129204.9	125193.9	490.16	µg/L	490.16	ppb	14:08:23
1	As 188.979†	1543.2	1558.9	532.15	µg/L	532.15	ppb	14:08:25
1	B 249.677†	37361.3	33536.1	479.84	µg/L	479.84	ppb	14:08:23
1	Ba 233.527†	164777.1	165668.8	700.54	µg/L	700.54	ppb	14:08:23
1	Be 313.107†	1816851.3	1826149.9	499.03	µg/L	499.03	ppb	14:08:23
1	Cd 226.502†	78432.7	78878.4	488.02	µg/L	488.02	ppb	14:08:23
1	Co 228.616†	38986.9	39360.4	483.12	µg/L	483.12	ppb	14:08:25
1	Cr 267.716†	60645.5	60659.9	497.38	µg/L	497.38	ppb	14:08:25
1	Cu 324.752†	131711.5	129125.7	519.36	µg/L	519.36	ppb	14:08:23
1	Mn 257.610†	2174243.9	2183988.6	2743.1	µg/L	2743.1	ppb	14:08:23
1	Mo 202.031†	15272.1	15362.1	481.00	µg/L	481.00	ppb	14:08:25
1	Ni 231.604†	42461.0	42745.8	501.49	µg/L	501.49	ppb	14:08:25
1	P 214.914†	4445.8	4471.8	925.08	µg/L	925.08	ppb	14:08:25
1	Pb 220.353†	10022.3	9954.8	581.80	µg/L	581.80	ppb	14:08:25
1	S 181.975 Axial†	6602.0	6306.0	5626.9	µg/L	5626.9	ppb	14:08:25
1	Sb 206.836†	3882.5	3819.9	461.26	µg/L	461.26	ppb	14:08:25
1	Se 196.026†	1317.5	1303.0	506	µg/L	506	ppb	14:08:25
1	SiO2†	187688.9	186755.7	18468	µg/L	18468	ppb	14:08:23
1	Si 251.611†	587640.7	589664.7	8627.7	µg/L	8627.7	ppb	14:08:23
1	Sn 189.927†	7330.3	7357.9	488.24	µg/L	488.24	ppb	14:08:25
1	Ti 334.940†	1780566.0	1787917.4	1756.4	µg/L	1756.4	ppb	14:08:23
1	Tl 190.801†	3408.3	3539.9	486.36	µg/L	486.36	ppb	14:08:25
1	U 409.014†	2047.7	2348.4	170.75	µg/L	170.75	ppb	14:08:23
1	V 292.402†	108580.2	108702.5	523.63	µg/L	523.63	ppb	14:08:23
1	Zn 213.857†	126268.7	126244.0	691.59	µg/L	691.59	ppb	14:08:23
2	Sc RADIAL	129614.4	129614.4	101	%			14:08:00
2	Al 396.153Radial†	178472.6	177028.6	37491	µg/L	37491	ppb	14:08:00
2	Ca 317.933Radial†	154898.7	153064.5	10500	µg/L	10500	ppb	14:08:00
2	Fe 238.204 Radial†	878727.6	871074.8	64650	µg/L	64650	ppb	14:07:58
2	K 766.490 Radial†	22896.2	21135.1	8062.2	µg/L	8062.2	ppb	14:08:00
2	Mg 279.077 IEC†	21656.5	21307.8	9827.2	µg/L	9827.2	ppb	14:08:00
2	Na 589.592 Radial†	40697.9	39418.7	5838.1	µg/L	5838.1	ppb	14:08:00
2	Sr 421.552†	230723.8	228852.0	528.79	µg/L	528.79	ppb	14:07:58
2	Sc 361.383	1714468.5	1714468.5	99.625	%			14:08:28
2	Y 371.029	1185794.4	1185794.4	119.06	%			14:08:28
2	Ag 328.068†	129198.5	125084.3	489.72	µg/L	489.72	ppb	14:08:28
2	As 188.979†	1517.2	1531.5	523.37	µg/L	523.37	ppb	14:08:30
2	B 249.677†	37544.6	33690.4	482.03	µg/L	482.03	ppb	14:08:28
2	Ba 233.527†	165109.9	165871.2	701.39	µg/L	701.39	ppb	14:08:28
2	Be 313.107†	1821582.4	1829447.0	499.92	µg/L	499.92	ppb	14:08:28
2	Cd 226.502†	78516.8	78900.2	488.08	µg/L	488.08	ppb	14:08:28
2	Co 228.616†	39538.4	39882.8	489.53	µg/L	489.53	ppb	14:08:30
2	Cr 267.716†	61314.1	61282.5	502.50	µg/L	502.50	ppb	14:08:30
2	Cu 324.752†	132327.0	129638.2	521.48	µg/L	521.48	ppb	14:08:28
2	Mn 257.610†	2180128.5	2188158.0	2748.3	µg/L	2748.3	ppb	14:08:28
2	Mo 202.031†	15487.1	15565.6	487.37	µg/L	487.37	ppb	14:08:30
2	Ni 231.604†	43095.7	43349.0	508.57	µg/L	508.57	ppb	14:08:30
2	P 214.914†	4571.5	4594.4	951.14	µg/L	951.14	ppb	14:08:30
2	Pb 220.353†	10132.6	10057.4	587.76	µg/L	587.76	ppb	14:08:30

2	S 181.975 Axial†	6731.5	6430.8	5738.2 µg/L	5738.2 ppb	14:08:30
2	Sb 206.836†	3959.4	3894.0	470.23 µg/L	470.23 ppb	14:08:30
2	Se 196.026†	1307.1	1291.5	502 µg/L	502 ppb	14:08:30
2	SiO2†	186485.3	185397.6	18333 µg/L	18333 ppb	14:08:28
2	Si 251.611†	583382.4	584920.8	8558.0 µg/L	8558.0 ppb	14:08:28
2	Sn 189.927†	7459.5	7481.7	496.32 µg/L	496.32 ppb	14:08:30
2	Ti 334.940†	1771043.7	1776936.6	1745.6 µg/L	1745.6 ppb	14:08:28
2	Tl 190.801†	3446.4	3575.4	490.85 µg/L	490.85 ppb	14:08:30
2	U 409.014†	1940.1	2238.7	164.23 µg/L	164.23 ppb	14:08:28
2	V 292.402†	108783.5	108819.8	524.22 µg/L	524.22 ppb	14:08:28
2	Zn 213.857†	126913.0	126789.8	694.49 µg/L	694.49 ppb	14:08:28
3	Sc RADIAL	131078.4	131078.4	102 %		14:08:04
3	Al 396.153Radial†	180421.3	176962.6	37477 µg/L	37477 ppb	14:08:04
3	Ca 317.933Radial†	157736.5	154131.3	10573 µg/L	10573 ppb	14:08:04
3	Fe 238.204 Radial†	864980.0	847866.4	62928 µg/L	62928 ppb	14:08:02
3	K 766.490 Radial†	23327.6	21304.5	8126.9 µg/L	8126.9 ppb	14:08:04
3	Mg 279.077 IEC†	21978.2	21383.4	9863.6 µg/L	9863.6 ppb	14:08:04
3	Na 589.592 Radial†	41359.6	39616.7	5867.4 µg/L	5867.4 ppb	14:08:04
3	Sr 421.552†	227724.3	223356.4	516.09 µg/L	516.09 ppb	14:08:02
3	Sc 361.383	1705614.0	1705614.0	99.111 %		14:08:33
3	Y 371.029	1180328.9	1180328.9	118.51 %		14:08:33
3	Ag 328.068†	128794.7	125350.1	490.73 µg/L	490.73 ppb	14:08:33
3	As 188.979†	1517.0	1539.2	525.46 µg/L	525.46 ppb	14:08:35
3	B 249.677†	37158.1	33496.0	479.26 µg/L	479.26 ppb	14:08:33
3	Ba 233.527†	164209.6	165823.2	701.21 µg/L	701.21 ppb	14:08:33
3	Be 313.107†	1808555.7	1825795.5	498.92 µg/L	498.92 ppb	14:08:33
3	Cd 226.502†	78035.9	78824.1	487.79 µg/L	487.79 ppb	14:08:33
3	Co 228.616†	39031.1	39576.9	485.84 µg/L	485.84 ppb	14:08:35
3	Cr 267.716†	60454.5	60734.7	497.97 µg/L	497.97 ppb	14:08:35
3	Cu 324.752†	131135.8	129125.8	519.20 µg/L	519.20 ppb	14:08:33
3	Mn 257.610†	2162646.3	2181879.3	2740.4 µg/L	2740.4 ppb	14:08:33
3	Mo 202.031†	15170.1	15326.5	479.85 µg/L	479.85 ppb	14:08:35
3	Ni 231.604†	42533.2	43006.0	504.54 µg/L	504.54 ppb	14:08:35
3	P 214.914†	4522.1	4568.4	946.78 µg/L	946.78 ppb	14:08:35
3	Pb 220.353†	9879.4	9854.8	576.03 µg/L	576.03 ppb	14:08:35
3	S 181.975 Axial†	6653.6	6387.2	5699.3 µg/L	5699.3 ppb	14:08:35
3	Sb 206.836†	3879.1	3833.6	462.92 µg/L	462.92 ppb	14:08:35
3	Se 196.026†	1324.3	1315.7	511 µg/L	511 ppb	14:08:35
3	SiO2†	187192.0	187082.4	18500 µg/L	18500 ppb	14:08:33
3	Si 251.611†	585719.3	590318.6	8637.2 µg/L	8637.2 ppb	14:08:33
3	Sn 189.927†	7421.8	7482.5	496.37 µg/L	496.37 ppb	14:08:35
3	Ti 334.940†	1760401.4	1775427.5	1744.2 µg/L	1744.2 ppb	14:08:33
3	Tl 190.801†	3399.1	3545.7	486.96 µg/L	486.96 ppb	14:08:35
3	U 409.014†	1784.4	2091.7	155.85 µg/L	155.85 ppb	14:08:33
3	V 292.402†	107789.1	108383.4	522.19 µg/L	522.19 ppb	14:08:33
3	Zn 213.857†	125690.4	126217.6	691.52 µg/L	691.52 ppb	14:08:33

Mean Data: 1202068112|972603|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1711062.4	99.427	%	0.2770				0.28%
Sc RADIAL	130427.4	101	%	0.6				0.57%
Y 371.029	1183760.1	118.86	%	0.300				0.25%
Ag 328.068†	125209.4	490.20	µg/L	0.504	490.20	ppb	0.504	0.10%
Al 396.153Radial†	176699.7	37421	µg/L	108.8	37421	ppb	108.8	0.29%
As 188.979†	1543.2	527.00	µg/L	4.586	527.00	ppb	4.586	0.87%
B 249.677†	33574.2	480.38	µg/L	1.464	480.38	ppb	1.464	0.30%
Ba 233.527†	165787.7	701.05	µg/L	0.447	701.05	ppb	0.447	0.06%
Be 313.107†	1827130.8	499.29	µg/L	0.551	499.29	ppb	0.551	0.11%
Ca 317.933Radial†	153567.2	10534	µg/L	36.8	10534	ppb	36.8	0.35%
Cd 226.502†	78867.6	487.96	µg/L	0.156	487.96	ppb	0.156	0.03%
Co 228.616†	39606.7	486.16	µg/L	3.217	486.16	ppb	3.217	0.66%
Cr 267.716†	60892.4	499.29	µg/L	2.801	499.29	ppb	2.801	0.56%
Cu 324.752†	129296.6	520.02	µg/L	1.273	520.02	ppb	1.273	0.24%
Fe 238.204 Radial†	860204.4	63843	µg/L	866.4	63843	ppb	866.4	1.36%
K 766.490 Radial†	21195.3	8085.2	µg/L	36.16	8085.2	ppb	36.16	0.45%
Mg 279.077 IEC†	21327.9	9837.1	µg/L	23.12	9837.1	ppb	23.12	0.24%
Mn 257.610†	2184675.3	2743.9	µg/L	4.01	2743.9	ppb	4.01	0.15%
Mo 202.031†	15418.1	482.74	µg/L	4.046	482.74	ppb	4.046	0.84%
Na 589.592 Radial†	39424.9	5839.0	µg/L	27.95	5839.0	ppb	27.95	0.48%

Ni 231.604†	43033.6	504.87 µg/L	3.549	504.87 ppb	3.549	0.70%
P 214.914†	4544.9	941.00 µg/L	13.957	941.00 ppb	13.957	1.48%
Pb 220.353†	9955.7	581.86 µg/L	5.865	581.86 ppb	5.865	1.01%
S 181.975 Axial†	6374.7	5688.1 µg/L	56.49	5688.1 ppb	56.49	0.99%
Sb 206.836†	3849.1	464.80 µg/L	4.772	464.80 ppb	4.772	1.03%
Se 196.026†	1303.4	507 µg/L	4.2	507 ppb	4.2	0.83%
SiO2†	186411.9	18434 µg/L	88.6	18434 ppb	88.6	0.48%
Si 251.611†	588301.3	8607.6 µg/L	43.22	8607.6 ppb	43.22	0.50%
Sn 189.927†	7440.7	493.65 µg/L	4.679	493.65 ppb	4.679	0.95%
Sr 421.552†	226188.2	522.63 µg/L	6.359	522.63 ppb	6.359	1.22%
Ti 334.940†	1780093.8	1748.7 µg/L	6.70	1748.7 ppb	6.70	0.38%
Tl 190.801†	3553.6	488.06 µg/L	2.440	488.06 ppb	2.440	0.50%
U 409.014†	2226.3	163.61 µg/L	7.466	163.61 ppb	7.466	4.56%
V 292.402†	108635.2	523.34 µg/L	1.043	523.34 ppb	1.043	0.20%
Zn 213.857†	126417.1	692.53 µg/L	1.695	692.53 ppb	1.695	0.24%

Sequence No.: 6
Sample ID: 1202068113|972603|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 306
Date Collected: 4/7/2010 14:08:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068113|972603|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130084.6	130084.6	101	%			14:09:14
1	Al 396.153Radial†	182097.1	179969.3	38114	µg/L	38114	ppb	14:09:12
1	Ca 317.933Radial†	154059.2	151680.1	10405	µg/L	10405	ppb	14:09:14
1	Fe 238.204 Radial†	917418.6	906146.1	67253	µg/L	67253	ppb	14:09:12
1	K 766.490 Radial†	23167.4	21321.0	8133.1	µg/L	8133.1	ppb	14:09:14
1	Mg 279.077 IEC†	22217.7	21784.6	10046	µg/L	10046	ppb	14:09:14
1	Na 589.592 Radial†	40047.4	38630.2	5721.1	µg/L	5721.1	ppb	14:09:14
1	Sr 421.552†	230424.3	227729.1	526.19	µg/L	526.19	ppb	14:09:12
1	Sc 361.383	1704596.9	1704596.9	99.052	%			14:09:27
1	Y 371.029	1189257.5	1189257.5	119.41	%			14:09:27
1	Ag 328.068†	127422.3	124042.0	485.54	µg/L	485.54	ppb	14:09:27
1	As 188.979†	1458.4	1480.9	507.30	µg/L	507.30	ppb	14:09:29
1	B 249.677†	37211.0	33571.8	480.36	µg/L	480.36	ppb	14:09:27
1	Ba 233.527†	161482.9	163169.2	689.93	µg/L	689.93	ppb	14:09:27
1	Be 313.107†	1784332.6	1802429.3	492.53	µg/L	492.53	ppb	14:09:27
1	Cd 226.502†	77157.0	77983.8	482.06	µg/L	482.06	ppb	14:09:27
1	Co 228.616†	38548.9	39113.7	479.89	µg/L	479.89	ppb	14:09:29
1	Cr 267.716†	60341.4	60657.0	497.45	µg/L	497.45	ppb	14:09:29
1	Cu 324.752†	130472.0	128534.6	517.48	µg/L	517.48	ppb	14:09:27
1	Mn 257.610†	2360457.6	2382886.8	2992.9	µg/L	2992.9	ppb	14:09:27
1	Mo 202.031†	15255.2	15421.5	482.99	µg/L	482.99	ppb	14:09:29
1	Ni 231.604†	42224.2	42719.7	501.18	µg/L	501.18	ppb	14:09:29
1	P 214.914†	4325.3	4372.4	901.66	µg/L	901.66	ppb	14:09:29
1	Pb 220.353†	9576.3	9554.7	558.67	µg/L	558.67	ppb	14:09:29
1	S 181.975 Axial†	6491.1	6227.3	5556.7	µg/L	5556.7	ppb	14:09:29
1	Sb 206.836†	3937.8	3895.2	470.36	µg/L	470.36	ppb	14:09:29
1	Se 196.026†	1259.4	1250.9	488	µg/L	488	ppb	14:09:29
1	SiO2†	176400.8	176300.5	17433	µg/L	17433	ppb	14:09:27
1	Si 251.611†	551309.5	555931.9	8133.5	µg/L	8133.5	ppb	14:09:27
1	Sn 189.927†	7489.7	7555.6	501.51	µg/L	501.51	ppb	14:09:29
1	Ti 334.940†	1863550.4	1880624.1	1847.5	µg/L	1847.5	ppb	14:09:27
1	Tl 190.801†	3379.6	3528.0	486.39	µg/L	486.39	ppb	14:09:29
1	U 409.014†	1229.4	1532.5	123.83	µg/L	123.83	ppb	14:09:27
1	V 292.402†	107916.5	108576.8	522.58	µg/L	522.58	ppb	14:09:27
1	Zn 213.857†	127989.2	128614.0	704.45	µg/L	704.45	ppb	14:09:27
2	Sc RADIAL	130525.4	130525.4	102	%			14:09:18
2	Al 396.153Radial†	179175.1	176485.2	37376	µg/L	37376	ppb	14:09:16
2	Ca 317.933Radial†	153753.1	150864.8	10349	µg/L	10349	ppb	14:09:18
2	Fe 238.204 Radial†	901474.2	887388.5	65861	µg/L	65861	ppb	14:09:16
2	K 766.490 Radial†	22971.9	21051.2	8030.2	µg/L	8030.2	ppb	14:09:18
2	Mg 279.077 IEC†	22143.9	21637.8	9979.0	µg/L	9979.0	ppb	14:09:18
2	Na 589.592 Radial†	39949.2	38399.9	5687.0	µg/L	5687.0	ppb	14:09:18
2	Sr 421.552†	227428.3	224011.0	517.60	µg/L	517.60	ppb	14:09:16
2	Sc 361.383	1690127.1	1690127.1	98.211	%			14:09:32
2	Y 371.029	1179806.1	1179806.1	118.46	%			14:09:32
2	Ag 328.068†	126555.9	124261.2	486.39	µg/L	486.39	ppb	14:09:32
2	As 188.979†	1487.0	1522.7	520.76	µg/L	520.76	ppb	14:09:34
2	B 249.677†	36782.4	33456.9	478.71	µg/L	478.71	ppb	14:09:32
2	Ba 233.527†	160137.8	163195.4	690.05	µg/L	690.05	ppb	14:09:32
2	Be 313.107†	1767820.9	1801039.3	492.15	µg/L	492.15	ppb	14:09:32
2	Cd 226.502†	75967.1	77439.1	478.79	µg/L	478.79	ppb	14:09:32
2	Co 228.616†	38246.3	39138.7	480.27	µg/L	480.27	ppb	14:09:34
2	Cr 267.716†	60405.6	61243.9	502.20	µg/L	502.20	ppb	14:09:34
2	Cu 324.752†	129447.0	128618.7	517.60	µg/L	517.60	ppb	14:09:32
2	Mn 257.610†	2338190.7	2380616.5	2990.1	µg/L	2990.1	ppb	14:09:32
2	Mo 202.031†	15132.9	15428.9	483.16	µg/L	483.16	ppb	14:09:34
2	Ni 231.604†	42150.8	43009.9	504.59	µg/L	504.59	ppb	14:09:34
2	P 214.914†	4333.4	4418.1	912.30	µg/L	912.30	ppb	14:09:34
2	Pb 220.353†	9722.5	9786.4	572.12	µg/L	572.12	ppb	14:09:34

2	S 181.975 Axial†	6547.5	6340.8	5657.9 µg/L	5657.9 ppb	14:09:34
2	Sb 206.836†	3915.4	3906.5	471.67 µg/L	471.67 ppb	14:09:34
2	Se 196.026†	1288.0	1291.0	503 µg/L	503 ppb	14:09:34
2	SiO2†	176456.7	177882.1	17589 µg/L	17589 ppb	14:09:32
2	Si 251.611†	552079.5	561481.1	8214.7 µg/L	8214.7 ppb	14:09:32
2	Sn 189.927†	7418.8	7548.1	501.01 µg/L	501.01 ppb	14:09:34
2	Ti 334.940†	1846329.4	1879196.7	1846.1 µg/L	1846.1 ppb	14:09:32
2	Tl 190.801†	3326.7	3503.4	483.16 µg/L	483.16 ppb	14:09:34
2	U 409.014†	1237.0	1550.9	125.15 µg/L	125.15 ppb	14:09:32
2	V 292.402†	106829.6	108402.9	521.91 µg/L	521.91 ppb	14:09:32
2	Zn 213.857†	126482.4	128186.0	702.18 µg/L	702.18 ppb	14:09:32
3	Sc RADIAL	131441.2	131441.2	102 %		14:09:22
3	Al 396.153Radial†	179261.1	175340.2	37133 µg/L	37133 ppb	14:09:20
3	Ca 317.933Radial†	154672.1	150708.6	10338 µg/L	10338 ppb	14:09:22
3	Fe 238.204 Radial†	900096.3	879857.5	65302 µg/L	65302 ppb	14:09:20
3	K 766.490 Radial†	23190.3	21107.1	8051.6 µg/L	8051.6 ppb	14:09:22
3	Mg 279.077 IEC†	22212.8	21553.2	9940.3 µg/L	9940.3 ppb	14:09:22
3	Na 589.592 Radial†	40251.2	38421.1	5690.2 µg/L	5690.2 ppb	14:09:22
3	Sr 421.552†	227785.3	222799.9	514.80 µg/L	514.80 ppb	14:09:20
3	Sc 361.383	1715764.8	1715764.8	99.700 %		14:09:37
3	Y 371.029	1195918.8	1195918.8	120.08 %		14:09:37
3	Ag 328.068†	128142.9	123927.5	485.11 µg/L	485.11 ppb	14:09:37
3	As 188.979†	1486.1	1499.2	512.85 µg/L	512.85 ppb	14:09:39
3	B 249.677†	37264.7	33381.1	477.64 µg/L	477.64 ppb	14:09:37
3	Ba 233.527†	162255.3	162882.8	688.74 µg/L	688.74 ppb	14:09:37
3	Be 313.107†	1794600.9	1801002.9	492.14 µg/L	492.14 ppb	14:09:37
3	Cd 226.502†	77275.9	77596.0	479.83 µg/L	479.83 ppb	14:09:37
3	Co 228.616†	38450.2	38761.4	475.64 µg/L	475.64 ppb	14:09:39
3	Cr 267.716†	60590.8	60510.6	496.18 µg/L	496.18 ppb	14:09:39
3	Cu 324.752†	131267.3	128474.9	516.96 µg/L	516.96 ppb	14:09:37
3	Mn 257.610†	2370896.1	2377845.4	2986.6 µg/L	2986.6 ppb	14:09:37
3	Mo 202.031†	15353.8	15420.1	482.86 µg/L	482.86 ppb	14:09:39
3	Ni 231.604†	42304.4	42522.6	498.87 µg/L	498.87 ppb	14:09:39
3	P 214.914†	4269.7	4288.2	884.51 µg/L	884.51 ppb	14:09:39
3	Pb 220.353†	9853.8	9770.1	571.18 µg/L	571.18 ppb	14:09:39
3	S 181.975 Axial†	6542.2	6235.8	5564.3 µg/L	5564.3 ppb	14:09:39
3	Sb 206.836†	3864.4	3795.7	458.38 µg/L	458.38 ppb	14:09:39
3	Se 196.026†	1240.7	1224.0	478 µg/L	478 ppb	14:09:39
3	SiO2†	175314.0	174051.3	17210 µg/L	17210 ppb	14:09:37
3	Si 251.611†	548695.4	549687.1	8042.0 µg/L	8042.0 ppb	14:09:37
3	Sn 189.927†	7443.1	7459.6	495.23 µg/L	495.23 ppb	14:09:39
3	Ti 334.940†	1879750.5	1884626.8	1851.5 µg/L	1851.5 ppb	14:09:37
3	Tl 190.801†	3343.6	3469.7	478.84 µg/L	478.84 ppb	14:09:39
3	U 409.014†	1390.8	1686.3	133.18 µg/L	133.18 ppb	14:09:37
3	V 292.402†	108435.6	108388.4	521.87 µg/L	521.87 ppb	14:09:37
3	Zn 213.857†	128518.3	128303.7	702.93 µg/L	702.93 ppb	14:09:37

Mean Data: 1202068113|972603|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1703496.2	98.988	%	0.7469				0.75%
Sc RADIAL	130683.7	102	%	0.5				0.53%
Y 371.029	1188327.4	119.31	%	0.813				0.68%
Ag 328.068†	124076.9	485.68	µg/L	0.652	485.68	ppb	0.652	0.13%
Al 396.153Radial†	177264.9	37541	µg/L	510.9	37541	ppb	510.9	1.36%
As 188.979†	1501.0	513.64	µg/L	6.761	513.64	ppb	6.761	1.32%
B 249.677†	33470.0	478.91	µg/L	1.371	478.91	ppb	1.371	0.29%
Ba 233.527†	163082.4	689.57	µg/L	0.725	689.57	ppb	0.725	0.11%
Be 313.107†	1801490.5	492.27	µg/L	0.221	492.27	ppb	0.221	0.04%
Ca 317.933Radial†	151084.5	10364	µg/L	35.8	10364	ppb	35.8	0.35%
Cd 226.502†	77673.0	480.23	µg/L	1.669	480.23	ppb	1.669	0.35%
Co 228.616†	39004.6	478.60	µg/L	2.569	478.60	ppb	2.569	0.54%
Cr 267.716†	60803.8	498.61	µg/L	3.172	498.61	ppb	3.172	0.64%
Cu 324.752†	128542.7	517.35	µg/L	0.342	517.35	ppb	0.342	0.07%
Fe 238.204 Radial†	891130.7	66139	µg/L	1004.8	66139	ppb	1004.8	1.52%
K 766.490 Radial†	21159.8	8071.7	µg/L	54.29	8071.7	ppb	54.29	0.67%
Mg 279.077 IEC†	21658.5	9988.3	µg/L	53.36	9988.3	ppb	53.36	0.53%
Mn 257.610†	2380449.6	2989.9	µg/L	3.17	2989.9	ppb	3.17	0.11%
Mo 202.031†	15423.5	483.00	µg/L	0.149	483.00	ppb	0.149	0.03%
Na 589.592 Radial†	38483.7	5699.4	µg/L	18.82	5699.4	ppb	18.82	0.33%

Ni 231.604†	42750.7	501.55 µg/L	2.876	501.55 ppb	2.876	0.57%
P 214.914†	4359.6	899.49 µg/L	14.017	899.49 ppb	14.017	1.56%
Pb 220.353†	9703.7	567.32 µg/L	7.510	567.32 ppb	7.510	1.32%
S 181.975 Axial†	6267.9	5593.0 µg/L	56.35	5593.0 ppb	56.35	1.01%
Sb 206.836†	3865.8	466.80 µg/L	7.323	466.80 ppb	7.323	1.57%
Se 196.026†	1255.3	489 µg/L	12.6	489 ppb	12.6	2.57%
SiO2†	176078.0	17411 µg/L	190.5	17411 ppb	190.5	1.09%
Si 251.611†	555700.1	8130.1 µg/L	86.41	8130.1 ppb	86.41	1.06%
Sn 189.927†	7521.1	499.25 µg/L	3.489	499.25 ppb	3.489	0.70%
Sr 421.552†	224846.7	519.53 µg/L	5.936	519.53 ppb	5.936	1.14%
Ti 334.940†	1881482.5	1848.4 µg/L	2.77	1848.4 ppb	2.77	0.15%
Tl 190.801†	3500.3	482.80 µg/L	3.786	482.80 ppb	3.786	0.78%
U 409.014†	1589.9	127.39 µg/L	5.061	127.39 ppb	5.061	3.97%
V 292.402†	108456.0	522.12 µg/L	0.397	522.12 ppb	0.397	0.08%
Zn 213.857†	128367.9	703.19 µg/L	1.153	703.19 ppb	1.153	0.16%

Sequence No.: 7
Sample ID: 1202068111|972603|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 307
Date Collected: 4/7/2010 14:09:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068111|972603|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130540.4	130540.4	102	%			14:10:17
1	Al 396.153Radial†	13128.5	13009.3	2756.7	µg/L	2756.7	ppb	14:10:19
1	Ca 317.933Radial†	13751.3	13030.2	893.84	µg/L	893.84	ppb	14:10:19
1	Fe 238.204 Radial†	145905.5	143507.4	10651	µg/L	10651	ppb	14:10:17
1	K 766.490 Radial†	2789.3	1180.9	450.27	µg/L	450.27	ppb	14:10:17
1	Mg 279.077 IEC†	1414.9	1229.7	560.57	µg/L	560.57	ppb	14:10:19
1	Na 589.592 Radial†	2372.8	1405.3	207.98	µg/L	207.98	ppb	14:10:19
1	Sr 421.552†	2817.7	2879.4	6.6472	µg/L	6.6472	ppb	14:10:19
1	Sc 361.383	1712294.3	1712294.3	99.499	%			14:10:45
1	Y 371.029	1022268.2	1022268.2	102.64	%			14:10:45
1	Ag 328.068†	4552.9	-24.6	-0.2741	µg/L	-0.2741	ppb	14:10:47
1	As 188.979†	-13.1	-4.6	0.9093	µg/L	0.9093	ppb	14:11:07
1	B 249.677†	4194.0	219.6	3.1467	µg/L	3.1467	ppb	14:10:47
1	Ba 233.527†	7801.0	7980.3	33.630	µg/L	33.630	ppb	14:10:47
1	Be 313.107†	2365.3	3387.5	0.9124	µg/L	0.9124	ppb	14:10:47
1	Cd 226.502†	129.6	218.2	0.2496	µg/L	0.2496	ppb	14:11:07
1	Co 228.616†	-43.6	151.8	1.3506	µg/L	1.3506	ppb	14:11:07
1	Cr 267.716†	532.5	272.9	2.5172	µg/L	2.5172	ppb	14:11:07
1	Cu 324.752†	3395.2	225.6	2.4215	µg/L	2.4215	ppb	14:10:47
1	Mn 257.610†	359869.6	361508.4	454.09	µg/L	454.09	ppb	14:10:47
1	Mo 202.031†	13.9	34.2	1.4983	µg/L	1.4983	ppb	14:11:07
1	Ni 231.604†	188.7	280.8	3.2942	µg/L	3.2942	ppb	14:11:07
1	P 214.914†	343.5	350.9	69.242	µg/L	69.242	ppb	14:11:07
1	Pb 220.353†	346.3	234.8	13.773	µg/L	13.773	ppb	14:11:07
1	S 181.975 Axial†	178.8	-146.3	-130.45	µg/L	-130.45	ppb	14:11:07
1	Sb 206.836†	88.2	8.4	0.8594	µg/L	0.8594	ppb	14:11:07
1	Se 196.026†	-3.1	-23.7	-5.14	µg/L	-5.14	ppb	14:11:07
1	SiO2†	21410.9	19729.3	1953.1	µg/L	1953.1	ppb	14:10:47
1	Si 251.611†	62371.7	62029.1	908.55	µg/L	908.55	ppb	14:10:47
1	Sn 189.927†	63.5	58.0	4.4939	µg/L	4.4939	ppb	14:11:07
1	Ti 334.940†	209105.4	209387.5	205.78	µg/L	205.78	ppb	14:10:47
1	Tl 190.801†	-144.1	-28.7	-0.4506	µg/L	-0.4506	ppb	14:11:07
1	U 409.014†	-1030.3	-744.1	-42.537	µg/L	-42.537	ppb	14:10:47
1	V 292.402†	1971.5	1608.4	6.4426	µg/L	6.4426	ppb	14:10:47
1	Zn 213.857†	7288.0	6724.0	36.300	µg/L	36.300	ppb	14:11:07
2	Sc RADIAL	131176.6	131176.6	102	%			14:10:21
2	Al 396.153Radial†	13230.0	13046.0	2764.5	µg/L	2764.5	ppb	14:10:23
2	Ca 317.933Radial†	13949.7	13158.9	902.67	µg/L	902.67	ppb	14:10:23
2	Fe 238.204 Radial†	146649.6	143539.8	10653	µg/L	10653	ppb	14:10:21
2	K 766.490 Radial†	2812.4	1190.3	453.86	µg/L	453.86	ppb	14:10:21
2	Mg 279.077 IEC†	1332.8	1142.6	520.18	µg/L	520.18	ppb	14:10:23
2	Na 589.592 Radial†	2272.0	1295.2	191.66	µg/L	191.66	ppb	14:10:23
2	Sr 421.552†	2738.9	2788.8	6.4377	µg/L	6.4377	ppb	14:10:23
2	Sc 361.383	1721389.8	1721389.8	100.03	%			14:11:09
2	Y 371.029	1026888.4	1026888.4	103.11	%			14:11:09
2	Ag 328.068†	4610.0	8.3	-0.1522	µg/L	-0.1522	ppb	14:11:11
2	As 188.979†	-17.4	-8.8	-0.4633	µg/L	-0.4633	ppb	14:11:32
2	B 249.677†	4081.3	84.7	1.2094	µg/L	1.2094	ppb	14:11:11
2	Ba 233.527†	7651.9	7789.8	32.824	µg/L	32.824	ppb	14:11:11
2	Be 313.107†	2075.6	3085.3	0.8282	µg/L	0.8282	ppb	14:11:11
2	Cd 226.502†	119.4	207.3	0.1808	µg/L	0.1808	ppb	14:11:32
2	Co 228.616†	-45.1	150.6	1.3351	µg/L	1.3351	ppb	14:11:32
2	Cr 267.716†	565.3	302.9	2.7685	µg/L	2.7685	ppb	14:11:32
2	Cu 324.752†	3439.7	252.0	2.5204	µg/L	2.5204	ppb	14:11:11
2	Mn 257.610†	358592.3	358320.3	450.09	µg/L	450.09	ppb	14:11:11
2	Mo 202.031†	8.5	28.8	1.3293	µg/L	1.3293	ppb	14:11:32
2	Ni 231.604†	198.7	289.8	3.3998	µg/L	3.3998	ppb	14:11:32
2	P 214.914†	352.2	357.7	70.701	µg/L	70.701	ppb	14:11:32
2	Pb 220.353†	313.2	199.8	11.744	µg/L	11.744	ppb	14:11:32

2	S 181.975 Axial†	166.2	-159.9	-142.60	µg/L	-142.60 ppb	14:11:32
2	Sb 206.836†	103.7	23.3	2.6559	µg/L	2.6559 ppb	14:11:32
2	Se 196.026†	12.5	-8.0	0.686	µg/L	0.686 ppb	14:11:32
2	SiO2†	23596.4	21800.5	2158.2	µg/L	2158.2 ppb	14:11:11
2	Si 251.611†	69552.2	68876.4	1008.9	µg/L	1008.9 ppb	14:11:11
2	Sn 189.927†	40.6	34.7	2.9676	µg/L	2.9676 ppb	14:11:32
2	Ti 334.940†	209646.4	208817.9	205.23	µg/L	205.23 ppb	14:11:11
2	Tl 190.801†	-140.0	-23.9	0.1575	µg/L	0.1575 ppb	14:11:32
2	U 409.014†	-1132.3	-840.6	-48.209	µg/L	-48.209 ppb	14:11:11
2	V 292.402†	1989.1	1615.5	6.4724	µg/L	6.4724 ppb	14:11:11
2	Zn 213.857†	7249.6	6646.9	35.871	µg/L	35.871 ppb	14:11:32
3	Sc RADIAL	130347.6	130347.6	101	%		14:10:25
3	Al 396.153Radial†	13072.7	12973.4	2749.1	µg/L	2749.1 ppb	14:10:27
3	Ca 317.933Radial†	14025.9	13320.9	913.79	µg/L	913.79 ppb	14:10:27
3	Fe 238.204 Radial†	145515.6	143335.5	10638	µg/L	10638 ppb	14:10:25
3	K 766.490 Radial†	2828.0	1223.1	466.41	µg/L	466.41 ppb	14:10:25
3	Mg 279.077 IEC†	1342.3	1160.2	528.37	µg/L	528.37 ppb	14:10:27
3	Na 589.592 Radial†	2103.7	1143.5	169.15	µg/L	169.15 ppb	14:10:27
3	Sr 421.552†	2701.4	2768.8	6.3914	µg/L	6.3914 ppb	14:10:27
3	Sc 361.383	1736639.4	1736639.4	100.91	%		14:11:34
3	Y 371.029	1036113.0	1036113.0	104.03	%		14:11:34
3	Ag 328.068†	4657.5	14.9	-0.0972	µg/L	-0.0972 ppb	14:11:36
3	As 188.979†	-5.1	3.5	3.5660	µg/L	3.5660 ppb	14:11:56
3	B 249.677†	4024.5	-7.5	-0.1145	µg/L	-0.1145 ppb	14:11:36
3	Ba 233.527†	7776.0	7845.6	33.061	µg/L	33.061 ppb	14:11:36
3	Be 313.107†	2186.3	3176.8	0.8595	µg/L	0.8595 ppb	14:11:36
3	Cd 226.502†	117.2	204.0	0.1620	µg/L	0.1620 ppb	14:11:56
3	Co 228.616†	-35.6	160.3	1.4561	µg/L	1.4561 ppb	14:11:56
3	Cr 267.716†	528.1	261.1	2.4114	µg/L	2.4114 ppb	14:11:56
3	Cu 324.752†	3411.0	193.3	2.3042	µg/L	2.3042 ppb	14:11:36
3	Mn 257.610†	355760.3	352366.1	442.61	µg/L	442.61 ppb	14:11:36
3	Mo 202.031†	16.8	36.9	1.5805	µg/L	1.5805 ppb	14:11:56
3	Ni 231.604†	187.5	276.9	3.2485	µg/L	3.2485 ppb	14:11:56
3	P 214.914†	380.8	383.0	76.175	µg/L	76.175 ppb	14:11:56
3	Pb 220.353†	316.7	200.6	11.769	µg/L	11.769 ppb	14:11:56
3	S 181.975 Axial†	173.6	-154.0	-137.34	µg/L	-137.34 ppb	14:11:56
3	Sb 206.836†	101.6	20.4	2.3146	µg/L	2.3146 ppb	14:11:56
3	Se 196.026†	18.5	-2.1	2.87	µg/L	2.87 ppb	14:11:56
3	SiO2†	21219.9	19238.4	1904.5	µg/L	1904.5 ppb	14:11:36
3	Si 251.611†	62554.7	61331.7	898.33	µg/L	898.33 ppb	14:11:36
3	Sn 189.927†	62.0	55.6	4.3186	µg/L	4.3186 ppb	14:11:56
3	Ti 334.940†	206853.7	204210.1	200.69	µg/L	200.69 ppb	14:11:36
3	Tl 190.801†	-155.9	-38.5	-1.7945	µg/L	-1.7945 ppb	14:11:56
3	U 409.014†	-782.8	-484.4	-27.398	µg/L	-27.398 ppb	14:11:36
3	V 292.402†	2036.7	1645.2	6.6369	µg/L	6.6369 ppb	14:11:36
3	Zn 213.857†	7291.9	6625.2	35.750	µg/L	35.750 ppb	14:11:56

Mean Data: 1202068111|972603|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1723441.2	100.15	%	0.715				0.71%
Sc RADIAL	130688.2	102	%	0.3				0.33%
Y 371.029	1028423.2	103.26	%	0.708				0.69%
Ag 328.068†	-0.5	-0.1745	µg/L	0.09050	-0.1745	ppb	0.09050	51.86%
Al 396.153Radial†	13009.6	2756.7	µg/L	7.71	2756.7	ppb	7.71	0.28%
As 188.979†	-3.3	1.3373	µg/L	2.04848	1.3373	ppb	2.04848	153.18%
B 249.677†	98.9	1.4139	µg/L	1.64015	1.4139	ppb	1.64015	116.01%
Ba 233.527†	7871.9	33.172	µg/L	0.4143	33.172	ppb	0.4143	1.25%
Be 313.107†	3216.5	0.8667	µg/L	0.04259	0.8667	ppb	0.04259	4.91%
Ca 317.933Radial†	13170.0	903.43	µg/L	9.995	903.43	ppb	9.995	1.11%
Cd 226.502†	209.8	0.1975	µg/L	0.04611	0.1975	ppb	0.04611	23.35%
Co 228.616†	154.2	1.3806	µg/L	0.06584	1.3806	ppb	0.06584	4.77%
Cr 267.716†	279.0	2.5657	µg/L	0.18342	2.5657	ppb	0.18342	7.15%
Cu 324.752†	223.6	2.4154	µg/L	0.10823	2.4154	ppb	0.10823	4.48%
Fe 238.204 Radial†	143460.9	10647	µg/L	8.2	10647	ppb	8.2	0.08%
K 766.490 Radial†	1198.1	456.85	µg/L	8.473	456.85	ppb	8.473	1.85%
Mg 279.077 IEC†	1177.5	536.37	µg/L	21.348	536.37	ppb	21.348	3.98%
Mn 257.610†	357398.3	448.93	µg/L	5.829	448.93	ppb	5.829	1.30%
Mo 202.031†	33.3	1.4693	µg/L	0.12809	1.4693	ppb	0.12809	8.72%
Na 589.592 Radial†	1281.3	189.60	µg/L	19.498	189.60	ppb	19.498	10.28%

Ni 231.604†	282.5	3.3141	µg/L	0.07761	3.3141	ppb	0.07761	2.34%
P 214.914†	363.9	72.039	µg/L	3.6549	72.039	ppb	3.6549	5.07%
Pb 220.353†	211.7	12.429	µg/L	1.1643	12.429	ppb	1.1643	9.37%
S 181.975 Axial†	-153.4	-136.80	µg/L	6.090	-136.80	ppb	6.090	4.45%
Concentration less than lower limit for S 181.975 Axial.								
Sb 206.836†	17.4	1.9433	µg/L	0.95407	1.9433	ppb	0.95407	49.10%
Se 196.026†	-11.3	-0.526	µg/L	4.1403	-0.526	ppb	4.1403	787.02%
SiO2†	20256.1	2005.2	µg/L	134.64	2005.2	ppb	134.64	6.71%
Si 251.611†	64079.1	938.58	µg/L	61.077	938.58	ppb	61.077	6.51%
Sn 189.927†	49.4	3.9267	µg/L	0.83522	3.9267	ppb	0.83522	21.27%
Sr 421.552†	2812.3	6.4921	µg/L	0.13628	6.4921	ppb	0.13628	2.10%
Ti 334.940†	207471.8	203.90	µg/L	2.793	203.90	ppb	2.793	1.37%
Tl 190.801†	-30.4	-0.6959	µg/L	0.99886	-0.6959	ppb	0.99886	143.54%
U 409.014†	-689.7	-39.381	µg/L	10.7583	-39.381	ppb	10.7583	27.32%
V 292.402†	1623.0	6.5173	µg/L	0.10463	6.5173	ppb	0.10463	1.61%
Zn 213.857†	6665.4	35.973	µg/L	0.2887	35.973	ppb	0.2887	0.80%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/7/2010 14:12:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	129749.1	129749.1	101	%			14:12:38
1	Al 396.153Radial†	24044.2	23899.0	5041.3	µg/L	5041.3	ppb	14:12:38
1	Ca 317.933Radial†	75308.1	74078.5	5081.6	µg/L	5081.6	ppb	14:12:38
1	Fe 238.204 Radial†	68656.8	67876.2	5037.7	µg/L	5037.7	ppb	14:12:38
1	K 766.490 Radial†	14844.5	13137.1	5014.7	µg/L	5014.7	ppb	14:12:38
1	Mg 279.077 IEC†	11284.0	11012.6	5109.4	µg/L	5109.4	ppb	14:12:38
1	Na 589.592 Radial†	69309.4	67713.5	10037	µg/L	10037	ppb	14:12:38
1	Sr 421.552†	219398.5	217397.8	502.36	µg/L	502.36	ppb	14:12:36
1	Sc 361.383	1728046.0	1728046.0	100.41	%			14:12:51
1	Y 371.029	989856.1	989856.1	99.387	%			14:12:51
1	Ag 328.068†	132754.5	127606.6	500.70	µg/L	500.70	ppb	14:12:51
1	As 188.979†	1480.9	1483.4	494.23	µg/L	494.23	ppb	14:13:11
1	B 249.677†	38454.1	34300.0	490.76	µg/L	490.76	ppb	14:12:51
1	Ba 233.527†	118248.3	117900.6	499.20	µg/L	499.20	ppb	14:12:51
1	Be 313.107†	1835789.0	1829228.7	499.97	µg/L	499.97	ppb	14:12:51
1	Cd 226.502†	80031.5	79789.4	499.92	µg/L	499.92	ppb	14:12:51
1	Co 228.616†	40533.2	40561.6	500.81	µg/L	500.81	ppb	14:12:51
1	Cr 267.716†	61606.8	61090.5	499.21	µg/L	499.21	ppb	14:12:51
1	Cu 324.752†	129514.1	125793.3	497.79	µg/L	497.79	ppb	14:12:51
1	Mn 257.610†	402019.0	400187.1	502.52	µg/L	502.52	ppb	14:12:51
1	Mo 202.031†	15965.9	15920.3	495.95	µg/L	495.95	ppb	14:13:11
1	Ni 231.604†	42897.7	42811.9	502.27	µg/L	502.27	ppb	14:12:51
1	P 214.914†	11500.1	11458.3	2468.4	µg/L	2468.4	ppb	14:13:11
1	Pb 220.353†	8696.6	8547.5	498.10	µg/L	498.10	ppb	14:13:11
1	S 181.975 Axial†	1328.5	996.9	893.12	µg/L	893.12	ppb	14:13:11
1	Sb 206.836†	4196.0	4098.4	496.02	µg/L	496.02	ppb	14:13:11
1	Se 196.026†	1353.2	1327.1	495	µg/L	495	ppb	14:13:11
1	SiO2†	55593.5	53574.8	5282.6	µg/L	5282.6	ppb	14:12:51
1	Si 251.611†	170862.6	169501.1	2472.9	µg/L	2472.9	ppb	14:12:51
1	Sn 189.927†	7581.0	7543.9	496.20	µg/L	496.20	ppb	14:13:11
1	Ti 334.940†	511453.5	508573.0	499.19	µg/L	499.19	ppb	14:12:51
1	Tl 190.801†	3717.4	3818.1	503.84	µg/L	503.84	ppb	14:13:11
1	U 409.014†	7704.5	7964.1	496.29	µg/L	496.29	ppb	14:12:51
1	V 292.402†	103434.1	102634.5	502.13	µg/L	502.13	ppb	14:12:51
1	Zn 213.857†	91170.4	90193.7	496.66	µg/L	496.66	ppb	14:12:51
2	Sc RADIAL	129036.2	129036.2	100	%			14:12:42
2	Al 396.153Radial†	23925.2	23912.0	5043.7	µg/L	5043.7	ppb	14:12:42
2	Ca 317.933Radial†	74860.4	74044.8	5079.3	µg/L	5079.3	ppb	14:12:42
2	Fe 238.204 Radial†	68146.3	67743.5	5027.8	µg/L	5027.8	ppb	14:12:42
2	K 766.490 Radial†	14829.7	13203.6	5040.1	µg/L	5040.1	ppb	14:12:42
2	Mg 279.077 IEC†	11297.0	11087.3	5144.1	µg/L	5144.1	ppb	14:12:42
2	Na 589.592 Radial†	68991.1	67775.8	10046	µg/L	10046	ppb	14:12:42
2	Sr 421.552†	220214.2	219410.7	507.01	µg/L	507.01	ppb	14:12:40
2	Sc 361.383	1712976.0	1712976.0	99.538	%			14:13:14
2	Y 371.029	983082.6	983082.6	98.707	%			14:13:14
2	Ag 328.068†	131542.1	127551.7	500.47	µg/L	500.47	ppb	14:13:14
2	As 188.979†	1489.0	1504.6	501.17	µg/L	501.17	ppb	14:13:34
2	B 249.677†	38263.2	34445.1	492.84	µg/L	492.84	ppb	14:13:14
2	Ba 233.527†	116881.9	117563.9	497.78	µg/L	497.78	ppb	14:13:14
2	Be 313.107†	1817381.8	1826819.9	499.30	µg/L	499.30	ppb	14:13:14
2	Cd 226.502†	79078.4	79533.0	498.32	µg/L	498.32	ppb	14:13:14
2	Co 228.616†	40156.7	40538.5	500.53	µg/L	500.53	ppb	14:13:14
2	Cr 267.716†	60789.9	60809.6	496.93	µg/L	496.93	ppb	14:13:14
2	Cu 324.752†	128445.8	125854.7	498.01	µg/L	498.01	ppb	14:13:14
2	Mn 257.610†	397858.5	399529.5	501.69	µg/L	501.69	ppb	14:13:14
2	Mo 202.031†	16052.1	16146.8	503.00	µg/L	503.00	ppb	14:13:34
2	Ni 231.604†	42345.2	42632.7	500.16	µg/L	500.16	ppb	14:13:14
2	P 214.914†	11553.5	11612.8	2501.7	µg/L	2501.7	ppb	14:13:34
2	Pb 220.353†	8774.0	8701.4	507.08	µg/L	507.08	ppb	14:13:34

2	S 181.975 Axial†	1350.0	1030.3	922.89 µg/L	922.89 ppb	14:13:34
2	Sb 206.836†	4234.8	4174.1	505.31 µg/L	505.31 ppb	14:13:34
2	Se 196.026†	1369.3	1355.1	506 µg/L	506 ppb	14:13:34
2	SiO2†	55004.3	53469.9	5271.9 µg/L	5271.9 ppb	14:13:14
2	Si 251.611†	169366.3	169494.9	2472.7 µg/L	2472.7 ppb	14:13:14
2	Sn 189.927†	7605.6	7635.0	502.17 µg/L	502.17 ppb	14:13:34
2	Ti 334.940†	507114.4	508694.8	499.31 µg/L	499.31 ppb	14:13:14
2	Tl 190.801†	3730.0	3863.3	509.71 µg/L	509.71 ppb	14:13:34
2	U 409.014†	7307.6	7632.8	476.92 µg/L	476.92 ppb	14:13:14
2	V 292.402†	102579.3	102681.9	502.41 µg/L	502.41 ppb	14:13:14
2	Zn 213.857†	90244.2	90062.0	495.94 µg/L	495.94 ppb	14:13:14
3	Sc RADIAL	129460.3	129460.3	101 %		14:12:46
3	Al 396.153Radial†	24076.9	23984.6	5059.2 µg/L	5059.2 ppb	14:12:46
3	Ca 317.933Radial†	75430.9	74366.9	5101.4 µg/L	5101.4 ppb	14:12:46
3	Fe 238.204 Radial†	68561.4	67933.3	5041.9 µg/L	5041.9 ppb	14:12:46
3	K 766.490 Radial†	14991.9	13316.2	5083.1 µg/L	5083.1 ppb	14:12:46
3	Mg 279.077 IEC†	11480.5	11232.5	5211.4 µg/L	5211.4 ppb	14:12:46
3	Na 589.592 Radial†	69289.4	67846.8	10056 µg/L	10056 ppb	14:12:46
3	Sr 421.552†	216547.0	215052.2	496.94 µg/L	496.94 ppb	14:12:44
3	Sc 361.383	1714432.2	1714432.2	99.623 %		14:13:37
3	Y 371.029	982580.3	982580.3	98.657 %		14:13:37
3	Ag 328.068†	131959.4	127858.3	501.67 µg/L	501.67 ppb	14:13:37
3	As 188.979†	1477.0	1491.2	496.81 µg/L	496.81 ppb	14:13:57
3	B 249.677†	38205.4	34354.4	491.54 µg/L	491.54 ppb	14:13:37
3	Ba 233.527†	117337.8	117921.8	499.29 µg/L	499.29 ppb	14:13:37
3	Be 313.107†	1823724.9	1831636.3	500.62 µg/L	500.62 ppb	14:13:37
3	Cd 226.502†	79347.8	79736.0	499.59 µg/L	499.59 ppb	14:13:37
3	Co 228.616†	40262.0	40609.9	501.41 µg/L	501.41 ppb	14:13:37
3	Cr 267.716†	61015.8	60984.4	498.34 µg/L	498.34 ppb	14:13:37
3	Cu 324.752†	128757.6	126058.0	498.84 µg/L	498.84 ppb	14:13:37
3	Mn 257.610†	398902.0	400237.5	502.58 µg/L	502.58 ppb	14:13:37
3	Mo 202.031†	15999.4	16080.2	500.93 µg/L	500.93 ppb	14:13:57
3	Ni 231.604†	42256.7	42507.8	498.70 µg/L	498.70 ppb	14:13:37
3	P 214.914†	11515.1	11564.3	2491.3 µg/L	2491.3 ppb	14:13:57
3	Pb 220.353†	8725.3	8645.0	503.78 µg/L	503.78 ppb	14:13:57
3	S 181.975 Axial†	1347.3	1026.4	919.40 µg/L	919.40 ppb	14:13:57
3	Sb 206.836†	4228.4	4164.1	504.04 µg/L	504.04 ppb	14:13:57
3	Se 196.026†	1365.8	1350.4	504 µg/L	504 ppb	14:13:57
3	SiO2†	55204.7	53624.2	5287.2 µg/L	5287.2 ppb	14:13:37
3	Si 251.611†	169763.6	169749.2	2476.5 µg/L	2476.5 ppb	14:13:37
3	Sn 189.927†	7587.3	7610.2	500.54 µg/L	500.54 ppb	14:13:57
3	Ti 334.940†	507804.7	508955.0	499.56 µg/L	499.56 ppb	14:13:37
3	Tl 190.801†	3709.5	3839.6	506.62 µg/L	506.62 ppb	14:13:57
3	U 409.014†	7639.1	7959.3	495.96 µg/L	495.96 ppb	14:13:37
3	V 292.402†	102426.5	102441.0	501.24 µg/L	501.24 ppb	14:13:37
3	Zn 213.857†	90490.8	90232.5	496.89 µg/L	496.89 ppb	14:13:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1718484.7	99.859	%	0.4830				0.48%
Sc RADIAL	129415.2	101	%	0.3				0.28%
Y 371.029	985173.0	98.917	%	0.4080				0.41%
Ag 328.068†	127672.2	500.95	µg/L	0.634	500.95	ppb	0.634	0.13%
QC value within limits for Ag 328.068 Recovery = 100.19%								
Al 396.153Radial†	23931.9	5048.1	µg/L	9.71	5048.1	ppb	9.71	0.19%
QC value within limits for Al 396.153Radial Recovery = 100.96%								
As 188.979†	1493.1	497.41	µg/L	3.508	497.41	ppb	3.508	0.71%
QC value within limits for As 188.979 Recovery = 99.48%								
B 249.677†	34366.5	491.71	µg/L	1.053	491.71	ppb	1.053	0.21%
QC value within limits for B 249.677 Recovery = 98.34%								
Ba 233.527†	117795.4	498.75	µg/L	0.848	498.75	ppb	0.848	0.17%
QC value within limits for Ba 233.527 Recovery = 99.75%								
Be 313.107†	1829228.3	499.96	µg/L	0.661	499.96	ppb	0.661	0.13%
QC value within limits for Be 313.107 Recovery = 99.99%								
Ca 317.933Radial†	74163.4	5087.5	µg/L	12.15	5087.5	ppb	12.15	0.24%
QC value within limits for Ca 317.933Radial Recovery = 101.75%								
Cd 226.502†	79686.1	499.28	µg/L	0.848	499.28	ppb	0.848	0.17%
QC value within limits for Cd 226.502 Recovery = 99.86%								
Co 228.616†	40570.0	500.92	µg/L	0.450	500.92	ppb	0.450	0.09%

```
   QC value within limits for Co 228.616  Recovery = 100.18%
Cr 267.716†            60961.5      498.16 µg/L         1.152      498.16 ppb          1.152   0.23%
   QC value within limits for Cr 267.716  Recovery = 99.63%
Cu 324.752†           125902.0      498.21 µg/L         0.551      498.21 ppb          0.551   0.11%
   QC value within limits for Cu 324.752  Recovery = 99.64%
Fe 238.204 Radial†     67851.0      5035.8 µg/L          7.23      5035.8 ppb           7.23   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.72%
K 766.490 Radial†      13219.0      5045.9 µg/L         34.58      5045.9 ppb          34.58   0.69%
   QC value within limits for K 766.490 Radial  Recovery = 100.92%
Mg 279.077 IEC†        11110.8      5155.0 µg/L         51.86      5155.0 ppb          51.86   1.01%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.10%
Mn 257.610†           399984.7      502.26 µg/L         0.496      502.26 ppb          0.496   0.10%
   QC value within limits for Mn 257.610  Recovery = 100.45%
Mo 202.031†            16049.1      499.96 µg/L         3.622      499.96 ppb          3.622   0.72%
   QC value within limits for Mo 202.031  Recovery = 99.99%
Na 589.592 Radial†     67778.7       10046 µg/L           9.9       10046 ppb            9.9   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 100.46%
Ni 231.604†            42650.8      500.38 µg/L         1.793      500.38 ppb          1.793   0.36%
   QC value within limits for Ni 231.604  Recovery = 100.08%
P 214.914†             11545.1      2487.1 µg/L         17.06      2487.1 ppb          17.06   0.69%
   QC value within limits for P 214.914  Recovery = 99.49%
Pb 220.353†             8631.3      502.99 µg/L         4.540      502.99 ppb          4.540   0.90%
   QC value within limits for Pb 220.353  Recovery = 100.60%
S 181.975 Axial†        1017.9      911.80 µg/L        16.272      911.80 ppb         16.272   1.78%
   QC value within limits for S 181.975 Axial  Recovery = 91.18%
Sb 206.836†             4145.5      501.79 µg/L         5.037      501.79 ppb          5.037   1.00%
   QC value within limits for Sb 206.836  Recovery = 100.36%
Se 196.026†             1344.2         502 µg/L           5.6         502 ppb            5.6   1.11%
   QC value within limits for Se 196.026  Recovery = 100.33%
SiO2†                  53556.3      5280.6 µg/L          7.87      5280.6 ppb           7.87   0.15%
   QC value within limits for SiO2  Recovery = 98.75%
Si 251.611†           169581.8      2474.0 µg/L          2.11      2474.0 ppb           2.11   0.09%
   QC value within limits for Si 251.611  Recovery = 98.96%
Sn 189.927†             7596.3      499.64 µg/L         3.087      499.64 ppb          3.087   0.62%
   QC value within limits for Sn 189.927  Recovery = 99.93%
Sr 421.552†           217286.9      502.10 µg/L         5.041      502.10 ppb          5.041   1.00%
   QC value within limits for Sr 421.552  Recovery = 100.42%
Ti 334.940†           508741.0      499.35 µg/L         0.187      499.35 ppb          0.187   0.04%
   QC value within limits for Ti 334.940  Recovery = 99.87%
Tl 190.801†             3840.4      506.72 µg/L         2.941      506.72 ppb          2.941   0.58%
   QC value within limits for Tl 190.801  Recovery = 101.34%
U 409.014†              7852.1      489.72 µg/L        11.089      489.72 ppb         11.089   2.26%
   QC value within limits for U 409.014  Recovery = 97.94%
V 292.402†            102585.8      501.93 µg/L         0.609      501.93 ppb          0.609   0.12%
   QC value within limits for V 292.402  Recovery = 100.39%
Zn 213.857†            90162.7      496.50 µg/L         0.497      496.50 ppb          0.497   0.10%
   QC value within limits for Zn 213.857  Recovery = 99.30%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/7/2010 14:14:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	129544.7	129544.7	101	%			14:14:36
1	Al 396.153Radial†	-66.2	20.0	4.2366	µg/L	4.2366	ppb	14:14:56
1	Ca 317.933Radial†	533.9	23.1	1.5843	µg/L	1.5843	ppb	14:14:56
1	Fe 238.204 Radial†	136.7	14.2	1.0557	µg/L	1.0557	ppb	14:14:56
1	K 766.490 Radial†	1662.6	84.3	32.214	µg/L	32.214	ppb	14:14:36
1	Mg 279.077 IEC†	166.0	1.6	0.7577	µg/L	0.7577	ppb	14:14:56
1	Na 589.592 Radial†	1258.2	317.6	47.066	µg/L	47.066	ppb	14:14:36
1	Sr 421.552†	7.1	112.7	0.2605	µg/L	0.2605	ppb	14:14:36
1	Sc 361.383	1733803.7	1733803.7	100.75	%			14:15:58
1	Y 371.029	1004288.5	1004288.5	100.84	%			14:15:58
1	Ag 328.068†	4609.4	-25.2	-0.0896	µg/L	-0.0896	ppb	14:16:00
1	As 188.979†	-3.5	5.2	1.6903	µg/L	1.6903	ppb	14:16:20
1	B 249.677†	4105.4	79.4	1.1403	µg/L	1.1403	ppb	14:16:00
1	Ba 233.527†	-156.3	-15.1	-0.0640	µg/L	-0.0640	ppb	14:16:20
1	Be 313.107†	-745.0	270.8	0.0758	µg/L	0.0758	ppb	14:16:00
1	Cd 226.502†	-35.9	52.3	0.3274	µg/L	0.3274	ppb	14:16:20
1	Co 228.616†	-216.7	-19.4	-0.2400	µg/L	-0.2400	ppb	14:16:20
1	Cr 267.716†	245.9	-18.2	-0.1534	µg/L	-0.1534	ppb	14:16:20
1	Cu 324.752†	3159.2	-51.0	-0.1963	µg/L	-0.1963	ppb	14:16:00
1	Mn 257.610†	226.6	50.9	0.0640	µg/L	0.0640	ppb	14:16:20
1	Mo 202.031†	-21.3	-0.8	-0.0262	µg/L	-0.0262	ppb	14:16:20
1	Ni 231.604†	-111.1	-19.2	-0.2249	µg/L	-0.2249	ppb	14:16:20
1	P 214.914†	-1.4	4.2	0.9158	µg/L	0.9158	ppb	14:16:20
1	Pb 220.353†	103.1	-10.9	-0.6369	µg/L	-0.6369	ppb	14:16:20
1	S 181.975 Axial†	282.3	-45.8	-40.836	µg/L	-40.836	ppb	14:16:20
1	Sb 206.836†	106.4	25.3	3.0561	µg/L	3.0561	ppb	14:16:20
1	Se 196.026†	21.0	0.3	0.118	µg/L	0.118	ppb	14:16:20
1	SiO2†	1824.7	21.7	2.1477	µg/L	2.1477	ppb	14:16:20
1	Si 251.611†	738.2	76.0	1.1140	µg/L	1.1140	ppb	14:16:00
1	Sn 189.927†	3.4	-2.4	-0.1606	µg/L	-0.1606	ppb	14:16:20
1	Ti 334.940†	763.7	-13.2	-0.0154	µg/L	-0.0154	ppb	14:16:00
1	Tl 190.801†	-116.1	0.8	0.1037	µg/L	0.1037	ppb	14:16:20
1	U 409.014†	-189.2	103.5	6.0613	µg/L	6.0613	ppb	14:16:00
1	V 292.402†	390.5	14.5	0.0732	µg/L	0.0732	ppb	14:16:00
1	Zn 213.857†	646.8	41.3	0.2307	µg/L	0.2307	ppb	14:16:20
2	Sc RADIAL	130169.9	130169.9	101	%			14:14:58
2	Al 396.153Radial†	-84.1	2.7	0.5544	µg/L	0.5544	ppb	14:15:18
2	Ca 317.933Radial†	511.3	-1.8	-0.1214	µg/L	-0.1214	ppb	14:15:18
2	Fe 238.204 Radial†	139.2	16.0	1.1862	µg/L	1.1862	ppb	14:15:18
2	K 766.490 Radial†	1686.7	100.3	38.299	µg/L	38.299	ppb	14:14:58
2	Mg 279.077 IEC†	199.0	33.4	15.471	µg/L	15.471	ppb	14:15:18
2	Na 589.592 Radial†	1158.2	212.9	31.535	µg/L	31.535	ppb	14:14:58
2	Sr 421.552†	-163.1	-55.4	-0.1280	µg/L	-0.1280	ppb	14:14:58
2	Sc 361.383	1717358.2	1717358.2	99.793	%			14:16:22
2	Y 371.029	994557.6	994557.6	99.859	%			14:16:22
2	Ag 328.068†	4561.4	-29.6	-0.0809	µg/L	-0.0809	ppb	14:16:24
2	As 188.979†	-12.3	-3.7	-1.2251	µg/L	-1.2251	ppb	14:16:44
2	B 249.677†	4033.2	46.0	0.6620	µg/L	0.6620	ppb	14:16:24
2	Ba 233.527†	-146.0	-6.3	-0.0264	µg/L	-0.0264	ppb	14:16:44
2	Be 313.107†	-674.0	334.9	0.0981	µg/L	0.0981	ppb	14:16:24
2	Cd 226.502†	-73.8	14.0	0.0877	µg/L	0.0877	ppb	14:16:44
2	Co 228.616†	-223.4	-28.3	-0.3492	µg/L	-0.3492	ppb	14:16:44
2	Cr 267.716†	279.6	17.9	0.1294	µg/L	0.1294	ppb	14:16:44
2	Cu 324.752†	2956.1	-224.5	-0.8673	µg/L	-0.8673	ppb	14:16:24
2	Mn 257.610†	241.6	68.1	0.0850	µg/L	0.0850	ppb	14:16:44
2	Mo 202.031†	-12.7	7.5	0.2349	µg/L	0.2349	ppb	14:16:44
2	Ni 231.604†	-96.4	-5.5	-0.0648	µg/L	-0.0648	ppb	14:16:44
2	P 214.914†	-3.3	2.3	0.5087	µg/L	0.5087	ppb	14:16:44
2	Pb 220.353†	128.2	15.2	0.8697	µg/L	0.8697	ppb	14:16:44

2	S 181.975 Axial†	274.7	-50.8	-45.278	µg/L	-45.278 ppb	14:16:44
2	Sb 206.836†	93.7	13.5	1.6374	µg/L	1.6374 ppb	14:16:44
2	Se 196.026†	20.7	0.3	0.116	µg/L	0.116 ppb	14:16:44
2	SiO2†	1812.8	27.1	2.6710	µg/L	2.6710 ppb	14:16:44
2	Si 251.611†	940.4	285.6	4.1791	µg/L	4.1791 ppb	14:16:24
2	Sn 189.927†	7.8	1.9	0.1274	µg/L	0.1274 ppb	14:16:44
2	Ti 334.940†	771.6	2.0	-0.0083	µg/L	-0.0083 ppb	14:16:24
2	Tl 190.801†	-106.4	9.4	1.2294	µg/L	1.2294 ppb	14:16:44
2	U 409.014†	81.5	373.0	21.857	µg/L	21.857 ppb	14:16:24
2	V 292.402†	493.8	121.7	0.6054	µg/L	0.6054 ppb	14:16:24
2	Zn 213.857†	651.1	51.7	0.2881	µg/L	0.2881 ppb	14:16:44
3	Sc RADIAL	129089.7	129089.7	100	%		14:15:20
3	Al 396.153Radial†	-103.0	-16.9	-3.6000	µg/L	-3.6000 ppb	14:15:40
3	Ca 317.933Radial†	542.8	33.8	2.3188	µg/L	2.3188 ppb	14:15:40
3	Fe 238.204 Radial†	146.3	24.2	1.7976	µg/L	1.7976 ppb	14:15:40
3	K 766.490 Radial†	1676.9	104.4	39.886	µg/L	39.886 ppb	14:15:20
3	Mg 279.077 IEC†	191.1	27.2	12.597	µg/L	12.597 ppb	14:15:40
3	Na 589.592 Radial†	1095.4	160.0	23.689	µg/L	23.689 ppb	14:15:20
3	Sr 421.552†	-30.4	75.4	0.1743	µg/L	0.1743 ppb	14:15:20
3	Sc 361.383	1717275.6	1717275.6	99.788	%		14:16:46
3	Y 371.029	995317.5	995317.5	99.936	%		14:16:46
3	Ag 328.068†	4695.7	105.2	0.3970	µg/L	0.3970 ppb	14:16:48
3	As 188.979†	-15.6	-7.0	-2.2912	µg/L	-2.2912 ppb	14:17:08
3	B 249.677†	4033.7	46.8	0.6712	µg/L	0.6712 ppb	14:16:48
3	Ba 233.527†	-153.2	-13.5	-0.0572	µg/L	-0.0572 ppb	14:17:08
3	Be 313.107†	-824.9	183.6	0.0488	µg/L	0.0488 ppb	14:16:48
3	Cd 226.502†	-66.6	21.2	0.1328	µg/L	0.1328 ppb	14:17:08
3	Co 228.616†	-194.0	1.2	0.0151	µg/L	0.0151 ppb	14:17:08
3	Cr 267.716†	238.3	-23.4	-0.1880	µg/L	-0.1880 ppb	14:17:08
3	Cu 324.752†	3054.7	-125.5	-0.4984	µg/L	-0.4984 ppb	14:16:48
3	Mn 257.610†	271.3	97.9	0.1225	µg/L	0.1225 ppb	14:17:08
3	Mo 202.031†	-9.8	10.5	0.3262	µg/L	0.3262 ppb	14:17:08
3	Ni 231.604†	-50.1	40.9	0.4802	µg/L	0.4802 ppb	14:17:08
3	P 214.914†	-4.3	1.3	0.2921	µg/L	0.2921 ppb	14:17:08
3	Pb 220.353†	109.8	-3.2	-0.1829	µg/L	-0.1829 ppb	14:17:08
3	S 181.975 Axial†	287.6	-37.9	-33.775	µg/L	-33.775 ppb	14:17:08
3	Sb 206.836†	117.5	37.4	4.5276	µg/L	4.5276 ppb	14:17:08
3	Se 196.026†	14.6	-5.9	-2.20	µg/L	-2.20 ppb	14:17:08
3	SiO2†	1803.0	17.4	1.7084	µg/L	1.7084 ppb	14:17:08
3	Si 251.611†	992.3	337.6	4.9390	µg/L	4.9390 ppb	14:16:48
3	Sn 189.927†	8.5	2.7	0.1762	µg/L	0.1762 ppb	14:17:08
3	Ti 334.940†	888.5	119.2	0.1181	µg/L	0.1181 ppb	14:16:48
3	Tl 190.801†	-110.6	5.2	0.6794	µg/L	0.6794 ppb	14:17:08
3	U 409.014†	-368.9	-78.3	-4.6056	µg/L	-4.6056 ppb	14:16:48
3	V 292.402†	286.9	-85.6	-0.4139	µg/L	-0.4139 ppb	14:16:48
3	Zn 213.857†	646.0	46.6	0.2558	µg/L	0.2558 ppb	14:17:08

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1722812.5	100.11	%	0.553				0.55%
Sc RADIAL	129601.4	101	%	0.4				0.42%
Y 371.029	998054.5	100.21	%	0.543				0.54%
Ag 328.068†	16.8	0.0755	µg/L	0.27849	0.0755	ppb	0.27849	368.85%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.9	0.3970	µg/L	3.92070	0.3970	ppb	3.92070	987.59%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.9	-0.6087	µg/L	2.06109	-0.6087	ppb	2.06109	338.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	57.4	0.8245	µg/L	0.27353	0.8245	ppb	0.27353	33.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-11.6	-0.0492	µg/L	0.02006	-0.0492	ppb	0.02006	40.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	263.1	0.0742	µg/L	0.02470	0.0742	ppb	0.02470	33.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	18.4	1.2606	µg/L	1.25188	1.2606	ppb	1.25188	99.31%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	29.2	0.1827	µg/L	0.12738	0.1827	ppb	0.12738	69.74%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-15.5	-0.1914	µg/L	0.18694	-0.1914	ppb	0.18694	97.69%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -7.9     -0.0706 µg/L       0.17415     -0.0706 ppb        0.17415 246.51%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -133.7     -0.5207 µg/L       0.33605     -0.5207 ppb        0.33605  64.54%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       18.1      1.3465 µg/L       0.39612      1.3465 ppb        0.39612  29.42%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        96.3     36.800 µg/L        4.0500     36.800 ppb         4.0500  11.01%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          20.7      9.6086 µg/L       7.79868      9.6086 ppb        7.79868  81.16%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              72.3      0.0905 µg/L       0.02966      0.0905 ppb        0.02966  32.79%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.7      0.1783 µg/L       0.18292      0.1783 ppb        0.18292 102.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      230.2     34.097 µg/L      11.8973     34.097 ppb        11.8973  34.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               5.4      0.0635 µg/L       0.36963      0.0635 ppb        0.36963 582.23%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                2.6      0.5722 µg/L       0.31669      0.5722 ppb        0.31669  55.34%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.4      0.0167 µg/L       0.77287      0.0167 ppb        0.77287 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -44.8    -39.963 µg/L        5.8011    -39.963 ppb         5.8011  14.52%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              25.4      3.0737 µg/L       1.44521      3.0737 ppb        1.44521  47.02%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.8     -0.655 µg/L        1.3364     -0.655 ppb         1.3364 204.15%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    22.0      2.1757 µg/L       0.48190      2.1757 ppb        0.48190  22.15%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             233.0      3.4107 µg/L       2.02495      3.4107 ppb        2.02495  59.37%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.7      0.0477 µg/L       0.18203      0.0477 ppb        0.18203 381.85%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              44.2      0.1022 µg/L       0.20402      0.1022 ppb        0.20402 199.57%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              36.0      0.0315 µg/L       0.07511      0.0315 ppb        0.07511 238.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.1      0.6708 µg/L       0.56290      0.6708 ppb        0.56290  83.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              132.7      7.7710 µg/L      13.31412      7.7710 ppb       13.31412 171.33%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               16.9      0.0882 µg/L       0.50982      0.0882 ppb        0.50982 577.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              46.5      0.2582 µg/L       0.02878      0.2582 ppb        0.02878  11.14%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: 248867001|972603|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 309
Date Collected: 4/7/2010 14:19:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248867001|972603|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130744.8	130744.8	102	%			14:19:49
1	Al 396.153Radial†	59997.2	59054.3	12514	µg/L	12514	ppb	14:19:47
1	Ca 317.933Radial†	131817.8	129051.6	8852.7	µg/L	8852.7	ppb	14:19:49
1	Fe 238.204 Radial†	713277.7	700928.7	52022	µg/L	52022	ppb	14:19:47
1	K 766.490 Radial†	7920.7	6220.0	2371.3	µg/L	2371.3	ppb	14:19:49
1	Mg 279.077 IEC†	8857.4	8542.5	3912.9	µg/L	3912.9	ppb	14:19:49
1	Na 589.592 Radial†	8402.4	7327.9	1084.5	µg/L	1084.5	ppb	14:19:49
1	Sr 421.552†	16940.4	16755.6	38.653	µg/L	38.653	ppb	14:19:49
1	Sc 361.383	1715068.0	1715068.0	99.660	%			14:20:16
1	Y 371.029	1126867.9	1126867.9	113.14	%			14:20:16
1	Ag 328.068†	4816.2	232.2	0.1723	µg/L	0.1723	ppb	14:20:16
1	As 188.979†	-1.3	7.3	14.617	µg/L	14.617	ppb	14:20:36
1	B 249.677†	5100.8	1122.6	16.056	µg/L	16.056	ppb	14:20:16
1	Ba 233.527†	44883.4	45176.6	190.50	µg/L	190.50	ppb	14:20:16
1	Be 313.107†	12474.3	13527.1	3.6224	µg/L	3.6224	ppb	14:20:16
1	Cd 226.502†	1647.0	1740.5	5.4673	µg/L	5.4673	ppb	14:20:36
1	Co 228.616†	1263.5	1463.4	15.542	µg/L	15.542	ppb	14:20:36
1	Cr 267.716†	7044.4	6806.2	57.107	µg/L	57.107	ppb	14:20:36
1	Cu 324.752†	81869.6	78962.2	318.98	µg/L	318.98	ppb	14:20:16
1	Mn 257.610†	1589746.6	1594996.7	2003.4	µg/L	2003.4	ppb	14:20:16
1	Mo 202.031†	217.9	238.9	9.5830	µg/L	9.5830	ppb	14:20:36
1	Ni 231.604†	4513.7	4620.2	54.204	µg/L	54.204	ppb	14:20:36
1	P 214.914†	4079.9	4099.5	850.23	µg/L	850.23	ppb	14:20:36
1	Pb 220.353†	3521.2	3419.9	199.20	µg/L	199.20	ppb	14:20:36
1	S 181.975 Axial†	1026.3	703.7	627.54	µg/L	627.54	ppb	14:20:36
1	Sb 206.836†	100.1	20.2	1.0832	µg/L	1.0832	ppb	14:20:36
1	Se 196.026†	-8.3	-28.8	7.10	µg/L	7.10	ppb	14:20:36
1	SiO2†	169272.9	168061.0	16637	µg/L	16637	ppb	14:20:16
1	Si 251.611†	528749.8	529897.1	7761.6	µg/L	7761.6	ppb	14:20:16
1	Sn 189.927†	196.7	191.5	16.044	µg/L	16.044	ppb	14:20:36
1	Ti 334.940†	1050115.3	1052927.0	1034.8	µg/L	1034.8	ppb	14:20:16
1	Tl 190.801†	-269.8	-154.7	-4.2074	µg/L	-4.2074	ppb	14:20:36
1	U 409.014†	-4447.7	-4171.6	-239.31	µg/L	-239.31	ppb	14:20:16
1	V 292.402†	12262.9	11931.7	51.312	µg/L	51.312	ppb	14:20:36
1	Zn 213.857†	186909.9	186946.9	1032.2	µg/L	1032.2	ppb	14:20:16
2	Sc RADIAL	129376.6	129376.6	101	%			14:19:53
2	Al 396.153Radial†	60281.2	59960.0	12706	µg/L	12706	ppb	14:19:51
2	Ca 317.933Radial†	130485.4	129098.3	8855.9	µg/L	8855.9	ppb	14:19:53
2	Fe 238.204 Radial†	714964.3	710018.0	52697	µg/L	52697	ppb	14:19:51
2	K 766.490 Radial†	7952.4	6333.9	2414.8	µg/L	2414.8	ppb	14:19:53
2	Mg 279.077 IEC†	8759.6	8537.4	3909.9	µg/L	3909.9	ppb	14:19:53
2	Na 589.592 Radial†	7963.2	6979.0	1032.7	µg/L	1032.7	ppb	14:19:53
2	Sr 421.552†	17018.1	17008.9	39.238	µg/L	39.238	ppb	14:19:53
2	Sc 361.383	1712471.3	1712471.3	99.509	%			14:20:38
2	Y 371.029	1126392.1	1126392.1	113.10	%			14:20:38
2	Ag 328.068†	4552.3	-25.7	-0.8308	µg/L	-0.8308	ppb	14:20:38
2	As 188.979†	10.1	18.7	18.522	µg/L	18.522	ppb	14:20:59
2	B 249.677†	4947.5	976.4	13.957	µg/L	13.957	ppb	14:20:38
2	Ba 233.527†	44824.7	45185.8	190.53	µg/L	190.53	ppb	14:20:38
2	Be 313.107†	12563.5	13635.8	3.6519	µg/L	3.6519	ppb	14:20:38
2	Cd 226.502†	1669.9	1766.0	5.5562	µg/L	5.5562	ppb	14:20:59
2	Co 228.616†	1252.3	1454.1	15.391	µg/L	15.391	ppb	14:20:59
2	Cr 267.716†	7017.5	6789.9	56.998	µg/L	56.998	ppb	14:20:59
2	Cu 324.752†	81657.7	78873.8	318.73	µg/L	318.73	ppb	14:20:38
2	Mn 257.610†	1583402.3	1591039.9	1998.5	µg/L	1998.5	ppb	14:20:38
2	Mo 202.031†	212.1	233.4	9.4391	µg/L	9.4391	ppb	14:20:59
2	Ni 231.604†	4497.6	4610.9	54.095	µg/L	54.095	ppb	14:20:59
2	P 214.914†	4110.9	4136.9	857.90	µg/L	857.90	ppb	14:20:59
2	Pb 220.353†	3511.4	3415.4	198.92	µg/L	198.92	ppb	14:20:59

2	S 181.975 Axial†	1026.5	705.6	629.19	µg/L	629.19 ppb	14:20:59
2	Sb 206.836†	103.7	23.9	1.5248	µg/L	1.5248 ppb	14:20:59
2	Se 196.026†	0.3	-20.2	10.6	µg/L	10.6 ppb	14:20:59
2	SiO2†	157405.8	156392.9	15482	µg/L	15482 ppb	14:20:38
2	Si 251.611†	490660.5	492424.3	7212.7	µg/L	7212.7 ppb	14:20:38
2	Sn 189.927†	201.0	196.1	16.333	µg/L	16.333 ppb	14:20:59
2	Ti 334.940†	1044512.3	1048894.1	1030.9	µg/L	1030.9 ppb	14:20:38
2	Tl 190.801†	-257.2	-142.5	-2.6743	µg/L	-2.6743 ppb	14:20:59
2	U 409.014†	-4450.8	-4181.4	-240.07	µg/L	-240.07 ppb	14:20:38
2	V 292.402†	12244.9	11932.3	51.245	µg/L	51.245 ppb	14:20:59
2	Zn 213.857†	185984.8	186301.6	1028.6	µg/L	1028.6 ppb	14:20:38
3	Sc RADIAL	128156.2	128156.2	99.7	%		14:19:57
3	Al 396.153Radial†	60927.2	61177.9	12964	µg/L	12964 ppb	14:19:55
3	Ca 317.933Radial†	128651.6	128493.7	8814.4	µg/L	8814.4 ppb	14:19:57
3	Fe 238.204 Radial†	725482.6	727327.2	53981	µg/L	53981 ppb	14:19:55
3	K 766.490 Radial†	7741.7	6197.8	2362.7	µg/L	2362.7 ppb	14:19:57
3	Mg 279.077 IEC†	8654.3	8514.7	3898.3	µg/L	3898.3 ppb	14:19:57
3	Na 589.592 Radial†	7883.8	6974.7	1032.2	µg/L	1032.2 ppb	14:19:57
3	Sr 421.552†	16723.7	16874.7	38.928	µg/L	38.928 ppb	14:19:57
3	Sc 361.383	1731583.7	1731583.7	100.62	%		14:21:01
3	Y 371.029	1139441.2	1139441.2	114.41	%		14:21:01
3	Ag 328.068†	4694.5	65.1	-0.5003	µg/L	-0.5003 ppb	14:21:01
3	As 188.979†	14.6	23.1	20.238	µg/L	20.238 ppb	14:21:21
3	B 249.677†	5013.6	987.2	14.112	µg/L	14.112 ppb	14:21:01
3	Ba 233.527†	45267.6	45128.8	190.27	µg/L	190.27 ppb	14:21:01
3	Be 313.107†	12536.1	13469.2	3.6054	µg/L	3.6054 ppb	14:21:01
3	Cd 226.502†	1666.9	1744.6	5.2861	µg/L	5.2861 ppb	14:21:21
3	Co 228.616†	1271.0	1458.7	15.382	µg/L	15.382 ppb	14:21:21
3	Cr 267.716†	6975.9	6670.7	56.069	µg/L	56.069 ppb	14:21:21
3	Cu 324.752†	82961.8	79264.1	320.46	µg/L	320.46 ppb	14:21:01
3	Mn 257.610†	1607732.0	1597656.7	2006.8	µg/L	2006.8 ppb	14:21:01
3	Mo 202.031†	237.8	256.5	10.210	µg/L	10.210 ppb	14:21:21
3	Ni 231.604†	4469.3	4532.9	53.179	µg/L	53.179 ppb	14:21:21
3	P 214.914†	4065.1	4045.7	837.35	µg/L	837.35 ppb	14:21:21
3	Pb 220.353†	3549.8	3414.7	198.86	µg/L	198.86 ppb	14:21:21
3	S 181.975 Axial†	1038.1	705.6	629.25	µg/L	629.25 ppb	14:21:21
3	Sb 206.836†	94.2	13.3	0.2514	µg/L	0.2514 ppb	14:21:21
3	Se 196.026†	-12.6	-33.0	6.23	µg/L	6.23 ppb	14:21:21
3	SiO2†	163652.4	160855.1	15924	µg/L	15924 ppb	14:21:01
3	Si 251.611†	510540.3	506739.4	7422.4	µg/L	7422.4 ppb	14:21:01
3	Sn 189.927†	196.7	189.7	15.916	µg/L	15.916 ppb	14:21:21
3	Ti 334.940†	1058491.5	1051201.5	1033.1	µg/L	1033.1 ppb	14:21:01
3	Tl 190.801†	-262.0	-144.3	-2.8775	µg/L	-2.8775 ppb	14:21:21
3	U 409.014†	-4558.2	-4238.8	-243.70	µg/L	-243.70 ppb	14:21:01
3	V 292.402†	12247.9	11799.4	50.467	µg/L	50.467 ppb	14:21:21
3	Zn 213.857†	189292.8	187526.3	1035.2	µg/L	1035.2 ppb	14:21:01

Mean Data: 248867001|972603|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1719707.7	99.930	%	0.6024				0.60%
Sc RADIAL	129425.8	101	%	1.0				1.00%
Y 371.029	1130900.4	113.55	%	0.743				0.65%
Ag 328.068†	90.6	-0.3863	µg/L	0.51115	-0.3863	ppb	0.51115	132.33%
Al 396.153Radial†	60064.1	12728	µg/L	225.8	12728	ppb	225.8	1.77%
As 188.979†	16.4	17.792	µg/L	2.8809	17.792	ppb	2.8809	16.19%
B 249.677†	1028.7	14.708	µg/L	1.1701	14.708	ppb	1.1701	7.96%
Ba 233.527†	45163.7	190.43	µg/L	0.141	190.43	ppb	0.141	0.07%
Be 313.107†	13544.1	3.6266	µg/L	0.02355	3.6266	ppb	0.02355	0.65%
Ca 317.933Radial†	128881.2	8841.0	µg/L	23.08	8841.0	ppb	23.08	0.26%
Cd 226.502†	1750.4	5.4365	µg/L	0.13764	5.4365	ppb	0.13764	2.53%
Co 228.616†	1458.7	15.438	µg/L	0.0898	15.438	ppb	0.0898	0.58%
Cr 267.716†	6755.6	56.725	µg/L	0.5706	56.725	ppb	0.5706	1.01%
Cu 324.752†	79033.4	319.39	µg/L	0.931	319.39	ppb	0.931	0.29%
Fe 238.204 Radial†	712758.0	52900	µg/L	995.3	52900	ppb	995.3	1.88%
K 766.490 Radial†	6250.6	2382.9	µg/L	27.90	2382.9	ppb	27.90	1.17%
Mg 279.077 IEC†	8531.5	3907.0	µg/L	7.69	3907.0	ppb	7.69	0.20%
Mn 257.610†	1594564.5	2002.9	µg/L	4.18	2002.9	ppb	4.18	0.21%
Mo 202.031†	242.9	9.7441	µg/L	0.41001	9.7441	ppb	0.41001	4.21%
Na 589.592 Radial†	7093.9	1049.8	µg/L	30.06	1049.8	ppb	30.06	2.86%

Ni 231.604†	4588.0	53.826	µg/L	0.5629	53.826	ppb	0.5629	1.05%
P 214.914†	4094.0	848.49	µg/L	10.387	848.49	ppb	10.387	1.22%
Pb 220.353†	3416.7	199.00	µg/L	0.180	199.00	ppb	0.180	0.09%
S 181.975 Axial†	705.0	628.66	µg/L	0.970	628.66	ppb	0.970	0.15%
Sb 206.836†	19.1	0.9531	µg/L	0.64655	0.9531	ppb	0.64655	67.83%
Se 196.026†	-27.3	7.96	µg/L	2.288	7.96	ppb	2.288	28.75%
SiO2†	161769.7	16015	µg/L	582.9	16015	ppb	582.9	3.64%
Si 251.611†	509686.9	7465.6	µg/L	276.98	7465.6	ppb	276.98	3.71%
Sn 189.927†	192.4	16.098	µg/L	0.2136	16.098	ppb	0.2136	1.33%
Sr 421.552†	16879.8	38.939	µg/L	0.2928	38.939	ppb	0.2928	0.75%
Ti 334.940†	1051007.5	1032.9	µg/L	1.99	1032.9	ppb	1.99	0.19%
Tl 190.801†	-147.1	-3.2531	µg/L	0.83270	-3.2531	ppb	0.83270	25.60%
U 409.014†	-4197.3	-241.02	µg/L	2.349	-241.02	ppb	2.349	0.97%
Concentration less than lower limit for U 409.014.								
V 292.402†	11887.8	51.008	µg/L	0.4700	51.008	ppb	0.4700	0.92%
Zn 213.857†	186924.9	1032.0	µg/L	3.34	1032.0	ppb	3.34	0.32%

Sequence No.: 12
Sample ID: 248867002|972603|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 310
Date Collected: 4/7/2010 14:21:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248867002|972603|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128518.1	128518.1	100	%			14:22:01
1	Al 396.153Radial†	35824.0	35905.5	7608.3	µg/L	7608.3	ppb	14:22:01
1	Ca 317.933Radial†	74325.8	73810.8	5063.3	µg/L	5063.3	ppb	14:22:01
1	Fe 238.204 Radial†	607351.8	607161.2	45063	µg/L	45063	ppb	14:21:59
1	K 766.490 Radial†	5369.9	3804.5	1450.5	µg/L	1450.5	ppb	14:22:01
1	Mg 279.077 IEC†	3034.1	2870.7	1291.4	µg/L	1291.4	ppb	14:22:01
1	Na 589.592 Radial†	8925.8	7994.3	1184.2	µg/L	1184.2	ppb	14:22:01
1	Sr 421.552†	8497.8	8602.5	19.841	µg/L	19.841	ppb	14:22:01
1	Sc 361.383	1723822.5	1723822.5	100.17	%			14:22:14
1	Y 371.029	1144522.1	1144522.1	114.92	%			14:22:14
1	Ag 328.068†	4619.6	11.4	-0.9185	µg/L	-0.9185	ppb	14:22:14
1	As 188.979†	7.2	15.8	15.884	µg/L	15.884	ppb	14:22:34
1	B 249.677†	5003.5	999.5	14.323	µg/L	14.323	ppb	14:22:14
1	Ba 233.527†	21693.5	21796.9	91.657	µg/L	91.657	ppb	14:22:34
1	Be 313.107†	10300.7	11293.7	3.0043	µg/L	3.0043	ppb	14:22:14
1	Cd 226.502†	865.7	952.1	1.2488	µg/L	1.2488	ppb	14:22:34
1	Co 228.616†	473.0	667.8	5.9911	µg/L	5.9911	ppb	14:22:34
1	Cr 267.716†	7413.5	7138.8	59.621	µg/L	59.621	ppb	14:22:34
1	Cu 324.752†	39780.7	36527.0	150.47	µg/L	150.47	ppb	14:22:14
1	Mn 257.610†	1606903.4	1604023.4	2014.9	µg/L	2014.9	ppb	14:22:14
1	Mo 202.031†	183.2	203.1	8.1372	µg/L	8.1372	ppb	14:22:34
1	Ni 231.604†	3174.5	3260.2	38.249	µg/L	38.249	ppb	14:22:34
1	P 214.914†	1900.6	1903.0	380.86	µg/L	380.86	ppb	14:22:34
1	Pb 220.353†	3247.4	3128.7	181.92	µg/L	181.92	ppb	14:22:34
1	S 181.975 Axial†	666.5	339.3	302.61	µg/L	302.61	ppb	14:22:34
1	Sb 206.836†	91.4	10.9	-0.0249	µg/L	-0.0249	ppb	14:22:34
1	Se 196.026†	9.4	-11.1	11.2	µg/L	11.2	ppb	14:22:34
1	SiO2†	124173.6	122175.0	12095	µg/L	12095	ppb	14:22:14
1	Si 251.611†	386290.2	384982.9	5639.0	µg/L	5639.0	ppb	14:22:14
1	Sn 189.927†	132.0	125.9	10.831	µg/L	10.831	ppb	14:22:34
1	Ti 334.940†	779843.9	777759.4	764.51	µg/L	764.51	ppb	14:22:14
1	Tl 190.801†	-229.0	-112.6	-1.5856	µg/L	-1.5856	ppb	14:22:34
1	U 409.014†	-4916.1	-4616.5	-265.49	µg/L	-265.49	ppb	14:22:14
1	V 292.402†	6392.2	6008.4	23.681	µg/L	23.681	ppb	14:22:34
1	Zn 213.857†	69675.1	68957.0	378.02	µg/L	378.02	ppb	14:22:14
2	Sc RADIAL	130640.9	130640.9	102	%			14:22:05
2	Al 396.153Radial†	35997.5	35494.2	7521.1	µg/L	7521.1	ppb	14:22:05
2	Ca 317.933Radial†	75535.6	73793.2	5062.1	µg/L	5062.1	ppb	14:22:05
2	Fe 238.204 Radial†	606941.7	596890.1	44300	µg/L	44300	ppb	14:22:03
2	K 766.490 Radial†	5405.5	3752.2	1430.5	µg/L	1430.5	ppb	14:22:05
2	Mg 279.077 IEC†	3063.6	2850.4	1282.6	µg/L	1282.6	ppb	14:22:05
2	Na 589.592 Radial†	8920.1	7843.7	1161.8	µg/L	1161.8	ppb	14:22:05
2	Sr 421.552†	8643.8	8608.0	19.853	µg/L	19.853	ppb	14:22:05
2	Sc 361.383	1714739.7	1714739.7	99.641	%			14:22:36
2	Y 371.029	1137401.2	1137401.2	114.20	%			14:22:36
2	Ag 328.068†	4452.9	-131.5	-1.4395	µg/L	-1.4395	ppb	14:22:36
2	As 188.979†	11.1	19.8	17.011	µg/L	17.011	ppb	14:22:56
2	B 249.677†	4801.0	822.7	11.783	µg/L	11.783	ppb	14:22:36
2	Ba 233.527†	21725.3	21943.6	92.287	µg/L	92.287	ppb	14:22:56
2	Be 313.107†	10424.2	11472.1	3.0592	µg/L	3.0592	ppb	14:22:36
2	Cd 226.502†	852.9	943.9	1.2775	µg/L	1.2775	ppb	14:22:56
2	Co 228.616†	518.0	715.4	6.6191	µg/L	6.6191	ppb	14:22:56
2	Cr 267.716†	7434.8	7199.4	60.074	µg/L	60.074	ppb	14:22:56
2	Cu 324.752†	39368.5	36323.6	149.58	µg/L	149.58	ppb	14:22:36
2	Mn 257.610†	1595018.8	1600593.3	2010.6	µg/L	2010.6	ppb	14:22:36
2	Mo 202.031†	162.5	183.4	7.4931	µg/L	7.4931	ppb	14:22:56
2	Ni 231.604†	3173.9	3276.5	38.439	µg/L	38.439	ppb	14:22:56
2	P 214.914†	1896.0	1908.5	382.56	µg/L	382.56	ppb	14:22:56
2	Pb 220.353†	3258.2	3156.7	183.54	µg/L	183.54	ppb	14:22:56

2	S 181.975 Axial†	666.4	342.7	305.63 µg/L	305.63 ppb	14:22:56
2	Sb 206.836†	98.5	18.6	0.8962 µg/L	0.8962 ppb	14:22:56
2	Se 196.026†	-0.6	-21.1	7.28 µg/L	7.28 ppb	14:22:56
2	SiO2†	120151.9	118795.5	11760 µg/L	11760 ppb	14:22:36
2	Si 251.611†	373463.0	374152.2	5480.3 µg/L	5480.3 ppb	14:22:36
2	Sn 189.927†	126.7	121.2	10.511 µg/L	10.511 ppb	14:22:56
2	Ti 334.940†	771399.2	773408.2	760.22 µg/L	760.22 ppb	14:22:36
2	Tl 190.801†	-232.6	-117.4	-2.2641 µg/L	-2.2641 ppb	14:22:56
2	U 409.014†	-4539.7	-4264.7	-244.76 µg/L	-244.76 ppb	14:22:36
2	V 292.402†	6380.1	6030.1	23.880 µg/L	23.880 ppb	14:22:56
2	Zn 213.857†	68887.6	68535.2	375.75 µg/L	375.75 ppb	14:22:36
3	Sc RADIAL	128573.1	128573.1	100 %		14:22:09
3	Al 396.153Radial†	35653.7	35720.0	7569.0 µg/L	7569.0 ppb	14:22:09
3	Ca 317.933Radial†	73904.9	73358.3	5032.2 µg/L	5032.2 ppb	14:22:09
3	Fe 238.204 Radial†	611225.7	610773.1	45331 µg/L	45331 ppb	14:22:07
3	K 766.490 Radial†	5362.7	3795.0	1446.9 µg/L	1446.9 ppb	14:22:09
3	Mg 279.077 IEC†	2989.1	2824.4	1269.7 µg/L	1269.7 ppb	14:22:09
3	Na 589.592 Radial†	9120.2	8184.7	1212.4 µg/L	1212.4 ppb	14:22:09
3	Sr 421.552†	8503.9	8604.9	19.846 µg/L	19.846 ppb	14:22:09
3	Sc 361.383	1718362.0	1718362.0	99.851 %		14:22:59
3	Y 371.029	1139983.3	1139983.3	114.46 %		14:22:59
3	Ag 328.068†	4456.0	-137.8	-1.4930 µg/L	-1.4930 ppb	14:22:59
3	As 188.979†	5.6	14.3	15.429 µg/L	15.429 ppb	14:23:19
3	B 249.677†	4930.4	942.2	13.499 µg/L	13.499 ppb	14:22:59
3	Ba 233.527†	21813.0	21985.5	92.451 µg/L	92.451 ppb	14:23:19
3	Be 313.107†	10238.9	11264.4	2.9961 µg/L	2.9961 ppb	14:22:59
3	Cd 226.502†	851.8	941.0	1.1507 µg/L	1.1507 ppb	14:23:19
3	Co 228.616†	477.7	674.1	6.0552 µg/L	6.0552 ppb	14:23:19
3	Cr 267.716†	7476.9	7225.8	60.341 µg/L	60.341 ppb	14:23:19
3	Cu 324.752†	39783.4	36655.8	151.02 µg/L	151.02 ppb	14:22:59
3	Mn 257.610†	1603079.6	1605291.7	2016.5 µg/L	2016.5 ppb	14:22:59
3	Mo 202.031†	172.9	193.4	7.8466 µg/L	7.8466 ppb	14:23:19
3	Ni 231.604†	3187.7	3283.6	38.523 µg/L	38.523 ppb	14:23:19
3	P 214.914†	1921.5	1930.1	386.50 µg/L	386.50 ppb	14:23:19
3	Pb 220.353†	3265.2	3156.8	183.53 µg/L	183.53 ppb	14:23:19
3	S 181.975 Axial†	663.6	338.5	301.88 µg/L	301.88 ppb	14:23:19
3	Sb 206.836†	106.4	26.3	1.8102 µg/L	1.8102 ppb	14:23:19
3	Se 196.026†	7.0	-13.5	10.5 µg/L	10.5 ppb	14:23:19
3	SiO2†	124171.0	122566.4	12134 µg/L	12134 ppb	14:22:59
3	Si 251.611†	386941.4	386860.5	5666.5 µg/L	5666.5 ppb	14:22:59
3	Sn 189.927†	113.6	107.8	9.6354 µg/L	9.6354 ppb	14:23:19
3	Ti 334.940†	773731.8	774112.2	760.92 µg/L	760.92 ppb	14:22:59
3	Tl 190.801†	-233.4	-117.7	-2.2799 µg/L	-2.2799 ppb	14:23:19
3	U 409.014†	-4907.8	-4623.8	-265.95 µg/L	-265.95 ppb	14:22:59
3	V 292.402†	6469.0	6105.6	24.125 µg/L	24.125 ppb	14:23:19
3	Zn 213.857†	69286.7	68789.1	377.05 µg/L	377.05 ppb	14:22:59

Mean Data: 248867002|972603|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1718974.7	99.887	%	0.2657				0.27%
Sc RADIAL	129244.0	101	%	0.9				0.94%
Y 371.029	1140635.5	114.53	%	0.362				0.32%
Ag 328.068†	-86.0	-1.2837	µg/L	0.31736	-1.2837	ppb	0.31736	24.72%
Al 396.153Radial†	35706.6	7566.1	µg/L	43.64	7566.1	ppb	43.64	0.58%
As 188.979†	16.6	16.108	µg/L	0.8139	16.108	ppb	0.8139	5.05%
B 249.677†	921.5	13.202	µg/L	1.2960	13.202	ppb	1.2960	9.82%
Ba 233.527†	21908.7	92.132	µg/L	0.4193	92.132	ppb	0.4193	0.46%
Be 313.107†	11343.4	3.0199	µg/L	0.03433	3.0199	ppb	0.03433	1.14%
Ca 317.933Radial†	73654.1	5052.5	µg/L	17.58	5052.5	ppb	17.58	0.35%
Cd 226.502†	945.7	1.2257	µg/L	0.06651	1.2257	ppb	0.06651	5.43%
Co 228.616†	685.8	6.2218	µg/L	0.34557	6.2218	ppb	0.34557	5.55%
Cr 267.716†	7188.0	60.012	µg/L	0.3642	60.012	ppb	0.3642	0.61%
Cu 324.752†	36502.2	150.36	µg/L	0.728	150.36	ppb	0.728	0.48%
Fe 238.204 Radial†	604941.5	44898	µg/L	534.6	44898	ppb	534.6	1.19%
K 766.490 Radial†	3783.9	1442.6	µg/L	10.63	1442.6	ppb	10.63	0.74%
Mg 279.077 IEC†	2848.5	1281.2	µg/L	10.91	1281.2	ppb	10.91	0.85%
Mn 257.610†	1603302.8	2014.0	µg/L	3.05	2014.0	ppb	3.05	0.15%
Mo 202.031†	193.3	7.8256	µg/L	0.32256	7.8256	ppb	0.32256	4.12%
Na 589.592 Radial†	8007.6	1186.1	µg/L	25.34	1186.1	ppb	25.34	2.14%

Ni 231.604†	3273.4	38.404	µg/L	0.1405	38.404	ppb	0.1405	0.37%
P 214.914†	1913.9	383.30	µg/L	2.893	383.30	ppb	2.893	0.75%
Pb 220.353†	3147.4	183.00	µg/L	0.934	183.00	ppb	0.934	0.51%
S 181.975 Axial†	340.2	303.37	µg/L	1.991	303.37	ppb	1.991	0.66%
Sb 206.836†	18.6	0.8938	µg/L	0.91753	0.8938	ppb	0.91753	102.65%
Se 196.026†	-15.2	9.66	µg/L	2.102	9.66	ppb	2.102	21.76%
SiO2†	121179.0	11996	µg/L	205.3	11996	ppb	205.3	1.71%
Si 251.611†	381998.5	5595.3	µg/L	100.48	5595.3	ppb	100.48	1.80%
Sn 189.927†	118.3	10.326	µg/L	0.6190	10.326	ppb	0.6190	5.99%
Sr 421.552†	8605.2	19.847	µg/L	0.0064	19.847	ppb	0.0064	0.03%
Ti 334.940†	775093.3	761.88	µg/L	2.298	761.88	ppb	2.298	0.30%
Tl 190.801†	-115.9	-2.0432	µg/L	0.39638	-2.0432	ppb	0.39638	19.40%
U 409.014†	-4501.7	-258.73	µg/L	12.102	-258.73	ppb	12.102	4.68%
Concentration less than lower limit for U 409.014.								
V 292.402†	6048.0	23.895	µg/L	0.2225	23.895	ppb	0.2225	0.93%
Zn 213.857†	68760.4	376.94	µg/L	1.137	376.94	ppb	1.137	0.30%

Sequence No.: 13
Sample ID: 248867003|972603|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 311
Date Collected: 4/7/2010 14:23:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248867003|972603|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	129546.9	129546.9	101	%			14:24:00
1	Al 396.153Radial†	165549.7	164302.0	34816	µg/L	34816	ppb	14:24:00
1	Ca 317.933Radial†	258938.3	256346.2	17585	µg/L	17585	ppb	14:24:00
1	Fe 238.204 Radial†	937455.4	929783.5	69007	µg/L	69007	ppb	14:23:58
1	K 766.490 Radial†	13361.7	11689.2	4453.7	µg/L	4453.7	ppb	14:24:00
1	Mg 279.077 IEC†	19913.1	19589.7	9015.8	µg/L	9015.8	ppb	14:24:00
1	Na 589.592 Radial†	6132.9	5153.0	760.16	µg/L	760.16	ppb	14:24:00
1	Sr 421.552†	62404.8	62007.8	143.16	µg/L	143.16	ppb	14:24:00
1	Sc 361.383	1699610.5	1699610.5	98.762	%			14:24:27
1	Y 371.029	1088559.2	1088559.2	109.30	%			14:24:27
1	Ag 328.068†	4411.0	-134.1	-1.1142	µg/L	-1.1142	ppb	14:24:27
1	As 188.979†	22.5	31.4	26.151	µg/L	26.151	ppb	14:24:47
1	B 249.677†	4610.3	672.5	9.5720	µg/L	9.5720	ppb	14:24:27
1	Ba 233.527†	141734.4	143651.4	606.92	µg/L	606.92	ppb	14:24:27
1	Be 313.107†	21630.0	22911.5	6.1743	µg/L	6.1743	ppb	14:24:27
1	Cd 226.502†	1044.1	1145.1	-0.0609	µg/L	-0.0609	ppb	14:24:47
1	Co 228.616†	1749.1	1966.6	21.271	µg/L	21.271	ppb	14:24:47
1	Cr 267.716†	4857.6	4656.2	40.033	µg/L	40.033	ppb	14:24:47
1	Cu 324.752†	8343.7	5261.5	30.830	µg/L	30.830	ppb	14:24:27
1	Mn 257.610†	1830319.9	1853093.9	2327.4	µg/L	2327.4	ppb	14:24:27
1	Mo 202.031†	104.6	126.1	6.8563	µg/L	6.8563	ppb	14:24:47
1	Ni 231.604†	2914.3	3042.0	35.688	µg/L	35.688	ppb	14:24:47
1	P 214.914†	3345.9	3393.5	694.14	µg/L	694.14	ppb	14:24:47
1	Pb 220.353†	1207.8	1109.7	66.968	µg/L	66.968	ppb	14:24:47
1	S 181.975 Axial†	589.3	270.7	241.40	µg/L	241.40	ppb	14:24:47
1	Sb 206.836†	66.1	-13.4	-3.0552	µg/L	-3.0552	ppb	14:24:47
1	Se 196.026†	-32.8	-53.8	3.69	µg/L	3.69	ppb	14:24:47
1	SiO2†	127983.3	127798.5	12652	µg/L	12652	ppb	14:24:27
1	Si 251.611†	397830.2	402161.2	5890.7	µg/L	5890.7	ppb	14:24:27
1	Sn 189.927†	52.1	46.9	9.0917	µg/L	9.0917	ppb	14:24:47
1	Ti 334.940†	1794024.3	1815746.0	1784.4	µg/L	1784.4	ppb	14:24:27
1	Tl 190.801†	-300.7	-188.4	0.1172	µg/L	0.1172	ppb	14:24:47
1	U 409.014†	-5093.8	-4866.4	-278.40	µg/L	-278.40	ppb	14:24:27
1	V 292.402†	22556.8	22466.6	99.550	µg/L	99.550	ppb	14:24:27
1	Zn 213.857†	34599.2	34432.2	184.85	µg/L	184.85	ppb	14:24:27
2	Sc RADIAL	130705.1	130705.1	102	%			14:24:04
2	Al 396.153Radial†	167107.0	164377.8	34832	µg/L	34832	ppb	14:24:04
2	Ca 317.933Radial†	260350.0	255458.0	17524	µg/L	17524	ppb	14:24:04
2	Fe 238.204 Radial†	935839.2	919954.0	68278	µg/L	68278	ppb	14:24:02
2	K 766.490 Radial†	13491.1	11699.0	4457.5	µg/L	4457.5	ppb	14:24:04
2	Mg 279.077 IEC†	20102.2	19600.5	9021.5	µg/L	9021.5	ppb	14:24:04
2	Na 589.592 Radial†	6097.9	5064.7	747.05	µg/L	747.05	ppb	14:24:04
2	Sr 421.552†	62650.2	61700.5	142.45	µg/L	142.45	ppb	14:24:04
2	Sc 361.383	1728553.7	1728553.7	100.44	%			14:24:50
2	Y 371.029	1105458.6	1105458.6	110.99	%			14:24:50
2	Ag 328.068†	4519.2	-101.2	-0.9961	µg/L	-0.9961	ppb	14:24:50
2	As 188.979†	29.2	37.7	28.058	µg/L	28.058	ppb	14:25:10
2	B 249.677†	4806.8	790.0	11.260	µg/L	11.260	ppb	14:24:50
2	Ba 233.527†	144405.3	143907.5	608.01	µg/L	608.01	ppb	14:24:50
2	Be 313.107†	21614.5	22529.3	6.0681	µg/L	6.0681	ppb	14:24:50
2	Cd 226.502†	1024.7	1108.1	-0.2161	µg/L	-0.2161	ppb	14:25:10
2	Co 228.616†	1754.6	1942.5	21.012	µg/L	21.012	ppb	14:25:10
2	Cr 267.716†	4818.7	4535.1	39.022	µg/L	39.022	ppb	14:25:10
2	Cu 324.752†	8347.3	5123.7	30.175	µg/L	30.175	ppb	14:24:50
2	Mn 257.610†	1863648.3	1855243.7	2330.1	µg/L	2330.1	ppb	14:24:50
2	Mo 202.031†	96.0	115.8	6.5064	µg/L	6.5064	ppb	14:25:10
2	Ni 231.604†	2928.1	3006.3	35.270	µg/L	35.270	ppb	14:25:10
2	P 214.914†	3327.3	3318.3	678.37	µg/L	678.37	ppb	14:25:10
2	Pb 220.353†	1194.3	1075.8	65.006	µg/L	65.006	ppb	14:25:10

2	S 181.975 Axial†	604.6	275.8	245.99	µg/L	245.99 ppb	14:25:10
2	Sb 206.836†	80.2	-0.5	-1.4759	µg/L	-1.4759 ppb	14:25:10
2	Se 196.026†	-45.1	-65.4	-0.893	µg/L	-0.893 ppb	14:25:10
2	SiO2†	130286.9	127922.0	12664	µg/L	12664 ppb	14:24:50
2	Si 251.611†	405738.0	403289.3	5907.2	µg/L	5907.2 ppb	14:24:50
2	Sn 189.927†	34.0	28.0	7.8039	µg/L	7.8039 ppb	14:25:10
2	Ti 334.940†	1809509.0	1800746.3	1769.6	µg/L	1769.6 ppb	14:24:50
2	Tl 190.801†	-320.7	-203.3	-1.9626	µg/L	-1.9626 ppb	14:25:10
2	U 409.014†	-5281.3	-4966.7	-284.12	µg/L	-284.12 ppb	14:24:50
2	V 292.402†	22809.0	22335.3	98.995	µg/L	98.995 ppb	14:24:50
2	Zn 213.857†	35120.1	34364.2	184.55	µg/L	184.55 ppb	14:24:50
3	Sc RADIAL	131138.3	131138.3	102	%		14:24:08
3	Al 396.153Radial†	167443.0	164164.3	34787	µg/L	34787 ppb	14:24:08
3	Ca 317.933Radial†	260882.9	255134.6	17502	µg/L	17502 ppb	14:24:08
3	Fe 238.204 Radial†	943757.5	924673.8	68628	µg/L	68628 ppb	14:24:06
3	K 766.490 Radial†	13278.8	11447.2	4361.3	µg/L	4361.3 ppb	14:24:08
3	Mg 279.077 IEC†	20023.7	19458.3	8955.3	µg/L	8955.3 ppb	14:24:08
3	Na 589.592 Radial†	6143.4	5089.5	750.81	µg/L	750.81 ppb	14:24:08
3	Sr 421.552†	62809.6	61653.3	142.34	µg/L	142.34 ppb	14:24:08
3	Sc 361.383	1721291.6	1721291.6	100.02	%		14:25:13
3	Y 371.029	1102488.2	1102488.2	110.70	%		14:25:13
3	Ag 328.068†	4673.8	72.4	-0.3311	µg/L	-0.3311 ppb	14:25:13
3	As 188.979†	28.9	37.6	28.089	µg/L	28.089 ppb	14:25:33
3	B 249.677†	4711.9	715.4	10.189	µg/L	10.189 ppb	14:25:13
3	Ba 233.527†	144025.9	144134.8	608.97	µg/L	608.97 ppb	14:25:13
3	Be 313.107†	21605.5	22611.2	6.0896	µg/L	6.0896 ppb	14:25:13
3	Cd 226.502†	1048.3	1136.0	-0.0787	µg/L	-0.0787 ppb	14:25:33
3	Co 228.616†	1743.1	1938.3	20.944	µg/L	20.944 ppb	14:25:33
3	Cr 267.716†	4812.1	4548.8	39.148	µg/L	39.148 ppb	14:25:33
3	Cu 324.752†	8466.2	5277.7	30.829	µg/L	30.829 ppb	14:25:13
3	Mn 257.610†	1857753.1	1857177.8	2332.5	µg/L	2332.5 ppb	14:25:13
3	Mo 202.031†	97.8	118.1	6.5890	µg/L	6.5890 ppb	14:25:33
3	Ni 231.604†	2864.0	2954.5	34.662	µg/L	34.662 ppb	14:25:33
3	P 214.914†	3301.4	3306.4	675.54	µg/L	675.54 ppb	14:25:33
3	Pb 220.353†	1219.2	1105.7	66.739	µg/L	66.739 ppb	14:25:33
3	S 181.975 Axial†	582.5	256.4	228.62	µg/L	228.62 ppb	14:25:33
3	Sb 206.836†	87.5	7.2	-0.5586	µg/L	-0.5586 ppb	14:25:33
3	Se 196.026†	-38.3	-58.8	1.68	µg/L	1.68 ppb	14:25:33
3	SiO2†	130355.5	128537.9	12725	µg/L	12725 ppb	14:25:13
3	Si 251.611†	405964.2	405219.7	5935.5	µg/L	5935.5 ppb	14:25:13
3	Sn 189.927†	39.8	33.9	8.2070	µg/L	8.2070 ppb	14:25:33
3	Ti 334.940†	1807493.6	1806331.8	1775.1	µg/L	1775.1 ppb	14:25:13
3	Tl 190.801†	-328.6	-212.4	-3.0929	µg/L	-3.0929 ppb	14:25:33
3	U 409.014†	-5312.2	-5019.7	-287.30	µg/L	-287.30 ppb	14:25:13
3	V 292.402†	22683.9	22305.9	98.811	µg/L	98.811 ppb	14:25:13
3	Zn 213.857†	35067.5	34459.2	185.04	µg/L	185.04 ppb	14:25:13

Mean Data: 248867003|972603|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1716485.2	99.742	%	0.8750				0.88%
Sc RADIAL	130463.5	102	%	0.6				0.63%
Y 371.029	1098835.3	110.33	%	0.906				0.82%
Ag 328.068†	-54.3	-0.8138	µg/L	0.42216	-0.8138	ppb	0.42216	51.88%
Al 396.153Radial†	164281.4	34812	µg/L	22.9	34812	ppb	22.9	0.07%
As 188.979†	35.5	27.433	µg/L	1.1101	27.433	ppb	1.1101	4.05%
B 249.677†	726.0	10.340	µg/L	0.8541	10.340	ppb	0.8541	8.26%
Ba 233.527†	143897.9	607.96	µg/L	1.026	607.96	ppb	1.026	0.17%
Be 313.107†	22684.0	6.1107	µg/L	0.05616	6.1107	ppb	0.05616	0.92%
Ca 317.933Radial†	255646.3	17537	µg/L	43.0	17537	ppb	43.0	0.25%
Cd 226.502†	1129.7	-0.1186	µg/L	0.08491	-0.1186	ppb	0.08491	71.61%
Co 228.616†	1949.1	21.076	µg/L	0.1728	21.076	ppb	0.1728	0.82%
Cr 267.716†	4580.1	39.401	µg/L	0.5511	39.401	ppb	0.5511	1.40%
Cu 324.752†	5221.0	30.612	µg/L	0.3778	30.612	ppb	0.3778	1.23%
Fe 238.204 Radial†	924803.8	68638	µg/L	364.9	68638	ppb	364.9	0.53%
K 766.490 Radial†	11611.8	4424.2	µg/L	54.47	4424.2	ppb	54.47	1.23%
Mg 279.077 IEC†	19549.5	8997.5	µg/L	36.68	8997.5	ppb	36.68	0.41%
Mn 257.610†	1855171.8	2330.0	µg/L	2.57	2330.0	ppb	2.57	0.11%
Mo 202.031†	120.0	6.6506	µg/L	0.18288	6.6506	ppb	0.18288	2.75%
Na 589.592 Radial†	5102.4	752.67	µg/L	6.747	752.67	ppb	6.747	0.90%

Ni 231.604†	3000.9	35.207	µg/L	0.5156	35.207	ppb	0.5156	1.46%
P 214.914†	3339.4	682.68	µg/L	10.022	682.68	ppb	10.022	1.47%
Pb 220.353†	1097.1	66.238	µg/L	1.0726	66.238	ppb	1.0726	1.62%
S 181.975 Axial†	267.6	238.67	µg/L	9.000	238.67	ppb	9.000	3.77%
Sb 206.836†	-2.2	-1.6966	µg/L	1.26286	-1.6966	ppb	1.26286	74.43%
Se 196.026†	-59.3	1.49	µg/L	2.297	1.49	ppb	2.297	153.92%
SiO2†	128086.1	12680	µg/L	39.2	12680	ppb	39.2	0.31%
Si 251.611†	403556.7	5911.1	µg/L	22.66	5911.1	ppb	22.66	0.38%
Sn 189.927†	36.3	8.3676	µg/L	0.65874	8.3676	ppb	0.65874	7.87%
Sr 421.552†	61787.2	142.65	µg/L	0.445	142.65	ppb	0.445	0.31%
Ti 334.940†	1807608.0	1776.4	µg/L	7.45	1776.4	ppb	7.45	0.42%
Tl 190.801†	-201.4	-1.6461	µg/L	1.62828	-1.6461	ppb	1.62828	98.92%
U 409.014†	-4950.9	-283.27	µg/L	4.511	-283.27	ppb	4.511	1.59%
Concentration less than lower limit for U 409.014.								
V 292.402†	22369.3	99.119	µg/L	0.3849	99.119	ppb	0.3849	0.39%
Zn 213.857†	34418.6	184.81	µg/L	0.250	184.81	ppb	0.250	0.14%

Sequence No.: 14
Sample ID: 248867004|972603|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 312
Date Collected: 4/7/2010 14:25:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248867004|972603|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	129981.2	129981.2	101	%			14:26:13
1	Al 396.153Radial†	78541.4	77734.1	16472	µg/L	16472	ppb	14:26:11
1	Ca 317.933Radial†	141521.7	139406.2	9563.0	µg/L	9563.0	ppb	14:26:13
1	Fe 238.204 Radial†	713885.9	705648.4	52372	µg/L	52372	ppb	14:26:11
1	K 766.490 Radial†	8583.9	6921.4	2638.3	µg/L	2638.3	ppb	14:26:13
1	Mg 279.077 IEC†	9188.8	8921.3	4088.0	µg/L	4088.0	ppb	14:26:13
1	Na 589.592 Radial†	5544.3	4550.8	672.47	µg/L	672.47	ppb	14:26:13
1	Sr 421.552†	24876.2	24699.1	57.004	µg/L	57.004	ppb	14:26:13
1	Sc 361.383	1702905.1	1702905.1	98.953	%			14:26:40
1	Y 371.029	1140207.5	1140207.5	114.48	%			14:26:40
1	Ag 328.068†	4701.6	150.9	-0.2054	µg/L	-0.2054	ppb	14:26:40
1	As 188.979†	6.5	15.2	16.924	µg/L	16.924	ppb	14:27:00
1	B 249.677†	4567.7	620.4	8.8677	µg/L	8.8677	ppb	14:26:40
1	Ba 233.527†	61899.4	62694.2	264.60	µg/L	264.60	ppb	14:26:40
1	Be 313.107†	15817.9	16995.6	4.5645	µg/L	4.5645	ppb	14:26:40
1	Cd 226.502†	833.7	930.4	0.3346	µg/L	0.3346	ppb	14:27:00
1	Co 228.616†	747.9	951.5	9.2723	µg/L	9.2723	ppb	14:27:00
1	Cr 267.716†	2322.1	2084.4	18.569	µg/L	18.569	ppb	14:27:00
1	Cu 324.752†	7305.5	4196.0	24.082	µg/L	24.082	ppb	14:26:40
1	Mn 257.610†	1462111.6	1477404.9	1855.7	µg/L	1855.7	ppb	14:26:40
1	Mo 202.031†	181.1	203.3	8.4921	µg/L	8.4921	ppb	14:27:00
1	Ni 231.604†	1535.5	1642.9	19.274	µg/L	19.274	ppb	14:27:00
1	P 214.914†	2725.9	2760.4	564.57	µg/L	564.57	ppb	14:27:00
1	Pb 220.353†	1205.2	1104.7	65.043	µg/L	65.043	ppb	14:27:00
1	S 181.975 Axial†	547.1	226.8	202.28	µg/L	202.28	ppb	14:27:00
1	Sb 206.836†	102.2	23.0	1.9387	µg/L	1.9387	ppb	14:27:00
1	Se 196.026†	-28.6	-49.5	-0.459	µg/L	-0.459	ppb	14:27:00
1	SiO2†	108930.2	108293.1	10721	µg/L	10721	ppb	14:26:40
1	Si 251.611†	338383.7	341306.5	4999.2	µg/L	4999.2	ppb	14:26:40
1	Sn 189.927†	83.2	78.2	8.5470	µg/L	8.5470	ppb	14:27:00
1	Ti 334.940†	1022029.4	1032069.9	1014.3	µg/L	1014.3	ppb	14:26:40
1	Tl 190.801†	-246.8	-133.3	-2.0249	µg/L	-2.0249	ppb	14:27:00
1	U 409.014†	-4730.3	-4489.1	-259.12	µg/L	-259.12	ppb	14:26:40
1	V 292.402†	11184.9	10930.2	46.269	µg/L	46.269	ppb	14:27:00
1	Zn 213.857†	37085.4	36876.9	199.66	µg/L	199.66	ppb	14:26:40
2	Sc RADIAL	129735.8	129735.8	101	%			14:26:17
2	Al 396.153Radial†	77315.2	76666.5	16246	µg/L	16246	ppb	14:26:15
2	Ca 317.933Radial†	141185.9	139338.2	9558.3	µg/L	9558.3	ppb	14:26:17
2	Fe 238.204 Radial†	699549.4	692783.1	51417	µg/L	51417	ppb	14:26:15
2	K 766.490 Radial†	8529.5	6883.7	2623.9	µg/L	2623.9	ppb	14:26:17
2	Mg 279.077 IEC†	9122.7	8873.0	4066.5	µg/L	4066.5	ppb	14:26:17
2	Na 589.592 Radial†	5708.1	4723.4	698.08	µg/L	698.08	ppb	14:26:17
2	Sr 421.552†	24931.2	24800.1	57.237	µg/L	57.237	ppb	14:26:17
2	Sc 361.383	1709534.8	1709534.8	99.338	%			14:27:02
2	Y 371.029	1145520.7	1145520.7	115.02	%			14:27:02
2	Ag 328.068†	4459.9	-110.8	-1.2273	µg/L	-1.2273	ppb	14:27:02
2	As 188.979†	9.3	18.0	17.611	µg/L	17.611	ppb	14:27:23
2	B 249.677†	4456.8	490.9	7.0096	µg/L	7.0096	ppb	14:27:02
2	Ba 233.527†	62428.1	62983.9	265.84	µg/L	265.84	ppb	14:27:02
2	Be 313.107†	16142.5	17260.3	4.6342	µg/L	4.6342	ppb	14:27:02
2	Cd 226.502†	819.5	912.8	0.3250	µg/L	0.3250	ppb	14:27:23
2	Co 228.616†	724.9	925.4	9.0012	µg/L	9.0012	ppb	14:27:23
2	Cr 267.716†	2290.2	2043.3	18.207	µg/L	18.207	ppb	14:27:23
2	Cu 324.752†	7622.1	4486.1	25.079	µg/L	25.079	ppb	14:27:02
2	Mn 257.610†	1467870.9	1477472.5	1855.8	µg/L	1855.8	ppb	14:27:02
2	Mo 202.031†	196.2	217.7	8.9028	µg/L	8.9028	ppb	14:27:23
2	Ni 231.604†	1542.4	1643.8	19.285	µg/L	19.285	ppb	14:27:23
2	P 214.914†	2701.0	2724.6	557.41	µg/L	557.41	ppb	14:27:23
2	Pb 220.353†	1230.8	1125.7	66.293	µg/L	66.293	ppb	14:27:23

2	S 181.975 Axial†	557.1	234.8	209.42 µg/L	209.42 ppb	14:27:23
2	Sb 206.836†	85.3	5.5	-0.1459 µg/L	-0.1459 ppb	14:27:23
2	Se 196.026†	-35.3	-56.1	-3.26 µg/L	-3.26 ppb	14:27:23
2	SiO2†	109225.7	108163.6	10708 µg/L	10708 ppb	14:27:02
2	Si 251.611†	339476.5	341080.5	4995.9 µg/L	4995.9 ppb	14:27:02
2	Sn 189.927†	83.1	77.8	8.5246 µg/L	8.5246 ppb	14:27:23
2	Ti 334.940†	1027630.6	1033703.1	1016.0 µg/L	1016.0 ppb	14:27:02
2	Tl 190.801†	-259.3	-144.9	-3.5205 µg/L	-3.5205 ppb	14:27:23
2	U 409.014†	-4897.7	-4639.0	-267.70 µg/L	-267.70 ppb	14:27:02
2	V 292.402†	11172.1	10873.5	46.092 µg/L	46.092 ppb	14:27:23
2	Zn 213.857†	37160.8	36807.5	199.37 µg/L	199.37 ppb	14:27:02
3	Sc RADIAL	128757.8	128757.8	100 %		14:26:21
3	Al 396.153Radial†	77651.0	77583.3	16440 µg/L	16440 ppb	14:26:19
3	Ca 317.933Radial†	139749.9	138967.3	9532.9 µg/L	9532.9 ppb	14:26:21
3	Fe 238.204 Radial†	706122.8	704606.6	52295 µg/L	52295 ppb	14:26:19
3	K 766.490 Radial†	8690.8	7108.7	2709.9 µg/L	2709.9 ppb	14:26:21
3	Mg 279.077 IEC†	9057.9	8877.0	4067.5 µg/L	4067.5 ppb	14:26:21
3	Na 589.592 Radial†	5344.5	4403.5	650.56 µg/L	650.56 ppb	14:26:21
3	Sr 421.552†	24625.9	24682.8	56.967 µg/L	56.967 ppb	14:26:21
3	Sc 361.383	1711811.4	1711811.4	99.471 %		14:27:25
3	Y 371.029	1146576.3	1146576.3	115.12 %		14:27:25
3	Ag 328.068†	4597.4	21.4	-0.7009 µg/L	-0.7009 ppb	14:27:25
3	As 188.979†	17.9	26.6	20.639 µg/L	20.639 ppb	14:27:45
3	B 249.677†	4471.0	499.2	7.1270 µg/L	7.1270 ppb	14:27:25
3	Ba 233.527†	62494.7	62967.2	265.75 µg/L	265.75 ppb	14:27:25
3	Be 313.107†	15661.6	16755.3	4.5013 µg/L	4.5013 ppb	14:27:25
3	Cd 226.502†	846.9	939.4	0.3992 µg/L	0.3992 ppb	14:27:45
3	Co 228.616†	749.1	948.7	9.2430 µg/L	9.2430 ppb	14:27:45
3	Cr 267.716†	2296.6	2046.6	18.252 µg/L	18.252 ppb	14:27:45
3	Cu 324.752†	7468.1	4321.1	24.570 µg/L	24.570 ppb	14:27:25
3	Mn 257.610†	1469549.5	1477194.8	1855.4 µg/L	1855.4 ppb	14:27:25
3	Mo 202.031†	174.8	195.9	8.2589 µg/L	8.2589 ppb	14:27:45
3	Ni 231.604†	1560.5	1659.9	19.474 µg/L	19.474 ppb	14:27:45
3	P 214.914†	2724.1	2744.3	561.12 µg/L	561.12 ppb	14:27:45
3	Pb 220.353†	1199.0	1092.1	64.306 µg/L	64.306 ppb	14:27:45
3	S 181.975 Axial†	551.6	228.5	203.79 µg/L	203.79 ppb	14:27:45
3	Sb 206.836†	80.6	0.7	-0.7479 µg/L	-0.7479 ppb	14:27:45
3	Se 196.026†	-19.7	-40.3	2.94 µg/L	2.94 ppb	14:27:45
3	SiO2†	108173.1	106959.2	10589 µg/L	10589 ppb	14:27:25
3	Si 251.611†	335712.3	336841.8	4933.8 µg/L	4933.8 ppb	14:27:25
3	Sn 189.927†	79.8	74.3	8.2817 µg/L	8.2817 ppb	14:27:45
3	Ti 334.940†	1024420.1	1029099.7	1011.4 µg/L	1011.4 ppb	14:27:25
3	Tl 190.801†	-229.4	-114.6	0.3779 µg/L	0.3779 ppb	14:27:45
3	U 409.014†	-4620.6	-4353.9	-251.22 µg/L	-251.22 ppb	14:27:25
3	V 292.402†	11159.2	10845.5	45.873 µg/L	45.873 ppb	14:27:45
3	Zn 213.857†	37323.6	36921.4	199.91 µg/L	199.91 ppb	14:27:25

Mean Data: 248867004|972603|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1708083.7	99.254	%	0.2689				0.27%
Sc RADIAL	129491.6	101	%	0.5				0.50%
Y 371.029	1144101.5	114.87	%	0.343				0.30%
Ag 328.068†	20.5	-0.7112	µg/L	0.51101	-0.7112	ppb	0.51101	71.85%
Al 396.153Radial†	77328.0	16386	µg/L	122.5	16386	ppb	122.5	0.75%
As 188.979†	19.9	18.391	µg/L	1.9764	18.391	ppb	1.9764	10.75%
B 249.677†	536.9	7.6681	µg/L	1.04056	7.6681	ppb	1.04056	13.57%
Ba 233.527†	62881.7	265.40	µg/L	0.692	265.40	ppb	0.692	0.26%
Be 313.107†	17003.7	4.5667	µg/L	0.06650	4.5667	ppb	0.06650	1.46%
Ca 317.933Radial†	139237.2	9551.4	µg/L	16.20	9551.4	ppb	16.20	0.17%
Cd 226.502†	927.5	0.3529	µg/L	0.04034	0.3529	ppb	0.04034	11.43%
Co 228.616†	941.8	9.1722	µg/L	0.14876	9.1722	ppb	0.14876	1.62%
Cr 267.716†	2058.1	18.343	µg/L	0.1975	18.343	ppb	0.1975	1.08%
Cu 324.752†	4334.4	24.577	µg/L	0.4986	24.577	ppb	0.4986	2.03%
Fe 238.204 Radial†	701012.7	52028	µg/L	530.4	52028	ppb	530.4	1.02%
K 766.490 Radial†	6971.3	2657.4	µg/L	46.04	2657.4	ppb	46.04	1.73%
Mg 279.077 IEC†	8890.4	4074.0	µg/L	12.13	4074.0	ppb	12.13	0.30%
Mn 257.610†	1477357.4	1855.6	µg/L	0.18	1855.6	ppb	0.18	0.01%
Mo 202.031†	205.7	8.5513	µg/L	0.32599	8.5513	ppb	0.32599	3.81%
Na 589.592 Radial†	4559.2	673.70	µg/L	23.783	673.70	ppb	23.783	3.53%

Ni 231.604†	1648.9	19.344	µg/L	0.1122	19.344	ppb	0.1122	0.58%
P 214.914†	2743.1	561.03	µg/L	3.579	561.03	ppb	3.579	0.64%
Pb 220.353†	1107.5	65.214	µg/L	1.0045	65.214	ppb	1.0045	1.54%
S 181.975 Axial†	230.0	205.16	µg/L	3.763	205.16	ppb	3.763	1.83%
Sb 206.836†	9.8	0.3483	µg/L	1.40984	0.3483	ppb	1.40984	404.78%
Se 196.026†	-48.6	-0.259	µg/L	3.1006	-0.259	ppb	3.1006	>999.9%
SiO2†	107805.3	10672	µg/L	72.8	10672	ppb	72.8	0.68%
Si 251.611†	339742.9	4976.3	µg/L	36.84	4976.3	ppb	36.84	0.74%
Sn 189.927†	76.8	8.4511	µg/L	0.14714	8.4511	ppb	0.14714	1.74%
Sr 421.552†	24727.3	57.069	µg/L	0.1467	57.069	ppb	0.1467	0.26%
Ti 334.940†	1031624.2	1013.9	µg/L	2.30	1013.9	ppb	2.30	0.23%
Tl 190.801†	-130.9	-1.7225	µg/L	1.96670	-1.7225	ppb	1.96670	114.18%
U 409.014†	-4494.0	-259.35	µg/L	8.239	-259.35	ppb	8.239	3.18%
Concentration less than lower limit for U 409.014.								
V 292.402†	10883.1	46.078	µg/L	0.1985	46.078	ppb	0.1985	0.43%
Zn 213.857†	36868.6	199.65	µg/L	0.270	199.65	ppb	0.270	0.14%

Sequence No.: 15
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/7/2010 14:27:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	129319.5	129319.5	101	%			14:28:26
1	Al 396.153Radial†	24096.2	24029.8	5068.8	µg/L	5068.8	ppb	14:28:26
1	Ca 317.933Radial†	74906.1	73926.9	5071.2	µg/L	5071.2	ppb	14:28:26
1	Fe 238.204 Radial†	68556.7	68002.7	5047.1	µg/L	5047.1	ppb	14:28:26
1	K 766.490 Radial†	14901.5	13242.7	5055.0	µg/L	5055.0	ppb	14:28:26
1	Mg 279.077 IEC†	11312.5	11078.0	5139.8	µg/L	5139.8	ppb	14:28:26
1	Na 589.592 Radial†	69157.0	67790.2	10048	µg/L	10048	ppb	14:28:26
1	Sr 421.552†	218488.1	217215.0	501.94	µg/L	501.94	ppb	14:28:24
1	Sc 361.383	1704511.4	1704511.4	99.047	%			14:28:39
1	Y 371.029	977093.6	977093.6	98.106	%			14:28:39
1	Ag 328.068†	130395.2	127050.0	498.51	µg/L	498.51	ppb	14:28:39
1	As 188.979†	1482.4	1505.3	501.41	µg/L	501.41	ppb	14:28:59
1	B 249.677†	37643.5	34010.3	486.60	µg/L	486.60	ppb	14:28:39
1	Ba 233.527†	116321.2	117580.9	497.85	µg/L	497.85	ppb	14:28:39
1	Be 313.107†	1802827.7	1821192.8	497.77	µg/L	497.77	ppb	14:28:39
1	Cd 226.502†	78007.7	78846.5	494.01	µg/L	494.01	ppb	14:28:39
1	Co 228.616†	39896.6	40476.3	499.76	µg/L	499.76	ppb	14:28:39
1	Cr 267.716†	60257.9	60575.7	495.01	µg/L	495.01	ppb	14:28:39
1	Cu 324.752†	127510.4	125551.2	496.83	µg/L	496.83	ppb	14:28:39
1	Mn 257.610†	395396.7	399029.0	501.06	µg/L	501.06	ppb	14:28:39
1	Mo 202.031†	15902.8	16076.1	500.80	µg/L	500.80	ppb	14:28:59
1	Ni 231.604†	41919.0	42413.6	497.59	µg/L	497.59	ppb	14:28:39
1	P 214.914†	11405.0	11520.5	2481.8	µg/L	2481.8	ppb	14:28:59
1	Pb 220.353†	8651.4	8621.4	502.41	µg/L	502.41	ppb	14:28:59
1	S 181.975 Axial†	1340.6	1027.5	920.39	µg/L	920.39	ppb	14:28:59
1	Sb 206.836†	4199.4	4159.5	503.53	µg/L	503.53	ppb	14:28:59
1	Se 196.026†	1338.5	1330.9	497	µg/L	497	ppb	14:28:59
1	SiO2†	54624.7	53361.1	5261.2	µg/L	5261.2	ppb	14:28:39
1	Si 251.611†	167838.9	168797.8	2462.5	µg/L	2462.5	ppb	14:28:39
1	Sn 189.927†	7535.0	7601.7	499.98	µg/L	499.98	ppb	14:28:59
1	Ti 334.940†	503937.8	508017.7	498.64	µg/L	498.64	ppb	14:28:39
1	Tl 190.801†	3698.3	3849.9	507.95	µg/L	507.95	ppb	14:28:59
1	U 409.014†	7480.5	7843.8	489.09	µg/L	489.09	ppb	14:28:39
1	V 292.402†	101493.4	102097.4	499.56	µg/L	499.56	ppb	14:28:39
1	Zn 213.857†	88970.4	89226.1	491.32	µg/L	491.32	ppb	14:28:39
2	Sc RADIAL	129632.6	129632.6	101	%			14:28:30
2	Al 396.153Radial†	24120.0	23995.6	5061.6	µg/L	5061.6	ppb	14:28:30
2	Ca 317.933Radial†	75002.5	73842.7	5065.5	µg/L	5065.5	ppb	14:28:30
2	Fe 238.204 Radial†	68452.5	67734.9	5027.2	µg/L	5027.2	ppb	14:28:30
2	K 766.490 Radial†	14608.6	12916.5	4930.4	µg/L	4930.4	ppb	14:28:30
2	Mg 279.077 IEC†	11295.4	11033.9	5119.4	µg/L	5119.4	ppb	14:28:30
2	Na 589.592 Radial†	69206.6	67673.3	10031	µg/L	10031	ppb	14:28:30
2	Sr 421.552†	217232.1	215445.6	497.85	µg/L	497.85	ppb	14:28:28
2	Sc 361.383	1698572.1	1698572.1	98.701	%			14:29:02
2	Y 371.029	973819.8	973819.8	97.777	%			14:29:02
2	Ag 328.068†	130358.9	127473.6	500.15	µg/L	500.15	ppb	14:29:02
2	As 188.979†	1463.1	1490.9	496.67	µg/L	496.67	ppb	14:29:22
2	B 249.677†	37631.5	34131.0	488.34	µg/L	488.34	ppb	14:29:02
2	Ba 233.527†	115891.3	117556.0	497.74	µg/L	497.74	ppb	14:29:02
2	Be 313.107†	1795328.7	1819959.6	497.43	µg/L	497.43	ppb	14:29:02
2	Cd 226.502†	77839.8	78951.8	494.67	µg/L	494.67	ppb	14:29:02
2	Co 228.616†	39600.2	40316.8	497.79	µg/L	497.79	ppb	14:29:02
2	Cr 267.716†	59956.4	60482.9	494.25	µg/L	494.25	ppb	14:29:02
2	Cu 324.752†	126822.1	125303.9	495.85	µg/L	495.85	ppb	14:29:02
2	Mn 257.610†	393291.4	398291.8	500.14	µg/L	500.14	ppb	14:29:02
2	Mo 202.031†	15827.3	16055.8	500.17	µg/L	500.17	ppb	14:29:22
2	Ni 231.604†	41838.0	42479.6	498.37	µg/L	498.37	ppb	14:29:02
2	P 214.914†	11365.4	11520.6	2481.9	µg/L	2481.9	ppb	14:29:22
2	Pb 220.353†	8668.6	8669.3	505.20	µg/L	505.20	ppb	14:29:22

2	S 181.975 Axial†	1357.6	1049.4	939.97 µg/L	939.97 ppb	14:29:22
2	Sb 206.836†	4159.6	4134.0	500.46 µg/L	500.46 ppb	14:29:22
2	Se 196.026†	1335.2	1332.3	497 µg/L	497 ppb	14:29:22
2	SiO2†	54327.3	53252.6	5250.5 µg/L	5250.5 ppb	14:29:02
2	Si 251.611†	167255.6	168799.3	2462.6 µg/L	2462.6 ppb	14:29:02
2	Sn 189.927†	7514.7	7607.7	500.38 µg/L	500.38 ppb	14:29:22
2	Ti 334.940†	501265.8	507089.6	497.74 µg/L	497.74 ppb	14:29:02
2	Tl 190.801†	3694.7	3859.3	509.17 µg/L	509.17 ppb	14:29:22
2	U 409.014†	7424.0	7813.0	487.30 µg/L	487.30 ppb	14:29:02
2	V 292.402†	101182.3	102140.5	499.76 µg/L	499.76 ppb	14:29:02
2	Zn 213.857†	88653.4	89219.0	491.27 µg/L	491.27 ppb	14:29:02
3	Sc RADIAL	127184.9	127184.9	99.0 %		14:28:34
3	Al 396.153Radial†	23774.2	24106.3	5084.9 µg/L	5084.9 ppb	14:28:34
3	Ca 317.933Radial†	73848.0	74107.1	5083.6 µg/L	5083.6 ppb	14:28:34
3	Fe 238.204 Radial†	67351.4	67928.3	5041.5 µg/L	5041.5 ppb	14:28:34
3	K 766.490 Radial†	14483.6	13069.0	4988.6 µg/L	4988.6 ppb	14:28:34
3	Mg 279.077 IEC†	11074.1	11025.9	5115.7 µg/L	5115.7 ppb	14:28:34
3	Na 589.592 Radial†	68306.9	68084.6	10092 µg/L	10092 ppb	14:28:34
3	Sr 421.552†	221099.8	223497.7	516.46 µg/L	516.46 ppb	14:28:32
3	Sc 361.383	1697366.2	1697366.2	98.631 %		14:29:25
3	Y 371.029	973033.9	973033.9	97.698 %		14:29:25
3	Ag 328.068†	130098.0	127302.9	499.52 µg/L	499.52 ppb	14:29:25
3	As 188.979†	1464.4	1493.3	497.48 µg/L	497.48 ppb	14:29:45
3	B 249.677†	37908.5	34439.0	492.76 µg/L	492.76 ppb	14:29:25
3	Ba 233.527†	115786.0	117532.7	497.64 µg/L	497.64 ppb	14:29:25
3	Be 313.107†	1797657.5	1823613.0	498.43 µg/L	498.43 ppb	14:29:25
3	Cd 226.502†	77957.0	79126.7	495.77 µg/L	495.77 ppb	14:29:25
3	Co 228.616†	39638.4	40384.0	498.62 µg/L	498.62 ppb	14:29:25
3	Cr 267.716†	60181.8	60754.6	496.46 µg/L	496.46 ppb	14:29:25
3	Cu 324.752†	127007.9	125583.6	496.96 µg/L	496.96 ppb	14:29:25
3	Mn 257.610†	393560.5	398847.7	500.84 µg/L	500.84 ppb	14:29:25
3	Mo 202.031†	15917.1	16158.2	503.35 µg/L	503.35 ppb	14:29:45
3	Ni 231.604†	41724.4	42394.5	497.37 µg/L	497.37 ppb	14:29:25
3	P 214.914†	11431.4	11595.7	2498.0 µg/L	2498.0 ppb	14:29:45
3	Pb 220.353†	8710.7	8718.3	508.05 µg/L	508.05 ppb	14:29:45
3	S 181.975 Axial†	1346.8	1039.4	931.08 µg/L	931.08 ppb	14:29:45
3	Sb 206.836†	4197.1	4175.0	505.43 µg/L	505.43 ppb	14:29:45
3	Se 196.026†	1350.7	1349.0	503 µg/L	503 ppb	14:29:45
3	SiO2†	54352.1	53316.9	5256.7 µg/L	5256.7 ppb	14:29:25
3	Si 251.611†	167409.6	169075.9	2466.6 µg/L	2466.6 ppb	14:29:25
3	Sn 189.927†	7536.8	7635.5	502.20 µg/L	502.20 ppb	14:29:45
3	Ti 334.940†	500993.9	507174.7	497.82 µg/L	497.82 ppb	14:29:25
3	Tl 190.801†	3694.0	3861.3	509.43 µg/L	509.43 ppb	14:29:45
3	U 409.014†	7555.8	7952.0	495.54 µg/L	495.54 ppb	14:29:25
3	V 292.402†	101481.2	102516.4	501.62 µg/L	501.62 ppb	14:29:25
3	Zn 213.857†	88945.0	89578.5	493.27 µg/L	493.27 ppb	14:29:25

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1700149.9	98.793	%	0.2223				0.22%
Sc RADIAL	128712.3	100	%	1.0				1.03%
Y 371.029	974649.1	97.860	%	0.2162				0.22%
Ag 328.068†	127275.5	499.39	µg/L	0.828	499.39	ppb	0.828	0.17%
QC value within limits for Ag 328.068 Recovery = 99.88%								
Al 396.153Radial†	24043.9	5071.8	µg/L	11.94	5071.8	ppb	11.94	0.24%
QC value within limits for Al 396.153Radial Recovery = 101.44%								
As 188.979†	1496.5	498.52	µg/L	2.532	498.52	ppb	2.532	0.51%
QC value within limits for As 188.979 Recovery = 99.70%								
B 249.677†	34193.5	489.23	µg/L	3.175	489.23	ppb	3.175	0.65%
QC value within limits for B 249.677 Recovery = 97.85%								
Ba 233.527†	117556.5	497.74	µg/L	0.101	497.74	ppb	0.101	0.02%
QC value within limits for Ba 233.527 Recovery = 99.55%								
Be 313.107†	1821588.5	497.88	µg/L	0.509	497.88	ppb	0.509	0.10%
QC value within limits for Be 313.107 Recovery = 99.58%								
Ca 317.933Radial†	73958.9	5073.4	µg/L	9.27	5073.4	ppb	9.27	0.18%
QC value within limits for Ca 317.933Radial Recovery = 101.47%								
Cd 226.502†	78975.0	494.82	µg/L	0.887	494.82	ppb	0.887	0.18%
QC value within limits for Cd 226.502 Recovery = 98.96%								
Co 228.616†	40392.4	498.72	µg/L	0.987	498.72	ppb	0.987	0.20%

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   QC value within limits for Co 228.616  Recovery = 99.74%
Cr 267.716†            60604.4      495.24 µg/L         1.126      495.24 ppb          1.126   0.23%
   QC value within limits for Cr 267.716  Recovery = 99.05%
Cu 324.752†           125479.6      496.54 µg/L         0.608      496.54 ppb          0.608   0.12%
   QC value within limits for Cu 324.752  Recovery = 99.31%
Fe 238.204 Radial†     67888.6      5038.6 µg/L         10.26      5038.6 ppb          10.26   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.77%
K 766.490 Radial†      13076.1      4991.3 µg/L         62.34      4991.3 ppb          62.34   1.25%
   QC value within limits for K 766.490 Radial  Recovery = 99.83%
Mg 279.077 IEC†        11045.9      5125.0 µg/L         12.99      5125.0 ppb          12.99   0.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.50%
Mn 257.610†           398722.8      500.68 µg/L         0.482      500.68 ppb          0.482   0.10%
   QC value within limits for Mn 257.610  Recovery = 100.14%
Mo 202.031†            16096.7      501.44 µg/L         1.688      501.44 ppb          1.688   0.34%
   QC value within limits for Mo 202.031  Recovery = 100.29%
Na 589.592 Radial†     67849.3       10057 µg/L          31.4       10057 ppb           31.4   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 100.57%
Ni 231.604†            42429.2      497.78 µg/L         0.524      497.78 ppb          0.524   0.11%
   QC value within limits for Ni 231.604  Recovery = 99.56%
P 214.914†             11545.6      2487.2 µg/L          9.36      2487.2 ppb           9.36   0.38%
   QC value within limits for P 214.914  Recovery = 99.49%
Pb 220.353†             8669.7      505.22 µg/L         2.817      505.22 ppb          2.817   0.56%
   QC value within limits for Pb 220.353  Recovery = 101.04%
S 181.975 Axial†        1038.8      930.48 µg/L         9.802      930.48 ppb          9.802   1.05%
   QC value within limits for S 181.975 Axial  Recovery = 93.05%
Sb 206.836†             4156.2      503.14 µg/L         2.508      503.14 ppb          2.508   0.50%
   QC value within limits for Sb 206.836  Recovery = 100.63%
Se 196.026†             1337.4         499 µg/L           3.7         499 ppb            3.7   0.75%
   QC value within limits for Se 196.026  Recovery = 99.82%
SiO2†                  53310.2      5256.1 µg/L          5.39      5256.1 ppb           5.39   0.10%
   QC value within limits for SiO2  Recovery = 98.29%
Si 251.611†           168891.0      2463.9 µg/L          2.32      2463.9 ppb           2.32   0.09%
   QC value within limits for Si 251.611  Recovery = 98.56%
Sn 189.927†             7615.0      500.85 µg/L         1.180      500.85 ppb          1.180   0.24%
   QC value within limits for Sn 189.927  Recovery = 100.17%
Sr 421.552†           218719.5      505.42 µg/L         9.779      505.42 ppb          9.779   1.93%
   QC value within limits for Sr 421.552  Recovery = 101.08%
Ti 334.940†           507427.3      498.07 µg/L         0.504      498.07 ppb          0.504   0.10%
   QC value within limits for Ti 334.940  Recovery = 99.61%
Tl 190.801†             3856.9      508.85 µg/L         0.793      508.85 ppb          0.793   0.16%
   QC value within limits for Tl 190.801  Recovery = 101.77%
U 409.014†              7869.6      490.64 µg/L         4.333      490.64 ppb          4.333   0.88%
   QC value within limits for U 409.014  Recovery = 98.13%
V 292.402†            102251.4      500.32 µg/L         1.137      500.32 ppb          1.137   0.23%
   QC value within limits for V 292.402  Recovery = 100.06%
Zn 213.857†            89341.2      491.96 µg/L         1.143      491.96 ppb          1.143   0.23%
   QC value within limits for Zn 213.857  Recovery = 98.39%
All analyte(s) passed QC.
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Sequence No.: 16
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/7/2010 14:29:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128130.4	128130.4	99.7	%			14:30:23
1	Al 396.153Radial†	-64.7	20.8	4.4122	µg/L	4.4122	ppb	14:30:43
1	Ca 317.933Radial†	524.2	19.2	1.3171	µg/L	1.3171	ppb	14:30:43
1	Fe 238.204 Radial†	134.3	13.3	0.9857	µg/L	0.9857	ppb	14:30:43
1	K 766.490 Radial†	1666.1	106.1	40.544	µg/L	40.544	ppb	14:30:23
1	Mg 279.077 IEC†	146.2	-16.5	-7.6353	µg/L	-7.6353	ppb	14:30:43
1	Na 589.592 Radial†	836.4	-91.6	-13.623	µg/L	-13.623	ppb	14:30:23
1	Sr 421.552†	-94.2	11.2	0.0258	µg/L	0.0258	ppb	14:30:23
1	Sc 361.383	1731382.1	1731382.1	100.61	%			14:31:31
1	Y 371.029	1002770.1	1002770.1	100.68	%			14:31:31
1	Ag 328.068†	4445.1	-182.2	-0.6901	µg/L	-0.6901	ppb	14:31:33
1	As 188.979†	-9.7	-1.0	-0.3356	µg/L	-0.3356	ppb	14:31:53
1	B 249.677†	4178.9	158.1	2.2695	µg/L	2.2695	ppb	14:31:33
1	Ba 233.527†	-151.8	-10.9	-0.0462	µg/L	-0.0462	ppb	14:31:53
1	Be 313.107†	-1045.0	-28.4	-0.0030	µg/L	-0.0030	ppb	14:31:33
1	Cd 226.502†	-59.6	28.6	0.1796	µg/L	0.1796	ppb	14:31:53
1	Co 228.616†	-199.1	-2.3	-0.0285	µg/L	-0.0285	ppb	14:31:53
1	Cr 267.716†	258.9	-5.0	-0.0528	µg/L	-0.0528	ppb	14:31:53
1	Cu 324.752†	3023.1	-181.9	-0.7047	µg/L	-0.7047	ppb	14:31:33
1	Mn 257.610†	292.5	116.7	0.1469	µg/L	0.1469	ppb	14:31:53
1	Mo 202.031†	-24.8	-4.4	-0.1386	µg/L	-0.1386	ppb	14:31:53
1	Ni 231.604†	-69.3	22.3	0.2615	µg/L	0.2615	ppb	14:31:53
1	P 214.914†	-3.7	2.0	0.4388	µg/L	0.4388	ppb	14:31:53
1	Pb 220.353†	84.4	-29.4	-1.7171	µg/L	-1.7171	ppb	14:31:53
1	S 181.975 Axial†	254.9	-72.7	-64.797	µg/L	-64.797	ppb	14:31:53
1	Sb 206.836†	94.3	13.4	1.6150	µg/L	1.6150	ppb	14:31:53
1	Se 196.026†	19.4	-1.3	-0.452	µg/L	-0.452	ppb	14:31:53
1	SiO2†	1783.1	-17.1	-1.6940	µg/L	-1.6940	ppb	14:31:33
1	Si 251.611†	765.5	104.1	1.5251	µg/L	1.5251	ppb	14:31:33
1	Sn 189.927†	9.2	3.2	0.2115	µg/L	0.2115	ppb	14:31:53
1	Ti 334.940†	708.9	-66.6	-0.0712	µg/L	-0.0712	ppb	14:31:33
1	Tl 190.801†	-106.4	10.3	1.3311	µg/L	1.3311	ppb	14:31:53
1	U 409.014†	-25.4	266.1	15.558	µg/L	15.558	ppb	14:31:33
1	V 292.402†	323.5	-51.5	-0.2398	µg/L	-0.2398	ppb	14:31:33
1	Zn 213.857†	630.1	25.6	0.1407	µg/L	0.1407	ppb	14:31:53
2	Sc RADIAL	128496.9	128496.9	100.0	%			14:30:45
2	Al 396.153Radial†	-95.6	-9.9	-2.1169	µg/L	-2.1169	ppb	14:31:05
2	Ca 317.933Radial†	521.1	14.5	0.9978	µg/L	0.9978	ppb	14:31:05
2	Fe 238.204 Radial†	157.8	36.4	2.7041	µg/L	2.7041	ppb	14:31:05
2	K 766.490 Radial†	1664.0	99.2	37.895	µg/L	37.895	ppb	14:30:45
2	Mg 279.077 IEC†	173.9	10.9	5.0339	µg/L	5.0339	ppb	14:31:05
2	Na 589.592 Radial†	1009.1	78.7	11.637	µg/L	11.637	ppb	14:30:45
2	Sr 421.552†	133.8	239.4	0.5533	µg/L	0.5533	ppb	14:30:45
2	Sc 361.383	1746121.9	1746121.9	101.46	%			14:31:56
2	Y 371.029	1010322.8	1010322.8	101.44	%			14:31:56
2	Ag 328.068†	4658.9	-8.8	-0.0139	µg/L	-0.0139	ppb	14:31:58
2	As 188.979†	-6.3	2.4	0.7768	µg/L	0.7768	ppb	14:32:18
2	B 249.677†	3988.0	-65.2	-0.9345	µg/L	-0.9345	ppb	14:31:58
2	Ba 233.527†	-151.8	-9.6	-0.0406	µg/L	-0.0406	ppb	14:32:18
2	Be 313.107†	-910.3	113.2	0.0358	µg/L	0.0358	ppb	14:31:58
2	Cd 226.502†	-48.4	40.2	0.2515	µg/L	0.2515	ppb	14:32:18
2	Co 228.616†	-222.4	-23.5	-0.2904	µg/L	-0.2904	ppb	14:32:18
2	Cr 267.716†	259.4	-6.6	-0.0666	µg/L	-0.0666	ppb	14:32:18
2	Cu 324.752†	3126.3	-105.5	-0.4025	µg/L	-0.4025	ppb	14:31:58
2	Mn 257.610†	278.4	100.4	0.1259	µg/L	0.1259	ppb	14:32:18
2	Mo 202.031†	-10.2	10.2	0.3163	µg/L	0.3163	ppb	14:32:18
2	Ni 231.604†	-98.9	-6.4	-0.0750	µg/L	-0.0750	ppb	14:32:18
2	P 214.914†	-20.8	-14.8	-3.2063	µg/L	-3.2063	ppb	14:32:18
2	Pb 220.353†	108.9	-5.9	-0.3555	µg/L	-0.3555	ppb	14:32:18

2	S 181.975 Axial†	268.6	-61.3	-54.683	µg/L	-54.683 ppb	14:32:18
2	Sb 206.836†	86.6	5.0	0.6077	µg/L	0.6077 ppb	14:32:18
2	Se 196.026†	27.2	6.3	2.37	µg/L	2.37 ppb	14:32:18
2	SiO2†	1822.6	6.8	0.6660	µg/L	0.6660 ppb	14:31:58
2	Si 251.611†	859.3	190.1	2.7817	µg/L	2.7817 ppb	14:31:58
2	Sn 189.927†	4.3	-1.6	-0.1081	µg/L	-0.1081 ppb	14:32:18
2	Ti 334.940†	785.5	2.9	-0.0042	µg/L	-0.0042 ppb	14:31:58
2	Tl 190.801†	-134.6	-16.7	-2.1636	µg/L	-2.1636 ppb	14:32:18
2	U 409.014†	-13.7	277.8	16.257	µg/L	16.257 ppb	14:31:58
2	V 292.402†	380.6	2.0	0.0235	µg/L	0.0235 ppb	14:31:58
2	Zn 213.857†	641.8	31.8	0.1772	µg/L	0.1772 ppb	14:32:18
3	Sc RADIAL	128544.1	128544.1	100	%		14:31:08
3	Al 396.153Radial†	-53.6	32.0	6.7645	µg/L	6.7645 ppb	14:31:28
3	Ca 317.933Radial†	511.6	4.9	0.3342	µg/L	0.3342 ppb	14:31:28
3	Fe 238.204 Radial†	155.1	33.7	2.4985	µg/L	2.4985 ppb	14:31:28
3	K 766.490 Radial†	1527.0	-38.3	-14.635	µg/L	-14.635 ppb	14:31:08
3	Mg 279.077 IEC†	186.6	23.4	10.869	µg/L	10.869 ppb	14:31:28
3	Na 589.592 Radial†	944.6	13.9	2.0717	µg/L	2.0717 ppb	14:31:08
3	Sr 421.552†	-29.8	75.9	0.1754	µg/L	0.1754 ppb	14:31:08
3	Sc 361.383	1731365.4	1731365.4	100.61	%		14:32:20
3	Y 371.029	1003281.6	1003281.6	100.74	%		14:32:20
3	Ag 328.068†	4717.8	88.9	0.3463	µg/L	0.3463 ppb	14:32:22
3	As 188.979†	-11.0	-2.3	-0.7487	µg/L	-0.7487 ppb	14:32:42
3	B 249.677†	4092.3	72.0	1.0344	µg/L	1.0344 ppb	14:32:22
3	Ba 233.527†	-142.9	-2.0	-0.0087	µg/L	-0.0087 ppb	14:32:42
3	Be 313.107†	-806.3	208.9	0.0585	µg/L	0.0585 ppb	14:32:22
3	Cd 226.502†	-53.0	35.3	0.2208	µg/L	0.2208 ppb	14:32:42
3	Co 228.616†	-202.3	-5.4	-0.0674	µg/L	-0.0674 ppb	14:32:42
3	Cr 267.716†	247.9	-15.9	-0.1338	µg/L	-0.1338 ppb	14:32:42
3	Cu 324.752†	3446.0	238.5	0.9454	µg/L	0.9454 ppb	14:32:22
3	Mn 257.610†	230.7	55.3	0.0690	µg/L	0.0690 ppb	14:32:42
3	Mo 202.031†	-5.8	14.5	0.4517	µg/L	0.4517 ppb	14:32:42
3	Ni 231.604†	-99.8	-8.1	-0.0945	µg/L	-0.0945 ppb	14:32:42
3	P 214.914†	-6.5	-0.8	-0.1862	µg/L	-0.1862 ppb	14:32:42
3	Pb 220.353†	123.0	8.9	0.5173	µg/L	0.5173 ppb	14:32:42
3	S 181.975 Axial†	267.6	-60.1	-53.565	µg/L	-53.565 ppb	14:32:42
3	Sb 206.836†	96.7	15.8	1.9170	µg/L	1.9170 ppb	14:32:42
3	Se 196.026†	20.6	-0.1	-0.020	µg/L	-0.020 ppb	14:32:42
3	SiO2†	1790.5	-9.8	-0.9780	µg/L	-0.9780 ppb	14:32:22
3	Si 251.611†	903.9	241.6	3.5344	µg/L	3.5344 ppb	14:32:22
3	Sn 189.927†	2.1	-3.7	-0.2459	µg/L	-0.2459 ppb	14:32:42
3	Ti 334.940†	665.4	-109.9	-0.1108	µg/L	-0.1108 ppb	14:32:22
3	Tl 190.801†	-113.1	3.6	0.4645	µg/L	0.4645 ppb	14:32:42
3	U 409.014†	-210.1	82.5	4.8093	µg/L	4.8093 ppb	14:32:22
3	V 292.402†	302.1	-72.8	-0.3443	µg/L	-0.3443 ppb	14:32:22
3	Zn 213.857†	637.1	32.5	0.1800	µg/L	0.1800 ppb	14:32:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1736289.8	100.89	%	0.495				0.49%
Sc RADIAL	128390.5	99.9	%	0.18				0.18%
Y 371.029	1005458.2	100.95	%	0.424				0.42%
Ag 328.068†	-34.0	-0.1192	µg/L	0.52615	-0.1192	ppb	0.52615	441.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.3	3.0199	µg/L	4.60148	3.0199	ppb	4.60148	152.37%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.3	-0.1025	µg/L	0.78902	-0.1025	ppb	0.78902	769.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	55.0	0.7898	µg/L	1.61594	0.7898	ppb	1.61594	204.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.5	-0.0318	µg/L	0.02019	-0.0318	ppb	0.02019	63.42%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	97.9	0.0304	µg/L	0.03115	0.0304	ppb	0.03115	102.31%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	12.9	0.8830	µg/L	0.50137	0.8830	ppb	0.50137	56.78%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	34.7	0.2173	µg/L	0.03610	0.2173	ppb	0.03610	16.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-10.4	-0.1287	µg/L	0.14136	-0.1287	ppb	0.14136	109.79%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -9.1     -0.0844 µg/L       0.04334     -0.0844 ppb        0.04334  51.38%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -16.3     -0.0539 µg/L       0.87857     -0.0539 ppb        0.87857 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         27.8      2.0628 µg/L       0.93841      2.0628 ppb        0.93841  45.49%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          55.7     21.268 µg/L       31.1210     21.268 ppb        31.1210 146.33%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             5.9      2.7558 µg/L       9.46011      2.7558 ppb        9.46011 343.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                90.8      0.1140 µg/L       0.04030      0.1140 ppb        0.04030  35.36%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 6.7      0.2098 µg/L       0.30922      0.2098 ppb        0.30922 147.38%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          0.3      0.0286 µg/L      12.75343      0.0286 ppb       12.75343 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 2.6      0.0307 µg/L       0.20010      0.0307 ppb        0.20010 652.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.5     -0.9846 µg/L       1.94927     -0.9846 ppb        1.94927 197.98%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -8.8     -0.5185 µg/L       1.12605     -0.5185 ppb        1.12605 217.19%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -64.7     -57.682 µg/L        6.1873     -57.682 ppb         6.1873  10.73%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                11.4      1.3799 µg/L       0.68555      1.3799 ppb        0.68555  49.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.7       0.633 µg/L        1.5209       0.633 ppb         1.5209 240.21%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      -6.7     -0.6687 µg/L       1.21001     -0.6687 ppb        1.21001 180.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               178.6      2.6137 µg/L       1.01516      2.6137 ppb        1.01516  38.84%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.7     -0.0475 µg/L       0.23465     -0.0475 ppb        0.23465 494.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               108.8      0.2515 µg/L       0.27188      0.2515 ppb        0.27188 108.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -57.9     -0.0621 µg/L       0.05389     -0.0621 ppb        0.05389  86.84%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.9     -0.1227 µg/L       1.81983     -0.1227 ppb        1.81983 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                208.8      12.208 µg/L        6.4168      12.208 ppb         6.4168  52.56%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -40.8     -0.1869 µg/L       0.18951     -0.1869 ppb        0.18951 101.41%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                30.0      0.1660 µg/L       0.02195      0.1660 ppb        0.02195  13.22%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, May 05, 2010 21:45:42
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100422\Sample.271
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1975.3	1975.337	63.909	3.2
	Mg	24.0	26309.2	26309.208	377.277	1.4
	Co	58.9	34468.7	34468.736	298.520	0.9
	Rh	102.9	75878.4	75878.392	669.093	0.9
	In	114.9	90116.6	90116.552	634.136	0.7
	Pb	208.0	78581.5	78581.536	241.317	0.3
⌈>	Ba	137.9	87309.7	87309.651	892.021	1.0
⌊	Ba++	69.0	1190.2	0.014	0.000	1.1
⌈>	Ce	139.9	108958.9	108958.948	430.511	0.4
⌊	CeO	155.9	1453.0	0.013	0.000	2.4
	Bkgd	220.0	11.7	11.700	2.950	25.2

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
8.75	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
45.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.3	3072.0
Co	59	17	8.3	33064.2
In	115	17	9.8	89891.6

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	587	2080	0.644
Be	9.0	9.0	2038	2080	0.668
Mg	24.0	24.0	5684	2120	0.619
Mg	25.0	24.9	5899	2080	0.666
Mg	26.0	26.0	6172	2120	0.692
Co	58.9	58.9	14162	2170	0.635
Rh	102.9	102.9	24852	2230	0.703
In	114.9	114.9	27789	2260	0.696
Ce	139.9	139.9	33853	2280	0.757
Pb	206.0	205.9	49936	2422	0.732
Pb	207.0	206.9	50137	2385	0.691
Pb	208.0	207.9	50451	2430	0.731
U	238.1	238.0	57733	2470	0.722

Report Date/Time: Wednesday, May 05, 2010 21:44:39

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, May 06, 2010 03:35:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\Blank.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		15	
>	Sc	45		ug/L		769791	
	Ni	60		ug/L		141	
>	Ge	74		ug/L		271613	
	As	75		ug/L		213	
	Se	77		ug/L		8548	
	Se	82		ug/L		-34	
	Kr	83		ug/L		100	
>	Lu	175		ug/L		248666	
	Tl	205		ug/L		1059	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ni	60	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, May 06, 2010 03:39:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\Standard 1.079

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.000**	**ug/L**	2.709	3964	0.006
>	Sc	45		**ug/L**		691921	691921.441
	Ni	60	**10.000**	**ug/L**	1.308	8576	0.012
>	Ge	74		**ug/L**		248170	248169.622
	As	75	**10.000**	**ug/L**	4.360	6905	0.027
	Se	77		**ug/L**		4854	-0.012
	Se	82	**10.000**	**ug/L**	3.606	579	0.002
	Kr	83		**ug/L**		86	-0.000
>	Lu	175		**ug/L**		251677	251676.873
	Tl	205	**10.000**	**ug/L**	1.241	93761	0.368

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, May 06, 2010 03:44:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\Standard 2.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	100.007	ug/L	1.159	36913	0.058
>	Sc	45		ug/L		641720	641720.139
	Ni	60	100.016	ug/L	1.191	79784	0.124
>	Ge	74		ug/L		232281	232280.930
	As	75	99.996	ug/L	1.460	62727	0.269
	Se	77		ug/L		8514	0.005
	Se	82	99.991	ug/L	2.766	5632	0.024
	Kr	83		ug/L		96	0.000
>	Lu	175		ug/L		238479	238478.760
	Tl	205	100.003	ug/L	1.091	881915	3.694

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, May 06, 2010 03:48:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 1.081

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.805**	**ug/L**	3.635	20160	0.031
>	Sc	45		**ug/L**		651428	651427.887
	Ni	60	**53.621**	**ug/L**	1.167	43474	0.067
>	Ge	74		**ug/L**		232244	232244.103
	As	75	**53.471**	**ug/L**	1.835	33623	0.144
	Se	77		**ug/L**		6701	-0.003
	Se	82	**54.574**	**ug/L**	2.362	3060	0.013
	Kr	83		**ug/L**		91	0.000
>	Lu	175		**ug/L**		237483	237483.409
	Tl	205	**52.834**	**ug/L**	0.945	464462	1.952

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	107.609				
>	Sc	45		84.6			
	Ni	60	107.242				
>	Ge	74		85.5			
	As	75	106.942				
	Se	77					
	Se	82	109.147				
	Kr	83					
>	Lu	175		95.5			
	Tl	205	105.668				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, May 06, 2010 03:52:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 2.082

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.002	ug/L	449.672	14	-0.000
>	Sc	45		ug/L		765849	765848.844
	Ni	60	-0.010	ug/L	164.409	131	-0.000
>	Ge	74		ug/L		270753	270753.217
	As	75	0.026	ug/L	800.626	231	0.000
	Se	77		ug/L		8366	-0.001
	Se	82	0.252	ug/L	85.164	-17	0.000
	Kr	83		ug/L		84	-0.000
>	Lu	175		ug/L		246065	246064.781
	Tl	205	0.023	ug/L	18.823	1258	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.5			
	Ni	60					
>	Ge	74		99.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		99.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, May 06, 2010 03:57:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 3.083

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.555**	**ug/L**	8.221	232	0.000
>	Sc	45		**ug/L**		686414	686413.745
	Ni	60	**2.197**	**ug/L**	3.568	1998	0.003
>	Ge	74		**ug/L**		243285	243284.513
	As	75	**5.522**	**ug/L**	3.987	3809	0.015
	Se	77		**ug/L**		4647	-0.012
	Se	82	**5.807**	**ug/L**	4.770	314	0.001
	Kr	83		**ug/L**		82	-0.000
>	Lu	175		**ug/L**		246711	246711.034
	Tl	205	**1.095**	**ug/L**	1.071	11028	0.040

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	111.011				
>	Sc	45		89.2			
	Ni	60	109.869				
>	Ge	74		89.6			
	As	75	110.447				
	Se	77					
	Se	82	116.135				
	Kr	83					
>	Lu	175		99.2			
	Tl	205	109.478				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, May 06, 2010 04:01:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 4.084

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.095**	**ug/L**	24.763	43	0.000
>	Sc	45		**ug/L**		574937	574936.525
	Ni	60	**3.002**	**ug/L**	0.851	2248	0.004
>	Ge	74		**ug/L**		202148	202148.259
	As	75	**0.567**	**ug/L**	117.421	469	0.002
	Se	77		**ug/L**		4662	-0.008
	Se	82	**-1.858**	**ug/L**	27.362	-117	-0.000
	Kr	83		**ug/L**		174	0.000
>	Lu	175		**ug/L**		226038	226037.892
	Tl	205	**-0.048**	**ug/L**	5.019	561	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		74.7			
	Ni	60	111.193				
>	Ge	74		74.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		90.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, May 06, 2010 04:06:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 5.085

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.062**	**ug/L**	2.286	6191	0.011
>	Sc	45		**ug/L**		563934	563933.930
	Ni	60	**21.405**	**ug/L**	2.256	15085	0.027
>	Ge	74		**ug/L**		200383	200382.571
	As	75	**20.425**	**ug/L**	3.840	11180	0.055
	Se	77		**ug/L**		5088	-0.006
	Se	82	**19.641**	**ug/L**	1.676	934	0.005
	Kr	83		**ug/L**		160	0.000
>	Lu	175		**ug/L**		223350	223350.374
	Tl	205	**18.229**	**ug/L**	0.711	151339	0.673

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	95.309				
>	Sc	45		73.3			
	Ni	60	94.296				
>	Ge	74		73.8			
	As	75	102.126				
	Se	77					
	Se	82	98.206				
	Kr	83					
>	Lu	175		89.8			
	Tl	205	91.146				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 06, 2010 04:10:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 6.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.525**	**ug/L**	1.511	18426	0.029
>	Sc	45		**ug/L**		633835	633834.911
	Ni	60	**52.602**	**ug/L**	1.284	41501	0.065
>	Ge	74		**ug/L**		226968	226968.371
	As	75	**52.368**	**ug/L**	1.443	32192	0.141
	Se	77		**ug/L**		6278	-0.004
	Se	82	**53.127**	**ug/L**	1.683	2910	0.013
	Kr	83		**ug/L**		66	-0.000
>	Lu	175		**ug/L**		232576	232575.672
	Tl	205	**51.241**	**ug/L**	0.432	441186	1.893

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	101.049				
>	Sc	45		82.3			
	Ni	60	105.203				
>	Ge	74		83.6			
	As	75	104.737				
	Se	77					
	Se	82	106.253				
	Kr	83					
>	Lu	175		93.5			
	Tl	205	102.482				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 06, 2010 04:14:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 7.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.005	ug/L	365.145	12	-0.000
>	Sc	45		ug/L		736536	736536.152
	Ni	60	-0.005	ug/L	111.510	130	-0.000
>	Ge	74		ug/L		258273	258273.105
	As	75	0.203	ug/L	178.097	344	0.001
	Se	77		ug/L		8391	0.001
	Se	82	0.316	ug/L	29.093	-12	0.000
	Kr	83		ug/L		78	-0.000
>	Lu	175		ug/L		237651	237651.190
	Tl	205	0.026	ug/L	10.843	1244	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.7			
	Ni	60					
>	Ge	74		95.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068115
Sample Date/Time: Thursday, May 06, 2010 04:19:08
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 964018|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\1202068115.088

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.003	ug/L	152.220	11	-0.000
>	Sc	45		ug/L		630497	630496.517
	Ni	60	-0.009	ug/L	62.702	108	-0.000
>	Ge	74		ug/L		227552	227552.265
	As	75	-0.254	ug/L	35.722	23	-0.001
	Se	77		ug/L		2808	-0.019
	Se	82	0.311	ug/L	77.796	-11	0.000
	Kr	83		ug/L		54	-0.000
>	Lu	175		ug/L		243174	243174.293
	Tl	205	-0.033	ug/L	3.835	737	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		81.9			
	Ni	60					
>	Ge	74		83.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068120
Sample Date/Time: Thursday, May 06, 2010 04:23:28
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 964018|40|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\1202068120.089

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**18.760**	**ug/L**	0.636	7304	0.011
>	Sc	45		**ug/L**		675907	675907.450
	Ni	60	**34.671**	**ug/L**	1.419	29212	0.043
>	Ge	74		**ug/L**		235319	235319.002
	As	75	**25.547**	**ug/L**	2.773	16373	0.069
	Se	77		**ug/L**		7177	-0.001
	Se	82	**71.783**	**ug/L**	1.087	4088	0.017
	Kr	83		**ug/L**		70	-0.000
>	Lu	175		**ug/L**		241189	241189.101
	Tl	205	**29.127**	**ug/L**	0.753	260505	1.076

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		87.8			
	Ni	60					
>	Ge	74		86.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068116
Sample Date/Time: Thursday, May 06, 2010 04:32:11
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 964018|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\1202068116.091

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.743**	**ug/L**	4.629	703	0.001
>	Sc	45		**ug/L**		688476	688475.928
	Ni	60	**10.566**	**ug/L**	1.583	9156	0.013
>	Ge	74		**ug/L**		221576	221575.554
	As	75	**7.736**	**ug/L**	0.695	4790	0.021
	Se	77		**ug/L**		2494	-0.020
	Se	82	**0.812**	**ug/L**	52.284	16	0.000
	Kr	83		**ug/L**		126	0.000
>	Lu	175		**ug/L**		253700	253699.502
	Tl	205	**0.288**	**ug/L**	2.468	3775	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		89.4			
	Ni	60					
>	Ge	74		81.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068118
Sample Date/Time: Thursday, May 06, 2010 04:36:33
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 964018|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\1202068118.092

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**26.079**	**ug/L**	1.825	10420	0.015
>	Sc	45		**ug/L**		693983	693983.490
	Ni	60	**33.308**	**ug/L**	1.005	28820	0.041
>	Ge	74		**ug/L**		222603	222602.551
	As	75	**46.560**	**ug/L**	1.846	28083	0.125
	Se	77		**ug/L**		2804	-0.019
	Se	82	**10.130**	**ug/L**	5.947	522	0.002
	Kr	83		**ug/L**		128	0.000
>	Lu	175		**ug/L**		255381	255381.035
	Tl	205	**46.361**	**ug/L**	1.100	438402	1.712

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.2			
	Ni	60					
>	Ge	74		82.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068119
Sample Date/Time: Thursday, May 06, 2010 04:40:55
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 964018|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\1202068119.093

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**25.690**	**ug/L**	2.115	10255	0.015
>	Sc	45		**ug/L**		693441	693440.682
	Ni	60	**32.747**	**ug/L**	0.539	28313	0.041
>	Ge	74		**ug/L**		221548	221548.253
	As	75	**47.077**	**ug/L**	0.793	28262	0.127
	Se	77		**ug/L**		2738	-0.019
	Se	82	**9.373**	**ug/L**	0.961	479	0.002
	Kr	83		**ug/L**		135	0.000
>	Lu	175		**ug/L**		256222	256221.876
	Tl	205	**45.451**	**ug/L**	0.477	431241	**1.679**

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.1			
	Ni	60					
>	Ge	74		81.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068117
Sample Date/Time: Thursday, May 06, 2010 04:45:17
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 964018|10|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\1202068117.094

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.332**	**ug/L**	10.148	150	0.000
>	Sc	45		**ug/L**		711916	711915.992
	Ni	60	**1.732**	**ug/L**	0.799	1661	0.002
>	Ge	74		**ug/L**		240117	240117.228
	As	75	**1.439**	**ug/L**	16.688	1120	0.004
	Se	77		**ug/L**		3723	-0.016
	Se	82	**0.603**	**ug/L**	16.770	5	0.000
	Kr	83		**ug/L**		73	-0.000
>	Lu	175		**ug/L**		243937	243936.944
	Tl	205	**0.094**	**ug/L**	15.662	1887	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		92.5			
	Ni	60					
>	Ge	74		88.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 06, 2010 04:49:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 6.095

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.517**	**ug/L**	0.959	22160	0.031
>	Sc	45		**ug/L**		719698	719697.759
	Ni	60	**48.788**	**ug/L**	0.856	43715	0.061
>	Ge	74		**ug/L**		238454	238453.556
	As	75	**52.209**	**ug/L**	2.752	33709	0.141
	Se	77		**ug/L**		6736	-0.003
	Se	82	**51.537**	**ug/L**	1.228	2966	0.013
	Kr	83		**ug/L**		82	-0.000
>	Lu	175		**ug/L**		237603	237603.384
	Tl	205	**50.995**	**ug/L**	1.180	448545	1.884

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	107.034				
>	Sc	45		93.5			
	Ni	60	97.577				
>	Ge	74		87.8			
	As	75	104.418				
	Se	77					
	Se	82	103.074				
	Kr	83					
>	Lu	175		95.6			
	Tl	205	101.990				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 06, 2010 04:54:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 7.096

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.000	ug/L	3809.222	16	-0.000
>	Sc	45		ug/L		810176	810176.207
	Ni	60	-0.014	ug/L	38.356	134	-0.000
>	Ge	74		ug/L		268166	268165.894
	As	75	0.795	ug/L	36.310	785	0.002
	Se	77		ug/L		8205	-0.001
	Se	82	0.122	ug/L	63.191	-25	0.000
	Kr	83		ug/L		90	-0.000
>	Lu	175		ug/L		235852	235851.690
	Tl	205	0.004	ug/L	72.424	1041	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		105.2			
	Ni	60					
>	Ge	74		98.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248867001
Sample Date/Time: Thursday, May 06, 2010 05:02:44
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964018|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\248867001.098

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.657**	**ug/L**	6.049	678	0.001
>	Sc	45		**ug/L**		697149	697148.517
	Ni	60	**16.058**	**ug/L**	1.359	14023	0.020
>	Ge	74		**ug/L**		228001	228000.643
	As	75	**5.365**	**ug/L**	4.255	3474	0.014
	Se	77		**ug/L**		2509	-0.020
	Se	82	**0.565**	**ug/L**	24.099	3	0.000
	Kr	83		**ug/L**		119	0.000
>	Lu	175		**ug/L**		253099	253098.687
	Tl	205	**0.114**	**ug/L**	2.465	2140	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.6			
	Ni	60					
>	Ge	74		83.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248867002
Sample Date/Time: Thursday, May 06, 2010 05:07:05
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964018|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\248867002.099

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.394**	**ug/L**	6.058	576	0.001
>	Sc	45		**ug/L**		701518	701518.091
	Ni	60	**10.313**	**ug/L**	1.386	9108	0.013
>	Ge	74		**ug/L**		228710	228709.544
	As	75	**4.866**	**ug/L**	5.250	3176	0.013
	Se	77		**ug/L**		2557	-0.020
	Se	82	**0.655**	**ug/L**	50.646	8	0.000
	Kr	83		**ug/L**		111	0.000
>	Lu	175		**ug/L**		255377	255377.327
	Tl	205	**0.082**	**ug/L**	1.167	1864	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.1			
	Ni	60					
>	Ge	74		84.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248867003
Sample Date/Time: Thursday, May 06, 2010 05:11:26
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964018|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\248867003.100

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.432**	**ug/L**	1.192	992	0.001
>	Sc	45		**ug/L**		699889	699888.562
	Ni	60	**19.061**	**ug/L**	1.182	16686	0.024
>	Ge	74		**ug/L**		221499	221498.852
	As	75	**5.696**	**ug/L**	3.357	3571	0.015
	Se	77		**ug/L**		2341	-0.021
	Se	82	**0.215**	**ug/L**	81.937	-16	0.000
	Kr	83		**ug/L**		121	0.000
>	Lu	175		**ug/L**		249907	249906.864
	Tl	205	**0.407**	**ug/L**	2.158	4821	0.015

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.9			
	Ni	60					
>	Ge	74		81.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248867004
Sample Date/Time: Thursday, May 06, 2010 05:15:48
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964018|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\248867004.101

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.130**	**ug/L**	3.385	863	0.001
>	Sc	45		**ug/L**		693917	693917.472
	Ni	60	**12.948**	**ug/L**	2.069	11280	0.016
>	Ge	74		**ug/L**		223379	223379.198
	As	75	**4.465**	**ug/L**	10.673	2861	0.012
	Se	77		**ug/L**		2378	-0.021
	Se	82	**0.334**	**ug/L**	73.406	-10	0.000
	Kr	83		**ug/L**		118	0.000
>	Lu	175		**ug/L**		252139	252139.477
	Tl	205	**0.214**	**ug/L**	1.401	3067	0.008

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.1			
	Ni	60					
>	Ge	74		82.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 06, 2010 05:20:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 6.102

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.630**	**ug/L**	1.002	21211	0.030
>	Sc	45		**ug/L**		700519	700518.789
	Ni	60	**48.962**	**ug/L**	0.214	42702	0.061
>	Ge	74		**ug/L**		234248	234248.334
	As	75	**52.026**	**ug/L**	1.975	33002	0.140
	Se	77		**ug/L**		6246	-0.005
	Se	82	**52.286**	**ug/L**	1.812	2956	0.013
	Kr	83		**ug/L**		74	-0.000
>	Lu	175		**ug/L**		235462	235462.414
	Tl	205	**50.876**	**ug/L**	1.158	443473	1.879

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	105.261				
>	Sc	45			91.0		
	Ni	60	97.924				
>	Ge	74			86.2		
	As	75	104.052				
	Se	77					
	Se	82	104.572				
	Kr	83					
>	Lu	175			94.7		
	Tl	205	101.752				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 06, 2010 05:24:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 7.103

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.002	ug/L	503.259	14	-0.000
>	Sc	45		ug/L		787417	787416.740
	Ni	60	-0.022	ug/L	92.983	123	-0.000
>	Ge	74		ug/L		260172	260172.410
	As	75	0.057	ug/L	1767.752	247	0.000
	Se	77		ug/L		7676	-0.002
	Se	82	0.381	ug/L	8.637	-8	0.000
	Kr	83		ug/L		73	-0.000
>	Lu	175		ug/L		232823	232823.309
	Tl	205	-0.024	ug/L	43.402	785	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.3			
	Ni	60					
>	Ge	74		95.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		93.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\032410S1.SIF
Batch ID:
Results Data Set: 032410S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 3/16/2010 09:36:57**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/24/2010 09:24:39**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0007	0.0033	0.0007	09:25:32	Yes
2		[0.00]	0.0006	0.0026	0.0006	09:26:02	Yes
Mean:		[0.00]	0.0006				
SD:		0.00	0.0001				
%RSD:		0.00	7.96				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/24/2010 09:26:20**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0025	0.0155	0.0031	09:27:11	Yes
2		[0.2]	0.0025	0.0156	0.0031	09:27:40	Yes
Mean:		[0.2]	0.0025				
SD:		0.0	0.0000				
%RSD:		0.0	0.38				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01232 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/24/2010 09:28:00**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0064	0.0356	0.0070	09:28:51	Yes
2		[0.5]	0.0063	0.0345	0.0069	09:29:21	Yes
Mean:		[0.5]	0.0063				
SD:		0.0	0.0001				
%RSD:		0.0	1.27				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999934 Slope: 0.01265 Intercept: -0.00003

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/24/2010 09:29:40**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0258	0.1358	0.0265	09:30:31	Yes
2		[2.0]	0.0256	0.1334	0.0262	09:31:01	Yes
Mean:		[2.0]	0.0257				
SD:		0.0	0.0002				
%RSD:		0.0	0.65				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999988 Slope: 0.01288 Intercept: -0.00007

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/24/2010 09:31:21**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0621	0.3243	0.0627	09:32:13	Yes
2		[5.0]	0.0616	0.3190	0.0622	09:32:43	Yes
Mean:		[5.0]	0.0618				
SD:		0.0	0.0004				
%RSD:		0.0	0.58				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999865 Slope: 0.01238 Intercept: 0.00019

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/24/2010 09:33:03**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1178	0.6163	0.1185	09:33:54	Yes
2		[10.0]	0.1194	0.6216	0.1201	09:34:23	Yes
Mean:		[10.0]	0.1186				
SD:		0.0	0.0011				
%RSD:		0.0	0.95				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999718 Slope: 0.01189 Intercept: 0.00075

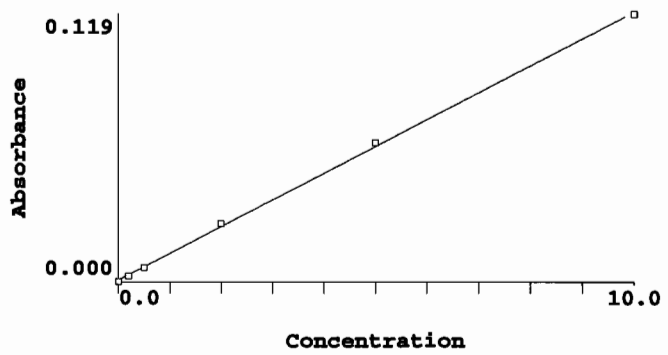

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.063	0.00	8.0
S0.2	0.0025	0.2	0.144	0.00	0.4
S0.5	0.0063	0.5	0.469	0.00	1.3
S2.0	0.0257	2.0	2.099	0.00	0.6

S5.0	0.0618	5.0	5.136	0.00	0.6
S10.0	0.1186	10.0	9.915	0.00	1.0

Correlation Coef.: 0.999718 Slope: 0.01189 Intercept: 0.00075

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/24/2010 09:34:42**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.181	5.181	0.0623	0.3260	0.0630	09:35:34	Yes
2	5.062	5.062	0.0609	0.3154	0.0616	09:36:04	Yes
Mean:	5.122	5.122	0.0616				
SD:	0.084	0.084	0.0010				
%RSD:	1.634	1.634	1.61				

QC value within limits for Hg 253.7 Recovery = 102.43%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/24/2010 09:36:23**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.079	-0.079	-0.0002	0.0016	0.0004	09:37:14	Yes
2	-0.077	-0.077	-0.0002	0.0018	0.0005	09:37:44	Yes
Mean:	-0.078	-0.078	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	2.384	2.384	12.14				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/24/2010 09:38:04**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.132	0.132	0.0023	0.0144	0.0030	09:38:55	Yes
2	0.126	0.126	0.0022	0.0144	0.0029	09:39:25	Yes
Mean:	0.129	0.129	0.0023				
SD:	0.005	0.005	0.0001				
%RSD:	3.623	3.623	2.44				

QC value within limits for Hg 253.7 Recovery = 64.54%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 09:39:45**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.060	5.060	0.0609	0.3200	0.0615	09:40:36	Yes
2	4.996	4.996	0.0601	0.3122	0.0608	09:41:06	Yes
Mean:	5.028	5.028	0.0605				
SD:	0.045	0.045	0.0005				
%RSD:	0.902	0.902	0.89				

QC value within limits for Hg 253.7 Recovery = 100.56%
All analyte(s) passed QC.

==========

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 09:41:25**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.081	-0.081	-0.0002	0.0018	0.0004	09:42:15	Yes
2	-0.081	-0.081	-0.0002	0.0019	0.0004	09:42:45	Yes
Mean:	-0.081	-0.081	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.212	0.212	0.95				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202076821|967600|1 **Date Collected: 3/24/2010 09:43:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076821|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.082	-0.082	-0.0002	0.0017	0.0004	09:43:56	Yes
2	-0.085	-0.085	-0.0003	0.0016	0.0004	09:44:26	Yes
Mean:	-0.083	-0.083	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	2.755	2.755	11.15				

==========

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202076822|967600|10 **Date Collected: 3/24/2010 09:44:46**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076822|967600|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.136	3.136	0.0380	0.1988	0.0387	09:45:38	Yes
2	3.174	3.174	0.0385	0.2027	0.0391	09:46:08	Yes
Mean:	3.155	3.155	0.0383				
SD:	0.027	0.027	0.0003				
%RSD:	0.857	0.857	0.84				

==========

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 248834001|967600|1 **Date Collected: 3/24/2010 09:46:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834001|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.044	-0.044	0.0002	0.0040	0.0009	09:47:19	Yes
2	-0.050	-0.050	0.0002	0.0033	0.0008	09:47:49	Yes
Mean:	-0.047	-0.047	0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	8.317	8.317	25.32				

==========

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202076823|967600|1 **Date Collected: 3/24/2010 09:48:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076823|967600|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 248834003|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.322	0.322	0.0046	0.0264	0.0052	09:57:16	Yes
2	0.319	0.319	0.0045	0.0264	0.0052	09:57:45	Yes
Mean:	0.320	0.320	0.0046				
SD:	0.002	0.002	0.0000				
%RSD:	0.753	0.753	0.63				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 248834004|967600|1 **Date Collected: 3/24/2010 09:58:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834004|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.065	-0.065	-0.0000	0.0032	0.0006	09:58:56	Yes
2	-0.066	-0.066	-0.0000	0.0035	0.0006	09:59:26	Yes
Mean:	-0.066	-0.066	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	0.765	0.765	17.62				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 09:59:46**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.192	5.192	0.0625	0.3277	0.0631	10:00:36	Yes
2	5.091	5.091	0.0613	0.3179	0.0619	10:01:06	Yes
Mean:	5.141	5.141	0.0619				
SD:	0.072	0.072	0.0009				
%RSD:	1.399	1.399	1.38				

QC value within limits for Hg 253.7 Recovery = 102.83%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 10:01:25**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.081	-0.081	-0.0002	0.0021	0.0004	10:02:16	Yes
2	-0.082	-0.082	-0.0002	0.0023	0.0004	10:02:46	Yes
Mean:	-0.081	-0.081	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.458	0.458	2.00				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 248834005|967600|1 **Date Collected: 3/24/2010 10:03:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834005|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.910	5.910	0.0710	0.3730	0.0716	10:03:57	Yes
2	5.838	5.838	0.0702	0.3674	0.0708	10:04:27	Yes

SD:	0.060	0.060	0.0007
%RSD:	1.687	1.687	1.66

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 10:19:49**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.300	5.300	0.0638	0.3306	0.0644	10:20:39	Yes
2	5.271	5.271	0.0634	0.3268	0.0640	10:21:09	Yes
Mean:	5.286	5.286	0.0636				
SD:	0.021	0.021	0.0003				
%RSD:	0.398	0.398	0.39				

QC value within limits for Hg 253.7 Recovery = 105.71%
All analyte(s) passed QC.

==========

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 10:21:27**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.077	-0.077	-0.0002	0.0019	0.0005	10:22:19	Yes
2	-0.077	-0.077	-0.0002	0.0018	0.0005	10:22:49	Yes
Mean:	-0.077	-0.077	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.039	0.039	0.21				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 249072002|967577|1 **Date Collected: 3/24/2010 10:23:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 249072002|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.230	0.230	0.0035	0.0213	0.0041	10:23:59	Yes
2	0.239	0.239	0.0036	0.0212	0.0042	10:24:29	Yes
Mean:	0.235	0.235	0.0035				
SD:	0.006	0.006	0.0001				
%RSD:	2.731	2.731	2.16				

==========

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 249072003|967577|1 **Date Collected: 3/24/2010 10:24:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 249072003|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.306	0.306	0.0044	0.0257	0.0050	10:25:39	Yes
2	0.311	0.311	0.0044	0.0259	0.0051	10:26:09	Yes
Mean:	0.309	0.309	0.0044				
SD:	0.004	0.004	0.0000				
%RSD:	1.245	1.245	1.03				

==========

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 249072004|967577|1 **Date Collected: 3/24/2010 10:26:29**
Analyst: JXL **Data Type: Original**

==========

Sequence No.: 43 **Autosampler Location: 39**
Sample ID: 1202076769|967577|1 **Date Collected: 3/24/2010 10:34:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076769|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.162	2.162	0.0264	0.1380	0.0271	10:35:46	Yes
2	2.193	2.193	0.0268	0.1399	0.0275	10:36:16	Yes
Mean:	2.178	2.178	0.0266				
SD:	0.023	0.023	0.0003				
%RSD:	1.037	1.037	1.01				

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 1202076768|967577|5 **Date Collected: 3/24/2010 10:36:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076768|967577|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.074	-0.074	-0.0001	0.0026	0.0005	10:37:26	Yes
2	-0.074	-0.074	-0.0001	0.0028	0.0005	10:37:56	Yes
Mean:	-0.074	-0.074	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.631	0.631	4.13				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 249102003|967577|1 **Date Collected: 3/24/2010 10:38:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102003|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.047	-0.047	0.0002	0.0045	0.0008	10:39:07	Yes
2	-0.051	-0.051	0.0001	0.0041	0.0008	10:39:37	Yes
Mean:	-0.049	-0.049	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	5.014	5.014	17.75				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 10:39:56**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.819	4.819	0.0580	0.2999	0.0587	10:40:46	Yes
2	4.944	4.944	0.0595	0.3056	0.0602	10:41:16	Yes
Mean:	4.881	4.881	0.0588				
SD:	0.089	0.089	0.0011				
%RSD:	1.819	1.819	1.80				

QC value within limits for Hg 253.7 Recovery = 97.63%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 10:41:35**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	-0.083	-0.083	-0.0002	0.0019	0.0004	10:42:26	Yes
2	-0.082	-0.082	-0.0002	0.0022	0.0004	10:42:56	Yes
Mean:	-0.083	-0.083	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.048	1.048	4.33				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 48 **Autosampler Location: 42**
Sample ID: 249102004|967577|1 **Date Collected: 3/24/2010 10:43:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102004|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.075	0.075	0.0016	0.0115	0.0023	10:44:06	Yes
2	0.080	0.080	0.0017	0.0119	0.0023	10:44:36	Yes
Mean:	0.078	0.078	0.0017				
SD:	0.004	0.004	0.0000				
%RSD:	4.576	4.576	2.53				

==========

Sequence No.: 49 **Autosampler Location: 43**
Sample ID: 249102005|967577|1 **Date Collected: 3/24/2010 10:44:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102005|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.048	-0.048	0.0002	0.0043	0.0008	10:45:46	Yes
2	-0.049	-0.049	0.0002	0.0041	0.0008	10:46:16	Yes
Mean:	-0.049	-0.049	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.335	0.335	1.14				

==========

Sequence No.: 50 **Autosampler Location: 44**
Sample ID: 249102006|967577|1 **Date Collected: 3/24/2010 10:46:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102006|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.052	-0.052	0.0001	0.0037	0.0008	10:47:26	Yes
2	-0.051	-0.051	0.0001	0.0038	0.0008	10:47:56	Yes
Mean:	-0.052	-0.052	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	1.201	1.201	5.52				

==========

Sequence No.: 51 **Autosampler Location: 45**
Sample ID: 1202078437|968185|1 **Date Collected: 3/24/2010 10:48:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078437|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.085	-0.085	-0.0003	0.0019	0.0004	10:49:06	Yes
2	-0.085	-0.085	-0.0003	0.0019	0.0004	10:49:36	Yes
Mean:	-0.085	-0.085	-0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	0.593	0.593	2.27				

==========

Sequence No.: 52 **Autosampler Location: 46**
Sample ID: 1202078438|968185|10 **Date Collected: 3/24/2010 10:49:55**

Analyst: JXL Data Type: Original

Replicate Data: 1202078438|968185|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.834	3.834	0.0463	0.2373	0.0470	10:50:47	Yes
2	3.642	3.642	0.0440	0.2262	0.0447	10:51:16	Yes
Mean:	3.738	3.738	0.0452				
SD:	0.136	0.136	0.0016				
%RSD:	3.635	3.635	3.57				

==========

Sequence No.: 53 Autosampler Location: 47
Sample ID: 248860001|968185|1 Date Collected: 3/24/2010 10:51:36
Analyst: JXL Data Type: Original

Replicate Data: 248860001|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.062	0.062	0.0015	0.0106	0.0021	10:52:28	Yes
2	0.059	0.059	0.0014	0.0106	0.0021	10:52:58	Yes
Mean:	0.060	0.060	0.0015				
SD:	0.002	0.002	0.0000				
%RSD:	3.523	3.523	1.73				

==========

Sequence No.: 54 Autosampler Location: 48
Sample ID: 248860002|968185|1 Date Collected: 3/24/2010 10:53:18
Analyst: JXL Data Type: Original

Replicate Data: 248860002|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.882	0.882	0.0112	0.0601	0.0119	10:54:09	Yes
2	0.908	0.908	0.0115	0.0620	0.0122	10:54:39	Yes
Mean:	0.895	0.895	0.0114				
SD:	0.018	0.018	0.0002				
%RSD:	2.040	2.040	1.91				

==========

Sequence No.: 55 Autosampler Location: 49
Sample ID: 248860003|968185|1 Date Collected: 3/24/2010 10:54:59
Analyst: JXL Data Type: Original

Replicate Data: 248860003|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.173	0.173	0.0028	0.0176	0.0034	10:55:51	Yes
2	0.170	0.170	0.0028	0.0170	0.0034	10:56:21	Yes
Mean:	0.171	0.171	0.0028				
SD:	0.003	0.003	0.0000				
%RSD:	1.626	1.626	1.19				

==========

Sequence No.: 56 Autosampler Location: 50
Sample ID: 248860004|968185|1 Date Collected: 3/24/2010 10:56:41
Analyst: JXL Data Type: Original

Replicate Data: 248860004|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.262	0.262	0.0039	0.0225	0.0045	10:57:32	Yes
2	0.259	0.259	0.0038	0.0225	0.0045	10:58:02	Yes
Mean:	0.260	0.260	0.0038				
SD:	0.002	0.002	0.0000				
%RSD:	0.878	0.878	0.71				

Sequence No.: 57 Autosampler Location: 51
Sample ID: 248860005|968185|1 Date Collected: 3/24/2010 10:58:22
Analyst: JXL Data Type: Original

Replicate Data: 248860005|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.190	0.190	0.0030	0.0183	0.0036	10:59:13	Yes
2	0.196	0.196	0.0031	0.0188	0.0037	10:59:43	Yes
Mean:	0.193	0.193	0.0030				
SD:	0.005	0.005	0.0001				
%RSD:	2.435	2.435	1.84				

Sequence No.: 58 Autosampler Location: 7
Sample ID: CCV Date Collected: 3/24/2010 11:00:03
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.182	5.182	0.0624	0.3187	0.0630	11:00:53	Yes
2	5.191	5.191	0.0625	0.3195	0.0631	11:01:23	Yes
Mean:	5.187	5.187	0.0624				
SD:	0.007	0.007	0.0001				
%RSD:	0.129	0.129	0.13				

QC value within limits for Hg 253.7 Recovery = 103.73%
All analyte(s) passed QC.

Sequence No.: 59 Autosampler Location: 8
Sample ID: CCB Date Collected: 3/24/2010 11:01:42
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.085	-0.085	-0.0003	0.0019	0.0004	11:02:32	Yes
2	-0.084	-0.084	-0.0003	0.0019	0.0004	11:03:02	Yes
Mean:	-0.084	-0.084	-0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	0.839	0.839	3.27				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 60 Autosampler Location: 52
Sample ID: 248860006|968185|1 Date Collected: 3/24/2010 11:03:21
Analyst: JXL Data Type: Original

Replicate Data: 248860006|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.644	1.644	0.0203	0.1066	0.0209	11:04:13	Yes
2	1.649	1.649	0.0203	0.1060	0.0210	11:04:43	Yes
Mean:	1.647	1.647	0.0203				
SD:	0.003	0.003	0.0000				
%RSD:	0.188	0.188	0.18				

Sequence No.: 61 Autosampler Location: 53
Sample ID: 248860007|968185|1 Date Collected: 3/24/2010 11:05:02
Analyst: JXL Data Type: Original

Sample ID: 248863003|968185|1 Date Collected: 3/24/2010 11:13:23
Analyst: JXL Data Type: Original

Replicate Data: 248863003|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.287	0.287	0.0042	0.0244	0.0048	11:14:15	Yes
2	0.286	0.286	0.0042	0.0240	0.0048	11:14:45	Yes
Mean:	0.286	0.286	0.0042				
SD:	0.000	0.000	0.0000				
%RSD:	0.048	0.048	0.04				

Sequence No.: 67 Autosampler Location: 59
Sample ID: 248863004|968185|1 Date Collected: 3/24/2010 11:15:05
Analyst: JXL Data Type: Original

Replicate Data: 248863004|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0011	0.0089	0.0018	11:15:56	Yes
2	0.028	0.028	0.0011	0.0086	0.0017	11:16:26	Yes
Mean:	0.031	0.031	0.0011				
SD:	0.004	0.004	0.0000				
%RSD:	12.64	12.64	4.14				

Sequence No.: 68 Autosampler Location: 60
Sample ID: 248866001|968185|1 Date Collected: 3/24/2010 11:16:46
Analyst: JXL Data Type: Original

Replicate Data: 248866001|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.508	1.508	0.0187	0.0974	0.0193	11:17:38	Yes
2	1.505	1.505	0.0186	0.0967	0.0193	11:18:07	Yes
Mean:	1.506	1.506	0.0187				
SD:	0.002	0.002	0.0000				
%RSD:	0.161	0.161	0.15				

Sequence No.: 69 Autosampler Location: 61
Sample ID: 248866002|968185|1 Date Collected: 3/24/2010 11:18:28
Analyst: JXL Data Type: Original

Replicate Data: 248866002|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0011	0.0085	0.0017	11:19:19	Yes
2	0.028	0.028	0.0011	0.0086	0.0017	11:19:49	Yes
Mean:	0.028	0.028	0.0011				
SD:	0.001	0.001	0.0000				
%RSD:	2.614	2.614	0.81				

Sequence No.: 70 Autosampler Location: 7
Sample ID: CCV Date Collected: 3/24/2010 11:20:09
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.300	5.300	0.0638	0.3270	0.0644	11:21:00	Yes
2	5.102	5.102	0.0614	0.3147	0.0620	11:21:29	Yes
Mean:	5.201	5.201	0.0626				
SD:	0.140	0.140	0.0017				

%RSD: 2.687 2.687 2.66
QC value within limits for Hg 253.7 Recovery = 104.02%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 11:21:48**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.089	-0.089	-0.0003	0.0015	0.0003	11:22:40	Yes
2	-0.092	-0.092	-0.0003	0.0012	0.0003	11:23:09	Yes
Mean:	-0.090	-0.090	-0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	2.647	2.647	8.70				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 72 **Autosampler Location: 62**
Sample ID: 248867001|968185|1 **Date Collected: 3/24/2010 11:23:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 248867001|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.609	3.609	0.0437	0.2267	0.0443	11:24:20	Yes
2	3.588	3.588	0.0434	0.2255	0.0440	11:24:50	Yes
Mean:	3.598	3.598	0.0435				
SD:	0.015	0.015	0.0002				
%RSD:	0.408	0.408	0.40				

==========

Sequence No.: 73 **Autosampler Location: 63**
Sample ID: 1202078439|968185|1 **Date Collected: 3/24/2010 11:25:10**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078439|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.811	2.811	0.0342	0.1764	0.0348	11:26:01	Yes
2	2.779	2.779	0.0338	0.1738	0.0344	11:26:31	Yes
Mean:	2.795	2.795	0.0340				
SD:	0.023	0.023	0.0003				
%RSD:	0.808	0.808	0.79				

==========

Sequence No.: 74 **Autosampler Location: 64**
Sample ID: 1202078440|968185|1 **Date Collected: 3/24/2010 11:26:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078440|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.813	5.813	0.0699	0.3587	0.0705	11:27:41	Yes
2	5.767	5.767	0.0693	0.3561	0.0699	11:28:11	Yes
Mean:	5.790	5.790	0.0696				
SD:	0.033	0.033	0.0004				
%RSD:	0.567	0.567	0.56				

==========

Sequence No.: 75 **Autosampler Location: 65**
Sample ID: 1202078442|968185|1 **Date Collected: 3/24/2010 11:28:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078442|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.960	5.960	0.0716	0.3690	0.0722	11:29:22	Yes
2	5.970	5.970	0.0717	0.3668	0.0724	11:29:52	Yes
Mean:	5.965	5.965	0.0717				
SD:	0.007	0.007	0.0001				
%RSD:	0.119	0.119	0.12				

Sequence No.: 76 **Autosampler Location: 66**
Sample ID: 1202078441|968185|5 **Date Collected: 3/24/2010 11:30:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078441|968185|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.692	0.692	0.0090	0.0482	0.0096	11:31:03	Yes
2	0.685	0.685	0.0089	0.0480	0.0095	11:31:33	Yes
Mean:	0.688	0.688	0.0089				
SD:	0.005	0.005	0.0001				
%RSD:	0.674	0.674	0.62				

Sequence No.: 77 **Autosampler Location: 67**
Sample ID: 248867002|968185|1 **Date Collected: 3/24/2010 11:31:53**
Analyst: JXL **Data Type: Original**

Replicate Data: 248867002|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.779	2.779	0.0338	0.1735	0.0344	11:32:45	Yes
2	2.746	2.746	0.0334	0.1716	0.0340	11:33:14	Yes
Mean:	2.762	2.762	0.0336				
SD:	0.023	0.023	0.0003				
%RSD:	0.844	0.844	0.83				

Sequence No.: 78 **Autosampler Location: 68**
Sample ID: 248867003|968185|1 **Date Collected: 3/24/2010 11:33:34**
Analyst: JXL **Data Type: Original**

Replicate Data: 248867003|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.577	3.577	0.0433	0.2227	0.0439	11:34:26	Yes
2	3.537	3.537	0.0428	0.2181	0.0434	11:34:56	Yes
Mean:	3.557	3.557	0.0430				
SD:	0.028	0.028	0.0003				
%RSD:	0.798	0.798	0.78				

Sequence No.: 79 **Autosampler Location: 69**
Sample ID: 248867004|968185|1 **Date Collected: 3/24/2010 11:35:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 248867004|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	12.72	12.72	0.1520	0.7783	0.1526	11:36:07	Yes
Sample concentration is greater than that of the highest standard.							
2	12.26	12.26	0.1466	0.7462	0.1472	11:36:37	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	12.49	12.49	0.1493				
SD:	0.322	0.322	0.0038				
%RSD:	2.574	2.574	2.56				

Sample concentration is greater than that of the highest standard.

==========

Sequence No.: 80 **Autosampler Location: 70**
Sample ID: 1202076742|967570|1 **Date Collected: 3/24/2010 11:36:57**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076742|967570|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.089	-0.089	-0.0003	0.0009	0.0003	11:37:48	Yes
2	-0.086	-0.086	-0.0003	0.0015	0.0004	11:38:18	Yes
Mean:	-0.088	-0.088	-0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	2.030	2.030	7.16				

==========

Sequence No.: 81 **Autosampler Location: 71**
Sample ID: 1202076743|967570|1 **Date Collected: 3/24/2010 11:38:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076743|967570|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.182	2.182	0.0267	0.1380	0.0273	11:39:29	Yes
2	2.193	2.193	0.0268	0.1380	0.0275	11:39:59	Yes
Mean:	2.187	2.187	0.0268				
SD:	0.008	0.008	0.0001				
%RSD:	0.356	0.356	0.35				

==========

Sequence No.: 82 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 11:40:19**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.125	5.125	0.0617	0.3141	0.0623	11:41:09	Yes
2	5.096	5.096	0.0613	0.3103	0.0620	11:41:39	Yes
Mean:	5.111	5.111	0.0615				
SD:	0.021	0.021	0.0002				
%RSD:	0.401	0.401	0.40				

QC value within limits for Hg 253.7 Recovery = 102.21%
All analyte(s) passed QC.

==========

Sequence No.: 83 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 11:41:58**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.090	-0.090	-0.0003	0.0012	0.0003	11:42:48	Yes
2	-0.085	-0.085	-0.0003	0.0016	0.0004	11:43:18	Yes
Mean:	-0.088	-0.088	-0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	3.961	3.961	13.86				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 84 **Autosampler Location: 72**
Sample ID: 249476001|967570|1 **Date Collected: 3/24/2010 11:43:38**
Analyst: JXL **Data Type: Original**

1	4.303	4.303	0.0519	0.2627	0.0525	11:59:42	Yes
2	4.278	4.278	0.0516	0.2617	0.0522	12:00:12	Yes
Mean:	4.290	4.290	0.0518				
SD:	0.018	0.018	0.0002				
%RSD:	0.413	0.413	0.41				

==========

Sequence No.: 94 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 12:00:32**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.380	5.380	0.0647	0.3267	0.0653	12:01:22	Yes
2	5.336	5.336	0.0642	0.3239	0.0648	12:01:52	Yes
Mean:	5.358	5.358	0.0644				
SD:	0.032	0.032	0.0004				
%RSD:	0.589	0.589	0.58				

QC value within limits for Hg 253.7 Recovery = 107.16%
All analyte(s) passed QC.

==========

Sequence No.: 95 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 12:02:11**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.085	-0.085	-0.0003	0.0017	0.0004	12:03:02	Yes
2	-0.087	-0.087	-0.0003	0.0015	0.0003	12:03:32	Yes
Mean:	-0.086	-0.086	-0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	1.300	1.300	4.78				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 96 **Autosampler Location: 82**
Sample ID: 249476007|967570|1 **Date Collected: 3/24/2010 12:03:51**
Analyst: JXL **Data Type: Original**

Replicate Data: 249476007|967570|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.049	-0.049	0.0002	0.0039	0.0008	12:04:42	Yes
2	-0.057	-0.057	0.0001	0.0034	0.0007	12:05:12	Yes
Mean:	-0.053	-0.053	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	10.93	10.93	57.74				

==========

Sequence No.: 97 **Autosampler Location: 83**
Sample ID: 249476008|967570|1 **Date Collected: 3/24/2010 12:05:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 249476008|967570|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.217	0.217	0.0033	0.0199	0.0040	12:06:23	Yes
2	0.213	0.213	0.0033	0.0194	0.0039	12:06:53	Yes
Mean:	0.215	0.215	0.0033				
SD:	0.002	0.002	0.0000				
%RSD:	1.032	1.032	0.80				

==========

SD:	0.014	0.014	0.0002
%RSD:	0.666	0.666	0.65

==========

Sequence No.: 103 **Autosampler Location: 89**
Sample ID: 249559003|968166|1 **Date Collected: 3/24/2010 12:15:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 249559003|968166|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.059	-0.059	0.0000	0.0030	0.0007	12:16:34	Yes
2	-0.057	-0.057	0.0001	0.0032	0.0007	12:17:04	Yes
Mean:	-0.058	-0.058	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.290	2.290	28.55				

==========

Sequence No.: 104 **Autosampler Location: 90**
Sample ID: 1202078403|968166|1 **Date Collected: 3/24/2010 12:17:24**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078403|968166|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.048	-0.048	0.0002	0.0042	0.0008	12:18:15	Yes
2	-0.049	-0.049	0.0002	0.0040	0.0008	12:18:45	Yes
Mean:	-0.048	-0.048	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	2.039	2.039	6.83				

==========

Sequence No.: 105 **Autosampler Location: 91**
Sample ID: 1202078404|968166|1 **Date Collected: 3/24/2010 12:19:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078404|968166|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.111	2.111	0.0258	0.1323	0.0265	12:19:57	Yes
2	2.035	2.035	0.0249	0.1270	0.0256	12:20:27	Yes
Mean:	2.073	2.073	0.0254				
SD:	0.054	0.054	0.0006				
%RSD:	2.596	2.596	2.52				

==========

Sequence No.: 106 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 12:20:47**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.415	5.415	0.0651	0.3293	0.0658	12:21:38	Yes
2	5.169	5.169	0.0622	0.3154	0.0628	12:22:08	Yes
Mean:	5.292	5.292	0.0637				
SD:	0.174	0.174	0.0021				
%RSD:	3.292	3.292	3.25				

QC value within limits for Hg 253.7 Recovery = 105.84%
All analyte(s) passed QC.

==========

Sequence No.: 107 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 12:22:27**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.089	-0.089	-0.0003	0.0012	0.0003	12:23:17	Yes
2	-0.088	-0.088	-0.0003	0.0016	0.0003	12:23:47	Yes
Mean:	-0.088	-0.088	-0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	1.040	1.040	3.58				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 108 **Autosampler Location: 92**
Sample ID: 1202078406|968166|1 **Date Collected: 3/24/2010 12:24:06**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078406|968166|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.039	2.039	0.0250	0.1279	0.0256	12:24:58	Yes
2	1.991	1.991	0.0244	0.1249	0.0251	12:25:28	Yes
Mean:	2.015	2.015	0.0247				
SD:	0.034	0.034	0.0004				
%RSD:	1.683	1.683	1.63				

==========

Sequence No.: 109 **Autosampler Location: 93**
Sample ID: 1202078405|968166|5 **Date Collected: 3/24/2010 12:25:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078405|968166|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.089	-0.089	-0.0003	0.0013	0.0003	12:26:40	Yes
2	-0.088	-0.088	-0.0003	0.0012	0.0003	12:27:10	Yes
Mean:	-0.089	-0.089	-0.0003				
SD:	0.000	0.000	0.0000				
%RSD:	0.225	0.225	0.77				

==========

Sequence No.: 110 **Autosampler Location: 94**
Sample ID: 249559004|968166|1 **Date Collected: 3/24/2010 12:27:30**
Analyst: JXL **Data Type: Original**

Replicate Data: 249559004|968166|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.709	5.709	0.0686	0.3462	0.0693	12:28:22	Yes
2	5.841	5.841	0.0702	0.3539	0.0708	12:28:51	Yes
Mean:	5.775	5.775	0.0694				
SD:	0.094	0.094	0.0011				
%RSD:	1.619	1.619	1.60				

==========

Sequence No.: 111 **Autosampler Location: 95**
Sample ID: 249559005|968166|1 **Date Collected: 3/24/2010 12:29:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 249559005|968166|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.086	-0.086	-0.0003	0.0016	0.0004	12:30:03	Yes
2	-0.093	-0.093	-0.0004	0.0011	0.0003	12:30:33	Yes
Mean:	-0.089	-0.089	-0.0003				
SD:	0.005	0.005	0.0001				
%RSD:	5.420	5.420	18.31				

Mean:	3.696	3.696	0.0447
SD:	0.009	0.009	0.0001
%RSD:	0.249	0.249	0.25

==========

Sequence No.: 117 **Autosampler Location: 101**
Sample ID: 1202078407|968171|1 **Date Collected: 3/24/2010 12:39:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078407|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.096	-0.096	-0.0004	0.0007	0.0002	12:40:14	Yes
2	-0.097	-0.097	-0.0004	0.0006	0.0002	12:40:44	Yes
Mean:	-0.096	-0.096	-0.0004				
SD:	0.001	0.001	0.0000				
%RSD:	0.899	0.899	2.58				

==========

Sequence No.: 118 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 12:41:04**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.362	5.362	0.0645	0.3244	0.0651	12:41:54	Yes
2	5.394	5.394	0.0649	0.3271	0.0655	12:42:24	Yes
Mean:	5.378	5.378	0.0647				
SD:	0.023	0.023	0.0003				
%RSD:	0.423	0.423	0.42				

QC value within limits for Hg 253.7 Recovery = 107.56%
All analyte(s) passed QC.

==========

Sequence No.: 119 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 12:42:43**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.095	-0.095	-0.0004	0.0008	0.0003	12:43:34	Yes
2	-0.090	-0.090	-0.0003	0.0011	0.0003	12:44:04	Yes
Mean:	-0.092	-0.092	-0.0004				
SD:	0.003	0.003	0.0000				
%RSD:	3.290	3.290	10.23				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 120 **Autosampler Location: 102**
Sample ID: 1202078408|968171|1 **Date Collected: 3/24/2010 12:44:23**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078408|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.259	2.259	0.0276	0.1409	0.0282	12:45:15	Yes
2	2.184	2.184	0.0267	0.1355	0.0274	12:45:45	Yes
Mean:	2.222	2.222	0.0272				
SD:	0.053	0.053	0.0006				
%RSD:	2.377	2.377	2.31				

==========

Sequence No.: 121 **Autosampler Location: 103**
Sample ID: 249616001|968171|1 **Date Collected: 3/24/2010 12:46:05**

Sequence No.: 126 Autosampler Location: 108
Sample ID: 249616009|968171|1 Date Collected: 3/24/2010 12:54:37
Analyst: JXL Data Type: Original

Replicate Data: 249616009|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.200	0.200	0.0031	0.0185	0.0038	12:55:29	Yes
2	0.201	0.201	0.0031	0.0181	0.0038	12:55:58	Yes
Mean:	0.200	0.200	0.0031				
SD:	0.001	0.001	0.0000				
%RSD:	0.359	0.359	0.27				

Sequence No.: 127 Autosampler Location: 109
Sample ID: 249616010|968171|1 Date Collected: 3/24/2010 12:56:19
Analyst: JXL Data Type: Original

Replicate Data: 249616010|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.310	0.310	0.0044	0.0254	0.0051	12:57:11	Yes
2	0.309	0.309	0.0044	0.0250	0.0051	12:57:41	Yes
Mean:	0.310	0.310	0.0044				
SD:	0.001	0.001	0.0000				
%RSD:	0.307	0.307	0.26				

Sequence No.: 128 Autosampler Location: 110
Sample ID: 249616011|968171|1 Date Collected: 3/24/2010 12:58:01
Analyst: JXL Data Type: Original

Replicate Data: 249616011|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.095	0.095	0.0019	0.0123	0.0025	12:58:54	Yes
2	0.098	0.098	0.0019	0.0123	0.0025	12:59:23	Yes
Mean:	0.097	0.097	0.0019				
SD:	0.002	0.002	0.0000				
%RSD:	1.944	1.944	1.18				

Sequence No.: 129 Autosampler Location: 111
Sample ID: 249616012|968171|1 Date Collected: 3/24/2010 12:59:44
Analyst: JXL Data Type: Original

Replicate Data: 249616012|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.359	0.359	0.0050	0.0280	0.0057	13:00:36	Yes
2	0.359	0.359	0.0050	0.0280	0.0056	13:01:06	Yes
Mean:	0.359	0.359	0.0050				
SD:	0.000	0.000	0.0000				
%RSD:	0.094	0.094	0.08				

Sequence No.: 130 Autosampler Location: 7
Sample ID: CCV Date Collected: 3/24/2010 13:01:27
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.270	5.270	0.0634	0.3185	0.0640	13:02:18	Yes

2	5.445	5.445	0.0655	0.3270	0.0661	13:02:48	Yes
Mean:	5.357	5.357	0.0644				
SD:	0.124	0.124	0.0015				
%RSD:	2.317	2.317	2.29				

QC value within limits for Hg 253.7 Recovery = 107.15%
All analyte(s) passed QC.

==========

Sequence No.: 131 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 13:03:06**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.091	-0.091	-0.0003	0.0013	0.0003	13:03:58	Yes
2	-0.094	-0.094	-0.0004	0.0011	0.0003	13:04:27	Yes
Mean:	-0.092	-0.092	-0.0004				
SD:	0.002	0.002	0.0000				
%RSD:	2.329	2.329	7.24				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 132 **Autosampler Location: 112**
Sample ID: 249616013|968171|1 **Date Collected: 3/24/2010 13:04:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 249616013|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.069	0.069	0.0016	0.0109	0.0022	13:05:38	Yes
2	0.066	0.066	0.0015	0.0107	0.0022	13:06:08	Yes
Mean:	0.067	0.067	0.0015				
SD:	0.002	0.002	0.0000				
%RSD:	3.672	3.672	1.90				

==========

Sequence No.: 133 **Autosampler Location: 113**
Sample ID: 249616014|968171|1 **Date Collected: 3/24/2010 13:06:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 249616014|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.366	0.366	0.0051	0.0282	0.0057	13:07:21	Yes
2	0.360	0.360	0.0050	0.0283	0.0057	13:07:51	Yes
Mean:	0.363	0.363	0.0051				
SD:	0.004	0.004	0.0000				
%RSD:	1.042	1.042	0.89				

==========

Sequence No.: 134 **Autosampler Location: 114**
Sample ID: 249616015|968171|1 **Date Collected: 3/24/2010 13:08:12**
Analyst: JXL **Data Type: Original**

Replicate Data: 249616015|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.296	0.296	0.0043	0.0247	0.0049	13:09:04	Yes
2	0.300	0.300	0.0043	0.0245	0.0049	13:09:33	Yes
Mean:	0.298	0.298	0.0043				
SD:	0.003	0.003	0.0000				
%RSD:	0.922	0.922	0.76				

==========

Sequence No.: 135 **Autosampler Location: 115**

%RSD:	0.640	0.640	0.58

==========

Sequence No.: 140 **Autosampler Location: 120**
Sample ID: 249616021|968171|1 **Date Collected: 3/24/2010 13:18:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 249616021|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.235	0.235	0.0035	0.0206	0.0042	13:19:19	Yes
2	0.232	0.232	0.0035	0.0203	0.0041	13:19:49	Yes
Mean:	0.234	0.234	0.0035				
SD:	0.002	0.002	0.0000				
%RSD:	0.746	0.746	0.59				

==========

Sequence No.: 141 **Autosampler Location: 121**
Sample ID: 249616022|968171|1 **Date Collected: 3/24/2010 13:20:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 249616022|968171|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.220	0.220	0.0034	0.0197	0.0040	13:21:02	Yes
2	0.219	0.219	0.0034	0.0196	0.0040	13:21:32	Yes
Mean:	0.219	0.219	0.0034				
SD:	0.000	0.000	0.0000				
%RSD:	0.113	0.113	0.09				

==========

Sequence No.: 142 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 13:21:52**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.328	5.328	0.0641	0.3199	0.0647	13:22:43	Yes
2	5.316	5.316	0.0640	0.3181	0.0646	13:23:13	Yes
Mean:	5.322	5.322	0.0640				
SD:	0.009	0.009	0.0001				
%RSD:	0.163	0.163	0.16				

QC value within limits for Hg 253.7 Recovery = 106.45%
All analyte(s) passed QC.

==========

Sequence No.: 143 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 13:23:32**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.092	-0.092	-0.0004	0.0012	0.0003	13:24:22	Yes
2	-0.091	-0.091	-0.0003	0.0014	0.0003	13:24:52	Yes
Mean:	-0.092	-0.092	-0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	0.788	0.788	2.48				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 144 **Autosampler Location: 122**
Sample ID: 249616023|968171|1 **Date Collected: 3/24/2010 13:25:11**
Analyst: JXL **Data Type: Original**

SD:	0.002	0.002	0.0000
%RSD:	1.938	1.938	5.44

==========

Sequence No.: 154 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 13:42:20**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.463	5.463	0.0657	0.3296	0.0663	13:43:10	Yes
2	5.420	5.420	0.0652	0.3255	0.0658	13:43:40	Yes
Mean:	5.442	5.442	0.0654				
SD:	0.030	0.030	0.0004				
%RSD:	0.556	0.556	0.55				

QC value within limits for Hg 253.7 Recovery = 108.84%
All analyte(s) passed QC.

==========

Sequence No.: 155 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 13:43:59**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.096	-0.096	-0.0004	0.0010	0.0002	13:44:50	Yes
2	-0.095	-0.095	-0.0004	0.0011	0.0002	13:45:20	Yes
Mean:	-0.096	-0.096	-0.0004				
SD:	0.000	0.000	0.0000				
%RSD:	0.507	0.507	1.47				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 156 **Autosampler Location: 132**
Sample ID: 1202076848|967608|1 **Date Collected: 3/24/2010 13:45:39**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076848|967608|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.279	2.279	0.0278	0.1411	0.0285	13:46:32	Yes
2	2.256	2.256	0.0276	0.1395	0.0282	13:47:02	Yes
Mean:	2.268	2.268	0.0277				
SD:	0.016	0.016	0.0002				
%RSD:	0.717	0.717	0.70				

==========

Sequence No.: 157 **Autosampler Location: 133**
Sample ID: 249500001|967608|100 **Date Collected: 3/24/2010 13:47:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 249500001|967608|100

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.094	-0.094	-0.0004	0.0011	0.0003	13:48:14	Yes
2	-0.096	-0.096	-0.0004	0.0009	0.0002	13:48:44	Yes
Mean:	-0.095	-0.095	-0.0004				
SD:	0.002	0.002	0.0000				
%RSD:	1.621	1.621	4.76				

User canceled analysis.

==========

Analysis Begun

Logged In Analyst: Administrator
Technique: AA FIMS-MHS
Spectrometer Model: FIMS-100, S/N B050-9550
Autosampler Model: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\032410S1.SIF
Batch ID:
Results Data Set: 032410S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL
Method Last Saved: 3/16/2010 09:36:57
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1
Autosampler Location: 19
Sample ID: 248834002|967600|2
Date Collected: 3/24/2010 13:58:55
Analyst: JXL
Data Type: Original

Replicate Data: 248834002|967600|2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.582	5.582	0.0671	0.3332	0.0677	13:59:46	Yes
2	5.660	5.660	0.0680	0.3381	0.0687	14:00:15	Yes
Mean:	5.621	5.621	0.0676				
SD:	0.055	0.055	0.0007				
%RSD:	0.980	0.980	0.97				

==========

Sequence No.: 2
Autosampler Location: 24
Sample ID: 248834007|967600|50
Date Collected: 3/24/2010 14:00:35
Analyst: JXL
Data Type: Original

Replicate Data: 248834007|967600|50

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.796	2.796	0.0340	0.1707	0.0346	14:01:26	Yes
2	2.702	2.702	0.0329	0.1643	0.0335	14:01:56	Yes
Mean:	2.749	2.749	0.0334				
SD:	0.066	0.066	0.0008				
%RSD:	2.415	2.415	2.36				

==========

Sequence No.: 3
Autosampler Location: 27
Sample ID: 248834010|967600|10
Date Collected: 3/24/2010 14:02:16
Analyst: JXL
Data Type: Original

Replicate Data: 248834010|967600|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.992	1.992	0.0244	0.1229	0.0251	14:03:07	Yes
2	2.012	2.012	0.0247	0.1241	0.0253	14:03:37	Yes
Mean:	2.002	2.002	0.0245				
SD:	0.014	0.014	0.0002				
%RSD:	0.722	0.722	0.70				

==========

Sequence No.: 4
Autosampler Location: 69
Sample ID: 248867004|968185|2
Date Collected: 3/24/2010 14:03:56
Analyst: JXL
Data Type: Original

Replicate Data: 248867004|968185|2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	6.562	6.562	0.0788	0.3910	0.0794	14:04:47	Yes
2	6.518	6.518	0.0782	0.3851	0.0789	14:05:17	Yes
Mean:	6.540	6.540	0.0785				
SD:	0.031	0.031	0.0004				
%RSD:	0.480	0.480	0.48				

==========

Sequence No.: 5 **Autosampler Location: 80**
Sample ID: 249476005|967570|2 **Date Collected: 3/24/2010 14:05:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 249476005|967570|2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	6.203	6.203	0.0745	0.3720	0.0751	14:06:28	Yes
2	6.141	6.141	0.0738	0.3663	0.0744	14:06:58	Yes
Mean:	6.172	6.172	0.0741				
SD:	0.044	0.044	0.0005				
%RSD:	0.709	0.709	0.70				

==========

Sequence No.: 6 **Autosampler Location: 133**
Sample ID: 249500001|967608|1 **Date Collected: 3/24/2010 14:07:18**
Analyst: JXL **Data Type: Original**

Replicate Data: 249500001|967608|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.269	0.269	0.0039	0.0224	0.0046	14:08:10	Yes
2	0.239	0.239	0.0036	0.0206	0.0042	14:08:40	Yes
Mean:	0.254	0.254	0.0038				
SD:	0.021	0.021	0.0002				
%RSD:	8.189	8.189	6.57				

==========

Sequence No.: 7 **Autosampler Location: 134**
Sample ID: 1202076849|967608|1 **Date Collected: 3/24/2010 14:09:01**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076849|967608|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.248	0.248	0.0037	0.0213	0.0043	14:09:54	Yes
2	0.241	0.241	0.0036	0.0211	0.0042	14:10:24	Yes
Mean:	0.244	0.244	0.0036				
SD:	0.005	0.005	0.0001				
%RSD:	2.039	2.039	1.62				

==========

Sequence No.: 8 **Autosampler Location: 135**
Sample ID: 1202076850|967608|1 **Date Collected: 3/24/2010 14:10:44**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076850|967608|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.208	2.208	0.0270	0.1365	0.0276	14:11:37	Yes
2	2.211	2.211	0.0270	0.1359	0.0277	14:12:07	Yes
Mean:	2.210	2.210	0.0270				
SD:	0.002	0.002	0.0000				
%RSD:	0.092	0.092	0.09				

==========

Sequence No.: 9 **Autosampler Location: 136**
Sample ID: 1202076851|967608|1 **Date Collected: 3/24/2010 14:12:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076851|967608|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.122	2.122	0.0260	0.1312	0.0266	14:13:20	Yes
2	2.128	2.128	0.0260	0.1305	0.0267	14:13:50	Yes
Mean:	2.125	2.125	0.0260				
SD:	0.004	0.004	0.0000				
%RSD:	0.194	0.194	0.19				

==========

Sequence No.: 10 **Autosampler Location: 137**
Sample ID: 1202076852|967608|5 **Date Collected: 3/24/2010 14:14:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076852|967608|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.031	-0.031	0.0004	0.0047	0.0010	14:15:03	Yes
2	-0.030	-0.030	0.0004	0.0051	0.0010	14:15:33	Yes
Mean:	-0.031	-0.031	0.0004				
SD:	0.001	0.001	0.0000				
%RSD:	2.154	2.154	2.04				

==========

Sequence No.: 11 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 14:15:54**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.179	5.179	0.0623	0.3076	0.0630	14:16:45	Yes
2	5.061	5.061	0.0609	0.2970	0.0616	14:17:15	Yes
Mean:	5.120	5.120	0.0616				
SD:	0.084	0.084	0.0010				
%RSD:	1.636	1.636	1.62				

QC value within limits for Hg 253.7 Recovery = 102.40%
All analyte(s) passed QC.

==========

Sequence No.: 12 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 14:17:33**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.091	-0.091	-0.0003	0.0013	0.0003	14:18:24	Yes
2	-0.091	-0.091	-0.0003	0.0014	0.0003	14:18:54	Yes
Mean:	-0.091	-0.091	-0.0003				
SD:	0.000	0.000	0.0000				
%RSD:	0.391	0.391	1.25				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **964015.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202068114	Metals Soil LCS SRM ICP/Hg	UI062540-I	.503	g
MS	1202068112	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202068112	Metals Spike Mix II	UI1286774-06	.25	mL
MSD	1202068113	Metals Spike Mix 1	UI1286772-01	.25	mL
MSD	1202068113	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202068109 MB	02-APR-2010 10:00:00	Soil	0.518	50	96.5251	<2
1202068114 LCS	02-APR-2010 10:00:00	Soil	0.505	50	99.0099	<2
248866001	02-APR-2010 10:00:00	Soil	0.508	50	98.4252	<2
1202068110 DUP (248866001)	02-APR-2010 10:00:00	Soil	0.501	50	99.8004	<2
1202068111 SDILT (248866001)	02-APR-2010 10:00:00	Soil	0.508	50	98.4252	<2
1202068112 MS (248866001)	02-APR-2010 10:00:00	Soil	0.501	50	99.8004	<2
1202068113 MSD (248866001)	02-APR-2010 10:00:00	Soil	0.505	50	99.0099	<2
248866002	02-APR-2010 10:00:00	Soil	0.52	50	96.15385	<2
248867001	02-APR-2010 10:00:00	Soil	0.523	50	95.60229	<2
248867002	02-APR-2010 10:00:00	Soil	0.5	50	100	<2
248867003	02-APR-2010 10:00:00	Soil	0.588	50	85.03401	<2
248867004	02-APR-2010 10:00:00	Soil	0.52	50	96.15385	<2

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL
1291278	Nitric Acid CONC.	1.25 mL

Comments:

Sample 248866001 consist of gray soil.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 964017.0 **Verified by:** _____
Analyst: Anthony Green
Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19
Instrument: BAL-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202068115 MB	13-MAR-2010 03:00:00	0.5	50	100	
1202068120 LCS	13-MAR-2010 03:00:00	0.503	50	99.40358	
248866001	13-MAR-2010 03:00:00	0.506	50	98.81423	
1202068116 DUP (248866001)	13-MAR-2010 03:00:00	0.508	50	98.4252	
1202068117 SDILT (248866001)	13-MAR-2010 03:00:00	0.506	50	98.81423	
1202068118 MS (248866001)	13-MAR-2010 03:00:00	0.506	50	98.81423	
1202068119 MSD (248866001)	13-MAR-2010 03:00:00	0.514	50	97.27626	
248866002	13-MAR-2010 03:00:00	0.504	50	99.20635	
248867001	13-MAR-2010 03:00:00	0.514	50	97.27626	
248867002	13-MAR-2010 03:00:00	0.514	50	97.27626	
248867003	13-MAR-2010 03:00:00	0.583	50	85.76329	
248867004	13-MAR-2010 03:00:00	0.544	50	91.91176	

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202068120	Metals Soil LCS SRM ICPMS	UI062540-MS	.503	g
MS	1202068118	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MS	1202068118	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
MSD	1202068119	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MSD	1202068119	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1282566	5	mL

Comments:

Sample 248866001 consist of gray soil.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **972602.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202089226	Metals Soil LCS SRM ICP/Hg	UI062540-I	.521	g
MS	1202068112	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202068112	Metals Spike Mix II	UI1286774-06	.25	mL
MSD	1202068113	Metals Spike Mix I	UI1286772-01	.25	mL
MSD	1202068113	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202089225 MB	07-APR-2010 08:00:00	Soil	0.51	50	98.03922	
1202089226 LCS	07-APR-2010 08:00:00	Soil	0.521	50	95.96929	
248866001 - 2	07-APR-2010 08:00:00	Soil	0.5	50	100	
1202068110 - 2 DUP (248866001)	07-APR-2010 08:00:00	Soil	0.521	50	95.96929	
1202068111 - 2 SDILT (248866001)	07-APR-2010 08:00:00	Soil	0.5	50	100	
1202068112 - 2 MS (248866001)	07-APR-2010 08:00:00	Soil	0.508	50	98.4252	
1202068113 - 2 MSD (248866001)	07-APR-2010 08:00:00	Soil	0.515	50	97.08738	
248866002 - 2	07-APR-2010 08:00:00	Soil	0.503	50	99.40358	
248867001 - 2	07-APR-2010 08:00:00	Soil	0.529	50	94.51796	
248867002 - 2	07-APR-2010 08:00:00	Soil	0.506	50	98.81423	
248867003 - 2	07-APR-2010 08:00:00	Soil	0.504	50	99.20635	
248867004 - 2	07-APR-2010 08:00:00	Soil	0.531	50	94.16196	

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL
1291278	Nitric Acid CONC.	1.25 mL

Comments:

Sample 248866001 consist of gray soil.

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **968184.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202078438	Metals LCS Soil SRM	U1031809A	.203	g
MS	1202078440	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL
MSD	1202078442	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202078437 MB	23-MAR-2010 14:45:00	Soil	0.583	30	51.45798	
1202078438 LCS	23-MAR-2010 14:45:00	Soil	0.203	30	147.78325	
248860001	23-MAR-2010 14:45:00	Soil	0.592	30	50.67568	
248860002	23-MAR-2010 14:45:00	Soil	0.549	30	54.64481	
248860003	23-MAR-2010 14:45:00	Soil	0.517	30	58.02708	
248860004	23-MAR-2010 14:45:00	Soil	0.511	30	58.70841	
248860005	23-MAR-2010 14:45:00	Soil	0.525	30	57.14286	
248860006	23-MAR-2010 14:45:00	Soil	0.502	30	59.76096	
248860007	23-MAR-2010 14:45:00	Soil	0.568	30	52.8169	
248860008	23-MAR-2010 14:45:00	Soil	0.578	30	51.90311	
248860009	23-MAR-2010 14:45:00	Soil	0.545	30	55.04587	
248863001	23-MAR-2010 14:45:00	Soil	0.541	30	55.45287	
248863002	23-MAR-2010 14:45:00	Soil	0.557	30	53.85996	
248863003	23-MAR-2010 14:45:00	Soil	0.523	30	57.36138	
248863004	23-MAR-2010 14:45:00	Soil	0.558	30	53.76344	
248866001	23-MAR-2010 14:45:00	Soil	0.522	30	57.47126	
248866002	23-MAR-2010 14:45:00	Soil	0.555	30	54.05405	
248867001	23-MAR-2010 14:45:00	Soil	0.575	30	52.17391	
1202078439 DUP (248867001)	23-MAR-2010 14:45:00	Soil	0.539	30	55.65863	
1202078440 MS (248867001)	23-MAR-2010 14:45:00	Soil	0.578	30	51.90311	
1202078442 MSD (248867001)	23-MAR-2010 14:45:00	Soil	0.537	30	55.86592	
1202078441 SDILT (248867001)	23-MAR-2010 14:45:00	Soil	0.575	30	52.17391	
248867002	23-MAR-2010 14:45:00	Soil	0.565	30	53.09735	
248867003	23-MAR-2010 14:45:00	Soil	0.518	30	57.91506	
248867004	23-MAR-2010 14:45:00	Soil	0.535	30	56.07477	

Reagent/Solvent Lot ID	Description	Amount

Prep Logbook

Batch ID: **968184.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202078438	Metals LCS Soil SRM	UI031809A	.203	g
MS	1202078440	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL
MSD	1202078442	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1

Reagent/Solvent Lot ID	Description	Amount
1255532-C	Hg reducing agent	2 mL
1274391-1	NITRIC ACID	.375 mL
1277235-A	Hydrochloric Acid Conc.	1.125 mL
1277238-C	5% KMnO4 solution	7.5 mL
WHG100323-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL
WHG100323-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL
WHG100323-09	Mercury Working 1st Source CAL S 2.0	300 uL
WHG100323-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL
WHG100323-11	Mercury Working 1st Source CAL S 10.0	1.5 mL
WHG100323-12	Mercury Working 2nd Source S 5.0/ICV	750 uL

Comments:

Sample 248867001 is a rocky brown soil.

Digestion Start Date: 23-MAR-10 14:45

Digestion End Date: 23-MAR-10 15:15

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
MERCURY	SW846 7471A	Solid	LANL
Batch ID:	**Sample Numbers:**		
968185	See Below		

Potentially affected work order(s)(SDG): 248860(10-2313),248863(10-2315),248866(10-2319),248867(10-2320)

Application Issues:

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MSD/PSD: QC 1202078442MSD	1. The matrix spike recovery failed outside of the control limits for Hg due to possible matrix interferences and/or non-homogeneity. Sample is a rocky, brown soil. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Jason Loy 24-MAR-10

Data Validator/Group Leader:

Eric Lawson 25-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
06-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
964016	See Below		

Potentially affected work order(s)(SDG): 248866(10-2319),248867(10-2320)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202068112MS 2. Failed RPD for DUP: QC 1202068110DUP 3. Failed Recovery for MSD/PSD: QC 1202068113MSD	1./3. The matrix spike and matrix spike duplicate recovery failed outside of the control limits for magnesium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for lead due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 06-APR-10

Data Validator/Group Leader:

Christopher Louviere 08-APR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 22-APR-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL Sta **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090827-A **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 27-AUG-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090827-B **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 27-AUG-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L

Analyte	Concentration	Analyte	Concentration
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100310-49.16 **Opened:** 05-APR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 06-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L

Analyte	Concentration	Analyte	Concentration
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100310-49.18 **Opened:** 07-APR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 08-APR-10 **Lot Number :** 1019142
Employee: Louise Smith **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100329-40 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008325
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI100329-41 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008323
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI100329-42 **Opened:** 01-APR-10 **Amount :** 200 mL
Name: SILICON **Received:** 29-MAR-10 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 01-APR-11 **Lot Number :** 1004838
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100331-42 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 31-MAR-10 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 08-APR-11 **Lot Number :** 1019414
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100401-48 **Opened:** 02-APR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-APR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 16-APR-10 **Lot Number :** 1019463
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100405-40 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100405-41 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100415-11 **Opened:** 15-APR-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 15-APR-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 15-APR-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI

Standard Logbook

Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI1286772-01 **Opened:** 16-MAR-10 **Lot Number :** 1019097
Name: METALSPIKE-1 **Received:** 16-MAR-10
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1286774-06 **Opened:** 16-MAR-10 **Lot Number :** 1018913
Name: METALSPIKE-2 **Received:** 16-MAR-10
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100415-03 **Opened:** 15-APR-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100323-01 **Opened:** 23-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 23-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 24-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100323-02 **Opened:** 23-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 24-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100323-07 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100323-08 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100323-09 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100323-10 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100323-11 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100323-12 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100323-14 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100405-42 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100405-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100405-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100405-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100405-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100405-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100405-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100405-43 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100405-44 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1296961
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100405-45 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100405-46 **Opened:** 05-APR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1296961
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100405-47 **Opened:** 05-APR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL &1%HNO3-1296961
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100407-42 **Opened:** 07-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 08-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100407-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100407-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100407-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100407-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100407-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100407-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100407-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100407-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100407-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100407-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100407-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100407-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100407-43 **Opened:** 07-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 08-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI100329-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI100329-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100331-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L

Serial ID: WI100407-44 **Opened:** 07-APR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 08-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1296961
Employee: Louise Smith
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100331-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100407-45 **Opened:** 07-APR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 08-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100407-46 **Opened:** 07-APR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 08-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1296961
Employee: Louise Smith
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100329-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI100329-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100407-47 **Opened:** 07-APR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 08-APR-10 **Solvent :** 3%HCL &1%HNO3-1296961
Employee: Louise Smith
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100505-04 **Opened:** 05-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 05-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 06-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1333263
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100505-04AB **Opened:** 05-MAY-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 05-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 06-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100505-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100505-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100505-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100505-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100505-04B **Opened:** 05-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 05-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 06-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1333263
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100505-06B **Opened:** 05-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 05-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 06-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100505-07B **Opened:** 05-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 05-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 06-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1333263
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100505-08B **Opened:** 05-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 05-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 06-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-08
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Standard Logbook

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1277235-A **Opened:** 01-MAR-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 01-MAR-11
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1282564 **Opened:** 09-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 09-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1282566 **Opened:** 09-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 09-MAR-10
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1291278 **Opened:** 25-MAR-10 **Lot Number :** J 08035 L
Name: I-HNO3 **Received:** 25-MAR-10
Type: Reagent/Solvent **Expires:** 25-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1296961 **Opened:** 05-APR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-APR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 11-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1302252 **Opened:** 15-APR-10 **Lot Number :** J 10027 L
Name: I-HNO3 **Received:** 15-APR-10
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1302255 **Opened:** 15-APR-10 **Lot Number :** J07033
Name: I-HCL **Received:** 15-APR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1333263 **Opened:** 03-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 03-MAY-10
Type: Reagent/Solvent **Expires:** 10-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1302255	I-HCL	36.5-38.0	80 mL	8 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2320

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	962258	**Method:**	SW9012A Cyanide and Total
Prep Batch :	962257	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
248867001	RE46-10-12931
248867002	RE46-10-12932
248867003	RE46-10-12934
248867004	RE46-10-12933
1202064133	Method Blank (MB)
1202064134	248798001(RE11-10-1756) Sample Duplicate (DUP)
1202064135	248798002(RE11-10-1762) Sample Duplicate (DUP)
1202064136	248798001(RE11-10-1756) Matrix Spike (MS)
1202064137	248798002(RE11-10-1762) Matrix Spike (MS)
1202064138	248798001(RE11-10-1756) Matrix Spike Duplicate (MSD)
1202064139	248798002(RE11-10-1762) Matrix Spike Duplicate (MSD)
1202064140	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 248798001 (RE11-10-1756) and 248798002 (RE11-10-1762).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202064134 (RE11-10-1756) and 1202064135 (RE11-10-1762).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
Samples were initially analyzed within holding; however, due to instrument failure the holding times had expired prior to reanalysis 1202064134 (RE11-10-1756).

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202064140 (LCS).

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 1202064134 (RE11-10-1756).

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 809564 1202064134 (RE11-10-1756).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nik Cole A. Elmore **Date:** 3-29-10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2320 GEL Work Order: 248867

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Nick Cole A. Elmore 3.29.10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2320

Client Sample ID:	RE46-10-12931	Project:	LANL01004
Sample ID:	248867001	Client ID:	LANL010
Matrix:	S		
Collect Date:	05-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	18.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.8	275	ug/kg	1	AXC2 03/15/10	1328	962258	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1557	962257

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2320

Client Sample ID:	RE46-10-12932	Project:	LANL01004
Sample ID:	248867002	Client ID:	LANL010
Matrix:	S		
Collect Date:	05-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	17.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.8	275	ug/kg	1	AXC2 03/15/10	1328	962258	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1557	962257

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2320

Client Sample ID:	RE46-10-12934	Project:	LANL01004
Sample ID:	248867003	Client ID:	LANL010
Matrix:	S		
Collect Date:	05-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	15.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	71.9	264	ug/kg	1	AXC2 03/15/10	1329	962258	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1557	962257

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 27, 2010

Client SDG: 10-2320

Client Sample ID:	RE46-10-12933	Project:	LANL01004
Sample ID:	248867004	Client ID:	LANL010
Matrix:	S		
Collect Date:	05-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	15.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	80.9	297	ug/kg	1	AXC2 03/15/10	1330	962258	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1557	962257

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: March 27, 2010

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 248867

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 962258										
QC1202064134 248798001 DUP										
Cyanide, Total	J	145	H	-108	ug/kg	1380 ^		(+/-269)	AXC2	03/16/10 20:41
QC1202064135 248798002 DUP										
Cyanide, Total	H	-128	U	ND	ug/kg	200 ^				03/15/10 13:04
QC1202064140 LCS										
Cyanide, Total	67900			66800	ug/kg		98.3	(32%-157%)		03/15/10 12:59
QC1202064133 MB										
Cyanide, Total			U	250	ug/kg					03/15/10 12:54
QC1202064136 248798001 MS										
Cyanide, Total	5590 J	145		5650	ug/kg		98.4	(26%-158%)		03/15/10 13:02
QC1202064137 248798002 MS										
Cyanide, Total	5920 H	-128		5610	ug/kg		94.9	(26%-158%)		03/15/10 13:05
QC1202064138 248798001 MSD										
Cyanide, Total	5590 J	145		5710	ug/kg	0.985	99.4	(0%-30%)		03/15/10 13:03
QC1202064139 248798002 MSD										
Cyanide, Total	5480 H	-128		5390	ug/kg	4.03	98.3	(0%-30%)		03/15/10 13:06

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based

QC Summary

Workorder: 248867

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

on nearest internal standard response factor

N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 27-MAR-2010 13:12

GEL Laboratories LLC
Contract: LANL01004
SDG #: 10-2320

Flow Injection Analysis
Method: SW846 9012A Concentration Units:ug/L
Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**15-MAR-2010 12:16:42**	**OM_3-15-2010_12-08-48**	**145**	**150**	**96.7**	**(90%-110%)**	**Yes**
CCV	15-MAR-2010 12:43:26	OM_3-15-2010_12-08-48	104	100	104	(90%-110%)	Yes
CCV	15-MAR-2010 12:55:49	OM_3-15-2010_12-08-48	103	100	103	(90%-110%)	Yes
CCV	15-MAR-2010 13:08:20	OM_3-15-2010_12-08-48	103	100	103	(90%-110%)	Yes
CCV	15-MAR-2010 13:20:48	OM_3-15-2010_12-08-48	105	100	105	(90%-110%)	Yes
CCV	15-MAR-2010 13:31:33	OM_3-15-2010_12-08-48	105	100	105	(90%-110%)	Yes
ICV	**16-MAR-2010 11:44:35**	**OM_3-16-2010_11-35-56**	**150**	**150**	**100**	**(90%-110%)**	**Yes**
CCV	16-MAR-2010 20:37:28	OM_3-16-2010_20-23-30	106	100	106	(90%-110%)	Yes
CCV	16-MAR-2010 20:50:00	OM_3-16-2010_20-23-30	107	100	107	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**15-MAR-2010 12:18:33**	**OM_3-15-2010_12-08-48**	**-2.21**	**10**	**Yes**
CCB	15-MAR-2010 12:45:15	OM_3-15-2010_12-08-48	-1.54	10	Yes
CCB	15-MAR-2010 12:57:40	OM_3-15-2010_12-08-48	-1.66	10	Yes
CCB	15-MAR-2010 13:10:10	OM_3-15-2010_12-08-48	-1.72	10	Yes
CCB	15-MAR-2010 13:22:38	OM_3-15-2010_12-08-48	-1.53	10	Yes
CCB	15-MAR-2010 13:33:23	OM_3-15-2010_12-08-48	-1.57	10	Yes
ICB	**16-MAR-2010 11:46:25**	**OM_3-16-2010_11-35-56**	**-1.57**	**10**	**Yes**
CCB	16-MAR-2010 20:39:18	OM_3-16-2010_20-23-30	-1.61	10	Yes
CCB	16-MAR-2010 20:51:50	OM_3-16-2010_20-23-30	-2.4	10	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **962257.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064140	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202064136	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064137	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064138	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064139	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202064133 MB	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12
1202064140 LCS	12-MAR-2010 15:57:00	Soil	0.25	25	100	>12
248798001	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12
1202064134 DUP (248798001)	12-MAR-2010 15:57:00	Soil	0.52	25	48.07692	>12
1202064136 MS (248798001)	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12
1202064138 MSD (248798001)	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12
248798002	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12
1202064135 DUP (248798002)	12-MAR-2010 15:57:00	Soil	0.56	25	44.64286	>12
1202064137 MS (248798002)	12-MAR-2010 15:57:00	Soil	0.51	25	49.01961	>12
1202064139 MSD (248798002)	12-MAR-2010 15:57:00	Soil	0.55	25	45.45455	>12
248798003	12-MAR-2010 15:57:00	Soil	0.51	25	49.01961	>12
248798004	12-MAR-2010 15:57:00	Soil	0.58	25	43.10345	>12
248798005	12-MAR-2010 15:57:00	Soil	0.53	25	47.16981	>12
248798006	12-MAR-2010 15:57:00	Soil	0.58	25	43.10345	>12
248798007	12-MAR-2010 15:57:00	Soil	0.59	25	42.37288	>12
248798008	12-MAR-2010 15:57:00	Soil	0.51	25	49.01961	>12
248798009	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12
248798010	12-MAR-2010 15:57:00	Soil	0.53	25	47.16981	>12
248798011	12-MAR-2010 15:57:00	Soil	0.51	25	49.01961	>12
248798012	12-MAR-2010 15:57:00	Soil	0.51	25	49.01961	>12
248824001	12-MAR-2010 15:57:00	Soil	0.59	25	42.37288	>12

Prep Logbook

Batch ID: **962257.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064140	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202064136	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064137	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064138	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064139	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
248824002	12-MAR-2010 15:57:00	Soil	0.54	25	46.2963	>12
248866001	12-MAR-2010 15:57:00	Soil	0.52	25	48.07692	>12
248866002	12-MAR-2010 15:57:00	Soil	0.53	25	47.16981	>12
248867001	12-MAR-2010 15:57:00	Soil	0.56	25	44.64286	>12
248867002	12-MAR-2010 15:57:00	Soil	0.55	25	45.45455	>12
248867003	12-MAR-2010 15:57:00	Soil	0.56	25	44.64286	>12
248867004	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100312-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/15/2010 12:09:33	OM_3-15-2010_12-08-48
150 ppb		1	axc2	3/15/2010 12:10:25	OM_3-15-2010_12-08-48
100 ppb		1	axc2	3/15/2010 12:11:17	OM_3-15-2010_12-08-48
50 ppb		1	axc2	3/15/2010 12:12:10	OM_3-15-2010_12-08-48
10 ppb		1	axc2	3/15/2010 12:13:04	OM_3-15-2010_12-08-48
CRDL 5.0 ppb		1	axc2	3/15/2010 12:13:57	OM_3-15-2010_12-08-48
ICAL-00		1	axc2	3/15/2010 12:14:52	OM_3-15-2010_12-08-48
ICV		1	axc2	3/15/2010 12:16:42	OM_3-15-2010_12-08-48
ICB		1	axc2	3/15/2010 12:18:33	OM_3-15-2010_12-08-48
CRDL		1	axc2	3/15/2010 12:20:22	OM_3-15-2010_12-08-48
1202064117	962254	1	axc2	3/15/2010 12:22:12	OM_3-15-2010_12-08-48
1202064124	962254	25	axc2	3/15/2010 12:23:05	OM_3-15-2010_12-08-48
248666001	962254	1	axc2	3/15/2010 12:23:59	OM_3-15-2010_12-08-48
1202064118	962254	1	axc2	3/15/2010 12:24:52	OM_3-15-2010_12-08-48
1202064120	962254	1	axc2	3/15/2010 12:25:45	OM_3-15-2010_12-08-48
1202064122	962254	1	axc2	3/15/2010 12:26:37	OM_3-15-2010_12-08-48
248666002	962254	1	axc2	3/15/2010 12:27:30	OM_3-15-2010_12-08-48
1202064119	962254	1	axc2	3/15/2010 12:28:23	OM_3-15-2010_12-08-48
1202064121	962254	1	axc2	3/15/2010 12:29:15	OM_3-15-2010_12-08-48
1202064123*	962254	1	axc2	3/15/2010 12:30:07	OM_3-15-2010_12-08-48
CCV		1	axc2	3/15/2010 12:31:00	OM_3-15-2010_12-08-48
CCB		1	axc2	3/15/2010 12:32:51	OM_3-15-2010_12-08-48
1202064123	962254	1	axc2	3/15/2010 12:34:40	OM_3-15-2010_12-08-48
248666003	962254	1	axc2	3/15/2010 12:35:31	OM_3-15-2010_12-08-48
248666004	962254	1	axc2	3/15/2010 12:36:23	OM_3-15-2010_12-08-48
248666005	962254	1	axc2	3/15/2010 12:37:15	OM_3-15-2010_12-08-48
248666006	962254	1	axc2	3/15/2010 12:38:07	OM_3-15-2010_12-08-48
248666007	962254	1	axc2	3/15/2010 12:38:59	OM_3-15-2010_12-08-48
248666008	962254	1	axc2	3/15/2010 12:39:52	OM_3-15-2010_12-08-48
248666009	962254	1	axc2	3/15/2010 12:40:46	OM_3-15-2010_12-08-48
248666010	962254	1	axc2	3/15/2010 12:41:40	OM_3-15-2010_12-08-48
248666011	962254	1	axc2	3/15/2010 12:42:33	OM_3-15-2010_12-08-48
CCV		1	axc2	3/15/2010 12:43:26	OM_3-15-2010_12-08-48
CCB		1	axc2	3/15/2010 12:45:15	OM_3-15-2010_12-08-48
248666012	962254	1	axc2	3/15/2010 12:47:04	OM_3-15-2010_12-08-48
248666013	962254	1	axc2	3/15/2010 12:47:57	OM_3-15-2010_12-08-48
248666014	962254	1	axc2	3/15/2010 12:48:50	OM_3-15-2010_12-08-48
248666015	962254	1	axc2	3/15/2010 12:49:43	OM_3-15-2010_12-08-48
248666016	962254	1	axc2	3/15/2010 12:50:36	OM_3-15-2010_12-08-48
248666017	962254	1	axc2	3/15/2010 12:51:29	OM_3-15-2010_12-08-48
248666018	962254	1	axc2	3/15/2010 12:52:20	OM_3-15-2010_12-08-48
248666019	962254	1	axc2	3/15/2010 12:53:13	OM_3-15-2010_12-08-48
248666020	962254	1	axc2	3/15/2010 12:54:05	OM_3-15-2010_12-08-48
1202064133	962258	1	axc2	3/15/2010 12:54:57	OM_3-15-2010_12-08-48
CCV		1	axc2	3/15/2010 12:55:49	OM_3-15-2010_12-08-48
CCB		1	axc2	3/15/2010 12:57:40	OM_3-15-2010_12-08-48
1202064140	962258	25	axc2	3/15/2010 12:59:27	OM_3-15-2010_12-08-48
248798001	962258	1	axc2	3/15/2010 13:00:22	OM_3-15-2010_12-08-48
1202064134	962258	1	axc2	3/15/2010 13:01:15	OM_3-15-2010_12-08-48
1202064136	962258	1	axc2	3/15/2010 13:02:10	OM_3-15-2010_12-08-48
1202064138	962258	1	axc2	3/15/2010 13:03:02	OM_3-15-2010_12-08-48
248798002	962258	1	axc2	3/15/2010 13:03:56	OM_3-15-2010_12-08-48
1202064135	962258	1	axc2	3/15/2010 13:04:49	OM_3-15-2010_12-08-48
1202064137	962258	1	axc2	3/15/2010 13:05:42	OM_3-15-2010_12-08-48
1202064139	962258	1	axc2	3/15/2010 13:06:35	OM_3-15-2010_12-08-48
248798003	962258	1	axc2	3/15/2010 13:07:27	OM_3-15-2010_12-08-48
CCV		1	axc2	3/15/2010 13:08:20	OM_3-15-2010_12-08-48
CCB		1	axc2	3/15/2010 13:10:10	OM_3-15-2010_12-08-48

248798004	962258	1	axc2	3/15/2010	13:11:59	OM_3-15-2010_12-08-48
248798005	962258	1	axc2	3/15/2010	13:12:51	OM_3-15-2010_12-08-48
248798006	962258	1	axc2	3/15/2010	13:13:44	OM_3-15-2010_12-08-48
248798007	962258	1	axc2	3/15/2010	13:14:36	OM_3-15-2010_12-08-48
248798008	962258	1	axc2	3/15/2010	13:15:28	OM_3-15-2010_12-08-48
248798009	962258	1	axc2	3/15/2010	13:16:20	OM_3-15-2010_12-08-48
248798010*	962258	1	axc2	3/15/2010	13:17:14	OM_3-15-2010_12-08-48
248798011	962258	1	axc2	3/15/2010	13:18:08	OM_3-15-2010_12-08-48
248798012	962258	1	axc2	3/15/2010	13:19:02	OM_3-15-2010_12-08-48
248824001	962258	1	axc2	3/15/2010	13:19:56	OM_3-15-2010_12-08-48
CCV		1	axc2	3/15/2010	13:20:48	OM_3-15-2010_12-08-48
CCB		1	axc2	3/15/2010	13:22:38	OM_3-15-2010_12-08-48
248798010	962258	1	axc2	3/15/2010	13:24:29	OM_3-15-2010_12-08-48
248824002	962258	1	axc2	3/15/2010	13:25:23	OM_3-15-2010_12-08-48
248866001	962258	1	axc2	3/15/2010	13:26:15	OM_3-15-2010_12-08-48
248866002	962258	1	axc2	3/15/2010	13:27:09	OM_3-15-2010_12-08-48
248867001	962258	1	axc2	3/15/2010	13:28:01	OM_3-15-2010_12-08-48
248867002	962258	1	axc2	3/15/2010	13:28:55	OM_3-15-2010_12-08-48
248867003	962258	1	axc2	3/15/2010	13:29:47	OM_3-15-2010_12-08-48
248867004	962258	1	axc2	3/15/2010	13:30:40	OM_3-15-2010_12-08-48
CCV		1	axc2	3/15/2010	13:31:33	OM_3-15-2010_12-08-48
CCB		1	axc2	3/15/2010	13:33:23	OM_3-15-2010_12-08-48

Author: axc2 Date : 3/15/2010

Original Run Filename: OM_3-15-2010_12-08-48.OMN created 3/15/2010 12:08:48
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-15-2010_12-08-48.OMN last modified 3/15/2010 13:34:28
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100315-01	1	S1	200	10.2	3/15/2010@12:09:33			200 ppb
WCN100315-02	1	S2	150	7.68	3/15/2010@12:10:25			150 ppb
WCN100315-03	1	S3	100	5.17	3/15/2010@12:11:17			100 ppb
WCN100315-04	1	S4	50.0	2.73	3/15/2010@12:12:10			50 ppb
WCN100315-05	1	S5	10.0	0.640	3/15/2010@12:13:04			10 ppb
WCN100315-06	1	S6	5.00	0.360	3/15/2010@12:13:57			CRDL 5.0 ppb
WCN100315-08	1	S7	0.00	0.0305	3/15/2010@12:14:52			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99991 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100315-07	1	S8	145	7.45	3/15/2010@12:16:42			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-3.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-3.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100315-08	1	S7	-2.21	-1.34e-4	3/15/2010@12:18:33			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.21 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.21 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100315-06	1	S6	4.95	0.362	3/15/2010@12:20:22			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	4.95 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	4.95 > 2.50					
		Message	Pass					
		Action	None					
1202064117|962254|MB	1	1	-0.201	0.102	3/15/2010@12:22:12			
1202064124||LCS	1	2	22.9	1.27	3/15/2010@12:23:05		25.00	
248666001	1	3	-1.47	0.0374	3/15/2010@12:23:59			
1202064118||DUP	1	4	-1.75	0.0232	3/15/2010@12:24:52			
1202064120||MS	1	5	100	5.18	3/15/2010@12:25:45			
1202064122||MSD	1	6	99.1	5.12	3/15/2010@12:26:37			
248666002	1	7	-1.01	0.0608	3/15/2010@12:27:30			
1202064119||DUP	1	8	-1.01	0.0605	3/15/2010@12:28:23			
1202064121||MS	1	9	84.2	4.37	3/15/2010@12:29:15			
1202064123||MSD	1	10	57.0	3.00	3/15/2010@12:30:07			
WCN100315-03	1	S3	103	5.33	3/15/2010@12:31:00			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.3 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	3.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100315-08	1	S7	-1.70	0.0259	3/15/2010@12:32:51			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.70 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.70 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064123|MSD	1	10	84.6	4.39	3/15/2010@12:34:40			
248666003	1	11	-1.15	0.0538	3/15/2010@12:35:31			
248666004	1	12	-1.82	0.0198	3/15/2010@12:36:23			
248666005	1	13	-1.32	0.0448	3/15/2010@12:37:15			
248666006	1	14	-1.82	0.0198	3/15/2010@12:38:07			
248666007	1	15	-1.57	0.0324	3/15/2010@12:38:59			
248666008	1	16	-1.24	0.0489	3/15/2010@12:39:52			
248666009	1	17	-0.908	0.0658	3/15/2010@12:40:46			
248666010	1	18	-0.968	0.0628	3/15/2010@12:41:40			
248666011	1	19	0.197	0.122	3/15/2010@12:42:33			
WCN100315-03	1	S3	104	5.36	3/15/2010@12:43:26			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	3.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	3.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100315-08	1	S7	-1.54	0.0337	3/15/2010@12:45:15			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.54 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.54 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248666012	1	20	-1.30	0.0461	3/15/2010@12:47:04			
248666013	1	21	-2.31	-0.00489	3/15/2010@12:47:57			
248666014	1	22	-1.47	0.0376	3/15/2010@12:48:50			
248666015	1	23	1.37	0.181	3/15/2010@12:49:43			
248666016	1	24	-1.13	0.0546	3/15/2010@12:50:36			
248666017	1	25	-1.48	0.0368	3/15/2010@12:51:29			
248666018	1	26	-1.59	0.0315	3/15/2010@12:52:20			
248666019	1	27	-1.19	0.0517	3/15/2010@12:53:13			
248666020	1	28	-0.118	0.106	3/15/2010@12:54:05			
1202064133|962258|MB	1	29	-1.30	0.0459	3/15/2010@12:54:57			
WCN100315-03	1	S3	103	5.32	3/15/2010@12:55:49			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	3.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	3.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100315-08	1	S7	-1.66	0.0278	3/15/2010@12:57:40			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.66 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.66 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064140||LCS	1	30	26.7	1.46	3/15/2010@12:59:27		25.00	
248798001	1	31	2.59	0.243	3/15/2010@13:00:22			
1202064134||DUP	1	32	-11.5	-0.472	3/15/2010@13:01:15			
1202064136||MS	1	33	101	5.24	3/15/2010@13:02:10			
1202064138||MSD	1	34	102	5.29	3/15/2010@13:03:02			
248798002	1	35	-8.86	-0.336	3/15/2010@13:03:56			
1202064135||DUP	1	36	-0.0671	0.108	3/15/2010@13:04:49			
1202064137||MS	1	37	94.9	4.91	3/15/2010@13:05:42			
1202064139||MSD	1	38	98.3	5.08	3/15/2010@13:06:35			
248798003	1	39	-0.592	0.0818	3/15/2010@13:07:27			
WCN100315-03	1	S3	103	5.35	3/15/2010@13:08:20			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100315-08	1	S7	-1.72	0.0248	3/15/2010@13:10:10			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.72 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.72 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248798004	1	40	-0.249	0.0991	3/15/2010@13:11:59			
248798005	1	41	-1.51	0.0352	3/15/2010@13:12:51			
248798006	1	42	1.77	0.201	3/15/2010@13:13:44			
248798007	1	43	-0.993	0.0615	3/15/2010@13:14:36			
248798008	1	44	6.67	0.449	3/15/2010@13:15:28			
248798009	1	45	-0.620	0.0804	3/15/2010@13:16:20			
248798010	1	46	8.81	0.557	3/15/2010@13:17:14			
248798011	1	47	4.05	0.316	3/15/2010@13:18:08			
248798012	1	48	-2.21	-1.20e-4	3/15/2010@13:19:02			
248824001	1	49	-1.53	0.0344	3/15/2010@13:19:56			
WCN100315-03	1	S3	105	5.40	3/15/2010@13:20:48			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100315-08	1	S7	-1.53	0.0343	3/15/2010@13:22:38			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.53 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.53 > -5.00					
		Message	CCB Passed					
		Action	Continue					

248798010	1	46	7.45	0.489	3/15/2010@13:24:29			
248824002	1	50	-1.44	0.0387	3/15/2010@13:25:23			
248866001	1	51	-1.14	0.0540	3/15/2010@13:26:15			
248866002	1	52	-0.763	0.0731	3/15/2010@13:27:09			
248867001	1	53	-0.0921	0.107	3/15/2010@13:28:01			
248867002	1	54	-1.38	0.0421	3/15/2010@13:28:55			
248867003	1	55	-1.58	0.0319	3/15/2010@13:29:47			
248867004	1	56	-1.35	0.0434	3/15/2010@13:30:40			
WCN100315-03	1	S3	105	5.40	3/15/2010@13:31:33			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100315-08	1	S7	-1.57	0.0325	3/15/2010@13:33:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.57 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.57 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_3-15-2010_12-08-48.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 3/15/2010

Channel 1: Current View

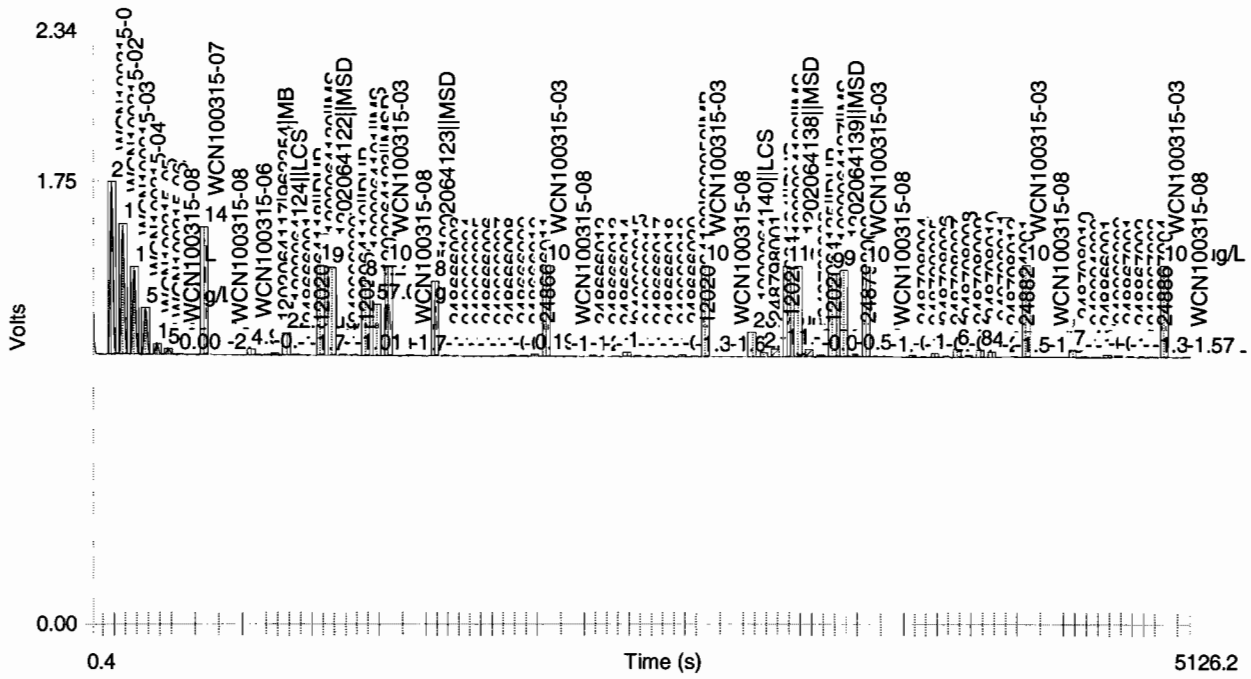

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.2	0.676	0.1	3/15/2010	12:10:36
2	150	1	7.68	0.511	0.2	3/15/2010	12:11:28
3	100	1	5.17	0.344	0.1	3/15/2010	12:12:20
4	50.0	1	2.73	0.183	-3.6	3/15/2010	12:13:13
5	10.0	1	0.640	0.0416	-3.6	3/15/2010	12:14:07
6	5.00	1	0.360	0.0234	1.3	3/15/2010	12:15:00
7	0.00	1	0.0305	0.00154		3/15/2010	12:15:55

Figure 1: TCYANIDE

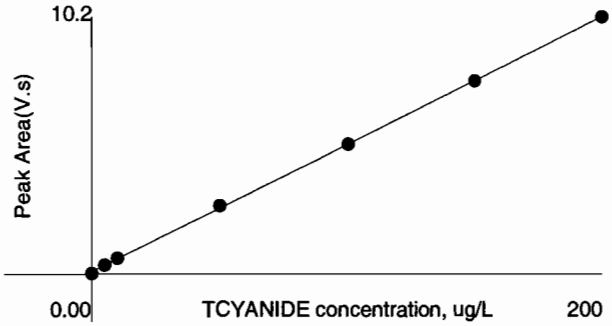

Area = 0.0506 * Conc + 0.112
Conc = 19.8 * Area - 2.21
Correlation Coefficient (r) = 0.99991

No Weighting

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/16/2010 11:37:26	OM_3-16-2010_11-35-56
150 ppb		1	axc2	3/16/2010 11:38:18	OM_3-16-2010_11-35-56
100 ppb		1	axc2	3/16/2010 11:39:11	OM_3-16-2010_11-35-56
50 ppb		1	axc2	3/16/2010 11:40:04	OM_3-16-2010_11-35-56
10 ppb		1	axc2	3/16/2010 11:40:57	OM_3-16-2010_11-35-56
CRDL 5.0 ppb		1	axc2	3/16/2010 11:41:50	OM_3-16-2010_11-35-56
ICAL-00		1	axc2	3/16/2010 11:42:45	OM_3-16-2010_11-35-56
ICV		1	axc2	3/16/2010 11:44:35	OM_3-16-2010_11-35-56
ICB		1	axc2	3/16/2010 11:46:25	OM_3-16-2010_11-35-56
CRDL		1	axc2	3/16/2010 11:48:15	OM_3-16-2010_11-35-56
1202068586	964224	1	axc2	3/16/2010 11:50:05	OM_3-16-2010_11-35-56
1202068593	964224	25	axc2	3/16/2010 11:50:58	OM_3-16-2010_11-35-56
249057002	964224	1	axc2	3/16/2010 11:51:51	OM_3-16-2010_11-35-56
1202068588	964224	1	axc2	3/16/2010 11:52:44	OM_3-16-2010_11-35-56
1202068590	964224	1	axc2	3/16/2010 11:53:37	OM_3-16-2010_11-35-56
1202068592	964224	1	axc2	3/16/2010 11:54:29	OM_3-16-2010_11-35-56
249076003	964224	1	axc2	3/16/2010 11:55:22	OM_3-16-2010_11-35-56
249076004	964224	1	axc2	3/16/2010 11:56:15	OM_3-16-2010_11-35-56
249076005	964224	1	axc2	3/16/2010 11:57:07	OM_3-16-2010_11-35-56
249076006	964224	1	axc2	3/16/2010 11:58:00	OM_3-16-2010_11-35-56
CCV		1	axc2	3/16/2010 11:58:52	OM_3-16-2010_11-35-56
CCB		1	axc2	3/16/2010 12:00:42	OM_3-16-2010_11-35-56
1202068587	964224	1	axc2	3/16/2010 12:02:30	OM_3-16-2010_11-35-56
1202068589	964224	1	axc2	3/16/2010 12:03:22	OM_3-16-2010_11-35-56
1202068591	964224	1	axc2	3/16/2010 12:04:14	OM_3-16-2010_11-35-56
249076007	964224	1	axc2	3/16/2010 12:05:06	OM_3-16-2010_11-35-56
249076008	964224	1	axc2	3/16/2010 12:05:57	OM_3-16-2010_11-35-56
249076009	964224	1	axc2	3/16/2010 12:06:51	OM_3-16-2010_11-35-56
249076010	964224	1	axc2	3/16/2010 12:07:45	OM_3-16-2010_11-35-56
249076011	964224	1	axc2	3/16/2010 12:08:39	OM_3-16-2010_11-35-56
249076012*	964224	1	axc2	3/16/2010 12:09:32	OM_3-16-2010_11-35-56
249076013	964224	1	axc2	3/16/2010 12:10:25	OM_3-16-2010_11-35-56
CCV		1	axc2	3/16/2010 12:11:17	OM_3-16-2010_11-35-56
CCB		1	axc2	3/16/2010 12:13:08	OM_3-16-2010_11-35-56
249076012*	964224	1	axc2	3/16/2010 12:14:57	OM_3-16-2010_11-35-56
249076014*	964224	1	axc2	3/16/2010 12:15:50	OM_3-16-2010_11-35-56
249076015*	964224	1	axc2	3/16/2010 12:16:43	OM_3-16-2010_11-35-56
249076016*	964224	1	axc2	3/16/2010 12:17:36	OM_3-16-2010_11-35-56
249076017*	964224	1	axc2	3/16/2010 12:18:28	OM_3-16-2010_11-35-56
249076018*	964224	1	axc2	3/16/2010 12:19:21	OM_3-16-2010_11-35-56
249076019*	964224	1	axc2	3/16/2010 12:20:13	OM_3-16-2010_11-35-56
249076020*	964224	1	axc2	3/16/2010 12:21:06	OM_3-16-2010_11-35-56
249097002*	964224	1	axc2	3/16/2010 12:21:57	OM_3-16-2010_11-35-56
249076016*	964224	1	axc2	3/16/2010 12:22:50	OM_3-16-2010_11-35-56
CCV		1	axc2	3/16/2010 12:23:42	OM_3-16-2010_11-35-56
CCB		1	axc2	3/16/2010 12:25:32	OM_3-16-2010_11-35-56

Author: axc2 Date : 3/16/2010

Original Run Filename: OM_3-16-2010_11-35-56.OMN created 3/16/2010 11:35:56
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-16-2010_11-35-56.OMN last modified 3/16/2010 12:26:37
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100316-01	1	S1	200	9.76	3/16/2010@11:37:26			200 ppb
WCN100316-02	1	S2	150	7.51	3/16/2010@11:38:18			150 ppb
WCN100316-03	1	S3	100	4.94	3/16/2010@11:39:11			100 ppb
WCN100316-04	1	S4	50.0	2.64	3/16/2010@11:40:04			50 ppb
WCN100316-05	1	S5	10.0	0.638	3/16/2010@11:40:57			10 ppb
WCN100316-06	1	S6	5.00	0.357	3/16/2010@11:41:50			CRDL 5.0 ppb
WCN100316-08	1	S7	0.00	-0.00167	3/16/2010@11:42:45			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99976 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100316-07	1	S8	150	7.40	3/16/2010@11:44:35			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-0.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100316-08	1	S7	-1.57	0.0343	3/16/2010@11:46:25			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.57 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.57 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100316-06	1	S6	5.32	0.370	3/16/2010@11:48:15			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.32 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.32 > 2.50					
		Message	Pass					
		Action	None					
1202068586|964224|MB	1	1	-2.27	6.18e-4	3/16/2010@11:50:05			
1202068593||LCS	1	2	25.7	1.36	3/16/2010@11:50:58		25.00	
249057002	1	3	-0.148	0.104	3/16/2010@11:51:51			
1202068588||DUP	1	4	-1.32	0.0465	3/16/2010@11:52:44			
1202068590||MS	1	5	65.5	3.30	3/16/2010@11:53:37			
1202068592||MSD	1	6	50.1	2.55	3/16/2010@11:54:29			
249076003	1	7	-1.29	0.0482	3/16/2010@11:55:22			
249076004	1	8	-1.74	0.0261	3/16/2010@11:56:15			
249076005	1	9	-1.54	0.0360	3/16/2010@11:57:07			
249076006	1	10	-1.62	0.0319	3/16/2010@11:58:00			
WCN100316-03	1	S3	104	5.18	3/16/2010@11:58:52			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.0 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-0.661	0.0787	3/16/2010@12:00:42			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.661 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.661 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202068587||DUP	1	11	-1.57	0.0343	3/16/2010@12:02:30			
1202068589||MS	1	12	105	5.23	3/16/2010@12:03:22			
1202068591||MSD	1	13	102	5.06	3/16/2010@12:04:14			
249076007	1	14	-1.54	0.0360	3/16/2010@12:05:06			
249076008	1	15	-1.55	0.0353	3/16/2010@12:05:57			
249076009	1	16	-2.51	-0.0113	3/16/2010@12:06:51			
249076010	1	17	-2.28	-1.61e-4	3/16/2010@12:07:45			
249076011	1	18	-1.46	0.0401	3/16/2010@12:08:39			
249076012	1	19	-10.7	-0.410	3/16/2010@12:09:32			
249076013	1	20	1.99	0.208	3/16/2010@12:10:25			
WCN100316-03	1	S3	103	5.14	3/16/2010@12:11:17			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	4.21	0.316	3/16/2010@12:13:08			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	4.21 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	4.21 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249076012	1	19	-3.02	-0.0360	3/16/2010@12:14:57			
249076014	1	21	-1.62	0.0320	3/16/2010@12:15:50			
249076015	1	22	0.262	0.124	3/16/2010@12:16:43			
249076016	1	23	-5.77	-0.170	3/16/2010@12:17:36			
249076017	1	24	-1.58	0.0341	3/16/2010@12:18:28			
249076018	1	25	-2.16	0.00576	3/16/2010@12:19:21			
249076019	1	26	-4.94	-0.130	3/16/2010@12:20:13			
249076020	1	27	-2.28	-2.14e-4	3/16/2010@12:21:06			
249097002	1	28	-1.64	0.0313	3/16/2010@12:21:57			
249076016	1	23	-1.01	0.0618	3/16/2010@12:22:50			
WCN100316-03	1	S3	103	5.10	3/16/2010@12:23:42			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	9.14	0.556	3/16/2010@12:25:32			CCB
		Known Conc:	0.00					

Author: axc2 Date : 3/16/2010

DQM Test: > + Concentration Limit						
Result:	9.14 > 5.00					
Message	CCB Failed					
Action	Stop Run					
DQM Test: < - Concentration Limit						
Result:	9.14 > -5.00					
Message	CCB Passed					
Action	Continue					

Analyte Properties Table for OM_3-16-2010_11-35-56.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

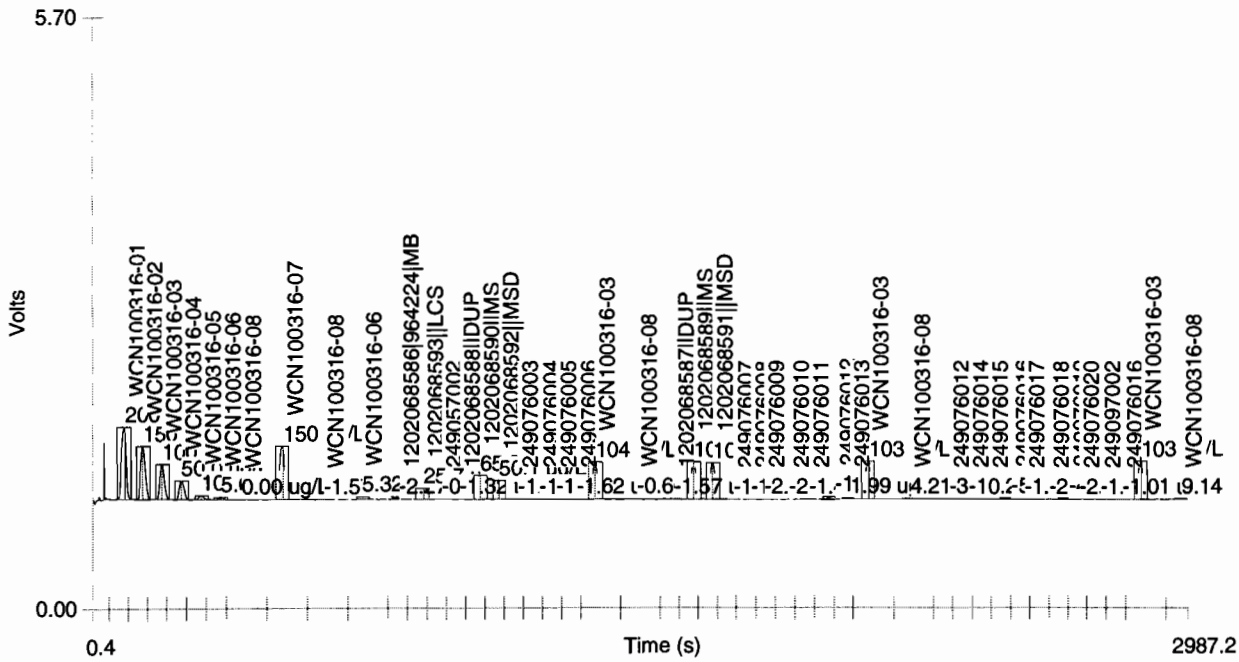

Author: axc2 Date : 3/16/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.76	0.694	0.8	3/16/2010	11:38:29
2	150	1	7.51	0.508	-1.4	3/16/2010	11:39:21
3	100	1	4.94	0.333	0.7	3/16/2010	11:40:14
4	50.0	1	2.64	0.177	-3.6	3/16/2010	11:41:07
5	10.0	1	0.638	0.0416	-6.6	3/16/2010	11:42:00
6	5.00	1	0.357	0.0229	-0.2	3/16/2010	11:42:53
7	0.00	1	-0.00167	-0.00189		3/16/2010	11:43:48

Figure 1: TCYANIDE

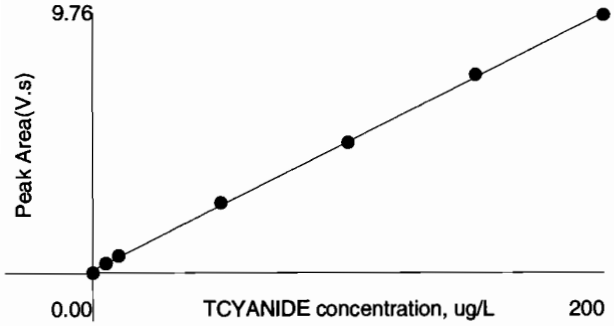

Area = 0.0487 * Conc + 0.113
Conc = 20.5 * Area - 2.28
Correlation Coefficient (r) = 0.99976

No Weighting

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	3/16/2010 20:25:01	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 20:26:51	OM_3-16-2010_20-23-30
249076012	964224	1	axc2	3/16/2010 20:28:41	OM_3-16-2010_20-23-30
249076014	964224	1	axc2	3/16/2010 20:29:34	OM_3-16-2010_20-23-30
249076015	964224	1	axc2	3/16/2010 20:30:27	OM_3-16-2010_20-23-30
249076016	964224	1	axc2	3/16/2010 20:31:20	OM_3-16-2010_20-23-30
249076017	964224	1	axc2	3/16/2010 20:32:13	OM_3-16-2010_20-23-30
249076018	964224	1	axc2	3/16/2010 20:33:05	OM_3-16-2010_20-23-30
249076019	964224	1	axc2	3/16/2010 20:33:57	OM_3-16-2010_20-23-30
249076020	964224	1	axc2	3/16/2010 20:34:49	OM_3-16-2010_20-23-30
249097002	964224	1	axc2	3/16/2010 20:35:42	OM_3-16-2010_20-23-30
1202064134*	962258	1	axc2	3/16/2010 20:36:36	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 20:37:28	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 20:39:18	OM_3-16-2010_20-23-30
1202064134	962258	1	axc2	3/16/2010 20:41:09	OM_3-16-2010_20-23-30
248798002	962258	1	axc2	3/16/2010 20:42:03	OM_3-16-2010_20-23-30
1202064149	962262	1	axc2	3/16/2010 20:42:54	OM_3-16-2010_20-23-30
1202064156	962262	25	axc2	3/16/2010 20:43:46	OM_3-16-2010_20-23-30
248814001	962262	1	axc2	3/16/2010 20:44:40	OM_3-16-2010_20-23-30
1202064150	962262	1	axc2	3/16/2010 20:45:34	OM_3-16-2010_20-23-30
1202064152	962262	1	axc2	3/16/2010 20:46:27	OM_3-16-2010_20-23-30
1202064154	962262	1	axc2	3/16/2010 20:47:21	OM_3-16-2010_20-23-30
248814002	962262	1	axc2	3/16/2010 20:48:14	OM_3-16-2010_20-23-30
1202064151	962262	1	axc2	3/16/2010 20:49:07	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 20:50:00	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 20:51:50	OM_3-16-2010_20-23-30
1202064153	962262	1	axc2	3/16/2010 20:53:39	OM_3-16-2010_20-23-30
1202064155	962262	1	axc2	3/16/2010 20:54:32	OM_3-16-2010_20-23-30
248814003	962262	1	axc2	3/16/2010 20:55:25	OM_3-16-2010_20-23-30
248814004	962262	1	axc2	3/16/2010 20:56:18	OM_3-16-2010_20-23-30
248814005	962262	1	axc2	3/16/2010 20:57:10	OM_3-16-2010_20-23-30
248814006	962262	1	axc2	3/16/2010 20:58:02	OM_3-16-2010_20-23-30
248814007	962262	1	axc2	3/16/2010 20:58:55	OM_3-16-2010_20-23-30
248814008	962262	1	axc2	3/16/2010 20:59:46	OM_3-16-2010_20-23-30
248814009	962262	1	axc2	3/16/2010 21:00:38	OM_3-16-2010_20-23-30
248834001	962262	1	axc2	3/16/2010 21:01:32	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 21:02:25	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 21:04:15	OM_3-16-2010_20-23-30
248834002	962262	1	axc2	3/16/2010 21:06:05	OM_3-16-2010_20-23-30
248834003	962262	1	axc2	3/16/2010 21:06:58	OM_3-16-2010_20-23-30
248834004	962262	1	axc2	3/16/2010 21:07:52	OM_3-16-2010_20-23-30
248834005	962262	1	axc2	3/16/2010 21:08:45	OM_3-16-2010_20-23-30
248834006	962262	1	axc2	3/16/2010 21:09:39	OM_3-16-2010_20-23-30
248834007	962262	1	axc2	3/16/2010 21:10:32	OM_3-16-2010_20-23-30
248834008	962262	1	axc2	3/16/2010 21:11:25	OM_3-16-2010_20-23-30
248834009	962262	1	axc2	3/16/2010 21:12:18	OM_3-16-2010_20-23-30
248834010	962262	1	axc2	3/16/2010 21:13:11	OM_3-16-2010_20-23-30
248834011	962262	1	axc2	3/16/2010 21:14:04	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 21:14:56	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 21:16:46	OM_3-16-2010_20-23-30
1202064141	962260	1	axc2	3/16/2010 21:18:34	OM_3-16-2010_20-23-30
248700001	962260	1	axc2	3/16/2010 21:19:26	OM_3-16-2010_20-23-30
1202064148*	962260	25	axc2	3/16/2010 21:20:18	OM_3-16-2010_20-23-30
1202064142	962260	1	axc2	3/16/2010 21:21:11	OM_3-16-2010_20-23-30
1202064144	962260	1	axc2	3/16/2010 21:22:04	OM_3-16-2010_20-23-30
1202064146	962260	1	axc2	3/16/2010 21:22:59	OM_3-16-2010_20-23-30
248700002	962260	1	axc2	3/16/2010 21:23:53	OM_3-16-2010_20-23-30
1202064143	962260	1	axc2	3/16/2010 21:24:47	OM_3-16-2010_20-23-30

1202064145	962260	1	axc2	3/16/2010	21:25:41	OM_3-16-2010_20-23-30
1202064147	962260	1	axc2	3/16/2010	21:26:35	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010	21:27:27	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010	21:29:17	OM_3-16-2010_20-23-30
1202064148	962260	25	axc2	3/16/2010	21:31:06	OM_3-16-2010_20-23-30
248700003	962260	1	axc2	3/16/2010	21:31:59	OM_3-16-2010_20-23-30
248700004	962260	1	axc2	3/16/2010	21:32:52	OM_3-16-2010_20-23-30
248700005	962260	1	axc2	3/16/2010	21:33:45	OM_3-16-2010_20-23-30
248700006	962260	1	axc2	3/16/2010	21:34:38	OM_3-16-2010_20-23-30
248700007	962260	1	axc2	3/16/2010	21:35:31	OM_3-16-2010_20-23-30
248700008	962260	1	axc2	3/16/2010	21:36:24	OM_3-16-2010_20-23-30
248700009	962260	1	axc2	3/16/2010	21:37:16	OM_3-16-2010_20-23-30
248700010	962260	1	axc2	3/16/2010	21:38:09	OM_3-16-2010_20-23-30
248700011	962260	1	axc2	3/16/2010	21:39:01	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010	21:39:53	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010	21:41:43	OM_3-16-2010_20-23-30
248700012*	962260	1	axc2	3/16/2010	21:43:35	OM_3-16-2010_20-23-30
248700013*	962260	1	axc2	3/16/2010	21:44:29	OM_3-16-2010_20-23-30
248700014*	962260	1	axc2	3/16/2010	21:45:23	OM_3-16-2010_20-23-30
248700015*	962260	1	axc2	3/16/2010	21:46:17	OM_3-16-2010_20-23-30
248700016*	962260	1	axc2	3/16/2010	21:47:11	OM_3-16-2010_20-23-30
1202068608*	964231	1	axc2	3/16/2010	21:48:04	OM_3-16-2010_20-23-30
1202068618*	964231	1	axc2	3/16/2010	21:48:58	OM_3-16-2010_20-23-30
249076001*	964231	1	axc2	3/16/2010	21:49:51	OM_3-16-2010_20-23-30
248634002*	964231	1	axc2	3/16/2010	21:50:45	OM_3-16-2010_20-23-30
248885002*	964231	1	axc2	3/16/2010	21:51:37	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010	21:52:30	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010	21:54:21	OM_3-16-2010_20-23-30
248952011*	964231	1	axc2	3/16/2010	21:56:10	OM_3-16-2010_20-23-30
1202068610*	964231	1	axc2	3/16/2010	21:57:03	OM_3-16-2010_20-23-30
1202068613*	964231	1	axc2	3/16/2010	21:57:57	OM_3-16-2010_20-23-30
1202068616*	964231	1	axc2	3/16/2010	21:58:49	OM_3-16-2010_20-23-30
248952012*	964231	1	axc2	3/16/2010	21:59:41	OM_3-16-2010_20-23-30
248952018*	964231	1	axc2	3/16/2010	22:00:33	OM_3-16-2010_20-23-30
248964002*	964231	1	axc2	3/16/2010	22:01:28	OM_3-16-2010_20-23-30
1202068611*	964231	1	axc2	3/16/2010	22:02:23	OM_3-16-2010_20-23-30
1202068614*	964231	1	axc2	3/16/2010	22:03:17	OM_3-16-2010_20-23-30
1202068617*	964231	1	axc2	3/16/2010	22:04:11	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010	22:05:03	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010	22:06:55	OM_3-16-2010_20-23-30
1202068608*	964231	1	axc2	3/16/2010	22:08:43	OM_3-16-2010_20-23-30
1202068618*	964231	1	axc2	3/16/2010	22:09:37	OM_3-16-2010_20-23-30
249076001*	964231	1	axc2	3/16/2010	22:10:30	OM_3-16-2010_20-23-30
248964003*	964231	1	axc2	3/16/2010	22:11:25	OM_3-16-2010_20-23-30
1202068608*	964231	1	axc2	3/16/2010	22:12:18	OM_3-16-2010_20-23-30
1202068618*	964231	1	axc2	3/16/2010	22:13:11	OM_3-16-2010_20-23-30

Author: axc2 Date : 3/23/2010

Original Run Filename: OM_3-16-2010_20-23-30.OMN created 3/16/2010 20:23:30
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-16-2010_20-23-30.OMN last modified 3/16/2010 22:15:07
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100316-03	1	S3	105	5.22	3/16/2010@20:25:01			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100316-08	1	S7	-1.78	0.0243	3/16/2010@20:26:51			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.78 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.78 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249076012|964224|	1	19	-1.65	0.0306	3/16/2010@20:28:41			
249076014	1	21	-1.68	0.0291	3/16/2010@20:29:34			
249076015	1	22	-2.19	0.00410	3/16/2010@20:30:27			
249076016	1	23	0.0867	0.115	3/16/2010@20:31:20			
249076017	1	24	-1.82	0.0224	3/16/2010@20:32:13			
249076018	1	25	-1.50	0.0380	3/16/2010@20:33:05			
249076019	1	26	-1.82	0.0222	3/16/2010@20:33:57			
249076020	1	27	-2.06	0.0107	3/16/2010@20:34:49			
249097002	1	28	-1.44	0.0407	3/16/2010@20:35:42			
1202064134|962258|DUP	1	112	519	25.4	3/16/2010@20:36:36			
WCN100316-03	1	S3	106	5.29	3/16/2010@20:37:28			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-1.61	0.0325	3/16/2010@20:39:18			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.61 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.61 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064134|962258|DUP	1	112	-2.01	0.0133	3/16/2010@20:41:09			
248798002	1	113	-2.12	0.00795	3/16/2010@20:42:03			
1202064149|962262|MB	1	29	-1.85	0.0208	3/16/2010@20:42:54			
1202064156||LCS	1	30	21.2	1.14	3/16/2010@20:43:46		25.00	
248814001	1	31	-1.92	0.0176	3/16/2010@20:44:40			

1202064150||DUP	1	32	-1.94	0.0167	3/16/2010@20:45:34			
1202064152||MS	1	33	93.0	4.64	3/16/2010@20:46:27			
1202064154||MSD	1	34	95.0	4.73	3/16/2010@20:47:21			
248814002	1	35	-1.81	0.0230	3/16/2010@20:48:14			
1202064151||DUP	1	36	-1.70	0.0279	3/16/2010@20:49:07			
WCN100316-03	1	S3	107	5.32	3/16/2010@20:50:00			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	7.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-2.40	-0.00592	3/16/2010@20:51:50			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.40 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.40 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064153||MS	1	37	56.8	2.87	3/16/2010@20:53:39			
1202064155||MSD	1	38	68.7	3.45	3/16/2010@20:54:32			
248814003	1	39	-1.21	0.0520	3/16/2010@20:55:25			
248814004	1	40	-1.64	0.0311	3/16/2010@20:56:18			
248814005	1	41	-1.31	0.0473	3/16/2010@20:57:10			
248814006	1	42	-1.36	0.0446	3/16/2010@20:58:02			
248814007	1	43	-1.56	0.0349	3/16/2010@20:58:55			
248814008	1	44	-1.71	0.0279	3/16/2010@20:59:46			
248814009	1	45	-1.60	0.0332	3/16/2010@21:00:38			
248834001	1	46	-1.80	0.0231	3/16/2010@21:01:32			
WCN100316-03	1	S3	108	5.36	3/16/2010@21:02:25			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	7.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-1.85	0.0210	3/16/2010@21:04:15			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.85 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.85 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248834002	1	47	1.43	0.181	3/16/2010@21:06:05			
248834003	1	48	-1.90	0.0185	3/16/2010@21:06:58			
248834004	1	49	-1.78	0.0243	3/16/2010@21:07:52			
248834005	1	50	-1.74	0.0262	3/16/2010@21:08:45			
248834006	1	51	-2.13	0.00738	3/16/2010@21:09:39			
248834007	1	52	-2.40	-0.00569	3/16/2010@21:10:32			
248834008	1	53	-2.10	0.00869	3/16/2010@21:11:25			
248834009	1	54	-1.82	0.0221	3/16/2010@21:12:18			
248834010	1	55	-1.46	0.0397	3/16/2010@21:13:11			
248834011	1	56	-1.79	0.0236	3/16/2010@21:14:04			
WCN100316-03	1	S3	109	5.40	3/16/2010@21:14:56			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								

		Result:	8.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	8.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-2.15	0.00636	3/16/2010@21:16:46			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.15 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.15 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064141|962260|MB	1	57	-1.27	0.0492	3/16/2010@21:18:34			
1202064148||LCS	1	58	-1.98	0.0144	3/16/2010@21:19:26		25.00	
248700001	1	59	711	34.7	3/16/2010@21:20:18			
1202064142||DUP	1	60	1.08	0.163	3/16/2010@21:21:11			
1202064144||MS	1	61	102	5.07	3/16/2010@21:22:04			
1202064146||MSD	1	62	99.0	4.93	3/16/2010@21:22:59			
248700002	1	63	-0.804	0.0718	3/16/2010@21:23:53			
1202064143||DUP	1	64	-2.28	-2.93e-4	3/16/2010@21:24:47			
1202064145||MS	1	65	103	5.13	3/16/2010@21:25:41			
1202064147||MSD	1	66	105	5.24	3/16/2010@21:26:35			
WCN100316-03	1	S3	105	5.22	3/16/2010@21:27:27			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-2.13	0.00714	3/16/2010@21:29:17			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.13 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.13 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064148||LCS	1	59	25.3	1.34	3/16/2010@21:31:06		25.00	
248700003	1	67	-0.850	0.0695	3/16/2010@21:31:59			
248700004	1	68	-0.511	0.0860	3/16/2010@21:32:52			
248700005	1	69	-0.731	0.0753	3/16/2010@21:33:45			
248700006	1	70	0.111	0.116	3/16/2010@21:34:38			
248700007	1	71	-1.12	0.0562	3/16/2010@21:35:31			
248700008	1	72	-1.75	0.0256	3/16/2010@21:36:24			
248700009	1	73	-0.966	0.0639	3/16/2010@21:37:16			
248700010	1	74	2.32	0.224	3/16/2010@21:38:09			
248700011	1	75	-0.512	0.0860	3/16/2010@21:39:01			
WCN100316-03	1	S3	103	5.13	3/16/2010@21:39:53			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-1.67	0.0295	3/16/2010@21:41:43			CCB

		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.67 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.67 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248700012	1	76	7.01	0.452	3/16/2010@21:43:35			
248700013	1	77	-57.1	-2.67	3/16/2010@21:44:29			
248700014	1	78	1.66	0.192	3/16/2010@21:45:23			
248700015	1	79	12.0	0.695	3/16/2010@21:46:17			
248700016	1	80	20.0	1.08	3/16/2010@21:47:11			
1202068608|964231|MB	1	81	9.84	0.590	3/16/2010@21:48:04			
1202068618||LCS	1	82	61.6	3.11	3/16/2010@21:48:58			
249076001	1	102	-10.7	-0.409	3/16/2010@21:49:51			
248634002	1	83	-1.11	0.0570	3/16/2010@21:50:45			
248885002	1	84	-0.520	0.0856	3/16/2010@21:51:37			
WCN100316-03	1	S3	103	5.13	3/16/2010@21:52:30			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-1.84	0.0211	3/16/2010@21:54:21			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.84 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.84 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248952011	1	85	-3.64	-0.0664	3/16/2010@21:56:10			
1202068610||DUP	1	86	-1.43	0.0415	3/16/2010@21:57:03			
1202068613||MS	1	87	102	5.09	3/16/2010@21:57:57			
1202068616||MSD	1	88	109	5.41	3/16/2010@21:58:49			
248952012	1	89	-1.36	0.0445	3/16/2010@21:59:41			
248952018	1	90	-1.18	0.0533	3/16/2010@22:00:33			
248964002	1	91	-1.61	0.0323	3/16/2010@22:01:28			
1202068611||DUP	1	92	0.111	0.116	3/16/2010@22:02:23			
1202068614||MS	1	93	121	5.99	3/16/2010@22:03:17			
1202068617||MSD	1	94	108	5.38	3/16/2010@22:04:11			
WCN100316-03	1	S3	105	5.23	3/16/2010@22:05:03			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-0.763	0.0738	3/16/2010@22:06:55			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.763 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.763 > -5.00					
		Message	CCB Passed					

Author: axc2

Date : 3/23/2010

			Action	Continue					
1202068608|964231|MB	1	81	13.0	0.742	3/16/2010@22:08:43				
1202068618||LCS	1	82	59.6	3.01	3/16/2010@22:09:37				
249076001	1	102	-0.852	0.0694	3/16/2010@22:10:30				
248964003	1	95	15.4	0.863	3/16/2010@22:11:25				
1202068608|964231|MB	1	81	-2.86	-0.0283	3/16/2010@22:12:18				
1202068618||LCS	1	82	68.5	3.45	3/16/2010@22:13:11				

Analyte Properties Table for OM_3-16-2010_20-23-30.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

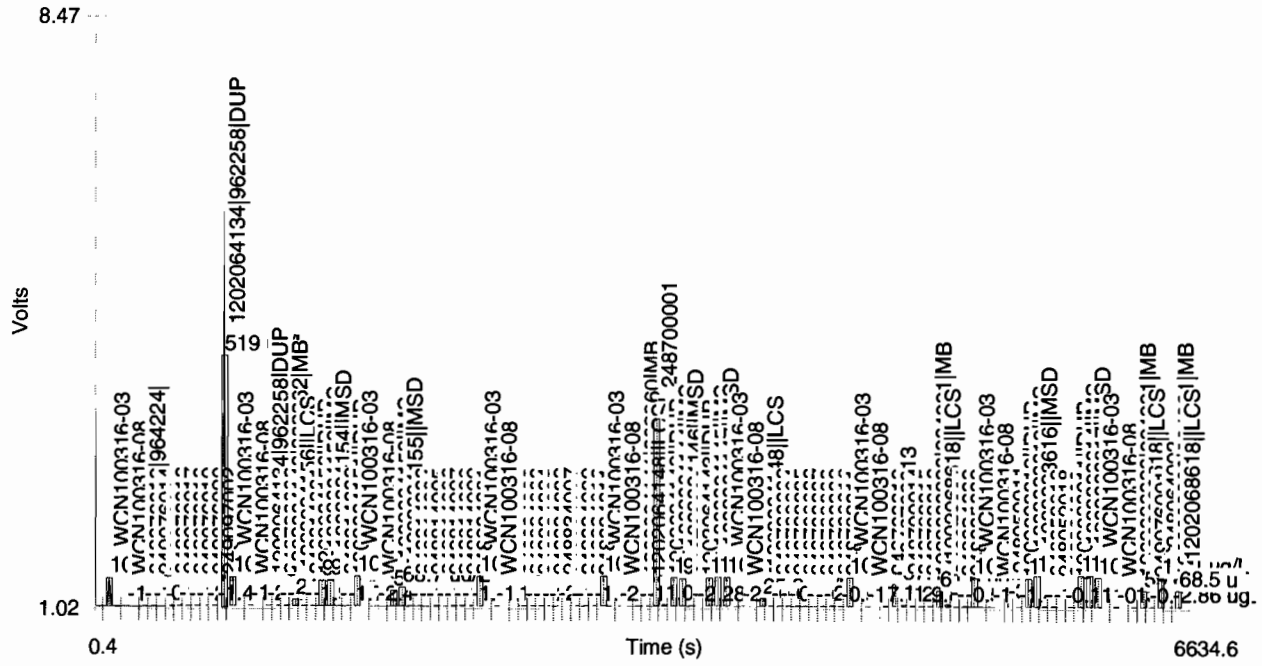

Author: axc2 Date : 3/23/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.76	0.694	0.8	3/16/2010	11:38:29
2	150	1	7.51	0.508	-1.4	3/16/2010	11:39:21
3	100	1	4.94	0.333	0.7	3/16/2010	11:40:14
4	50.0	1	2.64	0.177	-3.6	3/16/2010	11:41:07
5	10.0	1	0.638	0.0416	-6.6	3/16/2010	11:42:00
6	5.00	1	0.357	0.0229	-0.2	3/16/2010	11:42:53
7	0.00	1	-0.00167	-0.00189		3/16/2010	11:43:48

Figure 1: TCYANIDE

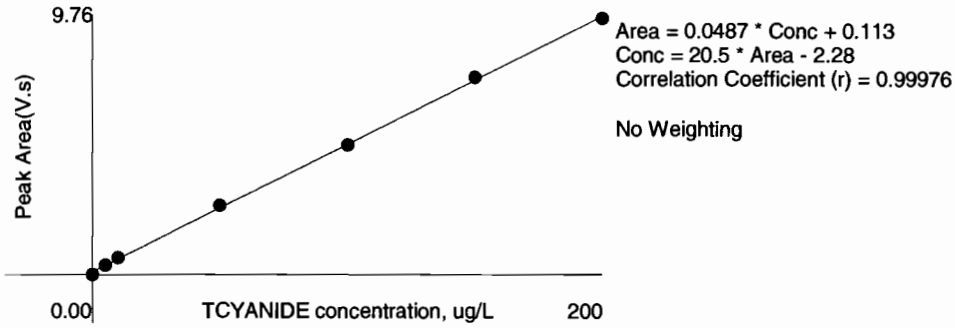

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
25-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	SW846 9012A	Solid	LANL
Batch ID:	**Sample Numbers:**		
962258	See Below		

Potentially affected work order(s)(SDG): 248798(10-2289),248824(10-2305),248866(10-2319),248867(10-2320)

Application Issues:

Sample Analyzed out of Holding

Specification and Requirements Exception Description:	DER Disposition:
1. Sample Analyzed out of Holding: 248798 002 QC 1202064134DUP	1. Samples were initially analyzed within holding; however, due to instrument failure the holding times had expired prior to reanalysis.

Originator's Name:

Ashley Earl 25-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc 25-MAR-10

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2320

Method/Analysis Information

Product:	**Dry Weight-Percent Moisture**
Analytical Method:	Dry Soil Prep
Analytical Batch Number:	962374

Sample ID	Client ID
248867001	RE46-10-12931
248867002	RE46-10-12932
248867003	RE46-10-12934
248867004	RE46-10-12933
1202064431	248824001(RE46-10-11926) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 248824001 (RE46-10-11926). The QC was from LANL work order 248824.

QC Information
All of the QC samples met the required acceptance limits.

CSU
Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965811
Prep Batch Number:	962374

Sample ID	Client ID
248867001	RE46-10-12931
248867002	RE46-10-12932
248867003	RE46-10-12934
248867004	RE46-10-12933
1202072522	Method Blank (MB)
1202072523	248867001(RE46-10-12931) Sample Duplicate (DUP)
1202072524	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202072522 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248867001 (RE46-10-12931). The QC was from LANL work order 248867.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965813
Prep Batch Number:	962374

Sample ID	Client ID
248867001	RE46-10-12931
248867002	RE46-10-12932
248867003	RE46-10-12934
248867004	RE46-10-12933
1202072525	Method Blank (MB)
1202072526	248867001(RE46-10-12931) Sample Duplicate (DUP)
1202072527	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202072525 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248867001 (RE46-10-12931). The QC was from LANL work order 248867.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOTH**
Analytical Method:	DOE EML HASL-300, Th-01-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965814
Prep Batch Number:	962374

Sample ID	Client ID
248867001	RE46-10-12931
248867002	RE46-10-12932
248867003	RE46-10-12934
248867004	RE46-10-12933
1202072528	Method Blank (MB)
1202072529	248867001(RE46-10-12931) Sample Duplicate (DUP)
1202072530	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as

Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-038 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202072528 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248867001 (RE46-10-12931). The QC was from LANL work order 248867.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The Th230 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were recounted due to high relative percent difference/relative error ratio.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG:
DER 811473 was generated due to RDL less than MDA. 1. Sample 248867003 does not meet the required detection limits for Th228 or Th230. 1. When a blank population is performed, the MDA is greater than the RDL due to the high standard deviation. Reporting results.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	971197
Prep Batch Number:	962374

Sample ID	Client ID
248867001	RE46-10-12931
248867002	RE46-10-12932
248867003	RE46-10-12934
248867004	RE46-10-12933
1202085875	Method Blank (MB)
1202085876	248867001(RE46-10-12931) Sample Duplicate (DUP)
1202085877	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202085875 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248867001 (RE46-10-12931). The QC was from LANL work order

248867.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were reprepped due to high relative percent difference/relative error ratio.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Sample 248867002 (RE46-10-12932) did not meet the client's yield requirement. However, there are 400 tracer counts, GEL's standard tracer yield requirements are met, and the client's detection limits are met.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962633
Prep Batch Number:	962374

Sample ID	Client ID
248867001	RE46-10-12931
248867002	RE46-10-12932
248867003	RE46-10-12934
248867004	RE46-10-12933
1202065188	Method Blank (MB)
1202065189	248867001(RE46-10-12931) Sample Duplicate (DUP)
1202065190	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 19.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in June 2009, July 2009, December 2009 and February 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 248867001 (RE46-10-12931). The QC was from LANL work order 248867.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank, 1202065188 (MB), results for Co-60 and Ra-224 are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank, 1202065188 (MB), results for Co-60 and Ra-224 are greater than the decision level but less than the MDC.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	248867001	RE46-10-12931
			248867002	RE46-10-12932
			248867003	RE46-10-12934
			248867004	RE46-10-12933
			1202065189	RE46-10-12931(248867001DUP)
		Cadmium-109	248867001	RE46-10-12931
			248867002	RE46-10-12932
			248867003	RE46-10-12934
			248867004	RE46-10-12933
			1202065189	RE46-10-12931(248867001DUP)
		Radium-224	248867001	RE46-10-12931
			248867002	RE46-10-12932
			248867003	RE46-10-12934
			248867004	RE46-10-12933
			1202065189	RE46-10-12931(248867001DUP)
UI	Data rejected due to low abundance.	Cesium-134	248867001	RE46-10-12931
			248867002	RE46-10-12932
			248867004	RE46-10-12933
			1202065189	RE46-10-12931(248867001DUP)
		Cesium-137	248867001	RE46-10-12931
		Strontium-85	248867002	RE46-10-12932

			248867004	RE46-10-12933
UI	Data rejected due to no valid peak.	Uranium-235	248867003	RE46-10-12934

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 4/5/10

DER Report No.: 811473
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
30-MAR-10	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ALPHA SPECTROMETER	DOE EML HASL-300, Th-01-RC Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
965814	See Below		

Potentially affected work order(s)(SDG): 248824(10-2305),248863(10-2315),248865(10-2318),248867(10-2320),249179(10-2397)

Application Issues:

RDL less than MDA

Specification and Requirements Exception Description:	DER Disposition:
1. Sample 248867003 does not meet the required detection limits for Th228 or Th230.	1. When a blank population is performed, the MDA is greater than the RDL due to the high standard deviation. Reporting results.

Originator's Name:

Joseph Moulden 30-MAR-10

Data Validator/Group Leader:

Eric Brimstin 30-MAR-10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

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Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2320 GEL Work Order: 248867

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID:	RE46-10-12931	Project:	LANL01004
Sample ID:	248867001	Client ID:	LANL010
Matrix:	S		
Collect Date:	05-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	18.8%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00415	0.0213	+/-0.00255	0.050	pCi/g		AYB1	03/29/10	2147	965811	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00699	0.0247	+/-0.00461	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
Plutonium-239/240	U	0.0098	0.0208	+/-0.00478	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.53	0.174	+/-0.159	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
Thorium-230		0.881	0.218	+/-0.105	0.100	pCi/g						
Thorium-232		1.36	0.093	+/-0.143	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.71	0.132	+/-0.155	0.100	pCi/g		AYB1	04/02/10	1137	971197	6
Uranium-235/236		0.0812	0.0808	+/-0.0225	0.100	pCi/g						
Uranium-238		0.863	0.093	+/-0.0905	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0252	0.330	+/-0.0965	0.200	pCi/g		MXR1	03/24/10	2033	962633	8
Bismuth-211	UI	3.83	0.398	+/-0.303		pCi/g						
Bismuth-214		1.17	0.140	+/-0.103	0.200	pCi/g						
Cadmium-109	UI	2.48	1.88	+/-0.596		pCi/g						
Cerium-139	U	0.00997	0.0615	+/-0.0185	0.050	pCi/g						
Cesium-134	UI	0.141	0.101	+/-0.0479	0.100	pCi/g						
Cesium-137	UI	0.126	0.0927	+/-0.0246	0.100	pCi/g						
Cobalt-60	U	-0.0193	0.0676	+/-0.0213	0.100	pCi/g						
Europium-152	U	0.00124	0.194	+/-0.0666	0.200	pCi/g						
Lanthanum-140	U	-0.056	0.201	+/-0.0648		pCi/g						
Lead-212		1.84	0.117	+/-0.111	0.100	pCi/g						
Lead-214		1.39	0.146	+/-0.117	0.100	pCi/g						
Mercury-203	U	0.028	0.0856	+/-0.0246	0.100	pCi/g						
Potassium-40		35.2	0.585	+/-2.16	1.00	pCi/g						
Radium-223	U	0.0653	1.22	+/-0.415		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-12931
Sample ID: 248867001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-224	UI	4.78	1.25	+/-0.778		pCi/g						
Radium-226		1.17	0.140	+/-0.103		pCi/g						
Radium-228		1.69	0.280	+/-0.213	0.500	pCi/g						
Ruthenium-106	U	-0.102	0.570	+/-0.172	0.800	pCi/g						
Sodium-22	U	-0.0499	0.072	+/-0.024	0.080	pCi/g						
Strontium-85	U	-0.18	0.0871	+/-0.0321		pCi/g						
Thallium-208		0.586	0.0684	+/-0.0518	0.080	pCi/g						
Thorium-227	U	0.00176	0.485	+/-0.142		pCi/g						
Thorium-231	U	0.0653	1.22	+/-0.415		pCi/g						
Thorium-234	U	0.746	2.93	+/-0.855	2.00	pCi/g						
Tin-113	U	0.0304	0.0909	+/-0.0265	0.100	pCi/g						
Uranium-235	U	0.341	0.450	+/-0.134	0.500	pCi/g						
Yttrium-88	U	-0.0065	0.0602	+/-0.0191	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.5	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	90.1	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	85.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	72.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-12931
Sample ID: 248867001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID:	RE46-10-12932	Project:	LANL01004
Sample ID:	248867002	Client ID:	LANL010
Matrix:	S		
Collect Date:	05-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	17.3%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00165	0.0206	+/-0.00225	0.050	pCi/g		AYB1	03/29/10	2147	965811	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00853	0.0242	+/-0.00636	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
Plutonium-239/240	U	0.0109	0.0204	+/-0.00451	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.26	0.162	+/-0.133	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
Thorium-230		0.971	0.203	+/-0.110	0.100	pCi/g						
Thorium-232		1.21	0.0865	+/-0.128	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.748	0.188	+/-0.0912	0.100	pCi/g		AYB1	04/02/10	1137	971197	6
Uranium-235/236	U	0.00823	0.115	+/-0.0143	0.100	pCi/g						
Uranium-238		0.878	0.132	+/-0.102	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0101	0.198	+/-0.0621	0.200	pCi/g		MXR1	03/24/10	2037	962633	8
Bismuth-211	UI	3.23	0.274	+/-0.265		pCi/g						
Bismuth-214		1.12	0.0931	+/-0.0887	0.200	pCi/g						
Cadmium-109	UI	2.84	1.04	+/-0.394		pCi/g						
Cerium-139	U	-0.00235	0.0455	+/-0.013	0.050	pCi/g						
Cesium-134	UI	0.0855	0.071	+/-0.0197	0.100	pCi/g						
Cesium-137	U	0.00757	0.0533	+/-0.0157	0.100	pCi/g						
Cobalt-60	U	-0.0122	0.0495	+/-0.0154	0.100	pCi/g						
Europium-152	U	0.055	0.141	+/-0.0481	0.200	pCi/g						
Lanthanum-140	U	-0.175	0.124	+/-0.0488		pCi/g						
Lead-212		1.63	0.0793	+/-0.118	0.100	pCi/g						
Lead-214		1.17	0.101	+/-0.101	0.100	pCi/g						
Mercury-203	U	0.0361	0.0539	+/-0.0204	0.100	pCi/g						
Potassium-40		29.2	0.456	+/-1.49	1.00	pCi/g						
Radium-223	U	-0.211	0.881	+/-0.299		pCi/g						
Radium-224	UI	4.24	0.849	+/-0.625		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-12932
Sample ID: 248867002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-226		1.12	0.0931	+/-0.0887		pCi/g						
Radium-228		1.65	0.183	+/-0.164	0.500	pCi/g						
Ruthenium-106	U	-0.0995	0.408	+/-0.124	0.800	pCi/g						
Sodium-22	U	0.0141	0.060	+/-0.0175	0.080	pCi/g						
Strontium-85	UI	0.144	0.071	+/-0.0198		pCi/g						
Thallium-208		0.487	0.0487	+/-0.0397	0.080	pCi/g						
Thorium-227	U	-0.195	0.363	+/-0.113		pCi/g						
Thorium-231	U	-0.211	0.881	+/-0.299		pCi/g						
Thorium-234		1.88	1.67	+/-0.920	2.00	pCi/g						
Tin-113	U	-0.00942	0.0624	+/-0.0186	0.100	pCi/g						
Uranium-235	U	0.167	0.304	+/-0.0858	0.500	pCi/g						
Yttrium-88	U	0.0162	0.0445	+/-0.0125	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.8	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	81.9	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	88.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	49.8 *	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-12932
Sample ID: 248867002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID:	RE46-10-12934	Project:	LANL01004
Sample ID:	248867003	Client ID:	LANL010
Matrix:	S		
Collect Date:	05-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	15.5%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00204	0.0223	+/-0.00244	0.050	pCi/g		AYB1	03/29/10	2146	965811	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0042	0.0268	+/-0.008	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
Plutonium-239/240	U	0.0101	0.0226	+/-0.00455	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228	U	0.0354	0.158	+/-0.0303	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
Thorium-230	U	0.00981	0.198	+/-0.0132	0.100	pCi/g						
Thorium-232	U	-0.00151	0.0844	+/-0.0072	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		2.64	0.181	+/-0.241	0.100	pCi/g		AYB1	04/02/10	1137	971197	6
Uranium-235/236		0.111	0.111	+/-0.0309	0.100	pCi/g						
Uranium-238		0.938	0.127	+/-0.106	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0325	0.129	+/-0.0425	0.200	pCi/g		MXR1	03/24/10	2051	962633	8
Bismuth-211	UI	4.38	0.446	+/-0.313		pCi/g						
Bismuth-214		1.33	0.164	+/-0.124	0.200	pCi/g						
Cadmium-109	UI	2.23	1.32	+/-0.620		pCi/g						
Cerium-139	U	-0.00662	0.0612	+/-0.0189	0.050	pCi/g						
Cesium-134	U	0.103	0.125	+/-0.0343	0.100	pCi/g						
Cesium-137	U	-0.0152	0.0861	+/-0.0274	0.100	pCi/g						
Cobalt-60	U	0.0232	0.0843	+/-0.0247	0.100	pCi/g						
Europium-152	U	-0.173	0.193	+/-0.0738	0.200	pCi/g						
Lanthanum-140	U	-0.0925	0.184	+/-0.0639		pCi/g						
Lead-212		1.93	0.115	+/-0.126	0.100	pCi/g						
Lead-214		1.59	0.157	+/-0.122	0.100	pCi/g						
Mercury-203	U	0.0419	0.0874	+/-0.0284	0.100	pCi/g						
Potassium-40		34.4	0.688	+/-1.52	1.00	pCi/g						
Radium-223	U	-0.341	1.34	+/-0.475		pCi/g						
Radium-224	UI	4.23	1.23	+/-0.775		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-12934
Sample ID: 248867003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-226		1.33	0.164	+/-0.124		pCi/g						
Radium-228		1.58	0.362	+/-0.217	0.500	pCi/g						
Ruthenium-106	U	0.0737	0.724	+/-0.221	0.800	pCi/g						
Sodium-22	U	0.0221	0.111	+/-0.0335	0.080	pCi/g						
Strontium-85	U	0.0868	0.0917	+/-0.0284		pCi/g						
Thallium-208		0.550	0.0839	+/-0.0536	0.080	pCi/g						
Thorium-227	U	0.0341	0.546	+/-0.161		pCi/g						
Thorium-231	U	-0.341	1.34	+/-0.475		pCi/g						
Thorium-234	U	1.25	1.25	+/-0.621	2.00	pCi/g						
Tin-113	U	-0.00426	0.0962	+/-0.0292	0.100	pCi/g						
Uranium-235	UI	0.505	0.459	+/-0.139	0.500	pCi/g						
Yttrium-88	U	0.0354	0.0784	+/-0.0204	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.6	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	80.9	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	90.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	53.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-12934
Sample ID: 248867003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID:	RE46-10-12933	Project:	LANL01004
Sample ID:	248867004	Client ID:	LANL010
Matrix:	S		
Collect Date:	05-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	15.9%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000954	0.0245	+/-0.00206	0.050	pCi/g		AYB1	03/29/10	2146	965811	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00534	0.023	+/-0.0071	0.050	pCi/g		AYB1	03/29/10	0933	965813	3
Plutonium-239/240	U	0.00395	0.0195	+/-0.00326	0.050	pCi/g						
ISOTH "Dry Weight Corrected"												
Thorium-228		1.54	0.168	+/-0.156	0.100	pCi/g		AYB1	03/29/10	1705	965814	4
Thorium-230		0.916	0.210	+/-0.107	0.100	pCi/g						
Thorium-232		1.25	0.0897	+/-0.133	0.100	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.898	0.158	+/-0.098	0.100	pCi/g		AYB1	04/02/10	1137	971197	6
Uranium-235/236	U	0.0346	0.0965	+/-0.0157	0.100	pCi/g						
Uranium-238		0.840	0.111	+/-0.0933	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.182	0.389	+/-0.116	0.200	pCi/g		MXR1	03/24/10	2258	962633	8
Bismuth-211	UI	4.54	0.331	+/-0.308		pCi/g						
Bismuth-214		1.39	0.103	+/-0.106	0.200	pCi/g						
Cadmium-109	UI	4.47	1.28	+/-0.605		pCi/g						
Cerium-139	U	-0.000485	0.0486	+/-0.0157	0.050	pCi/g						
Cesium-134	UI	0.118	0.0806	+/-0.0249	0.100	pCi/g						
Cesium-137	U	0.0108	0.0582	+/-0.0169	0.100	pCi/g						
Cobalt-60	U	-0.0101	0.0577	+/-0.0184	0.100	pCi/g						
Europium-152	U	-0.102	0.153	+/-0.0589	0.200	pCi/g						
Lanthanum-140	U	0.0727	0.158	+/-0.0483		pCi/g						
Lead-212		1.98	0.0857	+/-0.131	0.100	pCi/g						
Lead-214		1.65	0.117	+/-0.121	0.100	pCi/g						
Mercury-203	U	0.00444	0.0685	+/-0.0201	0.100	pCi/g						
Potassium-40		35.7	0.514	+/-1.92	1.00	pCi/g						
Radium-223	U	0.239	1.05	+/-0.353		pCi/g						
Radium-224	UI	4.58	0.918	+/-0.614		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-12933
Sample ID: 248867004
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Radium-226		1.39	0.103	+/-0.106		pCi/g						
Radium-228		2.03	0.215	+/-0.194	0.500	pCi/g						
Ruthenium-106	U	0.0551	0.465	+/-0.142	0.800	pCi/g						
Sodium-22	U	0.0322	0.0689	+/-0.0202	0.080	pCi/g						
Strontium-85	UI	0.188	0.0766	+/-0.0229		pCi/g						
Thallium-208		0.580	0.0535	+/-0.0476	0.080	pCi/g						
Thorium-227	U	0.236	0.422	+/-0.121		pCi/g						
Thorium-231	U	0.239	1.05	+/-0.353		pCi/g						
Thorium-234	U	1.58	3.17	+/-0.940	2.00	pCi/g						
Tin-113	U	-0.0503	0.0708	+/-0.0224	0.100	pCi/g						
Uranium-235	U	0.0897	0.338	+/-0.105	0.500	pCi/g						
Yttrium-88	U	-0.0222	0.0348	+/-0.0127	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Th-01-RC Modified
5	DOE EML HASL-300, Th-01-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	72.4	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	82.4	(50%-105%)
Thorium-229 Tracer	ISOTH "Dry Weight Corrected"	87.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	60.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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< Result is less than value reported

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: April 5, 2010

Client Sample ID: RE46-10-12933
Sample ID: 248867004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

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UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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QC Summary

Report Date: April 5, 2010

Client : **Los Alamos National Laboratory**
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico
Contact: **Ms. Joylene Valdez**

Workorder: **248867**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965811										
QC1202072523 248867001 DUP										
Americium-241	U	-0.00415	U	-0.00142	pCi/g	0.342		(0-1)	AYB1	03/29/1021:46
	TPU:	+/-0.00255		+/-0.00145						
	Yield:	86.5		85.7						
QC1202072524 LCS										
Americium-241	33.1			29.0	pCi/g		87.5	(75%-125%)		03/29/1021:46
	TPU:			+/-2.19						
	Yield:			100						
QC1202072522 MB										
Americium-241			U	-0.00591	pCi/g					03/29/1021:46
	TPU:			+/-0.00361						
	Yield:			85.7						
Batch 965813										
QC1202072526 248867001 DUP										
Plutonium-238	U	-0.00699	U	-0.0017	pCi/g	0.241		(0-1)	AYB1	03/29/1009:33
	TPU:	+/-0.00461		+/-0.00635						
	Yield:	90.1		94.2						
Plutonium-239/240	U	0.0098	U	-0.00321	pCi/g	0.737		(0-1)		
	TPU:	+/-0.00478		+/-0.00406						
	Yield:	90.1		94.2						
QC1202072527 LCS										
Plutonium-238				2.79	pCi/g			(75%-125%)		
	TPU:			+/-0.306						
	Yield:			89.4						
Plutonium-239/240	41.8			38.2	pCi/g		91.3	(75%-125%)		
	TPU:			+/-2.65						
	Yield:			89.4						
QC1202072525 MB										
Plutonium-238			U	0.00642	pCi/g					
	TPU:			+/-0.00852						
	Yield:			92.8						
Plutonium-239/240			U	0.00683	pCi/g					
	TPU:			+/-0.00445						
	Yield:			92.8						
Batch 965814										
QC1202072529 248867001 DUP										
Thorium-228		1.53		1.98	pCi/g	0.649		(0-1)	AYB1	03/29/1017:06
	TPU:	+/-0.159		+/-0.188						
	Yield:	85.0		88.3						
Thorium-230		0.881		1.24	pCi/g	0.762		(0-1)		
	TPU:	+/-0.105		+/-0.132						
	Yield:	85.0		88.3						
Thorium-232		1.36		1.62	pCi/g	0.429		(0-1)		
	TPU:	+/-0.143		+/-0.159						

QC Summary

Workorder: 248867

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965814										
Yield:		85.0		88.3						
QC1202072530 LCS										
Thorium-228				1.33	pCi/g					03/29/1017:06
TPU:				+/-0.201						
Yield:				86.8						
Thorium-230	25.6			26.3	pCi/g		103	(75%-125%)		
TPU:				+/-2.12						
Yield:				86.8						
Thorium-232				1.10	pCi/g			(75%-125%)		
TPU:				+/-0.172						
Yield:				86.8						
QC1202072528 MB										
Thorium-228			U	-0.000358	pCi/g					03/29/1017:06
TPU:				+/-0.00567						
Yield:				93.1						
Thorium-230			U	0.00587	pCi/g					
TPU:				+/-0.00328						
Yield:				93.1						
Thorium-232			U	0.00141	pCi/g					
TPU:				+/-0.00301						
Yield:				93.1						
Batch 971197										
QC1202085876 248867001 DUP										
Uranium-233/234		1.71		2.17	pCi/g	0.634		(0-1)	AYB1	04/02/1011:37
TPU:		+/-0.155		+/-0.205						
Yield:		72.9		52.6						
Uranium-235/236		0.0812	U	0.0804	pCi/g	0.00756		(0-1)		
TPU:		+/-0.0225		+/-0.0285						
Yield:		72.9		52.6						
Uranium-238		0.863		0.950	pCi/g	0.219		(0-1)		
TPU:		+/-0.0905		+/-0.107						
Yield:		72.9		52.6						
QC1202085877 LCS										
Uranium-233/234				5.33	pCi/g					04/02/1011:37
TPU:				+/-0.523						
Yield:				89.3						
Uranium-235/236			U	0.231	pCi/g					
TPU:				+/-0.0753						
Yield:				89.3						
Uranium-238	5.75			5.72	pCi/g		99.5	(75%-125%)		
TPU:				+/-0.555						
Yield:				89.3						
QC1202085875 MB										
Uranium-233/234			U	0.00363	pCi/g					04/02/1011:37
TPU:				+/-0.00376						
Yield:				89.8						
Uranium-235/236			U	0.00234	pCi/g					
TPU:				+/-0.00524						
Yield:				89.8						
Uranium-238			U	0.00568	pCi/g					

QC Summary

Workorder: 248867

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 971197										
	TPU:			+/-0.00425						
	Yield:			89.8						
Rad Gamma Spec										
Batch 962633										
QC1202065189 248867001 DUP										
Americium-241	U	-0.0252	U	-0.0361	pCi/g	0.0477		(0-1)	MXR1	03/24/1023:00
	TPU:	+/-0.0965		+/-0.0183						
Bismuth-211	UI	3.83	UI	3.94	pCi/g	0.0946		(0-1)		
	TPU:	+/-0.303		+/-0.247						
Bismuth-214		1.17		1.48	pCi/g	0.715		(0-1)		
	TPU:	+/-0.103		+/-0.116						
Cadmium-109	UI	2.48	UI	4.66	pCi/g	1.14		(0-1)		
	TPU:	+/-0.596		+/-0.357						
Cerium-139	U	0.00997	U	-0.00147	pCi/g	0.207		(0-1)		
	TPU:	+/-0.0185		+/-0.00912						
Cesium-134	UI	0.141	UI	0.110	pCi/g	0.204		(0-1)		
	TPU:	+/-0.0479		+/-0.0293						
Cesium-137	UI	0.126		0.113	pCi/g	0.118		(0-1)		
	TPU:	+/-0.0246		+/-0.0324						
Cobalt-60	U	-0.0193	U	-0.000883	pCi/g	0.241		(0-1)		
	TPU:	+/-0.0213		+/-0.0169						
Europium-152	U	0.00124	U	0.0619	pCi/g	0.297		(0-1)		
	TPU:	+/-0.0666		+/-0.0356						
Lanthanum-140	U	-0.056	U	0.0733	pCi/g	0.559		(0-1)		
	TPU:	+/-0.0648		+/-0.0509						
Lead-212		1.84		1.91	pCi/g	0.165		(0-1)		
	TPU:	+/-0.111		+/-0.105						
Lead-214		1.39		1.43	pCi/g	0.0887		(0-1)		
	TPU:	+/-0.117		+/-0.0978						
Mercury-203	U	0.028	U	0.0029	pCi/g	0.308		(0-1)		
	TPU:	+/-0.0246		+/-0.0161						
Potassium-40		35.2		33.1	pCi/g	0.282		(0-1)		
	TPU:	+/-2.16		+/-1.65						
Radium-223	U	0.0653	U	0.0788	pCi/g	0.010		(0-1)		
	TPU:	+/-0.415		+/-0.260						
Radium-224	UI	4.78	UI	4.63	pCi/g	0.0588		(0-1)		
	TPU:	+/-0.778		+/-0.473						
Radium-226		1.17		1.48	pCi/g	0.715		(0-1)		
	TPU:	+/-0.103		+/-0.116						
Radium-228		1.69		1.98	pCi/g	0.356		(0-1)		
	TPU:	+/-0.213		+/-0.186						
Ruthenium-106	U	-0.102	U	0.201	pCi/g	0.492		(0-1)		
	TPU:	+/-0.172		+/-0.136						
Sodium-22	U	-0.0499	U	-0.00156	pCi/g	0.536		(0-1)		
	TPU:	+/-0.024		+/-0.0211						
Strontium-85	U	-0.18	U	0.0208	pCi/g	2.02		(0-1)		
	TPU:	+/-0.0321		+/-0.0177						
Thallium-208		0.586		0.584	pCi/g	0.0121		(0-1)		
	TPU:	+/-0.0518		+/-0.0471						
Thorium-227	U	0.00176	U	-0.102	pCi/g	0.224		(0-1)		

QC Summary

Workorder: 248867

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962633										
	TPU:	+/-0.142		+/-0.0906						
Thorium-231	U	0.0653	U	0.0788	pCi/g	0.010		(0-1)		
	TPU:	+/-0.415		+/-0.260						
Thorium-234	U	0.746		1.78	pCi/g	0.428		(0-1)		
	TPU:	+/-0.855		+/-0.350						
Tin-113	U	0.0304	U	-0.0268	pCi/g	0.631		(0-1)		
	TPU:	+/-0.0265		+/-0.0188						
Uranium-235	U	0.341	U	0.110	pCi/g	0.573		(0-1)		
	TPU:	+/-0.134		+/-0.0669						
Yttrium-88	U	-0.0065	U	0.0289	pCi/g	0.481		(0-1)		
	TPU:	+/-0.0191		+/-0.0177						
QC1202065190 LCS										
Americium-241	16.3			13.9	pCi/g		85.2	(75%-125%)		03/25/1009:16
	TPU:			+/-0.638						
Bismuth-211				3.46	pCi/g					
	TPU:			+/-0.367						
Bismuth-214				0.890	pCi/g					
	TPU:			+/-0.108						
Cadmium-109				35.4	pCi/g					
	TPU:			+/-2.11						
Cerium-139			U	0.0101	pCi/g					
	TPU:			+/-0.0215						
Cesium-134			U	0.071	pCi/g					
	TPU:			+/-0.0385						
Cesium-137	5.69			5.89	pCi/g		104	(75%-125%)		
	TPU:			+/-0.331						
Cobalt-60	6.49			6.90	pCi/g		106	(75%-125%)		
	TPU:			+/-0.337						
Europium-152			U	0.0108	pCi/g					
	TPU:			+/-0.0883						
Lanthanum-140			U	-0.0747	pCi/g					
	TPU:			+/-0.0628						
Lead-212				1.43	pCi/g					
	TPU:			+/-0.119						
Lead-214				1.26	pCi/g					
	TPU:			+/-0.138						
Mercury-203			U	-0.0163	pCi/g					
	TPU:			+/-0.0331						
Potassium-40				1.02	pCi/g					
	TPU:			+/-0.254						
Radium-223			U	-0.894	pCi/g					
	TPU:			+/-0.541						
Radium-224				2.93	pCi/g					
	TPU:			+/-0.863						
Radium-226				0.890	pCi/g					
	TPU:			+/-0.108						
Radium-228				1.59	pCi/g					
	TPU:			+/-0.301						
Ruthenium-106			U	-0.181	pCi/g					
	TPU:			+/-0.248						
Sodium-22			U	0.0353	pCi/g					

QC Summary

Workorder: 248867

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962633										
	TPU:			+/-0.0239						
Strontium-85			U	-0.0677	pCi/g					
	TPU:			+/-0.0364						
Thallium-208				0.427	pCi/g					
	TPU:			+/-0.054						
Thorium-227			U	-0.0226	pCi/g					
	TPU:			+/-0.208						
Thorium-231			U	-0.894	pCi/g					
	TPU:			+/-0.541						
Thorium-234			U	-0.854	pCi/g					
	TPU:			+/-0.967						
Tin-113			U	-0.0231	pCi/g					
	TPU:			+/-0.0386						
Uranium-235			U	-0.147	pCi/g					
	TPU:			+/-0.135						
Yttrium-88			U	0.0459	pCi/g					
	TPU:			+/-0.0238						
QC1202065188 MB										
Americium-241			U	-0.0948	pCi/g					03/24/1022:59
	TPU:			+/-0.0289						
Bismuth-211			U	0.0297	pCi/g					
	TPU:			+/-0.0459						
Bismuth-214			U	-0.0119	pCi/g					
	TPU:			+/-0.0183						
Cadmium-109			U	-0.612	pCi/g					
	TPU:			+/-0.169						
Cerium-139			U	-0.0106	pCi/g					
	TPU:			+/-0.00641						
Cesium-134			U	-0.00286	pCi/g					
	TPU:			+/-0.00786						
Cesium-137			U	-0.00571	pCi/g					
	TPU:			+/-0.00718						
Cobalt-60			U	0.0175	pCi/g					
	TPU:			+/-0.00761						
Europium-152			U	-0.017	pCi/g					
	TPU:			+/-0.0203						
Lanthanum-140			U	0.0232	pCi/g					
	TPU:			+/-0.0181						
Lead-212			U	-0.0174	pCi/g					
	TPU:			+/-0.0172						
Lead-214			U	0.0115	pCi/g					
	TPU:			+/-0.0166						
Mercury-203			U	-0.0075	pCi/g					
	TPU:			+/-0.00762						
Potassium-40			U	-0.0404	pCi/g					
	TPU:			+/-0.105						
Radium-223			U	-0.0221	pCi/g					
	TPU:			+/-0.128						
Radium-224			U	0.304	pCi/g					
	TPU:			+/-0.137						
Radium-226			U	-0.0119	pCi/g					

QC Summary

Workorder: 248867

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 962633											
	TPU:			+/-0.0183							
Radium-228			U	-0.0353	pCi/g						
	TPU:			+/-0.0343							
Ruthenium-106			U	-0.0657	pCi/g						
	TPU:			+/-0.0658							
Sodium-22			U	-2.09E-06	pCi/g						
	TPU:			+/-0.00745							
Strontium-85			U	-0.0416	pCi/g						
	TPU:			+/-0.0134							
Thallium-208			U	0.00936	pCi/g						
	TPU:			+/-0.00937							
Thorium-227			U	0.0445	pCi/g						
	TPU:			+/-0.0518							
Thorium-231			U	-0.0221	pCi/g						
	TPU:			+/-0.128							
Thorium-234			U	0.199	pCi/g						
	TPU:			+/-0.296							
Tin-113			U	-0.00326	pCi/g						
	TPU:			+/-0.00929							
Uranium-235			U	-0.0127	pCi/g						
	TPU:			+/-0.0458							
Yttrium-88			U	-0.0106	pCi/g						
	TPU:			+/-0.00801							

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.

QC Summary

Workorder: **248867**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time

ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 960581 Product: Am Date: 3/30/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 3/30/10

Secondary Review Performed By: [illegible] 3/30/10

4/2
LANL

p J

Am/Cm Que Sheet

16-MAR-10

Batch #: 965811 Analyst: AYB1 First Client Due Date: 02-APR-10 Internal Due Date22-MAR-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-96-2-VV Expiration Date: 03/9/11 Vol: 0.1

LCS Isotope(s): Am241/Cm244 LCS Code(s): / Expiration Date: / Vol(s): /

Spike Isotope(s): Am241/Cm244 Spike Code(s): / Expiration Date: / Vol(s): /

Prep Date: 3/25/10 Initials: AYB Pipet ID: 11042319 Balance ID: 193502098 Witness: AW 3/26/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l / l)	Am/Cm Det #
248824001-1	RE46-10-11926	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	1	1	1.251	231
248824002-1	RE46-10-11925	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	2	2	1.259	232
248860001-1	RE46-10-13782	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	3	3	1.251	233
248860002-1	RE46-10-13783	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	4	4	1.259	234
248860003-1	RE46-10-13777	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	5	5	1.258	240
248860004-1	RE46-10-13775	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	6	6	1.253	241
248860005-1	RE46-10-13776	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	7	7	1.258	242
248860006-1	RE46-10-13781	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	8	8	1.259	243
248860007-1	RE46-10-13779	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	9	9	1.252	244
248860008-1	RE46-10-13780	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	10	10	1.259	245
248860009-1	RE46-10-13778	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	11	11	1.259	246
248867001-1	RE46-10-12931	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	12	12	1.253	247
248867002-1	RE46-10-12932	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	13	13	1.258	248
248867003-1	RE46-10-12934	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	14	14	1.255	235
248867004-1	RE46-10-12933	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	15	15	1.253	236
1202072522-1	MB for batch 965811	MB		.05 pCi/g	SOIL	QC ACCOUNT		16	16	1	237
1202072523-1	RE46-10-12931(248867001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	05-MAR-10	17	17	1.255	238
1202072524-1	LCS for batch 965811	LCS		.05 pCi/g	SOIL	QC ACCOUNT		18	18	0.102	239

*SRM 0244-B EXP: 04/30/20

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 3/30/10

Blank Correction Report

Batch ID 965811

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202072523	DUP	Americium-241	1.26 g	-0.00142	0.00145	0.0212	-.00469048	pCi/g	NO
1202072524	LCS	Americium-241	0.102 g	29.0	2.19	0.228	-.05794118	pCi/g	NO
1202072522	MB	Americium-241	1.00 g	-0.00591	0.00361	0.0261	-.00591	pCi/g	NO
248824001	RE46-10-11926	Americium-241	1.25 g	0.00195	0.00237	0.0217	-.004728	pCi/g	NO
248824002	RE46-10-11925	Americium-241	1.26 g	-0.00838	0.00327	0.0236	-.00469048	pCi/g	NO
248860001	RE46-10-13782	Americium-241	1.25 g	0.00355	0.00288	0.0222	-.004728	pCi/g	NO
248860002	RE46-10-13783	Americium-241	1.26 g	0.00114	0.00292	0.024	-.00469048	pCi/g	NO
248860003	RE46-10-13777	Americium-241	1.26 g	0.0022	0.002	0.0265	-.00469048	pCi/g	NO
248860004	RE46-10-13775	Americium-241	1.25 g	8.16E-05	0.00151	0.022	-.004728	pCi/g	NO
248860005	RE46-10-13776	Americium-241	1.26 g	-0.00102	0.00172	0.0205	-.00469048	pCi/g	NO
248860006	RE46-10-13781	Americium-241	1.26 g	0.00355	0.00244	0.0243	-.00469048	pCi/g	NO
248860007	RE46-10-13779	Americium-241	1.25 g	5.86E-05	0.00148	0.0217	-.004728	pCi/g	NO
248860008	RE46-10-13780	Americium-241	1.26 g	0.00476	0.00273	0.0226	-.00469048	pCi/g	NO
248860009	RE46-10-13778	Americium-241	1.26 g	0.000934	0.00243	0.0269	-.00469048	pCi/g	NO
248867001	RE46-10-12931	Americium-241	1.25 g	-0.00415	0.00255	0.0213	-.004728	pCi/g	NO
248867002	RE46-10-12932	Americium-241	1.25 g	-0.00165	0.00225	0.0206	-.004728	pCi/g	NO
248867003	RE46-10-12934	Americium-241	1.26 g	0.00204	0.00244	0.0223	-.00469048	pCi/g	NO
248867004	RE46-10-12933	Americium-241	1.25 g	-0.000954	0.00206	0.0245	-.004728	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 247	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248867001_AM	DETECTOR S/N : 79440	BKG FILE : B247.CNF;94
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 39.7832	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 21:47:19	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W247.CNF;31
% YIELD : 86.483		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.9678E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5567.438	4.925	1.000	-2.858	2.880	2.7707	99.94000	-4.15E-03	2.55E-03	8.68E-03	2.13E-02	2.55E-03
AM243	5270.000	5277.115	56.870	566.000	562.400	3.600	1.8974	99.78000	8.18E-01	6.45E-02	5.95E-03	1.58E-02	3.47E-02
CM-242	6102.000	6027.518	9.234	2.000	2.000	0.000	4.0092	100.0000	3.23E-03	2.29E-03	1.26E-02	2.90E-02	2.28E-03
CM-3/4	5795.020	5764.574	93.573	4.000	1.840	2.160	4.8510	100.0000	2.68E-03	3.43E-03	1.52E-02	3.43E-02	3.43E-03
CM-5/6	5386.000	5373.456	0.000	6.000	6.000	0.000	6.1294	86.09000	1.01E-02	4.18E-03	2.23E-02	4.92E-02	4.13E-03
CM-247	4946.000	4864.947	128.047	5.000	4.280	0.720	6.3427	79.30000	7.83E-03	4.33E-03	2.50E-02	5.50E-02	4.30E-03
CM-248	5078.600	5073.172	9.850	12.000	11.280	0.720	11.0244	91.00000	1.80E-02	5.77E-03	3.79E-02	8.02E-02	5.64E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

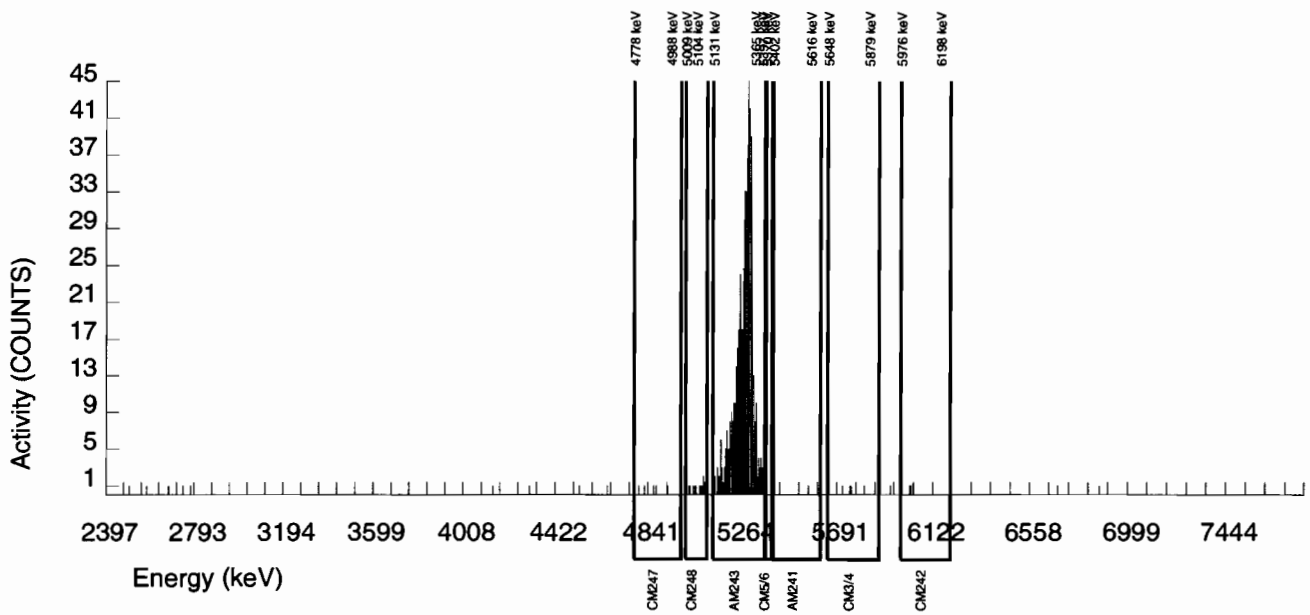

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 248	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248867002_AM	DETECTOR S/N : 79441	BKG FILE : B248.CNF;96
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 40.4154	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 21:47:21	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W248.CNF;31
% YIELD : 87.812		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.9980E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5508.881	39.372	2.000	-1.169	2.160	2.7707	99.94000	-1.65E-03	2.25E-03	8.41E-03	2.06E-02	2.25E-03
AM243	5270.000	5276.020	60.544	583.000	580.120	2.880	1.6971	99.78000	8.18E-01	6.38E-02	5.16E-03	1.41E-02	3.41E-02
CM-242	6102.000	6048.974	7.229	6.000	5.280	0.720	4.0092	100.0000	8.27E-03	4.03E-03	1.22E-02	2.82E-02	4.00E-03
CM-3/4	5795.020	5755.239	137.803	7.000	4.840	2.160	4.8510	100.0000	6.83E-03	4.15E-03	1.47E-02	3.33E-02	4.13E-03
CM-5/6	5386.000	5375.162	0.000	11.000	11.000	0.000	6.1294	86.09000	1.80E-02	5.55E-03	2.16E-02	4.76E-02	5.42E-03
CM-247	4946.000	4903.781	177.175	8.000	6.560	1.440	6.3427	79.30000	1.16E-02	5.39E-03	2.43E-02	5.34E-02	5.33E-03
CM-248	5078.600	5065.913	81.144	14.000	14.000	0.000	11.0244	91.00000	2.16E-02	5.96E-03	3.68E-02	7.77E-02	5.78E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

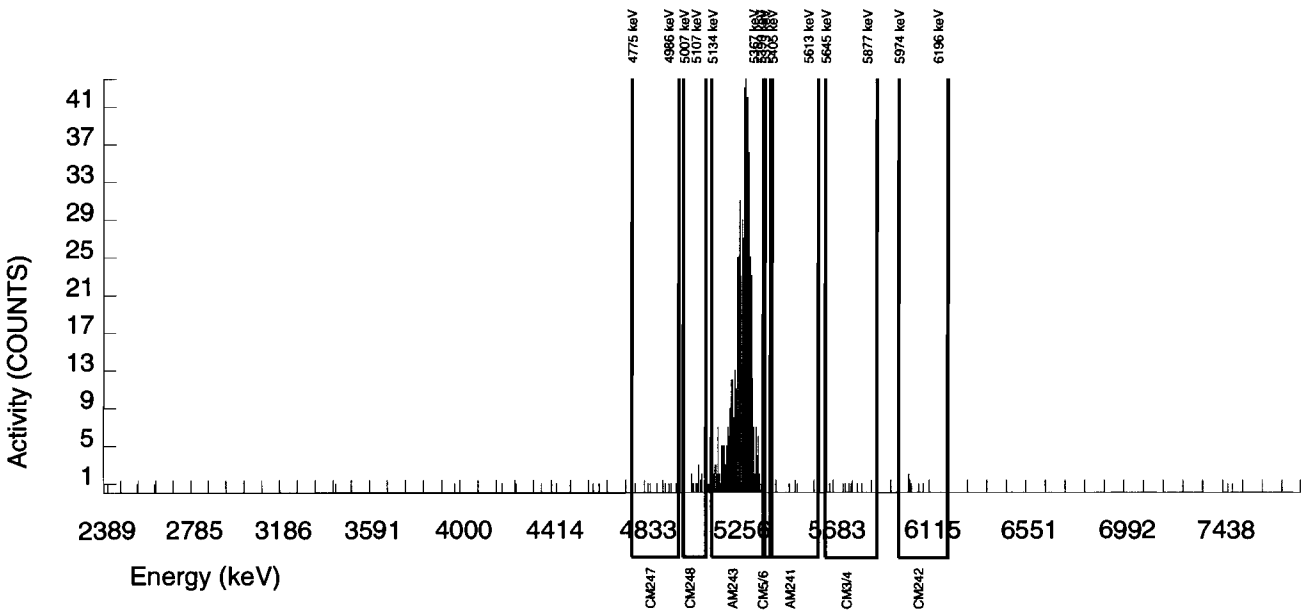

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 235	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248867003_AM	DETECTOR S/N : 79428	BKG FILE : B235.CNF;93
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 39.7692	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 21:46:49	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W235.CNF;30
% YIELD : 82.649		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.8805E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5547.641	53.409	3.000	1.345	0.720	2.7707	99.94000	2.04E-03	2.44E-03	9.07E-03	2.23E-02	2.44E-03
AM243	5270.000	5271.833	45.928	538.000	537.280	0.720	0.8485	99.78000	8.17E-01	6.51E-02	2.78E-03	9.68E-03	3.53E-02
CM-242	6102.000	6028.092	63.845	2.000	2.000	0.000	4.0092	100.0000	3.38E-03	2.40E-03	1.31E-02	3.03E-02	2.39E-03
CM-3/4	5795.020	5768.165	73.053	5.000	2.840	2.160	4.8510	100.0000	4.32E-03	3.90E-03	1.59E-02	3.59E-02	3.89E-03
CM-5/6	5386.000	5376.021	0.000	4.000	4.000	0.000	6.1294	86.09000	7.05E-03	3.55E-03	2.33E-02	5.14E-02	3.52E-03
CM-247	4946.000	4878.679	186.623	4.000	4.000	0.000	6.3427	79.30000	7.65E-03	3.86E-03	2.62E-02	5.75E-02	3.83E-03
CM-248	5078.600	5061.150	9.822	8.000	8.000	0.000	11.0244	91.00000	1.33E-02	4.80E-03	3.96E-02	8.38E-02	4.71E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

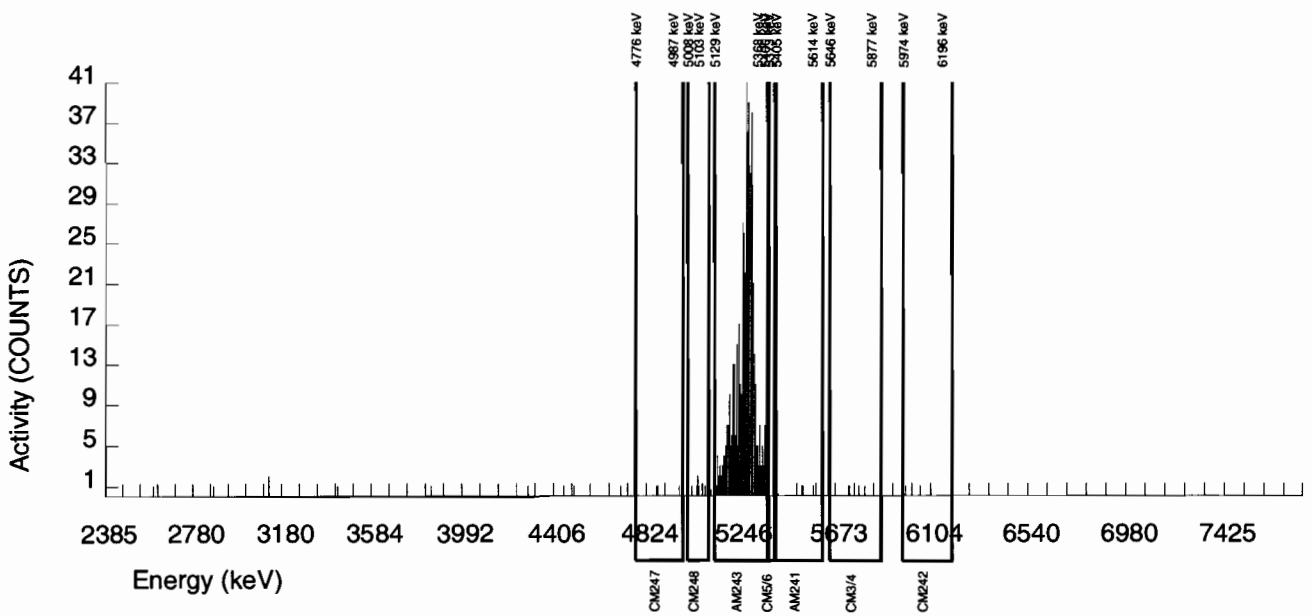

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 236	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248867004_AM	DETECTOR S/N : 79429	BKG FILE : B236.CNF;93
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 41.3400	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 21:46:51	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W236.CNF;30
% YIELD : 72.405		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.6475E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5486.674	4.918	1.000	-0.571	0.720	2.7707	99.94000	-9.54E-04	2.06E-03	9.98E-03	2.45E-02	2.06E-03
AM243	5270.000	5267.830	52.569	490.000	489.280	0.720	0.8485	99.78000	8.18E-01	6.70E-02	3.06E-03	1.07E-02	3.70E-02
CM-242	6102.000	6071.605	14.754	2.000	2.000	0.000	4.0092	100.0000	3.71E-03	2.64E-03	1.44E-02	3.34E-02	2.63E-03
CM-3/4	5795.020	5737.011	113.112	6.000	3.120	2.880	4.8510	100.0000	5.22E-03	4.77E-03	1.75E-02	3.94E-02	4.75E-03
CM-5/6	5386.000	5382.880	0.000	2.000	2.000	0.000	6.1294	86.09000	3.88E-03	2.75E-03	2.56E-02	5.65E-02	2.74E-03
CM-247	4946.000	4927.957	0.000	11.000	10.280	0.720	6.3427	79.30000	2.16E-02	7.29E-03	2.88E-02	6.33E-02	7.14E-03
CM-248	5078.600	5065.849	24.589	22.000	22.000	0.000	11.0244	91.00000	4.03E-02	9.03E-03	4.36E-02	9.22E-02	8.60E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

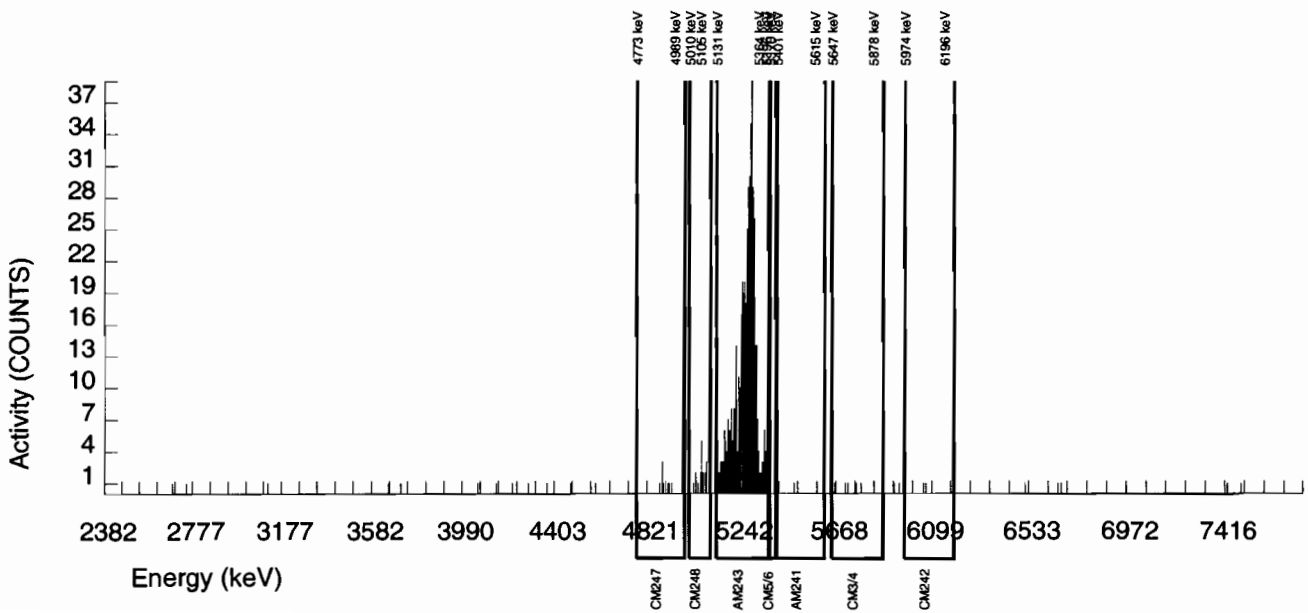

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 237	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202072522_AM	DETECTOR S/N : 79430	BKG FILE : B237.CNF;93
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 41.0426	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 21:46:54	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W237.CNF;30
% YIELD : 85.684		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3148E+01 pCi/G	NOMINAL : 3.3148E+01 pCi/G
RESULTS : 1.9496E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5505.079	34.542	2.000	-3.320	4.320	2.7707	99.94000	-5.91E-03	3.61E-03	1.06E-02	2.61E-02	3.61E-03
AM243	5270.000	5277.094	55.959	577.000	574.840	2.160	1.4697	99.78000	1.02E+00	8.02E-02	5.65E-03	1.61E-02	4.29E-02
CM-242	6102.000	6046.952	14.187	3.000	3.000	0.000	4.0092	100.0000	5.46E-03	3.17E-03	1.54E-02	3.56E-02	3.15E-03
CM-3/4	5795.020	5820.809	0.000	3.000	3.000	0.000	4.8510	100.0000	5.34E-03	3.10E-03	1.86E-02	4.21E-02	3.08E-03
CM-5/6	5386.000	5375.778	0.000	7.000	7.000	0.000	6.1294	86.09000	1.45E-02	5.55E-03	2.73E-02	6.03E-02	5.47E-03
CM-247	4946.000	4931.275	0.000	6.000	6.000	0.000	6.3427	79.30000	1.35E-02	5.57E-03	3.07E-02	6.75E-02	5.50E-03
CM-248	5078.600	5077.306	9.869	16.000	16.000	0.000	11.0244	91.00000	3.13E-02	8.09E-03	4.65E-02	9.83E-02	7.82E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

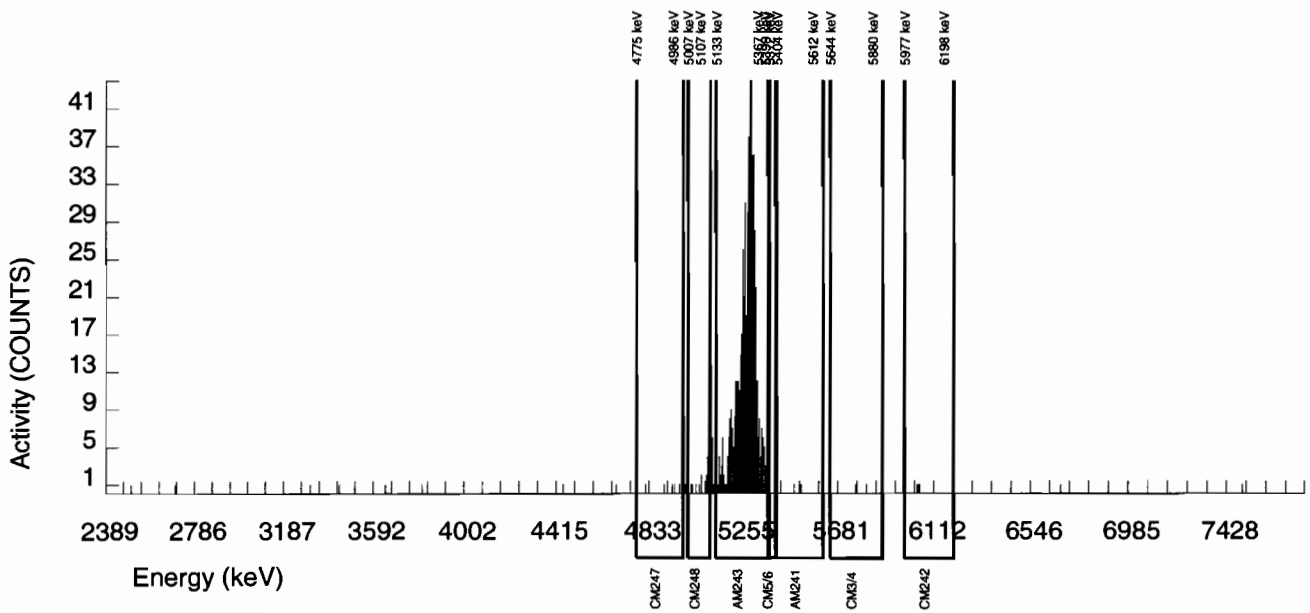

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 238	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202072523_AM	DETECTOR S/N : 79431	BKG FILE : B238.CNF;97
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 40.1819	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 21:46:57	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W238.CNF;32
% YIELD : 85.716		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.9503E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5508.446	0.000	0.000	-0.980	0.000	2.7707	99.94000	-1.42E-03	1.45E-03	8.66E-03	2.12E-02	1.45E-03
AM243	5270.000	5269.723	47.087	563.000	563.000	0.000	0.0000	99.78000	8.17E-01	6.41E-02	0.00E+00	3.93E-03	3.44E-02
CM-242	6102.000	6033.972	7.205	6.000	6.000	0.000	4.0092	100.0000	9.67E-03	4.00E-03	1.25E-02	2.90E-02	3.95E-03
CM-3/4	5795.020	5765.440	127.535	4.000	3.280	0.720	4.8510	100.0000	4.76E-03	3.10E-03	1.51E-02	3.42E-02	3.08E-03
CM-5/6	5386.000	5377.899	4.905	1.000	1.000	0.000	6.1294	86.09000	1.68E-03	1.68E-03	2.22E-02	4.90E-02	1.68E-03
CM-247	4946.000	4939.447	4.905	8.000	8.000	0.000	6.3427	79.30000	1.46E-02	5.25E-03	2.50E-02	5.49E-02	5.16E-03
CM-248	5078.600	5061.650	0.000	19.000	19.000	0.000	11.0244	91.00000	3.02E-02	7.22E-03	3.78E-02	8.00E-02	6.93E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

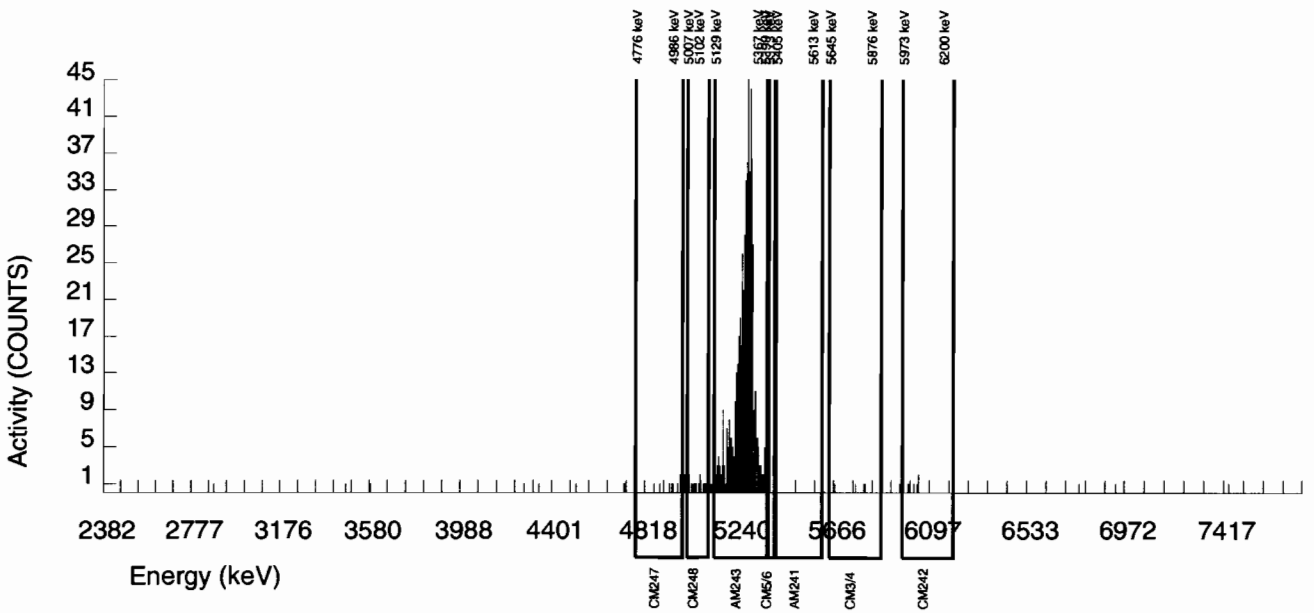

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965811	CHAMBER : 239	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202072524_AM	DETECTOR S/N : 79432	BKG FILE : B239.CNF;93
SAMPLE QTY : 0.102 G	AVERAGE %EFFICIENCY : 39.3422	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 21:46:58	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W239.CNF;30
% YIELD : 100.185		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3148E+01 pCi/G	NOMINAL : 3.3148E+01 pCi/G
RESULTS : 2.2795E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5491.419	70.872	1863.000	1861.879	0.000	2.7707	99.94000	2.90E+01	2.19E+00	9.31E-02	2.28E-01	6.72E-01
AM243	5270.000	5275.718	60.577	645.000	644.280	0.720	0.8485	99.78000	1.00E+01	8.24E-01	2.86E-02	9.94E-02	3.96E-01
CM-242	6102.000	6029.619	43.745	3.000	3.000	0.000	4.0092	100.0000	4.77E-02	2.78E-02	1.35E-01	3.11E-01	2.76E-02
CM-3/4	5795.020	5751.902	0.000	7.000	4.840	2.160	4.8510	100.0000	7.54E-02	4.59E-02	1.63E-01	3.68E-01	4.55E-02
CM-5/6	5386.000	5383.977	0.000	95.000	95.000	0.000	6.1294	86.09000	1.72E+00	2.15E-01	2.39E-01	5.27E-01	1.76E-01
CM-247	4946.000	4921.181	4.929	7.000	4.840	2.160	6.3427	79.30000	9.50E-02	5.78E-02	2.69E-01	5.90E-01	5.74E-02
CM-248	5078.600	5062.772	0.000	29.000	29.000	0.000	11.0244	91.00000	4.96E-01	9.87E-02	4.07E-01	8.60E-01	9.21E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

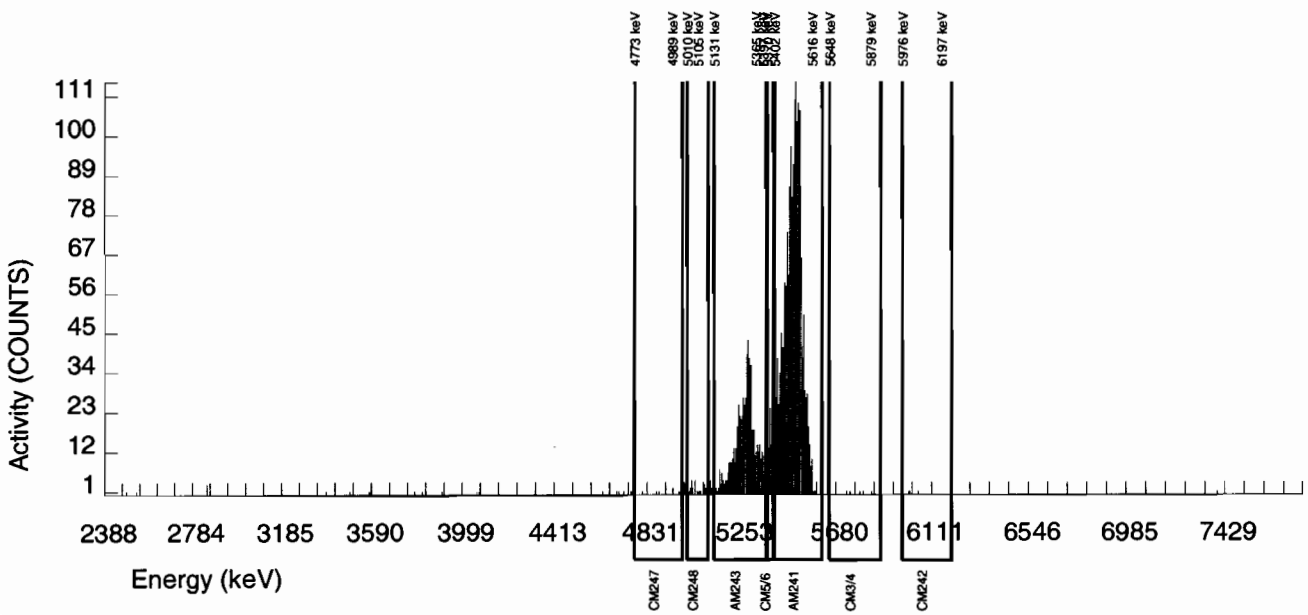

Radiochemistry Batch Checklist, Rev10

Batch# 9658/3 Product: PU Date: 3/30/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 3/30/10

Secondary Review Performed By: [illegible] 3/30/10

1/2

UANC

Plutonium Que Sheet

16-MAR-10

Batch #: 965813 Analyst: AYB1 First Client Due Date:02-APR-10 Internal Due Date:22-MAR-10

Tracer Isotope(s): ~~Pu-242/Pu-238~~ Pu236 Tracer Code: 1430-C Expiration Date: 03/4/11 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: Expiration Date: Vol:

Spike Isotope(s): Pu-239/Pu-238 Spike Code: Expiration Date: Vol:

Prep Date: 3/25/10 Initials: AYB Pipet ID: 11642319 Balance ID: 19350208 Witness: AM 3/25/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) I / D	Pu Det #
248824001-1	RE46-10-11926	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	1	1	1.264	86
248824002-1	RE46-10-11925	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	2	2	1.259	87
248860001-1	RE46-10-13782	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	3	3	1.261	88
248860002-1	RE46-10-13783	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	4	4	1.259	25
248860003-1	RE46-10-13777	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	5	5	1.258	26
248860004-1	RE46-10-13775	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	6	6	1.253	27
248860005-1	RE46-10-13776	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	7	7	1.258	28
248860006-1	RE46-10-13781	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	8	8	1.259	30
248860007-1	RE46-10-13779	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	9	9	1.252	13
248860008-1	RE46-10-13780	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	10	10	1.259	14
248860009-1	RE46-10-13778	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	11	11	1.259	16
248867001-1	RE46-10-12931	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	12	12	1.259	17
248867002-1	RE46-10-12932	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	13	13	1.253	18
248867003-1	RE46-10-12934	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	14	14	1.253	19
248867004-1	RE46-10-12933	SAMPLE		.05 pCi/g	SOIL	LANL010	05-MAR-10	15	15	1.255	20
1202072525-1	MB for batch 965813	MB		.05 pCi/g	SOIL	QC ACCOUNT		16	16	1:0 ~~1.255~~	22
1202072526-1	RE46-10-12931(248867001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	05-MAR-10	17	17	1.255	23
1202072527-1	LCS for batch 965813	LCS		.05 pCi/g	SOIL	QC ACCOUNT		18	18	0.102	24

SRM 0244-B exp. 4/30/2010

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 3/30/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 965813

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202072526	DUP	Plutonium-238	1.26 g	-0.0017	0.00635	0.0209	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	-0.00321	0.00406	0.0177	.005420635	pCi/g	YES
1202072527	LCS	Plutonium-238	0.102 g	2.79	0.306	0.266	.062941176	pCi/g	NO
		Plutonium-239/240	0.102 g	38.2	2.65	0.225	.066960784	pCi/g	NO
1202072525	MB	Plutonium-238	1.00 g	0.00642	0.00852	0.0277	.00642	pCi/g	YES
		Plutonium-239/240	1.00 g	0.00683	0.00445	0.0234	.00683	pCi/g	YES
248824001	RE46-10-11926	Plutonium-238	1.25 g	1.58E-10	0.00266	0.0187	.005136	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00398	0.00398	0.0158	.005464	pCi/g	YES
248824002	RE46-10-11925	Plutonium-238	1.26 g	-0.00269	0.00465	0.0189	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00403	0.00586	0.016	.005420635	pCi/g	YES
248860001	RE46-10-13782	Plutonium-238	1.25 g	-0.00512	0.00572	0.018	.005136	pCi/g	YES
		Plutonium-239/240	1.25 g	-0.00128	0.00384	0.0152	.005464	pCi/g	YES
248860002	RE46-10-13783	Plutonium-238	1.26 g	0.00492	0.00759	0.0224	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.006	0.00415	0.0189	.005420635	pCi/g	YES
248860003	RE46-10-13777	Plutonium-238	1.26 g	0.00491	0.00431	0.0254	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00023	0.00432	0.0215	.005420635	pCi/g	YES
248860004	RE46-10-13775	Plutonium-238	1.25 g	0.00347	0.00246	0.023	.005136	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0052	0.00302	0.0195	.005464	pCi/g	YES
248860005	RE46-10-13776	Plutonium-238	1.26 g	0.00997	0.0045	0.0265	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0185	0.00656	0.0224	.005420635	pCi/g	YES
248860006	RE46-10-13781	Plutonium-238	1.26 g	-0.000875	0.00739	0.0223	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0151	0.00512	0.0189	.005420635	pCi/g	YES
248860007	RE46-10-13779	Plutonium-238	1.25 g	0.0125	0.00629	0.0225	.005136	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00603	0.00418	0.019	.005464	pCi/g	YES
248860008	RE46-10-13780	Plutonium-238	1.26 g	0.0226	0.0111	0.0255	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00491	0.00432	0.0215	.005420635	pCi/g	YES
248860009	RE46-10-13778	Plutonium-238	1.26 g	0.00536	0.00681	0.0212	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00363	0.003	0.0179	.005420635	pCi/g	YES
248867001	RE46-10-12931	Plutonium-238	1.26 g	-0.00699	0.00461	0.0247	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0098	0.00478	0.0208	.005420635	pCi/g	YES
248867002	RE46-10-12932	Plutonium-238	1.25 g	0.00853	0.00636	0.0242	.005136	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0109	0.00451	0.0204	.005464	pCi/g	YES
248867003	RE46-10-12934	Plutonium-238	1.25 g	0.0042	0.008	0.0268	.005136	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0101	0.00455	0.0226	.005464	pCi/g	YES
248867004	RE46-10-12933	Plutonium-238	1.26 g	0.00534	0.0071	0.023	.005095238	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00395	0.00326	0.0195	.005420635	pCi/g	YES

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 017	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248867001_PU	DETECTOR S/N : 78791	BKG FILE : B017.CNF;1950
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 29.7179	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 09:33:15	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W017.CNF;1264
% YIELD : 90.137		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0000E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7041E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5761.216	57.930	580.000	569.200	10.800	3.2863	100.0000	1.07E+00	7.86E-02	1.32E-02	3.13E-02	4.57E-02
PU-238	5499.000	5452.533	19.836	2.000	-3.760	5.760	2.4495	99.90000	-6.99E-03	4.61E-03	9.81E-03	2.47E-02	4.61E-03
PU-9/0	5155.000	5158.643	0.000	6.000	5.280	0.720	1.9732	99.90000	9.80E-03	4.78E-03	7.91E-03	2.08E-02	4.74E-03
PU242	4890.000	4822.817	0.000	0.000	-0.720	0.720	*******	100.0000	-1.34E-03	2.29E-03	4.99E-01	1.00E+00	2.29E-03
PU-244	4589.000	4524.268	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.86E-03	2.59E-02	5.68E-02	1.86E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

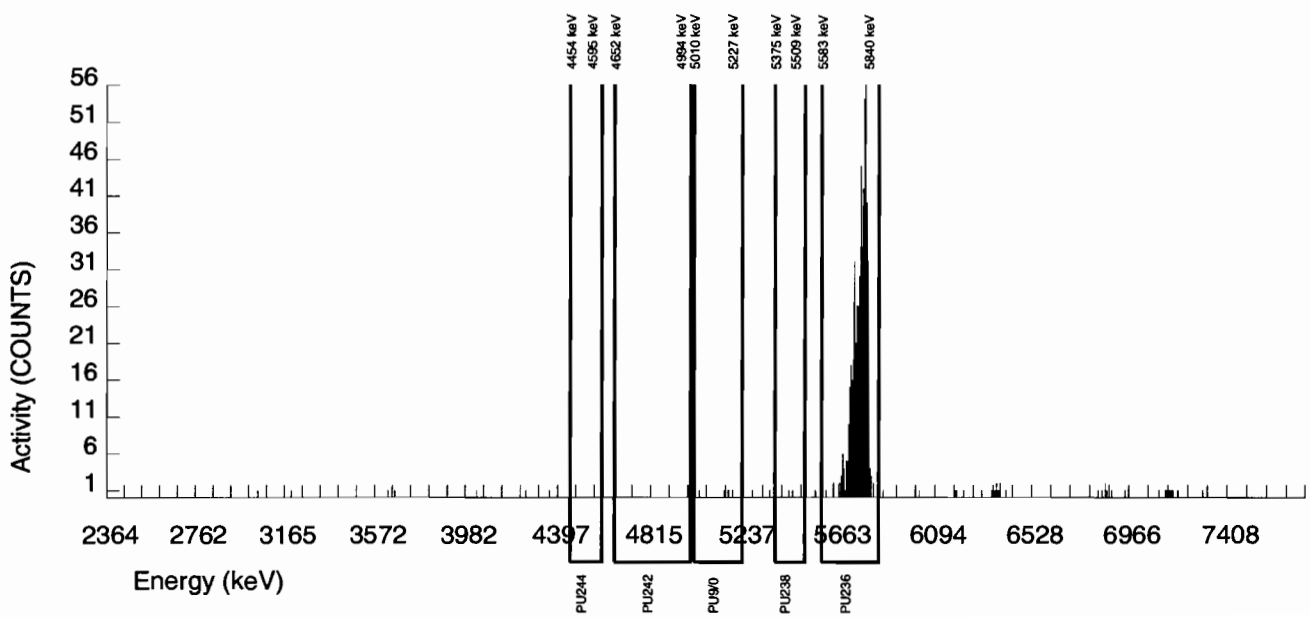

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 018	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248867002_PU	DETECTOR S/N : 78782	BKG FILE : B018.CNF;1102
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 33.5036	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 09:33:15	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W018.CNF;308
% YIELD : 81.879		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0000E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.4564E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5756.639	55.455	593.000	582.920	10.080	3.1749	100.0000	1.08E+00	7.83E-02	1.25E-02	2.99E-02	4.53E-02
PU-238	5499.000	5439.481	0.000	9.000	4.680	4.320	2.4495	99.90000	8.53E-03	6.36E-03	9.63E-03	2.42E-02	6.34E-03
PU-9/0	5155.000	5164.806	9.872	6.000	6.000	0.000	1.9732	99.90000	1.09E-02	4.51E-03	7.76E-03	2.04E-02	4.46E-03
PU242	4890.000	4835.768	123.399	2.000	-0.160	2.160	*******	100.0000	-2.91E-04	3.43E-03	4.89E-01	9.84E-01	3.43E-03
PU-244	4589.000	4524.079	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.83E-03	2.54E-02	5.57E-02	1.82E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

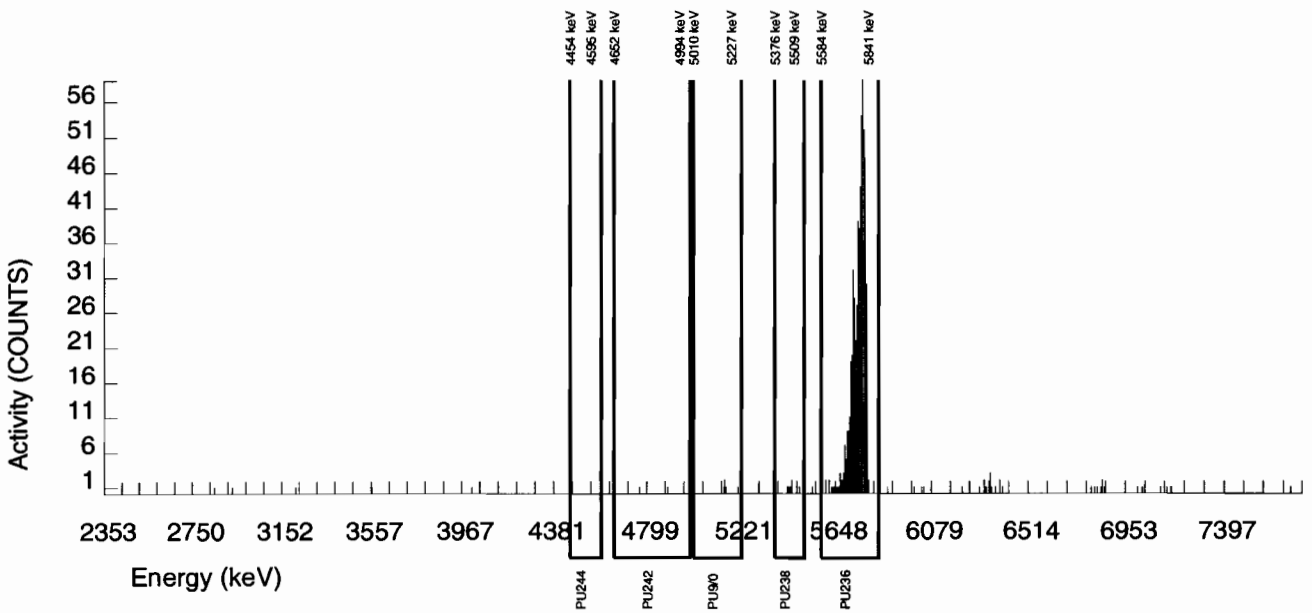

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 019	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248867003_PU	DETECTOR S/N : 78786	BKG FILE : B019.CNF;1114
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 30.6248	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 09:33:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W019.CNF;309
% YIELD : 80.909		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0000E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.4273E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5779.303	47.699	533.000	526.520	6.480	2.5456	100.0000	1.08E+00	8.09E-02	1.11E-02	2.76E-02	4.75E-02
PU-238	5499.000	5446.018	0.000	10.000	2.080	7.920	2.4495	99.90000	4.20E-03	8.00E-03	1.07E-02	2.68E-02	8.00E-03
PU-9/0	5155.000	5150.410	7.441	5.000	5.000	0.000	1.9732	99.90000	1.01E-02	4.55E-03	8.59E-03	2.26E-02	4.51E-03
PU242	4890.000	4716.918	5.066	1.000	-1.880	2.880	*******	100.0000	-3.79E-03	3.53E-03	5.42E-01	1.09E+00	3.53E-03
PU-244	4589.000	4524.910	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	2.02E-03	2.81E-02	6.17E-02	2.02E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

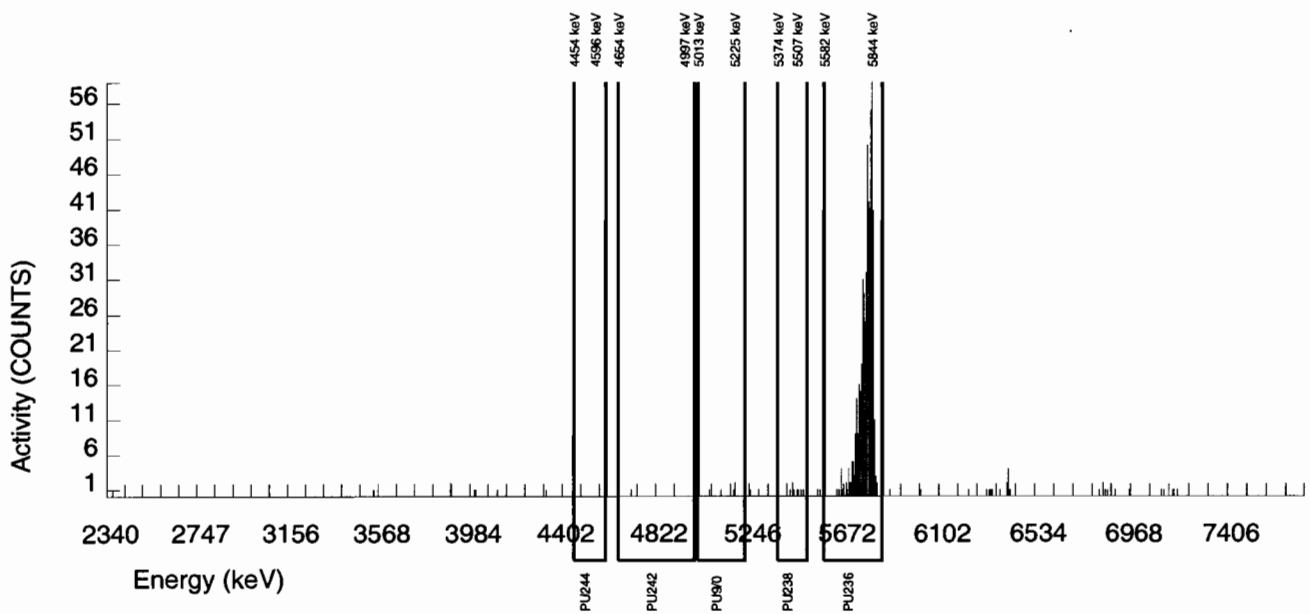

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 020	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248867004_PU	DETECTOR S/N : 78787	BKG FILE : B020.CNF;1109
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 34.9079	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 09:33:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W020.CNF;322
% YIELD : 82.419		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0000E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.4726E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5775.619	48.899	620.000	611.360	8.640	2.9394	100.0000	1.08E+00	7.68E-02	1.10E-02	2.67E-02	4.41E-02
PU-238	5499.000	5460.060	9.949	11.000	3.080	7.920	2.4495	99.90000	5.34E-03	7.10E-03	9.17E-03	2.30E-02	7.09E-03
PU-9/0	5155.000	5162.423	69.646	3.000	2.280	0.720	1.9732	99.90000	3.95E-03	3.26E-03	7.38E-03	1.95E-02	3.25E-03
PU242	4890.000	4802.435	4.975	1.000	-0.440	1.440	*******	100.0000	-7.62E-04	2.47E-03	4.66E-01	9.37E-01	2.47E-03
PU-244	4589.000	4526.460	0.000	0.000	-0.720	0.720	6.4609	99.90000	-1.25E-03	2.14E-03	2.42E-02	5.31E-02	2.14E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

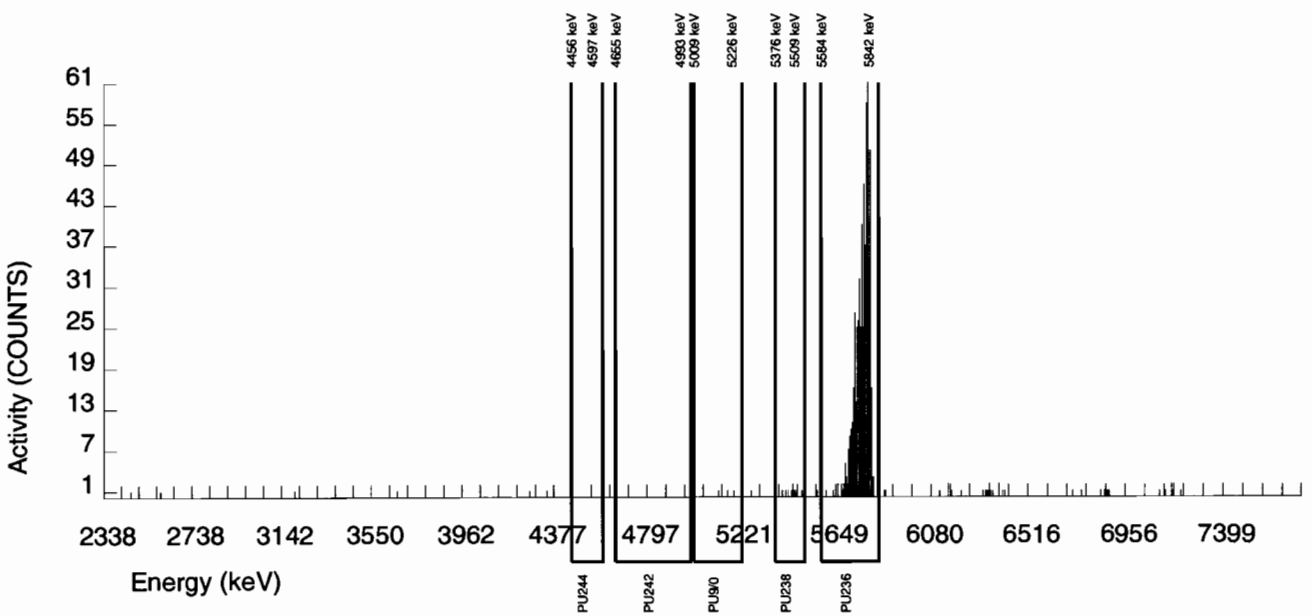

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 022	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202072525_PU	DETECTOR S/N : 72530	BKG FILE : B022.CNF;1121
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 32.3779	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 09:33:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W022.CNF;320
% YIELD : 92.836		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9604E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7483E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5772.790	50.094	656.000	638.720	17.280	4.1569	100.0000	1.33E+00	9.45E-02	1.87E-02	4.30E-02	5.40E-02
PU-238	5499.000	5443.001	57.406	11.000	3.080	7.920	2.4495	99.90000	6.42E-03	8.52E-03	1.10E-02	2.77E-02	8.52E-03
PU-9/0	5155.000	5129.756	169.723	4.000	3.280	0.720	1.9732	99.90000	6.83E-03	4.45E-03	8.87E-03	2.34E-02	4.43E-03
PU242	4890.000	4889.131	0.000	4.000	1.120	2.880	*******	100.0000	2.33E-03	5.13E-03	5.60E-01	1.13E+00	5.13E-03
PU-244	4589.000	4523.068	4.992	1.000	0.280	0.720	6.4609	99.90000	5.83E-04	2.57E-03	2.90E-02	6.37E-02	2.57E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

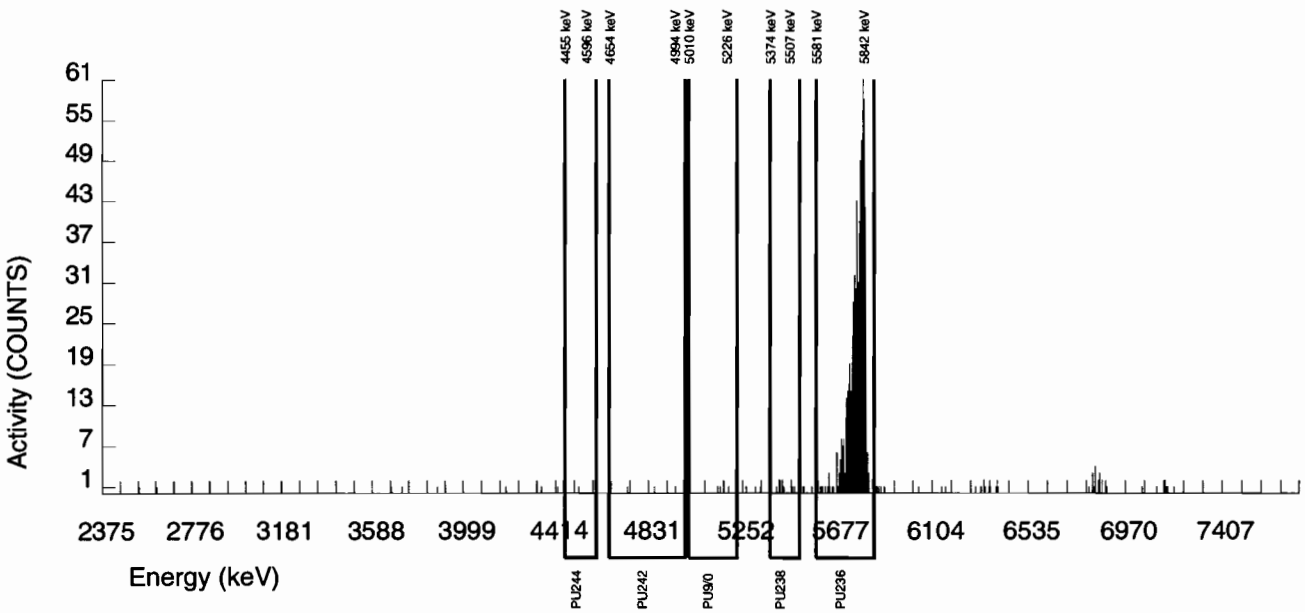

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 023	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202072526_PU	DETECTOR S/N : 78264	BKG FILE : B023.CNF;1121
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 33.6228	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 09:33:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W023.CNF;303
% YIELD : 94.225		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0000E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8267E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5771.276	31.189	684.000	673.200	10.800	3.2863	100.0000	1.08E+00	7.45E-02	1.12E-02	2.66E-02	4.21E-02
PU-238	5499.000	5445.841	83.533	9.000	-1.080	10.080	2.4495	99.90000	-1.70E-03	6.35E-03	8.32E-03	2.09E-02	6.35E-03
PU-9/0	5155.000	5179.405	0.000	3.000	-2.040	5.040	1.9732	99.90000	-3.21E-03	4.06E-03	6.71E-03	1.77E-02	4.06E-03
PU242	4890.000	4840.904	269.302	5.000	-8.680	13.680	*******	100.0000	-1.37E-02	6.06E-03	4.23E-01	8.51E-01	6.06E-03
PU-244	4589.000	4575.782	4.987	1.000	-1.880	2.880	6.4609	99.90000	-2.96E-03	2.76E-03	2.20E-02	4.82E-02	2.76E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

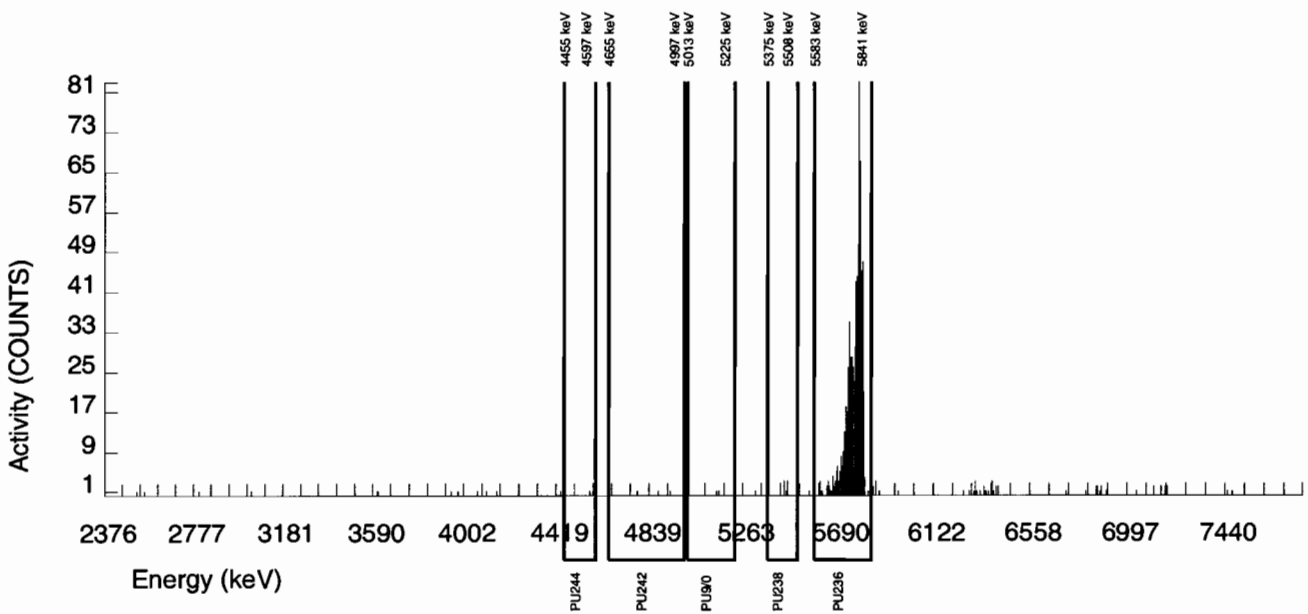

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965813	CHAMBER : 024	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202072527_PU	DETECTOR S/N : 76542	BKG FILE : B024.CNF;1114
SAMPLE QTY : 0.102 G	AVERAGE %EFFICIENCY : 34.2324	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 09:33:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W024.CNF;303
% YIELD : 89.445		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9604E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6480E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5778.125	48.844	660.000	650.640	9.360	3.0594	100.0000	1.31E+01	1.00E+00	1.32E-01	3.19E-01	5.19E-01
PU-238	5499.000	5483.209	0.000	145.000	139.240	5.760	2.4495	99.90000	2.79E+00	3.06E-01	1.06E-01	2.66E-01	2.45E-01
PU-9/0	5155.000	5163.137	35.601	1904.000	1902.560	1.440	1.9732	99.90000	3.81E+01	2.65E+00	8.54E-02	2.25E-01	8.75E-01
PU242	4890.000	4865.821	269.540	13.000	11.560	1.440	*******	100.0000	2.32E-01	7.66E-02	5.39E+00	1.08E+01	7.51E-02
PU-244	4589.000	4533.554	104.821	2.000	-0.880	2.880	6.4609	99.90000	-1.76E-02	4.05E-02	2.79E-01	6.13E-01	4.05E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

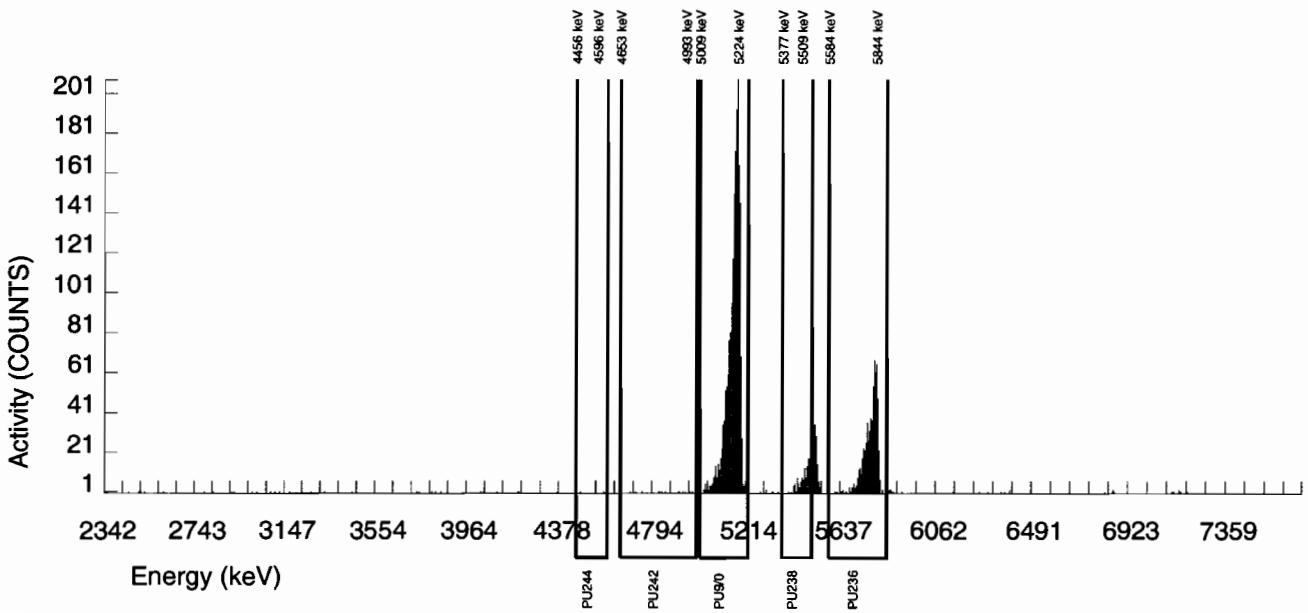

Radiochemistry Batch Checklist, Rev10

Batch# 965814 Product: Th Date: 3/30/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.		✓	DER 811473
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time	✓		
Sample was correctly preserved if required			N/A
Smears Taken for Radioactive batches			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
CC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	✓		DER 811473
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	✓		DER 811473
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JoLM 3/30/10

Secondary Review Performed By: [signature] 3/30/10

4/2

Thorium Que Sheet

26-MAR-10

Batch #: 965814 Analyst: AYB1 First Client Due Date:02-APR-10 Internal Due Date:22-MAR-10

Tracer Isotope: Th-229 Tracer Code: 0934-L Expiration Date: 03/9/11 Vol: 0.1

LCS Isotope: Th-230 LCS Code: Expiration Date: Vol:

Spike Isotope: Th-230 Spike Code: Expiration Date: Vol:

Prep Date: 3/25/10 Initials: AYB Pipet ID: 16423/9 Balance ID: 19350208 Witness: AM 3/25/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Th Det #
248824001-1	RE46-10-11926	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	1	1	0.251	173
248824002-1	RE46-10-11925	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	2	2	0.250	174
248863001-1	RE46-10-12936	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	3	3	0.258	177
248863002-1	RE46-10-12930	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	4	4	0.259	178
248863003-1	RE46-10-12929	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	5	5	0.258	179
248863004-1	RE46-10-12935	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	6	6	0.257	180
248865001-1	RE46-10-11924	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	7	7	0.251	181
248867001-1	RE46-10-12931	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	8	8	0.258	182
248867002-1	RE46-10-12932	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	9	9	0.251	183
248867003-1	RE46-10-12934	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	10	10	0.256	184
248867004-1	RE46-10-12933	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	11	11	0.253	185
249179001-1	RE46-10-13437	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	12	12	0.252	186
249179002-1	RE46-10-13436	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	13	13	0.256	187
249179003-1	RE46-10-13434	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	14	14	0.259	188
249179004-1	RE46-10-13438	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	15	15	0.257	189
249179005-1	RE46-10-13435	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	16	16	0.251	190
249179006-1	RE46-10-13439	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	17	17	0.253	191
249179007-1	RE46-10-13463	SAMPLE		.1 pCi/g	SOIL	LANL010	09-MAR-10	18	18	0.251	192
1202072528-1	MB for batch 965814	MB		.1 pCi/g	SOIL	QC ACCOUNT		19	19	↓	193
1202072529-1	RE46-10-12931(248867001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	05-MAR-10	20	20	0.259	194
1202072530-1	LCS for batch 965814	LCS		.1 pCi/g	SOIL	QC ACCOUNT		21	21	0.108	195

Data Reviewed By: JeLMI 3/30/10

GEL Laboratories LLC, Radiochemistry Division

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Choose SOP Used: GL-RAD-A-032, GL-RAD-A-038, GL-RAD-A-043

Blank Correction Report

Batch ID 965814

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202072529	DUP	Thorium-228	0.259 g	1.98	0.188	0.164	-.00138224	pCi/g	NO
		Thorium-230	0.259 g	1.24	0.132	0.206	.022664093	pCi/g	NO
		Thorium-232	0.259 g	1.62	0.159	0.0878	.005444015	pCi/g	NO
1202072530	LCS	Thorium-228	0.108 g	1.33	0.201	0.378	-.00331481	pCi/g	NO
		Thorium-230	0.108 g	26.3	2.12	0.474	.054351852	pCi/g	NO
		Thorium-232	0.108 g	1.10	0.172	0.202	.013055556	pCi/g	NO
1202072528	MB	Thorium-228	1.00 g	-0.000358	0.00567	0.0395	-.000358	pCi/g	NO
		Thorium-230	1.00 g	0.00587	0.00328	0.0496	.00587	pCi/g	YES
		Thorium-232	1.00 g	0.00141	0.00301	0.0212	.00141	pCi/g	YES
248824001	RE46-10-11926	Thorium-228	0.251 g	1.55	0.162	0.178	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	1.18	0.129	0.223	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.72	0.171	0.0951	.005617530	pCi/g	NO
248824002	RE46-10-11925	Thorium-228	0.250 g	2.22	0.205	0.165	-.001432	pCi/g	NO
		Thorium-230	0.250 g	1.08	0.119	0.207	.02348	pCi/g	NO
		Thorium-232	0.250 g	1.95	0.184	0.0884	.00564	pCi/g	NO
248863001	RE46-10-12936	Thorium-228	0.258 g	1.84	0.186	0.184	-.00138760	pCi/g	NO
		Thorium-230	0.258 g	1.11	0.127	0.232	.022751938	pCi/g	NO
		Thorium-232	0.258 g	1.77	0.178	0.0987	.005465116	pCi/g	NO
248863002	RE46-10-12930	Thorium-228	0.259 g	1.76	0.174	0.169	-.00138224	pCi/g	NO
		Thorium-230	0.259 g	1.17	0.128	0.213	.022664093	pCi/g	NO
		Thorium-232	0.259 g	1.89	0.182	0.0906	.005444015	pCi/g	NO
248863003	RE46-10-12929	Thorium-228	0.258 g	1.94	0.184	0.161	-.00138760	pCi/g	NO
		Thorium-230	0.258 g	1.10	0.119	0.202	.022751938	pCi/g	NO
		Thorium-232	0.258 g	1.83	0.174	0.0863	.005465116	pCi/g	NO
248863004	RE46-10-12935	Thorium-228	0.257 g	1.71	0.181	0.205	-.00139300	pCi/g	NO
		Thorium-230	0.257 g	1.47	0.160	0.257	.022840467	pCi/g	NO
		Thorium-232	0.257 g	1.69	0.178	0.110	.005486381	pCi/g	NO
248865001	RE46-10-11924	Thorium-228	0.251 g	1.83	0.190	0.198	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	1.13	0.131	0.249	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.68	0.174	0.106	.005617530	pCi/g	NO
248867001	RE46-10-12931	Thorium-228	0.258 g	1.53	0.159	0.174	-.00138760	pCi/g	NO
		Thorium-230	0.258 g	0.881	0.105	0.218	.022751938	pCi/g	NO
		Thorium-232	0.258 g	1.36	0.143	0.093	.005465116	pCi/g	NO
248867002	RE46-10-12932	Thorium-228	0.251 g	1.26	0.133	0.162	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	0.971	0.110	0.203	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.21	0.128	0.0865	.005617530	pCi/g	NO
248867003	RE46-10-12934	Thorium-228	0.256 g	0.0354	0.0303	0.158	-.00139844	pCi/g	NO
		Thorium-230	0.256 g	0.00981	0.0132	0.198	.022929688	pCi/g	YES
		Thorium-232	0.256 g	-0.00151	0.0072	0.0844	.005507813	pCi/g	YES
248867004	RE46-10-12933	Thorium-228	0.253 g	1.54	0.156	0.168	-.00141502	pCi/g	NO
		Thorium-230	0.253 g	0.916	0.107	0.210	.023201581	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248867004	RE46-10-12933	Thorium-232	0.253 g	1.25	0.133	0.0897	.005573123	pCi/g	NO
249179001	RE46-10-13437	Thorium-228	0.252 g	1.83	0.190	0.203	-.00142063	pCi/g	NO
		Thorium-230	0.252 g	0.970	0.119	0.255	.023293651	pCi/g	NO
		Thorium-232	0.252 g	1.64	0.174	0.109	.005595238	pCi/g	NO
249179002	RE46-10-13436	Thorium-228	0.256 g	2.25	0.237	0.237	-.00139844	pCi/g	NO
		Thorium-230	0.256 g	2.26	0.234	0.298	.022929688	pCi/g	NO
		Thorium-232	0.256 g	1.60	0.180	0.127	.005507813	pCi/g	NO
249179003	RE46-10-13434	Thorium-228	0.259 g	2.24	0.237	0.235	-.00138224	pCi/g	NO
		Thorium-230	0.259 g	2.74	0.272	0.294	.022664093	pCi/g	NO
		Thorium-232	0.259 g	1.90	0.204	0.126	.005444015	pCi/g	NO
249179004	RE46-10-13438	Thorium-228	0.257 g	2.04	0.198	0.179	-.00139300	pCi/g	NO
		Thorium-230	0.257 g	1.31	0.141	0.224	.022840467	pCi/g	NO
		Thorium-232	0.257 g	1.91	0.186	0.0956	.005486381	pCi/g	NO
249179005	RE46-10-13435	Thorium-228	0.251 g	2.00	0.195	0.178	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	1.39	0.146	0.223	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.54	0.158	0.0953	.005617530	pCi/g	NO
249179006	RE46-10-13439	Thorium-228	0.253 g	2.04	0.201	0.186	-.00141502	pCi/g	NO
		Thorium-230	0.253 g	1.60	0.165	0.233	.023201581	pCi/g	NO
		Thorium-232	0.253 g	1.94	0.190	0.0994	.005573123	pCi/g	NO
249179007	RE46-10-13463	Thorium-228	0.251 g	2.05	0.200	0.179	-.00142629	pCi/g	NO
		Thorium-230	0.251 g	1.14	0.127	0.224	.023386454	pCi/g	NO
		Thorium-232	0.251 g	1.81	0.179	0.0956	.005617530	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814	CHAMBER : 182	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0248867001_TH	DETECTOR S/N : 74440	BKG FILE : B182.CNF;184
SAMPLE QTY : 0.258 G	AVERAGE %EFFICIENCY : 25.9311	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 17:05:41	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W182.CNF;58
% YIELD : 85.016		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.8794E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5993.047	0.000	16.000	8.000	8.000	2.0641	57.44000	2.80E-01	1.72E-01	6.62E-02	1.70E-01	1.71E-01
TH-228	5363.000	5404.155	39.178	195.000	187.826	7.000	4.1318	99.94000	1.53E+00	1.59E-01	7.62E-02	1.74E-01	1.15E-01
TH229	4900.000	4902.941	66.033	486.000	485.000	1.000	1.0000	99.52000	3.86E+00	3.28E-01	1.85E-02	5.86E-02	1.76E-01
TH-230	4671.390	4665.209	17.769	116.000	110.927	0.000	5.3214	99.70000	8.81E-01	1.05E-01	9.83E-02	2.18E-01	8.37E-02
TH-232	3972.000	3994.840	84.512	173.000	171.811	1.000	1.9427	100.0000	1.36E+00	1.43E-01	3.58E-02	9.30E-02	1.04E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

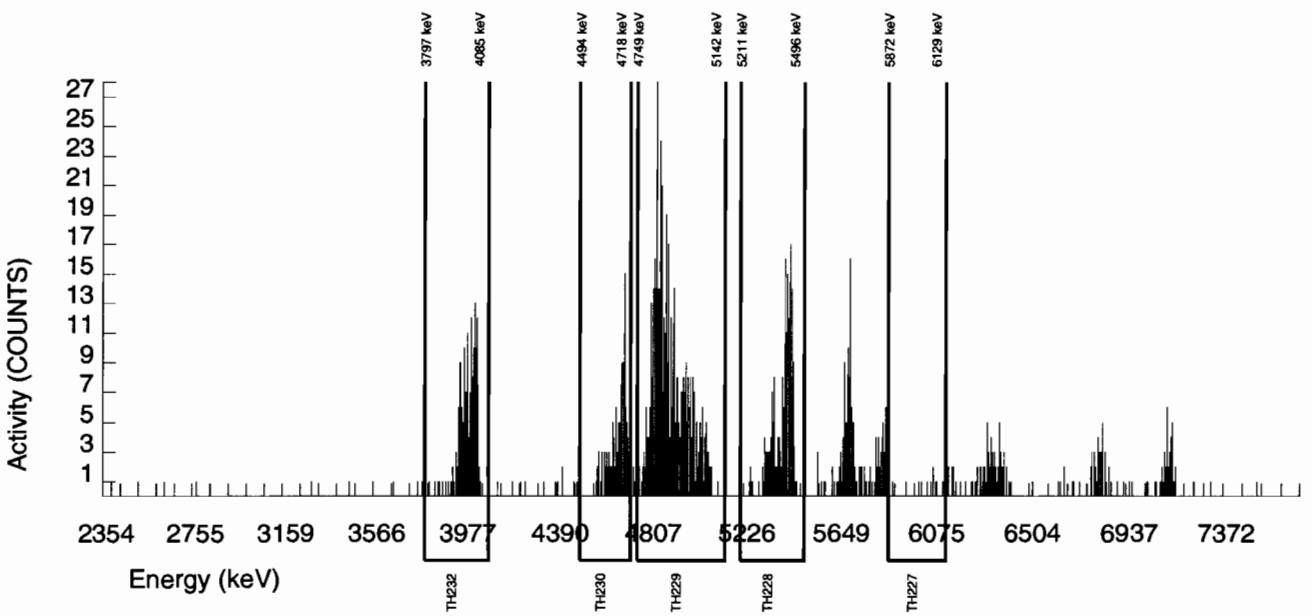

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814	CHAMBER : 183	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0248867002_TH	DETECTOR S/N : 74441	BKG FILE : B183.CNF;184
SAMPLE QTY : 0.251 G	AVERAGE %EFFICIENCY : 27.4921	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 17:05:44	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W183.CNF;58
% YIELD : 88.621		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.9591E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6021.309	94.412	32.000	27.000	5.000	2.0641	57.44000	8.77E-01	2.07E-01	6.16E-02	1.58E-01	1.98E-01
TH-228	5363.000	5399.372	63.132	169.000	166.807	2.000	4.1318	99.94000	1.26E+00	1.33E-01	7.08E-02	1.62E-01	9.88E-02
TH229	4900.000	4897.554	99.806	537.000	536.000	1.000	1.0000	99.52000	3.97E+00	3.28E-01	1.72E-02	5.45E-02	1.72E-01
TH-230	4671.390	4662.699	39.298	139.000	131.393	2.000	5.3214	99.70000	9.71E-01	1.10E-01	9.15E-02	2.03E-01	8.60E-02
TH-232	3972.000	3988.920	46.040	165.000	164.791	0.000	1.9427	100.0000	1.21E+00	1.28E-01	3.33E-02	8.65E-02	9.46E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)
* BKG Sg of TH229 calculated as sqrt(BKG AREA).
* Corrections made to the following net areas due to tracer impurity:
  TH-228 , TH-230, TH-232

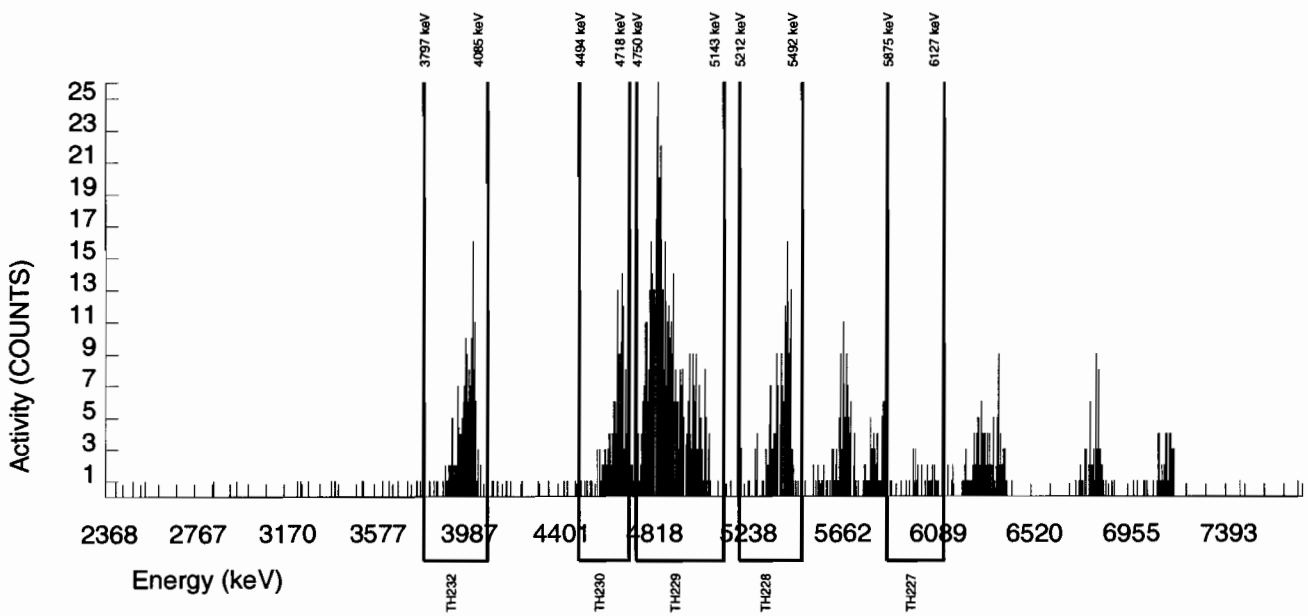

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814	CHAMBER : 184	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0248867003_TH	DETECTOR S/N : 74442	BKG FILE : B184.CNF;186
SAMPLE QTY : 0.256 G	AVERAGE %EFFICIENCY : 27.1043	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 17:05:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W184.CNF;58
% YIELD : 90.392		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.9982E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5889.204	0.000	16.000	7.000	9.000	2.0641	57.44000	2.22E-01	1.59E-01	6.00E-02	1.54E-01	1.58E-01
TH-228	5363.000	5418.563	40.206	11.000	4.806	6.000	4.1318	99.94000	3.54E-02	3.03E-02	6.91E-02	1.58E-01	3.02E-02
TH229	4900.000	4913.975	41.499	541.000	539.000	2.000	1.4142	99.52000	3.89E+00	3.22E-01	2.37E-02	6.70E-02	1.68E-01
TH-230	4671.390	4659.735	15.077	8.000	1.362	1.000	5.3214	99.70000	9.81E-03	1.32E-02	8.92E-02	1.98E-01	1.32E-02
TH-232	3972.000	3938.909	0.000	0.000	-0.211	0.000	1.9427	100.0000	-1.51E-03	7.20E-03	3.25E-02	8.44E-02	7.18E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

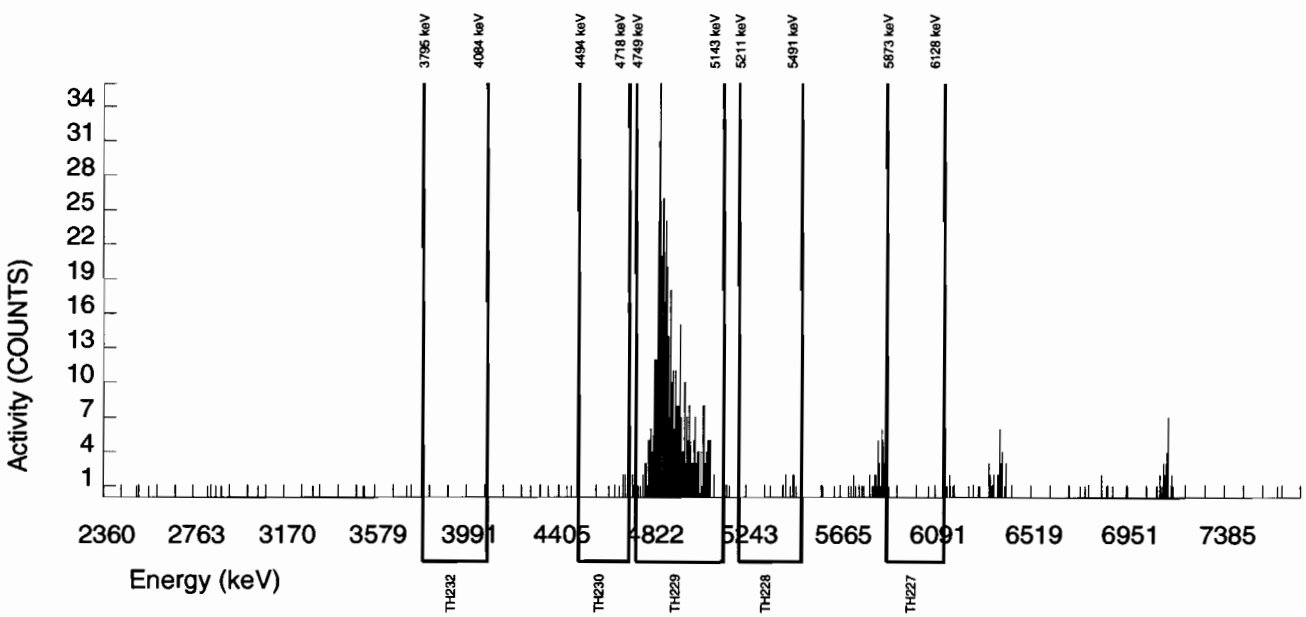

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814	CHAMBER : 185	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S0248867004_TH	DETECTOR S/N : 68615	BKG FILE : B185.CNF;166
SAMPLE QTY : 0.253 G	AVERAGE %EFFICIENCY : 26.7982	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 17:05:48	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W185.CNF;58
% YIELD : 87.014		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.9235E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6010.381	0.000	38.000	29.000	9.000	2.0641	57.44000	9.77E-01	2.41E-01	6.38E-02	1.64E-01	2.31E-01
TH-228	5363.000	5399.317	93.681	199.000	196.816	2.000	4.1318	99.94000	1.54E+00	1.56E-01	7.34E-02	1.68E-01	1.11E-01
TH229	4900.000	4891.188	101.807	514.000	513.000	1.000	1.0000	99.52000	3.94E+00	3.30E-01	1.78E-02	5.65E-02	1.74E-01
TH-230	4671.390	4659.801	59.045	126.000	119.634	1.000	5.3214	99.70000	9.16E-01	1.07E-01	9.48E-02	2.10E-01	8.45E-02
TH-232	3972.000	3991.924	52.413	165.000	163.800	1.000	1.9427	100.0000	1.25E+00	1.33E-01	3.45E-02	8.97E-02	9.83E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

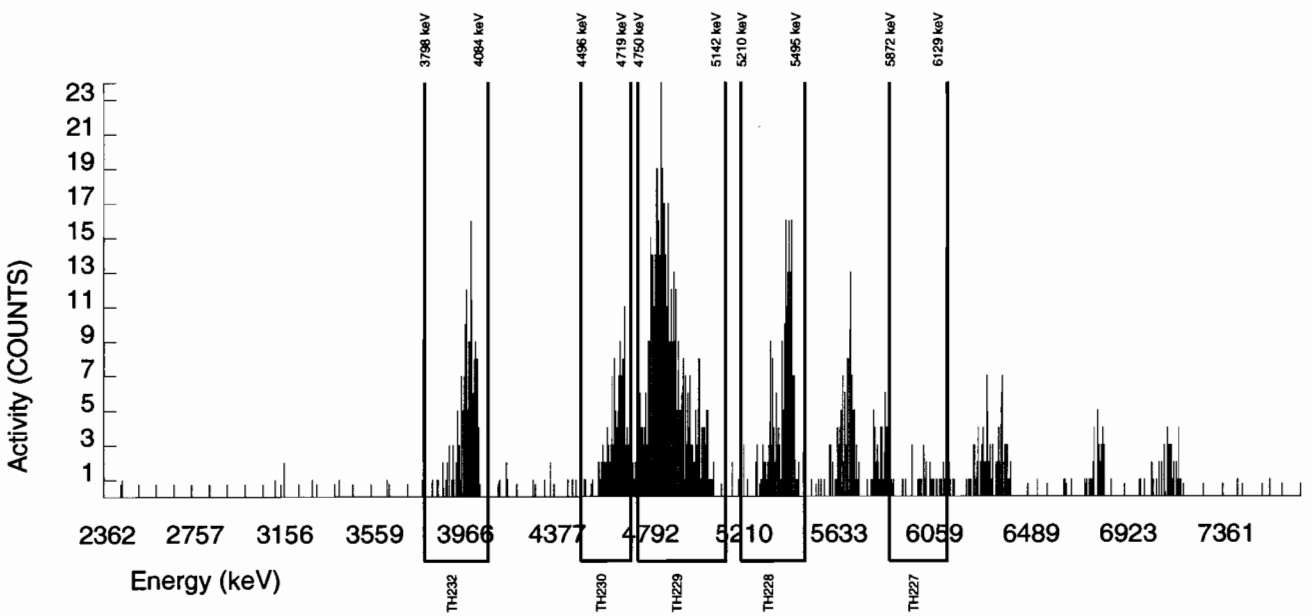

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814	CHAMBER : 193	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S1202072528_TH	DETECTOR S/N : 68627	BKG FILE : B193.CNF;168
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 26.8495	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 17:06:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W193.CNF;56
% YIELD : 93.112		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 2.0583E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5991.142	0.000	7.000	4.000	3.000	2.0641	57.44000	1.51E-02	1.20E-02	1.51E-02	3.86E-02	1.20E-02
TH-228	5363.000	5346.354	231.470	5.000	-0.198	5.000	4.1318	99.94000	-3.58E-04	5.67E-03	1.73E-02	3.95E-02	5.67E-03
TH229	4900.000	4900.657	36.674	558.000	550.000	8.000	2.8284	99.52000	9.96E-01	8.15E-02	1.19E-02	2.87E-02	4.31E-02
TH-230	4671.390	4682.640	33.859	9.000	3.247	0.000	5.3214	99.70000	5.87E-03	3.28E-03	2.24E-02	4.96E-02	3.26E-03
TH-232	3972.000	4057.201	44.324	2.000	0.785	1.000	1.9427	100.0000	1.41E-03	3.01E-03	8.14E-03	2.12E-02	3.01E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

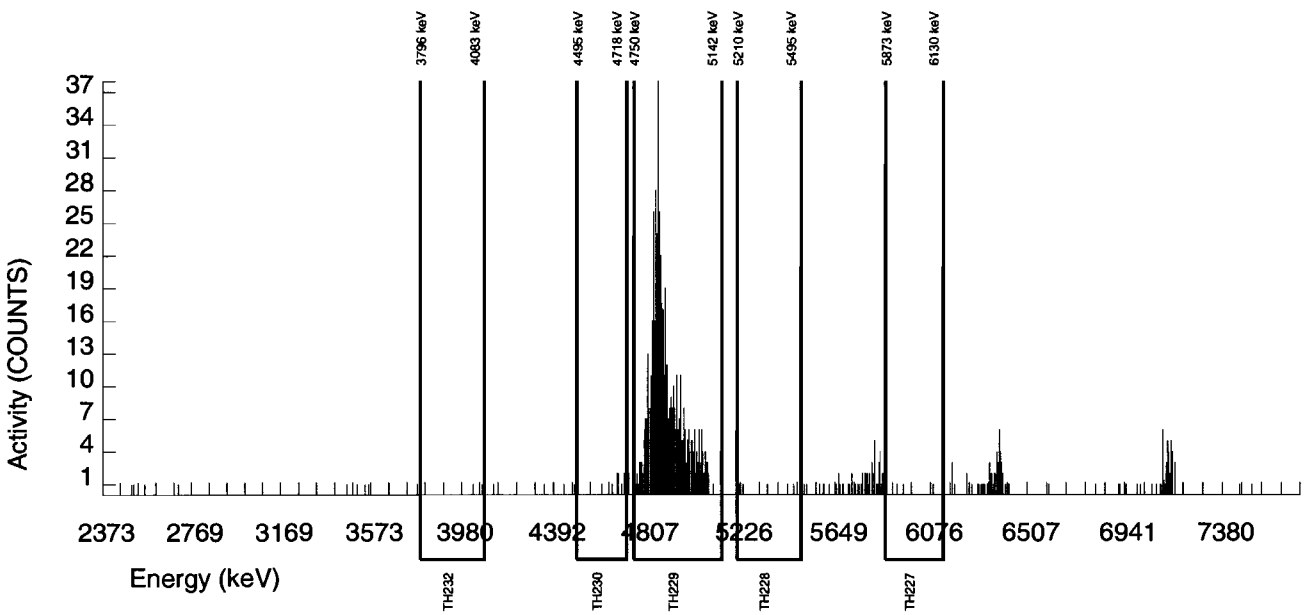

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814	CHAMBER : 194	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S1202072529_TH	DETECTOR S/N : 68635	BKG FILE : B194.CNF;166
SAMPLE QTY : 0.259 G	AVERAGE %EFFICIENCY : 26.3668	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 29-MAR-2010 17:06:09	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W194.CNF;57
% YIELD : 88.265		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.9512E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	6000.047	0.000	54.000	47.000	7.000	2.0641	57.44000	1.55E+00	2.80E-01	6.25E-02	1.60E-01	2.58E-01
TH-228	5363.000	5391.808	43.595	262.000	257.816	4.000	4.1318	99.94000	1.98E+00	1.88E-01	7.19E-02	1.64E-01	1.25E-01
TH229	4900.000	4894.379	86.369	512.000	512.000	0.000	0.0000	99.52000	3.84E+00	3.22E-01	0.00E+00	2.03E-02	1.70E-01
TH-230	4671.390	4656.261	78.749	173.000	165.644	2.000	5.3214	99.70000	1.24E+00	1.32E-01	9.28E-02	2.06E-01	9.76E-02
TH-232	3972.000	3986.583	94.920	217.000	216.800	0.000	1.9427	100.0000	1.62E+00	1.59E-01	3.38E-02	8.78E-02	1.10E-01

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

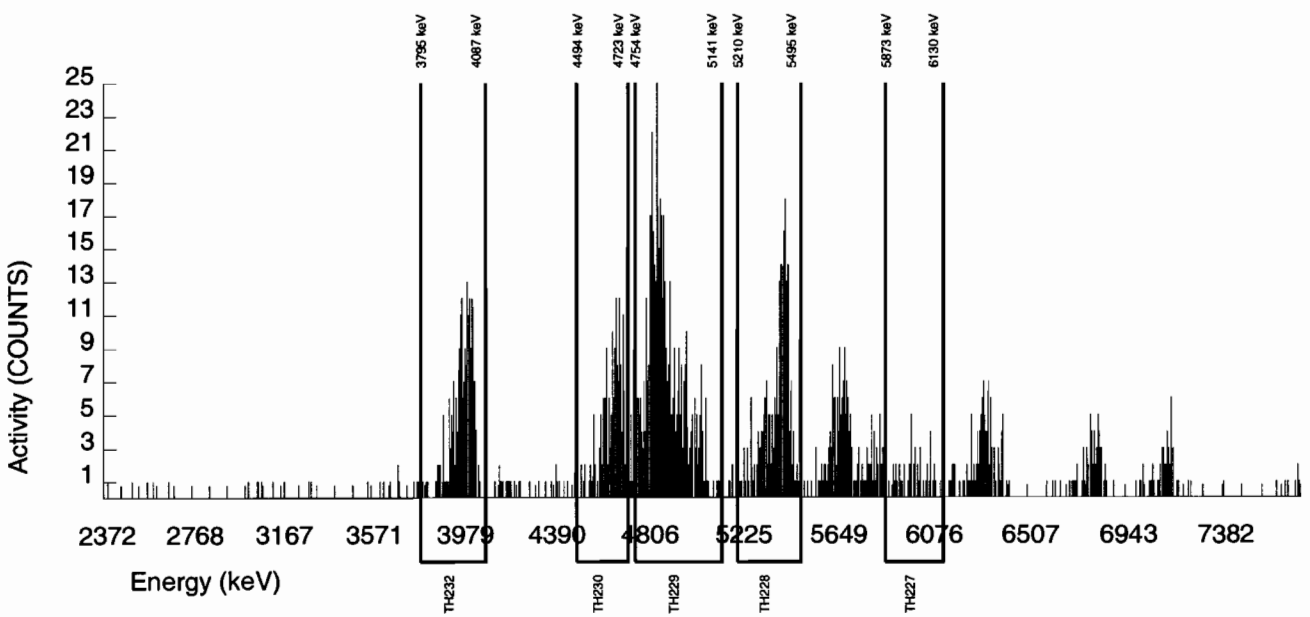

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965814	CHAMBER : 195	LIB FILE : ENV_ALPHA_TH
SAMPLE ID : S1202072530_TH	DETECTOR S/N : 68636	BKG FILE : B195.CNF;173
SAMPLE QTY : 0.108 G	AVERAGE %EFFICIENCY : 27.9072	BKG DATE : 28-MAR-2010
SAMPLE DATE : 25-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 17:06:12	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W195.CNF;56
% YIELD : 86.814		CAL DATE : 22-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 0934-L	ID : 0244-A	ID : 0244-A
NUCLIDE : TH229	NUCLIDE : TH-230	NUCLIDE : TH-230
NOMINAL : 2.2106E+00 dpm	NOMINAL : 2.5618E+01 pCi/G	NOMINAL : 2.5618E+01 pCi/G
RESULTS : 1.9191E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AC-227	5994.040	5997.009	225.079	24.000	17.000	7.000	2.0641	57.44000	6.15E-01	2.07E-01	1.44E-01	3.69E-01	2.01E-01
TH-228	5363.000	5408.161	87.704	89.000	76.808	12.000	4.1318	99.94000	1.33E+00	2.01E-01	1.66E-01	3.78E-01	1.74E-01
TH229	4900.000	4905.651	44.507	549.000	533.000	16.000	4.0000	99.52000	9.22E+00	8.15E-01	1.61E-01	3.69E-01	4.11E-01
TH-230	4671.390	4669.708	35.287	1545.000	1523.425	16.000	5.3214	99.70000	2.63E+01	2.12E+00	2.14E-01	4.74E-01	6.81E-01
TH-232	3972.000	3997.294	80.579	70.000	63.792	6.000	1.9427	100.0000	1.10E+00	1.72E-01	7.78E-02	2.02E-01	1.50E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of TH229 calculated as sqrt(BKG AREA).

* Corrections made to the following net areas due to tracer impurity:
TH-228 , TH-230, TH-232

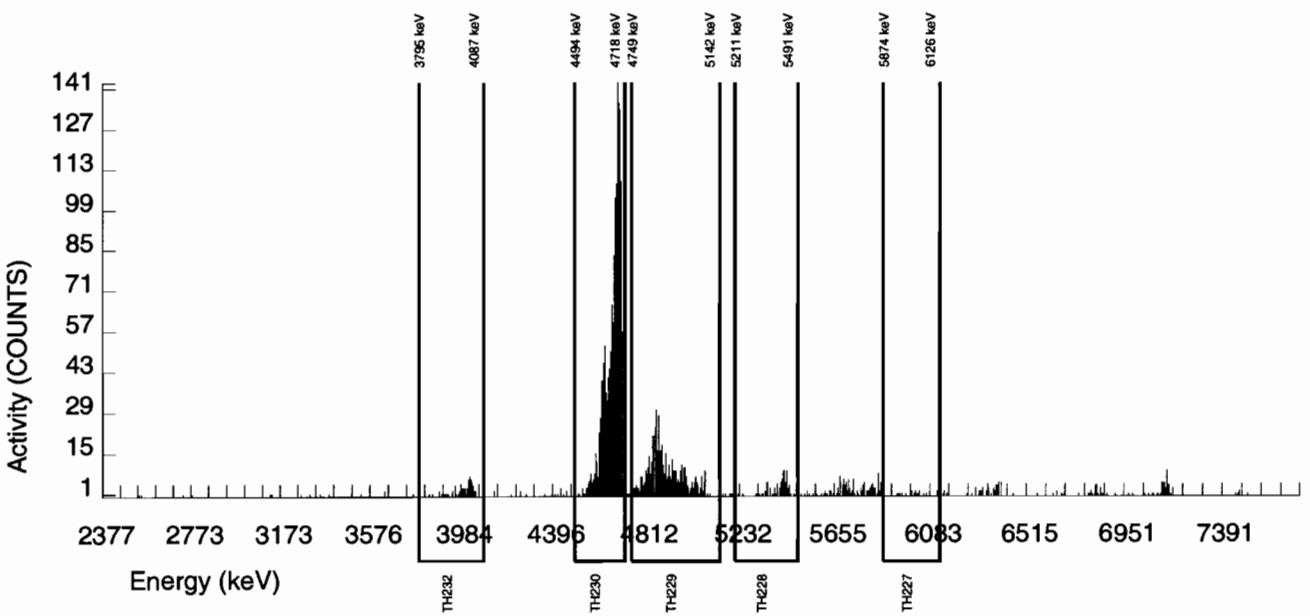

Radiochemistry Batch Checklist, Rev10

Batch# 971197 Product: U Date: 4/5/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.		✓	DER 813673
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.		✓	Case Narrative / DER 813673
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	✓		DER 813673
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	✓		DER 813673
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JpLMLr 4/5/10

Secondary Review Performed By: [signature] 4/5/10

4/2

LANL

P ✓

Uranium Que Sheet

01-APR-10

Batch #: 971197 Analyst: AYB1 First Client Due Date:02-APR-10 Internal Due Date:27-MAR-10

Tracer Isotope: U-232/U-236 Tracer Code: 283-17 Expiration Date: 12/9/10 Vol: 0.1 Analyzed Sequentially with Pu: AYB 4/1/10

LCS Isotope: U-238 LCS Code: ___ 4/1/10 Expiration Date: ___ 4/1/10 Vol: ___ 4/1/10 Pu-236 ID: ___

Spike Isotope: U-238 Spike Code: ___ Expiration Date: ___ Vol: ___ Vol.: ___

Prep Date: 4/1/10 Initials: ~~1642317~~ 1642319 AYB Pipet ID: 1642319 Balance ID: 19350208 Witness: MDA 4/1/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g / l / f)	U Det #
248824001-2	RE46-10-11926	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	1	1	0.516	132
248824002-2	RE46-10-11925	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	2	2	0.517	135
248860001-2	RE46-10-13782	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	3	3	0.501	136
248860002-2	RE46-10-13783	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	4	4	0.506	~~137~~ 1
248860003-2	RE46-10-13777	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	5	5	0.513	~~138~~ 2
248860004-2	RE46-10-13775	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	6	6	0.508	139
248860005-2	RE46-10-13776	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	7	7	0.509	140
248860006-2	RE46-10-13781	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	8	8	0.504	141
248860007-2	RE46-10-13779	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	9	9	0.501	142
248860008-2	RE46-10-13780	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	10	10	0.511	143
248860009-2	RE46-10-13778	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	11	11	0.508	115
248867001-2	RE46-10-12931	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	12	12	0.507	116
248867002-2	RE46-10-12932	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	13	13	0.510	126
248867003-2	RE46-10-12934	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	14	14	0.502	127
248867004-2	RE46-10-12933	SAMPLE		.1 pCi/g	SOIL	LANL010	05-MAR-10	15	15	0.508	128
1202085875-1	MB for batch 971197	MB		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		16	16	1.00	129
1202085876-2	RE46-10-12931(248867001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	05-MAR-10	17	17	0.509	130
1202085877-1	LCS for batch 971197	LCS		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		18	18	0.106	131

2nd 4/5/10

*SRM 0244 -A exp: 10/31/20

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: JLM 4/5/10

Blank Correction Report

Batch ID 971197

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202085876	DUP	Uranium-233/234	0.509 g	2.17	0.205	0.183	.007131631	pCi/g	NO
		Uranium-235/236	0.509 g	0.0804	0.0285	0.112	.004597250	pCi/g	NO
		Uranium-238	0.509 g	0.950	0.107	0.129	.011159136	pCi/g	NO
1202085877	LCS	Uranium-233/234	0.106 g	5.33	0.523	0.527	.034245283	pCi/g	NO
		Uranium-235/236	0.106 g	0.231	0.0753	0.322	.022075472	pCi/g	NO
		Uranium-238	0.106 g	5.72	0.555	0.371	.053584906	pCi/g	NO
1202085875	MB	Uranium-233/234	1.00 g	0.00363	0.00376	0.0534	.00363	pCi/g	YES
		Uranium-235/236	1.00 g	0.00234	0.00524	0.0328	.00234	pCi/g	YES
		Uranium-238	1.00 g	0.00568	0.00425	0.0375	.00568	pCi/g	YES
248824001	RE46-10-11926	Uranium-233/234	0.516 g	0.855	0.0851	0.112	.007034884	pCi/g	NO
		Uranium-235/236	0.516 g	0.0881	0.0217	0.0682	.004534884	pCi/g	NO
		Uranium-238	0.516 g	1.14	0.107	0.0785	.011007752	pCi/g	NO
248824002	RE46-10-11925	Uranium-233/234	0.517 g	0.902	0.0875	0.106	.007021277	pCi/g	NO
		Uranium-235/236	0.517 g	0.0513	0.0159	0.065	.004526112	pCi/g	NO
		Uranium-238	0.517 g	1.01	0.0955	0.0748	.010986460	pCi/g	NO
248860001	RE46-10-13782	Uranium-233/234	0.501 g	0.746	0.0773	0.114	.007245509	pCi/g	NO
		Uranium-235/236	0.501 g	0.0451	0.0169	0.0698	.004670659	pCi/g	NO
		Uranium-238	0.501 g	0.717	0.0751	0.0803	.011337325	pCi/g	NO
248860002	RE46-10-13783	Uranium-233/234	0.506 g	0.885	0.0838	0.173	.007173913	pCi/g	NO
		Uranium-235/236	0.506 g	0.038	0.0172	0.106	.004624506	pCi/g	NO
		Uranium-238	0.506 g	0.683	0.0832	0.122	.011225296	pCi/g	NO
248860003	RE46-10-13777	Uranium-233/234	0.513 g	0.973	0.121	0.240	.007076023	pCi/g	NO
		Uranium-235/236	0.513 g	0.063	0.0301	0.146	.004561404	pCi/g	NO
		Uranium-238	0.513 g	1.10	0.131	0.168	.011072125	pCi/g	NO
248860004	RE46-10-13775	Uranium-233/234	0.508 g	0.854	0.0998	0.182	.007145669	pCi/g	NO
		Uranium-235/236	0.508 g	0.0479	0.0229	0.111	.004606299	pCi/g	NO
		Uranium-238	0.508 g	0.691	0.0853	0.128	.011181102	pCi/g	NO
248860005	RE46-10-13776	Uranium-233/234	0.509 g	0.779	0.0852	0.140	.007131631	pCi/g	NO
		Uranium-235/236	0.509 g	0.0368	0.0153	0.0854	.004597250	pCi/g	NO
		Uranium-238	0.509 g	0.773	0.0848	0.0983	.011159136	pCi/g	NO
248860006	RE46-10-13781	Uranium-233/234	0.504 g	0.755	0.0851	0.151	.007202381	pCi/g	NO
		Uranium-235/236	0.504 g	0.0396	0.0211	0.0921	.004642857	pCi/g	NO
		Uranium-238	0.504 g	0.855	0.0941	0.106	.011269841	pCi/g	NO
248860007	RE46-10-13779	Uranium-233/234	0.501 g	0.967	0.119	0.226	.007245509	pCi/g	NO
		Uranium-235/236	0.501 g	0.0298	0.0223	0.138	.004670659	pCi/g	NO
		Uranium-238	0.501 g	0.947	0.116	0.159	.011337325	pCi/g	NO
248860008	RE46-10-13780	Uranium-233/234	0.511 g	0.825	0.0832	0.114	.007103718	pCi/g	NO
		Uranium-235/236	0.511 g	0.0448	0.0153	0.0693	.004579256	pCi/g	NO
		Uranium-238	0.511 g	0.837	0.0841	0.0798	.011115460	pCi/g	NO
248860009	RE46-10-13778	Uranium-233/234	0.508 g	0.719	0.0761	0.117	.007145669	pCi/g	NO
		Uranium-235/236	0.508 g	0.046	0.0173	0.0712	.004606299	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248860009	RE46-10-13778	Uranium-238	0.508 g	0.847	0.0855	0.0819	.011181102	pCi/g	NO
248867001	RE46-10-12931	Uranium-233/234	0.507 g	1.71	0.155	0.132	.007159763	pCi/g	NO
		Uranium-235/236	0.507 g	0.0812	0.0225	0.0808	.004615385	pCi/g	NO
		Uranium-238	0.507 g	0.863	0.0905	0.093	.011203156	pCi/g	NO
248867002	RE46-10-12932	Uranium-233/234	0.510 g	0.748	0.0912	0.188	.007117647	pCi/g	NO
		Uranium-235/236	0.510 g	0.00823	0.0143	0.115	.004588235	pCi/g	YES
		Uranium-238	0.510 g	0.878	0.102	0.132	.011137255	pCi/g	NO
248867003	RE46-10-12934	Uranium-233/234	0.502 g	2.64	0.241	0.181	.007231076	pCi/g	NO
		Uranium-235/236	0.502 g	0.111	0.0309	0.111	.004661355	pCi/g	NO
		Uranium-238	0.502 g	0.938	0.106	0.127	.011314741	pCi/g	NO
248867004	RE46-10-12933	Uranium-233/234	0.508 g	0.898	0.098	0.158	.007145669	pCi/g	NO
		Uranium-235/236	0.508 g	0.0346	0.0157	0.0965	.004606299	pCi/g	NO
		Uranium-238	0.508 g	0.840	0.0933	0.111	.011181102	pCi/g	NO

DER Report No.: 813673
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
05-APR-10	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ALPHA SPECTROMETER	DOE EML HASL-300, U-02-RC Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
971197	See Below		

Potentially affected work order(s)(SDG): 248824(10-2305),248860(10-2313),248867(10-2320)

Application Issues:

RDL less than MDA

Specification and Requirements Exception Description:	DER Disposition:
1. Sample 248860003 does not meet the client's tracer yield requirement of 50 - 105%, nor the required detection limit for U235.	1. The sample has been prepped two times and the original analysis meets the client's tracer yield requirements and required detection limits. The results of the first and second analysis meet the relative error ratio duplication requirement. Reporting results.

Originator's Name:

Joseph Moulden 05-APR-10

Data Validator/Group Leader:

Jessica Downey 05-APR-10

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 116	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248867001_UU	DETECTOR S/N : 80004	BKG FILE : B116.CNF;454
SAMPLE QTY : 0.507 G	AVERAGE %EFFICIENCY : 25.9691	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:05	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W116.CNF;113
% YIELD : 72.937		CAL DATE : 19-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5017E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.2834E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5282.761	67.215	852.000	852.000	0.000	0.0000	100.0000	4.00E+00	3.25E-01	0.00E+00	1.27E-02	1.37E-01
U-3/4	4763.020	4742.157	61.352	367.000	365.137	1.000	5.4790	100.0000	1.71E+00	1.55E-01	5.98E-02	1.32E-01	8.99E-02
U-235	4391.000	4384.421	7.334	14.000	14.000	0.000	2.4127	80.90000	8.12E-02	2.25E-02	3.25E-02	8.08E-02	2.17E-02
U-238	4184.730	4167.612	80.033	186.000	184.000	2.000	3.6781	100.0000	8.63E-01	9.05E-02	4.01E-02	9.30E-02	6.43E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

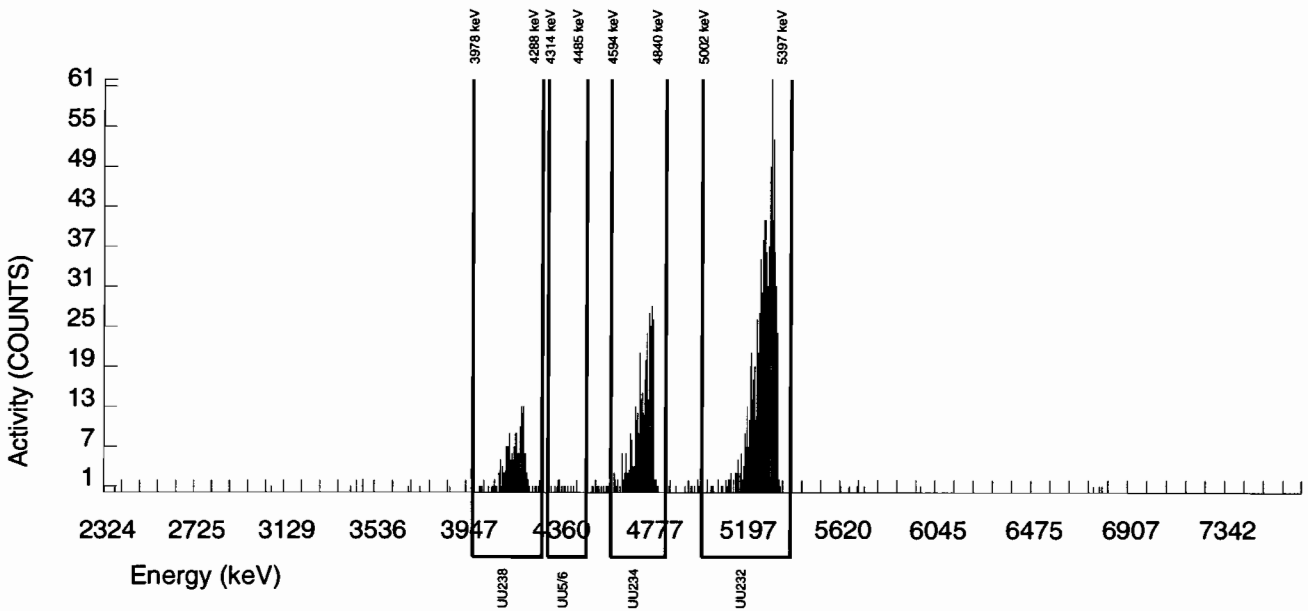

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 126	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248867002_UU	DETECTOR S/N : 75548	BKG FILE : B126.CNF;464
SAMPLE QTY : 0.510 G	AVERAGE %EFFICIENCY : 26.6612	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:21	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W126.CNF;136
% YIELD : 49.781		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5017E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.2410E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5311.774	47.972	602.000	597.000	5.000	2.2361	100.0000	3.98E+00	3.48E-01	3.46E-02	8.73E-02	1.64E-01
U-3/4	4763.020	4764.635	67.120	113.000	112.395	0.000	5.4790	100.0000	7.48E-01	9.12E-02	8.48E-02	1.88E-01	7.06E-02
U-235	4391.000	4423.005	9.439	2.000	1.000	1.000	2.4127	80.90000	8.23E-03	1.43E-02	4.62E-02	1.15E-01	1.42E-02
U-238	4184.730	4191.893	56.884	132.000	132.000	0.000	3.6781	100.0000	8.78E-01	1.02E-01	5.69E-02	1.32E-01	7.65E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

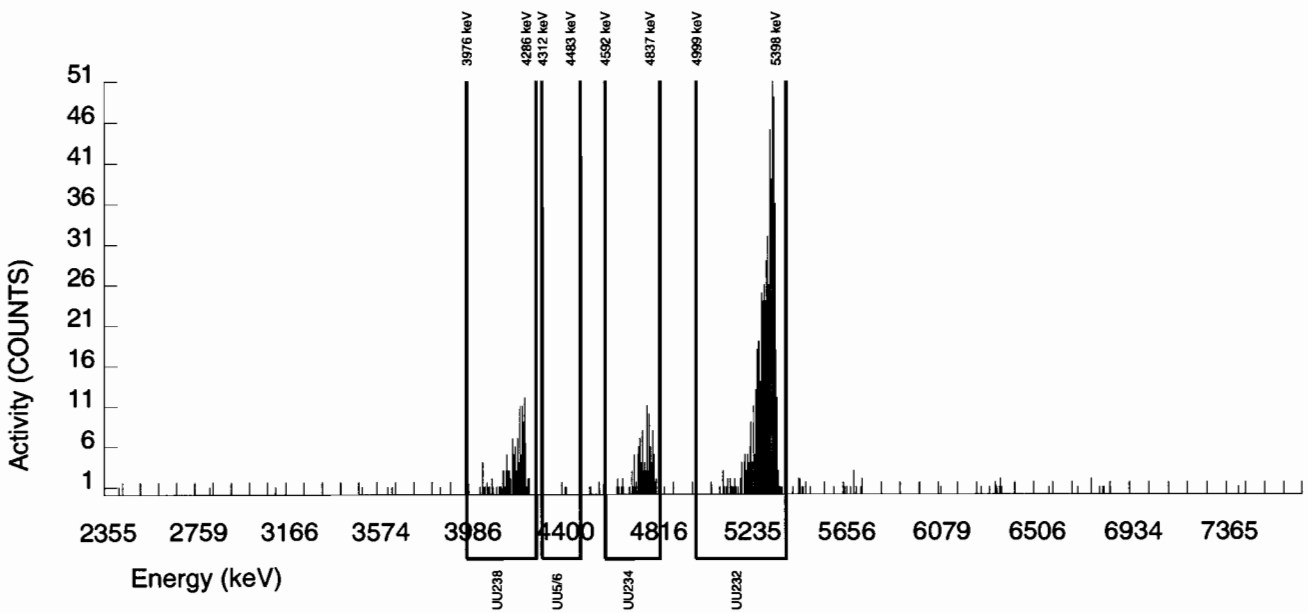

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 127	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248867003_UU	DETECTOR S/N : 78770	BKG FILE : B127.CNF;468
SAMPLE QTY : 0.502 G	AVERAGE %EFFICIENCY : 26.3126	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:25	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W127.CNF;127
% YIELD : 53.059		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5017E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.3886E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5287.798	81.599	629.000	628.000	1.000	1.0000	100.0000	4.04E+00	3.49E-01	1.50E-02	4.73E-02	1.61E-01
U-3/4	4763.020	4747.662	61.077	412.000	411.364	0.000	5.4790	100.0000	2.64E+00	2.41E-01	8.19E-02	1.81E-01	1.30E-01
U-235	4391.000	4402.038	7.462	14.000	14.000	0.000	2.4127	80.90000	1.11E-01	3.09E-02	4.46E-02	1.11E-01	2.97E-02
U-238	4184.730	4168.615	52.579	147.000	146.000	1.000	3.6781	100.0000	9.38E-01	1.06E-01	5.50E-02	1.27E-01	7.82E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

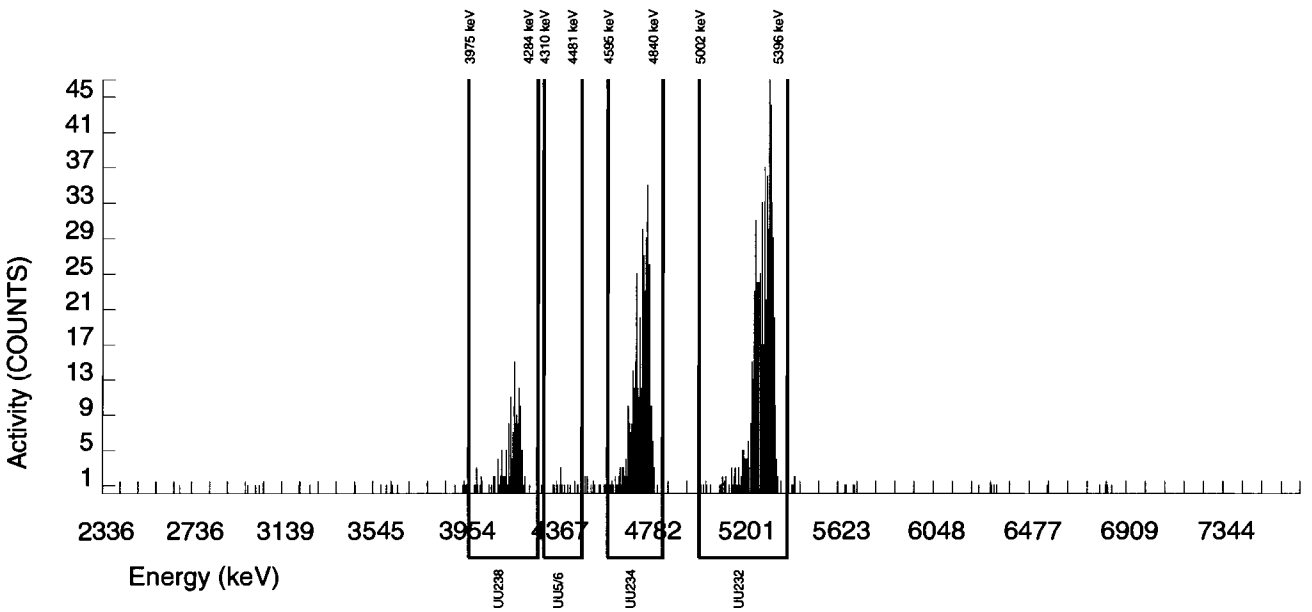

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 128	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248867004_UU	DETECTOR S/N : 75549	BKG FILE : B128.CNF;474
SAMPLE QTY : 0.508 G	AVERAGE %EFFICIENCY : 25.9743	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:27	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W128.CNF;137
% YIELD : 60.940		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5017E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.7433E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5304.427	70.403	712.000	712.000	0.000	0.0000	100.0000	3.99E+00	3.36E-01	0.00E+00	1.52E-02	1.50E-01
U-3/4	4763.020	4759.790	62.622	161.000	160.279	0.000	5.4790	100.0000	8.98E-01	9.80E-02	7.14E-02	1.58E-01	7.09E-02
U-235	4391.000	4412.047	125.140	5.000	5.000	0.000	2.4127	80.90000	3.46E-02	1.57E-02	3.89E-02	9.65E-02	1.55E-02
U-238	4184.730	4186.248	50.519	150.000	150.000	0.000	3.6781	100.0000	8.40E-01	9.33E-02	4.79E-02	1.11E-01	6.86E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

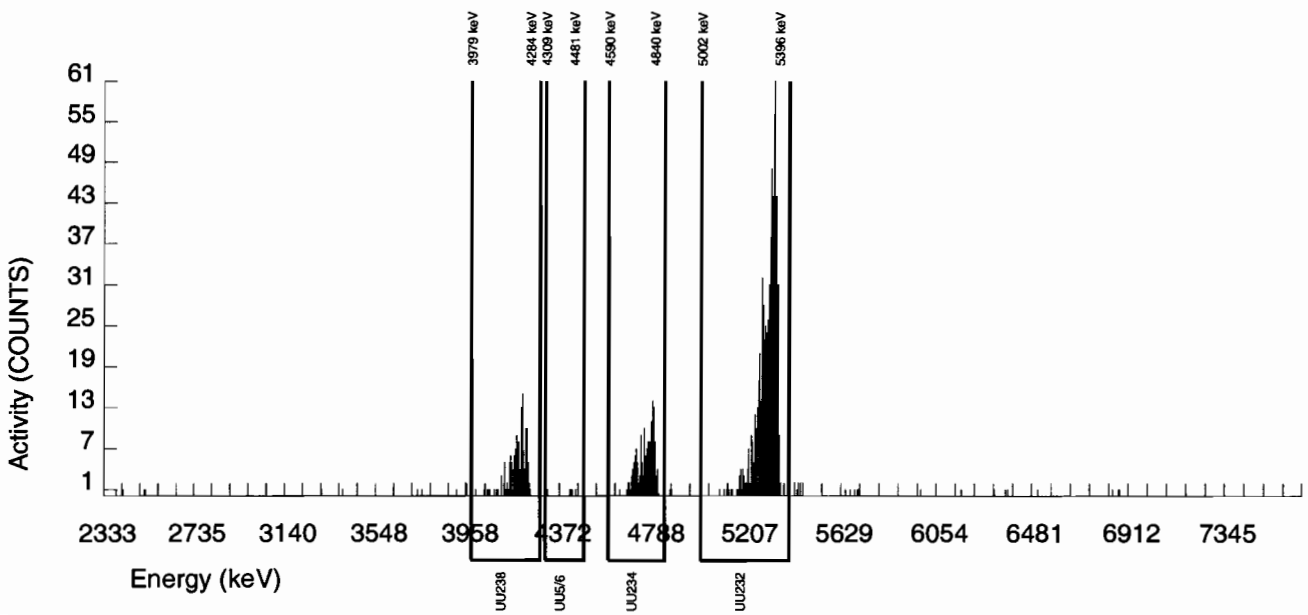

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 129	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202085875_UU	DETECTOR S/N : 76227	BKG FILE : B129.CNF;463
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 26.5015	BKG DATE : 28-MAR-2010
SAMPLE DATE : 1-APR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W129.CNF;132
% YIELD : 89.760		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4984E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.0377E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5313.450	35.925	1075.000	1070.000	5.000	2.2361	100.0000	2.03E+00	1.58E-01	9.85E-03	2.48E-02	6.22E-02
U-3/4	4763.020	4715.794	4.947	4.000	1.916	1.000	5.4790	100.0000	3.63E-03	3.76E-03	2.41E-02	5.34E-02	3.75E-03
U-235	4391.000	4384.568	98.946	3.000	1.000	2.000	2.4127	80.90000	2.34E-03	5.24E-03	1.31E-02	3.26E-02	5.23E-03
U-238	4184.730	4185.691	173.156	4.000	3.000	1.000	3.6781	100.0000	5.68E-03	4.25E-03	1.62E-02	3.75E-02	4.23E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

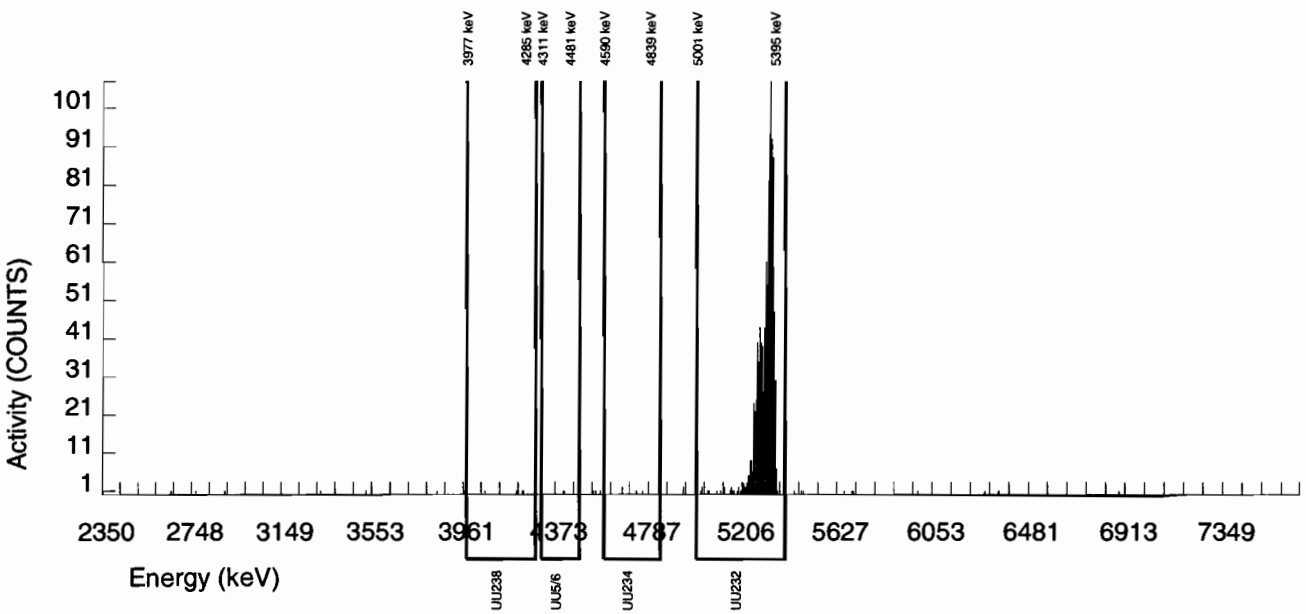

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 130	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202085876_UU	DETECTOR S/N : 76228	BKG FILE : B130.CNF;463
SAMPLE QTY : 0.509 G	AVERAGE %EFFICIENCY : 25.8660	BKG DATE : 28-MAR-2010
SAMPLE DATE : 5-MAR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W130.CNF;134
% YIELD : 52.601		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5017E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.3679E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5283.543	80.711	613.000	612.000	1.000	1.0000	100.0000	3.98E+00	3.46E-01	1.51E-02	4.79E-02	1.61E-01
U-3/4	4763.020	4738.464	54.129	334.000	333.380	0.000	5.4790	100.0000	2.17E+00	2.05E-01	8.29E-02	1.83E-01	1.19E-01
U-235	4391.000	4415.515	34.839	11.000	10.000	1.000	2.4127	80.90000	8.04E-02	2.85E-02	4.51E-02	1.12E-01	2.79E-02
U-238	4184.730	4164.388	77.944	146.000	146.000	0.000	3.6781	100.0000	9.50E-01	1.07E-01	5.57E-02	1.29E-01	7.86E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

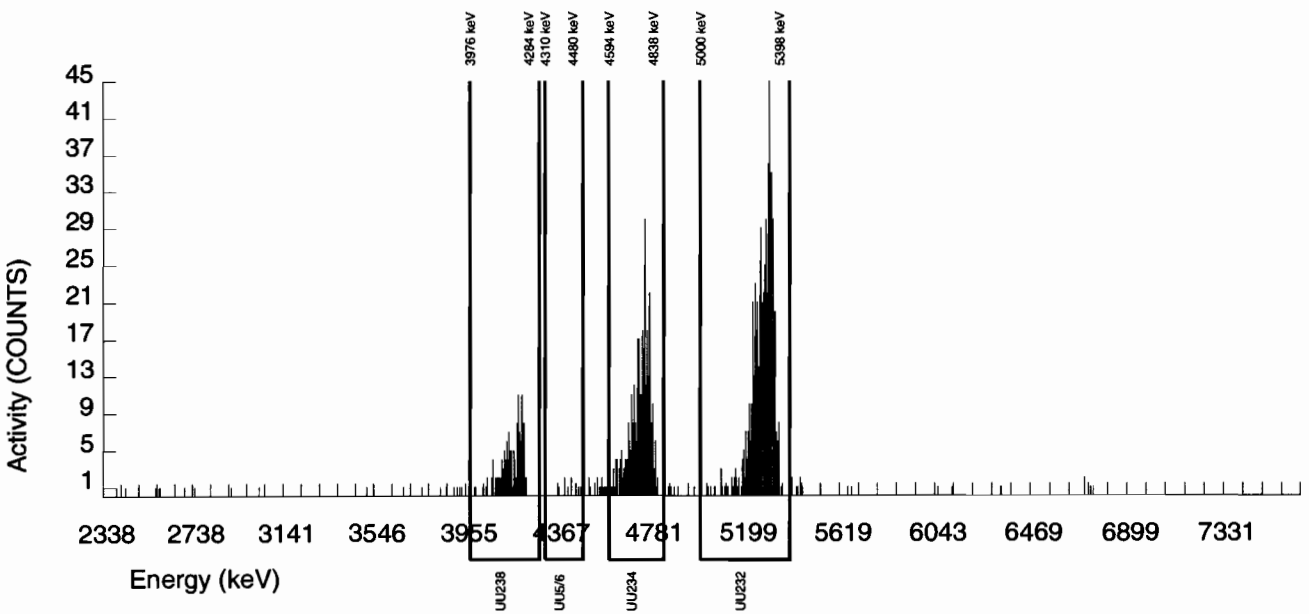

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 971197	CHAMBER : 131	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202085877_UU	DETECTOR S/N : 80008	BKG FILE : B131.CNF;461
SAMPLE QTY : 0.106 G	AVERAGE %EFFICIENCY : 25.4483	BKG DATE : 28-MAR-2010
SAMPLE DATE : 1-APR-2010 00:00:00.	COUNT DATE : 2-APR-2010 11:37:35	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W131.CNF;136
% YIELD : 89.281		CAL DATE : 18-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4984E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.0162E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.589	32.753	1026.000	1022.000	4.000	2.0000	100.0000	1.91E+01	1.61E+00	8.70E-02	2.25E-01	6.00E-01
U-3/4	4763.020	4759.419	35.822	286.000	284.964	0.000	5.4790	100.0000	5.33E+00	5.23E-01	2.38E-01	5.27E-01	3.16E-01
U-235	4391.000	4398.254	11.946	10.000	10.000	0.000	2.4127	80.90000	2.31E-01	7.53E-02	1.30E-01	3.22E-01	7.31E-02
U-238	4184.730	4189.255	39.676	306.000	306.000	0.000	3.6781	100.0000	5.72E+00	5.55E-01	1.60E-01	3.71E-01	3.27E-01

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

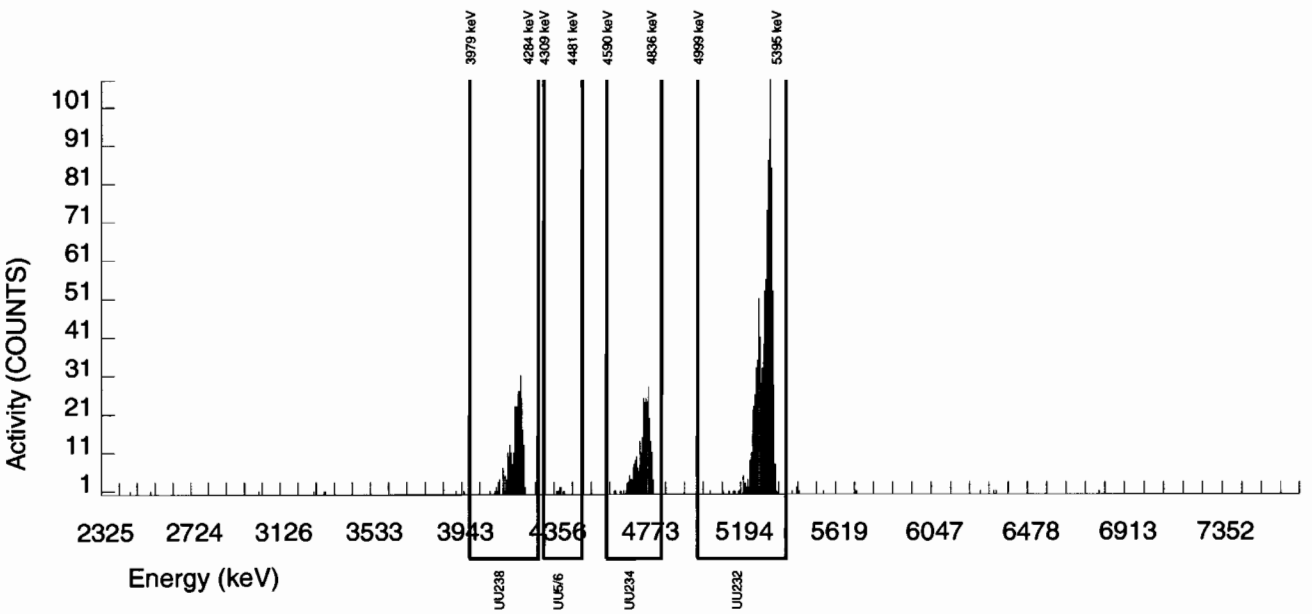

Radiochemistry Batch Checklist, Rev10

Batch# 962633 **Product:** Gamma Solid LANL **Date:** 03/26/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 3/26/10

Secondary Review Performed By: M Stamper 3/29/10

4/3

Gamma Spec Que Sheet 1.G.- 3/16/10

03/08/2010

Batch #:962633 **Analyst: MXR1** **First Client DueDate 04/03/2010** **Internal Due Date: 03/23/2010**

Gamma Spike Isotope: Mixed Gamma **Spike Code:** Na **Expiration Date:** Na **Vol:** Na **Nominal Concentration:** Na

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 10ml **Nominal Concentration:**

Cs137-5.685
Co60-6.485
Am241-16.29

Initials: MS **Prep Date:** 3/9/10 **Library:** SOLID **Witness:** Na

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Wet/Dry Aliquot (1/g/F)	Detector	Sealing Date/Time (if Applicable)
248860001-1	RE46-10-13782	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF	can	125.52	15	3/9/10
248860002-1	RE46-10-13783	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		124.16	18	
248860003-1	RE46-10-13777	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		133.02	22	
248860004-1	RE46-10-13775	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		143.70	23	
248860005-1	RE46-10-13776	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		127.04	25	
248860006-1	RE46-10-13781	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		132.12	2	
248860007-1	RE46-10-13779	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		129.80	5	
248860008-1	RE46-10-13780	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		129.23	10	
248860009-1	RE46-10-13778	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		143.35	12	
248863001-1	RE46-10-12936	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		125.19	15	
248863002-1	RE46-10-12930	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		123.50	22	
248863003-1	RE46-10-12929	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		122.05	23	
248863004-1	RE46-10-12935	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		126.96	4	
248865001-1	RE46-10-11924	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 K		125.14	7	
248866001-1	RE46-10-11885	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		133.00	15	
248866002-1	RE46-10-11886	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		115.19	17	
248867001-1	RE46-10-12931	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		122.07	29	
248867002-1	RE46-10-12932	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		143.48	22	
248867003-1	RE46-10-12934	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		112.39	5	
248867004-1	RE46-10-12933	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		121.04	15	
1202065188-1	MB	MB		QC ACCOUNT	SOIL	3/9/10 K		143.70	29	
1202065189-1	DUP RE46-10-12931(248867001)	DUP		QC ACCOUNT	SOIL	05-MAR-10 12:00:00 K		122.07	21	
1202065190-1	LCS	LCS		QC ACCOUNT	SOIL	3/9/10 RF		151.73	22	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: [signature] 3/26/10

M Stamps 3/29/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
962633	248860001	SAMPLE	24-MAR-10		Americium-241	-0.3988	0.5503	0.200
					Cerium-139	-0.0071	0.0713	0.050
					Europium-152	0.06987	0.2181	0.200
					Sodium-22	0.02774	0.101	0.080
					Thorium-234	0.3111	4.547	2.00
962633	248860002	SAMPLE	24-MAR-10		Americium-241	0.1165	0.3079	0.200
					Thorium-234	1.922	2.747	2.00
962633	248860003	SAMPLE	24-MAR-10		Americium-241	-0.02836	0.2157	0.200
					Thorium-234	0.6605	2.082	2.00
962633	248860004	SAMPLE	24-MAR-10		Americium-241	-0.15	0.3195	0.200
					Cerium-139	-0.01747	0.05093	0.050
					Thorium-234	1.76	2.867	2.00
962633	248860005	SAMPLE	24-MAR-10		Sodium-22	0.01003	0.09245	0.080
962633	248860006	SAMPLE	24-MAR-10		Americium-241	-0.1191	0.3087	0.200
					Cerium-139	-0.01638	0.0569	0.050
					Thorium-234	1.156	3.073	2.00
962633	248860007	SAMPLE	24-MAR-10		Cerium-139	-0.00892	0.05761	0.050
					Cesium-134	0.08795	0.1079	0.100
					Europium-152	0.1143	0.2013	0.200
					Sodium-22	0.00767	0.09701	0.080
962633	248860008	SAMPLE	24-MAR-10		Americium-241	0.02648	0.392	0.200
					Cerium-139	0.00647	0.05278	0.050
					Sodium-22	-0.02702	0.08143	0.080
					Thorium-234	1.437	3.271	2.00
962633	248860009	SAMPLE	24-MAR-10		Americium-241	0.08355	0.2671	0.200
					Cerium-139	-0.01125	0.05385	0.050
					Thorium-234	0.6321	2.451	2.00
962633	248863001	SAMPLE	24-MAR-10		Americium-241	-0.2062	0.5504	0.200
					Cerium-139	0.00164	0.06933	0.050
					Cesium-134	0.09766	0.1196	0.100
					Europium-152	0.00035	0.2226	0.200
					Mercury-203	0.0466	0.1027	0.100
					Sodium-22	-0.03472	0.09586	0.080
					Thorium-234	1.347	4.581	2.00
962633	248863002	SAMPLE	24-MAR-10		Americium-241	0.2093	0.245	0.200
					Cerium-139	0.02473	0.05406	0.050
962633	248863003	SAMPLE	24-MAR-10		Americium-241	0.06604	0.3876	0.200
					Cerium-139	-0.0204	0.06107	0.050
					Cesium-134	0.07323	0.1031	0.100
					Sodium-22	-0.01091	0.08483	0.080
962633	248863004	SAMPLE	24-MAR-10		Americium-241	0.1208	0.4152	0.200
					Thorium-234	-0.4912	3.22	2.00
962633	248865001	SAMPLE	24-MAR-10		Cerium-139	-0.00785	0.05556	0.050
					Sodium-22	0.01389	0.08378	0.080

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
962633	248866001	SAMPLE	24-MAR-10		Americium-241	-0.3335	0.5114	0.200
					Cerium-139	0.00101	0.06824	0.050
					Europium-152	-0.05316	0.2073	0.200
					Sodium-22	0.00914	0.09725	0.080
					Thorium-234	2.229	4.463	2.00
					Tin-113	0.02021	0.1026	0.100
962633	248866002	SAMPLE	24-MAR-10		Cerium-139	0.00257	0.05962	0.050
					Cobalt-60	0.04517	0.1039	0.100
					Sodium-22	-0.03833	0.1005	0.080
					Yttrium-88	0.0586	0.1006	0.100
962633	248867001	SAMPLE	24-MAR-10		Americium-241	-0.02518	0.3301	0.200
					Cerium-139	0.00997	0.06152	0.050
					Thorium-234	0.7463	2.926	2.00
962633	248867002	SAMPLE	24-MAR-10					
962633	248867003	SAMPLE	24-MAR-10		Cerium-139	-0.00662	0.06122	0.050
					Cesium-134	0.103	0.1249	0.100
					Sodium-22	0.02208	0.1114	0.080
962633	248867004	SAMPLE	24-MAR-10		Americium-241	-0.1815	0.3894	0.200
					Thorium-234	1.582	3.174	2.00
962633	1202065188	MB	24-MAR-10					
962633	1202065189	DUP	24-MAR-10					
962633	1202065190	LCS	25-MAR-10		Cerium-139	0.01006	0.07681	0.050
					Cesium-134	0.07098	0.1333	0.100
					Europium-152	0.01084	0.2676	0.200
					Mercury-203	-0.0163	0.1102	0.100
					Ruthenium-106	-0.1807	0.8255	0.800
					Sodium-22	0.0353	0.08544	0.080
					Thorium-234	-0.8535	3.134	2.00
					Tin-113	-0.02312	0.1307	0.100

Gamma Review Report based on Result > MDA for Batch:962633

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860001	04-MAR-10 12:00	24-MAR-10 16:15	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.904	0.2344	pCi/g	0.3102	N	911.2	3	1.685	IDENTIFIED	10.72	☐	
Annihilation Rad.		0.2352	0.04407	pCi/g	0.06345	N	510.6	1	1.904	IDENTIFIED	18.23	☐	
Bismuth-211	int	4.727	0.3554	pCi/g	0.4474	Y	352.1	2	1.367	IDENTIFIED	5.644	☐ ui	
Bismuth-212	HE	2.345	0.5085	pCi/g	1.505	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.243	0.1128	pCi/g	0.1403	0.200	609.4	3	1.637	IDENTIFIED	7.585	☐	
Cadmium-109	int	2.31	0.7012	pCi/g	1.92	Y	87.42	3	1.229	IDENTIFIED	29.73	☐ ui	
Cerium-143		13160	2149	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.195	0.04362	pCi/g	0.121	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		11.45	1.686	pCi/g	4.76	N		0				☐	
Iodine-135		1.74E+21	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212	✔	2.027	0.1428	pCi/g	0.1271	0.100	238.8	2	1.375	IDENTIFIED	3.727	☐	
Lead-214	✔	1.716	0.1374	pCi/g	0.1601	0.100	352.1	2	1.367	IDENTIFIED	5.644	☐	
Neptunium-237	HE	0.6685	0.2147	pCi/g	0.5708	N	87.42	3	1.229	IDENTIFIED	29.73	☐	
Niobium-95m	HE	0.4874	0.1088	pCi/g	0.3509	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40	✔	39.73	2.271	pCi/g	0.7555	1.00	1460	1	2.215	IDENTIFIED	2.922	☐	
Promethium-149		656.2	302.6	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Radium-224	int	3.765	0.8432	pCi/g	1.362	Y	241.8	1	1.802	IDENTIFIED	21.71	☐ ui	
Radium-226	✔	1.243	0.1128	pCi/g	0.1403	Y	609.4	3	1.637	IDENTIFIED	7.585	☐	
Radium-228	✔	1.904	0.2344	pCi/g	0.3102	0.500	911.2	3	1.685	IDENTIFIED	10.72	☐	
Strontium-85	la	0.124	0.03193	pCi/g	0.1041	Y	0	7	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✔	0.5989	0.05573	pCi/g	0.06969	0.080	583.1	1	1.569	IDENTIFIED	8.104	☐	
Thorium-228	nr	2.027	0.1428	pCi/g	0.1271	N	238.8	2	1.375	IDENTIFIED	3.727	☐	
Thorium-230	nr	1.243	0.108	pCi/g	0.1403	N	609.4	3	1.637	IDENTIFIED	7.585	☐	
Thorium-232	nr	1.904	0.2344	pCi/g	0.3102	N	911.2	3	1.685	IDENTIFIED	10.72	☐	
Tin-126	HE	0.224	0.06803	pCi/g	0.1877	N	87.42	3	1.229	IDENTIFIED	29.73	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860002	04-MAR-10 12:00	24-MAR-10 16:15	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.74	0.1822	pCi/g	0.1998	N	910.8	3	1.832	IDENTIFIED	7.983	☐	
Annihilation Rad.		0.1382	0.03062	pCi/g	0.03685	N	510.4	1	2.172	IDENTIFIED	21.9	☐	
Bismuth-211	int	3.582	0.2284	pCi/g	0.278	Y	351.8	2	1.441	IDENTIFIED	5.509	☐ ui	
Bismuth-212	la nr	1.929	0.4139	pCi/g	1.053	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.181	0.08634	pCi/g	0.1063	0.200	609	3	1.456	IDENTIFIED	5.765	☐	
Cadmium-109	int	2.394	0.5305	pCi/g	1.314	Y	87.35	3	1.24	IDENTIFIED	21.68	☐ ui	
Cadmium-115	HE	28.61	22.72	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cerium-143		9978	1438	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.08997	0.027	pCi/g	0.0759	0.100	0	8	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.

Gross Gamma		9.864	1.2	pCi/g	2.367	N		0				☐	
Iodine-133	HE	1.16E+05	1.38E+05	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.801	0.08331	pCi/g	0.08423	0.100	238.7	2	1.157	IDENTIFIED	2.899	☐	
Lead-214 ✔		1.3	0.09032	pCi/g	0.1011	0.100	351.8	2	1.441	IDENTIFIED	5.509	☐	
Mercury-203	la	0.06698	0.02051	pCi/g	0.06549	0.100	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Neptunium-237	HE	0.693	0.1699	pCi/g	0.4016	N	87.35	3	1.24	IDENTIFIED	21.68	☐	
Potassium-40 ✔		34.42	1.533	pCi/g	0.4415	1.00	1460	1	2.198	IDENTIFIED	2.329	☐	
Promethium-149	HE	48.72	188.4	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Radium-224	int	3.793	0.5787	pCi/g	0.9015	Y	241.6	1	1.767	IDENTIFIED	15	☐ ui	
Radium-226 ✔		1.181	0.08634	pCi/g	0.1063	Y	609	3	1.456	IDENTIFIED	5.765	☐	
Radium-228 ✔		1.74	0.1822	pCi/g	0.1998	0.500	910.8	3	1.832	IDENTIFIED	7.983	☐	
Strontium-85	la	0.09479	0.01855	pCi/g	0.06299	Y	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✔		0.5245	0.04041	pCi/g	0.04889	0.080	583	1	1.629	IDENTIFIED	6.637	☐	
Thorium-228	nr	1.801	0.08331	pCi/g	0.08423	N	238.7	2	1.157	IDENTIFIED	2.899	☐	
Thorium-230	nr	1.181	0.08052	pCi/g	0.1063	N	609	3	1.456	IDENTIFIED	5.765	☐	
Thorium-232	nr	1.74	0.1822	pCi/g	0.1998	N	910.8	3	1.832	IDENTIFIED	7.983	☐	
Tin-126	HE	0.2322	0.05146	pCi/g	0.1381	N	87.35	3	1.24	IDENTIFIED	21.68	☐	
Total Uranium		5.7742	2.32E-06	ug/g	4.0899	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860003	04-MAR-10 12:00	24-MAR-10 16:15	20.2	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.839	0.1776	pCi/g	0.2121	N	911.3	3	2.042	IDENTIFIED	6.886	☐	
Annihilation Rad.	HE	0.1044	0.03447	pCi/g	0.04102	N	511	1	2.195	IDENTIFIED	32.63	☐	
Bismuth-211	int	3.859	0.3032	pCi/g	0.3037	Y	352.1	2	1.506	IDENTIFIED	5.289	☐ ui	
Bismuth-212	HE	1.705	0.4014	pCi/g	0.9792	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		0.9632	0.09305	pCi/g	0.1009	0.200	609.3	3	1.751	IDENTIFIED	7.699	☐	
Cadmium-109	int	3.638	0.5037	pCi/g	1.089	Y	87.18	3	1.26	IDENTIFIED	13.02	☐ ui	
Cerium-143		9254	1550	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1052	0.027	pCi/g	0.07901	0.100	0	8	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.2809	0.08439	pCi/g	0.26	N	0	8	0	NOT_IDENTI	0	☐	
Gross Gamma		9.716	1.217	pCi/g	2.534	N		0				☐	
Iodine-135		1.38E+21	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.649	0.12	pCi/g	0.08777	0.100	238.8	2	1.174	IDENTIFIED	3.016	☐	
Lead-214 ✔		1.401	0.1166	pCi/g	0.1104	0.100	352.1	2	1.506	IDENTIFIED	5.289	☐	
Mercury-203	int	0.1122	0.03255	pCi/g	0.05885	0.100	278.3	1	1.976	IDENTIFIED	28.15	☐ ui	
Neptunium-237	int nr	1.053	0.1829	pCi/g	0.3199	N	87.18	3	1.26	IDENTIFIED	13.02	☐	
Niobium-95	HE	0.08004	0.02241	pCi/g	0.07112	N	0	8	0	NOT_IDENTI	0	☐	
Potassium-40 ✔		34.36	1.767	pCi/g	0.4769	1.00	1461	1	2.677	IDENTIFIED	2.342	☐	
Promethium-149	HE	84.07	214.9	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Radium-224	int	4.464	0.6253	pCi/g	0.9396	Y	241.8	1	1.789	IDENTIFIED	12.53	☐ ui	
Radium-226 ✔		0.9632	0.09305	pCi/g	0.1009	Y	609.3	3	1.751	IDENTIFIED	7.699	☐	
Radium-228 ✔		1.839	0.1776	pCi/g	0.2121	0.500	911.3	3	2.042	IDENTIFIED	6.886	☐	
Strontium-85	la	0.1674	0.02235	pCi/g	0.07408	Y	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✔		0.4779	0.04318	pCi/g	0.05092	0.080	583.3	1	1.71	IDENTIFIED	7.231	☐	
Thorium-228	nr	1.649	0.12	pCi/g	0.08777	N	238.8	2	1.174	IDENTIFIED	3.016	☐	

Thorium-230	nr	0.9632	0.08951	pCi/g	0.1009	N	609.3	3	1.751	IDENTIFIED	7.699	☐
Thorium-232	nr	1.839	0.1776	pCi/g	0.2121	N	911.3	3	2.042	IDENTIFIED	6.886	☐
Tin-126	int nr	0.3529	0.04886	pCi/g	0.1061	N	87.18	3	1.26	IDENTIFIED	13.02	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860004	04-MAR-10 12:00	24-MAR-10 16:16	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.307	0.1527	pCi/g	0.2158	N	910.1	3	1.418	IDENTIFIED	11.68	☐	
Annihilation Rad.		0.132	0.03179	pCi/g	0.04806	N	510.4	1	2.075	IDENTIFIED	24.07	☐	
Bismuth-211	int	3.065	0.2289	pCi/g	0.3357	Y	351.4	2	1.328	IDENTIFIED	7.467	☐	ui
Bismuth-212	HE	1.668	0.4443	pCi/g	1.148	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.9447	0.07533	pCi/g	0.1276	0.200	608.6	3	1.596	IDENTIFIED	7.974	☐	
Cadmium-109	int	1.94	0.6161	pCi/g	1.444	Y	87.22	3	1.215	IDENTIFIED	31.76	☐	ui
Cadmium-115	HE	6.572	27.39	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cerium-143		12840	1419	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma		7.395	1.154	pCi/g	2.608	N		0				☐	
Lead-212	✓	1.503	0.05399	pCi/g	0.09129	0.100	238.3	2	1.214	IDENTIFIED	3.592	☐	
Lead-214	✓	1.112	0.08306	pCi/g	0.1234	0.100	351.4	2	1.328	IDENTIFIED	7.467	☐	
Neptunium-237	HE	0.5616	0.1783	pCi/g	0.4624	N	87.22	3	1.215	IDENTIFIED	31.76	☐	
Niobium-95m	la nr	0.8159	0.08629	pCi/g	0.3138	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	✓	26.89	0.8756	pCi/g	0.6185	1.00	1459	1	2.233	IDENTIFIED	3.257	☐	
Promethium-149	HE	269.5	213.1	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Radium-224	int	3.749	0.4822	pCi/g	0.9783	Y	241.2	1	1.878	IDENTIFIED	12.86	☐	ui
Radium-226	✓	0.9447	0.07533	pCi/g	0.1276	Y	608.6	3	1.596	IDENTIFIED	7.974	☐	
Radium-228	✓	1.307	0.1527	pCi/g	0.2158	0.500	910.1	3	1.418	IDENTIFIED	11.68	☐	
Technetium-99m		4.99E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4531	0.03396	pCi/g	0.05076	0.080	582.5	1	1.607	IDENTIFIED	7.495	☐	
Thorium-228	nr	1.503	0.05399	pCi/g	0.09129	N	238.3	2	1.214	IDENTIFIED	3.592	☐	
Thorium-230	nr	0.9447	0.07533	pCi/g	0.1276	N	608.6	3	1.596	IDENTIFIED	7.974	☐	
Thorium-232	nr	1.307	0.1527	pCi/g	0.2158	N	910.1	3	1.418	IDENTIFIED	11.68	☐	
Tin-126	HE	0.1882	0.05977	pCi/g	0.1409	N	87.22	3	1.215	IDENTIFIED	31.76	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860005	04-MAR-10 12:00	24-MAR-10 16:16	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	2.189	0.2087	pCi/g	0.2453	N	911.2	3	1.726	IDENTIFIED	7.317	☐	
Americium-241	la	0.08707	0.0264	pCi/g	0.08642	0.200	0	6	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Annihilation Rad.		0.1253	0.03652	pCi/g	0.04992	N	510.7	1	1.386	IDENTIFIED	28.69	☐	
Bismuth-211	int	4.83	0.3333	pCi/g	0.332	Y	352	2	1.168	IDENTIFIED	4.468	☐	ui
Bismuth-212	nr	2.414	0.4645	pCi/g	0.8466	N	727.2	1	1.246	IDENTIFIED	17.9	☐	
Bismuth-214	✓	1.424	0.1184	pCi/g	0.1131	0.200	609.4	3	1.291	IDENTIFIED	5.706	☐	
Cadmium-109	int	4.738	0.4677	pCi/g	0.7387	Y	87.32	3	1.325	IDENTIFIED	8.292	☐	ui
Cerium-143		6943	1254	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1669	0.03531	pCi/g	0.1057	0.100	0	6	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Cesium-135	HE	0.3926	0.1399	pCi/g	0.2203	N	269.6	1	1.081	IDENTIFIED	35.12	☐	

Gadolinium-153	HE	0.1342	0.05165	pCi/g	0.09547	N	0	6	0	FAIL_ABUND	0	☐		
Gross Gamma		12.02	1.601	pCi/g	3.667	N		0				☐		
Lead-210	HE	0.884	0.3691	pCi/g	0.6106	N	46.63	1	0.7942	IDENTIFIED	41.43	☐		
Lead-212 ✔		2.029	0.13	pCi/g	0.08538	0.100	238.7	2	1.016	IDENTIFIED	2.899	☐		
Lead-214 ✔		1.753	0.1303	pCi/g	0.1159	0.100	352	2	1.168	IDENTIFIED	4.468	☐		
Neptunium-237	int nr	1.371	0.1975	pCi/g	0.2124	N	87.32	3	1.325	IDENTIFIED	8.292	☐		
Potassium-40 ✔		39.4	1.97	pCi/g	0.573	1.00	1461	1	2.056	IDENTIFIED	2.618	☐		
Promethium-149	HE	2.832	217.6	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Radium-224	int	5.003	0.6121	pCi/g	0.9162	Y	241.6	1	1.463	IDENTIFIED	11.04	☐	ui	
Radium-226 ✔		1.424	0.1184	pCi/g	0.1131	Y	609.4	3	1.291	IDENTIFIED	5.706	☐		
Radium-228 ✔		2.189	0.2087	pCi/g	0.2453	0.500	911.2	3	1.726	IDENTIFIED	7.317	☐		
Technetium-99m		2.93E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Thallium-208 ✔		0.6192	0.05549	pCi/g	0.05957	0.080	583.3	1	1.447	IDENTIFIED	6.971	☐		
Thorium-228	nr	2.029	0.13	pCi/g	0.08538	N	238.7	2	1.016	IDENTIFIED	2.899	☐		
Thorium-230	nr	1.424	0.1123	pCi/g	0.1131	N	609.4	3	1.291	IDENTIFIED	5.706	☐		
Thorium-232	nr	2.189	0.2087	pCi/g	0.2453	N	911.2	3	1.726	IDENTIFIED	7.317	☐		
Thorium-234 ✔		1.433	0.4637	pCi/g	0.8081	2.00	63.31	2	0.8813	IDENTIFIED	30.94	☐		
Tin-126	int nr	0.4596	0.04537	pCi/g	0.07151	N	87.32	3	1.325	IDENTIFIED	8.292	☐		
Total Uranium		4.314	1.38E-06	ug/g	1.2049	N		0				☐		
Uranium-238	HE	1.433	0.4637	pCi/g	0.8081	N	63.31	2	0.8813	IDENTIFIED	30.94	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860006	04-MAR-10 12:00	24-MAR-10 16:27	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.96	0.2006	pCi/g	0.2775	N	910.5	3	1.802	IDENTIFIED	7.993	☐		
Annihilation Rad.		0.1713	0.03991	pCi/g	0.05218	N	510	1	1.672	IDENTIFIED	22.76	☐		
Bismuth-211	int	4.181	0.3398	pCi/g	0.3571	Y	351.6	2	1.288	IDENTIFIED	5.729	☐	ui	
Bismuth-212	HE	2.312	0.5498	pCi/g	1.334	N	0	8	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔	MS 3/24/10	1.149	0.116	pCi/g	0.1318	0.200	608.8	3	1.333	IDENTIFIED	8.582	☐		
Cadmium-109	int LA	3.86	0.4886	pCi/g	1.775	Y	0	8	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Cerium-143		18790	2819	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Cesium-135	HE	0.3571	0.1005	pCi/g	0.3325	N	0	8	0	NOT_IDENTI	0	☐		
Gross Gamma		10.24	1.458	pCi/g	3.354	N		0				☐		
Iodine-135		4.33E+20	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Lead-212 ✔		1.772	0.1361	pCi/g	0.1357	0.100	238.3	2	1.13	IDENTIFIED	4.377	☐		
Lead-214 ✔		1.517	0.1302	pCi/g	0.1299	0.100	351.6	2	1.288	IDENTIFIED	5.729	☐		
Neptunium-237		1.188	0.1916	pCi/g	0.5291	N	0	8	0	NOT_IDENTI	0	☐		
Potassium-40 ✔		36.4	2.012	pCi/g	0.5121	1.00	1460	1	1.98	IDENTIFIED	2.82	☐		
Radium-224	int	3.311	0.5362	pCi/g	1.455	Y	241.4	1	1.377	IDENTIFIED	15.08	☐	ui	
Radium-226 ✔		1.149	0.116	pCi/g	0.1318	Y	608.8	3	1.333	IDENTIFIED	8.582	☐		
Radium-228 ✔		1.96	0.2006	pCi/g	0.2775	0.500	910.5	3	1.802	IDENTIFIED	7.993	☐		
Sodium-24	HE	2.04E+07	1.04E+08	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Thallium-208 ✔		0.6008	0.05471	pCi/g	0.06371	0.080	582.7	1	1.59	IDENTIFIED	7.608	☐		
Thorium-228	nr	1.772	0.1361	pCi/g	0.1357	N	238.3	2	1.13	IDENTIFIED	4.377	☐		
Thorium-230	nr	1.149	0.112	pCi/g	0.1318	N	608.8	3	1.333	IDENTIFIED	8.582	☐		
Thorium-232	nr	1.96	0.2006	pCi/g	0.2775	N	910.5	3	1.802	IDENTIFIED	7.993	☐		

Tin-126	int nr	0.3885	0.04805	pCi/g	0.1744	N	0	8	0	NOT_IDENTI	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860007	04-MAR-10 12:00	24-MAR-10 16:27	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.851	0.2352	pCi/g	0.3028	N	910.8	3	1.702	IDENTIFIED	11.01	☐		
Annihilation Rad.	HE	0.1229	0.04146	pCi/g	0.0584	N	510.3	1	1.356	IDENTIFIED	33.57	☐		
Bismuth-211	int	4.042	0.2985	pCi/g	0.3679	Y	351.4	2	1.228	IDENTIFIED	6.235	☐	ui	
Bismuth-212	HE	2.491	0.6333	pCi/g	1.563	N	0	7	0	FAIL_ABUND	0	☐		
Bismuth-214	✔	1.406	0.106	pCi/g	0.1447	0.200	608.8	3	1.56	IDENTIFIED	6.246	☐		
Cadmium-109	int	4.826	0.462	pCi/g	1.027	Y	86.88	3	1.323	IDENTIFIED	8.78	☐	ui	
Cadmium-115	HE	21.34	33.84	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cerium-143		13840	2131	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-135	HE	0.5718	0.1563	pCi/g	0.2743	N	269.6	1	1.231	IDENTIFIED	26.81	☐		
Gross Gamma		10.74	1.451	pCi/g	4.519	N		0				☐		
Iodine-135		2.73E+21	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-212	✔	1.883	0.1194	pCi/g	0.104	0.100	238.3	2	1.262	IDENTIFIED	3.302	☐		
Lead-214	✔	1.467	0.1156	pCi/g	0.1351	0.100	351.4	2	1.228	IDENTIFIED	6.235	☐		
Neptunium-237	int nr	1.397	0.1983	pCi/g	0.2959	N	86.88	3	1.323	IDENTIFIED	8.78	☐		
Niobium-95m		1.082	0.1142	pCi/g	0.3633	N	0	7	0	NOT_IDENTI	0	☐		
Potassium-40	✔	34.04	1.456	pCi/g	0.6049	1.00	1460	1	1.982	IDENTIFIED	2.936	☐		
Radium-224	int	5.411	0.7124	pCi/g	1.115	Y	241.2	1	1.859	IDENTIFIED	12.22	☐	ui	
Radium-226	✔	1.406	0.106	pCi/g	0.1447	Y	608.8	3	1.56	IDENTIFIED	6.246	☐		
Radium-228	✔	1.851	0.2352	pCi/g	0.3028	0.500	910.8	3	1.702	IDENTIFIED	11.01	☐		
Sodium-24		2.35E+08	1.05E+08	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Strontium-85	la	0.1105	0.02791	pCi/g	0.09269	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208	✓	0.5723	0.04943	pCi/g	0.0694	0.080	582.9	1	1.626	IDENTIFIED	7.818	☐		
Thorium-228	nr	1.883	0.1194	pCi/g	0.104	N	238.3	2	1.262	IDENTIFIED	3.302	☐		
Thorium-230	nr	1.406	0.0993	pCi/g	0.1447	N	608.8	3	1.56	IDENTIFIED	6.246	☐		
Thorium-232	nr	1.851	0.2352	pCi/g	0.3028	N	910.8	3	1.702	IDENTIFIED	11.01	☐		
Thorium-234	✔	1.606	0.5638	pCi/g	1.225	2.00	63.1	2	1.33	IDENTIFIED	33.92	☐		
Tin-126	int nr	0.4682	0.04481	pCi/g	0.09946	N	86.88	3	1.323	IDENTIFIED	8.78	☐		
Total Uranium		4.8301	1.68E-06	ug/g	1.8262	N		0				☐		
Uranium-238	HE	1.606	0.5638	pCi/g	1.225	N	63.1	2	1.33	IDENTIFIED	33.92	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860008	04-MAR-10 12:00	24-MAR-10 16:28	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.839	0.2138	pCi/g	0.2279	N	911.8	3	2.139	IDENTIFIED	9.826	☐		
Annihilation Rad.		0.1607	0.0345	pCi/g	0.04849	N	511.1	1	1.823	IDENTIFIED	21.04	☐		
Bismuth-211	int	3.837	0.2991	pCi/g	0.3394	Y	352	2	1.295	IDENTIFIED	6.223	☐	ui	
Bismuth-212	la nr	2.497	0.573	pCi/g	1.274	N	0	5	0	FAIL_ABUND	0	☐		
Bismuth-214	✔	1.253	0.1004	pCi/g	0.1119	0.200	609.7	3	1.494	IDENTIFIED	6.328	☐		
Cadmium-109	int	2.881	0.5392	pCi/g	1.243	Y	87.04	3	1.09	IDENTIFIED	17.85	☐	ui	
Cadmium-115	HE	23.34	26.35	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		

Cerium-143	7307	1349	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		
Cesium-134 la	0.1338	0.03914	pCi/g	0.1022	0.100	0	5	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	10.4	1.353	pCi/g	3.147	N		0				☐		
Lead-212 ✔	1.839	0.1159	pCi/g	0.1016	0.100	238.7	2	1.148	IDENTIFIED	3.269	☐		
Lead-214 ✔	1.393	0.1151	pCi/g	0.1234	0.100	352	2	1.295	IDENTIFIED	6.223	☐		
Neptunium-237 HE	0.8341	0.1789	pCi/g	0.4888	N	87.04	3	1.09	IDENTIFIED	17.85	☐		
Potassium-40 ✔	37.51	2.057	pCi/g	0.5285	1.00	1462	1	2.353	IDENTIFIED	2.722	☐		
Radium-224 int	3.197	0.6352	pCi/g	1.089	Y	241.5	1	1.647	IDENTIFIED	19.26	☐	ui	
Radium-226 ✔	1.253	0.1004	pCi/g	0.1119	Y	609.7	3	1.494	IDENTIFIED	6.328	☐		
Radium-228 ✔	1.839	0.2138	pCi/g	0.2279	0.500	911.8	3	2.139	IDENTIFIED	9.826	☐		
Strontium-85 la	0.0929	0.02327	pCi/g	0.07764	Y	0	5	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔	0.552	0.05048	pCi/g	0.05923	0.080	583.7	1	1.375	IDENTIFIED	7.959	☐		
Thorium-228 nr	1.839	0.1159	pCi/g	0.1016	N	238.7	2	1.148	IDENTIFIED	3.269	☐		
Thorium-230 nr	1.253	0.09484	pCi/g	0.1119	N	609.7	3	1.494	IDENTIFIED	6.328	☐		
Thorium-232 nr	1.839	0.2138	pCi/g	0.2279	N	911.8	3	2.139	IDENTIFIED	9.826	☐		
Tin-126 int nr	0.2795	0.05231	pCi/g	0.1561	N	87.04	3	1.09	IDENTIFIED	17.85	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860009	04-MAR-10 12:00	24-MAR-10 16:28	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228 nr	1.824	0.205	pCi/g	0.2429	N	911.2	3	1.378	IDENTIFIED	9.227	☐		
Annihilation Rad.	0.1539	0.03762	pCi/g	0.04647	N	511.1	1	1.847	IDENTIFIED	24.05	☐		
Bismuth-211 int	4.1	0.293	pCi/g	0.3092	Y	351.9	2	1.073	IDENTIFIED	5.589	☐	ui	
Bismuth-212 la nr	2.37	0.4223	pCi/g	1.289	N	0	6	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔	1.188	0.1032	pCi/g	0.1096	0.200	609.3	3	1.578	IDENTIFIED	6.964	☐		
Cadmium-109 int	3.444	0.5209	pCi/g	1.185	Y	87.24	3	1.139	IDENTIFIED	14.39	☐	ui	
Cerium-143	7884	1423	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Gross Gamma	10.01	1.343	pCi/g	2.889	N		0				☐		
Iodine-135	5.18E+20	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Lead-212 ✔	1.615	0.1079	pCi/g	0.112	0.100	238.5	2	1.116	IDENTIFIED	4.604	☐		
Lead-214 ✔	1.488	0.114	pCi/g	0.1125	0.100	351.9	2	1.073	IDENTIFIED	5.589	☐		
Neptunium-237 int nr	0.9969	0.1835	pCi/g	0.3484	N	87.24	3	1.139	IDENTIFIED	14.39	☐		
Potassium-40 ✔	37.08	1.96	pCi/g	0.5342	1.00	1461	1	2.152	IDENTIFIED	2.716	☐		
Radium-224 int	2.52	0.5512	pCi/g	1.49	Y	241.5	1	2.313	IDENTIFIED	21.45	☐	ui	
Radium-226 ✔	1.188	0.1032	pCi/g	0.1096	Y	609.3	3	1.578	IDENTIFIED	6.964	☐		
Radium-228 ✔	1.824	0.205	pCi/g	0.2429	0.500	911.2	3	1.378	IDENTIFIED	9.227	☐		
Sodium-24 HE	9.62E+07	1.07E+08	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Strontium-85 la	0.1023	0.02298	pCi/g	0.08026	Y	0	6	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Technetium-99m	5.12E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Thallium-208 ✔	0.5606	0.04946	pCi/g	0.05463	0.080	583.3	1	1.432	IDENTIFIED	7.431	☐		
Thorium-228 nr	1.615	0.1079	pCi/g	0.112	N	238.5	2	1.116	IDENTIFIED	4.604	☐		
Thorium-230 nr	1.188	0.0983	pCi/g	0.1096	N	609.3	3	1.578	IDENTIFIED	6.964	☐		
Thorium-232 nr	1.824	0.205	pCi/g	0.2429	N	911.2	3	1.378	IDENTIFIED	9.227	☐		
Tin-126 int nr	0.3341	0.05053	pCi/g	0.1154	N	87.24	3	1.139	IDENTIFIED	14.39	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863001	04-MAR-10 12:00	24-MAR-10 18:28	20.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.295	0.2334	pCi/g	0.2823	N	911.2	3	1.541	IDENTIFIED	8.168	☐	
Annihilation Rad. HE	0.09426	0.0428	pCi/g	0.06554	N	510.9	1	2.12	IDENTIFIED	45.2	☐	
Bismuth-211 int	4.466	0.34	pCi/g	0.4462	Y	352	2	1.664	IDENTIFIED	5.768	☐ ui	
Bismuth-212 HE	2.245	0.4752	pCi/g	1.542	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	1.511	0.1301	pCi/g	0.151	0.200	609.3	3	1.345	IDENTIFIED	7.027	☐	
Cadmium-109 int	2.884	0.7692	pCi/g	1.933	Y	87.6	3	1.29	IDENTIFIED	25.94	☐ ui	
Cerium-143	13780	2286	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma	11.54	1.75	pCi/g	4.932	N		0				☐	
Iodine-135	2.74E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	2.086	0.1469	pCi/g	0.1232	0.100	238.8	2	1.488	IDENTIFIED	3.73	☐	
Lead-214	1.621	0.1313	pCi/g	0.1639	0.100	352	2	1.664	IDENTIFIED	5.768	☐	
Neptunium-237 HE	0.8348	0.2392	pCi/g	0.6099	N	87.6	3	1.29	IDENTIFIED	25.94	☐	
Niobium-95m la nr	0.6273	0.1117	pCi/g	0.3616	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	38.47	2.205	pCi/g	0.6976	1.00	1461	1	2.099	IDENTIFIED	2.951	☐	
Promethium-149 HE	217.2	311.1	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Radium-224 int	6.639	0.9857	pCi/g	1.32	Y	241.7	1	2.04	IDENTIFIED	13.78	☐ ui	
Radium-226	1.511	0.1301	pCi/g	0.151	Y	609.3	3	1.345	IDENTIFIED	7.027	☐	
Radium-228	2.295	0.2334	pCi/g	0.2823	0.500	911.2	3	1.541	IDENTIFIED	8.168	☐	
Strontium-85 la	0.153	0.03144	pCi/g	0.1055	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	0.6224	0.05917	pCi/g	0.08054	0.080	583.2	1	1.616	IDENTIFIED	8.335	☐	
Thorium-228 nr	2.086	0.1469	pCi/g	0.1232	N	238.8	2	1.488	IDENTIFIED	3.73	☐	
Thorium-230 nr	1.511	0.1239	pCi/g	0.151	N	609.3	3	1.345	IDENTIFIED	7.027	☐	
Thorium-232 nr	2.295	0.2334	pCi/g	0.2823	N	911.2	3	1.541	IDENTIFIED	8.168	☐	
Tin-126 nr HE	0.2798	0.07461	pCi/g	0.1889	N	87.6	3	1.29	IDENTIFIED	25.94	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863002	04-MAR-10 12:00	24-MAR-10 18:28	20.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.113	0.2065	pCi/g	0.2426	N	911.2	3	2.069	IDENTIFIED	7.046	☐	
Annihilation Rad.	0.169	0.03745	pCi/g	0.04468	N	511.1	1	2.131	IDENTIFIED	21.58	☐	
Bismuth-211 int	3.909	0.3008	pCi/g	0.3038	Y	352	2	1.434	IDENTIFIED	5.043	☐ ui	
Bismuth-212 la nr	1.9	0.383	pCi/g	1.083	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214	1.306	0.1045	pCi/g	0.1051	0.200	609.4	3	1.681	IDENTIFIED	5.469	☐	
Cadmium-109 int	2.152	0.5302	pCi/g	1.269	Y	87.14	3	0.9491	IDENTIFIED	24.18	☐ ui	
Cadmium-115 HE	24.47	25.62	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cerium-143	10480	1752	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1472	0.03475	pCi/g	0.09059	0.100	0	9	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135 HE	0.3588	0.09591	pCi/g	0.2922	N	0	9	0	NOT_IDENTI	0	☐	
Gross Gamma	11.2	1.329	pCi/g	2.337	N		0				☐	
Iodine-133 HE	23700	1.68E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212	2.103	0.1502	pCi/g	0.0976	0.100	238.7	2	1.25	IDENTIFIED	2.668	☐	
Lead-214	1.419	0.116	pCi/g	0.1125	0.100	352	2	1.434	IDENTIFIED	5.043	☐	

Neptunium-237	HE	0.623	0.1668	pCi/g	0.3903	N	87.14	3	0.9491	IDENTIFIED	24.18	☐	
Potassium-40		39.51	1.987	pCi/g	0.4874	1.00	1461	1	2.669	IDENTIFIED	2.076	☐	
Promethium-149	HE	201.7	237.1	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Radium-224	int	5.025	0.7407	pCi/g	1.045	Y	241.6	1	1.886	IDENTIFIED	13.34	☐	ui
Radium-226		1.306	0.1045	pCi/g	0.1051	Y	609.4	3	1.681	IDENTIFIED	5.469	☐	
Radium-228		2.113	0.2065	pCi/g	0.2426	0.500	911.2	3	2.069	IDENTIFIED	7.046	☐	
Sodium-24	HE	1.10E+07	1.07E+08	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Strontium-85	la	0.1556	0.02288	pCi/g	0.08092	Y	0	9	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208		0.687	0.05449	pCi/g	0.05431	0.080	583.4	1	1.605	IDENTIFIED	5.793	☐	
Thorium-228	nr	2.103	0.1502	pCi/g	0.0976	N	238.7	2	1.25	IDENTIFIED	2.668	☐	
Thorium-230	nr	1.306	0.09861	pCi/g	0.1051	N	609.4	3	1.681	IDENTIFIED	5.469	☐	
Thorium-232	nr	2.113	0.2065	pCi/g	0.2426	N	911.2	3	2.069	IDENTIFIED	7.046	☐	
Thorium-234		3.361	0.9648	pCi/g	2.018	2.00	63.36	2	1.167	IDENTIFIED	27.29	☐	
Tin-126	HE	0.2088	0.05143	pCi/g	0.138	N	87.14	3	0.9491	IDENTIFIED	24.18	☐	
Total Uranium		10.045	2.87E-06	ug/g	3.0045	N		0				☐	
Uranium-238	HE	3.361	0.9648	pCi/g	2.018	N	63.36	2	1.167	IDENTIFIED	27.29	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863003	04-MAR-10 12:00	24-MAR-10 18:29	20.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	2.279	0.249	pCi/g	0.2666	N	910.4	3	2.049	IDENTIFIED	9.166	☐	
Annihilation Rad.		0.1521	0.04186	pCi/g	0.05416	N	510.2	1	1.559	IDENTIFIED	27.38	☐	
Bismuth-211	int	4.45	0.2897	pCi/g	0.4075	Y	351.4	2	1.394	IDENTIFIED	5.636	☐	ui
Bismuth-212	HE	2.434	0.5602	pCi/g	1.454	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214		1.226	0.1147	pCi/g	0.1442	0.200	608.5	3	1.533	IDENTIFIED	8.547	☐	
Cadmium-109	int	3.195	0.6337	pCi/g	1.648	Y	87.07	3	1.23	IDENTIFIED	19.23	☐	ui
Cerium-143		18850	2639	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.3625	0.1148	pCi/g	0.3585	N	0	5	0	NOT_IDENTI	0	☐	
Gross Gamma		10.62	1.587	pCi/g	3.815	N		0				☐	
Lead-212		2.101	0.1019	pCi/g	0.1141	0.100	238.3	2	1.185	IDENTIFIED	3.219	☐	
Lead-214		1.615	0.1142	pCi/g	0.1482	0.100	351.4	2	1.394	IDENTIFIED	5.636	☐	
Neptunium-237	int nr	0.9248	0.2075	pCi/g	0.5089	N	87.07	3	1.23	IDENTIFIED	19.23	☐	
Niobium-95m	la nr	0.9859	0.1132	pCi/g	0.3754	N	0	5	0	NOT_IDENTI	0	☐	
Potassium-40		34.11	1.641	pCi/g	0.4822	1.00	1459	1	2.423	IDENTIFIED	3.026	☐	
Radium-224	int	4.879	0.7766	pCi/g	1.223	Y	241.2	1	1.774	IDENTIFIED	15.66	☐	ui
Radium-226		1.226	0.1147	pCi/g	0.1442	Y	608.5	3	1.533	IDENTIFIED	8.547	☐	
Radium-228		2.279	0.249	pCi/g	0.2666	0.500	910.4	3	2.049	IDENTIFIED	9.166	☐	
Sodium-24	HE	1.03E+07	1.39E+08	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Thallium-208		0.6091	0.04992	pCi/g	0.07139	0.080	582.5	1	1.854	IDENTIFIED	7.528	☐	
Thorium-228	nr	2.101	0.1019	pCi/g	0.1141	N	238.3	2	1.185	IDENTIFIED	3.219	☐	
Thorium-230	nr	1.226	0.11	pCi/g	0.1442	N	608.5	3	1.533	IDENTIFIED	8.547	☐	
Thorium-232	nr	2.279	0.249	pCi/g	0.2666	N	910.4	3	2.049	IDENTIFIED	9.166	☐	
Thorium-234		4.332	1.024	pCi/g	3.141	2.00	63.12	2	1.288	IDENTIFIED	21.77	☐	
Tin-126	int nr	0.3099	0.06147	pCi/g	0.1609	N	87.07	3	1.23	IDENTIFIED	19.23	☐	
Total Uranium		13.001	3.05E-06	ug/g	4.6757	N		0				☐	
Uranium-238	HE	4.332	1.024	pCi/g	3.141	N	63.12	2	1.288	IDENTIFIED	21.77	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863004	04-MAR-10 12:00	24-MAR-10 20:31	20.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 nr	2.23	0.2094	pCi/g	0.2551	N	911.8	3	1.771	IDENTIFIED	7.513	☐	
Annihilation Rad.	0.1789	0.03649	pCi/g	0.05063	N	511.2	1	1.886	IDENTIFIED	20.2	☐	
Bismuth-211 int	4.243	0.2798	pCi/g	0.3539	Y	352	2	1.26	IDENTIFIED	5.667	☐ ui	
Bismuth-212 HE	2.31	0.5131	pCi/g	1.349	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔	1.375	0.1023	pCi/g	0.1131	0.200	609.8	3	1.531	IDENTIFIED	6.452	☐	
Cadmium-109 int	4.326	0.6342	pCi/g	1.438	Y	87.22	3	1.161	IDENTIFIED	13.38	☐ ui	
Cadmium-115 HE	17.78	29.88	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cerium-143	6255	1239	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma	11.01	1.531	pCi/g	3.912	N		0				☐	
Iodine-135	2.60E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212 ✔	1.979	0.1013	pCi/g	0.09264	0.100	238.7	2	1.087	IDENTIFIED	3.135	☐	
Lead-214 ✔	1.54	0.1101	pCi/g	0.1287	0.100	352	2	1.26	IDENTIFIED	5.667	☐	
Mercury-203 int	0.08901	0.0408	pCi/g	0.06855	0.100	279.1	1	0.7118	IDENTIFIED	45.71	☐ ui	
Neptunium-237 int nr	1.252	0.2256	pCi/g	0.4558	N	87.22	3	1.161	IDENTIFIED	13.38	☐	
Potassium-40 ✔	34.49	1.583	pCi/g	0.5163	1.00	1462	1	2.074	IDENTIFIED	2.907	☐	
Radium-224 int	5.46	0.8092	pCi/g	0.9931	Y	241.7	1	2.05	IDENTIFIED	14.44	☐ ui	
Radium-226 ✔	1.375	0.1023	pCi/g	0.1131	Y	609.8	3	1.531	IDENTIFIED	6.452	☐	
Radium-228 ✔	2.23	0.2094	pCi/g	0.2551	0.500	911.8	3	1.771	IDENTIFIED	7.513	☐	
Strontium-85 la	0.1127	0.02507	pCi/g	0.08577	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	3.34E+22	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208 ✔	0.6579	0.04856	pCi/g	0.05717	0.080	583.6	1	1.335	IDENTIFIED	6.682	☐	
Thorium-228 nr	1.979	0.1013	pCi/g	0.09264	N	238.7	2	1.087	IDENTIFIED	3.135	☐	
Thorium-230 nr	1.375	0.09565	pCi/g	0.1131	N	609.8	3	1.531	IDENTIFIED	6.452	☐	
Thorium-232 nr	2.23	0.2094	pCi/g	0.2551	N	911.8	3	1.771	IDENTIFIED	7.513	☐	
Tin-126 int nr	0.4195	0.0615	pCi/g	0.1405	N	87.22	3	1.161	IDENTIFIED	13.38	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248865001	03-MAR-10 12:00	24-MAR-10 20:31	21.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 nr	2.33	0.2122	pCi/g	0.2403	N	911.5	3	1.892	IDENTIFIED	6.858	☐	
Annihilation Rad.	0.2517	0.04297	pCi/g	0.04807	N	511	1	2.055	IDENTIFIED	16.48	☐	
Bismuth-211 int	4.974	0.3277	pCi/g	0.3796	Y	352.1	2	1.28	IDENTIFIED	4.828	☐ ui	
Bismuth-212 HE	2.531	0.6066	pCi/g	1.427	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔	1.445	0.1124	pCi/g	0.14	0.200	609.6	3	1.273	IDENTIFIED	5.794	☐	
Cadmium-109 int	4.636	0.498	pCi/g	1.163	Y	87.28	3	1.063	IDENTIFIED	9.675	☐ ui	
Cadmium-115 HE	43.87	40.62	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cerium-143	13920	2558	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1857	0.03922	pCi/g	0.1211	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	12.04	1.565	pCi/g	4.152	N		0				☐	
Iodine-135	6.99E+22	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212 ✔	2.145	0.1214	pCi/g	0.1	0.100	238.8	2	1.049	IDENTIFIED	2.984	☐	

Lead-214 ✔		1.805	0.1289	pCi/g	0.1366	0.100	352.1	2	1.28	IDENTIFIED	4.828	☐		
Neptunium-237	int nr	1.34	0.2011	pCi/g	0.3388	N	87.28	3	1.063	IDENTIFIED	9.675	☐		
Potassium-40 ✔		37.59	1.901	pCi/g	0.5494	1.00	1461	1	2.019	IDENTIFIED	2.673	☐		
Radium-224	int	4.759	0.5883	pCi/g	1.072	Y	241.8	1	1.512	IDENTIFIED	11.62	☐	ui	
Radium-226 ✔		1.445	0.1124	pCi/g	0.14	Y	609.6	3	1.273	IDENTIFIED	5.794	☐		
Radium-228 ✔		2.33	0.2122	pCi/g	0.2403	0.500	911.5	3	1.892	IDENTIFIED	6.858	☐		
Sodium-24	HE	2.98E+08	4.15E+08	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Strontium-85	la	0.0982	0.02275	pCi/g	0.08554	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔		0.7326	0.06078	pCi/g	0.06242	0.080	583.3	1	1.502	IDENTIFIED	6.783	☐		
Thorium-228	nr	2.145	0.1214	pCi/g	0.1	N	238.8	2	1.049	IDENTIFIED	2.984	☐		
Thorium-230	nr	1.445	0.1058	pCi/g	0.14	N	609.6	3	1.273	IDENTIFIED	5.794	☐		
Thorium-232	nr	2.33	0.2122	pCi/g	0.2403	N	911.5	3	1.892	IDENTIFIED	6.858	☐		
Thorium-234 ✔		3.259	0.9134	pCi/g	1.741	2.00	62.62	2	1.194	IDENTIFIED	26.58	☐		
Tin-126	int nr	0.4489	0.04822	pCi/g	0.1129	N	87.28	3	1.063	IDENTIFIED	9.675	☐		
Total Uranium		9.682	2.72E-06	ug/g	2.5922	N		0				☐		
Uranium-238	HE	3.259	0.9134	pCi/g	1.741	N	62.62	2	1.194	IDENTIFIED	26.58	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248866001	04-MAR-10 12:00	24-MAR-10 20:32	20.4	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.963	0.2172	pCi/g	0.2879	N	911.3	3	1.686	IDENTIFIED	9.257	☐		
Annihilation Rad.	HE	0.1031	0.04332	pCi/g	0.06023	N	510.6	1	1.637	IDENTIFIED	41.78	☐		
Bismuth-211	int	4.116	0.3332	pCi/g	0.4596	Y	352	2	1.459	IDENTIFIED	6.393	☐	ui	
Bismuth-212	HE	2.104	0.5701	pCi/g	1.439	N	0	6	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔		1.397	0.1121	pCi/g	0.1472	0.200	609.3	3	1.5	IDENTIFIED	6.291	☐		
Cadmium-109	int	2.358	0.7274	pCi/g	2.198	Y	87.63	3	1.088	IDENTIFIED	30.22	☐	ui	
Cerium-143		12370	2167	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1276	0.03245	pCi/g	0.1081	0.100	0	6	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cobalt-58	HE	0.08646	0.03537	pCi/g	0.07687	N	809.9	1	2.813	IDENTIFIED	40.66	☐		
Gross Gamma		10.63	1.7	pCi/g	3.871	N		0				☐		
Lead-212 ✔		2.046	0.142	pCi/g	0.1263	0.100	238.8	2	1.34	IDENTIFIED	3.533	☐		
Lead-214 ✔		1.494	0.1278	pCi/g	0.1599	0.100	352	2	1.459	IDENTIFIED	6.393	☐		
Neptunium-237	HE	0.6824	0.2223	pCi/g	0.6171	N	87.63	3	1.088	IDENTIFIED	30.22	☐		
Niobium-95	HE	0.1123	0.03211	pCi/g	0.1078	N	0	6	0	NOT_IDENTI	0	☐		
Niobium-95m	HE	0.3981	0.1048	pCi/g	0.3382	N	0	6	0	NOT_IDENTI	0	☐		
Potassium-40 ✔		35.88	2.056	pCi/g	0.4818	1.00	1461	1	2.163	IDENTIFIED	2.948	☐		
Radium-224	int	5.583	0.942	pCi/g	1.353	Y	241.7	1	2.04	IDENTIFIED	15.95	☐	ui	
Radium-226 ✔		1.397	0.1121	pCi/g	0.1472	Y	609.3	3	1.5	IDENTIFIED	6.291	☐		
Radium-228 ✔		1.963	0.2172	pCi/g	0.2879	0.500	911.3	3	1.686	IDENTIFIED	9.257	☐		
Strontium-85	la	0.1346	0.0313	pCi/g	0.1033	Y	0	6	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔		0.5766	0.05722	pCi/g	0.06778	0.080	583.5	1	1.522	IDENTIFIED	8.807	☐		
Thorium-228	nr	2.046	0.142	pCi/g	0.1263	N	238.8	2	1.34	IDENTIFIED	3.533	☐		
Thorium-230	nr	1.396	0.1058	pCi/g	0.1472	N	609.3	3	1.5	IDENTIFIED	6.291	☐		
Thorium-232	nr	1.963	0.2172	pCi/g	0.2879	N	911.3	3	1.686	IDENTIFIED	9.257	☐		
Tin-126	HE	0.2287	0.07054	pCi/g	0.2142	N	87.63	3	1.088	IDENTIFIED	30.22	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248866002	04-MAR-10 12:00	24-MAR-10 20:32	20.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.304	0.2798	pCi/g	0.3232	N	911.2	3	1.767	IDENTIFIED	10.65	☐	
Annihilation Rad. HE	0.1405	0.04642	pCi/g	0.06209	N	511	1	1.263	IDENTIFIED	32.74	☐	
Bismuth-211 int	4.864	0.3573	pCi/g	0.397	Y	352	2	1.222	IDENTIFIED	5.676	☐ ui	
Bismuth-212 HE	1.957	0.6148	pCi/g	1.699	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓	1.652	0.1359	pCi/g	0.158	0.200	609.3	3	1.451	IDENTIFIED	6.446	☐	
Cadmium-109 int	3.853	0.5148	pCi/g	1.55	Y	87.31	3	1.019	IDENTIFIED	12.44	☐ ui	
Cerium-143	7260	1441	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1403	0.05076	pCi/g	0.1296	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	11.4	1.597	pCi/g	3.988	N		0				☐	
Lead-210 HE	1.308	0.4664	pCi/g	0.9292	N	46.62	1	0.882	IDENTIFIED	35.25	☐	
Lead-212 ✓	2.053	0.1268	pCi/g	0.1101	0.100	238.7	2	1.063	IDENTIFIED	3.534	☐	
Lead-214 ✓	1.765	0.1385	pCi/g	0.1462	0.100	352	2	1.222	IDENTIFIED	5.676	☐	
Neptunium-237 int nr	1.115	0.1894	pCi/g	0.4356	N	87.31	3	1.019	IDENTIFIED	12.44	☐	
Potassium-40 ✓	37.4	2.091	pCi/g	0.8153	1.00	1461	1	2.013	IDENTIFIED	3.398	☐	
Promethium-149 HE	410.7	267.3	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Radium-224 int	5.782	0.8164	pCi/g	1.181	Y	241.7	1	1.685	IDENTIFIED	13.37	☐ ui	
Radium-226 ✓	1.652	0.1359	pCi/g	0.158	Y	609.3	3	1.451	IDENTIFIED	6.446	☐	
Radium-228 ✓	2.304	0.2798	pCi/g	0.3232	0.500	911.2	3	1.767	IDENTIFIED	10.65	☐	
Thallium-208 ✓	0.6501	0.06073	pCi/g	0.08923	0.080	583.3	1	1.376	IDENTIFIED	8.06	☐	
Thorium-228 nr	2.053	0.1268	pCi/g	0.1101	N	238.7	2	1.063	IDENTIFIED	3.534	☐	
Thorium-230 nr	1.652	0.1287	pCi/g	0.158	N	609.3	3	1.451	IDENTIFIED	6.446	☐	
Thorium-232 nr	2.304	0.2798	pCi/g	0.3232	N	911.2	3	1.767	IDENTIFIED	10.65	☐	
Thorium-234 ✓	2.082	0.6011	pCi/g	1.25	2.00	63.29	2	1.032	IDENTIFIED	27.26	☐	
Tin-126 int nr	0.3737	0.04993	pCi/g	0.1501	N	87.31	3	1.019	IDENTIFIED	12.44	☐	
Total Uranium	6.2503	1.79E-06	ug/g	1.8624	N		0				☐	
Uranium-238 HE	2.082	0.6011	pCi/g	1.25	N	63.29	2	1.032	IDENTIFIED	27.26	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867001	05-MAR-10 12:00	24-MAR-10 20:33	19.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	1.693	0.2131	pCi/g	0.2795	N	911.3	3	1.621	IDENTIFIED	10.02	☐	
Annihilation Rad. HE	0.12	0.02722	pCi/g	0.1023	N	0	10	0	NOT_IDENTI	0	☐	
Barium-137m HE	0.1196	0.02324	pCi/g	0.08773	N	0	10	0	NOT_IDENTI	0	☐	
Bismuth-211 int	3.834	0.3032	pCi/g	0.3984	Y	351.8	2	1.235	IDENTIFIED	6.295	☐ ui	
Bismuth-212 nr	1.882	0.4297	pCi/g	0.8862	N	727.4	1	1.236	IDENTIFIED	21.88	☐	
Bismuth-214 ✓	1.167	0.1025	pCi/g	0.1397	0.200	609.3	3	1.276	IDENTIFIED	7.183	☐	
Cadmium-109 int	2.483	0.5959	pCi/g	1.883	Y	86.89	3	1.116	IDENTIFIED	23.54	☐ ui	
Cadmium-115 HE	5.067	24.22	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cerium-143	9059	1384	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1411	0.04788	pCi/g	0.1011	0.100	0	10	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135 HE	0.3862	0.1115	pCi/g	0.3567	N	0	10	0	NOT_IDENTI	0	☐	
Cesium-137 la	0.1263	0.02456	pCi/g	0.09268	0.100	0	10	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	10.33	1.575	pCi/g	4.849	N		0				☐	

Iodine-133	HE	79750	1.04E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Lead-212 ✓		1.839	0.1106	pCi/g	0.1166	0.100	238.5	2	1.068	IDENTIFIED	3.363	☐		
Lead-214 ✓		1.391	0.1165	pCi/g	0.1459	0.100	351.8	2	1.235	IDENTIFIED	6.295	☐		
Neptunium-237	HE	0.7197	0.1885	pCi/g	0.5047	N	86.89	3	1.116	IDENTIFIED	23.54	☐		
Niobium-95m	la nr	0.6736	0.09957	pCi/g	0.3253	N	0	10	0	NOT_IDENTI	0	☐		
Potassium-40 ✓		35.23	2.162	pCi/g	0.5852	1.00	1461	1	1.745	IDENTIFIED	2.847	☐		
Promethium-149	HE	209.8	200.8	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Radium-224	int	4.777	0.778	pCi/g	1.248	Y	241.4	1	1.769	IDENTIFIED	15.67	☐	ui	
Radium-226 ✓		1.167	0.1025	pCi/g	0.1397	Y	609.3	3	1.276	IDENTIFIED	7.183	☐		
Radium-228 ✓		1.693	0.2131	pCi/g	0.2795	0.500	911.3	3	1.621	IDENTIFIED	10.02	☐		
Thallium-208 ✓		0.5863	0.05179	pCi/g	0.06836	0.080	583	1	1.469	IDENTIFIED	7.489	☐		
Thorium-228	nr	1.839	0.1106	pCi/g	0.1166	N	238.5	2	1.068	IDENTIFIED	3.363	☐		
Thorium-230	nr	1.167	0.09777	pCi/g	0.1397	N	609.3	3	1.276	IDENTIFIED	7.183	☐		
Thorium-232	nr	1.693	0.2131	pCi/g	0.2795	N	911.3	3	1.621	IDENTIFIED	10.02	☐		
Tin-126	HE	0.2412	0.05788	pCi/g	0.1881	N	86.89	3	1.116	IDENTIFIED	23.54	☐		

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867002	05-MAR-10 12:00	24-MAR-10 20:37	19.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.652	0.1636	pCi/g	0.1826	N	911.5	3	1.896	IDENTIFIED	7.223	☐		
Annihilation Rad.		0.1421	0.03004	pCi/g	0.03846	N	511.6	1	2.19	IDENTIFIED	20.54	☐		
Bismuth-211	int	3.234	0.2646	pCi/g	0.2742	Y	352	2	1.328	IDENTIFIED	5.756	☐	ui	
Bismuth-212	HE	1.511	0.3782	pCi/g	0.943	N	0	10	0	FAIL_ABUND	0	☐		
Bismuth-214 ✓		1.118	0.08867	pCi/g	0.09313	0.200	609.4	3	1.568	IDENTIFIED	5.371	☐		
Cadmium-109	int	2.836	0.3944	pCi/g	1.036	Y	87.18	3	1.122	IDENTIFIED	13.09	☐	ui	
Cadmium-115	HE	6.266	16.61	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Cerium-143		5744	947.6	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.08554	0.01966	pCi/g	0.07097	0.100	0	10	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Cesium-135	HE	0.2682	0.07661	pCi/g	0.2394	N	0	10	0	NOT_IDENTI	0	☐		
Gross Gamma		8.782	1.158	pCi/g	2.306	N		0				☐		
Iodine-135		5.73E+19	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Lead-212 ✓		1.625	0.1181	pCi/g	0.07933	0.100	238.7	2	1.262	IDENTIFIED	2.989	☐		
Lead-214 ✓		1.174	0.1013	pCi/g	0.1005	0.100	352	2	1.328	IDENTIFIED	5.756	☐		
Neptunium-237	int nr	0.8219	0.1431	pCi/g	0.3497	N	87.18	3	1.122	IDENTIFIED	13.09	☐		
Niobium-95m	HE	0.2345	0.06596	pCi/g	0.2072	N	0	10	0	NOT_IDENTI	0	☐		
Potassium-40 ✓		29.16	1.485	pCi/g	0.456	1.00	1461	1	2.847	IDENTIFIED	2.228	☐		
Promethium-149	HE	69.31	146.6	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Radium-224	int	4.236	0.6252	pCi/g	0.8492	Y	241.6	1	1.886	IDENTIFIED	13.36	☐	ui	
Radium-226 ✓		1.118	0.08867	pCi/g	0.09313	Y	609.4	3	1.568	IDENTIFIED	5.371	☐		
Radium-228 ✓		1.652	0.1636	pCi/g	0.1826	0.500	911.5	3	1.896	IDENTIFIED	7.223	☐		
Sodium-24	HE	2.66E+07	3.27E+07	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Strontium-85	la	0.144	0.01975	pCi/g	0.07095	Y	0	10	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✓		0.487	0.03971	pCi/g	0.04867	0.080	583.4	1	1.765	IDENTIFIED	6.094	☐		
Thorium-228	nr	1.625	0.1181	pCi/g	0.07933	N	238.7	2	1.262	IDENTIFIED	2.989	☐		
Thorium-230	nr	1.118	0.08362	pCi/g	0.09313	N	609.4	3	1.568	IDENTIFIED	5.371	☐		
Thorium-232	nr	1.652	0.1636	pCi/g	0.1826	N	911.5	3	1.896	IDENTIFIED	7.223	☐		

Thorium-234 ✔		1.881	0.9198	pCi/g	1.667	2.00	63.04	2	1.13	IDENTIFIED	48.08	☐
Tin-126	int nr	0.2755	0.03831	pCi/g	0.1125	N	87.18	3	1.122	IDENTIFIED	13.09	☐
Total Uranium		5.674	2.74E-06	ug/g	2.4817	N		0				☐
Uranium-238	HE	1.881	0.9198	pCi/g	1.667	N	63.04	2	1.13	IDENTIFIED	48.08	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867003	05-MAR-10 12:00	24-MAR-10 20:51	19.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.575	0.2171	pCi/g	0.3616	N	911	3	1.703	IDENTIFIED	12.24	☐	
Annihilation Rad.		0.1776	0.03803	pCi/g	0.06258	N	510.2	1	1.938	IDENTIFIED	21.17	☐	
Bismuth-211	int	4.376	0.3127	pCi/g	0.4462	Y	351.6	2	1.404	IDENTIFIED	5.953	☐ ui	
Bismuth-212	HE	1.72	0.7059	pCi/g	1.543	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.334	0.1238	pCi/g	0.1637	0.200	609	3	1.417	IDENTIFIED	8.263	☐	
Cadmium-109	int	2.228	0.6204	pCi/g	1.323	Y	87.14	3	1.33	IDENTIFIED	27.58	☐ ui	
Cerium-143		11830	1907	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma		10.54	1.528	pCi/g	4.223	N		0				☐	
Iodine-133	HE	80310	1.20E+05	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-210	nr	2.127	0.5158	pCi/g	0.9645	N	45.94	1	1.211	IDENTIFIED	23.94	☐	
Lead-212 ✔		1.93	0.1255	pCi/g	0.1149	0.100	238.3	2	1.266	IDENTIFIED	3.599	☐	
Lead-214 ✔		1.588	0.1217	pCi/g	0.1574	0.100	351.6	2	1.404	IDENTIFIED	5.953	☐	
Neptunium-237	HE	0.6457	0.1921	pCi/g	0.4396	N	87.14	3	1.33	IDENTIFIED	27.58	☐	
Niobium-95	HE	0.1457	0.03373	pCi/g	0.126	N	0	6	0	NOT_IDENTI	0	☐	
Niobium-95m	la nr	1.086	0.1247	pCi/g	0.3938	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40 ✔		34.38	1.518	pCi/g	0.6877	1.00	1460	1	1.972	IDENTIFIED	3.134	☐	
Promethium-149	HE	335.9	216.6	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Radium-224	int	4.226	0.7754	pCi/g	1.231	Y	241.3	1	1.784	IDENTIFIED	17.69	☐ ui	
Radium-226 ✔		1.334	0.1238	pCi/g	0.1637	Y	609	3	1.417	IDENTIFIED	8.263	☐	
Radium-228 ✔		1.575	0.2171	pCi/g	0.3616	0.500	911	3	1.703	IDENTIFIED	12.24	☐	
Thallium-208 ✔		0.5497	0.05356	pCi/g	0.08389	0.080	582.8	1	1.312	IDENTIFIED	9.026	☐	
Thorium-228	nr	1.93	0.1255	pCi/g	0.1149	N	238.3	2	1.266	IDENTIFIED	3.599	☐	
Thorium-230	nr	1.334	0.1187	pCi/g	0.1637	N	609	3	1.417	IDENTIFIED	8.263	☐	
Thorium-232	nr	1.575	0.2171	pCi/g	0.3616	N	911	3	1.703	IDENTIFIED	12.24	☐	
Tin-126	HE	0.2164	0.06025	pCi/g	0.1283	N	87.14	3	1.33	IDENTIFIED	27.58	☐	
Total Uranium		3.9374	1.85E-06	ug/g	1.8648	N		0				☐	
Uranium-235	nvp	0.505	0.1393	pCi/g	0.4593	0.500	92.57	1	1.299	IDENTIFIED	14.7	☐ ui	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867004	05-MAR-10 12:00	24-MAR-10 22:58	19.5	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	2.029	0.1939	pCi/g	0.2151	N	911.2	3	1.785	IDENTIFIED	7.388	☐	
Annihilation Rad.		0.1353	0.03352	pCi/g	0.04351	N	511	1	2.293	IDENTIFIED	24.39	☐	
Bismuth-211	int	4.541	0.3077	pCi/g	0.3307	Y	352.1	2	1.416	IDENTIFIED	4.61	☐ ui	
Bismuth-212	HE	1.488	0.402	pCi/g	1.033	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.385	0.1061	pCi/g	0.1032	0.200	609.3	3	1.555	IDENTIFIED	5.818	☐	
Cadmium-109	int	4.474	0.6052	pCi/g	1.276	Y	87.39	3	1.575	IDENTIFIED	12.04	☐ ui	

Cerium-143		8611	1279	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.118	0.02485	pCi/g	0.08056	0.100	0	7	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-135	HE	0.3367	0.08958	pCi/g	0.2804	N	0	7	0	NOT_IDENTI	0	☐		
Gross Gamma		11.16	1.43	pCi/g	3.744	N		0				☐		
Iodine-133	HE	23680	86680	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-212		1.98	0.1308	pCi/g	0.08567	0.100	238.8	2	1.431	IDENTIFIED	2.821	☐		
Lead-214		1.648	0.1206	pCi/g	0.1174	0.100	352.1	2	1.416	IDENTIFIED	4.61	☐		
Neptunium-237	int nr	1.296	0.2219	pCi/g	0.3797	N	87.39	3	1.575	IDENTIFIED	12.04	☐		
Niobium-95m	la nr	0.5469	0.07934	pCi/g	0.2455	N	0	7	0	NOT_IDENTI	0	☐		
Potassium-40		35.67	1.924	pCi/g	0.5141	1.00	1461	1	2.08	IDENTIFIED	2.226	☐		
Radium-224	int	4.578	0.6137	pCi/g	0.9179	Y	241.7	1	1.678	IDENTIFIED	12.22	☐	ui	
Radium-226		1.385	0.1061	pCi/g	0.1032	Y	609.3	3	1.555	IDENTIFIED	5.818	☐		
Radium-228		2.029	0.1939	pCi/g	0.2151	0.500	911.2	3	1.785	IDENTIFIED	7.388	☐		
Strontium-85	la	0.1884	0.02288	pCi/g	0.07659	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208		0.5801	0.04755	pCi/g	0.05345	0.080	583.3	1	1.669	IDENTIFIED	6.803	☐		
Thorium-228	nr	1.98	0.1308	pCi/g	0.08567	N	238.8	2	1.431	IDENTIFIED	2.821	☐		
Thorium-230	nr	1.385	0.09958	pCi/g	0.1032	N	609.3	3	1.555	IDENTIFIED	5.818	☐		
Thorium-232	nr	2.029	0.1939	pCi/g	0.2151	N	911.2	3	1.785	IDENTIFIED	7.388	☐		
Tin-126	int nr	0.4344	0.05877	pCi/g	0.1249	N	87.39	3	1.575	IDENTIFIED	12.04	☐		
Total Uranium		4.7481	2.80E-06	ug/g	4.7247	N		0				☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065188		24-MAR-10 22:59	0	MB	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Cerium-143	93.1	39.91	pCi/g	0	N	0	2	0	SHORT_HLIF	0	☐	
Iodine-135	1.18E+15	0	pCi/g	0	N	0	2	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065189	05-MAR-10 12:00	24-MAR-10 23:00	19.5	DUP	LOAD	1		LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.977	0.1855	pCi/g	0.2107	N	911.1	3	1.489	IDENTIFIED	7.342	☐		
Annihilation Rad.		0.1489	0.03314	pCi/g	0.03984	N	510.8	1	1.525	IDENTIFIED	21.74	☐		
Barium-137m	HE	0.1069	0.0307	pCi/g	0.0573	N	661.7	2	1.357	IDENTIFIED	28.18	☐		
Bismuth-211	int	3.938	0.2465	pCi/g	0.2469	Y	351.9	2	1.131	IDENTIFIED	4.341	☐	ui	
Bismuth-212	la nr	2.347	0.4101	pCi/g	1.124	N	0	7	0	FAIL_ABUND	0	☐		
Bismuth-214		1.48	0.1164	pCi/g	0.1012	0.200	609.1	3	1.302	IDENTIFIED	5.174	☐		
Cadmium-109	int	4.658	0.3566	pCi/g	0.5224	Y	87.3	3	1.213	IDENTIFIED	6.062	☐	ui	
Cadmium-115	HE	7.571	17.53	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cerium-143		1929	529.2	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1096	0.02929	pCi/g	0.08081	0.100	0	7	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137		0.1129	0.03243	pCi/g	0.06053	0.100	661.7	2	1.357	IDENTIFIED	28.18	☐		
Europium-155	HE	0.1071	0.02887	pCi/g	0.09983	N	0	7	0	FAIL_ABUND	0	☐		
Gross Gamma		10.99	1.251'	pCi/g	3.798	N		0				☐		
Iodine-135		4.59E+20	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-210	nr	2.719	0.2845	pCi/g	0.4671	N	46.64	1	0.6556	IDENTIFIED	9.337	☐		

Lead-212		1.91	0.1048	pCi/g	0.06247	0.100	238.5	2	0.8926	IDENTIFIED	2.271	☐
Lead-214		1.429	0.09776	pCi/g	0.08987	0.100	351.9	2	1.131	IDENTIFIED	4.341	☐
Neptunium-237	int nr	1.35	0.1752	pCi/g	0.1505	N	87.3	3	1.213	IDENTIFIED	6.062	☐
Potassium-40		33.08	1.65	pCi/g	0.4812	1.00	1461	1	1.975	IDENTIFIED	2.582	☐
Radium-224	int	4.63	0.4727	pCi/g	0.6714	Y	241.5	1	1.734	IDENTIFIED	9.192	☐ ui
Radium-226		1.48	0.1164	pCi/g	0.1012	Y	609.1	3	1.302	IDENTIFIED	5.174	☐
Radium-228		1.977	0.1855	pCi/g	0.2107	0.500	911.1	3	1.489	IDENTIFIED	7.342	☐
Technetium-99m		1.51E+21	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐
Thallium-208		0.5839	0.04711	pCi/g	0.04622	0.080	583.1	1	1.224	IDENTIFIED	5.957	☐
Thorium-228	nr	1.91	0.1048	pCi/g	0.06247	N	238.5	2	0.8926	IDENTIFIED	2.271	☐
Thorium-230	nr	1.479	0.1097	pCi/g	0.1011	N	609.1	3	1.302	IDENTIFIED	5.174	☐
Thorium-232	nr	1.977	0.1855	pCi/g	0.2107	N	911.1	3	1.489	IDENTIFIED	7.342	☐
Thorium-234		1.778	0.3504	pCi/g	0.58	2.00	63.32	2	0.7981	IDENTIFIED	17.52	☐
Tin-126	int nr	0.4523	0.03463	pCi/g	0.05064	N	87.3	3	1.213	IDENTIFIED	6.062	☐
Total Uranium		5.3397	1.04E-06	ug/g	0.86471	N		0				☐
Uranium-238	nr	1.778	0.3504	pCi/g	0.58	N	63.32	2	0.7981	IDENTIFIED	17.52	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065190		25-MAR-10 09:16	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	1.589	0.3005	pCi/g	0.4709	N	911.5	3	2.202	IDENTIFIED	17.65	☐	
Americium-241	13.88	0.6378	pCi/g	0.4687	0.200	59.48	1	1.075	IDENTIFIED	2.418	☐ 85.2%	
Barium-137m	5.58	0.3133	pCi/g	0.08739	N	661.7	2	1.696	IDENTIFIED	1.93	☐	
Bismuth-211	3.464	0.3672	pCi/g	0.5321	Y	351.9	2	1.399	IDENTIFIED	8.86	☐	
Bismuth-214	0.8897	0.1076	pCi/g	0.1724	0.200	609.4	3	1.786	IDENTIFIED	10.6	☐	
Cadmium-109	35.43	2.107	pCi/g	1.99	Y	88.09	2	1.148	IDENTIFIED	3.59	☐	
Cerium-143	688.5	238.6	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-137	5.894	0.3313	pCi/g	0.09232	0.100	661.7	2	1.696	IDENTIFIED	1.93	☐ 107.7%	
Cobalt-57	0.2454	0.03596	pCi/g	0.06108	N	122	1	1.08	IDENTIFIED	14.06	☐	
Cobalt-60	6.898	0.337	pCi/g	0.07391	0.100	1333	1	2.484	IDENTIFIED	1.998	☐ 106.4%	
Gross Gamma	28.98	2.749	pCi/g	3.013	N		0				☐	
Iodine-135	1.47E+17	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	1.427	0.119	pCi/g	0.1487	0.100	238.7	2	1.322	IDENTIFIED	5.07	☐	
Lead-214	1.257	0.1377	pCi/g	0.1935	0.100	351.9	2	1.399	IDENTIFIED	8.86	☐	
Neptunium-237	4.949	0.6238	pCi/g	1.033	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	1.02	0.254	pCi/g	1.017	1.00	0	6	0	NOT_IDENTI	0	☐	
Radium-224	2.93	0.8629	pCi/g	1.592	Y	241.6	1	1.823	IDENTIFIED	28.78	☐	
Radium-226	0.8897	0.1076	pCi/g	0.1724	Y	609.4	3	1.786	IDENTIFIED	10.6	☐	
Radium-228	1.589	0.3005	pCi/g	0.4709	0.500	911.5	3	2.202	IDENTIFIED	17.65	☐	
Silver-110m	0.713	0.0596	pCi/g	0.1823	N	0	6	0	NOT_IDENTI	0	☐	
Technetium-99m	6.93E+12	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208	0.4272	0.05399	pCi/g	0.09842	0.080	583.4	1	1.159	IDENTIFIED	11.42	☐	
Thorium-228	1.427	0.119	pCi/g	0.1487	N	238.7	2	1.322	IDENTIFIED	5.07	☐	
Thorium-230	0.8897	0.105	pCi/g	0.1724	N	609.4	3	1.786	IDENTIFIED	10.6	☐	
Thorium-232	1.589	0.3005	pCi/g	0.4709	N	911.5	3	2.202	IDENTIFIED	17.65	☐	
Tin-126	3.456	0.2056	pCi/g	0.195	N	88.09	2	1.148	IDENTIFIED	3.59	☐	

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

MS 3/29/10

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
962633	248867003	SAMPLE	24-MAR-10	Cerium-143	11830	1907	pCi/g	0	N
				Cesium-134	0.103	0.03425	pCi/g	0.06249	0.100
				Gross Gamma	10.54	1.528	pCi/g	2.063	N
				Iodine-133	80310	1.20E+05	pCi/g	0	N
				Lead-212	1.93	0.1255	pCi/g	0.05748	0.100
				Lead-214	1.588	0.1217	pCi/g	0.07875	0.100
				Potassium-40	34.38	1.518	pCi/g	0.3441	1.00
				Promethium-149	335.9	216.6	pCi/g	0	N
				Radium-224	4.226	0.7754	pCi/g	0.6161	Y
				Radium-226	1.334	0.1238	pCi/g	0.08192	Y
				Radium-228	1.575	0.2171	pCi/g	0.1809	0.500
				Strontium-85	0.08679	0.02844	pCi/g	0.04588	Y
				Thallium-208	0.5497	0.05356	pCi/g	0.04197	0.080
				Thorium-234	1.245	0.6213	pCi/g	0.6258	2.00
				Uranium-235	0.505	0.1393	pCi/g	0.2298	0.500
962633	248867004	SAMPLE	24-MAR-10	Bismuth-211	4.541	0.3077	pCi/g	0.1655	Y
				Bismuth-214	1.385	0.1061	pCi/g	0.05161	0.200
				Cadmium-109	4.474	0.6052	pCi/g	0.6383	Y
				Cerium-143	8611	1279	pCi/g	0	N
				Cesium-134	0.118	0.02485	pCi/g	0.0403	0.100
				Gross Gamma	11.16	1.43	pCi/g	1.834	N
				Iodine-133	23680	86680	pCi/g	0	N
				Lead-212	1.98	0.1308	pCi/g	0.04286	0.100
				Lead-214	1.648	0.1206	pCi/g	0.05875	0.100
				Potassium-40	35.67	1.924	pCi/g	0.2572	1.00
				Protactinium-234m	5.523	2.229	pCi/g	3.777	N
				Radium-224	4.578	0.6137	pCi/g	0.4592	Y
				Radium-226	1.385	0.1061	pCi/g	0.05161	Y
				Radium-228	2.029	0.1939	pCi/g	0.1076	0.500
				Strontium-85	0.1884	0.02288	pCi/g	0.03832	Y
				Thallium-208	0.5801	0.04755	pCi/g	0.02674	0.080
				Thorium-227	0.2363	0.1211	pCi/g	0.211	Y
962633	1202065188	MB	24-MAR-10	Cerium-143	93.1	39.91	pCi/g	0	N
				Cobalt-60	0.01748	0.00761	pCi/g	0.01444	0.100
				Iodine-135	1.18E+15	0	pCi/g	0	N
				Radium-224	0.3042	0.1365	pCi/g	0.2493	
962633	1202065189	DUP	24-MAR-10	Bismuth-211	3.938	0.2465	pCi/g	0.1235	Y

MS 3/29/10

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:35:03.53

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:33:15
Sample ID         : G248867001           Sample quantity  : 1.22070E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:57.45  0.8%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	74.70*	595	709	1.78	149.61	143	15	8.26E-02	10.2	6.48E+00
2	3	77.13*	699	378	0.98	154.46	143	15	9.71E-02	5.9	
3	0	86.89*	170	508	1.12	173.95	172	7	2.36E-02	23.5	
4	0	93.22*	169	756	1.39	186.60	181	10	2.35E-02	33.0	
5	0	129.40	102	529	1.21	258.87	253	12	1.41E-02	46.4	
6	0	185.85*	158	426	1.20	371.63	365	11	2.19E-02	27.7	
7	0	209.14	75	344	1.00	418.17	414	9	1.04E-02	46.1	
8	4	238.54*	1301	172	1.07	476.91	471	18	1.81E-01	3.4	1.51E+00
9	4	241.43	315	310	1.77	482.67	471	18	4.38E-02	15.7	
10	0	270.01	120	335	1.39	539.77	534	14	1.66E-02	33.7	
11	4	295.15	406	145	1.16	590.01	585	19	5.64E-02	7.0	1.26E+00
12	4	299.92	131	150	1.42	599.54	585	19	1.82E-02	18.5	
13	0	328.37	95	195	1.05	656.39	651	11	1.32E-02	30.1	
14	0	338.29	271	184	1.41	676.21	669	12	3.76E-02	11.7	
15	0	351.81	620	227	1.23	703.23	698	12	8.61E-02	6.3	
16	0	463.34	92	115	0.98	926.09	921	13	1.28E-02	26.2	
17	0	583.03*	429	125	1.47	1165.32	1158	14	5.96E-02	7.5	
18	0	609.34*	441	129	1.28	1217.91	1213	12	6.13E-02	7.2	
19	0	663.39	83	184	1.04	1325.96	1316	20	1.15E-02	41.8	
20	0	727.40	90	78	1.24	1453.93	1448	11	1.25E-02	21.9	
21	0	795.70	71	83	0.99	1590.48	1580	19	9.82E-03	33.5	
22	0	860.37	65	49	1.51	1719.81	1715	12	8.96E-03	24.9	
23	0	911.26*	257	85	1.62	1821.57	1813	14	3.57E-02	10.0	
24	4	964.31*	85	37	2.53	1927.66	1922	25	1.18E-02	18.9	1.63E+00
25	4	969.05*	171	51	2.05	1937.14	1922	25	2.38E-02	11.6	
26	0	1120.33*	113	55	2.02	2239.74	2233	13	1.56E-02	17.2	
27	0	1378.58*	26	35	1.04	2756.43	2747	14	3.66E-03	52.7	
28	0	1402.03	18	24	0.99	2803.36	2794	12	2.47E-03	60.1	
29	0	1460.89*	1478	45	1.75	2921.16	2911	20	2.05E-01	2.8	
30	0	1620.67	30	4	1.43	3240.97	3233	15	4.20E-03	22.9	
31	0	1764.57*	92	3	1.88	3529.07	3522	13	1.28E-02	12.4	
32	0	1847.98	18	7	1.33	3696.08	3689	14	2.50E-03	39.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 22:35:06

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 20:33:15
Sample ID : G248867001 Sample quantity : 122.07 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAM29 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:57.45 0.8%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.523E+01	4.325E+00	5.862E-01	6.376E-02	60.093
CD-109	+	88.03	*	2.483E+00	1.192E+00	1.820E+00	1.719E-01	1.364
SN-126		64.28		2.422E-03	6.348E-01	1.037E+00	1.537E-01	0.002
	+	86.94		1.003E+00	6.294E-01	7.645E-01	3.174E-01	1.312
	+	87.57	*	2.412E-01	1.158E-01	1.819E-01	1.710E-02	1.326
TL-208		277.37		4.630E-01	4.993E-01	7.893E-01	1.015E-01	0.587
	+	583.19	*	5.863E-01	1.036E-01	6.767E-02	6.341E-03	8.663
	+	860.56		8.343E-01	4.289E-01	5.000E-01	6.413E-02	1.668
BI-211		72.87		1.569E+01	4.825E+00	7.495E+00	6.194E-01	2.093
	+	351.06	*	3.834E+00	6.063E-01	3.919E-01	3.753E-02	9.782
BI-212	+	727.33	*	1.882E+00	8.594E-01	8.798E-01	1.150E-01	2.139
		785.37		6.275E+00	3.919E+00	6.750E+00	7.215E-01	0.930
	+	1620.50		5.596E+00	2.626E+00	3.759E+00	3.755E-01	1.489
PB-212	+	74.82		3.681E+00	8.883E-01	7.004E-01	8.989E-02	5.255
	+	77.11		2.474E+00	3.618E-01	4.007E-01	3.412E-02	6.175
	+	238.63	*	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
	+	300.09		2.841E+00	1.095E+00	1.418E+00	1.558E-01	2.003
BI-214	+	609.32	*	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
	+	1120.29		1.544E+00	5.596E-01	5.108E-01	5.962E-02	3.022
	+	1764.49		1.707E+00	4.519E-01	2.887E-01	2.622E-02	5.912
PB-214	+	74.82		6.524E+00	1.531E+00	1.241E+00	1.432E-01	5.255
	+	77.11		4.362E+00	7.323E-01	7.064E-01	8.374E-02	6.175
	+	242.00		2.702E+00	8.938E-01	6.932E-01	7.350E-02	3.897
	+	295.22		1.563E+00	2.793E-01	2.497E-01	2.806E-02	6.256
	+	351.93	*	1.391E+00	2.331E-01	1.435E-01	1.586E-02	9.695
RA-224	+	240.99	*	4.777E+00	1.556E+00	1.222E+00	1.084E-01	3.909
RA-226	+	609.32	*	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
	+	1120.29		1.544E+00	5.596E-01	5.108E-01	5.962E-02	3.022
	+	1764.49		1.707E+00	4.519E-01	2.887E-01	2.622E-02	5.912
AC-228	+	338.32		1.867E+00	8.953E-01	4.700E-01	1.966E-01	3.973
	+	911.20	*	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
	+	968.97		1.951E+00	6.782E-01	4.648E-01	1.204E-01	4.197
RA-228	+	338.32		1.867E+00	8.953E-01	4.700E-01	1.966E-01	3.973
	+	911.20	*	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		1.951E+00	6.782E-01	4.648E-01	1.204E-01	4.197
TH-228	+	74.82		3.681E+00	8.141E-01	7.004E-01	5.920E-02	5.255
	+	77.11		2.474E+00	3.618E-01	4.007E-01	3.412E-02	6.175
	+	238.63	*	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
	+	300.09		2.841E+00	2.033E+00	1.418E+00	8.694E-01	2.003
TH-230	+	609.32	*	1.167E+00	1.955E-01	1.384E-01	1.192E-02	8.437
	+	1120.29		1.544E+00	5.499E-01	5.108E-01	4.882E-02	3.022
	+	1764.49		1.707E+00	4.519E-01	2.887E-01	2.622E-02	5.912
TH-232	+	338.32		1.867E+00	4.698E-01	4.700E-01	4.316E-02	3.973
	+	911.20	*	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
	+	968.97		1.951E+00	6.782E-01	4.648E-01	1.204E-01	4.197
NP-237	+	86.48	*	7.197E-01	3.769E-01	4.879E-01	1.119E-01	1.475
		95.86		5.234E-01	1.246E+00	1.808E+00	4.364E-01	0.290

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-2.460E-02	3.972E-01	6.430E-01	6.260E-02	-0.038
NA-22		1274.54	*	-4.993E-02	4.804E-02	7.200E-02	7.188E-03	-0.693
NA-24		1368.63	*	-5.110E+01	4.804E-02	Half-Life too short		
SC-46		889.28	*	-2.542E-02	4.469E-02	6.961E-02	9.088E-03	-0.365
	+	1120.55		2.704E-01	9.634E-02	1.501E-01	1.434E-02	1.802
V-48		944.13		-8.359E-01	1.282E+00	1.980E+00	2.515E-01	-0.422
		983.53	*	-3.953E-02	9.753E-02	1.536E-01	1.863E-02	-0.257
		1312.11		-2.539E-02	1.141E-01	1.866E-01	1.981E-02	-0.136
CR-51		320.08	*	-1.087E-01	4.670E-01	7.636E-01	7.342E-02	-0.142
MN-54		834.85	*	-3.045E-02	4.396E-02	6.857E-02	8.082E-03	-0.444
CO-56		846.77	*	1.498E-02	4.718E-02	7.976E-02	9.618E-03	0.188
		1037.84		1.155E-01	3.678E-01	6.162E-01	7.129E-02	0.187
		1238.28		1.860E-01	1.184E-01	2.104E-01	2.020E-02	0.884
		1771.35		2.082E-02	2.953E-01	4.195E-01	3.789E-02	0.050
CO-57		122.06	*	2.208E-02	3.147E-02	5.225E-02	4.721E-03	0.423
		136.47		1.856E-01	2.559E-01	4.238E-01	3.937E-02	0.438
CO-58		810.76	*	-2.382E-03	4.833E-02	7.967E-02	8.971E-03	-0.030
FE-59		1099.45	*	-5.190E-02	1.038E-01	1.600E-01	1.699E-02	-0.324
		1291.59		-2.755E-02	1.360E-01	2.227E-01	2.508E-02	-0.124
CO-60		1173.23		-2.246E-02	5.635E-02	8.814E-02	7.327E-03	-0.255
		1332.49	*	-1.929E-02	4.266E-02	6.761E-02	7.415E-03	-0.285
ZN-65		1115.54	*	-6.619E-02	1.148E-01	1.464E-01	1.416E-02	-0.452
SE-75		121.12		2.459E-01	1.655E-01	2.795E-01	3.184E-02	0.880
		136.00		2.277E-02	5.162E-02	8.191E-02	7.149E-03	0.278
		264.66	*	1.681E-02	6.110E-02	9.012E-02	8.171E-03	0.187
		279.54		3.291E-02	1.346E-01	2.264E-01	2.131E-02	0.145
		400.66		1.953E-02	3.028E-01	4.982E-01	5.681E-02	0.039
SR-85		514.00	*	-1.800E-01	6.424E-02	8.613E-02	7.791E-03	-2.090
Y-88		898.04		-1.017E-02	5.214E-02	8.444E-02	1.122E-02	-0.120
		1836.06	*	-6.498E-03	3.818E-02	6.045E-02	5.169E-03	-0.108
Y-91		1204.77	*	-9.039E+00	2.724E+01	4.277E+01	3.772E+00	-0.211

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94		702.65	*	-9.570E-03	3.608E-02	5.900E-02	5.300E-03	-0.162
		871.09		3.748E-02	3.723E-02	6.606E-02	8.339E-03	0.567
NB-95		765.81	*	7.055E-02	5.146E-02	9.219E-02	9.469E-03	0.765
NB-95M		235.69	*	6.736E-01	1.991E-01	3.184E-01	3.207E-02	2.115
ZR-95		724.19		8.915E-02	1.270E-01	1.939E-01	1.955E-02	0.460
		756.73	*	2.077E-02	8.542E-02	1.443E-01	1.568E-02	0.144
MO-99		140.51		-1.268E+02	8.891E+01	1.275E+02	3.025E+01	-0.995
		181.07		-5.081E+01	7.467E+01	9.920E+01	1.850E+01	-0.512
		366.42		-2.952E+02	3.331E+02	5.187E+02	4.729E+01	-0.569
		739.50	*	5.954E+01	4.271E+01	7.590E+01	1.244E+01	0.785
		777.92		-1.019E+02	1.178E+02	1.811E+02	1.907E+01	-0.563
TC-99M		140.51	*	-9.175E+15	1.178E+02	Half-Life too short		
RU-103		497.08	*	-1.237E-02	5.221E-02	8.333E-02	1.188E-02	-0.148
	+	610.33		1.299E+01	2.825E+00	3.251E+00	5.312E-01	3.994
RH-106		621.93	*	-1.023E-01	3.442E-01	5.652E-01	7.457E-02	-0.181
		1050.41		-2.472E-01	2.962E+00	4.790E+00	5.264E-01	-0.052
RU-106		621.93	*	-1.023E-01	3.440E-01	5.652E-01	4.817E-02	-0.181
		1050.41		-2.472E-01	2.962E+00	4.790E+00	5.264E-01	-0.052
AG-108M		433.94	*	-1.315E-03	3.302E-02	5.377E-02	5.031E-03	-0.024
		614.28		-1.303E-02	4.400E-02	6.191E-02	5.487E-03	-0.210
		722.91		-1.182E-02	4.617E-02	6.396E-02	6.166E-03	-0.185
AG-110M		657.76	*	9.767E-03	4.395E-02	6.487E-02	5.515E-03	0.151
		677.62		-4.171E-01	3.367E-01	5.053E-01	4.421E-02	-0.825
		706.68		7.301E-02	2.321E-01	3.953E-01	3.676E-02	0.185
		763.94		-4.864E-02	1.859E-01	3.027E-01	3.158E-02	-0.161
		884.68		1.415E-02	5.420E-02	9.121E-02	1.198E-02	0.155
		937.49		1.227E-01	1.312E-01	2.298E-01	2.988E-02	0.534
		1384.29		4.885E-02	1.903E-01	2.833E-01	3.135E-02	0.172
		1505.03		-3.317E-01	3.144E-01	4.432E-01	4.664E-02	-0.748
SN-113		391.69	*	3.037E-02	5.294E-02	8.953E-02	8.280E-03	0.339
CD-115		260.90		-1.476E-04	5.294E-02	Half-Life too short		
		492.35		-3.479E-05	5.294E-02	Half-Life too short		
		527.90	*	5.067E-06	5.294E-02	Half-Life too short		
SN-117M		156.02		-2.836E+00	3.424E+00	5.307E+00	4.408E-01	-0.534
		158.56	*	1.580E-02	8.013E-02	1.298E-01	1.073E-02	0.122
TE-123M		159.00	*	-8.985E-03	3.464E-02	5.504E-02	4.575E-03	-0.163
SB-124		602.73		2.073E-02	5.026E-02	7.570E-02	6.553E-03	0.274
		645.85		-3.962E-01	5.572E-01	8.830E-01	7.813E-02	-0.449
		722.78		-1.171E-01	4.874E-01	6.766E-01	6.472E-02	-0.173
		1690.97	*	-4.839E-02	8.496E-02	1.248E-01	1.236E-02	-0.388
SB-125		427.87	*	-5.397E-02	1.117E-01	1.772E-01	1.636E-02	-0.305
	+	463.37		8.628E-01	4.607E-01	5.931E-01	5.769E-02	1.455
		600.60		-1.330E-01	2.086E-01	3.188E-01	2.966E-02	-0.417
		635.95		-9.029E-02	3.066E-01	5.034E-01	4.597E-02	-0.179
TE-125M		109.28	*	1.845E+00	1.305E+01	2.132E+01	2.278E+00	0.087
I-126		388.63		-1.694E-01	2.520E-01	3.973E-01	3.581E-02	-0.426
		666.33	*	2.483E-01	3.624E-01	5.558E-01	4.605E-02	0.447
		753.82		2.187E+00	2.572E+00	4.516E+00	4.525E-01	0.484
SB-126		414.70		1.935E-02	1.094E-01	1.809E-01	1.639E-02	0.107

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		666.50		9.092E-02	1.250E-01	1.925E-01	1.596E-02	0.472
		695.00		6.494E-02	1.131E-01	1.956E-01	1.728E-02	0.332
		697.00		1.064E-01	3.845E-01	6.532E-01	5.795E-02	0.163
		720.70	*	-6.002E-02	2.262E-01	3.147E-01	2.940E-02	-0.191
		856.80		2.453E-01	7.521E-01	1.107E+00	1.360E-01	0.222
SB-127		252.40		1.186E+00	1.028E+01	1.725E+01	7.244E+00	0.069
		473.00		-1.305E+00	4.007E+00	6.367E+00	9.086E-01	-0.205
		685.70	*	-2.427E-01	3.197E+00	5.310E+00	6.756E-01	-0.046
		783.70		1.078E+01	8.970E+00	1.585E+01	2.371E+00	0.680
I-131		80.19		-1.328E+01	9.677E+00	1.304E+01	1.151E+00	-1.018
		284.31		-1.311E-01	2.494E+00	4.138E+00	3.959E-01	-0.032
		364.49	*	4.339E-03	1.903E-01	3.136E-01	3.008E-02	0.014
		636.99		-2.847E+00	2.601E+00	4.009E+00	3.588E-01	-0.710
TE-132		49.72		-1.142E+02	6.056E+01	8.921E+01	1.098E+01	-1.280
		111.76		-2.708E+01	1.071E+02	1.725E+02	2.149E+01	-0.157
		116.30		1.419E+01	9.153E+01	1.494E+02	1.867E+01	0.095
		228.16	*	1.995E+00	2.269E+00	3.887E+00	6.534E-01	0.513
BA-133		81.00		-1.325E-01	1.381E-01	1.885E-01	2.945E-02	-0.703
		276.40		4.598E-01	4.828E-01	7.325E-01	1.055E-01	0.628
		302.85		-4.779E-02	1.851E-01	2.616E-01	3.515E-02	-0.183
		356.01	*	5.465E-02	5.492E-02	8.367E-02	1.114E-02	0.653
		383.85		2.454E-01	3.446E-01	5.857E-01	7.449E-02	0.419
I-133		529.87	*	7.975E-02	3.446E-01	Half-Life too short		
		875.33		4.246E-01	3.446E-01	Half-Life too short		
		1298.22		2.458E+00	3.446E-01	Half-Life too short		
CS-134		563.25		-7.646E-03	4.073E-01	6.555E-01	5.869E-02	-0.012
		569.33		-4.779E-02	2.261E-01	3.585E-01	3.212E-02	-0.133
		604.72		4.817E-03	4.603E-02	6.428E-02	5.570E-03	0.075
	+	795.86	*	1.411E-01	9.575E-02	1.005E-01	1.102E-02	1.405
		801.95		-7.164E-01	5.492E-01	6.565E-01	7.280E-02	-1.091
		1365.19		-9.385E-01	1.231E+00	1.836E+00	2.063E-01	-0.511
CS-135		268.22	*	3.862E-01	2.230E-01	3.497E-01	3.615E-02	1.104
I-135		546.56		7.085E+14	2.230E-01	Half-Life too short		
		836.80		1.538E+14	2.230E-01	Half-Life too short		
		1038.76		6.268E+13	2.230E-01	Half-Life too short		
		1131.51		-1.536E+14	2.230E-01	Half-Life too short		
		1260.41	*	-2.956E+13	2.230E-01	Half-Life too short		
		1457.56		4.530E+16	2.230E-01	Half-Life too short		
		1678.03		-4.196E+14	2.230E-01	Half-Life too short		
		1791.20		-1.634E+14	2.230E-01	Half-Life too short		
CS-136		153.25		8.770E-01	1.284E+00	2.116E+00	2.126E-01	0.414
		176.60		-3.017E-01	7.744E-01	1.219E+00	1.119E-01	-0.248
		273.65		-8.157E-01	8.916E-01	1.212E+00	1.185E-01	-0.673
		340.55		8.495E-01	2.750E-01	4.403E-01	4.179E-02	1.929
		818.51		2.060E-02	1.033E-01	1.736E-01	1.984E-02	0.119
		1048.07	*	-6.837E-02	1.522E-01	2.373E-01	2.687E-02	-0.288
		1235.36		-1.335E-01	8.882E-01	1.416E+00	1.741E-01	-0.094
BA-137M		661.66	*	1.196E-01	4.649E-02	8.699E-02	7.132E-03	1.375
CS-137		661.66	*	1.263E-01	4.912E-02	9.190E-02	7.550E-03	1.375

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-139		165.86	*	9.968E-03	3.697E-02	5.995E-02	4.886E-03	0.166
BA-140		162.66		-5.853E-01	1.271E+00	1.978E+00	1.742E-01	-0.296
		304.85		5.957E-02	2.222E+00	3.205E+00	9.436E-01	0.019
		423.72		1.372E+00	3.049E+00	5.054E+00	1.669E+00	0.271
		537.26	*	5.443E-02	4.064E-01	6.618E-01	2.251E-01	0.082
LA-140	+	328.76		1.028E+00	6.276E-01	8.132E-01	7.851E-02	1.264
		487.02		1.024E-01	2.040E-01	3.416E-01	3.279E-02	0.300
		815.77		5.523E-02	4.708E-01	7.859E-01	9.541E-02	0.070
		1596.21	*	-5.603E-02	1.297E-01	2.019E-01	2.042E-02	-0.278
CE-141		145.44	*	2.067E-02	8.851E-02	1.438E-01	1.243E-02	0.144
CE-143		57.36		-4.083E-03	8.851E-02	Half-Life too short		
		293.27	*	9.059E-03	8.851E-02	Half-Life too short		
	+	664.57		3.267E-02	8.851E-02	Half-Life too short		
		721.93		3.150E-03	8.851E-02	Half-Life too short		
CE-144		80.12		-1.372E+00	3.510E+00	4.963E+00	4.335E-01	-0.276
		133.52	*	-1.194E-01	2.813E-01	3.872E-01	5.940E-02	-0.308
PM-144		476.78		-1.607E-02	7.645E-02	1.225E-01	1.203E-02	-0.131
		618.01		3.137E-02	3.593E-02	6.247E-02	5.495E-03	0.502
		696.49	*	2.249E-02	3.890E-02	6.731E-02	5.968E-03	0.334
PR-144		696.51	*	1.183E+00	2.949E+00	5.047E+00	4.473E-01	0.234
		1489.16		-1.855E+01	1.447E+01	1.933E+01	2.045E+00	-0.960
PM-146		453.88	*	4.661E-02	4.888E-02	8.387E-02	9.219E-03	0.556
		633.25		1.239E+00	1.657E+00	2.800E+00	1.068E+00	0.442
		735.93		6.594E-02	1.720E-01	2.920E-01	8.281E-02	0.226
		747.24		1.615E-03	1.099E-01	1.829E-01	2.810E-02	0.009
ND-147		91.11		3.945E-01	8.282E-01	8.768E-01	8.695E-02	0.450
		319.41		5.101E-01	4.970E+00	8.269E+00	7.602E-01	0.062
		531.02	*	6.399E-01	8.369E-01	1.416E+00	2.149E-01	0.452
PM-149		285.90	*	2.098E-04	8.369E-01	Half-Life too short		
EU-152		121.78		9.315E-02	8.904E-02	1.492E-01	1.530E-02	0.624
		244.70		2.638E-01	4.226E-01	6.370E-01	5.670E-02	0.414
		344.28	*	1.243E-03	1.332E-01	1.907E-01	1.841E-02	0.007
		778.90		-1.723E-01	2.934E-01	4.635E-01	4.890E-02	-0.372
	+	964.08		1.041E+00	4.136E-01	6.716E-01	8.341E-02	1.551
		1085.87		-3.718E-01	4.914E-01	7.449E-01	7.667E-02	-0.499
		1112.07		3.569E-02	3.773E-01	5.531E-01	5.386E-02	0.065
		1408.01		1.721E-01	2.304E-01	3.742E-01	4.051E-02	0.460
GD-153		69.67		4.578E-01	2.424E+00	3.527E+00	2.864E-01	0.130
		97.43	*	1.264E-01	1.174E-01	1.737E-01	1.560E-02	0.728
		103.18		-3.733E-02	1.318E-01	2.124E-01	1.885E-02	-0.176
EU-154		123.07		-2.435E-02	6.909E-02	1.016E-01	1.183E-02	-0.240
		723.31		-5.521E-02	2.133E-01	2.956E-01	3.015E-02	-0.187
		873.19		-1.445E-01	3.166E-01	5.000E-01	7.546E-02	-0.289
		996.26		2.408E-01	4.333E-01	7.364E-01	1.423E-01	0.327
		1004.73		-2.723E-01	2.563E-01	3.747E-01	5.302E-02	-0.727
		1274.44	*	-1.385E-01	1.364E-01	2.045E-01	2.543E-02	-0.677
EU-155	+	86.55		2.930E-01	1.406E-01	2.263E-01	2.123E-02	1.295
		105.31	*	-1.860E-02	1.299E-01	2.104E-01	1.884E-02	-0.088
TB-160	+	86.79		8.081E-01	3.879E-01	6.164E-01	5.746E-02	1.311

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		197.04		-8.149E-02	6.858E-01	1.128E+00	9.551E-02	-0.072
		215.65		1.483E-01	9.179E-01	1.513E+00	1.310E-01	0.098
	+	298.57		4.167E-01	1.585E-01	2.563E-01	2.348E-02	1.626
		879.36	*	-1.272E-02	1.675E-01	2.741E-01	3.514E-02	-0.046
		962.29		1.587E+00	7.975E-01	1.309E+00	1.629E-01	1.213
		966.15		1.473E+00	3.728E-01	6.551E-01	8.117E-02	2.249
		1177.93		1.951E-01	4.861E-01	8.105E-01	6.798E-02	0.241
		1271.85		-4.315E-01	7.518E-01	1.184E+00	1.175E-01	-0.365
HO-166M		80.57		-5.202E-01	3.950E-01	5.339E-01	4.682E-02	-0.974
	+	184.41		1.165E-01	6.530E-02	8.328E-02	6.943E-03	1.398
		280.46		-5.871E-02	1.022E-01	1.655E-01	1.506E-02	-0.355
		410.95		2.596E-01	2.868E-01	4.914E-01	4.447E-02	0.528
		711.68	*	-2.686E-02	7.282E-02	1.106E-01	1.013E-02	-0.243
		752.31		-1.723E-01	3.262E-01	5.208E-01	5.201E-02	-0.331
		810.29		2.619E-02	6.938E-02	1.179E-01	1.325E-02	0.222
TA-182		67.75		-4.754E-02	1.540E-01	2.322E-01	1.870E-02	-0.205
		100.11		5.709E-03	2.155E-01	3.517E-01	3.137E-02	0.016
		152.43		2.453E-01	4.389E-01	7.207E-01	6.029E-02	0.340
		222.11		-1.690E-01	4.247E-01	7.018E-01	6.116E-02	-0.241
	+	1121.30		7.422E-01	2.644E-01	4.184E-01	3.989E-02	1.774
		1189.05		-1.402E-01	3.688E-01	5.760E-01	4.934E-02	-0.243
		1221.41	*	-2.094E-01	2.591E-01	3.905E-01	3.550E-02	-0.536
		1231.02		-7.762E-01	6.271E-01	9.056E-01	8.375E-02	-0.857
IR-192	+	295.96		1.202E+00	2.005E-01	3.338E-01	3.076E-02	3.602
		308.46		2.599E-02	1.170E-01	1.961E-01	1.808E-02	0.133
		316.51	*	2.985E-02	4.093E-02	7.011E-02	6.455E-03	0.426
		468.07		-4.780E-03	8.830E-02	1.234E-01	1.198E-02	-0.039
HG-203		70.83		1.177E+00	2.003E+00	2.946E+00	4.662E-01	0.399
		72.87		4.161E+00	1.388E+00	1.988E+00	3.049E-01	2.093
		279.20	*	2.803E-02	4.929E-02	8.391E-02	7.810E-03	0.334
BI-207		72.81		8.380E-01	2.751E-01	4.267E-01	3.525E-02	1.964
	+	74.97		1.061E+00	2.344E-01	3.014E-01	2.526E-02	3.520
		569.70		8.771E-03	3.466E-02	5.682E-02	5.025E-03	0.154
		1063.66	*	1.272E-02	5.727E-02	9.518E-02	1.022E-02	0.134
		1770.23		3.546E-01	4.794E-01	8.056E-01	7.282E-02	0.440
PB-210		46.54	*	7.241E-01	4.304E+00	7.269E+00	6.936E-01	0.100
PB-211		404.85	*	-3.471E-01	8.807E-01	1.385E+00	6.711E-01	-0.251
		427.09		-2.108E-01	1.896E+00	3.074E+00	1.425E+00	-0.069
		832.01		1.985E-01	1.158E+00	1.931E+00	1.013E+00	0.103
RN-219	+	271.23		7.402E-01	5.055E-01	5.237E-01	5.566E-02	1.414
		401.81	*	9.623E-02	4.678E-01	7.753E-01	1.172E-01	0.124
RA-223		81.07		-2.935E-01	3.101E-01	4.273E-01	3.764E-02	-0.687
		83.79		1.111E-01	1.782E-01	2.606E-01	2.356E-02	0.426
		94.87		1.663E+00	6.599E-01	1.018E+00	9.232E-02	1.633
		144.24		7.337E-01	8.846E-01	1.447E+00	1.378E-01	0.507
		154.21		6.837E-01	4.592E-01	7.753E-01	7.122E-02	0.882
	+	269.46		5.751E-01	3.916E-01	4.113E-01	3.791E-02	1.398
		323.87	*	6.526E-02	8.300E-01	1.198E+00	2.111E-01	0.054
	+	338.28		7.410E+00	1.967E+00	2.612E+00	3.260E-01	2.837

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227		79.69		5.276E-02	1.753E+00	2.525E+00	4.362E-01	0.021
		235.96		1.428E+00	2.794E-01	4.283E-01	4.506E-02	3.334
		256.23	*	1.762E-03	2.844E-01	4.751E-01	5.848E-02	0.004
	+	299.98		3.126E+00	1.224E+00	1.890E+00	2.472E-01	1.654
		304.50		1.194E+00	2.084E+00	3.107E+00	5.227E-01	0.384
		334.37		7.957E-02	3.145E+00	3.022E+00	4.807E-01	0.026
TH-227		79.80		-1.771E-01	2.305E+00	3.304E+00	7.207E-01	-0.054
		235.96		1.428E+00	2.750E-01	4.283E-01	4.260E-02	3.334
		256.23	*	1.762E-03	2.844E-01	4.751E-01	6.573E-02	0.004
	+	299.98		3.126E+00	1.224E+00	1.890E+00	2.472E-01	1.654
		304.50		1.194E+00	2.084E+00	3.107E+00	5.227E-01	0.384
		334.37		7.957E-02	3.145E+00	3.022E+00	4.807E-01	0.026
TH-229	+	85.43		6.071E-01	2.914E-01	4.747E-01	4.363E-02	1.279
		88.47		-4.030E-02	2.879E-01	2.949E-01	2.775E-02	-0.137
		193.51	*	-3.620E-01	6.550E-01	1.019E+00	8.593E-02	-0.355
		210.85		2.298E+00	1.223E+00	1.934E+00	1.665E-01	1.188
PA-231		283.69	*	-1.594E-01	1.695E+00	2.807E+00	4.177E-01	-0.057
	+	301.36		2.008E+00	7.830E-01	1.227E+00	1.539E-01	1.637
TH-231		81.07		-2.935E-01	3.101E-01	4.273E-01	3.764E-02	-0.687
		83.79		1.111E-01	1.782E-01	2.606E-01	2.356E-02	0.426
		94.87		1.663E+00	6.599E-01	1.018E+00	9.232E-02	1.633
		144.24		7.337E-01	8.846E-01	1.447E+00	1.378E-01	0.507
		154.21		6.837E-01	4.592E-01	7.753E-01	7.122E-02	0.882
	+	269.46		5.751E-01	3.916E-01	4.113E-01	3.791E-02	1.398
		323.87	*	6.526E-02	8.300E-01	1.198E+00	2.111E-01	0.054
	+	338.28		7.410E+00	1.967E+00	2.612E+00	3.260E-01	2.837
PA-233	+	300.13		1.414E+00	5.644E-01	8.567E-01	1.298E-01	1.651
		311.90	*	1.334E-02	7.383E-02	1.234E-01	1.162E-02	0.108
		340.48		2.945E+00	1.163E+00	1.530E+00	3.714E-01	1.925
PA-234	+	94.67		5.338E-01	3.585E-01	3.838E-01	4.883E-02	1.391
		98.44		7.603E-02	1.266E-01	1.823E-01	1.018E-01	0.417
		111.00		-3.363E-02	2.351E-01	3.801E-01	4.660E-02	-0.088
		131.20		1.253E-01	1.455E-01	2.142E-01	1.880E-02	0.585
		569.50		3.634E-02	3.047E-01	4.950E-01	4.377E-02	0.073
		733.00		-5.555E-01	5.400E-01	6.687E-01	1.511E-01	-0.831
		880.51		1.957E-01	3.122E-01	5.395E-01	6.931E-02	0.363
		883.24		2.430E-01	3.577E-01	5.561E-01	3.776E-01	0.437
		926.50		3.674E-03	1.975E-01	3.247E-01	8.785E-02	0.011
		946.00	*	4.000E-01	3.700E-01	6.427E-01	1.346E-01	0.622
		949.00		5.016E-02	5.518E-01	9.112E-01	1.151E-01	0.055
PA-234M		766.42		1.013E+01	1.469E+01	2.340E+01	1.195E+01	0.433
		1001.03	*	-2.274E+00	5.690E+00	9.072E+00	1.167E+00	-0.251
TH-234		63.29	*	7.463E-01	1.709E+00	2.818E+00	5.091E-01	0.265
	+	92.59		1.981E+00	1.379E+00	1.650E+00	3.679E-01	1.201
U-235		89.96		-2.479E+00	2.017E+00	1.813E+00	4.508E-01	-1.367
	+	93.35		1.496E+00	1.046E+00	1.221E+00	2.843E-01	1.226
		143.76	*	3.406E-01	2.688E-01	4.377E-01	7.397E-02	0.778
		163.33		-5.112E-01	5.572E-01	8.396E-01	1.490E-01	-0.609
	+	185.72		1.466E-01	8.220E-02	1.052E-01	8.784E-03	1.393

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		205.31		2.507E-01	6.241E-01	9.330E-01	1.690E-01	0.269
U-238		63.29	*	7.463E-01	1.709E+00	2.818E+00	5.091E-01	0.265
	+	92.59		1.981E+00	1.319E+00	1.650E+00	1.512E-01	1.201
NP-239		99.53		3.516E-02	1.990E-01	3.206E-01	2.863E-02	0.110
		103.37		2.603E-02	1.173E-01	1.927E-01	1.709E-02	0.135
		106.12		3.422E-02	1.028E-01	1.692E-01	1.498E-02	0.202
		117.23	*	-2.888E-01	5.135E-01	8.153E-01	7.282E-02	-0.354
		228.18		2.344E-01	2.661E-01	4.594E-01	4.028E-02	0.510
		277.60		1.705E-01	2.281E-01	3.587E-01	3.261E-02	0.475
AM-241		59.54	*	-2.518E-02	1.931E-01	3.177E-01	2.742E-02	-0.079
CM-247		278.00		4.777E-01	9.370E-01	1.509E+00	1.372E-01	0.317
		287.50		4.054E-02	1.455E+00	2.359E+00	2.154E-01	0.017
		402.40	*	7.683E-03	4.300E-02	7.117E-02	6.425E-03	0.108
CF-249		252.80		6.513E-01	1.053E+00	1.806E+00	1.617E-01	0.361
		333.37		6.435E-02	3.328E-01	3.279E-01	3.013E-02	0.196
		388.16	*	-1.102E-02	4.693E-02	7.600E-02	6.851E-03	-0.145
CF-251		177.52	*	1.016E-01	1.582E-01	2.596E-01	2.145E-02	0.392
		227.38		3.744E-01	4.306E-01	7.435E-01	6.514E-02	0.504
		285.41		-6.903E-01	2.563E+00	4.208E+00	3.838E-01	-0.164
ANH-511		511.00	*	1.200E-01	5.445E-02	1.011E-01	9.151E-03	1.187

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001       *
* Acquisition date : 24-MAR-2010 20:33:15 Detector SN#    :                 *
* Detector ID      : GAM29                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:57.45     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  5-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248867001           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.2207E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.523E+01	4.238E+00	5.852E-01	0.000E+00
CD-109	2.483E+00	1.168E+00	1.883E+00	0.000E+00
SN-126	2.412E-01	1.134E-01	1.881E-01	0.000E+00
TL-208	5.863E-01	1.015E-01	6.836E-02	0.000E+00
BI-211	3.834E+00	5.942E-01	3.984E-01	0.000E+00
BI-212	1.882E+00	8.422E-01	8.862E-01	0.000E+00
PB-212	1.839E+00	2.167E-01	1.166E-01	0.000E+00
BI-214	1.167E+00	2.009E-01	1.397E-01	0.000E+00
PB-214	1.391E+00	2.284E-01	1.459E-01	0.000E+00
RA-224	4.777E+00	1.525E+00	1.248E+00	0.000E+00
RA-226	1.167E+00	2.009E-01	1.397E-01	0.000E+00
AC-228	1.693E+00	4.177E-01	2.795E-01	0.000E+00
RA-228	1.693E+00	4.177E-01	2.795E-01	0.000E+00
TH-228	1.839E+00	2.167E-01	1.166E-01	0.000E+00
TH-230	1.167E+00	1.916E-01	1.397E-01	0.000E+00
TH-232	1.693E+00	4.177E-01	2.795E-01	0.000E+00
NP-237	7.197E-01	3.694E-01	5.047E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	-2.460E-02	3.893E-01	6.512E-01	0.000E+00	NOT IDENT.
NA-22	-4.993E-02	4.708E-02	7.200E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.825E+07	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.542E-02	4.380E-02	6.993E-02	0.000E+00	FAIL ABUN
V-48	-3.953E-02	9.558E-02	1.541E-01	0.000E+00	NOT IDENT.
CR-51	-1.087E-01	4.577E-01	7.772E-01	0.000E+00	NOT IDENT.
MN-54	-3.045E-02	4.308E-02	6.895E-02	0.000E+00	NOT IDENT.
CO-56	1.498E-02	4.624E-02	8.018E-02	0.000E+00	NOT IDENT.
CO-57	2.208E-02	3.084E-02	5.382E-02	0.000E+00	NOT IDENT.
CO-58	-2.382E-03	4.736E-02	8.013E-02	0.000E+00	NOT IDENT.

FE-59	-5.190E-02	1.017E-01	1.603E-01	0.000E+00	NOT IDENT.
CO-60	-1.929E-02	4.181E-02	6.757E-02	0.000E+00	NOT IDENT.
ZN-65	-6.619E-02	1.125E-01	1.466E-01	0.000E+00	NOT IDENT.
SE-75	1.681E-02	5.988E-02	9.194E-02	0.000E+00	NOT IDENT.
SR-85	-1.800E-01	6.295E-02	8.714E-02	0.000E+00	NOT IDENT.
Y-88	-6.498E-03	3.742E-02	6.016E-02	0.000E+00	NOT IDENT.
Y-91	-9.039E+00	2.670E+01	4.280E+01	0.000E+00	NOT IDENT.
NB-94	-9.570E-03	3.536E-02	5.945E-02	0.000E+00	NOT IDENT.
NB-95	7.055E-02	5.043E-02	9.280E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.952E-01	3.253E-01	0.000E+00	NOT IDENT.
ZR-95	2.077E-02	8.372E-02	1.453E-01	0.000E+00	NOT IDENT.
MO-99	5.954E+01	4.185E+01	7.643E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.787E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.237E-02	5.116E-02	8.435E-02	0.000E+00	FAIL ABUN
RH-106	-1.023E-01	3.373E-01	5.704E-01	0.000E+00	NOT IDENT.
RU-106	-1.023E-01	3.371E-01	5.704E-01	0.000E+00	NOT IDENT.
AG-108M	-1.315E-03	3.236E-02	5.452E-02	0.000E+00	NOT IDENT.
AG-110M	9.767E-03	4.308E-02	6.543E-02	0.000E+00	NOT IDENT.
SN-113	3.037E-02	5.188E-02	9.089E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	4.747E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	1.580E-02	7.853E-02	1.333E-01	0.000E+00	NOT IDENT.
TE-123M	-8.985E-03	3.395E-02	5.651E-02	0.000E+00	NOT IDENT.
SB-124	-4.839E-02	8.326E-02	1.244E-01	0.000E+00	NOT IDENT.
SB-125	-5.397E-02	1.094E-01	1.796E-01	0.000E+00	FAIL ABUN
TE-125M	1.845E+00	1.279E+01	2.199E+01	0.000E+00	NOT IDENT.
I-126	2.483E-01	3.551E-01	5.605E-01	0.000E+00	NOT IDENT.
SB-126	-6.002E-02	2.217E-01	3.171E-01	0.000E+00	NOT IDENT.
SB-127	-2.427E-01	3.134E+00	5.353E+00	0.000E+00	NOT IDENT.
I-131	4.339E-03	1.865E-01	3.186E-01	0.000E+00	NOT IDENT.
TE-132	1.995E+00	2.223E+00	3.973E+00	0.000E+00	NOT IDENT.
BA-133	5.465E-02	5.382E-02	8.504E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.030E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.384E-02	1.011E-01	0.000E+00	FAIL ABUN
CS-135	0.000E+00	2.186E-01	3.567E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.521E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.837E-02	1.491E-01	2.379E-01	0.000E+00	NOT IDENT.
BA-137M	0.000E+00	4.556E-02	8.773E-02	0.000E+00	NOT IDENT.
CS-137	0.000E+00	4.813E-02	9.268E-02	0.000E+00	NOT IDENT.
CE-139	9.968E-03	3.623E-02	6.152E-02	0.000E+00	NOT IDENT.
BA-140	5.443E-02	3.983E-01	6.692E-01	0.000E+00	NOT IDENT.
LA-140	-5.603E-02	1.271E-01	2.013E-01	0.000E+00	FAIL ABUN
CE-141	2.067E-02	8.674E-02	1.478E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.713E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.194E-01	2.756E-01	3.983E-01	0.000E+00	NOT IDENT.
PM-144	2.249E-02	3.812E-02	6.784E-02	0.000E+00	NOT IDENT.
PR-144	1.183E+00	2.890E+00	5.086E+00	0.000E+00	NOT IDENT.
PM-146	4.661E-02	4.790E-02	8.499E-02	0.000E+00	NOT IDENT.
ND-147	6.399E-01	8.201E-01	1.432E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	3.935E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	1.243E-03	1.306E-01	1.939E-01	0.000E+00	FAIL ABUN
GD-153	1.264E-01	1.150E-01	1.794E-01	0.000E+00	NOT IDENT.
EU-154	-1.385E-01	1.337E-01	2.045E-01	0.000E+00	NOT IDENT.
EU-155	-1.860E-02	1.273E-01	2.171E-01	0.000E+00	FAIL ABUN
TB-160	-1.272E-02	1.641E-01	2.754E-01	0.000E+00	FAIL ABUN
HO-166M	-2.686E-02	7.137E-02	1.115E-01	0.000E+00	FAIL ABUN
TA-182	-2.094E-01	2.540E-01	3.907E-01	0.000E+00	FAIL ABUN
IR-192	2.985E-02	4.011E-02	7.137E-02	0.000E+00	FAIL ABUN
HG-203	2.803E-02	4.830E-02	8.555E-02	0.000E+00	NOT IDENT.
BI-207	1.272E-02	5.612E-02	9.541E-02	0.000E+00	FAIL ABUN
PB-210	7.241E-01	4.218E+00	7.575E+00	0.000E+00	NOT IDENT.
PB-211	-3.471E-01	8.631E-01	1.405E+00	0.000E+00	NOT IDENT.
RN-219	9.623E-02	4.585E-01	7.869E-01	0.000E+00	FAIL ABUN
RA-223	6.526E-02	8.134E-01	1.219E+00	0.000E+00	FAIL ABUN
AC-227	1.762E-03	2.787E-01	4.849E-01	0.000E+00	FAIL ABUN
TH-227	1.762E-03	2.787E-01	4.849E-01	0.000E+00	FAIL ABUN
TH-229	-3.620E-01	6.419E-01	1.044E+00	0.000E+00	FAIL ABUN
PA-231	-1.594E-01	1.661E+00	2.861E+00	0.000E+00	FAIL ABUN
TH-231	6.526E-02	8.134E-01	1.219E+00	0.000E+00	FAIL ABUN
PA-233	1.334E-02	7.235E-02	1.257E-01	0.000E+00	FAIL ABUN
PA-234	4.000E-01	3.626E-01	6.452E-01	0.000E+00	FAIL ABUN
PA-234M	-2.274E+00	5.577E+00	9.101E+00	0.000E+00	NOT IDENT.
TH-234	7.463E-01	1.675E+00	2.926E+00	0.000E+00	FAIL ABUN
U-235	3.406E-01	2.635E-01	4.499E-01	0.000E+00	FAIL ABUN
U-238	7.463E-01	1.675E+00	2.926E+00	0.000E+00	FAIL ABUN
NP-239	-2.888E-01	5.032E-01	8.402E-01	0.000E+00	NOT IDENT.
AM-241	-2.518E-02	1.892E-01	3.301E-01	0.000E+00	NOT IDENT.
CM-247	7.683E-03	4.214E-02	7.223E-02	0.000E+00	NOT IDENT.
CF-249	-1.102E-02	4.599E-02	7.716E-02	0.000E+00	NOT IDENT.

CF-251	1.016E-01	1.550E-01	2.662E-01	0.000E+00	NOT IDENT.
ANH-511	0.000E+00	5.336E-02	1.023E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:35:04.49

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:33:15
Sample ID         : G248867001           Sample quantity  : 1.22070E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:57.45  0.8%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1478	10.66*	1.210E+00	3.523E+01	3.523E+01	12.28
CD-109	88.03	170	3.70*	5.857E+00	2.412E+00	2.483E+00	47.99
SN-126	64.28	------	9.60	3.540E+00	------	Line Not Found	------
	86.94	170	8.90	5.857E+00	1.003E+00	1.003E+00	62.77
	87.57	170	37.00*	5.857E+00	2.412E-01	2.412E-01	47.99
TL-208	277.37	------	6.60	4.524E+00	------	Line Not Found	------
	583.19	429	85.00*	2.646E+00	5.863E-01	5.863E-01	17.67
	860.56	65	12.50	1.903E+00	8.343E-01	8.343E-01	51.41
BI-211	72.87	------	1.23	4.632E+00	------	Line Not Found	------
	351.06	620	12.92*	3.848E+00	3.834E+00	3.834E+00	15.82
BI-212	727.33	90	6.67*	2.204E+00	1.882E+00	1.882E+00	45.67
	785.37	------	1.10	2.062E+00	------	Line Not Found	------
	1620.50	30	1.47	1.130E+00	5.596E+00	5.596E+00	46.93
PB-212	74.82	595	10.28	4.832E+00	3.681E+00	3.681E+00	24.13
	77.11	699	17.10	5.079E+00	2.474E+00	2.474E+00	14.62
	238.63	1301	43.60*	4.991E+00	1.839E+00	1.839E+00	12.03
	300.09	131	3.30	4.293E+00	2.841E+00	2.841E+00	38.52
BI-214	609.32	441	45.49*	2.554E+00	1.167E+00	1.167E+00	17.56
	1120.29	113	14.92	1.503E+00	1.544E+00	1.544E+00	36.25
	1764.49	92	15.30	1.081E+00	1.707E+00	1.707E+00	26.48
PB-214	74.82	595	5.80	4.832E+00	6.524E+00	6.524E+00	23.47
	77.11	699	9.70	5.079E+00	4.362E+00	4.362E+00	16.79
	242.00	315	7.25	4.953E+00	2.701E+00	2.702E+00	33.09
	295.22	406	18.42	4.340E+00	1.562E+00	1.563E+00	17.87
	351.93	620	35.60*	3.848E+00	1.391E+00	1.391E+00	16.75
RA-224	240.99	315	4.10*	4.953E+00	4.777E+00	4.777E+00	32.57
RA-226	609.32	441	45.49*	2.554E+00	1.167E+00	1.167E+00	17.56
	1120.29	113	14.92	1.503E+00	1.544E+00	1.544E+00	36.25
	1764.49	92	15.30	1.081E+00	1.707E+00	1.707E+00	26.48
AC-228	338.32	271	11.27	3.954E+00	1.867E+00	1.867E+00	47.95
	911.20	257	25.80*	1.808E+00	1.693E+00	1.693E+00	25.18
	968.97	171	15.80	1.711E+00	1.951E+00	1.951E+00	34.77

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	271	11.27	3.954E+00	1.867E+00	1.867E+00	47.95
	911.20	257	25.80*	1.808E+00	1.693E+00	1.693E+00	25.18
	968.97	171	15.80	1.711E+00	1.951E+00	1.951E+00	34.77
TH-228	74.82	595	10.28	4.832E+00	3.681E+00	3.681E+00	22.12
	77.11	699	17.10	5.079E+00	2.474E+00	2.474E+00	14.62
	238.63	1301	43.60*	4.991E+00	1.839E+00	1.839E+00	12.03
	300.09	131	3.30	4.293E+00	2.841E+00	2.841E+00	71.56
TH-230	609.32	441	45.49*	2.554E+00	1.167E+00	1.167E+00	16.75
	1120.29	113	14.92	1.503E+00	1.544E+00	1.544E+00	35.62
	1764.49	92	15.30	1.081E+00	1.707E+00	1.707E+00	26.48
TH-232	338.32	271	11.27	3.954E+00	1.867E+00	1.867E+00	25.16
	911.20	257	25.80*	1.808E+00	1.693E+00	1.693E+00	25.18
	968.97	171	15.80	1.711E+00	1.951E+00	1.951E+00	34.77
NP-237	86.48	170	12.40*	5.857E+00	7.197E-01	7.197E-01	52.37
	95.86	------	2.68	6.306E+00	------ Line Not Found		------

Flag: "*" = Keyline

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

Total number of lines in spectrum 32
Number of unidentified lines 5
Number of lines tentatively identified by NID 27 84.38%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.523E+01	3.523E+01	0.432E+01	12.28	
CD-109	461.40D	1.03	2.412E+00	2.483E+00	1.192E+00	47.99	
SN-126	2.30E+05Y	1.00	2.412E-01	2.412E-01	1.158E-01	47.99	
TL-208	1.41E+10Y	1.00	5.863E-01	5.863E-01	1.036E-01	17.67	
BI-211	7.04E+08Y	1.00	3.834E+00	3.834E+00	0.606E+00	15.82	
BI-212	1.41E+10Y	1.00	1.882E+00	1.882E+00	0.859E+00	45.67	
PB-212	1.41E+10Y	1.00	1.839E+00	1.839E+00	0.221E+00	12.03	
BI-214	1600.00Y	1.00	1.167E+00	1.167E+00	0.205E+00	17.56	
PB-214	1600.00Y	1.00	1.391E+00	1.391E+00	0.233E+00	16.75	
RA-224	1.41E+10Y	1.00	4.777E+00	4.777E+00	1.556E+00	32.57	
RA-226	1600.00Y	1.00	1.167E+00	1.167E+00	0.205E+00	17.56	
AC-228	1.41E+10Y	1.00	1.693E+00	1.693E+00	0.426E+00	25.18	
RA-228	1.41E+10Y	1.00	1.693E+00	1.693E+00	0.426E+00	25.18	
TH-228	1.41E+10Y	1.00	1.839E+00	1.839E+00	0.221E+00	12.03	
TH-230	7.54E+04Y	1.00	1.167E+00	1.167E+00	0.196E+00	16.75	
TH-232	1.41E+10Y	1.00	1.693E+00	1.693E+00	0.426E+00	25.18	
NP-237	2.14E+06Y	1.00	7.197E-01	7.197E-01	3.769E-01	52.37	
	Total Activity :		6.333E+01	6.340E+01			

Grand Total Activity : 6.333E+01 6.340E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	93.22	169	756	1.39	186.60	181	10	2.35E-02	65.9	6.20E+00	T
0	129.40	102	529	1.21	258.87	253	12	1.41E-02	92.8	6.64E+00	
0	185.85	158	426	1.20	371.63	365	11	2.19E-02	55.5	5.79E+00	T
0	209.14	75	344	1.00	418.17	414	9	1.04E-02	92.2	5.41E+00	
0	270.01	120	335	1.39	539.77	534	14	1.66E-02	67.5	4.61E+00	T
0	328.37	95	195	1.05	656.39	651	11	1.32E-02	60.3	4.04E+00	T
0	463.34	92	115	0.98	926.09	921	13	1.28E-02	52.5	3.16E+00	T
0	663.39	83	184	1.04	1325.96	1316	20	1.15E-02	83.7	2.38E+00	T
0	795.70	71	83	0.99	1590.48	1580	19	9.82E-03	66.9	2.04E+00	T
4	964.31	85	37	2.53	1927.66	1922	25	1.18E-02	37.7	1.72E+00	T
0	1378.58	26	35	1.04	2756.43	2747	14	3.66E-03	****	1.26E+00	
0	1402.03	18	24	0.99	2803.36	2794	12	2.47E-03	****	1.25E+00	
0	1847.98	18	7	1.33	3696.08	3689	14	2.50E-03	78.2	1.06E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:35:08.79

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1  *
* Acquisition date : 24-MAR-2010 20:33:15  Detector SN#    :                *
* Detector ID      : GAM29                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:57.45         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 5-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248867001            Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.22070E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.523E+01	4.325E+00	5.862E-01	6.376E-02	60.093
CD-109	2.483E+00	1.192E+00	1.820E+00	1.719E-01	1.364
SN-126	2.412E-01	1.158E-01	1.819E-01	1.710E-02	1.326
TL-208	5.863E-01	1.036E-01	6.767E-02	6.341E-03	8.663
BI-211	3.834E+00	6.063E-01	3.919E-01	3.753E-02	9.782
BI-212	1.882E+00	8.594E-01	8.798E-01	1.150E-01	2.139
PB-212	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
BI-214	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
PB-214	1.391E+00	2.331E-01	1.435E-01	1.586E-02	9.695
RA-224	4.777E+00	1.556E+00	1.222E+00	1.084E-01	3.909
RA-226	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
AC-228	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
RA-228	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
TH-228	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
TH-230	1.167E+00	1.955E-01	1.384E-01	1.192E-02	8.437
TH-232	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
NP-237	7.197E-01	3.769E-01	4.879E-01	1.119E-01	1.475

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.460E-02		3.972E-01	6.430E-01	6.260E-02	-0.038

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	-4.993E-02		4.804E-02	7.200E-02	7.188E-03	-0.693
NA-24	-5.110E+01		4.503E+01	Half-Life too short		
SC-46	-2.542E-02		4.469E-02	6.961E-02	9.088E-03	-0.365
V-48	-3.953E-02		9.753E-02	1.536E-01	1.863E-02	-0.257
CR-51	-1.087E-01		4.670E-01	7.636E-01	7.342E-02	-0.142
MN-54	-3.045E-02		4.396E-02	6.857E-02	8.082E-03	-0.444
CO-56	1.498E-02		4.718E-02	7.976E-02	9.618E-03	0.188
CO-57	2.208E-02		3.147E-02	5.225E-02	4.721E-03	0.423
CO-58	-2.382E-03		4.833E-02	7.967E-02	8.971E-03	-0.030
FE-59	-5.190E-02		1.038E-01	1.600E-01	1.699E-02	-0.324
CO-60	-1.929E-02		4.266E-02	6.761E-02	7.415E-03	-0.285
ZN-65	-6.619E-02		1.148E-01	1.464E-01	1.416E-02	-0.452
SE-75	1.681E-02		6.110E-02	9.012E-02	8.171E-03	0.187
SR-85	-1.800E-01		6.424E-02	8.613E-02	7.791E-03	-2.090
Y-88	-6.498E-03		3.818E-02	6.045E-02	5.169E-03	-0.108
Y-91	-9.039E+00		2.724E+01	4.277E+01	3.772E+00	-0.211
NB-94	-9.570E-03		3.608E-02	5.900E-02	5.300E-03	-0.162
NB-95	7.055E-02		5.146E-02	9.219E-02	9.469E-03	0.765
NB-95M	6.736E-01		1.991E-01	3.184E-01	3.207E-02	2.115
ZR-95	2.077E-02		8.542E-02	1.443E-01	1.568E-02	0.144
MO-99	5.954E+01		4.271E+01	7.590E+01	1.244E+01	0.785
TC-99M	-9.175E+15		3.463E+15	Half-Life too short		
RU-103	-1.237E-02		5.221E-02	8.333E-02	1.188E-02	-0.148
RH-106	-1.023E-01		3.442E-01	5.652E-01	7.457E-02	-0.181
RU-106	-1.023E-01		3.440E-01	5.652E-01	4.817E-02	-0.181
AG-108M	-1.315E-03		3.302E-02	5.377E-02	5.031E-03	-0.024
AG-110M	9.767E-03		4.395E-02	6.487E-02	5.515E-03	0.151
SN-113	3.037E-02		5.294E-02	8.953E-02	8.280E-03	0.339
CD-115	5.067E-06		2.422E-05	Half-Life too short		
SN-117M	1.580E-02		8.013E-02	1.298E-01	1.073E-02	0.122
TE-123M	-8.985E-03		3.464E-02	5.504E-02	4.575E-03	-0.163
SB-124	-4.839E-02		8.496E-02	1.248E-01	1.236E-02	-0.388
SB-125	-5.397E-02		1.117E-01	1.772E-01	1.636E-02	-0.305
TE-125M	1.845E+00		1.305E+01	2.132E+01	2.278E+00	0.087
I-126	2.483E-01		3.624E-01	5.558E-01	4.605E-02	0.447
SB-126	-6.002E-02		2.262E-01	3.147E-01	2.940E-02	-0.191
SB-127	-2.427E-01		3.197E+00	5.310E+00	6.756E-01	-0.046
I-131	4.339E-03		1.903E-01	3.136E-01	3.008E-02	0.014
TE-132	1.995E+00		2.269E+00	3.887E+00	6.534E-01	0.513
BA-133	5.465E-02		5.492E-02	8.367E-02	1.114E-02	0.653
I-133	7.975E-02		1.036E-01	Half-Life too short		
CS-134	1.411E-01	+	9.575E-02	1.005E-01	1.102E-02	1.405
CS-135	3.862E-01		2.230E-01	3.497E-01	3.615E-02	1.104
I-135	-2.956E+13		1.797E+14	Half-Life too short		
CS-136	-6.837E-02		1.522E-01	2.373E-01	2.687E-02	-0.288
BA-137M	1.196E-01		4.649E-02	8.699E-02	7.132E-03	1.375
CS-137	1.263E-01		4.912E-02	9.190E-02	7.550E-03	1.375
CE-139	9.968E-03		3.697E-02	5.995E-02	4.886E-03	0.166

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-140	5.443E-02		4.064E-01	6.618E-01	2.251E-01	0.082
LA-140	-5.603E-02		1.297E-01	2.019E-01	2.042E-02	-0.278
CE-141	2.067E-02		8.851E-02	1.438E-01	1.243E-02	0.144
CE-143	9.059E-03		1.384E-03	Half-Life too short		
CE-144	-1.194E-01		2.813E-01	3.872E-01	5.940E-02	-0.308
PM-144	2.249E-02		3.890E-02	6.731E-02	5.968E-03	0.334
PR-144	1.183E+00		2.949E+00	5.047E+00	4.473E-01	0.234
PM-146	4.661E-02		4.888E-02	8.387E-02	9.219E-03	0.556
ND-147	6.399E-01		8.369E-01	1.416E+00	2.149E-01	0.452
PM-149	2.098E-04		2.008E-04	Half-Life too short		
EU-152	1.243E-03		1.332E-01	1.907E-01	1.841E-02	0.007
GD-153	1.264E-01		1.174E-01	1.737E-01	1.560E-02	0.728
EU-154	-1.385E-01		1.364E-01	2.045E-01	2.543E-02	-0.677
EU-155	-1.860E-02		1.299E-01	2.104E-01	1.884E-02	-0.088
TB-160	-1.272E-02		1.675E-01	2.741E-01	3.514E-02	-0.046
HO-166M	-2.686E-02		7.282E-02	1.106E-01	1.013E-02	-0.243
TA-182	-2.094E-01		2.591E-01	3.905E-01	3.550E-02	-0.536
IR-192	2.985E-02		4.093E-02	7.011E-02	6.455E-03	0.426
HG-203	2.803E-02		4.929E-02	8.391E-02	7.810E-03	0.334
BI-207	1.272E-02		5.727E-02	9.518E-02	1.022E-02	0.134
PB-210	7.241E-01		4.304E+00	7.269E+00	6.936E-01	0.100
PB-211	-3.471E-01		8.807E-01	1.385E+00	6.711E-01	-0.251
RN-219	9.623E-02		4.678E-01	7.753E-01	1.172E-01	0.124
RA-223	6.526E-02		8.300E-01	1.198E+00	2.111E-01	0.054
AC-227	1.762E-03		2.844E-01	4.751E-01	5.848E-02	0.004
TH-227	1.762E-03		2.844E-01	4.751E-01	6.573E-02	0.004
TH-229	-3.620E-01		6.550E-01	1.019E+00	8.593E-02	-0.355
PA-231	-1.594E-01		1.695E+00	2.807E+00	4.177E-01	-0.057
TH-231	6.526E-02		8.300E-01	1.198E+00	2.111E-01	0.054
PA-233	1.334E-02		7.383E-02	1.234E-01	1.162E-02	0.108
PA-234	4.000E-01		3.700E-01	6.427E-01	1.346E-01	0.622
PA-234M	-2.274E+00		5.690E+00	9.072E+00	1.167E+00	-0.251
TH-234	7.463E-01		1.709E+00	2.818E+00	5.091E-01	0.265
U-235	3.406E-01		2.688E-01	4.377E-01	7.397E-02	0.778
U-238	7.463E-01		1.709E+00	2.818E+00	5.091E-01	0.265
NP-239	-2.888E-01		5.135E-01	8.153E-01	7.282E-02	-0.354
AM-241	-2.518E-02		1.931E-01	3.177E-01	2.742E-02	-0.079
CM-247	7.683E-03		4.300E-02	7.117E-02	6.425E-03	0.108
CF-249	-1.102E-02		4.693E-02	7.600E-02	6.851E-03	-0.145
CF-251	1.016E-01		1.582E-01	2.596E-01	2.145E-02	0.392
ANH-511	1.200E-01		5.445E-02	1.011E-01	9.151E-03	1.187

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248867001            *
* Acquisition date : 24-MAR-2010 20:33:15 Detector SN#    :                 *
* Detector ID      : GAM29                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:57.45     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  5-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248867001           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.2207E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.523E+01	4.238E+00	2.928E-01	2.162E+00
CD-109	2.483E+00	1.168E+00	9.418E-01	5.959E-01
SN-126	2.412E-01	1.134E-01	9.410E-02	5.788E-02
TL-208	5.863E-01	1.015E-01	3.420E-02	5.179E-02
BI-211	3.834E+00	5.942E-01	1.993E-01	3.032E-01
BI-212	1.882E+00	8.422E-01	4.434E-01	4.297E-01
PB-212	1.839E+00	2.167E-01	5.832E-02	1.106E-01
BI-214	1.167E+00	2.009E-01	6.989E-02	1.025E-01
PB-214	1.391E+00	2.284E-01	7.299E-02	1.165E-01
RA-224	4.777E+00	1.525E+00	6.245E-01	7.780E-01
RA-226	1.167E+00	2.009E-01	6.989E-02	1.025E-01
AC-228	1.693E+00	4.177E-01	1.398E-01	2.131E-01
RA-228	1.693E+00	4.177E-01	1.398E-01	2.131E-01
TH-228	1.839E+00	2.167E-01	5.832E-02	1.106E-01
TH-230	1.167E+00	1.916E-01	6.988E-02	9.777E-02
TH-232	1.693E+00	4.177E-01	1.398E-01	2.131E-01
NP-237	7.197E-01	3.694E-01	2.525E-01	1.885E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.460E-02	3.893E-01	3.258E-01	1.986E-01	NOT IDENT.
NA-22	-4.993E-02	4.708E-02	3.602E-02	2.402E-02	NOT IDENT.
NA-24	-5.110E+07	8.825E+07	0.000E+00	4.503E+07	SHORT HLIF
SC-46	-2.542E-02	4.380E-02	3.499E-02	2.234E-02	FAIL ABUN
V-48	-3.953E-02	9.558E-02	7.708E-02	4.876E-02	NOT IDENT.
CR-51	-1.087E-01	4.577E-01	3.888E-01	2.335E-01	NOT IDENT.
MN-54	-3.045E-02	4.308E-02	3.449E-02	2.198E-02	NOT IDENT.
CO-56	1.498E-02	4.624E-02	4.011E-02	2.359E-02	NOT IDENT.
CO-57	2.208E-02	3.084E-02	2.692E-02	1.573E-02	NOT IDENT.
CO-58	-2.382E-03	4.736E-02	4.009E-02	2.416E-02	NOT IDENT.

FE-59	-5.190E-02	1.017E-01	8.020E-02	5.189E-02	NOT IDENT.
CO-60	-1.929E-02	4.181E-02	3.381E-02	2.133E-02	NOT IDENT.
ZN-65	-6.619E-02	1.125E-01	7.336E-02	5.739E-02	NOT IDENT.
SE-75	1.681E-02	5.988E-02	4.600E-02	3.055E-02	NOT IDENT.
SR-85	-1.800E-01	6.295E-02	4.360E-02	3.212E-02	NOT IDENT.
Y-88	-6.498E-03	3.742E-02	3.010E-02	1.909E-02	NOT IDENT.
Y-91	-9.039E+00	2.670E+01	2.141E+01	1.362E+01	NOT IDENT.
NB-94	-9.570E-03	3.536E-02	2.974E-02	1.804E-02	NOT IDENT.
NB-95	7.055E-02	5.043E-02	4.643E-02	2.573E-02	NOT IDENT.
NB-95M	6.736E-01	1.952E-01	1.628E-01	9.957E-02	NOT IDENT.
ZR-95	2.077E-02	8.372E-02	7.270E-02	4.271E-02	NOT IDENT.
MO-99	5.954E+01	4.185E+01	3.824E+01	2.135E+01	NOT IDENT.
TC-99M	-9.175E+21	6.787E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.237E-02	5.116E-02	4.220E-02	2.610E-02	FAIL ABUN
RH-106	-1.023E-01	3.373E-01	2.854E-01	1.721E-01	NOT IDENT.
RU-106	-1.023E-01	3.371E-01	2.854E-01	1.720E-01	NOT IDENT.
AG-108M	-1.315E-03	3.236E-02	2.728E-02	1.651E-02	NOT IDENT.
AG-110M	9.767E-03	4.308E-02	3.273E-02	2.198E-02	NOT IDENT.
SN-113	3.037E-02	5.188E-02	4.547E-02	2.647E-02	NOT IDENT.
CD-115	5.067E+00	4.747E+01	0.000E+00	2.422E+01	SHORT HLIF
SN-117M	1.580E-02	7.853E-02	6.668E-02	4.007E-02	NOT IDENT.
TE-123M	-8.985E-03	3.395E-02	2.827E-02	1.732E-02	NOT IDENT.
SB-124	-4.839E-02	8.326E-02	6.223E-02	4.248E-02	NOT IDENT.
SB-125	-5.397E-02	1.094E-01	8.988E-02	5.584E-02	FAIL ABUN
TE-125M	1.845E+00	1.279E+01	1.100E+01	6.525E+00	NOT IDENT.
I-126	2.483E-01	3.551E-01	2.804E-01	1.812E-01	NOT IDENT.
SB-126	-6.002E-02	2.217E-01	1.586E-01	1.131E-01	NOT IDENT.
SB-127	-2.427E-01	3.134E+00	2.678E+00	1.599E+00	NOT IDENT.
I-131	4.339E-03	1.865E-01	1.594E-01	9.513E-02	NOT IDENT.
TE-132	1.995E+00	2.223E+00	1.987E+00	1.134E+00	NOT IDENT.
BA-133	5.465E-02	5.382E-02	4.255E-02	2.746E-02	NOT IDENT.
I-133	7.975E+04	2.030E+05	0.000E+00	1.036E+05	SHORT HLIF
CS-134	1.411E-01	9.384E-02	5.058E-02	4.788E-02	FAIL ABUN
CS-135	3.862E-01	2.186E-01	1.785E-01	1.115E-01	NOT IDENT.
I-135	-2.956E+19	3.521E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.837E-02	1.491E-01	1.190E-01	7.609E-02	NOT IDENT.
BA-137M	1.196E-01	4.556E-02	4.389E-02	2.324E-02	NOT IDENT.
CS-137	1.263E-01	4.813E-02	4.637E-02	2.456E-02	NOT IDENT.
CE-139	9.968E-03	3.623E-02	3.078E-02	1.848E-02	NOT IDENT.
BA-140	5.443E-02	3.983E-01	3.348E-01	2.032E-01	NOT IDENT.
LA-140	-5.603E-02	1.271E-01	1.007E-01	6.483E-02	FAIL ABUN
CE-141	2.067E-02	8.674E-02	7.396E-02	4.426E-02	NOT IDENT.
CE-143	9.059E+03	2.713E+03	0.000E+00	1.384E+03	SHORT HLIF
CE-144	-1.194E-01	2.756E-01	1.993E-01	1.406E-01	NOT IDENT.
PM-144	2.249E-02	3.812E-02	3.394E-02	1.945E-02	NOT IDENT.
PR-144	1.183E+00	2.890E+00	2.545E+00	1.474E+00	NOT IDENT.
PM-146	4.661E-02	4.790E-02	4.252E-02	2.444E-02	NOT IDENT.
ND-147	6.399E-01	8.201E-01	7.166E-01	4.184E-01	NOT IDENT.
PM-149	2.098E+02	3.935E+02	0.000E+00	2.008E+02	SHORT HLIF
EU-152	1.243E-03	1.306E-01	9.700E-02	6.661E-02	FAIL ABUN
GD-153	1.264E-01	1.150E-01	8.977E-02	5.868E-02	NOT IDENT.
EU-154	-1.385E-01	1.337E-01	1.023E-01	6.822E-02	NOT IDENT.
EU-155	-1.860E-02	1.273E-01	1.086E-01	6.496E-02	FAIL ABUN
TB-160	-1.272E-02	1.641E-01	1.378E-01	8.373E-02	FAIL ABUN
HO-166M	-2.686E-02	7.137E-02	5.576E-02	3.641E-02	FAIL ABUN
TA-182	-2.094E-01	2.540E-01	1.955E-01	1.296E-01	FAIL ABUN
IR-192	2.985E-02	4.011E-02	3.570E-02	2.046E-02	FAIL ABUN
HG-203	2.803E-02	4.830E-02	4.280E-02	2.464E-02	NOT IDENT.
BI-207	1.272E-02	5.612E-02	4.773E-02	2.863E-02	FAIL ABUN
PB-210	7.241E-01	4.218E+00	3.790E+00	2.152E+00	NOT IDENT.
PB-211	-3.471E-01	8.631E-01	7.030E-01	4.404E-01	NOT IDENT.
RN-219	9.623E-02	4.585E-01	3.937E-01	2.339E-01	FAIL ABUN
RA-223	6.526E-02	8.134E-01	6.099E-01	4.150E-01	FAIL ABUN
AC-227	1.762E-03	2.787E-01	2.426E-01	1.422E-01	FAIL ABUN
TH-227	1.762E-03	2.787E-01	2.426E-01	1.422E-01	FAIL ABUN
TH-229	-3.620E-01	6.419E-01	5.222E-01	3.275E-01	FAIL ABUN
PA-231	-1.594E-01	1.661E+00	1.431E+00	8.473E-01	FAIL ABUN
TH-231	6.526E-02	8.134E-01	6.099E-01	4.150E-01	FAIL ABUN
PA-233	1.334E-02	7.235E-02	6.287E-02	3.691E-02	FAIL ABUN
PA-234	4.000E-01	3.626E-01	3.228E-01	1.850E-01	FAIL ABUN
PA-234M	-2.274E+00	5.577E+00	4.553E+00	2.845E+00	NOT IDENT.
TH-234	7.463E-01	1.675E+00	1.464E+00	8.547E-01	FAIL ABUN
U-235	3.406E-01	2.635E-01	2.251E-01	1.344E-01	FAIL ABUN
U-238	7.463E-01	1.675E+00	1.464E+00	8.547E-01	FAIL ABUN
NP-239	-2.888E-01	5.032E-01	4.204E-01	2.568E-01	NOT IDENT.
AM-241	-2.518E-02	1.892E-01	1.652E-01	9.654E-02	NOT IDENT.
CM-247	7.683E-03	4.214E-02	3.614E-02	2.150E-02	NOT IDENT.
CF-249	-1.102E-02	4.599E-02	3.860E-02	2.347E-02	NOT IDENT.

CF-251	1.016E-01	1.550E-01	1.332E-01	7.910E-02	NOT IDENT.
ANH-511	1.200E-01	5.336E-02	5.117E-02	2.722E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	399.1819
49.72	507.5309
57.36	0.0000
59.54	526.4267
63.29	541.2366
63.29	541.2366
64.28	563.7461
67.75	591.3801
69.67	561.9409
70.83	580.3849
72.81	601.1479
72.87	601.1960
72.87	601.1960
74.82	595.1647
74.82	595.1647
74.82	595.1647
74.97	595.2848
77.11	591.7491
77.11	591.7491
77.11	591.7491
79.69	611.4868
79.80	611.5724
80.12	611.8246
80.19	689.3741
80.57	689.7077
81.00	670.6946
81.07	670.7529
81.07	670.7529
83.79	577.3723
83.79	577.3723
85.43	572.0494
86.48	608.5878
86.55	608.6403
86.79	777.3015
86.94	777.4472
87.57	770.7123
88.03	735.2753
88.47	872.6861
89.96	874.2535
91.11	875.4519
92.59	595.5837
92.59	595.5837
93.35	449.5480
94.67	451.8835
94.87	451.9876
94.87	451.9876
95.86	427.8225
97.43	370.8984
98.44	382.3264
99.53	390.3705
100.11	393.7260
103.18	389.8857
103.37	369.2245
105.31	417.8181
106.12	400.5017
109.28	437.3492
111.00	443.3752
111.76	452.1009
116.30	410.0695
117.23	434.6659
121.12	321.2037
121.78	339.3886
122.06	356.4041
123.07	389.5779
131.20	355.0980
133.52	384.9609
136.00	360.1300

136.47	351.7081
140.51	478.9372
140.51	0.0000
143.76	378.8771
144.24	393.0790
144.24	393.0790
145.44	416.2002
152.43	357.8482
153.25	339.5980
154.21	301.7494
154.21	301.7494
156.02	381.8619
158.56	322.5482
159.00	339.0743
162.66	359.8611
163.33	382.0162
165.86	333.3088
176.60	353.9466
177.52	313.1191
181.07	377.6742
184.41	323.2768
185.72	379.0251
193.51	346.1828
197.04	313.7289
205.31	297.7745
210.85	303.4953
215.65	292.3320
222.11	310.1455
227.38	288.2259
228.16	293.9048
228.18	293.9087
235.69	285.4906
235.96	285.5414
235.96	285.5414
238.63	301.4978
238.63	301.4978
240.99	301.9580
242.00	302.1544
244.70	243.6931
252.40	220.8582
252.80	204.9997
256.23	226.0736
256.23	226.0736
260.90	0.0000
264.66	226.2979
268.22	234.6586
269.46	251.5408
269.46	251.5408
271.23	251.8038
273.65	287.5594
276.40	226.3061
277.37	226.6603
277.60	232.1221
278.00	238.7948
279.20	235.8725
279.54	242.5768
280.46	257.9363
283.69	225.0441
284.31	220.3552
285.41	229.0840
285.90	0.0000
287.50	211.3079
293.27	0.0000
295.22	194.8522
295.96	194.9340
298.57	195.2190
299.98	194.0894
299.98	194.0894
300.09	197.3075
300.09	197.3075
300.13	197.3125
301.36	210.2898
302.85	215.2828
304.50	181.7099
304.50	181.7099
304.85	201.0447
308.46	195.3201
311.90	186.0000

316.51	168.0098
319.41	181.8890
320.08	187.7910
323.87	181.9954
323.87	181.9954
328.76	192.2373
333.37	166.5718
334.37	166.6589
334.37	166.6589
338.28	214.4741
338.28	214.4741
338.32	214.4768
338.32	214.4768
338.32	214.4768
340.48	175.3771
340.55	165.5490
344.28	190.4966
351.06	186.2068
351.93	188.9249
356.01	148.6725
364.49	157.2555
366.42	178.3248
383.85	148.6775
388.16	167.0983
388.63	182.2373
391.69	146.2001
400.66	154.9050
401.81	149.9223
402.40	150.9753
404.85	177.5186
410.95	143.4234
414.70	141.6266
423.72	154.4709
427.09	164.9444
427.87	166.0263
433.94	128.4454
453.88	116.0701
463.37	131.0972
468.07	118.1478
473.00	128.4834
476.78	131.8201
477.60	128.7251
487.02	116.6083
492.35	0.0000
497.08	135.0047
511.00	108.1696
514.00	321.6989
527.90	0.0000
529.87	0.0000
531.02	95.1079
537.26	118.8941
546.56	0.0000
563.25	104.8955
569.33	110.5440
569.50	101.8808
569.70	101.8876
583.19	113.2701
600.60	121.6312
602.73	100.2589
604.72	118.8757
609.32	126.3905
609.32	126.3905
609.32	126.3905
610.33	95.2847
614.28	106.9449
618.01	84.1771
621.93	98.4186
621.93	98.4186
633.25	85.8668
635.95	101.6547
636.99	116.4792
645.85	98.2773
657.76	87.7579
661.66	86.6691
661.66	86.6691
664.57	0.0000
666.33	92.7996
666.50	91.2056

677.62	100.2276
685.70	94.8478
695.00	94.1833
696.49	90.4570
696.51	95.1683
697.00	96.1272
702.65	94.4071
706.68	85.0708
711.68	90.8828
720.70	86.2507
721.93	0.0000
722.78	84.6759
722.91	84.6795
723.31	87.9478
724.19	92.8576
727.33	81.8025
733.00	115.9718
735.93	88.6898
739.50	71.6003
747.24	86.1182
752.31	103.4956
753.82	75.7389
756.73	83.4794
763.94	99.0415
765.81	81.7783
766.42	85.6411
777.92	92.6836
778.90	90.7775
783.70	77.3649
785.37	68.3706
795.86	79.5726
801.95	98.3176
810.29	78.9219
810.76	85.7531
815.77	76.1147
818.51	70.3125
832.01	82.3372
834.85	99.0767
836.80	0.0000
846.77	73.8098
856.80	67.6660
860.56	69.1455
871.09	52.4997
873.19	74.3332
875.33	0.0000
879.36	73.4610
880.51	59.5801
883.24	57.6354
884.68	60.6401
889.28	71.6602
898.04	84.7925
911.20	82.3627
911.20	82.3627
911.20	82.3627
926.50	66.3196
937.49	61.4654
944.13	83.7717
946.00	61.5957
949.00	79.8310
962.29	66.0441
964.08	86.9385
966.15	77.1257
968.97	77.1782
968.97	77.1782
968.97	77.1782
983.53	70.3182
996.26	67.4677
1001.03	78.8016
1004.73	86.0422
1037.84	60.9062
1038.76	0.0000
1048.07	68.2935
1050.41	66.2604
1050.41	66.2604
1063.66	56.0764
1085.87	86.6272
1099.45	61.7656
1112.07	61.4136

1115.54	70.2414
1120.29	64.1547
1120.29	64.1547
1120.29	64.1547
1120.55	81.1387
1121.30	77.5446
1131.51	0.0000
1173.23	88.2956
1177.93	84.1239
1189.05	77.9189
1204.77	84.5997
1221.41	106.3839
1231.02	115.2070
1235.36	101.2979
1238.28	75.4801
1260.41	0.0000
1271.85	53.0399
1274.44	66.1019
1274.54	66.1019
1291.59	47.6435
1298.22	0.0000
1312.11	57.2152
1332.49	45.1992
1365.19	35.0592
1368.63	0.0000
1384.29	29.9553
1408.01	28.0824
1457.56	0.0000
1460.82	27.9683
1489.16	37.8030
1505.03	38.8811
1596.21	35.5455
1620.50	19.0842
1678.03	0.0000
1690.97	20.0572
1764.49	11.1604
1764.49	11.1604
1764.49	11.1604
1770.23	8.8855
1771.35	15.9966
1791.20	0.0000
1836.06	17.4382

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248867001

Total Uranium Activity	2.3778E+00	ug/g
Total Uranium Counting Unc.	4.9855E+00	ug/g
Total Uranium Tpu	2.5436E-06	ug/g
Total Uranium Mda	4.3560E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248867001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM29            *
*   SAMPLE DATE   :  5-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 20:33:15.40    SAMPLE ALQT:  122.070 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.033E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.575E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.849E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.369E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:38:05.67

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867002.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:37:36
Sample ID         : G248867002           Sample quantity  : 1.43480E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.23  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.04*	114	734	1.13	126.34	121	11	1.59E-02	48.1	
2	3	72.97	84	494	1.34	146.18	143	24	1.17E-02	43.2	1.55E+00
3	3	74.87	530	643	1.35	149.98	143	24	7.36E-02	9.6	
4	3	77.14*	811	465	1.05	154.50	143	24	1.13E-01	5.8	
5	0	87.18	291	463	1.12	174.57	172	6	4.05E-02	13.1	
6	5	89.89	215	289	1.05	179.98	178	14	2.98E-02	12.9	8.20E-01
7	5	92.89*	324	541	1.40	185.97	178	14	4.50E-02	14.6	
8	0	129.47	135	514	1.01	259.06	255	9	1.87E-02	31.6	
9	0	185.85*	220	561	1.19	371.70	366	11	3.05E-02	22.9	
10	0	209.52	174	482	1.18	419.02	414	10	2.41E-02	24.9	
11	3	238.71*	1817	311	1.26	477.34	469	20	2.52E-01	3.0	2.56E+00
12	3	241.61	442	389	1.89	483.13	469	20	6.15E-02	13.4	
13	0	270.20	172	345	1.12	540.27	533	12	2.39E-02	22.9	
14	0	277.73	52	267	1.31	555.31	552	8	7.24E-03	56.1	
15	4	295.31*	555	224	1.41	590.44	586	17	7.71E-02	6.4	2.05E+00
16	4	299.96	121	196	1.52	599.74	586	17	1.67E-02	21.1	
17	0	328.02	169	342	1.37	655.81	649	15	2.35E-02	25.0	
18	0	338.47*	336	303	1.19	676.69	672	11	4.67E-02	11.7	
19	0	351.97*	863	362	1.33	703.68	698	13	1.20E-01	5.8	
20	0	463.06	112	148	1.11	925.69	921	10	1.55E-02	22.5	
21	0	511.57*	233	257	2.19	1022.65	1015	20	3.24E-02	20.5	
22	0	583.36*	622	175	1.76	1166.14	1160	13	8.64E-02	6.1	
23	0	609.45*	741	153	1.57	1218.27	1211	15	1.03E-01	5.4	
24	0	727.79*	129	160	1.72	1454.84	1447	15	1.79E-02	24.0	
25	0	768.72	62	102	2.02	1536.66	1530	11	8.64E-03	33.9	
26	0	861.16	107	120	4.27	1721.47	1710	20	1.49E-02	26.8	
27	0	911.53*	454	115	1.90	1822.17	1815	15	6.31E-02	7.2	
28	1	964.69	98	60	2.56	1928.46	1922	24	1.36E-02	20.6	1.41E+00
29	1	969.23*	278	72	2.56	1937.55	1922	24	3.86E-02	9.4	
30	0	1120.52*	154	103	1.91	2240.07	2234	13	2.14E-02	16.5	
31	0	1461.06*	2268	39	2.85	2921.14	2910	21	3.15E-01	2.2	
32	0	1730.79	53	18	2.64	3460.75	3450	19	7.31E-03	24.1	
33	0	1764.73*	130	29	3.00	3528.67	3520	19	1.81E-02	14.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 22:38:08

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 20:37:36
Sample ID : G248867002 Sample quantity : 143.48 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.23 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	2.916E+01	2.971E+00	4.538E-01	4.157E-02	64.266
CD-109	+	88.03	*	2.836E+00	7.888E-01	9.705E-01	9.210E-02	2.922
SN-126	+	64.28		7.251E-01	7.051E-01	5.859E-01	8.509E-02	1.237
	+	86.94		1.145E+00	5.622E-01	4.589E-01	1.905E-01	2.496
	+	87.57	*	2.755E-01	7.662E-02	1.054E-01	9.951E-03	2.614
HG-203		70.83		4.854E-01	1.190E+00	1.778E+00	2.785E-01	0.273
	+	72.87		8.029E-01	7.051E-01	1.047E+00	1.592E-01	0.767
	+	279.20	*	3.613E-02	4.085E-02	5.174E-02	7.315E-03	0.698
TL-208	+	277.37		3.346E-01	3.794E-01	4.825E-01	8.026E-02	0.693
	+	583.19	*	4.870E-01	7.942E-02	4.745E-02	5.141E-03	10.264
	+	860.56		7.696E-01	4.217E-01	3.314E-01	3.861E-02	2.322
BI-211	+	72.87		3.027E+00	2.630E+00	3.948E+00	3.160E-01	0.767
	+	351.06	*	3.234E+00	5.292E-01	2.644E-01	3.085E-02	12.235
PB-212	+	74.82		2.184E+00	5.019E-01	4.532E-01	5.755E-02	4.820
	+	77.11		1.918E+00	2.740E-01	2.610E-01	2.183E-02	7.349
	+	238.63	*	1.625E+00	2.362E-01	7.586E-02	1.005E-02	21.420
	+	300.09		1.615E+00	7.211E-01	1.059E+00	1.552E-01	1.525
BI-214	+	609.32	*	1.118E+00	1.773E-01	9.088E-02	1.060E-02	12.304
	+	1120.29		1.151E+00	3.999E-01	3.764E-01	4.177E-02	3.056
	+	1764.49		1.297E+00	3.844E-01	1.748E-01	1.456E-02	7.418
PB-214	+	74.82		3.872E+00	8.625E-01	8.033E-01	9.143E-02	4.820
	+	77.11		3.382E+00	5.577E-01	4.602E-01	5.405E-02	7.349
	+	242.00		2.395E+00	7.206E-01	4.607E-01	6.371E-02	5.200
	+	295.22		1.320E+00	2.603E-01	1.854E-01	2.782E-02	7.120
	+	351.93	*	1.174E+00	2.027E-01	9.692E-02	1.248E-02	12.112
RA-224	+	240.99	*	4.236E+00	1.250E+00	8.123E-01	1.017E-01	5.215
RA-226	+	609.32	*	1.118E+00	1.773E-01	9.088E-02	1.060E-02	12.304
	+	1120.29		1.151E+00	3.999E-01	3.764E-01	4.177E-02	3.056
	+	1764.49		1.297E+00	3.844E-01	1.748E-01	1.456E-02	7.418
AC-228	+	338.32		1.413E+00	6.855E-01	3.184E-01	1.354E-01	4.438
	+	911.20	*	1.652E+00	3.271E-01	1.797E-01	2.435E-02	9.191
	+	968.97		1.737E+00	5.462E-01	3.003E-01	7.550E-02	5.784
RA-228	+	338.32		1.413E+00	6.855E-01	3.184E-01	1.354E-01	4.438
	+	911.20	*	1.652E+00	3.271E-01	1.797E-01	2.435E-02	9.191

Sample ID : G248867002 Acquisition date : 24-MAR-2010 20:37:36

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		1.737E+00	5.462E-01	3.003E-01	7.550E-02	5.784
TH-228	+	74.82		2.184E+00	4.554E-01	4.532E-01	3.737E-02	4.820
	+	77.11		1.918E+00	2.740E-01	2.610E-01	2.183E-02	7.349
	+	238.63	*	1.625E+00	2.362E-01	7.586E-02	1.005E-02	21.420
	+	300.09		1.615E+00	1.212E+00	1.059E+00	6.569E-01	1.525
TH-230	+	609.32	*	1.118E+00	1.672E-01	9.088E-02	9.458E-03	12.304
	+	1120.29		1.150E+00	3.924E-01	3.764E-01	3.329E-02	3.056
	+	1764.49		1.296E+00	3.844E-01	1.748E-01	1.456E-02	7.418
TH-232	+	338.32		1.413E+00	3.705E-01	3.184E-01	3.787E-02	4.438
	+	911.20	*	1.652E+00	3.271E-01	1.797E-01	2.435E-02	9.191
	+	968.97		1.737E+00	5.462E-01	3.003E-01	7.550E-02	5.784
TH-234	+	63.29	*	1.881E+00	1.840E+00	1.551E+00	2.760E-01	1.213
	+	92.59		2.545E+00	9.348E-01	7.443E-01	1.658E-01	3.420
U-235	+	89.96		2.110E+00	7.562E-01	1.124E+00	2.795E-01	1.877
	+	93.35		1.923E+00	7.180E-01	5.597E-01	1.302E-01	3.436
		143.76	*	1.673E-01	1.716E-01	2.880E-01	4.922E-02	0.581
		163.33		8.034E-02	3.625E-01	6.092E-01	1.127E-01	0.132
	+	185.72		1.321E-01	6.207E-02	5.489E-02	5.748E-03	2.407
		205.31		3.208E-01	4.801E-01	7.069E-01	1.378E-01	0.454
NP-237	+	86.48	*	8.219E-01	2.863E-01	3.275E-01	7.513E-02	2.510
		95.86		-1.171E-02	8.163E-01	1.173E+00	2.824E-01	-0.010
U-238	+	63.29	*	1.881E+00	1.840E+00	1.551E+00	2.760E-01	1.213
	+	92.59		2.545E+00	7.785E-01	7.443E-01	6.771E-02	3.420
ANH-511	+	511.00	*	1.421E-01	6.009E-02	3.738E-02	3.746E-03	3.802

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-2.311E-02	2.851E-01	4.587E-01	4.786E-02	-0.050
NA-22		1274.54	*	1.413E-02	3.501E-02	5.953E-02	5.130E-03	0.237
NA-24		1368.63	*	2.659E+01	3.501E-02	Half-Life too short		
SC-46		889.28	*	3.293E-03	3.346E-02	5.583E-02	6.250E-03	0.059
	+	1120.55		2.016E-01	6.874E-02	1.051E-01	9.290E-03	1.918
V-48		944.13		-4.801E-01	8.852E-01	1.406E+00	1.525E-01	-0.341
		983.53	*	1.190E-02	7.349E-02	1.219E-01	1.279E-02	0.098
		1312.11		-2.401E-02	7.251E-02	1.163E-01	1.025E-02	-0.206
CR-51		320.08	*	2.423E-01	3.601E-01	5.854E-01	7.577E-02	0.414
MN-54		834.85	*	-7.607E-03	3.191E-02	5.255E-02	5.837E-03	-0.145
CO-56		846.77	*	-1.401E-02	3.392E-02	5.508E-02	6.131E-03	-0.254
		1037.84		1.246E-01	2.417E-01	4.092E-01	4.216E-02	0.304
		1238.28		1.730E-01	8.182E-02	1.454E-01	1.260E-02	1.190
		1771.35		1.558E-01	1.939E-01	3.131E-01	2.602E-02	0.498
CO-57		122.06	*	9.374E-03	2.285E-02	3.676E-02	3.032E-03	0.255
		136.47		-9.047E-02	1.731E-01	2.875E-01	2.665E-02	-0.315
CO-58		810.76	*	-1.800E-02	3.180E-02	5.124E-02	5.673E-03	-0.351
FE-59		1099.45	*	4.927E-02	7.711E-02	1.306E-01	1.280E-02	0.377
		1291.59		-1.775E-03	1.056E-01	1.744E-01	1.719E-02	-0.010
CO-60		1173.23		-1.025E-02	3.537E-02	5.793E-02	4.659E-03	-0.177

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1332.49	*	-1.219E-02	3.085E-02	4.910E-02	4.379E-03	-0.248
ZN-65		1115.54	*	4.702E-02	9.213E-02	1.328E-01	1.184E-02	0.354
SE-75		121.12		-3.299E-02	1.209E-01	1.897E-01	2.048E-02	-0.174
		136.00		-2.591E-02	3.347E-02	5.507E-02	4.779E-03	-0.470
		264.66	*	-1.440E-02	4.310E-02	5.908E-02	7.953E-03	-0.244
		279.54		1.329E-01	1.081E-01	1.598E-01	2.269E-02	0.831
		400.66		2.723E-02	2.147E-01	3.546E-01	4.141E-02	0.077
SR-85		514.00	*	1.440E-01	3.950E-02	6.897E-02	6.921E-03	2.088
Y-88		898.04		-3.268E-02	3.481E-02	5.385E-02	6.050E-03	-0.607
		1836.06	*	1.620E-02	2.492E-02	4.450E-02	3.597E-03	0.364
Y-91		1204.77	*	8.434E+00	1.849E+01	3.157E+01	2.596E+00	0.267
NB-94		702.65	*	2.259E-02	2.863E-02	4.856E-02	5.204E-03	0.465
		871.09		2.324E-02	2.680E-02	4.535E-02	5.066E-03	0.512
NB-95		765.81	*	3.114E-02	4.125E-02	6.063E-02	6.630E-03	0.514
NB-95M		235.69	*	2.345E-01	1.319E-01	1.981E-01	2.621E-02	1.184
ZR-95		724.19		9.069E-02	9.519E-02	1.419E-01	1.615E-02	0.639
		756.73	*	3.835E-02	6.074E-02	1.021E-01	1.187E-02	0.376
MO-99		140.51		-3.932E+01	5.429E+01	8.816E+01	2.098E+01	-0.446
		181.07		-1.441E+01	4.805E+01	6.879E+01	1.350E+01	-0.209
		366.42		9.379E+01	2.344E+02	3.945E+02	4.185E+01	0.238
		739.50	*	-2.211E+00	3.112E+01	5.033E+01	8.597E+00	-0.044
		777.92		-1.036E+02	9.138E+01	1.360E+02	1.492E+01	-0.762
TC-99M		140.51	*	-2.865E+15	9.138E+01	Half-Life too short		
RU-103		497.08	*	-1.845E-02	3.504E-02	5.449E-02	8.078E-03	-0.339
	+	610.33		1.244E+01	2.539E+00	2.339E+00	4.060E-01	5.318
RH-106		621.93	*	-9.951E-02	2.474E-01	3.982E-01	5.778E-02	-0.250
		1050.41		-3.130E-01	2.224E+00	3.596E+00	3.510E-01	-0.087
RU-106		621.93	*	-9.951E-02	2.472E-01	3.982E-01	4.159E-02	-0.250
		1050.41		-3.130E-01	2.224E+00	3.596E+00	3.510E-01	-0.087
AG-108M		433.94	*	9.126E-03	2.390E-02	3.970E-02	3.907E-03	0.230
		614.28		1.236E-02	3.103E-02	4.550E-02	4.850E-03	0.272
		722.91		-1.705E-02	3.549E-02	4.730E-02	5.210E-03	-0.360
AG-110M		657.76	*	-1.152E-03	2.915E-02	4.778E-02	5.135E-03	-0.024
		677.62		2.196E-01	2.645E-01	4.516E-01	4.885E-02	0.486
		706.68		1.043E-01	1.876E-01	3.147E-01	3.440E-02	0.332
		763.94		5.587E-02	1.407E-01	2.021E-01	2.247E-02	0.276
		884.68		-1.990E-03	4.073E-02	6.738E-02	7.683E-03	-0.030
		937.49		2.799E-02	9.004E-02	1.515E-01	1.689E-02	0.185
		1384.29		-1.940E-01	1.466E-01	2.127E-01	1.949E-02	-0.912
		1505.03		-1.314E-01	2.269E-01	3.467E-01	3.083E-02	-0.379
SN-113		391.69	*	-9.424E-03	3.713E-02	6.030E-02	5.758E-03	-0.156
CD-115		260.90		2.251E-04	3.713E-02	Half-Life too short		
		492.35		4.304E-05	3.713E-02	Half-Life too short		
		527.90	*	6.266E-06	3.713E-02	Half-Life too short		
SN-117M		156.02		1.295E+00	2.327E+00	3.963E+00	3.715E-01	0.327
		158.56	*	-6.261E-02	5.525E-02	8.827E-02	8.371E-03	-0.709
TE-123M		159.00	*	-2.294E-02	2.358E-02	3.795E-02	3.624E-03	-0.604
SB-124		602.73		1.772E-02	3.591E-02	5.309E-02	5.515E-03	0.334
		645.85		-9.191E-02	4.157E-01	6.751E-01	7.372E-02	-0.136

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		722.78		-1.751E-01	3.745E-01	4.999E-01	5.474E-02	-0.350
		1690.97	*	4.357E-02	5.642E-02	1.025E-01	9.141E-03	0.425
SB-125		427.87	*	-4.087E-02	7.620E-02	1.208E-01	1.172E-02	-0.338
	+	463.37		6.124E-01	2.822E-01	4.184E-01	4.329E-02	1.464
		600.60		1.037E-01	1.468E-01	2.412E-01	2.633E-02	0.430
		635.95		9.625E-02	2.179E-01	3.677E-01	4.069E-02	0.262
TE-125M		109.28	*	-3.053E-03	8.962E+00	1.408E+01	1.450E+00	0.000
I-126		388.63		8.754E-02	1.715E-01	2.887E-01	2.733E-02	0.303
		666.33	*	1.162E-01	2.272E-01	3.827E-01	4.044E-02	0.304
		753.82		1.115E+00	1.858E+00	3.116E+00	3.396E-01	0.358
SB-126		414.70		-5.411E-02	8.206E-02	1.298E-01	1.228E-02	-0.417
		666.50		3.809E-02	7.869E-02	1.324E-01	1.399E-02	0.288
		695.00		1.736E-02	7.788E-02	1.289E-01	1.378E-02	0.135
		697.00		-1.238E-02	2.751E-01	4.483E-01	4.794E-02	-0.028
		720.70	*	-1.666E-01	1.846E-01	2.356E-01	2.541E-02	-0.707
		856.80		1.417E-01	5.424E-01	7.907E-01	8.815E-02	0.179
SB-127		252.40		9.197E-01	8.013E+00	1.298E+01	5.582E+00	0.071
		473.00		-1.017E+00	2.852E+00	4.513E+00	6.652E-01	-0.225
		685.70	*	2.545E-01	2.228E+00	3.671E+00	5.197E-01	0.069
		783.70		7.229E+00	6.378E+00	1.084E+01	1.648E+00	0.667
I-131		80.19		-3.891E+00	5.199E+00	8.270E+00	7.229E-01	-0.471
		284.31		-8.658E-01	1.809E+00	2.817E+00	3.987E-01	-0.307
		364.49	*	5.502E-02	1.362E-01	2.294E-01	2.547E-02	0.240
		636.99		-4.059E-01	1.819E+00	2.958E+00	3.231E-01	-0.137
TE-132		49.72		-5.515E+00	3.295E+01	5.499E+01	6.525E+00	-0.100
		111.76		6.020E+00	7.186E+01	1.150E+02	1.390E+01	0.052
		116.30		1.350E+01	6.396E+01	1.025E+02	1.235E+01	0.132
		228.16	*	8.085E-01	1.671E+00	2.755E+00	5.157E-01	0.293
BA-133		81.00		-7.338E-02	7.449E-02	1.163E-01	1.812E-02	-0.631
	+	276.40		3.095E-01	3.515E-01	5.251E-01	9.361E-02	0.589
		302.85		5.523E-02	1.287E-01	1.925E-01	3.176E-02	0.287
		356.01	*	8.226E-03	3.792E-02	5.533E-02	8.147E-03	0.149
		383.85		-1.504E-01	2.449E-01	3.905E-01	5.160E-02	-0.385
I-133		529.87	*	-3.087E-02	2.449E-01	Half-Life too short		
		875.33		-2.300E+00	2.449E-01	Half-Life too short		
		1298.22		-3.025E+00	2.449E-01	Half-Life too short		
CS-134		563.25		3.850E-01	2.928E-01	5.155E-01	5.318E-02	0.747
		569.33		-6.214E-02	1.677E-01	2.680E-01	2.779E-02	-0.232
		604.72		-3.982E-03	3.058E-02	4.309E-02	4.487E-03	-0.092
		795.86	*	8.554E-02	3.931E-02	6.967E-02	7.711E-03	1.228
		801.95		-5.452E-01	3.621E-01	4.986E-01	5.521E-02	-1.093
		1365.19		6.150E-01	9.337E-01	1.625E+00	1.514E-01	0.379
CS-135		268.22	*	2.682E-01	1.532E-01	2.295E-01	3.320E-02	1.169
I-135		546.56		5.868E+14	1.532E-01	Half-Life too short		
		836.80		5.450E+14	1.532E-01	Half-Life too short		
		1038.76		1.328E+14	1.532E-01	Half-Life too short		
		1131.51		-1.144E+14	1.532E-01	Half-Life too short		
		1260.41	*	5.731E+13	1.532E-01	Half-Life too short		
		1457.56		4.863E+16	1.532E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1678.03		4.192E+14	1.532E-01	Half-Life too short		
		1791.20		-1.580E+14	1.532E-01	Half-Life too short		
CS-136		153.25		5.516E-01	9.230E-01	1.573E+00	1.701E-01	0.351
		176.60		1.988E-02	5.247E-01	8.722E-01	9.530E-02	0.023
		273.65		-4.761E-01	8.581E-01	8.011E-01	1.142E-01	-0.594
		340.55		7.985E-01	2.115E-01	3.277E-01	3.946E-02	2.437
		818.51		5.717E-02	7.117E-02	1.244E-01	1.379E-02	0.460
		1048.07	*	6.694E-02	1.136E-01	1.922E-01	1.944E-02	0.348
		1235.36		4.693E-02	6.176E-01	1.029E+00	1.194E-01	0.046
BA-137M		661.66	*	7.166E-03	2.965E-02	4.931E-02	5.200E-03	0.145
CS-137		661.66	*	7.570E-03	3.133E-02	5.209E-02	5.501E-03	0.145
CE-139		165.86	*	-2.348E-03	2.596E-02	4.316E-02	4.233E-03	-0.054
BA-140		162.66		5.774E-01	8.419E-01	1.435E+00	1.461E-01	0.402
		304.85		9.185E-01	1.481E+00	2.299E+00	7.110E-01	0.399
		423.72		-3.956E-02	2.043E+00	3.334E+00	1.105E+00	-0.012
		537.26	*	2.471E-02	2.489E-01	4.186E-01	1.437E-01	0.059
LA-140	+	328.76		1.115E+00	5.744E-01	5.903E-01	7.461E-02	1.889
		487.02		2.426E-02	1.462E-01	2.378E-01	2.465E-02	0.102
		815.77		-1.927E-01	3.219E-01	5.167E-01	6.135E-02	-0.373
		1596.21	*	-1.749E-01	9.757E-02	1.239E-01	1.086E-02	-1.412
CE-141		145.44	*	2.505E-02	5.603E-02	9.558E-02	8.701E-03	0.262
CE-143		57.36		9.381E-04	5.603E-02	Half-Life too short		
		293.27	*	5.744E-03	5.603E-02	Half-Life too short		
		664.57		4.943E-03	5.603E-02	Half-Life too short		
		721.93		-3.436E-03	5.603E-02	Half-Life too short		
CE-144		80.12		-1.468E+00	1.969E+00	3.133E+00	2.708E-01	-0.468
		133.52	*	1.826E-02	1.841E-01	2.766E-01	4.215E-02	0.066
PM-144		476.78		3.510E-02	5.388E-02	8.992E-02	9.445E-03	0.390
		618.01		-6.422E-03	2.706E-02	4.199E-02	4.466E-03	-0.153
		696.49	*	4.167E-03	2.765E-02	4.557E-02	4.874E-03	0.091
PR-144		696.51	*	3.126E-01	2.074E+00	3.418E+00	3.654E-01	0.091
		1489.16		-8.274E+00	1.032E+01	1.530E+01	1.363E+00	-0.541
PM-146		453.88	*	1.200E-02	3.343E-02	5.528E-02	6.357E-03	0.217
		633.25		-7.239E-02	1.150E+00	1.889E+00	7.302E-01	-0.038
		735.93		-4.275E-02	1.339E-01	1.954E-01	5.626E-02	-0.219
		747.24		1.308E-02	8.252E-02	1.352E-01	2.165E-02	0.097
ND-147	+	91.11		8.931E-01	2.471E-01	5.397E-01	5.335E-02	1.655
		319.41		-6.819E-01	3.602E+00	5.978E+00	7.568E-01	-0.114
		531.02	*	-2.718E-01	5.680E-01	9.242E-01	1.466E-01	-0.294
PM-149		285.90	*	6.931E-05	5.680E-01	Half-Life too short		
EU-152		121.78		-3.053E-03	6.563E-02	1.039E-01	9.946E-03	-0.029
		244.70		1.343E-01	3.123E-01	4.516E-01	5.718E-02	0.297
		344.28	*	5.495E-02	9.617E-02	1.361E-01	1.635E-02	0.404
		778.90		-6.575E-02	2.205E-01	3.495E-01	3.836E-02	-0.188
	+	964.08		6.592E-01	2.806E-01	4.509E-01	4.811E-02	1.462
		1085.87		1.088E-01	3.346E-01	5.555E-01	5.176E-02	0.196
		1112.07		5.961E-02	2.879E-01	4.199E-01	3.762E-02	0.142
		1408.01		3.162E-02	1.556E-01	2.592E-01	2.318E-02	0.122
GD-153		69.67		1.982E-01	1.441E+00	2.137E+00	1.658E-01	0.093

Sample ID : G248867002 Acquisition date : 24-MAR-2010 20:37:36

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		97.43	*	-5.068E-02	8.109E-02	1.127E-01	9.914E-03	-0.449
		103.18		-1.767E-02	9.625E-02	1.534E-01	1.311E-02	-0.115
EU-154		123.07		2.117E-02	4.649E-02	7.481E-02	8.289E-03	0.283
		723.31		-3.939E-02	1.608E-01	2.193E-01	2.522E-02	-0.180
		873.19		2.551E-02	2.160E-01	3.617E-01	5.012E-02	0.071
		996.26		-1.652E-01	2.927E-01	4.592E-01	8.445E-02	-0.360
		1004.73		-1.858E-02	1.704E-01	2.773E-01	3.579E-02	-0.067
		1274.44	*	4.136E-02	9.915E-02	1.686E-01	1.917E-02	0.245
EU-155	+	86.55		3.346E-01	9.315E-02	1.512E-01	1.423E-02	2.212
		105.31	*	8.295E-02	9.125E-02	1.505E-01	1.292E-02	0.551
TB-160	+	86.79		9.230E-01	2.567E-01	4.141E-01	3.873E-02	2.229
		197.04		1.418E-02	5.260E-01	8.490E-01	9.232E-02	0.017
		215.65		1.053E-01	6.824E-01	1.084E+00	1.253E-01	0.097
	+	298.57		2.368E-01	1.048E-01	1.818E-01	2.437E-02	1.303
		879.36	*	3.572E-02	1.227E-01	1.960E-01	2.192E-02	0.182
		962.29		9.501E-01	5.068E-01	8.095E-01	8.651E-02	1.174
	+	966.15		4.793E-01	2.040E-01	4.440E-01	4.730E-02	1.080
		1177.93		1.533E-01	2.894E-01	4.982E-01	4.020E-02	0.308
		1271.85		3.491E-01	5.889E-01	1.013E+00	8.709E-02	0.344
HO-166M		80.57		-1.710E-01	2.118E-01	3.361E-01	2.920E-02	-0.509
	+	184.41		1.050E-01	4.931E-02	5.711E-02	5.954E-03	1.838
		280.46		3.200E-02	7.908E-02	1.129E-01	1.577E-02	0.283
		410.95		2.193E-01	2.056E-01	3.515E-01	3.318E-02	0.624
		711.68	*	-1.203E-02	5.269E-02	8.477E-02	9.114E-03	-0.142
		752.31		-1.374E-01	2.282E-01	3.553E-01	3.870E-02	-0.387
		810.29		-2.899E-02	4.577E-02	7.337E-02	8.112E-03	-0.395
TA-182		67.75		-6.636E-02	9.775E-02	1.396E-01	1.064E-02	-0.475
		100.11		6.267E-02	1.542E-01	2.514E-01	2.178E-02	0.249
		152.43		1.337E-01	3.070E-01	5.216E-01	4.813E-02	0.256
		222.11		-1.907E-01	3.011E-01	4.775E-01	5.634E-02	-0.399
	+	1121.30		5.532E-01	1.887E-01	2.874E-01	2.537E-02	1.925
		1189.05		-7.149E-02	2.511E-01	4.109E-01	3.342E-02	-0.174
		1221.41	*	1.453E-01	1.718E-01	2.979E-01	2.477E-02	0.488
		1231.02		-3.385E-01	4.143E-01	6.548E-01	5.480E-02	-0.517
IR-192	+	295.96		1.016E+00	1.893E-01	2.421E-01	3.276E-02	4.196
		308.46		1.889E-03	8.010E-02	1.345E-01	1.761E-02	0.014
		316.51	*	1.384E-02	2.925E-02	4.986E-02	6.373E-03	0.278
		468.07		2.087E-02	6.270E-02	8.987E-02	9.302E-03	0.232
BI-207	+	72.81		1.742E-01	1.513E-01	2.498E-01	1.998E-02	0.697
	+	74.97		6.297E-01	1.311E-01	1.823E-01	1.490E-02	3.454
		569.70		-1.530E-02	2.607E-02	4.113E-02	4.225E-03	-0.372
		1063.66	*	1.152E-02	4.301E-02	7.136E-02	6.850E-03	0.161
		1770.23		8.389E-01	4.656E-01	8.187E-01	6.805E-02	1.025
PB-210		46.54	*	-5.325E-02	2.521E+00	4.142E+00	3.815E-01	-0.013
PB-211		404.85	*	-1.374E-01	5.934E-01	9.562E-01	4.641E-01	-0.144
		427.09		2.166E-02	1.266E+00	2.068E+00	9.606E-01	0.010
		832.01		-5.083E-01	8.494E-01	1.297E+00	6.785E-01	-0.392
BI-212	+	727.33	*	1.511E+00	7.564E-01	9.238E-01	1.299E-01	1.635
		785.37		3.788E+00	2.667E+00	4.615E+00	5.072E-01	0.821

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		1.376E+00	1.710E+00	3.081E+00	2.686E-01	0.447
RN-219	+	271.23		6.654E-01	3.197E-01	3.596E-01	5.313E-02	1.850
		401.81	*	-2.018E-02	3.329E-01	5.448E-01	8.348E-02	-0.037
RA-223		81.07		-1.714E-01	1.671E-01	2.626E-01	2.295E-02	-0.653
		83.79		3.034E-02	1.394E-01	1.619E-01	1.460E-02	0.187
		94.87		7.571E-01	4.131E-01	6.340E-01	5.668E-02	1.194
		144.24		5.478E-01	5.718E-01	9.678E-01	9.564E-02	0.566
		154.21		3.895E-01	3.325E-01	5.736E-01	5.776E-02	0.679
	+	269.46		5.170E-01	2.469E-01	2.851E-01	3.915E-02	1.813
		323.87	*	-2.114E-01	5.976E-01	8.478E-01	1.657E-01	-0.249
	+	338.28		5.607E+00	1.545E+00	1.936E+00	2.824E-01	2.897
AC-227		79.69		-8.559E-01	9.786E-01	1.536E+00	2.646E-01	-0.557
		235.96		6.280E-01	1.796E-01	2.631E-01	3.574E-02	2.387
		256.23	*	-1.945E-01	2.261E-01	3.480E-01	5.422E-02	-0.559
	+	299.98		1.776E+00	8.032E-01	1.319E+00	2.148E-01	1.347
		304.50		2.276E-01	1.473E+00	2.173E+00	4.199E-01	0.105
		334.37		4.053E-01	2.346E+00	2.327E+00	4.123E-01	0.174
TH-227		79.80		-1.081E+00	1.298E+00	2.029E+00	4.418E-01	-0.533
		235.96		6.280E-01	1.784E-01	2.631E-01	3.458E-02	2.387
		256.23	*	-1.945E-01	2.265E-01	3.480E-01	5.850E-02	-0.559
	+	299.98		1.776E+00	8.032E-01	1.319E+00	2.148E-01	1.347
		304.50		2.276E-01	1.473E+00	2.173E+00	4.199E-01	0.105
		334.37		4.053E-01	2.346E+00	2.327E+00	4.123E-01	0.174
TH-229		85.43		3.256E-01	2.374E-01	2.923E-01	2.689E-02	1.114
	+	88.47		4.247E-01	1.181E-01	1.915E-01	1.809E-02	2.218
		193.51	*	-1.332E-01	4.524E-01	7.378E-01	7.929E-02	-0.181
	+	210.85		2.262E+00	1.156E+00	1.388E+00	1.580E-01	1.629
PA-231		283.69	*	-3.984E-01	1.259E+00	1.905E+00	3.464E-01	-0.209
	+	301.36		1.141E+00	5.142E-01	8.438E-01	1.335E-01	1.352
TH-231		81.07		-1.714E-01	1.671E-01	2.626E-01	2.295E-02	-0.653
		83.79		3.034E-02	1.394E-01	1.619E-01	1.460E-02	0.187
		94.87		7.571E-01	4.131E-01	6.340E-01	5.668E-02	1.194
		144.24		5.478E-01	5.718E-01	9.678E-01	9.564E-02	0.566
		154.21		3.895E-01	3.325E-01	5.736E-01	5.776E-02	0.679
	+	269.46		5.170E-01	2.469E-01	2.851E-01	3.915E-02	1.813
		323.87	*	-2.114E-01	5.976E-01	8.478E-01	1.657E-01	-0.249
	+	338.28		5.607E+00	1.545E+00	1.936E+00	2.824E-01	2.897
PA-233	+	300.13		8.038E-01	3.686E-01	5.945E-01	1.070E-01	1.352
		311.90	*	-2.770E-02	5.179E-02	8.464E-02	1.109E-02	-0.327
		340.48		2.604E+00	9.364E-01	1.135E+00	2.882E-01	2.294
PA-234		94.67		3.852E-01	1.586E-01	2.406E-01	3.041E-02	1.601
		98.44		4.769E-02	8.435E-02	1.256E-01	7.011E-02	0.380
		111.00		-5.104E-02	1.611E-01	2.496E-01	2.968E-02	-0.205
		131.20		1.203E-01	9.727E-02	1.526E-01	1.292E-02	0.788
		569.50		-1.097E-01	2.308E-01	3.666E-01	3.766E-02	-0.299
		733.00		-4.084E-02	3.650E-01	5.027E-01	1.163E-01	-0.081
		880.51		1.308E-01	2.399E-01	3.894E-01	4.354E-02	0.336
		883.24		4.501E-02	2.362E-01	3.934E-01	2.660E-01	0.114
		926.50		-3.678E-02	1.354E-01	2.190E-01	5.734E-02	-0.168

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	4.826E-02	2.385E-01	3.982E-01	7.916E-02	0.121
		949.00		1.474E-01	3.556E-01	6.015E-01	6.499E-02	0.245
PA-234M		766.42		1.433E+01	1.262E+01	1.590E+01	8.140E+00	0.901
		1001.03	*	-4.655E-01	3.821E+00	6.100E+00	6.991E-01	-0.076
NP-239		99.53		1.150E-01	1.367E-01	2.260E-01	1.964E-02	0.509
		103.37		-6.692E-03	8.655E-02	1.385E-01	1.183E-02	-0.048
		106.12		3.763E-02	7.223E-02	1.177E-01	9.954E-03	0.320
		117.23	*	3.714E-02	3.504E-01	5.594E-01	4.622E-02	0.066
		228.18		9.745E-02	1.971E-01	3.258E-01	3.919E-02	0.299
	+	277.60		1.529E-01	1.728E-01	2.573E-01	3.586E-02	0.594
AM-241		59.54	*	-1.013E-02	1.242E-01	1.844E-01	1.441E-02	-0.055
CM-247	+	278.00		6.494E-01	7.341E-01	1.084E+00	1.513E-01	0.599
		287.50		5.985E-01	1.056E+00	1.724E+00	2.372E-01	0.347
		402.40	*	1.249E-03	3.049E-02	5.014E-02	4.703E-03	0.025
CF-249		252.80		9.960E-02	8.317E-01	1.348E+00	1.749E-01	0.074
		333.37		8.107E-02	2.387E-01	2.417E-01	2.925E-02	0.335
		388.16	*	1.760E-02	3.293E-02	5.548E-02	5.267E-03	0.317
CF-251		177.52	*	-1.297E-02	1.104E-01	1.824E-01	1.859E-02	-0.071
		227.38		1.364E-01	3.198E-01	5.278E-01	6.334E-02	0.258
		285.41		-5.973E-01	1.858E+00	2.919E+00	4.035E-01	-0.205

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867002      *
* Acquisition date : 24-MAR-2010 20:37:36 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.23     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  5-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248867002           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.4348E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.916E+01	2.911E+00	4.560E-01	0.000E+00
CD-109	2.836E+00	7.731E-01	1.036E+00	0.000E+00
SN-126	2.755E-01	7.508E-02	1.125E-01	0.000E+00
HG-203	3.613E-02	4.003E-02	5.392E-02	0.000E+00
TL-208	4.870E-01	7.783E-02	4.867E-02	0.000E+00
BI-211	3.234E+00	5.186E-01	2.742E-01	0.000E+00
PB-212	1.625E+00	2.315E-01	7.933E-02	0.000E+00
BI-214	1.118E+00	1.738E-01	9.313E-02	0.000E+00
PB-214	1.174E+00	1.986E-01	1.005E-01	0.000E+00
RA-224	4.236E+00	1.225E+00	8.492E-01	0.000E+00
RA-226	1.118E+00	1.738E-01	9.313E-02	0.000E+00
AC-228	1.652E+00	3.206E-01	1.826E-01	0.000E+00
RA-228	1.652E+00	3.206E-01	1.826E-01	0.000E+00
TH-228	1.625E+00	2.315E-01	7.933E-02	0.000E+00
TH-230	1.118E+00	1.639E-01	9.313E-02	0.000E+00
TH-232	1.652E+00	3.206E-01	1.826E-01	0.000E+00
TH-234	1.881E+00	1.803E+00	1.667E+00	0.000E+00
U-235	1.673E-01	1.682E-01	3.044E-01	0.000E+00
NP-237	8.219E-01	2.806E-01	3.497E-01	0.000E+00
U-238	1.881E+00	1.803E+00	1.667E+00	0.000E+00
ANH-511	1.421E-01	5.889E-02	3.846E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.311E-02	2.794E-01	4.725E-01	0.000E+00	NOT IDENT.
NA-22	1.413E-02	3.431E-02	6.000E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.409E+07	0.000E+00	0.000E+00	SHORT HLIF
SC-46	3.293E-03	3.279E-02	5.674E-02	0.000E+00	FAIL ABUN
V-48	1.190E-02	7.202E-02	1.236E-01	0.000E+00	NOT IDENT.
CR-51	2.423E-01	3.529E-01	6.083E-01	0.000E+00	NOT IDENT.

MN-54	-7.607E-03	3.128E-02	5.347E-02	0.000E+00	NOT IDENT.
CO-56	-1.401E-02	3.324E-02	5.603E-02	0.000E+00	NOT IDENT.
CO-57	9.374E-03	2.240E-02	3.899E-02	0.000E+00	NOT IDENT.
CO-58	-1.800E-02	3.116E-02	5.217E-02	0.000E+00	NOT IDENT.
FE-59	4.927E-02	7.557E-02	1.321E-01	0.000E+00	NOT IDENT.
CO-60	-1.219E-02	3.023E-02	4.945E-02	0.000E+00	NOT IDENT.
ZN-65	4.702E-02	9.029E-02	1.342E-01	0.000E+00	NOT IDENT.
SE-75	-1.440E-02	4.224E-02	6.165E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.871E-02	7.095E-02	0.000E+00	NOT IDENT.
Y-88	1.620E-02	2.442E-02	4.448E-02	0.000E+00	NOT IDENT.
Y-91	8.434E+00	1.812E+01	3.186E+01	0.000E+00	NOT IDENT.
NB-94	2.259E-02	2.806E-02	4.961E-02	0.000E+00	NOT IDENT.
NB-95	3.114E-02	4.043E-02	6.181E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.293E-01	2.072E-01	0.000E+00	NOT IDENT.
ZR-95	3.835E-02	5.952E-02	1.041E-01	0.000E+00	NOT IDENT.
MO-99	-2.211E+00	3.050E+01	5.136E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.955E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.845E-02	3.433E-02	5.609E-02	0.000E+00	FAIL ABUN
RH-106	-9.951E-02	2.424E-01	4.079E-01	0.000E+00	NOT IDENT.
RU-106	-9.951E-02	2.422E-01	4.079E-01	0.000E+00	NOT IDENT.
AG-108M	9.126E-03	2.342E-02	4.098E-02	0.000E+00	NOT IDENT.
AG-110M	-1.152E-03	2.857E-02	4.888E-02	0.000E+00	NOT IDENT.
SN-113	-9.424E-03	3.638E-02	6.239E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	3.256E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-6.261E-02	5.414E-02	9.309E-02	0.000E+00	NOT IDENT.
TE-123M	-2.294E-02	2.311E-02	4.002E-02	0.000E+00	NOT IDENT.
SB-124	4.357E-02	5.529E-02	1.027E-01	0.000E+00	NOT IDENT.
SB-125	-4.087E-02	7.468E-02	1.248E-01	0.000E+00	FAIL ABUN
TE-125M	-3.053E-03	8.782E+00	1.497E+01	0.000E+00	NOT IDENT.
I-126	1.162E-01	2.226E-01	3.914E-01	0.000E+00	NOT IDENT.
SB-126	-1.666E-01	1.809E-01	2.405E-01	0.000E+00	NOT IDENT.
SB-127	2.545E-01	2.184E+00	3.752E+00	0.000E+00	NOT IDENT.
I-131	5.502E-02	1.335E-01	2.377E-01	0.000E+00	NOT IDENT.
TE-132	8.085E-01	1.637E+00	2.883E+00	0.000E+00	NOT IDENT.
BA-133	8.226E-03	3.716E-02	5.737E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.324E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	3.853E-02	7.097E-02	0.000E+00	NOT IDENT.
CS-135	0.000E+00	1.502E-01	2.394E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.360E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	6.694E-02	1.113E-01	1.946E-01	0.000E+00	NOT IDENT.
BA-137M	7.166E-03	2.906E-02	5.044E-02	0.000E+00	NOT IDENT.
CS-137	7.570E-03	3.070E-02	5.329E-02	0.000E+00	NOT IDENT.
CE-139	-2.348E-03	2.544E-02	4.548E-02	0.000E+00	NOT IDENT.
BA-140	2.471E-02	2.440E-01	4.301E-01	0.000E+00	NOT IDENT.
LA-140	-1.749E-01	9.562E-02	1.242E-01	0.000E+00	FAIL ABUN
CE-141	2.505E-02	5.491E-02	1.010E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.857E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.826E-02	1.805E-01	2.927E-01	0.000E+00	NOT IDENT.
PM-144	4.167E-03	2.710E-02	4.656E-02	0.000E+00	NOT IDENT.
PR-144	3.126E-01	2.033E+00	3.492E+00	0.000E+00	NOT IDENT.
PM-146	1.200E-02	3.276E-02	5.702E-02	0.000E+00	NOT IDENT.
ND-147	-2.718E-01	5.567E-01	9.499E-01	0.000E+00	FAIL ABUN
PM-149	0.000E+00	2.873E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	5.495E-02	9.425E-02	1.412E-01	0.000E+00	FAIL ABUN
GD-153	-5.068E-02	7.946E-02	1.201E-01	0.000E+00	NOT IDENT.
EU-154	4.136E-02	9.716E-02	1.700E-01	0.000E+00	NOT IDENT.
EU-155	8.295E-02	8.942E-02	1.601E-01	0.000E+00	FAIL ABUN
TB-160	3.572E-02	1.202E-01	1.992E-01	0.000E+00	FAIL ABUN
HO-166M	-1.203E-02	5.163E-02	8.658E-02	0.000E+00	FAIL ABUN
TA-182	1.453E-01	1.683E-01	3.006E-01	0.000E+00	FAIL ABUN
IR-192	1.384E-02	2.867E-02	5.183E-02	0.000E+00	FAIL ABUN
BI-207	1.152E-02	4.215E-02	7.222E-02	0.000E+00	FAIL ABUN
PB-210	-5.325E-02	2.471E+00	4.479E+00	0.000E+00	NOT IDENT.
PB-211	-1.374E-01	5.815E-01	9.887E-01	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.413E-01	9.430E-01	0.000E+00	FAIL ABUN
RN-219	-2.018E-02	3.263E-01	5.634E-01	0.000E+00	FAIL ABUN
RA-223	-2.114E-01	5.856E-01	8.808E-01	0.000E+00	FAIL ABUN
AC-227	-1.945E-01	2.216E-01	3.634E-01	0.000E+00	FAIL ABUN
TH-227	-1.945E-01	2.219E-01	3.634E-01	0.000E+00	FAIL ABUN
TH-229	-1.332E-01	4.434E-01	7.749E-01	0.000E+00	FAIL ABUN
PA-231	-3.984E-01	1.234E+00	1.984E+00	0.000E+00	FAIL ABUN
TH-231	-2.114E-01	5.856E-01	8.808E-01	0.000E+00	FAIL ABUN
PA-233	-2.770E-02	5.075E-02	8.801E-02	0.000E+00	FAIL ABUN
PA-234	4.826E-02	2.337E-01	4.041E-01	0.000E+00	NOT IDENT.
PA-234M	-4.655E-01	3.744E+00	6.183E+00	0.000E+00	NOT IDENT.
NP-239	3.714E-02	3.434E-01	5.937E-01	0.000E+00	FAIL ABUN
AM-241	-1.013E-02	1.217E-01	1.984E-01	0.000E+00	NOT IDENT.
CM-247	1.249E-03	2.988E-02	5.185E-02	0.000E+00	FAIL ABUN

CF-249	1.760E-02	3.227E-02	5.742E-02	0.000E+00	NOT IDENT.
CF-251	-1.297E-02	1.082E-01	1.919E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:38:06.83

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867002.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:37:36
Sample ID         : G248867002           Sample quantity  : 1.43480E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.23  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	2268	10.66*	1.909E+00	2.916E+01	2.916E+01	10.19
CD-109	88.03	291	3.70*	7.477E+00	2.755E+00	2.836E+00	27.81
SN-126	64.28	114	9.60	4.290E+00	7.251E-01	7.251E-01	97.24
	86.94	291	8.90	7.477E+00	1.145E+00	1.145E+00	49.09
	87.57	291	37.00*	7.477E+00	2.755E-01	2.755E-01	27.81
HG-203	70.83	------	3.69	5.596E+00	------	Line Not Found	------
	72.87	84	6.19	5.912E+00	6.016E-01	8.029E-01	87.82
	279.20	52	81.56*	6.177E+00	2.707E-02	3.613E-02	113.05
TL-208	277.37	52	6.60	6.177E+00	3.346E-01	3.346E-01	113.40
	583.19	622	85.00*	3.930E+00	4.870E-01	4.870E-01	16.31
	860.56	107	12.50	2.921E+00	7.696E-01	7.696E-01	54.79
BI-211	72.87	84	1.23	5.912E+00	3.027E+00	3.027E+00	86.87
	351.06	863	12.92*	5.401E+00	3.234E+00	3.234E+00	16.36
PB-212	74.82	530	10.28	6.174E+00	2.184E+00	2.184E+00	22.98
	77.11	811	17.10	6.465E+00	1.918E+00	1.918E+00	14.28
	238.63	1817	43.60*	6.709E+00	1.625E+00	1.625E+00	14.54
	300.09	121	3.30	5.917E+00	1.615E+00	1.615E+00	44.65
BI-214	609.32	741	45.49*	3.810E+00	1.118E+00	1.118E+00	15.86
	1120.29	154	14.92	2.345E+00	1.150E+00	1.151E+00	34.76
	1764.49	130	15.30	1.716E+00	1.296E+00	1.297E+00	29.65
PB-214	74.82	530	5.80	6.174E+00	3.872E+00	3.872E+00	22.28
	77.11	811	9.70	6.465E+00	3.382E+00	3.382E+00	16.49
	242.00	442	7.25	6.666E+00	2.395E+00	2.395E+00	30.08
	295.22	555	18.42	5.969E+00	1.320E+00	1.320E+00	19.72
	351.93	863	35.60*	5.401E+00	1.174E+00	1.174E+00	17.27
RA-224	240.99	442	4.10*	6.666E+00	4.236E+00	4.236E+00	29.52
RA-226	609.32	741	45.49*	3.810E+00	1.118E+00	1.118E+00	15.86
	1120.29	154	14.92	2.345E+00	1.150E+00	1.151E+00	34.76
	1764.49	130	15.30	1.716E+00	1.296E+00	1.297E+00	29.65
AC-228	338.32	336	11.27	5.524E+00	1.413E+00	1.413E+00	48.51
	911.20	454	25.80*	2.787E+00	1.652E+00	1.652E+00	19.80
	968.97	278	15.80	2.648E+00	1.737E+00	1.737E+00	31.44

Sample ID : G248867002 Acquisition date : 24-MAR-2010 20:37:36

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	336	11.27	5.524E+00	1.413E+00	1.413E+00	48.51
	911.20	454	25.80*	2.787E+00	1.652E+00	1.652E+00	19.80
	968.97	278	15.80	2.648E+00	1.737E+00	1.737E+00	31.44
TH-228	74.82	530	10.28	6.174E+00	2.184E+00	2.184E+00	20.85
	77.11	811	17.10	6.465E+00	1.918E+00	1.918E+00	14.28
	238.63	1817	43.60*	6.709E+00	1.625E+00	1.625E+00	14.54
	300.09	121	3.30	5.917E+00	1.615E+00	1.615E+00	75.04
TH-230	609.32	741	45.49*	3.810E+00	1.118E+00	1.118E+00	14.96
	1120.29	154	14.92	2.345E+00	1.150E+00	1.150E+00	34.10
	1764.49	130	15.30	1.716E+00	1.296E+00	1.296E+00	29.65
TH-232	338.32	336	11.27	5.524E+00	1.413E+00	1.413E+00	26.22
	911.20	454	25.80*	2.787E+00	1.652E+00	1.652E+00	19.80
	968.97	278	15.80	2.648E+00	1.737E+00	1.737E+00	31.44
TH-234	63.29	114	3.70*	4.290E+00	1.881E+00	1.881E+00	97.79
	92.59	324	4.23	7.871E+00	2.545E+00	2.545E+00	36.73
U-235	89.96	215	3.47	7.679E+00	2.110E+00	2.110E+00	35.84
	93.35	324	5.60	7.871E+00	1.923E+00	1.923E+00	37.34
	143.76	------	10.96*	8.364E+00	------	Line Not Found	------
	163.33	------	5.08	8.031E+00	------	Line Not Found	------
	185.72	220	57.20	7.607E+00	1.321E-01	1.321E-01	46.97
	205.31	------	5.01	7.253E+00	------	Line Not Found	------
NP-237	86.48	291	12.40*	7.477E+00	8.219E-01	8.219E-01	34.83
	95.86	------	2.68	8.032E+00	------	Line Not Found	------
U-238	63.29	114	3.70*	4.290E+00	1.881E+00	1.881E+00	97.79
	92.59	324	4.23	7.871E+00	2.545E+00	2.545E+00	30.58
ANH-511	511.00	233	100.00*	4.295E+00	1.421E-01	1.421E-01	42.28

Flag: "*" = Keyline

Sample ID : G248867002 Acquisition date : 24-MAR-2010 20:37:36

Total number of lines in spectrum 33
Number of unidentified lines 3
Number of lines tentatively identified by NID 30 90.91%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	2.916E+01	2.916E+01	0.297E+01	10.19	
CD-109	461.40D	1.03	2.755E+00	2.836E+00	0.789E+00	27.81	
SN-126	2.30E+05Y	1.00	2.755E-01	2.755E-01	0.766E-01	27.81	
HG-203	46.59D	1.33	2.707E-02	3.613E-02	4.085E-02	113.05	
TL-208	1.41E+10Y	1.00	4.870E-01	4.870E-01	0.794E-01	16.31	
BI-211	7.04E+08Y	1.00	3.234E+00	3.234E+00	0.529E+00	16.36	
PB-212	1.41E+10Y	1.00	1.625E+00	1.625E+00	0.236E+00	14.54	
BI-214	1600.00Y	1.00	1.118E+00	1.118E+00	0.177E+00	15.86	
PB-214	1600.00Y	1.00	1.174E+00	1.174E+00	0.203E+00	17.27	
RA-224	1.41E+10Y	1.00	4.236E+00	4.236E+00	1.250E+00	29.52	
RA-226	1600.00Y	1.00	1.118E+00	1.118E+00	0.177E+00	15.86	
AC-228	1.41E+10Y	1.00	1.652E+00	1.652E+00	0.327E+00	19.80	
RA-228	1.41E+10Y	1.00	1.652E+00	1.652E+00	0.327E+00	19.80	
TH-228	1.41E+10Y	1.00	1.625E+00	1.625E+00	0.236E+00	14.54	
TH-230	7.54E+04Y	1.00	1.118E+00	1.118E+00	0.167E+00	14.96	
TH-232	1.41E+10Y	1.00	1.652E+00	1.652E+00	0.327E+00	19.80	
TH-234	4.47E+09Y	1.00	1.881E+00	1.881E+00	1.840E+00	97.79	
U-235	7.04E+08Y	1.00	1.321E-01	1.321E-01	0.621E-01	46.97	K
NP-237	2.14E+06Y	1.00	8.219E-01	8.219E-01	2.863E-01	34.83	
U-238	4.47E+09Y	1.00	1.881E+00	1.881E+00	1.840E+00	97.79	
ANH-511	1.00E+09Y	1.00	1.421E-01	1.421E-01	0.601E-01	42.28	
			---	---			
	Total Activity :		5.777E+01	5.786E+01			

Grand Total Activity : 5.777E+01 5.786E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248867002 Acquisition date : 24-MAR-2010 20:37:36

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.47	135	514	1.01	259.06	255	9	1.87E-02	63.2	8.53E+00	
0	209.52	174	482	1.18	419.02	414	10	2.41E-02	49.8	7.18E+00	T
0	270.20	172	345	1.12	540.27	533	12	2.39E-02	45.7	6.27E+00	T
0	328.02	169	342	1.37	655.81	649	15	2.35E-02	49.9	5.62E+00	T
0	463.06	112	148	1.11	925.69	921	10	1.55E-02	44.9	4.58E+00	T
0	727.79	129	160	1.72	1454.84	1447	15	1.79E-02	48.1	3.34E+00	T
0	768.72	62	102	2.02	1536.66	1530	11	8.64E-03	67.7	3.20E+00	
1	964.69	98	60	2.56	1928.46	1922	24	1.36E-02	41.2	2.66E+00	T
0	1730.79	53	18	2.64	3460.75	3450	19	7.31E-03	48.3	1.73E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:38:11.25

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867002.CNF;1  *
* Acquisition date : 24-MAR-2010 20:37:36  Detector SN#    :                *
* Detector ID      : GAM22                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:02.23         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 5-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248867002            Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.43480E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.916E+01	2.971E+00	4.538E-01	4.157E-02	64.266
CD-109	2.836E+00	7.888E-01	9.705E-01	9.210E-02	2.922
SN-126	2.755E-01	7.662E-02	1.054E-01	9.951E-03	2.614
HG-203	3.613E-02	4.085E-02	5.174E-02	7.315E-03	0.698
TL-208	4.870E-01	7.942E-02	4.745E-02	5.141E-03	10.264
BI-211	3.234E+00	5.292E-01	2.644E-01	3.085E-02	12.235
PB-212	1.625E+00	2.362E-01	7.586E-02	1.005E-02	21.420
BI-214	1.118E+00	1.773E-01	9.088E-02	1.060E-02	12.304
PB-214	1.174E+00	2.027E-01	9.692E-02	1.248E-02	12.112
RA-224	4.236E+00	1.250E+00	8.123E-01	1.017E-01	5.215
RA-226	1.118E+00	1.773E-01	9.088E-02	1.060E-02	12.304
AC-228	1.652E+00	3.271E-01	1.797E-01	2.435E-02	9.191
RA-228	1.652E+00	3.271E-01	1.797E-01	2.435E-02	9.191
TH-228	1.625E+00	2.362E-01	7.586E-02	1.005E-02	21.420
TH-230	1.118E+00	1.672E-01	9.088E-02	9.458E-03	12.304
TH-232	1.652E+00	3.271E-01	1.797E-01	2.435E-02	9.191
TH-234	1.881E+00	1.840E+00	1.551E+00	2.760E-01	1.213
U-235	1.321E-01	6.207E-02	2.880E-01	4.922E-02	0.459

Sample ID : G248867002 Acquisition date : 24-MAR-2010 20:37:36

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	8.219E-01	2.863E-01	3.275E-01	7.513E-02	2.510
U-238	1.881E+00	1.840E+00	1.551E+00	2.760E-01	1.213
ANH-511	1.421E-01	6.009E-02	3.738E-02	3.746E-03	3.802

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.311E-02		2.851E-01	4.587E-01	4.786E-02	-0.050
NA-22	1.413E-02		3.501E-02	5.953E-02	5.130E-03	0.237
NA-24	2.659E+01		3.270E+01	Half-Life too short		
SC-46	3.293E-03		3.346E-02	5.583E-02	6.250E-03	0.059
V-48	1.190E-02		7.349E-02	1.219E-01	1.279E-02	0.098
CR-51	2.423E-01		3.601E-01	5.854E-01	7.577E-02	0.414
MN-54	-7.607E-03		3.191E-02	5.255E-02	5.837E-03	-0.145
CO-56	-1.401E-02		3.392E-02	5.508E-02	6.131E-03	-0.254
CO-57	9.374E-03		2.285E-02	3.676E-02	3.032E-03	0.255
CO-58	-1.800E-02		3.180E-02	5.124E-02	5.673E-03	-0.351
FE-59	4.927E-02		7.711E-02	1.306E-01	1.280E-02	0.377
CO-60	-1.219E-02		3.085E-02	4.910E-02	4.379E-03	-0.248
ZN-65	4.702E-02		9.213E-02	1.328E-01	1.184E-02	0.354
SE-75	-1.440E-02		4.310E-02	5.908E-02	7.953E-03	-0.244
SR-85	1.440E-01		3.950E-02	6.897E-02	6.921E-03	2.088
Y-88	1.620E-02		2.492E-02	4.450E-02	3.597E-03	0.364
Y-91	8.434E+00		1.849E+01	3.157E+01	2.596E+00	0.267
NB-94	2.259E-02		2.863E-02	4.856E-02	5.204E-03	0.465
NB-95	3.114E-02		4.125E-02	6.063E-02	6.630E-03	0.514
NB-95M	2.345E-01		1.319E-01	1.981E-01	2.621E-02	1.184
ZR-95	3.835E-02		6.074E-02	1.021E-01	1.187E-02	0.376
MO-99	-2.211E+00		3.112E+01	5.033E+01	8.597E+00	-0.044
TC-99M	-2.865E+15		2.018E+15	Half-Life too short		
RU-103	-1.845E-02		3.504E-02	5.449E-02	8.078E-03	-0.339
RH-106	-9.951E-02		2.474E-01	3.982E-01	5.778E-02	-0.250
RU-106	-9.951E-02		2.472E-01	3.982E-01	4.159E-02	-0.250
AG-108M	9.126E-03		2.390E-02	3.970E-02	3.907E-03	0.230
AG-110M	-1.152E-03		2.915E-02	4.778E-02	5.135E-03	-0.024
SN-113	-9.424E-03		3.713E-02	6.030E-02	5.758E-03	-0.156
CD-115	6.266E-06		1.661E-05	Half-Life too short		
SN-117M	-6.261E-02		5.525E-02	8.827E-02	8.371E-03	-0.709
TE-123M	-2.294E-02		2.358E-02	3.795E-02	3.624E-03	-0.604
SB-124	4.357E-02		5.642E-02	1.025E-01	9.141E-03	0.425
SB-125	-4.087E-02		7.620E-02	1.208E-01	1.172E-02	-0.338
TE-125M	-3.053E-03		8.962E+00	1.408E+01	1.450E+00	0.000
I-126	1.162E-01		2.272E-01	3.827E-01	4.044E-02	0.304
SB-126	-1.666E-01		1.846E-01	2.356E-01	2.541E-02	-0.707
SB-127	2.545E-01		2.228E+00	3.671E+00	5.197E-01	0.069
I-131	5.502E-02		1.362E-01	2.294E-01	2.547E-02	0.240
TE-132	8.085E-01		1.671E+00	2.755E+00	5.157E-01	0.293

Sample ID : G248867002 Acquisition date : 24-MAR-2010 20:37:36

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-133	8.226E-03		3.792E-02	5.533E-02	8.147E-03	0.149
I-133	-3.087E-02		6.756E-02	Half-Life too short		
CS-134	8.554E-02		3.931E-02	6.967E-02	7.711E-03	1.228
CS-135	2.682E-01		1.532E-01	2.295E-01	3.320E-02	1.169
I-135	5.731E+13		1.204E+14	Half-Life too short		
CS-136	6.694E-02		1.136E-01	1.922E-01	1.944E-02	0.348
BA-137M	7.166E-03		2.965E-02	4.931E-02	5.200E-03	0.145
CS-137	7.570E-03		3.133E-02	5.209E-02	5.501E-03	0.145
CE-139	-2.348E-03		2.596E-02	4.316E-02	4.233E-03	-0.054
BA-140	2.471E-02		2.489E-01	4.186E-01	1.437E-01	0.059
LA-140	-1.749E-01		9.757E-02	1.239E-01	1.086E-02	-1.412
CE-141	2.505E-02		5.603E-02	9.558E-02	8.701E-03	0.262
CE-143	5.744E-03		9.476E-04	Half-Life too short		
CE-144	1.826E-02		1.841E-01	2.766E-01	4.215E-02	0.066
PM-144	4.167E-03		2.765E-02	4.557E-02	4.874E-03	0.091
PR-144	3.126E-01		2.074E+00	3.418E+00	3.654E-01	0.091
PM-146	1.200E-02		3.343E-02	5.528E-02	6.357E-03	0.217
ND-147	-2.718E-01		5.680E-01	9.242E-01	1.466E-01	-0.294
PM-149	6.931E-05		1.466E-04	Half-Life too short		
EU-152	5.495E-02		9.617E-02	1.361E-01	1.635E-02	0.404
GD-153	-5.068E-02		8.109E-02	1.127E-01	9.914E-03	-0.449
EU-154	4.136E-02		9.915E-02	1.686E-01	1.917E-02	0.245
EU-155	8.295E-02		9.125E-02	1.505E-01	1.292E-02	0.551
TB-160	3.572E-02		1.227E-01	1.960E-01	2.192E-02	0.182
HO-166M	-1.203E-02		5.269E-02	8.477E-02	9.114E-03	-0.142
TA-182	1.453E-01		1.718E-01	2.979E-01	2.477E-02	0.488
IR-192	1.384E-02		2.925E-02	4.986E-02	6.373E-03	0.278
BI-207	1.152E-02		4.301E-02	7.136E-02	6.850E-03	0.161
PB-210	-5.325E-02		2.521E+00	4.142E+00	3.815E-01	-0.013
PB-211	-1.374E-01		5.934E-01	9.562E-01	4.641E-01	-0.144
BI-212	1.511E+00	+	7.564E-01	9.238E-01	1.299E-01	1.635
RN-219	-2.018E-02		3.329E-01	5.448E-01	8.348E-02	-0.037
RA-223	-2.114E-01		5.976E-01	8.478E-01	1.657E-01	-0.249
AC-227	-1.945E-01		2.261E-01	3.480E-01	5.422E-02	-0.559
TH-227	-1.945E-01		2.265E-01	3.480E-01	5.850E-02	-0.559
TH-229	-1.332E-01		4.524E-01	7.378E-01	7.929E-02	-0.181
PA-231	-3.984E-01		1.259E+00	1.905E+00	3.464E-01	-0.209
TH-231	-2.114E-01		5.976E-01	8.478E-01	1.657E-01	-0.249
PA-233	-2.770E-02		5.179E-02	8.464E-02	1.109E-02	-0.327
PA-234	4.826E-02		2.385E-01	3.982E-01	7.916E-02	0.121
PA-234M	-4.655E-01		3.821E+00	6.100E+00	6.991E-01	-0.076
NP-239	3.714E-02		3.504E-01	5.594E-01	4.622E-02	0.066
AM-241	-1.013E-02		1.242E-01	1.844E-01	1.441E-02	-0.055
CM-247	1.249E-03		3.049E-02	5.014E-02	4.703E-03	0.025
CF-249	1.760E-02		3.293E-02	5.548E-02	5.267E-03	0.317
CF-251	-1.297E-02		1.104E-01	1.824E-01	1.859E-02	-0.071

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248867002            *
* Acquisition date : 24-MAR-2010 20:37:36 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.23     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  5-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248867002           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.4348E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.916E+01	2.911E+00	2.281E-01	1.485E+00
CD-109	2.836E+00	7.731E-01	5.183E-01	3.944E-01
SN-126	2.755E-01	7.508E-02	5.629E-02	3.831E-02
HG-203	3.613E-02	4.003E-02	2.698E-02	2.042E-02
TL-208	4.870E-01	7.783E-02	2.435E-02	3.971E-02
BI-211	3.234E+00	5.186E-01	1.372E-01	2.646E-01
PB-212	1.625E+00	2.315E-01	3.969E-02	1.181E-01
BI-214	1.118E+00	1.738E-01	4.659E-02	8.867E-02
PB-214	1.174E+00	1.986E-01	5.029E-02	1.013E-01
RA-224	4.236E+00	1.225E+00	4.249E-01	6.252E-01
RA-226	1.118E+00	1.738E-01	4.659E-02	8.867E-02
AC-228	1.652E+00	3.206E-01	9.133E-02	1.636E-01
RA-228	1.652E+00	3.206E-01	9.133E-02	1.636E-01
TH-228	1.625E+00	2.315E-01	3.969E-02	1.181E-01
TH-230	1.118E+00	1.639E-01	4.659E-02	8.362E-02
TH-232	1.652E+00	3.206E-01	9.133E-02	1.636E-01
TH-234	1.881E+00	1.803E+00	8.339E-01	9.198E-01
U-235	1.673E-01	1.682E-01	1.523E-01	8.580E-02
NP-237	8.219E-01	2.806E-01	1.750E-01	1.431E-01
U-238	1.881E+00	1.803E+00	8.339E-01	9.198E-01
ANH-511	1.421E-01	5.889E-02	1.924E-02	3.004E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.311E-02	2.794E-01	2.364E-01	1.426E-01	NOT IDENT.
NA-22	1.413E-02	3.431E-02	3.002E-02	1.751E-02	NOT IDENT.
NA-24	2.659E+07	6.409E+07	0.000E+00	3.270E+07	SHORT HLIF
SC-46	3.293E-03	3.279E-02	2.839E-02	1.673E-02	FAIL ABUN
V-48	1.190E-02	7.202E-02	6.185E-02	3.675E-02	NOT IDENT.
CR-51	2.423E-01	3.529E-01	3.043E-01	1.800E-01	NOT IDENT.

MN-54	-7.607E-03	3.128E-02	2.675E-02	1.596E-02	NOT IDENT.
CO-56	-1.401E-02	3.324E-02	2.803E-02	1.696E-02	NOT IDENT.
CO-57	9.374E-03	2.240E-02	1.950E-02	1.143E-02	NOT IDENT.
CO-58	-1.800E-02	3.116E-02	2.610E-02	1.590E-02	NOT IDENT.
FE-59	4.927E-02	7.557E-02	6.609E-02	3.856E-02	NOT IDENT.
CO-60	-1.219E-02	3.023E-02	2.474E-02	1.542E-02	NOT IDENT.
ZN-65	4.702E-02	9.029E-02	6.715E-02	4.607E-02	NOT IDENT.
SE-75	-1.440E-02	4.224E-02	3.084E-02	2.155E-02	NOT IDENT.
SR-85	1.440E-01	3.871E-02	3.549E-02	1.975E-02	NOT IDENT.
Y-88	1.620E-02	2.442E-02	2.225E-02	1.246E-02	NOT IDENT.
Y-91	8.434E+00	1.812E+01	1.594E+01	9.245E+00	NOT IDENT.
NB-94	2.259E-02	2.806E-02	2.482E-02	1.432E-02	NOT IDENT.
NB-95	3.114E-02	4.043E-02	3.093E-02	2.063E-02	NOT IDENT.
NB-95M	2.345E-01	1.293E-01	1.037E-01	6.596E-02	NOT IDENT.
ZR-95	3.835E-02	5.952E-02	5.208E-02	3.037E-02	NOT IDENT.
MO-99	-2.211E+00	3.050E+01	2.569E+01	1.556E+01	NOT IDENT.
TC-99M	-2.865E+21	3.955E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.845E-02	3.433E-02	2.806E-02	1.752E-02	FAIL ABUN
RH-106	-9.951E-02	2.424E-01	2.041E-01	1.237E-01	NOT IDENT.
RU-106	-9.951E-02	2.422E-01	2.041E-01	1.236E-01	NOT IDENT.
AG-108M	9.126E-03	2.342E-02	2.050E-02	1.195E-02	NOT IDENT.
AG-110M	-1.152E-03	2.857E-02	2.445E-02	1.457E-02	NOT IDENT.
SN-113	-9.424E-03	3.638E-02	3.121E-02	1.856E-02	NOT IDENT.
CD-115	6.266E+00	3.256E+01	0.000E+00	1.661E+01	SHORT HLIF
SN-117M	-6.261E-02	5.414E-02	4.657E-02	2.762E-02	NOT IDENT.
TE-123M	-2.294E-02	2.311E-02	2.002E-02	1.179E-02	NOT IDENT.
SB-124	4.357E-02	5.529E-02	5.137E-02	2.821E-02	NOT IDENT.
SB-125	-4.087E-02	7.468E-02	6.242E-02	3.810E-02	FAIL ABUN
TE-125M	-3.053E-03	8.782E+00	7.487E+00	4.481E+00	NOT IDENT.
I-126	1.162E-01	2.226E-01	1.958E-01	1.136E-01	NOT IDENT.
SB-126	-1.666E-01	1.809E-01	1.203E-01	9.229E-02	NOT IDENT.
SB-127	2.545E-01	2.184E+00	1.877E+00	1.114E+00	NOT IDENT.
I-131	5.502E-02	1.335E-01	1.189E-01	6.809E-02	NOT IDENT.
TE-132	8.085E-01	1.637E+00	1.443E+00	8.354E-01	NOT IDENT.
BA-133	8.226E-03	3.716E-02	2.870E-02	1.896E-02	FAIL ABUN
I-133	-3.087E+04	1.324E+05	0.000E+00	6.756E+04	SHORT HLIF
CS-134	8.554E-02	3.853E-02	3.551E-02	1.966E-02	NOT IDENT.
CS-135	2.682E-01	1.502E-01	1.198E-01	7.661E-02	NOT IDENT.
I-135	5.731E+19	2.360E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	6.694E-02	1.113E-01	9.737E-02	5.680E-02	NOT IDENT.
BA-137M	7.166E-03	2.906E-02	2.524E-02	1.483E-02	NOT IDENT.
CS-137	7.570E-03	3.070E-02	2.666E-02	1.566E-02	NOT IDENT.
CE-139	-2.348E-03	2.544E-02	2.275E-02	1.298E-02	NOT IDENT.
BA-140	2.471E-02	2.440E-01	2.152E-01	1.245E-01	NOT IDENT.
LA-140	-1.749E-01	9.562E-02	6.214E-02	4.879E-02	FAIL ABUN
CE-141	2.505E-02	5.491E-02	5.052E-02	2.802E-02	NOT IDENT.
CE-143	5.744E+03	1.857E+03	0.000E+00	9.476E+02	SHORT HLIF
CE-144	1.826E-02	1.805E-01	1.465E-01	9.207E-02	NOT IDENT.
PM-144	4.167E-03	2.710E-02	2.329E-02	1.383E-02	NOT IDENT.
PR-144	3.126E-01	2.033E+00	1.747E+00	1.037E+00	NOT IDENT.
PM-146	1.200E-02	3.276E-02	2.853E-02	1.672E-02	NOT IDENT.
ND-147	-2.718E-01	5.567E-01	4.752E-01	2.840E-01	FAIL ABUN
PM-149	6.931E+01	2.873E+02	0.000E+00	1.466E+02	SHORT HLIF
EU-152	5.495E-02	9.425E-02	7.062E-02	4.808E-02	FAIL ABUN
GD-153	-5.068E-02	7.946E-02	6.009E-02	4.054E-02	NOT IDENT.
EU-154	4.136E-02	9.716E-02	8.504E-02	4.957E-02	NOT IDENT.
EU-155	8.295E-02	8.942E-02	8.010E-02	4.562E-02	FAIL ABUN
TB-160	3.572E-02	1.202E-01	9.968E-02	6.134E-02	FAIL ABUN
HO-166M	-1.203E-02	5.163E-02	4.331E-02	2.634E-02	FAIL ABUN
TA-182	1.453E-01	1.683E-01	1.504E-01	8.588E-02	FAIL ABUN
IR-192	1.384E-02	2.867E-02	2.593E-02	1.463E-02	FAIL ABUN
BI-207	1.152E-02	4.215E-02	3.613E-02	2.150E-02	FAIL ABUN
PB-210	-5.325E-02	2.471E+00	2.241E+00	1.260E+00	NOT IDENT.
PB-211	-1.374E-01	5.815E-01	4.946E-01	2.967E-01	NOT IDENT.
BI-212	1.511E+00	7.413E-01	4.718E-01	3.782E-01	FAIL ABUN
RN-219	-2.018E-02	3.263E-01	2.818E-01	1.665E-01	FAIL ABUN
RA-223	-2.114E-01	5.856E-01	4.407E-01	2.988E-01	FAIL ABUN
AC-227	-1.945E-01	2.216E-01	1.818E-01	1.131E-01	FAIL ABUN
TH-227	-1.945E-01	2.219E-01	1.818E-01	1.132E-01	FAIL ABUN
TH-229	-1.332E-01	4.434E-01	3.877E-01	2.262E-01	FAIL ABUN
PA-231	-3.984E-01	1.234E+00	9.928E-01	6.295E-01	FAIL ABUN
TH-231	-2.114E-01	5.856E-01	4.407E-01	2.988E-01	FAIL ABUN
PA-233	-2.770E-02	5.075E-02	4.403E-02	2.589E-02	FAIL ABUN
PA-234	4.826E-02	2.337E-01	2.022E-01	1.193E-01	NOT IDENT.
PA-234M	-4.655E-01	3.744E+00	3.093E+00	1.910E+00	NOT IDENT.
NP-239	3.714E-02	3.434E-01	2.970E-01	1.752E-01	FAIL ABUN
AM-241	-1.013E-02	1.217E-01	9.924E-02	6.209E-02	NOT IDENT.
CM-247	1.249E-03	2.988E-02	2.594E-02	1.525E-02	FAIL ABUN

CF-249	1.760E-02	3.227E-02	2.873E-02	1.646E-02	NOT IDENT.
CF-251	-1.297E-02	1.082E-01	9.603E-02	5.519E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	325.2045
49.72	349.2926
57.36	0.0000
59.54	397.1118
63.29	417.9702
63.29	417.9702
64.28	435.1093
67.75	468.8007
69.67	464.5865
70.83	482.9278
72.81	553.9878
72.87	554.1029
72.87	554.1029
74.82	557.7725
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74.97	558.0532
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77.11	562.0204
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80.12	567.5121
80.19	567.6384
80.57	568.3235
81.00	569.0984
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81.07	569.2247
83.79	524.1515
83.79	524.1515
85.43	523.6486
86.48	613.3859
86.55	613.5139
86.79	626.5482
86.94	626.8336
87.57	579.0963
88.03	467.7031
88.47	468.3129
89.96	607.0245
91.11	411.3509
92.59	413.1008
92.59	413.1008
93.35	413.9944
94.67	428.4246
94.87	428.6640
94.87	428.6640
95.86	431.4652
97.43	467.4221
98.44	419.2387
99.53	403.7206
100.11	428.3286
103.18	449.4157
103.37	447.4417
105.31	415.4536
106.12	425.1797
109.28	429.7216
111.00	433.8121
111.76	432.3828
116.30	432.6383
117.23	421.0790
121.12	437.5760
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122.06	418.9607
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136.47	442.8795
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153.25	447.0502
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154.21	415.5544
156.02	404.0198
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163.33	404.8648
165.86	427.4939
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177.52	412.2739
181.07	400.0354
184.41	382.0080
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197.04	396.8509
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222.11	365.5703
227.38	388.0712
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228.18	391.6313
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235.96	368.8995
235.96	368.8995
238.63	332.8298
238.63	332.8298
240.99	333.8848
242.00	334.3342
244.70	322.1121
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252.80	318.6349
256.23	353.5510
256.23	353.5510
260.90	0.0000
264.66	281.4749
268.22	258.1257
269.46	246.2065
269.46	246.2065
271.23	299.6084
273.65	313.7408
276.40	259.3581
277.37	261.8773
277.60	274.1551
278.00	270.9556
279.20	256.2188
279.54	256.3207
280.46	258.3804
283.69	279.8032
284.31	285.2797
285.41	287.8858
285.90	0.0000
287.50	267.2488
293.27	0.0000
295.22	280.9413
295.96	281.1759
298.57	282.0009
299.98	279.4066
299.98	279.4066
300.09	288.5563
300.09	288.5563
300.13	288.5679
301.36	260.0660
302.85	266.5873
304.50	259.4444
304.50	259.4444
304.85	243.4049
308.46	252.9080
311.90	264.0054

316.51	242.1196
319.41	267.0620
320.08	247.9258
323.87	266.4465
323.87	266.4465
328.76	262.1653
333.37	236.0291
334.37	255.1685
334.37	255.1685
338.28	265.6685
338.28	265.6685
338.32	265.6821
338.32	265.6821
338.32	265.6821
340.48	278.9352
340.55	252.0120
344.28	232.9050
351.06	230.6221
351.93	234.6653
356.01	217.2491
364.49	215.1216
366.42	215.5155
383.85	241.8048
388.16	212.9002
388.63	210.0032
391.69	221.5556
400.66	218.2847
401.81	220.5184
402.40	217.6084
404.85	228.1684
410.95	208.0555
414.70	243.3383
423.72	212.3595
427.09	206.7832
427.87	219.2688
433.94	183.1190
453.88	171.3470
463.37	193.7964
468.07	164.7386
473.00	186.6937
476.78	171.1797
477.60	191.6253
487.02	182.1949
492.35	0.0000
497.08	180.2839
511.00	174.4148
514.00	174.7845
527.90	0.0000
529.87	0.0000
531.02	166.8567
537.26	144.2939
546.56	0.0000
563.25	146.8104
569.33	177.8197
569.50	180.6917
569.70	183.5683
583.19	169.8087
600.60	152.4602
602.73	151.4932
604.72	175.0159
609.32	167.7063
609.32	167.7063
609.32	167.7063
610.33	172.2714
614.28	145.8597
618.01	159.9660
621.93	152.2849
621.93	152.2849
633.25	153.3097
635.95	139.6862
636.99	152.6559
645.85	152.4490
657.76	161.5208
661.66	161.8811
661.66	161.8811
664.57	0.0000
666.33	152.2258
666.50	152.2411

677.62	142.0309
685.70	135.5300
695.00	143.3895
696.49	148.6315
696.51	148.6344
697.00	155.8501
702.65	157.3548
706.68	165.9395
711.68	172.5823
720.70	170.8862
721.93	0.0000
722.78	160.3815
722.91	160.3910
723.31	156.8605
724.19	155.1478
727.33	147.9600
733.00	150.4863
735.93	153.5059
739.50	156.2360
747.24	145.2745
752.31	153.0388
753.82	128.8605
756.73	122.7048
763.94	116.4754
765.81	136.6228
766.42	123.9070
777.92	167.8314
778.90	148.6631
783.70	126.4985
785.37	122.3102
795.86	104.6018
801.95	152.4947
810.29	130.3003
810.76	130.3296
815.77	128.7710
818.51	100.9072
832.01	147.6146
834.85	161.9309
836.80	0.0000
846.77	140.0998
856.80	118.1549
860.56	99.0651
871.09	90.4411
873.19	105.3732
875.33	0.0000
879.36	104.7004
880.51	102.8315
883.24	117.3876
884.68	120.3504
889.28	120.5924
898.04	135.5786
911.20	112.9738
911.20	112.9738
911.20	112.9738
926.50	107.8285
937.49	111.2797
944.13	129.3620
946.00	106.7325
949.00	105.8748
962.29	97.4993
964.08	108.0232
966.15	106.6193
968.97	106.7406
968.97	106.7406
968.97	106.7406
983.53	122.4191
996.26	122.0297
1001.03	103.0619
1004.73	112.3182
1037.84	86.0918
1038.76	0.0000
1048.07	109.0611
1050.41	125.6338
1050.41	125.6338
1063.66	106.5924
1085.87	115.8160
1099.45	95.4180
1112.07	116.3341

1115.54	131.0363
1120.29	117.2600
1120.29	117.2600
1120.29	117.2600
1120.55	120.4411
1121.30	115.1890
1131.51	0.0000
1173.23	122.3987
1177.93	105.6221
1189.05	126.8436
1204.77	125.6111
1221.41	135.8724
1231.02	169.8915
1235.36	171.0958
1238.28	123.1523
1260.41	0.0000
1271.85	88.5006
1274.44	92.4661
1274.54	92.4690
1291.59	91.9891
1298.22	0.0000
1312.11	77.8018
1332.49	76.3068
1365.19	49.0389
1368.63	0.0000
1384.29	101.6504
1408.01	71.9534
1457.56	0.0000
1460.82	57.6099
1489.16	55.9891
1505.03	59.3570
1596.21	71.1202
1620.50	30.5339
1678.03	0.0000
1690.97	20.3927
1764.49	14.2324
1764.49	14.2324
1764.49	14.2324
1770.23	24.9402
1771.35	19.6013
1791.20	0.0000
1836.06	20.0971

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248867002

Total Uranium Activity	5.6740E+00	ug/g
Total Uranium Counting Unc.	5.3641E+00	ug/g
Total Uranium Tpu	2.7368E-06	ug/g
Total Uranium Mda	2.4817E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                               GROSS GAMMA REPORT                          *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248867002       *
*   ANALYST       : MXR1                      DETECTOR   : GAM22            *
*   SAMPLE DATE   :  5-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 20:37:36.06    SAMPLE ALQT:  143.480 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.782E+00
GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.158E+00
GROSS GAMMA MDA    (pCi/GRAM  )   : 2.306E+00
GROSS GAMMA DLC    (pCi/GRAM  )   : 1.125E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:51:41.37

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867003.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:51:11
Sample ID         : G248867003           Sample quantity  : 1.12390E+02 GRAM
Detector name     : GAM05                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.78  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	45.94*	205	537	1.21	92.87	88	10	2.85E-02	23.9	
2	0	62.93*	111	786	1.10	126.83	122	10	1.54E-02	49.1	
3	2	74.29*	813	680	1.60	149.55	142	23	1.13E-01	7.6	1.16E+01
4	2	76.73*	1395	553	1.58	154.45	142	23	1.94E-01	4.3	
5	0	87.14	188	767	1.33	175.25	169	9	2.62E-02	27.6	
6	2	89.51	129	569	1.13	179.99	177	13	1.80E-02	30.0	4.08E+00
7	2	92.57*	313	520	1.30	186.11	177	13	4.34E-02	14.7	
8	0	185.42*	275	298	1.58	371.80	367	10	3.82E-02	13.7	
9	0	208.94	164	260	1.14	418.82	414	10	2.27E-02	20.0	
10	2	238.27*	1204	195	1.27	477.47	470	19	1.67E-01	3.6	1.89E+00
11	2	241.33	246	277	1.78	483.58	470	19	3.41E-02	17.7	
12	0	271.03	130	359	2.37	542.98	532	18	1.81E-02	35.3	
13	0	276.82	81	113	1.13	554.55	551	7	1.13E-02	24.3	
14	0	294.60*	351	248	1.31	590.09	582	13	4.87E-02	10.8	
15	0	328.21	77	172	1.07	657.29	653	10	1.08E-02	33.7	
16	0	337.87	224	189	1.21	676.62	672	11	3.11E-02	13.6	
17	0	351.56*	596	161	1.40	703.98	699	12	8.27E-02	6.0	
18	0	463.58	94	116	1.63	927.94	922	15	1.31E-02	27.0	
19	0	510.25*	135	105	1.94	1021.24	1014	14	1.88E-02	21.2	
20	0	582.83*	316	123	1.31	1166.33	1161	11	4.39E-02	9.0	
21	0	608.95*	395	143	1.42	1218.56	1213	14	5.48E-02	8.3	
22	0	727.48	64	122	1.68	1455.47	1449	16	8.83E-03	40.6	
23	0	860.68	79	62	1.60	1721.69	1714	17	1.09E-02	26.3	
24	0	910.97*	184	73	1.70	1822.20	1816	13	2.55E-02	12.2	
25	1	964.22	48	52	2.19	1928.60	1923	34	6.60E-03	31.1	9.14E-01
26	1	968.62*	146	42	1.80	1937.40	1923	34	2.03E-02	12.0	
27	0	1119.76*	72	95	1.39	2239.42	2231	16	9.97E-03	33.1	
28	0	1460.37*	1101	11	1.97	2919.89	2909	22	1.53E-01	3.1	
29	0	1764.32*	72	7	2.19	3526.98	3520	13	9.97E-03	14.5	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 22:51:44

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867003.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 20:51:11
Sample ID : G248867003 Sample quantity : 112.39 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA5 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.78 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.438E+01	3.036E+00	6.910E-01	4.298E-02	49.754
CD-109	+	88.03	*	2.228E+00	1.241E+00	1.299E+00	9.889E-02	1.715
SN-126	+	64.28		4.798E-01	4.764E-01	4.839E-01	7.211E-02	0.992
	+	86.94		8.996E-01	6.192E-01	6.540E-01	2.692E-01	1.376
	+	87.57	*	2.164E-01	1.205E-01	1.260E-01	9.593E-03	1.718
TL-208	+	277.37		9.661E-01	4.867E-01	6.826E-01	8.883E-02	1.415
	+	583.19	*	5.497E-01	1.071E-01	8.364E-02	6.143E-03	6.571
	+	860.56		1.324E+00	7.101E-01	5.653E-01	5.736E-02	2.343
PB-210	+	46.54	*	2.127E+00	1.032E+00	9.420E-01	7.265E-02	2.258
BI-211	+	72.87		2.745E+01	4.673E+00	3.884E+00	3.057E-01	7.069
	+	351.06	*	4.376E+00	6.254E-01	4.431E-01	3.512E-02	9.876
PB-212	+	74.82		3.285E+00	6.440E-01	4.662E-01	5.822E-02	7.046
	+	77.11		3.399E+00	3.930E-01	2.815E-01	2.191E-02	12.073
	+	238.63	*	1.930E+00	2.510E-01	1.137E-01	1.231E-02	16.976
		300.09		1.638E+00	1.218E+00	1.869E+00	2.007E-01	0.876
BI-214	+	609.32	*	1.334E+00	2.476E-01	1.633E-01	1.378E-02	8.170
	+	1120.29		1.277E+00	8.534E-01	6.689E-01	6.427E-02	1.909
	+	1764.49		1.820E+00	5.390E-01	4.840E-01	2.798E-02	3.761
PB-214	+	74.82		5.822E+00	1.093E+00	8.264E-01	9.209E-02	7.046
	+	77.11		5.992E+00	8.511E-01	4.963E-01	5.628E-02	12.073
	+	242.00		2.390E+00	8.879E-01	6.652E-01	7.559E-02	3.593
	+	295.22		1.565E+00	3.814E-01	3.499E-01	3.879E-02	4.474
	+	351.93	*	1.588E+00	2.433E-01	1.563E-01	1.506E-02	10.161
RA-224	+	240.99	*	4.226E+00	1.551E+00	1.219E+00	1.193E-01	3.467
RA-226	+	609.32	*	1.334E+00	2.476E-01	1.633E-01	1.378E-02	8.170
	+	1120.29		1.277E+00	8.534E-01	6.689E-01	6.427E-02	1.909
	+	1764.49		1.820E+00	5.390E-01	4.840E-01	2.798E-02	3.761
AC-228	+	338.32		1.823E+00	9.057E-01	5.113E-01	2.125E-01	3.564
	+	911.20	*	1.575E+00	4.342E-01	3.619E-01	4.594E-02	4.351
	+	968.97		2.162E+00	7.440E-01	4.753E-01	1.171E-01	4.548
RA-228	+	338.32		1.823E+00	9.057E-01	5.113E-01	2.125E-01	3.564
	+	911.20	*	1.575E+00	4.342E-01	3.619E-01	4.594E-02	4.351
	+	968.97		2.162E+00	7.440E-01	4.753E-01	1.171E-01	4.548
TH-228	+	74.82		3.285E+00	5.604E-01	4.662E-01	3.691E-02	7.046

Sample ID : G248867003 Acquisition date : 24-MAR-2010 20:51:11

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		3.399E+00	3.930E-01	2.815E-01	2.191E-02	12.073
	+	238.63	*	1.930E+00	2.510E-01	1.137E-01	1.231E-02	16.976
		300.09		1.638E+00	1.568E+00	1.869E+00	1.145E+00	0.876
TH-230	+	609.32	*	1.334E+00	2.374E-01	1.633E-01	1.076E-02	8.170
	+	1120.29		1.277E+00	8.491E-01	6.689E-01	4.604E-02	1.909
	+	1764.49		1.820E+00	5.390E-01	4.840E-01	2.798E-02	3.761
TH-232	+	338.32		1.823E+00	5.165E-01	5.113E-01	4.009E-02	3.564
	+	911.20	*	1.575E+00	4.342E-01	3.619E-01	4.594E-02	4.351
	+	968.97		2.162E+00	7.440E-01	4.753E-01	1.171E-01	4.548
TH-234	+	63.29	*	1.245E+00	1.243E+00	1.225E+00	2.223E-01	1.017
	+	92.59		3.183E+00	1.169E+00	9.254E-01	2.036E-01	3.440
U-235	+	89.96		1.592E+00	1.032E+00	1.259E+00	3.071E-01	1.264
	+	93.35		2.404E+00	8.977E-01	6.933E-01	1.599E-01	3.468
		143.76	*	5.050E-01	2.785E-01	4.527E-01	8.635E-02	1.116
		163.33		2.608E-01	5.323E-01	8.721E-01	1.637E-01	0.299
	+	185.72		2.835E-01	8.250E-02	8.202E-02	8.186E-03	3.456
		205.31		9.325E-01	6.888E-01	1.011E+00	1.904E-01	0.922
NP-237	+	86.48	*	6.457E-01	3.842E-01	4.315E-01	9.628E-02	1.496
		95.86		-2.793E-01	1.055E+00	1.490E+00	3.595E-01	-0.187
U-238	+	63.29	*	1.245E+00	1.243E+00	1.225E+00	2.223E-01	1.017
	+	92.59		3.183E+00	9.731E-01	9.254E-01	7.777E-02	3.440
ANH-511	+	511.00	*	1.776E-01	7.606E-02	6.233E-02	3.989E-03	2.850

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.450E-01	4.419E-01	7.378E-01	5.283E-02	0.196
NA-22		1274.54	*	2.208E-02	6.699E-02	1.118E-01	6.511E-03	0.198
NA-24		1368.63	*	-1.036E+02	6.699E-02	Half-Life too short		
SC-46		889.28	*	-1.673E-02	5.932E-02	9.574E-02	9.616E-03	-0.175
	+	1120.55		2.237E-01	1.488E-01	1.737E-01	1.195E-02	1.288
V-48		944.13		-6.598E-01	1.571E+00	2.494E+00	2.413E-01	-0.265
		983.53	*	3.993E-02	1.168E-01	1.900E-01	1.740E-02	0.210
		1312.11		-7.800E-03	1.277E-01	2.048E-01	1.187E-02	-0.038
CR-51		320.08	*	6.163E-01	5.170E-01	9.076E-01	8.020E-02	0.679
MN-54		834.85	*	2.013E-02	5.283E-02	9.020E-02	8.264E-03	0.223
CO-56		846.77	*	3.740E-03	5.209E-02	8.696E-02	8.133E-03	0.043
		1037.84		1.449E-03	4.724E-01	7.746E-01	6.826E-02	0.002
		1238.28		2.198E-01	1.460E-01	2.610E-01	1.613E-02	0.842
		1771.35		-1.308E+00	4.962E-01	4.802E-01	2.773E-02	-2.724
CO-57		122.06	*	-1.779E-02	3.116E-02	4.938E-02	7.005E-03	-0.360
		136.47		2.895E-01	2.628E-01	4.396E-01	5.886E-02	0.659
CO-58		810.76	*	-7.477E-03	5.670E-02	9.324E-02	8.207E-03	-0.080
FE-59		1099.45	*	1.524E-02	1.363E-01	2.250E-01	1.822E-02	0.068
		1291.59		-1.333E-01	1.714E-01	2.502E-01	1.858E-02	-0.533
CO-60		1173.23		-2.740E-02	6.475E-02	1.012E-01	5.873E-03	-0.271
		1332.49	*	2.318E-02	4.940E-02	8.460E-02	4.896E-03	0.274
ZN-65		1115.54	*	1.195E-01	1.534E-01	2.346E-01	1.639E-02	0.510

Sample ID : G248867003 Acquisition date : 24-MAR-2010 20:51:11

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SE-75		121.12		-1.160E-01	1.651E-01	2.595E-01	4.054E-02	-0.447
		136.00		4.323E-02	5.105E-02	8.497E-02	1.108E-02	0.509
		264.66	*	-3.715E-02	6.671E-02	9.335E-02	8.913E-03	-0.398
		279.54		7.994E-02	1.500E-01	2.261E-01	2.166E-02	0.354
		400.66		7.630E-02	3.386E-01	5.647E-01	5.149E-02	0.135
SR-85		514.00	*	8.679E-02	5.688E-02	9.133E-02	5.855E-03	0.950
Y-88		898.04		-4.004E-02	6.173E-02	9.610E-02	9.826E-03	-0.417
		1836.06	*	3.540E-02	4.076E-02	7.891E-02	4.515E-03	0.449
Y-91		1204.77	*	-1.253E+01	3.328E+01	5.226E+01	3.037E+00	-0.240
NB-94		702.65	*	1.131E-02	4.605E-02	7.845E-02	5.613E-03	0.144
		871.09		3.184E-05	4.365E-02	7.229E-02	7.045E-03	0.000
NB-95		765.81	*	1.457E-01	6.746E-02	1.259E-01	1.018E-02	1.157
NB-95M		235.69	*	1.086E+00	2.494E-01	3.897E-01	4.270E-02	2.787
ZR-95		724.19		1.625E-01	1.688E-01	2.640E-01	2.191E-02	0.616
		756.73	*	1.559E-01	1.030E-01	1.896E-01	1.692E-02	0.822
MO-99		140.51		-1.075E+02	8.955E+01	1.314E+02	3.345E+01	-0.818
		181.07		-3.480E+01	7.529E+01	1.020E+02	1.984E+01	-0.341
		366.42		-3.865E+02	3.831E+02	5.943E+02	4.079E+01	-0.650
		739.50	*	2.954E+01	4.956E+01	8.616E+01	1.316E+01	0.343
		777.92		-5.370E+01	1.467E+02	2.372E+02	1.963E+01	-0.226
TC-99M		140.51	*	-8.023E+15	1.467E+02	Half-Life too short		
RU-103		497.08	*	-8.495E-03	5.705E-02	9.193E-02	1.167E-02	-0.092
	+	610.33		1.485E+01	3.351E+00	3.928E+00	6.038E-01	3.780
RH-106		621.93	*	7.373E-02	4.426E-01	7.222E-01	8.692E-02	0.102
		1050.41		7.368E-02	3.669E+00	6.022E+00	4.903E-01	0.012
RU-106		621.93	*	7.373E-02	4.425E-01	7.222E-01	4.760E-02	0.102
		1050.41		7.368E-02	3.669E+00	6.022E+00	4.903E-01	0.012
AG-108M		433.94	*	4.689E-03	3.984E-02	6.581E-02	4.249E-03	0.071
		614.28		-4.159E-03	5.456E-02	7.513E-02	5.226E-03	-0.055
		722.91		1.634E-02	6.031E-02	8.941E-02	6.946E-03	0.183
AG-110M		657.76	*	-3.413E-02	5.068E-02	7.680E-02	5.309E-03	-0.444
		677.62		-4.509E-02	4.300E-01	7.162E-01	5.092E-02	-0.063
		706.68		-1.455E-01	3.070E-01	4.967E-01	3.729E-02	-0.293
		763.94		-1.942E-01	2.483E-01	3.909E-01	3.249E-02	-0.497
		884.68		-2.919E-02	6.735E-02	1.069E-01	1.091E-02	-0.273
		937.49		-8.558E-02	1.519E-01	2.369E-01	2.376E-02	-0.361
		1384.29		6.186E-02	2.187E-01	3.776E-01	2.327E-02	0.164
		1505.03		-3.735E-02	3.623E-01	5.944E-01	3.494E-02	-0.063
SN-113		391.69	*	-4.261E-03	5.831E-02	9.564E-02	5.933E-03	-0.045
CD-115		260.90		-2.695E-04	5.831E-02	Half-Life too short		
		492.35		-1.043E-04	5.831E-02	Half-Life too short		
		527.90	*	-1.525E-05	5.831E-02	Half-Life too short		
SN-117M		156.02		2.993E+00	3.496E+00	5.814E+00	6.412E-01	0.515
		158.56	*	-6.233E-02	8.359E-02	1.299E-01	1.397E-02	-0.480
TE-123M		159.00	*	-3.478E-02	3.625E-02	5.569E-02	5.984E-03	-0.624
SB-124		602.73		2.166E-02	6.243E-02	9.012E-02	5.935E-03	0.240
		645.85		-3.012E-01	7.715E-01	1.202E+00	8.680E-02	-0.251
		722.78		9.712E-02	6.368E-01	9.332E-01	7.163E-02	0.104
		1690.97	*	-5.969E-02	1.096E-01	1.625E-01	1.033E-02	-0.367

Sample ID : G248867003 Acquisition date : 24-MAR-2010 20:51:11

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-125		427.87	*	1.150E-01	1.240E-01	2.145E-01	1.343E-02	0.536
	+	463.37		1.090E+00	5.926E-01	6.924E-01	4.907E-02	1.574
		600.60		-3.882E-01	2.402E-01	3.323E-01	2.459E-02	-1.168
		635.95		1.261E-01	3.771E-01	6.230E-01	4.662E-02	0.202
TE-125M		109.28	*	2.523E+00	1.235E+01	2.029E+01	2.634E+00	0.124
I-126		388.63		-7.044E-02	2.726E-01	4.423E-01	2.632E-02	-0.159
		666.33	*	-4.242E-01	4.034E-01	5.899E-01	3.917E-02	-0.719
		753.82		4.405E-01	3.204E+00	5.402E+00	4.272E-01	0.082
SB-126		414.70		-5.979E-02	1.295E-01	2.067E-01	1.231E-02	-0.289
		666.50		-1.321E-01	1.410E-01	2.086E-01	1.386E-02	-0.633
		695.00		-5.995E-02	1.341E-01	2.174E-01	1.532E-02	-0.276
		697.00		1.268E-01	4.533E-01	7.748E-01	5.481E-02	0.164
		720.70	*	1.231E-01	3.016E-01	4.532E-01	3.362E-02	0.272
		856.80		7.923E-01	9.310E-01	1.461E+00	1.390E-01	0.542
SB-127		252.40		-3.869E+00	1.161E+01	1.898E+01	7.996E+00	-0.204
		473.00		5.707E-01	4.600E+00	7.577E+00	9.583E-01	0.075
		685.70	*	-2.945E+00	3.778E+00	5.928E+00	6.885E-01	-0.497
		783.70		1.430E+00	1.024E+01	1.723E+01	2.315E+00	0.083
I-131		80.19		-1.032E-01	7.093E+00	9.524E+00	7.455E-01	-0.011
		284.31		1.480E+00	2.562E+00	4.395E+00	4.234E-01	0.337
		364.49	*	2.820E-01	2.121E-01	3.754E-01	2.833E-02	0.751
		636.99		1.696E-01	3.235E+00	5.226E+00	3.798E-01	0.032
TE-132		49.72		-1.444E+01	1.268E+01	1.738E+01	1.958E+00	-0.831
		111.76		-2.039E+01	1.011E+02	1.636E+02	2.434E+01	-0.125
		116.30		2.392E+01	8.694E+01	1.429E+02	2.235E+01	0.167
		228.16	*	6.896E-01	2.357E+00	4.008E+00	6.983E-01	0.172
BA-133		81.00		-1.945E-02	1.315E-01	1.353E-01	2.033E-02	-0.144
	+	276.40		8.937E-01	4.539E-01	7.783E-01	1.133E-01	1.148
		302.85		-2.611E-01	1.867E-01	2.842E-01	3.748E-02	-0.919
		356.01	*	4.404E-02	5.815E-02	8.843E-02	1.069E-02	0.498
		383.85		8.036E-02	3.732E-01	6.233E-01	6.770E-02	0.129
I-133		529.87	*	8.031E-02	3.732E-01	Half-Life too short		
		875.33		4.192E+00	3.732E-01	Half-Life too short		
		1298.22		9.112E+00	3.732E-01	Half-Life too short		
CS-134		563.25		-1.730E-02	5.006E-01	8.085E-01	5.371E-02	-0.021
		569.33		-4.217E-02	2.879E-01	4.543E-01	3.044E-02	-0.093
		604.72		7.208E-02	4.969E-02	7.953E-02	5.260E-03	0.906
		795.86	*	1.030E-01	6.849E-02	1.249E-01	1.075E-02	0.825
		801.95		-3.113E-01	5.819E-01	9.185E-01	7.984E-02	-0.339
		1365.19		9.298E-01	1.682E+00	2.906E+00	1.857E-01	0.320
CS-135		268.22	*	3.602E-01	2.304E-01	3.632E-01	3.886E-02	0.992
I-135		546.56		-5.730E+14	2.304E-01	Half-Life too short		
		836.80		1.669E+15	2.304E-01	Half-Life too short		
		1038.76		1.281E+14	2.304E-01	Half-Life too short		
		1131.51		2.437E+14	2.304E-01	Half-Life too short		
		1260.41	*	-1.374E+14	2.304E-01	Half-Life too short		
		1457.56		5.795E+16	2.304E-01	Half-Life too short		
		1678.03		-7.846E+14	2.304E-01	Half-Life too short		
		1791.20		1.356E+13	2.304E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-136		153.25		1.104E+00	1.355E+00	2.247E+00	2.837E-01	0.491
		176.60		3.399E-01	7.874E-01	1.288E+00	1.383E-01	0.264
		273.65		1.245E+00	1.179E+00	1.320E+00	1.326E-01	0.943
		340.55		7.397E-01	2.757E-01	4.581E-01	3.727E-02	1.615
		818.51		6.713E-03	1.343E-01	2.240E-01	1.997E-02	0.030
		1048.07	*	2.615E-02	1.852E-01	3.075E-01	2.635E-02	0.085
		1235.36		5.844E-01	1.159E+00	1.945E+00	1.926E-01	0.300
BA-137M		661.66	*	-1.440E-02	5.183E-02	8.137E-02	5.351E-03	-0.177
CS-137		661.66	*	-1.521E-02	5.475E-02	8.596E-02	5.671E-03	-0.177
CE-139		165.86	*	-6.621E-03	3.781E-02	6.041E-02	5.997E-03	-0.110
BA-140		162.66		1.138E+00	1.231E+00	2.053E+00	2.214E-01	0.554
		304.85		-2.120E+00	2.209E+00	3.347E+00	9.809E-01	-0.633
		423.72		-2.489E+00	3.408E+00	5.178E+00	1.673E+00	-0.481
		537.26	*	-1.305E-01	4.411E-01	6.958E-01	2.326E-01	-0.188
LA-140	+	328.76		9.825E-01	6.674E-01	9.128E-01	7.895E-02	1.076
		487.02		4.760E-02	2.157E-01	3.576E-01	2.512E-02	0.133
		815.77		2.375E-01	5.828E-01	9.994E-01	9.840E-02	0.238
		1596.21	*	-9.253E-02	1.278E-01	1.850E-01	1.087E-02	-0.500
CE-141		145.44	*	5.961E-02	9.020E-02	1.490E-01	1.822E-02	0.400
CE-143		57.36		1.740E-03	9.020E-02	Half-Life too short		
	+	293.27	*	1.183E-02	9.020E-02	Half-Life too short		
		664.57		-1.175E-03	9.020E-02	Half-Life too short		
		721.93		2.685E-03	9.020E-02	Half-Life too short		
CE-144		80.12		1.735E-01	2.687E+00	3.621E+00	2.798E-01	0.048
		133.52	*	-1.213E-01	2.491E-01	3.945E-01	7.212E-02	-0.308
PM-144		476.78		2.017E-02	8.671E-02	1.438E-01	1.045E-02	0.140
		618.01		1.235E-02	4.520E-02	7.247E-02	5.005E-03	0.170
		696.49	*	1.406E-02	4.669E-02	7.990E-02	5.651E-03	0.176
PR-144		696.51	*	1.060E+00	3.502E+00	5.995E+00	4.237E-01	0.177
		1489.16		-5.343E+00	1.605E+01	2.536E+01	1.490E+00	-0.211
PM-146		453.88	*	2.920E-02	5.482E-02	9.281E-02	8.087E-03	0.315
		633.25		3.723E-01	1.980E+00	3.226E+00	1.219E+00	0.115
		735.93		8.157E-02	2.173E-01	3.369E-01	9.346E-02	0.242
		747.24		-7.524E-02	1.254E-01	1.980E-01	2.796E-02	-0.380
ND-147	+	91.11		1.643E+00	5.059E-01	7.605E-01	6.769E-02	2.161
		319.41		5.593E+00	5.397E+00	9.429E+00	7.914E-01	0.593
		531.02	*	2.863E-01	9.882E-01	1.638E+00	2.264E-01	0.175
PM-149		285.90	*	3.359E-04	9.882E-01	Half-Life too short		
EU-152		121.78		-4.725E-02	8.972E-02	1.425E-01	2.129E-02	-0.332
		244.70		8.559E-02	4.484E-01	6.635E-01	6.469E-02	0.129
		344.28	*	-1.732E-01	1.477E-01	1.911E-01	1.570E-02	-0.906
		778.90		1.148E-01	3.548E-01	6.059E-01	5.021E-02	0.189
	+	964.08		7.569E-01	4.756E-01	7.473E-01	7.041E-02	1.013
		1085.87		7.324E-02	5.655E-01	9.354E-01	7.042E-02	0.078
		1112.07		-4.835E-01	5.723E-01	7.139E-01	5.027E-02	-0.677
		1408.01		5.471E-02	2.224E-01	3.834E-01	2.240E-02	0.143
GD-153		69.67		4.332E-01	1.410E+00	2.068E+00	1.644E-01	0.209
		97.43	*	9.814E-02	9.470E-02	1.494E-01	1.385E-02	0.657
		103.18		5.243E-02	1.272E-01	2.107E-01	2.178E-02	0.249

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-154		123.07		-1.251E-02	6.265E-02	1.010E-01	1.609E-02	-0.124
		723.31		1.157E-01	2.812E-01	4.221E-01	3.567E-02	0.274
		873.19		1.325E-01	3.729E-01	6.365E-01	8.123E-02	0.208
		996.26		-1.859E-01	4.628E-01	7.278E-01	1.285E-01	-0.255
		1004.73		4.965E-02	2.709E-01	4.530E-01	5.352E-02	0.110
		1274.44	*	5.560E-02	1.888E-01	3.140E-01	2.962E-02	0.177
EU-155	+	86.55		2.628E-01	1.464E-01	1.878E-01	1.452E-02	1.399
		105.31	*	8.819E-02	1.234E-01	2.061E-01	2.232E-02	0.428
TB-160	+	86.79		7.251E-01	4.038E-01	5.173E-01	3.945E-02	1.402
		197.04		1.375E-01	7.915E-01	1.264E+00	1.263E-01	0.109
		215.65		4.362E-01	9.733E-01	1.629E+00	1.621E-01	0.268
		298.57		2.190E-01	1.805E-01	2.760E-01	2.456E-02	0.793
		879.36	*	-2.162E-01	2.012E-01	2.980E-01	2.945E-02	-0.726
		962.29		1.262E+00	8.707E-01	1.422E+00	1.343E-01	0.887
		966.15		1.819E+00	4.060E-01	7.714E-01	7.247E-02	2.358
		1177.93		4.527E-01	5.127E-01	8.998E-01	5.221E-02	0.503
		1271.85		-4.846E-01	1.137E+00	1.763E+00	1.025E-01	-0.275
HO-166M		80.57		-2.499E-02	3.199E-01	3.870E-01	2.988E-02	-0.065
	+	184.41		2.252E-01	6.554E-02	9.135E-02	9.115E-03	2.465
		280.46		1.490E-02	1.111E-01	1.630E-01	1.509E-02	0.091
		410.95		6.629E-02	3.415E-01	5.601E-01	3.325E-02	0.118
		711.68	*	9.505E-02	9.055E-02	1.615E-01	1.177E-02	0.589
		752.31		5.416E-02	3.807E-01	6.423E-01	5.064E-02	0.084
		810.29		-3.194E-02	8.127E-02	1.306E-01	1.146E-02	-0.245
TA-182		67.75		-4.910E-02	1.255E-01	1.278E-01	1.023E-02	-0.384
		100.11		-2.262E-02	1.948E-01	3.173E-01	3.098E-02	-0.071
		152.43		1.542E-01	4.553E-01	7.447E-01	8.494E-02	0.207
		222.11		-6.717E-02	4.423E-01	7.406E-01	7.345E-02	-0.091
		1121.30		5.799E-01	2.824E-01	4.737E-01	3.251E-02	1.224
		1189.05		-2.358E-02	4.764E-01	7.713E-01	4.478E-02	-0.031
		1221.41	*	3.846E-03	3.254E-01	5.231E-01	3.041E-02	0.007
		1231.02		-3.343E-01	7.622E-01	1.193E+00	6.936E-02	-0.280
IR-192	+	295.96		1.205E+00	2.831E-01	3.689E-01	3.326E-02	3.265
		308.46		-1.192E-02	1.196E-01	1.980E-01	1.725E-02	-0.060
		316.51	*	-2.432E-02	4.369E-02	7.028E-02	5.965E-03	-0.346
		468.07		-1.895E-02	1.038E-01	1.439E-01	1.018E-02	-0.132
HG-203		70.83		2.740E-01	1.213E+00	1.772E+00	2.781E-01	0.155
	+	72.87		7.282E+00	1.556E+00	1.451E+00	2.196E-01	5.017
		279.20	*	4.186E-02	5.687E-02	8.664E-02	8.217E-03	0.483
BI-207	+	72.81		1.580E+00	2.689E-01	3.128E-01	2.463E-02	5.050
	+	74.97		9.469E-01	1.612E-01	2.447E-01	1.915E-02	3.870
		569.70		-7.637E-03	4.404E-02	6.932E-02	4.537E-03	-0.110
		1063.66	*	-3.009E-02	7.153E-02	1.121E-01	8.881E-03	-0.268
		1770.23		5.571E-02	5.990E-01	9.127E-01	5.272E-02	0.061
PB-211		404.85	*	-9.600E-01	1.076E+00	1.505E+00	7.221E-01	-0.638
		427.09		2.163E+00	2.304E+00	3.625E+00	1.662E+00	0.597
		832.01		2.597E-01	1.350E+00	2.266E+00	1.177E+00	0.115
BI-212	+	727.33	*	1.720E+00	1.412E+00	1.542E+00	1.807E-01	1.116
		785.37		4.935E-01	4.294E+00	7.214E+00	6.051E-01	0.068

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		3.324E+00	3.206E+00	6.069E+00	3.561E-01	0.548
RN-219	+	271.23		9.284E-01	6.626E-01	5.827E-01	6.368E-02	1.593
		401.81	*	-6.399E-02	5.279E-01	8.623E-01	1.162E-01	-0.074
RA-223		81.07		-5.032E-02	2.978E-01	3.059E-01	2.359E-02	-0.165
		83.79		-1.844E-02	1.925E-01	1.987E-01	1.524E-02	-0.093
		94.87		7.951E-01	5.403E-01	8.200E-01	7.222E-02	0.970
		144.24		1.831E+00	9.114E-01	1.531E+00	1.984E-01	1.196
		154.21		4.178E-01	4.918E-01	8.168E-01	9.692E-02	0.512
		269.46		5.938E-01	2.758E-01	4.442E-01	4.262E-02	1.337
		323.87	*	-3.411E-01	9.494E-01	1.329E+00	2.281E-01	-0.257
	+	338.28		7.233E+00	2.139E+00	2.982E+00	3.437E-01	2.426
AC-227		79.69		1.951E-01	1.121E+00	1.852E+00	3.113E-01	0.105
		235.96		2.147E+00	3.705E-01	5.270E-01	5.991E-02	4.074
		256.23	*	3.408E-02	3.211E-01	5.407E-01	6.914E-02	0.063
		299.98		1.857E+00	1.349E+00	2.064E+00	2.657E-01	0.900
		304.50		-2.952E+00	2.146E+00	3.228E+00	5.361E-01	-0.914
		334.37		2.645E+00	3.021E+00	3.752E+00	5.715E-01	0.705
TH-227		79.80		7.422E-01	1.763E+00	2.407E+00	5.161E-01	0.308
		235.96		2.147E+00	3.631E-01	5.270E-01	5.712E-02	4.074
		256.23	*	3.408E-02	3.211E-01	5.407E-01	7.711E-02	0.063
		299.98		1.857E+00	1.349E+00	2.064E+00	2.657E-01	0.900
		304.50		-2.952E+00	2.146E+00	3.228E+00	5.361E-01	-0.914
		334.37		2.645E+00	3.021E+00	3.752E+00	5.715E-01	0.705
TH-229		85.43		8.589E-01	2.684E-01	3.968E-01	3.034E-02	2.165
	+	88.47		2.302E-01	1.395E-01	2.471E-01	1.900E-02	0.932
		193.51	*	-3.491E-01	6.995E-01	1.094E+00	1.093E-01	-0.319
		210.85		2.641E+00	1.300E+00	1.993E+00	1.986E-01	1.325
PA-231		283.69	*	-4.288E-01	1.728E+00	2.846E+00	4.251E-01	-0.151
		301.36		9.262E-01	7.575E-01	1.289E+00	1.586E-01	0.719
TH-231		81.07		-5.032E-02	2.978E-01	3.059E-01	2.359E-02	-0.165
		83.79		-1.844E-02	1.925E-01	1.987E-01	1.524E-02	-0.093
		94.87		7.951E-01	5.403E-01	8.200E-01	7.222E-02	0.970
		144.24		1.831E+00	9.114E-01	1.531E+00	1.984E-01	1.196
		154.21		4.178E-01	4.918E-01	8.168E-01	9.692E-02	0.512
		269.46		5.938E-01	2.758E-01	4.442E-01	4.262E-02	1.337
		323.87	*	-3.411E-01	9.494E-01	1.329E+00	2.281E-01	-0.257
	+	338.28		7.233E+00	2.139E+00	2.982E+00	3.437E-01	2.426
PA-233		300.13		8.065E-01	6.115E-01	9.293E-01	1.391E-01	0.868
		311.90	*	3.415E-02	7.554E-02	1.287E-01	1.137E-02	0.265
		340.48		2.796E+00	1.143E+00	1.601E+00	3.808E-01	1.746
PA-234		94.67		5.199E-01	2.049E-01	3.114E-01	3.895E-02	1.670
		98.44		7.414E-02	1.042E-01	1.608E-01	8.991E-02	0.461
		111.00		-1.325E-02	2.238E-01	3.642E-01	5.311E-02	-0.036
		131.20		-1.594E-01	1.363E-01	2.085E-01	2.800E-02	-0.765
		569.50		-6.238E-02	3.950E-01	6.228E-01	4.076E-02	-0.100
		733.00		-4.140E-01	6.163E-01	8.113E-01	1.770E-01	-0.510
		880.51		-7.566E-02	3.725E-01	6.047E-01	5.987E-02	-0.125
		883.24		-9.283E-02	3.880E-01	6.194E-01	4.175E-01	-0.150
		926.50		1.714E-03	2.507E-01	4.140E-01	1.065E-01	0.004

Sample ID : G248867003 Acquisition date : 24-MAR-2010 20:51:11

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	2.688E-01	4.510E-01	7.749E-01	1.492E-01	0.347
		949.00		3.659E-01	6.451E-01	1.112E+00	1.069E-01	0.329
PA-234M		766.42		3.573E+01	2.506E+01	3.251E+01	1.647E+01	1.099
		1001.03	*	-2.877E+00	5.915E+00	9.235E+00	9.436E-01	-0.312
NP-239		99.53		1.458E-02	1.758E-01	2.884E-01	2.785E-02	0.051
		103.37		1.103E-01	1.134E-01	1.908E-01	1.980E-02	0.578
		106.12		3.011E-02	9.915E-02	1.636E-01	1.783E-02	0.184
		117.23	*	-5.039E-01	4.935E-01	7.649E-01	1.006E-01	-0.659
		228.18		8.424E-02	2.778E-01	4.731E-01	4.676E-02	0.178
	+	277.60		4.416E-01	2.188E-01	3.918E-01	3.647E-02	1.127
AM-241		59.54	*	3.247E-02	8.506E-02	1.257E-01	1.125E-02	0.258
CM-247	+	278.00		1.875E+00	9.293E-01	1.641E+00	1.526E-01	1.143
		287.50		7.114E-01	1.731E+00	2.584E+00	2.359E-01	0.275
		402.40	*	-2.431E-02	4.914E-02	7.840E-02	4.613E-03	-0.310
CF-249		252.80		-2.925E-01	1.173E+00	1.944E+00	1.878E-01	-0.150
		333.37		5.284E-02	3.916E-01	3.851E-01	3.078E-02	0.137
		388.16	*	-2.917E-02	5.170E-02	8.224E-02	4.911E-03	-0.355
CF-251		177.52	*	3.643E-02	1.662E-01	2.694E-01	2.684E-02	0.135
		227.38		1.676E-01	4.508E-01	7.696E-01	7.610E-02	0.218
		285.41		1.252E+00	2.626E+00	4.485E+00	4.111E-01	0.279

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867003      *
* Acquisition date : 24-MAR-2010 20:51:11 Detector SN#    :                 *
* Detector ID       : GAM05                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.78      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  5-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248867003           Analyst initials: MXR1           *
* Batch Number      : 962633               Sample Quantity : 1.1239E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00 MS Isotope      :                 *
* MSD DPM           :    0.000             MSD Isotope     :                *
* LCS DPM           :    0.000             LCS Isotope     :                *
* LCSD DPM          :    0.000             LCSD Isotope    :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.438E+01	2.975E+00	6.877E-01	0.000E+00
CD-109	2.228E+00	1.216E+00	1.323E+00	0.000E+00
SN-126	2.164E-01	1.181E-01	1.283E-01	0.000E+00
TL-208	5.497E-01	1.050E-01	8.389E-02	0.000E+00
PB-210	2.127E+00	1.011E+00	9.645E-01	0.000E+00
BI-211	4.376E+00	6.129E-01	4.462E-01	0.000E+00
PB-212	1.930E+00	2.459E-01	1.149E-01	0.000E+00
BI-214	1.334E+00	2.427E-01	1.637E-01	0.000E+00
PB-214	1.588E+00	2.384E-01	1.574E-01	0.000E+00
RA-224	4.226E+00	1.520E+00	1.231E+00	0.000E+00
RA-226	1.334E+00	2.427E-01	1.637E-01	0.000E+00
AC-228	1.575E+00	4.255E-01	3.616E-01	0.000E+00
RA-228	1.575E+00	4.255E-01	3.616E-01	0.000E+00
TH-228	1.930E+00	2.459E-01	1.149E-01	0.000E+00
TH-230	1.334E+00	2.327E-01	1.637E-01	0.000E+00
TH-232	1.575E+00	4.255E-01	3.616E-01	0.000E+00
TH-234	1.245E+00	1.218E+00	1.251E+00	0.000E+00
U-235	5.050E-01	2.730E-01	4.593E-01	0.000E+00
NP-237	6.457E-01	3.765E-01	4.396E-01	0.000E+00
U-238	1.245E+00	1.218E+00	1.251E+00	0.000E+00
ANH-511	1.776E-01	7.454E-02	6.258E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.450E-01	4.331E-01	7.412E-01	0.000E+00	NOT IDENT.
NA-22	2.208E-02	6.565E-02	1.114E-01	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.151E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-1.673E-02	5.813E-02	9.568E-02	0.000E+00	FAIL ABUN
V-48	3.993E-02	1.144E-01	1.897E-01	0.000E+00	NOT IDENT.
CR-51	6.163E-01	5.066E-01	9.148E-01	0.000E+00	NOT IDENT.

MN-54	2.013E-02	5.177E-02	9.020E-02	0.000E+00	NOT IDENT.
CO-56	3.740E-03	5.105E-02	8.695E-02	0.000E+00	NOT IDENT.
CO-57	-1.779E-02	3.054E-02	5.017E-02	0.000E+00	NOT IDENT.
CO-58	-7.477E-03	5.557E-02	9.326E-02	0.000E+00	NOT IDENT.
FE-59	1.524E-02	1.336E-01	2.245E-01	0.000E+00	NOT IDENT.
CO-60	2.318E-02	4.841E-02	8.426E-02	0.000E+00	NOT IDENT.
ZN-65	1.195E-01	1.504E-01	2.340E-01	0.000E+00	NOT IDENT.
SE-75	-3.715E-02	6.537E-02	9.424E-02	0.000E+00	NOT IDENT.
SR-85	8.679E-02	5.574E-02	9.170E-02	0.000E+00	NOT IDENT.
Y-88	3.540E-02	3.994E-02	7.837E-02	0.000E+00	NOT IDENT.
Y-91	-1.253E+01	3.261E+01	5.209E+01	0.000E+00	NOT IDENT.
NB-94	1.131E-02	4.513E-02	7.856E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	6.611E-02	1.260E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.444E-01	3.938E-01	0.000E+00	NOT IDENT.
ZR-95	1.559E-01	1.010E-01	1.898E-01	0.000E+00	NOT IDENT.
MO-99	2.954E+01	4.857E+01	8.624E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.906E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-8.495E-03	5.591E-02	9.233E-02	0.000E+00	FAIL ABUN
RH-106	7.373E-02	4.337E-01	7.239E-01	0.000E+00	NOT IDENT.
RU-106	7.373E-02	4.337E-01	7.239E-01	0.000E+00	NOT IDENT.
AG-108M	4.689E-03	3.904E-02	6.617E-02	0.000E+00	NOT IDENT.
AG-110M	-3.413E-02	4.967E-02	7.695E-02	0.000E+00	NOT IDENT.
SN-113	-4.261E-03	5.714E-02	9.624E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	5.918E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-6.233E-02	8.191E-02	1.317E-01	0.000E+00	NOT IDENT.
TE-123M	-3.478E-02	3.553E-02	5.646E-02	0.000E+00	NOT IDENT.
SB-124	-5.969E-02	1.074E-01	1.616E-01	0.000E+00	NOT IDENT.
SB-125	1.150E-01	1.215E-01	2.157E-01	0.000E+00	FAIL ABUN
TE-125M	2.523E+00	1.210E+01	2.063E+01	0.000E+00	NOT IDENT.
I-126	-4.242E-01	3.953E-01	5.910E-01	0.000E+00	NOT IDENT.
SB-126	1.231E-01	2.956E-01	4.538E-01	0.000E+00	NOT IDENT.
SB-127	-2.945E+00	3.702E+00	5.937E+00	0.000E+00	NOT IDENT.
I-131	2.820E-01	2.078E-01	3.780E-01	0.000E+00	NOT IDENT.
TE-132	6.896E-01	2.310E+00	4.051E+00	0.000E+00	NOT IDENT.
BA-133	4.404E-02	5.699E-02	8.906E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	2.355E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.030E-01	6.712E-02	1.249E-01	0.000E+00	NOT IDENT.
CS-135	3.602E-01	2.258E-01	3.666E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.475E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.615E-02	1.815E-01	3.069E-01	0.000E+00	NOT IDENT.
BA-137M	-1.440E-02	5.079E-02	8.152E-02	0.000E+00	NOT IDENT.
CS-137	-1.521E-02	5.366E-02	8.612E-02	0.000E+00	NOT IDENT.
CE-139	-6.621E-03	3.705E-02	6.122E-02	0.000E+00	NOT IDENT.
BA-140	-1.305E-01	4.323E-01	6.983E-01	0.000E+00	NOT IDENT.
LA-140	-9.253E-02	1.252E-01	1.840E-01	0.000E+00	FAIL ABUN
CE-141	5.961E-02	8.840E-02	1.512E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.738E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.213E-01	2.441E-01	4.005E-01	0.000E+00	NOT IDENT.
PM-144	1.406E-02	4.576E-02	8.002E-02	0.000E+00	NOT IDENT.
PR-144	1.060E+00	3.432E+00	6.003E+00	0.000E+00	NOT IDENT.
PM-146	2.920E-02	5.372E-02	9.328E-02	0.000E+00	NOT IDENT.
ND-147	2.863E-01	9.685E-01	1.644E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	4.244E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-1.732E-01	1.447E-01	1.925E-01	0.000E+00	FAIL ABUN
GD-153	9.814E-02	9.280E-02	1.521E-01	0.000E+00	NOT IDENT.
EU-154	5.560E-02	1.850E-01	3.129E-01	0.000E+00	NOT IDENT.
EU-155	8.819E-02	1.210E-01	2.096E-01	0.000E+00	FAIL ABUN
TB-160	-2.162E-01	1.972E-01	2.978E-01	0.000E+00	FAIL ABUN
HO-166M	9.505E-02	8.873E-02	1.617E-01	0.000E+00	FAIL ABUN
TA-182	3.846E-03	3.189E-01	5.214E-01	0.000E+00	NOT IDENT.
IR-192	-2.432E-02	4.281E-02	7.084E-02	0.000E+00	FAIL ABUN
HG-203	4.186E-02	5.573E-02	8.742E-02	0.000E+00	FAIL ABUN
BI-207	-3.009E-02	7.010E-02	1.119E-01	0.000E+00	FAIL ABUN
PB-211	-9.600E-01	1.054E+00	1.514E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.384E+00	1.543E+00	0.000E+00	FAIL ABUN
RN-219	-6.399E-02	5.174E-01	8.675E-01	0.000E+00	FAIL ABUN
RA-223	-3.411E-01	9.304E-01	1.340E+00	0.000E+00	FAIL ABUN
AC-227	3.408E-02	3.147E-01	5.460E-01	0.000E+00	NOT IDENT.
TH-227	3.408E-02	3.147E-01	5.460E-01	0.000E+00	NOT IDENT.
TH-229	-3.491E-01	6.855E-01	1.107E+00	0.000E+00	FAIL ABUN
PA-231	-4.288E-01	1.693E+00	2.872E+00	0.000E+00	NOT IDENT.
TH-231	-3.411E-01	9.304E-01	1.340E+00	0.000E+00	FAIL ABUN
PA-233	3.415E-02	7.403E-02	1.298E-01	0.000E+00	NOT IDENT.
PA-234	2.688E-01	4.420E-01	7.740E-01	0.000E+00	NOT IDENT.
PA-234M	-2.877E+00	5.797E+00	9.220E+00	0.000E+00	NOT IDENT.
NP-239	-5.039E-01	4.837E-01	7.774E-01	0.000E+00	FAIL ABUN
AM-241	3.247E-02	8.336E-02	1.285E-01	0.000E+00	NOT IDENT.
CM-247	-2.431E-02	4.816E-02	7.887E-02	0.000E+00	FAIL ABUN

CF-249	-2.917E-02	5.067E-02	8.276E-02	0.000E+00	NOT IDENT.
CF-251	3.643E-02	1.629E-01	2.729E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:51:42.37

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867003.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:51:11
Sample ID         : G248867003           Sample quantity  : 1.12390E+02 GRAM
Detector name     : GAM05                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.78  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1101	10.66*	1.004E+00	3.438E+01	3.438E+01	8.83
CD-109	88.03	188	3.70*	7.861E+00	2.164E+00	2.228E+00	55.69
SN-126	64.28	111	9.60	8.063E+00	4.798E-01	4.798E-01	99.28
	86.94	188	8.90	7.861E+00	8.996E-01	8.996E-01	68.83
	87.57	188	37.00*	7.861E+00	2.164E-01	2.164E-01	55.69
TL-208	277.37	81	6.60	4.268E+00	9.661E-01	9.661E-01	50.38
	583.19	316	85.00*	2.260E+00	5.497E-01	5.497E-01	19.49
	860.56	79	12.50	1.589E+00	1.324E+00	1.324E+00	53.62
PB-210	46.54	205	4.25*	7.601E+00	2.123E+00	2.127E+00	48.51
BI-211	72.87	813	1.23	8.041E+00	2.745E+01	2.745E+01	17.02
	351.06	596	12.92*	3.519E+00	4.376E+00	4.376E+00	14.29
PB-212	74.82	813	10.28	8.041E+00	3.285E+00	3.285E+00	19.60
	77.11	1395	17.10	8.016E+00	3.399E+00	3.399E+00	11.56
	238.63	1204	43.60*	4.778E+00	1.930E+00	1.930E+00	13.00
	300.09	------	3.30	4.005E+00	------ Line Not Found		------
BI-214	609.32	395	45.49*	2.172E+00	1.334E+00	1.334E+00	18.56
	1120.29	72	14.92	1.258E+00	1.277E+00	1.277E+00	66.83
	1764.49	72	15.30	8.612E-01	1.820E+00	1.820E+00	29.61
PB-214	74.82	813	5.80	8.041E+00	5.822E+00	5.822E+00	18.78
	77.11	1395	9.70	8.016E+00	5.992E+00	5.992E+00	14.20
	242.00	246	7.25	4.734E+00	2.390E+00	2.390E+00	37.15
	295.22	351	18.42	4.064E+00	1.565E+00	1.565E+00	24.37
	351.93	596	35.60*	3.519E+00	1.588E+00	1.588E+00	15.32
RA-224	240.99	246	4.10*	4.734E+00	4.226E+00	4.226E+00	36.70
RA-226	609.32	395	45.49*	2.172E+00	1.334E+00	1.334E+00	18.56
	1120.29	72	14.92	1.258E+00	1.277E+00	1.277E+00	66.83
	1764.49	72	15.30	8.612E-01	1.820E+00	1.820E+00	29.61
AC-228	338.32	224	11.27	3.637E+00	1.823E+00	1.823E+00	49.69
	911.20	184	25.80*	1.510E+00	1.575E+00	1.575E+00	27.57
	968.97	146	15.80	1.430E+00	2.162E+00	2.162E+00	34.42
RA-228	338.32	224	11.27	3.637E+00	1.823E+00	1.823E+00	49.69
	911.20	184	25.80*	1.510E+00	1.575E+00	1.575E+00	27.57

Sample ID : G248867003 Acquisition date : 24-MAR-2010 20:51:11

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	146	15.80	1.430E+00	2.162E+00	2.162E+00	34.42
TH-228	74.82	813	10.28	8.041E+00	3.285E+00	3.285E+00	17.06
	77.11	1395	17.10	8.016E+00	3.399E+00	3.399E+00	11.56
	238.63	1204	43.60*	4.778E+00	1.930E+00	1.930E+00	13.00
	300.09	------	3.30	4.005E+00	------	Line Not Found	------
TH-230	609.32	395	45.49*	2.172E+00	1.334E+00	1.334E+00	17.79
	1120.29	72	14.92	1.258E+00	1.277E+00	1.277E+00	66.49
	1764.49	72	15.30	8.612E-01	1.820E+00	1.820E+00	29.61
TH-232	338.32	224	11.27	3.637E+00	1.823E+00	1.823E+00	28.34
	911.20	184	25.80*	1.510E+00	1.575E+00	1.575E+00	27.57
	968.97	146	15.80	1.430E+00	2.162E+00	2.162E+00	34.42
TH-234	63.29	111	3.70*	8.063E+00	1.245E+00	1.245E+00	99.82
	92.59	313	4.23	7.756E+00	3.183E+00	3.183E+00	36.71
U-235	89.96	129	3.47	7.817E+00	1.592E+00	1.592E+00	64.82
	93.35	313	5.60	7.756E+00	2.404E+00	2.404E+00	37.33
	143.76	------	10.96*	6.557E+00	------	Line Not Found	------
	163.33	------	5.08	6.119E+00	------	Line Not Found	------
	185.72	275	57.20	5.668E+00	2.835E-01	2.835E-01	29.10
	205.31	------	5.01	5.304E+00	------	Line Not Found	------
NP-237	86.48	188	12.40*	7.861E+00	6.457E-01	6.457E-01	59.51
	95.86	------	2.68	7.688E+00	------	Line Not Found	------
U-238	63.29	111	3.70*	8.063E+00	1.245E+00	1.245E+00	99.82
	92.59	313	4.23	7.756E+00	3.183E+00	3.183E+00	30.57
ANH-511	511.00	135	100.00*	2.547E+00	1.776E-01	1.776E-01	42.82

Flag: "*" = Keyline

Sample ID : G248867003 Acquisition date : 24-MAR-2010 20:51:11

Total number of lines in spectrum 29
Number of unidentified lines 1
Number of lines tentatively identified by NID 28 96.55%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.438E+01	3.438E+01	0.304E+01	8.83	
CD-109	461.40D	1.03	2.164E+00	2.228E+00	1.241E+00	55.69	
SN-126	2.30E+05Y	1.00	2.164E-01	2.164E-01	1.205E-01	55.69	
TL-208	1.41E+10Y	1.00	5.497E-01	5.497E-01	1.071E-01	19.49	
PB-210	22.20Y	1.00	2.123E+00	2.127E+00	1.032E+00	48.51	
BI-211	7.04E+08Y	1.00	4.376E+00	4.376E+00	0.625E+00	14.29	
PB-212	1.41E+10Y	1.00	1.930E+00	1.930E+00	0.251E+00	13.00	
BI-214	1600.00Y	1.00	1.334E+00	1.334E+00	0.248E+00	18.56	
PB-214	1600.00Y	1.00	1.588E+00	1.588E+00	0.243E+00	15.32	
RA-224	1.41E+10Y	1.00	4.226E+00	4.226E+00	1.551E+00	36.70	
RA-226	1600.00Y	1.00	1.334E+00	1.334E+00	0.248E+00	18.56	
AC-228	1.41E+10Y	1.00	1.575E+00	1.575E+00	0.434E+00	27.57	
RA-228	1.41E+10Y	1.00	1.575E+00	1.575E+00	0.434E+00	27.57	
TH-228	1.41E+10Y	1.00	1.930E+00	1.930E+00	0.251E+00	13.00	
TH-230	7.54E+04Y	1.00	1.334E+00	1.334E+00	0.237E+00	17.79	
TH-232	1.41E+10Y	1.00	1.575E+00	1.575E+00	0.434E+00	27.57	
TH-234	4.47E+09Y	1.00	1.245E+00	1.245E+00	1.243E+00	99.82	
U-235	7.04E+08Y	1.00	2.835E-01	2.835E-01	0.825E-01	29.10	K
NP-237	2.14E+06Y	1.00	6.457E-01	6.457E-01	3.842E-01	59.51	
U-238	4.47E+09Y	1.00	1.245E+00	1.245E+00	1.243E+00	99.82	
ANH-511	1.00E+09Y	1.00	1.776E-01	1.776E-01	0.761E-01	42.82	
	Total Activity :		6.581E+01	6.588E+01			

Grand Total Activity : 6.581E+01 6.588E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248867003 Acquisition date : 24-MAR-2010 20:51:11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	208.94	164	260	1.14	418.82	414	10	2.27E-02	40.1	5.24E+00	
0	271.03	130	359	2.37	542.98	532	18	1.81E-02	70.5	4.34E+00	T
0	328.21	77	172	1.07	657.29	653	10	1.08E-02	67.4	3.72E+00	T
0	463.58	94	116	1.63	927.94	922	15	1.31E-02	53.9	2.77E+00	T
0	727.48	64	122	1.68	1455.47	1449	16	8.83E-03	81.2	1.85E+00	T
1	964.22	48	52	2.19	1928.60	1923	34	6.60E-03	62.1	1.44E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:51:47.17

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867003.CNF;1  *
* Acquisition date : 24-MAR-2010 20:51:11  Detector SN#    :                *
* Detector ID      : GAM05                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.78         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 5-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248867003            Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.12390E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00.5MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.438E+01	3.036E+00	6.910E-01	4.298E-02	49.754
CD-109	2.228E+00	1.241E+00	1.299E+00	9.889E-02	1.715
SN-126	2.164E-01	1.205E-01	1.260E-01	9.593E-03	1.718
TL-208	5.497E-01	1.071E-01	8.364E-02	6.143E-03	6.571
PB-210	2.127E+00	1.032E+00	9.420E-01	7.265E-02	2.258
BI-211	4.376E+00	6.254E-01	4.431E-01	3.512E-02	9.876
PB-212	1.930E+00	2.510E-01	1.137E-01	1.231E-02	16.976
BI-214	1.334E+00	2.476E-01	1.633E-01	1.378E-02	8.170
PB-214	1.588E+00	2.433E-01	1.563E-01	1.506E-02	10.161
RA-224	4.226E+00	1.551E+00	1.219E+00	1.193E-01	3.467
RA-226	1.334E+00	2.476E-01	1.633E-01	1.378E-02	8.170
AC-228	1.575E+00	4.342E-01	3.619E-01	4.594E-02	4.351
RA-228	1.575E+00	4.342E-01	3.619E-01	4.594E-02	4.351
TH-228	1.930E+00	2.510E-01	1.137E-01	1.231E-02	16.976
TH-230	1.334E+00	2.374E-01	1.633E-01	1.076E-02	8.170
TH-232	1.575E+00	4.342E-01	3.619E-01	4.594E-02	4.351
TH-234	1.245E+00	1.243E+00	1.225E+00	2.223E-01	1.017
U-235	2.835E-01	8.250E-02	4.527E-01	8.635E-02	0.626

Sample ID : G248867003 Acquisition date : 24-MAR-2010 20:51:11

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	6.457E-01	3.842E-01	4.315E-01	9.628E-02	1.496
U-238	1.245E+00	1.243E+00	1.225E+00	2.223E-01	1.017
ANH-511	1.776E-01	7.606E-02	6.233E-02	3.989E-03	2.850

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.450E-01		4.419E-01	7.378E-01	5.283E-02	0.196
NA-22	2.208E-02		6.699E-02	1.118E-01	6.511E-03	0.198
NA-24	-1.036E+02		5.873E+01	Half-Life too short		
SC-46	-1.673E-02		5.932E-02	9.574E-02	9.616E-03	-0.175
V-48	3.993E-02		1.168E-01	1.900E-01	1.740E-02	0.210
CR-51	6.163E-01		5.170E-01	9.076E-01	8.020E-02	0.679
MN-54	2.013E-02		5.283E-02	9.020E-02	8.264E-03	0.223
CO-56	3.740E-03		5.209E-02	8.696E-02	8.133E-03	0.043
CO-57	-1.779E-02		3.116E-02	4.938E-02	7.005E-03	-0.360
CO-58	-7.477E-03		5.670E-02	9.324E-02	8.207E-03	-0.080
FE-59	1.524E-02		1.363E-01	2.250E-01	1.822E-02	0.068
CO-60	2.318E-02		4.940E-02	8.460E-02	4.896E-03	0.274
ZN-65	1.195E-01		1.534E-01	2.346E-01	1.639E-02	0.510
SE-75	-3.715E-02		6.671E-02	9.335E-02	8.913E-03	-0.398
SR-85	8.679E-02		5.688E-02	9.133E-02	5.855E-03	0.950
Y-88	3.540E-02		4.076E-02	7.891E-02	4.515E-03	0.449
Y-91	-1.253E+01		3.328E+01	5.226E+01	3.037E+00	-0.240
NB-94	1.131E-02		4.605E-02	7.845E-02	5.613E-03	0.144
NB-95	1.457E-01		6.746E-02	1.259E-01	1.018E-02	1.157
NB-95M	1.086E+00		2.494E-01	3.897E-01	4.270E-02	2.787
ZR-95	1.559E-01		1.030E-01	1.896E-01	1.692E-02	0.822
MO-99	2.954E+01		4.956E+01	8.616E+01	1.316E+01	0.343
TC-99M	-8.023E+15		3.523E+15	Half-Life too short		
RU-103	-8.495E-03		5.705E-02	9.193E-02	1.167E-02	-0.092
RH-106	7.373E-02		4.426E-01	7.222E-01	8.692E-02	0.102
RU-106	7.373E-02		4.425E-01	7.222E-01	4.760E-02	0.102
AG-108M	4.689E-03		3.984E-02	6.581E-02	4.249E-03	0.071
AG-110M	-3.413E-02		5.068E-02	7.680E-02	5.309E-03	-0.444
SN-113	-4.261E-03		5.831E-02	9.564E-02	5.933E-03	-0.045
CD-115	-1.525E-05		3.019E-05	Half-Life too short		
SN-117M	-6.233E-02		8.359E-02	1.299E-01	1.397E-02	-0.480
TE-123M	-3.478E-02		3.625E-02	5.569E-02	5.984E-03	-0.624
SB-124	-5.969E-02		1.096E-01	1.625E-01	1.033E-02	-0.367
SB-125	1.150E-01		1.240E-01	2.145E-01	1.343E-02	0.536
TE-125M	2.523E+00		1.235E+01	2.029E+01	2.634E+00	0.124
I-126	-4.242E-01		4.034E-01	5.899E-01	3.917E-02	-0.719
SB-126	1.231E-01		3.016E-01	4.532E-01	3.362E-02	0.272
SB-127	-2.945E+00		3.778E+00	5.928E+00	6.885E-01	-0.497
I-131	2.820E-01		2.121E-01	3.754E-01	2.833E-02	0.751
TE-132	6.896E-01		2.357E+00	4.008E+00	6.983E-01	0.172

Sample ID : G248867003 Acquisition date : 24-MAR-2010 20:51:11

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-133	4.404E-02		5.815E-02	8.843E-02	1.069E-02	0.498
I-133	8.031E-02		1.202E-01	Half-Life too short		
CS-134	1.030E-01		6.849E-02	1.249E-01	1.075E-02	0.825
CS-135	3.602E-01		2.304E-01	3.632E-01	3.886E-02	0.992
I-135	-1.374E+14		2.283E+14	Half-Life too short		
CS-136	2.615E-02		1.852E-01	3.075E-01	2.635E-02	0.085
BA-137M	-1.440E-02		5.183E-02	8.137E-02	5.351E-03	-0.177
CS-137	-1.521E-02		5.475E-02	8.596E-02	5.671E-03	-0.177
CE-139	-6.621E-03		3.781E-02	6.041E-02	5.997E-03	-0.110
BA-140	-1.305E-01		4.411E-01	6.958E-01	2.326E-01	-0.188
LA-140	-9.253E-02		1.278E-01	1.850E-01	1.087E-02	-0.500
CE-141	5.961E-02		9.020E-02	1.490E-01	1.822E-02	0.400
CE-143	1.183E-02	+	1.907E-03	Half-Life too short		
CE-144	-1.213E-01		2.491E-01	3.945E-01	7.212E-02	-0.308
PM-144	1.406E-02		4.669E-02	7.990E-02	5.651E-03	0.176
PR-144	1.060E+00		3.502E+00	5.995E+00	4.237E-01	0.177
PM-146	2.920E-02		5.482E-02	9.281E-02	8.087E-03	0.315
ND-147	2.863E-01		9.882E-01	1.638E+00	2.264E-01	0.175
PM-149	3.359E-04		2.166E-04	Half-Life too short		
EU-152	-1.732E-01		1.477E-01	1.911E-01	1.570E-02	-0.906
GD-153	9.814E-02		9.470E-02	1.494E-01	1.385E-02	0.657
EU-154	5.560E-02		1.888E-01	3.140E-01	2.962E-02	0.177
EU-155	8.819E-02		1.234E-01	2.061E-01	2.232E-02	0.428
TB-160	-2.162E-01		2.012E-01	2.980E-01	2.945E-02	-0.726
HO-166M	9.505E-02		9.055E-02	1.615E-01	1.177E-02	0.589
TA-182	3.846E-03		3.254E-01	5.231E-01	3.041E-02	0.007
IR-192	-2.432E-02		4.369E-02	7.028E-02	5.965E-03	-0.346
HG-203	4.186E-02		5.687E-02	8.664E-02	8.217E-03	0.483
BI-207	-3.009E-02		7.153E-02	1.121E-01	8.881E-03	-0.268
PB-211	-9.600E-01		1.076E+00	1.505E+00	7.221E-01	-0.638
BI-212	1.720E+00	+	1.412E+00	1.542E+00	1.807E-01	1.116
RN-219	-6.399E-02		5.279E-01	8.623E-01	1.162E-01	-0.074
RA-223	-3.411E-01		9.494E-01	1.329E+00	2.281E-01	-0.257
AC-227	3.408E-02		3.211E-01	5.407E-01	6.914E-02	0.063
TH-227	3.408E-02		3.211E-01	5.407E-01	7.711E-02	0.063
TH-229	-3.491E-01		6.995E-01	1.094E+00	1.093E-01	-0.319
PA-231	-4.288E-01		1.728E+00	2.846E+00	4.251E-01	-0.151
TH-231	-3.411E-01		9.494E-01	1.329E+00	2.281E-01	-0.257
PA-233	3.415E-02		7.554E-02	1.287E-01	1.137E-02	0.265
PA-234	2.688E-01		4.510E-01	7.749E-01	1.492E-01	0.347
PA-234M	-2.877E+00		5.915E+00	9.235E+00	9.436E-01	-0.312
NP-239	-5.039E-01		4.935E-01	7.649E-01	1.006E-01	-0.659
AM-241	3.247E-02		8.506E-02	1.257E-01	1.125E-02	0.258
CM-247	-2.431E-02		4.914E-02	7.840E-02	4.613E-03	-0.310
CF-249	-2.917E-02		5.170E-02	8.224E-02	4.911E-03	-0.355
CF-251	3.643E-02		1.662E-01	2.694E-01	2.684E-02	0.135

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248867003            *
* Acquisition date : 24-MAR-2010 20:51:11 Detector SN#     :                *
* Detector ID      : GAM05                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.78     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  5-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248867003           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.1239E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 11-JUN-2009 16:41:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.438E+01	2.975E+00	3.441E-01	1.518E+00
CD-109	2.228E+00	1.216E+00	6.619E-01	6.204E-01
SN-126	2.164E-01	1.181E-01	6.420E-02	6.025E-02
TL-208	5.497E-01	1.050E-01	4.197E-02	5.356E-02
PB-210	2.127E+00	1.011E+00	4.826E-01	5.158E-01
BI-211	4.376E+00	6.129E-01	2.233E-01	3.127E-01
PB-212	1.930E+00	2.459E-01	5.748E-02	1.255E-01
BI-214	1.334E+00	2.427E-01	8.192E-02	1.238E-01
PB-214	1.588E+00	2.384E-01	7.875E-02	1.217E-01
RA-224	4.226E+00	1.520E+00	6.161E-01	7.754E-01
RA-226	1.334E+00	2.427E-01	8.192E-02	1.238E-01
AC-228	1.575E+00	4.255E-01	1.809E-01	2.171E-01
RA-228	1.575E+00	4.255E-01	1.809E-01	2.171E-01
TH-228	1.930E+00	2.459E-01	5.748E-02	1.255E-01
TH-230	1.334E+00	2.327E-01	8.192E-02	1.187E-01
TH-232	1.575E+00	4.255E-01	1.809E-01	2.171E-01
TH-234	1.245E+00	1.218E+00	6.258E-01	6.213E-01
U-235	5.050E-01	2.730E-01	2.298E-01	1.393E-01
NP-237	6.457E-01	3.765E-01	2.199E-01	1.921E-01
U-238	1.245E+00	1.218E+00	6.258E-01	6.213E-01
ANH-511	1.776E-01	7.454E-02	3.131E-02	3.803E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.450E-01	4.331E-01	3.708E-01	2.210E-01	NOT IDENT.
NA-22	2.208E-02	6.565E-02	5.572E-02	3.349E-02	NOT IDENT.
NA-24	-1.036E+08	1.151E+08	0.000E+00	5.873E+07	SHORT HLIF
SC-46	-1.673E-02	5.813E-02	4.787E-02	2.966E-02	FAIL ABUN
V-48	3.993E-02	1.144E-01	9.491E-02	5.839E-02	NOT IDENT.
CR-51	6.163E-01	5.066E-01	4.577E-01	2.585E-01	NOT IDENT.

MN-54	2.013E-02	5.177E-02	4.513E-02	2.642E-02	NOT IDENT.
CO-56	3.740E-03	5.105E-02	4.350E-02	2.605E-02	NOT IDENT.
CO-57	-1.779E-02	3.054E-02	2.510E-02	1.558E-02	NOT IDENT.
CO-58	-7.477E-03	5.557E-02	4.666E-02	2.835E-02	NOT IDENT.
FE-59	1.524E-02	1.336E-01	1.123E-01	6.816E-02	NOT IDENT.
CO-60	2.318E-02	4.841E-02	4.216E-02	2.470E-02	NOT IDENT.
ZN-65	1.195E-01	1.504E-01	1.171E-01	7.672E-02	NOT IDENT.
SE-75	-3.715E-02	6.537E-02	4.715E-02	3.335E-02	NOT IDENT.
SR-85	8.679E-02	5.574E-02	4.588E-02	2.844E-02	NOT IDENT.
Y-88	3.540E-02	3.994E-02	3.921E-02	2.038E-02	NOT IDENT.
Y-91	-1.253E+01	3.261E+01	2.606E+01	1.664E+01	NOT IDENT.
NB-94	1.131E-02	4.513E-02	3.930E-02	2.302E-02	NOT IDENT.
NB-95	1.457E-01	6.611E-02	6.302E-02	3.373E-02	NOT IDENT.
NB-95M	1.086E+00	2.444E-01	1.970E-01	1.247E-01	NOT IDENT.
ZR-95	1.559E-01	1.010E-01	9.495E-02	5.152E-02	NOT IDENT.
MO-99	2.954E+01	4.857E+01	4.315E+01	2.478E+01	NOT IDENT.
TC-99M	-8.023E+21	6.906E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-8.495E-03	5.591E-02	4.619E-02	2.852E-02	FAIL ABUN
RH-106	7.373E-02	4.337E-01	3.622E-01	2.213E-01	NOT IDENT.
RU-106	7.373E-02	4.337E-01	3.622E-01	2.213E-01	NOT IDENT.
AG-108M	4.689E-03	3.904E-02	3.310E-02	1.992E-02	NOT IDENT.
AG-110M	-3.413E-02	4.967E-02	3.850E-02	2.534E-02	NOT IDENT.
SN-113	-4.261E-03	5.714E-02	4.815E-02	2.916E-02	NOT IDENT.
CD-115	-1.525E+01	5.918E+01	0.000E+00	3.019E+01	SHORT HLIF
SN-117M	-6.233E-02	8.191E-02	6.591E-02	4.179E-02	NOT IDENT.
TE-123M	-3.478E-02	3.553E-02	2.825E-02	1.813E-02	NOT IDENT.
SB-124	-5.969E-02	1.074E-01	8.082E-02	5.478E-02	NOT IDENT.
SB-125	1.150E-01	1.215E-01	1.079E-01	6.199E-02	FAIL ABUN
TE-125M	2.523E+00	1.210E+01	1.032E+01	6.174E+00	NOT IDENT.
I-126	-4.242E-01	3.953E-01	2.957E-01	2.017E-01	NOT IDENT.
SB-126	1.231E-01	2.956E-01	2.270E-01	1.508E-01	NOT IDENT.
SB-127	-2.945E+00	3.702E+00	2.970E+00	1.889E+00	NOT IDENT.
I-131	2.820E-01	2.078E-01	1.891E-01	1.060E-01	NOT IDENT.
TE-132	6.896E-01	2.310E+00	2.027E+00	1.178E+00	NOT IDENT.
BA-133	4.404E-02	5.699E-02	4.455E-02	2.908E-02	FAIL ABUN
I-133	8.031E+04	2.355E+05	0.000E+00	1.202E+05	SHORT HLIF
CS-134	1.030E-01	6.712E-02	6.249E-02	3.425E-02	NOT IDENT.
CS-135	3.602E-01	2.258E-01	1.834E-01	1.152E-01	NOT IDENT.
I-135	-1.374E+20	4.475E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.615E-02	1.815E-01	1.535E-01	9.262E-02	NOT IDENT.
BA-137M	-1.440E-02	5.079E-02	4.078E-02	2.592E-02	NOT IDENT.
CS-137	-1.521E-02	5.366E-02	4.308E-02	2.738E-02	NOT IDENT.
CE-139	-6.621E-03	3.705E-02	3.063E-02	1.890E-02	NOT IDENT.
BA-140	-1.305E-01	4.323E-01	3.494E-01	2.205E-01	NOT IDENT.
LA-140	-9.253E-02	1.252E-01	9.206E-02	6.390E-02	FAIL ABUN
CE-141	5.961E-02	8.840E-02	7.565E-02	4.510E-02	NOT IDENT.
CE-143	1.183E+04	3.738E+03	0.000E+00	1.907E+03	SHORT HLIF
CE-144	-1.213E-01	2.441E-01	2.004E-01	1.245E-01	NOT IDENT.
PM-144	1.406E-02	4.576E-02	4.003E-02	2.335E-02	NOT IDENT.
PR-144	1.060E+00	3.432E+00	3.003E+00	1.751E+00	NOT IDENT.
PM-146	2.920E-02	5.372E-02	4.667E-02	2.741E-02	NOT IDENT.
ND-147	2.863E-01	9.685E-01	8.226E-01	4.941E-01	FAIL ABUN
PM-149	3.359E+02	4.244E+02	0.000E+00	2.166E+02	SHORT HLIF
EU-152	-1.732E-01	1.447E-01	9.629E-02	7.383E-02	FAIL ABUN
GD-153	9.814E-02	9.280E-02	7.608E-02	4.735E-02	NOT IDENT.
EU-154	5.560E-02	1.850E-01	1.565E-01	9.441E-02	NOT IDENT.
EU-155	8.819E-02	1.210E-01	1.049E-01	6.172E-02	FAIL ABUN
TB-160	-2.162E-01	1.972E-01	1.490E-01	1.006E-01	FAIL ABUN
HO-166M	9.505E-02	8.873E-02	8.090E-02	4.527E-02	FAIL ABUN
TA-182	3.846E-03	3.189E-01	2.609E-01	1.627E-01	NOT IDENT.
IR-192	-2.432E-02	4.281E-02	3.544E-02	2.184E-02	FAIL ABUN
HG-203	4.186E-02	5.573E-02	4.374E-02	2.844E-02	FAIL ABUN
BI-207	-3.009E-02	7.010E-02	5.599E-02	3.576E-02	FAIL ABUN
PB-211	-9.600E-01	1.054E+00	7.574E-01	5.379E-01	NOT IDENT.
BI-212	1.720E+00	1.384E+00	7.722E-01	7.059E-01	FAIL ABUN
RN-219	-6.399E-02	5.174E-01	4.340E-01	2.640E-01	FAIL ABUN
RA-223	-3.411E-01	9.304E-01	6.702E-01	4.747E-01	FAIL ABUN
AC-227	3.408E-02	3.147E-01	2.732E-01	1.605E-01	NOT IDENT.
TH-227	3.408E-02	3.147E-01	2.732E-01	1.605E-01	NOT IDENT.
TH-229	-3.491E-01	6.855E-01	5.541E-01	3.497E-01	FAIL ABUN
PA-231	-4.288E-01	1.693E+00	1.437E+00	8.639E-01	NOT IDENT.
TH-231	-3.411E-01	9.304E-01	6.702E-01	4.747E-01	FAIL ABUN
PA-233	3.415E-02	7.403E-02	6.493E-02	3.777E-02	NOT IDENT.
PA-234	2.688E-01	4.420E-01	3.873E-01	2.255E-01	NOT IDENT.
PA-234M	-2.877E+00	5.797E+00	4.613E+00	2.957E+00	NOT IDENT.
NP-239	-5.039E-01	4.837E-01	3.889E-01	2.468E-01	FAIL ABUN
AM-241	3.247E-02	8.336E-02	6.428E-02	4.253E-02	NOT IDENT.
CM-247	-2.431E-02	4.816E-02	3.946E-02	2.457E-02	FAIL ABUN

CF-249	-2.917E-02	5.067E-02	4.140E-02	2.585E-02	NOT IDENT.
CF-251	3.643E-02	1.629E-01	1.365E-01	8.309E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	385.8532
49.72	455.1375
57.36	0.0000
59.54	516.5118
63.29	553.6735
63.29	553.6735
64.28	582.5740
67.75	635.6453
69.67	580.6750
70.83	628.8707
72.81	613.3507
72.87	613.4005
72.87	613.4005
74.82	614.9758
74.82	614.9758
74.82	614.9758
74.97	615.0942
77.11	616.7975
77.11	616.7975
77.11	616.7975
79.69	618.8206
79.80	576.0509
80.12	576.2824
80.19	576.3331
80.57	571.9510
81.00	570.9265
81.07	570.9766
81.07	570.9766
83.79	636.9923
83.79	636.9923
85.43	580.0527
86.48	735.5267
86.55	735.5882
86.79	868.4824
86.94	868.6406
87.57	555.3797
88.03	555.6829
88.47	555.9714
89.96	482.6850
91.11	483.3328
92.59	382.1446
92.59	382.1446
93.35	374.3740
94.67	400.9062
94.87	431.8425
94.87	431.8425
95.86	407.9455
97.43	345.9792
98.44	359.6104
99.53	386.5614
100.11	384.7660
103.18	391.1688
103.37	365.6436
105.31	390.0065
106.12	408.8312
109.28	412.2467
111.00	416.0765
111.76	413.3011
116.30	362.2640
117.23	404.1582
121.12	370.2471
121.78	373.6150
122.06	366.4101
123.07	354.2285
131.20	419.0854
133.52	359.8358
136.00	323.6332

136.47	315.3063
140.51	431.1365
140.51	0.0000
143.76	330.1366
144.24	328.1429
144.24	328.1429
145.44	361.5505
152.43	334.7516
153.25	316.7302
154.21	313.7610
154.21	313.7610
156.02	295.9410
158.56	317.0540
159.00	327.9564
162.66	262.9336
163.33	280.3983
165.86	301.5789
176.60	282.2505
177.52	294.4917
181.07	312.6320
184.41	278.2031
185.72	292.5750
193.51	319.0715
197.04	294.3382
205.31	225.2327
210.85	235.0708
215.65	254.0431
222.11	261.2730
227.38	260.3670
228.16	265.9461
228.18	265.9497
235.69	275.1456
235.96	275.1935
235.96	275.1935
238.63	232.1037
238.63	232.1037
240.99	232.4494
242.00	215.1977
244.70	221.6772
252.40	222.1174
252.80	214.7969
256.23	219.8631
256.23	219.8631
260.90	0.0000
264.66	221.2846
268.22	192.2868
269.46	192.4255
269.46	192.4255
271.23	192.6248
273.65	149.3379
276.40	169.8313
277.37	152.7781
277.60	163.7122
278.00	160.6295
279.20	176.3464
279.54	167.0155
280.46	163.9792
283.69	179.3003
284.31	162.4599
285.41	167.2596
285.90	0.0000
287.50	172.4725
293.27	0.0000
295.22	283.4399
295.96	285.1324
298.57	182.9988
299.98	172.0866
299.98	172.0866
300.09	172.0977
300.09	172.0977
300.13	172.1021
301.36	187.4905
302.85	233.3937
304.50	219.3569
304.50	219.3569
304.85	199.4539
308.46	156.0663
311.90	138.2385

316.51	162.4670
319.41	138.7855
320.08	140.7482
323.87	180.6800
323.87	180.6800
328.76	182.7405
333.37	168.7088
334.37	141.4657
334.37	141.4657
338.28	181.6913
338.28	181.6913
338.32	181.6958
338.32	181.6958
338.32	181.6958
340.48	140.2900
340.55	140.2953
344.28	185.7917
351.06	168.5853
351.93	158.6027
356.01	121.8689
364.49	114.5377
366.42	168.5356
383.85	129.4153
388.16	146.4987
388.63	142.5709
391.69	132.8550
400.66	130.4083
401.81	136.4531
402.40	146.4509
404.85	164.5629
410.95	143.0087
414.70	145.2478
423.72	144.8121
427.09	115.8170
427.87	115.8563
433.94	123.2271
453.88	102.8703
463.37	100.2036
468.07	109.2721
473.00	104.6994
476.78	104.8575
477.60	98.7211
487.02	87.7351
492.35	0.0000
497.08	103.6243
511.00	104.1785
514.00	83.4375
527.90	0.0000
529.87	0.0000
531.02	91.3181
537.26	93.6303
546.56	0.0000
563.25	99.8222
569.33	103.2306
569.50	103.2354
569.70	101.1138
583.19	106.9385
600.60	112.9570
602.73	87.9193
604.72	70.0242
609.32	107.8955
609.32	107.8955
609.32	107.8955
610.33	73.7536
614.28	90.0635
618.01	81.7590
621.93	85.5962
621.93	85.5962
633.25	81.5662
635.95	78.3721
636.99	87.1094
645.85	100.4633
657.76	98.6550
661.66	97.6805
661.66	97.6805
664.57	0.0000
666.33	107.7163
666.50	107.7210

677.62	85.4856
685.70	88.4648
695.00	93.3375
696.49	82.2859
696.51	82.2859
697.00	80.4492
702.65	86.1450
706.68	101.0898
711.68	83.5950
720.70	84.6185
721.93	0.0000
722.78	87.8673
722.91	86.2716
723.31	89.4785
724.19	95.8949
727.33	79.3192
733.00	91.3368
735.93	68.7627
739.50	69.3027
747.24	74.1525
752.31	77.0819
753.82	79.9365
756.73	55.5322
763.94	113.1787
765.81	71.7185
766.42	79.2815
777.92	80.4882
778.90	69.1445
783.70	73.9803
785.37	74.9626
795.86	67.5693
801.95	70.5433
810.29	73.5723
810.76	71.6705
815.77	66.0267
818.51	72.7792
832.01	66.3173
834.85	73.1008
836.80	0.0000
846.77	55.9657
856.80	49.7566
860.56	52.2960
871.09	53.4111
873.19	53.4401
875.33	0.0000
879.36	73.9621
880.51	59.3817
883.24	60.3980
884.68	63.3443
889.28	72.1994
898.04	76.2719
911.20	82.4141
911.20	82.4141
911.20	82.4141
926.50	64.0174
937.49	65.1782
944.13	73.1991
946.00	62.3463
949.00	59.4214
962.29	56.2066
964.08	59.6387
966.15	47.7354
968.97	47.7676
968.97	47.7676
968.97	47.7676
983.53	47.9336
996.26	55.0906
1001.03	58.1605
1004.73	48.1748
1037.84	63.7152
1038.76	0.0000
1048.07	54.7405
1050.41	59.8402
1050.41	59.8402
1063.66	59.0030
1085.87	60.3180
1099.45	57.4219
1112.07	88.1348

1115.54	61.7407
1120.29	65.3359
1120.29	65.3359
1120.29	65.3359
1120.55	65.3384
1121.30	67.1150
1131.51	0.0000
1173.23	70.8361
1177.93	50.0508
1189.05	74.2039
1204.77	76.5407
1221.41	84.1667
1231.02	93.8165
1235.36	93.8998
1238.28	76.0078
1260.41	0.0000
1271.85	64.8274
1274.44	56.3535
1274.54	56.3535
1291.59	46.9416
1298.22	0.0000
1312.11	38.5591
1332.49	26.8809
1365.19	25.9648
1368.63	0.0000
1384.29	31.6414
1408.01	25.2362
1457.56	0.0000
1460.82	22.6456
1489.16	22.7586
1505.03	24.7232
1596.21	22.2107
1620.50	14.5433
1678.03	0.0000
1690.97	18.6316
1764.49	16.8624
1764.49	16.8624
1764.49	16.8624
1770.23	8.6868
1771.35	55.6055
1791.20	0.0000
1836.06	6.0161

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248867003

Total Uranium Activity	3.9374E+00	ug/g
Total Uranium Counting Unc.	3.6252E+00	ug/g
Total Uranium Tpu	1.8496E-06	ug/g
Total Uranium Mda	1.8648E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 962633                    SAMPLE ID  : G248867003        *
*   ANALYST      : MXR1                      DETECTOR   : GAM05             *
*   SAMPLE DATE  :  5-MAR-2010 12:00:00.00  COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 24-MAR-2010 20:51:11.61  SAMPLE ALQT:  112.390 GRAM      *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.054E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.528E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 4.223E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.063E+00
```

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 02:59:25.03

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867004.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 22:58:44
Sample ID         : G248867004           Sample quantity  : 1.21040E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:02.60  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	4	74.91*	544	996	1.44	148.75	143	16	3.78E-02	11.7	1.38E+00
2	4	77.32*	923	816	1.33	153.56	143	16	6.41E-02	6.7	
3	3	87.39	461	782	1.58	173.71	164	28	3.20E-02	12.0	6.65E-01
4	3	89.89	308	861	1.66	178.70	164	28	2.14E-02	19.6	
5	3	93.06*	434	853	1.71	185.05	164	28	3.01E-02	14.6	
6	0	129.57	149	708	1.22	258.05	254	9	1.03E-02	33.4	
7	0	186.13*	297	748	1.33	371.16	366	11	2.06E-02	19.8	
8	0	209.37	249	649	1.21	417.64	413	11	1.73E-02	20.8	
9	3	238.78*	2290	451	1.43	476.46	468	21	1.59E-01	2.8	1.12E+00
10	3	241.71*	494	497	1.68	482.32	468	21	3.43E-02	12.2	
11	0	270.44	310	473	2.05	539.79	534	13	2.15E-02	15.6	
12	0	295.28*	740	452	1.46	589.46	582	14	5.14E-02	7.3	
13	0	300.49*	149	459	1.52	599.88	596	13	1.03E-02	32.0	
14	0	327.93	193	323	1.65	654.75	650	11	1.34E-02	19.4	
15	0	338.34	483	361	1.57	675.59	671	11	3.36E-02	8.8	
16	0	352.10*	1188	385	1.42	703.10	697	13	8.25E-02	4.6	
17	0	408.84	124	239	2.55	816.58	812	11	8.58E-03	25.8	
18	0	462.74	96	205	1.38	924.38	920	10	6.68E-03	29.5	
19	0	510.97*	211	350	2.29	1020.84	1011	17	1.47E-02	24.4	
20	0	583.28*	696	263	1.67	1165.46	1157	17	4.84E-02	6.8	
21	0	609.34*	860	279	1.56	1217.60	1209	18	5.97E-02	5.8	
22	0	727.27*	117	179	1.71	1453.47	1446	13	8.14E-03	26.3	
23	0	768.21	68	122	1.21	1535.36	1531	10	4.71E-03	32.9	
24	0	773.00	45	126	1.33	1544.96	1541	12	3.09E-03	53.0	
25	0	795.45	97	85	1.73	1589.86	1585	10	6.76E-03	20.6	
26	0	861.52	104	181	1.76	1722.01	1712	19	7.23E-03	32.8	
27	0	911.20*	505	154	1.79	1821.39	1812	17	3.50E-02	7.4	
28	1	964.46	92	114	2.08	1927.92	1918	27	6.40E-03	25.3	1.31E+00
29	1	968.87	288	103	2.02	1936.74	1918	27	2.00E-02	9.3	
30	0	1120.17	185	117	2.31	2239.42	2233	13	1.28E-02	14.1	
31	0	1383.84	97	120	8.65	2766.89	2749	41	6.73E-03	39.7	
32	0	1460.64*	2369	56	2.08	2920.54	2912	20	1.65E-01	2.2	
33	2	1591.83	39	29	2.74	3183.02	3168	27	2.70E-03	40.5	1.31E+00
34	0	1629.99	46	6	1.45	3259.36	3255	11	3.16E-03	17.9	
35	0	1729.28	29	28	1.62	3458.01	3449	16	2.01E-03	45.0	
36	0	1764.36*	162	20	2.14	3528.21	3522	17	1.13E-02	11.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 25-MAR-2010 02:59:28

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867004.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 22:58:44
Sample ID : G248867004 Sample quantity : 121.04 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:00:02.60 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.567E+01	3.848E+00	5.152E-01	5.062E-02	69.231
CD-109	+	88.03	*	4.474E+00	1.210E+00	1.236E+00	1.534E-01	3.620
SN-126		64.28		3.197E-01	6.789E-01	1.107E+00	1.875E-01	0.289
	+	86.94		1.806E+00	8.789E-01	5.081E-01	2.148E-01	3.554
	+	87.57	*	4.344E-01	1.175E-01	1.209E-01	1.496E-02	3.593
TL-208		277.37		6.519E-01	4.105E-01	6.486E-01	9.171E-02	1.005
	+	583.19	*	5.801E-01	9.510E-02	5.296E-02	4.844E-03	10.953
	+	860.56		8.208E-01	5.439E-01	3.806E-01	3.721E-02	2.156
BI-211		72.87		1.329E+01	4.435E+00	6.610E+00	7.571E-01	2.011
	+	351.06	*	4.541E+00	6.155E-01	3.256E-01	3.243E-02	13.945
PB-212	+	74.82		2.533E+00	7.051E-01	6.443E-01	9.707E-02	3.931
	+	77.11		2.388E+00	4.237E-01	3.594E-01	4.166E-02	6.643
	+	238.63	*	1.980E+00	2.616E-01	8.396E-02	1.003E-02	23.577
	+	300.09		1.994E+00	1.297E+00	1.070E+00	1.302E-01	1.864
BI-214	+	609.32	*	1.385E+00	2.121E-01	1.023E-01	1.019E-02	13.543
	+	1120.29		1.567E+00	4.741E-01	4.302E-01	4.659E-02	3.643
	+	1764.49		1.922E+00	4.585E-01	3.004E-01	2.634E-02	6.399
PB-214	+	74.82		4.489E+00	1.224E+00	1.142E+00	1.596E-01	3.931
	+	77.11		4.209E+00	8.237E-01	6.336E-01	9.013E-02	6.643
	+	242.00		2.589E+00	7.102E-01	5.105E-01	6.359E-02	5.072
	+	295.22		1.755E+00	3.377E-01	2.081E-01	2.594E-02	8.433
	+	351.93	*	1.648E+00	2.412E-01	1.156E-01	1.314E-02	14.253
RA-224	+	240.99	*	4.578E+00	1.227E+00	8.997E-01	9.923E-02	5.089
RA-226	+	609.32	*	1.385E+00	2.121E-01	1.023E-01	1.019E-02	13.543
	+	1120.29		1.567E+00	4.741E-01	4.302E-01	4.659E-02	3.643
	+	1764.49		1.922E+00	4.585E-01	3.004E-01	2.634E-02	6.399
AC-228	+	338.32		2.060E+00	9.382E-01	3.695E-01	1.552E-01	5.574
	+	911.20	*	2.029E+00	3.878E-01	2.143E-01	2.596E-02	9.470
	+	968.97		2.007E+00	6.171E-01	3.736E-01	9.177E-02	5.371
RA-228	+	338.32		2.060E+00	9.382E-01	3.695E-01	1.552E-01	5.574
	+	911.20	*	2.029E+00	3.878E-01	2.143E-01	2.596E-02	9.470
	+	968.97		2.007E+00	6.171E-01	3.736E-01	9.177E-02	5.371
TH-228	+	74.82		2.533E+00	6.613E-01	6.443E-01	7.450E-02	3.931
	+	77.11		2.388E+00	4.237E-01	3.594E-01	4.166E-02	6.643

Sample ID : G248867004 Acquisition date : 24-MAR-2010 22:58:44

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	1.980E+00	2.616E-01	8.396E-02	1.003E-02	23.577
	+	300.09		1.994E+00	1.769E+00	1.070E+00	6.582E-01	1.864
TH-230	+	609.32	*	1.385E+00	1.992E-01	1.023E-01	8.642E-03	13.543
	+	1120.29		1.567E+00	4.623E-01	4.302E-01	3.659E-02	3.643
	+	1764.49		1.922E+00	4.585E-01	3.004E-01	2.633E-02	6.399
TH-232	+	338.32		2.060E+00	4.165E-01	3.695E-01	3.643E-02	5.574
	+	911.20	*	2.029E+00	3.878E-01	2.143E-01	2.596E-02	9.470
	+	968.97		2.007E+00	6.171E-01	3.736E-01	9.177E-02	5.371
U-235	+	89.96		2.971E+00	1.400E+00	1.242E+00	3.231E-01	2.392
	+	93.35		2.481E+00	9.427E-01	7.362E-01	1.791E-01	3.369
		143.76	*	8.971E-02	2.108E-01	3.294E-01	5.862E-02	0.272
		163.33		-1.918E-01	4.471E-01	6.665E-01	1.265E-01	-0.288
	+	185.72		1.660E-01	6.802E-02	6.486E-02	7.020E-03	2.559
		205.31		1.761E-01	5.557E-01	7.620E-01	1.476E-01	0.231
NP-237	+	86.48	*	1.296E+00	4.437E-01	3.677E-01	8.931E-02	3.526
		95.86		-2.214E-01	1.063E+00	1.510E+00	3.782E-01	-0.147
ANH-511	+	511.00	*	1.353E-01	6.705E-02	4.303E-02	3.718E-03	3.145

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	5.400E-02	3.142E-01	5.167E-01	4.802E-02	0.105
NA-22		1274.54	*	3.221E-02	4.034E-02	6.891E-02	6.260E-03	0.467
NA-24		1368.63	*	-1.326E+02	4.034E-02	Half-Life too short		
SC-46		889.28	*	-1.804E-02	3.681E-02	5.881E-02	5.465E-03	-0.307
	+	1120.55		2.749E-01	8.109E-02	1.207E-01	1.026E-02	2.278
V-48		944.13		-5.503E-01	9.978E-01	1.582E+00	1.462E-01	-0.348
		983.53	*	-7.142E-02	7.694E-02	1.176E-01	1.075E-02	-0.607
		1312.11		3.216E-02	9.106E-02	1.510E-01	1.423E-02	0.213
CR-51		320.08	*	1.432E-01	4.033E-01	6.777E-01	7.192E-02	0.211
MN-54		834.85	*	1.867E-02	3.458E-02	5.896E-02	5.351E-03	0.317
CO-56		846.77	*	1.254E-02	3.615E-02	6.112E-02	5.577E-03	0.205
		1037.84		-1.348E-01	2.936E-01	4.648E-01	4.359E-02	-0.290
		1238.28		1.589E-01	9.128E-02	1.603E-01	1.440E-02	0.991
		1771.35		-9.010E-02	2.430E-01	3.141E-01	2.744E-02	-0.287
CO-57		122.06	*	1.169E-02	2.675E-02	4.267E-02	4.298E-03	0.274
		136.47		-2.151E-01	2.044E-01	3.188E-01	3.388E-02	-0.675
CO-58		810.76	*	-4.183E-02	3.877E-02	6.001E-02	5.395E-03	-0.697
FE-59		1099.45	*	-3.551E-02	9.665E-02	1.538E-01	1.435E-02	-0.231
		1291.59		3.479E-03	1.228E-01	1.987E-01	2.053E-02	0.018
CO-60		1173.23		-1.145E-03	4.307E-02	6.984E-02	5.685E-03	-0.016
		1332.49	*	-1.011E-02	3.679E-02	5.780E-02	5.556E-03	-0.175
ZN-65		1115.54	*	-5.562E-02	1.030E-01	1.364E-01	1.166E-02	-0.408
SE-75		121.12		-8.365E-02	1.428E-01	2.211E-01	2.708E-02	-0.378
		136.00		-2.635E-02	3.939E-02	6.240E-02	6.317E-03	-0.422
		264.66	*	1.107E-02	4.934E-02	7.254E-02	7.955E-03	0.153
		279.54		-1.259E-02	1.080E-01	1.795E-01	1.988E-02	-0.070
		400.66		1.680E-01	2.474E-01	4.173E-01	4.572E-02	0.403

Sample ID : G248867004 Acquisition date : 24-MAR-2010 22:58:44

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SR-85		514.00	*	1.884E-01	4.576E-02	7.576E-02	6.546E-03	2.486
Y-88		898.04		3.096E-03	3.848E-02	6.385E-02	5.979E-03	0.048
		1836.06	*	-2.218E-02	2.543E-02	3.496E-02	2.944E-03	-0.635
Y-91		1204.77	*	2.655E+00	2.352E+01	3.840E+01	3.237E+00	0.069
NB-94		702.65	*	1.492E-02	3.274E-02	5.590E-02	4.719E-03	0.267
		871.09		-2.470E-02	3.356E-02	4.679E-02	4.316E-03	-0.528
NB-95		765.81	*	5.659E-02	4.630E-02	7.205E-02	6.313E-03	0.785
NB-95M		235.69	*	5.469E-01	1.587E-01	2.406E-01	2.899E-02	2.273
ZR-95		724.19		1.219E-01	1.055E-01	1.632E-01	1.516E-02	0.747
		756.73	*	2.115E-02	6.598E-02	1.119E-01	1.075E-02	0.189
MO-99		140.51		-4.336E+01	6.890E+01	1.032E+02	2.510E+01	-0.420
		181.07		-2.975E+01	6.183E+01	8.435E+01	1.677E+01	-0.353
		366.42		1.331E+02	2.799E+02	4.707E+02	4.313E+01	0.283
		739.50	*	6.026E+00	3.251E+01	5.479E+01	8.638E+00	0.110
		777.92		-9.507E+01	1.140E+02	1.511E+02	1.333E+01	-0.629
TC-99M		140.51	*	-4.457E+15	1.140E+02	Half-Life too short		
RU-103		497.08	*	-2.252E-02	3.984E-02	6.273E-02	8.770E-03	-0.359
	+	610.33		1.544E+01	3.088E+00	2.691E+00	4.374E-01	5.740
RH-106		621.93	*	5.507E-02	2.836E-01	4.613E-01	6.051E-02	0.119
		1050.41		5.053E-01	2.371E+00	3.933E+00	3.494E-01	0.128
RU-106		621.93	*	5.507E-02	2.836E-01	4.613E-01	3.877E-02	0.119
		1050.41		5.053E-01	2.371E+00	3.933E+00	3.494E-01	0.128
AG-108M		433.94	*	-3.245E-03	2.756E-02	4.489E-02	3.967E-03	-0.072
		614.28		1.631E-02	3.686E-02	5.288E-02	4.612E-03	0.308
		722.91		1.683E-02	3.864E-02	5.744E-02	5.071E-03	0.293
AG-110M		657.76	*	-5.378E-02	3.164E-02	4.771E-02	4.060E-03	-1.127
		677.62		-2.484E-01	2.745E-01	4.358E-01	3.733E-02	-0.570
		706.68		-2.041E-01	2.020E-01	3.193E-01	2.783E-02	-0.639
		763.94		1.332E-01	1.618E-01	2.469E-01	2.218E-02	0.539
		884.68		4.700E-02	4.413E-02	7.746E-02	7.384E-03	0.607
		937.49		-7.852E-03	1.211E-01	1.813E-01	1.732E-02	-0.043
	+	1384.29		6.310E-01	5.042E-01	2.251E-01	2.215E-02	2.804
		1505.03		-9.813E-02	2.315E-01	3.667E-01	3.505E-02	-0.268
SN-113		391.69	*	-5.027E-02	4.477E-02	6.983E-02	6.065E-03	-0.720
CD-115		260.90		-1.180E-04	4.477E-02	Half-Life too short		
		492.35		-1.107E-05	4.477E-02	Half-Life too short		
		527.90	*	-2.389E-05	4.477E-02	Half-Life too short		
SN-117M		156.02		2.531E+00	2.828E+00	4.654E+00	4.851E-01	0.544
		158.56	*	6.846E-03	6.794E-02	1.098E-01	1.151E-02	0.062
TE-123M		159.00	*	4.323E-03	2.870E-02	4.643E-02	4.893E-03	0.093
SB-124		602.73		2.741E-02	4.206E-02	6.128E-02	5.193E-03	0.447
		645.85		-3.780E-01	4.830E-01	7.369E-01	6.495E-02	-0.513
		722.78		1.676E-01	4.077E-01	6.051E-01	5.293E-02	0.277
		1690.97	*	-1.731E-02	6.293E-02	9.948E-02	9.369E-03	-0.174
SB-125		427.87	*	-3.710E-02	8.244E-02	1.321E-01	1.150E-02	-0.281
	+	463.37		5.513E-01	3.296E-01	4.720E-01	4.373E-02	1.168
		600.60		-3.743E-02	1.859E-01	2.671E-01	2.438E-02	-0.140
		635.95		-4.350E-01	2.611E-01	3.722E-01	3.375E-02	-1.169
TE-125M		109.28	*	-9.827E+00	1.009E+01	1.590E+01	1.890E+00	-0.618

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-126		388.63		2.755E-01	2.057E-01	3.546E-01	3.018E-02	0.777
		666.33	*	1.912E-02	2.530E-01	4.260E-01	3.513E-02	0.045
		753.82		3.155E-01	1.973E+00	3.319E+00	2.888E-01	0.095
SB-126		414.70		3.177E-02	1.037E-01	1.502E-01	1.277E-02	0.211
		666.50		5.032E-03	8.773E-02	1.476E-01	1.217E-02	0.034
		695.00		8.183E-02	9.388E-02	1.632E-01	1.372E-02	0.501
		697.00		1.659E-02	3.375E-01	5.662E-01	4.763E-02	0.029
		720.70	*	1.461E-02	1.977E-01	2.863E-01	2.444E-02	0.051
		856.80		5.572E-01	5.761E-01	8.903E-01	8.160E-02	0.626
SB-127		252.40		1.370E+00	8.582E+00	1.442E+01	6.127E+00	0.095
		473.00		-2.852E+00	3.292E+00	5.092E+00	7.136E-01	-0.560
		685.70	*	-1.377E-01	2.526E+00	4.219E+00	5.303E-01	-0.033
		783.70		9.001E+00	7.080E+00	1.239E+01	1.708E+00	0.726
I-131		80.19		9.837E+00	1.065E+01	1.164E+01	1.376E+00	0.845
		284.31		-8.435E-02	2.027E+00	3.375E+00	3.761E-01	-0.025
		364.49	*	9.683E-03	1.612E-01	2.668E-01	2.584E-02	0.036
		636.99		-1.363E-01	2.095E+00	3.351E+00	2.978E-01	-0.041
TE-132		49.72		-1.325E+01	1.088E+02	1.802E+02	2.920E+01	-0.074
		111.76		-5.441E+01	8.351E+01	1.331E+02	1.794E+01	-0.409
		116.30		5.020E+01	7.450E+01	1.230E+02	1.649E+01	0.408
		228.16	*	-5.999E-01	1.786E+00	2.968E+00	5.381E-01	-0.202
BA-133		81.00		1.524E-01	1.432E-01	1.565E-01	2.738E-02	0.974
		276.40		1.002E+00	4.059E-01	6.111E-01	9.513E-02	1.639
		302.85		1.667E-01	1.585E-01	2.380E-01	3.425E-02	0.700
		356.01	*	1.728E-03	4.532E-02	6.508E-02	8.794E-03	0.027
		383.85		-2.376E-01	2.926E-01	4.636E-01	5.772E-02	-0.512
I-133		529.87	*	2.368E-02	2.926E-01	Half-Life too short		
		875.33		4.395E+00	2.926E-01	Half-Life too short		
		1298.22		3.873E+00	2.926E-01	Half-Life too short		
CS-134		563.25		1.215E-01	3.333E-01	5.491E-01	4.757E-02	0.221
		569.33		1.470E-01	1.824E-01	3.066E-01	2.663E-02	0.479
		604.72		2.849E-02	3.449E-02	5.082E-02	4.314E-03	0.561
	+	795.86	*	1.180E-01	4.969E-02	8.012E-02	7.182E-03	1.473
		801.95		-9.976E-01	4.534E-01	5.465E-01	4.906E-02	-1.825
		1365.19		4.052E-01	1.014E+00	1.757E+00	1.755E-01	0.231
CS-135		268.22	*	3.367E-01	1.792E-01	2.752E-01	3.302E-02	1.223
I-135		546.56		2.003E+14	1.792E-01	Half-Life too short		
		836.80		1.115E+15	1.792E-01	Half-Life too short		
		1038.76		-7.773E+14	1.792E-01	Half-Life too short		
		1131.51		-2.961E+13	1.792E-01	Half-Life too short		
		1260.41	*	-5.679E+14	1.792E-01	Half-Life too short		
		1457.56		7.474E+16	1.792E-01	Half-Life too short		
		1678.03		-5.225E+14	1.792E-01	Half-Life too short		
		1791.20		4.706E+13	1.792E-01	Half-Life too short		
CS-136		153.25		4.742E-01	1.060E+00	1.730E+00	2.036E-01	0.274
		176.60		3.939E-01	6.477E-01	1.056E+00	1.212E-01	0.373
		273.65		-1.178E+00	7.508E-01	9.942E-01	1.139E-01	-1.185
		340.55		1.066E+00	2.538E-01	3.829E-01	3.868E-02	2.784
		818.51		1.089E-02	8.407E-02	1.406E-01	1.268E-02	0.077

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1048.07	*	-1.242E-01	1.302E-01	1.984E-01	1.836E-02	-0.626
		1235.36		-1.743E-01	7.311E-01	1.167E+00	1.382E-01	-0.149
BA-137M		661.66	*	1.019E-02	3.207E-02	5.464E-02	4.492E-03	0.186
CS-137		661.66	*	1.076E-02	3.387E-02	5.772E-02	4.755E-03	0.186
CE-139		165.86	*	-4.845E-04	3.134E-02	4.746E-02	5.066E-03	-0.010
BA-140		162.66		9.049E-02	9.786E-01	1.580E+00	1.748E-01	0.057
		304.85		1.603E+00	1.864E+00	2.723E+00	8.135E-01	0.588
		423.72		8.741E-01	2.277E+00	3.769E+00	1.239E+00	0.232
		537.26	*	-1.069E-02	3.074E-01	4.973E-01	1.687E-01	-0.021
LA-140	+	328.76		1.293E+00	5.196E-01	6.694E-01	7.019E-02	1.931
		487.02		5.489E-02	1.670E-01	2.762E-01	2.533E-02	0.199
		815.77		1.594E-01	3.712E-01	6.313E-01	6.292E-02	0.252
		1596.21	*	7.265E-02	9.657E-02	1.584E-01	1.485E-02	0.459
CE-141		145.44	*	1.139E-01	6.895E-02	1.148E-01	1.187E-02	0.992
CE-143		57.36		-1.385E-03	6.895E-02	Half-Life too short		
		293.27	*	8.611E-03	6.895E-02	Half-Life too short		
		664.57		1.084E-02	6.895E-02	Half-Life too short		
		721.93		1.472E-03	6.895E-02	Half-Life too short		
CE-144		80.12		4.503E+00	4.014E+00	4.425E+00	5.200E-01	1.018
		133.52	*	1.719E-01	2.275E-01	3.167E-01	5.110E-02	0.543
PM-144		476.78		2.776E-02	5.991E-02	9.983E-02	9.360E-03	0.278
		618.01		-6.312E-03	3.323E-02	4.766E-02	4.131E-03	-0.132
		696.49	*	4.816E-03	3.371E-02	5.679E-02	4.779E-03	0.085
PR-144		696.51	*	3.626E-01	2.528E+00	4.260E+00	3.583E-01	0.085
		1489.16		-5.228E+00	1.074E+01	1.687E+01	1.616E+00	-0.310
PM-146		453.88	*	2.503E-02	3.896E-02	6.547E-02	6.923E-03	0.382
		633.25		5.373E-01	1.312E+00	2.133E+00	8.134E-01	0.252
		735.93		-3.824E-02	1.295E-01	2.117E-01	5.934E-02	-0.181
		747.24		3.727E-02	8.390E-02	1.432E-01	2.092E-02	0.260
ND-147	+	91.11		1.269E+00	5.233E-01	6.797E-01	8.417E-02	1.867
		319.41		4.752E-02	4.371E+00	7.259E+00	7.436E-01	0.007
		531.02	*	2.105E-01	6.479E-01	1.069E+00	1.598E-01	0.197
PM-149		285.90	*	-3.101E-04	6.479E-01	Half-Life too short		
EU-152		121.78		2.567E-02	7.602E-02	1.210E-01	1.353E-02	0.212
		244.70		6.268E-01	3.405E-01	5.277E-01	5.817E-02	1.188
		344.28	*	-1.021E-01	1.177E-01	1.502E-01	1.528E-02	-0.680
		778.90		-2.716E-01	2.791E-01	3.653E-01	3.223E-02	-0.743
	+	964.08		6.908E-01	3.554E-01	5.156E-01	4.742E-02	1.340
		1085.87		2.716E-01	3.839E-01	6.535E-01	5.690E-02	0.416
		1112.07		2.165E-01	3.099E-01	4.923E-01	4.212E-02	0.440
		1408.01		5.968E-02	1.706E-01	2.926E-01	2.819E-02	0.204
GD-153		69.67		2.339E+00	2.332E+00	3.472E+00	3.963E-01	0.674
		97.43	*	5.608E-02	9.607E-02	1.404E-01	1.549E-02	0.399
		103.18		-2.223E-01	1.152E-01	1.743E-01	1.843E-02	-1.275
EU-154		123.07		-3.174E-03	5.214E-02	8.456E-02	1.055E-02	-0.038
		723.31		1.021E-01	1.758E-01	2.639E-01	2.489E-02	0.387
		873.19		-3.279E-02	2.405E-01	3.939E-01	4.863E-02	-0.083
		996.26		-3.284E-01	3.407E-01	5.148E-01	9.117E-02	-0.638
		1004.73		-1.992E-01	1.937E-01	2.925E-01	3.503E-02	-0.681

Sample ID : G248867004 Acquisition date : 24-MAR-2010 22:58:44

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1274.44	*	1.070E-01	1.143E-01	1.964E-01	2.304E-02	0.545
EU-155	+	86.55		5.277E-01	1.429E-01	1.889E-01	2.330E-02	2.794
		105.31	*	1.649E-01	1.043E-01	1.752E-01	1.845E-02	0.942
TB-160	+	86.79		1.458E+00	3.944E-01	5.163E-01	6.348E-02	2.823
		197.04		9.990E-02	5.740E-01	9.226E-01	1.006E-01	0.108
		215.65		8.164E-02	8.056E-01	1.242E+00	1.366E-01	0.066
		298.57		4.479E-01	1.784E-01	2.085E-01	2.206E-02	2.148
		879.36	*	-4.499E-02	1.244E-01	2.004E-01	1.855E-02	-0.224
		962.29		1.096E+00	5.499E-01	9.815E-01	9.032E-02	1.116
		966.15		1.343E+00	2.765E-01	4.948E-01	4.548E-02	2.715
		1177.93		6.210E-02	3.780E-01	6.201E-01	5.074E-02	0.100
		1271.85		-2.907E-01	7.035E-01	1.101E+00	9.960E-02	-0.264
HO-166M		80.57		4.759E-01	4.082E-01	4.522E-01	5.328E-02	1.052
		184.41		1.326E-01	4.280E-02	6.313E-02	6.826E-03	2.100
		280.46		-5.307E-02	8.190E-02	1.334E-01	1.440E-02	-0.398
		410.95		4.545E-01	2.764E-01	4.261E-01	3.617E-02	1.067
		711.68	*	-7.582E-03	5.423E-02	8.998E-02	7.639E-03	-0.084
		752.31		-4.607E-02	2.334E-01	3.845E-01	3.344E-02	-0.120
		810.29		-5.968E-02	5.633E-02	8.736E-02	7.835E-03	-0.683
TA-182		67.75		-2.674E-01	1.525E-01	2.276E-01	2.598E-02	-1.175
		100.11		2.049E-01	1.863E-01	3.016E-01	3.255E-02	0.679
		152.43		1.659E-01	3.530E-01	5.764E-01	5.961E-02	0.288
		222.11		7.384E-02	3.451E-01	5.842E-01	6.438E-02	0.126
	+	1121.30		7.542E-01	2.225E-01	3.310E-01	2.814E-02	2.278
		1189.05		-1.815E-02	2.879E-01	4.654E-01	3.855E-02	-0.039
		1221.41	*	-5.596E-02	2.073E-01	3.305E-01	2.837E-02	-0.169
		1231.02		-3.328E-02	4.859E-01	7.836E-01	6.796E-02	-0.042
IR-192	+	295.96		1.352E+00	2.453E-01	2.739E-01	2.922E-02	4.937
		308.46		-1.373E-03	1.050E-01	1.587E-01	1.661E-02	-0.009
		316.51	*	-2.037E-03	3.527E-02	5.846E-02	6.028E-03	-0.035
		468.07		3.150E-02	7.261E-02	1.055E-01	9.756E-03	0.299
HG-203		70.83		8.353E-01	1.884E+00	2.760E+00	4.892E-01	0.303
		72.87		3.532E+00	1.264E+00	1.757E+00	3.034E-01	2.011
		279.20	*	4.443E-03	4.014E-02	6.724E-02	7.388E-03	0.066
BI-207		72.81		7.156E-01	2.529E-01	3.777E-01	4.326E-02	1.895
	+	74.97		7.301E-01	1.904E-01	2.566E-01	2.954E-02	2.845
		569.70		1.815E-02	2.828E-02	4.718E-02	4.041E-03	0.385
		1063.66	*	1.548E-02	5.148E-02	8.571E-02	7.562E-03	0.181
		1770.23		5.025E-02	4.248E-01	6.107E-01	5.339E-02	0.082
PB-210		46.54	*	-8.921E+00	9.850E+00	1.537E+01	1.892E+00	-0.580
PB-211		404.85	*	-3.672E-01	7.963E-01	1.072E+00	5.183E-01	-0.343
		427.09		-1.108E+00	1.462E+00	2.157E+00	9.976E-01	-0.514
		832.01		-5.155E-01	9.390E-01	1.441E+00	7.486E-01	-0.358
BI-212	+	727.33	*	1.488E+00	8.039E-01	1.026E+00	1.275E-01	1.450
		785.37		4.709E+00	2.872E+00	5.141E+00	4.552E-01	0.916
		1620.50		2.006E+00	2.046E+00	3.724E+00	3.467E-01	0.539
RN-219	+	271.23		1.180E+00	3.953E-01	4.422E-01	5.404E-02	2.668
		401.81	*	2.012E-01	4.013E-01	6.360E-01	9.398E-02	0.316
RA-223		81.07		3.481E-01	3.209E-01	3.542E-01	4.185E-02	0.983

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		83.79		1.582E-01	1.610E-01	2.123E-01	2.552E-02	0.745
		94.87		1.861E+00	5.737E-01	8.502E-01	9.625E-02	2.189
		144.24		5.569E-01	7.079E-01	1.116E+00	1.233E-01	0.499
		154.21		2.094E-01	3.854E-01	6.301E-01	6.978E-02	0.332
	+	269.46		9.167E-01	3.033E-01	3.455E-01	3.812E-02	2.653
		323.87	*	2.385E-01	7.068E-01	1.034E+00	1.877E-01	0.231
	+	338.28		8.173E+00	1.791E+00	2.229E+00	2.895E-01	3.666
AC-227		79.69		6.266E+00	2.276E+00	2.402E+00	4.560E-01	2.608
		235.96		1.099E+00	2.239E-01	3.131E-01	3.891E-02	3.510
		256.23	*	2.363E-01	2.417E-01	4.136E-01	5.724E-02	0.571
	+	299.98		2.193E+00	1.436E+00	1.518E+00	2.139E-01	1.445
		304.50		1.579E+00	1.735E+00	2.593E+00	4.558E-01	0.609
		334.37		8.100E-01	2.290E+00	2.664E+00	4.357E-01	0.304
TH-227		79.80		5.389E+00	2.921E+00	3.075E+00	7.131E-01	1.752
		235.96		1.099E+00	2.207E-01	3.131E-01	3.740E-02	3.510
		256.23	*	2.363E-01	2.422E-01	4.136E-01	6.292E-02	0.571
	+	299.98		2.193E+00	1.436E+00	1.518E+00	2.139E-01	1.445
		304.50		1.579E+00	1.735E+00	2.593E+00	4.558E-01	0.609
		334.37		8.100E-01	2.290E+00	2.664E+00	4.357E-01	0.304
TH-229		85.43		9.013E-01	2.408E-01	3.846E-01	4.678E-02	2.344
	+	88.47		6.697E-01	1.812E-01	2.437E-01	3.004E-02	2.748
		193.51	*	-5.588E-03	5.312E-01	8.496E-01	9.244E-02	-0.007
	+	210.85		3.066E+00	1.320E+00	1.586E+00	1.742E-01	1.933
PA-231		283.69	*	8.365E-01	1.345E+00	2.282E+00	3.639E-01	0.367
	+	301.36		1.409E+00	9.208E-01	1.003E+00	1.362E-01	1.405
TH-231		81.07		3.481E-01	3.209E-01	3.542E-01	4.185E-02	0.983
		83.79		1.582E-01	1.610E-01	2.123E-01	2.552E-02	0.745
		94.87		1.861E+00	5.737E-01	8.502E-01	9.625E-02	2.189
		144.24		5.569E-01	7.079E-01	1.116E+00	1.233E-01	0.499
		154.21		2.094E-01	3.854E-01	6.301E-01	6.978E-02	0.332
	+	269.46		9.167E-01	3.033E-01	3.455E-01	3.812E-02	2.653
		323.87	*	2.385E-01	7.068E-01	1.034E+00	1.877E-01	0.231
	+	338.28		8.173E+00	1.791E+00	2.229E+00	2.895E-01	3.666
PA-233	+	300.13		9.925E-01	6.540E-01	6.890E-01	1.105E-01	1.440
		311.90	*	3.069E-02	6.178E-02	1.044E-01	1.104E-02	0.294
		340.48		3.816E+00	1.221E+00	1.315E+00	3.226E-01	2.900
PA-234		94.67		9.010E-01	2.325E-01	3.172E-01	4.577E-02	2.841
		98.44		1.884E-01	1.452E-01	1.525E-01	8.570E-02	1.235
		111.00		3.863E-03	1.769E-01	2.885E-01	3.829E-02	0.013
		131.20		1.101E-01	1.184E-01	1.731E-01	1.737E-02	0.636
		569.50		1.870E-01	2.517E-01	4.218E-01	3.613E-02	0.443
		733.00		9.122E-02	3.697E-01	5.421E-01	1.203E-01	0.168
		880.51		-3.231E-01	2.509E-01	3.756E-01	3.478E-02	-0.860
		883.24		2.517E-02	2.488E-01	4.129E-01	2.779E-01	0.061
		926.50		-3.244E-02	1.559E-01	2.530E-01	6.455E-02	-0.128
		946.00	*	1.295E-01	2.827E-01	4.767E-01	9.086E-02	0.272
		949.00		3.490E-01	4.185E-01	7.219E-01	6.667E-02	0.483
PA-234M		766.42		1.423E+01	1.407E+01	1.878E+01	9.531E+00	0.758
		1001.03	*	5.523E+00	4.457E+00	7.530E+00	7.809E-01	0.733

Sample ID : G248867004 Acquisition date : 24-MAR-2010 22:58:44

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	1.582E+00	1.881E+00	3.062E+00	6.072E-01	0.517
	+	92.59		3.284E+00	1.228E+00	1.314E+00	3.077E-01	2.500
U-238		63.29	*	1.582E+00	1.881E+00	3.062E+00	6.072E-01	0.517
	+	92.59		3.284E+00	1.031E+00	1.314E+00	1.527E-01	2.500
NP-239		99.53		2.467E-01	1.747E-01	2.735E-01	2.965E-02	0.902
		103.37		-5.215E-02	9.854E-02	1.583E-01	1.672E-02	-0.329
		106.12		7.304E-02	8.283E-02	1.378E-01	1.434E-02	0.530
		117.23	*	-7.199E-02	4.031E-01	6.526E-01	6.587E-02	-0.110
		228.18		-6.774E-02	2.046E-01	3.405E-01	3.756E-02	-0.199
		277.60		2.067E-01	1.872E-01	2.952E-01	3.196E-02	0.700
AM-241		59.54	*	-1.815E-01	2.325E-01	3.754E-01	4.406E-02	-0.484
CM-247		278.00		7.255E-01	7.711E-01	1.252E+00	1.355E-01	0.579
		287.50		-1.878E-01	1.266E+00	1.906E+00	2.044E-01	-0.099
		402.40	*	1.952E-02	3.893E-02	5.960E-02	5.040E-03	0.327
CF-249		252.80		-1.814E-01	8.704E-01	1.448E+00	1.592E-01	-0.125
		333.37		2.592E-01	2.670E-01	2.837E-01	2.827E-02	0.914
		388.16	*	5.485E-02	3.890E-02	6.720E-02	5.729E-03	0.816
CF-251		177.52	*	2.419E-04	1.340E-01	2.150E-01	2.313E-02	0.001
		227.38		-1.344E-01	3.344E-01	5.553E-01	6.126E-02	-0.242
		285.41		-1.750E+00	2.039E+00	3.282E+00	3.528E-01	-0.533

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867004       *
* Acquisition date : 24-MAR-2010 22:58:44 Detector SN#    :                 *
* Detector ID      : GAM15                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:02.60     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  5-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248867004           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.2104E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.567E+01	3.771E+00	5.141E-01	0.000E+00
CD-109	4.474E+00	1.186E+00	1.276E+00	0.000E+00
SN-126	4.344E-01	1.152E-01	1.249E-01	0.000E+00
TL-208	5.801E-01	9.320E-02	5.345E-02	0.000E+00
BI-211	4.541E+00	6.032E-01	3.307E-01	0.000E+00
PB-212	1.980E+00	2.563E-01	8.567E-02	0.000E+00
BI-214	1.385E+00	2.079E-01	1.032E-01	0.000E+00
PB-214	1.648E+00	2.363E-01	1.174E-01	0.000E+00
RA-224	4.578E+00	1.203E+00	9.179E-01	0.000E+00
RA-226	1.385E+00	2.079E-01	1.032E-01	0.000E+00
AC-228	2.029E+00	3.800E-01	2.151E-01	0.000E+00
RA-228	2.029E+00	3.800E-01	2.151E-01	0.000E+00
TH-228	1.980E+00	2.563E-01	8.567E-02	0.000E+00
TH-230	1.385E+00	1.952E-01	1.032E-01	0.000E+00
TH-232	2.029E+00	3.800E-01	2.151E-01	0.000E+00
U-235	8.971E-02	2.066E-01	3.382E-01	0.000E+00
NP-237	1.296E+00	4.348E-01	3.797E-01	0.000E+00
ANH-511	1.353E-01	6.570E-02	4.351E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	5.400E-02	3.080E-01	5.228E-01	0.000E+00	NOT IDENT.
NA-22	3.221E-02	3.953E-02	6.888E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.277E+07	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-1.804E-02	3.608E-02	5.905E-02	0.000E+00	FAIL ABUN
V-48	-7.142E-02	7.540E-02	1.179E-01	0.000E+00	NOT IDENT.
CR-51	1.432E-01	3.953E-01	6.890E-01	0.000E+00	NOT IDENT.
MN-54	1.867E-02	3.389E-02	5.925E-02	0.000E+00	NOT IDENT.
CO-56	1.254E-02	3.542E-02	6.140E-02	0.000E+00	NOT IDENT.
CO-57	1.169E-02	2.621E-02	4.388E-02	0.000E+00	NOT IDENT.

CO-58	-4.183E-02	3.799E-02	6.032E-02	0.000E+00	NOT IDENT.
FE-59	-3.551E-02	9.472E-02	1.541E-01	0.000E+00	NOT IDENT.
CO-60	-1.011E-02	3.605E-02	5.774E-02	0.000E+00	NOT IDENT.
ZN-65	-5.562E-02	1.010E-01	1.366E-01	0.000E+00	NOT IDENT.
SE-75	1.107E-02	4.835E-02	7.393E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.484E-02	7.659E-02	0.000E+00	NOT IDENT.
Y-88	-2.218E-02	2.492E-02	3.478E-02	0.000E+00	NOT IDENT.
Y-91	2.655E+00	2.305E+01	3.841E+01	0.000E+00	NOT IDENT.
NB-94	1.492E-02	3.209E-02	5.629E-02	0.000E+00	NOT IDENT.
NB-95	5.659E-02	4.537E-02	7.248E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.555E-01	2.455E-01	0.000E+00	NOT IDENT.
ZR-95	2.115E-02	6.466E-02	1.126E-01	0.000E+00	NOT IDENT.
MO-99	6.026E+00	3.186E+01	5.514E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	7.050E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.252E-02	3.905E-02	6.344E-02	0.000E+00	FAIL ABUN
RH-106	5.507E-02	2.779E-01	4.653E-01	0.000E+00	NOT IDENT.
RU-106	5.507E-02	2.779E-01	4.653E-01	0.000E+00	NOT IDENT.
AG-108M	-3.245E-03	2.701E-02	4.547E-02	0.000E+00	NOT IDENT.
AG-110M	-5.378E-02	3.101E-02	4.809E-02	0.000E+00	FAIL ABUN
SN-113	-5.027E-02	4.387E-02	7.083E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	3.830E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	6.846E-03	6.659E-02	1.126E-01	0.000E+00	NOT IDENT.
TE-123M	4.323E-03	2.812E-02	4.761E-02	0.000E+00	NOT IDENT.
SB-124	-1.731E-02	6.167E-02	9.908E-02	0.000E+00	NOT IDENT.
SB-125	-3.710E-02	8.079E-02	1.339E-01	0.000E+00	FAIL ABUN
TE-125M	-9.827E+00	9.888E+00	1.637E+01	0.000E+00	NOT IDENT.
I-126	1.912E-02	2.480E-01	4.293E-01	0.000E+00	NOT IDENT.
SB-126	1.461E-02	1.937E-01	2.883E-01	0.000E+00	NOT IDENT.
SB-127	-1.377E-01	2.476E+00	4.250E+00	0.000E+00	NOT IDENT.
I-131	9.683E-03	1.580E-01	2.708E-01	0.000E+00	NOT IDENT.
TE-132	-5.999E-01	1.750E+00	3.030E+00	0.000E+00	NOT IDENT.
BA-133	1.728E-03	4.441E-02	6.609E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.699E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.870E-02	8.056E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.756E-01	2.804E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.048E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.242E-01	1.276E-01	1.988E-01	0.000E+00	NOT IDENT.
BA-137M	1.019E-02	3.142E-02	5.506E-02	0.000E+00	NOT IDENT.
CS-137	1.076E-02	3.320E-02	5.817E-02	0.000E+00	NOT IDENT.
CE-139	-4.845E-04	3.071E-02	4.863E-02	0.000E+00	NOT IDENT.
BA-140	-1.069E-02	3.013E-01	5.025E-01	0.000E+00	NOT IDENT.
LA-140	7.265E-02	9.463E-02	1.578E-01	0.000E+00	FAIL ABUN
CE-141	1.139E-01	6.757E-02	1.178E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.508E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.719E-01	2.230E-01	3.254E-01	0.000E+00	NOT IDENT.
PM-144	4.816E-03	3.303E-02	5.719E-02	0.000E+00	NOT IDENT.
PR-144	3.626E-01	2.478E+00	4.290E+00	0.000E+00	NOT IDENT.
PM-146	2.503E-02	3.818E-02	6.628E-02	0.000E+00	NOT IDENT.
ND-147	2.105E-01	6.349E-01	1.080E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	3.371E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-1.021E-01	1.154E-01	1.525E-01	0.000E+00	FAIL ABUN
GD-153	5.608E-02	9.415E-02	1.448E-01	0.000E+00	NOT IDENT.
EU-154	1.070E-01	1.120E-01	1.963E-01	0.000E+00	NOT IDENT.
EU-155	1.649E-01	1.023E-01	1.805E-01	0.000E+00	FAIL ABUN
TB-160	-4.499E-02	1.219E-01	2.013E-01	0.000E+00	FAIL ABUN
HO-166M	-7.582E-03	5.314E-02	9.060E-02	0.000E+00	NOT IDENT.
TA-182	-5.596E-02	2.032E-01	3.305E-01	0.000E+00	FAIL ABUN
IR-192	-2.037E-03	3.457E-02	5.945E-02	0.000E+00	FAIL ABUN
HG-203	4.443E-03	3.934E-02	6.847E-02	0.000E+00	NOT IDENT.
BI-207	1.548E-02	5.045E-02	8.587E-02	0.000E+00	FAIL ABUN
PB-210	-8.921E+00	9.653E+00	1.599E+01	0.000E+00	NOT IDENT.
PB-211	-3.672E-01	7.804E-01	1.087E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.879E-01	1.033E+00	0.000E+00	FAIL ABUN
RN-219	2.012E-01	3.933E-01	6.448E-01	0.000E+00	FAIL ABUN
RA-223	2.385E-01	6.927E-01	1.051E+00	0.000E+00	FAIL ABUN
AC-227	2.363E-01	2.369E-01	4.217E-01	0.000E+00	FAIL ABUN
TH-227	2.363E-01	2.373E-01	4.217E-01	0.000E+00	FAIL ABUN
TH-229	-5.588E-03	5.206E-01	8.691E-01	0.000E+00	FAIL ABUN
PA-231	8.365E-01	1.319E+00	2.324E+00	0.000E+00	FAIL ABUN
TH-231	2.385E-01	6.927E-01	1.051E+00	0.000E+00	FAIL ABUN
PA-233	3.069E-02	6.054E-02	1.062E-01	0.000E+00	FAIL ABUN
PA-234	1.295E-01	2.770E-01	4.783E-01	0.000E+00	NOT IDENT.
PA-234M	5.523E+00	4.368E+00	7.550E+00	0.000E+00	NOT IDENT.
TH-234	1.582E+00	1.843E+00	3.174E+00	0.000E+00	FAIL ABUN
U-238	1.582E+00	1.843E+00	3.174E+00	0.000E+00	FAIL ABUN
NP-239	-7.199E-02	3.951E-01	6.716E-01	0.000E+00	NOT IDENT.
AM-241	-1.815E-01	2.279E-01	3.894E-01	0.000E+00	NOT IDENT.
CM-247	1.952E-02	3.815E-02	6.043E-02	0.000E+00	NOT IDENT.

CF-249	5.485E-02	3.813E-02	6.817E-02	0.000E+00 NOT IDENT.
CF-251	2.419E-04	1.313E-01	2.202E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 02:59:26.44

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867004.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 22:58:44
Sample ID         : G248867004           Sample quantity  : 1.21040E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:02.60  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	2369	10.66*	9.662E-01	3.567E+01	3.567E+01	10.79
CD-109	88.03	461	3.70*	4.452E+00	4.344E+00	4.474E+00	27.06
SN-126	64.28	------	9.60	1.941E+00	------ Line Not Found		------
	86.94	461	8.90	4.452E+00	1.806E+00	1.806E+00	48.66
	87.57	461	37.00*	4.452E+00	4.344E-01	4.344E-01	27.06
TL-208	277.37	------	6.60	3.705E+00	------ Line Not Found		------
	583.19	696	85.00*	2.190E+00	5.801E-01	5.801E-01	16.39
	860.56	104	12.50	1.574E+00	8.208E-01	8.208E-01	66.26
BI-211	72.87	------	1.23	3.001E+00	------ Line Not Found		------
	351.06	1188	12.92*	3.140E+00	4.541E+00	4.541E+00	13.55
PB-212	74.82	544	10.28	3.239E+00	2.533E+00	2.533E+00	27.84
	77.11	923	17.10	3.507E+00	2.388E+00	2.388E+00	17.75
	238.63	2290	43.60*	4.114E+00	1.980E+00	1.980E+00	13.21
	300.09	149	3.30	3.504E+00	1.994E+00	1.994E+00	65.07
BI-214	609.32	860	45.49*	2.117E+00	1.385E+00	1.385E+00	15.32
	1120.29	185	14.92	1.227E+00	1.567E+00	1.567E+00	30.25
	1764.49	162	15.30	8.554E-01	1.922E+00	1.922E+00	23.86
PB-214	74.82	544	5.80	3.239E+00	4.489E+00	4.489E+00	27.26
	77.11	923	9.70	3.507E+00	4.209E+00	4.209E+00	19.57
	242.00	494	7.25	4.079E+00	2.589E+00	2.589E+00	27.43
	295.22	740	18.42	3.547E+00	1.755E+00	1.755E+00	19.24
	351.93	1188	35.60*	3.140E+00	1.648E+00	1.648E+00	14.63
RA-224	240.99	494	4.10*	4.079E+00	4.578E+00	4.578E+00	26.81
RA-226	609.32	860	45.49*	2.117E+00	1.385E+00	1.385E+00	15.32
	1120.29	185	14.92	1.227E+00	1.567E+00	1.567E+00	30.25
	1764.49	162	15.30	8.554E-01	1.922E+00	1.922E+00	23.86
AC-228	338.32	483	11.27	3.227E+00	2.060E+00	2.060E+00	45.55
	911.20	505	25.80*	1.494E+00	2.029E+00	2.029E+00	19.11
	968.97	288	15.80	1.410E+00	2.007E+00	2.007E+00	30.75
RA-228	338.32	483	11.27	3.227E+00	2.060E+00	2.060E+00	45.55
	911.20	505	25.80*	1.494E+00	2.029E+00	2.029E+00	19.11
	968.97	288	15.80	1.410E+00	2.007E+00	2.007E+00	30.75

Sample ID : G248867004 Acquisition date : 24-MAR-2010 22:58:44

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	544	10.28	3.239E+00	2.533E+00	2.533E+00	26.11
	77.11	923	17.10	3.507E+00	2.388E+00	2.388E+00	17.75
	238.63	2290	43.60*	4.114E+00	1.980E+00	1.980E+00	13.21
	300.09	149	3.30	3.504E+00	1.994E+00	1.994E+00	88.71
TH-230	609.32	860	45.49*	2.117E+00	1.385E+00	1.385E+00	14.38
	1120.29	185	14.92	1.227E+00	1.567E+00	1.567E+00	29.50
	1764.49	162	15.30	8.554E-01	1.922E+00	1.922E+00	23.86
TH-232	338.32	483	11.27	3.227E+00	2.060E+00	2.060E+00	20.22
	911.20	505	25.80*	1.494E+00	2.029E+00	2.029E+00	19.11
	968.97	288	15.80	1.410E+00	2.007E+00	2.007E+00	30.75
U-235	89.96	308	3.47	4.637E+00	2.971E+00	2.971E+00	47.11
	93.35	434	5.60	4.845E+00	2.481E+00	2.481E+00	38.00
	143.76	------	10.96*	5.506E+00	------	Line Not Found	------
	163.33	------	5.08	5.224E+00	------	Line Not Found	------
	185.72	297	57.20	4.855E+00	1.660E-01	1.660E-01	40.98
	205.31	------	5.01	4.560E+00	------	Line Not Found	------
NP-237	86.48	461	12.40*	4.452E+00	1.296E+00	1.296E+00	34.23
	95.86	------	2.68	5.004E+00	------	Line Not Found	------
ANH-511	511.00	211	100.00*	2.419E+00	1.353E-01	1.353E-01	49.54

Flag: "*" = Keyline

Sample ID : G248867004 Acquisition date : 24-MAR-2010 22:58:44

Total number of lines in spectrum 36
Number of unidentified lines 7
Number of lines tentatively identified by NID 29 80.56%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.567E+01	3.567E+01	0.385E+01	10.79	
CD-109	461.40D	1.03	4.344E+00	4.474E+00	1.210E+00	27.06	
SN-126	2.30E+05Y	1.00	4.344E-01	4.344E-01	1.175E-01	27.06	
TL-208	1.41E+10Y	1.00	5.801E-01	5.801E-01	0.951E-01	16.39	
BI-211	7.04E+08Y	1.00	4.541E+00	4.541E+00	0.615E+00	13.55	
PB-212	1.41E+10Y	1.00	1.980E+00	1.980E+00	0.262E+00	13.21	
BI-214	1600.00Y	1.00	1.385E+00	1.385E+00	0.212E+00	15.32	
PB-214	1600.00Y	1.00	1.648E+00	1.648E+00	0.241E+00	14.63	
RA-224	1.41E+10Y	1.00	4.578E+00	4.578E+00	1.227E+00	26.81	
RA-226	1600.00Y	1.00	1.385E+00	1.385E+00	0.212E+00	15.32	
AC-228	1.41E+10Y	1.00	2.029E+00	2.029E+00	0.388E+00	19.11	
RA-228	1.41E+10Y	1.00	2.029E+00	2.029E+00	0.388E+00	19.11	
TH-228	1.41E+10Y	1.00	1.980E+00	1.980E+00	0.262E+00	13.21	
TH-230	7.54E+04Y	1.00	1.385E+00	1.385E+00	0.199E+00	14.38	
TH-232	1.41E+10Y	1.00	2.029E+00	2.029E+00	0.388E+00	19.11	
U-235	7.04E+08Y	1.00	1.660E-01	1.660E-01	0.680E-01	40.98	K
NP-237	2.14E+06Y	1.00	1.296E+00	1.296E+00	0.444E+00	34.23	
ANH-511	1.00E+09Y	1.00	1.353E-01	1.353E-01	0.670E-01	49.54	
			---	---			
	Total Activity :		6.759E+01	6.772E+01			

Grand Total Activity : 6.759E+01 6.772E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248867004 Acquisition date : 24-MAR-2010 22:58:44

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.57	149	708	1.22	258.05	254	9	1.03E-02	66.8	5.63E+00	
0	209.37	249	649	1.21	417.64	413	11	1.73E-02	41.6	4.50E+00	T
0	270.44	310	473	2.05	539.79	534	13	2.15E-02	31.2	3.77E+00	T
0	327.93	193	323	1.65	654.75	650	11	1.34E-02	38.8	3.30E+00	T
0	408.84	124	239	2.55	816.58	812	11	8.58E-03	51.5	2.83E+00	
0	462.74	96	205	1.38	924.38	920	10	6.68E-03	59.1	2.60E+00	T
0	727.27	117	179	1.71	1453.47	1446	13	8.14E-03	52.6	1.83E+00	T
0	768.21	68	122	1.21	1535.36	1531	10	4.71E-03	65.7	1.75E+00	
0	773.00	45	126	1.33	1544.96	1541	12	3.09E-03	****	1.74E+00	
0	795.45	97	85	1.73	1589.86	1585	10	6.76E-03	41.2	1.69E+00	T
1	964.46	92	114	2.08	1927.92	1918	27	6.40E-03	50.6	1.42E+00	T
0	1383.84	97	120	8.65	2766.89	2749	41	6.73E-03	79.3	1.01E+00	T
2	1591.83	39	29	2.74	3183.02	3168	27	2.70E-03	80.9	9.07E-01	
0	1629.99	46	6	1.45	3259.36	3255	11	3.16E-03	35.7	8.93E-01	
0	1729.28	29	28	1.62	3458.01	3449	16	2.01E-03	89.9	8.64E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 02:59:30.62

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867004.CNF;1   *
* Acquisition date : 24-MAR-2010 22:58:44  Detector SN#    :                 *
* Detector ID      : GAM15                 Sensitivity     : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000         *
* Elapsed live time: 0 04:00:00.00         Abundance limit : 75.00000        *
* Elapsed real time: 0 04:00:02.60         Half life ratio : 8.00000         *
*****************************************************************************
*                                                                            *
*                                SAMPLE DATA                                 *
*                                                                            *
* Sample date      : 5-MAR-2010 12:00:00.  Nuclide Library : SOLID            *
* Sample ID        : G248867004            Analyst initials: MXR1             *
* Batch Number     : 962633                Sample Quantity : 1.21040E+02 GRAM *
*****************************************************************************
*                                                                            *
*                                  QC DATA                                   *
*                                                                            *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                 *
* MSD ID           :                       MSD Isotope     :                 *
* LCS ID           : 1032-A                LCS Isotope     :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.567E+01	3.848E+00	5.152E-01	5.062E-02	69.231
CD-109	4.474E+00	1.210E+00	1.236E+00	1.534E-01	3.620
SN-126	4.344E-01	1.175E-01	1.209E-01	1.496E-02	3.593
TL-208	5.801E-01	9.510E-02	5.296E-02	4.844E-03	10.953
BI-211	4.541E+00	6.155E-01	3.256E-01	3.243E-02	13.945
PB-212	1.980E+00	2.616E-01	8.396E-02	1.003E-02	23.577
BI-214	1.385E+00	2.121E-01	1.023E-01	1.019E-02	13.543
PB-214	1.648E+00	2.412E-01	1.156E-01	1.314E-02	14.253
RA-224	4.578E+00	1.227E+00	8.997E-01	9.923E-02	5.089
RA-226	1.385E+00	2.121E-01	1.023E-01	1.019E-02	13.543
AC-228	2.029E+00	3.878E-01	2.143E-01	2.596E-02	9.470
RA-228	2.029E+00	3.878E-01	2.143E-01	2.596E-02	9.470
TH-228	1.980E+00	2.616E-01	8.396E-02	1.003E-02	23.577
TH-230	1.385E+00	1.992E-01	1.023E-01	8.642E-03	13.543
TH-232	2.029E+00	3.878E-01	2.143E-01	2.596E-02	9.470
U-235	1.660E-01	6.802E-02	3.294E-01	5.862E-02	0.504
NP-237	1.296E+00	4.437E-01	3.677E-01	8.931E-02	3.526
ANH-511	1.353E-01	6.705E-02	4.303E-02	3.718E-03	3.145

Sample ID : G248867004 Acquisition date : 24-MAR-2010 22:58:44

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	5.400E-02		3.142E-01	5.167E-01	4.802E-02	0.105
NA-22	3.221E-02		4.034E-02	6.891E-02	6.260E-03	0.467
NA-24	-1.326E+02		4.223E+01	Half-Life too short		
SC-46	-1.804E-02		3.681E-02	5.881E-02	5.465E-03	-0.307
V-48	-7.142E-02		7.694E-02	1.176E-01	1.075E-02	-0.607
CR-51	1.432E-01		4.033E-01	6.777E-01	7.192E-02	0.211
MN-54	1.867E-02		3.458E-02	5.896E-02	5.351E-03	0.317
CO-56	1.254E-02		3.615E-02	6.112E-02	5.577E-03	0.205
CO-57	1.169E-02		2.675E-02	4.267E-02	4.298E-03	0.274
CO-58	-4.183E-02		3.877E-02	6.001E-02	5.395E-03	-0.697
FE-59	-3.551E-02		9.665E-02	1.538E-01	1.435E-02	-0.231
CO-60	-1.011E-02		3.679E-02	5.780E-02	5.556E-03	-0.175
ZN-65	-5.562E-02		1.030E-01	1.364E-01	1.166E-02	-0.408
SE-75	1.107E-02		4.934E-02	7.254E-02	7.955E-03	0.153
SR-85	1.884E-01		4.576E-02	7.576E-02	6.546E-03	2.486
Y-88	-2.218E-02		2.543E-02	3.496E-02	2.944E-03	-0.635
Y-91	2.655E+00		2.352E+01	3.840E+01	3.237E+00	0.069
NB-94	1.492E-02		3.274E-02	5.590E-02	4.719E-03	0.267
NB-95	5.659E-02		4.630E-02	7.205E-02	6.313E-03	0.785
NB-95M	5.469E-01		1.587E-01	2.406E-01	2.899E-02	2.273
ZR-95	2.115E-02		6.598E-02	1.119E-01	1.075E-02	0.189
MO-99	6.026E+00		3.251E+01	5.479E+01	8.638E+00	0.110
TC-99M	-4.457E+15		3.597E+15	Half-Life too short		
RU-103	-2.252E-02		3.984E-02	6.273E-02	8.770E-03	-0.359
RH-106	5.507E-02		2.836E-01	4.613E-01	6.051E-02	0.119
RU-106	5.507E-02		2.836E-01	4.613E-01	3.877E-02	0.119
AG-108M	-3.245E-03		2.756E-02	4.489E-02	3.967E-03	-0.072
AG-110M	-5.378E-02		3.164E-02	4.771E-02	4.060E-03	-1.127
SN-113	-5.027E-02		4.477E-02	6.983E-02	6.065E-03	-0.720
CD-115	-2.389E-05		1.954E-05	Half-Life too short		
SN-117M	6.846E-03		6.794E-02	1.098E-01	1.151E-02	0.062
TE-123M	4.323E-03		2.870E-02	4.643E-02	4.893E-03	0.093
SB-124	-1.731E-02		6.293E-02	9.948E-02	9.369E-03	-0.174
SB-125	-3.710E-02		8.244E-02	1.321E-01	1.150E-02	-0.281
TE-125M	-9.827E+00		1.009E+01	1.590E+01	1.890E+00	-0.618
I-126	1.912E-02		2.530E-01	4.260E-01	3.513E-02	0.045
SB-126	1.461E-02		1.977E-01	2.863E-01	2.444E-02	0.051
SB-127	-1.377E-01		2.526E+00	4.219E+00	5.303E-01	-0.033
I-131	9.683E-03		1.612E-01	2.668E-01	2.584E-02	0.036
TE-132	-5.999E-01		1.786E+00	2.968E+00	5.381E-01	-0.202
BA-133	1.728E-03		4.532E-02	6.508E-02	8.794E-03	0.027
I-133	2.368E-02		8.668E-02	Half-Life too short		
CS-134	1.180E-01	+	4.969E-02	8.012E-02	7.182E-03	1.473
CS-135	3.367E-01		1.792E-01	2.752E-01	3.302E-02	1.223
I-135	-5.679E+14		2.066E+14	Half-Life too short		
CS-136	-1.242E-01		1.302E-01	1.984E-01	1.836E-02	-0.626
BA-137M	1.019E-02		3.207E-02	5.464E-02	4.492E-03	0.186
CS-137	1.076E-02		3.387E-02	5.772E-02	4.755E-03	0.186

Sample ID : G248867004 Acquisition date : 24-MAR-2010 22:58:44

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-139	-4.845E-04		3.134E-02	4.746E-02	5.066E-03	-0.010
BA-140	-1.069E-02		3.074E-01	4.973E-01	1.687E-01	-0.021
LA-140	7.265E-02		9.657E-02	1.584E-01	1.485E-02	0.459
CE-141	1.139E-01		6.895E-02	1.148E-01	1.187E-02	0.992
CE-143	8.611E-03		1.279E-03	Half-Life too short		
CE-144	1.719E-01		2.275E-01	3.167E-01	5.110E-02	0.543
PM-144	4.816E-03		3.371E-02	5.679E-02	4.779E-03	0.085
PR-144	3.626E-01		2.528E+00	4.260E+00	3.583E-01	0.085
PM-146	2.503E-02		3.896E-02	6.547E-02	6.923E-03	0.382
ND-147	2.105E-01		6.479E-01	1.069E+00	1.598E-01	0.197
PM-149	-3.101E-04		1.720E-04	Half-Life too short		
EU-152	-1.021E-01		1.177E-01	1.502E-01	1.528E-02	-0.680
GD-153	5.608E-02		9.607E-02	1.404E-01	1.549E-02	0.399
EU-154	1.070E-01		1.143E-01	1.964E-01	2.304E-02	0.545
EU-155	1.649E-01		1.043E-01	1.752E-01	1.845E-02	0.942
TB-160	-4.499E-02		1.244E-01	2.004E-01	1.855E-02	-0.224
HO-166M	-7.582E-03		5.423E-02	8.998E-02	7.639E-03	-0.084
TA-182	-5.596E-02		2.073E-01	3.305E-01	2.837E-02	-0.169
IR-192	-2.037E-03		3.527E-02	5.846E-02	6.028E-03	-0.035
HG-203	4.443E-03		4.014E-02	6.724E-02	7.388E-03	0.066
BI-207	1.548E-02		5.148E-02	8.571E-02	7.562E-03	0.181
PB-210	-8.921E+00		9.850E+00	1.537E+01	1.892E+00	-0.580
PB-211	-3.672E-01		7.963E-01	1.072E+00	5.183E-01	-0.343
BI-212	1.488E+00	+	8.039E-01	1.026E+00	1.275E-01	1.450
RN-219	2.012E-01		4.013E-01	6.360E-01	9.398E-02	0.316
RA-223	2.385E-01		7.068E-01	1.034E+00	1.877E-01	0.231
AC-227	2.363E-01		2.417E-01	4.136E-01	5.724E-02	0.571
TH-227	2.363E-01		2.422E-01	4.136E-01	6.292E-02	0.571
TH-229	-5.588E-03		5.312E-01	8.496E-01	9.244E-02	-0.007
PA-231	8.365E-01		1.345E+00	2.282E+00	3.639E-01	0.367
TH-231	2.385E-01		7.068E-01	1.034E+00	1.877E-01	0.231
PA-233	3.069E-02		6.178E-02	1.044E-01	1.104E-02	0.294
PA-234	1.295E-01		2.827E-01	4.767E-01	9.086E-02	0.272
PA-234M	5.523E+00		4.457E+00	7.530E+00	7.809E-01	0.733
TH-234	1.582E+00		1.881E+00	3.062E+00	6.072E-01	0.517
U-238	1.582E+00		1.881E+00	3.062E+00	6.072E-01	0.517
NP-239	-7.199E-02		4.031E-01	6.526E-01	6.587E-02	-0.110
AM-241	-1.815E-01		2.325E-01	3.754E-01	4.406E-02	-0.484
CM-247	1.952E-02		3.893E-02	5.960E-02	5.040E-03	0.327
CF-249	5.485E-02		3.890E-02	6.720E-02	5.729E-03	0.816
CF-251	2.419E-04		1.340E-01	2.150E-01	2.313E-02	0.001

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248867004           *
* Acquisition date  : 24-MAR-2010 22:58:44 Detector SN#    :                *
* Detector ID       : GAM15                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 04:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 04:00:02.60      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  5-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248867004           Analyst initials: MXR1           *
* Batch Number      : 962633               Sample Quantity : 1.2104E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.567E+01	3.771E+00	2.572E-01	1.924E+00
CD-109	4.474E+00	1.186E+00	6.383E-01	6.052E-01
SN-126	4.344E-01	1.152E-01	6.246E-02	5.877E-02
TL-208	5.801E-01	9.320E-02	2.674E-02	4.755E-02
BI-211	4.541E+00	6.032E-01	1.655E-01	3.077E-01
PB-212	1.980E+00	2.563E-01	4.286E-02	1.308E-01
BI-214	1.385E+00	2.079E-01	5.161E-02	1.061E-01
PB-214	1.648E+00	2.363E-01	5.875E-02	1.206E-01
RA-224	4.578E+00	1.203E+00	4.592E-01	6.137E-01
RA-226	1.385E+00	2.079E-01	5.161E-02	1.061E-01
AC-228	2.029E+00	3.800E-01	1.076E-01	1.939E-01
RA-228	2.029E+00	3.800E-01	1.076E-01	1.939E-01
TH-228	1.980E+00	2.563E-01	4.286E-02	1.308E-01
TH-230	1.385E+00	1.952E-01	5.161E-02	9.958E-02
TH-232	2.029E+00	3.800E-01	1.076E-01	1.939E-01
U-235	8.971E-02	2.066E-01	1.692E-01	1.054E-01
NP-237	1.296E+00	4.348E-01	1.900E-01	2.219E-01
ANH-511	1.353E-01	6.570E-02	2.177E-02	3.352E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	5.400E-02	3.080E-01	2.615E-01	1.571E-01	NOT IDENT.
NA-22	3.221E-02	3.953E-02	3.446E-02	2.017E-02	NOT IDENT.
NA-24	-1.326E+08	8.277E+07	0.000E+00	4.223E+07	SHORT HLIF
SC-46	-1.804E-02	3.608E-02	2.954E-02	1.841E-02	FAIL ABUN
V-48	-7.142E-02	7.540E-02	5.900E-02	3.847E-02	NOT IDENT.
CR-51	1.432E-01	3.953E-01	3.447E-01	2.017E-01	NOT IDENT.
MN-54	1.867E-02	3.389E-02	2.964E-02	1.729E-02	NOT IDENT.
CO-56	1.254E-02	3.542E-02	3.072E-02	1.807E-02	NOT IDENT.
CO-57	1.169E-02	2.621E-02	2.196E-02	1.337E-02	NOT IDENT.

CO-58	-4.183E-02	3.799E-02	3.018E-02	1.938E-02	NOT IDENT.
FE-59	-3.551E-02	9.472E-02	7.707E-02	4.833E-02	NOT IDENT.
CO-60	-1.011E-02	3.605E-02	2.889E-02	1.839E-02	NOT IDENT.
ZN-65	-5.562E-02	1.010E-01	6.835E-02	5.152E-02	NOT IDENT.
SE-75	1.107E-02	4.835E-02	3.699E-02	2.467E-02	NOT IDENT.
SR-85	1.884E-01	4.484E-02	3.832E-02	2.288E-02	NOT IDENT.
Y-88	-2.218E-02	2.492E-02	1.740E-02	1.272E-02	NOT IDENT.
Y-91	2.655E+00	2.305E+01	1.922E+01	1.176E+01	NOT IDENT.
NB-94	1.492E-02	3.209E-02	2.816E-02	1.637E-02	NOT IDENT.
NB-95	5.659E-02	4.537E-02	3.626E-02	2.315E-02	NOT IDENT.
NB-95M	5.469E-01	1.555E-01	1.228E-01	7.934E-02	NOT IDENT.
ZR-95	2.115E-02	6.466E-02	5.632E-02	3.299E-02	NOT IDENT.
MO-99	6.026E+00	3.186E+01	2.759E+01	1.626E+01	NOT IDENT.
TC-99M	-4.457E+21	7.050E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.252E-02	3.905E-02	3.174E-02	1.992E-02	FAIL ABUN
RH-106	5.507E-02	2.779E-01	2.328E-01	1.418E-01	NOT IDENT.
RU-106	5.507E-02	2.779E-01	2.328E-01	1.418E-01	NOT IDENT.
AG-108M	-3.245E-03	2.701E-02	2.275E-02	1.378E-02	NOT IDENT.
AG-110M	-5.378E-02	3.101E-02	2.406E-02	1.582E-02	FAIL ABUN
SN-113	-5.027E-02	4.387E-02	3.544E-02	2.238E-02	NOT IDENT.
CD-115	-2.389E+01	3.830E+01	0.000E+00	1.954E+01	SHORT HLIF
SN-117M	6.846E-03	6.659E-02	5.632E-02	3.397E-02	NOT IDENT.
TE-123M	4.323E-03	2.812E-02	2.382E-02	1.435E-02	NOT IDENT.
SB-124	-1.731E-02	6.167E-02	4.957E-02	3.147E-02	NOT IDENT.
SB-125	-3.710E-02	8.079E-02	6.697E-02	4.122E-02	FAIL ABUN
TE-125M	-9.827E+00	9.888E+00	8.190E+00	5.045E+00	NOT IDENT.
I-126	1.912E-02	2.480E-01	2.148E-01	1.265E-01	NOT IDENT.
SB-126	1.461E-02	1.937E-01	1.442E-01	9.884E-02	NOT IDENT.
SB-127	-1.377E-01	2.476E+00	2.126E+00	1.263E+00	NOT IDENT.
I-131	9.683E-03	1.580E-01	1.355E-01	8.061E-02	NOT IDENT.
TE-132	-5.999E-01	1.750E+00	1.516E+00	8.930E-01	NOT IDENT.
BA-133	1.728E-03	4.441E-02	3.306E-02	2.266E-02	NOT IDENT.
I-133	2.368E+04	1.699E+05	0.000E+00	8.668E+04	SHORT HLIF
CS-134	1.180E-01	4.870E-02	4.030E-02	2.485E-02	FAIL ABUN
CS-135	3.367E-01	1.756E-01	1.403E-01	8.958E-02	NOT IDENT.
I-135	-5.679E+20	4.048E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.242E-01	1.276E-01	9.945E-02	6.508E-02	NOT IDENT.
BA-137M	1.019E-02	3.142E-02	2.755E-02	1.603E-02	NOT IDENT.
CS-137	1.076E-02	3.320E-02	2.910E-02	1.694E-02	NOT IDENT.
CE-139	-4.845E-04	3.071E-02	2.433E-02	1.567E-02	NOT IDENT.
BA-140	-1.069E-02	3.013E-01	2.514E-01	1.537E-01	NOT IDENT.
LA-140	7.265E-02	9.463E-02	7.897E-02	4.828E-02	FAIL ABUN
CE-141	1.139E-01	6.757E-02	5.896E-02	3.447E-02	NOT IDENT.
CE-143	8.611E+03	2.508E+03	0.000E+00	1.279E+03	SHORT HLIF
CE-144	1.719E-01	2.230E-01	1.628E-01	1.138E-01	NOT IDENT.
PM-144	4.816E-03	3.303E-02	2.861E-02	1.685E-02	NOT IDENT.
PR-144	3.626E-01	2.478E+00	2.146E+00	1.264E+00	NOT IDENT.
PM-146	2.503E-02	3.818E-02	3.316E-02	1.948E-02	NOT IDENT.
ND-147	2.105E-01	6.349E-01	5.402E-01	3.239E-01	FAIL ABUN
PM-149	-3.101E+02	3.371E+02	0.000E+00	1.720E+02	SHORT HLIF
EU-152	-1.021E-01	1.154E-01	7.632E-02	5.886E-02	FAIL ABUN
GD-153	5.608E-02	9.415E-02	7.244E-02	4.804E-02	NOT IDENT.
EU-154	1.070E-01	1.120E-01	9.823E-02	5.713E-02	NOT IDENT.
EU-155	1.649E-01	1.023E-01	9.029E-02	5.217E-02	FAIL ABUN
TB-160	-4.499E-02	1.219E-01	1.007E-01	6.220E-02	FAIL ABUN
HO-166M	-7.582E-03	5.314E-02	4.533E-02	2.711E-02	NOT IDENT.
TA-182	-5.596E-02	2.032E-01	1.654E-01	1.037E-01	FAIL ABUN
IR-192	-2.037E-03	3.457E-02	2.974E-02	1.764E-02	FAIL ABUN
HG-203	4.443E-03	3.934E-02	3.426E-02	2.007E-02	NOT IDENT.
BI-207	1.548E-02	5.045E-02	4.296E-02	2.574E-02	FAIL ABUN
PB-210	-8.921E+00	9.653E+00	8.000E+00	4.925E+00	NOT IDENT.
PB-211	-3.672E-01	7.804E-01	5.436E-01	3.982E-01	NOT IDENT.
BI-212	1.488E+00	7.879E-01	5.166E-01	4.020E-01	FAIL ABUN
RN-219	2.012E-01	3.933E-01	3.226E-01	2.006E-01	FAIL ABUN
RA-223	2.385E-01	6.927E-01	5.260E-01	3.534E-01	FAIL ABUN
AC-227	2.363E-01	2.369E-01	2.110E-01	1.208E-01	FAIL ABUN
TH-227	2.363E-01	2.373E-01	2.110E-01	1.211E-01	FAIL ABUN
TH-229	-5.588E-03	5.206E-01	4.348E-01	2.656E-01	FAIL ABUN
PA-231	8.365E-01	1.319E+00	1.162E+00	6.727E-01	FAIL ABUN
TH-231	2.385E-01	6.927E-01	5.260E-01	3.534E-01	FAIL ABUN
PA-233	3.069E-02	6.054E-02	5.311E-02	3.089E-02	FAIL ABUN
PA-234	1.295E-01	2.770E-01	2.393E-01	1.413E-01	NOT IDENT.
PA-234M	5.523E+00	4.368E+00	3.777E+00	2.229E+00	NOT IDENT.
TH-234	1.582E+00	1.843E+00	1.588E+00	9.403E-01	FAIL ABUN
U-238	1.582E+00	1.843E+00	1.588E+00	9.403E-01	FAIL ABUN
NP-239	-7.199E-02	3.951E-01	3.360E-01	2.016E-01	NOT IDENT.
AM-241	-1.815E-01	2.279E-01	1.948E-01	1.163E-01	NOT IDENT.
CM-247	1.952E-02	3.815E-02	3.023E-02	1.946E-02	NOT IDENT.

CF-249	5.485E-02	3.813E-02	3.410E-02	1.945E-02	NOT IDENT.
CF-251	2.419E-04	1.313E-01	1.101E-01	6.698E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	620.2076
49.72	603.5076
57.36	0.0000
59.54	714.0458
63.29	673.0914
63.29	673.0914
64.28	705.3647
67.75	878.9365
69.67	738.1512
70.83	805.6718
72.81	828.4238
72.87	828.4893
72.87	828.4893
74.82	879.4769
74.82	879.4769
74.82	879.4769
74.97	879.6527
77.11	882.1132
77.11	882.1132
77.11	882.1132
79.69	691.2477
79.80	771.2697
80.12	771.5818
80.19	771.6495
80.57	692.0185
81.00	692.3933
81.07	692.4540
81.07	692.4540
83.79	795.2086
83.79	795.2086
85.43	765.6187
86.48	766.5941
86.55	766.6608
86.79	766.8785
86.94	767.0208
87.57	767.6014
88.03	768.0252
88.47	768.4287
89.96	769.7874
91.11	770.8295
92.59	772.1591
92.59	772.1591
93.35	772.8384
94.67	712.7845
94.87	765.0352
94.87	765.0352
95.86	808.2675
97.43	685.6351
98.44	601.4276
99.53	640.8832
100.11	657.2780
103.18	810.1378
103.37	713.7679
105.31	630.8724
106.12	672.6204
109.28	739.9838
111.00	678.1548
111.76	714.9553
116.30	686.0067
117.23	726.2446
121.12	733.2390
121.78	686.6149
122.06	685.7581
123.07	718.9204
131.20	675.9424
133.52	601.1946
136.00	683.1937

136.47	707.8987
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140.51	0.0000
143.76	677.2963
144.24	662.6193
144.24	662.6193
145.44	645.1316
152.43	668.4212
153.25	668.8855
154.21	672.6643
154.21	672.6643
156.02	653.1796
158.56	655.6508
159.00	641.8165
162.66	601.4192
163.33	629.9898
165.86	608.4251
176.60	641.0669
177.52	663.4913
181.07	666.1880
184.41	646.6789
185.72	625.6522
193.51	607.0392
197.04	580.7350
205.31	538.2056
210.85	550.7987
215.65	539.4988
222.11	529.9344
227.38	521.7783
228.16	519.3144
228.18	519.3214
235.69	479.1419
235.96	479.2250
235.96	479.2250
238.63	436.6277
238.63	436.6277
240.99	437.2843
242.00	437.5661
244.70	380.6077
252.40	389.5303
252.80	405.3585
256.23	398.7932
256.23	398.7932
260.90	0.0000
264.66	396.1652
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269.46	405.0862
269.46	405.0862
271.23	408.0049
273.65	531.0356
276.40	333.2112
277.37	381.0258
277.60	407.9168
278.00	418.0729
279.20	433.4086
279.54	425.9704
280.46	435.6054
283.69	351.5771
284.31	375.2773
285.41	395.3239
285.90	0.0000
287.50	373.7983
293.27	0.0000
295.22	355.7648
295.96	294.2200
298.57	294.6476
299.98	294.8746
299.98	294.8746
300.09	294.8936
300.09	294.8936
300.13	294.9011
301.36	356.9733
302.85	373.1447
304.50	324.2119
304.50	324.2119
304.85	324.2742
308.46	350.8473
311.90	336.0422

316.51	358.9432
319.41	368.1466
320.08	348.0803
323.87	342.0298
323.87	342.0298
328.76	360.6094
333.37	271.0996
334.37	316.4464
334.37	316.4464
338.28	347.4899
338.28	347.4899
338.32	347.4986
338.32	347.4986
338.32	347.4986
340.48	323.9095
340.55	323.9197
344.28	366.0676
351.06	337.0236
351.93	321.5300
356.01	300.3065
364.49	290.0773
366.42	271.6471
383.85	327.4863
388.16	257.5425
388.63	259.5854
391.69	320.7068
400.66	258.0189
401.81	253.8987
402.40	264.5115
404.85	282.2202
410.95	256.1984
414.70	248.2384
423.72	230.3629
427.09	243.8536
427.87	237.8629
433.94	239.5002
453.88	210.8231
463.37	238.0211
468.07	204.1633
473.00	226.9207
476.78	201.4413
477.60	209.7724
487.02	213.6747
492.35	0.0000
497.08	214.5196
511.00	208.3488
514.00	160.7202
527.90	0.0000
529.87	0.0000
531.02	164.5693
537.26	185.0403
546.56	0.0000
563.25	182.5266
569.33	173.2957
569.50	176.5170
569.70	177.5989
583.19	187.0415
600.60	202.3848
602.73	171.3525
604.72	169.6636
609.32	186.5587
609.32	186.5587
609.32	186.5587
610.33	186.6259
614.28	172.0251
618.01	178.7169
621.93	155.7639
621.93	155.7639
633.25	153.0703
635.95	202.4476
636.99	160.9212
645.85	178.9538
657.76	200.2148
661.66	170.1178
661.66	170.1178
664.57	0.0000
666.33	177.7373
666.50	177.7491

677.62	169.1313
685.70	152.8815
695.00	171.9056
696.49	199.8741
696.51	199.8741
697.00	206.4132
702.65	194.6619
706.68	203.2972
711.68	163.4430
720.70	170.1797
721.93	0.0000
722.78	159.0381
722.91	159.0450
723.31	157.4590
724.19	170.3571
727.33	159.2556
733.00	135.3545
735.93	151.4649
739.50	138.4406
747.24	129.3155
752.31	138.0156
753.82	136.1836
756.73	135.3542
763.94	133.3329
765.81	148.0464
766.42	161.0891
777.92	156.7199
778.90	166.5611
783.70	129.7246
785.37	123.1053
795.86	108.1560
801.95	192.7109
810.29	168.1712
810.76	166.2704
815.77	122.2277
818.51	127.1365
832.01	149.8378
834.85	142.2119
836.80	0.0000
846.77	118.4059
856.80	98.4266
860.56	108.1252
871.09	123.0776
873.19	110.4389
875.33	0.0000
879.36	113.5550
880.51	136.1098
883.24	108.7688
884.68	97.0463
889.28	127.5879
898.04	120.0044
911.20	131.2655
911.20	131.2655
911.20	131.2655
926.50	114.9286
937.49	136.1081
944.13	131.3555
946.00	116.4811
949.00	111.5876
962.29	132.9405
964.08	133.0000
966.15	133.0649
968.97	133.1569
968.97	133.1569
968.97	133.1569
983.53	121.5687
996.26	136.0464
1001.03	87.7735
1004.73	128.2402
1037.84	116.0039
1038.76	0.0000
1048.07	135.6572
1050.41	108.1781
1050.41	108.1781
1063.66	120.7848
1085.87	114.1887
1099.45	135.1684
1112.07	108.9893

1115.54	145.5592
1120.29	119.2021
1120.29	119.2021
1120.29	119.2021
1120.55	113.7321
1121.30	103.0859
1131.51	0.0000
1173.23	127.8975
1177.93	138.5205
1189.05	117.8060
1204.77	154.0676
1221.41	164.1262
1231.02	155.9602
1235.36	176.2737
1238.28	129.6250
1260.41	0.0000
1271.85	104.8268
1274.44	80.2643
1274.54	82.4078
1291.59	88.0526
1298.22	0.0000
1312.11	77.6250
1332.49	75.7650
1365.19	46.6745
1368.63	0.0000
1384.29	51.5241
1408.01	63.9824
1457.56	0.0000
1460.82	54.1472
1489.16	43.9176
1505.03	45.9542
1596.21	22.1216
1620.50	29.2885
1678.03	0.0000
1690.97	24.6870
1764.49	29.7189
1764.49	29.7189
1764.49	29.7189
1770.23	22.7460
1771.35	29.7500
1791.20	0.0000
1836.06	23.2270

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248867004

Total Uranium Activity	4.7481E+00	ug/g
Total Uranium Counting Unc.	5.4837E+00	ug/g
Total Uranium Tpu	2.7978E-06	ug/g
Total Uranium Mda	4.7247E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                               GROSS GAMMA REPORT                          *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248867004       *
*   ANALYST       : MXR1                      DETECTOR   : GAM15            *
*   SAMPLE DATE   :  5-MAR-2010 12:00:00.00   COUNT TIME :    0 04:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 22:58:44.94    SAMPLE ALQT:  121.040 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.116E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.430E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 3.744E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.834E+00
```

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:01:37.14

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 24-MAR-2010 22:59:45
Sample ID         : G1202065188          Sample quantity  : 1.43700E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:01:22.05  0.6%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
No peaks were found
```

VMS Nuclide Identification Report V3.1 Generated 25-MAR-2010 03:01:40

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 9-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 22:59:45
Sample ID : G1202065188 Sample quantity : 143.70 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAM29 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:01:22.05 0.6%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	4.447E-02	1.381E-01	2.297E-01	2.236E-02	0.194
NA-22		1274.54	*	-2.092E-06	1.491E-02	2.494E-02	2.490E-03	0.000
NA-24		1368.63	*	-2.708E-01	1.491E-02	Half-Life too short		
K-40		1460.82	*	-4.044E-02	2.100E-01	3.411E-01	3.710E-02	-0.119
SC-46		889.28	*	-9.628E-03	1.646E-02	2.541E-02	3.318E-03	-0.379
		1120.55		-2.244E-02	2.531E-02	3.084E-02	2.945E-03	-0.728
V-48		944.13		-3.854E-02	3.468E-01	5.617E-01	7.133E-02	-0.069
		983.53	*	-4.179E-03	2.624E-02	4.210E-02	5.107E-03	-0.099
		1312.11		1.339E-02	2.882E-02	5.094E-02	5.408E-03	0.263
CR-51		320.08	*	-6.487E-02	1.533E-01	2.469E-01	2.374E-02	-0.263
MN-54		834.85	*	1.374E-02	1.323E-02	2.392E-02	2.819E-03	0.575
CO-56		846.77	*	-9.102E-03	1.753E-02	2.752E-02	3.318E-03	-0.331
		1037.84		5.229E-02	1.030E-01	1.787E-01	2.067E-02	0.293
		1238.28		-3.877E-02	3.075E-02	3.890E-02	3.733E-03	-0.997
		1771.35		-2.633E-02	1.281E-01	2.036E-01	1.838E-02	-0.129
CO-57		122.06	*	-6.051E-03	1.005E-02	1.576E-02	1.424E-03	-0.384
		136.47		-1.839E-02	8.128E-02	1.297E-01	1.205E-02	-0.142
CO-58		810.76	*	-1.067E-02	1.443E-02	2.188E-02	2.464E-03	-0.487
FE-59		1099.45	*	1.909E-02	3.252E-02	5.651E-02	6.000E-03	0.338
		1291.59		-1.749E-02	4.688E-02	7.482E-02	8.424E-03	-0.234
CO-60		1173.23		-1.427E-04	1.349E-02	2.179E-02	1.812E-03	-0.007
		1332.49	*	1.748E-02	1.523E-02	2.865E-02	3.143E-03	0.610
ZN-65		1115.54	*	-1.286E-03	3.514E-02	5.682E-02	5.495E-03	-0.023
SE-75		121.12		-2.678E-02	5.350E-02	8.443E-02	9.617E-03	-0.317
		136.00		-1.021E-03	1.558E-02	2.509E-02	2.190E-03	-0.041
		264.66	*	1.106E-02	1.802E-02	3.101E-02	2.812E-03	0.357
		279.54		-1.256E-02	4.264E-02	6.974E-02	6.563E-03	-0.180
		400.66		-5.993E-02	1.032E-01	1.618E-01	1.845E-02	-0.370
SR-85		514.00	*	-4.163E-02	2.674E-02	3.976E-02	3.597E-03	-1.047
Y-88		898.04		-7.746E-03	1.593E-02	2.475E-02	3.291E-03	-0.313
		1836.06	*	-1.055E-02	1.601E-02	2.288E-02	1.956E-03	-0.461
Y-91		1204.77	*	-8.383E-01	7.269E+00	1.157E+01	1.020E+00	-0.072
NB-94		702.65	*	4.069E-03	1.379E-02	2.351E-02	2.112E-03	0.173
		871.09		7.689E-03	1.364E-02	2.367E-02	2.988E-03	0.325

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	1.099E-02	1.639E-02	2.868E-02	2.945E-03	0.383
NB-95M		235.69	*	-7.634E-02	5.271E-02	8.150E-02	8.207E-03	-0.937
ZR-95		724.19		1.091E-02	3.168E-02	5.442E-02	5.486E-03	0.200
		756.73	*	-1.520E-03	2.738E-02	4.524E-02	4.914E-03	-0.034
MO-99		140.51		-2.238E+00	1.084E+01	1.729E+01	4.101E+00	-0.130
		181.07		-1.850E+01	1.049E+01	1.437E+01	2.679E+00	-1.287
		366.42		-1.187E+01	5.328E+01	8.642E+01	7.877E+00	-0.137
		739.50	*	2.823E+00	5.625E+00	9.765E+00	1.600E+00	0.289
		777.92		-1.979E+00	1.812E+01	2.976E+01	3.133E+00	-0.067
TC-99M		140.51	*	-3.517E+10	1.812E+01	Half-Life too short		
RU-103		497.08	*	-6.258E-03	1.733E-02	2.728E-02	3.889E-03	-0.229
		610.33		-2.000E-01	3.860E-01	5.527E-01	9.030E-02	-0.362
RH-106		621.93	*	-6.571E-02	1.318E-01	2.122E-01	2.799E-02	-0.310
		1050.41		7.229E-01	9.649E-01	1.699E+00	1.867E-01	0.425
RU-106		621.93	*	-6.571E-02	1.316E-01	2.122E-01	1.809E-02	-0.310
		1050.41		7.229E-01	9.649E-01	1.699E+00	1.867E-01	0.425
AG-108M		433.94	*	2.998E-03	1.134E-02	1.889E-02	1.768E-03	0.159
		614.28		-1.604E-02	1.466E-02	2.248E-02	1.992E-03	-0.713
		722.91		-2.911E-03	1.513E-02	2.196E-02	2.117E-03	-0.133
CD-109		88.03	*	-6.119E-01	3.382E-01	4.429E-01	4.182E-02	-1.382
AG-110M		657.76	*	7.019E-03	1.350E-02	2.353E-02	2.001E-03	0.298
		677.62		2.770E-02	1.198E-01	2.041E-01	1.786E-02	0.136
		706.68		1.980E-02	8.634E-02	1.466E-01	1.363E-02	0.135
		763.94		1.426E-02	6.264E-02	1.060E-01	1.106E-02	0.135
		884.68		-1.074E-03	1.922E-02	3.145E-02	4.130E-03	-0.034
		937.49		2.161E-02	4.072E-02	7.052E-02	9.167E-03	0.306
		1384.29		5.108E-04	5.818E-02	9.697E-02	1.073E-02	0.005
		1505.03		-1.309E-01	1.203E-01	1.653E-01	1.739E-02	-0.792
SN-113		391.69	*	-3.263E-03	1.857E-02	3.010E-02	2.784E-03	-0.108
CD-115		260.90		-6.292E+01	7.404E+01	1.174E+02	1.058E+01	-0.536
		492.35		-3.511E+00	2.582E+01	3.634E+01	3.303E+00	-0.097
		527.90	*	2.372E+00	5.830E+00	9.759E+00	8.791E-01	0.243
SN-117M		156.02		-7.593E-01	8.825E-01	1.346E+00	1.118E-01	-0.564
		158.56	*	5.880E-03	2.178E-02	3.551E-02	2.935E-03	0.166
TE-123M		159.00	*	-1.452E-03	1.121E-02	1.789E-02	1.487E-03	-0.081
SB-124		602.73		7.734E-03	1.828E-02	3.025E-02	2.619E-03	0.256
		645.85		2.878E-02	1.943E-01	3.293E-01	2.914E-02	0.087
		722.78		-5.106E-02	1.549E-01	2.220E-01	2.124E-02	-0.230
		1690.97	*	9.078E-03	3.550E-02	6.077E-02	6.017E-03	0.149
SB-125		427.87	*	-8.882E-03	3.634E-02	5.827E-02	5.382E-03	-0.152
		463.37		-2.803E-02	1.050E-01	1.672E-01	1.626E-02	-0.168
		600.60		-3.584E-03	8.472E-02	1.356E-01	1.262E-02	-0.026
		635.95		-1.340E-01	1.081E-01	1.607E-01	1.467E-02	-0.834
TE-125M		109.28	*	-3.711E+00	3.800E+00	5.844E+00	6.237E-01	-0.635
I-126		388.63		7.257E-03	6.887E-02	1.139E-01	1.026E-02	0.064
		666.33	*	9.224E-03	8.450E-02	1.426E-01	1.182E-02	0.065
		753.82		-5.061E-02	7.403E-01	1.222E+00	1.224E-01	-0.041
SB-126		414.70		7.638E-04	3.172E-02	5.199E-02	4.709E-03	0.015
		666.50		6.982E-03	2.874E-02	4.907E-02	4.066E-03	0.142

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		695.00		-9.048E-03	3.398E-02	5.548E-02	4.901E-03	-0.163
		697.00		1.287E-02	1.170E-01	1.968E-01	1.746E-02	0.065
		720.70	*	-3.690E-02	5.563E-02	8.663E-02	8.092E-03	-0.426
		856.80		-2.855E-01	2.012E-01	2.784E-01	3.422E-02	-1.025
SN-126		64.28		4.436E-02	2.181E-01	3.189E-01	4.730E-02	0.139
		86.94		-3.316E-02	1.340E-01	1.911E-01	7.933E-02	-0.174
		87.57	*	-2.509E-02	3.209E-02	4.471E-02	4.202E-03	-0.561
SB-127		252.40		6.393E-01	2.094E+00	3.526E+00	1.469E+00	0.181
		473.00		-9.163E-02	8.177E-01	1.318E+00	1.757E-01	-0.070
		685.70	*	-7.514E-02	6.235E-01	1.031E+00	1.201E-01	-0.073
		783.70		2.006E-01	1.572E+00	2.636E+00	3.707E-01	0.076
I-131		80.19		-8.559E-01	1.680E+00	2.690E+00	2.367E-01	-0.318
		284.31		4.831E-01	6.454E-01	1.115E+00	1.064E-01	0.433
		364.49	*	-4.238E-03	5.537E-02	9.071E-02	8.679E-03	-0.047
		636.99		-4.711E-01	6.570E-01	1.031E+00	9.196E-02	-0.457
TE-132		49.72		-1.949E+01	1.031E+01	1.260E+01	1.422E+00	-1.546
		111.76		1.849E+01	1.533E+01	2.614E+01	2.991E+00	0.708
		116.30		-1.374E+01	1.381E+01	2.114E+01	2.428E+00	-0.650
		228.16	*	9.357E-02	3.469E-01	5.891E-01	9.471E-02	0.159
BA-133		81.00		-2.372E-02	3.208E-02	5.047E-02	7.884E-03	-0.470
		276.40		5.120E-02	1.368E-01	2.322E-01	3.344E-02	0.220
		302.85		8.849E-03	5.884E-02	9.841E-02	1.322E-02	0.090
		356.01	*	-7.671E-03	1.894E-02	3.041E-02	4.048E-03	-0.252
		383.85		-5.162E-02	1.221E-01	1.945E-01	2.474E-02	-0.265
I-133		529.87	*	-3.748E-03	1.221E-01	Half-Life too short		
		875.33		4.458E-02	1.221E-01	Half-Life too short		
		1298.22		1.730E-01	1.221E-01	Half-Life too short		
CS-134		563.25		5.073E-02	1.616E-01	2.666E-01	2.387E-02	0.190
		569.33		-4.702E-02	8.633E-02	1.327E-01	1.189E-02	-0.354
		604.72		-9.258E-03	1.648E-02	2.535E-02	2.197E-03	-0.365
		795.86	*	-2.862E-03	1.573E-02	2.555E-02	2.802E-03	-0.112
		801.95		-2.592E-02	1.731E-01	2.644E-01	2.931E-02	-0.098
		1365.19		-2.353E-01	4.990E-01	7.770E-01	8.729E-02	-0.303
CS-135		268.22	*	3.162E-03	6.127E-02	1.024E-01	1.059E-02	0.031
I-135		546.56		-3.426E+10	6.127E-02	Half-Life too short		
		836.80		3.256E+10	6.127E-02	Half-Life too short		
		1038.76		2.043E+10	6.127E-02	Half-Life too short		
		1131.51		-4.012E+09	6.127E-02	Half-Life too short		
		1260.41	*	1.180E+09	6.127E-02	Half-Life too short		
		1457.56		3.098E+10	6.127E-02	Half-Life too short		
		1678.03		-3.355E+10	6.127E-02	Half-Life too short		
		1791.20		1.722E+10	6.127E-02	Half-Life too short		
CS-136		153.25		1.398E-01	3.258E-01	5.360E-01	5.383E-02	0.261
		176.60		-1.705E-01	2.144E-01	3.274E-01	3.006E-02	-0.521
		273.65		3.292E-02	2.108E-01	3.540E-01	3.459E-02	0.093
		340.55		-1.313E-02	7.603E-02	9.891E-02	9.386E-03	-0.133
		818.51		-1.633E-03	3.026E-02	4.978E-02	5.687E-03	-0.033
		1048.07	*	3.396E-02	4.212E-02	7.459E-02	8.443E-03	0.455
		1235.36		-5.172E-02	1.832E-01	2.843E-01	3.494E-02	-0.182

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-137M		661.66	*	-5.400E-03	1.360E-02	2.196E-02	1.800E-03	-0.246
CS-137		661.66	*	-5.705E-03	1.436E-02	2.320E-02	1.906E-03	-0.246
CE-139		165.86	*	-1.062E-02	1.281E-02	1.964E-02	1.601E-03	-0.541
BA-140		162.66		1.332E-01	3.854E-01	5.782E-01	5.092E-02	0.230
		304.85		-2.023E-01	6.075E-01	9.841E-01	2.897E-01	-0.206
		423.72		9.198E-01	8.754E-01	1.448E+00	4.781E-01	0.635
		537.26	*	-1.804E-02	1.085E-01	1.724E-01	5.863E-02	-0.105
LA-140		328.76		-3.500E-03	1.249E-01	2.062E-01	1.990E-02	-0.017
		487.02		2.896E-02	5.856E-02	9.872E-02	9.478E-03	0.293
		815.77		-2.301E-02	1.284E-01	2.085E-01	2.531E-02	-0.110
		1596.21	*	2.319E-02	3.615E-02	6.523E-02	6.600E-03	0.356
CE-141		145.44	*	1.356E-02	2.568E-02	4.242E-02	3.667E-03	0.320
CE-143		57.36		1.276E-04	2.568E-02	Half-Life too short		
		293.27	*	9.310E-05	2.568E-02	Half-Life too short		
		664.57		1.965E-04	2.568E-02	Half-Life too short		
		721.93		-4.701E-04	2.568E-02	Half-Life too short		
CE-144		80.12		-1.558E-01	8.297E-01	1.349E+00	1.178E-01	-0.115
		133.52	*	4.401E-03	7.606E-02	1.233E-01	1.892E-02	0.036
PM-144		476.78		-1.947E-02	2.841E-02	4.369E-02	4.287E-03	-0.446
		618.01		-7.797E-03	1.301E-02	2.078E-02	1.828E-03	-0.375
		696.49	*	3.863E-03	1.438E-02	2.448E-02	2.170E-03	0.158
PR-144		696.51	*	4.565E-01	1.064E+00	1.833E+00	1.624E-01	0.249
		1489.16		5.606E+00	5.670E+00	1.056E+01	1.118E+00	0.531
PM-146		453.88	*	-4.587E-03	1.846E-02	2.953E-02	3.246E-03	-0.155
		633.25		-1.391E-01	5.600E-01	9.153E-01	3.492E-01	-0.152
		735.93		-5.098E-02	5.548E-02	8.061E-02	2.286E-02	-0.632
		747.24		9.279E-03	4.014E-02	6.798E-02	1.044E-02	0.136
ND-147		91.11		3.569E-01	1.185E-01	2.059E-01	2.042E-02	1.733
		319.41		2.942E-01	1.429E+00	2.395E+00	2.202E-01	0.123
		531.02	*	-1.707E-01	2.360E-01	3.542E-01	5.373E-02	-0.482
PM-149		285.90	*	3.938E+00	4.987E+01	8.328E+01	1.318E+01	0.047
EU-152		121.78		-9.455E-03	2.857E-02	4.550E-02	4.667E-03	-0.208
		244.70		-8.345E-02	1.300E-01	2.100E-01	1.869E-02	-0.397
		344.28	*	-1.697E-02	4.054E-02	6.511E-02	6.286E-03	-0.261
		778.90		-1.716E-03	1.045E-01	1.730E-01	1.825E-02	-0.010
		964.08		-1.348E-01	1.119E-01	1.566E-01	1.945E-02	-0.860
		1085.87		6.445E-02	1.361E-01	2.341E-01	2.409E-02	0.275
		1112.07		-4.296E-03	1.138E-01	1.841E-01	1.792E-02	-0.023
		1408.01		1.994E-03	9.038E-02	1.133E-01	1.226E-02	0.018
GD-153		69.67		-1.960E-01	5.774E-01	9.352E-01	7.595E-02	-0.210
		97.43	*	-2.554E-02	3.668E-02	5.067E-02	4.551E-03	-0.504
		103.18		1.640E-02	4.095E-02	6.800E-02	6.033E-03	0.241
EU-154		123.07		2.092E-03	2.029E-02	3.305E-02	3.847E-03	0.063
		723.31		2.702E-03	6.807E-02	1.011E-01	1.031E-02	0.027
		873.19		-2.273E-02	1.160E-01	1.873E-01	2.827E-02	-0.121
		996.26		-4.496E-02	1.411E-01	2.221E-01	4.291E-02	-0.202
		1004.73		-5.096E-02	8.704E-02	1.328E-01	1.878E-02	-0.384
		1274.44	*	-1.679E-03	4.200E-02	6.992E-02	8.694E-03	-0.024
EU-155		86.55		3.256E-02	3.855E-02	5.782E-02	5.424E-03	0.563

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		105.31	*	-2.498E-04	3.972E-02	6.465E-02	5.789E-03	-0.004
TB-160		86.79		-1.580E-02	1.046E-01	1.508E-01	1.406E-02	-0.105
		197.04		-6.047E-02	2.654E-01	3.879E-01	3.285E-02	-0.156
		215.65		-1.493E-01	2.913E-01	4.768E-01	4.127E-02	-0.313
		298.57		-8.077E-03	4.617E-02	7.589E-02	6.953E-03	-0.106
		879.36	*	-1.909E-02	5.448E-02	8.629E-02	1.106E-02	-0.221
		962.29		-2.284E-01	2.280E-01	3.063E-01	3.812E-02	-0.746
		966.15		-1.985E-02	7.529E-02	1.186E-01	1.469E-02	-0.167
		1177.93		-3.600E-02	1.086E-01	1.670E-01	1.401E-02	-0.216
		1271.85		2.192E-02	2.439E-01	4.126E-01	4.096E-02	0.053
HO-166M		80.57		-5.438E-02	9.125E-02	1.454E-01	1.275E-02	-0.374
		184.41		-1.579E-02	1.882E-02	2.746E-02	2.289E-03	-0.575
		280.46		-1.431E-02	3.323E-02	5.390E-02	4.906E-03	-0.266
		410.95		-3.081E-02	9.429E-02	1.506E-01	1.363E-02	-0.205
		711.68	*	-5.989E-03	3.500E-02	4.325E-02	3.962E-03	-0.138
		752.31		3.713E-02	1.070E-01	1.832E-01	1.830E-02	0.203
		810.29		-2.291E-02	2.227E-02	3.256E-02	3.658E-03	-0.704
TA-182		67.75		-4.363E-02	3.826E-02	5.940E-02	4.785E-03	-0.734
		100.11		5.399E-03	6.519E-02	1.067E-01	9.518E-03	0.051
		152.43		1.234E-01	1.295E-01	2.184E-01	1.827E-02	0.565
		222.11		-3.527E-02	1.390E-01	2.305E-01	2.009E-02	-0.153
		1121.30		-2.153E-03	5.392E-02	8.714E-02	8.308E-03	-0.025
		1189.05		1.129E-02	9.401E-02	1.546E-01	1.324E-02	0.073
		1221.41	*	-7.653E-03	5.488E-02	8.670E-02	7.881E-03	-0.088
		1231.02		1.167E-01	1.534E-01	2.699E-01	2.496E-02	0.432
IR-192		295.96		-4.517E-02	4.378E-02	6.822E-02	6.286E-03	-0.662
		308.46		-2.052E-03	4.252E-02	7.030E-02	6.483E-03	-0.029
		316.51	*	2.258E-03	1.451E-02	2.424E-02	2.232E-03	0.093
		468.07		1.503E-02	2.778E-02	4.695E-02	4.556E-03	0.320
HG-203		70.83		-1.554E-01	4.750E-01	7.694E-01	1.217E-01	-0.202
		72.87		1.270E-01	2.728E-01	4.562E-01	6.998E-02	0.278
		279.20	*	-7.503E-03	1.523E-02	2.461E-02	2.290E-03	-0.305
BI-207		72.81		2.755E-02	6.212E-02	1.040E-01	8.590E-03	0.265
		74.97		5.036E-02	4.183E-02	6.160E-02	5.162E-03	0.818
		569.70		7.279E-06	1.309E-02	2.108E-02	1.864E-03	0.000
		1063.66	*	1.456E-02	2.060E-02	3.602E-02	3.867E-03	0.404
		1770.23		-2.701E-01	2.656E-01	3.684E-01	3.330E-02	-0.733
TL-208		277.37		4.317E-02	1.476E-01	2.495E-01	3.208E-02	0.173
		583.19	*	9.359E-03	1.873E-02	2.912E-02	2.729E-03	0.321
		860.56		9.249E-02	1.133E-01	1.999E-01	2.564E-02	0.463
PB-210		46.54	*	-2.527E+00	1.589E+00	2.317E+00	2.210E-01	-1.091
BI-211		72.87		5.032E-01	1.079E+00	1.808E+00	1.494E-01	0.278
		351.06	*	2.971E-02	9.187E-02	1.541E-01	1.476E-02	0.193
PB-211		404.85	*	1.858E-01	3.004E-01	4.904E-01	2.377E-01	0.379
		427.09		-2.297E-01	6.240E-01	9.767E-01	4.527E-01	-0.235
		832.01		-1.769E-01	3.777E-01	5.746E-01	3.014E-01	-0.308
BI-212		727.33	*	-4.767E-02	1.847E-01	2.998E-01	3.917E-02	-0.159
		785.37		7.090E-02	1.206E+00	2.010E+00	2.149E-01	0.035
		1620.50		5.468E-01	1.139E+00	1.994E+00	1.992E-01	0.274

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PB-212		74.82		1.698E-01	1.463E-01	2.137E-01	2.742E-02	0.794
		77.11		-9.961E-02	7.422E-02	1.091E-01	9.290E-03	-0.913
		238.63	*	-1.736E-02	3.442E-02	5.065E-02	5.051E-03	-0.343
		300.09		-1.580E-03	3.275E-01	5.434E-01	5.971E-02	-0.003
BI-214		609.32	*	-1.192E-02	3.661E-02	5.343E-02	5.396E-03	-0.223
		1120.29		-1.340E-01	1.496E-01	1.822E-01	2.127E-02	-0.736
		1764.49		-1.890E-01	1.357E-01	2.067E-01	1.877E-02	-0.915
PB-214		74.82		3.009E-01	2.587E-01	3.787E-01	4.367E-02	0.794
		77.11		-1.756E-01	1.316E-01	1.923E-01	2.280E-02	-0.913
		242.00		-4.019E-01	1.649E-01	2.363E-01	2.505E-02	-1.701
		295.22		8.099E-03	5.735E-02	9.597E-02	1.078E-02	0.084
		351.93	*	1.149E-02	3.324E-02	5.582E-02	6.168E-03	0.206
RN-219		271.23		-8.085E-03	9.223E-02	1.529E-01	1.626E-02	-0.053
		401.81	*	-4.395E-02	1.648E-01	2.648E-01	4.002E-02	-0.166
RA-223		81.07		-5.461E-02	7.227E-02	1.142E-01	1.006E-02	-0.478
		83.79		-4.076E-02	5.086E-02	7.183E-02	6.494E-03	-0.567
		94.87		-2.109E-01	1.910E-01	2.964E-01	2.688E-02	-0.711
		144.24		-5.739E-02	3.107E-01	4.464E-01	4.251E-02	-0.129
		154.21		-5.222E-02	1.438E-01	2.265E-01	2.080E-02	-0.231
		269.46		-1.817E-02	7.276E-02	1.196E-01	1.102E-02	-0.152
		323.87	*	-2.208E-02	2.558E-01	4.209E-01	7.418E-02	-0.052
		338.28		2.843E-01	3.726E-01	6.408E-01	7.997E-02	0.444
RA-224		240.99	*	3.042E-01	2.730E-01	4.766E-01	4.229E-02	0.638
RA-226		609.32	*	-1.192E-02	3.661E-02	5.343E-02	5.396E-03	-0.223
		1120.29		-1.340E-01	1.496E-01	1.822E-01	2.127E-02	-0.736
		1764.49		-1.890E-01	1.357E-01	2.067E-01	1.877E-02	-0.915
AC-227		79.69		-1.814E-01	4.102E-01	6.573E-01	1.135E-01	-0.276
		235.96		-6.537E-02	6.375E-02	1.013E-01	1.066E-02	-0.645
		256.23	*	4.453E-02	1.035E-01	1.764E-01	2.172E-02	0.252
		299.98		-2.497E-02	3.610E-01	5.969E-01	7.808E-02	-0.042
		304.50		-1.665E-01	7.029E-01	1.150E+00	1.934E-01	-0.145
		334.37		3.316E-02	6.961E-01	1.153E+00	1.835E-01	0.029
TH-227		79.80		-2.040E-01	5.424E-01	8.714E-01	1.901E-01	-0.234
		235.96		-6.537E-02	6.371E-02	1.013E-01	1.008E-02	-0.645
		256.23	*	4.453E-02	1.035E-01	1.764E-01	2.441E-02	0.252
		299.98		-2.497E-02	3.610E-01	5.969E-01	7.808E-02	-0.042
		304.50		-1.665E-01	7.029E-01	1.150E+00	1.934E-01	-0.145
		334.37		3.316E-02	6.961E-01	1.153E+00	1.835E-01	0.029
AC-228		338.32		7.048E-02	9.795E-02	1.613E-01	6.747E-02	0.437
		911.20	*	-3.534E-02	6.857E-02	9.124E-02	1.390E-02	-0.387
		968.97		4.036E-03	1.015E-01	1.544E-01	4.001E-02	0.026
RA-228		338.32		7.048E-02	9.795E-02	1.613E-01	6.747E-02	0.437
		911.20	*	-3.534E-02	6.857E-02	9.124E-02	1.390E-02	-0.387
		968.97		4.036E-03	1.015E-01	1.544E-01	4.001E-02	0.026
TH-228		74.82		1.698E-01	1.453E-01	2.137E-01	1.806E-02	0.794
		77.11		-9.961E-02	7.422E-02	1.091E-01	9.290E-03	-0.913
		238.63	*	-1.736E-02	3.442E-02	5.065E-02	5.051E-03	-0.343
		300.09		-1.580E-03	3.275E-01	5.434E-01	3.331E-01	-0.003
TH-229		85.43		1.143E-01	8.210E-02	1.269E-01	1.166E-02	0.901

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		88.47		-1.843E-01	5.553E-02	6.523E-02	6.138E-03	-2.825
		193.51	*	2.037E-01	2.135E-01	3.569E-01	3.010E-02	0.571
		210.85		7.686E-03	3.282E-01	5.527E-01	4.758E-02	0.014
TH-230		609.32	*	-1.192E-02	3.660E-02	5.342E-02	4.601E-03	-0.223
		1120.29		-1.340E-01	1.493E-01	1.822E-01	1.742E-02	-0.736
		1764.49		-1.890E-01	1.357E-01	2.067E-01	1.877E-02	-0.915
PA-231		283.69	*	3.917E-01	5.797E-01	9.958E-01	1.482E-01	0.393
		301.36		1.951E-01	2.299E-01	3.968E-01	4.978E-02	0.492
TH-231		81.07		-5.461E-02	7.227E-02	1.142E-01	1.006E-02	-0.478
		83.79		-4.076E-02	5.086E-02	7.183E-02	6.494E-03	-0.567
		94.87		-2.109E-01	1.910E-01	2.964E-01	2.688E-02	-0.711
		144.24		-5.739E-02	3.107E-01	4.464E-01	4.251E-02	-0.129
		154.21		-5.222E-02	1.438E-01	2.265E-01	2.080E-02	-0.231
		269.46		-1.817E-02	7.276E-02	1.196E-01	1.102E-02	-0.152
		323.87	*	-2.208E-02	2.558E-01	4.209E-01	7.418E-02	-0.052
		338.28		2.843E-01	3.726E-01	6.408E-01	7.997E-02	0.444
TH-232		338.32		7.048E-02	9.363E-02	1.613E-01	1.481E-02	0.437
		911.20	*	-3.534E-02	6.857E-02	9.124E-02	1.390E-02	-0.387
		968.97		4.036E-03	1.015E-01	1.544E-01	4.001E-02	0.026
PA-233		300.13		-4.207E-04	1.631E-01	2.706E-01	4.100E-02	-0.002
		311.90	*	9.803E-03	2.795E-02	4.720E-02	4.444E-03	0.208
		340.48		-6.080E-02	3.103E-01	4.029E-01	9.780E-02	-0.151
PA-234		94.67		9.342E-02	6.669E-02	1.133E-01	1.442E-02	0.824
		98.44		-1.743E-02	4.038E-02	5.477E-02	3.058E-02	-0.318
		111.00		8.053E-02	7.003E-02	1.191E-01	1.460E-02	0.676
		131.20		-4.243E-02	4.097E-02	6.241E-02	5.477E-03	-0.680
		569.50		-1.051E-02	1.154E-01	1.844E-01	1.631E-02	-0.057
		733.00		4.892E-02	1.350E-01	2.315E-01	5.229E-02	0.211
		880.51		-1.023E-01	1.100E-01	1.614E-01	2.073E-02	-0.634
		883.24		-1.051E-02	1.097E-01	1.784E-01	1.211E-01	-0.059
		926.50		3.754E-03	6.229E-02	1.030E-01	2.786E-02	0.036
		946.00	*	5.780E-02	1.150E-01	1.978E-01	4.140E-02	0.292
		949.00		-6.368E-02	1.789E-01	2.819E-01	3.561E-02	-0.226
PA-234M		766.42		-1.278E+00	5.648E+00	7.548E+00	3.853E+00	-0.169
		1001.03	*	-3.860E-01	2.080E+00	3.216E+00	4.137E-01	-0.120
TH-234		63.29	*	1.989E-01	5.925E-01	8.713E-01	1.574E-01	0.228
		92.59		4.009E-01	3.275E-01	5.065E-01	1.130E-01	0.791
U-235		89.96		-1.525E+00	5.056E-01	4.421E-01	1.099E-01	-3.449
		93.35		1.512E-01	2.424E-01	3.777E-01	8.798E-02	0.400
		143.76	*	-1.272E-02	9.163E-02	1.316E-01	2.224E-02	-0.097
		163.33		5.033E-02	1.995E-01	2.980E-01	5.289E-02	0.169
		185.72		-7.239E-03	2.345E-02	3.502E-02	2.924E-03	-0.207
		205.31		8.914E-02	1.918E-01	3.286E-01	5.952E-02	0.271
NP-237		86.48	*	8.849E-02	9.707E-02	1.435E-01	3.291E-02	0.617
		95.86		-1.760E+00	5.872E-01	5.375E-01	1.298E-01	-3.274
U-238		63.29	*	1.989E-01	5.925E-01	8.713E-01	1.574E-01	0.228
		92.59		4.009E-01	3.172E-01	5.065E-01	4.643E-02	0.791
NP-239		99.53		-3.625E-02	7.015E-02	9.719E-02	8.679E-03	-0.373
		103.37		2.007E-02	3.705E-02	6.191E-02	5.491E-03	0.324

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		106.12		-7.113E-03	3.175E-02	5.110E-02	4.523E-03	-0.139
		117.23	*	-3.081E-02	1.565E-01	2.514E-01	2.245E-02	-0.123
		228.18		2.225E-02	8.479E-02	1.440E-01	1.263E-02	0.155
		277.60		2.123E-03	6.727E-02	1.122E-01	1.020E-02	0.019
AM-241		59.54	*	-9.476E-02	5.773E-02	8.730E-02	7.534E-03	-1.085
CM-247		278.00		-1.139E-01	2.873E-01	4.673E-01	4.249E-02	-0.244
		287.50		-1.386E-01	5.099E-01	8.346E-01	7.619E-02	-0.166
		402.40	*	-2.755E-03	1.513E-02	2.448E-02	2.209E-03	-0.113
CF-249		252.80		1.480E-01	3.933E-01	6.695E-01	5.996E-02	0.221
		333.37		1.039E-02	7.234E-02	1.206E-01	1.108E-02	0.086
		388.16	*	-4.165E-03	1.600E-02	2.578E-02	2.324E-03	-0.162
CF-251		177.52	*	-5.726E-02	5.347E-02	8.024E-02	6.631E-03	-0.714
		227.38		9.225E-02	1.396E-01	2.413E-01	2.115E-02	0.382
		285.41		4.945E-01	8.902E-01	1.524E+00	1.390E-01	0.325
ANH-511		511.00	*	-1.433E-02	2.821E-02	4.552E-02	4.121E-03	-0.315

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188      *
* Acquisition date : 24-MAR-2010 22:59:45 Detector SN#    :                 *
* Detector ID       : GAM29                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 04:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 04:01:22.05      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  9-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202065188          Analyst initials: MXR1           *
* Batch Number      : 962633               Sample Quantity : 1.4370E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)	
BE-7	4.447E-02	1.353E-01	2.367E-01	0.000E+00 NOT IDENT.
NA-22	-2.092E-06	1.461E-02	2.514E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	7.762E+05	0.000E+00	0.000E+00 SHORT HLIF
K-40	-4.044E-02	2.058E-01	3.427E-01	0.000E+00 NOT IDENT.
SC-46	-9.628E-03	1.613E-02	2.582E-02	0.000E+00 NOT IDENT.
V-48	-4.179E-03	2.572E-02	4.269E-02	0.000E+00 NOT IDENT.
CR-51	-6.487E-02	1.502E-01	2.567E-01	0.000E+00 NOT IDENT.
MN-54	1.374E-02	1.296E-02	2.435E-02	0.000E+00 NOT IDENT.
CO-56	-9.102E-03	1.717E-02	2.800E-02	0.000E+00 NOT IDENT.
CO-57	-6.051E-03	9.848E-03	1.672E-02	0.000E+00 NOT IDENT.
CO-58	-1.067E-02	1.414E-02	2.228E-02	0.000E+00 NOT IDENT.
FE-59	1.909E-02	3.187E-02	5.715E-02	0.000E+00 NOT IDENT.
CO-60	1.748E-02	1.492E-02	2.885E-02	0.000E+00 NOT IDENT.
ZN-65	-1.286E-03	3.443E-02	5.745E-02	0.000E+00 NOT IDENT.
SE-75	1.106E-02	1.766E-02	3.236E-02	0.000E+00 NOT IDENT.
SR-85	-4.163E-02	2.620E-02	4.090E-02	0.000E+00 NOT IDENT.
Y-88	-1.055E-02	1.569E-02	2.287E-02	0.000E+00 NOT IDENT.
Y-91	-8.383E-01	7.123E+00	1.168E+01	0.000E+00 NOT IDENT.
NB-94	4.069E-03	1.351E-02	2.402E-02	0.000E+00 NOT IDENT.
NB-95	1.099E-02	1.606E-02	2.924E-02	0.000E+00 NOT IDENT.
NB-95M	-7.634E-02	5.165E-02	8.527E-02	0.000E+00 NOT IDENT.
ZR-95	-1.520E-03	2.684E-02	4.615E-02	0.000E+00 NOT IDENT.
MO-99	2.823E+00	5.512E+00	9.966E+00	0.000E+00 NOT IDENT.
TC-99M	0.000E+00	1.670E+17	0.000E+00	0.000E+00 SHORT HLIF
RU-103	-6.258E-03	1.699E-02	2.809E-02	0.000E+00 NOT IDENT.
RH-106	-6.571E-02	1.292E-01	2.174E-01	0.000E+00 NOT IDENT.

RU-106	-6.571E-02	1.290E-01	2.174E-01	0.000E+00	NOT IDENT.
AG-108M	2.998E-03	1.111E-02	1.951E-02	0.000E+00	NOT IDENT.
CD-109	-6.119E-01	3.315E-01	4.730E-01	0.000E+00	NOT IDENT.
AG-110M	7.019E-03	1.323E-02	2.408E-02	0.000E+00	NOT IDENT.
SN-113	-3.263E-03	1.820E-02	3.115E-02	0.000E+00	NOT IDENT.
CD-115	2.372E+00	5.714E+00	1.003E+01	0.000E+00	NOT IDENT.
SN-117M	5.880E-03	2.135E-02	3.746E-02	0.000E+00	NOT IDENT.
TE-123M	-1.452E-03	1.099E-02	1.887E-02	0.000E+00	NOT IDENT.
SB-124	9.078E-03	3.479E-02	6.086E-02	0.000E+00	NOT IDENT.
SB-125	-8.882E-03	3.562E-02	6.019E-02	0.000E+00	NOT IDENT.
TE-125M	-3.711E+00	3.724E+00	6.213E+00	0.000E+00	NOT IDENT.
I-126	9.224E-03	8.281E-02	1.459E-01	0.000E+00	NOT IDENT.
SB-126	-3.690E-02	5.452E-02	8.846E-02	0.000E+00	NOT IDENT.
SN-126	-2.509E-02	3.145E-02	4.774E-02	0.000E+00	NOT IDENT.
SB-127	-7.514E-02	6.111E-01	1.053E+00	0.000E+00	NOT IDENT.
I-131	-4.238E-03	5.426E-02	9.402E-02	0.000E+00	NOT IDENT.
TE-132	9.357E-02	3.400E-01	6.168E-01	0.000E+00	NOT IDENT.
BA-133	-7.671E-03	1.856E-02	3.154E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.796E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-2.862E-03	1.541E-02	2.603E-02	0.000E+00	NOT IDENT.
CS-135	3.162E-03	6.005E-02	1.069E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.027E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.396E-02	4.128E-02	7.553E-02	0.000E+00	NOT IDENT.
BA-137M	-5.400E-03	1.332E-02	2.247E-02	0.000E+00	NOT IDENT.
CS-137	-5.705E-03	1.408E-02	2.374E-02	0.000E+00	NOT IDENT.
CE-139	-1.062E-02	1.256E-02	2.070E-02	0.000E+00	NOT IDENT.
BA-140	-1.804E-02	1.063E-01	1.772E-01	0.000E+00	NOT IDENT.
LA-140	2.319E-02	3.543E-02	6.542E-02	0.000E+00	NOT IDENT.
CE-141	1.356E-02	2.517E-02	4.483E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.823E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	4.401E-03	7.454E-02	1.305E-01	0.000E+00	NOT IDENT.
PM-144	3.863E-03	1.409E-02	2.502E-02	0.000E+00	NOT IDENT.
PR-144	4.565E-01	1.043E+00	1.873E+00	0.000E+00	NOT IDENT.
PM-146	-4.587E-03	1.809E-02	3.046E-02	0.000E+00	NOT IDENT.
ND-147	-1.707E-01	2.313E-01	3.641E-01	0.000E+00	NOT IDENT.
PM-149	3.938E+00	4.887E+01	8.677E+01	0.000E+00	NOT IDENT.
EU-152	-1.697E-02	3.973E-02	6.757E-02	0.000E+00	NOT IDENT.
GD-153	-2.554E-02	3.595E-02	5.400E-02	0.000E+00	NOT IDENT.
EU-154	-1.679E-03	4.116E-02	7.048E-02	0.000E+00	NOT IDENT.
EU-155	-2.498E-04	3.893E-02	6.879E-02	0.000E+00	NOT IDENT.
TB-160	-1.909E-02	5.339E-02	8.772E-02	0.000E+00	NOT IDENT.
HO-166M	-5.989E-03	3.430E-02	4.418E-02	0.000E+00	NOT IDENT.
TA-182	-7.653E-03	5.378E-02	8.749E-02	0.000E+00	NOT IDENT.
IR-192	2.258E-03	1.422E-02	2.520E-02	0.000E+00	NOT IDENT.
HG-203	-7.503E-03	1.492E-02	2.565E-02	0.000E+00	NOT IDENT.
BI-207	1.456E-02	2.019E-02	3.646E-02	0.000E+00	NOT IDENT.
TL-208	9.359E-03	1.835E-02	2.988E-02	0.000E+00	NOT IDENT.
PB-210	-2.527E+00	1.557E+00	2.506E+00	0.000E+00	NOT IDENT.
BI-211	2.971E-02	9.003E-02	1.599E-01	0.000E+00	NOT IDENT.
PB-211	1.858E-01	2.944E-01	5.071E-01	0.000E+00	NOT IDENT.
BI-212	-4.767E-02	1.810E-01	3.061E-01	0.000E+00	NOT IDENT.
PB-212	-1.736E-02	3.374E-02	5.298E-02	0.000E+00	NOT IDENT.
BI-214	-1.192E-02	3.588E-02	5.476E-02	0.000E+00	NOT IDENT.
PB-214	1.149E-02	3.258E-02	5.791E-02	0.000E+00	NOT IDENT.
RN-219	-4.395E-02	1.615E-01	2.739E-01	0.000E+00	NOT IDENT.
RA-223	-2.208E-02	2.507E-01	4.374E-01	0.000E+00	NOT IDENT.
RA-224	3.042E-01	2.675E-01	4.984E-01	0.000E+00	NOT IDENT.
RA-226	-1.192E-02	3.588E-02	5.476E-02	0.000E+00	NOT IDENT.
AC-227	4.453E-02	1.014E-01	1.843E-01	0.000E+00	NOT IDENT.
TH-227	4.453E-02	1.014E-01	1.843E-01	0.000E+00	NOT IDENT.
AC-228	-3.534E-02	6.720E-02	9.268E-02	0.000E+00	NOT IDENT.
RA-228	-3.534E-02	6.720E-02	9.268E-02	0.000E+00	NOT IDENT.
TH-228	-1.736E-02	3.374E-02	5.298E-02	0.000E+00	NOT IDENT.
TH-229	2.037E-01	2.092E-01	3.750E-01	0.000E+00	NOT IDENT.
TH-230	-1.192E-02	3.587E-02	5.476E-02	0.000E+00	NOT IDENT.
PA-231	3.917E-01	5.681E-01	1.038E+00	0.000E+00	NOT IDENT.
TH-231	-2.208E-02	2.507E-01	4.374E-01	0.000E+00	NOT IDENT.
TH-232	-3.534E-02	6.720E-02	9.268E-02	0.000E+00	NOT IDENT.
PA-233	9.803E-03	2.739E-02	4.908E-02	0.000E+00	NOT IDENT.
PA-234	5.780E-02	1.127E-01	2.007E-01	0.000E+00	NOT IDENT.
PA-234M	-3.860E-01	2.038E+00	3.260E+00	0.000E+00	NOT IDENT.
TH-234	1.989E-01	5.806E-01	9.367E-01	0.000E+00	NOT IDENT.
U-235	-1.272E-02	8.979E-02	1.391E-01	0.000E+00	NOT IDENT.
NP-237	8.849E-02	9.512E-02	1.533E-01	0.000E+00	NOT IDENT.
U-238	1.989E-01	5.806E-01	9.367E-01	0.000E+00	NOT IDENT.
NP-239	-3.081E-02	1.534E-01	2.669E-01	0.000E+00	NOT IDENT.
AM-241	-9.476E-02	5.657E-02	9.396E-02	0.000E+00	NOT IDENT.
CM-247	-2.755E-03	1.483E-02	2.531E-02	0.000E+00	NOT IDENT.

CF-249	-4.165E-03	1.568E-02	2.668E-02	0.000E+00	NOT IDENT.
CF-251	-5.726E-02	5.240E-02	8.445E-02	0.000E+00	NOT IDENT.
ANH-511	-1.433E-02	2.764E-02	4.683E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:01:38.10

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 24-MAR-2010 22:59:45
Sample ID         : G1202065188          Sample quantity  : 1.43700E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:01:22.05  0.6%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065188
Acquisition date : 24-MAR-2010 22:59:45

None

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:01:42.35

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1 *
* Acquisition date : 24-MAR-2010 22:59:45  Detector SN#    :                *
* Detector ID      : GAM29                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 04:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 04:01:22.05         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 9-MAR-2010 00:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G1202065188           Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.43700E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.447E-02		1.381E-01	2.297E-01	2.236E-02	0.194
NA-22	-2.092E-06		1.491E-02	2.494E-02	2.490E-03	0.000
NA-24	-2.708E-01		3.960E-01	Half-Life too short		
K-40	-4.044E-02		2.100E-01	3.411E-01	3.710E-02	-0.119
SC-46	-9.628E-03		1.646E-02	2.541E-02	3.318E-03	-0.379
V-48	-4.179E-03		2.624E-02	4.210E-02	5.107E-03	-0.099
CR-51	-6.487E-02		1.533E-01	2.469E-01	2.374E-02	-0.263
MN-54	1.374E-02		1.323E-02	2.392E-02	2.819E-03	0.575
CO-56	-9.102E-03		1.753E-02	2.752E-02	3.318E-03	-0.331
CO-57	-6.051E-03		1.005E-02	1.576E-02	1.424E-03	-0.384
CO-58	-1.067E-02		1.443E-02	2.188E-02	2.464E-03	-0.487
FE-59	1.909E-02		3.252E-02	5.651E-02	6.000E-03	0.338
CO-60	1.748E-02		1.523E-02	2.865E-02	3.143E-03	0.610
ZN-65	-1.286E-03		3.514E-02	5.682E-02	5.495E-03	-0.023
SE-75	1.106E-02		1.802E-02	3.101E-02	2.812E-03	0.357
SR-85	-4.163E-02		2.674E-02	3.976E-02	3.597E-03	-1.047
Y-88	-1.055E-02		1.601E-02	2.288E-02	1.956E-03	-0.461

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	-8.383E-01		7.269E+00	1.157E+01	1.020E+00	-0.072
NB-94	4.069E-03		1.379E-02	2.351E-02	2.112E-03	0.173
NB-95	1.099E-02		1.639E-02	2.868E-02	2.945E-03	0.383
NB-95M	-7.634E-02		5.271E-02	8.150E-02	8.207E-03	-0.937
ZR-95	-1.520E-03		2.738E-02	4.524E-02	4.914E-03	-0.034
MO-99	2.823E+00		5.625E+00	9.765E+00	1.600E+00	0.289
TC-99M	-3.517E+10		8.522E+10	Half-Life too short		
RU-103	-6.258E-03		1.733E-02	2.728E-02	3.889E-03	-0.229
RH-106	-6.571E-02		1.318E-01	2.122E-01	2.799E-02	-0.310
RU-106	-6.571E-02		1.316E-01	2.122E-01	1.809E-02	-0.310
AG-108M	2.998E-03		1.134E-02	1.889E-02	1.768E-03	0.159
CD-109	-6.119E-01		3.382E-01	4.429E-01	4.182E-02	-1.382
AG-110M	7.019E-03		1.350E-02	2.353E-02	2.001E-03	0.298
SN-113	-3.263E-03		1.857E-02	3.010E-02	2.784E-03	-0.108
CD-115	2.372E+00		5.830E+00	9.759E+00	8.791E-01	0.243
SN-117M	5.880E-03		2.178E-02	3.551E-02	2.935E-03	0.166
TE-123M	-1.452E-03		1.121E-02	1.789E-02	1.487E-03	-0.081
SB-124	9.078E-03		3.550E-02	6.077E-02	6.017E-03	0.149
SB-125	-8.882E-03		3.634E-02	5.827E-02	5.382E-03	-0.152
TE-125M	-3.711E+00		3.800E+00	5.844E+00	6.237E-01	-0.635
I-126	9.224E-03		8.450E-02	1.426E-01	1.182E-02	0.065
SB-126	-3.690E-02		5.563E-02	8.663E-02	8.092E-03	-0.426
SN-126	-2.509E-02		3.209E-02	4.471E-02	4.202E-03	-0.561
SB-127	-7.514E-02		6.235E-01	1.031E+00	1.201E-01	-0.073
I-131	-4.238E-03		5.537E-02	9.071E-02	8.679E-03	-0.047
TE-132	9.357E-02		3.469E-01	5.891E-01	9.471E-02	0.159
BA-133	-7.671E-03		1.894E-02	3.041E-02	4.048E-03	-0.252
I-133	-3.748E-03		2.447E-03	Half-Life too short		
CS-134	-2.862E-03		1.573E-02	2.555E-02	2.802E-03	-0.112
CS-135	3.162E-03		6.127E-02	1.024E-01	1.059E-02	0.031
I-135	1.180E+09		1.034E+10	Half-Life too short		
CS-136	3.396E-02		4.212E-02	7.459E-02	8.443E-03	0.455
BA-137M	-5.400E-03		1.360E-02	2.196E-02	1.800E-03	-0.246
CS-137	-5.705E-03		1.436E-02	2.320E-02	1.906E-03	-0.246
CE-139	-1.062E-02		1.281E-02	1.964E-02	1.601E-03	-0.541
BA-140	-1.804E-02		1.085E-01	1.724E-01	5.863E-02	-0.105
LA-140	2.319E-02		3.615E-02	6.523E-02	6.600E-03	0.356
CE-141	1.356E-02		2.568E-02	4.242E-02	3.667E-03	0.320
CE-143	9.310E-05		3.991E-05	Half-Life too short		
CE-144	4.401E-03		7.606E-02	1.233E-01	1.892E-02	0.036
PM-144	3.863E-03		1.438E-02	2.448E-02	2.170E-03	0.158
PR-144	4.565E-01		1.064E+00	1.833E+00	1.624E-01	0.249
PM-146	-4.587E-03		1.846E-02	2.953E-02	3.246E-03	-0.155
ND-147	-1.707E-01		2.360E-01	3.542E-01	5.373E-02	-0.482
PM-149	3.938E+00		4.987E+01	8.328E+01	1.318E+01	0.047
EU-152	-1.697E-02		4.054E-02	6.511E-02	6.286E-03	-0.261
GD-153	-2.554E-02		3.668E-02	5.067E-02	4.551E-03	-0.504
EU-154	-1.679E-03		4.200E-02	6.992E-02	8.694E-03	-0.024

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	-2.498E-04		3.972E-02	6.465E-02	5.789E-03	-0.004
TB-160	-1.909E-02		5.448E-02	8.629E-02	1.106E-02	-0.221
HO-166M	-5.989E-03		3.500E-02	4.325E-02	3.962E-03	-0.138
TA-182	-7.653E-03		5.488E-02	8.670E-02	7.881E-03	-0.088
IR-192	2.258E-03		1.451E-02	2.424E-02	2.232E-03	0.093
HG-203	-7.503E-03		1.523E-02	2.461E-02	2.290E-03	-0.305
BI-207	1.456E-02		2.060E-02	3.602E-02	3.867E-03	0.404
TL-208	9.359E-03		1.873E-02	2.912E-02	2.729E-03	0.321
PB-210	-2.527E+00		1.589E+00	2.317E+00	2.210E-01	-1.091
BI-211	2.971E-02		9.187E-02	1.541E-01	1.476E-02	0.193
PB-211	1.858E-01		3.004E-01	4.904E-01	2.377E-01	0.379
BI-212	-4.767E-02		1.847E-01	2.998E-01	3.917E-02	-0.159
PB-212	-1.736E-02		3.442E-02	5.065E-02	5.051E-03	-0.343
BI-214	-1.192E-02		3.661E-02	5.343E-02	5.396E-03	-0.223
PB-214	1.149E-02		3.324E-02	5.582E-02	6.168E-03	0.206
RN-219	-4.395E-02		1.648E-01	2.648E-01	4.002E-02	-0.166
RA-223	-2.208E-02		2.558E-01	4.209E-01	7.418E-02	-0.052
RA-224	3.042E-01		2.730E-01	4.766E-01	4.229E-02	0.638
RA-226	-1.192E-02		3.661E-02	5.343E-02	5.396E-03	-0.223
AC-227	4.453E-02		1.035E-01	1.764E-01	2.172E-02	0.252
TH-227	4.453E-02		1.035E-01	1.764E-01	2.441E-02	0.252
AC-228	-3.534E-02		6.857E-02	9.124E-02	1.390E-02	-0.387
RA-228	-3.534E-02		6.857E-02	9.124E-02	1.390E-02	-0.387
TH-228	-1.736E-02		3.442E-02	5.065E-02	5.051E-03	-0.343
TH-229	2.037E-01		2.135E-01	3.569E-01	3.010E-02	0.571
TH-230	-1.192E-02		3.660E-02	5.342E-02	4.601E-03	-0.223
PA-231	3.917E-01		5.797E-01	9.958E-01	1.482E-01	0.393
TH-231	-2.208E-02		2.558E-01	4.209E-01	7.418E-02	-0.052
TH-232	-3.534E-02		6.857E-02	9.124E-02	1.390E-02	-0.387
PA-233	9.803E-03		2.795E-02	4.720E-02	4.444E-03	0.208
PA-234	5.780E-02		1.150E-01	1.978E-01	4.140E-02	0.292
PA-234M	-3.860E-01		2.080E+00	3.216E+00	4.137E-01	-0.120
TH-234	1.989E-01		5.925E-01	8.713E-01	1.574E-01	0.228
U-235	-1.272E-02		9.163E-02	1.316E-01	2.224E-02	-0.097
NP-237	8.849E-02		9.707E-02	1.435E-01	3.291E-02	0.617
U-238	1.989E-01		5.925E-01	8.713E-01	1.574E-01	0.228
NP-239	-3.081E-02		1.565E-01	2.514E-01	2.245E-02	-0.123
AM-241	-9.476E-02		5.773E-02	8.730E-02	7.534E-03	-1.085
CM-247	-2.755E-03		1.513E-02	2.448E-02	2.209E-03	-0.113
CF-249	-4.165E-03		1.600E-02	2.578E-02	2.324E-03	-0.162
CF-251	-5.726E-02		5.347E-02	8.024E-02	6.631E-03	-0.714
ANH-511	-1.433E-02		2.821E-02	4.552E-02	4.121E-03	-0.315

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065188          *
* Acquisition date : 24-MAR-2010 22:59:45 Detector SN#    :                *
* Detector ID      : GAM29                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 04:01:22.05     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202065188          Analyst initials: MXR1           *
* Batch Number     : 962633               Sample Quantity : 1.4370E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act Error	DLC (pCi/GRAM)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	4.447E-02	1.353E-01	1.184E-01	6.905E-02 NOT IDENT.
NA-22	-2.092E-06	1.461E-02	1.258E-02	7.453E-03 NOT IDENT.
NA-24	-2.708E+05	7.762E+05	0.000E+00	3.960E+05 SHORT HLIF
K-40	-4.044E-02	2.058E-01	1.715E-01	1.050E-01 NOT IDENT.
SC-46	-9.628E-03	1.613E-02	1.292E-02	8.229E-03 NOT IDENT.
V-48	-4.179E-03	2.572E-02	2.136E-02	1.312E-02 NOT IDENT.
CR-51	-6.487E-02	1.502E-01	1.284E-01	7.665E-02 NOT IDENT.
MN-54	1.374E-02	1.296E-02	1.218E-02	6.614E-03 NOT IDENT.
CO-56	-9.102E-03	1.717E-02	1.401E-02	8.763E-03 NOT IDENT.
CO-57	-6.051E-03	9.848E-03	8.366E-03	5.024E-03 NOT IDENT.
CO-58	-1.067E-02	1.414E-02	1.115E-02	7.214E-03 NOT IDENT.
FE-59	1.909E-02	3.187E-02	2.859E-02	1.626E-02 NOT IDENT.
CO-60	1.748E-02	1.492E-02	1.444E-02	7.614E-03 NOT IDENT.
ZN-65	-1.286E-03	3.443E-02	2.874E-02	1.757E-02 NOT IDENT.
SE-75	1.106E-02	1.766E-02	1.619E-02	9.012E-03 NOT IDENT.
SR-85	-4.163E-02	2.620E-02	2.046E-02	1.337E-02 NOT IDENT.
Y-88	-1.055E-02	1.569E-02	1.144E-02	8.007E-03 NOT IDENT.
Y-91	-8.383E-01	7.123E+00	5.842E+00	3.634E+00 NOT IDENT.
NB-94	4.069E-03	1.351E-02	1.202E-02	6.894E-03 NOT IDENT.
NB-95	1.099E-02	1.606E-02	1.463E-02	8.193E-03 NOT IDENT.
NB-95M	-7.634E-02	5.165E-02	4.266E-02	2.635E-02 NOT IDENT.
ZR-95	-1.520E-03	2.684E-02	2.309E-02	1.369E-02 NOT IDENT.
MO-99	2.823E+00	5.512E+00	4.986E+00	2.812E+00 NOT IDENT.
TC-99M	-3.517E+16	1.670E+17	0.000E+00	0.000E+00 SHORT HLIF
RU-103	-6.258E-03	1.699E-02	1.405E-02	8.667E-03 NOT IDENT.
RH-106	-6.571E-02	1.292E-01	1.087E-01	6.589E-02 NOT IDENT.

RU-106	-6.571E-02	1.290E-01	1.087E-01	6.581E-02	NOT IDENT.
AG-108M	2.998E-03	1.111E-02	9.761E-03	5.671E-03	NOT IDENT.
CD-109	-6.119E-01	3.315E-01	2.366E-01	1.691E-01	NOT IDENT.
AG-110M	7.019E-03	1.323E-02	1.205E-02	6.752E-03	NOT IDENT.
SN-113	-3.263E-03	1.820E-02	1.559E-02	9.286E-03	NOT IDENT.
CD-115	2.372E+00	5.714E+00	5.020E+00	2.915E+00	NOT IDENT.
SN-117M	5.880E-03	2.135E-02	1.874E-02	1.089E-02	NOT IDENT.
TE-123M	-1.452E-03	1.099E-02	9.442E-03	5.606E-03	NOT IDENT.
SB-124	9.078E-03	3.479E-02	3.045E-02	1.775E-02	NOT IDENT.
SB-125	-8.882E-03	3.562E-02	3.011E-02	1.817E-02	NOT IDENT.
TE-125M	-3.711E+00	3.724E+00	3.108E+00	1.900E+00	NOT IDENT.
I-126	9.224E-03	8.281E-02	7.299E-02	4.225E-02	NOT IDENT.
SB-126	-3.690E-02	5.452E-02	4.425E-02	2.782E-02	NOT IDENT.
SN-126	-2.509E-02	3.145E-02	2.389E-02	1.605E-02	NOT IDENT.
SB-127	-7.514E-02	6.111E-01	5.270E-01	3.118E-01	NOT IDENT.
I-131	-4.238E-03	5.426E-02	4.704E-02	2.769E-02	NOT IDENT.
TE-132	9.357E-02	3.400E-01	3.086E-01	1.735E-01	NOT IDENT.
BA-133	-7.671E-03	1.856E-02	1.578E-02	9.468E-03	NOT IDENT.
I-133	-3.748E+03	4.796E+03	0.000E+00	2.447E+03	SHORT HLIF
CS-134	-2.862E-03	1.541E-02	1.302E-02	7.864E-03	NOT IDENT.
CS-135	3.162E-03	6.005E-02	5.347E-02	3.064E-02	NOT IDENT.
I-135	1.180E+15	2.027E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.396E-02	4.128E-02	3.779E-02	2.106E-02	NOT IDENT.
BA-137M	-5.400E-03	1.332E-02	1.124E-02	6.798E-03	NOT IDENT.
CS-137	-5.705E-03	1.408E-02	1.188E-02	7.182E-03	NOT IDENT.
CE-139	-1.062E-02	1.256E-02	1.036E-02	6.406E-03	NOT IDENT.
BA-140	-1.804E-02	1.063E-01	8.865E-02	5.426E-02	NOT IDENT.
LA-140	2.319E-02	3.543E-02	3.273E-02	1.808E-02	NOT IDENT.
CE-141	1.356E-02	2.517E-02	2.243E-02	1.284E-02	NOT IDENT.
CE-143	9.310E+01	7.823E+01	0.000E+00	3.991E+01	SHORT HLIF
CE-144	4.401E-03	7.454E-02	6.531E-02	3.803E-02	NOT IDENT.
PM-144	3.863E-03	1.409E-02	1.252E-02	7.191E-03	NOT IDENT.
PR-144	4.565E-01	1.043E+00	9.371E-01	5.321E-01	NOT IDENT.
PM-146	-4.587E-03	1.809E-02	1.524E-02	9.229E-03	NOT IDENT.
ND-147	-1.707E-01	2.313E-01	1.821E-01	1.180E-01	NOT IDENT.
PM-149	3.938E+00	4.887E+01	4.341E+01	2.493E+01	NOT IDENT.
EU-152	-1.697E-02	3.973E-02	3.380E-02	2.027E-02	NOT IDENT.
GD-153	-2.554E-02	3.595E-02	2.701E-02	1.834E-02	NOT IDENT.
EU-154	-1.679E-03	4.116E-02	3.526E-02	2.100E-02	NOT IDENT.
EU-155	-2.498E-04	3.893E-02	3.441E-02	1.986E-02	NOT IDENT.
TB-160	-1.909E-02	5.339E-02	4.389E-02	2.724E-02	NOT IDENT.
HO-166M	-5.989E-03	3.430E-02	2.210E-02	1.750E-02	NOT IDENT.
TA-182	-7.653E-03	5.378E-02	4.377E-02	2.744E-02	NOT IDENT.
IR-192	2.258E-03	1.422E-02	1.261E-02	7.253E-03	NOT IDENT.
HG-203	-7.503E-03	1.492E-02	1.283E-02	7.615E-03	NOT IDENT.
BI-207	1.456E-02	2.019E-02	1.824E-02	1.030E-02	NOT IDENT.
TL-208	9.359E-03	1.835E-02	1.495E-02	9.365E-03	NOT IDENT.
PB-210	-2.527E+00	1.557E+00	1.254E+00	7.943E-01	NOT IDENT.
BI-211	2.971E-02	9.003E-02	7.999E-02	4.593E-02	NOT IDENT.
PB-211	1.858E-01	2.944E-01	2.537E-01	1.502E-01	NOT IDENT.
BI-212	-4.767E-02	1.810E-01	1.531E-01	9.233E-02	NOT IDENT.
PB-212	-1.736E-02	3.374E-02	2.651E-02	1.721E-02	NOT IDENT.
BI-214	-1.192E-02	3.588E-02	2.739E-02	1.830E-02	NOT IDENT.
PB-214	1.149E-02	3.258E-02	2.897E-02	1.662E-02	NOT IDENT.
RN-219	-4.395E-02	1.615E-01	1.370E-01	8.241E-02	NOT IDENT.
RA-223	-2.208E-02	2.507E-01	2.188E-01	1.279E-01	NOT IDENT.
RA-224	3.042E-01	2.675E-01	2.493E-01	1.365E-01	NOT IDENT.
RA-226	-1.192E-02	3.588E-02	2.739E-02	1.830E-02	NOT IDENT.
AC-227	4.453E-02	1.014E-01	9.218E-02	5.174E-02	NOT IDENT.
TH-227	4.453E-02	1.014E-01	9.218E-02	5.176E-02	NOT IDENT.
AC-228	-3.534E-02	6.720E-02	4.637E-02	3.428E-02	NOT IDENT.
RA-228	-3.534E-02	6.720E-02	4.637E-02	3.428E-02	NOT IDENT.
TH-228	-1.736E-02	3.374E-02	2.651E-02	1.721E-02	NOT IDENT.
TH-229	2.037E-01	2.092E-01	1.876E-01	1.067E-01	NOT IDENT.
TH-230	-1.192E-02	3.587E-02	2.739E-02	1.830E-02	NOT IDENT.
PA-231	3.917E-01	5.681E-01	5.192E-01	2.898E-01	NOT IDENT.
TH-231	-2.208E-02	2.507E-01	2.188E-01	1.279E-01	NOT IDENT.
TH-232	-3.534E-02	6.720E-02	4.637E-02	3.428E-02	NOT IDENT.
PA-233	9.803E-03	2.739E-02	2.456E-02	1.398E-02	NOT IDENT.
PA-234	5.780E-02	1.127E-01	1.004E-01	5.751E-02	NOT IDENT.
PA-234M	-3.860E-01	2.038E+00	1.631E+00	1.040E+00	NOT IDENT.
TH-234	1.989E-01	5.806E-01	4.686E-01	2.962E-01	NOT IDENT.
U-235	-1.272E-02	8.979E-02	6.959E-02	4.581E-02	NOT IDENT.
NP-237	8.849E-02	9.512E-02	7.668E-02	4.853E-02	NOT IDENT.
U-238	1.989E-01	5.806E-01	4.686E-01	2.962E-01	NOT IDENT.
NP-239	-3.081E-02	1.534E-01	1.335E-01	7.824E-02	NOT IDENT.
AM-241	-9.476E-02	5.657E-02	4.701E-02	2.886E-02	NOT IDENT.
CM-247	-2.755E-03	1.483E-02	1.266E-02	7.566E-03	NOT IDENT.

CF-249	-4.165E-03	1.568E-02	1.335E-02	8.001E-03	NOT IDENT.
CF-251	-5.726E-02	5.240E-02	4.225E-02	2.674E-02	NOT IDENT.
ANH-511	-1.433E-02	2.764E-02	2.343E-02	1.410E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	202.4697
49.72	267.2739
57.36	0.0000
59.54	291.1522
63.29	220.8324
63.29	220.8324
64.28	221.1543
67.75	264.9304
69.67	243.7598
70.83	277.0381
72.81	265.8001
72.87	265.8214
72.87	265.8214
74.82	235.4608
74.82	235.4608
74.82	235.4608
74.97	235.5083
77.11	275.3724
77.11	275.3724
77.11	275.3724
79.69	250.0804
79.80	250.1154
80.12	250.2185
80.19	265.3767
80.57	265.5052
81.00	268.6819
81.07	268.7052
81.07	268.7052
83.79	279.7661
83.79	279.7661
85.43	203.1425
86.48	214.5923
86.55	214.6108
86.79	254.3526
86.94	254.4003
87.57	271.9083
88.03	315.8749
88.47	408.8167
89.96	476.9584
91.11	269.9992
92.59	183.3879
92.59	183.3879
93.35	216.3655
94.67	265.9951
94.87	360.5628
94.87	360.5628
95.86	451.4762
97.43	236.9629
98.44	222.7945
99.53	218.9380
100.11	206.6803
103.18	200.1275
103.37	196.0209
105.31	215.1452
106.12	221.5763
109.28	243.2037
111.00	188.2253
111.76	187.3288
116.30	241.8359
117.23	219.9641
121.12	233.5066
121.78	218.8581
122.06	228.4371
123.07	211.7271
131.20	236.8743
133.52	202.1045
136.00	211.1477

136.47	216.6007
140.51	223.8628
140.51	0.0000
143.76	213.7256
144.24	221.3769
144.24	221.3769
145.44	216.2079
152.43	168.5911
153.25	174.1528
154.21	194.9933
154.21	194.9933
156.02	202.9323
158.56	183.6885
159.00	203.4446
162.66	199.6790
163.33	206.3766
165.86	250.8066
176.60	223.0197
177.52	228.7324
181.07	298.3982
184.41	233.3040
185.72	207.8380
193.51	176.4633
197.04	205.5465
205.31	201.3379
210.85	187.5601
215.65	195.4970
222.11	190.8588
227.38	168.5155
228.16	174.1317
228.18	174.1340
235.69	259.2563
235.96	259.3025
235.96	259.3025
238.63	179.9710
238.63	179.9710
240.99	207.1896
242.00	304.9435
244.70	189.9874
252.40	163.7720
252.80	161.9404
256.23	157.5948
256.23	157.5948
260.90	174.0405
264.66	142.3791
268.22	154.0242
269.46	168.3243
269.46	168.3243
271.23	159.0340
273.65	155.4717
276.40	140.5314
277.37	140.6108
277.60	144.4315
278.00	153.0188
279.20	154.0780
279.54	148.3999
280.46	151.3353
283.69	131.5936
284.31	131.6407
285.41	139.3594
285.90	149.9013
287.50	156.7289
293.27	0.0000
295.22	154.5380
295.96	181.4903
298.57	162.5222
299.98	162.6501
299.98	162.6501
300.09	160.7334
300.09	160.7334
300.13	160.7375
301.36	140.6212
302.85	154.2324
304.50	165.9510
304.50	165.9510
304.85	164.0525
308.46	156.6429
311.90	144.3438

316.51	133.0482
319.41	125.4742
320.08	136.2214
323.87	129.6718
323.87	129.6718
328.76	135.8694
333.37	129.3381
334.37	134.3075
334.37	134.3075
338.28	115.9143
338.28	115.9143
338.32	115.9157
338.32	115.9157
338.32	115.9157
340.48	126.8615
340.55	125.8828
344.28	136.9605
351.06	148.3063
351.93	146.3921
356.01	153.6282
364.49	133.3686
366.42	129.5096
383.85	119.5447
388.16	108.7146
388.63	99.6768
391.69	113.9352
400.66	112.3821
401.81	109.4027
402.40	108.4185
404.85	94.3385
410.95	100.7016
414.70	97.8141
423.72	80.8159
427.09	100.4010
427.87	96.3362
433.94	80.1500
453.88	108.8157
463.37	89.4791
468.07	84.4409
473.00	97.1460
476.78	108.8039
477.60	88.9564
487.02	75.6378
492.35	91.5900
497.08	94.9252
511.00	100.7462
514.00	314.2669
527.90	64.0415
529.87	0.0000
531.02	80.1471
537.26	70.6938
546.56	0.0000
563.25	87.5931
569.33	94.2875
569.50	83.4555
569.70	83.4612
583.19	64.2590
600.60	104.0988
602.73	96.4992
604.72	123.9965
609.32	89.0229
609.32	89.0229
609.32	89.0229
610.33	92.3528
614.28	99.0813
618.01	81.7553
621.93	83.7018
621.93	83.7018
633.25	69.2474
635.95	81.3237
636.99	72.1062
645.85	63.0458
657.76	58.6382
661.66	68.9625
661.66	68.9625
664.57	0.0000
666.33	57.8664
666.50	55.0700

677.62	58.0758
685.70	67.6143
695.00	78.1722
696.49	72.5541
696.51	68.7850
697.00	73.5090
702.65	69.8613
706.68	67.1114
711.68	64.3753
720.70	61.7045
721.93	0.0000
722.78	52.2440
722.91	49.3964
723.31	45.6025
724.19	47.5149
727.33	58.0227
733.00	46.6882
735.93	61.0339
739.50	44.8695
747.24	61.2396
752.31	53.6644
753.82	58.4819
756.73	53.7339
763.94	58.6557
765.81	54.8395
766.42	49.0753
777.92	59.8582
778.90	58.9088
783.70	54.1554
785.37	55.1480
795.86	45.6087
801.95	50.5474
810.29	57.4863
810.76	51.6467
815.77	47.8157
818.51	49.8047
832.01	51.9508
834.85	35.3145
836.80	0.0000
846.77	68.8892
856.80	69.0757
860.56	44.4507
871.09	42.5941
873.19	53.5199
875.33	0.0000
879.36	48.6431
880.51	54.6151
883.24	44.7171
884.68	45.7286
889.28	57.7262
898.04	48.8804
911.20	39.0365
911.20	39.0365
911.20	39.0365
926.50	36.1743
937.49	35.2670
944.13	42.3905
946.00	37.3613
949.00	50.5259
962.29	55.7609
964.08	53.7570
966.15	39.5776
968.97	35.5426
968.97	35.5426
968.97	35.5426
983.53	36.6877
996.26	47.0229
1001.03	38.8891
1004.73	53.2642
1037.84	25.8077
1038.76	0.0000
1048.07	31.0425
1050.41	32.0949
1050.41	32.0949
1063.66	35.3074
1085.87	29.2236
1099.45	29.3125
1112.07	39.8926

1115.54	47.2778
1120.29	49.4307
1120.29	49.4307
1120.29	49.4307
1120.55	48.3827
1121.30	47.3383
1131.51	0.0000
1173.23	26.5951
1177.93	28.7512
1189.05	26.6846
1204.77	35.3391
1221.41	25.7900
1231.02	27.9942
1235.36	35.5620
1238.28	34.5052
1260.41	0.0000
1271.85	28.8463
1274.44	29.7924
1274.54	29.7924
1291.59	36.4333
1298.22	0.0000
1312.11	22.5109
1332.49	19.7747
1365.19	30.3214
1368.63	0.0000
1384.29	22.8231
1408.01	15.2829
1457.56	0.0000
1460.82	26.0395
1489.16	17.4475
1505.03	33.0490
1596.21	15.7980
1620.50	22.8019
1678.03	0.0000
1690.97	16.0458
1764.49	17.2478
1764.49	17.2478
1764.49	17.2478
1770.23	35.5420
1771.35	26.4072
1791.20	0.0000
1836.06	20.5155

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065188

Total Uranium Activity	5.8577E-01	ug/g
Total Uranium Counting Unc.	1.7279E+00	ug/g
Total Uranium Tpu	8.8156E-07	ug/g
Total Uranium Mda	1.3945E+00	ug/g

THERE ARE NO PEAKS !

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:02:26.60

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 23:00:25
Sample ID         : G1202065189          Sample quantity  : 1.22070E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:50.22  0.3%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.64*	552	737	0.66	93.27	90	7	3.83E-02	9.3	
2	0	63.32	350	1140	0.80	126.61	123	8	2.43E-02	17.5	
3	3	74.87*	1388	627	0.69	149.69	148	17	9.64E-02	3.7	1.49E+00
4	3	77.13*	2112	560	0.69	154.20	148	17	1.47E-01	2.7	
5	8	84.29	346	922	1.31	168.52	165	27	2.40E-02	15.5	6.37E+00
6	8	87.30*	885	753	1.21	174.54	165	27	6.15E-02	6.1	
7	8	89.90	456	500	0.83	179.74	165	27	3.17E-02	8.9	
8	8	93.09*	857	827	1.54	186.11	165	27	5.95E-02	7.3	
9	0	99.35	86	678	0.85	198.64	195	8	5.99E-03	53.6	
10	0	128.90	140	664	0.94	257.71	255	8	9.71E-03	33.0	
11	0	154.10	121	551	1.09	308.09	305	8	8.43E-03	34.7	
12	0	185.86*	455	654	1.06	371.58	367	10	3.16E-02	11.8	
13	1	209.03	241	275	0.97	417.90	413	14	1.67E-02	12.6	2.59E+00
14	1	211.67	70	286	1.02	423.18	413	14	4.86E-03	39.5	
15	7	238.55*	2375	210	0.89	476.91	474	15	1.65E-01	2.3	3.85E+00
16	7	241.50	535	388	1.73	482.82	474	15	3.72E-02	9.2	
17	0	270.08*	146	277	1.53	539.96	536	8	1.02E-02	21.9	
18	0	277.26	113	266	1.01	554.31	551	8	7.88E-03	26.7	
19	0	295.07*	706	238	0.89	589.92	585	10	4.90E-02	5.7	
20	0	299.88	132	239	0.99	599.55	596	8	9.20E-03	21.9	
21	0	327.96	114	221	0.99	655.68	652	8	7.89E-03	24.6	
22	0	338.11	405	287	1.02	675.98	671	11	2.82E-02	9.5	
23	0	351.87*	991	240	1.13	703.48	699	9	6.89E-02	4.3	
24	0	410.14	71	228	1.66	820.01	815	10	4.93E-03	41.6	
25	0	462.58	119	182	1.17	924.87	920	11	8.23E-03	23.9	
26	0	510.82*	197	248	1.52	1021.35	1014	16	1.37E-02	21.7	
27	0	583.13*	574	131	1.22	1165.96	1159	13	3.98E-02	6.0	
28	0	609.11*	744	153	1.30	1217.92	1211	13	5.17E-02	5.2	
29	0	661.74*	98	159	1.36	1323.18	1317	12	6.77E-03	28.2	
30	0	727.18	145	103	1.39	1454.07	1448	11	1.00E-02	16.0	
31	0	768.11	59	71	1.28	1535.94	1532	8	4.08E-03	28.1	
32	0	795.09	70	70	0.93	1589.90	1585	11	4.86E-03	26.2	
33	0	860.35	60	58	1.81	1720.46	1716	8	4.18E-03	25.4	
34	0	911.10	377	92	1.49	1821.98	1817	13	2.62E-02	7.3	
35	4	964.65	86	50	2.37	1929.11	1924	20	6.00E-03	19.9	1.05E+00
36	4	968.79	214	68	1.90	1937.39	1924	20	1.48E-02	10.0	
37	0	1120.31*	127	103	1.40	2240.56	2235	14	8.79E-03	19.6	
38	0	1460.56*	1652	29	1.97	2921.49	2914	17	1.15E-01	2.6	

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1508.85	27	4	2.21	3018.15	3014	8	1.88E-03	23.1	
40	2	1587.81	37	16	2.40	3176.22	3168	23	2.56E-03	24.9	1.26E+00
41	2	1592.31	40	5	2.40	3185.22	3168	23	2.81E-03	23.1	
42	0	1729.10*	25	14	1.12	3459.06	3452	14	1.72E-03	38.7	
43	0	1764.43*	85	7	1.71	3529.81	3522	16	5.89E-03	14.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 25-MAR-2010 03:02:30

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 23:00:25
Sample ID : G1202065189 Sample quantity : 122.07 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA21 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:00:50.22 0.3%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.308E+01	3.301E+00	4.821E-01	4.116E-02	68.620
CD-109	+	88.03	*	4.658E+00	7.132E-01	5.051E-01	4.753E-02	9.222
SN-126	+	64.28		6.852E-01	2.606E-01	2.152E-01	3.189E-02	3.184
	+	86.94		1.880E+00	8.133E-01	2.031E-01	8.429E-02	9.260
	+	87.57	*	4.523E-01	6.926E-02	4.896E-02	4.590E-03	9.238
BA-137M	+	661.66	*	1.069E-01	6.140E-02	5.681E-02	6.275E-03	1.882
CS-137	+	661.66	*	1.129E-01	6.487E-02	6.002E-02	6.636E-03	1.882
TL-208	+	277.37		6.952E-01	3.811E-01	4.263E-01	5.430E-02	1.631
	+	583.19	*	5.839E-01	9.423E-02	4.576E-02	4.981E-03	12.760
	+	860.56		6.159E-01	3.192E-01	4.200E-01	4.167E-02	1.467
PB-210	+	46.54	*	2.719E+00	5.690E-01	4.482E-01	4.239E-02	6.066
BI-211		72.87		1.059E+00	1.193E+00	1.860E+00	1.557E-01	0.569
	+	351.06	*	3.938E+00	4.930E-01	2.429E-01	2.192E-02	16.215
PB-212	+	74.82		2.509E+00	3.732E-01	2.141E-01	2.764E-02	11.718
	+	77.11		2.298E+00	2.342E-01	1.294E-01	1.116E-02	17.752
	+	238.63	*	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
	+	300.09		1.753E+00	7.914E-01	9.200E-01	9.922E-02	1.905
BI-214	+	609.32	*	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
	+	1120.29		1.404E+00	5.705E-01	4.649E-01	5.015E-02	3.020
	+	1764.49		1.426E+00	4.285E-01	2.975E-01	2.474E-02	4.791
PB-214	+	74.82		4.448E+00	6.122E-01	3.796E-01	4.408E-02	11.718
	+	77.11		4.050E+00	5.311E-01	2.282E-01	2.723E-02	17.752
	+	242.00		2.618E+00	5.558E-01	3.735E-01	3.963E-02	7.011
	+	295.22		1.648E+00	2.605E-01	1.463E-01	1.616E-02	11.266
	+	351.93	*	1.429E+00	1.955E-01	8.840E-02	9.345E-03	16.167
RA-224	+	240.99	*	4.630E+00	9.454E-01	6.574E-01	5.842E-02	7.043
RA-226	+	609.32	*	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
	+	1120.29		1.404E+00	5.705E-01	4.649E-01	5.015E-02	3.020
	+	1764.49		1.426E+00	4.285E-01	2.975E-01	2.474E-02	4.791
AC-228	+	338.32		1.772E+00	8.122E-01	2.552E-01	1.065E-01	6.946
	+	911.20	*	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
	+	968.97		1.944E+00	6.143E-01	3.729E-01	9.102E-02	5.212
RA-228	+	338.32		1.772E+00	8.122E-01	2.552E-01	1.065E-01	6.946
	+	911.20	*	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		1.944E+00	6.143E-01	3.729E-01	9.102E-02	5.212
TH-228	+	74.82		2.509E+00	2.838E-01	2.141E-01	1.834E-02	11.718
	+	77.11		2.298E+00	2.342E-01	1.294E-01	1.116E-02	17.752
	+	238.63	*	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
	+	300.09		1.753E+00	1.320E+00	9.200E-01	5.636E-01	1.905
TH-229	+	85.43		4.425E-01	1.431E-01	1.223E-01	1.126E-02	3.619
	+	88.47		6.973E-01	1.068E-01	7.575E-02	7.142E-03	9.206
		193.51	*	-2.275E-01	3.339E-01	5.488E-01	4.659E-02	-0.415
	+	210.85		7.865E-01	6.258E-01	8.998E-01	7.805E-02	0.874
TH-230	+	609.32	*	1.479E+00	2.193E-01	1.002E-01	1.064E-02	14.766
	+	1120.29		1.404E+00	5.627E-01	4.649E-01	3.929E-02	3.020
	+	1764.49		1.426E+00	4.284E-01	2.975E-01	2.474E-02	4.791
TH-232	+	338.32		1.772E+00	3.693E-01	2.552E-01	2.225E-02	6.946
	+	911.20	*	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
	+	968.97		1.944E+00	6.143E-01	3.729E-01	9.102E-02	5.212
TH-234	+	63.29	*	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
	+	92.59		3.887E+00	1.042E+00	4.371E-01	9.832E-02	8.894
U-235	+	89.96		2.498E+00	7.645E-01	5.270E-01	1.314E-01	4.741
	+	93.35		2.936E+00	8.120E-01	3.312E-01	7.786E-02	8.865
		143.76	*	1.100E-01	1.338E-01	2.091E-01	3.701E-02	0.526
		163.33		1.339E-01	2.588E-01	4.480E-01	7.989E-02	0.299
	+	185.72		2.243E-01	5.607E-02	4.151E-02	3.484E-03	5.402
		205.31		-3.362E-02	3.294E-01	4.946E-01	8.974E-02	-0.068
NP-237	+	86.48	*	1.350E+00	3.504E-01	1.455E-01	3.337E-02	9.276
		95.86		1.856E-01	5.062E-01	6.727E-01	1.644E-01	0.276
U-238	+	63.29	*	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
	+	92.59		3.887E+00	6.795E-01	4.371E-01	4.207E-02	8.894
ANH-511	+	511.00	*	1.489E-01	6.629E-02	3.937E-02	3.775E-03	3.781

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	5.292E-02	2.715E-01	4.604E-01	4.510E-02	0.115
NA-22		1274.54	*	-1.556E-03	4.226E-02	6.780E-02	5.562E-03	-0.023
NA-24		1368.63	*	-8.318E+01	4.226E-02	Half-Life too short		
SC-46		889.28	*	1.971E-02	3.822E-02	6.623E-02	5.889E-03	0.298
	+	1120.55		2.463E-01	9.870E-02	1.302E-01	1.101E-02	1.891
V-48		944.13		-7.994E-01	1.035E+00	1.609E+00	1.410E-01	-0.497
		983.53	*	3.861E-02	8.415E-02	1.440E-01	1.260E-02	0.268
		1312.11		-1.883E-02	1.097E-01	1.732E-01	1.411E-02	-0.109
CR-51		320.08	*	-2.034E-01	3.022E-01	4.699E-01	4.365E-02	-0.433
MN-54		834.85	*	-1.687E-03	3.282E-02	5.493E-02	5.324E-03	-0.031
CO-56		846.77	*	6.398E-03	3.581E-02	6.091E-02	5.806E-03	0.105
		1037.84		-1.535E-01	3.144E-01	4.954E-01	4.519E-02	-0.310
		1238.28		5.210E-02	1.035E-01	1.725E-01	1.464E-02	0.302
		1771.35		4.264E-02	2.568E-01	3.741E-01	3.108E-02	0.114
CO-57		122.06	*	-9.237E-03	1.481E-02	2.271E-02	2.609E-03	-0.407
		136.47		-2.357E-02	1.249E-01	1.938E-01	2.146E-02	-0.122

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-58		810.76	*	-1.424E-02	3.502E-02	5.711E-02	5.715E-03	-0.249
FE-59		1099.45	*	-3.716E-02	9.604E-02	1.518E-01	1.401E-02	-0.245
		1291.59		-6.168E-02	1.388E-01	2.134E-01	2.005E-02	-0.289
CO-60		1173.23		-5.779E-03	4.700E-02	7.560E-02	6.230E-03	-0.076
		1332.49	*	-8.831E-04	3.383E-02	5.659E-02	4.593E-03	-0.016
ZN-65		1115.54	*	-4.955E-04	1.110E-01	1.566E-01	1.328E-02	-0.003
SE-75		121.12		-6.611E-02	7.786E-02	1.178E-01	1.576E-02	-0.561
		136.00		-2.771E-02	2.460E-02	3.632E-02	3.861E-03	-0.763
		264.66	*	-1.302E-02	2.985E-02	4.802E-02	4.312E-03	-0.271
		279.54		4.763E-03	8.577E-02	1.192E-01	1.101E-02	0.040
		400.66		3.553E-02	2.124E-01	3.399E-01	3.630E-02	0.105
SR-85		514.00	*	2.077E-02	3.530E-02	5.415E-02	5.210E-03	0.384
Y-88		898.04		-8.581E-03	4.371E-02	7.008E-02	6.160E-03	-0.122
		1836.06	*	2.893E-02	3.540E-02	6.532E-02	5.393E-03	0.443
Y-91		1204.77	*	-8.734E-02	2.542E+01	4.116E+01	3.391E+00	-0.002
NB-94		702.65	*	-1.641E-02	3.242E-02	5.046E-02	5.496E-03	-0.325
		871.09		2.977E-02	3.136E-02	5.600E-02	5.140E-03	0.532
NB-95		765.81	*	2.001E-02	4.798E-02	6.984E-02	7.299E-03	0.287
NB-95M		235.69	*	4.864E-02	9.064E-02	1.387E-01	1.400E-02	0.351
ZR-95		724.19		5.194E-02	1.045E-01	1.540E-01	1.749E-02	0.337
		756.73	*	-8.187E-03	7.409E-02	1.179E-01	1.329E-02	-0.069
MO-99		140.51		1.460E+01	4.160E+01	6.566E+01	1.601E+01	0.222
		181.07		-1.487E+01	3.522E+01	5.252E+01	9.799E+00	-0.283
		366.42		-5.710E+01	2.199E+02	3.455E+02	2.898E+01	-0.165
		739.50	*	-2.756E+01	3.474E+01	5.171E+01	8.771E+00	-0.533
		777.92		-1.031E+02	1.020E+02	1.480E+02	1.530E+01	-0.697
TC-99M		140.51	*	1.507E+15	1.020E+02	Half-Life too short		
RU-103		497.08	*	-4.041E-03	3.496E-02	5.799E-02	8.392E-03	-0.070
	+	610.33		1.650E+01	3.352E+00	2.922E+00	5.110E-01	5.647
RH-106		621.93	*	2.005E-01	2.717E-01	4.652E-01	6.845E-02	0.431
		1050.41		9.697E-01	2.583E+00	4.368E+00	3.777E-01	0.222
RU-106		621.93	*	2.005E-01	2.709E-01	4.652E-01	4.991E-02	0.431
		1050.41		9.697E-01	2.583E+00	4.368E+00	3.777E-01	0.222
AG-108M		433.94	*	1.199E-02	2.328E-02	4.041E-02	3.578E-03	0.297
		614.28		3.466E-02	3.297E-02	5.179E-02	5.642E-03	0.669
		722.91		-1.148E-02	4.120E-02	5.633E-02	6.196E-03	-0.204
AG-110M		657.76	*	1.921E-03	3.529E-02	5.053E-02	5.668E-03	0.038
		677.62		-2.419E-02	3.023E-01	4.877E-01	5.458E-02	-0.050
		706.68		1.916E-01	2.054E-01	3.514E-01	3.890E-02	0.545
		763.94		7.500E-02	1.725E-01	2.520E-01	2.687E-02	0.298
		884.68		-2.682E-02	4.348E-02	6.875E-02	6.348E-03	-0.390
		937.49		-7.407E-02	1.136E-01	1.793E-01	1.627E-02	-0.413
		1384.29		5.574E-02	1.456E-01	2.533E-01	2.137E-02	0.220
		1505.03		1.609E-01	2.603E-01	4.175E-01	3.474E-02	0.385
SN-113		391.69	*	-2.679E-02	3.762E-02	5.700E-02	4.694E-03	-0.470
CD-115		260.90		-2.042E-04	3.762E-02	Half-Life too short		
		492.35		7.916E-05	3.762E-02	Half-Life too short		
		527.90	*	7.571E-06	3.762E-02	Half-Life too short		
SN-117M		156.02		3.988E-01	1.791E+00	2.799E+00	2.526E-01	0.142

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		158.56	*	-1.996E-02	4.490E-02	6.659E-02	5.862E-03	-0.300
TE-123M		159.00	*	-5.911E-03	1.816E-02	2.867E-02	2.527E-03	-0.206
SB-124		602.73		1.050E-02	3.968E-02	5.846E-02	6.174E-03	0.180
		645.85		-3.995E-02	4.432E-01	7.175E-01	8.122E-02	-0.056
		722.78		-1.278E-01	4.349E-01	5.937E-01	6.492E-02	-0.215
		1690.97	*	1.140E-02	8.283E-02	1.385E-01	1.209E-02	0.082
SB-125		427.87	*	-7.887E-02	7.205E-02	1.142E-01	9.877E-03	-0.691
	+	463.37		7.747E-01	3.771E-01	4.562E-01	4.382E-02	1.698
		600.60		-1.804E-02	1.597E-01	2.603E-01	2.881E-02	-0.069
		635.95		7.166E-02	2.327E-01	3.884E-01	4.432E-02	0.185
TE-125M		109.28	*	5.010E-01	5.511E+00	8.811E+00	1.072E+00	0.057
I-126		388.63		-1.880E-02	1.673E-01	2.639E-01	2.113E-02	-0.071
		666.33	*	3.679E-02	2.976E-01	4.280E-01	4.722E-02	0.086
		753.82		2.858E-01	2.253E+00	3.651E+00	3.852E-01	0.078
SB-126		414.70		4.458E-02	8.027E-02	1.253E-01	1.039E-02	0.356
		666.50		1.673E-02	1.027E-01	1.483E-01	1.636E-02	0.113
		695.00		-5.110E-02	9.027E-02	1.396E-01	1.525E-02	-0.366
		697.00		-1.547E-01	3.125E-01	4.863E-01	5.309E-02	-0.318
		720.70	*	1.016E-01	1.833E-01	2.863E-01	3.089E-02	0.355
		856.80		4.486E-01	5.789E-01	9.149E-01	8.591E-02	0.490
SB-127		252.40		5.598E+00	7.050E+00	1.137E+01	4.776E+00	0.492
		473.00		2.363E+00	2.797E+00	4.893E+00	7.005E-01	0.483
		685.70	*	3.703E+00	2.908E+00	5.031E+00	7.264E-01	0.736
		783.70		9.306E-01	7.185E+00	1.160E+01	1.711E+00	0.080
I-131		80.19		-3.411E+00	2.983E+00	4.283E+00	3.820E-01	-0.796
		284.31		-9.521E-02	1.482E+00	2.415E+00	2.266E-01	-0.039
		364.49	*	2.967E-02	1.261E-01	2.045E-01	1.825E-02	0.145
		636.99		1.427E+00	1.949E+00	3.343E+00	3.771E-01	0.427
TE-132		49.72		1.705E+00	5.475E+00	8.645E+00	1.051E+00	0.197
		111.76		3.685E+01	4.590E+01	7.488E+01	1.041E+01	0.492
		116.30		5.491E+01	4.255E+01	6.974E+01	9.867E+00	0.787
		228.16	*	-9.806E-01	1.239E+00	1.978E+00	3.336E-01	-0.496
BA-133		81.00		-6.013E-02	4.324E-02	6.018E-02	9.427E-03	-0.999
	+	276.40		6.431E-01	3.550E-01	4.738E-01	6.775E-02	1.357
		302.85		4.562E-02	1.091E-01	1.627E-01	2.157E-02	0.280
		356.01	*	2.983E-02	3.349E-02	5.089E-02	6.561E-03	0.586
		383.85		-1.405E-01	2.300E-01	3.508E-01	4.234E-02	-0.400
I-133		529.87	*	-6.207E-02	2.300E-01	Half-Life too short		
		875.33		-1.068E+00	2.300E-01	Half-Life too short		
		1298.22		3.051E-01	2.300E-01	Half-Life too short		
CS-134		563.25		2.169E-01	3.042E-01	5.242E-01	5.369E-02	0.414
		569.33		-1.239E-01	1.635E-01	2.471E-01	2.553E-02	-0.502
		604.72		-8.163E-03	3.263E-02	4.581E-02	4.854E-03	-0.178
	+	795.86	*	1.096E-01	5.859E-02	8.032E-02	8.199E-03	1.364
		801.95		6.988E-03	3.850E-01	6.150E-01	6.231E-02	0.011
		1365.19		8.671E-01	1.162E+00	2.091E+00	1.796E-01	0.415
CS-135		268.22	*	1.258E-01	1.188E-01	1.831E-01	1.875E-02	0.687
I-135		546.56		-4.109E+13	1.188E-01	Half-Life too short		
		836.80		1.763E+14	1.188E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1038.76		-5.573E+14	1.188E-01	Half-Life too short		
		1131.51		2.101E+13	1.188E-01	Half-Life too short		
		1260.41	*	4.587E+14	1.188E-01	Half-Life too short		
		1457.56		5.113E+16	1.188E-01	Half-Life too short		
		1678.03		4.439E+14	1.188E-01	Half-Life too short		
		1791.20		3.148E+14	1.188E-01	Half-Life too short		
CS-136	+	153.25		1.448E+00	1.016E+00	1.157E+00	1.251E-01	1.252
		176.60		1.364E-01	3.725E-01	6.409E-01	5.897E-02	0.213
		273.65		3.875E-01	5.724E-01	7.083E-01	6.829E-02	0.547
		340.55		1.400E-02	1.513E-01	2.183E-01	1.970E-02	0.064
		818.51		-9.439E-03	8.022E-02	1.338E-01	1.326E-02	-0.071
		1048.07	*	-5.081E-02	1.362E-01	2.168E-01	1.956E-02	-0.234
		1235.36		4.398E-01	8.063E-01	1.347E+00	1.547E-01	0.326
CE-139		165.86	*	-1.466E-03	1.825E-02	3.107E-02	2.526E-03	-0.047
BA-140		162.66		4.953E-02	6.027E-01	1.033E+00	9.323E-02	0.048
		304.85		-6.560E-01	1.266E+00	1.875E+00	5.506E-01	-0.350
		423.72		1.917E+00	2.037E+00	3.447E+00	1.132E+00	0.556
		537.26	*	-1.037E-01	2.844E-01	4.569E-01	1.565E-01	-0.227
LA-140	+	328.76		7.738E-01	3.878E-01	5.341E-01	4.955E-02	1.449
		487.02		1.514E-01	1.431E-01	2.529E-01	2.475E-02	0.599
		815.77		2.346E-01	3.536E-01	6.238E-01	6.749E-02	0.376
		1596.21	*	7.334E-02	1.018E-01	1.664E-01	1.392E-02	0.441
CE-141		145.44	*	-1.156E-02	4.375E-02	6.733E-02	6.751E-03	-0.172
CE-143		57.36		2.211E-03	4.375E-02	Half-Life too short		
		293.27	*	1.929E-03	4.375E-02	Half-Life too short		
		664.57		1.012E-02	4.375E-02	Half-Life too short		
		721.93		5.237E-03	4.375E-02	Half-Life too short		
CE-144		80.12		-1.295E+00	1.115E+00	1.599E+00	1.411E-01	-0.810
		133.52	*	6.507E-02	1.204E-01	1.923E-01	3.189E-02	0.338
PM-144		476.78		-3.715E-03	5.202E-02	8.687E-02	8.568E-03	-0.043
		618.01		-2.019E-02	2.861E-02	4.435E-02	4.831E-03	-0.455
		696.49	*	-2.446E-02	3.198E-02	4.863E-02	5.312E-03	-0.503
PR-144		696.51	*	-1.821E+00	2.400E+00	3.651E+00	3.987E-01	-0.499
		1489.16		-3.152E+00	1.121E+01	1.784E+01	1.482E+00	-0.177
PM-146		453.88	*	1.388E-02	3.327E-02	5.728E-02	6.175E-03	0.242
		633.25		-2.766E-01	1.244E+00	1.990E+00	7.713E-01	-0.139
		735.93		1.209E-02	1.323E-01	2.144E-01	6.159E-02	0.056
		747.24		7.701E-02	9.605E-02	1.622E-01	2.569E-02	0.475
ND-147	+	91.11		1.067E+00	2.181E-01	2.829E-01	2.888E-02	3.771
		319.41		-2.975E+00	3.279E+00	5.028E+00	4.452E-01	-0.592
		531.02	*	-1.449E-01	6.120E-01	1.000E+00	1.567E-01	-0.145
PM-149		285.90	*	-1.055E-04	6.120E-01	Half-Life too short		
EU-152		121.78		-3.397E-02	4.240E-02	6.440E-02	8.022E-03	-0.527
		244.70		1.102E-01	2.239E-01	3.418E-01	3.043E-02	0.322
		344.28	*	6.194E-02	7.127E-02	1.199E-01	1.099E-02	0.517
		778.90		-2.147E-01	2.406E-01	3.535E-01	3.651E-02	-0.607
	+	964.08		8.471E-01	3.451E-01	5.494E-01	4.814E-02	1.542
		1085.87		-3.109E-01	3.838E-01	5.828E-01	4.989E-02	-0.534
		1112.07		1.040E-01	3.146E-01	5.269E-01	4.468E-02	0.197

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1408.01		2.461E-01	1.705E-01	3.242E-01	2.667E-02	0.759
GD-153		69.67		-2.143E-01	5.666E-01	9.215E-01	7.555E-02	-0.233
		97.43	*	-2.240E-03	5.054E-02	6.565E-02	6.485E-03	-0.034
		103.18		-8.740E-02	6.599E-02	9.052E-02	9.241E-03	-0.965
EU-154		123.07		3.778E-02	2.962E-02	4.850E-02	6.599E-03	0.779
		723.31		-6.404E-02	1.907E-01	2.592E-01	2.977E-02	-0.247
		873.19		1.408E-01	2.591E-01	4.504E-01	5.532E-02	0.313
		996.26		-2.241E-01	3.399E-01	5.265E-01	9.227E-02	-0.426
		1004.73		-5.835E-02	2.222E-01	3.593E-01	4.209E-02	-0.162
		1274.44	*	-3.064E-02	1.204E-01	1.890E-01	2.090E-02	-0.162
EU-155	+	86.55		5.494E-01	8.440E-02	9.530E-02	8.936E-03	5.765
		105.31	*	1.071E-01	5.775E-02	9.674E-02	1.008E-02	1.107
TB-160	+	86.79		1.518E+00	2.324E-01	2.754E-01	2.565E-02	5.510
		197.04		7.559E-02	3.570E-01	6.063E-01	5.172E-02	0.125
		215.65		-1.525E-01	5.752E-01	8.523E-01	7.430E-02	-0.179
	+	298.57		2.574E-01	1.152E-01	1.452E-01	1.296E-02	1.773
		879.36	*	-5.747E-03	1.194E-01	1.988E-01	1.799E-02	-0.029
		962.29		8.535E-01	5.639E-01	9.297E-01	8.146E-02	0.918
		966.15		9.983E-01	2.596E-01	4.898E-01	4.290E-02	2.038
		1177.93		1.139E-01	4.019E-01	6.663E-01	5.491E-02	0.171
		1271.85		-1.482E-01	7.620E-01	1.205E+00	9.876E-02	-0.123
HO-166M		80.57		-1.497E-01	1.208E-01	1.726E-01	1.529E-02	-0.867
	+	184.41		1.782E-01	4.454E-02	4.307E-02	3.608E-03	4.136
		280.46		1.429E-02	6.615E-02	9.308E-02	8.301E-03	0.154
	+	410.95		3.810E-01	3.188E-01	3.682E-01	3.033E-02	1.035
		711.68	*	-3.356E-02	5.628E-02	8.652E-02	9.381E-03	-0.388
		752.31		-1.090E-01	2.796E-01	4.356E-01	4.602E-02	-0.250
		810.29		-3.490E-02	5.183E-02	8.267E-02	8.262E-03	-0.422
TA-182		67.75		6.395E-03	3.503E-02	5.803E-02	4.703E-03	0.110
	+	100.11		1.345E-01	1.447E-01	1.521E-01	1.526E-02	0.884
		152.43		1.185E-01	2.471E-01	3.605E-01	3.363E-02	0.329
		222.11		8.180E-02	2.370E-01	4.009E-01	3.516E-02	0.204
	+	1121.30		6.756E-01	2.708E-01	3.530E-01	2.982E-02	1.914
		1189.05		-5.085E-02	3.457E-01	5.546E-01	4.570E-02	-0.092
		1221.41	*	-2.550E-01	2.285E-01	3.377E-01	2.780E-02	-0.755
		1231.02		7.543E-04	5.409E-01	8.742E-01	7.192E-02	0.001
IR-192	+	295.96		1.270E+00	1.834E-01	2.385E-01	2.143E-02	5.324
		308.46		-1.074E-02	6.820E-02	1.097E-01	9.814E-03	-0.098
		316.51	*	-4.150E-03	2.693E-02	4.326E-02	3.844E-03	-0.096
		468.07		6.869E-03	5.927E-02	8.864E-02	8.547E-03	0.077
HG-203		70.83		-4.926E-01	4.910E-01	7.737E-01	1.228E-01	-0.637
		72.87		2.814E-01	3.190E-01	4.942E-01	7.610E-02	0.569
		279.20	*	2.902E-03	3.225E-02	4.509E-02	4.117E-03	0.064
BI-207		72.81		5.791E-02	6.852E-02	1.067E-01	8.930E-03	0.543
	+	74.97		7.234E-01	8.138E-02	1.091E-01	9.269E-03	6.628
		569.70		-2.825E-02	2.580E-02	3.788E-02	3.879E-03	-0.746
		1063.66	*	8.562E-03	5.134E-02	8.539E-02	7.359E-03	0.100
		1770.23		-2.096E-02	4.981E-01	6.869E-01	5.707E-02	-0.031
PB-211		404.85	*	-2.759E-01	6.908E-01	9.211E-01	4.450E-01	-0.300

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.09		3.373E-02	1.177E+00	1.995E+00	9.226E-01	0.017
		832.01		2.002E-01	8.751E-01	1.485E+00	7.731E-01	0.135
BI-212	+	727.33	*	2.347E+00	8.201E-01	1.116E+00	1.564E-01	2.102
		785.37		3.314E+00	2.909E+00	5.035E+00	5.168E-01	0.658
		1620.50		1.630E+00	2.279E+00	4.102E+00	3.430E-01	0.397
RN-219	+	271.23		5.336E-01	2.400E-01	3.068E-01	3.228E-02	1.739
		401.81	*	-7.249E-02	3.289E-01	5.134E-01	7.485E-02	-0.141
RA-223		81.07		-1.375E-01	9.636E-02	1.362E-01	1.211E-02	-1.009
	+	83.79		2.633E-01	8.516E-02	9.830E-02	8.931E-03	2.679
		94.87		1.937E-01	2.187E-01	3.365E-01	3.278E-02	0.576
		144.24		4.270E-01	4.466E-01	7.050E-01	7.656E-02	0.606
	+	154.21		5.220E-01	3.655E-01	4.328E-01	4.310E-02	1.206
	+	269.46		4.146E-01	1.852E-01	2.499E-01	2.275E-02	1.659
		323.87	*	7.878E-02	5.194E-01	7.566E-01	1.319E-01	0.104
	+	338.28		7.033E+00	1.581E+00	1.956E+00	2.375E-01	3.595
AC-227		79.69		-6.972E-01	5.554E-01	7.786E-01	1.349E-01	-0.895
		235.96		5.651E-02	1.057E-01	1.617E-01	1.705E-02	0.350
		256.23	*	-1.023E-01	1.810E-01	2.906E-01	3.568E-02	-0.352
	+	299.98		1.928E+00	8.813E-01	1.219E+00	1.574E-01	1.582
		304.50		-6.445E-01	1.211E+00	1.807E+00	3.014E-01	-0.357
		334.37		-9.197E-01	1.351E+00	1.826E+00	2.860E-01	-0.504
TH-227		79.80		-9.010E-01	7.430E-01	1.030E+00	2.251E-01	-0.875
		235.96		5.651E-02	1.057E-01	1.617E-01	1.612E-02	0.350
		256.23	*	-1.023E-01	1.811E-01	2.906E-01	4.012E-02	-0.352
	+	299.98		1.928E+00	8.813E-01	1.219E+00	1.574E-01	1.582
		304.50		-6.445E-01	1.211E+00	1.807E+00	3.014E-01	-0.357
		334.37		-9.197E-01	1.351E+00	1.826E+00	2.860E-01	-0.504
PA-231		283.69	*	-7.276E-01	9.947E-01	1.557E+00	2.299E-01	-0.467
	+	301.36		1.239E+00	5.643E-01	7.559E-01	9.347E-02	1.639
TH-231		81.07		-1.375E-01	9.636E-02	1.362E-01	1.211E-02	-1.009
	+	83.79		2.633E-01	8.516E-02	9.830E-02	8.931E-03	2.679
		94.87		1.937E-01	2.187E-01	3.365E-01	3.278E-02	0.576
		144.24		4.270E-01	4.466E-01	7.050E-01	7.656E-02	0.606
	+	154.21		5.220E-01	3.655E-01	4.328E-01	4.310E-02	1.206
	+	269.46		4.146E-01	1.852E-01	2.499E-01	2.275E-02	1.659
		323.87	*	7.878E-02	5.194E-01	7.566E-01	1.319E-01	0.104
	+	338.28		7.033E+00	1.581E+00	1.956E+00	2.375E-01	3.595
PA-233	+	300.13		8.724E-01	4.043E-01	5.509E-01	8.266E-02	1.584
		311.90	*	-5.600E-03	4.670E-02	7.526E-02	6.870E-03	-0.074
		340.48		1.524E-01	5.183E-01	7.563E-01	1.822E-01	0.202
PA-234		94.67		1.406E-01	8.615E-02	1.336E-01	1.763E-02	1.052
	+	98.44		6.633E-02	8.019E-02	7.511E-02	4.207E-02	0.883
		111.00		-5.948E-02	1.013E-01	1.569E-01	2.143E-02	-0.379
		131.20		3.076E-03	6.880E-02	9.962E-02	1.086E-02	0.031
		569.50		-2.383E-01	2.296E-01	3.392E-01	3.472E-02	-0.703
		733.00		9.710E-02	3.571E-01	5.439E-01	1.256E-01	0.179
		880.51		3.447E-02	2.261E-01	3.830E-01	3.459E-02	0.090
		883.24		-2.550E-02	2.412E-01	3.984E-01	2.680E-01	-0.064
		926.50		1.824E-02	1.637E-01	2.746E-01	6.956E-02	0.066

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	-1.728E-01	2.950E-01	4.641E-01	8.741E-02	-0.372
		949.00		2.064E-01	4.414E-01	7.573E-01	6.638E-02	0.273
PA-234M		766.42		9.208E+00	1.359E+01	1.905E+01	9.731E+00	0.483
		1001.03	*	2.070E+00	4.634E+00	7.895E+00	7.943E-01	0.262
NP-239	+	99.53		1.203E-01	1.295E-01	1.392E-01	1.392E-02	0.864
		103.37		-7.215E-02	5.946E-02	8.216E-02	8.397E-03	-0.878
		106.12		5.567E-02	4.653E-02	7.694E-02	7.993E-03	0.724
		117.23	*	-3.099E-01	2.407E-01	3.582E-01	3.986E-02	-0.865
		228.18		-1.111E-01	1.411E-01	2.269E-01	2.000E-02	-0.490
	+	277.60		3.178E-01	1.718E-01	2.319E-01	2.069E-02	1.370
AM-241		59.54	*	-3.614E-02	3.662E-02	5.412E-02	4.591E-03	-0.668
CM-247	+	278.00		1.350E+00	7.295E-01	9.772E-01	8.716E-02	1.381
		287.50		8.215E-02	8.786E-01	1.442E+00	1.287E-01	0.057
		402.40	*	-1.819E-02	3.102E-02	4.729E-02	3.835E-03	-0.385
CF-249		252.80		4.709E-01	6.685E-01	1.136E+00	1.014E-01	0.415
		333.37		3.215E-02	1.406E-01	2.055E-01	1.800E-02	0.156
		388.16	*	9.434E-03	3.128E-02	5.064E-02	4.060E-03	0.186
CF-251		177.52	*	2.961E-02	7.738E-02	1.332E-01	1.103E-02	0.222
		227.38		-2.032E-01	2.279E-01	3.644E-01	3.210E-02	-0.558
		285.41		-1.928E-01	1.492E+00	2.422E+00	2.162E-01	-0.080

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189    *
* Acquisition date : 24-MAR-2010 23:00:25 Detector SN#     :               *
* Detector ID        : GAM21               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 04:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 04:00:50.22     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        :  5-MAR-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202065189         Analyst initials: MXR1           *
* Batch Number       : 962633              Sample Quantity : 1.2207E+02 GRAM *
* Recovery           :    1.00000          Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.308E+01	3.235E+00	4.812E-01	0.000E+00
CD-109	4.658E+00	6.989E-01	5.224E-01	0.000E+00
SN-126	4.523E-01	6.787E-02	5.064E-02	0.000E+00
BA-137M	1.069E-01	6.017E-02	5.730E-02	0.000E+00
CS-137	1.129E-01	6.357E-02	6.053E-02	0.000E+00
TL-208	5.839E-01	9.234E-02	4.622E-02	0.000E+00
PB-210	2.719E+00	5.576E-01	4.671E-01	0.000E+00
BI-211	3.938E+00	4.831E-01	2.469E-01	0.000E+00
PB-212	1.910E+00	2.054E-01	6.247E-02	0.000E+00
BI-214	1.480E+00	2.282E-01	1.012E-01	0.000E+00
PB-214	1.429E+00	1.916E-01	8.987E-02	0.000E+00
RA-224	4.630E+00	9.265E-01	6.714E-01	0.000E+00
RA-226	1.480E+00	2.282E-01	1.012E-01	0.000E+00
AC-228	1.977E+00	3.637E-01	2.107E-01	0.000E+00
RA-228	1.977E+00	3.637E-01	2.107E-01	0.000E+00
TH-228	1.910E+00	2.054E-01	6.247E-02	0.000E+00
TH-229	-2.275E-01	3.272E-01	5.621E-01	0.000E+00
TH-230	1.479E+00	2.150E-01	1.011E-01	0.000E+00
TH-232	1.977E+00	3.637E-01	2.107E-01	0.000E+00
TH-234	1.778E+00	6.867E-01	5.800E-01	0.000E+00
U-235	1.100E-01	1.311E-01	2.149E-01	0.000E+00
NP-237	1.350E+00	3.434E-01	1.505E-01	0.000E+00
U-238	1.778E+00	6.867E-01	5.800E-01	0.000E+00
ANH-511	1.489E-01	6.496E-02	3.984E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	5.292E-02	2.661E-01	4.663E-01	0.000E+00	NOT IDENT.
NA-22	-1.556E-03	4.142E-02	6.780E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.363E+07	0.000E+00	0.000E+00	SHORT HLIF

SC-46	1.971E-02	3.746E-02	6.654E-02	0.000E+00	FAIL ABUN
V-48	3.861E-02	8.247E-02	1.445E-01	0.000E+00	NOT IDENT.
CR-51	-2.034E-01	2.961E-01	4.782E-01	0.000E+00	NOT IDENT.
MN-54	-1.687E-03	3.216E-02	5.523E-02	0.000E+00	NOT IDENT.
CO-56	6.398E-03	3.510E-02	6.123E-02	0.000E+00	NOT IDENT.
CO-57	-9.237E-03	1.451E-02	2.340E-02	0.000E+00	NOT IDENT.
CO-58	-1.424E-02	3.432E-02	5.745E-02	0.000E+00	NOT IDENT.
FE-59	-3.716E-02	9.412E-02	1.521E-01	0.000E+00	NOT IDENT.
CO-60	-8.831E-04	3.316E-02	5.656E-02	0.000E+00	NOT IDENT.
ZN-65	-4.955E-04	1.088E-01	1.569E-01	0.000E+00	NOT IDENT.
SE-75	-1.302E-02	2.925E-02	4.899E-02	0.000E+00	NOT IDENT.
SR-85	2.077E-02	3.460E-02	5.478E-02	0.000E+00	NOT IDENT.
Y-88	2.893E-02	3.469E-02	6.501E-02	0.000E+00	NOT IDENT.
Y-91	-8.734E-02	2.491E+01	4.119E+01	0.000E+00	NOT IDENT.
NB-94	-1.641E-02	3.177E-02	5.085E-02	0.000E+00	NOT IDENT.
NB-95	2.001E-02	4.702E-02	7.030E-02	0.000E+00	NOT IDENT.
NB-95M	4.864E-02	8.883E-02	1.417E-01	0.000E+00	NOT IDENT.
ZR-95	-8.187E-03	7.261E-02	1.187E-01	0.000E+00	NOT IDENT.
MO-99	-2.756E+01	3.404E+01	5.208E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.227E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.041E-03	3.426E-02	5.870E-02	0.000E+00	FAIL ABUN
RH-106	2.005E-01	2.662E-01	4.695E-01	0.000E+00	NOT IDENT.
RU-106	2.005E-01	2.655E-01	4.695E-01	0.000E+00	NOT IDENT.
AG-108M	1.199E-02	2.282E-02	4.097E-02	0.000E+00	NOT IDENT.
AG-110M	1.921E-03	3.458E-02	5.096E-02	0.000E+00	NOT IDENT.
SN-113	-2.679E-02	3.686E-02	5.787E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	3.436E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-1.996E-02	4.400E-02	6.837E-02	0.000E+00	NOT IDENT.
TE-123M	-5.911E-03	1.780E-02	2.943E-02	0.000E+00	NOT IDENT.
SB-124	1.140E-02	8.117E-02	1.380E-01	0.000E+00	NOT IDENT.
SB-125	-7.887E-02	7.061E-02	1.158E-01	0.000E+00	FAIL ABUN
TE-125M	5.010E-01	5.401E+00	9.088E+00	0.000E+00	NOT IDENT.
I-126	3.679E-02	2.916E-01	4.316E-01	0.000E+00	NOT IDENT.
SB-126	1.016E-01	1.796E-01	2.884E-01	0.000E+00	NOT IDENT.
SB-127	3.703E+00	2.850E+00	5.071E+00	0.000E+00	NOT IDENT.
I-131	2.967E-02	1.236E-01	2.078E-01	0.000E+00	NOT IDENT.
TE-132	-9.806E-01	1.214E+00	2.021E+00	0.000E+00	NOT IDENT.
BA-133	2.983E-02	3.282E-02	5.173E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.574E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.742E-02	8.081E-02	0.000E+00	FAIL ABUN
CS-135	1.258E-01	1.164E-01	1.868E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.676E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.081E-02	1.334E-01	2.174E-01	0.000E+00	FAIL ABUN
CE-139	-1.466E-03	1.788E-02	3.188E-02	0.000E+00	NOT IDENT.
BA-140	-1.037E-01	2.787E-01	4.620E-01	0.000E+00	NOT IDENT.
LA-140	7.334E-02	9.976E-02	1.659E-01	0.000E+00	FAIL ABUN
CE-141	-1.156E-02	4.288E-02	6.920E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.037E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	6.507E-02	1.180E-01	1.979E-01	0.000E+00	NOT IDENT.
PM-144	-2.446E-02	3.134E-02	4.901E-02	0.000E+00	NOT IDENT.
PR-144	-1.821E+00	2.352E+00	3.679E+00	0.000E+00	NOT IDENT.
PM-146	1.388E-02	3.260E-02	5.804E-02	0.000E+00	NOT IDENT.
ND-147	-1.449E-01	5.997E-01	1.011E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	2.501E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	6.194E-02	6.985E-02	1.219E-01	0.000E+00	FAIL ABUN
GD-153	-2.240E-03	4.953E-02	6.781E-02	0.000E+00	NOT IDENT.
EU-154	-3.064E-02	1.180E-01	1.890E-01	0.000E+00	NOT IDENT.
EU-155	0.000E+00	5.659E-02	9.983E-02	0.000E+00	FAIL ABUN
TB-160	-5.747E-03	1.170E-01	1.997E-01	0.000E+00	FAIL ABUN
HO-166M	-3.356E-02	5.515E-02	8.717E-02	0.000E+00	FAIL ABUN
TA-182	-2.550E-01	2.239E-01	3.379E-01	0.000E+00	FAIL ABUN
IR-192	-4.150E-03	2.639E-02	4.403E-02	0.000E+00	FAIL ABUN
HG-203	2.902E-03	3.161E-02	4.597E-02	0.000E+00	NOT IDENT.
BI-207	8.562E-03	5.032E-02	8.559E-02	0.000E+00	FAIL ABUN
PB-211	-2.759E-01	6.770E-01	9.347E-01	0.000E+00	NOT IDENT.
BI-212	0.000E+00	8.037E-01	1.124E+00	0.000E+00	FAIL ABUN
RN-219	-7.249E-02	3.223E-01	5.211E-01	0.000E+00	FAIL ABUN
RA-223	7.878E-02	5.091E-01	7.699E-01	0.000E+00	FAIL ABUN
AC-227	-1.023E-01	1.774E-01	2.966E-01	0.000E+00	FAIL ABUN
TH-227	-1.023E-01	1.775E-01	2.966E-01	0.000E+00	FAIL ABUN
PA-231	-7.276E-01	9.748E-01	1.587E+00	0.000E+00	FAIL ABUN
TH-231	7.878E-02	5.091E-01	7.699E-01	0.000E+00	FAIL ABUN
PA-233	-5.600E-03	4.577E-02	7.663E-02	0.000E+00	FAIL ABUN
PA-234	-1.728E-01	2.891E-01	4.659E-01	0.000E+00	FAIL ABUN
PA-234M	2.070E+00	4.541E+00	7.920E+00	0.000E+00	NOT IDENT.
NP-239	-3.099E-01	2.359E-01	3.691E-01	0.000E+00	FAIL ABUN
AM-241	-3.614E-02	3.589E-02	5.623E-02	0.000E+00	NOT IDENT.
CM-247	-1.819E-02	3.040E-02	4.799E-02	0.000E+00	FAIL ABUN

CF-249	9.434E-03	3.066E-02	5.141E-02	0.000E+00 NOT IDENT.
CF-251	2.961E-02	7.583E-02	1.365E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:02:27.68

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 23:00:25
Sample ID         : G1202065189          Sample quantity  : 1.22070E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:50.22  0.3%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1652	10.66*	7.204E-01	3.308E+01	3.308E+01	9.98
CD-109	88.03	885	3.70*	8.135E+00	4.523E+00	4.658E+00	15.31
SN-126	64.28	350	9.60	8.182E+00	6.852E-01	6.852E-01	38.04
	86.94	885	8.90	8.135E+00	1.880E+00	1.880E+00	43.25
	87.57	885	37.00*	8.135E+00	4.523E-01	4.523E-01	15.31
BA-137M	661.66	98	89.90*	1.562E+00	1.068E-01	1.069E-01	57.44
CS-137	661.66	98	85.10*	1.562E+00	1.128E-01	1.129E-01	57.44
TL-208	277.37	113	6.60	3.803E+00	6.952E-01	6.952E-01	54.81
	583.19	574	85.00*	1.777E+00	5.839E-01	5.839E-01	16.14
	860.56	60	12.50	1.201E+00	6.159E-01	6.159E-01	51.82
PB-210	46.54	552	4.25*	7.360E+00	2.714E+00	2.719E+00	20.93
BI-211	72.87	------	1.23	8.278E+00	------	Line Not Found	------
	351.06	991	12.92*	2.996E+00	3.938E+00	3.938E+00	12.52
PB-212	74.82	1388	10.28	8.275E+00	2.509E+00	2.509E+00	14.87
	77.11	2112	17.10	8.264E+00	2.298E+00	2.298E+00	10.19
	238.63	2375	43.60*	4.386E+00	1.910E+00	1.910E+00	10.97
	300.09	132	3.30	3.520E+00	1.753E+00	1.753E+00	45.15
BI-214	609.32	744	45.49*	1.699E+00	1.479E+00	1.480E+00	15.74
	1120.29	127	14.92	9.295E-01	1.404E+00	1.404E+00	40.64
	1764.49	85	15.30	5.982E-01	1.426E+00	1.426E+00	30.05
PB-214	74.82	1388	5.80	8.275E+00	4.448E+00	4.448E+00	13.76
	77.11	2112	9.70	8.264E+00	4.050E+00	4.050E+00	13.11
	242.00	535	7.25	4.337E+00	2.618E+00	2.618E+00	21.23
	295.22	706	18.42	3.577E+00	1.648E+00	1.648E+00	15.81
	351.93	991	35.60*	2.996E+00	1.429E+00	1.429E+00	13.68
RA-224	240.99	535	4.10*	4.337E+00	4.630E+00	4.630E+00	20.42
RA-226	609.32	744	45.49*	1.699E+00	1.479E+00	1.480E+00	15.74
	1120.29	127	14.92	9.295E-01	1.404E+00	1.404E+00	40.64
	1764.49	85	15.30	5.982E-01	1.426E+00	1.426E+00	30.05
AC-228	338.32	405	11.27	3.120E+00	1.772E+00	1.772E+00	45.83
	911.20	377	25.80*	1.135E+00	1.977E+00	1.977E+00	18.77
	968.97	214	15.80	1.070E+00	1.944E+00	1.944E+00	31.61

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	405	11.27	3.120E+00	1.772E+00	1.772E+00	45.83
	911.20	377	25.80*	1.135E+00	1.977E+00	1.977E+00	18.77
	968.97	214	15.80	1.070E+00	1.944E+00	1.944E+00	31.61
TH-228	74.82	1388	10.28	8.275E+00	2.509E+00	2.509E+00	11.31
	77.11	2112	17.10	8.264E+00	2.298E+00	2.298E+00	10.19
	238.63	2375	43.60*	4.386E+00	1.910E+00	1.910E+00	10.97
	300.09	132	3.30	3.520E+00	1.753E+00	1.753E+00	75.33
TH-229	85.43	346	14.70	8.185E+00	4.424E-01	4.425E-01	32.34
	88.47	885	24.00	8.135E+00	6.973E-01	6.973E-01	15.31
	193.51	------	4.41*	5.271E+00	------ Line Not Found		------
	210.85	70	2.80	4.884E+00	7.865E-01	7.865E-01	79.57
TH-230	609.32	744	45.49*	1.699E+00	1.479E+00	1.479E+00	14.83
	1120.29	127	14.92	9.295E-01	1.404E+00	1.404E+00	40.08
	1764.49	85	15.30	5.982E-01	1.426E+00	1.426E+00	30.05
TH-232	338.32	405	11.27	3.120E+00	1.772E+00	1.772E+00	20.83
	911.20	377	25.80*	1.135E+00	1.977E+00	1.977E+00	18.77
	968.97	214	15.80	1.070E+00	1.944E+00	1.944E+00	31.61
TH-234	63.29	350	3.70*	8.182E+00	1.778E+00	1.778E+00	39.42
	92.59	857	4.23	8.017E+00	3.887E+00	3.887E+00	26.81
U-235	89.96	456	3.47	8.085E+00	2.498E+00	2.498E+00	30.60
	93.35	857	5.60	8.017E+00	2.936E+00	2.936E+00	27.65
	143.76	------	10.96*	6.567E+00	------ Line Not Found		------
	163.33	------	5.08	6.017E+00	------ Line Not Found		------
	185.72	455	57.20	5.448E+00	2.243E-01	2.243E-01	25.00
	205.31	------	5.01	5.015E+00	------ Line Not Found		------
NP-237	86.48	885	12.40*	8.135E+00	1.350E+00	1.350E+00	25.96
	95.86	------	2.68	7.953E+00	------ Line Not Found		------
U-238	63.29	350	3.70*	8.182E+00	1.778E+00	1.778E+00	39.42
	92.59	857	4.23	8.017E+00	3.887E+00	3.887E+00	17.48
ANH-511	511.00	197	100.00*	2.037E+00	1.489E-01	1.489E-01	44.52

Flag: "*" = Keyline

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

Total number of lines in spectrum 43
Number of unidentified lines 7
Number of lines tentatively identified by NID 36 83.72%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.308E+01	3.308E+01	0.330E+01	9.98	
CD-109	461.40D	1.03	4.523E+00	4.658E+00	0.713E+00	15.31	
SN-126	2.30E+05Y	1.00	4.523E-01	4.523E-01	0.693E-01	15.31	
BA-137M	30.08Y	1.00	1.068E-01	1.069E-01	0.614E-01	57.44	
CS-137	30.08Y	1.00	1.128E-01	1.129E-01	0.649E-01	57.44	
TL-208	1.41E+10Y	1.00	5.839E-01	5.839E-01	0.942E-01	16.14	
PB-210	22.20Y	1.00	2.714E+00	2.719E+00	0.569E+00	20.93	
BI-211	7.04E+08Y	1.00	3.938E+00	3.938E+00	0.493E+00	12.52	
PB-212	1.41E+10Y	1.00	1.910E+00	1.910E+00	0.210E+00	10.97	
BI-214	1600.00Y	1.00	1.479E+00	1.480E+00	0.233E+00	15.74	
PB-214	1600.00Y	1.00	1.429E+00	1.429E+00	0.196E+00	13.68	
RA-224	1.41E+10Y	1.00	4.630E+00	4.630E+00	0.945E+00	20.42	
RA-226	1600.00Y	1.00	1.479E+00	1.480E+00	0.233E+00	15.74	
AC-228	1.41E+10Y	1.00	1.977E+00	1.977E+00	0.371E+00	18.77	
RA-228	1.41E+10Y	1.00	1.977E+00	1.977E+00	0.371E+00	18.77	
TH-228	1.41E+10Y	1.00	1.910E+00	1.910E+00	0.210E+00	10.97	
TH-229	7340.00Y	1.00	6.973E-01	6.973E-01	1.068E-01	15.31	K
TH-230	7.54E+04Y	1.00	1.479E+00	1.479E+00	0.219E+00	14.83	
TH-232	1.41E+10Y	1.00	1.977E+00	1.977E+00	0.371E+00	18.77	
TH-234	4.47E+09Y	1.00	1.778E+00	1.778E+00	0.701E+00	39.42	
U-235	7.04E+08Y	1.00	2.243E-01	2.243E-01	0.561E-01	25.00	K
NP-237	2.14E+06Y	1.00	1.350E+00	1.350E+00	0.350E+00	25.96	
U-238	4.47E+09Y	1.00	1.778E+00	1.778E+00	0.701E+00	39.42	
ANH-511	1.00E+09Y	1.00	1.489E-01	1.489E-01	0.663E-01	44.52	
	Total Activity :		7.173E+01	7.187E+01			

Grand Total Activity : 7.173E+01 7.187E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	99.35	86	678	0.85	198.64	195	8	5.99E-03	****	7.87E+00	T
0	128.90	140	664	0.94	257.71	255	8	9.71E-03	66.0	7.01E+00	
0	154.10	121	551	1.09	308.09	305	8	8.43E-03	69.3	6.27E+00	T
1	209.03	241	275	0.97	417.90	413	14	1.67E-02	25.3	4.94E+00	
0	270.08	146	277	1.53	539.96	536	8	1.02E-02	43.7	3.90E+00	T
0	327.96	114	221	0.99	655.68	652	8	7.89E-03	49.2	3.22E+00	T
0	410.14	71	228	1.66	820.01	815	10	4.93E-03	83.3	2.56E+00	T
0	462.58	119	182	1.17	924.87	920	11	8.23E-03	47.7	2.26E+00	T
0	727.18	145	103	1.39	1454.07	1448	11	1.00E-02	32.0	1.42E+00	T
0	768.11	59	71	1.28	1535.94	1532	8	4.08E-03	56.3	1.34E+00	
0	795.09	70	70	0.93	1589.90	1585	11	4.86E-03	52.5	1.30E+00	T
4	964.65	86	50	2.37	1929.11	1924	20	6.00E-03	39.8	1.07E+00	T
0	1508.85	27	4	2.21	3018.15	3014	8	1.88E-03	46.1	6.98E-01	
2	1587.81	37	16	2.40	3176.22	3168	23	2.56E-03	49.7	6.64E-01	
2	1592.31	40	5	2.40	3185.22	3168	23	2.81E-03	46.1	6.62E-01	
0	1729.10	25	14	1.12	3459.06	3452	14	1.72E-03	77.3	6.10E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:02:34.27

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*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1   *
* Acquisition date : 24-MAR-2010 23:00:25  Detector SN#    :                  *
* Detector ID      : GAM21                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 04:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 04:00:50.22         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 5-MAR-2010 12:00:00.  Nuclide Library : SOLID             *
* Sample ID        : G1202065189           Analyst initials: MXR1              *
* Batch Number     : 962633                Sample Quantity : 1.22070E+02 GRAM  *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51.9MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.308E+01	3.301E+00	4.821E-01	4.116E-02	68.620
CD-109	4.658E+00	7.132E-01	5.051E-01	4.753E-02	9.222
SN-126	4.523E-01	6.926E-02	4.896E-02	4.590E-03	9.238
BA-137M	1.069E-01	6.140E-02	5.681E-02	6.275E-03	1.882
CS-137	1.129E-01	6.487E-02	6.002E-02	6.636E-03	1.882
TL-208	5.839E-01	9.423E-02	4.576E-02	4.981E-03	12.760
PB-210	2.719E+00	5.690E-01	4.482E-01	4.239E-02	6.066
BI-211	3.938E+00	4.930E-01	2.429E-01	2.192E-02	16.215
PB-212	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
BI-214	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
PB-214	1.429E+00	1.955E-01	8.840E-02	9.345E-03	16.167
RA-224	4.630E+00	9.454E-01	6.574E-01	5.842E-02	7.043
RA-226	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
AC-228	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
RA-228	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
TH-228	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
TH-229	6.973E-01	1.068E-01	5.488E-01	4.659E-02	1.271
TH-230	1.479E+00	2.193E-01	1.002E-01	1.064E-02	14.766

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
TH-234	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
U-235	2.243E-01	5.607E-02	2.091E-01	3.701E-02	1.073
NP-237	1.350E+00	3.504E-01	1.455E-01	3.337E-02	9.276
U-238	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
ANH-511	1.489E-01	6.629E-02	3.937E-02	3.775E-03	3.781

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	5.292E-02		2.715E-01	4.604E-01	4.510E-02	0.115
NA-22	-1.556E-03		4.226E-02	6.780E-02	5.562E-03	-0.023
NA-24	-8.318E+01		4.267E+01	Half-Life too short		
SC-46	1.971E-02		3.822E-02	6.623E-02	5.889E-03	0.298
V-48	3.861E-02		8.415E-02	1.440E-01	1.260E-02	0.268
CR-51	-2.034E-01		3.022E-01	4.699E-01	4.365E-02	-0.433
MN-54	-1.687E-03		3.282E-02	5.493E-02	5.324E-03	-0.031
CO-56	6.398E-03		3.581E-02	6.091E-02	5.806E-03	0.105
CO-57	-9.237E-03		1.481E-02	2.271E-02	2.609E-03	-0.407
CO-58	-1.424E-02		3.502E-02	5.711E-02	5.715E-03	-0.249
FE-59	-3.716E-02		9.604E-02	1.518E-01	1.401E-02	-0.245
CO-60	-8.831E-04		3.383E-02	5.659E-02	4.593E-03	-0.016
ZN-65	-4.955E-04		1.110E-01	1.566E-01	1.328E-02	-0.003
SE-75	-1.302E-02		2.985E-02	4.802E-02	4.312E-03	-0.271
SR-85	2.077E-02		3.530E-02	5.415E-02	5.210E-03	0.384
Y-88	2.893E-02		3.540E-02	6.532E-02	5.393E-03	0.443
Y-91	-8.734E-02		2.542E+01	4.116E+01	3.391E+00	-0.002
NB-94	-1.641E-02		3.242E-02	5.046E-02	5.496E-03	-0.325
NB-95	2.001E-02		4.798E-02	6.984E-02	7.299E-03	0.287
NB-95M	4.864E-02		9.064E-02	1.387E-01	1.400E-02	0.351
ZR-95	-8.187E-03		7.409E-02	1.179E-01	1.329E-02	-0.069
MO-99	-2.756E+01		3.474E+01	5.171E+01	8.771E+00	-0.533
TC-99M	1.507E+15		2.157E+15	Half-Life too short		
RU-103	-4.041E-03		3.496E-02	5.799E-02	8.392E-03	-0.070
RH-106	2.005E-01		2.717E-01	4.652E-01	6.845E-02	0.431
RU-106	2.005E-01		2.709E-01	4.652E-01	4.991E-02	0.431
AG-108M	1.199E-02		2.328E-02	4.041E-02	3.578E-03	0.297
AG-110M	1.921E-03		3.529E-02	5.053E-02	5.668E-03	0.038
SN-113	-2.679E-02		3.762E-02	5.700E-02	4.694E-03	-0.470
CD-115	7.571E-06		1.753E-05	Half-Life too short		
SN-117M	-1.996E-02		4.490E-02	6.659E-02	5.862E-03	-0.300
TE-123M	-5.911E-03		1.816E-02	2.867E-02	2.527E-03	-0.206
SB-124	1.140E-02		8.283E-02	1.385E-01	1.209E-02	0.082
SB-125	-7.887E-02		7.205E-02	1.142E-01	9.877E-03	-0.691
TE-125M	5.010E-01		5.511E+00	8.811E+00	1.072E+00	0.057
I-126	3.679E-02		2.976E-01	4.280E-01	4.722E-02	0.086
SB-126	1.016E-01		1.833E-01	2.863E-01	3.089E-02	0.355

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-127	3.703E+00		2.908E+00	5.031E+00	7.264E-01	0.736
I-131	2.967E-02		1.261E-01	2.045E-01	1.825E-02	0.145
TE-132	-9.806E-01		1.239E+00	1.978E+00	3.336E-01	-0.496
BA-133	2.983E-02		3.349E-02	5.089E-02	6.561E-03	0.586
I-133	-6.207E-02		8.031E-02	Half-Life too short		
CS-134	1.096E-01	+	5.859E-02	8.032E-02	8.199E-03	1.364
CS-135	1.258E-01		1.188E-01	1.831E-01	1.875E-02	0.687
I-135	4.587E+14		2.386E+14	Half-Life too short		
CS-136	-5.081E-02		1.362E-01	2.168E-01	1.956E-02	-0.234
CE-139	-1.466E-03		1.825E-02	3.107E-02	2.526E-03	-0.047
BA-140	-1.037E-01		2.844E-01	4.569E-01	1.565E-01	-0.227
LA-140	7.334E-02		1.018E-01	1.664E-01	1.392E-02	0.441
CE-141	-1.156E-02		4.375E-02	6.733E-02	6.751E-03	-0.172
CE-143	1.929E-03		5.292E-04	Half-Life too short		
CE-144	6.507E-02		1.204E-01	1.923E-01	3.189E-02	0.338
PM-144	-2.446E-02		3.198E-02	4.863E-02	5.312E-03	-0.503
PR-144	-1.821E+00		2.400E+00	3.651E+00	3.987E-01	-0.499
PM-146	1.388E-02		3.327E-02	5.728E-02	6.175E-03	0.242
ND-147	-1.449E-01		6.120E-01	1.000E+00	1.567E-01	-0.145
PM-149	-1.055E-04		1.276E-04	Half-Life too short		
EU-152	6.194E-02		7.127E-02	1.199E-01	1.099E-02	0.517
GD-153	-2.240E-03		5.054E-02	6.565E-02	6.485E-03	-0.034
EU-154	-3.064E-02		1.204E-01	1.890E-01	2.090E-02	-0.162
EU-155	1.071E-01		5.775E-02	9.674E-02	1.008E-02	1.107
TB-160	-5.747E-03		1.194E-01	1.988E-01	1.799E-02	-0.029
HO-166M	-3.356E-02		5.628E-02	8.652E-02	9.381E-03	-0.388
TA-182	-2.550E-01		2.285E-01	3.377E-01	2.780E-02	-0.755
IR-192	-4.150E-03		2.693E-02	4.326E-02	3.844E-03	-0.096
HG-203	2.902E-03		3.225E-02	4.509E-02	4.117E-03	0.064
BI-207	8.562E-03		5.134E-02	8.539E-02	7.359E-03	0.100
PB-211	-2.759E-01		6.908E-01	9.211E-01	4.450E-01	-0.300
BI-212	2.347E+00	+	8.201E-01	1.116E+00	1.564E-01	2.102
RN-219	-7.249E-02		3.289E-01	5.134E-01	7.485E-02	-0.141
RA-223	7.878E-02		5.194E-01	7.566E-01	1.319E-01	0.104
AC-227	-1.023E-01		1.810E-01	2.906E-01	3.568E-02	-0.352
TH-227	-1.023E-01		1.811E-01	2.906E-01	4.012E-02	-0.352
PA-231	-7.276E-01		9.947E-01	1.557E+00	2.299E-01	-0.467
TH-231	7.878E-02		5.194E-01	7.566E-01	1.319E-01	0.104
PA-233	-5.600E-03		4.670E-02	7.526E-02	6.870E-03	-0.074
PA-234	-1.728E-01		2.950E-01	4.641E-01	8.741E-02	-0.372
PA-234M	2.070E+00		4.634E+00	7.895E+00	7.943E-01	0.262
NP-239	-3.099E-01		2.407E-01	3.582E-01	3.986E-02	-0.865
AM-241	-3.614E-02		3.662E-02	5.412E-02	4.591E-03	-0.668
CM-247	-1.819E-02		3.102E-02	4.729E-02	3.835E-03	-0.385
CF-249	9.434E-03		3.128E-02	5.064E-02	4.060E-03	0.186
CF-251	2.961E-02		7.738E-02	1.332E-01	1.103E-02	0.222

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065189          *
* Acquisition date  : 24-MAR-2010 23:00:25 Detector SN#    :               *
* Detector ID       : GAM21                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 04:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 04:00:50.22      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  5-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202065189          Analyst initials: MXR1           *
* Batch Number      : 962633               Sample Quantity : 1.2207E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.308E+01	3.235E+00	2.407E-01	1.650E+00
CD-109	4.658E+00	6.989E-01	2.613E-01	3.566E-01
SN-126	4.523E-01	6.787E-02	2.533E-02	3.463E-02
BA-137M	1.069E-01	6.017E-02	2.866E-02	3.070E-02
CS-137	1.129E-01	6.357E-02	3.028E-02	3.243E-02
TL-208	5.839E-01	9.234E-02	2.313E-02	4.711E-02
PB-210	2.719E+00	5.576E-01	2.337E-01	2.845E-01
BI-211	3.938E+00	4.831E-01	1.235E-01	2.465E-01
PB-212	1.910E+00	2.054E-01	3.125E-02	1.048E-01
BI-214	1.480E+00	2.282E-01	5.061E-02	1.164E-01
PB-214	1.429E+00	1.916E-01	4.496E-02	9.776E-02
RA-224	4.630E+00	9.265E-01	3.359E-01	4.727E-01
RA-226	1.480E+00	2.282E-01	5.061E-02	1.164E-01
AC-228	1.977E+00	3.637E-01	1.054E-01	1.855E-01
RA-228	1.977E+00	3.637E-01	1.054E-01	1.855E-01
TH-228	1.910E+00	2.054E-01	3.125E-02	1.048E-01
TH-229	-2.275E-01	3.272E-01	2.812E-01	1.670E-01
TH-230	1.479E+00	2.150E-01	5.060E-02	1.097E-01
TH-232	1.977E+00	3.637E-01	1.054E-01	1.855E-01
TH-234	1.778E+00	6.867E-01	2.902E-01	3.504E-01
U-235	1.100E-01	1.311E-01	1.075E-01	6.689E-02
NP-237	1.350E+00	3.434E-01	7.530E-02	1.752E-01
U-238	1.778E+00	6.867E-01	2.902E-01	3.504E-01
ANH-511	1.489E-01	6.496E-02	1.993E-02	3.314E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	5.292E-02	2.661E-01	2.333E-01	1.358E-01	NOT IDENT.
NA-22	-1.556E-03	4.142E-02	3.392E-02	2.113E-02	NOT IDENT.
NA-24	-8.318E+07	8.363E+07	0.000E+00	4.267E+07	SHORT HLIF

SC-46	1.971E-02	3.746E-02	3.329E-02	1.911E-02	FAIL ABUN
V-48	3.861E-02	8.247E-02	7.229E-02	4.208E-02	NOT IDENT.
CR-51	-2.034E-01	2.961E-01	2.393E-01	1.511E-01	NOT IDENT.
MN-54	-1.687E-03	3.216E-02	2.763E-02	1.641E-02	NOT IDENT.
CO-56	6.398E-03	3.510E-02	3.063E-02	1.791E-02	NOT IDENT.
CO-57	-9.237E-03	1.451E-02	1.171E-02	7.403E-03	NOT IDENT.
CO-58	-1.424E-02	3.432E-02	2.874E-02	1.751E-02	NOT IDENT.
FE-59	-3.716E-02	9.412E-02	7.610E-02	4.802E-02	NOT IDENT.
CO-60	-8.831E-04	3.316E-02	2.830E-02	1.692E-02	NOT IDENT.
ZN-65	-4.955E-04	1.088E-01	7.849E-02	5.550E-02	NOT IDENT.
SE-75	-1.302E-02	2.925E-02	2.451E-02	1.493E-02	NOT IDENT.
SR-85	2.077E-02	3.460E-02	2.741E-02	1.765E-02	NOT IDENT.
Y-88	2.893E-02	3.469E-02	3.252E-02	1.770E-02	NOT IDENT.
Y-91	-8.734E-02	2.491E+01	2.061E+01	1.271E+01	NOT IDENT.
NB-94	-1.641E-02	3.177E-02	2.544E-02	1.621E-02	NOT IDENT.
NB-95	2.001E-02	4.702E-02	3.517E-02	2.399E-02	NOT IDENT.
NB-95M	4.864E-02	8.883E-02	7.090E-02	4.532E-02	NOT IDENT.
ZR-95	-8.187E-03	7.261E-02	5.936E-02	3.704E-02	NOT IDENT.
MO-99	-2.756E+01	3.404E+01	2.605E+01	1.737E+01	NOT IDENT.
TC-99M	1.507E+21	4.227E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.041E-03	3.426E-02	2.936E-02	1.748E-02	FAIL ABUN
RH-106	2.005E-01	2.662E-01	2.349E-01	1.358E-01	NOT IDENT.
RU-106	2.005E-01	2.655E-01	2.349E-01	1.355E-01	NOT IDENT.
AG-108M	1.199E-02	2.282E-02	2.050E-02	1.164E-02	NOT IDENT.
AG-110M	1.921E-03	3.458E-02	2.549E-02	1.764E-02	NOT IDENT.
SN-113	-2.679E-02	3.686E-02	2.895E-02	1.881E-02	NOT IDENT.
CD-115	7.571E+00	3.436E+01	0.000E+00	1.753E+01	SHORT HLIF
SN-117M	-1.996E-02	4.400E-02	3.421E-02	2.245E-02	NOT IDENT.
TE-123M	-5.911E-03	1.780E-02	1.472E-02	9.082E-03	NOT IDENT.
SB-124	1.140E-02	8.117E-02	6.904E-02	4.141E-02	NOT IDENT.
SB-125	-7.887E-02	7.061E-02	5.793E-02	3.603E-02	FAIL ABUN
TE-125M	5.010E-01	5.401E+00	4.547E+00	2.756E+00	NOT IDENT.
I-126	3.679E-02	2.916E-01	2.159E-01	1.488E-01	NOT IDENT.
SB-126	1.016E-01	1.796E-01	1.443E-01	9.164E-02	NOT IDENT.
SB-127	3.703E+00	2.850E+00	2.537E+00	1.454E+00	NOT IDENT.
I-131	2.967E-02	1.236E-01	1.040E-01	6.305E-02	NOT IDENT.
TE-132	-9.806E-01	1.214E+00	1.011E+00	6.194E-01	NOT IDENT.
BA-133	2.983E-02	3.282E-02	2.588E-02	1.675E-02	FAIL ABUN
I-133	-6.207E+04	1.574E+05	0.000E+00	8.031E+04	SHORT HLIF
CS-134	1.096E-01	5.742E-02	4.043E-02	2.929E-02	FAIL ABUN
CS-135	1.258E-01	1.164E-01	9.344E-02	5.938E-02	NOT IDENT.
I-135	4.587E+20	4.676E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.081E-02	1.334E-01	1.088E-01	6.808E-02	FAIL ABUN
CE-139	-1.466E-03	1.788E-02	1.595E-02	9.124E-03	NOT IDENT.
BA-140	-1.037E-01	2.787E-01	2.311E-01	1.422E-01	NOT IDENT.
LA-140	7.334E-02	9.976E-02	8.302E-02	5.090E-02	FAIL ABUN
CE-141	-1.156E-02	4.288E-02	3.462E-02	2.188E-02	NOT IDENT.
CE-143	1.929E+03	1.037E+03	0.000E+00	5.292E+02	SHORT HLIF
CE-144	6.507E-02	1.180E-01	9.900E-02	6.021E-02	NOT IDENT.
PM-144	-2.446E-02	3.134E-02	2.452E-02	1.599E-02	NOT IDENT.
PR-144	-1.821E+00	2.352E+00	1.841E+00	1.200E+00	NOT IDENT.
PM-146	1.388E-02	3.260E-02	2.904E-02	1.663E-02	NOT IDENT.
ND-147	-1.449E-01	5.997E-01	5.060E-01	3.060E-01	FAIL ABUN
PM-149	-1.055E+02	2.501E+02	0.000E+00	1.276E+02	SHORT HLIF
EU-152	6.194E-02	6.985E-02	6.097E-02	3.564E-02	FAIL ABUN
GD-153	-2.240E-03	4.953E-02	3.392E-02	2.527E-02	NOT IDENT.
EU-154	-3.064E-02	1.180E-01	9.455E-02	6.022E-02	NOT IDENT.
EU-155	1.071E-01	5.659E-02	4.994E-02	2.887E-02	FAIL ABUN
TB-160	-5.747E-03	1.170E-01	9.991E-02	5.969E-02	FAIL ABUN
HO-166M	-3.356E-02	5.515E-02	4.361E-02	2.814E-02	FAIL ABUN
TA-182	-2.550E-01	2.239E-01	1.691E-01	1.142E-01	FAIL ABUN
IR-192	-4.150E-03	2.639E-02	2.203E-02	1.346E-02	FAIL ABUN
HG-203	2.902E-03	3.161E-02	2.300E-02	1.613E-02	NOT IDENT.
BI-207	8.562E-03	5.032E-02	4.282E-02	2.567E-02	FAIL ABUN
PB-211	-2.759E-01	6.770E-01	4.676E-01	3.454E-01	NOT IDENT.
BI-212	2.347E+00	8.037E-01	5.625E-01	4.101E-01	FAIL ABUN
RN-219	-7.249E-02	3.223E-01	2.607E-01	1.644E-01	FAIL ABUN
RA-223	7.878E-02	5.091E-01	3.852E-01	2.597E-01	FAIL ABUN
AC-227	-1.023E-01	1.774E-01	1.484E-01	9.051E-02	FAIL ABUN
TH-227	-1.023E-01	1.775E-01	1.484E-01	9.057E-02	FAIL ABUN
PA-231	-7.276E-01	9.748E-01	7.939E-01	4.974E-01	FAIL ABUN
TH-231	7.878E-02	5.091E-01	3.852E-01	2.597E-01	FAIL ABUN
PA-233	-5.600E-03	4.577E-02	3.834E-02	2.335E-02	FAIL ABUN
PA-234	-1.728E-01	2.891E-01	2.331E-01	1.475E-01	FAIL ABUN
PA-234M	2.070E+00	4.541E+00	3.962E+00	2.317E+00	NOT IDENT.
NP-239	-3.099E-01	2.359E-01	1.847E-01	1.204E-01	FAIL ABUN
AM-241	-3.614E-02	3.589E-02	2.813E-02	1.831E-02	NOT IDENT.
CM-247	-1.819E-02	3.040E-02	2.401E-02	1.551E-02	FAIL ABUN

CF-249	9.434E-03	3.066E-02	2.572E-02	1.564E-02	NOT IDENT.
CF-251	2.961E-02	7.583E-02	6.831E-02	3.869E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	382.3819
49.72	381.1498
57.36	0.0000
59.54	550.4957
63.29	559.4451
63.29	559.4451
64.28	561.6814
67.75	588.1947
69.67	620.4482
70.83	683.2540
72.81	631.0656
72.87	631.2015
72.87	631.2015
74.82	649.2062
74.82	649.2062
74.82	649.2062
74.97	649.5571
77.11	654.4687
77.11	654.4687
77.11	654.4687
79.69	660.3061
79.80	660.5546
80.12	661.2709
80.19	661.4268
80.57	662.2795
81.00	663.2346
81.07	663.3904
81.07	663.3904
83.79	419.2444
83.79	419.2444
85.43	421.4813
86.48	422.9004
86.55	422.9950
86.79	423.3154
86.94	423.5229
87.57	424.3683
88.03	424.9847
88.47	425.5707
89.96	427.5513
91.11	429.0680
92.59	431.0028
92.59	431.0028
93.35	431.9916
94.67	433.7006
94.87	399.2432
94.87	399.2432
95.86	376.4735
97.43	400.0696
98.44	379.3152
99.53	380.5045
100.11	381.1353
103.18	472.5843
103.37	472.8342
105.31	364.3499
106.12	399.8791
109.28	393.1222
111.00	416.4730
111.76	350.2151
116.30	345.1195
117.23	454.3180
121.12	384.2086
121.78	391.8261
122.06	383.9254
123.07	317.0178
131.20	386.3469
133.52	351.2325
136.00	386.9476

136.47	359.5998
140.51	378.6374
140.51	0.0000
143.76	376.3907
144.24	371.8658
144.24	371.8658
145.44	397.4217
152.43	354.5406
153.25	377.6382
154.21	365.0069
154.21	365.0069
156.02	347.0552
158.56	342.4923
159.00	341.0150
162.66	347.3612
163.33	340.1570
165.86	355.4814
176.60	312.0628
177.52	312.5799
181.07	336.0922
184.41	339.3945
185.72	327.7660
193.51	352.7901
197.04	309.7168
205.31	307.4907
210.85	298.1895
215.65	325.0573
222.11	288.3309
227.38	293.4285
228.16	297.5532
228.18	297.5628
235.69	270.1439
235.96	278.8735
235.96	278.8735
238.63	267.4234
238.63	267.4234
240.99	268.3086
242.00	268.6875
244.70	218.2755
252.40	240.1799
252.80	240.3095
256.23	276.8838
256.23	276.8838
260.90	0.0000
264.66	215.1958
268.22	195.1627
269.46	230.5568
269.46	230.5568
271.23	227.5553
273.65	190.4612
276.40	230.5559
277.37	223.7427
277.60	223.8102
278.00	200.6144
279.20	196.3463
279.54	184.2473
280.46	185.9822
283.69	219.3654
284.31	204.2155
285.41	205.5106
285.90	0.0000
287.50	215.2551
293.27	0.0000
295.22	181.5521
295.96	161.5193
298.57	162.0144
299.98	223.1320
299.98	223.1320
300.09	223.1626
300.09	223.1626
300.13	223.1713
301.36	200.0469
302.85	190.9973
304.50	209.5573
304.50	209.5573
304.85	203.3622
308.46	174.3689
311.90	192.9743

316.51	199.2681
319.41	210.5402
320.08	200.0560
323.87	182.7208
323.87	182.7208
328.76	190.1331
333.37	166.7841
334.37	183.1698
334.37	183.1698
338.28	157.3400
338.28	157.3400
338.32	157.3459
338.32	157.3459
338.32	157.3459
340.48	199.0319
340.55	199.0468
344.28	152.8658
351.06	173.7190
351.93	173.8733
356.01	134.2576
364.49	147.0928
366.42	151.8379
383.85	165.7500
388.16	149.3206
388.63	159.6505
391.69	179.5445
400.66	156.8101
401.81	161.5902
402.40	176.6915
404.85	177.0806
410.95	153.6079
414.70	131.7010
423.72	135.0353
427.09	144.2790
427.87	169.1738
433.94	135.3286
453.88	128.5337
463.37	135.9043
468.07	117.1875
473.00	107.5345
476.78	128.1321
477.60	123.6008
487.02	108.7074
492.35	0.0000
497.08	123.5828
511.00	125.8138
514.00	121.3486
527.90	0.0000
529.87	0.0000
531.02	116.1257
537.26	119.5309
546.56	0.0000
563.25	101.0763
569.33	96.5645
569.50	105.4424
569.70	105.4555
583.19	93.4722
600.60	124.6963
602.73	111.1715
604.72	119.3756
609.32	117.2957
609.32	117.2957
609.32	117.2957
610.33	127.8928
614.28	86.0137
618.01	116.9162
621.93	86.6264
621.93	86.6264
633.25	100.5720
635.95	88.4014
636.99	81.2566
645.85	93.0652
657.76	96.6374
661.66	124.2041
661.66	124.2041
664.57	0.0000
666.33	110.5178
666.50	108.8560

677.62	110.6076
685.70	94.1850
695.00	109.5727
696.49	116.0520
696.51	116.0553
697.00	109.6953
702.65	122.8613
706.68	95.2958
711.68	107.3669
720.70	89.1956
721.93	0.0000
722.78	114.0659
722.91	114.0756
723.31	119.2878
724.19	103.7754
727.33	91.8235
733.00	81.0970
735.93	85.9385
739.50	100.2684
747.24	88.6407
752.31	114.1118
753.82	99.9256
756.73	101.1781
763.94	90.0743
765.81	99.0008
766.42	106.1045
777.92	98.9462
778.90	95.6582
783.70	88.0842
785.37	72.5359
795.86	68.2052
801.95	88.8871
810.29	86.7656
810.76	79.5545
815.77	63.4358
818.51	73.5012
832.01	76.7197
834.85	84.1387
836.80	0.0000
846.77	71.7387
856.80	61.6016
860.56	77.7533
871.09	63.2486
873.19	68.8962
875.33	0.0000
879.36	60.6868
880.51	56.0479
883.24	63.5989
884.68	73.9352
889.28	71.2741
898.04	82.8523
911.20	73.8658
911.20	73.8658
911.20	73.8658
926.50	72.4523
937.49	97.6994
944.13	88.3703
946.00	87.4786
949.00	77.0039
962.29	64.5296
964.08	64.5768
966.15	77.5586
968.97	77.6504
968.97	77.6504
968.97	77.6504
983.53	71.2819
996.26	80.4865
1001.03	80.6427
1004.73	92.5817
1037.84	79.8320
1038.76	0.0000
1048.07	83.1581
1050.41	73.2032
1050.41	73.2032
1063.66	71.5616
1085.87	83.3453
1099.45	79.6796
1112.07	80.0528

1115.54	95.9128
1120.29	81.3222
1120.29	81.3222
1120.29	81.3222
1120.55	81.3299
1121.30	81.3530
1131.51	0.0000
1173.23	90.2160
1177.93	89.3123
1189.05	100.2046
1204.77	106.0498
1221.41	127.9805
1231.02	111.2719
1235.36	112.5059
1238.28	114.7585
1260.41	0.0000
1271.85	69.4031
1274.44	62.9476
1274.54	59.6943
1291.59	69.8438
1298.22	0.0000
1312.11	70.3031
1332.49	38.6931
1365.19	31.6384
1368.63	0.0000
1384.29	33.6943
1408.01	25.4498
1457.56	0.0000
1460.82	26.8003
1489.16	26.0519
1505.03	18.2755
1596.21	15.3262
1620.50	19.9943
1678.03	0.0000
1690.97	19.3386
1764.49	14.5081
1764.49	14.5081
1764.49	14.5081
1770.23	16.0105
1771.35	14.2355
1791.20	0.0000
1836.06	11.5935

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065189

Total Uranium Activity	5.3397E+00	ug/g
Total Uranium Counting Unc.	2.0440E+00	ug/g
Total Uranium Tpu	1.0428E-06	ug/g
Total Uranium Mda	8.6471E-01	ug/g

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*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G1202065189      *
*   ANALYST       : MXR1                      DETECTOR   : GAM21            *
*   SAMPLE DATE   :  5-MAR-2010 12:00:00.00   COUNT TIME :    0 04:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 23:00:25.28    SAMPLE ALQT:  122.070 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.099E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.251E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 3.798E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.851E+00
```

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 10:17:29.46

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 25-MAR-2010 09:16:55
Sample ID         : G1202065190          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:02.21  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.48	3653	1120	1.07	119.22	113	11	1.01E+00	2.4	
2	2	74.80	274	459	1.22	149.83	145	15	7.62E-02	14.2	3.12E+00
3	2	77.10*	407	386	1.08	154.42	145	15	1.13E-01	9.4	
4	0	88.09	1951	721	1.15	176.38	171	12	5.42E-01	3.6	
5	0	92.85*	119	426	1.77	185.90	183	9	3.31E-02	33.6	
6	0	122.01	348	514	1.08	244.16	238	12	9.68E-02	14.1	
7	0	186.19*	142	575	1.24	372.40	365	13	3.94E-02	36.4	
8	0	209.26	60	349	1.10	418.50	415	8	1.67E-02	55.4	
9	3	238.69*	843	316	1.32	477.30	470	20	2.34E-01	5.1	2.05E+00
10	3	241.58	162	435	1.82	483.08	470	20	4.50E-02	28.8	
11	0	270.41	89	437	1.23	540.69	534	14	2.47E-02	51.1	
12	0	295.39*	209	346	1.61	590.59	585	12	5.80E-02	19.2	
13	0	338.36*	158	363	1.27	676.47	669	12	4.40E-02	25.5	
14	0	351.92*	489	321	1.40	703.58	697	13	1.36E-01	8.9	
15	0	583.37*	288	179	1.16	1166.15	1160	13	8.01E-02	11.4	
16	0	609.38*	312	179	1.79	1218.14	1214	13	8.66E-02	10.6	
17	0	661.69	3635	233	1.70	1322.71	1314	18	1.01E+00	1.9	
18	0	911.46*	231	257	2.20	1822.04	1815	18	6.42E-02	17.7	
19	0	969.01*	95	171	1.57	1937.11	1933	10	2.64E-02	28.2	
20	0	1120.06*	81	135	3.88	2239.14	2232	16	2.24E-02	34.5	
21	0	1173.30	2983	187	2.28	2345.61	2334	24	8.29E-01	2.2	
22	0	1238.38*	58	32	3.31	2475.76	2466	16	1.62E-02	25.9	
23	0	1332.59	2827	60	2.48	2664.18	2653	21	7.85E-01	2.0	
24	0	1764.73*	48	21	3.69	3528.67	3519	17	1.33E-02	27.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 25-MAR-2010 10:17:32

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 9-MAR-2010 00:00:00 Acquisition date : 25-MAR-2010 09:16:55
Sample ID : G1202065190 Sample quantity : 151.73 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:02.21 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	+	122.06	*	2.454E-01	7.192E-02	5.698E-02	4.699E-03	4.306
		136.47		2.217E-01	2.863E-01	4.960E-01	4.597E-02	0.447
CO-60	+	1173.23		6.587E+00	6.035E-01	1.006E-01	8.091E-03	65.472
	+	1332.49	*	6.898E+00	6.740E-01	7.319E-02	6.526E-03	94.247
CD-109	+	88.03	*	3.543E+01	4.214E+00	1.843E+00	1.749E-01	19.226
SN-126		64.28		-6.603E-01	6.794E-01	1.045E+00	1.517E-01	-0.632
	+	86.94		1.437E+01	6.058E+00	7.547E-01	3.134E-01	19.038
	+	87.57	*	3.456E+00	4.111E-01	1.805E-01	1.704E-02	19.148
BA-137M	+	661.66	*	5.580E+00	6.266E-01	8.497E-02	8.961E-03	65.662
CS-137	+	661.66	*	5.894E+00	6.626E-01	8.977E-02	9.478E-03	65.662
TL-208		277.37		2.304E-01	6.904E-01	1.035E+00	1.722E-01	0.223
	+	583.19	*	4.272E-01	1.080E-01	9.539E-02	1.034E-02	4.478
		860.56		2.452E-01	5.082E-01	8.648E-01	1.008E-01	0.284
BI-211		72.87		1.759E+00	4.575E+00	6.832E+00	5.468E-01	0.257
	+	351.06	*	3.464E+00	7.343E-01	5.093E-01	5.942E-02	6.803
PB-212	+	74.82		2.143E+00	6.663E-01	7.556E-01	9.596E-02	2.836
	+	77.11		1.821E+00	3.750E-01	4.352E-01	3.639E-02	4.185
	+	238.63	*	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
		300.09		2.117E+00	1.358E+00	2.110E+00	3.094E-01	1.003
BI-214	+	609.32	*	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
	+	1120.29		1.141E+00	7.986E-01	7.309E-01	8.111E-02	1.562
	+	1764.49		9.010E-01	5.089E-01	4.442E-01	3.700E-02	2.029
PB-214	+	74.82		3.798E+00	1.162E+00	1.339E+00	1.524E-01	2.836
	+	77.11		3.211E+00	7.122E-01	7.672E-01	9.011E-02	4.185
	+	242.00		1.657E+00	9.807E-01	8.560E-01	1.184E-01	1.936
	+	295.22		9.401E-01	3.882E-01	3.710E-01	5.566E-02	2.534
	+	351.93	*	1.257E+00	2.754E-01	1.852E-01	2.384E-02	6.790
RA-224	+	240.99	*	2.930E+00	1.726E+00	1.509E+00	1.889E-01	1.941
RA-226	+	609.32	*	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
	+	1120.29		1.141E+00	7.986E-01	7.309E-01	8.111E-02	1.562
	+	1764.49		9.010E-01	5.089E-01	4.442E-01	3.700E-02	2.029
AC-228	+	338.32		1.258E+00	8.356E-01	5.950E-01	2.530E-01	2.114
	+	911.20	*	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
	+	968.97		1.124E+00	6.948E-01	7.823E-01	1.967E-01	1.436

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	+	338.32		1.258E+00	8.356E-01	5.950E-01	2.530E-01	2.114
	+	911.20	*	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
	+	968.97		1.124E+00	6.948E-01	7.823E-01	1.967E-01	1.436
TH-228	+	74.82		2.143E+00	6.334E-01	7.556E-01	6.231E-02	2.836
	+	77.11		1.821E+00	3.750E-01	4.352E-01	3.639E-02	4.185
	+	238.63	*	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
		300.09		2.117E+00	1.864E+00	2.110E+00	1.309E+00	1.003
TH-230	+	609.32	*	8.897E-01	2.101E-01	1.672E-01	1.741E-02	5.320
	+	1120.29		1.141E+00	7.949E-01	7.309E-01	6.464E-02	1.562
	+	1764.49		9.009E-01	5.089E-01	4.441E-01	3.700E-02	2.029
TH-232	+	338.32		1.258E+00	6.593E-01	5.950E-01	7.076E-02	2.114
	+	911.20	*	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
	+	968.97		1.124E+00	6.948E-01	7.823E-01	1.967E-01	1.436
AM-241	+	59.54	*	1.388E+01	1.276E+00	4.300E-01	3.361E-02	32.276

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-6.283E-01	6.229E-01	9.539E-01	9.954E-02	-0.659
NA-22		1274.54	*	3.530E-02	4.785E-02	8.450E-02	7.283E-03	0.418
NA-24		1368.63	*	-4.793E+00	4.785E-02	Half-Life too short		
K-40		1460.82	*	1.020E+00	5.080E-01	1.009E+00	9.248E-02	1.010
SC-46		889.28	*	1.936E-02	7.345E-02	1.235E-01	1.382E-02	0.157
	+	1120.55		1.951E-01	1.359E-01	1.669E-01	1.476E-02	1.169
V-48		944.13		-1.120E+00	1.997E+00	3.200E+00	3.471E-01	-0.350
		983.53	*	8.991E-02	1.497E-01	2.529E-01	2.652E-02	0.356
		1312.11		-1.098E-01	9.952E-02	1.444E-01	1.272E-02	-0.760
CR-51		320.08	*	2.543E-01	6.268E-01	1.064E+00	1.377E-01	0.239
MN-54		834.85	*	5.691E-03	6.465E-02	1.084E-01	1.204E-02	0.053
CO-56		846.77	*	9.840E-03	7.148E-02	1.199E-01	1.335E-02	0.082
		1037.84		-1.871E-02	5.661E-01	9.231E-01	9.511E-02	-0.020
	+	1238.28		2.310E-01	1.211E-01	1.784E-01	1.546E-02	1.295
		1771.35		1.750E-01	3.558E-01	5.459E-01	4.536E-02	0.320
CO-58		810.76	*	-4.948E-02	6.825E-02	1.094E-01	1.212E-02	-0.452
FE-59		1099.45	*	6.726E-02	1.725E-01	2.863E-01	2.805E-02	0.235
		1291.59		1.053E-03	1.448E-01	2.395E-01	2.361E-02	0.004
ZN-65		1115.54	*	4.760E-02	1.851E-01	2.607E-01	2.326E-02	0.183
SE-75	+	121.12		1.288E+00	3.880E-01	4.214E-01	4.549E-02	3.056
		136.00		4.249E-02	5.623E-02	9.736E-02	8.451E-03	0.436
		264.66	*	-3.781E-02	8.181E-02	1.112E-01	1.496E-02	-0.340
		279.54		-3.865E-02	1.868E-01	2.960E-01	4.203E-02	-0.131
		400.66		-1.363E-01	4.402E-01	7.125E-01	8.320E-02	-0.191
SR-85		514.00	*	-6.774E-02	7.280E-02	1.115E-01	1.119E-02	-0.608
Y-88		898.04		-1.224E-02	7.860E-02	1.292E-01	1.452E-02	-0.095
		1836.06	*	4.593E-02	4.760E-02	8.778E-02	7.097E-03	0.523
Y-91		1204.77	*	-5.302E+00	2.374E+01	3.875E+01	3.186E+00	-0.137
NB-94		702.65	*	-1.147E-02	5.099E-02	8.211E-02	8.799E-03	-0.140
		871.09		-2.237E-02	6.412E-02	1.046E-01	1.168E-02	-0.214

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	1.970E-02	6.972E-02	1.146E-01	1.253E-02	0.172
NB-95M		235.69	*	6.343E-02	2.291E-01	3.296E-01	4.361E-02	0.192
ZR-95		724.19		3.637E-02	1.474E-01	2.431E-01	2.768E-02	0.150
		756.73	*	-6.121E-02	1.216E-01	1.909E-01	2.221E-02	-0.321
MO-99		140.51		1.745E-04	4.089E+01	6.899E+01	1.642E+01	0.000
		181.07		9.353E+00	4.009E+01	5.901E+01	1.158E+01	0.158
		366.42		2.582E+00	2.206E+02	3.652E+02	3.874E+01	0.007
		739.50	*	-5.276E-01	2.630E+01	4.266E+01	7.287E+00	-0.012
		777.92		-1.249E+01	8.222E+01	1.317E+02	1.445E+01	-0.095
TC-99M		140.51	*	6.925E+06	8.222E+01	Half-Life too short		
RU-103		497.08	*	2.732E-02	6.869E-02	1.127E-01	1.670E-02	0.243
	+	610.33		9.387E+00	2.572E+00	3.130E+00	5.433E-01	2.999
RH-106		621.93	*	-1.807E-01	4.959E-01	8.014E-01	1.163E-01	-0.225
		1050.41		-1.497E+00	4.721E+00	7.558E+00	7.378E-01	-0.198
RU-106		621.93	*	-1.807E-01	4.956E-01	8.014E-01	8.371E-02	-0.225
		1050.41		-1.497E+00	4.721E+00	7.558E+00	7.378E-01	-0.198
AG-108M		433.94	*	-5.355E-02	5.411E-02	8.384E-02	8.251E-03	-0.639
		614.28		2.403E-02	6.516E-02	9.506E-02	1.013E-02	0.253
		722.91		-7.880E-02	6.189E-02	9.243E-02	1.018E-02	-0.852
AG-110M		657.76	*	7.130E-01	1.192E-01	1.773E-01	1.905E-02	4.023
		677.62		1.271E-01	4.526E-01	7.539E-01	8.155E-02	0.169
		706.68		-2.418E-01	3.183E-01	4.932E-01	5.392E-02	-0.490
		763.94		-2.733E-01	2.676E-01	4.047E-01	4.499E-02	-0.675
		884.68		-1.028E-03	9.467E-02	1.570E-01	1.791E-02	-0.007
		937.49		-2.892E-02	2.334E-01	3.829E-01	4.270E-02	-0.076
		1384.29		-1.079E-01	1.977E-01	3.046E-01	2.791E-02	-0.354
		1505.03		-1.076E-01	3.587E-01	5.624E-01	5.001E-02	-0.191
SN-113		391.69	*	-2.312E-02	7.727E-02	1.254E-01	1.198E-02	-0.184
CD-115		260.90		1.167E+02	3.285E+02	5.361E+02	7.124E+01	0.218
		492.35		3.925E+01	9.848E+01	1.617E+02	1.605E+01	0.243
		527.90	*	1.856E+00	2.666E+01	4.483E+01	4.527E+00	0.041
SN-117M		156.02		-1.087E+00	3.445E+00	5.702E+00	5.346E-01	-0.191
		158.56	*	-2.678E-02	8.457E-02	1.398E-01	1.326E-02	-0.192
TE-123M		159.00	*	4.039E-03	4.073E-02	6.837E-02	6.530E-03	0.059
SB-124		602.73		1.380E-02	6.525E-02	9.822E-02	1.020E-02	0.140
		645.85		-1.820E-01	7.986E-01	1.297E+00	1.416E-01	-0.140
		722.78		-7.815E-01	6.315E-01	9.460E-01	1.036E-01	-0.826
		1690.97	*	1.561E-02	9.962E-02	1.685E-01	1.503E-02	0.093
SB-125		427.87	*	5.091E-03	1.563E-01	2.555E-01	2.477E-02	0.020
		463.37		3.834E-01	5.168E-01	8.610E-01	8.908E-02	0.445
		600.60		2.445E-02	2.696E-01	4.487E-01	4.898E-02	0.054
		635.95		5.052E-01	4.458E-01	7.722E-01	8.545E-02	0.654
TE-125M		109.28	*	-4.316E+00	1.409E+01	2.212E+01	2.275E+00	-0.195
I-126		388.63		3.775E-02	3.027E-01	5.008E-01	4.742E-02	0.075
		666.33	*	6.479E-01	4.249E-01	6.622E-01	6.997E-02	0.978
		753.82		3.102E+00	3.189E+00	5.430E+00	5.918E-01	0.571
SB-126		414.70		-7.470E-04	1.388E-01	2.271E-01	2.149E-02	-0.003
		666.50		1.642E-01	1.426E-01	2.180E-01	2.304E-02	0.753
		695.00		1.876E-02	1.282E-01	2.113E-01	2.258E-02	0.089

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		697.00		-7.329E-02	4.456E-01	7.210E-01	7.711E-02	-0.102
		720.70	*	-2.106E-02	2.478E-01	4.016E-01	4.331E-02	-0.052
		856.80		-6.932E-03	9.058E-01	1.507E+00	1.680E-01	-0.005
SB-127		252.40		-9.839E-01	8.641E+00	1.386E+01	5.924E+00	-0.071
		473.00		1.102E+00	3.889E+00	6.363E+00	8.859E-01	0.173
		685.70	*	1.226E+00	2.581E+00	4.330E+00	5.761E-01	0.283
		783.70		1.995E+00	7.273E+00	1.193E+01	1.719E+00	0.167
I-131		80.19		-2.751E+00	7.741E+00	1.110E+01	9.673E-01	-0.248
		284.31		-1.483E+00	2.847E+00	4.431E+00	6.264E-01	-0.335
		364.49	*	-1.378E-01	2.102E-01	3.368E-01	3.734E-02	-0.409
		636.99		1.242E-01	2.859E+00	4.721E+00	5.148E-01	0.026
TE-132		49.72		5.517E+00	4.220E+01	7.111E+01	7.756E+00	0.078
		111.76		-2.937E+01	6.331E+01	9.891E+01	1.102E+01	-0.297
		116.30		9.154E+00	6.094E+01	8.690E+01	9.647E+00	0.105
		228.16	*	-6.566E-01	1.545E+00	2.465E+00	4.470E-01	-0.266
BA-133		81.00		-4.321E-02	1.469E-01	2.110E-01	3.287E-02	-0.205
		276.40		8.390E-01	6.628E-01	9.708E-01	1.731E-01	0.864
		302.85		6.460E-02	2.181E-01	3.612E-01	5.960E-02	0.179
		356.01	*	1.313E-02	7.462E-02	1.086E-01	1.599E-02	0.121
		383.85		3.371E-01	4.963E-01	8.383E-01	1.108E-01	0.402
I-133		529.87	*	-2.273E-02	4.963E-01	Half-Life too short		
		875.33		-3.329E-01	4.963E-01	Half-Life too short		
		1298.22		1.715E-01	4.963E-01	Half-Life too short		
CS-134		563.25		2.318E-01	5.912E-01	1.003E+00	1.034E-01	0.231
		569.33		-2.969E-01	3.309E-01	5.240E-01	5.434E-02	-0.567
		604.72		1.602E-02	5.513E-02	8.028E-02	8.358E-03	0.200
		795.86	*	7.098E-02	7.708E-02	1.302E-01	1.442E-02	0.545
		801.95		-3.819E-01	7.103E-01	1.107E+00	1.226E-01	-0.345
		1365.19		1.616E+00	1.488E+00	2.715E+00	2.530E-01	0.595
CS-135		268.22	*	2.535E-01	2.738E-01	4.019E-01	5.813E-02	0.631
I-135		546.56		-2.443E+11	2.738E-01	Half-Life too short		
		836.80		6.952E+11	2.738E-01	Half-Life too short		
		1038.76		1.407E+11	2.738E-01	Half-Life too short		
		1131.51		8.949E+09	2.738E-01	Half-Life too short		
		1260.41	*	1.469E+11	2.738E-01	Half-Life too short		
		1457.56		1.196E+12	2.738E-01	Half-Life too short		
		1678.03		4.265E+09	2.738E-01	Half-Life too short		
		1791.20		-1.507E+11	2.738E-01	Half-Life too short		
CS-136		153.25		7.859E-01	1.296E+00	2.216E+00	2.395E-01	0.355
		176.60		9.649E-02	7.804E-01	1.301E+00	1.422E-01	0.074
		273.65		-6.261E-01	1.046E+00	1.405E+00	2.003E-01	-0.446
		340.55		4.365E-01	2.906E-01	4.473E-01	5.385E-02	0.976
		818.51		4.071E-02	1.422E-01	2.411E-01	2.672E-02	0.169
		1048.07	*	-2.620E-02	2.080E-01	3.369E-01	3.407E-02	-0.078
		1235.36		1.072E+00	7.350E-01	1.202E+00	1.394E-01	0.892
CE-139		165.86	*	1.006E-02	4.292E-02	7.218E-02	7.079E-03	0.139
BA-140		162.66		-7.156E-01	1.282E+00	2.095E+00	2.133E-01	-0.342
		304.85		-4.603E+00	2.633E+00	3.400E+00	1.051E+00	-1.354
		423.72		1.004E+00	3.518E+00	5.797E+00	1.921E+00	0.173

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		537.26	*	2.555E-01	4.698E-01	7.925E-01	2.721E-01	0.322
LA-140		328.76		2.339E-01	5.107E-01	8.663E-01	1.095E-01	0.270
		487.02		5.407E-02	2.615E-01	4.260E-01	4.416E-02	0.127
		815.77		2.431E-01	6.094E-01	1.039E+00	1.233E-01	0.234
		1596.21	*	-7.469E-02	1.255E-01	1.933E-01	1.694E-02	-0.386
CE-141		145.44	*	-9.325E-02	8.903E-02	1.435E-01	1.306E-02	-0.650
CE-143		57.36		1.360E-02	8.903E-02	Half-Life too short		
		293.27	*	6.885E-04	8.903E-02	Half-Life too short		
		664.57		2.009E-01	8.903E-02	Half-Life too short		
		721.93		-3.067E-03	8.903E-02	Half-Life too short		
CE-144		80.12		-1.489E+00	3.765E+00	5.387E+00	4.657E-01	-0.276
		133.52	*	-2.078E-01	2.823E-01	4.627E-01	7.052E-02	-0.449
PM-144		476.78		-8.818E-02	1.223E-01	1.905E-01	2.001E-02	-0.463
		618.01		3.062E-02	5.630E-02	8.899E-02	9.464E-03	0.344
		696.49	*	-2.925E-03	5.313E-02	8.652E-02	9.253E-03	-0.034
PR-144		696.51	*	-1.968E-01	3.980E+00	6.484E+00	6.932E-01	-0.030
		1489.16		-7.258E+00	1.691E+01	2.607E+01	2.322E+00	-0.278
PM-146		453.88	*	-1.790E-02	7.911E-02	1.271E-01	1.461E-02	-0.141
		633.25		1.191E+00	2.386E+00	3.962E+00	1.531E+00	0.301
		735.93		-3.607E-02	2.360E-01	3.797E-01	1.093E-01	-0.095
		747.24		-5.684E-02	1.548E-01	2.450E-01	3.926E-02	-0.232
ND-147		91.11		1.133E+00	4.999E-01	6.529E-01	6.454E-02	1.735
		319.41		6.263E+00	5.893E+00	1.018E+01	1.289E+00	0.615
		531.02	*	-5.022E-01	9.584E-01	1.558E+00	2.470E-01	-0.322
PM-149		285.90	*	-9.432E+01	2.346E+02	3.669E+02	6.943E+01	-0.257
EU-152	+	121.78		7.042E-01	2.092E-01	2.340E-01	2.241E-02	3.009
		244.70		-1.162E-01	5.865E-01	8.195E-01	1.038E-01	-0.142
		344.28	*	1.084E-02	1.766E-01	2.560E-01	3.076E-02	0.042
		778.90		-3.505E-02	4.294E-01	6.905E-01	7.577E-02	-0.051
		964.08		6.815E-01	6.438E-01	9.622E-01	1.027E-01	0.708
		1085.87		5.522E-01	7.090E-01	1.202E+00	1.120E-01	0.459
		1112.07		1.361E-01	6.035E-01	8.493E-01	7.610E-02	0.160
		1408.01		1.995E-01	2.127E-01	3.831E-01	3.425E-02	0.521
GD-153		69.67		1.741E+00	2.575E+00	3.906E+00	3.031E-01	0.446
		97.43	*	1.063E-02	1.262E-01	1.821E-01	1.601E-02	0.058
		103.18		-6.306E-02	1.586E-01	2.501E-01	2.138E-02	-0.252
EU-154	+	123.07		4.979E-01	1.505E-01	1.633E-01	1.810E-02	3.049
		723.31		-3.501E-01	2.795E-01	4.175E-01	4.803E-02	-0.838
		873.19		-1.989E-01	5.418E-01	8.824E-01	1.223E-01	-0.225
		996.26		-2.573E-01	6.599E-01	1.056E+00	1.942E-01	-0.244
		1004.73		6.650E-02	3.860E-01	6.386E-01	8.244E-02	0.104
		1274.44	*	9.591E-02	1.353E-01	2.380E-01	2.707E-02	0.403
EU-155		86.55		2.227E+00	2.999E-01	4.013E-01	3.775E-02	5.550
		105.31	*	1.250E-01	1.480E-01	2.449E-01	2.101E-02	0.511
TB-160	+	86.79		1.125E+01	1.339E+00	1.163E+00	1.087E-01	9.679
		197.04		-3.828E-01	8.637E-01	1.398E+00	1.520E-01	-0.274
		215.65		-7.725E-02	1.238E+00	2.019E+00	2.333E-01	-0.038
		298.57		1.395E-01	1.969E-01	2.985E-01	4.001E-02	0.467
		879.36	*	1.579E-01	2.792E-01	4.721E-01	5.279E-02	0.334

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		962.29		2.237E-01	1.213E+00	1.728E+00	1.846E-01	0.129
		966.15		1.234E+00	5.060E-01	7.894E-01	8.409E-02	1.563
		1177.93		1.119E+01	1.389E+00	2.227E+00	1.797E-01	5.023
		1271.85		-1.349E-01	7.676E-01	1.248E+00	1.073E-01	-0.108
HO-166M		80.57		-9.026E-02	4.105E-01	5.922E-01	5.146E-02	-0.152
		184.41		5.621E-02	5.358E-02	9.226E-02	9.619E-03	0.609
		280.46		-2.474E-02	1.417E-01	2.248E-01	3.140E-02	-0.110
		410.95		1.279E-01	4.175E-01	6.927E-01	6.538E-02	0.185
		711.68	*	-1.588E-02	9.174E-02	1.480E-01	1.591E-02	-0.107
		752.31		5.142E-01	4.519E-01	7.749E-01	8.442E-02	0.664
		810.29		-4.304E-02	1.016E-01	1.660E-01	1.836E-02	-0.259
TA-182		67.75		1.150E-02	1.506E-01	2.497E-01	1.904E-02	0.046
		100.11		-2.538E-03	2.407E-01	3.869E-01	3.353E-02	-0.007
		152.43		1.371E-02	4.968E-01	8.343E-01	7.697E-02	0.016
		222.11		6.560E-03	5.948E-01	9.703E-01	1.145E-01	0.007
	+	1121.30		5.389E-01	3.753E-01	4.468E-01	3.945E-02	1.206
		1189.05		-2.458E-01	3.723E-01	5.872E-01	4.775E-02	-0.419
		1221.41	*	-4.006E-02	2.117E-01	3.461E-01	2.878E-02	-0.116
		1231.02		-1.390E-01	5.403E-01	7.356E-01	6.156E-02	-0.189
IR-192	+	295.96		7.034E-01	2.869E-01	3.395E-01	4.593E-02	2.072
		308.46		9.459E-02	1.498E-01	2.569E-01	3.364E-02	0.368
		316.51	*	-2.151E-02	5.621E-02	9.255E-02	1.183E-02	-0.232
		468.07		-1.002E-01	1.321E-01	2.062E-01	2.134E-02	-0.486
HG-203		70.83		5.832E-01	2.008E+00	2.991E+00	4.683E-01	0.195
		72.87		4.461E-01	1.162E+00	1.733E+00	2.634E-01	0.257
		279.20	*	-1.630E-02	6.628E-02	1.049E-01	1.483E-02	-0.155
BI-207		72.81		9.041E-02	2.632E-01	3.924E-01	3.139E-02	0.230
	+	74.97		6.177E-01	1.824E-01	2.712E-01	2.217E-02	2.278
		569.70		-2.357E-02	5.004E-02	8.121E-02	8.342E-03	-0.290
		1063.66	*	4.345E-02	9.695E-02	1.619E-01	1.554E-02	0.268
		1770.23		7.526E-01	7.657E-01	1.253E+00	1.042E-01	0.601
PB-210		46.54	*	-9.424E-01	5.493E+00	9.202E+00	8.474E-01	-0.102
PB-211		404.85	*	-5.866E-01	1.262E+00	1.975E+00	9.587E-01	-0.297
		427.09		-2.420E+00	2.866E+00	4.120E+00	1.913E+00	-0.587
		832.01		-9.521E-01	1.833E+00	2.864E+00	1.499E+00	-0.332
BI-212		727.33	*	4.134E-03	8.732E-01	1.422E+00	2.000E-01	0.003
		785.37		4.290E+00	5.199E+00	8.762E+00	9.631E-01	0.490
		1620.50		-2.024E+00	2.877E+00	4.334E+00	3.778E-01	-0.467
RN-219	+	271.23		6.485E-01	6.698E-01	6.503E-01	9.607E-02	0.997
		401.81	*	-2.733E-01	7.024E-01	1.131E+00	1.733E-01	-0.242
RA-223		81.07		-8.385E-02	3.328E-01	4.792E-01	4.188E-02	-0.175
		83.79		3.097E-02	2.012E-01	2.943E-01	2.655E-02	0.105
		94.87		6.172E-01	6.478E-01	9.757E-01	8.724E-02	0.633
		144.24		-7.471E-01	9.104E-01	1.476E+00	1.458E-01	-0.506
		154.21		4.311E-01	5.470E-01	9.396E-01	9.461E-02	0.459
	+	269.46		5.039E-01	5.197E-01	4.959E-01	6.809E-02	1.016
		323.87	*	-8.937E-01	1.081E+00	1.725E+00	3.372E-01	-0.518
	+	338.28		4.991E+00	2.650E+00	3.163E+00	4.615E-01	1.578
AC-227		79.69		-1.439E+00	1.876E+00	2.614E+00	4.503E-01	-0.551

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		235.96		4.373E-01	2.840E-01	4.245E-01	5.767E-02	1.030
		256.23	*	-2.257E-02	4.155E-01	6.680E-01	1.041E-01	-0.034
		299.98		1.643E+00	1.520E+00	2.325E+00	3.788E-01	0.707
		304.50		-4.167E+00	2.616E+00	3.892E+00	7.519E-01	-1.071
		334.37		1.731E-01	3.153E+00	4.583E+00	8.122E-01	0.038
TH-227		79.80		-1.688E+00	2.484E+00	3.469E+00	7.554E-01	-0.487
		235.96		4.373E-01	2.836E-01	4.245E-01	5.580E-02	1.030
		256.23	*	-2.257E-02	4.155E-01	6.680E-01	1.123E-01	-0.034
		299.98		1.643E+00	1.520E+00	2.325E+00	3.788E-01	0.707
		304.50		-4.167E+00	2.616E+00	3.892E+00	7.519E-01	-1.071
		334.37		1.731E-01	3.153E+00	4.583E+00	8.122E-01	0.038
TH-229		85.43		3.726E-01	3.410E-01	5.148E-01	4.736E-02	0.724
	+	88.47		5.329E+00	6.338E-01	5.928E-01	5.600E-02	8.988
		193.51	*	-5.836E-01	7.982E-01	1.275E+00	1.371E-01	-0.458
		210.85		7.206E-01	1.624E+00	2.378E+00	2.706E-01	0.303
PA-231		283.69	*	-3.662E-01	2.451E+00	3.888E+00	7.072E-01	-0.094
		301.36		1.757E+00	9.721E-01	1.507E+00	2.386E-01	1.166
TH-231		81.07		-8.385E-02	3.328E-01	4.792E-01	4.188E-02	-0.175
		83.79		3.097E-02	2.012E-01	2.943E-01	2.655E-02	0.105
		94.87		6.172E-01	6.478E-01	9.757E-01	8.724E-02	0.633
		144.24		-7.471E-01	9.104E-01	1.476E+00	1.458E-01	-0.506
		154.21		4.311E-01	5.470E-01	9.396E-01	9.461E-02	0.459
	+	269.46		5.039E-01	5.197E-01	4.959E-01	6.809E-02	1.016
		323.87	*	-8.937E-01	1.081E+00	1.725E+00	3.372E-01	-0.518
	+	338.28		4.991E+00	2.650E+00	3.163E+00	4.615E-01	1.578
PA-233		300.13		1.057E+00	6.852E-01	1.051E+00	1.891E-01	1.006
		311.90	*	6.103E-02	1.006E-01	1.723E-01	2.258E-02	0.354
		340.48		1.757E+00	1.240E+00	1.808E+00	4.589E-01	0.972
PA-234		94.67		2.927E-01	2.393E-01	3.622E-01	4.577E-02	0.808
		98.44		-1.647E-02	1.293E-01	1.964E-01	1.096E-01	-0.084
		111.00		-1.023E-01	2.634E-01	4.113E-01	4.892E-02	-0.249
		131.20		-1.650E-02	1.461E-01	2.466E-01	2.089E-02	-0.067
		569.50		-2.014E-01	4.445E-01	7.222E-01	7.417E-02	-0.279
		733.00		-4.800E-01	6.579E-01	1.011E+00	2.340E-01	-0.475
		880.51		1.041E-01	5.499E-01	9.147E-01	1.023E-01	0.114
		883.24		-5.849E-02	5.542E-01	9.127E-01	6.170E-01	-0.064
		926.50		-5.388E-02	3.599E-01	5.898E-01	1.544E-01	-0.091
		946.00	*	-2.163E-01	6.427E-01	1.040E+00	2.068E-01	-0.208
		949.00		-2.714E-01	9.596E-01	1.560E+00	1.686E-01	-0.174
PA-234M		766.42		5.938E+00	1.873E+01	3.044E+01	1.558E+01	0.195
		1001.03	*	1.848E+00	8.268E+00	1.377E+01	1.578E+00	0.134
TH-234		63.29	*	-8.535E-01	1.934E+00	2.879E+00	5.124E-01	-0.296
	+	92.59		1.770E+00	1.254E+00	1.547E+00	3.445E-01	1.145
U-235		89.96		1.035E+01	3.019E+00	2.526E+00	6.279E-01	4.099
	+	93.35		1.337E+00	9.517E-01	1.174E+00	2.730E-01	1.139
		143.76	*	-1.472E-01	2.700E-01	4.419E-01	7.553E-02	-0.333
		163.33		-5.418E-01	6.497E-01	1.039E+00	1.922E-01	-0.521
	+	185.72		1.613E-01	1.187E-01	1.212E-01	1.269E-02	1.331
		205.31		-2.797E-01	8.060E-01	1.135E+00	2.212E-01	-0.246

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237		86.48	*	4.949E+00	1.248E+00	9.559E-01	2.193E-01	5.177
		95.86		9.849E-02	1.320E+00	1.905E+00	4.589E-01	0.052
U-238		63.29	*	-8.535E-01	1.934E+00	2.879E+00	5.124E-01	-0.296
	+	92.59		1.770E+00	1.201E+00	1.547E+00	1.407E-01	1.145
NP-239		99.53		-1.067E-01	2.240E-01	3.527E-01	3.066E-02	-0.303
		103.37		-2.145E-03	1.417E-01	2.273E-01	1.941E-02	-0.009
		106.12		-8.509E-02	1.193E-01	1.849E-01	1.564E-02	-0.460
		117.23	*	-2.970E-01	6.546E-01	8.999E-01	7.436E-02	-0.330
		228.18		-1.474E-01	3.487E-01	5.574E-01	6.705E-02	-0.264
		277.60		1.086E-02	3.032E-01	4.688E-01	6.535E-02	0.023
CM-247		278.00		-2.292E-02	1.289E+00	1.988E+00	2.774E-01	-0.012
		287.50		1.600E+00	2.096E+00	3.437E+00	4.728E-01	0.466
		402.40	*	3.664E-02	6.265E-02	1.053E-01	9.875E-03	0.348
CF-249		252.80		-1.459E-01	1.514E+00	2.433E+00	3.156E-01	-0.060
		333.37		-2.101E-02	3.286E-01	4.744E-01	5.740E-02	-0.044
		388.16	*	6.796E-03	6.811E-02	1.126E-01	1.069E-02	0.060
CF-251		177.52	*	1.287E-03	1.909E-01	3.169E-01	3.229E-02	0.004
		227.38		-2.177E-01	5.655E-01	9.055E-01	1.087E-01	-0.240
		285.41		-1.641E+00	3.761E+00	5.881E+00	8.127E-01	-0.279
ANH-511		511.00	*	5.184E-02	6.036E-02	1.083E-01	1.085E-02	0.479

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190      *
* Acquisition date : 25-MAR-2010 09:16:55 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:02.21     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065190          Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-57	2.454E-01	7.048E-02	6.108E-02	0.000E+00
CO-60	6.898E+00	6.605E-01	7.391E-02	0.000E+00
CD-109	3.543E+01	4.130E+00	1.990E+00	0.000E+00
SN-126	3.456E+00	4.029E-01	1.950E-01	0.000E+00
BA-137M	5.580E+00	6.140E-01	8.739E-02	0.000E+00
CS-137	5.894E+00	6.494E-01	9.232E-02	0.000E+00
TL-208	4.272E-01	1.058E-01	9.842E-02	0.000E+00
BI-211	3.464E+00	7.196E-01	5.321E-01	0.000E+00
PB-212	1.427E+00	2.333E-01	1.487E-01	0.000E+00
BI-214	8.897E-01	2.110E-01	1.724E-01	0.000E+00
PB-214	1.257E+00	2.699E-01	1.935E-01	0.000E+00
RA-224	2.930E+00	1.691E+00	1.592E+00	0.000E+00
RA-226	8.897E-01	2.110E-01	1.724E-01	0.000E+00
AC-228	1.589E+00	5.890E-01	4.709E-01	0.000E+00
RA-228	1.589E+00	5.890E-01	4.709E-01	0.000E+00
TH-228	1.427E+00	2.333E-01	1.487E-01	0.000E+00
TH-230	8.897E-01	2.059E-01	1.724E-01	0.000E+00
TH-232	1.589E+00	5.890E-01	4.709E-01	0.000E+00
AM-241	1.388E+01	1.250E+00	4.687E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-6.283E-01	6.105E-01	9.892E-01	0.000E+00	NOT IDENT.
NA-22	3.530E-02	4.690E-02	8.544E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	3.888E+06	0.000E+00	0.000E+00	SHORT HLIF
K-40	0.000E+00	4.979E-01	1.017E+00	0.000E+00	NOT IDENT.
SC-46	1.936E-02	7.198E-02	1.260E-01	0.000E+00	FAIL ABUN
V-48	8.991E-02	1.467E-01	2.574E-01	0.000E+00	NOT IDENT.
CR-51	2.543E-01	6.143E-01	1.114E+00	0.000E+00	NOT IDENT.
MN-54	5.691E-03	6.336E-02	1.108E-01	0.000E+00	NOT IDENT.

CO-56	9.840E-03	7.005E-02	1.226E-01	0.000E+00	FAIL ABUN
CO-58	-4.948E-02	6.689E-02	1.120E-01	0.000E+00	NOT IDENT.
FE-59	6.726E-02	1.691E-01	2.906E-01	0.000E+00	NOT IDENT.
ZN-65	4.760E-02	1.814E-01	2.645E-01	0.000E+00	NOT IDENT.
SE-75	-3.781E-02	8.017E-02	1.170E-01	0.000E+00	FAIL ABUN
SR-85	-6.774E-02	7.135E-02	1.154E-01	0.000E+00	NOT IDENT.
Y-88	4.593E-02	4.665E-02	8.788E-02	0.000E+00	NOT IDENT.
Y-91	-5.302E+00	2.326E+01	3.923E+01	0.000E+00	NOT IDENT.
NB-94	-1.147E-02	4.997E-02	8.432E-02	0.000E+00	NOT IDENT.
NB-95	1.970E-02	6.833E-02	1.174E-01	0.000E+00	NOT IDENT.
NB-95M	6.343E-02	2.245E-01	3.477E-01	0.000E+00	NOT IDENT.
ZR-95	-6.121E-02	1.192E-01	1.957E-01	0.000E+00	NOT IDENT.
MO-99	-5.276E-01	2.577E+01	4.375E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.590E+18	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.732E-02	6.732E-02	1.167E-01	0.000E+00	FAIL ABUN
RH-106	-1.807E-01	4.860E-01	8.255E-01	0.000E+00	NOT IDENT.
RU-106	-1.807E-01	4.857E-01	8.255E-01	0.000E+00	NOT IDENT.
AG-108M	-5.355E-02	5.302E-02	8.714E-02	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	1.168E-01	1.823E-01	0.000E+00	NOT IDENT.
SN-113	-2.312E-02	7.572E-02	1.307E-01	0.000E+00	NOT IDENT.
CD-115	1.856E+00	2.613E+01	4.637E+01	0.000E+00	NOT IDENT.
SN-117M	-2.678E-02	8.287E-02	1.489E-01	0.000E+00	NOT IDENT.
TE-123M	4.039E-03	3.991E-02	7.283E-02	0.000E+00	NOT IDENT.
SB-124	1.561E-02	9.763E-02	1.691E-01	0.000E+00	NOT IDENT.
SB-125	5.091E-03	1.532E-01	2.656E-01	0.000E+00	NOT IDENT.
TE-125M	-4.316E+00	1.381E+01	2.378E+01	0.000E+00	NOT IDENT.
I-126	6.479E-01	4.164E-01	6.809E-01	0.000E+00	NOT IDENT.
SB-126	-2.106E-02	2.428E-01	4.121E-01	0.000E+00	NOT IDENT.
SB-127	1.226E+00	2.529E+00	4.449E+00	0.000E+00	NOT IDENT.
I-131	-1.378E-01	2.060E-01	3.516E-01	0.000E+00	NOT IDENT.
TE-132	-6.566E-01	1.514E+00	2.604E+00	0.000E+00	NOT IDENT.
BA-133	1.313E-02	7.313E-02	1.134E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.499E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.098E-02	7.554E-02	1.333E-01	0.000E+00	NOT IDENT.
CS-135	2.535E-01	2.683E-01	4.227E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.638E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.620E-02	2.038E-01	3.424E-01	0.000E+00	NOT IDENT.
CE-139	1.006E-02	4.207E-02	7.681E-02	0.000E+00	NOT IDENT.
BA-140	2.555E-01	4.604E-01	8.193E-01	0.000E+00	NOT IDENT.
LA-140	-7.469E-02	1.230E-01	1.943E-01	0.000E+00	NOT IDENT.
CE-141	-9.325E-02	8.725E-02	1.532E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.676E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.078E-01	2.767E-01	4.950E-01	0.000E+00	NOT IDENT.
PM-144	-2.925E-03	5.206E-02	8.887E-02	0.000E+00	NOT IDENT.
PR-144	-1.968E-01	3.900E+00	6.659E+00	0.000E+00	NOT IDENT.
PM-146	-1.790E-02	7.753E-02	1.320E-01	0.000E+00	NOT IDENT.
ND-147	-5.022E-01	9.393E-01	1.611E+00	0.000E+00	NOT IDENT.
PM-149	-9.432E+01	2.299E+02	3.854E+02	0.000E+00	NOT IDENT.
EU-152	1.084E-02	1.730E-01	2.676E-01	0.000E+00	FAIL ABUN
GD-153	1.063E-02	1.237E-01	1.962E-01	0.000E+00	NOT IDENT.
EU-154	9.591E-02	1.326E-01	2.407E-01	0.000E+00	FAIL ABUN
EU-155	1.250E-01	1.450E-01	2.634E-01	0.000E+00	NOT IDENT.
TB-160	1.579E-01	2.736E-01	4.819E-01	0.000E+00	FAIL ABUN
HO-166M	-1.588E-02	8.991E-02	1.519E-01	0.000E+00	NOT IDENT.
TA-182	-4.006E-02	2.074E-01	3.503E-01	0.000E+00	FAIL ABUN
IR-192	-2.151E-02	5.508E-02	9.696E-02	0.000E+00	FAIL ABUN
HG-203	-1.630E-02	6.496E-02	1.102E-01	0.000E+00	NOT IDENT.
BI-207	4.345E-02	9.501E-02	1.645E-01	0.000E+00	FAIL ABUN
PB-210	-9.424E-01	5.383E+00	1.008E+01	0.000E+00	NOT IDENT.
PB-211	-5.866E-01	1.237E+00	2.057E+00	0.000E+00	NOT IDENT.
BI-212	4.134E-03	8.557E-01	1.459E+00	0.000E+00	NOT IDENT.
RN-219	-2.733E-01	6.883E-01	1.178E+00	0.000E+00	FAIL ABUN
RA-223	-8.937E-01	1.060E+00	1.806E+00	0.000E+00	FAIL ABUN
AC-227	-2.257E-02	4.072E-01	7.035E-01	0.000E+00	NOT IDENT.
TH-227	-2.257E-02	4.072E-01	7.035E-01	0.000E+00	NOT IDENT.
TH-229	-5.836E-01	7.823E-01	1.352E+00	0.000E+00	FAIL ABUN
PA-231	-3.662E-01	2.402E+00	4.084E+00	0.000E+00	NOT IDENT.
TH-231	-8.937E-01	1.060E+00	1.806E+00	0.000E+00	FAIL ABUN
PA-233	6.103E-02	9.862E-02	1.806E-01	0.000E+00	NOT IDENT.
PA-234	-2.163E-01	6.299E-01	1.060E+00	0.000E+00	NOT IDENT.
PA-234M	1.848E+00	8.103E+00	1.401E+01	0.000E+00	NOT IDENT.
TH-234	-8.535E-01	1.895E+00	3.134E+00	0.000E+00	FAIL ABUN
U-235	-1.472E-01	2.646E-01	4.719E-01	0.000E+00	FAIL ABUN
NP-237	0.000E+00	1.223E+00	1.033E+00	0.000E+00	NOT IDENT.
U-238	-8.535E-01	1.895E+00	3.134E+00	0.000E+00	FAIL ABUN
NP-239	-2.970E-01	6.415E-01	9.655E-01	0.000E+00	NOT IDENT.
CM-247	3.664E-02	6.140E-02	1.096E-01	0.000E+00	NOT IDENT.
CF-249	6.796E-03	6.675E-02	1.174E-01	0.000E+00	NOT IDENT.

CF-251	1.287E-03	1.871E-01	3.367E-01	0.000E+00 NOT IDENT.
ANH-511	5.184E-02	5.915E-02	1.121E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 10:17:30.53

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1
Sample date      : 9-MAR-2010 00:00:00. Acquisition date : 25-MAR-2010 09:16:55
Sample ID        : G1202065190          Sample quantity  : 1.51730E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00        Elapsed real time: 0 01:00:02.21  0.1%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 962633               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	348	85.60*	8.558E+00	2.353E-01	2.454E-01	29.31
	136.47	------	10.68	8.461E+00	------ Line Not Found		------
CO-60	1173.23	2983	99.85	2.258E+00	6.548E+00	6.587E+00	9.16
	1332.49	2827	99.98*	2.040E+00	6.857E+00	6.898E+00	9.77
CD-109	88.03	1951	3.70*	7.548E+00	3.456E+01	3.543E+01	11.89
SN-126	64.28	------	9.60	4.512E+00	------ Line Not Found		------
	86.94	1951	8.90	7.548E+00	1.437E+01	1.437E+01	42.16
	87.57	1951	37.00*	7.548E+00	3.456E+00	3.456E+00	11.89
BA-137M	661.66	3635	89.90*	3.590E+00	5.574E+00	5.580E+00	11.23
CS-137	661.66	3635	85.10*	3.590E+00	5.888E+00	5.894E+00	11.24
TL-208	277.37	------	6.60	6.182E+00	------ Line Not Found		------
	583.19	288	85.00*	3.930E+00	4.272E-01	4.272E-01	25.28
	860.56	------	12.50	2.923E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	5.897E+00	------ Line Not Found		------
	351.06	489	12.92*	5.401E+00	3.464E+00	3.464E+00	21.20
PB-212	74.82	274	10.28	6.165E+00	2.143E+00	2.143E+00	31.09
	77.11	407	17.10	6.460E+00	1.821E+00	1.821E+00	20.59
	238.63	843	43.60*	6.709E+00	1.427E+00	1.427E+00	16.69
	300.09	------	3.30	5.916E+00	------ Line Not Found		------
BI-214	609.32	312	45.49*	3.811E+00	8.897E-01	8.897E-01	24.20
	1120.29	81	14.92	2.346E+00	1.141E+00	1.141E+00	69.97
	1764.49	48	15.30	1.716E+00	9.009E-01	9.010E-01	56.49
PB-214	74.82	274	5.80	6.165E+00	3.798E+00	3.798E+00	30.58
	77.11	407	9.70	6.460E+00	3.211E+00	3.211E+00	22.18
	242.00	162	7.25	6.666E+00	1.657E+00	1.657E+00	59.19
	295.22	209	18.42	5.968E+00	9.401E-01	9.401E-01	41.29
	351.93	489	35.60*	5.401E+00	1.257E+00	1.257E+00	21.90
RA-224	240.99	162	4.10*	6.666E+00	2.930E+00	2.930E+00	58.90
RA-226	609.32	312	45.49*	3.811E+00	8.897E-01	8.897E-01	24.20
	1120.29	81	14.92	2.346E+00	1.141E+00	1.141E+00	69.97
	1764.49	48	15.30	1.716E+00	9.009E-01	9.010E-01	56.49
AC-228	338.32	158	11.27	5.525E+00	1.258E+00	1.258E+00	66.44

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	231	25.80*	2.788E+00	1.589E+00	1.589E+00	37.81
	968.97	95	15.80	2.649E+00	1.124E+00	1.124E+00	61.84
RA-228	338.32	158	11.27	5.525E+00	1.258E+00	1.258E+00	66.44
	911.20	231	25.80*	2.788E+00	1.589E+00	1.589E+00	37.81
	968.97	95	15.80	2.649E+00	1.124E+00	1.124E+00	61.84
TH-228	74.82	274	10.28	6.165E+00	2.143E+00	2.143E+00	29.56
	77.11	407	17.10	6.460E+00	1.821E+00	1.821E+00	20.59
	238.63	843	43.60*	6.709E+00	1.427E+00	1.427E+00	16.69
	300.09	------	3.30	5.916E+00	------ Line Not Found		------
TH-230	609.32	312	45.49*	3.811E+00	8.897E-01	8.897E-01	23.61
	1120.29	81	14.92	2.346E+00	1.141E+00	1.141E+00	69.65
	1764.49	48	15.30	1.716E+00	9.009E-01	9.009E-01	56.49
TH-232	338.32	158	11.27	5.525E+00	1.258E+00	1.258E+00	52.42
	911.20	231	25.80*	2.788E+00	1.589E+00	1.589E+00	37.81
	968.97	95	15.80	2.649E+00	1.124E+00	1.124E+00	61.84
AM-241	59.54	3653	35.90*	3.628E+00	1.388E+01	1.388E+01	9.19

Flag: "*" = Keyline

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

Total number of lines in spectrum 24
Number of unidentified lines 1
Number of lines tentatively identified by NID 23 95.83%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	271.74D	1.04	2.353E-01	2.454E-01	0.719E-01	29.31	
CO-60	5.27Y	1.01	6.857E+00	6.898E+00	0.674E+00	9.77	
CD-109	461.40D	1.02	3.456E+01	3.543E+01	0.421E+01	11.89	
SN-126	2.30E+05Y	1.00	3.456E+00	3.456E+00	0.411E+00	11.89	
BA-137M	30.08Y	1.00	5.574E+00	5.580E+00	0.627E+00	11.23	
CS-137	30.08Y	1.00	5.888E+00	5.894E+00	0.663E+00	11.24	
TL-208	1.41E+10Y	1.00	4.272E-01	4.272E-01	1.080E-01	25.28	
BI-211	7.04E+08Y	1.00	3.464E+00	3.464E+00	0.734E+00	21.20	
PB-212	1.41E+10Y	1.00	1.427E+00	1.427E+00	0.238E+00	16.69	
BI-214	1600.00Y	1.00	8.897E-01	8.897E-01	2.153E-01	24.20	
PB-214	1600.00Y	1.00	1.257E+00	1.257E+00	0.275E+00	21.90	
RA-224	1.41E+10Y	1.00	2.930E+00	2.930E+00	1.726E+00	58.90	
RA-226	1600.00Y	1.00	8.897E-01	8.897E-01	2.153E-01	24.20	
AC-228	1.41E+10Y	1.00	1.589E+00	1.589E+00	0.601E+00	37.81	
RA-228	1.41E+10Y	1.00	1.589E+00	1.589E+00	0.601E+00	37.81	
TH-228	1.41E+10Y	1.00	1.427E+00	1.427E+00	0.238E+00	16.69	
TH-230	7.54E+04Y	1.00	8.897E-01	8.897E-01	2.101E-01	23.61	
TH-232	1.41E+10Y	1.00	1.589E+00	1.589E+00	0.601E+00	37.81	
AM-241	432.60Y	1.00	1.388E+01	1.388E+01	0.128E+01	9.19	
			---	---			
	Total Activity :		8.882E+01	8.975E+01			

Grand Total Activity : 8.882E+01 8.975E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.85	119	426	1.77	185.90	183	9	3.31E-02	67.3	7.87E+00	T
0	186.19	142	575	1.24	372.40	365	13	3.94E-02	72.8	7.60E+00	T
0	209.26	60	349	1.10	418.50	415	8	1.67E-02	****	7.18E+00	
0	270.41	89	437	1.23	540.69	534	14	2.47E-02	****	6.27E+00	T
0	1238.38	58	32	3.31	2475.76	2466	16	1.62E-02	51.7	2.16E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 10:17:34.80

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1 *
* Acquisition date : 25-MAR-2010 09:16:55  Detector SN#    :                *
* Detector ID      : GAM22                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 01:00:02.21         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 9-MAR-2010 00:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G1202065190           Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.51730E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	2.454E-01	7.192E-02	5.698E-02	4.699E-03	4.306
CO-60	6.898E+00	6.740E-01	7.319E-02	6.526E-03	94.247
CD-109	3.543E+01	4.214E+00	1.843E+00	1.749E-01	19.226
SN-126	3.456E+00	4.111E-01	1.805E-01	1.704E-02	19.148
BA-137M	5.580E+00	6.266E-01	8.497E-02	8.961E-03	65.662
CS-137	5.894E+00	6.626E-01	8.977E-02	9.478E-03	65.662
TL-208	4.272E-01	1.080E-01	9.539E-02	1.034E-02	4.478
BI-211	3.464E+00	7.343E-01	5.093E-01	5.942E-02	6.803
PB-212	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
BI-214	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
PB-214	1.257E+00	2.754E-01	1.852E-01	2.384E-02	6.790
RA-224	2.930E+00	1.726E+00	1.509E+00	1.889E-01	1.941
RA-226	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
AC-228	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
RA-228	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
TH-228	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
TH-230	8.897E-01	2.101E-01	1.672E-01	1.741E-02	5.320
TH-232	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-241	1.388E+01	1.276E+00	4.300E-01	3.361E-02	32.276

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.283E-01		6.229E-01	9.539E-01	9.954E-02	-0.659
NA-22	3.530E-02		4.785E-02	8.450E-02	7.283E-03	0.418
NA-24	-4.793E+00		1.984E+00	Half-Life too short		
K-40	1.020E+00		5.080E-01	1.009E+00	9.248E-02	1.010
SC-46	1.936E-02		7.345E-02	1.235E-01	1.382E-02	0.157
V-48	8.991E-02		1.497E-01	2.529E-01	2.652E-02	0.356
CR-51	2.543E-01		6.268E-01	1.064E+00	1.377E-01	0.239
MN-54	5.691E-03		6.465E-02	1.084E-01	1.204E-02	0.053
CO-56	9.840E-03		7.148E-02	1.199E-01	1.335E-02	0.082
CO-58	-4.948E-02		6.825E-02	1.094E-01	1.212E-02	-0.452
FE-59	6.726E-02		1.725E-01	2.863E-01	2.805E-02	0.235
ZN-65	4.760E-02		1.851E-01	2.607E-01	2.326E-02	0.183
SE-75	-3.781E-02		8.181E-02	1.112E-01	1.496E-02	-0.340
SR-85	-6.774E-02		7.280E-02	1.115E-01	1.119E-02	-0.608
Y-88	4.593E-02		4.760E-02	8.778E-02	7.097E-03	0.523
Y-91	-5.302E+00		2.374E+01	3.875E+01	3.186E+00	-0.137
NB-94	-1.147E-02		5.099E-02	8.211E-02	8.799E-03	-0.140
NB-95	1.970E-02		6.972E-02	1.146E-01	1.253E-02	0.172
NB-95M	6.343E-02		2.291E-01	3.296E-01	4.361E-02	0.192
ZR-95	-6.121E-02		1.216E-01	1.909E-01	2.221E-02	-0.321
MO-99	-5.276E-01		2.630E+01	4.266E+01	7.287E+00	-0.012
TC-99M	6.925E+06		8.112E+11	Half-Life too short		
RU-103	2.732E-02		6.869E-02	1.127E-01	1.670E-02	0.243
RH-106	-1.807E-01		4.959E-01	8.014E-01	1.163E-01	-0.225
RU-106	-1.807E-01		4.956E-01	8.014E-01	8.371E-02	-0.225
AG-108M	-5.355E-02		5.411E-02	8.384E-02	8.251E-03	-0.639
AG-110M	7.130E-01		1.192E-01	1.773E-01	1.905E-02	4.023
SN-113	-2.312E-02		7.727E-02	1.254E-01	1.198E-02	-0.184
CD-115	1.856E+00		2.666E+01	4.483E+01	4.527E+00	0.041
SN-117M	-2.678E-02		8.457E-02	1.398E-01	1.326E-02	-0.192
TE-123M	4.039E-03		4.073E-02	6.837E-02	6.530E-03	0.059
SB-124	1.561E-02		9.962E-02	1.685E-01	1.503E-02	0.093
SB-125	5.091E-03		1.563E-01	2.555E-01	2.477E-02	0.020
TE-125M	-4.316E+00		1.409E+01	2.212E+01	2.275E+00	-0.195
I-126	6.479E-01		4.249E-01	6.622E-01	6.997E-02	0.978
SB-126	-2.106E-02		2.478E-01	4.016E-01	4.331E-02	-0.052
SB-127	1.226E+00		2.581E+00	4.330E+00	5.761E-01	0.283
I-131	-1.378E-01		2.102E-01	3.368E-01	3.734E-02	-0.409
TE-132	-6.566E-01		1.545E+00	2.465E+00	4.470E-01	-0.266
BA-133	1.313E-02		7.462E-02	1.086E-01	1.599E-02	0.121
I-133	-2.273E-02		1.275E-02	Half-Life too short		
CS-134	7.098E-02		7.708E-02	1.302E-01	1.442E-02	0.545

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-135	2.535E-01		2.738E-01	4.019E-01	5.813E-02	0.631
I-135	1.469E+11		8.356E+10	Half-Life too short		
CS-136	-2.620E-02		2.080E-01	3.369E-01	3.407E-02	-0.078
CE-139	1.006E-02		4.292E-02	7.218E-02	7.079E-03	0.139
BA-140	2.555E-01		4.698E-01	7.925E-01	2.721E-01	0.322
LA-140	-7.469E-02		1.255E-01	1.933E-01	1.694E-02	-0.386
CE-141	-9.325E-02		8.903E-02	1.435E-01	1.306E-02	-0.650
CE-143	6.885E-04		2.386E-04	Half-Life too short		
CE-144	-2.078E-01		2.823E-01	4.627E-01	7.052E-02	-0.449
PM-144	-2.925E-03		5.313E-02	8.652E-02	9.253E-03	-0.034
PR-144	-1.968E-01		3.980E+00	6.484E+00	6.932E-01	-0.030
PM-146	-1.790E-02		7.911E-02	1.271E-01	1.461E-02	-0.141
ND-147	-5.022E-01		9.584E-01	1.558E+00	2.470E-01	-0.322
PM-149	-9.432E+01		2.346E+02	3.669E+02	6.943E+01	-0.257
EU-152	1.084E-02		1.766E-01	2.560E-01	3.076E-02	0.042
GD-153	1.063E-02		1.262E-01	1.821E-01	1.601E-02	0.058
EU-154	9.591E-02		1.353E-01	2.380E-01	2.707E-02	0.403
EU-155	1.250E-01		1.480E-01	2.449E-01	2.101E-02	0.511
TB-160	1.579E-01		2.792E-01	4.721E-01	5.279E-02	0.334
HO-166M	-1.588E-02		9.174E-02	1.480E-01	1.591E-02	-0.107
TA-182	-4.006E-02		2.117E-01	3.461E-01	2.878E-02	-0.116
IR-192	-2.151E-02		5.621E-02	9.255E-02	1.183E-02	-0.232
HG-203	-1.630E-02		6.628E-02	1.049E-01	1.483E-02	-0.155
BI-207	4.345E-02		9.695E-02	1.619E-01	1.554E-02	0.268
PB-210	-9.424E-01		5.493E+00	9.202E+00	8.474E-01	-0.102
PB-211	-5.866E-01		1.262E+00	1.975E+00	9.587E-01	-0.297
BI-212	4.134E-03		8.732E-01	1.422E+00	2.000E-01	0.003
RN-219	-2.733E-01		7.024E-01	1.131E+00	1.733E-01	-0.242
RA-223	-8.937E-01		1.081E+00	1.725E+00	3.372E-01	-0.518
AC-227	-2.257E-02		4.155E-01	6.680E-01	1.041E-01	-0.034
TH-227	-2.257E-02		4.155E-01	6.680E-01	1.123E-01	-0.034
TH-229	-5.836E-01		7.982E-01	1.275E+00	1.371E-01	-0.458
PA-231	-3.662E-01		2.451E+00	3.888E+00	7.072E-01	-0.094
TH-231	-8.937E-01		1.081E+00	1.725E+00	3.372E-01	-0.518
PA-233	6.103E-02		1.006E-01	1.723E-01	2.258E-02	0.354
PA-234	-2.163E-01		6.427E-01	1.040E+00	2.068E-01	-0.208
PA-234M	1.848E+00		8.268E+00	1.377E+01	1.578E+00	0.134
TH-234	-8.535E-01		1.934E+00	2.879E+00	5.124E-01	-0.296
U-235	-1.472E-01		2.700E-01	4.419E-01	7.553E-02	-0.333
NP-237	4.949E+00		1.248E+00	9.559E-01	2.193E-01	5.177
U-238	-8.535E-01		1.934E+00	2.879E+00	5.124E-01	-0.296
NP-239	-2.970E-01		6.546E-01	8.999E-01	7.436E-02	-0.330
CM-247	3.664E-02		6.265E-02	1.053E-01	9.875E-03	0.348
CF-249	6.796E-03		6.811E-02	1.126E-01	1.069E-02	0.060
CF-251	1.287E-03		1.909E-01	3.169E-01	3.229E-02	0.004
ANH-511	5.184E-02		6.036E-02	1.083E-01	1.085E-02	0.479

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065190          *
* Acquisition date  : 25-MAR-2010 09:16:55 Detector SN#    :                *
* Detector ID       : GAM22                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:02.21      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  9-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202065190          Analyst initials: MXR1           *
* Batch Number      : 962633               Sample Quantity : 1.5173E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
CO-57	2.454E-01	7.048E-02	3.056E-02	3.596E-02
CO-60	6.898E+00	6.605E-01	3.698E-02	3.370E-01
CD-109	3.543E+01	4.130E+00	9.957E-01	2.107E+00
SN-126	3.456E+00	4.029E-01	9.755E-02	2.056E-01
BA-137M	5.580E+00	6.140E-01	4.372E-02	3.133E-01
CS-137	5.894E+00	6.494E-01	4.619E-02	3.313E-01
TL-208	4.272E-01	1.058E-01	4.924E-02	5.399E-02
BI-211	3.464E+00	7.196E-01	2.662E-01	3.672E-01
PB-212	1.427E+00	2.333E-01	7.438E-02	1.190E-01
BI-214	8.897E-01	2.110E-01	8.623E-02	1.076E-01
PB-214	1.257E+00	2.699E-01	9.680E-02	1.377E-01
RA-224	2.930E+00	1.691E+00	7.963E-01	8.629E-01
RA-226	8.897E-01	2.110E-01	8.623E-02	1.076E-01
AC-228	1.589E+00	5.890E-01	2.356E-01	3.005E-01
RA-228	1.589E+00	5.890E-01	2.356E-01	3.005E-01
TH-228	1.427E+00	2.333E-01	7.438E-02	1.190E-01
TH-230	8.897E-01	2.059E-01	8.623E-02	1.050E-01
TH-232	1.589E+00	5.890E-01	2.356E-01	3.005E-01
AM-241	1.388E+01	1.250E+00	2.345E-01	6.378E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-6.283E-01	6.105E-01	4.949E-01	3.115E-01	NOT IDENT.
NA-22	3.530E-02	4.690E-02	4.274E-02	2.393E-02	NOT IDENT.
NA-24	-4.793E+06	3.888E+06	0.000E+00	1.984E+06	SHORT HLIF
K-40	1.020E+00	4.979E-01	5.088E-01	2.540E-01	NOT IDENT.
SC-46	1.936E-02	7.198E-02	6.304E-02	3.673E-02	FAIL ABUN
V-48	8.991E-02	1.467E-01	1.288E-01	7.483E-02	NOT IDENT.
CR-51	2.543E-01	6.143E-01	5.574E-01	3.134E-01	NOT IDENT.
MN-54	5.691E-03	6.336E-02	5.542E-02	3.233E-02	NOT IDENT.

CO-56	9.840E-03	7.005E-02	6.132E-02	3.574E-02	FAIL ABUN
CO-58	-4.948E-02	6.689E-02	5.601E-02	3.413E-02	NOT IDENT.
FE-59	6.726E-02	1.691E-01	1.454E-01	8.627E-02	NOT IDENT.
ZN-65	4.760E-02	1.814E-01	1.323E-01	9.257E-02	NOT IDENT.
SE-75	-3.781E-02	8.017E-02	5.851E-02	4.090E-02	FAIL ABUN
SR-85	-6.774E-02	7.135E-02	5.773E-02	3.640E-02	NOT IDENT.
Y-88	4.593E-02	4.665E-02	4.397E-02	2.380E-02	NOT IDENT.
Y-91	-5.302E+00	2.326E+01	1.963E+01	1.187E+01	NOT IDENT.
NB-94	-1.147E-02	4.997E-02	4.218E-02	2.549E-02	NOT IDENT.
NB-95	1.970E-02	6.833E-02	5.874E-02	3.486E-02	NOT IDENT.
NB-95M	6.343E-02	2.245E-01	1.740E-01	1.146E-01	NOT IDENT.
ZR-95	-6.121E-02	1.192E-01	9.790E-02	6.082E-02	NOT IDENT.
MO-99	-5.276E-01	2.577E+01	2.189E+01	1.315E+01	NOT IDENT.
TC-99M	6.925E+12	1.590E+18	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.732E-02	6.732E-02	5.839E-02	3.434E-02	FAIL ABUN
RH-106	-1.807E-01	4.860E-01	4.130E-01	2.480E-01	NOT IDENT.
RU-106	-1.807E-01	4.857E-01	4.130E-01	2.478E-01	NOT IDENT.
AG-108M	-5.355E-02	5.302E-02	4.360E-02	2.705E-02	NOT IDENT.
AG-110M	7.130E-01	1.168E-01	9.121E-02	5.960E-02	NOT IDENT.
SN-113	-2.312E-02	7.572E-02	6.538E-02	3.863E-02	NOT IDENT.
CD-115	1.856E+00	2.613E+01	2.320E+01	1.333E+01	NOT IDENT.
SN-117M	-2.678E-02	8.287E-02	7.451E-02	4.228E-02	NOT IDENT.
TE-123M	4.039E-03	3.991E-02	3.644E-02	2.036E-02	NOT IDENT.
SB-124	1.561E-02	9.763E-02	8.461E-02	4.981E-02	NOT IDENT.
SB-125	5.091E-03	1.532E-01	1.329E-01	7.814E-02	NOT IDENT.
TE-125M	-4.316E+00	1.381E+01	1.190E+01	7.044E+00	NOT IDENT.
I-126	6.479E-01	4.164E-01	3.407E-01	2.125E-01	NOT IDENT.
SB-126	-2.106E-02	2.428E-01	2.062E-01	1.239E-01	NOT IDENT.
SB-127	1.226E+00	2.529E+00	2.226E+00	1.290E+00	NOT IDENT.
I-131	-1.378E-01	2.060E-01	1.759E-01	1.051E-01	NOT IDENT.
TE-132	-6.566E-01	1.514E+00	1.303E+00	7.727E-01	NOT IDENT.
BA-133	1.313E-02	7.313E-02	5.674E-02	3.731E-02	NOT IDENT.
I-133	-2.273E+04	2.499E+04	0.000E+00	1.275E+04	SHORT HLIF
CS-134	7.098E-02	7.554E-02	6.670E-02	3.854E-02	NOT IDENT.
CS-135	2.535E-01	2.683E-01	2.115E-01	1.369E-01	NOT IDENT.
I-135	1.469E+17	1.638E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.620E-02	2.038E-01	1.713E-01	1.040E-01	NOT IDENT.
CE-139	1.006E-02	4.207E-02	3.843E-02	2.146E-02	NOT IDENT.
BA-140	2.555E-01	4.604E-01	4.099E-01	2.349E-01	NOT IDENT.
LA-140	-7.469E-02	1.230E-01	9.719E-02	6.277E-02	NOT IDENT.
CE-141	-9.325E-02	8.725E-02	7.662E-02	4.452E-02	NOT IDENT.
CE-143	6.885E+02	4.676E+02	0.000E+00	2.386E+02	SHORT HLIF
CE-144	-2.078E-01	2.767E-01	2.476E-01	1.412E-01	NOT IDENT.
PM-144	-2.925E-03	5.206E-02	4.446E-02	2.656E-02	NOT IDENT.
PR-144	-1.968E-01	3.900E+00	3.332E+00	1.990E+00	NOT IDENT.
PM-146	-1.790E-02	7.753E-02	6.602E-02	3.955E-02	NOT IDENT.
ND-147	-5.022E-01	9.393E-01	8.059E-01	4.792E-01	NOT IDENT.
PM-149	-9.432E+01	2.299E+02	1.928E+02	1.173E+02	NOT IDENT.
EU-152	1.084E-02	1.730E-01	1.339E-01	8.828E-02	FAIL ABUN
GD-153	1.063E-02	1.237E-01	9.816E-02	6.312E-02	NOT IDENT.
EU-154	9.591E-02	1.326E-01	1.204E-01	6.763E-02	FAIL ABUN
EU-155	1.250E-01	1.450E-01	1.318E-01	7.400E-02	NOT IDENT.
TB-160	1.579E-01	2.736E-01	2.411E-01	1.396E-01	FAIL ABUN
HO-166M	-1.588E-02	8.991E-02	7.599E-02	4.587E-02	NOT IDENT.
TA-182	-4.006E-02	2.074E-01	1.753E-01	1.058E-01	FAIL ABUN
IR-192	-2.151E-02	5.508E-02	4.851E-02	2.810E-02	FAIL ABUN
HG-203	-1.630E-02	6.496E-02	5.513E-02	3.314E-02	NOT IDENT.
BI-207	4.345E-02	9.501E-02	8.229E-02	4.847E-02	FAIL ABUN
PB-210	-9.424E-01	5.383E+00	5.045E+00	2.746E+00	NOT IDENT.
PB-211	-5.866E-01	1.237E+00	1.029E+00	6.312E-01	NOT IDENT.
BI-212	4.134E-03	8.557E-01	7.300E-01	4.366E-01	NOT IDENT.
RN-219	-2.733E-01	6.883E-01	5.894E-01	3.512E-01	FAIL ABUN
RA-223	-8.937E-01	1.060E+00	9.037E-01	5.406E-01	FAIL ABUN
AC-227	-2.257E-02	4.072E-01	3.519E-01	2.077E-01	NOT IDENT.
TH-227	-2.257E-02	4.072E-01	3.519E-01	2.077E-01	NOT IDENT.
TH-229	-5.836E-01	7.823E-01	6.765E-01	3.991E-01	FAIL ABUN
PA-231	-3.662E-01	2.402E+00	2.043E+00	1.225E+00	NOT IDENT.
TH-231	-8.937E-01	1.060E+00	9.037E-01	5.406E-01	FAIL ABUN
PA-233	6.103E-02	9.862E-02	9.035E-02	5.032E-02	NOT IDENT.
PA-234	-2.163E-01	6.299E-01	5.304E-01	3.214E-01	NOT IDENT.
PA-234M	1.848E+00	8.103E+00	7.011E+00	4.134E+00	NOT IDENT.
TH-234	-8.535E-01	1.895E+00	1.568E+00	9.669E-01	FAIL ABUN
U-235	-1.472E-01	2.646E-01	2.361E-01	1.350E-01	FAIL ABUN
NP-237	4.949E+00	1.223E+00	5.167E-01	6.238E-01	NOT IDENT.
U-238	-8.535E-01	1.895E+00	1.568E+00	9.669E-01	FAIL ABUN
NP-239	-2.970E-01	6.415E-01	4.831E-01	3.273E-01	NOT IDENT.
CM-247	3.664E-02	6.140E-02	5.486E-02	3.133E-02	NOT IDENT.
CF-249	6.796E-03	6.675E-02	5.872E-02	3.406E-02	NOT IDENT.

CF-251	1.287E-03	1.871E-01	1.685E-01	9.547E-02 NOT IDENT.
ANH-511	5.184E-02	5.915E-02	5.606E-02	3.018E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
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49.72	573.9034
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59.54	596.3845
63.29	384.0284
63.29	384.0284
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67.75	403.2376
69.67	406.5132
70.83	423.1225
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72.87	438.1629
72.87	438.1629
74.82	433.4862
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74.82	433.4862
74.97	433.7044
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77.11	436.7876
77.11	436.7876
79.69	463.5518
79.80	463.7148
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80.19	461.2062
80.57	461.7628
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81.07	484.1504
81.07	484.1504
83.79	497.6319
83.79	497.6319
85.43	493.8602
86.48	541.0378
86.55	541.1507
86.79	473.8467
86.94	474.0626
87.57	474.9536
88.03	475.6035
88.47	476.2236
89.96	298.7451
91.11	299.7440
92.59	301.0192
92.59	301.0192
93.35	325.7398
94.67	314.0706
94.87	314.2462
94.87	314.2462
95.86	313.4991
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103.37	334.2070
105.31	304.9606
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111.00	337.4094
111.76	356.0139
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140.51	0.0000
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144.24	340.4746
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153.25	335.5181
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154.21	323.2090
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158.56	357.5449
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163.33	384.1989
165.86	328.4059
176.60	337.5703
177.52	341.9562
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184.41	372.2629
185.72	373.0731
193.51	371.8864
197.04	357.0663
205.31	341.7180
210.85	399.8431
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228.18	366.6335
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235.96	370.5840
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238.63	321.2072
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242.00	322.6591
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252.80	300.3350
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256.23	320.0340
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269.46	314.3530
269.46	314.3530
271.23	315.0294
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279.54	334.8634
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284.31	331.1482
285.41	331.5728
285.90	329.5208
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295.96	314.7356
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299.98	262.7029
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300.09	236.9199
300.13	236.9294
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304.50	316.8274
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308.46	245.5507
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323.87	328.1498
328.76	287.5362
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334.37	288.2458
334.37	288.2458
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338.28	259.3430
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338.32	259.3564
338.32	259.3564
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340.55	275.7867
344.28	257.7228
351.06	239.2704
351.93	239.4740
356.01	236.5602
364.49	263.7917
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388.63	262.7528
391.69	278.4414
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609.32	158.7917
610.33	167.8113
614.28	181.0672
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621.93	171.9345
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722.91	198.5581
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783.70	155.4431
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911.20	208.4171
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949.00	234.5078
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968.97	202.5079
968.97	202.5079
983.53	175.6012
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1120.29	123.5984
1120.55	112.7815
1121.30	118.3594
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1173.23	96.0359
1177.93	92.2097
1189.05	86.1401
1204.77	68.5151
1221.41	68.8931
1231.02	58.0169
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1238.28	53.0239
1260.41	0.0000
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1368.63	0.0000
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1457.56	0.0000
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1505.03	40.6127
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1764.49	25.6974
1764.49	25.6974
1770.23	23.1588
1771.35	21.3832
1791.20	0.0000
1836.06	19.0923

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065190

Total Uranium Activity	-2.6073E+00	ug/g
Total Uranium Counting Unc.	5.6392E+00	ug/g
Total Uranium Tpu	2.8771E-06	ug/g
Total Uranium Mda	4.6652E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G1202065190      *
*   ANALYST       : MXR1                      DETECTOR   : GAM22            *
*   SAMPLE DATE   :  9-MAR-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 25-MAR-2010 09:16:55.57    SAMPLE ALQT:  151.730 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.898E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 2.749E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 3.013E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.466E+00
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BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W017.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.276155 through 0.308631

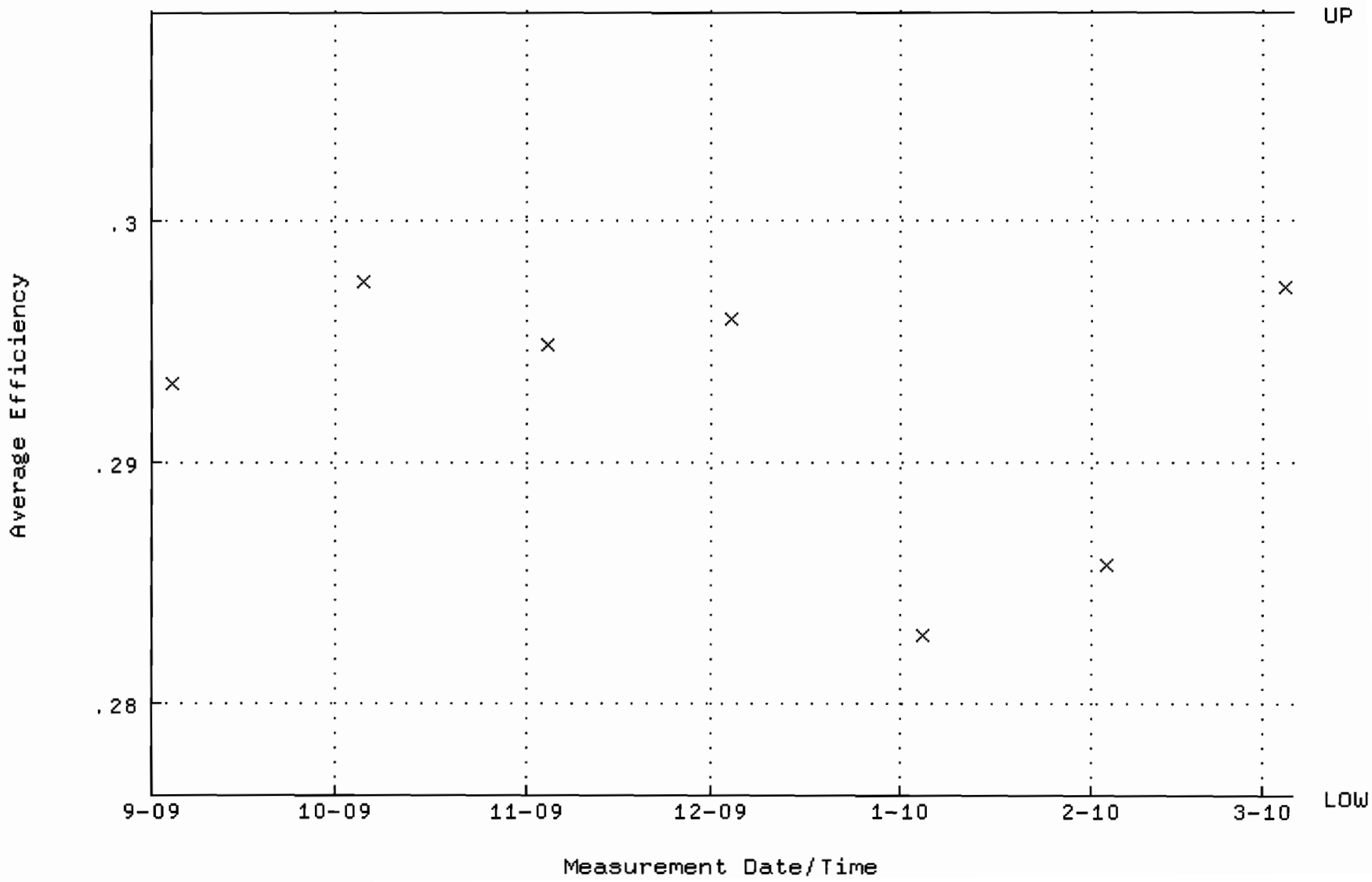

QA filename : DKA100:[ENV_ALPHA.QA.W]W017.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 90.4251 through 97.0169

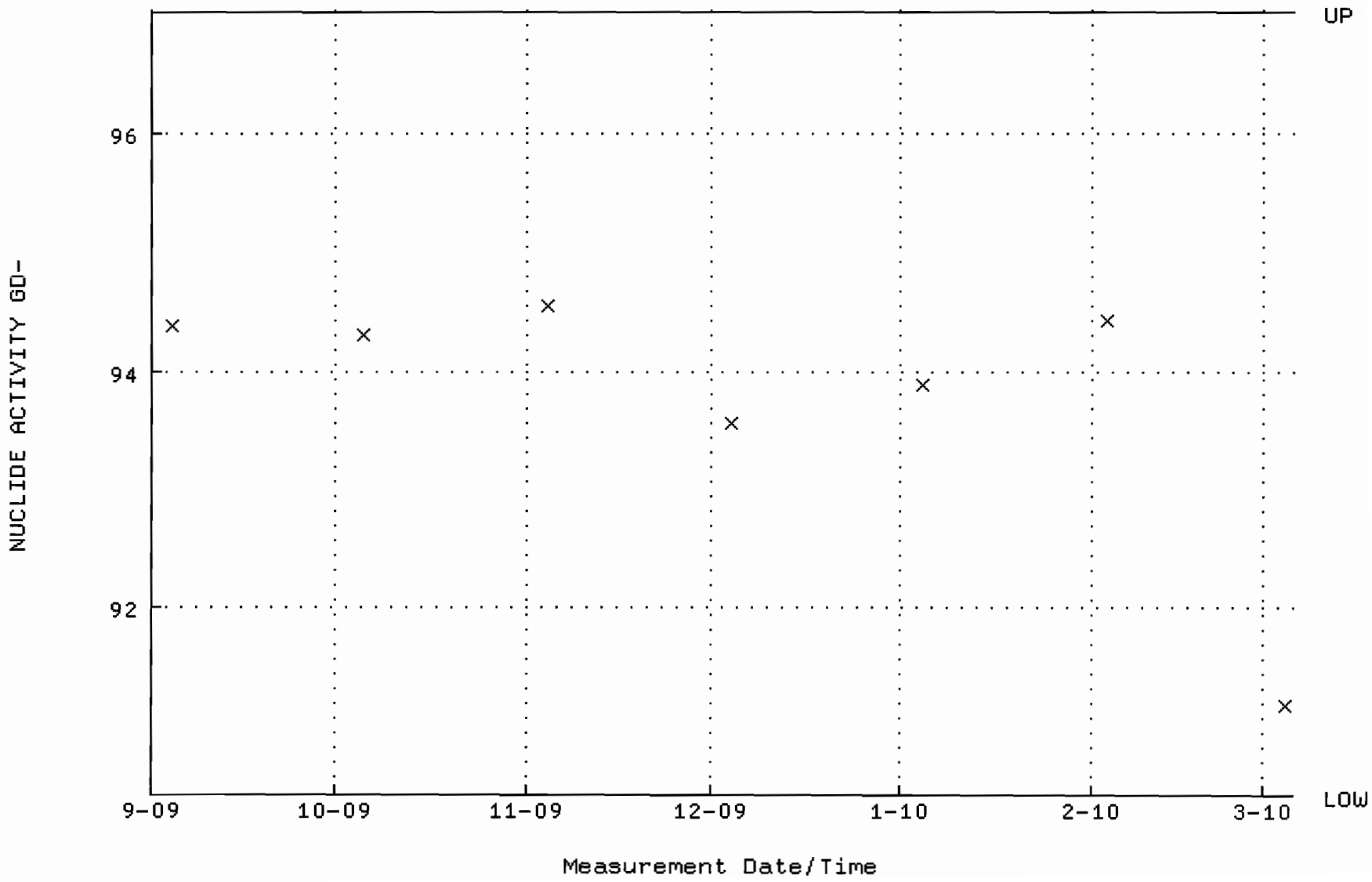

QA filename : DKA100:[ENV_ALPHA.QA.B]B017.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:02 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

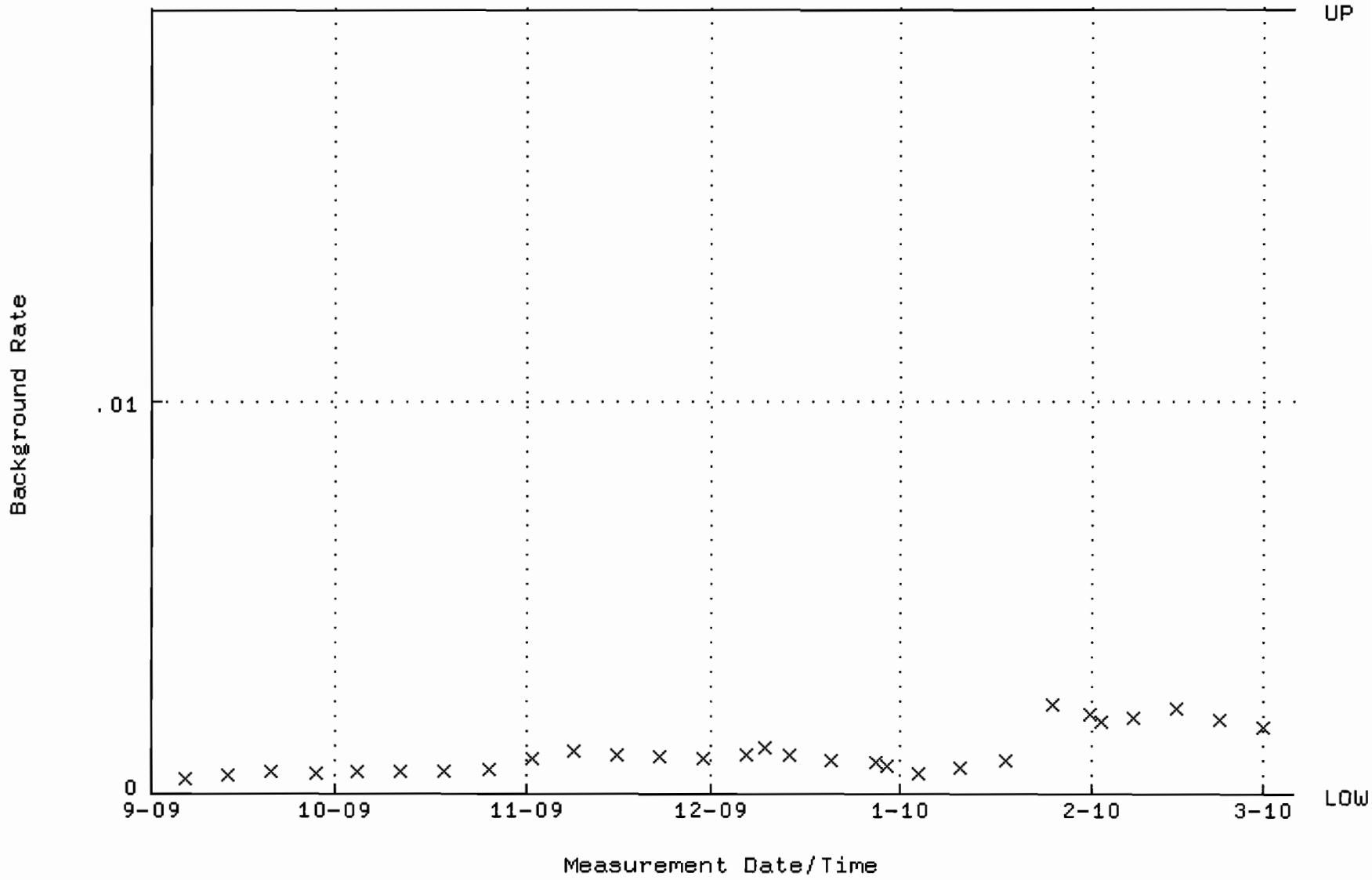

QA filename : DKA100:[ENV_ALPHA.QA.W]W018.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.302900 through 0.338496

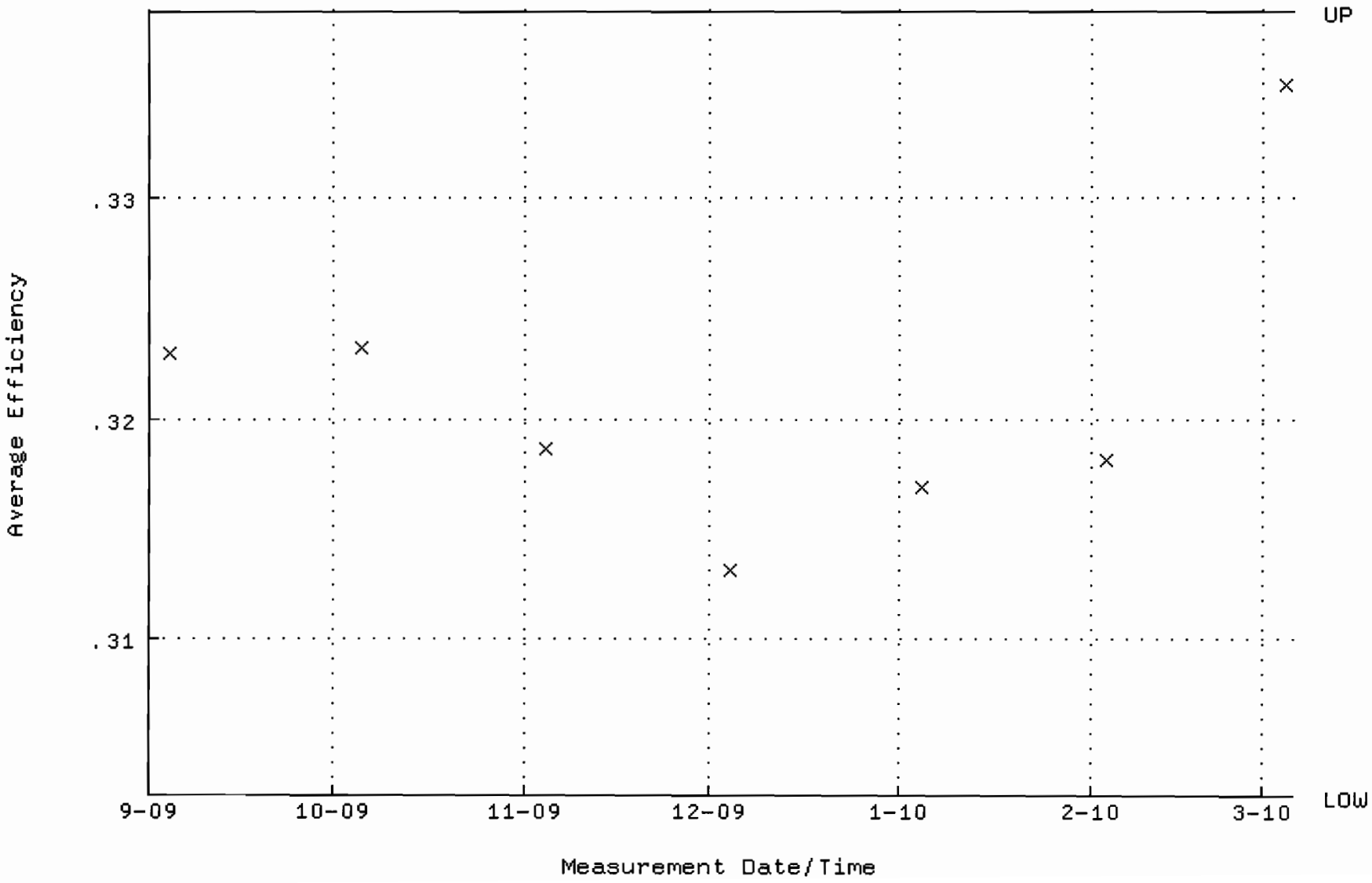

QA filename : DKA100:[ENV_ALPHA.QA.W]W018.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 85.8111 through 95.5079

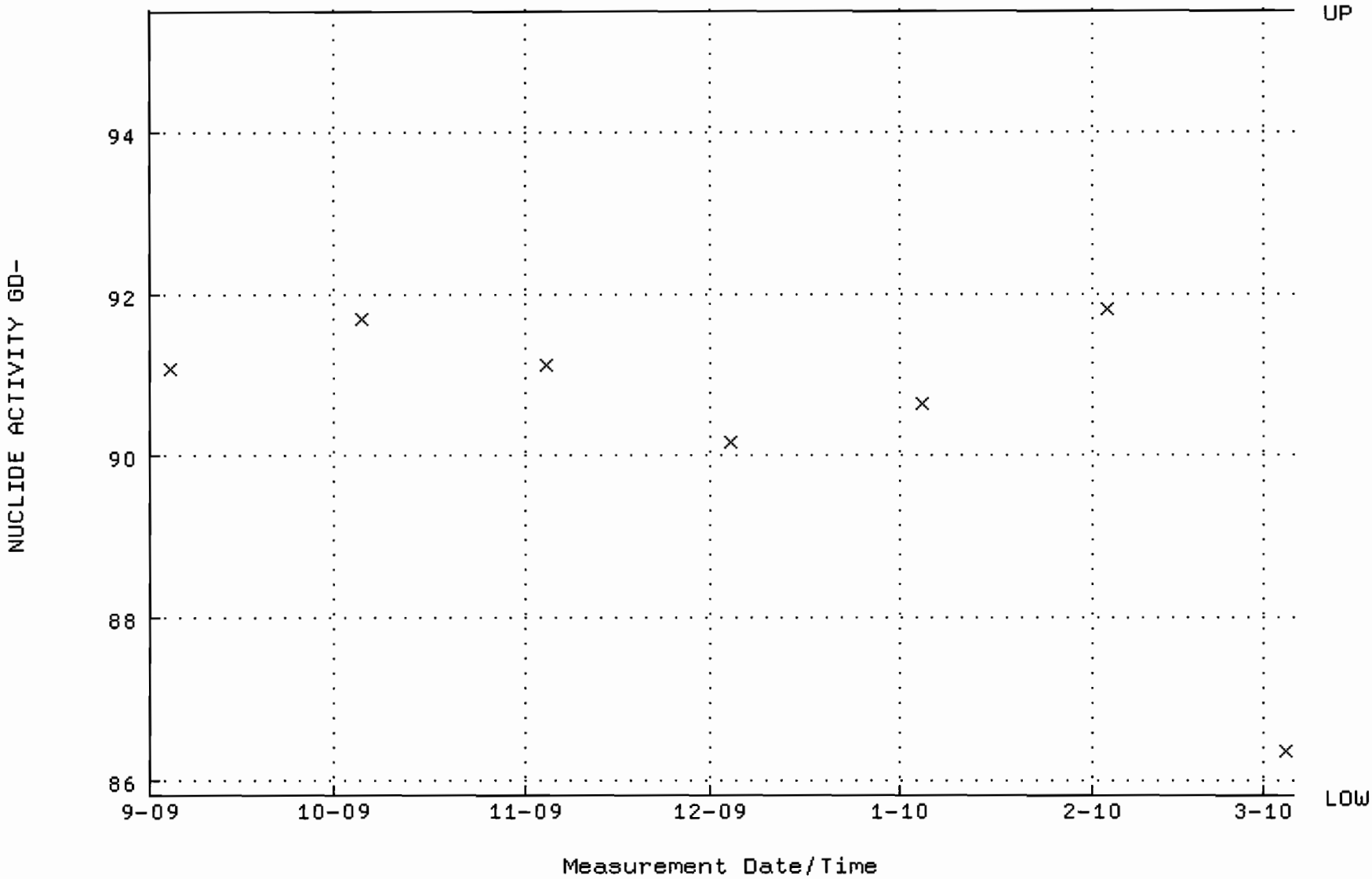

QA filename : DKA100:[ENV_ALPHA.QA.B]B018.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:02 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

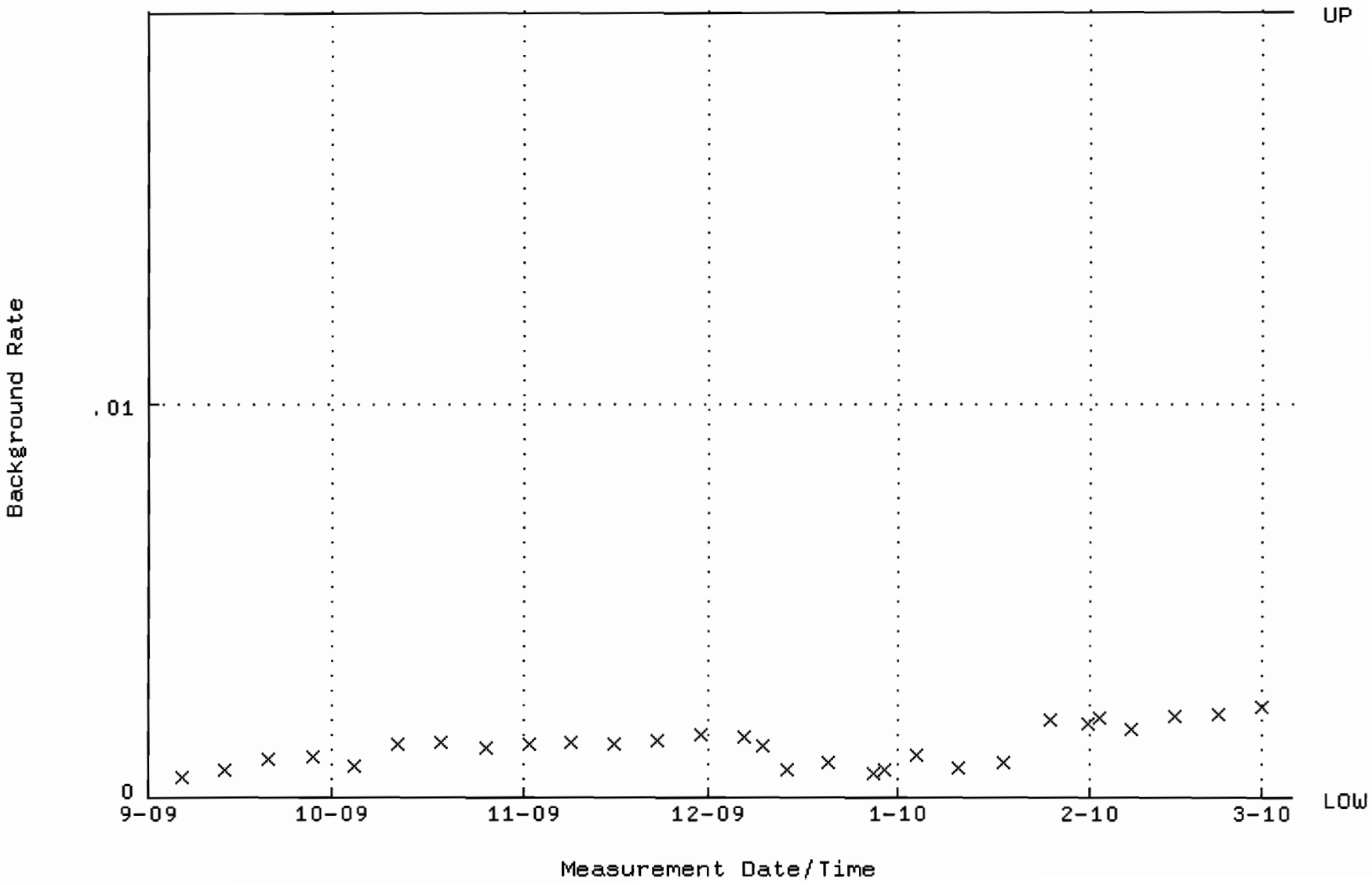

QA filename : DKA100:[ENV_ALPHA.QA.W]W019.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:42 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.270093 through 0.318005

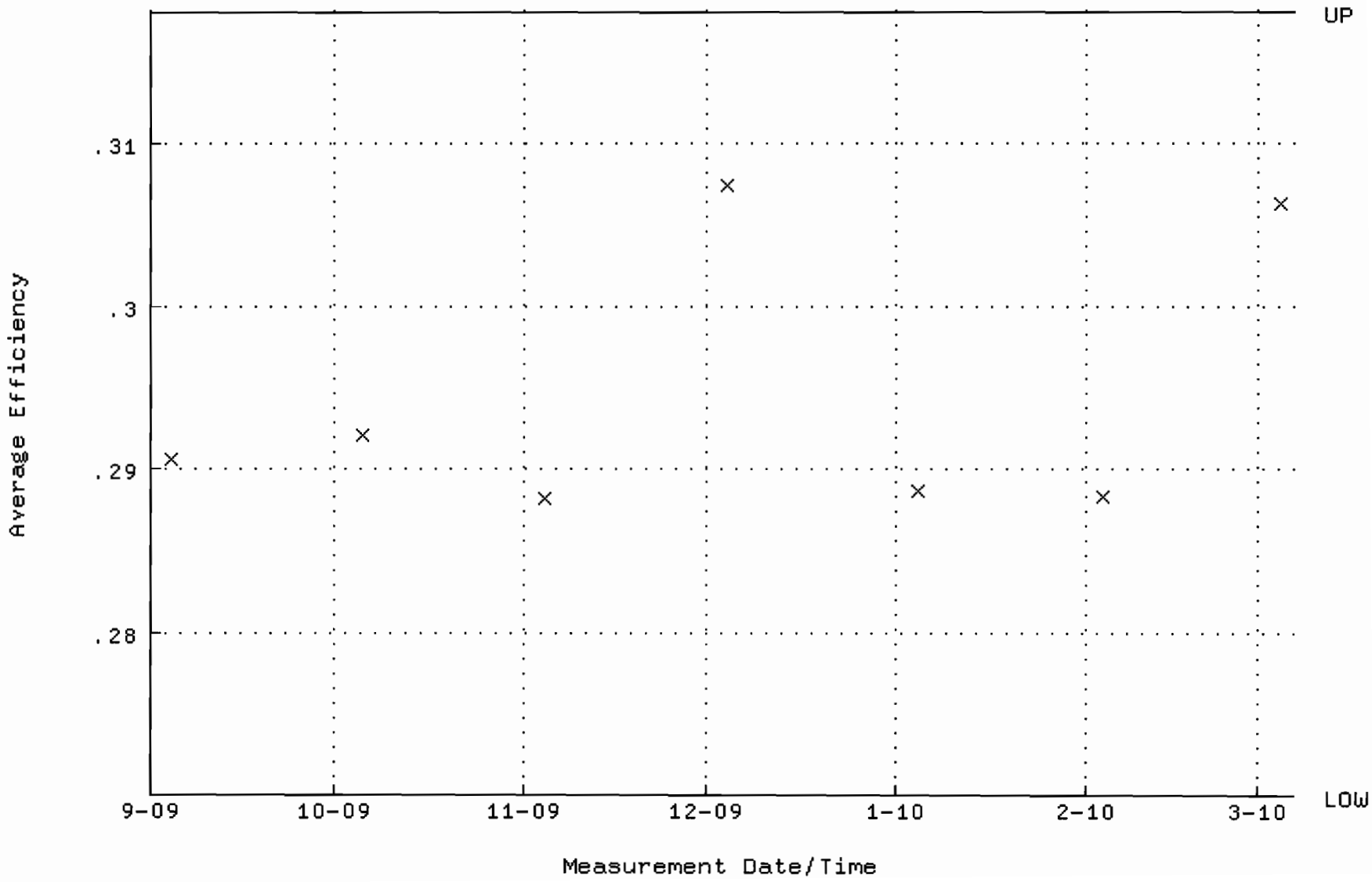

QA filename : DKA100:[ENV_ALPHA.QA.W]W019.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:42 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 82.4717 through 95.0017

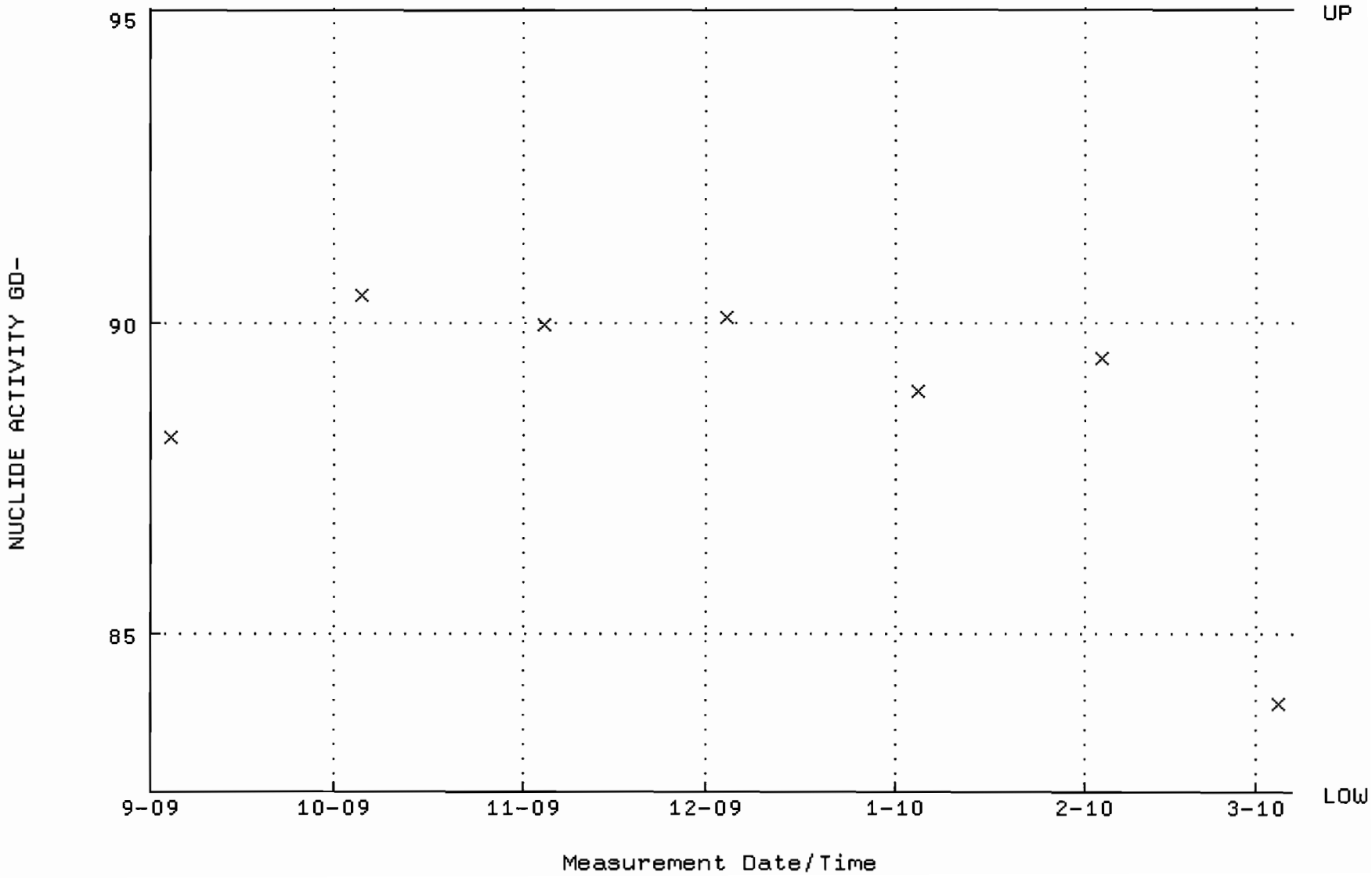

QA filename : DKA100:[ENV_ALPHA.QA.B]B019.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

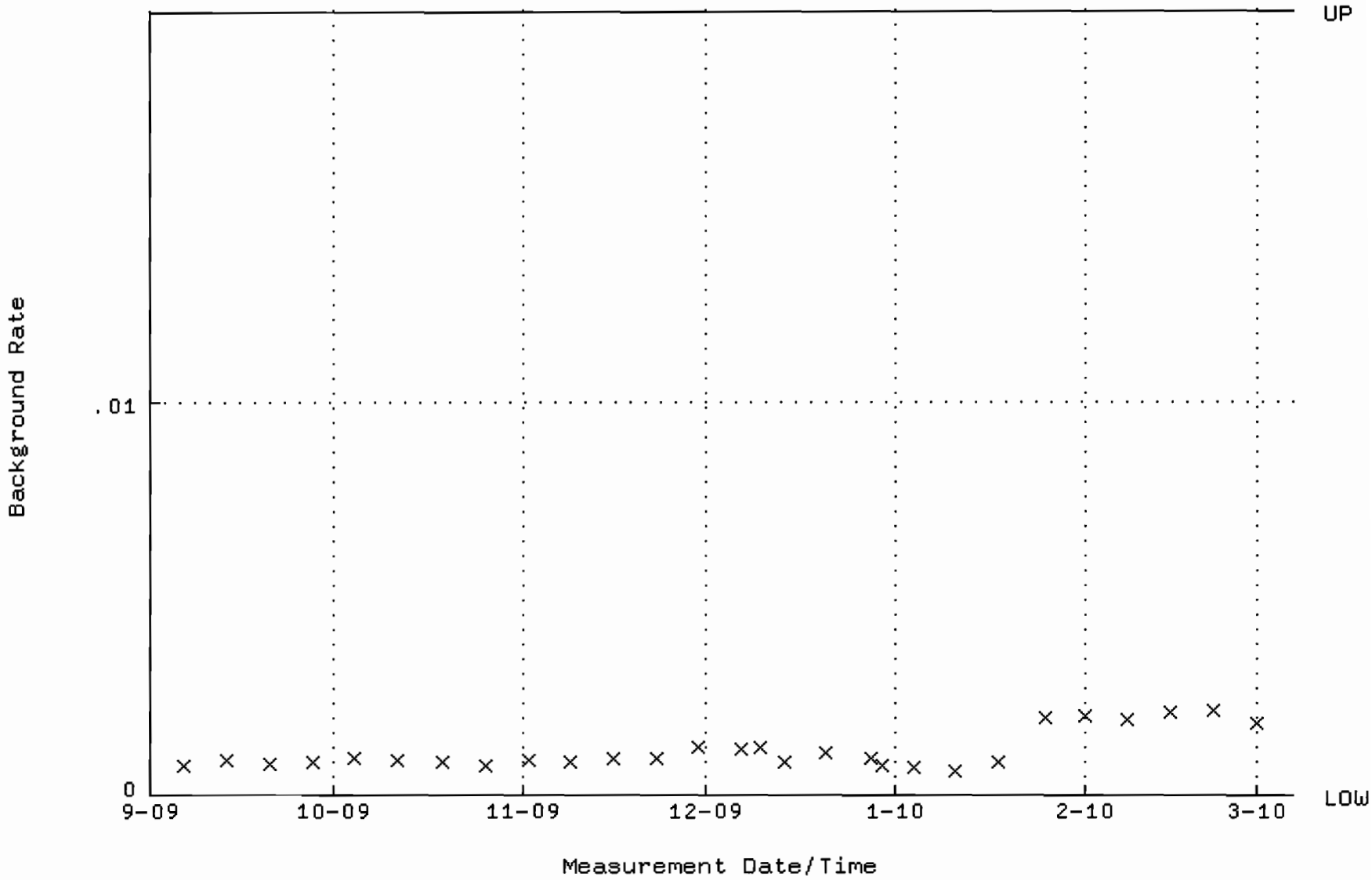

QA filename : DKA100:[ENV_ALPHA.QA.W]W020.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.332206 through 0.357714

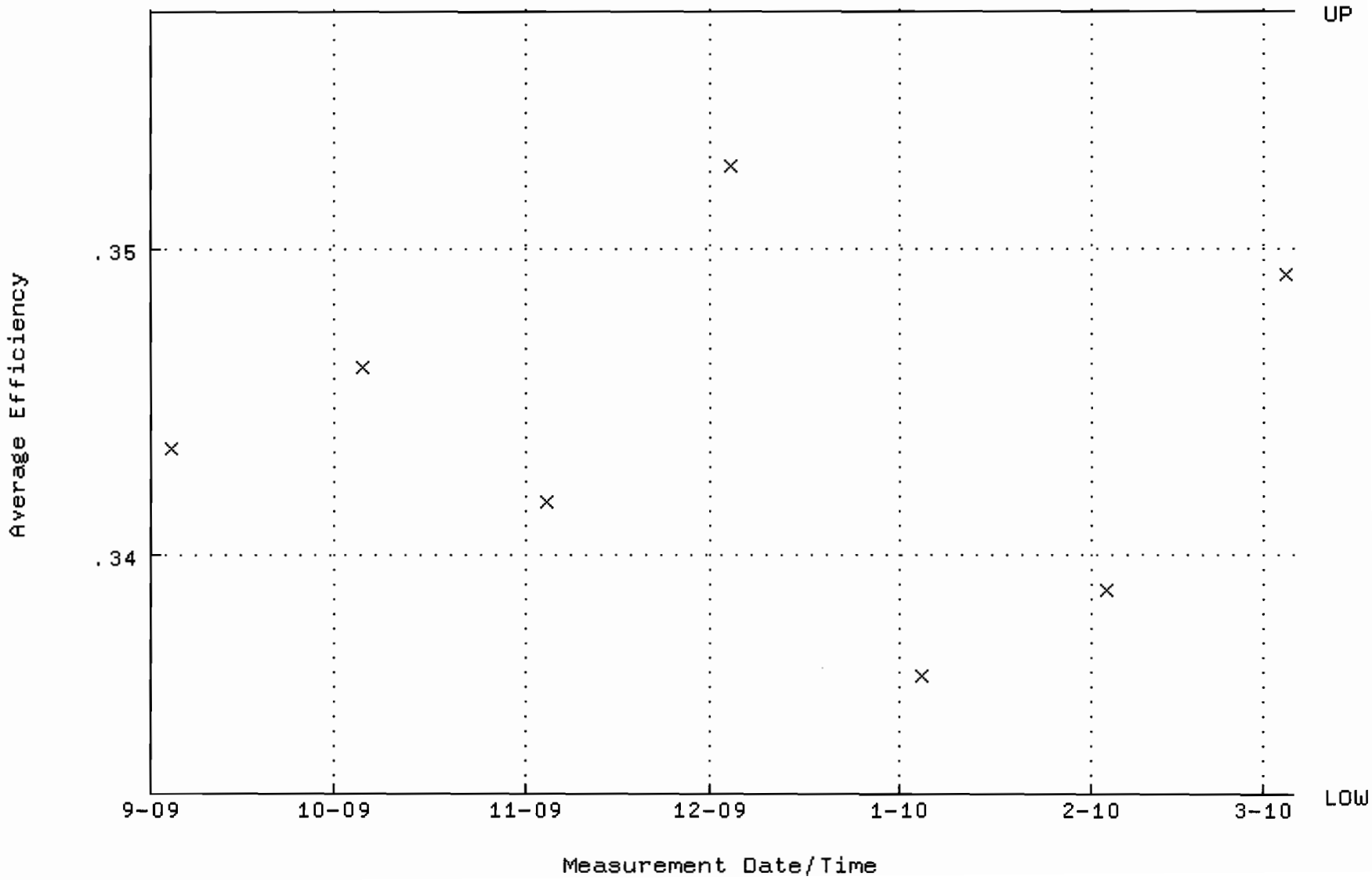

QA filename : DKA100:[ENV_ALPHA.QA.W]W020.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 87.2879 through 92.8099

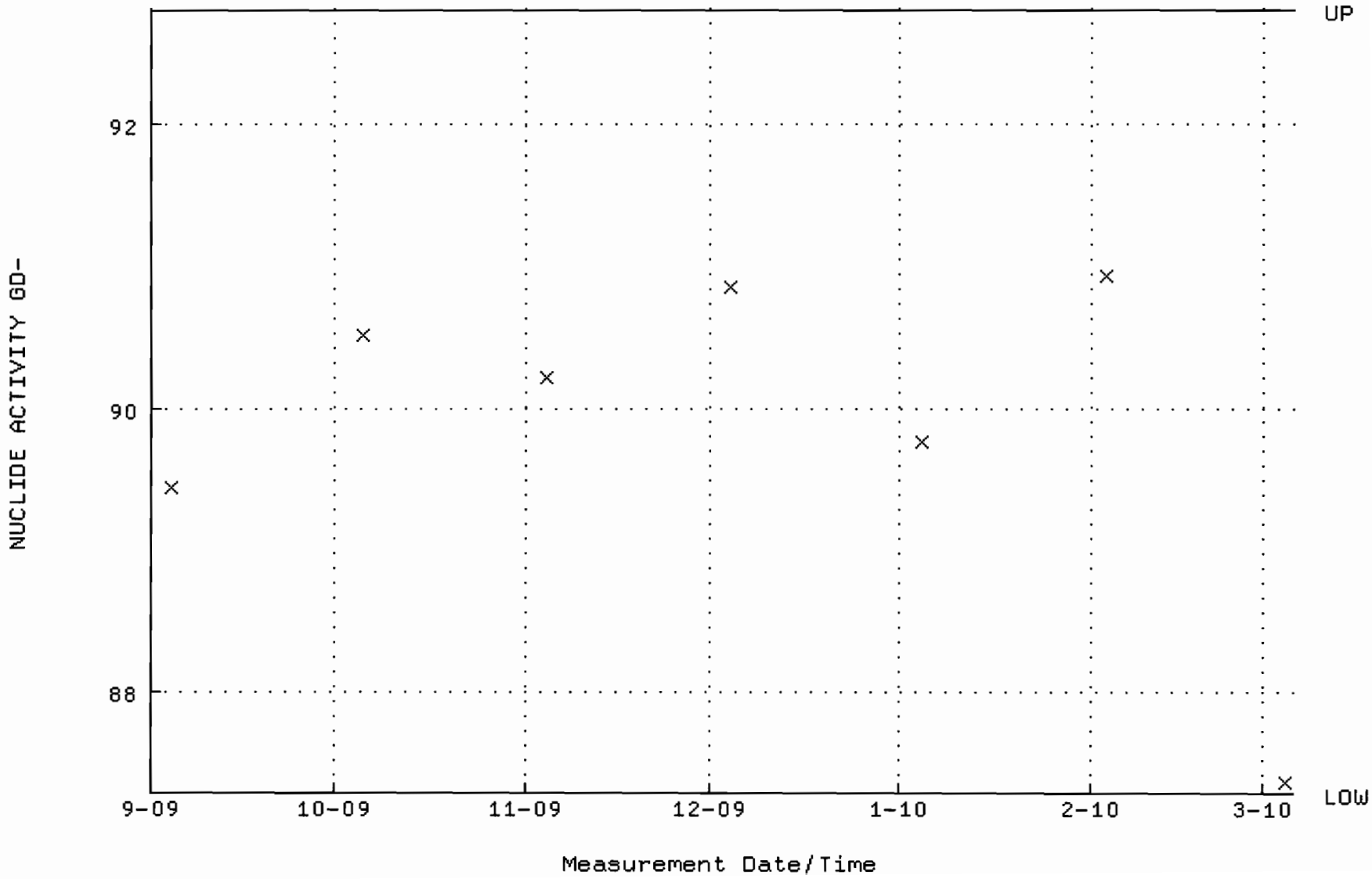

QA filename : DKA100:[ENV_ALPHA.QA.B]B020.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

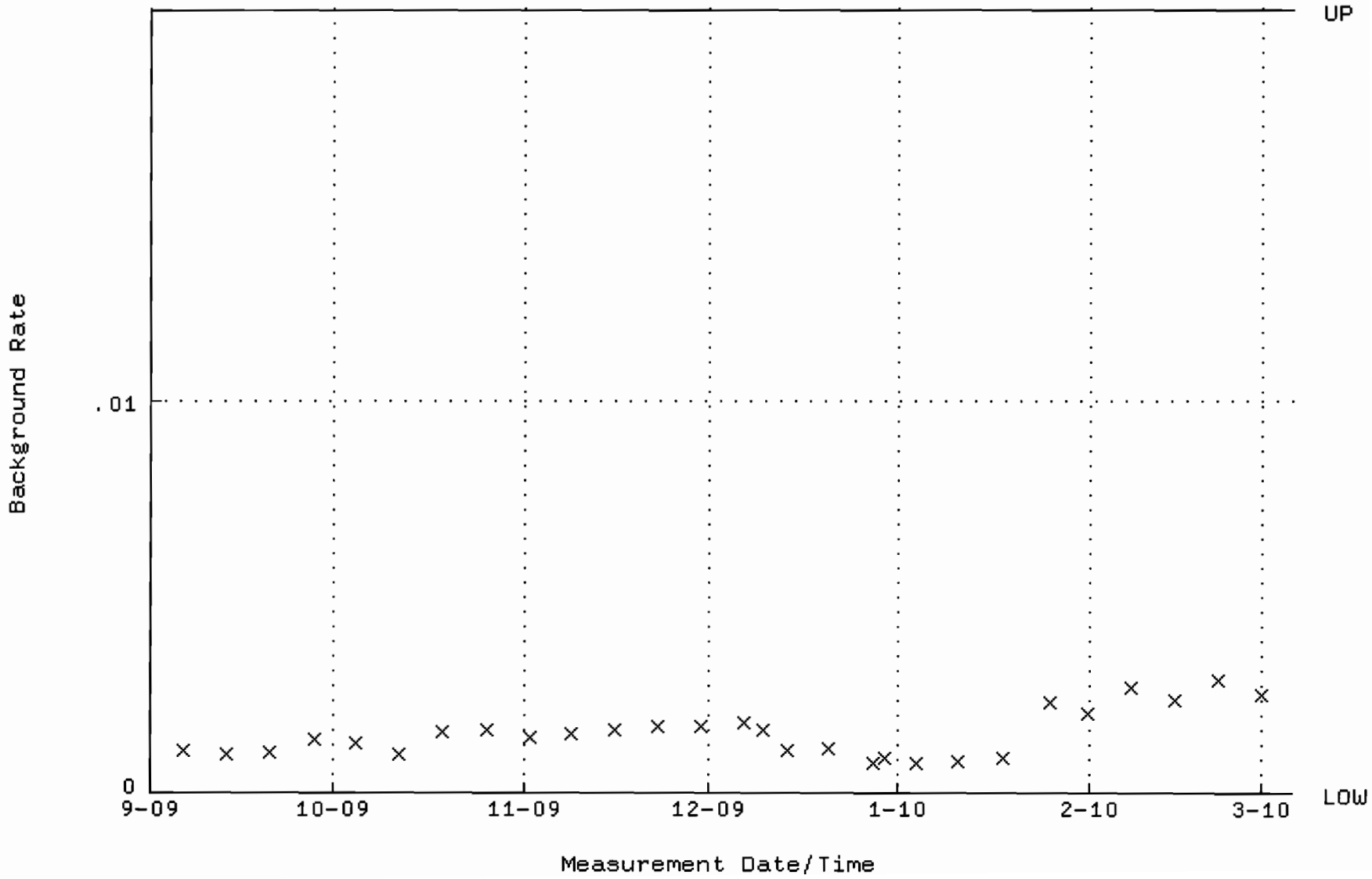

QA filename : DKA100:[ENV_ALPHA.QA.W]W022.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.305380 through 0.327376

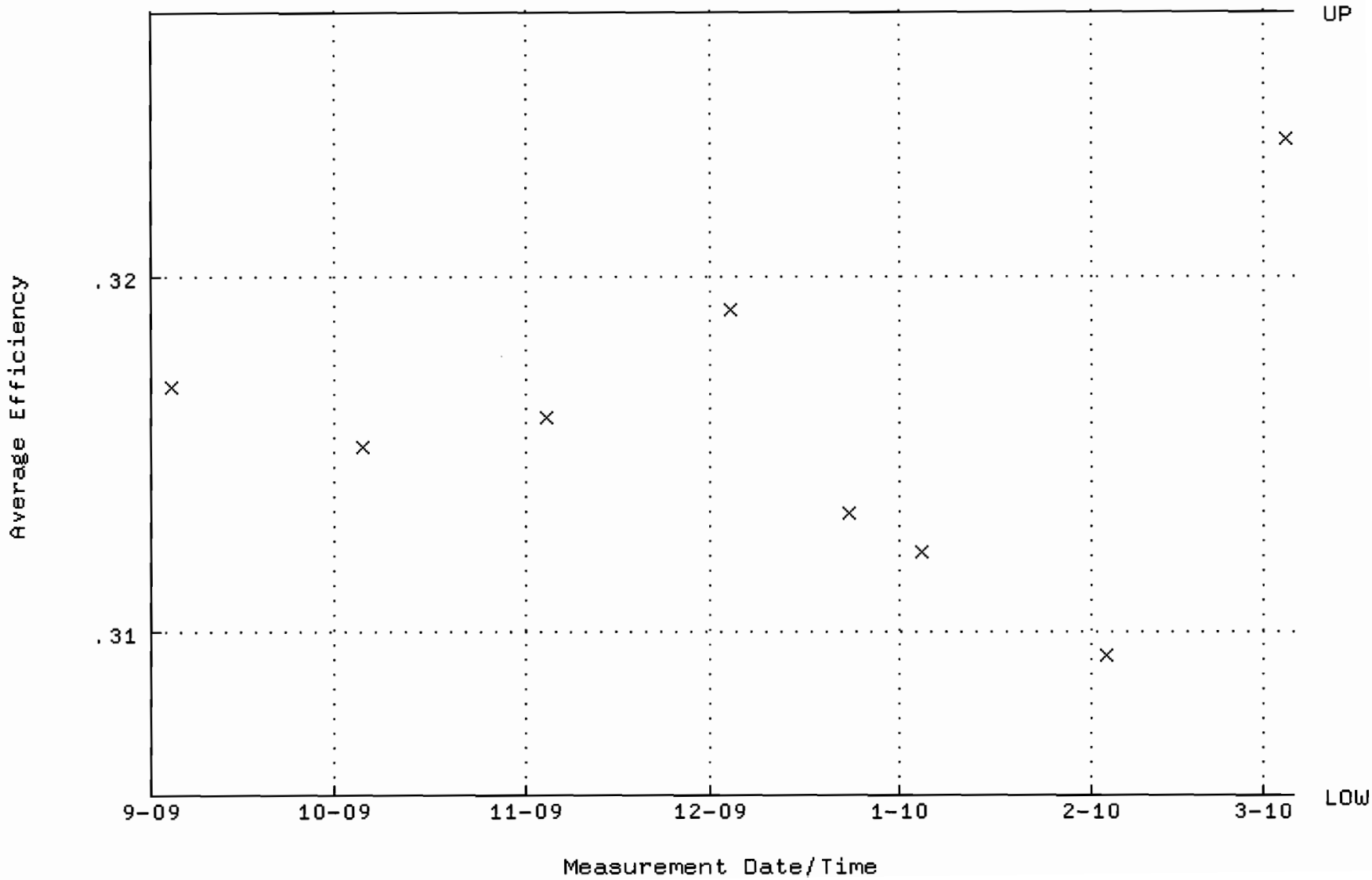

QA filename : DKA100:[ENV_ALPHA.QA.W]W022.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 89.9706 through 94.2088

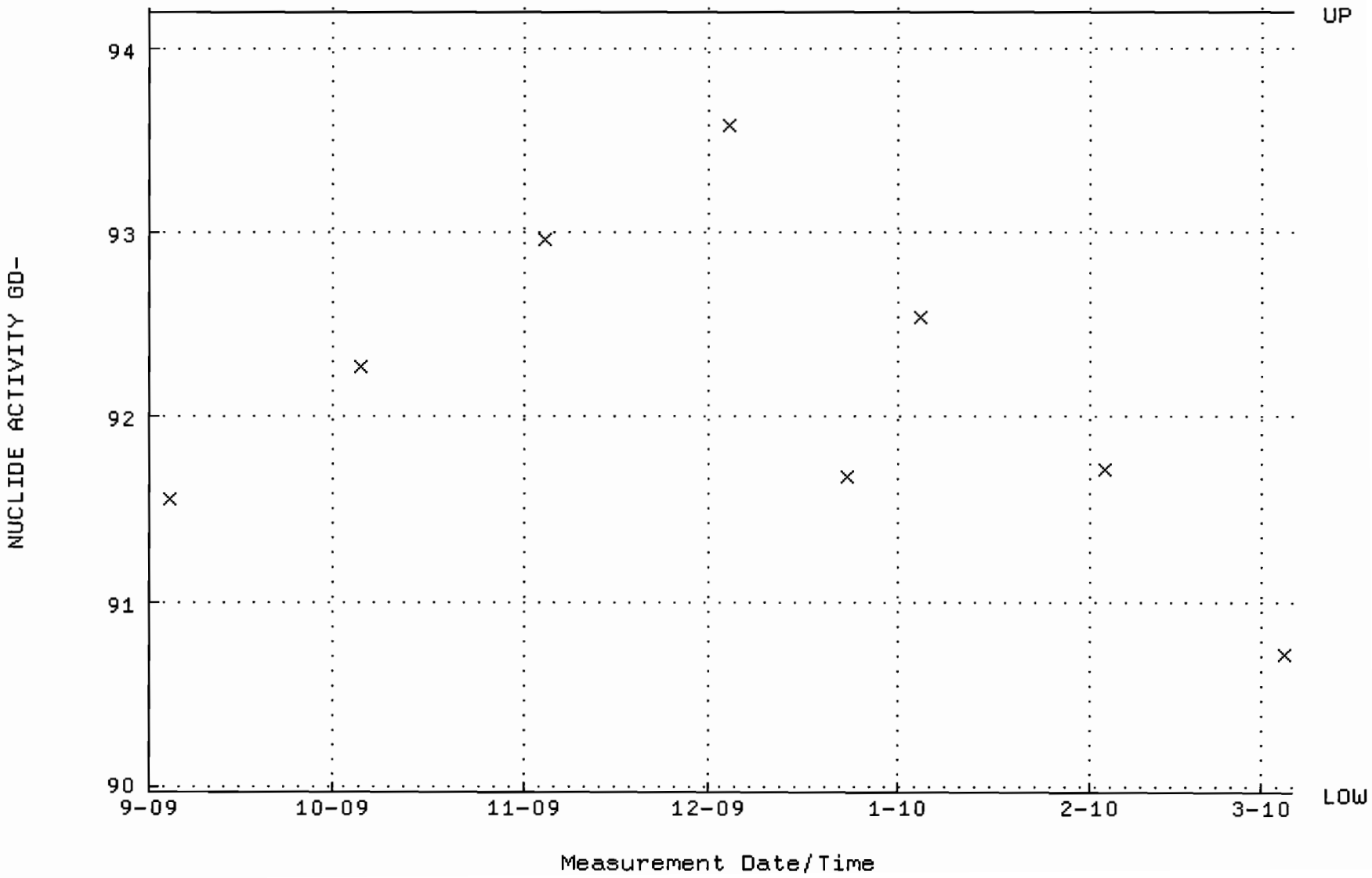

QA filename : DKA100:[ENV_ALPHA.QA.B]B022.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

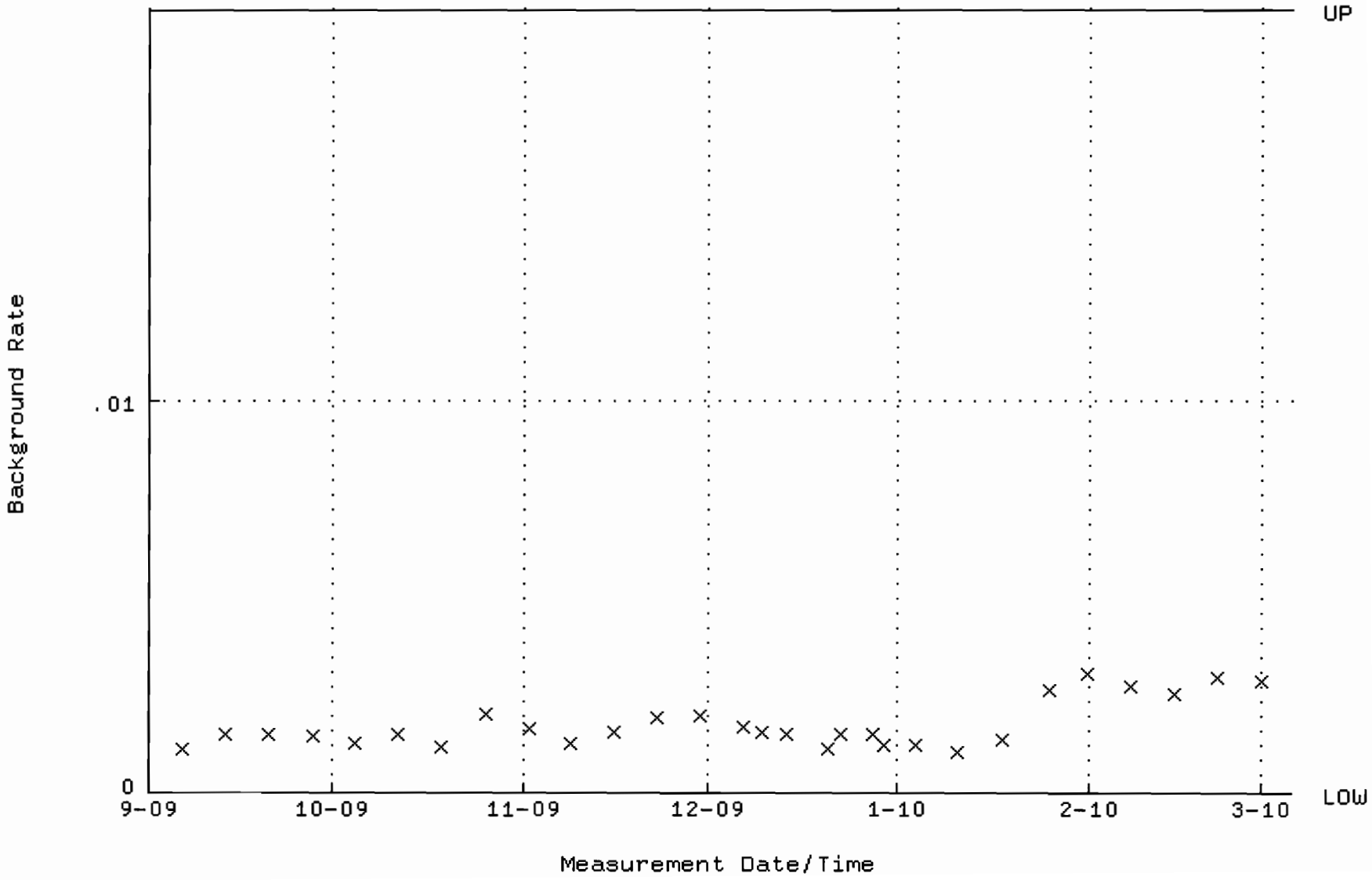

QA filename : DKA100:[ENV_ALPHA.QA.W]W023.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

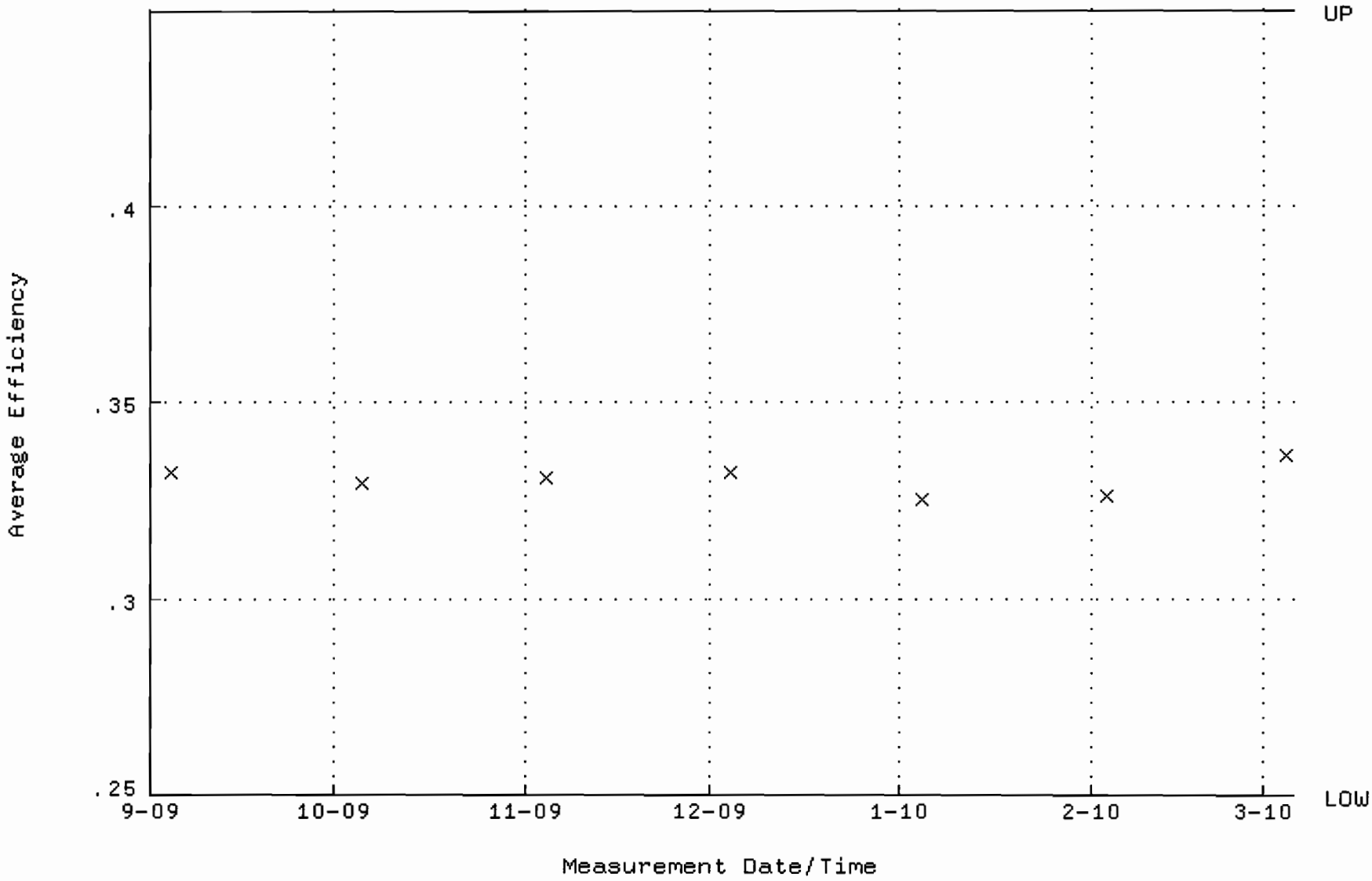

QA filename : DKA100:[ENV_ALPHA.QA.W]W023.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

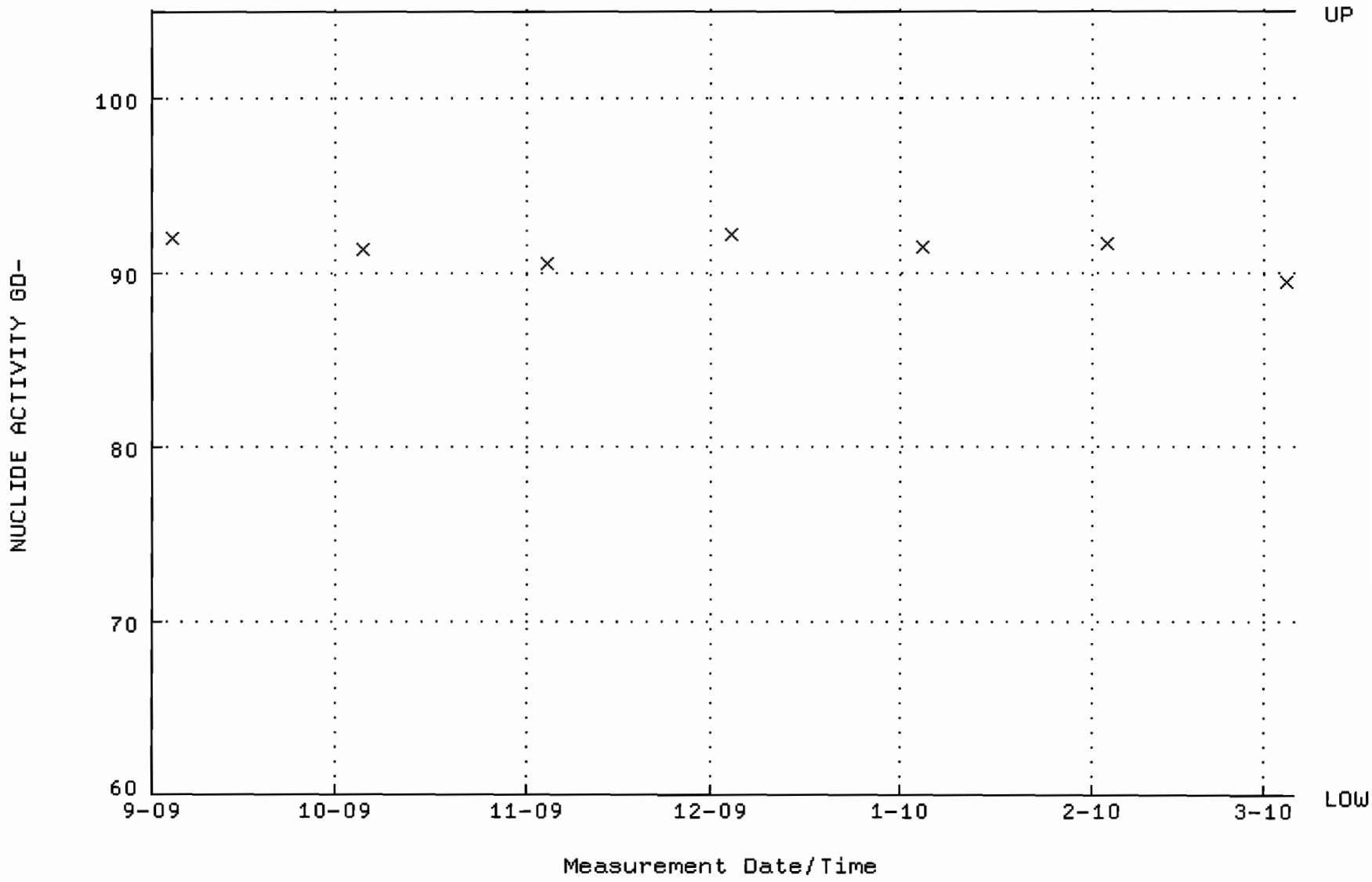

QA filename : DKA100:[ENV_ALPHA.QA.B]B023.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

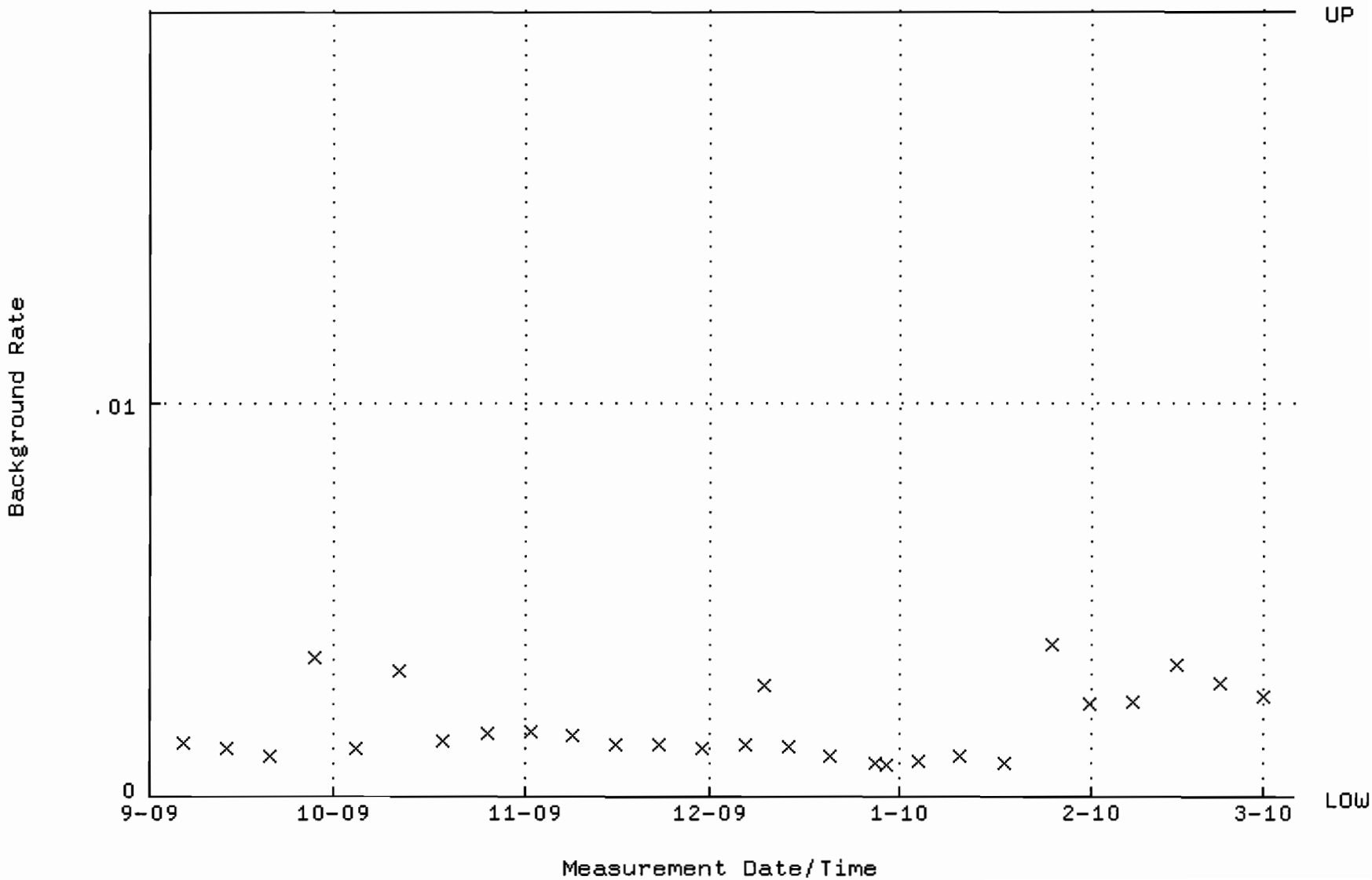

QA filename : DKA100:[ENV_ALPHA.QA.W]W024.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.314917 through 0.353325

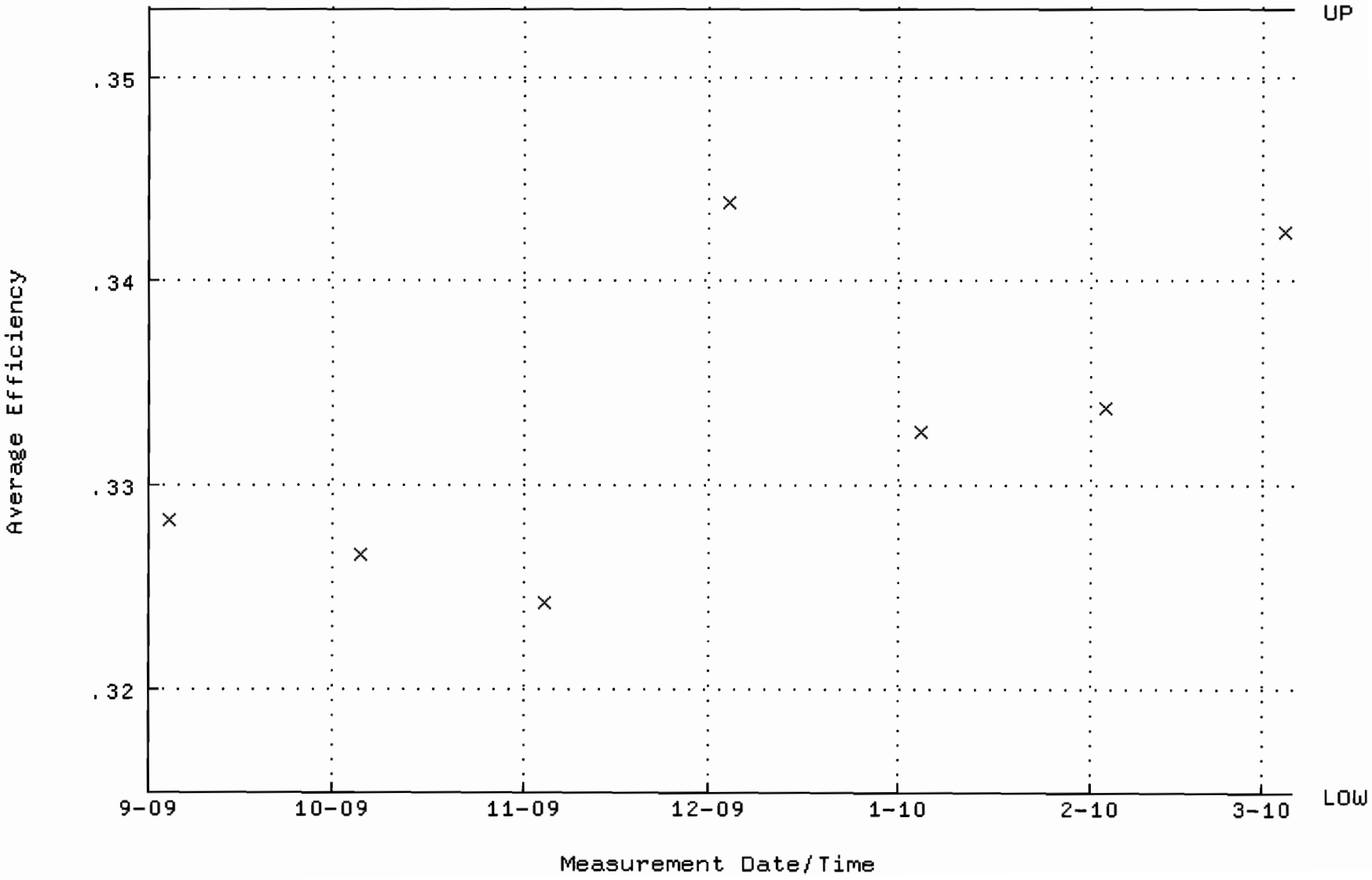

QA filename : DKA100:[ENV_ALPHA.QA.W]W024.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:42 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 85.3858 through 93.1784

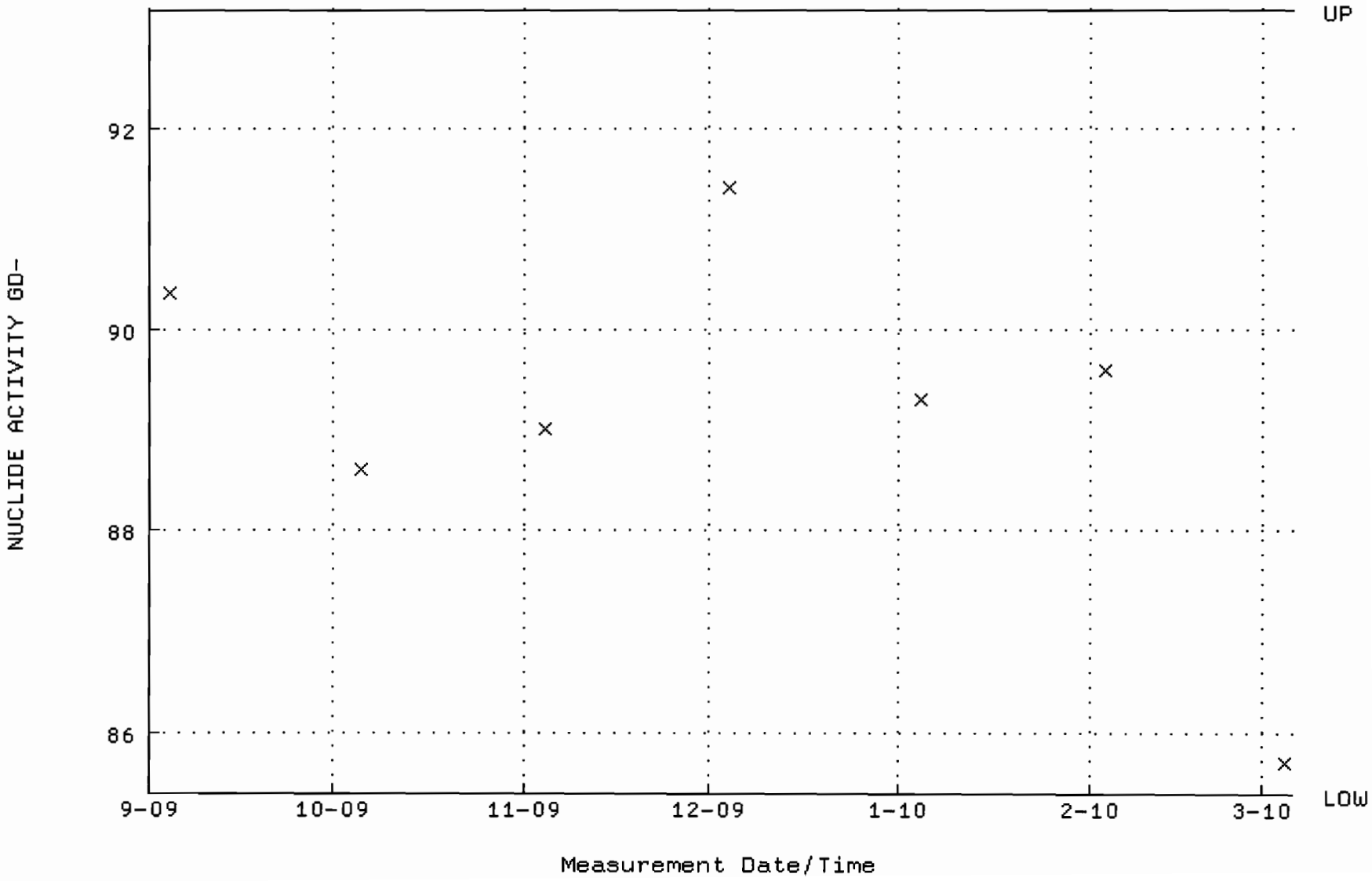

QA filename : DKA100:[ENV_ALPHA.QA.B]B024.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

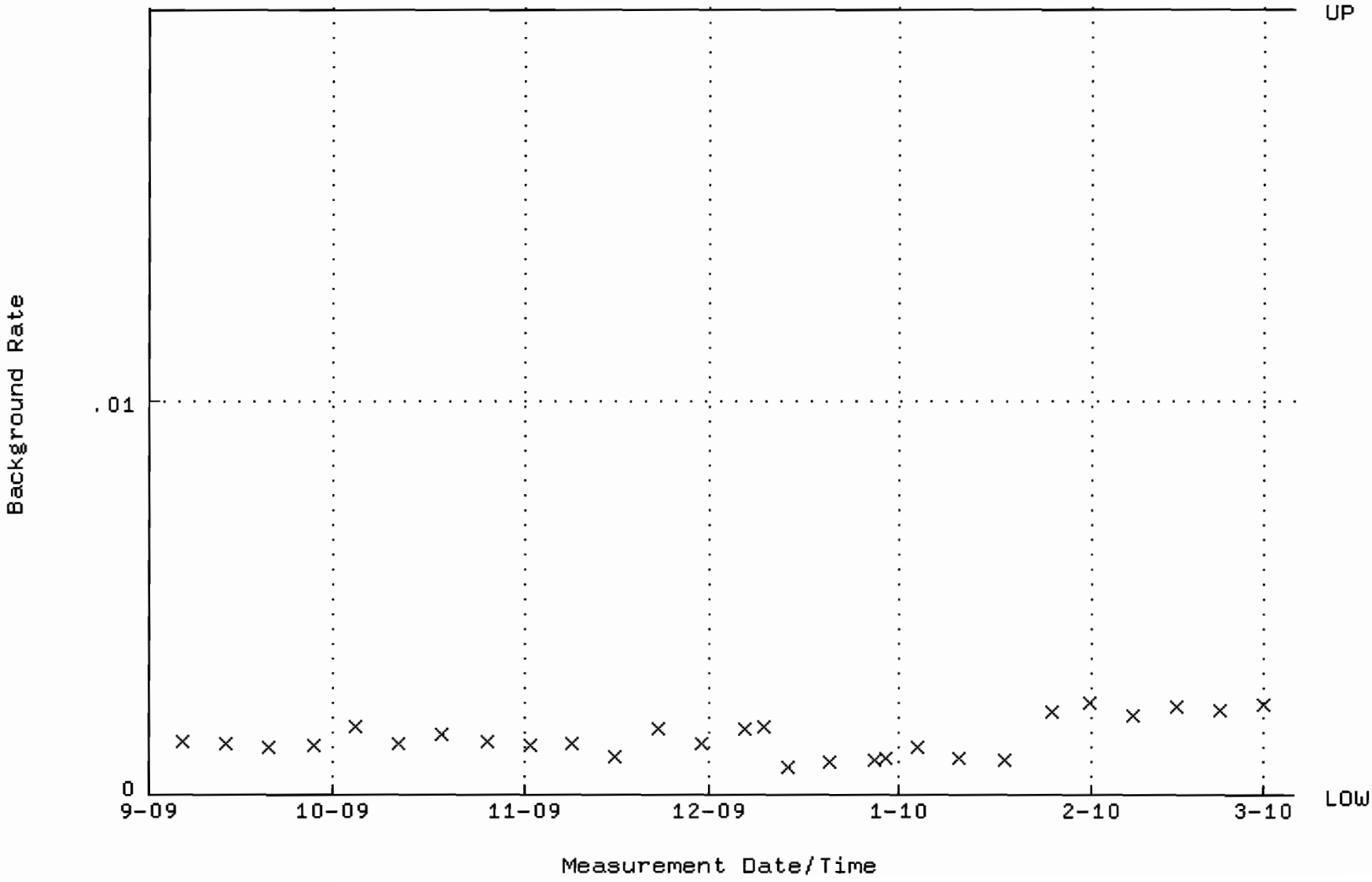

QA filename : DKA100:[ENV_ALPHA.QA.W]W116.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:22:54 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.249691 through 0.269691

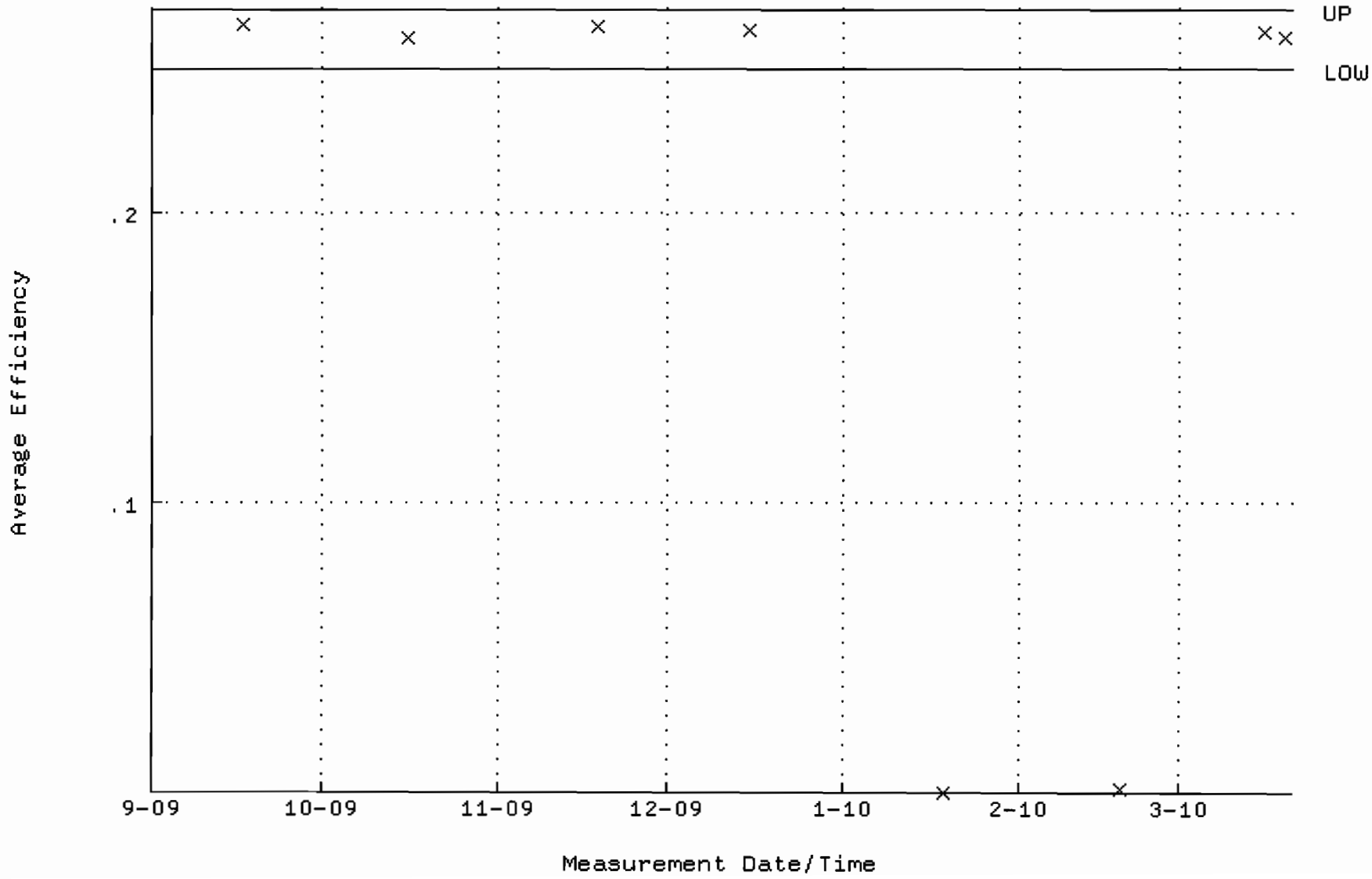

QA filename : DKA100:[ENV_ALPHA.QA.W]W116.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:22:54 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 84.7644 through 93.6870

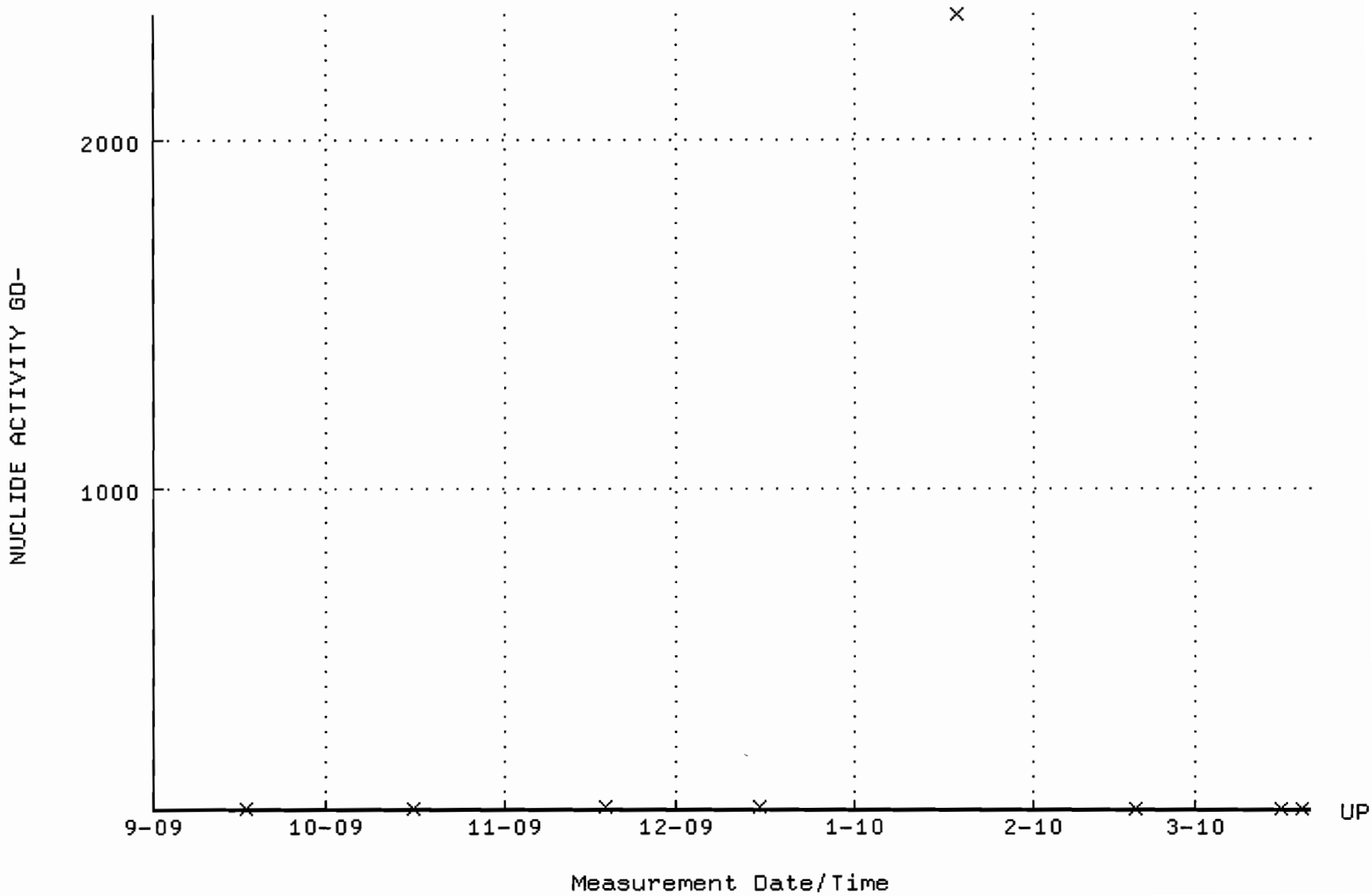

QA filename : DKA100:[ENV_ALPHA.QA.B]B116.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:21 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

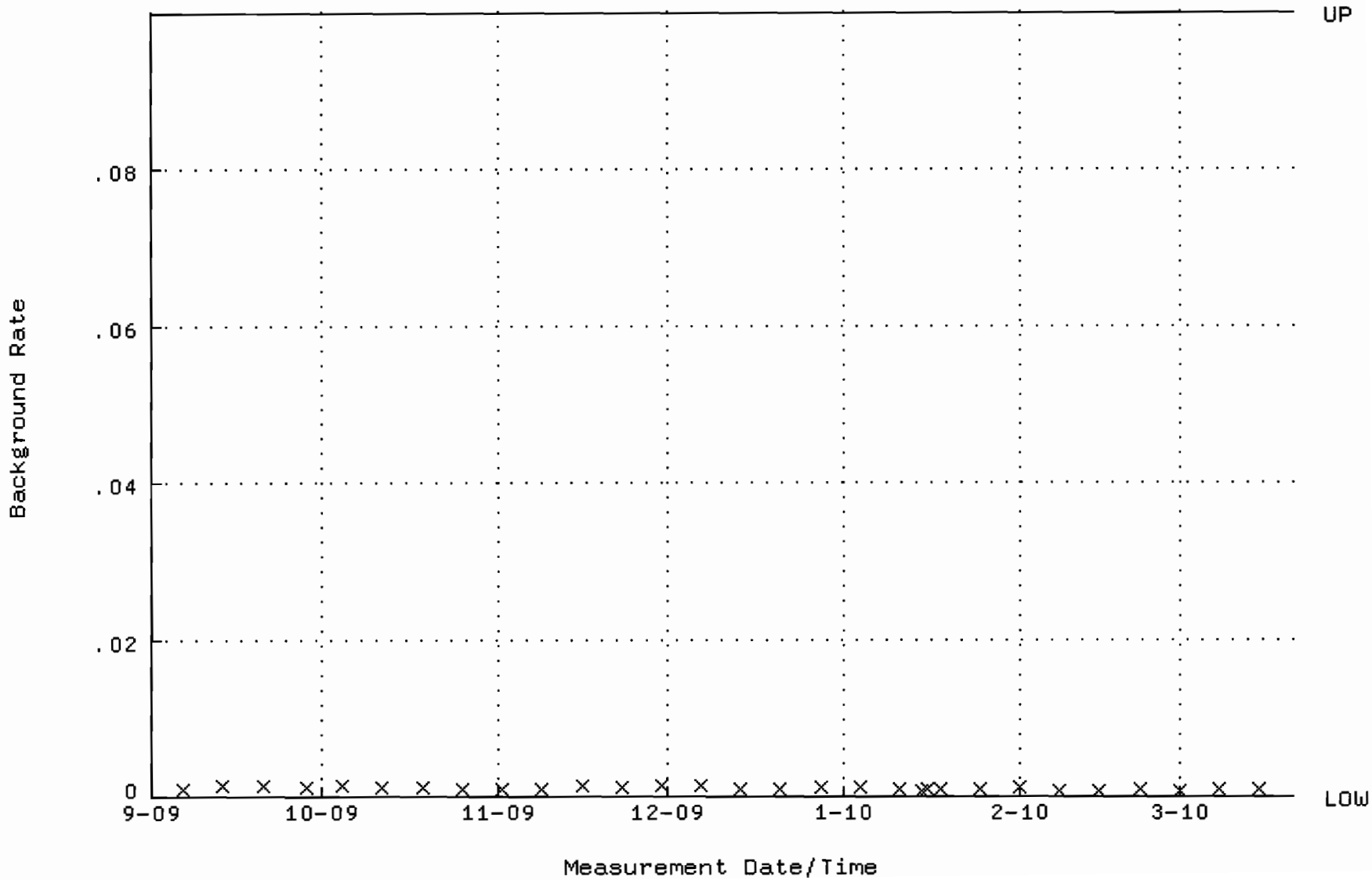

QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:03 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.233045 through 0.273065

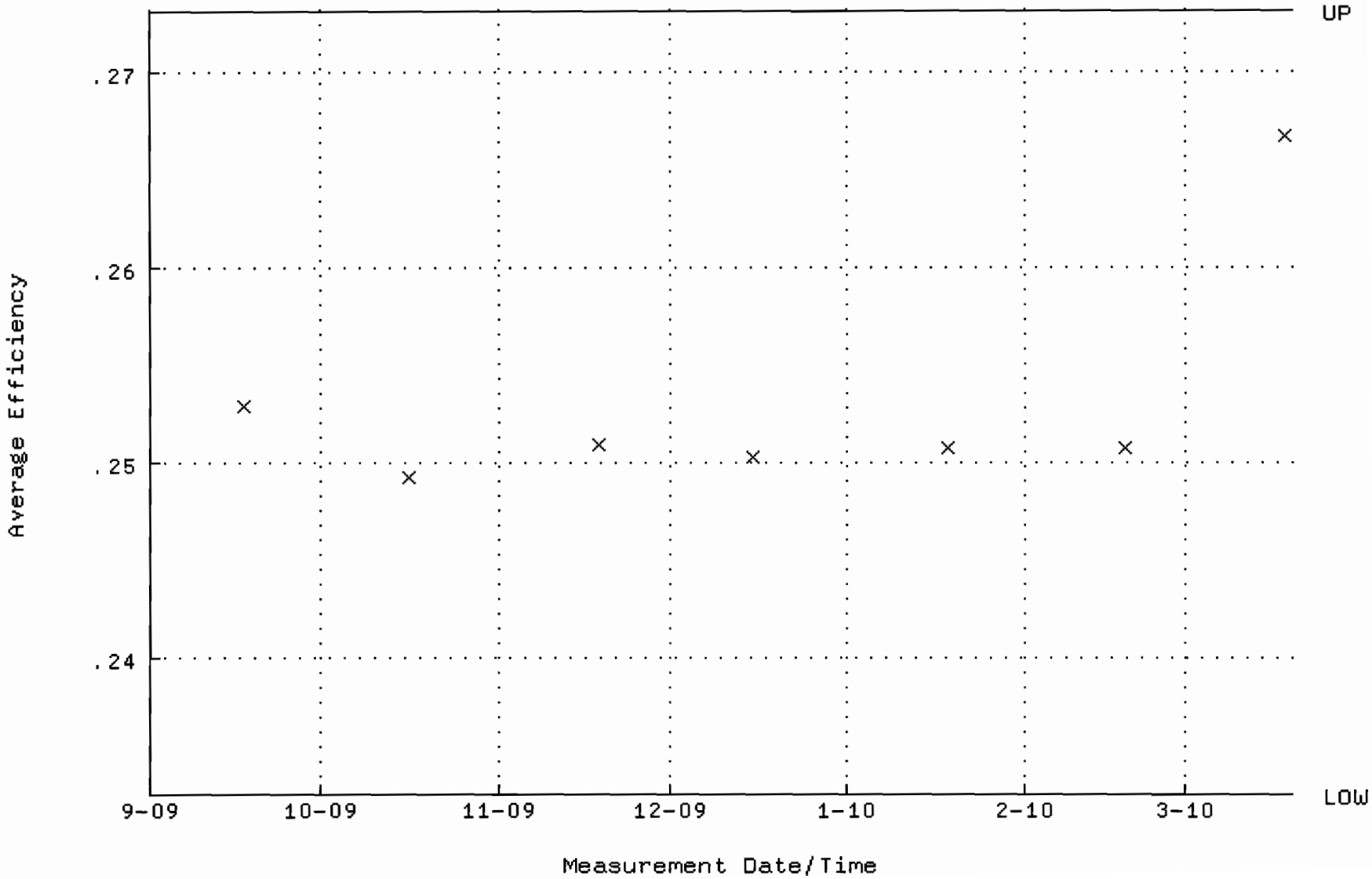

QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:03 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 83.3533 through 93.4269

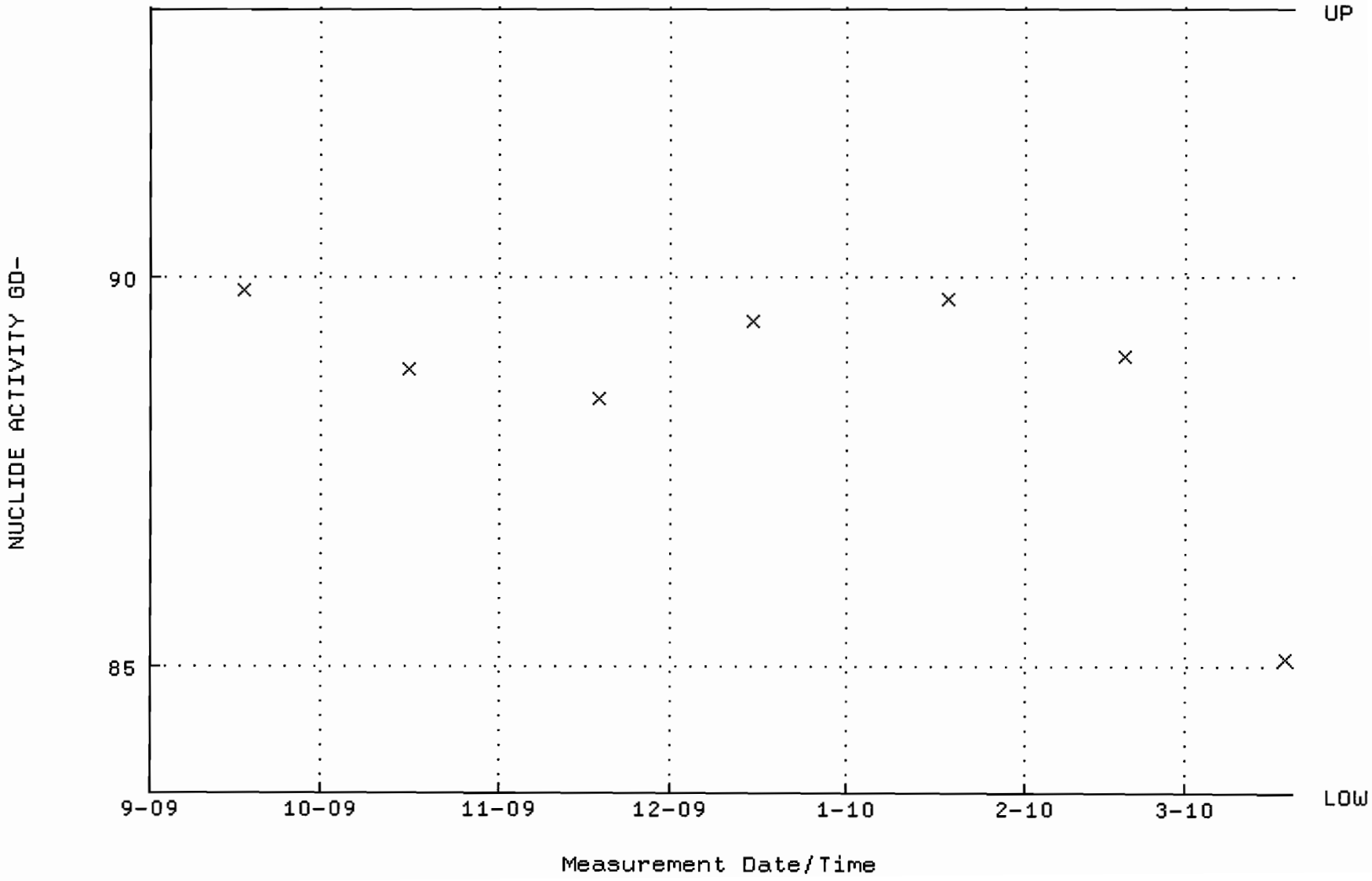

QA filename : DKA100:[ENV_ALPHA.QA.B]B126.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:05 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

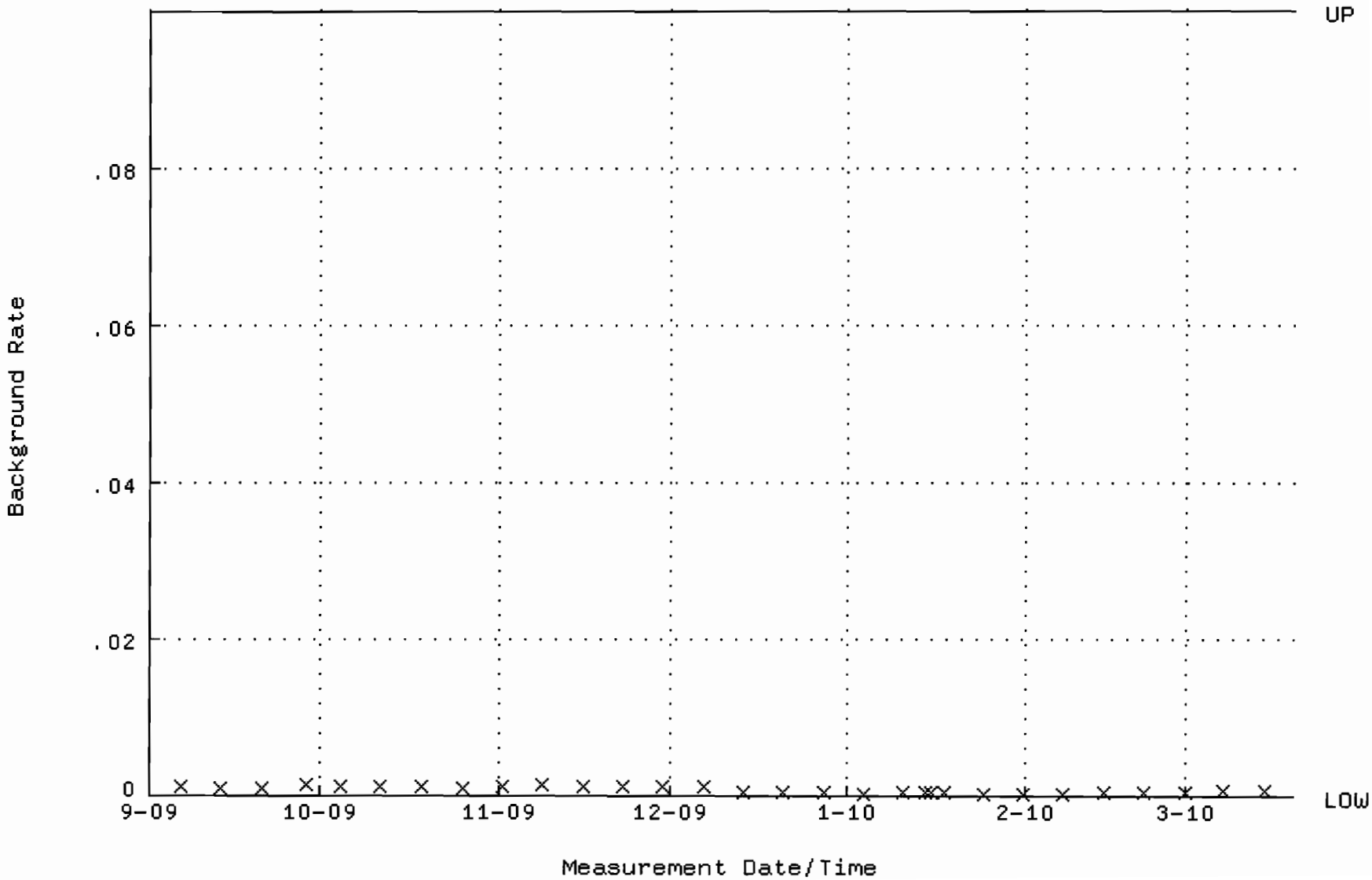

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:09 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.227212 through 0.270396

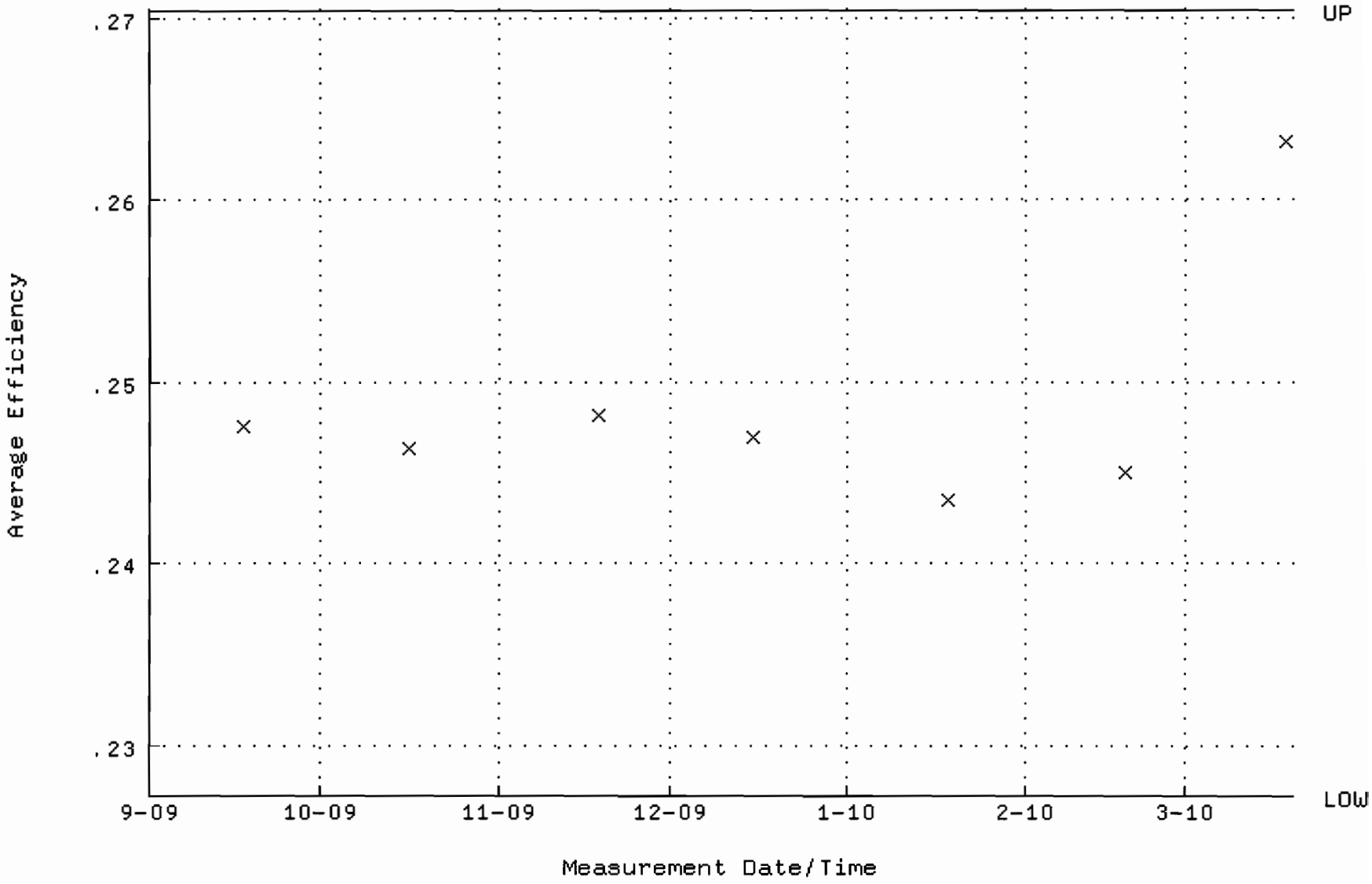

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:09 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 88.4641 through 101.145

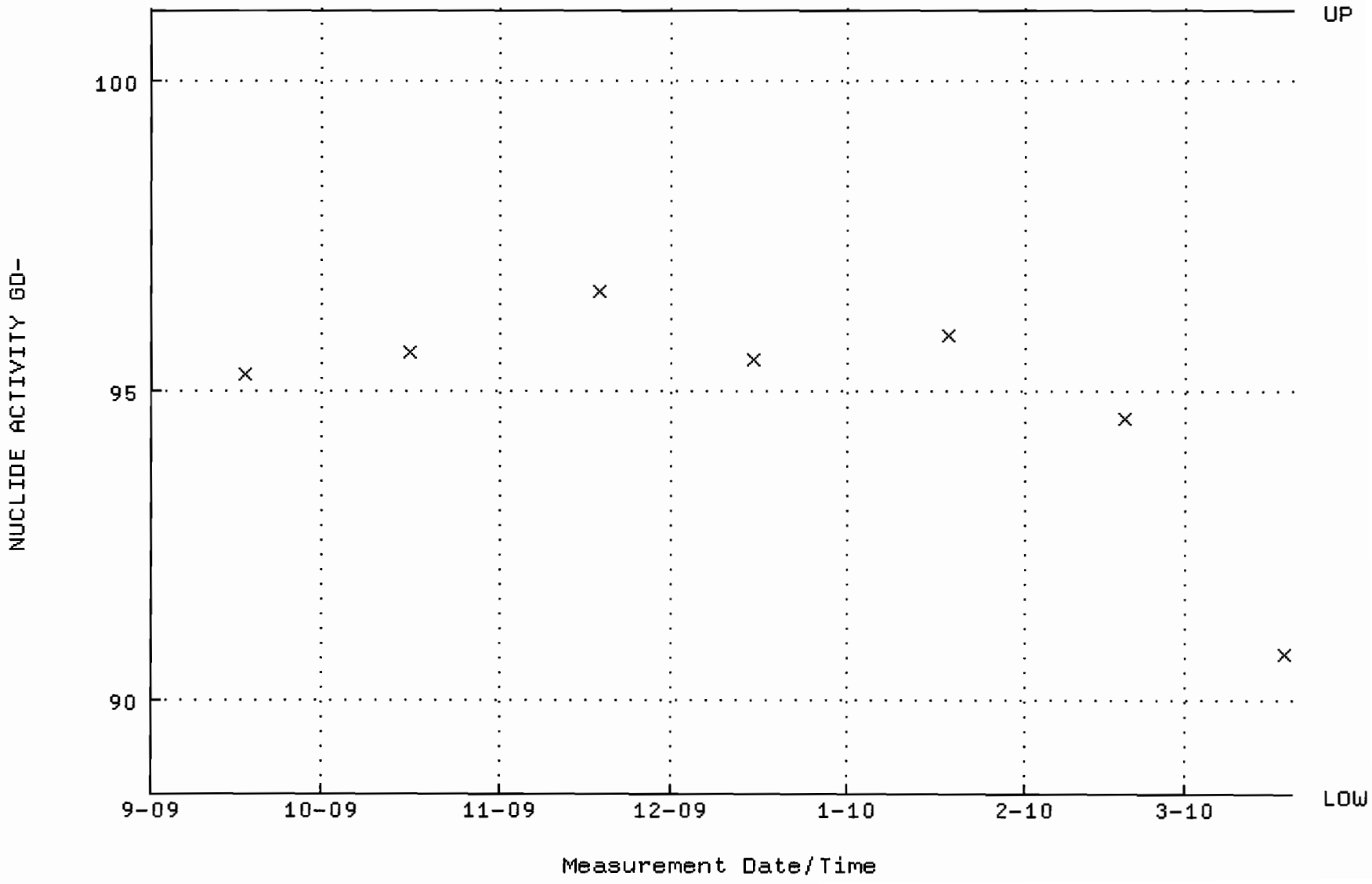

QA filename : DKA100:[ENV_ALPHA.QA.B]B127.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:09 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

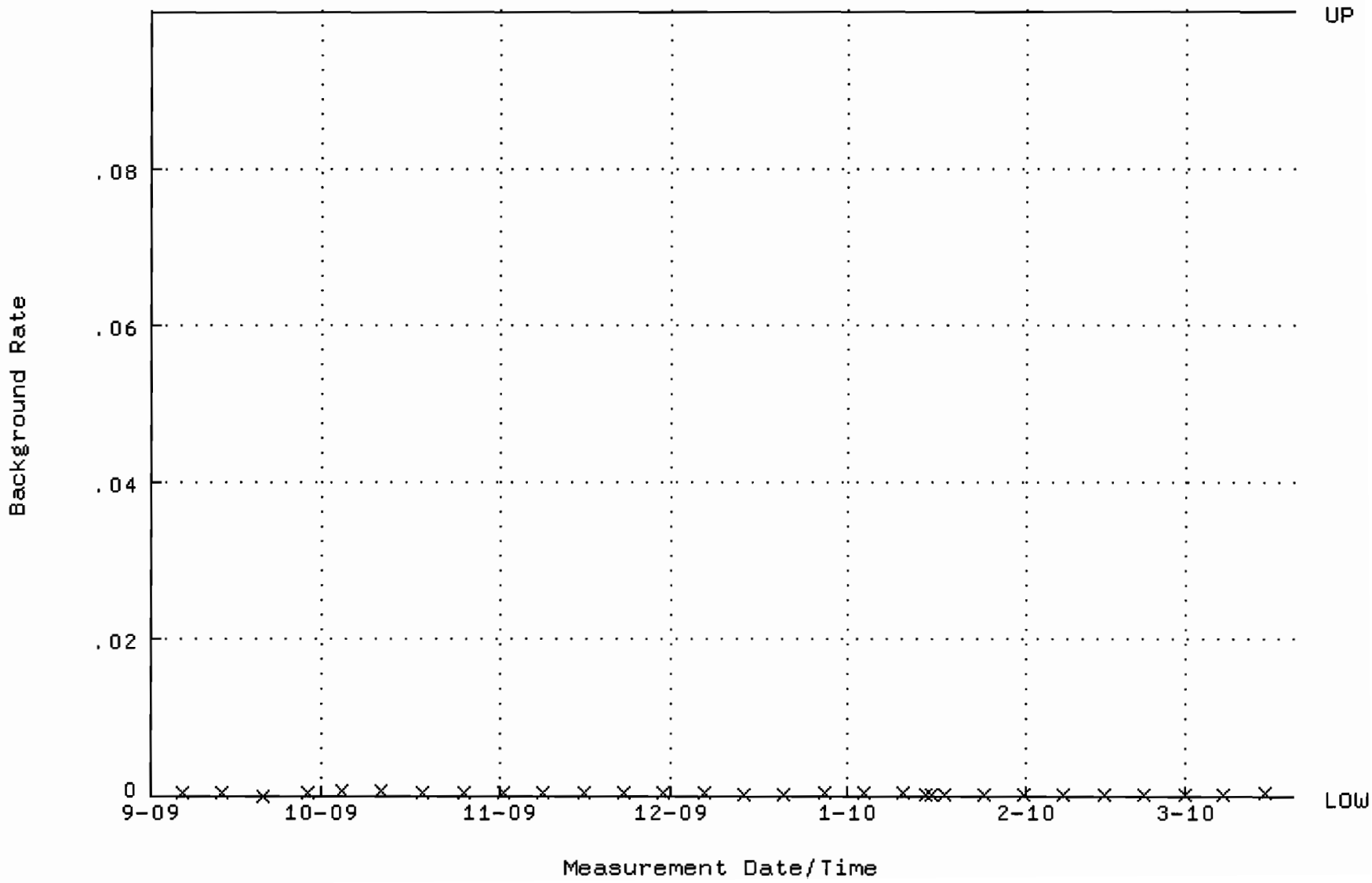

QA filename : DKA100:[ENV_ALPHA.QA.W]W128.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:16 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250562 through 0.262084

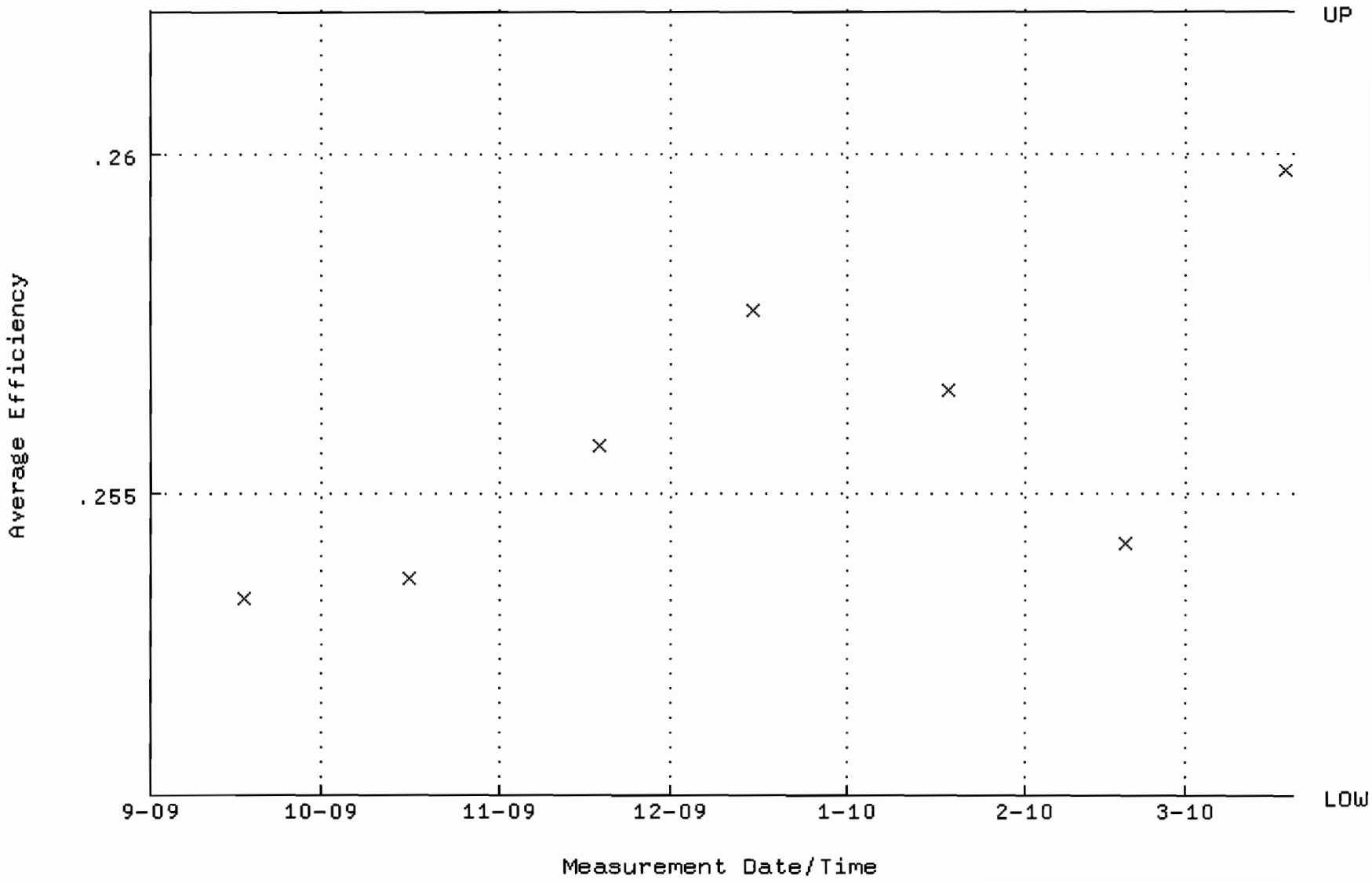

QA filename : DKA100:[ENV_ALPHA.QA.W]W128.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:16 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 87.7731 through 93.0795

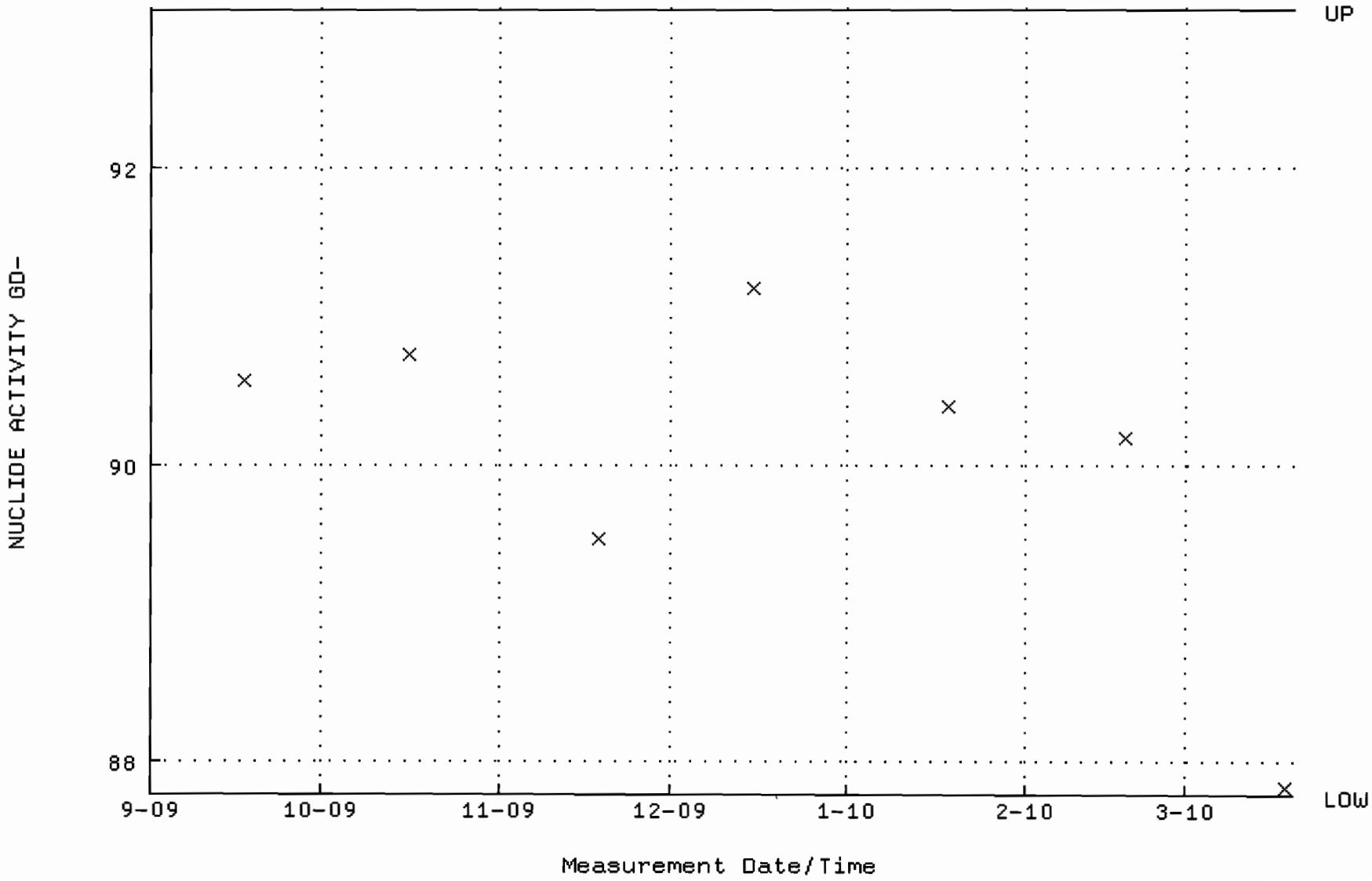

QA filename : DKA100:[ENV_ALPHA.QA.B]B128.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:14 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

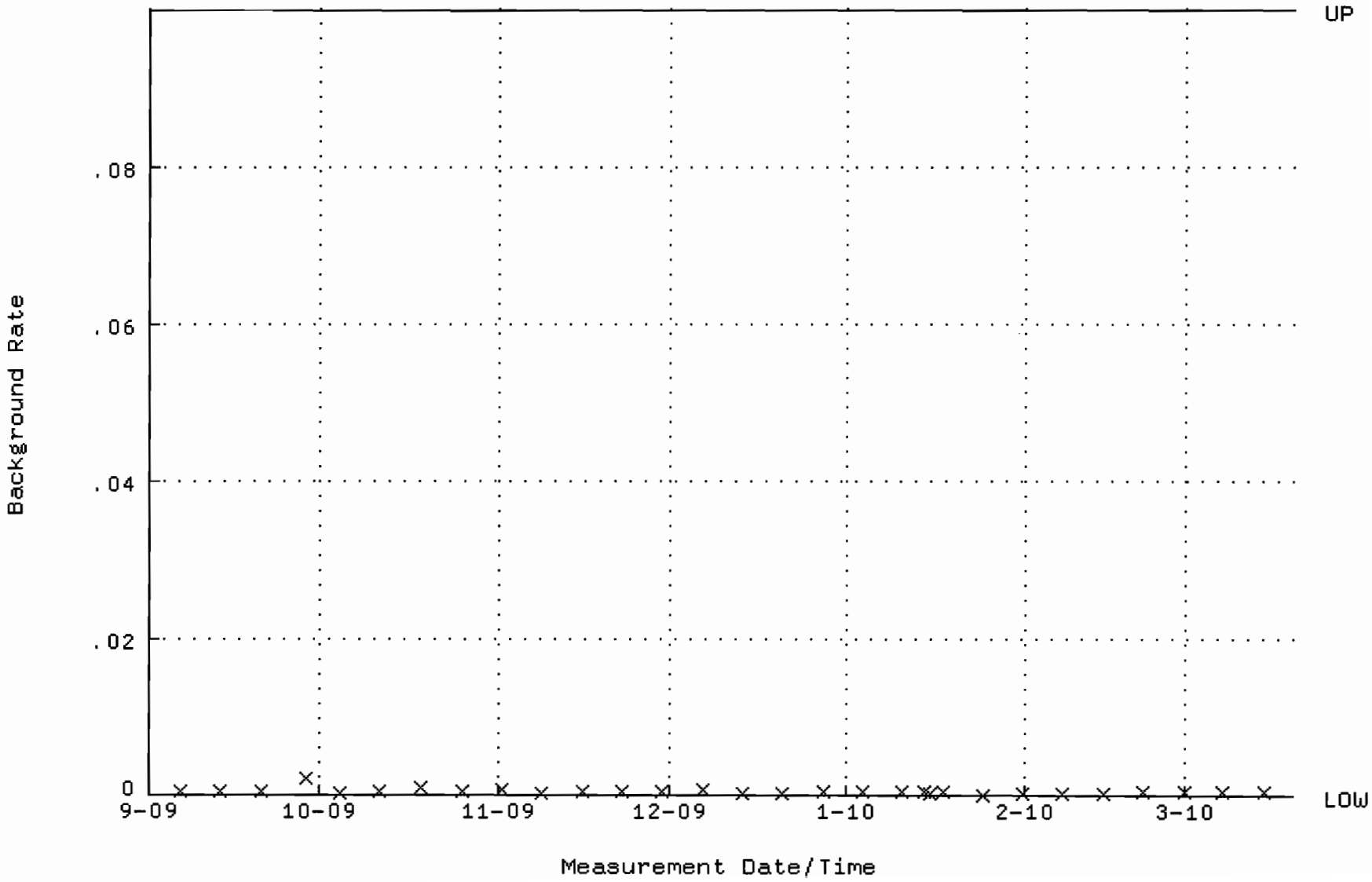

QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:21 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.259560 through 0.269146

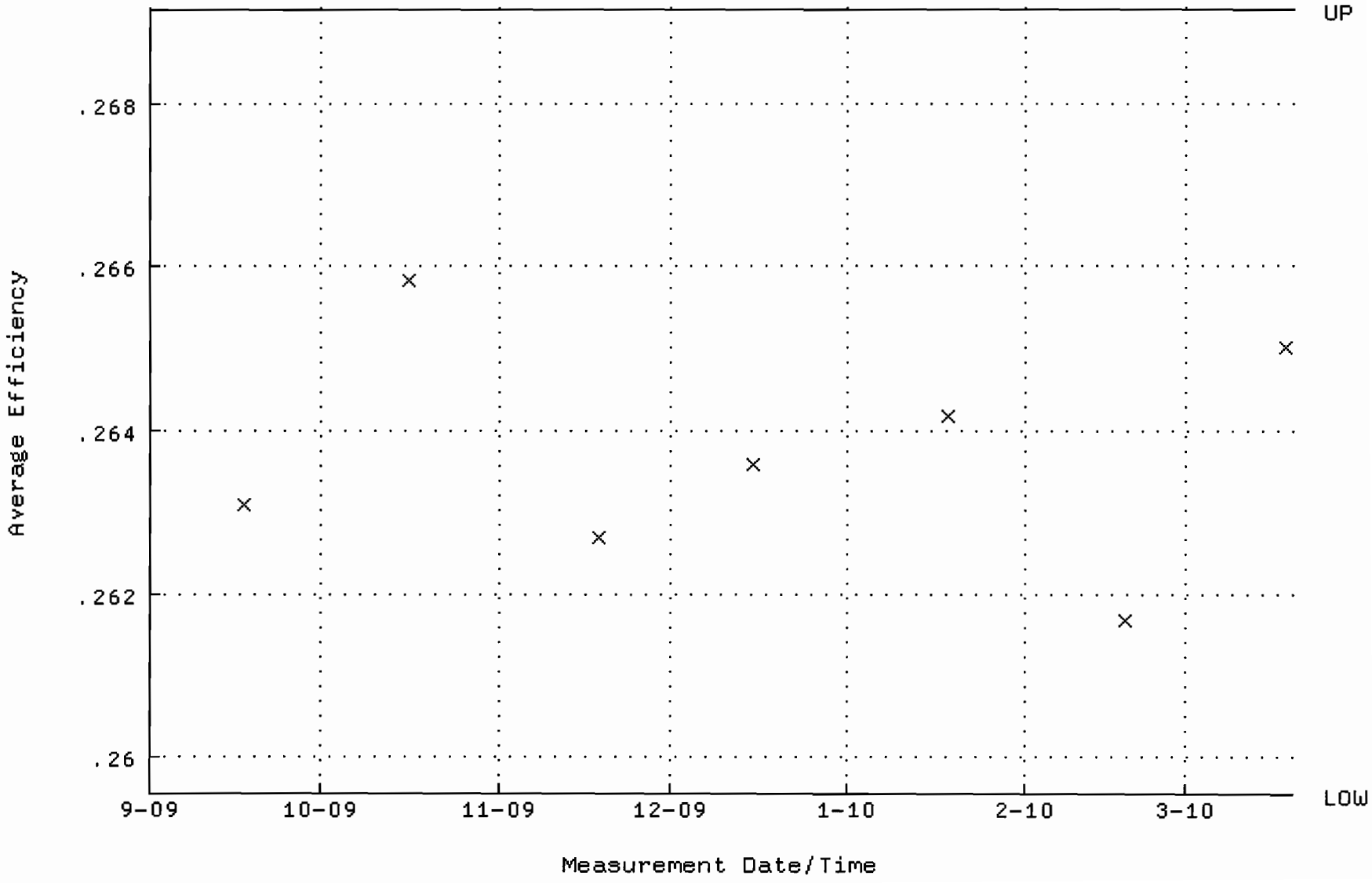

QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:21 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 89.1401 through 92.8201

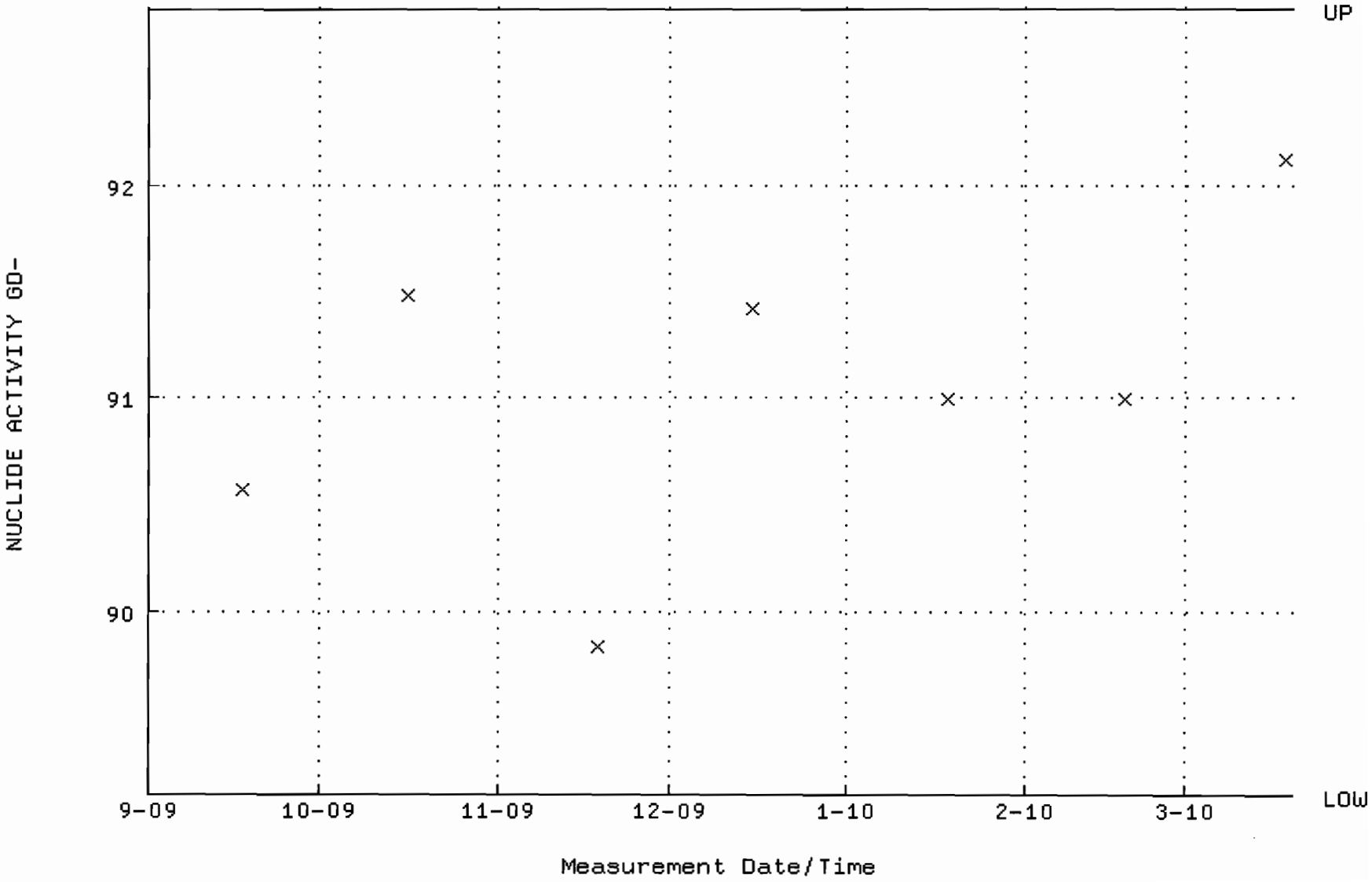

QA filename : DKA100:[ENV_ALPHA.QA.B]B129.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:19 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

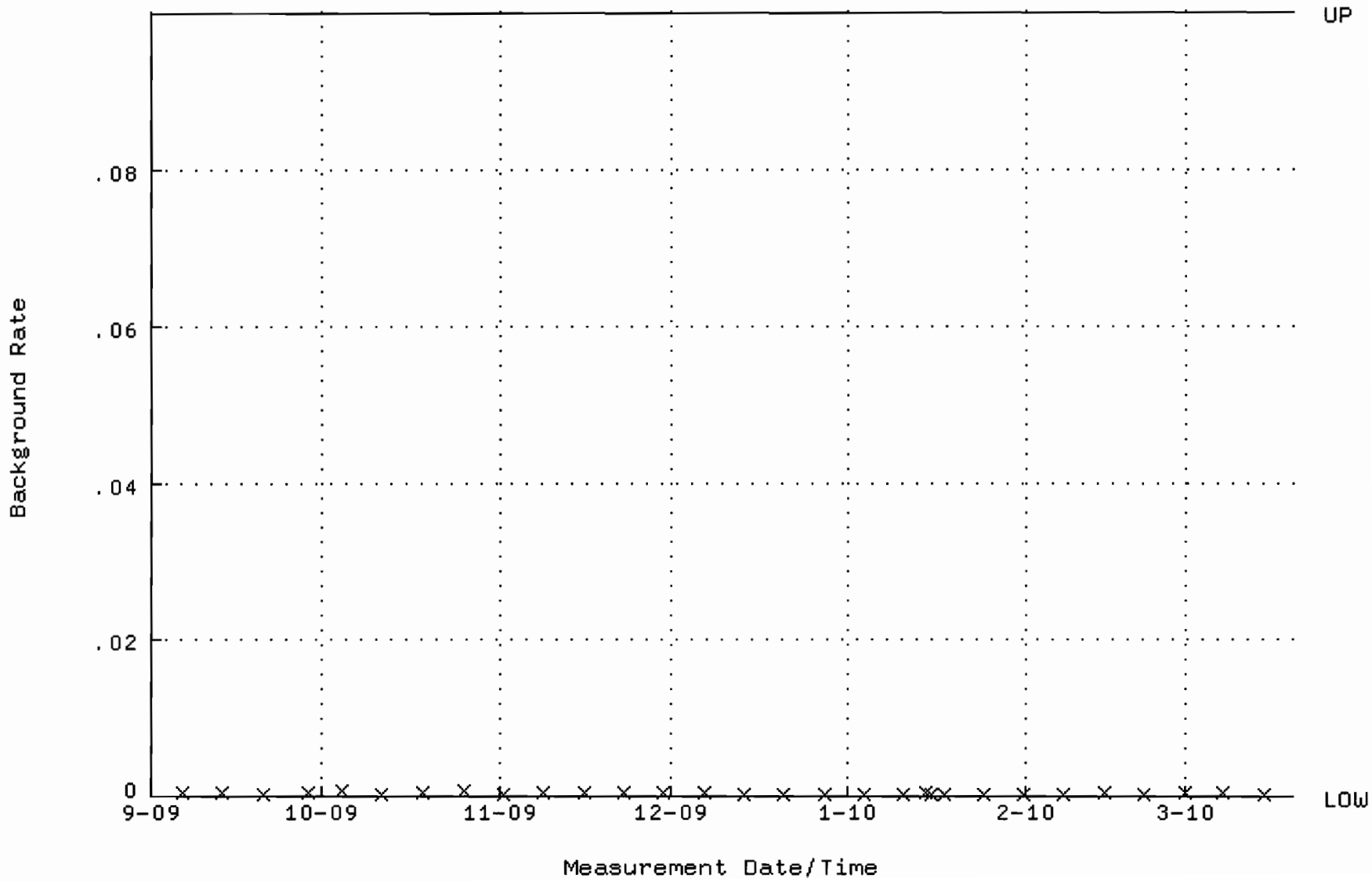

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:25 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.235120 through 0.263192

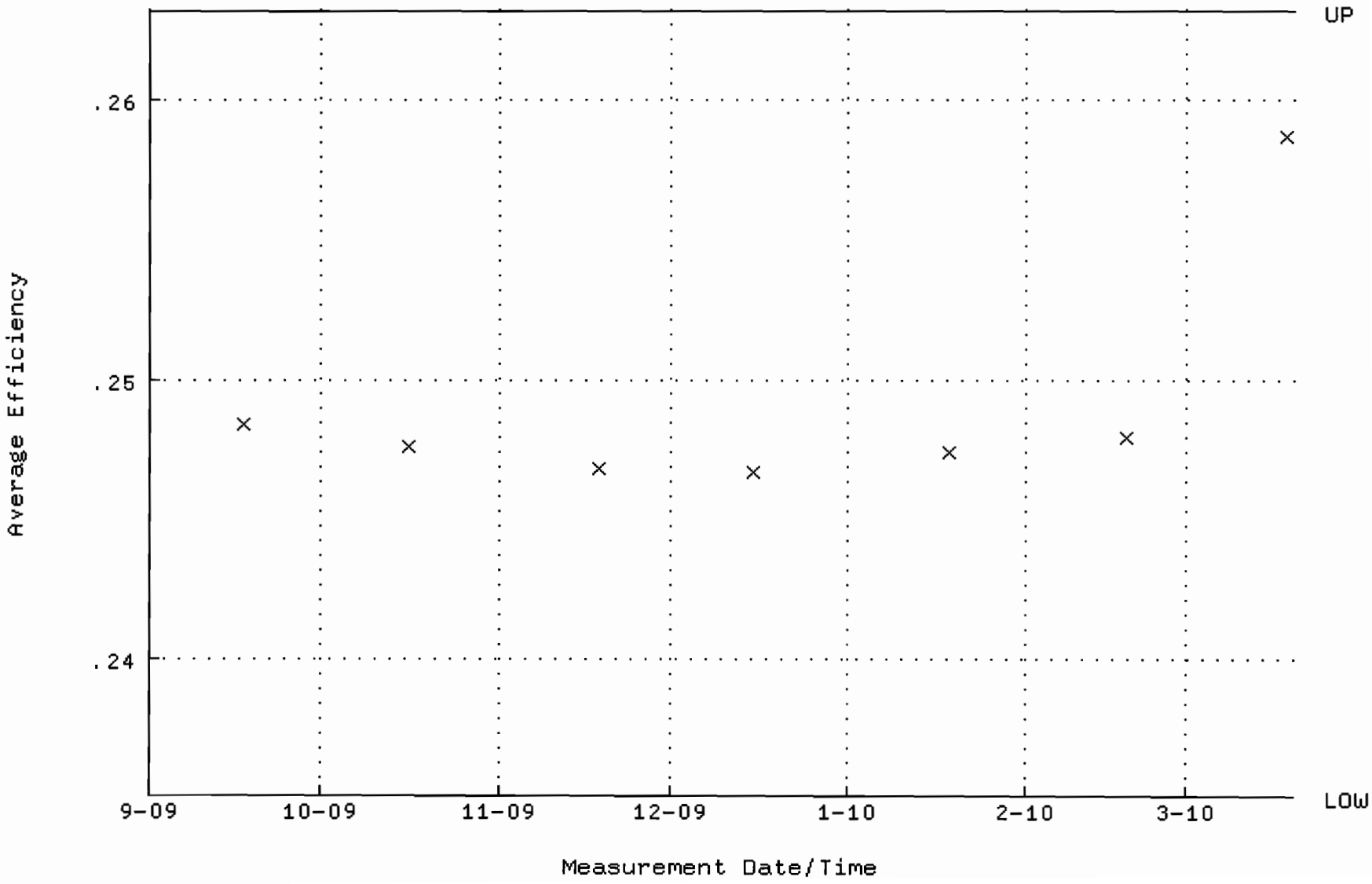

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:25 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 86.8592 through 96.7952

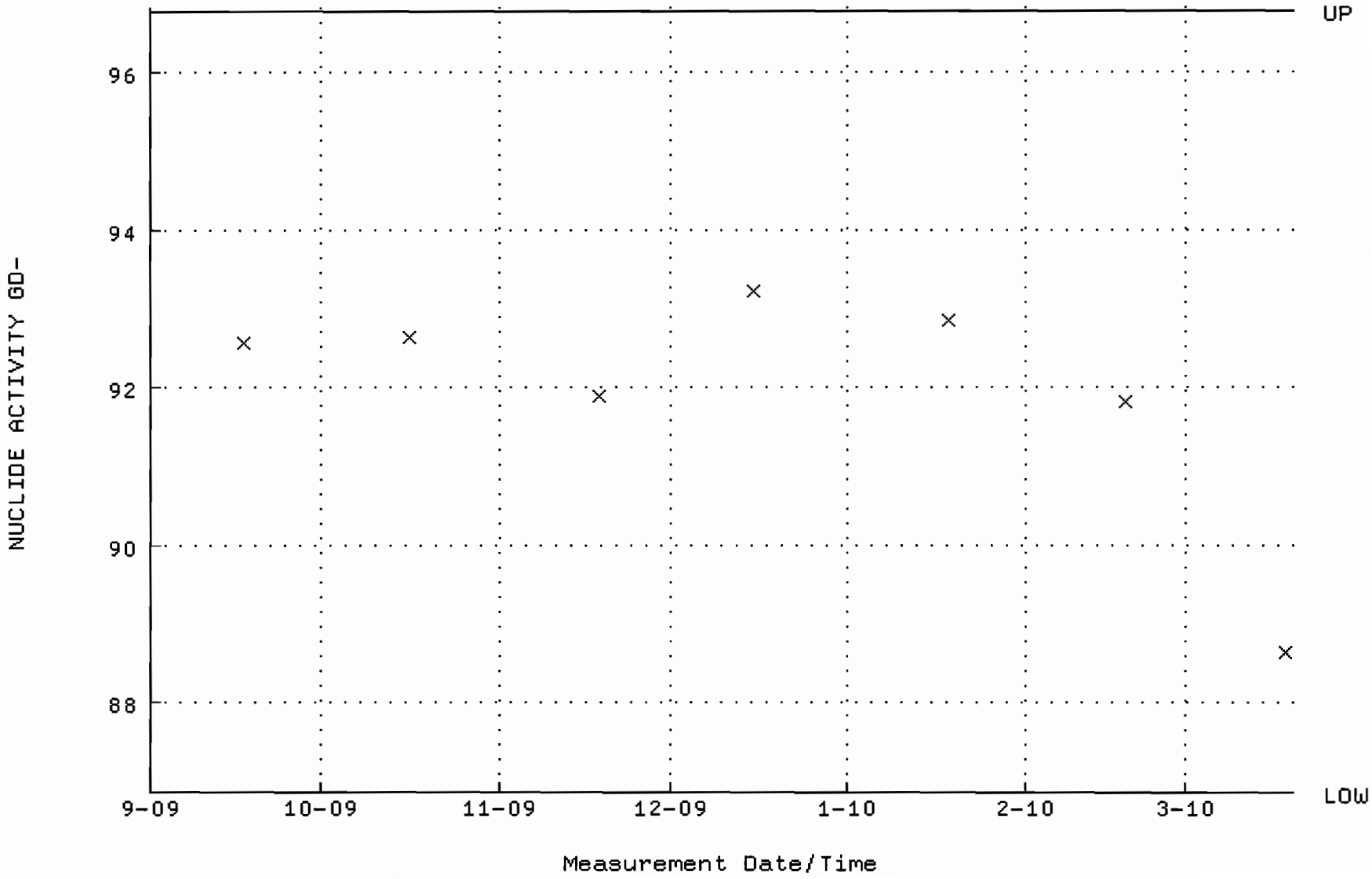

QA filename : DKA100:[ENV_ALPHA.QA.B]B130.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:24 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

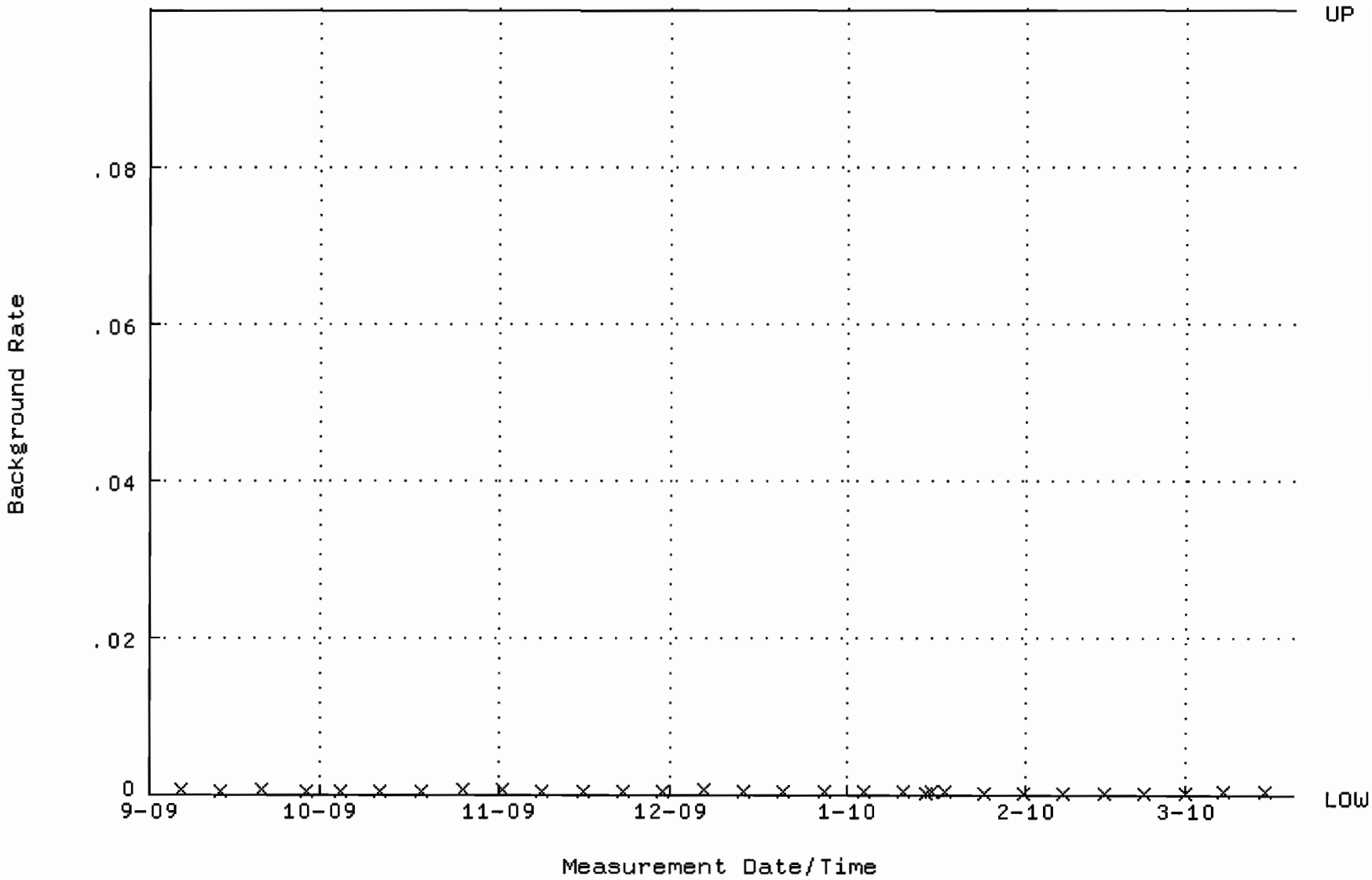

QA filename : DKA100:[ENV_ALPHA.QA.W]W131.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:30 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.251694 through 0.260714

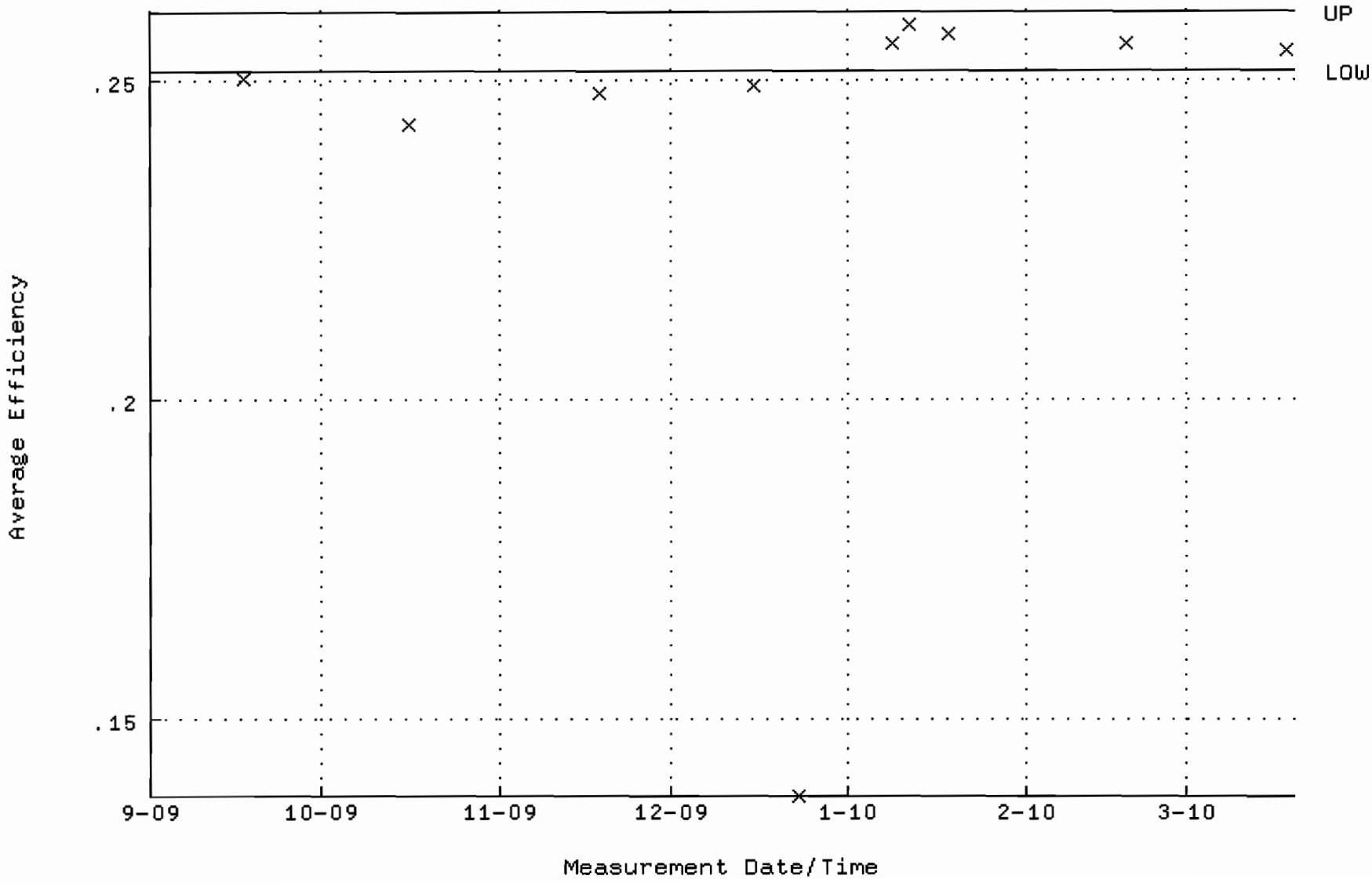

QA filename : DKA100:[ENV_ALPHA.QA.W]W131.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:30 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 88.4061 through 94.3891

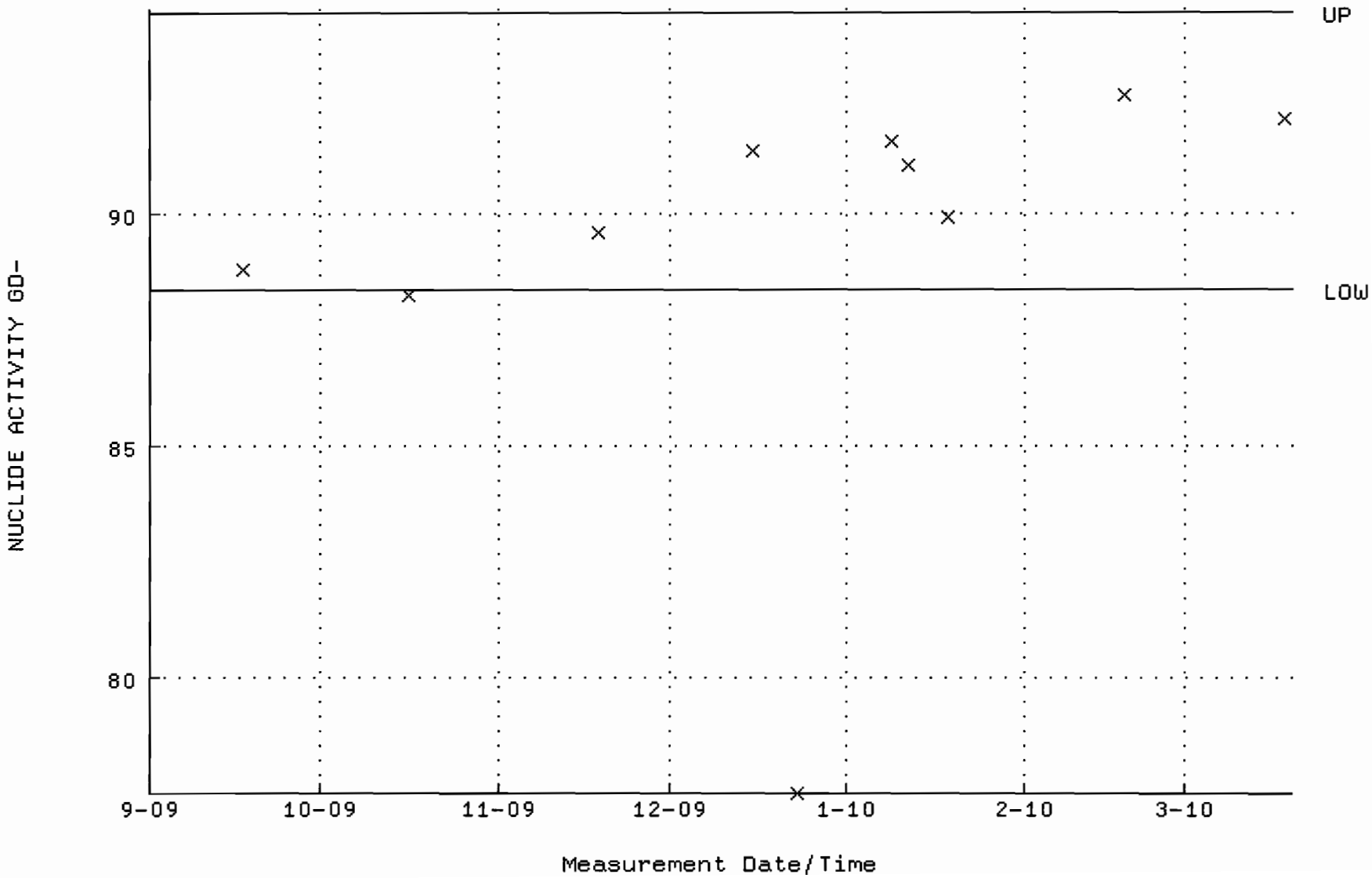

QA filename : DKA100:[ENV_ALPHA.QA.B]B131.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:28 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

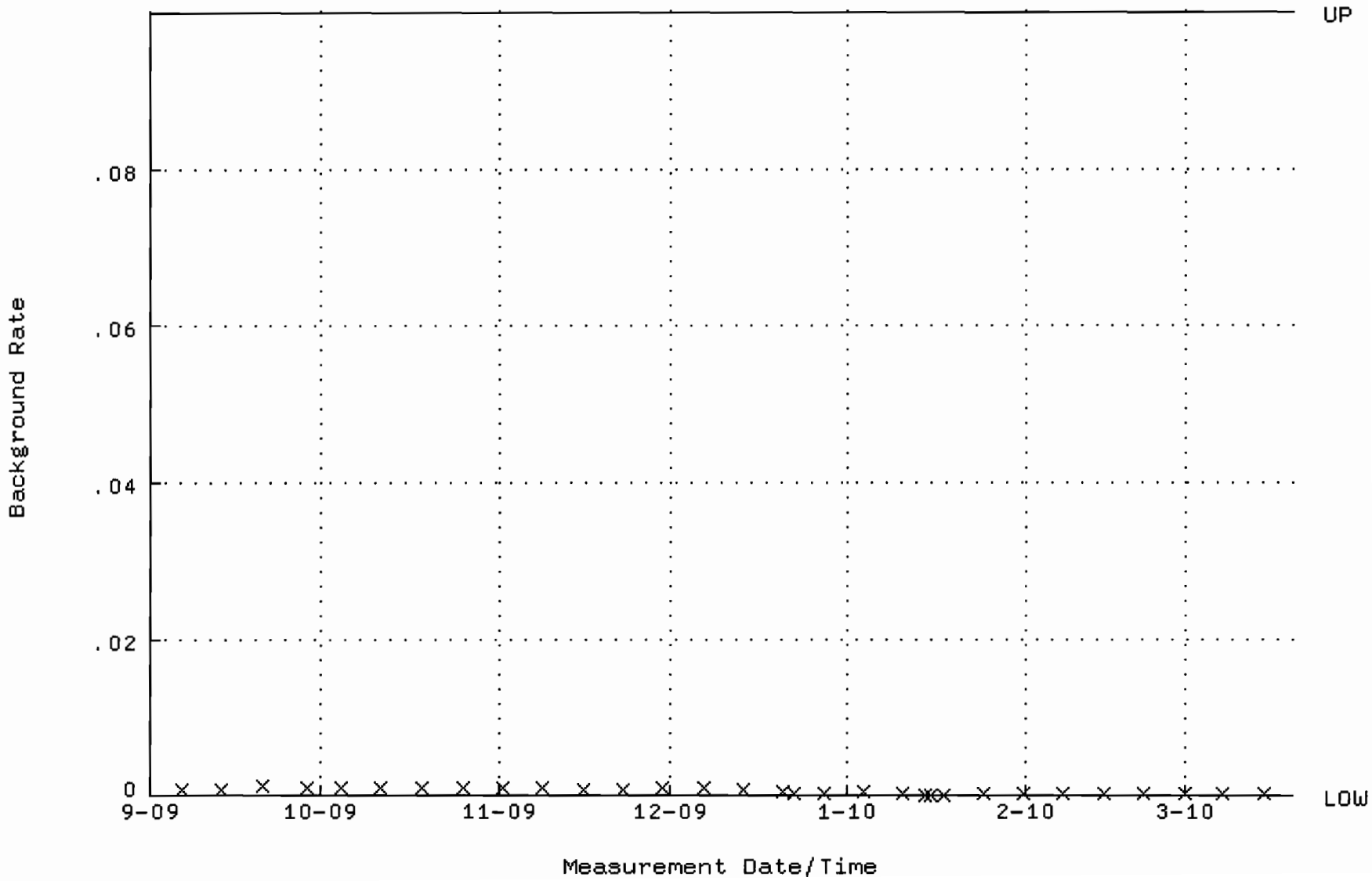

QA filename : DKA100:[ENV_ALPHA.QA.W]W182.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:34 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.245707 through 0.265707

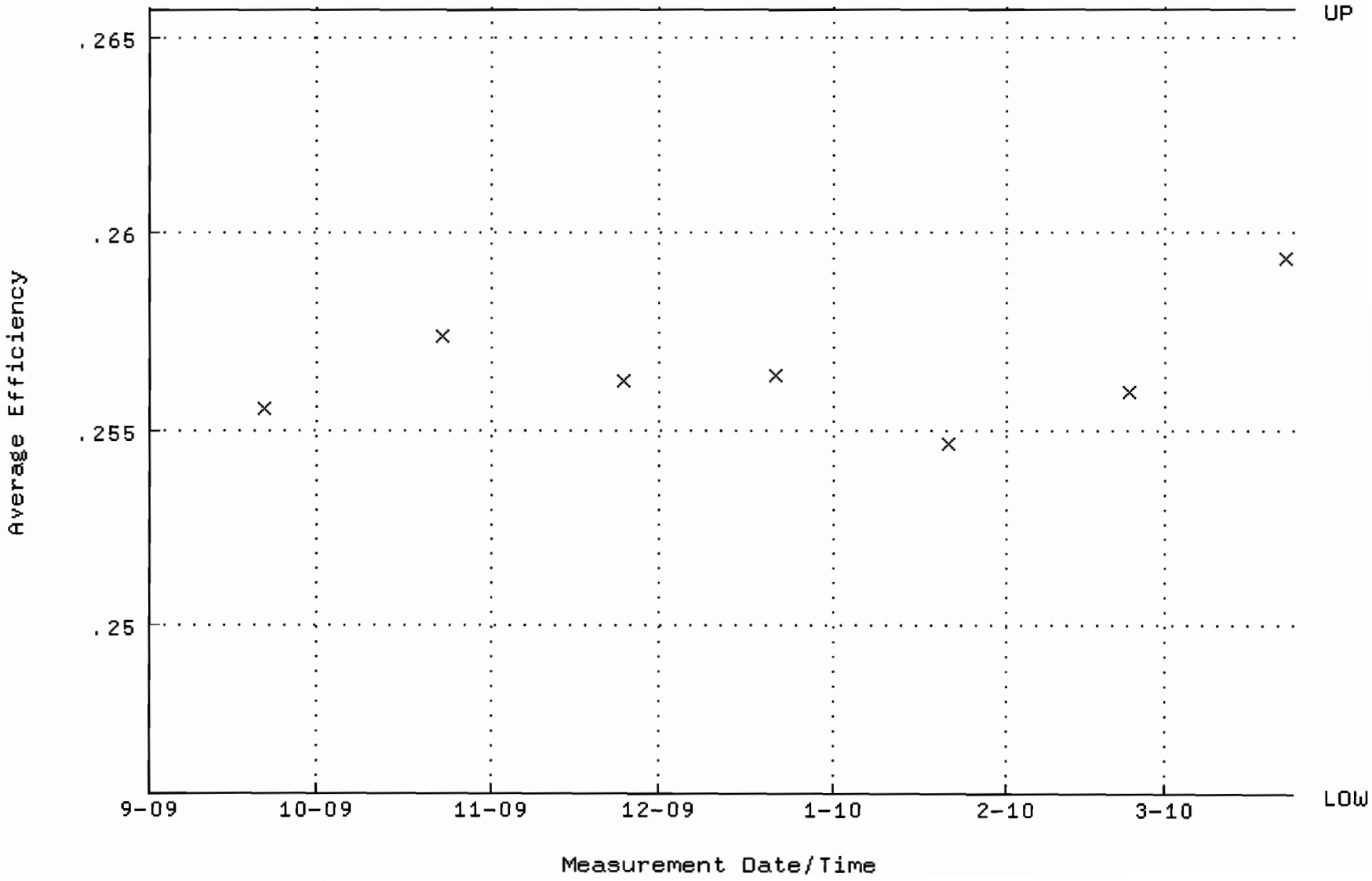

QA filename : DKA100:[ENV_ALPHA.QA.W]W182.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:34 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 87.3454 through 96.5396

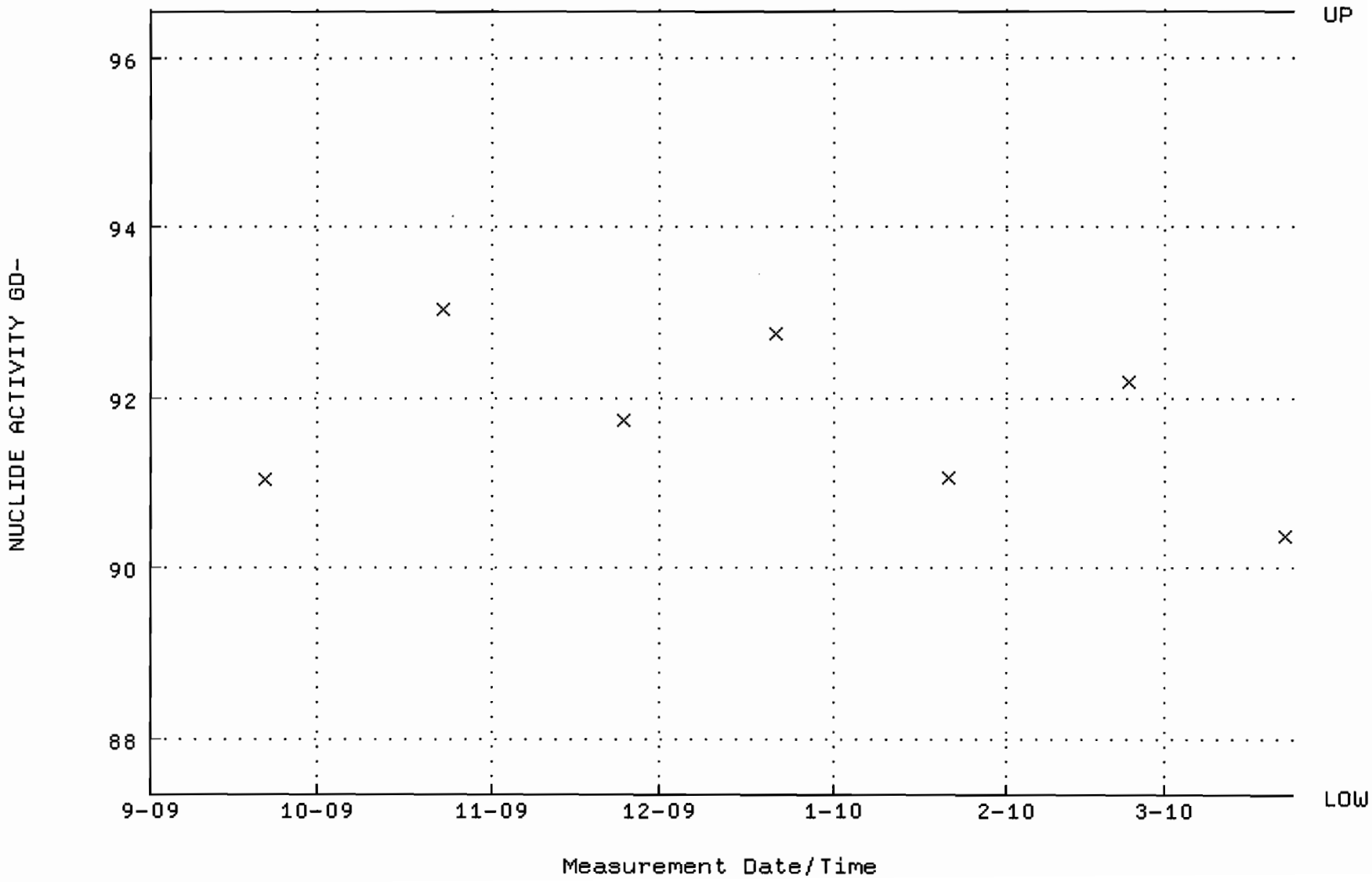

QA filename : DKA100:[ENV_ALPHA.QA.B]B182.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:49 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

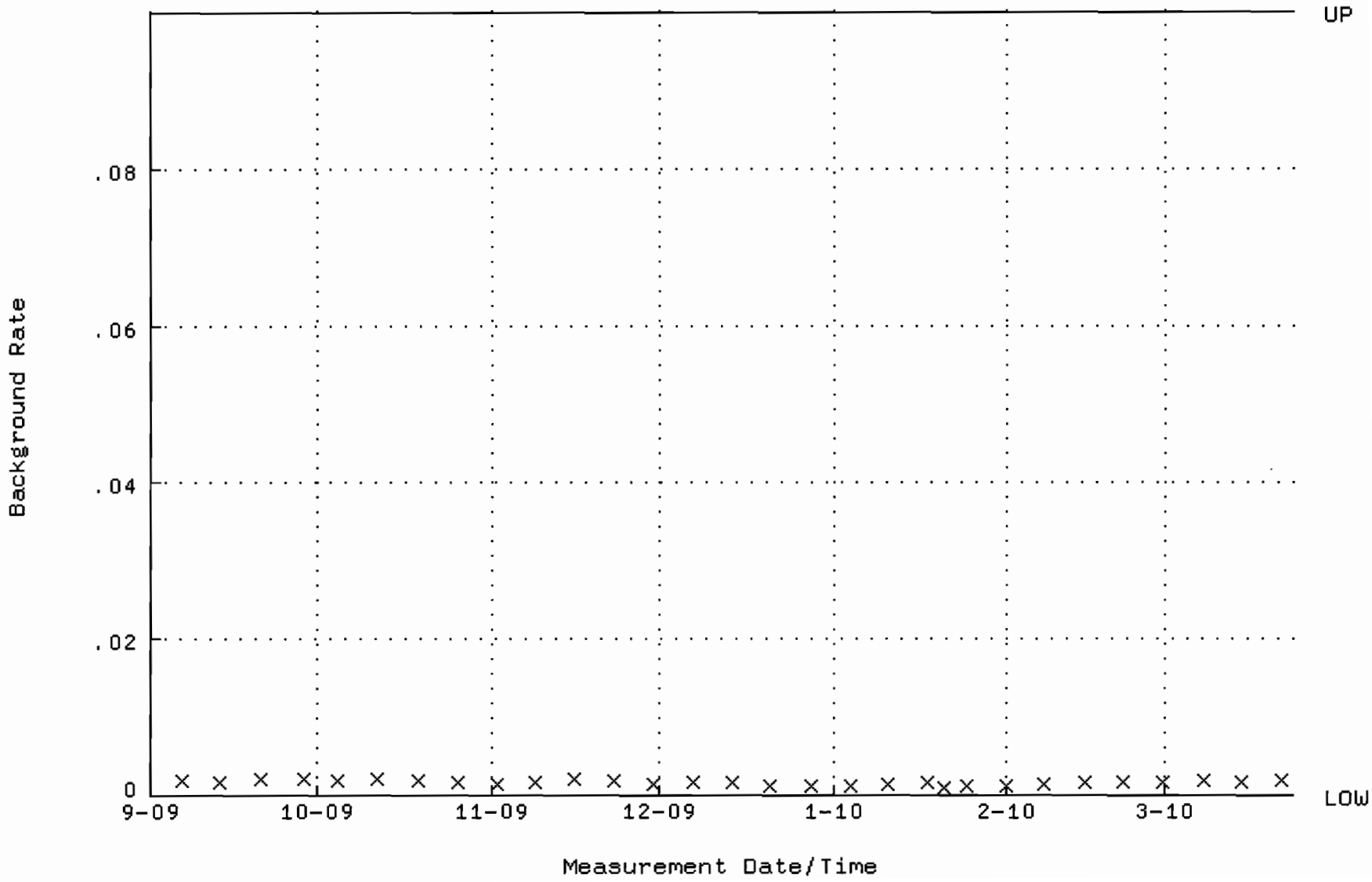

QA filename : DKA100:[ENV_ALPHA.QA.W]W183.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:39 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.248129 through 0.277879

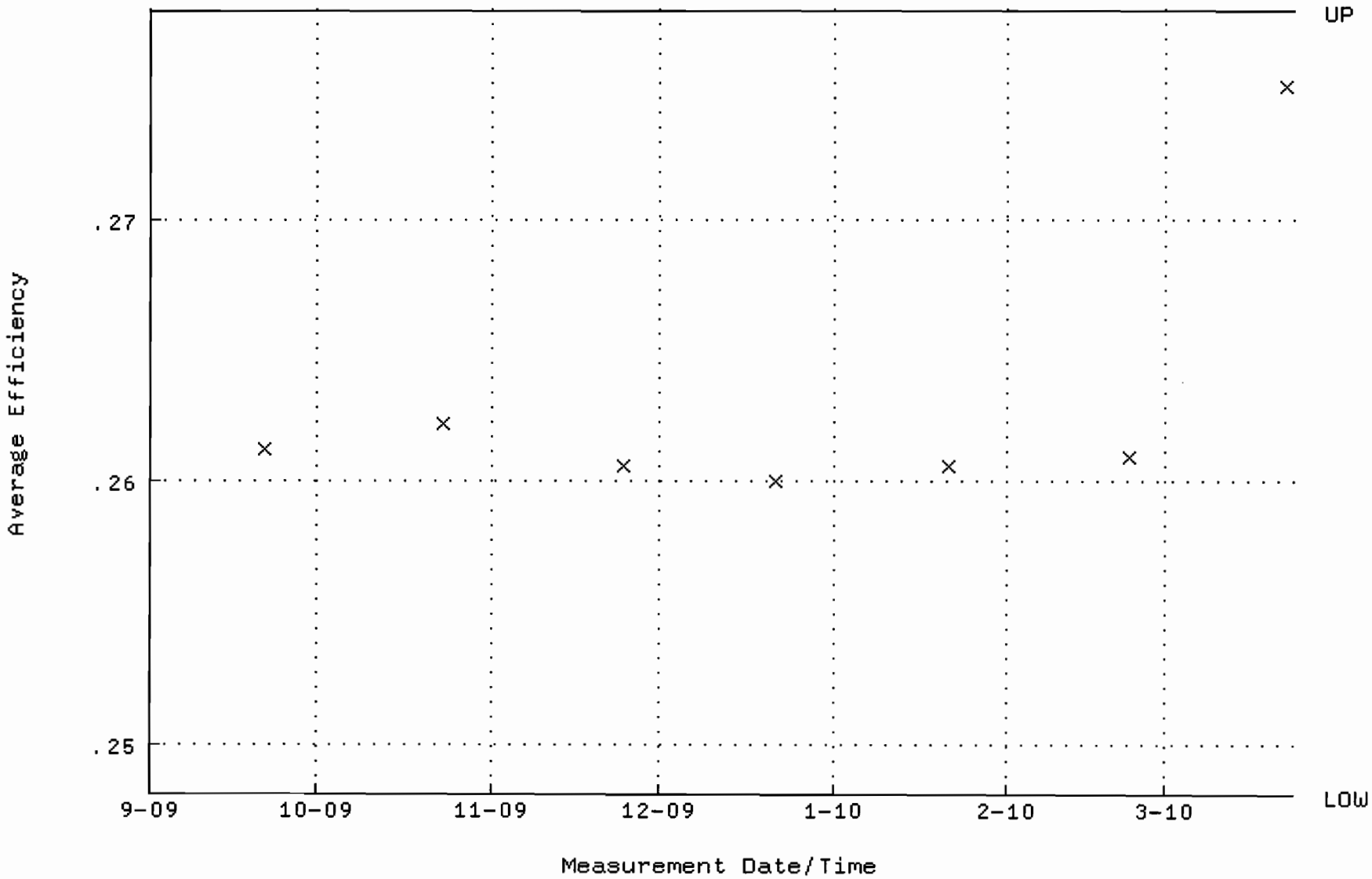

QA filename : DKA100:[ENV_ALPHA.QA.W]W183.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:39 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 87.2429 through 95.2093

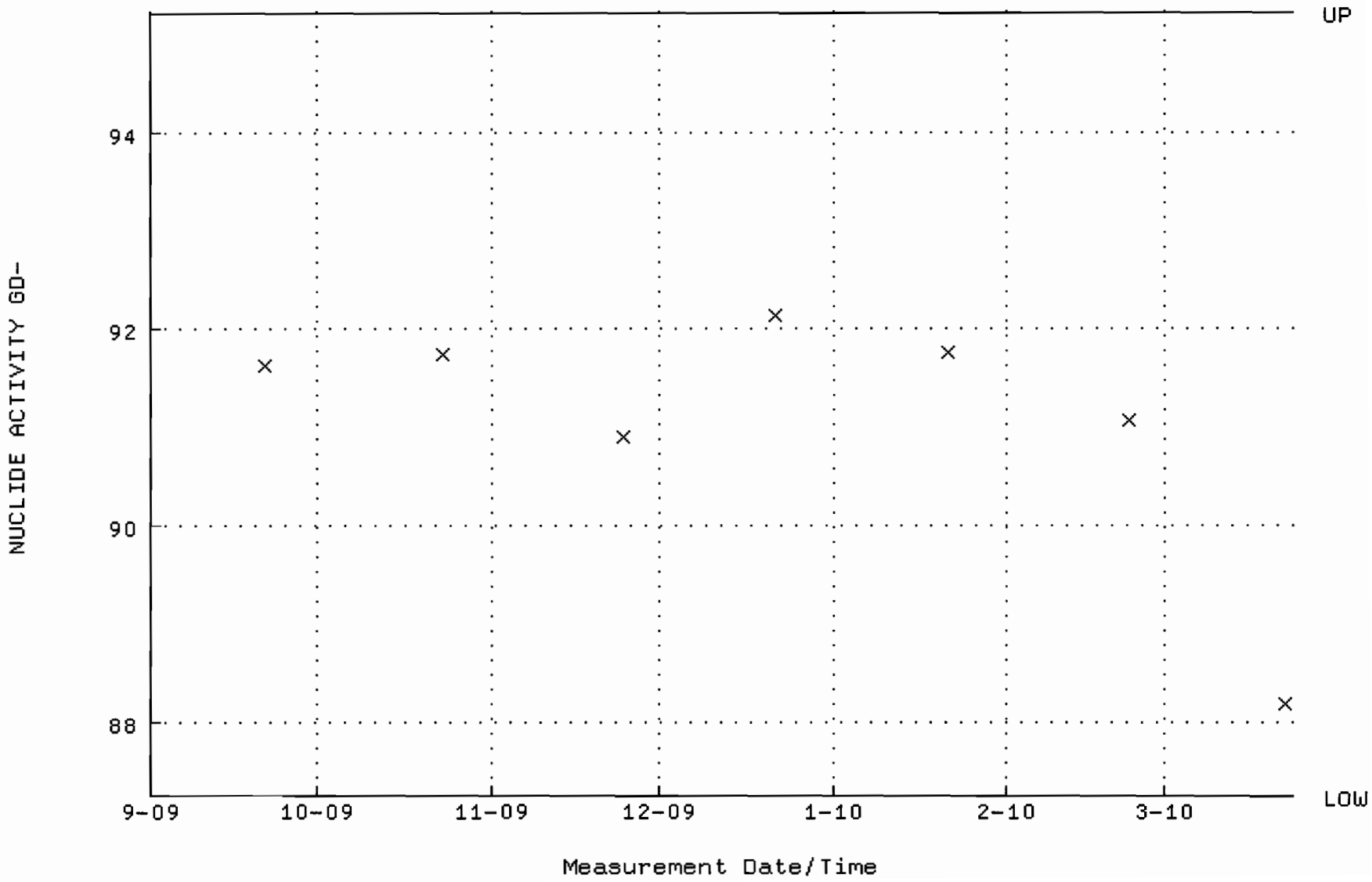

QA filename : DKA100:[ENV_ALPHA.QA.B]B183.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:53 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

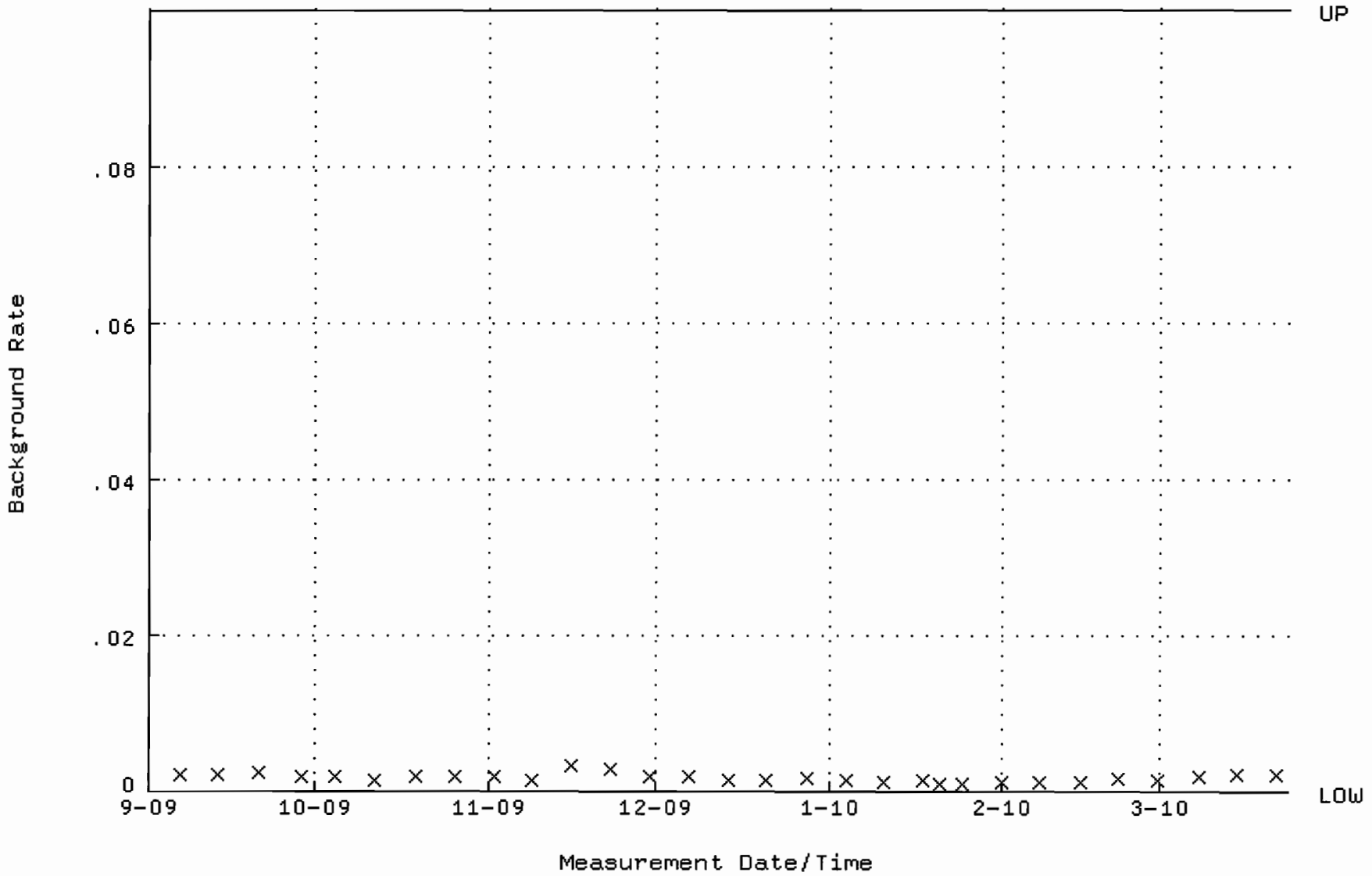

QA filename : DKA100:[ENV_ALPHA.QA.W]W184.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:45 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.251367 through 0.271367

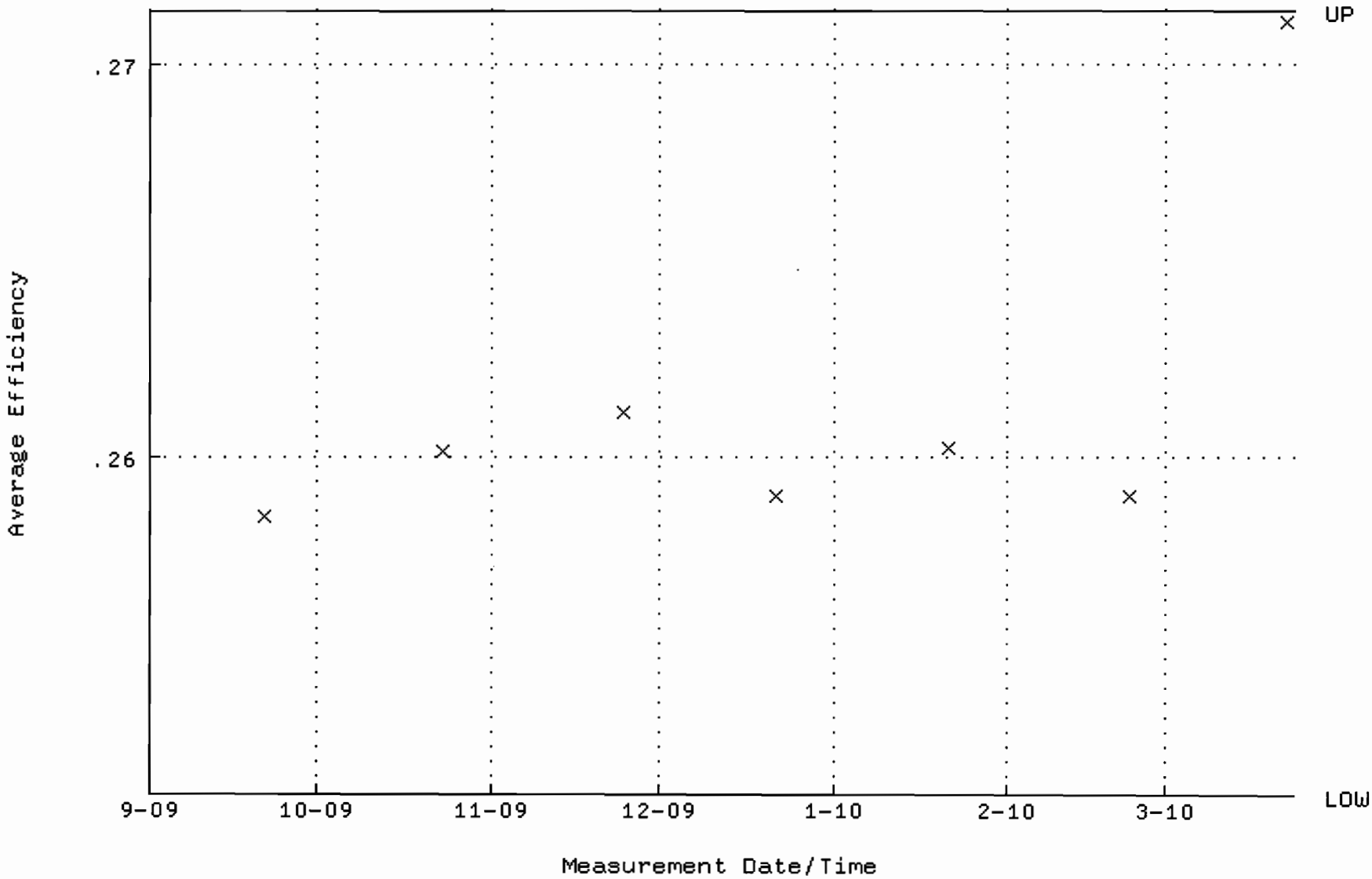

QA filename : DKA100:[ENV_ALPHA.QA.W]W184.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:45 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.4139 through 94.4049

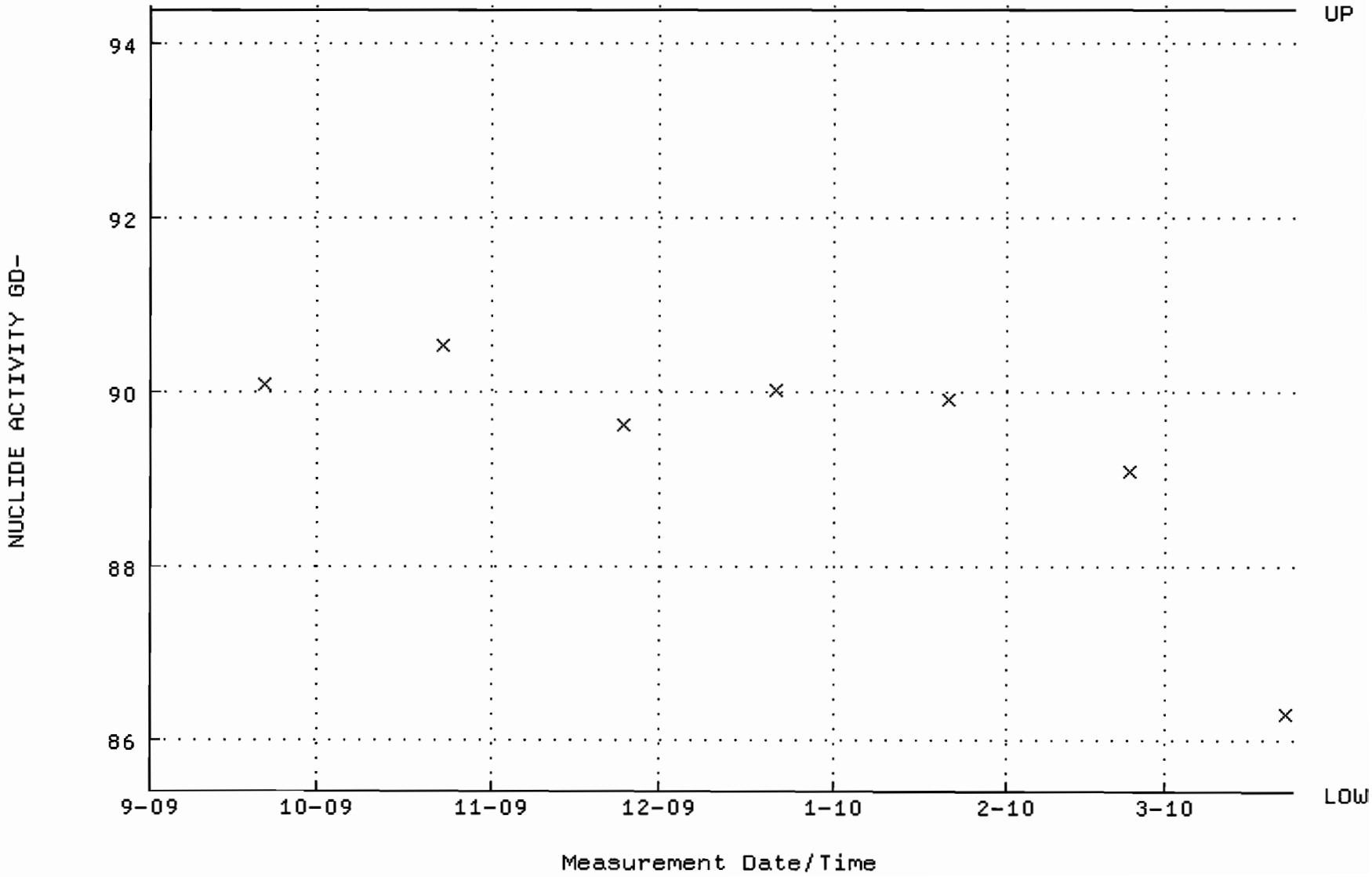

QA filename : DKA100:[ENV_ALPHA.QA.B]B184.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:45:57 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

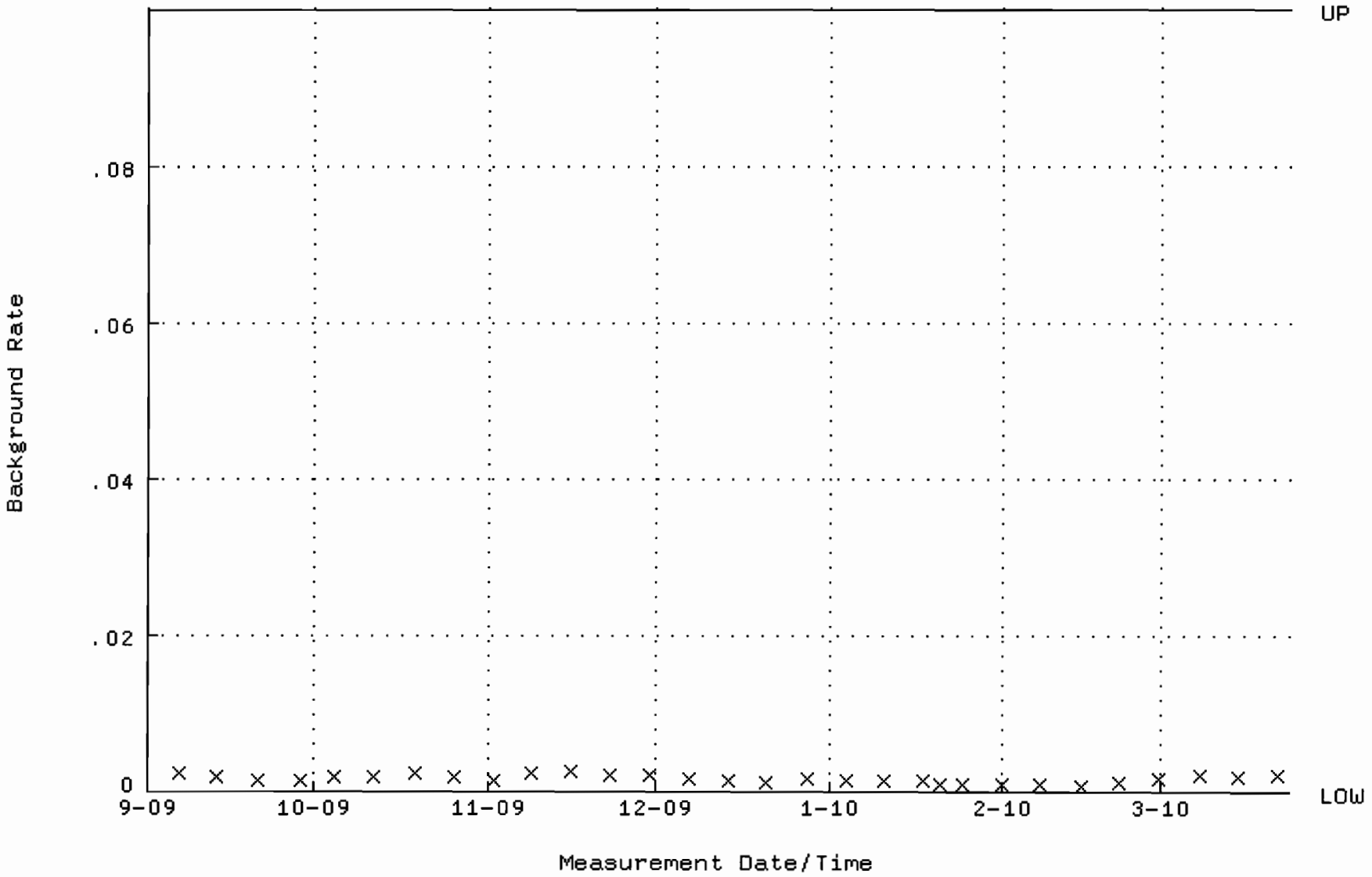

QA filename : DKA100:[ENV_ALPHA.QA.W]W185.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:30:51 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.249628 through 0.269628

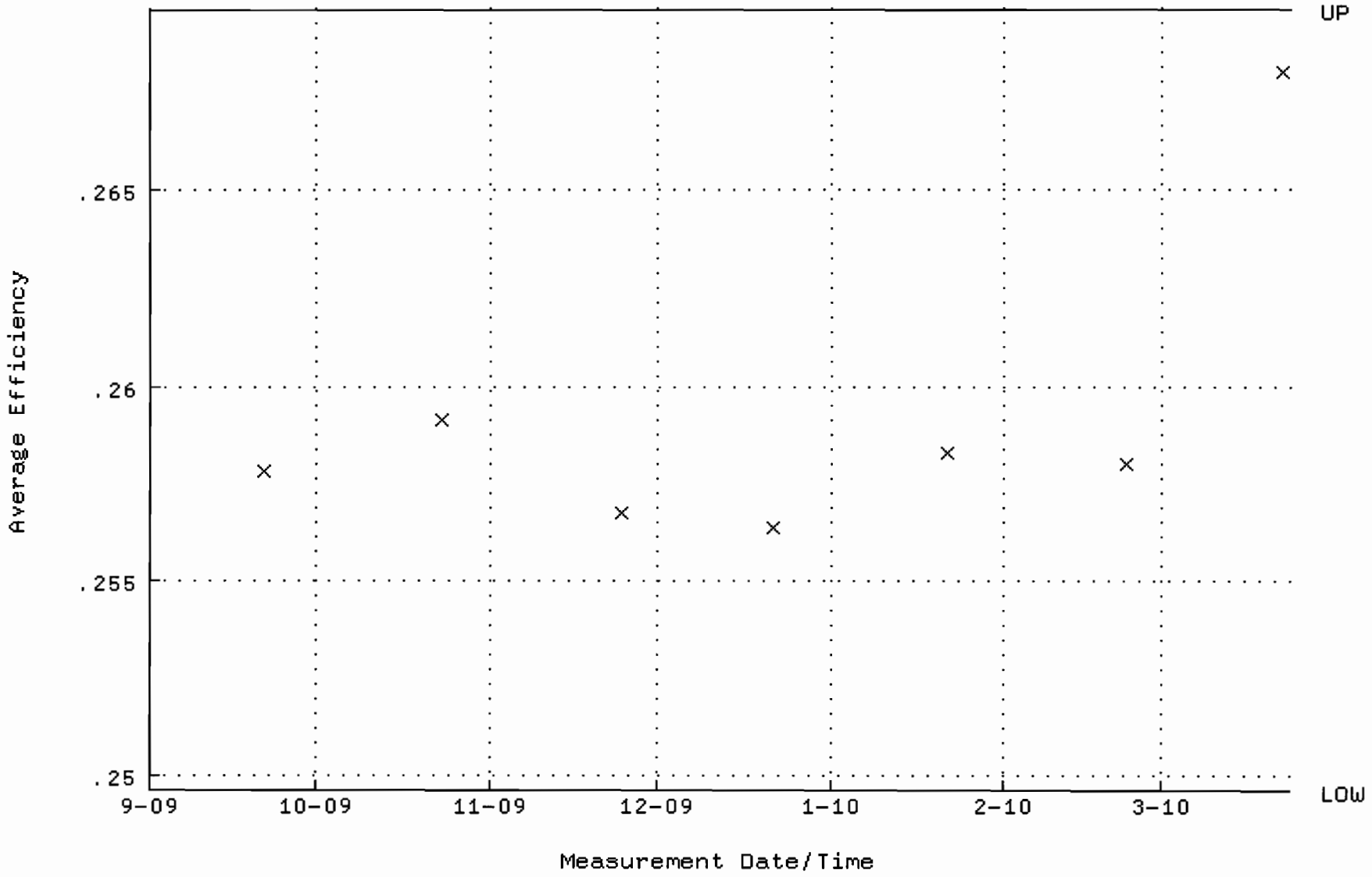

QA filename : DKA100:[ENV_ALPHA.QA.W]W185.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:30:51 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 84.3502 through 93.2292

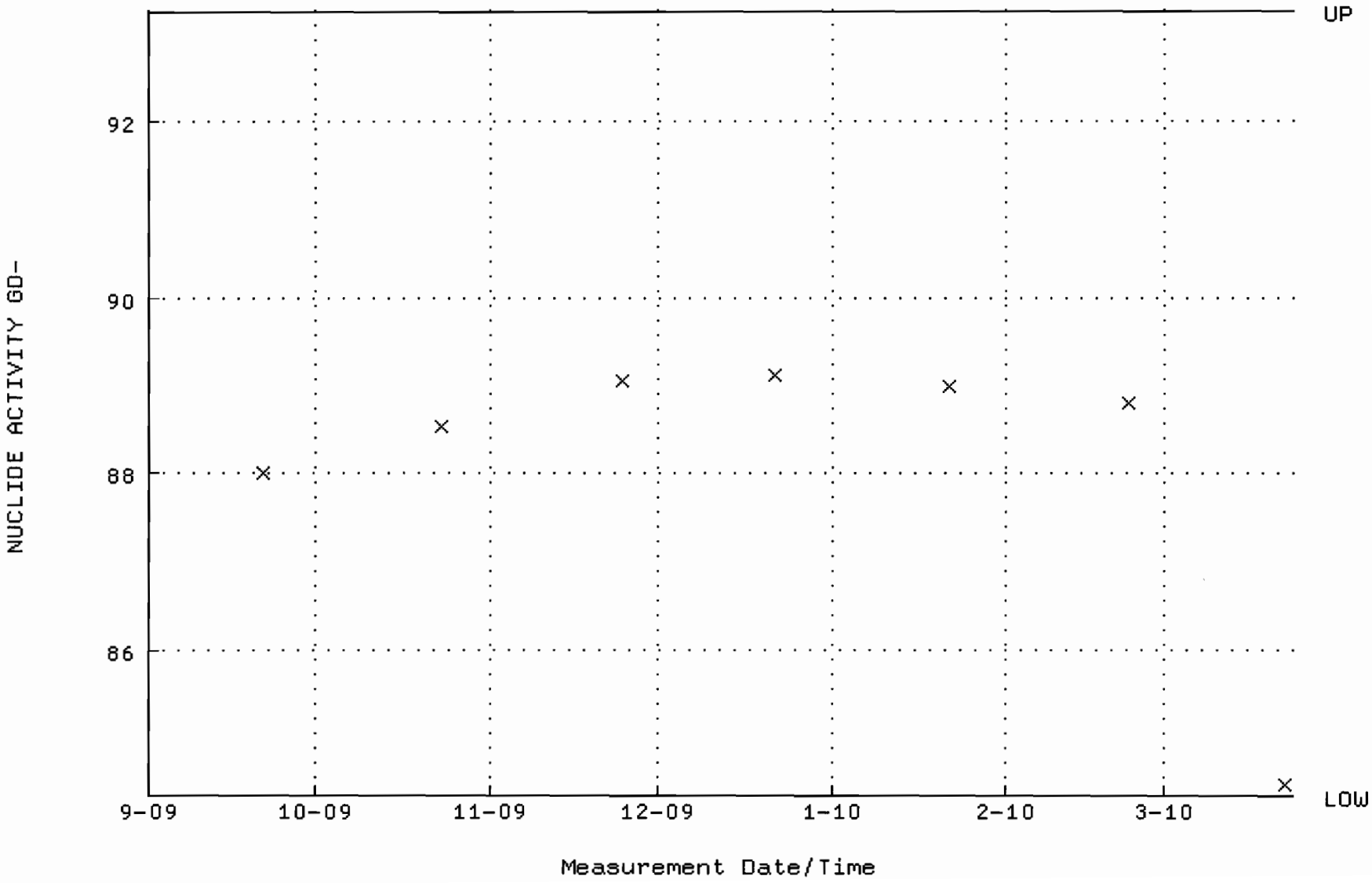

QA filename : DKA100:[ENV_ALPHA.QA.B]B185.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:02 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

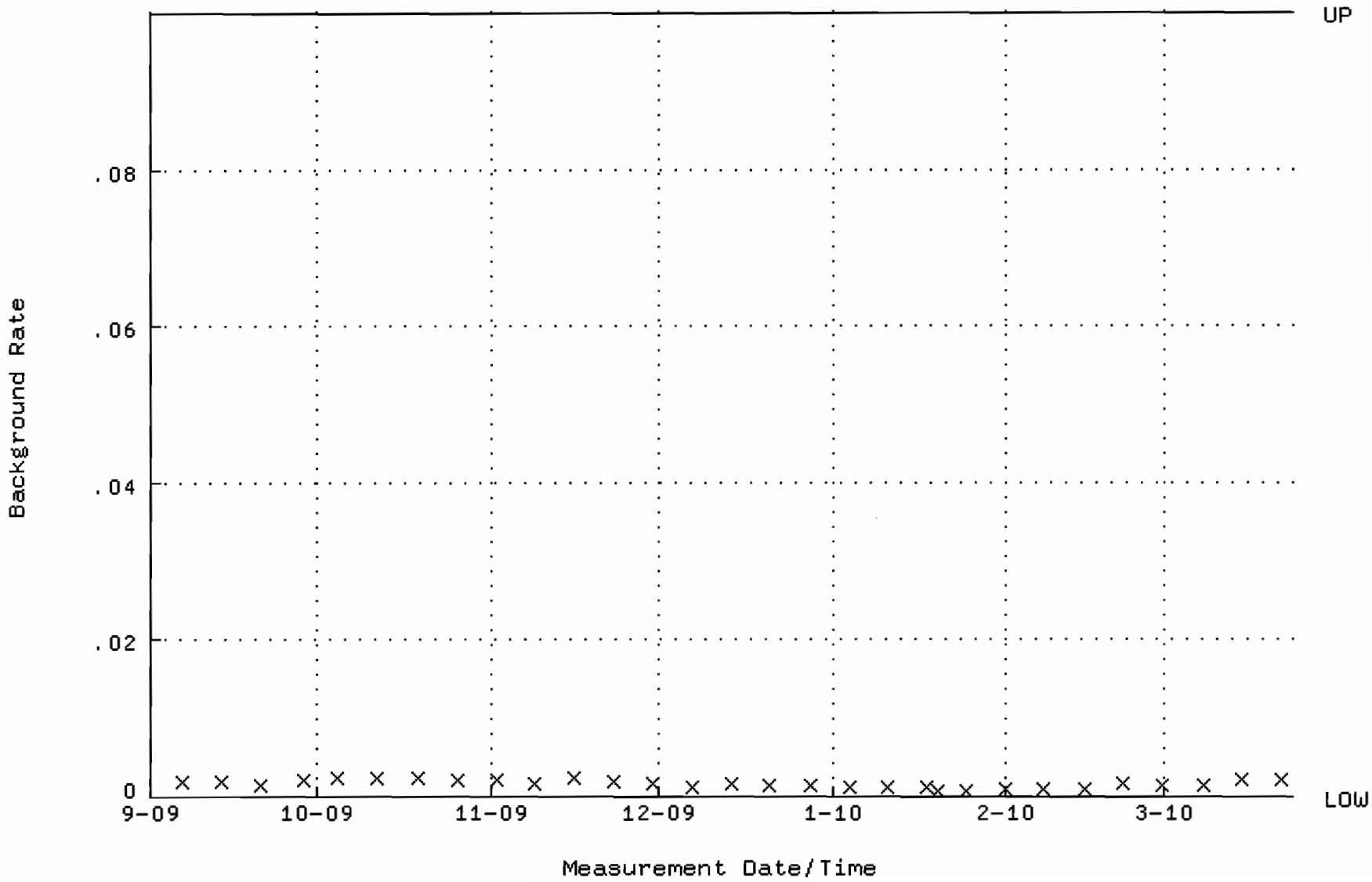

QA filename : DKA100:[ENV_ALPHA.QA.W]W193.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:40 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250400 through 0.272904

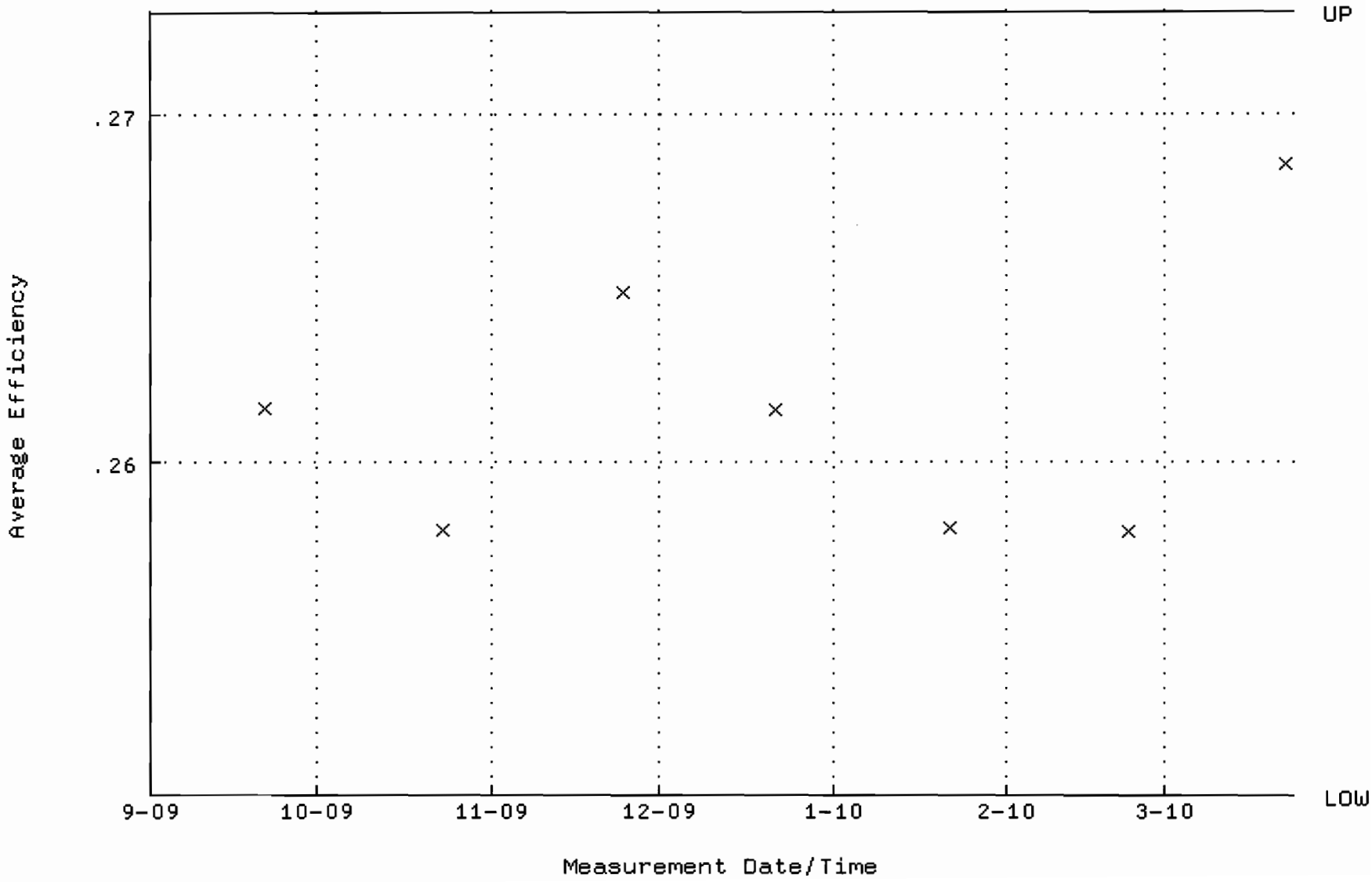

QA filename : DKA100:[ENV_ALPHA.QA.W]W193.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:40 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.1081 through 93.4501

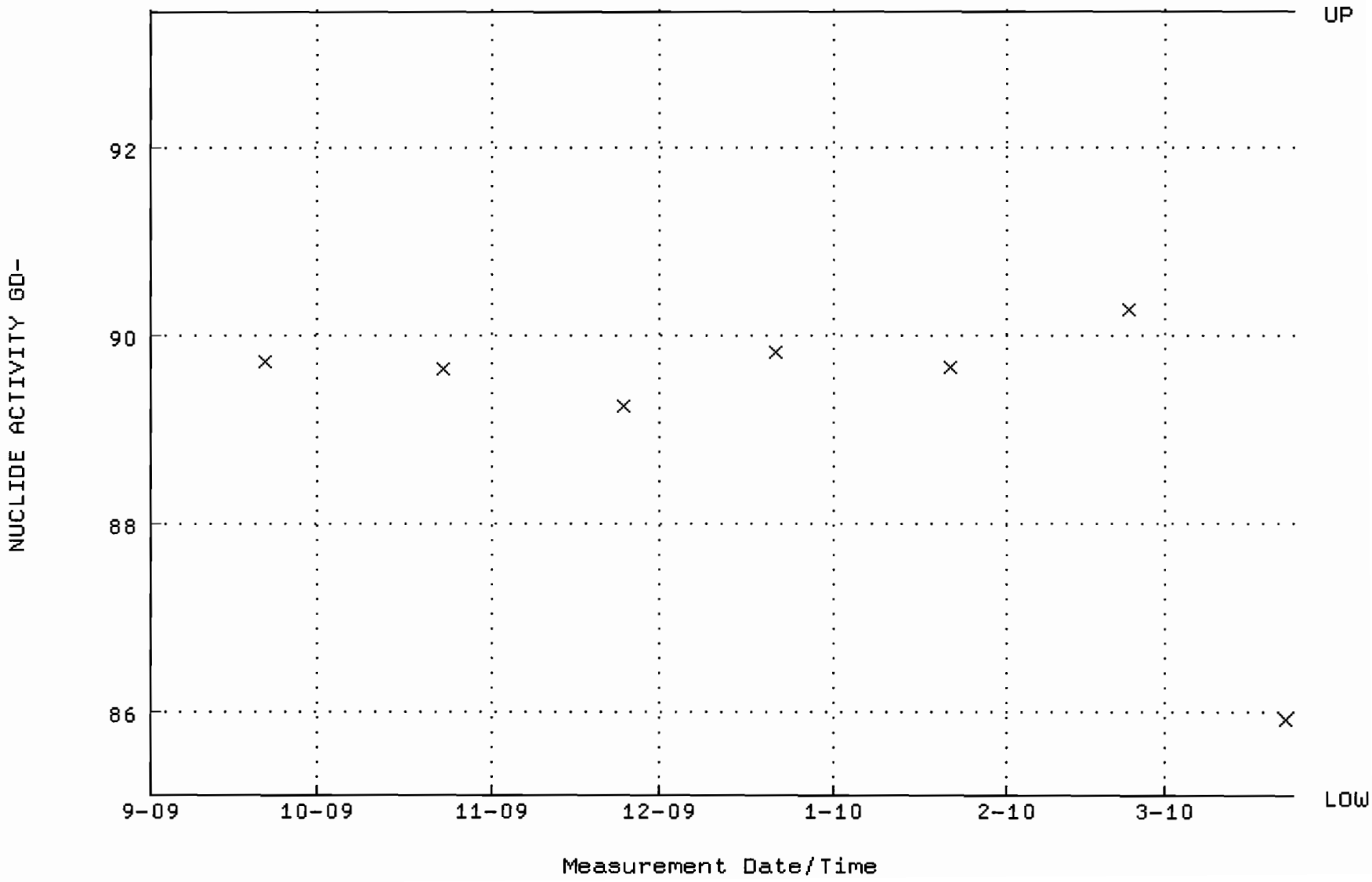

QA filename : DKA100:[ENV_ALPHA.QA.B]B193.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:36 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

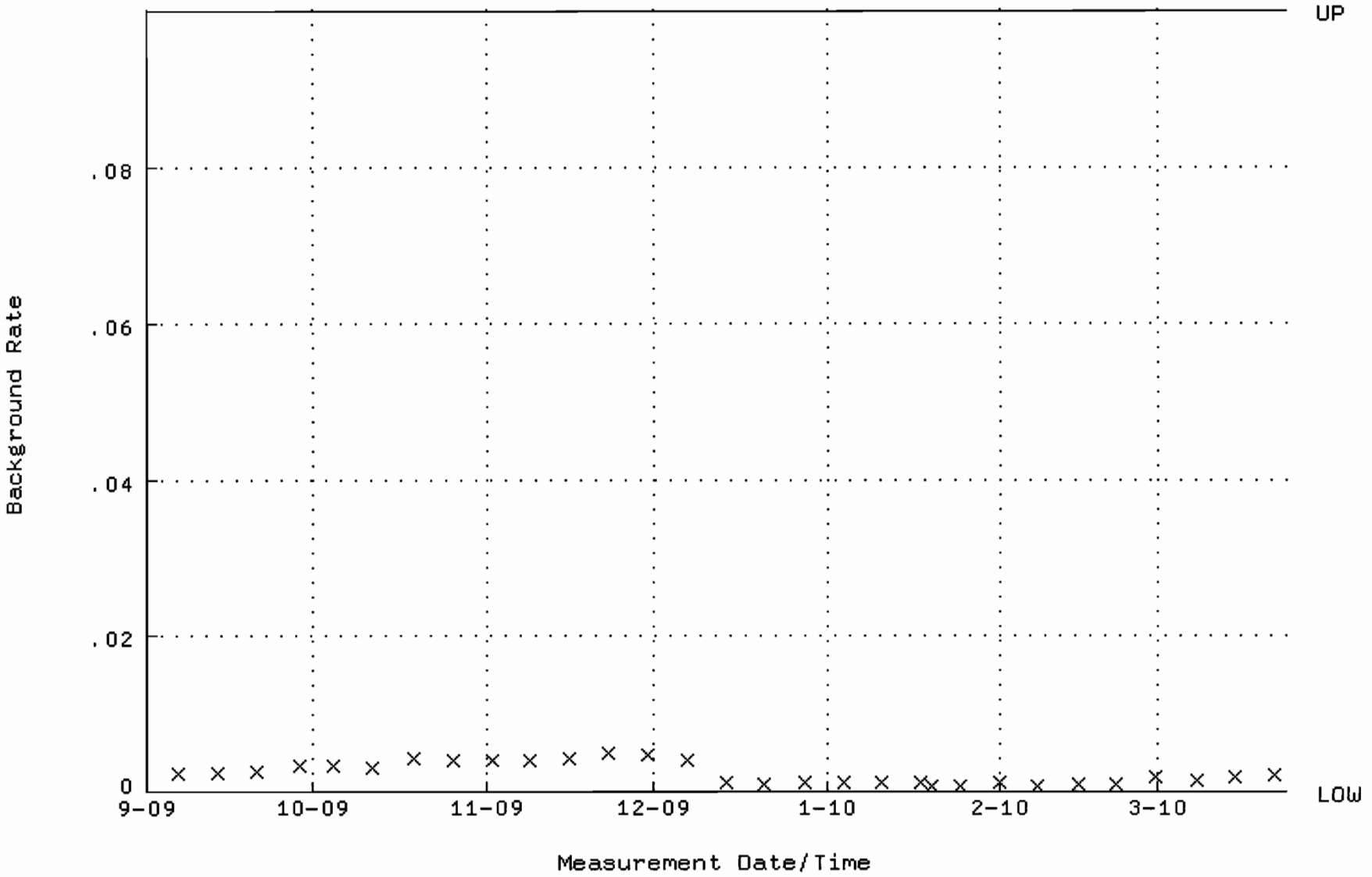

QA filename : DKA100:[ENV_ALPHA.QA.W]W194.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:45 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.246760 through 0.266760

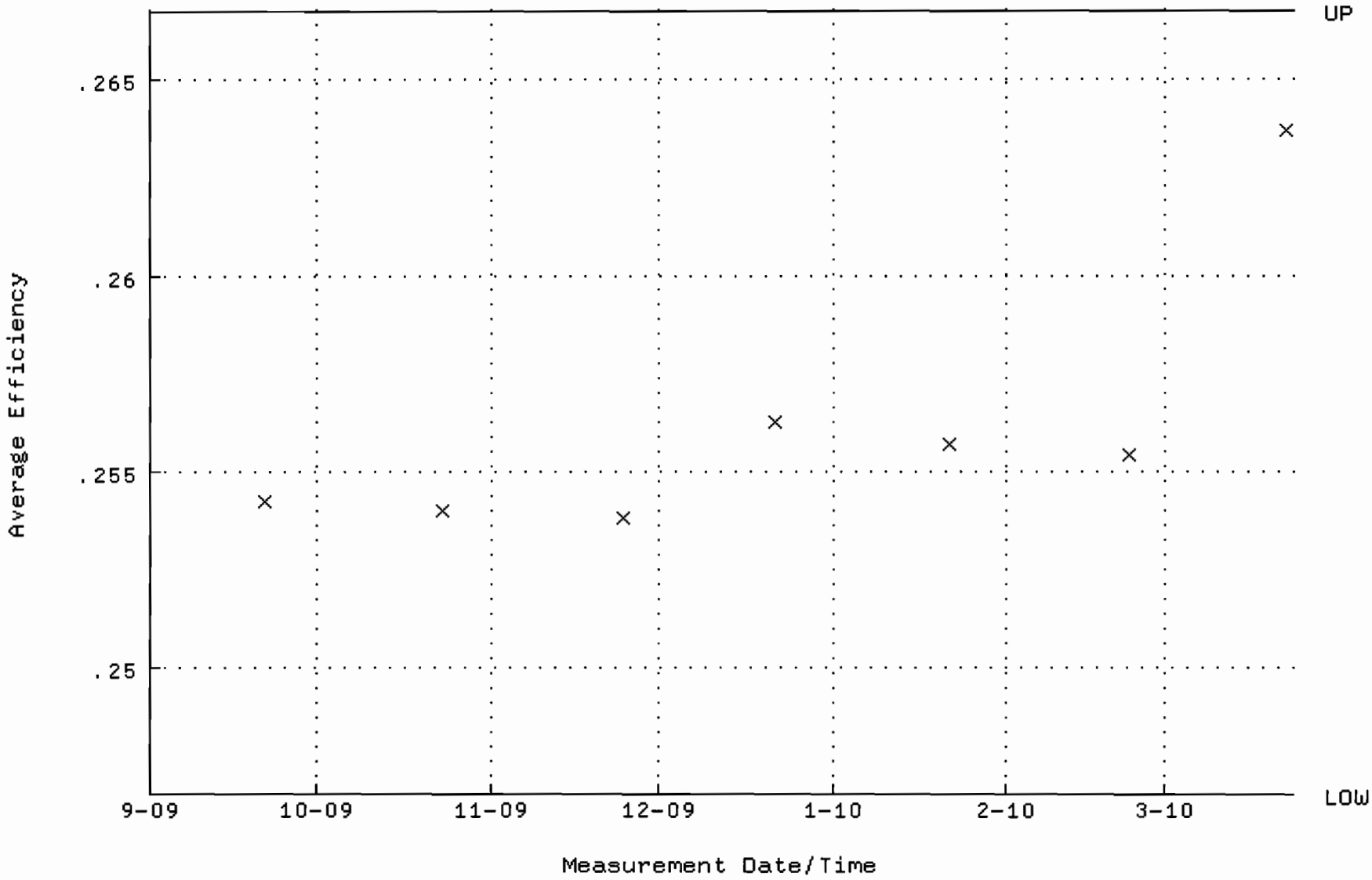

QA filename : DKA100:[ENV_ALPHA.QA.W]W194.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:45 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 86.0376 through 95.0942

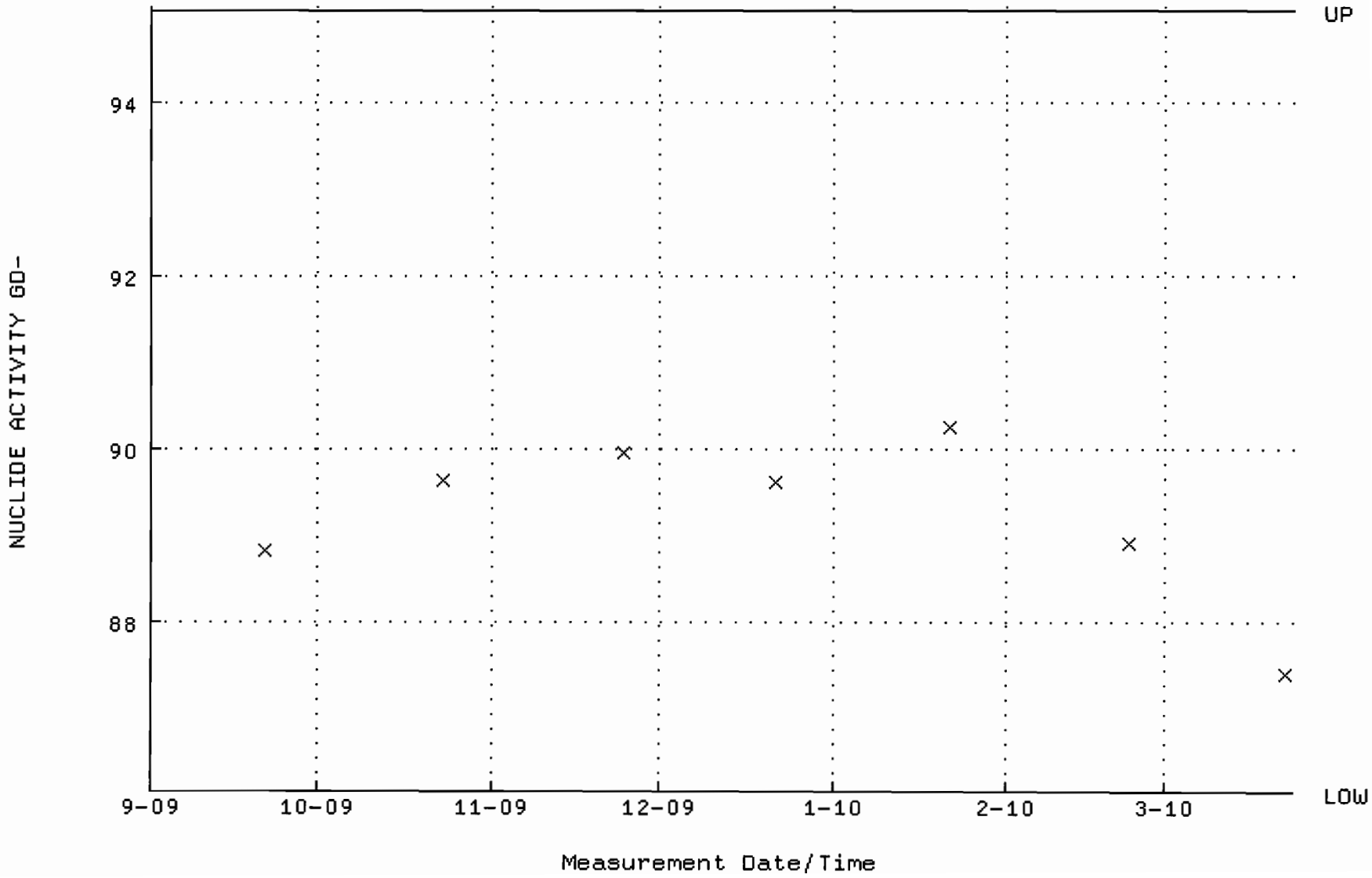

QA filename : DKA100:[ENV_ALPHA.QA.B]B194.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:41 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

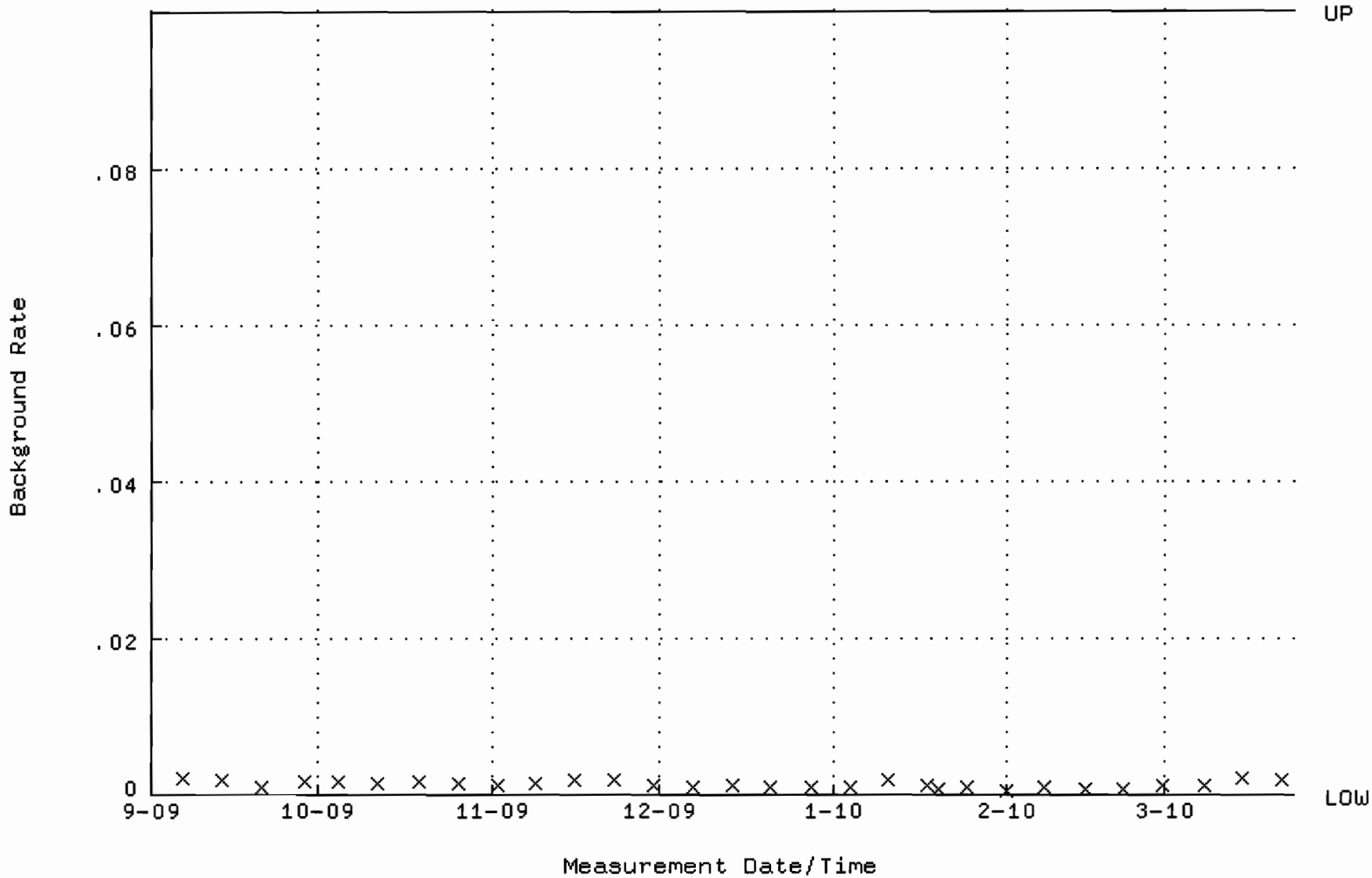

QA filename : DKA100:[ENV_ALPHA.QA.W]W195.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 21-SEP-2009 09:31:51 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.237531 through 0.281633

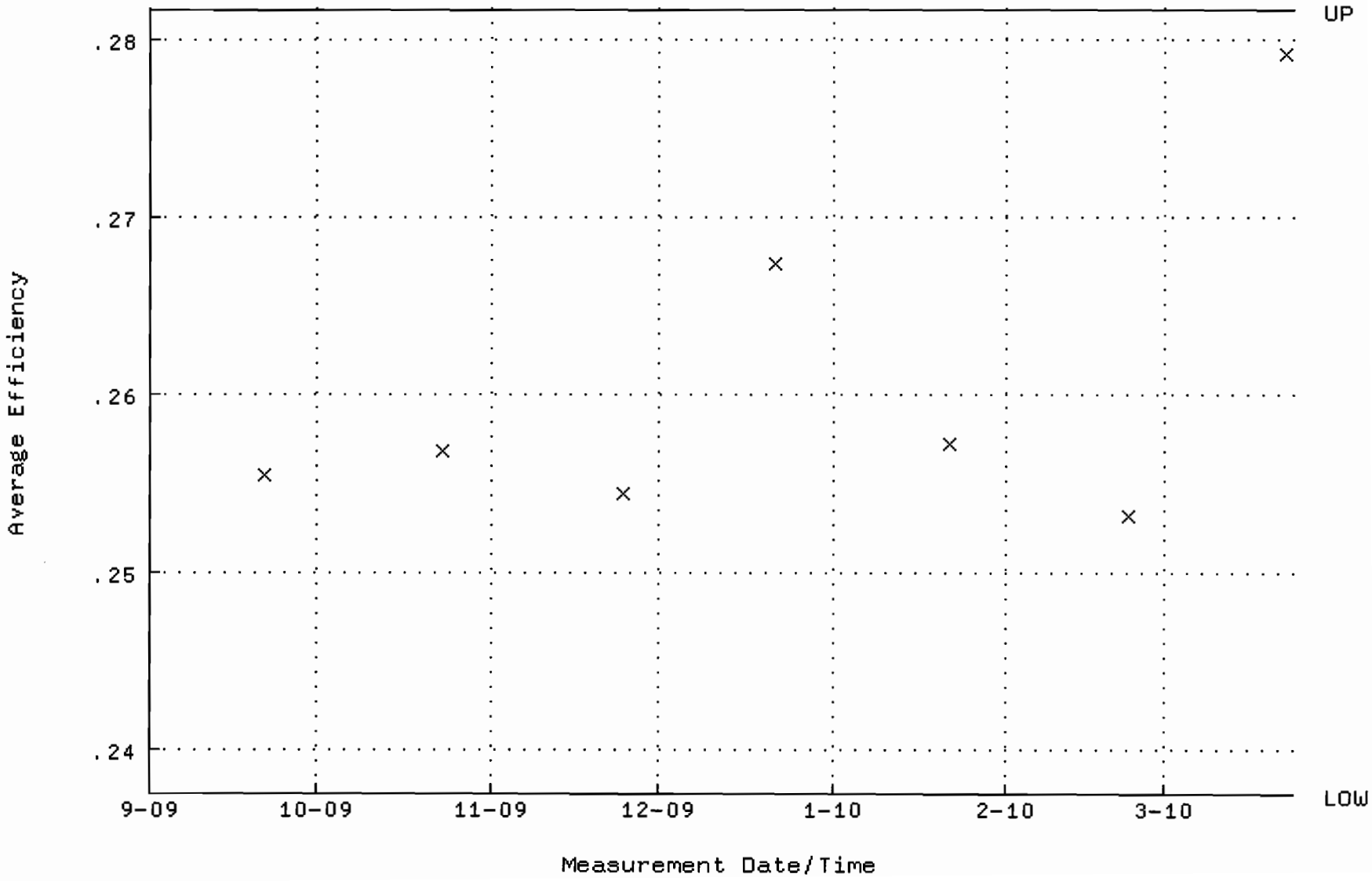

QA filename : DKA100:[ENV_ALPHA.QA.W]W195.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 21-SEP-2009 09:31:51 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 85.6297 through 91.3753

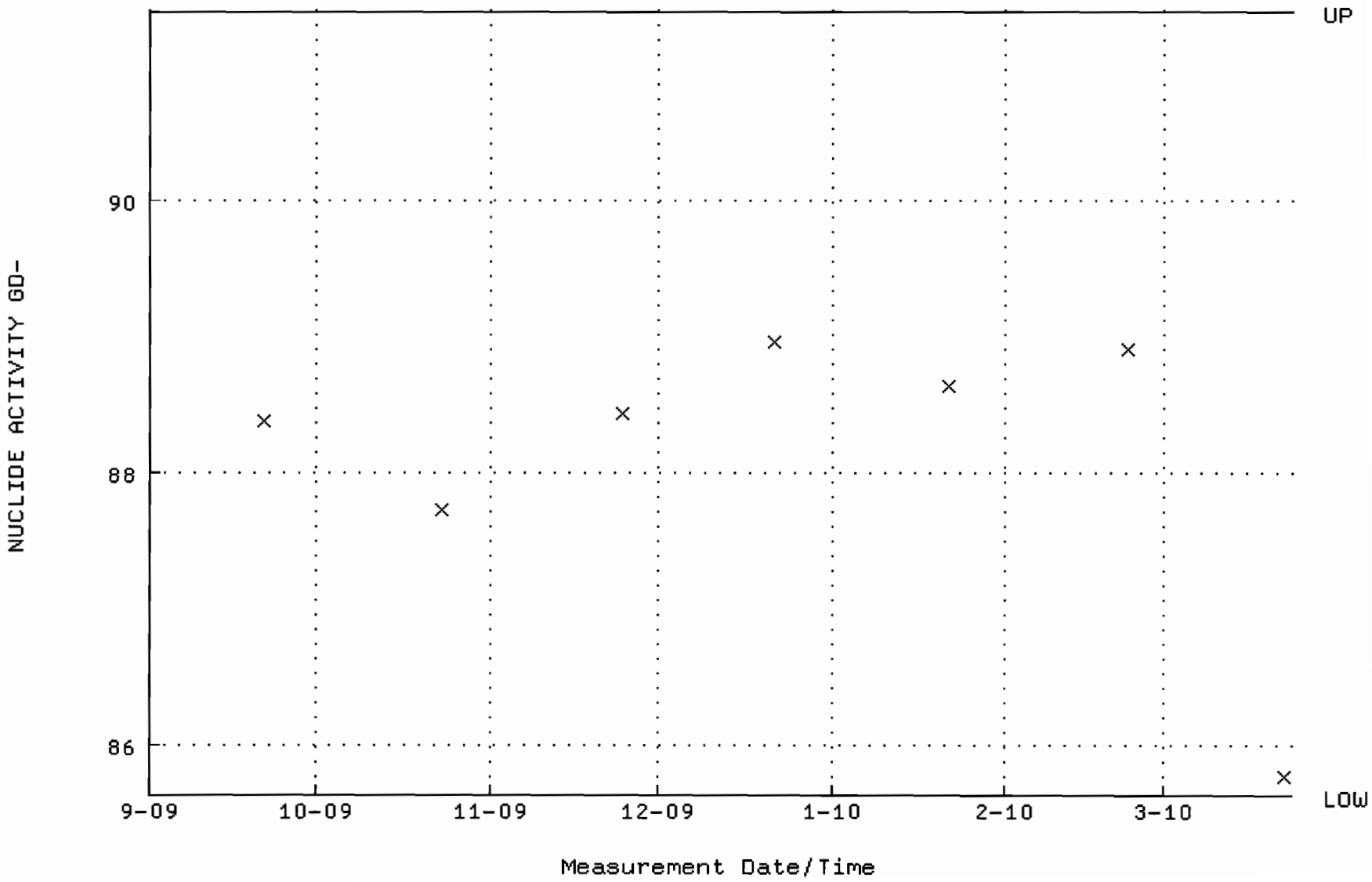

QA filename : DKA100:[ENV_ALPHA.QA.B]B195.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:46:44 through 23-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

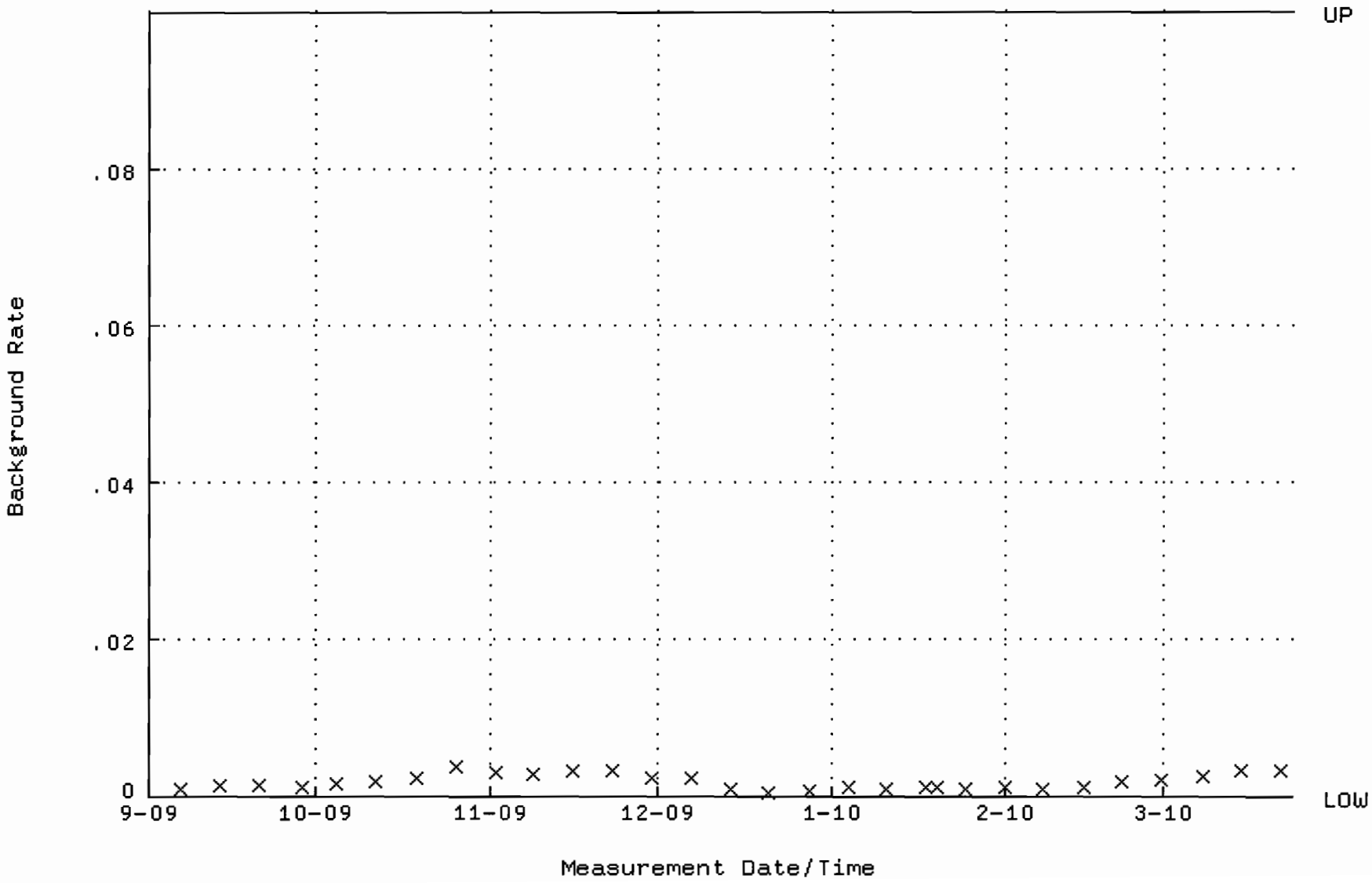

QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:47 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.347554 through 0.411802

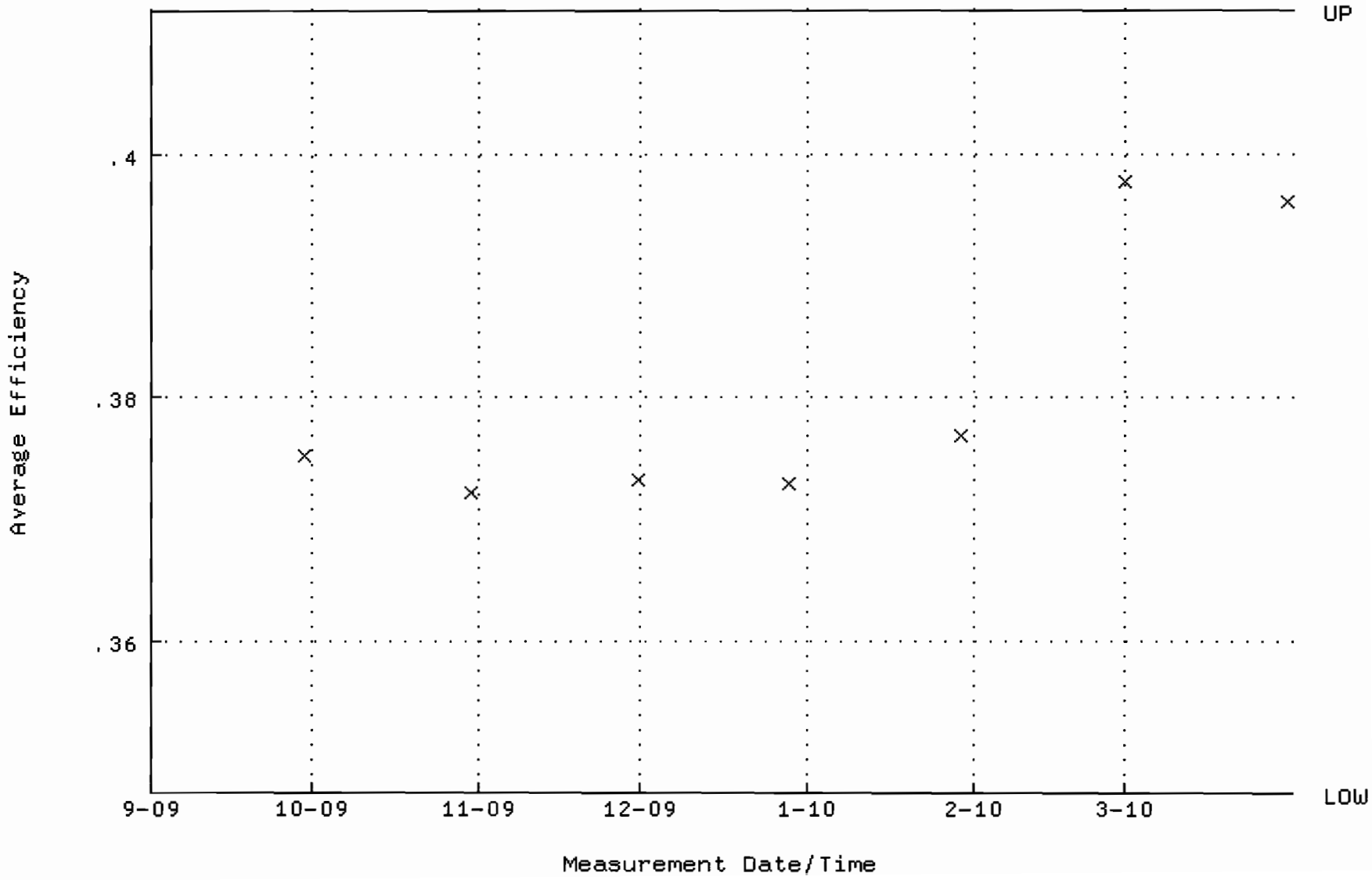

QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:47 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 86.9159 through 90.2825

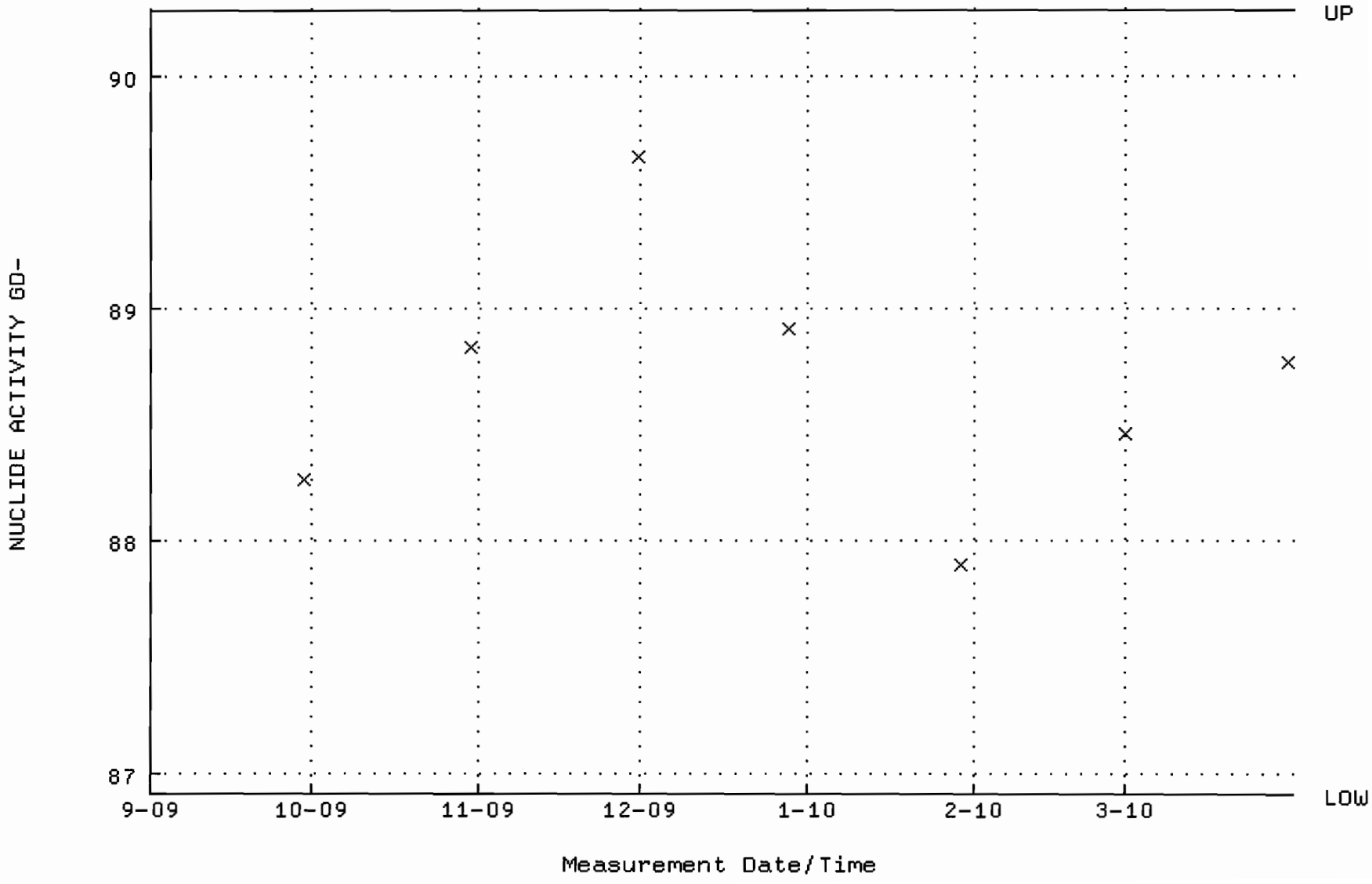

QA filename : DKA100:[ENV_ALPHA.QA.B]B235.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:20 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

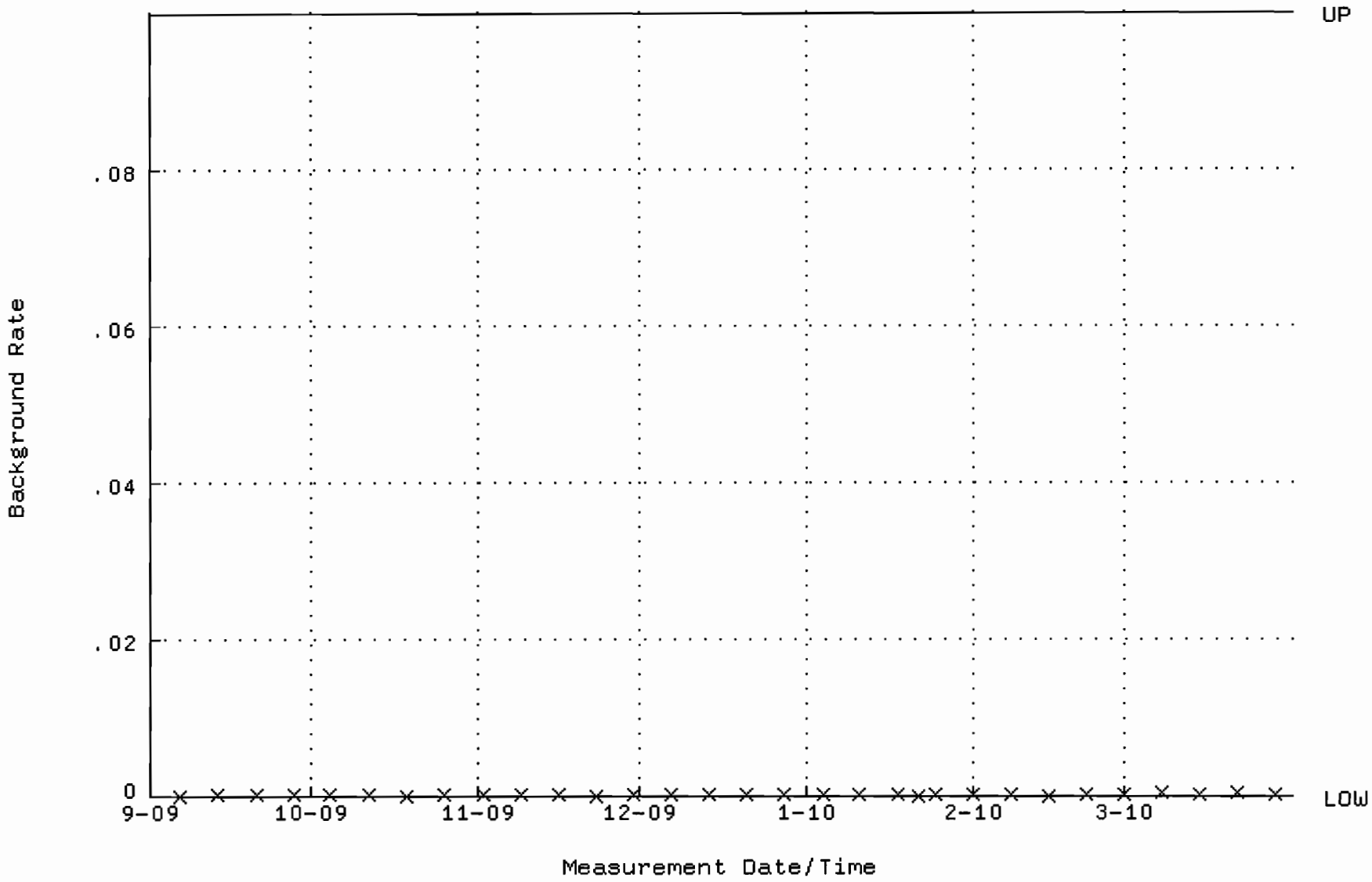

QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:52 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.362418 through 0.420706

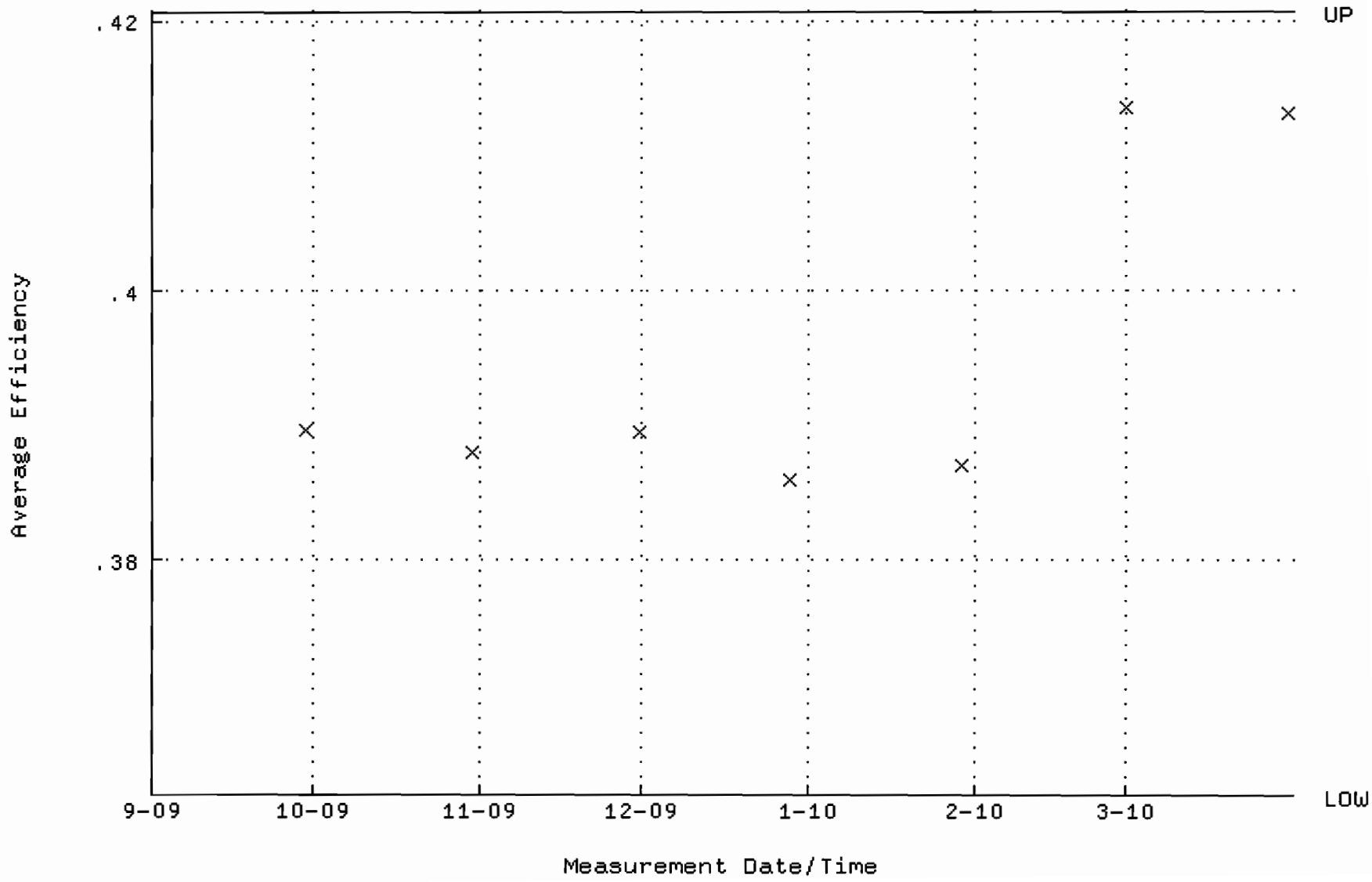

QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:52 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 79.2135 through 91.8401

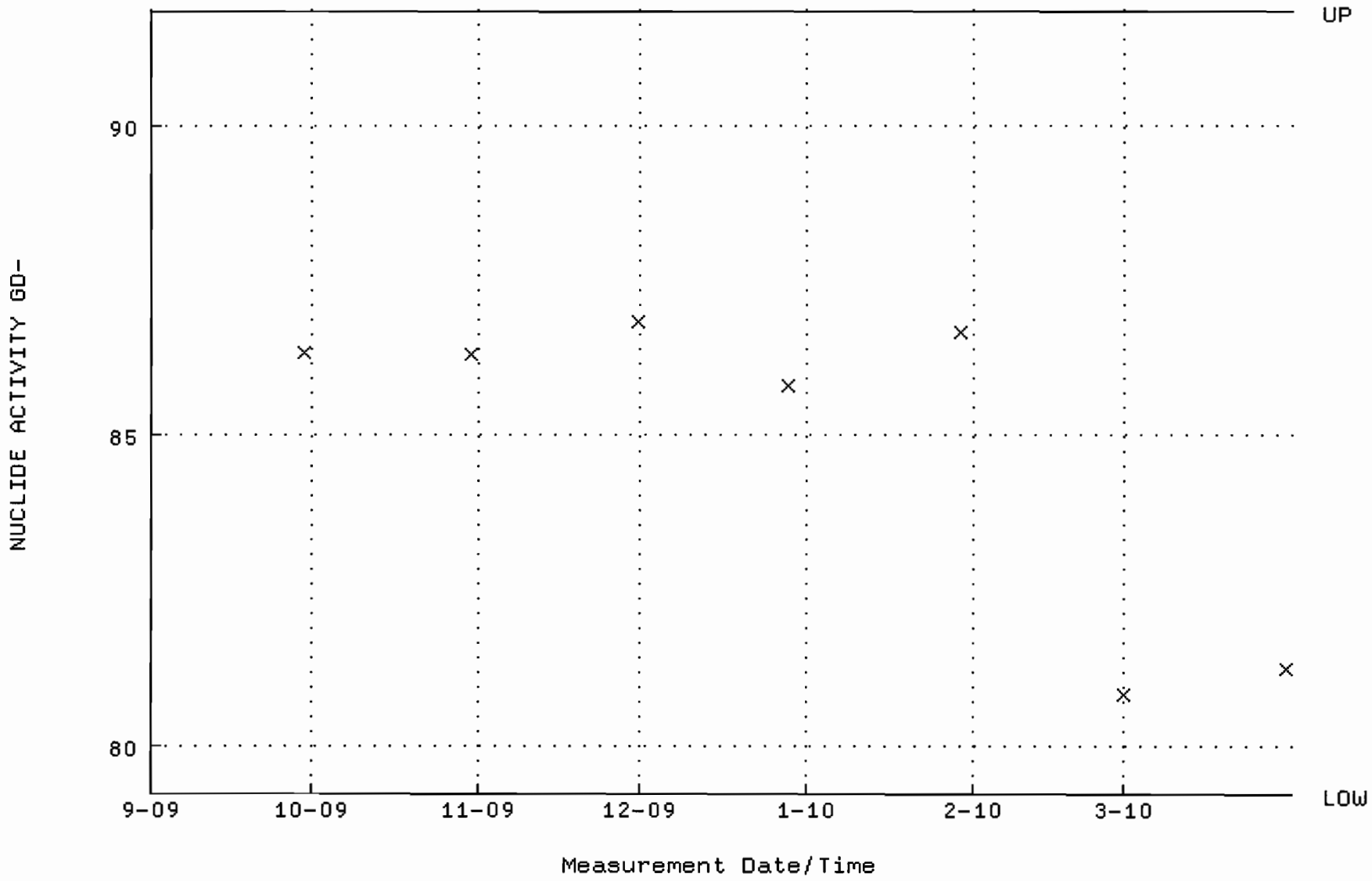

QA filename : DKA100:[ENV_ALPHA.QA.B]B236.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:26 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

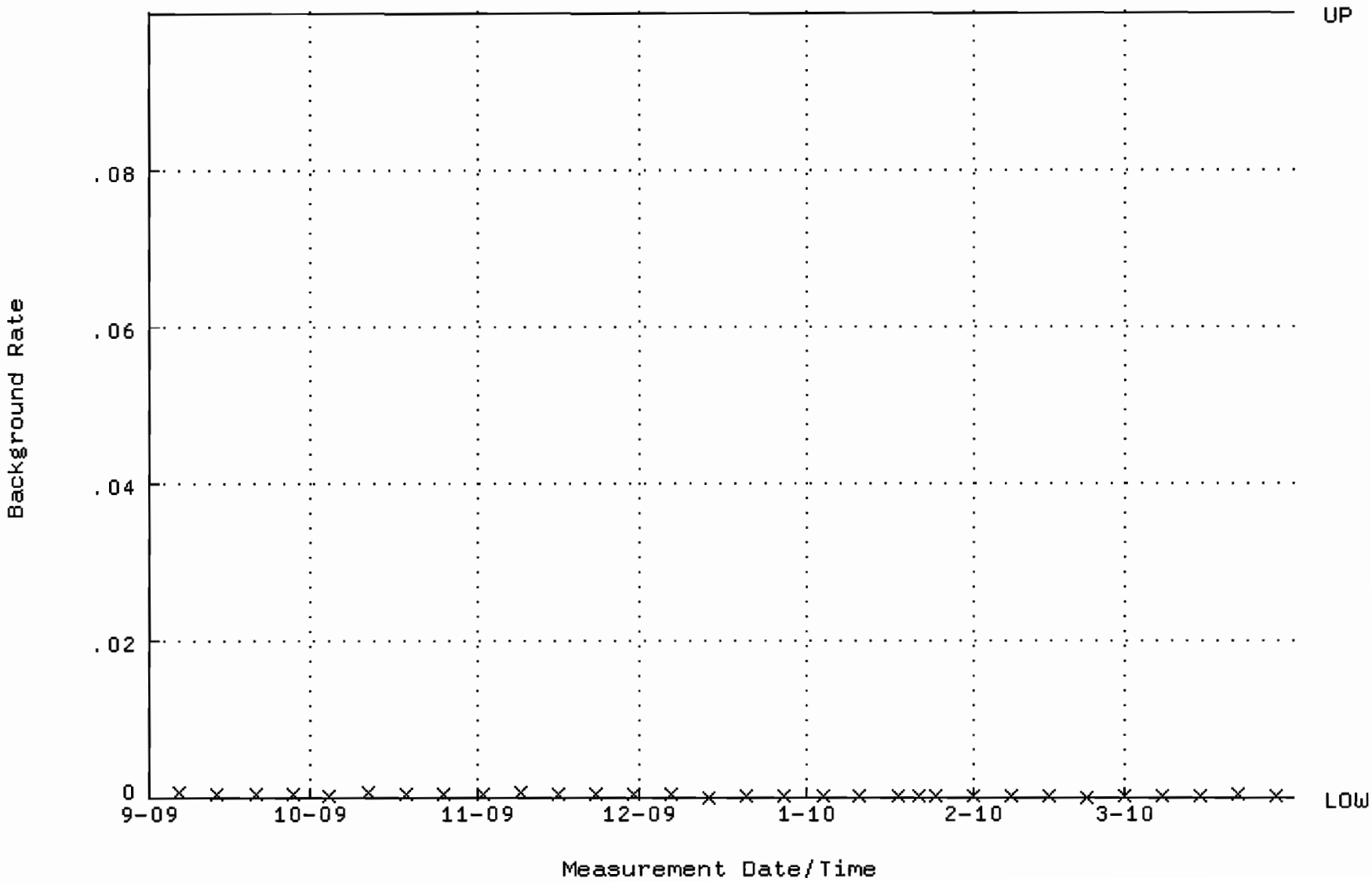

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:38:58 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.385327 through 0.415351

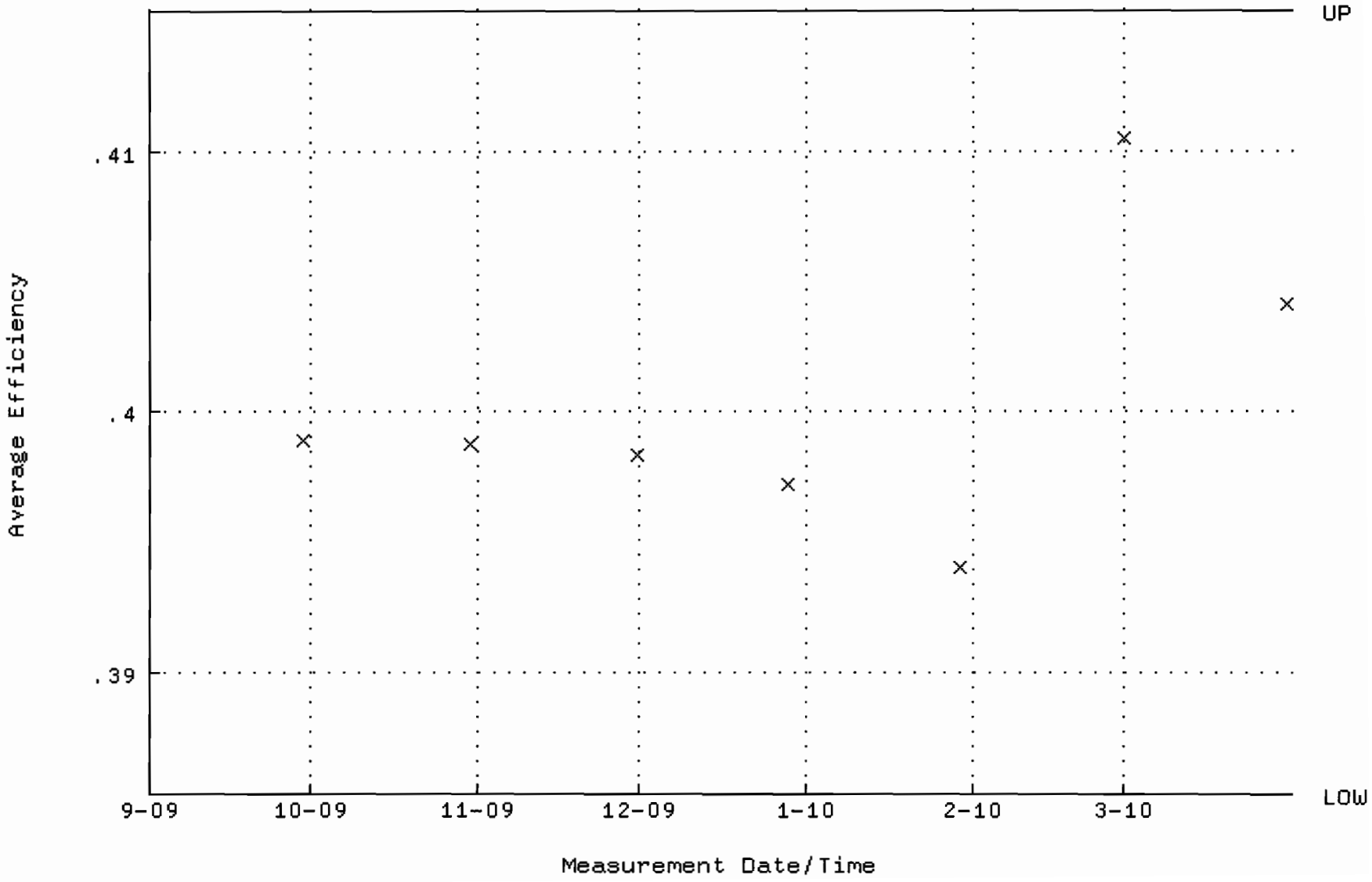

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:38:58 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5268 through 85.6787

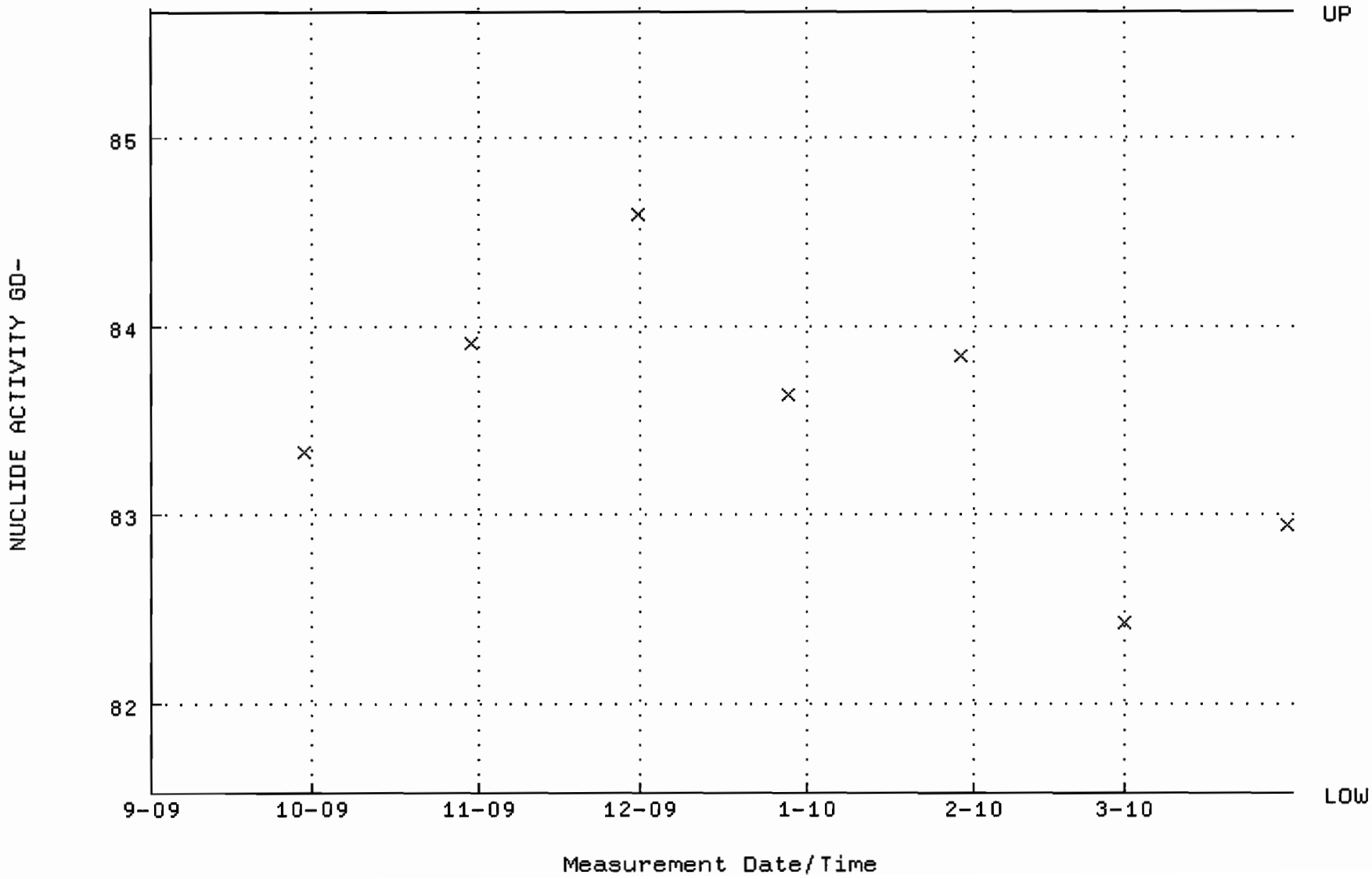

QA filename : DKA100:[ENV_ALPHA.QA.B]B237.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:30 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

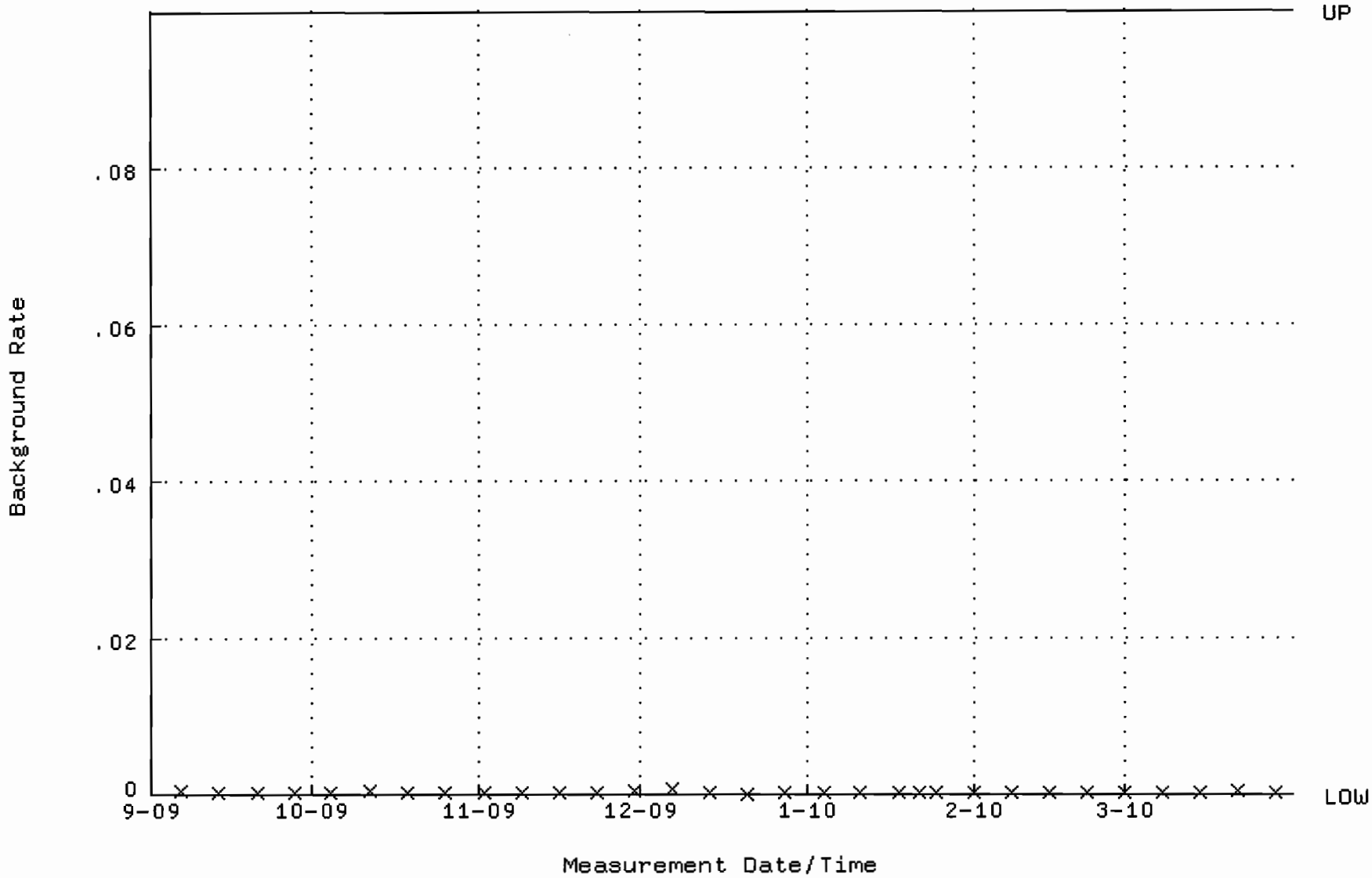

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:04 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.389351 through 0.404525

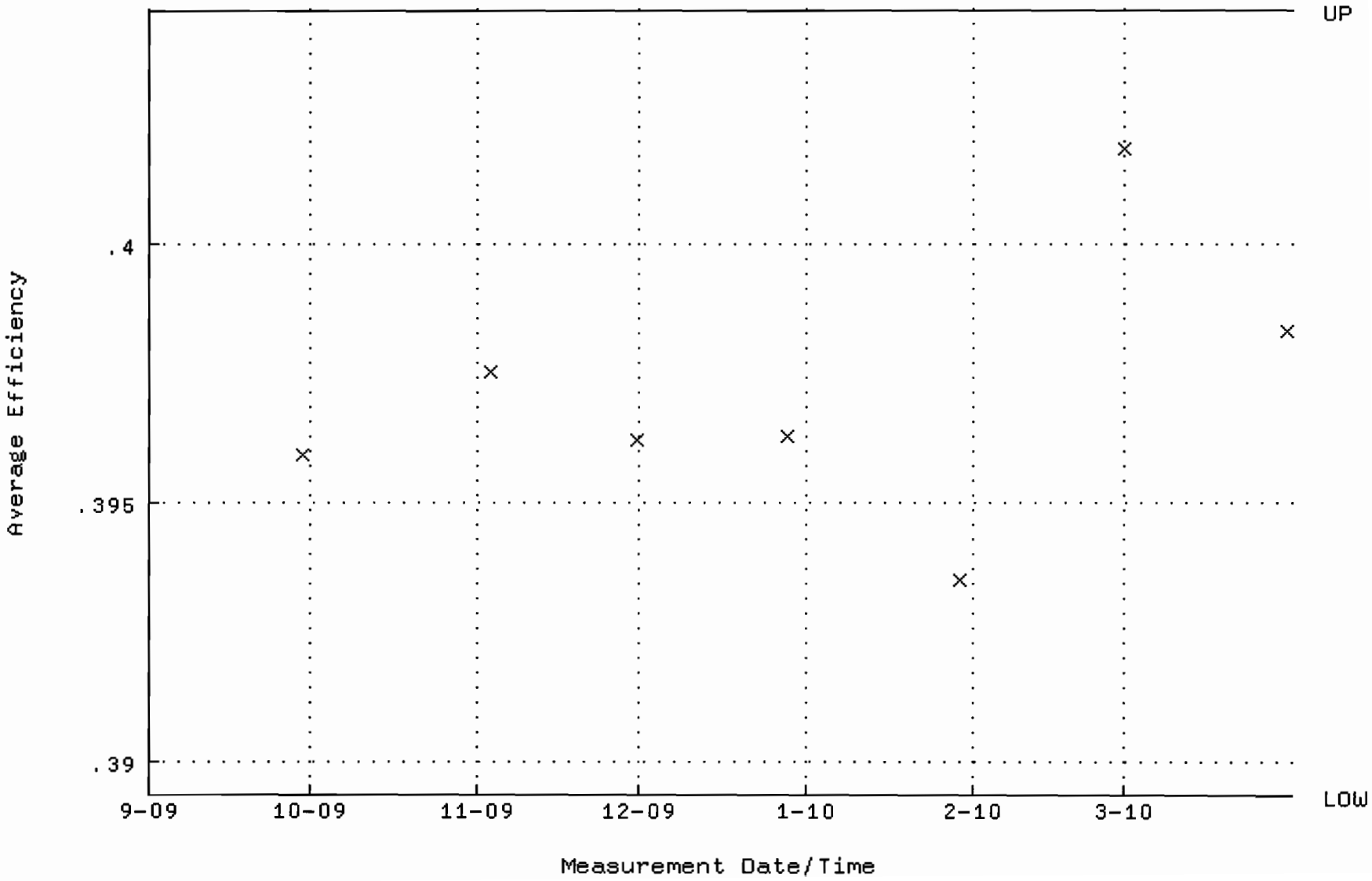

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:04 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 82.7118 through 85.8726

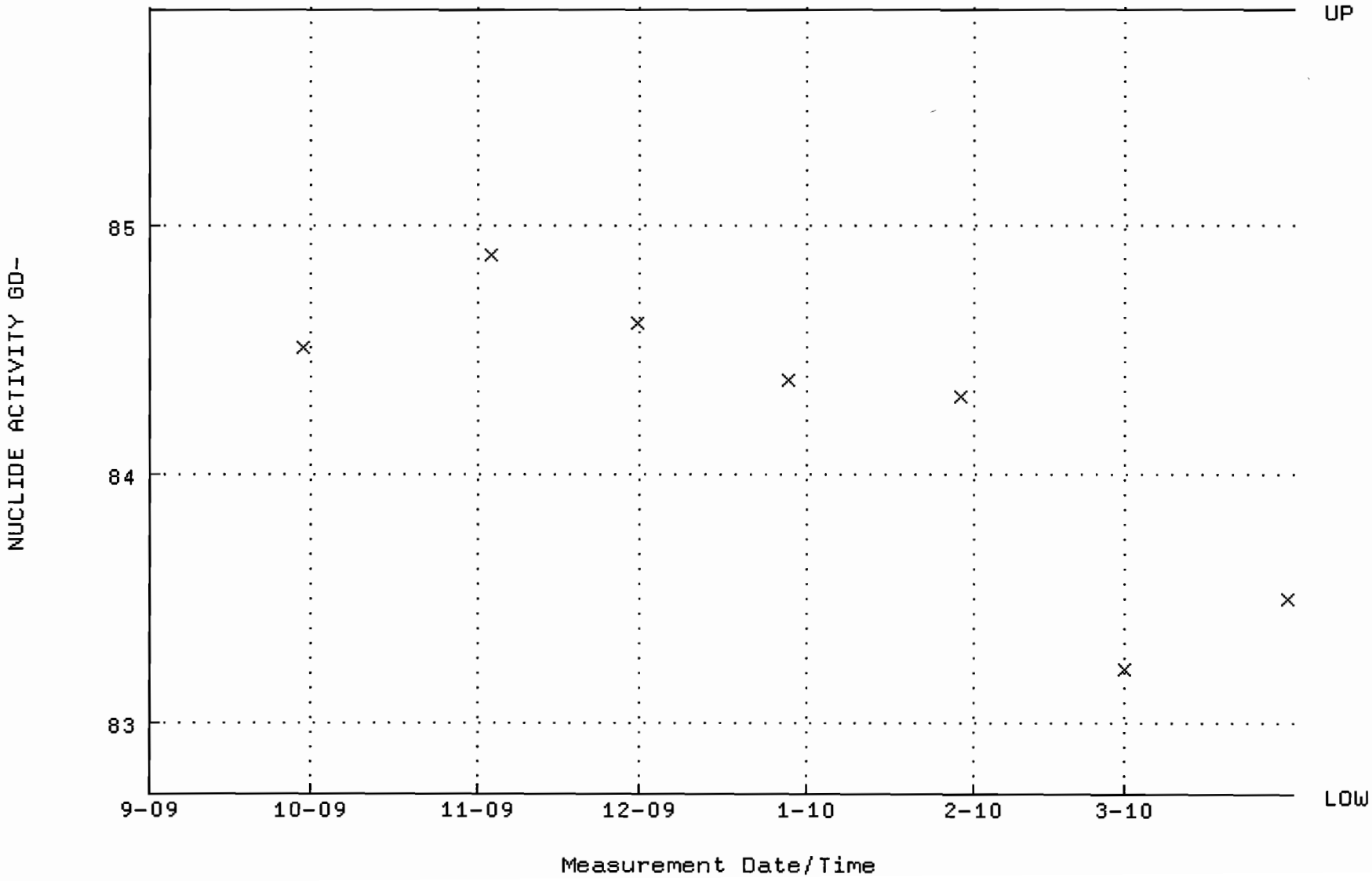

QA filename : DKA100:[ENV_ALPHA.QA.B]B238.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:34 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

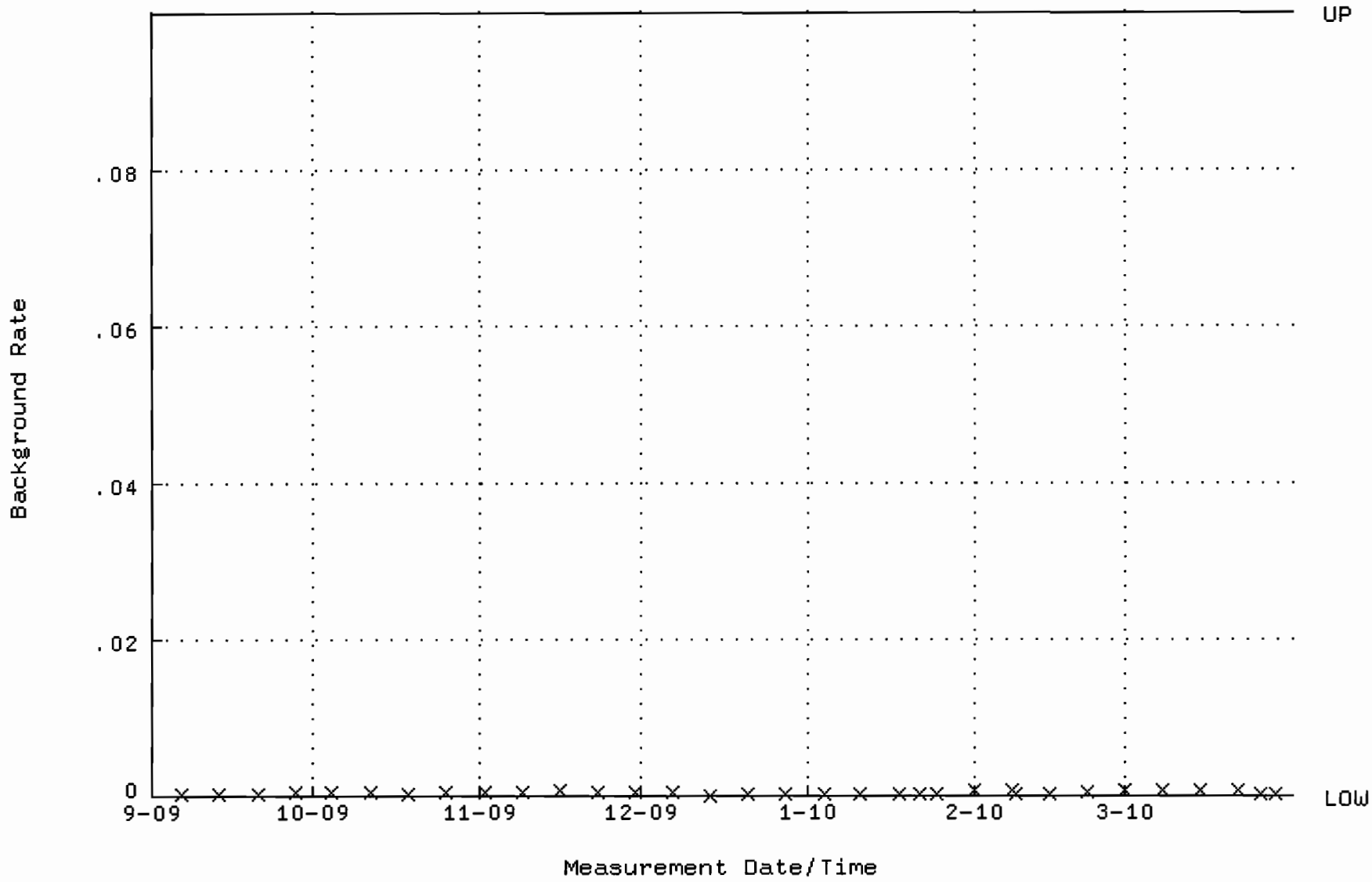

QA filename : DKA100:[ENV_ALPHA.QA.W]W239.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:10 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.366465 through 0.400837

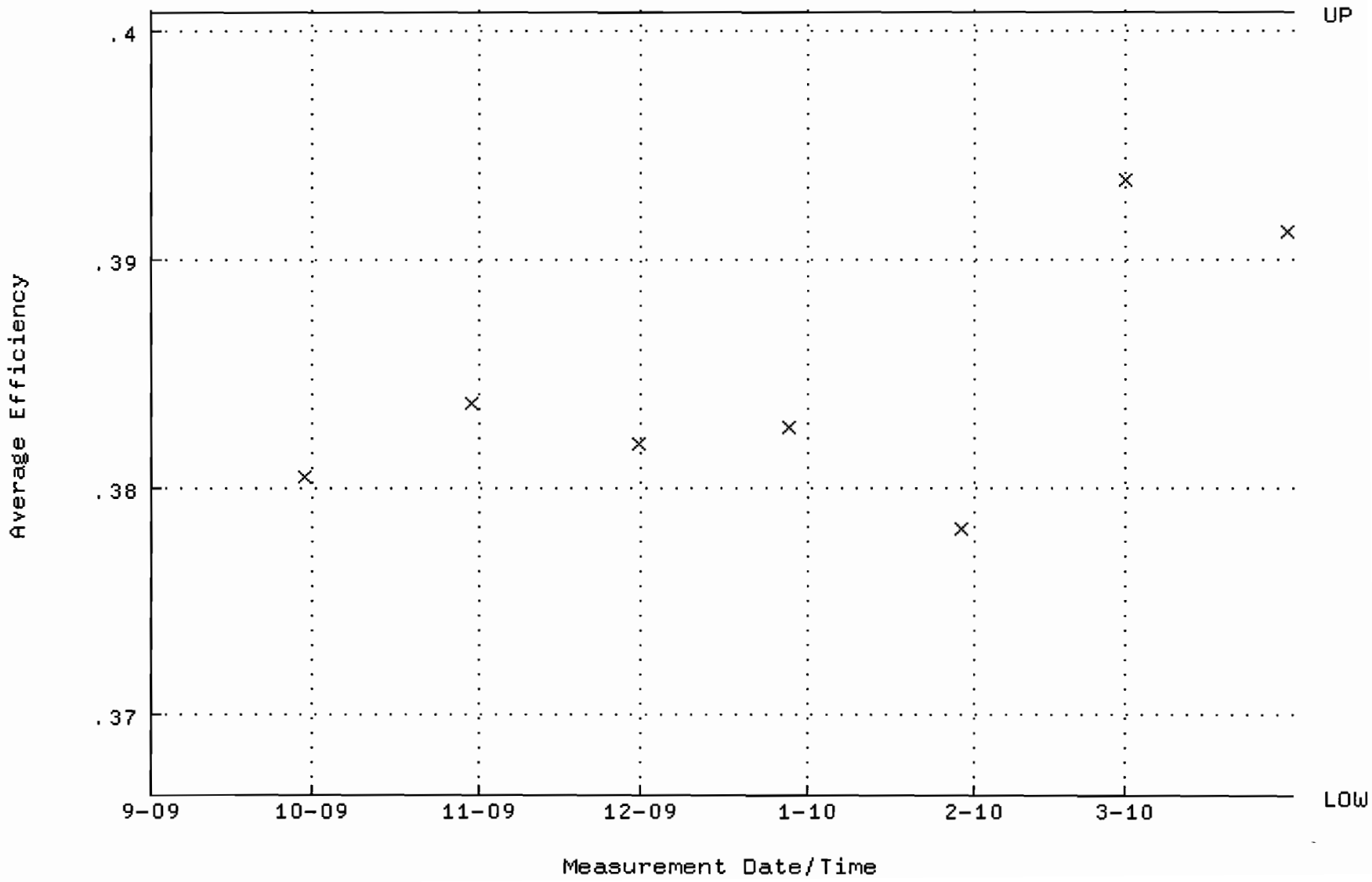

QA filename : DKA100:[ENV_ALPHA.QA.W]W239.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:10 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 82.5482 through 91.4126

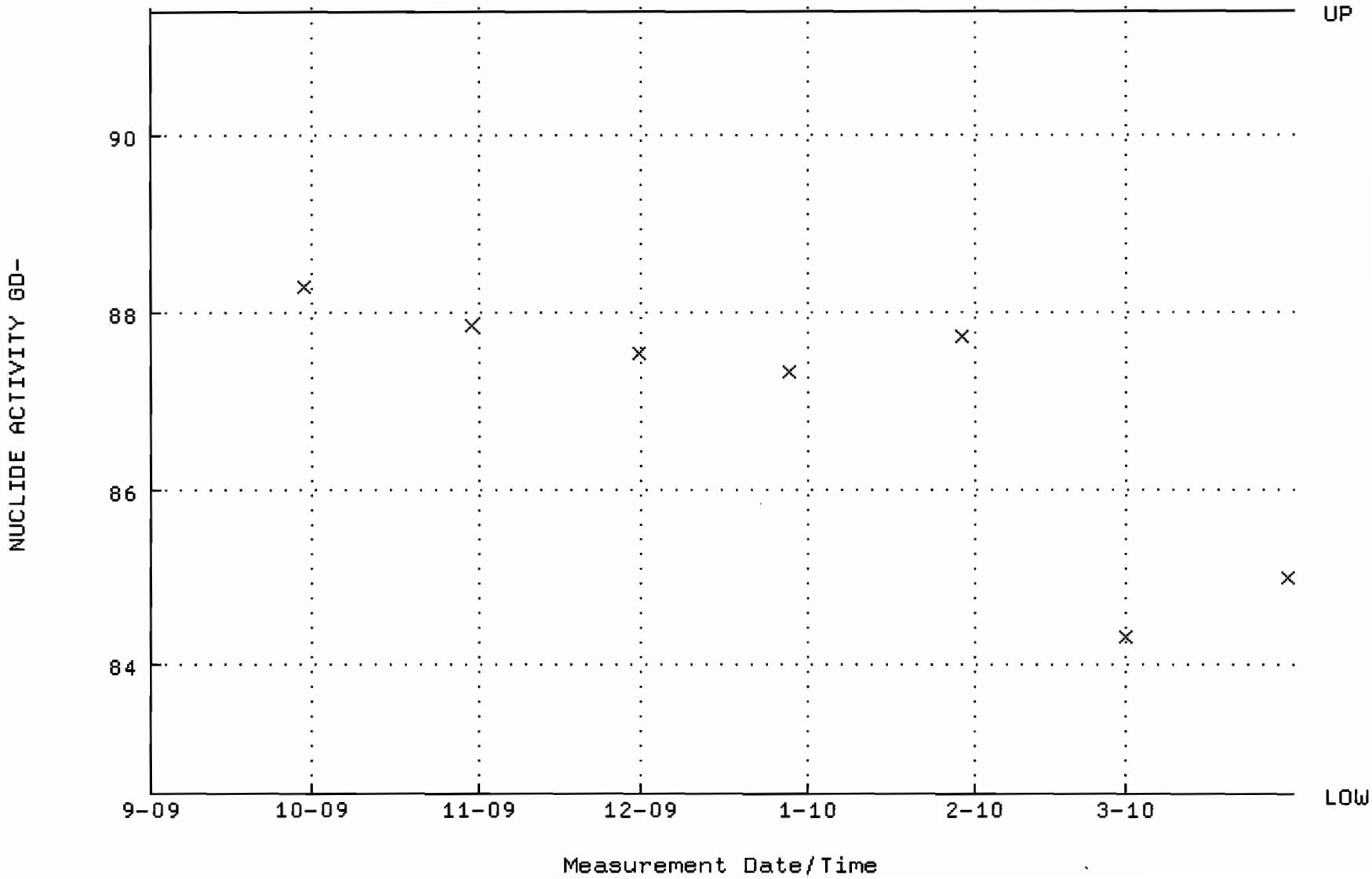

QA filename : DKA100:[ENV_ALPHA.QA.B]B239.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:50:39 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

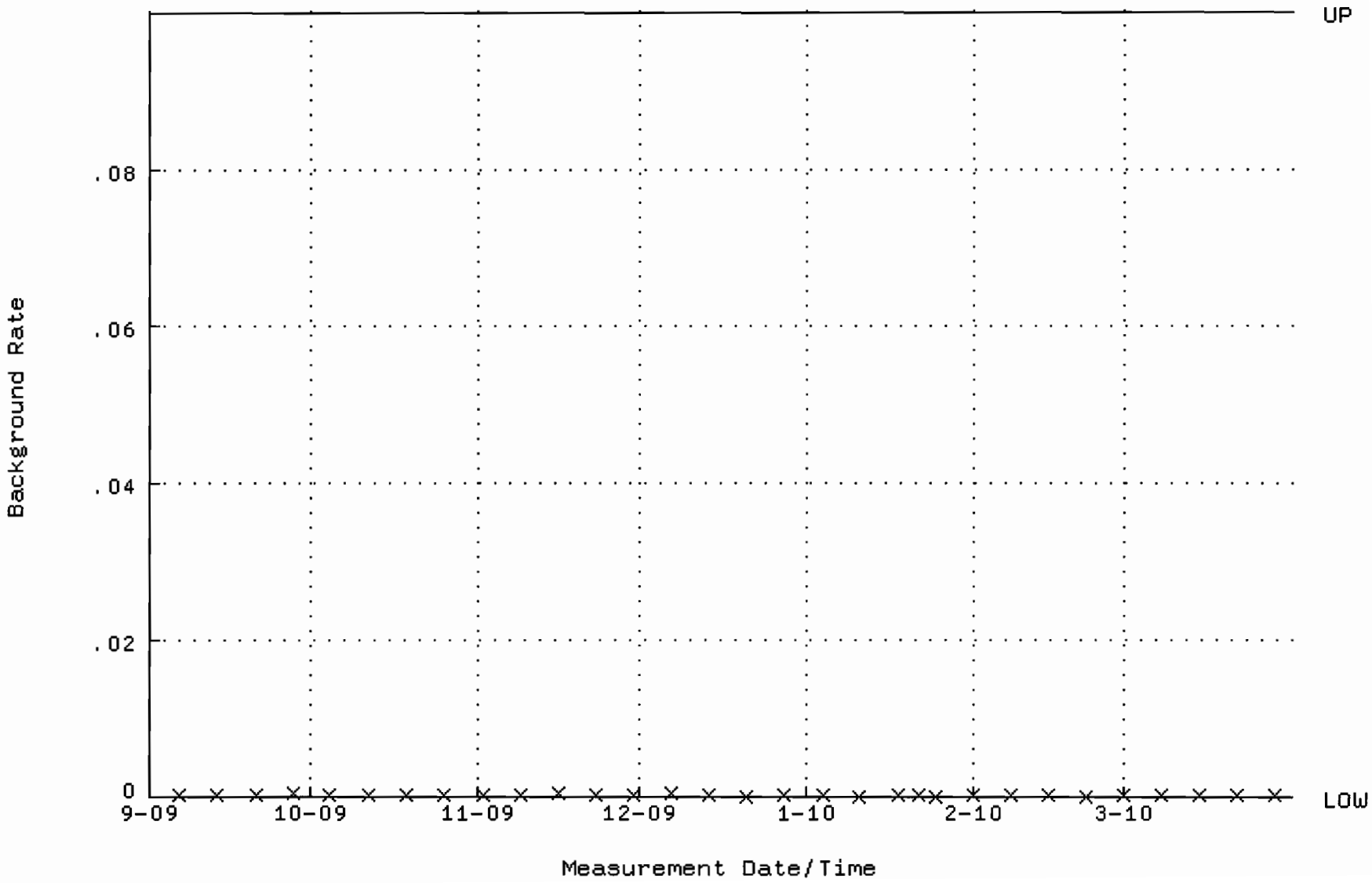

QA filename : DKA100:[ENV_ALPHA.QA.W]W247.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:39:55 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.352698 through 0.404942

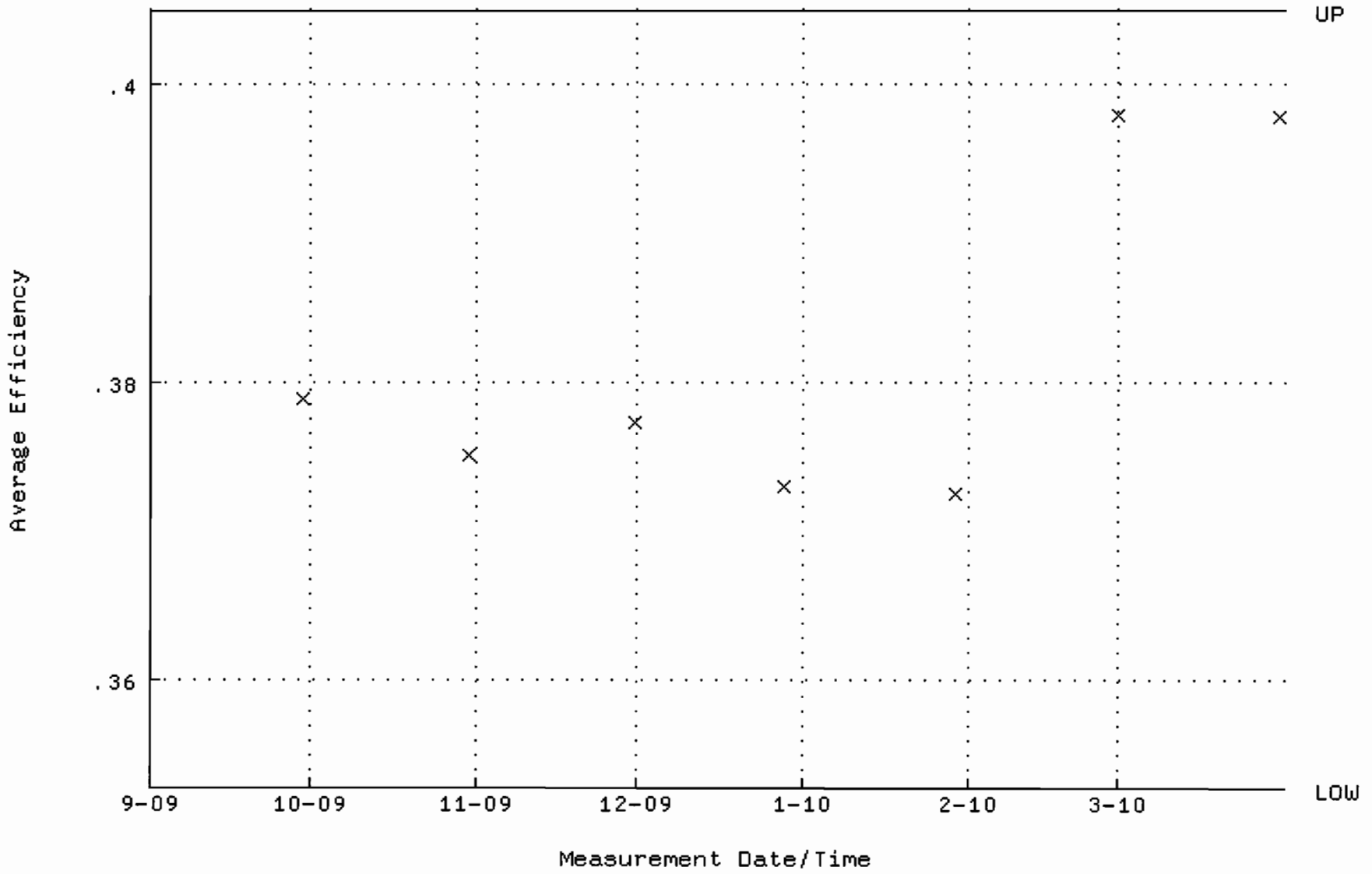

QA filename : DKA100:[ENV_ALPHA.QA.W]W247.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:39:55 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.8318 through 94.4164

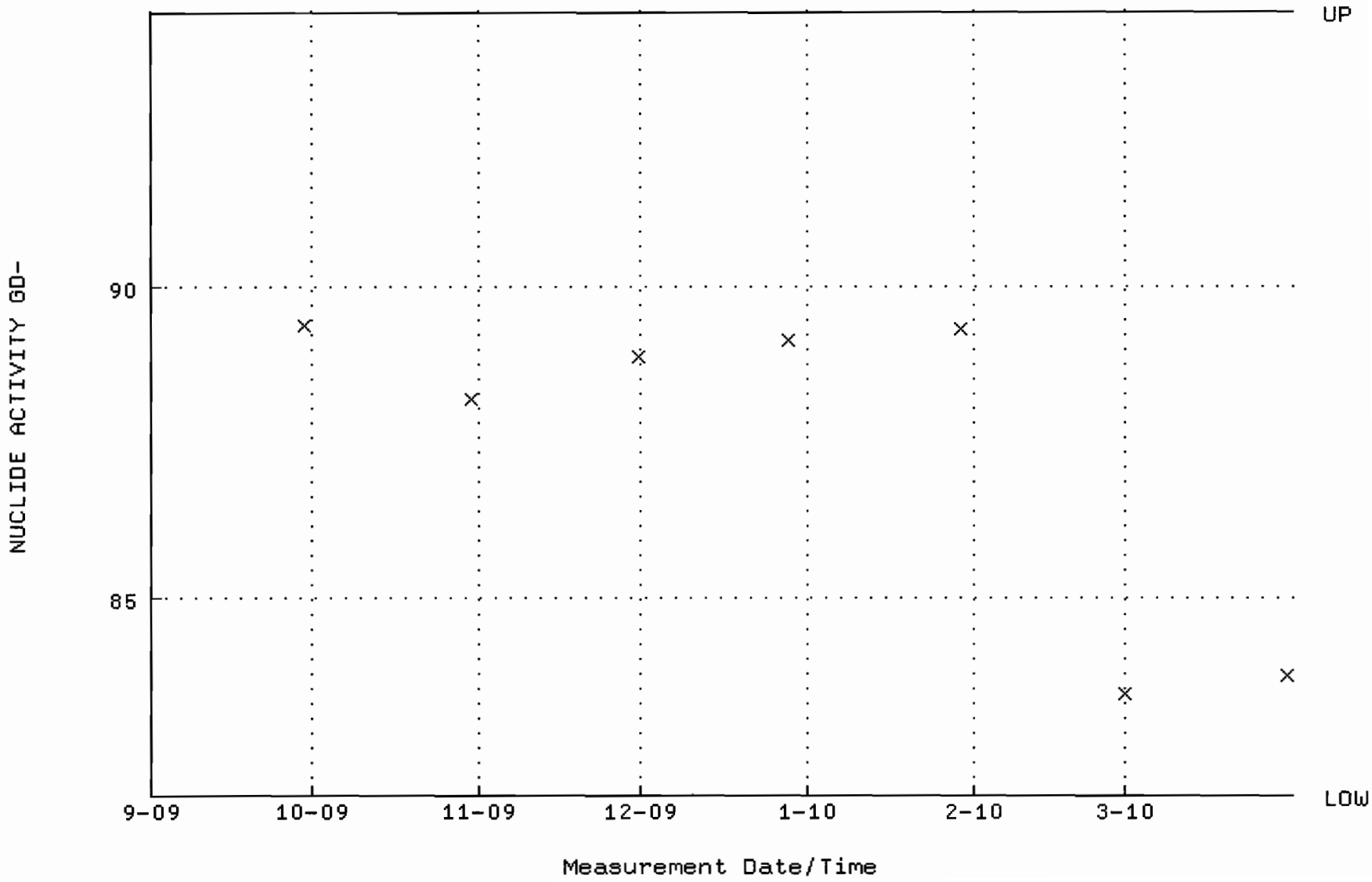

QA filename : DKA100:[ENV_ALPHA.QA.B]B247.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:16 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

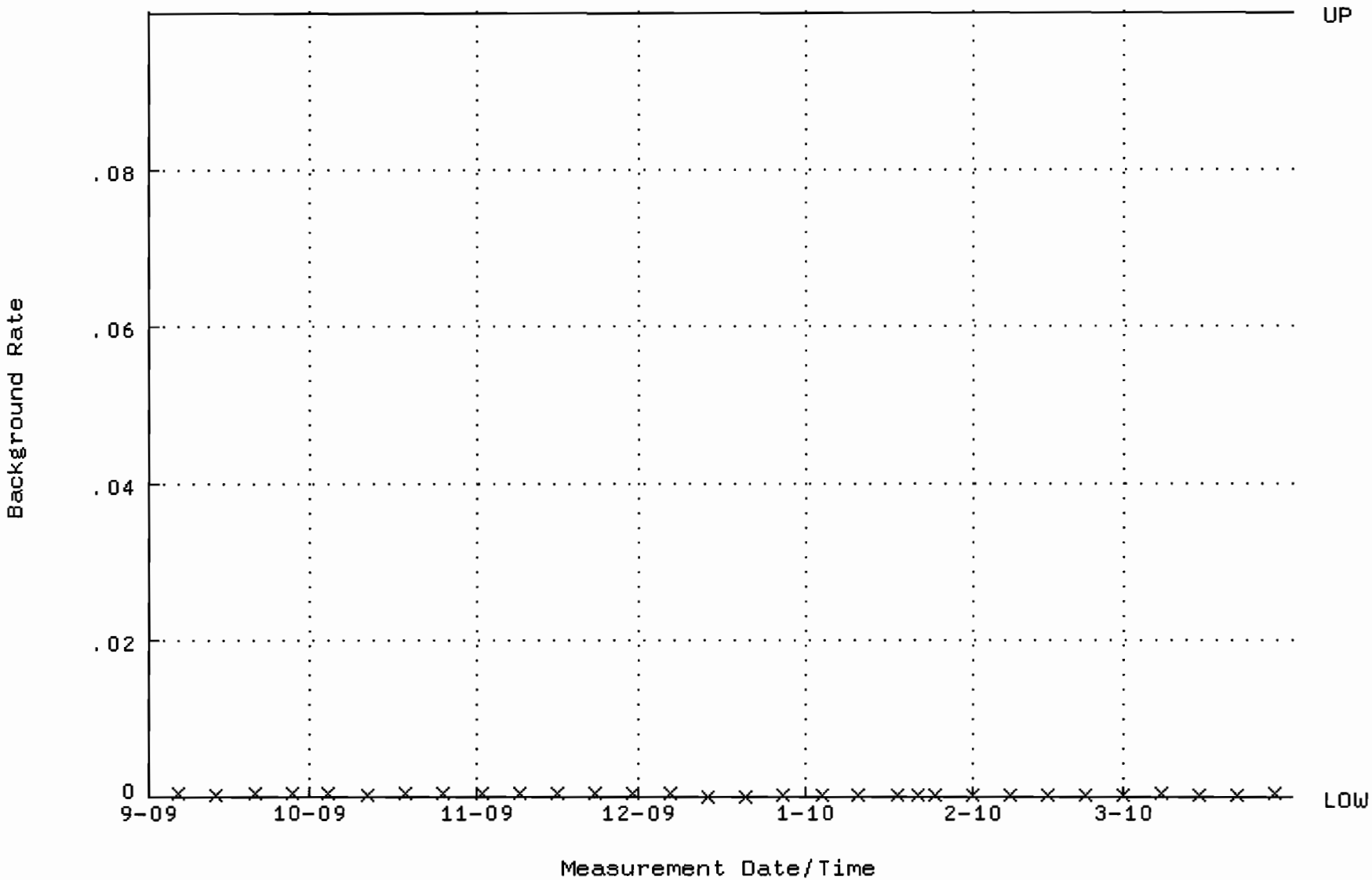

QA filename : DKA100:[ENV_ALPHA.QA.W]W248.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 29-SEP-2009 08:40:01 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.376481 through 0.408807

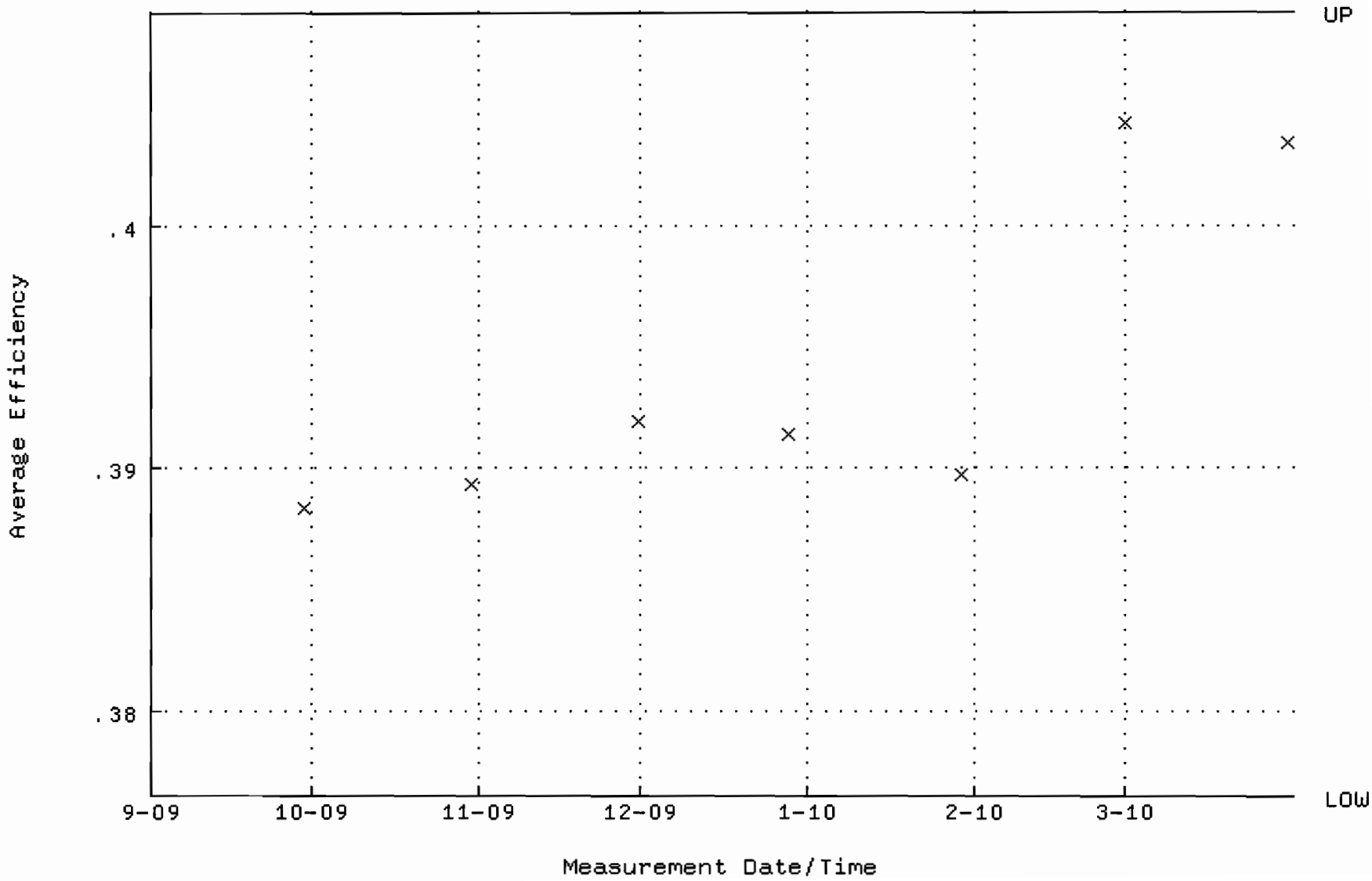

QA filename : DKA100:[ENV_ALPHA.QA.W]W248.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 29-SEP-2009 08:40:01 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 81.4745 through 90.2275

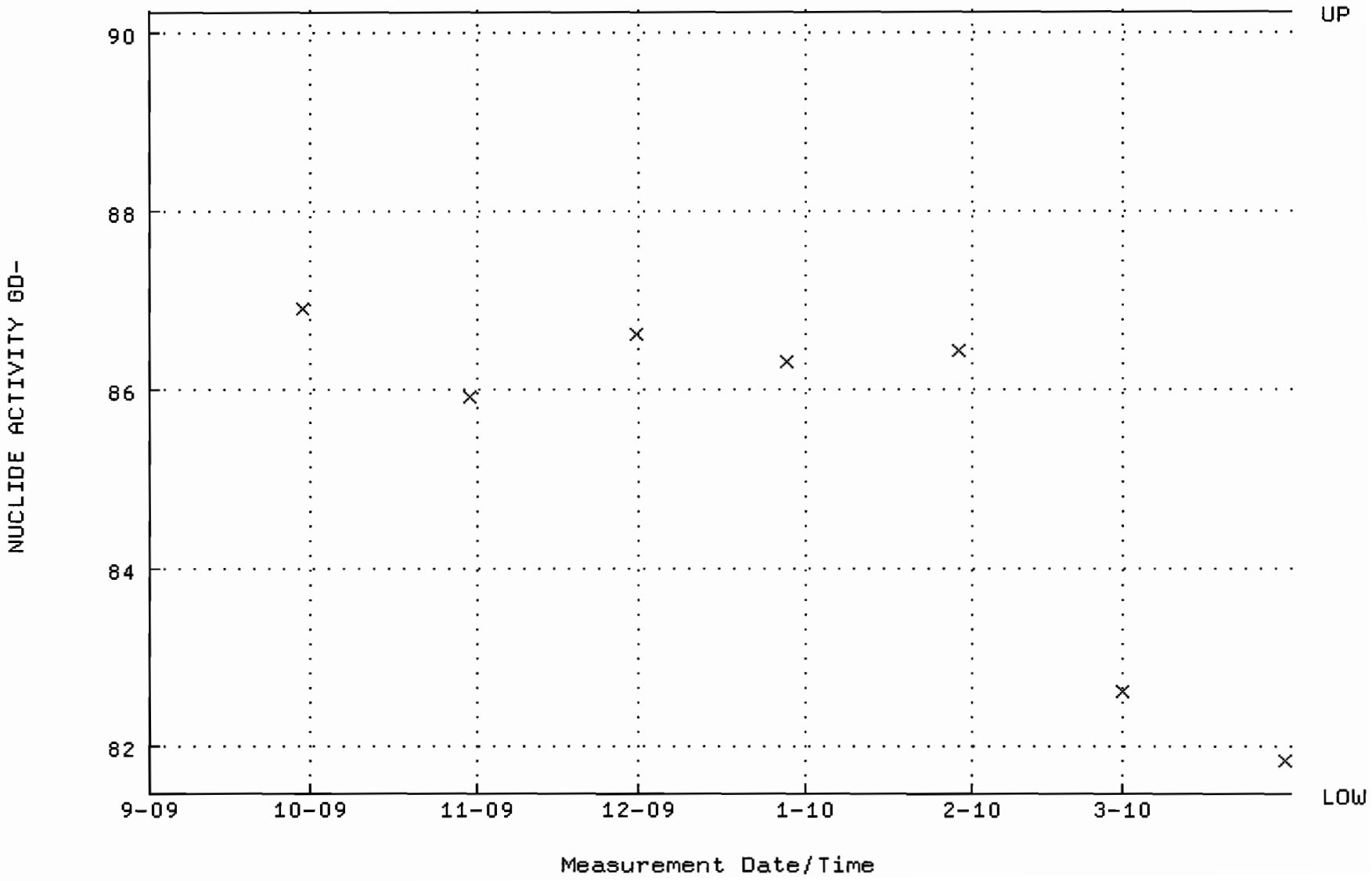

QA filename : DKA100:[ENV_ALPHA.QA.B]B248.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:51:21 through 31-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

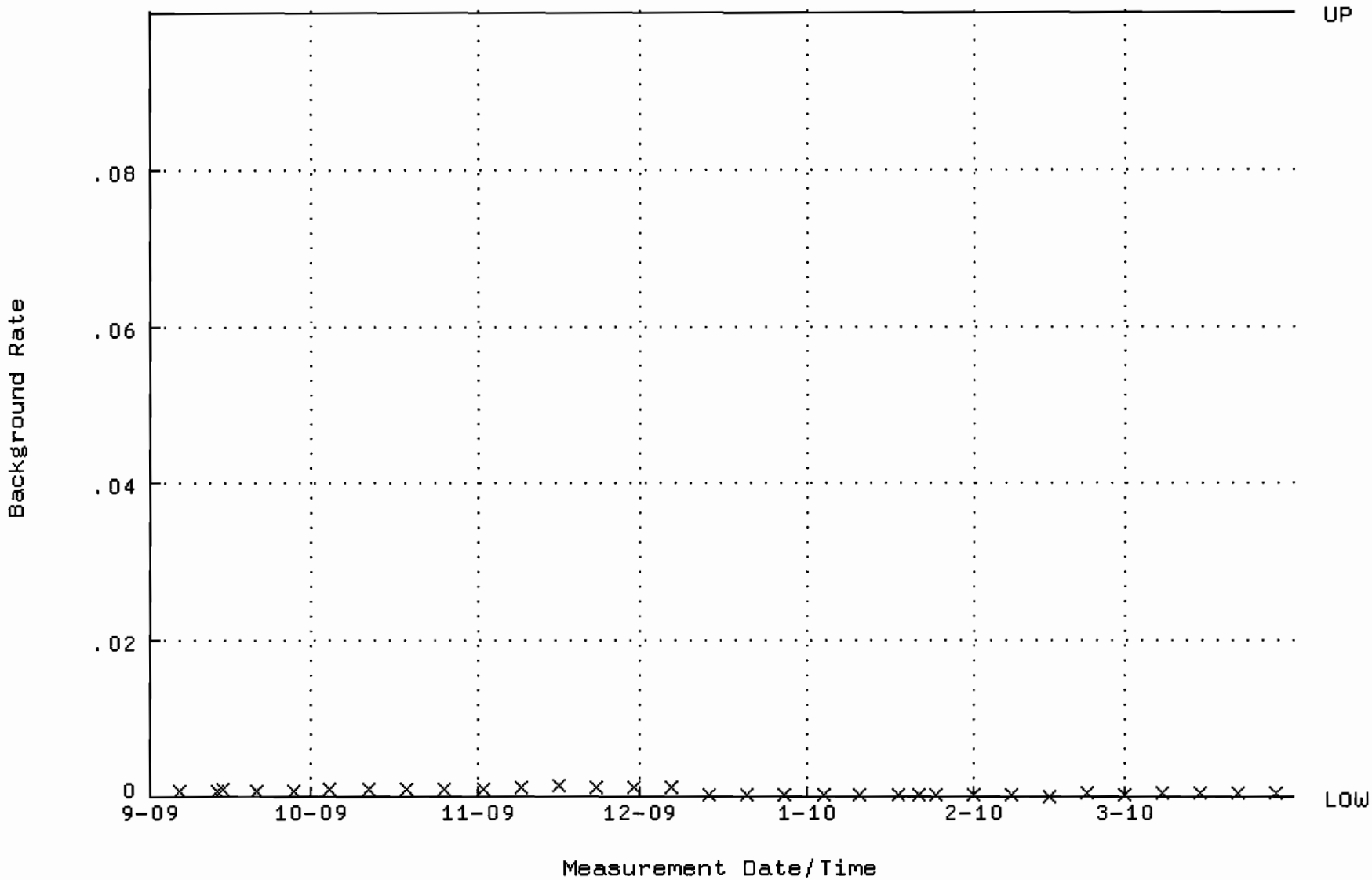

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM05_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-SEP-2009 14:54:46 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

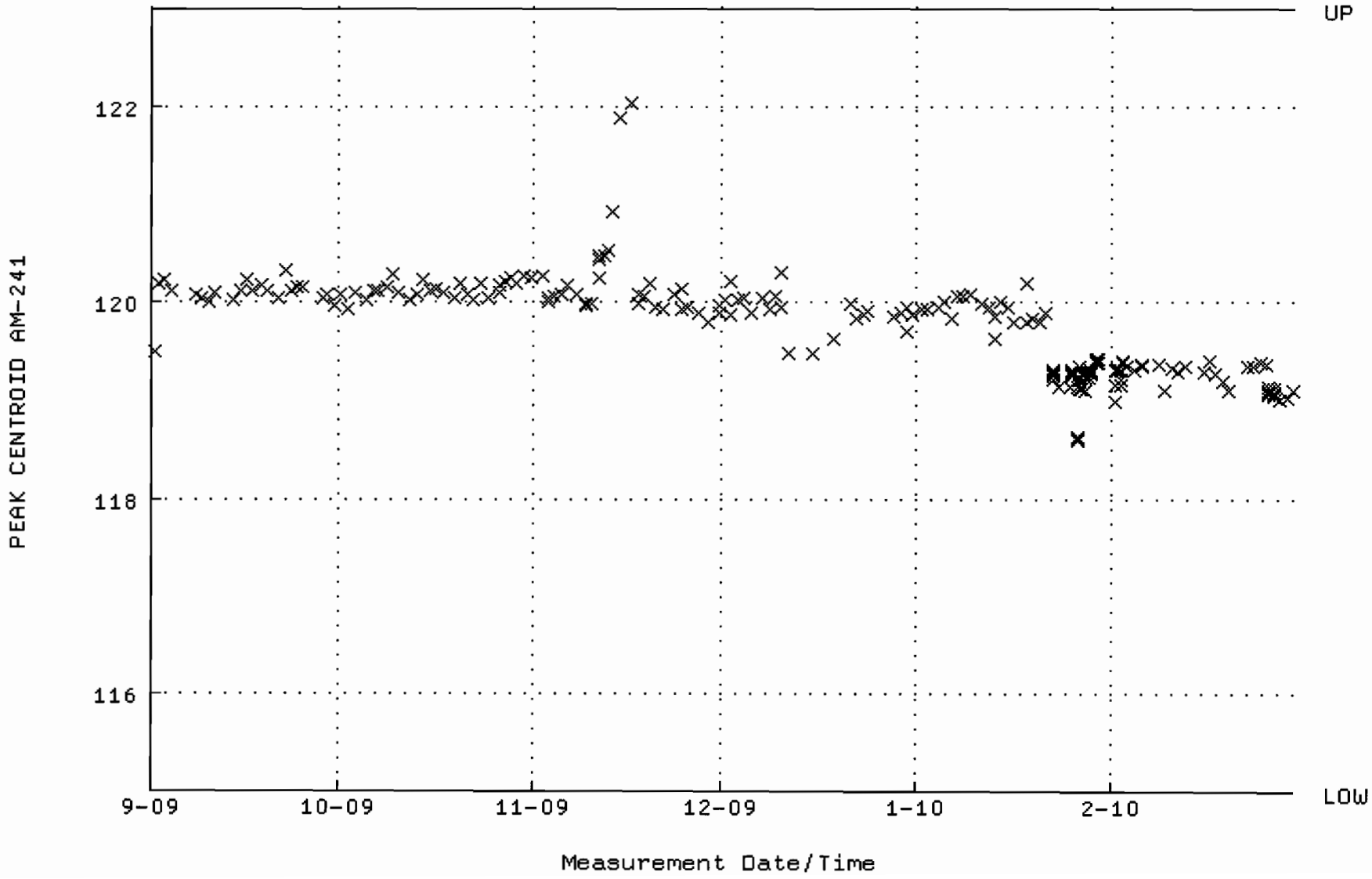

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM05.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:39:04 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.64719 +- 2.547087E-02 (1.55 %)

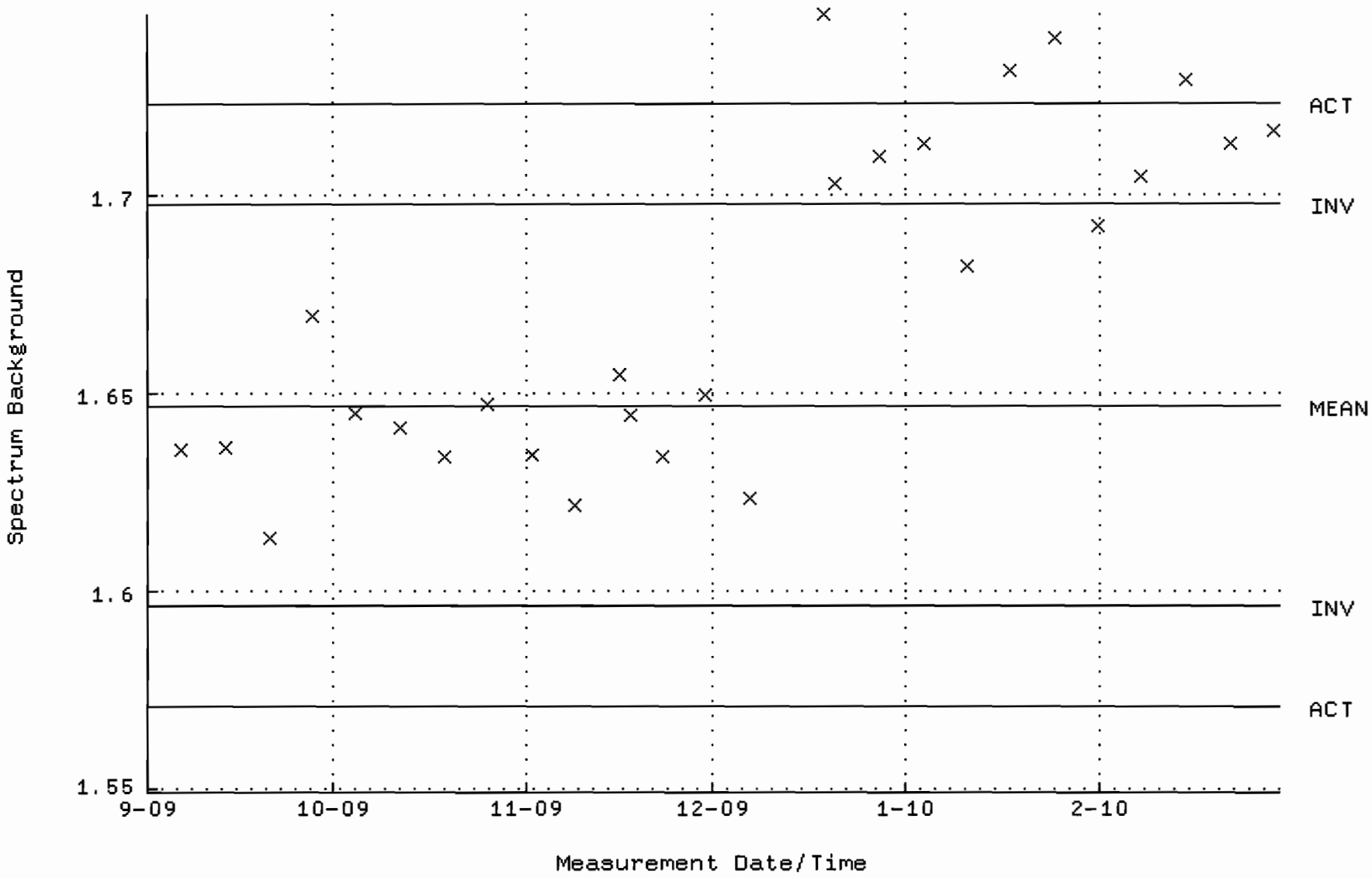

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:32:23 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

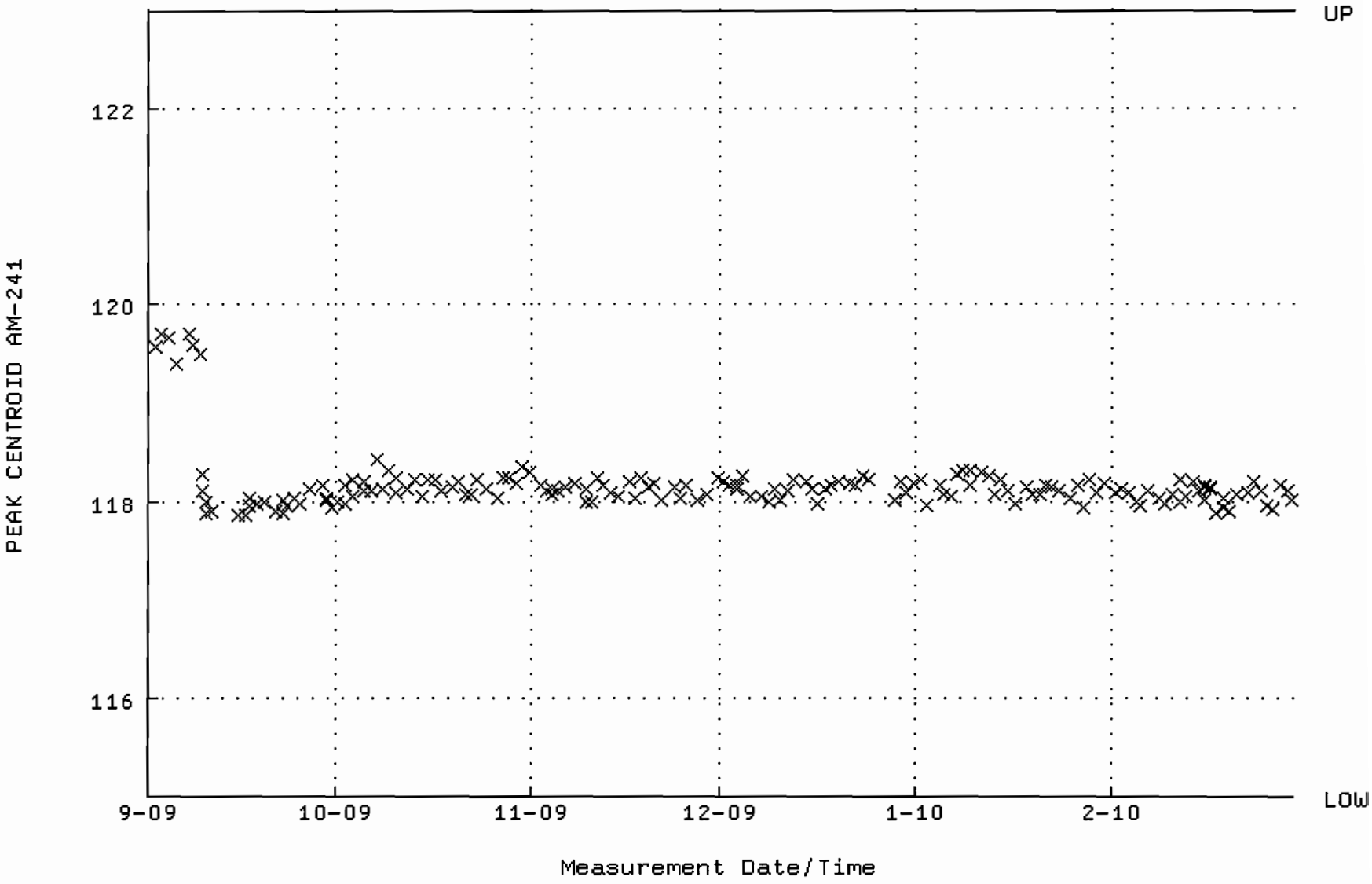

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:43:44 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)

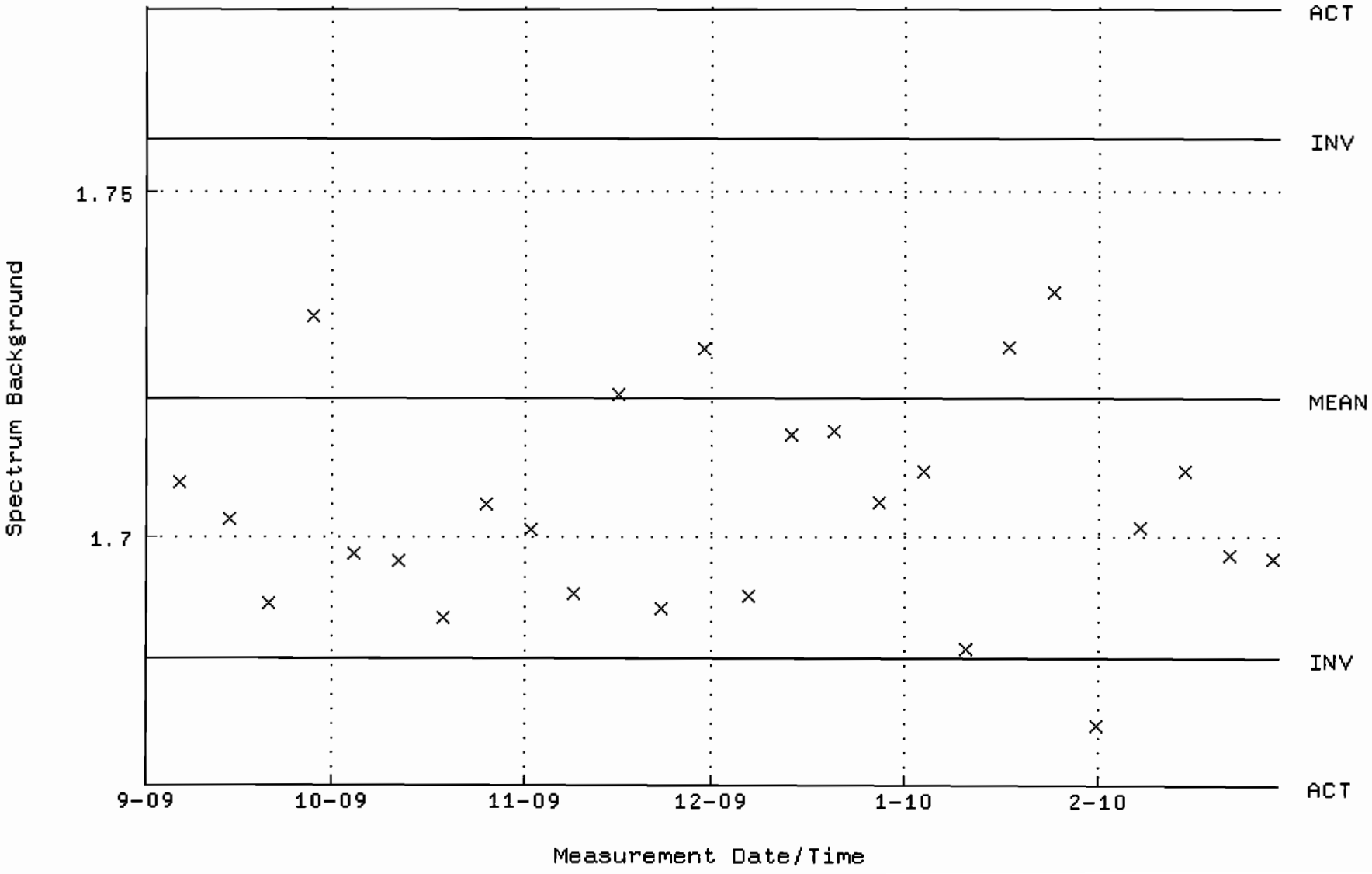

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM21_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-DEC-2009 13:07:42 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

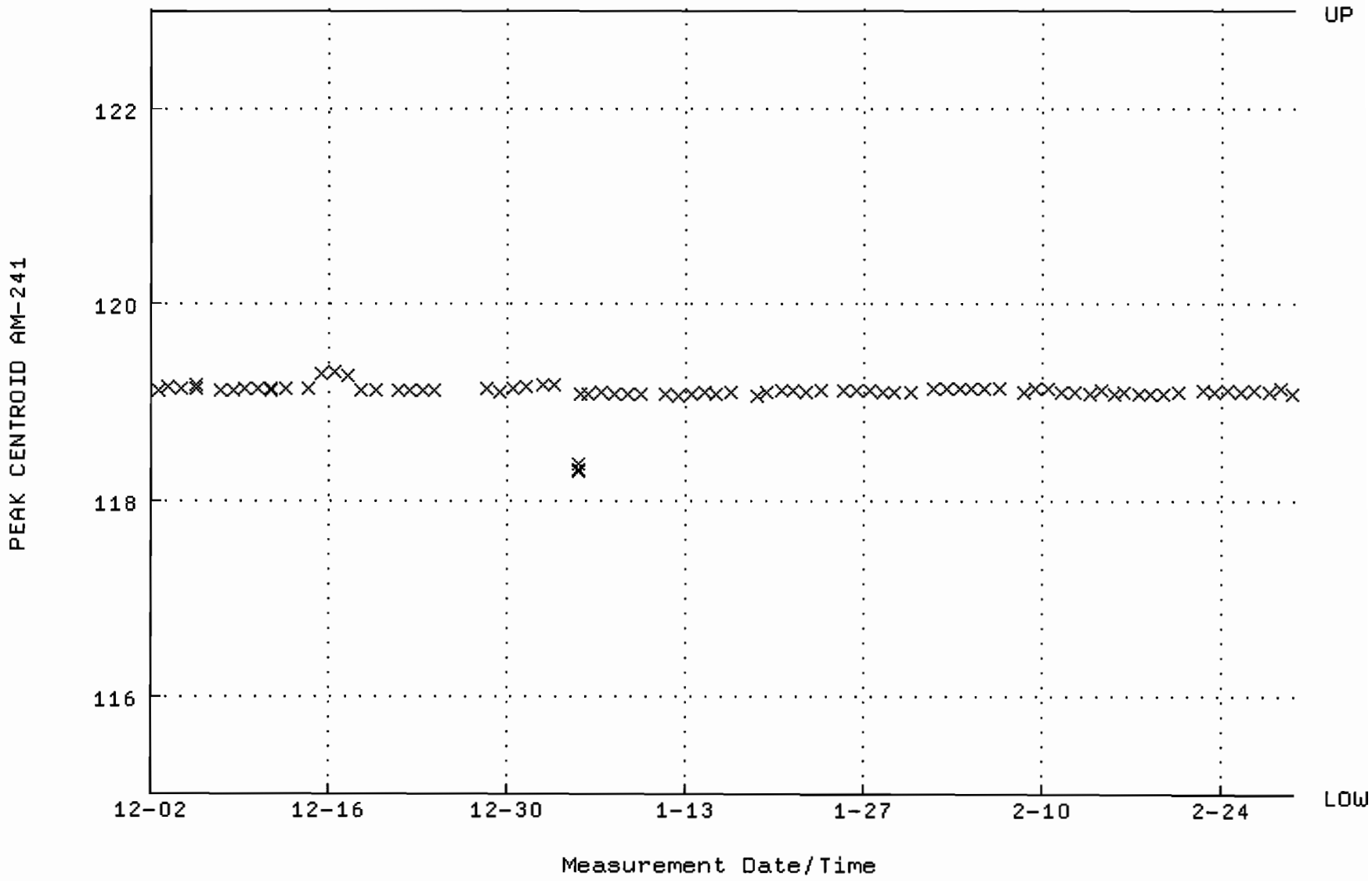

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM21.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-DEC-2009 15:25:38 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.04443 +- 1.452671E-02 (1.39 %)

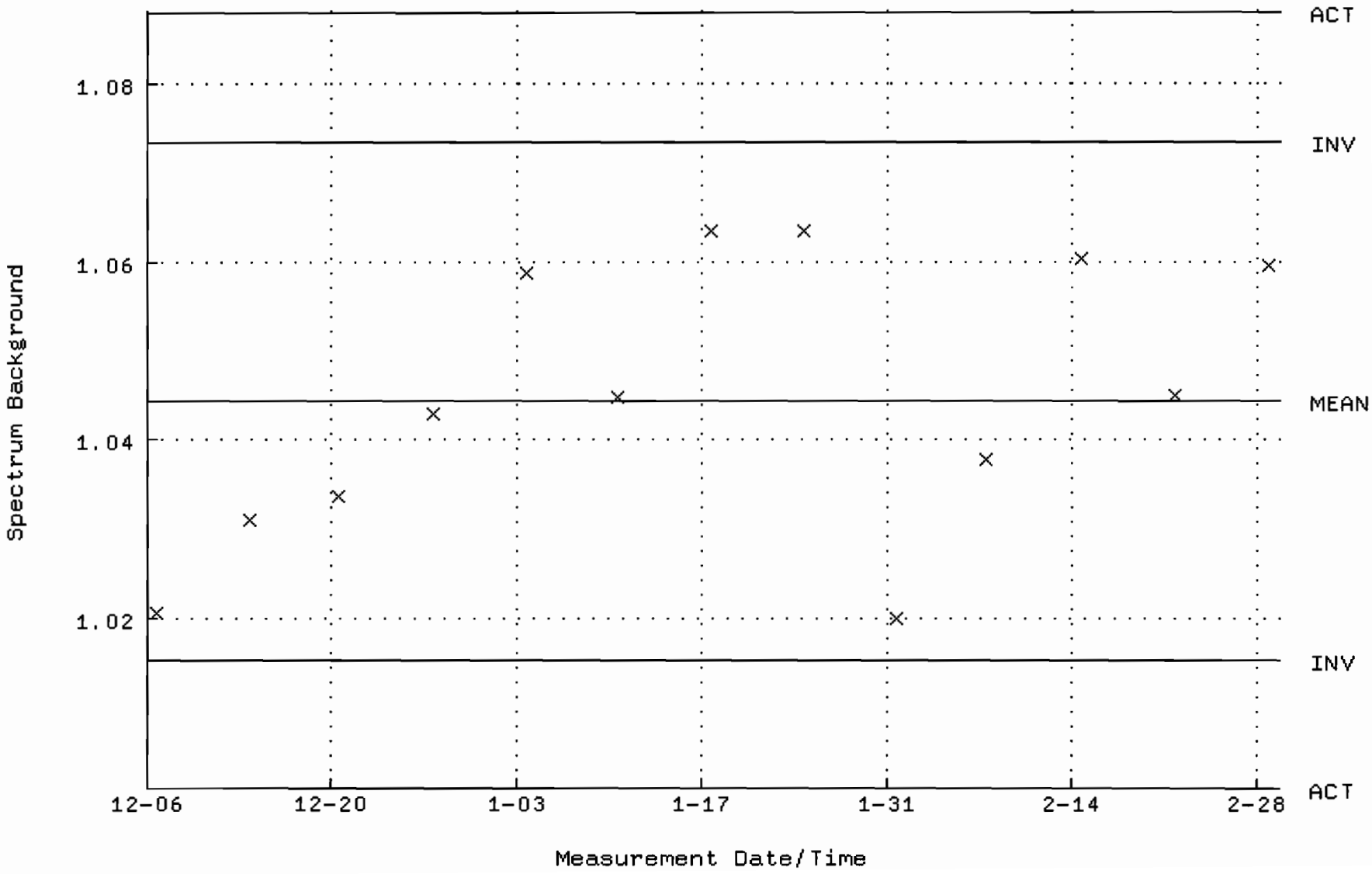

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

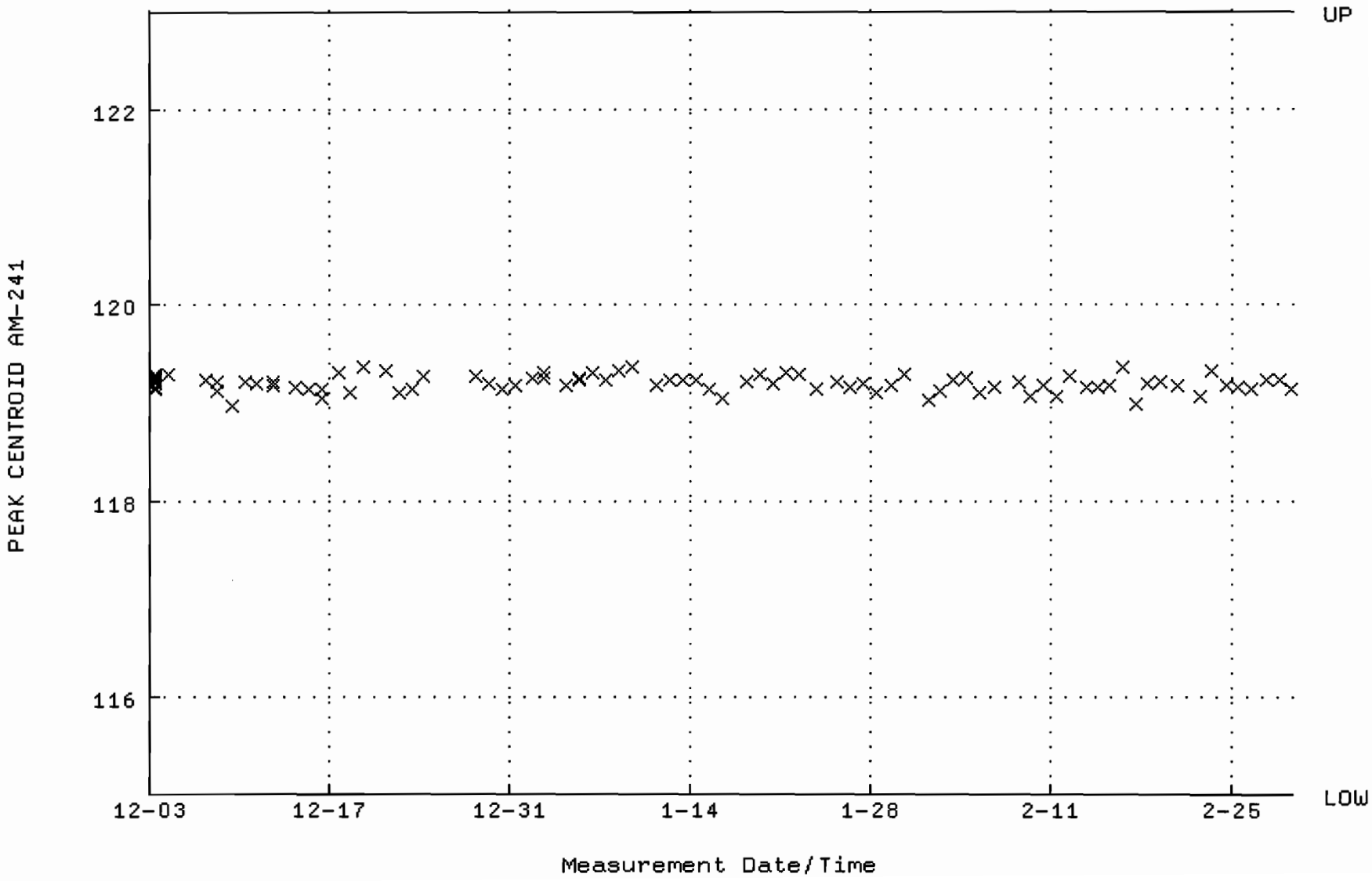

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

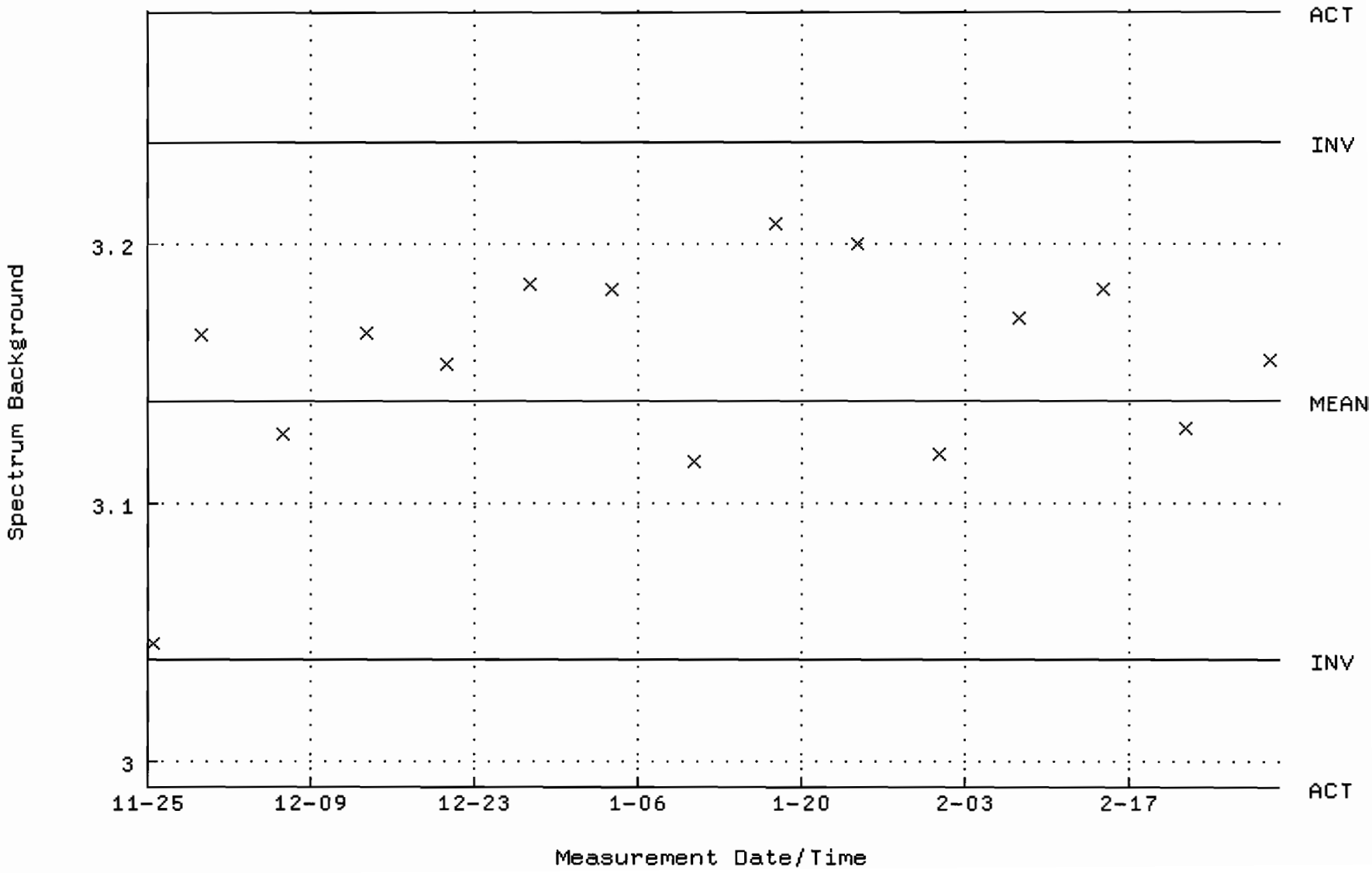

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM29_CAN.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 2-MAR-2010 08:30:43 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

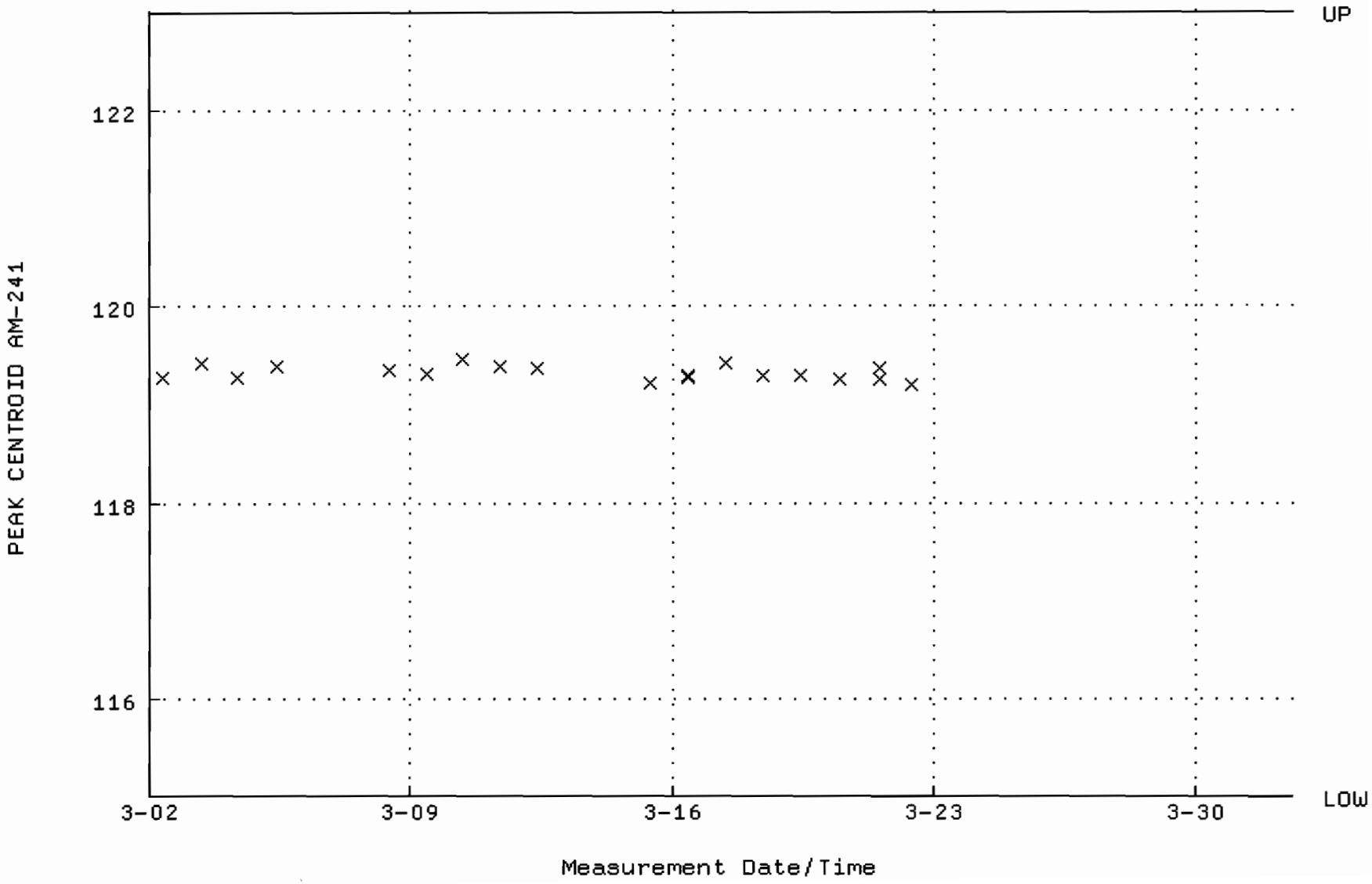

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM29.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 7-MAR-2010 16:47:12 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 1.94193 through 2.37347

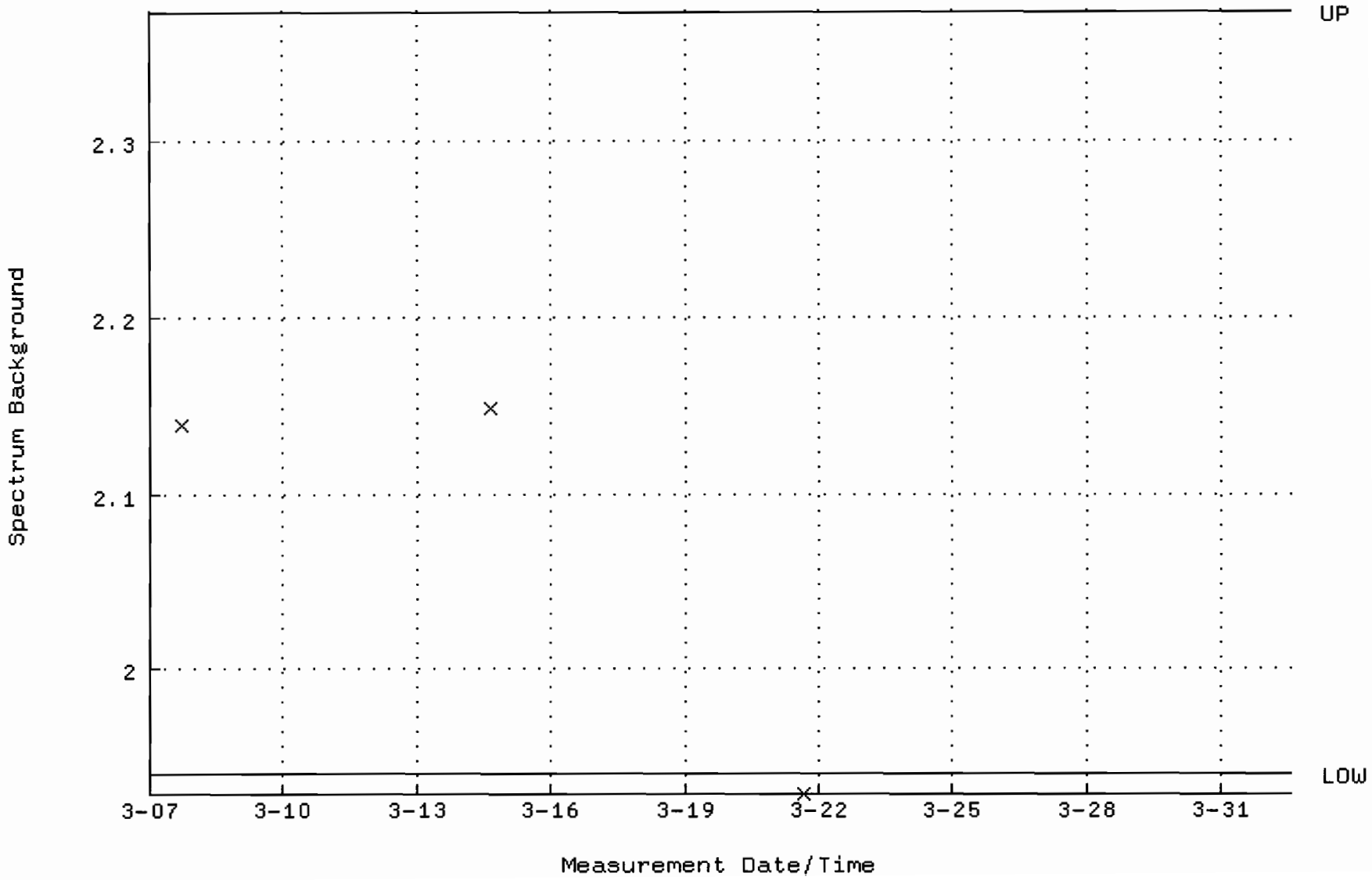

STANDARDS DATA

ANALYTICS
Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

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Fax 404•352•2837
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ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER. JAR-1
	Mixed Gamma N2	2510	pCi/L	- VER. JAR-3
	Mixed Gamma N3	2413	pCi/L	- VER. JAR-5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2

Mean Value (Counting) =	886.90	**95.01**	**Pass**
Stdev =	28.651	**Rule 3 (Pass/Fail)**	

Certificate Value =	933.44144	pCi/L
Lower Limit =	829.597644	pCi/L
Upper Limit =	944.202356	pCi/L
Rule 1 (Pass/Fail)	**Pass**	
Two sigma =	57.30235597	
10 % of Mean =	88.69000000	
Rule 2 (Pass/Fail)	**Pass**	

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result		
	Mixed Gamma N1	1572	pCi/L	- VER-JAR-5
	Mixed Gamma N2	1495	pCi/L	- VER-JAR-2
	Mixed Gamma N3	1501	pCi/L	- VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**	
Stdev =	42.829	**Rule 3 (Pass/Fail)**		
Certificate Value =	1545.8378	pCi/L		
Lower Limit =	1437.008431	pCi/L		
Upper Limit =	1608.324902	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	85.65823564			
10 % of Mean =	152.26666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATE 4/14/2000 Jeff C Neff 12/1/04

Angela S. Johnson 12/3/04

TRM

Invoice:

5 bottles of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM-1	TRM-2	TRM-3	TRM-4
U-238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U-234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th-230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra-226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb-210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->07

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in FL	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID (LAB USE)
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking (LAB USE / SMO USE)
Date Entered (mm/dd/yy)
Entered by

QC Limits

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized rad materials being sent to GEL on behalf of Hank Mintzer
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry		DEP	Weston / 7577 / 845-0867

1. Relinquished by	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date	
1. Received by	Org.	Date	Time	4. Received by	Org.	Date	
2. Relinquished by	Org.	Date	Time	5. Relinquished by	Org.	Date	
2. Received by	Org.	Date	Time	5. Received by	Org.	Date	
3. Relinquished by	Org.	Date	Time	6. Relinquished by	Org.	Date	
3. Received by	Org.	Date	Time	6. Received by	Org.	Date	

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
Scott L. Dodd 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped 11-16-99 SMO USE
Carrier/Waybill No. 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location Tech Area VI
Building N/A Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

QC limits

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL on behalf of Hank Mistaer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry		DEP	Weston / 7577 / 845-0867

1. Relinquished by	Org.	Date	Time	4. Relinquished by	Org.	Date	
1. Received by	Org.	Date	Time	4. Received by	Org.	Date	
2. Relinquished by	Org.	Date	Time	5. Relinquished by	Org.	Date	
2. Received by	Org.	Date	Time	5. Received by	Org.	Date	
3. Relinquished by	Org.	Date	Time	6. Relinquished by	Org.	Date	
3. Received by	Org.	Date	Time	6. Received by	Org.	Date	

1. Relinquished by: Org. 777 Date 11-16-99 Time 0900

Original To Accompany Samples, Laboratory Copy (White) | 1st Copy To Accompany Samples, Return to SMO (Blue) | 2nd Copy SMO Suspense Copy (Yellow) | 3rd Copy Field Copy (Pink)

0934

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 • U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

72858-278

Th-229 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Th-229
ACTIVITY (dps):	3.842 E3
HALF-LIFE:	7340 years
CALIBRATION DATE:	May 2, 2006 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	3.5%

Impurities: Th-228 5.7 dps
Th-230 24 dps
Th-232 1.5 dps

5.05657 grams 0.5M HNO_3 solution.

P O NUMBER 2724RD, Item 1

SOURCE PREPARED BY: M Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 05-02-2006

RECEIVED 5/5/06 MLK

RCS-041-110

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0934
Prepared By:	Daniel Roy
Carrier Conc:	0.05M HNO3
Reference Date:	05/02/2006
Ampoule Mass (g):	5.05657 g
Uncertainty:	+/- 3.5 %
LogBook No:	RC-S-041-110

A Solution Material Info	
Isotope:	Thorium-229
Prepared By:	Daniel Roy
Prep Date:	04/23/2008
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	0934-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8973 g
Density(g/mL):	1.0143
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8973 g) * (3842 dps) * (60 dpm/dps) / (5.05657 g * 100 mL) = 2232.5917 dpm/mL
(4.8973 g) * (3842 dps) * (60 dpm/dps) / (1.0143 g/mL)/ (5.05657 g * 100 mL) = 2201.0332 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
04/23/2008	Daniel Roy	2.5898	250	0934-B	22.8009 dpm/ml	04/23/2008	04/23/2009
09/25/2008	Daniel Roy	2.6237	250	0934-C	23.0994 dpm/ml	09/25/2008	09/25/2009
12/16/2008	Daniel Roy	2.6547	250	0934-D	23.3723 dpm/ml	12/16/2008	12/16/2009
01/09/2009	Daniel Roy	2.5399	250	0934-E	22.3616 dpm/ml	01/09/2009	01/09/2010
04/03/2009	Mary Aders	2.5434	250	0934-F	22.3924 dpm/ml	04/03/2009	04/03/2010
04/22/2009	Mary Aders	2.5138	250	0934-G	22.1318 dpm/ml	04/28/2009	04/28/2010
07/31/2009	Mary Aders	2.579	250	0934-H	22.7059 dpm/mL	07/31/2009	07/31/2010
09/16/2009	Mary Aders	2.5029	250	0934-I	22.0359 dpm/mL	09/16/2009	09/16/2010
10/21/2009	Mary Aders	2.4847	250	0934-J	21.8756 dpm/mL	10/21/2009	10/21/2010
12/02/2009	Ashley Drochter	5.0356	500	0934-K	22.167 dpm/mL	12/02/2009	12/02/2010
03/09/2010	Ashley Drochter	5.0236	500	0934-L	22.1142 dpm/mL	03/09/2010	03/09/2011

Verification for Th-229 Standard 0934-L

A.DROCHTER	Isotope	Value	Uncertainty
3/15/2010	0934-L	0.958	0.1630
	0934-L	1.020	0.2040
	0934-L	0.978	0.1550

Mean Value (Counting) =	0.985	98.95	**Pass**
Stdev =	0.031643851		**Rule 3 (Pass/Fail)**

Target =	0.996
Lower Limit =	0.92204563
Upper Limit =	1.048621036
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.063287703
10 % of Mean =	0.098533333
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard 0934-L using 0.1 mL for each source. Each standard was combined with 0.1 mL of Th-230 standard A2796-J and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Two mL of 49% HF was added to precipitate neodymium(and Thorium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Th-229 were calculated by comparison to Th-230 certified values.

3/18/10

3/18/10

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Khan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	03/09/2010
Expiration Date:	03/09/2011
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Tara Sides	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/14/2009	09/14/2010
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/09/2010	Ashley Drochter	.011	1000	445-96-2-VV	22.7878 dpm/mL	03/09/2010	03/09/2011
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
03/23/2010	Ashley Drochter	.0163	1000	445-96-2-WW	33.7674 dpm/mL	03/23/2010	03/23/2011
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-VV*

A.Drochter 3/15/2010	Isotope	Value	Uncertainty
	445-96-2-VV #1	1.040	0.1630
	445-96-2-VV #2	0.964	0.1480
	445-96-2-VV #3	0.970	0.1550
Mean Value (Counting) =	0.991	96.72	**Pass**
Stdev =	0.042253205		**Rule 3 (Pass/Fail)**
Target =	1.025		
Lower Limit =	0.906826923		
Upper Limit =	1.075839743		
Rule 1 Pass/Fail	**Pass**		
Two sigma =	0.08450641		
10 % of Mean =	0.099133333		
Rule 2 (Pass/Fail)	**Pass**		

The analyst prepared three standard verification sources for standard ***445-96-2-VV*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

3/15/10

3/16/10

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

RECEIVED 12/15/08
RC-S-05

End of Certificate

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	Serial #	Value		Uncertainty	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

Calculation AMS 12/14/09

1430

NATIONAL PHYSICAL LABORATORY

Teddington Middlesex UK TW11 0LW Telephone +44 20 8977 3222

Certificate of Calibration

UKAS CALIBRATION 0478

PLUTONIUM-236 SOLUTION
R37-02

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

FOR:	GEL Laboratories LLC 2040 Savage Road Charleston, SC 29407 USA
FOR THE ATTENTION OF:	Mr Tim Winters
NPL PRODUCT CODE:	R37-02
IDENTIFICATION:	A09881
DESCRIPTION:	An aqueous solution of ^{236}Pu also containing 2 mol dm^{-3} of nitric acid. The solution is contained in a flame sealed ampoule of type Q and nominal volume 5 ml (squat) as defined in BS 795:1983.
DATE(S) OF CALIBRATION:	26 June 2009 to 1 July 2009
INTENDED USE:	Calibration of instruments for response to ^{236}Pu
STORAGE:	The material may be stored at room temperature in a suitably sealed container. Flame-sealed glass ampoules are recommended for long-term storage. Regulatory conditions may apply to the manner in which this material is stored.

RECEIVED 11 JUL AM.

MEASUREMENTS

The samples were prepared by gravimetric dilution of a ^{236}Pu solution, which had been previously standardised using liquid scintillation counting. The accuracy of the dilution factor was checked using liquid scintillation counting.

Reference: 2009100356

Date of Issue: 4 November 2009

Checked by:

Signed:

Name: Dr Arvic Harms

(Authorised Signatory)

for Managing Director

RESULTS

Principal radionuclide:	^{236}Pu
Reference time:	2009-07-01 12:00 UTC
Activity concentration of principal radionuclide:	170.8 Bq g^{-1}
Expanded uncertainty:	±0.6 Bq g^{-1} (±0.36 %)
Contaminants present:	^{226}Ra, ^{232}U, ^{228}Th, ^{237}Np
Activity concentration of ^{226}Ra:	11.0 mBq g^{-1}
Expanded uncertainty:	±4.0 mBq g^{-1} (±36 %)
Activity concentration of ^{232}U:	0.67 Bq g^{-1}
Expanded uncertainty:	±0.12 Bq g^{-1} (±18 %)
Activity concentration of ^{228}Th:	11.38 mBq g^{-1}
Expanded uncertainty:	±0.46 mBq g^{-1} (±4 %)
Activity concentration of ^{237}Np:	5.00 mBq g^{-1}
Expanded uncertainty:	±0.34 mBq g^{-1} (±8 %)
Sample Mass:	4.97 g ± 0.02 g

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

NOTES

[1]. The reported reference time is stated consistent with the format given in ISO 8601:2004. UTC is the abbreviation for Universal Time, Coordinated. The date is stated in the format YYYY-MM-DD such that 2008-09-01 represents 1 September 2008.

[2]. The recommended half life of ^{236}Pu is 1044 (6) days and is taken from the evaluations published in *Nuclear Data Sheets*.

[3]. The recommended half life of ^{226}Ra is 5.844 (50) × 10^5 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[4]. The recommended half life of ^{232}U is 25800 (800) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[5]. The recommended half life of ^{237}Np is 7.83 (6) × 10^8 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[6]. The recommended half life of ^{228}Th is 698.60 (46) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1430
Prepared By:	Ashley Drochter
Carrier Conc:	2 M HNO3
Reference Date:	07/01/2009
Ampoule Mass (g):	4.97 g
Uncertainty:	+/- .36 %
LogBook No:	RC-S-051-149

A Solution Material Info	
Isotope:	Plutonium-236
Prepared By:	Ashley Drochter
Prep Date:	01/27/2010
Verification Date:	01/27/2010
Expiration Date:	01/27/2011
Primary Code:	1430-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8051 g
Density(g/mL):	1.0610
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (100 mL) = 492.4266 dpm/mL
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (1.0610 g/mL) / (100 mL) = 464.1156 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/27/2010	Bethany Fiem	33.0429	200	1430-B	76.6786262 dpm/mL	01/27/2010	01/27/2011
03/04/2010	Ashley Drochter	15.2331	200	1430-C	35.3496 dpm/mL	03/04/2010	03/04/2011
03/17/2010	Ashley Drochter	15.0683	200	1430-D	34.9672 dpm/mL	03/17/2010	03/17/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-236 Standard 1430-C

	Isotope	Value	Uncertainty
A. Drochter	1430-C	2.760	0.4480
3/4/2010	1430-C	2.770	0.4520
	1430-C	2.950	0.4850
Mean Value (Counting) =	2.827	104.54659	% of Known Value
Stdev =	0.106926766		
Target =	2.70		
Lower Limit =	2.612813134		
Upper Limit =	3.040520199		
Rule 1 Pass/Fail	Pass	Pass	Pass
Two sigma =	0.213853532		
10 % of Mean =	0.282666667		
Rule 2 (Pass/Fail)	Pass		

The analyst prepared three standard verification sources for standard 1430-B using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. After approximately ten minutes, two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-236 were calculated by comparison to Pu-239 certified values.

3/5/10

3/5/10

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 962633**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248860001	SAMPLE	MXR1	GAM15	24-MAR-10 16:15	DONE	CAN	03-FEB-10 00:00
248860002	SAMPLE	MXR1	GAM18	24-MAR-10 16:15	DONE	CAN	23-APR-09 00:00
248860003	SAMPLE	MXR1	GAM22	24-MAR-10 16:15	DONE	CAN	02-DEC-09 00:00
248860004	SAMPLE	MXR1	GAM23	24-MAR-10 16:16	DONE	CAN	02-JUN-09 00:00
248860005	SAMPLE	MXR1	GAM25	24-MAR-10 16:16	DONE	CAN	07-OCT-09 00:00
248860006	SAMPLE	MXR1	GAM02	24-MAR-10 16:27	DONE	CAN	29-OCT-09 00:00
248860007	SAMPLE	MXR1	GAM05	24-MAR-10 16:27	DONE	CAN	11-JUN-09 00:00
248860008	SAMPLE	MXR1	GAM10	24-MAR-10 16:28	DONE	CAN	13-MAR-10 00:00
248860009	SAMPLE	MXR1	GAM12	24-MAR-10 16:28	DONE	CAN	25-FEB-10 00:00
248863001	SAMPLE	MXR1	GAM15	24-MAR-10 18:28	DONE	CAN	03-FEB-10 00:00
248863002	SAMPLE	MXR1	GAM22	24-MAR-10 18:28	DONE	CAN	02-DEC-09 00:00
248863003	SAMPLE	MXR1	GAM23	24-MAR-10 18:29	DONE	CAN	02-JUN-09 00:00
248863004	SAMPLE	MXR1	GAM04	24-MAR-10 20:31	DONE	CAN	05-MAY-09 00:00
248865001	SAMPLE	MXR1	GAM07	24-MAR-10 20:31	DONE	CAN	20-JUL-09 00:00
248866001	SAMPLE	MXR1	GAM15	24-MAR-10 20:32	DONE	CAN	03-FEB-10 00:00
248866002	SAMPLE	MXR1	GAM17	24-MAR-10 20:32	DONE	CAN	06-JAN-10 00:00
248867001	SAMPLE	MXR1	GAM29	24-MAR-10 20:33	DONE	CAN	23-FEB-10 00:00
248867002	SAMPLE	MXR1	GAM22	24-MAR-10 20:37	DONE	CAN	02-DEC-09 00:00
248867003	SAMPLE	MXR1	GAM05	24-MAR-10 20:51	DONE	CAN	11-JUN-09 00:00
248867004	SAMPLE	MXR1	GAM15	24-MAR-10 22:58	DONE	CAN	03-FEB-10 00:00
1202065188	MB	MXR1	GAM29	24-MAR-10 22:59	DONE	CAN	23-FEB-10 00:00
1202065189	DUP	MXR1	GAM21	24-MAR-10 23:00	DONE	CAN	28-JUL-09 00:00
1202065190	LCS	MXR1	GAM22	25-MAR-10 09:16	DONE	CAN	02-DEC-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965811**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248824001	SAMPLE	AYB1	1231	29-MAR-10 12:01	DONE		
248824002	SAMPLE	AYB1	1232	29-MAR-10 12:01	DONE		
248860001	SAMPLE	AYB1	1233	29-MAR-10 12:01	DONE		
248860002	SAMPLE	AYB1	1234	29-MAR-10 12:01	DONE		
248867003	SAMPLE	AYB1	1235	29-MAR-10 21:46	DONE		
248867004	SAMPLE	AYB1	1236	29-MAR-10 21:46	DONE		
1202072522	MB	AYB1	1237	29-MAR-10 21:46	DONE		
1202072523	DUP	AYB1	1238	29-MAR-10 21:46	DONE		
1202072524	LCS	AYB1	1239	29-MAR-10 21:46	DONE		
248860003	SAMPLE	AYB1	1240	29-MAR-10 21:47	DONE		
248860004	SAMPLE	AYB1	1241	29-MAR-10 21:47	DONE		
248860005	SAMPLE	AYB1	1242	29-MAR-10 21:47	DONE		
248860006	SAMPLE	AYB1	1243	29-MAR-10 21:47	DONE		
248860007	SAMPLE	AYB1	1244	29-MAR-10 21:47	DONE		
248860008	SAMPLE	AYB1	1245	29-MAR-10 21:47	DONE		
248860009	SAMPLE	AYB1	1246	29-MAR-10 21:47	DONE		
248867001	SAMPLE	AYB1	1247	29-MAR-10 21:47	DONE		
248867002	SAMPLE	AYB1	1248	29-MAR-10 21:47	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965813**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248824001	SAMPLE	AYB1	1086	27-MAR-10 13:40	DONE		
248824002	SAMPLE	AYB1	1087	27-MAR-10 13:40	DONE		
248860001	SAMPLE	AYB1	1088	27-MAR-10 13:40	DONE		
248860007	SAMPLE	AYB1	1013	29-MAR-10 09:33	DONE		
248860008	SAMPLE	AYB1	1014	29-MAR-10 09:33	DONE		
248860009	SAMPLE	AYB1	1016	29-MAR-10 09:33	DONE		
248867001	SAMPLE	AYB1	1017	29-MAR-10 09:33	DONE		
248867002	SAMPLE	AYB1	1018	29-MAR-10 09:33	DONE		
248867003	SAMPLE	AYB1	1019	29-MAR-10 09:33	DONE		
248867004	SAMPLE	AYB1	1020	29-MAR-10 09:33	DONE		
1202072525	MB	AYB1	1022	29-MAR-10 09:33	DONE		
1202072526	DUP	AYB1	1023	29-MAR-10 09:33	DONE		
1202072527	LCS	AYB1	1024	29-MAR-10 09:33	DONE		
248860002	SAMPLE	AYB1	1025	29-MAR-10 09:33	DONE		
248860003	SAMPLE	AYB1	1026	29-MAR-10 09:33	DONE		
248860004	SAMPLE	AYB1	1027	29-MAR-10 09:33	DONE		
248860005	SAMPLE	AYB1	1028	29-MAR-10 09:33	DONE		
248860006	SAMPLE	AYB1	1030	29-MAR-10 09:33	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965814**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248824001	SAMPLE	AYB1	1173	27-MAR-10 13:52	DUSE		
248824002	SAMPLE	AYB1	1174	27-MAR-10 13:52	DUSE		
248863001	SAMPLE	AYB1	1177	27-MAR-10 13:52	DUSE		
248863002	SAMPLE	AYB1	1178	27-MAR-10 13:52	DUSE		
248863003	SAMPLE	AYB1	1179	27-MAR-10 13:52	DUSE		
248863004	SAMPLE	AYB1	1180	27-MAR-10 13:52	DUSE		
248865001	SAMPLE	AYB1	1181	27-MAR-10 13:52	DUSE		
248867001	SAMPLE	AYB1	1182	27-MAR-10 13:52	DUSE		
248867002	SAMPLE	AYB1	1183	27-MAR-10 13:52	DUSE		
248867003	SAMPLE	AYB1	1184	27-MAR-10 13:52	DUSE		
248867004	SAMPLE	AYB1	1185	27-MAR-10 13:52	DUSE		
249179001	SAMPLE	AYB1	1186	27-MAR-10 13:52	DUSE		
249179002	SAMPLE	AYB1	1187	27-MAR-10 13:53	DUSE		
249179003	SAMPLE	AYB1	1188	27-MAR-10 13:53	DUSE		
249179004	SAMPLE	AYB1	1189	27-MAR-10 13:53	DUSE		
249179005	SAMPLE	AYB1	1190	27-MAR-10 13:53	DUSE		
249179006	SAMPLE	AYB1	1191	27-MAR-10 13:53	DUSE		
249179007	SAMPLE	AYB1	1192	27-MAR-10 13:53	DUSE		
1202072528	MB	AYB1	1193	27-MAR-10 13:53	DUSE		
1202072529	DUP	AYB1	1194	27-MAR-10 13:53	DUSE		
1202072530	LCS	AYB1	1195	27-MAR-10 13:53	DUSE		
248824001	SAMPLE	AYB1	1173	29-MAR-10 17:05	DONE		
248824002	SAMPLE	AYB1	1174	29-MAR-10 17:05	DONE		
248863001	SAMPLE	AYB1	1177	29-MAR-10 17:05	DONE		
248863002	SAMPLE	AYB1	1178	29-MAR-10 17:05	DONE		
248863003	SAMPLE	AYB1	1179	29-MAR-10 17:05	DONE		
248863004	SAMPLE	AYB1	1180	29-MAR-10 17:05	DONE		
248865001	SAMPLE	AYB1	1181	29-MAR-10 17:05	DONE		
248867001	SAMPLE	AYB1	1182	29-MAR-10 17:05	DONE		
248867002	SAMPLE	AYB1	1183	29-MAR-10 17:05	DONE		
248867003	SAMPLE	AYB1	1184	29-MAR-10 17:05	DONE		
248867004	SAMPLE	AYB1	1185	29-MAR-10 17:05	DONE		
249179001	SAMPLE	AYB1	1186	29-MAR-10 17:05	DONE		
249179002	SAMPLE	AYB1	1187	29-MAR-10 17:05	DONE		
249179003	SAMPLE	AYB1	1188	29-MAR-10 17:05	DONE		
249179004	SAMPLE	AYB1	1189	29-MAR-10 17:05	DONE		
249179005	SAMPLE	AYB1	1190	29-MAR-10 17:06	DONE		
249179006	SAMPLE	AYB1	1191	29-MAR-10 17:06	DONE		
249179007	SAMPLE	AYB1	1192	29-MAR-10 17:06	DONE		
1202072528	MB	AYB1	1193	29-MAR-10 17:06	DONE		
1202072529	DUP	AYB1	1194	29-MAR-10 17:06	DONE		
1202072530	LCS	AYB1	1195	29-MAR-10 17:06	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 971197**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248860009	SAMPLE	AYB1	1115	02-APR-10 11:37	DONE		
248867001	SAMPLE	AYB1	1116	02-APR-10 11:37	DONE		
248867002	SAMPLE	AYB1	1126	02-APR-10 11:37	DONE		
248867003	SAMPLE	AYB1	1127	02-APR-10 11:37	DONE		
248867004	SAMPLE	AYB1	1128	02-APR-10 11:37	DONE		
1202085875	MB	AYB1	1129	02-APR-10 11:37	DONE		
1202085876	DUP	AYB1	1130	02-APR-10 11:37	DONE		
1202085877	LCS	AYB1	1131	02-APR-10 11:37	DONE		
248824001	SAMPLE	AYB1	1132	02-APR-10 11:37	DONE		
248824002	SAMPLE	AYB1	1135	02-APR-10 11:37	DONE		
248860001	SAMPLE	AYB1	1136	02-APR-10 11:37	DONE		
248860004	SAMPLE	AYB1	1139	02-APR-10 11:37	DONE		
248860005	SAMPLE	AYB1	1140	02-APR-10 11:37	DONE		
248860006	SAMPLE	AYB1	1141	02-APR-10 11:38	DONE		
248860007	SAMPLE	AYB1	1142	02-APR-10 11:38	DONE		
248860008	SAMPLE	AYB1	1143	02-APR-10 11:38	DONE		
248860002	SAMPLE	AYB1	1001	03-APR-10 16:18	DONE		
248860003	SAMPLE	AYB1	1002	03-APR-10 16:18	DONE		

Friday, March 05, 2010

REQUEST NUMBER: 10-2319

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2319
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/5/2010
TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	EPA:901.1	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	HASL-300:AM-241	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	HASL-300:ISOPU	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	HASL-300:ISOU	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	

Friday, March 05, 2010 REQUEST NUMBER: 10-2319

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	SW-846:6850	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	SW-846:7471A	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	SW-846:8082	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	SW-846:8260B	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
		1	RE46-10-14017	S	3/4/2010	
	SW-846:8270C	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	SW-846:9012A	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	

Final Page of REQUEST NUMBER 10-2319

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2319C

REQUEST NUMBER: 10-2319

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-11885	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-11885	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-11885	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-11886	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-11886	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-11886	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-11885	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-11886	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-14017	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
	3/5/10	3:00			
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2604 **EVENT NAME:** SWMU 46-008, 46-003(f), 46-006(b)

SAMPLE ID: RE46-10-11885 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-4-10 ~~2/4/10~~	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		0855	SUB-MEDIA:	SOIL	OK
PRS ID:	46-003(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611364	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3 ft	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: BOREHOLE DIRECTION:

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		Met+NO3+CL04+ CN	1 LITER POLY	Ice	Y	

SAMPLE DESC: Sand/gravel from leach field, brn (7.5YR 4/3) v. moist to tuff @ 3.5ft, pinkish-gray (7.5YR 6/3), sl. moist, no odor

SAMPLE COMMENTS: Base of distribution box or soil tuff interface; Hit gravel fill @ 3' and it continued to cave in during sampling effort

LOCATION DESC: 3f-6

FIELD SCREENING/MEASUREMENT RESULTS: BACKGROUND samples < MDA

PID: NA

α: 6 DPM

β: 755

COLLECTED BY (PRINT) ~~M. Shendo~~ J. Jack REVIEWED BY (PRINT) M. Nowak

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
JJ 3-4-10 (Printed Name) (Signature)	3-4-10 1745	Sherri Sherwood (Printed Name) Sherri Sherwood (Signature)	3-4-10 1745
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2604 **EVENT NAME:** SWMU 46-008, 46-003(f), 46-006(b)

SAMPLE ID: RE46-10-11886 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-4-10 ~~2/4/10~~ mm 2/4/10	MEDIA:	ALLH	RBT3 ok
TIME COLLECTED (HH:MM)		0910	SUB-MEDIA:	SOIL	ok
PRS ID:	46-003(f)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611364	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	8.5	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	9.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	~~S~~ R JJ 3-4-10		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		Met+NO3+CL04+CN	~~1 LITER~~ POLY 500 ml 3-4-10	Ice	Y	

SAMPLE DESC: tuff, Pinkish gray (7.5YR 6/3) sl. moist, no odor

SAMPLE COMMENTS: 5' below ~~base of tank~~ soil tuff interface

LOCATION DESC: 3f - 6

FIELD SCREENING/MEASUREMENT RESULTS: BACKGROUND Samples < MDA
PID = NA
a: 6 DPM
B: 755

COLLECTED BY (PRINT) ~~M. Shenda~~ J. Jurd **REVIEWED BY (PRINT)** M. Nunk

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
JJ 3-4-10 (Printed Name) (Signature)	3-4-10 1745	Sherri Sherwood (Printed Name) Sherri Sherwood (Signature)	3-4-10 1745
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Los Alamos National Laboratory

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2604 **EVENT NAME:** SWMU 46-008, 46-003(f), 46-006(b)

SAMPLE ID: RE46-10-14017 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-4-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		0855	SUB-MEDIA:	SOIL	
PRS ID:	46-003(f)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK 46-611364	OK	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	3 ft	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	~~1~~ SJS 3-4-10	4 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: BOREHOLE DIRECTION:

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-11885

SAMPLE COMMENTS: ~~6b-3~~ SJS 3-4-10

LOCATION DESC: 3F-6

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) J. Jordan **REVIEWED BY (PRINT)** N. Naule

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Jordan	3-4-10	(Printed Name)	3-4-10
(Signature)	1745	(Signature)	1745
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2319 VALIDATION DATE: 05/27/2010 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Mary Donivan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): GC/MS VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV or CCV %Ds were >20% for acetone, methylene chloride and carbon disulfide. The acetone result for sample RE46-10-11886 was a detect and, thus, was qualified J,V7c. All other associated sample results were NDs and, thus, were qualified UJ,V7c.
2. It should be noted that the parent sample for the MS/MSD was a LANL sample from another RN and that trichlorotrifluoroethane was not in the MS/MSD spiking solution. The analysis of an MS/MSD is not required for VOCs and, thus, no sample results were qualified.

Reviewed by: ETM Level: 1 Date: 6/1/10

VALIDATOR'S SIGNATURE: Mary A. Donivan DATE: 05/27/2010

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☐	☒	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2319	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248866001	**Date Received:**	03/06/2010 09:15	**%Moisture:**	3.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-11885	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965481	**Inst:**	VOA3.I	**Dilution:**	1
Run Date:	03/15/2010 19:45	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/15/2010 17:16	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031510V3\3D116.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.04	ug/kg	0.354	1.04	
74-87-3	Chloromethane	U	1.04	ug/kg	0.312	1.04	
75-01-4	Vinyl chloride	U	1.04	ug/kg	0.312	1.04	
74-83-9	Bromomethane	U	1.04	ug/kg	0.312	1.04	
75-00-3	Chloroethane	U	1.04	ug/kg	0.312	1.04	
75-69-4	Trichlorofluoromethane	U	1.04	ug/kg	0.312	1.04	
67-64-1	Acetone	U	5.20	ug/kg	1.73	5.20	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.04	ug/kg	0.312	1.04	
74-88-4	Iodomethane	U	5.20	ug/kg	1.66	5.20	
75-09-2	Methylene chloride	U	5.20	ug/kg	2.08	5.20	UJ,V7c
75-15-0	Carbon disulfide	U	5.20	ug/kg	1.30	5.20	UJ,V7c
156-60-5	trans-1,2-Dichloroethylene	U	1.04	ug/kg	0.312	1.04	
75-34-3	1,1-Dichloroethane	U	1.04	ug/kg	0.312	1.04	
78-93-3	2-Butanone	U	5.20	ug/kg	1.56	5.20	
156-59-2	cis-1,2-Dichloroethylene	U	1.04	ug/kg	0.312	1.04	
594-20-7	2,2-Dichloropropane	U	1.04	ug/kg	0.312	1.04	
67-66-3	Chloroform	U	1.04	ug/kg	0.312	1.04	
74-97-5	Bromochloromethane	U	1.04	ug/kg	0.343	1.04	
71-55-6	1,1,1-Trichloroethane	U	1.04	ug/kg	0.312	1.04	
563-58-6	1,1-Dichloropropene	U	1.04	ug/kg	0.312	1.04	
56-23-5	Carbon tetrachloride	U	1.04	ug/kg	0.312	1.04	
107-06-2	1,2-Dichloroethane	U	1.04	ug/kg	0.312	1.04	
71-43-2	Benzene	U	1.04	ug/kg	0.312	1.04	
79-01-6	Trichloroethylene	U	1.04	ug/kg	0.343	1.04	
78-87-5	1,2-Dichloropropane	U	1.04	ug/kg	0.312	1.04	
75-27-4	Bromodichloromethane	U	1.04	ug/kg	0.312	1.04	
74-95-3	Dibromomethane	U	1.04	ug/kg	0.312	1.04	
108-10-1	4-Methyl-2-pentanone	U	5.20	ug/kg	1.30	5.20	
10061-01-5	cis-1,3-Dichloropropylene	U	1.04	ug/kg	0.312	1.04	
108-88-3	Toluene	U	1.04	ug/kg	0.312	1.04	
10061-02-6	trans-1,3-Dichloropropylene	U	1.04	ug/kg	0.312	1.04	
79-00-5	1,1,2-Trichloroethane	U	1.04	ug/kg	0.312	1.04	
591-78-6	2-Hexanone	U	5.20	ug/kg	1.56	5.20	
142-28-9	1,3-Dichloropropane	U	1.04	ug/kg	0.312	1.04	
127-18-4	Tetrachloroethylene	U	1.04	ug/kg	0.312	1.04	
124-48-1	Dibromochloromethane	U	1.04	ug/kg	0.312	1.04	
106-93-4	1,2-Dibromoethane	U	1.04	ug/kg	0.312	1.04	
108-90-7	Chlorobenzene	U	1.04	ug/kg	0.312	1.04	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2319	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248866001	**Date Received:**	03/06/2010 09:15	**%Moisture:**	3.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-11885	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965481	**Inst:**	VOA3.I	**Dilution:**	1
Run Date:	03/15/2010 19:45	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/15/2010 17:16	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031510V3\3D116.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.04	ug/kg	0.312	1.04
179601-23-1	m,p-Xylenes	U	2.08	ug/kg	0.312	2.08
95-47-6	o-Xylene	U	1.04	ug/kg	0.312	1.04
100-42-5	Styrene	U	1.04	ug/kg	0.312	1.04
75-25-2	Bromoform	U	1.04	ug/kg	0.312	1.04
79-34-5	1,1,2,2-Tetrachloroethane	U	1.04	ug/kg	0.312	1.04
96-18-4	1,2,3-Trichloropropane	U	1.04	ug/kg	0.312	1.04
108-86-1	Bromobenzene	U	1.04	ug/kg	0.312	1.04
103-65-1	n-Propylbenzene	U	1.04	ug/kg	0.312	1.04
95-49-8	2-Chlorotoluene	U	1.04	ug/kg	0.312	1.04
98-82-8	Isopropylbenzene	U	1.04	ug/kg	0.312	1.04
108-67-8	1,3,5-Trimethylbenzene	U	1.04	ug/kg	0.312	1.04
106-43-4	4-Chlorotoluene	U	1.04	ug/kg	0.312	1.04
98-06-6	tert-Butylbenzene	U	1.04	ug/kg	0.312	1.04
95-63-6	1,2,4-Trimethylbenzene	U	1.04	ug/kg	0.312	1.04
135-98-8	sec-Butylbenzene	U	1.04	ug/kg	0.312	1.04
99-87-6	4-Isopropyltoluene	U	1.04	ug/kg	0.312	1.04
541-73-1	1,3-Dichlorobenzene	U	1.04	ug/kg	0.312	1.04
106-46-7	1,4-Dichlorobenzene	U	1.04	ug/kg	0.312	1.04
104-51-8	n-Butylbenzene	U	1.04	ug/kg	0.312	1.04
96-12-8	1,2-Dibromo-3-chloropropane	U	1.04	ug/kg	0.312	1.04
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.20	ug/kg	1.66	5.20
630-20-6	1,1,1,2-Tetrachloroethane	U	1.04	ug/kg	0.312	1.04
95-50-1	1,2-Dichlorobenzene	U	1.04	ug/kg	0.312	1.04

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

MAD
05/27/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2319	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248866002	**Date Received:**	03/06/2010 09:15	**%Moisture:**	4.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-11886	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965481	**Inst:**	VOA3.I	**Dilution:**	1
Run Date:	03/15/2010 20:14	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/15/2010 17:18	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031510V3\3D117.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.357	1.05	
74-87-3	Chloromethane	U	1.05	ug/kg	0.315	1.05	
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.315	1.05	
74-83-9	Bromomethane	U	1.05	ug/kg	0.315	1.05	
75-00-3	Chloroethane	U	1.05	ug/kg	0.315	1.05	
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.315	1.05	
67-64-1	Acetone		7.86	ug/kg	1.74	5.25	J,V7c
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.315	1.05	
74-88-4	Iodomethane	U	5.25	ug/kg	1.68	5.25	
75-09-2	Methylene chloride	U	5.25	ug/kg	2.10	5.25	UJ,V7c
75-15-0	Carbon disulfide	U	5.25	ug/kg	1.31	5.25	UJ,V7c
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05	
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.315	1.05	
78-93-3	2-Butanone	U	5.25	ug/kg	1.58	5.25	
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05	
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05	
67-66-3	Chloroform	U	1.05	ug/kg	0.315	1.05	
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.347	1.05	
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.315	1.05	
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.315	1.05	
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.315	1.05	
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.315	1.05	
71-43-2	Benzene	U	1.05	ug/kg	0.315	1.05	
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.347	1.05	
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05	
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.315	1.05	
74-95-3	Dibromomethane	U	1.05	ug/kg	0.315	1.05	
108-10-1	4-Methyl-2-pentanone	U	5.25	ug/kg	1.31	5.25	
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05	
108-88-3	Toluene	U	1.05	ug/kg	0.315	1.05	
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05	
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.315	1.05	
591-78-6	2-Hexanone	U	5.25	ug/kg	1.58	5.25	
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.315	1.05	
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.315	1.05	
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.315	1.05	
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.315	1.05	
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.315	1.05	

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2319	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248866002	**Date Received:**	03/06/2010 09:15	**%Moisture:**	4.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-11886	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965481	**Inst:**	VOA3.I	**Dilution:**	1
Run Date:	03/15/2010 20:14	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/15/2010 17:18	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031510V3\3D117.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.315	1.05
179601-23-1	m,p-Xylenes	U	2.10	ug/kg	0.315	2.10
95-47-6	o-Xylene	U	1.05	ug/kg	0.315	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.315	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.315	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.315	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.315	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.315	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.315	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.315	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.315	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.315	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.315	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.315	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.25	ug/kg	1.68	5.25
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

MAD

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2319	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248866003	**Date Received:**	03/06/2010 09:15		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-14017	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965481	**Inst:**	VOA3.I	**Dilution:**	1
Run Date:	03/15/2010 20:42	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/15/2010 17:20	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031510V3\3D118.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00	
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00	
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00	
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00	UJ,V7c
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00	UJ,V7c
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00	
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00	
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00	

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2319	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248866003	**Date Received:**	03/06/2010 09:15		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-14017	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965481	**Inst:**	VOA3.I	**Dilution:**	1
Run Date:	03/15/2010 20:42	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/15/2010 17:20	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031510V3\3D118.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

MAD

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2319 VALIDATION DATE: 05/27/2010 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Mary Donivan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☒ OTHER (DESCRIBE): GC/MS SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV or CCV %Ds were >20% for pyridine; benzyl alcohol; 2,4-dimethylphenol; hexachlorocyclopentadiene and 2-methyl-4,6-dinitrophenol. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The MSD %R and MS/MSD RPD did not meet laboratory acceptance criteria for benzyl alcohol. It should be noted that the parent sample for the MS/MSD was a LANL sample from another RN and that the raw data for the parent sample were not included in the data package. The analysis of an MS or MSD was not required for SVOCs and, thus, no sample data were qualified.

Reviewed by: ETM Level: 1 Date: 6/1/10

DATA VALIDATION COVER SHEET	
5115-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
VALIDATOR'S SIGNATURE: Mary A. Dominguez	DATE: 05/27/10
Form 5115-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2 Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☐	☒	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☐	☒	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2319	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248866001	**Date Received:**	03/06/2010 09:15	**%Moisture:**	3.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-11885	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 00:50	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s2c2531.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	347	ug/kg	69.4	347	
108-95-2	Phenol	U	347	ug/kg	69.4	347	
95-57-8	2-Chlorophenol	U	347	ug/kg	69.4	347	
106-46-7	1,4-Dichlorobenzene	U	347	ug/kg	69.4	347	
621-64-7	N-Nitrosodipropylamine	U	347	ug/kg	69.4	347	
59-50-7	4-Chloro-3-methylphenol	U	347	ug/kg	69.4	347	
83-32-9	Acenaphthene	U	34.7	ug/kg	11.4	34.7	
121-14-2	2,4-Dinitrotoluene	U	347	ug/kg	34.7	347	
100-02-7	4-Nitrophenol	U	347	ug/kg	114	347	
87-86-5	Pentachlorophenol	U	347	ug/kg	86.7	347	
129-00-0	Pyrene	U	34.7	ug/kg	10.4	34.7	
110-86-1	Pyridine	U	347	ug/kg	69.4	347	UJ,SV7c
62-53-3	Aniline	U	347	ug/kg	104	347	
111-44-4	bis(2-Chloroethyl) ether	U	347	ug/kg	69.4	347	
541-73-1	1,3-Dichlorobenzene	U	347	ug/kg	69.4	347	
100-51-6	Benzyl alcohol	U	347	ug/kg	104	347	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	347	ug/kg	69.4	347	
108-60-1	bis(2-Chloroisopropyl)ether	U	347	ug/kg	69.4	347	
95-48-7	o-Cresol	U	347	ug/kg	69.4	347	
65794-96-9	m,p-Cresols	U	347	ug/kg	104	347	
67-72-1	Hexachloroethane	U	347	ug/kg	69.4	347	
98-95-3	Nitrobenzene	U	347	ug/kg	69.4	347	
78-59-1	Isophorone	U	347	ug/kg	69.4	347	
88-75-5	2-Nitrophenol	U	347	ug/kg	69.4	347	
105-67-9	2,4-Dimethylphenol	U	347	ug/kg	121	347	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	347	ug/kg	69.4	347	
120-83-2	2,4-Dichlorophenol	U	347	ug/kg	69.4	347	
65-85-0	Benzoic acid	U	694	ug/kg	173	694	
91-20-3	Naphthalene	U	34.7	ug/kg	10.4	34.7	
106-47-8	4-Chloroaniline	U	347	ug/kg	69.4	347	
87-68-3	Hexachlorobutadiene	U	347	ug/kg	69.4	347	
91-57-6	2-Methylnaphthalene	U	34.7	ug/kg	6.94	34.7	
77-47-4	Hexachlorocyclopentadiene	U	347	ug/kg	69.4	347	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	347	ug/kg	69.4	347	
95-95-4	2,4,5-Trichlorophenol	U	347	ug/kg	69.4	347	
91-58-7	2-Chloronaphthalene	U	34.7	ug/kg	11.4	34.7	
88-74-4	2-Nitroaniline	U	347	ug/kg	69.4	347	
	o-Nitroaniline						
99-09-2	3-Nitroaniline	U	347	ug/kg	69.4	347	

MAD

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2319	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248866001	**Date Received:**	03/06/2010 09:15	**%Moisture:**	3.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-11885	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 00:50	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s2c2531.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	347	ug/kg	69.4	347	
606-20-2	2,6-Dinitrotoluene	U	347	ug/kg	34.7	347	
208-96-8	Acenaphthylene	U	34.7	ug/kg	10.4	34.7	
51-28-5	2,4-Dinitrophenol	U	694	ug/kg	132	694	
132-64-9	Dibenzofuran	U	347	ug/kg	69.4	347	
84-66-2	Diethylphthalate	U	347	ug/kg	69.4	347	
86-73-7	Fluorene	U	34.7	ug/kg	10.4	34.7	
7005-72-3	4-Chlorophenylphenylether	U	347	ug/kg	69.4	347	
534-52-1	2-Methyl-4,6-dinitrophenol	U	347	ug/kg	69.4	347	UJ,SV7c
100-01-6	4-Nitroaniline	U	347	ug/kg	104	347	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	347	ug/kg	69.4	347	
122-66-7	Azobenzene	U	347	ug/kg	69.4	347	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	347	ug/kg	69.4	347	
118-74-1	Hexachlorobenzene	U	347	ug/kg	69.4	347	
85-01-8	Phenanthrene	U	34.7	ug/kg	10.4	34.7	
120-12-7	Anthracene	U	34.7	ug/kg	6.94	34.7	
84-74-2	Di-n-butylphthalate	U	347	ug/kg	69.4	347	
206-44-0	Fluoranthene	U	34.7	ug/kg	10.4	34.7	
85-68-7	Butylbenzylphthalate	U	347	ug/kg	69.4	347	
56-55-3	Benzo(a)anthracene	U	34.7	ug/kg	10.4	34.7	
91-94-1	3,3'-Dichlorobenzidine	U	347	ug/kg	104	347	
218-01-9	Chrysene	U	34.7	ug/kg	10.4	34.7	
117-81-7	bis(2-Ethylhexyl)phthalate	U	347	ug/kg	69.4	347	
117-84-0	Di-n-octylphthalate	U	347	ug/kg	69.4	347	
205-99-2	Benzo(b)fluoranthene	U	34.7	ug/kg	10.4	34.7	
207-08-9	Benzo(k)fluoranthene	U	34.7	ug/kg	10.4	34.7	
50-32-8	Benzo(a)pyrene	U	34.7	ug/kg	10.4	34.7	
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.7	ug/kg	10.4	34.7	
53-70-3	Dibenzo(a,h)anthracene	U	34.7	ug/kg	10.4	34.7	
191-24-2	Benzo(ghi)perylene	U	34.7	ug/kg	10.4	34.7	
120-82-1	1,2,4-Trichlorobenzene	U	347	ug/kg	69.4	347	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	375	ug/kg		JA

MAD

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2319	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248866002	**Date Received:**	03/06/2010 09:15	**%Moisture:**	4.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-11886	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	965979	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/26/2010 01:10	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/17/2010 10:52	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s2c2532.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	350	ug/kg	70.0	350	
108-95-2	Phenol	U	350	ug/kg	70.0	350	
95-57-8	2-Chlorophenol	U	350	ug/kg	70.0	350	
106-46-7	1,4-Dichlorobenzene	U	350	ug/kg	70.0	350	
621-64-7	N-Nitrosodipropylamine	U	350	ug/kg	70.0	350	
59-50-7	4-Chloro-3-methylphenol	U	350	ug/kg	70.0	350	
83-32-9	Acenaphthene	U	35.0	ug/kg	11.6	35.0	
121-14-2	2,4-Dinitrotoluene	U	350	ug/kg	35.0	350	
100-02-7	4-Nitrophenol	U	350	ug/kg	116	350	
87-86-5	Pentachlorophenol	U	350	ug/kg	87.5	350	
129-00-0	Pyrene	U	35.0	ug/kg	10.5	35.0	
110-86-1	Pyridine	U	350	ug/kg	70.0	350	UJ,SV7c
62-53-3	Aniline	U	350	ug/kg	105	350	
111-44-4	bis(2-Chloroethyl) ether	U	350	ug/kg	70.0	350	
541-73-1	1,3-Dichlorobenzene	U	350	ug/kg	70.0	350	
100-51-6	Benzyl alcohol	U	350	ug/kg	105	350	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	350	ug/kg	70.0	350	
108-60-1	bis(2-Chloroisopropyl)ether	U	350	ug/kg	70.0	350	
95-48-7	o-Cresol	U	350	ug/kg	70.0	350	
65794-96-9	m,p-Cresols	U	350	ug/kg	105	350	
67-72-1	Hexachloroethane	U	350	ug/kg	70.0	350	
98-95-3	Nitrobenzene	U	350	ug/kg	70.0	350	
78-59-1	Isophorone	U	350	ug/kg	70.0	350	
88-75-5	2-Nitrophenol	U	350	ug/kg	70.0	350	
105-67-9	2,4-Dimethylphenol	U	350	ug/kg	123	350	UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	350	ug/kg	70.0	350	
120-83-2	2,4-Dichlorophenol	U	350	ug/kg	70.0	350	
65-85-0	Benzoic acid	U	700	ug/kg	175	700	
91-20-3	Naphthalene	U	35.0	ug/kg	10.5	35.0	
106-47-8	4-Chloroaniline	U	350	ug/kg	70.0	350	
87-68-3	Hexachlorobutadiene	U	350	ug/kg	70.0	350	
91-57-6	2-Methylnaphthalene	U	35.0	ug/kg	7.00	35.0	
77-47-4	Hexachlorocyclopentadiene	U	350	ug/kg	70.0	350	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	350	ug/kg	70.0	350	
95-95-4	2,4,5-Trichlorophenol	U	350	ug/kg	70.0	350	
91-58-7	2-Chloronaphthalene	U	35.0	ug/kg	11.6	35.0	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	350	ug/kg	70.0	350	
99-09-2	3-Nitroaniline	U	350	ug/kg	70.0	350	

MAD

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2319	Date Collected:	03/04/2010 12:00	Matrix:	S
Lab Sample ID:	248866002	Date Received:	03/06/2010 09:15	%Moisture:	4.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-11886	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	965979	Inst:	MSD2.I	Dilution:	1
Run Date:	03/26/2010 01:10	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/17/2010 10:52	Aliquot:	30 g	Final Volume:	1 mL
Data File:	s2c2532.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	350	ug/kg	70.0	350	
606-20-2	2,6-Dinitrotoluene	U	350	ug/kg	35.0	350	
208-96-8	Acenaphthylene	U	35.0	ug/kg	10.5	35.0	
51-28-5	2,4-Dinitrophenol	U	700	ug/kg	133	700	
132-64-9	Dibenzofuran	U	350	ug/kg	70.0	350	
84-66-2	Diethylphthalate	U	350	ug/kg	70.0	350	
86-73-7	Fluorene	U	35.0	ug/kg	10.5	35.0	
7005-72-3	4-Chlorophenylphenylether	U	350	ug/kg	70.0	350	
534-52-1	2-Methyl-4,6-dinitrophenol	U	350	ug/kg	70.0	350	UJ,SV7c
100-01-6	4-Nitroaniline	U	350	ug/kg	105	350	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	350	ug/kg	70.0	350	
122-66-7	Azobenzene	U	350	ug/kg	70.0	350	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	350	ug/kg	70.0	350	
118-74-1	Hexachlorobenzene	U	350	ug/kg	70.0	350	
85-01-8	Phenanthrene	U	35.0	ug/kg	10.5	35.0	
120-12-7	Anthracene	U	35.0	ug/kg	7.00	35.0	
84-74-2	Di-n-butylphthalate	U	350	ug/kg	70.0	350	
206-44-0	Fluoranthene	U	35.0	ug/kg	10.5	35.0	
85-68-7	Butylbenzylphthalate	U	350	ug/kg	70.0	350	
56-55-3	Benzo(a)anthracene	U	35.0	ug/kg	10.5	35.0	
91-94-1	3,3'-Dichlorobenzidine	U	350	ug/kg	105	350	
218-01-9	Chrysene	U	35.0	ug/kg	10.5	35.0	
117-81-7	bis(2-Ethylhexyl)phthalate	U	350	ug/kg	70.0	350	
117-84-0	Di-n-octylphthalate	U	350	ug/kg	70.0	350	
205-99-2	Benzo(b)fluoranthene	U	35.0	ug/kg	10.5	35.0	
207-08-9	Benzo(k)fluoranthene	U	35.0	ug/kg	10.5	35.0	
50-32-8	Benzo(a)pyrene	U	35.0	ug/kg	10.5	35.0	
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.0	ug/kg	10.5	35.0	
53-70-3	Dibenzo(a,h)anthracene	U	35.0	ug/kg	10.5	35.0	
191-24-2	Benzo(ghi)perylene	U	35.0	ug/kg	10.5	35.0	
120-82-1	1,2,4-Trichlorobenzene	U	350	ug/kg	70.0	350	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	311	ug/kg		JA

MAD

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2319 VALIDATION DATE: 05/27/2010 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Mary Donivan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS/MSD %R calculations were performed incorrectly. The parent sample result was < the MDL and, thus, a result of 0 ug/kg should have been used to calculate the %Rs. The laboratory subtracted the parent sample concentration. The %Rs were within the acceptance limits when calculated correctly. It should be noted that the parent sample for MS/MSD was a LANL sample from another RN and that the raw data for the parent sample were not included in the data package. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 6/1/10

VALIDATOR'S SIGNATURE: Mary N. Donivan DATE: 05/27/2010

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☐	☒	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☐	☒	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-11885

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2319

GEL Sample ID: 248866001

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 96.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.52	2.08	0.520	ug/kg	U	1	28-MAR-10 17:40	per0328028a
	Perchlorate Isotope Ratio						1	28-MAR-10 17:40	per0328028a
14797-73-0	Perchlorate-101	.52	2.08	0.520	ug/kg	U	1	28-MAR-10 17:40	per0328028a
	Perchlorate-O(18)			5.47	ug/kg		1	28-MAR-10 17:40	per0328028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-11886

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2319

GEL Sample ID: 248866002

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 95.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.525	2.1	0.525	ug/kg	U	1	28-MAR-10 17:49	per0328029a
	Perchlorate Isotope Ratio						1	28-MAR-10 17:49	per0328029a
14797-73-0	Perchlorate-101	.525	2.1	0.525	ug/kg	U	1	28-MAR-10 17:49	per0328029a
	Perchlorate-O(18)			5.09	ug/kg		1	28-MAR-10 17:49	per0328029a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2319 VALIDATION DATE: 05/27/2010 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Mary Donivan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the parent sample for the MS/MSD was a LANL sample from another RN and that the raw data for the parent sample were not included in the data package. The analysis of an MS/MSD is not required for PCBs and, thus, no sample results were qualified.

Reviewed by: ETM Level: 1 Date: 6/1/10

VALIDATOR'S SIGNATURE: Mary A. Donivan DATE: 05/27/2010

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2319	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248866001	**Date Received:**	03/06/2010 09:15	**%Moisture:**	3.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–11885	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967400	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/24/2010 00:03	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 11:11	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	081f8101.d	**Column:**	1 CLP1	**Level:**	LOW
	081b8101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.47	ug/kg	1.15	3.47	1
11104–28–2	Aroclor–1221	U	3.47	ug/kg	1.15	3.47	1
11141–16–5	Aroclor–1232	U	3.47	ug/kg	1.15	3.47	1
53469–21–9	Aroclor–1242	U	3.47	ug/kg	1.15	3.47	1
12672–29–6	Aroclor–1248	U	3.47	ug/kg	1.15	3.47	1
11097–69–1	Aroclor–1254	U	3.47	ug/kg	1.15	3.47	1
11096–82–5	Aroclor–1260	U	3.47	ug/kg	1.15	3.47	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2319	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248866002	**Date Received:**	03/06/2010 09:15	**%Moisture:**	4.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–11886	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967400	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/24/2010 00:16	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 11:11	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	082f8201.d	**Column:**	1 CLP1	**Level:**	LOW
	082b8201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.50	ug/kg	1.17	3.50	1
11104–28–2	Aroclor–1221	U	3.50	ug/kg	1.17	3.50	1
11141–16–5	Aroclor–1232	U	3.50	ug/kg	1.17	3.50	1
53469–21–9	Aroclor–1242	U	3.50	ug/kg	1.17	3.50	1
12672–29–6	Aroclor–1248	U	3.50	ug/kg	1.17	3.50	1
11097–69–1	Aroclor–1254	J	1.60	ug/kg	1.17	3.50	1
11096–82–5	Aroclor–1260	U	3.50	ug/kg	1.17	3.50	1

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2319 VALIDATION DATE: 05/27/2010 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Mary Donivan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the MB, K was detected. The K result for sample RE46-10-11886 was a detect >5X but ≤50X the MB concentration and, thus, was qualified J,I4a. The K result for the other sample was a detect >50X the MB concentration and, thus, was not qualified, based on professional judgment.
2. In the bracketing CCBs, K was detected. The associated sample results were detects >5X the greatest associated blank concentration and, thus, were not qualified.
3. The MS %Rs were > the laboratory UAL for Mg and K. The associated sample results were detects and, thus, were qualified J+,I6b. The MS %Rs were also > the laboratory UAL for Al, Fe and Mn. However, the associated parent sample concentrations were >4X the spike concentrations. Thus, the associated sample results were not qualified, based on professional judgment.
4. It should be noted that the matrix QC parent sample for the Hg analysis was a LANL sample from another RN. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 6/1/10

VALIDATOR'S SIGNATURE: Mary A. Donivan DATE: 05/27/2010

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2319 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248866001 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-11885 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 96.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429-90-5	Aluminum	3410000	ug/kg		6960	20500	20500	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-36-0	Antimony	1020	ug/kg	U	338	1020	1020	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-38-2	Arsenic	1360	ug/kg		206	1030	1030	2	MS	RMJ	05/06/10 04:27	100505-3	964018
7440-39-3	Barium	23200	ug/kg		102	512	512	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-41-7	Beryllium	336	ug/kg		20.6	103	103	2	MS	RMJ	05/06/10 04:27	100505-3	964018
7440-43-9	Cadmium	512	ug/kg	U	102	512	512	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-70-2	Calcium	661000	ug/kg		8190	25600	25600	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-47-3	Chromium	2550	ug/kg		154	512	512	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-48-4	Cobalt	1120	ug/kg		154	512	512	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-50-8	Copper	1950	ug/kg		307	1020	1020	1	P	HSC	04/05/10 12:52	040510-1	964016
7439-89-6	Iron	8330000	ug/kg		8190	25600	25600	1	P	HSC	04/05/10 12:52	040510-1	964016
7439-92-1	Lead	10900	ug/kg	*	256	1020	1020	1	P	HSC	04/05/10 12:52	040510-1	964016
7439-95-4	Magnesium J+,I6b	595000	ug/kg	N	8700	30700	30700	1	P	HSC	04/05/10 12:52	040510-1	964016
7439-96-5	Manganese	310000	ug/kg		205	1020	1020	1	P	HSC	04/05/10 12:52	040510-1	964016
7439-97-6	Mercury	90	ug/kg		4.07	12	12	1	AV	JXL1	03/24/10 11:18	032410S1-4	968185
7440-02-0	Nickel	1800	ug/kg		103	411	411	2	MS	RMJ	05/06/10 04:27	100505-3	964018
7440-09-7	Potassium J+,I6b	422000	ug/kg	N	6550	25600	25600	1	P	HSC	04/05/10 12:52	040510-1	964016
7782-49-2	Selenium	1030	ug/kg	U	514	1030	1030	2	MS	RMJ	05/06/10 04:27	100505-3	964018
7440-22-4	Silver	512	ug/kg	U	102	512	512	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-23-5	Sodium	108000	ug/kg		7170	25600	25600	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-28-0	Thallium	69.5	ug/kg	J	61.7	206	206	2	MS	RMJ	05/06/10 04:27	100505-3	964018
7440-62-2	Vanadium	6130	ug/kg		102	512	512	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-66-6	Zinc	19000	ug/kg		343	1040	1040	1	P	HSC	04/07/10 14:02	040710-2	972603

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964016	964015	SW846 3050B	0.508	g	50	mL	04/02/10	LYHI
964018	964017	SW846 3050B	0.506	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.522	g	30	mL	03/23/10	TXB3
972603	972602	SW846 3050B	0.5	g	50	mL	04/07/10	AXG2

MAD
05/27/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10 2319 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 248866002 BASIS: Dry Weight DATE COLLECTED 04 MAR 10

CLIENT ID: RE46 10 11886 LEVEL: Low DATE RECEIVED 06 MAR 10

MATRIX: SOIL %SOLIDS: 95.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytic Batch
7429 90 5	Aluminum	2000000	ug/kg		6870	20200	20200	1	P	HSC	04/05/10 13:08	040510 1	964016
7440 36 0	Antimony	1010	ug/kg	U	333	1010	1010	1	P	HSC	04/05/10 13:08	040510 1	964016
7440 38 2	Arsenic	1350	ug/kg		208	1040	1040	2	MS	RMJ	05/06/10 04:58	100505 3	964018
7440 39 3	Barium	8340	ug/kg		101	505	505	1	P	HSC	04/05/10 13:08	040510 1	964016
7440 41 7	Beryllium	381	ug/kg		20.8	104	104	2	MS	RMJ	05/06/10 04:58	100505 3	964018
7440 43 9	Cadmium	505	ug/kg	U	101	505	505	1	P	HSC	04/05/10 13:08	040510 1	964016
7440 70 2	Calcium	933000	ug/kg		8080	25200	25200	1	P	HSC	04/05/10 13:08	040510 1	964016
7440 47 3	Chromium	1850	ug/kg		151	505	505	1	P	HSC	04/05/10 13:08	040510 1	964016
7440 48 4	Cobalt	664	ug/kg		151	505	505	1	P	HSC	04/05/10 13:08	040510 1	964016
7440 50 8	Copper	2260	ug/kg		303	1010	1010	1	P	HSC	04/05/10 13:08	040510 1	964016
7439 89 6	Iron	8700000	ug/kg		8080	25200	25200	1	P	HSC	04/05/10 13:08	040510 1	964016
7439 92 1	Lead	43100	ug/kg	*	252	1010	1010	1	P	HSC	04/05/10 13:08	040510 1	964016
7439 95 4	Magnesium J+,I6b	460000	ug/kg	N	8580	30300	30300	1	P	HSC	04/05/10 13:08	040510 1	964016
7439 96 5	Manganese	284000	ug/kg		202	1010	1010	1	P	HSC	04/05/10 13:08	040510 1	964016
7439 97 6	Mercury	11.4	ug/kg	U	3.86	11.4	11.4	1	AV	JXL1	03/24/10 11:19	032410S1 4	968185
7440 02 0	Nickel	572	ug/kg		104	417	417	2	MS	RMJ	05/06/10 04:58	100505 3	964018
7440 09 7	Potassium J,I4a	364000	ug/kg	N	6460	25200	25200	1	P	HSC	04/05/10 13:08	040510 1	964016
7782 49 2	Selenium	1040	ug/kg	U	521	1040	1040	2	MS	RMJ	05/06/10 04:58	100505 3	964018
7440 22 4	Silver	505	ug/kg	U	101	505	505	1	P	HSC	04/05/10 13:08	040510 1	964016
7440 23 5	Sodium	110000	ug/kg		7070	25200	25200	1	P	HSC	04/05/10 13:08	040510 1	964016
7440 28 0	Thallium	110	ug/kg	J	62.5	208	208	2	MS	RMJ	05/06/10 04:58	100505 3	964018
7440 62 2	Vanadium	4110	ug/kg		101	505	505	1	P	HSC	04/05/10 13:08	040510 1	964016
7440 66 6	Zinc	77200	ug/kg		344	1040	1040	1	P	HSC	04/07/10 14:17	040710 2	972603

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964016	964015	SW846 3050B	0.52	g	50	mL	04/02/10	LYH1
964018	964017	SW846 3050B	0.504	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.555	g	30	mL	03/23/10	TXB3
972603	972602	SW846 3050B	0.503	g	50	mL	04/07/10	AXG2

MAD
05/27/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2319 VALIDATION DATE: 05/27/2010 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Mary Donivan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS %R was < the laboratory LAL but ≥10% for nitrate-N. The associated sample results were NDs and, thus, were qualified UJ,I6a.
2. It should be noted that the parent samples for all matrix QC were from other LANL RNs. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 6/1/10

VALIDATOR'S SIGNATURE: Mary A. Donivan DATE: 05/27/2010

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2319

Client Sample ID:	RE46-10-11885	Project:	LANL01004
Sample ID:	248866001	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	3.88%		

ameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis											
)012A Cyanide, Total "Dry Weight Corrected"											
nide, Total	U	ND		68.0	250	ug/kg	1	AXC2 03/15/10	1326	962258	1
Chromatography											
: 300.0 Nitrate in Soil "Dry Weight Corrected"											
ate-N	U	ND	UJ,I6a	0.312	1.04	mg/kg	1	VH1 03/30/10	0532	968640	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1557	962257

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

MAD

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2319

Client Sample ID:	RE46-10-11886	Project:	LANL01004
Sample ID:	248866002	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	4.77%		

ameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
v Injection Analysis											
)012A Cyanide, Total "Dry Weight Corrected"											
nide, Total	U	ND		67.4	248	ug/kg	1	AXC2 03/15/10	1327	962258	1
Chromatography											
' 300.0 Nitrate in Soil "Dry Weight Corrected"											
ate-N	U	ND	UJ,I6a	0.315	1.05	mg/kg	1	VH1 03/30/10	0559	968640	2

e following Prep Methods were performed

thod	Description	Analyst	Date	Time	Prep Batch
ı 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1557	962257

e following Analytical Methods were performed

thod	Description	Analyst Comments
	SW846 9012A	
	EPA 300.0	

MAD

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2319 VALIDATION DATE: 05/27/2010 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Mary Donivan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The gamma spec sample results which were rejected by the laboratory due to spectral interference or low abundance were qualified R,R5a. In the QC samples, several results were also rejected by the laboratory. No sample data were qualified as a result.
2. It should be noted that the matrix QC for gamma spec was performed on a parent sample from another LANL RN. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 6/1/10

VALIDATOR'S SIGNATURE: Mary A. Donivan DATE: 05/27/2010

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☐	☒	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 29, 2010

Client Sample ID:	RE46-10-11885	Project:	LANL01004
Sample ID:	248866001	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	3.88%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
ericium-241	U	-0.00278		0.0276	+/-0.00232	0.050	pCi/g		MXE1	03/23/10	1334	962716	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.00212		0.022	+/-0.00263	0.050	pCi/g		MXE1	03/24/10	1126	962718	3
tonium-239/240	U	0.00661		0.0186	+/-0.00333	0.050	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.963		0.102	+/-0.0913	0.100	pCi/g		MXE1	03/24/10	1155	962721	4
.nium-235/236	U	0.0178		0.0621	+/-0.011	0.100	pCi/g						
.nium-238		0.906		0.0715	+/-0.0869	0.100	pCi/g						
Gamma Spec Analysis													
(MMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.334		0.511	+/-0.153	0.200	pCi/g		MXR1	03/24/10	2032	962633	5
muth-211	UI	4.12	R,R5a	0.460	+/-0.333		pCi/g						
muth-214		1.40		0.147	+/-0.112	0.200	pCi/g						
lmium-109	UI	2.36	R,R5a	2.20	+/-0.727		pCi/g						
ium-139	U	0.00101		0.0682	+/-0.0209	0.050	pCi/g						
ium-134	UI	0.128	R,R5a	0.108	+/-0.0325	0.100	pCi/g						
ium-137	U	0.0237		0.0768	+/-0.0217	0.100	pCi/g						
alt-60	U	0.00209		0.0812	+/-0.025	0.100	pCi/g						
opium-152	U	-0.0532		0.207	+/-0.0768	0.200	pCi/g						
thanum-140	U	-0.0454		0.212	+/-0.066		pCi/g						
.d-212		2.05		0.126	+/-0.142	0.100	pCi/g						
.d-214		1.49		0.160	+/-0.128	0.100	pCi/g						
rcury-203	U	0.0837		0.0928	+/-0.034	0.100	pCi/g						
assium-40		35.9		0.482	+/-2.06	1.00	pCi/g						
lium-223	U	-0.909		1.44	+/-0.452		pCi/g						
lium-224	UI	5.58	R,R5a	1.35	+/-0.942		pCi/g						
lium-226		1.40		0.147	+/-0.112		pCi/g						
lium-228		1.96		0.288	+/-0.217	0.500	pCi/g						
henium-106	U	0.599		0.678	+/-0.185	0.800	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 29, 2010

Client Sample ID: RE46-10-11885
Sample ID: 248866001

Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
. Gamma Spec Analysis													
IMMA SPEC "Dry Weight Corrected"													
lium-22	U	0.00914		0.0973	+/-0.0295	0.080	pCi/g						
›ntium-85	UI	0.135	R,R5a	0.103	+/-0.0313		pCi/g						
ıllium-208		0.577		0.0678	+/-0.0572	0.080	pCi/g						
›rium-227	U	-0.185		0.540	+/-0.161		pCi/g						
›rium-231	U	-0.909		1.44	+/-0.452		pCi/g						
›rium-234	U	2.23		4.46	+/-1.26	2.00	pCi/g						
-113	U	0.0202		0.103	+/-0.0299	0.100	pCi/g						
.nium-235	U	-0.112		0.457	+/-0.140	0.500	pCi/g						
rium-88	U	0.00182		0.0684	+/-0.0208	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

:rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
:ricium-243 Tracer	AM241 "Dry Weight Corrected"	67.2	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	87.1	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	94.3	(50%-105%)

tes:
?U is calculated at the 67% confidence level (1-sigma).
ıe Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
3D Results are either below the MDC or tracer recovery is low
: Analyte has been confirmed by GC/MS analysis
) Results are reported from a diluted aliquot of the sample
: General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
: Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

MAD

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 29, 2010

Client Sample ID:	RE46-10-11886	Project:	LANL01004
Sample ID:	248866002	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	4.77%		

·ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
vimetric Solids													
ls Received"													
.Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
.ericium-241	U	0.00345		0.0237	+/-0.00237	0.050	pCi/g		MXE1	03/23/10	1334	962716	2
)PU "Dry Weight Corrected"													
tonium-238	U	0.00231		0.024	+/-0.00287	0.050	pCi/g		MXE1	03/24/10	1126	962718	3
tonium-239/240	U	0.00412		0.0203	+/-0.0034	0.050	pCi/g						
)U "Dry Weight Corrected"													
.nium-233/234		0.812		0.0819	+/-0.0752	0.100	pCi/g		MXE1	03/24/10	1155	962721	4
.nium-235/236	U	0.0323		0.050	+/-0.0121	0.100	pCi/g						
.nium-238		0.688		0.0576	+/-0.0661	0.100	pCi/g						
Gamma Spec Analysis													
(MMA SPEC "Dry Weight Corrected"													
.ericium-241	U	0.0934		0.129	+/-0.0393	0.200	pCi/g		MXR1	03/24/10	2032	962633	5
muth-211	UI	4.86	R,R5a	0.397	+/-0.357		pCi/g						
muth-214		1.65		0.158	+/-0.136	0.200	pCi/g						
lmium-109	UI	3.85	R,R5a	1.55	+/-0.515		pCi/g						
ium-139	U	0.00257		0.0596	+/-0.0179	0.050	pCi/g						
;ium-134	UI	0.140	R,R5a	0.130	+/-0.0508	0.100	pCi/g						
;ium-137	U	-0.0498		0.0839	+/-0.0291	0.100	pCi/g						
)alt-60	U	0.0452		0.104	+/-0.0284	0.100	pCi/g						
opium-152	U	-0.0591		0.190	+/-0.0631	0.200	pCi/g						
ıthanum-140	U	-0.175		0.242	+/-0.0891		pCi/g						
.d-212		2.05		0.110	+/-0.127	0.100	pCi/g						
.d-214		1.77		0.146	+/-0.139	0.100	pCi/g						
rcury-203	U	0.016		0.0869	+/-0.0252	0.100	pCi/g						
assium-40		37.4		0.815	+/-2.09	1.00	pCi/g						
lium-223	U	0.433		1.28	+/-0.409		pCi/g						
lium-224	UI	5.78	R,R5a	1.18	+/-0.816		pCi/g						
lium-226		1.65		0.158	+/-0.136		pCi/g						
lium-228		2.30		0.323	+/-0.280	0.500	pCi/g						
henium-106	U	-0.0304		0.653	+/-0.204	0.800	pCi/g						
lium-22	U	-0.0383		0.101	+/-0.0338	0.080	pCi/g						

MAD

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 29, 2010

Client Sample ID: RE46-10-11886 Project: LANL01004
Sample ID: 248866002 Client ID: LANL010

·ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis												
IMMA SPEC "Dry Weight Corrected"												
›ntium-85	U	0.0907	0.0959	+/-0.0286		pCi/g						
ıllium-208		0.650	0.0892	+/-0.0607	0.080	pCi/g						
›rium-227	U	-0.136	0.486	+/-0.156		pCi/g						
›rium-231	U	0.433	1.28	+/-0.409		pCi/g						
›rium-234		2.08	1.25	+/-0.601	2.00	pCi/g						
-113	U	-0.0603	0.092	+/-0.0297	0.100	pCi/g						
.nium-235	U	0.123	0.391	+/-0.117	0.500	pCi/g						
rium-88	U	0.0586	0.101	+/-0.0249	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	ASTM D 2216 (Modified)
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
·ricium-243 Tracer	AM241 "Dry Weight Corrected"	74.1	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	81.8	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	94.3	(50%-105%)

tes:
?U is calculated at the 67% confidence level (1-sigma).
ıe Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
3D Results are either below the MDC or tracer recovery is low
: Analyte has been confirmed by GC/MS analysis
) Results are reported from a diluted aliquot of the sample
: General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
: Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
: Organics--Concentration of the target analyte exceeds the instrument calibration range

MAD

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2319C

REQUEST NUMBER: 10-2319

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 2488661.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-11885	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-11885	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-11885	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-11886	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-11886	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-11886	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-11885	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-11886	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-14017	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/5/10	9:00	Greg Tyler		3-6-10	09:1
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Friday, March 05, 2010

REQUEST NUMBER: 10-2319

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2319
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/5/2010
TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	EPA:901.1	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	HASL-300:AM-241	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	HASL-300:ISOPU	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	HASL-300:ISOU	1	RE46-10-11885	S	3/4/2010	

Hard Copy Required

Friday, March 05, 2010

REQUEST NUMBER: 10-2319

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	SW-846:6850	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	SW-846:7471A	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	SW-846:8082	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	SW-846:8260B	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
		1	RE46-10-14017	S	3/4/2010	
	SW-846:8270C	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	SW-846:9012A	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	

Final Page of REQUEST NUMBER 10-2319

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

March 12, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 248866
SDG: 10-2319

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 06, 2010, and analyzed for GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Valerie Davis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2319
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 248866
SDG: 10-2319

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 248866
SDG # : 10-2319

March 12, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 06, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 11C temperature. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
248866001	RE46-10-11885
248866002	RE46-10-11886
248866003	RE46-10-14017

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Valerie Davis

Valerie Davis

Project Manager

List of current GEL Certifications as of 12 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California - NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida - NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois - NELAP	200029
Indiana	C-SC-01
Kansas - NELAP	E-10332
Kentucky	90129
Louisiana - NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey - NELAP	SC002
New Mexico	FL NELAP E87156
New York - NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania - NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas - NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah - NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Friday, March 05, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2319C

REQUEST NUMBER: 10-2319

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/4/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 2488661.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-11885	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-11885	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-11885	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-11886	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-11886	1	AMBER GLASS	8270C+8082	Ice	S
RE46-10-11886	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-11885	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-11886	1	POLY	Met+NO3+CL04+CN	Ice	S
RE46-10-14017	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/5/10	3:00	Greg Tyler		3-6-10	0915
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Friday, March 05, 2010

REQUEST NUMBER: 10-2319

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2319
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/5/2010
TURNAROUND/REPORT DUE: 4/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	EPA:901.1	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	HASL-300:AM-241	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	HASL-300:ISOPU	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	HASL-300:ISOU	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	

Hard Copy Required

Friday, March 05, 2010

REQUEST NUMBER: 10-2319

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	SW-846:6850	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	SW-846:7471A	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	SW-846:8082	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	SW-846:8260B	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
		1	RE46-10-14017	S	3/4/2010	
	SW-846:8270C	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	
	SW-846:9012A	1	RE46-10-11885	S	3/4/2010	
		1	RE46-10-11886	S	3/4/2010	

Final Page of REQUEST NUMBER 10-2319

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2319**
Received By: Greg Tyler	**Date Received: 3/6/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **2,3,5C** **11C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:
7209 7850 3782 2C
7209 7850 3808 3C
7209 7850 3793 5C
7209 7850 3771 11C

PM (or PMA) review: Initials NF Date 3/8/10

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05MAR10
ACTWGT: 31.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

2°

FedEx Express

3 of 3
MPS# 0263 7209 7850 3782
Matr# 7209 7850 3760 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 05MAR10
ACTWGT: 20.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

3°

FedEx Express

2 of 2
MPS# 0263 7209 7850 3808
Matr# 7209 7850 3793 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

Part # 156148-434 NRTTV3 04-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

5°

FedEx Express

1 of 2
TRK# 0201 7209 7850 3793
MASTER

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

11°

FedEx Express

2 of 3
MPS# 0263 7209 7850 3771
Matr# 7209 7850 3760 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

NIT V3 04-09

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2319

Method/Analysis Information

Procedure: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method: SW846 8260B
Prep Method: SW846 5030
Analytical Batch Number: 965481
Prep Batch Number: 965477

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
248866001	RE46-10-11885
248866002	RE46-10-11886
248866003	RE46-10-14017
1202071635	Method Blank (MB)
1202071638	Laboratory Control Sample (LCS)
1202071639	Laboratory Control Sample (LCS)
1202071636	248824001(RE46-10-11926) Post Spike (PS)
1202071637	248824001(RE46-10-11926) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
Samples 248866 001 and 002 in this SDG were analyzed on an "dry weight" basis. Samples 248866 003 in this SDG were analyzed on a "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248824001 (RE46-10-11926) was designated for spike analysis.

Matrix Spike (PS) Recovery Statement
The spike recoveries were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for this SDG.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
A Data Exception Document was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this sample delivery group/work order.The tentatively identified compounds included some silanols. These compounds were due to column or septum bleed and were not native to the affected samples. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA3.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2319 GEL Work Order: 248866

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 01 APR 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**3.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11885**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 19:45**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D116.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.04	ug/kg	0.354	1.04
74-87-3	Chloromethane	U	1.04	ug/kg	0.312	1.04
75-01-4	Vinyl chloride	U	1.04	ug/kg	0.312	1.04
74-83-9	Bromomethane	U	1.04	ug/kg	0.312	1.04
75-00-3	Chloroethane	U	1.04	ug/kg	0.312	1.04
75-69-4	Trichlorofluoromethane	U	1.04	ug/kg	0.312	1.04
67-64-1	Acetone	U	5.20	ug/kg	1.73	5.20
75-35-4	1,1-Dichloroethylene	U	1.04	ug/kg	0.312	1.04
74-88-4	Iodomethane	U	5.20	ug/kg	1.66	5.20
75-09-2	Methylene chloride	U	5.20	ug/kg	2.08	5.20
75-15-0	Carbon disulfide	U	5.20	ug/kg	1.30	5.20
156-60-5	trans-1,2-Dichloroethylene	U	1.04	ug/kg	0.312	1.04
75-34-3	1,1-Dichloroethane	U	1.04	ug/kg	0.312	1.04
78-93-3	2-Butanone	U	5.20	ug/kg	1.56	5.20
156-59-2	cis-1,2-Dichloroethylene	U	1.04	ug/kg	0.312	1.04
594-20-7	2,2-Dichloropropane	U	1.04	ug/kg	0.312	1.04
67-66-3	Chloroform	U	1.04	ug/kg	0.312	1.04
74-97-5	Bromochloromethane	U	1.04	ug/kg	0.343	1.04
71-55-6	1,1,1-Trichloroethane	U	1.04	ug/kg	0.312	1.04
563-58-6	1,1-Dichloropropene	U	1.04	ug/kg	0.312	1.04
56-23-5	Carbon tetrachloride	U	1.04	ug/kg	0.312	1.04
107-06-2	1,2-Dichloroethane	U	1.04	ug/kg	0.312	1.04
71-43-2	Benzene	U	1.04	ug/kg	0.312	1.04
79-01-6	Trichloroethylene	U	1.04	ug/kg	0.343	1.04
78-87-5	1,2-Dichloropropane	U	1.04	ug/kg	0.312	1.04
75-27-4	Bromodichloromethane	U	1.04	ug/kg	0.312	1.04
74-95-3	Dibromomethane	U	1.04	ug/kg	0.312	1.04
108-10-1	4-Methyl-2-pentanone	U	5.20	ug/kg	1.30	5.20
10061-01-5	cis-1,3-Dichloropropylene	U	1.04	ug/kg	0.312	1.04
108-88-3	Toluene	U	1.04	ug/kg	0.312	1.04
10061-02-6	trans-1,3-Dichloropropylene	U	1.04	ug/kg	0.312	1.04
79-00-5	1,1,2-Trichloroethane	U	1.04	ug/kg	0.312	1.04
591-78-6	2-Hexanone	U	5.20	ug/kg	1.56	5.20
142-28-9	1,3-Dichloropropane	U	1.04	ug/kg	0.312	1.04
127-18-4	Tetrachloroethylene	U	1.04	ug/kg	0.312	1.04
124-48-1	Dibromochloromethane	U	1.04	ug/kg	0.312	1.04
106-93-4	1,2-Dibromoethane	U	1.04	ug/kg	0.312	1.04
108-90-7	Chlorobenzene	U	1.04	ug/kg	0.312	1.04

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**3.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11885**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 19:45**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D116.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.04	ug/kg	0.312	1.04
179601-23-1	m,p-Xylenes	U	2.08	ug/kg	0.312	2.08
95-47-6	o-Xylene	U	1.04	ug/kg	0.312	1.04
100-42-5	Styrene	U	1.04	ug/kg	0.312	1.04
75-25-2	Bromoform	U	1.04	ug/kg	0.312	1.04
79-34-5	1,1,2,2-Tetrachloroethane	U	1.04	ug/kg	0.312	1.04
96-18-4	1,2,3-Trichloropropane	U	1.04	ug/kg	0.312	1.04
108-86-1	Bromobenzene	U	1.04	ug/kg	0.312	1.04
103-65-1	n-Propylbenzene	U	1.04	ug/kg	0.312	1.04
95-49-8	2-Chlorotoluene	U	1.04	ug/kg	0.312	1.04
98-82-8	Isopropylbenzene	U	1.04	ug/kg	0.312	1.04
108-67-8	1,3,5-Trimethylbenzene	U	1.04	ug/kg	0.312	1.04
106-43-4	4-Chlorotoluene	U	1.04	ug/kg	0.312	1.04
98-06-6	tert-Butylbenzene	U	1.04	ug/kg	0.312	1.04
95-63-6	1,2,4-Trimethylbenzene	U	1.04	ug/kg	0.312	1.04
135-98-8	sec-Butylbenzene	U	1.04	ug/kg	0.312	1.04
99-87-6	4-Isopropyltoluene	U	1.04	ug/kg	0.312	1.04
541-73-1	1,3-Dichlorobenzene	U	1.04	ug/kg	0.312	1.04
106-46-7	1,4-Dichlorobenzene	U	1.04	ug/kg	0.312	1.04
104-51-8	n-Butylbenzene	U	1.04	ug/kg	0.312	1.04
96-12-8	1,2-Dibromo-3-chloropropane	U	1.04	ug/kg	0.312	1.04
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.20	ug/kg	1.66	5.20
630-20-6	1,1,1,2-Tetrachloroethane	U	1.04	ug/kg	0.312	1.04
95-50-1	1,2-Dichlorobenzene	U	1.04	ug/kg	0.312	1.04

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**4.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11886**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 20:14**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:18**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D117.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.357	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.315	1.05
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.315	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.315	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.315	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.315	1.05
67-64-1	Acetone		7.86	ug/kg	1.74	5.25
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
74-88-4	Iodomethane	U	5.25	ug/kg	1.68	5.25
75-09-2	Methylene chloride	U	5.25	ug/kg	2.10	5.25
75-15-0	Carbon disulfide	U	5.25	ug/kg	1.31	5.25
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.315	1.05
78-93-3	2-Butanone	U	5.25	ug/kg	1.58	5.25
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.315	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.347	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.315	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.315	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.315	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.315	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.315	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.347	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.315	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.315	1.05
108-10-1	4-Methyl-2-pentanone	U	5.25	ug/kg	1.31	5.25
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.315	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.315	1.05
591-78-6	2-Hexanone	U	5.25	ug/kg	1.58	5.25
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.315	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.315	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.315	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.315	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.315	1.05

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**4.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11886**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 20:14**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:18**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D117.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.315	1.05
179601-23-1	m,p-Xylenes	U	2.10	ug/kg	0.315	2.10
95-47-6	o-Xylene	U	1.05	ug/kg	0.315	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.315	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.315	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.315	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.315	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.315	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.315	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.315	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.315	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.315	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.315	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.315	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.25	ug/kg	1.68	5.25
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866003**	**Date Received:**	**03/06/2010 09:15**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-14017**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 20:42**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:20**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D118.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2319	**Date Collected:**	03/04/2010 12:00	**Matrix:**	S
Lab Sample ID:	248866003	**Date Received:**	03/06/2010 09:15		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-14017	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	965481	**Inst:**	VOA3.I	**Dilution:**	1
Run Date:	03/15/2010 20:42	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	03/15/2010 17:20	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	031510V3\3D118.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-2319

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202071638	LCS for batch 965477	104	103	105
1202071639	LCS for batch 965477	104	102	107
1202071635	MB for batch 965477	98	110	100
248866001	RE46-10-11885	96	102	98
248866002	RE46-10-11886	102	101	99
248866003	RE46-10-14017	105	105	97

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(66%-134%)
TOL	= Toluene-d8	(71%-128%)
BFB	= Bromofluorobenzene	(65%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2319
Client ID: RE46-10-11926PS
Lab Sample ID: 1202071636
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 1.8
Analysis Date: 03/17/2010 03:30
Prep Batch ID: 965477
Batch ID: 965481

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	43.4	87	39-148
74-87-3	PS	Chloromethane	50.0	0.00	U	53.1	106	42-131
75-01-4	PS	Vinyl chloride	50.0	0.00	U	56.0	112	50-127
74-83-9	PS	Bromomethane	50.0	0.00	U	57.4	115	26-135
75-00-3	PS	Chloroethane	50.0	0.00	U	55.3	111	54-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	49.2	98	55-138
67-64-1	PS	Acetone	250	4.23	J	224	88	20-144
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	46.8	94	55-128
74-88-4	PS	Iodomethane	250	0.00	U	228	91	47-132
75-09-2	PS	Methylene chloride	50.0	0.00	U	44.7	89	56-123
75-15-0	PS	Carbon disulfide	250	0.00	U	245	98	53-133
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	47.9	96	57-119
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	52.1	104	62-125
78-93-3	PS	2-Butanone	250	0.00	U	245	98	30-150
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	51.4	103	60-124
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	51.1	102	56-129
67-66-3	PS	Chloroform	50.0	0.00	U	49.8	100	62-120
74-97-5	PS	Bromochloromethane	50.0	0.00	U	52.6	105	51-135
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	47.3	95	58-129
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	49.9	100	59-126
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	50.7	101	55-132
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	46.8	94	54-121

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2319
Client ID: RE46-10-11926PS
Lab Sample ID: 1202071636
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 1.8
Analysis Date: 03/17/2010 03:30
Prep Batch ID: 965477
Batch ID: 965481

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	48.7	97	58-120
79-01-6	PS	Trichloroethylene	50.0	0.00	U	50.7	101	54-130
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	54.7	109	59-121
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	55.2	110	57-130
74-95-3	PS	Dibromomethane	50.0	0.00	U	53.1	106	57-124
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	258	103	40-137
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	55.4	111	50-131
108-88-3	PS	Toluene	50.0	0.00	U	47.9	96	54-119
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	53.1	106	47-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	51.2	102	60-130
591-78-6	PS	2-Hexanone	250	0.00	U	245	98	30-139
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	51.2	102	59-125
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	48.4	97	50-126
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	55.7	111	54-131
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	49.3	99	55-127
108-90-7	PS	Chlorobenzene	50.0	0.00	U	48.7	97	50-130
100-41-4	PS	Ethylbenzene	50.0	0.00	U	47.9	96	50-121
179601-23-1	PS	m,p-Xylenes	100	0.00	U	98.0	98	47-125
95-47-6	PS	o-Xylene	50.0	0.00	U	50.3	101	51-127
100-42-5	PS	Styrene	50.0	0.00	U	52.2	104	41-136
75-25-2	PS	Bromoform	50.0	0.00	U	47.2	94	48-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	49.2	98	52-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2319
Client ID: RE46-10-11926PS
Lab Sample ID: 1202071636
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 1.8
Analysis Date: 03/17/2010 03:30
Prep Batch ID: 965477
Batch ID: 965481

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	49.1	98	56-139
108-86-1	PS	Bromobenzene	50.0	0.00	U	49.0	98	54-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	47.7	95	46-127
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	48.7	97	47-130
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	47.4	95	42-126
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	48.5	97	44-132
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	46.7	93	46-127
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	50.8	102	48-136
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	48.4	97	42-132
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	48.5	97	47-130
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	48.7	97	36-142
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	47.0	94	41-130
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	47.3	95	41-126
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	50.5	101	37-136
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	43.6	87	42-143
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	54.2	108	58-127
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	49.3	99	42-128

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2319
Client ID: RE46-10-11926PSD
Lab Sample ID: 1202071637
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 1.8
Analysis Date: 03/17/2010 03:59
Prep Batch ID: 965477
Batch ID: 965481
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	41.6	83	39-148	4	0-19
74-87-3	PSD	Chloromethane	50.0	0.00	U	46.0	92	42-131	14	0-23
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	50.7	101	50-127	10	0-23
74-83-9	PSD	Bromomethane	50.0	0.00	U	51.2	102	26-135	11	0-22
75-00-3	PSD	Chloroethane	50.0	0.00	U	50.1	100	54-128	10	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	46.4	93	55-138	6	0-21
67-64-1	PSD	Acetone	250	4.23	J	202	79	20-144	11	0-22
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	43.5	87	55-128	7	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	218	87	47-132	4	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	41.8	84	56-123	7	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	233	93	53-133	5	0-22
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	43.8	88	57-119	9	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	45.8	92	62-125	13	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	225	90	30-150	9	0-21
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	47.7	95	60-124	8	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	48.0	96	56-129	6	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	46.6	93	62-120	7	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	47.6	95	51-135	10	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	44.8	90	58-129	5	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	46.3	93	59-126	7	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	48.0	96	55-132	6	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	45.0	90	54-121	4	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2319
Client ID: RE46-10-11926PSD
Lab Sample ID: 1202071637
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 1.8
Analysis Date: 03/17/2010 03:59
Prep Batch ID: 965477
Batch ID: 965481
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	46.4	93	58-120	5	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	46.2	92	54-130	9	0-23
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	49.9	100	59-121	9	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	50.7	101	57-130	8	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	48.6	97	57-124	9	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	261	104	40-137	1	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	51.1	102	50-131	8	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	46.3	93	54-119	4	0-23
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	49.9	100	47-133	6	0-24
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	48.7	97	60-130	5	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	241	97	30-139	2	0-21
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	48.1	96	59-125	6	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	44.7	89	50-126	8	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	52.7	105	54-131	6	0-23
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	46.2	92	55-127	6	0-23
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	46.3	93	50-130	5	0-24
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	45.3	91	50-121	5	0-24
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	92.2	92	47-125	6	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	50.5	101	51-127	0	0-24
100-42-5	PSD	Styrene	50.0	0.00	U	52.4	105	41-136	0	0-24
75-25-2	PSD	Bromoform	50.0	0.00	U	44.1	88	48-143	7	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	45.8	92	52-129	7	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2319
Client ID: RE46-10-11926PSD
Lab Sample ID: 1202071637
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 1.8
Analysis Date: 03/17/2010 03:59
Prep Batch ID: 965477
Batch ID: 965481
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	44.6	89	56-139	9	0-34
108-86-1	PSD	Bromobenzene	50.0	0.00	U	45.0	90	54-125	9	0-22
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	44.3	89	46-127	7	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	44.8	90	47-130	8	0-24
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	44.5	89	42-126	6	0-22
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	45.0	90	44-132	8	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	43.6	87	46-127	7	0-26
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	46.3	93	48-136	9	0-24
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	44.8	90	42-132	8	0-26
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	45.3	91	47-130	7	0-27
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	44.9	90	36-142	8	0-27
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	42.6	85	41-130	10	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	43.4	87	41-126	9	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	44.9	90	37-136	12	0-29
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	39.9	80	42-143	9	0-21
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	51.7	103	58-127	5	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	43.2	86	42-128	13	0-24

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2319
Client ID: LCS for batch 965477
Lab Sample ID: 1202071638
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/15/2010 12:59
Dilution: 1
Prep Batch ID: 965477
Batch ID: 965481

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	39.0	78	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	40.1	80	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	44.5	89	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	45.4	91	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	46.1	92	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	44.7	89	73-143
67-64-1	LCS	Acetone	250	0.0	186	74	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	41.3	83	71-129
74-88-4	LCS	Iodomethane	250	0.0	204	82	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	39.4	79	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	212	85	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	42.0	84	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	43.8	88	73-120
78-93-3	LCS	2-Butanone	250	0.0	203	81	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	44.4	89	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	48.0	96	73-134
67-66-3	LCS	Chloroform	50.0	0.0	43.8	88	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	44.3	89	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	43.4	87	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	43.9	88	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	45.9	92	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	43.1	86	65-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2319 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 965477 **Matrix:** SOIL

Lab Sample ID: 1202071638

Instrument: VOA3.I **Analysis Date:** 03/15/2010 12:59 **Dilution:** 1

Analyst: CDS1 **Prep Batch ID:** 965477

Purge Vol: 5 mL **Batch ID:** 965481

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	43.0	86	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	42.2	84	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	45.8	92	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	48.1	96	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	45.6	91	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	239	96	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	49.0	98	78-127
108-88-3	LCS	Toluene	50.0	0.0	41.9	84	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	49.6	99	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	46.0	92	75-120
591-78-6	LCS	2-Hexanone	250	0.0	217	87	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	45.8	92	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	42.6	85	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	49.8	100	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	44.9	90	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	42.8	86	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	41.6	83	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	86.0	86	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	45.2	90	76-122
100-42-5	LCS	Styrene	50.0	0.0	46.9	94	75-125
75-25-2	LCS	Bromoform	50.0	0.0	45.1	90	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	47.3	95	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2319
Client ID: LCS for batch 965477
Lab Sample ID: 1202071638
Instrument: VOA3.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/15/2010 12:59
Dilution: 1
Prep Batch ID: 965477
Batch ID: 965481

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	45.8	92	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	44.8	90	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	44.7	89	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	44.8	90	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	44.3	89	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	45.1	90	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	44.5	89	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	46.0	92	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	45.2	90	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	45.2	90	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	46.0	92	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	42.7	85	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	43.1	86	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	44.0	88	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	38.4	77	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	46.9	94	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	42.8	86	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2319**
Client ID: **LCS for batch 965477**
Lab Sample ID: **1202071639**
Instrument: **VOA3.I**
Analyst: **CDS1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **03/15/2010 13:57**
Dilution: 1
Prep Batch ID **965477**
Batch ID: **965481**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	257	103	67-140

Method Blank Summary

SDG Number:	10-2319	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965477	Instrument ID:	VOA3.I	Data File:	031510V3\3D108SBLA.D
Lab Sample ID:	1202071635	Prep Date:	03/15/2010 11:00	Analyzed:	03/15/10 14:55
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 965477	1202071638	031510V3\3D104SLLA.D	03/15/10	1259
02	LCS for batch 965477	1202071639	031510V3\3D106SSLA.D	03/15/10	1357
03	RE46-10-11885	248866001	031510V3\3D116.D	03/15/10	1945
04	RE46-10-11886	248866002	031510V3\3D117.D	03/15/10	2014
05	RE46-10-14017	248866003	031510V3\3D118.D	03/15/10	2042

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2319

Instrument ID: VOA3.I **Injection Date/Time:** 15-MAR-10 11:35

Column Description: DB-624 **Lab File ID** 031510V3\3D101.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	18.7
75	30.0 - 60.0% of mass 95	47.4
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	82.7
175	5.0 -9.0% of mass 174	7
176	95.0 - 101.0% of mass 174	97.6
177	5.0 - 9.0% of mass 176	6.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]02	W3VM100315-01	031510V3\3D102.D	15-MAR-10 12:01
BLK01LCS	1202071638	031510V3\3D104SLLA.D	15-MAR-10 12:59
CCVMIX[B]03	W3VM100315-04	031510V3\3D105.D	15-MAR-10 13:28
BLK01SLCS	1202071639	031510V3\3D106SSLA.D	15-MAR-10 13:57
BLK01	1202071635	031510V3\3D108SBLA.D	15-MAR-10 14:55
RE46-10-11885	248866001	031510V3\3D116.D	15-MAR-10 19:45
RE46-10-11886	248866002	031510V3\3D117.D	15-MAR-10 20:14
RE46-10-14017	248866003	031510V3\3D118.D	15-MAR-10 20:42

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2319

Instrument ID: VOA3.I **Injection Date/Time:** 26-FEB-10 09:25

Column Description: DB-624 **Lab File ID** 022610V3\3A501.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	17.8
75	30.0 - 60.0% of mass 95	47
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	82.6
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	97.7
177	5.0 - 9.0% of mass 176	6.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W3VM100226-01	022610V3\3A503.D	26-FEB-10 10:23
ICALMIX[A]	W3VM100226-02	022610V3\3A504.D	26-FEB-10 10:53
ICALMIX[A]	W3VM100226-03	022610V3\3A505.D	26-FEB-10 11:23
ICALMIX[A]	W3VM100226-04	022610V3\3A506.D	26-FEB-10 11:52
ICALMIX[A]	W3VM100226-05	022610V3\3A507.D	26-FEB-10 12:22
ICALMIX[A]	W3VM100226-07	022610V3\3A509.D	26-FEB-10 13:21
ICALMIX[A]	W3VM100226-08	022610V3\3A511.D	26-FEB-10 14:20
ICVMIX[A]01	W3VM100226-10	022610V3\3A513.D	26-FEB-10 15:19
ICALMIX[B]	W3VM100226-11	022610V3\3A515.D	26-FEB-10 16:17
ICALMIX[B]	W3VM100226-12	022610V3\3A516.D	26-FEB-10 16:46
ICALMIX[B]	W3VM100226-13	022610V3\3A517.D	26-FEB-10 17:15
ICALMIX[B]	W3VM100226-14	022610V3\3A518.D	26-FEB-10 17:45
ICALMIX[B]	W3VM100226-15	022610V3\3A519.D	26-FEB-10 18:14
ICALMIX[B]	W3VM100226-16	022610V3\3A520.D	26-FEB-10 18:43
ICALMIX[B]	W3VM100226-17	022610V3\3A521.D	26-FEB-10 19:14
ICVMIX[B]02	W3VM100226-18	022610V3\3A523.D	26-FEB-10 20:12

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA3.1

GC Column: DB-624

Client SDG: 10-2319

STD Analysis Time: 15-MAR-10 12:01

Data File: C:\msdchem\1\DATA\031510V3\3D102.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	784353		12.2	594883		15.9	329307		18.4
Upper Limit	1568706		12.7	1189766		16.4	658614		18.9
Lower Limit	392177		11.7	297442		15.4	164654		17.9
Sample ID									
BLK01LCS	802994		12.2	643533		15.9	327390		18.4
BLK01SLCS	829608		12.2	652329		15.9	325545		18.4
BLK01	742288		12.2	535571		15.9	275889		18.4
RE46-10-11885	641774		12.2	487942		15.9	231030		18.4
RE46-10-11886	664699		12.2	518314		15.9	256138		18.4
RE46-10-14017	657284		12.2	504254		15.9	244579		18.4

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**3.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11885**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 19:45**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D116.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.04	ug/kg	0.354	1.04
74-87-3	Chloromethane	U	1.04	ug/kg	0.312	1.04
75-01-4	Vinyl chloride	U	1.04	ug/kg	0.312	1.04
74-83-9	Bromomethane	U	1.04	ug/kg	0.312	1.04
75-00-3	Chloroethane	U	1.04	ug/kg	0.312	1.04
75-69-4	Trichlorofluoromethane	U	1.04	ug/kg	0.312	1.04
67-64-1	Acetone	U	5.20	ug/kg	1.73	5.20
75-35-4	1,1-Dichloroethylene	U	1.04	ug/kg	0.312	1.04
74-88-4	Iodomethane	U	5.20	ug/kg	1.66	5.20
75-09-2	Methylene chloride	U	5.20	ug/kg	2.08	5.20
75-15-0	Carbon disulfide	U	5.20	ug/kg	1.30	5.20
156-60-5	trans-1,2-Dichloroethylene	U	1.04	ug/kg	0.312	1.04
75-34-3	1,1-Dichloroethane	U	1.04	ug/kg	0.312	1.04
78-93-3	2-Butanone	U	5.20	ug/kg	1.56	5.20
156-59-2	cis-1,2-Dichloroethylene	U	1.04	ug/kg	0.312	1.04
594-20-7	2,2-Dichloropropane	U	1.04	ug/kg	0.312	1.04
67-66-3	Chloroform	U	1.04	ug/kg	0.312	1.04
74-97-5	Bromochloromethane	U	1.04	ug/kg	0.343	1.04
71-55-6	1,1,1-Trichloroethane	U	1.04	ug/kg	0.312	1.04
563-58-6	1,1-Dichloropropene	U	1.04	ug/kg	0.312	1.04
56-23-5	Carbon tetrachloride	U	1.04	ug/kg	0.312	1.04
107-06-2	1,2-Dichloroethane	U	1.04	ug/kg	0.312	1.04
71-43-2	Benzene	U	1.04	ug/kg	0.312	1.04
79-01-6	Trichloroethylene	U	1.04	ug/kg	0.343	1.04
78-87-5	1,2-Dichloropropane	U	1.04	ug/kg	0.312	1.04
75-27-4	Bromodichloromethane	U	1.04	ug/kg	0.312	1.04
74-95-3	Dibromomethane	U	1.04	ug/kg	0.312	1.04
108-10-1	4-Methyl-2-pentanone	U	5.20	ug/kg	1.30	5.20
10061-01-5	cis-1,3-Dichloropropylene	U	1.04	ug/kg	0.312	1.04
108-88-3	Toluene	U	1.04	ug/kg	0.312	1.04
10061-02-6	trans-1,3-Dichloropropylene	U	1.04	ug/kg	0.312	1.04
79-00-5	1,1,2-Trichloroethane	U	1.04	ug/kg	0.312	1.04
591-78-6	2-Hexanone	U	5.20	ug/kg	1.56	5.20
142-28-9	1,3-Dichloropropane	U	1.04	ug/kg	0.312	1.04
127-18-4	Tetrachloroethylene	U	1.04	ug/kg	0.312	1.04
124-48-1	Dibromochloromethane	U	1.04	ug/kg	0.312	1.04
106-93-4	1,2-Dibromoethane	U	1.04	ug/kg	0.312	1.04
108-90-7	Chlorobenzene	U	1.04	ug/kg	0.312	1.04

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**3.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11885**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 19:45**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:16**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D116.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.04	ug/kg	0.312	1.04
179601-23-1	m,p-Xylenes	U	2.08	ug/kg	0.312	2.08
95-47-6	o-Xylene	U	1.04	ug/kg	0.312	1.04
100-42-5	Styrene	U	1.04	ug/kg	0.312	1.04
75-25-2	Bromoform	U	1.04	ug/kg	0.312	1.04
79-34-5	1,1,2,2-Tetrachloroethane	U	1.04	ug/kg	0.312	1.04
96-18-4	1,2,3-Trichloropropane	U	1.04	ug/kg	0.312	1.04
108-86-1	Bromobenzene	U	1.04	ug/kg	0.312	1.04
103-65-1	n-Propylbenzene	U	1.04	ug/kg	0.312	1.04
95-49-8	2-Chlorotoluene	U	1.04	ug/kg	0.312	1.04
98-82-8	Isopropylbenzene	U	1.04	ug/kg	0.312	1.04
108-67-8	1,3,5-Trimethylbenzene	U	1.04	ug/kg	0.312	1.04
106-43-4	4-Chlorotoluene	U	1.04	ug/kg	0.312	1.04
98-06-6	tert-Butylbenzene	U	1.04	ug/kg	0.312	1.04
95-63-6	1,2,4-Trimethylbenzene	U	1.04	ug/kg	0.312	1.04
135-98-8	sec-Butylbenzene	U	1.04	ug/kg	0.312	1.04
99-87-6	4-Isopropyltoluene	U	1.04	ug/kg	0.312	1.04
541-73-1	1,3-Dichlorobenzene	U	1.04	ug/kg	0.312	1.04
106-46-7	1,4-Dichlorobenzene	U	1.04	ug/kg	0.312	1.04
104-51-8	n-Butylbenzene	U	1.04	ug/kg	0.312	1.04
96-12-8	1,2-Dibromo-3-chloropropane	U	1.04	ug/kg	0.312	1.04
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.20	ug/kg	1.66	5.20
630-20-6	1,1,1,2-Tetrachloroethane	U	1.04	ug/kg	0.312	1.04
95-50-1	1,2-Dichlorobenzene	U	1.04	ug/kg	0.312	1.04

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D116.D
Acq On : 15 Mar 2010 7:45 pm
Operator : CDS1
InstName : VOA3
Sample : |248866001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 16 13:33:17 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	641957	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	487942	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	227644	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	641774	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	487942	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	231030	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	189750	48.20	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 96.40%					
43) Toluene-d8	14.165	14.165	0.894	98	672022	51.18	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 102.36%					
61) Bromofluorobenzene	17.130	17.130	0.930	95	224472	48.90	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 97.80%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.999	7.987	0.654	43	1765	N.D.		
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	0.000	8.449	0.000		0	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	2853	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D116.D
Acq On : 15 Mar 2010 7:45 pm
Operator : CDS1
InstName : VOA3
Sample : |248866001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 16 13:33:17 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44)	Toluene	0.000	14.248	0.000		0	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47)	2-Hexanone	0.000	14.888	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52)	Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54)	Ethylbenzene	0.000	15.968	0.000		0	N.D.	
55)	m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56)	o-Xylene	0.000	16.549	0.000		0	N.D.	
57)	Styrene	0.000	16.549	0.000		0	N.D.	
59)	Bromoform	0.000	16.821	0.000		0	N.D.	
60)	Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64)	Bromobenzene	0.000	17.343	0.000		0	N.D.	
65)	n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66)	1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000	17.628	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	0.000	17.960	0.000		0	N.D.	
71)	sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72)	4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	0.000	18.351	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	0.000	18.434	0.000		0	N.D.	
75)	n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80)	Naphthalene	21.352	21.351	1.160	128	714	N.D.	
81)	1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85)	Acrolein	0.000	7.750	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88)	Allyl chloride	0.000	8.556	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90)	Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91)	Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94)	Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D116.D
Acq On : 15 Mar 2010 7:45 pm
Operator : CDS1
InstName : VOA3
Sample : |248866001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 16 13:33:17 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	0.000	10.726	0.000		0	N.D.		
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.		
97)	Tetrahydrofuran	0.000	11.094	0.000		0	N.D.		
98)	Isobutyl alcohol	0.000	11.556	0.000		0	N.D.		
99)	Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.		
100)	Methyl methacrylate	0.000	12.991	0.000		0	N.D.		
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.		
102)	2-Nitropropane	0.000	13.525	0.000		0	N.D.		
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.		
106)	1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d	
107)	cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.		
108)	Cyclohexanone	0.000	17.082	0.000		0	N.D.		
109)	trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.		
110)	Pentachloroethane	0.000	17.983	0.000		0	N.D.		
111)	Benzyl chloride	0.000	18.553	0.000		0	N.D.		
112)	bis(2-Chloroisopropyl)...	19.051	18.980	1.035	45	2047	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D116.D
Acq On : 15 Mar 2010 7:45 pm
Operator : CDS1
InstName : VOA3
Sample : |248866001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 16 13:33:17 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

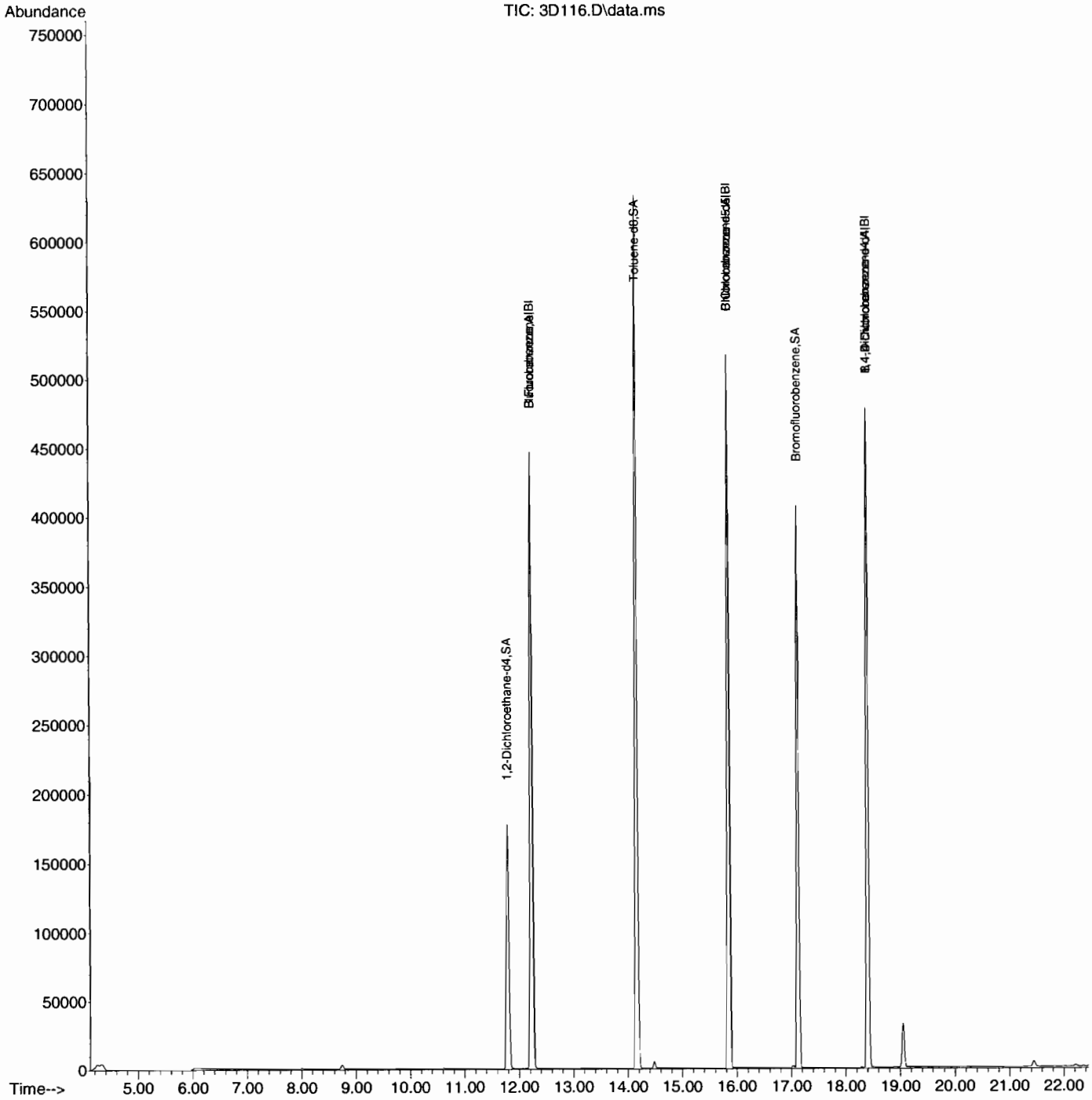

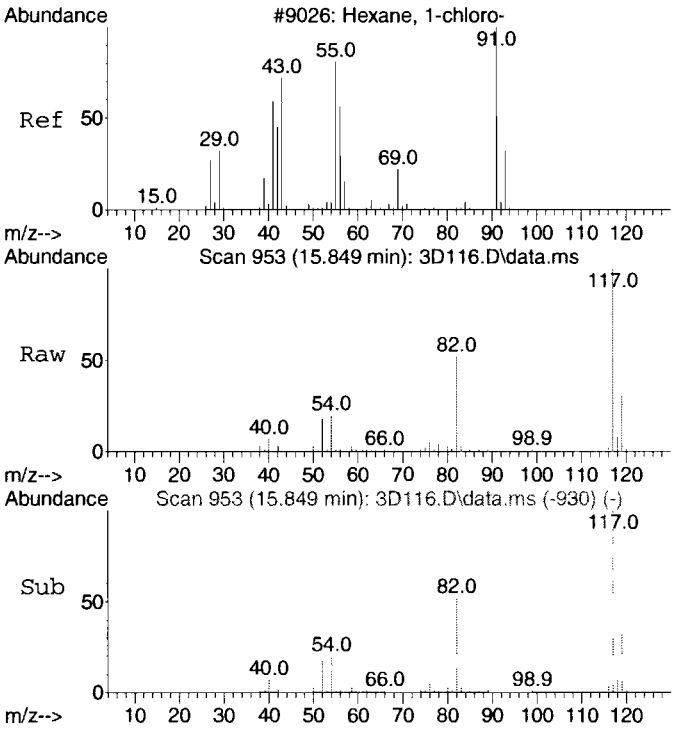

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.01 ug/L
RT: 15.849 min Scan# 953
Delta R.T. 0.095 min
Lab File: 3D116.D
Acq: 15 Mar 2010 7:45 pm

Tgt Ion: 55 Resp: 4201

Ion	Ratio	Lower	Upper
55	100		
91	17.8	119.7	179.7#
56	63.2	29.6	89.6

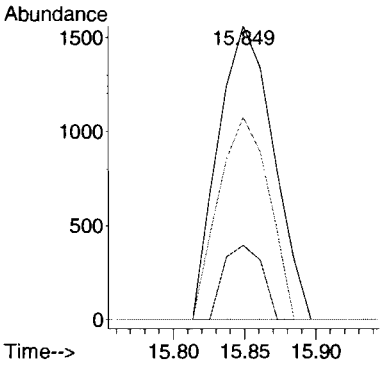

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D116.D
Acq On : 15 Mar 2010 7:45 pm
Operator : CDS1
Sample : |248866001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D116.D
Acq On : 15 Mar 2010 7:45 pm
Operator : CDS1
Sample : |248866001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**4.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11886**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 20:14**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:18**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D117.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.357	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.315	1.05
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.315	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.315	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.315	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.315	1.05
67-64-1	Acetone		7.86	ug/kg	1.74	5.25
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
74-88-4	Iodomethane	U	5.25	ug/kg	1.68	5.25
75-09-2	Methylene chloride	U	5.25	ug/kg	2.10	5.25
75-15-0	Carbon disulfide	U	5.25	ug/kg	1.31	5.25
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.315	1.05
78-93-3	2-Butanone	U	5.25	ug/kg	1.58	5.25
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.315	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.347	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.315	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.315	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.315	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.315	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.315	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.347	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.315	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.315	1.05
108-10-1	4-Methyl-2-pentanone	U	5.25	ug/kg	1.31	5.25
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.315	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.315	1.05
591-78-6	2-Hexanone	U	5.25	ug/kg	1.58	5.25
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.315	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.315	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.315	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.315	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.315	1.05

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**4.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11886**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 20:14**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:18**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D117.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.315	1.05
179601-23-1	m,p-Xylenes	U	2.10	ug/kg	0.315	2.10
95-47-6	o-Xylene	U	1.05	ug/kg	0.315	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.315	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.315	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.315	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.315	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.315	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.315	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.315	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.315	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.315	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.315	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.315	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.25	ug/kg	1.68	5.25
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D117.D
Acq On : 15 Mar 2010 8:14 pm
Operator : CDS1
InstName : VOA3
Sample : |248866002|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 16 13:34:53 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	664849	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	518314	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	252637	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	664699	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	518314	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	256138	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	207604	50.92	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 101.84%					
43) Toluene-d8	14.165	14.165	0.894	98	703444	50.43	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 100.86%					
61) Bromofluorobenzene	17.130	17.130	0.930	95	253357	49.74	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 99.48%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.987	7.987	0.653	43	20996	7.49	ug/L	95
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	0.000	8.449	0.000		0	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	2397	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D117.D
Acq On : 15 Mar 2010 8:14 pm
Operator : CDS1
InstName : VOA3
Sample : |248866002|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 16 13:34:53 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	0.000	14.248	0.000		0	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	0.000	14.888	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	0.000	15.968	0.000		0	N.D.	
55) m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	0.000	16.549	0.000		0	N.D.	
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	17.628	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	17.960	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	18.351	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	18.434	0.000		0	N.D.	
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.351	21.351	1.160	128	425	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	0.000	7.750	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87) Isopropyl Alcohol	8.153	8.141	0.667	45	373	N.D.	
88) Allyl chloride	0.000	8.556	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D117.D
Acq On : 15 Mar 2010 8:14 pm
Operator : CDS1
InstName : VOA3
Sample : |248866002|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 16 13:34:53 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	10.726	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108)	Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110)	Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111)	Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	0.000	18.980	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D117.D
Acq On : 15 Mar 2010 8:14 pm
Operator : CDS1
InstName : VOA3
Sample : |248866002|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 16 13:34:53 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

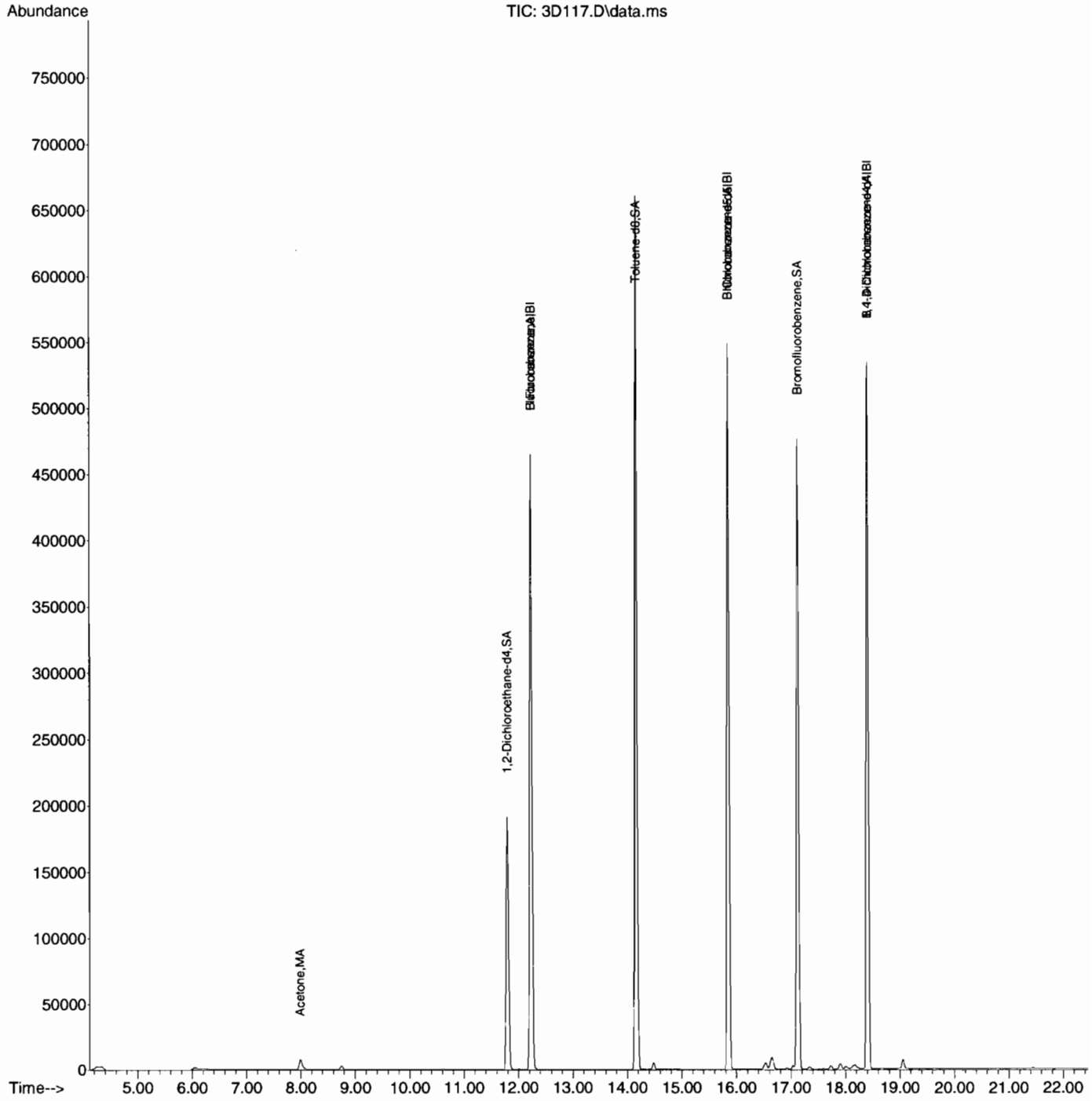

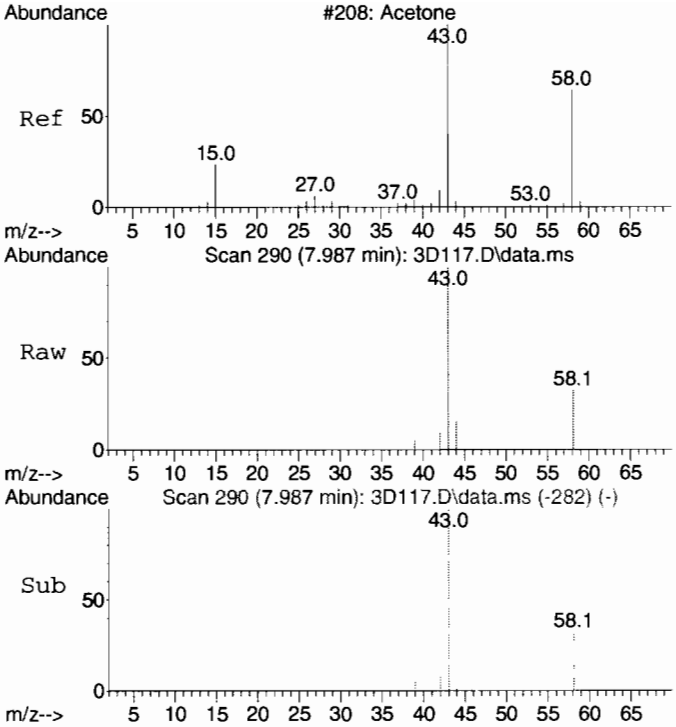

#9
Acetone
Concen: 7.49 ug/L
RT: 7.987 min Scan# 290
Delta R.T. 0.000 min
Lab File: 3D117.D
Acq: 15 Mar 2010 8:14 pm

Tgt Ion: 43 Resp: 20996

Ion	Ratio	Lower	Upper
43	100		
58	29.7	2.5	62.5

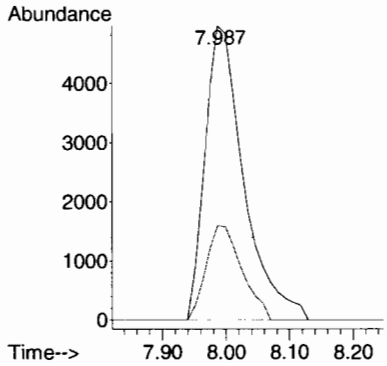

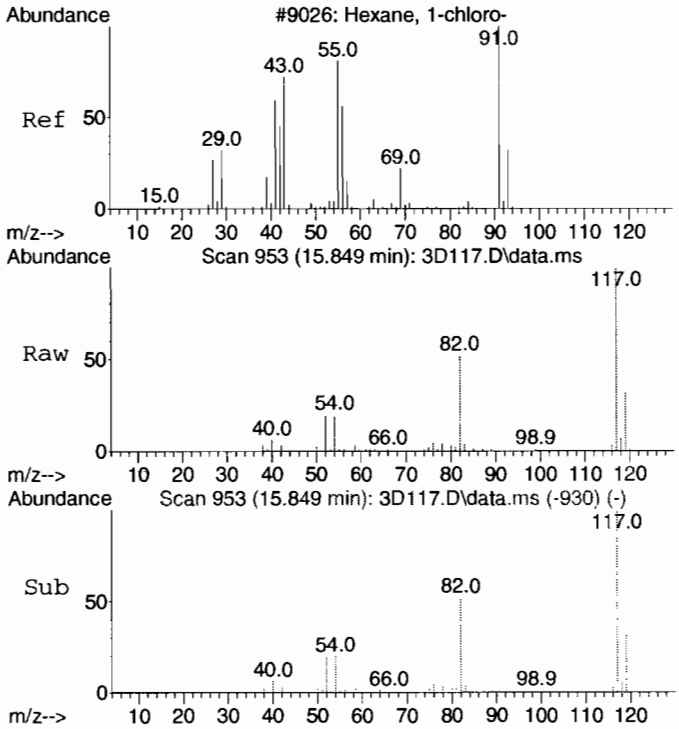

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.09 ug/L
RT: 15.849 min Scan# 953
Delta R.T. 0.095 min
Lab File: 3D117.D
Acq: 15 Mar 2010 8:14 pm

Tgt Ion: 55 Resp: 4850

Ion	Ratio	Lower	Upper
55	100		
91	21.6	119.7	179.7#
56	59.7	29.6	89.6

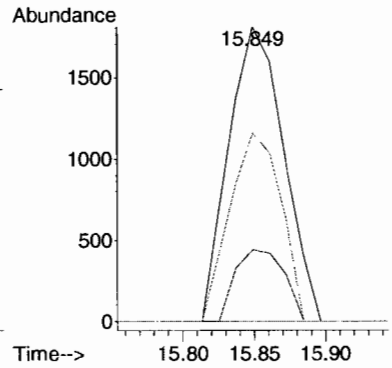

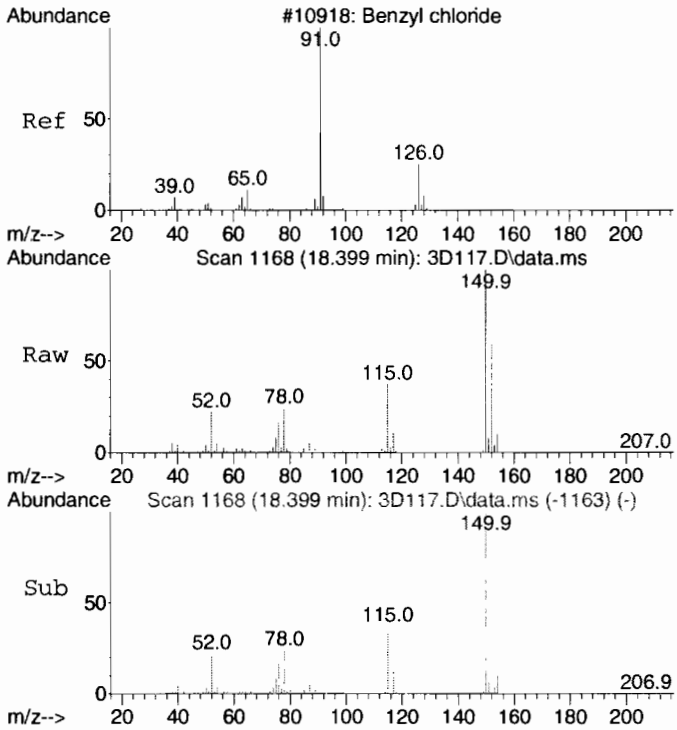

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 1.75 ug/L
RT: 18.399 min Scan# 1168
Delta R.T. -0.154 min
Lab File: 3D117.D
Acq: 15 Mar 2010 8:14 pm

Tgt Ion: 91 Resp: 663

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.8
65	294.0	0.0	41.3#

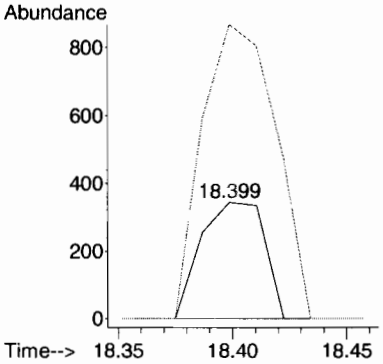

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D117.D
Acq On : 15 Mar 2010 8:14 pm
Operator : CDS1
Sample : |248866002|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D117.D
Acq On    : 15 Mar 2010   8:14 pm
Operator  : CDS1
Sample    : |248866002|965481|1|VOA|1|VOA8260BS|
Misc      : LANL 5G - SOIL
ALS Vial  : 17   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library   : C:\Database\NIST05.L
TIC Integration Parameters: default.P

                                                  |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response  |#    RT     Resp  Conc|
-----------------------------------------------------------------------------
```

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866003**	**Date Received:**	**03/06/2010 09:15**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-14017**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 20:42**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:20**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D118.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866003**	**Date Received:**	**03/06/2010 09:15**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-14017**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 20:42**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 17:20**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D118.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D118.D
Acq On : 15 Mar 2010 8:42 pm
Operator : CDS1
InstName : VOA3
Sample : |248866003|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 16 13:36:26 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	657535	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	504254	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	241091	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	657284	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	504254	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	244579	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	211747	52.51	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 105.02%					
43) Toluene-d8	14.165	14.165	0.894	98	709914	52.31	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 104.62%					
61) Bromofluorobenzene	17.130	17.130	0.930	95	234701	48.28	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 96.56%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.999	7.987	0.654	43	1994	N.D.		
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	0.000	8.449	0.000		0	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	3003	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D118.D
Acq On : 15 Mar 2010 8:42 pm
Operator : CDS1
InstName : VOA3
Sample : |248866003|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 16 13:36:26 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	0.000	14.248	0.000		0	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	0.000	14.888	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	0.000	15.968	0.000		0	N.D.	
55) m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	0.000	16.549	0.000		0	N.D.	
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	17.628	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	17.960	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	18.351	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	18.434	0.000		0	N.D.	
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	0.000	21.351	0.000		0	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	0.000	7.750	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88) Allyl chloride	0.000	8.556	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D118.D
Acq On : 15 Mar 2010 8:42 pm
Operator : CDS1
InstName : VOA3
Sample : |248866003|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 16 13:36:26 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	10.726	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108)	Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110)	Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111)	Benzyl chloride	0.000	18.553	0.000		0	N.D.	
112)	bis(2-Chloroisopropyl)...	0.000	18.980	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D118.D
Acq On : 15 Mar 2010 8:42 pm
Operator : CDS1
InstName : VOA3
Sample : |248866003|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 16 13:36:26 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

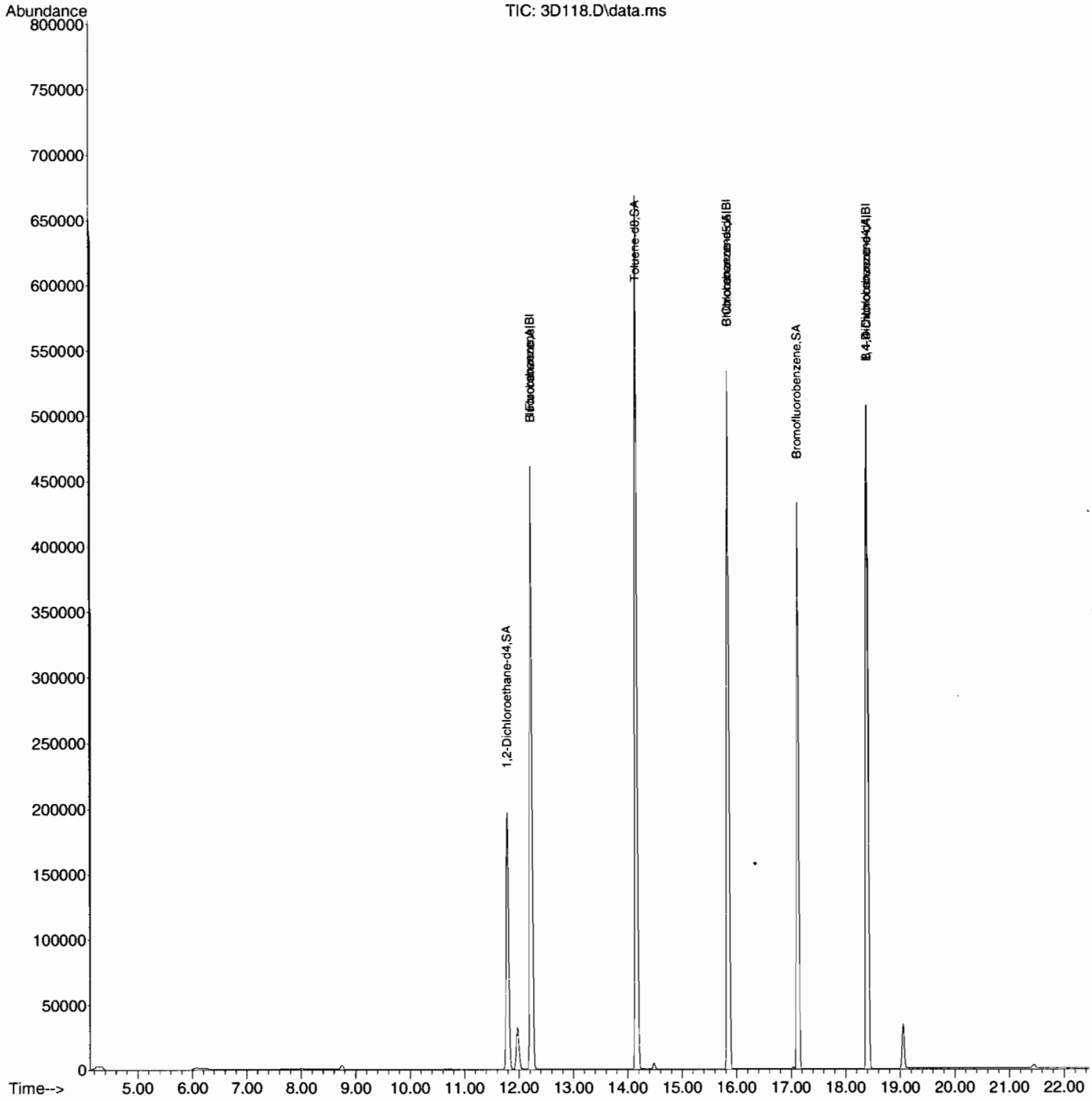

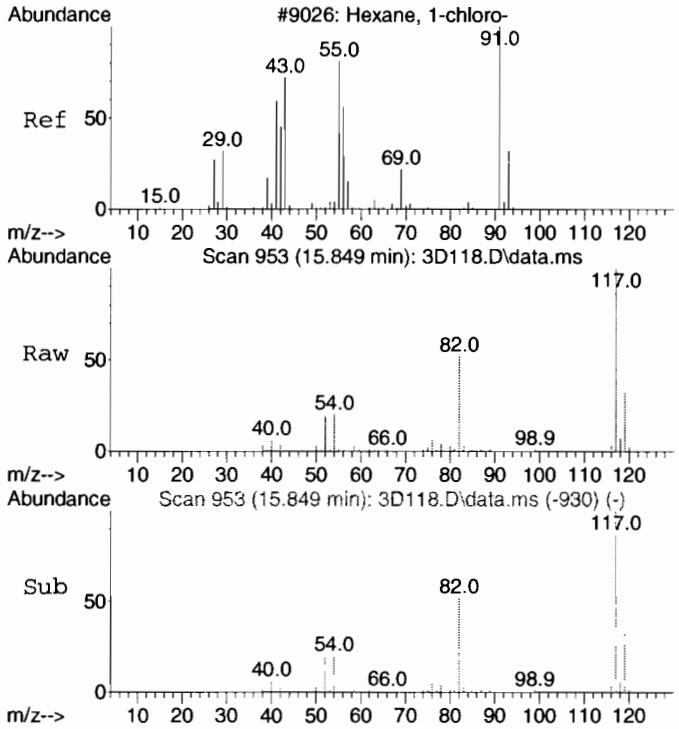

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.90 ug/L
RT: 15.849 min Scan# 953
Delta R.T. 0.095 min
Lab File: 3D118.D
Acq: 15 Mar 2010 8:42 pm

Tgt Ion: 55 Resp: 4218

Ion	Ratio	Lower	Upper
55	100		
91	16.9	119.7	179.7#
56	67.2	29.6	89.6

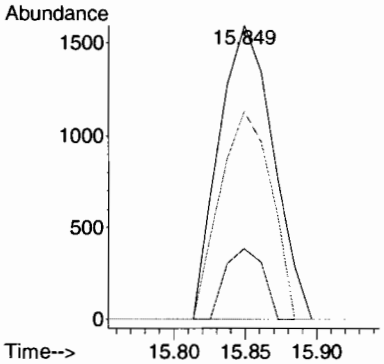

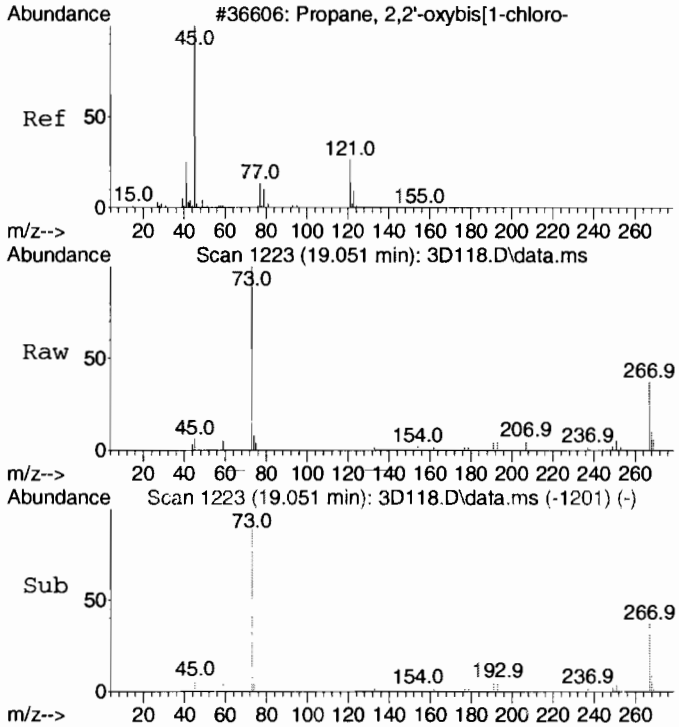

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 1.53 ug/L
RT: 19.051 min Scan# 1223
Delta R.T. 0.071 min
Lab File: 3D118.D
Acq: 15 Mar 2010 8:42 pm

Tgt Ion: 45 Resp: 2426

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	59.6

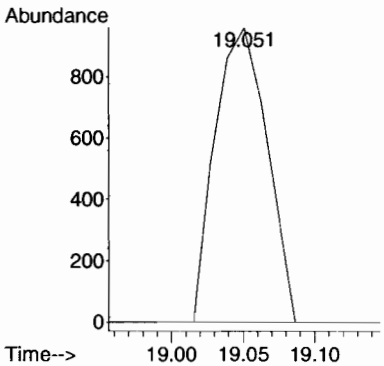

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D118.D
Acq On : 15 Mar 2010 8:42 pm
Operator : CDS1
Sample : |248866003|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D118.D
Acq On : 15 Mar 2010 8:42 pm
Operator : CDS1
Sample : |248866003|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\022610V3\3A511.D

Injection Date	Mix	Calibration File
26 Feb 2010 2:20 pm	A	C:\msdchem\1\DATA\022610V3\3A511.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\022610V3\3A515.D

Injection Date	Mix	Calibration File
26 Feb 2010 10:23 am	A	C:\msdchem\1\DATA\022610V3\3A503.D
26 Feb 2010 4:17 pm	B	C:\msdchem\1\DATA\022610V3\3A515.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\022610V3\3A516.D

Injection Date	Mix	Calibration File
26 Feb 2010 10:53 am	A	C:\msdchem\1\DATA\022610V3\3A504.D
26 Feb 2010 4:46 pm	B	C:\msdchem\1\DATA\022610V3\3A516.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\022610V3\3A517.D

Injection Date	Mix	Calibration File
26 Feb 2010 11:23 am	A	C:\msdchem\1\DATA\022610V3\3A505.D
26 Feb 2010 5:15 pm	B	C:\msdchem\1\DATA\022610V3\3A517.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\022610V3\3A518.D

Injection Date	Mix	Calibration File
26 Feb 2010 11:52 am	A	C:\msdchem\1\DATA\022610V3\3A506.D
26 Feb 2010 5:45 pm	B	C:\msdchem\1\DATA\022610V3\3A518.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\022610V3\3A519.D

Injection Date	Mix	Calibration File
26 Feb 2010 12:22 pm	A	C:\msdchem\1\DATA\022610V3\3A507.D
26 Feb 2010 6:14 pm	B	C:\msdchem\1\DATA\022610V3\3A519.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\022610V3\3A520.D

Injection Date	Mix	Calibration File
26 Feb 2010 12:52 pm	A	C:\msdchem\1\DATA\022610V3\3A508.D
26 Feb 2010 6:43 pm	B	C:\msdchem\1\DATA\022610V3\3A520.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\022610V3\3A521.D

Injection Date	Mix	Calibration File
26 Feb 2010 1:21 pm	A	C:\msdchem\1\DATA\022610V3\3A509.D
26 Feb 2010 7:14 pm	B	C:\msdchem\1\DATA\022610V3\3A521.D

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	86	17	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane 0.0023 | 0.1374 | 0.00		2277 265306	5491	18101	26429	54755		LINR		0.9995
3)MPA Chloromethane		0.2616031 0.2242101	0.2323936	0.2502915	0.2201181	0.2227574	0.2352	AVRG		7.2040
4)MCA Vinyl chloride		0.2541011 0.2406996	0.2352067	0.2551214	0.2262592	0.2268934	0.2397	AVRG		5.3131
5)MA Bromomethane		0.2072141 0.1976563	0.1833422	0.1967047	0.1853018	0.1905574	0.1935	AVRG		4.5923
6)MA Chloroethane		0.1439835 0.1609703	0.1515516	0.1635666	0.1519987	0.1571248	0.1549	AVRG		4.6177
7)MA Trichlorofluoromethane		0.3275129 0.3295311	0.3205552	0.3526688	0.3230757	0.3256797	0.3298	AVRG		3.5251
8)MA Ethyl ether		0.1632206 0.1815809	0.1588711	0.1698610	0.1702956	0.1792069	0.1705	AVRG		5.1616
9)MA Acetone		0.2512718 0.1922869	0.2223648	0.2033793	0.2013304	0.1941089	0.2108	AVRG		10.6879
10)MCA 1,1-Dichloroethylene		0.3242442 0.3458620	0.3114878	0.3387494	0.3630812	0.3504022	0.3390	AVRG		5.4902
11)MA Iodomethane		0.4294534 0.4190581	0.4178005	0.4292890	0.4418386	0.4343625	0.4286	AVRG		2.1314
12)MA Acetonitrile		0.0402682 0.0326505	0.0382372	0.0366367	0.0366463	0.0346505	0.0365	AVRG		7.2968
13)MA Methyl acetate		0.2076535 0.1795084	0.1923167	0.1885164	0.1826725	0.1780487	0.1881	AVRG		5.8454
14)MA Carbon disulfide		0.7600850 0.7072909	0.7160095	0.7724256	0.7803354	0.7507584	0.7478	AVRG		4.0011
15)MA Methylene chloride		0.2643832	0.3707264	0.3129119	0.2978783	0.2772388	0.3046	AVRG		13.5875
16)MA tert-Butyl methyl ether		0.6294121 0.6487595	0.7724787	0.6242810	0.6481214	0.6521856	0.6625	AVRG		8.3090

Response Factor Report VOA3
GEL Laboratories, LLC

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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle		0.2879134 0.3121953	0.3205825	0.3159418	0.3271093	0.3199899	0.3140	AVRG		4.3640
18)MA Vinyl acetate		0.3708955 0.3676321	0.3562677	0.3763507	0.3961861	0.3992501	0.3778	AVRG		4.4531
19)MPA 1,1-Dichloroethane		0.3891895 0.3840108	0.3951156	0.3902567	0.4064048	0.4023760	0.3946	AVRG		2.1516
20)MA 2-Butanone		0.2176096 0.2243453	0.2073927	0.2035761	0.2041258	0.2025725	0.2099	AVRG		4.2679
21)MA cis-1,2-Dichloroethylene		0.3148132 0.3490691	0.3479486	0.3487669	0.3618816	0.3617607	0.3474	AVRG		4.9575
22)MA 2,2-Dichloropropane		0.2273085 0.2579670	0.2285154	0.2406765	0.2548518	0.2523942	0.2436	AVRG		5.5433
23)MA Bromochloromethane		0.1225494 0.1324406	0.1224921	0.1286731	0.1292831	0.1318949	0.1279	AVRG		3.4433
24)MCA Chloroform		0.3924582 0.4048216	0.3828801	0.4055065	0.4179002	0.4123718	0.4027	AVRG		3.2088
25)MA 1,1,1-Trichloroethane		0.3013633 0.3457650	0.3029120	0.3266748	0.3385056	0.3468985	0.3270	AVRG		6.2937
26)MA Cyclohexane		0.3569848 0.3650756	0.3431964	0.3658950	0.3821484	0.3830406	0.3661	AVRG		4.1489
27)MA 1,1-Dichloropropene		0.2585487 0.2772380	0.2705751	0.2830943	0.2924361	0.2851494	0.2778	AVRG		4.3171
28)MA Carbon tetrachloride		0.2621925 0.3083052	0.2521945	0.2910993	0.2979444	0.3040173	0.2860	AVRG		8.1269
29)SA 1,2-Dichloroethane-d4		0.3048163 0.3054923	0.3038023	0.3043099	0.3120712	0.3093640	0.3066	AVRG		1.0820
30)MA 1,2-Dichloroethane		0.3206540 0.3078525	0.3189165	0.3150473	0.3121416	0.3149056	0.3149	AVRG		1.4658
31)MA Benzene		0.8925155 0.8492594	0.8667581	0.8810794	0.9114586	0.8881848	0.8815	AVRG		2.4438

Response Factor Report VOA3
GEL Laboratories, LLC

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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene		0.3909578 0.4052279	0.4007418	0.4027450	0.4153084	0.4060418	0.4035	AVRG		1.9651
33)MA n-Butyl alcohol -0.0153 | 0.0095 | 0.00	6147	13646 1801412	26068	68644	152277	327782		LINR	#	0.9998
34)MA Trichloroethylene		0.2185741 0.2296824	0.2169080	0.2293622	0.2366375	0.2345330	0.2276	AVRG		3.5852
35)MCA 1,2-Dichloropropane		0.2132156 0.2142021	0.2089330	0.2127484	0.2202776	0.2222368	0.2153	AVRG		2.3272
36)MA Methylcyclohexane		0.3768113 0.3724753	0.3477301	0.3812230	0.3983542	0.3842014	0.3768	AVRG		4.4451
37)MA Dibromomethane		0.1343382 0.1494473	0.1372676	0.1528224	0.1446250	0.1484067	0.1445	AVRG		5.0347
38)MA Bromodichloromethane		0.2494928 0.3062115	0.2501461	0.2659550	0.2845010	0.2930440	0.2749	AVRG		8.5160
39)MA 2-Chloroethylvinyl ether -0.0077 | 0.0716 | 0.00		4198 681672	8783	24673	52943	116501		LINR		0.9993
40)MA cis-1,3-Dichloropropylen		0.2842160 0.3552871	0.2817182	0.2936149	0.3215129	0.3379201	0.3124	AVRG		9.7753
42)MA 4-Methyl-2-pentanone		0.1126917 0.1280754	0.1194132	0.1148631	0.1259371	0.1238311	0.1208	AVRG		5.1220
43)SA Toluene-d8		1.3518916 1.3270201	1.3510408	1.3495094	1.3589702	1.3350480	1.3456	AVRG		0.8917
44)MCA Toluene		1.2887421 1.1259558	1.1909009	1.1756455	1.2234448	1.1780655	1.1971	AVRG		4.5776
45)MA trans-1,3-Dichloropropyl		0.3431112 0.4100913	0.3410400	0.3336466	0.3709023	0.3844142	0.3639	AVRG		8.2205
46)MA 1,1,2-Trichloroethane		0.2078616 0.2076847	0.2077071	0.1987867	0.2114831	0.2074057	0.2068	AVRG		2.0427
47)MA 2-Hexanone		0.3084722 0.3216425	0.3020269	0.2974837	0.3127201	0.3081516	0.3084	AVRG		2.7277

Response Factor Report VOA3
GEL Laboratories, LLC

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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane		0.4572956 0.4094379	0.4237014	0.4156022	0.4398228	0.4312282	0.4295	AVRG		4.0479
49)MA Tetrachloroethylene		0.2354138 0.2179223	0.2323932	0.2334344	0.2470356	0.2330730	0.2332	AVRG		3.9786
50)MA Dibromochloromethane		0.2494340 0.3164834	0.2429278	0.2628701	0.2793324	0.2903839	0.2736	AVRG		10.0684
51)MA 1,2-Dibromoethane		0.2700109 0.2763561	0.2529708	0.2593241	0.2696286	0.2675353	0.2660	AVRG		3.1600
52)MPA Chlorobenzene		0.8011741 0.7610658	0.8025255	0.7738711	0.7949044	0.7811634	0.7858	AVRG		2.1101
53)MA 1,1,1,2-Tetrachloroethan		0.2596875 0.2989609	0.2347810	0.2665300	0.2764643	0.2846701	0.2702	AVRG		8.2002
54)MCA Ethylbenzene		1.2936945 1.1837419	1.2319507	1.2102932	1.2614568	1.2410204	1.2370	AVRG		3.1107
55)MA m,p-Xylenes		0.4932529 0.4920194	0.4670689	0.4844705	0.5068089	0.5057304	0.4916	AVRG		2.9988
56)MA o-Xylene		0.4360212 0.5137219	0.4710369	0.4978140	0.5103853	0.5178328	0.4911	AVRG		6.4898
57)MA Styrene		0.7238189 0.8665230	0.7084516	0.7473548	0.8145164	0.8437693	0.7841	AVRG		8.4573
59)MPA Bromoform -0.0118 | 0.3968 | 0.00		1705 319914	3889	10263	22941	51759		LINR		0.9991
60)MA Isopropylbenzene		2.4693419 2.4666939	2.3478839	2.4305203	2.6280982	2.5248171	2.4779	AVRG		3.7905
61)SA Bromofluorobenzene		1.0117596 1.0073171	1.0079856	1.0046478	1.0271820	0.9900732	1.0082	AVRG		1.1861
62)MPA 1,1,2,2-Tetrachloroethan		0.7433905 0.6532974	0.6459507	0.6400614	0.6862034	0.6503548	0.6699	AVRG		5.8917
63)MA 1,2,3-Trichloropropane		0.1757257 0.1837154	0.1959634	0.1795787	0.1879136	0.1821393	0.1842	AVRG		3.8379

Response Factor Report VOA3
GEL Laboratories, LLC

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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene		0.6990069 0.6475703	0.6629458	0.6426559	0.6822975	0.6563265	0.6651	AVRG		3.2511
65)MA n-Propylbenzene		2.9422568 2.7493829	2.7629100	2.8065839	3.0179028	2.9094149	2.8647	AVRG		3.7765
66)MA 1,3,5-Trimethylbenzene		2.0469325 2.0860717	1.9298056	2.0787279	2.1864852	2.1459569	2.0790	AVRG		4.2684
67)MA 2-Chlorotoluene		0.6347272 0.6139231	0.5819245	0.6222625	0.6463357	0.6062180	0.6176	AVRG		3.6616
68)MA 4-Chlorotoluene		1.8471368 1.7388256	1.7078987	1.7755335	1.8322518	1.7621182	1.7773	AVRG		3.0224
69)MA tert-Butylbenzene		0.4350706 0.4655259	0.4117658	0.4362952	0.4645460	0.4550383	0.4447	AVRG		4.6980
70)MA 1,2,4-Trimethylbenzene		2.0659938 2.1467458	1.9676109	2.0841121	2.2405674	2.1433822	2.1081	AVRG		4.3668
71)MA sec-Butylbenzene		2.7144952 2.7936401	2.6279901	2.7422793	2.9803647	2.8483307	2.7845	AVRG		4.3601
72)MA 4-Isopropyltoluene		2.0910379 2.2836300	2.0254634	2.1899010	2.3425800	2.3301522	2.2105	AVRG		5.9346
73)MA 1,3-Dichlorobenzene		1.1816611 1.1098192	1.0951751	1.1217743	1.1796527	1.1299381	1.1363	AVRG		3.1927
74)MA 1,4-Dichlorobenzene		1.3881352 1.2545517	1.2944681	1.2955782	1.3126890	1.2684404	1.3023	AVRG		3.6030
75)MA n-Butylbenzene		2.0697504 2.1295339	1.9510321	2.1190961	2.2016901	2.1409973	2.1020	AVRG		4.0558
76)MA 1,2-Dichlorobenzene		1.4165185 1.2532868	1.2799703	1.2581950	1.2909697	1.2572560	1.2927	AVRG		4.8305
77)MA 1,2-Dibromo-3-chloroprop -0.0053 | 0.1663 | 0.00		781 133971	1316	4274	9282	21730		LINR		0.9992
78)MA 1,2,4-Trichlorobenzene		0.9378991 0.8776912	0.8250578	0.8776677	0.8575450	0.8402688	0.8694	AVRG		4.5388

Response Factor Report VOA3
GEL Laboratories, LLC

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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene		0.4091917 0.4355717	0.4158585	0.4369926	0.4600403	0.4549497	0.4354	AVRG		4.6622
80)MA Naphthalene		2.2751115 2.3480964	2.1617013	2.1746687	2.2434688	2.2115010	2.2358	AVRG		3.1009
81)MA 1,2,3-Trichlorobenzene		0.9335860 0.7911532	0.8654297	0.8480960	0.8344446	0.8213539	0.8490	AVRG		5.7093
83)B Chlorotrifluoroethylene	0.1190819	0.1377014	0.1479953	0.1454693	0.1461092	0.1375422	0.1390	AVRG		7.7082
84)B 2-Chloro-1,1,1-trifluoro	0.2942342	0.2744057 0.2773425	0.2713970	0.2898784	0.2919948	0.2691515	0.2812	AVRG		3.7411
85)B Acrolein -0.0015 | 0.0265 | 0.00		1403	3279	9512	24236	47814		LINR		0.9980
86)B Trichlorotrifluoroethane	0.0734506	0.0898388 0.0724274	0.0811825	0.0933924	0.0875572	0.0810551	0.0827	AVRG		9.6856
87)B Isopropyl Alcohol	0.0206065	0.0174188 0.0200712	0.0174588	0.0177164	0.0190216	0.0189562	0.0187	AVRG		6.8216
88)B Allyl chloride	0.2938643	0.3045021 0.2697421	0.2795530	0.3208515	0.3079574	0.2971171	0.2962	AVRG		5.8443
89)B tert-Butyl Alcohol	0.0349488	0.0300975 0.0331829	0.0289918	0.0293445	0.0310667	0.0319348	0.0314	AVRG		6.8727
90)B Acrylonitrile	0.0926929	0.0889918 0.0836840	0.0785965	0.0934529	0.0907204	0.0916199	0.0885	AVRG		6.1568
91)B Isopropyl ether	0.7305681	0.6865236 0.7509827	0.6893026	0.6900478	0.7296397	0.6892134	0.7095	AVRG		3.7716
92)B 2-Chloro-1,3-butadiene	0.2761391	0.2345953 0.2553679	0.2329521	0.2695636	0.2673914	0.2659065	0.2574	AVRG		6.7158
93)B Ethyl tert-butyl ether	0.7134150	0.6338255 0.7361818	0.6463766	0.6459686	0.7027133	0.6637324	0.6775	AVRG		5.8516
94)B Ethyl acetate	0.2226895	0.2406210 0.1965077	0.2049246	0.2259259	0.2193049	0.2193727	0.2185	AVRG		6.5572

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile		0.0354359	0.0304722	0.0353374	0.0357550	0.0362016				
	0.0366098	0.0331975					0.0347	AVRG		6.2330
96)B Methacrylonitrile		0.1322547	0.1231819	0.1389465	0.1368367	0.1375294				
	0.1390662	0.1243633					0.1332	AVRG		5.1183
97)B Tetrahydrofuran		0.0752463	0.0706133	0.0751958	0.0749912	0.0750971				
	0.0756568	0.0677925					0.0735	AVRG		4.1654
98)B Isobutyl alcohol		0.0091276	0.0080827	0.0096923	0.0095609	0.0099136				
	0.0108529	0.0089532					0.0095	AVRG	#	9.1336
99)B Methyl tert-amyl ether		0.6223530	0.5817259	0.6074483	0.6202135	0.5992109				
	0.6618921	0.6872022					0.6257	AVRG		5.8728
100)B Methyl methacrylate		0.1333805	0.1253282	0.1490333	0.1503818	0.1513841				
	0.1563346	0.1427461					0.1441	AVRG		7.6851
101)B 1,4-Dioxane		0.0028392	0.0029697	0.0031861	0.0031487	0.0031801				
	0.0032585	0.0028687					0.0031	AVRG	#	5.5087
102)B 2-Nitropropane		3847	6920	21607	47943	108855				
-0.0069 | 0.0652 | 0.00	309988	607260						LINR		0.9989
104)B Ethyl methacrylate		0.2946797	0.2932699	0.3534190	0.3617355	0.3690872				
	0.3689686	0.3358201					0.3396	AVRG		9.7609
106)B 1-Chlorohexane		0.4130883	0.4136660	0.4742347	0.4785112	0.4453676				
	0.4681816	0.4784814					0.4531	AVRG		6.4850
107)B cis-1,4-Dichloro-2-buten		0.1509128	0.1467436	0.1638729	0.1731162	0.1801043				
	0.1861930	0.1732163					0.1677	AVRG		8.7458
108)B Cyclohexanone		0.0187731	0.0165114	0.0196026	0.0193252	0.0220481				
							0.0193	AVRG		10.2864
109)B trans-1,4-Dichloro-2-but		0.1519917	0.1386168	0.1673497	0.1662643	0.1735759				
	0.1812394	0.1661826					0.1636	AVRG		8.6349
110)B Pentachloroethane		5968	11742	24680	71270	130274				
-0.0301 | 0.2226 | 0.00	415588							LINR		0.9942
111)B Benzyl chloride		20461	40373	116221	266770	576558				
-0.0257 | 0.8064 | 0.00	1588109	3095519						LINR		0.9988

Response Factor Report VOA3
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Last Update : Mon Mar 01 09:52:36 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound	8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
b | m1 | m2	6	7								
12)B bis(2-Chloroisopropyl)et		0.3201400	0.3187359	0.3223401	0.3177936	0.3358707				
	0.3429568	0.3045391					0.3232	AVRG		3.9104

#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-2319

Instrument ID: VOA3.I **Injection Date** 26-FEB-10 15:19

Data File: 022610V3\3A513.D **Init. Cal. Date(s)** 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100226-10 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.3066	0.3003		.01		-2.05479	30		Averaged	
S	Toluene-d8	1.3456	1.32808		.01		-1.30202	30		Averaged	
S	Bromofluorobenzene	1.0082	0.98895		.01		-1.90934	30		Averaged	
	Dichlorodifluoromethane	50	54.65	50			9.3	30		Linear	
	Chloromethane	0.2352	0.22356		.1		-4.94898	30		Averaged	spcc
	Vinyl chloride	0.2397	0.25527		.01		6.49562	20		Averaged	ccc
	Bromomethane	0.1935	0.20362		.01		5.22997	30		Averaged	
	Chloroethane	0.1549	0.1638		.01		5.74564	30		Averaged	
	Trichlorofluoromethane	0.3298	0.35359		.01		7.21346	30		Averaged	
	Ethyl ether	0.1705	0.17805		.01		4.42815	30		Averaged	
	Acetone	0.2108	0.15587		.01		-26.05787	40		Averaged	
	1,1-Dichloroethylene	0.339	0.33566		.01		-0.98525	20		Averaged	ccc
	Iodomethane	0.4286	0.405		.01		-5.5063	30		Averaged	
	Carbon disulfide	0.7478	0.73439		.01		-1.79326	30		Averaged	
	Acetonitrile	0.0365	0.03221		.01		-11.75342	30		Averaged	
	Methyl acetate	0.1881	0.16656		.01		-11.45136	40		Averaged	
	Methylene chloride	0.3046	0.26555		.01		-12.82009	30		Averaged	
	tert-Butyl methyl ether	0.6625	0.62916		.01		-5.03245	30		Averaged	
	trans-1,2-Dichloroethylene	0.314	0.30972		.01		-1.36306	30		Averaged	
	Vinyl acetate	0.3778	0.41502		.01		9.85177	40		Averaged	
	1,1-Dichloroethane	0.3946	0.38617		.1		-2.13634	30		Averaged	spcc
	2-Butanone	0.2099	0.1738		.01		-17.19867	40		Averaged	
	cis-1,2-Dichloroethylene	0.3474	0.34931		.01		0.5498	30		Averaged	
	2,2-Dichloropropane	0.2436	0.25483		.01		4.61002	30		Averaged	
	Bromochloromethane	0.1279	0.12754		.01		-0.28147	30		Averaged	
	Chloroform	0.4027	0.40211		.01		-0.14651	20		Averaged	ccc
	1,1,1-Trichloroethane	0.327	0.34021		.01		4.03976	30		Averaged	
	Cyclohexane	0.3661	0.3763		.01		2.78612	30		Averaged	
	1,1-Dichloropropene	0.2778	0.28616		.01		3.00936	30		Averaged	
	Carbon tetrachloride	0.286	0.31003		.01		8.4021	30		Averaged	
	1,2-Dichloroethane	0.3149	0.30336		.01		-3.66466	30		Averaged	
	Benzene	0.8815	0.86018		.01		-2.4186	30		Averaged	
	Cyclohexene	0.4035	0.39817		.01		-1.32094	30		Averaged	
	n-Butyl alcohol	5000	4762.41	5000			-4.7518	40		Linear	
	Trichloroethylene	0.2276	0.22899		.01		0.61072	30		Averaged	
	1,2-Dichloropropane	0.2153	0.2176		.01		1.06828	20		Averaged	ccc
	Methylcyclohexane	0.3768	0.38727		.01		2.77866	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Dat** 26-FEB-10 15:19

Data File: 022610V3\3A513.D **Init. Cal. Date(s)** 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100226-10 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1445	0.14557		.01		0.74048	30		Averaged	
Bromodichloromethane	0.2749	0.30159		.01		9.70899	30		Averaged	
2-Chloroethylvinyl ether	250	250.97	250			0.388	30		Linear	
cis-1,3-Dichloropropylene	0.3124	0.33552		.01		7.40077	30		Averaged	
4-Methyl-2-pentanone	0.1208	0.11733		.01		-2.87252	40		Averaged	
Toluene	1.1971	1.13336		.01		-5.32453	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3639	0.39665		.01		8.99973	30		Averaged	
1,1,2-Trichloroethane	0.2068	0.20353		.01		-1.58124	30		Averaged	
1,3-Dichloropropane	0.4295	0.41333		.01		-3.76484	30		Averaged	
2-Hexanone	0.3084	0.26421		.01		-14.32879	40		Averaged	
Tetrachloroethylene	0.2332	0.22732		.01		-2.52144	30		Averaged	
Dibromochloromethane	0.2736	0.30228		.01		10.48246	30		Averaged	
1,2-Dibromoethane	0.266	0.26681		.01		0.30451	30		Averaged	
Chlorobenzene	0.7858	0.77084		.3		-1.90379	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.2702	0.28898		.01		6.95041	30		Averaged	
Ethylbenzene	1.237	1.21385		.01		-1.87146	20		Averaged	ccc
m,p-Xylenes	0.4916	0.49098		.01		-0.12612	30		Averaged	
o-Xylene	0.4911	0.51577		.01		5.02342	30		Averaged	
Styrene	0.7841	0.86736		.01		10.61854	30		Averaged	
Bromoform	50	46.48	50			-7.04	30		Linear	spcc
Isopropylbenzene	2.4779	2.50374		.01		1.04282	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6699	0.64527		.3		-3.67667	30		Averaged	spcc
1,2,3-Trichloropropane	0.1842	0.18044		.01		-2.04126	30		Averaged	
Bromobenzene	0.6651	0.65372		.01		-1.71102	30		Averaged	
n-Propylbenzene	2.8647	2.836		.01		-1.00185	30		Averaged	
2-Chlorotoluene	0.6176	0.6121		.01		-0.89054	30		Averaged	
1,3,5-Trimethylbenzene	2.079	2.11644		.01		1.80087	30		Averaged	
4-Chlorotoluene	1.7773	1.77993		.01		0.14798	30		Averaged	
tert-Butylbenzene	0.4447	0.4734		.01		6.45379	30		Averaged	
1,2,4-Trimethylbenzene	2.1081	2.12508		.01		0.80546	30		Averaged	
sec-Butylbenzene	2.7845	2.84065		.01		2.01652	30		Averaged	
4-Isopropyltoluene	2.2105	2.33061		.01		5.43361	30		Averaged	
1,3-Dichlorobenzene	1.1363	1.12222		.01		-1.23911	30		Averaged	
1,4-Dichlorobenzene	1.3023	1.27042		.01		-2.44798	30		Averaged	
n-Butylbenzene	2.102	2.16723		.01		3.10324	30		Averaged	
1,2-Dichlorobenzene	1.2927	1.25397		.01		-2.99605	30		Averaged	
1,2-Dibromo-3-chloropropane	50	46.4	50			-7.2	30		Linear	

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Dat** 26-FEB-10 15:19

Data File: 022610V3\3A513.D **Init. Cal. Date(s)** 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100226-10 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8694	0.86027		.01		-1.05015	30		Averaged
Hexachlorobutadiene	0.4354	0.44974		.01		3.29352	30		Averaged
Naphthalene	2.2358	2.24989		.01		0.6302	30		Averaged
1,2,3-Trichlorobenzene	0.849	0.81257		.01		-4.29093	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A513.D
Acq On : 26 Feb 2010 3:19 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-10|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[A]ULT 0220-01B+0224-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 01 10:53:10 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	936508	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	752375	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	394353	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	936346	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	752423	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	402226	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	281232	48.97	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	999214	49.35	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	389997	49.05	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	142729	54.65	ug/L	99
3) Chloromethane	5.216	5.216	0.426	50	209362	47.52	ug/L	100
4) Vinyl chloride	5.528	5.528	0.452	62	239062	53.24	ug/L	99
5) Bromomethane	6.291	6.291	0.514	94	190692	52.63	ug/L	99
6) Chloroethane	6.493	6.493	0.531	64	153397	52.88	ug/L	100
7) Trichlorofluoromethane	7.062	7.062	0.577	101	331143	53.60	ug/L	99
8) Ethyl ether	7.501	7.512	0.613	59	166741	52.21	ug/L	98
9) Acetone	7.987	7.987	0.653	43	729886	184.87	ug/L	100
10) 1,1-Dichloroethylene	7.987	7.987	0.653	61	314346	49.51	ug/L	100
11) Iodomethane	8.272	8.271	0.676	142	1896419	236.21	ug/L	100
12) Acetonitrile	8.450	8.449	0.691	41	754198	1102.74	ug/L	99
13) Methyl acetate	8.521	8.520	0.697	43	779924	221.35	ug/L	99
14) Carbon disulfide	8.438	8.449	0.690	76	3438823	245.51	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	248687	43.59	ug/L	100
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	589212	47.48	ug/L	100
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753	61	290052	49.32	ug/L	100
18) Vinyl acetate	9.837	9.837	0.804	43	1943338	274.65	ug/L	100
19) 1,1-Dichloroethane	9.861	9.860	0.806	63	361653	48.94	ug/L	100
20) 2-Butanone	10.643	10.643	0.870	43	813812	206.96	ug/L	100
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	327129	50.28	ug/L	100
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	238652	52.30	ug/L	99
23) Bromochloromethane	11.035	11.034	0.902	128	119446	49.87	ug/L	98
24) Chloroform	11.094	11.094	0.907	83	376583	49.93	ug/L	100
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	318612	52.02	ug/L	99
26) Cyclohexane	11.533	11.532	0.943	56	352411	51.40	ug/L	100
27) 1,1-Dichloropropene	11.628	11.627	0.951	75	267994	51.50	ug/L	100
28) Carbon tetrachloride	11.663	11.663	0.953	117	290345	54.21	ug/L	100
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	284097	48.16	ug/L	99
31) Benzene	11.912	11.912	0.974	78	805562	48.79	ug/L	100
32) Cyclohexene	12.054	12.054	0.985	67	372888	49.34	ug/L	100
33) n-Butyl alcohol	12.398	12.398	1.014	56	828859	4762.41	ug/L	100
34) Trichloroethylene	12.695	12.695	1.038	95	214451	50.30	ug/L	100
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	203783	50.54	ug/L	99
36) Methylcyclohexane	12.991	12.991	1.062	83	362681	51.39	ug/L	100
37) Dibromomethane	13.134	13.133	1.074	93	136326	50.38	ug/L	99
38) Bromodichloromethane	13.288	13.288	1.086	83	282443	54.86	ug/L	100
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	329400	250.97	ug/L	99
40) cis-1,3-Dichloropropylene	13.810	13.809	1.129	75	314220	53.70	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A513.D
Acq On : 26 Feb 2010 3:19 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-10|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[A]ULT 0220-01B+0224-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 01 10:53:10 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	441398	242.82	ug/L	100
44) Toluene	14.248	14.248	0.899	91	852708	47.34	ug/L	100
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	298433	54.51	ug/L	99
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	153130	49.20	ug/L	100
47) 2-Hexanone	14.889	14.888	0.939	43	993918	214.17	ug/L	99
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	310982	48.12	ug/L	95
49) Tetrachloroethylene	14.912	14.912	0.941	164	171028	48.74	ug/L	99
50) Dibromochloromethane	15.173	15.173	0.957	129	227430	55.25	ug/L	100
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	200741	50.16	ug/L	99
52) Chlorobenzene	15.885	15.885	1.002	112	579962	49.05	ug/L	99
53) 1,1,1,2-Tetrachloroethane	15.956	15.956	1.007	131	217421	53.48	ug/L	99
54) Ethylbenzene	15.968	15.968	1.007	91	913268	49.06	ug/L	100
55) m,p-Xylenes	16.086	16.086	1.015	106	738806	99.88	ug/L	99
56) o-Xylene	16.549	16.549	1.044	106	388050	52.51	ug/L	99
57) Styrene	16.549	16.549	1.044	104	652578	55.31	ug/L	99
59) Bromoform	16.810	16.821	0.913	173	140794	46.48	ug/L	99
60) Isopropylbenzene	16.928	16.928	0.919	105	987356	50.52	ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	254466	48.16	ug/L	100
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	71156	48.99	ug/L	95
64) Bromobenzene	17.343	17.343	0.942	156	257796	49.14	ug/L	99
65) n-Propylbenzene	17.367	17.367	0.943	91	1118385	49.50	ug/L	99
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	834626	50.90	ug/L	100
67) 2-Chlorotoluene	17.521	17.521	0.952	126	241382	49.56	ug/L	98
68) 4-Chlorotoluene	17.628	17.628	0.957	91	701921	50.07	ug/L	100
69) tert-Butylbenzene	17.913	17.912	0.973	134	186686	53.23	ug/L	99
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	838030	50.40	ug/L	99
71) sec-Butylbenzene	18.150	18.150	0.986	105	1120217	51.01	ug/L	100
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	919082	52.72	ug/L	100
73) 1,3-Dichlorobenzene	18.351	18.351	0.997	146	442549	49.38	ug/L	100
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	500995	48.78	ug/L	100
75) n-Butylbenzene	18.743	18.742	1.018	91	854654	51.55	ug/L	99
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	494507	48.50	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	58785	46.40	ug/L	97
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	339251	49.48	ug/L	99
79) Hexachlorobutadiene	21.126	21.126	1.148	225	177358	51.64	ug/L	100
80) Naphthalene	21.352	21.351	1.160	128	887252	50.32	ug/L	100
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	320439	47.85	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88) Allyl chloride	8.450	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.173	9.090	0.750		0m	N.D.	d	
91) Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.643	10.679	0.870		0m	N.D.	d	
95) Propionitrile	10.643	10.726	0.870		0m	N.D.	d	
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.		
97) Tetrahydrofuran	11.106	11.094	0.908		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A513.D
Acq On : 26 Feb 2010 3:19 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-10|ICV|1|VOA|1|
Misc : ICV 5mL - MIX[A]ULT 0220-01B+0224-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 01 10:53:10 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98) Isobutyl alcohol	11.533	11.556	0.943		0m	N.D.	d
99) Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100) Methyl methacrylate	12.991	12.991	1.062		0m	N.D.	d
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108) Cyclohexanone	16.928	17.082	0.919		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110) Pentachloroethane	17.984	17.983	0.977		0m	N.D.	d
111) Benzyl chloride	18.399	18.553	0.999		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A513.D
Acq On    : 26 Feb 2010   3:19 pm
Operator  : CDS1
InstName  : VOA3
Sample    : |W3VM100226-10|ICV|1|VOA|1|
Misc      : ICV  5mL - MIX[A]ULT 0220-01B+0224-01
ALS Vial  : 13   Sample Multiplier: 1

Quant Time: Mar 01 10:53:10 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE
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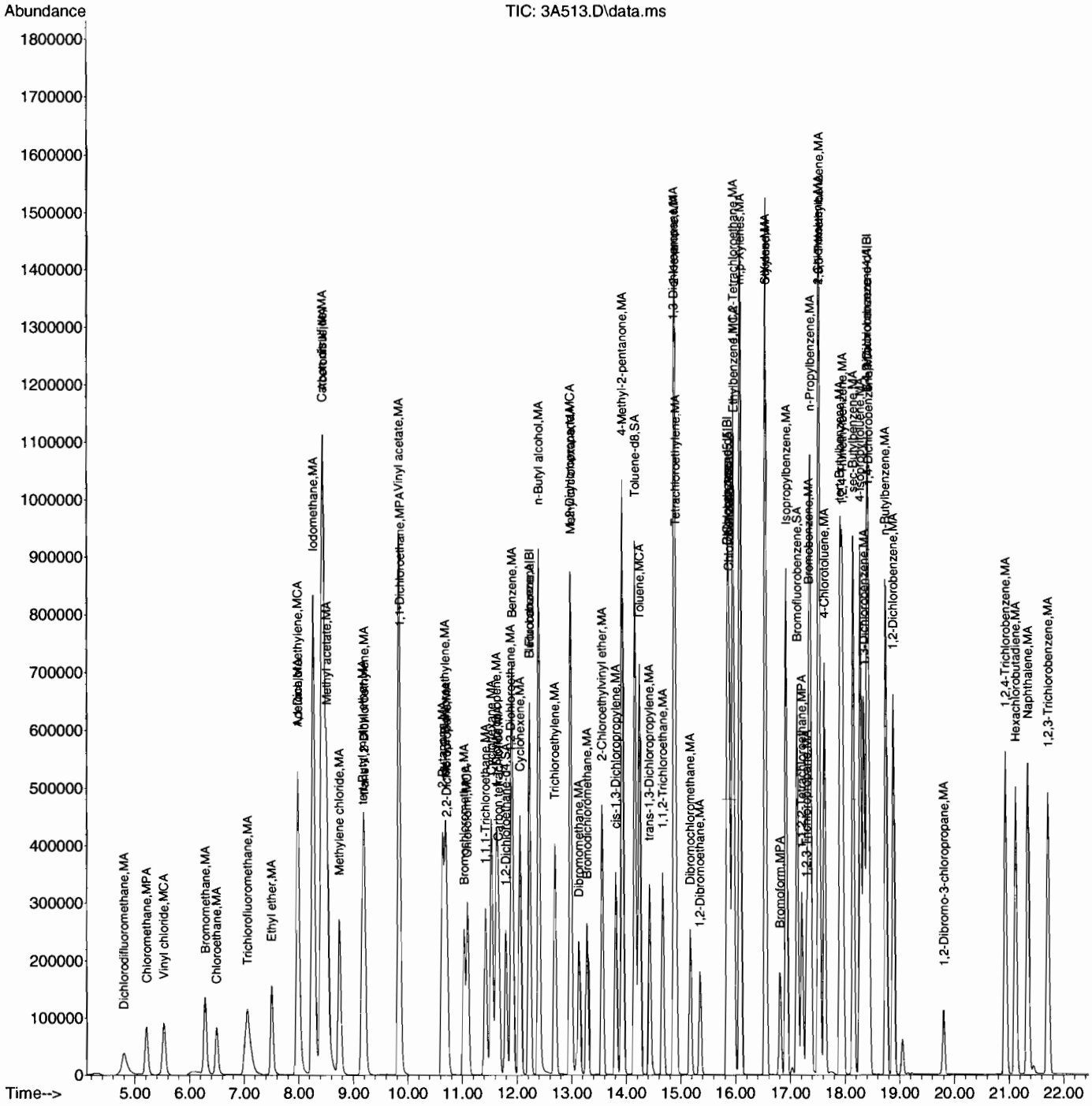

Continuing Calibration Summary

Client SDG: 10-2319

Instrument ID: VOA3.I **Injection Date** 26-FEB-10 20:12

Data File: 022610V3\3A523.D **Init. Cal. Date(s)** 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100226-18 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.3066	0.29676		.01		-3.20939	30		Averaged
S	Toluene-d8	1.3456	1.38683		.01		3.06406	30		Averaged
S	Bromofluorobenzene	1.0082	1.01858		.01		1.02956	30		Averaged
	Chlorotrifluoroethylene	0.139	0.1017		.01		-26.83453	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.2812	0.26227		.01		-6.73186	30		Averaged
	Acrolein	250	371.65	250			48.66	30	*	Linear
	Trichlorotrifluoroethane	0.0827	0.08123		.01		-1.77751	30		Averaged
	Isopropyl Alcohol	0.0187	0.01839		.01		-1.65775	40		Averaged
	Allyl chloride	0.2962	0.29625		.01		0.01688	30		Averaged
	tert-Butyl Alcohol	0.0314	0.02994		.01		-4.64968	40		Averaged
	Acrylonitrile	0.0885	0.08974		.01		1.40113	30		Averaged
	Isopropyl ether	0.7095	0.67398		.01		-5.00634	30		Averaged
	2-Chloro-1,3-butadiene	0.2574	0.29403		.01		14.23077	30		Averaged
	Ethyl tert-butyl ether	0.6775	0.64733		.01		-4.45314	30		Averaged
	Ethyl acetate	0.2185	0.20232		.01		-7.40503	40		Averaged
	Propionitrile	0.0347	0.03535		.01		1.8732	30		Averaged
	Methacrylonitrile	0.1332	0.13306		.01		-0.10511	30		Averaged
	Tetrahydrofuran	0.0735	0.07446		.01		1.30612	30		Averaged
	Isobutyl alcohol	0.0095	0.00964		.01		1.47368	40		Averaged
	Methyl tert-amyl ether	0.6257	0.59791		.01		-4.44143	30		Averaged
	Methyl methacrylate	0.1441	0.15252		.01		5.84316	30		Averaged
	1,4-Dioxane	0.0031	0.00297		.01		-4.19355	40		Averaged
	2-Nitropropane	250	261.34	250			4.536	30		Linear
	Ethyl methacrylate	0.3396	0.37143		.01		9.37279	30		Averaged
	1-Chlorohexane	0.4531	0.43436		.01		-4.13595	30		Averaged
	cis-1,4-Dichloro-2-butene	0.1677	0.19341		.01		15.33095	30		Averaged
	Cyclohexanone	0.0193	0.04804		.01		148.91192	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.1636	0.18335		.01		12.07213	30		Averaged
	Pentachloroethane	250	256.05	250			2.42	30		Linear
	Benzyl chloride	250	251.22	250			0.488	30		Linear
	bis(2-Chloroisopropyl)ether	0.3232	0.31962		.01		-1.10767	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A523.D
Acq On : 26 Feb 2010 8:12 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-18|ICV|1|VOA|1|
Misc : GEL 5mL - MIX[B] 215-08A+125-08D
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 01 09:53:34 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	950148	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	727148	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	372193	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	949803	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	727332	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	379636	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	281968	48.39	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	1008431	51.53	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	379109	50.52	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	5.736	5.528	0.469		0m	N.D.	d	
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.987	7.987	0.653		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.975	7.987	0.652		0m	N.D.	d	
11) Iodomethane	8.260	8.271	0.675		0m	N.D.	d	
12) Acetonitrile	8.556	8.449	0.699		0m	N.D.	d	
13) Methyl acetate	8.532	8.520	0.698		0m	N.D.	d	
14) Carbon disulfide	8.556	8.449	0.699		0m	N.D.	d	
15) Methylene chloride	8.746	8.746	0.715		0m	N.D.	d	
16) tert-Butyl methyl ether	9.173	9.173	0.750		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	9.884	9.837	0.808		0m	N.D.	d	
19) 1,1-Dichloroethane	10.003	9.860	0.818		0m	N.D.	d	
20) 2-Butanone	10.679	10.643	0.873		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.679	10.691	0.873		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	11.556	11.532	0.945		0m	N.D.	d	
27) 1,1-Dichloropropene	11.556	11.627	0.945		0m	N.D.	d	
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	11.912	11.912	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	12.706	12.695	1.039		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	12.991	12.991	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.		
39) 2-Chloroethylviny1 ether	0.000	13.560	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A523.D
Acq On : 26 Feb 2010 8:12 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-18|ICV|1|VOA|1|
Misc : GEL 5mL - MIX[B] 215-08A+125-08D
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 01 09:53:34 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42)	4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.			
44)	Toluene	14.248	14.248	0.899		0m	N.D.	d		
45)	trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.			
46)	1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.			
47)	2-Hexanone	14.888	14.888	0.939		0m	N.D.	d		
48)	1,3-Dichloropropane	14.924	14.888	0.942		0m	N.D.	d		
49)	Tetrachloroethylene	14.912	14.912	0.941		0m	N.D.	d		
50)	Dibromochloromethane	0.000	15.173	0.000		0	N.D.			
51)	1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.			
52)	Chlorobenzene	0.000	15.885	0.000		0	N.D.			
53)	1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.			
54)	Ethylbenzene	15.968	15.968	1.007		0m	N.D.	d		
55)	m,p-Xylenes	0.000	16.086	0.000		0	N.D.			
56)	o-Xylene	0.000	16.549	0.000		0	N.D.			
57)	Styrene	16.549	16.549	1.044		0m	N.D.	d		
59)	Bromoform	0.000	16.821	0.000		0	N.D.			
60)	Isopropylbenzene	0.000	16.928	0.000		0	N.D.			
62)	1,1,2,2-Tetrachloroethane	17.260	17.213	0.938		0m	N.D.	d		
63)	1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.			
64)	Bromobenzene	0.000	17.343	0.000		0	N.D.			
65)	n-Propylbenzene	17.367	17.367	0.943		0m	N.D.	d		
66)	1,3,5-Trimethylbenzene	17.533	17.533	0.952		0m	N.D.	d		
67)	2-Chlorotoluene	17.521	17.521	0.952		0m	N.D.	d		
68)	4-Chlorotoluene	17.628	17.628	0.957		0m	N.D.	d		
69)	tert-Butylbenzene	17.983	17.912	0.977		0m	N.D.	d		
70)	1,2,4-Trimethylbenzene	17.960	17.960	0.976		0m	N.D.	d		
71)	sec-Butylbenzene	0.000	18.150	0.000		0	N.D.			
72)	4-Isopropyltoluene	18.280	18.280	0.993		0m	N.D.	d		
73)	1,3-Dichlorobenzene	18.339	18.351	0.996		0m	N.D.	d		
74)	1,4-Dichlorobenzene	18.434	18.434	1.001		0m	N.D.	d		
75)	n-Butylbenzene	0.000	18.742	0.000		0	N.D.			
76)	1,2-Dichlorobenzene	18.885	18.885	1.026		0m	N.D.	d		
77)	1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.			
78)	1,2,4-Trichlorobenzene	20.936	20.936	1.137		0m	N.D.	d		
79)	Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.			
80)	Naphthalene	21.351	21.351	1.160		0m	N.D.	d		
81)	1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.			
83)	Chlorotrifluoroethylene	4.711	4.711	0.385	116	289790	109.76	ug/L	100	
84)	2-Chloro-1,1,1-trifluo...	5.751	5.751	0.470	118	747303	139.90	ug/L	100	
85)	Acrolein	7.750	7.750	0.634	56	185578	371.65	ug/L	99	E
86)	Trichlorotrifluoroethane	7.975	7.975	0.652	85	385754	245.55	ug/L	99	
87)	Isopropyl Alcohol	8.141	8.141	0.666	45	873506	2452.46	ug/L	99	
88)	Allyl chloride	8.556	8.556	0.699	41	1406915	250.02	ug/L	100	
89)	tert-Butyl Alcohol	8.793	8.793	0.719	59	1422034	2386.59	ug/L	99	
90)	Acrylonitrile	9.090	9.090	0.743	53	426191	253.41	ug/L	100	
91)	Isopropyl ether	9.884	9.884	0.808	45	640147	47.50	ug/L	99	
92)	2-Chloro-1,3-butadiene	10.003	10.003	0.818	53	279268	57.11	ug/L	100	
93)	Ethyl tert-butyl ether	10.406	10.406	0.851	59	614840	47.78	ug/L	100	
94)	Ethyl acetate	10.679	10.679	0.873	43	960817	231.51	ug/L	100	
95)	Propionitrile	10.726	10.726	0.877	54	167873	254.56	ug/L	99	
96)	Methacrylonitrile	10.951	10.951	0.895	41	631884	249.79	ug/L	99	
97)	Tetrahydrofuran	11.094	11.094	0.907	42	353594	253.21	ug/L	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A523.D
Acq On : 26 Feb 2010 8:12 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-18|ICV|1|VOA|1|
Misc : GEL 5mL - MIX[B] 215-08A+125-08D
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 01 09:53:34 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
98)	Isobutyl alcohol	11.556	11.556	0.945	41	457824	2549.09	ug/L	99	
99)	Methyl tert-amyl ether	11.971	11.971	0.979	73	567900	47.78	ug/L	99	
100)	Methyl methacrylate	12.991	12.991	1.062	69	724331	264.64	ug/L	100	
101)	1,4-Dioxane	13.098	13.098	1.071	88	141128	2424.39	ug/L	100	
102)	2-Nitropropane	13.525	13.525	1.106	43	317134	261.34	ug/L	100	
104)	Ethyl methacrylate	14.450	14.450	0.912	69	1350775	273.46	ug/L	100	
106)	1-Chlorohexane	15.754	15.754	0.856	55	164899	47.93	ug/L	100	
107)	cis-1,4-Dichloro-2-butene	16.964	16.964	0.921	53	367128	288.26	ug/L	99	
108)	Cyclohexanone	17.082	17.082	0.928	42	455921	3119.00	ug/L	99	E
109)	trans-1,4-Dichloro-2-b...	17.260	17.260	0.938	53	348032	280.18	ug/L	100	
110)	Pentachloroethane	17.983	17.983	0.977	167	421398	256.05	ug/L	100	E
111)	Benzyl chloride	18.553	18.553	1.008	91	1528395	251.22	ug/L	100	
112)	bis(2-Chloroisopropyl)...	18.980	18.980	1.031	45	606689	247.23	ug/L	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A523.D
Acq On : 26 Feb 2010 8:12 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100226-18|ICV|1|VOA|1|
Misc : GEL 5mL - MIX[B] 215-08A+125-08D
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 01 09:53:34 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

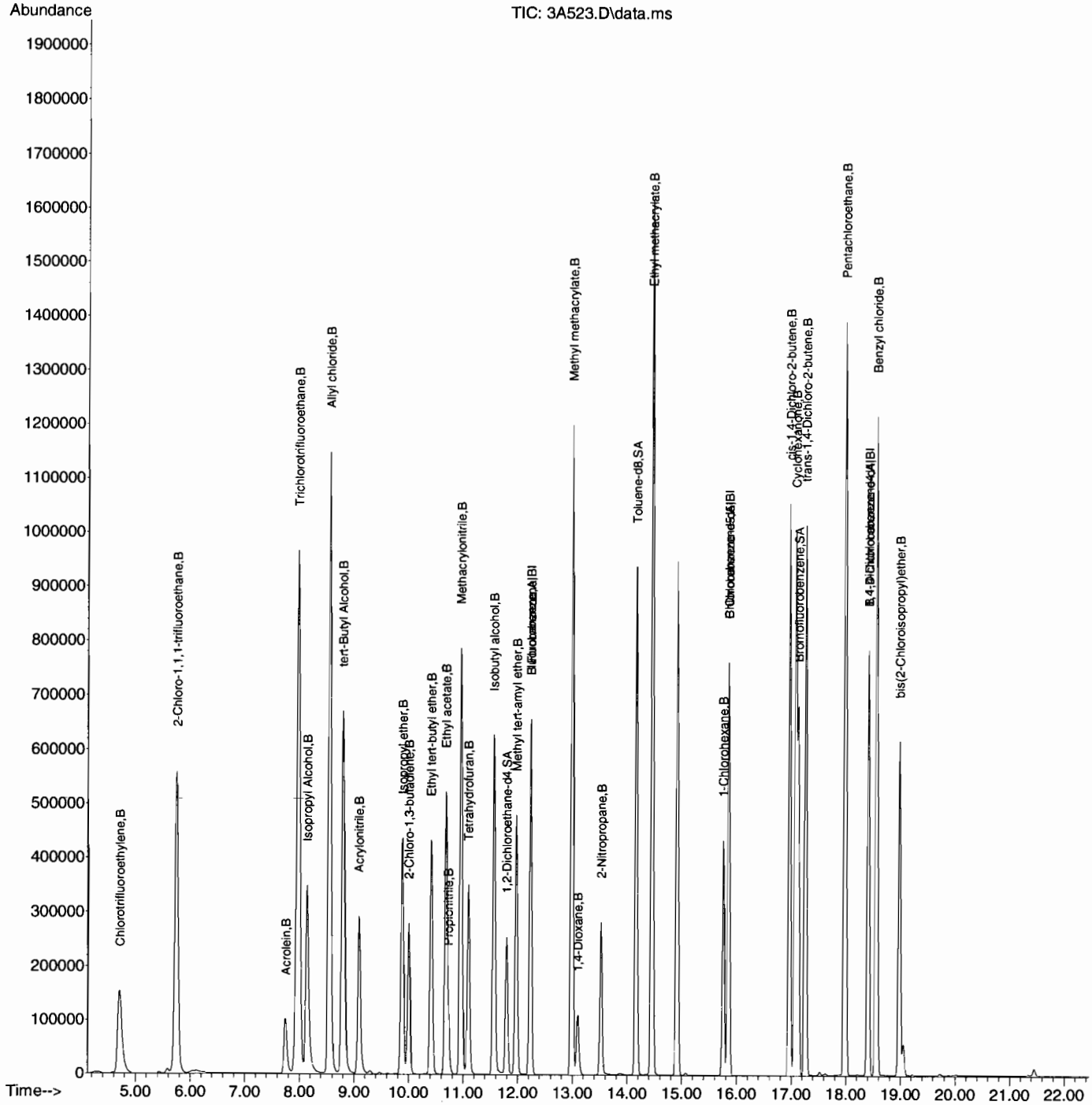

Continuing Calibration Summary

Client SDG: 10-2319

Instrument ID: VOA3.I **Injection Date** 15-MAR-10 12:01

Data File: 031510V3\3D102.D **Init. Cal. Date(s)** 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100315-01 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.3066	0.31311		.01		2.12329	30		Averaged	
S	Toluene-d8	1.3456	1.3673		.01		1.61266	30		Averaged	
S	Bromofluorobenzene	1.0082	0.98008		.01		-2.78913	30		Averaged	
	Dichlorodifluoromethane	50	53.66	50			7.32	30		Linear	
	Chloromethane	0.2352	0.25864		.1		9.96599	30		Averaged	spcc
	Vinyl chloride	0.2397	0.26345		.01		9.90822	20		Averaged	ccc
	Bromomethane	0.1935	0.22248		.01		14.97674	30		Averaged	
	Chloroethane	0.1549	0.17801		.01		14.9193	30		Averaged	
	Trichlorofluoromethane	0.3298	0.35552		.01		7.79867	30		Averaged	
	Ethyl ether	0.1705	0.19854		.01		16.44575	30		Averaged	
	Acetone	0.2108	0.18873		.01		-10.46964	40		Averaged	
	1,1-Dichloroethylene	0.339	0.27472		.01		-18.96165	20		Averaged	ccc
	Iodomethane	0.4286	0.34916		.01		-18.53476	30		Averaged	
	Carbon disulfide	0.7478	0.5741		.01		-23.22814	30		Averaged	
	Acetonitrile	0.0365	0.03171		.01		-13.12329	30		Averaged	
	Methyl acetate	0.1881	0.17678		.01		-6.01808	40		Averaged	
	Methylene chloride	0.3046	0.2386		.01		-21.66776	30		Averaged	
	tert-Butyl methyl ether	0.6625	0.574		.01		-13.35849	30		Averaged	
	trans-1,2-Dichloroethylene	0.314	0.26297		.01		-16.25159	30		Averaged	
	Vinyl acetate	0.3778	0.45367		.01		20.08205	40		Averaged	
	1,1-Dichloroethane	0.3946	0.34485		.1		-12.6077	30		Averaged	spcc
	2-Butanone	0.2099	0.21717		.01		3.46355	40		Averaged	
	cis-1,2-Dichloroethylene	0.3474	0.31135		.01		-10.37709	30		Averaged	
	2,2-Dichloropropane	0.2436	0.22463		.01		-7.78736	30		Averaged	
	Bromochloromethane	0.1279	0.12214		.01		-4.50352	30		Averaged	
	Chloroform	0.4027	0.3595		.01		-10.72759	20		Averaged	ccc
	1,1,1-Trichloroethane	0.327	0.27557		.01		-15.72783	30		Averaged	
	Cyclohexane	0.3661	0.28504		.01		-22.14149	30		Averaged	
	1,1-Dichloropropene	0.2778	0.23489		.01		-15.44636	30		Averaged	
	Carbon tetrachloride	0.286	0.2525		.01		-11.71329	30		Averaged	
	1,2-Dichloroethane	0.3149	0.28124		.01		-10.68911	30		Averaged	
	Benzene	0.8815	0.76649		.01		-13.04708	30		Averaged	
	Cyclohexene	0.4035	0.33596		.01		-16.73854	30		Averaged	
	n-Butyl alcohol	5000	4604.17	5000			-7.9166	40		Linear	
	Trichloroethylene	0.2276	0.19647		.01		-13.6775	30		Averaged	
	1,2-Dichloropropane	0.2153	0.20789		.01		-3.44171	20		Averaged	ccc
	Methylcyclohexane	0.3768	0.30822		.01		-18.20064	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Dat** 15-MAR-10 12:01

Data File: 031510V3\3D102.D **Init. Cal. Date(s)** 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100315-01 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1445	0.14231		.01		-1.51557	30		Averaged	
Bromodichloromethane	0.2749	0.27974		.01		1.76064	30		Averaged	
2-Chloroethylvinyl ether	250	242.3	250			-3.08	30		Linear	
cis-1,3-Dichloropropylene	0.3124	0.3109		.01		-0.48015	30		Averaged	
4-Methyl-2-pentanone	0.1208	0.12975		.01		7.40894	40		Averaged	
Toluene	1.1971	1.0633		.01		-11.17701	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3639	0.38929		.01		6.97719	30		Averaged	
1,1,2-Trichloroethane	0.2068	0.20965		.01		1.37814	30		Averaged	
1,3-Dichloropropane	0.4295	0.41905		.01		-2.43306	30		Averaged	
2-Hexanone	0.3084	0.35012		.01		13.52789	40		Averaged	
Tetrachloroethylene	0.2332	0.20454		.01		-12.28988	30		Averaged	
Dibromochloromethane	0.2736	0.30198		.01		10.37281	30		Averaged	
1,2-Dibromoethane	0.266	0.26112		.01		-1.83459	30		Averaged	
Chlorobenzene	0.7858	0.70056		.3		-10.84754	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.2702	0.28011		.01		3.66765	30		Averaged	
Ethylbenzene	1.237	1.1044		.01		-10.71948	20		Averaged	ccc
m,p-Xylenes	0.4916	0.45166		.01		-8.12449	30		Averaged	
o-Xylene	0.4911	0.48085		.01		-2.08715	30		Averaged	
Styrene	0.7841	0.80025		.01		2.05969	30		Averaged	
Bromoform	50	46.28	50			-7.44	30		Linear	spcc
Isopropylbenzene	2.4779	2.1856		.01		-11.79628	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6699	0.67036		.3		0.06867	30		Averaged	spcc
1,2,3-Trichloropropane	0.1842	0.17505		.01		-4.96743	30		Averaged	
Bromobenzene	0.6651	0.63439		.01		-4.61735	30		Averaged	
n-Propylbenzene	2.8647	2.60512		.01		-9.06133	30		Averaged	
2-Chlorotoluene	0.6176	0.56583		.01		-8.38245	30		Averaged	
1,3,5-Trimethylbenzene	2.079	1.93176		.01		-7.08225	30		Averaged	
4-Chlorotoluene	1.7773	1.63582		.01		-7.96039	30		Averaged	
tert-Butylbenzene	0.4447	0.41794		.01		-6.01754	30		Averaged	
1,2,4-Trimethylbenzene	2.1081	1.95856		.01		-7.09359	30		Averaged	
sec-Butylbenzene	2.7845	2.52607		.01		-9.28102	30		Averaged	
4-Isopropyltoluene	2.2105	2.0605		.01		-6.7858	30		Averaged	
1,3-Dichlorobenzene	1.1363	1.04214		.01		-8.28654	30		Averaged	
1,4-Dichlorobenzene	1.3023	1.21872		.01		-6.41788	30		Averaged	
n-Butylbenzene	2.102	1.97355		.01		-6.11085	30		Averaged	
1,2-Dichlorobenzene	1.2927	1.19639		.01		-7.4503	30		Averaged	
1,2-Dibromo-3-chloropropane	50	41.62	50			-16.76	30		Linear	

Continuing Calibration Summary

Instrument ID: VOA3.I **Injection Date** 15-MAR-10 12:01

Data File: 031510V3\3D102.D **Init. Cal. Date(s)** 26-FEB-10 10:23 26-FEB-10 19:14

Lab Sample ID W3VM100315-01 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8694	0.8239		.01		-5.23349	30		Averaged
Hexachlorobutadiene	0.4354	0.38389		.01		-11.8305	30		Averaged
Naphthalene	2.2358	2.0216		.01		-9.58046	30		Averaged
1,2,3-Trichlorobenzene	0.849	0.74274		.01		-12.5159	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D102.D
Acq On : 15 Mar 2010 12:01 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-01|CCV|1|VOA|1|
Misc : CCV 5ML - MIX[A] 222-07B+106-07D
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 12:47:03 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	784581	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	594921	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	322629	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	784353	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	594883	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	329307	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	245660	51.05	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	813436	50.81	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	316202	48.61	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	117420	53.66	ug/L	96
3) Chloromethane	5.216	5.216	0.426	50	202927	54.98	ug/L	99
4) Vinyl chloride	5.528	5.528	0.452	62	206701	54.95	ug/L	99
5) Bromomethane	6.279	6.291	0.513	94	174555	57.50	ug/L	99
6) Chloroethane	6.493	6.493	0.531	64	139662	57.47	ug/L	99
7) Trichlorofluoromethane	7.050	7.062	0.576	101	278933	53.89	ug/L	100
8) Ethyl ether	7.501	7.512	0.613	59	155770	58.22	ug/L	98
9) Acetone	7.975	7.987	0.652	43	740386	223.84	ug/L	99
10) 1,1-Dichloroethylene	7.975	7.987	0.652	61	215543	40.52	ug/L	100
11) Iodomethane	8.272	8.271	0.676	142	1369704	203.64	ug/L	99
12) Acetonitrile	8.449	8.449	0.691	41	621916	1085.41	ug/L	99
13) Methyl acetate	8.521	8.520	0.697	43	693497	234.93	ug/L	100
14) Carbon disulfide	8.438	8.449	0.690	76	2252151	191.93	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	187202	39.16	ug/L	98
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	450353	43.32	ug/L	100
17) trans-1,2-Dichloroethy...	9.197	9.208	0.752	61	206322	41.88	ug/L	99
18) Vinyl acetate	9.837	9.837	0.804	43	1779688	300.23	ug/L	99
19) 1,1-Dichloroethane	9.849	9.860	0.805	63	270565	43.70	ug/L	100
20) 2-Butanone	10.631	10.643	0.869	43	851946	258.62	ug/L	99
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	244282	44.82	ug/L	100
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	176240	46.10	ug/L	96
23) Bromochloromethane	11.035	11.034	0.902	128	95830	47.75	ug/L	98
24) Chloroform	11.094	11.094	0.907	83	282054	44.64	ug/L	100
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	216204	42.13	ug/L	99
26) Cyclohexane	11.533	11.532	0.943	56	223637	38.93	ug/L	99
27) 1,1-Dichloropropene	11.616	11.627	0.950	75	184293	42.27	ug/L	98
28) Carbon tetrachloride	11.663	11.663	0.953	117	198109	44.15	ug/L	100
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	220657	44.65	ug/L	99
31) Benzene	11.912	11.912	0.974	78	601370	43.47	ug/L	99
32) Cyclohexene	12.054	12.054	0.985	67	263588	41.63	ug/L	100
33) n-Butyl alcohol	12.398	12.398	1.014	56	670924	4604.17	ug/L	98
34) Trichloroethylene	12.695	12.695	1.038	95	154146	43.16	ug/L	98
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	163110	48.29	ug/L	99
36) Methylcyclohexane	12.979	12.991	1.061	83	241824	40.90	ug/L	99
37) Dibromomethane	13.134	13.133	1.074	93	111655	49.25	ug/L	99
38) Bromodichloromethane	13.276	13.288	1.085	83	219476	50.88	ug/L	99
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	266211	242.30	ug/L	98
40) cis-1,3-Dichloropropylene	13.809	13.809	1.129	75	243927	49.76	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D102.D
Acq On : 15 Mar 2010 12:01 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-01|CCV|1|VOA|1|
Misc : CCV 5ML - MIX[A] 222-07B+106-07D
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 12:47:03 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42)	4-Methyl-2-pentanone	13.928	13.928	0.879	58	385943	268.51	ug/L	96
44)	Toluene	14.248	14.248	0.899	91	632578	44.41	ug/L	99
45)	trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	231596	53.49	ug/L	98
46)	1,1,2-Trichloroethane	14.675	14.675	0.926	83	124727	50.68	ug/L	98
47)	2-Hexanone	14.889	14.888	0.939	43	1041467	283.80	ug/L	98
48)	1,3-Dichloropropane	14.877	14.888	0.939	76	249304	48.78	ug/L	94
49)	Tetrachloroethylene	14.912	14.912	0.941	164	121686	43.85	ug/L	98
50)	Dibromochloromethane	15.173	15.173	0.957	129	179652	55.19	ug/L	99
51)	1,2-Dibromoethane	15.351	15.351	0.969	107	155345	49.09	ug/L	100
52)	Chlorobenzene	15.885	15.885	1.002	112	416779	44.58	ug/L	99
53)	1,1,1,2-Tetrachloroethane	15.944	15.956	1.006	131	166643	51.84	ug/L	99
54)	Ethylbenzene	15.968	15.968	1.007	91	657033	44.64	ug/L	100
55)	m,p-Xylenes	16.086	16.086	1.015	106	537405	91.88	ug/L	100
56)	o-Xylene	16.537	16.549	1.043	106	286067	48.95	ug/L	98
57)	Styrene	16.549	16.549	1.044	104	476086	51.03	ug/L	99
59)	Bromoform	16.810	16.821	0.913	173	114683	46.28	ug/L	99
60)	Isopropylbenzene	16.928	16.928	0.919	105	705139	44.10	ug/L	100
62)	1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	216276	50.04	ug/L	100
63)	1,2,3-Trichloropropane	17.296	17.308	0.939	110	56477	47.52	ug/L	97
64)	Bromobenzene	17.343	17.343	0.942	156	204673	47.69	ug/L	98
65)	n-Propylbenzene	17.367	17.367	0.943	91	840487	45.47	ug/L	99
66)	1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	623241	46.46	ug/L	99
67)	2-Chlorotoluene	17.521	17.521	0.952	126	182552	45.81	ug/L	99
68)	4-Chlorotoluene	17.628	17.628	0.957	91	527763	46.02	ug/L	100
69)	tert-Butylbenzene	17.913	17.912	0.973	134	134841	46.99	ug/L	98
70)	1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	631889	46.45	ug/L	99
71)	sec-Butylbenzene	18.150	18.150	0.986	105	814985	45.36	ug/L	100
72)	4-Isopropyltoluene	18.280	18.280	0.993	119	664776	46.61	ug/L	99
73)	1,3-Dichlorobenzene	18.339	18.351	0.996	146	336225	45.86	ug/L	99
74)	1,4-Dichlorobenzene	18.434	18.434	1.001	146	393194	46.79	ug/L	99
75)	n-Butylbenzene	18.743	18.742	1.018	91	636726	46.94	ug/L	100
76)	1,2-Dichlorobenzene	18.885	18.885	1.026	146	385989	46.27	ug/L	99
77)	1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	42965	41.62	ug/L	97
78)	1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	265814	47.39	ug/L	99
79)	Hexachlorobutadiene	21.126	21.126	1.148	225	123855	44.08	ug/L	98
80)	Naphthalene	21.351	21.351	1.160	128	652226	45.21	ug/L	100
81)	1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	239629	43.74	ug/L	99
83)	Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85)	Acrolein	0.000	7.750	0.000		0	N.D.		
86)	Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87)	Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88)	Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89)	tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90)	Acrylonitrile	9.161	9.090	0.749		0m	N.D.	d	
91)	Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93)	Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94)	Ethyl acetate	10.631	10.679	0.869		0m	N.D.	d	
95)	Propionitrile	10.631	10.726	0.869		0m	N.D.	d	
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.		
97)	Tetrahydrofuran	11.094	11.094	0.907		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D102.D
Acq On : 15 Mar 2010 12:01 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-01|CCV|1|VOA|1|
Misc : CCV 5ML - MIX[A] 222-07B+106-07D
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 12:47:03 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	11.533	11.556	0.943		0m	N.D.	d
99)	Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100)	Methyl methacrylate	12.979	12.991	1.061		0m	N.D.	d
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104)	Ethyl methacrylate	14.450	14.450	0.912		0m	N.D.	d
106)	1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108)	Cyclohexanone	16.916	17.082	0.919		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110)	Pentachloroethane	17.984	17.983	0.977		0m	N.D.	d
111)	Benzyl chloride	18.553	18.553	1.008		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D102.D
Acq On : 15 Mar 2010 12:01 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-01|CCV|1|VOA|1|
Misc : CCV 5ML - MIX[A] 222-07B+106-07D
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 15 12:47:03 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

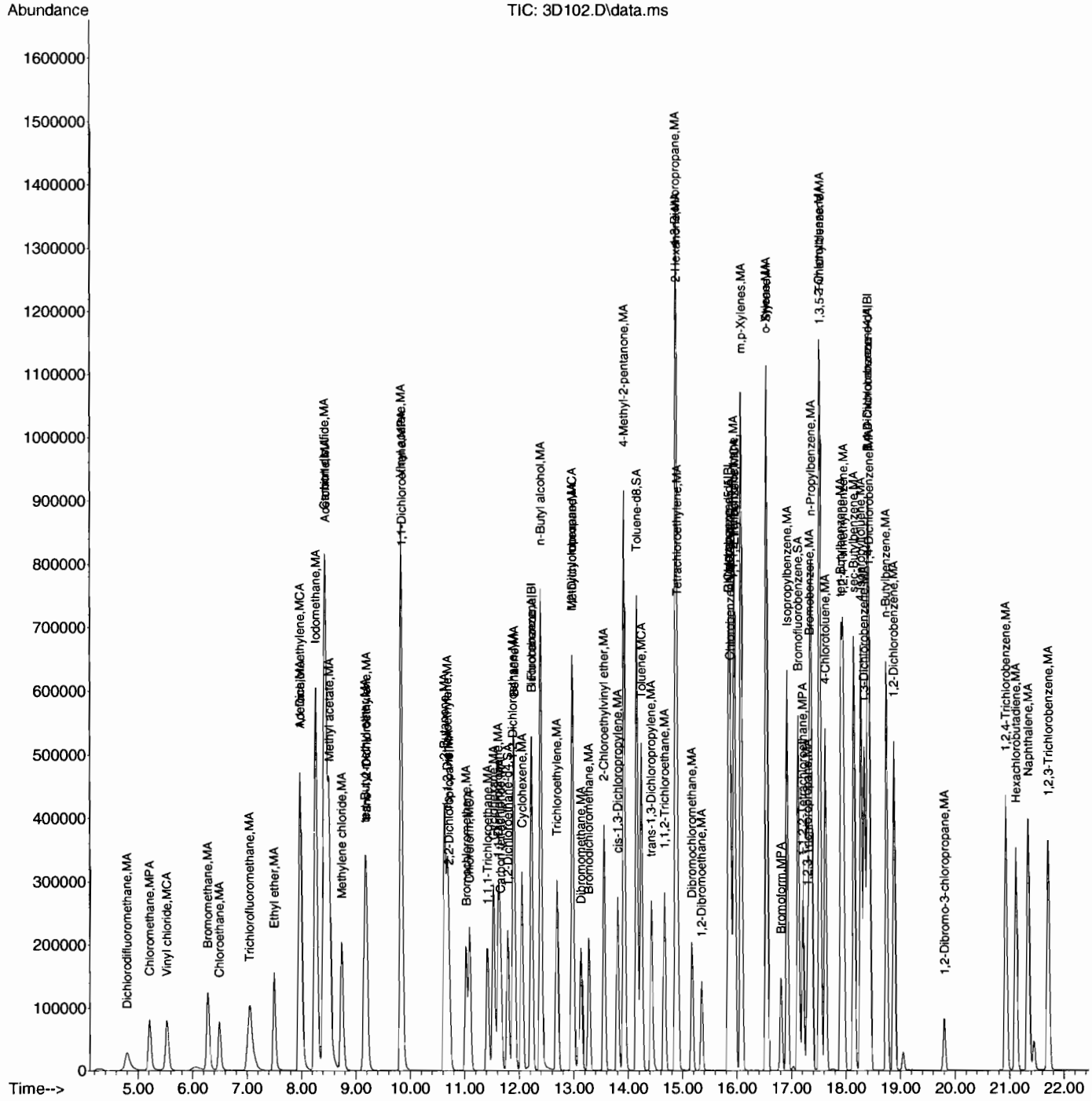

Continuing Calibration Summary

Client SDG: 10-2319

Instrument ID: VOA3.I **Injection Date** 15-MAR-10 13:28

Data File: 031510V3\3D105.D **Init. Cal. Date(s)** 26-FEB-10 10:23 - 26-FEB-10 19:14

Lab Sample ID W3VM100315-04 **Quant Type** ISTD **Method:** 022610V3\VOA3-8260-022610.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.3066	0.32084		.01		4.64449	30		Averaged
S	Toluene-d8	1.3456	1.36977		.01		1.79622	30		Averaged
S	Bromofluorobenzene	1.0082	1.03822		.01		2.97758	30		Averaged
	Chlorotrifluoroethylene	0.139	0.09108		.01		-34.47482	30	*	Averaged
	2-Chloro-1,1,1-trifluoroethane	0.2812	0.2751		.01		-2.16927	30		Averaged
	Acrolein	250	359.44	250			43.776	30	*	Linear
	Trichlorotrifluoroethane	0.0827	0.07844		.01		-5.15115	30		Averaged
	Isopropyl Alcohol	0.0187	0.01943		.01		3.90374	40		Averaged
	Allyl chloride	0.2962	0.32442		.01		9.52735	30		Averaged
	tert-Butyl Alcohol	0.0314	0.032		.01		1.91083	40		Averaged
	Acrylonitrile	0.0885	0.09132		.01		3.18644	30		Averaged
	Isopropyl ether	0.7095	0.73692		.01		3.86469	30		Averaged
	2-Chloro-1,3-butadiene	0.2574	0.2843		.01		10.45066	30		Averaged
	Ethyl tert-butyl ether	0.6775	0.71812		.01		5.99557	30		Averaged
	Ethyl acetate	0.2185	0.22871		.01		4.67277	40		Averaged
	Propionitrile	0.0347	0.03594		.01		3.57349	30		Averaged
	Methacrylonitrile	0.1332	0.14154		.01		6.26126	30		Averaged
	Tetrahydrofuran	0.0735	0.07457		.01		1.45578	30		Averaged
	Isobutyl alcohol	0.0095	0.01055		.01		11.05263	40		Averaged
	Methyl tert-amyl ether	0.6257	0.66191		.01		5.78712	30		Averaged
	Methyl methacrylate	0.1441	0.16635		.01		15.44067	30		Averaged
	1,4-Dioxane	0.0031	0.0028		.01		-9.67742	40		Averaged
	2-Nitropropane	250	264.22	250			5.688	30		Linear
	Ethyl methacrylate	0.3396	0.39503		.01		16.32214	30		Averaged
	1-Chlorohexane	0.4531	0.46672		.01		3.00596	30		Averaged
	cis-1,4-Dichloro-2-butene	0.1677	0.2192		.01		30.7096	30	*	Averaged
	Cyclohexanone	0.0193	0.04101		.01		112.48705	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.1636	0.20769		.01		26.94988	30		Averaged
	Pentachloroethane	250	477.87	250			91.148	30	*	Linear
	Benzyl chloride	250	412.07	250			64.828	30	*	Linear
	bis(2-Chloroisopropyl)ether	0.3232	0.32921		.01		1.85953	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D105.D
Acq On : 15 Mar 2010 1:28 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-04|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5mL - MIX[B] UVM100215-06/UVM100226-02A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 13:51:30 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	778153	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	622042	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	292110	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	777926	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	622222	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	297882	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	249664	52.32	ug/L	0.00
43) Toluene-d8	14.165	14.165	0.894	98	852057	50.90	ug/L	0.00
61) Bromofluorobenzene	17.130	17.130	0.930	95	303273	51.49	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	5.201	5.216	0.425		0m	N.D.	d	
4) Vinyl chloride	5.736	5.528	0.469		0m	N.D.	d	
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.987	7.987	0.653		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.963	7.987	0.651		0m	N.D.	d	
11) Iodomethane	8.271	8.271	0.676		0m	N.D.	d	
12) Acetonitrile	8.556	8.449	0.699		0m	N.D.	d	
13) Methyl acetate	8.532	8.520	0.698		0m	N.D.	d	
14) Carbon disulfide	8.556	8.449	0.699		0m	N.D.	d	
15) Methylene chloride	8.746	8.746	0.715		0m	N.D.	d	
16) tert-Butyl methyl ether	9.173	9.173	0.750		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	9.884	9.837	0.808		0m	N.D.	d	
19) 1,1-Dichloroethane	10.003	9.860	0.818		0m	N.D.	d	
20) 2-Butanone	10.679	10.643	0.873		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.679	10.691	0.873		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	11.556	11.532	0.945		0m	N.D.	d	
27) 1,1-Dichloropropene	11.568	11.627	0.946		0m	N.D.	d	
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	11.912	11.912	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	12.410	12.398	1.015		0m	N.D.	d	
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	12.991	12.991	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D105.D
Acq On : 15 Mar 2010 1:28 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-04|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5mL - MIX[B] UVM100215-06/UVM100226-02A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 13:51:30 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42) 4-Methyl-2-pentanone	13.928	13.928	0.879		0m	N.D.	d		
44) Toluene	14.248	14.248	0.899		0m	N.D.	d		
45) trans-1,3-Dichloroprop...	14.438	14.426	0.911		0m	N.D.	d		
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.			
47) 2-Hexanone	14.888	14.888	0.939		0m	N.D.	d		
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.			
49) Tetrachloroethylene	14.912	14.912	0.941		0m	N.D.	d		
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.			
51) 1,2-Dibromoethane	15.351	15.351	0.969		0m	N.D.	d		
52) Chlorobenzene	15.885	15.885	1.002		0m	N.D.	d		
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.			
54) Ethylbenzene	15.968	15.968	1.007		0m	N.D.	d		
55) m,p-Xylenes	16.086	16.086	1.015		0m	N.D.	d		
56) o-Xylene	16.549	16.549	1.044		0m	N.D.	d		
57) Styrene	16.549	16.549	1.044		0m	N.D.	d		
59) Bromoform	0.000	16.821	0.000		0	N.D.			
60) Isopropylbenzene	16.928	16.928	0.919		0m	N.D.	d		
62) 1,1,2,2-Tetrachloroethane	17.260	17.213	0.938		0m	N.D.	d		
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.			
64) Bromobenzene	17.343	17.343	0.942		0m	N.D.	d		
65) n-Propylbenzene	17.367	17.367	0.943		0m	N.D.	d		
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952		0m	N.D.	d		
67) 2-Chlorotoluene	17.521	17.521	0.952		0m	N.D.	d		
68) 4-Chlorotoluene	17.628	17.628	0.957		0m	N.D.	d		
69) tert-Butylbenzene	17.983	17.912	0.977		0m	N.D.	d		
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976		0m	N.D.	d		
71) sec-Butylbenzene	18.150	18.150	0.986		0m	N.D.	d		
72) 4-Isopropyltoluene	18.280	18.280	0.993		0m	N.D.	d		
73) 1,3-Dichlorobenzene	18.351	18.351	0.997		0m	N.D.	d		
74) 1,4-Dichlorobenzene	18.434	18.434	1.001		0m	N.D.	d		
75) n-Butylbenzene	18.742	18.742	1.018		0m	N.D.	d		
76) 1,2-Dichlorobenzene	18.885	18.885	1.026		0m	N.D.	d		
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.			
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137		0m	N.D.	d		
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.			
80) Naphthalene	21.351	21.351	1.160		0m	N.D.	d		
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180		0m	N.D.	d		
83) Chlorotrifluoroethylene	4.696	4.711	0.384	116	212557	98.30	ug/L	97	
84) 2-Chloro-1,1,1-trifluo...	5.751	5.751	0.470	118	642017	146.74	ug/L	100	
85) Acrolein	7.750	7.750	0.634	56	146962	359.44	ug/L	97	E
86) Trichlorotrifluoroethane	7.975	7.975	0.652	85	305095	237.11	ug/L	99	
87) Isopropyl Alcohol	8.141	8.141	0.666	45	755841	2590.97	ug/L	99	
88) Allyl chloride	8.556	8.556	0.699	41	1261863	273.79	ug/L	99	
89) tert-Butyl Alcohol	8.793	8.793	0.719	59	1244742	2550.60	ug/L	99	
90) Acrylonitrile	9.090	9.090	0.743	53	355198	257.86	ug/L	99	
91) Isopropyl ether	9.884	9.884	0.808	45	573273	51.94	ug/L	100	
92) 2-Chloro-1,3-butadiene	10.003	10.003	0.818	53	221165	55.22	ug/L	99	
93) Ethyl tert-butyl ether	10.406	10.406	0.851	59	558648	53.00	ug/L	98	
94) Ethyl acetate	10.679	10.679	0.873	43	889594	261.71	ug/L	100	
95) Propionitrile	10.726	10.726	0.877	54	139790	258.81	ug/L	99	
96) Methacrylonitrile	10.951	10.951	0.895	41	550546	265.72	ug/L	100	
97) Tetrahydrofuran	11.094	11.094	0.907	42	290032	253.58	ug/L	100	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D105.D
Acq On : 15 Mar 2010 1:28 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-04|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5mL - MIX[B] UVM100215-06/UVM100226-02A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 13:51:30 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
98) Isobutyl alcohol	11.556	11.556	0.945	41	410305	2789.26	ug/L	99	
99) Methyl tert-amyl ether	11.971	11.971	0.979	73	514914	52.89	ug/L	99	
100) Methyl methacrylate	12.991	12.991	1.062	69	647046	288.64	ug/L	98	
101) 1,4-Dioxane	13.098	13.098	1.071	88	108818	2282.36	ug/L	99	
102) 2-Nitropropane	13.525	13.525	1.106	43	262665	264.22	ug/L	97	
104) Ethyl methacrylate	14.450	14.450	0.912	69	1228990	290.83	ug/L	100	
106) 1-Chlorohexane	15.754	15.754	0.856	55	139026	51.51	ug/L	99	
107) cis-1,4-Dichloro-2-butene	16.964	16.964	0.921	53	326476	326.70	ug/L	97	
108) Cyclohexanone	17.082	17.082	0.928	42	305436	2662.98	ug/L	99	E
109) trans-1,4-Dichloro-2-b...	17.260	17.260	0.938	53	309336	317.37	ug/L	98	
110) Pentachloroethane	17.983	17.983	0.977	167	624873	477.87	ug/L	96	E
111) Benzyl chloride	18.553	18.553	1.008	91	1972013	412.07	ug/L	99	
112) bis(2-Chloroisopropyl)...	18.980	18.980	1.031	45	490327	254.65	ug/L	96	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D105.D
Acq On : 15 Mar 2010 1:28 pm
Operator : CDS1
InstName : VOA3
Sample : |W3VM100315-04|CCV|1|VOA|1|VOA8260BL|
Misc : CCV 5mL - MIX[B] UVM100215-06/UVM100226-02A
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 15 13:51:30 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

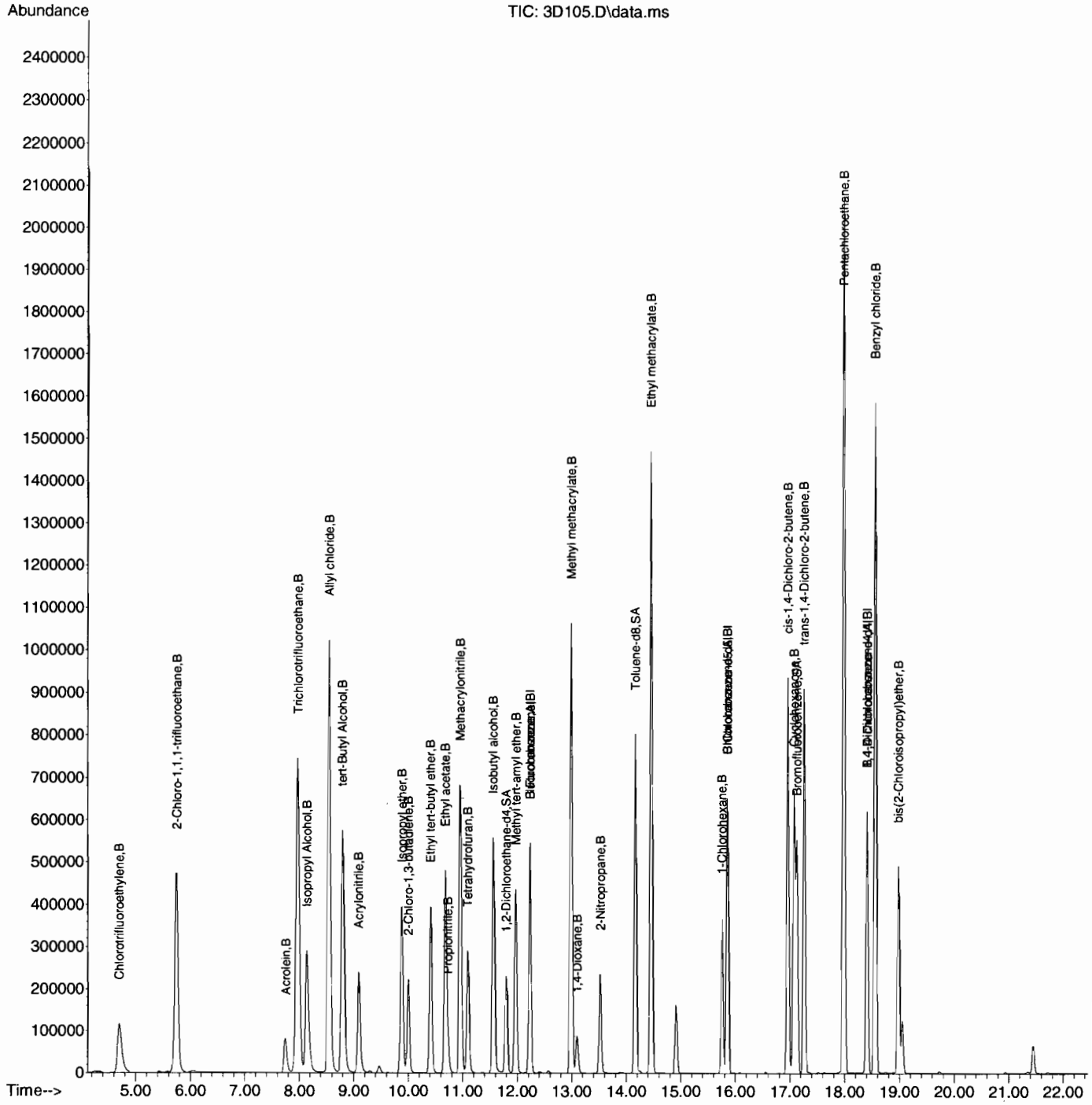

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V3\
Data File : 3A501.D
Acq On : 26 Feb 2010 9:25 am
Operator : CDS1
Sample : |UVM100203-02|BFB|1|VOA|1|
Misc : BFB 5mL N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Title : Volatile Organics 8260B SubList :
Last Update : Sat Feb 27 06:30:11 2010

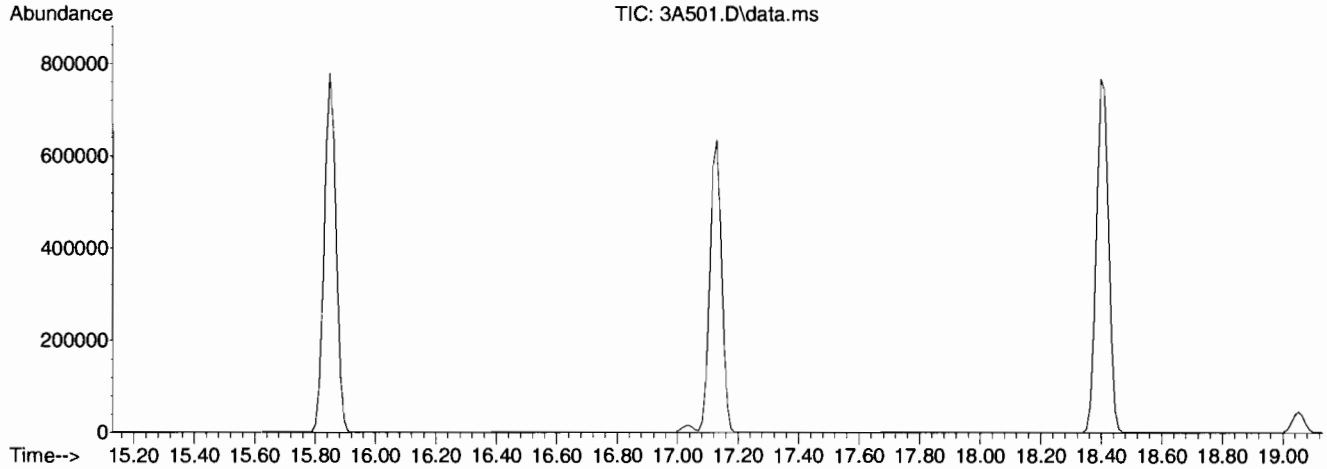

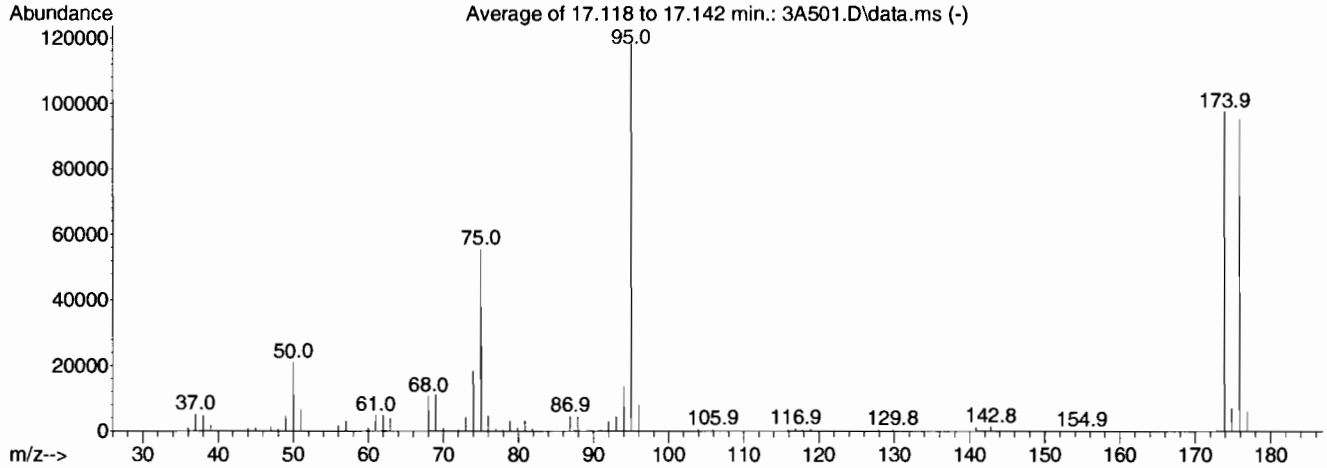

Spectrum Information: Average of 17.118 to 17.142 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	20991	PASS
75	95	30	60	47.0	55499	PASS
95	95	100	100	100.0	118061	PASS
96	95	5	9	6.7	7933	PASS
173	174	0.00	2	0.5	458	PASS
174	95	50	100	82.6	97544	PASS
175	174	5	9	7.1	6941	PASS
176	174	95	101	97.7	95341	PASS
177	176	5	9	6.4	6099	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D101.D
Acq On : 15 Mar 2010 11:35 am
Operator : CDS1
Sample : |UVM100217-02|BFB|1|VOA|1|
Misc : BFB 5mL N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Mar 01 09:52:36 2010

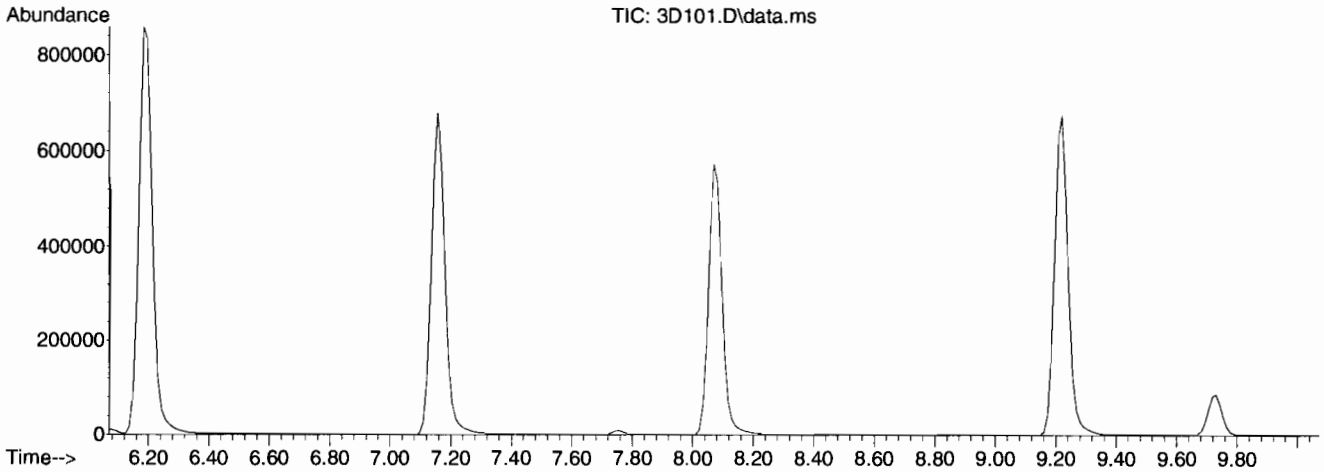

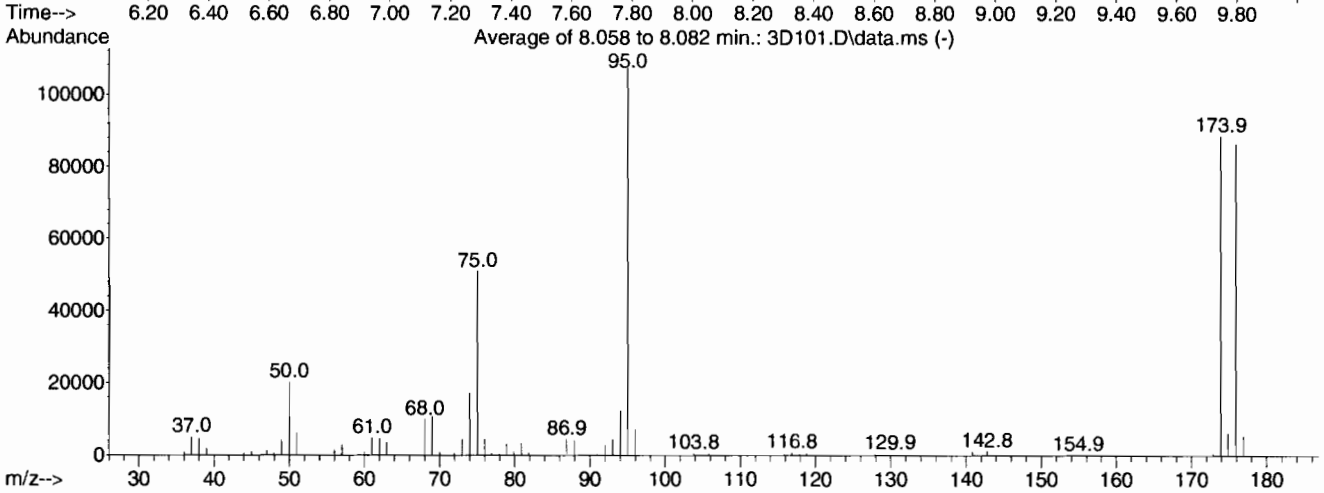

AutoFind: Scans 296, 297, 298; Background Corrected with Scan 289

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.7	20029	PASS
75	95	30	60	47.4	50859	PASS
95	95	100	100	100.0	107189	PASS
96	95	5	9	6.8	7248	PASS
173	174	0.00	2	0.5	467	PASS
174	95	50	100	82.7	88688	PASS
175	174	5	9	7.0	6200	PASS
176	174	95	101	97.6	86552	PASS
177	176	5	9	6.3	5415	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071635**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 14:55**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 11:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D108SBLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071635**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 14:55**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 11:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D108SBLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D108SBLA.D
Acq On : 15 Mar 2010 2:55 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071635|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 22 07:21:15 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	742457	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	535571	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	272142	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	742288	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	535571	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	275889	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	224132	49.22	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 98.44%					
43) Toluene-d8	14.165	14.165	0.894	98	794662	55.13	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 110.26%					
61) Bromofluorobenzene	17.130	17.130	0.930	95	274822	50.08	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 100.16%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	8.011	7.987	0.655	43	581	N.D.		
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	8.426	8.449	0.689	76	1178	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	1051	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D108SBLA.D
Acq On : 15 Mar 2010 2:55 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071635|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 22 07:21:15 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44) Toluene	14.248	14.248	0.899	91	3502	N.D.	
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47) 2-Hexanone	0.000	14.888	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52) Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54) Ethylbenzene	16.086	15.968	1.015	91	366	N.D.	
55) m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56) o-Xylene	0.000	16.549	0.000		0	N.D.	
57) Styrene	0.000	16.549	0.000		0	N.D.	
59) Bromoform	0.000	16.821	0.000		0	N.D.	
60) Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64) Bromobenzene	0.000	17.343	0.000		0	N.D.	
65) n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68) 4-Chlorotoluene	17.628	17.628	0.957	91	179	N.D.	
69) tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	17.960	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	18.351	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	18.434	0.000		0	N.D.	
75) n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80) Naphthalene	21.352	21.351	1.160	128	1697	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85) Acrolein	0.000	7.750	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88) Allyl chloride	0.000	8.556	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90) Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91) Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94) Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D108SBLA.D
Acq On : 15 Mar 2010 2:55 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071635|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 22 07:21:15 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	10.726	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108)	Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110)	Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111)	Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	19.051	18.980	1.035	45	1826	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D108SBLA.D
Acq On : 15 Mar 2010 2:55 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071635|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 22 07:21:15 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

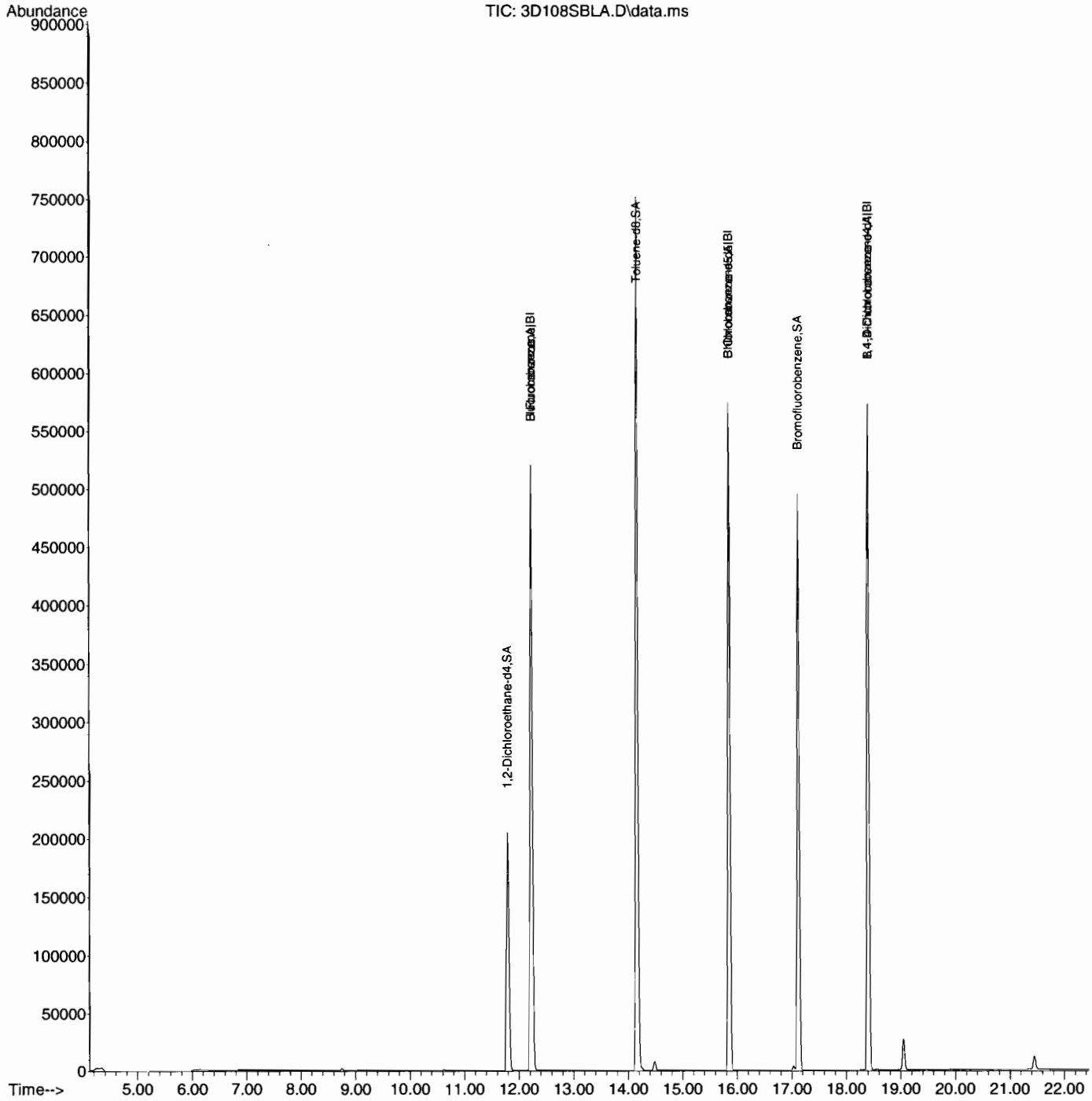

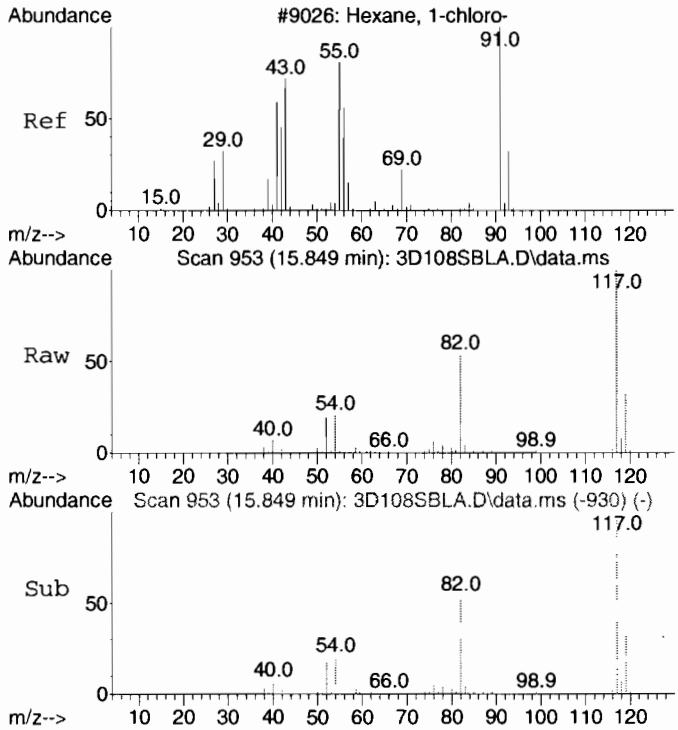

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.98 ug/L
RT: 15.849 min Scan# 953
Delta R.T. 0.095 min
Lab File: 3D108SBLA.D
Acq: 15 Mar 2010 2:55 pm

Tgt Ion: 55 Resp: 4950

Ion	Ratio	Lower	Upper
55	100		
91	9.4	119.7	179.7#
56	62.0	29.6	89.6

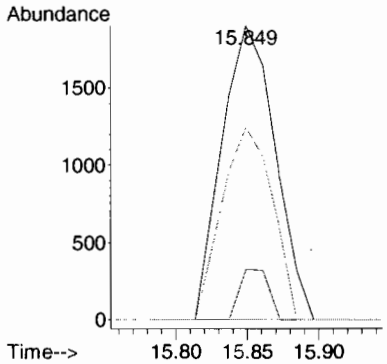

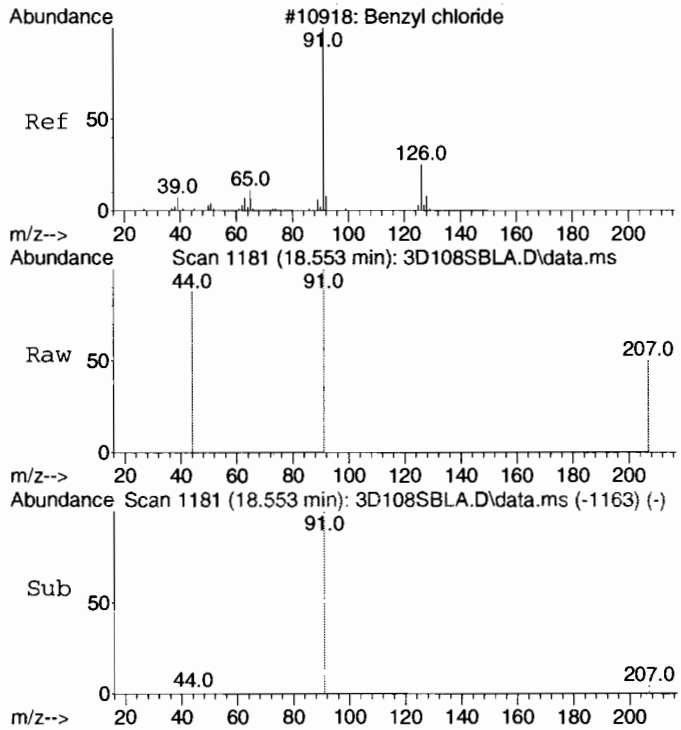

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 1.93 ug/L
RT: 18.553 min Scan# 1181
Delta R.T. 0.000 min
Lab File: 3D108SBLA.D
Acq: 15 Mar 2010 2:55 pm

Tgt Ion: 91 Resp: 1488

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.8
65	0.0	0.0	41.3

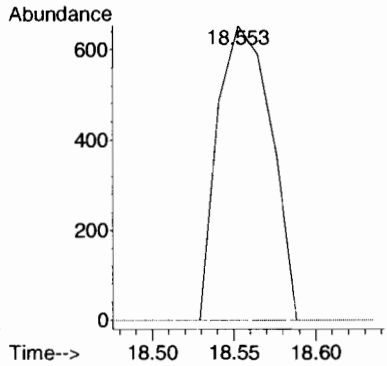

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D108SBLA.D
Acq On : 15 Mar 2010 2:55 pm
Operator : CDS1
Sample : |1202071635|965481|1|VOA|1|VOA8260BS|
Misc : BLANK 5G - SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D108SBLA.D
Acq On    : 15 Mar 2010   2:55 pm
Operator  : CDS1
Sample    : |1202071635|965481|1|VOA|1|VOA8260BS|
Misc      : BLANK 5G - SOIL
ALS Vial  : 8   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P

                                                |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-----------------------------------------------------------------------------
```

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071638**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 12:59**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 11:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D104SLLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		39.0	ug/kg	0.340	1.00
74-87-3	Chloromethane		40.1	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		44.5	ug/kg	0.300	1.00
74-83-9	Bromomethane		45.4	ug/kg	0.300	1.00
75-00-3	Chloroethane		46.1	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		44.7	ug/kg	0.300	1.00
67-64-1	Acetone		186	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		41.3	ug/kg	0.300	1.00
74-88-4	Iodomethane		204	ug/kg	1.60	5.00
75-09-2	Methylene chloride		39.4	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		212	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		42.0	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		43.8	ug/kg	0.300	1.00
78-93-3	2-Butanone		203	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		44.4	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		48.0	ug/kg	0.300	1.00
67-66-3	Chloroform		43.8	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		44.3	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		43.4	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		43.9	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		45.9	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		43.1	ug/kg	0.300	1.00
71-43-2	Benzene		43.0	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		42.2	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		45.8	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		48.1	ug/kg	0.300	1.00
74-95-3	Dibromomethane		45.6	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		239	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		49.0	ug/kg	0.300	1.00
108-88-3	Toluene		41.9	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		49.6	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		46.0	ug/kg	0.300	1.00
591-78-6	2-Hexanone		217	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		45.8	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		42.6	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		49.8	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		44.9	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		42.8	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071638**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 12:59**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 11:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D104SLLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		41.6	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		86.0	ug/kg	0.300	2.00
95-47-6	o-Xylene		45.2	ug/kg	0.300	1.00
100-42-5	Styrene		46.9	ug/kg	0.300	1.00
75-25-2	Bromoform		45.1	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		47.3	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		45.8	ug/kg	0.300	1.00
108-86-1	Bromobenzene		44.8	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		44.7	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		44.8	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		44.3	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		45.1	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		44.5	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		46.0	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		45.2	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		45.2	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		46.0	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		42.7	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		43.1	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		44.0	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		38.4	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		46.9	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		42.8	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D104SLLA.D
Acq On : 15 Mar 2010 12:59 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071638|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[A] SOIL 0305-01A+0313-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 13:25:54 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	12.232	12.232	1.000	96	803297	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	643492	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	320562	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	802994	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	643533	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	327390	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	256935	52.15	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery =		104.30%			
43) Toluene-d8	14.165	14.165	0.894	98	894528	51.65	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery =		103.30%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	338580	52.38	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery =		104.76%			

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	87868	39.00	ug/L	99
3) Chloromethane	5.216	5.216	0.426	50	151653	40.13	ug/L	99
4) Vinyl chloride	5.528	5.528	0.452	62	171210	44.46	ug/L	99
5) Bromomethane	6.291	6.291	0.514	94	140955	45.35	ug/L	100
6) Chloroethane	6.493	6.493	0.531	64	114734	46.11	ug/L	98
7) Trichlorofluoromethane	7.062	7.062	0.577	101	236658	44.66	ug/L	100
8) Ethyl ether	7.513	7.512	0.614	59	128019	46.73	ug/L	98
9) Acetone	7.987	7.987	0.653	43	628253	185.51	ug/L	99
10) 1,1-Dichloroethylene	7.987	7.987	0.653	61	224715	41.26	ug/L	99
11) Iodomethane	8.272	8.271	0.676	142	1404157	203.90	ug/L	100
12) Acetonitrile	8.449	8.449	0.691	41	616586	1051.04	ug/L	98
13) Methyl acetate	8.521	8.520	0.697	43	662193	219.10	ug/L	99
14) Carbon disulfide	8.449	8.449	0.691	76	2542365	211.61	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	192999	39.43	ug/L	97
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	449805	42.26	ug/L	99
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753	61	212074	42.04	ug/L	100
18) Vinyl acetate	9.837	9.837	0.804	43	1683563	277.40	ug/L	100
19) 1,1-Dichloroethane	9.861	9.860	0.806	63	277781	43.82	ug/L	100
20) 2-Butanone	10.643	10.643	0.870	43	686353	203.49	ug/L	99
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	247556	44.36	ug/L	99
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	187714	47.96	ug/L	99
23) Bromochloromethane	11.035	11.034	0.902	128	90936	44.26	ug/L	97
24) Chloroform	11.094	11.094	0.907	83	283267	43.79	ug/L	100
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	227809	43.36	ug/L	99
26) Cyclohexane	11.533	11.532	0.943	56	252623	42.96	ug/L	99
27) 1,1-Dichloropropene	11.628	11.627	0.951	75	196022	43.91	ug/L	99
28) Carbon tetrachloride	11.663	11.663	0.953	117	210783	45.88	ug/L	100
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	218078	43.10	ug/L	99
31) Benzene	11.912	11.912	0.974	78	609092	43.01	ug/L	100
32) Cyclohexene	12.054	12.054	0.985	67	267339	41.24	ug/L	99
33) n-Butyl alcohol	12.398	12.398	1.014	56	657853	4412.70	ug/L	98
34) Trichloroethylene	12.695	12.695	1.038	95	154308	42.20	ug/L	100
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	158544	45.84	ug/L	100
36) Methylcyclohexane	12.991	12.991	1.062	83	257327	42.51	ug/L	99
37) Dibromomethane	13.134	13.133	1.074	93	105856	45.60	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D104SLLA.D
Acq On : 15 Mar 2010 12:59 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071638|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[A] SOIL 0305-01A+0313-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 13:25:54 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	13.288	13.288	1.086	83	212359	48.08	ug/L	99
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109	63	286321	254.25	ug/L	98
40) cis-1,3-Dichloropropylene	13.809	13.809	1.129	75	245917	49.00	ug/L	100
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	372217	239.41	ug/L	98
44) Toluene	14.248	14.248	0.899	91	645887	41.92	ug/L	99
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	232081	49.56	ug/L	99
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	122458	46.01	ug/L	100
47) 2-Hexanone	14.889	14.888	0.939	43	862884	217.39	ug/L	99
48) 1,3-Dichloropropane	14.877	14.888	0.939	76	253371	45.84	ug/L	95
49) Tetrachloroethylene	14.912	14.912	0.941	164	127749	42.56	ug/L	98
50) Dibromochloromethane	15.173	15.173	0.957	129	175230	49.77	ug/L	99
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	153687	44.90	ug/L	99
52) Chlorobenzene	15.885	15.885	1.002	112	432357	42.75	ug/L	99
53) 1,1,1,2-Tetrachloroethane	15.956	15.956	1.007	131	163219	46.94	ug/L	99
54) Ethylbenzene	15.968	15.968	1.007	91	661651	41.56	ug/L	100
55) m,p-Xylenes	16.086	16.086	1.015	106	543766	85.95	ug/L	99
56) o-Xylene	16.549	16.549	1.044	106	285938	45.24	ug/L	99
57) Styrene	16.549	16.549	1.044	104	473631	46.94	ug/L	99
59) Bromoform	16.810	16.821	0.913	173	110960	45.11	ug/L	100
60) Isopropylbenzene	16.928	16.928	0.919	105	704037	44.32	ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	203146	47.30	ug/L	99
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	54127	45.84	ug/L	99
64) Bromobenzene	17.343	17.343	0.942	156	191184	44.83	ug/L	99
65) n-Propylbenzene	17.367	17.367	0.943	91	820480	44.67	ug/L	99
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	601275	45.11	ug/L	100
67) 2-Chlorotoluene	17.521	17.521	0.952	126	177446	44.82	ug/L	99
68) 4-Chlorotoluene	17.628	17.628	0.957	91	507473	44.54	ug/L	100
69) tert-Butylbenzene	17.913	17.912	0.973	134	131051	45.96	ug/L	100
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	610938	45.20	ug/L	99
71) sec-Butylbenzene	18.150	18.150	0.986	105	806506	45.18	ug/L	100
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	651174	45.95	ug/L	99
73) 1,3-Dichlorobenzene	18.339	18.351	0.996	146	310777	42.66	ug/L	99
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	359730	43.08	ug/L	99
75) n-Butylbenzene	18.743	18.742	1.018	91	593293	44.02	ug/L	99
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	354600	42.79	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	39209	38.36	ug/L	98
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	238667	42.82	ug/L	100
79) Hexachlorobutadiene	21.126	21.126	1.148	225	114635	41.06	ug/L	98
80) Naphthalene	21.351	21.351	1.160	128	602887	42.06	ug/L	100
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	226558	41.62	ug/L	98
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88) Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.173	9.090	0.750		0m	N.D.	d	
91) Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.643	10.679	0.870		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D104SLLA.D
Acq On : 15 Mar 2010 12:59 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071638|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[A] SOIL 0305-01A+0313-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 13:25:54 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	10.643	10.726	0.870		0m	N.D.	d
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97) Tetrahydrofuran	11.106	11.094	0.908		0m	N.D.	d
98) Isobutyl alcohol	11.533	11.556	0.943		0m	N.D.	d
99) Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100) Methyl methacrylate	12.991	12.991	1.062		0m	N.D.	d
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108) Cyclohexanone	16.928	17.082	0.919		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110) Pentachloroethane	17.984	17.983	0.977		0m	N.D.	d
111) Benzyl chloride	18.399	18.553	0.999		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D104SLLA.D
Acq On : 15 Mar 2010 12:59 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071638|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[A] SOIL 0305-01A+0313-01
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 15 13:25:54 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

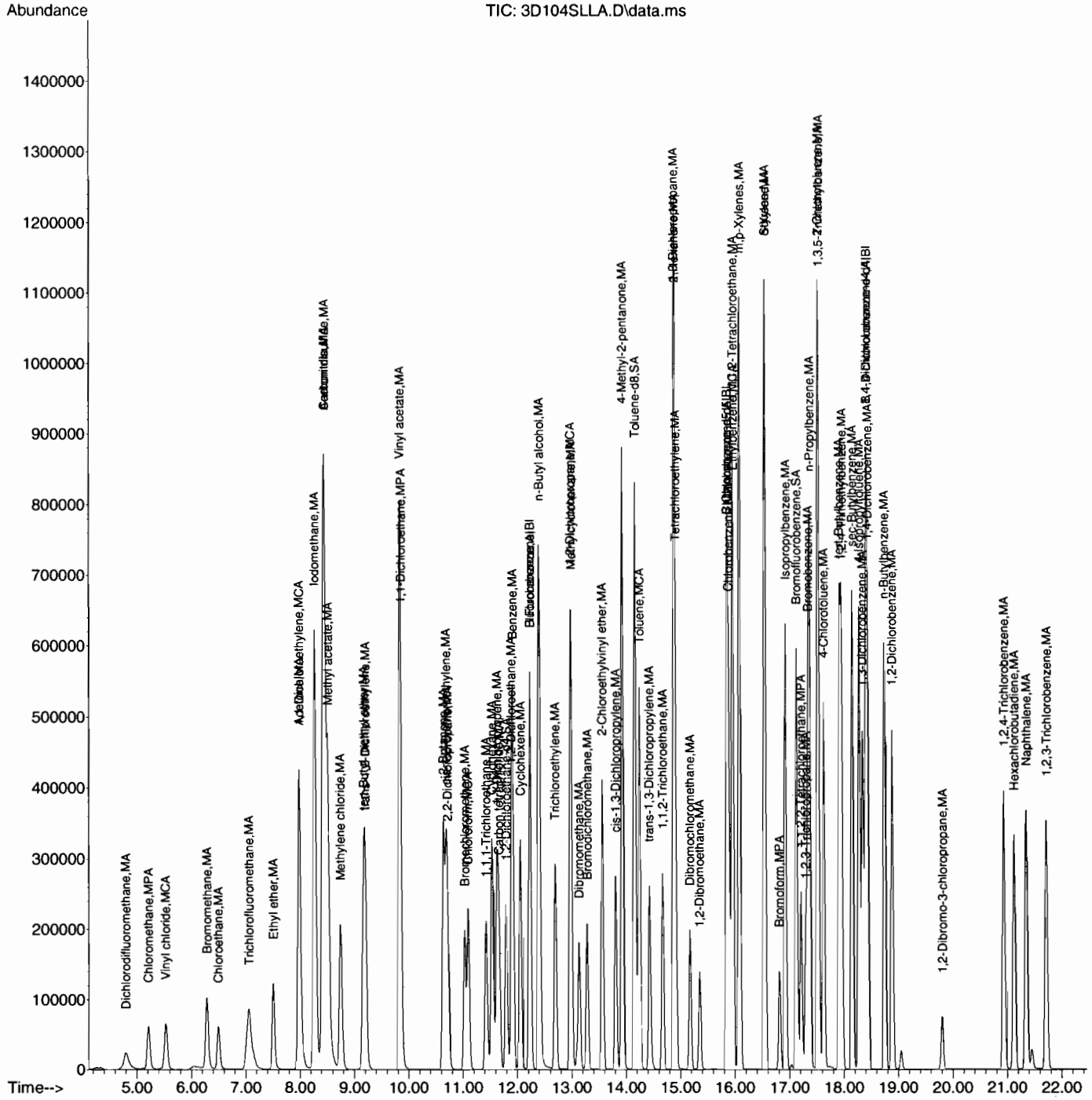

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071639**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 13:57**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 11:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D106SSLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202071639**				
Client Sample:	**QC for batch 965477**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965477**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**965481**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**03/15/2010 13:57**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/15/2010 11:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**031510V3\3D106SSLA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		257	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D106SSLA.D
Acq On : 15 Mar 2010 1:57 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071639|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[B] SOIL 0215-08B/0226-02A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 20:36:13 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	829898	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	652133	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	319369	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	829608	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	652329	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	325545	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	264047	51.88	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery =		103.76%			
43) Toluene-d8	14.165	14.165	0.894	98	897163	51.12	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery =		102.24%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	343302	53.31	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery =		106.62%			

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	5.201	5.216	0.425		0m	N.D.	d	
4) Vinyl chloride	5.528	5.528	0.452		0m	N.D.	d	
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.987	7.987	0.653		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.975	7.987	0.652		0m	N.D.	d	
11) Iodomethane	8.271	8.271	0.676		0m	N.D.	d	
12) Acetonitrile	8.556	8.449	0.699		0m	N.D.	d	
13) Methyl acetate	8.532	8.520	0.698		0m	N.D.	d	
14) Carbon disulfide	8.556	8.449	0.699		0m	N.D.	d	
15) Methylene chloride	8.746	8.746	0.715		0m	N.D.	d	
16) tert-Butyl methyl ether	9.173	9.173	0.750		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	9.884	9.837	0.808		0m	N.D.	d	
19) 1,1-Dichloroethane	10.003	9.860	0.818		0m	N.D.	d	
20) 2-Butanone	10.679	10.643	0.873		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.679	10.691	0.873		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	11.556	11.532	0.945		0m	N.D.	d	
27) 1,1-Dichloropropene	11.556	11.627	0.945		0m	N.D.	d	
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	11.912	11.912	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	12.410	12.398	1.015		0m	N.D.	d	
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	12.991	12.991	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D106SSLA.D
Acq On : 15 Mar 2010 1:57 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071639|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[B] SOIL 0215-08B/0226-02A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 20:36:13 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38) Bromodichloromethane	0.000	13.288	0.000		0	N.D.			
39) 2-Chloroethylvinyl ether	13.560	13.560	1.109		0m	N.D.	d		
40) cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.			
42) 4-Methyl-2-pentanone	13.928	13.928	0.879		0m	N.D.	d		
44) Toluene	14.248	14.248	0.899		0m	N.D.	d		
45) trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.			
46) 1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.			
47) 2-Hexanone	14.888	14.888	0.939		0m	N.D.	d		
48) 1,3-Dichloropropane	14.936	14.888	0.942		0m	N.D.	d		
49) Tetrachloroethylene	14.912	14.912	0.941		0m	N.D.	d		
50) Dibromochloromethane	0.000	15.173	0.000		0	N.D.			
51) 1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.			
52) Chlorobenzene	15.885	15.885	1.002		0m	N.D.	d		
53) 1,1,1,2-Tetrachloroethane	15.944	15.956	1.006		0m	N.D.	d		
54) Ethylbenzene	16.086	15.968	1.015		0m	N.D.	d		
55) m,p-Xylenes	16.086	16.086	1.015		0m	N.D.	d		
56) o-Xylene	0.000	16.549	0.000		0	N.D.			
57) Styrene	16.549	16.549	1.044		0m	N.D.	d		
59) Bromoform	0.000	16.821	0.000		0	N.D.			
60) Isopropylbenzene	16.928	16.928	0.919		0m	N.D.	d		
62) 1,1,2,2-Tetrachloroethane	17.260	17.213	0.938		0m	N.D.	d		
63) 1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.			
64) Bromobenzene	17.343	17.343	0.942		0m	N.D.	d		
65) n-Propylbenzene	17.367	17.367	0.943		0m	N.D.	d		
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952		0m	N.D.	d		
67) 2-Chlorotoluene	17.521	17.521	0.952		0m	N.D.	d		
68) 4-Chlorotoluene	17.628	17.628	0.957		0m	N.D.	d		
69) tert-Butylbenzene	17.983	17.912	0.977		0m	N.D.	d		
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976		0m	N.D.	d		
71) sec-Butylbenzene	18.150	18.150	0.986		0m	N.D.	d		
72) 4-Isopropyltoluene	18.280	18.280	0.993		0m	N.D.	d		
73) 1,3-Dichlorobenzene	18.339	18.351	0.996		0m	N.D.	d		
74) 1,4-Dichlorobenzene	18.434	18.434	1.001		0m	N.D.	d		
75) n-Butylbenzene	18.742	18.742	1.018		0m	N.D.	d		
76) 1,2-Dichlorobenzene	18.885	18.885	1.026		0m	N.D.	d		
77) 1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.			
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137		0m	N.D.	d		
79) Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.			
80) Naphthalene	21.339	21.351	1.159		0m	N.D.	d		
81) 1,2,3-Trichlorobenzene	21.719	21.719	1.180		0m	N.D.	d		
83) Chlorotrifluoroethylene	4.711	4.711	0.385	116	208902	90.59	ug/L	96	
84) 2-Chloro-1,1,1-trifluo...	5.751	5.751	0.470	118	638717	136.90	ug/L	99	
85) Acrolein	7.750	7.750	0.634	56	175964	403.20	ug/L	96	E
86) Trichlorotrifluoroethane	7.975	7.975	0.652	85	353295	257.47	ug/L	99	
87) Isopropyl Alcohol	8.141	8.141	0.666	45	850130	2732.64	ug/L	99	
88) Allyl chloride	8.556	8.556	0.699	41	1280687	260.56	ug/L	99	
89) tert-Butyl Alcohol	8.805	8.793	0.720	59	1401889	2693.65	ug/L	99	
90) Acrylonitrile	9.101	9.090	0.744	53	371173	252.67	ug/L	99	
91) Isopropyl ether	9.884	9.884	0.808	45	573075	48.68	ug/L	99	
92) 2-Chloro-1,3-butadiene	10.003	10.003	0.818	53	243443	57.00	ug/L	100	
93) Ethyl tert-butyl ether	10.418	10.406	0.852	59	558375	49.68	ug/L	100	
94) Ethyl acetate	10.679	10.679	0.873	43	856888	236.38	ug/L	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D106SSLA.D
Acq On : 15 Mar 2010 1:57 pm
Operator : CDS1
InstName : VOA3
Sample : |1202071639|965481|1|VOA|1|VOA8260BS|
Misc : LCS 5G - MIX[B] SOIL 0215-08B/0226-02A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 15 20:36:13 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
95)	Propionitrile	10.726	10.726	0.877	54	146508	254.35	ug/L	99	
96)	Methacrylonitrile	10.951	10.951	0.895	41	557771	252.44	ug/L	99	
97)	Tetrahydrofuran	11.094	11.094	0.907	42	306325	251.14	ug/L	100	
98)	Isobutyl alcohol	11.556	11.556	0.945	41	406506	2591.28	ug/L	99	
99)	Methyl tert-amyl ether	11.971	11.971	0.979	73	520853	50.17	ug/L	99	
100)	Methyl methacrylate	12.991	12.991	1.062	69	654894	273.94	ug/L	98	
101)	1,4-Dioxane	13.098	13.098	1.071	88	119799	2356.15	ug/L	96	
102)	2-Nitropropane	13.525	13.525	1.106	43	280870	264.91	ug/L	99	
104)	Ethyl methacrylate	14.450	14.450	0.912	69	1231311	277.94	ug/L	99	
106)	1-Chlorohexane	15.754	15.754	0.856	55	143250	48.56	ug/L	98	
107)	cis-1,4-Dichloro-2-butene	16.964	16.964	0.921	53	362919	332.31	ug/L	97	
108)	Cyclohexanone	17.082	17.082	0.928	42	658680	5254.80	ug/L	99	E
109)	trans-1,4-Dichloro-2-b...	17.260	17.260	0.938	53	344615	323.52	ug/L	97	
110)	Pentachloroethane	17.983	17.983	0.977	167	629813	441.25	ug/L	95	E
111)	Benzyl chloride	18.553	18.553	1.008	91	2055943	393.18	ug/L	100	
112)	bis(2-Chloroisopropyl)...	18.980	18.980	1.031	45	531589	252.62	ug/L	97	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D106SSLA.D
Acq On    : 15 Mar 2010   1:57 pm
Operator  : CDS1
InstName  : VOA3
Sample    : |1202071639|965481|1|VOA|1|VOA8260BS|
Misc      : LCS 5G - MIX[B] SOIL 0215-08B/0226-02A
ALS Vial  : 6   Sample Multiplier: 1

Quant Time: Mar 15 20:36:13 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE
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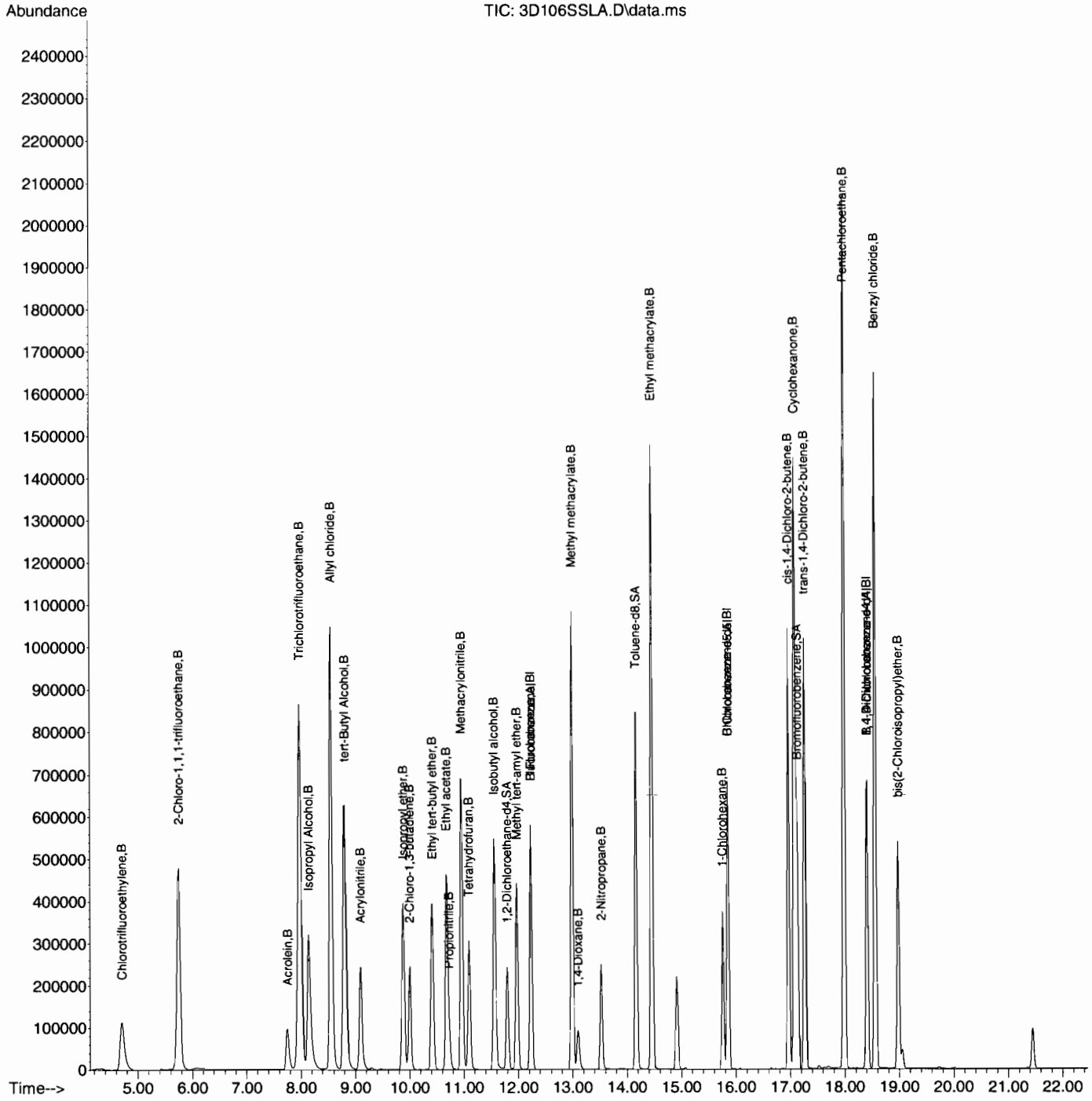

Miscellaneous

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **965477** Verified by: _____

Analyst: Gelester Baskett
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 14
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202071635 MB	15-MAR-2010 11:00:00	Soil	5	5	1	
1202071638 LCS	15-MAR-2010 11:02:00	Soil	5	5	1	
1202071639 LCS	15-MAR-2010 11:04:00	Soil	5	5	1	
248824001	15-MAR-2010 17:10:00	Soil	5	5	1	
248824002	15-MAR-2010 17:12:00	Soil	5	5	1	
248865001	15-MAR-2010 17:14:00	Soil	5	5	1	
248866001	15-MAR-2010 17:16:00	Soil	5	5	1	
248866002	15-MAR-2010 17:18:00	Soil	5	5	1	
248866003	15-MAR-2010 17:20:00	Misc Solid	5	5	1	
249055001	15-MAR-2010 17:22:00	Soil	5	5	1	
249055002	15-MAR-2010 17:24:00	Soil	5	5	1	
1202074003 MB	16-MAR-2010 16:45:00	Soil	5	5	1	
1202074004 LCS	16-MAR-2010 16:47:00	Soil	5	5	1	
1202074005 LCS	16-MAR-2010 16:49:00	Soil	5	5	1	
1202071636 PS (248824001)	16-MAR-2010 20:52:00	Soil	5	5	1	
1202071637 PSD (248824001)	16-MAR-2010 20:54:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D238.D
Acq On : 17 Mar 2010 3:30 am
Operator : CDS1
InstName : VOA3
Sample : |1202071636|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MS 248824001 MIX[A]
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Mar 17 10:36:41 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	614578	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	513485	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	261566	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	614640	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	513452	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	265865	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	179938	47.74	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery =		95.48%			
43) Toluene-d8	14.165	14.165	0.894	98	699814	50.64	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery =		101.28%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	244017	46.27	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery =		92.54%			

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	74734	43.44	ug/L	100
3) Chloromethane	5.216	5.216	0.426	50	153527	53.10	ug/L	99
4) Vinyl chloride	5.528	5.528	0.452	62	165116	56.04	ug/L	99
5) Bromomethane	6.279	6.291	0.513	94	136449	57.38	ug/L	98
6) Chloroethane	6.493	6.493	0.531	64	105182	55.26	ug/L	98
7) Trichlorofluoromethane	7.062	7.062	0.577	101	199600	49.23	ug/L	99
8) Ethyl ether	7.501	7.512	0.613	59	106856	50.99	ug/L	98
9) Acetone	7.975	7.987	0.652	43	581647	224.49	ug/L	99
10) 1,1-Dichloroethylene	7.987	7.987	0.653	61	194831	46.76	ug/L	99
11) Iodomethane	8.271	8.271	0.676	142	1200039	227.77	ug/L	99
12) Acetonitrile	8.449	8.449	0.691	41	519095	1156.56	ug/L	99
13) Methyl acetate	8.520	8.520	0.697	43	535205	231.46	ug/L	99
14) Carbon disulfide	8.437	8.449	0.690	76	2251933	244.99	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	167272	44.67	ug/L	99
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	351891	43.21	ug/L	99
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753	61	185014	47.94	ug/L	100
18) Vinyl acetate	9.837	9.837	0.804	43	1281969	276.09	ug/L	100
19) 1,1-Dichloroethane	9.849	9.860	0.805	63	252459	52.06	ug/L	100
20) 2-Butanone	10.643	10.643	0.870	43	632599	245.15	ug/L	99
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	219611	51.43	ug/L	100
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	153056	51.11	ug/L	94
23) Bromochloromethane	11.034	11.034	0.902	128	82607	52.55	ug/L	96
24) Chloroform	11.094	11.094	0.907	83	246370	49.78	ug/L	99
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	190272	47.34	ug/L	97
26) Cyclohexane	11.532	11.532	0.943	56	218326	48.52	ug/L	98
27) 1,1-Dichloropropene	11.627	11.627	0.951	75	170497	49.92	ug/L	99
28) Carbon tetrachloride	11.663	11.663	0.953	117	178336	50.74	ug/L	99
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	181004	46.76	ug/L	100
31) Benzene	11.912	11.912	0.974	78	528154	48.74	ug/L	100
32) Cyclohexene	12.054	12.054	0.985	67	231445	46.67	ug/L	99
33) n-Butyl alcohol	12.398	12.398	1.014	56	534252	4679.08	ug/L	97
34) Trichloroethylene	12.695	12.695	1.038	95	141904	50.72	ug/L	100
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	144693	54.68	ug/L	100
36) Methylcyclohexane	12.991	12.991	1.062	83	235494	50.85	ug/L	99
37) Dibromomethane	13.133	13.133	1.074	93	94346	53.12	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D238.D
Acq On : 17 Mar 2010 3:30 am
Operator : CDS1
InstName : VOA3
Sample : |1202071636|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MS 248824001 MIX[A]
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Mar 17 10:36:41 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38)	Bromodichloromethane	13.276	13.288	1.085	83	186405	55.17	ug/L	99
39)	2-Chloroethylvinyl ether	13.560	13.560	1.109	63	273541	316.15	ug/L	98
40)	cis-1,3-Dichloropropylene	13.809	13.809	1.129	75	212644	55.38	ug/L	98
42)	4-Methyl-2-pentanone	13.928	13.928	0.879	58	320377	258.24	ug/L	97
44)	Toluene	14.248	14.248	0.899	91	588916	47.90	ug/L	99
45)	trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	198223	53.05	ug/L	99
46)	1,1,2-Trichloroethane	14.675	14.675	0.926	83	108699	51.18	ug/L	100
47)	2-Hexanone	14.888	14.888	0.939	43	775704	244.91	ug/L	98
48)	1,3-Dichloropropane	14.877	14.888	0.939	76	225980	51.23	ug/L	96
49)	Tetrachloroethylene	14.912	14.912	0.941	164	116008	48.44	ug/L	97
50)	Dibromochloromethane	15.173	15.173	0.957	129	156404	55.67	ug/L	98
51)	1,2-Dibromoethane	15.351	15.351	0.969	107	134516	49.25	ug/L	99
52)	Chlorobenzene	15.885	15.885	1.002	112	392728	48.67	ug/L	99
53)	1,1,1,2-Tetrachloroethane	15.944	15.956	1.006	131	150241	54.15	ug/L	98
54)	Ethylbenzene	15.956	15.968	1.007	91	607878	47.85	ug/L	100
55)	m,p-Xylenes	16.086	16.086	1.015	106	494450	97.95	ug/L	98
56)	o-Xylene	16.537	16.549	1.043	106	253682	50.30	ug/L	99
57)	Styrene	16.549	16.549	1.044	104	420362	52.20	ug/L	97
59)	Bromoform	16.810	16.821	0.913	173	94795	47.16	ug/L	99
60)	Isopropylbenzene	16.928	16.928	0.919	105	614110	47.38	ug/L	100
62)	1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	172555	49.24	ug/L	99
63)	1,2,3-Trichloropropane	17.296	17.308	0.939	110	47254	49.05	ug/L	99
64)	Bromobenzene	17.343	17.343	0.942	156	170343	48.96	ug/L	98
65)	n-Propylbenzene	17.367	17.367	0.943	91	714762	47.69	ug/L	99
66)	1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	527615	48.51	ug/L	99
67)	2-Chlorotoluene	17.521	17.521	0.952	126	157441	48.73	ug/L	100
68)	4-Chlorotoluene	17.628	17.628	0.957	91	434611	46.74	ug/L	99
69)	tert-Butylbenzene	17.912	17.912	0.973	134	118152	50.79	ug/L	97
70)	1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	533306	48.36	ug/L	99
71)	sec-Butylbenzene	18.150	18.150	0.986	105	706128	48.48	ug/L	100
72)	4-Isopropyltoluene	18.280	18.280	0.993	119	563455	48.73	ug/L	100
73)	1,3-Dichlorobenzene	18.339	18.351	0.996	146	279586	47.03	ug/L	99
74)	1,4-Dichlorobenzene	18.434	18.434	1.001	146	321929	47.25	ug/L	99
75)	n-Butylbenzene	18.742	18.742	1.018	91	555193	50.49	ug/L	99
76)	1,2-Dichlorobenzene	18.885	18.885	1.026	146	333426	49.30	ug/L	99
77)	1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	36570	43.62	ug/L	99
78)	1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	205910	45.28	ug/L	100
79)	Hexachlorobutadiene	21.126	21.126	1.148	225	107328	47.12	ug/L	99
80)	Naphthalene	21.351	21.351	1.160	128	528303	45.17	ug/L	100
81)	1,2,3-Trichlorobenzene	21.719	21.719	1.180	180	193409	43.55	ug/L	99
83)	Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85)	Acrolein	0.000	7.750	0.000		0	N.D.		
86)	Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87)	Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88)	Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89)	tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90)	Acrylonitrile	9.161	9.090	0.749		0m	N.D.	d	
91)	Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93)	Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94)	Ethyl acetate	10.643	10.679	0.870		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D238.D
Acq On : 17 Mar 2010 3:30 am
Operator : CDS1
InstName : VOA3
Sample : |1202071636|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MS 248824001 MIX[A]
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Mar 17 10:36:41 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	10.643	10.726	0.870		0m	N.D.	d
96) Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97) Tetrahydrofuran	11.094	11.094	0.907		0m	N.D.	d
98) Isobutyl alcohol	11.532	11.556	0.943		0m	N.D.	d
99) Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.	d
100) Methyl methacrylate	12.979	12.991	1.061		0m	N.D.	d
101) 1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102) 2-Nitropropane	13.560	13.525	1.109		0m	N.D.	d
104) Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106) 1-Chlorohexane	15.849	15.754	0.861		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.	d
108) Cyclohexanone	16.916	17.082	0.919		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.	d
110) Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111) Benzyl chloride	18.410	18.553	1.000		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D238.D
Acq On : 17 Mar 2010 3:30 am
Operator : CDS1
InstName : VOA3
Sample : |1202071636|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MS 248824001 MIX[A]
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Mar 17 10:36:41 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

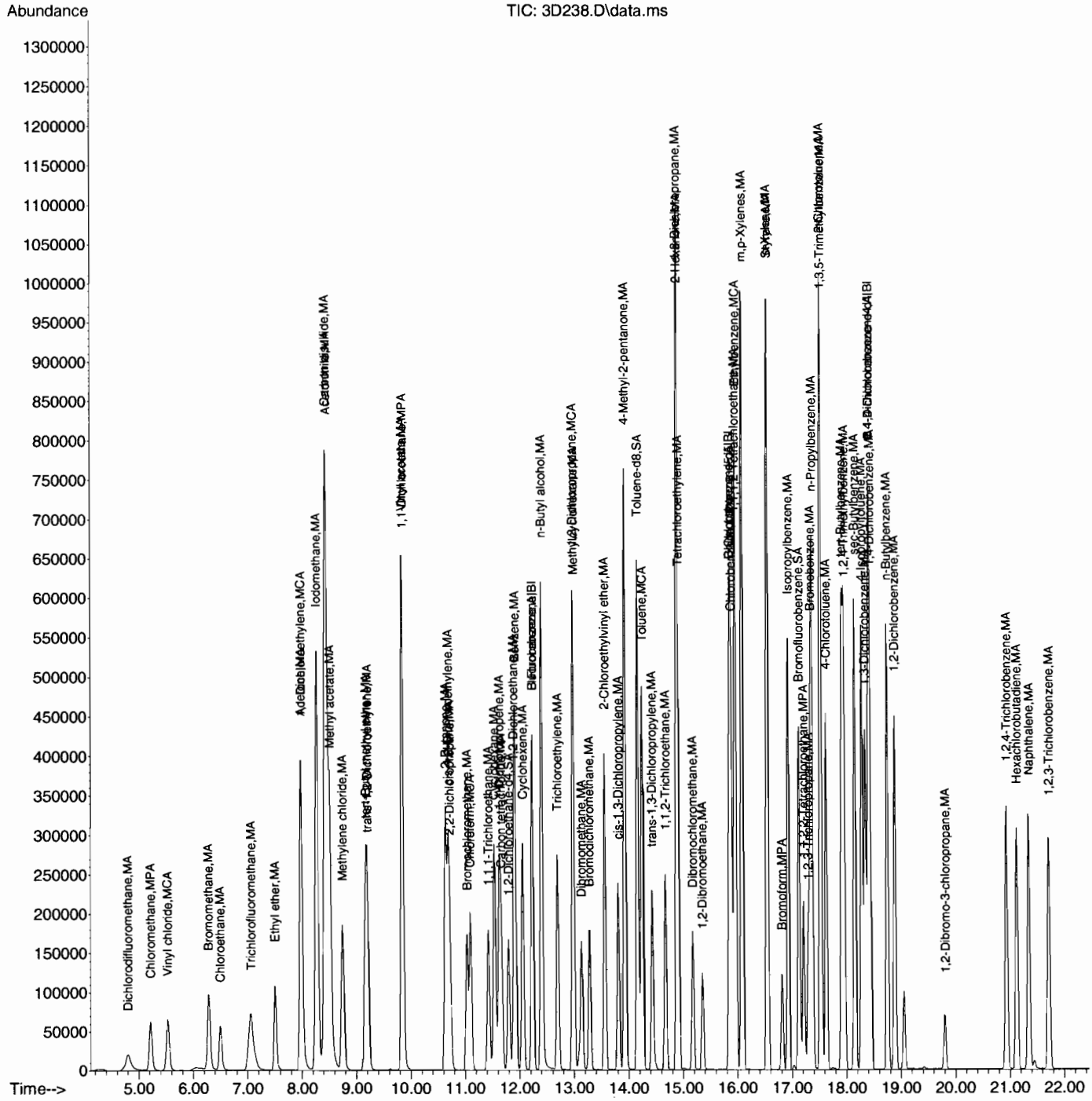

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D239.D
Acq On : 17 Mar 2010 3:59 am
Operator : CDS1
InstName : VOA3
Sample : |1202071637|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248824001 MIX[A]
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Mar 17 10:36:44 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	691762	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	539887	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	300543	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	691767	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	539921	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.410	18.410	1.000	152	306367	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.793	11.793	0.964	65	220757	52.03	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery =		104.06%			
43) Toluene-d8	14.165	14.165	0.894	98	780096	53.69	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery =		107.38%			
61) Bromofluorobenzene	17.130	17.130	0.930	95	290776	47.98	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery =		95.96%			

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.800	4.800	0.392	85	80617	41.60	ug/L	100
3) Chloromethane	5.216	5.216	0.426	50	149788	46.03	ug/L	99
4) Vinyl chloride	5.528	5.528	0.452	62	168221	50.72	ug/L	100
5) Bromomethane	6.291	6.291	0.514	94	137021	51.19	ug/L	99
6) Chloroethane	6.493	6.493	0.531	64	107429	50.14	ug/L	99
7) Trichlorofluoromethane	7.062	7.062	0.577	101	211592	46.37	ug/L	100
8) Ethyl ether	7.501	7.512	0.613	59	113970	48.31	ug/L	99
9) Acetone	7.975	7.987	0.652	43	589208	202.04	ug/L	99
10) 1,1-Dichloroethylene	7.987	7.987	0.653	61	204171	43.54	ug/L	99
11) Iodomethane	8.271	8.271	0.676	142	1294581	218.30	ug/L	99
12) Acetonitrile	8.449	8.449	0.691	41	541220	1071.31	ug/L	99
13) Methyl acetate	8.520	8.520	0.697	43	569620	218.86	ug/L	99
14) Carbon disulfide	8.449	8.449	0.691	76	2407802	232.72	ug/L	100
15) Methylene chloride	8.746	8.746	0.715	84	175972	41.75	ug/L	100
16) tert-Butyl methyl ether	9.173	9.173	0.750	73	377212	41.15	ug/L	98
17) trans-1,2-Dichloroethy...	9.208	9.208	0.753	61	190176	43.78	ug/L	99
18) Vinyl acetate	9.837	9.837	0.804	43	1360441	260.30	ug/L	100
19) 1,1-Dichloroethane	9.849	9.860	0.805	63	250053	45.81	ug/L	100
20) 2-Butanone	10.643	10.643	0.870	43	652824	224.76	ug/L	99
21) cis-1,2-Dichloroethylene	10.691	10.691	0.874	61	229246	47.70	ug/L	99
22) 2,2-Dichloropropane	10.714	10.714	0.876	77	161725	47.98	ug/L	95
23) Bromochloromethane	11.034	11.034	0.902	128	84256	47.62	ug/L	96
24) Chloroform	11.094	11.094	0.907	83	259471	46.58	ug/L	99
25) 1,1,1-Trichloroethane	11.426	11.426	0.934	97	202879	44.84	ug/L	98
26) Cyclohexane	11.533	11.532	0.943	56	230856	45.58	ug/L	99
27) 1,1-Dichloropropene	11.616	11.627	0.950	75	178057	46.32	ug/L	99
28) Carbon tetrachloride	11.663	11.663	0.953	117	189905	48.00	ug/L	100
30) 1,2-Dichloroethane	11.888	11.888	0.972	62	196064	45.00	ug/L	100
31) Benzene	11.912	11.912	0.974	78	565450	46.36	ug/L	99
32) Cyclohexene	12.054	12.054	0.985	67	249201	44.64	ug/L	99
33) n-Butyl alcohol	12.398	12.398	1.014	56	595375	4633.41	ug/L	98
34) Trichloroethylene	12.695	12.695	1.038	95	145398	46.17	ug/L	99
35) 1,2-Dichloropropane	12.979	12.979	1.061	63	148689	49.92	ug/L	100
36) Methylcyclohexane	12.991	12.991	1.062	83	242514	46.52	ug/L	99
37) Dibromomethane	13.133	13.133	1.074	93	97087	48.57	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D239.D
Acq On : 17 Mar 2010 3:59 am
Operator : CDS1
InstName : VOA3
Sample : |1202071637|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248824001 MIX[A]
ALS Via1 : 50 Sample Mu1tip1ier: 1

Quant Time: Mar 17 10:36:44 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Ca1ibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodich1oromethane	13.276	13.288	1.085	83	192854	50.71	ug/L	100
39) 2-Chloroethylviny1 ether	13.560	13.560	1.109	63	265380	273.24	ug/L	99
40) cis-1,3-Dich1oropropylene	13.809	13.809	1.129	75	220866	51.10	ug/L	99
42) 4-Methyl-2-pentanone	13.928	13.928	0.879	58	340650	261.16	ug/L	97
44) To1uene	14.248	14.248	0.899	91	597806	46.25	ug/L	99
45) trans-1,3-Dichloroprop...	14.426	14.426	0.910	75	195843	49.85	ug/L	98
46) 1,1,2-Trichloroethane	14.675	14.675	0.926	83	108663	48.66	ug/L	98
47) 2-Hexanone	14.888	14.888	0.939	43	803434	241.26	ug/L	98
48) 1,3-Dich1oropropane	14.877	14.888	0.939	76	223183	48.12	ug/L	99
49) Tetrachloroethylene	14.912	14.912	0.941	164	112519	44.68	ug/L	99
50) Dibromochloromethane	15.173	15.173	0.957	129	155647	52.69	ug/L	99
51) 1,2-Dibromoethane	15.351	15.351	0.969	107	132631	46.18	ug/L	99
52) Chlorobenzene	15.885	15.885	1.002	112	393078	46.33	ug/L	99
53) 1,1,1,2-Tetrachloroethane	15.944	15.956	1.006	131	150928	51.73	ug/L	98
54) Ethylbenzene	15.956	15.968	1.007	91	605245	45.31	ug/L	100
55) m,p-Xylenes	16.086	16.086	1.015	106	489400	92.21	ug/L	100
56) o-Xylene	16.537	16.549	1.043	106	268016	50.54	ug/L	100
57) Styrene	16.549	16.549	1.044	104	443327	52.36	ug/L	97
59) Bromoform	16.810	16.821	0.913	173	101504	44.05	ug/L	98
60) Isopropylbenzene	16.928	16.928	0.919	105	661985	44.45	ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.213	17.213	0.935	83	184372	45.79	ug/L	97
63) 1,2,3-Trichloropropane	17.296	17.308	0.939	110	49395	44.62	ug/L	98
64) Bromobenzene	17.343	17.343	0.942	156	179714	44.95	ug/L	98
65) n-Propylbenzene	17.367	17.367	0.943	91	763039	44.31	ug/L	100
66) 1,3,5-Trimethylbenzene	17.533	17.533	0.952	105	562043	44.98	ug/L	98
67) 2-Chlorotoluene	17.521	17.521	0.952	126	166270	44.79	ug/L	98
68) 4-Chlorotoluene	17.628	17.628	0.957	91	465639	43.59	ug/L	100
69) tert-Butylbenzene	17.912	17.912	0.973	134	123837	46.33	ug/L	99
70) 1,2,4-Trimethylbenzene	17.960	17.960	0.976	105	567509	44.79	ug/L	99
71) sec-Butylbenzene	18.150	18.150	0.986	105	758438	45.31	ug/L	100
72) 4-Isopropyltoluene	18.280	18.280	0.993	119	596806	44.92	ug/L	99
73) 1,3-Dichlorobenzene	18.339	18.351	0.996	146	290905	42.59	ug/L	100
74) 1,4-Dichlorobenzene	18.434	18.434	1.001	146	339510	43.37	ug/L	99
75) n-Butylbenzene	18.743	18.742	1.018	91	567169	44.89	ug/L	100
76) 1,2-Dichlorobenzene	18.885	18.885	1.026	146	336005	43.24	ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.810	19.810	1.076	157	38333	39.93	ug/L	100
78) 1,2,4-Trichlorobenzene	20.936	20.936	1.137	180	209178	40.03	ug/L	98
79) Hexachlorobutadiene	21.126	21.126	1.148	225	109597	41.87	ug/L	99
80) Naphthalene	21.340	21.351	1.159	128	553179	41.16	ug/L	100
81) 1,2,3-Trichlorobenzene	21.707	21.719	1.179	180	201043	39.39	ug/L	98
83) Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.		
85) Acrolein	0.000	7.750	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.		
88) Allyl chloride	8.449	8.556	0.691		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.		
90) Acrylonitrile	9.173	9.090	0.750		0m	N.D.	d	
91) Isopropyl ether	9.837	9.884	0.804		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.		
94) Ethyl acetate	10.643	10.679	0.870		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D239.D
Acq On : 17 Mar 2010 3:59 am
Operator : CDS1
InstName : VOA3
Sample : |1202071637|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248824001 MIX[A]
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Mar 17 10:36:44 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	10.643	10.726	0.870		0m	N.D.		d
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.		
97)	Tetrahydrofuran	11.094	11.094	0.907		0m	N.D.		d
98)	Isobutyl alcohol	11.533	11.556	0.943		0m	N.D.		d
99)	Methyl tert-amyl ether	11.912	11.971	0.974		0m	N.D.		d
100)	Methyl methacrylate	12.979	12.991	1.061		0m	N.D.		d
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.		
102)	2-Nitropropane	13.560	13.525	1.109		0m	N.D.		d
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.		
106)	1-Chlorohexane	15.849	15.754	0.861		0m	N.D.		d
107)	cis-1,4-Dichloro-2-butene	16.928	16.964	0.919		0m	N.D.		d
108)	Cyclohexanone	16.916	17.082	0.919		0m	N.D.		d
109)	trans-1,4-Dichloro-2-b...	17.367	17.260	0.943		0m	N.D.		d
110)	Pentachloroethane	17.984	17.983	0.977		0m	N.D.		d
111)	Benzyl chloride	18.399	18.553	0.999		0m	N.D.		d
112)	bis(2-Chloroisopropyl)...	19.051	18.980	1.035		0m	N.D.		d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031610V3\
Data File : 3D239.D
Acq On : 17 Mar 2010 3:59 am
Operator : CDS1
InstName : VOA3
Sample : |1202071637|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL MSD 248824001 MIX[A]
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Mar 17 10:36:44 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:52:36 2010
Response via : Initial Calibration
Integrator: RTE

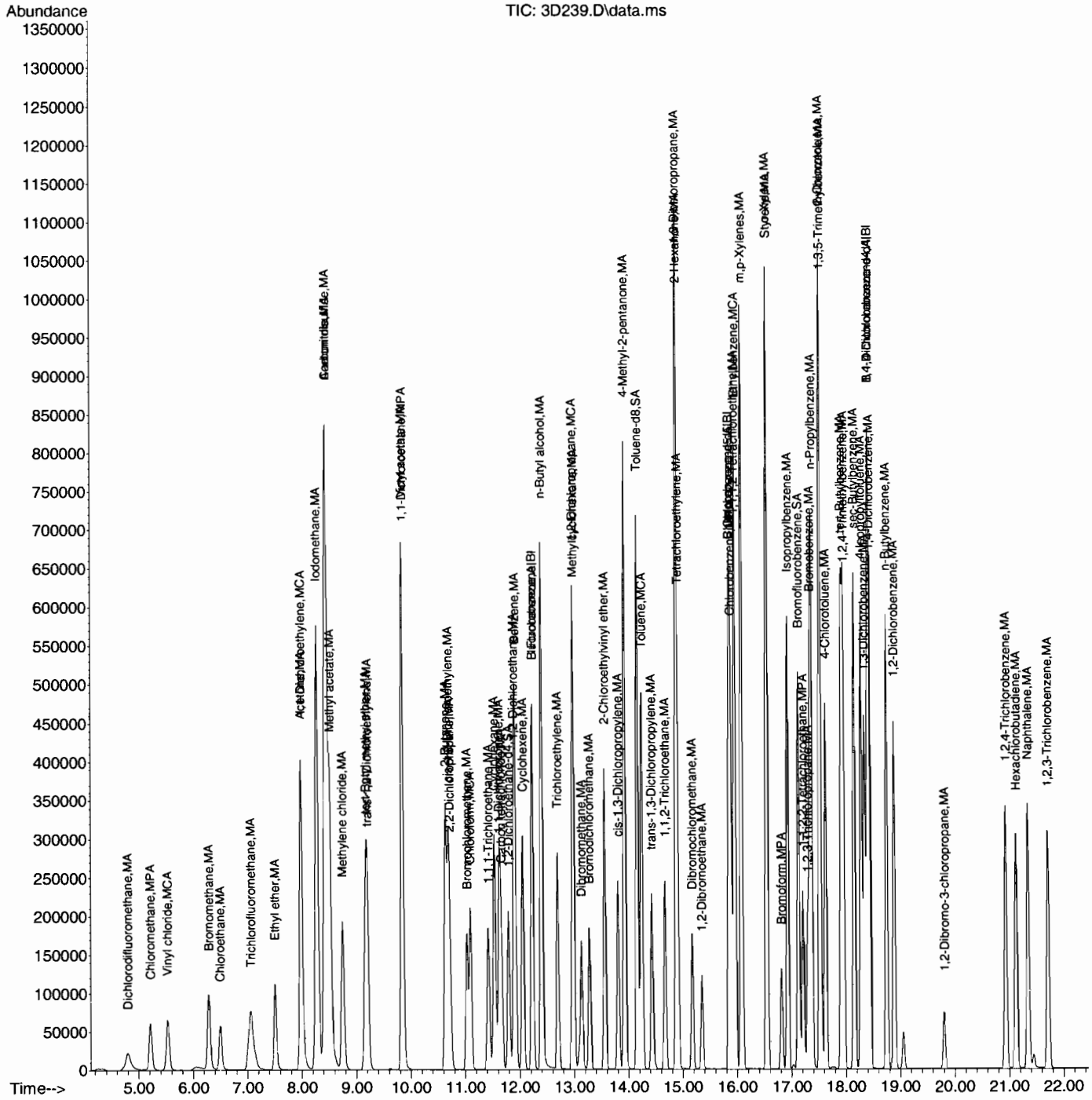

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D113.D
Acq On : 15 Mar 2010 6:18 pm
Operator : CDS1
InstName : VOA3
Sample : |248824001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 13:29:56 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	12.232	12.232	1.000	96	699066	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.849	15.849	1.000	117	544216	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	272110	50.00	ug/L	0.00
82) B Fluorobenzene	12.232	12.232	1.000	96	698738	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.849	15.849	1.000	117	544271	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.411	18.410	1.000	152	275274	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	11.794	11.793	0.964	65	223463	52.12	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 104.24%					
43) Toluene-d8	14.165	14.165	0.894	98	758958	51.82	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 103.64%					
61) Bromofluorobenzene	17.130	17.130	0.930	95	258931	47.19	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 94.38%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.800	0.000		0	N.D.		
3) Chloromethane	0.000	5.216	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.528	0.000		0	N.D.		
5) Bromomethane	0.000	6.291	0.000		0	N.D.		
6) Chloroethane	0.000	6.493	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	7.062	0.000		0	N.D.		
8) Ethyl ether	0.000	7.512	0.000		0	N.D.		
9) Acetone	7.999	7.987	0.654	43	12462	4.23	ug/L	93
10) 1,1-Dichloroethylene	0.000	7.987	0.000		0	N.D.		
11) Iodomethane	0.000	8.271	0.000		0	N.D.		
12) Acetonitrile	0.000	8.449	0.000		0	N.D.		
13) Methyl acetate	0.000	8.520	0.000		0	N.D.		
14) Carbon disulfide	0.000	8.449	0.000		0	N.D.		
15) Methylene chloride	8.746	8.746	0.715	84	2962	N.D.		
16) tert-Butyl methyl ether	0.000	9.173	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	9.208	0.000		0	N.D.		
18) Vinyl acetate	0.000	9.837	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	9.860	0.000		0	N.D.		
20) 2-Butanone	0.000	10.643	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	10.691	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	10.714	0.000		0	N.D.		
23) Bromochloromethane	0.000	11.034	0.000		0	N.D.		
24) Chloroform	0.000	11.094	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	11.426	0.000		0	N.D.		
26) Cyclohexane	0.000	11.532	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	11.627	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	11.663	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	11.888	0.000		0	N.D.		
31) Benzene	0.000	11.912	0.000		0	N.D.		
32) Cyclohexene	0.000	12.054	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	12.398	0.000		0	N.D.		
34) Trichloroethylene	0.000	12.695	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	12.979	0.000		0	N.D.		
36) Methylcyclohexane	0.000	12.991	0.000		0	N.D.		
37) Dibromomethane	0.000	13.133	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D113.D
Acq On : 15 Mar 2010 6:18 pm
Operator : CDS1
InstName : VOA3
Sample : |248824001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 13:29:56 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38)	Bromodichloromethane	0.000	13.288	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000	13.560	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000	13.809	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	13.928	0.000		0	N.D.	
44)	Toluene	0.000	14.248	0.000		0	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	14.426	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	14.675	0.000		0	N.D.	
47)	2-Hexanone	0.000	14.888	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000	14.888	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	14.912	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	15.173	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	15.351	0.000		0	N.D.	
52)	Chlorobenzene	0.000	15.885	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	15.956	0.000		0	N.D.	
54)	Ethylbenzene	0.000	15.968	0.000		0	N.D.	
55)	m,p-Xylenes	0.000	16.086	0.000		0	N.D.	
56)	o-Xylene	0.000	16.549	0.000		0	N.D.	
57)	Styrene	0.000	16.549	0.000		0	N.D.	
59)	Bromoform	0.000	16.821	0.000		0	N.D.	
60)	Isopropylbenzene	0.000	16.928	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	17.213	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	17.308	0.000		0	N.D.	
64)	Bromobenzene	0.000	17.343	0.000		0	N.D.	
65)	n-Propylbenzene	0.000	17.367	0.000		0	N.D.	
66)	1,3,5-Trimethylbenzene	0.000	17.533	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000	17.521	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000	17.628	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000	17.912	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	0.000	17.960	0.000		0	N.D.	
71)	sec-Butylbenzene	0.000	18.150	0.000		0	N.D.	
72)	4-Isopropyltoluene	0.000	18.280	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	0.000	18.351	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	0.000	18.434	0.000		0	N.D.	
75)	n-Butylbenzene	0.000	18.742	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000	18.885	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	19.810	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000	20.936	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000	21.126	0.000		0	N.D.	
80)	Naphthalene	21.351	21.351	1.160	128	383	N.D.	
81)	1,2,3-Trichlorobenzene	0.000	21.719	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.711	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.751	0.000		0	N.D.	
85)	Acrolein	0.000	7.750	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	7.975	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	8.141	0.000		0	N.D.	
88)	Allyl chloride	0.000	8.556	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000	8.793	0.000		0	N.D.	
90)	Acrylonitrile	0.000	9.090	0.000		0	N.D.	
91)	Isopropyl ether	0.000	9.884	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	10.003	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	10.406	0.000		0	N.D.	
94)	Ethyl acetate	0.000	10.679	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D113.D
Acq On : 15 Mar 2010 6:18 pm
Operator : CDS1
InstName : VOA3
Sample : |248824001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 13:29:56 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	10.726	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	10.951	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	11.094	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	11.556	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	11.971	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	12.991	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	13.098	0.000		0	N.D.	
102)	2-Nitropropane	0.000	13.525	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	14.450	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	15.754	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	0.000	16.964	0.000		0	N.D.	
108)	Cyclohexanone	0.000	17.082	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	17.260	0.000		0	N.D.	
110)	Pentachloroethane	0.000	17.983	0.000		0	N.D.	
111)	Benzyl chloride	0.000	18.553	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	0.000	18.980	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D113.D
Acq On : 15 Mar 2010 6:18 pm
Operator : CDS1
InstName : VOA3
Sample : |248824001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 16 13:29:56 2010
Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 01 09:46:52 2010
Response via : Initial Calibration
Integrator: RTE

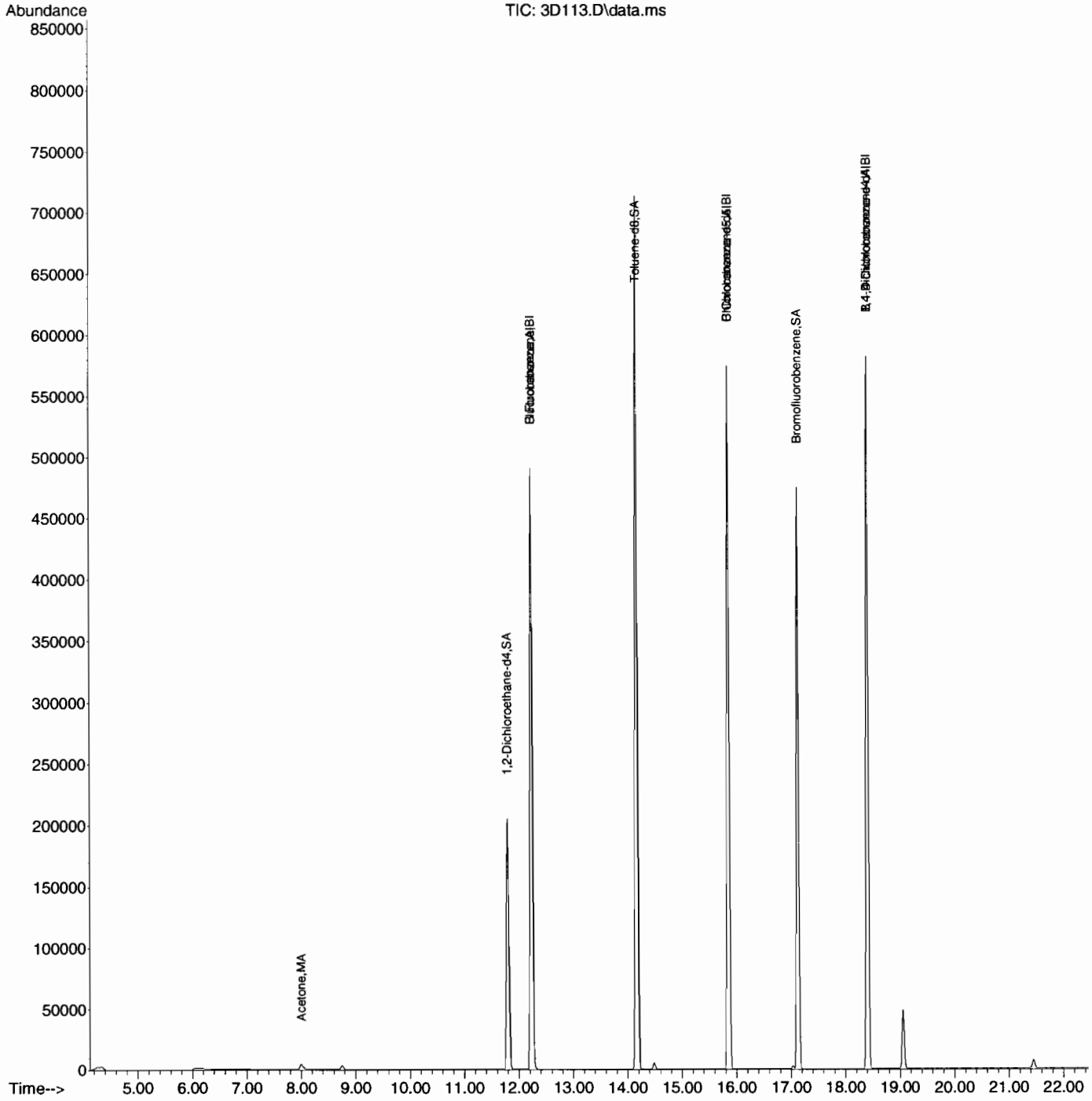

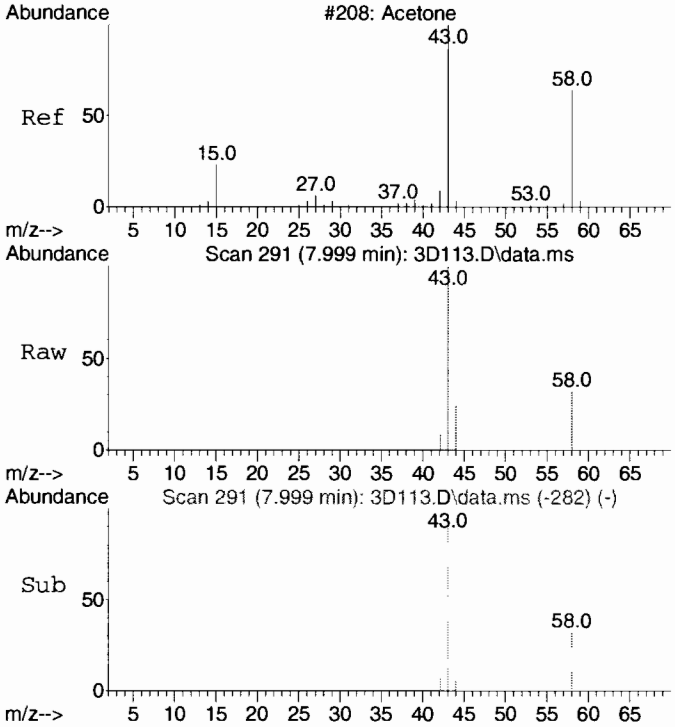

#9
Acetone
Concen: 4.23 ug/L
RT: 7.999 min Scan# 291
Delta R.T. 0.012 min
Lab File: 3D113.D
Acq: 15 Mar 2010 6:18 pm

Tgt Ion: 43 Resp: 12462

Ion	Ratio	Lower	Upper
43	100		
58	28.3	2.5	62.5

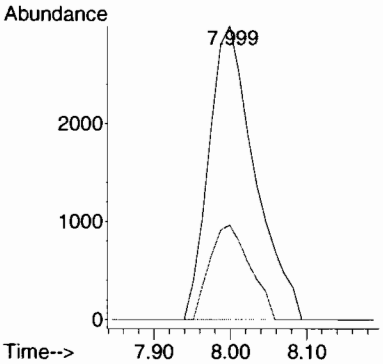

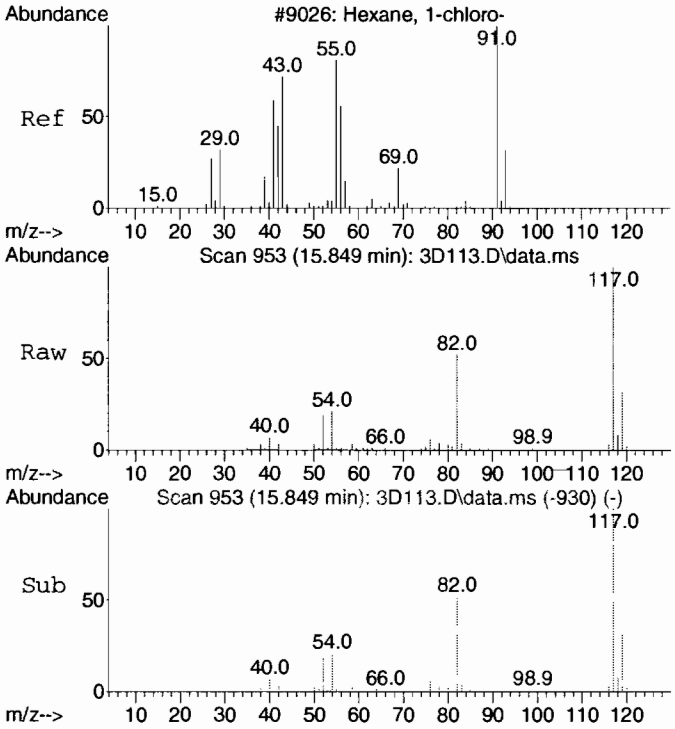

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.85 ug/L
RT: 15.849 min Scan# 953
Delta R.T. 0.095 min
Lab File: 3D113.D
Acq: 15 Mar 2010 6:18 pm

Tgt Ion: 55 Resp: 4606

Ion	Ratio	Lower	Upper
55	100		
91	15.6	119.7	179.7#
56	65.7	29.6	89.6

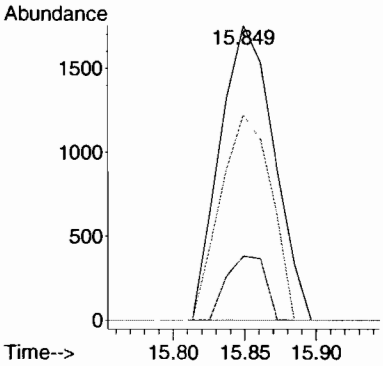

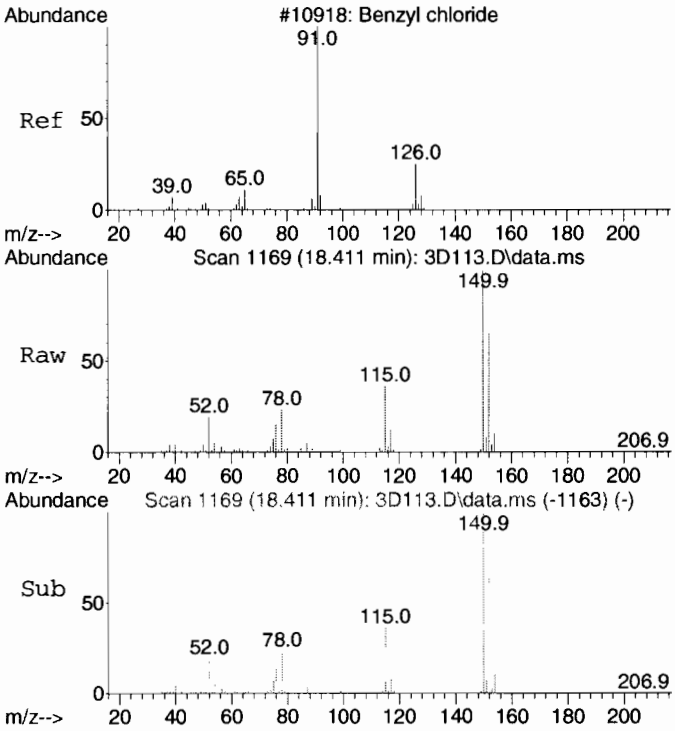

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 1.68 ug/L
RT: 18.411 min Scan# 1169
Delta R.T. -0.142 min
Lab File: 3D113.D
Acq: 15 Mar 2010 6:18 pm

Tgt Ion: 91 Resp: 376

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.8
65	564.9	0.0	41.3#

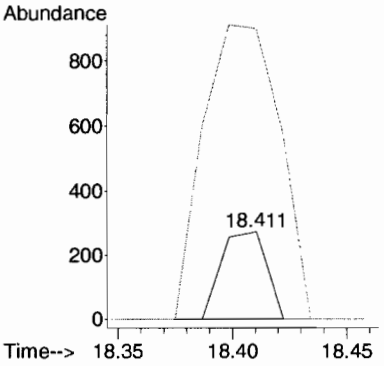

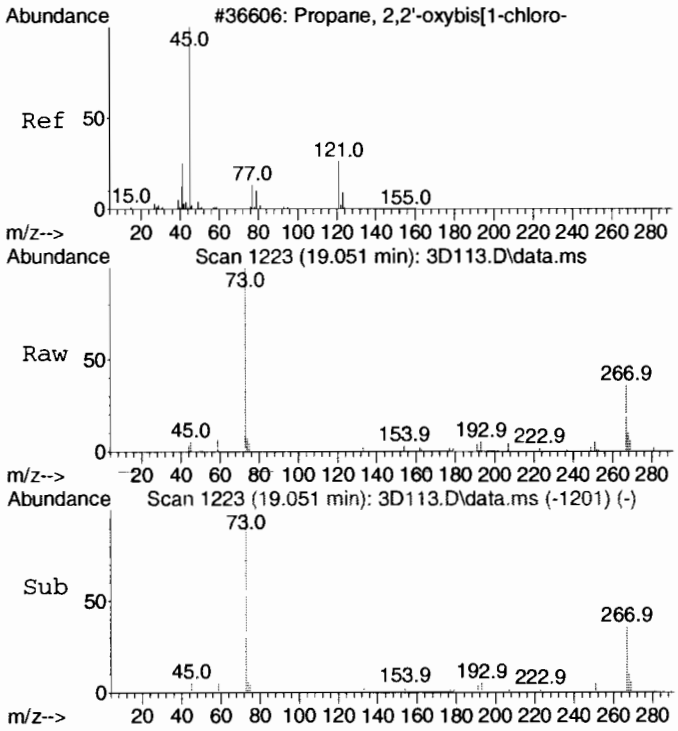

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 1.75 ug/L
RT: 19.051 min Scan# 1223
Delta R.T. 0.071 min
Lab File: 3D113.D
Acq: 15 Mar 2010 6:18 pm

Tgt Ion: 45 Resp: 3113

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	59.6

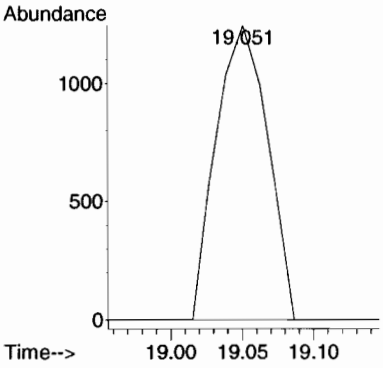

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D113.D
Acq On : 15 Mar 2010 6:18 pm
Operator : CDS1
Sample : |248824001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031510V3\
Data File : 3D113.D
Acq On : 15 Mar 2010 6:18 pm
Operator : CDS1
Sample : |248824001|965481|1|VOA|1|VOA8260BS|
Misc : LANL 5G - SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\022610V3\VOA3-8260-022610.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA3

Date: 2/26/2010 Method 8260/624 Operator: CDS1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1435

CALIBRATION & CC INFORMATION:

Initial Calibration Da _____

(See pg. _____ for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 022610V3

	Daily Standard Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
IS	UVM100203-01	1	1	1	
SS	UVM100203-02	1	1	1	
LONG ICV	W3VM100226-10			5+5	
BFB	UVM100203-02				1
SHORT ICV	W3VM100226-18			5+5	

Purge Amount	
5	Water Purge Vol:
5	Soil Purge Wt.
n/a	Mid level ext. MeOH Vol:
n/a	ul
n/a	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
2/26/2010	9:25	3A501.D	UVM100203-02	-----	BFB	5ml	1	N/A	1	w	CDS1	N/A	O	
2/26/2010	9:54	3A502.D	1202---	-----	BLANK	5ml	1	N/A	2	w	CDS1	N/A	x	clean-up blank
2/26/2010	10:23	3A503.D	W3VM100226-01	VSTD001	ICAL	5uL ea.	1	N/A	3	w	CDS1	N/A	O	UVM100106-02D+UVM100202-02D
2/26/2010	10:53	3A504.D	W3VM100226-02	VSTD002	ICAL	5uL ea.	1	N/A	4	w	CDS1	N/A	O	UVM100106-03D+UVM100202-03D
2/26/2010	11:23	3A505.D	W3VM100226-03	VSTD005	ICAL	5uL ea.	1	N/A	5	w	CDS1	N/A	O	UVM100106-04D+UVM100202-04D
2/26/2010	11:52	3A506.D	W3VM100226-04	VSTD010	ICAL	5uL ea.	1	N/A	6	w	CDS1	N/A	O	UVM100106-05D+UVM100202-05D
2/26/2010	12:22	3A507.D	W3VM100226-05	VSTD020	ICAL	5uL ea.	1	N/A	7	w	CDS1	N/A	O	UVM100106-06D+UVM100202-06D
2/26/2010	12:52	3A508.D	W3VM100226-06	VSTD050	ICAL	5uL ea.	1	N/A	8	w	CDS1	N/A	X	UVM100106-07D+UVM100202-07D gases low
2/26/2010	13:21	3A509.D	W3VM100226-07	VSTD100	ICAL	5uL ea.	1	N/A	9	w	CDS1	N/A	O	UVM100106-08D+UVM100202-08D
2/26/2010	13:50	3A510.D	1202---	GEL	BLANK	5ml	1	N/A	10	w	CDS1	N/A	x	clean-up blank
2/26/2010	14:20	3A511.D	W3VM100226-08	VSTD0005	ICAL	5uL ea.	1	N/A	11	w	CDS1	N/A	O	UVM100106-01D+UVM100202-01D
2/26/2010	14:49	3A512.D	W3VM100226-09	-----	ICV	5uL ea.	1	N/A	12	w	CDS1	N/A	X	UVM100126-02E+IVM100224-01 freon high
2/26/2010	15:19	3A513.D	W3VM100226-10	-----	ICV	5uL ea.	1	N/A	13	w	CDS1	N/A	O	UVM100220-01B+IVM100224-01
2/26/2010	15:48	3A514.D	1202---	-----	BLANK	5ml	1	N/A	14	w	CDS1	N/A	x	
2/26/2010	16:17	3A515.D	W3VM100226-11	VSTD005S	ICAL	5uL ea.	1	N/A	15	w	CDS1	N/A	O	UVM100125-01E+UVM100215-01
2/26/2010	16:46	3A516.D	W3VM100226-12	VSTD010S	ICAL	5uL ea.	1	N/A	16	w	CDS1	N/A	O	UVM100125-02E+UVM100215-02
2/26/2010	17:15	3A517.D	W3VM100226-13	VSTD025S	ICAL	5uL ea.	1	N/A	17	w	CDS1	N/A	O	UVM100125-03E+UVM100215-03
2/26/2010	17:45	3A518.D	W3VM100226-14	VSTD050S	ICAL	5uL ea.	1	N/A	18	w	CDS1	N/A	O	UVM100125-04E+UVM100215-04
2/26/2010	18:14	3A519.D	W3VM100226-15	VSTD100S	ICAL	5uL ea.	1	N/A	19	w	CDS1	N/A	O	UVM100125-05E+UVM100215-05
2/26/2010	18:43	3A520.D	W3VM100226-16	VSTD250S	ICAL	5uL ea.	1	N/A	20	w	CDS1	N/A	O	UVM100125-06E+UVM100215-06
2/26/2010	19:14	3A521.D	W3VM100226-17	VSTD500S	ICAL	5uL ea.	1	N/A	21	w	CDS1	N/A	O	UVM100125-07E+UVM100215-07
2/26/2010	19:43	3A522.D	1202---	-----	BLANK	5ml	1	N/A	22	w	CDS1	N/A	x	clean-up blank
2/26/2010	20:12	3A523.D	W3VM100226-18	-----	ICV	5uL ea.	1	N/A	23	w	CDS1	N/A	O	UVM100215-08A+UVM100125-08D

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA3

Date: 3/15/2010 Method 8260/624 Operator: GRB

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1435

CALIBRATION & CC INFORMATION:

Initial Calibration Da 2/26/2010

(See pg. 26 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 031510V3

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W3VM100315-01		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100217-02	1	1	1	
LCS/MS	W3VM100315-02/03			5+5	
BFB	UVM100217-02				1
Short CCV	W3VM100315-04		5+5		
Short LCS	W3VM100315-05			5+5	

Purge Amount	
5	Water Purge Vol:
5	Soil Purge Wt.
n/a	Mid level ext. MeOH Vol:
n/a	ul
n/a	Methanol Lot #
x	Heated Purge

Date	Analysis Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3/15/2010	11:35	3D101.D	UVM100217-02	-----	BFB	5ml	1	N/A	1	w	GRB	N/A	O	
3/15/2010	12:01	3D102.D	W3VM100315-01	-----	CCV	5ml	1	N/A	2	w	GRB	N/A	O	UVM100222-07B+UVM10106-07D
3/15/2010	12:30	3D103.D	W3VM100315-02	-----	LCS	5ml	1	N/A	3	w	GRB	N/A	O	UVM100305-01A+IVM100313-01
3/15/2010	12:59	3D104.D	W3VM100315-03	-----	LCS	5G	1	N/A	4	s	GRB	N/A	O	UVM100305-01A+IVM100313-01
3/15/2010	13:28	3D105.D	W3VM100315-04	-----	CCV	5ml	1	N/A	5	w	GRB	N/A	O	UVM100215-06+UVM100226-02A
3/15/2010	13:57	3D106.D	W3VM100315-05	-----	LCS	5G	1	N/A	6	s	GRB	N/A	O	UVM10215-08B+UVM100226-02A
3/15/2010	14:26	3D107.D	120206-----	-----	BLANK	5ML	1	N/A	7	w	GRB	N/A	O	
3/15/2010	14:55	3D108.D	120206-----	-----	BLANK	5G	1	N/A	8	s	GRB	N/A	O	
3/15/2010	16:22	3D109.D	1202068711	SUBR	965440	0.5ML	10	N/A	9	w	GRB	N/A	O	TUMBLE BLANK
3/15/2010	16:51	3D110.D	1202068735	SUBR	965434	0.5ML	10	N/A	10	w	GRB	N/A	O	TUMBLE BLANK conf. by 3D213
3/15/2010	17:20	3D111.D	248571002	SUBR	965440	0.5ML	10	N/A	11	w	GRB	N/A	O	
3/15/2010	17:49	3D112.D	248571001	SUBR	965434	0.5ML	10	N/A	12	w	GRB	N/A	O	
3/15/2010	18:18	3D113.D	248824001	LANL	965481	5G	1	N/A	13	s	GRB	N/A	O	
3/15/2010	18:47	3D114.D	248824002	LANL	965481	5G	1	N/A	14	s	GRB	N/A	O	
3/15/2010	19:16	3D115.D	248865001	LANL	965481	5G	1	N/A	15	s	GRB	N/A	O	
3/15/2010	19:45	3D116.D	248866001	LANL	965481	5G	1	N/A	16	s	GRB	N/A	O	
3/15/2010	20:14	3D117.D	248866002	LANL	965481	5G	1	N/A	17	s	GRB	N/A	O	
3/15/2010	20:42	3D118.D	248866003	LANL	965481	5G	1	N/A	18	s	GRB	N/A	O	
3/15/2010	21:11	3D119.D	249055001	LANL	965481	5G	1	N/A	19	s	GRB	N/A	O	
3/15/2010	21:40	3D120.D	249055002	LANL	965481	5G	1	N/A	20	s	GRB	N/A	O	
3/15/2010	22:09	3D121.D	1202070491	LANL	965062	5G	1	N/A	21	s	GRB	N/A	O	MS 248794013
3/15/2010	22:37	3D122.D	1202070492	LANL	965062	5G	1	N/A	22	s	GRB	N/A	O	MSD 248794013
3/15/2010	23:06	3D123.D	1202071636	LANL	965481	5G	1	N/A	23	s	GRB	N/A	X	MS 248824001; SEE 3D238
3/15/2010	23:35	3D124.D	1202071637	LANL	965481	5G	1	N/A	24	s	GRB	N/A	X	MSD 248824001; SEE 3D239

General Engineering Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA3

Date: 3/16/2010 Method 8260/624 Operator: GRB

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1435

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 2/26/2010

(See pg. 26 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 031610V3pm

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W3VM100316-05		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100217-02	1	1	1	
LCS/MS	W3VM100316-07			5+5	
BFB	UVM100217-02				1
SHORT CCV	W3VM100316-08		5+5		
SHORT LCS	W3VM100316-09			5+5	

Purge Amount

5	Water Purge Vol:
5	Soil Purge Wt.
n/a	Mid level ext. MeOH Vol:
n/a	ul
n/a	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3/16/2010	17:01	3D216.D	UVM100217-02	GEL	BFB2	5ml	1	N/A	27	w	GRB	N/A	O	
3/16/2010	17:27	3D217.D	W3VM100316-05	GEL	CCV	5ml	1	N/A	28	w	GRB	N/A	O	UVM100314-07A+UVM100315-07A
3/16/2010	17:56	3D218.D	W3VM100316-06	GEL	LCS	5ml	1	N/A	29	w	GRB	N/A	X	UVM100305-01B+IVM100316-01
3/16/2010	18:25	3D219.D	W3VM100316-07	GEL	LCS	5G	1	N/A	30	s	GRB	N/A	O	UVM100305-01B+IVM100316-01
3/16/2010	18:54	3D220.D	W3VM100316-08	GEL	CCV	5ml	1	N/A	31	w	GRB	N/A	O	UVM100304-06+UVM100226-02A
3/16/2010	19:23	3D221.D	W3VM100316-09	GEL	LCS	5G	1	N/A	32	s	GRB	N/A	O	UVM100215-08B+UVM100226-02A
3/16/2010	19:52	3D222.D	120206-----	BLANK	BLANK	5ML	1	N/A	33	w	GRB	N/A	X	NOT USED
3/16/2010	20:20	3D223.D	120206-----	BLANK	BLANK	5G	1	N/A	34	s	GRB	N/A	O	
3/16/2010	20:49	3D224.D	249061002	LANL	965972	5G	1	N/A	35	s	GRB	N/A	O	
3/16/2010	21:18	3D225.D	249061003	LANL	965972	5G	1	N/A	36	s	GRB	N/A	O	
3/16/2010	21:48	3D226.D	249061004	LANL	965972	5G	1	N/A	37	s	GRB	N/A	O	
3/16/2010	22:17	3D227.D	249061005	LANL	965972	5G	1	N/A	38	s	GRB	N/A	O	
3/16/2010	22:45	3D228.D	249081001	LANL	965972	5G	1	N/A	39	s	GRB	N/A	O	
3/16/2010	23:14	3D229.D	249081002	LANL	965972	5G	1	N/A	40	s	GRB	N/A	O	
3/16/2010	23:42	3D230.D	249081003	LANL	965972	5G	1	N/A	41	s	GRB	N/A	O	
3/17/2010	0:11	3D231.D	249081004	LANL	965972	5G	1	N/A	42	s	GRB	N/A	O	
3/17/2010	0:39	3D232.D	249101002	LANL	965972	5G	1	N/A	43	s	GRB	N/A	O	
3/17/2010	1:08	3D233.D	249101003	LANL	965972	5G	1	N/A	44	s	GRB	N/A	O	
3/17/2010	1:36	3D234.D	249101004	LANL	965972	5G	1	N/A	45	s	GRB	N/A	O	
3/17/2010	2:05	3D235.D	249101005	LANL	965972	5G	1	N/A	46	s	GRB	N/A	O	
3/17/2010	2:33	3D236.D	249101006	LANL	965972	5G	1	N/A	47	s	GRB	N/A	O	
3/17/2010	3:02	3D237.D	249101007	LANL	965972	5G	1	N/A	48	s	GRB	N/A	O	
3/17/2010	3:30	3D238.D	1202071636	LANL	965481	5G	1	N/A	49	s	GRB	N/A	O	MS 248824001 MIX[A]; RERUN OF 3D123
3/17/2010	3:59	3D239.D	1202071637	LANL	965481	5G	1	N/A	50	s	GRB	N/A	O	MSD 248824001 MIX[A]; RERUN OF 3D124
3/17/2010	4:27	3D240.D	1202072971	LANL	965972	5G	1	N/A	51	s	GRB	N/A	O	MS 249081001 MIX[A]
3/17/2010	4:56	3D241.D	1202072972	LANL	965972	5G	1	N/A	1	s	GRB	N/A	O	MSD 249081001 MIX[A]

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2319

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	965979
Prep Batch Number:	965978

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
248866001	RE46-10-11885
248866002	RE46-10-11886
1202072982	Method Blank (MB)
1202072983	Laboratory Control Sample (LCS)
1202072984	249081001(RE16-10-3799) Matrix Spike (MS)
1202072985	249081001(RE16-10-3799) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
The non-SDG sample 249081001 (RE16-10-3799) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD(1202072985) recovered Benzyl alcohol at 13% (limits: 19%-112%). The MS displayed a similar low (but passing) recovery for that analyte. Therefore, the low recoveries were attributed to sample matrix interference and the data were reported.

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD value for Benzyl alcohol was at 49% (Limit: 30.00%). The failure was attributed to sample matrix interference and the data were reported.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for the samples reported with this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD2.I	Agilent 5975 Mass Spectrometer	HP7890A/HP5975C	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Beckham **Date:** 4-1-10

Roadmap for LANL 10-2319 SVOA

This roadmap was analyzed by ANN00964 on 03-30-2010, 13:13.
This roadmap was reviewed by bar00895 on 03-30-2010, 14:23.
This roadmap was packaged by CHA01131 on 03-31-2010, 11:24.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD2.i/s032510.b/s2c2531.d	248866001	26-MAR-2010	00:50	10-2319.sub	RE46-10-11885	1	965979	
☐	N	/chem/MSD2.i/s032510.b/s2c2532.d	248866002	26-MAR-2010	01:10	10-2319.sub	RE46-10-11886	1	965979	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD2.i/s032510.b/s2c2505-2.d	1202072982	mb	25-MAR-2010	16:05	10-2319.sub	SBLK01	1	965979	
☐	N	/chem/MSD2.i/s032510.b/s2c2506-2.d	1202072983	lcs	25-MAR-2010	16:24	10-2319.sub	SBLK01LCS	1	965979	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**3.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11885**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 00:50**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2531.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	347	ug/kg	69.4	347
108-95-2	Phenol	U	347	ug/kg	69.4	347
95-57-8	2-Chlorophenol	U	347	ug/kg	69.4	347
106-46-7	1,4-Dichlorobenzene	U	347	ug/kg	69.4	347
621-64-7	N-Nitrosodipropylamine	U	347	ug/kg	69.4	347
59-50-7	4-Chloro-3-methylphenol	U	347	ug/kg	69.4	347
83-32-9	Acenaphthene	U	34.7	ug/kg	11.4	34.7
121-14-2	2,4-Dinitrotoluene	U	347	ug/kg	34.7	347
100-02-7	4-Nitrophenol	U	347	ug/kg	114	347
87-86-5	Pentachlorophenol	U	347	ug/kg	86.7	347
129-00-0	Pyrene	U	34.7	ug/kg	10.4	34.7
110-86-1	Pyridine	U	347	ug/kg	69.4	347
62-53-3	Aniline	U	347	ug/kg	104	347
111-44-4	bis(2-Chloroethyl) ether	U	347	ug/kg	69.4	347
541-73-1	1,3-Dichlorobenzene	U	347	ug/kg	69.4	347
100-51-6	Benzyl alcohol	U	347	ug/kg	104	347
95-50-1	1,2-Dichlorobenzene	U	347	ug/kg	69.4	347
108-60-1	bis(2-Chloroisopropyl)ether	U	347	ug/kg	69.4	347
95-48-7	o-Cresol	U	347	ug/kg	69.4	347
65794-96-9	m,p-Cresols	U	347	ug/kg	104	347
67-72-1	Hexachloroethane	U	347	ug/kg	69.4	347
98-95-3	Nitrobenzene	U	347	ug/kg	69.4	347
78-59-1	Isophorone	U	347	ug/kg	69.4	347
88-75-5	2-Nitrophenol	U	347	ug/kg	69.4	347
105-67-9	2,4-Dimethylphenol	U	347	ug/kg	121	347
111-91-1	bis(2-Chloroethoxy)methane	U	347	ug/kg	69.4	347
120-83-2	2,4-Dichlorophenol	U	347	ug/kg	69.4	347
65-85-0	Benzoic acid	U	694	ug/kg	173	694
91-20-3	Naphthalene	U	34.7	ug/kg	10.4	34.7
106-47-8	4-Chloroaniline	U	347	ug/kg	69.4	347
87-68-3	Hexachlorobutadiene	U	347	ug/kg	69.4	347
91-57-6	2-Methylnaphthalene	U	34.7	ug/kg	6.94	34.7
77-47-4	Hexachlorocyclopentadiene	U	347	ug/kg	69.4	347
88-06-2	2,4,6-Trichlorophenol	U	347	ug/kg	69.4	347
95-95-4	2,4,5-Trichlorophenol	U	347	ug/kg	69.4	347
91-58-7	2-Chloronaphthalene	U	34.7	ug/kg	11.4	34.7
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	347	ug/kg	69.4	347
99-09-2	3-Nitroaniline	U	347	ug/kg	69.4	347

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**3.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11885**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 00:50**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2531.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	347	ug/kg	69.4	347
606-20-2	2,6-Dinitrotoluene	U	347	ug/kg	34.7	347
208-96-8	Acenaphthylene	U	34.7	ug/kg	10.4	34.7
51-28-5	2,4-Dinitrophenol	U	694	ug/kg	132	694
132-64-9	Dibenzofuran	U	347	ug/kg	69.4	347
84-66-2	Diethylphthalate	U	347	ug/kg	69.4	347
86-73-7	Fluorene	U	34.7	ug/kg	10.4	34.7
7005-72-3	4-Chlorophenylphenylether	U	347	ug/kg	69.4	347
534-52-1	2-Methyl-4,6-dinitrophenol	U	347	ug/kg	69.4	347
100-01-6	4-Nitroaniline	U	347	ug/kg	104	347
	p-Nitroaniline					
122-39-4	Diphenylamine	U	347	ug/kg	69.4	347
122-66-7	Azobenzene	U	347	ug/kg	69.4	347
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	347	ug/kg	69.4	347
118-74-1	Hexachlorobenzene	U	347	ug/kg	69.4	347
85-01-8	Phenanthrene	U	34.7	ug/kg	10.4	34.7
120-12-7	Anthracene	U	34.7	ug/kg	6.94	34.7
84-74-2	Di-n-butylphthalate	U	347	ug/kg	69.4	347
206-44-0	Fluoranthene	U	34.7	ug/kg	10.4	34.7
85-68-7	Butylbenzylphthalate	U	347	ug/kg	69.4	347
56-55-3	Benzo(a)anthracene	U	34.7	ug/kg	10.4	34.7
91-94-1	3,3'-Dichlorobenzidine	U	347	ug/kg	104	347
218-01-9	Chrysene	U	34.7	ug/kg	10.4	34.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	347	ug/kg	69.4	347
117-84-0	Di-n-octylphthalate	U	347	ug/kg	69.4	347
205-99-2	Benzo(b)fluoranthene	U	34.7	ug/kg	10.4	34.7
207-08-9	Benzo(k)fluoranthene	U	34.7	ug/kg	10.4	34.7
50-32-8	Benzo(a)pyrene	U	34.7	ug/kg	10.4	34.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.7	ug/kg	10.4	34.7
53-70-3	Dibenzo(a,h)anthracene	U	34.7	ug/kg	10.4	34.7
191-24-2	Benzo(ghi)perylene	U	34.7	ug/kg	10.4	34.7
120-82-1	1,2,4-Trichlorobenzene	U	347	ug/kg	69.4	347

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	375	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**4.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11886**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 01:10**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2532.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	350	ug/kg	70.0	350
108-95-2	Phenol	U	350	ug/kg	70.0	350
95-57-8	2-Chlorophenol	U	350	ug/kg	70.0	350
106-46-7	1,4-Dichlorobenzene	U	350	ug/kg	70.0	350
621-64-7	N-Nitrosodipropylamine	U	350	ug/kg	70.0	350
59-50-7	4-Chloro-3-methylphenol	U	350	ug/kg	70.0	350
83-32-9	Acenaphthene	U	35.0	ug/kg	11.6	35.0
121-14-2	2,4-Dinitrotoluene	U	350	ug/kg	35.0	350
100-02-7	4-Nitrophenol	U	350	ug/kg	116	350
87-86-5	Pentachlorophenol	U	350	ug/kg	87.5	350
129-00-0	Pyrene	U	35.0	ug/kg	10.5	35.0
110-86-1	Pyridine	U	350	ug/kg	70.0	350
62-53-3	Aniline	U	350	ug/kg	105	350
111-44-4	bis(2-Chloroethyl) ether	U	350	ug/kg	70.0	350
541-73-1	1,3-Dichlorobenzene	U	350	ug/kg	70.0	350
100-51-6	Benzyl alcohol	U	350	ug/kg	105	350
95-50-1	1,2-Dichlorobenzene	U	350	ug/kg	70.0	350
108-60-1	bis(2-Chloroisopropyl)ether	U	350	ug/kg	70.0	350
95-48-7	o-Cresol	U	350	ug/kg	70.0	350
65794-96-9	m,p-Cresols	U	350	ug/kg	105	350
67-72-1	Hexachloroethane	U	350	ug/kg	70.0	350
98-95-3	Nitrobenzene	U	350	ug/kg	70.0	350
78-59-1	Isophorone	U	350	ug/kg	70.0	350
88-75-5	2-Nitrophenol	U	350	ug/kg	70.0	350
105-67-9	2,4-Dimethylphenol	U	350	ug/kg	123	350
111-91-1	bis(2-Chloroethoxy)methane	U	350	ug/kg	70.0	350
120-83-2	2,4-Dichlorophenol	U	350	ug/kg	70.0	350
65-85-0	Benzoic acid	U	700	ug/kg	175	700
91-20-3	Naphthalene	U	35.0	ug/kg	10.5	35.0
106-47-8	4-Chloroaniline	U	350	ug/kg	70.0	350
87-68-3	Hexachlorobutadiene	U	350	ug/kg	70.0	350
91-57-6	2-Methylnaphthalene	U	35.0	ug/kg	7.00	35.0
77-47-4	Hexachlorocyclopentadiene	U	350	ug/kg	70.0	350
88-06-2	2,4,6-Trichlorophenol	U	350	ug/kg	70.0	350
95-95-4	2,4,5-Trichlorophenol	U	350	ug/kg	70.0	350
91-58-7	2-Chloronaphthalene	U	35.0	ug/kg	11.6	35.0
88-74-4	2-Nitroaniline	U	350	ug/kg	70.0	350
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	350	ug/kg	70.0	350

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**4.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11886**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 01:10**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2532.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	350	ug/kg	70.0	350
606-20-2	2,6-Dinitrotoluene	U	350	ug/kg	35.0	350
208-96-8	Acenaphthylene	U	35.0	ug/kg	10.5	35.0
51-28-5	2,4-Dinitrophenol	U	700	ug/kg	133	700
132-64-9	Dibenzofuran	U	350	ug/kg	70.0	350
84-66-2	Diethylphthalate	U	350	ug/kg	70.0	350
86-73-7	Fluorene	U	35.0	ug/kg	10.5	35.0
7005-72-3	4-Chlorophenylphenylether	U	350	ug/kg	70.0	350
534-52-1	2-Methyl-4,6-dinitrophenol	U	350	ug/kg	70.0	350
100-01-6	4-Nitroaniline	U	350	ug/kg	105	350
	p-Nitroaniline					
122-39-4	Diphenylamine	U	350	ug/kg	70.0	350
122-66-7	Azobenzene	U	350	ug/kg	70.0	350
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	350	ug/kg	70.0	350
118-74-1	Hexachlorobenzene	U	350	ug/kg	70.0	350
85-01-8	Phenanthrene	U	35.0	ug/kg	10.5	35.0
120-12-7	Anthracene	U	35.0	ug/kg	7.00	35.0
84-74-2	Di-n-butylphthalate	U	350	ug/kg	70.0	350
206-44-0	Fluoranthene	U	35.0	ug/kg	10.5	35.0
85-68-7	Butylbenzylphthalate	U	350	ug/kg	70.0	350
56-55-3	Benzo(a)anthracene	U	35.0	ug/kg	10.5	35.0
91-94-1	3,3'-Dichlorobenzidine	U	350	ug/kg	105	350
218-01-9	Chrysene	U	35.0	ug/kg	10.5	35.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	350	ug/kg	70.0	350
117-84-0	Di-n-octylphthalate	U	350	ug/kg	70.0	350
205-99-2	Benzo(b)fluoranthene	U	35.0	ug/kg	10.5	35.0
207-08-9	Benzo(k)fluoranthene	U	35.0	ug/kg	10.5	35.0
50-32-8	Benzo(a)pyrene	U	35.0	ug/kg	10.5	35.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.0	ug/kg	10.5	35.0
53-70-3	Dibenzo(a,h)anthracene	U	35.0	ug/kg	10.5	35.0
191-24-2	Benzo(ghi)perylene	U	35.0	ug/kg	10.5	35.0
120-82-1	1,2,4-Trichlorobenzene	U	350	ug/kg	70.0	350

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	311	ug/kg		JA

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-2319

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202072982	MB for batch 965978	75	70	75	67	89	101
1202072983	LCS for batch 965978	79	77	80	72	98	80
248866001	RE46-10-11885	49	47	53	45	48	63
248866002	RE46-10-11886	60	55	62	51	59	74

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(29%-99%)
PHL	=	Phenol-d5	(33%-98%)
NBZ	=	Nitrobenzene-d5	(31%-105%)
FBP	=	2-Fluorobiphenyl	(25%-109%)
TBP	=	2,4,6-Tribromophenol	(37%-106%)
TPH	=	p-Terphenyl-d14	(13%-150%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2319 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 965978 **Matrix:** SOIL

Lab Sample ID: 1202072983

Instrument: MSD2.I **Analysis Date:** 03/25/2010 16:24 **Dilution:** 1

Analyst: AGS1 **Prep Batch ID** 965978

Inj. Vol: .5 uL **Batch ID:** 965979

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	1020	61	22-114
108-95-2	LCS	Phenol	1670	0.0	1300	78	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1250	75	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1150	69	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1380	83	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1340	80	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	1290	77	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1430	86	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	993	60	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	1200	72	27-116
129-00-0	LCS	Pyrene	1670	0.0	1120	67	42-113
110-86-1	LCS	Pyridine	1670	0.0	1010	60	8-125
62-53-3	LCS	Aniline	1670	0.0	981	59	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1200	72	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1130	68	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	823	49	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1160	70	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1520	91	28-117
95-48-7	LCS	o-Cresol	1670	0.0	1230	74	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1600	96	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	1230	74	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	1310	79	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2319
Client ID: LCS for batch 965978
Lab Sample ID: 1202072983
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/25/2010 16:24
Prep Batch ID: 965978
Batch ID: 965979
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1240	75	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	1220	73	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	994	60	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1160	70	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1290	77	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	3570	107	22-138
91-20-3	LCS	Naphthalene	1670	0.0	1200	72	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	1030	62	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1350	81	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1300	78	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1040	63	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1280	77	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1220	73	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1220	73	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1390	84	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1240	74	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	1410	84	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1310	78	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	1300	78	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1380	83	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	1350	81	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	1520	91	51-126

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2319**
Client ID: **LCS for batch 965978**
Lab Sample ID: **1202072983**
Instrument: **MSD2.I**
Analyst: **AGS1**
Inj. Vol: **.5 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **03/25/2010 16:24**
Prep Batch ID: **965978**
Batch ID: **965979**
Dilution: **1**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1470	88	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1410	85	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1270	76	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1890	113	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	1260	76	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1340	80	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1250	75	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1230	74	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	1270	76	46-107
120-12-7	LCS	Anthracene	1670	0.0	1310	79	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1490	89	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1480	89	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1300	78	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1270	76	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1070	64	36-103
218-01-9	LCS	Chrysene	1670	0.0	1300	78	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1350	81	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1390	83	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1470	88	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1260	75	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1360	82	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1400	84	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2319
Client ID: LCS for batch 965978
Lab Sample ID: 1202072983
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/25/2010 16:24
Dilution: 1
Prep Batch ID 965978
Batch ID: 965979

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1430	86	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1310	79	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1250	75	32-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2319
Client ID: RE16-10-3799MS
Lab Sample ID: 1202072984
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 6.5
Analysis Date: 03/25/2010 17:05
Prep Batch ID: 965978
Batch ID: 965979
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1780	0.00	U	824	46	27-98
108-95-2	MS	Phenol	1780	0.00	U	964	54	33-94
95-57-8	MS	2-Chlorophenol	1780	0.00	U	960	54	29-96
106-46-7	MS	1,4-Dichlorobenzene	1780	0.00	U	800	45	27-96
621-64-7	MS	N-Nitrosodipropylamine	1780	0.00	U	1080	61	29-102
59-50-7	MS	4-Chloro-3-methylphenol	1780	0.00	U	1060	60	29-110
83-32-9	MS	Acenaphthene	1780	0.00	U	912	51	17-109
121-14-2	MS	2,4-Dinitrotoluene	1780	0.00	U	1060	60	33-107
100-02-7	MS	4-Nitrophenol	1780	0.00	U	750	42	15-110
87-86-5	MS	Pentachlorophenol	1780	0.00	U	804	45	23-110
129-00-0	MS	Pyrene	1780	0.00	U	859	48	24-118
110-86-1	MS	Pyridine	1780	0.00	U	748	42	25-102
62-53-3	MS	Aniline	1780	0.00	U	986	55	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	1780	0.00	U	959	54	29-96
541-73-1	MS	1,3-Dichlorobenzene	1780	0.00	U	776	44	26-97
100-51-6	MS	Benzyl alcohol	1780	0.00	U	377	21	19-112
95-50-1	MS	1,2-Dichlorobenzene	1780	0.00	U	812	46	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	1780	0.00	U	1180	66	28-103
95-48-7	MS	o-Cresol	1780	0.00	U	978	55	32-107
65794-96-9	MS	m,p-Cresols	1780	0.00	U	1300	73	33-115
67-72-1	MS	Hexachloroethane	1780	0.00	U	815	46	25-100
98-95-3	MS	Nitrobenzene	1780	0.00	U	1060	59	27-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2319**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE16-10-3799MS**	**Matrix:**	**S**
Lab Sample ID:	**1202072984**	**%Moisture:**	**6.5**
Instrument:	**MSD2.I**	**Analysis Date:**	**03/25/2010 17:05**
Analyst:	**AGS1**	**Prep Batch ID:**	**965978**
Inj. Vol:	**.5 uL**	**Batch ID:**	**965979**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1780	0.00	U	1010	57	29-104
88-75-5	MS	2-Nitrophenol	1780	0.00	U	979	55	26-102
105-67-9	MS	2,4-Dimethylphenol	1780	0.00	U	764	43	22-104
111-91-1	MS	bis(2-Chloroethoxy)methane	1780	0.00	U	940	53	27-101
120-83-2	MS	2,4-Dichlorophenol	1780	0.00	U	1030	58	26-103
65-85-0	MS	Benzoic acid	3560	0.00	U	2480	70	13-131
91-20-3	MS	Naphthalene	1780	0.00	U	920	52	23-103
106-47-8	MS	4-Chloroaniline	1780	0.00	U	887	50	26-103
87-68-3	MS	Hexachlorobutadiene	1780	0.00	U	949	53	28-101
91-57-6	MS	2-Methylnaphthalene	1780	0.00	U	1030	58	27-106
77-47-4	MS	Hexachlorocyclopentadiene	1780	0.00	U	591	33	24-117
88-06-2	MS	2,4,6-Trichlorophenol	1780	0.00	U	913	51	26-105
95-95-4	MS	2,4,5-Trichlorophenol	1780	0.00	U	912	51	30-110
91-58-7	MS	2-Chloronaphthalene	1780	0.00	U	919	52	28-102
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1780	0.00	U	1060	59	33-106
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1780	0.00	U	1010	57	33-116
131-11-3	MS	Dimethylphthalate	1780	0.00	U	1040	58	38-113
606-20-2	MS	2,6-Dinitrotoluene	1780	0.00	U	975	55	29-107
208-96-8	MS	Acenaphthylene	1780	0.00	U	971	54	25-108
51-28-5	MS	2,4-Dinitrophenol	1780	0.00	U	879	49	14-102
132-64-9	MS	Dibenzofuran	1780	0.00	U	1000	56	35-112
84-66-2	MS	Diethylphthalate	1780	0.00	U	1120	63	36-122

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2319**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE16-10-3799MS**	**Matrix:**	**S**
Lab Sample ID:	**1202072984**	**%Moisture:**	**6.5**
Instrument:	**MSD2.I**	**Analysis Date:**	**03/25/2010 17:05**
Analyst:	**AGS1**	**Prep Batch ID:**	**965978**
Inj. Vol:	**.5 uL**	**Batch ID:**	**965979**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1780	0.00	U	1080	60	33-105
7005-72-3	MS	4-Chlorophenylphenylether	1780	0.00	U	1030	58	30-110
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1780	0.00	U	911	51	26-97
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1780	0.00	U	1330	75	28-135
122-39-4	MS	Diphenylamine	1780	0.00	U	951	53	33-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1780	0.00	U	1010	57	31-113
101-55-3	MS	4-Bromophenylphenylether	1780	0.00	U	919	52	31-109
118-74-1	MS	Hexachlorobenzene	1780	0.00	U	895	50	37-99
85-01-8	MS	Phenanthrene	1780	0.00	U	946	53	29-109
120-12-7	MS	Anthracene	1780	0.00	U	966	54	19-118
84-74-2	MS	Di-n-butylphthalate	1780	0.00	U	1120	63	39-123
206-44-0	MS	Fluoranthene	1780	0.00	U	1090	61	33-114
85-68-7	MS	Butylbenzylphthalate	1780	0.00	U	1010	57	35-131
56-55-3	MS	Benzo(a)anthracene	1780	0.00	U	994	56	30-111
91-94-1	MS	3,3'-Dichlorobenzidine	1780	0.00	U	739	41	30-124
218-01-9	MS	Chrysene	1780	0.00	U	1010	57	32-108
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1780	0.00	U	1040	59	37-129
117-84-0	MS	Di-n-octylphthalate	1780	0.00	U	1090	61	31-143
205-99-2	MS	Benzo(b)fluoranthene	1780	0.00	U	1030	58	29-118
207-08-9	MS	Benzo(k)fluoranthene	1780	0.00	U	1070	60	32-118
50-32-8	MS	Benzo(a)pyrene	1780	0.00	U	1040	58	33-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1780	0.00	U	983	55	29-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2319**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE16-10-3799MS**	**Matrix:**	**S**
Lab Sample ID:	**1202072984**	**%Moisture:**	**6.5**
Instrument:	**MSD2.I**	**Analysis Date:**	**03/25/2010 17:05**
Analyst:	**AGS1**	**Prep Batch ID:**	**965978**
Inj. Vol:	**.5 uL**	**Batch ID:**	**965979**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1780	0.00	U	992	56	27-119
191-24-2	MS	Benzo(ghi)perylene	1780	0.00	U	941	53	28-112
120-82-1	MS	1,2,4-Trichlorobenzene	1780	0.00	U	939	53	28-99

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2319
Client ID: RE16-10-3799MSD
Lab Sample ID: 1202072985
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 6.5
Analysis Date: 03/25/2010 17:25
Dilution: 1
Prep Batch ID: 965978
Batch ID: 965979

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	1780	0.00	U	885	50	27-98	7	0-30
108-95-2	MSD	Phenol	1780	0.00	U	1010	57	33-94	4	0-30
95-57-8	MSD	2-Chlorophenol	1780	0.00	U	1060	59	29-96	10	0-30
106-46-7	MSD	1,4-Dichlorobenzene	1780	0.00	U	879	49	27-96	9	0-30
621-64-7	MSD	N-Nitrosodipropylamine	1780	0.00	U	1160	65	29-102	7	0-30
59-50-7	MSD	4-Chloro-3-methylphenol	1780	0.00	U	1130	64	29-110	7	0-30
83-32-9	MSD	Acenaphthene	1780	0.00	U	997	56	17-109	9	0-30
121-14-2	MSD	2,4-Dinitrotoluene	1780	0.00	U	1130	63	33-107	6	0-30
100-02-7	MSD	4-Nitrophenol	1780	0.00	U	783	44	15-110	4	0-30
87-86-5	MSD	Pentachlorophenol	1780	0.00	U	849	48	23-110	5	0-30
129-00-0	MSD	Pyrene	1780	0.00	U	869	49	24-118	1	0-30
110-86-1	MSD	Pyridine	1780	0.00	U	821	46	25-102	9	0-30
62-53-3	MSD	Aniline	1780	0.00	U	981	55	18-109	1	0-30
111-44-4	MSD	bis(2-Chloroethyl) ether	1780	0.00	U	1040	58	29-96	8	0-30
541-73-1	MSD	1,3-Dichlorobenzene	1780	0.00	U	866	49	26-97	11	0-30
100-51-6	MSD	Benzyl alcohol	1780	0.00	U	229	13 *	19-112	49 *	0-30
95-50-1	MSD	1,2-Dichlorobenzene	1780	0.00	U	901	51	30-97	10	0-30
108-60-1	MSD	bis(2-Chloroisopropyl)ether	1780	0.00	U	1290	72	28-103	9	0-30
95-48-7	MSD	o-Cresol	1780	0.00	U	1040	58	32-107	6	0-30
65794-96-9	MSD	m,p-Cresols	1780	0.00	U	1400	79	33-115	8	0-30
67-72-1	MSD	Hexachloroethane	1780	0.00	U	895	50	25-100	9	0-30
98-95-3	MSD	Nitrobenzene	1780	0.00	U	1170	66	27-106	10	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2319
Client ID: RE16-10-3799MSD
Lab Sample ID: 1202072985
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 6.5
Analysis Date: 03/25/2010 17:25
Prep Batch ID: 965978
Batch ID: 965979
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD	Isophorone	1780	0.00	U	1080	61	29-104	6	0-30
88-75-5	MSD	2-Nitrophenol	1780	0.00	U	1050	59	26-102	7	0-30
105-67-9	MSD	2,4-Dimethylphenol	1780	0.00	U	804	45	22-104	5	0-30
111-91-1	MSD	bis(2-Chloroethoxy)methane	1780	0.00	U	1010	56	27-101	7	0-30
120-83-2	MSD	2,4-Dichlorophenol	1780	0.00	U	1090	61	26-103	6	0-30
65-85-0	MSD	Benzoic acid	3560	0.00	U	2650	75	13-131	7	0-30
91-20-3	MSD	Naphthalene	1780	0.00	U	1000	56	23-103	9	0-30
106-47-8	MSD	4-Chloroaniline	1780	0.00	U	918	52	26-103	3	0-30
87-68-3	MSD	Hexachlorobutadiene	1780	0.00	U	1070	60	28-101	12	0-30
91-57-6	MSD	2-Methylnaphthalene	1780	0.00	U	1100	62	27-106	6	0-30
77-47-4	MSD	Hexachlorocyclopentadiene	1780	0.00	U	752	42	24-117	24	0-30
88-06-2	MSD	2,4,6-Trichlorophenol	1780	0.00	U	953	54	26-105	4	0-30
95-95-4	MSD	2,4,5-Trichlorophenol	1780	0.00	U	1010	56	30-110	10	0-30
91-58-7	MSD	2-Chloronaphthalene	1780	0.00	U	999	56	28-102	8	0-30
88-74-4	MSD	2-Nitroaniline *o-Nitroaniline*	1780	0.00	U	1140	64	33-106	8	0-30
99-09-2	MSD	3-Nitroaniline *m-Nitroaniline*	1780	0.00	U	1100	62	33-116	9	0-30
131-11-3	MSD	Dimethylphthalate	1780	0.00	U	1100	61	38-113	5	0-30
606-20-2	MSD	2,6-Dinitrotoluene	1780	0.00	U	1040	59	29-107	7	0-30
208-96-8	MSD	Acenaphthylene	1780	0.00	U	1040	58	25-108	7	0-30
51-28-5	MSD	2,4-Dinitrophenol	1780	0.00	U	1000	56	14-102	13	0-30
132-64-9	MSD	Dibenzofuran	1780	0.00	U	1060	60	35-112	6	0-30
84-66-2	MSD	Diethylphthalate	1780	0.00	U	1200	67	36-122	7	0-30

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2319
Client ID: RE16-10-3799MSD
Lab Sample ID: 1202072985
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 6.5
Analysis Date: 03/25/2010 17:25
Dilution: 1
Prep Batch ID: 965978
Batch ID: 965979

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1780	0.00	U	1150	65	33-105	7	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1780	0.00	U	1110	62	30-110	7	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1780	0.00	U	987	55	26-97	8	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1780	0.00	U	1530	86	28-135	14	0-30
122-39-4	MSD	Diphenylamine	1780	0.00	U	1020	57	33-109	7	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1780	0.00	U	1100	62	31-113	8	0-30
101-55-3	MSD	4-Bromophenylphenylether	1780	0.00	U	981	55	31-109	7	0-30
118-74-1	MSD	Hexachlorobenzene	1780	0.00	U	969	54	37-99	8	0-30
85-01-8	MSD	Phenanthrene	1780	0.00	U	1020	57	29-109	8	0-30
120-12-7	MSD	Anthracene	1780	0.00	U	1030	58	19-118	7	0-30
84-74-2	MSD	Di-n-butylphthalate	1780	0.00	U	1170	65	39-123	4	0-30
206-44-0	MSD	Fluoranthene	1780	0.00	U	1150	65	33-114	6	0-30
85-68-7	MSD	Butylbenzylphthalate	1780	0.00	U	1020	58	35-131	1	0-30
56-55-3	MSD	Benzo(a)anthracene	1780	0.00	U	1000	56	30-111	1	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1780	0.00	U	816	46	30-124	10	0-30
218-01-9	MSD	Chrysene	1780	0.00	U	1060	60	32-108	5	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1780	0.00	U	1060	59	37-129	1	0-30
117-84-0	MSD	Di-n-octylphthalate	1780	0.00	U	1080	61	31-143	1	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1780	0.00	U	1120	63	29-118	8	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1780	0.00	U	1020	57	32-118	5	0-30
50-32-8	MSD	Benzo(a)pyrene	1780	0.00	U	1070	60	33-115	3	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1780	0.00	U	1090	61	29-114	10	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2319
Client ID: RE16-10-3799MSD
Lab Sample ID: 1202072985
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 6.5
Analysis Date: 03/25/2010 17:25
Dilution: 1
Prep Batch ID: 965978
Batch ID: 965979

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD	Dibenzo(a,h)anthracene	1780	0.00	U	1120	63	27-119	12	0-30
191-24-2	MSD	Benzo(ghi)perylene	1780	0.00	U	1060	59	28-112	11	0-30
120-82-1	MSD	1,2,4-Trichlorobenzene	1780	0.00	U	1010	57	28-99	7	0-30

Method Blank Summary

SDG Number:	10-2319	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965978	Instrument ID:	MSD2.I	Data File:	s2c2505-1.d
Lab Sample ID:	1202072982	Prep Date:	03/17/2010 10:52	Analyzed:	03/25/10 16:05
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 965978	1202072983	s2c2506-1.d	03/25/10	1624
04 RE46-10-11885	248866001	s2c2531.d	03/26/10	0050
05 RE46-10-11886	248866002	s2c2532.d	03/26/10	0110

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2319

Instrument ID: MSD2.I **Injection Date/Time:** 12-MAR-10 14:32

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s031210.b/s2c1201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	51.2
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	43.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.7
197	0 - 1% of mass 198	0.5
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	21.3
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	67.2
442	Greater than 40% of mass 198	65.7
443	17 - 23% of mass 442	21.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100309-08	s2c1203.d	12-MAR-10 15:04
MEGA010	WBN100309-07	s2c1204.d	12-MAR-10 15:31
MEGA020	WBN100309-06	s2c1205.d	12-MAR-10 15:59
MEGA040	WBN100309-05.1	s2c1206.d	12-MAR-10 16:23
MEGA050	WBN100309-04	s2c1207.d	12-MAR-10 16:48
MEGA080	WBN100309-03	s2c1208.d	12-MAR-10 17:13
MEGA100	WBN100309-02	s2c1209.d	12-MAR-10 17:38
MEGA120	WBN100309-01	s2c1210.d	12-MAR-10 18:02
MEGAICV	WBN100309-09.1	s2c1212.d	12-MAR-10 18:54
AP010	WBN100218-01	s2c1213.d	12-MAR-10 19:18
AP020	WBN100218-02	s2c1214.d	12-MAR-10 19:39
AP040	WBN100218-03.1	s2c1215.d	12-MAR-10 19:59
AP050	WBN100218-04	s2c1216.d	12-MAR-10 20:19
AP080	WBN100218-05	s2c1217.d	12-MAR-10 20:39
AP100	WBN100218-06	s2c1218.d	12-MAR-10 20:59
AP120	WBN100218-07	s2c1219.d	12-MAR-10 21:19

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2319

Instrument ID: MSD2.I **Injection Date/Time:** 12-MAR-10 14:32

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s031210.b/s2c1201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	51.2
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	43.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.7
197	0 - 1% of mass 198	0.5
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	21.3
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	67.2
442	Greater than 40% of mass 198	65.7
443	17 - 23% of mass 442	21.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
APICV	WBN100218-08.1	s2c1227.d	13-MAR-10 00:00

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2319

Instrument ID: MSD2.I **Injection Date/Time:** 25-MAR-10 14:45

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s032510.b/s2c2501.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	55.8
68	Less than 2% of mass 69	1.4
69	Mass 69 Relative Abundance	46.7
70	Less than 2% of mass 69	0.4
127	40 - 60% of mass 198	53.2
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	21.4
365	Greater than 1% of mass 198	2.7
441	Present, but less than mass 443	69.2
442	Greater than 40% of mass 198	66
443	17 - 23% of mass 442	21.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-09.1	s2c2502.d	25-MAR-10 14:58
APCVS	WBN100218-08.1	s2c2503.d	25-MAR-10 15:24
SBLK01	1202072982	s2c2505-1.d	25-MAR-10 16:05
SBLK01LCS	1202072983	s2c2506-1.d	25-MAR-10 16:24
RE46-10-11885	248866001	s2c2531.d	26-MAR-10 00:50
RE46-10-11886	248866002	s2c2532.d	26-MAR-10 01:10

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: MSD2.I

GC Column: J&W DB-5MS

Client SDG: 10-2319

STD Analysis Time: 25-MAR-10 14:58

Data File: s2c2502.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	165409		3.84	774230		4.7	421050		5.95	753174		6.94	671706		8.6	435860		10.0
Upper Limit	330818		4.34	1548460		5.2	842100		6.45	1506348		7.44	1343412		9.1	871720		10.5
Lower Limit	82705		3.34	387115		4.2	210525		5.45	376587		6.44	335853		8.1	217930		9.54
Sample ID																		
BLK01	136360		3.84	529830		4.7	324342		5.94	599949		6.93	460744		8.59	288448		10.0
BLK01LCS	168920		3.84	768523		4.7	409646		5.94	798278		6.94	752653		8.59	503248		10.0
RE46-10-11885	167998		3.84	652234		4.7	408342		5.95	741548		6.94	508422		8.59	321941		10.0
RE46-10-11886	131832		3.84	516729		4.7	324324		5.95	594607		6.94	495655		8.59	322145		10.0

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**3.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11885**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 00:50**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2531.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	347	ug/kg	69.4	347
108-95-2	Phenol	U	347	ug/kg	69.4	347
95-57-8	2-Chlorophenol	U	347	ug/kg	69.4	347
106-46-7	1,4-Dichlorobenzene	U	347	ug/kg	69.4	347
621-64-7	N-Nitrosodipropylamine	U	347	ug/kg	69.4	347
59-50-7	4-Chloro-3-methylphenol	U	347	ug/kg	69.4	347
83-32-9	Acenaphthene	U	34.7	ug/kg	11.4	34.7
121-14-2	2,4-Dinitrotoluene	U	347	ug/kg	34.7	347
100-02-7	4-Nitrophenol	U	347	ug/kg	114	347
87-86-5	Pentachlorophenol	U	347	ug/kg	86.7	347
129-00-0	Pyrene	U	34.7	ug/kg	10.4	34.7
110-86-1	Pyridine	U	347	ug/kg	69.4	347
62-53-3	Aniline	U	347	ug/kg	104	347
111-44-4	bis(2-Chloroethyl) ether	U	347	ug/kg	69.4	347
541-73-1	1,3-Dichlorobenzene	U	347	ug/kg	69.4	347
100-51-6	Benzyl alcohol	U	347	ug/kg	104	347
95-50-1	1,2-Dichlorobenzene	U	347	ug/kg	69.4	347
108-60-1	bis(2-Chloroisopropyl)ether	U	347	ug/kg	69.4	347
95-48-7	o-Cresol	U	347	ug/kg	69.4	347
65794-96-9	m,p-Cresols	U	347	ug/kg	104	347
67-72-1	Hexachloroethane	U	347	ug/kg	69.4	347
98-95-3	Nitrobenzene	U	347	ug/kg	69.4	347
78-59-1	Isophorone	U	347	ug/kg	69.4	347
88-75-5	2-Nitrophenol	U	347	ug/kg	69.4	347
105-67-9	2,4-Dimethylphenol	U	347	ug/kg	121	347
111-91-1	bis(2-Chloroethoxy)methane	U	347	ug/kg	69.4	347
120-83-2	2,4-Dichlorophenol	U	347	ug/kg	69.4	347
65-85-0	Benzoic acid	U	694	ug/kg	173	694
91-20-3	Naphthalene	U	34.7	ug/kg	10.4	34.7
106-47-8	4-Chloroaniline	U	347	ug/kg	69.4	347
87-68-3	Hexachlorobutadiene	U	347	ug/kg	69.4	347
91-57-6	2-Methylnaphthalene	U	34.7	ug/kg	6.94	34.7
77-47-4	Hexachlorocyclopentadiene	U	347	ug/kg	69.4	347
88-06-2	2,4,6-Trichlorophenol	U	347	ug/kg	69.4	347
95-95-4	2,4,5-Trichlorophenol	U	347	ug/kg	69.4	347
91-58-7	2-Chloronaphthalene	U	34.7	ug/kg	11.4	34.7
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	347	ug/kg	69.4	347
99-09-2	3-Nitroaniline	U	347	ug/kg	69.4	347

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**3.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11885**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 00:50**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2531.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	347	ug/kg	69.4	347
606-20-2	2,6-Dinitrotoluene	U	347	ug/kg	34.7	347
208-96-8	Acenaphthylene	U	34.7	ug/kg	10.4	34.7
51-28-5	2,4-Dinitrophenol	U	694	ug/kg	132	694
132-64-9	Dibenzofuran	U	347	ug/kg	69.4	347
84-66-2	Diethylphthalate	U	347	ug/kg	69.4	347
86-73-7	Fluorene	U	34.7	ug/kg	10.4	34.7
7005-72-3	4-Chlorophenylphenylether	U	347	ug/kg	69.4	347
534-52-1	2-Methyl-4,6-dinitrophenol	U	347	ug/kg	69.4	347
100-01-6	4-Nitroaniline	U	347	ug/kg	104	347
	p-Nitroaniline					
122-39-4	Diphenylamine	U	347	ug/kg	69.4	347
122-66-7	Azobenzene	U	347	ug/kg	69.4	347
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	347	ug/kg	69.4	347
118-74-1	Hexachlorobenzene	U	347	ug/kg	69.4	347
85-01-8	Phenanthrene	U	34.7	ug/kg	10.4	34.7
120-12-7	Anthracene	U	34.7	ug/kg	6.94	34.7
84-74-2	Di-n-butylphthalate	U	347	ug/kg	69.4	347
206-44-0	Fluoranthene	U	34.7	ug/kg	10.4	34.7
85-68-7	Butylbenzylphthalate	U	347	ug/kg	69.4	347
56-55-3	Benzo(a)anthracene	U	34.7	ug/kg	10.4	34.7
91-94-1	3,3'-Dichlorobenzidine	U	347	ug/kg	104	347
218-01-9	Chrysene	U	34.7	ug/kg	10.4	34.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	347	ug/kg	69.4	347
117-84-0	Di-n-octylphthalate	U	347	ug/kg	69.4	347
205-99-2	Benzo(b)fluoranthene	U	34.7	ug/kg	10.4	34.7
207-08-9	Benzo(k)fluoranthene	U	34.7	ug/kg	10.4	34.7
50-32-8	Benzo(a)pyrene	U	34.7	ug/kg	10.4	34.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	34.7	ug/kg	10.4	34.7
53-70-3	Dibenzo(a,h)anthracene	U	34.7	ug/kg	10.4	34.7
191-24-2	Benzo(ghi)perylene	U	34.7	ug/kg	10.4	34.7
120-82-1	1,2,4-Trichlorobenzene	U	347	ug/kg	69.4	347

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	375	ug/kg		JA

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Data file : /chem/MSD2.i/s032510.b/s2c2531.d
Lab Smp Id: 248866001 Client Smp ID: RE46-10-11885
Inj Date : 26-MAR-2010 00:50
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248866001|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 31
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2319.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	3.88380	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.843	3.843	(1.000)	167998	40.0000	
* 29 Naphthalene-d8	136	4.704	4.704	(1.000)	652234	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	408342	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	741548	40.0000	
* 91 Chrysene-d12	240	8.592	8.603	(1.000)	508422	40.0000	
* 98 Perylene-d12	264	10.031	10.042	(1.000)	321941	40.0000	
$ 3 2-Fluorophenol	112	3.046	3.035	(0.793)	196352	49.0851	1700
$ 5 Phenol-d5	99	3.559	3.565	(0.926)	233165	47.3343	1640
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.893)	125938	26.6784	925
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	253611	22.5742	783
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.090)	58058	48.0702	1670
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	291939	31.4845	1090

ION RATIO REPORT

SV REPORT

Data file: s2c2531.d
Report Date: 03/26/2010 13:43
Lab. ID: 248866001 SampleType: SAMPLE
Injection Date: 26-MAR-2010 00:50
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248866001|965979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2319
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	17281	3.56	3.63	80-120	100	(T)
93	116	3.52	3.64	342-402	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	20627	4.20	4.08	80-120	100	(T)
42	17302	4.20	4.08	90-150	84	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	72559	5.95	5.72	80-120	100	(T)
164	408342	5.95	5.72	0- 40	563	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	51183	5.95	5.77	80-120	100	(T)
63	725	5.95	5.77	85-145	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	51183	5.95	6.06	80-120	100	(T)
89	890	5.95	6.06	55-115	2	(QT)
63	725	5.95	6.06	44-104	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	187	6.48	6.34	80-120	100	(T)
105	675	6.48	6.34	17- 77	359	(QT)
51	727	6.48	6.34	99-159	387	(QT)

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD2.i/s032510.b/s2c2531.d
Lab Smp Id: 248866001 Client Smp ID: RE46-10-11885
Inj Date : 26-MAR-2010 00:50
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248866001|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 31
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2319.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	3.88380	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.843	1237251	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.875	334191	10.8042981	375	0		0	10

Data File: /chem/MSD2.i/s032510.b/s2c2531.d

Date : 26-MAR-2010 00:50

Client ID: RE46-10-11885

Sample Info: |2488660011965979111SVM111LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: ACS1

Column diameter: 0.20

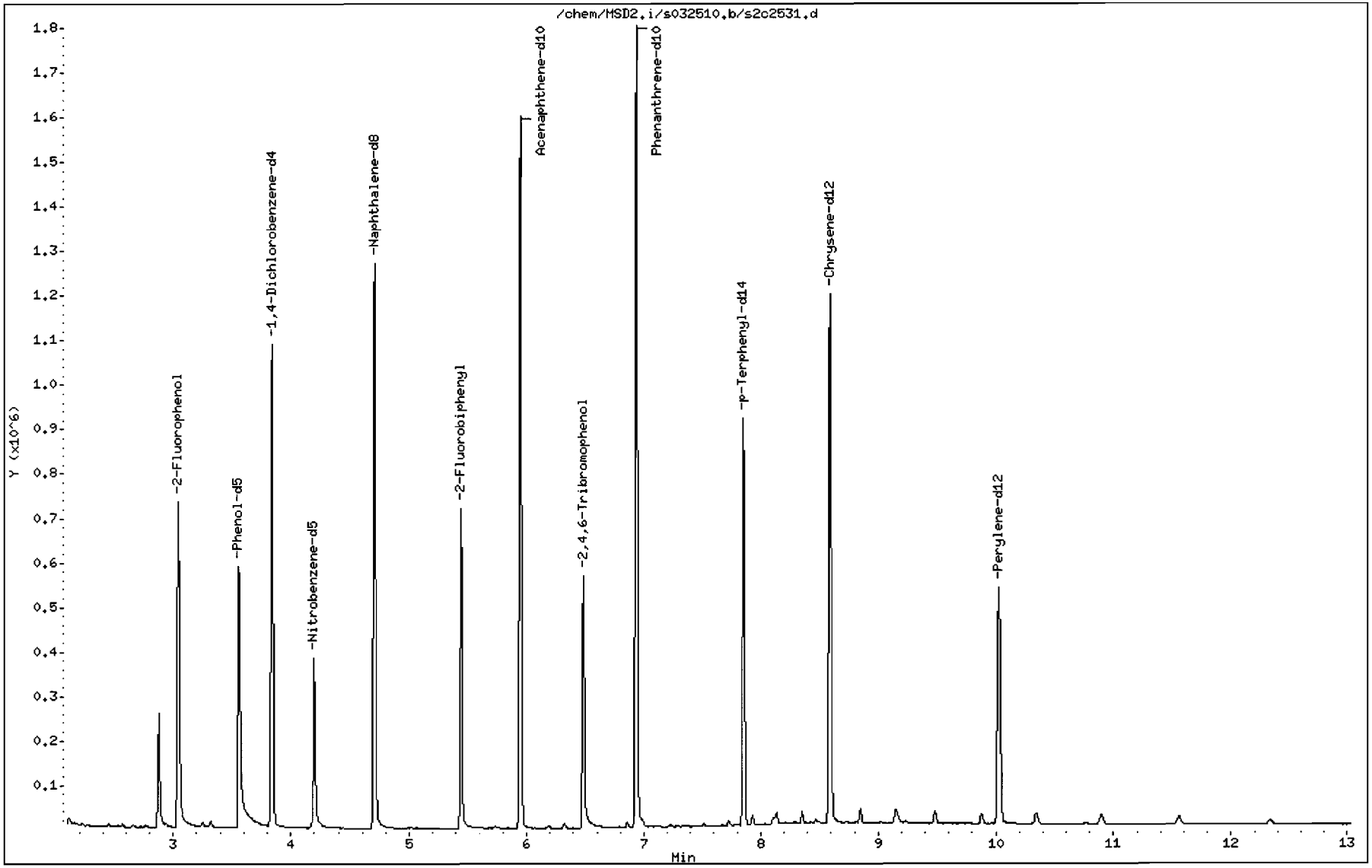

Data File: /chem/MSD2.i/s032510.b/s2c2531.d

Date : 26-MAR-2010 00:50

Client ID: RE46-10-11885

Instrument: MSD2.i

Sample Info: |2488660011965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3948	9	C4H7NO2	101

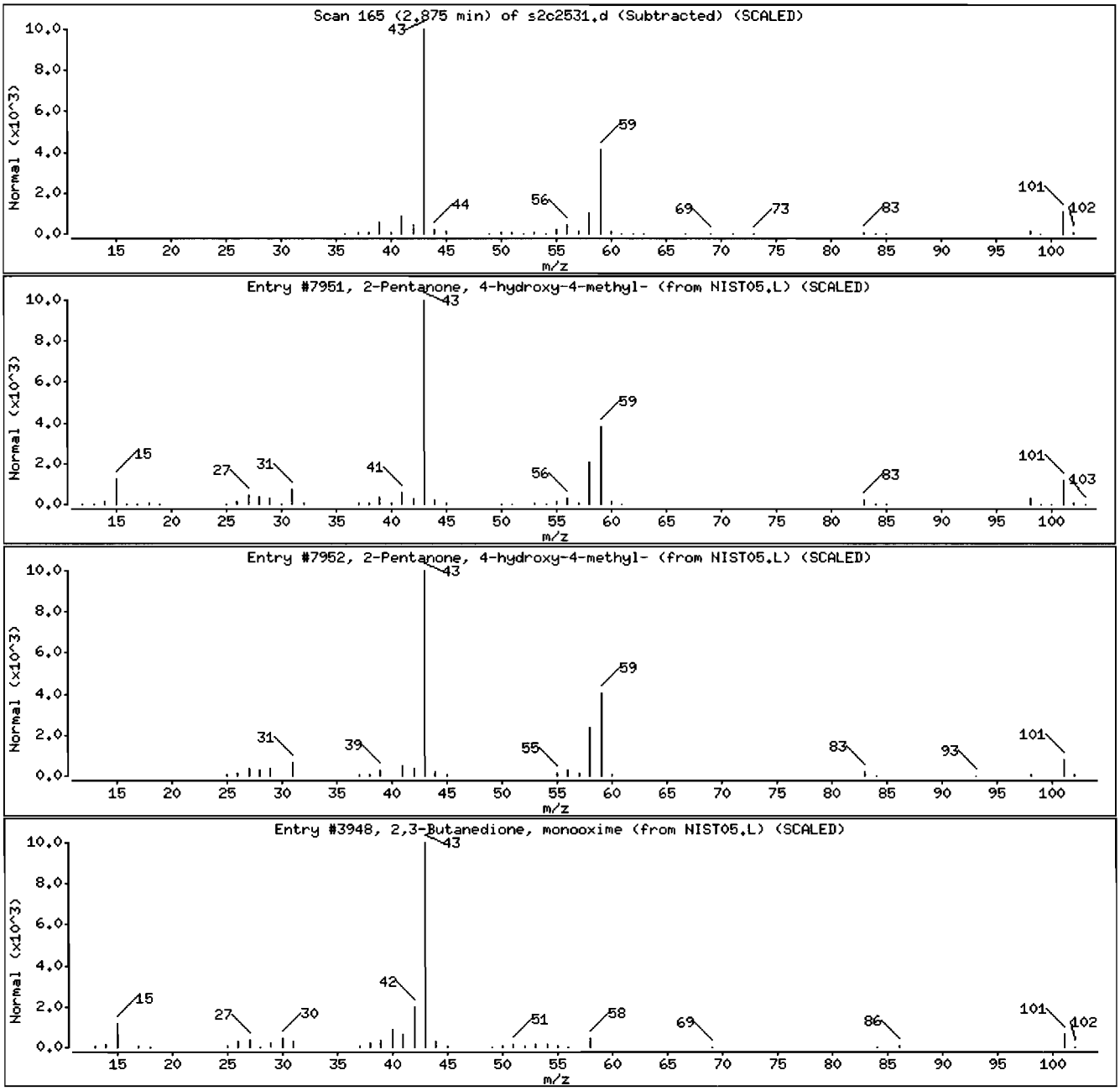

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**4.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11886**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 01:10**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2532.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	350	ug/kg	70.0	350
108-95-2	Phenol	U	350	ug/kg	70.0	350
95-57-8	2-Chlorophenol	U	350	ug/kg	70.0	350
106-46-7	1,4-Dichlorobenzene	U	350	ug/kg	70.0	350
621-64-7	N-Nitrosodipropylamine	U	350	ug/kg	70.0	350
59-50-7	4-Chloro-3-methylphenol	U	350	ug/kg	70.0	350
83-32-9	Acenaphthene	U	35.0	ug/kg	11.6	35.0
121-14-2	2,4-Dinitrotoluene	U	350	ug/kg	35.0	350
100-02-7	4-Nitrophenol	U	350	ug/kg	116	350
87-86-5	Pentachlorophenol	U	350	ug/kg	87.5	350
129-00-0	Pyrene	U	35.0	ug/kg	10.5	35.0
110-86-1	Pyridine	U	350	ug/kg	70.0	350
62-53-3	Aniline	U	350	ug/kg	105	350
111-44-4	bis(2-Chloroethyl) ether	U	350	ug/kg	70.0	350
541-73-1	1,3-Dichlorobenzene	U	350	ug/kg	70.0	350
100-51-6	Benzyl alcohol	U	350	ug/kg	105	350
95-50-1	1,2-Dichlorobenzene	U	350	ug/kg	70.0	350
108-60-1	bis(2-Chloroisopropyl)ether	U	350	ug/kg	70.0	350
95-48-7	o-Cresol	U	350	ug/kg	70.0	350
65794-96-9	m,p-Cresols	U	350	ug/kg	105	350
67-72-1	Hexachloroethane	U	350	ug/kg	70.0	350
98-95-3	Nitrobenzene	U	350	ug/kg	70.0	350
78-59-1	Isophorone	U	350	ug/kg	70.0	350
88-75-5	2-Nitrophenol	U	350	ug/kg	70.0	350
105-67-9	2,4-Dimethylphenol	U	350	ug/kg	123	350
111-91-1	bis(2-Chloroethoxy)methane	U	350	ug/kg	70.0	350
120-83-2	2,4-Dichlorophenol	U	350	ug/kg	70.0	350
65-85-0	Benzoic acid	U	700	ug/kg	175	700
91-20-3	Naphthalene	U	35.0	ug/kg	10.5	35.0
106-47-8	4-Chloroaniline	U	350	ug/kg	70.0	350
87-68-3	Hexachlorobutadiene	U	350	ug/kg	70.0	350
91-57-6	2-Methylnaphthalene	U	35.0	ug/kg	7.00	35.0
77-47-4	Hexachlorocyclopentadiene	U	350	ug/kg	70.0	350
88-06-2	2,4,6-Trichlorophenol	U	350	ug/kg	70.0	350
95-95-4	2,4,5-Trichlorophenol	U	350	ug/kg	70.0	350
91-58-7	2-Chloronaphthalene	U	35.0	ug/kg	11.6	35.0
88-74-4	2-Nitroaniline	U	350	ug/kg	70.0	350
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	350	ug/kg	70.0	350

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**4.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-11886**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/26/2010 01:10**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2532.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	350	ug/kg	70.0	350
606-20-2	2,6-Dinitrotoluene	U	350	ug/kg	35.0	350
208-96-8	Acenaphthylene	U	35.0	ug/kg	10.5	35.0
51-28-5	2,4-Dinitrophenol	U	700	ug/kg	133	700
132-64-9	Dibenzofuran	U	350	ug/kg	70.0	350
84-66-2	Diethylphthalate	U	350	ug/kg	70.0	350
86-73-7	Fluorene	U	35.0	ug/kg	10.5	35.0
7005-72-3	4-Chlorophenylphenylether	U	350	ug/kg	70.0	350
534-52-1	2-Methyl-4,6-dinitrophenol	U	350	ug/kg	70.0	350
100-01-6	4-Nitroaniline	U	350	ug/kg	105	350
	p-Nitroaniline					
122-39-4	Diphenylamine	U	350	ug/kg	70.0	350
122-66-7	Azobenzene	U	350	ug/kg	70.0	350
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	350	ug/kg	70.0	350
118-74-1	Hexachlorobenzene	U	350	ug/kg	70.0	350
85-01-8	Phenanthrene	U	35.0	ug/kg	10.5	35.0
120-12-7	Anthracene	U	35.0	ug/kg	7.00	35.0
84-74-2	Di-n-butylphthalate	U	350	ug/kg	70.0	350
206-44-0	Fluoranthene	U	35.0	ug/kg	10.5	35.0
85-68-7	Butylbenzylphthalate	U	350	ug/kg	70.0	350
56-55-3	Benzo(a)anthracene	U	35.0	ug/kg	10.5	35.0
91-94-1	3,3'-Dichlorobenzidine	U	350	ug/kg	105	350
218-01-9	Chrysene	U	35.0	ug/kg	10.5	35.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	350	ug/kg	70.0	350
117-84-0	Di-n-octylphthalate	U	350	ug/kg	70.0	350
205-99-2	Benzo(b)fluoranthene	U	35.0	ug/kg	10.5	35.0
207-08-9	Benzo(k)fluoranthene	U	35.0	ug/kg	10.5	35.0
50-32-8	Benzo(a)pyrene	U	35.0	ug/kg	10.5	35.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.0	ug/kg	10.5	35.0
53-70-3	Dibenzo(a,h)anthracene	U	35.0	ug/kg	10.5	35.0
191-24-2	Benzo(ghi)perylene	U	35.0	ug/kg	10.5	35.0
120-82-1	1,2,4-Trichlorobenzene	U	350	ug/kg	70.0	350

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	311	ug/kg		JA

GEL Laboratories LLC

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Data file : /chem/MSD2.i/s032510.b/s2c2532.d
Lab Smp Id: 248866002 Client Smp ID: RE46-10-11886
Inj Date : 26-MAR-2010 01:10
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248866002|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2319.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	4.76520	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.843	3.843	(1.000)	131832	40.0000	
* 29 Naphthalene-d8	136	4.704	4.704	(1.000)	516729	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	324324	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	594607	40.0000	
* 91 Chrysene-d12	240	8.587	8.603	(1.000)	495655	40.0000	
* 98 Perylene-d12	264	10.026	10.042	(1.000)	322145	40.0000	
$ 3 2-Fluorophenol	112	3.046	3.035	(0.793)	187407	59.7012	2090
$ 5 Phenol-d5	99	3.559	3.565	(0.926)	213361	55.1964	1930
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.893)	115650	30.9236	1080
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	226853	25.4234	890
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.090)	56652	59.0574	2070
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.915)	332409	36.7725	1290

ION RATIO REPORT

SV REPORT

Data file: s2c2532.d
Report Date: 03/26/2010 13:43
Lab. ID: 248866002 SampleType: SAMPLE
Injection Date: 26-MAR-2010 01:10
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248866002|965979|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100310-01|
Comment:
Method used: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2319
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	17715	4.20	4.08	80-120	100	(T)
42	15673	4.20	4.08	90-150	88	(QT)
43 Dimethylphthalate				CAS#: 131-11-3		
163	58817	5.95	5.72	80-120	100	(T)
164	324324	5.95	5.72	0- 40	551	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	41461	5.95	5.77	80-120	100	(T)
63	722	5.94	5.77	85-145	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	41461	5.95	6.06	80-120	100	(T)
89	734	5.94	6.06	55-115	2	(QT)
63	722	5.94	6.06	44-104	2	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	223	6.49	6.34	80-120	100	(T)
105	571	6.49	6.34	17- 77	256	(QT)
51	753	6.49	6.34	99-159	337	(QT)

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD2.i/s032510.b/s2c2532.d
Lab Smp Id: 248866002 Client Smp ID: RE46-10-11886
Inj Date : 26-MAR-2010 01:10
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248866002|965979|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2319.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	4.76520	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.843	1011920	40.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.875	225049	8.89592945	311	0		0	10

Data File: /chem/MSD2.i/s032510.b/s2c2532.d

Page 1

Date : 26-MAR-2010 01:10

Client ID: RE46-10-11886

Instrument: MSD2.i

Sample Info: |2488660021965979|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

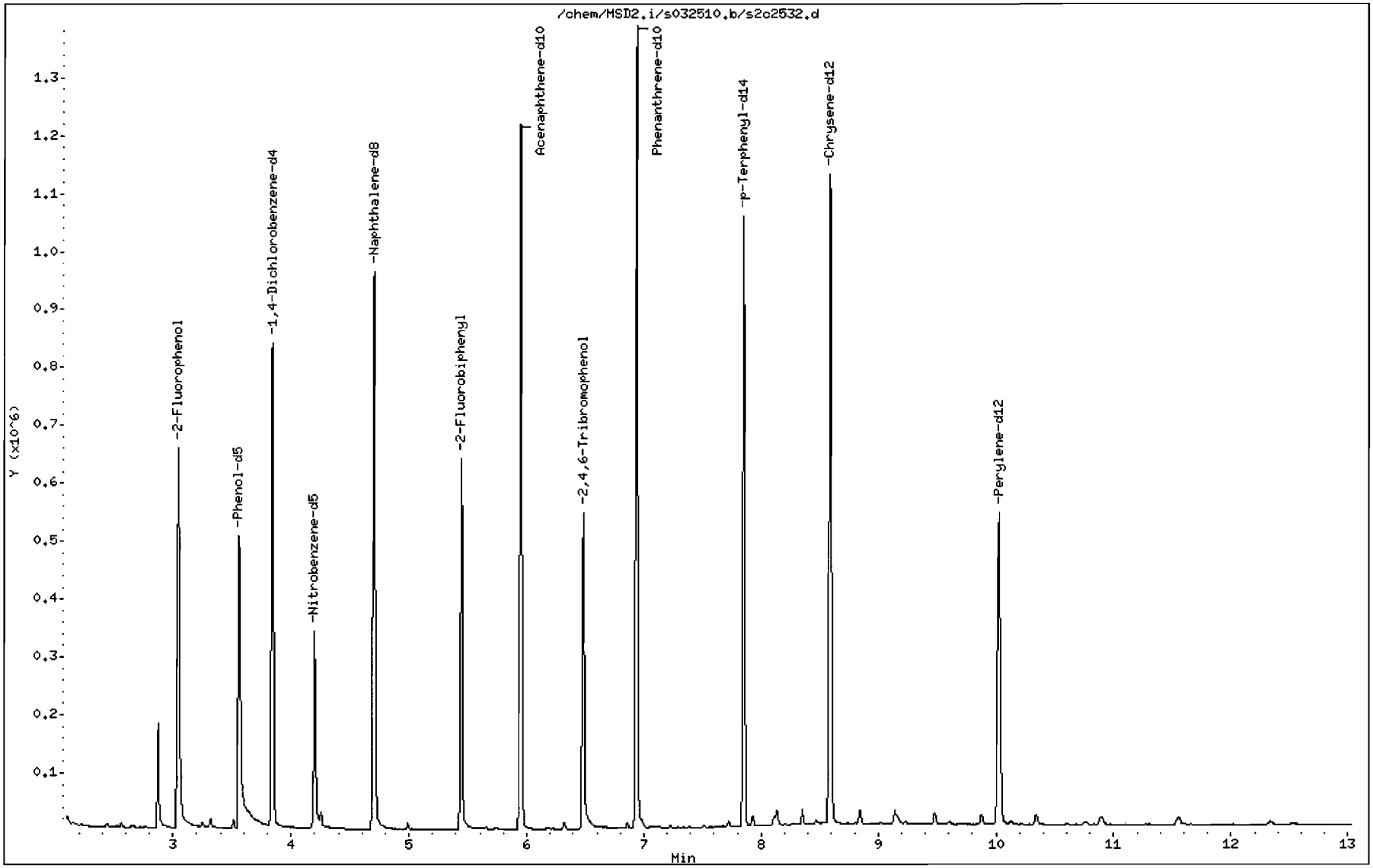

Data File: /chem/MSD2.i/s032510.b/s2c2532.d

Date : 26-MAR-2010 01:10

Client ID: RE46-10-11886

Instrument: MSD2.i

Sample Info: |2488660021965979|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
1-Butene, 4-ethoxy-	44611-46-3	NIST05.L	3747	23	C6H12O	100

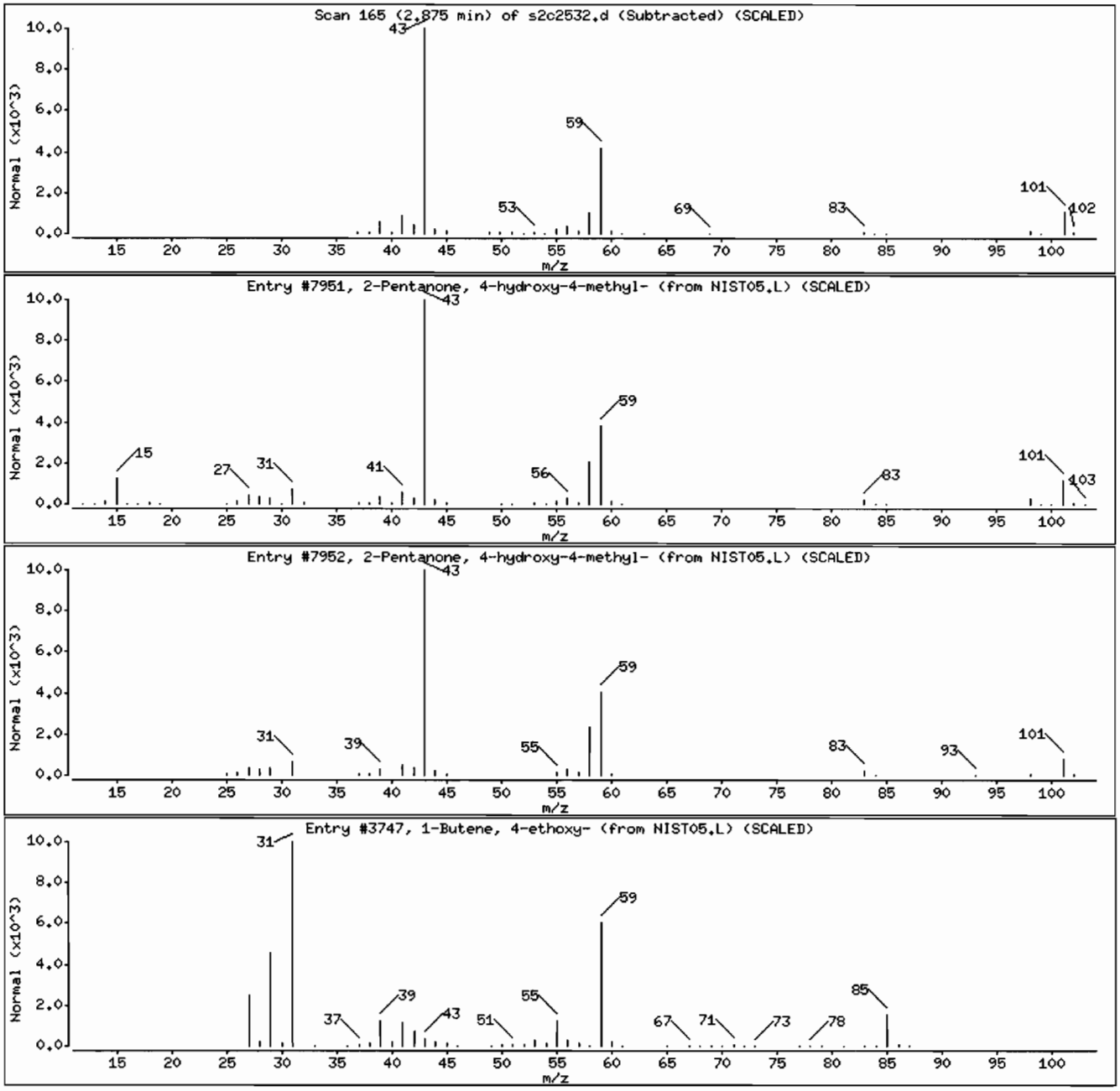

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 25-Mar-2010 18:34

Calibration History

Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Start Cal Date: 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
12-MAR-2010 15:04	MEGAII	/chem/MSD2.i/s031210.b/s2c1203.d
Cal Level: 2 , Cal Amount: 10.00000		
13-MAR-2010 03:15	BJCO	/chem/MSD2.i/s031210.b/s2c1237.d
13-MAR-2010 01:15	HEX	/chem/MSD2.i/s031210.b/s2c1231.d
12-MAR-2010 21:39	PEST	/chem/MSD2.i/s031210.b/s2c1220.d
12-MAR-2010 19:18	AP12	/chem/MSD2.i/s031210.b/s2c1213.d
12-MAR-2010 15:31	MEGAII	/chem/MSD2.i/s031210.b/s2c1204.d
Cal Level: 3 , Cal Amount: 20.00000		
13-MAR-2010 03:42	BJCO	/chem/MSD2.i/s031210.b/s2c1238.d
13-MAR-2010 01:35	HEX	/chem/MSD2.i/s031210.b/s2c1232.d
12-MAR-2010 21:59	PEST	/chem/MSD2.i/s031210.b/s2c1221.d
12-MAR-2010 19:39	AP12	/chem/MSD2.i/s031210.b/s2c1214.d
12-MAR-2010 15:59	MEGAII	/chem/MSD2.i/s031210.b/s2c1205.d
Cal Level: 4 , Cal Amount: 40.00000		
13-MAR-2010 04:08	BJCO	/chem/MSD2.i/s031210.b/s2c1239.d
13-MAR-2010 01:55	HEX	/chem/MSD2.i/s031210.b/s2c1233.d
12-MAR-2010 22:19	PEST	/chem/MSD2.i/s031210.b/s2c1222.d
12-MAR-2010 19:59	AP12	/chem/MSD2.i/s031210.b/s2c1215.d
12-MAR-2010 16:23	MEGAII	/chem/MSD2.i/s031210.b/s2c1206.d
Cal Level: 5 , Cal Amount: 50.00000		
13-MAR-2010 04:35	BJCO	/chem/MSD2.i/s031210.b/s2c1240.d
13-MAR-2010 02:15	HEX	/chem/MSD2.i/s031210.b/s2c1234.d
12-MAR-2010 22:39	PEST	/chem/MSD2.i/s031210.b/s2c1223.d
12-MAR-2010 20:19	AP12	/chem/MSD2.i/s031210.b/s2c1216.d
12-MAR-2010 16:48	MEGAII	/chem/MSD2.i/s031210.b/s2c1207.d
Cal Level: 6 , Cal Amount: 80.00000		
13-MAR-2010 05:01	BJCO	/chem/MSD2.i/s031210.b/s2c1241.d
13-MAR-2010 02:35	HEX	/chem/MSD2.i/s031210.b/s2c1235.d
12-MAR-2010 23:00	PEST	/chem/MSD2.i/s031210.b/s2c1224.d
12-MAR-2010 20:39	AP12	/chem/MSD2.i/s031210.b/s2c1217.d
12-MAR-2010 17:13	MEGAII	/chem/MSD2.i/s031210.b/s2c1208.d
Cal Level: 7 , Cal Amount: 100.00000		

13-MAR-2010 05:28	BJCO	/chem/MSD2.i/s031210.b/s2c1242.d
13-MAR-2010 02:55	HEX	/chem/MSD2.i/s031210.b/s2c1236.d
12-MAR-2010 23:20	PEST	/chem/MSD2.i/s031210.b/s2c1225.d
12-MAR-2010 20:59	AP12	/chem/MSD2.i/s031210.b/s2c1218.d
12-MAR-2010 17:38	MEGAII	/chem/MSD2.i/s031210.b/s2c1209.d

Cal Level: 8 , Cal Amount: 120.00000		
13-MAR-2010 05:54	BJCO	/chem/MSD2.i/s031210.b/s2c1243.d
12-MAR-2010 23:40	PEST	/chem/MSD2.i/s031210.b/s2c1226.d
12-MAR-2010 21:19	AP12	/chem/MSD2.i/s031210.b/s2c1219.d
12-MAR-2010 18:02	MEGAII	/chem/MSD2.i/s031210.b/s2c1210.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
25-MAR-2010 15:44	PEST	/chem/MSD2.i/s032510.b/s2c2504.d
Ccal Level: 4 , Ccal Amount: 40.0		
25-MAR-2010 15:24	AP12	/chem/MSD2.i/s032510.b/s2c2503.d
Ccal Level: 4 , Ccal Amount: 40.0		
25-MAR-2010 14:58	MEGAII	/chem/MSD2.i/s032510.b/s2c2502.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Calibration File Names:
Level 1: /chem/MSD2.i/s031210.b/s2c1203.d
Level 2: /chem/MSD2.i/s031210.b/s2c1237.d
Level 3: /chem/MSD2.i/s031210.b/s2c1238.d
Level 4: /chem/MSD2.i/s031210.b/s2c1239.d
Level 5: /chem/MSD2.i/s031210.b/s2c1240.d
Level 6: /chem/MSD2.i/s031210.b/s2c1241.d
Level 7: /chem/MSD2.i/s031210.b/s2c1242.d
Level 8: /chem/MSD2.i/s031210.b/s2c1243.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.53069	0.56409	0.54068	0.55457	0.54064					
	+++++	0.55374					AVRG		0.54740		2.22282
2 Pyridine	+++++	0.74049	0.79261	0.76560	0.80515	0.77149					
	+++++	0.79393					AVRG		0.77821		3.04477
4 Aniline	+++++	0.55826	0.57077	0.56362	0.58547	0.57284					
	+++++	0.59420					AVRG		0.57419		2.34554
209 Benzaldehyde	+++++	0.93842	0.91810	0.84928	0.88119	0.86080					
	0.82896	0.76897					AVRG		0.86368		6.55756
6 Phenol	+++++	1.14465	1.17926	1.17186	1.24067	1.22191					
	+++++	1.29706					AVRG		1.20923		4.57865

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Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	1.04016	1.03764	1.04161	1.01485	1.04797	1.03256					
	+++++	1.05677					AVRG		1.03880		1.26167
8 2-Chlorophenol	+++++	1.02487	1.07560	1.05680	1.09331	1.07141					
	+++++	1.13071					AVRG		1.07545		3.29921
203 n-Decane	+++++	2.00990	2.00845	1.84585	1.80869	1.77685					
	+++++	1.56954					AVRG		1.83655		8.95766
9 1,3-Dichlorobenzene	+++++	1.24048	1.30102	1.24836	1.29021	1.27457					
	+++++	1.32500					AVRG		1.27994		2.51073
11 1,4-Dichlorobenzene	+++++	1.33103	1.36189	1.32236	1.38180	1.35219					
	+++++	1.39329					AVRG		1.35709		2.04557
12 Benzyl alcohol	+++++	0.46844	0.53613	0.58192	0.62208	0.59998					
	+++++	0.60896					AVRG		0.56959		10.15574
13 1,2-Dichlorobenzene	+++++	1.21698	1.24338	1.21938	1.27220	1.26460					
	+++++	1.29976					AVRG		1.25272		2.57686
14 bis(2-Chloroisopropyl)ether	+++++	2.68696	2.65305	2.54839	2.53017	2.49533					
	+++++	2.32358					AVRG		2.53958		5.08482
15 o-Cresol	+++++	0.84323	0.82956	0.80082	0.84780	0.84739					
	+++++	0.95435					AVRG		0.85386		6.12877

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Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
16 Acetophenone	+++++	1.37504	1.34990	1.31025	1.39529	1.40445					
	1.40367	1.39174					AVRG		1.37576		2.51790
17 N-Nitrosodipropylamine	0.73303	0.75246	0.76349	0.75895	0.77570	0.75404					
	+++++	0.77361					AVRG		0.75875		1.90533
18 m,p-Cresols	+++++	0.98606	1.00993	1.01061	1.04500	1.01871					
	+++++	1.03374					AVRG		1.01734		2.02140
19 Hexachloroethane	+++++	0.53473	0.54456	0.52915	0.54253	0.52984					
	+++++	0.53701					AVRG		0.53630		1.18806
21 Nitrobenzene	+++++	0.30184	0.30097	0.28004	0.26992	0.25041					
	+++++	0.23182					AVRG		0.27250		10.21908
22 Isophorone	+++++	0.54505	0.54677	0.50717	0.49346	0.45822					
	+++++	0.40630					AVRG		0.49283		10.93751
23 2-Nitrophenol	+++++	0.17908	0.15205	0.13691	0.13791	0.12777					
	+++++	0.12234					AVRG		0.14268		14.37906
24 2,4-Dimethylphenol	+++++	0.27372	0.30536	0.25113	0.23635	0.20969					
	+++++	+++++					AVRG		0.25525		14.26274
25 bis(2-Chloroethoxy)methane	+++++	0.30134	0.30867	0.28603	0.28357	0.26861					
	+++++	0.24812					AVRG		0.28272		7.79457

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Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.21397	0.21772	0.20785	0.20427	0.19269					
	+++++	0.17722					AVRG		0.20229		7.43147
27 Benzoic acid	+++++	+++++	0.09573	0.12767	0.14526	0.12886					
	+++++	0.13198					AVRG		0.12590		14.50415
28 1,2,4-Trichlorobenzene	+++++	0.27075	0.27246	0.25039	0.24546	0.23111					
	+++++	0.21355					AVRG		0.24729		9.21640
30 Naphthalene	0.88264	0.83585	0.83802	0.78823	0.78416	0.73200					
	+++++	0.69134					AVRG		0.79318		8.30793
204 alpha-Terpineol	+++++	0.30499	0.30556	0.27977	0.26969	0.25106					
	+++++	0.21766					AVRG		0.27145		12.40556
31 4-Chloroaniline	+++++	0.30611	0.36557	0.36836	0.36658	0.33911					
	+++++	0.32132					AVRG		0.34451		7.72390
189 Caprolactam	+++++	0.07385	0.08037	0.08218	0.09025	0.09135					
	0.08948	0.09264					AVRG		0.08573		8.19744
32 Hexachlorobutadiene	+++++	0.16400	0.16685	0.15308	0.14816	0.13933					
	+++++	0.12666					AVRG		0.14968		10.13585
33 4-Chloro-3-methylphenol	+++++	0.23613	0.23807	0.22392	0.22130	0.20293					
	+++++	0.18282					AVRG		0.21753		9.73149

GEL Laboratories LLC

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Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1 / 100 Level 7	10 Level 2 / 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
34 2-Methylnaphthalene	0.55918	0.54065	0.54701	0.50998	0.50398	0.47433					
	+++++	0.43335					AVRG		0.50978		8.74067
35 1-Methylnaphthalene	0.54513	0.53724	0.53347	0.50485	0.49777	0.46277					
	+++++	0.42797					AVRG		0.50131		8.59294
36 Hexachlorocyclopentadiene	+++++	0.16297	0.19074	0.20053	0.20711	0.17732					
	+++++	0.20353					AVRG		0.19037		9.03164
208 1,1'-Biphenyl	+++++	1.35911	1.33104	1.31085	1.38582	1.39800					
	1.41044	1.39351					AVRG		1.36982		2.72454
205 2,3-Dichloroaniline	+++++	0.51010	0.54015	0.54652	0.56436	0.57152					
	+++++	0.61221					AVRG		0.55748		6.16449
37 2,4,6-Trichlorophenol	+++++	0.27124	0.28804	0.30627	0.30322	0.30549					
	+++++	0.33030					AVRG		0.30076		6.59007
38 2,4,5-Trichlorophenol	+++++	0.29158	0.32247	0.31010	0.33011	0.33422					
	+++++	0.35852					AVRG		0.32450		6.99838
40 2-Chloronaphthalene	0.95732	0.92503	0.97188	0.94372	0.96936	0.97959					
	+++++	1.03937					AVRG		0.96947		3.71428
42 o-Nitroaniline	+++++	0.28178	0.30956	0.30499	0.30426	0.30435					
	+++++	0.30862					AVRG		0.30226		3.40284

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Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	21802	52996	142135	204510	208409					
	+++++	402686					LINR	0.08432	0.22019		0.99755
43 Dimethylphthalate	+++++	1.10980	1.15239	1.11587	1.13305	1.14965					
	+++++	1.16434					AVRG		1.13752		1.90358
44 2,6-Dinitrotoluene	+++++	0.24590	0.25940	0.25324	0.25815	0.25973					
	+++++	0.26721					AVRG		0.25727		2.77894
45 Acenaphthylene	1.37487	1.40503	1.46492	1.45336	1.46622	1.49132					
	+++++	1.57389					AVRG		1.46137		4.35613
47 Acenaphthene	1.09285	0.99386	1.05730	1.04614	1.07303	1.07796					
	+++++	1.11624					AVRG		1.06534		3.65712
48 2,4-Dinitrophenol	+++++	+++++	26928	70814	105683	112290					
	+++++	256161					LINR	0.27701	0.14408		0.99297
49 Dibenzofuran	+++++	1.23686	1.30875	1.28894	1.31722	1.32619					
	+++++	1.37415					AVRG		1.30868		3.45347
50 2,4-Dinitrotoluene	+++++	0.29926	0.32448	0.32292	0.32838	0.33137					
	+++++	0.32165					AVRG		0.32134		3.54887
51 Diethylphthalate	+++++	1.14932	1.19433	1.15409	1.17087	1.17737					
	+++++	1.15441					AVRG		1.16673		1.48807

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Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.13055	0.15792	0.16796	0.17481	0.16540					
	+++++	0.16153					AVRG		0.15969		9.64147
53 Fluorene	1.05424	1.07394	1.13370	1.14492	1.17060	1.17058					
	+++++	1.20012					AVRG		1.13544		4.70479
54 4-Chlorophenylphenylether	+++++	0.50279	0.52689	0.52750	0.53924	0.54595					
	+++++	0.56736					AVRG		0.53496		4.04829
55 2-Methyl-4,6-dinitrophenol	+++++	18180	48014	109404	161133	168398					
	+++++	347979					LINR	0.18671	0.12250		0.99452
56 p-Nitroaniline	+++++	22179	45659	125678	187857	194328					
	+++++	406138					LINR	0.15309	0.22168		0.99822
133 Diphenylamine	+++++	0.48570	0.49400	0.50138	0.51990	0.52948					
	+++++	0.59303					AVRG		0.52058		7.49917
58 1,2-Diphenylhydrazine	+++++	0.63730	0.66715	0.65507	0.67151	0.69301					
	+++++	0.74396					AVRG		0.67800		5.48585
59 Tributylphosphate	+++++	1.14218	1.23338	1.26398	1.24736	1.30493					
	1.31959	1.26442					AVRG		1.25369		4.61401
61 4-Bromophenylphenylether	+++++	0.16412	0.17037	0.17123	0.17327	0.18076					
	+++++	0.19621					AVRG		0.17599		6.39971

GEL Laboratories LLC

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Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.16428	0.16925	0.17087	0.17418	0.18013					
	+++++	0.19569					AVRG		0.17573		6.32010
207 Atrazine	+++++	0.04678	0.04546	0.04310	0.04200	0.04389					
	0.04014	0.03918					AVRG		0.04293		6.37284
65 Pentachlorophenol	+++++	0.07005	0.08362	0.09145	0.09635	0.09801					
	+++++	0.10656					AVRG		0.09101		14.01556
206 n-Octadecane	+++++	0.58190	0.60061	0.56933	0.56240	0.58766					
	+++++	0.58012					AVRG		0.58034		2.32517
68 Phenanthrene	0.98272	0.94591	0.98449	0.95745	1.00421	0.99535					
	+++++	1.05048					AVRG		0.98866		3.44563
69 Anthracene	0.88306	0.89261	0.96551	0.99042	0.96594	0.99150					
	+++++	1.00588					AVRG		0.95642		5.13275
72 Di-n-butylphthalate	+++++	1.11765	1.16093	1.12721	1.12060	1.15861					
	+++++	1.10402					AVRG		1.13150		2.04799
76 Fluoranthene	0.81916	0.85958	0.91809	0.91892	0.91345	0.92075					
	+++++	0.90111					AVRG		0.89301		4.36703
77 Benzidine	+++++	0.33270	0.32337	0.26589	0.33110	0.36513					
	0.36116	0.39174					AVRG		0.33873		11.83753

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Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
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Compound	1 Level 1 / 100 Level 7	10 Level 2 / 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
79 Pyrene	1.23304	1.24570	1.28178	1.24643	1.33748	1.35539					
	+++++	1.42729					AVRG		1.30387		5.53101
85 Butylbenzylphthalate	+++++	0.59999	0.62912	0.59210	0.60752	0.62259					
	+++++	0.60906					AVRG		0.61006		2.26136
89 Benzo(a)anthracene	1.07945	0.96635	0.97615	0.97295	1.00816	0.99033					
	+++++	0.99439					AVRG		0.99826		3.86151
90 3,3'-Dichlorobenzidine	+++++	0.21872	0.24546	0.24771	0.27723	0.29323					
	0.27943	0.29408					AVRG		0.26512		10.69374
92 Chrysene	0.92724	0.88493	0.98051	0.91794	0.90417	0.93552					
	+++++	0.96869					AVRG		0.93128		3.64633
93 bis(2-Ethylhexyl)phthalate	0.83224	0.82159	0.85356	0.79815	0.82639	0.87973					
	+++++	0.86867					AVRG		0.84005		3.40874
94 Di-n-octylphthalate	+++++	1.80144	1.89250	1.71252	1.93706	2.03001					
	+++++	2.06832					AVRG		1.90697		7.08363
95 Benzo(b)fluoranthene	0.94096	1.08670	1.08972	1.16567	1.15813	1.07475					
	+++++	1.12139					AVRG		1.09105		6.87930
96 Benzo(k)fluoranthene	1.00301	0.98897	1.13567	0.97578	1.11291	1.23028					
	+++++	1.27986					AVRG		1.10378		10.96105

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INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.82242	0.84279	0.91106	0.89892	0.92930	0.92862					
	+++++	0.99694					AVRG		0.90429		6.44159
99 Indeno(1,2,3-cd)pyrene	0.72384	0.70149	0.79920	0.80145	0.75282	0.78505					
	+++++	0.85471					AVRG		0.77408		6.72266
100 Dibenzo(a,h)anthracene	0.58300	0.56617	0.64555	0.65848	0.61402	0.64622					
	+++++	0.71335					AVRG		0.63240		7.84312
101 Benzo(ghi)perylene	0.62290	0.59146	0.65859	0.64551	0.59098	0.61395					
	+++++	0.66549					AVRG		0.62698		4.85944
102 1,4-Dioxane	+++++	0.35160	0.34509	0.33135	0.35428	0.34578					
	0.35023	0.34933					AVRG		0.34681		2.17036
103 Methyl methacrylate	+++++	0.20061	0.19873	0.18864	0.20452	0.20433					
	0.20673	0.20414					AVRG		0.20110		3.03929
104 Ethyl methacrylate	+++++	0.75667	0.76459	0.72872	0.77419	0.76818					
	0.77700	0.76357					AVRG		0.76185		2.11428
105 2-Picoline	+++++	1.16328	1.16948	1.11649	1.19601	1.20509					
	1.22656	1.22244					AVRG		1.18562		3.27696
106 N-Nitrosomethylethylamine	+++++	0.45377	0.46348	0.43670	0.46929	0.45242					
	0.45863	0.45164					AVRG		0.45513		2.27560

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.63060	0.60690	0.56958	0.58418	0.57873					
	0.55212	0.52685					AVRG		0.57842		5.90367
108 N-Nitrosodiethylamine	+++++	0.49994	0.50455	0.48829	0.51912	0.51895					
	0.52868	0.51703					AVRG		0.51094		2.71861
109 Ethyl Methanesulfonate	+++++	0.64316	0.63898	0.61674	0.64614	0.64667					
	0.63240	0.62556					AVRG		0.63566		1.78065
110 Pentachloroethane	+++++	0.38534	0.38296	0.36184	0.37892	0.37518					
	0.37755	0.36804					AVRG		0.37569		2.20176
111 N-Nitrosopyrrolidine	+++++	0.49075	0.50988	0.50101	0.53665	0.55050					
	0.56242	0.57355					AVRG		0.53211		6.02450
113 N-Nitrosomorpholine	+++++	1.00110	0.99132	0.94345	1.00036	0.97827					
	0.95370	0.93068					AVRG		0.97127		2.94734
114 o-Toluidine	+++++	1.80852	1.83550	1.80199	1.84876	1.97447					
	1.98694	2.00308					AVRG		1.89418		4.73437
115 N-Nitrosopiperidine	+++++	0.13521	0.13511	0.13226	0.14210	0.14020					
	0.13850	0.13785					AVRG		0.13732		2.44499
116 a,a-Dimethylphenethylamine	+++++	0.79717	0.87203	0.88887	0.95657	0.97824					
	0.96170	0.96066					AVRG		0.91646		7.23662

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.12969	0.13498	0.13988	0.14347	0.15050					
	0.15111	0.15112					AVRG		0.14297		5.98605
118 2,6-Dichlorophenol	+++++	0.21704	0.22718	0.22752	0.24481	0.24384					
	0.24812	0.24650					AVRG		0.23643		5.19197
119 Hexachloropropene	+++++	0.09452	0.12047	0.11686	0.12728	0.13200					
	0.12883	0.13145					AVRG		0.12163		10.85915
120 p-Phenylenediamine	+++++	0.16662	0.22639	0.22496	0.24913	0.22983					
	0.19849	0.20531					AVRG		0.21439		12.51311
121 N-Nitrosodi-n-butylamine	+++++	0.23456	0.24217	0.20702	0.21125	0.21342					
	0.20654	0.20943					AVRG		0.21777		6.62755
122 Safrole	+++++	0.20577	0.20863	0.20444	0.21501	0.21894					
	0.21571	0.21789					AVRG		0.21234		2.80176
123 1,2,4,5-Tetrachlorobenzene	+++++	0.45777	0.45385	0.43570	0.46563	0.46742					
	0.47683	0.46456					AVRG		0.46025		2.83817
124 Isosafrole	+++++	0.35040	0.35154	0.34687	0.36295	0.36305					
	0.36929	0.36287					AVRG		0.35814		2.34899
125 1,4-Naphthoquinone	+++++	0.35704	0.37620	0.36066	0.36273	0.31265					
	0.28003	0.26784					AVRG		0.33102		13.24400

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.15972	0.17551	0.17202	0.17880	0.17527					
	+++++	0.18357					AVRG		0.17415		4.63730
127 Pentachlorobenzene	+++++	0.39226	0.39020	0.38763	0.40604	0.41773					
	0.41906	0.42405					AVRG		0.40528		3.77750
128 1-Naphthylamine	+++++	0.87990	0.89273	0.87839	0.96023	0.99070					
	0.96177	0.97320					AVRG		0.93385		5.16042
129 2-Naphthylamine	+++++	0.96003	0.98889	0.96557	1.04769	1.04666					
	1.01828	1.03999					AVRG		1.00959		3.76020
130 2,3,4,6-Tetrachlorophenol	+++++	0.24559	0.25323	0.27046	0.28031	0.29434					
	+++++	0.30632					AVRG		0.27504		8.51517
131 5-Nitro-o-toluidine	+++++	0.22743	0.26020	0.25061	0.27591	0.28592					
	0.27827	0.28407					AVRG		0.26606		8.01756
132 Thionazin	+++++	0.15011	0.15522	0.16542	0.16383	0.17150					
	0.17067	0.16715					AVRG		0.16341		4.87242
134 Sulfotepp	+++++	0.08160	0.08679	0.09355	0.09774	0.10316					
	0.10522	0.10640					AVRG		0.09635		9.88855
135 Phorate	+++++	0.34717	0.36619	0.37505	0.38205	0.38811					
	0.38037	0.37522					AVRG		0.37345		3.60208

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Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
136 1,3,5-Trinitrobenzene	+++++	0.09652	0.13549	0.13757	0.14799	0.14625					
	0.13417	0.13774					AVRG		0.13367		12.87991
137 Phenacetin	+++++	0.27229	0.29485	0.28597	0.30648	0.30974					
	0.30537	0.31201					AVRG		0.29810		4.89196
138 Diallate	+++++	0.27591	0.25445	0.25725	0.26238	0.26308					
	0.26769	0.26482					AVRG		0.26365		2.66294
139 Dimethoate	+++++	0.18468	0.19709	0.20942	0.21468	0.22518					
	0.22365	0.22216					AVRG		0.21098		7.20828
140 4-Aminobiphenyl	+++++	0.54803	0.54411	0.53885	0.63692	0.66300					
	0.65007	0.64996					AVRG		0.60442		9.49504
141 Pentachloronitrobenzene	+++++	0.08753	0.08511	0.08321	0.08704	0.08548					
	0.08309	0.08073					AVRG		0.08460		2.84314
142 Pronamide	+++++	0.31192	0.30186	0.29923	0.31237	0.31025					
	0.30730	0.29182					AVRG		0.30496		2.51189
143 Dinoseb	+++++	26318	64904	148620	219199	230621					
	+++++	463231					LINR	0.16895	0.16301		0.99661
144 Disulfoton	+++++	0.26029	0.26807	0.27619	0.28099	0.29536					
	0.28719	0.28588					AVRG		0.27914		4.29750

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Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.16726	0.18176	0.19745	0.20499	0.21200					
	0.21135	0.20784					AVRG		0.19752		8.59064
146 4-Nitroquinoline-1-oxide	+++++	2342	9511	16827	20691	41438					
	+++++	+++++					LINR	0.12110	0.01872		0.99242
147 Methapyrilene	+++++	0.47127	0.44938	0.39997	0.40196	0.40766					
	0.34925	0.35531					AVRG		0.40497		11.03384
148 Isodrin	+++++	0.10675	0.09831	0.09726	0.09704	0.10075					
	0.09619	0.09809					AVRG		0.09920		3.65672
149 Aramite	+++++	0.05128	0.05168	0.04752	0.04833	0.05257					
	0.04617	0.04656					AVRG		0.04916		5.35243
150 Kepone	+++++	0.06472	0.06750	0.06098	0.06584	0.07074					
	0.06165	0.06597					AVRG		0.06534		5.13220
151 p-(Dimethylamino)azobenzene	+++++	0.40077	0.36831	0.39870	0.38456	0.36646					
	0.39314	0.38315					AVRG		0.38501		3.56168
152 Chlorobenzilate	+++++	0.36667	0.32344	0.37057	0.34530	0.34588					
	0.37301	0.36768					AVRG		0.35608		5.16475
153 3,3'-Dimethylbenzidine	+++++	0.51799	0.49896	0.45789	0.49166	0.51632					
	0.51079	0.52916					AVRG		0.50325		4.67890

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Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
154 Famphur	+++++	0.36991	0.39797	0.41889	0.44377	0.43941						
	0.42710	0.42618					AVRG		0.41760		6.17190	
155 2-Acetylaminofluorene	+++++	0.24420	0.30205	0.29363	0.33824	0.35451						
	0.33945	0.35224					AVRG		0.31776		12.63393	
157 7,12Dimethylbenz(a)anthracene	+++++	0.56588	0.53307	0.57223	0.56155	0.56719						
	0.57623	0.59670					AVRG		0.56755		3.35460	
158 3-Methylcholanthrene	+++++	0.38667	0.38727	0.39472	0.41832	0.42507						
	0.41325	0.43432					AVRG		0.40852		4.66290	
26 Phthalic anhydride	+++++	16723	47830	125691	196574	215901						
	+++++	+++++					LINR	0.12340	0.10949		0.99655	
173 Carbazole	18867	141917	253992	658583	1027960	1048673						
	+++++	2140487					LINR	0.13239	0.73569		0.99210	
174 Hexachlorophene	+++++	518849	1036568	1456110	1739399	+++++						
	2263726	+++++					LINR	5.32015	0.08280		0.99874	
179 Dibenzo(a,e)pyrene	+++++	0.28512	0.33642	0.33663	0.27673	0.30466						
	+++++	0.34488					AVRG		0.31408		9.31398	
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	10744	27498	56694	89591	116622					
	+++++	221829					LINR	0.17295	0.25904		0.99077
191 Parathion	+++++	0.04839	0.05278	0.05817	0.06057	0.06406					
	0.06770	0.06650					AVRG		0.05974		11.99755
192 Methoxychlor	+++++	0.56862	0.61889	0.60522	0.60255	0.61534					
	+++++	0.62322					AVRG		0.60564		3.26803
210 m-Toluidine	+++++	1.14296	1.20463	1.50407	1.47783	1.51385					
	+++++	1.62653					AVRG		1.41165		13.61097
211 p-Toluidine	+++++	1.03688	1.03950	0.98382	1.16617	1.07729					
	+++++	1.06044					AVRG		1.06068		5.70763
212 Cis Diallate	+++++	0.26579	0.24953	0.24544	0.24698	0.24161					
	0.24032	0.24133					AVRG		0.24728		3.56817
213 Trans Diallate	+++++	0.32461	0.29935	0.30264	0.30868	0.30950					
	0.31493	0.31155					AVRG		0.31018		2.66294
214 1,4-Dinitrobenzene	+++++	0.20082	0.22011	0.22052	0.22474	0.22190					
	+++++	0.23207					AVRG		0.22002		4.72222
215 2-Ethoxyethanol	+++++	0.67233	0.71321	0.70155	0.72308	0.70042					
	+++++	0.72494					AVRG		0.70592		2.75199

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
216 Methylenebis(2-chloroaniline)	+++++	18503	31120	85711	123300	126551						
	+++++	+++++					LINR	0.12923	0.11629		0.99554	
226 2,2'-Dichlorobenzil	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
227 4-Chlorothioanisole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
228 4-Chlorothiophenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
229 bis(p-Chlorophenyl)sulfone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
230 bis(p-Chlorophenyl)disulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
231 Diphenyl disulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
232 Diphenyl sulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
233 Phenyl sulfone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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	100 Level 7	120 Level 8										
234 Hydroxymethyl phthalimide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
235 Phthalic acid	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
236 Thiophenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
237 bis(Chloromethyl)ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
238 Octachlorostyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
239 Dibenzo(a,h)pyrene	+++++	0.30133	0.24543	0.32224	0.29208	0.31923						
	0.31975	0.32872					AVRG		0.30411		9.49556	<-
240 Benzo(j)fluoranthene	+++++	0.83072	0.92385	0.96790	1.00940	1.00885						
	0.96377	1.00814					AVRG		0.95895		6.76250	<-
241 Dibenzo(a,j)acridine	+++++	0.52861	0.50350	0.56758	0.54588	0.60197						
	0.62650	0.57297					AVRG		0.56386		7.48315	<-
242 Dibenz(a,h)acridine	+++++	0.50014	0.47046	0.53958	0.51864	0.56520						
	0.59114	0.54589					AVRG		0.53301		7.59150	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1 / 100 Level 7	10 Level 2 / 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
243 Quinoline	+++++	0.46673	0.48865	0.51133	0.52553	0.56197						
	0.54063	0.54407					AVRG		0.51984		6.42466	<-
244 2,4-Toluene Diisocyanate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
245 Dibenzo(a,i)pyrene	+++++	0.17203	0.15057	0.20368	0.18325	0.20792						
	0.21104	0.21682					AVRG		0.19219		12.67372	<-
246 1-Nitropyrene	+++++	20082	52196	139152	171773	455481						
	483179	481130					LINR	0.19784	0.19692		0.99615	<-
247 5-Methylchrysene	+++++	0.49606	0.51261	0.54747	0.54329	0.55777						
	0.55201	0.55122					AVRG		0.53721		4.35140	<-
248 Dibenzo(a,l)pyrene	+++++	0.27683	0.24014	0.28791	0.26504	0.29597						
	0.31327	0.28427					AVRG		0.28049		8.31565	<-
249 7H-Dibenzo(c,g)carbazole	+++++	0.36891	0.33138	0.39163	0.37071	0.41623						
	0.44981	0.40022					AVRG		0.38984		9.72582	<-
250 1-Hexanol	+++++	0.81019	0.88354	0.90810	0.89375	0.82269						
	0.80572	0.80074					AVRG		0.84639		5.50854	<-
M 222 Trichlorophenols	+++++	0.28141	0.30525	0.30818	0.31667	0.31985						
	+++++	0.34441					AVRG		0.31263		6.59754	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
M 223 Tetrachlorophenols	+++++	0.24559	0.25323	0.27046	0.28031	0.29434						
	+++++	0.30632					AVRG		0.27504		8.51517	
M 224 Benzo(b,k)fluoranthene	0.97199	1.03784	1.11270	1.07072	1.13552	1.15252						
	+++++	1.20062					AVRG		1.09742		6.99618	
M 225 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 3 2-Fluorophenol	+++++	0.91171	0.95294	0.93696	0.97627	0.93389						
	+++++	1.00292					AVRG		0.95245		3.43740	
$ 5 Phenol-d5	+++++	1.12207	1.15643	1.14832	1.20475	1.17617						
	+++++	1.22938					AVRG		1.17285		3.34024	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.32032	0.32188	0.29453	0.28831	0.26888						
	+++++	0.24310					AVRG		0.28950		10.48064	
$ 39 2-Fluorobiphenyl	+++++	1.04124	1.09665	1.06393	1.09049	1.11952						
	+++++	1.19118					AVRG		1.10050		4.73010	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-MAR-2010 15:04
End Cal Date : 13-MAR-2010 05:54
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Cal Date : 25-Mar-2010 18:33 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
$ 60 2,4,6-Tribromophenol	+++++	0.10863	0.11665	0.11808	0.12058	0.12299					
	+++++	0.12293					AVRG		0.11831		4.54874
$ 81 p-Terphenyl-d14	+++++	0.66878	0.70423	0.69072	0.73707	0.76446					
	+++++	0.81180					AVRG		0.72951		7.22278

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 12-MAR-2010 18:54
Lab File ID: s2c1212.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 18:02
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 3 2-Fluorophenol	0.95245	0.93834	0.93834	0.000	-1.48102	60.00000	Averaged	
$ 5 Phenol-d5	1.17285	1.13234	1.13234	0.000	-3.45424	60.00000	Averaged	
$ 20 Nitrobenzene-d5	0.28950	0.29753	0.29753	0.000	2.77388	60.00000	Averaged	
$ 39 2-Fluorobiphenyl	1.10050	1.08541	1.08541	0.000	-1.37168	60.00000	Averaged	
$ 60 2,4,6-Tribromophenol	0.11831	0.11606	0.11606	0.000	-1.90573	60.00000	Averaged	
$ 81 p-Terphenyl-d14	0.72951	0.73940	0.73940	0.000	1.35559	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.54740	0.52461	0.52461	0.000	-4.16446	60.00000	Averaged	
2 Pyridine	0.77821	0.58893	0.58893	0.000	-24.32317	60.00000	Averaged	
4 Aniline	0.57419	0.51885	0.51885	0.000	-9.63809	60.00000	Averaged	
6 Phenol	1.20923	1.19909	1.19909	0.001	-0.83915	20.00000	Averaged	ccc
7 bis(2-Chloroethyl) ether	1.03880	0.93188	0.93188	0.000	-10.29272	60.00000	Averaged	
8 2-Chlorophenol	1.07545	1.09732	1.09732	0.000	2.03377	60.00000	Averaged	
203 n-Decane	1.83655	1.81258	1.81258	0.000	-1.30488	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.27994	1.24868	1.24868	0.000	-2.44251	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.35709	1.30739	1.30739	0.001	-3.66268	20.00000	Averaged	ccc
13 1,2-Dichlorobenzene	1.25272	1.26001	1.26001	0.000	0.58216	60.00000	Averaged	
14 bis(2-Chloroisopropyl)ether	2.53958	2.42695	2.42695	0.000	-4.43484	60.00000	Averaged	
12 Benzyl alcohol	0.56959	0.59115	0.59115	0.000	3.78667	60.00000	Averaged	
15 o-Cresol	0.85386	0.84683	0.84683	0.000	-0.82343	60.00000	Averaged	
18 m,p-Cresols	1.01734	1.03157	1.03157	0.000	1.39833	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.75875	0.75192	0.75192	0.050	-0.89997	60.00000	Averaged	spcc
19 Hexachloroethane	0.53630	0.51130	0.51130	0.000	-4.66258	60.00000	Averaged	
21 Nitrobenzene	0.27250	0.26462	0.26462	0.000	-2.89142	60.00000	Averaged	
22 Isophorone	0.49283	0.46638	0.46638	0.000	-5.36610	60.00000	Averaged	
23 2-Nitrophenol	0.14268	0.13889	0.13889	0.001	-2.65087	20.00000	Averaged	ccc
24 2,4-Dimethylphenol	0.25525	0.24875	0.24875	0.000	-2.54825	60.00000	Averaged	
25 bis(2-Chloroethoxy)methane	0.28272	0.25590	0.25590	0.000	-9.48667	60.00000	Averaged	
26 2,4-Dichlorophenol	0.20229	0.20678	0.20678	0.001	2.22074	20.00000	Averaged	ccc
27 Benzoic acid	0.12590	0.13539	0.13539	0.000	7.54080	60.00000	Averaged	
28 1,2,4-Trichlorobenzene	0.24729	0.23757	0.23757	0.000	-3.92985	60.00000	Averaged	
30 Naphthalene	0.79318	0.73998	0.73998	0.000	-6.70624	60.00000	Averaged	
204 alpha-Terpineol	0.27145	0.24457	0.24457	0.000	-9.90400	60.00000	Averaged	
31 4-Chloroaniline	0.34451	0.34387	0.34387	0.000	-0.18513	60.00000	Averaged	
32 Hexachlorobutadiene	0.14968	0.14732	0.14732	0.001	-1.57512	20.00000	Averaged	ccc
33 4-Chloro-3-methylphenol	0.21753	0.22451	0.22451	0.001	3.20750	20.00000	Averaged	ccc
34 2-Methylnaphthalene	0.50978	0.50939	0.50939	0.000	-0.07628	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 12-MAR-2010 18:54
Lab File ID: s2c1212.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 18:02
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.50131	0.48065	0.48065	0.000	-4.12090	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.19037	0.16197	0.16197	0.050	-14.91714	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.55748	0.52593	0.52593	0.000	-5.65805	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.30076	0.29510	0.29510	0.001	-1.88287	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.32450	0.32264	0.32264	0.000	-0.57285	60.00000	Averaged
40 2-Chloronaphthalene	0.96947	0.93771	0.93771	0.000	-3.27528	60.00000	Averaged
42 o-Nitroaniline	0.30226	0.29731	0.29731	0.000	-1.63904	60.00000	Averaged
41 m-Nitroaniline	42.34792	40.00000	0.21455	0.000	5.86981	0.000e+00	Linear <-
43 Dimethylphthalate	1.13752	1.08580	1.08580	0.000	-4.54616	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25727	0.24724	0.24724	0.000	-3.90095	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32134	0.32044	0.32044	0.000	-0.28246	60.00000	Averaged
45 Acenaphthylene	1.46137	1.43394	1.43394	0.000	-1.87723	60.00000	Averaged
47 Acenaphthene	1.06534	0.99366	0.99366	0.001	-6.72774	20.00000	Averaged ccc
48 2,4-Dinitrophenol	43.39364	40.00000	0.11639	0.050	8.48410	0.000e+00	Linear <- spcc
49 Dibenzofuran	1.30868	1.27744	1.27744	0.000	-2.38769	60.00000	Averaged
51 Diethylphthalate	1.16673	1.11642	1.11642	0.000	-4.31267	60.00000	Averaged
52 4-Nitrophenol	0.15969	0.17678	0.17678	0.050	10.70040	60.00000	Averaged spcc
53 Fluorene	1.13544	1.09827	1.09827	0.000	-3.27395	60.00000	Averaged
54 4-Chlorophenylphenylether	0.53496	0.50010	0.50010	0.000	-6.51651	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	49.43642	40.00000	0.12853	0.000	23.59104	0.000e+00	Linear <-
56 p-Nitroaniline	45.98377	40.00000	0.22091	0.000	14.95942	0.000e+00	Linear <-
133 Diphenylamine	0.52058	0.49828	0.49828	0.001	-4.28299	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.67800	0.63515	0.63515	0.000	-6.32056	60.00000	Averaged
61 4-Bromophenylphenylether	0.17599	0.15541	0.15541	0.000	-11.69298	60.00000	Averaged
63 Hexachlorobenzene	0.17573	0.16135	0.16135	0.000	-8.18286	60.00000	Averaged
65 Pentachlorophenol	0.09101	0.09422	0.09422	0.001	3.52958	20.00000	Averaged ccc
206 n-Octadecane	0.58034	0.54417	0.54417	0.000	-6.23136	60.00000	Averaged
68 Phenanthrene	0.98866	0.94474	0.94474	0.000	-4.44244	60.00000	Averaged
69 Anthracene	0.95642	0.88574	0.88574	0.000	-7.39015	60.00000	Averaged
72 Di-n-butylphthalate	1.13150	1.06538	1.06538	0.000	-5.84413	60.00000	Averaged
76 Fluoranthene	0.89301	0.88183	0.88183	0.001	-1.25167	20.00000	Averaged ccc
79 Pyrene	1.30387	1.11648	1.11648	0.000	-14.37193	60.00000	Averaged
85 Butylbenzylphthalate	0.61006	0.54363	0.54363	0.000	-10.88944	60.00000	Averaged
89 Benzo(a)anthracene	0.99826	0.91547	0.91547	0.000	-8.29331	60.00000	Averaged
92 Chrysene	0.93128	0.85492	0.85492	0.000	-8.19991	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.84005	0.76087	0.76087	0.000	-9.42480	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 12-MAR-2010 18:54
Lab File ID: s2c1212.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 18:02
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.90697	1.62008	1.62008	0.001	-15.04453	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	1.09105	1.07318	1.07318	0.000	-1.63732	60.00000	Averaged	
96 Benzo(k)fluoranthene	1.10378	0.96926	0.96926	0.000	-12.18747	60.00000	Averaged	
97 Benzo(a)pyrene	0.90429	0.85268	0.85268	0.001	-5.70785	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	0.77408	0.74575	0.74575	0.000	-3.65997	60.00000	Averaged	
100 Dibenzo(a,h)anthracene	0.63240	0.61423	0.61423	0.000	-2.87235	60.00000	Averaged	
101 Benzo(ghi)perylene	0.62698	0.59748	0.59748	0.000	-4.70493	60.00000	Averaged	
126 m-Dinitrobenzene	0.17415	0.17536	0.17536	0.000	0.69298	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.27504	0.24941	0.24941	0.000	-9.31817	60.00000	Averaged	
143 Dinoseb	40.05156	40.00000	0.13568	0.000	0.12890	0.000e+00	Linear	<-
173 Carbazole	42.31804	40.00000	0.68093	0.000	5.79511	0.000e+00	Linear	<-
184 p-Benzoquinone	25.62660	40.00000	0.12116	0.000	-35.93349	0.000e+00	Linear	<-
192 Methoxychlor	0.60564	0.58020	0.58020	0.000	-4.20018	60.00000	Averaged	
211 p-Toluidine	1.06068	0.79713	0.79713	0.000	-24.84761	60.00000	Averaged	
210 m-Toluidine	1.41165	1.45567	1.45567	0.000	3.11867	60.00000	Averaged	
214 1,4-Dinitrobenzene	0.22002	0.22732	0.22732	0.000	3.31771	60.00000	Averaged	
215 2-Ethoxyethanol	0.70592	0.72271	0.72271	0.000	2.37858	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	48.62249	40.00000	0.12633	0.000	21.55622	0.000e+00	Linear	<-
179 Dibenzo(a,e)pyrene	0.31408	0.23056	0.23056	0.000	-26.59122	60.00000	Averaged	
26 Phthalic anhydride	56.98108	40.00000	0.14245	0.000	42.45270	0.000e+00	Linear	<-
M 222 Trichlorophenols	0.31263	0.30887	0.30887	0.000	-1.20299	60.00000	Averaged	
M 223 Tetrachlorophenols	0.27504	0.24941	0.24941	0.000	-9.31817	60.00000	Averaged	
M 224 Benzo(b,k)fluoranthene	1.09742	1.02122	1.02122	0.000	-6.94301	60.00000	Averaged	

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Data file : /chem/MSD2.i/s031210.b/s2c1212.d
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGAICV
Inj Date : 12-MAR-2010 18:54
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100309-09.1|40PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m
Meth Date : 12-Mar-2010 19:19 ann00964 Quant Type: ISTD
Cal Date : 12-MAR-2010 18:02 Cal File: s2c1210.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.982	3.982	(1.000)	333197	40.0000	
* 29 Naphthalene-d8	136	4.848	4.848	(1.000)	1447881	40.0000	
* 46 Acenaphthene-d10	164	6.095	6.095	(1.000)	750245	40.0000	
* 67 Phenanthrene-d10	188	7.073	7.073	(1.000)	1307528	40.0000	
* 91 Chrysene-d12	240	8.769	8.769	(1.000)	1059004	40.0000	
* 98 Perylene-d12	264	10.304	10.304	(1.000)	718805	40.0000	
$ 3 2-Fluorophenol	112	3.169	3.169	(0.796)	312653	40.0000	39.4
$ 5 Phenol-d5	99	3.693	3.693	(0.927)	377292	40.0000	38.6
$ 20 Nitrobenzene-d5	82	4.346	4.346	(0.896)	430793	40.0000	41.1
$ 39 2-Fluorobiphenyl	172	5.586	5.586	(0.917)	814322	40.0000	39.4
$ 60 2,4,6-Tribromophenol	329	6.624	6.624	(1.087)	87070	40.0000	39.2
$ 81 p-Terphenyl-d14	244	7.988	7.988	(0.911)	783025	40.0000	40.5
1 N-Methyl-N-nitrosomethylamine	74	2.490	2.490	(0.625)	174797	40.0000	38.3
2 Pyridine	79	2.527	2.527	(0.635)	196229	40.0000	30.3
4 Aniline	66	3.768	3.768	(0.946)	172880	40.0000	36.1
6 Phenol	94	3.704	3.704	(0.930)	399532	40.0000	39.7(Q)
7 bis(2-Chloroethyl) ether	63	3.779	3.779	(0.949)	310498	40.0000	35.9
8 2-Chlorophenol	128	3.848	3.848	(0.966)	365625	40.0000	40.8
203 n-Decane	43	3.827	3.827	(0.961)	603947	40.0000	39.5
9 1,3-Dichlorobenzene	146	3.950	3.950	(0.992)	416056	40.0000	39.0
11 1,4-Dichlorobenzene	146	3.993	3.993	(1.003)	435617	40.0000	38.5
13 1,2-Dichlorobenzene	146	4.099	4.099	(1.030)	419832	40.0000	40.2
14 bis(2-Chloroisopropyl)ether	45	4.121	4.121	(1.035)	808653	40.0000	38.2
12 Benzyl alcohol	108	4.046	4.046	(1.016)	196971	40.0000	41.5
15 o-Cresol	107	4.094	4.094	(1.028)	282161	40.0000	39.7
18 m,p-Cresols	107	4.196	4.196	(1.054)	343715	40.0000	40.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.222	4.222	(1.060)	250539	40.0000	39.6
19 Hexachloroethane	117	4.329	4.329	(1.087)	170363	40.0000	38.1
21 Nitrobenzene	77	4.356	4.356	(0.898)	383137	40.0000	38.8
22 Isophorone	82	4.511	4.511	(0.930)	675266	40.0000	37.8
23 2-Nitrophenol	139	4.570	4.570	(0.943)	201103	40.0000	38.9
24 2,4-Dimethylphenol	122	4.559	4.559	(0.940)	360154	40.0000	39.0
25 bis(2-Chloroethoxy)methane	93	4.629	4.629	(0.955)	370515	40.0000	36.2
26 2,4-Dichlorophenol	162	4.731	4.731	(0.976)	299391	40.0000	40.9
27 Benzoic acid	105	4.613	4.613	(0.951)	196034	40.0000	43.0(H)
28 1,2,4-Trichlorobenzene	180	4.795	4.795	(0.989)	343972	40.0000	38.4
30 Naphthalene	128	4.864	4.864	(1.003)	1071410	40.0000	37.3(Q)
204 alpha-Terpineol	59	4.838	4.838	(0.998)	354106	40.0000	36.0
31 4-Chloroaniline	127	4.875	4.875	(1.006)	497883	40.0000	39.9
32 Hexachlorobutadiene	225	4.928	4.928	(1.017)	213305	40.0000	39.4
33 4-Chloro-3-methylphenol	107	5.185	5.185	(1.069)	325058	40.0000	41.3
34 2-Methylnaphthalene	142	5.340	5.340	(1.101)	737542	40.0000	40.0
35 1-Methylnaphthalene	142	5.415	5.415	(1.117)	695929	40.0000	38.4
36 Hexachlorocyclopentadiene	237	5.447	5.447	(0.894)	121516	40.0000	34.0
205 2,3-Dichloroaniline	161	5.538	5.538	(0.909)	394580	40.0000	37.7
37 2,4,6-Trichlorophenol	196	5.528	5.528	(0.907)	221395	40.0000	39.2
38 2,4,5-Trichlorophenol	196	5.560	5.560	(0.912)	242060	40.0000	39.8
40 2-Chloronaphthalene	162	5.699	5.699	(0.935)	703515	40.0000	38.7
42 o-Nitroaniline	65	5.752	5.752	(0.944)	223053	40.0000	39.3
41 m-Nitroaniline	138	6.041	6.041	(0.991)	160966	40.0000	42.3
43 Dimethylphthalate	163	5.859	5.859	(0.961)	814618	40.0000	38.2
44 2,6-Dinitrotoluene	165	5.913	5.913	(0.970)	185488	40.0000	38.4
50 2,4-Dinitrotoluene	165	6.196	6.196	(1.017)	240405	40.0000	39.9
45 Acenaphthylene	152	5.998	5.998	(0.984)	1075805	40.0000	39.2
47 Acenaphthene	154	6.116	6.116	(1.004)	745492	40.0000	37.3
48 2,4-Dinitrophenol	184	6.111	6.111	(1.003)	87320	40.0000	43.4
49 Dibenzofuran	168	6.228	6.228	(1.022)	958390	40.0000	39.0
51 Diethylphthalate	149	6.335	6.335	(1.039)	837585	40.0000	38.3
52 4-Nitrophenol	139	6.127	6.127	(1.005)	132630	40.0000	44.3
53 Fluorene	166	6.464	6.464	(1.061)	823971	40.0000	38.7
54 4-Chlorophenylphenylether	204	6.442	6.442	(1.057)	375195	40.0000	37.4
55 2-Methyl-4,6-dinitrophenol	198	6.480	6.480	(0.916)	168059	40.0000	49.4
56 p-Nitroaniline	138	6.464	6.464	(1.061)	165733	40.0000	46.0
133 Diphenylamine	169	6.517	6.517	(0.921)	651520	40.0000	38.3
58 1,2-Diphenylhydrazine	77	6.549	6.549	(0.926)	830471	40.0000	37.5
61 4-Bromophenylphenylether	248	6.763	6.763	(0.956)	203209	40.0000	35.3
63 Hexachlorobenzene	284	6.822	6.822	(0.964)	210975	40.0000	36.7
65 Pentachlorophenol	266	6.940	6.940	(0.981)	123194	40.0000	41.4
206 n-Octadecane	57	6.918	6.918	(0.978)	711522	40.0000	37.5
68 Phenanthrene	178	7.089	7.089	(1.002)	1235271	40.0000	38.2
69 Anthracene	178	7.121	7.121	(1.007)	1158125	40.0000	37.0
72 Di-n-butylphthalate	149	7.357	7.357	(1.040)	1393010	40.0000	37.7
76 Fluoranthene	202	7.801	7.801	(1.103)	1153017	40.0000	39.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.945	7.945	(0.906)	1182358	40.0000	34.2
85 Butylbenzylphthalate	149	8.261	8.261	(0.942)	575706	40.0000	35.6
89 Benzo(a)anthracene	228	8.758	8.758	(0.999)	969483	40.0000	36.7
92 Chrysene	228	8.790	8.790	(1.002)	905364	40.0000	36.7
93 bis(2-Ethylhexyl)phthalate	149	8.630	8.630	(0.984)	805769	40.0000	36.2
94 Di-n-octylphthalate	149	9.191	9.191	(0.892)	1164521	40.0000	34.0
95 Benzo(b)fluoranthene	252	9.812	9.812	(0.952)	771408	40.0000	39.3
96 Benzo(k)fluoranthene	252	9.844	9.844	(0.955)	696710	40.0000	35.1
97 Benzo(a)pyrene	252	10.229	10.229	(0.993)	612909	40.0000	37.7
99 Indeno(1,2,3-cd)pyrene	276	12.037	12.037	(1.168)	536048	40.0000	38.5
100 Dibenzo(a,h)anthracene	278	12.042	12.042	(1.169)	441515	40.0000	38.8
101 Benzo(ghi)perylene	276	12.572	12.572	(1.220)	429475	40.0000	38.1
126 m-Dinitrobenzene	168	5.902	5.902	(0.968)	131560	40.0000	40.3
130 2,3,4,6-Tetrachlorophenol	232	6.303	6.303	(1.034)	187121	40.0000	36.3
143 Dinoseb	211	7.025	7.025	(0.993)	177407	40.0000	40.0
173 Carbazole	167	7.202	7.202	(1.018)	890330	40.0000	42.3
184 p-Benzoquinone	54	3.468	3.468	(0.871)	40369	40.0000	25.6
192 Methoxychlor	227	8.619	8.619	(0.983)	614438	40.0000	38.3
211 p-Toluidine	106	4.260	4.260	(1.070)	265601	40.0000	30.1
210 m-Toluidine	106	4.281	4.281	(1.075)	485025	40.0000	41.2
214 1,4-Dinitrobenzene	75	5.843	5.843	(0.959)	170549	40.0000	41.3
215 2-Ethoxyethanol	59	2.340	2.340	(0.588)	240806	40.0000	41.0
216 Methylenebis(2-chloroaniline)	231	8.683	8.683	(0.990)	133781	40.0000	48.6(Q)
179 Dibenzo(a,e)pyrene	302	16.706	16.706	(1.621)	165727	40.0000	29.4
26 Phthalic anhydride	104	5.383	5.383	(1.110)	206257	40.0000	57.0
M 222 Trichlorophenols	196				463455	80.0000	79.0
M 223 Tetrachlorophenols	232				187121	40.0000	36.3
M 224 Benzo(b,k)fluoranthene	252				1468118	80.0000	74.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD2.i/s031210.b/s2c1212.d
Date : 12-MAR-2010 18:54
Client ID: MEGAICV
Sample Info: IWBN100309-09.1|40PPM|1|SVMF|1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

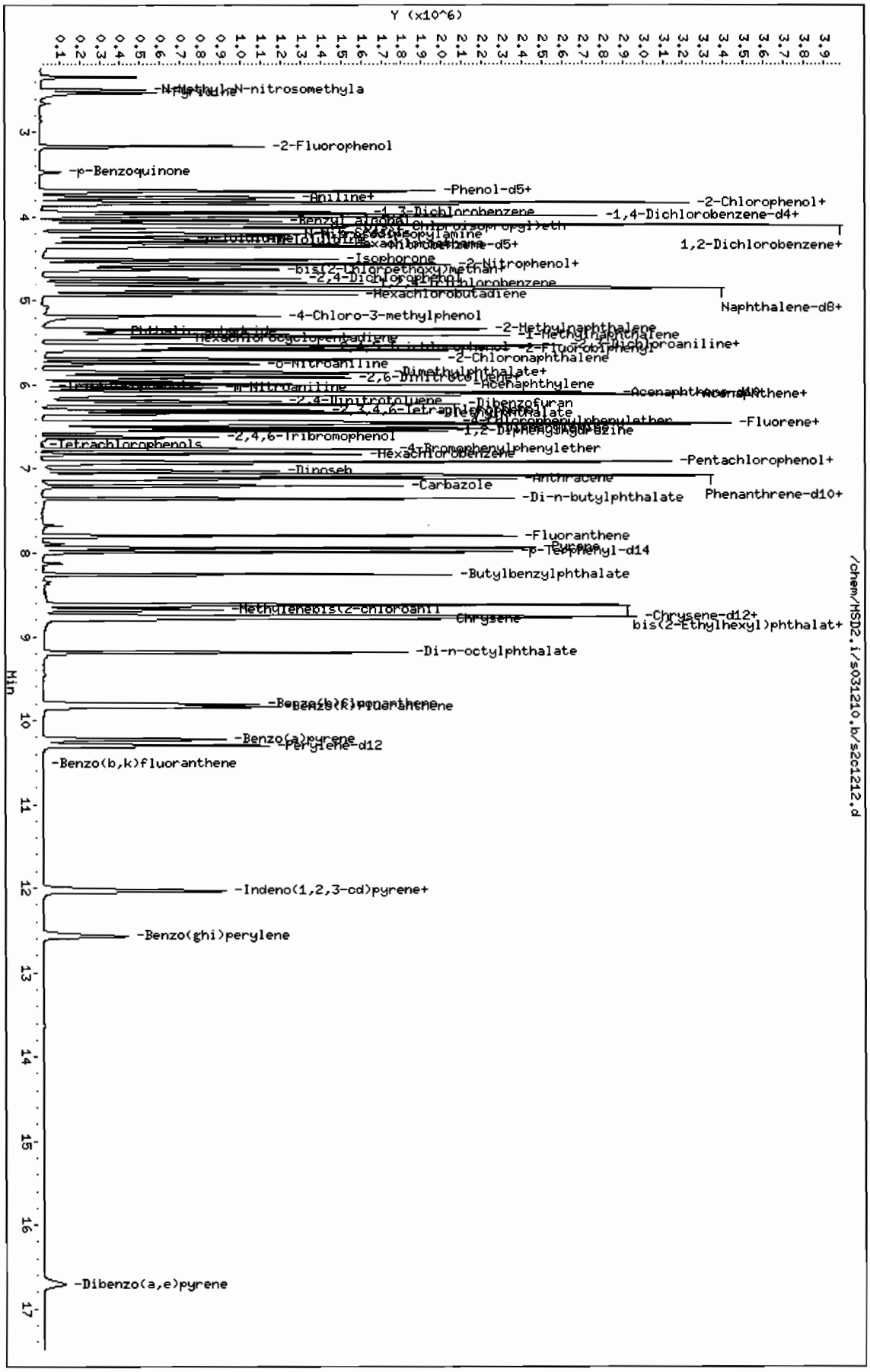

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 13-MAR-2010 00:00
Lab File ID: s2c1227.d Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 21:19
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86368	0.75564	0.75564	0.000	-12.50838	60.00000	Averaged
16 Acetophenone	1.37576	1.27079	1.27079	0.000	-7.62984	60.00000	Averaged
189 Caprolactam	0.08573	0.08566	0.08566	0.000	-0.08430	60.00000	Averaged
208 1,1'-Biphenyl	1.36982	1.31903	1.31903	0.000	-3.70836	60.00000	Averaged
207 Atrazine	0.04293	0.04369	0.04369	0.000	1.76064	60.00000	Averaged
77 Benzidine	0.33873	0.34309	0.34309	0.000	1.28761	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.26512	0.28321	0.28321	0.000	6.82159	60.00000	Averaged
102 1,4-Dioxane	0.34681	0.37068	0.37068	0.000	6.88370	60.00000	Averaged
103 Methyl methacrylate	0.20110	0.21548	0.21548	0.000	7.15166	60.00000	Averaged
104 Ethyl methacrylate	0.76185	0.80024	0.80024	0.000	5.03989	60.00000	Averaged
105 2-Picoline	1.18562	1.12632	1.12632	0.000	-5.00158	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45513	0.44655	0.44655	0.000	-1.88560	60.00000	Averaged
107 Methyl methanesulfonate	0.57842	0.59134	0.59134	0.000	2.23361	60.00000	Averaged
108 N-Nitrosodiethylamine	0.51094	0.49566	0.49566	0.000	-2.99036	60.00000	Averaged
109 Ethyl Methanesulfonate	0.63566	0.67502	0.67502	0.000	6.19142	60.00000	Averaged
110 Pentachloroethane	0.37569	0.42896	0.42896	0.000	14.17796	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.53211	0.49610	0.49610	0.000	-6.76619	60.00000	Averaged
113 N-Nitrosomorpholine	0.97127	0.96572	0.96572	0.000	-0.57150	60.00000	Averaged
114 o-Toluidine	1.89418	1.79540	1.79540	0.000	-5.21493	60.00000	Averaged
115 N-Nitrosopiperidine	0.13732	0.13231	0.13231	0.000	-3.64621	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.91646	0.89653	0.89653	0.000	-2.17525	60.00000	Averaged
118 2,6-Dichlorophenol	0.23643	0.22415	0.22415	0.000	-5.19240	60.00000	Averaged
119 Hexachloropropene	0.12163	0.15923	0.15923	0.000	30.90841	60.00000	Averaged
120 p-Phenylenediamine	0.21439	0.23161	0.23161	0.000	8.03359	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21777	0.20771	0.20771	0.000	-4.61876	60.00000	Averaged
122 Safrole	0.21234	0.21590	0.21590	0.000	1.67394	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.46025	0.44876	0.44876	0.000	-2.49607	60.00000	Averaged
124 Isosafrole	0.35814	0.40082	0.40082	0.000	11.91638	60.00000	Averaged
125 1,4-Naphthoquinone	0.33102	0.34506	0.34506	0.000	4.24213	60.00000	Averaged
127 Pentachlorobenzene	0.40528	0.38955	0.38955	0.000	-3.88134	60.00000	Averaged
128 1-Naphthylamine	0.93385	0.95763	0.95763	0.000	2.54649	60.00000	Averaged
129 2-Naphthylamine	1.00959	1.04476	1.04476	0.000	3.48365	60.00000	Averaged
131 5-Nitro-o-toluidine	0.26606	0.26753	0.26753	0.000	0.55219	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.13367	0.16141	0.16141	0.000	20.75009	60.00000	Averaged
137 Phenacetin	0.29810	0.30174	0.30174	0.000	1.22161	60.00000	Averaged
138 Diallate	0.26365	0.23898	0.23898	0.000	-9.35913	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i
Lab File ID: s2c1227.d
Analysis Type:
Lab Sample ID: WBN100218-08.1
Method: /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m

Injection Date: 13-MAR-2010 00:00
Init. Cal. Date(s): 12-MAR-2010 12-MAR-2010
Init. Cal. Times: 15:04 21:19
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.24728	0.26374	0.26374	0.000	6.65322	60.00000	Averaged
213 Trans Diallate	0.31018	0.28115	0.28115	0.000	-9.35913	60.00000	Averaged
140 4-Aminobiphenyl	0.60442	0.62924	0.62924	0.000	4.10653	60.00000	Averaged
141 Pentachloronitrobenzene	0.08460	0.08405	0.08405	0.000	-0.64552	60.00000	Averaged
142 Pronamide	0.30496	0.30856	0.30856	0.000	1.17857	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	45.34862	40.00000	0.01896	0.000	13.37156	60.00000	Linear
147 Methapyrilene	0.40497	0.44250	0.44250	0.000	9.26786	60.00000	Averaged
148 Isodrin	0.09920	0.08903	0.08903	0.000	-10.25242	60.00000	Averaged
149 Aramite	0.04916	0.04815	0.04815	0.000	-2.05353	60.00000	Averaged
150 Kepone	0.06534	0.05728	0.05728	0.000	-12.34233	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.38501	0.37365	0.37365	0.000	-2.95212	60.00000	Averaged
152 Chlorobenzilate	0.35608	0.32534	0.32534	0.000	-8.63249	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.50325	0.52227	0.52227	0.000	3.77811	60.00000	Averaged
155 2-Acetylaminofluorene	0.31776	0.33833	0.33833	0.000	6.47277	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.56755	0.51824	0.51824	0.000	-8.68907	60.00000	Averaged
158 3-Methylcholanthrene	0.40852	0.40827	0.40827	0.000	-0.06068	60.00000	Averaged

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s031210.b/s2c1227.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV
Inj Date : 13-MAR-2010 00:00
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100218-08.1|40 PPM|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s031210.b/MSD2-M8270AQA-031210.m
Meth Date : 15-Mar-2010 14:05 ann00964 Quant Type: ISTD
Cal Date : 12-MAR-2010 21:19 Cal File: s2c1219.d
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.982	3.982	(1.000)	327425	40.0000	
* 29 Naphthalene-d8	136	4.843	4.843	(1.000)	1276866	40.0000	
* 46 Acenaphthene-d10	164	6.089	6.089	(1.000)	725322	40.0000	
* 67 Phenanthrene-d10	188	7.068	7.068	(1.000)	1248188	40.0000	
* 91 Chrysene-d12	240	8.758	8.758	(1.000)	903803	40.0000	
* 98 Perylene-d12	264	10.288	10.288	(1.000)	599145	40.0000	
209 Benzaldehyde	77	3.704	3.704	(0.930)	247417	40.0000	35.0
16 Acetophenone	105	4.228	4.228	(1.062)	416090	40.0000	36.9
189 Caprolactam	113	5.116	5.116	(1.056)	109373	40.0000	40.0
208 1,1'-Biphenyl	154	5.667	5.667	(0.931)	956718	40.0000	38.5
207 Atrazine	173	6.833	6.833	(0.967)	54534	40.0000	40.7
77 Benzidine	184	7.844	7.844	(0.896)	310084	40.0000	40.5
90 3,3'-Dichlorobenzidine	252	8.683	8.683	(0.991)	255965	40.0000	42.7
102 1,4-Dioxane	88	2.345	2.345	(0.589)	121371	40.0000	42.8
103 Methyl methacrylate	100	2.335	2.335	(0.586)	70554	40.0000	42.9
104 Ethyl methacrylate	69	2.693	2.693	(0.676)	262019	40.0000	42.0
105 2-Picoline	93	2.885	2.885	(0.725)	368786	40.0000	38.0
106 N-Nitrosomethylethylamine	88	2.928	2.928	(0.735)	146212	40.0000	39.2
107 Methyl methanesulfonate	80	3.078	3.078	(0.773)	193620	40.0000	40.9
108 N-Nitrosodiethylamine	102	3.313	3.313	(0.832)	162291	40.0000	38.8
109 Ethyl Methanesulfonate	79	3.468	3.468	(0.871)	221018	40.0000	42.5
110 Pentachloroethane	167	3.805	3.805	(0.956)	140451	40.0000	45.7
111 N-Nitrosopyrrolidine	100	4.217	4.217	(1.059)	162437	40.0000	37.3(Q)
113 N-Nitrosomorpholine	56	4.239	4.239	(1.064)	316200	40.0000	39.8
114 o-Toluidine	106	4.255	4.255	(1.068)	587859	40.0000	37.9
115 N-Nitrosopiperidine	114	4.458	4.458	(0.920)	168944	40.0000	38.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.699	4.699	(0.970)	1144746	40.0000	39.1
118 2,6-Dichlorophenol	162	4.886	4.886	(1.009)	286211	40.0000	37.9
119 Hexachloropropene	213	4.918	4.918	(1.015)	203309	40.0000	52.4
120 p-Phenylenediamine	108	5.121	5.121	(1.057)	295737	40.0000	43.2
121 N-Nitrosodi-n-butylamine	84	5.089	5.089	(1.051)	265219	40.0000	38.2
122 Safrole	162	5.255	5.255	(1.085)	275669	40.0000	40.7
123 1,2,4,5-Tetrachlorobenzene	216	5.458	5.458	(0.896)	325498	40.0000	39.0
124 Isosafrole	162	5.624	5.624	(0.924)	290720	40.0000	44.8
125 1,4-Naphthoquinone	158	5.811	5.811	(0.954)	250282	40.0000	41.7
127 Pentachlorobenzene	250	6.202	6.202	(1.018)	282550	40.0000	38.4
128 1-Naphthylamine	143	6.277	6.277	(1.031)	694587	40.0000	41.0
129 2-Naphthylamine	143	6.330	6.330	(1.040)	757785	40.0000	41.4
131 5-Nitro-o-toluidine	152	6.453	6.453	(1.060)	194043	40.0000	40.2
136 1,3,5-Trinitrobenzene	75	6.667	6.667	(0.943)	201473	40.0000	48.3
137 Phenacetin	108	6.699	6.699	(0.948)	376632	40.0000	40.5(Q)
138 Diallate	86	6.688	6.688	(0.946)	298288	40.0000	36.2
212 Cis Diallate	86	6.747	6.747	(0.955)	49379	6.00000	6.4
213 Trans Diallate	86	6.688	6.688	(0.946)	298288	34.0000	30.8
140 4-Aminobiphenyl	169	6.929	6.929	(0.980)	785409	40.0000	41.6
141 Pentachloronitrobenzene	237	6.945	6.945	(0.983)	104915	40.0000	39.7
142 Pronamide	173	6.934	6.934	(0.981)	385139	40.0000	40.5
146 4-Nitroquinoline-1-oxide	101	7.533	7.533	(1.066)	23665	40.0000	45.3
147 Methapyrilene	58	7.544	7.544	(1.067)	552326	40.0000	43.7
148 Isodrin	193	7.710	7.710	(1.091)	111124	40.0000	35.9
149 Aramite	185	7.935	7.935	(1.123)	60098	40.0000	39.2
150 Kepone	272	8.373	8.373	(1.185)	71493	40.0000	35.1
151 p-(Dimethylamino)azobenzene	120	8.063	8.063	(0.921)	337704	40.0000	38.8
152 Chlorobenzilate	251	8.074	8.074	(0.922)	294042	40.0000	36.5
153 3,3'-Dimethylbenzidine	212	8.277	8.277	(0.945)	472026	40.0000	41.5
155 2-Acetylaminofluorene	181	8.464	8.464	(0.966)	305783	40.0000	42.6
157 7,12Dimethylbenz(a)anthracene	256	9.764	9.764	(0.949)	310498	40.0000	36.5
158 3-Methylcholanthrene	268	10.668	10.668	(1.037)	244613	40.0000	40.0(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s031210.b/s2cd1227.d
Date : 13-MAR-2010 00:00
Client ID: APICV
Sample Info: IWBN100218-08.1|40 PPM|1|SVMF|1|APICV
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

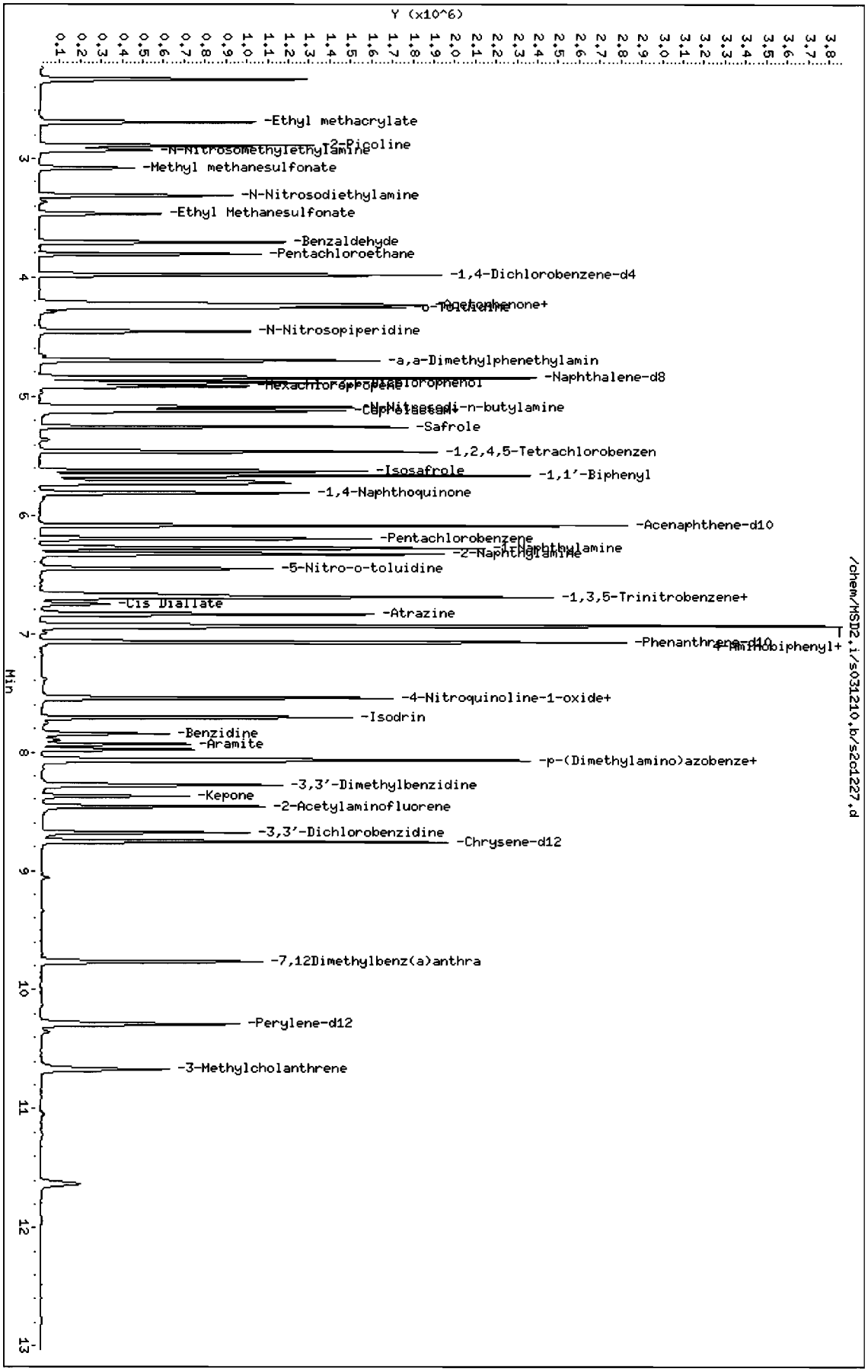

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 25-MAR-2010 14:58
Lab File ID: s2c2502.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	0.95245	0.87597	0.87597	0.000	-8.02990	60.00000	Averaged
$ 5 Phenol-d5	1.17285	1.12329	1.12329	0.000	-4.22593	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28950	0.29590	0.29590	0.000	2.20803	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.10050	1.03611	1.03611	0.000	-5.85130	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11831	0.11776	0.11776	0.000	-0.46867	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.72951	0.66477	0.66477	0.000	-8.87405	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.54740	0.49638	0.49638	0.000	-9.32043	60.00000	Averaged
2 Pyridine	0.77821	0.69896	0.69896	0.000	-10.18355	60.00000	Averaged
4 Aniline	0.57419	0.58228	0.58228	0.000	1.40795	60.00000	Averaged
6 Phenol	1.20923	1.12490	1.12490	0.001	-6.97393	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.03880	1.07326	1.07326	0.000	3.31782	60.00000	Averaged
8 2-Chlorophenol	1.07545	1.03256	1.03256	0.000	-3.98808	60.00000	Averaged
203 n-Decane	1.83655	2.20878	2.20878	0.000	20.26806	60.00000	Averaged
9 1,3-Dichlorobenzene	1.27994	1.26050	1.26050	0.000	-1.51895	60.00000	Averaged
11 1,4-Dichlorobenzene	1.35709	1.37572	1.37572	0.001	1.37246	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.25272	1.24127	1.24127	0.000	-0.91352	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.53958	2.99698	2.99698	0.000	18.01109	60.00000	Averaged
12 Benzyl alcohol	0.56959	0.37159	0.37159	0.000	-34.76072	60.00000	Averaged
15 o-Cresol	0.85386	0.84296	0.84296	0.000	-1.27671	60.00000	Averaged
18 m,p-Cresols	1.01734	1.01386	1.01386	0.000	-0.34193	60.00000	Averaged
17 N-Nitrosodipropylamine	0.75875	0.76825	0.76825	0.050	1.25207	60.00000	Averaged spcc
19 Hexachloroethane	0.53630	0.57290	0.57290	0.000	6.82288	60.00000	Averaged
21 Nitrobenzene	0.27250	0.26891	0.26891	0.000	-1.31734	60.00000	Averaged
22 Isophorone	0.49283	0.48953	0.48953	0.000	-0.66834	60.00000	Averaged
23 2-Nitrophenol	0.14268	0.13177	0.13177	0.001	-7.64653	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.25525	0.19650	0.19650	0.000	-23.01624	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.28272	0.26534	0.26534	0.000	-6.14789	60.00000	Averaged
26 2,4-Dichlorophenol	0.20229	0.19619	0.19619	0.001	-3.01326	20.00000	Averaged ccc
27 Benzoic acid	0.12590	0.12253	0.12253	0.000	-2.67806	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24729	0.24776	0.24776	0.000	0.18948	60.00000	Averaged
30 Naphthalene	0.79318	0.75315	0.75315	0.000	-5.04617	60.00000	Averaged
204 alpha-Terpineol	0.27145	0.29788	0.29788	0.000	9.73454	60.00000	Averaged
31 4-Chloroaniline	0.34451	0.33033	0.33033	0.000	-4.11593	60.00000	Averaged
32 Hexachlorobutadiene	0.14968	0.16097	0.16097	0.001	7.54477	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21753	0.21782	0.21782	0.001	0.13460	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.50978	0.50755	0.50755	0.000	-0.43711	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 25-MAR-2010 14:58
Lab File ID: s2c2502.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.50131	0.50005	0.50005	0.000	-0.25089	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.19037	0.13452	0.13452	0.050	-29.33550	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.55748	0.52809	0.52809	0.000	-5.27201	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.30076	0.28456	0.28456	0.001	-5.38472	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.32450	0.28045	0.28045	0.000	-13.57585	60.00000	Averaged
40 2-Chloronaphthalene	0.96947	0.91561	0.91561	0.000	-5.55517	60.00000	Averaged
42 o-Nitroaniline	0.30226	0.30252	0.30252	0.000	0.08406	60.00000	Averaged
41 m-Nitroaniline	32.62804	40.00000	0.16105	0.000	-18.42990	60.00000	Linear
43 Dimethylphthalate	1.13752	1.13653	1.13653	0.000	-0.08708	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25727	0.24975	0.24975	0.000	-2.92514	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32134	0.31968	0.31968	0.000	-0.51697	60.00000	Averaged
45 Acenaphthylene	1.46137	1.41170	1.41170	0.000	-3.39885	60.00000	Averaged
47 Acenaphthene	1.06534	1.05001	1.05001	0.001	-1.43850	20.00000	Averaged ccc
48 2,4-Dinitrophenol	36.54440	40.00000	0.09172	0.050	-8.63899	60.00000	Linear spcc
49 Dibenzofuran	1.30868	1.27016	1.27016	0.000	-2.94365	60.00000	Averaged
51 Diethylphthalate	1.16673	1.23151	1.23151	0.000	5.55218	60.00000	Averaged
52 4-Nitrophenol	0.15969	0.14103	0.14103	0.050	-11.69003	60.00000	Averaged spcc
53 Fluorene	1.13544	1.17191	1.17191	0.000	3.21176	60.00000	Averaged
54 4-Chlorophenylphenylether	0.53496	0.55146	0.55146	0.000	3.08523	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	33.26735	40.00000	0.07901	0.000	-16.83163	60.00000	Linear
56 p-Nitroaniline	32.55522	40.00000	0.14648	0.000	-18.61194	60.00000	Linear
133 Diphenylamine	0.52058	0.47999	0.47999	0.001	-7.79634	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.67800	0.63852	0.63852	0.000	-5.82362	60.00000	Averaged
61 4-Bromophenylphenylether	0.17599	0.16999	0.16999	0.000	-3.41352	60.00000	Averaged
63 Hexachlorobenzene	0.17573	0.17156	0.17156	0.000	-2.37341	60.00000	Averaged
65 Pentachlorophenol	0.09101	0.08300	0.08300	0.001	-8.80165	20.00000	Averaged ccc
206 n-Octadecane	0.58034	0.61624	0.61624	0.000	6.18718	60.00000	Averaged
68 Phenanthrene	0.98866	0.97868	0.97868	0.000	-1.00878	60.00000	Averaged
69 Anthracene	0.95642	0.96098	0.96098	0.000	0.47736	60.00000	Averaged
72 Di-n-butylphthalate	1.13150	1.22966	1.22966	0.000	8.67454	60.00000	Averaged
76 Fluoranthene	0.89301	0.98167	0.98167	0.001	9.92823	20.00000	Averaged ccc
79 Pyrene	1.30387	1.16251	1.16251	0.000	-10.84187	60.00000	Averaged
85 Butylbenzylphthalate	0.61006	0.61120	0.61120	0.000	0.18661	60.00000	Averaged
89 Benzo(a)anthracene	0.99826	0.94218	0.94218	0.000	-5.61732	60.00000	Averaged
92 Chrysene	0.93128	0.95053	0.95053	0.000	2.06689	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.84005	0.84837	0.84837	0.000	0.99125	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 25-MAR-2010 14:58
Lab File ID: s2c2502.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.90697	2.03760	2.03760	0.001	6.84984	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	1.09105	1.11687	1.11687	0.000	2.36699	60.00000	Averaged	
96 Benzo(k)fluoranthene	1.10378	1.16702	1.16702	0.000	5.72907	60.00000	Averaged	
97 Benzo(a)pyrene	0.90429	0.94719	0.94719	0.001	4.74411	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	0.77408	0.83314	0.83314	0.000	7.62959	60.00000	Averaged	
100 Dibenzo(a,h)anthracene	0.63240	0.69595	0.69595	0.000	10.04847	60.00000	Averaged	
101 Benzo(ghi)perylene	0.62698	0.65465	0.65465	0.000	4.41303	60.00000	Averaged	
126 m-Dinitrobenzene	0.17415	0.16451	0.16451	0.000	-5.53223	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.27504	0.26900	0.26900	0.000	-2.19545	60.00000	Averaged	
143 Dinoseb	34.99569	40.00000	0.11508	0.000	-12.51076	60.00000	Linear	
173 Carbazole	27.32328	40.00000	0.40514	0.000	-31.69179	60.00000	Linear	
184 p-Benzoquinone	34.91975	40.00000	0.18134	0.000	-12.70061	60.00000	Linear	
192 Methoxychlor	0.60564	0.59442	0.59442	0.000	-1.85274	60.00000	Averaged	
211 p-Toluidine	1.06068	1.11491	1.11491	0.000	5.11233	60.00000	Averaged	
210 m-Toluidine	1.41165	1.29877	1.29877	0.000	-7.99572	60.00000	Averaged	
214 1,4-Dinitrobenzene	0.22002	0.22926	0.22926	0.000	4.19859	60.00000	Averaged	
215 2-Ethoxyethanol	0.70592	0.61566	0.61566	0.000	-12.78708	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	32.21884	40.00000	0.07864	0.000	-19.45291	60.00000	Linear	
179 Dibenzo(a,e)pyrene	0.31408	0.32170	0.32170	0.000	2.42892	60.00000	Averaged	
26 Phthalic anhydride	45.67599	40.00000	0.11151	0.000	14.18998	60.00000	Linear	
M 222 Trichlorophenols	0.31263	0.28251	0.28251	0.000	-9.63579	60.00000	Averaged	
M 223 Tetrachlorophenols	0.27504	0.26900	0.26900	0.000	-2.19545	60.00000	Averaged	
M 224 Benzo(b,k)fluoranthene	1.09742	1.14195	1.14195	0.000	4.05779	60.00000	Averaged	

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Data file : /chem/MSD2.i/s032510.b/s2c2502.d
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGACVS
Inj Date : 25-MAR-2010 14:58
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100309-09.1|40PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.843	3.843	(1.000)	165409	40.0000	
* 29 Naphthalene-d8	136	4.704	4.704	(1.000)	774230	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	421050	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	753174	40.0000	
* 91 Chrysene-d12	240	8.603	8.603	(1.000)	671706	40.0000	
* 98 Perylene-d12	264	10.042	10.042	(1.000)	435860	40.0000	
$ 3 2-Fluorophenol	112	3.035	3.035	(0.790)	144893	40.0000	36.8
$ 5 Phenol-d5	99	3.565	3.565	(0.928)	185802	40.0000	38.3
$ 20 Nitrobenzene-d5	82	4.207	4.207	(0.894)	229091	40.0000	40.9
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	436254	40.0000	37.6
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.090)	49581	40.0000	39.8
$ 81 p-Terphenyl-d14	244	7.860	7.860	(0.914)	446531	40.0000	36.4
1 N-Methyl-N-nitrosomethylamine	74	2.351	2.351	(0.612)	82106	40.0000	36.3
2 Pyridine	79	2.383	2.383	(0.620)	115615	40.0000	35.9
4 Aniline	66	3.629	3.629	(0.944)	96314	40.0000	40.6
6 Phenol	94	3.570	3.570	(0.929)	186069	40.0000	37.2
7 bis(2-Chloroethyl) ether	63	3.645	3.645	(0.948)	177527	40.0000	41.3
8 2-Chlorophenol	128	3.709	3.709	(0.965)	170795	40.0000	38.4
203 n-Decane	43	3.693	3.693	(0.961)	365352	40.0000	48.1
9 1,3-Dichlorobenzene	146	3.811	3.811	(0.992)	208498	40.0000	39.4
11 1,4-Dichlorobenzene	146	3.854	3.854	(1.003)	227556	40.0000	40.5
13 1,2-Dichlorobenzene	146	3.955	3.955	(1.029)	205318	40.0000	39.6
14 bis(2-Chloroisopropyl)ether	45	3.987	3.987	(1.038)	495728	40.0000	47.2
12 Benzyl alcohol	108	3.912	3.912	(1.018)	61465	40.0000	26.1
15 o-Cresol	107	3.961	3.961	(1.031)	139433	40.0000	39.5
18 m,p-Cresols	107	4.062	4.062	(1.057)	167702	40.0000	39.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.084	4.084	(1.063)	127076	40.0000	40.5
19 Hexachloroethane	117	4.185	4.185	(1.089)	94762	40.0000	42.7
21 Nitrobenzene	77	4.217	4.217	(0.897)	208197	40.0000	39.5
22 Isophorone	82	4.372	4.372	(0.930)	379012	40.0000	39.7
23 2-Nitrophenol	139	4.431	4.431	(0.942)	102018	40.0000	36.9
24 2,4-Dimethylphenol	122	4.426	4.426	(0.941)	152137	40.0000	30.8
25 bis(2-Chloroethoxy)methane	93	4.490	4.490	(0.955)	205435	40.0000	37.5
26 2,4-Dichlorophenol	162	4.592	4.592	(0.976)	151897	40.0000	38.8
27 Benzoic acid	105	4.479	4.479	(0.952)	94865	40.0000	38.9
28 1,2,4-Trichlorobenzene	180	4.656	4.656	(0.990)	191820	40.0000	40.1
30 Naphthalene	128	4.720	4.720	(1.003)	583113	40.0000	38.0
204 alpha-Terpineol	59	4.699	4.699	(0.999)	230626	40.0000	43.9
31 4-Chloroaniline	127	4.736	4.736	(1.007)	255750	40.0000	38.4
32 Hexachlorobutadiene	225	4.784	4.784	(1.017)	124630	40.0000	43.0
33 4-Chloro-3-methylphenol	107	5.052	5.052	(1.074)	168644	40.0000	40.0
34 2-Methylnaphthalene	142	5.201	5.201	(1.106)	392964	40.0000	39.8
35 1-Methylnaphthalene	142	5.271	5.271	(1.121)	387157	40.0000	39.9
36 Hexachlorocyclopentadiene	237	5.303	5.303	(0.891)	56640	40.0000	28.3
205 2,3-Dichloroaniline	161	5.394	5.394	(0.906)	222351	40.0000	37.9
37 2,4,6-Trichlorophenol	196	5.389	5.389	(0.906)	119816	40.0000	37.8
38 2,4,5-Trichlorophenol	196	5.415	5.415	(0.910)	118082	40.0000	34.6
40 2-Chloronaphthalene	162	5.549	5.549	(0.933)	385518	40.0000	37.8
42 o-Nitroaniline	65	5.608	5.608	(0.942)	127374	40.0000	40.0
41 m-Nitroaniline	138	5.902	5.902	(0.992)	67808	40.0000	32.6
43 Dimethylphthalate	163	5.720	5.720	(0.961)	478534	40.0000	40.0
44 2,6-Dinitrotoluene	165	5.774	5.774	(0.970)	105156	40.0000	38.8
50 2,4-Dinitrotoluene	165	6.063	6.063	(1.019)	134602	40.0000	39.8
45 Acenaphthylene	152	5.854	5.854	(0.984)	594397	40.0000	38.6
47 Acenaphthene	154	5.977	5.977	(1.004)	442108	40.0000	39.4
48 2,4-Dinitrophenol	184	5.977	5.977	(1.004)	38618	40.0000	36.5
49 Dibenzofuran	168	6.089	6.089	(1.023)	534801	40.0000	38.8
51 Diethylphthalate	149	6.202	6.202	(1.042)	518528	40.0000	42.2
52 4-Nitrophenol	139	5.998	5.998	(1.008)	59379	40.0000	35.3
53 Fluorene	166	6.325	6.325	(1.063)	493433	40.0000	41.3
54 4-Chlorophenylphenylether	204	6.303	6.303	(1.059)	232193	40.0000	41.2
55 2-Methyl-4,6-dinitrophenol	198	6.341	6.341	(0.914)	59510	40.0000	33.3
56 p-Nitroaniline	138	6.325	6.325	(1.063)	61677	40.0000	32.6
133 Diphenylamine	169	6.383	6.383	(0.920)	361519	40.0000	36.9
58 1,2-Diphenylhydrazine	77	6.416	6.416	(0.924)	480913	40.0000	37.7
61 4-Bromophenylphenylether	248	6.630	6.630	(0.955)	128029	40.0000	38.6
63 Hexachlorobenzene	284	6.688	6.688	(0.964)	129217	40.0000	39.0
65 Pentachlorophenol	266	6.811	6.811	(0.982)	62511	40.0000	36.5
206 n-Octadecane	57	6.795	6.795	(0.979)	464138	40.0000	42.5
68 Phenanthrene	178	6.956	6.956	(1.002)	737120	40.0000	39.6
69 Anthracene	178	6.988	6.988	(1.007)	723787	40.0000	40.2
72 Di-n-butylphthalate	149	7.234	7.234	(1.042)	926145	40.0000	43.5
76 Fluoranthene	202	7.672	7.672	(1.106)	739366	40.0000	44.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.812	7.812	(0.908)	780864	40.0000	35.7
85 Butylbenzylphthalate	149	8.127	8.127	(0.945)	410547	40.0000	40.1
89 Benzo(a)anthracene	228	8.592	8.592	(0.999)	632868	40.0000	37.8
92 Chrysene	228	8.625	8.625	(1.002)	638479	40.0000	40.8
93 bis(2-Ethylhexyl)phthalate	149	8.485	8.485	(0.986)	569858	40.0000	40.4
94 Di-n-octylphthalate	149	9.010	9.010	(0.897)	888108	40.0000	42.7
95 Benzo(b)fluoranthene	252	9.582	9.582	(0.954)	486799	40.0000	40.9
96 Benzo(k)fluoranthene	252	9.614	9.614	(0.957)	508658	40.0000	42.3
97 Benzo(a)pyrene	252	9.978	9.978	(0.994)	412844	40.0000	41.9
99 Indeno(1,2,3-cd)pyrene	276	11.657	11.657	(1.161)	363132	40.0000	43.0
100 Dibenzo(a,h)anthracene	278	11.663	11.663	(1.161)	303335	40.0000	44.0
101 Benzo(ghi)perylene	276	12.155	12.155	(1.210)	285337	40.0000	41.8
126 m-Dinitrobenzene	168	5.758	5.758	(0.968)	69269	40.0000	37.8
130 2,3,4,6-Tetrachlorophenol	232	6.164	6.164	(1.036)	113264	40.0000	39.1
143 Dinoseb	211	6.897	6.897	(0.994)	86673	40.0000	35.0
173 Carbazole	167	7.073	7.073	(1.019)	305139	40.0000	27.3
184 p-Benzoquinone	54	3.335	3.335	(0.868)	29995	40.0000	34.9
192 Methoxychlor	227	8.469	8.469	(0.984)	399276	40.0000	39.2
211 p-Toluidine	106	4.121	4.121	(1.072)	184416	40.0000	42.0
210 m-Toluidine	106	4.142	4.142	(1.078)	214829	40.0000	36.8
214 1,4-Dinitrobenzene	75	5.704	5.704	(0.959)	96531	40.0000	41.7
215 2-Ethoxyethanol	59	2.195	2.195	(0.571)	101835	40.0000	34.9
216 Methylenebis(2-chloroaniline)	231	8.528	8.528	(0.991)	52822	40.0000	32.2
179 Dibenzo(a,e)pyrene	302	15.995	15.995	(1.593)	140218	40.0000	41.0
26 Phthalic anhydride	104	5.239	5.239	(1.114)	86335	40.0000	45.7
M 222 Trichlorophenols	196				237898	80.0000	72.3
M 223 Tetrachlorophenols	232				113264	40.0000	39.1
M 224 Benzo(b,k)fluoranthene	252				995457	80.0000	83.2

Data File: /chem/MSD2.i/s032510.b/s2c2502.d
Date : 25-MAR-2010 14:58
Client ID: MEGACVS
Sample Info: |WBN100309-09.1|40PPM|1|SVMF|1|MEGACVS

Instrument: MSD2.i
Operator: ACS1
Column phase: J&W DB-5MS
Column diameter: 0.20

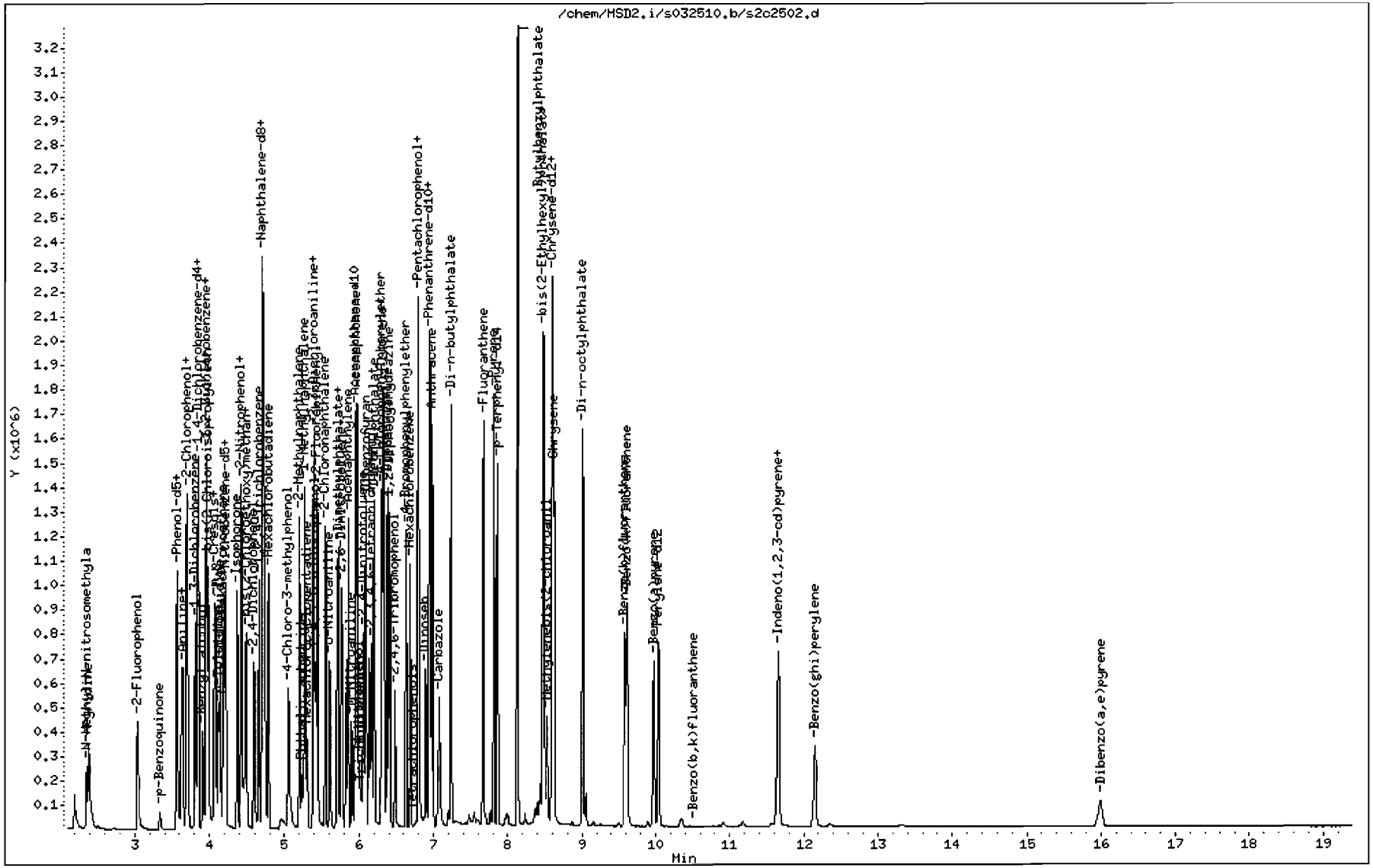

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 25-MAR-2010 15:24
Lab File ID: s2c2503.d Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Analysis Type: Init. Cal. Times: 15:04 05:54
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86368	0.82595	0.82595	0.000	-4.36827	60.00000	Averaged
16 Acetophenone	1.37576	1.39964	1.39964	0.000	1.73519	60.00000	Averaged
189 Caprolactam	0.08573	0.07947	0.07947	0.000	-7.29821	60.00000	Averaged
208 1,1'-Biphenyl	1.36982	1.28211	1.28211	0.000	-6.40347	60.00000	Averaged
207 Atrazine	0.04293	0.04181	0.04181	0.000	-2.62955	60.00000	Averaged
77 Benzidine	0.33873	0.14608	0.14608	0.000	-56.87488	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.26512	0.24055	0.24055	0.000	-9.26747	60.00000	Averaged
102 1,4-Dioxane	0.34681	0.28362	0.28362	0.000	-18.22082	60.00000	Averaged
103 Methyl methacrylate	0.20110	0.15934	0.15934	0.000	-20.76479	60.00000	Averaged
104 Ethyl methacrylate	0.76185	0.63337	0.63337	0.000	-16.86372	60.00000	Averaged
105 2-Picoline	1.18562	1.00087	1.00087	0.000	-15.58295	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45513	0.40020	0.40020	0.000	-12.07013	60.00000	Averaged
107 Methyl methanesulfonate	0.57842	0.58641	0.58641	0.000	1.38068	60.00000	Averaged
108 N-Nitrosodiethylamine	0.51094	0.47374	0.47374	0.000	-7.28013	60.00000	Averaged
109 Ethyl Methanesulfonate	0.63566	0.59128	0.59128	0.000	-6.98202	60.00000	Averaged
110 Pentachloroethane	0.37569	0.36987	0.36987	0.000	-1.54829	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.53211	0.50077	0.50077	0.000	-5.89023	60.00000	Averaged
113 N-Nitrosomorpholine	0.97127	1.15052	1.15052	0.000	18.45494	60.00000	Averaged
114 o-Toluidine	1.89418	1.77311	1.77311	0.000	-6.39156	60.00000	Averaged
115 N-Nitrosopiperidine	0.13732	0.12103	0.12103	0.000	-11.86331	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.91646	0.93605	0.93605	0.000	2.13699	60.00000	Averaged
118 2,6-Dichlorophenol	0.23643	0.22476	0.22476	0.000	-4.93539	60.00000	Averaged
119 Hexachloropropene	0.12163	0.11045	0.11045	0.000	-9.19574	60.00000	Averaged
120 p-Phenylenediamine	0.21439	0.19248	0.19248	0.000	-10.21880	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21777	0.20576	0.20576	0.000	-5.51376	60.00000	Averaged
122 Safrole	0.21234	0.20777	0.20777	0.000	-2.15308	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.46025	0.43121	0.43121	0.000	-6.30912	60.00000	Averaged
124 Isosafrole	0.35814	0.32101	0.32101	0.000	-10.36573	60.00000	Averaged
125 1,4-Naphthoquinone	0.33102	0.32063	0.32063	0.000	-3.13925	60.00000	Averaged
127 Pentachlorobenzene	0.40528	0.40364	0.40364	0.000	-0.40394	60.00000	Averaged
128 1-Naphthylamine	0.93385	0.89241	0.89241	0.000	-4.43697	60.00000	Averaged
129 2-Naphthylamine	1.00959	0.90471	0.90471	0.000	-10.38844	60.00000	Averaged
131 5-Nitro-o-toluidine	0.26606	0.24027	0.24027	0.000	-9.69205	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.13367	0.14012	0.14012	0.000	4.82440	60.00000	Averaged
137 Phenacetin	0.29810	0.28506	0.28506	0.000	-4.37536	60.00000	Averaged
138 Diallate	0.26365	0.23269	0.23269	0.000	-11.74303	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i
Lab File ID: s2c2503.d
Analysis Type:
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m

Injection Date: 25-MAR-2010 15:24
Init. Cal. Date(s): 12-MAR-2010 13-MAR-2010
Init. Cal. Times: 15:04 05:54

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.24728	0.20546	0.20546	0.000	-16.91481	60.00000	Averaged
213 Trans Diallate	0.31018	0.27375	0.27375	0.000	-11.74303	60.00000	Averaged
140 4-Aminobiphenyl	0.60442	0.48074	0.48074	0.000	-20.46231	60.00000	Averaged
141 Pentachloronitrobenzene	0.08460	0.09838	0.09838	0.000	16.28929	60.00000	Averaged
142 Pronamide	0.30496	0.33825	0.33825	0.000	10.91422	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	22.68609	40.00000	0.00835	0.000	-43.28478	60.00000	Linear
147 Methapyrilene	0.40497	0.37812	0.37812	0.000	-6.63103	60.00000	Averaged
148 Isodrin	0.09920	0.10423	0.10423	0.000	5.07078	60.00000	Averaged
149 Aramite	0.04916	0.05110	0.05110	0.000	3.95637	60.00000	Averaged
150 Kepone	0.06534	0.06230	0.06230	0.000	-4.64850	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.38501	0.33523	0.33523	0.000	-12.93056	60.00000	Averaged
152 Chlorobenzilate	0.35608	0.35158	0.35158	0.000	-1.26192	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.50325	0.35628	0.35628	0.000	-29.20420	60.00000	Averaged
155 2-Acetylaminofluorene	0.31776	0.30347	0.30347	0.000	-4.49685	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.56755	0.59483	0.59483	0.000	4.80722	60.00000	Averaged
158 3-Methylcholanthrene	0.40852	0.39808	0.39808	0.000	-2.55619	60.00000	Averaged

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s032510.b/s2c2503.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APCVS
Inj Date : 25-MAR-2010 15:24
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100218-08.1|40 PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:33 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.843	3.843	(1.000)	236448	40.0000	
* 29 Naphthalene-d8	136	4.704	4.704	(1.000)	987632	40.0000	
* 46 Acenaphthene-d10	164	5.950	5.950	(1.000)	625947	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	1166733	40.0000	
* 91 Chrysene-d12	240	8.592	8.592	(1.000)	946677	40.0000	
* 98 Perylene-d12	264	10.031	10.031	(1.000)	573253	40.0000	
209 Benzaldehyde	77	3.570	3.570	(0.929)	195294	40.0000	38.2
16 Acetophenone	105	4.094	4.094	(1.065)	330941	40.0000	40.7
189 Caprolactam	113	4.982	4.982	(1.059)	78490	40.0000	37.1
208 1,1'-Biphenyl	154	5.522	5.522	(0.928)	802531	40.0000	37.4
207 Atrazine	173	6.710	6.710	(0.967)	48776	40.0000	38.9
77 Benzidine	184	7.720	7.720	(0.899)	138287	40.0000	17.2
90 3,3'-Dichlorobenzidine	252	8.528	8.528	(0.993)	227726	40.0000	36.3
102 1,4-Dioxane	88	2.195	2.195	(0.571)	67061	40.0000	32.7
103 Methyl methacrylate	100	2.190	2.190	(0.570)	37676	40.0000	31.7
104 Ethyl methacrylate	69	2.559	2.559	(0.666)	149759	40.0000	33.2
105 2-Picoline	93	2.752	2.752	(0.716)	236653	40.0000	33.8
106 N-Nitrosomethylethylamine	88	2.794	2.794	(0.727)	94626	40.0000	35.2
107 Methyl methanesulfonate	80	2.949	2.949	(0.768)	138655	40.0000	40.6
108 N-Nitrosodiethylamine	102	3.179	3.179	(0.827)	112015	40.0000	37.1
109 Ethyl Methanesulfonate	79	3.335	3.335	(0.868)	139807	40.0000	37.2
110 Pentachloroethane	167	3.666	3.666	(0.954)	87456	40.0000	39.4
111 N-Nitrosopyrrolidine	100	4.083	4.083	(1.063)	118405	40.0000	37.6(Q)
113 N-Nitrosomorpholine	56	4.099	4.099	(1.067)	272037	40.0000	47.4
114 o-Toluidine	106	4.121	4.121	(1.072)	419249	40.0000	37.4
115 N-Nitrosopiperidine	114	4.319	4.319	(0.918)	119531	40.0000	35.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.559	4.559	(0.969)	924471	40.0000	40.8
118 2,6-Dichlorophenol	162	4.747	4.747	(1.009)	221979	40.0000	38.0
119 Hexachloropropene	213	4.773	4.773	(1.015)	109080	40.0000	36.3
120 p-Phenylenediamine	108	4.987	4.987	(1.060)	190100	40.0000	35.9
121 N-Nitrosodi-n-butylamine	84	4.950	4.950	(1.052)	203217	40.0000	37.8
122 Safrole	162	5.116	5.116	(1.088)	205199	40.0000	39.1
123 1,2,4,5-Tetrachlorobenzene	216	5.314	5.314	(0.893)	269917	40.0000	37.5
124 Isosafrole	162	5.485	5.485	(0.922)	200938	40.0000	35.8
125 1,4-Naphthoquinone	158	5.672	5.672	(0.953)	200697	40.0000	38.7
127 Pentachlorobenzene	250	6.062	6.062	(1.019)	252660	40.0000	39.8
128 1-Naphthylamine	143	6.143	6.143	(1.032)	558602	40.0000	38.2
129 2-Naphthylamine	143	6.196	6.196	(1.041)	566298	40.0000	35.8
131 5-Nitro-o-toluidine	152	6.319	6.319	(1.062)	150397	40.0000	36.1
136 1,3,5-Trinitrobenzene	75	6.544	6.544	(0.943)	163487	40.0000	41.9
137 Phenacetin	108	6.571	6.571	(0.947)	332587	40.0000	38.2(Q)
138 Diallate	86	6.554	6.554	(0.944)	271489	40.0000	35.3
212 Cis Diallate	86	6.619	6.619	(0.954)	35957	6.00000	5.0
213 Trans Diallate	86	6.554	6.554	(0.944)	271489	34.0000	30.0
140 4-Aminobiphenyl	169	6.801	6.801	(0.980)	560896	40.0000	31.8
141 Pentachloronitrobenzene	237	6.817	6.817	(0.982)	114784	40.0000	46.5
142 Pronamide	173	6.811	6.811	(0.981)	394646	40.0000	44.4
146 4-Nitroquinoline-1-oxide	101	7.410	7.410	(1.068)	9744	40.0000	22.7
147 Methapyrilene	58	7.421	7.421	(1.069)	441161	40.0000	37.3
148 Isodrin	193	7.581	7.581	(1.092)	121607	40.0000	42.0
149 Aramite	185	7.811	7.811	(1.126)	59623	40.0000	41.6
150 Kepone	272	8.223	8.223	(1.185)	72693	40.0000	38.1
151 p-(Dimethylamino)azobenzene	120	7.934	7.934	(0.923)	317354	40.0000	34.8
152 Chlorobenzilate	251	7.950	7.950	(0.925)	332836	40.0000	39.5
153 3,3'-Dimethylbenzidine	212	8.143	8.143	(0.948)	337284	40.0000	28.3
155 2-Acetylaminofluorene	181	8.320	8.320	(0.968)	287290	40.0000	38.2
157 7,12Dimethylbenz(a)anthracene	256	9.544	9.544	(0.951)	340990	40.0000	41.9
158 3-Methylcholanthrene	268	10.384	10.384	(1.035)	228198	40.0000	39.0(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s032510.b/s2c2503.d
Date : 25-MAR-2010 15:24
Client ID: APCVS
Sample Info: IWBN100218-08.1|40 PPM|1|SVMF|1|APCVS
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

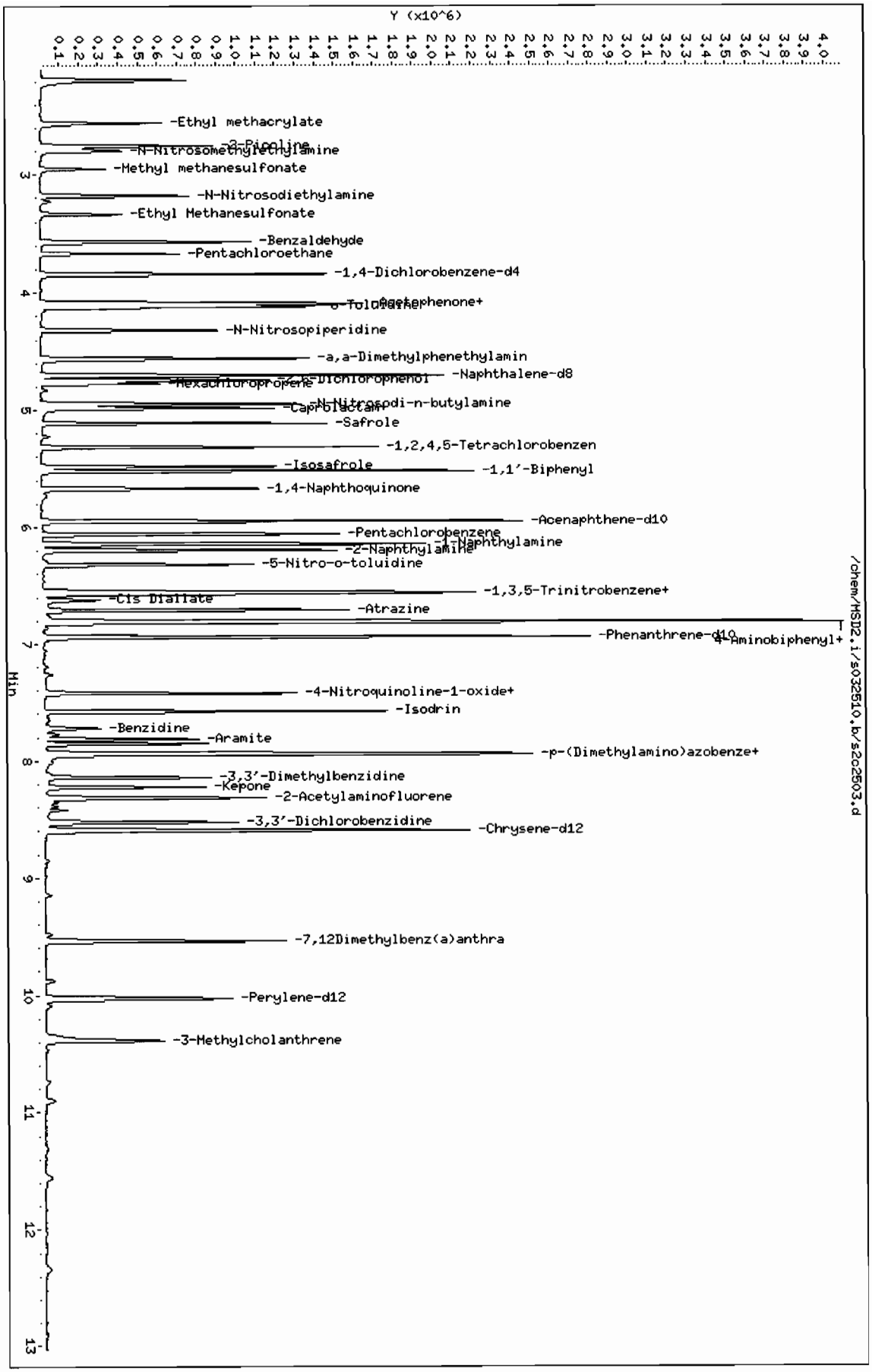

Page 1

QC Data

Data File: /chem/MSD2.i/s031210.b/s2c1201.d

Page 1

Date : 12-MAR-2010 14:32

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

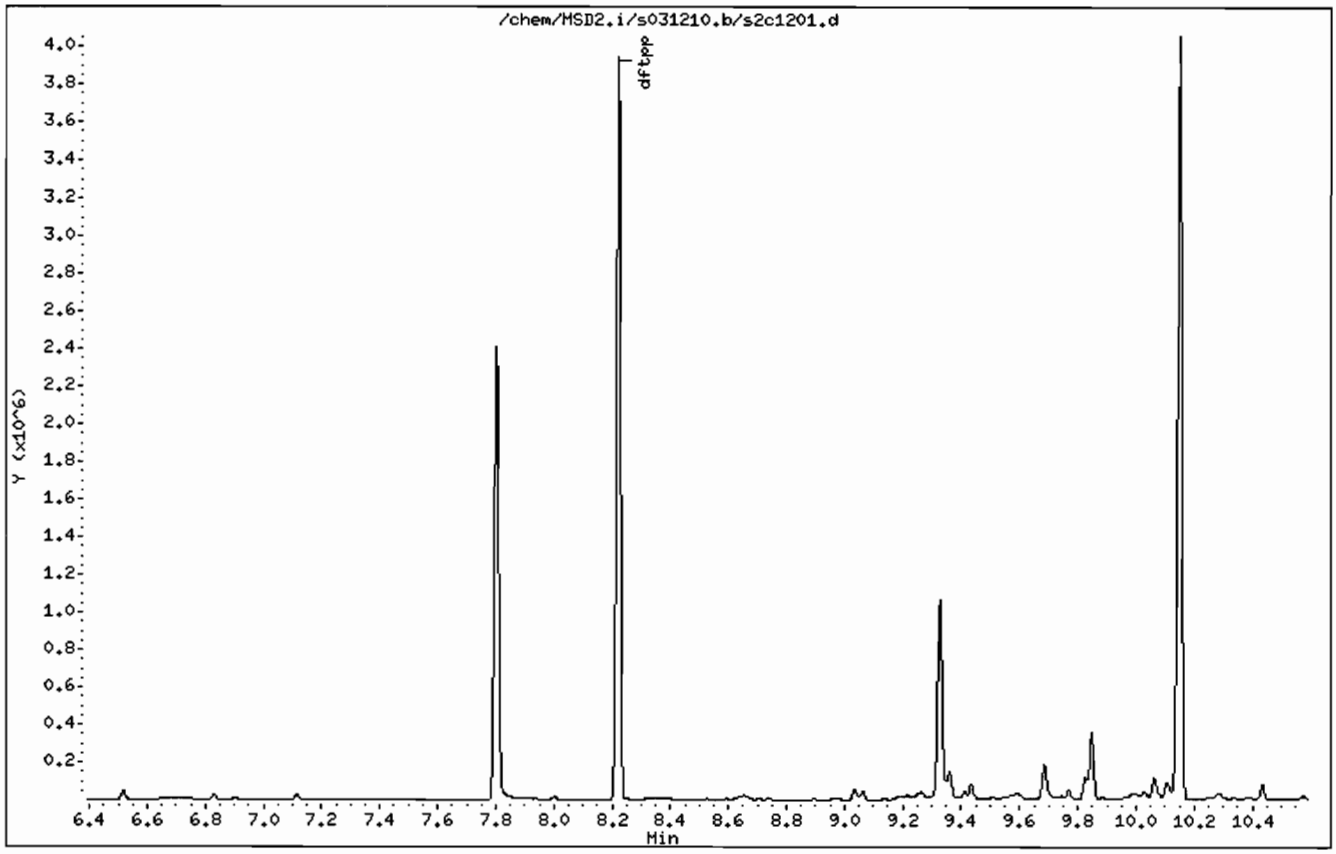

Data File: /chem/MSD2.i/s031210.b/s2c1201.d

Date : 12-MAR-2010 14:32

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

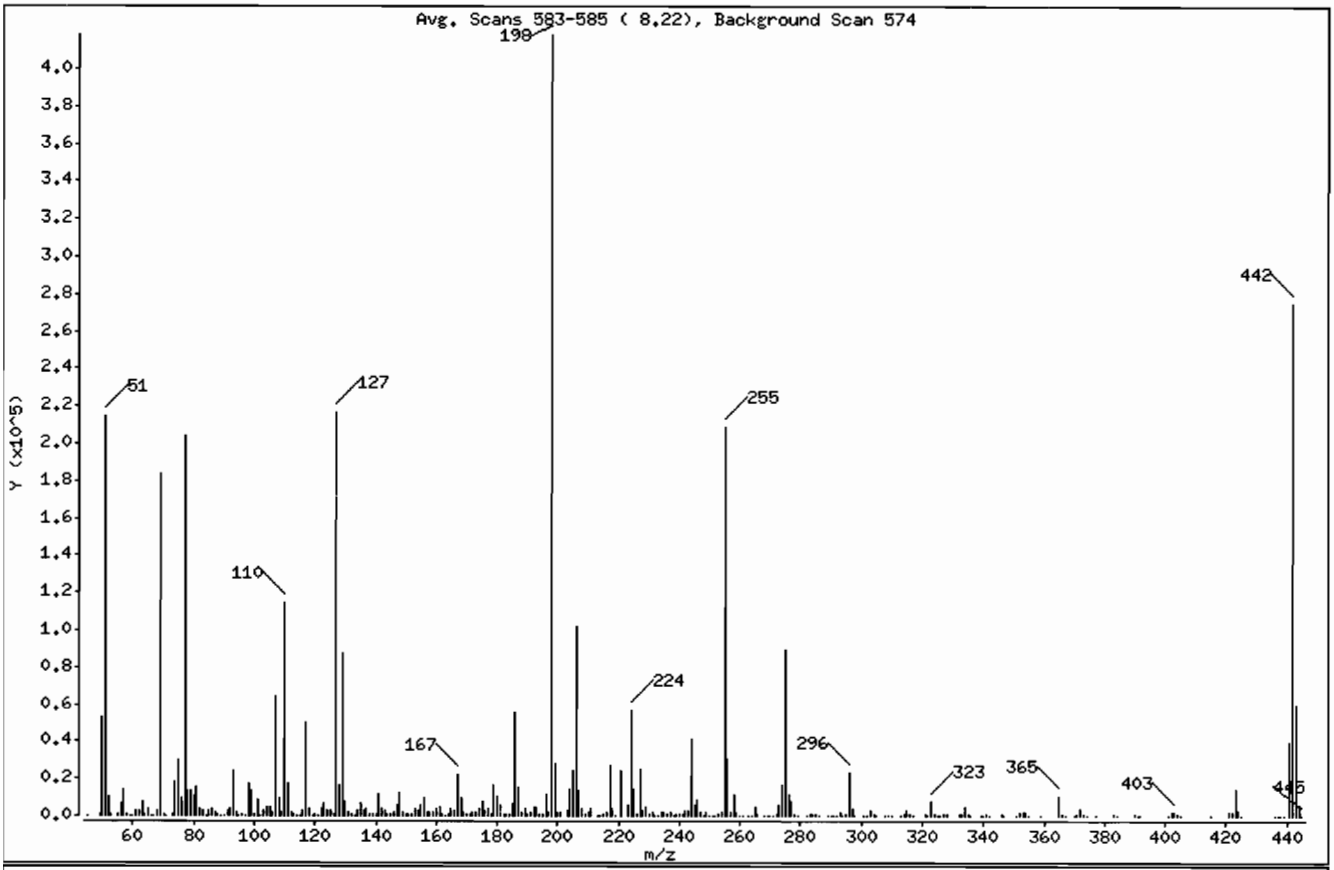

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	51.23
68	Less than 2.00% of mass 69	0.66 (1.50)
69	Mass 69 relative abundance	43.91
70	Less than 2.00% of mass 69	0.22 (0.50)
127	40.00 - 60.00% of mass 198	51.73
197	Less than 1.00% of mass 198	0.54
199	5.00 - 9.00% of mass 198	6.68
275	10.00 - 30.00% of mass 198	21.33
365	Greater than 1.00% of mass 198	2.44
441	Present, but less than mass 443	9.51
442	Greater than 40.00% of mass 198	65.73
443	17.00 - 23.00% of mass 442	14.16 (21.54)

Date : 12-MAR-2010 14:32

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c1201.d
Spectrum: Avg. Scans 583-585 (8.22), Background Scan 574
Location of Maximum: 198.00
Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	111	128.00	16105	207.00	13087	294.00	340
49.00	1232	129.00	87200	208.00	3366	295.00	506
50.00	53328	130.00	7430	209.00	1093	296.00	23416
51.00	214272	131.00	1539	210.00	1706	297.00	3588
52.00	10549	132.00	939	211.00	4158	298.00	195
53.00	487	133.00	251	213.00	272	301.00	290
55.00	832	134.00	2602	214.00	82	302.00	297
56.00	6559	135.00	7153	215.00	1062	303.00	2593
57.00	14416	136.00	2794	216.00	2280	304.00	688
58.00	574	137.00	3413	217.00	27360	305.00	141
59.00	214	138.00	835	218.00	3612	308.00	266
60.00	128	139.00	544	219.00	310	309.00	175
61.00	2499	140.00	1186	221.00	23584	310.00	263
62.00	2815	141.00	11269	223.00	5914	313.00	188
63.00	7676	142.00	3759	224.00	56600	314.00	1057
64.00	1029	143.00	2548	225.00	14894	315.00	2589
65.00	3643	144.00	564	226.00	1401	316.00	1393
66.00	227	145.00	550	227.00	24744	317.00	244
67.00	249	146.00	1785	228.00	3284	321.00	907
68.00	2751	147.00	5698	229.00	4822	322.00	417
69.00	183616	148.00	12040	230.00	606	323.00	7352
70.00	924	149.00	2352	231.00	2082	324.00	1433
71.00	69	150.00	590	232.00	344	325.00	163
73.00	1326	151.00	1386	233.00	452	326.00	205
74.00	18456	152.00	915	234.00	1620	327.00	1409
75.00	30256	153.00	3731	235.00	1697	328.00	800
76.00	9563	154.00	2755	236.00	1243	332.00	529
77.00	203648	155.00	6002	237.00	1721	333.00	698
78.00	13270	156.00	9198	238.00	174	334.00	4633
79.00	13512	157.00	1778	239.00	837	335.00	1148
80.00	10545	158.00	2068	240.00	582	336.00	129
81.00	15127	159.00	1680	241.00	1318	339.00	36
82.00	3756	160.00	3406	242.00	2859	340.00	35
83.00	3210	161.00	4970	243.00	2882	341.00	750
84.00	283	162.00	1386	244.00	41656	342.00	198

Date : 12-MAR-2010 14:32

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c1201.d
Spectrum: Avg. Scans 583-585 (8.22), Background Scan 574
Location of Maximum: 198.00
Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
85.00	2708	163.00	351	245.00	5634	346.00	1433
86.00	4261	164.00	594	246.00	8289	347.00	279
87.00	1859	165.00	4127	247.00	1512	351.00	89
88.00	737	166.00	3102	248.00	396	352.00	2169
89.00	409	167.00	21928	249.00	1500	353.00	1448
90.00	33	168.00	9147	250.00	274	354.00	2178
91.00	3326	169.00	1600	251.00	362	355.00	446
92.00	3744	170.00	833	252.00	354	359.00	204
93.00	23560	171.00	791	253.00	954	365.00	10190
94.00	1638	172.00	1833	254.00	1580	366.00	1326
95.00	431	173.00	2299	255.00	208832	367.00	69
96.00	1044	174.00	4053	256.00	30520	370.00	245
97.00	353	175.00	8142	257.00	2349	371.00	659
98.00	17640	176.00	2587	258.00	11879	372.00	4217
99.00	13822	177.00	4010	259.00	1703	373.00	973
100.00	1267	178.00	1325	260.00	329	374.00	71
101.00	8433	179.00	16023	261.00	399	377.00	73
102.00	446	180.00	10416	263.00	145	383.00	1032
103.00	2592	181.00	5383	264.00	341	384.00	293
104.00	5157	182.00	761	265.00	4795	390.00	534
105.00	4954	183.00	489	266.00	713	391.00	366
106.00	1577	184.00	1375	268.00	265	392.00	291
107.00	64696	185.00	6858	269.00	39	401.00	207
108.00	10050	186.00	56160	270.00	297	402.00	1528
109.00	1764	187.00	15585	271.00	433	403.00	2384
110.00	114096	188.00	1641	272.00	551	404.00	798
111.00	17488	189.00	3417	273.00	5795	405.00	91
112.00	2390	190.00	598	274.00	15910	415.00	123
113.00	762	191.00	1833	275.00	89224	421.00	1870
114.00	188	192.00	4782	276.00	11921	422.00	1814
115.00	216	193.00	5187	277.00	7262	423.00	14591
116.00	3185	194.00	1094	278.00	1035	424.00	2911
117.00	49888	195.00	806	279.00	226	425.00	233
118.00	3469	196.00	11999	282.00	142	436.00	76
119.00	443	197.00	2241	283.00	690	437.00	117

Date : 12-MAR-2010 14:32

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c1201.d
Spectrum: Avg. Scans 583-585 (8.22), Background Scan 574
Location of Maximum: 198.00
Number of points: 311

m/z	Y	m/z	Y	m/z	Y	m/z	Y
120.00	823	198.00	418304	284.00	641	438.00	77
121.00	272	199.00	27952	285.00	1258	439.00	437
122.00	4046	200.00	2119	286.00	201	441.00	39784
123.00	6733	201.00	2001	289.00	268	442.00	274944
124.00	2787	203.00	2988	290.00	239	443.00	59232
125.00	2776	204.00	14572	291.00	177	444.00	5408
126.00	814	205.00	24104	292.00	278	445.00	225
127.00	216384	206.00	101472	293.00	1773		

Data File: /chem/MSD2.i/s032510.b/s2c2501.d

Date : 25-MAR-2010 14:45

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

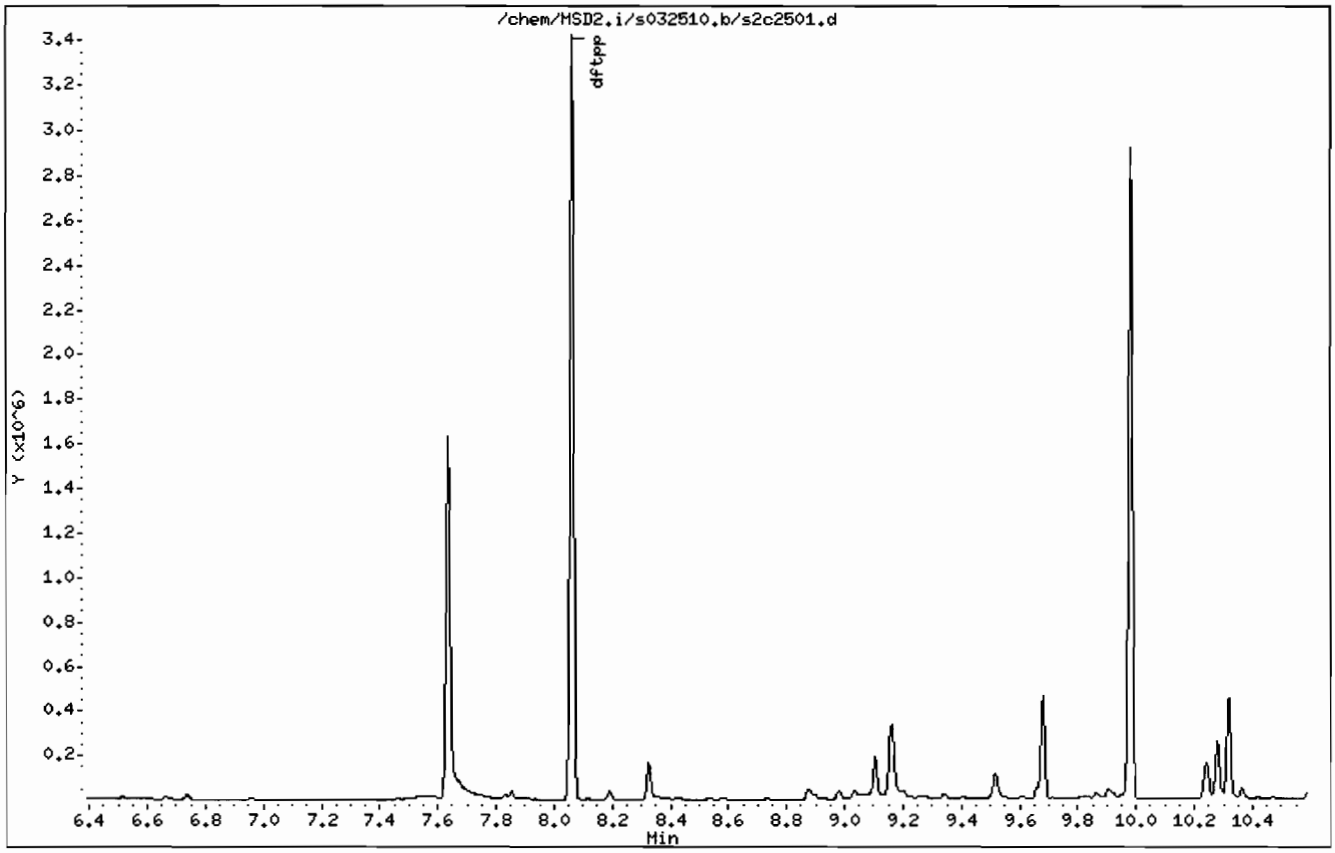

Data File: /chem/HSD2.i/s032510.b/s2c2501.d

Date : 25-MAR-2010 14:45

Client ID: DFTPP

Instrument: HSD2.i

Sample Info: |WBN100306-01,2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

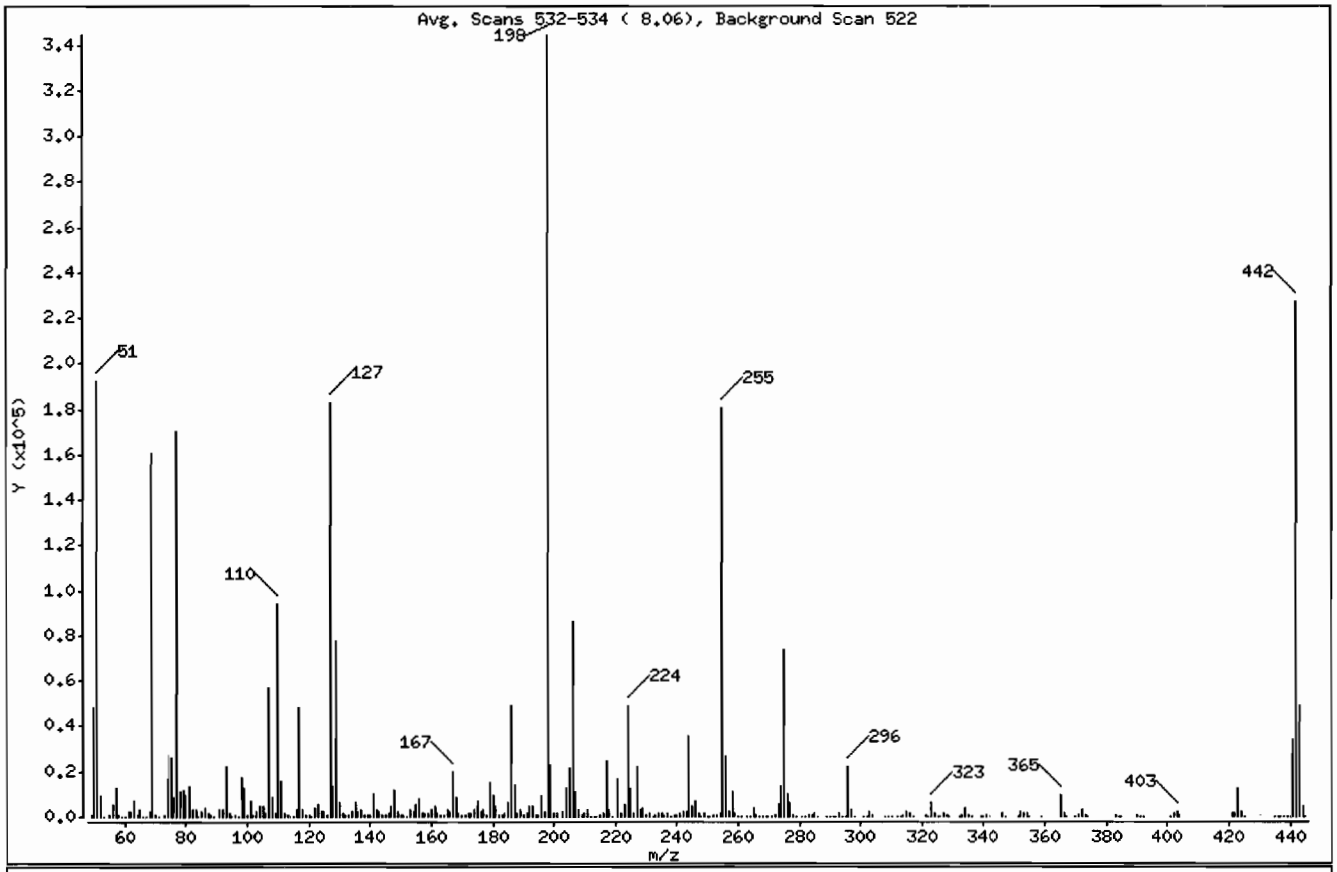

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	55.75
68	Less than 2.00% of mass 69	0.64 (1.37)
69	Mass 69 relative abundance	46.70
70	Less than 2.00% of mass 69	0.19 (0.40)
127	40.00 - 60.00% of mass 198	53.20
197	Less than 1.00% of mass 198	0.67
199	5.00 - 9.00% of mass 198	6.77
275	10.00 - 30.00% of mass 198	21.39
365	Greater than 1.00% of mass 198	2.68
441	Present, but less than mass 443	9.91
442	Greater than 40.00% of mass 198	65.97
443	17.00 - 23.00% of mass 442	14.32 (21.70)

Date : 25-MAR-2010 14:45

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c2501.d
Spectrum: Avg. Scans 532-534 (8.06), Background Scan 522
Location of Maximum: 198.00
Number of points: 314

m/z	Y	m/z	Y	m/z	Y	m/z	Y
49.00	998	131.00	1389	211.00	3267	295.00	370
50.00	48552	132.00	632	212.00	209	296.00	22216
51.00	192000	133.00	451	213.00	232	297.00	2940
52.00	9503	134.00	2471	214.00	35	298.00	174
53.00	388	135.00	6506	215.00	902	301.00	288
55.00	776	136.00	2553	216.00	1979	302.00	366
56.00	5672	137.00	2896	217.00	24800	303.00	2490
57.00	12487	138.00	577	218.00	2955	304.00	702
58.00	552	139.00	441	219.00	273	308.00	326
59.00	230	140.00	947	221.00	16848	309.00	183
60.00	205	141.00	10142	222.00	1390	310.00	277
61.00	2343	142.00	3117	223.00	5315	312.00	70
62.00	2567	143.00	2437	224.00	48952	313.00	184
63.00	6987	144.00	683	225.00	12273	314.00	1030
64.00	1033	145.00	574	226.00	1388	315.00	2540
65.00	3264	146.00	1680	227.00	22168	316.00	1391
66.00	280	147.00	5040	228.00	2925	317.00	161
67.00	212	148.00	11805	229.00	4000	321.00	587
68.00	2211	149.00	2263	230.00	604	322.00	291
69.00	160832	150.00	546	231.00	1524	323.00	6650
70.00	647	151.00	1119	232.00	364	324.00	1250
71.00	169	152.00	226	233.00	450	325.00	72
73.00	1088	153.00	3104	234.00	1325	326.00	122
74.00	16251	154.00	2566	235.00	1508	327.00	1276
75.00	25800	155.00	5587	236.00	1050	328.00	639
76.00	8644	156.00	8050	237.00	1494	329.00	75
77.00	170560	157.00	1609	238.00	244	332.00	381
78.00	11437	158.00	1937	239.00	886	333.00	711
79.00	12152	159.00	1409	240.00	737	334.00	4104
80.00	9358	160.00	3069	241.00	1219	335.00	1018
81.00	13144	161.00	4464	242.00	2558	336.00	122
82.00	3063	162.00	1411	243.00	2615	339.00	34
83.00	3023	163.00	467	244.00	35304	340.00	75
84.00	304	164.00	510	245.00	4651	341.00	760
85.00	2077	165.00	3343	246.00	7334	342.00	224

Date : 25-MAR-2010 14:45

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100306-01.2|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c2501.d
Spectrum: Avg. Scans 532-534 (8.06), Background Scan 522
Location of Maximum: 198.00
Number of points: 314

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	3611	166.00	2658	247.00	1448	346.00	1583
87.00	1698	167.00	19456	248.00	330	347.00	237
88.00	669	168.00	8706	249.00	1325	351.00	135
89.00	334	169.00	1454	250.00	281	352.00	1988
91.00	3048	170.00	638	251.00	389	353.00	1368
92.00	3124	171.00	789	252.00	460	354.00	1880
93.00	22008	172.00	1783	253.00	935	355.00	376
94.00	1451	173.00	1940	254.00	1434	359.00	75
95.00	332	174.00	3496	255.00	180544	365.00	9239
96.00	884	175.00	7415	256.00	26672	366.00	1352
97.00	335	176.00	2086	257.00	2014	367.00	41
98.00	17096	177.00	3509	258.00	10994	370.00	148
99.00	12292	178.00	1173	259.00	1926	371.00	539
100.00	1074	179.00	14861	260.00	326	372.00	3460
101.00	7270	180.00	9199	261.00	309	373.00	791
102.00	423	181.00	4437	263.00	113	374.00	121
103.00	2456	182.00	656	264.00	354	383.00	897
104.00	4504	183.00	415	265.00	4345	384.00	190
105.00	4732	184.00	1359	266.00	633	385.00	116
106.00	1274	185.00	6619	267.00	144	390.00	449
107.00	56784	186.00	49000	268.00	31	391.00	285
108.00	8394	187.00	14201	269.00	34	392.00	180
109.00	1385	188.00	1447	270.00	247	401.00	223
110.00	94568	189.00	3351	271.00	362	402.00	1279
111.00	15568	190.00	505	272.00	511	403.00	1998
112.00	1946	191.00	1534	273.00	5171	404.00	672
113.00	659	192.00	4361	274.00	13411	421.00	1601
114.00	131	193.00	4439	275.00	73664	422.00	1542
115.00	236	194.00	935	276.00	9955	423.00	12595
116.00	2909	195.00	721	277.00	6408	424.00	2359
117.00	48648	196.00	9855	278.00	1016	425.00	247
118.00	3428	197.00	2299	279.00	146	435.00	37
119.00	487	198.00	344384	281.00	34	436.00	311
120.00	633	199.00	23312	282.00	186	437.00	167
121.00	253	200.00	1927	283.00	888	438.00	227

Date : 25-MAR-2010 14:45

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100306-01,2|50PPM|1|SVMF|1|DFTPP|

Operator: ACS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c2501.d
Spectrum: Avg. Scans 532-534 (8.06), Background Scan 522
Location of Maximum: 198.00
Number of points: 314

m/z	Y	m/z	Y	m/z	Y	m/z	Y
122.00	3803	201.00	1596	284.00	439	439.00	395
123.00	5902	203.00	2700	285.00	1230	440.00	304
124.00	2677	204.00	12945	286.00	190	441.00	34128
125.00	2421	205.00	21512	289.00	262	442.00	227200
126.00	654	206.00	86224	290.00	232	443.00	49312
127.00	183168	207.00	11146	291.00	157	444.00	4434
128.00	13684	208.00	3283	292.00	316	445.00	240
129.00	77376	209.00	1128	293.00	1681		
130.00	6728	210.00	1679	294.00	296		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072982**				
Client Sample:	**QC for batch 965978**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965978**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 16:05**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2505-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072982**				
Client Sample:	**QC for batch 965978**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 965978**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 16:05**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2505-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.87	447	ug/kg		JA

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Data file : /chem/MSD2.i/s032510.b/s2c2505-2.d
Lab Smp Id: 1202072982 Client Smp ID: SBLK01
Inj Date : 25-MAR-2010 16:05
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202072982|965979|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2319.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.838	3.843	(1.000)	136360	40.0000	
* 29 Naphthalene-d8	136	4.699	4.704	(1.000)	529830	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	324342	40.0000	
* 67 Phenanthrene-d10	188	6.934	6.940	(1.000)	599949	40.0000	
* 91 Chrysene-d12	240	8.592	8.603	(1.000)	460744	40.0000	
* 98 Perylene-d12	264	10.026	10.042	(1.000)	288448	40.0000	
$ 3 2-Fluorophenol	112	3.041	3.035	(0.792)	243518	75.0002	2500
$ 5 Phenol-d5	99	3.559	3.565	(0.928)	281480	70.4007	2350
$ 20 Nitrobenzene-d5	82	4.196	4.207	(0.893)	143591	37.4453	1250
$ 39 2-Fluorobiphenyl	172	5.437	5.442	(0.915)	297797	33.3723	1110
$ 60 2,4,6-Tribromophenol	329	6.480	6.485	(1.090)	85032	88.6375	2950
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	423750	50.4289	1680

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Data file : /chem/MSD2.i/s032510.b/s2c2505-2.d
Lab Smp Id: 1202072982 Client Smp ID: SBLK01
Inj Date : 25-MAR-2010 16:05
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202072982|965979|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2319.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.838	1001905	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.875	335873	13.4093812	447	0		0	10

Data File: /chem/MSD2.i/s032510.b/s2c2505-2.d

Page 1

Date : 25-MAR-2010 16:05

Client ID: SBLK01

Instrument: MSD2.i

Sample Info: |1202072982|965979|1|SVMI1|MB

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

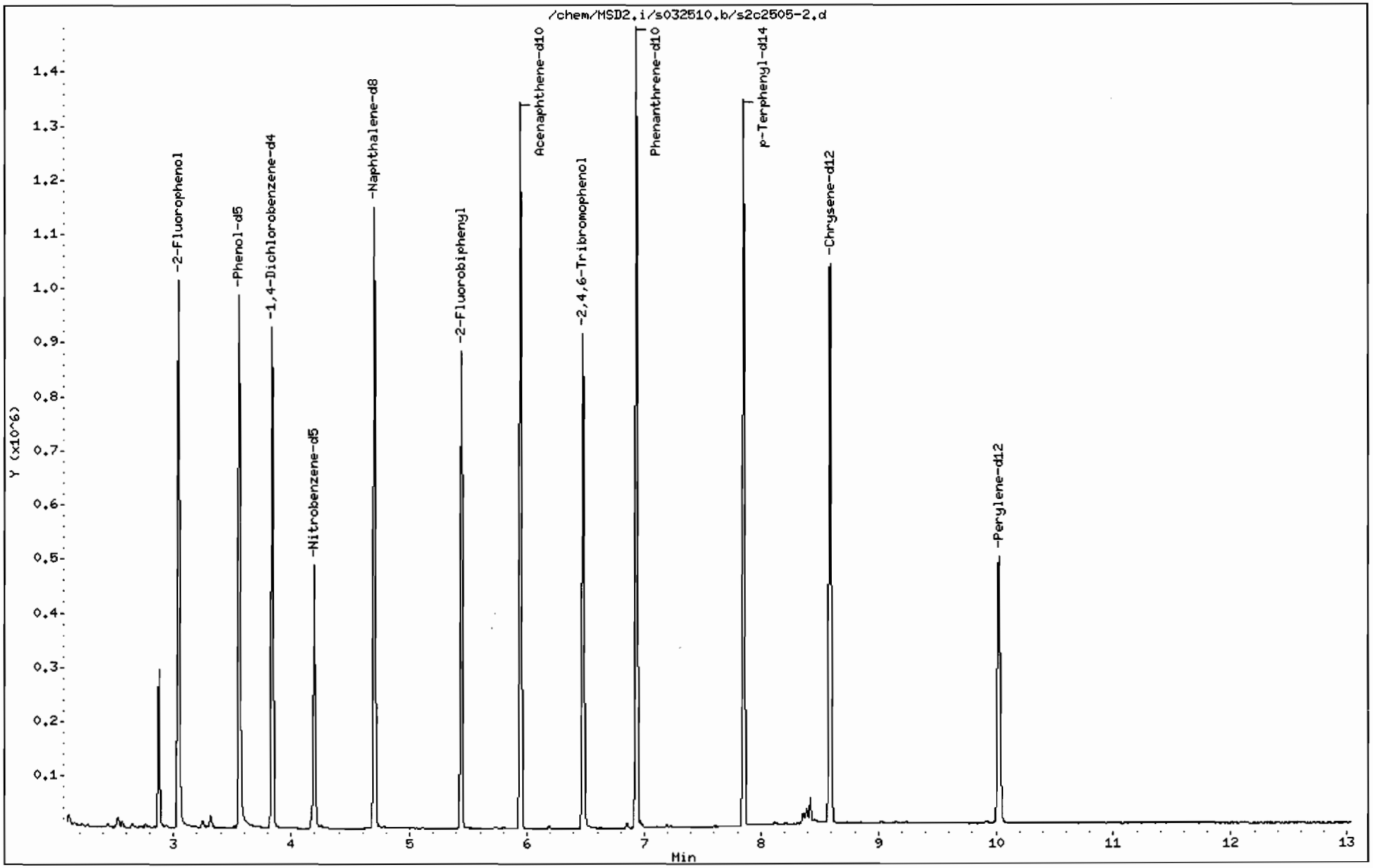

Data File: /chem/MSD2.i/s032510.b/s2c2505-2.d

Date : 25-MAR-2010 16:05

Client ID: SBLK01

Instrument: MSD2.i

Sample Info: |1202072982|965979|1|SWM|1|MB

Volume Injected (uL): 0.5

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
Diacetamide	625-77-4	NIST05.L	3936	9	C4H7NO2	101

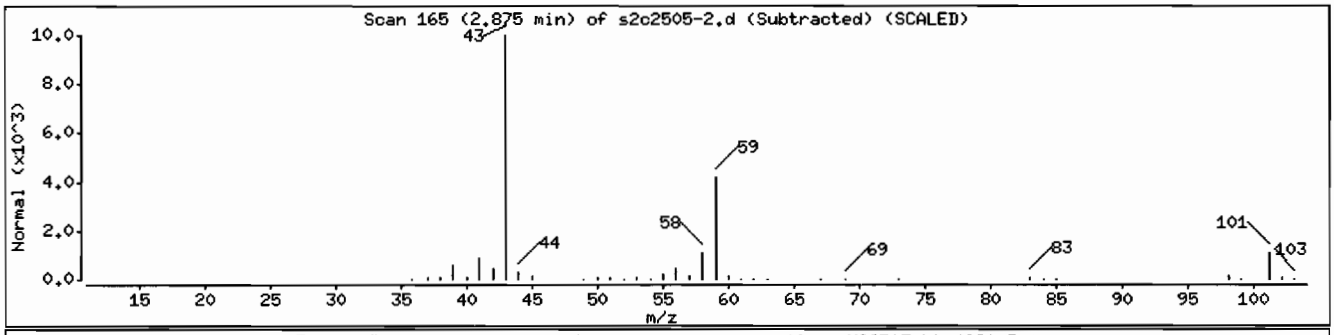

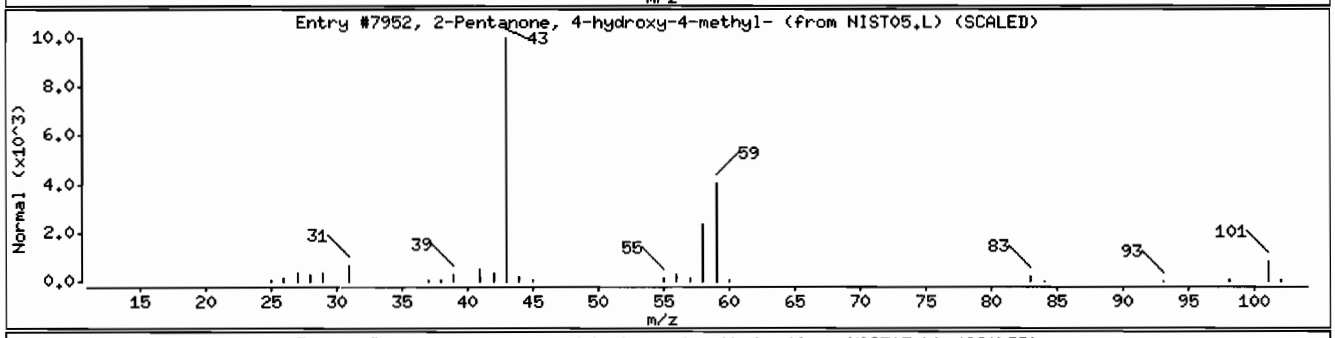

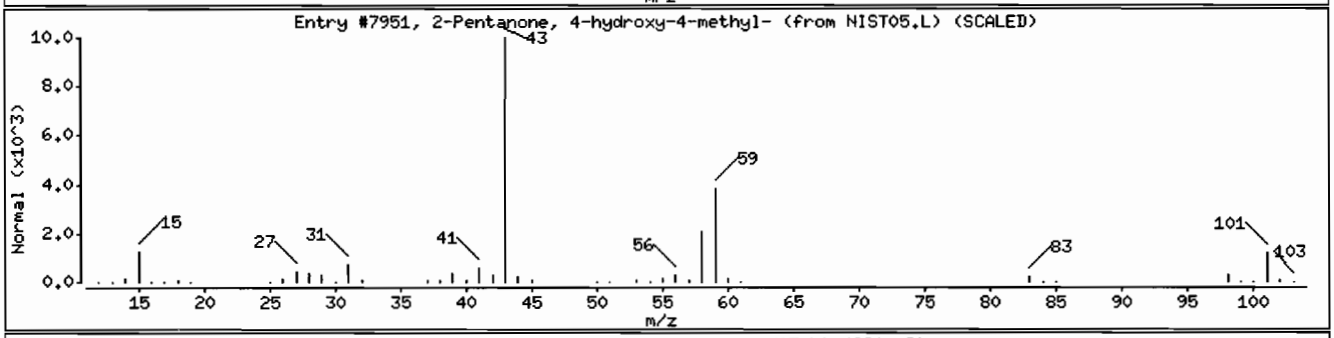

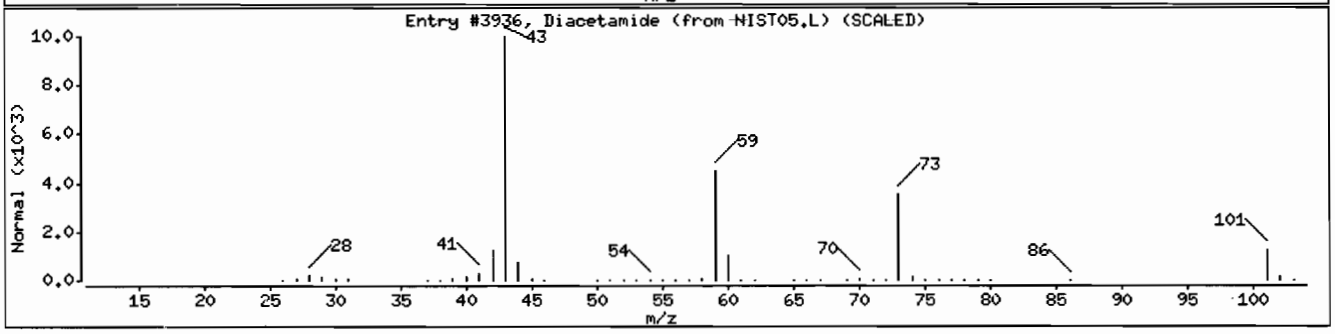

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072983**				
Client Sample:	**QC for batch 965978**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965978**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 16:24**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2506-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1020	ug/kg	66.7	333
108-95-2	Phenol		1300	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1250	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1150	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1380	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1340	ug/kg	66.7	333
83-32-9	Acenaphthene		1290	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1430	ug/kg	33.3	333
100-02-7	4-Nitrophenol		993	ug/kg	110	333
87-86-5	Pentachlorophenol		1200	ug/kg	83.3	333
129-00-0	Pyrene		1120	ug/kg	10.0	33.3
110-86-1	Pyridine		1010	ug/kg	66.7	333
62-53-3	Aniline		981	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1200	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1130	ug/kg	66.7	333
100-51-6	Benzyl alcohol		823	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1160	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1520	ug/kg	66.7	333
95-48-7	o-Cresol		1230	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1600	ug/kg	100	333
67-72-1	Hexachloroethane		1230	ug/kg	66.7	333
98-95-3	Nitrobenzene		1310	ug/kg	66.7	333
78-59-1	Isophorone		1240	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1220	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		994	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1160	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1290	ug/kg	66.7	333
65-85-0	Benzoic acid		3570	ug/kg	167	667
91-20-3	Naphthalene		1200	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1030	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1350	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1300	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1040	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1280	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1220	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1220	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1390	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1240	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202072983**				
Client Sample:	**QC for batch 965978**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 965978**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**965979**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 16:24**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/17/2010 10:52**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s2c2506-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1410	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1310	ug/kg	33.3	333
208-96-8	Acenaphthylene		1300	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1380	ug/kg	127	667
132-64-9	Dibenzofuran		1350	ug/kg	66.7	333
84-66-2	Diethylphthalate		1520	ug/kg	66.7	333
86-73-7	Fluorene		1470	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1410	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1270	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1890	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1260	ug/kg	66.7	333
122-66-7	Azobenzene		1340	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1250	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1230	ug/kg	66.7	333
85-01-8	Phenanthrene		1270	ug/kg	10.0	33.3
120-12-7	Anthracene		1310	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1490	ug/kg	66.7	333
206-44-0	Fluoranthene		1480	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1300	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1270	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1070	ug/kg	100	333
218-01-9	Chrysene		1300	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1350	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1390	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1470	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1260	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1360	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1400	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1430	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1310	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1250	ug/kg	66.7	333

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Data file : /chem/MSD2.i/s032510.b/s2c2506-2.d
Lab Smp Id: 1202072983 Client Smp ID: SBLK01LCS
Inj Date : 25-MAR-2010 16:24
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202072983|965979|1|SVM|1|LCS
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2319.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.837	3.843	(1.000)	168920	40.0000	
* 29 Naphthalene-d8	136	4.699	4.704	(1.000)	768523	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	409646	40.0000	
* 67 Phenanthrene-d10	188	6.940	6.940	(1.000)	798278	40.0000	
* 91 Chrysene-d12	240	8.592	8.603	(1.000)	752653	40.0000	
* 98 Perylene-d12	264	10.031	10.042	(1.000)	503248	40.0000	
$ 3 2-Fluorophenol	112	3.041	3.035	(0.792)	315746	78.5010	2620
$ 5 Phenol-d5	99	3.559	3.565	(0.928)	382609	77.2486	2570
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.894)	221873	39.8891	1330
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	407162	36.1266	1200
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.091)	118320	97.6535	3260
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	545763	39.7593	1320

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.570	3.570	(0.930)	199717	39.1096	1300
8 2-Chlorophenol	128	3.709	3.709	(0.967)	170485	37.5383	1250
11 1,4-Dichlorobenzene	146	3.848	3.854	(1.003)	197958	34.5416	1150
17 N-Nitrosodipropylamine	70	4.078	4.084	(1.063)	132903	41.4776	1380(Q)
28 1,2,4-Trichlorobenzene	180	4.650	4.656	(0.990)	178089	37.4834	1250
33 4-Chloro-3-methylphenol	107	5.057	5.052	(1.076)	168082	40.2168	1340
47 Acenaphthene	154	5.972	5.977	(1.004)	422283	38.7050	1290
50 2,4-Dinitrotoluene	165	6.057	6.063	(1.019)	141466	42.9867	1430
52 4-Nitrophenol	139	6.004	5.998	(1.010)	48727	29.7942	993
65 Pentachlorophenol	266	6.811	6.811	(0.982)	65619	36.1294	1200
79 Pyrene	202	7.806	7.812	(0.908)	821090	33.4673	1120
2 Pyridine	79	2.409	2.383	(0.628)	99158	30.1722	1000
4 Aniline	66	3.624	3.629	(0.944)	71397	29.4443	981(Q)
7 bis(2-Chloroethyl) ether	63	3.640	3.645	(0.948)	157946	36.0046	1200
9 1,3-Dichlorobenzene	146	3.805	3.811	(0.992)	183841	34.0119	1130
12 Benzyl alcohol	108	3.907	3.912	(1.018)	59387	24.6894	823
13 1,2-Dichlorobenzene	146	3.950	3.955	(1.029)	184709	34.9151	1160
14 bis(2-Chloroisopropyl)ether	45	3.982	3.987	(1.038)	489741	45.6650	1520
15 o-Cresol	107	3.961	3.961	(1.032)	133142	36.9239	1230
18 m,p-Cresols	107	4.062	4.062	(1.059)	206846	48.1459	1600
19 Hexachloroethane	117	4.180	4.185	(1.089)	83608	36.9161	1230
21 Nitrobenzene	77	4.212	4.217	(0.896)	206248	39.3939	1310
22 Isophorone	82	4.367	4.372	(0.929)	352852	37.2649	1240
23 2-Nitrophenol	139	4.426	4.431	(0.942)	100285	36.5835	1220
24 2,4-Dimethylphenol	122	4.420	4.426	(0.941)	146231	29.8179	994
25 bis(2-Chloroethoxy)methane	93	4.485	4.490	(0.954)	188997	34.7935	1160
26 2,4-Dichlorophenol	162	4.592	4.592	(0.977)	149946	38.5808	1290
27 Benzoic acid	105	4.501	4.479	(0.958)	259234	107.169	3570
30 Naphthalene	128	4.715	4.720	(1.003)	546864	35.8849	1200
31 4-Chloroaniline	127	4.736	4.736	(1.008)	205107	30.9873	1030
32 Hexachlorobutadiene	225	4.779	4.784	(1.017)	116481	40.5037	1350
34 2-Methylnaphthalene	142	5.196	5.201	(1.106)	383071	39.1108	1300
36 Hexachlorocyclopentadiene	237	5.298	5.303	(0.891)	61091	31.3358	1040
37 2,4,6-Trichlorophenol	196	5.389	5.389	(0.906)	118167	38.3643	1280
38 2,4,5-Trichlorophenol	196	5.421	5.415	(0.912)	121853	36.6668	1220
40 2-Chloronaphthalene	162	5.549	5.549	(0.933)	364365	36.6991	1220
42 o-Nitroaniline	65	5.608	5.608	(0.943)	129356	41.7884	1390
41 m-Nitroaniline	138	5.902	5.902	(0.993)	76392	37.2491	1240
43 Dimethylphthalate	163	5.715	5.720	(0.961)	492094	42.2417	1410
44 2,6-Dinitrotoluene	165	5.768	5.774	(0.970)	103307	39.2091	1310
45 Acenaphthylene	152	5.849	5.854	(0.984)	585224	39.1032	1300
48 2,4-Dinitrophenol	184	5.972	5.977	(1.004)	44900	41.5108	1380(Q)
49 Dibenzofuran	168	6.089	6.089	(1.024)	542718	40.4940	1350
51 Diethylphthalate	149	6.202	6.202	(1.043)	546539	45.7405	1520
53 Fluorene	166	6.325	6.325	(1.064)	513950	44.1984	1470
54 4-Chlorophenylphenylether	204	6.303	6.303	(1.060)	232347	42.4101	1410
55 2-Methyl-4,6-dinitrophenol	198	6.341	6.341	(0.914)	74607	37.9848	1270

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.325	6.325	(1.064)	114826	56.7019	1890
133 Diphenylamine	169	6.383	6.383	(0.920)	392559	37.7853	1260
58 1,2-Diphenylhydrazine	77	6.410	6.416	(0.924)	543147	40.1415	1340
61 4-Bromophenylphenylether	248	6.629	6.630	(0.955)	132213	37.6429	1250
63 Hexachlorobenzene	284	6.688	6.688	(0.964)	129706	36.9836	1230
68 Phenanthrene	178	6.950	6.956	(1.002)	752297	38.1284	1270
69 Anthracene	178	6.982	6.988	(1.006)	751252	39.3590	1310
72 Di-n-butylphthalate	149	7.229	7.234	(1.042)	1010238	44.7377	1490
76 Fluoranthene	202	7.667	7.672	(1.105)	791900	44.4346	1480
85 Butylbenzylphthalate	149	8.116	8.127	(0.945)	447384	38.9737	1300
89 Benzo(a)anthracene	228	8.582	8.592	(0.999)	715721	38.1037	1270
90 3,3'-Dichlorobenzidine	252	8.523	8.528	(0.992)	159387	31.9500	1060
92 Chrysene	228	8.614	8.625	(1.002)	685482	39.1182	1300
93 bis(2-Ethylhexyl)phthalate	149	8.469	8.485	(0.986)	640795	40.5397	1350
94 Di-n-octylphthalate	149	8.994	9.010	(0.897)	1000869	41.7167	1390
95 Benzo(b)fluoranthene	252	9.571	9.582	(0.954)	606124	44.1567	1470
96 Benzo(k)fluoranthene	252	9.598	9.614	(0.957)	524200	37.7477	1260
97 Benzo(a)pyrene	252	9.962	9.978	(0.993)	463726	40.7596	1360
99 Indeno(1,2,3-cd)pyrene	276	11.641	11.657	(1.160)	409503	42.0484	1400
100 Dibenzo(a,h)anthracene	278	11.646	11.663	(1.161)	341464	42.9172	1430
101 Benzo(ghi)perylene	276	12.139	12.155	(1.210)	310557	39.3698	1310
1 N-Methyl-N-nitrosomethylamine	74	2.372	2.351	(0.618)	70484	30.4904	1020

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s032510.b/s2c2506-2.d
Date : 25-MAR-2010 16:24
Client ID: SBLK01LCS
Sample Info: 1120207298319659791111SVMI11LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

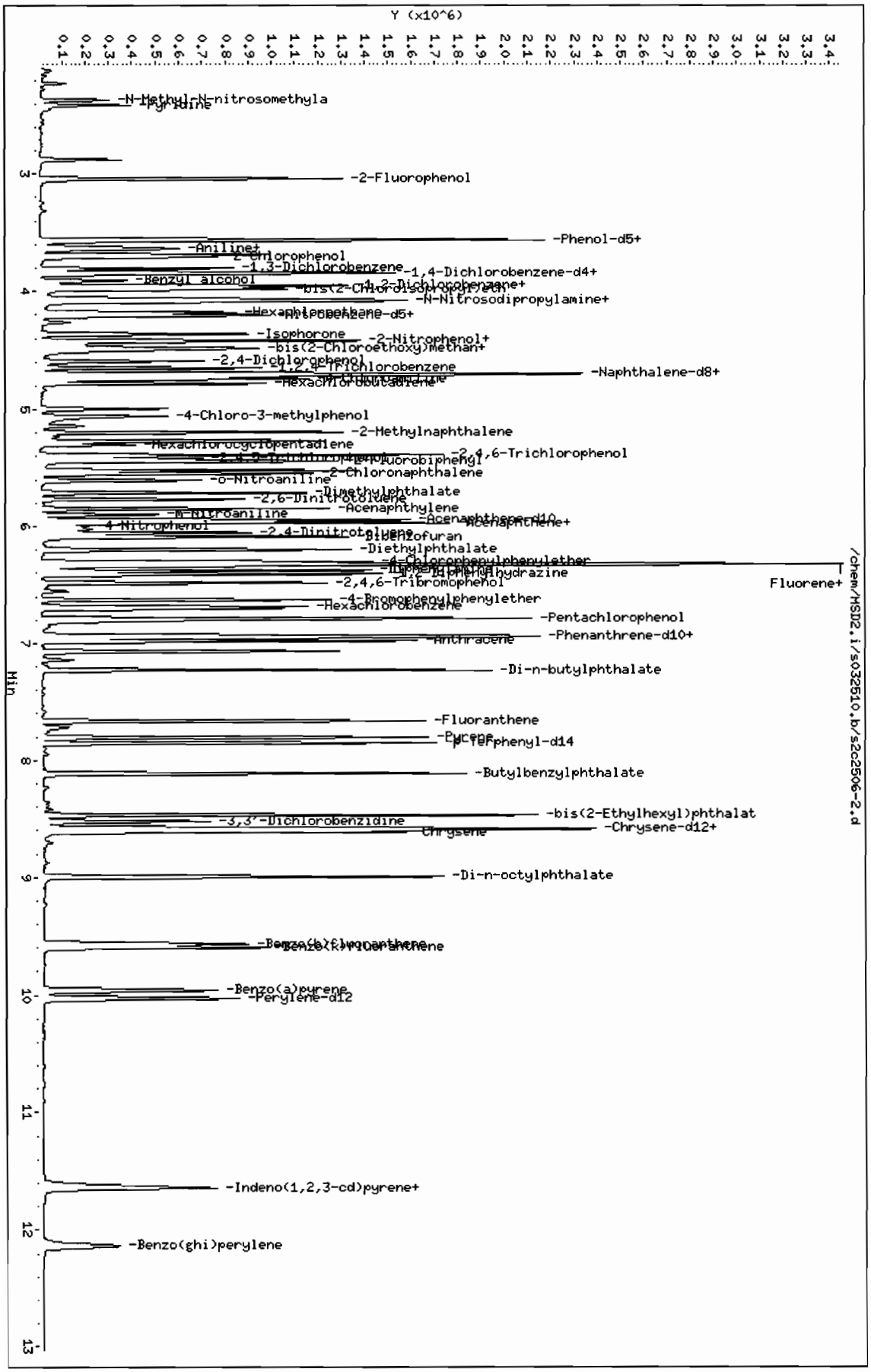

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 965978 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202072982 MB	17-MAR-2010 10:52:00	30	1	0.03333
1202072983 LCS	17-MAR-2010 10:52:00	30	1	0.03333
248862002	17-MAR-2010 10:52:00	30.02	1	0.03331
248862003	17-MAR-2010 10:52:00	30	1	0.03333
248862004	17-MAR-2010 10:52:00	30.03	1	0.0333
248862005	17-MAR-2010 10:52:00	30	1	0.03333
248862006	17-MAR-2010 10:52:00	30.02	1	0.03331
248862007	17-MAR-2010 10:52:00	30	1	0.03333
248862008	17-MAR-2010 10:52:00	30.08	1	0.03324
248862009	17-MAR-2010 10:52:00	30.04	1	0.03329
248862010	17-MAR-2010 10:52:00	30	1	0.03333
248863001	17-MAR-2010 10:52:00	30	1	0.03333
248863002	17-MAR-2010 10:52:00	30.02	1	0.03331
248863003	17-MAR-2010 10:52:00	30.01	1	0.03332
248863004	17-MAR-2010 10:52:00	30.04	1	0.03329
248866001	17-MAR-2010 10:52:00	30	1	0.03333
248866002	17-MAR-2010 10:52:00	30	1	0.03333
249067003	17-MAR-2010 10:52:00	30	1	0.03333
249067004	17-MAR-2010 10:52:00	30.01	1	0.03332
249067005	17-MAR-2010 10:52:00	30	1	0.03333
249067006	17-MAR-2010 10:52:00	30.03	1	0.0333
249081001	17-MAR-2010 10:52:00	30.02	1	0.03331
1202072984 MS (249081001)	17-MAR-2010 10:52:00	30	1	0.03333
1202072985 MSD (249081001)	17-MAR-2010 10:52:00	30.02	1	0.03331

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202072983	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
LCS	1202072983	BENZIDINE LCS	UE100310-23	1	mL
MS	1202072984	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MS	1202072984	BENZIDINE LCS	UE100310-23	1	mL
MSD	1202072985	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MSD	1202072985	BENZIDINE LCS	UE100310-23	1	mL
SURR	All	BNA for all Surrogate	UE100310-10	1	mL
REGNT	All	Acetone	1273739-B1	150	mL
REGNT	All	Methylene Chloride	1281955-D	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: RWH

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD2

DATE: 03/12/2010 METHOD:8270C MSD2-DFTPP.m OPERATOR:AGS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1165 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100227-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD2.i/s031210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c1201.d	WBN100207-01	AGS1	12-MAR-2010 14:32	50PPM	DFTPP	1.0	DFTPP	8270C (MEGA-AP-PEST)
s2c1201D.d	WBN100207-01	AGS1	12-MAR-2010 14:32	50PPM	DFTPP	1.0	DFTPP	8270D (MEGA-AP-PEST)
s2c1202.d	INSTBLK	AGS1	12-MAR-2010 14:44	------	s031210	1.0	INSTBLK	
s2c1203.d	WBN100309-08	AGS1	12-MAR-2010 15:04	1PPM	CAL	1.0	MEGA001	
s2c1204.d	WBN100309-07	AGS1	12-MAR-2010 15:31	10PPM	CAL	1.0	MEGA010	
s2c1204D.d	WBN100309-07	AGS1	12-MAR-2010 15:31	10PPM	CAL	1.0	MEGA010	requanted for linear analytes in 8270D passes 70-130% 56/26/216
s2c1205.d	WBN100309-06	AGS1	12-MAR-2010 15:59	20PPM	CAL	1.0	MEGA020	
s2c1206.d	WBN100309-05.1	AGS1	12-MAR-2010 16:23	40PPM	CAL	1.0	MEGA040	
s2c1207.d	WBN100309-04	AGS1	12-MAR-2010 16:48	50PPM	CAL	1.0	MEGA050	
s2c1208.d	WBN100309-03	AGS1	12-MAR-2010 17:13	80PPM	CAL	1.0	MEGA080	
s2c1209.d	WBN100309-02	AGS1	12-MAR-2010 17:38	1000PPM	CAL	1.0	MEGA100	
s2c1210.d	WBN100309-01	AGS1	12-MAR-2010 18:02	120PPM	CAL	1.0	MEGA120	
s2c1211.d	INSTBLK	AGS1	12-MAR-2010 18:27	------	s031210	1.0	INSTBLK	
s2c1212.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	8270C 333197
s2c1212BOE.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	BOE 333197
s2c1212D.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	8270D 333197
s2c1212-625.d	WBN100309-09.1	AGS1	12-MAR-2010 18:54	40PPM	ICV	1.0	MEGAICV	625 333197
s2c1213.d	WBN100218-01	AGS1	12-MAR-2010 19:18	10 PPM	s031210	1.0	AP010	
s2c1214.d	WBN100218-02	AGS1	12-MAR-2010 19:39	20 PPM	CAL	1.0	AP020	

s2c1215.d	WBN100218-03.1	AGS1	12-MAR-2010 19:59	40 PPM	CAL		1.0	AP040	
s2c1216.d	WBN100218-04	AGS1	12-MAR-2010 20:19	50 PPM	CAL		1.0	AP050	
s2c1217.d	WBN100218-05	AGS1	12-MAR-2010 20:39	80 PPM	CAL		1.0	AP0800	
s2c1218.d	WBN100218-06	AGS1	12-MAR-2010 20:59	100 PPM	CAL		1.0	AP100	
s2c1219.d	WBN100218-07	AGS1	12-MAR-2010 21:19	120 PPM	CAL		1.0	AP120	
s2c1220.d	WBN100304-25	AGS1	12-MAR-2010 21:39	10 PPM	CAL		1.0	PEST010	
s2c1221.d	WBN100304-24	AGS1	12-MAR-2010 21:59	20 PPM	CAL		1.0	PEST020	
s2c1222.d	WBN100304-23.1	AGS1	12-MAR-2010 22:19	40 PPM	CAL		1.0	PEST040	
s2c1223.d	WBN100304-22	AGS1	12-MAR-2010 22:39	50 PPM	CAL		1.0	PEST050	
s2c1224.d	WBN100304-21	AGS1	12-MAR-2010 23:00	80 PPM	CAL		1.0	PEST080	
s2c1225.d	WBN100304-20	AGS1	12-MAR-2010 23:20	100 PPM	CAL		1.0	PEST100	
s2c1226.d	WBN100304-19	AGS1	12-MAR-2010 23:40	120 PPM	CAL		1.0	PEST120	
s2c1227.d	WBN100218-08.1	AGS1	13-MAR-2010 00:00	40 PPM	ICV		1.0	APICV	8270C
s2c1227D.d	WBN100218-08.1	AGS1	13-MAR-2010 00:00	40 PPM	ICV		1.0	APICV	8270D
s2c1228.d	WBN100304-26.1	AGS1	13-MAR-2010 00:20	40 PPM	ICV		1.0	PESTICV	8270C
s2c1228D.d	WBN100304-26.1	AGS1	13-MAR-2010 00:20	40 PPM	ICV		1.0	PESTICV	8270D
s2c1229.d	WBN100207-01	AGS1	13-MAR-2010 00:42	50PPM	DFTPP		1.0	DFTPP	8270C (HEX-BJCO)
s2c1229D.d	WBN100207-01	AGS1	13-MAR-2010 00:42	50PPM	DFTPP		1.0	DFTPP	8270D (HEX)
s2c1230.d	INSTBLK	AGS1	13-MAR-2010 00:55	------	s031210		1.0	INSTBLK	
s2c1231.d	WBN100304-16	AGS1	13-MAR-2010 01:15	500 PPM	CAL		1.0	HEX500	
s2c1232.d	WBN100304-15	AGS1	13-MAR-2010 01:35	1000 PPM	CAL		1.0	HEX1000	
s2c1233.d	WBN100304-14	AGS1	13-MAR-2010 01:55	1250 PPM	CAL		1.0	HEX1250	
s2c1234.d	WBN100304-13	AGS1	13-MAR-2010 02:15	1500 PPM	CAL		1.0	HEX1500	

Instrument Batch: /chem/MSD2.i/s031210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c1235.d	WBN100304-12	AGS1	13-MAR-2010 02:35	1750 PPM	CAL		1.0	HEX1750

s2c1236.d	UBN100126-02.3	AGS1	13-MAR-2010 02:55	2000 PPM	CAL		1.0	HEX2000	
s2c1237.d	WBN100301-07	AGS1	13-MAR-2010 03:15	10PPM	CAL		1.0	BJCO010	
s2c1238.d	WBN100301-06	AGS1	13-MAR-2010 03:42	10PPM	CAL		1.0	BJCO010	
s2c1239.d	WBN100301-05.1	AGS1	13-MAR-2010 04:08	40PPM	CAL		1.0	BJCO040	
s2c1240.d	WBN100301-04	AGS1	13-MAR-2010 04:35	10PPM	CAL		1.0	BJCO010	
s2c1241.d	WBN100301-03	AGS1	13-MAR-2010 05:01	10PPM	CAL		1.0	BJCO010	
s2c1242.d	WBN100301-02	AGS1	13-MAR-2010 05:28	10PPM	CAL		1.0	BJCO010	
s2c1243.d	WBN100301-01	AGS1	13-MAR-2010 05:54	10PPM	CAL		1.0	BJCO010	
s2c1244.d	WBN100304-10.1	AGS1	13-MAR-2010 06:21	1250 PPM	ICV		1.0	HEXICV	8270C
s2c1244D.d	WBN100304-10.1	AGS1	13-MAR-2010 06:21	1250 PPM	ICV		1.0	HEXICV	8270D
s2c1245.d	WBN100301-05.3	AGS1	13-MAR-2010 06:41	10PPM	ICV		1.0	BJCOICV	
s2c1245D.d	WBN100301-05.3	AGS1	13-MAR-2010 06:41	10PPM	ICV		1.0	BJCOICV	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD2

DATE: 03/25/2010 METHOD:8270C MSD2-DFTPP.m OPERATOR:AGS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1106 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD2.i/s032510.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c2501.d	WBN100306-01.2	AGS1	25-MAR-2010 14:45	50PPM	DFTPP	1.0	DFTPP	8270C TUNE
s2c2501D.d	WBN100306-01.2	AGS1	25-MAR-2010 14:45	50PPM	DFTPP	1.0	DFTPP	8270D TUNE
s2c2502.d	WBN100309-09.1	AGS1	25-MAR-2010 14:58	40PPM	CVS	1.0	MEGACVS	8270C 165409
s2c2502D.d	WBN100309-09.1	AGS1	25-MAR-2010 14:58	40PPM	CVS	1.0	MEGACVS	8270D 165409
s2c2503.d	WBN100218-08.1	AGS1	25-MAR-2010 15:24	40 PPM	CVS	1.0	APCVS	8270C
s2c2503D.d	WBN100218-08.1	AGS1	25-MAR-2010 15:24	40 PPM	CVS	1.0	APCVS	8270D
s2c2504.d	WBN100304-26.1	AGS1	25-MAR-2010 15:44	40 PPM	CVS	1.0	PESTCVS	8270C
s2c2504D.d	WBN100304-26.1	AGS1	25-MAR-2010 15:44	40 PPM	CVS	1.0	PESTCVS	8270D
s2c2505.d	1202072982	AGS1	25-MAR-2010 16:05	965979	10-2314	1.0	MB	
s2c2506.d	1202072983	AGS1	25-MAR-2010 16:24	965979	10-2314	1.0	LCS	
s2c2507.d	249081001	AGS1	25-MAR-2010 16:45	965979	10-2359-1	1.0	LANL	
s2c2508.d	1202072984	AGS1	25-MAR-2010 17:05	965979	10-2359-1	1.0	MS	
s2c2509.d	1202072985	AGS1	25-MAR-2010 17:25	965979	10-2359-1	1.0	MSD	
s2c2510.d	248801006	AGS1	25-MAR-2010 17:45	963820	10-2294	1.0	LANL	
s2c2511.d	249338006	AGS1	25-MAR-2010 18:06	966343	249338	1.0	GEEL_BEAM	
s2c2512.d	249338015	AGS1	25-MAR-2010 18:26	966343	249338	1.0	GEEL_BEAM	
s2c2513.d	249338017	AGS1	25-MAR-2010 18:46	966343	249338	1.0	GEEL_BEAM	
s2c2514.d	249067003	AGS1	25-MAR-2010 19:07	965979	10-2354	1.0	LANL	
s2c2515.d	249067004	AGS1	25-MAR-2010 19:27	965979	10-2354	1.0	LANL	

s2c2516.d	249067005	AGS1	25-MAR-2010 19:47	965979	10-2354	1.0	LANL	
s2c2517.d	249067006	AGS1	25-MAR-2010 20:07	965979	10-2354	1.0	LANL	
s2c2518.d	248862002	AGS1	25-MAR-2010 20:27	965979	10-2314	1.0	LANL	ISTD low RR
s2c2519.d	248862003	AGS1	25-MAR-2010 20:47	965979	10-2314	1.0	LANL	
s2c2520.d	248862004	AGS1	25-MAR-2010 21:08	965979	10-2314	1.0	LANL	
s2c2521.d	248862005	AGS1	25-MAR-2010 21:28	965979	10-2314	1.0	LANL	
s2c2522.d	248862006	AGS1	25-MAR-2010 21:48	965979	10-2314	1.0	LANL	
s2c2523.d	248862007	AGS1	25-MAR-2010 22:08	965979	10-2314	1.0	LANL	
s2c2524.d	248862008	AGS1	25-MAR-2010 22:28	965979	10-2314	1.0	LANL	
s2c2525.d	248862009	AGS1	25-MAR-2010 22:49	965979	10-2314	1.0	LANL	
s2c2526.d	248862010	AGS1	25-MAR-2010 23:09	965979	10-2314	1.0	LANL	
s2c2527.d	248863001	AGS1	25-MAR-2010 23:29	965979	10-2315	1.0	LANL	
s2c2528.d	248863002	AGS1	25-MAR-2010 23:49	965979	10-2315	1.0	LANL	
s2c2529.d	248863003	AGS1	26-MAR-2010 00:09	965979	10-2315	1.0	LANL	

Instrument Batch: /chem/MSD2.i/s032510.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c2530.d	248863004	AGS1	26-MAR-2010 00:30	965979	10-2315	1.0	LANL	
s2c2531.d	248866001	AGS1	26-MAR-2010 00:50	965979	10-2319	1.0	LANL	
s2c2532.d	248866002	AGS1	26-MAR-2010 01:10	965979	10-2319	1.0	LANL	

Instrument Batch: /chem/MSD2.i/s032510.b Page: 1

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD2.i/s032510.b/s2c2508.d
Lab Smp Id: 1202072984 Client Smp ID: RE16-10-3799MS
Inj Date : 25-MAR-2010 17:05
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202072984|965979|1|SVM|1|MS
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 8 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2359-1.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	6.46600	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.838	3.843	(1.000)	153202	40.0000	
* 29 Naphthalene-d8	136	4.699	4.704	(1.000)	682284	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	383764	40.0000	
* 67 Phenanthrene-d10	188	6.934	6.940	(1.000)	734090	40.0000	
* 91 Chrysene-d12	240	8.593	8.603	(1.000)	671337	40.0000	
* 98 Perylene-d12	264	10.026	10.042	(1.000)	430902	40.0000	
$ 3 2-Fluorophenol	112	3.041	3.035	(0.792)	205024	56.2029	2000
$ 5 Phenol-d5	99	3.559	3.565	(0.928)	247147	55.0184	1960
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.894)	144436	29.2494	1040
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	264701	25.0703	893
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.091)	72071	63.4943	2260
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	361408	29.5180	1050

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.570	3.570	(0.930)	125257	27.0450	964
8 2-Chlorophenol	128	3.709	3.709	(0.967)	110918	26.9282	960
11 1,4-Dichlorobenzene	146	3.848	3.854	(1.003)	116674	22.4471	800
17 N-Nitrosodipropylamine	70	4.073	4.084	(1.061)	87988	30.2774	1080(Q)
28 1,2,4-Trichlorobenzene	180	4.651	4.656	(0.990)	111089	26.3369	938
33 4-Chloro-3-methylphenol	107	5.057	5.052	(1.076)	110429	29.7619	1060
47 Acenaphthene	154	5.972	5.977	(1.004)	261581	25.5926	912
50 2,4-Dinitrotoluene	165	6.057	6.063	(1.019)	91912	29.8126	1060
52 4-Nitrophenol	139	6.009	5.998	(1.011)	32237	21.0407	750
65 Pentachlorophenol	266	6.811	6.811	(0.982)	37696	22.5700	804
79 Pyrene	202	7.806	7.812	(0.908)	527704	24.1143	859
2 Pyridine	79	2.399	2.383	(0.625)	62531	20.9793	748
4 Aniline	66	3.624	3.629	(0.944)	60871	27.6788	986
7 bis(2-Chloroethyl) ether	63	3.640	3.645	(0.948)	107048	26.9057	959
9 1,3-Dichlorobenzene	146	3.806	3.811	(0.992)	106730	21.7717	776
12 Benzyl alcohol	108	3.913	3.912	(1.020)	23086	10.5824	377
13 1,2-Dichlorobenzene	146	3.950	3.955	(1.029)	109383	22.7977	812
14 bis(2-Chloroisopropyl)ether	45	3.982	3.987	(1.038)	323330	33.2415	1180
15 o-Cresol	107	3.961	3.961	(1.032)	89771	27.4502	978(Q)
18 m,p-Cresols	107	4.057	4.062	(1.057)	142084	36.4648	1300
19 Hexachloroethane	117	4.180	4.185	(1.089)	46982	22.8726	815
21 Nitrobenzene	77	4.212	4.217	(0.896)	138024	29.6952	1060
22 Isophorone	82	4.362	4.372	(0.928)	238745	28.4010	1010
23 2-Nitrophenol	139	4.426	4.431	(0.942)	66834	27.4624	979
24 2,4-Dimethylphenol	122	4.421	4.426	(0.941)	93348	21.4405	764
25 bis(2-Chloroethoxy)methane	93	4.485	4.490	(0.954)	127249	26.3869	940
26 2,4-Dichlorophenol	162	4.592	4.592	(0.977)	100153	29.0263	1030
27 Benzoic acid	105	4.485	4.479	(0.954)	149493	69.6130	2480
30 Naphthalene	128	4.715	4.720	(1.003)	349275	25.8162	920
31 4-Chloroaniline	127	4.736	4.736	(1.008)	146241	24.8866	887
32 Hexachlorobutadiene	225	4.779	4.784	(1.017)	67991	26.6307	949
34 2-Methylnaphthalene	142	5.196	5.201	(1.106)	251247	28.8942	1030
36 Hexachlorocyclopentadiene	237	5.298	5.303	(0.891)	30294	16.5869	591
37 2,4,6-Trichlorophenol	196	5.389	5.389	(0.906)	73920	25.6176	913
38 2,4,5-Trichlorophenol	196	5.421	5.415	(0.912)	79713	25.6041	912
40 2-Chloronaphthalene	162	5.549	5.549	(0.933)	239788	25.7804	919
42 o-Nitroaniline	65	5.608	5.608	(0.943)	85963	29.6432	1060
41 m-Nitroaniline	138	5.897	5.902	(0.992)	52817	28.3743	1010
43 Dimethylphthalate	163	5.710	5.720	(0.960)	318225	29.1590	1040
44 2,6-Dinitrotoluene	165	5.769	5.774	(0.970)	67522	27.3557	975
45 Acenaphthylene	152	5.849	5.854	(0.984)	381850	27.2350	970
48 2,4-Dinitrophenol	184	5.972	5.977	(1.004)	18779	24.6661	879(Q)
49 Dibenzofuran	168	6.089	6.089	(1.024)	353560	28.1595	1000
51 Diethylphthalate	149	6.202	6.202	(1.043)	350640	31.3246	1120
53 Fluorene	166	6.325	6.325	(1.064)	328666	30.1707	1080
54 4-Chlorophenylphenylether	204	6.303	6.303	(1.060)	148601	28.9533	1030
55 2-Methyl-4,6-dinitrophenol	198	6.341	6.341	(0.914)	40653	25.5506	910

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.325	6.325	(1.064)	66446	37.3656	1330
133 Diphenylamine	169	6.378	6.383	(0.920)	254840	26.6742	951
58 1,2-Diphenylhydrazine	77	6.410	6.416	(0.924)	352674	28.3436	1010
61 4-Bromophenylphenylether	248	6.630	6.630	(0.956)	83326	25.7985	919
63 Hexachlorobenzene	284	6.688	6.688	(0.965)	80995	25.1138	895
68 Phenanthrene	178	6.951	6.956	(1.002)	481433	26.5339	946
69 Anthracene	178	6.983	6.988	(1.007)	475921	27.1143	966
72 Di-n-butylphthalate	149	7.229	7.234	(1.042)	652914	31.4420	1120
76 Fluoranthene	202	7.662	7.672	(1.105)	501606	30.6068	1090
85 Butylbenzylphthalate	149	8.117	8.127	(0.945)	290840	28.4053	1010
89 Benzo(a)anthracene	228	8.582	8.592	(0.999)	467368	27.8957	994
90 3,3'-Dichlorobenzidine	252	8.523	8.528	(0.992)	92239	20.7294	739
92 Chrysene	228	8.614	8.625	(1.002)	443017	28.3437	1010
93 bis(2-Ethylhexyl)phthalate	149	8.475	8.485	(0.986)	413339	29.3172	1040
94 Di-n-octylphthalate	149	8.994	9.010	(0.897)	627688	30.5549	1090
95 Benzo(b)fluoranthene	252	9.566	9.582	(0.954)	339899	28.9194	1030
96 Benzo(k)fluoranthene	252	9.598	9.614	(0.957)	357481	30.0642	1070
97 Benzo(a)pyrene	252	9.962	9.978	(0.994)	283006	29.0514	1040
99 Indeno(1,2,3-cd)pyrene	276	11.636	11.657	(1.161)	230117	27.5959	983
100 Dibenzo(a,h)anthracene	278	11.636	11.663	(1.161)	189683	27.8432	992
101 Benzo(ghi)perylene	276	12.133	12.155	(1.210)	178433	26.4180	941
1 N-Methyl-N-nitrosomethylamine	74	2.356	2.351	(0.614)	48472	23.1196	824

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s032510.b/s2o2508.d
Date : 25-MAR-2010 17:05
Client ID: RE16-10-3799MS
Sample Info: 1120207298|965979|1|SVM|1|MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

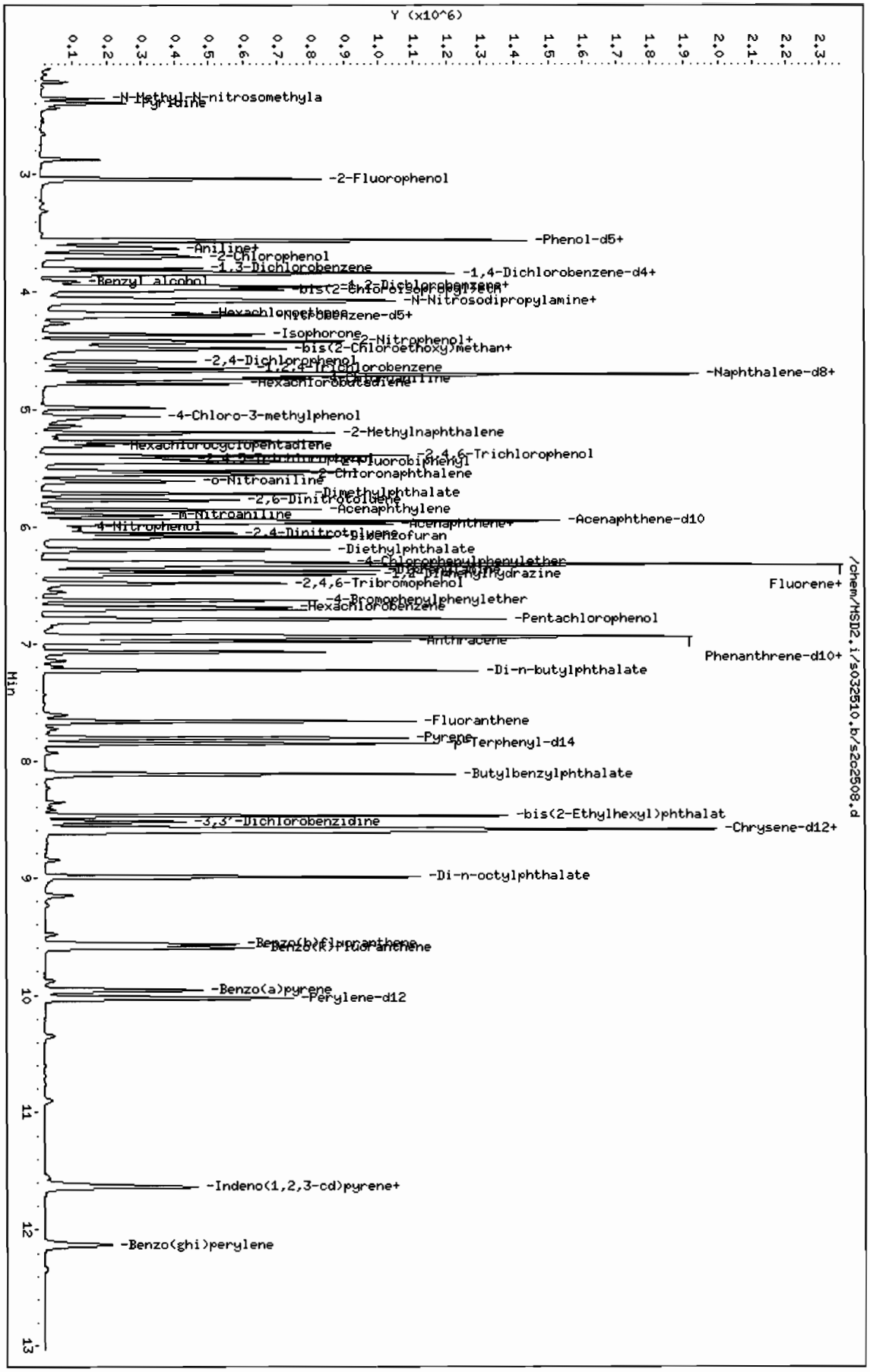

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Data file : /chem/MSD2.i/s032510.b/s2c2509.d
Lab Smp Id: 1202072985 Client Smp ID: RE16-10-3799MSD
Inj Date : 25-MAR-2010 17:25
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202072985|965979|1|SVM|1|MSD
Misc Info : |MSD8270_S|WBN100310-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s032510.b/MSD2-M8270AQA-031210.m
Meth Date : 25-Mar-2010 18:36 ann00964 Quant Type: ISTD
Cal Date : 13-MAR-2010 04:08 Cal File: s2c1239.d
Als bottle: 9 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2359-1.sub
Target Version: 3.50
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	6.46600	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.838	3.843	(1.000)	164745	40.0000	
* 29 Naphthalene-d8	136	4.699	4.704	(1.000)	732366	40.0000	
* 46 Acenaphthene-d10	164	5.945	5.950	(1.000)	408987	40.0000	
* 67 Phenanthrene-d10	188	6.934	6.940	(1.000)	778496	40.0000	
* 91 Chrysene-d12	240	8.593	8.603	(1.000)	741211	40.0000	
* 98 Perylene-d12	264	10.031	10.042	(1.000)	500304	40.0000	
$ 3 2-Fluorophenol	112	3.041	3.035	(0.792)	241169	61.4791	2190
$ 5 Phenol-d5	99	3.559	3.565	(0.928)	288790	59.7842	2130
$ 20 Nitrobenzene-d5	82	4.201	4.207	(0.894)	169513	31.9802	1140
$ 39 2-Fluorobiphenyl	172	5.442	5.442	(0.915)	309942	27.5448	981
$ 60 2,4,6-Tribromophenol	329	6.485	6.485	(1.091)	82730	68.3899	2440
$ 81 p-Terphenyl-d14	244	7.854	7.860	(0.914)	397644	29.4159	1050

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.570	3.570	(0.930)	140844	28.2798	1010
8 2-Chlorophenol	128	3.709	3.709	(0.967)	131728	29.7396	1060
11 1,4-Dichlorobenzene	146	3.848	3.854	(1.003)	137976	24.6855	879
17 N-Nitrosodipropylamine	70	4.073	4.084	(1.061)	101782	32.5700	1160(Q)
28 1,2,4-Trichlorobenzene	180	4.651	4.656	(0.990)	127971	28.2645	1010
33 4-Chloro-3-methylphenol	107	5.057	5.052	(1.076)	126894	31.8608	1130
47 Acenaphthene	154	5.972	5.977	(1.004)	304960	27.9966	997
50 2,4-Dinitrotoluene	165	6.057	6.063	(1.019)	104131	31.6929	1130
52 4-Nitrophenol	139	6.014	5.998	(1.012)	35919	21.9981	783
65 Pentachlorophenol	266	6.811	6.811	(0.982)	42223	23.8385	849
79 Pyrene	202	7.801	7.812	(0.908)	589831	24.4124	869
2 Pyridine	79	2.404	2.383	(0.626)	73850	23.0409	820
4 Aniline	66	3.624	3.629	(0.944)	65151	27.5493	981
7 bis(2-Chloroethyl) ether	63	3.640	3.645	(0.948)	124420	29.0809	1040
9 1,3-Dichlorobenzene	146	3.805	3.811	(0.992)	128233	24.3253	866
12 Benzyl alcohol	108	3.918	3.912	(1.021)	15076	6.42650	229(aR)
13 1,2-Dichlorobenzene	146	3.950	3.955	(1.029)	130482	25.2898	901
14 bis(2-Chloroisopropyl)ether	45	3.982	3.987	(1.038)	378796	36.2153	1290
15 o-Cresol	107	3.961	3.961	(1.032)	102434	29.1276	1040
18 m,p-Cresols	107	4.057	4.062	(1.057)	165298	39.4502	1400
19 Hexachloroethane	117	4.180	4.185	(1.089)	55525	25.1377	895
21 Nitrobenzene	77	4.212	4.217	(0.896)	163586	32.7880	1170
22 Isophorone	82	4.362	4.372	(0.928)	273339	30.2927	1080
23 2-Nitrophenol	139	4.426	4.431	(0.942)	77087	29.5093	1050
24 2,4-Dimethylphenol	122	4.421	4.426	(0.941)	105474	22.5690	804
25 bis(2-Chloroethoxy)methane	93	4.485	4.490	(0.954)	146229	28.2491	1010
26 2,4-Dichlorophenol	162	4.592	4.592	(0.977)	113761	30.7156	1090
27 Benzoic acid	105	4.485	4.479	(0.954)	171836	74.5454	2650
30 Naphthalene	128	4.715	4.720	(1.003)	408652	28.1394	1000
31 4-Chloroaniline	127	4.736	4.736	(1.008)	162589	25.7765	918
32 Hexachlorobutadiene	225	4.779	4.784	(1.017)	82493	30.1013	1070
34 2-Methylnaphthalene	142	5.196	5.201	(1.106)	287237	30.7742	1100
36 Hexachlorocyclopentadiene	237	5.298	5.303	(0.891)	41085	21.1079	752
37 2,4,6-Trichlorophenol	196	5.389	5.389	(0.906)	82287	26.7585	953
38 2,4,5-Trichlorophenol	196	5.421	5.415	(0.912)	93670	28.2316	1000
40 2-Chloronaphthalene	162	5.549	5.549	(0.933)	278153	28.0609	999
42 o-Nitroaniline	65	5.608	5.608	(0.943)	99080	32.0593	1140
41 m-Nitroaniline	138	5.897	5.902	(0.992)	62213	31.0058	1100
43 Dimethylphthalate	163	5.710	5.720	(0.960)	357608	30.7468	1100
44 2,6-Dinitrotoluene	165	5.768	5.774	(0.970)	77092	29.3067	1040
45 Acenaphthylene	152	5.849	5.854	(0.984)	436937	29.2421	1040
48 2,4-Dinitrophenol	184	5.972	5.977	(1.004)	25146	28.1503	1000(Q)
49 Dibenzofuran	168	6.089	6.089	(1.024)	398394	29.7734	1060
51 Diethylphthalate	149	6.202	6.202	(1.043)	401153	33.6271	1200
53 Fluorene	166	6.325	6.325	(1.064)	376344	32.4168	1150
54 4-Chlorophenylphenylether	204	6.303	6.303	(1.060)	169792	31.0419	1100
55 2-Methyl-4,6-dinitrophenol	198	6.341	6.341	(0.914)	48297	27.7252	987

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.325	6.325	(1.064)	83282	42.8666	1530
133 Diphenylamine	169	6.378	6.383	(0.920)	290860	28.7078	1020
58 1,2-Diphenylhydrazine	77	6.410	6.416	(0.924)	407408	30.8748	1100
61 4-Bromophenylphenylether	248	6.630	6.630	(0.956)	94387	27.5562	981
63 Hexachlorobenzene	284	6.688	6.688	(0.965)	93032	27.2007	969
68 Phenanthrene	178	6.950	6.956	(1.002)	551910	28.6831	1020
69 Anthracene	178	6.983	6.988	(1.007)	539024	28.9577	1030
72 Di-n-butylphthalate	149	7.229	7.234	(1.042)	720755	32.7292	1160
76 Fluoranthene	202	7.662	7.672	(1.105)	562750	32.3791	1150
85 Butylbenzylphthalate	149	8.117	8.127	(0.945)	325038	28.7527	1020
89 Benzo(a)anthracene	228	8.582	8.592	(0.999)	521108	28.1711	1000
90 3,3'-Dichlorobenzidine	252	8.523	8.528	(0.992)	112568	22.9132	816
92 Chrysene	228	8.614	8.625	(1.002)	514845	29.8340	1060
93 bis(2-Ethylhexyl)phthalate	149	8.475	8.485	(0.986)	461598	29.6537	1060
94 Di-n-octylphthalate	149	8.999	9.010	(0.897)	721654	30.2559	1080
95 Benzo(b)fluoranthene	252	9.571	9.582	(0.954)	428163	31.3756	1120
96 Benzo(k)fluoranthene	252	9.598	9.614	(0.957)	395766	28.6669	1020
97 Benzo(a)pyrene	252	9.962	9.978	(0.993)	339866	30.0486	1070
99 Indeno(1,2,3-cd)pyrene	276	11.641	11.657	(1.160)	295000	30.4693	1080
100 Dibenzo(a,h)anthracene	278	11.641	11.663	(1.160)	249280	31.5153	1120
101 Benzo(ghi)perylene	276	12.139	12.155	(1.210)	232409	29.6362	1060
1 N-Methyl-N-nitrosomethylamine	74	2.361	2.351	(0.615)	56009	24.8427	885

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD2.i/s032510.b/s2c2509.d
Date : 25-MAR-2010 17:25
Client ID: RE16-10-3799MSD
Sample Info: 1120207298519659791|SVMI1|MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

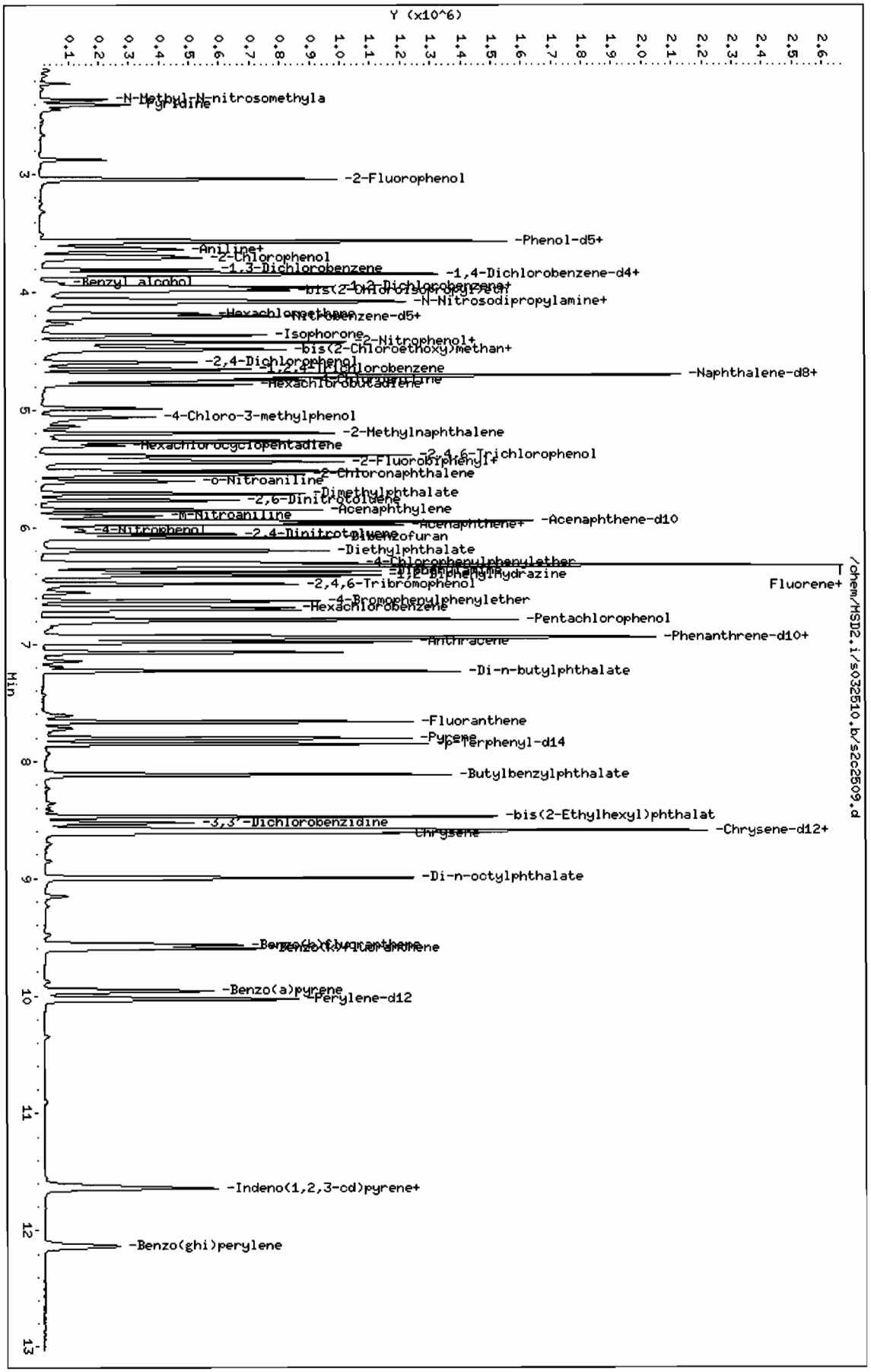

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2319

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	964450
Prep Batch Number:	964449

Sample Analysis

Sample ID	Client ID
248866001	RE46-10-11885
248866002	RE46-10-11886
1202069102	Interference Check Sample (ICS)
1202069098	Method Blank (MB)
1202069099	Laboratory Control Sample (LCS)
1202069100	248863002(RE46-10-12930) Matrix Spike (MS)
1202069101	248863002(RE46-10-12930) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

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CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 248863002 (RE46-10-12930) from SDG 10-2315 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

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Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
The SDG required re-analysis due to failure of a bracketing CCV/CRI. The re-analysis passed acceptance criteria and is reported.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert K. Mauer **Date:** 04/01/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-11885

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2319

GEL Sample ID: 248866001

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 96.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.52	2.08	0.520	ug/kg	U	1	28-MAR-10 17:40	per0328028a
	Perchlorate Isotope Ratio						1	28-MAR-10 17:40	per0328028a
14797-73-0	Perchlorate-101	.52	2.08	0.520	ug/kg	U	1	28-MAR-10 17:40	per0328028a
	Perchlorate-O(18)			5.47	ug/kg		1	28-MAR-10 17:40	per0328028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-11886

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2319

GEL Sample ID: 248866002

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 95.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.525	2.1	0.525	ug/kg	U	1	28-MAR-10 17:49	per0328029a
	Perchlorate Isotope Ratio						1	28-MAR-10 17:49	per0328029a
14797-73-0	Perchlorate-101	.525	2.1	0.525	ug/kg	U	1	28-MAR-10 17:49	per0328029a
	Perchlorate-O(18)			5.09	ug/kg		1	28-MAR-10 17:49	per0328029a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2319

Extract Batch Code: 964449

Date Filtered: 19–MAR–10

Matrix: SOIL

Sample ID: 1202069099

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.99	ug/kg	99.3		70 – 130
Perchlorate Isotope Ratio		3.25				--
Perchlorate–101	2.00	1.95	ug/kg	97.7		70 – 130
Perchlorate–O(18)		5.01	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2319

Extract Batch Code: 964449

Date Filtered: 19–MAR–10

Matrix: SOIL

Sample ID: 1202069102

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.27	ug/kg	113		70 – 130
Perchlorate Isotope Ratio		3.31				
Perchlorate–101	2.00	2.19	ug/kg	110		70 – 130
Perchlorate–O(18)		5.43	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Tuesday, March 30, 2010 12:46:03 PM Eastern Standard Time
Printed: Tuesday, March 30, 2010 12:46:36 PM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032810a.mdb 29 Mar 2010 09:32:17
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032810a.cdb 29 Mar 2010 09:32:40

Name: per0328017a
Date: 28-Mar-2010
Time: 16:06:59
ID: 1202069102 | LANC | 964450 | Solids | ICS | 1 |
Vial: 1:3,E

CW 03-30-10

Perchlorate

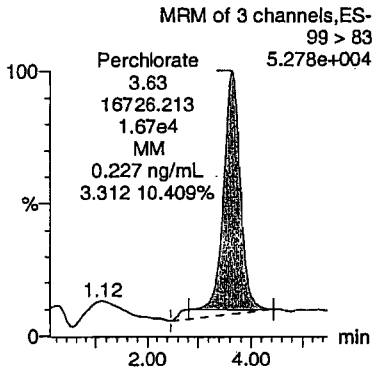

Perchlorate

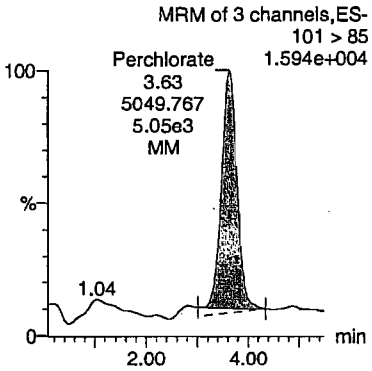

Perchlorate-101

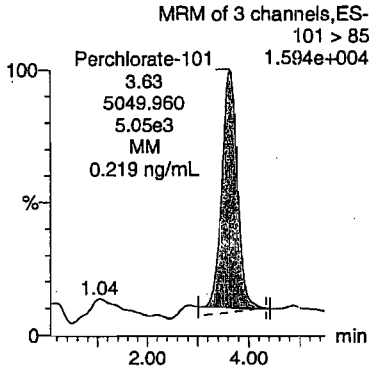

Perchlorate-O(18)

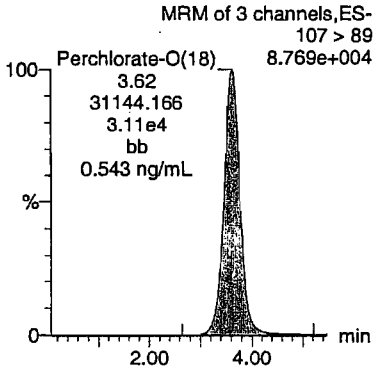

D	Name	Trace	RT	Area	Response	Flags	ModDate	ModTime	pg/mL	%Rec	%Dev	S/N	Ion Ratio
1202069102	Perchlorate	99 > 83	3.63	16726.213	16726.213	MM	30-Mar-10	12:44:48	0.2269	113.43	13.43	383.646	3.31
1202069102	Perchlorate-101	101 > 85	3.63	5049.960	5049.960	MM	30-Mar-10	12:46:03	0.2192	109.62	9.62	187.196	
1202069102	Perchlorate-O(18)	107 > 89	3.62	31144.166	31144.166	bb			0.5432	108.64	8.64	7675.1...	

MM 3/30/10

$$\frac{16726.213}{5049.960} = 3.3121$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-2319

Extract Batch Code: 964449

Date Extracted: 19-MAR-10

GEL MS/PS ID: 1202069100

Client ID: RE46-10-12930

GEL MSD/PSD ID: 1202069101

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.18	0.444	ug/kg	2.44	91.4	2.48	93.1	1.51	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.21		3.23		0		–
Perchlorate-101	2.18	0.387	ug/kg	2.43	93.6	2.46	94.8	1.08	30	75 – 125
Perchlorate-O(18)	0	5.38	ug/kg	5.34		5.49		2.73		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2319

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	28–MAR–10	per0328001a	IPB001
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328001a	IPB001
Perchlorate	0.00	0	NA	28–MAR–10	per0328002a	IPB001
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328002a	IPB001

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032810a.mdb 29 Mar 2010 09:32:17
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032810a.cdb 29 Mar 2010 09:32:40

Name: per0328001a
Date: 28-Mar-2010
Time: 13:50:13
ID: IPB001
Vial: 1:1,A

CWW 03-29-10

Perchlorate

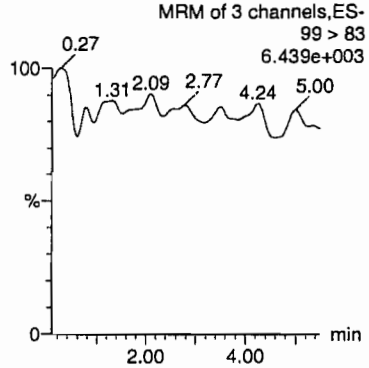

Perchlorate

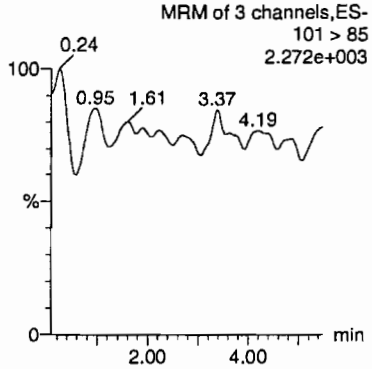

Perchlorate-101

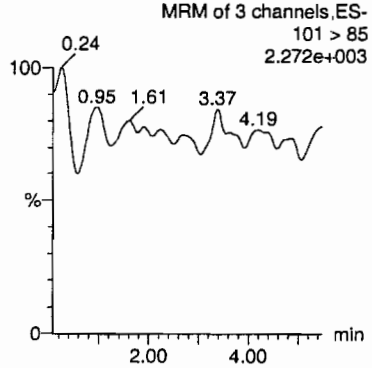

Perchlorate-O(18)

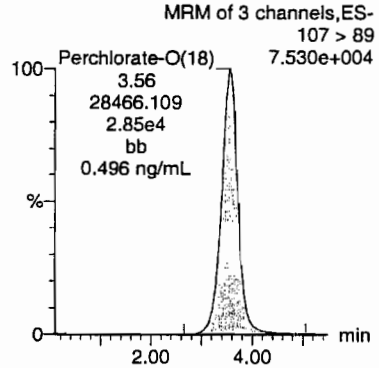

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.56	28466.109	28466.109	bb			0.4965	99.30	-0.70	8068.7...	

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328002a
Date: 28-Mar-2010
Time: 13:58:57
ID: IPB001
Vial: 1:1,A

CWJ 03-29-10

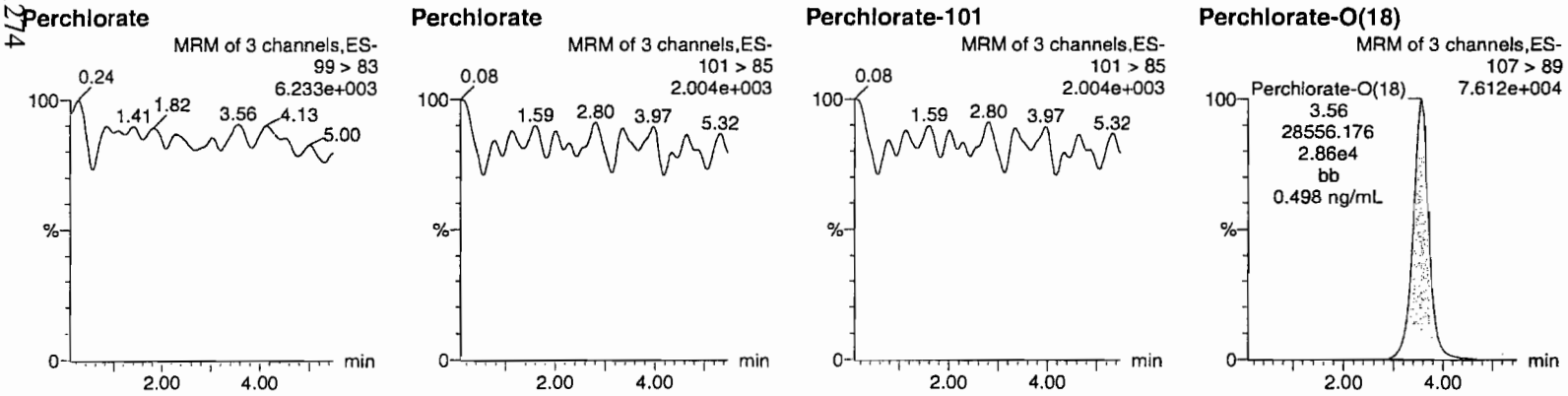

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.56	28556.176	28556.176	bb			0.4981	99.61	-0.39	617.780	

MHT 3/30/10

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2319

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	28–MAR–10	per0328008a	IPB002
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328008a	IPB002
Perchlorate	0.00	0	NA	28–MAR–10	per0328010a	IPB003
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328010a	IPB003
Perchlorate	0.00	0	NA	28–MAR–10	per0328014a	IPB004
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328014a	IPB004
Perchlorate	0.00	0	NA	28–MAR–10	per0328023a	IPB005
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328023a	IPB005
Perchlorate	0.00	0	NA	28–MAR–10	per0328036a	IPB006
Perchlorate–101	0.00	0	NA	28–MAR–10	per0328036a	IPB006

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328008a
Date: 28-Mar-2010
Time: 14:50:04
ID: IPB002
Vial: 1:1,A

CWW 03-29-10

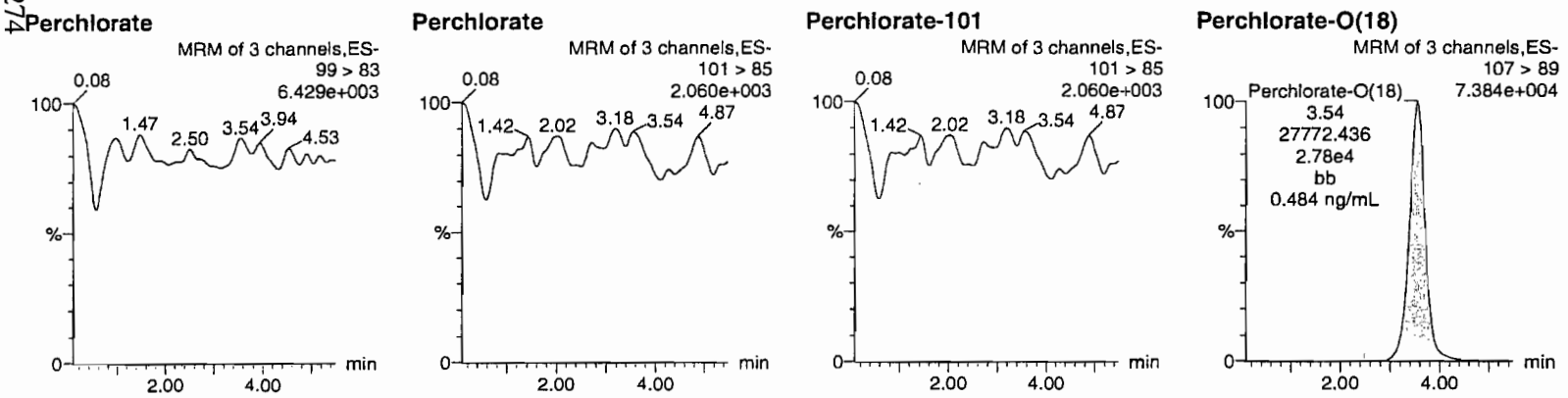

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	3.54	27772.436	27772.436	bb			0.4844	96.88	-3.12	4963.3...	

MAT 3/30/10

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328010a
Date: 28-Mar-2010
Time: 15:07:08
ID: IPB003
Vial: 1:1,A

CWO 03-29-10

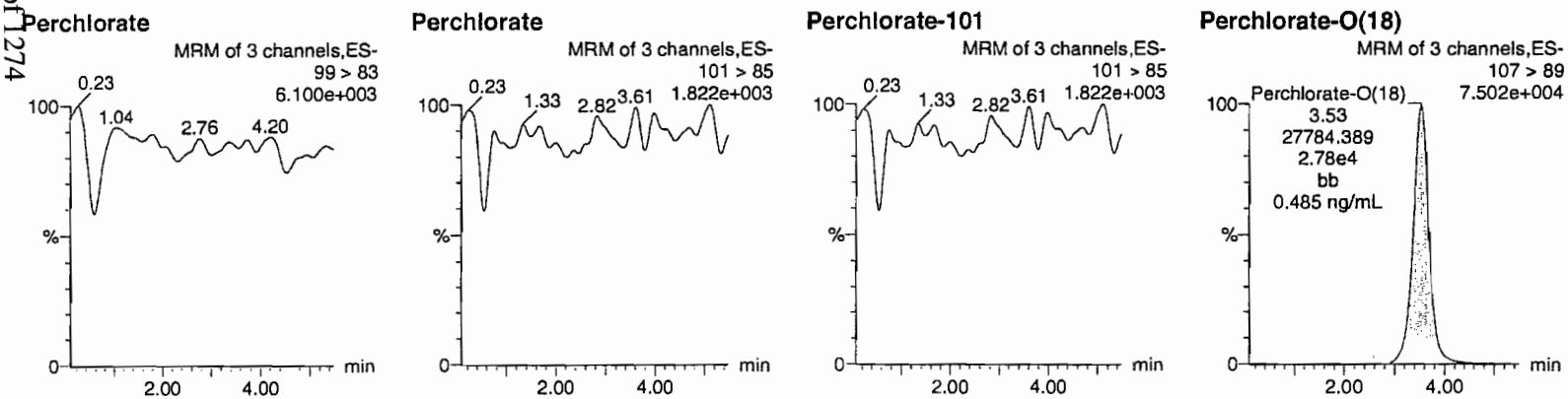

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	3.53	27784.389	27784.389	bb			0.4846	96.92	-3.08	5153.3...	

MAT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328014a
Date: 28-Mar-2010
Time: 15:41:19
ID: IPB004
Vial: 1:1,A

CWW
03-29-10

Perchlorate

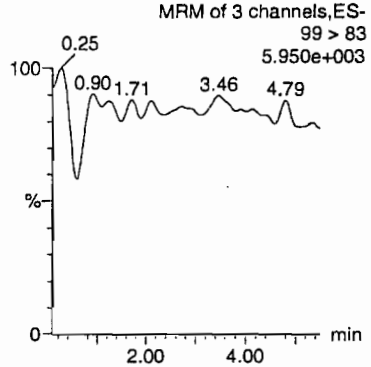

Perchlorate

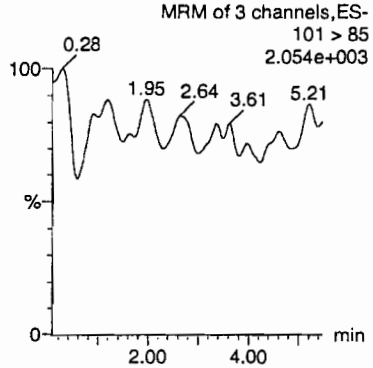

Perchlorate-101

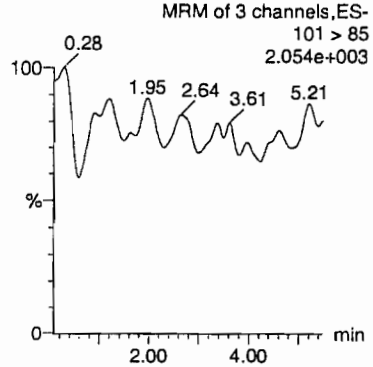

Perchlorate-O(18)

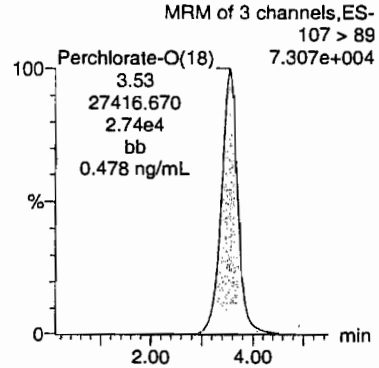

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	3.53	27416.670	27416.670	bb			0.4782 ✓	95.64 -	-4.36	1369.3...	

MAT
3/30/10

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328023a
Date: 28-Mar-2010
Time: 16:58:12
ID: IPB005
Vial: 1:1,A

03-29-10

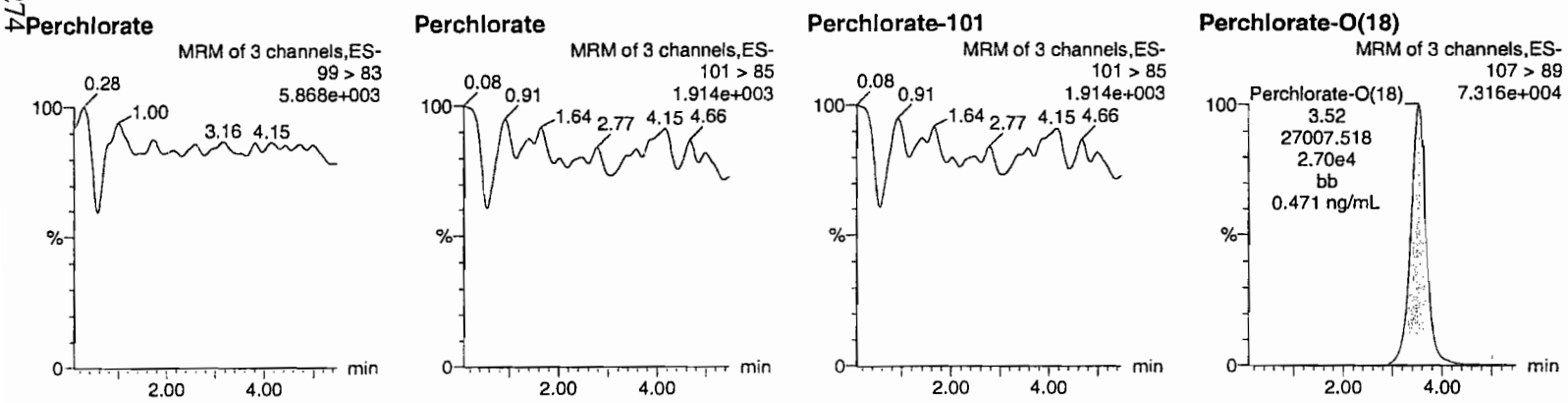

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	3.52	27007.518	27007.518	bb			0.4711	94.21	-5.79	913.616	

MAT 3/30/10

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328036a
Date: 28-Mar-2010
Time: 18:49:11
ID: IPB006
Vial: 1:1,A

CWD 03-29-10

Perchlorate

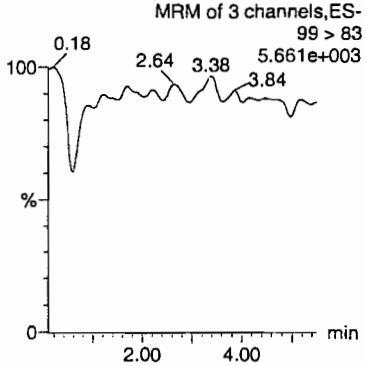

Perchlorate

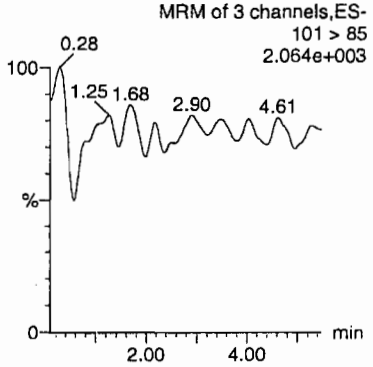

Perchlorate-101

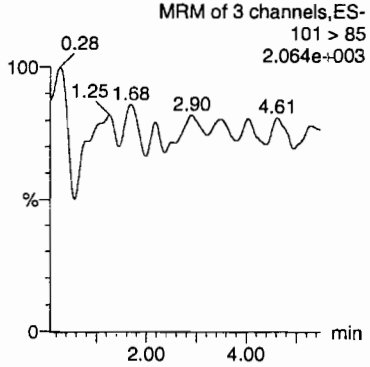

Perchlorate-O(18)

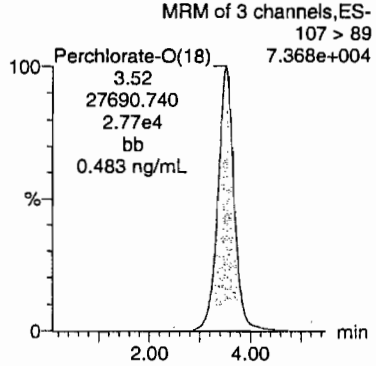

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	3.52	27690.740	27690.740	bb			0.4830	96.59	-3.41	10009....	

MAP 3/30/10

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Nairb.rcf
;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWJ 01-09-08

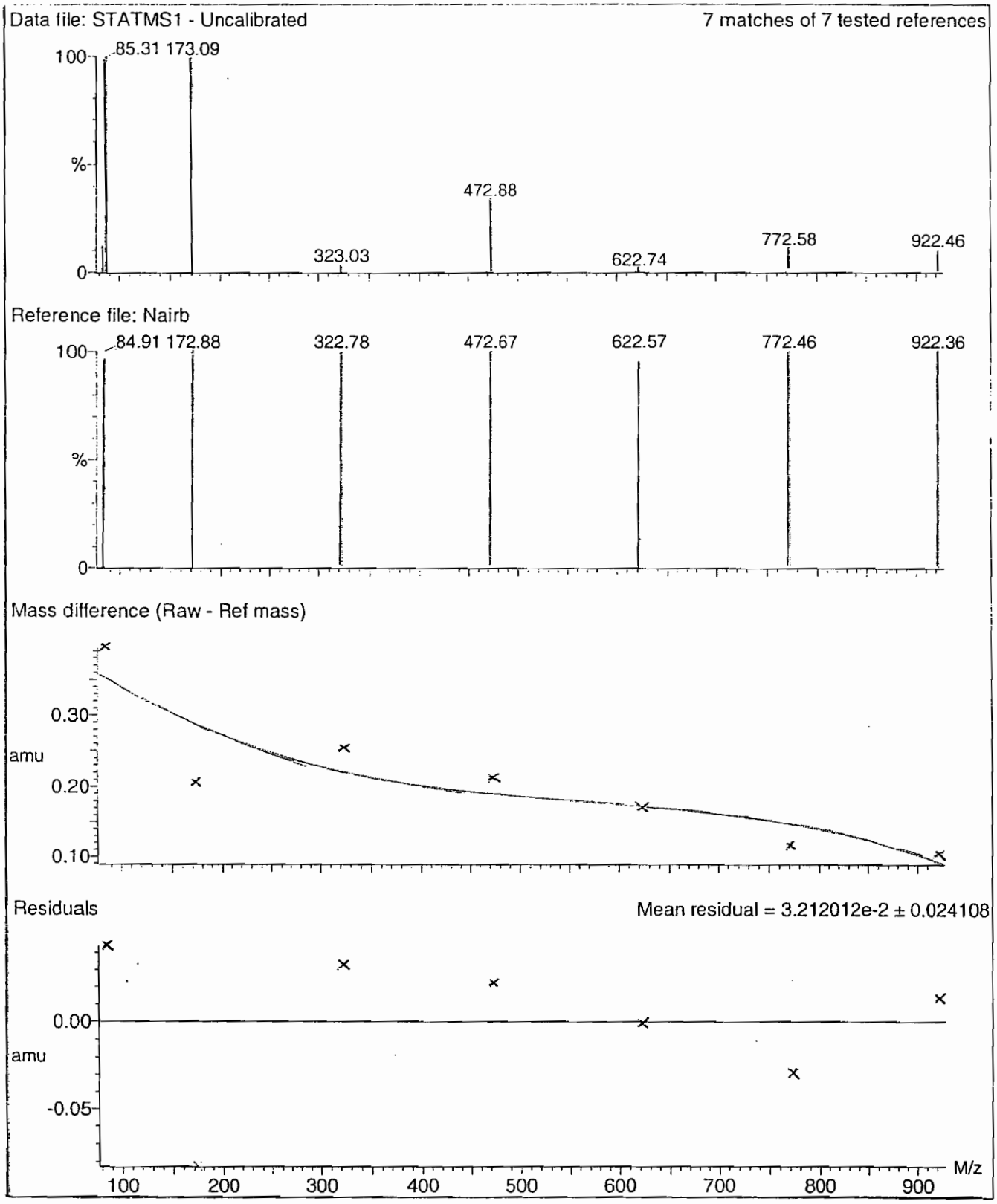

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

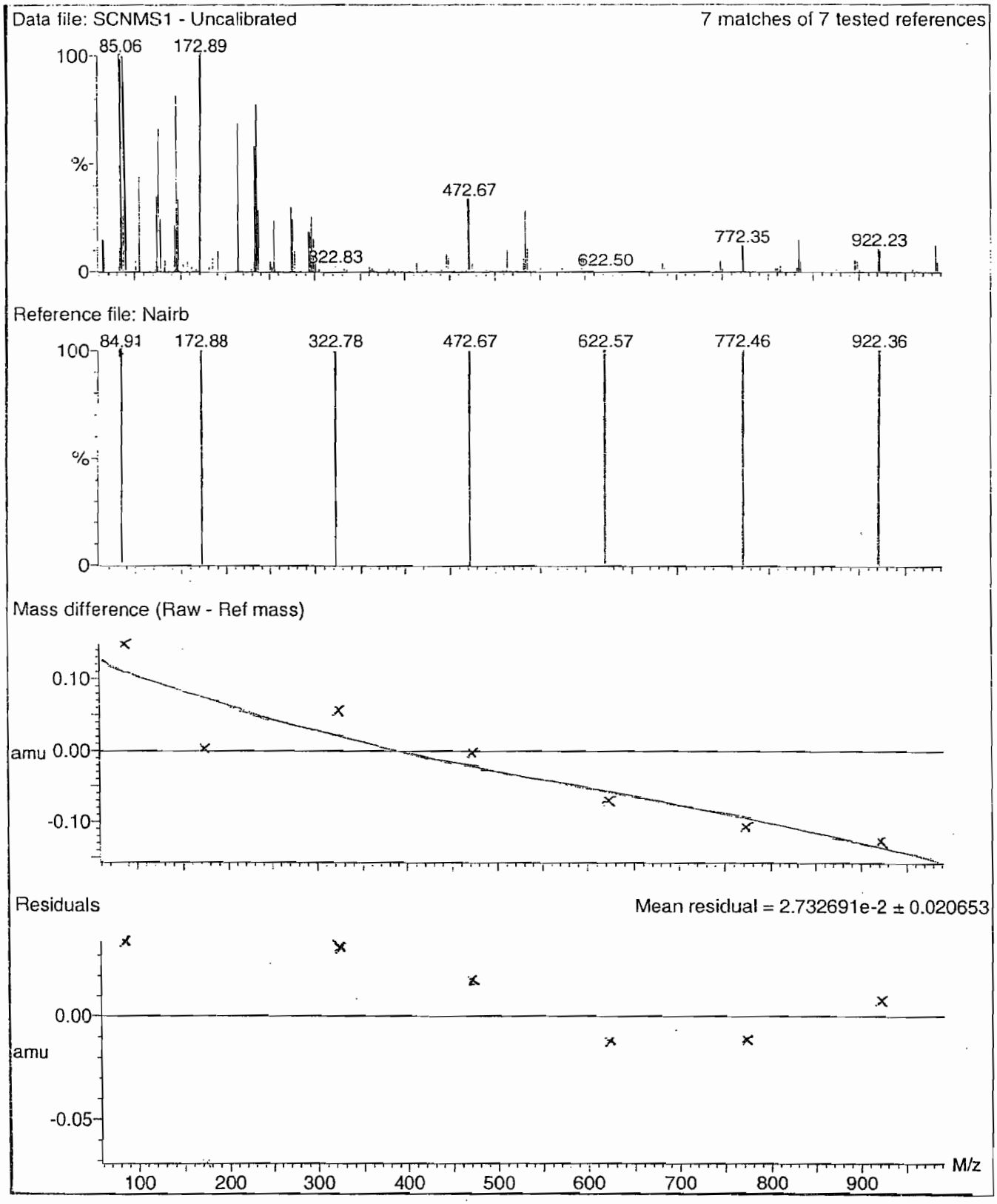

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

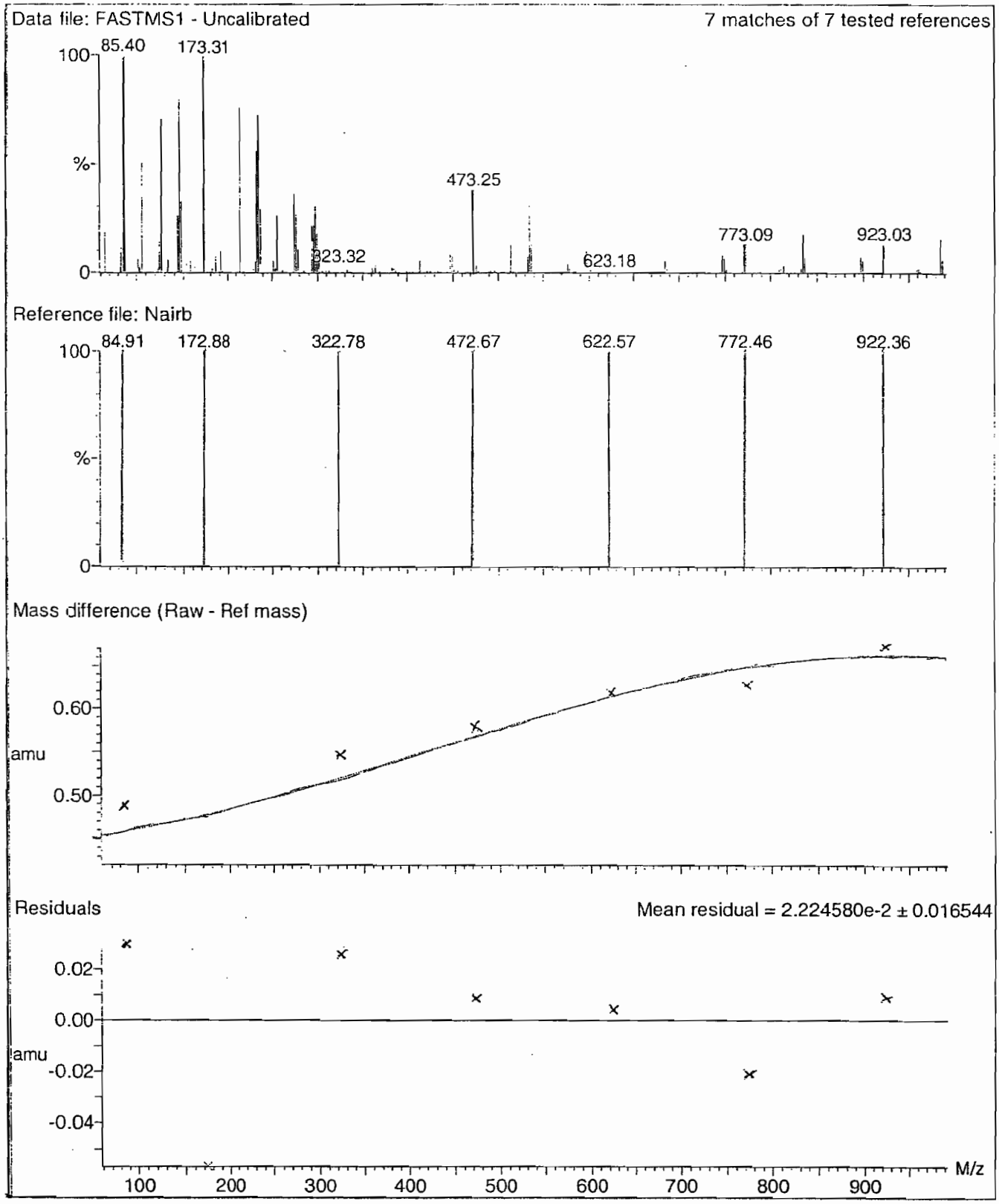

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

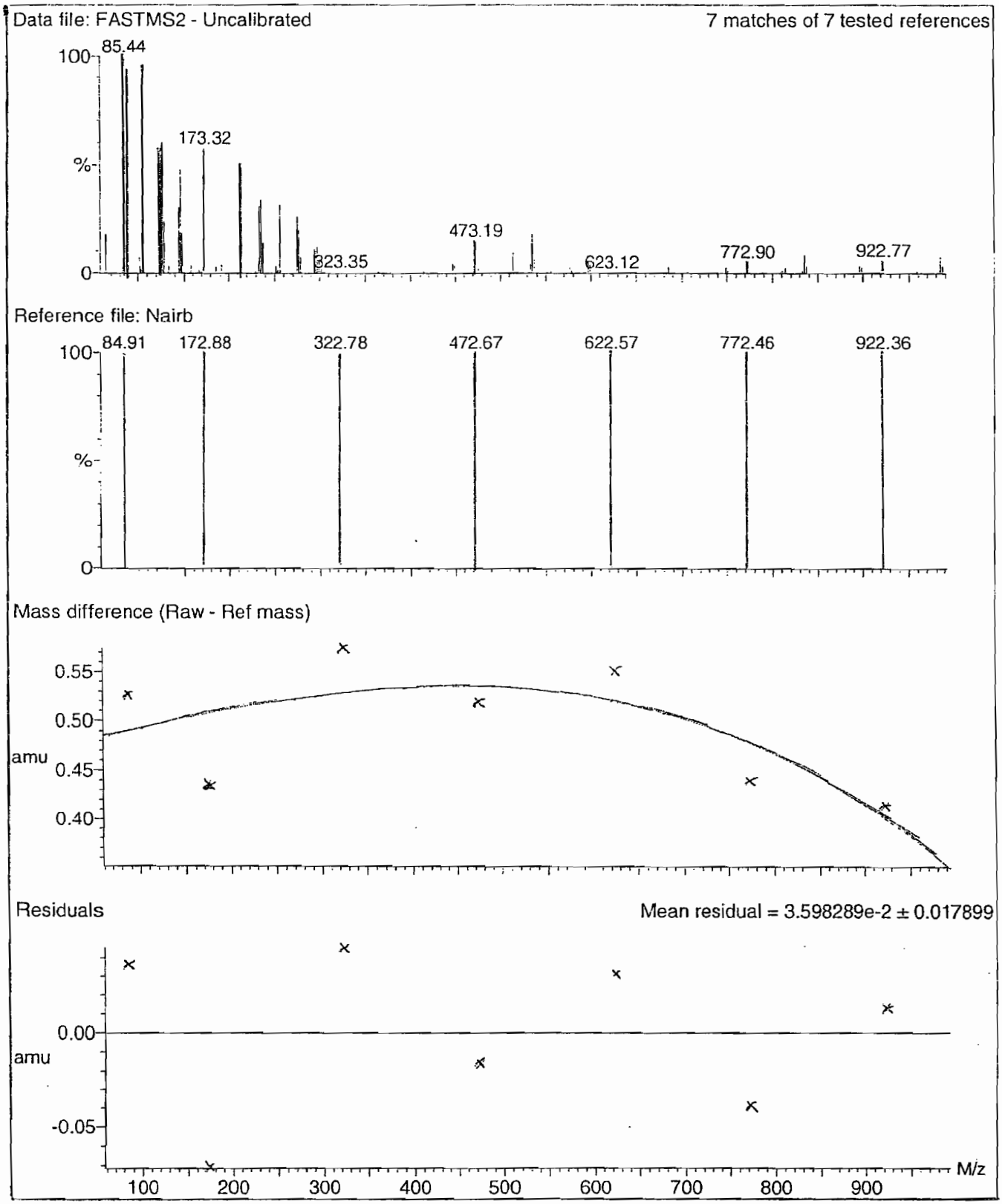

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

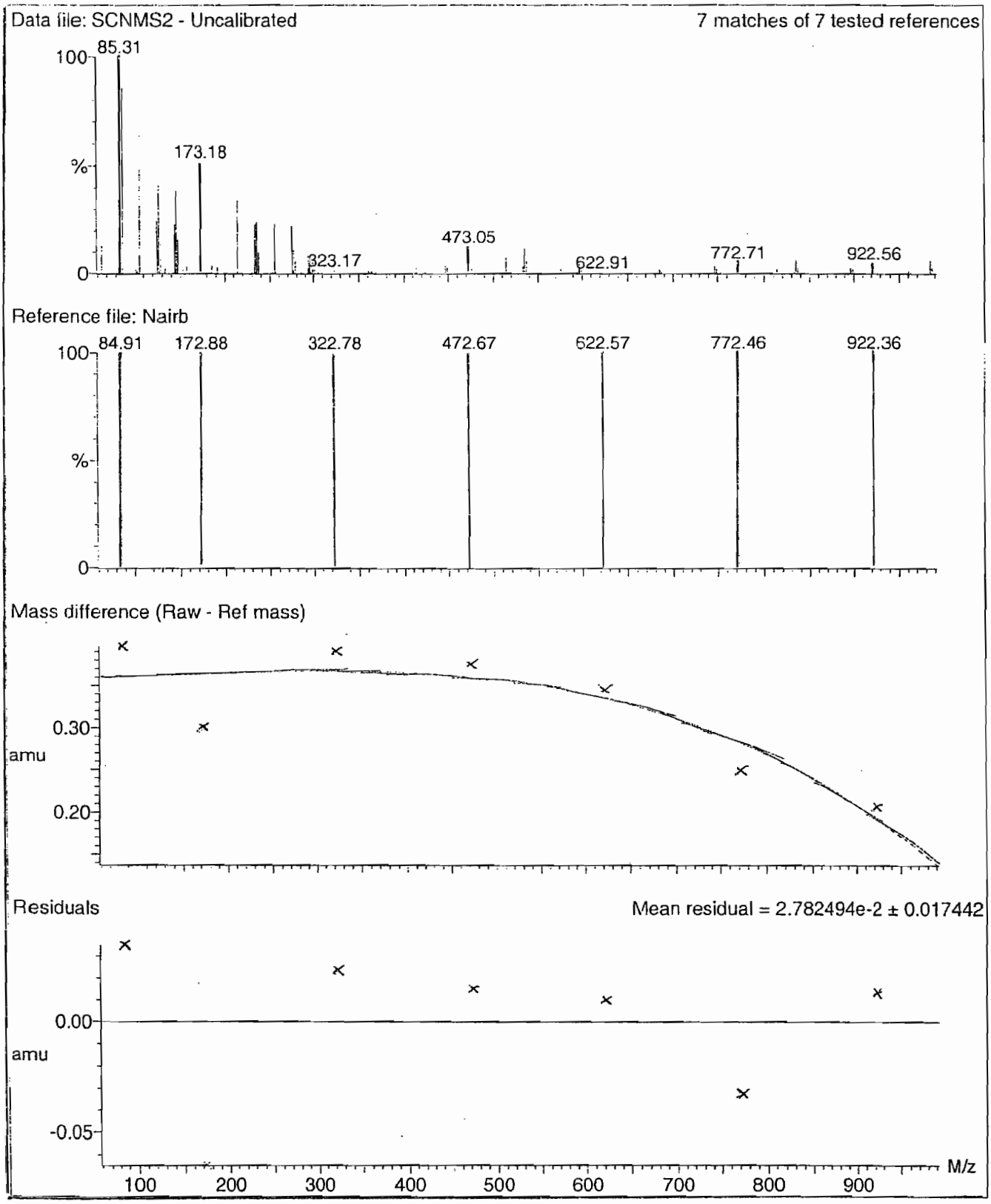

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

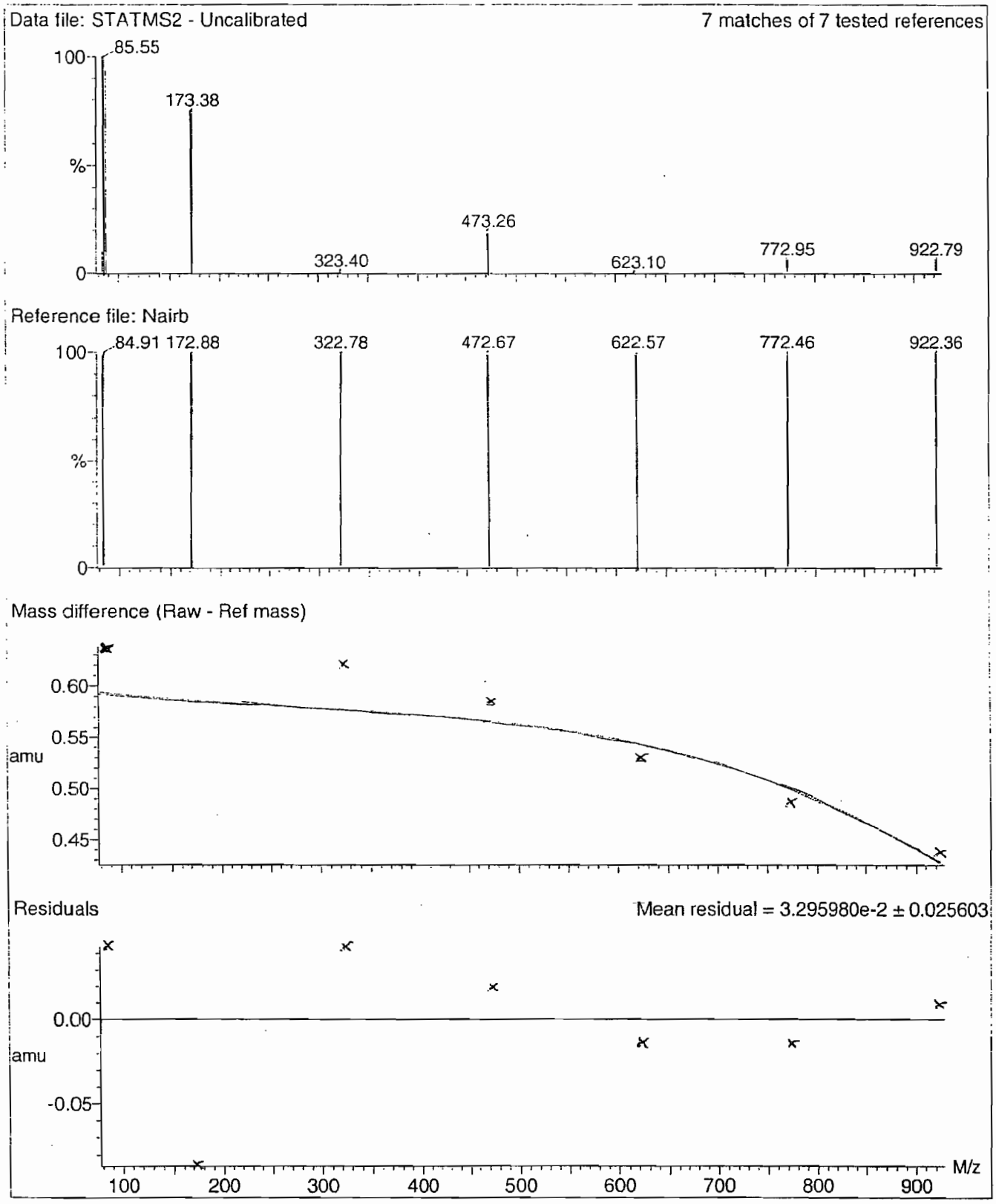

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Sunday, March 28, 2010 11:58:51 Eastern Standard Time

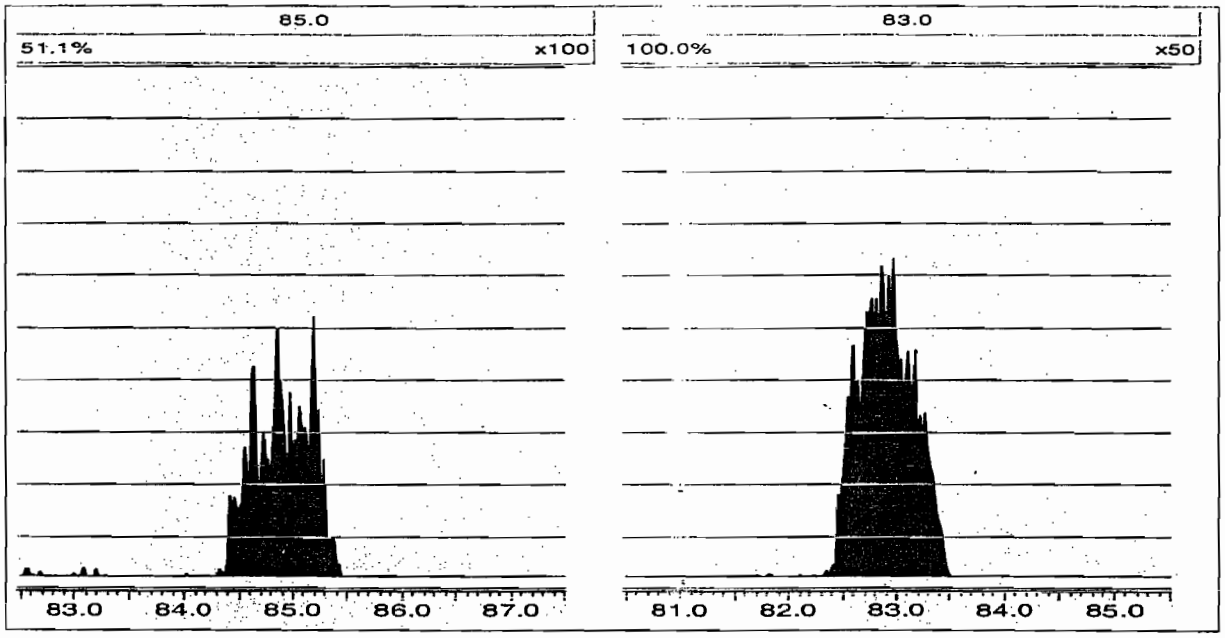

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2319

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0328006a**	**28–MAR–10**	**28421.6**				
Lower Area Limit			**14210.8**				
Upper Area Limit			**56843.2**				
1202069098	per0328015a	28–MAR–10 15:49	27626.8	3.53			
1202069099	per0328016a	28–MAR–10 15:58	28717.2	3.53	3.54503	1.004	
1202069102	per0328017a	28–MAR–10 16:06	31144.2	3.62	3.63188	1.003	
248866001	per0328028a	28–MAR–10 17:40	30137.1	3.53	3.55735	1.008	
248866002	per0328029a	28–MAR–10 17:49	27797.6	3.53			

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-11885

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2319

GEL Sample ID: 248866001

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 96.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.52	2.08	0.520	ug/kg	U	1	28-MAR-10 17:40	per0328028a
	Perchlorate Isotope Ratio						1	28-MAR-10 17:40	per0328028a
14797-73-0	Perchlorate-101	.52	2.08	0.520	ug/kg	U	1	28-MAR-10 17:40	per0328028a
	Perchlorate-O(18)			5.47	ug/kg		1	28-MAR-10 17:40	per0328028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328028a
Date: 28-Mar-2010
Time: 17:40:50
ID: 248866001
Vial: 1:5,A

|LZNL|964450|50120|1| RA

CWO 03-29-10

Perchlorate

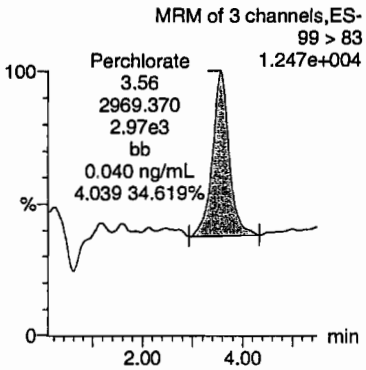

Perchlorate

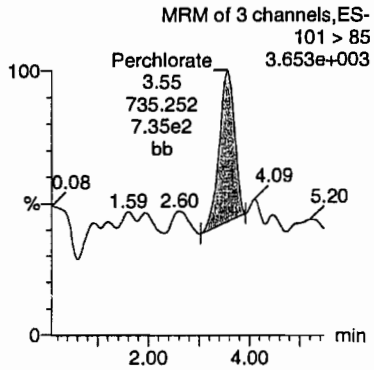

Perchlorate-101

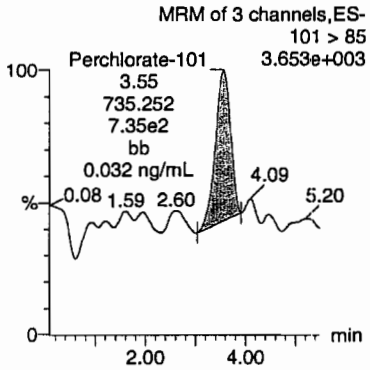

Perchlorate-O(18)

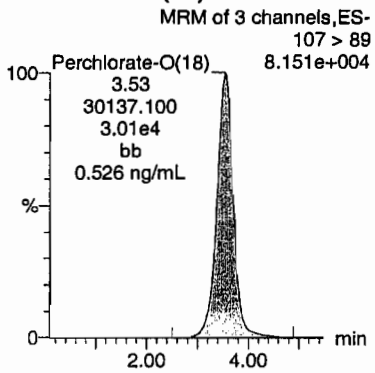

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248866001	Perchlorate	99 > 83	3.56	2969.370	2969.370	bb			0.0403			45.327	4.04
248866001	Perchlorate-101	101 > 85	3.55	735.252	735.252	bb			0.0319			20.180	
248866001	Perchlorate-O(18)	107 > 89	3.53	30137.100	30137.100	bb			0.5256	105.13	5.13	4680.8...	

OKAY 200500

MMT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE46-10-11886

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2319

GEL Sample ID: 248866002

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 95.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.525	2.1	0.525	ug/kg	U	1	28-MAR-10 17:49	per0328029a
	Perchlorate Isotope Ratio						1	28-MAR-10 17:49	per0328029a
14797-73-0	Perchlorate-101	.525	2.1	0.525	ug/kg	U	1	28-MAR-10 17:49	per0328029a
	Perchlorate-O(18)			5.09	ug/kg		1	28-MAR-10 17:49	per0328029a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328029a
Date: 28-Mar-2010
Time: 17:49:23
ID: 248866002
Vial: 1:5,B

|LANL|964450|50ml|1|NA

GW 03-29-10

Perchlorate

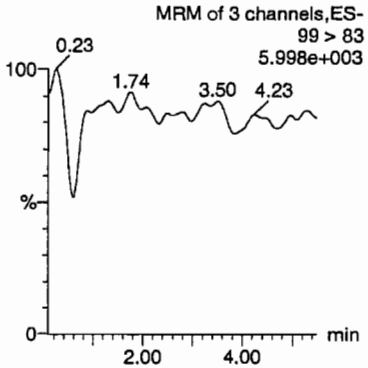

Perchlorate

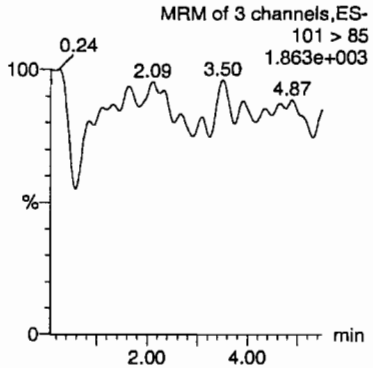

Perchlorate-101

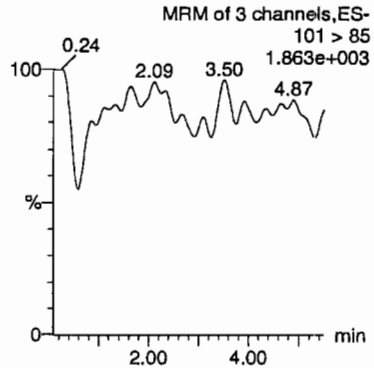

Perchlorate-O(18)

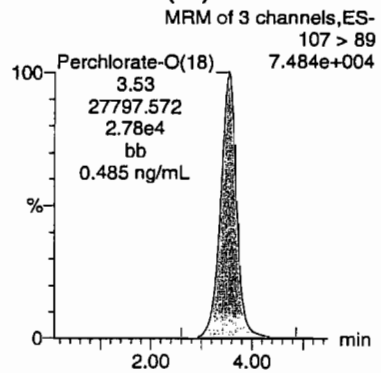

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
248866002	Perchlorate	99 > 83											0.00
248866002	Perchlorate-101	101 > 85											
248866002	Perchlorate-O(18)	107 > 89	3.53	27797.572	27797.572	bb			0.4848	96.97	-3.03	3287.5...	

MMP 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2319

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 28–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 73726.48

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2319

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 28–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 23033

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032810a.mdb 29 Mar 2010 09:32:17
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032810a.cdb 29 Mar 2010 09:32:40

Compound name: Perchlorate
Response Factor: 73726.5
RRF SD: 1732.62, % Relative SD: 2.35006
Response type: External Std, Area
Curve type: RF

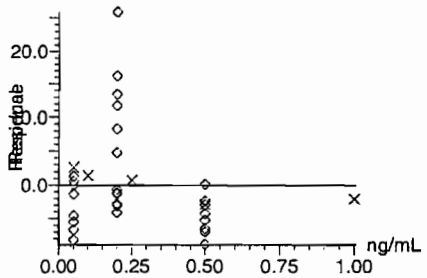

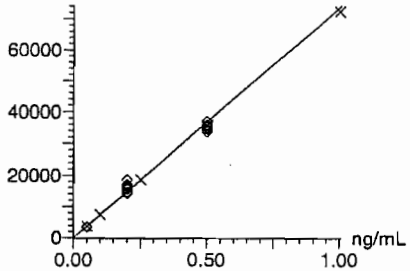

CWW
03-29-10

Compound name: Perchlorate-101
Response Factor: 23033
RRF SD: 903.383, % Relative SD: 3.92213
Response type: External Std, Area
Curve type: RF

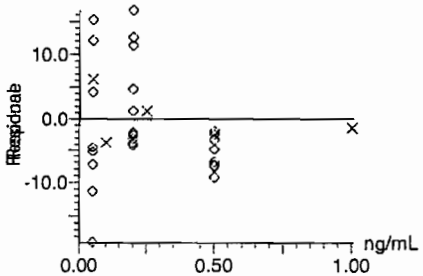

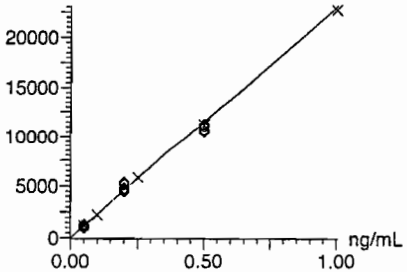

MSTT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 57333.8
RRF SD: 1178.71, % Relative SD: 2.05586
Response type: External Std, Area
Curve type: RF

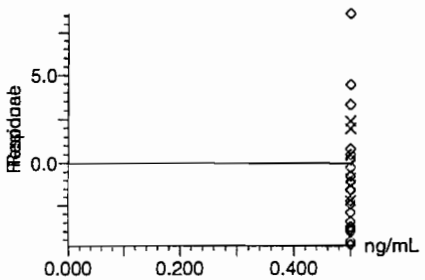

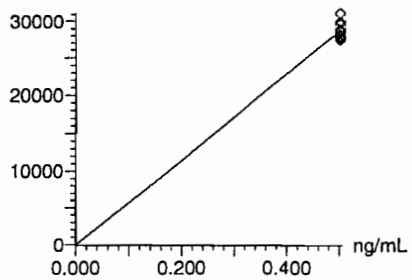

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2319

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	97.61	28–MAR–10 14:58	per0328009a
Perchlorate Isotope Ratio		3.19		28–MAR–10 14:58	per0328009a
Perchlorate–101	.5	.49	98.08	28–MAR–10 14:58	per0328009a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Per

CWW 03-24-10

Name: per0328009a
Date: 28-Mar-2010
Time: 14:58:36
ID: WCL100326-06ICV
Vial: 1:2,A

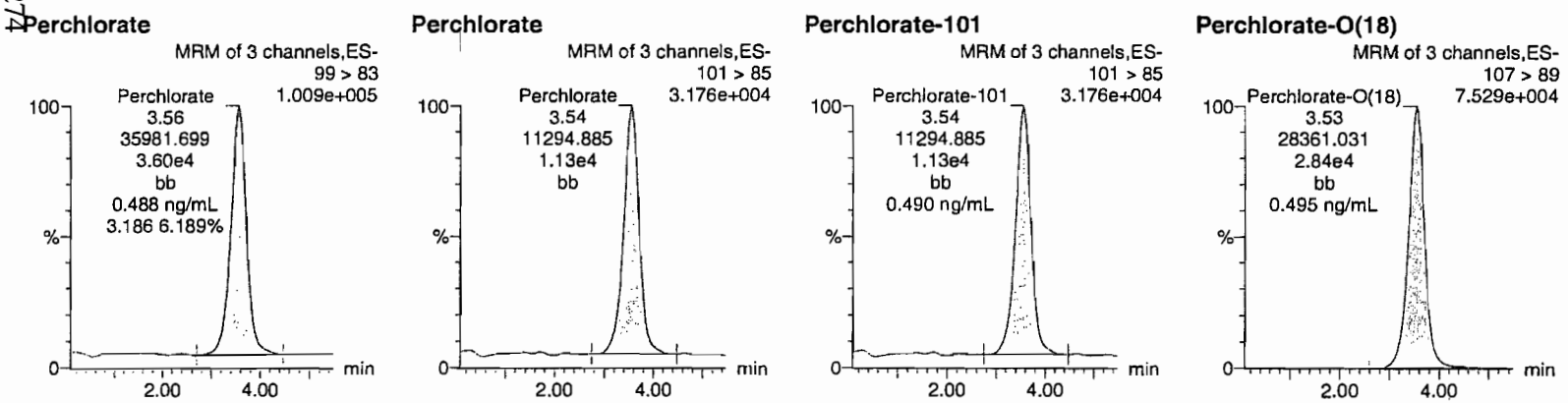

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06ICV	Perchlorate	99 > 83	3.56	35981.699	35981.699	bb			0.4880	97.61	-2.39	915.246	3.19
WCL100326-06ICV	Perchlorate-101	101 > 85	3.54	11294.885	11294.885	bb			0.4904	98.08	-1.92	276.628	
WCL100326-06ICV	Perchlorate-O(18)	107 > 89	3.53	28361.031	28361.031	bb			0.4947	98.93	-1.07	3706.3...	

MBT 3/30/10

$$\frac{35981.699}{73726.5} = 0.4880$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2319

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.47	94.8	28-MAR-10 16:49	per0328022a
Perchlorate Isotope Ratio		3.28		28-MAR-10 16:49	per0328022a
Perchlorate-101	.5	.46	92.59	28-MAR-10 16:49	per0328022a
Perchlorate	.5	.5	100.11	28-MAR-10 18:40	per0328035a
Perchlorate Isotope Ratio		3.31		28-MAR-10 18:40	per0328035a
Perchlorate-101	.5	.48	96.74	28-MAR-10 18:40	per0328035a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328022a
Date: 28-Mar-2010
Time: 16:49:40
ID: WCL100326-06CCV
Vial: 1:2,A

Page 330
03-29-10

Perchlorate

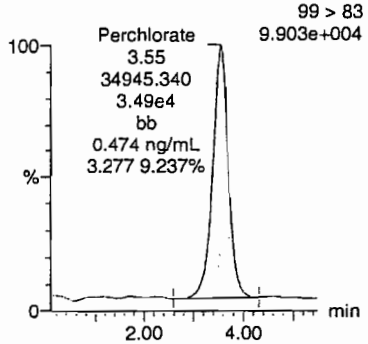

Perchlorate

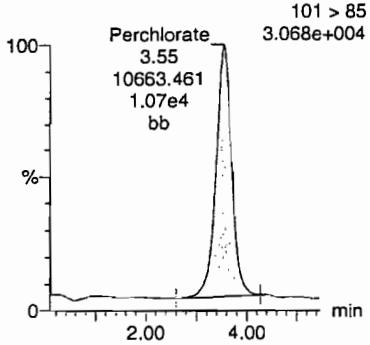

Perchlorate-101

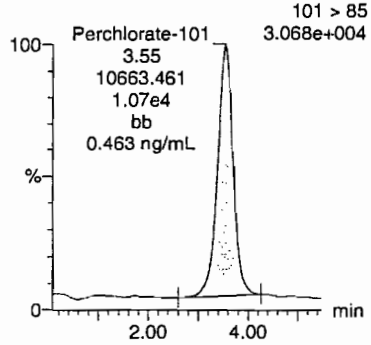

Perchlorate-O(18)

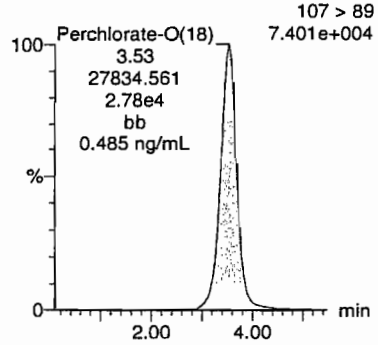

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.55	34945.340	34945.340	bb			0.4740	94.80	-5.20	432.965	3.28
WCL100326-06CCV	Perchlorate-101	101 > 85	3.55	10663.461	10663.461	bb			0.4630	92.59	-7.41	677.245	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.53	27834.561	27834.561	bb			0.4855	97.10	-2.90	5758.9...	

MHP 7/30/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328035a
Date: 28-Mar-2010
Time: 18:40:39
ID: WCL100326-06CCV
Vial: 1:2,A

Pass
03-29-10

Perchlorate

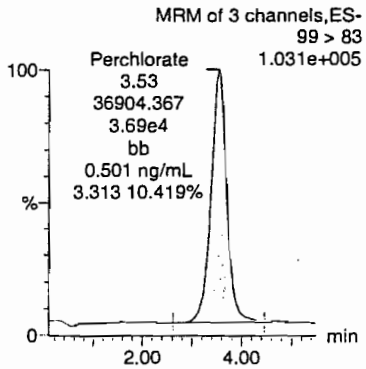

Perchlorate

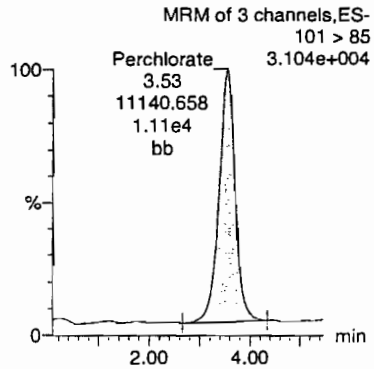

Perchlorate-101

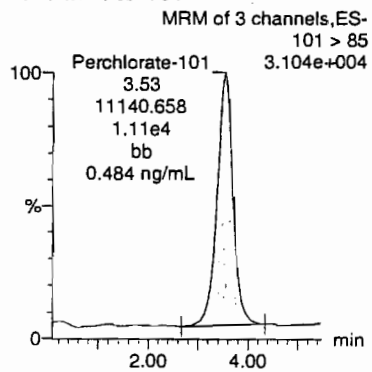

Perchlorate-O(18)

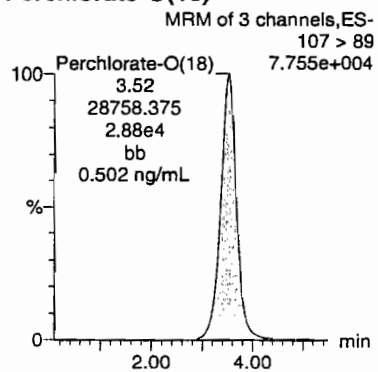

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-06CCV	Perchlorate	99 > 83	3.53	36904.367	36904.367	bb			0.5006	100.11	0.11	986.950	3.31
WCL100326-06CCV	Perchlorate-101	101 > 85	3.53	11140.658	11140.658	bb			0.4837	96.74	-3.26	547.613	
WCL100326-06CCV	Perchlorate-O(18)	107 > 89	3.52	28758.375	28758.375	bb			0.5016	100.32	0.32	150.701	

MAT
3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2319

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	94.53	28–MAR–10 15:15	per0328011a
Perchlorate Isotope Ratio		2.7		28–MAR–10 15:15	per0328011a
Perchlorate–101	.05	.06	112.08	28–MAR–10 15:15	per0328011a
Perchlorate	.05	.05	98.65	28–MAR–10 17:06	per0328024a
Perchlorate Isotope Ratio		3.41		28–MAR–10 17:06	per0328024a
Perchlorate–101	.05	.05	92.66	28–MAR–10 17:06	per0328024a
Perchlorate	.05	.05	93.38	28–MAR–10 18:57	per0328037a
Perchlorate Isotope Ratio		3.15		28–MAR–10 18:57	per0328037a
Perchlorate–101	.05	.05	94.74	28–MAR–10 18:57	per0328037a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328011a
Date: 28-Mar-2010
Time: 15:15:40
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
and
03-29-10

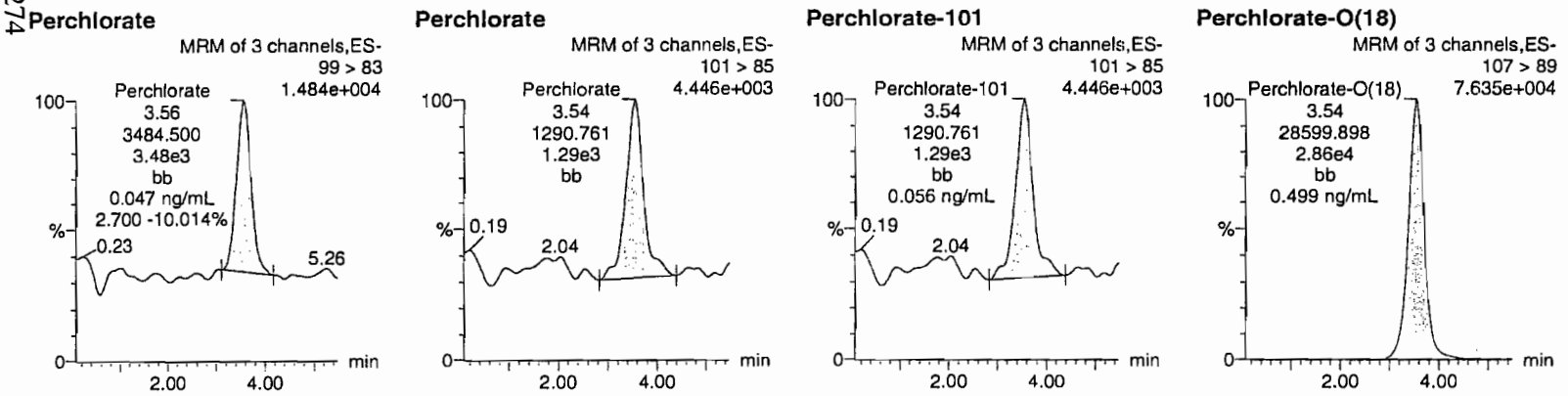

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.56	3484.500	3484.500	bb			0.0473	94.53	-5.47	43.366	2.70
WCL100326-07CRI	Perchlorate-101	101 > 85	3.54	1290.761	1290.761	bb			0.0560	112.08	12.08	18.604	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.54	28599.898	28599.898	bb			0.4988	99.77	-0.23	3124.1...	

MAT 3/30/10

$$\frac{3484.500}{1290.761} = 2.6996$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328024a
Date: 28-Mar-2010
Time: 17:06:44
ID: WCL100326-07CRI
Vial: 1:2,B

Pass
03-29-10

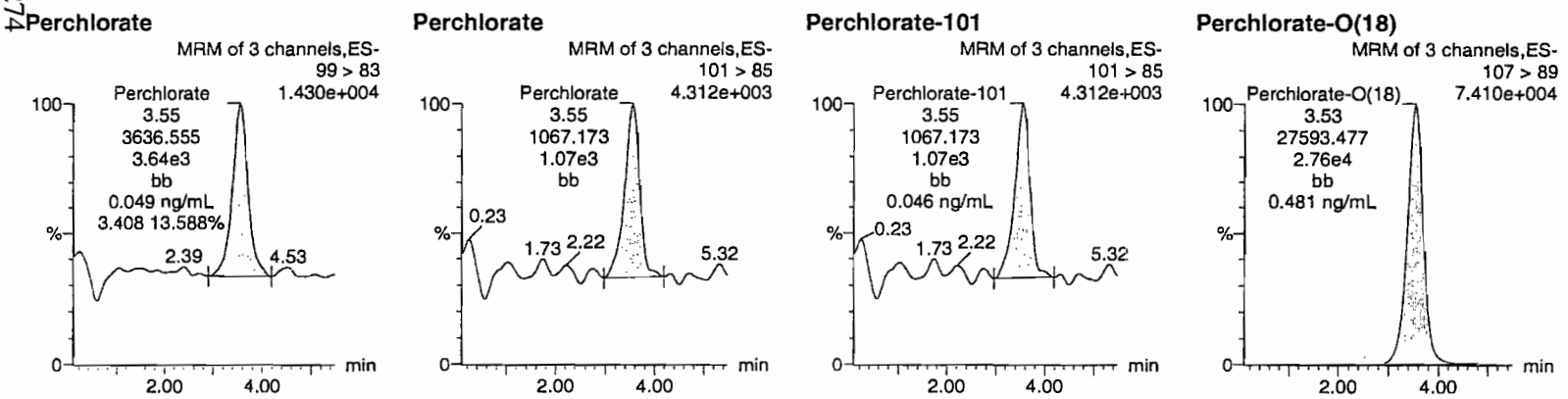

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.55	3636.555	3636.555	bb			0.0493	98.65	-1.35	51.357	3.41
WCL100326-07CRI	Perchlorate-101	101 > 85	3.55	1067.173	1067.173	bb			0.0463	92.66	-7.34	20.263	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.53	27593.477	27593.477	bb			0.4813	96.26	-3.74	1525.0...	

MMT
3/30/10

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328037a
Date: 28-Mar-2010
Time: 18:57:43
ID: WCL100326-07CRI
Vial: 1:2,B

Perch
03-29-10

Perchlorate

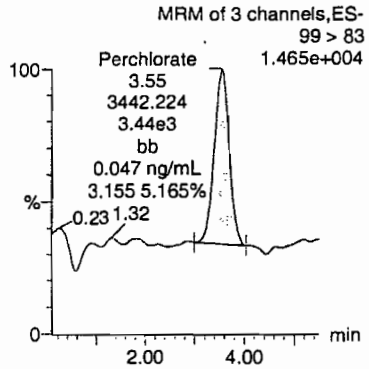

Perchlorate

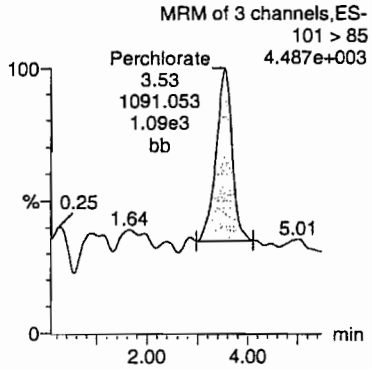

Perchlorate-101

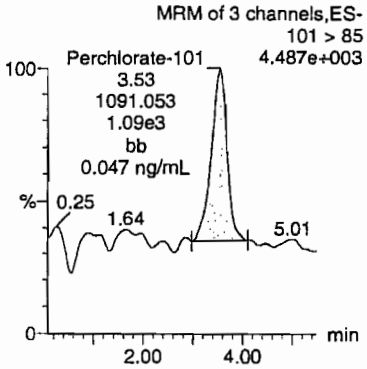

Perchlorate-O(18)

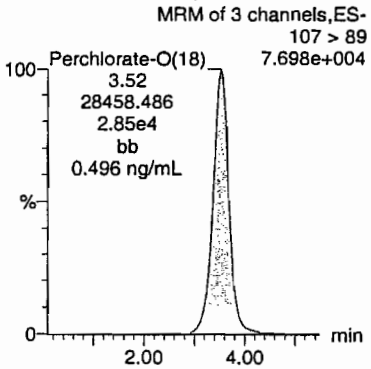

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100326-07CRI	Perchlorate	99 > 83	3.55	3442.224	3442.224	bb			0.0467	93.38	-6.62	71.164	3.15
WCL100326-07CRI	Perchlorate-101	101 > 85	3.53	1091.053	1091.053	bb			0.0474	94.74	-5.26	28.828	
WCL100326-07CRI	Perchlorate-O(18)	107 > 89	3.52	28458.486	28458.486	bb			0.4964	99.27	-0.73	6519.7...	

MJTP 3/30/10

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 19–MAR–10

GEL Job No (SDG): 10–2319

GEL Sample ID: 1202069098

Date Filtered: 19–MAR–10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.5	2	0.500	ug/kg	U	1	28–MAR–10 15:49	per0328015a
	Perchlorate Isotope Ratio						1	28–MAR–10 15:49	per0328015a
14797–73–0	Perchlorate–101	.5	2	0.500	ug/kg	U	1	28–MAR–10 15:49	per0328015a
	Perchlorate–O(18)			4.82	ug/kg		1	28–MAR–10 15:49	per0328015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328015a
Date: 28-Mar-2010
Time: 15:49:54
ID: 1202069098
Vial: 1:3,C

|LANK|964450|20L20|MB|1|RA

03-29-10

Perchlorate

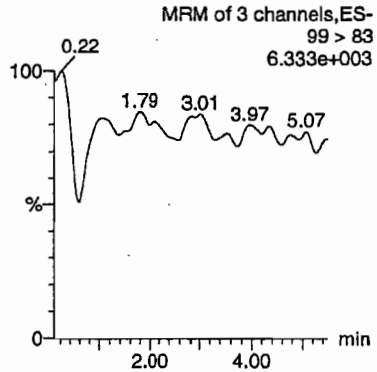

Perchlorate

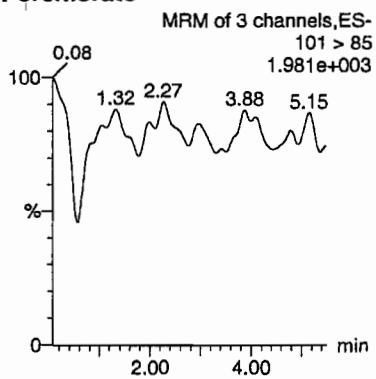

Perchlorate-101

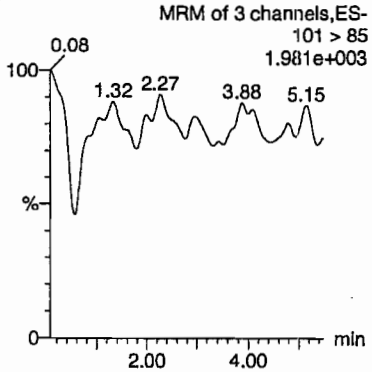

Perchlorate-O(18)

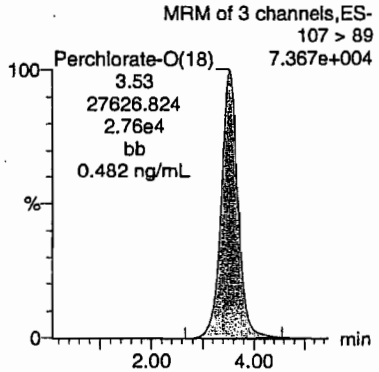

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202069098	Perchlorate	99 > 83											0.00
1202069098	Perchlorate-101	101 > 85											
1202069098	Perchlorate-O(18)	107 > 89	3.53	27626.824	27626.824	bb			0.4819	96.37	-3.63	1342.5...	

MAT 3/30/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964449

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 19-MAR-10

GEL Job No (SDG): 10-2319

GEL Sample ID: 1202069099

Date Filtered: 19-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	1.99	ug/kg	J	1	28-MAR-10 15:58	per0328016a
	Perchlorate Isotope Ratio			3.25			1	28-MAR-10 15:58	per0328016a
14797-73-0	Perchlorate-101	.5	2	1.95	ug/kg	J	1	28-MAR-10 15:58	per0328016a
	Perchlorate-O(18)			5.01	ug/kg		1	28-MAR-10 15:58	per0328016a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328016a
Date: 28-Mar-2010
Time: 15:58:26
ID: 1202069099
Vial: 1:3,D

|LANL|964450|SOLID|LCS|1|

CWO 03-29-10

Perchlorate

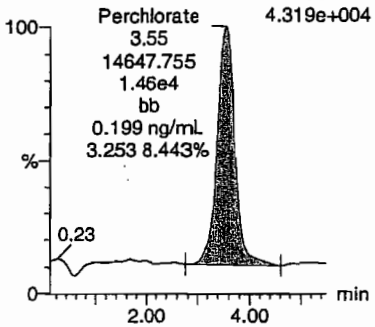

Perchlorate

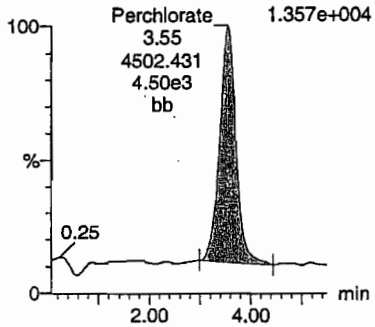

Perchlorate-101

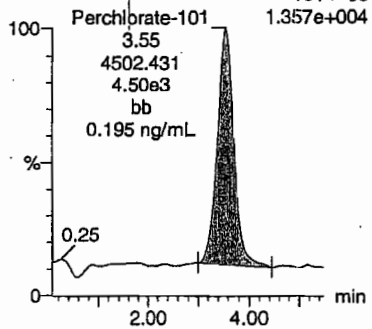

Perchlorate-O(18)

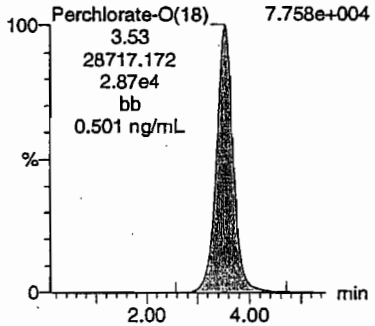

ID	Name	Trace	Rtn	Area	Response	Flags	Mod Date	Mod Time	ng/mL	% Rec	% Dev	S/N	Ion Ratio
1202069099	Perchlorate	99 > 83	3.55	14647.755	14647.755	bb			0.1987	99.34	-0.66	189.751	3.25
1202069099	Perchlorate-101	101 > 85	3.55	4502.431	4502.431	bb			0.1955	97.74	-2.26	143.529	
1202069099	Perchlorate-O(18)	107 > 89	3.53	28717.172	28717.172	bb			0.5009	100.18	0.18	2220.8...	

MMT 3/29/10

$$\frac{14647.755}{73726.5} = 0.1987$$

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 964449 **Verified by:** _____

Analyst: Kaylie Westmoreland

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202069098 MB	19-MAR-2010 14:27:00	2	20	10
1202069099 LCS	19-MAR-2010 14:27:00	2	20	10
248863001	19-MAR-2010 14:27:00	2	20	10
248863002	19-MAR-2010 14:27:00	2	20	10
1202069100 MS (248863002)	19-MAR-2010 14:27:00	2	20	10
1202069101 MSD (248863002)	19-MAR-2010 14:27:00	2	20	10
248863003	19-MAR-2010 14:27:00	2	20	10
248863004	19-MAR-2010 14:27:00	2	20	10
248865001	19-MAR-2010 14:27:00	2	20	10
248866001	19-MAR-2010 14:27:00	2	20	10
248866002	19-MAR-2010 14:27:00	2	20	10
248867001	19-MAR-2010 14:27:00	2	20	10
248867002	19-MAR-2010 14:27:00	2	20	10
248867003	19-MAR-2010 14:27:00	2	20	10
248867004	19-MAR-2010 14:27:00	2	20	10
249055001	19-MAR-2010 14:27:00	2	20	10
249055002	19-MAR-2010 14:27:00	2	20	10
249057002	19-MAR-2010 14:27:00	2	20	10
249057003	19-MAR-2010 14:27:00	2	20	10
249064002	19-MAR-2010 14:27:00	2	20	10
249064003	19-MAR-2010 14:27:00	2	20	10
249064004	19-MAR-2010 14:27:00	2	20	10
249064005	19-MAR-2010 14:27:00	2	20	10
1202069102 ICS	19-MAR-2010 14:27:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202069102	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
LCS	1202069099	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
MS	1202069100	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL
MSD	1202069101	10 ug/L ICV/CCV Second Source	UCL100311-01.2	.4	mL

Comments:

Desalting Cartridges used: 100224-1-Ba & 100223-1-H

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/28/10
Extr. Injection Volume: 20uL
Sequence Number: per032810a
Initial Calibration Date: 03/28/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1284736
Standard-Samp Reagent Lot#:: 1284736

Reviewed BY: MJT
Date: 3/30/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100326-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0328001a	IPB001	CWW	3/28/2010 13:50			1		USE	B
per0328002a	IPB001	CWW	3/28/2010 13:58			1		USE	B
per0328003a	WCLICAL-01	CWW	3/28/2010 14:07			1		USE	I
per0328004a	WCLICAL-02	CWW	3/28/2010 14:16			1		USE	I
per0328005a	WCLICAL-03	CWW	3/28/2010 14:24			1		USE	I
per0328006a	WCLICAL-04	CWW	3/28/2010 14:33			1		USE	I
per0328007a	WCLICAL-05	CWW	3/28/2010 14:41			1		USE	I
per0328008a	IPB002	CWW	3/28/2010 14:50			1		USE	B
per0328009a	WCLICV	CWW	3/28/2010 14:58			1		USE	C
per0328010a	IPB003	CWW	3/28/2010 15:07			1		USE	B
per0328011a	WCLCRI	CWW	3/28/2010 15:15			1		USE	C
per0328012a	249376001	CWW	3/28/2010 15:24	966566	10-2446	1	LANL	USE	S
per0328013a	249376004	CWW	3/28/2010 15:32	966566	10-2446	1	LANL	USE	S
per0328014a	IPB004	CWW	3/28/2010 15:41			1		USE	B
per0328015a	1202069098	CWW	3/28/2010 15:49	964450	VARIOUS	1	LANL	USE	S
per0328016a	1202069099	CWW	3/28/2010 15:58	964450	VARIOUS	1	LANL	USE	S
per0328017a	1202069102	CWW	3/28/2010 16:06	964450	VARIOUS	1	LANL	USE	S
per0328018a	248863001	CWW	3/28/2010 16:15	964450	10-2315	1	LANL	USE	S
per0328019a	248863002	CWW	3/28/2010 16:24	964450	10-2315	1	LANL	USE	S
per0328020a	1202069100	CWW	3/28/2010 16:32	964450	10-2315	1	LANL	USE	S
per0328021a	1202069101	CWW	3/28/2010 16:41	964450	10-2315	1	LANL	USE	S
per0328022a	WCLCCV	CWW	3/28/2010 16:49			1		USE	C
per0328023a	IPB005	CWW	3/28/2010 16:58			1		USE	B
per0328024a	WCLCRI	CWW	3/28/2010 17:06			1		USE	C
per0328025a	248863003	CWW	3/28/2010 17:15	964450	10-2315	1	LANL	USE	S
per0328026a	248863004	CWW	3/28/2010 17:23	964450	10-2315	1	LANL	USE	S
per0328027a	248865001	CWW	3/28/2010 17:32	964450	10-2318	1	LANL	USE	S
per0328028a	248866001	CWW	3/28/2010 17:40	964450	10-2319	1	LANL	USE	S
per0328029a	248866002	CWW	3/28/2010 17:49	964450	10-2319	1	LANL	USE	S

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per0328030a	248867001	CWW	3/28/2010 17:57	964450	10-2320	1	LANL	USE	S
per0328031a	248867002	CWW	3/28/2010 18:06	964450	10-2320	1	LANL	USE	S
per0328032a	248867003	CWW	3/28/2010 18:15	964450	10-2320	1	LANL	USE	S
per0328033a	248867004	CWW	3/28/2010 18:23	964450	10-2320	1	LANL	USE	S
per0328034a	249055001	CWW	3/28/2010 18:32	964450	10-2349	1	LANL	USE	S
per0328035a	WCLCCV	CWW	3/28/2010 18:40			1		USE	C
per0328036a	IPB006	CWW	3/28/2010 18:49			1		USE	B
per0328037a	WCLCRI	CWW	3/28/2010 18:57			1		USE	C
per0328038a	1202068347	CWW	3/28/2010 19:06	964122	VARIOUS	1	LANL	USE	S
per0328039a	1202068348	CWW	3/28/2010 19:15	964122	VARIOUS	1	LANL	USE	S
per0328040a	1202068351	CWW	3/28/2010 19:23	964122	VARIOUS	1	LANL	USE	S
per0328041a	248814001	CWW	3/28/2010 19:32	964122	10-2303	1	LANL	USE	S
per0328042a	248814002	CWW	3/28/2010 19:40	964122	10-2303	1	LANL	USE	S
per0328043a	248814003	CWW	3/28/2010 19:49	964122	10-2303	1	LANL	USE	S
per0328044a	248814004	CWW	3/28/2010 19:57	964122	10-2303	1	LANL	USE	S
per0328045a	248814005	CWW	3/28/2010 20:06	964122	10-2303	1	LANL	USE	S
per0328046a	248814006	CWW	3/28/2010 20:14	964122	10-2303	1	LANL	USE	S
per0328047a	248814007	CWW	3/28/2010 20:23	964122	10-2303	1	LANL	USE	S
per0328048a	WCLCCV	CWW	3/28/2010 20:31			1		USE	C
per0328049a	IPB007	CWW	3/28/2010 20:40			1		USE	B
per0328050a	WCLCRI	CWW	3/28/2010 20:49			1		USE	C
per0328051a	248814008	CWW	3/28/2010 20:57	964122	10-2303	1	LANL	USE	S
per0328052a	248814009	CWW	3/28/2010 21:06	964122	10-2303	1	LANL	USE	S
per0328053a	248860001	CWW	3/28/2010 21:14	964122	10-2313	1	LANL	USE	S
per0328054a	1202068349	CWW	3/28/2010 21:23	964122	10-2313	1	LANL	USE	S
per0328055a	1202068350	CWW	3/28/2010 21:31	964122	10-2313	1	LANL	USE	S
per0328056a	248860002	CWW	3/28/2010 21:40	964122	10-2313	1	LANL	USE	S
per0328057a	248860003	CWW	3/28/2010 21:48	964122	10-2313	1	LANL	USE	S
per0328058a	248860004	CWW	3/28/2010 21:57	964122	10-2313	1	LANL	USE	S
per0328059a	248860005	CWW	3/28/2010 22:05	964122	10-2313	1	LANL	USE	S
per0328060a	248860006	CWW	3/28/2010 22:14	964122	10-2313	1	LANL	USE	S
per0328061a	WCLCCV	CWW	3/28/2010 22:23			1		USE	C
per0328062a	IPB008	CWW	3/28/2010 22:31			1		USE	B
per0328063a	WCLCRI	CWW	3/28/2010 22:40			1		USE	C
per0328064a	248860007	CWW	3/28/2010 22:48	964122	10-2313	1	LANL	USE	S
per0328065a	248860008	CWW	3/28/2010 22:57	964122	10-2313	1	LANL	USE	S
per0328066a	248860009	CWW	3/28/2010 23:06	964122	10-2313	1	LANL	USE	S

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per0328067a	IPB009	CWW	3/28/2010 23:14			1		USE	B
per0328068a	1202069103	CWW	3/28/2010 23:23	964453	10-2357	1	LANL	USE	S
per0328069a	1202069104	CWW	3/28/2010 23:32	964453	10-2357	1	LANL	USE	S
per0328070a	1202069107	CWW	3/28/2010 23:40	964453	10-2357	1	LANL	USE	S
per0328071a	249076003	CWW	3/28/2010 23:49	964453	10-2357	1	LANL	USE	S
per0328072a	1202069105	CWW	3/28/2010 23:57	964453	10-2357	1	LANL	USE	S
per0328073a	1202069106	CWW	3/29/2010 0:06	964453	10-2357	1	LANL	USE	S
per0328074a	WCLCCV	CWW	3/29/2010 0:15			1		USE	C
per0328075a	IPB010	CWW	3/29/2010 0:23			1		USE	B
per0328076a	WCLCRI	CWW	3/29/2010 0:32			1		USE	C
per0328077a	249076004	CWW	3/29/2010 0:41	964453	10-2357	1	LANL	USE	S
per0328078a	249076005	CWW	3/29/2010 0:50	964453	10-2357	1	LANL	USE	S
per0328079a	249076006	CWW	3/29/2010 0:58	964453	10-2357	1	LANL	USE	S
per0328080a	249076007	CWW	3/29/2010 1:07	964453	10-2357	1	LANL	USE	S
per0328081a	249076008	CWW	3/29/2010 1:15	964453	10-2357	1	LANL	USE	S
per0328082a	249076009	CWW	3/29/2010 1:24	964453	10-2357	1	LANL	USE	S
per0328083a	249076010	CWW	3/29/2010 1:32	964453	10-2357	1	LANL	USE	S
per0328084a	249076011	CWW	3/29/2010 1:41	964453	10-2357	1	LANL	USE	S
per0328085a	249076012	CWW	3/29/2010 1:49	964453	10-2357	1	LANL	USE	S
per0328086a	249076013	CWW	3/29/2010 1:58	964453	10-2357	1	LANL	USE	S
per0328087a	WCLCCV	CWW	3/29/2010 2:07			1		USE	C
per0328088a	IPB011	CWW	3/29/2010 2:15			1		USE	B
per0328089a	WCLCRI	CWW	3/29/2010 2:24			1		USE	C
per0328090a	249076014	CWW	3/29/2010 2:32	964453	10-2357	1	LANL	USE	S
per0328091a	249076015	CWW	3/29/2010 2:41	964453	10-2357	1	LANL	USE	S
per0328092a	249076016	CWW	3/29/2010 2:50	964453	10-2357	1	LANL	USE	S
per0328093a	249076017	CWW	3/29/2010 2:58	964453	10-2357	1	LANL	USE	S
per0328094a	249076018	CWW	3/29/2010 3:07	964453	10-2357	1	LANL	USE	S
per0328095a	249076019	CWW	3/29/2010 3:15	964453	10-2357	1	LANL	USE	S
per0328096a	249076020	CWW	3/29/2010 3:24	964453	10-2357	1	LANL	USE	S
per0328097a	WCLCCV	CWW	3/29/2010 3:33			1		USE	C
per0328098a	IPB012	CWW	3/29/2010 3:41			1		USE	B
per0328099a	WCLCRI	CWW	3/29/2010 3:50			1		USE	C

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328020a
Date: 28-Mar-2010
Time: 16:32:35
ID: 1202069100
Vial: 1:4,B

|LZNL|964450|50120|MS|1|RA

CWJ 03-29-10

Perchlorate

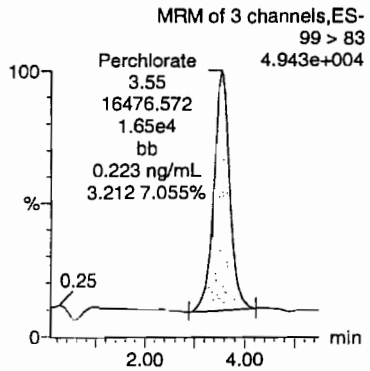

Perchlorate

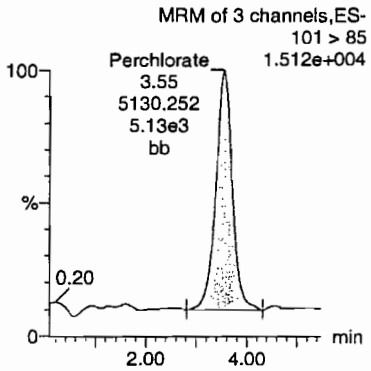

Perchlorate-101

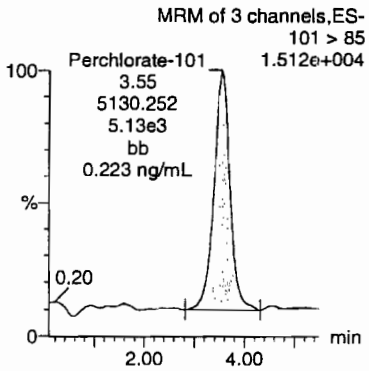

Perchlorate-O(18)

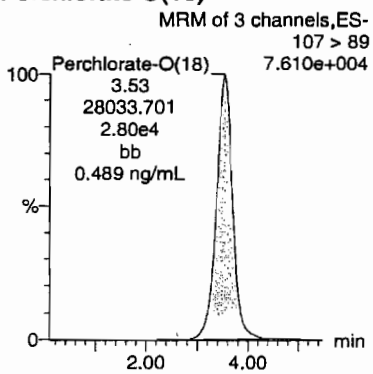

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202069100	Perchlorate	99 > 83	3.55	16476.572	16476.572	bb			0.2235	111.74	11.74	415.614	3.21
1202069100	Perchlorate-101	101 > 85	3.55	5130.252	5130.252	bb			0.2227	111.37	11.37	223.625	
1202069100	Perchlorate-O(18)	107 > 89	3.53	28033.701	28033.701	bb			0.4890	97.79	-2.21	2506.9...	

MHT 3/30/10

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032810a.qld

Last Altered: Monday, March 29, 2010 9:32:41 AM Eastern Standard Time
Printed: Monday, March 29, 2010 9:58:48 AM Eastern Standard Time

Name: per0328021a
Date: 28-Mar-2010
Time: 16:41:07
ID: 1202069101
Vial: 1:4,C

|LANL|964450|50120|750|1|RA

WW 03-24-10

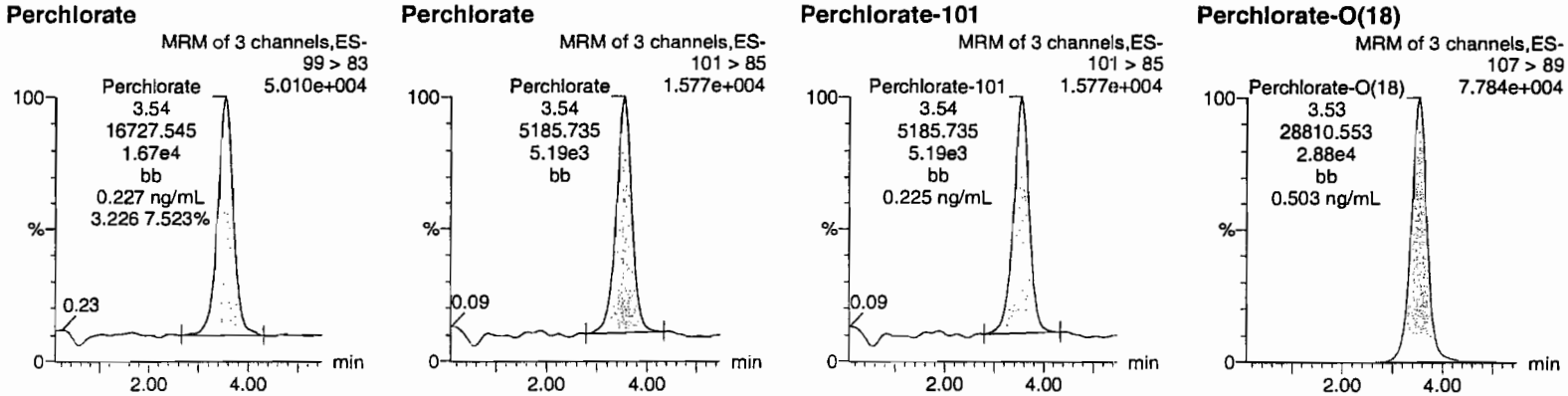

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202069101	Perchlorate	99 > 83	3.54	16727.545	16727.545	bb			0.2269	113.44	13.44	246.005	3.23
1202069101	Perchlorate-101	101 > 85	3.54	5185.735	5185.735	bb			0.2251	112.57	12.57	104.512	
1202069101	Perchlorate-O(18)	107 > 89	3.53	28810.553	28810.553	bb			0.5025	100.50	0.50	11052....	

MM 3/30/10

16727.545 | 10 | 100
73726.5 | | 41.54 = 2.48

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2319

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	967400
Prep Batch Number:	967399

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
248866001	RE46-10-11885
248866002	RE46-10-11886
1202076363	Method Blank (MB)
1202076364	Laboratory Control Sample (LCS)
1202076365	248863002(RE46-10-12930) Matrix Spike (MS)
1202076366	248863002(RE46-10-12930) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix from another SDG (10-2315) was selected for the matrix spike and matrix spike duplicate analysis for this batch.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimi Cao Date: 4/1/10

Roadmap for LANL 10-2319 PCB

This roadmap was analyzed by yip00818 on 03-24-2010, 09:14.
This roadmap was packaged by sha01289 on 04-01-2010, 05:14.
This roadmap was validated by jim01140 on 04-01-2010, 09:31.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd1a.i/032310a.b/023f2301.d	248866001	sample	23-MAR-2010	11:49	10-2319.sub	RE46-10-11885	1.00000	967400	DUSE
□	N	/chem/ecd1a.i/032310a.b/081f8101.d	248866001	sample	24-MAR-2010	00:03	10-2319.sub	RE46-10-11885	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/032310a.b/024f2401.d	248866002	sample	23-MAR-2010	12:01	10-2319.sub	RE46-10-11886	1.00000	967400	DUSE RR
□	N	/chem/ecd1a.i/032310a.b/082f8201.d	248866002	sample	24-MAR-2010	00:16	10-2319.sub	RE46-10-11886	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd1a.i/032310a.b/023b2301.d	248866001	sample	23-MAR-2010	11:49	10-2319.sub	RE46-10-11885	1.00000	967400	DUSE
□	N	/chem/ecd1a.i/032310a.b/081b8101.d	248866001	sample	24-MAR-2010	00:03	10-2319.sub	RE46-10-11885	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/032310a.b/024b2401.d	248866002	sample	23-MAR-2010	12:01	10-2319.sub	RE46-10-11886	1.00000	967400	DUSE RR
□	N	/chem/ecd1a.i/032310a.b/082b8201.d	248866002	sample	24-MAR-2010	00:16	10-2319.sub	RE46-10-11886	1.00000	967400	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd1a.i/032310a.b/012f1201-2.d	1202076363	mb	23-MAR-2010	09:39	10-2319.sub	PBLK01	1.00000	967400	
□	N	/chem/ecd1a.i/032310a.b/013f1301-2.d	1202076364	lcs	23-MAR-2010	09:49	10-2319.sub	PBLK01LCS	1.00000	967400	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd1a.i/032310a.b/012b1201-2.d	1202076363	mb	23-MAR-2010	09:39	10-2319.sub	PBLK01	1.00000	967400	
□	N	/chem/ecd1a.i/032310a.b/013b1301-2.d	1202076364	lcs	23-MAR-2010	09:49	10-2319.sub	PBLK01LCS	1.00000	967400	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**3.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–11885**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 00:03**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**081f8101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	081b8101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.47	ug/kg	1.15	3.47	1
11104–28–2	Aroclor–1221	U	3.47	ug/kg	1.15	3.47	1
11141–16–5	Aroclor–1232	U	3.47	ug/kg	1.15	3.47	1
53469–21–9	Aroclor–1242	U	3.47	ug/kg	1.15	3.47	1
12672–29–6	Aroclor–1248	U	3.47	ug/kg	1.15	3.47	1
11097–69–1	Aroclor–1254	U	3.47	ug/kg	1.15	3.47	1
11096–82–5	Aroclor–1260	U	3.47	ug/kg	1.15	3.47	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**4.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–11886**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 00:16**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**082f8201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	082b8201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.50	ug/kg	1.17	3.50	1
11104–28–2	Aroclor–1221	U	3.50	ug/kg	1.17	3.50	1
11141–16–5	Aroclor–1232	U	3.50	ug/kg	1.17	3.50	1
53469–21–9	Aroclor–1242	U	3.50	ug/kg	1.17	3.50	1
12672–29–6	Aroclor–1248	U	3.50	ug/kg	1.17	3.50	1
11097–69–1	Aroclor–1254	J	1.60	ug/kg	1.17	3.50	1
11096–82–5	Aroclor–1260	U	3.50	ug/kg	1.17	3.50	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-2319

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202076363	MB for batch 967399	71	68	86	78
1202076364	LCS for batch 967399	77	73	85	78
248866001	RE46-10-11885	48	45	72	65
248866002	RE46-10-11886	55	53	87	80

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%-120%)
DCB = Decachlorobiphenyl	(30%-116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2319
Sample Type: Laboratory Control Sample
Client ID: LCS for batch 967399
Matrix: SOIL
Lab Sample ID: 1202076364
Instrument: ECD1A.I
Analysis Date: 03/23/2010 09:49
Dilution: 1
Analyst: YS1
Prep Batch ID: 967399
Inj. Vol: 1 uL
Batch ID: 967400

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	23.8	71	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	27.3	82	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2315**	**Sample Type:**	**Matrix Spike**	
Client ID:	**RE46-10-12930MS**	**Matrix:**	**S**	
Lab Sample ID:	**1202076365**	**%Moisture:**	**8.5**	
Instrument:	**ECD1A.I**	**Analysis Date:**	**03/23/2010 10:25**	**Dilution: 1**
Analyst:	**YS1**	**Prep Batch ID:**	**967399**	
Inj. Vol:	**1 uL**	**Batch ID:**	**967400**	

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	36.4	0.00	U	18.0	49	23-119
11096-82-5	MS	Aroclor-1260	36.4	0.00	U	22.4	62	28-124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2315**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE46-10-12930MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202076366**	**%Moisture:**	**8.5**
Instrument:	**ECD1A.I**	**Analysis Date:**	**03/23/2010 10:37**
Analyst:	**YS1**	**Prep Batch ID:**	**967399**
Inj. Vol:	**1 uL**	**Batch ID:**	**967400**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	36.4	0.00	U	21.3	59	23-119	17	0-28
11096-82-5	MSD Aroclor-1260	36.4	0.00	U	25.9	71	28-124	15	0-30

Method Blank Summary

SDG Number:	10-2319	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 967399	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	012b1201-1.d 012f1201-1.d
Lab Sample ID:	1202076363				
Column:	CLP2 CLP1	Prep Date:	03/22/2010 11:11	Analyzed:	03/23/10 09:39
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 967399	1202076364	013f1301-1.d 013b1301-1.d	03/23/10	0949
04 RE46-10-11885	248866001	081f8101.d 081b8101.d	03/24/10	0003
05 RE46-10-11886	248866002	082f8201.d 082b8201.d	03/24/10	0016

SAMPLE
DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866001**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**3.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–11885**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 00:03**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**081f8101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	081b8101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.47	ug/kg	1.15	3.47	1
11104–28–2	Aroclor–1221	U	3.47	ug/kg	1.15	3.47	1
11141–16–5	Aroclor–1232	U	3.47	ug/kg	1.15	3.47	1
53469–21–9	Aroclor–1242	U	3.47	ug/kg	1.15	3.47	1
12672–29–6	Aroclor–1248	U	3.47	ug/kg	1.15	3.47	1
11097–69–1	Aroclor–1254	U	3.47	ug/kg	1.15	3.47	1
11096–82–5	Aroclor–1260	U	3.47	ug/kg	1.15	3.47	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/081f8101.d
Lab Smp Id: 248866001 Client Smp ID: RE46-10-11885
Inj Date : 24-MAR-2010 00:03
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248866001|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-11885|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:58 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 81
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2319.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	3.88380	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	37115694	95.2850	3.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.212	5.217	-0.005	42881947	144.418	5.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/081f8101.d

Date : 24-MAR-2010 00:03

Client ID: RE46-10-11885

Sample Info: |248866001|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

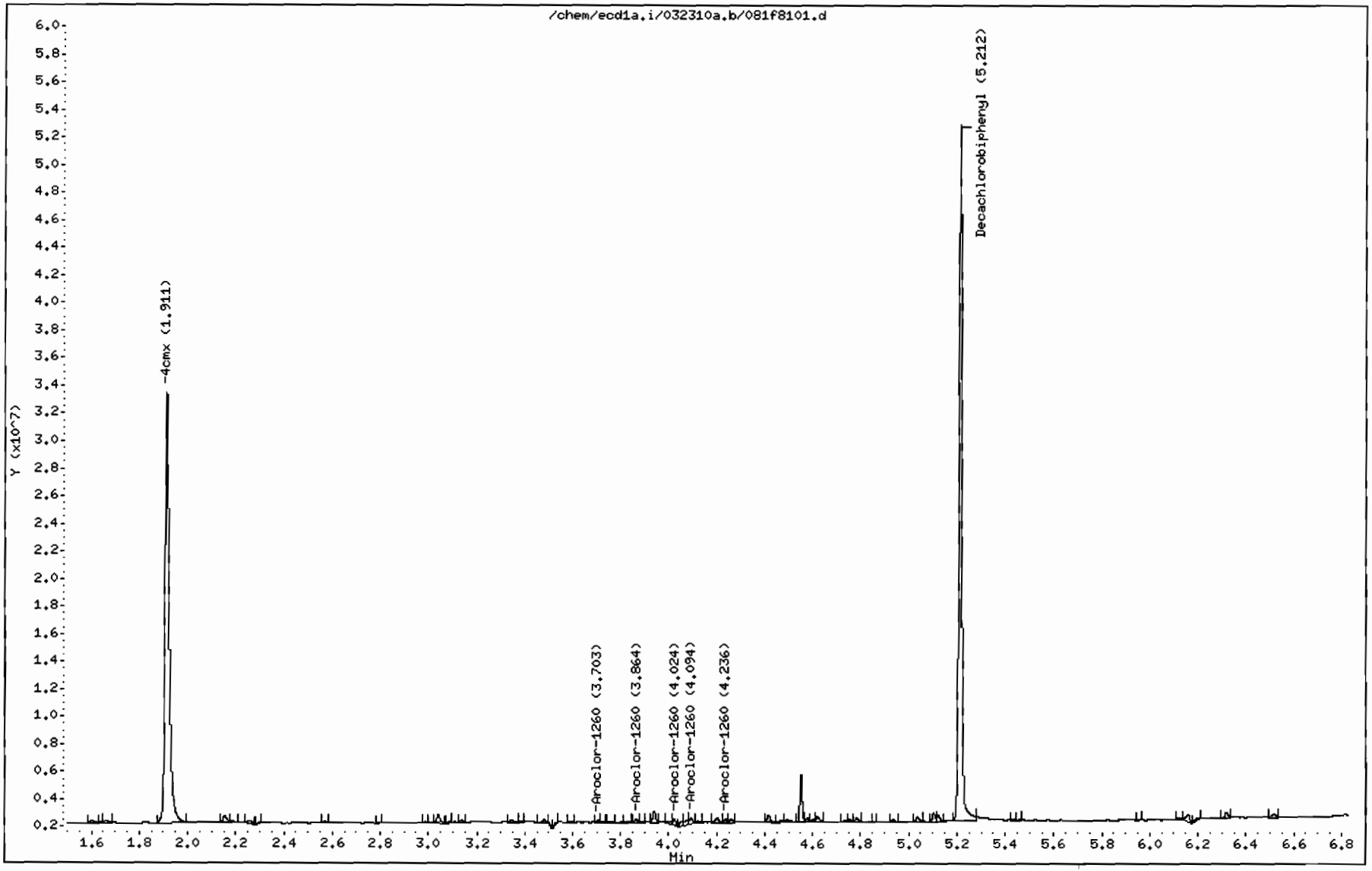

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/081b8101.d
Lab Smp Id: 248866001 Client Smp ID: RE46-10-11885
Inj Date : 24-MAR-2010 00:03
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248866001|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-11885|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 06:11 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 81
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2319.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	3.88380	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	23592185	89.9323	3.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.909	5.912	-0.003	24294115	129.795	4.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/081b8101.d

Page 1

Date : 24-MAR-2010 00:03

Client ID: RE46-10-11885

Instrument: ecd1a.i

Sample Info: 1248866001|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

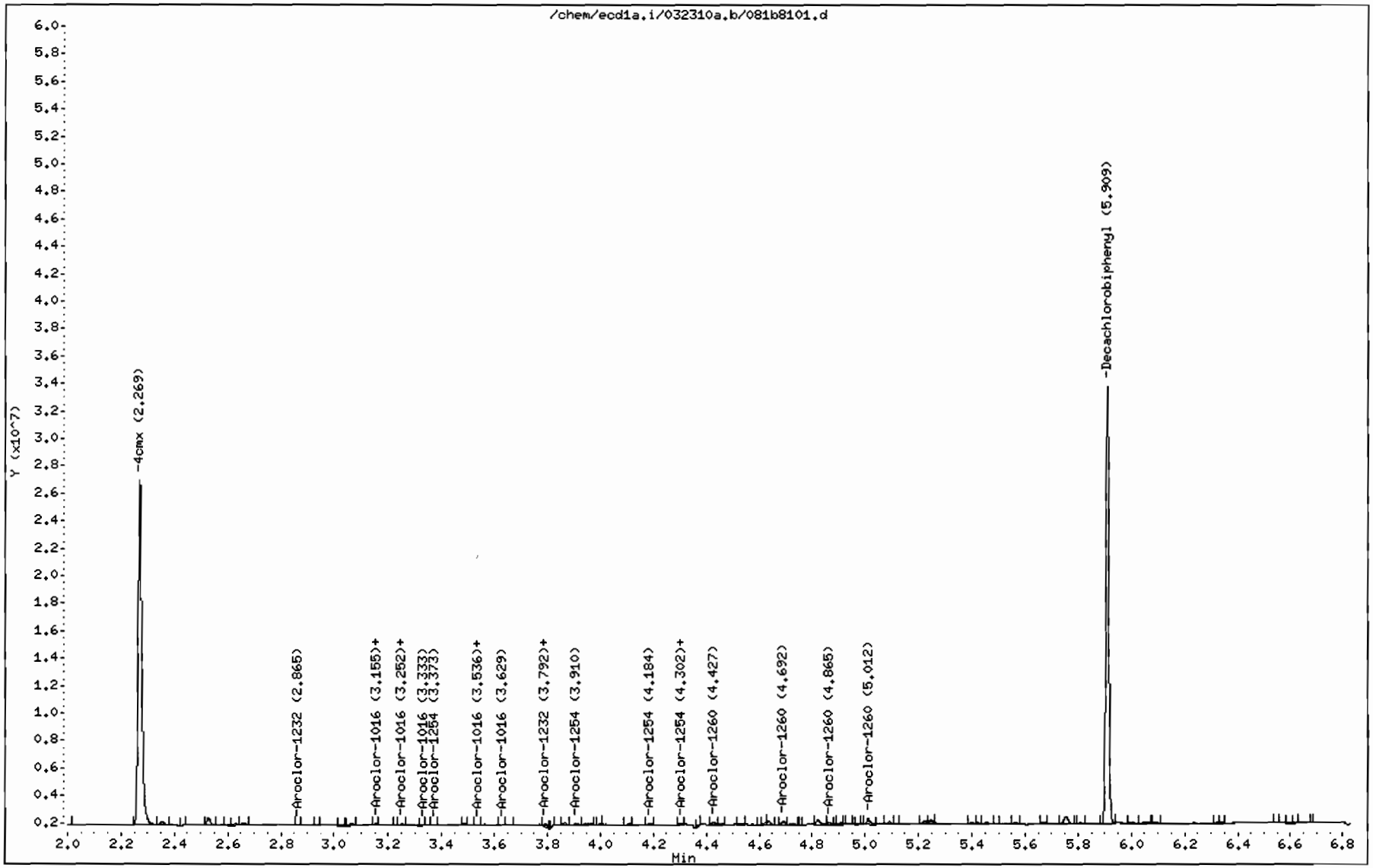

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2319**	**Date Collected:**	**03/04/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**248866002**	**Date Received:**	**03/06/2010 09:15**	**%Moisture:**	**4.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–11886**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 00:16**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**082f8201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	082b8201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.50	ug/kg	1.17	3.50	1
11104–28–2	Aroclor–1221	U	3.50	ug/kg	1.17	3.50	1
11141–16–5	Aroclor–1232	U	3.50	ug/kg	1.17	3.50	1
53469–21–9	Aroclor–1242	U	3.50	ug/kg	1.17	3.50	1
12672–29–6	Aroclor–1248	U	3.50	ug/kg	1.17	3.50	1
11097–69–1	Aroclor–1254	J	1.60	ug/kg	1.17	3.50	1
11096–82–5	Aroclor–1260	U	3.50	ug/kg	1.17	3.50	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/082f8201.d
Lab Smp Id: 248866002 Client Smp ID: RE46-10-11886
Inj Date : 24-MAR-2010 00:16
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248866002|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-11886|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:58 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 82
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2319.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	4.76520	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.913	-0.003	43070064	110.571	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.217	-0.003	51709395	174.147	6.1	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.206	3.208	-0.002	450854	33.9960	1.2	80.00- 120.00	100.00(a)
3.361	3.363	-0.002	846529	47.4690	1.7	113.89- 153.89	187.76
3.594	3.597	-0.003	959788	42.9026	1.5	156.06- 196.06	212.88
3.758	3.759	-0.001	505484	30.6539	1.1	110.77- 150.77	112.12

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.865	3.868	-0.003	1235755	77.4068	2.7	110.30- 150.30	274.09
		Average of Peak Concentrations =			1.6		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/032310a.b/082f8201.d

Date : 24-MAR-2010 00:16

Client ID: RE46-10-11886

Sample Info: I248866002I1I

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

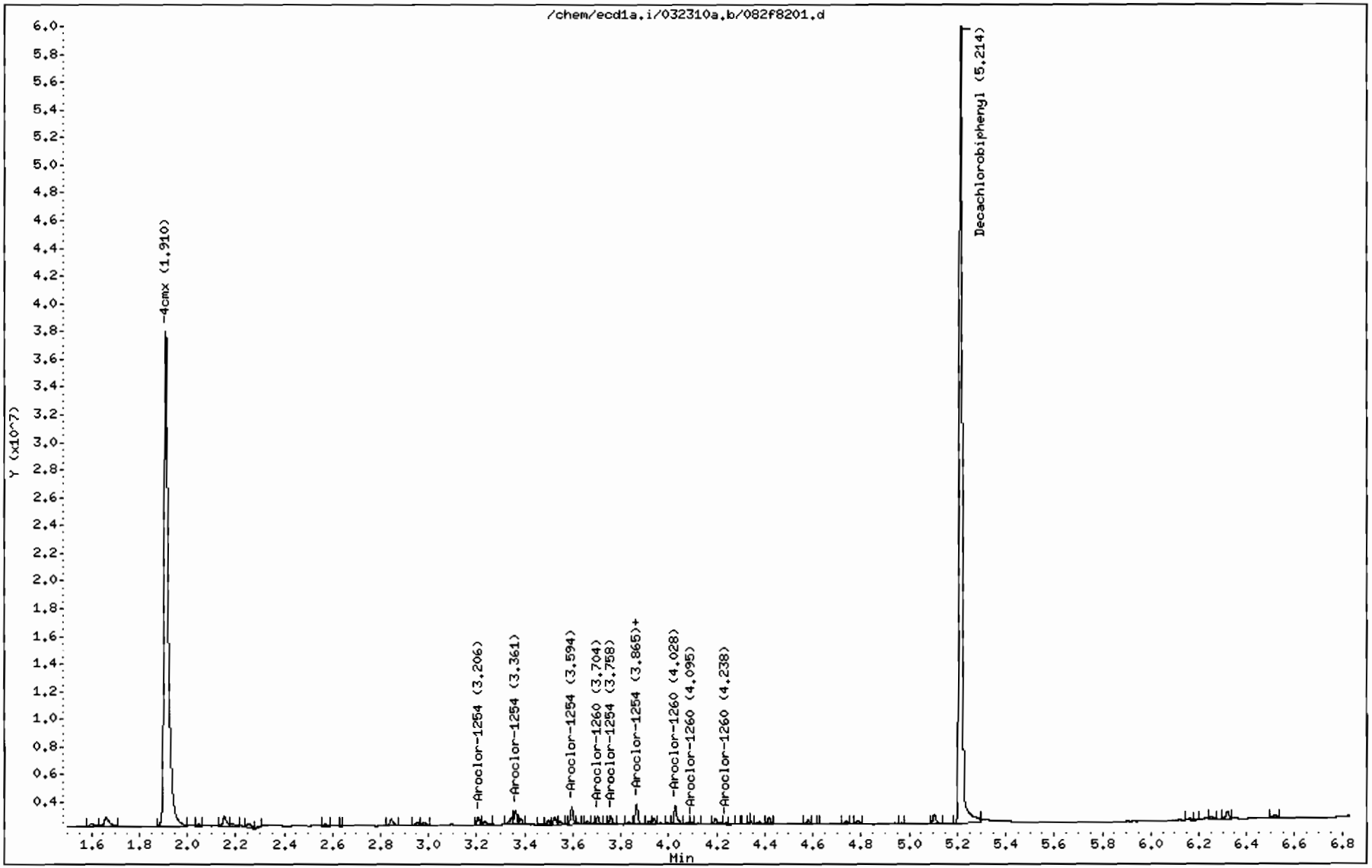

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/082b8201.d
Lab Smp Id: 248866002 Client Smp ID: RE46-10-11886
Inj Date : 24-MAR-2010 00:16
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248866002|1|
Misc Info : |ECD82P_1S|967400|SVA|LANL|SOIL|RE46-10-11886|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 06:11 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 82
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2319.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	4.76520	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	27593067	105.184	3.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.909	5.912	-0.003	29818777	159.311	5.6	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.373	3.373	0.000	295855	49.1354	1.7	80.00- 120.00	100.00(a)
3.794	3.795	-0.001	397711	36.7578	1.3	161.92- 201.92	134.43
3.911	3.912	-0.001	628645	52.6785	1.8	181.59- 221.59	212.48
4.187	4.188	-0.001	835358	50.8070	1.8	261.95- 301.95	282.35

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.323	4.323	0.000	477540	39.4156	1.4	185.16- 225.16	161.41
Average of Peak Concentrations =					1.6		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/032310a.b/082b8201.d
Date : 24-MAR-2010 00:16
Client ID: RE46-10-11886
Sample Info: 1248866002111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

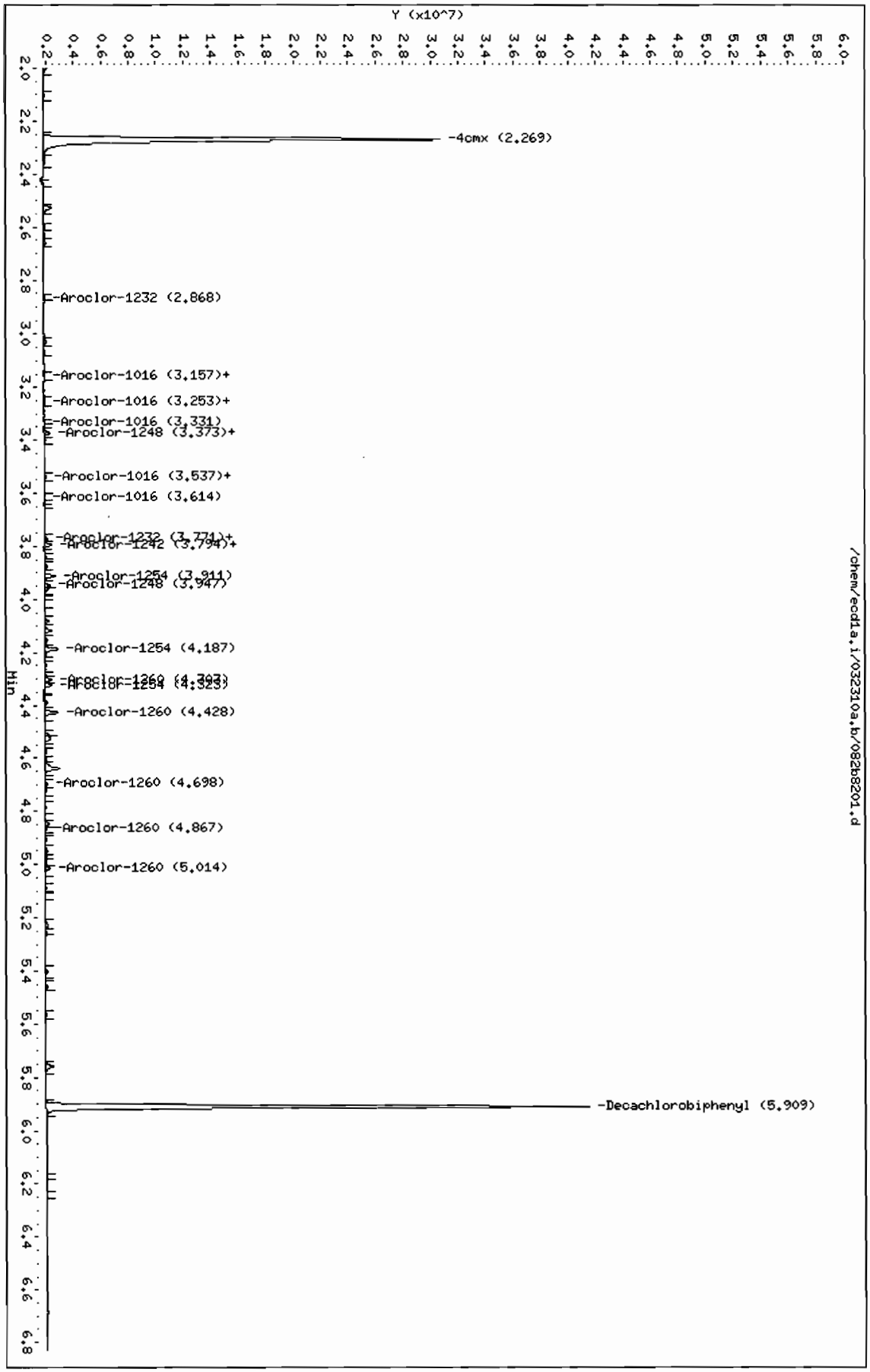

/chem/ecd1a.i/032310a.b/082b8201.d

Page 1

STANDARDS DATA

Report Date: 25-Mar-2010 05:51

Calibration History

Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032f3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029f2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023f2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017f1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033f3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030f3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024f2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018f1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034f3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031f3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025f2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019f1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035f3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032f3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026f2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020f2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014f1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009f0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008f0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007f0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010f1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036f3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033f3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027f2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021f2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 07:53	AR1660	/chem/ecd1a.i/032310a.b/002f0201.d
Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 01:19	AR1660	/chem/ecd1a.i/032310a.b/087f8701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 23:38	AR1660	/chem/ecd1a.i/032310a.b/079f7901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 21:06	AR1660	/chem/ecd1a.i/032310a.b/067f6701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 18:35	AR1660	/chem/ecd1a.i/032310a.b/055f5501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:03	AR1660	/chem/ecd1a.i/032310a.b/048f4801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 15:17	AR1660	/chem/ecd1a.i/032310a.b/040f4001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:25	AR1660	/chem/ecd1a.i/032310a.b/031f3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:04	AR1660	/chem/ecd1a.i/032310a.b/029f2901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 11:28	AR1660	/chem/ecd1a.i/032310a.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:07	AR1262	/chem/ecd1a.i/032310a.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:56	AR1221	/chem/ecd1a.i/032310a.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:46	AR1232	/chem/ecd1a.i/032310a.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:35	AR1268	/chem/ecd1a.i/032310a.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:25	AR1248	/chem/ecd1a.i/032310a.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:14	AR1242	/chem/ecd1a.i/032310a.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:04	AR1254	/chem/ecd1a.i/032310a.b/003f0301.d

Report Date: 24-Mar-2010 08:34

Calibration History

Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029b2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023b2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017b1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030b3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024b2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018b1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031b3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025b2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019b1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032b3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026b2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020b2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014b1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009b0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008b0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007b0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010b1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033b3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027b2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021b2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
24-MAR-2010 01:19	AR1660	/chem/ecd1a.i/032310a.b/087b8701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 23:38	AR1660	/chem/ecd1a.i/032310a.b/079b7901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 21:06	AR1660	/chem/ecd1a.i/032310a.b/067b6701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 18:35	AR1660	/chem/ecd1a.i/032310a.b/055b5501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:03	AR1660	/chem/ecd1a.i/032310a.b/048b4801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 15:17	AR1660	/chem/ecd1a.i/032310a.b/040b4001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:25	AR1660	/chem/ecd1a.i/032310a.b/031b3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 13:04	AR1660	/chem/ecd1a.i/032310a.b/029b2901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 11:28	AR1660	/chem/ecd1a.i/032310a.b/021b2101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:07	AR1262	/chem/ecd1a.i/032310a.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:56	AR1221	/chem/ecd1a.i/032310a.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:46	AR1232	/chem/ecd1a.i/032310a.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:35	AR1268	/chem/ecd1a.i/032310a.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:25	AR1248	/chem/ecd1a.i/032310a.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:14	AR1242	/chem/ecd1a.i/032310a.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:04	AR1254	/chem/ecd1a.i/032310a.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 07:53	AR1660	/chem/ecd1a.i/032310a.b/002b0201.d

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COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Mar-2010 05:50 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.365	2.335-2.395	1.518e+04
	2.651	2.621-2.681	1.894e+04
	2.732	2.702-2.762	1.244e+04
	2.770	2.740-2.800	7.348e+03
	2.980	2.950-3.010	9.518e+03
63 4,4-DDD	3.888	3.868-3.908	3.140e+05
64 4,4-DDE	3.539	3.519-3.559	3.727e+05
62 4,4-DDT	4.052	4.032-4.072	2.363e+05
2 Aroclor-1221	2.025	1.994-2.054	4.466e+03
	2.117	2.087-2.147	2.447e+03
	2.143	2.113-2.173	1.083e+04
3 Aroclor-1232	2.364	2.334-2.394	6.667e+03
	2.651	2.621-2.681	8.344e+03
	2.731	2.701-2.761	5.531e+03
	2.845	2.816-2.876	2.649e+03
	3.232	3.202-3.262	3.555e+03
4 Aroclor-1242	2.364	2.334-2.394	1.233e+04
	2.652	2.622-2.682	1.490e+04
	2.769	2.739-2.799	5.896e+03
	2.979	2.949-3.009	7.735e+03
	3.233	3.203-3.263	7.285e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m

	Compound	RT	RT Window	RF
	5 Aroclor-1248	2.847	2.817-2.877	1.000e+04
		2.979	2.949-3.009	1.314e+04
		3.233	3.203-3.263	1.430e+04
		3.365	3.335-3.395	1.190e+04
		3.597	3.567-3.627	8.005e+03
	6 Aroclor-1254	3.208	3.178-3.238	1.326e+04
		3.363	3.333-3.393	1.783e+04
		3.597	3.567-3.627	2.237e+04
		3.759	3.729-3.789	1.649e+04
		3.868	3.838-3.898	1.596e+04
	7 Aroclor-1260	3.705	3.675-3.735	1.833e+04
		3.867	3.837-3.897	2.689e+04
		4.030	4.000-4.060	2.832e+04
		4.097	4.067-4.127	1.616e+04
		4.240	4.210-4.270	1.681e+04
	8 Aroclor-1262	3.704	3.674-3.734	1.423e+04
		3.866	3.836-3.896	1.874e+04
		4.097	4.067-4.127	2.315e+04
		4.239	4.209-4.269	2.110e+04
		4.418	4.388-4.448	4.350e+04
	9 Aroclor-1268	4.604	4.574-4.634	4.848e+04
		4.627	4.597-4.657	5.448e+04
		4.739	4.709-4.769	3.862e+04
		4.942	4.912-4.972	1.635e+04
		5.107	5.077-5.137	1.121e+05
M	10 Aroclor-Total	1.000	0.980-1.020	
	11 4cmx	1.913	1.883-1.943	3.895e+05
	12 Decachlorobiphenyl	5.217	5.187-5.247	2.969e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Mar-2010 06:13 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.165	3.135-3.195	1.258e+04
	3.248	3.218-3.278	8.634e+03
	3.311	3.281-3.341	5.287e+03
	3.538	3.508-3.568	6.893e+03
	3.614	3.584-3.644	6.423e+03
62 4,4-DDT	4.642	4.622-4.662	7.489e+04
63 4,4-DDE	4.111	4.091-4.131	2.469e+05
64 4,4-DDD	4.455	4.435-4.475	1.989e+05
2 Aroclor-1221	2.466	2.436-2.496	3.250e+03
	2.560	2.530-2.590	2.084e+03
	2.601	2.571-2.631	7.320e+03
3 Aroclor-1232	2.867	2.837-2.897	5.054e+03
	3.165	3.135-3.195	5.712e+03
	3.247	3.217-3.277	3.888e+03
	3.538	3.508-3.568	2.840e+03
	3.771	3.741-3.801	2.821e+03
4 Aroclor-1242	3.165	3.135-3.195	1.014e+04
	3.248	3.218-3.278	7.097e+03
	3.538	3.508-3.568	5.514e+03
	3.772	3.742-3.802	5.722e+03
	3.799	3.769-3.829	6.370e+03

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COMPOUND LISTING

Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.374	3.344-3.404	7.604e+03
	3.538	3.509-3.568	9.470e+03
	3.772	3.742-3.802	1.093e+04
	3.799	3.769-3.829	1.216e+04
	3.936	3.906-3.966	1.181e+04
6 Aroclor-1254	3.373	3.343-3.403	6.021e+03
	3.795	3.765-3.825	1.082e+04
	3.912	3.882-3.942	1.193e+04
	4.188	4.158-4.218	1.644e+04
	4.323	4.293-4.353	1.212e+04
7 Aroclor-1260	4.304	4.274-4.334	1.308e+04
	4.428	4.398-4.458	1.555e+04
	4.695	4.665-4.725	1.190e+04
	4.867	4.837-4.897	1.229e+04
	5.015	4.985-5.045	2.639e+04
8 Aroclor-1262	4.428	4.398-4.458	1.160e+04
	4.693	4.663-4.723	1.620e+04
	4.866	4.836-4.896	1.484e+04
	5.013	4.983-5.043	2.937e+04
	5.227	5.197-5.257	2.065e+04
9 Aroclor-1268	5.226	5.196-5.256	3.730e+04
	5.254	5.224-5.284	3.492e+04
	5.403	5.373-5.433	2.658e+04
	5.568	5.538-5.598	1.223e+04
	5.760	5.730-5.790	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.270	2.240-2.300	2.623e+05
$ 12 Decachlorobiphenyl	5.912	5.882-5.942	1.872e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Cal Date : 25-Mar-2010 05:50 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032f3201.d
Level 2: /chem/ecd1a.i/022210.b/033f3301.d
Level 3: /chem/ecd1a.i/022210.b/034f3401.d
Level 4: /chem/ecd1a.i/022210.b/035f3501.d
Level 5: /chem/ecd1a.i/022210.b/036f3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	17517	15916	14941	14342	13168	15177	10.833
(2)	20378	19291	18809	18310	17891	18936	5.082
(3)	13830	13020	12255	11836	11271	12442	8.071
(4)	7957	7573	7201	7091	6919	7348	5.665
(5)	10680	9850	9332	8998	8729	9518	8.119
63 4,4-DDD	+++++	+++++	+++++	313980	+++++	313980	0.000
64 4,4-DDE	+++++	+++++	+++++	372684	+++++	372684	0.000
62 4,4-DDT	+++++	+++++	+++++	236265	+++++	236265	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4466	+++++	4466	0.000
(2)	+++++	+++++	+++++	2447	+++++	2447	0.000
(3)	+++++	+++++	+++++	10828	+++++	10828	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6667	+++++	6667	0.000
(2)	+++++	+++++	+++++	8344	+++++	8344	0.000
(3)	+++++	+++++	+++++	5531	+++++	5531	0.000
(4)	+++++	+++++	+++++	2649	+++++	2649	0.000
(5)	+++++	+++++	+++++	3555	+++++	3555	0.000
4 Aroclor-1242(1)	14179	12973	12200	11692	10617	12332	10.871
(2)	16141	15119	14927	14559	13766	14903	5.801
(3)	6352	6182	5816	5703	5424	5896	6.324
(4)	8823	8005	7582	7293	6975	7735	9.260
(5)	7955	7511	7149	7022	6787	7285	6.273
5 Aroclor-1248(1)	11183	10572	9738	9526	8980	10000	8.748
(2)	14876	13683	12753	12517	11873	13140	8.885
(3)	15448	14508	14083	13911	13564	14303	5.068
(4)	13161	12385	11501	11480	10960	11898	7.335
(5)	8649	8385	7955	7608	7427	8005	6.411

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Cal Date : 25-Mar-2010 05:50 yip00818
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	6 Aroclor-1254(1)	15079	13757	12872	12576	12027	13262	8.998
	(2)	20126	18408	17163	17147	16322	17833	8.313
	(3)	24516	23104	21642	21571	21024	22371	6.372
	(4)	18056	17097	15691	15840	15766	16490	6.365
	(5)	18024	16683	15151	15091	14874	15964	8.504
	7 Aroclor-1260(1)	20231	18737	18018	17739	16925	18330	6.792
	(2)	29345	27114	26401	26314	25275	26890	5.656
	(3)	30716	28501	27786	27176	27398	28315	5.062
	(4)	17775	16311	15776	15627	15300	16158	6.034
	(5)	18203	16850	16463	16434	16114	16813	4.876
	8 Aroclor-1262(1)	+++++	+++++	+++++	14232	+++++	14232	0.000
	(2)	+++++	+++++	+++++	18742	+++++	18742	0.000
	(3)	+++++	+++++	+++++	23151	+++++	23151	0.000
	(4)	+++++	+++++	+++++	21098	+++++	21098	0.000
	(5)	+++++	+++++	+++++	43500	+++++	43500	0.000
	9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
	(2)	55254	54719	54718	54649	53075	54483	1.512
	(3)	39937	38826	38121	38191	38006	38616	2.083
	(4)	16234	16191	16152	16347	16815	16348	1.657
	(5)	114910	115297	111446	111050	107804	112101	2.753
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	11 4cmx	407603	391717	384007	385362	378927	389523	2.846
	12 Decachlorobiphenyl	324859	292709	291687	292552	282844	296930	5.438

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Cal Date : 24-Mar-2010 06:13 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032b3201.d
Level 2: /chem/ecd1a.i/022210.b/033b3301.d
Level 3: /chem/ecd1a.i/022210.b/034b3401.d
Level 4: /chem/ecd1a.i/022210.b/035b3501.d
Level 5: /chem/ecd1a.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14376	12782	12025	12307	11436	12585	8.846
(2)	10090	9074	8445	8099	7462	8634	11.594
(3)	6137	5472	5151	4973	4701	5287	10.435
(4)	7962	7103	6817	6522	6060	6893	10.318
(5)	7497	6686	6263	5965	5703	6423	10.948
62 4,4-DDT	+++++	+++++	+++++	74891	+++++	74891	0.000
63 4,4-DDE	+++++	+++++	+++++	246875	+++++	246875	0.000
64 4,4-DDD	+++++	+++++	+++++	198885	+++++	198885	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3250	+++++	3250	0.000
(2)	+++++	+++++	+++++	2084	+++++	2084	0.000
(3)	+++++	+++++	+++++	7320	+++++	7320	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	5054	+++++	5054	0.000
(2)	+++++	+++++	+++++	5712	+++++	5712	0.000
(3)	+++++	+++++	+++++	3888	+++++	3888	0.000
(4)	+++++	+++++	+++++	2840	+++++	2840	0.000
(5)	+++++	+++++	+++++	2821	+++++	2821	0.000
4 Aroclor-1242(1)	11230	10514	10117	9526	9309	10139	7.634
(2)	8350	7546	6909	6642	6036	7097	12.487
(3)	6442	5836	5387	5177	4727	5514	11.868
(4)	6626	6011	5573	5400	4999	5722	10.877
(5)	7365	6655	6241	6005	5582	6370	10.658
5 Aroclor-1248(1)	9056	8166	7435	6980	6383	7604	13.684
(2)	11093	10088	9257	8814	8097	9470	12.242
(3)	12505	11602	10677	10284	9581	10930	10.466
(4)	13890	12873	11986	11379	10657	12157	10.405
(5)	13590	12468	11541	11009	10453	11812	10.502

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 11-MAR-2010 20:22
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Cal Date : 24-Mar-2010 06:13 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7300	6493	5824	5480	5009	6021	14.886
(2)	12825	11548	10490	9974	9262	10820	12.909
(3)	14182	12643	11550	11031	10262	11934	12.788
(4)	19027	17317	15983	15442	14439	16442	10.826
(5)	14064	13049	11651	11174	10640	12116	11.634
7 Aroclor-1260(1)	15189	13569	12744	12369	11530	13080	10.610
(2)	17885	16016	15152	14853	13838	15549	9.776
(3)	13812	12250	11562	11271	10585	11896	10.311
(4)	14218	12635	11954	11625	11015	12289	9.981
(5)	29595	26825	25949	25629	23976	26395	7.824
8 Aroclor-1262(1)	+++++	+++++	+++++	11597	+++++	11597	0.000
(2)	+++++	+++++	+++++	16200	+++++	16200	0.000
(3)	+++++	+++++	+++++	14838	+++++	14838	0.000
(4)	+++++	+++++	+++++	29366	+++++	29366	0.000
(5)	+++++	+++++	+++++	20651	+++++	20651	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	286554	267083	258607	255362	244057	262333	6.044
$ 12 Decachlorobiphenyl	217815	191410	181026	177515	168101	187173	10.178

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 0753

Lab File ID: 002F0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14904.311	0.01	-1.8	15.0
(2)	18935.774	19020.222	0.01	0.4	15.0
(3)	12442.153	11642.076	0.01	-6.4	15.0
(4)	7348.319	7018.563	0.01	-4.5	15.0
(5)	9517.775	9050.523	0.01	-4.9	15.0
Aroclor-1260	18330.091	18974.465	0.01	3.5	15.0
(2)	26889.831	28338.651	0.01	5.4	15.0
(3)	28315.304	30220.802	0.01	6.7	15.0
(4)	16157.873	17084.332	0.01	5.7	15.0
(5)	16812.669	17877.750	0.01	6.3	15.0
4cmx	389523.02	413156.93	0.01	6.1	15.0
Decachlorobiphenyl	296930.38	316393.35	0.01	6.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 0753

Lab File ID: 002B0201 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11580.435	0.01	-8.0	15.0
(2)	8634.207	7799.455	0.01	-9.7	15.0
(3)	5286.637	4831.888	0.01	-8.6	15.0
(4)	6892.719	6341.985	0.01	-8.0	15.0
(5)	6422.564	5935.096	0.01	-7.6	15.0
Aroclor-1260	13080.231	12744.147	0.01	-2.6	15.0
(2)	15549.023	15548.972	0.01	-0.0	15.0
(3)	11896.069	11720.380	0.01	-1.5	15.0
(4)	12289.216	12237.561	0.01	-0.4	15.0
(5)	26394.638	27173.631	0.01	3.0	15.0
4cmx	262332.66	262353.40	0.01	0.0	15.0
Decachlorobiphenyl	187173.38	185867.43	0.01	-0.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 0804

Lab File ID: 003F0301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	13261.954	12967.036	0.01	-2.2	15.0
(2)	17833.306	17361.430	0.01	-2.6	15.0
(3)	22371.301	22829.689	0.01	2.0	15.0
(4)	16490.050	16956.788	0.01	2.8	15.0
(5)	15964.418	16896.192	0.01	5.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 0804

Lab File ID: 003B0301 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6021.217	5514.362	0.01	-8.4	15.0
(2)	10819.790	10031.897	0.01	-7.3	15.0
(3)	11933.626	11116.209	0.01	-6.8	15.0
(4)	16441.788	15547.782	0.01	-5.4	15.0
(5)	12115.517	11313.436	0.01	-6.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 1128

Lab File ID: 021F2101 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14292.984	0.01	-5.8	15.0
(2)	18935.774	18014.083	0.01	-4.9	15.0
(3)	12442.153	11433.112	0.01	-8.1	15.0
(4)	7348.319	6916.561	0.01	-5.9	15.0
(5)	9517.775	8921.011	0.01	-6.3	15.0
Aroclor-1260	18330.091	18917.453	0.01	3.2	15.0
(2)	26889.831	27896.153	0.01	3.7	15.0
(3)	28315.304	29772.954	0.01	5.1	15.0
(4)	16157.873	16821.466	0.01	4.1	15.0
(5)	16812.669	17522.638	0.01	4.2	15.0
4cmx	389523.02	401450.50	0.01	3.1	15.0
Decachlorobiphenyl	296930.38	291093.56	0.01	-2.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 1128

Lab File ID: 021B2101 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11869.406	0.01	-5.7	15.0
(2)	8634.207	7752.072	0.01	-10.2	15.0
(3)	5286.637	4807.813	0.01	-9.0	15.0
(4)	6892.719	6307.203	0.01	-8.5	15.0
(5)	6422.564	5822.450	0.01	-9.3	15.0
Aroclor-1260	13080.231	12629.591	0.01	-3.4	15.0
(2)	15549.023	15357.793	0.01	-1.2	15.0
(3)	11896.069	11596.776	0.01	-2.5	15.0
(4)	12289.216	12072.542	0.01	-1.8	15.0
(5)	26394.638	26797.242	0.01	1.5	15.0
4cmx	262332.66	259327.12	0.01	-1.1	15.0
Decachlorobiphenyl	187173.38	181181.45	0.01	-3.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 2338

Lab File ID: 079F7901 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14379.542	0.01	-5.2	15.0
(2)	18935.774	18602.702	0.01	-1.8	15.0
(3)	12442.153	11876.852	0.01	-4.5	15.0
(4)	7348.319	7153.707	0.01	-2.6	15.0
(5)	9517.775	9272.354	0.01	-2.6	15.0
Aroclor-1260	18330.091	19660.523	0.01	7.2	15.0
(2)	26889.831	28967.742	0.01	7.7	15.0
(3)	28315.304	31116.279	0.01	9.9	15.0
(4)	16157.873	17534.055	0.01	8.5	15.0
(5)	16812.669	18269.510	0.01	8.7	15.0
4cmx	389523.02	417722.67	0.01	7.2	15.0
Decachlorobiphenyl	296930.38	319225.04	0.01	7.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

Instrument ID: ECD1A Calibration Date: 03/23/10 Time: 2338

Lab File ID: 079B7901 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11821.083	0.01	-6.1	15.0
(2)	8634.207	7840.838	0.01	-9.2	15.0
(3)	5286.637	4872.606	0.01	-7.8	15.0
(4)	6892.719	6399.096	0.01	-7.2	15.0
(5)	6422.564	6030.329	0.01	-6.1	15.0
Aroclor-1260	13080.231	12871.935	0.01	-1.6	15.0
(2)	15549.023	15721.868	0.01	1.1	15.0
(3)	11896.069	11842.754	0.01	-0.4	15.0
(4)	12289.216	12380.125	0.01	0.7	15.0
(5)	26394.638	27503.255	0.01	4.2	15.0
4cmx	262332.66	261980.72	0.01	-0.1	15.0
Decachlorobiphenyl	187173.38	187550.07	0.01	0.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 0119

Lab File ID: 087F8701 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	14921.738	0.01	-1.7	15.0
(2)	18935.774	19417.236	0.01	2.5	15.0
(3)	12442.153	12005.248	0.01	-3.5	15.0
(4)	7348.319	7247.016	0.01	-1.4	15.0
(5)	9517.775	9351.866	0.01	-1.7	15.0
Aroclor-1260	18330.091	19418.247	0.01	5.9	15.0
(2)	26889.831	29065.691	0.01	8.1	15.0
(3)	28315.304	31108.221	0.01	9.9	15.0
(4)	16157.873	17468.704	0.01	8.1	15.0
(5)	16812.669	18258.720	0.01	8.6	15.0
4cmx	389523.02	421827.93	0.01	8.3	15.0
Decachlorobiphenyl	296930.38	314551.30	0.01	5.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

Instrument ID: ECD1A Calibration Date: 03/24/10 Time: 0119

Lab File ID: 087B8701 Init. Calib. Date(s): 03/11/10 03/11/10

Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	12423.500	0.01	-1.3	15.0
(2)	8634.207	7956.806	0.01	-7.8	15.0
(3)	5286.637	4949.334	0.01	-6.4	15.0
(4)	6892.719	6476.113	0.01	-6.0	15.0
(5)	6422.564	5949.076	0.01	-7.4	15.0
Aroclor-1260	13080.231	12976.110	0.01	-0.8	15.0
(2)	15549.023	15877.009	0.01	2.1	15.0
(3)	11896.069	11906.941	0.01	0.1	15.0
(4)	12289.216	12323.745	0.01	0.3	15.0
(5)	26394.638	27612.520	0.01	4.6	15.0
4cmx	262332.66	268346.39	0.01	2.3	15.0
Decachlorobiphenyl	187173.38	186673.79	0.01	-0.3	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/002f0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 23-MAR-2010 07:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:52 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.913	0.000	41315693	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.217	5.217	0.000	31639335	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.365	2.365	0.000	14904311	1000.00	982	80.00- 120.00	100.00
2.651	2.651	0.000	19020221	1000.00	1000	107.62- 147.62	127.62
2.732	2.732	0.000	11642075	1000.00	936	58.11- 98.11	78.11
2.770	2.770	0.000	7018562	1000.00	955	27.09- 67.09	47.09
2.980	2.980	0.000	9050522	1000.00	951	40.72- 80.72	60.72
Average of Peak Amounts =					966		
7 Aroclor-1260					CAS #: 11096-82-5		
3.705	3.705	0.000	18974465	1000.00	1040	80.00- 120.00	100.00
3.867	3.867	0.000	28338650	1000.00	1050	129.35- 169.35	149.35
4.030	4.030	0.000	30220801	1000.00	1070	139.27- 179.27	159.27
4.097	4.097	0.000	17084331	1000.00	1060	70.04- 110.04	90.04
4.240	4.240	0.000	17877749	1000.00	1060	74.22- 114.22	94.22
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd1a.i/032310a.b/002f0201.d

Date : 23-MAR-2010 07:53

Client ID: AR166001

Sample Info: IWAR100222-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

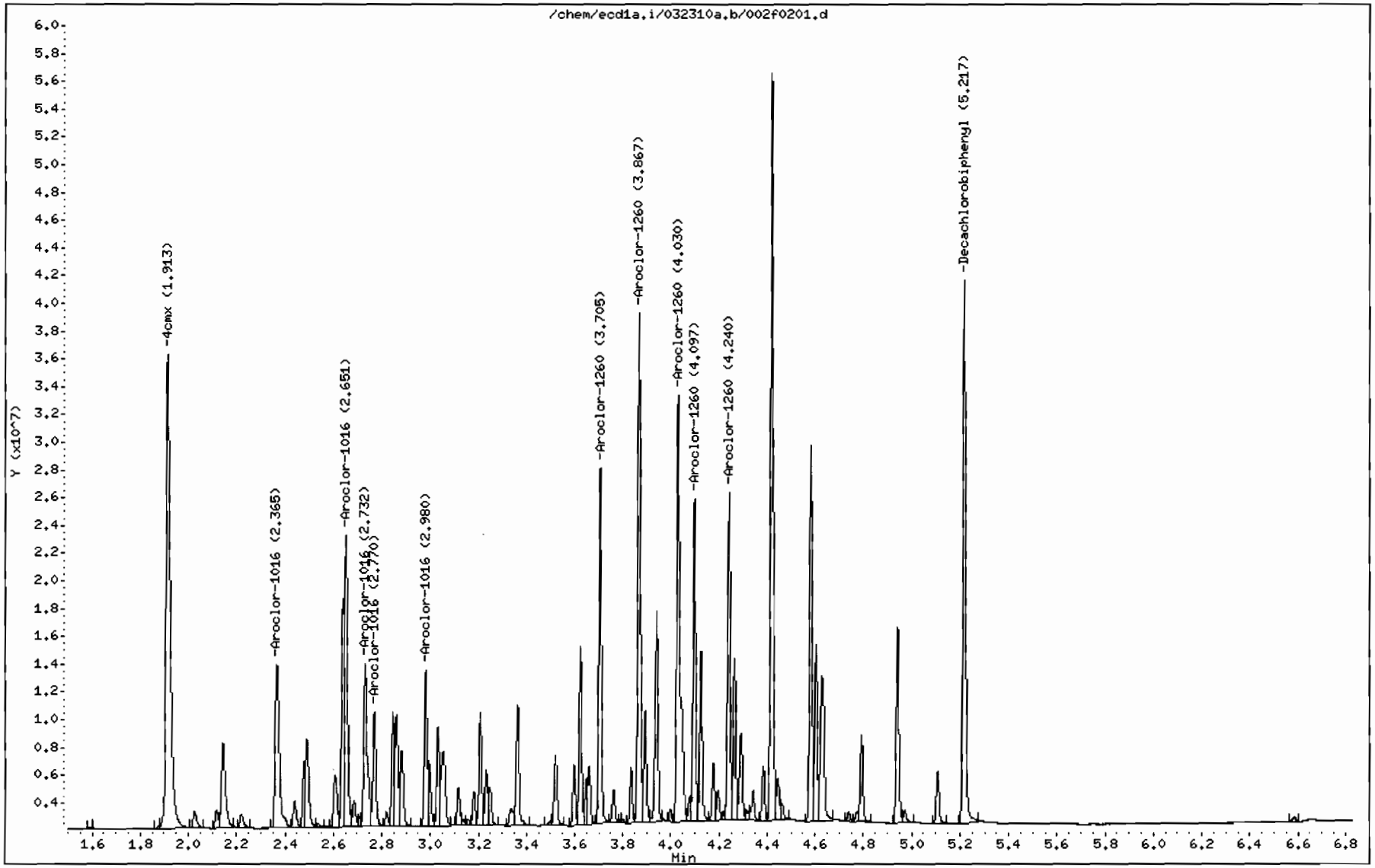

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/002b0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 23-MAR-2010 07:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	26235340	100.000	100	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.912	5.912	0.000	18586743	100.000	99.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.165	3.165	0.000	11580435	1000.00	920	80.00- 120.00	100.00(M)
3.248	3.248	0.000	7799455	1000.00	903	45.31- 85.31	67.35
3.311	3.311	0.000	4831888	1000.00	914	20.51- 60.51	41.72
3.538	3.538	0.000	6341985	1000.00	920	33.14- 73.14	54.76
3.614	3.614	0.000	5935096	1000.00	924	29.05- 69.05	51.25
Average of Peak Amounts =					916		
7 Aroclor-1260					CAS #: 11096-82-5		
4.304	4.304	0.000	12744147	1000.00	974	80.00- 120.00	100.00
4.428	4.428	0.000	15548972	1000.00	1000	101.60- 141.60	122.01
4.695	4.695	0.000	11720380	1000.00	985	71.82- 111.82	91.97
4.867	4.867	0.000	12237561	1000.00	996	75.59- 115.59	96.02
5.015	5.015	0.000	27173631	1000.00	1030	192.18- 232.18	213.22
Average of Peak Amounts =					997		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/002b0201.d
Date : 23-MAR-2010 07:53
Client ID: AR166001
Sample Info: IWAR100222-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

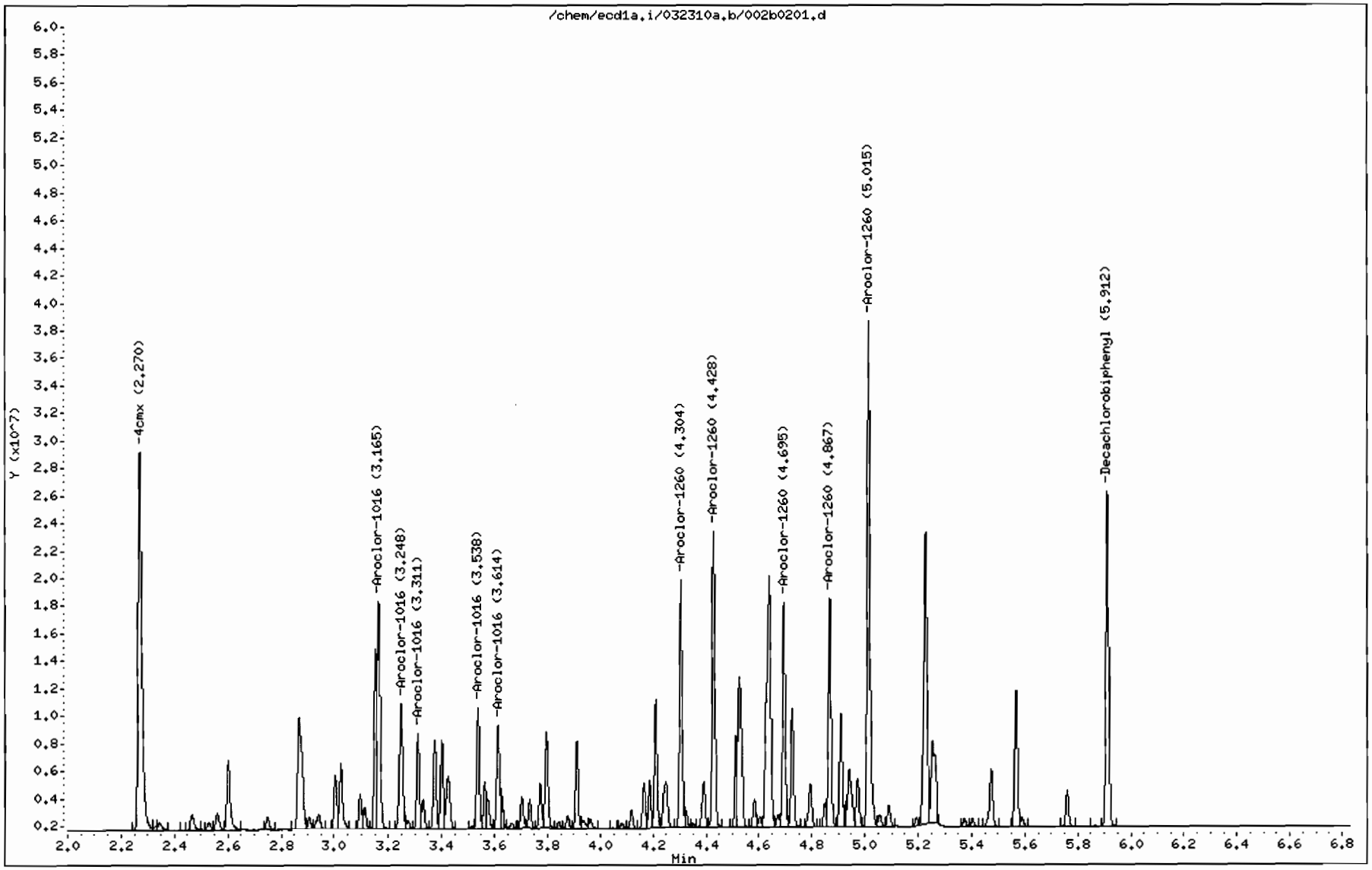

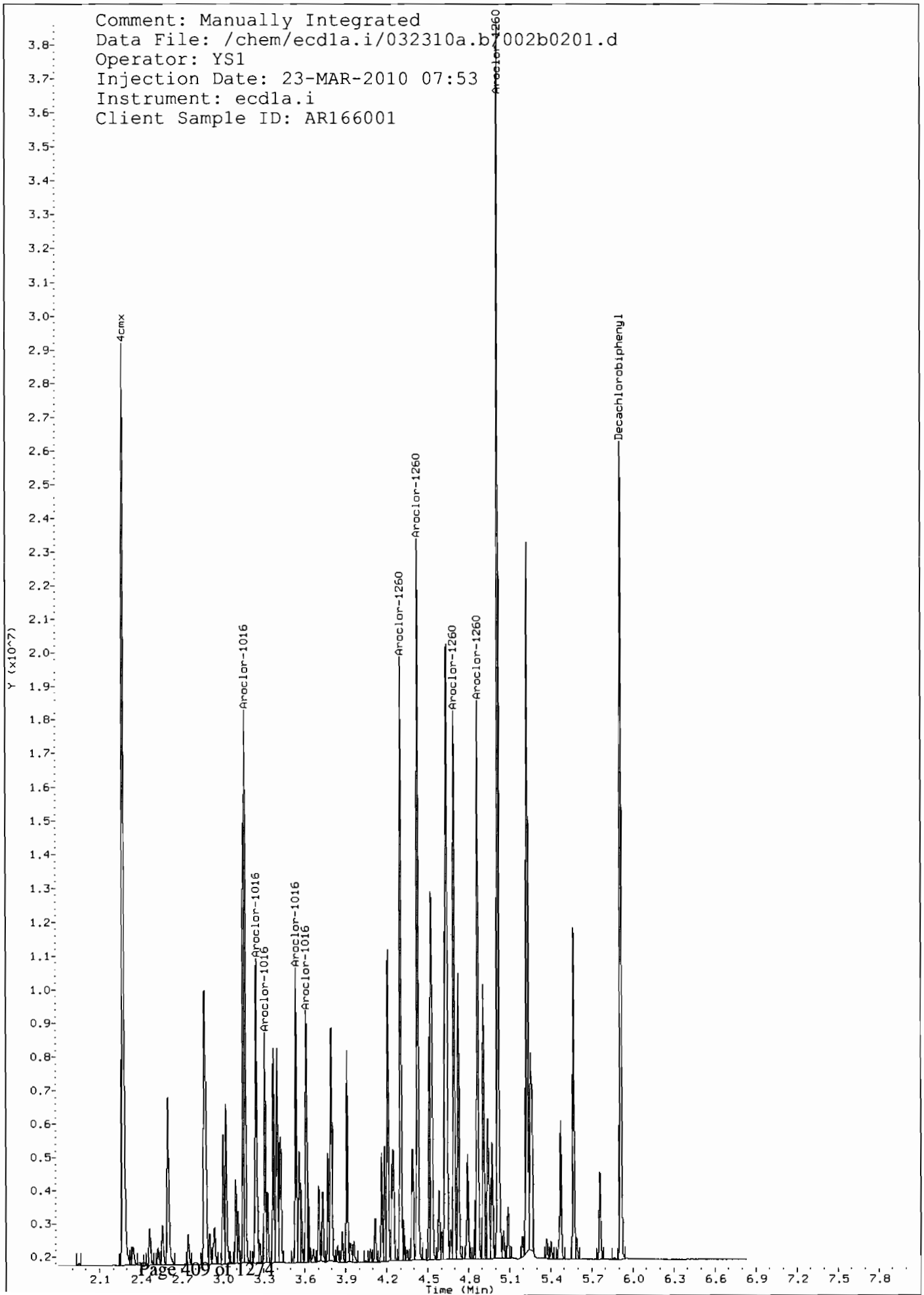
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/002b0201.d
Operator: YS1
Injection Date: 23-MAR-2010 07:53
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

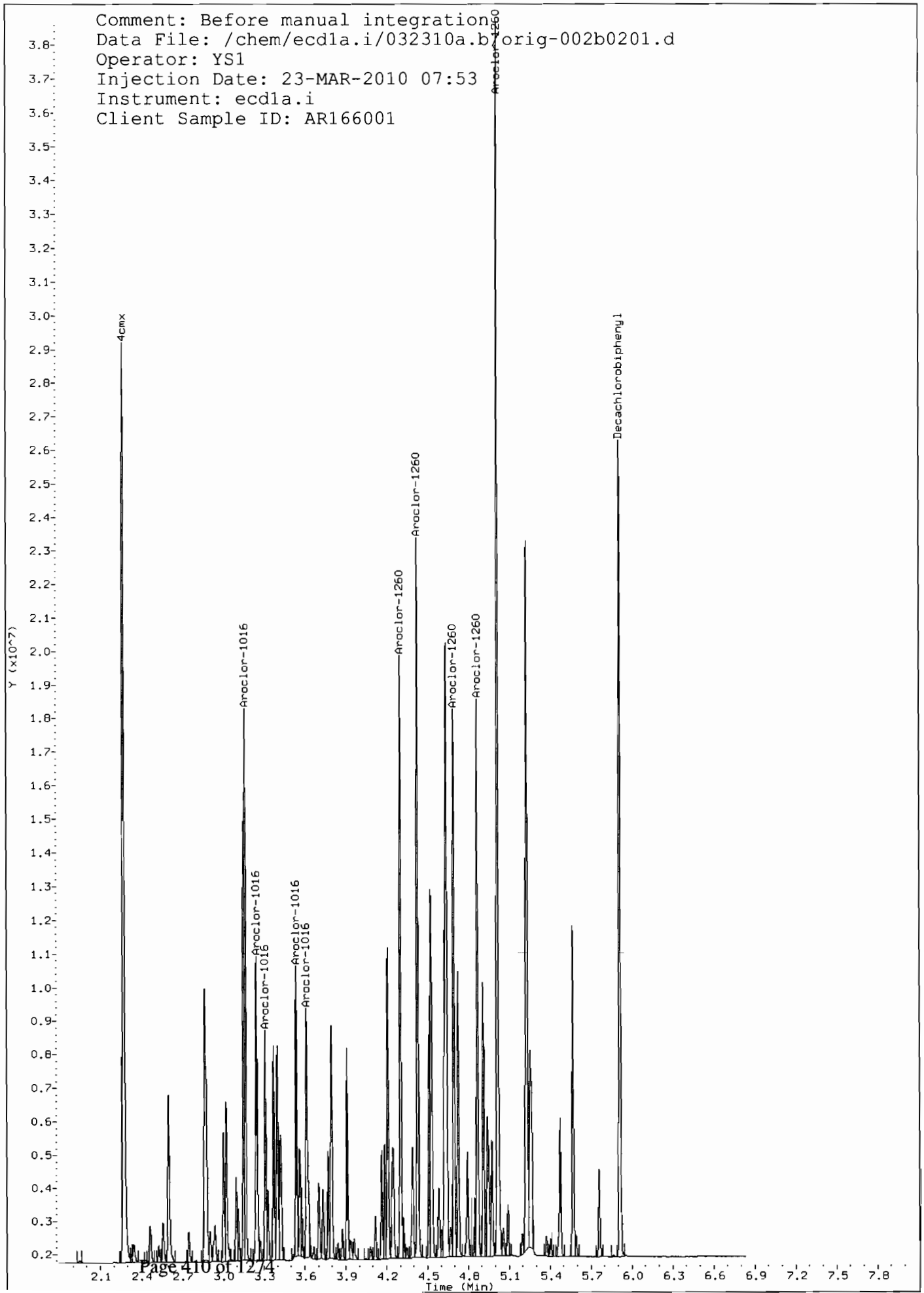
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Operator: YS1
Injection Date: 23-MAR-2010 07:53
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 23-MAR-2010 08:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpc1p1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.208	3.208	0.000	12967036	1000.00	978	80.00- 120.00	100.00
3.363	3.363	0.000	17361430	1000.00	974	113.89- 153.89	133.89
3.597	3.597	0.000	22829689	1000.00	1020	156.06- 196.06	176.06
3.759	3.759	0.000	16956788	1000.00	1030	110.77- 150.77	130.77
3.868	3.868	0.000	16896192	1000.00	1060	110.30- 150.30	130.30

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032310a.b/003f0301.d
Date : 23-MAR-2010 08:04
Client ID: AR125401
Sample Info: IWAR100219-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

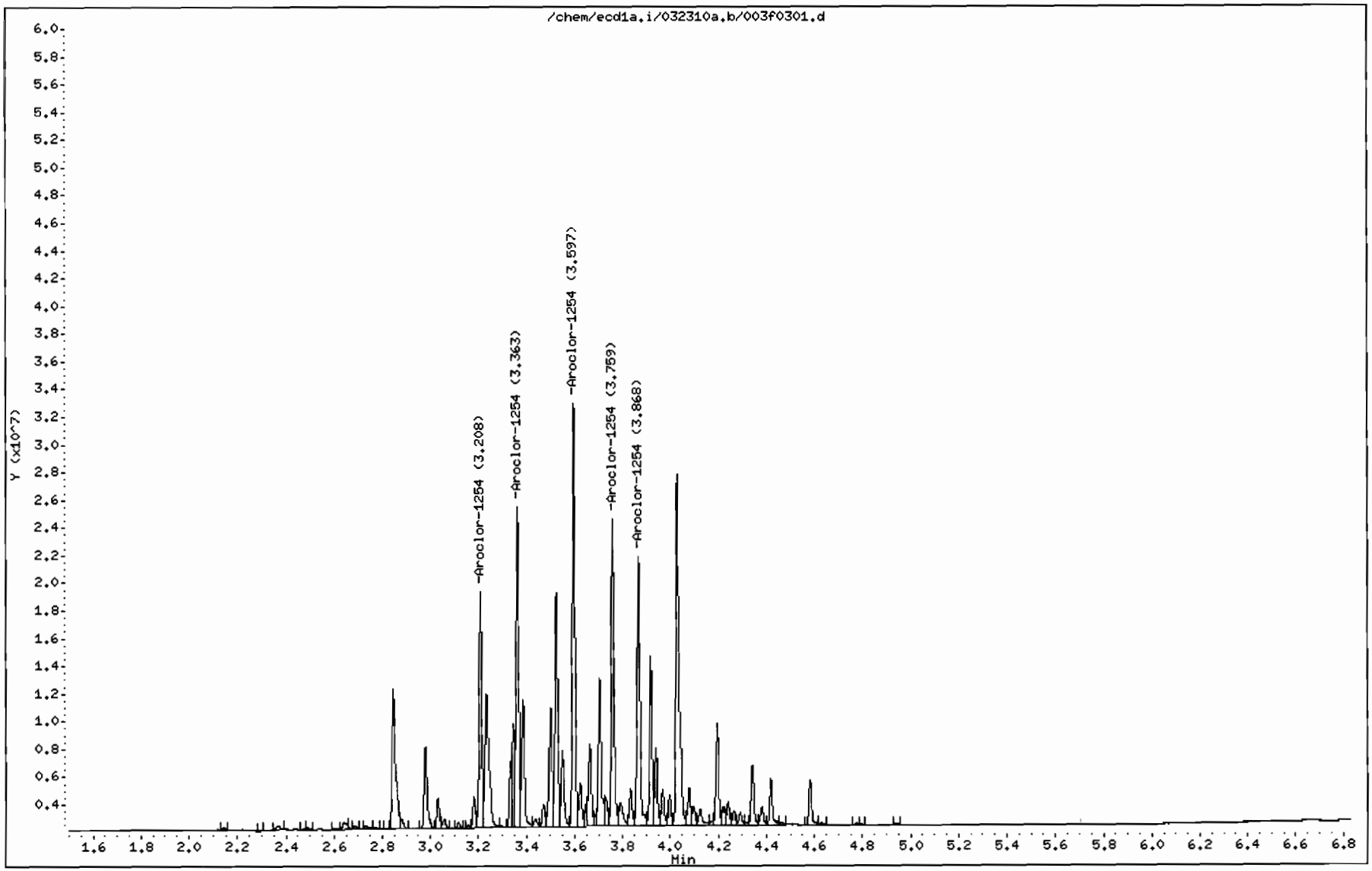

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 23-MAR-2010 08:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.373	3.373	0.000	5514362	1000.00	916	80.00- 120.00	100.00
3.795	3.795	0.000	10031897	1000.00	927	161.92- 201.92	181.92
3.912	3.912	0.000	11116209	1000.00	932	181.59- 221.59	201.59
4.188	4.188	0.000	15547782	1000.00	946	261.95- 301.95	281.95
4.323	4.323	0.000	11313436	1000.00	934	185.16- 225.16	205.16
Average of Peak Amounts =					931		

Data File: /chem/ecd1a.i/032310a.b/003b0301.d

Date : 23-MAR-2010 08:04

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

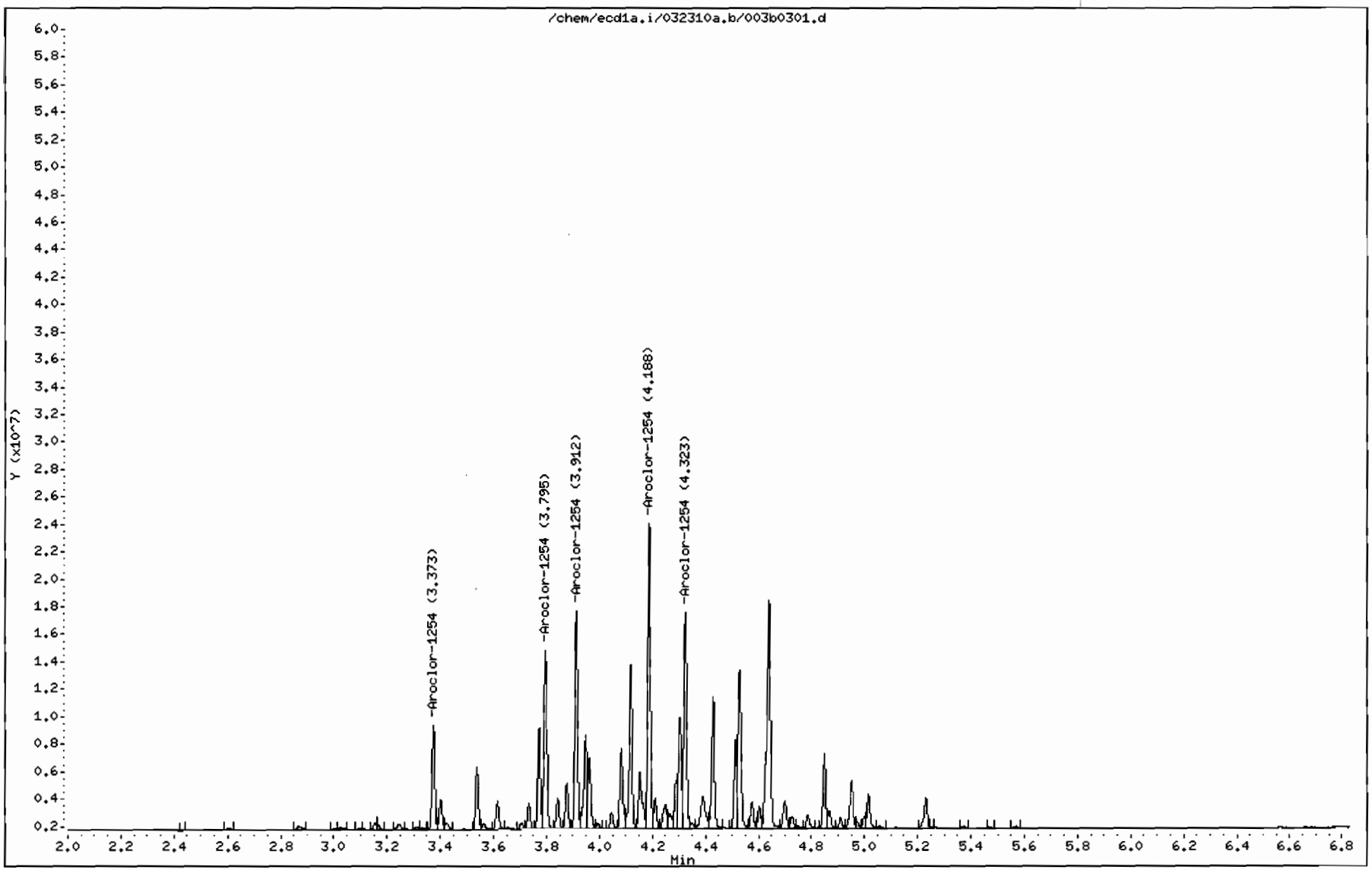

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/004f0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 23-MAR-2010 08:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.364	2.364	0.000	12529932	1000.00	1020	80.00- 120.00	100.00
2.652	2.652	0.000	15449624	1000.00	1040	103.30- 143.30	123.30
2.769	2.769	0.000	5907302	1000.00	1000	27.15- 67.15	47.15
2.979	2.979	0.000	7663511	1000.00	991	41.16- 81.16	61.16
3.233	3.233	0.000	7372131	1000.00	1010	38.84- 78.84	58.84

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/032310a.b/004f0401.d

Page 1

Date : 23-MAR-2010 08:14

Client ID: AR124201

Instrument: ecd1a.i

Sample Info: IWAR100219-42

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

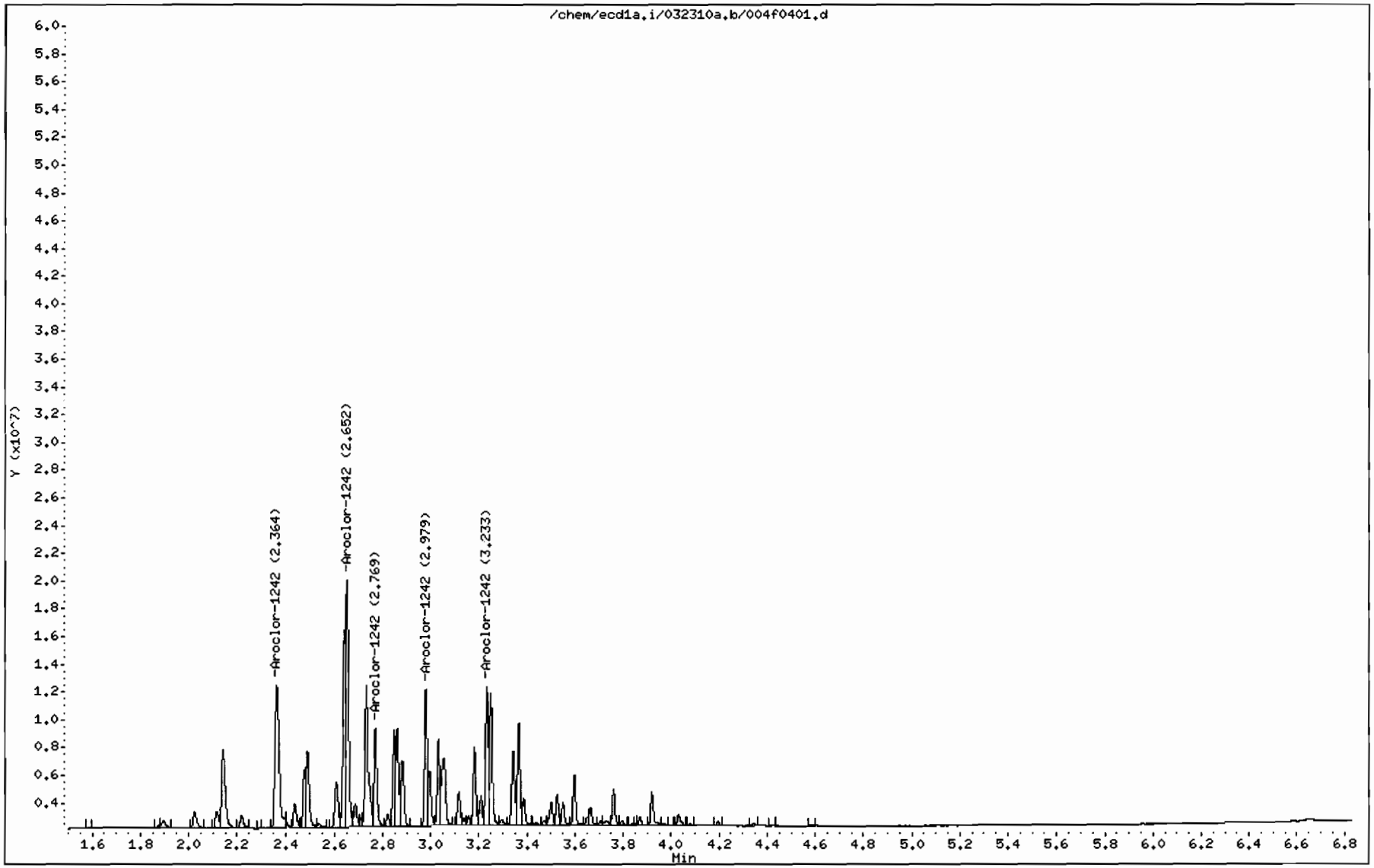

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/004b0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 23-MAR-2010 08:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.165	3.165	0.000	9989319	1000.00	985	80.00- 120.00	100.00
3.248	3.248	0.000	6594356	1000.00	929	46.01- 86.01	66.01
3.538	3.538	0.000	5227592	1000.00	948	32.33- 72.33	52.33
3.772	3.772	0.000	5504861	1000.00	962	35.11- 75.11	55.11
3.799	3.799	0.000	6141848	1000.00	964	41.48- 81.48	61.48
Average of Peak Amounts =					958		

Data File: /chem/ecd1a.i/032310a.b/004b0401.d

Date : 23-MAR-2010 08:14

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

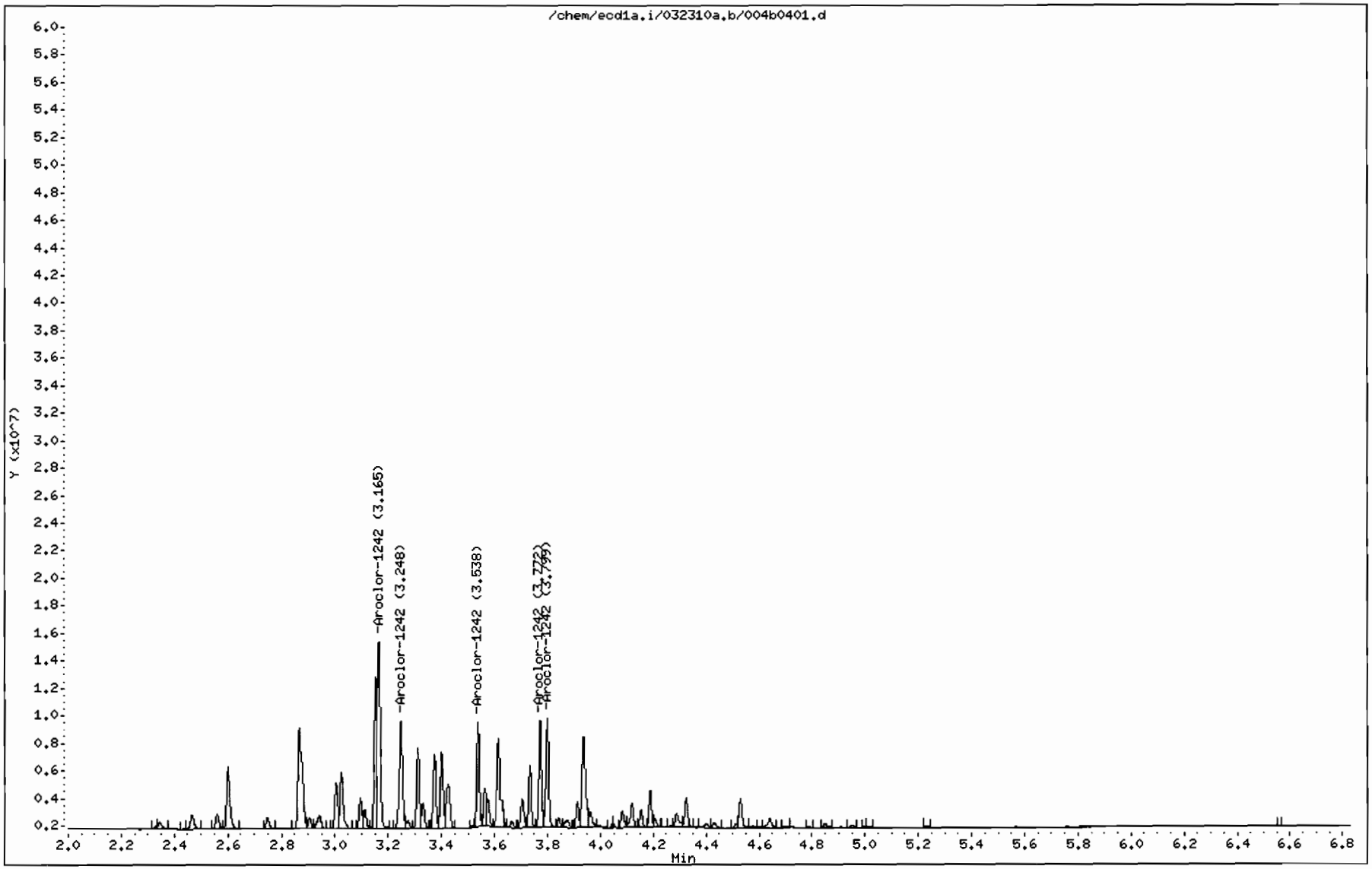

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 23-MAR-2010 08:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
2.847	2.847	0.000	10050677	1000.00	1000	80.00- 120.00	100.00
2.979	2.979	0.000	13265173	1000.00	1010	111.98- 151.98	131.98
3.233	3.233	0.000	14344935	1000.00	1000	122.73- 162.73	142.73
3.365	3.365	0.000	11923879	1000.00	1000	98.64- 138.64	118.64
3.597	3.597	0.000	7748802	1000.00	968	57.10- 97.10	77.10
Average of Peak Amounts =					998		

Data File: /chem/ecd1a.i/032310a.b/005f0501.d

Date : 23-MAR-2010 08:25

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

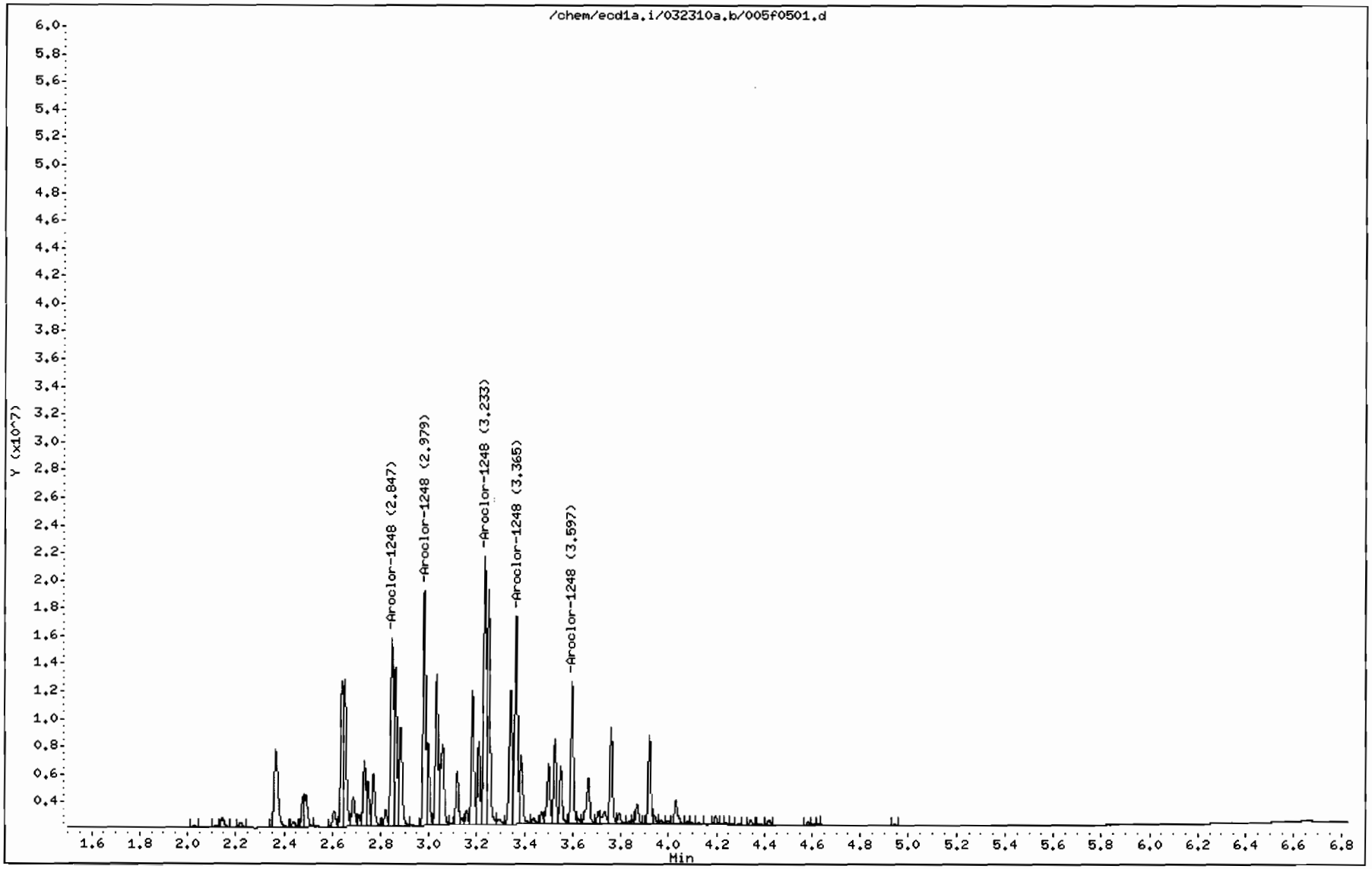

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 23-MAR-2010 08:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.374	3.374	0.000	7199782	1000.00	947	80.00- 120.00	100.00
3.538	3.538	0.000	9052406	1000.00	956	105.73- 145.73	125.73
3.772	3.772	0.000	10456838	1000.00	957	125.24- 165.24	145.24
3.799	3.799	0.000	11728900	1000.00	965	142.91- 182.91	162.91
3.936	3.936	0.000	11323085	1000.00	958	137.27- 177.27	157.27

Average of Peak Amounts = 957

Data File: /chem/ecd1a.i/032310a.b/005b0501.d

Page 1

Date : 23-MAR-2010 08:25

Client ID: AR124801

Instrument: ecd1a.i

Sample Info: IWAR100223-48

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

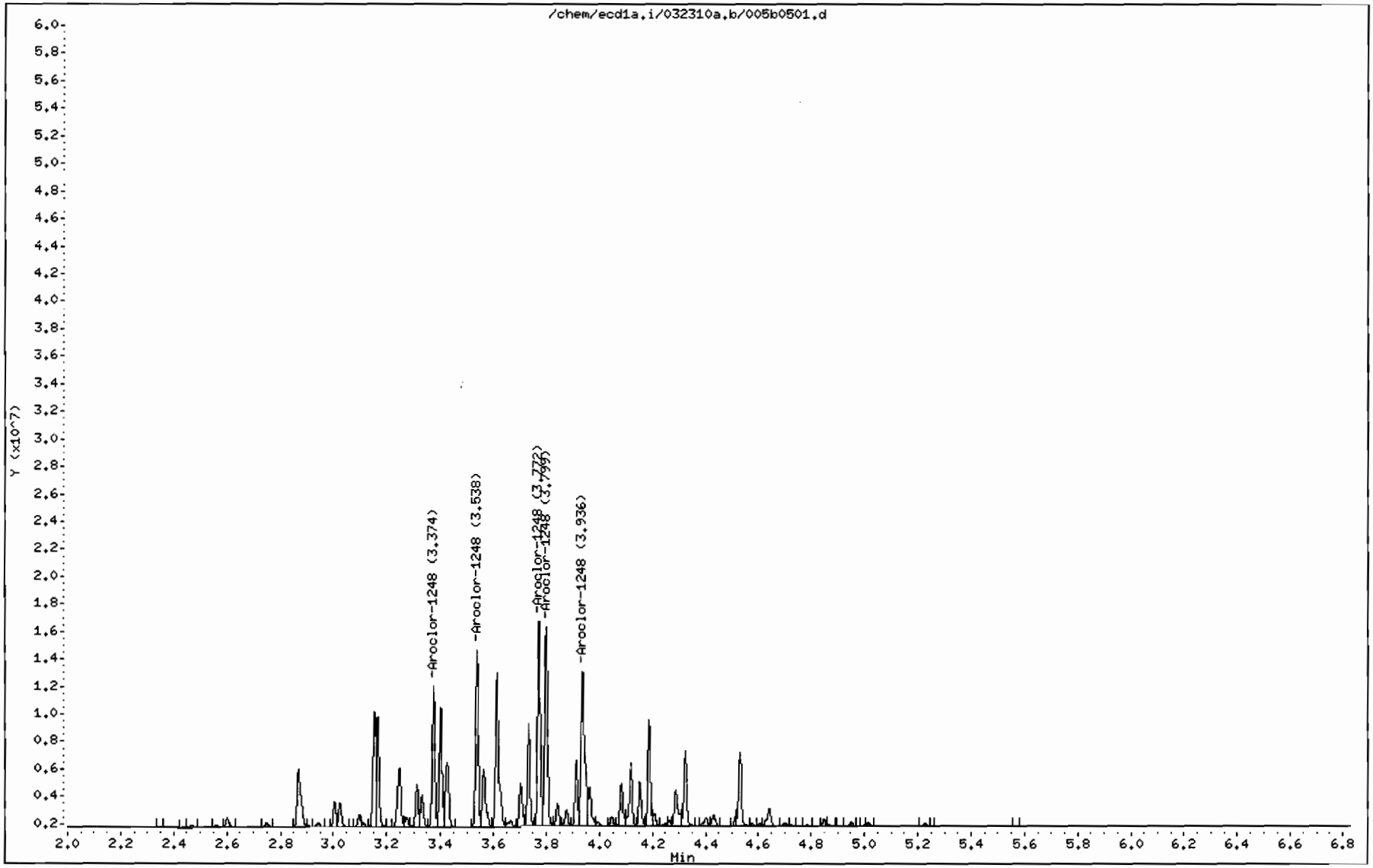

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/007f0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 23-MAR-2010 08:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.364	2.364	0.000	7062304	1000.00	1060	80.00- 120.00	100.00
2.651	2.651	0.000	9115443	1000.00	1090	109.07- 149.07	129.07
2.731	2.731	0.000	5834361	1000.00	1050	62.61- 102.61	82.61
2.845	2.845	0.000	2821856	1000.00	1060	19.96- 59.96	39.96
3.232	3.232	0.000	3909059	1000.00	1100	35.35- 75.35	55.35

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd1a.i/032310a.b/007f0701.d

Date : 23-MAR-2010 08:46

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

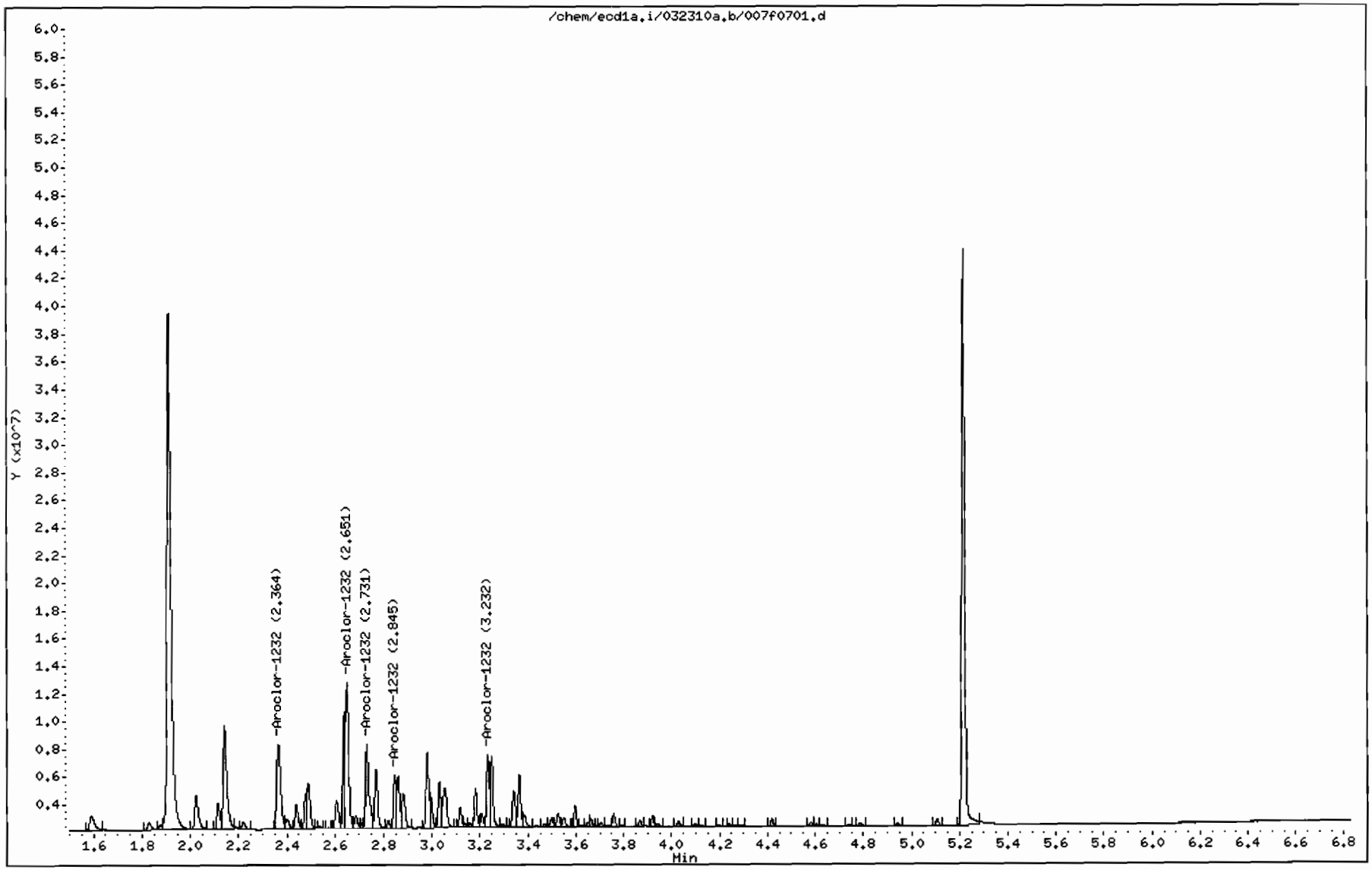

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/032310a.b/007b0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 23-MAR-2010 08:46
Operator : YS1 Inst ID: ecdla.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecdla.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.867	2.867	0.000	5247172	1000.00	1040	80.00- 120.00	100.00
3.165	3.165	0.000	5974577	1000.00	1040	93.86- 133.86	113.86
3.247	3.247	0.000	4031708	1000.00	1040	56.84- 96.84	76.84
3.538	3.538	0.000	3003761	1000.00	1060	37.25- 77.25	57.25
3.771	3.771	0.000	2991304	1000.00	1060	37.01- 77.01	57.01

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/032310a.b/007b0701.d

Page 1

Date : 23-MAR-2010 08:46

Client ID: AR123201

Instrument: ecd1a.i

Sample Info: IWAR100104-32

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

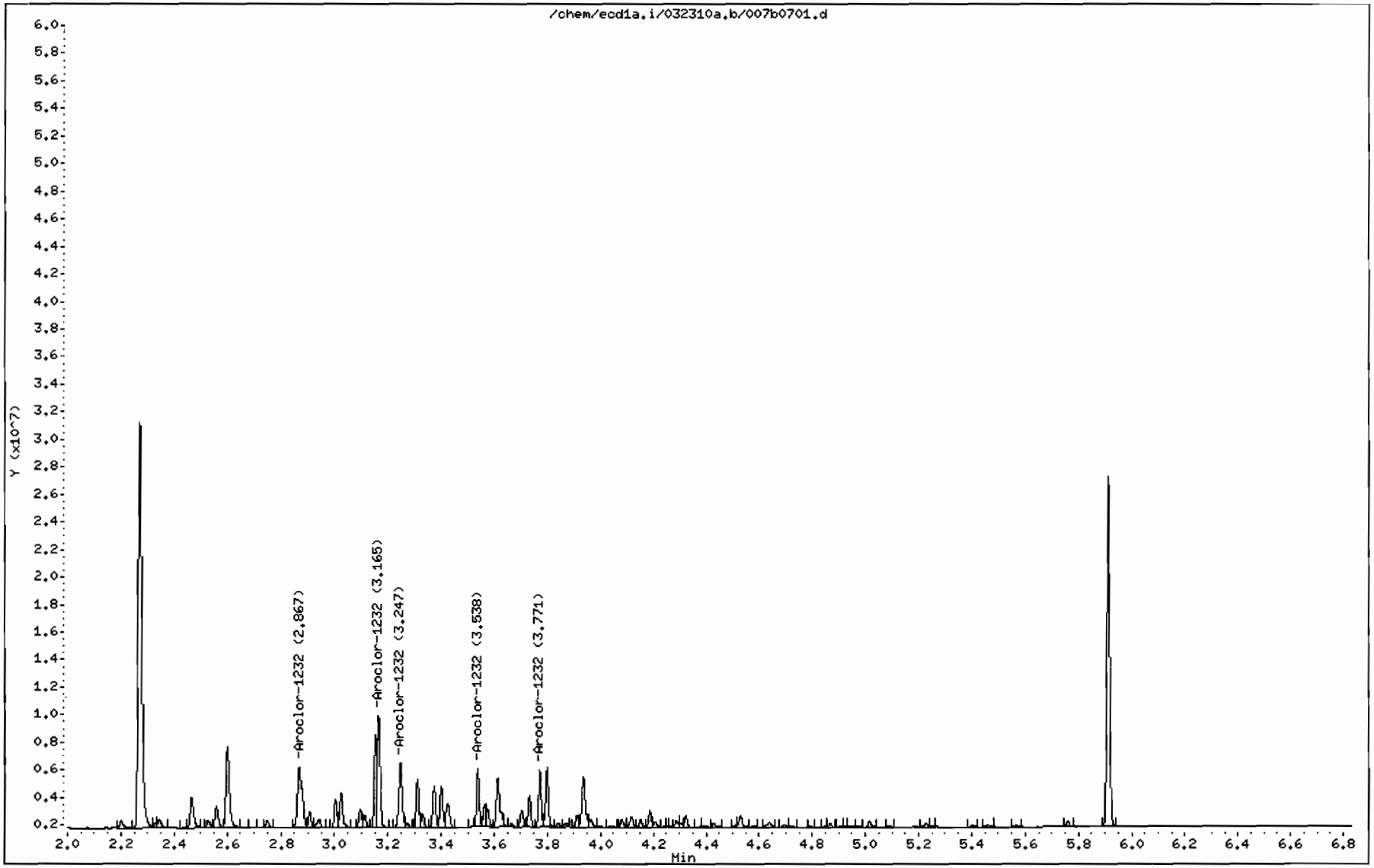

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/008f0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 23-MAR-2010 08:56
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.025	2.025	0.000	4670074	1000.00	1040	80.00- 120.00	100.00
2.117	2.117	0.000	2571490	1000.00	1050	35.06- 75.06	55.06
2.143	2.143	0.000	11386000	1000.00	1050	223.81- 263.81	243.81

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/032310a.b/008f0801.d
Date : 23-MAR-2010 08:56
Client ID: AR122101
Sample Info: IWAR100104-21

Instrument: ecd1a.i

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

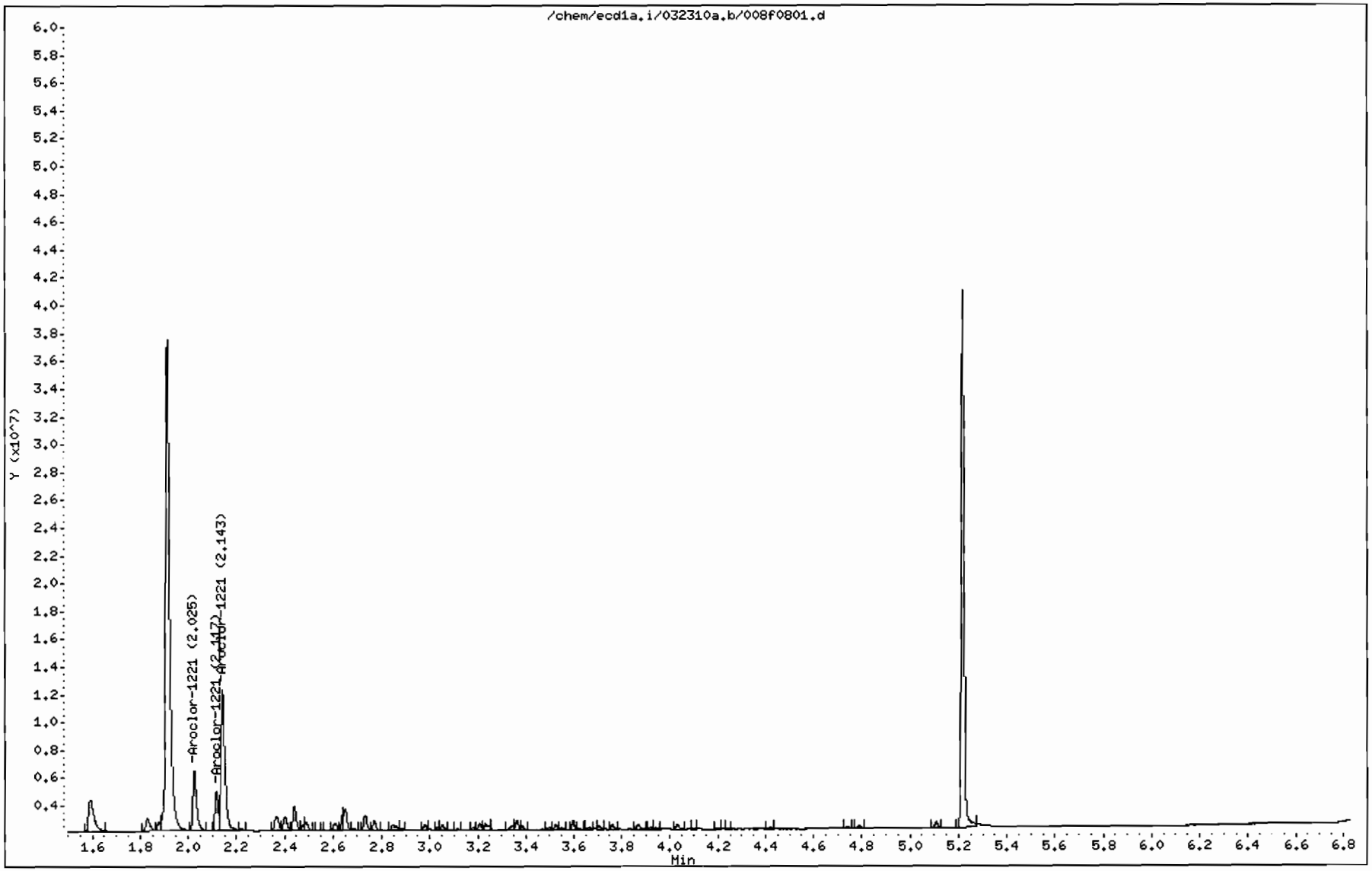

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/008b0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 23-MAR-2010 08:56
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.466	2.466	0.000	3437472	1000.00	1060	80.00- 120.00	100.00
2.560	2.560	0.000	2167005	1000.00	1040	43.04- 83.04	63.04
2.601	2.601	0.000	7383393	1000.00	1010	194.79- 234.79	214.79

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/032310a.b/008b0801.d

Page 1

Date : 23-MAR-2010 08:56

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: IWAR100104-21

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

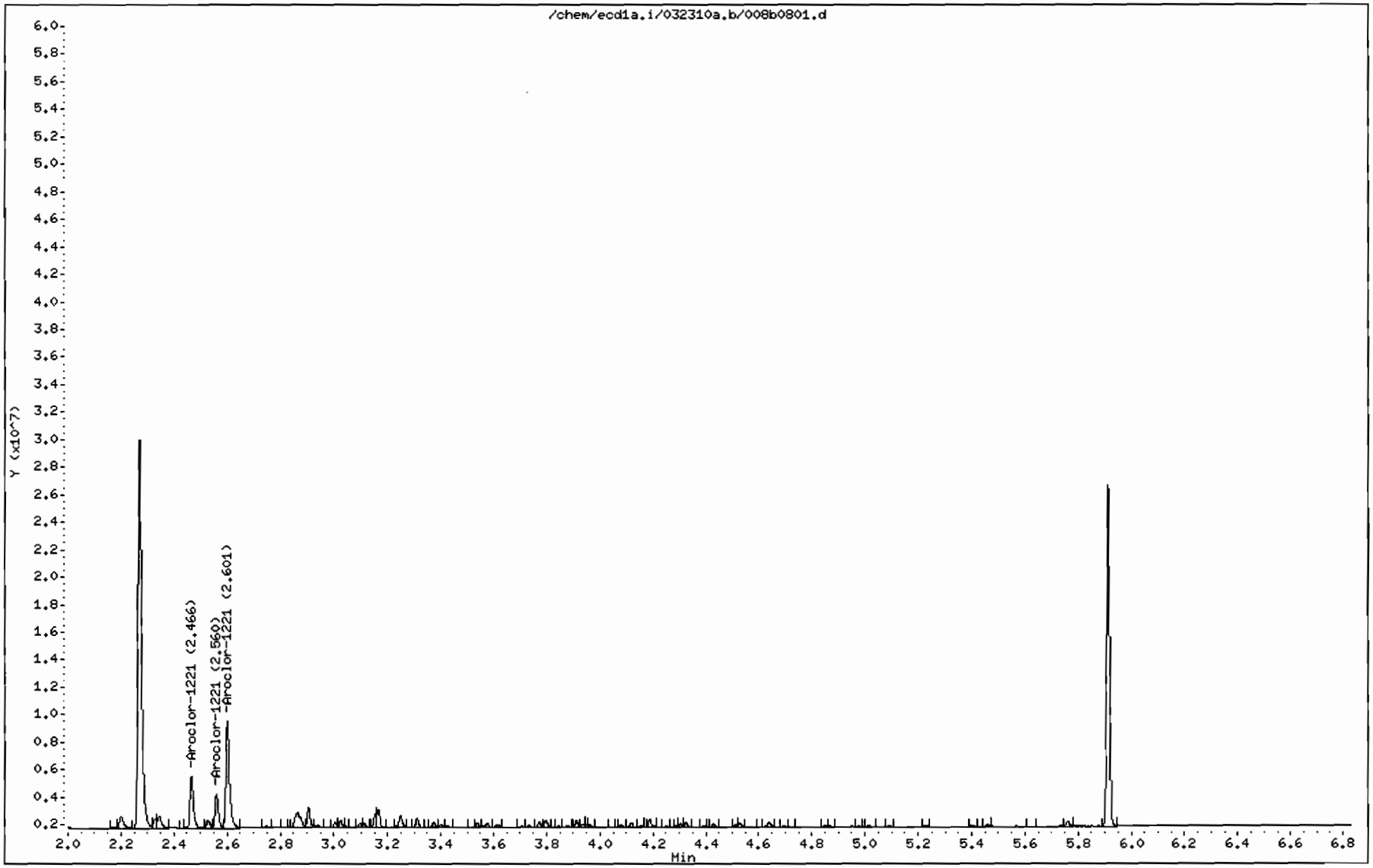

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/021f2101.d
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002
Inj Date : 23-MAR-2010 11:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:54 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	40145050	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	29109356	100.000	98.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.365	-0.001	14292984	1000.00	942	80.00- 120.00	100.00
2.650	2.651	-0.001	18014082	1000.00	951	106.03- 146.03	126.03
2.731	2.732	-0.001	11433112	1000.00	919	59.99- 99.99	79.99
2.768	2.770	-0.002	6916561	1000.00	941	28.39- 68.39	48.39
2.978	2.980	-0.002	8921011	1000.00	937	42.42- 82.42	62.42
Average of Peak Amounts =					938		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	18917452	1000.00	1030	80.00- 120.00	100.00
3.866	3.867	-0.001	27896153	1000.00	1040	127.46- 167.46	147.46
4.027	4.030	-0.003	29772954	1000.00	1050	137.38- 177.38	157.38
4.096	4.097	-0.001	16821466	1000.00	1040	68.92- 108.92	88.92
4.238	4.240	-0.002	17522638	1000.00	1040	72.63- 112.63	92.63
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd1a.i/032310a.b/021f2101.d

Date : 23-MAR-2010 11:28

Client ID: AR166002

Sample Info: IWAR100222-60 02

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

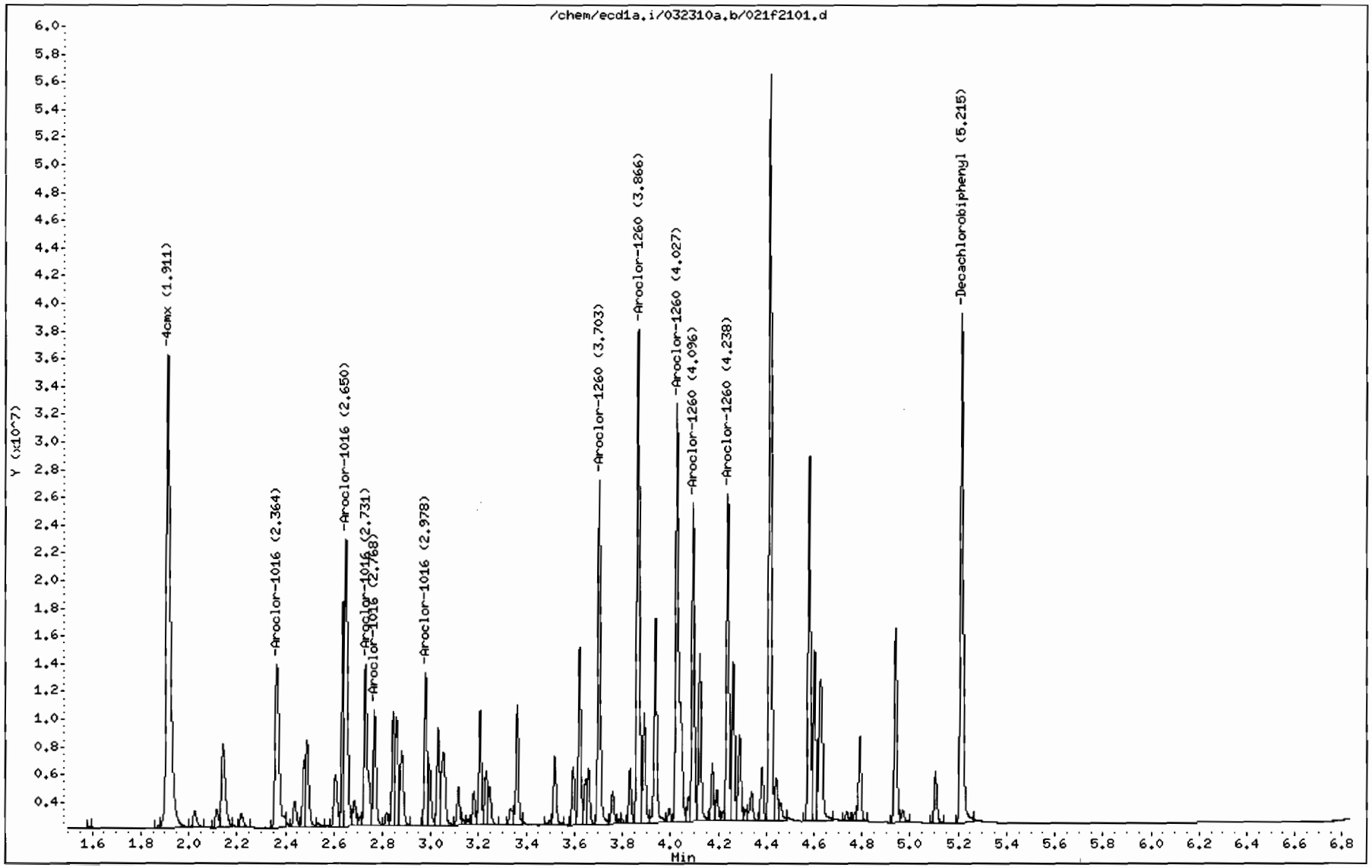

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/021b2101.d
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002
Inj Date : 23-MAR-2010 11:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	25932712	100.000	98.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	18118145	100.000	96.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	11869406	1000.00	943	80.00- 120.00	100.00(M)
3.247	3.248	-0.001	7752072	1000.00	898	45.31- 85.31	65.31
3.311	3.311	0.000	4807813	1000.00	909	20.51- 60.51	40.51
3.537	3.538	-0.001	6307202	1000.00	915	31.09- 71.09	53.14
3.612	3.614	-0.002	5822449	1000.00	906	37.88- 77.88	59.40
Average of Peak Amounts =					914		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	12629591	1000.00	966	80.00- 120.00	100.00
4.427	4.428	-0.001	15357793	1000.00	988	101.60- 141.60	121.60
4.693	4.695	-0.002	11596776	1000.00	975	71.82- 111.82	91.82
4.866	4.867	-0.001	12072542	1000.00	982	75.59- 115.59	95.59
5.013	5.015	-0.002	26797242	1000.00	1020	192.18- 232.18	212.18
Average of Peak Amounts =					985		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdia.i/032310a.b/021b2101.d
Date : 23-MAR-2010 11:28
Client ID: AR166002
Sample Info: IWAR100222-60 02

Column phase: CLP2

Instrument: ecdia.i
Operator: YSI
Column diameter: 0.25

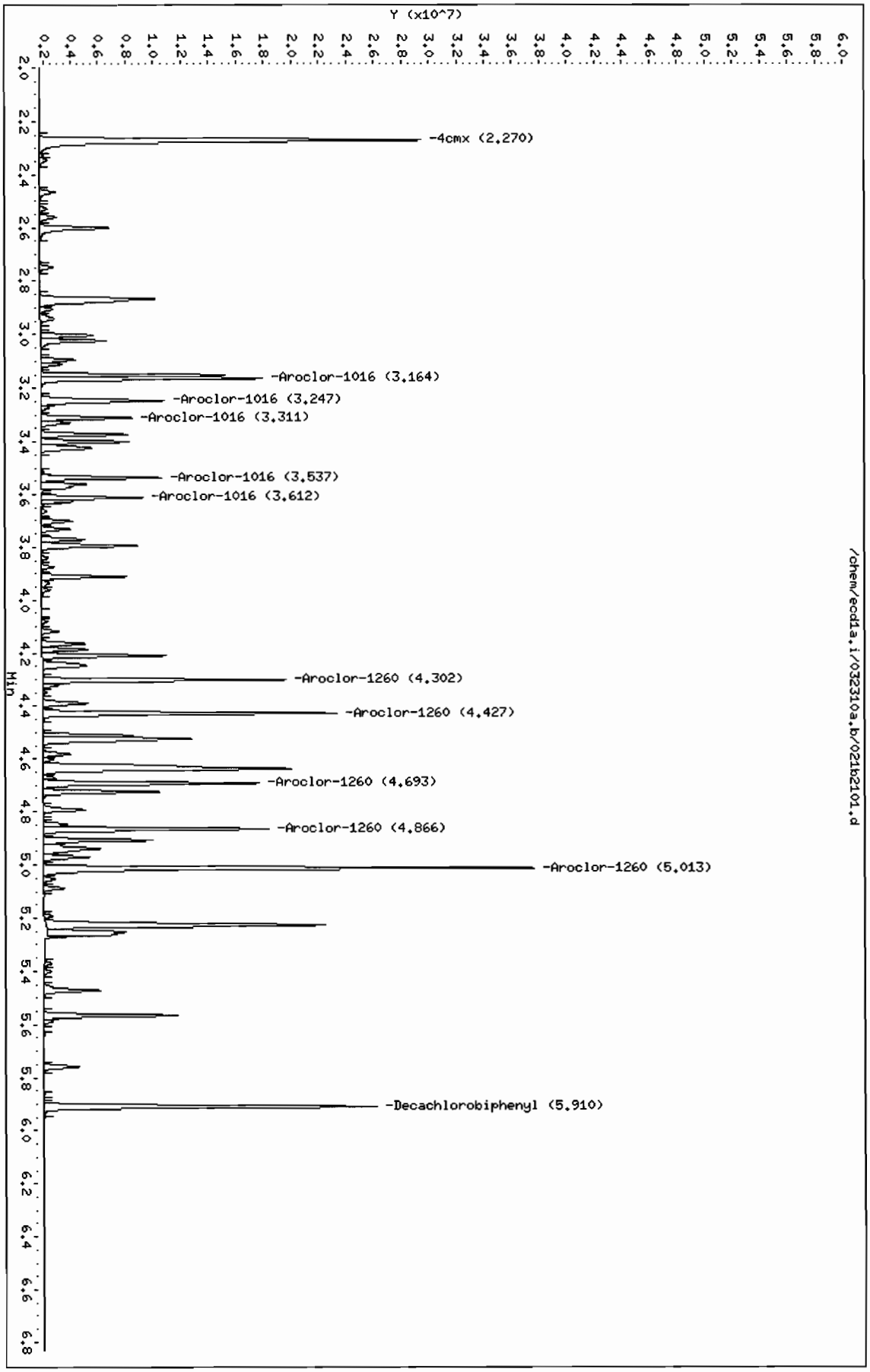

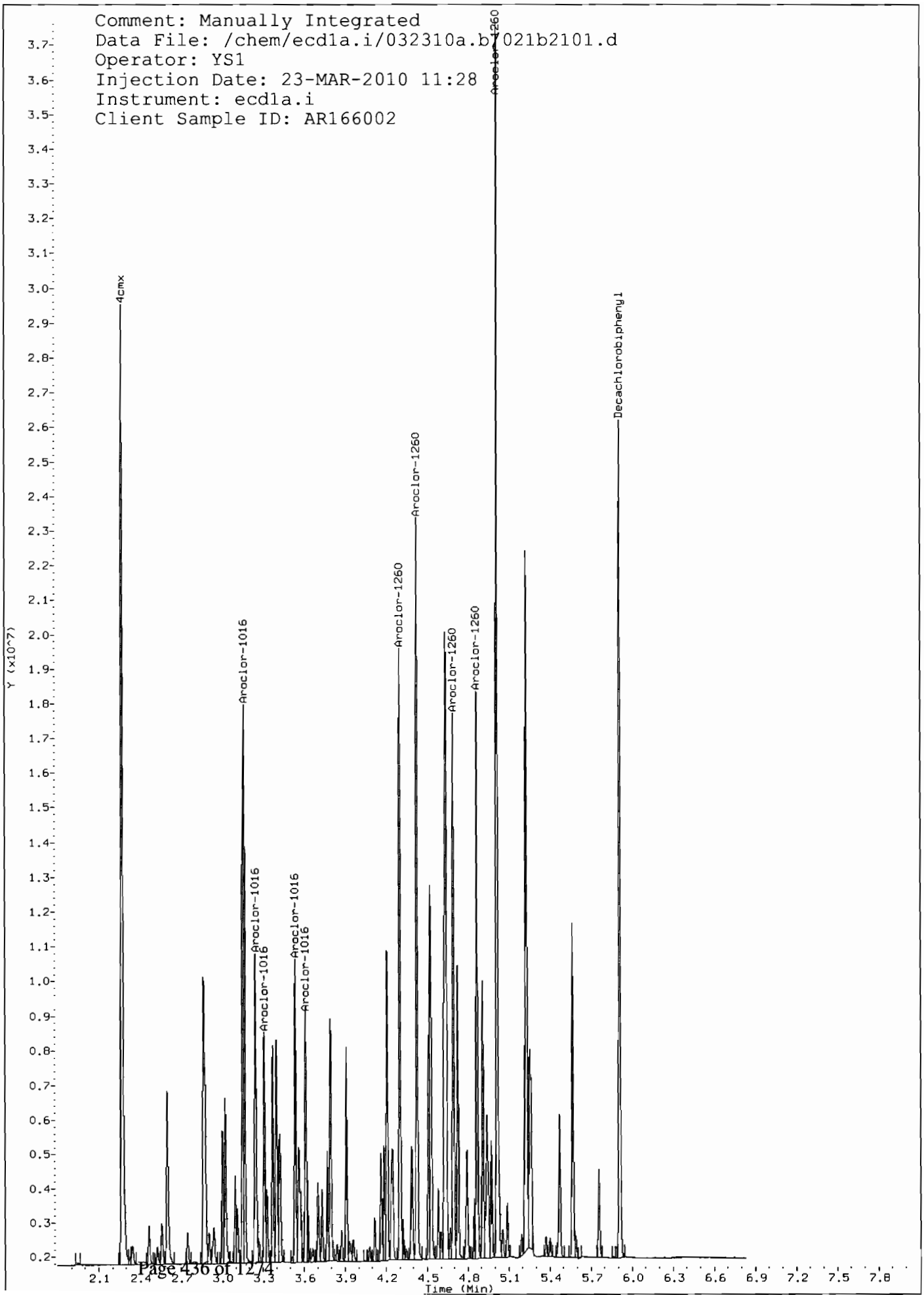
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/021b2101.d
Operator: YS1
Injection Date: 23-MAR-2010 11:28
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

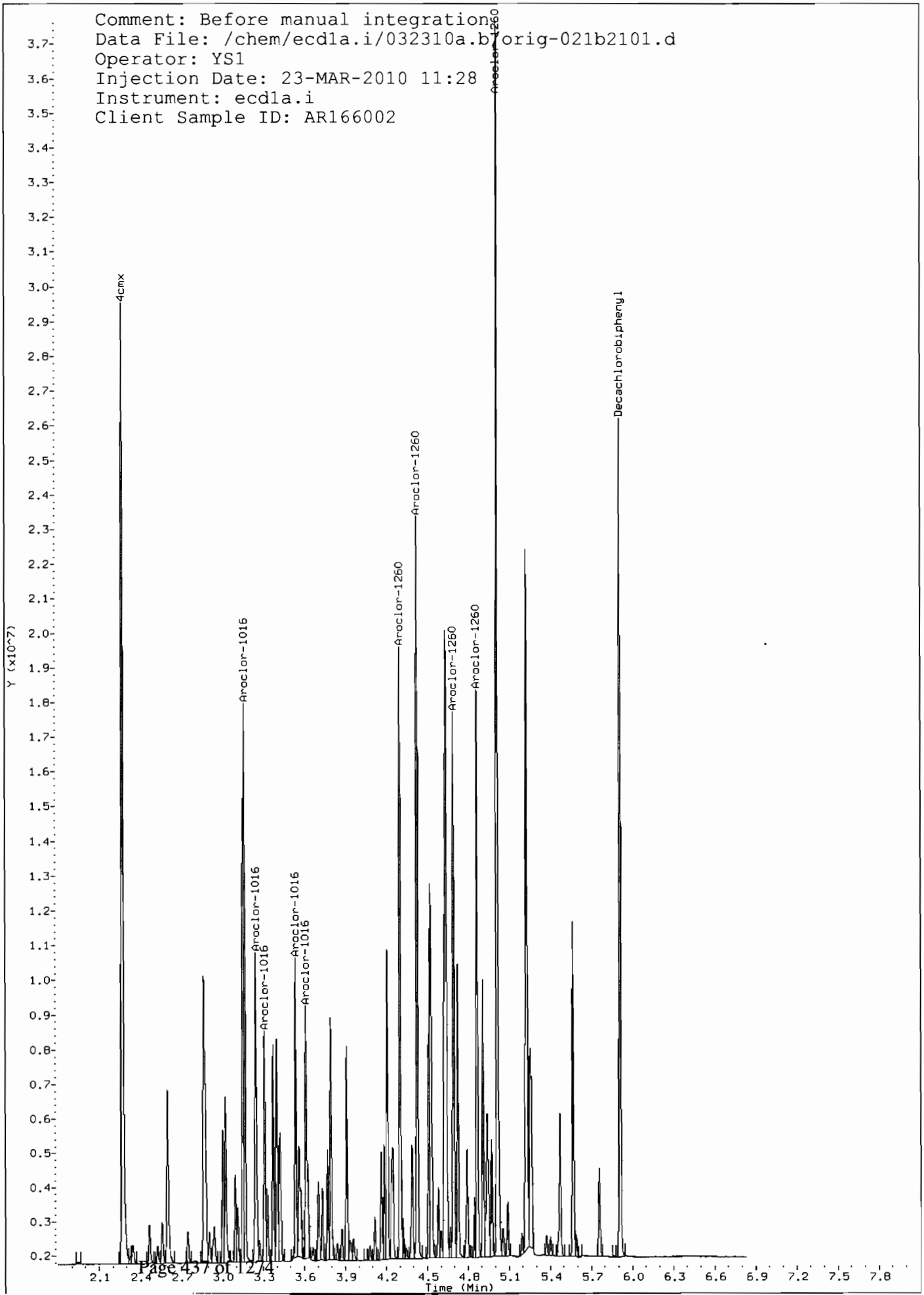
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Data File: /chem/ecd1a.i/032310a.b/orig-021b2101.d
Operator: YS1
Injection Date: 23-MAR-2010 11:28
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/079f7901.d
Lab Smp Id: WAR100222-60 09 Client Smp ID: AR166009
Inj Date : 23-MAR-2010 23:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 09
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:58 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 79 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	41772267	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.217	-0.004	31922504	100.000	108	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.365	-0.002	14379541	1000.00	947	80.00- 120.00	100.00
2.649	2.651	-0.002	18602702	1000.00	982	109.37- 149.37	129.37
2.730	2.732	-0.002	11876851	1000.00	954	62.60- 102.60	82.60
2.768	2.770	-0.002	7153706	1000.00	974	29.75- 69.75	49.75
2.978	2.980	-0.002	9272354	1000.00	974	44.48- 84.48	64.48
Average of Peak Amounts =					966		
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.705	-0.003	19660522	1000.00	1070	80.00- 120.00	100.00
3.864	3.867	-0.003	28967741	1000.00	1080	127.34- 167.34	147.34
4.027	4.030	-0.003	31116278	1000.00	1100	138.27- 178.27	158.27
4.094	4.097	-0.003	17534054	1000.00	1080	69.18- 109.18	89.18
4.237	4.240	-0.003	18269510	1000.00	1090	72.92- 112.92	92.92
Average of Peak Amounts =					1.08e+03		

Data File: /chem/ecd1a.i/032310a.b/079f7901.d

Page 1

Date : 23-MAR-2010 23:38

Client ID: AR166009

Instrument: ecd1a.i

Sample Info: IWAR100222-60 09

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

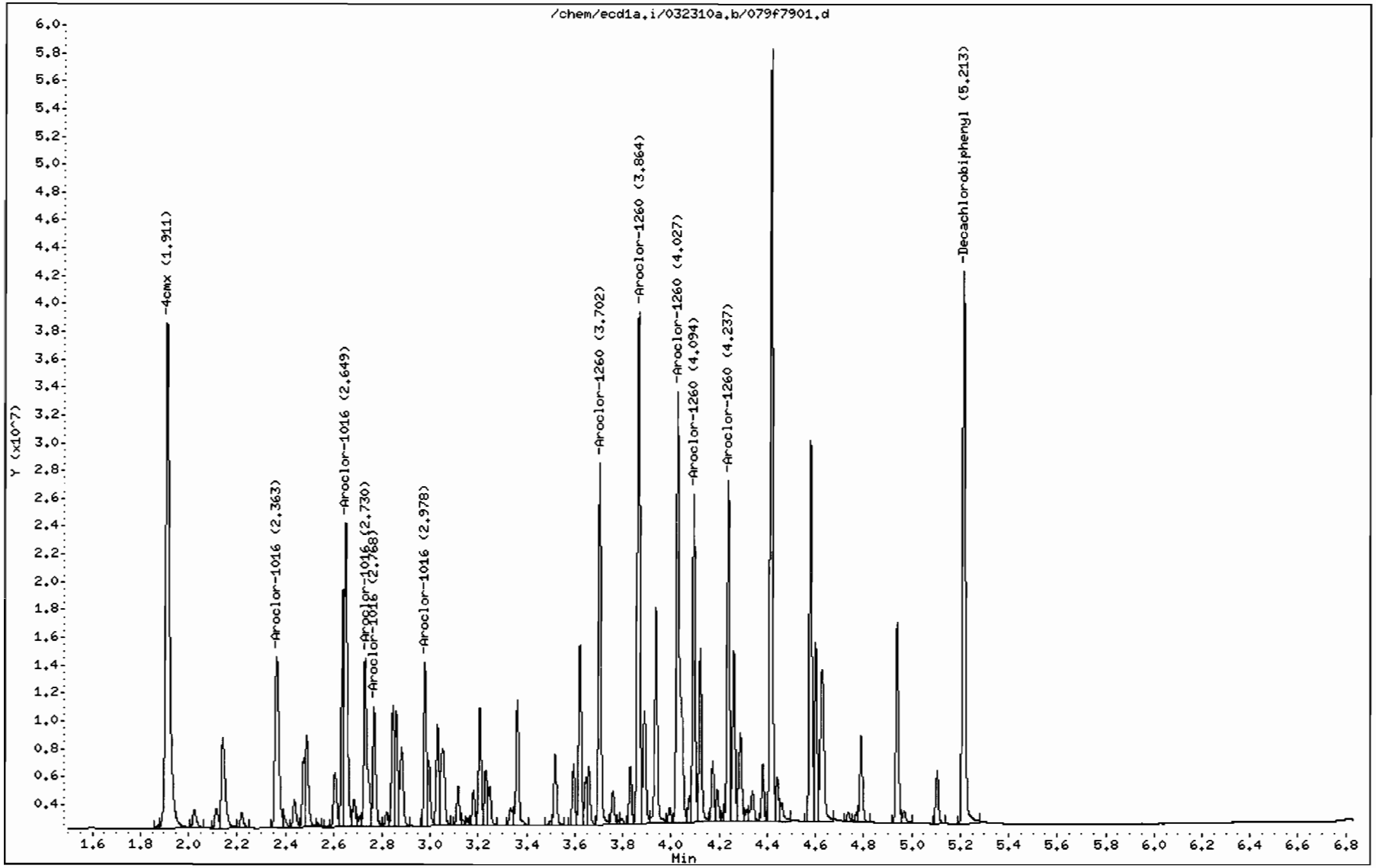

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/079b7901.d
Lab Smp Id: WAR100222-60 09 Client Smp ID: AR166009
Inj Date : 23-MAR-2010 23:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 09
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 06:13 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 79 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	26198072	100.000	99.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	18755007	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	11821083	1000.00	939	80.00- 120.00	100.00(M)
3.247	3.248	-0.001	7840838	1000.00	908	46.33- 86.33	66.33
3.310	3.311	-0.001	4872606	1000.00	922	21.22- 61.22	41.22
3.537	3.538	-0.001	6399096	1000.00	928	34.13- 74.13	54.13
3.613	3.614	-0.001	6030329	1000.00	939	31.01- 71.01	51.01
Average of Peak Amounts =					927		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	12871935	1000.00	984	80.00- 120.00	100.00
4.427	4.428	-0.001	15721868	1000.00	1010	102.14- 142.14	122.14
4.693	4.695	-0.002	11842754	1000.00	996	72.00- 112.00	92.00
4.866	4.867	-0.001	12380125	1000.00	1010	76.18- 116.18	96.18
5.013	5.015	-0.002	27503255	1000.00	1040	193.67- 233.67	213.67
Average of Peak Amounts =					1.01e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/079b7901.d
Date : 23-MAR-2010 23:38
Client ID: AR166009
Sample Info: IWAR100222-60 09

Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

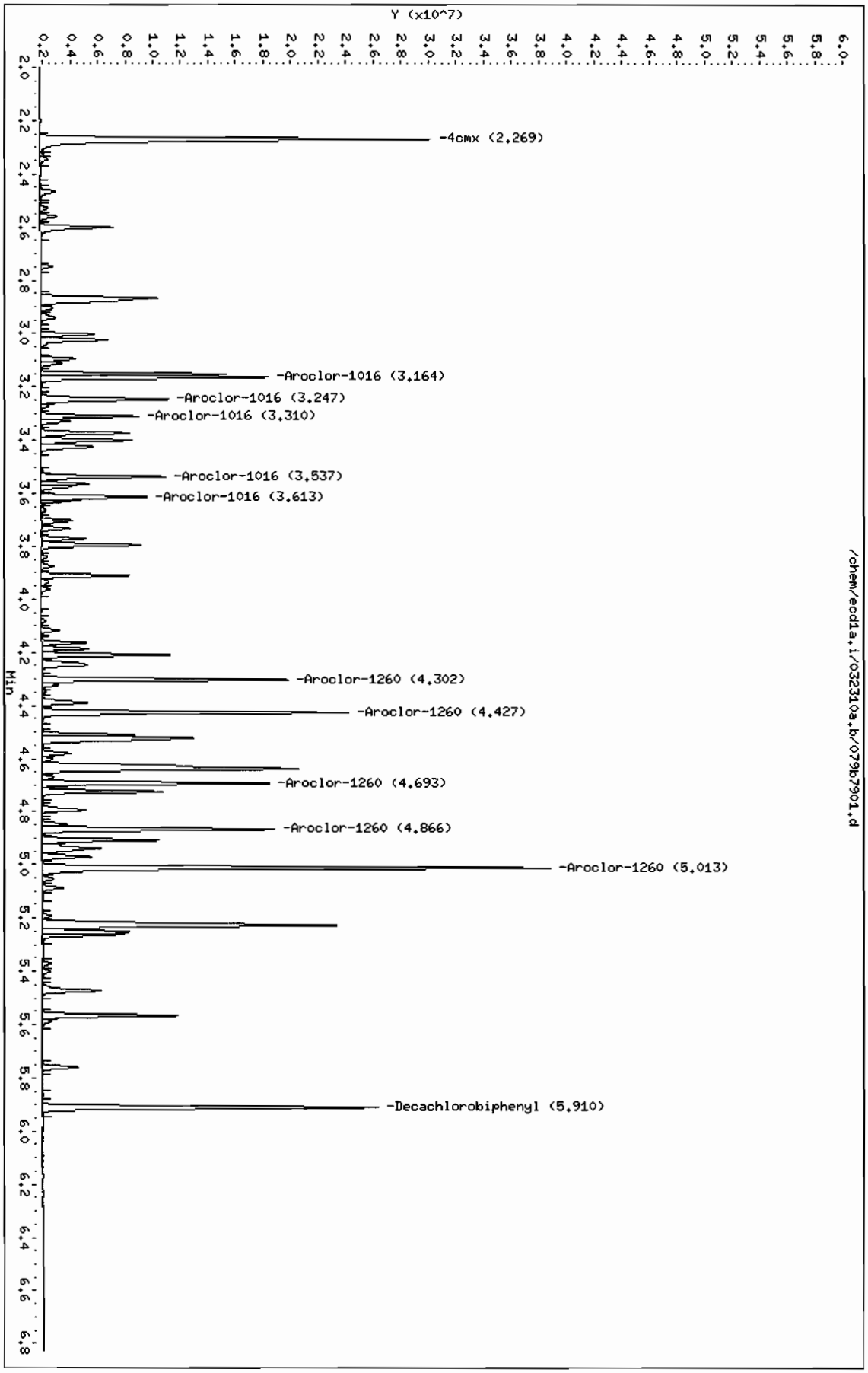

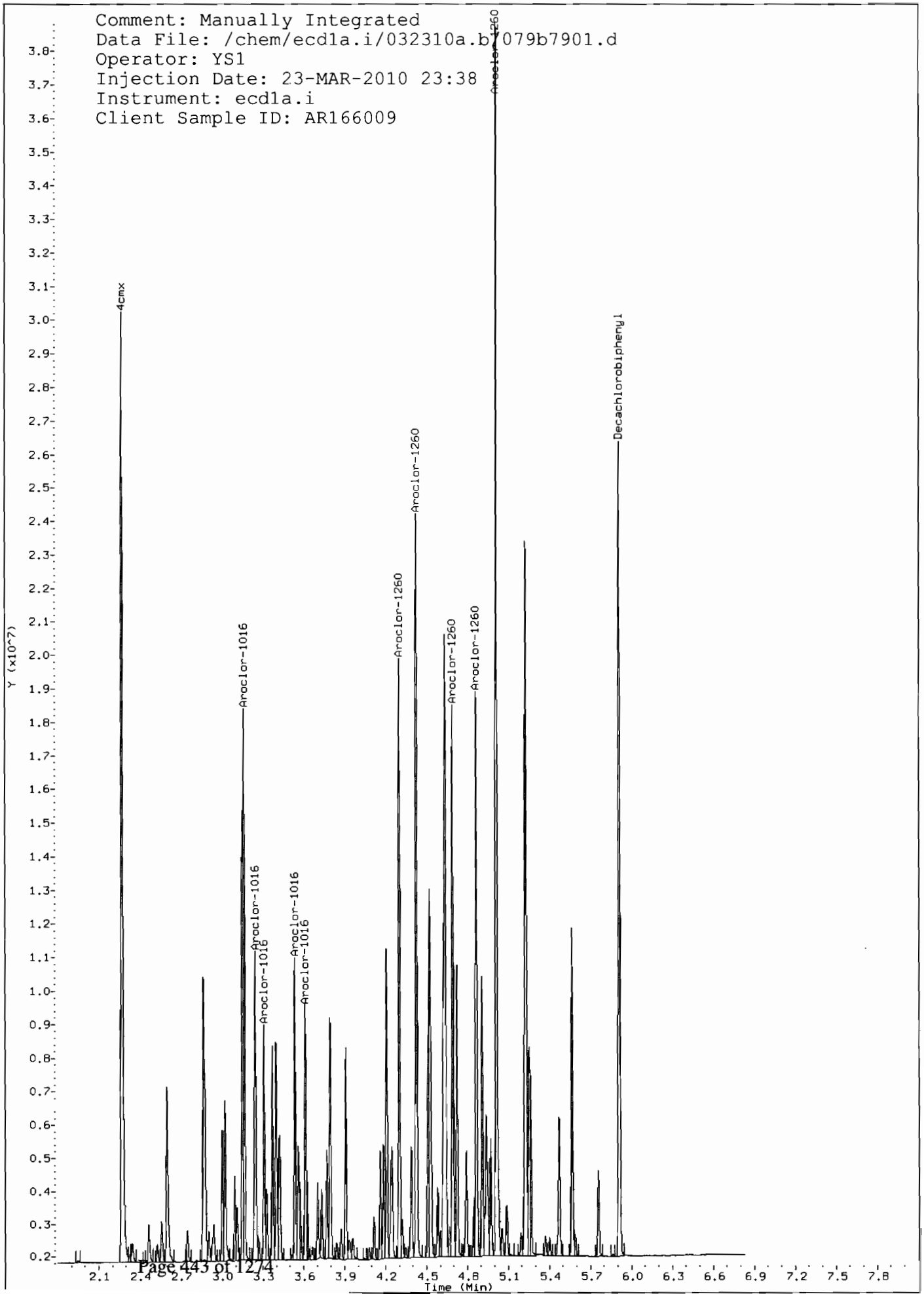
Comment: Manually Integrated
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Operator: YS1
Injection Date: 23-MAR-2010 23:38
Instrument: ecd1a.i
Client Sample ID: AR166009
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
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Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

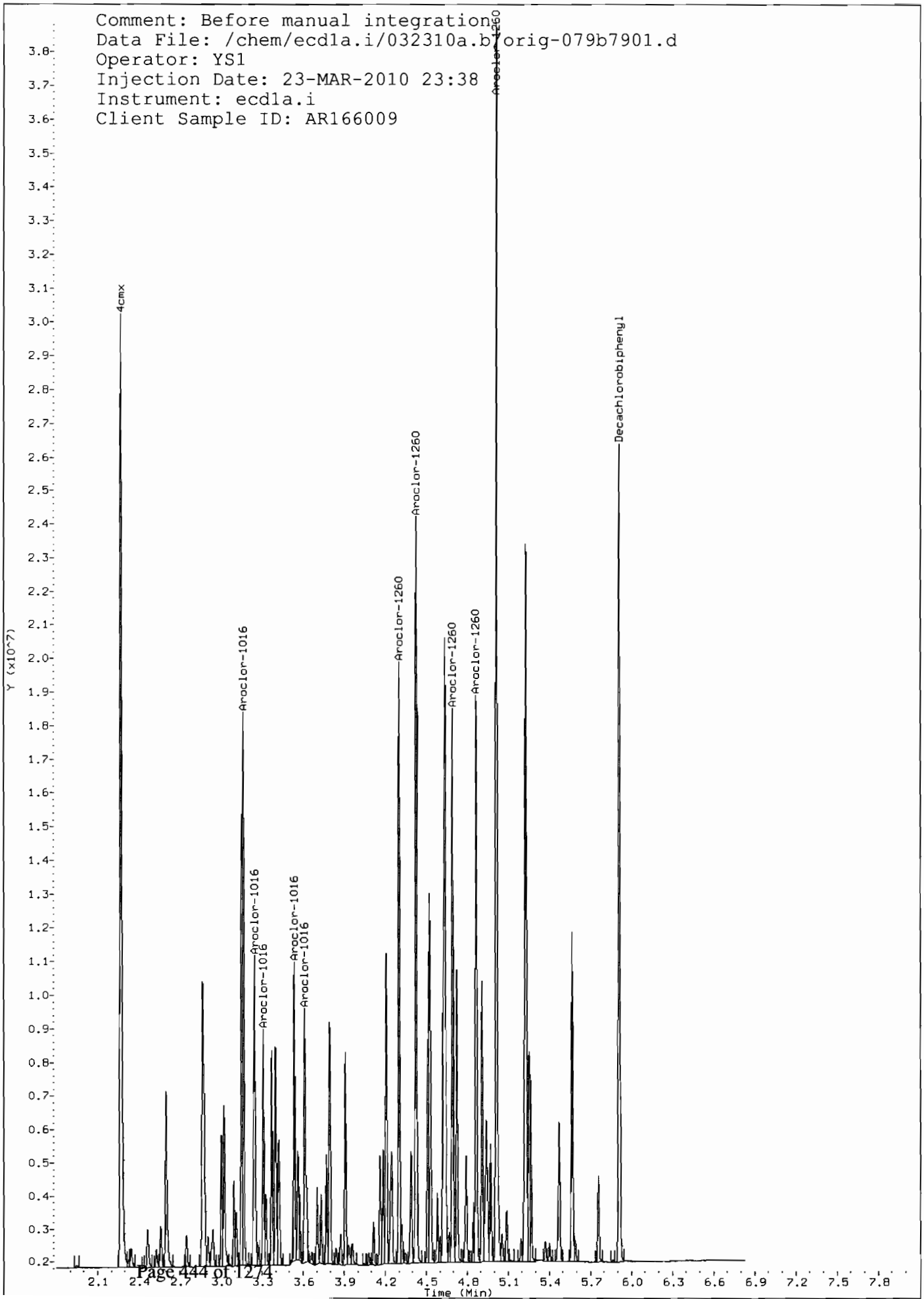
Comment: Before manual integration
Data File: /chem/ecd1a.i/032310a.b/orig-079b7901.d
Operator: YS1
Injection Date: 23-MAR-2010 23:38
Instrument: ecd1a.i
Client Sample ID: AR166009
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/087f8701.d
Lab Smp Id: WAR100222-60 10 Client Smp ID: AR166010
Inj Date : 24-MAR-2010 01:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 10
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:58 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 87 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.913	-0.003	42182793	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	31455130	100.000	106	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.365	-0.002	14921737	1000.00	983	80.00- 120.00	100.00
2.650	2.651	-0.001	19417235	1000.00	1020	110.13- 150.13	130.13
2.729	2.732	-0.003	12005247	1000.00	965	60.45- 100.45	80.45
2.768	2.770	-0.002	7247016	1000.00	986	28.57- 68.57	48.57
2.978	2.980	-0.002	9351865	1000.00	982	42.67- 82.67	62.67
Average of Peak Amounts =					988		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	19418246	1000.00	1060	80.00- 120.00	100.00
3.865	3.867	-0.002	29065691	1000.00	1080	129.68- 169.68	149.68
4.027	4.030	-0.003	31108220	1000.00	1100	140.20- 180.20	160.20
4.095	4.097	-0.002	17468704	1000.00	1080	69.96- 109.96	89.96
4.238	4.240	-0.002	18258720	1000.00	1090	74.03- 114.03	94.03
Average of Peak Amounts =					1.08e+03		

Data File: /chem/ecd1a.i/032310a.b/087f8701.d

Date : 24-MAR-2010 01:19

Client ID: AR166010

Sample Info: IWAR100222-60 10

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

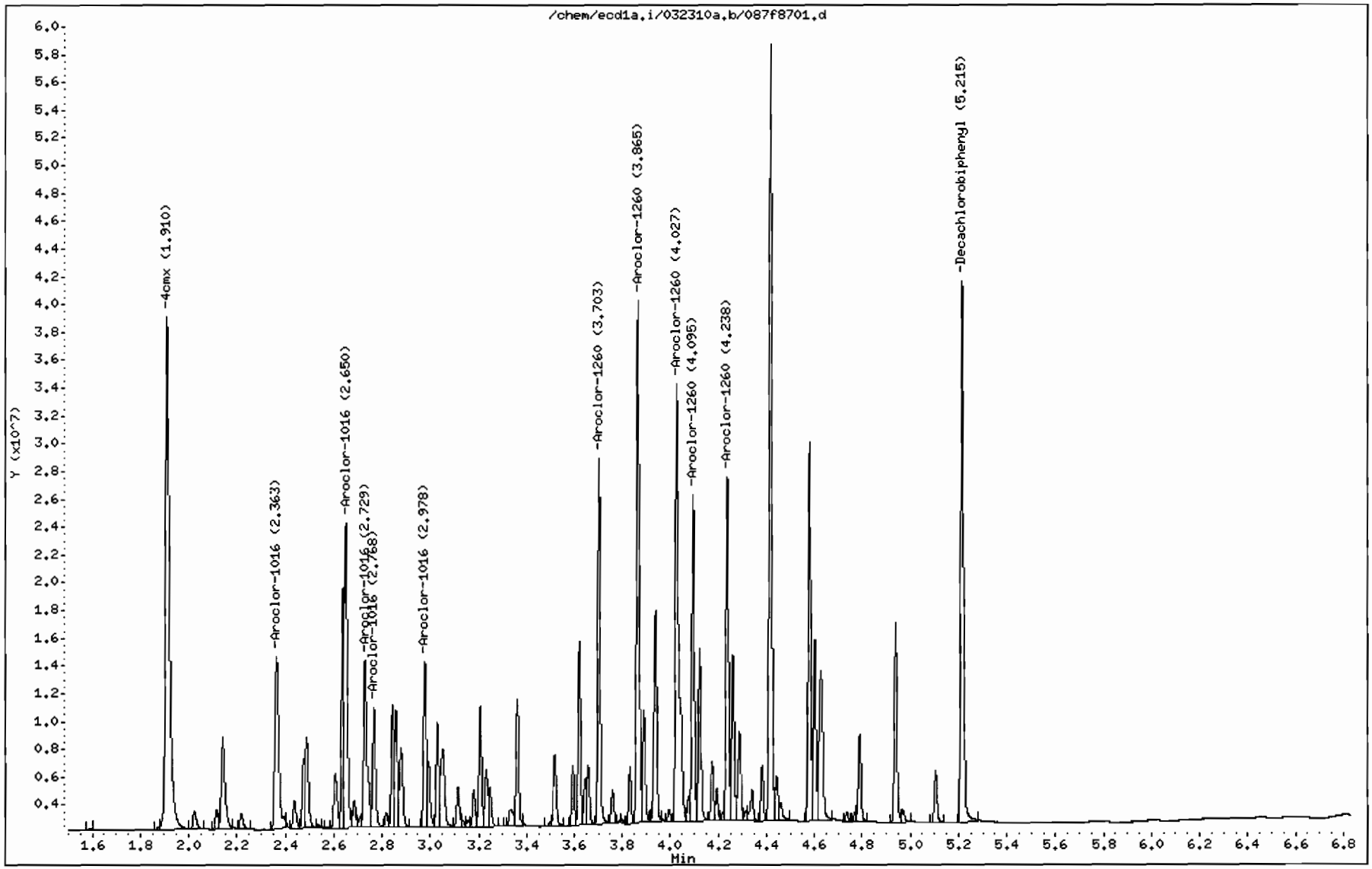

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/087b8701.d
Lab Smp Id: WAR100222-60 10 Client Smp ID: AR166010
Inj Date : 24-MAR-2010 01:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 10
Misc Info :
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 24-Mar-2010 06:13 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 87 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	26834639	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	18667379	100.000	99.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	12423500	1000.00	987	80.00- 120.00	100.00(M)
3.247	3.248	-0.001	7956806	1000.00	922	46.33- 86.33	64.05
3.310	3.311	-0.001	4949334	1000.00	936	21.22- 61.22	39.84
3.537	3.538	-0.001	6476113	1000.00	940	34.13- 74.13	52.13
3.613	3.614	-0.001	5949076	1000.00	926	31.01- 71.01	58.13
Average of Peak Amounts =					942		
7 Aroclor-1260					CAS #: 11096-82-5		
4.303	4.304	-0.001	12976110	1000.00	992	80.00- 120.00	100.00
4.427	4.428	-0.001	15877009	1000.00	1020	102.14- 142.14	122.36
4.693	4.695	-0.002	11906941	1000.00	1000	72.00- 112.00	91.76
4.866	4.867	-0.001	12323745	1000.00	1000	76.18- 116.18	94.97
5.014	5.015	-0.001	27612520	1000.00	1050	193.67- 233.67	212.80
Average of Peak Amounts =					1.01e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/087b8701.d

Page 1

Date : 24-MAR-2010 01:19

Client ID: AR166010

Instrument: ecd1a.i

Sample Info: IWAR100222-60 10

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

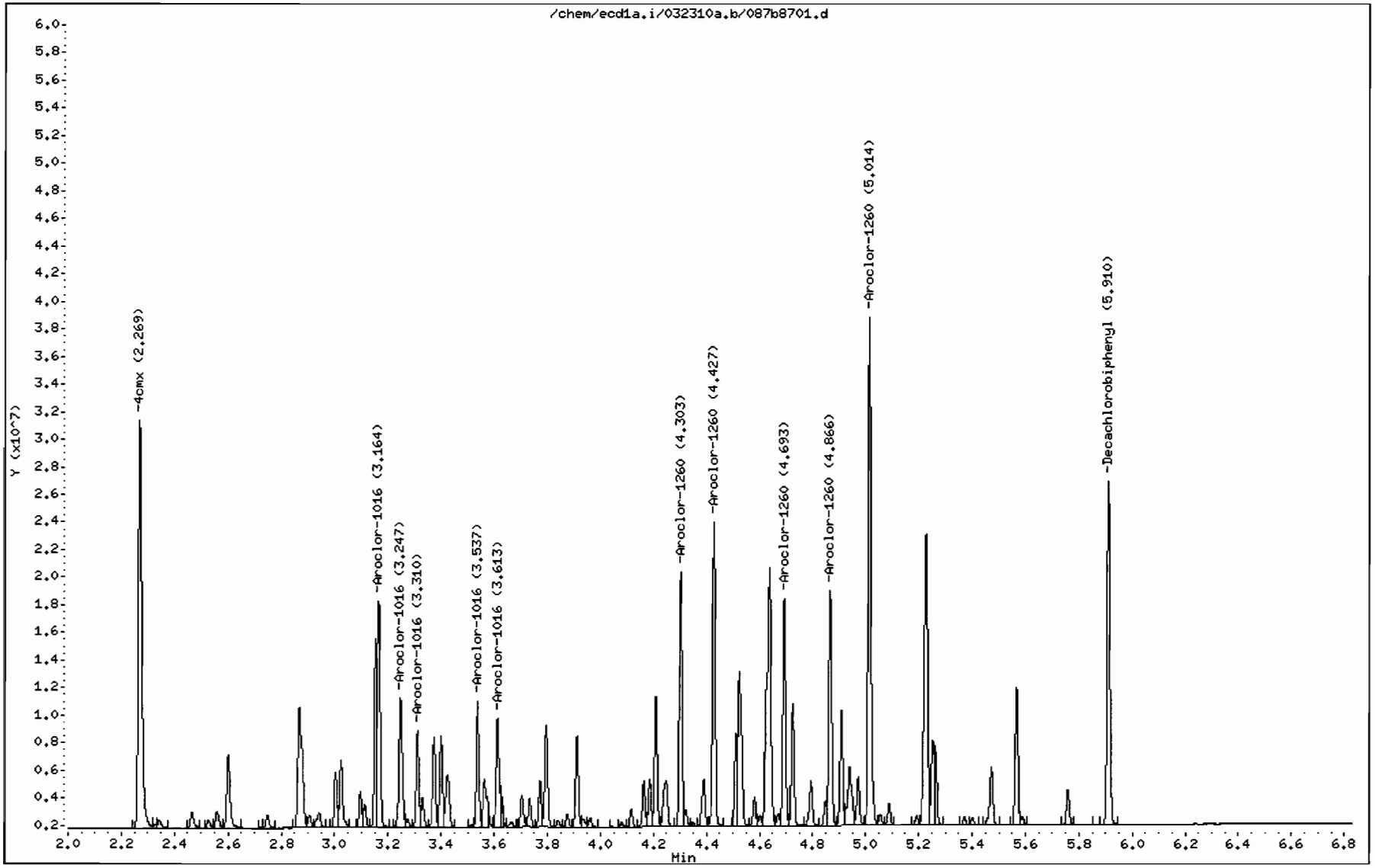

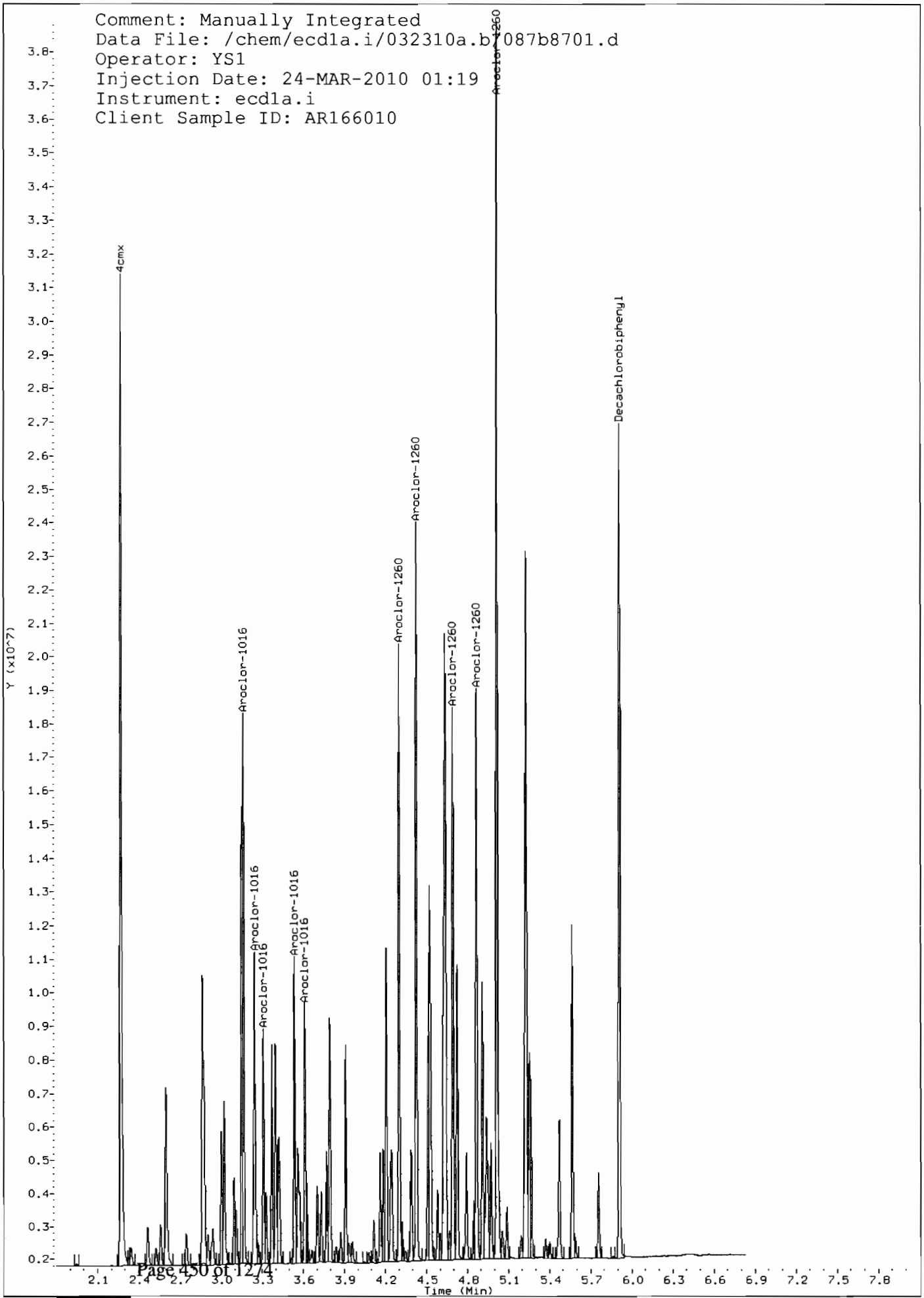
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Operator: YS1
Injection Date: 24-MAR-2010 01:19
Instrument: ecd1a.i
Client Sample ID: AR166010
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

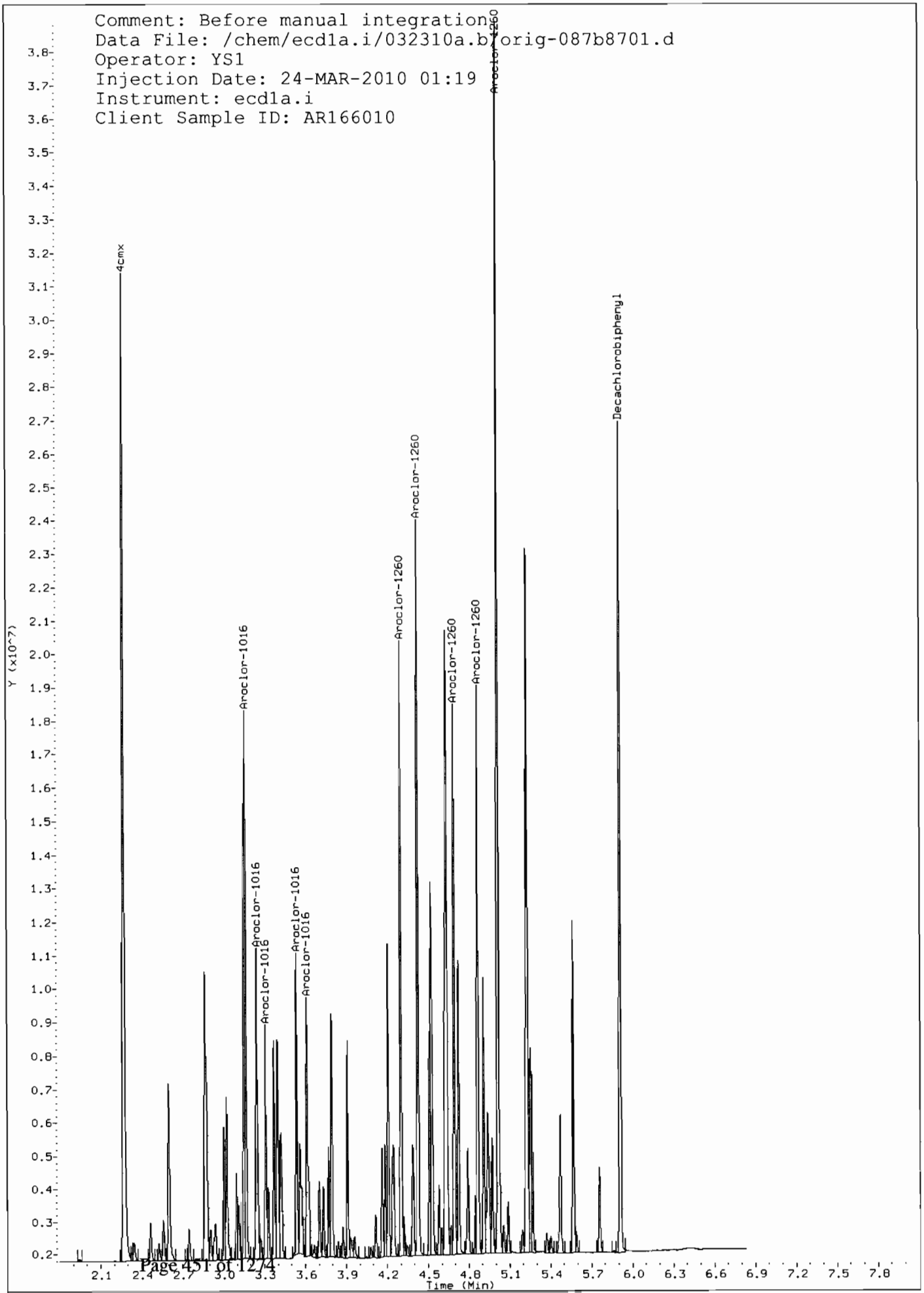
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Data File: /chem/ecd1a.i/032310a.b/orig-087b8701.d
Operator: YS1
Injection Date: 24-MAR-2010 01:19
Instrument: ecd1a.i
Client Sample ID: AR166010
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10	1446	1.91	5.23
02	AR166001DUSE	WAR100222-60	03/11/10	1456	1.92	5.22
03	AR125401	WAR100219-54	03/11/10	1507		
04	AR124201	WAR100219-42	03/11/10	1517		
05	AR124801	WAR100223-48	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	1.92	5.22
12	AR166002	WAR100311-02	03/11/10	1641	1.92	5.22
13	AR166003	WAR100311-03	03/11/10	1652	1.92	5.22
14	AR166004	WAR100311-04	03/11/10	1702	1.91	5.22
15	AR166005	IAR100311-01	03/11/10	1713	1.92	5.22
16	AR166001	WAR100222-60	03/11/10	1724	1.91	5.22
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	1.91	5.22
04	ZZZZZ	ZZZZZ	03/11/10	2054	1.92	5.22
05	ZZZZZ	ZZZZZ	03/11/10	2105	1.92	5.22
06	ZZZZZ	ZZZZZ	03/11/10	2115	1.92	5.22
07	ZZZZZ	ZZZZZ	03/11/10	2126	1.92	5.22
08	ZZZZZ	ZZZZZ	03/11/10	2136	1.92	5.22
09	ZZZZZ	ZZZZZ	03/11/10	2147	1.92	5.22
10	ZZZZZ	ZZZZZ	03/11/10	2157	1.92	5.22
11	ZZZZZ	ZZZZZ	03/11/10	2208	1.92	5.22
12	ZZZZZ	ZZZZZ	03/11/10	2218	1.92	5.22
13	ZZZZZ	ZZZZZ	03/11/10	2229	1.92	5.22
14	AR	WAR100222-60	03/11/10	2239	1.91	5.22
15	PIBLK03	WAR100219-99	03/11/10	2250	1.91	5.22
16	ZZZZZ	ZZZZZ	03/11/10	2300	1.90	5.23
17	ZZZZZ	ZZZZZ	03/11/10	2311	1.92	5.22
18	AR	WAR100219-99	03/11/10	2321	1.91	5.22
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10	1446	2.27	5.92
02	AR166001DUSE	WAR100222-60	03/11/10	1456	2.27	5.92
03	AR125401	WAR100219-54	03/11/10	1507		
04	AR124201	WAR100219-42	03/11/10	1517		
05	AR124801	WAR100223-48	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	2.27	5.92
12	AR166002	WAR100311-02	03/11/10	1641	2.27	5.92
13	AR166003	WAR100311-03	03/11/10	1652	2.27	5.92
14	AR166004	WAR100311-04	03/11/10	1702	2.27	5.92
15	AR166005	IAR100311-01	03/11/10	1713	2.27	5.92
16	AR166001	WAR100222-60	03/11/10	1724	2.27	5.92
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	2.27	5.92
04	ZZZZZ	ZZZZZ	03/11/10	2054	2.28	5.92
05	ZZZZZ	ZZZZZ	03/11/10	2105	2.28	5.92
06	ZZZZZ	ZZZZZ	03/11/10	2115	2.28	5.92
07	ZZZZZ	ZZZZZ	03/11/10	2126	2.28	5.92
08	ZZZZZ	ZZZZZ	03/11/10	2136	2.28	5.92
09	ZZZZZ	ZZZZZ	03/11/10	2147	2.28	5.92
10	ZZZZZ	ZZZZZ	03/11/10	2157	2.28	5.92
11	ZZZZZ	ZZZZZ	03/11/10	2208	2.28	5.92
12	ZZZZZ	ZZZZZ	03/11/10	2218	2.28	5.92
13	ZZZZZ	ZZZZZ	03/11/10	2229	2.28	5.92
14	AR166002	WAR100222-60	03/11/10	2239	2.27	5.92
15	PIBLK03	WAR100219-99	03/11/10	2250	2.27	5.92
16	ZZZZZ	ZZZZZ	03/11/10	2300		5.92
17	ZZZZZ	ZZZZZ	03/11/10	2311		5.23*
18	ZZZZZ	ZZZZZ	03/11/10	2321		
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/23/10	0743	1.91	5.22
02	AR166001	WAR100222-60	03/23/10	0753	1.91	5.22
03	AR125401	WAR100219-54	03/23/10	0804		
04	AR124201	WAR100219-42	03/23/10	0814		
05	AR124801	WAR100223-48	03/23/10	0825		
06	AR126801	WAR100107-68	03/23/10	0835		
07	AR123201	WAR100104-32	03/23/10	0846		
08	AR122101	WAR100104-21	03/23/10	0856		
09	AR126201	WAR100104-62	03/23/10	0907		
10	DDTANALOGSTD	WAR091219-DD	03/23/10	0918		
11	PIBLK02	WAR100219-99	03/23/10	0928	1.91	5.22
12	PBLK01	1202076363	03/23/10	0939	1.91	5.22
13	PBLK01LCS	1202076364	03/23/10	0949	1.91	5.22
14	ZZZZZ	ZZZZZ	03/23/10	1000	1.91	5.22
15	ZZZZZ	ZZZZZ	03/23/10	1012	1.91	5.22
16	ZZZZZ	ZZZZZ	03/23/10	1025	1.91	5.22
17	ZZZZZ	ZZZZZ	03/23/10	1037	1.91	5.22
18	ZZZZZ	ZZZZZ	03/23/10	1050	1.91	5.21
19	ZZZZZ	ZZZZZ	03/23/10	1103	1.91	5.21
20	ZZZZZ	ZZZZZ	03/23/10	1115	1.91	5.21
21	AR166002	WAR100222-60	03/23/10	1128	1.91	5.21
22	PIBLK03	WAR100219-99	03/23/10	1138	1.91	5.22
23	ZZZZZ	ZZZZZ	03/23/10	1149	1.91	5.22
24	ZZZZZ	ZZZZZ	03/23/10	1201	1.91	5.21
25	ZZZZZ	ZZZZZ	03/23/10	1214	1.91	5.21
26	ZZZZZ	ZZZZZ	03/23/10	1226	1.91	5.21
27	ZZZZZ	ZZZZZ	03/23/10	1239	1.91	5.21
28	ZZZZZ	ZZZZZ	03/23/10	1252	1.91	5.21
29	AR166003	WAR100222-60	03/23/10	1304	1.91	5.21
30	PIBLK04	WAR100219-99	03/23/10	1315	1.91	5.22
31	AR166004	WAR100222-60	03/23/10	1325	1.91	5.22
32	PIBLK05	WAR100219-99	03/23/10	1336	1.91	5.22

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/23/10	1346	1.91	5.21
02	ZZZZZ	ZZZZZ	03/23/10	1359	1.91	5.21
03	ZZZZZ	ZZZZZ	03/23/10	1412	1.91	5.21
04	ZZZZZ	ZZZZZ	03/23/10	1424	1.91	5.21
05	ZZZZZ	ZZZZZ	03/23/10	1437	1.91	5.21
06	ZZZZZ	ZZZZZ	03/23/10	1450	1.91	5.21
07	ZZZZZ	ZZZZZ	03/23/10	1502	1.91	5.21
08	AR166005	WAR100222-60	03/23/10	1517	1.91	5.21
09	PIBLK06	WAR100219-99	03/23/10	1527	1.91	5.22
10	ZZZZZ	ZZZZZ	03/23/10	1540	1.91	5.21
11	ZZZZZ	ZZZZZ	03/23/10	1552	1.91	5.21
12	ZZZZZ	ZZZZZ	03/23/10	1605	1.91	
13	ZZZZZ	ZZZZZ	03/23/10	1619	1.91	5.21
14	ZZZZZ	ZZZZZ	03/23/10	1634	1.91	5.21
15	ZZZZZ	ZZZZZ	03/23/10	1648	1.91	5.21
16	AR166006	WAR100222-60	03/23/10	1703	1.91	5.21
17	PIBLK07	WAR100219-99	03/23/10	1715	1.91	5.21
18	ZZZZZ	ZZZZZ	03/23/10	1728	1.91	5.21
19	ZZZZZ	ZZZZZ	03/23/10	1741	1.91	5.21
20	ZZZZZ	ZZZZZ	03/23/10	1753	1.91	5.21
21	ZZZZZ	ZZZZZ	03/23/10	1806	1.91	5.22
22	ZZZZZ	ZZZZZ	03/23/10	1820	1.91	5.21
23	AR166007	WAR100222-60	03/23/10	1835	1.91	5.21
24	PIBLK08	WAR100219-99	03/23/10	1847	1.91	5.21
25	ZZZZZ	ZZZZZ	03/23/10	1900	1.91	5.21
26	ZZZZZ	ZZZZZ	03/23/10	1913	1.91	5.21
27	ZZZZZ	ZZZZZ	03/23/10	1925	1.91	5.21
28	ZZZZZ	ZZZZZ	03/23/10	1938	1.91	5.21
29	ZZZZZ	ZZZZZ	03/23/10	1950	1.91	5.21
30	ZZZZZ	ZZZZZ	03/23/10	2003	1.91	5.21
31	ZZZZZ	ZZZZZ	03/23/10	2016	1.91	5.21
32	ZZZZZ	ZZZZZ	03/23/10	2028	1.91	5.21

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.91 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/23/10	2041	1.91	5.21
02	ZZZZZ	ZZZZZ	03/23/10	2054	1.91	5.21
03	AR166008	WAR100222-60	03/23/10	2106	1.91	5.21
04	PIBLK09	WAR100219-99	03/23/10	2119	1.91	5.21
05	ZZZZZ	ZZZZZ	03/23/10	2132	1.91	5.21
06	ZZZZZ	ZZZZZ	03/23/10	2144	1.91	5.21
07	ZZZZZ	ZZZZZ	03/23/10	2157	1.91	5.21
08	ZZZZZ	ZZZZZ	03/23/10	2209	1.91	5.21
09	ZZZZZ	ZZZZZ	03/23/10	2222	1.91	5.21
10	ZZZZZ	ZZZZZ	03/23/10	2235	1.91	5.21
11	ZZZZZ	ZZZZZ	03/23/10	2247	1.91	5.21
12	ZZZZZ	ZZZZZ	03/23/10	2300	1.91	5.21
13	ZZZZZ	ZZZZZ	03/23/10	2313	1.91	5.21
14	ZZZZZ	ZZZZZ	03/23/10	2325	1.91	5.21
15	AR166009	WAR100222-60	03/23/10	2338	1.91	5.21
16	PIBLK10	WAR100219-99	03/23/10	2350	1.91	5.21
17	RE46-10-11885	248866001	03/24/10	0003	1.91	5.21
18	RE46-10-11886	248866002	03/24/10	0016	1.91	5.21
19	ZZZZZ	ZZZZZ	03/24/10	0028	1.91	5.21
20	ZZZZZ	ZZZZZ	03/24/10	0041	1.91	5.21
21	ZZZZZ	ZZZZZ	03/24/10	0054	1.91	5.21
22	ZZZZZ	ZZZZZ	03/24/10	0106	1.91	5.21
23	AR166010	WAR100222-60	03/24/10	0119	1.91	5.21
24	PIBLK011	WAR100219-99	03/24/10	0131	1.91	5.21
25	ZZZZZ	ZZZZZ	03/24/10	0242		
26	ZZZZZ	ZZZZZ	03/24/10	0352	1.91	5.21
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/23/10	0743	2.27	5.91
02	AR166001	WAR100222-60	03/23/10	0753	2.27	5.91
03	AR125401	WAR100219-54	03/23/10	0804		
04	AR124201	WAR100219-42	03/23/10	0814		
05	AR124801	WAR100223-48	03/23/10	0825		
06	AR126801	WAR100107-68	03/23/10	0835		
07	AR123201	WAR100104-32	03/23/10	0846		
08	AR122101	WAR100104-21	03/23/10	0856		
09	AR126201	WAR100104-62	03/23/10	0907		
10	DDTANALOGSTD	WAR091219-DD	03/23/10	0918		
11	PIBLK02	WAR100219-99	03/23/10	0928	2.27	5.91
12	PBLK01	1202076363	03/23/10	0939	2.27	5.91
13	PBLK01LCS	1202076364	03/23/10	0949	2.27	5.91
14	ZZZZZ	ZZZZZ	03/23/10	1000	2.27	5.91
15	ZZZZZ	ZZZZZ	03/23/10	1012	2.27	5.91
16	ZZZZZ	ZZZZZ	03/23/10	1025	2.27	5.91
17	ZZZZZ	ZZZZZ	03/23/10	1037	2.27	5.91
18	ZZZZZ	ZZZZZ	03/23/10	1050	2.27	5.91
19	ZZZZZ	ZZZZZ	03/23/10	1103	2.27	5.91
20	ZZZZZ	ZZZZZ	03/23/10	1115	2.27	5.91
21	AR166002	WAR100222-60	03/23/10	1128	2.27	5.91
22	PIBLK03	WAR100219-99	03/23/10	1138	2.27	5.91
23	ZZZZZ	ZZZZZ	03/23/10	1149	2.27	5.91
24	ZZZZZ	ZZZZZ	03/23/10	1201	2.27	5.91
25	ZZZZZ	ZZZZZ	03/23/10	1214	2.27	5.91
26	ZZZZZ	ZZZZZ	03/23/10	1226	2.27	5.91
27	ZZZZZ	ZZZZZ	03/23/10	1239	2.27	5.91
28	ZZZZZ	ZZZZZ	03/23/10	1252	2.27	5.91
29	AR166003	WAR100222-60	03/23/10	1304	2.27	5.91
30	PIBLK04	WAR100219-99	03/23/10	1315	2.27	5.91
31	AR166004	WAR100222-60	03/23/10	1325	2.27	5.91
32	PIBLK05	WAR100219-99	03/23/10	1336	2.27	5.91

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/23/10	1346	2.27	5.91
02	ZZZZZ	ZZZZZ	03/23/10	1359	2.27	5.91
03	ZZZZZ	ZZZZZ	03/23/10	1412	2.27	5.91
04	ZZZZZ	ZZZZZ	03/23/10	1424	2.27	5.91
05	ZZZZZ	ZZZZZ	03/23/10	1437	2.27	5.91
06	ZZZZZ	ZZZZZ	03/23/10	1450	2.27	5.91
07	ZZZZZ	ZZZZZ	03/23/10	1502	2.27	5.91
08	AR166005	WAR100222-60	03/23/10	1517	2.27	5.91
09	PIBLK06	WAR100219-99	03/23/10	1527	2.27	5.91
10	ZZZZZ	ZZZZZ	03/23/10	1540	2.27	5.91
11	ZZZZZ	ZZZZZ	03/23/10	1552	2.27	5.91
12	ZZZZZ	ZZZZZ	03/23/10	1605	2.27	
13	ZZZZZ	ZZZZZ	03/23/10	1619	2.27	5.91
14	ZZZZZ	ZZZZZ	03/23/10	1634	2.27	5.91
15	ZZZZZ	ZZZZZ	03/23/10	1648	2.27	5.91
16	AR166006	WAR100222-60	03/23/10	1703	2.27	5.91
17	PIBLK07	WAR100219-99	03/23/10	1715	2.27	5.91
18	ZZZZZ	ZZZZZ	03/23/10	1728	2.27	5.91
19	ZZZZZ	ZZZZZ	03/23/10	1741	2.27	5.91
20	ZZZZZ	ZZZZZ	03/23/10	1753	2.27	5.91
21	ZZZZZ	ZZZZZ	03/23/10	1806	2.27	5.91
22	ZZZZZ	ZZZZZ	03/23/10	1820	2.27	5.91
23	AR166007	WAR100222-60	03/23/10	1835	2.27	5.91
24	PIBLK08	WAR100219-99	03/23/10	1847	2.27	5.91
25	ZZZZZ	ZZZZZ	03/23/10	1900	2.27	5.91
26	ZZZZZ	ZZZZZ	03/23/10	1913	2.27	5.91
27	ZZZZZ	ZZZZZ	03/23/10	1925	2.27	5.91
28	ZZZZZ	ZZZZZ	03/23/10	1938	2.27	5.91
29	ZZZZZ	ZZZZZ	03/23/10	1950	2.27	5.91
30	ZZZZZ	ZZZZZ	03/23/10	2003	2.27	5.91
31	ZZZZZ	ZZZZZ	03/23/10	2016	2.27	5.91
32	ZZZZZ	ZZZZZ	03/23/10	2028	2.27	5.91

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2319

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.27 DCB: 5.91

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/23/10	2041	2.27	5.91
02	ZZZZZ	ZZZZZ	03/23/10	2054	2.27	5.91
03	AR166008	WAR100222-60	03/23/10	2106	2.27	5.91
04	PIBLK09	WAR100219-99	03/23/10	2119	2.27	5.91
05	ZZZZZ	ZZZZZ	03/23/10	2132	2.27	5.91
06	ZZZZZ	ZZZZZ	03/23/10	2144	2.27	5.91
07	ZZZZZ	ZZZZZ	03/23/10	2157	2.27	5.91
08	ZZZZZ	ZZZZZ	03/23/10	2209	2.27	5.91
09	ZZZZZ	ZZZZZ	03/23/10	2222	2.27	5.91
10	ZZZZZ	ZZZZZ	03/23/10	2235	2.27	5.91
11	ZZZZZ	ZZZZZ	03/23/10	2247	2.27	5.91
12	ZZZZZ	ZZZZZ	03/23/10	2300	2.27	5.91
13	ZZZZZ	ZZZZZ	03/23/10	2313	2.27	5.91
14	ZZZZZ	ZZZZZ	03/23/10	2325	2.27	5.91
15	AR166009	WAR100222-60	03/23/10	2338	2.27	5.91
16	PIBLK10	WAR100219-99	03/23/10	2350	2.27	5.91
17	RE46-10-11885	248866001	03/24/10	0003	2.27	5.91
18	RE46-10-11886	248866002	03/24/10	0016	2.27	5.91
19	ZZZZZ	ZZZZZ	03/24/10	0028	2.27	5.91
20	ZZZZZ	ZZZZZ	03/24/10	0041	2.27	5.91
21	ZZZZZ	ZZZZZ	03/24/10	0054	2.27	5.91
22	ZZZZZ	ZZZZZ	03/24/10	0106	2.27	5.91
23	AR166010	WAR100222-60	03/24/10	0119	2.27	5.91
24	PIBLK11	WAR100219-99	03/24/10	0131	2.27	5.91
25	ZZZZZ	ZZZZZ	03/24/10	0242		
26	ZZZZZ	ZZZZZ	03/24/10	0352	2.27	5.91
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10-2319 **Client ID:** LCS for batch 967399

Lab Sample ID: 1202076364

Data File:	013f1301.d	**Data File:**	013b1301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23-MAR-10 09:49	**Analyzed:**	23-MAR-10 09:49

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							5.14
Column 1	1	2.36	2.33 – 2.39	24.4		ug/kg	
	2	2.65	2.62 – 2.68	24.3		ug/kg	
	3	2.73	2.7 – 2.76	23.2		ug/kg	
	4	2.77	2.74 – 2.8	23.4		ug/kg	
	5	2.98	2.95 – 3.01	23.7		ug/kg	
					23.8		
Column 2	1	3.17	3.13 – 3.19	23.3		ug/kg	
	2	3.25	3.22 – 3.28	22.5		ug/kg	
	3	3.31	3.28 – 3.34	21.3		ug/kg	
	4	3.54	3.51 – 3.57	23		ug/kg	
	5	3.61	3.58 – 3.64	22.9		ug/kg	
					22.6		
Aroclor-1260							5.4
Column 1	1	3.71	3.68 – 3.74	26.4		ug/kg	
	2	3.87	3.84 – 3.9	27.2		ug/kg	
	3	4.03	4 – 4.06	27.9		ug/kg	
	4	4.1	4.07 – 4.13	27.5		ug/kg	
	5	4.24	4.21 – 4.27	27.6		ug/kg	
					27.3		
Column 2	1	4.3	4.27 – 4.33	24.9		ug/kg	
	2	4.43	4.4 – 4.46	25.8		ug/kg	
	3	4.69	4.66 – 4.72	25.6		ug/kg	
	4	4.87	4.84 – 4.9	25.9		ug/kg	
	5	5.02	4.98 – 5.04	27		ug/kg	
					25.9		

Identification Summary

SDG Number: 10-2319 **Client ID:** RE46-10-11886

Lab Sample ID: 248866002

Data File:	082f8201.d	**Data File:**	082b8201.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	24-MAR-10 00:16	**Analyzed:**	24-MAR-10 00:16

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							1.58
Column 1	1	3.21	3.18 – 3.24	1.19		ug/kg	
	2	3.36	3.33 – 3.39	1.66		ug/kg	
	3	3.59	3.57 – 3.63	1.5		ug/kg	
	4	3.76	3.73 – 3.79	1.07		ug/kg	
	5	3.87	3.84 – 3.9	2.71		ug/kg	
					1.63		
Column 2	1	3.37	3.34 – 3.4	1.72		ug/kg	
	2	3.79	3.77 – 3.83	1.29		ug/kg	
	3	3.91	3.88 – 3.94	1.84		ug/kg	
	4	4.19	4.16 – 4.22	1.78		ug/kg	
	5	4.32	4.29 – 4.35	1.38		ug/kg	
					1.6		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076363**				
Client Sample:	**QC for batch 967399**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 967399**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 09:39**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**012f1201-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	012b1201-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/012f1201-2.d
Lab Smp Id: 1202076363 Client Smp ID: PBLK01
Inj Date : 23-MAR-2010 09:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076363|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2319.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.913	0.000	55677539	142.938	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.216	5.217	-0.001	50797679	171.076	5.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/012f1201-2.d

Page 1

Date : 23-MAR-2010 09:39

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: |1202076363|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

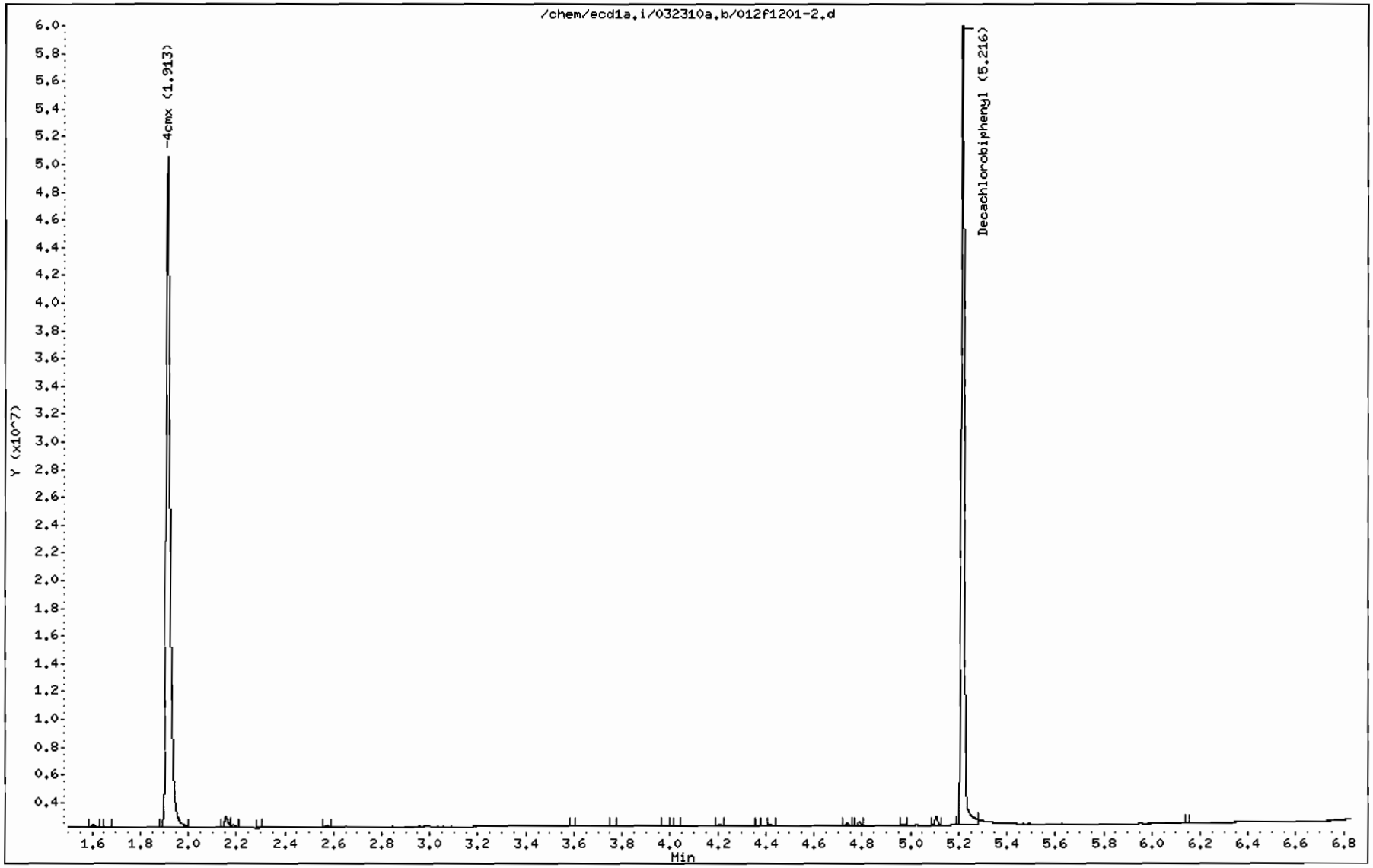

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/012b1201-2.d
Lab Smp Id: 1202076363 Client Smp ID: PBLK01
Inj Date : 23-MAR-2010 09:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076363|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2319.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	35680599	136.013	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.912	-0.001	29195098	155.979	5.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/032310a.b/012b1201-2.d

Page 1

Date : 23-MAR-2010 09:39

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: |120207636311|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

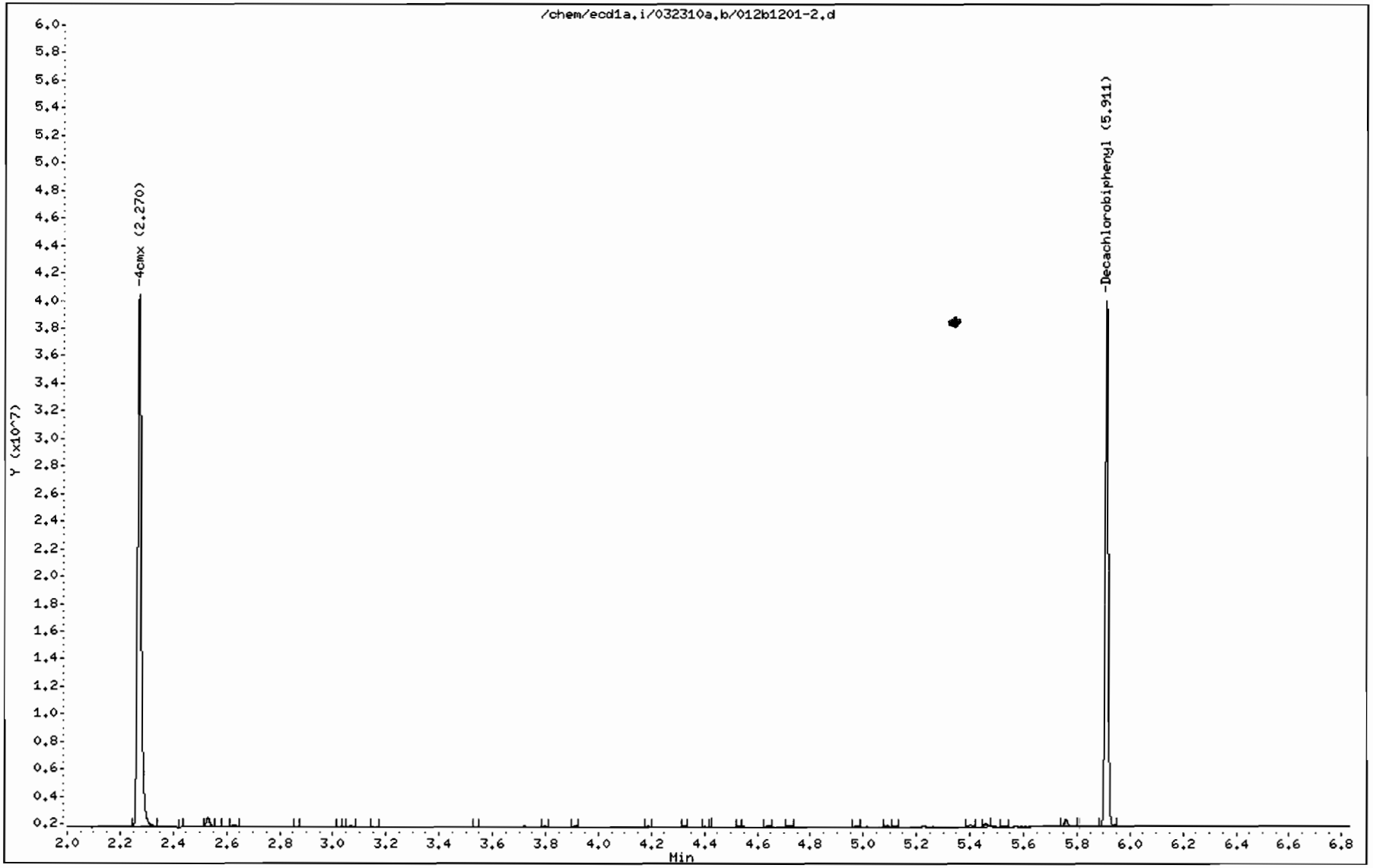

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2319**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202076364**				
Client Sample:	**QC for batch 967399**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967399**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967400**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 09:49**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 11:11**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**013f1301-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	013b1301-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		23.8	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		27.3	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/013f1301-2.d
Lab Smp Id: 1202076364 Client Smp ID: PBLK01LCS
Inj Date : 23-MAR-2010 09:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076364|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2319.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.913	1.913	0.000	59940461	153.882	5.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.217	5.217	0.000	50553608	170.254	5.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.365	-0.001	11111108	732.111	24.4	80.00- 120.00	100.00
2.652	2.651	0.001	13777452	727.589	24.2	107.62- 147.62	124.00
2.732	2.732	0.000	8677264	697.409	23.2	58.11- 98.11	78.10
2.769	2.770	-0.001	5163605	702.692	23.4	27.09- 67.09	46.47

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.980	2.980	0.000	6764549	710.728	23.7	40.72- 80.72	60.88
Average of Peak Concentrations =					23.8		

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7 Aroclor-1260					CAS #: 11096-82-5		
3.705	3.705	0.000	14522007	792.250	26.4	80.00- 120.00	100.00
3.868	3.867	0.001	21910267	814.816	27.2	129.35- 169.35	150.88
4.029	4.030	-0.001	23662778	835.689	27.8	139.27- 179.27	162.94
4.098	4.097	0.001	13316018	824.119	27.5	70.04- 110.04	91.70
4.240	4.240	0.000	13902474	826.905	27.6	74.22- 114.22	95.73
Average of Peak Concentrations =					27.3		

Data File: /chem/ecdia.i/032310a.b/013f1301-2.d
Date : 23-MAR-2010 09:49
Client ID: PBLK01LCS
Sample Info: 1120207636411
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

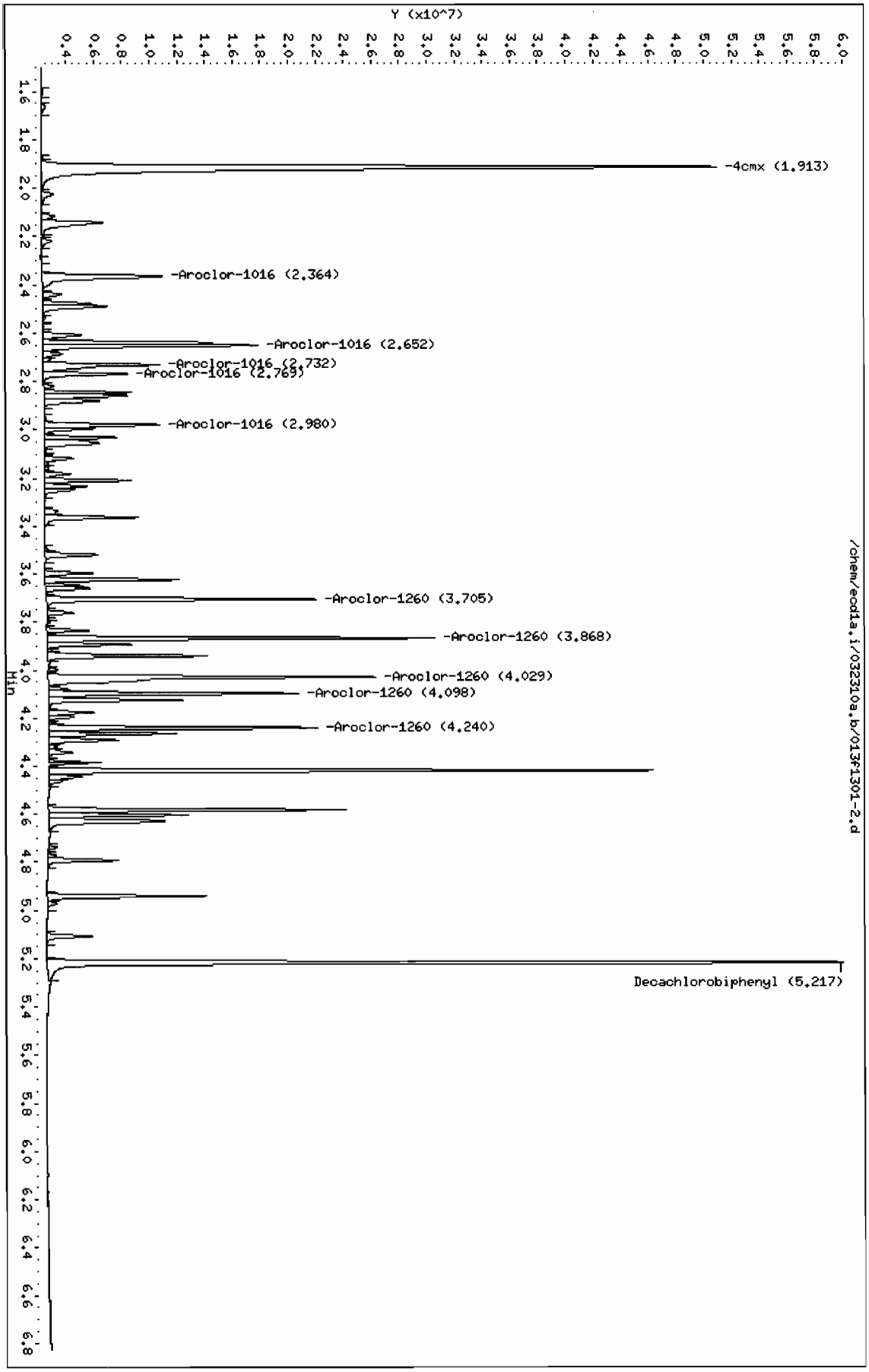

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/013b1301-2.d
Lab Smp Id: 1202076364 Client Smp ID: PBLK01LCS
Inj Date : 23-MAR-2010 09:49
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076364|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2319.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.270	2.270	0.000	38124510	145.329	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.912	5.912	0.000	29193722	155.972	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.165	3.165	0.000	8815970	700.515	23.4	80.00- 120.00	100.00(M)
3.248	3.248	0.000	5826181	674.779	22.5	45.31- 85.31	66.09
3.311	3.311	0.000	3380212	639.388	21.3	20.51- 60.51	38.34
3.538	3.538	0.000	4755018	689.861	23.0	33.14- 73.14	53.94

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.613	3.614	-0.001	4412224	686.988	22.9	29.05- 69.05	50.05
Average of Peak Concentrations =					22.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.303	4.304	-0.001	9774555	747.277	24.9	80.00- 120.00	100.00
4.428	4.428	0.000	12027985	773.552	25.8	101.60- 141.60	123.05
4.693	4.695	-0.002	9150944	769.241	25.6	71.82- 111.82	93.62
4.867	4.867	0.000	9545846	776.766	25.9	75.59- 115.59	97.66
5.015	5.015	0.000	21419564	811.512	27.0	192.18- 232.18	219.14
Average of Peak Concentrations =					25.8		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/013b1301-2.d

Date : 23-MAR-2010 09:49

Client ID: PBLK01LCS

Sample Info: |120207636411|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

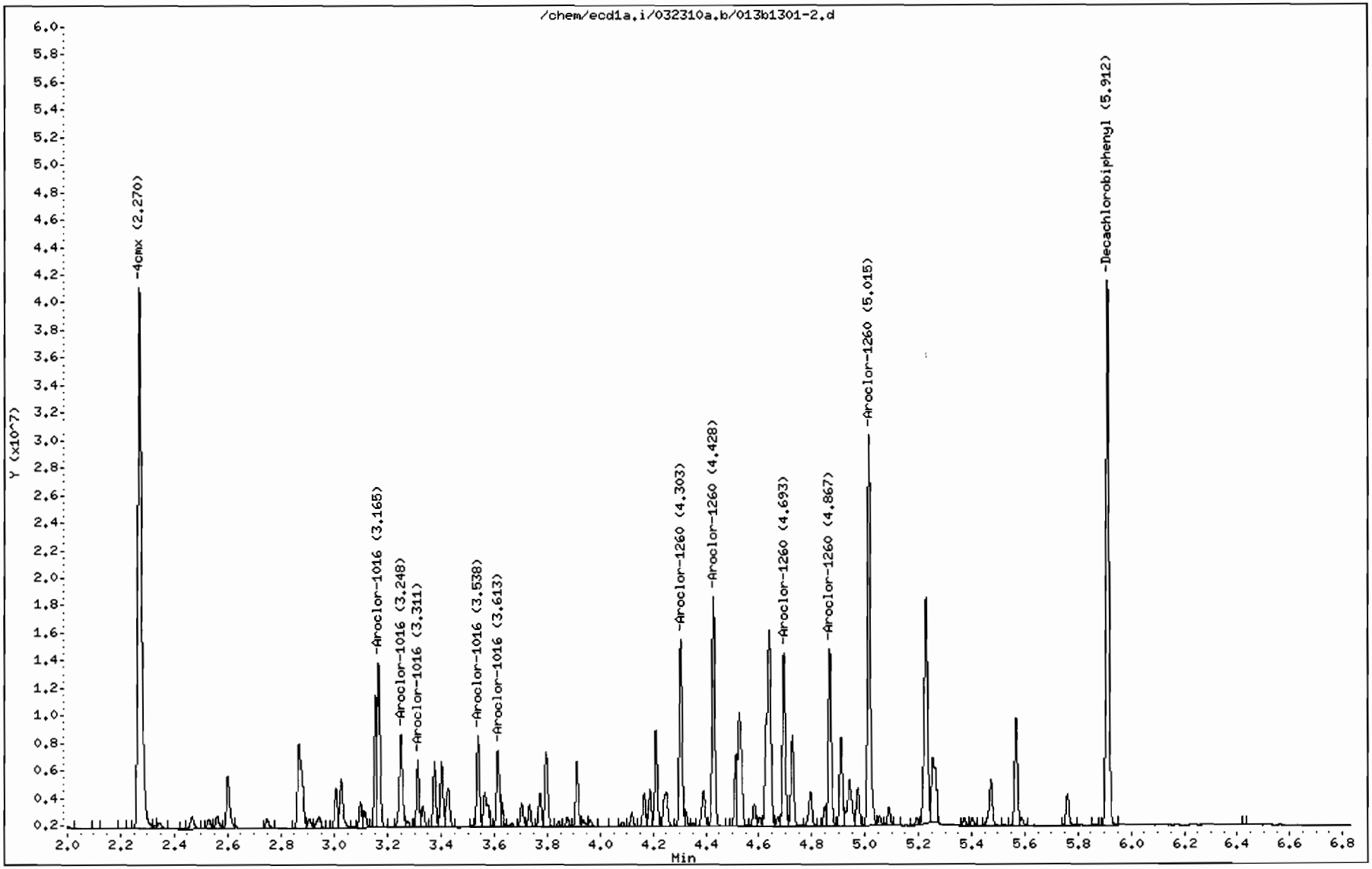

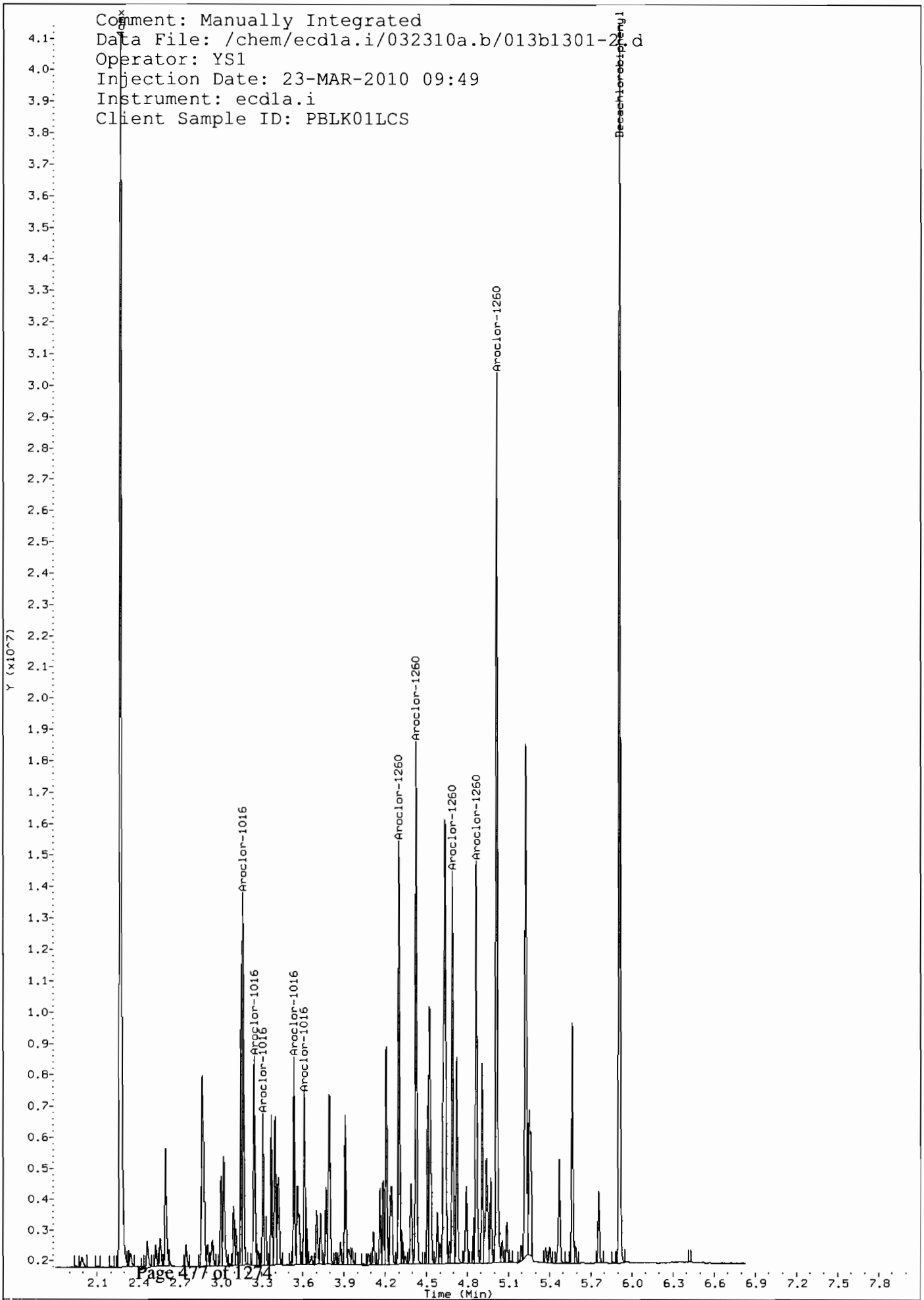
Comment: Manually Integrated
Data File: /chem/ecd1a.i/032310a.b/013b1301-2.d
Operator: YS1
Injection Date: 23-MAR-2010 09:49
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Y (x10^7)
Time (Min)

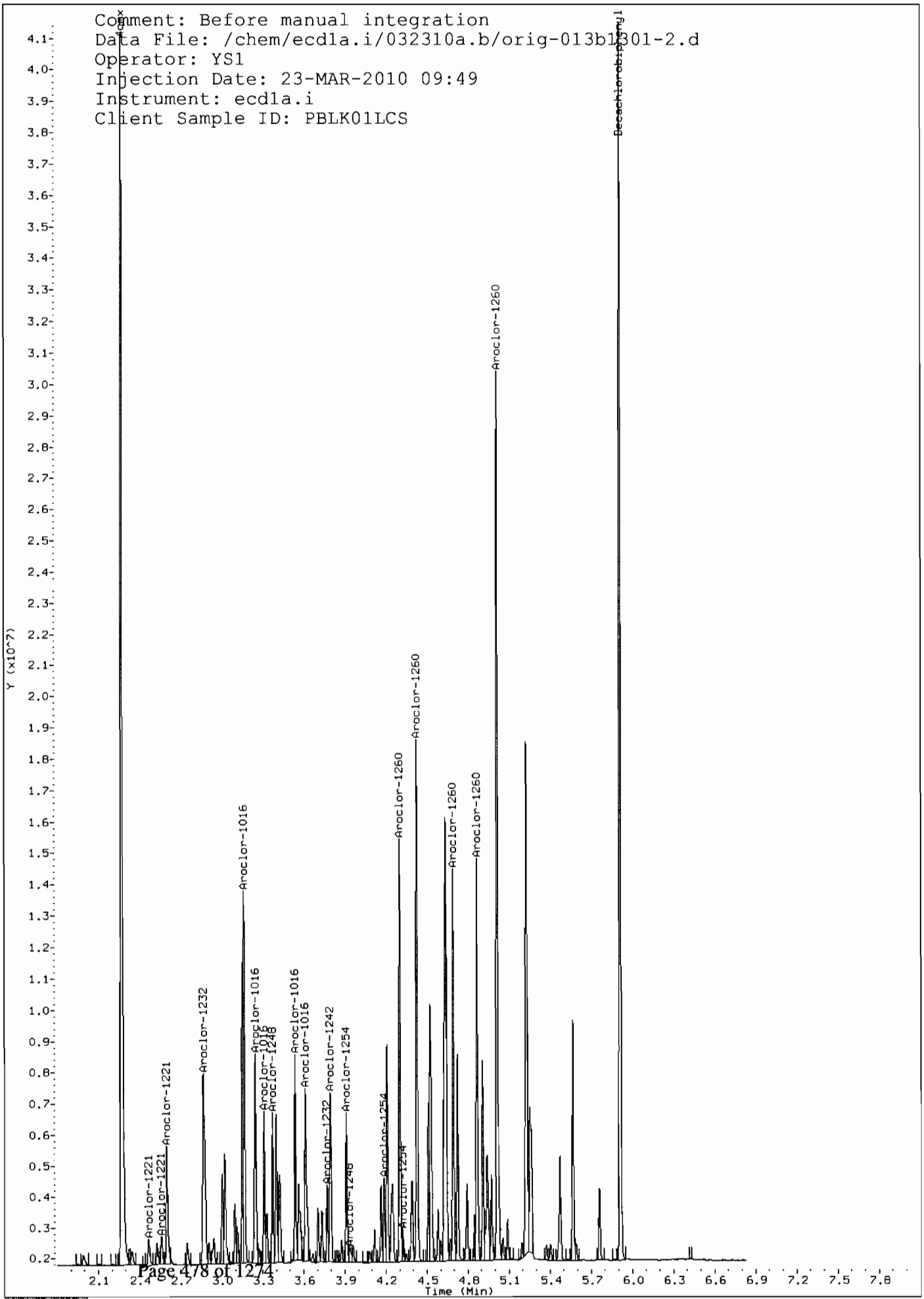
Comment: Before manual integration
Data File: /chem/ecd1a.i/032310a.b/orig-013b1301-2.d
Operator: YS1
Injection Date: 23-MAR-2010 09:49
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1254
Aroclor-1248
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/12/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/031110b.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	11-MAR-2010 14:46		031110b	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	11-MAR-2010 14:56		031110b	1.0		DUSE RE-ICAL
003f0301.d	WAR100219-54	YS1	11-MAR-2010 15:07		031110b	1.0		DUSE RE-ICAL
004f0401.d	WAR100219-42	YS1	11-MAR-2010 15:17		031110b	1.0		DUSE RE-ICAL
005f0501.d	WAR100223-48	YS1	11-MAR-2010 15:28		031110b	1.0		DUSE RE-ICAL
006f0601.d	WAR100107-68	YS1	11-MAR-2010 15:38		031110b	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	11-MAR-2010 15:49		031110b	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	11-MAR-2010 15:59		031110b	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	11-MAR-2010 16:10		031110b	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	11-MAR-2010 16:21		031110b	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100311-01	YS1	11-MAR-2010 16:31		031110b	1.0		AR1660 I-CAL LEVEL 1
012f1201.d	WAR100311-02	YS1	11-MAR-2010 16:41		031110b	1.0		AR1660 I-CAL LEVEL 2
013f1301.d	WAR100311-03	YS1	11-MAR-2010 16:52		031110b	1.0		AR1660 I-CAL LEVEL 3
014f1401.d	WAR100311-04	YS1	11-MAR-2010 17:02		031110b	1.0		AR1660 I-CAL LEVEL 4
015f1501.d	IAR100311-01	YS1	11-MAR-2010 17:13		031110b	1.0		AR1660 I-CAL LEVEL 5

Instrument Batch: /chem/ecd1a.i/031110b.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100222-60 01	YS1	11-MAR-2010 17:24		031110b	1.0		PASSED ON BOTH COLUMNS
017f1701.d	WAR100311-05	YS1	11-MAR-2010 17:34		031110b	1.0		AR1254 I-CAL LEVEL 1
018f1801.d	WAR100311-06	YS1	11-MAR-2010 17:45		031110b	1.0		AR1254 I-CAL LEVEL 2
019f1901.d	WAR100311-07	YS1	11-MAR-2010 17:55		031110b	1.0		AR1254 I-CAL LEVEL 3
020f2001.d	WAR100311-08	YS1	11-MAR-2010 18:06		031110b	1.0		AR1254 I-CAL LEVEL 4
021f2101.d	IAR100219-02	YS1	11-MAR-2010 18:16		031110b	1.0		AR1254 I-CAL LEVEL 5
022f2201.d	WAR100219-54	YS1	11-MAR-2010 18:27		031110b	1.0		PASSED ON BOTH COLUMNS
023f2301.d	WAR100311-09	YS1	11-MAR-2010 18:37		031110b	1.0		AR1242 I-CAL LEVEL 1
024f2401.d	WAR100311-10	YS1	11-MAR-2010 18:48		031110b	1.0		AR1242 I-CAL LEVEL 2
025f2501.d	WAR100311-11	YS1	11-MAR-2010 18:58		031110b	1.0		AR1242 I-CAL LEVEL 3
026f2601.d	WAR100311-12	YS1	11-MAR-2010 19:09		031110b	1.0		AR1242 I-CAL LEVEL 4
027f2701.d	IAR100219-01	YS1	11-MAR-2010 19:19		031110b	1.0		AR1242 I-CAL LEVEL 5
028f2801.d	WAR100219-42	YS1	11-MAR-2010 19:30		031110b	1.0		PASSED ON BOTH COLUMNS
029f2901.d	WAR100311-13	YS1	11-MAR-2010 19:40		031110b	1.0		AR1248 I-CAL LEVEL 1
030f3001.d	WAR100311-14	YS1	11-MAR-2010 19:51		031110b	1.0		AR1248 I-CAL LEVEL 2
031f3101.d	WAR100311-15	YS1	11-MAR-2010 20:01		031110b	1.0		AR1248 I-CAL LEVEL 3
032f3201.d	WAR100311-16	YS1	11-MAR-2010 20:12		031110b	1.0		AR1248 I-CAL LEVEL 4
033f3301.d	IAR100211-01	YS1	11-MAR-2010 20:22		031110b	1.0		AR1248 I-CAL LEVEL 5
034f3401.d	WAR100223-48	YS1	11-MAR-2010 20:33		031110b	1.0		PASSED ON BOTH COLUMNS
035f3501.d	WAR100219-99 02	YS1	11-MAR-2010 20:44		031110b	1.0		CLEAN

Instrument Batch: /chem/ecd1a.i/031110b.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202067743	YS1	11-MAR-2010 20:54	963869	246954	1.0	MB	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
037f3701.d	1202067744	YS1	11-MAR-2010 21:05	963869	246954	1.0	LCS	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
038f3801.d	246954003	YS1	11-MAR-2010 21:15	963869	246954	1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
039f3901.d	1202067745	YS1	11-MAR-2010 21:26	963869	246954	1.0	MS	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
040f4001.d	1202067746	YS1	11-MAR-2010 21:36	963869	246954	1.0	MSD	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT

041f4101.d	246954006	YS1	11-MAR-2010 21:47	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
042f4201.d	246954007	YS1	11-MAR-2010 21:57	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
043f4301.d	246954009	YS1	11-MAR-2010 22:08	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
044f4401.d	246954012	YS1	11-MAR-2010 22:18	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
045f4501.d	246954014	YS1	11-MAR-2010 22:29	963869	246954		1.0	BBES	DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
046f4601.d	WAR100222-60 02	YS1	11-MAR-2010 22:39		031110b		1.0		PASSED ON BOTH COLUMNS
046f4901.d	WAR100222-60 03	YS1	11-MAR-2010 23:11		031110b		1.0		CLEAN
047f4701.d	WAR100219-99 03	YS1	11-MAR-2010 22:50		031210		1.0		
047f5001.d	WAR100219-99 04	YS1	11-MAR-2010 23:21		031110b		1.0		
048f4801.d	WE100311-07SCR	YS1	11-MAR-2010 23:00		031110b		1.0		LCS CSREEN FOR PREP

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/24/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/032310a.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	23-MAR-2010 07:43		032310a	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	23-MAR-2010 07:53		032310a	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YS1	23-MAR-2010 08:04		032310a	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YS1	23-MAR-2010 08:14		032310a	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR100223-48	YS1	23-MAR-2010 08:25		032310a	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100107-68	YS1	23-MAR-2010 08:35		032310a	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	23-MAR-2010 08:46		032310a	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	23-MAR-2010 08:56		032310a	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	23-MAR-2010 09:07		032310a	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	23-MAR-2010 09:18		032310a	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100219-99 02	YS1	23-MAR-2010 09:28		032310a	1.0		CLEAN
012f1201.d	1202076363	YS1	23-MAR-2010 09:39	967400	10-2315	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202076364	YS1	23-MAR-2010 09:49	967400	10-2315	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	248863001	YS1	23-MAR-2010 10:00	967400	10-2315	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	248863002	YS1	23-MAR-2010 10:12		032310a	1.0		UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/032310a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	1202076365	YS1	23-MAR-2010 10:25	967400	10-2315	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
017f1701.d	1202076366	YS1	23-MAR-2010 10:37	967400	10-2315	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	248863003	YS1	23-MAR-2010 10:50	967400	10-2315	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	248863004	YS1	23-MAR-2010 11:03	967400	10-2315	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	248865001	YS1	23-MAR-2010 11:15	967400	10-2318	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	WAR100222-60 02	YS1	23-MAR-2010 11:28		032310a	1.0		PASSED ON BOTH COLUMNS
022f2201.d	WAR100219-99 03	YS1	23-MAR-2010 11:38		032310a	1.0		CLEAN
023f2301.d	248866001	YS1	23-MAR-2010 11:49	967400	10-2319	1.0	LANL	DUSE
024f2401.d	248866002	YS1	23-MAR-2010 12:01	967400	10-2319	1.0	LANL	DUSE RR
025f2501.d	248867001	YS1	23-MAR-2010 12:14	967400	10-2320	1.0	LANL	DUSE RR RE SURROGATE LOW
026f2601.d	248867002	YS1	23-MAR-2010 12:26	967400	10-2320	1.0	LANL	DUSE RR RE SURROGATE LOW
027f2701.d	248867003	YS1	23-MAR-2010 12:39	967400	10-2320	1.0	LANL	DUSE RR
028f2801.d	248867004	YS1	23-MAR-2010 12:52	967400	10-2320	1.0	LANL	DUSE RR
029f2901.d	WAR100222-60 03	YS1	23-MAR-2010 13:04		032310a	1.0		AR1016 LOW ON BACK
030f3001.d	WAR100219-99 04	YS1	23-MAR-2010 13:15		032310a	1.0		CLEAN
031f3101.d	WAR100222-60 05	YS1	23-MAR-2010 13:25		032310a	1.0		PASSED ON BOTH COLUMNS
032f3201.d	WAR100219-99 06	YS1	23-MAR-2010 13:36		032310a	1.0		CLEAN
033f3301.d	249180001	YS1	23-MAR-2010 13:46	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	249180002	YS1	23-MAR-2010 13:59	967400	10-2398	1.0	LANL	RE SURROGATE LOW
035f3501.d	249180003	YS1	23-MAR-2010 14:12	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	249180004	YS1	23-MAR-2010 14:24	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	249180005	YS1	23-MAR-2010 14:37	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	249180006	YS1	23-MAR-2010 14:50	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	249180008	YS1	23-MAR-2010 15:02	967400	10-2398	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	WAR100222-60 05	YS1	23-MAR-2010 15:17		032310a	1.0		PASSED ON BOTH COLUMNS

041f4101.d	WAR100219-99 06	YS1	23-MAR-2010 15:27			032310a	1.0		CLEAN
042f4201.d	1202077651	YS1	23-MAR-2010 15:40	967870	249699		1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
043f4301.d	1202077652	YS1	23-MAR-2010 15:52	967870	249699		1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
044f4401.d	249572001	YS1	23-MAR-2010 16:05	967870	249572		10.0	ENRG	UPLOAD BOTH COLUMNS, USE FRONT
045f4501.d	249699001	YS1	23-MAR-2010 16:19	967870	249699		5.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
046f4601.d	1202077653	YS1	23-MAR-2010 16:34	967870	249699		5.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
047f4701.d	1202077654	YS1	23-MAR-2010 16:48	967870	249699		5.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
048f4801.d	WAR100222-60 06	YS1	23-MAR-2010 17:03			032310a	1.0		PASSED ON BOTH COLUMNS
049f4901.d	WAR100219-99 07	YS1	23-MAR-2010 17:15			032310a	1.0		CLEAN
050f5001.d	249699002	YS1	23-MAR-2010 17:28	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
051f5101.d	249699003	YS1	23-MAR-2010 17:41	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
052f5201.d	249699004	YS1	23-MAR-2010 17:53	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
053f5301.d	249699005	YS1	23-MAR-2010 18:06	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
054f5401.d	249699006	YS1	23-MAR-2010 18:20	967870	249699		1.0	PCGE	UPLOAD BOTH COLUMNS, USE FRONT
055f5501.d	WAR100222-60 07	YS1	23-MAR-2010 18:35			032310a	1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/032310a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	WAR100219-99 08	YS1	23-MAR-2010 18:47		032310a	1.0		CLEAN
057f5701.d	1202076035	YS1	23-MAR-2010 19:00	967272	10-2261	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	1202076036	YS1	23-MAR-2010 19:13	967272	10-2261	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	248689001	YS1	23-MAR-2010 19:25	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	1202076037	YS1	23-MAR-2010 19:38	967272	10-2261	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	1202076038	YS1	23-MAR-2010 19:50	967272	10-2261	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
062f6201.d	248689003	YS1	23-MAR-2010 20:03	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	248689005	YS1	23-MAR-2010 20:16	967272	10-2261	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	248689006	YS1	23-MAR-2010 20:28	967272	10-2261	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	248689007	YS1	23-MAR-2010 20:41	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	248689008	YS1	23-MAR-2010 20:54	967272	10-2261	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	WAR100222-60 08	YS1	23-MAR-2010 21:06		032310a	1.0		PASSED ON BOTH COLUMNS
068f6801.d	WAR100219-99 09	YS1	23-MAR-2010 21:19		032310a	1.0		CLEAN
069f6901.d	248689009	YS1	23-MAR-2010 21:32	967272	10-2261	50.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	248689010	YS1	23-MAR-2010 21:44	967272	10-2261	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	248689011	YS1	23-MAR-2010 21:57	967272	10-2261	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
072f7201.d	248689012	YS1	23-MAR-2010 22:09	967272	10-2261	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	248689013	YS1	23-MAR-2010 22:22	967272	10-2261	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	248689014	YS1	23-MAR-2010 22:35	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	248689015	YS1	23-MAR-2010 22:47	967272	10-2261	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	248689016	YS1	23-MAR-2010 23:00	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	248689017	YS1	23-MAR-2010 23:13	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	248689018	YS1	23-MAR-2010 23:25	967272	10-2261	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	WAR100222-60 09	YS1	23-MAR-2010 23:38		032310a	1.0		PASSED ON BOTH COLUMNS
080f8001.d	WAR100219-99 10	YS1	23-MAR-2010 23:50		032310a	1.0		CLEAN
081f8101.d	248866001	YS1	24-MAR-2010 00:03	967400	10-2319	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	248866002	YS1	24-MAR-2010 00:16	967400	10-2319	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
083f8301.d	248867001	YS1	24-MAR-2010 00:28	967400	10-2320	1.0	LANL	RE SURROGATE LOW
084f8401.d	248867002	YS1	24-MAR-2010 00:41	967400	10-2320	1.0	LANL	RE SURROGATE LOW
085f8501.d	248867003	YS1	24-MAR-2010 00:54	967400	10-2320	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	248867004	YS1	24-MAR-2010 01:06	967400	10-2320	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	WAR100222-60 10	YS1	24-MAR-2010 01:19		032310a	1.0		PASSED ON BOTH COLUMNS
088f8801.d	WAR100219-99 11	YS1	24-MAR-2010 01:31		032310a	1.0		CLEAN
089f8901.d		YS1	24-MAR-2010 02:42		032310a	1.0		DUSE SCREEN

090f9001.d		YS1	24-MAR-2010 03:52	032310a	1.0	DUSE SCREEN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/016b1601.d
Lab Smp Id: 1202076365 Client Smp ID: RE46-10-12930MS
Inj Date : 23-MAR-2010 10:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076365|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 16 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	23544458	89.7504	3.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.912	-0.001	21341456	114.020	4.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	6432404	511.118	18.6	80.00- 120.00	100.00(M)
3.246	3.248	-0.002	4305536	498.660	18.2	45.31- 85.31	66.94
3.310	3.311	-0.001	2619092	495.417	18.0	20.51- 60.51	40.72
3.537	3.538	-0.001	3430764	497.737	18.1	31.09- 71.09	53.34

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.612	3.614	-0.002	2837720	441.836	16.1	37.88- 77.88	54.31
Average of Peak Concentrations =					17.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	8098250	619.121	22.5	80.00- 120.00	100.00(M)
4.427	4.428	-0.001	8587128	552.262	20.1	101.60- 141.60	106.04
4.693	4.695	-0.002	7202376	605.442	22.0	71.82- 111.82	88.94
4.866	4.867	-0.001	7186212	584.758	21.3	75.59- 115.59	88.74
5.014	5.015	-0.001	16513408	625.635	22.8	192.18- 232.18	203.91
Average of Peak Concentrations =					21.7		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/016b1601.d

Date : 23-MAR-2010 10:25

Client ID: RE46-10-12930MS

Sample Info: |1202076365|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

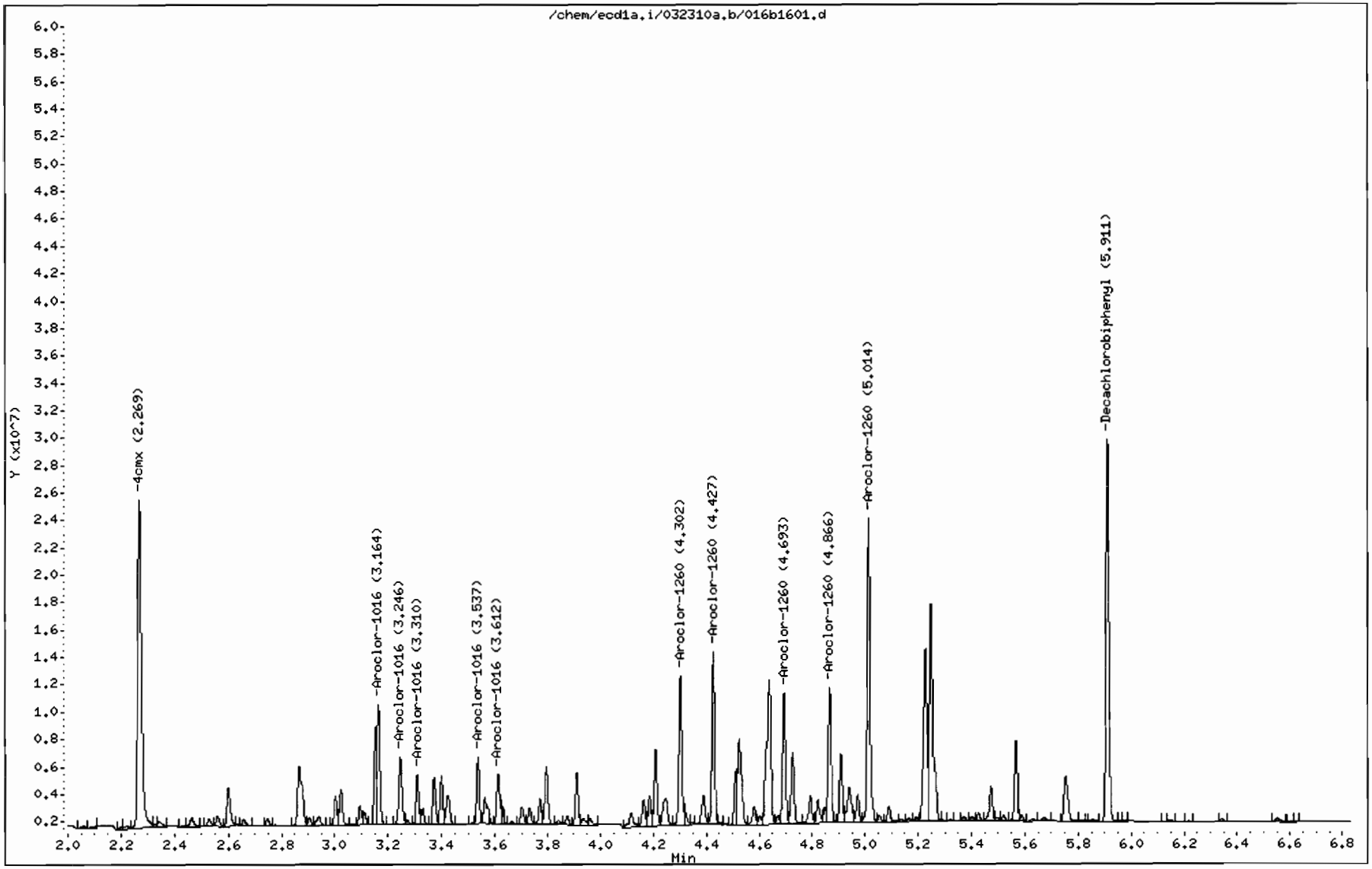

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/016f1601.d
Lab Smp Id: 1202076365 Client Smp ID: RE46-10-12930MS
Inj Date : 23-MAR-2010 10:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076365|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 16 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.910	1.913	-0.003	38311340	98.3545	3.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	33890889	114.137	4.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.365	-0.002	7409790	488.231	17.8	80.00- 120.00	100.00
2.650	2.651	-0.001	10039875	530.207	19.3	107.62- 147.62	135.49
2.730	2.732	-0.002	6163757	495.393	18.0	58.11- 98.11	83.18
2.768	2.770	-0.002	3669626	499.383	18.2	27.09- 67.09	49.52

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.978	2.980	-0.002	4381218	460.320	16.8	40.72- 80.72	59.13
Average of Peak Concentrations =					18.0		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	11269491	614.808	22.4	80.00- 120.00	100.00
3.865	3.867	-0.002	16550116	615.479	22.4	129.35- 169.35	146.86
4.027	4.030	-0.003	17484112	617.479	22.5	139.27- 179.27	155.15
4.095	4.097	-0.002	10164870	629.097	22.9	70.04- 110.04	90.20
4.238	4.240	-0.002	10013847	595.613	21.7	74.22- 114.22	88.86
Average of Peak Concentrations =					22.4		

Data File: /chem/ecdia.i/032310a.b/016f1601.d
Date : 23-MAR-2010 10:25
Client ID: RE46-10-12930MS
Sample Info: 1120207636511
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

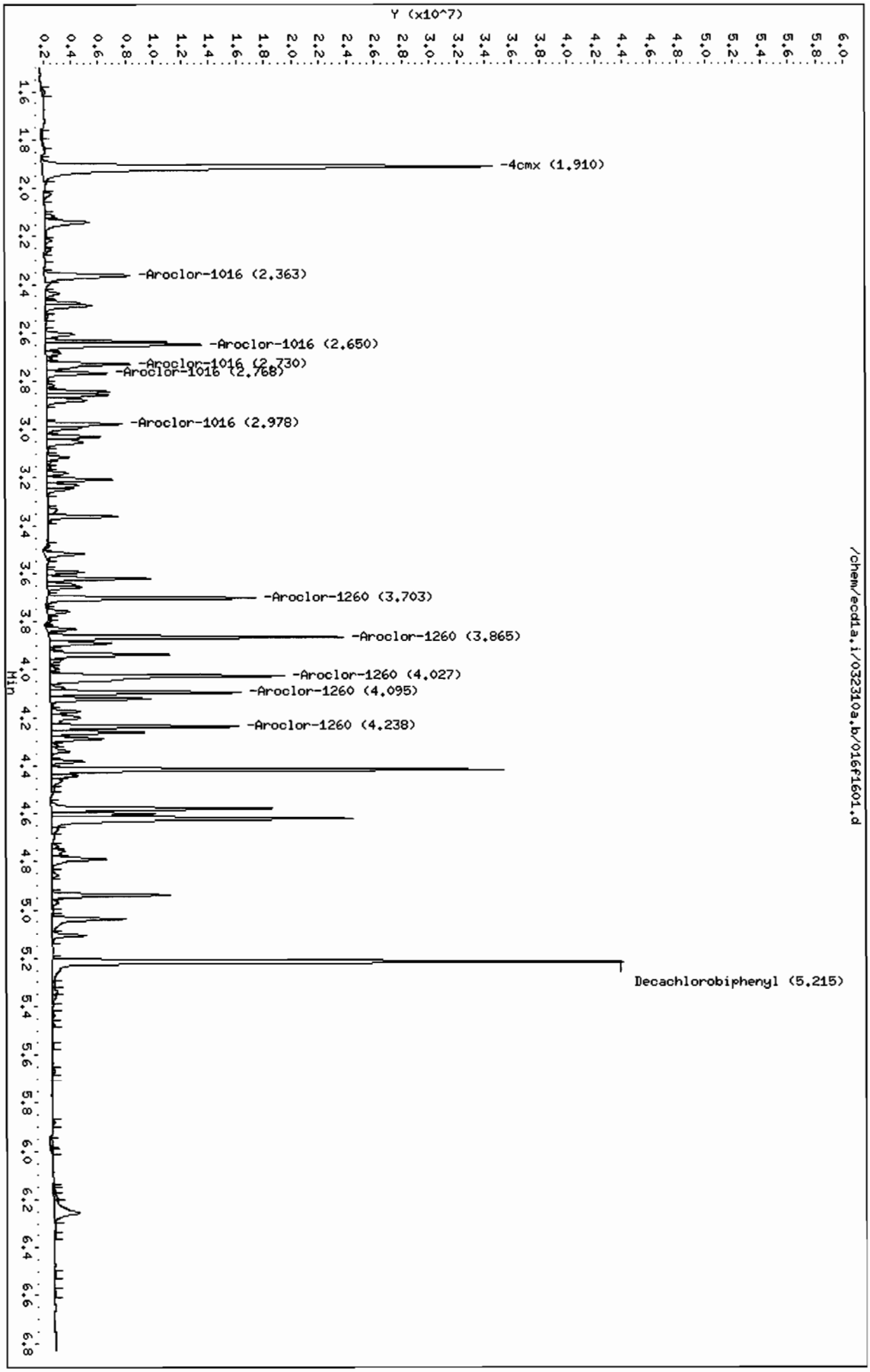

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/017b1701.d
Lab Smp Id: 1202076366 Client Smp ID: RE46-10-12930MSD
Inj Date : 23-MAR-2010 10:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076366|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-B-8082-031110b.m
Meth Date : 23-Mar-2010 11:56 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 17 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2315.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.269	2.270	-0.001	30645536	116.819	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.912	-0.002	25077158	133.978	4.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.165	-0.001	7682155	610.423	22.2	80.00- 120.00	100.00(M)
3.247	3.248	-0.001	5009387	580.179	21.1	45.31- 85.31	65.21
3.310	3.311	-0.001	3050696	577.058	21.0	20.51- 60.51	39.71
3.537	3.538	-0.001	3967793	575.650	21.0	31.09- 71.09	51.65

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.612	3.614	-0.002	3481107	542.012	19.7	37.88- 77.88	55.05
Average of Peak Concentrations =					21.0		
7 Aroclor-1260					CAS #: 11096-82-5		
4.302	4.304	-0.002	8714119	666.205	24.2	80.00- 120.00	100.00
4.427	4.428	-0.001	10606333	682.122	24.8	101.60- 141.60	121.71
4.693	4.695	-0.002	8095314	680.503	24.8	71.82- 111.82	92.90
4.866	4.867	-0.001	8341264	678.747	24.7	75.59- 115.59	95.72
5.014	5.015	-0.001	18790623	711.911	25.9	192.18- 232.18	215.63
Average of Peak Concentrations =					24.9		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/032310a.b/017b1701.d

Page 1

Date : 23-MAR-2010 10:37

Client ID: RE46-10-12930MSD

Instrument: ecd1a.i

Sample Info: |1202076366|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

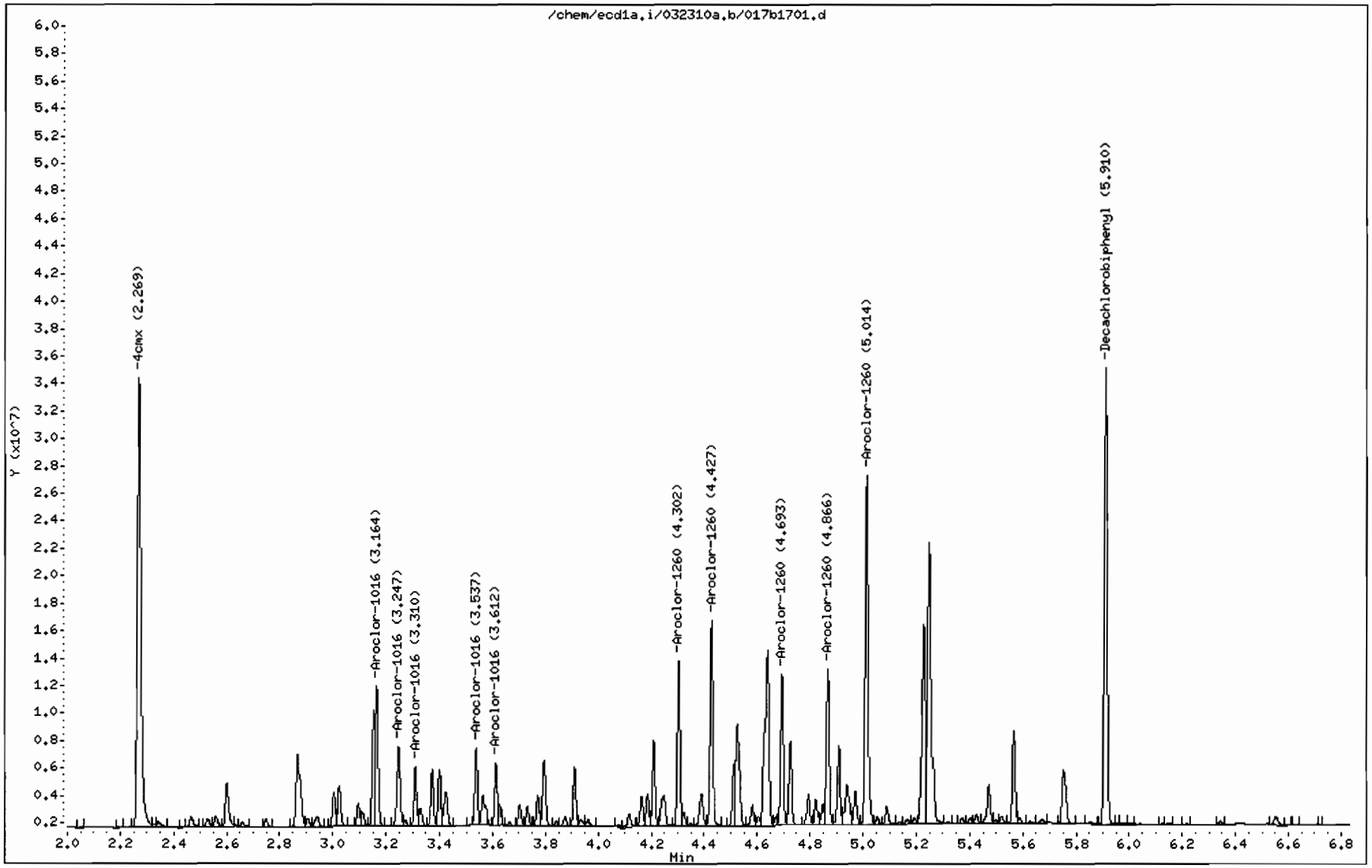

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032310a.b/017f1701.d
Lab Smp Id: 1202076366 Client Smp ID: RE46-10-12930MSD
Inj Date : 23-MAR-2010 10:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202076366|1|
Misc Info : |ECD82P_1S|967400|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/032310a.b/ECD1-F-8082-031110b.m
Meth Date : 25-Mar-2010 05:53 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 17 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2244.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	8.46240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.911	1.913	-0.002	47813392	122.749	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.215	5.217	-0.002	43027538	144.908	5.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.363	2.365	-0.002	9107248	600.077	21.8	80.00- 120.00	100.00
2.650	2.651	-0.001	11740813	620.033	22.6	107.62- 147.62	128.92
2.730	2.732	-0.002	7057387	567.216	20.6	58.11- 98.11	77.49
2.768	2.770	-0.002	4170651	567.565	20.7	27.09- 67.09	45.79

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.978	2.980	-0.002	5475533	575.295	20.9	40.72- 80.72	60.12
Average of Peak Concentrations =					21.3		
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.705	-0.002	12582459	686.437	25.0	80.00- 120.00	100.00
3.865	3.867	-0.002	19194350	713.814	26.0	129.35- 169.35	152.55
4.028	4.030	-0.002	20553278	725.872	26.4	139.27- 179.27	163.35
4.095	4.097	-0.002	11550117	714.829	26.0	70.04- 110.04	91.80
4.238	4.240	-0.002	11954440	711.038	25.9	74.22- 114.22	95.01
Average of Peak Concentrations =					25.9		

Data File: /chem/ecd1a.i/032310a.b/017f1701.d

Date : 23-MAR-2010 10:37

Client ID: RE46-10-12930MSD

Sample Info: |1202076366|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

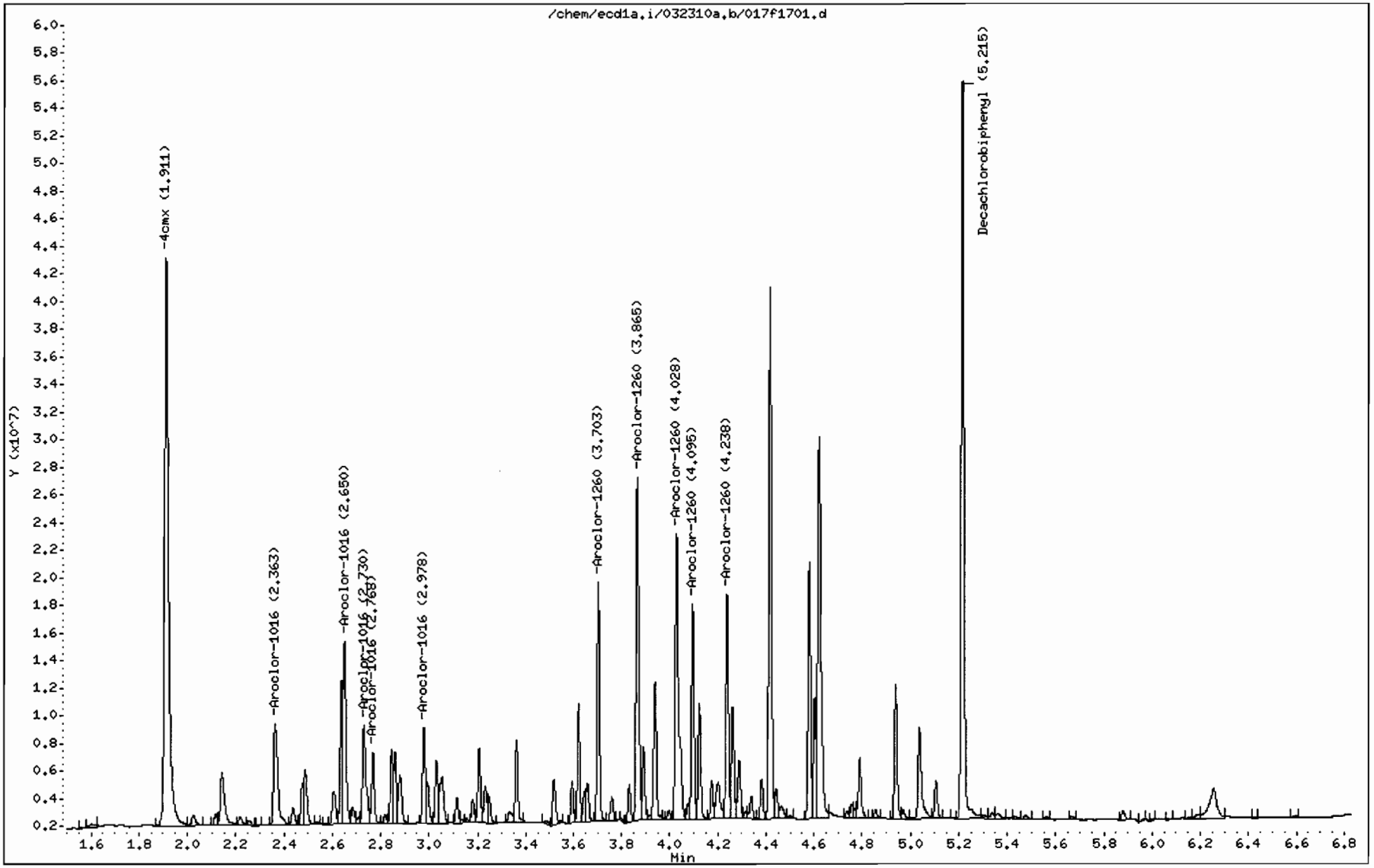

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 967399 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202076363 MB	22-MAR-2010 11:11:00	30	H2SO4/KMn	1	1	8	1	0.03333
1202076364 LCS	22-MAR-2010 11:11:00	30	H2SO4/KMn	1	1	8	1	0.03333
248863001	22-MAR-2010 11:11:00	30	H2SO4/KMn	1	1	8	1	0.03333
248863002	22-MAR-2010 11:11:00	30	H2SO4/KMn	1	1	8	1	0.03333
1202076365 MS (248863002)	22-MAR-2010 11:11:00	30	H2SO4/KMn	1	1	8	1	0.03333
1202076366 MSD (248863002)	22-MAR-2010 11:11:00	30.01	H2SO4/KMn	1	1	8	1	0.03332
248863003	22-MAR-2010 11:11:00	30	H2SO4/KMn	1	1	8	1	0.03333
248863004	22-MAR-2010 11:11:00	30.04	H2SO4/KMn	1	1	8	1	0.03329
248865001	22-MAR-2010 11:11:00	30.01	H2SO4/KMn	1	1	8	1	0.03332
248866001	22-MAR-2010 11:11:00	30.01	H2SO4/KMn	1	1	8	1	0.03332
248866002	22-MAR-2010 11:11:00	30	H2SO4/KMn	1	1	8	1	0.03333
248867001	22-MAR-2010 11:11:00	30.08	H2SO4/KMn	1	1	8	1	0.03324
248867002	22-MAR-2010 11:11:00	30.01	H2SO4/KMn	1	1	8	1	0.03332
248867003	22-MAR-2010 11:11:00	30.02	H2SO4/KMn	1	1	8	1	0.03331
248867004	22-MAR-2010 11:11:00	30	H2SO4/KMn	1	1	8	1	0.03333
249180001	22-MAR-2010 11:11:00	30	H2SO4/KMn	1	1	8	1	0.03333
249180002	22-MAR-2010 11:11:00	30.01	H2SO4/KMn	1	1	8	1	0.03332
249180003	22-MAR-2010 11:11:00	30.07	H2SO4/KMn	1	1	8	1	0.03326
249180004	22-MAR-2010 11:11:00	30.09	H2SO4/KMn	1	1	8	1	0.03323
249180005	22-MAR-2010 11:11:00	30.09	H2SO4/KMn	1	1	8	1	0.03323
249180006	22-MAR-2010 11:11:00	30	H2SO4/KMn	1	1	8	1	0.03333
249180008	22-MAR-2010 11:11:00	30.09	H2SO4/KMn	1	1	8	1	0.03323

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202076364	PCB Laboratory Control	WE100311-07	1	mL
MS	1202076365	PCB Laboratory Control	WE100311-07	1	mL
MSD	1202076366	PCB Laboratory Control	WE100311-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100310-16	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1273823-B1	150	mL
REGNT	All	Hexane	1279341-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 03/22/2010
Clean up Initials: RWH
Verified By: JAM
Final Solvent: Hexane
Clean Up SOP: GL-OA-E-037

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2319

Sample Analysis

Sample ID	Client ID
248866001	RE46-10-11885
248866002	RE46-10-11886
1202068109	Method Blank (MB) **ICP**
1202089225	Method Blank (MB) **ICP**
1202068114	Laboratory Control Sample (LCS)
1202089226	Laboratory Control Sample (LCS)
1202068111	248866001(RE46-10-11885L) Serial Dilution (SD)
1202068110	248866001(RE46-10-11885D) Sample Duplicate (DUP)
1202068112	248866001(RE46-10-11885S) Matrix Spike (MS)
1202068113	248866001(RE46-10-11885SD) Matrix Spike Duplicate (MSD)
1202068115	Method Blank (MB) **ICP-MS**
1202068120	Laboratory Control Sample (LCS)
1202068117	248866001(RE46-10-11885L) Serial Dilution (SD)
1202068116	248866001(RE46-10-11885D) Sample Duplicate (DUP)
1202068118	248866001(RE46-10-11885S) Matrix Spike (MS)
1202068119	248866001(RE46-10-11885SD) Matrix Spike Duplicate (MSD)
1202078437	Method Blank (MB) **CVAA**
1202078438	Laboratory Control Sample (LCS)
1202078441	248867001(RE46-10-12931L) Serial Dilution (SD)
1202078439	248867001(RE46-10-12931D) Sample Duplicate (DUP)
1202078440	248867001(RE46-10-12931S) Matrix Spike (MS)
1202078442	248867001(RE46-10-12931SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch: 964016, 972603, 964018 and 968185

Prep Batch :	964015, 972602, 964017 and 968184
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 20, GL-MA-E-014 REV# 21, GL-MA-E-009 REV# 19 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits with the exception of mercury that recovered outside of the advisory control limits of 70-130%.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 248866001 (RE46-10-11885)-ICP and ICP-MS and 248867001 (RE46-10-12931)-CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of magnesium and potassium as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of magnesium, potassium and mercury as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exception of lead as indicated by the "*" qualifier.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER ID 809015 and 814045. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nick Cole A. Elmore **Date:** 5.6.10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2319 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248866001 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-11885 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 96.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3410000	ug/kg		6960	20500	20500	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-36-0	Antimony	1020	ug/kg	U	338	1020	1020	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-38-2	Arsenic	1360	ug/kg		206	1030	1030	2	MS	RMJ	05/06/10 04:27	100505-3	964018
7440-39-3	Barium	23200	ug/kg		102	512	512	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-41-7	Beryllium	336	ug/kg		20.6	103	103	2	MS	RMJ	05/06/10 04:27	100505-3	964018
7440-43-9	Cadmium	512	ug/kg	U	102	512	512	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-70-2	Calcium	661000	ug/kg		8190	25600	25600	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-47-3	Chromium	2550	ug/kg		154	512	512	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-48-4	Cobalt	1120	ug/kg		154	512	512	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-50-8	Copper	1950	ug/kg		307	1020	1020	1	P	HSC	04/05/10 12:52	040510-1	964016
7439-89-6	Iron	8330000	ug/kg		8190	25600	25600	1	P	HSC	04/05/10 12:52	040510-1	964016
7439-92-1	Lead	10900	ug/kg	*	256	1020	1020	1	P	HSC	04/05/10 12:52	040510-1	964016
7439-95-4	Magnesium	595000	ug/kg	N	8700	30700	30700	1	P	HSC	04/05/10 12:52	040510-1	964016
7439-96-5	Manganese	310000	ug/kg		205	1020	1020	1	P	HSC	04/05/10 12:52	040510-1	964016
7439-97-6	Mercury	90	ug/kg		4.07	12	12	1	AV	JXL1	03/24/10 11:18	032410S1-4	968185
7440-02-0	Nickel	1800	ug/kg		103	411	411	2	MS	RMJ	05/06/10 04:27	100505-3	964018
7440-09-7	Potassium	422000	ug/kg	N	6550	25600	25600	1	P	HSC	04/05/10 12:52	040510-1	964016
7782-49-2	Selenium	1030	ug/kg	U	514	1030	1030	2	MS	RMJ	05/06/10 04:27	100505-3	964018
7440-22-4	Silver	512	ug/kg	U	102	512	512	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-23-5	Sodium	108000	ug/kg		7170	25600	25600	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-28-0	Thallium	69.5	ug/kg	J	61.7	206	206	2	MS	RMJ	05/06/10 04:27	100505-3	964018
7440-62-2	Vanadium	6130	ug/kg		102	512	512	1	P	HSC	04/05/10 12:52	040510-1	964016
7440-66-6	Zinc	19000	ug/kg		343	1040	1040	1	P	HSC	04/07/10 14:02	040710-2	972603

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964016	964015	SW846 3050B	0.508	g	50	mL	04/02/10	LYH1
964018	964017	SW846 3050B	0.506	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.522	g	30	mL	03/23/10	TXB3
972603	972602	SW846 3050B	0.5	g	50	mL	04/07/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2319 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 248866002 **BASIS:** Dry Weight **DATE COLLECTED** 04-MAR-10

CLIENT ID: RE46-10-11886 **LEVEL:** Low **DATE RECEIVED** 06-MAR-10

MATRIX: SOIL **%SOLIDS:** 95.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2000000	ug/kg		6870	20200	20200	1	P	HSC	04/05/10 13:08	040510-1	964016
7440-36-0	Antimony	1010	ug/kg	U	333	1010	1010	1	P	HSC	04/05/10 13:08	040510-1	964016
7440-38-2	Arsenic	1350	ug/kg		208	1040	1040	2	MS	RMJ	05/06/10 04:58	100505-3	964018
7440-39-3	Barium	8340	ug/kg		101	505	505	1	P	HSC	04/05/10 13:08	040510-1	964016
7440-41-7	Beryllium	381	ug/kg		20.8	104	104	2	MS	RMJ	05/06/10 04:58	100505-3	964018
7440-43-9	Cadmium	505	ug/kg	U	101	505	505	1	P	HSC	04/05/10 13:08	040510-1	964016
7440-70-2	Calcium	933000	ug/kg		8080	25200	25200	1	P	HSC	04/05/10 13:08	040510-1	964016
7440-47-3	Chromium	1850	ug/kg		151	505	505	1	P	HSC	04/05/10 13:08	040510-1	964016
7440-48-4	Cobalt	664	ug/kg		151	505	505	1	P	HSC	04/05/10 13:08	040510-1	964016
7440-50-8	Copper	2260	ug/kg		303	1010	1010	1	P	HSC	04/05/10 13:08	040510-1	964016
7439-89-6	Iron	8700000	ug/kg		8080	25200	25200	1	P	HSC	04/05/10 13:08	040510-1	964016
7439-92-1	Lead	43100	ug/kg	*	252	1010	1010	1	P	HSC	04/05/10 13:08	040510-1	964016
7439-95-4	Magnesium	460000	ug/kg	N	8580	30300	30300	1	P	HSC	04/05/10 13:08	040510-1	964016
7439-96-5	Manganese	284000	ug/kg		202	1010	1010	1	P	HSC	04/05/10 13:08	040510-1	964016
7439-97-6	Mercury	11.4	ug/kg	U	3.86	11.4	11.4	1	AV	JXL1	03/24/10 11:19	032410S1-4	968185
7440-02-0	Nickel	572	ug/kg		104	417	417	2	MS	RMJ	05/06/10 04:58	100505-3	964018
7440-09-7	Potassium	364000	ug/kg	N	6460	25200	25200	1	P	HSC	04/05/10 13:08	040510-1	964016
7782-49-2	Selenium	1040	ug/kg	U	521	1040	1040	2	MS	RMJ	05/06/10 04:58	100505-3	964018
7440-22-4	Silver	505	ug/kg	U	101	505	505	1	P	HSC	04/05/10 13:08	040510-1	964016
7440-23-5	Sodium	110000	ug/kg		7070	25200	25200	1	P	HSC	04/05/10 13:08	040510-1	964016
7440-28-0	Thallium	110	ug/kg	J	62.5	208	208	2	MS	RMJ	05/06/10 04:58	100505-3	964018
7440-62-2	Vanadium	4110	ug/kg		101	505	505	1	P	HSC	04/05/10 13:08	040510-1	964016
7440-66-6	Zinc	77200	ug/kg		344	1040	1040	1	P	HSC	04/07/10 14:17	040710-2	972603

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
964016	964015	SW846 3050B	0.52	g	50	mL	04/02/10	LYH1
964018	964017	SW846 3050B	0.504	g	50	mL	03/13/10	AXG2
968185	968184	SW846 7471A Prep	0.555	g	30	mL	03/23/10	TXB3
972603	972602	SW846 3050B	0.503	g	50	mL	04/07/10	AXG2

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2319

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.12	ug/L	5	ug/L	102.4	90.0 – 110.0	AV	24–MAR–10 09:36	032410S1–4
	Aluminum	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Antimony	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Barium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Calcium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Cobalt	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Copper	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Iron	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Magnesium	5270	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Manganese	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Potassium	2540	ug/L	2500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Silver	259	ug/L	250	ug/L	103.6	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Sodium	2530	ug/L	2500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05–APR–10 10:23	040510–1
	Zinc	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	07–APR–10 12:57	040710–2
	Arsenic	53.5	ug/L	50	ug/L	106.9	90.0 – 110.0	MS	06–MAY–10 03:48	100505–3
	Beryllium	53.8	ug/L	50	ug/L	107.6	90.0 – 110.0	MS	06–MAY–10 03:48	100505–3
	Nickel	53.6	ug/L	50	ug/L	107.2	90.0 – 110.0	MS	06–MAY–10 03:48	100505–3
	Selenium	54.6	ug/L	50	ug/L	109.2	90.0 – 110.0	MS	06–MAY–10 03:48	100505–3
	Thallium	52.8	ug/L	50	ug/L	105.7	90.0 – 110.0	MS	06–MAY–10 03:48	100505–3
CCV01										
	Mercury	5.03	ug/L	5	ug/L	100.6	80.0 – 120.0	AV	24–MAR–10 09:41	032410S1–4
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Antimony	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Barium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Cadmium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Calcium	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 10:36	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2319

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Cobalt	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Lead	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Magnesium	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Potassium	5650	ug/L	5000	ug/L	113	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Silver	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Sodium	10100	ug/L	10000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Vanadium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	05–APR–10 10:36	040510–1
	Zinc	495	ug/L	500	ug/L	99	90.0 – 110.0	P	07–APR–10 13:19	040710–2
	Arsenic	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	06–MAY–10 04:10	100505–3
	Beryllium	50.5	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	06–MAY–10 04:10	100505–3
	Nickel	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	06–MAY–10 04:10	100505–3
	Selenium	53.1	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	06–MAY–10 04:10	100505–3
	Thallium	51.2	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	06–MAY–10 04:10	100505–3
CCV02										
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 – 120.0	AV	24–MAR–10 10:01	032410S1–4
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Antimony	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Chromium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Copper	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Lead	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Magnesium	5180	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	05–APR–10 10:49	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2319

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Potassium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Silver	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Sodium	9950	ug/L	10000	ug/L	99.5	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Vanadium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 10:49	040510–1
	Zinc	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	07–APR–10 13:49	040710–2
	Arsenic	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	06–MAY–10 04:49	100505–3
	Beryllium	53.5	ug/L	50	ug/L	107	90.0 – 110.0	MS	06–MAY–10 04:49	100505–3
	Nickel	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	06–MAY–10 04:49	100505–3
	Selenium	51.5	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	06–MAY–10 04:49	100505–3
	Thallium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	06–MAY–10 04:49	100505–3
CCV03										
	Mercury	5.29	ug/L	5	ug/L	105.7	80.0 – 120.0	AV	24–MAR–10 10:21	032410S1–4
	Aluminum	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Antimony	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Cadmium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Calcium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Chromium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Iron	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Lead	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Magnesium	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Manganese	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Potassium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Silver	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Sodium	9980	ug/L	10000	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–APR–10 11:21	040510–1
	Zinc	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	07–APR–10 14:12	040710–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2319

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	52	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	06–MAY–10 05:20	100505–3
	Beryllium	52.6	ug/L	50	ug/L	105.3	90.0 – 110.0	MS	06–MAY–10 05:20	100505–3
	Nickel	49	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	06–MAY–10 05:20	100505–3
	Selenium	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	06–MAY–10 05:20	100505–3
	Thallium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	06–MAY–10 05:20	100505–3
CCV04										
	Mercury	4.88	ug/L	5	ug/L	97.6	80.0 – 120.0	AV	24–MAR–10 10:41	032410S1–4
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Antimony	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Barium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Cadmium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Chromium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Lead	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Manganese	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Potassium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Sodium	10000	ug/L	10000	ug/L	100.1	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 11:29	040510–1
	Zinc	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	07–APR–10 14:27	040710–2
CCV05										
	Mercury	5.19	ug/L	5	ug/L	103.7	80.0 – 120.0	AV	24–MAR–10 11:01	032410S1–4
	Aluminum	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Barium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Cadmium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2319

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Chromium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Copper	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Iron	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Lead	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Manganese	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Silver	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 – 110.0	P	05–APR–10 11:52	040510–1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 11:52	040510–1
CCV06										
	Mercury	5.2	ug/L	5	ug/L	104	80.0 – 120.0	AV	24–MAR–10 11:21	032410S1–4
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Antimony	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Barium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Cadmium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Chromium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Copper	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Iron	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Lead	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Magnesium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Manganese	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Potassium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Silver	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	05–APR–10 12:16	040510–1
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:16	040510–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2319

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV07										
	Mercury	5.11	ug/L	5	ug/L	102.2	80.0 – 120.0	AV	24–MAR–10 11:41	032410S1–4
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Antimony	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Cadmium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Chromium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Copper	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Lead	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Magnesium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Potassium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Silver	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Sodium	9960	ug/L	10000	ug/L	99.6	90.0 – 110.0	P	05–APR–10 12:41	040510–1
	Vanadium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 12:41	040510–1
CCV08										
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Barium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Cadmium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Calcium	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Chromium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Cobalt	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Iron	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Lead	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	05–APR–10 13:02	040510–1
	Manganese	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–APR–10 13:02	040510–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2319

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	05-APR-10 13:02	040510-1
	Silver	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	05-APR-10 13:02	040510-1
	Sodium	10000	ug/L	10000	ug/L	100.2	90.0 - 110.0	P	05-APR-10 13:02	040510-1
	Vanadium	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	05-APR-10 13:02	040510-1
CCV09										
	Aluminum	5000	ug/L	5000	ug/L	99.9	90.0 - 110.0	P	05-APR-10 13:19	040510-1
	Antimony	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	05-APR-10 13:19	040510-1
	Barium	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	05-APR-10 13:19	040510-1
	Cadmium	505	ug/L	500	ug/L	101	90.0 - 110.0	P	05-APR-10 13:19	040510-1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 - 110.0	P	05-APR-10 13:19	040510-1
	Chromium	505	ug/L	500	ug/L	101	90.0 - 110.0	P	05-APR-10 13:19	040510-1
	Cobalt	510	ug/L	500	ug/L	102	90.0 - 110.0	P	05-APR-10 13:19	040510-1
	Copper	504	ug/L	500	ug/L	100.9	90.0 - 110.0	P	05-APR-10 13:19	040510-1
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 - 110.0	P	05-APR-10 13:19	040510-1
	Lead	512	ug/L	500	ug/L	102.5	90.0 - 110.0	P	05-APR-10 13:19	040510-1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	05-APR-10 13:19	040510-1
	Manganese	505	ug/L	500	ug/L	101	90.0 - 110.0	P	05-APR-10 13:19	040510-1
	Potassium	5100	ug/L	5000	ug/L	102	90.0 - 110.0	P	05-APR-10 13:19	040510-1
	Silver	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	05-APR-10 13:19	040510-1
	Sodium	10100	ug/L	10000	ug/L	100.5	90.0 - 110.0	P	05-APR-10 13:19	040510-1
	Vanadium	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	05-APR-10 13:19	040510-1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2319

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.129	ug/L	.2	ug/L	64.5	70.0 – 130.0	AV	24–MAR–10 09:39	032410S1–4
	Nickel	2.2	ug/L	2	ug/L	109.9	70.0 – 130.0	MS	06–MAY–10 03:57	100505–3
	Thallium	1.1	ug/L	1	ug/L	109.5	70.0 – 130.0	MS	06–MAY–10 03:57	100505–3
	Arsenic	5.52	ug/L	5	ug/L	110.4	70.0 – 130.0	MS	06–MAY–10 03:57	100505–3
	Selenium	5.81	ug/L	5	ug/L	116.1	70.0 – 130.0	MS	06–MAY–10 03:57	100505–3
	Beryllium	.555	ug/L	.5	ug/L	111	70.0 – 130.0	MS	06–MAY–10 03:57	100505–3
PQL01										
	Magnesium	329	ug/L	300	ug/L	109.5	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Manganese	10.5	ug/L	10	ug/L	104.5	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Potassium	150	ug/L	150	ug/L	100.3	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Silver	4.82	ug/L	5	ug/L	96.4	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Sodium	277	ug/L	300	ug/L	92.3	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Antimony	7.08	ug/L	10	ug/L	70.8	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Lead	9.5	ug/L	10	ug/L	95	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Iron	104	ug/L	100	ug/L	103.9	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Aluminum	206	ug/L	200	ug/L	103	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Barium	5.09	ug/L	5	ug/L	101.8	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Cadmium	5.13	ug/L	5	ug/L	102.6	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Chromium	5.01	ug/L	5	ug/L	100.1	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Cobalt	5.33	ug/L	5	ug/L	106.7	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Copper	10.3	ug/L	10	ug/L	102.9	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Vanadium	5.27	ug/L	5	ug/L	105.5	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Calcium	206	ug/L	200	ug/L	103.1	70.0 – 130.0	P	05–APR–10 10:28	040510–1
	Zinc	9.83	ug/L	10	ug/L	98.3	70.0 – 130.0	P	07–APR–10 13:02	040710–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2319

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	–0.078	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 09:37	032410S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 10:25	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:25	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:25	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:25	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:25	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 10:25	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:25	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 10:25	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 10:25	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 10:25	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 10:25	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 10:25	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:25	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	07–APR–10 12:59	040710–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	06–MAY–10 03:52	100505–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	06–MAY–10 03:52	100505–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	06–MAY–10 03:52	100505–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	06–MAY–10 03:52	100505–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	06–MAY–10 03:52	100505–3
CCB01										
	Mercury	–0.081	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 09:42	032410S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 10:38	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:38	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:38	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:38	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2319

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:38	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 10:38	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:38	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 10:38	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 10:38	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 10:38	040510–1
	Potassium	236.18	+/–250	J	64.0	250	SOL	P	05–APR–10 10:38	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–1
	Sodium	98.65	+/–250	J	70.0	250	SOL	P	05–APR–10 10:38	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:38	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	07–APR–10 13:21	040710–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	06–MAY–10 04:14	100505–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	06–MAY–10 04:14	100505–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	06–MAY–10 04:14	100505–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	06–MAY–10 04:14	100505–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	06–MAY–10 04:14	100505–3
CCB02										
	Mercury	–0.081	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 10:02	032410S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 10:51	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 10:51	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:51	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:51	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 10:51	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 10:51	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 10:51	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 10:51	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 10:51	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 10:51	040510–1
	Potassium	70.41	+/–250	J	64.0	250	SOL	P	05–APR–10 10:51	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2319

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 10:51	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 10:51	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	07–APR–10 13:51	040710–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	06–MAY–10 04:54	100505–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	06–MAY–10 04:54	100505–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	06–MAY–10 04:54	100505–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	06–MAY–10 04:54	100505–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	06–MAY–10 04:54	100505–3
CCB03										
	Mercury	–0.077	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 10:22	032410S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 11:23	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:23	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:23	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:23	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:23	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 11:23	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:23	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 11:23	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 11:23	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 11:23	040510–1
	Potassium	85.5	+/–250	J	64.0	250	SOL	P	05–APR–10 11:23	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 11:23	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:23	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	07–APR–10 14:14	040710–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	06–MAY–10 05:24	100505–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	06–MAY–10 05:24	100505–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	06–MAY–10 05:24	100505–3

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2319

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	06–MAY–10 05:24	100505–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	06–MAY–10 05:24	100505–3
CCB04										
	Mercury	–0.083	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 10:42	032410S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 11:31	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:31	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:31	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:31	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:31	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 11:31	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:31	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 11:31	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 11:31	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 11:31	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 11:31	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 11:31	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:31	040510–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	07–APR–10 14:29	040710–2
CCB05										
	Mercury	–0.084	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 11:03	032410S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 11:54	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 11:54	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:54	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:54	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:54	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:54	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 11:54	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 11:54	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2319

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 11:54	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 11:54	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 11:54	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 11:54	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 11:54	040510–1
	Silver	–1.55	+/–5	J	1.0	5.0	SOL	P	05–APR–10 11:54	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 11:54	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 11:54	040510–1
CCB06										
	Mercury	–0.09	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 11:23	032410S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 12:18	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 12:18	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:18	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 12:18	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 12:18	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 12:18	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:18	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 12:18	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 12:18	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 12:18	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 12:18	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 12:18	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:18	040510–1
CCB07										
	Mercury	–0.088	+/–.2	J	0.068	0.2	SOL	AV	24–MAR–10 11:43	032410S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 12:43	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 12:43	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:43	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2319

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:43	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:43	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 12:43	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 12:43	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 12:43	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 12:43	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 12:43	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 12:43	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 12:43	040510–1
	Potassium	84.07	+/–250	J	64.0	250	SOL	P	05–APR–10 12:43	040510–1
	Silver	–1.25	+/–5	J	1.0	5.0	SOL	P	05–APR–10 12:43	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 12:43	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 12:43	040510–1
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 13:04	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:04	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:04	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:04	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:04	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:04	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:04	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 13:04	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:04	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:04	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:04	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:04	040510–1
	Potassium	87.68	+/–250	J	64.0	250	SOL	P	05–APR–10 13:04	040510–1
	Silver	–1.14	+/–5	J	1.0	5.0	SOL	P	05–APR–10 13:04	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 13:04	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:04	040510–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2319

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–APR–10 13:21	040510–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–APR–10 13:21	040510–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:21	040510–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:21	040510–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–APR–10 13:21	040510–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–APR–10 13:21	040510–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–APR–10 13:21	040510–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–APR–10 13:21	040510–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–APR–10 13:21	040510–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–APR–10 13:21	040510–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–APR–10 13:21	040510–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–APR–10 13:21	040510–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–APR–10 13:21	040510–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2319

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202068109								
	Aluminum	6560	ug/kg	+/–19300	U	P	6560	19300
	Antimony	319	ug/kg	+/–965	U	P	319	965
	Barium	96.5	ug/kg	+/–483	U	P	96.5	483
	Calcium	7720	ug/kg	+/–24100	U	P	7720	24100
	Cobalt	145	ug/kg	+/–483	U	P	145	483
	Iron	7720	ug/kg	+/–24100	U	P	7720	24100
	Magnesium	8200	ug/kg	+/–29000	U	P	8200	29000
	Potassium	8020	ug/kg	+/–24100	J	P	6180	24100
	Sodium	6760	ug/kg	+/–24100	U	P	6760	24100
	Vanadium	96.5	ug/kg	+/–483	U	P	96.5	483
	Silver	–119	ug/kg	+/–483	J	P	96.5	483
	Manganese	193	ug/kg	+/–965	U	P	193	965
	Lead	241	ug/kg	+/–965	U	P	241	965
	Copper	290	ug/kg	+/–965	U	P	290	965
	Chromium	145	ug/kg	+/–483	U	P	145	483
	Cadmium	96.5	ug/kg	+/–483	U	P	96.5	483
1202068115								
	Arsenic	200	ug/kg	+/–1000	U	MS	200	1000
	Nickel	100	ug/kg	+/–400	U	MS	100	400
	Selenium	500	ug/kg	+/–1000	U	MS	500	1000
	Thallium	60	ug/kg	+/–200	U	MS	60	200
	Beryllium	20	ug/kg	+/–100	U	MS	20	100
1202078437								
	Mercury	–4.37	ug/kg	+/–10.3	J	AV	3.5	10.3
1202089225								
	Zinc	324	ug/kg	+/–980	U	P	324	980

METALS
–4–
Interference Check Sample

SDG No: 10–2319

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	507000	ug/L	500000	ug/L	101	80.0 – 120.0	05–APR–10 10:30	040510–1
	Antimony	2.46	ug/L					05–APR–10 10:30	040510–1
	Barium	0.214	ug/L					05–APR–10 10:30	040510–1
	Cadmium	–1.98	ug/L					05–APR–10 10:30	040510–1
	Calcium	489000	ug/L	500000	ug/L	97.8	80.0 – 120.0	05–APR–10 10:30	040510–1
	Chromium	0.825	ug/L					05–APR–10 10:30	040510–1
	Cobalt	–6.2	ug/L					05–APR–10 10:30	040510–1
	Copper	2.05	ug/L					05–APR–10 10:30	040510–1
	Iron	192000	ug/L	200000	ug/L	95.9	80.0 – 120.0	05–APR–10 10:30	040510–1
	Lead	–2.28	ug/L					05–APR–10 10:30	040510–1
	Magnesium	488000	ug/L	500000	ug/L	97.6	80.0 – 120.0	05–APR–10 10:30	040510–1
	Manganese	2.95	ug/L					05–APR–10 10:30	040510–1
	Potassium	–150.0	ug/L					05–APR–10 10:30	040510–1
	Silver	–1.56	ug/L					05–APR–10 10:30	040510–1
	Sodium	72.8	ug/L					05–APR–10 10:30	040510–1
	Vanadium	1.44	ug/L					05–APR–10 10:30	040510–1
ICSAB01									
	Aluminum	510000	ug/L	500000	ug/L	102	80.0 – 120.0	05–APR–10 10:32	040510–1
	Antimony	518	ug/L	500	ug/L	104	80.0 – 120.0	05–APR–10 10:32	040510–1
	Barium	505	ug/L	500	ug/L	101	80.0 – 120.0	05–APR–10 10:32	040510–1
	Cadmium	483	ug/L	500	ug/L	96.6	80.0 – 120.0	05–APR–10 10:32	040510–1
	Calcium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	05–APR–10 10:32	040510–1
	Chromium	493	ug/L	500	ug/L	98.6	80.0 – 120.0	05–APR–10 10:32	040510–1
	Cobalt	452	ug/L	500	ug/L	90.4	80.0 – 120.0	05–APR–10 10:32	040510–1
	Copper	544	ug/L	500	ug/L	109	80.0 – 120.0	05–APR–10 10:32	040510–1
	Iron	193000	ug/L	200000	ug/L	96.5	80.0 – 120.0	05–APR–10 10:32	040510–1
	Lead	472	ug/L	500	ug/L	94.4	80.0 – 120.0	05–APR–10 10:32	040510–1
	Magnesium	491000	ug/L	500000	ug/L	98.2	80.0 – 120.0	05–APR–10 10:32	040510–1
	Manganese	486	ug/L	500	ug/L	97.3	80.0 – 120.0	05–APR–10 10:32	040510–1

METALS
–4–
Interference Check Sample

SDG No: 10–2319

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Potassium	5510	ug/L	5000	ug/L	110	80.0 – 120.0	05–APR–10 10:32	040510–1
	Silver	271	ug/L	250	ug/L	108	80.0 – 120.0	05–APR–10 10:32	040510–1
	Sodium	5380	ug/L	5000	ug/L	108	80.0 – 120.0	05–APR–10 10:32	040510–1
	Vanadium	520	ug/L	500	ug/L	104	80.0 – 120.0	05–APR–10 10:32	040510–1

METALS
–4–
Interference Check Sample

SDG No: 10–2319

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Zinc	7.81	ug/L					07–APR–10 13:04	040710–2
ICSAB01									
	Zinc	493	ug/L	500	ug/L	98.7	80.0 – 120.0	07–APR–10 13:07	040710–2

METALS
-4-
Interference Check Sample

SDG No: 10-2319

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.567	ug/L					06-MAY-10 04:01	100505-3
	Beryllium	0.095	ug/L					06-MAY-10 04:01	100505-3
	Nickel	3.0	ug/L					06-MAY-10 04:01	100505-3
	Selenium	-1.86	ug/L					06-MAY-10 04:01	100505-3
	Thallium	-0.048	ug/L					06-MAY-10 04:01	100505-3
ICSAB01									
	Arsenic	20.4	ug/L	20	ug/L	102	80.0 - 120.0	06-MAY-10 04:06	100505-3
	Beryllium	19.1	ug/L	20	ug/L	95.3	80.0 - 120.0	06-MAY-10 04:06	100505-3
	Nickel	21.4	ug/L	23.31	ug/L	91.8	80.0 - 120.0	06-MAY-10 04:06	100505-3
	Selenium	19.6	ug/L	20	ug/L	98.2	80.0 - 120.0	06-MAY-10 04:06	100505-3
	Thallium	18.2	ug/L	20	ug/L	91.2	80.0 - 120.0	06-MAY-10 04:06	100505-3

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2319 **Client ID** RE46–10–11885S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 96.1

Sample ID: 248866001 **Spike ID:** 1202068112

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cobalt	ug/kg	75–125	54000		1120		51900	102		P
Copper	ug/kg	75–125	58200		1950		51900	108		P
Iron	ug/kg		9130000		8330000		519000	153	N/A	P
Lead	ug/kg	75–125	62100		10900		51900	98.6		P
Magnesium	ug/kg	75–125	1350000		595000		519000	144	N	P
Manganese	ug/kg		415000		310000		51900	202	N/A	P
Potassium	ug/kg	75–125	1150000		422000		519000	141	N	P
Silver	ug/kg	75–125	54500		102	U	51900	105		P
Sodium	ug/kg	75–125	650000		108000		519000	104		P
Vanadium	ug/kg	75–125	59300		6130		51900	102		P
Zinc	ug/kg	75–125	70900		19000		51200	101		P
Aluminum	ug/kg		5030000		3410000		519000	312	N/A	P
Antimony	ug/kg	75–125	49500		338	U	51900	95.3		P
Barium	ug/kg	75–125	81400		23200		51900	112		P
Cadmium	ug/kg	75–125	54400		102	U	51900	105		P
Calcium	ug/kg	75–125	1240000		661000		519000	111		P
Chromium	ug/kg	75–125	55500		2550		51900	102		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2319 **Client ID** RE46–10–11885SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 96.1

Sample ID: 248866001 **Spike ID:** 1202068113

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Chromium	ug/kg	75–125	55600		2550		51500	103		P
Cobalt	ug/kg	75–125	53800		1120		51500	102		P
Copper	ug/kg	75–125	57700		1950		51500	108		P
Iron	ug/kg		8740000		8330000		515000	78.2	N/A	P
Lead	ug/kg	75–125	62600		10900		51500	100		P
Magnesium	ug/kg	75–125	1260000		595000		515000	129	N	P
Manganese	ug/kg		352000		310000		51500	81.2	N/A	P
Potassium	ug/kg	75–125	1090000		422000		515000	130	N	P
Silver	ug/kg	75–125	54000		102	U	51500	105		P
Sodium	ug/kg	75–125	631000		108000		515000	101		P
Vanadium	ug/kg	75–125	59000		6130		51500	103		P
Zinc	ug/kg	75–125	71000		19000		50500	103		P
Aluminum	ug/kg		5090000		3410000		515000	328	N/A	P
Antimony	ug/kg	75–125	49700		338	U	51500	96.4		P
Barium	ug/kg	75–125	78600		23200		51500	108		P
Cadmium	ug/kg	75–125	53900		102	U	51500	105		P
Calcium	ug/kg	75–125	1240000		661000		515000	112		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2319 **Client ID** RE46–10–11885S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 96.1

Sample ID: 248866001 **Spike ID:** 1202068118

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	9570		1360		8220	99.8		MS
Beryllium	ug/kg	75–125	5360		336		5140	97.8		MS
Nickel	ug/kg	75–125	6850		1800		5140	98.2		MS
Selenium	ug/kg	75–125	2080		514	U	2060	95.9		MS
Thallium	ug/kg	75–125	9530		69.5	J	10300	92		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–2319 **Client ID** RE46–10–11885SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 96.1

Sample ID: 248866001 **Spike ID:** 1202068119

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	9530		1360		8100	101		MS
Beryllium	ug/kg	75–125	5200		336		5060	96.1		MS
Nickel	ug/kg	75–125	6630		1800		5060	95.5		MS
Selenium	ug/kg	75–125	1900		514	U	2020	88.3		MS
Thallium	ug/kg	75–125	9200		69.5	J	10100	90.2		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2319 **Client ID** RE46–10–12931S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 81

Sample ID: 248867001 **Spike ID:** 1202078440

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	370		231		128	109		AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO.	10–2319	**Client ID**	RE46–10–12931SD
Contract:	LANL01004	**Level:**	Low
Matrix:	SOIL	**% Solids:**	81
Sample ID:	248867001	**Spike ID:**	1202078442

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	411		231		138	130	N	AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2319

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–11885D

Sample ID: 248866001 **Duplicate ID:** 1202068110 **Percent Solids for Dup:** 96.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	3410000		3140000		8.29		P
Antimony	ug/kg		338	U	343	U			P
Barium	ug/kg	+/–20%	23200		22700		2.12		P
Cadmium	ug/kg		102	U	104	U			P
Calcium	ug/kg	+/–20%	661000		592000		10.9		P
Chromium	ug/kg	+/–519	2550		2350		8.17		P
Cobalt	ug/kg	+/–519	1120		1140		2.29		P
Copper	ug/kg	+/–1040	1950		1900		2.73		P
Iron	ug/kg	+/–20%	8330000		8510000		2.07		P
Lead	ug/kg	+/–20%	10900		14200		25.9	*	P
Magnesium	ug/kg	+/–20%	595000		541000		9.57		P
Manganese	ug/kg	+/–20%	310000		327000		5.3		P
Potassium	ug/kg	+/–20%	422000		397000		6.09		P
Silver	ug/kg		102	U	104	U			P
Sodium	ug/kg	+/–26000	108000		107000		1.14		P
Vanadium	ug/kg	+/–20%	6130		5610		8.77		P
Zinc	ug/kg	+/–20%	19000		21600		12.9		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2319

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–11885SD

Sample ID: 1202068112 **Duplicate ID:** 1202068113 **Percent Solids for Dup:** 96.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	5030000		5090000		1.29		P
Antimony	ug/kg	+/–20	49500		49700		.317		P
Barium	ug/kg	+/–20	81400		78600		3.58		P
Cadmium	ug/kg	+/–20	54400		53900		.9		P
Calcium	ug/kg	+/–20	1240000		1240000		.193		P
Chromium	ug/kg	+/–20	55500		55600		.268		P
Cobalt	ug/kg	+/–20	54000		53800		.363		P
Copper	ug/kg	+/–20	58200		57700		.804		P
Iron	ug/kg	+/–20	9130000		8740000		4.4		P
Lead	ug/kg	+/–20	62100		62600		.724		P
Magnesium	ug/kg	+/–20	1350000		1260000		6.38		P
Manganese	ug/kg	+/–20	415000		352000		16.4		P
Potassium	ug/kg	+/–20	1150000		1090000		5.72		P
Silver	ug/kg	+/–20	54500		54000		.885		P
Sodium	ug/kg	+/–20	650000		631000		3.06		P
Vanadium	ug/kg	+/–20	59300		59000		.458		P
Zinc	ug/kg	+/–20	70900		71000		.159		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2319

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–11885D

Sample ID: 248866001 **Duplicate ID:** 1202068116 **Percent Solids for Dup:** 96.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–1020	1360		1580		15.1		MS
Beryllium	ug/kg	+/–102	336		357		5.94		MS
Nickel	ug/kg	+/–410	1800		2160		18.5		MS
Selenium	ug/kg		514	U	512	U			MS
Thallium	ug/kg		69.5	J	61.4	U	200		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2319

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–11885SD

Sample ID: 1202068118 **Duplicate ID:** 1202068119 **Percent Solids for Dup:** 96.1

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	9570		9530		.464		MS
Beryllium	ug/kg	+/–20	5360		5200		3.07		MS
Nickel	ug/kg	+/–20	6850		6630		3.27		MS
Selenium	ug/kg	+/–20	2080		1900		9.33		MS
Thallium	ug/kg	+/–20	9530		9200		3.55		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2319

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12931D

Sample ID: 248867001 **Duplicate ID:** 1202078439 **Percent Solids for Dup:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20%	231		192		18.7		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2319

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12931SD

Sample ID: 1202078440 **Duplicate ID:** 1202078442 **Percent Solids for Dup:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	370		411		10.3		AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2319

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202068114								
	Aluminum	ug/kg	10500000	11000000		105	56–144	P
	Antimony	ug/kg	172000	161000		93.5	71–130	P
	Barium	ug/kg	197000	193000		97.7	80–120	P
	Cadmium	ug/kg	60500	59200		98	81–120	P
	Calcium	ug/kg	9830000	9910000		101	83–117	P
	Chromium	ug/kg	235000	238000		101	80–120	P
	Cobalt	ug/kg	90800	91700		101	81–120	P
	Copper	ug/kg	173000	184000		106	81–118	P
	Iron	ug/kg	17900000	22000000		123	51–149	P
	Lead	ug/kg	85700	86200		101	79–121	P
	Magnesium	ug/kg	3980000	4080000		102	79–122	P
	Manganese	ug/kg	556000	551000		99.2	81–119	P
	Potassium	ug/kg	4280000	4500000		105	74–127	P
	Silver	ug/kg	30000	31300		104	66–134	P
	Sodium	ug/kg	1020000	982000		96.7	74–127	P
	Vanadium	ug/kg	115000	129000		113	79–121	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2319

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202068120								
	Arsenic	ug/kg	104000	102000		97.7	78–123	MS
	Beryllium	ug/kg	77600	74600		96.1	84–116	MS
	Nickel	ug/kg	134000	138000		103	78–123	MS
	Selenium	ug/kg	286000	285000		99.8	77–123	MS
	Thallium	ug/kg	121000	116000		95.7	78–122	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2319

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202078438								
	Mercury	ug/kg	5150	5520		107	71.6–128.3	AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2319

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202089226								
	Zinc	ug/kg	594000	543000		91.4	80-121	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2319 **Client ID** RE46-10-11885L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248866001 **Serial Dilution ID:** 1202068111

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	33300		33100		.601		10	P
Antimony	3.3	U	16.5	U				P
Barium	226		222		1.77		10	P
Cadmium	1	U	5	U				P
Calcium	6450		6350		1.55		10	P
Chromium	24.9		24.6	J	1.2			P
Cobalt	10.9		11.6	J	5.96			P
Copper	19.1		15	U	100			P
Iron	81400		80000		1.72		10	P
Lead	107		104		2.8			P
Magnesium	5810		5800		.172		10	P
Manganese	3030		3020		.495		10	P
Potassium	4120		4190		1.58		10	P
Silver	1	U	5	U				P
Sodium	1060		1020	J	4.25			P
Vanadium	59.9		56		6.51		10	P
Zinc	183		180		1.64		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2319 **Client ID** RE46–10–11885L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248866001 **Serial Dilution ID:** 1202068117

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	6.62		7.2	J	8.76			MS
Beryllium	1.64		1.66	J	1.22			MS
Nickel	8.75		8.65	J	1.14			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.338	J	1.5	U	100			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2319 **Client ID** RE46-10-12931L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 248867001 **Serial Dilution ID:** 1202078441

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	3.6		3.44		4.44		10	AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2319 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 964015							
1202068109	MB for batch 964015	MB	S	02-APR-10	.518g	50mL	
1202068114	LCS for batch 964015	LCS	S	02-APR-10	.505g	50mL	
1202068112	RE46-10-11885S	MS	S	02-APR-10	.501g	50mL	
1202068113	RE46-10-11885SD	MSD	S	02-APR-10	.505g	50mL	
1202068110	RE46-10-11885D	DUP	S	02-APR-10	.501g	50mL	
248866001	RE46-10-11885	SAMPLE	S	02-APR-10	.508g	50mL	
248866002	RE46-10-11886	SAMPLE	S	02-APR-10	.52g	50mL	
Batch Number 972602							
1202089225	MB for batch 972602	MB	S	07-APR-10	.51g	50mL	
1202089226	LCS for batch 972602	LCS	S	07-APR-10	.521g	50mL	
1202068112	RE46-10-11885S	MS	S	07-APR-10	.508g	50mL	
1202068113	RE46-10-11885SD	MSD	S	07-APR-10	.515g	50mL	
1202068110	RE46-10-11885D	DUP	S	07-APR-10	.521g	50mL	
248866001	RE46-10-11885	SAMPLE	S	07-APR-10	.5g	50mL	
248866002	RE46-10-11886	SAMPLE	S	07-APR-10	.503g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2319 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	964017						
1202068115	MB for batch 964017	MB	S	13-MAR-10	.5g	50mL	
1202068120	LCS for batch 964017	LCS	S	13-MAR-10	.503g	50mL	
1202068118	RE46-10-11885S	MS	S	13-MAR-10	.506g	50mL	
1202068119	RE46-10-11885SD	MSD	S	13-MAR-10	.514g	50mL	
1202068116	RE46-10-11885D	DUP	S	13-MAR-10	.508g	50mL	
248866001	RE46-10-11885	SAMPLE	S	13-MAR-10	.506g	50mL	
248866002	RE46-10-11886	SAMPLE	S	13-MAR-10	.504g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2319 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 968184							
1202078437	MB for batch 968184	MB	S	23-MAR-10	.583g	30mL	
1202078438	LCS for batch 968184	LCS	S	23-MAR-10	.203g	30mL	
1202078440	RE46-10-12931S	MS	S	23-MAR-10	.578g	30mL	
1202078442	RE46-10-12931SD	MSD	S	23-MAR-10	.537g	30mL	
1202078439	RE46-10-12931D	DUP	S	23-MAR-10	.539g	30mL	
248866001	RE46-10-11885	SAMPLE	S	23-MAR-10	.522g	30mL	
248866002	RE46-10-11886	SAMPLE	S	23-MAR-10	.555g	30mL	

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 06–MAY–10 **End Date:** 06–MAY–10

Client Sdg: 10–2319
Method MS
Data File: 100505–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	03:35:00			X		X											X		X			X		
S10	1	03:39:00			X		X											X		X			X		
S100	1	03:44:00			X		X											X		X			X		
ICV01	1	03:48:00			X		X											X		X			X		
ICB01	1	03:52:00			X		X											X		X			X		
CRDL01	1	03:57:00			X		X											X		X			X		
ICSA01	1	04:01:00			X		X											X		X			X		
ICSAB01	1	04:06:00			X		X											X		X			X		
CCV01	1	04:10:00			X		X											X		X			X		
CCB01	1	04:14:00			X		X											X		X			X		
1202068115	2	04:19:00			X		X											X		X			X		
1202068120	40	04:23:00			X		X											X		X			X		
248866001	2	04:27:00			X		X											X		X			X		
1202068116	2	04:32:00			X		X											X		X			X		
1202068118	2	04:36:00			X		X											X		X			X		
1202068119	2	04:40:00			X		X											X		X			X		
1202068117	10	04:45:00			X		X											X		X			X		
CCV02	1	04:49:00			X		X											X		X			X		
CCB02	1	04:54:00			X		X											X		X			X		
248866002	2	04:58:00			X		X											X		X			X		
ZZZZZZ	2	05:02:00																							
ZZZZZZ	2	05:07:00																							
ZZZZZZ	2	05:11:00																							
ZZZZZZ	2	05:15:00																							
CCV03	1	05:20:00			X		X											X		X			X		
CCB03	1	05:24:00			X		X											X		X			X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 24–MAR–10 **End Date:** 24–MAR–10

Client Sdg: 10–2319
Method AV
Data File: 032410S1–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	09:26:00															X								
S0.2	1	09:27:00															X								
S0.5	1	09:29:00															X								
S2.0	1	09:31:00															X								
S5.0	1	09:32:00															X								
S10.0	1	09:34:00															X								
ICV01	1	09:36:00															X								
ICB01	1	09:37:00															X								
CRDL01	1	09:39:00															X								
CCV01	1	09:41:00															X								
CCB01	1	09:42:00															X								
ZZZZZZ	1	09:44:00																							
ZZZZZZ	10	09:46:00																							
ZZZZZZ	1	09:47:00																							
ZZZZZZ	1	09:49:00																							
ZZZZZZ	1	09:51:00																							
ZZZZZZ	1	09:52:00																							
ZZZZZZ	5	09:54:00																							
ZZZZZZ	1	09:56:00																							
ZZZZZZ	1	09:57:00																							
ZZZZZZ	1	09:59:00																							
CCV02	1	10:01:00															X								
CCB02	1	10:02:00															X								
ZZZZZZ	1	10:04:00																							
ZZZZZZ	1	10:06:00																							
ZZZZZZ	1	10:07:00																							
ZZZZZZ	1	10:09:00																							
ZZZZZZ	1	10:11:00																							
ZZZZZZ	1	10:12:00																							
ZZZZZZ	1	10:14:00																							
ZZZZZZ	1	10:16:00																							
ZZZZZZ	1	10:17:00																							
ZZZZZZ	10	10:19:00																							
CCV03	1	10:21:00															X								
CCB03	1	10:22:00															X								
ZZZZZZ	1	10:24:00																							
ZZZZZZ	1	10:26:00																							
ZZZZZZ	1	10:27:00																							
ZZZZZZ	1	10:29:00																							
ZZZZZZ	1	10:31:00																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	10:32:00																							
ZZZZZZ	1	10:34:00																							
ZZZZZZ	1	10:36:00																							
ZZZZZZ	5	10:37:00																							
ZZZZZZ	1	10:39:00																							
CCV04	1	10:41:00														X									
CCB04	1	10:42:00														X									
ZZZZZZ	1	10:44:00																							
ZZZZZZ	1	10:46:00																							
ZZZZZZ	1	10:47:00																							
1202078437	1	10:49:00														X									
1202078438	10	10:51:00														X									
ZZZZZZ	1	10:52:00																							
ZZZZZZ	1	10:54:00																							
ZZZZZZ	1	10:56:00																							
ZZZZZZ	1	10:58:00																							
ZZZZZZ	1	10:59:00																							
CCV05	1	11:01:00														X									
CCB05	1	11:03:00														X									
ZZZZZZ	1	11:04:00																							
ZZZZZZ	1	11:06:00																							
ZZZZZZ	1	11:08:00																							
ZZZZZZ	1	11:09:00																							
ZZZZZZ	1	11:11:00																							
ZZZZZZ	1	11:13:00																							
ZZZZZZ	1	11:14:00																							
ZZZZZZ	1	11:16:00																							
248866001	1	11:18:00														X									
248866002	1	11:19:00														X									
CCV06	1	11:21:00														X									
CCB06	1	11:23:00														X									
ZZZZZZ	1	11:24:00																							
1202078439	1	11:26:00														X									
1202078440	1	11:28:00														X									
1202078442	1	11:29:00														X									
1202078441	5	11:31:00														X									
ZZZZZZ	1	11:33:00																							
ZZZZZZ	1	11:34:00																							
ZZZZZZ	1	11:36:00																							
ZZZZZZ	1	11:38:00																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	11:39:00																							
CCV07	1	11:41:00															X								
CCB07	1	11:43:00															X								

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 05–APR–10 **End Date:** 05–APR–10

Client Sdg: 10–2319
Method P
Data File: 040510–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	10:13:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
S0.1	1	10:16:46		X		X		X		X	X	X		X		X			X		X			X	
S0.5	1	10:18:43	X	X		X		X	X	X	X	X		X	X	X			X		X			X	
SCAL	1	10:20:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
S10	1	10:22:45	X						X				X		X							X			
ICV01	1	10:23:35	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
ICB01	1	10:25:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
PQL01	1	10:28:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
ICSA01	1	10:30:46	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
ICSAB01	1	10:32:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
LR01	1	10:33:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
LR02	1	10:34:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCV01	1	10:36:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCB01	1	10:38:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCV02	1	10:49:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCB02	1	10:51:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
ZZZZZZ	1	10:59:53																							
ZZZZZZ	1	11:02:52																							
ZZZZZZ	1	11:04:51																							
ZZZZZZ	1	11:06:48																							
ZZZZZZ	1	11:09:00																							
ZZZZZZ	5	11:11:00																							
ZZZZZZ	1	11:14:06																							
ZZZZZZ	1	11:16:04																							
ZZZZZZ	1	11:18:02																							
ZZZZZZ	1	11:20:17																							
CCV03	1	11:21:36	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCB03	1	11:23:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
ZZZZZZ	50	11:26:32																							
CCV04	1	11:29:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCB04	1	11:31:43	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
ZZZZZZ	1	11:39:33																							
ZZZZZZ	1	11:42:30																							
ZZZZZZ	1	11:43:52																							
ZZZZZZ	1	11:45:56																							
ZZZZZZ	1	11:48:00																							
ZZZZZZ	1	11:49:08																							
ZZZZZZ	5	11:50:20																							
CCV05	1	11:52:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCB05	1	11:54:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	11:57:21																							
ZZZZZZ	1	11:59:22																							
ZZZZZZ	1	12:01:21																							
ZZZZZZ	1	12:03:34																							
ZZZZZZ	1	12:05:52																							
ZZZZZZ	1	12:08:09																							
ZZZZZZ	1	12:10:08																							
ZZZZZZ	1	12:12:12																							
ZZZZZZ	1	12:14:30																							
CCV06	1	12:16:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCB06	1	12:18:49	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
ZZZZZZ	1	12:21:45																							
ZZZZZZ	1	12:23:45																							
ZZZZZZ	1	12:26:05																							
ZZZZZZ	1	12:28:05																							
ZZZZZZ	1	12:30:03																							
ZZZZZZ	1	12:32:23																							
ZZZZZZ	1	12:34:21																							
ZZZZZZ	1	12:36:40																							
ZZZZZZ	1	12:38:52																							
CCV07	1	12:41:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCB07	1	12:43:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
1202068109	1	12:47:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
1202068114	1	12:50:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
248866001	1	12:52:06	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
1202068110	1	12:54:12	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
1202068112	1	12:56:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
1202068113	1	12:58:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
1202068111	5	13:00:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCV08	1	13:02:50	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCB08	1	13:04:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
248866002	1	13:08:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
ZZZZZZ	1	13:10:18																							
ZZZZZZ	1	13:12:31																							
ZZZZZZ	1	13:14:44																							
ZZZZZZ	1	13:16:57																							
CCV09	1	13:19:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	
CCB09	1	13:21:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 07–APR–10 **End Date:** 07–APR–10

Client Sdg: 10–2319
Method P
Data File: 040710–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	12:46:56																							X
S0.1	1	12:50:07																							X
S0.5	1	12:52:18																							X
SCAL	1	12:54:31																							X
S10	1	12:56:50																							
ICV01	1	12:57:40																							X
ICB01	1	12:59:39																							X
PQL01	1	13:02:34																							X
ICSA01	1	13:04:50																							X
ICSAB01	1	13:07:04																							X
LR01	1	13:08:24																							X
LR02	1	13:09:29																							X
ZZZZZZ	1	13:11:10																							
ZZZZZZ	1	13:13:11																							
CCV01	1	13:19:38																							X
CCB01	1	13:21:38																							X
ZZZZZZ	1	13:33:56																							
ZZZZZZ	1	13:37:08																							
ZZZZZZ	1	13:38:17																							
ZZZZZZ	1	13:40:15																							
ZZZZZZ	1	13:42:27																							
ZZZZZZ	1	13:43:32																							
ZZZZZZ	5	13:44:52																							
ZZZZZZ	5	13:47:09																							
CCV02	1	13:49:11																							X
CCB02	1	13:51:12																							X
1202089225	1	13:58:24																							X
1202089226	1	14:01:36																							X
248866001	1	14:02:59																							X
1202068110	1	14:05:12																							X
1202068112	1	14:07:24																							X
1202068113	1	14:08:42																							X
1202068111	5	14:09:47																							X
CCV03	1	14:12:04																							X
CCB03	1	14:14:06																							X
248866002	1	14:17:17																							X
ZZZZZZ	1	14:19:17																							
ZZZZZZ	1	14:21:29																							
ZZZZZZ	1	14:23:28																							
ZZZZZZ	1	14:25:41																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
CCV04	1	14:27:53																						X
CCB04	1	14:29:54																						X

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2319

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2319

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2319

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2319
Contract: LANL01004
Instrument: OPTIMA4
Effective Dates: 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-2319
Contract: LANL01004
Instrument: OPTIMA4 **Effective Dates:** 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2319
Contract: LANL01004
Instrument: OPTIMA4
Effective Dates: 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2319
Effective Dates: 22-MAR-10

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2319
Effective Dates: 22-MAR-10

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-2319
Contract: LANL01004
Instrument: OPTIMA4
Effective Dates: 22-MAR-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–2319

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2319

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10

Raw Data

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Analysis Begun

Start Time: 4/5/2010 10:13:47 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 4/5/2010 10:13:47**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	141345.5	141345.5	101	%	10:14:20
1	Al 396.153Radial†	-71.7	-71.1	[0.00]	µg/L	10:14:40
1	Ca 317.933Radial†	562.0	557.0	[0.00]	µg/L	10:14:40
1	Fe 238.204 Radial†	133.2	132.1	[0.00]	µg/L	10:14:40
1	K 766.490 Radial†	1511.3	1497.9	[0.00]	µg/L	10:14:20
1	Mg 279.077 IEC†	180.5	178.9	[0.00]	µg/L	10:14:40
1	Na 589.592 Radial†	981.7	973.0	[0.00]	µg/L	10:14:20
1	Sr 421.552†	-166.0	-164.6	[0.00]	µg/L	10:14:20
1	Sc 361.383	1809917.0	1809917.0	100.32	%	10:15:28
1	Y 371.029	1061056.9	1061056.9	100.36	%	10:15:28
1	Ag 328.068†	4631.5	4616.7	[0.00]	µg/L	10:15:30
1	As 188.979†	-28.2	-28.1	[0.00]	µg/L	10:15:50
1	B 249.677†	4081.8	4068.8	[0.00]	µg/L	10:15:30
1	Ba 233.527†	-140.2	-139.8	[0.00]	µg/L	10:15:50
1	Be 313.107†	-1250.1	-1246.2	[0.00]	µg/L	10:15:30
1	Cd 226.502†	-99.6	-99.3	[0.00]	µg/L	10:15:50
1	Co 228.616†	-189.2	-188.6	[0.00]	µg/L	10:15:50
1	Cr 267.716†	232.1	231.3	[0.00]	µg/L	10:15:50
1	Cu 324.752†	3023.5	3013.9	[0.00]	µg/L	10:15:30
1	Mn 257.610†	175.2	174.7	[0.00]	µg/L	10:15:50
1	Mo 202.031†	-46.7	-46.6	[0.00]	µg/L	10:15:50
1	Ni 231.604†	-85.5	-85.2	[0.00]	µg/L	10:15:50
1	P 214.914†	-41.4	-41.3	[0.00]	µg/L	10:15:50
1	Pb 220.353†	103.1	102.8	[0.00]	µg/L	10:15:50
1	S 181.975 Axial†	82.1	81.8	[0.00]	µg/L	10:15:50
1	Sb 206.836†	104.3	104.0	[0.00]	µg/L	10:15:50
1	Se 196.026†	2.3	2.3	[0.00]	µg/L	10:15:50
1	SiO2†	1729.4	1723.9	[0.00]	µg/L	10:15:50
1	Si 251.611†	902.0	899.1	[0.00]	µg/L	10:15:30
1	Sn 189.927†	-6.6	-6.6	[0.00]	µg/L	10:15:50
1	Ti 334.940†	626.5	624.5	[0.00]	µg/L	10:15:30
1	Tl 190.801†	-120.7	-120.3	[0.00]	µg/L	10:15:50
1	U 409.014†	-208.2	-207.6	[0.00]	µg/L	10:15:30
1	V 292.402†	491.5	490.0	[0.00]	µg/L	10:15:30
1	Zn 213.857†	493.7	492.1	[0.00]	µg/L	10:15:50
2	Sc RADIAL	138787.4	138787.4	99.1	%	10:14:42
2	Al 396.153Radial†	-93.8	-94.7	[0.00]	µg/L	10:15:02
2	Ca 317.933Radial†	579.9	585.4	[0.00]	µg/L	10:15:02
2	Fe 238.204 Radial†	118.7	119.8	[0.00]	µg/L	10:15:02
2	K 766.490 Radial†	1516.0	1530.3	[0.00]	µg/L	10:14:42
2	Mg 279.077 IEC†	160.6	162.1	[0.00]	µg/L	10:15:02
2	Na 589.592 Radial†	883.5	891.9	[0.00]	µg/L	10:14:42
2	Sr 421.552†	-276.7	-279.3	[0.00]	µg/L	10:14:42
2	Sc 361.383	1802726.4	1802726.4	99.921	%	10:15:52
2	Y 371.029	1056514.6	1056514.6	99.926	%	10:15:52
2	Ag 328.068†	4445.4	4448.9	[0.00]	µg/L	10:15:54
2	As 188.979†	-17.6	-17.6	[0.00]	µg/L	10:16:14

2	B 249.677†	4098.2	4101.4	[0.00]	µg/L	10:15:54
2	Ba 233.527†	-137.4	-137.5	[0.00]	µg/L	10:16:14
2	Be 313.107†	-919.9	-920.6	[0.00]	µg/L	10:15:54
2	Cd 226.502†	-97.2	-97.3	[0.00]	µg/L	10:16:14
2	Co 228.616†	-212.6	-212.8	[0.00]	µg/L	10:16:14
2	Cr 267.716†	221.8	222.0	[0.00]	µg/L	10:16:14
2	Cu 324.752†	3087.1	3089.6	[0.00]	µg/L	10:15:54
2	Mn 257.610†	185.6	185.7	[0.00]	µg/L	10:16:14
2	Mo 202.031†	-31.7	-31.7	[0.00]	µg/L	10:16:14
2	Ni 231.604†	-105.8	-105.9	[0.00]	µg/L	10:16:14
2	P 214.914†	-25.3	-25.4	[0.00]	µg/L	10:16:14
2	Pb 220.353†	104.3	104.3	[0.00]	µg/L	10:16:14
2	S 181.975 Axial†	94.0	94.1	[0.00]	µg/L	10:16:14
2	Sb 206.836†	82.5	82.6	[0.00]	µg/L	10:16:14
2	Se 196.026†	-0.8	-0.8	[0.00]	µg/L	10:16:14
2	SiO2†	1742.2	1743.6	[0.00]	µg/L	10:16:14
2	Si 251.611†	730.3	730.9	[0.00]	µg/L	10:15:54
2	Sn 189.927†	-6.8	-6.8	[0.00]	µg/L	10:16:14
2	Ti 334.940†	782.7	783.4	[0.00]	µg/L	10:15:54
2	Tl 190.801†	-114.4	-114.5	[0.00]	µg/L	10:16:14
2	U 409.014†	-209.5	-209.7	[0.00]	µg/L	10:15:54
2	V 292.402†	334.7	335.0	[0.00]	µg/L	10:15:54
2	Zn 213.857†	495.4	495.8	[0.00]	µg/L	10:16:14
3	Sc RADIAL	140146.0	140146.0	100	%	10:15:04
3	Al 396.153Radial†	-69.9	-69.8	[0.00]	µg/L	10:15:24
3	Ca 317.933Radial†	572.2	572.0	[0.00]	µg/L	10:15:24
3	Fe 238.204 Radial†	100.1	100.0	[0.00]	µg/L	10:15:24
3	K 766.490 Radial†	1453.7	1453.2	[0.00]	µg/L	10:15:04
3	Mg 279.077 IEC†	176.4	176.3	[0.00]	µg/L	10:15:24
3	Na 589.592 Radial†	993.1	992.7	[0.00]	µg/L	10:15:04
3	Sr 421.552†	-169.7	-169.6	[0.00]	µg/L	10:15:04
3	Sc 361.383	1799815.0	1799815.0	99.760	%	10:16:16
3	Y 371.029	1054320.2	1054320.2	99.718	%	10:16:16
3	Ag 328.068†	4618.7	4629.8	[0.00]	µg/L	10:16:19
3	As 188.979†	-10.0	-10.0	[0.00]	µg/L	10:16:39
3	B 249.677†	4015.5	4025.2	[0.00]	µg/L	10:16:19
3	Ba 233.527†	-155.9	-156.3	[0.00]	µg/L	10:16:39
3	Be 313.107†	-1105.7	-1108.4	[0.00]	µg/L	10:16:19
3	Cd 226.502†	-113.2	-113.5	[0.00]	µg/L	10:16:39
3	Co 228.616†	-229.0	-229.5	[0.00]	µg/L	10:16:39
3	Cr 267.716†	245.8	246.4	[0.00]	µg/L	10:16:39
3	Cu 324.752†	2997.6	3004.8	[0.00]	µg/L	10:16:19
3	Mn 257.610†	193.3	193.8	[0.00]	µg/L	10:16:39
3	Mo 202.031†	-37.4	-37.5	[0.00]	µg/L	10:16:39
3	Ni 231.604†	-96.4	-96.6	[0.00]	µg/L	10:16:39
3	P 214.914†	-10.4	-10.4	[0.00]	µg/L	10:16:39
3	Pb 220.353†	103.0	103.3	[0.00]	µg/L	10:16:39
3	S 181.975 Axial†	90.6	90.9	[0.00]	µg/L	10:16:39
3	Sb 206.836†	82.4	82.6	[0.00]	µg/L	10:16:39
3	Se 196.026†	16.9	16.9	[0.00]	µg/L	10:16:39
3	SiO2†	1745.6	1749.8	[0.00]	µg/L	10:16:39
3	Si 251.611†	669.5	671.1	[0.00]	µg/L	10:16:19
3	Sn 189.927†	19.0	19.1	[0.00]	µg/L	10:16:39
3	Ti 334.940†	1058.6	1061.1	[0.00]	µg/L	10:16:19
3	Tl 190.801†	-107.8	-108.0	[0.00]	µg/L	10:16:39
3	U 409.014†	-72.6	-72.8	[0.00]	µg/L	10:16:19
3	V 292.402†	443.7	444.7	[0.00]	µg/L	10:16:19
3	Zn 213.857†	519.8	521.1	[0.00]	µg/L	10:16:39

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1804152.8	5199.83	0.29%	100.00	%
Sc RADIAL	140093.0	1279.85	0.91%	100.0	%
Y 371.029	1057297.2	3435.88	0.32%	100.00	%
Ag 328.068†	4565.2	100.87	2.21%	[0.00]	µg/L
Al 396.153Radial†	-78.5	14.00	17.83%	[0.00]	µg/L
As 188.979†	-18.6	9.07	48.89%	[0.00]	µg/L
B 249.677†	4065.1	38.25	0.94%	[0.00]	µg/L
Ba 233.527†	-144.5	10.26	7.10%	[0.00]	µg/L

Be 313.107†	-1091.7	163.40	14.97%	[0.00]	µg/L
Ca 317.933Radial†	571.4	14.18	2.48%	[0.00]	µg/L
Cd 226.502†	-103.4	8.84	8.55%	[0.00]	µg/L
Co 228.616†	-210.3	20.61	9.80%	[0.00]	µg/L
Cr 267.716†	233.2	12.30	5.28%	[0.00]	µg/L
Cu 324.752†	3036.1	46.52	1.53%	[0.00]	µg/L
Fe 238.204 Radial†	117.3	16.16	13.77%	[0.00]	µg/L
K 766.490 Radial†	1493.8	38.73	2.59%	[0.00]	µg/L
Mg 279.077 IEC†	172.5	9.01	5.22%	[0.00]	µg/L
Mn 257.610†	184.7	9.58	5.18%	[0.00]	µg/L
Mo 202.031†	-38.6	7.49	19.42%	[0.00]	µg/L
Na 589.592 Radial†	952.5	53.45	5.61%	[0.00]	µg/L
Ni 231.604†	-95.9	10.38	10.83%	[0.00]	µg/L
P 214.914†	-25.7	15.43	60.06%	[0.00]	µg/L
Pb 220.353†	103.5	0.81	0.78%	[0.00]	µg/L
S 181.975 Axial†	88.9	6.36	7.15%	[0.00]	µg/L
Sb 206.836†	89.7	12.37	13.78%	[0.00]	µg/L
Se 196.026†	6.2	9.46	153.73%	[0.00]	µg/L
SiO2†	1739.1	13.54	0.78%	[0.00]	µg/L
Si 251.611†	767.0	118.25	15.42%	[0.00]	µg/L
Sn 189.927†	1.9	14.90	789.79%	[0.00]	µg/L
Sr 421.552†	-204.5	64.82	31.70%	[0.00]	µg/L
Ti 334.940†	823.0	220.99	26.85%	[0.00]	µg/L
Tl 190.801†	-114.3	6.14	5.38%	[0.00]	µg/L
U 409.014†	-163.4	78.42	48.00%	[0.00]	µg/L
V 292.402†	423.2	79.68	18.83%	[0.00]	µg/L
Zn 213.857†	503.0	15.77	3.14%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 4/5/2010 10:16:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	139125.6	139125.6	99.3	%	10:17:17
1	K 766.490 Radial†	4201.0	2736.4	[1000]	µg/L	10:17:17
1	Sr 421.552†	43301.9	43807.5	[100]	µg/L	10:17:17
1	Sc 361.383	1787922.4	1787922.4	99.100	%	10:17:25
1	Y 371.029	1045378.7	1045378.7	98.873	%	10:17:25
1	Ag 328.068†	29278.8	24979.4	[100]	µg/L	10:17:27
1	As 188.979†	269.9	290.9	[100]	µg/L	10:17:47
1	B 249.677†	10470.2	6500.1	[100]	µg/L	10:17:27
1	Ba 233.527†	22677.6	23028.0	[100]	µg/L	10:17:27
1	Be 313.107†	339780.2	343956.4	[100]	µg/L	10:17:25
1	Cd 226.502†	14950.1	15189.2	[100]	µg/L	10:17:27
1	Co 228.616†	7586.0	7865.2	[100]	µg/L	10:17:47
1	Cr 267.716†	11980.0	11855.6	[100]	µg/L	10:17:27
1	Cu 324.752†	27030.3	24239.6	[100]	µg/L	10:17:27
1	Mn 257.610†	77870.5	78392.6	[100]	µg/L	10:17:27
1	Mo 202.031†	3044.8	3111.0	[100]	µg/L	10:17:47
1	Ni 231.604†	8145.6	8315.5	[100]	µg/L	10:17:27
1	P 214.914†	2132.7	2177.8	[500]	µg/L	10:17:47
1	Pb 220.353†	1754.2	1666.6	[100]	µg/L	10:17:47
1	S 181.975 Axial†	320.2	234.2	[200]	µg/L	10:17:47
1	Sb 206.836†	856.2	774.3	[100]	µg/L	10:17:47
1	Se 196.026†	271.1	267.4	[100]	µg/L	10:17:47
1	SiO2†	11802.6	10170.7	[1069.5]	µg/L	10:17:27
1	Si 251.611†	32208.0	31733.4	[500]	µg/L	10:17:27
1	Sn 189.927†	1460.8	1472.2	[100]	µg/L	10:17:47
1	Ti 334.940†	97532.1	97594.5	[100]	µg/L	10:17:27
1	Tl 190.801†	651.1	771.2	[100]	µg/L	10:17:47
1	U 409.014†	1450.2	1626.7	[100]	µg/L	10:17:27
1	V 292.402†	19578.5	19333.0	[100]	µg/L	10:17:27
1	Zn 213.857†	17573.4	17230.0	[100]	µg/L	10:17:27
2	Sc RADIAL	139393.7	139393.7	99.5	%	10:17:19
2	K 766.490 Radial†	4071.1	2597.8	[1000]	µg/L	10:17:19
2	Sr 421.552†	43490.4	43913.0	[100]	µg/L	10:17:19
2	Sc 361.383	1810051.8	1810051.8	100.33	%	10:17:49
2	Y 371.029	1057261.6	1057261.6	99.997	%	10:17:49
2	Ag 328.068†	29153.6	24493.4	[100]	µg/L	10:17:51
2	As 188.979†	282.4	300.0	[100]	µg/L	10:18:11
2	B 249.677†	10334.4	6235.5	[100]	µg/L	10:17:51
2	Ba 233.527†	22670.7	22741.4	[100]	µg/L	10:17:51
2	Be 313.107†	345851.8	345816.4	[100]	µg/L	10:17:49
2	Cd 226.502†	14777.3	14832.5	[100]	µg/L	10:17:51
2	Co 228.616†	7580.5	7766.1	[100]	µg/L	10:18:11
2	Cr 267.716†	11835.9	11564.1	[100]	µg/L	10:17:51
2	Cu 324.752†	26968.9	23844.9	[100]	µg/L	10:17:51
2	Mn 257.610†	77589.5	77151.9	[100]	µg/L	10:17:51
2	Mo 202.031†	3039.5	3068.1	[100]	µg/L	10:18:11
2	Ni 231.604†	8167.1	8236.4	[100]	µg/L	10:17:51
2	P 214.914†	2136.5	2155.2	[500]	µg/L	10:18:11
2	Pb 220.353†	1760.7	1651.5	[100]	µg/L	10:18:11
2	S 181.975 Axial†	328.5	238.5	[200]	µg/L	10:18:11
2	Sb 206.836†	849.0	756.5	[100]	µg/L	10:18:11
2	Se 196.026†	270.8	263.7	[100]	µg/L	10:18:11
2	SiO2†	11845.9	10068.2	[1069.5]	µg/L	10:17:51
2	Si 251.611†	32133.9	31262.1	[500]	µg/L	10:17:51
2	Sn 189.927†	1448.7	1442.0	[100]	µg/L	10:18:11
2	Ti 334.940†	97204.0	96064.2	[100]	µg/L	10:17:51
2	Tl 190.801†	624.5	736.7	[100]	µg/L	10:18:11
2	U 409.014†	1369.3	1528.2	[100]	µg/L	10:17:51
2	V 292.402†	19503.3	19016.5	[100]	µg/L	10:17:51

2	Zn 213.857†	17334.5	16775.0	[100]	µg/L	10:17:51
3	Sc RADIAL	139506.2	139506.2	99.6	%	10:17:21
3	K 766.490 Radial†	4050.2	2573.4	[1000]	µg/L	10:17:21
3	Sr 421.552†	43526.0	43913.6	[100]	µg/L	10:17:21
3	Sc 361.383	1784413.8	1784413.8	98.906	%	10:18:13
3	Y 371.029	1042010.1	1042010.1	98.554	%	10:18:13
3	Ag 328.068†	29725.5	25489.2	[100]	µg/L	10:18:15
3	As 188.979†	279.2	300.8	[100]	µg/L	10:18:35
3	B 249.677†	10468.9	6519.6	[100]	µg/L	10:18:15
3	Ba 233.527†	23077.9	23477.7	[100]	µg/L	10:18:15
3	Be 313.107†	340163.6	345018.2	[100]	µg/L	10:18:13
3	Cd 226.502†	15190.7	15462.1	[100]	µg/L	10:18:15
3	Co 228.616†	7560.7	7854.6	[100]	µg/L	10:18:35
3	Cr 267.716†	12082.6	11983.0	[100]	µg/L	10:18:15
3	Cu 324.752†	27791.7	25063.0	[100]	µg/L	10:18:15
3	Mn 257.610†	79356.0	80049.1	[100]	µg/L	10:18:15
3	Mo 202.031†	3030.9	3103.0	[100]	µg/L	10:18:35
3	Ni 231.604†	8277.7	8465.2	[100]	µg/L	10:18:15
3	P 214.914†	2104.3	2153.2	[500]	µg/L	10:18:35
3	Pb 220.353†	1742.8	1658.6	[100]	µg/L	10:18:35
3	S 181.975 Axial†	334.2	248.9	[200]	µg/L	10:18:35
3	Sb 206.836†	850.6	770.3	[100]	µg/L	10:18:35
3	Se 196.026†	268.2	265.0	[100]	µg/L	10:18:35
3	SiO2†	12111.5	10506.4	[1069.5]	µg/L	10:18:15
3	Si 251.611†	32912.6	32509.7	[500]	µg/L	10:18:15
3	Sn 189.927†	1471.6	1486.0	[100]	µg/L	10:18:35
3	Ti 334.940†	99214.9	99489.4	[100]	µg/L	10:18:15
3	Tl 190.801†	647.7	769.1	[100]	µg/L	10:18:35
3	U 409.014†	1258.3	1435.6	[100]	µg/L	10:18:15
3	V 292.402†	19749.3	19544.6	[100]	µg/L	10:18:15
3	Zn 213.857†	17875.8	17570.6	[100]	µg/L	10:18:15

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1794129.3	13900.45	0.77%	99.444	%
Sc RADIAL	139341.9	195.52	0.14%	99.5	%
Y 371.029	1048216.8	8012.07	0.76%	99.141	%
Ag 328.068†	24987.3	497.93	1.99%	[100]	µg/L
As 188.979†	297.3	5.50	1.85%	[100]	µg/L
B 249.677†	6418.4	158.67	2.47%	[100]	µg/L
Ba 233.527†	23082.4	371.18	1.61%	[100]	µg/L
Be 313.107†	344930.4	933.09	0.27%	[100]	µg/L
Cd 226.502†	15161.2	315.73	2.08%	[100]	µg/L
Co 228.616†	7828.6	54.43	0.70%	[100]	µg/L
Cr 267.716†	11800.9	214.74	1.82%	[100]	µg/L
Cu 324.752†	24382.5	621.49	2.55%	[100]	µg/L
K 766.490 Radial†	2635.9	87.91	3.34%	[1000]	µg/L
Mn 257.610†	78531.2	1453.57	1.85%	[100]	µg/L
Mo 202.031†	3094.1	22.79	0.74%	[100]	µg/L
Ni 231.604†	8339.0	116.20	1.39%	[100]	µg/L
P 214.914†	2162.1	13.62	0.63%	[500]	µg/L
Pb 220.353†	1658.9	7.56	0.46%	[100]	µg/L
S 181.975 Axial†	240.6	7.56	3.14%	[200]	µg/L
Sb 206.836†	767.0	9.36	1.22%	[100]	µg/L
Se 196.026†	265.4	1.87	0.71%	[100]	µg/L
SiO2†	10248.4	229.21	2.24%	[1069.5]	µg/L
Si 251.611†	31835.1	629.94	1.98%	[500]	µg/L
Sn 189.927†	1466.7	22.48	1.53%	[100]	µg/L
Sr 421.552†	43878.0	61.08	0.14%	[100]	µg/L
Ti 334.940†	97716.0	1715.86	1.76%	[100]	µg/L
Tl 190.801†	759.0	19.35	2.55%	[100]	µg/L
U 409.014†	1530.2	95.58	6.25%	[100]	µg/L
V 292.402†	19298.0	265.76	1.38%	[100]	µg/L
Zn 213.857†	17191.8	399.18	2.32%	[100]	µg/L

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Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 4/5/2010 10:18:43**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	140889.5	140889.5	101	%	10:19:14
1	Al 396.153Radial†	24220.4	24162.1	[5000]	µg/L	10:19:14
1	Ca 317.933Radial†	76005.1	75004.0	[5000]	µg/L	10:19:14
1	K 766.490 Radial†	14239.3	12665.0	[5000]	µg/L	10:19:14
1	Mg 279.077 IEC†	11509.4	11271.9	[5000]	µg/L	10:19:14
1	Sr 421.552†	210637.5	209651.1	[500]	µg/L	10:19:12
1	Sc 361.383	1784374.4	1784374.4	98.904	%	10:19:27
1	Y 371.029	1033889.2	1033889.2	97.786	%	10:19:27
1	Ag 328.068†	125108.2	121929.8	[500]	µg/L	10:19:27
1	As 188.979†	1453.4	1488.1	[500]	µg/L	10:19:47
1	B 249.677†	35710.1	32040.8	[500]	µg/L	10:19:27
1	Ba 233.527†	112243.1	113631.8	[500]	µg/L	10:19:27
1	Be 313.107†	1716024.7	1736137.2	[500]	µg/L	10:19:27
1	Cd 226.502†	74131.2	75056.2	[500]	µg/L	10:19:27
1	Co 228.616†	37990.1	38621.5	[500]	µg/L	10:19:27
1	Cr 267.716†	57961.7	58371.0	[500]	µg/L	10:19:27
1	Cu 324.752†	121855.7	120170.2	[500]	µg/L	10:19:27
1	Mn 257.610†	376432.9	380420.6	[500]	µg/L	10:19:27
1	Mo 202.031†	15177.4	15384.2	[500]	µg/L	10:19:47
1	Ni 231.604†	39962.4	40501.3	[500]	µg/L	10:19:27
1	P 214.914†	10759.6	10904.6	[2500]	µg/L	10:19:47
1	Pb 220.353†	8251.5	8239.5	[500]	µg/L	10:19:47
1	S 181.975 Axial†	1269.7	1194.8	[1000]	µg/L	10:19:47
1	Sb 206.836†	3940.0	3893.9	[500]	µg/L	10:19:47
1	Se 196.026†	1265.4	1273.2	[500]	µg/L	10:19:47
1	SiO2†	51424.7	50255.6	[5347.5]	µg/L	10:19:27
1	Si 251.611†	157621.6	158601.7	[2500]	µg/L	10:19:27
1	Sn 189.927†	7160.0	7237.4	[500]	µg/L	10:19:47
1	Ti 334.940†	483114.1	487646.0	[500]	µg/L	10:19:27
1	Tl 190.801†	3546.4	3700.0	[500]	µg/L	10:19:47
1	U 409.014†	7287.7	7531.8	[500]	µg/L	10:19:27
1	V 292.402†	96138.3	96780.7	[500]	µg/L	10:19:27
1	Zn 213.857†	84347.2	84779.1	[500]	µg/L	10:19:27
2	Sc RADIAL	138468.7	138468.7	98.8	%	10:19:18
2	Al 396.153Radial†	23978.5	24338.3	[5000]	µg/L	10:19:18
2	Ca 317.933Radial†	74778.0	75083.7	[5000]	µg/L	10:19:18
2	K 766.490 Radial†	14166.1	12838.5	[5000]	µg/L	10:19:18
2	Mg 279.077 IEC†	11391.8	11353.0	[5000]	µg/L	10:19:18
2	Sr 421.552†	211261.0	213943.6	[500]	µg/L	10:19:16
2	Sc 361.383	1766889.2	1766889.2	97.935	%	10:19:50
2	Y 371.029	1024585.0	1024585.0	96.906	%	10:19:50
2	Ag 328.068†	123756.3	121801.2	[500]	µg/L	10:19:50
2	As 188.979†	1438.9	1487.8	[500]	µg/L	10:20:10
2	B 249.677†	35488.1	32171.4	[500]	µg/L	10:19:50
2	Ba 233.527†	111071.8	113558.9	[500]	µg/L	10:19:50
2	Be 313.107†	1696070.7	1732932.4	[500]	µg/L	10:19:50
2	Cd 226.502†	73034.6	74678.2	[500]	µg/L	10:19:50
2	Co 228.616†	37302.4	38299.4	[500]	µg/L	10:19:50
2	Cr 267.716†	57219.6	58193.2	[500]	µg/L	10:19:50
2	Cu 324.752†	120326.7	119828.2	[500]	µg/L	10:19:50
2	Mn 257.610†	372256.6	379922.7	[500]	µg/L	10:19:50
2	Mo 202.031†	15119.8	15477.2	[500]	µg/L	10:20:10
2	Ni 231.604†	39549.3	40479.3	[500]	µg/L	10:19:50
2	P 214.914†	10712.4	10964.0	[2500]	µg/L	10:20:10
2	Pb 220.353†	8202.8	8272.3	[500]	µg/L	10:20:10
2	S 181.975 Axial†	1257.6	1195.2	[1000]	µg/L	10:20:10
2	Sb 206.836†	3905.6	3898.3	[500]	µg/L	10:20:10
2	Se 196.026†	1247.8	1267.9	[500]	µg/L	10:20:10
2	SiO2†	50930.2	50265.3	[5347.5]	µg/L	10:19:50

2	Si 251.611†	155571.9	158085.9	[2500]	µg/L	10:19:50
2	Sn 189.927†	7125.7	7274.1	[500]	µg/L	10:20:10
2	Ti 334.940†	478384.9	487651.0	[500]	µg/L	10:19:50
2	Tl 190.801†	3514.3	3702.7	[500]	µg/L	10:20:10
2	U 409.014†	6992.6	7303.4	[500]	µg/L	10:19:50
2	V 292.402†	95133.6	96716.8	[500]	µg/L	10:19:50
2	Zn 213.857†	83229.4	84481.7	[500]	µg/L	10:19:50
3	Sc RADIAL	140766.3	140766.3	100	%	10:19:22
3	Al 396.153Radial†	24151.9	24114.9	[5000]	µg/L	10:19:22
3	Ca 317.933Radial†	75881.7	74947.3	[5000]	µg/L	10:19:22
3	K 766.490 Radial†	14167.2	12605.6	[5000]	µg/L	10:19:22
3	Mg 279.077 IEC†	11441.7	11214.6	[5000]	µg/L	10:19:22
3	Sr 421.552†	210189.9	209388.9	[500]	µg/L	10:19:20
3	Sc 361.383	1763888.5	1763888.5	97.768	%	10:20:13
3	Y 371.029	1022018.7	1022018.7	96.663	%	10:20:13
3	Ag 328.068†	123587.5	121843.4	[500]	µg/L	10:20:13
3	As 188.979†	1445.8	1497.3	[500]	µg/L	10:20:33
3	B 249.677†	35619.8	32367.8	[500]	µg/L	10:20:13
3	Ba 233.527†	110853.9	113528.9	[500]	µg/L	10:20:13
3	Be 313.107†	1698086.3	1737940.2	[500]	µg/L	10:20:13
3	Cd 226.502†	72949.0	74717.6	[500]	µg/L	10:20:13
3	Co 228.616†	37273.2	38334.3	[500]	µg/L	10:20:13
3	Cr 267.716†	57178.4	58250.4	[500]	µg/L	10:20:13
3	Cu 324.752†	120255.8	119964.8	[500]	µg/L	10:20:13
3	Mn 257.610†	371797.5	380099.8	[500]	µg/L	10:20:13
3	Mo 202.031†	15118.6	15502.3	[500]	µg/L	10:20:33
3	Ni 231.604†	39356.5	40350.8	[500]	µg/L	10:20:13
3	P 214.914†	10731.2	11001.8	[2500]	µg/L	10:20:33
3	Pb 220.353†	8211.7	8295.7	[500]	µg/L	10:20:33
3	S 181.975 Axial†	1263.9	1203.8	[1000]	µg/L	10:20:33
3	Sb 206.836†	3912.4	3912.0	[500]	µg/L	10:20:33
3	Se 196.026†	1265.8	1288.6	[500]	µg/L	10:20:33
3	SiO2†	51139.1	50567.4	[5347.5]	µg/L	10:20:13
3	Si 251.611†	155385.6	158165.5	[2500]	µg/L	10:20:13
3	Sn 189.927†	7157.9	7319.4	[500]	µg/L	10:20:33
3	Ti 334.940†	478003.2	488091.5	[500]	µg/L	10:20:13
3	Tl 190.801†	3508.4	3702.8	[500]	µg/L	10:20:33
3	U 409.014†	7057.3	7381.7	[500]	µg/L	10:20:13
3	V 292.402†	94875.9	96618.4	[500]	µg/L	10:20:13
3	Zn 213.857†	83345.0	84744.5	[500]	µg/L	10:20:13

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1771717.4	11063.51	0.62%	98.202	%
Sc RADIAL	140041.5	1363.47	0.97%	100.0	%
Y 371.029	1026831.0	6245.79	0.61%	97.118	%
Ag 328.068†	121858.1	65.55	0.05%	[500]	µg/L
Al 396.153Radial†	24205.1	117.77	0.49%	[5000]	µg/L
As 188.979†	1491.1	5.44	0.36%	[500]	µg/L
B 249.677†	32193.3	164.59	0.51%	[500]	µg/L
Ba 233.527†	113573.2	52.90	0.05%	[500]	µg/L
Be 313.107†	1735670.0	2536.38	0.15%	[500]	µg/L
Ca 317.933Radial†	75011.7	68.50	0.09%	[5000]	µg/L
Cd 226.502†	74817.4	207.79	0.28%	[500]	µg/L
Co 228.616†	38418.4	176.73	0.46%	[500]	µg/L
Cr 267.716†	58271.5	90.76	0.16%	[500]	µg/L
Cu 324.752†	119987.7	172.15	0.14%	[500]	µg/L
K 766.490 Radial†	12703.1	121.01	0.95%	[5000]	µg/L
Mg 279.077 IEC†	11279.8	69.56	0.62%	[5000]	µg/L
Mn 257.610†	380147.7	252.39	0.07%	[500]	µg/L
Mo 202.031†	15454.6	62.19	0.40%	[500]	µg/L
Ni 231.604†	40443.8	81.27	0.20%	[500]	µg/L
P 214.914†	10956.8	49.03	0.45%	[2500]	µg/L
Pb 220.353†	8269.2	28.26	0.34%	[500]	µg/L
S 181.975 Axial†	1198.0	5.06	0.42%	[1000]	µg/L
Sb 206.836†	3901.4	9.46	0.24%	[500]	µg/L
Se 196.026†	1276.6	10.73	0.84%	[500]	µg/L
SiO2†	50362.7	177.29	0.35%	[5347.5]	µg/L
Si 251.611†	158284.4	277.66	0.18%	[2500]	µg/L

Sn 189.927†	7277.0	41.07	0.56%	[500] µg/L
Sr 421.552†	210994.5	2557.30	1.21%	[500] µg/L
Ti 334.940†	487796.2	255.79	0.05%	[500] µg/L
Tl 190.801†	3701.8	1.60	0.04%	[500] µg/L
U 409.014†	7405.7	116.08	1.57%	[500] µg/L
V 292.402†	96705.3	81.74	0.08%	[500] µg/L
Zn 213.857†	84668.5	162.65	0.19%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 4/5/2010 10:20:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	138521.2	138521.2	98.9	%	10:21:12
1	Al 396.153Radial†	47739.4	48359.6	[10000]	µg/L	10:21:12
1	Ca 317.933Radial†	147603.9	148707.2	[10000]	µg/L	10:21:12
1	Fe 238.204 Radial†	132955.6	134346.9	[10000]	µg/L	10:21:12
1	K 766.490 Radial†	26494.7	25301.6	[10000]	µg/L	10:21:12
1	Mg 279.077 IEC†	22115.4	22193.9	[10000]	µg/L	10:21:12
1	Na 589.592 Radial†	64423.3	64201.8	[10000]	µg/L	10:21:12
1	Sr 421.552†	421705.7	426695.0	[1000]	µg/L	10:21:10
1	Sc 361.383	1787517.3	1787517.3	99.078	%	10:21:25
1	Y 371.029	1030588.8	1030588.8	97.474	%	10:21:25
1	Ag 328.068†	247472.6	245210.6	[1000]	µg/L	10:21:27
1	As 188.979†	2895.1	2940.6	[1000]	µg/L	10:21:47
1	B 249.677†	67826.5	64392.6	[1000]	µg/L	10:21:27
1	Ba 233.527†	223075.2	225295.8	[1000]	µg/L	10:21:27
1	Be 313.107†	3410791.6	3443625.8	[1000]	µg/L	10:21:25
1	Cd 226.502†	146771.7	148241.0	[1000]	µg/L	10:21:27
1	Co 228.616†	74870.3	75777.4	[1000]	µg/L	10:21:27
1	Cr 267.716†	114942.2	115778.7	[1000]	µg/L	10:21:27
1	Cu 324.752†	240746.6	239950.9	[1000]	µg/L	10:21:27
1	Mn 257.610†	744414.1	751157.3	[1000]	µg/L	10:21:25
1	Mo 202.031†	30103.8	30422.6	[1000]	µg/L	10:21:47
1	Ni 231.604†	79132.1	79964.5	[1000]	µg/L	10:21:27
1	P 214.914†	21254.4	21477.9	[5000]	µg/L	10:21:47
1	Pb 220.353†	16098.9	16145.3	[1000]	µg/L	10:21:47
1	S 181.975 Axial†	2437.0	2370.8	[2000]	µg/L	10:21:47
1	Sb 206.836†	7748.6	7731.0	[1000]	µg/L	10:21:47
1	Se 196.026†	2500.5	2517.6	[1000]	µg/L	10:21:47
1	SiO2†	102325.7	101538.9	[10695]	µg/L	10:21:27
1	Si 251.611†	316394.8	318572.3	[5000]	µg/L	10:21:27
1	Sn 189.927†	14188.1	14318.3	[1000]	µg/L	10:21:47
1	Ti 334.940†	964390.5	972542.5	[1000]	µg/L	10:21:25
1	Tl 190.801†	7109.4	7289.9	[1000]	µg/L	10:21:47
1	U 409.014†	15951.4	16263.2	[1000]	µg/L	10:21:27
1	V 292.402†	192075.9	193440.2	[1000]	µg/L	10:21:27
1	Zn 213.857†	166493.8	167540.3	[1000]	µg/L	10:21:27
2	Sc RADIAL	137587.7	137587.7	98.2	%	10:21:16
2	Al 396.153Radial†	47286.5	48226.0	[10000]	µg/L	10:21:16
2	Ca 317.933Radial†	146236.4	148327.7	[10000]	µg/L	10:21:16
2	Fe 238.204 Radial†	132132.0	134420.6	[10000]	µg/L	10:21:16
2	K 766.490 Radial†	26206.6	25190.0	[10000]	µg/L	10:21:16
2	Mg 279.077 IEC†	21947.0	22174.2	[10000]	µg/L	10:21:16
2	Na 589.592 Radial†	64079.1	64293.4	[10000]	µg/L	10:21:16
2	Sr 421.552†	418133.3	425951.3	[1000]	µg/L	10:21:14
2	Sc 361.383	1788077.8	1788077.8	99.109	%	10:21:50
2	Y 371.029	1031083.9	1031083.9	97.521	%	10:21:50
2	Ag 328.068†	245852.5	243497.5	[1000]	µg/L	10:21:52
2	As 188.979†	2920.6	2965.4	[1000]	µg/L	10:22:12
2	B 249.677†	67486.4	64027.9	[1000]	µg/L	10:21:52
2	Ba 233.527†	221407.1	223542.1	[1000]	µg/L	10:21:52
2	Be 313.107†	3418889.0	3450717.0	[1000]	µg/L	10:21:50
2	Cd 226.502†	145207.6	146616.4	[1000]	µg/L	10:21:52
2	Co 228.616†	73965.8	74841.1	[1000]	µg/L	10:21:52
2	Cr 267.716†	114087.3	114879.7	[1000]	µg/L	10:21:52
2	Cu 324.752†	238734.9	237845.0	[1000]	µg/L	10:21:52
2	Mn 257.610†	745639.7	752158.3	[1000]	µg/L	10:21:50
2	Mo 202.031†	30297.9	30608.8	[1000]	µg/L	10:22:12
2	Ni 231.604†	78509.5	79311.2	[1000]	µg/L	10:21:52
2	P 214.914†	21418.7	21637.0	[5000]	µg/L	10:22:12
2	Pb 220.353†	16212.2	16254.5	[1000]	µg/L	10:22:12

2	S 181.975 Axial†	2451.4	2384.5	[2000]	µg/L	10:22:12
2	Sb 206.836†	7810.0	7790.5	[1000]	µg/L	10:22:12
2	Se 196.026†	2535.5	2552.1	[1000]	µg/L	10:22:12
2	SiO2†	101458.8	100631.9	[10695]	µg/L	10:21:52
2	Si 251.611†	313775.9	315829.7	[5000]	µg/L	10:21:52
2	Sn 189.927†	14324.6	14451.5	[1000]	µg/L	10:22:12
2	Ti 334.940†	965317.9	973173.2	[1000]	µg/L	10:21:50
2	Tl 190.801†	7148.1	7326.6	[1000]	µg/L	10:22:12
2	U 409.014†	15724.4	16029.1	[1000]	µg/L	10:21:52
2	V 292.402†	190884.5	192177.3	[1000]	µg/L	10:21:52
2	Zn 213.857†	165290.1	166273.1	[1000]	µg/L	10:21:52
3	Sc RADIAL	139275.7	139275.7	99.4	%	10:21:20
3	Al 396.153Radial†	47754.7	48113.5	[10000]	µg/L	10:21:20
3	Ca 317.933Radial†	148116.2	148413.8	[10000]	µg/L	10:21:20
3	Fe 238.204 Radial†	133471.4	134137.3	[10000]	µg/L	10:21:20
3	K 766.490 Radial†	26397.5	25058.6	[10000]	µg/L	10:21:20
3	Mg 279.077 IEC†	22321.0	22279.5	[10000]	µg/L	10:21:20
3	Na 589.592 Radial†	64773.3	64200.9	[10000]	µg/L	10:21:20
3	Sr 421.552†	417779.7	420435.7	[1000]	µg/L	10:21:18
3	Sc 361.383	1807535.5	1807535.5	100.19	%	10:22:15
3	Y 371.029	1042236.8	1042236.8	98.576	%	10:22:15
3	Ag 328.068†	249483.7	244451.6	[1000]	µg/L	10:22:17
3	As 188.979†	2931.8	2944.9	[1000]	µg/L	10:22:37
3	B 249.677†	68615.7	64422.1	[1000]	µg/L	10:22:17
3	Ba 233.527†	224580.6	224304.8	[1000]	µg/L	10:22:17
3	Be 313.107†	3453157.0	3447786.3	[1000]	µg/L	10:22:15
3	Cd 226.502†	147846.5	147673.2	[1000]	µg/L	10:22:17
3	Co 228.616†	75097.4	75167.1	[1000]	µg/L	10:22:17
3	Cr 267.716†	115767.2	115317.3	[1000]	µg/L	10:22:17
3	Cu 324.752†	242135.7	238646.5	[1000]	µg/L	10:22:17
3	Mn 257.610†	754003.5	752407.7	[1000]	µg/L	10:22:15
3	Mo 202.031†	30459.8	30441.4	[1000]	µg/L	10:22:37
3	Ni 231.604†	79738.5	79685.1	[1000]	µg/L	10:22:17
3	P 214.914†	21516.4	21501.8	[5000]	µg/L	10:22:37
3	Pb 220.353†	16270.1	16136.2	[1000]	µg/L	10:22:37
3	S 181.975 Axial†	2455.6	2362.1	[2000]	µg/L	10:22:37
3	Sb 206.836†	7815.0	7710.7	[1000]	µg/L	10:22:37
3	Se 196.026†	2541.3	2530.4	[1000]	µg/L	10:22:37
3	SiO2†	102897.8	100966.2	[10695]	µg/L	10:22:17
3	Si 251.611†	318548.9	317185.7	[5000]	µg/L	10:22:17
3	Sn 189.927†	14399.1	14370.3	[1000]	µg/L	10:22:37
3	Ti 334.940†	976267.5	973617.4	[1000]	µg/L	10:22:15
3	Tl 190.801†	7181.7	7282.5	[1000]	µg/L	10:22:37
3	U 409.014†	15907.0	16040.6	[1000]	µg/L	10:22:17
3	V 292.402†	193637.0	192851.4	[1000]	µg/L	10:22:17
3	Zn 213.857†	167762.6	166945.7	[1000]	µg/L	10:22:17

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1794376.9	11399.19	0.64%	99.458	%
Sc RADIAL	138461.6	845.59	0.61%	98.8	%
Y 371.029	1034636.5	6586.69	0.64%	97.857	%
Ag 328.068†	244386.6	858.36	0.35%	[1000]	µg/L
Al 396.153Radial†	48233.0	123.22	0.26%	[10000]	µg/L
As 188.979†	2950.3	13.27	0.45%	[1000]	µg/L
B 249.677†	64280.9	219.57	0.34%	[1000]	µg/L
Ba 233.527†	224380.9	879.34	0.39%	[1000]	µg/L
Be 313.107†	3447376.3	3563.34	0.10%	[1000]	µg/L
Ca 317.933Radial†	148482.9	198.99	0.13%	[10000]	µg/L
Cd 226.502†	147510.2	824.46	0.56%	[1000]	µg/L
Co 228.616†	75261.9	475.26	0.63%	[1000]	µg/L
Cr 267.716†	115325.3	449.55	0.39%	[1000]	µg/L
Cu 324.752†	238814.2	1062.92	0.45%	[1000]	µg/L
Fe 238.204 Radial†	134301.6	146.99	0.11%	[10000]	µg/L
K 766.490 Radial†	25183.4	121.63	0.48%	[10000]	µg/L
Mg 279.077 IEC†	22215.9	56.02	0.25%	[10000]	µg/L
Mn 257.610†	751907.8	661.81	0.09%	[1000]	µg/L
Mo 202.031†	30490.9	102.54	0.34%	[1000]	µg/L
Na 589.592 Radial†	64232.0	53.14	0.08%	[10000]	µg/L

Ni 231.604†	79653.6	327.78	0.41%	[1000]	µg/L
P 214.914†	21538.9	85.80	0.40%	[5000]	µg/L
Pb 220.353†	16178.7	65.80	0.41%	[1000]	µg/L
S 181.975 Axial†	2372.5	11.31	0.48%	[2000]	µg/L
Sb 206.836†	7744.1	41.45	0.54%	[1000]	µg/L
Se 196.026†	2533.4	17.42	0.69%	[1000]	µg/L
SiO2†	101045.6	458.71	0.45%	[10695]	µg/L
Si 251.611†	317195.9	1371.33	0.43%	[5000]	µg/L
Sn 189.927†	14380.0	67.17	0.47%	[1000]	µg/L
Sr 421.552†	424360.7	3419.43	0.81%	[1000]	µg/L
Ti 334.940†	973111.1	540.12	0.06%	[1000]	µg/L
Tl 190.801†	7299.7	23.64	0.32%	[1000]	µg/L
U 409.014†	16111.0	131.96	0.82%	[1000]	µg/L
V 292.402†	192823.0	631.90	0.33%	[1000]	µg/L
Zn 213.857†	166919.7	633.98	0.38%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 4/5/2010 10:22:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	137102.1	137102.1	97.9	%	10:23:14
1	Al 396.153Radial†	232459.5	237609.2	[50000]	µg/L	10:23:14
1	Ca 317.933Radial†	719831.0	734962.7	[50000]	µg/L	10:23:14
1	Fe 238.204 Radial†	262262.3	267866.3	[20000]	µg/L	10:23:14
1	Mg 279.077 IEC†	106118.0	108260.5	[50000]	µg/L	10:23:14
1	Na 589.592 Radial†	127559.4	129389.6	[20000]	µg/L	10:23:14
1	Sc 361.383	1750599.2	1750599.2	97.032	%	10:23:22
1	Y 371.029	1010808.0	1010808.0	95.603	%	10:23:22
2	Sc RADIAL	136704.4	136704.4	97.6	%	10:23:16
2	Al 396.153Radial†	231023.6	236828.7	[50000]	µg/L	10:23:16
2	Ca 317.933Radial†	713826.0	730948.6	[50000]	µg/L	10:23:16
2	Fe 238.204 Radial†	260455.2	266793.9	[20000]	µg/L	10:23:16
2	Mg 279.077 IEC†	105162.9	107597.2	[50000]	µg/L	10:23:16
2	Na 589.592 Radial†	126553.4	128737.8	[20000]	µg/L	10:23:16
2	Sc 361.383	1767118.9	1767118.9	97.947	%	10:23:25
2	Y 371.029	1019622.9	1019622.9	96.437	%	10:23:25
3	Sc RADIAL	137409.9	137409.9	98.1	%	10:23:18
3	Al 396.153Radial†	232827.3	237451.9	[50000]	µg/L	10:23:18
3	Ca 317.933Radial†	721449.1	734964.4	[50000]	µg/L	10:23:18
3	Fe 238.204 Radial†	263160.9	268182.0	[20000]	µg/L	10:23:18
3	Mg 279.077 IEC†	106621.9	108531.3	[50000]	µg/L	10:23:18
3	Na 589.592 Radial†	127827.4	129370.8	[20000]	µg/L	10:23:18
3	Sc 361.383	1753846.2	1753846.2	97.212	%	10:23:28
3	Y 371.029	1011915.1	1011915.1	95.708	%	10:23:28

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1757188.1	8752.21	0.50%	97.397	%
Sc RADIAL	137072.1	353.73	0.26%	97.8	%
Y 371.029	1014115.3	4801.69	0.47%	95.916	%
Al 396.153Radial†	237296.6	412.77	0.17%	[50000]	µg/L
Ca 317.933Radial†	733625.3	2318.04	0.32%	[50000]	µg/L
Fe 238.204 Radial†	267614.1	727.59	0.27%	[20000]	µg/L
Mg 279.077 IEC†	108129.7	480.63	0.44%	[50000]	µg/L
Na 589.592 Radial†	129166.1	371.00	0.29%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	244.3	0.00000	0.999997	
Al 396.153Radial	3	Lin Thru 0	0.0	4.750	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	2.957	0.00000	0.999991	
B 249.677	3	Lin Thru 0	0.0	64.30	0.00000	1.000000	
Ba 233.527	3	Lin Thru 0	0.0	225.0	0.00000	0.999985	
Be 313.107	3	Lin Thru 0	0.0	3452	0.00000	0.999996	
Ca 317.933Radial	3	Lin Thru 0	0.0	14.68	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	148.0	0.00000	0.999981	
Co 228.616	3	Lin Thru 0	0.0	75.60	0.00000	0.999960	
Cr 267.716	3	Lin Thru 0	0.0	115.6	0.00000	0.999989	
Cu 324.752	3	Lin Thru 0	0.0	239.1	0.00000	0.999997	
Fe 238.204 Radia	2	Lin Thru 0	0.0	13.39	0.00000	0.999999	
K 766.490 Radial	3	Lin Thru 0	0.0	2.524	0.00000	0.999986	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.166	0.00000	0.999978	
Mn 257.610	3	Lin Thru 0	0.0	753.8	0.00000	0.999983	
Mo 202.031	3	Lin Thru 0	0.0	30.58	0.00000	0.999985	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.451	0.00000	0.999998	

Ni 231.604	3	Lin Thru 0	0.0	79.93	0.00000	0.999974
P 214.914	3	Lin Thru 0	0.0	4.323	0.00000	0.999976
Pb 220.353	3	Lin Thru 0	0.0	16.25	0.00000	0.999959
S 181.975 Axial	3	Lin Thru 0	0.0	1.189	0.00000	0.999992
Sb 206.836	3	Lin Thru 0	0.0	7.755	0.00000	0.999995
Se 196.026	3	Lin Thru 0	0.0	2.538	0.00000	0.999987
SiO2	3	Lin Thru 0	0.0	9.443	0.00000	0.999998
Si 251.611	3	Lin Thru 0	0.0	63.42	0.00000	1.000000
Sn 189.927	3	Lin Thru 0	0.0	14.42	0.00000	0.999987
Sr 421.552	3	Lin Thru 0	0.0	424.0	0.00000	0.999993
Ti 334.940	3	Lin Thru 0	0.0	973.6	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	7.323	0.00000	0.999979
U 409.014	3	Lin Thru 0	0.0	15.85	0.00000	0.999462
V 292.402	3	Lin Thru 0	0.0	192.9	0.00000	0.999999
Zn 213.857	3	Lin Thru 0	0.0	167.4	0.00000	0.999981

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 4/5/2010 10:23:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140523.3	140523.3	100	%			10:24:07
1	Al 396.153Radial†	24438.5	24442.2	5121.2	µg/L	5121.2	ppb	10:24:07
1	Ca 317.933Radial†	74783.5	73983.1	5038.9	µg/L	5038.9	ppb	10:24:07
1	Fe 238.204 Radial†	68030.6	67704.9	5056.2	µg/L	5056.2	ppb	10:24:07
1	K 766.490 Radial†	8010.1	6491.7	2569.4	µg/L	2569.4	ppb	10:24:07
1	Mg 279.077 IEC†	11573.0	11365.1	5256.4	µg/L	5256.4	ppb	10:24:07
1	Na 589.592 Radial†	17343.2	16337.6	2530.2	µg/L	2530.2	ppb	10:24:07
1	Sr 421.552†	225106.1	224621.2	529.72	µg/L	529.72	ppb	10:24:05
1	Sc 361.383	1811067.9	1811067.9	100.38	%			10:24:20
1	Y 371.029	1053070.2	1053070.2	99.600	%			10:24:20
1	Ag 328.068†	66564.0	61744.7	259.05	µg/L	259.05	ppb	10:24:20
1	As 188.979†	1394.2	1407.4	483.32	µg/L	483.32	ppb	10:24:40
1	B 249.677†	37900.4	33690.5	522.17	µg/L	522.17	ppb	10:24:20
1	Ba 233.527†	115320.6	115024.8	511.69	µg/L	511.69	ppb	10:24:20
1	Be 313.107†	892073.7	889759.3	257.88	µg/L	257.88	ppb	10:24:20
1	Cd 226.502†	74846.1	74663.7	504.32	µg/L	504.32	ppb	10:24:20
1	Co 228.616†	38714.5	38776.9	513.26	µg/L	513.26	ppb	10:24:20
1	Cr 267.716†	57458.5	57005.9	493.05	µg/L	493.05	ppb	10:24:20
1	Cu 324.752†	125966.4	122449.3	513.72	µg/L	513.72	ppb	10:24:20
1	Mn 257.610†	386772.5	385111.0	510.65	µg/L	510.65	ppb	10:24:20
1	Mo 202.031†	16355.4	16331.5	534.57	µg/L	534.57	ppb	10:24:40
1	Ni 231.604†	39957.0	39900.4	499.20	µg/L	499.20	ppb	10:24:20
1	P 214.914†	10952.7	10936.6	2521.1	µg/L	2521.1	ppb	10:24:40
1	Pb 220.353†	8370.6	8235.2	508.44	µg/L	508.44	ppb	10:24:40
1	S 181.975 Axial†	3038.8	2938.3	2476.4	µg/L	2476.4	ppb	10:24:40
1	Sb 206.836†	3984.8	3879.9	502.09	µg/L	502.09	ppb	10:24:40
1	Se 196.026†	6435.0	6404.3	2530	µg/L	2530	ppb	10:24:40
1	SiO2†	100095.5	97974.2	10352	µg/L	10352	ppb	10:24:20
1	Si 251.611†	309334.8	307386.6	4836.5	µg/L	4836.5	ppb	10:24:20
1	Sn 189.927†	7699.8	7668.5	533.57	µg/L	533.57	ppb	10:24:40
1	Ti 334.940†	481280.6	478620.0	490.93	µg/L	490.93	ppb	10:24:20
1	Tl 190.801†	3769.5	3869.4	535.81	µg/L	535.81	ppb	10:24:40
1	U 409.014†	7018.0	7154.6	482.25	µg/L	482.25	ppb	10:24:20
1	V 292.402†	97850.1	97053.2	509.98	µg/L	509.98	ppb	10:24:20
1	Zn 213.857†	86050.7	85219.1	504.95	µg/L	504.95	ppb	10:24:20
2	Sc RADIAL	141521.6	141521.6	101	%			10:24:11
2	Al 396.153Radial†	24648.2	24477.9	5128.8	µg/L	5128.8	ppb	10:24:11
2	Ca 317.933Radial†	75579.4	74245.0	5056.8	µg/L	5056.8	ppb	10:24:11
2	Fe 238.204 Radial†	68747.0	67935.7	5073.4	µg/L	5073.4	ppb	10:24:11
2	K 766.490 Radial†	8086.3	6510.9	2577.0	µg/L	2577.0	ppb	10:24:11
2	Mg 279.077 IEC†	11660.2	11370.0	5258.6	µg/L	5258.6	ppb	10:24:11
2	Na 589.592 Radial†	17495.8	16366.7	2534.7	µg/L	2534.7	ppb	10:24:11
2	Sr 421.552†	225995.0	223918.1	528.06	µg/L	528.06	ppb	10:24:09
2	Sc 361.383	1803387.2	1803387.2	99.958	%			10:24:43
2	Y 371.029	1048161.1	1048161.1	99.136	%			10:24:43
2	Ag 328.068†	66375.0	61838.0	259.41	µg/L	259.41	ppb	10:24:43
2	As 188.979†	1372.6	1391.8	478.02	µg/L	478.02	ppb	10:25:03
2	B 249.677†	37478.9	33429.7	518.10	µg/L	518.10	ppb	10:24:43
2	Ba 233.527†	114759.5	114952.8	511.37	µg/L	511.37	ppb	10:24:43
2	Be 313.107†	886689.4	888157.6	257.41	µg/L	257.41	ppb	10:24:43
2	Cd 226.502†	74557.3	74692.3	504.51	µg/L	504.51	ppb	10:24:43
2	Co 228.616†	38671.9	38898.6	514.87	µg/L	514.87	ppb	10:24:43
2	Cr 267.716†	57014.3	56805.3	491.33	µg/L	491.33	ppb	10:24:43
2	Cu 324.752†	124971.6	121988.6	511.78	µg/L	511.78	ppb	10:24:43
2	Mn 257.610†	384842.3	384821.0	510.26	µg/L	510.26	ppb	10:24:43
2	Mo 202.031†	16218.2	16263.6	532.35	µg/L	532.35	ppb	10:25:03
2	Ni 231.604†	39961.4	40074.3	501.38	µg/L	501.38	ppb	10:24:43
2	P 214.914†	10845.8	10876.1	2507.2	µg/L	2507.2	ppb	10:25:03
2	Pb 220.353†	8298.4	8198.4	506.19	µg/L	506.19	ppb	10:25:03

2	S 181.975 Axial†	2999.7	2912.0	2454.3 µg/L	2454.3 ppb	10:25:03
2	Sb 206.836†	3927.6	3839.5	496.87 µg/L	496.87 ppb	10:25:03
2	Se 196.026†	6386.0	6382.6	2520 µg/L	2520 ppb	10:25:03
2	SiO2†	99482.5	97785.7	10332 µg/L	10332 ppb	10:24:43
2	Si 251.611†	307517.6	306881.1	4828.6 µg/L	4828.6 ppb	10:24:43
2	Sn 189.927†	7645.8	7647.2	532.09 µg/L	532.09 ppb	10:25:03
2	Ti 334.940†	478739.3	478119.5	490.43 µg/L	490.43 ppb	10:24:43
2	Tl 190.801†	3725.8	3841.6	532.00 µg/L	532.00 ppb	10:25:03
2	U 409.014†	6667.8	6834.0	462.00 µg/L	462.00 ppb	10:24:43
2	V 292.402†	97411.1	97029.3	509.81 µg/L	509.81 ppb	10:24:43
2	Zn 213.857†	85869.6	85403.1	506.04 µg/L	506.04 ppb	10:24:43
3	Sc RADIAL	140619.3	140619.3	100 %		10:24:15
3	Al 396.153Radial†	24689.2	24675.4	5170.3 µg/L	5170.3 ppb	10:24:15
3	Ca 317.933Radial†	75209.3	74356.3	5064.3 µg/L	5064.3 ppb	10:24:15
3	Fe 238.204 Radial†	68498.2	68124.5	5087.5 µg/L	5087.5 ppb	10:24:15
3	K 766.490 Radial†	7806.5	6283.5	2486.9 µg/L	2486.9 ppb	10:24:15
3	Mg 279.077 IEC†	11680.4	11464.3	5302.2 µg/L	5302.2 ppb	10:24:15
3	Na 589.592 Radial†	17364.6	16347.1	2531.7 µg/L	2531.7 ppb	10:24:15
3	Sr 421.552†	224592.5	223956.3	528.15 µg/L	528.15 ppb	10:24:13
3	Sc 361.383	1807264.5	1807264.5	100.17 %		10:25:06
3	Y 371.029	1050693.9	1050693.9	99.375 %		10:25:06
3	Ag 328.068†	66243.0	61563.8	258.30 µg/L	258.30 ppb	10:25:06
3	As 188.979†	1388.9	1405.1	482.54 µg/L	482.54 ppb	10:25:26
3	B 249.677†	37737.0	33606.9	520.86 µg/L	520.86 ppb	10:25:06
3	Ba 233.527†	115014.8	114961.3	511.41 µg/L	511.41 ppb	10:25:06
3	Be 313.107†	890592.0	890150.3	257.99 µg/L	257.99 ppb	10:25:06
3	Cd 226.502†	74469.1	74444.2	502.83 µg/L	502.83 ppb	10:25:06
3	Co 228.616†	38759.6	38903.2	514.93 µg/L	514.93 ppb	10:25:06
3	Cr 267.716†	57275.1	56943.2	492.52 µg/L	492.52 ppb	10:25:06
3	Cu 324.752†	125282.2	122030.3	511.96 µg/L	511.96 ppb	10:25:06
3	Mn 257.610†	385605.2	384756.6	510.17 µg/L	510.17 ppb	10:25:06
3	Mo 202.031†	16300.9	16311.4	533.91 µg/L	533.91 ppb	10:25:26
3	Ni 231.604†	39880.4	39907.6	499.29 µg/L	499.29 ppb	10:25:06
3	P 214.914†	10929.8	10936.7	2521.2 µg/L	2521.2 ppb	10:25:26
3	Pb 220.353†	8313.7	8195.9	506.04 µg/L	506.04 ppb	10:25:26
3	S 181.975 Axial†	3024.1	2930.0	2469.4 µg/L	2469.4 ppb	10:25:26
3	Sb 206.836†	3985.2	3888.6	503.21 µg/L	503.21 ppb	10:25:26
3	Se 196.026†	6418.8	6401.6	2520 µg/L	2520 ppb	10:25:26
3	SiO2†	99707.6	97796.8	10334 µg/L	10334 ppb	10:25:06
3	Si 251.611†	308174.3	306876.6	4828.4 µg/L	4828.4 ppb	10:25:06
3	Sn 189.927†	7722.0	7706.8	536.23 µg/L	536.23 ppb	10:25:26
3	Ti 334.940†	480594.4	478943.9	491.27 µg/L	491.27 ppb	10:25:06
3	Tl 190.801†	3769.9	3877.6	536.93 µg/L	536.93 ppb	10:25:26
3	U 409.014†	6753.8	6905.5	466.53 µg/L	466.53 ppb	10:25:06
3	V 292.402†	97691.0	97099.6	510.20 µg/L	510.20 ppb	10:25:06
3	Zn 213.857†	85980.5	85329.5	505.61 µg/L	505.61 ppb	10:25:06

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1807239.8	100.17	%	0.213				0.21%
Sc RADIAL	140888.1	101	%	0.4				0.39%
Y 371.029	1050641.7	99.371	%	0.2322				0.23%
Ag 328.068†	61715.5	258.92	µg/L	0.568	258.92	ppb	0.568	0.22%
QC value within limits for Ag 328.068 Recovery = 103.57%								
Al 396.153Radial†	24531.8	5140.1	µg/L	26.43	5140.1	ppb	26.43	0.51%
QC value within limits for Al 396.153Radial Recovery = 102.80%								
As 188.979†	1401.4	481.30	µg/L	2.864	481.30	ppb	2.864	0.60%
QC value within limits for As 188.979 Recovery = 96.26%								
B 249.677†	33575.7	520.38	µg/L	2.073	520.38	ppb	2.073	0.40%
QC value within limits for B 249.677 Recovery = 104.08%								
Ba 233.527†	114979.6	511.49	µg/L	0.175	511.49	ppb	0.175	0.03%
QC value within limits for Ba 233.527 Recovery = 102.30%								
Be 313.107†	889355.7	257.76	µg/L	0.308	257.76	ppb	0.308	0.12%
QC value within limits for Be 313.107 Recovery = 103.10%								
Ca 317.933Radial†	74194.8	5053.3	µg/L	13.05	5053.3	ppb	13.05	0.26%
QC value within limits for Ca 317.933Radial Recovery = 101.07%								
Cd 226.502†	74600.1	503.88	µg/L	0.919	503.88	ppb	0.919	0.18%
QC value within limits for Cd 226.502 Recovery = 100.78%								
Co 228.616†	38859.6	514.36	µg/L	0.946	514.36	ppb	0.946	0.18%

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   QC value within limits for Co 228.616  Recovery = 102.87%
Cr 267.716†            56918.2      492.30 µg/L         0.880      492.30 ppb          0.880   0.18%
   QC value within limits for Cr 267.716  Recovery = 98.46%
Cu 324.752†           122156.1      512.49 µg/L         1.072      512.49 ppb          1.072   0.21%
   QC value within limits for Cu 324.752  Recovery = 102.50%
Fe 238.204 Radial†     67921.7      5072.3 µg/L         15.69      5072.3 ppb          15.69   0.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.45%
K 766.490 Radial†       6428.7      2544.4 µg/L         49.99      2544.4 ppb          49.99   1.96%
   QC value within limits for K 766.490 Radial  Recovery = 101.78%
Mg 279.077 IEC†        11399.8      5272.4 µg/L         25.80      5272.4 ppb          25.80   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.45%
Mn 257.610†           384896.2      510.36 µg/L         0.251      510.36 ppb          0.251   0.05%
   QC value within limits for Mn 257.610  Recovery = 102.07%
Mo 202.031†            16302.2      533.61 µg/L         1.140      533.61 ppb          1.140   0.21%
   QC value within limits for Mo 202.031  Recovery = 106.72%
Na 589.592 Radial†     16350.4      2532.2 µg/L          2.29      2532.2 ppb           2.29   0.09%
   QC value within limits for Na 589.592 Radial  Recovery = 101.29%
Ni 231.604†            39960.8      499.96 µg/L         1.231      499.96 ppb          1.231   0.25%
   QC value within limits for Ni 231.604  Recovery = 99.99%
P 214.914†             10916.5      2516.5 µg/L          8.09      2516.5 ppb           8.09   0.32%
   QC value within limits for P 214.914  Recovery = 100.66%
Pb 220.353†             8209.8      506.89 µg/L         1.346      506.89 ppb          1.346   0.27%
   QC value within limits for Pb 220.353  Recovery = 101.38%
S 181.975 Axial†        2926.8      2466.7 µg/L         11.31      2466.7 ppb          11.31   0.46%
   QC value within limits for S 181.975 Axial  Recovery = 98.67%
Sb 206.836†             3869.3      500.72 µg/L         3.381      500.72 ppb          3.381   0.68%
   QC value within limits for Sb 206.836  Recovery = 100.14%
Se 196.026†             6396.1        2520 µg/L           4.7        2520 ppb            4.7   0.19%
   QC value within limits for Se 196.026  Recovery = 100.88%
SiO2†                  97852.2       10339 µg/L          11.2       10339 ppb           11.2   0.11%
   QC value within limits for SiO2  Recovery = 96.68%
Si 251.611†           307048.1      4831.2 µg/L          4.61      4831.2 ppb           4.61   0.10%
   QC value within limits for Si 251.611  Recovery = 96.62%
Sn 189.927†             7674.1      533.96 µg/L         2.097      533.96 ppb          2.097   0.39%
   QC value within limits for Sn 189.927  Recovery = 106.79%
Sr 421.552†           224165.2      528.65 µg/L         0.933      528.65 ppb          0.933   0.18%
   QC value within limits for Sr 421.552  Recovery = 105.73%
Ti 334.940†           478561.1      490.88 µg/L         0.423      490.88 ppb          0.423   0.09%
   QC value within limits for Ti 334.940  Recovery = 98.18%
Tl 190.801†             3862.9      534.91 µg/L         2.585      534.91 ppb          2.585   0.48%
   QC value within limits for Tl 190.801  Recovery = 106.98%
U 409.014†              6964.7      470.26 µg/L        10.624      470.26 ppb         10.624   2.26%
   QC value within limits for U 409.014  Recovery = 94.05%
V 292.402†             97060.7      510.00 µg/L         0.194      510.00 ppb          0.194   0.04%
   QC value within limits for V 292.402  Recovery = 102.00%
Zn 213.857†            85317.2      505.54 µg/L         0.546      505.54 ppb          0.546   0.11%
   QC value within limits for Zn 213.857  Recovery = 101.11%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 4/5/2010 10:25:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139162.3	139162.3	99.3	%			10:26:03
1	Al 396.153Radial†	-53.9	24.2	5.0642	µg/L	5.0642	ppb	10:26:23
1	Ca 317.933Radial†	571.7	4.0	0.2745	µg/L	0.2745	ppb	10:26:23
1	Fe 238.204 Radial†	117.8	1.3	0.0992	µg/L	0.0992	ppb	10:26:23
1	K 766.490 Radial†	1466.1	-17.9	-7.0792	µg/L	-7.0792	ppb	10:26:03
1	Mg 279.077 IEC†	183.5	12.3	5.6777	µg/L	5.6777	ppb	10:26:23
1	Na 589.592 Radial†	1119.8	174.8	27.100	µg/L	27.100	ppb	10:26:03
1	Sr 421.552†	-218.0	-14.9	-0.0352	µg/L	-0.0352	ppb	10:26:03
1	Sc 361.383	1806325.2	1806325.2	100.12	%			10:27:25
1	Y 371.029	1059354.7	1059354.7	100.19	%			10:27:25
1	Ag 328.068†	4398.9	-171.5	-0.7202	µg/L	-0.7202	ppb	10:27:27
1	As 188.979†	-12.8	5.7	1.9434	µg/L	1.9434	ppb	10:27:47
1	B 249.677†	4126.0	55.9	0.8673	µg/L	0.8673	ppb	10:27:27
1	Ba 233.527†	-124.3	20.4	0.0910	µg/L	0.0910	ppb	10:27:47
1	Be 313.107†	-698.4	394.1	0.1093	µg/L	0.1093	ppb	10:27:27
1	Cd 226.502†	-64.2	39.2	0.2652	µg/L	0.2652	ppb	10:27:47
1	Co 228.616†	-177.9	32.6	0.4308	µg/L	0.4308	ppb	10:27:47
1	Cr 267.716†	212.7	-20.7	-0.1666	µg/L	-0.1666	ppb	10:27:47
1	Cu 324.752†	2961.2	-78.4	-0.3410	µg/L	-0.3410	ppb	10:27:27
1	Mn 257.610†	244.5	59.5	0.0787	µg/L	0.0787	ppb	10:27:47
1	Mo 202.031†	-12.2	26.4	0.8620	µg/L	0.8620	ppb	10:27:47
1	Ni 231.604†	-79.6	16.4	0.2058	µg/L	0.2058	ppb	10:27:47
1	P 214.914†	-21.4	4.3	0.9939	µg/L	0.9939	ppb	10:27:47
1	Pb 220.353†	93.3	-10.3	-0.6182	µg/L	-0.6182	ppb	10:27:47
1	S 181.975 Axial†	95.5	6.5	5.4827	µg/L	5.4827	ppb	10:27:47
1	Sb 206.836†	70.6	-19.2	-2.4625	µg/L	-2.4625	ppb	10:27:47
1	Se 196.026†	27.2	21.0	8.26	µg/L	8.26	ppb	10:27:47
1	SiO2†	1772.8	31.6	3.3130	µg/L	3.3130	ppb	10:27:47
1	Si 251.611†	695.9	-72.0	-1.1503	µg/L	-1.1503	ppb	10:27:27
1	Sn 189.927†	9.8	7.9	0.5516	µg/L	0.5516	ppb	10:27:47
1	Ti 334.940†	991.0	166.8	0.1776	µg/L	0.1776	ppb	10:27:27
1	Tl 190.801†	-103.3	11.1	1.5149	µg/L	1.5149	ppb	10:27:47
1	U 409.014†	-420.2	-256.4	-16.169	µg/L	-16.169	ppb	10:27:27
1	V 292.402†	453.0	29.2	0.1483	µg/L	0.1483	ppb	10:27:27
1	Zn 213.857†	541.6	38.0	0.2259	µg/L	0.2259	ppb	10:27:47
2	Sc RADIAL	142818.3	142818.3	102	%			10:26:25
2	Al 396.153Radial†	-102.5	-22.0	-4.6648	µg/L	-4.6648	ppb	10:26:45
2	Ca 317.933Radial†	573.3	-9.1	-0.6188	µg/L	-0.6188	ppb	10:26:45
2	Fe 238.204 Radial†	110.9	-8.5	-0.6347	µg/L	-0.6347	ppb	10:26:45
2	K 766.490 Radial†	1687.2	161.2	63.862	µg/L	63.862	ppb	10:26:25
2	Mg 279.077 IEC†	188.6	12.6	5.8246	µg/L	5.8246	ppb	10:26:45
2	Na 589.592 Radial†	1002.2	30.6	4.6847	µg/L	4.6847	ppb	10:26:25
2	Sr 421.552†	-146.6	60.6	0.1430	µg/L	0.1430	ppb	10:26:25
2	Sc 361.383	1814818.2	1814818.2	100.59	%			10:27:49
2	Y 371.029	1063959.1	1063959.1	100.63	%			10:27:49
2	Ag 328.068†	4390.0	-201.0	-0.8229	µg/L	-0.8229	ppb	10:27:52
2	As 188.979†	-4.3	14.3	4.8359	µg/L	4.8359	ppb	10:28:12
2	B 249.677†	4308.2	217.8	3.3850	µg/L	3.3850	ppb	10:27:52
2	Ba 233.527†	-108.5	36.7	0.1631	µg/L	0.1631	ppb	10:28:12
2	Be 313.107†	-1008.5	89.1	0.0263	µg/L	0.0263	ppb	10:27:52
2	Cd 226.502†	-90.1	13.8	0.0933	µg/L	0.0933	ppb	10:28:12
2	Co 228.616†	-172.6	38.7	0.5117	µg/L	0.5117	ppb	10:28:12
2	Cr 267.716†	241.1	6.5	0.0544	µg/L	0.0544	ppb	10:28:12
2	Cu 324.752†	3110.8	56.4	0.2376	µg/L	0.2376	ppb	10:27:52
2	Mn 257.610†	185.1	-0.7	-0.0012	µg/L	-0.0012	ppb	10:28:12
2	Mo 202.031†	-16.1	22.5	0.7373	µg/L	0.7373	ppb	10:28:12
2	Ni 231.604†	-83.2	13.2	0.1649	µg/L	0.1649	ppb	10:28:12
2	P 214.914†	-11.2	14.6	3.3643	µg/L	3.3643	ppb	10:28:12
2	Pb 220.353†	102.7	-1.3	-0.0807	µg/L	-0.0807	ppb	10:28:12

2	S 181.975 Axial†	103.8	14.2	11.975 µg/L	11.975 ppb		10:28:12
2	Sb 206.836†	96.2	5.9	0.7677 µg/L	0.7677 ppb		10:28:12
2	Se 196.026†	20.8	14.5	5.71 µg/L	5.71 ppb		10:28:12
2	SiO2†	1717.4	-31.8	-3.3984 µg/L	-3.3984 ppb		10:28:12
2	Si 251.611†	740.6	-30.8	-0.4998 µg/L	-0.4998 ppb		10:27:52
2	Sn 189.927†	13.1	11.2	0.7737 µg/L	0.7737 ppb		10:28:12
2	Ti 334.940†	875.6	47.5	0.0476 µg/L	0.0476 ppb		10:27:52
2	Tl 190.801†	-113.0	1.9	0.2561 µg/L	0.2561 ppb		10:28:12
2	U 409.014†	-138.0	26.2	1.6406 µg/L	1.6406 ppb		10:27:52
2	V 292.402†	389.3	-36.2	-0.1786 µg/L	-0.1786 ppb		10:27:52
2	Zn 213.857†	534.3	28.2	0.1669 µg/L	0.1669 ppb		10:28:12
3	Sc RADIAL	140073.3	140073.3	100.0 %			10:26:47
3	Al 396.153Radial†	-42.9	35.6	7.4623 µg/L	7.4623 ppb		10:27:07
3	Ca 317.933Radial†	561.5	-9.9	-0.6724 µg/L	-0.6724 ppb		10:27:07
3	Fe 238.204 Radial†	131.4	14.1	1.0507 µg/L	1.0507 ppb		10:27:07
3	K 766.490 Radial†	1577.5	83.9	33.259 µg/L	33.259 ppb		10:26:47
3	Mg 279.077 IEC†	160.6	-11.8	-5.4397 µg/L	-5.4397 ppb		10:27:07
3	Na 589.592 Radial†	1138.5	186.1	28.821 µg/L	28.821 ppb		10:26:47
3	Sr 421.552†	-238.5	-34.1	-0.0803 µg/L	-0.0803 ppb		10:26:47
3	Sc 361.383	1801432.9	1801432.9	99.849 %			10:28:14
3	Y 371.029	1056501.4	1056501.4	99.925 %			10:28:14
3	Ag 328.068†	4278.5	-280.2	-1.1531 µg/L	-1.1531 ppb		10:28:16
3	As 188.979†	-13.5	5.0	1.6981 µg/L	1.6981 ppb		10:28:36
3	B 249.677†	4216.2	157.5	2.4477 µg/L	2.4477 ppb		10:28:16
3	Ba 233.527†	-133.7	10.6	0.0474 µg/L	0.0474 ppb		10:28:36
3	Be 313.107†	-1028.1	62.1	0.0170 µg/L	0.0170 ppb		10:28:16
3	Cd 226.502†	-90.6	12.6	0.0850 µg/L	0.0850 ppb		10:28:36
3	Co 228.616†	-185.7	24.3	0.3210 µg/L	0.3210 ppb		10:28:36
3	Cr 267.716†	246.4	13.6	0.1197 µg/L	0.1197 ppb		10:28:36
3	Cu 324.752†	2983.7	-48.0	-0.2030 µg/L	-0.2030 ppb		10:28:16
3	Mn 257.610†	209.1	24.6	0.0329 µg/L	0.0329 ppb		10:28:36
3	Mo 202.031†	-14.8	23.7	0.7753 µg/L	0.7753 ppb		10:28:36
3	Ni 231.604†	-104.2	-8.4	-0.1054 µg/L	-0.1054 ppb		10:28:36
3	P 214.914†	-1.5	24.2	5.6067 µg/L	5.6067 ppb		10:28:36
3	Pb 220.353†	90.7	-12.6	-0.7708 µg/L	-0.7708 ppb		10:28:36
3	S 181.975 Axial†	101.2	12.4	10.478 µg/L	10.478 ppb		10:28:36
3	Sb 206.836†	86.9	-2.7	-0.3424 µg/L	-0.3424 ppb		10:28:36
3	Se 196.026†	17.0	10.8	4.26 µg/L	4.26 ppb		10:28:36
3	SiO2†	1768.5	32.1	3.3679 µg/L	3.3679 ppb		10:28:36
3	Si 251.611†	1260.7	495.6	7.8002 µg/L	7.8002 ppb		10:28:16
3	Sn 189.927†	11.5	9.6	0.6680 µg/L	0.6680 ppb		10:28:36
3	Ti 334.940†	917.1	95.5	0.0997 µg/L	0.0997 ppb		10:28:16
3	Tl 190.801†	-97.8	16.4	2.2310 µg/L	2.2310 ppb		10:28:36
3	U 409.014†	-212.8	-49.8	-3.1540 µg/L	-3.1540 ppb		10:28:16
3	V 292.402†	387.5	-35.2	-0.1760 µg/L	-0.1760 ppb		10:28:16
3	Zn 213.857†	530.2	28.0	0.1681 µg/L	0.1681 ppb		10:28:36

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807525.4	100.19	%	0.375				0.37%
Sc RADIAL	140684.7	100	%	1.4				1.35%
Y 371.029	1059938.4	100.25	%	0.356				0.36%
Ag 328.068†	-217.6	-0.8988	µg/L	0.22619	-0.8988	ppb	0.22619	25.17%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.6	2.6206	µg/L	6.42222	2.6206	ppb	6.42222	245.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.3	2.8258	µg/L	1.74509	2.8258	ppb	1.74509	61.76%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	143.7	2.2333	µg/L	1.27245	2.2333	ppb	1.27245	56.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	22.6	0.1005	µg/L	0.05843	0.1005	ppb	0.05843	58.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	181.8	0.0509	µg/L	0.05080	0.0509	ppb	0.05080	99.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-5.0	-0.3389	µg/L	0.53188	-0.3389	ppb	0.53188	156.95%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	21.9	0.1479	µg/L	0.10171	0.1479	ppb	0.10171	68.79%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	31.8	0.4212	µg/L	0.09568	0.4212	ppb	0.09568	22.72%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -0.2      0.0025 µg/L      0.15007      0.0025 ppb        0.15007 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -23.3     -0.1021 µg/L      0.30215     -0.1021 ppb        0.30215 295.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       2.3      0.1717 µg/L      0.84503      0.1717 ppb        0.84503 492.06%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       75.8      30.014 µg/L      35.5819      30.014 ppb        35.5819 118.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          4.3      2.0209 µg/L      6.46146      2.0209 ppb        6.46146 319.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             27.8      0.0368 µg/L      0.04010      0.0368 ppb        0.04010 108.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             24.2      0.7916 µg/L      0.06391      0.7916 ppb        0.06391   8.07%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     130.5      20.202 µg/L      13.4657      20.202 ppb        13.4657  66.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              7.1      0.0884 µg/L      0.16910      0.0884 ppb        0.16910 191.25%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              14.4      3.3216 µg/L      2.30669      3.3216 ppb        2.30669  69.44%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -8.1     -0.4899 µg/L      0.36249     -0.4899 ppb        0.36249  73.99%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        11.1      9.3117 µg/L      3.39955      9.3117 ppb        3.39955  36.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -5.4     -0.6791 µg/L      1.64121     -0.6791 ppb        1.64121 241.69%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             15.4        6.08 µg/L        2.027        6.08 ppb          2.027  33.35%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   10.6      1.0942 µg/L      3.89080      1.0942 ppb        3.89080 355.59%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            131.0      2.0500 µg/L      4.99041      2.0500 ppb        4.99041 243.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              9.6      0.6644 µg/L      0.11114      0.6644 ppb        0.11114  16.73%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              3.9      0.0092 µg/L      0.11809      0.0092 ppb        0.11809 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            103.3      0.1083 µg/L      0.06541      0.1083 ppb        0.06541  60.41%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              9.8      1.3340 µg/L      0.99980      1.3340 ppb        0.99980  74.95%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -93.3     -5.8942 µg/L      9.21571     -5.8942 ppb        9.21571 156.35%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -14.1     -0.0688 µg/L      0.18804     -0.0688 ppb        0.18804 273.40%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              31.4      0.1870 µg/L      0.03374      0.1870 ppb        0.03374  18.04%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 4/5/2010 10:28:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141650.4	141650.4	101	%			10:29:14
1	Al 396.153Radial†	1036.5	1103.7	231.88	µg/L	231.88	ppb	10:29:16
1	Ca 317.933Radial†	3603.3	2992.2	203.80	µg/L	203.80	ppb	10:29:16
1	Fe 238.204 Radial†	1560.7	1426.2	106.51	µg/L	106.51	ppb	10:29:16
1	K 766.490 Radial†	1826.1	312.3	123.57	µg/L	123.57	ppb	10:29:14
1	Mg 279.077 IEC†	874.5	692.5	319.90	µg/L	319.90	ppb	10:29:16
1	Na 589.592 Radial†	2732.4	1749.8	271.13	µg/L	271.13	ppb	10:29:16
1	Sr 421.552†	2186.1	2366.5	5.5797	µg/L	5.5797	ppb	10:29:16
1	Sc 361.383	1814341.7	1814341.7	100.56	%			10:29:28
1	Y 371.029	1064064.3	1064064.3	100.64	%			10:29:28
1	Ag 328.068†	5622.7	1026.0	4.3223	µg/L	4.3223	ppb	10:29:30
1	As 188.979†	87.6	105.7	35.836	µg/L	35.836	ppb	10:29:50
1	B 249.677†	7343.1	3236.7	50.319	µg/L	50.319	ppb	10:29:30
1	Ba 233.527†	999.3	1138.3	5.0652	µg/L	5.0652	ppb	10:29:50
1	Be 313.107†	16066.6	17068.1	4.9590	µg/L	4.9590	ppb	10:29:30
1	Cd 226.502†	646.2	745.9	5.0326	µg/L	5.0326	ppb	10:29:50
1	Co 228.616†	185.3	394.5	5.2190	µg/L	5.2190	ppb	10:29:50
1	Cr 267.716†	839.1	601.2	5.1628	µg/L	5.1628	ppb	10:29:50
1	Cu 324.752†	5479.5	2412.6	10.159	µg/L	10.159	ppb	10:29:30
1	Mn 257.610†	8022.8	7793.0	10.325	µg/L	10.325	ppb	10:29:30
1	Mo 202.031†	281.7	318.7	10.434	µg/L	10.434	ppb	10:29:50
1	Ni 231.604†	303.7	397.9	4.9784	µg/L	4.9784	ppb	10:29:50
1	P 214.914†	630.3	652.4	150.78	µg/L	150.78	ppb	10:29:50
1	Pb 220.353†	271.2	166.2	10.231	µg/L	10.231	ppb	10:29:50
1	S 181.975 Axial†	205.7	115.7	97.385	µg/L	97.385	ppb	10:29:50
1	Sb 206.836†	154.6	64.1	8.3550	µg/L	8.3550	ppb	10:29:50
1	Se 196.026†	110.2	103.4	40.8	µg/L	40.8	ppb	10:29:50
1	SiO2†	3822.7	2062.2	217.92	µg/L	217.92	ppb	10:29:30
1	Si 251.611†	7510.5	6701.3	105.46	µg/L	105.46	ppb	10:29:30
1	Sn 189.927†	160.1	157.3	10.927	µg/L	10.927	ppb	10:29:50
1	Ti 334.940†	5734.4	4879.2	4.9689	µg/L	4.9689	ppb	10:29:30
1	Tl 190.801†	38.0	152.0	20.859	µg/L	20.859	ppb	10:29:50
1	U 409.014†	615.0	774.9	49.286	µg/L	49.286	ppb	10:29:30
1	V 292.402†	1571.6	1139.6	6.0534	µg/L	6.0534	ppb	10:29:30
1	Zn 213.857†	2274.8	1759.0	10.457	µg/L	10.457	ppb	10:29:50
2	Sc RADIAL	141759.5	141759.5	101	%			10:29:18
2	Al 396.153Radial†	796.2	865.4	181.72	µg/L	181.72	ppb	10:29:20
2	Ca 317.933Radial†	3683.3	3068.5	209.00	µg/L	209.00	ppb	10:29:20
2	Fe 238.204 Radial†	1485.2	1350.5	100.85	µg/L	100.85	ppb	10:29:20
2	K 766.490 Radial†	1933.5	417.0	165.07	µg/L	165.07	ppb	10:29:18
2	Mg 279.077 IEC†	921.2	737.9	340.89	µg/L	340.89	ppb	10:29:20
2	Na 589.592 Radial†	2783.2	1797.9	278.55	µg/L	278.55	ppb	10:29:20
2	Sr 421.552†	2129.2	2308.6	5.4432	µg/L	5.4432	ppb	10:29:20
2	Sc 361.383	1776563.5	1776563.5	98.471	%			10:29:52
2	Y 371.029	1041330.5	1041330.5	98.490	%			10:29:52
2	Ag 328.068†	5648.1	1170.6	4.9166	µg/L	4.9166	ppb	10:29:54
2	As 188.979†	73.8	93.5	31.726	µg/L	31.726	ppb	10:30:14
2	B 249.677†	7226.4	3273.5	50.889	µg/L	50.889	ppb	10:29:54
2	Ba 233.527†	1019.4	1179.8	5.2489	µg/L	5.2489	ppb	10:30:14
2	Be 313.107†	16021.3	17361.8	5.0486	µg/L	5.0486	ppb	10:29:54
2	Cd 226.502†	661.1	774.7	5.2281	µg/L	5.2281	ppb	10:30:14
2	Co 228.616†	198.3	411.7	5.4466	µg/L	5.4466	ppb	10:30:14
2	Cr 267.716†	776.3	555.1	4.7513	µg/L	4.7513	ppb	10:30:14
2	Cu 324.752†	5385.0	2432.5	10.254	µg/L	10.254	ppb	10:29:54
2	Mn 257.610†	8036.2	7976.3	10.567	µg/L	10.567	ppb	10:29:54
2	Mo 202.031†	269.0	311.7	10.207	µg/L	10.207	ppb	10:30:14
2	Ni 231.604†	339.1	440.3	5.5085	µg/L	5.5085	ppb	10:30:14
2	P 214.914†	631.8	667.3	154.21	µg/L	154.21	ppb	10:30:14
2	Pb 220.353†	260.3	160.9	9.8917	µg/L	9.8917	ppb	10:30:14

2	S 181.975 Axial†	213.7	128.1	107.82 µg/L	107.82 ppb	10:30:14
2	Sb 206.836†	134.3	46.7	6.1115 µg/L	6.1115 ppb	10:30:14
2	Se 196.026†	85.8	81.0	32.0 µg/L	32.0 ppb	10:30:14
2	SiO2†	3765.3	2084.6	220.32 µg/L	220.32 ppb	10:29:54
2	Si 251.611†	7495.9	6845.3	107.74 µg/L	107.74 ppb	10:29:54
2	Sn 189.927†	145.1	145.5	10.110 µg/L	10.110 ppb	10:30:14
2	Ti 334.940†	5701.4	4966.9	5.0513 µg/L	5.0513 ppb	10:29:54
2	Tl 190.801†	42.7	157.6	21.607 µg/L	21.607 ppb	10:30:14
2	U 409.014†	837.2	1013.6	64.273 µg/L	64.273 ppb	10:29:54
2	V 292.402†	1281.9	878.6	4.7076 µg/L	4.7076 ppb	10:29:54
2	Zn 213.857†	2244.8	1776.7	10.559 µg/L	10.559 ppb	10:30:14
3	Sc RADIAL	141499.9	141499.9	101 %		10:29:22
3	Al 396.153Radial†	902.8	972.4	204.30 µg/L	204.30 ppb	10:29:24
3	Ca 317.933Radial†	3625.9	3018.4	205.58 µg/L	205.58 ppb	10:29:24
3	Fe 238.204 Radial†	1528.3	1395.8	104.24 µg/L	104.24 ppb	10:29:24
3	K 766.490 Radial†	1924.1	411.1	162.76 µg/L	162.76 ppb	10:29:22
3	Mg 279.077 IEC†	884.8	703.6	325.00 µg/L	325.00 ppb	10:29:24
3	Na 589.592 Radial†	2796.7	1816.3	281.40 µg/L	281.40 ppb	10:29:24
3	Sr 421.552†	2078.5	2262.3	5.3339 µg/L	5.3339 ppb	10:29:24
3	Sc 361.383	1809314.5	1809314.5	100.29 %		10:30:16
3	Y 371.029	1060913.4	1060913.4	100.34 %		10:30:16
3	Ag 328.068†	5830.0	1248.2	5.2210 µg/L	5.2210 ppb	10:30:18
3	As 188.979†	82.3	100.6	34.129 µg/L	34.129 ppb	10:30:38
3	B 249.677†	7300.8	3214.9	49.979 µg/L	49.979 ppb	10:30:18
3	Ba 233.527†	972.1	1113.9	4.9559 µg/L	4.9559 ppb	10:30:38
3	Be 313.107†	16413.7	17458.6	5.0723 µg/L	5.0723 ppb	10:30:18
3	Cd 226.502†	657.5	759.0	5.1213 µg/L	5.1213 ppb	10:30:38
3	Co 228.616†	193.3	403.1	5.3320 µg/L	5.3320 ppb	10:30:38
3	Cr 267.716†	830.2	594.7	5.1050 µg/L	5.1050 ppb	10:30:38
3	Cu 324.752†	5532.4	2480.5	10.443 µg/L	10.443 ppb	10:30:18
3	Mn 257.610†	8096.9	7889.1	10.452 µg/L	10.452 ppb	10:30:18
3	Mo 202.031†	245.6	283.5	9.2820 µg/L	9.2820 ppb	10:30:38
3	Ni 231.604†	321.4	416.4	5.2097 µg/L	5.2097 ppb	10:30:38
3	P 214.914†	632.2	656.1	151.62 µg/L	151.62 ppb	10:30:38
3	Pb 220.353†	240.3	136.1	8.3755 µg/L	8.3755 ppb	10:30:38
3	S 181.975 Axial†	210.4	120.9	101.79 µg/L	101.79 ppb	10:30:38
3	Sb 206.836†	142.1	52.0	6.7786 µg/L	6.7786 ppb	10:30:38
3	Se 196.026†	92.7	86.3	34.1 µg/L	34.1 ppb	10:30:38
3	SiO2†	3995.7	2245.2	237.35 µg/L	237.35 ppb	10:30:18
3	Si 251.611†	7591.6	6803.0	107.09 µg/L	107.09 ppb	10:30:18
3	Sn 189.927†	145.0	142.7	9.9131 µg/L	9.9131 ppb	10:30:38
3	Ti 334.940†	5766.5	4927.0	5.0173 µg/L	5.0173 ppb	10:30:18
3	Tl 190.801†	41.5	155.7	21.346 µg/L	21.346 ppb	10:30:38
3	U 409.014†	624.1	785.7	49.910 µg/L	49.910 ppb	10:30:18
3	V 292.402†	1376.7	949.5	5.0570 µg/L	5.0570 ppb	10:30:18
3	Zn 213.857†	2245.7	1736.3	10.320 µg/L	10.320 ppb	10:30:38

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1800073.2	99.774	%	1.1371				1.14%
Sc RADIAL	141636.6	101	%	0.1				0.09%
Y 371.029	1055436.1	99.824	%	1.1649				1.17%
Ag 328.068†	1148.3	4.8200	µg/L	0.45709	4.8200	ppb	0.45709	9.48%
QC value within limits for Ag 328.068 Recovery = 96.40%								
Al 396.153Radial†	980.5	205.96	µg/L	25.124	205.96	ppb	25.124	12.20%
QC value within limits for Al 396.153Radial Recovery = 102.98%								
As 188.979†	99.9	33.897	µg/L	2.0651	33.897	ppb	2.0651	6.09%
QC value within limits for As 188.979 Recovery = 112.99%								
B 249.677†	3241.7	50.396	µg/L	0.4603	50.396	ppb	0.4603	0.91%
QC value within limits for B 249.677 Recovery = 100.79%								
Ba 233.527†	1144.0	5.0900	µg/L	0.14810	5.0900	ppb	0.14810	2.91%
QC value within limits for Ba 233.527 Recovery = 101.80%								
Be 313.107†	17296.2	5.0266	µg/L	0.05978	5.0266	ppb	0.05978	1.19%
QC value within limits for Be 313.107 Recovery = 100.53%								
Ca 317.933Radial†	3026.4	206.12	µg/L	2.642	206.12	ppb	2.642	1.28%
QC value within limits for Ca 317.933Radial Recovery = 103.06%								
Cd 226.502†	759.9	5.1273	µg/L	0.09792	5.1273	ppb	0.09792	1.91%
QC value within limits for Cd 226.502 Recovery = 102.55%								
Co 228.616†	403.1	5.3325	µg/L	0.11382	5.3325	ppb	0.11382	2.13%

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   QC value within limits for Co 228.616  Recovery = 106.65%
Cr 267.716†              583.7      5.0064 µg/L       0.22276      5.0064 ppb        0.22276   4.45%
   QC value within limits for Cr 267.716  Recovery = 100.13%
Cu 324.752†             2441.9      10.285 µg/L        0.1448      10.285 ppb         0.1448   1.41%
   QC value within limits for Cu 324.752  Recovery = 102.85%
Fe 238.204 Radial†      1390.8      103.87 µg/L         2.845      103.87 ppb          2.845   2.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.87%
K 766.490 Radial†        380.1      150.47 µg/L        23.319      150.47 ppb         23.319  15.50%
   QC value within limits for K 766.490 Radial  Recovery = 100.31%
Mg 279.077 IEC†          711.3      328.59 µg/L        10.947      328.59 ppb         10.947   3.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.53%
Mn 257.610†             7886.1      10.448 µg/L        0.1212      10.448 ppb         0.1212   1.16%
   QC value within limits for Mn 257.610  Recovery = 104.48%
Mo 202.031†              304.6      9.9743 µg/L       0.61026      9.9743 ppb        0.61026   6.12%
   QC value within limits for Mo 202.031  Recovery = 99.74%
Na 589.592 Radial†      1788.0      277.03 µg/L         5.304      277.03 ppb          5.304   1.91%
   QC value within limits for Na 589.592 Radial  Recovery = 92.34%
Ni 231.604†              418.2      5.2322 µg/L       0.26577      5.2322 ppb        0.26577   5.08%
   QC value within limits for Ni 231.604  Recovery = 104.64%
P 214.914†               658.6      152.20 µg/L         1.789      152.20 ppb          1.789   1.18%
   QC value within limits for P 214.914  Recovery = 101.47%
Pb 220.353†              154.4      9.4994 µg/L       0.98805      9.4994 ppb        0.98805  10.40%
   QC value within limits for Pb 220.353  Recovery = 94.99%
S 181.975 Axial†         121.5      102.33 µg/L         5.237      102.33 ppb          5.237   5.12%
   QC value within limits for S 181.975 Axial  Recovery = 102.33%
Sb 206.836†               54.2      7.0817 µg/L       1.15204      7.0817 ppb        1.15204  16.27%
   QC value within limits for Sb 206.836  Recovery = 70.82%
Se 196.026†               90.2        35.6 µg/L          4.62        35.6 ppb           4.62  12.96%
   QC value within limits for Se 196.026  Recovery = 118.81%
SiO2†                   2130.7      225.20 µg/L        10.592      225.20 ppb         10.592   4.70%
   QC value within limits for SiO2  Recovery = 105.73%
Si 251.611†             6783.2      106.76 µg/L         1.174      106.76 ppb          1.174   1.10%
   QC value within limits for Si 251.611  Recovery = 106.76%
Sn 189.927†              148.5      10.317 µg/L        0.5376      10.317 ppb         0.5376   5.21%
   QC value within limits for Sn 189.927  Recovery = 103.17%
Sr 421.552†             2312.5      5.4523 µg/L       0.12318      5.4523 ppb        0.12318   2.26%
   QC value within limits for Sr 421.552  Recovery = 109.05%
Ti 334.940†             4924.4      5.0125 µg/L       0.04145      5.0125 ppb        0.04145   0.83%
   QC value within limits for Ti 334.940  Recovery = 100.25%
Tl 190.801†              155.1      21.271 µg/L        0.3801      21.271 ppb         0.3801   1.79%
   QC value within limits for Tl 190.801  Recovery = 106.35%
U 409.014†               858.1      54.490 µg/L        8.4787      54.490 ppb         8.4787  15.56%
   QC value within limits for U 409.014  Recovery = 108.98%
V 292.402†               989.2      5.2727 µg/L       0.69837      5.2727 ppb        0.69837  13.25%
   QC value within limits for V 292.402  Recovery = 105.45%
Zn 213.857†             1757.4      10.445 µg/L        0.1201      10.445 ppb         0.1201   1.15%
   QC value within limits for Zn 213.857  Recovery = 104.45%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 4/5/2010 10:30:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128118.6	128118.6	91.5	%			10:31:19
1	Al 396.153Radial†	2213795.6	2420782.5	509660	µg/L	509660	ppb	10:31:17
1	Ca 317.933Radial†	6606069.4	7222922.0	491950	µg/L	491950	ppb	10:31:17
1	Fe 238.204 Radial†	2362080.3	2582730.5	192880	µg/L	192880	ppb	10:31:17
1	K 766.490 Radial†	1496.6	142.7	-187.26	µg/L	-187.26	ppb	10:31:19
1	Mg 279.077 IEC†	972171.2	1062860.9	490600	µg/L	490600	ppb	10:31:17
1	Na 589.592 Radial†	1170.1	326.9	50.623	µg/L	50.623	ppb	10:31:19
1	Sr 421.552†	4658.8	5298.7	8.6462	µg/L	8.6462	ppb	10:31:19
1	Sc 361.383	1581772.1	1581772.1	87.674	%			10:31:32
1	Y 371.029	913048.3	913048.3	86.357	%			10:31:32
1	Ag 328.068†	6751.4	3135.4	-0.7645	µg/L	-0.7645	ppb	10:31:32
1	As 188.979†	-94.1	-88.8	13.191	µg/L	13.191	ppb	10:31:52
1	B 249.677†	4066.1	572.6	8.8918	µg/L	8.8918	ppb	10:31:32
1	Ba 233.527†	383.0	581.4	0.1203	µg/L	0.1203	ppb	10:31:52
1	Be 313.107†	-291.7	759.0	0.2135	µg/L	0.2135	ppb	10:31:32
1	Cd 226.502†	2322.1	2751.9	-1.6829	µg/L	-1.6829	ppb	10:31:52
1	Co 228.616†	65.4	284.9	-6.2907	µg/L	-6.2907	ppb	10:31:52
1	Cr 267.716†	227.8	26.6	0.9599	µg/L	0.9599	ppb	10:31:52
1	Cu 324.752†	-5602.2	-9426.0	1.9087	µg/L	1.9087	ppb	10:31:32
1	Mn 257.610†	15226.9	17182.9	2.8255	µg/L	2.8255	ppb	10:31:32
1	Mo 202.031†	-533.4	-569.8	-2.0372	µg/L	-2.0372	ppb	10:31:52
1	Ni 231.604†	109.0	220.2	2.7550	µg/L	2.7550	ppb	10:31:52
1	P 214.914†	152.0	199.0	28.356	µg/L	28.356	ppb	10:31:52
1	Pb 220.353†	-270.6	-412.1	0.0388	µg/L	0.0388	ppb	10:31:52
1	S 181.975 Axial†	175.6	111.3	93.501	µg/L	93.501	ppb	10:31:52
1	Sb 206.836†	130.3	58.9	1.5033	µg/L	1.5033	ppb	10:31:52
1	Se 196.026†	-137.9	-163.4	2.51	µg/L	2.51	ppb	10:31:52
1	SiO2†	1649.9	142.7	15.602	µg/L	15.602	ppb	10:31:52
1	Si 251.611†	499.7	-197.1	-2.8776	µg/L	-2.8776	ppb	10:31:52
1	Sn 189.927†	36.3	39.5	2.8247	µg/L	2.8247	ppb	10:31:52
1	Ti 334.940†	21726.4	23957.9	-2.5303	µg/L	-2.5303	ppb	10:31:32
1	Tl 190.801†	-162.0	-70.5	-9.1790	µg/L	-9.1790	ppb	10:31:52
1	U 409.014†	-433.0	-330.5	-42.174	µg/L	-42.174	ppb	10:31:32
1	V 292.402†	4095.4	4247.9	1.4397	µg/L	1.4397	ppb	10:31:32
1	Zn 213.857†	4191.7	4278.1	8.9566	µg/L	8.9566	ppb	10:31:52
2	Sc RADIAL	127837.7	127837.7	91.3	%			10:31:24
2	Al 396.153Radial†	2210404.0	2422384.5	510000	µg/L	510000	ppb	10:31:22
2	Ca 317.933Radial†	6599761.5	7231881.1	492560	µg/L	492560	ppb	10:31:22
2	Fe 238.204 Radial†	2358861.0	2584877.7	193040	µg/L	193040	ppb	10:31:22
2	K 766.490 Radial†	1627.9	290.2	-129.07	µg/L	-129.07	ppb	10:31:24
2	Mg 279.077 IEC†	971105.4	1064028.7	491140	µg/L	491140	ppb	10:31:22
2	Na 589.592 Radial†	1340.9	516.9	80.019	µg/L	80.019	ppb	10:31:24
2	Sr 421.552†	4691.9	5346.2	8.7534	µg/L	8.7534	ppb	10:31:24
2	Sc 361.383	1601726.0	1601726.0	88.780	%			10:31:55
2	Y 371.029	924331.0	924331.0	87.424	%			10:31:55
2	Ag 328.068†	6732.2	3017.9	-1.2361	µg/L	-1.2361	ppb	10:31:55
2	As 188.979†	-100.4	-94.5	11.292	µg/L	11.292	ppb	10:32:15
2	B 249.677†	4142.1	600.4	9.3234	µg/L	9.3234	ppb	10:31:55
2	Ba 233.527†	415.6	612.7	0.2573	µg/L	0.2573	ppb	10:32:15
2	Be 313.107†	-658.4	350.1	0.1024	µg/L	0.1024	ppb	10:31:55
2	Cd 226.502†	2287.7	2680.2	-2.1849	µg/L	-2.1849	ppb	10:32:15
2	Co 228.616†	80.1	300.6	-6.0911	µg/L	-6.0911	ppb	10:32:15
2	Cr 267.716†	216.7	10.9	0.8039	µg/L	0.8039	ppb	10:32:15
2	Cu 324.752†	-5526.1	-9260.6	2.6582	µg/L	2.6582	ppb	10:31:55
2	Mn 257.610†	15435.0	17201.0	2.8276	µg/L	2.8276	ppb	10:31:55
2	Mo 202.031†	-532.0	-560.7	-1.7223	µg/L	-1.7223	ppb	10:32:15
2	Ni 231.604†	77.9	183.6	2.2975	µg/L	2.2975	ppb	10:32:15
2	P 214.914†	142.5	186.2	25.349	µg/L	25.349	ppb	10:32:15
2	Pb 220.353†	-320.0	-463.9	-3.1465	µg/L	-3.1465	ppb	10:32:15

2	S 181.975 Axial†	177.0	110.4	92.750 µg/L	92.750 ppb		10:32:15
2	Sb 206.836†	126.2	52.5	0.6818 µg/L	0.6818 ppb		10:32:15
2	Se 196.026†	-144.5	-168.9	0.419 µg/L	0.419 ppb		10:32:15
2	SiO2†	1619.4	85.0	9.4740 µg/L	9.4740 ppb		10:32:15
2	Si 251.611†	519.4	-182.0	-2.6482 µg/L	-2.6482 ppb		10:32:15
2	Sn 189.927†	45.3	49.1	3.4897 µg/L	3.4897 ppb		10:32:15
2	Ti 334.940†	22275.7	24268.0	-2.2496 µg/L	-2.2496 ppb		10:31:55
2	Tl 190.801†	-159.0	-64.8	-8.4026 µg/L	-8.4026 ppb		10:32:15
2	U 409.014†	-99.2	51.7	-18.085 µg/L	-18.085 ppb		10:31:55
2	V 292.402†	4098.2	4192.9	1.1561 µg/L	1.1561 ppb		10:31:55
2	Zn 213.857†	4180.5	4205.9	8.5109 µg/L	8.5109 ppb		10:32:15
3	Sc RADIAL	129703.1	129703.1	92.6 %			10:31:28
3	Al 396.153Radial†	2204567.2	2381242.2	501340 µg/L	501340 ppb		10:31:26
3	Ca 317.933Radial†	6568361.1	7093946.8	483160 µg/L	483160 ppb		10:31:26
3	Fe 238.204 Radial†	2348182.8	2536166.2	189400 µg/L	189400 ppb		10:31:26
3	K 766.490 Radial†	1631.7	268.7	-133.18 µg/L	-133.18 ppb		10:31:28
3	Mg 279.077 IEC†	966514.2	1043764.2	481780 µg/L	481780 ppb		10:31:26
3	Na 589.592 Radial†	1406.4	566.5	87.719 µg/L	87.719 ppb		10:31:28
3	Sr 421.552†	4640.9	5217.1	8.5226 µg/L	8.5226 ppb		10:31:28
3	Sc 361.383	1627878.3	1627878.3	90.230 %			10:32:18
3	Y 371.029	938743.5	938743.5	88.787 %			10:32:18
3	Ag 328.068†	6471.5	2607.1	-2.6885 µg/L	-2.6885 ppb		10:32:18
3	As 188.979†	-94.2	-85.8	13.417 µg/L	13.417 ppb		10:32:38
3	B 249.677†	4197.3	586.7	9.1112 µg/L	9.1112 ppb		10:32:18
3	Ba 233.527†	414.2	603.6	0.2637 µg/L	0.2637 ppb		10:32:38
3	Be 313.107†	-313.0	744.8	0.2077 µg/L	0.2077 ppb		10:32:18
3	Cd 226.502†	2287.7	2638.8	-2.0823 µg/L	-2.0823 ppb		10:32:38
3	Co 228.616†	59.7	276.5	-6.2204 µg/L	-6.2204 ppb		10:32:38
3	Cr 267.716†	209.3	-1.3	0.7104 µg/L	0.7104 ppb		10:32:38
3	Cu 324.752†	-5671.6	-9321.9	1.5944 µg/L	1.5944 ppb		10:32:18
3	Mn 257.610†	15670.2	17182.3	3.1834 µg/L	3.1834 ppb		10:32:18
3	Mo 202.031†	-504.6	-520.7	-0.7299 µg/L	-0.7299 ppb		10:32:38
3	Ni 231.604†	88.9	194.5	2.4329 µg/L	2.4329 ppb		10:32:38
3	P 214.914†	123.4	162.4	20.381 µg/L	20.381 ppb		10:32:38
3	Pb 220.353†	-328.2	-467.2	-3.7410 µg/L	-3.7410 ppb		10:32:38
3	S 181.975 Axial†	164.9	93.8	78.776 µg/L	78.776 ppb		10:32:38
3	Sb 206.836†	159.1	86.7	5.2093 µg/L	5.2093 ppb		10:32:38
3	Se 196.026†	-150.6	-173.0	-2.48 µg/L	-2.48 ppb		10:32:38
3	SiO2†	1645.7	84.8	9.4396 µg/L	9.4396 ppb		10:32:38
3	Si 251.611†	506.5	-205.7	-3.0292 µg/L	-3.0292 ppb		10:32:38
3	Sn 189.927†	26.5	27.5	1.9892 µg/L	1.9892 ppb		10:32:38
3	Ti 334.940†	22768.4	24410.9	-1.5733 µg/L	-1.5733 ppb		10:32:18
3	Tl 190.801†	-138.4	-39.1	-4.8829 µg/L	-4.8829 ppb		10:32:38
3	U 409.014†	-530.1	-424.2	-47.679 µg/L	-47.679 ppb		10:32:18
3	V 292.402†	4198.6	4230.0	1.7250 µg/L	1.7250 ppb		10:32:18
3	Zn 213.857†	4221.9	4176.0	8.6627 µg/L	8.6627 ppb		10:32:38

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1603792.1	88.894	%	1.2816				1.44%
Sc RADIAL	128553.1	91.8	%	0.72				0.78%
Y 371.029	925374.3	87.523	%	1.2181				1.39%
Ag 328.068†	2920.1	-1.5630	µg/L	1.00280	-1.5630	ppb	1.00280	64.16%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2408136.4	507000	µg/L	4906.5	507000	ppb	4906.5	0.97%
QC value within limits for Al 396.153Radial Recovery = 101.40%								
As 188.979†	-89.7	12.634	µg/L	1.1672	12.634	ppb	1.1672	9.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	586.6	9.1088	µg/L	0.21580	9.1088	ppb	0.21580	2.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	599.2	0.2138	µg/L	0.08101	0.2138	ppb	0.08101	37.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	618.0	0.1745	µg/L	0.06254	0.1745	ppb	0.06254	35.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7182916.7	489220	µg/L	5256.7	489220	ppb	5256.7	1.07%
QC value within limits for Ca 317.933Radial Recovery = 97.84%								
Cd 226.502†	2690.3	-1.9834	µg/L	0.26521	-1.9834	ppb	0.26521	13.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	287.3	-6.2008	µg/L	0.10120	-6.2008	ppb	0.10120	1.63%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              12.1      0.8247 µg/L      0.12605      0.8247 ppb       0.12605  15.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -9336.2      2.0538 µg/L      0.54654      2.0538 ppb       0.54654  26.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2567924.8      191770 µg/L       2055.5      191770 ppb        2055.5   1.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.89%
K 766.490 Radial†        233.8     -149.84 µg/L       32.478     -149.84 ppb        32.478  21.68%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1056884.6      487840 µg/L       5251.7      487840 ppb        5251.7   1.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.57%
Mn 257.610†           17188.8      2.9455 µg/L      0.20606      2.9455 ppb       0.20606   7.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -550.4     -1.4964 µg/L      0.68228     -1.4964 ppb       0.68228  45.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       470.1      72.787 µg/L      19.5769      72.787 ppb       19.5769  26.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              199.4      2.4952 µg/L      0.23503      2.4952 ppb       0.23503   9.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               182.6      24.695 µg/L       4.0272      24.695 ppb        4.0272  16.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -447.7     -2.2829 µg/L      2.03252     -2.2829 ppb       2.03252  89.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         105.2      88.342 µg/L       8.2929      88.342 ppb        8.2929   9.39%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               66.0      2.4648 µg/L      2.41204      2.4648 ppb       2.41204  97.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -168.5       0.151 µg/L       2.5033       0.151 ppb        2.5033 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    104.2      11.505 µg/L       3.5481      11.505 ppb        3.5481  30.84%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            -195.0     -2.8517 µg/L      0.19180     -2.8517 ppb       0.19180   6.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               38.7      2.7679 µg/L      0.75190      2.7679 ppb       0.75190  27.17%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            5287.3      8.6407 µg/L      0.11552      8.6407 ppb       0.11552   1.34%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           24212.2     -2.1177 µg/L      0.49194     -2.1177 ppb       0.49194  23.23%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -58.1     -7.4882 µg/L      2.28939     -7.4882 ppb       2.28939  30.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -234.3     -35.979 µg/L      15.7394     -35.979 ppb       15.7394  43.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             4223.6      1.4403 µg/L      0.28444      1.4403 ppb       0.28444  19.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            4220.0      8.7101 µg/L      0.22657      8.7101 ppb       0.22657   2.60%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 4/5/2010 10:32:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128019.8	128019.8	91.4	%			10:33:20
1	Al 396.153Radial†	2214899.0	2423858.2	510290	µg/L	510290	ppb	10:33:18
1	Ca 317.933Radial†	6539945.8	7156137.6	487400	µg/L	487400	ppb	10:33:18
1	Fe 238.204 Radial†	2362815.2	2585528.2	193090	µg/L	193090	ppb	10:33:18
1	K 766.490 Radial†	14647.9	14535.5	5515.6	µg/L	5515.6	ppb	10:33:20
1	Mg 279.077 IEC†	974260.6	1065967.9	492040	µg/L	492040	ppb	10:33:20
1	Na 589.592 Radial†	32736.9	34871.7	5400.3	µg/L	5400.3	ppb	10:33:20
1	Sr 421.552†	200734.4	219869.6	514.74	µg/L	514.74	ppb	10:33:20
1	Sc 361.383	1596681.5	1596681.5	88.500	%			10:33:33
1	Y 371.029	922181.2	922181.2	87.221	%			10:33:33
1	Ag 328.068†	64143.4	67913.0	271.20	µg/L	271.20	ppb	10:33:33
1	As 188.979†	1228.9	1407.2	525.28	µg/L	525.28	ppb	10:33:35
1	B 249.677†	33489.8	33776.3	523.69	µg/L	523.69	ppb	10:33:33
1	Ba 233.527†	100868.2	114119.4	505.26	µg/L	505.26	ppb	10:33:33
1	Be 313.107†	749032.7	847453.0	245.64	µg/L	245.64	ppb	10:33:33
1	Cd 226.502†	65812.0	74466.9	483.20	µg/L	483.20	ppb	10:33:33
1	Co 228.616†	30517.4	34693.1	449.43	µg/L	449.43	ppb	10:33:35
1	Cr 267.716†	50564.5	56901.6	492.70	µg/L	492.70	ppb	10:33:35
1	Cu 324.752†	108957.7	120079.4	544.37	µg/L	544.37	ppb	10:33:33
1	Mn 257.610†	338390.3	382175.7	486.95	µg/L	486.95	ppb	10:33:33
1	Mo 202.031†	12995.7	14722.9	498.30	µg/L	498.30	ppb	10:33:35
1	Ni 231.604†	32630.8	36966.7	462.50	µg/L	462.50	ppb	10:33:35
1	P 214.914†	10002.4	11327.8	2595.9	µg/L	2595.9	ppb	10:33:35
1	Pb 220.353†	6487.9	7227.4	471.57	µg/L	471.57	ppb	10:33:35
1	S 181.975 Axial†	2976.8	3274.7	2758.9	µg/L	2758.9	ppb	10:33:35
1	Sb 206.836†	3581.5	3957.2	505.52	µg/L	505.52	ppb	10:33:35
1	Se 196.026†	5381.4	6074.5	2460	µg/L	2460	ppb	10:33:35
1	SiO2†	95028.9	105637.8	11166	µg/L	11166	ppb	10:33:33
1	Si 251.611†	294883.1	332432.9	5232.5	µg/L	5232.5	ppb	10:33:33
1	Sn 189.927†	6210.9	7016.0	488.46	µg/L	488.46	ppb	10:33:35
1	Ti 334.940†	461750.7	520927.2	507.28	µg/L	507.28	ppb	10:33:33
1	Tl 190.801†	2890.5	3380.4	469.95	µg/L	469.95	ppb	10:33:35
1	U 409.014†	7089.3	8173.8	526.30	µg/L	526.30	ppb	10:33:33
1	V 292.402†	91601.8	103081.2	520.84	µg/L	520.84	ppb	10:33:33
1	Zn 213.857†	77574.0	87150.9	500.68	µg/L	500.68	ppb	10:33:33
2	Sc RADIAL	126403.7	126403.7	90.2	%			10:33:24
2	Al 396.153Radial†	2203106.6	2441777.1	514060	µg/L	514060	ppb	10:33:22
2	Ca 317.933Radial†	6488979.1	7191150.9	489780	µg/L	489780	ppb	10:33:22
2	Fe 238.204 Radial†	2345597.7	2599503.8	194130	µg/L	194130	ppb	10:33:22
2	K 766.490 Radial†	14463.1	14535.7	5514.5	µg/L	5514.5	ppb	10:33:24
2	Mg 279.077 IEC†	957123.1	1060605.1	489570	µg/L	489570	ppb	10:33:24
2	Na 589.592 Radial†	32172.3	34703.9	5374.3	µg/L	5374.3	ppb	10:33:24
2	Sr 421.552†	197937.5	219578.3	514.03	µg/L	514.03	ppb	10:33:24
2	Sc 361.383	1581820.4	1581820.4	87.677	%			10:33:38
2	Y 371.029	914057.4	914057.4	86.452	%			10:33:38
2	Ag 328.068†	63616.7	67993.2	271.43	µg/L	271.43	ppb	10:33:38
2	As 188.979†	1284.1	1483.2	551.30	µg/L	551.30	ppb	10:33:40
2	B 249.677†	33289.7	33903.6	525.64	µg/L	525.64	ppb	10:33:38
2	Ba 233.527†	99713.8	113873.6	504.16	µg/L	504.16	ppb	10:33:38
2	Be 313.107†	739555.2	844594.9	244.81	µg/L	244.81	ppb	10:33:38
2	Cd 226.502†	64961.3	74195.3	481.25	µg/L	481.25	ppb	10:33:38
2	Co 228.616†	30729.7	35259.2	456.87	µg/L	456.87	ppb	10:33:40
2	Cr 267.716†	50663.4	57551.2	498.39	µg/L	498.39	ppb	10:33:40
2	Cu 324.752†	107715.1	119818.9	543.36	µg/L	543.36	ppb	10:33:38
2	Mn 257.610†	334418.8	381238.2	485.80	µg/L	485.80	ppb	10:33:38
2	Mo 202.031†	13147.6	15034.1	508.47	µg/L	508.47	ppb	10:33:40
2	Ni 231.604†	32935.7	37660.8	471.18	µg/L	471.18	ppb	10:33:40
2	P 214.914†	10097.2	11542.1	2645.6	µg/L	2645.6	ppb	10:33:40
2	Pb 220.353†	6531.5	7346.1	479.11	µg/L	479.11	ppb	10:33:40

2	S 181.975 Axial†	2995.8	3327.9	2803.8 µg/L	2803.8 ppb	10:33:40
2	Sb 206.836†	3745.1	4181.8	534.53 µg/L	534.53 ppb	10:33:40
2	Se 196.026†	5400.3	6153.2	2490 µg/L	2490 ppb	10:33:40
2	SiO2†	93970.9	105439.9	11145 µg/L	11145 ppb	10:33:38
2	Si 251.611†	291728.5	331965.3	5224.9 µg/L	5224.9 ppb	10:33:38
2	Sn 189.927†	6321.6	7208.2	501.79 µg/L	501.79 ppb	10:33:40
2	Ti 334.940†	457210.2	520650.3	507.26 µg/L	507.26 ppb	10:33:38
2	Tl 190.801†	2885.4	3405.2	473.28 µg/L	473.28 ppb	10:33:40
2	U 409.014†	6901.3	8034.6	517.25 µg/L	517.25 ppb	10:33:38
2	V 292.402†	90427.2	102714.0	518.95 µg/L	518.95 ppb	10:33:38
2	Zn 213.857†	76624.2	86891.1	499.00 µg/L	499.00 ppb	10:33:38
3	Sc RADIAL	128673.7	128673.7	91.8 %		10:33:28
3	Al 396.153Radial†	2211074.6	2407376.9	506820 µg/L	506820 ppb	10:33:26
3	Ca 317.933Radial†	6514056.0	7091580.2	483000 µg/L	483000 ppb	10:33:26
3	Fe 238.204 Radial†	2355764.0	2564711.1	191530 µg/L	191530 ppb	10:33:26
3	K 766.490 Radial†	14678.7	14487.6	5498.2 µg/L	5498.2 ppb	10:33:28
3	Mg 279.077 IEC†	977848.9	1064456.5	491350 µg/L	491350 ppb	10:33:28
3	Na 589.592 Radial†	32762.8	34717.8	5376.4 µg/L	5376.4 ppb	10:33:28
3	Sr 421.552†	201341.9	219414.6	513.70 µg/L	513.70 ppb	10:33:28
3	Sc 361.383	1602537.7	1602537.7	88.825 %		10:33:43
3	Y 371.029	925694.1	925694.1	87.553 %		10:33:43
3	Ag 328.068†	64236.0	67752.3	270.66 µg/L	270.66 ppb	10:33:43
3	As 188.979†	1257.5	1434.3	534.05 µg/L	534.05 ppb	10:33:45
3	B 249.677†	33647.4	33815.4	524.30 µg/L	524.30 ppb	10:33:43
3	Ba 233.527†	101063.2	113922.5	504.40 µg/L	504.40 ppb	10:33:43
3	Be 313.107†	751090.5	846676.9	245.41 µg/L	245.41 ppb	10:33:43
3	Cd 226.502†	66103.1	74522.9	483.74 µg/L	483.74 ppb	10:33:43
3	Co 228.616†	30595.5	34655.1	449.01 µg/L	449.01 ppb	10:33:45
3	Cr 267.716†	50288.4	56382.0	488.16 µg/L	488.16 ppb	10:33:45
3	Cu 324.752†	109381.3	120106.5	544.23 µg/L	544.23 ppb	10:33:43
3	Mn 257.610†	339181.7	381669.4	486.31 µg/L	486.31 ppb	10:33:43
3	Mo 202.031†	13013.7	14689.5	497.13 µg/L	497.13 ppb	10:33:45
3	Ni 231.604†	32496.9	36681.3	458.93 µg/L	458.93 ppb	10:33:45
3	P 214.914†	10072.5	11365.5	2604.9 µg/L	2604.9 ppb	10:33:45
3	Pb 220.353†	6417.3	7121.2	464.87 µg/L	464.87 ppb	10:33:45
3	S 181.975 Axial†	3006.9	3296.3	2777.1 µg/L	2777.1 ppb	10:33:45
3	Sb 206.836†	3648.9	4018.3	513.51 µg/L	513.51 ppb	10:33:45
3	Se 196.026†	5398.0	6071.0	2460 µg/L	2460 ppb	10:33:45
3	SiO2†	95329.6	105583.9	11160 µg/L	11160 ppb	10:33:43
3	Si 251.611†	295739.0	332178.9	5228.4 µg/L	5228.4 ppb	10:33:43
3	Sn 189.927†	6344.0	7140.3	497.08 µg/L	497.08 ppb	10:33:45
3	Ti 334.940†	463293.2	520757.1	507.05 µg/L	507.05 ppb	10:33:43
3	Tl 190.801†	2903.4	3383.0	470.31 µg/L	470.31 ppb	10:33:45
3	U 409.014†	7023.4	8070.4	519.96 µg/L	519.96 ppb	10:33:43
3	V 292.402†	92013.4	103166.3	521.41 µg/L	521.41 ppb	10:33:43
3	Zn 213.857†	77780.4	87063.0	500.33 µg/L	500.33 ppb	10:33:43

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1593679.9	88.334	%	0.5920				0.67%
Sc RADIAL	127699.1	91.2	%	0.83				0.92%
Y 371.029	920644.2	87.075	%	0.5645				0.65%
Ag 328.068†	67886.2	271.10	µg/L	0.393	271.10	ppb	0.393	0.15%
QC value within limits for Ag 328.068 Recovery = 108.44%								
Al 396.153Radial†	2424337.4	510390	µg/L	3622.0	510390	ppb	3622.0	0.71%
QC value within limits for Al 396.153Radial Recovery = 102.08%								
As 188.979†	1441.5	536.88	µg/L	13.237	536.88	ppb	13.237	2.47%
QC value within limits for As 188.979 Recovery = 107.38%								
B 249.677†	33831.8	524.54	µg/L	1.000	524.54	ppb	1.000	0.19%
QC value within limits for B 249.677 Recovery = 104.91%								
Ba 233.527†	113971.8	504.61	µg/L	0.579	504.61	ppb	0.579	0.11%
QC value within limits for Ba 233.527 Recovery = 100.92%								
Be 313.107†	846241.6	245.29	µg/L	0.429	245.29	ppb	0.429	0.18%
QC value within limits for Be 313.107 Recovery = 98.12%								
Ca 317.933Radial†	7146289.6	486730	µg/L	3440.2	486730	ppb	3440.2	0.71%
QC value within limits for Ca 317.933Radial Recovery = 97.35%								
Cd 226.502†	74395.1	482.73	µg/L	1.305	482.73	ppb	1.305	0.27%
QC value within limits for Cd 226.502 Recovery = 96.55%								
Co 228.616†	34869.1	451.77	µg/L	4.420	451.77	ppb	4.420	0.98%

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   QC value within limits for Co 228.616  Recovery = 90.35%
Cr 267.716†            56944.9      493.08 µg/L        5.125      493.08 ppb         5.125   1.04%
   QC value within limits for Cr 267.716  Recovery = 98.62%
Cu 324.752†           120001.6      543.99 µg/L        0.546      543.99 ppb         0.546   0.10%
   QC value within limits for Cu 324.752  Recovery = 108.80%
Fe 238.204 Radial†   2583247.7      192920 µg/L       1307.5      192920 ppb        1307.5   0.68%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.46%
K 766.490 Radial†      14519.6      5509.4 µg/L         9.72      5509.4 ppb          9.72   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 110.19%
Mg 279.077 IEC†      1063676.5      490990 µg/L       1277.3      490990 ppb        1277.3   0.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.20%
Mn 257.610†           381694.4      486.35 µg/L        0.575      486.35 ppb         0.575   0.12%
   QC value within limits for Mn 257.610  Recovery = 97.27%
Mo 202.031†            14815.5      501.30 µg/L        6.238      501.30 ppb         6.238   1.24%
   QC value within limits for Mo 202.031  Recovery = 100.26%
Na 589.592 Radial†     34764.5      5383.7 µg/L        14.43      5383.7 ppb         14.43   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 107.67%
Ni 231.604†            37102.9      464.20 µg/L        6.303      464.20 ppb         6.303   1.36%
   QC value within limits for Ni 231.604  Recovery = 92.84%
P 214.914†             11411.8      2615.5 µg/L        26.48      2615.5 ppb         26.48   1.01%
   QC value within limits for P 214.914  Recovery = 104.62%
Pb 220.353†             7231.6      471.85 µg/L        7.120      471.85 ppb         7.120   1.51%
   QC value within limits for Pb 220.353  Recovery = 94.37%
S 181.975 Axial†        3299.6      2779.9 µg/L        22.57      2779.9 ppb         22.57   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 111.20%
Sb 206.836†             4052.4      517.86 µg/L       14.982      517.86 ppb        14.982   2.89%
   QC value within limits for Sb 206.836  Recovery = 103.57%
Se 196.026†             6099.5        2470 µg/L         18.7        2470 ppb          18.7   0.76%
   QC value within limits for Se 196.026  Recovery = 98.82%
SiO2†                 105553.8       11157 µg/L         11.1       11157 ppb          11.1   0.10%
   QC value within limits for SiO2  Recovery = 104.32%
Si 251.611†           332192.4      5228.6 µg/L         3.80      5228.6 ppb         3.80   0.07%
   QC value within limits for Si 251.611  Recovery = 104.57%
Sn 189.927†             7121.5      495.78 µg/L        6.759      495.78 ppb         6.759   1.36%
   QC value within limits for Sn 189.927  Recovery = 99.16%
Sr 421.552†           219620.8      514.16 µg/L        0.530      514.16 ppb         0.530   0.10%
   QC value within limits for Sr 421.552  Recovery = 102.83%
Ti 334.940†           520778.2      507.19 µg/L        0.127      507.19 ppb         0.127   0.02%
   QC value within limits for Ti 334.940  Recovery = 101.44%
Tl 190.801†             3389.5      471.18 µg/L        1.829      471.18 ppb         1.829   0.39%
   QC value within limits for Tl 190.801  Recovery = 94.24%
U 409.014†              8093.0      521.17 µg/L        4.641      521.17 ppb         4.641   0.89%
   QC value within limits for U 409.014  Recovery = 104.23%
V 292.402†            102987.2      520.40 µg/L        1.288      520.40 ppb         1.288   0.25%
   QC value within limits for V 292.402  Recovery = 104.08%
Zn 213.857†            87035.0      500.01 µg/L        0.885      500.01 ppb         0.885   0.18%
   QC value within limits for Zn 213.857  Recovery = 100.00%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 4/5/2010 10:33:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	126559.3	126559.3	90.3	%			10:34:25
1	Al 396.153Radial†	2128657.4	2356365.3	496100	µg/L	496100	ppb	10:34:22
1	Ca 317.933Radial†	6314300.7	6988953.2	476010	µg/L	476010	ppb	10:34:22
1	Fe 238.204 Radial†	5465694.5	6050054.8	451810	µg/L	451810	ppb	10:34:22
1	K 766.490 Radial†	1793.1	491.1	-123.38	µg/L	-123.38	ppb	10:34:25
1	Mg 279.077 IEC†	925975.9	1024823.3	472810	µg/L	472810	ppb	10:34:22
1	Na 589.592 Radial†	2921252.7	3232686.2	501090	µg/L	501090	ppb	10:34:22
1	Sr 421.552†	4654.3	5356.4	8.9072	µg/L	8.9072	ppb	10:34:25
1	Sc 361.383	1546919.1	1546919.1	85.742	%			10:34:38
1	Y 371.029	889839.0	889839.0	84.162	%			10:34:38
1	Ag 328.068†	3005.5	-1059.9	1.4083	µg/L	1.4083	ppb	10:34:38
1	As 188.979†	-255.7	-279.7	6.6904	µg/L	6.6904	ppb	10:34:40
1	B 249.677†	4737.5	1460.2	22.664	µg/L	22.664	ppb	10:34:38
1	Ba 233.527†	794.9	1071.6	-1.0098	µg/L	-1.0098	ppb	10:34:40
1	Be 313.107†	-14682.0	-16031.7	0.3428	µg/L	0.3428	ppb	10:34:38
1	Cd 226.502†	5844.0	6919.2	-0.7482	µg/L	-0.7482	ppb	10:34:40
1	Co 228.616†	652.2	971.0	-10.720	µg/L	-10.720	ppb	10:34:40
1	Cr 267.716†	351.0	176.1	-1.5441	µg/L	-1.5441	ppb	10:34:40
1	Cu 324.752†	-15692.1	-21337.7	2.9748	µg/L	2.9748	ppb	10:34:40
1	Mn 257.610†	17073.7	19728.1	6.2222	µg/L	6.2222	ppb	10:34:38
1	Mo 202.031†	-894.4	-1004.5	-6.3291	µg/L	-6.3291	ppb	10:34:40
1	Ni 231.604†	193.6	321.7	4.0242	µg/L	4.0242	ppb	10:34:40
1	P 214.914†	900.7	1076.2	52.946	µg/L	52.946	ppb	10:34:40
1	Pb 220.353†	11.4	-90.1	-1.6997	µg/L	-1.6997	ppb	10:34:40
1	S 181.975 Axial†	192.8	136.0	114.13	µg/L	114.13	ppb	10:34:40
1	Sb 206.836†	124.5	55.5	-2.2629	µg/L	-2.2629	ppb	10:34:40
1	Se 196.026†	-394.4	-466.1	-11.0	µg/L	-11.0	ppb	10:34:40
1	SiO2†	1859.0	429.1	46.249	µg/L	46.249	ppb	10:34:40
1	Si 251.611†	-1930.6	-3018.7	-47.219	µg/L	-47.219	ppb	10:34:40
1	Sn 189.927†	106.6	122.4	8.5822	µg/L	8.5822	ppb	10:34:40
1	Ti 334.940†	23243.8	26285.9	-5.8854	µg/L	-5.8854	ppb	10:34:38
1	Tl 190.801†	-201.7	-121.0	-15.915	µg/L	-15.915	ppb	10:34:40
1	U 409.014†	224009.3	261422.7	16417	µg/L	16417	ppb	10:34:38
1	V 292.402†	7774.1	8643.6	7.8652	µg/L	7.8652	ppb	10:34:40
1	Zn 213.857†	8281.3	9155.3	10.683	µg/L	10.683	ppb	10:34:40
2	Sc RADIAL	125637.5	125637.5	89.7	%			10:34:29
2	Al 396.153Radial†	2139692.1	2385957.6	502330	µg/L	502330	ppb	10:34:27
2	Ca 317.933Radial†	6354290.4	7084825.6	482540	µg/L	482540	ppb	10:34:27
2	Fe 238.204 Radial†	5498978.2	6131557.8	457900	µg/L	457900	ppb	10:34:27
2	K 766.490 Radial†	1725.0	429.7	-152.02	µg/L	-152.02	ppb	10:34:29
2	Mg 279.077 IEC†	932671.5	1039809.6	479730	µg/L	479730	ppb	10:34:27
2	Na 589.592 Radial†	2940679.8	3278073.6	508130	µg/L	508130	ppb	10:34:27
2	Sr 421.552†	4574.3	5305.0	8.7348	µg/L	8.7348	ppb	10:34:29
2	Sc 361.383	1550512.3	1550512.3	85.941	%			10:34:42
2	Y 371.029	892357.6	892357.6	84.400	%			10:34:42
2	Ag 328.068†	3032.7	-1036.3	1.2903	µg/L	1.2903	ppb	10:34:42
2	As 188.979†	-211.5	-227.5	25.707	µg/L	25.707	ppb	10:34:44
2	B 249.677†	4893.9	1629.4	25.298	µg/L	25.298	ppb	10:34:42
2	Ba 233.527†	603.9	847.2	-2.0851	µg/L	-2.0851	ppb	10:34:44
2	Be 313.107†	-14522.2	-15806.1	0.4095	µg/L	0.4095	ppb	10:34:42
2	Cd 226.502†	5739.3	6781.5	-2.3191	µg/L	-2.3191	ppb	10:34:44
2	Co 228.616†	595.5	903.2	-11.935	µg/L	-11.935	ppb	10:34:44
2	Cr 267.716†	342.7	165.6	-1.5126	µg/L	-1.5126	ppb	10:34:44
2	Cu 324.752†	-15930.4	-21572.5	3.0692	µg/L	3.0692	ppb	10:34:44
2	Mn 257.610†	17146.9	19767.1	5.9836	µg/L	5.9836	ppb	10:34:42
2	Mo 202.031†	-828.5	-925.5	-3.3760	µg/L	-3.3760	ppb	10:34:44
2	Ni 231.604†	188.2	314.8	3.9390	µg/L	3.9390	ppb	10:34:44
2	P 214.914†	1023.7	1216.9	82.738	µg/L	82.738	ppb	10:34:44
2	Pb 220.353†	73.4	-18.1	2.9268	µg/L	2.9268	ppb	10:34:44

2	S 181.975 Axial†	158.3	95.2	79.867 µg/L	79.867	ppb	10:34:44
2	Sb 206.836†	173.2	111.9	4.9301 µg/L	4.9301	ppb	10:34:44
2	Se 196.026†	-374.2	-441.6	0.817 µg/L	0.817	ppb	10:34:44
2	SiO2†	1834.7	395.7	42.620 µg/L	42.620	ppb	10:34:44
2	Si 251.611†	-1956.2	-3043.3	-47.651 µg/L	-47.651	ppb	10:34:44
2	Sn 189.927†	124.7	143.2	10.027 µg/L	10.027	ppb	10:34:44
2	Ti 334.940†	23738.1	26798.3	-5.7543 µg/L	-5.7543	ppb	10:34:42
2	Tl 190.801†	-179.8	-95.0	-12.363 µg/L	-12.363	ppb	10:34:44
2	U 409.014†	224589.1	261491.9	16421 µg/L	16421	ppb	10:34:42
2	V 292.402†	7601.7	8422.0	6.1036 µg/L	6.1036	ppb	10:34:44
2	Zn 213.857†	8434.0	9310.7	11.011 µg/L	11.011	ppb	10:34:44
3	Sc RADIAL	125009.8	125009.8	89.2 %			10:34:33
3	Al 396.153Radial†	2147785.3	2407007.4	506760 µg/L	506760	ppb	10:34:31
3	Ca 317.933Radial†	6365764.1	7133261.2	485840 µg/L	485840	ppb	10:34:31
3	Fe 238.204 Radial†	5518715.6	6184465.3	461850 µg/L	461850	ppb	10:34:31
3	K 766.490 Radial†	1705.0	416.9	-159.53 µg/L	-159.53	ppb	10:34:33
3	Mg 279.077 IEC†	935614.4	1048329.5	483660 µg/L	483660	ppb	10:34:31
3	Na 589.592 Radial†	2945186.3	3299588.6	511460 µg/L	511460	ppb	10:34:31
3	Sr 421.552†	4533.1	5284.5	8.6605 µg/L	8.6605	ppb	10:34:33
3	Sc 361.383	1555977.3	1555977.3	86.244 %			10:34:47
3	Y 371.029	894540.6	894540.6	84.606 %			10:34:47
3	Ag 328.068†	3170.4	-889.1	1.7502 µg/L	1.7502	ppb	10:34:47
3	As 188.979†	-206.6	-220.9	28.849 µg/L	28.849	ppb	10:34:49
3	B 249.677†	4646.7	1322.7	20.528 µg/L	20.528	ppb	10:34:47
3	Ba 233.527†	637.3	883.5	-1.9741 µg/L	-1.9741	ppb	10:34:49
3	Be 313.107†	-14782.6	-16048.7	0.3304 µg/L	0.3304	ppb	10:34:47
3	Cd 226.502†	5726.3	6743.0	-2.9943 µg/L	-2.9943	ppb	10:34:49
3	Co 228.616†	615.1	923.5	-11.872 µg/L	-11.872	ppb	10:34:49
3	Cr 267.716†	615.1	480.0	1.3198 µg/L	1.3198	ppb	10:34:49
3	Cu 324.752†	-15376.1	-20864.6	6.6877 µg/L	6.6877	ppb	10:34:49
3	Mn 257.610†	17099.2	19641.7	5.6509 µg/L	5.6509	ppb	10:34:47
3	Mo 202.031†	-820.9	-913.3	-2.7493 µg/L	-2.7493	ppb	10:34:49
3	Ni 231.604†	272.9	412.4	5.1591 µg/L	5.1591	ppb	10:34:49
3	P 214.914†	953.1	1130.8	61.063 µg/L	61.063	ppb	10:34:49
3	Pb 220.353†	-35.1	-144.1	-4.6591 µg/L	-4.6591	ppb	10:34:49
3	S 181.975 Axial†	122.3	52.9	44.250 µg/L	44.250	ppb	10:34:49
3	Sb 206.836†	70.4	-8.1	-10.659 µg/L	-10.659	ppb	10:34:49
3	Se 196.026†	-357.0	-420.1	10.6 µg/L	10.6	ppb	10:34:49
3	SiO2†	2030.3	615.0	65.880 µg/L	65.880	ppb	10:34:49
3	Si 251.611†	-2018.3	-3107.2	-48.643 µg/L	-48.643	ppb	10:34:49
3	Sn 189.927†	86.3	98.2	6.9028 µg/L	6.9028	ppb	10:34:49
3	Ti 334.940†	23731.5	26693.7	-6.0852 µg/L	-6.0852	ppb	10:34:47
3	Tl 190.801†	-184.9	-100.1	-13.064 µg/L	-13.064	ppb	10:34:49
3	U 409.014†	224984.1	261032.0	16391 µg/L	16391	ppb	10:34:47
3	V 292.402†	7659.0	8457.3	5.8662 µg/L	5.8662	ppb	10:34:49
3	Zn 213.857†	8212.2	9019.0	8.8832 µg/L	8.8832	ppb	10:34:49

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1551136.2	85.976	%	0.2528				0.29%
Sc RADIAL	125735.5	89.8	%	0.56				0.62%
Y 371.029	892245.7	84.389	%	0.2225				0.26%
Ag 328.068†	-995.1	1.4829	µg/L	0.23886	1.4829	ppb	0.23886	16.11%
Al 396.153Radial†	2383110.1	501730	µg/L	5356.1	501730	ppb	5356.1	1.07%
QC value within limits for Al 396.153Radial Recovery = 100.35%								
As 188.979†	-242.7	20.416	µg/L	11.9898	20.416	ppb	11.9898	58.73%
B 249.677†	1470.8	22.830	µg/L	2.3893	22.830	ppb	2.3893	10.47%
Ba 233.527†	934.1	-1.6897	µg/L	0.59142	-1.6897	ppb	0.59142	35.00%
Be 313.107†	-15962.2	0.3609	µg/L	0.04251	0.3609	ppb	0.04251	11.78%
Ca 317.933Radial†	7069013.4	481460	µg/L	5002.1	481460	ppb	5002.1	1.04%
QC value within limits for Ca 317.933Radial Recovery = 96.29%								
Cd 226.502†	6814.5	-2.0205	µg/L	1.15241	-2.0205	ppb	1.15241	57.03%
Co 228.616†	932.6	-11.509	µg/L	0.6841	-11.509	ppb	0.6841	5.94%
Cr 267.716†	273.9	-0.5790	µg/L	1.64446	-0.5790	ppb	1.64446	284.03%
Cu 324.752†	-21258.2	4.2439	µg/L	2.11693	4.2439	ppb	2.11693	49.88%
Fe 238.204 Radial†	6122026.0	457190	µg/L	5056.6	457190	ppb	5056.6	1.11%
QC value within limits for Fe 238.204 Radial Recovery = 91.44%								
K 766.490 Radial†	445.9	-144.98	µg/L	19.077	-144.98	ppb	19.077	13.16%
Mg 279.077 IEC†	1037654.1	478730	µg/L	5490.6	478730	ppb	5490.6	1.15%

QC value within limits for Mg 279.077 IEC Recovery = 95.75%

Mn 257.610†	19712.3	5.9522 µg/L	0.28693	5.9522 ppb	0.28693	4.82%
Mo 202.031†	-947.8	-4.1515 µg/L	1.91175	-4.1515 ppb	1.91175	46.05%
Na 589.592 Radial†	3270116.1	506890 µg/L	5294.1	506890 ppb	5294.1	1.04%

QC value within limits for Na 589.592 Radial Recovery = 101.38%

Ni 231.604†	349.6	4.3741 µg/L	0.68113	4.3741 ppb	0.68113	15.57%
P 214.914†	1141.3	65.582 µg/L	15.4013	65.582 ppb	15.4013	23.48%
Pb 220.353†	-84.1	-1.1440 µg/L	3.82337	-1.1440 ppb	3.82337	334.21%
S 181.975 Axial†	94.7	79.414 µg/L	34.9395	79.414 ppb	34.9395	44.00%
Sb 206.836†	53.1	-2.6640 µg/L	7.80248	-2.6640 ppb	7.80248	292.88%
Se 196.026†	-442.6	0.161 µg/L	10.8059	0.161 ppb	10.8059	>999.9%
SiO2†	479.9	51.583 µg/L	12.5135	51.583 ppb	12.5135	24.26%
Si 251.611†	-3056.4	-47.838 µg/L	0.7304	-47.838 ppb	0.7304	1.53%
Sn 189.927†	121.3	8.5039 µg/L	1.56348	8.5039 ppb	1.56348	18.39%
Sr 421.552†	5315.3	8.7675 µg/L	0.12654	8.7675 ppb	0.12654	1.44%
Ti 334.940†	26592.6	-5.9083 µg/L	0.16664	-5.9083 ppb	0.16664	2.82%
Tl 190.801†	-105.3	-13.781 µg/L	1.8816	-13.781 ppb	1.8816	13.65%
U 409.014†	261315.5	16410 µg/L	16.3	16410 ppb	16.3	0.10%

QC value within limits for U 409.014 Recovery = 109.40%

V 292.402†	8507.6	6.6117 µg/L	1.09206	6.6117 ppb	1.09206	16.52%
Zn 213.857†	9161.7	10.192 µg/L	1.1457	10.192 ppb	1.1457	11.24%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 4/5/2010 10:34:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137041.1	137041.1	97.8	%			10:35:30
1	Al 396.153Radial†	2091.5	2216.6	10.244	µg/L	10.244	ppb	10:35:32
1	Ca 317.933Radial†	1536.0	998.8	68.025	µg/L	68.025	ppb	10:35:32
1	Fe 238.204 Radial†	-466.5	-594.2	-44.377	µg/L	-44.377	ppb	10:35:32
1	K 766.490 Radial†	729152.1	743896.6	294770	µg/L	294770	ppb	10:35:30
1	Mg 279.077 IEC†	-410.3	-591.9	-32.847	µg/L	-32.847	ppb	10:35:32
1	Na 589.592 Radial†	3206.4	2325.3	98.292	µg/L	98.292	ppb	10:35:32
1	Sr 421.552†	3999711.8	4088990.0	9643.7	µg/L	9643.7	ppb	10:35:28
1	Sc 361.383	1745097.4	1745097.4	96.727	%			10:35:54
1	Y 371.029	997842.0	997842.0	94.377	%			10:35:54
1	Ag 328.068†	-24011.8	-29389.6	-1.6157	µg/L	-1.6157	ppb	10:35:56
1	As 188.979†	28702.2	29692.0	10298	µg/L	10298	ppb	10:35:56
1	B 249.677†	314525.9	321104.5	4960.9	µg/L	4960.9	ppb	10:35:54
1	Ba 233.527†	3126133.6	3232068.9	14376	µg/L	14376	ppb	10:35:54
1	Be 313.107†	9652994.7	9980751.1	2891.0	µg/L	2891.0	ppb	10:35:50
1	Cd 226.502†	1393887.8	1441161.4	9744.7	µg/L	9744.7	ppb	10:35:54
1	Co 228.616†	690506.6	714084.2	9464.3	µg/L	9464.3	ppb	10:35:54
1	Cr 267.716†	2688558.7	2779308.4	24048	µg/L	24048	ppb	10:35:54
1	Cu 324.752†	4655201.0	4809700.5	20122	µg/L	20122	ppb	10:35:54
1	Mn 257.610†	6823928.3	7054670.5	9358.4	µg/L	9358.4	ppb	10:35:54
1	Mo 202.031†	290630.9	300504.6	9831.1	µg/L	9831.1	ppb	10:35:56
1	Ni 231.604†	756062.1	781743.7	9780.6	µg/L	9780.6	ppb	10:35:54
1	P 214.914†	64200.1	66398.4	15124	µg/L	15124	ppb	10:35:56
1	Pb 220.353†	374053.0	386607.7	23821	µg/L	23821	ppb	10:35:54
1	S 181.975 Axial†	60131.3	62077.3	52306	µg/L	52306	ppb	10:35:56
1	Sb 206.836†	76342.9	78836.7	9977.5	µg/L	9977.5	ppb	10:35:56
1	Se 196.026†	24244.9	25059.2	9870	µg/L	9870	ppb	10:35:56
1	SiO2†	922460.8	951938.4	100380	µg/L	100380	ppb	10:35:54
1	Si 251.611†	2889117.4	2986120.3	46891	µg/L	46891	ppb	10:35:54
1	Sn 189.927†	139315.0	144027.6	10024	µg/L	10024	ppb	10:35:56
1	Ti 334.940†	9511207.1	9832250.5	10091	µg/L	10091	ppb	10:35:50
1	Tl 190.801†	67486.0	69884.1	9695.8	µg/L	9695.8	ppb	10:35:56
1	U 409.014†	-9077.0	-9220.8	28.768	µg/L	28.768	ppb	10:35:56
1	V 292.402†	1875279.5	1938317.1	10241	µg/L	10241	ppb	10:35:54
1	Zn 213.857†	2352726.7	2431841.8	14447	µg/L	14447	ppb	10:35:54
2	Sc RADIAL	136238.0	136238.0	97.2	%			10:35:36
2	Al 396.153Radial†	2330.1	2474.6	66.653	µg/L	66.653	ppb	10:35:38
2	Ca 317.933Radial†	1811.3	1291.1	87.936	µg/L	87.936	ppb	10:35:38
2	Fe 238.204 Radial†	-254.9	-379.5	-28.338	µg/L	-28.338	ppb	10:35:38
2	K 766.490 Radial†	723379.4	742354.0	294150	µg/L	294150	ppb	10:35:36
2	Mg 279.077 IEC†	-266.5	-446.5	33.185	µg/L	33.185	ppb	10:35:38
2	Na 589.592 Radial†	3288.8	2429.3	114.95	µg/L	114.95	ppb	10:35:38
2	Sr 421.552†	4058247.0	4173281.4	9842.5	µg/L	9842.5	ppb	10:35:34
2	Sc 361.383	1743215.3	1743215.3	96.622	%			10:36:04
2	Y 371.029	995676.7	995676.7	94.172	%			10:36:04
2	Ag 328.068†	-23853.7	-29252.8	-0.9419	µg/L	-0.9419	ppb	10:36:06
2	As 188.979†	28504.8	29519.8	10240	µg/L	10240	ppb	10:36:06
2	B 249.677†	314697.3	321633.0	4969.1	µg/L	4969.1	ppb	10:36:04
2	Ba 233.527†	3124556.7	3233926.1	14384	µg/L	14384	ppb	10:36:04
2	Be 313.107†	9596946.2	9933517.7	2877.3	µg/L	2877.3	ppb	10:36:00
2	Cd 226.502†	1394309.9	1443154.1	9758.1	µg/L	9758.1	ppb	10:36:04
2	Co 228.616†	690666.8	715020.7	9476.7	µg/L	9476.7	ppb	10:36:04
2	Cr 267.716†	2690044.7	2783847.2	24087	µg/L	24087	ppb	10:36:04
2	Cu 324.752†	4658450.0	4818259.0	20158	µg/L	20158	ppb	10:36:04
2	Mn 257.610†	6824028.9	7062391.3	9368.6	µg/L	9368.6	ppb	10:36:04
2	Mo 202.031†	288983.5	299124.1	9785.9	µg/L	9785.9	ppb	10:36:06
2	Ni 231.604†	755753.2	782267.9	9787.1	µg/L	9787.1	ppb	10:36:04
2	P 214.914†	63999.8	66262.8	15093	µg/L	15093	ppb	10:36:06
2	Pb 220.353†	374105.8	387079.9	23849	µg/L	23849	ppb	10:36:04

2	S 181.975 Axial†	59808.2	61810.0	52081	µg/L	52081 ppb	10:36:06
2	Sb 206.836†	75810.5	78370.9	9916.1	µg/L	9916.1 ppb	10:36:06
2	Se 196.026†	24043.8	24878.2	9800	µg/L	9800 ppb	10:36:06
2	SiO2†	925226.3	955830.3	100800	µg/L	100800 ppb	10:36:04
2	Si 251.611†	2896126.6	2996599.3	47057	µg/L	47057 ppb	10:36:04
2	Sn 189.927†	138237.6	143068.1	9957.6	µg/L	9957.6 ppb	10:36:06
2	Ti 334.940†	9462409.3	9792363.1	10050	µg/L	10050 ppb	10:36:00
2	Tl 190.801†	67159.9	69621.9	9659.6	µg/L	9659.6 ppb	10:36:06
2	U 409.014†	-9085.7	-9240.0	28.141	µg/L	28.141 ppb	10:36:06
2	V 292.402†	1875085.9	1940209.9	10251	µg/L	10251 ppb	10:36:04
2	Zn 213.857†	2353882.7	2435664.2	14470	µg/L	14470 ppb	10:36:04
3	Sc RADIAL	137851.9	137851.9	98.4	%		10:35:43
3	Al 396.153Radial†	2181.4	2295.5	27.169	µg/L	27.169 ppb	10:35:45
3	Ca 317.933Radial†	1189.0	636.9	43.378	µg/L	43.378 ppb	10:35:45
3	Fe 238.204 Radial†	-552.2	-678.5	-50.673	µg/L	-50.673 ppb	10:35:45
3	K 766.490 Radial†	736719.2	747202.5	296080	µg/L	296080 ppb	10:35:43
3	Mg 279.077 IEC†	-281.6	-458.6	28.539	µg/L	28.539 ppb	10:35:45
3	Na 589.592 Radial†	3006.3	2102.7	62.614	µg/L	62.614 ppb	10:35:45
3	Sr 421.552†	4060800.1	4127022.4	9733.4	µg/L	9733.4 ppb	10:35:41
3	Sc 361.383	1752934.8	1752934.8	97.161	%		10:36:13
3	Y 371.029	1001396.2	1001396.2	94.713	%		10:36:13
3	Ag 328.068†	-24151.3	-29422.1	-1.6137	µg/L	-1.6137 ppb	10:36:15
3	As 188.979†	28800.2	29660.2	10288	µg/L	10288 ppb	10:36:15
3	B 249.677†	317129.0	322329.8	4979.9	µg/L	4979.9 ppb	10:36:13
3	Ba 233.527†	3143064.1	3235044.1	14389	µg/L	14389 ppb	10:36:13
3	Be 313.107†	9593258.2	9874649.9	2860.3	µg/L	2860.3 ppb	10:36:10
3	Cd 226.502†	1403189.2	1444291.5	9765.8	µg/L	9765.8 ppb	10:36:13
3	Co 228.616†	695082.1	715601.6	9484.4	µg/L	9484.4 ppb	10:36:13
3	Cr 267.716†	2703738.1	2782503.9	24075	µg/L	24075 ppb	10:36:13
3	Cu 324.752†	4685820.8	4819697.1	20164	µg/L	20164 ppb	10:36:13
3	Mn 257.610†	6866217.2	7066652.6	9374.3	µg/L	9374.3 ppb	10:36:13
3	Mo 202.031†	291726.8	300289.2	9824.0	µg/L	9824.0 ppb	10:36:15
3	Ni 231.604†	761256.4	783595.0	9803.7	µg/L	9803.7 ppb	10:36:13
3	P 214.914†	64499.6	66409.8	15127	µg/L	15127 ppb	10:36:15
3	Pb 220.353†	376414.3	387309.1	23863	µg/L	23863 ppb	10:36:13
3	S 181.975 Axial†	60499.1	62177.8	52391	µg/L	52391 ppb	10:36:15
3	Sb 206.836†	76694.5	78845.7	9978.2	µg/L	9978.2 ppb	10:36:15
3	Se 196.026†	24393.5	25100.1	9890	µg/L	9890 ppb	10:36:15
3	SiO2†	931438.5	956914.6	100910	µg/L	100910 ppb	10:36:13
3	Si 251.611†	2916872.0	3001331.5	47131	µg/L	47131 ppb	10:36:13
3	Sn 189.927†	139983.2	144071.4	10027	µg/L	10027 ppb	10:36:15
3	Ti 334.940†	9456296.8	9731772.1	9987.4	µg/L	9987.4 ppb	10:36:10
3	Tl 190.801†	68171.4	70277.5	9748.5	µg/L	9748.5 ppb	10:36:15
3	U 409.014†	-8744.7	-8836.8	53.587	µg/L	53.587 ppb	10:36:15
3	V 292.402†	1885383.9	1940048.7	10251	µg/L	10251 ppb	10:36:13
3	Zn 213.857†	2368680.6	2437386.7	14480	µg/L	14480 ppb	10:36:13

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1747082.5	96.837	%	0.2857				0.30%
Sc RADIAL	137043.7	97.8	%	0.58				0.59%
Y 371.029	998304.9	94.420	%	0.2731				0.29%
Ag 328.068†	-29354.8	-1.3904	µg/L	0.38842	-1.3904	ppb	0.38842	27.94%
Al 396.153Radial†	2328.9	34.689	µg/L	28.9466	34.689	ppb	28.9466	83.45%
As 188.979†	29624.0	10276	µg/L	30.9	10276	ppb	30.9	0.30%
QC value within limits for As 188.979 Recovery = 102.76%								
B 249.677†	321689.1	4970.0	µg/L	9.52	4970.0	ppb	9.52	0.19%
QC value within limits for B 249.677 Recovery = 99.40%								
Ba 233.527†	3233679.7	14383	µg/L	6.7	14383	ppb	6.7	0.05%
QC value within limits for Ba 233.527 Recovery = 95.88%								
Be 313.107†	9929639.6	2876.2	µg/L	15.39	2876.2	ppb	15.39	0.54%
QC value within limits for Be 313.107 Recovery = 95.87%								
Ca 317.933Radial†	975.6	66.446	µg/L	22.3211	66.446	ppb	22.3211	33.59%
Cd 226.502†	1442869.0	9756.2	µg/L	10.71	9756.2	ppb	10.71	0.11%
QC value within limits for Cd 226.502 Recovery = 97.56%								
Co 228.616†	714902.2	9475.1	µg/L	10.14	9475.1	ppb	10.14	0.11%
QC value within limits for Co 228.616 Recovery = 94.75%								
Cr 267.716†	2781886.5	24070	µg/L	20.2	24070	ppb	20.2	0.08%
QC value within limits for Cr 267.716 Recovery = 96.28%								

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Cu 324.752†          4815885.5       20148 µg/L          22.6       20148 ppb          22.6   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.74%
Fe 238.204 Radial†      -550.7     -41.129 µg/L       11.5159     -41.129 ppb       11.5159  28.00%
K 766.490 Radial†     744484.4      295000 µg/L         981.6      295000 ppb         981.6   0.33%
   QC value within limits for K 766.490 Radial  Recovery = 98.33%
Mg 279.077 IEC†         -499.0      9.6261 µg/L      36.85576      9.6261 ppb      36.85576 382.87%
Mn 257.610†          7061238.1      9367.1 µg/L          8.06      9367.1 ppb          8.06   0.09%
   QC value within limits for Mn 257.610  Recovery = 93.67%
Mo 202.031†           299972.6      9813.7 µg/L         24.29      9813.7 ppb         24.29   0.25%
   QC value within limits for Mo 202.031  Recovery = 98.14%
Na 589.592 Radial†      2285.8      91.953 µg/L       26.7387      91.953 ppb       26.7387  29.08%
Ni 231.604†           782535.6      9790.5 µg/L         11.94      9790.5 ppb         11.94   0.12%
   QC value within limits for Ni 231.604  Recovery = 97.90%
P 214.914†             66357.0      15115 µg/L          19.1       15115 ppb          19.1   0.13%
   QC value within limits for P 214.914  Recovery = 100.76%
Pb 220.353†           386998.9      23844 µg/L          21.9       23844 ppb          21.9   0.09%
   QC value within limits for Pb 220.353  Recovery = 95.38%
S 181.975 Axial†       62021.7      52259 µg/L         160.1       52259 ppb         160.1   0.31%
   QC value within limits for S 181.975 Axial  Recovery = 104.52%
Sb 206.836†            78684.4     9957.3 µg/L         35.64      9957.3 ppb         35.64   0.36%
   QC value within limits for Sb 206.836  Recovery = 99.57%
Se 196.026†            25012.5       9850 µg/L          46.5        9850 ppb          46.5   0.47%
   QC value within limits for Se 196.026  Recovery = 98.54%
SiO2†                 954894.4     100700 µg/L         277.6      100700 ppb         277.6   0.28%
   QC value within limits for SiO2  Recovery = 94.11%
Si 251.611†          2994683.7      47026 µg/L         122.9       47026 ppb         122.9   0.26%
   QC value within limits for Si 251.611  Recovery = 94.05%
Sn 189.927†           143722.4      10003 µg/L          39.3       10003 ppb          39.3   0.39%
   QC value within limits for Sn 189.927  Recovery = 100.03%
Sr 421.552†          4129764.6     9739.9 µg/L         99.56      9739.9 ppb         99.56   1.02%
   QC value within limits for Sr 421.552  Recovery = 97.40%
Ti 334.940†          9785461.9      10043 µg/L          52.0       10043 ppb          52.0   0.52%
   QC value within limits for Ti 334.940  Recovery = 100.43%
Tl 190.801†            69927.8     9701.3 µg/L         44.70      9701.3 ppb         44.70   0.46%
   QC value within limits for Tl 190.801  Recovery = 97.01%
U 409.014†             -9099.2     36.832 µg/L       14.5139      36.832 ppb       14.5139  39.41%
V 292.402†           1939525.2      10248 µg/L           5.4       10248 ppb           5.4   0.05%
   QC value within limits for V 292.402  Recovery = 102.48%
Zn 213.857†          2434964.2      14466 µg/L          16.8       14466 ppb          16.8   0.12%
   QC value within limits for Zn 213.857  Recovery = 96.44%
All analyte(s) passed QC.
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Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 10:36:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139383.4	139383.4	99.5	%			10:36:57
1	Al 396.153Radial†	23983.0	24183.6	5067.9	µg/L	5067.9	ppb	10:36:57
1	Ca 317.933Radial†	74884.5	74694.3	5087.4	µg/L	5087.4	ppb	10:36:57
1	Fe 238.204 Radial†	67324.3	67549.7	5044.6	µg/L	5044.6	ppb	10:36:57
1	K 766.490 Radial†	15793.3	14379.9	5693.8	µg/L	5693.8	ppb	10:36:57
1	Mg 279.077 IEC†	11375.8	11261.3	5207.8	µg/L	5207.8	ppb	10:36:57
1	Na 589.592 Radial†	66012.0	65395.6	10132	µg/L	10132	ppb	10:36:57
1	Sr 421.552†	209942.4	211215.7	498.11	µg/L	498.11	ppb	10:36:54
1	Sc 361.383	1775532.0	1775532.0	98.414	%			10:37:23
1	Y 371.029	1029238.8	1029238.8	97.346	%			10:37:23
1	Ag 328.068†	123713.3	121142.4	502.16	µg/L	502.16	ppb	10:37:23
1	As 188.979†	1429.2	1470.7	504.76	µg/L	504.76	ppb	10:37:43
1	B 249.677†	36189.7	32707.9	506.91	µg/L	506.91	ppb	10:37:23
1	Ba 233.527†	111189.9	113126.7	503.24	µg/L	503.24	ppb	10:37:23
1	Be 313.107†	1690082.4	1718417.5	497.92	µg/L	497.92	ppb	10:37:23
1	Cd 226.502†	73455.3	74742.7	504.85	µg/L	504.85	ppb	10:37:23
1	Co 228.616†	37411.0	38224.4	505.95	µg/L	505.95	ppb	10:37:23
1	Cr 267.716†	57380.8	58072.6	502.27	µg/L	502.27	ppb	10:37:23
1	Cu 324.752†	120937.5	119850.9	502.85	µg/L	502.85	ppb	10:37:23
1	Mn 257.610†	372256.9	378072.8	501.31	µg/L	501.31	ppb	10:37:23
1	Mo 202.031†	15240.8	15525.1	508.19	µg/L	508.19	ppb	10:37:43
1	Ni 231.604†	39405.2	40136.3	502.16	µg/L	502.16	ppb	10:37:23
1	P 214.914†	10778.6	10978.0	2530.9	µg/L	2530.9	ppb	10:37:43
1	Pb 220.353†	8349.3	8380.4	517.30	µg/L	517.30	ppb	10:37:43
1	S 181.975 Axial†	1311.1	1243.3	1050.2	µg/L	1050.2	ppb	10:37:43
1	Sb 206.836†	3923.4	3896.9	503.72	µg/L	503.72	ppb	10:37:43
1	Se 196.026†	1279.8	1294.3	512	µg/L	512	ppb	10:37:43
1	SiO2†	51119.4	50204.3	5294.7	µg/L	5294.7	ppb	10:37:23
1	Si 251.611†	156377.4	158131.1	2483.4	µg/L	2483.4	ppb	10:37:23
1	Sn 189.927†	7206.6	7320.9	509.48	µg/L	509.48	ppb	10:37:43
1	Ti 334.940†	478294.1	485181.0	497.67	µg/L	497.67	ppb	10:37:23
1	Tl 190.801†	3555.2	3726.8	516.38	µg/L	516.38	ppb	10:37:43
1	U 409.014†	7075.5	7352.9	494.46	µg/L	494.46	ppb	10:37:23
1	V 292.402†	95137.0	96247.3	505.57	µg/L	505.57	ppb	10:37:23
1	Zn 213.857†	83877.0	84726.1	502.00	µg/L	502.00	ppb	10:37:23
2	Sc RADIAL	141237.6	141237.6	101	%			10:37:01
2	Al 396.153Radial†	24351.7	24232.9	5078.4	µg/L	5078.4	ppb	10:37:01
2	Ca 317.933Radial†	76105.1	74916.9	5102.5	µg/L	5102.5	ppb	10:37:01
2	Fe 238.204 Radial†	68422.0	67750.2	5059.5	µg/L	5059.5	ppb	10:37:01
2	K 766.490 Radial†	15816.9	14194.9	5620.5	µg/L	5620.5	ppb	10:37:01
2	Mg 279.077 IEC†	11511.1	11245.3	5200.4	µg/L	5200.4	ppb	10:37:01
2	Na 589.592 Radial†	66852.4	65358.1	10126	µg/L	10126	ppb	10:37:01
2	Sr 421.552†	212339.4	210823.0	497.18	µg/L	497.18	ppb	10:36:59
2	Sc 361.383	1787375.4	1787375.4	99.070	%			10:37:47
2	Y 371.029	1037117.1	1037117.1	98.091	%			10:37:47
2	Ag 328.068†	124828.0	121434.6	503.37	µg/L	503.37	ppb	10:37:47
2	As 188.979†	1441.0	1473.1	505.57	µg/L	505.57	ppb	10:38:07
2	B 249.677†	36397.3	32673.8	506.38	µg/L	506.38	ppb	10:37:47
2	Ba 233.527†	111984.0	113179.7	503.48	µg/L	503.48	ppb	10:37:47
2	Be 313.107†	1706153.7	1723260.5	499.32	µg/L	499.32	ppb	10:37:47
2	Cd 226.502†	74191.2	74991.0	506.53	µg/L	506.53	ppb	10:37:47
2	Co 228.616†	37736.8	38301.3	506.97	µg/L	506.97	ppb	10:37:47
2	Cr 267.716†	57858.9	58168.8	503.11	µg/L	503.11	ppb	10:37:47
2	Cu 324.752†	122047.6	120157.1	504.13	µg/L	504.13	ppb	10:37:47
2	Mn 257.610†	375557.0	378897.5	502.41	µg/L	502.41	ppb	10:37:47
2	Mo 202.031†	15314.4	15496.7	507.27	µg/L	507.27	ppb	10:38:07
2	Ni 231.604†	39844.4	40314.3	504.38	µg/L	504.38	ppb	10:37:47
2	P 214.914†	10818.6	10945.8	2523.4	µg/L	2523.4	ppb	10:38:07
2	Pb 220.353†	8374.4	8349.6	515.41	µg/L	515.41	ppb	10:38:07

2	S 181.975 Axial†	1316.2	1239.6	1047.1 µg/L	1047.1 ppb	10:38:07
2	Sb 206.836†	3951.4	3898.7	503.93 µg/L	503.93 ppb	10:38:07
2	Se 196.026†	1293.2	1299.1	514 µg/L	514 ppb	10:38:07
2	SiO2†	51601.8	50347.1	5309.9 µg/L	5309.9 ppb	10:37:47
2	Si 251.611†	157616.5	158329.0	2486.6 µg/L	2486.6 ppb	10:37:47
2	Sn 189.927†	7228.2	7294.2	507.63 µg/L	507.63 ppb	10:38:07
2	Ti 334.940†	482143.4	485846.0	498.36 µg/L	498.36 ppb	10:37:47
2	Tl 190.801†	3577.4	3725.3	516.20 µg/L	516.20 ppb	10:38:07
2	U 409.014†	6994.8	7223.9	486.47 µg/L	486.47 ppb	10:37:47
2	V 292.402†	96271.3	96751.8	508.18 µg/L	508.18 ppb	10:37:47
2	Zn 213.857†	84512.0	84802.3	502.44 µg/L	502.44 ppb	10:37:47
3	Sc RADIAL	139619.7	139619.7	99.7 %		10:37:05
3	Al 396.153Radial†	23966.5	24126.3	5056.2 µg/L	5056.2 ppb	10:37:05
3	Ca 317.933Radial†	75181.7	74865.1	5099.0 µg/L	5099.0 ppb	10:37:05
3	Fe 238.204 Radial†	67379.8	67490.9	5040.2 µg/L	5040.2 ppb	10:37:05
3	K 766.490 Radial†	15656.1	14215.4	5628.6 µg/L	5628.6 ppb	10:37:05
3	Mg 279.077 IEC†	11320.1	11186.0	5172.9 µg/L	5172.9 ppb	10:37:05
3	Na 589.592 Radial†	66307.8	65580.0	10160 µg/L	10160 ppb	10:37:05
3	Sr 421.552†	212426.4	213350.9	503.14 µg/L	503.14 ppb	10:37:03
3	Sc 361.383	1796359.2	1796359.2	99.568 %		10:38:10
3	Y 371.029	1041972.3	1041972.3	98.551 %		10:38:10
3	Ag 328.068†	125764.0	121744.4	504.65 µg/L	504.65 ppb	10:38:10
3	As 188.979†	1434.8	1459.5	500.98 µg/L	500.98 ppb	10:38:30
3	B 249.677†	36503.8	32597.0	505.17 µg/L	505.17 ppb	10:38:10
3	Ba 233.527†	113116.0	113751.3	506.02 µg/L	506.02 ppb	10:38:10
3	Be 313.107†	1721963.8	1730526.4	501.43 µg/L	501.43 ppb	10:38:10
3	Cd 226.502†	75117.4	75546.7	510.29 µg/L	510.29 ppb	10:38:10
3	Co 228.616†	38112.7	38488.4	509.44 µg/L	509.44 ppb	10:38:10
3	Cr 267.716†	58452.0	58472.4	505.73 µg/L	505.73 ppb	10:38:10
3	Cu 324.752†	122851.6	120348.5	504.93 µg/L	504.93 ppb	10:38:10
3	Mn 257.610†	379092.5	380552.5	504.60 µg/L	504.60 ppb	10:38:10
3	Mo 202.031†	15195.9	15300.4	500.85 µg/L	500.85 ppb	10:38:30
3	Ni 231.604†	40229.0	40499.4	506.70 µg/L	506.70 ppb	10:38:10
3	P 214.914†	10704.5	10776.6	2484.3 µg/L	2484.3 ppb	10:38:30
3	Pb 220.353†	8282.2	8214.7	507.09 µg/L	507.09 ppb	10:38:30
3	S 181.975 Axial†	1291.3	1208.0	1020.5 µg/L	1020.5 ppb	10:38:30
3	Sb 206.836†	3926.1	3853.4	497.95 µg/L	497.95 ppb	10:38:30
3	Se 196.026†	1271.1	1270.5	503 µg/L	503 ppb	10:38:30
3	SiO2†	51964.0	50450.4	5321.1 µg/L	5321.1 ppb	10:38:10
3	Si 251.611†	159117.7	159041.0	2497.9 µg/L	2497.9 ppb	10:38:10
3	Sn 189.927†	7158.9	7188.1	500.28 µg/L	500.28 ppb	10:38:30
3	Ti 334.940†	486018.7	487304.3	499.85 µg/L	499.85 ppb	10:38:10
3	Tl 190.801†	3533.3	3662.9	507.69 µg/L	507.69 ppb	10:38:30
3	U 409.014†	7097.1	7291.2	490.73 µg/L	490.73 ppb	10:38:10
3	V 292.402†	96745.9	96742.4	508.08 µg/L	508.08 ppb	10:38:10
3	Zn 213.857†	85472.9	85340.8	505.64 µg/L	505.64 ppb	10:38:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786422.2	99.017	%	0.5790				0.58%
Sc RADIAL	140080.2	100.0	%	0.72				0.72%
Y 371.029	1036109.4	97.996	%	0.6078				0.62%
Ag 328.068†	121440.5	503.39	µg/L	1.245	503.39	ppb	1.245	0.25%
QC value within limits for Ag 328.068 Recovery = 100.68%								
Al 396.153Radial†	24180.9	5067.5	µg/L	11.08	5067.5	ppb	11.08	0.22%
QC value within limits for Al 396.153Radial Recovery = 101.35%								
As 188.979†	1467.8	503.77	µg/L	2.452	503.77	ppb	2.452	0.49%
QC value within limits for As 188.979 Recovery = 100.75%								
B 249.677†	32659.6	506.15	µg/L	0.889	506.15	ppb	0.889	0.18%
QC value within limits for B 249.677 Recovery = 101.23%								
Ba 233.527†	113352.6	504.25	µg/L	1.539	504.25	ppb	1.539	0.31%
QC value within limits for Ba 233.527 Recovery = 100.85%								
Be 313.107†	1724068.1	499.56	µg/L	1.765	499.56	ppb	1.765	0.35%
QC value within limits for Be 313.107 Recovery = 99.91%								
Ca 317.933Radial†	74825.4	5096.3	µg/L	7.93	5096.3	ppb	7.93	0.16%
QC value within limits for Ca 317.933Radial Recovery = 101.93%								
Cd 226.502†	75093.5	507.22	µg/L	2.784	507.22	ppb	2.784	0.55%
QC value within limits for Cd 226.502 Recovery = 101.44%								
Co 228.616†	38338.0	507.45	µg/L	1.798	507.45	ppb	1.798	0.35%

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   QC value within limits for Co 228.616  Recovery = 101.49%
Cr 267.716†            58237.9      503.70 µg/L         1.806      503.70 ppb          1.806   0.36%
   QC value within limits for Cr 267.716  Recovery = 100.74%
Cu 324.752†           120118.8      503.97 µg/L         1.048      503.97 ppb          1.048   0.21%
   QC value within limits for Cu 324.752  Recovery = 100.79%
Fe 238.204 Radial†     67596.9      5048.1 µg/L         10.15      5048.1 ppb          10.15   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.96%
K 766.490 Radial†      14263.4      5647.7 µg/L         40.19      5647.7 ppb          40.19   0.71%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 112.95%
Mg 279.077 IEC†        11230.9      5193.7 µg/L         18.41      5193.7 ppb          18.41   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.87%
Mn 257.610†           379174.3      502.77 µg/L         1.676      502.77 ppb          1.676   0.33%
   QC value within limits for Mn 257.610  Recovery = 100.55%
Mo 202.031†            15440.7      505.43 µg/L         4.001      505.43 ppb          4.001   0.79%
   QC value within limits for Mo 202.031  Recovery = 101.09%
Na 589.592 Radial†     65444.6       10139 µg/L          18.4       10139 ppb           18.4   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 101.39%
Ni 231.604†            40316.7      504.41 µg/L         2.272      504.41 ppb          2.272   0.45%
   QC value within limits for Ni 231.604  Recovery = 100.88%
P 214.914†             10900.2      2512.9 µg/L         25.04      2512.9 ppb          25.04   1.00%
   QC value within limits for P 214.914  Recovery = 100.51%
Pb 220.353†             8314.9      513.27 µg/L         5.432      513.27 ppb          5.432   1.06%
   QC value within limits for Pb 220.353  Recovery = 102.65%
S 181.975 Axial†        1230.3      1039.3 µg/L         16.35      1039.3 ppb          16.35   1.57%
   QC value within limits for S 181.975 Axial  Recovery = 103.93%
Sb 206.836†             3883.0      501.87 µg/L         3.396      501.87 ppb          3.396   0.68%
   QC value within limits for Sb 206.836  Recovery = 100.37%
Se 196.026†             1288.0         510 µg/L           6.0         510 ppb            6.0   1.19%
   QC value within limits for Se 196.026  Recovery = 101.93%
SiO2†                  50333.9      5308.6 µg/L         13.25      5308.6 ppb          13.25   0.25%
   QC value within limits for SiO2  Recovery = 99.27%
Si 251.611†           158500.4      2489.3 µg/L          7.63      2489.3 ppb           7.63   0.31%
   QC value within limits for Si 251.611  Recovery = 99.57%
Sn 189.927†             7267.7      505.80 µg/L         4.871      505.80 ppb          4.871   0.96%
   QC value within limits for Sn 189.927  Recovery = 101.16%
Sr 421.552†           211796.5      499.47 µg/L         3.208      499.47 ppb          3.208   0.64%
   QC value within limits for Sr 421.552  Recovery = 99.89%
Ti 334.940†           486110.4      498.63 µg/L         1.117      498.63 ppb          1.117   0.22%
   QC value within limits for Ti 334.940  Recovery = 99.73%
Tl 190.801†             3705.0      513.42 µg/L         4.965      513.42 ppb          4.965   0.97%
   QC value within limits for Tl 190.801  Recovery = 102.68%
U 409.014†              7289.3      490.55 µg/L         3.999      490.55 ppb          3.999   0.82%
   QC value within limits for U 409.014  Recovery = 98.11%
V 292.402†             96580.5      507.28 µg/L         1.474      507.28 ppb          1.474   0.29%
   QC value within limits for V 292.402  Recovery = 101.46%
Zn 213.857†            84956.4      503.36 µg/L         1.987      503.36 ppb          1.987   0.39%
   QC value within limits for Zn 213.857  Recovery = 100.67%
QC Failed.  Continue with analysis.
```

Sequence No.: 14 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/5/2010 10:38:38**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139909.9	139909.9	99.9	%			10:39:07
1	Al 396.153Radial†	-55.8	22.7	4.7099	µg/L	4.7099	ppb	10:39:27
1	Ca 317.933Radial†	668.4	97.8	6.6613	µg/L	6.6613	ppb	10:39:27
1	Fe 238.204 Radial†	168.4	51.3	3.8306	µg/L	3.8306	ppb	10:39:27
1	K 766.490 Radial†	2181.0	690.0	273.40	µg/L	273.40	ppb	10:39:07
1	Mg 279.077 IEC†	195.0	22.8	10.561	µg/L	10.561	ppb	10:39:27
1	Na 589.592 Radial†	1624.4	674.0	104.23	µg/L	104.23	ppb	10:39:07
1	Sr 421.552†	-97.8	106.5	0.2512	µg/L	0.2512	ppb	10:39:07
1	Sc 361.383	1822724.3	1822724.3	101.03	%			10:40:15
1	Y 371.029	1067929.9	1067929.9	101.01	%			10:40:15
1	Ag 328.068†	4558.5	-53.1	-0.2451	µg/L	-0.2451	ppb	10:40:17
1	As 188.979†	-17.1	1.6	0.5599	µg/L	0.5599	ppb	10:40:37
1	B 249.677†	4426.7	316.4	4.9210	µg/L	4.9210	ppb	10:40:17
1	Ba 233.527†	-125.1	20.7	0.0922	µg/L	0.0922	ppb	10:40:37
1	Be 313.107†	-581.3	516.4	0.1437	µg/L	0.1437	ppb	10:40:17
1	Cd 226.502†	-17.4	86.1	0.5819	µg/L	0.5819	ppb	10:40:37
1	Co 228.616†	-210.1	2.3	0.0304	µg/L	0.0304	ppb	10:40:37
1	Cr 267.716†	230.3	-5.3	-0.0307	µg/L	-0.0307	ppb	10:40:37
1	Cu 324.752†	3295.4	225.7	0.9289	µg/L	0.9289	ppb	10:40:17
1	Mn 257.610†	310.3	122.4	0.1620	µg/L	0.1620	ppb	10:40:37
1	Mo 202.031†	6.0	44.5	1.4552	µg/L	1.4552	ppb	10:40:37
1	Ni 231.604†	-50.2	46.2	0.5783	µg/L	0.5783	ppb	10:40:37
1	P 214.914†	-9.3	16.5	3.7864	µg/L	3.7864	ppb	10:40:37
1	Pb 220.353†	119.1	14.4	0.9040	µg/L	0.9040	ppb	10:40:37
1	S 181.975 Axial†	105.7	15.7	13.183	µg/L	13.183	ppb	10:40:37
1	Sb 206.836†	87.7	-2.9	-0.3534	µg/L	-0.3534	ppb	10:40:37
1	Se 196.026†	26.3	19.9	7.82	µg/L	7.82	ppb	10:40:37
1	SiO2†	1818.1	60.4	6.3488	µg/L	6.3488	ppb	10:40:37
1	Si 251.611†	861.5	85.7	1.3276	µg/L	1.3276	ppb	10:40:17
1	Sn 189.927†	11.7	9.7	0.6739	µg/L	0.6739	ppb	10:40:37
1	Ti 334.940†	1159.3	324.5	0.3406	µg/L	0.3406	ppb	10:40:17
1	Tl 190.801†	-101.6	13.7	1.8777	µg/L	1.8777	ppb	10:40:37
1	U 409.014†	-475.4	-307.2	-19.402	µg/L	-19.402	ppb	10:40:17
1	V 292.402†	369.8	-57.2	-0.2953	µg/L	-0.2953	ppb	10:40:17
1	Zn 213.857†	703.4	193.2	1.1494	µg/L	1.1494	ppb	10:40:37
2	Sc RADIAL	139104.0	139104.0	99.3	%			10:39:29
2	Al 396.153Radial†	-55.3	22.9	4.7868	µg/L	4.7868	ppb	10:39:49
2	Ca 317.933Radial†	656.3	89.5	6.0970	µg/L	6.0970	ppb	10:39:49
2	Fe 238.204 Radial†	153.3	37.1	2.7712	µg/L	2.7712	ppb	10:39:49
2	K 766.490 Radial†	2053.7	574.5	227.64	µg/L	227.64	ppb	10:39:29
2	Mg 279.077 IEC†	181.1	9.9	4.5998	µg/L	4.5998	ppb	10:39:49
2	Na 589.592 Radial†	1651.7	711.0	110.00	µg/L	110.00	ppb	10:39:29
2	Sr 421.552†	-28.2	176.1	0.4153	µg/L	0.4153	ppb	10:39:29
2	Sc 361.383	1814086.1	1814086.1	100.55	%			10:40:39
2	Y 371.029	1063810.2	1063810.2	100.62	%			10:40:39
2	Ag 328.068†	4519.4	-70.5	-0.3026	µg/L	-0.3026	ppb	10:40:41
2	As 188.979†	-16.7	1.9	0.6543	µg/L	0.6543	ppb	10:41:02
2	B 249.677†	4194.0	105.9	1.6449	µg/L	1.6449	ppb	10:40:41
2	Ba 233.527†	36.7	181.1	0.8048	µg/L	0.8048	ppb	10:41:02
2	Be 313.107†	-830.7	265.6	0.0742	µg/L	0.0742	ppb	10:40:41
2	Cd 226.502†	-39.0	64.5	0.4361	µg/L	0.4361	ppb	10:41:02
2	Co 228.616†	-158.3	52.9	0.7000	µg/L	0.7000	ppb	10:41:02
2	Cr 267.716†	280.5	45.7	0.4025	µg/L	0.4025	ppb	10:41:02
2	Cu 324.752†	3051.0	-1.8	-0.0141	µg/L	-0.0141	ppb	10:40:41
2	Mn 257.610†	250.3	64.2	0.0850	µg/L	0.0850	ppb	10:41:02
2	Mo 202.031†	-19.1	19.6	0.6409	µg/L	0.6409	ppb	10:41:02
2	Ni 231.604†	-77.8	18.5	0.2318	µg/L	0.2318	ppb	10:41:02
2	P 214.914†	-30.8	-4.9	-1.1366	µg/L	-1.1366	ppb	10:41:02
2	Pb 220.353†	140.7	36.5	2.2529	µg/L	2.2529	ppb	10:41:02

2	S 181.975 Axial†	114.2	24.6	20.708 µg/L	20.708 ppb	10:41:02
2	Sb 206.836†	82.1	-8.1	-1.0413 µg/L	-1.0413 ppb	10:41:02
2	Se 196.026†	31.3	24.9	9.81 µg/L	9.81 ppb	10:41:02
2	SiO2†	1765.7	17.0	1.7661 µg/L	1.7661 ppb	10:41:02
2	Si 251.611†	858.7	87.0	1.3574 µg/L	1.3574 ppb	10:40:41
2	Sn 189.927†	15.3	13.3	0.9228 µg/L	0.9228 ppb	10:41:02
2	Ti 334.940†	912.5	84.5	0.0902 µg/L	0.0902 ppb	10:40:41
2	Tl 190.801†	-111.6	3.3	0.4502 µg/L	0.4502 ppb	10:41:02
2	U 409.014†	-310.7	-145.6	-9.2038 µg/L	-9.2038 ppb	10:40:41
2	V 292.402†	384.0	-41.3	-0.2124 µg/L	-0.2124 ppb	10:40:41
2	Zn 213.857†	665.6	159.0	0.9477 µg/L	0.9477 ppb	10:41:02
3	Sc RADIAL	140352.9	140352.9	100 %		10:39:51
3	Al 396.153Radial†	-12.8	65.8	13.824 µg/L	13.824 ppb	10:40:11
3	Ca 317.933Radial†	842.6	269.6	18.359 µg/L	18.359 ppb	10:40:11
3	Fe 238.204 Radial†	290.3	172.4	12.876 µg/L	12.876 ppb	10:40:11
3	K 766.490 Radial†	2021.3	523.7	207.51 µg/L	207.51 ppb	10:39:51
3	Mg 279.077 IEC†	235.2	62.3	28.777 µg/L	28.777 ppb	10:40:11
3	Na 589.592 Radial†	1483.6	528.4	81.714 µg/L	81.714 ppb	10:39:51
3	Sr 421.552†	-224.6	-19.7	-0.0465 µg/L	-0.0465 ppb	10:39:51
3	Sc 361.383	1797177.6	1797177.6	99.613 %		10:41:04
3	Y 371.029	1054450.3	1054450.3	99.731 %		10:41:04
3	Ag 328.068†	4482.2	-65.5	-0.2803 µg/L	-0.2803 ppb	10:41:06
3	As 188.979†	-10.0	8.5	2.8805 µg/L	2.8805 ppb	10:41:26
3	B 249.677†	4185.2	136.3	2.1188 µg/L	2.1188 ppb	10:41:06
3	Ba 233.527†	-139.1	4.9	0.0218 µg/L	0.0218 ppb	10:41:26
3	Be 313.107†	-828.9	259.6	0.0717 µg/L	0.0717 ppb	10:41:06
3	Cd 226.502†	-11.5	91.8	0.6190 µg/L	0.6190 ppb	10:41:26
3	Co 228.616†	-203.6	5.9	0.0772 µg/L	0.0772 ppb	10:41:26
3	Cr 267.716†	250.1	17.9	0.1638 µg/L	0.1638 ppb	10:41:26
3	Cu 324.752†	3091.9	67.8	0.2766 µg/L	0.2766 ppb	10:41:06
3	Mn 257.610†	263.6	79.9	0.1048 µg/L	0.1048 ppb	10:41:26
3	Mo 202.031†	-21.8	16.7	0.5458 µg/L	0.5458 ppb	10:41:26
3	Ni 231.604†	-72.9	22.7	0.2843 µg/L	0.2843 ppb	10:41:26
3	P 214.914†	-18.9	6.8	1.5610 µg/L	1.5610 ppb	10:41:26
3	Pb 220.353†	128.4	25.5	1.5787 µg/L	1.5787 ppb	10:41:26
3	S 181.975 Axial†	101.9	13.4	11.251 µg/L	11.251 ppb	10:41:26
3	Sb 206.836†	70.7	-18.7	-2.4055 µg/L	-2.4055 ppb	10:41:26
3	Se 196.026†	9.9	3.8	1.49 µg/L	1.49 ppb	10:41:26
3	SiO2†	1766.7	34.5	3.6151 µg/L	3.6151 ppb	10:41:26
3	Si 251.611†	977.5	214.2	3.3608 µg/L	3.3608 ppb	10:41:06
3	Sn 189.927†	23.7	21.9	1.5170 µg/L	1.5170 ppb	10:41:26
3	Ti 334.940†	715.0	-105.2	-0.1052 µg/L	-0.1052 ppb	10:41:06
3	Tl 190.801†	-104.0	9.9	1.3480 µg/L	1.3480 ppb	10:41:26
3	U 409.014†	-346.8	-184.8	-11.650 µg/L	-11.650 ppb	10:41:06
3	V 292.402†	466.6	45.2	0.2316 µg/L	0.2316 ppb	10:41:06
3	Zn 213.857†	652.7	152.2	0.9057 µg/L	0.9057 ppb	10:41:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1811329.4	100.40	%	0.720				0.72%
Sc RADIAL	139788.9	99.8	%	0.45				0.45%
Y 371.029	1062063.4	100.45	%	0.653				0.65%
Ag 328.068†	-63.1	-0.2760	µg/L	0.02898	-0.2760	ppb	0.02898	10.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	37.1	7.7736	µg/L	5.23994	7.7736	ppb	5.23994	67.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.0	1.3649	µg/L	1.31341	1.3649	ppb	1.31341	96.23%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	186.2	2.8949	µg/L	1.77056	2.8949	ppb	1.77056	61.16%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	68.9	0.3062	µg/L	0.43321	0.3062	ppb	0.43321	141.46%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	347.2	0.0965	µg/L	0.04090	0.0965	ppb	0.04090	42.38%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	152.3	10.373	µg/L	6.9226	10.373	ppb	6.9226	66.74%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	80.8	0.5457	µg/L	0.09672	0.5457	ppb	0.09672	17.73%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.4	0.2692	µg/L	0.37385	0.2692	ppb	0.37385	138.88%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                19.4      0.1785 µg/L       0.21700      0.1785 ppb        0.21700 121.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                97.2      0.3971 µg/L       0.48288      0.3971 ppb        0.48288 121.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         86.9      6.4926 µg/L       5.55342      6.4926 ppb        5.55342  85.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         596.1      236.18 µg/L        33.767      236.18 ppb         33.767  14.30%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            31.7      14.646 µg/L       12.5959      14.646 ppb        12.5959  86.00%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                88.9      0.1173 µg/L       0.03997      0.1173 ppb        0.03997  34.08%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                26.9      0.8806 µg/L       0.49988      0.8806 ppb        0.49988  56.76%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        637.8      98.649 µg/L       14.9470      98.649 ppb        14.9470  15.15%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                29.2      0.3648 µg/L       0.18676      0.3648 ppb        0.18676  51.20%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  6.1      1.4036 µg/L       2.46530      1.4036 ppb        2.46530 175.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                25.4      1.5785 µg/L       0.67449      1.5785 ppb        0.67449  42.73%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           17.9      15.047 µg/L        4.9964      15.047 ppb         4.9964  33.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -9.9     -1.2667 µg/L       1.04446     -1.2667 ppb        1.04446  82.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                16.2        6.37 µg/L         4.348        6.37 ppb          4.348  68.22%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      37.3      3.9100 µg/L       2.30555      3.9100 ppb        2.30555  58.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               129.0      2.0153 µg/L       1.16537      2.0153 ppb        1.16537  57.83%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                15.0      1.0379 µg/L       0.43318      1.0379 ppb        0.43318  41.74%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                87.7      0.2067 µg/L       0.23409      0.2067 ppb        0.23409 113.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               101.2      0.1085 µg/L       0.22346      0.1085 ppb        0.22346 205.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 9.0      1.2253 µg/L       0.72161      1.2253 ppb        0.72161  58.89%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -212.6     -13.419 µg/L        5.3243     -13.419 ppb         5.3243  39.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -17.8     -0.0920 µg/L       0.28332     -0.0920 ppb        0.28332 307.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               168.2      1.0009 µg/L       0.13030      1.0009 ppb        0.13030  13.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

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Analysis Begun

Start Time: 4/5/2010 10:49:36 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 4/5/2010 9:54:36**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/5/2010 10:49:38**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139913.8	139913.8	99.9	%			10:50:08
1	Al 396.153Radial†	24335.8	24445.5	5123.4	µg/L	5123.4	ppb	10:50:10
1	Ca 317.933Radial†	76124.3	75650.4	5152.5	µg/L	5152.5	ppb	10:50:10
1	Fe 238.204 Radial†	68091.5	68061.4	5082.8	µg/L	5082.8	ppb	10:50:10

1	K 766.490 Radial†	14510.4	13035.1	5161.0 µg/L	5161.0 ppb	10:50:10
1	Mg 279.077 IEC†	11429.7	11271.9	5212.6 µg/L	5212.6 ppb	10:50:10
1	Na 589.592 Radial†	64869.2	63999.8	9915.9 µg/L	9915.9 ppb	10:50:08
1	Sr 421.552†	210128.9	210602.6	496.66 µg/L	496.66 ppb	10:50:08
1	Sc 361.383	1793135.3	1793135.3	99.389 %		10:50:37
1	Y 371.029	1039795.9	1039795.9	98.345 %		10:50:37
1	Ag 328.068†	125023.0	121226.0	502.50 µg/L	502.50 ppb	10:50:37
1	As 188.979†	1415.1	1442.4	495.14 µg/L	495.14 ppb	10:50:57
1	B 249.677†	35686.1	31840.2	493.41 µg/L	493.41 ppb	10:50:37
1	Ba 233.527†	111774.5	112605.9	500.92 µg/L	500.92 ppb	10:50:37
1	Be 313.107†	1706398.9	1717975.2	497.80 µg/L	497.80 ppb	10:50:37
1	Cd 226.502†	74086.4	74645.0	504.19 µg/L	504.19 ppb	10:50:37
1	Co 228.616†	37804.3	38246.8	506.24 µg/L	506.24 ppb	10:50:37
1	Cr 267.716†	57747.6	57869.2	500.50 µg/L	500.50 ppb	10:50:37
1	Cu 324.752†	121662.9	119374.4	500.87 µg/L	500.87 ppb	10:50:37
1	Mn 257.610†	376107.2	378233.4	501.52 µg/L	501.52 ppb	10:50:37
1	Mo 202.031†	15189.8	15321.7	501.54 µg/L	501.54 ppb	10:50:57
1	Ni 231.604†	39897.8	40238.8	503.44 µg/L	503.44 ppb	10:50:37
1	P 214.914†	10795.7	10887.8	2510.0 µg/L	2510.0 ppb	10:50:57
1	Pb 220.353†	8262.9	8210.2	506.81 µg/L	506.81 ppb	10:50:57
1	S 181.975 Axial†	1275.8	1194.7	1009.3 µg/L	1009.3 ppb	10:50:57
1	Sb 206.836†	3955.2	3889.8	502.71 µg/L	502.71 ppb	10:50:57
1	Se 196.026†	1278.3	1280.0	507 µg/L	507 ppb	10:50:57
1	SiO2†	51569.1	50146.9	5288.9 µg/L	5288.9 ppb	10:50:37
1	Si 251.611†	157499.0	157699.7	2476.8 µg/L	2476.8 ppb	10:50:37
1	Sn 189.927†	7167.7	7209.8	501.78 µg/L	501.78 ppb	10:50:57
1	Ti 334.940†	482524.4	484666.2	497.14 µg/L	497.14 ppb	10:50:37
1	Tl 190.801†	3542.3	3678.3	509.75 µg/L	509.75 ppb	10:50:57
1	U 409.014†	7309.8	7518.1	504.80 µg/L	504.80 ppb	10:50:37
1	V 292.402†	95824.9	95990.5	504.17 µg/L	504.17 ppb	10:50:37
1	Zn 213.857†	84530.8	84547.2	500.92 µg/L	500.92 ppb	10:50:37
2	Sc RADIAL	140341.7	140341.7	100 %		10:50:12
2	Al 396.153Radial†	23928.8	23965.0	5022.0 µg/L	5022.0 ppb	10:50:14
2	Ca 317.933Radial†	74480.6	73777.1	5024.9 µg/L	5024.9 ppb	10:50:14
2	Fe 238.204 Radial†	66810.1	66574.4	4971.7 µg/L	4971.7 ppb	10:50:14
2	K 766.490 Radial†	14217.3	12698.3	5027.6 µg/L	5027.6 ppb	10:50:14
2	Mg 279.077 IEC†	11311.0	11118.6	5141.9 µg/L	5141.9 ppb	10:50:14
2	Na 589.592 Radial†	65359.5	64291.2	9961.2 µg/L	9961.2 ppb	10:50:12
2	Sr 421.552†	211237.8	211067.9	497.76 µg/L	497.76 ppb	10:50:12
2	Sc 361.383	1774369.1	1774369.1	98.349 %		10:51:01
2	Y 371.029	1029276.4	1029276.4	97.350 %		10:51:01
2	Ag 328.068†	123578.9	121088.1	501.92 µg/L	501.92 ppb	10:51:01
2	As 188.979†	1412.6	1454.9	499.35 µg/L	499.35 ppb	10:51:21
2	B 249.677†	35412.9	31942.2	495.00 µg/L	495.00 ppb	10:51:01
2	Ba 233.527†	110497.4	112496.7	500.44 µg/L	500.44 ppb	10:51:01
2	Be 313.107†	1682989.4	1712331.0	496.16 µg/L	496.16 ppb	10:51:01
2	Cd 226.502†	73151.3	74482.6	503.10 µg/L	503.10 ppb	10:51:01
2	Co 228.616†	37344.3	38181.4	505.38 µg/L	505.38 ppb	10:51:01
2	Cr 267.716†	57138.9	57864.8	500.47 µg/L	500.47 ppb	10:51:01
2	Cu 324.752†	120116.3	119096.4	499.68 µg/L	499.68 ppb	10:51:01
2	Mn 257.610†	370927.0	376968.5	499.85 µg/L	499.85 ppb	10:51:01
2	Mo 202.031†	15145.9	15438.7	505.36 µg/L	505.36 ppb	10:51:21
2	Ni 231.604†	39443.9	40201.8	502.98 µg/L	502.98 ppb	10:51:01
2	P 214.914†	10729.6	10935.4	2521.1 µg/L	2521.1 ppb	10:51:21
2	Pb 220.353†	8260.4	8295.6	512.08 µg/L	512.08 ppb	10:51:21
2	S 181.975 Axial†	1287.9	1220.6	1031.1 µg/L	1031.1 ppb	10:51:21
2	Sb 206.836†	3928.5	3904.8	504.71 µg/L	504.71 ppb	10:51:21
2	Se 196.026†	1280.0	1295.4	512 µg/L	512 ppb	10:51:21
2	SiO2†	50796.5	49910.0	5263.7 µg/L	5263.7 ppb	10:51:01
2	Si 251.611†	155366.4	157207.3	2468.9 µg/L	2468.9 ppb	10:51:01
2	Sn 189.927†	7141.4	7259.3	505.21 µg/L	505.21 ppb	10:51:21
2	Ti 334.940†	476326.0	483498.4	495.95 µg/L	495.95 ppb	10:51:01
2	Tl 190.801†	3543.4	3717.2	515.05 µg/L	515.05 ppb	10:51:21
2	U 409.014†	6925.4	7205.0	485.08 µg/L	485.08 ppb	10:51:01
2	V 292.402†	94927.6	96097.8	504.77 µg/L	504.77 ppb	10:51:01
2	Zn 213.857†	83208.3	84102.0	498.28 µg/L	498.28 ppb	10:51:01
3	Sc RADIAL	137926.0	137926.0	98.5 %		10:50:16
3	Al 396.153Radial†	23743.5	24195.1	5070.7 µg/L	5070.7 ppb	10:50:18
3	Ca 317.933Radial†	74096.5	74689.2	5087.0 µg/L	5087.0 ppb	10:50:18
3	Fe 238.204 Radial†	66279.1	67203.1	5018.7 µg/L	5018.7 ppb	10:50:18
3	K 766.490 Radial†	14171.0	12899.8	5107.4 µg/L	5107.4 ppb	10:50:18

3	Mg 279.077 IEC†	11189.8	11193.2	5176.3 µg/L	5176.3 ppb	10:50:18
3	Na 589.592 Radial†	64370.5	64429.3	9982.5 µg/L	9982.5 ppb	10:50:16
3	Sr 421.552†	208116.7	211590.8	498.99 µg/L	498.99 ppb	10:50:16
3	Sc 361.383	1790832.9	1790832.9	99.262 %		10:51:24
3	Y 371.029	1039510.2	1039510.2	98.318 %		10:51:24
3	Ag 328.068†	124982.2	121346.7	502.99 µg/L	502.99 ppb	10:51:24
3	As 188.979†	1432.6	1461.8	501.68 µg/L	501.68 ppb	10:51:44
3	B 249.677†	35516.0	31715.1	491.47 µg/L	491.47 ppb	10:51:24
3	Ba 233.527†	111713.2	112688.6	501.29 µg/L	501.29 ppb	10:51:24
3	Be 313.107†	1700513.3	1714253.1	496.72 µg/L	496.72 ppb	10:51:24
3	Cd 226.502†	73950.4	74603.7	503.92 µg/L	503.92 ppb	10:51:24
3	Co 228.616†	37761.3	38252.5	506.32 µg/L	506.32 ppb	10:51:24
3	Cr 267.716†	57636.2	57831.7	500.18 µg/L	500.18 ppb	10:51:24
3	Cu 324.752†	121402.4	119269.2	500.42 µg/L	500.42 ppb	10:51:24
3	Mn 257.610†	375337.1	377944.0	501.14 µg/L	501.14 ppb	10:51:24
3	Mo 202.031†	15165.8	15317.2	501.39 µg/L	501.39 ppb	10:51:44
3	Ni 231.604†	39837.7	40229.9	503.33 µg/L	503.33 ppb	10:51:24
3	P 214.914†	10769.4	10875.2	2507.2 µg/L	2507.2 ppb	10:51:44
3	Pb 220.353†	8292.5	8250.7	509.30 µg/L	509.30 ppb	10:51:44
3	S 181.975 Axial†	1280.9	1201.5	1015.0 µg/L	1015.0 ppb	10:51:44
3	Sb 206.836†	3936.5	3876.1	500.96 µg/L	500.96 ppb	10:51:44
3	Se 196.026†	1299.1	1302.6	515 µg/L	515 ppb	10:51:44
3	SiO2†	51317.0	49959.6	5269.1 µg/L	5269.1 ppb	10:51:24
3	Si 251.611†	156975.7	157376.2	2471.7 µg/L	2471.7 ppb	10:51:24
3	Sn 189.927†	7161.2	7212.6	501.97 µg/L	501.97 ppb	10:51:44
3	Ti 334.940†	481658.8	484418.3	496.89 µg/L	496.89 ppb	10:51:24
3	Tl 190.801†	3540.4	3681.0	510.11 µg/L	510.11 ppb	10:51:44
3	U 409.014†	7215.7	7432.8	499.47 µg/L	499.47 ppb	10:51:24
3	V 292.402†	95838.7	96128.3	504.89 µg/L	504.89 ppb	10:51:24
3	Zn 213.857†	84238.2	84361.7	499.82 µg/L	499.82 ppb	10:51:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786112.4	99.000	%	0.5673				0.57%
Sc RADIAL	139393.8	99.5	%	0.92				0.92%
Y 371.029	1036194.2	98.004	%	0.5668				0.58%
Ag 328.068†	121220.3	502.47	µg/L	0.538	502.47	ppb	0.538	0.11%
QC value within limits for Ag 328.068 Recovery = 100.49%								
Al 396.153Radial†	24201.9	5072.0	µg/L	50.69	5072.0	ppb	50.69	1.00%
QC value within limits for Al 396.153Radial Recovery = 101.44%								
As 188.979†	1453.0	498.73	µg/L	3.315	498.73	ppb	3.315	0.66%
QC value within limits for As 188.979 Recovery = 99.75%								
B 249.677†	31832.5	493.29	µg/L	1.771	493.29	ppb	1.771	0.36%
QC value within limits for B 249.677 Recovery = 98.66%								
Ba 233.527†	112597.1	500.89	µg/L	0.427	500.89	ppb	0.427	0.09%
QC value within limits for Ba 233.527 Recovery = 100.18%								
Be 313.107†	1714853.1	496.89	µg/L	0.834	496.89	ppb	0.834	0.17%
QC value within limits for Be 313.107 Recovery = 99.38%								
Ca 317.933Radial†	74705.6	5088.1	µg/L	63.80	5088.1	ppb	63.80	1.25%
QC value within limits for Ca 317.933Radial Recovery = 101.76%								
Cd 226.502†	74577.1	503.74	µg/L	0.565	503.74	ppb	0.565	0.11%
QC value within limits for Cd 226.502 Recovery = 100.75%								
Co 228.616†	38226.9	505.98	µg/L	0.521	505.98	ppb	0.521	0.10%
QC value within limits for Co 228.616 Recovery = 101.20%								
Cr 267.716†	57855.2	500.38	µg/L	0.179	500.38	ppb	0.179	0.04%
QC value within limits for Cr 267.716 Recovery = 100.08%								
Cu 324.752†	119246.7	500.32	µg/L	0.605	500.32	ppb	0.605	0.12%
QC value within limits for Cu 324.752 Recovery = 100.06%								
Fe 238.204 Radial†	67279.6	5024.4	µg/L	55.74	5024.4	ppb	55.74	1.11%
QC value within limits for Fe 238.204 Radial Recovery = 100.49%								
K 766.490 Radial†	12877.8	5098.6	µg/L	67.14	5098.6	ppb	67.14	1.32%
QC value within limits for K 766.490 Radial Recovery = 101.97%								
Mg 279.077 IEC†	11194.5	5176.9	µg/L	35.31	5176.9	ppb	35.31	0.68%
QC value within limits for Mg 279.077 IEC Recovery = 103.54%								
Mn 257.610†	377715.3	500.84	µg/L	0.878	500.84	ppb	0.878	0.18%
QC value within limits for Mn 257.610 Recovery = 100.17%								
Mo 202.031†	15359.2	502.77	µg/L	2.250	502.77	ppb	2.250	0.45%
QC value within limits for Mo 202.031 Recovery = 100.55%								
Na 589.592 Radial†	64240.1	9953.2	µg/L	34.02	9953.2	ppb	34.02	0.34%

```
   QC value within limits for Na 589.592 Radial  Recovery = 99.53%
Ni 231.604†            40223.5      503.25 µg/L         0.242      503.25 ppb          0.242   0.05%
   QC value within limits for Ni 231.604  Recovery = 100.65%
P 214.914†             10899.5      2512.8 µg/L          7.37      2512.8 ppb           7.37   0.29%
   QC value within limits for P 214.914  Recovery = 100.51%
Pb 220.353†             8252.2      509.40 µg/L         2.637      509.40 ppb          2.637   0.52%
   QC value within limits for Pb 220.353  Recovery = 101.88%
S 181.975 Axial†        1205.6      1018.5 µg/L         11.31      1018.5 ppb          11.31   1.11%
   QC value within limits for S 181.975 Axial  Recovery = 101.85%
Sb 206.836†             3890.2      502.79 µg/L         1.880      502.79 ppb          1.880   0.37%
   QC value within limits for Sb 206.836  Recovery = 100.56%
Se 196.026†             1292.7         511 µg/L           4.5         511 ppb            4.5   0.89%
   QC value within limits for Se 196.026  Recovery = 102.29%
SiO2†                  50005.5      5273.9 µg/L         13.29      5273.9 ppb          13.29   0.25%
   QC value within limits for SiO2  Recovery = 98.62%
Si 251.611†           157427.7      2472.4 µg/L          3.98      2472.4 ppb           3.98   0.16%
   QC value within limits for Si 251.611  Recovery = 98.90%
Sn 189.927†             7227.3      502.98 µg/L         1.927      502.98 ppb          1.927   0.38%
   QC value within limits for Sn 189.927  Recovery = 100.60%
Sr 421.552†           211087.1      497.80 µg/L         1.166      497.80 ppb          1.166   0.23%
   QC value within limits for Sr 421.552  Recovery = 99.56%
Ti 334.940†           484194.3      496.66 µg/L         0.627      496.66 ppb          0.627   0.13%
   QC value within limits for Ti 334.940  Recovery = 99.33%
Tl 190.801†             3692.2      511.63 µg/L         2.962      511.63 ppb          2.962   0.58%
   QC value within limits for Tl 190.801  Recovery = 102.33%
U 409.014†              7385.3      496.45 µg/L        10.200      496.45 ppb         10.200   2.05%
   QC value within limits for U 409.014  Recovery = 99.29%
V 292.402†             96072.2      504.61 µg/L         0.383      504.61 ppb          0.383   0.08%
   QC value within limits for V 292.402  Recovery = 100.92%
Zn 213.857†            84337.0      499.68 µg/L         1.328      499.68 ppb          1.328   0.27%
   QC value within limits for Zn 213.857  Recovery = 99.94%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 10:51:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141670.1	141670.1	101	%			10:52:20
1	Al 396.153Radial†	-83.7	-4.2	-0.9279	µg/L	-0.9279	ppb	10:52:40
1	Ca 317.933Radial†	599.3	21.2	1.4420	µg/L	1.4420	ppb	10:52:40
1	Fe 238.204 Radial†	137.4	18.5	1.3846	µg/L	1.3846	ppb	10:52:40
1	K 766.490 Radial†	1758.8	245.4	97.233	µg/L	97.233	ppb	10:52:20
1	Mg 279.077 IEC†	184.3	9.8	4.5283	µg/L	4.5283	ppb	10:52:40
1	Na 589.592 Radial†	1104.6	139.8	21.576	µg/L	21.576	ppb	10:52:20
1	Sr 421.552†	-36.3	168.6	0.3976	µg/L	0.3976	ppb	10:52:20
1	Sc 361.383	1813398.6	1813398.6	100.51	%			10:53:28
1	Y 371.029	1064259.3	1064259.3	100.66	%			10:53:28
1	Ag 328.068†	4348.3	-239.0	-1.0007	µg/L	-1.0007	ppb	10:53:30
1	As 188.979†	-15.0	3.6	1.2220	µg/L	1.2220	ppb	10:53:50
1	B 249.677†	4013.1	-72.5	-1.1296	µg/L	-1.1296	ppb	10:53:30
1	Ba 233.527†	-146.0	-0.7	-0.0036	µg/L	-0.0036	ppb	10:53:50
1	Be 313.107†	-909.5	186.9	0.0514	µg/L	0.0514	ppb	10:53:30
1	Cd 226.502†	-65.4	38.2	0.2586	µg/L	0.2586	ppb	10:53:50
1	Co 228.616†	-181.4	29.8	0.3948	µg/L	0.3948	ppb	10:53:50
1	Cr 267.716†	242.1	7.7	0.0733	µg/L	0.0733	ppb	10:53:50
1	Cu 324.752†	3041.7	-9.9	-0.0485	µg/L	-0.0485	ppb	10:53:30
1	Mn 257.610†	243.5	57.6	0.0762	µg/L	0.0762	ppb	10:53:50
1	Mo 202.031†	-14.2	24.4	0.7983	µg/L	0.7983	ppb	10:53:50
1	Ni 231.604†	-58.3	37.9	0.4745	µg/L	0.4745	ppb	10:53:50
1	P 214.914†	0.8	26.5	6.1321	µg/L	6.1321	ppb	10:53:50
1	Pb 220.353†	99.2	-4.8	-0.2869	µg/L	-0.2869	ppb	10:53:50
1	S 181.975 Axial†	102.5	13.1	10.998	µg/L	10.998	ppb	10:53:50
1	Sb 206.836†	75.3	-14.9	-1.9041	µg/L	-1.9041	ppb	10:53:50
1	Se 196.026†	27.7	21.5	8.44	µg/L	8.44	ppb	10:53:50
1	SiO2†	1765.5	17.4	1.8071	µg/L	1.8071	ppb	10:53:50
1	Si 251.611†	842.0	70.7	1.0963	µg/L	1.0963	ppb	10:53:30
1	Sn 189.927†	18.8	16.8	1.1641	µg/L	1.1641	ppb	10:53:50
1	Ti 334.940†	736.5	-90.2	-0.0892	µg/L	-0.0892	ppb	10:53:30
1	Tl 190.801†	-110.4	4.4	0.5942	µg/L	0.5942	ppb	10:53:50
1	U 409.014†	-310.6	-145.7	-9.2474	µg/L	-9.2474	ppb	10:53:30
1	V 292.402†	247.2	-177.3	-0.9167	µg/L	-0.9167	ppb	10:53:30
1	Zn 213.857†	582.2	76.3	0.4523	µg/L	0.4523	ppb	10:53:50
2	Sc RADIAL	141550.1	141550.1	101	%			10:52:42
2	Al 396.153Radial†	-103.9	-24.3	-5.1425	µg/L	-5.1425	ppb	10:53:02
2	Ca 317.933Radial†	612.8	35.0	2.3868	µg/L	2.3868	ppb	10:53:02
2	Fe 238.204 Radial†	136.7	17.9	1.3400	µg/L	1.3400	ppb	10:53:02
2	K 766.490 Radial†	1645.6	134.9	53.442	µg/L	53.442	ppb	10:52:42
2	Mg 279.077 IEC†	180.9	6.6	3.0454	µg/L	3.0454	ppb	10:53:02
2	Na 589.592 Radial†	1113.1	149.1	23.066	µg/L	23.066	ppb	10:52:42
2	Sr 421.552†	-129.3	76.5	0.1805	µg/L	0.1805	ppb	10:52:42
2	Sc 361.383	1826504.8	1826504.8	101.24	%			10:53:52
2	Y 371.029	1070413.5	1070413.5	101.24	%			10:53:52
2	Ag 328.068†	4552.2	-68.7	-0.3004	µg/L	-0.3004	ppb	10:53:54
2	As 188.979†	-7.7	11.0	3.7209	µg/L	3.7209	ppb	10:54:15
2	B 249.677†	4155.1	39.1	0.6079	µg/L	0.6079	ppb	10:53:54
2	Ba 233.527†	-156.7	-10.3	-0.0451	µg/L	-0.0451	ppb	10:54:15
2	Be 313.107†	-768.8	332.3	0.0902	µg/L	0.0902	ppb	10:53:54
2	Cd 226.502†	-86.9	17.5	0.1182	µg/L	0.1182	ppb	10:54:15
2	Co 228.616†	-197.2	15.5	0.2048	µg/L	0.2048	ppb	10:54:15
2	Cr 267.716†	231.2	-4.9	-0.0259	µg/L	-0.0259	ppb	10:54:15
2	Cu 324.752†	2973.2	-99.3	-0.4315	µg/L	-0.4315	ppb	10:53:54
2	Mn 257.610†	229.2	41.6	0.0551	µg/L	0.0551	ppb	10:54:15
2	Mo 202.031†	-14.9	23.8	0.7802	µg/L	0.7802	ppb	10:54:15
2	Ni 231.604†	-87.6	9.4	0.1172	µg/L	0.1172	ppb	10:54:15
2	P 214.914†	-16.9	9.0	2.0871	µg/L	2.0871	ppb	10:54:15
2	Pb 220.353†	114.8	9.9	0.6284	µg/L	0.6284	ppb	10:54:15

2	S 181.975 Axial†	96.9	6.8	5.6986 µg/L	5.6986 ppb		10:54:15
2	Sb 206.836†	77.0	-13.6	-1.7438 µg/L	-1.7438 ppb		10:54:15
2	Se 196.026†	13.2	6.9	2.71 µg/L	2.71 ppb		10:54:15
2	SiO2†	1765.2	4.6	0.4503 µg/L	0.4503 ppb		10:54:15
2	Si 251.611†	950.8	172.1	2.6998 µg/L	2.6998 ppb		10:53:54
2	Sn 189.927†	11.4	9.3	0.6478 µg/L	0.6478 ppb		10:54:15
2	Ti 334.940†	883.6	49.7	0.0592 µg/L	0.0592 ppb		10:53:54
2	Tl 190.801†	-117.7	-2.0	-0.2677 µg/L	-0.2677 ppb		10:54:15
2	U 409.014†	-489.5	-320.1	-20.174 µg/L	-20.174 ppb		10:53:54
2	V 292.402†	523.4	93.7	0.4799 µg/L	0.4799 ppb		10:53:54
2	Zn 213.857†	565.4	55.5	0.3309 µg/L	0.3309 ppb		10:54:15
3	Sc RADIAL	142279.1	142279.1	102 %			10:53:04
3	Al 396.153Radial†	-36.3	42.8	8.9841 µg/L	8.9841 ppb		10:53:24
3	Ca 317.933Radial†	638.4	57.1	3.8913 µg/L	3.8913 ppb		10:53:24
3	Fe 238.204 Radial†	130.1	10.8	0.8067 µg/L	0.8067 ppb		10:53:24
3	K 766.490 Radial†	1672.4	152.9	60.565 µg/L	60.565 ppb		10:53:04
3	Mg 279.077 IEC†	179.9	4.6	2.1596 µg/L	2.1596 ppb		10:53:24
3	Na 589.592 Radial†	1204.2	233.2	36.090 µg/L	36.090 ppb		10:53:04
3	Sr 421.552†	-216.4	-8.6	-0.0204 µg/L	-0.0204 ppb		10:53:04
3	Sc 361.383	1821134.7	1821134.7	100.94 %			10:54:17
3	Y 371.029	1067416.4	1067416.4	100.96 %			10:54:17
3	Ag 328.068†	4428.0	-178.4	-0.7477 µg/L	-0.7477 ppb		10:54:19
3	As 188.979†	-0.3	18.3	6.1862 µg/L	6.1862 ppb		10:54:39
3	B 249.677†	4120.7	17.2	0.2651 µg/L	0.2651 ppb		10:54:19
3	Ba 233.527†	-140.1	5.7	0.0253 µg/L	0.0253 ppb		10:54:39
3	Be 313.107†	-1101.7	0.3	-0.0027 µg/L	-0.0027 ppb		10:54:19
3	Cd 226.502†	-64.2	39.8	0.2688 µg/L	0.2688 ppb		10:54:39
3	Co 228.616†	-170.5	41.4	0.5478 µg/L	0.5478 ppb		10:54:39
3	Cr 267.716†	246.8	11.3	0.1049 µg/L	0.1049 ppb		10:54:39
3	Cu 324.752†	2931.1	-132.4	-0.5609 µg/L	-0.5609 ppb		10:54:19
3	Mn 257.610†	235.1	48.2	0.0638 µg/L	0.0638 ppb		10:54:39
3	Mo 202.031†	-18.0	20.8	0.6798 µg/L	0.6798 ppb		10:54:39
3	Ni 231.604†	-78.9	17.7	0.2221 µg/L	0.2221 ppb		10:54:39
3	P 214.914†	-27.0	-1.1	-0.2442 µg/L	-0.2442 ppb		10:54:39
3	Pb 220.353†	129.6	25.0	1.5464 µg/L	1.5464 ppb		10:54:39
3	S 181.975 Axial†	87.4	-2.3	-1.9536 µg/L	-1.9536 ppb		10:54:39
3	Sb 206.836†	68.5	-21.9	-2.8119 µg/L	-2.8119 ppb		10:54:39
3	Se 196.026†	13.2	6.9	2.72 µg/L	2.72 ppb		10:54:39
3	SiO2†	1743.9	-11.4	-1.2328 µg/L	-1.2328 ppb		10:54:39
3	Si 251.611†	890.2	114.8	1.8008 µg/L	1.8008 ppb		10:54:19
3	Sn 189.927†	4.0	2.0	0.1418 µg/L	0.1418 ppb		10:54:39
3	Ti 334.940†	863.5	32.4	0.0370 µg/L	0.0370 ppb		10:54:19
3	Tl 190.801†	-91.1	24.0	3.2706 µg/L	3.2706 ppb		10:54:39
3	U 409.014†	-314.6	-148.3	-9.3884 µg/L	-9.3884 ppb		10:54:19
3	V 292.402†	334.9	-91.5	-0.4730 µg/L	-0.4730 ppb		10:54:19
3	Zn 213.857†	586.6	78.2	0.4657 µg/L	0.4657 ppb		10:54:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1820346.0	100.90	%	0.365				0.36%
Sc RADIAL	141833.1	101	%	0.3				0.28%
Y 371.029	1067363.1	100.95	%	0.291				0.29%
Ag 328.068†	-162.1	-0.6829	µg/L	0.35465	-0.6829	ppb	0.35465	51.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.8	0.9712	µg/L	7.25229	0.9712	ppb	7.25229	746.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.0	3.7097	µg/L	2.48209	3.7097	ppb	2.48209	66.91%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-5.4	-0.0855	µg/L	0.92028	-0.0855	ppb	0.92028	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.8	-0.0078	µg/L	0.03539	-0.0078	ppb	0.03539	454.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	173.2	0.0463	µg/L	0.04666	0.0463	ppb	0.04666	100.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	37.8	2.5734	µg/L	1.23526	2.5734	ppb	1.23526	48.00%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	31.8	0.2152	µg/L	0.08414	0.2152	ppb	0.08414	39.10%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	28.9	0.3825	µg/L	0.17184	0.3825	ppb	0.17184	44.93%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                4.7      0.0508 µg/L       0.06822      0.0508 ppb        0.06822 134.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -80.5     -0.3470 µg/L       0.26645     -0.3470 ppb        0.26645  76.80%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        15.8      1.1771 µg/L       0.32152      1.1771 ppb        0.32152  27.31%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        177.7      70.413 µg/L       23.4978      70.413 ppb        23.4978  33.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            7.0      3.2444 µg/L       1.19683      3.2444 ppb        1.19683  36.89%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               49.1      0.0650 µg/L       0.01060      0.0650 ppb        0.01060  16.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               23.0      0.7528 µg/L       0.06383      0.7528 ppb        0.06383   8.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       174.0      26.911 µg/L        7.9840      26.911 ppb         7.9840  29.67%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               21.7      0.2713 µg/L       0.18366      0.2713 ppb        0.18366  67.70%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                11.5      2.6583 µg/L       3.22633      2.6583 ppb        3.22633 121.37%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               10.0      0.6293 µg/L       0.91663      0.6293 ppb        0.91663 145.66%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.8      4.9143 µg/L       6.51134      4.9143 ppb        6.51134 132.50%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -16.8     -2.1533 µg/L       0.57596     -2.1533 ppb        0.57596  26.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               11.8        4.62 µg/L         3.307        4.62 ppb          3.307  71.52%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      3.5      0.3415 µg/L       1.52287      0.3415 ppb        1.52287 445.90%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              119.2      1.8656 µg/L       0.80375      1.8656 ppb        0.80375  43.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                9.4      0.6512 µg/L       0.51119      0.6512 ppb        0.51119  78.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               78.8      0.1859 µg/L       0.20905      0.1859 ppb        0.20905 112.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -2.7      0.0023 µg/L       0.08007      0.0023 ppb        0.08007 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.8      1.1990 µg/L       1.84510      1.1990 ppb        1.84510 153.88%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -204.7     -12.937 µg/L        6.2683     -12.937 ppb         6.2683  48.45%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -58.3     -0.3033 µg/L       0.71357     -0.3033 ppb        0.71357 235.30%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               70.0      0.4163 µg/L       0.07427      0.4163 ppb        0.07427  17.84%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 11:21:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141040.3	141040.3	101	%			11:22:09
1	Al 396.153Radial†	24409.0	24323.6	5097.8	µg/L	5097.8	ppb	11:22:09
1	Ca 317.933Radial†	76494.1	75408.8	5136.0	µg/L	5136.0	ppb	11:22:09
1	Fe 238.204 Radial†	68480.3	67903.0	5070.9	µg/L	5070.9	ppb	11:22:09
1	K 766.490 Radial†	14280.8	12691.1	5024.6	µg/L	5024.6	ppb	11:22:09
1	Mg 279.077 IEC†	11579.1	11328.8	5238.8	µg/L	5238.8	ppb	11:22:09
1	Na 589.592 Radial†	66009.6	64613.7	10011	µg/L	10011	ppb	11:22:09
1	Sr 421.552†	210495.4	209286.0	493.55	µg/L	493.55	ppb	11:22:07
1	Sc 361.383	1816427.9	1816427.9	100.68	%			11:22:22
1	Y 371.029	1053499.6	1053499.6	99.641	%			11:22:22
1	Ag 328.068†	126787.2	121365.2	503.06	µg/L	503.06	ppb	11:22:22
1	As 188.979†	1432.3	1441.2	494.75	µg/L	494.75	ppb	11:22:42
1	B 249.677†	36301.8	31991.4	495.75	µg/L	495.75	ppb	11:22:22
1	Ba 233.527†	113688.4	113064.7	502.97	µg/L	502.97	ppb	11:22:22
1	Be 313.107†	1728485.7	1717896.6	497.77	µg/L	497.77	ppb	11:22:22
1	Cd 226.502†	75741.0	75332.5	508.84	µg/L	508.84	ppb	11:22:22
1	Co 228.616†	38593.7	38543.2	510.16	µg/L	510.16	ppb	11:22:22
1	Cr 267.716†	58850.7	58219.8	503.55	µg/L	503.55	ppb	11:22:22
1	Cu 324.752†	123618.1	119746.6	502.41	µg/L	502.41	ppb	11:22:22
1	Mn 257.610†	382701.1	379930.1	503.77	µg/L	503.77	ppb	11:22:22
1	Mo 202.031†	15349.1	15283.9	500.31	µg/L	500.31	ppb	11:22:42
1	Ni 231.604†	40779.7	40600.1	507.96	µg/L	507.96	ppb	11:22:22
1	P 214.914†	10933.3	10885.1	2509.4	µg/L	2509.4	ppb	11:22:42
1	Pb 220.353†	8382.2	8222.1	507.55	µg/L	507.55	ppb	11:22:42
1	S 181.975 Axial†	1340.9	1242.9	1049.8	µg/L	1049.8	ppb	11:22:42
1	Sb 206.836†	3988.1	3871.5	500.30	µg/L	500.30	ppb	11:22:42
1	Se 196.026†	1298.4	1283.4	508	µg/L	508	ppb	11:22:42
1	SiO2†	52507.6	50413.7	5317.2	µg/L	5317.2	ppb	11:22:22
1	Si 251.611†	160362.8	158512.0	2489.6	µg/L	2489.6	ppb	11:22:22
1	Sn 189.927†	7264.7	7213.7	502.05	µg/L	502.05	ppb	11:22:42
1	Ti 334.940†	489360.0	485230.0	497.72	µg/L	497.72	ppb	11:22:22
1	Tl 190.801†	3577.9	3668.0	508.34	µg/L	508.34	ppb	11:22:42
1	U 409.014†	7028.1	7144.0	481.34	µg/L	481.34	ppb	11:22:22
1	V 292.402†	97527.7	96445.4	506.51	µg/L	506.51	ppb	11:22:22
1	Zn 213.857†	86086.0	85001.3	503.61	µg/L	503.61	ppb	11:22:22
2	Sc RADIAL	140362.8	140362.8	100	%			11:22:13
2	Al 396.153Radial†	23994.0	24026.5	5035.4	µg/L	5035.4	ppb	11:22:13
2	Ca 317.933Radial†	75703.7	74986.7	5107.3	µg/L	5107.3	ppb	11:22:13
2	Fe 238.204 Radial†	67887.7	67639.9	5051.3	µg/L	5051.3	ppb	11:22:13
2	K 766.490 Radial†	14188.6	12667.6	5015.4	µg/L	5015.4	ppb	11:22:13
2	Mg 279.077 IEC†	11412.1	11217.7	5187.4	µg/L	5187.4	ppb	11:22:13
2	Na 589.592 Radial†	65526.4	64447.9	9985.5	µg/L	9985.5	ppb	11:22:13
2	Sr 421.552†	212221.3	212017.8	500.00	µg/L	500.00	ppb	11:22:11
2	Sc 361.383	1822952.6	1822952.6	101.04	%			11:22:45
2	Y 371.029	1056667.8	1056667.8	99.940	%			11:22:45
2	Ag 328.068†	127363.5	121484.9	503.55	µg/L	503.55	ppb	11:22:45
2	As 188.979†	1413.7	1417.7	486.78	µg/L	486.78	ppb	11:23:05
2	B 249.677†	36625.3	32182.4	498.72	µg/L	498.72	ppb	11:22:45
2	Ba 233.527†	113738.1	112709.7	501.39	µg/L	501.39	ppb	11:22:45
2	Be 313.107†	1736282.8	1719468.5	498.22	µg/L	498.22	ppb	11:22:45
2	Cd 226.502†	75997.8	75317.4	508.74	µg/L	508.74	ppb	11:22:45
2	Co 228.616†	38755.6	38566.2	510.47	µg/L	510.47	ppb	11:22:45
2	Cr 267.716†	58889.6	58049.1	502.07	µg/L	502.07	ppb	11:22:45
2	Cu 324.752†	124191.5	119874.7	502.95	µg/L	502.95	ppb	11:22:45
2	Mn 257.610†	383492.8	379353.2	503.01	µg/L	503.01	ppb	11:22:45
2	Mo 202.031†	15289.1	15170.0	496.58	µg/L	496.58	ppb	11:23:05
2	Ni 231.604†	40792.4	40467.6	506.30	µg/L	506.30	ppb	11:22:45
2	P 214.914†	10865.3	10778.9	2484.8	µg/L	2484.8	ppb	11:23:05
2	Pb 220.353†	8356.5	8166.8	504.14	µg/L	504.14	ppb	11:23:05

2	S 181.975 Axial†	1317.5	1215.0	1026.3 µg/L	1026.3 ppb	11:23:05
2	Sb 206.836†	3989.8	3858.9	498.64 µg/L	498.64 ppb	11:23:05
2	Se 196.026†	1292.5	1273.0	504 µg/L	504 ppb	11:23:05
2	SiO2†	52617.3	50335.6	5309.1 µg/L	5309.1 ppb	11:22:45
2	Si 251.611†	161042.3	158614.5	2491.3 µg/L	2491.3 ppb	11:22:45
2	Sn 189.927†	7218.4	7142.0	497.08 µg/L	497.08 ppb	11:23:05
2	Ti 334.940†	491016.9	485130.1	497.62 µg/L	497.62 ppb	11:22:45
2	Tl 190.801†	3563.0	3640.5	504.59 µg/L	504.59 ppb	11:23:05
2	U 409.014†	7078.9	7169.2	482.92 µg/L	482.92 ppb	11:22:45
2	V 292.402†	97821.4	96389.4	506.18 µg/L	506.18 ppb	11:22:45
2	Zn 213.857†	86262.7	84870.1	502.83 µg/L	502.83 ppb	11:22:45
3	Sc RADIAL	143001.6	143001.6	102 %		11:22:17
3	Al 396.153Radial†	24644.0	24221.3	5076.1 µg/L	5076.1 ppb	11:22:17
3	Ca 317.933Radial†	78183.6	76021.9	5177.8 µg/L	5177.8 ppb	11:22:17
3	Fe 238.204 Radial†	69547.5	68015.6	5079.4 µg/L	5079.4 ppb	11:22:17
3	K 766.490 Radial†	14471.6	12683.5	5021.6 µg/L	5021.6 ppb	11:22:17
3	Mg 279.077 IEC†	11800.4	11388.0	5266.2 µg/L	5266.2 ppb	11:22:17
3	Na 589.592 Radial†	66551.9	64245.7	9954.1 µg/L	9954.1 ppb	11:22:17
3	Sr 421.552†	214170.2	210018.5	495.28 µg/L	495.28 ppb	11:22:15
3	Sc 361.383	1819175.6	1819175.6	100.83 %		11:23:08
3	Y 371.029	1054990.0	1054990.0	99.782 %		11:23:08
3	Ag 328.068†	126763.1	121151.2	502.18 µg/L	502.18 ppb	11:23:08
3	As 188.979†	1453.0	1459.5	500.95 µg/L	500.95 ppb	11:23:28
3	B 249.677†	36308.1	31943.1	495.01 µg/L	495.01 ppb	11:23:08
3	Ba 233.527†	113415.6	112623.6	501.00 µg/L	501.00 ppb	11:23:08
3	Be 313.107†	1728129.7	1714950.5	496.92 µg/L	496.92 ppb	11:23:08
3	Cd 226.502†	75536.4	75016.0	506.70 µg/L	506.70 ppb	11:23:08
3	Co 228.616†	38368.3	38261.8	506.44 µg/L	506.44 ppb	11:23:08
3	Cr 267.716†	58689.9	57972.0	501.40 µg/L	501.40 ppb	11:23:08
3	Cu 324.752†	123527.9	119471.7	501.27 µg/L	501.27 ppb	11:23:08
3	Mn 257.610†	381380.1	378046.0	501.27 µg/L	501.27 ppb	11:23:08
3	Mo 202.031†	15453.7	15364.7	502.95 µg/L	502.95 ppb	11:23:28
3	Ni 231.604†	40568.0	40328.9	504.56 µg/L	504.56 ppb	11:23:08
3	P 214.914†	10991.1	10926.0	2518.9 µg/L	2518.9 ppb	11:23:28
3	Pb 220.353†	8421.5	8248.5	509.18 µg/L	509.18 ppb	11:23:28
3	S 181.975 Axial†	1335.2	1235.2	1043.4 µg/L	1043.4 ppb	11:23:28
3	Sb 206.836†	3992.9	3870.3	500.21 µg/L	500.21 ppb	11:23:28
3	Se 196.026†	1303.1	1286.2	509 µg/L	509 ppb	11:23:28
3	SiO2†	52338.0	50166.7	5291.0 µg/L	5291.0 ppb	11:23:08
3	Si 251.611†	160206.1	158116.1	2483.3 µg/L	2483.3 ppb	11:23:08
3	Sn 189.927†	7300.5	7238.3	503.75 µg/L	503.75 ppb	11:23:28
3	Ti 334.940†	489632.7	484766.3	497.24 µg/L	497.24 ppb	11:23:08
3	Tl 190.801†	3611.4	3695.8	512.14 µg/L	512.14 ppb	11:23:28
3	U 409.014†	7124.9	7229.4	486.64 µg/L	486.64 ppb	11:23:08
3	V 292.402†	97408.0	96180.4	505.16 µg/L	505.16 ppb	11:23:08
3	Zn 213.857†	85808.4	84596.9	501.21 µg/L	501.21 ppb	11:23:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1819518.7	100.85	%	0.182				0.18%
Sc RADIAL	141468.2	101	%	1.0				0.97%
Y 371.029	1055052.4	99.788	%	0.1499				0.15%
Ag 328.068†	121333.8	502.93	µg/L	0.697	502.93	ppb	0.697	0.14%
QC value within limits for Ag 328.068 Recovery = 100.59%								
Al 396.153Radial†	24190.4	5069.8	µg/L	31.67	5069.8	ppb	31.67	0.62%
QC value within limits for Al 396.153Radial Recovery = 101.40%								
As 188.979†	1439.4	494.16	µg/L	7.101	494.16	ppb	7.101	1.44%
QC value within limits for As 188.979 Recovery = 98.83%								
B 249.677†	32039.0	496.50	µg/L	1.963	496.50	ppb	1.963	0.40%
QC value within limits for B 249.677 Recovery = 99.30%								
Ba 233.527†	112799.3	501.79	µg/L	1.040	501.79	ppb	1.040	0.21%
QC value within limits for Ba 233.527 Recovery = 100.36%								
Be 313.107†	1717438.5	497.64	µg/L	0.664	497.64	ppb	0.664	0.13%
QC value within limits for Be 313.107 Recovery = 99.53%								
Ca 317.933Radial†	75472.5	5140.4	µg/L	35.45	5140.4	ppb	35.45	0.69%
QC value within limits for Ca 317.933Radial Recovery = 102.81%								
Cd 226.502†	75222.0	508.09	µg/L	1.209	508.09	ppb	1.209	0.24%
QC value within limits for Cd 226.502 Recovery = 101.62%								
Co 228.616†	38457.0	509.02	µg/L	2.244	509.02	ppb	2.244	0.44%

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   QC value within limits for Co 228.616  Recovery = 101.80%
Cr 267.716†            58080.3      502.34 µg/L        1.099      502.34 ppb          1.099   0.22%
   QC value within limits for Cr 267.716  Recovery = 100.47%
Cu 324.752†           119697.7      502.21 µg/L        0.858      502.21 ppb          0.858   0.17%
   QC value within limits for Cu 324.752  Recovery = 100.44%
Fe 238.204 Radial†     67852.9      5067.2 µg/L        14.40      5067.2 ppb          14.40   0.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.34%
K 766.490 Radial†      12680.7      5020.5 µg/L         4.74      5020.5 ppb           4.74   0.09%
   QC value within limits for K 766.490 Radial  Recovery = 100.41%
Mg 279.077 IEC†        11311.5      5230.8 µg/L        39.99      5230.8 ppb          39.99   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.62%
Mn 257.610†           379109.8      502.69 µg/L        1.281      502.69 ppb          1.281   0.25%
   QC value within limits for Mn 257.610  Recovery = 100.54%
Mo 202.031†            15272.9      499.95 µg/L        3.200      499.95 ppb          3.200   0.64%
   QC value within limits for Mo 202.031  Recovery = 99.99%
Na 589.592 Radial†     64435.8      9983.6 µg/L        28.56      9983.6 ppb          28.56   0.29%
   QC value within limits for Na 589.592 Radial  Recovery = 99.84%
Ni 231.604†            40465.5      506.27 µg/L        1.697      506.27 ppb          1.697   0.34%
   QC value within limits for Ni 231.604  Recovery = 101.25%
P 214.914†             10863.3      2504.4 µg/L        17.56      2504.4 ppb          17.56   0.70%
   QC value within limits for P 214.914  Recovery = 100.17%
Pb 220.353†             8212.5      506.96 µg/L        2.574      506.96 ppb          2.574   0.51%
   QC value within limits for Pb 220.353  Recovery = 101.39%
S 181.975 Axial†        1231.0      1039.8 µg/L        12.13      1039.8 ppb          12.13   1.17%
   QC value within limits for S 181.975 Axial  Recovery = 103.98%
Sb 206.836†             3866.9      499.72 µg/L        0.933      499.72 ppb          0.933   0.19%
   QC value within limits for Sb 206.836  Recovery = 99.94%
Se 196.026†             1280.9         507 µg/L          2.7         507 ppb            2.7   0.54%
   QC value within limits for Se 196.026  Recovery = 101.36%
SiO2†                  50305.3      5305.8 µg/L        13.45      5305.8 ppb          13.45   0.25%
   QC value within limits for SiO2  Recovery = 99.22%
Si 251.611†           158414.2      2488.1 µg/L         4.21      2488.1 ppb           4.21   0.17%
   QC value within limits for Si 251.611  Recovery = 99.52%
Sn 189.927†             7198.0      500.96 µg/L        3.467      500.96 ppb          3.467   0.69%
   QC value within limits for Sn 189.927  Recovery = 100.19%
Sr 421.552†           210440.8      496.28 µg/L        3.335      496.28 ppb          3.335   0.67%
   QC value within limits for Sr 421.552  Recovery = 99.26%
Ti 334.940†           485042.1      497.53 µg/L        0.253      497.53 ppb          0.253   0.05%
   QC value within limits for Ti 334.940  Recovery = 99.51%
Tl 190.801†             3668.1      508.36 µg/L        3.777      508.36 ppb          3.777   0.74%
   QC value within limits for Tl 190.801  Recovery = 101.67%
U 409.014†              7180.9      483.63 µg/L        2.721      483.63 ppb          2.721   0.56%
   QC value within limits for U 409.014  Recovery = 96.73%
V 292.402†             96338.4      505.95 µg/L        0.705      505.95 ppb          0.705   0.14%
   QC value within limits for V 292.402  Recovery = 101.19%
Zn 213.857†            84822.7      502.55 µg/L        1.222      502.55 ppb          1.222   0.24%
   QC value within limits for Zn 213.857  Recovery = 100.51%
All analyte(s) passed QC.
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Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 11:23:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	141293.1	141293.1	101	%			11:24:06
1	Al 396.153Radial†	-45.2	33.8	7.0875	µg/L	7.0875	ppb	11:24:26
1	Ca 317.933Radial†	756.0	178.1	12.133	µg/L	12.133	ppb	11:24:26
1	Fe 238.204 Radial†	183.7	64.9	4.8434	µg/L	4.8434	ppb	11:24:26
1	K 766.490 Radial†	1708.7	200.4	79.382	µg/L	79.382	ppb	11:24:06
1	Mg 279.077 IEC†	206.5	32.3	14.933	µg/L	14.933	ppb	11:24:26
1	Na 589.592 Radial†	1047.2	85.8	13.224	µg/L	13.224	ppb	11:24:06
1	Sr 421.552†	-265.7	-59.0	-0.1392	µg/L	-0.1392	ppb	11:24:06
1	Sc 361.383	1793973.7	1793973.7	99.436	%			11:25:14
1	Y 371.029	1053310.8	1053310.8	99.623	%			11:25:14
1	Ag 328.068†	4289.1	-251.7	-1.0408	µg/L	-1.0408	ppb	11:25:16
1	As 188.979†	-4.9	13.7	4.6199	µg/L	4.6199	ppb	11:25:36
1	B 249.677†	4002.5	-40.0	-0.6228	µg/L	-0.6228	ppb	11:25:16
1	Ba 233.527†	-152.4	-8.7	-0.0386	µg/L	-0.0386	ppb	11:25:36
1	Be 313.107†	-860.3	226.6	0.0631	µg/L	0.0631	ppb	11:25:16
1	Cd 226.502†	-76.4	26.5	0.1788	µg/L	0.1788	ppb	11:25:36
1	Co 228.616†	-185.8	23.4	0.3095	µg/L	0.3095	ppb	11:25:36
1	Cr 267.716†	224.4	-7.5	-0.0584	µg/L	-0.0584	ppb	11:25:36
1	Cu 324.752†	3049.8	31.0	0.1242	µg/L	0.1242	ppb	11:25:16
1	Mn 257.610†	236.1	52.7	0.0693	µg/L	0.0693	ppb	11:25:36
1	Mo 202.031†	-24.7	13.8	0.4505	µg/L	0.4505	ppb	11:25:36
1	Ni 231.604†	-63.4	32.1	0.4021	µg/L	0.4021	ppb	11:25:36
1	P 214.914†	-13.8	11.8	2.7270	µg/L	2.7270	ppb	11:25:36
1	Pb 220.353†	76.5	-26.5	-1.6236	µg/L	-1.6236	ppb	11:25:36
1	S 181.975 Axial†	113.1	24.8	20.861	µg/L	20.861	ppb	11:25:36
1	Sb 206.836†	73.4	-15.9	-2.0389	µg/L	-2.0389	ppb	11:25:36
1	Se 196.026†	15.5	9.5	3.72	µg/L	3.72	ppb	11:25:36
1	SiO2†	1701.2	-28.2	-3.0134	µg/L	-3.0134	ppb	11:25:36
1	Si 251.611†	724.3	-38.6	-0.6193	µg/L	-0.6193	ppb	11:25:16
1	Sn 189.927†	12.5	10.7	0.7388	µg/L	0.7388	ppb	11:25:36
1	Ti 334.940†	700.7	-118.4	-0.1190	µg/L	-0.1190	ppb	11:25:16
1	Tl 190.801†	-117.6	-4.0	-0.5510	µg/L	-0.5510	ppb	11:25:36
1	U 409.014†	-293.2	-131.5	-8.2980	µg/L	-8.2980	ppb	11:25:16
1	V 292.402†	423.5	2.7	0.0124	µg/L	0.0124	ppb	11:25:16
1	Zn 213.857†	555.4	55.5	0.3283	µg/L	0.3283	ppb	11:25:36
2	Sc RADIAL	141208.0	141208.0	101	%			11:24:28
2	Al 396.153Radial†	-80.1	-1.0	-0.2395	µg/L	-0.2395	ppb	11:24:48
2	Ca 317.933Radial†	668.6	91.8	6.2554	µg/L	6.2554	ppb	11:24:48
2	Fe 238.204 Radial†	151.6	33.1	2.4698	µg/L	2.4698	ppb	11:24:48
2	K 766.490 Radial†	1653.5	146.6	58.099	µg/L	58.099	ppb	11:24:28
2	Mg 279.077 IEC†	171.1	-2.7	-1.2452	µg/L	-1.2452	ppb	11:24:48
2	Na 589.592 Radial†	1120.3	158.9	24.585	µg/L	24.585	ppb	11:24:28
2	Sr 421.552†	-172.5	33.3	0.0785	µg/L	0.0785	ppb	11:24:28
2	Sc 361.383	1798032.0	1798032.0	99.661	%			11:25:38
2	Y 371.029	1055630.4	1055630.4	99.842	%			11:25:38
2	Ag 328.068†	4410.8	-139.4	-0.5643	µg/L	-0.5643	ppb	11:25:40
2	As 188.979†	-0.7	17.8	6.0338	µg/L	6.0338	ppb	11:26:01
2	B 249.677†	4005.6	-45.9	-0.7141	µg/L	-0.7141	ppb	11:25:40
2	Ba 233.527†	-173.9	-30.0	-0.1330	µg/L	-0.1330	ppb	11:26:01
2	Be 313.107†	-589.5	500.2	0.1463	µg/L	0.1463	ppb	11:25:40
2	Cd 226.502†	-58.3	44.8	0.3028	µg/L	0.3028	ppb	11:26:01
2	Co 228.616†	-197.0	12.7	0.1672	µg/L	0.1672	ppb	11:26:01
2	Cr 267.716†	239.6	7.2	0.0584	µg/L	0.0584	ppb	11:26:01
2	Cu 324.752†	2931.5	-94.6	-0.3915	µg/L	-0.3915	ppb	11:25:40
2	Mn 257.610†	251.7	67.8	0.0900	µg/L	0.0900	ppb	11:26:01
2	Mo 202.031†	-15.2	23.3	0.7623	µg/L	0.7623	ppb	11:26:01
2	Ni 231.604†	-59.7	36.0	0.4499	µg/L	0.4499	ppb	11:26:01
2	P 214.914†	-4.0	21.7	5.0142	µg/L	5.0142	ppb	11:26:01
2	Pb 220.353†	87.7	-15.5	-0.9533	µg/L	-0.9533	ppb	11:26:01

2	S 181.975 Axial†	118.5	30.0	25.213 µg/L	25.213 ppb	11:26:01
2	Sb 206.836†	86.0	-3.4	-0.4255 µg/L	-0.4255 ppb	11:26:01
2	Se 196.026†	15.3	9.2	3.64 µg/L	3.64 ppb	11:26:01
2	SiO2†	1751.4	18.3	1.9044 µg/L	1.9044 ppb	11:26:01
2	Si 251.611†	779.4	15.0	0.2236 µg/L	0.2236 ppb	11:25:40
2	Sn 189.927†	9.4	7.6	0.5263 µg/L	0.5263 ppb	11:26:01
2	Ti 334.940†	648.1	-172.7	-0.1791 µg/L	-0.1791 ppb	11:25:40
2	Tl 190.801†	-110.6	3.3	0.4500 µg/L	0.4500 ppb	11:26:01
2	U 409.014†	-87.6	75.5	4.7647 µg/L	4.7647 ppb	11:25:40
2	V 292.402†	430.7	8.9	0.0575 µg/L	0.0575 ppb	11:25:40
2	Zn 213.857†	536.3	35.1	0.2068 µg/L	0.2068 ppb	11:26:01
3	Sc RADIAL	140558.5	140558.5	100 %		11:24:50
3	Al 396.153Radial†	-104.7	-25.8	-5.4846 µg/L	-5.4846 ppb	11:25:10
3	Ca 317.933Radial†	659.5	85.9	5.8477 µg/L	5.8477 ppb	11:25:10
3	Fe 238.204 Radial†	147.7	29.9	2.2317 µg/L	2.2317 ppb	11:25:10
3	K 766.490 Radial†	1800.1	300.4	119.02 µg/L	119.02 ppb	11:24:50
3	Mg 279.077 IEC†	183.8	10.7	4.9742 µg/L	4.9742 ppb	11:25:10
3	Na 589.592 Radial†	1201.3	244.8	37.847 µg/L	37.847 ppb	11:24:50
3	Sr 421.552†	-157.1	47.9	0.1129 µg/L	0.1129 ppb	11:24:50
3	Sc 361.383	1800005.3	1800005.3	99.770 %		11:26:03
3	Y 371.029	1056603.6	1056603.6	99.934 %		11:26:03
3	Ag 328.068†	4398.7	-156.4	-0.6614 µg/L	-0.6614 ppb	11:26:05
3	As 188.979†	-12.9	5.6	1.9114 µg/L	1.9114 ppb	11:26:25
3	B 249.677†	3886.0	-170.2	-2.6470 µg/L	-2.6470 ppb	11:26:05
3	Ba 233.527†	-172.1	-27.9	-0.1240 µg/L	-0.1240 ppb	11:26:25
3	Be 313.107†	-830.7	259.1	0.0711 µg/L	0.0711 ppb	11:26:05
3	Cd 226.502†	-92.8	10.4	0.0702 µg/L	0.0702 ppb	11:26:25
3	Co 228.616†	-192.2	17.7	0.2332 µg/L	0.2332 ppb	11:26:25
3	Cr 267.716†	225.4	-7.3	-0.0532 µg/L	-0.0532 ppb	11:26:25
3	Cu 324.752†	3072.5	43.5	0.1716 µg/L	0.1716 ppb	11:26:05
3	Mn 257.610†	219.6	35.4	0.0468 µg/L	0.0468 ppb	11:26:25
3	Mo 202.031†	-5.8	32.7	1.0701 µg/L	1.0701 ppb	11:26:25
3	Ni 231.604†	-59.0	36.7	0.4594 µg/L	0.4594 ppb	11:26:25
3	P 214.914†	-1.6	24.0	5.5473 µg/L	5.5473 ppb	11:26:25
3	Pb 220.353†	107.7	4.5	0.2875 µg/L	0.2875 ppb	11:26:25
3	S 181.975 Axial†	116.0	27.3	22.974 µg/L	22.974 ppb	11:26:25
3	Sb 206.836†	88.3	-1.2	-0.1451 µg/L	-0.1451 ppb	11:26:25
3	Se 196.026†	28.6	22.5	8.86 µg/L	8.86 ppb	11:26:25
3	SiO2†	1757.4	22.4	2.3373 µg/L	2.3373 ppb	11:26:25
3	Si 251.611†	758.0	-7.3	-0.1291 µg/L	-0.1291 ppb	11:26:05
3	Sn 189.927†	1.3	-0.6	-0.0409 µg/L	-0.0409 ppb	11:26:25
3	Ti 334.940†	605.0	-216.6	-0.2174 µg/L	-0.2174 ppb	11:26:05
3	Tl 190.801†	-112.0	2.0	0.2678 µg/L	0.2678 ppb	11:26:25
3	U 409.014†	-368.7	-206.1	-13.034 µg/L	-13.034 ppb	11:26:05
3	V 292.402†	338.2	-84.2	-0.4346 µg/L	-0.4346 ppb	11:26:05
3	Zn 213.857†	556.0	54.3	0.3205 µg/L	0.3205 ppb	11:26:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1797337.0	99.622	%	0.1705				0.17%
Sc RADIAL	141019.9	101	%	0.3				0.28%
Y 371.029	1055181.6	99.800	%	0.1600				0.16%
Ag 328.068†	-182.5	-0.7555	µg/L	0.25179	-0.7555	ppb	0.25179	33.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.3	0.4545	µg/L	6.31472	0.4545	ppb	6.31472	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	12.4	4.1884	µg/L	2.09482	4.1884	ppb	2.09482	50.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-85.3	-1.3280	µg/L	1.14326	-1.3280	ppb	1.14326	86.09%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-22.2	-0.0985	µg/L	0.05209	-0.0985	ppb	0.05209	52.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	328.6	0.0935	µg/L	0.04591	0.0935	ppb	0.04591	49.09%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	118.6	8.0786	µg/L	3.51690	8.0786	ppb	3.51690	43.53%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.2	0.1839	µg/L	0.11642	0.1839	ppb	0.11642	63.29%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	17.9	0.2366	µg/L	0.07122	0.2366	ppb	0.07122	30.10%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.5     -0.0177 µg/L       0.06601     -0.0177 ppb        0.06601 372.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -6.7     -0.0319 µg/L       0.31231     -0.0319 ppb        0.31231 979.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       42.6      3.1816 µg/L       1.44406      3.1816 ppb        1.44406  45.39%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       215.8     85.499 µg/L       30.9164     85.499 ppb        30.9164  36.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          13.4      6.2207 µg/L       8.16082      6.2207 ppb        8.16082 131.19%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              52.0      0.0687 µg/L       0.02163      0.0687 ppb        0.02163  31.49%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              23.3      0.7610 µg/L       0.30978      0.7610 ppb        0.30978  40.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      163.2     25.219 µg/L       12.3238     25.219 ppb        12.3238  48.87%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              34.9      0.4371 µg/L       0.03068      0.4371 ppb        0.03068   7.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               19.2      4.4295 µg/L       1.49832      4.4295 ppb        1.49832  33.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -12.5     -0.7631 µg/L       0.96966     -0.7631 ppb        0.96966 127.06%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         27.4     23.016 µg/L        2.1761     23.016 ppb         2.1761   9.45%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -6.8     -0.8698 µg/L       1.02211     -0.8698 ppb        1.02211 117.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              13.7       5.41 µg/L        2.992        5.41 ppb          2.992  55.36%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     4.1      0.4094 µg/L       2.97212      0.4094 ppb        2.97212 725.93%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -10.3     -0.1749 µg/L       0.42334     -0.1749 ppb        0.42334 242.00%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               5.9      0.4081 µg/L       0.40308      0.4081 ppb        0.40308  98.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               7.4      0.0174 µg/L       0.13673      0.0174 ppb        0.13673 785.52%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -169.2     -0.1718 µg/L       0.04956     -0.1718 ppb        0.04956  28.85%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.4      0.0556 µg/L       0.53317      0.0556 ppb        0.53317 959.22%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -87.4     -5.5223 µg/L       9.21810     -5.5223 ppb        9.21810 166.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -24.2     -0.1216 µg/L       0.27200     -0.1216 ppb        0.27200 223.77%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              48.3      0.2852 µg/L       0.06801      0.2852 ppb        0.06801  23.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 11:29:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136820.5	136820.5	97.7	%			11:30:02
1	Al 396.153Radial†	23381.9	24019.7	5033.7	µg/L	5033.7	ppb	11:30:02
1	Ca 317.933Radial†	73543.2	74730.7	5089.8	µg/L	5089.8	ppb	11:30:02
1	Fe 238.204 Radial†	65942.1	67402.0	5033.5	µg/L	5033.5	ppb	11:30:02
1	K 766.490 Radial†	13830.9	12667.9	5015.5	µg/L	5015.5	ppb	11:30:02
1	Mg 279.077 IEC†	10996.3	11086.9	5127.2	µg/L	5127.2	ppb	11:30:02
1	Na 589.592 Radial†	63933.4	64510.1	9995.1	µg/L	9995.1	ppb	11:30:02
1	Sr 421.552†	208111.8	213293.9	503.01	µg/L	503.01	ppb	11:30:00
1	Sc 361.383	1761858.7	1761858.7	97.656	%			11:30:29
1	Y 371.029	1023300.8	1023300.8	96.785	%			11:30:29
1	Ag 328.068†	123043.0	121431.6	503.36	µg/L	503.36	ppb	11:30:29
1	As 188.979†	1388.4	1440.3	494.45	µg/L	494.45	ppb	11:30:49
1	B 249.677†	34891.3	31663.7	490.67	µg/L	490.67	ppb	11:30:29
1	Ba 233.527†	109659.6	112436.6	500.17	µg/L	500.17	ppb	11:30:29
1	Be 313.107†	1663606.1	1704633.4	493.93	µg/L	493.93	ppb	11:30:29
1	Cd 226.502†	72443.0	74285.4	501.76	µg/L	501.76	ppb	11:30:29
1	Co 228.616†	37156.2	38258.5	506.40	µg/L	506.40	ppb	11:30:29
1	Cr 267.716†	56866.6	57998.5	501.62	µg/L	501.62	ppb	11:30:29
1	Cu 324.752†	119606.6	119441.7	501.14	µg/L	501.14	ppb	11:30:29
1	Mn 257.610†	369411.0	378094.1	501.34	µg/L	501.34	ppb	11:30:29
1	Mo 202.031†	14945.3	15342.7	502.23	µg/L	502.23	ppb	11:30:49
1	Ni 231.604†	39345.7	40386.1	505.28	µg/L	505.28	ppb	11:30:29
1	P 214.914†	10584.6	10864.3	2504.6	µg/L	2504.6	ppb	11:30:49
1	Pb 220.353†	8129.7	8221.4	507.50	µg/L	507.50	ppb	11:30:49
1	S 181.975 Axial†	1251.2	1192.3	1007.2	µg/L	1007.2	ppb	11:30:49
1	Sb 206.836†	3883.3	3886.8	502.34	µg/L	502.34	ppb	11:30:49
1	Se 196.026†	1258.6	1282.6	508	µg/L	508	ppb	11:30:49
1	SiO2†	50604.3	50080.0	5281.8	µg/L	5281.8	ppb	11:30:29
1	Si 251.611†	154407.4	157347.0	2471.2	µg/L	2471.2	ppb	11:30:29
1	Sn 189.927†	7042.6	7209.8	501.78	µg/L	501.78	ppb	11:30:49
1	Ti 334.940†	474109.2	484667.3	497.15	µg/L	497.15	ppb	11:30:29
1	Tl 190.801†	3462.4	3659.8	507.23	µg/L	507.23	ppb	11:30:49
1	U 409.014†	7134.3	7468.9	501.82	µg/L	501.82	ppb	11:30:29
1	V 292.402†	94537.5	96383.6	506.22	µg/L	506.22	ppb	11:30:29
1	Zn 213.857†	82762.2	84245.9	499.12	µg/L	499.12	ppb	11:30:29
2	Sc RADIAL	135237.7	135237.7	96.5	%			11:30:06
2	Al 396.153Radial†	23012.6	23917.3	5012.0	µg/L	5012.0	ppb	11:30:06
2	Ca 317.933Radial†	72368.9	74395.7	5067.0	µg/L	5067.0	ppb	11:30:06
2	Fe 238.204 Radial†	65011.4	67228.1	5020.5	µg/L	5020.5	ppb	11:30:06
2	K 766.490 Radial†	13826.8	12829.4	5079.5	µg/L	5079.5	ppb	11:30:06
2	Mg 279.077 IEC†	10869.4	11087.2	5127.4	µg/L	5127.4	ppb	11:30:06
2	Na 589.592 Radial†	63379.2	64702.1	10025	µg/L	10025	ppb	11:30:06
2	Sr 421.552†	206760.8	214388.3	505.59	µg/L	505.59	ppb	11:30:04
2	Sc 361.383	1755213.5	1755213.5	97.287	%			11:30:52
2	Y 371.029	1018804.5	1018804.5	96.359	%			11:30:52
2	Ag 328.068†	123276.3	122148.4	506.27	µg/L	506.27	ppb	11:30:52
2	As 188.979†	1380.0	1437.0	493.33	µg/L	493.33	ppb	11:31:12
2	B 249.677†	35110.1	32023.9	496.27	µg/L	496.27	ppb	11:30:52
2	Ba 233.527†	109680.5	112883.2	502.16	µg/L	502.16	ppb	11:30:52
2	Be 313.107†	1662352.6	1709794.5	495.42	µg/L	495.42	ppb	11:30:52
2	Cd 226.502†	72424.8	74547.5	503.54	µg/L	503.54	ppb	11:30:52
2	Co 228.616†	36976.6	38217.9	505.86	µg/L	505.86	ppb	11:30:52
2	Cr 267.716†	56640.8	57986.9	501.53	µg/L	501.53	ppb	11:30:52
2	Cu 324.752†	119400.5	119693.6	502.18	µg/L	502.18	ppb	11:30:52
2	Mn 257.610†	369192.4	379301.6	502.95	µg/L	502.95	ppb	11:30:52
2	Mo 202.031†	14979.7	15435.9	505.27	µg/L	505.27	ppb	11:31:12
2	Ni 231.604†	39164.5	40352.4	504.86	µg/L	504.86	ppb	11:30:52
2	P 214.914†	10589.4	10910.3	2515.2	µg/L	2515.2	ppb	11:31:12
2	Pb 220.353†	8151.8	8275.6	510.85	µg/L	510.85	ppb	11:31:12

2	S 181.975 Axial†	1255.2	1201.3	1014.9 µg/L	1014.9 ppb	11:31:12
2	Sb 206.836†	3899.6	3918.6	506.49 µg/L	506.49 ppb	11:31:12
2	Se 196.026†	1256.7	1285.6	509 µg/L	509 ppb	11:31:12
2	SiO2†	50502.9	50172.0	5291.5 µg/L	5291.5 ppb	11:30:52
2	Si 251.611†	154149.6	157680.6	2476.4 µg/L	2476.4 ppb	11:30:52
2	Sn 189.927†	7052.2	7247.0	504.36 µg/L	504.36 ppb	11:31:12
2	Ti 334.940†	473721.0	486106.4	498.63 µg/L	498.63 ppb	11:30:52
2	Tl 190.801†	3489.8	3701.4	512.92 µg/L	512.92 ppb	11:31:12
2	U 409.014†	6870.2	7225.1	486.41 µg/L	486.41 ppb	11:30:52
2	V 292.402†	94056.9	96256.2	505.58 µg/L	505.58 ppb	11:30:52
2	Zn 213.857†	82670.1	84472.1	500.47 µg/L	500.47 ppb	11:30:52
3	Sc RADIAL	136682.0	136682.0	97.6 %		11:30:10
3	Al 396.153Radial†	23255.0	23913.8	5011.8 µg/L	5011.8 ppb	11:30:10
3	Ca 317.933Radial†	72929.5	74178.0	5052.2 µg/L	5052.2 ppb	11:30:10
3	Fe 238.204 Radial†	65673.7	67195.3	5018.1 µg/L	5018.1 ppb	11:30:10
3	K 766.490 Radial†	13914.0	12767.5	5055.0 µg/L	5055.0 ppb	11:30:10
3	Mg 279.077 IEC†	10922.9	11023.0	5097.5 µg/L	5097.5 ppb	11:30:10
3	Na 589.592 Radial†	63890.3	64532.2	9998.5 µg/L	9998.5 ppb	11:30:10
3	Sr 421.552†	204882.1	210199.5	495.71 µg/L	495.71 ppb	11:30:08
3	Sc 361.383	1786609.6	1786609.6	99.028 %		11:31:15
3	Y 371.029	1036752.1	1036752.1	98.057 %		11:31:15
3	Ag 328.068†	125411.5	122077.8	506.02 µg/L	506.02 ppb	11:31:15
3	As 188.979†	1367.3	1399.2	480.54 µg/L	480.54 ppb	11:31:36
3	B 249.677†	35832.7	32119.5	497.75 µg/L	497.75 ppb	11:31:15
3	Ba 233.527†	111666.9	112908.0	502.27 µg/L	502.27 ppb	11:31:15
3	Be 313.107†	1695198.1	1712935.5	496.34 µg/L	496.34 ppb	11:31:15
3	Cd 226.502†	74018.8	74849.0	505.58 µg/L	505.58 ppb	11:31:15
3	Co 228.616†	37808.9	38390.5	508.15 µg/L	508.15 ppb	11:31:15
3	Cr 267.716†	57773.9	58108.0	502.57 µg/L	502.57 ppb	11:31:15
3	Cu 324.752†	121645.6	119804.0	502.66 µg/L	502.66 ppb	11:31:15
3	Mn 257.610†	375989.4	379496.6	503.20 µg/L	503.20 ppb	11:31:15
3	Mo 202.031†	14922.1	15107.2	494.52 µg/L	494.52 ppb	11:31:36
3	Ni 231.604†	40047.6	40536.7	507.16 µg/L	507.16 ppb	11:31:15
3	P 214.914†	10509.5	10638.3	2452.3 µg/L	2452.3 ppb	11:31:36
3	Pb 220.353†	8093.3	8069.3	498.12 µg/L	498.12 ppb	11:31:36
3	S 181.975 Axial†	1250.7	1174.0	991.82 µg/L	991.82 ppb	11:31:36
3	Sb 206.836†	3860.6	3808.8	492.14 µg/L	492.14 ppb	11:31:36
3	Se 196.026†	1237.7	1243.7	492 µg/L	492 ppb	11:31:36
3	SiO2†	51543.0	50310.1	5306.6 µg/L	5306.6 ppb	11:31:15
3	Si 251.611†	157269.9	158047.2	2482.4 µg/L	2482.4 ppb	11:31:15
3	Sn 189.927†	6987.1	7053.8	490.96 µg/L	490.96 ppb	11:31:36
3	Ti 334.940†	482315.1	486228.0	498.75 µg/L	498.75 ppb	11:31:15
3	Tl 190.801†	3458.2	3606.4	499.96 µg/L	499.96 ppb	11:31:36
3	U 409.014†	7182.1	7416.0	498.57 µg/L	498.57 ppb	11:31:15
3	V 292.402†	96118.6	96639.1	507.47 µg/L	507.47 ppb	11:31:15
3	Zn 213.857†	84371.3	84696.8	501.80 µg/L	501.80 ppb	11:31:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1767893.9	97.990	%	0.9171				0.94%
Sc RADIAL	136246.7	97.3	%	0.63				0.64%
Y 371.029	1026285.8	97.067	%	0.8833				0.91%
Ag 328.068†	121885.9	505.21	µg/L	1.611	505.21	ppb	1.611	0.32%
QC value within limits for Ag 328.068 Recovery = 101.04%								
Al 396.153Radial†	23950.3	5019.2	µg/L	12.60	5019.2	ppb	12.60	0.25%
QC value within limits for Al 396.153Radial Recovery = 100.38%								
As 188.979†	1425.5	489.44	µg/L	7.730	489.44	ppb	7.730	1.58%
QC value within limits for As 188.979 Recovery = 97.89%								
B 249.677†	31935.7	494.90	µg/L	3.736	494.90	ppb	3.736	0.75%
QC value within limits for B 249.677 Recovery = 98.98%								
Ba 233.527†	112742.6	501.53	µg/L	1.179	501.53	ppb	1.179	0.24%
QC value within limits for Ba 233.527 Recovery = 100.31%								
Be 313.107†	1709121.1	495.23	µg/L	1.213	495.23	ppb	1.213	0.25%
QC value within limits for Be 313.107 Recovery = 99.05%								
Ca 317.933Radial†	74434.8	5069.7	µg/L	18.96	5069.7	ppb	18.96	0.37%
QC value within limits for Ca 317.933Radial Recovery = 101.39%								
Cd 226.502†	74560.6	503.63	µg/L	1.907	503.63	ppb	1.907	0.38%
QC value within limits for Cd 226.502 Recovery = 100.73%								
Co 228.616†	38288.9	506.80	µg/L	1.195	506.80	ppb	1.195	0.24%

```
   QC value within limits for Co 228.616  Recovery = 101.36%
Cr 267.716†            58031.1      501.91 µg/L         0.576      501.91 ppb          0.576   0.11%
   QC value within limits for Cr 267.716  Recovery = 100.38%
Cu 324.752†           119646.4      501.99 µg/L         0.773      501.99 ppb          0.773   0.15%
   QC value within limits for Cu 324.752  Recovery = 100.40%
Fe 238.204 Radial†     67275.1      5024.1 µg/L          8.30      5024.1 ppb           8.30   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.48%
K 766.490 Radial†      12754.9      5050.0 µg/L         32.29      5050.0 ppb          32.29   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 101.00%
Mg 279.077 IEC†        11065.7      5117.4 µg/L         17.20      5117.4 ppb          17.20   0.34%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.35%
Mn 257.610†           378964.1      502.50 µg/L         1.008      502.50 ppb          1.008   0.20%
   QC value within limits for Mn 257.610  Recovery = 100.50%
Mo 202.031†            15295.3      500.67 µg/L         5.540      500.67 ppb          5.540   1.11%
   QC value within limits for Mo 202.031  Recovery = 100.13%
Na 589.592 Radial†     64581.5       10006 µg/L          16.3       10006 ppb           16.3   0.16%
   QC value within limits for Na 589.592 Radial  Recovery = 100.06%
Ni 231.604†            40425.1      505.77 µg/L         1.228      505.77 ppb          1.228   0.24%
   QC value within limits for Ni 231.604  Recovery = 101.15%
P 214.914†             10804.3      2490.7 µg/L         33.68      2490.7 ppb          33.68   1.35%
   QC value within limits for P 214.914  Recovery = 99.63%
Pb 220.353†             8188.8      505.49 µg/L         6.598      505.49 ppb          6.598   1.31%
   QC value within limits for Pb 220.353  Recovery = 101.10%
S 181.975 Axial†        1189.2      1004.6 µg/L         11.74      1004.6 ppb          11.74   1.17%
   QC value within limits for S 181.975 Axial  Recovery = 100.46%
Sb 206.836†             3871.4      500.32 µg/L         7.384      500.32 ppb          7.384   1.48%
   QC value within limits for Sb 206.836  Recovery = 100.06%
Se 196.026†             1270.6         503 µg/L           9.2         503 ppb            9.2   1.83%
   QC value within limits for Se 196.026  Recovery = 100.56%
SiO2†                  50187.3      5293.3 µg/L         12.47      5293.3 ppb          12.47   0.24%
   QC value within limits for SiO2  Recovery = 98.99%
Si 251.611†           157691.6      2476.7 µg/L          5.61      2476.7 ppb           5.61   0.23%
   QC value within limits for Si 251.611  Recovery = 99.07%
Sn 189.927†             7170.2      499.03 µg/L         7.107      499.03 ppb          7.107   1.42%
   QC value within limits for Sn 189.927  Recovery = 99.81%
Sr 421.552†           212627.3      501.43 µg/L         5.124      501.43 ppb          5.124   1.02%
   QC value within limits for Sr 421.552  Recovery = 100.29%
Ti 334.940†           485667.3      498.17 µg/L         0.894      498.17 ppb          0.894   0.18%
   QC value within limits for Ti 334.940  Recovery = 99.63%
Tl 190.801†             3655.9      506.70 µg/L         6.497      506.70 ppb          6.497   1.28%
   QC value within limits for Tl 190.801  Recovery = 101.34%
U 409.014†              7370.0      495.60 µg/L         8.123      495.60 ppb          8.123   1.64%
   QC value within limits for U 409.014  Recovery = 99.12%
V 292.402†             96426.3      506.43 µg/L         0.959      506.43 ppb          0.959   0.19%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†            84471.6      500.46 µg/L         1.341      500.46 ppb          1.341   0.27%
   QC value within limits for Zn 213.857  Recovery = 100.09%
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 11:31:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138159.9	138159.9	98.6	%			11:32:12
1	Al 396.153Radial†	-61.5	16.2	3.3756	µg/L	3.3756	ppb	11:32:32
1	Ca 317.933Radial†	624.1	61.4	4.1810	µg/L	4.1810	ppb	11:32:32
1	Fe 238.204 Radial†	140.2	24.8	1.8552	µg/L	1.8552	ppb	11:32:32
1	K 766.490 Radial†	1534.9	62.6	24.798	µg/L	24.798	ppb	11:32:12
1	Mg 279.077 IEC†	179.7	9.7	4.5034	µg/L	4.5034	ppb	11:32:32
1	Na 589.592 Radial†	1043.8	105.9	16.389	µg/L	16.389	ppb	11:32:12
1	Sr 421.552†	-179.3	22.7	0.0534	µg/L	0.0534	ppb	11:32:12
1	Sc 361.383	1781153.8	1781153.8	98.725	%			11:33:20
1	Y 371.029	1046438.9	1046438.9	98.973	%			11:33:20
1	Ag 328.068†	4305.8	-203.7	-0.8261	µg/L	-0.8261	ppb	11:33:22
1	As 188.979†	-14.7	3.7	1.2615	µg/L	1.2615	ppb	11:33:42
1	B 249.677†	4014.2	0.9	0.0135	µg/L	0.0135	ppb	11:33:22
1	Ba 233.527†	-154.2	-11.6	-0.0515	µg/L	-0.0515	ppb	11:33:42
1	Be 313.107†	-880.1	200.2	0.0595	µg/L	0.0595	ppb	11:33:22
1	Cd 226.502†	-65.4	37.1	0.2509	µg/L	0.2509	ppb	11:33:42
1	Co 228.616†	-204.8	2.9	0.0380	µg/L	0.0380	ppb	11:33:42
1	Cr 267.716†	266.8	37.0	0.3162	µg/L	0.3162	ppb	11:33:42
1	Cu 324.752†	3004.2	6.9	0.0333	µg/L	0.0333	ppb	11:33:22
1	Mn 257.610†	246.8	65.3	0.0864	µg/L	0.0864	ppb	11:33:42
1	Mo 202.031†	-18.2	20.2	0.6594	µg/L	0.6594	ppb	11:33:42
1	Ni 231.604†	-84.6	10.2	0.1272	µg/L	0.1272	ppb	11:33:42
1	P 214.914†	15.3	41.2	9.5223	µg/L	9.5223	ppb	11:33:42
1	Pb 220.353†	128.5	26.7	1.6394	µg/L	1.6394	ppb	11:33:42
1	S 181.975 Axial†	105.9	18.3	15.402	µg/L	15.402	ppb	11:33:42
1	Sb 206.836†	71.8	-17.0	-2.1882	µg/L	-2.1882	ppb	11:33:42
1	Se 196.026†	18.2	12.3	4.86	µg/L	4.86	ppb	11:33:42
1	SiO2†	1722.8	6.0	0.6150	µg/L	0.6150	ppb	11:33:42
1	Si 251.611†	862.6	106.7	1.6733	µg/L	1.6733	ppb	11:33:22
1	Sn 189.927†	1.7	-0.1	-0.0097	µg/L	-0.0097	ppb	11:33:42
1	Ti 334.940†	863.4	51.5	0.0505	µg/L	0.0505	ppb	11:33:22
1	Tl 190.801†	-111.9	1.0	0.1319	µg/L	0.1319	ppb	11:33:42
1	U 409.014†	-82.1	80.2	5.0710	µg/L	5.0710	ppb	11:33:22
1	V 292.402†	445.9	28.4	0.1587	µg/L	0.1587	ppb	11:33:22
1	Zn 213.857†	555.3	59.4	0.3540	µg/L	0.3540	ppb	11:33:42
2	Sc RADIAL	139520.5	139520.5	99.6	%			11:32:34
2	Al 396.153Radial†	-62.2	16.1	3.3819	µg/L	3.3819	ppb	11:32:54
2	Ca 317.933Radial†	618.3	49.3	3.3610	µg/L	3.3610	ppb	11:32:54
2	Fe 238.204 Radial†	116.3	-0.6	-0.0425	µg/L	-0.0425	ppb	11:32:54
2	K 766.490 Radial†	1507.1	19.4	7.7040	µg/L	7.7040	ppb	11:32:34
2	Mg 279.077 IEC†	162.8	-9.0	-4.1536	µg/L	-4.1536	ppb	11:32:54
2	Na 589.592 Radial†	902.2	-46.6	-7.2284	µg/L	-7.2284	ppb	11:32:34
2	Sr 421.552†	-170.6	33.2	0.0783	µg/L	0.0783	ppb	11:32:34
2	Sc 361.383	1778496.6	1778496.6	98.578	%			11:33:44
2	Y 371.029	1044974.2	1044974.2	98.834	%			11:33:44
2	Ag 328.068†	4406.6	-95.0	-0.3921	µg/L	-0.3921	ppb	11:33:46
2	As 188.979†	-16.8	1.5	0.5201	µg/L	0.5201	ppb	11:34:07
2	B 249.677†	4054.0	47.4	0.7352	µg/L	0.7352	ppb	11:33:46
2	Ba 233.527†	-128.3	14.4	0.0638	µg/L	0.0638	ppb	11:34:07
2	Be 313.107†	-889.2	189.7	0.0561	µg/L	0.0561	ppb	11:33:46
2	Cd 226.502†	-87.2	14.9	0.1006	µg/L	0.1006	ppb	11:34:07
2	Co 228.616†	-169.3	38.5	0.5098	µg/L	0.5098	ppb	11:34:07
2	Cr 267.716†	240.7	10.9	0.0915	µg/L	0.0915	ppb	11:34:07
2	Cu 324.752†	2937.7	-56.0	-0.2311	µg/L	-0.2311	ppb	11:33:46
2	Mn 257.610†	253.5	72.4	0.0962	µg/L	0.0962	ppb	11:34:07
2	Mo 202.031†	-33.8	4.2	0.1384	µg/L	0.1384	ppb	11:34:07
2	Ni 231.604†	-90.7	3.9	0.0487	µg/L	0.0487	ppb	11:34:07
2	P 214.914†	-2.7	23.0	5.3134	µg/L	5.3134	ppb	11:34:07
2	Pb 220.353†	131.4	29.8	1.8340	µg/L	1.8340	ppb	11:34:07

2	S 181.975 Axial†	114.8	27.6	23.201 µg/L	23.201 ppb	11:34:07
2	Sb 206.836†	68.7	-20.1	-2.5886 µg/L	-2.5886 ppb	11:34:07
2	Se 196.026†	18.4	12.5	4.94 µg/L	4.94 ppb	11:34:07
2	SiO2†	1743.1	29.2	3.0894 µg/L	3.0894 ppb	11:34:07
2	Si 251.611†	796.1	40.6	0.6399 µg/L	0.6399 ppb	11:33:46
2	Sn 189.927†	-2.6	-4.5	-0.3128 µg/L	-0.3128 ppb	11:34:07
2	Ti 334.940†	844.0	33.2	0.0330 µg/L	0.0330 ppb	11:33:46
2	Tl 190.801†	-114.1	-1.5	-0.2079 µg/L	-0.2079 ppb	11:34:07
2	U 409.014†	-102.8	59.1	3.6912 µg/L	3.6912 ppb	11:33:46
2	V 292.402†	292.6	-126.4	-0.6508 µg/L	-0.6508 ppb	11:33:46
2	Zn 213.857†	543.9	48.8	0.2911 µg/L	0.2911 ppb	11:34:07
3	Sc RADIAL	137468.8	137468.8	98.1 %		11:32:56
3	Al 396.153Radial†	-87.5	-10.6	-2.2710 µg/L	-2.2710 ppb	11:33:16
3	Ca 317.933Radial†	616.0	56.3	3.8368 µg/L	3.8368 ppb	11:33:16
3	Fe 238.204 Radial†	143.0	28.5	2.1256 µg/L	2.1256 ppb	11:33:16
3	K 766.490 Radial†	1510.4	45.4	17.993 µg/L	17.993 ppb	11:32:56
3	Mg 279.077 IEC†	199.4	30.8	14.227 µg/L	14.227 ppb	11:33:16
3	Na 589.592 Radial†	1098.6	167.1	25.880 µg/L	25.880 ppb	11:32:56
3	Sr 421.552†	-193.6	7.2	0.0170 µg/L	0.0170 ppb	11:32:56
3	Sc 361.383	1779132.2	1779132.2	98.613 %		11:34:09
3	Y 371.029	1044870.8	1044870.8	98.825 %		11:34:09
3	Ag 328.068†	4229.2	-276.5	-1.1269 µg/L	-1.1269 ppb	11:34:11
3	As 188.979†	-17.5	0.8	0.2907 µg/L	0.2907 ppb	11:34:31
3	B 249.677†	3990.5	-18.6	-0.2896 µg/L	-0.2896 ppb	11:34:11
3	Ba 233.527†	-154.2	-11.8	-0.0516 µg/L	-0.0516 ppb	11:34:31
3	Be 313.107†	-593.1	490.3	0.1402 µg/L	0.1402 ppb	11:34:11
3	Cd 226.502†	-73.3	29.1	0.1961 µg/L	0.1961 ppb	11:34:31
3	Co 228.616†	-185.1	22.6	0.2982 µg/L	0.2982 ppb	11:34:31
3	Cr 267.716†	239.5	9.7	0.0891 µg/L	0.0891 ppb	11:34:31
3	Cu 324.752†	2819.0	-177.5	-0.7467 µg/L	-0.7467 ppb	11:34:11
3	Mn 257.610†	209.3	27.5	0.0359 µg/L	0.0359 ppb	11:34:31
3	Mo 202.031†	-14.5	23.9	0.7807 µg/L	0.7807 ppb	11:34:31
3	Ni 231.604†	-105.7	-11.3	-0.1412 µg/L	-0.1412 ppb	11:34:31
3	P 214.914†	-8.3	17.3	3.9969 µg/L	3.9969 ppb	11:34:31
3	Pb 220.353†	108.5	6.6	0.4124 µg/L	0.4124 ppb	11:34:31
3	S 181.975 Axial†	100.0	12.5	10.490 µg/L	10.490 ppb	11:34:31
3	Sb 206.836†	62.3	-26.5	-3.4066 µg/L	-3.4066 ppb	11:34:31
3	Se 196.026†	28.1	22.3	8.80 µg/L	8.80 ppb	11:34:31
3	SiO2†	1743.7	29.1	3.0701 µg/L	3.0701 ppb	11:34:31
3	Si 251.611†	764.4	8.1	0.1206 µg/L	0.1206 ppb	11:34:11
3	Sn 189.927†	-4.6	-6.6	-0.4567 µg/L	-0.4567 ppb	11:34:31
3	Ti 334.940†	707.4	-105.6	-0.1070 µg/L	-0.1070 ppb	11:34:11
3	Tl 190.801†	-118.5	-5.9	-0.8018 µg/L	-0.8018 ppb	11:34:31
3	U 409.014†	-257.2	-97.5	-6.0915 µg/L	-6.0915 ppb	11:34:11
3	V 292.402†	616.0	201.4	1.0480 µg/L	1.0480 ppb	11:34:11
3	Zn 213.857†	551.8	56.6	0.3393 µg/L	0.3393 ppb	11:34:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1779594.2	98.639	%	0.0769				0.08%
Sc RADIAL	138383.1	98.8	%	0.75				0.75%
Y 371.029	1045428.0	98.877	%	0.0829				0.08%
Ag 328.068†	-191.7	-0.7817	µg/L	0.36941	-0.7817	ppb	0.36941	47.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.2	1.4955	µg/L	3.26187	1.4955	ppb	3.26187	218.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.0	0.6908	µg/L	0.50742	0.6908	ppb	0.50742	73.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	9.9	0.1530	µg/L	0.52644	0.1530	ppb	0.52644	343.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.0	-0.0131	µg/L	0.06661	-0.0131	ppb	0.06661	508.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	293.4	0.0853	µg/L	0.04758	0.0853	ppb	0.04758	55.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	55.7	3.7930	µg/L	0.41176	3.7930	ppb	0.41176	10.86%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	27.0	0.1825	µg/L	0.07603	0.1825	ppb	0.07603	41.65%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	21.3	0.2820	µg/L	0.23633	0.2820	ppb	0.23633	83.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.2      0.1656 µg/L       0.13041      0.1656 ppb        0.13041  78.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -75.6     -0.3148 µg/L       0.39666     -0.3148 ppb        0.39666 125.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       17.6      1.3128 µg/L       1.18141      1.3128 ppb        1.18141  89.99%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        42.5      16.832 µg/L        8.6058      16.832 ppb         8.6058  51.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          10.5      4.8589 µg/L       9.19547      4.8589 ppb        9.19547 189.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              55.1      0.0729 µg/L       0.03238      0.0729 ppb        0.03238  44.45%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              16.1      0.5262 µg/L       0.34124      0.5262 ppb        0.34124  64.85%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       75.4      11.680 µg/L       17.0493      11.680 ppb        17.0493 145.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.9      0.0115 µg/L       0.13797      0.0115 ppb        0.13797 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               27.2      6.2776 µg/L       2.88612      6.2776 ppb        2.88612  45.98%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              21.0      1.2953 µg/L       0.77073      1.2953 ppb        0.77073  59.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         19.4      16.364 µg/L        6.4098      16.364 ppb         6.4098  39.17%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -21.2     -2.7278 µg/L       0.62103     -2.7278 ppb        0.62103  22.77%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              15.7        6.20 µg/L         2.250        6.20 ppb          2.250  36.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    21.4      2.2582 µg/L       1.42305      2.2582 ppb        1.42305  63.02%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              51.8      0.8113 µg/L       0.79039      0.8113 ppb        0.79039  97.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -3.7     -0.2597 µg/L       0.22815     -0.2597 ppb        0.22815  87.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              21.0      0.0496 µg/L       0.03085      0.0496 ppb        0.03085  62.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -7.0     -0.0079 µg/L       0.08634     -0.0079 ppb        0.08634 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.1     -0.2926 µg/L       0.47261     -0.2926 ppb        0.47261 161.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               13.9      0.8902 µg/L       6.08556      0.8902 ppb        6.08556 683.60%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               34.5      0.1853 µg/L       0.84970      0.1853 ppb        0.84970 458.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              54.9      0.3281 µg/L       0.03289      0.3281 ppb        0.03289  10.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 11:52:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136406.2	136406.2	97.4	%			11:52:57
1	Al 396.153Radial†	23313.8	24022.4	5034.4	µg/L	5034.4	ppb	11:52:57
1	Ca 317.933Radial†	72574.7	73964.8	5037.7	µg/L	5037.7	ppb	11:52:57
1	Fe 238.204 Radial†	65230.3	66876.0	4994.3	µg/L	4994.3	ppb	11:52:57
1	K 766.490 Radial†	13928.2	12810.9	5072.2	µg/L	5072.2	ppb	11:52:57
1	Mg 279.077 IEC†	10849.4	10970.1	5073.3	µg/L	5073.3	ppb	11:52:57
1	Na 589.592 Radial†	63560.6	64326.0	9966.5	µg/L	9966.5	ppb	11:52:57
1	Sr 421.552†	209457.2	215322.9	507.79	µg/L	507.79	ppb	11:52:55
1	Sc 361.383	1772450.0	1772450.0	98.243	%			11:53:10
1	Y 371.029	1029159.8	1029159.8	97.339	%			11:53:10
1	Ag 328.068†	123371.7	121013.3	501.63	µg/L	501.63	ppb	11:53:10
1	As 188.979†	1363.6	1406.6	482.99	µg/L	482.99	ppb	11:53:30
1	B 249.677†	35057.5	31619.4	490.00	µg/L	490.00	ppb	11:53:10
1	Ba 233.527†	109674.1	111780.3	497.26	µg/L	497.26	ppb	11:53:10
1	Be 313.107†	1662161.0	1692982.8	490.56	µg/L	490.56	ppb	11:53:10
1	Cd 226.502†	72458.7	73858.1	498.88	µg/L	498.88	ppb	11:53:10
1	Co 228.616†	37051.9	37924.9	501.98	µg/L	501.98	ppb	11:53:10
1	Cr 267.716†	56912.9	57697.7	499.01	µg/L	499.01	ppb	11:53:10
1	Cu 324.752†	119955.7	119065.2	499.57	µg/L	499.57	ppb	11:53:10
1	Mn 257.610†	369739.3	376167.9	498.79	µg/L	498.79	ppb	11:53:10
1	Mo 202.031†	14945.8	15251.7	499.25	µg/L	499.25	ppb	11:53:30
1	Ni 231.604†	39204.9	40002.1	500.48	µg/L	500.48	ppb	11:53:10
1	P 214.914†	10533.6	10747.7	2477.7	µg/L	2477.7	ppb	11:53:30
1	Pb 220.353†	8092.8	8134.1	502.11	µg/L	502.11	ppb	11:53:30
1	S 181.975 Axial†	1246.7	1180.1	996.97	µg/L	996.97	ppb	11:53:30
1	Sb 206.836†	3881.5	3861.2	499.01	µg/L	499.01	ppb	11:53:30
1	Se 196.026†	1261.7	1278.2	506	µg/L	506	ppb	11:53:30
1	SiO2†	50814.8	49984.6	5271.9	µg/L	5271.9	ppb	11:53:10
1	Si 251.611†	154915.3	156919.1	2464.5	µg/L	2464.5	ppb	11:53:10
1	Sn 189.927†	6999.7	7123.1	495.75	µg/L	495.75	ppb	11:53:30
1	Ti 334.940†	474357.0	482018.6	494.42	µg/L	494.42	ppb	11:53:10
1	Tl 190.801†	3467.1	3643.4	504.96	µg/L	504.96	ppb	11:53:30
1	U 409.014†	7358.8	7653.8	513.30	µg/L	513.30	ppb	11:53:10
1	V 292.402†	94510.7	95778.0	503.06	µg/L	503.06	ppb	11:53:10
1	Zn 213.857†	82854.1	83833.1	496.69	µg/L	496.69	ppb	11:53:10
2	Sc RADIAL	137493.5	137493.5	98.1	%			11:53:01
2	Al 396.153Radial†	23368.5	23888.8	5006.2	µg/L	5006.2	ppb	11:53:01
2	Ca 317.933Radial†	73166.7	73978.6	5038.6	µg/L	5038.6	ppb	11:53:01
2	Fe 238.204 Radial†	65779.5	66905.9	4996.5	µg/L	4996.5	ppb	11:53:01
2	K 766.490 Radial†	13916.8	12686.1	5022.7	µg/L	5022.7	ppb	11:53:01
2	Mg 279.077 IEC†	10945.0	10979.5	5077.6	µg/L	5077.6	ppb	11:53:01
2	Na 589.592 Radial†	64104.8	64364.3	9972.5	µg/L	9972.5	ppb	11:53:01
2	Sr 421.552†	208104.5	212243.5	500.53	µg/L	500.53	ppb	11:52:59
2	Sc 361.383	1762317.1	1762317.1	97.681	%			11:53:33
2	Y 371.029	1024172.1	1024172.1	96.867	%			11:53:33
2	Ag 328.068†	122813.7	121164.0	502.22	µg/L	502.22	ppb	11:53:33
2	As 188.979†	1372.1	1423.3	488.62	µg/L	488.62	ppb	11:53:53
2	B 249.677†	34852.8	31615.0	489.94	µg/L	489.94	ppb	11:53:33
2	Ba 233.527†	108849.1	111577.6	496.35	µg/L	496.35	ppb	11:53:33
2	Be 313.107†	1649149.0	1689389.9	489.51	µg/L	489.51	ppb	11:53:33
2	Cd 226.502†	71871.9	73681.4	497.68	µg/L	497.68	ppb	11:53:33
2	Co 228.616†	36650.3	37730.6	499.41	µg/L	499.41	ppb	11:53:33
2	Cr 267.716†	56379.7	57484.9	497.18	µg/L	497.18	ppb	11:53:33
2	Cu 324.752†	118788.7	118572.6	497.49	µg/L	497.49	ppb	11:53:33
2	Mn 257.610†	366667.7	375187.3	497.49	µg/L	497.49	ppb	11:53:33
2	Mo 202.031†	14922.5	15315.3	501.33	µg/L	501.33	ppb	11:53:53
2	Ni 231.604†	38942.5	39962.9	499.99	µg/L	499.99	ppb	11:53:33
2	P 214.914†	10533.2	10809.0	2491.8	µg/L	2491.8	ppb	11:53:53
2	Pb 220.353†	8076.9	8165.1	504.04	µg/L	504.04	ppb	11:53:53

2	S 181.975 Axial†	1255.9	1196.8	1011.1 µg/L	1011.1 ppb		11:53:53
2	Sb 206.836†	3856.9	3858.7	498.76 µg/L	498.76 ppb		11:53:53
2	Se 196.026†	1242.7	1266.0	501 µg/L	501 ppb		11:53:53
2	SiO2†	50210.7	49663.6	5237.8 µg/L	5237.8 ppb		11:53:33
2	Si 251.611†	153979.2	156867.5	2463.7 µg/L	2463.7 ppb		11:53:33
2	Sn 189.927†	6986.3	7150.3	497.63 µg/L	497.63 ppb		11:53:53
2	Ti 334.940†	470900.5	481256.2	493.65 µg/L	493.65 ppb		11:53:33
2	Tl 190.801†	3449.9	3646.1	505.33 µg/L	505.33 ppb		11:53:53
2	U 409.014†	6983.1	7312.3	491.76 µg/L	491.76 ppb		11:53:33
2	V 292.402†	94029.1	95838.0	503.37 µg/L	503.37 ppb		11:53:33
2	Zn 213.857†	82143.5	83590.5	495.24 µg/L	495.24 ppb		11:53:33
3	Sc RADIAL	138379.3	138379.3	98.8 %			11:53:05
3	Al 396.153Radial†	23410.6	23779.0	4983.1 µg/L	4983.1 ppb		11:53:05
3	Ca 317.933Radial†	73615.3	73955.5	5037.0 µg/L	5037.0 ppb		11:53:05
3	Fe 238.204 Radial†	66155.3	66857.2	4992.8 µg/L	4992.8 ppb		11:53:05
3	K 766.490 Radial†	14062.6	12742.9	5045.3 µg/L	5045.3 ppb		11:53:05
3	Mg 279.077 IEC†	10984.3	10947.9	5063.0 µg/L	5063.0 ppb		11:53:05
3	Na 589.592 Radial†	64456.7	64302.4	9962.9 µg/L	9962.9 ppb		11:53:05
3	Sr 421.552†	211075.5	213893.9	504.42 µg/L	504.42 ppb		11:53:03
3	Sc 361.383	1773926.9	1773926.9	98.325 %			11:53:56
3	Y 371.029	1030484.0	1030484.0	97.464 %			11:53:56
3	Ag 328.068†	123843.7	121388.7	503.13 µg/L	503.13 ppb		11:53:56
3	As 188.979†	1369.1	1411.0	484.48 µg/L	484.48 ppb		11:54:16
3	B 249.677†	35237.3	31772.6	492.38 µg/L	492.38 ppb		11:53:56
3	Ba 233.527†	110079.9	112100.1	498.68 µg/L	498.68 ppb		11:53:56
3	Be 313.107†	1667071.7	1696568.6	491.59 µg/L	491.59 ppb		11:53:56
3	Cd 226.502†	72710.6	74052.8	500.20 µg/L	500.20 ppb		11:53:56
3	Co 228.616†	37053.9	37895.5	501.60 µg/L	501.60 ppb		11:53:56
3	Cr 267.716†	56941.0	57678.0	498.86 µg/L	498.86 ppb		11:53:56
3	Cu 324.752†	119958.3	118966.2	499.13 µg/L	499.13 ppb		11:53:56
3	Mn 257.610†	370604.0	376734.0	499.54 µg/L	499.54 ppb		11:53:56
3	Mo 202.031†	15013.3	15307.7	501.08 µg/L	501.08 ppb		11:54:16
3	Ni 231.604†	39324.7	40090.7	501.58 µg/L	501.58 ppb		11:53:56
3	P 214.914†	10576.2	10782.1	2485.6 µg/L	2485.6 ppb		11:54:16
3	Pb 220.353†	8159.7	8195.3	505.90 µg/L	505.90 ppb		11:54:16
3	S 181.975 Axial†	1240.8	1173.0	991.06 µg/L	991.06 ppb		11:54:16
3	Sb 206.836†	3890.0	3866.5	499.73 µg/L	499.73 ppb		11:54:16
3	Se 196.026†	1246.9	1262.0	499 µg/L	499 ppb		11:54:16
3	SiO2†	51031.8	50162.2	5290.6 µg/L	5290.6 ppb		11:53:56
3	Si 251.611†	155506.1	157388.8	2471.9 µg/L	2471.9 ppb		11:53:56
3	Sn 189.927†	7037.4	7155.4	498.00 µg/L	498.00 ppb		11:54:16
3	Ti 334.940†	475812.6	483097.0	495.55 µg/L	495.55 ppb		11:53:56
3	Tl 190.801†	3486.4	3660.1	507.26 µg/L	507.26 ppb		11:54:16
3	U 409.014†	6861.5	7141.7	481.01 µg/L	481.01 ppb		11:53:56
3	V 292.402†	94660.9	95850.6	503.43 µg/L	503.43 ppb		11:53:56
3	Zn 213.857†	83073.1	83985.6	497.59 µg/L	497.59 ppb		11:53:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1769564.7	98.083	%	0.3503				0.36%
Sc RADIAL	137426.3	98.1	%	0.71				0.72%
Y 371.029	1027938.6	97.223	%	0.3148				0.32%
Ag 328.068†	121188.7	502.32	µg/L	0.756	502.32	ppb	0.756	0.15%
QC value within limits for Ag 328.068 Recovery = 100.46%								
Al 396.153Radial†	23896.8	5007.9	µg/L	25.71	5007.9	ppb	25.71	0.51%
QC value within limits for Al 396.153Radial Recovery = 100.16%								
As 188.979†	1413.6	485.36	µg/L	2.918	485.36	ppb	2.918	0.60%
QC value within limits for As 188.979 Recovery = 97.07%								
B 249.677†	31669.0	490.77	µg/L	1.393	490.77	ppb	1.393	0.28%
QC value within limits for B 249.677 Recovery = 98.15%								
Ba 233.527†	111819.3	497.43	µg/L	1.171	497.43	ppb	1.171	0.24%
QC value within limits for Ba 233.527 Recovery = 99.49%								
Be 313.107†	1692980.5	490.55	µg/L	1.038	490.55	ppb	1.038	0.21%
QC value within limits for Be 313.107 Recovery = 98.11%								
Ca 317.933Radial†	73966.3	5037.8	µg/L	0.79	5037.8	ppb	0.79	0.02%
QC value within limits for Ca 317.933Radial Recovery = 100.76%								
Cd 226.502†	73864.1	498.92	µg/L	1.256	498.92	ppb	1.256	0.25%
QC value within limits for Cd 226.502 Recovery = 99.78%								
Co 228.616†	37850.3	501.00	µg/L	1.386	501.00	ppb	1.386	0.28%

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   QC value within limits for Co 228.616  Recovery = 100.20%
Cr 267.716†            57620.2      498.35 µg/L        1.014      498.35 ppb          1.014   0.20%
   QC value within limits for Cr 267.716  Recovery = 99.67%
Cu 324.752†           118868.0      498.73 µg/L        1.096      498.73 ppb          1.096   0.22%
   QC value within limits for Cu 324.752  Recovery = 99.75%
Fe 238.204 Radial†     66879.7      4994.5 µg/L         1.83      4994.5 ppb           1.83   0.04%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.89%
K 766.490 Radial†      12746.7      5046.7 µg/L        24.75      5046.7 ppb          24.75   0.49%
   QC value within limits for K 766.490 Radial  Recovery = 100.93%
Mg 279.077 IEC†        10965.8      5071.3 µg/L         7.49      5071.3 ppb           7.49   0.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.43%
Mn 257.610†           376029.8      498.61 µg/L        1.038      498.61 ppb          1.038   0.21%
   QC value within limits for Mn 257.610  Recovery = 99.72%
Mo 202.031†            15291.6      500.55 µg/L        1.135      500.55 ppb          1.135   0.23%
   QC value within limits for Mo 202.031  Recovery = 100.11%
Na 589.592 Radial†     64330.9      9967.3 µg/L         4.85      9967.3 ppb           4.85   0.05%
   QC value within limits for Na 589.592 Radial  Recovery = 99.67%
Ni 231.604†            40018.5      500.68 µg/L        0.819      500.68 ppb          0.819   0.16%
   QC value within limits for Ni 231.604  Recovery = 100.14%
P 214.914†             10779.6      2485.0 µg/L         7.11      2485.0 ppb           7.11   0.29%
   QC value within limits for P 214.914  Recovery = 99.40%
Pb 220.353†             8164.8      504.01 µg/L        1.894      504.01 ppb          1.894   0.38%
   QC value within limits for Pb 220.353  Recovery = 100.80%
S 181.975 Axial†        1183.3      999.69 µg/L       10.271      999.69 ppb         10.271   1.03%
   QC value within limits for S 181.975 Axial  Recovery = 99.97%
Sb 206.836†             3862.2      499.17 µg/L        0.507      499.17 ppb          0.507   0.10%
   QC value within limits for Sb 206.836  Recovery = 99.83%
Se 196.026†             1268.7         502 µg/L          3.3         502 ppb            3.3   0.66%
   QC value within limits for Se 196.026  Recovery = 100.40%
SiO2†                  49936.8      5266.8 µg/L        26.77      5266.8 ppb          26.77   0.51%
   QC value within limits for SiO2  Recovery = 98.49%
Si 251.611†           157058.5      2466.7 µg/L         4.52      2466.7 ppb           4.52   0.18%
   QC value within limits for Si 251.611  Recovery = 98.67%
Sn 189.927†             7142.9      497.13 µg/L        1.207      497.13 ppb          1.207   0.24%
   QC value within limits for Sn 189.927  Recovery = 99.43%
Sr 421.552†           213820.1      504.25 µg/L        3.634      504.25 ppb          3.634   0.72%
   QC value within limits for Sr 421.552  Recovery = 100.85%
Ti 334.940†           482123.9      494.54 µg/L        0.953      494.54 ppb          0.953   0.19%
   QC value within limits for Ti 334.940  Recovery = 98.91%
Tl 190.801†             3649.9      505.85 µg/L        1.234      505.85 ppb          1.234   0.24%
   QC value within limits for Tl 190.801  Recovery = 101.17%
U 409.014†              7369.3      495.36 µg/L       16.441      495.36 ppb         16.441   3.32%
   QC value within limits for U 409.014  Recovery = 99.07%
V 292.402†             95822.2      503.28 µg/L        0.199      503.28 ppb          0.199   0.04%
   QC value within limits for V 292.402  Recovery = 100.66%
Zn 213.857†            83803.0      496.51 µg/L        1.184      496.51 ppb          1.184   0.24%
   QC value within limits for Zn 213.857  Recovery = 99.30%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 11:54:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139389.9	139389.9	99.5	%			11:54:54
1	Al 396.153Radial†	-84.0	-5.9	-1.2593	µg/L	-1.2593	ppb	11:55:14
1	Ca 317.933Radial†	644.5	76.3	5.1950	µg/L	5.1950	ppb	11:55:14
1	Fe 238.204 Radial†	160.6	44.1	3.2902	µg/L	3.2902	ppb	11:55:14
1	K 766.490 Radial†	1607.6	121.9	48.305	µg/L	48.305	ppb	11:54:54
1	Mg 279.077 IEC†	175.1	3.6	1.6593	µg/L	1.6593	ppb	11:55:14
1	Na 589.592 Radial†	1147.4	200.7	31.068	µg/L	31.068	ppb	11:54:54
1	Sr 421.552†	-289.7	-86.7	-0.2046	µg/L	-0.2046	ppb	11:54:54
1	Sc 361.383	1803679.3	1803679.3	99.974	%			11:56:02
1	Y 371.029	1059662.4	1059662.4	100.22	%			11:56:02
1	Ag 328.068†	4030.2	-533.9	-2.1911	µg/L	-2.1911	ppb	11:56:04
1	As 188.979†	-11.4	7.1	2.4097	µg/L	2.4097	ppb	11:56:24
1	B 249.677†	4005.8	-58.3	-0.9066	µg/L	-0.9066	ppb	11:56:04
1	Ba 233.527†	-141.6	2.9	0.0132	µg/L	0.0132	ppb	11:56:24
1	Be 313.107†	-854.4	237.1	0.0672	µg/L	0.0672	ppb	11:56:04
1	Cd 226.502†	-87.6	15.7	0.1061	µg/L	0.1061	ppb	11:56:24
1	Co 228.616†	-200.7	9.6	0.1266	µg/L	0.1266	ppb	11:56:24
1	Cr 267.716†	259.2	26.0	0.2290	µg/L	0.2290	ppb	11:56:24
1	Cu 324.752†	2917.7	-117.6	-0.4953	µg/L	-0.4953	ppb	11:56:04
1	Mn 257.610†	254.2	69.5	0.0921	µg/L	0.0921	ppb	11:56:24
1	Mo 202.031†	-24.6	14.0	0.4572	µg/L	0.4572	ppb	11:56:24
1	Ni 231.604†	-52.1	43.7	0.5473	µg/L	0.5473	ppb	11:56:24
1	P 214.914†	3.0	28.7	6.6281	µg/L	6.6281	ppb	11:56:24
1	Pb 220.353†	103.6	0.2	0.0141	µg/L	0.0141	ppb	11:56:24
1	S 181.975 Axial†	87.0	-1.9	-1.6322	µg/L	-1.6322	ppb	11:56:24
1	Sb 206.836†	75.3	-14.4	-1.8542	µg/L	-1.8542	ppb	11:56:24
1	Se 196.026†	25.6	19.4	7.65	µg/L	7.65	ppb	11:56:24
1	SiO2†	1766.5	27.9	2.9396	µg/L	2.9396	ppb	11:56:24
1	Si 251.611†	936.0	169.2	2.6606	µg/L	2.6606	ppb	11:56:04
1	Sn 189.927†	4.7	2.8	0.1940	µg/L	0.1940	ppb	11:56:24
1	Ti 334.940†	790.9	-31.9	-0.0308	µg/L	-0.0308	ppb	11:56:04
1	Tl 190.801†	-109.3	4.9	0.6728	µg/L	0.6728	ppb	11:56:24
1	U 409.014†	-240.1	-76.8	-4.8425	µg/L	-4.8425	ppb	11:56:04
1	V 292.402†	433.4	10.3	0.0553	µg/L	0.0553	ppb	11:56:04
1	Zn 213.857†	610.2	107.4	0.6379	µg/L	0.6379	ppb	11:56:24
2	Sc RADIAL	139282.4	139282.4	99.4	%			11:55:16
2	Al 396.153Radial†	-42.2	36.1	7.5894	µg/L	7.5894	ppb	11:55:36
2	Ca 317.933Radial†	638.7	70.9	4.8316	µg/L	4.8316	ppb	11:55:36
2	Fe 238.204 Radial†	158.2	41.9	3.1259	µg/L	3.1259	ppb	11:55:36
2	K 766.490 Radial†	1707.0	223.2	88.420	µg/L	88.420	ppb	11:55:16
2	Mg 279.077 IEC†	177.7	6.3	2.9217	µg/L	2.9217	ppb	11:55:36
2	Na 589.592 Radial†	1039.6	93.2	14.364	µg/L	14.364	ppb	11:55:16
2	Sr 421.552†	-106.1	97.7	0.2305	µg/L	0.2305	ppb	11:55:16
2	Sc 361.383	1821566.7	1821566.7	100.97	%			11:56:26
2	Y 371.029	1068824.4	1068824.4	101.09	%			11:56:26
2	Ag 328.068†	4339.7	-267.0	-1.1089	µg/L	-1.1089	ppb	11:56:28
2	As 188.979†	-18.8	-0.1	-0.0164	µg/L	-0.0164	ppb	11:56:49
2	B 249.677†	4055.1	-48.8	-0.7607	µg/L	-0.7607	ppb	11:56:28
2	Ba 233.527†	-123.2	22.5	0.0996	µg/L	0.0996	ppb	11:56:49
2	Be 313.107†	-844.8	255.0	0.0729	µg/L	0.0729	ppb	11:56:28
2	Cd 226.502†	-65.9	38.1	0.2575	µg/L	0.2575	ppb	11:56:49
2	Co 228.616†	-177.6	34.4	0.4555	µg/L	0.4555	ppb	11:56:49
2	Cr 267.716†	273.2	37.4	0.3256	µg/L	0.3256	ppb	11:56:49
2	Cu 324.752†	3023.7	-41.3	-0.1746	µg/L	-0.1746	ppb	11:56:28
2	Mn 257.610†	559.5	369.5	0.4900	µg/L	0.4900	ppb	11:56:49
2	Mo 202.031†	-27.6	11.2	0.3677	µg/L	0.3677	ppb	11:56:49
2	Ni 231.604†	-57.5	39.0	0.4875	µg/L	0.4875	ppb	11:56:49
2	P 214.914†	21.5	47.0	10.874	µg/L	10.874	ppb	11:56:49
2	Pb 220.353†	83.8	-20.4	-1.2522	µg/L	-1.2522	ppb	11:56:49

2	S 181.975 Axial†	95.6	5.8	4.8821	µg/L	4.8821 ppb	11:56:49
2	Sb 206.836†	69.7	-20.7	-2.6649	µg/L	-2.6649 ppb	11:56:49
2	Se 196.026†	22.8	16.4	6.45	µg/L	6.45 ppb	11:56:49
2	SiO2†	1841.3	84.6	8.9537	µg/L	8.9537 ppb	11:56:49
2	Si 251.611†	927.3	151.4	2.3842	µg/L	2.3842 ppb	11:56:28
2	Sn 189.927†	-2.1	-4.0	-0.2757	µg/L	-0.2757 ppb	11:56:49
2	Ti 334.940†	628.9	-200.1	-0.2043	µg/L	-0.2043 ppb	11:56:28
2	Tl 190.801†	-115.8	-0.5	-0.0731	µg/L	-0.0731 ppb	11:56:49
2	U 409.014†	-218.4	-53.0	-3.3981	µg/L	-3.3981 ppb	11:56:28
2	V 292.402†	237.2	-188.3	-0.9729	µg/L	-0.9729 ppb	11:56:28
2	Zn 213.857†	635.0	125.9	0.7484	µg/L	0.7484 ppb	11:56:49
3	Sc RADIAL	139340.4	139340.4	99.5	%		11:55:38
3	Al 396.153Radial†	-77.3	0.8	0.1277	µg/L	0.1277 ppb	11:55:58
3	Ca 317.933Radial†	597.0	28.7	1.9576	µg/L	1.9576 ppb	11:55:58
3	Fe 238.204 Radial†	155.3	38.9	2.9027	µg/L	2.9027 ppb	11:55:58
3	K 766.490 Radial†	1502.8	17.1	6.7800	µg/L	6.7800 ppb	11:55:38
3	Mg 279.077 IEC†	194.6	23.2	10.746	µg/L	10.746 ppb	11:55:58
3	Na 589.592 Radial†	1106.6	160.1	24.810	µg/L	24.810 ppb	11:55:38
3	Sr 421.552†	-124.6	79.2	0.1869	µg/L	0.1869 ppb	11:55:38
3	Sc 361.383	1797247.0	1797247.0	99.617	%		11:56:51
3	Y 371.029	1055174.4	1055174.4	99.799	%		11:56:51
3	Ag 328.068†	4221.6	-327.3	-1.3518	µg/L	-1.3518 ppb	11:56:53
3	As 188.979†	-9.7	8.8	2.9796	µg/L	2.9796 ppb	11:57:13
3	B 249.677†	3829.7	-220.7	-3.4338	µg/L	-3.4338 ppb	11:56:53
3	Ba 233.527†	-151.6	-7.6	-0.0339	µg/L	-0.0339 ppb	11:57:13
3	Be 313.107†	-753.4	335.5	0.0958	µg/L	0.0958 ppb	11:56:53
3	Cd 226.502†	-87.6	15.5	0.1044	µg/L	0.1044 ppb	11:57:13
3	Co 228.616†	-191.7	17.9	0.2362	µg/L	0.2362 ppb	11:57:13
3	Cr 267.716†	227.7	-4.6	-0.0368	µg/L	-0.0368 ppb	11:57:13
3	Cu 324.752†	2886.9	-138.1	-0.5806	µg/L	-0.5806 ppb	11:56:53
3	Mn 257.610†	271.2	87.5	0.1156	µg/L	0.1156 ppb	11:57:13
3	Mo 202.031†	-6.1	32.4	1.0600	µg/L	1.0600 ppb	11:57:13
3	Ni 231.604†	-73.4	22.2	0.2780	µg/L	0.2780 ppb	11:57:13
3	P 214.914†	3.6	29.3	6.7857	µg/L	6.7857 ppb	11:57:13
3	Pb 220.353†	60.8	-42.4	-2.6054	µg/L	-2.6054 ppb	11:57:13
3	S 181.975 Axial†	106.0	17.5	14.706	µg/L	14.706 ppb	11:57:13
3	Sb 206.836†	79.7	-9.8	-1.2426	µg/L	-1.2426 ppb	11:57:13
3	Se 196.026†	15.7	9.6	3.78	µg/L	3.78 ppb	11:57:13
3	SiO2†	1829.5	97.4	10.277	µg/L	10.277 ppb	11:57:13
3	Si 251.611†	1111.0	348.3	5.4721	µg/L	5.4721 ppb	11:56:53
3	Sn 189.927†	13.7	11.9	0.8234	µg/L	0.8234 ppb	11:57:13
3	Ti 334.940†	717.7	-102.5	-0.1043	µg/L	-0.1043 ppb	11:56:53
3	Tl 190.801†	-119.4	-5.6	-0.7640	µg/L	-0.7640 ppb	11:57:13
3	U 409.014†	-232.3	-69.9	-4.4392	µg/L	-4.4392 ppb	11:56:53
3	V 292.402†	319.0	-103.0	-0.5260	µg/L	-0.5260 ppb	11:56:53
3	Zn 213.857†	589.3	88.6	0.5275	µg/L	0.5275 ppb	11:57:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807497.7	100.19	%	0.698				0.70%
Sc RADIAL	139337.6	99.5	%	0.04				0.04%
Y 371.029	1061220.4	100.37	%	0.658				0.66%
Ag 328.068†	-376.1	-1.5506	µg/L	0.56784	-1.5506	ppb	0.56784	36.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.4	2.1526	µg/L	4.75922	2.1526	ppb	4.75922	221.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.3	1.7910	µg/L	1.59094	1.7910	ppb	1.59094	88.83%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-109.3	-1.7004	µg/L	1.50298	-1.7004	ppb	1.50298	88.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.0	0.0263	µg/L	0.06770	0.0263	ppb	0.06770	257.26%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	275.9	0.0786	µg/L	0.01517	0.0786	ppb	0.01517	19.29%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	58.7	3.9947	µg/L	1.77355	3.9947	ppb	1.77355	44.40%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	23.1	0.1560	µg/L	0.08793	0.1560	ppb	0.08793	56.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	20.6	0.2728	µg/L	0.16746	0.2728	ppb	0.16746	61.39%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              19.6      0.1726 µg/L       0.18768      0.1726 ppb        0.18768 108.74%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -99.0     -0.4168 µg/L       0.21408     -0.4168 ppb        0.21408  51.36%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       41.6      3.1063 µg/L       0.19449      3.1063 ppb        0.19449   6.26%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       120.7     47.835 µg/L       40.8218     47.835 ppb        40.8218  85.34%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          11.0      5.1091 µg/L       4.92266      5.1091 ppb        4.92266  96.35%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             175.5      0.2326 µg/L       0.22323      0.2326 ppb        0.22323  95.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              19.2      0.6283 µg/L       0.37654      0.6283 ppb        0.37654  59.93%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      151.3     23.414 µg/L        8.4391     23.414 ppb         8.4391  36.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              35.0      0.4376 µg/L       0.14140      0.4376 ppb        0.14140  32.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               35.0      8.0960 µg/L       2.40728      8.0960 ppb        2.40728  29.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -20.9     -1.2812 µg/L       1.30999     -1.2812 ppb        1.30999 102.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          7.1      5.9853 µg/L       8.22482      5.9853 ppb        8.22482 137.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -14.9     -1.9206 µg/L       0.71350     -1.9206 ppb        0.71350  37.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              15.1        5.96 µg/L         1.979        5.96 ppb          1.979  33.19%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    70.0      7.3902 µg/L       3.91074      7.3902 ppb        3.91074  52.92%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             222.9      3.5056 µg/L       1.70860      3.5056 ppb        1.70860  48.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.6      0.2472 µg/L       0.55145      0.2472 ppb        0.55145 223.04%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              30.1      0.0709 µg/L       0.23957      0.0709 ppb        0.23957 337.83%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -111.5     -0.1132 µg/L       0.08709     -0.1132 ppb        0.08709  76.96%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.4     -0.0548 µg/L       0.71858     -0.0548 ppb        0.71858 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -66.5     -4.2266 µg/L       0.74532     -4.2266 ppb        0.74532  17.63%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -93.6     -0.4812 µg/L       0.51557     -0.4812 ppb        0.51557 107.15%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             107.3      0.6379 µg/L       0.11045      0.6379 ppb        0.11045  17.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 12:16:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	138173.1	138173.1	98.6	%			12:17:08
1	Al 396.153Radial†	23436.3	23840.5	4995.9	µg/L	4995.9	ppb	12:17:08
1	Ca 317.933Radial†	73829.7	74284.1	5059.4	µg/L	5059.4	ppb	12:17:08
1	Fe 238.204 Radial†	66677.7	67486.8	5039.9	µg/L	5039.9	ppb	12:17:08
1	K 766.490 Radial†	14215.5	12919.2	5115.1	µg/L	5115.1	ppb	12:17:08
1	Mg 279.077 IEC†	11111.0	11092.9	5130.0	µg/L	5130.0	ppb	12:17:08
1	Na 589.592 Radial†	64510.7	64454.5	9986.4	µg/L	9986.4	ppb	12:17:08
1	Sr 421.552†	208276.3	211374.6	498.48	µg/L	498.48	ppb	12:17:05
1	Sc 361.383	1771153.0	1771153.0	98.171	%			12:17:34
1	Y 371.029	1029832.2	1029832.2	97.402	%			12:17:34
1	Ag 328.068†	123736.1	121476.4	503.55	µg/L	503.55	ppb	12:17:34
1	As 188.979†	1382.2	1426.5	489.79	µg/L	489.79	ppb	12:17:54
1	B 249.677†	35147.2	31736.9	491.81	µg/L	491.81	ppb	12:17:34
1	Ba 233.527†	110394.8	112596.2	500.88	µg/L	500.88	ppb	12:17:34
1	Be 313.107†	1668216.9	1700390.5	492.70	µg/L	492.70	ppb	12:17:34
1	Cd 226.502†	72697.5	74155.4	500.88	µg/L	500.88	ppb	12:17:34
1	Co 228.616†	37260.4	38164.9	505.16	µg/L	505.16	ppb	12:17:34
1	Cr 267.716†	57133.8	57965.1	501.33	µg/L	501.33	ppb	12:17:34
1	Cu 324.752†	120539.2	119749.0	502.44	µg/L	502.44	ppb	12:17:34
1	Mn 257.610†	371828.3	378571.5	501.98	µg/L	501.98	ppb	12:17:34
1	Mo 202.031†	15099.0	15418.9	504.72	µg/L	504.72	ppb	12:17:54
1	Ni 231.604†	39340.9	40169.8	502.57	µg/L	502.57	ppb	12:17:34
1	P 214.914†	10642.4	10866.4	2505.0	µg/L	2505.0	ppb	12:17:54
1	Pb 220.353†	8192.1	8241.3	508.72	µg/L	508.72	ppb	12:17:54
1	S 181.975 Axial†	1246.0	1180.3	997.22	µg/L	997.22	ppb	12:17:54
1	Sb 206.836†	3907.2	3890.3	502.82	µg/L	502.82	ppb	12:17:54
1	Se 196.026†	1267.0	1284.5	508	µg/L	508	ppb	12:17:54
1	SiO2†	51163.3	50377.5	5313.3	µg/L	5313.3	ppb	12:17:34
1	Si 251.611†	156323.1	158468.6	2488.8	µg/L	2488.8	ppb	12:17:34
1	Sn 189.927†	7092.0	7222.2	502.64	µg/L	502.64	ppb	12:17:54
1	Ti 334.940†	477558.9	485633.6	498.13	µg/L	498.13	ppb	12:17:34
1	Tl 190.801†	3523.3	3703.2	513.18	µg/L	513.18	ppb	12:17:54
1	U 409.014†	7278.5	7577.4	508.67	µg/L	508.67	ppb	12:17:34
1	V 292.402†	95032.0	96379.4	506.23	µg/L	506.23	ppb	12:17:34
1	Zn 213.857†	83125.8	84171.6	498.69	µg/L	498.69	ppb	12:17:34
2	Sc RADIAL	136709.1	136709.1	97.6	%			12:17:12
2	Al 396.153Radial†	23297.2	23952.4	5019.6	µg/L	5019.6	ppb	12:17:12
2	Ca 317.933Radial†	72959.0	74193.5	5053.2	µg/L	5053.2	ppb	12:17:12
2	Fe 238.204 Radial†	65851.7	67364.3	5030.7	µg/L	5030.7	ppb	12:17:12
2	K 766.490 Radial†	13849.6	12698.6	5027.7	µg/L	5027.7	ppb	12:17:12
2	Mg 279.077 IEC†	10906.9	11004.4	5089.1	µg/L	5089.1	ppb	12:17:12
2	Na 589.592 Radial†	64040.2	64672.9	10020	µg/L	10020	ppb	12:17:12
2	Sr 421.552†	208577.2	213944.5	504.54	µg/L	504.54	ppb	12:17:10
2	Sc 361.383	1790471.7	1790471.7	99.242	%			12:17:58
2	Y 371.029	1040499.0	1040499.0	98.411	%			12:17:58
2	Ag 328.068†	125354.8	121747.5	504.66	µg/L	504.66	ppb	12:17:58
2	As 188.979†	1362.5	1391.5	477.93	µg/L	477.93	ppb	12:18:18
2	B 249.677†	35724.9	31932.7	494.85	µg/L	494.85	ppb	12:17:58
2	Ba 233.527†	111665.0	112662.7	501.18	µg/L	501.18	ppb	12:17:58
2	Be 313.107†	1689440.1	1703440.9	493.59	µg/L	493.59	ppb	12:17:58
2	Cd 226.502†	73727.4	74394.1	502.50	µg/L	502.50	ppb	12:17:58
2	Co 228.616†	37877.1	38376.8	507.96	µg/L	507.96	ppb	12:17:58
2	Cr 267.716†	57789.1	57997.4	501.61	µg/L	501.61	ppb	12:17:58
2	Cu 324.752†	121820.0	119714.7	502.29	µg/L	502.29	ppb	12:17:58
2	Mn 257.610†	376181.4	378871.2	502.38	µg/L	502.38	ppb	12:17:58
2	Mo 202.031†	15140.8	15295.0	500.67	µg/L	500.67	ppb	12:18:18
2	Ni 231.604†	39919.1	40320.1	504.45	µg/L	504.45	ppb	12:17:58
2	P 214.914†	10675.0	10782.2	2485.6	µg/L	2485.6	ppb	12:18:18
2	Pb 220.353†	8199.1	8158.3	503.61	µg/L	503.61	ppb	12:18:18

2	S 181.975 Axial†	1250.2	1170.9	989.23 µg/L	989.23 ppb	12:18:18
2	Sb 206.836†	3900.5	3840.6	496.34 µg/L	496.34 ppb	12:18:18
2	Se 196.026†	1261.8	1265.3	501 µg/L	501 ppb	12:18:18
2	SiO2†	51903.6	50561.1	5332.9 µg/L	5332.9 ppb	12:17:58
2	Si 251.611†	158711.3	159157.0	2499.8 µg/L	2499.8 ppb	12:17:58
2	Sn 189.927†	7069.7	7121.8	495.68 µg/L	495.68 ppb	12:18:18
2	Ti 334.940†	483377.5	486248.0	498.77 µg/L	498.77 ppb	12:17:58
2	Tl 190.801†	3525.8	3667.0	508.23 µg/L	508.23 ppb	12:18:18
2	U 409.014†	7276.7	7495.6	503.52 µg/L	503.52 ppb	12:17:58
2	V 292.402†	96108.6	96419.7	506.39 µg/L	506.39 ppb	12:17:58
2	Zn 213.857†	84041.9	84181.0	498.73 µg/L	498.73 ppb	12:17:58
3	Sc RADIAL	137430.0	137430.0	98.1 %		12:17:16
3	Al 396.153Radial†	23488.3	24022.0	5034.0 µg/L	5034.0 ppb	12:17:16
3	Ca 317.933Radial†	73707.4	74564.2	5078.5 µg/L	5078.5 ppb	12:17:16
3	Fe 238.204 Radial†	66294.6	67461.9	5038.0 µg/L	5038.0 ppb	12:17:16
3	K 766.490 Radial†	13997.9	12775.3	5058.1 µg/L	5058.1 ppb	12:17:16
3	Mg 279.077 IEC†	10912.3	10951.3	5064.7 µg/L	5064.7 ppb	12:17:16
3	Na 589.592 Radial†	64249.5	64542.0	10000 µg/L	10000 ppb	12:17:16
3	Sr 421.552†	206570.3	210777.5	497.07 µg/L	497.07 ppb	12:17:14
3	Sc 361.383	1791956.4	1791956.4	99.324 %		12:18:21
3	Y 371.029	1040969.8	1040969.8	98.456 %		12:18:21
3	Ag 328.068†	125471.1	121760.0	504.71 µg/L	504.71 ppb	12:18:21
3	As 188.979†	1389.7	1417.7	486.83 µg/L	486.83 ppb	12:18:41
3	B 249.677†	35714.4	31892.3	494.22 µg/L	494.22 ppb	12:18:21
3	Ba 233.527†	112011.5	112918.4	502.32 µg/L	502.32 ppb	12:18:21
3	Be 313.107†	1691084.9	1703686.5	493.66 µg/L	493.66 ppb	12:18:21
3	Cd 226.502†	73961.0	74567.8	503.67 µg/L	503.67 ppb	12:18:21
3	Co 228.616†	37900.0	38368.2	507.85 µg/L	507.85 ppb	12:18:21
3	Cr 267.716†	57873.2	58033.9	501.93 µg/L	501.93 ppb	12:18:21
3	Cu 324.752†	121881.7	119675.2	502.12 µg/L	502.12 ppb	12:18:21
3	Mn 257.610†	376942.5	379323.3	502.98 µg/L	502.98 ppb	12:18:21
3	Mo 202.031†	15340.9	15483.8	506.84 µg/L	506.84 ppb	12:18:41
3	Ni 231.604†	40041.2	40409.6	505.57 µg/L	505.57 ppb	12:18:21
3	P 214.914†	10860.3	10960.0	2526.7 µg/L	2526.7 ppb	12:18:41
3	Pb 220.353†	8326.6	8279.8	511.10 µg/L	511.10 ppb	12:18:41
3	S 181.975 Axial†	1272.4	1192.1	1007.2 µg/L	1007.2 ppb	12:18:41
3	Sb 206.836†	3964.4	3901.7	504.31 µg/L	504.31 ppb	12:18:41
3	Se 196.026†	1279.4	1281.9	507 µg/L	507 ppb	12:18:41
3	SiO2†	52183.1	50799.2	5357.8 µg/L	5357.8 ppb	12:18:21
3	Si 251.611†	159232.7	159549.5	2505.8 µg/L	2505.8 ppb	12:18:21
3	Sn 189.927†	7190.1	7237.1	503.67 µg/L	503.67 ppb	12:18:41
3	Ti 334.940†	483431.3	485898.6	498.41 µg/L	498.41 ppb	12:18:21
3	Tl 190.801†	3579.1	3717.8	515.16 µg/L	515.16 ppb	12:18:41
3	U 409.014†	7290.1	7503.1	504.01 µg/L	504.01 ppb	12:18:21
3	V 292.402†	96227.3	96459.0	506.66 µg/L	506.66 ppb	12:18:21
3	Zn 213.857†	84398.4	84469.8	500.45 µg/L	500.45 ppb	12:18:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1784527.0	98.912	%	0.6433				0.65%
Sc RADIAL	137437.4	98.1	%	0.52				0.53%
Y 371.029	1037100.3	98.090	%	0.5957				0.61%
Ag 328.068†	121661.3	504.31	µg/L	0.654	504.31	ppb	0.654	0.13%
QC value within limits for Ag 328.068 Recovery = 100.86%								
Al 396.153Radial†	23938.3	5016.5	µg/L	19.24	5016.5	ppb	19.24	0.38%
QC value within limits for Al 396.153Radial Recovery = 100.33%								
As 188.979†	1411.9	484.85	µg/L	6.176	484.85	ppb	6.176	1.27%
QC value within limits for As 188.979 Recovery = 96.97%								
B 249.677†	31854.0	493.63	µg/L	1.602	493.63	ppb	1.602	0.32%
QC value within limits for B 249.677 Recovery = 98.73%								
Ba 233.527†	112725.8	501.46	µg/L	0.757	501.46	ppb	0.757	0.15%
QC value within limits for Ba 233.527 Recovery = 100.29%								
Be 313.107†	1702506.0	493.32	µg/L	0.531	493.32	ppb	0.531	0.11%
QC value within limits for Be 313.107 Recovery = 98.66%								
Ca 317.933Radial†	74347.3	5063.7	µg/L	13.16	5063.7	ppb	13.16	0.26%
QC value within limits for Ca 317.933Radial Recovery = 101.27%								
Cd 226.502†	74372.4	502.35	µg/L	1.400	502.35	ppb	1.400	0.28%
QC value within limits for Cd 226.502 Recovery = 100.47%								
Co 228.616†	38303.3	506.99	µg/L	1.587	506.99	ppb	1.587	0.31%

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   QC value within limits for Co 228.616  Recovery = 101.40%
Cr 267.716†            57998.8      501.62 µg/L         0.300      501.62 ppb          0.300   0.06%
   QC value within limits for Cr 267.716  Recovery = 100.32%
Cu 324.752†           119713.0      502.28 µg/L         0.157      502.28 ppb          0.157   0.03%
   QC value within limits for Cu 324.752  Recovery = 100.46%
Fe 238.204 Radial†     67437.7      5036.2 µg/L          4.83      5036.2 ppb           4.83   0.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.72%
K 766.490 Radial†      12797.7      5066.9 µg/L         44.38      5066.9 ppb          44.38   0.88%
   QC value within limits for K 766.490 Radial  Recovery = 101.34%
Mg 279.077 IEC†        11016.2      5094.6 µg/L         33.02      5094.6 ppb          33.02   0.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.89%
Mn 257.610†           378922.0      502.44 µg/L         0.503      502.44 ppb          0.503   0.10%
   QC value within limits for Mn 257.610  Recovery = 100.49%
Mo 202.031†            15399.3      504.08 µg/L         3.137      504.08 ppb          3.137   0.62%
   QC value within limits for Mo 202.031  Recovery = 100.82%
Na 589.592 Radial†     64556.5       10002 µg/L          17.1       10002 ppb           17.1   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 100.02%
Ni 231.604†            40299.8      504.20 µg/L         1.516      504.20 ppb          1.516   0.30%
   QC value within limits for Ni 231.604  Recovery = 100.84%
P 214.914†             10869.5      2505.8 µg/L         20.57      2505.8 ppb          20.57   0.82%
   QC value within limits for P 214.914  Recovery = 100.23%
Pb 220.353†             8226.4      507.81 µg/L         3.830      507.81 ppb          3.830   0.75%
   QC value within limits for Pb 220.353  Recovery = 101.56%
S 181.975 Axial†        1181.1      997.87 µg/L         8.980      997.87 ppb          8.980   0.90%
   QC value within limits for S 181.975 Axial  Recovery = 99.79%
Sb 206.836†             3877.5      501.16 µg/L         4.237      501.16 ppb          4.237   0.85%
   QC value within limits for Sb 206.836  Recovery = 100.23%
Se 196.026†             1277.2         505 µg/L           4.1         505 ppb            4.1   0.81%
   QC value within limits for Se 196.026  Recovery = 101.08%
SiO2†                  50579.3      5334.7 µg/L         22.34      5334.7 ppb          22.34   0.42%
   QC value within limits for SiO2  Recovery = 99.76%
Si 251.611†           159058.4      2498.2 µg/L          8.62      2498.2 ppb           8.62   0.35%
   QC value within limits for Si 251.611  Recovery = 99.93%
Sn 189.927†             7193.7      500.66 µg/L         4.348      500.66 ppb          4.348   0.87%
   QC value within limits for Sn 189.927  Recovery = 100.13%
Sr 421.552†           212032.2      500.03 µg/L         3.969      500.03 ppb          3.969   0.79%
   QC value within limits for Sr 421.552  Recovery = 100.01%
Ti 334.940†           485926.7      498.44 µg/L         0.319      498.44 ppb          0.319   0.06%
   QC value within limits for Ti 334.940  Recovery = 99.69%
Tl 190.801†             3696.0      512.19 µg/L         3.570      512.19 ppb          3.570   0.70%
   QC value within limits for Tl 190.801  Recovery = 102.44%
U 409.014†              7525.4      505.40 µg/L         2.841      505.40 ppb          2.841   0.56%
   QC value within limits for U 409.014  Recovery = 101.08%
V 292.402†             96419.4      506.43 µg/L         0.219      506.43 ppb          0.219   0.04%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†            84274.1      499.29 µg/L         1.005      499.29 ppb          1.005   0.20%
   QC value within limits for Zn 213.857  Recovery = 99.86%
All analyte(s) passed QC.
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Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 12:18:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140761.4	140761.4	100	%			12:19:18
1	Al 396.153Radial†	-73.7	5.2	1.0818	µg/L	1.0818	ppb	12:19:38
1	Ca 317.933Radial†	682.8	108.1	7.3604	µg/L	7.3604	ppb	12:19:38
1	Fe 238.204 Radial†	164.0	45.9	3.4255	µg/L	3.4255	ppb	12:19:38
1	K 766.490 Radial†	1670.2	168.5	66.774	µg/L	66.774	ppb	12:19:18
1	Mg 279.077 IEC†	159.2	-14.0	-6.4612	µg/L	-6.4612	ppb	12:19:38
1	Na 589.592 Radial†	1062.0	104.4	16.125	µg/L	16.125	ppb	12:19:18
1	Sr 421.552†	-212.6	-7.1	-0.0169	µg/L	-0.0169	ppb	12:19:18
1	Sc 361.383	1793257.1	1793257.1	99.396	%			12:20:26
1	Y 371.029	1054149.0	1054149.0	99.702	%			12:20:26
1	Ag 328.068†	4339.0	-199.8	-0.8254	µg/L	-0.8254	ppb	12:20:28
1	As 188.979†	-4.3	14.2	4.8058	µg/L	4.8058	ppb	12:20:48
1	B 249.677†	3947.0	-94.2	-1.4648	µg/L	-1.4648	ppb	12:20:28
1	Ba 233.527†	-155.4	-11.8	-0.0523	µg/L	-0.0523	ppb	12:20:48
1	Be 313.107†	-700.9	386.5	0.1098	µg/L	0.1098	ppb	12:20:28
1	Cd 226.502†	-69.6	33.4	0.2252	µg/L	0.2252	ppb	12:20:48
1	Co 228.616†	-201.5	7.5	0.0994	µg/L	0.0994	ppb	12:20:48
1	Cr 267.716†	296.8	65.3	0.5712	µg/L	0.5712	ppb	12:20:48
1	Cu 324.752†	2928.5	-89.9	-0.3813	µg/L	-0.3813	ppb	12:20:28
1	Mn 257.610†	255.1	71.9	0.0956	µg/L	0.0956	ppb	12:20:48
1	Mo 202.031†	-35.2	3.1	0.1021	µg/L	0.1021	ppb	12:20:48
1	Ni 231.604†	-76.5	18.9	0.2366	µg/L	0.2366	ppb	12:20:48
1	P 214.914†	10.1	35.8	8.2902	µg/L	8.2902	ppb	12:20:48
1	Pb 220.353†	120.7	17.9	1.1096	µg/L	1.1096	ppb	12:20:48
1	S 181.975 Axial†	96.2	7.8	6.6016	µg/L	6.6016	ppb	12:20:48
1	Sb 206.836†	100.6	11.5	1.4806	µg/L	1.4806	ppb	12:20:48
1	Se 196.026†	21.5	15.5	6.09	µg/L	6.09	ppb	12:20:48
1	SiO2†	1959.7	232.5	24.621	µg/L	24.621	ppb	12:20:48
1	Si 251.611†	1212.9	453.2	7.1445	µg/L	7.1445	ppb	12:20:28
1	Sn 189.927†	3.8	2.0	0.1355	µg/L	0.1355	ppb	12:20:48
1	Ti 334.940†	610.5	-208.8	-0.2110	µg/L	-0.2110	ppb	12:20:28
1	Tl 190.801†	-105.3	8.3	1.1328	µg/L	1.1328	ppb	12:20:48
1	U 409.014†	-274.2	-112.5	-7.0945	µg/L	-7.0945	ppb	12:20:28
1	V 292.402†	440.1	19.6	0.1000	µg/L	0.1000	ppb	12:20:28
1	Zn 213.857†	567.3	67.7	0.4026	µg/L	0.4026	ppb	12:20:48
2	Sc RADIAL	140927.4	140927.4	101	%			12:19:40
2	Al 396.153Radial†	-17.8	60.9	12.799	µg/L	12.799	ppb	12:20:00
2	Ca 317.933Radial†	745.5	169.6	11.554	µg/L	11.554	ppb	12:20:00
2	Fe 238.204 Radial†	572.5	451.8	33.741	µg/L	33.741	ppb	12:20:00
2	K 766.490 Radial†	1510.5	7.7	3.0501	µg/L	3.0501	ppb	12:19:40
2	Mg 279.077 IEC†	179.6	6.1	2.8107	µg/L	2.8107	ppb	12:20:00
2	Na 589.592 Radial†	1290.2	330.1	51.159	µg/L	51.159	ppb	12:19:40
2	Sr 421.552†	-200.2	5.5	0.0129	µg/L	0.0129	ppb	12:19:40
2	Sc 361.383	1797905.6	1797905.6	99.654	%			12:20:50
2	Y 371.029	1055651.2	1055651.2	99.844	%			12:20:50
2	Ag 328.068†	4546.9	-2.4	-0.0256	µg/L	-0.0256	ppb	12:20:52
2	As 188.979†	-15.2	3.3	1.1095	µg/L	1.1095	ppb	12:21:13
2	B 249.677†	3898.7	-152.9	-2.3781	µg/L	-2.3781	ppb	12:20:52
2	Ba 233.527†	-169.3	-25.4	-0.1128	µg/L	-0.1128	ppb	12:21:13
2	Be 313.107†	-804.8	284.1	0.0779	µg/L	0.0779	ppb	12:20:52
2	Cd 226.502†	-97.2	5.8	0.0361	µg/L	0.0361	ppb	12:21:13
2	Co 228.616†	-205.9	3.6	0.0462	µg/L	0.0462	ppb	12:21:13
2	Cr 267.716†	221.4	-11.0	-0.0830	µg/L	-0.0830	ppb	12:21:13
2	Cu 324.752†	2993.4	-32.3	-0.1422	µg/L	-0.1422	ppb	12:20:52
2	Mn 257.610†	242.6	58.7	0.0777	µg/L	0.0777	ppb	12:21:13
2	Mo 202.031†	-24.5	14.0	0.4601	µg/L	0.4601	ppb	12:21:13
2	Ni 231.604†	-62.9	32.8	0.4103	µg/L	0.4103	ppb	12:21:13
2	P 214.914†	4.7	30.4	7.0168	µg/L	7.0168	ppb	12:21:13
2	Pb 220.353†	100.3	-2.8	-0.1609	µg/L	-0.1609	ppb	12:21:13

2	S 181.975 Axial†	95.9	7.3	6.1755 µg/L	6.1755 ppb	12:21:13
2	Sb 206.836†	81.0	-8.4	-1.0806 µg/L	-1.0806 ppb	12:21:13
2	Se 196.026†	18.0	11.9	4.69 µg/L	4.69 ppb	12:21:13
2	SiO2†	1920.7	188.3	19.928 µg/L	19.928 ppb	12:21:13
2	Si 251.611†	1349.5	587.2	9.2535 µg/L	9.2535 ppb	12:20:52
2	Sn 189.927†	0.7	-1.2	-0.0837 µg/L	-0.0837 ppb	12:21:13
2	Ti 334.940†	868.6	48.7	0.0560 µg/L	0.0560 ppb	12:20:52
2	Tl 190.801†	-93.1	20.9	2.8555 µg/L	2.8555 ppb	12:21:13
2	U 409.014†	-392.1	-230.1	-14.511 µg/L	-14.511 ppb	12:20:52
2	V 292.402†	466.3	44.7	0.2229 µg/L	0.2229 ppb	12:20:52
2	Zn 213.857†	578.9	77.9	0.4592 µg/L	0.4592 ppb	12:21:13
3	Sc RADIAL	137308.2	137308.2	98.0 %		12:20:02
3	Al 396.153Radial†	-65.9	11.3	2.3545 µg/L	2.3545 ppb	12:20:22
3	Ca 317.933Radial†	664.5	106.5	7.2566 µg/L	7.2566 ppb	12:20:22
3	Fe 238.204 Radial†	190.2	76.7	5.7301 µg/L	5.7301 ppb	12:20:22
3	K 766.490 Radial†	1567.9	105.9	41.946 µg/L	41.946 ppb	12:20:02
3	Mg 279.077 IEC†	188.8	20.2	9.3189 µg/L	9.3189 ppb	12:20:22
3	Na 589.592 Radial†	1125.3	195.6	30.288 µg/L	30.288 ppb	12:20:02
3	Sr 421.552†	68.6	274.5	0.6472 µg/L	0.6472 ppb	12:20:02
3	Sc 361.383	1810912.5	1810912.5	100.37 %		12:21:15
3	Y 371.029	1062136.4	1062136.4	100.46 %		12:21:15
3	Ag 328.068†	4349.1	-232.3	-0.9622 µg/L	-0.9622 ppb	12:21:17
3	As 188.979†	-10.5	8.1	2.7398 µg/L	2.7398 ppb	12:21:37
3	B 249.677†	4079.2	-1.2	-0.0184 µg/L	-0.0184 ppb	12:21:17
3	Ba 233.527†	-145.3	-0.2	-0.0009 µg/L	-0.0009 ppb	12:21:37
3	Be 313.107†	-583.7	510.2	0.1456 µg/L	0.1456 ppb	12:21:17
3	Cd 226.502†	-84.1	19.5	0.1318 µg/L	0.1318 ppb	12:21:37
3	Co 228.616†	-201.2	9.8	0.1294 µg/L	0.1294 ppb	12:21:37
3	Cr 267.716†	247.4	13.3	0.1205 µg/L	0.1205 ppb	12:21:37
3	Cu 324.752†	2887.9	-159.0	-0.6698 µg/L	-0.6698 ppb	12:21:17
3	Mn 257.610†	215.0	29.5	0.0387 µg/L	0.0387 ppb	12:21:37
3	Mo 202.031†	-24.6	14.1	0.4603 µg/L	0.4603 ppb	12:21:37
3	Ni 231.604†	-37.9	58.2	0.7276 µg/L	0.7276 ppb	12:21:37
3	P 214.914†	4.2	29.9	6.9204 µg/L	6.9204 ppb	12:21:37
3	Pb 220.353†	90.3	-13.5	-0.8254 µg/L	-0.8254 ppb	12:21:37
3	S 181.975 Axial†	92.5	3.2	2.7332 µg/L	2.7332 ppb	12:21:37
3	Sb 206.836†	86.8	-3.3	-0.4176 µg/L	-0.4176 ppb	12:21:37
3	Se 196.026†	17.2	11.0	4.34 µg/L	4.34 ppb	12:21:37
3	SiO2†	1924.5	178.2	18.853 µg/L	18.853 ppb	12:21:37
3	Si 251.611†	1376.2	604.0	9.5169 µg/L	9.5169 ppb	12:21:17
3	Sn 189.927†	4.7	2.8	0.1960 µg/L	0.1960 ppb	12:21:37
3	Ti 334.940†	625.3	-200.0	-0.2031 µg/L	-0.2031 ppb	12:21:17
3	Tl 190.801†	-137.8	-23.0	-3.1476 µg/L	-3.1476 ppb	12:21:37
3	U 409.014†	-276.3	-111.9	-7.0712 µg/L	-7.0712 ppb	12:21:17
3	V 292.402†	387.3	-37.4	-0.1938 µg/L	-0.1938 ppb	12:21:17
3	Zn 213.857†	557.3	52.2	0.3067 µg/L	0.3067 ppb	12:21:37

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1800691.8	99.808	%	0.5072				0.51%
Sc RADIAL	139665.7	99.7	%	1.46				1.46%
Y 371.029	1057312.2	100.00	%	0.401				0.40%
Ag 328.068†	-144.8	-0.6044	µg/L	0.50591	-0.6044	ppb	0.50591	83.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	25.8	5.4118	µg/L	6.42909	5.4118	ppb	6.42909	118.80%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.5	2.8851	µg/L	1.85242	2.8851	ppb	1.85242	64.21%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-82.7	-1.2871	µg/L	1.18982	-1.2871	ppb	1.18982	92.44%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-12.4	-0.0553	µg/L	0.05604	-0.0553	ppb	0.05604	101.26%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	393.6	0.1111	µg/L	0.03389	0.1111	ppb	0.03389	30.50%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	128.1	8.7237	µg/L	2.45179	8.7237	ppb	2.45179	28.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.6	0.1310	µg/L	0.09458	0.1310	ppb	0.09458	72.20%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.0	0.0917	µg/L	0.04215	0.0917	ppb	0.04215	45.98%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              22.5      0.2029 µg/L       0.33475      0.2029 ppb        0.33475 164.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -93.7     -0.3978 µg/L       0.26421     -0.3978 ppb        0.26421  66.42%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      191.5      14.299 µg/L       16.8767      14.299 ppb        16.8767 118.03%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        94.0      37.256 µg/L       32.1195      37.256 ppb        32.1195  86.21%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           4.1      1.8895 µg/L       7.93033      1.8895 ppb        7.93033 419.71%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              53.4      0.0707 µg/L       0.02908      0.0707 ppb        0.02908  41.15%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.4      0.3408 µg/L       0.20677      0.3408 ppb        0.20677  60.67%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      210.0      32.524 µg/L       17.6236      32.524 ppb        17.6236  54.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              36.6      0.4582 µg/L       0.24899      0.4582 ppb        0.24899  54.34%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               32.1      7.4091 µg/L       0.76452      7.4091 ppb        0.76452  10.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.5      0.0411 µg/L       0.98319      0.0411 ppb        0.98319 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.1      5.1701 µg/L       2.12113      5.1701 ppb        2.12113  41.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.1     -0.0059 µg/L       1.32934     -0.0059 ppb        1.32934 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              12.8        5.04 µg/L         0.925        5.04 ppb          0.925  18.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   199.7      21.134 µg/L        3.0669      21.134 ppb         3.0669  14.51%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             548.1      8.6383 µg/L       1.30031      8.6383 ppb        1.30031  15.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.2      0.0826 µg/L       0.14718      0.0826 ppb        0.14718 178.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              90.9      0.2144 µg/L       0.37513      0.2144 ppb        0.37513 174.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -120.0     -0.1194 µg/L       0.15194     -0.1194 ppb        0.15194 127.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.1      0.2803 µg/L       3.09104      0.2803 ppb        3.09104 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -151.5     -9.5590 µg/L       4.28885     -9.5590 ppb        4.28885  44.87%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                9.0      0.0430 µg/L       0.21409      0.0430 ppb        0.21409 497.46%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              65.9      0.3895 µg/L       0.07706      0.3895 ppb        0.07706  19.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 12:41:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138943.7	138943.7	99.2	%			12:41:37
1	Al 396.153Radial†	23385.0	23657.0	4957.1	µg/L	4957.1	ppb	12:41:37
1	Ca 317.933Radial†	74173.8	74215.8	5054.8	µg/L	5054.8	ppb	12:41:37
1	Fe 238.204 Radial†	66887.9	67323.8	5027.7	µg/L	5027.7	ppb	12:41:37
1	K 766.490 Radial†	14097.2	12720.0	5036.2	µg/L	5036.2	ppb	12:41:37
1	Mg 279.077 IEC†	11043.2	10962.1	5069.7	µg/L	5069.7	ppb	12:41:37
1	Na 589.592 Radial†	64657.0	64239.3	9953.1	µg/L	9953.1	ppb	12:41:37
1	Sr 421.552†	211693.9	213649.4	503.85	µg/L	503.85	ppb	12:41:35
1	Sc 361.383	1787262.5	1787262.5	99.064	%			12:42:04
1	Y 371.029	1038840.9	1038840.9	98.254	%			12:42:04
1	Ag 328.068†	124468.7	121079.8	501.88	µg/L	501.88	ppb	12:42:04
1	As 188.979†	1396.1	1427.8	490.22	µg/L	490.22	ppb	12:42:24
1	B 249.677†	35476.1	31746.2	491.96	µg/L	491.96	ppb	12:42:04
1	Ba 233.527†	110950.2	112143.2	498.87	µg/L	498.87	ppb	12:42:04
1	Be 313.107†	1677200.9	1694142.7	490.89	µg/L	490.89	ppb	12:42:04
1	Cd 226.502†	73260.7	74056.4	500.22	µg/L	500.22	ppb	12:42:04
1	Co 228.616†	37543.3	38108.4	504.41	µg/L	504.41	ppb	12:42:04
1	Cr 267.716†	57568.9	57879.7	500.60	µg/L	500.60	ppb	12:42:04
1	Cu 324.752†	121037.2	119144.9	499.89	µg/L	499.89	ppb	12:42:04
1	Mn 257.610†	373450.2	376794.7	499.62	µg/L	499.62	ppb	12:42:04
1	Mo 202.031†	15337.0	15520.5	508.04	µg/L	508.04	ppb	12:42:24
1	Ni 231.604†	39650.9	40121.5	501.97	µg/L	501.97	ppb	12:42:04
1	P 214.914†	10862.9	10991.3	2534.0	µg/L	2534.0	ppb	12:42:24
1	Pb 220.353†	8349.5	8324.9	513.88	µg/L	513.88	ppb	12:42:24
1	S 181.975 Axial†	1278.6	1201.7	1015.3	µg/L	1015.3	ppb	12:42:24
1	Sb 206.836†	3947.3	3894.9	503.47	µg/L	503.47	ppb	12:42:24
1	Se 196.026†	1287.7	1293.7	512	µg/L	512	ppb	12:42:24
1	SiO2†	51490.8	50238.3	5298.4	µg/L	5298.4	ppb	12:42:04
1	Si 251.611†	157278.3	157997.6	2481.3	µg/L	2481.3	ppb	12:42:04
1	Sn 189.927†	7193.9	7260.0	505.25	µg/L	505.25	ppb	12:42:24
1	Ti 334.940†	480256.1	483971.6	496.44	µg/L	496.44	ppb	12:42:04
1	Tl 190.801†	3552.9	3700.7	512.80	µg/L	512.80	ppb	12:42:24
1	U 409.014†	7139.5	7370.3	495.42	µg/L	495.42	ppb	12:42:04
1	V 292.402†	95339.2	95817.0	503.34	µg/L	503.34	ppb	12:42:04
1	Zn 213.857†	83855.8	84145.3	498.54	µg/L	498.54	ppb	12:42:04
2	Sc RADIAL	141291.3	141291.3	101	%			12:41:41
2	Al 396.153Radial†	23752.9	23630.0	4951.4	µg/L	4951.4	ppb	12:41:41
2	Ca 317.933Radial†	75646.8	74433.7	5069.6	µg/L	5069.6	ppb	12:41:41
2	Fe 238.204 Radial†	68330.6	67633.8	5050.8	µg/L	5050.8	ppb	12:41:41
2	K 766.490 Radial†	14268.2	12653.4	5009.8	µg/L	5009.8	ppb	12:41:41
2	Mg 279.077 IEC†	11450.1	11180.6	5170.6	µg/L	5170.6	ppb	12:41:41
2	Na 589.592 Radial†	65910.3	64398.8	9977.9	µg/L	9977.9	ppb	12:41:41
2	Sr 421.552†	211423.7	209835.0	494.85	µg/L	494.85	ppb	12:41:39
2	Sc 361.383	1793839.4	1793839.4	99.428	%			12:42:27
2	Y 371.029	1042511.0	1042511.0	98.602	%			12:42:27
2	Ag 328.068†	125087.0	121241.0	502.53	µg/L	502.53	ppb	12:42:27
2	As 188.979†	1395.9	1422.5	488.43	µg/L	488.43	ppb	12:42:47
2	B 249.677†	35898.2	32039.5	496.51	µg/L	496.51	ppb	12:42:27
2	Ba 233.527†	111421.2	112206.3	499.15	µg/L	499.15	ppb	12:42:27
2	Be 313.107†	1687036.9	1697828.0	491.95	µg/L	491.95	ppb	12:42:27
2	Cd 226.502†	74020.0	74548.9	503.54	µg/L	503.54	ppb	12:42:27
2	Co 228.616†	37859.8	38287.8	506.78	µg/L	506.78	ppb	12:42:27
2	Cr 267.716†	57911.5	58011.3	501.75	µg/L	501.75	ppb	12:42:27
2	Cu 324.752†	121562.8	119225.6	500.23	µg/L	500.23	ppb	12:42:27
2	Mn 257.610†	375840.4	377816.5	500.97	µg/L	500.97	ppb	12:42:27
2	Mo 202.031†	15373.5	15500.4	507.39	µg/L	507.39	ppb	12:42:47
2	Ni 231.604†	40030.6	40356.6	504.91	µg/L	504.91	ppb	12:42:27
2	P 214.914†	10881.6	10969.9	2529.0	µg/L	2529.0	ppb	12:42:47
2	Pb 220.353†	8348.9	8293.4	511.95	µg/L	511.95	ppb	12:42:47

2	S 181.975 Axial†	1279.7	1198.2	1012.3 µg/L	1012.3 ppb	12:42:47
2	Sb 206.836†	3977.5	3910.6	505.48 µg/L	505.48 ppb	12:42:47
2	Se 196.026†	1301.1	1302.4	515 µg/L	515 ppb	12:42:47
2	SiO2†	51742.6	50301.0	5305.0 µg/L	5305.0 ppb	12:42:27
2	Si 251.611†	158432.1	158575.9	2490.5 µg/L	2490.5 ppb	12:42:27
2	Sn 189.927†	7228.0	7267.6	505.78 µg/L	505.78 ppb	12:42:47
2	Ti 334.940†	481660.7	483606.9	496.06 µg/L	496.06 ppb	12:42:27
2	Tl 190.801†	3584.9	3719.8	515.40 µg/L	515.40 ppb	12:42:47
2	U 409.014†	6924.3	7127.5	480.13 µg/L	480.13 ppb	12:42:27
2	V 292.402†	95806.2	95933.8	503.93 µg/L	503.93 ppb	12:42:27
2	Zn 213.857†	84371.3	84353.4	499.76 µg/L	499.76 ppb	12:42:27
3	Sc RADIAL	140960.0	140960.0	101 %		12:41:45
3	Al 396.153Radial†	23658.9	23591.9	4943.6 µg/L	4943.6 ppb	12:41:45
3	Ca 317.933Radial†	75426.6	74391.2	5066.7 µg/L	5066.7 ppb	12:41:45
3	Fe 238.204 Radial†	67958.0	67422.7	5035.1 µg/L	5035.1 ppb	12:41:45
3	K 766.490 Radial†	14351.0	12768.9	5055.5 µg/L	5055.5 ppb	12:41:45
3	Mg 279.077 IEC†	11270.8	11029.0	5100.5 µg/L	5100.5 ppb	12:41:45
3	Na 589.592 Radial†	65596.5	64240.5	9953.3 µg/L	9953.3 ppb	12:41:45
3	Sr 421.552†	211471.7	210375.5	496.12 µg/L	496.12 ppb	12:41:43
3	Sc 361.383	1802636.7	1802636.7	99.916 %		12:42:50
3	Y 371.029	1046785.0	1046785.0	99.006 %		12:42:50
3	Ag 328.068†	125848.1	121388.8	503.18 µg/L	503.18 ppb	12:42:50
3	As 188.979†	1381.4	1401.1	481.20 µg/L	481.20 ppb	12:43:10
3	B 249.677†	36130.3	32095.6	497.38 µg/L	497.38 ppb	12:42:50
3	Ba 233.527†	112457.4	112696.5	501.33 µg/L	501.33 ppb	12:42:50
3	Be 313.107†	1700233.2	1702754.8	493.39 µg/L	493.39 ppb	12:42:50
3	Cd 226.502†	74872.6	75038.9	506.86 µg/L	506.86 ppb	12:42:50
3	Co 228.616†	38226.2	38468.7	509.18 µg/L	509.18 ppb	12:42:50
3	Cr 267.716†	58249.2	58065.0	502.20 µg/L	502.20 ppb	12:42:50
3	Cu 324.752†	122344.5	119411.3	501.02 µg/L	501.02 ppb	12:42:50
3	Mn 257.610†	378788.4	378922.2	502.44 µg/L	502.44 ppb	12:42:50
3	Mo 202.031†	15294.8	15346.2	502.34 µg/L	502.34 ppb	12:43:10
3	Ni 231.604†	40405.7	40535.6	507.15 µg/L	507.15 ppb	12:42:50
3	P 214.914†	10816.0	10850.7	2501.4 µg/L	2501.4 ppb	12:43:10
3	Pb 220.353†	8301.3	8204.9	506.47 µg/L	506.47 ppb	12:43:10
3	S 181.975 Axial†	1290.2	1202.4	1015.8 µg/L	1015.8 ppb	12:43:10
3	Sb 206.836†	3940.4	3854.0	498.09 µg/L	498.09 ppb	12:43:10
3	Se 196.026†	1295.0	1289.9	510 µg/L	510 ppb	12:43:10
3	SiO2†	52249.6	50554.4	5332.1 µg/L	5332.1 ppb	12:42:50
3	Si 251.611†	159808.9	159176.3	2500.1 µg/L	2500.1 ppb	12:42:50
3	Sn 189.927†	7164.9	7169.1	498.95 µg/L	498.95 ppb	12:43:10
3	Ti 334.940†	485644.3	485229.7	497.72 µg/L	497.72 ppb	12:42:50
3	Tl 190.801†	3544.7	3662.0	507.52 µg/L	507.52 ppb	12:43:10
3	U 409.014†	7287.7	7457.2	501.07 µg/L	501.07 ppb	12:42:50
3	V 292.402†	96696.3	96354.4	506.07 µg/L	506.07 ppb	12:42:50
3	Zn 213.857†	84912.9	84481.4	500.51 µg/L	500.51 ppb	12:42:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1794579.6	99.469	%	0.4276				0.43%
Sc RADIAL	140398.3	100	%	0.9				0.90%
Y 371.029	1042712.3	98.621	%	0.3760				0.38%
Ag 328.068†	121236.5	502.53	µg/L	0.652	502.53	ppb	0.652	0.13%
QC value within limits for Ag 328.068 Recovery = 100.51%								
Al 396.153Radial†	23626.3	4950.7	µg/L	6.75	4950.7	ppb	6.75	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.01%								
As 188.979†	1417.1	486.61	µg/L	4.777	486.61	ppb	4.777	0.98%
QC value within limits for As 188.979 Recovery = 97.32%								
B 249.677†	31960.4	495.28	µg/L	2.910	495.28	ppb	2.910	0.59%
QC value within limits for B 249.677 Recovery = 99.06%								
Ba 233.527†	112348.7	499.78	µg/L	1.346	499.78	ppb	1.346	0.27%
QC value within limits for Ba 233.527 Recovery = 99.96%								
Be 313.107†	1698241.9	492.08	µg/L	1.253	492.08	ppb	1.253	0.25%
QC value within limits for Be 313.107 Recovery = 98.42%								
Ca 317.933Radial†	74346.9	5063.7	µg/L	7.87	5063.7	ppb	7.87	0.16%
QC value within limits for Ca 317.933Radial Recovery = 101.27%								
Cd 226.502†	74548.0	503.54	µg/L	3.321	503.54	ppb	3.321	0.66%
QC value within limits for Cd 226.502 Recovery = 100.71%								
Co 228.616†	38288.3	506.79	µg/L	2.384	506.79	ppb	2.384	0.47%

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   QC value within limits for Co 228.616  Recovery = 101.36%
Cr 267.716†            57985.3      501.51 µg/L        0.825      501.51 ppb          0.825   0.16%
   QC value within limits for Cr 267.716  Recovery = 100.30%
Cu 324.752†           119260.6      500.38 µg/L        0.577      500.38 ppb          0.577   0.12%
   QC value within limits for Cu 324.752  Recovery = 100.08%
Fe 238.204 Radial†     67460.1      5037.9 µg/L        11.82      5037.9 ppb          11.82   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.76%
K 766.490 Radial†      12714.1      5033.8 µg/L        22.98      5033.8 ppb          22.98   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 100.68%
Mg 279.077 IEC†        11057.2      5113.6 µg/L        51.68      5113.6 ppb          51.68   1.01%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.27%
Mn 257.610†           377844.5      501.01 µg/L        1.411      501.01 ppb          1.411   0.28%
   QC value within limits for Mn 257.610  Recovery = 100.20%
Mo 202.031†            15455.7      505.92 µg/L        3.118      505.92 ppb          3.118   0.62%
   QC value within limits for Mo 202.031  Recovery = 101.18%
Na 589.592 Radial†     64292.9      9961.4 µg/L        14.24      9961.4 ppb          14.24   0.14%
   QC value within limits for Na 589.592 Radial  Recovery = 99.61%
Ni 231.604†            40337.9      504.68 µg/L        2.598      504.68 ppb          2.598   0.51%
   QC value within limits for Ni 231.604  Recovery = 100.94%
P 214.914†             10937.3      2521.5 µg/L        17.53      2521.5 ppb          17.53   0.70%
   QC value within limits for P 214.914  Recovery = 100.86%
Pb 220.353†             8274.4      510.77 µg/L        3.842      510.77 ppb          3.842   0.75%
   QC value within limits for Pb 220.353  Recovery = 102.15%
S 181.975 Axial†        1200.8      1014.4 µg/L         1.89      1014.4 ppb           1.89   0.19%
   QC value within limits for S 181.975 Axial  Recovery = 101.44%
Sb 206.836†             3886.5      502.35 µg/L        3.823      502.35 ppb          3.823   0.76%
   QC value within limits for Sb 206.836  Recovery = 100.47%
Se 196.026†             1295.4         513 µg/L          2.5         513 ppb            2.5   0.49%
   QC value within limits for Se 196.026  Recovery = 102.51%
SiO2†                  50364.6      5311.8 µg/L        17.87      5311.8 ppb          17.87   0.34%
   QC value within limits for SiO2  Recovery = 99.33%
Si 251.611†           158583.3      2490.6 µg/L         9.35      2490.6 ppb           9.35   0.38%
   QC value within limits for Si 251.611  Recovery = 99.62%
Sn 189.927†             7232.2      503.33 µg/L        3.801      503.33 ppb          3.801   0.76%
   QC value within limits for Sn 189.927  Recovery = 100.67%
Sr 421.552†           211286.6      498.27 µg/L        4.868      498.27 ppb          4.868   0.98%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           484269.4      496.74 µg/L        0.872      496.74 ppb          0.872   0.18%
   QC value within limits for Ti 334.940  Recovery = 99.35%
Tl 190.801†             3694.2      511.90 µg/L        4.014      511.90 ppb          4.014   0.78%
   QC value within limits for Tl 190.801  Recovery = 102.38%
U 409.014†              7318.3      492.21 µg/L       10.834      492.21 ppb         10.834   2.20%
   QC value within limits for U 409.014  Recovery = 98.44%
V 292.402†             96035.1      504.45 µg/L        1.439      504.45 ppb          1.439   0.29%
   QC value within limits for V 292.402  Recovery = 100.89%
Zn 213.857†            84326.7      499.60 µg/L        0.995      499.60 ppb          0.995   0.20%
   QC value within limits for Zn 213.857  Recovery = 99.92%
All analyte(s) passed QC.
```

Sequence No.: 31
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 12:43:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	139295.5	139295.5	99.4	%			12:43:47
1	Al 396.153Radial†	-24.0	54.4	11.413	µg/L	11.413	ppb	12:44:07
1	Ca 317.933Radial†	708.0	140.6	9.5778	µg/L	9.5778	ppb	12:44:07
1	Fe 238.204 Radial†	178.6	62.3	4.6540	µg/L	4.6540	ppb	12:44:07
1	K 766.490 Radial†	1724.7	240.8	95.403	µg/L	95.403	ppb	12:43:47
1	Mg 279.077 IEC†	154.2	-17.4	-8.0256	µg/L	-8.0256	ppb	12:44:07
1	Na 589.592 Radial†	1146.9	201.0	31.071	µg/L	31.071	ppb	12:43:47
1	Sr 421.552†	-159.3	44.3	0.1044	µg/L	0.1044	ppb	12:43:47
1	Sc 361.383	1814807.9	1814807.9	100.59	%			12:45:09
1	Y 371.029	1064526.0	1064526.0	100.68	%			12:45:09
1	Ag 328.068†	4340.5	-250.2	-1.0252	µg/L	-1.0252	ppb	12:45:11
1	As 188.979†	-4.6	14.0	4.7451	µg/L	4.7451	ppb	12:45:31
1	B 249.677†	3969.3	-119.1	-1.8538	µg/L	-1.8538	ppb	12:45:11
1	Ba 233.527†	-20.5	124.2	0.5521	µg/L	0.5521	ppb	12:45:31
1	Be 313.107†	-903.9	193.2	0.0555	µg/L	0.0555	ppb	12:45:11
1	Cd 226.502†	-45.4	58.2	0.3932	µg/L	0.3932	ppb	12:45:31
1	Co 228.616†	-189.8	21.6	0.2862	µg/L	0.2862	ppb	12:45:31
1	Cr 267.716†	288.0	53.1	0.4609	µg/L	0.4609	ppb	12:45:31
1	Cu 324.752†	2935.8	-117.5	-0.4923	µg/L	-0.4923	ppb	12:45:11
1	Mn 257.610†	640.2	451.7	0.5996	µg/L	0.5996	ppb	12:45:31
1	Mo 202.031†	-13.9	24.8	0.8103	µg/L	0.8103	ppb	12:45:31
1	Ni 231.604†	-64.1	32.2	0.4024	µg/L	0.4024	ppb	12:45:31
1	P 214.914†	7.0	32.7	7.5584	µg/L	7.5584	ppb	12:45:31
1	Pb 220.353†	106.9	2.9	0.1807	µg/L	0.1807	ppb	12:45:31
1	S 181.975 Axial†	96.9	7.4	6.2672	µg/L	6.2672	ppb	12:45:31
1	Sb 206.836†	87.7	-2.6	-0.3244	µg/L	-0.3244	ppb	12:45:31
1	Se 196.026†	26.1	19.8	7.80	µg/L	7.80	ppb	12:45:31
1	SiO2†	1980.3	229.6	24.283	µg/L	24.283	ppb	12:45:31
1	Si 251.611†	2172.1	1392.3	21.940	µg/L	21.940	ppb	12:45:11
1	Sn 189.927†	10.1	8.1	0.5652	µg/L	0.5652	ppb	12:45:31
1	Ti 334.940†	1494.6	662.8	0.6822	µg/L	0.6822	ppb	12:45:11
1	Tl 190.801†	-118.2	-3.2	-0.4323	µg/L	-0.4323	ppb	12:45:31
1	U 409.014†	-188.8	-24.3	-1.5258	µg/L	-1.5258	ppb	12:45:11
1	V 292.402†	442.4	16.6	0.0943	µg/L	0.0943	ppb	12:45:11
1	Zn 213.857†	614.8	108.2	0.6437	µg/L	0.6437	ppb	12:45:31
2	Sc RADIAL	138151.7	138151.7	98.6	%			12:44:09
2	Al 396.153Radial†	-28.6	49.5	10.400	µg/L	10.400	ppb	12:44:29
2	Ca 317.933Radial†	742.9	181.9	12.386	µg/L	12.386	ppb	12:44:29
2	Fe 238.204 Radial†	502.8	392.6	29.316	µg/L	29.316	ppb	12:44:29
2	K 766.490 Radial†	1718.3	248.6	98.510	µg/L	98.510	ppb	12:44:09
2	Mg 279.077 IEC†	166.2	-4.0	-1.8376	µg/L	-1.8376	ppb	12:44:29
2	Na 589.592 Radial†	1104.7	167.7	25.905	µg/L	25.905	ppb	12:44:09
2	Sr 421.552†	-237.6	-36.5	-0.0861	µg/L	-0.0861	ppb	12:44:09
2	Sc 361.383	1813927.3	1813927.3	100.54	%			12:45:33
2	Y 371.029	1065006.3	1065006.3	100.73	%			12:45:33
2	Ag 328.068†	4086.9	-500.2	-2.0568	µg/L	-2.0568	ppb	12:45:35
2	As 188.979†	-20.8	-2.2	-0.7245	µg/L	-0.7245	ppb	12:45:56
2	B 249.677†	4066.5	-20.5	-0.3191	µg/L	-0.3191	ppb	12:45:35
2	Ba 233.527†	-100.7	44.4	0.1967	µg/L	0.1967	ppb	12:45:56
2	Be 313.107†	-633.5	461.7	0.1333	µg/L	0.1333	ppb	12:45:35
2	Cd 226.502†	-83.8	20.0	0.1325	µg/L	0.1325	ppb	12:45:56
2	Co 228.616†	-218.2	-6.7	-0.0897	µg/L	-0.0897	ppb	12:45:56
2	Cr 267.716†	249.0	14.5	0.1273	µg/L	0.1273	ppb	12:45:56
2	Cu 324.752†	2868.6	-183.0	-0.7626	µg/L	-0.7626	ppb	12:45:35
2	Mn 257.610†	225.9	40.0	0.0530	µg/L	0.0530	ppb	12:45:56
2	Mo 202.031†	-20.8	17.9	0.5857	µg/L	0.5857	ppb	12:45:56
2	Ni 231.604†	-73.9	22.4	0.2807	µg/L	0.2807	ppb	12:45:56
2	P 214.914†	7.4	33.1	7.6380	µg/L	7.6380	ppb	12:45:56
2	Pb 220.353†	90.2	-13.8	-0.8438	µg/L	-0.8438	ppb	12:45:56

2	S 181.975 Axial†	103.9	14.4	12.116 µg/L	12.116 ppb	12:45:56
2	Sb 206.836†	79.0	-11.2	-1.4372 µg/L	-1.4372 ppb	12:45:56
2	Se 196.026†	14.3	8.1	3.20 µg/L	3.20 ppb	12:45:56
2	SiO2†	1902.6	153.3	16.209 µg/L	16.209 ppb	12:45:56
2	Si 251.611†	1085.1	312.2	4.9121 µg/L	4.9121 ppb	12:45:35
2	Sn 189.927†	8.1	6.2	0.4318 µg/L	0.4318 ppb	12:45:56
2	Ti 334.940†	966.6	138.4	0.1433 µg/L	0.1433 ppb	12:45:35
2	Tl 190.801†	-96.1	18.7	2.5507 µg/L	2.5507 ppb	12:45:56
2	U 409.014†	-189.8	-25.4	-1.6406 µg/L	-1.6406 ppb	12:45:35
2	V 292.402†	317.1	-107.8	-0.5566 µg/L	-0.5566 ppb	12:45:35
2	Zn 213.857†	578.6	72.5	0.4285 µg/L	0.4285 ppb	12:45:56
3	Sc RADIAL	141342.2	141342.2	101 %		12:44:31
3	Al 396.153Radial†	-59.8	19.3	4.0212 µg/L	4.0212 ppb	12:44:51
3	Ca 317.933Radial†	684.0	106.5	7.2532 µg/L	7.2532 ppb	12:44:51
3	Fe 238.204 Radial†	177.9	59.0	4.4051 µg/L	4.4051 ppb	12:44:51
3	K 766.490 Radial†	1655.6	147.2	58.309 µg/L	58.309 ppb	12:44:31
3	Mg 279.077 IEC†	175.6	1.6	0.7607 µg/L	0.7607 ppb	12:44:51
3	Na 589.592 Radial†	1005.0	43.6	6.7004 µg/L	6.7004 ppb	12:44:31
3	Sr 421.552†	-148.4	57.4	0.1354 µg/L	0.1354 ppb	12:44:31
3	Sc 361.383	1826132.7	1826132.7	101.22 %		12:45:58
3	Y 371.029	1071945.3	1071945.3	101.39 %		12:45:58
3	Ag 328.068†	4453.8	-164.9	-0.6788 µg/L	-0.6788 ppb	12:46:00
3	As 188.979†	-27.7	-8.8	-2.9706 µg/L	-2.9706 ppb	12:46:20
3	B 249.677†	4032.4	-81.3	-1.2660 µg/L	-1.2660 ppb	12:46:00
3	Ba 233.527†	-117.7	28.3	0.1260 µg/L	0.1260 ppb	12:46:20
3	Be 313.107†	-753.2	347.6	0.0996 µg/L	0.0996 ppb	12:46:00
3	Cd 226.502†	-68.5	35.7	0.2410 µg/L	0.2410 ppb	12:46:20
3	Co 228.616†	-184.1	28.5	0.3763 µg/L	0.3763 ppb	12:46:20
3	Cr 267.716†	261.7	25.3	0.2219 µg/L	0.2219 ppb	12:46:20
3	Cu 324.752†	2902.4	-168.6	-0.7073 µg/L	-0.7073 ppb	12:46:00
3	Mn 257.610†	415.2	225.4	0.2990 µg/L	0.2990 ppb	12:46:20
3	Mo 202.031†	-17.0	21.8	0.7128 µg/L	0.7128 ppb	12:46:20
3	Ni 231.604†	-77.7	19.2	0.2398 µg/L	0.2398 ppb	12:46:20
3	P 214.914†	9.4	34.9	8.0864 µg/L	8.0864 ppb	12:46:20
3	Pb 220.353†	110.2	5.4	0.3368 µg/L	0.3368 ppb	12:46:20
3	S 181.975 Axial†	89.8	-0.2	-0.1722 µg/L	-0.1722 ppb	12:46:20
3	Sb 206.836†	88.9	-1.9	-0.2318 µg/L	-0.2318 ppb	12:46:20
3	Se 196.026†	27.2	20.7	8.15 µg/L	8.15 ppb	12:46:20
3	SiO2†	1966.3	203.5	21.525 µg/L	21.525 ppb	12:46:20
3	Si 251.611†	1407.5	623.6	9.8201 µg/L	9.8201 ppb	12:46:00
3	Sn 189.927†	9.5	7.5	0.5164 µg/L	0.5164 ppb	12:46:20
3	Ti 334.940†	647.9	-182.9	-0.1863 µg/L	-0.1863 ppb	12:46:00
3	Tl 190.801†	-112.6	3.0	0.4095 µg/L	0.4095 ppb	12:46:20
3	U 409.014†	-222.9	-56.9	-3.5823 µg/L	-3.5823 ppb	12:46:00
3	V 292.402†	444.1	15.5	0.0861 µg/L	0.0861 ppb	12:46:00
3	Zn 213.857†	601.9	91.7	0.5458 µg/L	0.5458 ppb	12:46:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1818289.3	100.78	%	0.377				0.37%
Sc RADIAL	139596.5	99.6	%	1.15				1.16%
Y 371.029	1067159.2	100.93	%	0.393				0.39%
Ag 328.068†	-305.1	-1.2536	µg/L	0.71682	-1.2536	ppb	0.71682	57.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	41.1	8.6113	µg/L	4.00722	8.6113	ppb	4.00722	46.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.0	0.3500	µg/L	3.96848	0.3500	ppb	3.96848	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-73.7	-1.1463	µg/L	0.77432	-1.1463	ppb	0.77432	67.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	65.6	0.2916	µg/L	0.22839	0.2916	ppb	0.22839	78.32%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	334.1	0.0961	µg/L	0.03900	0.0961	ppb	0.03900	40.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	143.0	9.7391	µg/L	2.57028	9.7391	ppb	2.57028	26.39%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	38.0	0.2556	µg/L	0.13096	0.2556	ppb	0.13096	51.24%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	14.5	0.1909	µg/L	0.24721	0.1909	ppb	0.24721	129.48%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              31.0      0.2701 µg/L       0.17191      0.2701 ppb        0.17191  63.66%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -156.4     -0.6540 µg/L       0.14282     -0.6540 ppb        0.14282  21.84%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       171.3      12.792 µg/L       14.3110      12.792 ppb        14.3110 111.88%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        212.2      84.074 µg/L       22.3671      84.074 ppb        22.3671  26.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -6.6     -3.0342 µg/L       4.51367     -3.0342 ppb        4.51367 148.76%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              239.1      0.3172 µg/L       0.27371      0.3172 ppb        0.27371  86.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               21.5      0.7029 µg/L       0.11261      0.7029 ppb        0.11261  16.02%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       137.4      21.225 µg/L       12.8415      21.225 ppb        12.8415  60.50%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               24.6      0.3076 µg/L       0.08459      0.3076 ppb        0.08459  27.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                33.6      7.7609 µg/L       0.28464      7.7609 ppb        0.28464   3.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -1.8     -0.1088 µg/L       0.64132     -0.1088 ppb        0.64132 589.57%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           7.2      6.0705 µg/L       6.14666      6.0705 ppb        6.14666 101.25%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -5.2     -0.6645 µg/L       0.67080     -0.6645 ppb        0.67080 100.95%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               16.2        6.38 µg/L         2.765        6.38 ppb          2.765  43.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    195.5      20.672 µg/L        4.1037      20.672 ppb         4.1037  19.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              776.0      12.224 µg/L        8.7650      12.224 ppb         8.7650  71.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                7.3      0.5044 µg/L       0.06747      0.5044 ppb        0.06747  13.37%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               21.7      0.0512 µg/L       0.11992      0.0512 ppb        0.11992 234.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              206.1      0.2130 µg/L       0.43842      0.2130 ppb        0.43842 205.79%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.2      0.8426 µg/L       1.53797      0.8426 ppb        1.53797 182.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -35.5     -2.2496 µg/L       1.15564     -2.2496 ppb        1.15564  51.37%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -25.2     -0.1254 µg/L       0.37347     -0.1254 ppb        0.37347 297.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               90.8      0.5394 µg/L       0.10772      0.5394 ppb        0.10772  19.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 4/5/2010 12:47:02 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040510.sif
Batch ID:
Results Data Set: 040510
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 301**
Sample ID: 1202068109|964016|1 **Date Collected: 4/5/2010 12:47:04**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202068109|964016|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	134390.9	134390.9	95.9	%			12:47:35
1	Al 396.153Radial†	-85.8	-10.9	-2.3251	µg/L	-2.3251	ppb	12:47:55
1	Ca 317.933Radial†	771.1	232.4	15.829	µg/L	15.829	ppb	12:47:55
1	Fe 238.204 Radial†	585.5	493.1	36.821	µg/L	36.821	ppb	12:47:55
1	K 766.490 Radial†	1751.0	331.4	131.33	µg/L	131.33	ppb	12:47:35
1	Mg 279.077 IEC†	185.9	21.3	9.8124	µg/L	9.8124	ppb	12:47:55
1	Na 589.592 Radial†	1150.0	246.3	38.060	µg/L	38.060	ppb	12:47:35
1	Sr 421.552†	-264.5	-71.2	-0.1680	µg/L	-0.1680	ppb	12:47:35
1	Sc 361.383	1730672.3	1730672.3	95.927	%			12:48:43
1	Y 371.029	1015006.0	1015006.0	96.000	%			12:48:43
1	Ag 328.068†	4117.4	-273.0	-1.1250	µg/L	-1.1250	ppb	12:48:45
1	As 188.979†	-19.1	-1.4	-0.4610	µg/L	-0.4610	ppb	12:49:05
1	B 249.677†	4090.7	199.2	3.0971	µg/L	3.0971	ppb	12:48:45
1	Ba 233.527†	-126.0	13.2	0.0579	µg/L	0.0579	ppb	12:49:05
1	Be 313.107†	-764.8	294.5	0.0852	µg/L	0.0852	ppb	12:48:45
1	Cd 226.502†	-83.0	16.8	0.1100	µg/L	0.1100	ppb	12:49:05
1	Co 228.616†	-184.5	17.9	0.2352	µg/L	0.2352	ppb	12:49:05
1	Cr 267.716†	248.0	25.3	0.2197	µg/L	0.2197	ppb	12:49:05
1	Cu 324.752†	2825.2	-91.0	-0.3751	µg/L	-0.3751	ppb	12:48:45
1	Mn 257.610†	730.6	576.9	0.7647	µg/L	0.7647	ppb	12:49:05
1	Mo 202.031†	-21.1	16.6	0.5446	µg/L	0.5446	ppb	12:49:05
1	Ni 231.604†	-63.6	29.6	0.3698	µg/L	0.3698	ppb	12:49:05
1	P 214.914†	10.8	36.9	8.5223	µg/L	8.5223	ppb	12:49:05
1	Pb 220.353†	116.4	17.8	1.0982	µg/L	1.0982	ppb	12:49:05
1	S 181.975 Axial†	87.8	2.6	2.2248	µg/L	2.2248	ppb	12:49:05
1	Sb 206.836†	89.2	3.3	0.4309	µg/L	0.4309	ppb	12:49:05
1	Se 196.026†	14.6	9.1	3.60	µg/L	3.60	ppb	12:49:05
1	SiO2†	2328.1	687.9	72.819	µg/L	72.819	ppb	12:48:45
1	Si 251.611†	2637.0	1981.9	31.240	µg/L	31.240	ppb	12:48:45
1	Sn 189.927†	12.9	11.6	0.8025	µg/L	0.8025	ppb	12:49:05
1	Ti 334.940†	975.7	194.1	0.1990	µg/L	0.1990	ppb	12:48:45
1	Tl 190.801†	-116.1	-6.8	-0.9277	µg/L	-0.9277	ppb	12:49:05
1	U 409.014†	-162.7	-6.3	-0.4304	µg/L	-0.4304	ppb	12:48:45
1	V 292.402†	308.4	-101.8	-0.5252	µg/L	-0.5252	ppb	12:48:45
1	Zn 213.857†	801.4	332.5	1.9795	µg/L	1.9795	ppb	12:49:05
2	Sc RADIAL	134098.7	134098.7	95.7	%			12:47:57
2	Al 396.153Radial†	-67.7	7.8	1.6489	µg/L	1.6489	ppb	12:48:17
2	Ca 317.933Radial†	786.2	249.9	17.019	µg/L	17.019	ppb	12:48:17
2	Fe 238.204 Radial†	599.4	508.9	38.006	µg/L	38.006	ppb	12:48:17
2	K 766.490 Radial†	1561.5	137.5	54.461	µg/L	54.461	ppb	12:47:57
2	Mg 279.077 IEC†	168.3	3.4	1.5466	µg/L	1.5466	ppb	12:48:17
2	Na 589.592 Radial†	1154.8	253.9	39.312	µg/L	39.312	ppb	12:47:57
2	Sr 421.552†	-177.0	19.6	0.0461	µg/L	0.0461	ppb	12:47:57
2	Sc 361.383	1750409.6	1750409.6	97.021	%			12:49:07
2	Y 371.029	1025730.6	1025730.6	97.014	%			12:49:07
2	Ag 328.068†	4257.0	-177.4	-0.7181	µg/L	-0.7181	ppb	12:49:10
2	As 188.979†	-13.2	4.9	1.6858	µg/L	1.6858	ppb	12:49:30

2	B 249.677†	4226.9	291.6	4.5336 µg/L	4.5336 ppb	12:49:10
2	Ba 233.527†	-122.5	18.3	0.0805 µg/L	0.0805 ppb	12:49:30
2	Be 313.107†	-887.8	176.6	0.0543 µg/L	0.0543 ppb	12:49:10
2	Cd 226.502†	-84.9	15.8	0.1032 µg/L	0.1032 ppb	12:49:30
2	Co 228.616†	-185.5	19.1	0.2514 µg/L	0.2514 ppb	12:49:30
2	Cr 267.716†	263.0	37.9	0.3203 µg/L	0.3203 ppb	12:49:30
2	Cu 324.752†	2858.5	-89.9	-0.3616 µg/L	-0.3616 ppb	12:49:10
2	Mn 257.610†	753.9	592.3	0.7855 µg/L	0.7855 ppb	12:49:30
2	Mo 202.031†	-36.7	0.8	0.0261 µg/L	0.0261 ppb	12:49:30
2	Ni 231.604†	-64.1	29.9	0.3737 µg/L	0.3737 ppb	12:49:30
2	P 214.914†	14.4	40.6	9.3678 µg/L	9.3678 ppb	12:49:30
2	Pb 220.353†	128.9	29.4	1.8029 µg/L	1.8029 ppb	12:49:30
2	S 181.975 Axial†	104.3	18.5	15.601 µg/L	15.601 ppb	12:49:30
2	Sb 206.836†	91.7	4.8	0.6159 µg/L	0.6159 ppb	12:49:30
2	Se 196.026†	1.6	-4.5	-1.76 µg/L	-1.76 ppb	12:49:30
2	SiO2†	2376.6	710.5	75.232 µg/L	75.232 ppb	12:49:10
2	Si 251.611†	2735.4	2052.4	32.361 µg/L	32.361 ppb	12:49:10
2	Sn 189.927†	7.5	5.8	0.4040 µg/L	0.4040 ppb	12:49:30
2	Ti 334.940†	1161.2	373.9	0.3800 µg/L	0.3800 ppb	12:49:10
2	Tl 190.801†	-125.3	-14.9	-2.0311 µg/L	-2.0311 ppb	12:49:30
2	U 409.014†	0.2	163.5	10.299 µg/L	10.299 ppb	12:49:10
2	V 292.402†	352.1	-60.3	-0.3085 µg/L	-0.3085 ppb	12:49:10
2	Zn 213.857†	782.9	303.9	1.8091 µg/L	1.8091 ppb	12:49:30
3	Sc RADIAL	136533.9	136533.9	97.5 %		12:48:19
3	Al 396.153Radial†	-71.5	5.1	1.0986 µg/L	1.0986 ppb	12:48:39
3	Ca 317.933Radial†	774.5	223.3	15.205 µg/L	15.205 ppb	12:48:39
3	Fe 238.204 Radial†	639.6	539.0	40.249 µg/L	40.249 ppb	12:48:39
3	K 766.490 Radial†	1499.1	44.4	17.591 µg/L	17.591 ppb	12:48:19
3	Mg 279.077 IEC†	204.3	37.1	17.104 µg/L	17.104 ppb	12:48:39
3	Na 589.592 Radial†	1206.7	285.7	44.265 µg/L	44.265 ppb	12:48:19
3	Sr 421.552†	-174.8	25.1	0.0591 µg/L	0.0591 ppb	12:48:19
3	Sc 361.383	1759770.5	1759770.5	97.540 %		12:49:32
3	Y 371.029	1031933.0	1031933.0	97.601 %		12:49:32
3	Ag 328.068†	4314.2	-142.1	-0.5930 µg/L	-0.5930 ppb	12:49:34
3	As 188.979†	-15.2	3.0	1.0264 µg/L	1.0264 ppb	12:49:54
3	B 249.677†	4217.0	258.2	4.0162 µg/L	4.0162 ppb	12:49:34
3	Ba 233.527†	-77.0	65.6	0.2913 µg/L	0.2913 ppb	12:49:54
3	Be 313.107†	-853.3	216.9	0.0586 µg/L	0.0586 ppb	12:49:34
3	Cd 226.502†	-86.1	15.1	0.0978 µg/L	0.0978 ppb	12:49:54
3	Co 228.616†	-207.3	-2.2	-0.0311 µg/L	-0.0311 ppb	12:49:54
3	Cr 267.716†	215.6	-12.1	-0.0929 µg/L	-0.0929 ppb	12:49:54
3	Cu 324.752†	2802.9	-162.5	-0.6848 µg/L	-0.6848 ppb	12:49:34
3	Mn 257.610†	831.2	667.5	0.8846 µg/L	0.8846 ppb	12:49:54
3	Mo 202.031†	-46.9	-9.5	-0.3100 µg/L	-0.3100 ppb	12:49:54
3	Ni 231.604†	-68.6	25.6	0.3197 µg/L	0.3197 ppb	12:49:54
3	P 214.914†	25.1	51.4	11.880 µg/L	11.880 ppb	12:49:54
3	Pb 220.353†	91.5	-9.7	-0.5857 µg/L	-0.5857 ppb	12:49:54
3	S 181.975 Axial†	92.4	5.8	4.8879 µg/L	4.8879 ppb	12:49:54
3	Sb 206.836†	92.6	5.2	0.6732 µg/L	0.6732 ppb	12:49:54
3	Se 196.026†	15.3	9.5	3.74 µg/L	3.74 ppb	12:49:54
3	SiO2†	2282.6	601.1	63.664 µg/L	63.664 ppb	12:49:34
3	Si 251.611†	2721.6	2023.2	31.906 µg/L	31.906 ppb	12:49:34
3	Sn 189.927†	4.1	2.3	0.1633 µg/L	0.1633 ppb	12:49:54
3	Ti 334.940†	1252.6	461.2	0.4785 µg/L	0.4785 ppb	12:49:34
3	Tl 190.801†	-120.9	-9.7	-1.3108 µg/L	-1.3108 ppb	12:49:54
3	U 409.014†	-374.9	-221.0	-13.913 µg/L	-13.913 ppb	12:49:34
3	V 292.402†	518.5	108.4	0.5439 µg/L	0.5439 ppb	12:49:34
3	Zn 213.857†	793.2	310.2	1.8472 µg/L	1.8472 ppb	12:49:54

Mean Data: 1202068109|964016|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1746950.8	96.829	%	0.8233				0.85%
Sc RADIAL	135007.8	96.4	%	0.95				0.98%
Y 371.029	1024223.2	96.872	%	0.8100				0.84%
Ag 328.068†	-197.5	-0.8120	µg/L	0.27813	-0.8120	ppb	0.27813	34.25%
Al 396.153Radial†	0.7	0.1408	µg/L	2.15323	0.1408	ppb	2.15323	>999.9%
As 188.979†	2.2	0.7504	µg/L	1.09968	0.7504	ppb	1.09968	146.55%
B 249.677†	249.7	3.8823	µg/L	0.72755	3.8823	ppb	0.72755	18.74%
Ba 233.527†	32.3	0.1433	µg/L	0.12873	0.1433	ppb	0.12873	89.85%

Be 313.107†	229.3	0.0660	µg/L	0.01673	0.0660	ppb	0.01673	25.33%
Ca 317.933Radial†	235.2	16.018	µg/L	0.9213	16.018	ppb	0.9213	5.75%
Cd 226.502†	15.9	0.1037	µg/L	0.00609	0.1037	ppb	0.00609	5.87%
Co 228.616†	11.6	0.1518	µg/L	0.15863	0.1518	ppb	0.15863	104.46%
Cr 267.716†	17.0	0.1490	µg/L	0.21549	0.1490	ppb	0.21549	144.60%
Cu 324.752†	-114.4	-0.4738	µg/L	0.18281	-0.4738	ppb	0.18281	38.58%
Fe 238.204 Radial†	513.6	38.359	µg/L	1.7410	38.359	ppb	1.7410	4.54%
K 766.490 Radial†	171.1	67.793	µg/L	58.0275	67.793	ppb	58.0275	85.60%
Mg 279.077 IEC†	20.6	9.4876	µg/L	7.78372	9.4876	ppb	7.78372	82.04%
Mn 257.610†	612.2	0.8116	µg/L	0.06406	0.8116	ppb	0.06406	7.89%
Mo 202.031†	2.6	0.0869	µg/L	0.43055	0.0869	ppb	0.43055	495.50%
Na 589.592 Radial†	262.0	40.545	µg/L	3.2815	40.545	ppb	3.2815	8.09%
Ni 231.604†	28.3	0.3544	µg/L	0.03009	0.3544	ppb	0.03009	8.49%
P 214.914†	43.0	9.9234	µg/L	1.74647	9.9234	ppb	1.74647	17.60%
Pb 220.353†	12.5	0.7718	µg/L	1.22732	0.7718	ppb	1.22732	159.02%
S 181.975 Axial†	9.0	7.5713	µg/L	7.08035	7.5713	ppb	7.08035	93.52%
Sb 206.836†	4.5	0.5734	µg/L	0.12663	0.5734	ppb	0.12663	22.09%
Se 196.026†	4.7	1.86	µg/L	3.132	1.86	ppb	3.132	168.54%
SiO2†	666.5	70.571	µg/L	6.1027	70.571	ppb	6.1027	8.65%
Si 251.611†	2019.2	31.836	µg/L	0.5636	31.836	ppb	0.5636	1.77%
Sn 189.927†	6.6	0.4566	µg/L	0.32280	0.4566	ppb	0.32280	70.69%
Sr 421.552†	-8.8	-0.0209	µg/L	0.12755	-0.0209	ppb	0.12755	609.47%
Ti 334.940†	343.1	0.3525	µg/L	0.14171	0.3525	ppb	0.14171	40.20%
Tl 190.801†	-10.5	-1.4232	µg/L	0.56024	-1.4232	ppb	0.56024	39.37%
U 409.014†	-21.2	-1.3481	µg/L	12.13246	-1.3481	ppb	12.13246	899.98%
V 292.402†	-17.9	-0.0966	µg/L	0.56518	-0.0966	ppb	0.56518	585.23%
Zn 213.857†	315.6	1.8786	µg/L	0.08944	1.8786	ppb	0.08944	4.76%

Sequence No.: 2
Sample ID: 1202068114|964016|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 302
Date Collected: 4/5/2010 12:50:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068114|964016|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	286576.2	286576.2	205	%			12:50:32
1	Al 396.153Radial†	46576.6	22847.6	4801.7	µg/L	4801.7	ppb	12:50:34
1	Ca 317.933Radial†	148256.8	71904.0	4897.3	µg/L	4897.3	ppb	12:50:34
1	Fe 238.204 Radial†	401495.0	196153.8	14649	µg/L	14649	ppb	12:50:32
1	K 766.490 Radial†	11893.6	4320.4	1709.7	µg/L	1709.7	ppb	12:50:34
1	Mg 279.077 IEC†	8209.8	3840.9	1765.4	µg/L	1765.4	ppb	12:50:34
1	Na 589.592 Radial†	7907.9	2913.3	450.06	µg/L	450.06	ppb	12:50:34
1	Sr 421.552†	168846.1	82745.0	195.11	µg/L	195.11	ppb	12:50:32
	Saturated within auto integration window (code 4)							
1	Sc 361.383	3290617.7	3290617.7	182.39	%			12:50:46
1	Y 371.029	1943012.6	1943012.6	183.77	%			12:50:46
1	Ag 328.068†	11985.9	2006.4	8.9085	µg/L	8.9085	ppb	12:50:48
1	As 188.979†	1821.1	1017.0	349.42	µg/L	349.42	ppb	12:51:08
1	B 249.677†	13656.7	3422.5	52.719	µg/L	52.719	ppb	12:50:48
1	Ba 233.527†	53014.0	29210.6	129.76	µg/L	129.76	ppb	12:50:48
1	Be 313.107†	316001.3	174346.3	50.497	µg/L	50.497	ppb	12:50:48
1	Cd 226.502†	18579.3	10289.9	68.040	µg/L	68.040	ppb	12:51:08
	Saturated within auto integration window (code 4)							
1	Co 228.616†	19708.6	11016.0	145.11	µg/L	145.11	ppb	12:51:08
	Saturated within auto integration window (code 4)							
1	Cr 267.716†	37024.3	20066.2	174.06	µg/L	174.06	ppb	12:50:48
1	Cu 324.752†	59281.6	29466.3	125.50	µg/L	125.50	ppb	12:50:48
1	Mn 257.610†	457926.3	250883.3	332.70	µg/L	332.70	ppb	12:50:48
1	Mo 202.031†	10166.9	5612.8	184.20	µg/L	184.20	ppb	12:51:08
1	Ni 231.604†	10999.4	6126.6	76.651	µg/L	76.651	ppb	12:51:08
	Saturated within auto integration window (code 4)							
1	P 214.914†	12826.4	7058.0	1623.6	µg/L	1623.6	ppb	12:51:08
1	Pb 220.353†	7544.6	4033.0	248.81	µg/L	248.81	ppb	12:51:08
1	S 181.975 Axial†	3242.7	1689.0	1422.4	µg/L	1422.4	ppb	12:51:08
1	Sb 206.836†	6170.0	3293.1	425.17	µg/L	425.17	ppb	12:51:08
1	Se 196.026†	4636.9	2536.1	1000	µg/L	1000	ppb	12:51:08
1	SiO2†	83787.3	44199.1	4670.3	µg/L	4670.3	ppb	12:50:48
1	Si 251.611†	256261.6	139734.0	2198.7	µg/L	2198.7	ppb	12:50:48
1	Sn 189.927†	9226.0	5056.5	351.68	µg/L	351.68	ppb	12:51:08
1	Ti 334.940†	498080.0	272260.2	279.57	µg/L	279.57	ppb	12:50:48
	Saturated within auto integration window (code 4)							
1	Tl 190.801†	5355.4	3050.5	420.14	µg/L	420.14	ppb	12:51:08
1	U 409.014†	-918.1	-340.0	-17.727	µg/L	-17.727	ppb	12:50:48
1	V 292.402†	30703.8	16410.8	85.883	µg/L	85.883	ppb	12:50:48
1	Zn 213.857†	116726.9	63495.1	377.22	µg/L	377.22	ppb	12:50:48
2	Sc RADIAL	255621.0	255621.0	182	%			12:50:36
2	Al 396.153Radial†	120271.3	65993.2	13871	µg/L	13871	ppb	12:50:38
	Saturated within auto integration window (code 4)							
2	Ca 317.933Radial†	301783.9	164821.1	11226	µg/L	11226	ppb	12:50:38
	Saturated within auto integration window (code 4)							
2	Fe 238.204 Radial†	244113.3	133668.9	9982.3	µg/L	9982.3	ppb	12:50:36
2	K 766.490 Radial†	46569.3	24028.5	9514.9	µg/L	9514.9	ppb	12:50:38
2	Mg 279.077 IEC†	34772.3	18884.5	8723.4	µg/L	8723.4	ppb	12:50:38
2	Na 589.592 Radial†	30228.2	15614.0	2411.8	µg/L	2411.8	ppb	12:50:38
2	Sr 421.552†	100115.3	55072.6	129.80	µg/L	129.80	ppb	12:50:36
2	Sc 361.383	1779084.9	1779084.9	98.611	%			12:51:10
2	Y 371.029	1110541.2	1110541.2	105.04	%			12:51:10
2	Ag 328.068†	84913.5	81544.8	349.53	µg/L	349.53	ppb	12:51:12
2	As 188.979†	3072.9	3134.7	1090.4	µg/L	1090.4	ppb	12:51:32
2	B 249.677†	110310.3	107799.4	1675.5	µg/L	1675.5	ppb	12:51:12
2	Ba 233.527†	440550.2	446902.3	1987.3	µg/L	1987.3	ppb	12:51:12
2	Be 313.107†	618749.0	628559.2	181.99	µg/L	181.99	ppb	12:51:12
	Saturated within auto integration window (code 4)							
2	Cd 226.502†	18562.9	18927.9	126.92	µg/L	126.92	ppb	12:51:32

	Saturated within auto integration window (code 4)					
2	Co 228.616†	20989.1	21495.1	286.28 µg/L	286.28 ppb	12:51:32
	Saturated within auto integration window (code 4)					
2	Cr 267.716†	318400.5	322653.7	2792.2 µg/L	2792.2 ppb	12:51:12
2	Cu 324.752†	470316.0	473906.8	1983.8 µg/L	1983.8 ppb	12:51:12
	Saturated within auto integration window (code 4)					
2	Mn 257.610†	822733.4	834141.3	1106.2 µg/L	1106.2 ppb	12:51:12
	Saturated within auto integration window (code 4)					
2	Mo 202.031†	15125.8	15377.5	503.93 µg/L	503.93 ppb	12:51:32
	Saturated within auto integration window (code 4)					
2	Ni 231.604†	7147.8	7344.4	91.888 µg/L	91.888 ppb	12:51:32
	Saturated within auto integration window (code 4)					
2	P 214.914†	14001.7	14224.7	3269.2 µg/L	3269.2 ppb	12:51:32
	Saturated within auto integration window (code 4)					
2	Pb 220.353†	10857.0	10906.5	673.67 µg/L	673.67 ppb	12:51:32
	Saturated within auto integration window (code 4)					
2	S 181.975 Axial†	5446.2	5434.0	4575.7 µg/L	4575.7 ppb	12:51:32
2	Sb 206.836†	10140.3	10193.4	1283.6 µg/L	1283.6 ppb	12:51:32
2	Se 196.026†	7967.9	8074.0	3180 µg/L	3180 ppb	12:51:32
2	SiO2†	555349.6	561435.6	59425 µg/L	59425 ppb	12:51:12
	Saturated within auto integration window (code 4)					
2	Si 251.611†	755703.0	765584.1	12059 µg/L	12059 ppb	12:51:12
	Saturated within auto integration window (code 4)					
2	Sn 189.927†	15071.4	15281.9	1062.9 µg/L	1062.9 ppb	12:51:32
2	Ti 334.940†	836043.5	847000.6	868.69 µg/L	868.69 ppb	12:51:12
	Saturated within auto integration window (code 4)					
2	Tl 190.801†	8854.8	9093.9	1262.3 µg/L	1262.3 ppb	12:51:32
2	U 409.014†	-4488.4	-4388.3	-195.20 µg/L	-195.20 ppb	12:51:12
2	V 292.402†	263584.4	266875.1	1398.4 µg/L	1398.4 ppb	12:51:12
2	Zn 213.857†	684220.7	693358.6	4138.2 µg/L	4138.2 ppb	12:51:12
	Saturated within auto integration window (code 4)					
3	Sc RADIAL	281862.5	281862.5	201 %		12:50:40
3	Al 396.153Radial†	55647.3	27736.7	5816.1 µg/L	5816.1 ppb	12:50:42
3	Ca 317.933Radial†	176727.5	87266.7	5943.6 µg/L	5943.6 ppb	12:50:42
3	Fe 238.204 Radial†	402441.7	199906.7	14929 µg/L	14929 ppb	12:50:40
3	K 766.490 Radial†	14051.4	5490.1	2172.8 µg/L	2172.8 ppb	12:50:42
3	Mg 279.077 IEC†	9738.7	4667.9	2154.9 µg/L	2154.9 ppb	12:50:42
3	Na 589.592 Radial†	9241.3	3640.7	562.40 µg/L	562.40 ppb	12:50:42
3	Sr 421.552†	168572.6	83989.4	198.04 µg/L	198.04 ppb	12:50:40
	Saturated within auto integration window (code 4)					
3	Sc 361.383	1775248.8	1775248.8	98.398 %		12:51:35
3	Y 371.029	1108205.5	1108205.5	104.81 %		12:51:35
3	Ag 328.068†	84977.5	81795.9	350.71 µg/L	350.71 ppb	12:51:37
3	As 188.979†	3078.6	3147.3	1095.8 µg/L	1095.8 ppb	12:51:57
3	B 249.677†	110633.0	108369.1	1684.3 µg/L	1684.3 ppb	12:51:37
3	Ba 233.527†	440897.1	448220.1	1993.1 µg/L	1993.1 ppb	12:51:37
3	Be 313.107†	619916.3	631101.3	182.74 µg/L	182.74 ppb	12:51:37
	Saturated within auto integration window (code 4)					
3	Cd 226.502†	18625.9	19032.5	127.10 µg/L	127.10 ppb	12:51:57
	Saturated within auto integration window (code 4)					
3	Co 228.616†	21006.1	21558.4	286.87 µg/L	286.87 ppb	12:51:57
	Saturated within auto integration window (code 4)					
3	Cr 267.716†	318529.1	323482.1	2799.6 µg/L	2799.6 ppb	12:51:37
3	Cu 324.752†	471401.6	476040.7	1993.3 µg/L	1993.3 ppb	12:51:37
	Saturated within auto integration window (code 4)					
3	Mn 257.610†	823524.6	836748.2	1109.9 µg/L	1109.9 ppb	12:51:37
	Saturated within auto integration window (code 4)					
3	Mo 202.031†	15137.4	15422.4	505.47 µg/L	505.47 ppb	12:51:57
	Saturated within auto integration window (code 4)					
3	Ni 231.604†	7179.9	7392.7	92.491 µg/L	92.491 ppb	12:51:57
	Saturated within auto integration window (code 4)					
3	P 214.914†	14039.3	14293.6	3279.9 µg/L	3279.9 ppb	12:51:57
	Saturated within auto integration window (code 4)					
3	Pb 220.353†	10880.2	10953.9	675.92 µg/L	675.92 ppb	12:51:57
	Saturated within auto integration window (code 4)					
3	S 181.975 Axial†	5439.0	5438.7	4579.6 µg/L	4579.6 ppb	12:51:57
3	Sb 206.836†	10147.9	10223.4	1287.3 µg/L	1287.3 ppb	12:51:57
3	Se 196.026†	8019.6	8144.0	3210 µg/L	3210 ppb	12:51:57
3	SiO2†	555275.3	562577.0	59546 µg/L	59546 ppb	12:51:37
	Saturated within auto integration window (code 4)					
3	Si 251.611†	756063.1	767606.0	12091 µg/L	12091 ppb	12:51:37

Saturated within auto integration window (code 4)

3	Sn 189.927†	15073.2	15316.8	1065.4 µg/L	1065.4 ppb	12:51:57
3	Ti 334.940†	837223.6	850032.0	872.19 µg/L	872.19 ppb	12:51:37

Saturated within auto integration window (code 4)

3	Tl 190.801†	8874.4	9133.1	1267.7 µg/L	1267.7 ppb	12:51:57
3	U 409.014†	-4243.9	-4149.7	-181.30 µg/L	-181.30 ppb	12:51:37
3	V 292.402†	263600.6	267469.2	1401.0 µg/L	1401.0 ppb	12:51:37
3	Zn 213.857†	685446.0	696103.2	4153.9 µg/L	4153.9 ppb	12:51:37

Saturated within auto integration window (code 4)

Mean Data: 1202068114|964016|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2281650.5	126.47	%	48.432				38.30%
Sc RADIAL	274686.5	196	%	11.9				6.07%
Internal Standard Check greater than the upper limit for Sc RADIAL. Recovery = 196.1%								
Y 371.029	1387253.1	131.21	%	45.522				34.69%
Ag 328.068†	55115.7	236.38	µg/L	197.000	236.38	ppb	197.000	83.34%
Al 396.153Radial†	38859.1	8162.8	µg/L	4969.03	8162.8	ppb	4969.03	60.87%
Saturated within auto integration window (code 4)								
As 188.979†	2433.0	845.19	µg/L	429.358	845.19	ppb	429.358	50.80%
B 249.677†	73197.0	1137.5	µg/L	939.47	1137.5	ppb	939.47	82.59%
Ba 233.527†	308111.0	1370.1	µg/L	1074.14	1370.1	ppb	1074.14	78.40%
Be 313.107†	478002.2	138.41	µg/L	76.135	138.41	ppb	76.135	55.01%
Saturated within auto integration window (code 4)								
Ca 317.933Radial†	107997.3	7355.6	µg/L	3392.29	7355.6	ppb	3392.29	46.12%
Saturated within auto integration window (code 4)								
Cd 226.502†	16083.4	107.35	µg/L	34.047	107.35	ppb	34.047	31.71%
Saturated within auto integration window (code 4)								
Co 228.616†	18023.2	239.42	µg/L	81.673	239.42	ppb	81.673	34.11%
Saturated within auto integration window (code 4)								
Cr 267.716†	222067.3	1922.0	µg/L	1513.75	1922.0	ppb	1513.75	78.76%
Cu 324.752†	326471.3	1367.5	µg/L	1075.64	1367.5	ppb	1075.64	78.66%
Saturated within auto integration window (code 4)								
Fe 238.204 Radial†	176576.5	13187	µg/L	2778.5	13187	ppb	2778.5	21.07%
K 766.490 Radial†	11279.7	4465.8	µg/L	4378.78	4465.8	ppb	4378.78	98.05%
Mg 279.077 IEC†	9131.1	4214.6	µg/L	3909.63	4214.6	ppb	3909.63	92.76%
Mn 257.610†	640591.0	849.57	µg/L	447.628	849.57	ppb	447.628	52.69%
Saturated within auto integration window (code 4)								
Mo 202.031†	12137.5	397.87	µg/L	185.042	397.87	ppb	185.042	46.51%
Saturated within auto integration window (code 4)								
Na 589.592 Radial†	7389.3	1141.4	µg/L	1101.63	1141.4	ppb	1101.63	96.51%
Ni 231.604†	6954.6	87.010	µg/L	8.9762	87.010	ppb	8.9762	10.32%
Saturated within auto integration window (code 4)								
P 214.914†	11858.8	2724.2	µg/L	953.16	2724.2	ppb	953.16	34.99%
Saturated within auto integration window (code 4)								
Pb 220.353†	8631.1	532.80	µg/L	245.943	532.80	ppb	245.943	46.16%
Saturated within auto integration window (code 4)								
S 181.975 Axial†	4187.2	3525.9	µg/L	1821.65	3525.9	ppb	1821.65	51.67%
Sb 206.836†	7903.3	998.69	µg/L	496.684	998.69	ppb	496.684	49.73%
Se 196.026†	6251.4	2470	µg/L	1267.1	2470	ppb	1267.1	51.36%
SiO2†	389403.9	41214	µg/L	31647.7	41214	ppb	31647.7	76.79%
Saturated within auto integration window (code 4)								
Si 251.611†	557641.4	8782.6	µg/L	5701.89	8782.6	ppb	5701.89	64.92%
Saturated within auto integration window (code 4)								
Sn 189.927†	11885.0	826.66	µg/L	411.349	826.66	ppb	411.349	49.76%
Sr 421.552†	73935.7	174.32	µg/L	38.582	174.32	ppb	38.582	22.13%
Saturated within auto integration window (code 4)								
Ti 334.940†	656430.9	673.48	µg/L	341.147	673.48	ppb	341.147	50.65%
Saturated within auto integration window (code 4)								
Tl 190.801†	7092.5	983.36	µg/L	487.769	983.36	ppb	487.769	49.60%
U 409.014†	-2959.3	-131.41	µg/L	98.697	-131.41	ppb	98.697	75.11%
Concentration less than lower limit for U 409.014.								
V 292.402†	183585.0	961.74	µg/L	758.512	961.74	ppb	758.512	78.87%
Zn 213.857†	484318.9	2889.8	µg/L	2175.95	2889.8	ppb	2175.95	75.30%
Saturated within auto integration window (code 4)								

Internal Standard Check failed. Continue with analysis.

Sequence No.: 3
Sample ID: 248866001|964016|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 303
Date Collected: 4/5/2010 12:52:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248866001|964016|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140063.7	140063.7	100.0	%			12:52:38
1	Al 396.153Radial†	320908.9	321054.6	67593	µg/L	67593	ppb	12:52:36
1	Ca 317.933Radial†	338421.6	337920.9	23015	µg/L	23015	ppb	12:52:38
1	Fe 238.204 Radial†	1563421.1	1563630.7	116770	µg/L	116770	ppb	12:52:36
1	K 766.490 Radial†	21570.2	20080.9	7936.0	µg/L	7936.0	ppb	12:52:38
1	Mg 279.077 IEC†	25690.9	25523.8	11685	µg/L	11685	ppb	12:52:38
1	Na 589.592 Radial†	28322.5	27375.9	4236.4	µg/L	4236.4	ppb	12:52:38
1	Sr 421.552†	65878.3	66096.6	155.71	µg/L	155.71	ppb	12:52:38
1	Sc 361.383	1779101.5	1779101.5	98.611	%			12:52:51
1	Y 371.029	1138868.0	1138868.0	107.72	%			12:52:51
1	Ag 328.068†	4327.9	-176.4	-0.6577	µg/L	-0.6577	ppb	12:52:53
1	As 188.979†	-30.4	-12.3	22.771	µg/L	22.771	ppb	12:53:13
1	B 249.677†	5025.2	1030.8	15.863	µg/L	15.863	ppb	12:52:53
1	Ba 233.527†	177898.6	180548.2	801.14	µg/L	801.14	ppb	12:52:53
1	Be 313.107†	38907.3	40546.9	11.635	µg/L	11.635	ppb	12:52:53
1	Cd 226.502†	1772.4	1900.7	0.6044	µg/L	0.6044	ppb	12:53:13
1	Co 228.616†	3389.5	3647.5	42.961	µg/L	42.961	ppb	12:53:13
1	Cr 267.716†	8913.5	8805.8	79.830	µg/L	79.830	ppb	12:53:13
1	Cu 324.752†	14295.1	11460.3	64.986	µg/L	64.986	ppb	12:52:53
1	Mn 257.610†	1906584.9	1933246.5	2563.8	µg/L	2563.8	ppb	12:52:51
1	Mo 202.031†	16.9	55.7	6.7281	µg/L	6.7281	ppb	12:53:13
1	Ni 231.604†	6133.1	6315.4	79.013	µg/L	79.013	ppb	12:53:13
1	P 214.914†	15904.0	16153.6	3671.8	µg/L	3671.8	ppb	12:53:13
1	Pb 220.353†	823.3	731.4	52.976	µg/L	52.976	ppb	12:53:13
1	S 181.975 Axial†	372.8	289.1	243.25	µg/L	243.25	ppb	12:53:13
1	Sb 206.836†	40.8	-48.3	-8.9387	µg/L	-8.9387	ppb	12:53:13
1	Se 196.026†	-91.3	-98.7	1.28	µg/L	1.28	ppb	12:53:13
1	SiO2†	558647.6	564774.8	59809	µg/L	59809	ppb	12:52:53
1	Si 251.611†	1729658.8	1753246.8	27647	µg/L	27647	ppb	12:52:51
1	Sn 189.927†	-112.9	-116.4	10.439	µg/L	10.439	ppb	12:53:13
1	Ti 334.940†	5270820.1	5344214.6	5488.7	µg/L	5488.7	ppb	12:52:51
1	Tl 190.801†	-572.4	-466.2	-0.5767	µg/L	-0.5767	ppb	12:53:13
1	U 409.014†	-5856.5	-5775.6	-361.16	µg/L	-361.16	ppb	12:52:53
1	V 292.402†	41190.4	41347.1	196.99	µg/L	196.99	ppb	12:52:53
1	Zn 213.857†	54468.6	54732.5	317.82	µg/L	317.82	ppb	12:52:53
2	Sc RADIAL	138901.4	138901.4	99.1	%			12:52:42
2	Al 396.153Radial†	320582.0	323410.7	68089	µg/L	68089	ppb	12:52:40
2	Ca 317.933Radial†	336533.4	338849.0	23079	µg/L	23079	ppb	12:52:42
2	Fe 238.204 Radial†	1558101.4	1571350.4	117350	µg/L	117350	ppb	12:52:40
2	K 766.490 Radial†	21398.4	20088.2	7938.7	µg/L	7938.7	ppb	12:52:42
2	Mg 279.077 IEC†	25609.3	25656.6	11746	µg/L	11746	ppb	12:52:42
2	Na 589.592 Radial†	28121.2	27410.0	4241.7	µg/L	4241.7	ppb	12:52:42
2	Sr 421.552†	65660.7	66428.5	156.49	µg/L	156.49	ppb	12:52:42
2	Sc 361.383	1798018.0	1798018.0	99.660	%			12:53:16
2	Y 371.029	1150981.1	1150981.1	108.86	%			12:53:16
2	Ag 328.068†	4681.7	132.5	0.6060	µg/L	0.6060	ppb	12:53:18
2	As 188.979†	-32.8	-14.3	22.197	µg/L	22.197	ppb	12:53:38
2	B 249.677†	5002.1	954.0	14.670	µg/L	14.670	ppb	12:53:18
2	Ba 233.527†	179244.8	180000.9	798.71	µg/L	798.71	ppb	12:53:18
2	Be 313.107†	42647.0	43884.2	12.602	µg/L	12.602	ppb	12:53:18
2	Cd 226.502†	1736.0	1845.2	0.1685	µg/L	0.1685	ppb	12:53:38
2	Co 228.616†	3387.2	3609.1	42.419	µg/L	42.419	ppb	12:53:38
2	Cr 267.716†	8876.9	8674.0	78.711	µg/L	78.711	ppb	12:53:38
2	Cu 324.752†	15082.5	12097.9	67.738	µg/L	67.738	ppb	12:53:18
2	Mn 257.610†	1922057.9	1928431.1	2557.4	µg/L	2557.4	ppb	12:53:16
2	Mo 202.031†	7.4	46.0	6.4330	µg/L	6.4330	ppb	12:53:38
2	Ni 231.604†	6153.5	6270.4	78.451	µg/L	78.451	ppb	12:53:38
2	P 214.914†	15883.1	15963.0	3627.4	µg/L	3627.4	ppb	12:53:38
2	Pb 220.353†	804.3	703.6	51.259	µg/L	51.259	ppb	12:53:38

2	S 181.975 Axial†	363.8	276.1	232.29	µg/L	232.29 ppb	12:53:38
2	Sb 206.836†	74.3	-15.1	-4.6517	µg/L	-4.6517 ppb	12:53:38
2	Se 196.026†	-83.6	-90.1	4.88	µg/L	4.88 ppb	12:53:38
2	SiO2†	561360.4	561536.7	59466	µg/L	59466 ppb	12:53:18
2	Si 251.611†	1745135.7	1750323.0	27601	µg/L	27601 ppb	12:53:16
2	Sn 189.927†	-116.3	-118.6	10.241	µg/L	10.241 ppb	12:53:38
2	Ti 334.940†	5314209.4	5331518.2	5475.6	µg/L	5475.6 ppb	12:53:16
2	Tl 190.801†	-580.9	-468.6	-1.0571	µg/L	-1.0571 ppb	12:53:38
2	U 409.014†	-5934.1	-5791.0	-362.28	µg/L	-362.28 ppb	12:53:18
2	V 292.402†	41698.3	41417.3	197.30	µg/L	197.30 ppb	12:53:18
2	Zn 213.857†	56119.5	55808.0	324.19	µg/L	324.19 ppb	12:53:18
3	Sc RADIAL	137655.8	137655.8	98.3	%		12:52:47
3	Al 396.153Radial†	320962.7	326723.8	68787	µg/L	68787 ppb	12:52:44
3	Ca 317.933Radial†	333718.2	339055.1	23093	µg/L	23093 ppb	12:52:47
3	Fe 238.204 Radial†	1565900.8	1593507.3	119000	µg/L	119000 ppb	12:52:44
3	K 766.490 Radial†	21156.7	20037.5	7918.5	µg/L	7918.5 ppb	12:52:47
3	Mg 279.077 IEC†	25332.9	25608.9	11723	µg/L	11723 ppb	12:52:47
3	Na 589.592 Radial†	28096.8	27641.7	4277.6	µg/L	4277.6 ppb	12:52:47
3	Sr 421.552†	65237.6	66597.1	156.89	µg/L	156.89 ppb	12:52:47
3	Sc 361.383	1806137.0	1806137.0	100.11	%		12:53:41
3	Y 371.029	1155273.9	1155273.9	109.27	%		12:53:41
3	Ag 328.068†	4285.9	-284.0	-1.1653	µg/L	-1.1653 ppb	12:53:43
3	As 188.979†	-30.3	-11.7	23.463	µg/L	23.463 ppb	12:54:03
3	B 249.677†	4831.3	760.9	11.667	µg/L	11.667 ppb	12:53:43
3	Ba 233.527†	177340.6	177290.3	786.63	µg/L	786.63 ppb	12:53:43
3	Be 313.107†	38589.5	39638.9	11.371	µg/L	11.371 ppb	12:53:43
3	Cd 226.502†	1777.3	1878.7	0.2203	µg/L	0.2203 ppb	12:54:03
3	Co 228.616†	3403.9	3610.5	42.340	µg/L	42.340 ppb	12:54:03
3	Cr 267.716†	8900.1	8657.1	78.622	µg/L	78.622 ppb	12:54:03
3	Cu 324.752†	14281.2	11229.4	64.342	µg/L	64.342 ppb	12:53:43
3	Mn 257.610†	1937627.6	1935314.2	2566.5	µg/L	2566.5 ppb	12:53:41
3	Mo 202.031†	12.4	51.0	6.6610	µg/L	6.6610 ppb	12:54:03
3	Ni 231.604†	6143.5	6232.7	77.979	µg/L	77.979 ppb	12:54:03
3	P 214.914†	15998.6	16006.7	3636.6	µg/L	3636.6 ppb	12:54:03
3	Pb 220.353†	765.6	661.3	48.664	µg/L	48.664 ppb	12:54:03
3	S 181.975 Axial†	357.8	268.5	225.85	µg/L	225.85 ppb	12:54:03
3	Sb 206.836†	62.2	-27.6	-6.2887	µg/L	-6.2887 ppb	12:54:03
3	Se 196.026†	-80.5	-86.6	6.83	µg/L	6.83 ppb	12:54:03
3	SiO2†	555215.9	552866.9	58548	µg/L	58548 ppb	12:53:43
3	Si 251.611†	1759059.8	1756360.3	27696	µg/L	27696 ppb	12:53:41
3	Sn 189.927†	-131.1	-132.9	9.2859	µg/L	9.2859 ppb	12:54:03
3	Ti 334.940†	5348442.2	5341743.5	5486.2	µg/L	5486.2 ppb	12:53:41
3	Tl 190.801†	-555.7	-440.8	2.8402	µg/L	2.8402 ppb	12:54:03
3	U 409.014†	-6026.6	-5856.7	-366.97	µg/L	-366.97 ppb	12:53:43
3	V 292.402†	41110.4	40642.0	193.09	µg/L	193.09 ppb	12:53:43
3	Zn 213.857†	54234.6	53672.0	311.28	µg/L	311.28 ppb	12:53:43

Mean Data: 248866001|964016|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1794418.9	99.460	%	0.7689				0.77%
Sc RADIAL	138873.6	99.1	%	0.86				0.87%
Y 371.029	1148374.3	108.61	%	0.805				0.74%
Ag 328.068†	-109.3	-0.4056	µg/L	0.91215	-0.4056	ppb	0.91215	224.87%
Al 396.153Radial†	323729.7	68157	µg/L	599.6	68157	ppb	599.6	0.88%
As 188.979†	-12.8	22.810	µg/L	0.6338	22.810	ppb	0.6338	2.78%
B 249.677†	915.2	14.067	µg/L	2.1622	14.067	ppb	2.1622	15.37%
Ba 233.527†	179279.8	795.49	µg/L	7.770	795.49	ppb	7.770	0.98%
Be 313.107†	41356.7	11.869	µg/L	0.6480	11.869	ppb	0.6480	5.46%
Ca 317.933Radial†	338608.3	23062	µg/L	41.2	23062	ppb	41.2	0.18%
Cd 226.502†	1874.9	0.3311	µg/L	0.23812	0.3311	ppb	0.23812	71.93%
Co 228.616†	3622.3	42.573	µg/L	0.3378	42.573	ppb	0.3378	0.79%
Cr 267.716†	8712.3	79.054	µg/L	0.6732	79.054	ppb	0.6732	0.85%
Cu 324.752†	11595.9	65.689	µg/L	1.8035	65.689	ppb	1.8035	2.75%
Fe 238.204 Radial†	1576162.8	117710	µg/L	1158.2	117710	ppb	1158.2	0.98%
K 766.490 Radial†	20068.9	7931.1	µg/L	10.98	7931.1	ppb	10.98	0.14%
Mg 279.077 IEC†	25596.4	11718	µg/L	30.7	11718	ppb	30.7	0.26%
Mn 257.610†	1932330.6	2562.6	µg/L	4.68	2562.6	ppb	4.68	0.18%
Mo 202.031†	50.9	6.6074	µg/L	0.15467	6.6074	ppb	0.15467	2.34%
Na 589.592 Radial†	27475.9	4251.9	µg/L	22.43	4251.9	ppb	22.43	0.53%

Ni 231.604†	6272.8	78.481	µg/L	0.5177	78.481	ppb	0.5177	0.66%
P 214.914†	16041.1	3645.3	µg/L	23.45	3645.3	ppb	23.45	0.64%
Pb 220.353†	698.8	50.966	µg/L	2.1711	50.966	ppb	2.1711	4.26%
S 181.975 Axial†	277.9	233.80	µg/L	8.798	233.80	ppb	8.798	3.76%
Sb 206.836†	-30.4	-6.6264	µg/L	2.16335	-6.6264	ppb	2.16335	32.65%
Se 196.026†	-91.8	4.33	µg/L	2.816	4.33	ppb	2.816	65.04%
SiO2†	559726.1	59274	µg/L	652.0	59274	ppb	652.0	1.10%
Si 251.611†	1753310.0	27648	µg/L	47.6	27648	ppb	47.6	0.17%
Sn 189.927†	-122.6	9.9886	µg/L	0.61652	9.9886	ppb	0.61652	6.17%
Sr 421.552†	66374.1	156.36	µg/L	0.600	156.36	ppb	0.600	0.38%
Ti 334.940†	5339158.8	5483.5	µg/L	6.92	5483.5	ppb	6.92	0.13%
Tl 190.801†	-458.5	0.4021	µg/L	2.12501	0.4021	ppb	2.12501	528.44%
U 409.014†	-5807.7	-363.47	µg/L	3.083	-363.47	ppb	3.083	0.85%
Concentration less than lower limit for U 409.014.								
V 292.402†	41135.5	195.79	µg/L	2.344	195.79	ppb	2.344	1.20%
Zn 213.857†	54737.5	317.77	µg/L	6.455	317.77	ppb	6.455	2.03%

Sequence No.: 4
Sample ID: 1202068110|964016|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 304
Date Collected: 4/5/2010 12:54:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068110|964016|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	140430.9	140430.9	100	%			12:54:44
1	Al 396.153Radial†	301236.8	300590.4	63285	µg/L	63285	ppb	12:54:42
1	Ca 317.933Radial†	388473.5	386967.2	26356	µg/L	26356	ppb	12:54:44
1	Fe 238.204 Radial†	1465637.2	1461993.0	109180	µg/L	109180	ppb	12:54:42
1	K 766.490 Radial†	17432.1	15896.4	6278.6	µg/L	6278.6	ppb	12:54:44
1	Mg 279.077 IEC†	20029.4	19808.7	9052.9	µg/L	9052.9	ppb	12:54:44
1	Na 589.592 Radial†	22439.6	21433.1	3316.7	µg/L	3316.7	ppb	12:54:44
1	Sr 421.552†	63710.0	63761.2	150.17	µg/L	150.17	ppb	12:54:44
1	Sc 361.383	1795512.2	1795512.2	99.521	%			12:55:11
1	Y 371.029	1151925.5	1151925.5	108.95	%			12:55:11
1	Ag 328.068†	4227.8	-317.0	-1.3629	µg/L	-1.3629	ppb	12:55:13
1	As 188.979†	-32.4	-14.0	20.436	µg/L	20.436	ppb	12:55:33
1	B 249.677†	4772.8	730.6	11.220	µg/L	11.220	ppb	12:55:13
1	Ba 233.527†	163643.4	164575.4	730.24	µg/L	730.24	ppb	12:55:13
1	Be 313.107†	34285.2	35541.9	10.187	µg/L	10.187	ppb	12:55:13
1	Cd 226.502†	1575.9	1686.9	-0.0462	µg/L	-0.0462	ppb	12:55:33
1	Co 228.616†	2854.4	3078.5	35.759	µg/L	35.759	ppb	12:55:33
1	Cr 267.716†	8452.9	8260.3	74.946	µg/L	74.946	ppb	12:55:33
1	Cu 324.752†	18477.9	15530.7	80.835	µg/L	80.835	ppb	12:55:13
1	Mn 257.610†	1687193.7	1695128.3	2248.0	µg/L	2248.0	ppb	12:55:11
1	Mo 202.031†	20.7	59.4	6.4942	µg/L	6.4942	ppb	12:55:33
1	Ni 231.604†	5607.3	5730.2	71.692	µg/L	71.692	ppb	12:55:33
1	P 214.914†	13910.0	14002.7	3178.2	µg/L	3178.2	ppb	12:55:33
1	Pb 220.353†	843.0	743.6	53.492	µg/L	53.492	ppb	12:55:33
1	S 181.975 Axial†	580.8	494.7	416.21	µg/L	416.21	ppb	12:55:33
1	Sb 206.836†	37.8	-51.7	-9.2015	µg/L	-9.2015	ppb	12:55:33
1	Se 196.026†	-66.5	-73.0	8.78	µg/L	8.78	ppb	12:55:33
1	SiO2†	572150.9	573165.2	60697	µg/L	60697	ppb	12:55:13
1	Si 251.611†	1779725.6	1787523.2	28187	µg/L	28187	ppb	12:55:11
1	Sn 189.927†	-111.9	-114.4	10.061	µg/L	10.061	ppb	12:55:33
1	Ti 334.940†	5171058.0	5195119.9	5335.9	µg/L	5335.9	ppb	12:55:11
1	Tl 190.801†	-566.5	-454.9	-1.4741	µg/L	-1.4741	ppb	12:55:33
1	U 409.014†	-5812.0	-5676.6	-355.99	µg/L	-355.99	ppb	12:55:13
1	V 292.402†	38546.8	38309.1	182.17	µg/L	182.17	ppb	12:55:13
1	Zn 213.857†	52435.3	52184.6	303.28	µg/L	303.28	ppb	12:55:13
2	Sc RADIAL	139257.0	139257.0	99.4	%			12:54:48
2	Al 396.153Radial†	300783.9	302668.0	63722	µg/L	63722	ppb	12:54:46
2	Ca 317.933Radial†	385624.6	387368.0	26383	µg/L	26383	ppb	12:54:48
2	Fe 238.204 Radial†	1463639.2	1472307.9	109950	µg/L	109950	ppb	12:54:46
2	K 766.490 Radial†	17436.0	16046.8	6338.1	µg/L	6338.1	ppb	12:54:48
2	Mg 279.077 IEC†	19915.0	19862.1	9076.8	µg/L	9076.8	ppb	12:54:48
2	Na 589.592 Radial†	22307.2	21488.6	3325.2	µg/L	3325.2	ppb	12:54:48
2	Sr 421.552†	63470.0	64055.5	150.87	µg/L	150.87	ppb	12:54:48
2	Sc 361.383	1796940.8	1796940.8	99.600	%			12:55:36
2	Y 371.029	1152767.9	1152767.9	109.03	%			12:55:36
2	Ag 328.068†	4111.5	-437.2	-1.8854	µg/L	-1.8854	ppb	12:55:38
2	As 188.979†	-24.7	-6.2	23.258	µg/L	23.258	ppb	12:55:58
2	B 249.677†	4799.2	753.3	11.573	µg/L	11.573	ppb	12:55:38
2	Ba 233.527†	163002.5	163801.2	726.78	µg/L	726.78	ppb	12:55:38
2	Be 313.107†	34055.1	35283.5	10.111	µg/L	10.111	ppb	12:55:38
2	Cd 226.502†	1599.6	1709.4	0.0254	µg/L	0.0254	ppb	12:55:58
2	Co 228.616†	2879.7	3101.5	36.020	µg/L	36.020	ppb	12:55:58
2	Cr 267.716†	8456.4	8257.1	74.947	µg/L	74.947	ppb	12:55:58
2	Cu 324.752†	18423.3	15461.2	80.652	µg/L	80.652	ppb	12:55:38
2	Mn 257.610†	1694988.7	1701606.8	2256.6	µg/L	2256.6	ppb	12:55:36
2	Mo 202.031†	38.9	77.7	7.1219	µg/L	7.1219	ppb	12:55:58
2	Ni 231.604†	5634.5	5753.0	71.977	µg/L	71.977	ppb	12:55:58
2	P 214.914†	13899.0	13980.5	3172.7	µg/L	3172.7	ppb	12:55:58
2	Pb 220.353†	837.8	737.7	53.154	µg/L	53.154	ppb	12:55:58

2	S 181.975 Axial†	573.2	486.6	409.35	µg/L	409.35	ppb	12:55:58
2	Sb 206.836†	76.0	-13.4	-4.2647	µg/L	-4.2647	ppb	12:55:58
2	Se 196.026†	-73.3	-79.8	6.36	µg/L	6.36	ppb	12:55:58
2	SiO2†	567840.2	568380.1	60190	µg/L	60190	ppb	12:55:38
2	Si 251.611†	1786699.7	1793103.6	28275	µg/L	28275	ppb	12:55:36
2	Sn 189.927†	-113.4	-115.7	10.021	µg/L	10.021	ppb	12:55:58
2	Ti 334.940†	5189935.6	5209942.3	5351.1	µg/L	5351.1	ppb	12:55:36
2	Tl 190.801†	-561.2	-449.2	-0.5279	µg/L	-0.5279	ppb	12:55:58
2	U 409.014†	-5912.8	-5773.2	-362.28	µg/L	-362.28	ppb	12:55:38
2	V 292.402†	38331.9	38062.5	180.80	µg/L	180.80	ppb	12:55:38
2	Zn 213.857†	52092.3	51798.4	300.90	µg/L	300.90	ppb	12:55:38
3	Sc RADIAL	139145.3	139145.3	99.3	%			12:54:53
3	Al 396.153Radial†	298803.7	300917.3	63354	µg/L	63354	ppb	12:54:50
3	Ca 317.933Radial†	384016.9	386060.8	26294	µg/L	26294	ppb	12:54:53
3	Fe 238.204 Radial†	1461081.3	1470914.8	109850	µg/L	109850	ppb	12:54:50
3	K 766.490 Radial†	17474.9	16100.1	6359.3	µg/L	6359.3	ppb	12:54:53
3	Mg 279.077 IEC†	19786.6	19748.9	9024.7	µg/L	9024.7	ppb	12:54:53
3	Na 589.592 Radial†	22174.1	21372.6	3307.3	µg/L	3307.3	ppb	12:54:53
3	Sr 421.552†	63282.2	63917.7	150.54	µg/L	150.54	ppb	12:54:53
3	Sc 361.383	1821454.1	1821454.1	100.96	%			12:56:01
3	Y 371.029	1167086.4	1167086.4	110.38	%			12:56:01
3	Ag 328.068†	4413.5	-193.5	-0.9035	µg/L	-0.9035	ppb	12:56:03
3	As 188.979†	-23.3	-4.5	23.793	µg/L	23.793	ppb	12:56:23
3	B 249.677†	4770.3	659.8	10.120	µg/L	10.120	ppb	12:56:03
3	Ba 233.527†	162691.7	161290.9	715.63	µg/L	715.63	ppb	12:56:03
3	Be 313.107†	34090.5	34858.4	9.9936	µg/L	9.9936	ppb	12:56:03
3	Cd 226.502†	1623.3	1711.2	0.0478	µg/L	0.0478	ppb	12:56:23
3	Co 228.616†	2882.0	3064.9	35.530	µg/L	35.530	ppb	12:56:23
3	Cr 267.716†	8500.3	8186.3	74.314	µg/L	74.314	ppb	12:56:23
3	Cu 324.752†	18197.4	14988.4	78.675	µg/L	78.675	ppb	12:56:03
3	Mn 257.610†	1716679.3	1700188.5	2254.7	µg/L	2254.7	ppb	12:56:01
3	Mo 202.031†	36.6	74.8	7.0219	µg/L	7.0219	ppb	12:56:23
3	Ni 231.604†	5635.8	5678.2	71.041	µg/L	71.041	ppb	12:56:23
3	P 214.914†	14029.7	13922.1	3159.2	µg/L	3159.2	ppb	12:56:23
3	Pb 220.353†	876.6	764.9	54.775	µg/L	54.775	ppb	12:56:23
3	S 181.975 Axial†	591.9	497.4	418.44	µg/L	418.44	ppb	12:56:23
3	Sb 206.836†	74.8	-15.6	-4.5468	µg/L	-4.5468	ppb	12:56:23
3	Se 196.026†	-71.9	-77.4	7.28	µg/L	7.28	ppb	12:56:23
3	SiO2†	566960.0	559835.6	59285	µg/L	59285	ppb	12:56:03
3	Si 251.611†	1809742.6	1791785.5	28254	µg/L	28254	ppb	12:56:01
3	Sn 189.927†	-134.9	-135.5	8.5999	µg/L	8.5999	ppb	12:56:23
3	Ti 334.940†	5247709.1	5197040.1	5337.8	µg/L	5337.8	ppb	12:56:01
3	Tl 190.801†	-576.8	-457.0	-1.7548	µg/L	-1.7548	ppb	12:56:23
3	U 409.014†	-5667.5	-5450.3	-342.10	µg/L	-342.10	ppb	12:56:03
3	V 292.402†	38139.8	37354.3	177.16	µg/L	177.16	ppb	12:56:03
3	Zn 213.857†	52049.3	51051.9	296.45	µg/L	296.45	ppb	12:56:03

Mean Data: 1202068110|964016|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1804635.7	100.03	%	0.808				0.81%
Sc RADIAL	139611.1	99.7	%	0.51				0.51%
Y 371.029	1157259.9	109.45	%	0.806				0.74%
Ag 328.068†	-315.9	-1.3839	µg/L	0.49127	-1.3839	ppb	0.49127	35.50%
Al 396.153Radial†	301391.9	63454	µg/L	235.2	63454	ppb	235.2	0.37%
As 188.979†	-8.2	22.496	µg/L	1.8038	22.496	ppb	1.8038	8.02%
B 249.677†	714.6	10.971	µg/L	0.7577	10.971	ppb	0.7577	6.91%
Ba 233.527†	163222.5	724.22	µg/L	7.637	724.22	ppb	7.637	1.05%
Be 313.107†	35228.0	10.097	µg/L	0.0975	10.097	ppb	0.0975	0.97%
Ca 317.933Radial†	386798.7	26344	µg/L	45.6	26344	ppb	45.6	0.17%
Cd 226.502†	1702.5	0.0090	µg/L	0.04910	0.0090	ppb	0.04910	545.20%
Co 228.616†	3081.6	35.770	µg/L	0.2450	35.770	ppb	0.2450	0.69%
Cr 267.716†	8234.6	74.736	µg/L	0.3652	74.736	ppb	0.3652	0.49%
Cu 324.752†	15326.8	80.054	µg/L	1.1980	80.054	ppb	1.1980	1.50%
Fe 238.204 Radial†	1468405.2	109660	µg/L	418.0	109660	ppb	418.0	0.38%
K 766.490 Radial†	16014.5	6325.3	µg/L	41.86	6325.3	ppb	41.86	0.66%
Mg 279.077 IEC†	19806.6	9051.5	µg/L	26.11	9051.5	ppb	26.11	0.29%
Mn 257.610†	1698974.5	2253.1	µg/L	4.52	2253.1	ppb	4.52	0.20%
Mo 202.031†	70.6	6.8793	µg/L	0.33726	6.8793	ppb	0.33726	4.90%
Na 589.592 Radial†	21431.4	3316.4	µg/L	9.00	3316.4	ppb	9.00	0.27%

Ni 231.604†	5720.5	71.570	µg/L	0.4796	71.570	ppb	0.4796	0.67%
P 214.914†	13968.4	3170.0	µg/L	9.81	3170.0	ppb	9.81	0.31%
Pb 220.353†	748.7	53.807	µg/L	0.8555	53.807	ppb	0.8555	1.59%
S 181.975 Axial†	492.9	414.67	µg/L	4.735	414.67	ppb	4.735	1.14%
Sb 206.836†	-26.9	-6.0043	µg/L	2.77240	-6.0043	ppb	2.77240	46.17%
Se 196.026†	-76.7	7.47	µg/L	1.217	7.47	ppb	1.217	16.29%
SiO2†	567127.0	60058	µg/L	715.1	60058	ppb	715.1	1.19%
Si 251.611†	1790804.1	28239	µg/L	46.0	28239	ppb	46.0	0.16%
Sn 189.927†	-121.9	9.5606	µg/L	0.83227	9.5606	ppb	0.83227	8.71%
Sr 421.552†	63911.4	150.53	µg/L	0.347	150.53	ppb	0.347	0.23%
Ti 334.940†	5200700.7	5341.6	µg/L	8.28	5341.6	ppb	8.28	0.16%
Tl 190.801†	-453.7	-1.2523	µg/L	0.64281	-1.2523	ppb	0.64281	51.33%
U 409.014†	-5633.4	-353.46	µg/L	10.323	-353.46	ppb	10.323	2.92%
Concentration less than lower limit for U 409.014.								
V 292.402†	37908.6	180.05	µg/L	2.588	180.05	ppb	2.588	1.44%
Zn 213.857†	51678.3	300.21	µg/L	3.466	300.21	ppb	3.466	1.15%

Sequence No.: 5
Sample ID: 1202068112|964016|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 305
Date Collected: 4/5/2010 12:56:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068112|964016|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	291103.7	291103.7	208	%			12:57:00
1	Al 396.153Radial†	75667.5	36493.4	7680.8	µg/L	7680.8	ppb	12:57:02
1	Ca 317.933Radial†	74762.4	35407.8	2411.6	µg/L	2411.6	ppb	12:57:02
1	Fe 238.204 Radial†	181689.1	87320.1	6521.0	µg/L	6521.0	ppb	12:57:00
1	K 766.490 Radial†	6736.9	1748.3	690.41	µg/L	690.41	ppb	12:57:02
1	Mg 279.077 IEC†	5031.9	2249.2	1034.2	µg/L	1034.2	ppb	12:57:02
1	Na 589.592 Radial†	11224.6	4449.3	689.06	µg/L	689.06	ppb	12:57:02
1	Sr 421.552†	50423.0	24470.4	57.694	µg/L	57.694	ppb	12:57:02
1	Sc 361.383	3771637.9	3771637.9	209.05	%			12:57:15
1	Y 371.029	2240947.1	2240947.1	211.95	%			12:57:15
1	Ag 328.068†	23115.9	6492.3	27.060	µg/L	27.060	ppb	12:57:15
1	As 188.979†	244.5	135.5	47.850	µg/L	47.850	ppb	12:57:35
1	B 249.677†	8095.8	-192.5	-3.1877	µg/L	-3.1877	ppb	12:57:15
1	Ba 233.527†	45174.5	21753.7	96.657	µg/L	96.657	ppb	12:57:15
1	Be 313.107†	268145.1	129358.2	37.477	µg/L	37.477	ppb	12:57:15
1	Cd 226.502†	11303.9	5510.6	36.585	µg/L	36.585	ppb	12:57:15
1	Co 228.616†	8358.7	4208.7	55.434	µg/L	55.434	ppb	12:57:35
1	Cr 267.716†	11028.3	5042.1	43.792	µg/L	43.792	ppb	12:57:15
1	Cu 324.752†	25358.5	9094.1	39.061	µg/L	39.061	ppb	12:57:15
1	Mn 257.610†	349609.4	167050.0	221.54	µg/L	221.54	ppb	12:57:15
1	Mo 202.031†	3230.8	1584.0	52.098	µg/L	52.098	ppb	12:57:35
1	Ni 231.604†	9542.7	4660.6	58.310	µg/L	58.310	ppb	12:57:35
1	P 214.914†	2711.2	1322.6	302.68	µg/L	302.68	ppb	12:57:35
1	Pb 220.353†	1924.4	817.1	51.263	µg/L	51.263	ppb	12:57:35
1	S 181.975 Axial†	1276.9	521.9	439.49	µg/L	439.49	ppb	12:57:35
1	Sb 206.836†	746.0	267.1	34.557	µg/L	34.557	ppb	12:57:35
1	Se 196.026†	222.5	100.3	41.8	µg/L	41.8	ppb	12:57:35
1	SiO2†	107897.1	49873.2	5279.3	µg/L	5279.3	ppb	12:57:15
1	Si 251.611†	334443.5	159213.1	2509.6	µg/L	2509.6	ppb	12:57:15
1	Sn 189.927†	1433.8	684.0	48.985	µg/L	48.985	ppb	12:57:35
1	Ti 334.940†	932546.0	445257.8	457.27	µg/L	457.27	ppb	12:57:15
1	Tl 190.801†	536.7	371.0	55.939	µg/L	55.939	ppb	12:57:35
1	U 409.014†	179.8	249.3	18.760	µg/L	18.760	ppb	12:57:15
1	V 292.402†	22033.4	10116.4	52.055	µg/L	52.055	ppb	12:57:15
1	Zn 213.857†	19989.9	9059.1	53.345	µg/L	53.345	ppb	12:57:15
2	Sc RADIAL	262118.8	262118.8	187	%			12:57:04
2	Al 396.153Radial†	114893.7	61485.1	12938	µg/L	12938	ppb	12:57:06
Saturated within auto integration window (code 4)								
2	Ca 317.933Radial†	159441.2	84644.1	5765.0	µg/L	5765.0	ppb	12:57:06
2	Fe 238.204 Radial†	247169.9	131986.0	9856.6	µg/L	9856.6	ppb	12:57:04
2	K 766.490 Radial†	12769.6	5331.1	2108.0	µg/L	2108.0	ppb	12:57:06
2	Mg 279.077 IEC†	10868.7	5636.5	2597.6	µg/L	2597.6	ppb	12:57:06
2	Na 589.592 Radial†	22585.6	11118.7	1721.6	µg/L	1721.6	ppb	12:57:06
2	Sr 421.552†	75339.8	40470.9	95.404	µg/L	95.404	ppb	12:57:06
Saturated within auto integration window (code 4)								
2	Sc 361.383	3242487.4	3242487.4	179.72	%			12:57:38
2	Y 371.029	1930593.0	1930593.0	182.60	%			12:57:38
2	Ag 328.068†	37533.8	16319.0	67.761	µg/L	67.761	ppb	12:57:38
2	As 188.979†	669.7	391.2	135.76	µg/L	135.76	ppb	12:57:58
2	B 249.677†	11770.2	2483.9	38.098	µg/L	38.098	ppb	12:57:38
2	Ba 233.527†	76934.3	42951.6	190.90	µg/L	190.90	ppb	12:57:38
2	Be 313.107†	461455.7	257850.4	74.699	µg/L	74.699	ppb	12:57:38
2	Cd 226.502†	19268.1	10824.3	72.196	µg/L	72.196	ppb	12:57:38
2	Co 228.616†	20399.8	11560.9	152.62	µg/L	152.62	ppb	12:57:58
2	Cr 267.716†	18658.5	10148.5	88.032	µg/L	88.032	ppb	12:57:38
2	Cu 324.752†	41458.2	20031.7	85.401	µg/L	85.401	ppb	12:57:38
2	Mn 257.610†	593516.9	330054.1	437.70	µg/L	437.70	ppb	12:57:38
2	Mo 202.031†	7807.0	4382.5	143.80	µg/L	143.80	ppb	12:57:58
2	Ni 231.604†	22835.9	12802.0	160.17	µg/L	160.17	ppb	12:57:58

2	P 214.914†	7009.2	3925.6	903.07 µg/L	903.07 ppb	12:57:58
2	Pb 220.353†	4580.8	2445.4	152.49 µg/L	152.49 ppb	12:57:58
2	S 181.975 Axial†	3274.3	1732.9	1459.1 µg/L	1459.1 ppb	12:57:58
2	Sb 206.836†	1762.4	890.9	115.78 µg/L	115.78 ppb	12:57:58
2	Se 196.026†	576.3	314.5	127 µg/L	127 ppb	12:57:58
2	SiO2†	182020.9	99539.2	10535 µg/L	10535 ppb	12:57:38
2	Si 251.611†	567490.4	314990.4	4964.2 µg/L	4964.2 ppb	12:57:38
2	Sn 189.927†	3561.9	1980.0	140.41 µg/L	140.41 ppb	12:57:58
2	Ti 334.940†	1593046.7	885564.3	909.44 µg/L	909.44 ppb	12:57:38
2	Tl 190.801†	1504.8	951.6	140.22 µg/L	140.22 ppb	12:57:58
2	U 409.014†	326.9	345.3	28.590 µg/L	28.590 ppb	12:57:38
2	V 292.402†	37261.6	20309.5	105.25 µg/L	105.25 ppb	12:57:38
2	Zn 213.857†	33874.0	18344.8	108.03 µg/L	108.03 ppb	12:57:38
3	Sc RADIAL	257760.1	257760.1	184 %		12:57:08
3	Al 396.153Radial†	40749.4	22225.9	4657.1 µg/L	4657.1 ppb	12:57:10
3	Ca 317.933Radial†	41259.3	21853.1	1488.4 µg/L	1488.4 ppb	12:57:10
3	Fe 238.204 Radial†	229166.6	124435.1	9292.7 µg/L	9292.7 ppb	12:57:08
3	K 766.490 Radial†	4171.3	773.3	305.00 µg/L	305.00 ppb	12:57:10
3	Mg 279.077 IEC†	2846.2	1374.5	638.37 µg/L	638.37 ppb	12:57:10
3	Na 589.592 Radial†	6340.4	2493.5	386.24 µg/L	386.24 ppb	12:57:10
3	Sr 421.552†	27731.6	15276.7	36.018 µg/L	36.018 ppb	12:57:10
3	Sc 361.383	1792334.9	1792334.9	99.345 %		12:58:01
3	Y 371.029	1123390.3	1123390.3	106.25 %		12:58:01
3	Ag 328.068†	121997.9	118237.1	491.12 µg/L	491.12 ppb	12:58:01
3	As 188.979†	1311.7	1338.9	461.47 µg/L	461.47 ppb	12:58:21
3	B 249.677†	35942.4	32114.2	497.65 µg/L	497.65 ppb	12:58:01
3	Ba 233.527†	263579.5	265462.0	1180.4 µg/L	1180.4 ppb	12:58:01
3	Be 313.107†	1671524.1	1683637.2	487.74 µg/L	487.74 ppb	12:58:01
3	Cd 226.502†	72453.7	73034.8	492.87 µg/L	492.87 ppb	12:58:01
3	Co 228.616†	38396.4	38859.8	514.81 µg/L	514.81 ppb	12:58:21
3	Cr 267.716†	63124.1	63307.1	547.57 µg/L	547.57 ppb	12:58:01
3	Cu 324.752†	136446.1	134309.7	563.53 µg/L	563.53 ppb	12:58:01
3	Mn 257.610†	2029503.4	2042700.4	2709.7 µg/L	2709.7 ppb	12:58:01
3	Mo 202.031†	14481.5	14615.6	478.59 µg/L	478.59 ppb	12:58:21
3	Ni 231.604†	40693.7	41057.9	513.69 µg/L	513.69 ppb	12:58:21
Saturated within auto integration window (code 4)						
3	P 214.914†	13490.0	13604.7	3134.8 µg/L	3134.8 ppb	12:58:21
3	Pb 220.353†	8515.9	8468.5	528.85 µg/L	528.85 ppb	12:58:21
3	S 181.975 Axial†	6330.1	6282.9	5289.6 µg/L	5289.6 ppb	12:58:21
3	Sb 206.836†	3266.3	3198.1	412.64 µg/L	412.64 ppb	12:58:21
3	Se 196.026†	1137.1	1138.5	452 µg/L	452 ppb	12:58:21
3	SiO2†	665231.2	667878.4	70707 µg/L	70707 ppb	12:58:01
3	Si 251.611†	2070603.1	2083488.8	32845 µg/L	32845 ppb	12:58:01
3	Sn 189.927†	6691.1	6733.3	484.24 µg/L	484.24 ppb	12:58:21
3	Ti 334.940†	4931449.3	4963142.2	5097.3 µg/L	5097.3 ppb	12:58:01
Saturated within auto integration window (code 4)						
3	Tl 190.801†	2960.7	3094.5	483.03 µg/L	483.03 ppb	12:58:21
3	U 409.014†	1357.6	1529.9	149.10 µg/L	149.10 ppb	12:58:01
3	V 292.402†	125837.9	126244.4	655.97 µg/L	655.97 ppb	12:58:01
3	Zn 213.857†	124514.0	124832.0	743.44 µg/L	743.44 ppb	12:58:01

Mean Data: 1202068112|964016|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2935486.7	162.71	%	56.799				34.91%
Internal Standard Check greater than the upper limit for Sc 361.383. Recovery = 162.7%								
Sc RADIAL	270327.5	193	%	12.9				6.70%
Internal Standard Check greater than the upper limit for Sc RADIAL. Recovery = 193.0%								
Y 371.029	1764976.8	166.93	%	54.563				32.69%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 166.9%								
Ag 328.068†	47016.1	195.31	µg/L	256.982	195.31	ppb	256.982	131.57%
Al 396.153Radial†	40068.1	8425.4	µg/L	4190.42	8425.4	ppb	4190.42	49.74%
Saturated within auto integration window (code 4)								
As 188.979†	621.9	215.03	µg/L	217.904	215.03	ppb	217.904	101.34%
B 249.677†	11468.5	177.52	µg/L	278.007	177.52	ppb	278.007	156.61%
Ba 233.527†	110055.7	489.31	µg/L	600.335	489.31	ppb	600.335	122.69%
Be 313.107†	690281.9	199.97	µg/L	249.906	199.97	ppb	249.906	124.97%
Ca 317.933Radial†	47301.6	3221.7	µg/L	2250.46	3221.7	ppb	2250.46	69.85%
Cd 226.502†	29789.9	200.55	µg/L	253.781	200.55	ppb	253.781	126.54%
Co 228.616†	18209.8	240.95	µg/L	242.092	240.95	ppb	242.092	100.47%

Cr 267.716†	26165.9	226.46	µg/L	278.962	226.46	ppb	278.962 123.18%
Cu 324.752†	54478.5	229.33	µg/L	290.349	229.33	ppb	290.349 126.61%
Fe 238.204 Radial†	114580.4	8556.8	µg/L	1785.44	8556.8	ppb	1785.44 20.87%
K 766.490 Radial†	2617.6	1034.5	µg/L	949.45	1034.5	ppb	949.45 91.78%
Mg 279.077 IEC†	3086.7	1423.4	µg/L	1036.00	1423.4	ppb	1036.00 72.78%
Mn 257.610†	846601.5	1123.0	µg/L	1378.38	1123.0	ppb	1378.38 122.74%
Mo 202.031†	6860.7	224.83	µg/L	224.494	224.83	ppb	224.494 99.85%
Na 589.592 Radial†	6020.5	932.30	µg/L	700.125	932.30	ppb	700.125 75.10%
Ni 231.604†	19506.9	244.06	µg/L	238.997	244.06	ppb	238.997 97.93%
Saturated within auto integration window (code 4)							
P 214.914†	6284.3	1446.9	µg/L	1492.34	1446.9	ppb	1492.34 103.14%
Pb 220.353†	3910.3	244.20	µg/L	251.655	244.20	ppb	251.655 103.05%
S 181.975 Axial†	2845.9	2396.1	µg/L	2557.22	2396.1	ppb	2557.22 106.73%
Sb 206.836†	1452.0	187.66	µg/L	199.028	187.66	ppb	199.028 106.06%
Se 196.026†	517.8	207	µg/L	216.3	207	ppb	216.3 104.50%
SiO2†	272430.2	28840	µg/L	36352.4	28840	ppb	36352.4 126.05%
Si 251.611†	852564.1	13440	µg/L	16850.2	13440	ppb	16850.2 125.38%
Sn 189.927†	3132.4	224.54	µg/L	229.500	224.54	ppb	229.500 102.21%
Sr 421.552†	26739.3	63.039	µg/L	30.0517	63.039	ppb	30.0517 47.67%
Saturated within auto integration window (code 4)							
Ti 334.940†	2097988.1	2154.7	µg/L	2558.40	2154.7	ppb	2558.40 118.74%
Saturated within auto integration window (code 4)							
Tl 190.801†	1472.4	226.40	µg/L	226.212	226.40	ppb	226.212 99.92%
U 409.014†	708.2	65.482	µg/L	72.5782	65.482	ppb	72.5782 110.84%
V 292.402†	52223.4	271.09	µg/L	334.375	271.09	ppb	334.375 123.34%
Zn 213.857†	50745.3	301.61	µg/L	383.616	301.61	ppb	383.616 127.19%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 6
Sample ID: 1202068113|964016|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 306
Date Collected: 4/5/2010 12:58:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068113|964016|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	274201.6	274201.6	196	%			12:58:58
1	Al 396.153Radial†	7496.1	3908.4	800.29	µg/L	800.29	ppb	12:59:18
1	Ca 317.933Radial†	33294.7	16439.2	1119.7	µg/L	1119.7	ppb	12:59:18
1	Fe 238.204 Radial†	38469.2	19537.1	1459.0	µg/L	1459.0	ppb	12:59:18
1	K 766.490 Radial†	1393.7	-781.7	-310.24	µg/L	-310.24	ppb	12:58:58
1	Mg 279.077 IEC†	6118.4	2953.5	1374.4	µg/L	1374.4	ppb	12:59:18
1	Na 589.592 Radial†	862.8	-511.7	-79.043	µg/L	-79.043	ppb	12:58:58
1	Sr 421.552†	-68.5	169.5	0.3909	µg/L	0.3909	ppb	12:58:58
1	Sc 361.383	1754136.2	1754136.2	97.228	%			13:00:09
1	Y 371.029	1139105.9	1139105.9	107.74	%			13:00:09
1	Ag 328.068†	122167.7	121086.0	503.27	µg/L	503.27	ppb	13:00:09
1	As 188.979†	1280.4	1335.4	458.89	µg/L	458.89	ppb	13:00:11
1	B 249.677†	35352.6	32295.5	500.37	µg/L	500.37	ppb	13:00:09
1	Ba 233.527†	324208.0	333596.8	1483.4	µg/L	1483.4	ppb	13:00:09
1	Be 313.107†	1679374.3	1728350.9	500.66	µg/L	500.66	ppb	13:00:09
1	Cd 226.502†	72495.3	74665.7	504.76	µg/L	504.76	ppb	13:00:09
1	Co 228.616†	39621.3	40961.3	543.32	µg/L	543.32	ppb	13:00:11
1	Cr 267.716†	65755.2	67396.9	582.38	µg/L	582.38	ppb	13:00:11
1	Cu 324.752†	136137.7	136983.4	573.52	µg/L	573.52	ppb	13:00:09
1	Mn 257.610†	3195920.9	3286863.0	4360.1	µg/L	4360.1	ppb	13:00:09
1	Mo 202.031†	14406.9	14856.2	486.19	µg/L	486.19	ppb	13:00:11
1	Ni 231.604†	47167.1	48607.9	608.15	µg/L	608.15	ppb	13:00:11
1	P 214.914†	24485.2	25209.0	5823.6	µg/L	5823.6	ppb	13:00:11
1	Pb 220.353†	8705.2	8850.0	556.66	µg/L	556.66	ppb	13:00:11
1	S 181.975 Axial†	6322.6	6414.0	5400.0	µg/L	5400.0	ppb	13:00:11
1	Sb 206.836†	3158.4	3158.8	407.42	µg/L	407.42	ppb	13:00:11
1	Se 196.026†	1128.0	1154.0	455	µg/L	455	ppb	13:00:11
1	SiO2†	575416.7	590084.8	62468	µg/L	62468	ppb	13:00:09
1	Si 251.611†	1793879.0	1844261.8	29072	µg/L	29072	ppb	13:00:09
1	Sn 189.927†	6623.9	6810.9	500.35	µg/L	500.35	ppb	13:00:11
1	Ti 334.940†	7839924.2	8062644.8	8280.7	µg/L	8280.7	ppb	13:00:06
1	Tl 190.801†	2705.9	2897.3	492.82	µg/L	492.82	ppb	13:00:11
1	U 409.014†	-332.3	-178.4	58.665	µg/L	58.665	ppb	13:00:09
1	V 292.402†	139283.4	142831.7	739.98	µg/L	739.98	ppb	13:00:09
1	Zn 213.857†	151700.8	155523.3	928.57	µg/L	928.57	ppb	13:00:09
2	Sc RADIAL	300365.4	300365.4	214	%			12:59:20
2	Al 396.153Radial†	15433.5	7276.9	1509.5	µg/L	1509.5	ppb	12:59:40
Saturated within auto integration window (code 4)								
2	Ca 317.933Radial†	47413.7	21542.7	1467.3	µg/L	1467.3	ppb	12:59:40
2	Fe 238.204 Radial†	68704.8	31927.2	2384.3	µg/L	2384.3	ppb	12:59:40
Saturated within auto integration window (code 4)								
2	K 766.490 Radial†	9517.3	2945.1	1166.1	µg/L	1166.1	ppb	12:59:20
2	Mg 279.077 IEC†	7003.3	3093.9	1438.4	µg/L	1438.4	ppb	12:59:40
2	Na 589.592 Radial†	17256.6	7096.1	1098.9	µg/L	1098.9	ppb	12:59:20
2	Sr 421.552†	73330.2	34406.3	81.135	µg/L	81.135	ppb	12:59:20
2	Sc 361.383	1762873.0	1762873.0	97.712	%			13:00:16
2	Y 371.029	1145211.6	1145211.6	108.32	%			13:00:16
2	Ag 328.068†	122077.7	120371.2	500.29	µg/L	500.29	ppb	13:00:16
2	As 188.979†	1310.9	1360.2	467.45	µg/L	467.45	ppb	13:00:18
2	B 249.677†	35495.3	32261.3	499.84	µg/L	499.84	ppb	13:00:16
2	Ba 233.527†	324433.3	332174.9	1477.1	µg/L	1477.1	ppb	13:00:16
2	Be 313.107†	1679052.8	1719461.5	498.08	µg/L	498.08	ppb	13:00:16
2	Cd 226.502†	72601.4	74404.8	502.90	µg/L	502.90	ppb	13:00:16
2	Co 228.616†	39832.7	40975.8	543.45	µg/L	543.45	ppb	13:00:18
2	Cr 267.716†	65936.8	67247.5	581.13	µg/L	581.13	ppb	13:00:18
2	Cu 324.752†	136372.3	136529.5	571.75	µg/L	571.75	ppb	13:00:16
2	Mn 257.610†	3195701.8	3270348.2	4338.2	µg/L	4338.2	ppb	13:00:16
2	Mo 202.031†	14466.9	14844.2	485.83	µg/L	485.83	ppb	13:00:18
2	Ni 231.604†	47386.1	48591.6	607.94	µg/L	607.94	ppb	13:00:18

2	P 214.914†	24553.3	25154.0	5810.4 µg/L	5810.4 ppb	13:00:18
2	Pb 220.353†	8646.9	8745.9	550.29 µg/L	550.29 ppb	13:00:18
2	S 181.975 Axial†	6305.1	6363.8	5357.7 µg/L	5357.7 ppb	13:00:18
2	Sb 206.836†	3132.1	3115.7	401.85 µg/L	401.85 ppb	13:00:18
2	Se 196.026†	1115.9	1135.8	448 µg/L	448 ppb	13:00:18
2	SiO2†	575181.4	586910.8	62132 µg/L	62132 ppb	13:00:16
2	Si 251.611†	1791991.8	1833186.4	28898 µg/L	28898 ppb	13:00:16
2	Sn 189.927†	6551.2	6702.7	492.89 µg/L	492.89 ppb	13:00:18
2	Ti 334.940†	7892435.7	8076423.5	8294.9 µg/L	8294.9 ppb	13:00:14
2	Tl 190.801†	2718.8	2896.8	492.81 µg/L	492.81 ppb	13:00:18
2	U 409.014†	-368.7	-214.0	55.877 µg/L	55.877 ppb	13:00:16
2	V 292.402†	139295.8	142134.3	736.24 µg/L	736.24 ppb	13:00:16
2	Zn 213.857†	151789.3	154840.6	924.41 µg/L	924.41 ppb	13:00:16
3	Sc RADIAL	248818.2	248818.2	178 %		12:59:42
3	Al 396.153Radial†	10919.9	6226.8	1288.6 µg/L	1288.6 ppb	13:00:02
Saturated within auto integration window (code 4)						
3	Ca 317.933Radial†	73261.2	40677.0	2770.5 µg/L	2770.5 ppb	13:00:02
Saturated within auto integration window (code 4)						
3	Fe 238.204 Radial†	64457.4	36174.3	2701.5 µg/L	2701.5 ppb	13:00:02
Saturated within auto integration window (code 4)						
3	K 766.490 Radial†	10558.7	4451.1	1762.1 µg/L	1762.1 ppb	12:59:42
3	Mg 279.077 IEC†	28846.3	16069.0	7429.1 µg/L	7429.1 ppb	13:00:02
3	Na 589.592 Radial†	19342.6	9938.0	1538.9 µg/L	1538.9 ppb	12:59:42
3	Sr 421.552†	82930.0	46896.8	110.58 µg/L	110.58 ppb	12:59:42
3	Sc 361.383	1769957.2	1769957.2	98.105 %		13:00:24
3	Y 371.029	1150482.9	1150482.9	108.81 %		13:00:24
3	Ag 328.068†	123222.5	121038.0	503.04 µg/L	503.04 ppb	13:00:24
3	As 188.979†	1341.8	1386.3	476.34 µg/L	476.34 ppb	13:00:26
3	B 249.677†	35942.8	32572.1	504.68 µg/L	504.68 ppb	13:00:24
3	Ba 233.527†	327881.2	334360.4	1486.8 µg/L	1486.8 ppb	13:00:24
3	Be 313.107†	1698436.3	1732341.8	501.81 µg/L	501.81 ppb	13:00:24
3	Cd 226.502†	73353.3	74873.9	506.04 µg/L	506.04 ppb	13:00:24
3	Co 228.616†	39716.6	40694.2	539.72 µg/L	539.72 ppb	13:00:26
3	Cr 267.716†	65890.2	66930.0	578.32 µg/L	578.32 ppb	13:00:26
3	Cu 324.752†	137579.0	137201.0	574.76 µg/L	574.76 ppb	13:00:24
3	Mn 257.610†	3230694.7	3292927.2	4367.9 µg/L	4367.9 ppb	13:00:24
3	Mo 202.031†	14429.2	14746.6	482.76 µg/L	482.76 ppb	13:00:26
3	Ni 231.604†	47316.4	48326.5	604.62 µg/L	604.62 ppb	13:00:26
3	P 214.914†	24554.3	25054.4	5787.1 µg/L	5787.1 ppb	13:00:26
3	Pb 220.353†	8706.4	8771.1	551.87 µg/L	551.87 ppb	13:00:26
3	S 181.975 Axial†	6248.9	6280.7	5287.8 µg/L	5287.8 ppb	13:00:26
3	Sb 206.836†	3138.1	3109.0	401.00 µg/L	401.00 ppb	13:00:26
3	Se 196.026†	1133.1	1148.8	454 µg/L	454 ppb	13:00:26
3	SiO2†	581702.8	591202.2	62587 µg/L	62587 ppb	13:00:24
3	Si 251.611†	1812971.7	1847231.4	29119 µg/L	29119 ppb	13:00:24
3	Sn 189.927†	6639.0	6765.3	497.36 µg/L	497.36 ppb	13:00:26
3	Ti 334.940†	7958570.7	8111507.5	8330.4 µg/L	8330.4 ppb	13:00:21
3	Tl 190.801†	2768.0	2935.8	498.64 µg/L	498.64 ppb	13:00:26
3	U 409.014†	-552.2	-399.5	44.731 µg/L	44.731 ppb	13:00:24
3	V 292.402†	141113.7	143416.8	742.77 µg/L	742.77 ppb	13:00:24
3	Zn 213.857†	153425.8	155887.0	930.65 µg/L	930.65 ppb	13:00:24

Mean Data: 1202068113|964016|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1762322.1	97.681	%	0.4393				0.45%
Sc RADIAL	274461.7	196	%	18.4				9.39%
Internal Standard Check greater than the upper limit for Sc RADIAL. Recovery = 195.9%								
Y 371.029	1144933.5	108.29	%	0.539				0.50%
Ag 328.068†	120831.7	502.20	µg/L	1.658	502.20	ppb	1.658	0.33%
Al 396.153Radial†	5804.0	1199.5	µg/L	362.90	1199.5	ppb	362.90	30.26%
Saturated within auto integration window (code 4)								
As 188.979†	1360.6	467.56	µg/L	8.721	467.56	ppb	8.721	1.87%
B 249.677†	32376.3	501.63	µg/L	2.658	501.63	ppb	2.658	0.53%
Ba 233.527†	333377.4	1482.4	µg/L	4.93	1482.4	ppb	4.93	0.33%
Be 313.107†	1726718.1	500.18	µg/L	1.909	500.18	ppb	1.909	0.38%
Ca 317.933Radial†	26219.7	1785.8	µg/L	870.29	1785.8	ppb	870.29	48.73%
Saturated within auto integration window (code 4)								
Cd 226.502†	74648.1	504.57	µg/L	1.577	504.57	ppb	1.577	0.31%
Co 228.616†	40877.1	542.16	µg/L	2.116	542.16	ppb	2.116	0.39%

Cr 267.716†	67191.5	580.61 µg/L	2.079	580.61 ppb	2.079	0.36%
Cu 324.752†	136904.6	573.34 µg/L	1.510	573.34 ppb	1.510	0.26%
Fe 238.204 Radial†	29212.9	2181.6 µg/L	645.56	2181.6 ppb	645.56	29.59%
Saturated within auto integration window (code 4)						
K 766.490 Radial†	2204.9	872.66 µg/L	1066.882	872.66 ppb	1066.882	122.26%
Mg 279.077 IEC†	7372.1	3414.0 µg/L	3477.37	3414.0 ppb	3477.37	101.86%
Mn 257.610†	3283379.5	4355.4 µg/L	15.41	4355.4 ppb	15.41	0.35%
Mo 202.031†	14815.7	484.93 µg/L	1.883	484.93 ppb	1.883	0.39%
Na 589.592 Radial†	5507.5	852.92 µg/L	836.552	852.92 ppb	836.552	98.08%
Ni 231.604†	48508.6	606.90 µg/L	1.976	606.90 ppb	1.976	0.33%
P 214.914†	25139.1	5807.0 µg/L	18.48	5807.0 ppb	18.48	0.32%
Pb 220.353†	8789.0	552.94 µg/L	3.318	552.94 ppb	3.318	0.60%
S 181.975 Axial†	6352.8	5348.5 µg/L	56.64	5348.5 ppb	56.64	1.06%
Sb 206.836†	3127.8	403.42 µg/L	3.488	403.42 ppb	3.488	0.86%
Se 196.026†	1146.2	452 µg/L	3.6	452 ppb	3.6	0.79%
SiO2†	589399.3	62396 µg/L	235.8	62396 ppb	235.8	0.38%
Si 251.611†	1841559.8	29030 µg/L	116.7	29030 ppb	116.7	0.40%
Sn 189.927†	6759.6	496.87 µg/L	3.753	496.87 ppb	3.753	0.76%
Sr 421.552†	27157.5	64.036 µg/L	57.0511	64.036 ppb	57.0511	89.09%
Ti 334.940†	8083525.3	8302.0 µg/L	25.63	8302.0 ppb	25.63	0.31%
Tl 190.801†	2909.9	494.76 µg/L	3.364	494.76 ppb	3.364	0.68%
U 409.014†	-264.0	53.091 µg/L	7.3730	53.091 ppb	7.3730	13.89%
V 292.402†	142794.3	739.66 µg/L	3.275	739.66 ppb	3.275	0.44%
Zn 213.857†	155417.0	927.88 µg/L	3.176	927.88 ppb	3.176	0.34%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 7
Sample ID: 1202068111|964016|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 307
Date Collected: 4/5/2010 13:00:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068111|964016|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	135143.9	135143.9	96.5	%			13:01:04
1	Al 396.153Radial†	65546.5	68025.4	14322	µg/L	14322	ppb	13:01:04
1	Ca 317.933Radial†	68035.1	69955.1	4764.6	µg/L	4764.6	ppb	13:01:06
1	Fe 238.204 Radial†	318147.6	329681.1	24620	µg/L	24620	ppb	13:01:04
1	K 766.490 Radial†	5435.2	4140.5	1636.2	µg/L	1636.2	ppb	13:01:06
1	Mg 279.077 IEC†	5378.4	5402.9	2473.6	µg/L	2473.6	ppb	13:01:06
1	Na 589.592 Radial†	6387.9	5669.3	877.33	µg/L	877.33	ppb	13:01:06
1	Sr 421.552†	13133.3	13818.7	32.554	µg/L	32.554	ppb	13:01:06
1	Sc 361.383	1769009.5	1769009.5	98.052	%			13:01:32
1	Y 371.029	1053779.0	1053779.0	99.667	%			13:01:32
1	Ag 328.068†	4053.2	-431.4	-1.7667	µg/L	-1.7667	ppb	13:01:34
1	As 188.979†	-14.5	3.7	6.9336	µg/L	6.9336	ppb	13:01:54
1	B 249.677†	4267.8	287.4	4.4355	µg/L	4.4355	ppb	13:01:34
1	Ba 233.527†	36124.8	36987.0	164.11	µg/L	164.11	ppb	13:01:34
1	Be 313.107†	7420.8	8660.0	2.4890	µg/L	2.4890	ppb	13:01:34
1	Cd 226.502†	304.3	413.7	0.2150	µg/L	0.2150	ppb	13:01:54
1	Co 228.616†	534.2	755.1	8.8684	µg/L	8.8684	ppb	13:01:54
1	Cr 267.716†	1990.2	1796.5	16.301	µg/L	16.301	ppb	13:01:54
1	Cu 324.752†	5144.4	2210.5	12.851	µg/L	12.851	ppb	13:01:34
1	Mn 257.610†	399535.4	407287.9	540.12	µg/L	540.12	ppb	13:01:34
1	Mo 202.031†	-12.5	25.8	1.8767	µg/L	1.8767	ppb	13:01:54
1	Ni 231.604†	1188.0	1307.5	16.358	µg/L	16.358	ppb	13:01:54
1	P 214.914†	3144.7	3232.9	734.18	µg/L	734.18	ppb	13:01:54
1	Pb 220.353†	259.3	161.0	11.543	µg/L	11.543	ppb	13:01:54
1	S 181.975 Axial†	163.2	77.5	65.195	µg/L	65.195	ppb	13:01:54
1	Sb 206.836†	78.1	-10.1	-1.8569	µg/L	-1.8569	ppb	13:01:54
1	Se 196.026†	6.7	0.6	8.73	µg/L	8.73	ppb	13:01:54
1	SiO2†	114255.9	114786.6	12156	µg/L	12156	ppb	13:01:34
1	Si 251.611†	350699.9	356899.9	5627.9	µg/L	5627.9	ppb	13:01:34
1	Sn 189.927†	-10.0	-12.0	2.9592	µg/L	2.9592	ppb	13:01:54
1	Ti 334.940†	1074914.2	1095445.6	1125.1	µg/L	1125.1	ppb	13:01:32
1	Tl 190.801†	-185.6	-75.0	2.7136	µg/L	2.7136	ppb	13:01:54
1	U 409.014†	-1164.9	-1024.7	-64.122	µg/L	-64.122	ppb	13:01:34
1	V 292.402†	8462.7	8207.6	38.931	µg/L	38.931	ppb	13:01:34
1	Zn 213.857†	11384.2	11107.4	64.414	µg/L	64.414	ppb	13:01:34
2	Sc RADIAL	136031.8	136031.8	97.1	%			13:01:08
2	Al 396.153Radial†	66544.4	68609.7	14445	µg/L	14445	ppb	13:01:08
2	Ca 317.933Radial†	69741.7	71252.4	4852.9	µg/L	4852.9	ppb	13:01:10
2	Fe 238.204 Radial†	322134.6	331634.5	24766	µg/L	24766	ppb	13:01:08
2	K 766.490 Radial†	5503.2	4173.7	1649.4	µg/L	1649.4	ppb	13:01:10
2	Mg 279.077 IEC†	5442.1	5432.2	2487.0	µg/L	2487.0	ppb	13:01:10
2	Na 589.592 Radial†	6488.0	5729.2	886.60	µg/L	886.60	ppb	13:01:10
2	Sr 421.552†	13440.1	14045.8	33.089	µg/L	33.089	ppb	13:01:10
2	Sc 361.383	1769098.6	1769098.6	98.057	%			13:01:56
2	Y 371.029	1053224.1	1053224.1	99.615	%			13:01:56
2	Ag 328.068†	4323.1	-156.4	-0.6580	µg/L	-0.6580	ppb	13:01:58
2	As 188.979†	-8.8	9.5	8.9321	µg/L	8.9321	ppb	13:02:18
2	B 249.677†	4040.9	55.8	0.8332	µg/L	0.8332	ppb	13:01:58
2	Ba 233.527†	36072.8	36932.1	163.87	µg/L	163.87	ppb	13:01:58
2	Be 313.107†	7359.0	8596.5	2.4672	µg/L	2.4672	ppb	13:01:58
2	Cd 226.502†	317.1	426.8	0.2878	µg/L	0.2878	ppb	13:02:18
2	Co 228.616†	544.5	765.6	8.9998	µg/L	8.9998	ppb	13:02:18
2	Cr 267.716†	2004.0	1810.5	16.437	µg/L	16.437	ppb	13:02:18
2	Cu 324.752†	5107.9	2173.0	12.707	µg/L	12.707	ppb	13:01:58
2	Mn 257.610†	395726.9	403383.4	534.94	µg/L	534.94	ppb	13:01:58
2	Mo 202.031†	-22.4	15.8	1.5549	µg/L	1.5549	ppb	13:02:18
2	Ni 231.604†	1188.9	1308.3	16.369	µg/L	16.369	ppb	13:02:18
2	P 214.914†	3196.9	3285.9	746.38	µg/L	746.38	ppb	13:02:18
2	Pb 220.353†	230.8	132.0	9.7651	µg/L	9.7651	ppb	13:02:18

2	S 181.975 Axial†	146.0	60.0	50.442 µg/L	50.442 ppb	13:02:18
2	Sb 206.836†	72.1	-16.2	-2.6554 µg/L	-2.6554 ppb	13:02:18
2	Se 196.026†	11.4	5.5	10.7 µg/L	10.7 ppb	13:02:18
2	SiO2†	112848.5	113345.5	12003 µg/L	12003 ppb	13:01:58
2	Si 251.611†	347017.3	353126.4	5568.4 µg/L	5568.4 ppb	13:01:58
2	Sn 189.927†	-5.8	-7.8	3.2557 µg/L	3.2557 ppb	13:02:18
2	Ti 334.940†	1075253.2	1095736.0	1125.4 µg/L	1125.4 ppb	13:01:56
2	Tl 190.801†	-202.8	-92.5	0.3152 µg/L	0.3152 ppb	13:02:18
2	U 409.014†	-1342.4	-1205.6	-75.610 µg/L	-75.610 ppb	13:01:58
2	V 292.402†	8442.7	8186.8	38.797 µg/L	38.797 ppb	13:01:58
2	Zn 213.857†	11382.2	11104.8	64.385 µg/L	64.385 ppb	13:01:58
3	Sc RADIAL	136056.1	136056.1	97.1 %		13:01:12
3	Al 396.153Radial†	66712.7	68770.6	14479 µg/L	14479 ppb	13:01:12
3	Ca 317.933Radial†	69530.3	71021.9	4837.2 µg/L	4837.2 ppb	13:01:14
3	Fe 238.204 Radial†	322328.9	331775.3	24777 µg/L	24777 ppb	13:01:12
3	K 766.490 Radial†	5589.7	4261.7	1684.2 µg/L	1684.2 ppb	13:01:14
3	Mg 279.077 IEC†	5408.3	5396.4	2470.5 µg/L	2470.5 ppb	13:01:14
3	Na 589.592 Radial†	6525.9	5767.0	892.43 µg/L	892.43 ppb	13:01:14
3	Sr 421.552†	13379.4	13980.9	32.936 µg/L	32.936 ppb	13:01:14
3	Sc 361.383	1770537.3	1770537.3	98.137 %		13:02:21
3	Y 371.029	1054059.4	1054059.4	99.694 %		13:02:21
3	Ag 328.068†	4275.1	-208.8	-0.8666 µg/L	-0.8666 ppb	13:02:23
3	As 188.979†	-14.6	3.7	6.9509 µg/L	6.9509 ppb	13:02:43
3	B 249.677†	4295.3	311.7	4.8127 µg/L	4.8127 ppb	13:02:23
3	Ba 233.527†	36286.1	37119.6	164.70 µg/L	164.70 ppb	13:02:23
3	Be 313.107†	7128.0	8355.1	2.3969 µg/L	2.3969 ppb	13:02:23
3	Cd 226.502†	284.7	393.5	0.0619 µg/L	0.0619 ppb	13:02:43
3	Co 228.616†	531.7	752.1	8.8212 µg/L	8.8212 ppb	13:02:43
3	Cr 267.716†	2001.6	1806.4	16.401 µg/L	16.401 ppb	13:02:43
3	Cu 324.752†	5116.0	2177.0	12.723 µg/L	12.723 ppb	13:02:23
3	Mn 257.610†	401044.6	408474.1	541.70 µg/L	541.70 ppb	13:02:23
3	Mo 202.031†	-29.0	9.0	1.3336 µg/L	1.3336 ppb	13:02:43
3	Ni 231.604†	1191.9	1310.4	16.395 µg/L	16.395 ppb	13:02:43
3	P 214.914†	3164.4	3250.2	738.11 µg/L	738.11 ppb	13:02:43
3	Pb 220.353†	269.9	171.5	12.198 µg/L	12.198 ppb	13:02:43
3	S 181.975 Axial†	152.4	66.4	55.868 µg/L	55.868 ppb	13:02:43
3	Sb 206.836†	77.1	-11.2	-2.0108 µg/L	-2.0108 ppb	13:02:43
3	Se 196.026†	-11.6	-18.0	1.43 µg/L	1.43 ppb	13:02:43
3	SiO2†	114689.6	115128.0	12192 µg/L	12192 ppb	13:02:23
3	Si 251.611†	352183.5	358103.1	5646.9 µg/L	5646.9 ppb	13:02:23
3	Sn 189.927†	-22.2	-24.5	2.0890 µg/L	2.0890 ppb	13:02:43
3	Ti 334.940†	1073682.4	1093244.4	1122.8 µg/L	1122.8 ppb	13:02:21
3	Tl 190.801†	-196.7	-86.2	1.1754 µg/L	1.1754 ppb	13:02:43
3	U 409.014†	-1363.6	-1226.1	-76.820 µg/L	-76.820 ppb	13:02:23
3	V 292.402†	8594.9	8334.9	39.562 µg/L	39.562 ppb	13:02:23
3	Zn 213.857†	11479.3	11194.2	64.917 µg/L	64.917 ppb	13:02:23

Mean Data: 1202068111|964016|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1769548.4	98.082	%	0.0475				0.05%
Sc RADIAL	135743.9	96.9	%	0.37				0.38%
Y 371.029	1053687.5	99.659	%	0.0402				0.04%
Ag 328.068†	-265.6	-1.0971	µg/L	0.58922	-1.0971	ppb	0.58922	53.71%
Al 396.153Radial†	68468.6	14415	µg/L	82.6	14415	ppb	82.6	0.57%
As 188.979†	5.6	7.6056	µg/L	1.14887	7.6056	ppb	1.14887	15.11%
B 249.677†	218.3	3.3605	µg/L	2.19681	3.3605	ppb	2.19681	65.37%
Ba 233.527†	37012.9	164.23	µg/L	0.428	164.23	ppb	0.428	0.26%
Be 313.107†	8537.2	2.4510	µg/L	0.04817	2.4510	ppb	0.04817	1.97%
Ca 317.933Radial†	70743.1	4818.2	µg/L	47.14	4818.2	ppb	47.14	0.98%
Cd 226.502†	411.3	0.1882	µg/L	0.11533	0.1882	ppb	0.11533	61.27%
Co 228.616†	757.6	8.8965	µg/L	0.09256	8.8965	ppb	0.09256	1.04%
Cr 267.716†	1804.5	16.380	µg/L	0.0705	16.380	ppb	0.0705	0.43%
Cu 324.752†	2186.8	12.760	µg/L	0.0791	12.760	ppb	0.0791	0.62%
Fe 238.204 Radial†	331030.3	24721	µg/L	87.4	24721	ppb	87.4	0.35%
K 766.490 Radial†	4192.0	1656.6	µg/L	24.80	1656.6	ppb	24.80	1.50%
Mg 279.077 IEC†	5410.5	2477.0	µg/L	8.78	2477.0	ppb	8.78	0.35%
Mn 257.610†	406381.8	538.92	µg/L	3.534	538.92	ppb	3.534	0.66%
Mo 202.031†	16.8	1.5884	µg/L	0.27312	1.5884	ppb	0.27312	17.19%
Na 589.592 Radial†	5721.8	885.45	µg/L	7.620	885.45	ppb	7.620	0.86%

Ni 231.604†	1308.7	16.374	µg/L	0.0191	16.374	ppb	0.0191	0.12%
P 214.914†	3256.3	739.56	µg/L	6.226	739.56	ppb	6.226	0.84%
Pb 220.353†	154.8	11.169	µg/L	1.2591	11.169	ppb	1.2591	11.27%
S 181.975 Axial†	67.9	57.168	µg/L	7.4619	57.168	ppb	7.4619	13.05%
Sb 206.836†	-12.5	-2.1744	µg/L	0.42361	-2.1744	ppb	0.42361	19.48%
Se 196.026†	-4.0	6.95	µg/L	4.878	6.95	ppb	4.878	70.20%
SiO2†	114420.0	12117	µg/L	100.2	12117	ppb	100.2	0.83%
Si 251.611†	356043.1	5614.4	µg/L	40.95	5614.4	ppb	40.95	0.73%
Sn 189.927†	-14.8	2.7679	µg/L	0.60640	2.7679	ppb	0.60640	21.91%
Sr 421.552†	13948.5	32.859	µg/L	0.2755	32.859	ppb	0.2755	0.84%
Ti 334.940†	1094808.6	1124.4	µg/L	1.40	1124.4	ppb	1.40	0.12%
Tl 190.801†	-84.6	1.4014	µg/L	1.21506	1.4014	ppb	1.21506	86.71%
U 409.014†	-1152.1	-72.184	µg/L	7.0079	-72.184	ppb	7.0079	9.71%
Concentration less than lower limit for U 409.014.								
V 292.402†	8243.1	39.096	µg/L	0.4088	39.096	ppb	0.4088	1.05%
Zn 213.857†	11135.5	64.572	µg/L	0.2989	64.572	ppb	0.2989	0.46%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/5/2010 13:02:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	134951.4	134951.4	96.3	%			13:03:24
1	Al 396.153Radial†	23289.9	24255.8	5083.2	µg/L	5083.2	ppb	13:03:24
1	Ca 317.933Radial†	72439.3	74627.7	5082.8	µg/L	5082.8	ppb	13:03:24
1	Fe 238.204 Radial†	67478.3	69931.9	5222.5	µg/L	5222.5	ppb	13:03:24
1	K 766.490 Radial†	13543.3	12565.5	4974.9	µg/L	4974.9	ppb	13:03:24
1	Mg 279.077 IEC†	10775.3	11013.4	5093.2	µg/L	5093.2	ppb	13:03:24
1	Na 589.592 Radial†	62921.0	64365.7	9972.8	µg/L	9972.8	ppb	13:03:24
1	Sr 421.552†	205304.6	213331.0	503.09	µg/L	503.09	ppb	13:03:22
1	Sc 361.383	1747605.0	1747605.0	96.866	%			13:03:37
1	Y 371.029	1016171.2	1016171.2	96.110	%			13:03:37
1	Ag 328.068†	122620.9	122023.4	505.79	µg/L	505.79	ppb	13:03:37
1	As 188.979†	1327.3	1388.8	477.11	µg/L	477.11	ppb	13:03:57
1	B 249.677†	34851.3	31913.8	494.56	µg/L	494.56	ppb	13:03:37
1	Ba 233.527†	109210.3	112888.6	502.18	µg/L	502.18	ppb	13:03:37
1	Be 313.107†	1644176.8	1698469.7	492.15	µg/L	492.15	ppb	13:03:37
1	Cd 226.502†	72177.9	74616.7	503.98	µg/L	503.98	ppb	13:03:37
1	Co 228.616†	36906.9	38311.4	507.09	µg/L	507.09	ppb	13:03:37
1	Cr 267.716†	56644.2	58243.8	503.75	µg/L	503.75	ppb	13:03:37
1	Cu 324.752†	119066.1	119882.6	503.02	µg/L	503.02	ppb	13:03:37
1	Mn 257.610†	367985.1	379707.4	503.48	µg/L	503.48	ppb	13:03:37
1	Mo 202.031†	14958.8	15481.4	506.77	µg/L	506.77	ppb	13:03:57
1	Ni 231.604†	38996.7	40354.4	504.88	µg/L	504.88	ppb	13:03:37
1	P 214.914†	10523.6	10889.8	2510.3	µg/L	2510.3	ppb	13:03:57
1	Pb 220.353†	8084.3	8242.5	508.80	µg/L	508.80	ppb	13:03:57
1	S 181.975 Axial†	1239.5	1190.7	1005.9	µg/L	1005.9	ppb	13:03:57
1	Sb 206.836†	3857.3	3892.4	503.08	µg/L	503.08	ppb	13:03:57
1	Se 196.026†	1236.0	1269.9	503	µg/L	503	ppb	13:03:57
1	SiO2†	50367.9	50258.6	5300.7	µg/L	5300.7	ppb	13:03:37
1	Si 251.611†	154270.2	158495.0	2489.2	µg/L	2489.2	ppb	13:03:37
1	Sn 189.927†	6951.6	7174.6	499.34	µg/L	499.34	ppb	13:03:57
1	Ti 334.940†	472854.0	487331.3	499.88	µg/L	499.88	ppb	13:03:37
1	Tl 190.801†	3479.8	3706.7	513.66	µg/L	513.66	ppb	13:03:57
1	U 409.014†	7164.5	7559.7	507.55	µg/L	507.55	ppb	13:03:37
1	V 292.402†	93886.7	96501.4	506.87	µg/L	506.87	ppb	13:03:37
1	Zn 213.857†	82263.2	84422.0	500.15	µg/L	500.15	ppb	13:03:37
2	Sc RADIAL	136378.3	136378.3	97.3	%			13:03:28
2	Al 396.153Radial†	23164.1	23873.6	5003.0	µg/L	5003.0	ppb	13:03:28
2	Ca 317.933Radial†	73120.8	74541.0	5076.9	µg/L	5076.9	ppb	13:03:28
2	Fe 238.204 Radial†	66011.8	67692.5	5055.2	µg/L	5055.2	ppb	13:03:28
2	K 766.490 Radial†	13942.8	12828.8	5079.2	µg/L	5079.2	ppb	13:03:28
2	Mg 279.077 IEC†	10946.2	11071.9	5120.2	µg/L	5120.2	ppb	13:03:28
2	Na 589.592 Radial†	63956.9	64746.4	10032	µg/L	10032	ppb	13:03:28
2	Sr 421.552†	206101.6	211919.9	499.77	µg/L	499.77	ppb	13:03:26
2	Sc 361.383	1771467.8	1771467.8	98.188	%			13:04:00
2	Y 371.029	1029278.3	1029278.3	97.350	%			13:04:00
2	Ag 328.068†	124739.5	122475.9	507.68	µg/L	507.68	ppb	13:04:00
2	As 188.979†	1335.0	1378.2	473.48	µg/L	473.48	ppb	13:04:20
2	B 249.677†	35593.5	32185.1	498.77	µg/L	498.77	ppb	13:04:00
2	Ba 233.527†	110782.0	112970.6	502.55	µg/L	502.55	ppb	13:04:00
2	Be 313.107†	1676433.8	1708457.1	495.04	µg/L	495.04	ppb	13:04:00
2	Cd 226.502†	73710.5	75173.8	507.77	µg/L	507.77	ppb	13:04:00
2	Co 228.616†	37538.3	38441.2	508.82	µg/L	508.82	ppb	13:04:00
2	Cr 267.716†	57589.1	58418.4	505.25	µg/L	505.25	ppb	13:04:00
2	Cu 324.752†	121161.9	120361.3	505.01	µg/L	505.01	ppb	13:04:00
2	Mn 257.610†	374378.3	381101.1	505.33	µg/L	505.33	ppb	13:04:00
2	Mo 202.031†	14962.8	15277.5	500.10	µg/L	500.10	ppb	13:04:20
2	Ni 231.604†	39677.3	40505.3	506.77	µg/L	506.77	ppb	13:04:00
2	P 214.914†	10538.1	10758.2	2480.0	µg/L	2480.0	ppb	13:04:20
2	Pb 220.353†	8094.8	8140.7	502.52	µg/L	502.52	ppb	13:04:20

2	S 181.975 Axial†	1234.8	1168.6	987.34 µg/L	987.34 ppb	13:04:20
2	Sb 206.836†	3877.6	3859.4	498.71 µg/L	498.71 ppb	13:04:20
2	Se 196.026†	1247.8	1264.7	500 µg/L	500 ppb	13:04:20
2	SiO2†	51515.2	50726.6	5350.5 µg/L	5350.5 ppb	13:04:00
2	Si 251.611†	157474.7	159613.2	2507.0 µg/L	2507.0 ppb	13:04:00
2	Sn 189.927†	6980.0	7106.9	494.65 µg/L	494.65 ppb	13:04:20
2	Ti 334.940†	480399.5	488440.2	501.01 µg/L	501.01 ppb	13:04:00
2	Tl 190.801†	3461.6	3639.8	504.55 µg/L	504.55 ppb	13:04:20
2	U 409.014†	7360.0	7659.1	514.00 µg/L	514.00 ppb	13:04:00
2	V 292.402†	95569.5	96909.6	508.95 µg/L	508.95 ppb	13:04:00
2	Zn 213.857†	83892.2	84937.1	503.23 µg/L	503.23 ppb	13:04:00
3	Sc RADIAL	136580.0	136580.0	97.5 %		13:03:32
3	Al 396.153Radial†	23330.5	24009.1	5031.4 µg/L	5031.4 ppb	13:03:32
3	Ca 317.933Radial†	73424.8	74741.9	5090.6 µg/L	5090.6 ppb	13:03:32
3	Fe 238.204 Radial†	66275.6	67863.0	5068.0 µg/L	5068.0 ppb	13:03:32
3	K 766.490 Radial†	13976.3	12842.0	5084.5 µg/L	5084.5 ppb	13:03:32
3	Mg 279.077 IEC†	10895.7	11003.5	5088.7 µg/L	5088.7 ppb	13:03:32
3	Na 589.592 Radial†	64278.6	64979.3	10068 µg/L	10068 ppb	13:03:32
3	Sr 421.552†	204269.4	209727.8	494.60 µg/L	494.60 ppb	13:03:30
3	Sc 361.383	1762008.4	1762008.4	97.664 %		13:04:23
3	Y 371.029	1024064.8	1024064.8	96.857 %		13:04:23
3	Ag 328.068†	124016.1	122417.3	507.42 µg/L	507.42 ppb	13:04:23
3	As 188.979†	1344.0	1394.7	479.06 µg/L	479.06 ppb	13:04:43
3	B 249.677†	35445.3	32228.0	499.43 µg/L	499.43 ppb	13:04:23
3	Ba 233.527†	110194.8	112975.1	502.57 µg/L	502.57 ppb	13:04:23
3	Be 313.107†	1665423.2	1706349.1	494.43 µg/L	494.43 ppb	13:04:23
3	Cd 226.502†	73240.4	75095.6	507.24 µg/L	507.24 ppb	13:04:23
3	Co 228.616†	37379.4	38483.8	509.38 µg/L	509.38 ppb	13:04:23
3	Cr 267.716†	57383.5	58522.8	506.16 µg/L	506.16 ppb	13:04:23
3	Cu 324.752†	120292.6	120133.7	504.04 µg/L	504.04 ppb	13:04:23
3	Mn 257.610†	372242.5	380961.2	505.15 µg/L	505.15 ppb	13:04:23
3	Mo 202.031†	14975.1	15371.8	503.18 µg/L	503.18 ppb	13:04:43
3	Ni 231.604†	39454.9	40494.5	506.64 µg/L	506.64 ppb	13:04:23
3	P 214.914†	10535.7	10813.4	2492.7 µg/L	2492.7 ppb	13:04:43
3	Pb 220.353†	8095.0	8185.1	505.27 µg/L	505.27 ppb	13:04:43
3	S 181.975 Axial†	1246.4	1187.3	1003.0 µg/L	1003.0 ppb	13:04:43
3	Sb 206.836†	3832.0	3833.9	495.46 µg/L	495.46 ppb	13:04:43
3	Se 196.026†	1246.8	1270.5	503 µg/L	503 ppb	13:04:43
3	SiO2†	51309.1	50797.2	5357.8 µg/L	5357.8 ppb	13:04:23
3	Si 251.611†	156783.5	159766.5	2509.4 µg/L	2509.4 ppb	13:04:23
3	Sn 189.927†	6968.1	7132.9	496.45 µg/L	496.45 ppb	13:04:43
3	Ti 334.940†	477556.5	488155.9	500.73 µg/L	500.73 ppb	13:04:23
3	Tl 190.801†	3456.2	3653.1	506.37 µg/L	506.37 ppb	13:04:43
3	U 409.014†	7095.8	7428.9	499.46 µg/L	499.46 ppb	13:04:23
3	V 292.402†	95062.9	96913.4	508.99 µg/L	508.99 ppb	13:04:23
3	Zn 213.857†	83296.3	84785.6	502.33 µg/L	502.33 ppb	13:04:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1760360.4	97.573	%	0.6660				0.68%
Sc RADIAL	135969.9	97.1	%	0.63				0.65%
Y 371.029	1023171.4	96.772	%	0.6241				0.64%
Ag 328.068†	122305.5	506.97	µg/L	1.022	506.97	ppb	1.022	0.20%
QC value within limits for Ag 328.068 Recovery = 101.39%								
Al 396.153Radial†	24046.2	5039.2	µg/L	40.64	5039.2	ppb	40.64	0.81%
QC value within limits for Al 396.153Radial Recovery = 100.78%								
As 188.979†	1387.2	476.55	µg/L	2.835	476.55	ppb	2.835	0.59%
QC value within limits for As 188.979 Recovery = 95.31%								
B 249.677†	32109.0	497.59	µg/L	2.645	497.59	ppb	2.645	0.53%
QC value within limits for B 249.677 Recovery = 99.52%								
Ba 233.527†	112944.8	502.43	µg/L	0.217	502.43	ppb	0.217	0.04%
QC value within limits for Ba 233.527 Recovery = 100.49%								
Be 313.107†	1704425.3	493.87	µg/L	1.525	493.87	ppb	1.525	0.31%
QC value within limits for Be 313.107 Recovery = 98.77%								
Ca 317.933Radial†	74636.9	5083.4	µg/L	6.86	5083.4	ppb	6.86	0.14%
QC value within limits for Ca 317.933Radial Recovery = 101.67%								
Cd 226.502†	74962.0	506.33	µg/L	2.049	506.33	ppb	2.049	0.40%
QC value within limits for Cd 226.502 Recovery = 101.27%								
Co 228.616†	38412.1	508.43	µg/L	1.193	508.43	ppb	1.193	0.23%

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   QC value within limits for Co 228.616  Recovery = 101.69%
Cr 267.716†            58395.0      505.05 µg/L         1.219      505.05 ppb          1.219   0.24%
   QC value within limits for Cr 267.716  Recovery = 101.01%
Cu 324.752†           120125.9      504.02 µg/L         0.993      504.02 ppb          0.993   0.20%
   QC value within limits for Cu 324.752  Recovery = 100.80%
Fe 238.204 Radial†     68495.8      5115.2 µg/L         93.09      5115.2 ppb          93.09   1.82%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.30%
K 766.490 Radial†      12745.4      5046.2 µg/L         61.80      5046.2 ppb          61.80   1.22%
   QC value within limits for K 766.490 Radial  Recovery = 100.92%
Mg 279.077 IEC†        11029.6      5100.7 µg/L         17.03      5100.7 ppb          17.03   0.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.01%
Mn 257.610†           380589.9      504.65 µg/L         1.018      504.65 ppb          1.018   0.20%
   QC value within limits for Mn 257.610  Recovery = 100.93%
Mo 202.031†            15376.9      503.35 µg/L         3.340      503.35 ppb          3.340   0.66%
   QC value within limits for Mo 202.031  Recovery = 100.67%
Na 589.592 Radial†     64697.1       10024 µg/L          48.0       10024 ppb           48.0   0.48%
   QC value within limits for Na 589.592 Radial  Recovery = 100.24%
Ni 231.604†            40451.4      506.10 µg/L         1.053      506.10 ppb          1.053   0.21%
   QC value within limits for Ni 231.604  Recovery = 101.22%
P 214.914†             10820.5      2494.3 µg/L         15.23      2494.3 ppb          15.23   0.61%
   QC value within limits for P 214.914  Recovery = 99.77%
Pb 220.353†             8189.4      505.53 µg/L         3.148      505.53 ppb          3.148   0.62%
   QC value within limits for Pb 220.353  Recovery = 101.11%
S 181.975 Axial†        1182.2      998.77 µg/L        10.007      998.77 ppb         10.007   1.00%
   QC value within limits for S 181.975 Axial  Recovery = 99.88%
Sb 206.836†             3861.9      499.08 µg/L         3.825      499.08 ppb          3.825   0.77%
   QC value within limits for Sb 206.836  Recovery = 99.82%
Se 196.026†             1268.4         502 µg/L           1.3         502 ppb            1.3   0.25%
   QC value within limits for Se 196.026  Recovery = 100.39%
SiO2†                  50594.1      5336.3 µg/L         31.11      5336.3 ppb          31.11   0.58%
   QC value within limits for SiO2  Recovery = 99.79%
Si 251.611†           159291.6      2501.9 µg/L         11.00      2501.9 ppb          11.00   0.44%
   QC value within limits for Si 251.611  Recovery = 100.07%
Sn 189.927†             7138.1      496.81 µg/L         2.368      496.81 ppb          2.368   0.48%
   QC value within limits for Sn 189.927  Recovery = 99.36%
Sr 421.552†           211659.6      499.15 µg/L         4.282      499.15 ppb          4.282   0.86%
   QC value within limits for Sr 421.552  Recovery = 99.83%
Ti 334.940†           487975.8      500.54 µg/L         0.590      500.54 ppb          0.590   0.12%
   QC value within limits for Ti 334.940  Recovery = 100.11%
Tl 190.801†             3666.5      508.19 µg/L         4.821      508.19 ppb          4.821   0.95%
   QC value within limits for Tl 190.801  Recovery = 101.64%
U 409.014†              7549.2      507.00 µg/L         7.282      507.00 ppb          7.282   1.44%
   QC value within limits for U 409.014  Recovery = 101.40%
V 292.402†             96774.8      508.27 µg/L         1.211      508.27 ppb          1.211   0.24%
   QC value within limits for V 292.402  Recovery = 101.65%
Zn 213.857†            84714.9      501.90 µg/L         1.582      501.90 ppb          1.582   0.32%
   QC value within limits for Zn 213.857  Recovery = 100.38%
All analyte(s) passed QC.
```

Sequence No.: 9 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 4/5/2010 13:04:51**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136290.1	136290.1	97.3	%			13:05:20
1	Al 396.153Radial†	-69.6	7.0	1.4282	µg/L	1.4282	ppb	13:05:40
1	Ca 317.933Radial†	692.3	140.1	9.5452	µg/L	9.5452	ppb	13:05:40
1	Fe 238.204 Radial†	192.6	80.7	6.0268	µg/L	6.0268	ppb	13:05:40
1	K 766.490 Radial†	1641.5	193.5	76.683	µg/L	76.683	ppb	13:05:20
1	Mg 279.077 IEC†	175.0	7.4	3.4314	µg/L	3.4314	ppb	13:05:40
1	Na 589.592 Radial†	1048.0	124.7	19.264	µg/L	19.264	ppb	13:05:20
1	Sr 421.552†	-137.5	63.2	0.1489	µg/L	0.1489	ppb	13:05:20
1	Sc 361.383	1782656.2	1782656.2	98.808	%			13:06:42
1	Y 371.029	1047247.8	1047247.8	99.050	%			13:06:42
1	Ag 328.068†	4249.4	-264.5	-1.0842	µg/L	-1.0842	ppb	13:06:44
1	As 188.979†	-22.1	-3.8	-1.2845	µg/L	-1.2845	ppb	13:07:04
1	B 249.677†	4129.8	114.4	1.7792	µg/L	1.7792	ppb	13:06:44
1	Ba 233.527†	-153.9	-11.2	-0.0495	µg/L	-0.0495	ppb	13:07:04
1	Be 313.107†	-783.7	298.6	0.0863	µg/L	0.0863	ppb	13:06:44
1	Cd 226.502†	-60.9	41.7	0.2814	µg/L	0.2814	ppb	13:07:04
1	Co 228.616†	-197.9	10.1	0.1327	µg/L	0.1327	ppb	13:07:04
1	Cr 267.716†	268.3	38.3	0.3322	µg/L	0.3322	ppb	13:07:04
1	Cu 324.752†	2855.2	-146.5	-0.6124	µg/L	-0.6124	ppb	13:06:44
1	Mn 257.610†	251.5	69.8	0.0924	µg/L	0.0924	ppb	13:07:04
1	Mo 202.031†	-10.5	27.9	0.9129	µg/L	0.9129	ppb	13:07:04
1	Ni 231.604†	-80.3	14.7	0.1834	µg/L	0.1834	ppb	13:07:04
1	P 214.914†	8.1	33.9	7.8275	µg/L	7.8275	ppb	13:07:04
1	Pb 220.353†	78.1	-24.4	-1.4965	µg/L	-1.4965	ppb	13:07:04
1	S 181.975 Axial†	97.0	9.3	7.8229	µg/L	7.8229	ppb	13:07:04
1	Sb 206.836†	91.7	3.1	0.4072	µg/L	0.4072	ppb	13:07:04
1	Se 196.026†	28.3	22.5	8.88	µg/L	8.88	ppb	13:07:04
1	SiO2†	1885.5	169.1	17.875	µg/L	17.875	ppb	13:07:04
1	Si 251.611†	1309.0	557.8	8.7808	µg/L	8.7808	ppb	13:06:44
1	Sn 189.927†	7.5	5.7	0.3950	µg/L	0.3950	ppb	13:07:04
1	Ti 334.940†	1019.9	209.2	0.2150	µg/L	0.2150	ppb	13:06:44
1	Tl 190.801†	-114.7	-1.8	-0.2448	µg/L	-0.2448	ppb	13:07:04
1	U 409.014†	-171.8	-10.6	-0.6689	µg/L	-0.6689	ppb	13:06:44
1	V 292.402†	411.2	-7.0	-0.0268	µg/L	-0.0268	ppb	13:06:44
1	Zn 213.857†	594.7	98.9	0.5892	µg/L	0.5892	ppb	13:07:04
2	Sc RADIAL	136851.1	136851.1	97.7	%			13:05:42
2	Al 396.153Radial†	-103.9	-27.8	-5.8900	µg/L	-5.8900	ppb	13:06:02
2	Ca 317.933Radial†	675.5	120.0	8.1746	µg/L	8.1746	ppb	13:06:02
2	Fe 238.204 Radial†	167.9	54.5	4.0720	µg/L	4.0720	ppb	13:06:02
2	K 766.490 Radial†	1638.3	183.3	72.608	µg/L	72.608	ppb	13:05:42
2	Mg 279.077 IEC†	187.9	19.9	9.2236	µg/L	9.2236	ppb	13:06:02
2	Na 589.592 Radial†	1294.8	372.9	57.744	µg/L	57.744	ppb	13:05:42
2	Sr 421.552†	-154.5	46.3	0.1092	µg/L	0.1092	ppb	13:05:42
2	Sc 361.383	1800370.9	1800370.9	99.790	%			13:07:07
2	Y 371.029	1056939.0	1056939.0	99.966	%			13:07:07
2	Ag 328.068†	4328.8	-227.3	-0.9428	µg/L	-0.9428	ppb	13:07:09
2	As 188.979†	-8.8	9.7	3.2929	µg/L	3.2929	ppb	13:07:29
2	B 249.677†	4165.2	108.8	1.6915	µg/L	1.6915	ppb	13:07:09
2	Ba 233.527†	-134.5	9.7	0.0431	µg/L	0.0431	ppb	13:07:29
2	Be 313.107†	-900.8	189.1	0.0532	µg/L	0.0532	ppb	13:07:09
2	Cd 226.502†	-87.7	15.4	0.1042	µg/L	0.1042	ppb	13:07:29
2	Co 228.616†	-202.1	7.8	0.1025	µg/L	0.1025	ppb	13:07:29
2	Cr 267.716†	263.2	30.5	0.2678	µg/L	0.2678	ppb	13:07:29
2	Cu 324.752†	2938.4	-91.6	-0.3863	µg/L	-0.3863	ppb	13:07:09
2	Mn 257.610†	356.5	172.5	0.2285	µg/L	0.2285	ppb	13:07:29
2	Mo 202.031†	-17.0	21.6	0.7059	µg/L	0.7059	ppb	13:07:29
2	Ni 231.604†	-43.4	52.4	0.6558	µg/L	0.6558	ppb	13:07:29
2	P 214.914†	3.0	28.7	6.6395	µg/L	6.6395	ppb	13:07:29
2	Pb 220.353†	108.5	5.3	0.3325	µg/L	0.3325	ppb	13:07:29

2	S 181.975 Axial†	90.0	1.3	1.0862 µg/L	1.0862 ppb	13:07:29
2	Sb 206.836†	98.1	8.6	1.1191 µg/L	1.1191 ppb	13:07:29
2	Se 196.026†	25.4	19.3	7.59 µg/L	7.59 ppb	13:07:29
2	SiO2†	1870.0	134.8	14.250 µg/L	14.250 ppb	13:07:29
2	Si 251.611†	1273.5	509.1	8.0160 µg/L	8.0160 ppb	13:07:09
2	Sn 189.927†	8.7	6.8	0.4730 µg/L	0.4730 ppb	13:07:29
2	Ti 334.940†	814.0	-7.3	-0.0060 µg/L	-0.0060 ppb	13:07:09
2	Tl 190.801†	-113.8	0.2	0.0291 µg/L	0.0291 ppb	13:07:29
2	U 409.014†	-242.9	-80.0	-5.0782 µg/L	-5.0782 ppb	13:07:09
2	V 292.402†	326.1	-96.5	-0.4955 µg/L	-0.4955 ppb	13:07:09
2	Zn 213.857†	622.6	120.9	0.7175 µg/L	0.7175 ppb	13:07:29
3	Sc RADIAL	134763.0	134763.0	96.2 %		13:06:04
3	Al 396.153Radial†	-98.1	-23.5	-4.9608 µg/L	-4.9608 ppb	13:06:24
3	Ca 317.933Radial†	689.2	145.0	9.8746 µg/L	9.8746 ppb	13:06:24
3	Fe 238.204 Radial†	163.4	52.6	3.9274 µg/L	3.9274 ppb	13:06:24
3	K 766.490 Radial†	1713.1	287.0	113.73 µg/L	113.73 ppb	13:06:04
3	Mg 279.077 IEC†	185.0	19.8	9.1679 µg/L	9.1679 ppb	13:06:24
3	Na 589.592 Radial†	1061.3	150.7	23.261 µg/L	23.261 ppb	13:06:04
3	Sr 421.552†	-202.2	-5.7	-0.0136 µg/L	-0.0136 ppb	13:06:04
3	Sc 361.383	1779169.5	1779169.5	98.615 %		13:07:31
3	Y 371.029	1045675.5	1045675.5	98.901 %		13:07:31
3	Ag 328.068†	4167.3	-339.4	-1.3915 µg/L	-1.3915 ppb	13:07:33
3	As 188.979†	-16.5	1.8	0.6281 µg/L	0.6281 ppb	13:07:53
3	B 249.677†	4105.7	98.2	1.5263 µg/L	1.5263 ppb	13:07:33
3	Ba 233.527†	-156.0	-13.7	-0.0604 µg/L	-0.0604 ppb	13:07:53
3	Be 313.107†	-846.5	233.3	0.0659 µg/L	0.0659 ppb	13:07:33
3	Cd 226.502†	-55.4	47.2	0.3186 µg/L	0.3186 ppb	13:07:53
3	Co 228.616†	-190.5	17.1	0.2261 µg/L	0.2261 ppb	13:07:53
3	Cr 267.716†	277.0	47.7	0.4170 µg/L	0.4170 ppb	13:07:53
3	Cu 324.752†	2979.0	-15.3	-0.0678 µg/L	-0.0678 ppb	13:07:33
3	Mn 257.610†	253.7	72.5	0.0958 µg/L	0.0958 ppb	13:07:53
3	Mo 202.031†	-27.2	10.9	0.3585 µg/L	0.3585 ppb	13:07:53
3	Ni 231.604†	-64.3	30.7	0.3841 µg/L	0.3841 ppb	13:07:53
3	P 214.914†	-3.9	21.8	5.0264 µg/L	5.0264 ppb	13:07:53
3	Pb 220.353†	85.7	-16.5	-1.0125 µg/L	-1.0125 ppb	13:07:53
3	S 181.975 Axial†	96.0	8.5	7.1344 µg/L	7.1344 ppb	13:07:53
3	Sb 206.836†	89.9	1.4	0.1833 µg/L	0.1833 ppb	13:07:53
3	Se 196.026†	24.3	18.4	7.26 µg/L	7.26 ppb	13:07:53
3	SiO2†	1922.0	209.9	22.217 µg/L	22.217 ppb	13:07:53
3	Si 251.611†	1301.3	552.6	8.7095 µg/L	8.7095 ppb	13:07:33
3	Sn 189.927†	0.2	-1.7	-0.1193 µg/L	-0.1193 ppb	13:07:53
3	Ti 334.940†	753.7	-58.7	-0.0586 µg/L	-0.0586 ppb	13:07:33
3	Tl 190.801†	-106.1	6.7	0.9126 µg/L	0.9126 ppb	13:07:53
3	U 409.014†	-250.6	-90.7	-5.7025 µg/L	-5.7025 ppb	13:07:33
3	V 292.402†	497.3	81.0	0.4213 µg/L	0.4213 ppb	13:07:33
3	Zn 213.857†	570.3	75.3	0.4464 µg/L	0.4464 ppb	13:07:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1787398.9	99.071	%	0.6301				0.64%
Sc RADIAL	135968.1	97.1	%	0.77				0.79%
Y 371.029	1049954.1	99.305	%	0.5769				0.58%
Ag 328.068†	-277.1	-1.1395	µg/L	0.22941	-1.1395	ppb	0.22941	20.13%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.8	-3.1409	µg/L	3.98409	-3.1409	ppb	3.98409	126.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.6	0.8788	µg/L	2.29896	0.8788	ppb	2.29896	261.60%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	107.1	1.6657	µg/L	0.12840	1.6657	ppb	0.12840	7.71%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.0	-0.0222	µg/L	0.05687	-0.0222	ppb	0.05687	255.61%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	240.3	0.0685	µg/L	0.01668	0.0685	ppb	0.01668	24.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	135.0	9.1981	µg/L	0.90158	9.1981	ppb	0.90158	9.80%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	34.8	0.2347	µg/L	0.11455	0.2347	ppb	0.11455	48.80%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.6	0.1538	µg/L	0.06444	0.1538	ppb	0.06444	41.91%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                38.8      0.3390 µg/L       0.07485      0.3390 ppb        0.07485  22.08%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -84.5     -0.3555 µg/L       0.27361     -0.3555 ppb        0.27361  76.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         62.6      4.6754 µg/L       1.17256      4.6754 ppb        1.17256  25.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         221.3      87.675 µg/L       22.6597      87.675 ppb        22.6597  25.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            15.7      7.2743 µg/L       3.32818      7.2743 ppb        3.32818  45.75%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               104.9      0.1389 µg/L       0.07760      0.1389 ppb        0.07760  55.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                20.1      0.6591 µg/L       0.28014      0.6591 ppb        0.28014  42.50%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        216.1      33.423 µg/L       21.1576      33.423 ppb        21.1576  63.30%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                32.6      0.4078 µg/L       0.23709      0.4078 ppb        0.23709  58.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 28.1      6.4978 µg/L       1.40594      6.4978 ppb        1.40594  21.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -11.9     -0.7255 µg/L       0.94768     -0.7255 ppb        0.94768 130.63%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            6.4      5.3479 µg/L       3.70673      5.3479 ppb        3.70673  69.31%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.4      0.5698 µg/L       0.48864      0.5698 ppb        0.48864  85.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                20.1        7.91 µg/L         0.855        7.91 ppb          0.855  10.80%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     171.3      18.114 µg/L        3.9889      18.114 ppb         3.9889  22.02%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               539.8      8.5021 µg/L       0.42246      8.5021 ppb        0.42246   4.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.6      0.2496 µg/L       0.32182      0.2496 ppb        0.32182 128.96%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                34.6      0.0815 µg/L       0.08471      0.0815 ppb        0.08471 103.94%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                47.7      0.0501 µg/L       0.14519      0.0501 ppb        0.14519 289.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.7      0.2323 µg/L       0.60486      0.2323 ppb        0.60486 260.40%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -60.4     -3.8165 µg/L       2.74372     -3.8165 ppb        2.74372  71.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -7.5     -0.0337 µg/L       0.45841     -0.0337 ppb        0.45841 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                98.4      0.5844 µg/L       0.13562      0.5844 ppb        0.13562  23.21%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: 248866002|964016|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 308
Date Collected: 4/5/2010 13:08:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248866002|964016|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	138627.2	138627.2	99.0	%			13:08:36
1	Al 396.153Radial†	127322.5	128747.3	27106	µg/L	27106	ppb	13:08:36
1	Ca 317.933Radial†	170268.3	171497.2	11681	µg/L	11681	ppb	13:08:36
1	Fe 238.204 Radial†	945677.5	955559.2	71360	µg/L	71360	ppb	13:08:34
1	K 766.490 Radial†	21849.2	20586.4	8148.0	µg/L	8148.0	ppb	13:08:36
1	Mg 279.077 IEC†	24733.6	24822.6	11400	µg/L	11400	ppb	13:08:36
1	Na 589.592 Radial†	6541.8	5658.4	869.85	µg/L	869.85	ppb	13:08:36
1	Sr 421.552†	27702.7	28200.1	66.417	µg/L	66.417	ppb	13:08:36
1	Sc 361.383	1778429.8	1778429.8	98.574	%			13:09:03
1	Y 371.029	1166901.9	1166901.9	110.37	%			13:09:03
1	Ag 328.068†	3509.3	-1005.1	-3.4074	µg/L	-3.4074	ppb	13:09:03
1	As 188.979†	42.9	62.1	38.197	µg/L	38.197	ppb	13:09:23
1	B 249.677†	4641.1	643.1	9.9224	µg/L	9.9224	ppb	13:09:03
1	Ba 233.527†	472051.9	479024.2	2128.4	µg/L	2128.4	ppb	13:09:03
1	Be 313.107†	17333.4	18675.9	5.2906	µg/L	5.2906	ppb	13:09:03
1	Cd 226.502†	1089.2	1208.3	0.6832	µg/L	0.6832	ppb	13:09:23
1	Co 228.616†	1470.1	1701.6	20.904	µg/L	20.904	ppb	13:09:23
1	Cr 267.716†	14338.9	14313.1	126.26	µg/L	126.26	ppb	13:09:23
1	Cu 324.752†	24289.2	21604.4	100.75	µg/L	100.75	ppb	13:09:03
1	Mn 257.610†	904302.9	917197.9	1216.1	µg/L	1216.1	ppb	13:09:03
1	Mo 202.031†	78.7	118.4	6.9674	µg/L	6.9674	ppb	13:09:23
1	Ni 231.604†	3321.9	3465.9	43.362	µg/L	43.362	ppb	13:09:23
1	P 214.914†	10085.4	10256.9	2329.2	µg/L	2329.2	ppb	13:09:23
1	Pb 220.353†	1175.7	1089.2	69.609	µg/L	69.609	ppb	13:09:23
1	S 181.975 Axial†	911.0	835.2	702.67	µg/L	702.67	ppb	13:09:23
1	Sb 206.836†	101.3	13.1	-0.8811	µg/L	-0.8811	ppb	13:09:23
1	Se 196.026†	-39.2	-45.9	6.29	µg/L	6.29	ppb	13:09:23
1	SiO2†	368635.5	372228.3	39418	µg/L	39418	ppb	13:09:03
1	Si 251.611†	1155769.4	1171719.3	18477	µg/L	18477	ppb	13:09:03
1	Sn 189.927†	13.5	11.8	8.2937	µg/L	8.2937	ppb	13:09:23
1	Ti 334.940†	2127752.5	2157705.1	2215.6	µg/L	2215.6	ppb	13:09:03
1	Tl 190.801†	-350.5	-241.3	-6.2562	µg/L	-6.2562	ppb	13:09:23
1	U 409.014†	-6325.1	-6253.3	-391.61	µg/L	-391.61	ppb	13:09:03
1	V 292.402†	36694.7	36802.2	181.47	µg/L	181.47	ppb	13:09:03
1	Zn 213.857†	131572.3	132972.4	787.77	µg/L	787.77	ppb	13:09:03
2	Sc RADIAL	138334.0	138334.0	98.7	%			13:08:40
2	Al 396.153Radial†	127471.9	129171.4	27195	µg/L	27195	ppb	13:08:40
2	Ca 317.933Radial†	170259.8	171853.3	11705	µg/L	11705	ppb	13:08:40
2	Fe 238.204 Radial†	977809.7	990125.8	73942	µg/L	73942	ppb	13:08:38
2	K 766.490 Radial†	22046.0	20832.6	8245.5	µg/L	8245.5	ppb	13:08:40
2	Mg 279.077 IEC†	24816.1	24959.2	11461	µg/L	11461	ppb	13:08:40
2	Na 589.592 Radial†	6519.9	5650.3	868.51	µg/L	868.51	ppb	13:08:40
2	Sr 421.552†	27677.4	28233.8	66.497	µg/L	66.497	ppb	13:08:40
2	Sc 361.383	1791842.6	1791842.6	99.318	%			13:09:26
2	Y 371.029	1175357.7	1175357.7	111.17	%			13:09:26
2	Ag 328.068†	3876.5	-662.0	-2.0055	µg/L	-2.0055	ppb	13:09:26
2	As 188.979†	45.5	64.3	39.526	µg/L	39.526	ppb	13:09:46
2	B 249.677†	4552.8	518.9	7.9941	µg/L	7.9941	ppb	13:09:26
2	Ba 233.527†	475567.4	478979.1	2128.2	µg/L	2128.2	ppb	13:09:26
2	Be 313.107†	17071.1	18280.1	5.1804	µg/L	5.1804	ppb	13:09:26
2	Cd 226.502†	1079.1	1189.9	0.2867	µg/L	0.2867	ppb	13:09:46
2	Co 228.616†	1434.5	1654.6	20.147	µg/L	20.147	ppb	13:09:46
2	Cr 267.716†	14340.0	14205.3	125.40	µg/L	125.40	ppb	13:09:46
2	Cu 324.752†	24471.5	21603.5	101.14	µg/L	101.14	ppb	13:09:26
2	Mn 257.610†	910835.5	916908.3	1215.7	µg/L	1215.7	ppb	13:09:26
2	Mo 202.031†	66.7	105.7	6.6564	µg/L	6.6564	ppb	13:09:46
2	Ni 231.604†	3287.0	3405.5	42.606	µg/L	42.606	ppb	13:09:46
2	P 214.914†	10073.0	10167.9	2306.9	µg/L	2306.9	ppb	13:09:46
2	Pb 220.353†	1172.6	1077.2	68.778	µg/L	68.778	ppb	13:09:46

2	S 181.975 Axial†	899.2	816.4	686.86	µg/L	686.86	ppb	13:09:46
2	Sb 206.836†	93.8	4.7	-1.9855	µg/L	-1.9855	ppb	13:09:46
2	Se 196.026†	-45.5	-51.9	4.83	µg/L	4.83	ppb	13:09:46
2	SiO2†	371542.4	372355.9	39432	µg/L	39432	ppb	13:09:26
2	Si 251.611†	1162913.5	1170135.9	18452	µg/L	18452	ppb	13:09:26
2	Sn 189.927†	-3.6	-5.5	7.0830	µg/L	7.0830	ppb	13:09:46
2	Ti 334.940†	2141196.8	2155084.2	2212.9	µg/L	2212.9	ppb	13:09:26
2	Tl 190.801†	-335.6	-223.6	-3.8723	µg/L	-3.8723	ppb	13:09:46
2	U 409.014†	-6146.1	-6025.0	-377.81	µg/L	-377.81	ppb	13:09:26
2	V 292.402†	36925.1	36755.6	180.96	µg/L	180.96	ppb	13:09:26
2	Zn 213.857†	132243.3	132648.9	785.57	µg/L	785.57	ppb	13:09:26
3	Sc RADIAL	137407.9	137407.9	98.1	%			13:08:44
3	Al 396.153Radial†	126711.0	129265.6	27215	µg/L	27215	ppb	13:08:44
3	Ca 317.933Radial†	168871.7	171600.1	11688	µg/L	11688	ppb	13:08:44
3	Fe 238.204 Radial†	969690.1	988521.2	73822	µg/L	73822	ppb	13:08:42
3	K 766.490 Radial†	21778.0	20709.8	8196.9	µg/L	8196.9	ppb	13:08:44
3	Mg 279.077 IEC†	24540.5	24847.6	11410	µg/L	11410	ppb	13:08:44
3	Na 589.592 Radial†	6552.5	5728.0	880.59	µg/L	880.59	ppb	13:08:44
3	Sr 421.552†	27385.3	28124.9	66.240	µg/L	66.240	ppb	13:08:44
3	Sc 361.383	1778998.2	1778998.2	98.606	%			13:09:49
3	Y 371.029	1167722.9	1167722.9	110.44	%			13:09:49
3	Ag 328.068†	3575.3	-939.3	-3.1353	µg/L	-3.1353	ppb	13:09:49
3	As 188.979†	33.7	52.7	35.587	µg/L	35.587	ppb	13:10:09
3	B 249.677†	4318.3	314.2	4.8082	µg/L	4.8082	ppb	13:09:49
3	Ba 233.527†	471598.4	478411.2	2125.6	µg/L	2125.6	ppb	13:09:49
3	Be 313.107†	17266.9	18602.8	5.2758	µg/L	5.2758	ppb	13:09:49
3	Cd 226.502†	1082.1	1200.8	0.3730	µg/L	0.3730	ppb	13:10:09
3	Co 228.616†	1470.7	1701.8	20.775	µg/L	20.775	ppb	13:10:09
3	Cr 267.716†	14422.7	14393.4	127.02	µg/L	127.02	ppb	13:10:09
3	Cu 324.752†	24241.9	21548.5	100.90	µg/L	100.90	ppb	13:09:49
3	Mn 257.610†	902491.4	915067.7	1213.2	µg/L	1213.2	ppb	13:09:49
3	Mo 202.031†	90.6	130.4	7.4591	µg/L	7.4591	ppb	13:10:09
3	Ni 231.604†	3284.7	3427.1	42.877	µg/L	42.877	ppb	13:10:09
3	P 214.914†	10156.6	10325.9	2343.5	µg/L	2343.5	ppb	13:10:09
3	Pb 220.353†	1186.4	1099.7	70.163	µg/L	70.163	ppb	13:10:09
3	S 181.975 Axial†	916.9	841.0	707.53	µg/L	707.53	ppb	13:10:09
3	Sb 206.836†	76.7	-12.0	-4.1517	µg/L	-4.1517	ppb	13:10:09
3	Se 196.026†	-41.8	-48.5	6.13	µg/L	6.13	ppb	13:10:09
3	SiO2†	368225.5	371693.0	39361	µg/L	39361	ppb	13:09:49
3	Si 251.611†	1153102.1	1168639.7	18428	µg/L	18428	ppb	13:09:49
3	Sn 189.927†	8.0	6.2	7.8955	µg/L	7.8955	ppb	13:10:09
3	Ti 334.940†	2125804.4	2155039.7	2212.9	µg/L	2212.9	ppb	13:09:49
3	Tl 190.801†	-334.6	-225.1	-4.0873	µg/L	-4.0873	ppb	13:10:09
3	U 409.014†	-6001.2	-5922.7	-371.37	µg/L	-371.37	ppb	13:09:49
3	V 292.402†	36582.8	36676.9	180.58	µg/L	180.58	ppb	13:09:49
3	Zn 213.857†	131220.5	132572.9	785.12	µg/L	785.12	ppb	13:09:49

Mean Data: 248866002|964016|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783090.2	98.833	%	0.4204				0.43%
Sc RADIAL	138123.0	98.6	%	0.45				0.46%
Y 371.029	1169994.2	110.66	%	0.441				0.40%
Ag 328.068†	-868.8	-2.8494	µg/L	0.74340	-2.8494	ppb	0.74340	26.09%
Al 396.153Radial†	129061.4	27172	µg/L	58.1	27172	ppb	58.1	0.21%
As 188.979†	59.7	37.770	µg/L	2.0040	37.770	ppb	2.0040	5.31%
B 249.677†	492.1	7.5749	µg/L	2.58274	7.5749	ppb	2.58274	34.10%
Ba 233.527†	478804.8	2127.4	µg/L	1.53	2127.4	ppb	1.53	0.07%
Be 313.107†	18519.6	5.2489	µg/L	0.05984	5.2489	ppb	0.05984	1.14%
Ca 317.933Radial†	171650.2	11691	µg/L	12.5	11691	ppb	12.5	0.11%
Cd 226.502†	1199.7	0.4476	µg/L	0.20850	0.4476	ppb	0.20850	46.58%
Co 228.616†	1686.0	20.608	µg/L	0.4048	20.608	ppb	0.4048	1.96%
Cr 267.716†	14304.0	126.23	µg/L	0.810	126.23	ppb	0.810	0.64%
Cu 324.752†	21585.5	100.93	µg/L	0.195	100.93	ppb	0.195	0.19%
Fe 238.204 Radial†	978068.7	73041	µg/L	1457.0	73041	ppb	1457.0	1.99%
K 766.490 Radial†	20709.6	8196.8	µg/L	48.75	8196.8	ppb	48.75	0.59%
Mg 279.077 IEC†	24876.5	11424	µg/L	32.7	11424	ppb	32.7	0.29%
Mn 257.610†	916391.3	1215.0	µg/L	1.53	1215.0	ppb	1.53	0.13%
Mo 202.031†	118.2	7.0276	µg/L	0.40475	7.0276	ppb	0.40475	5.76%
Na 589.592 Radial†	5678.9	872.98	µg/L	6.622	872.98	ppb	6.622	0.76%

Ni 231.604†	3432.8	42.949	µg/L	0.3830	42.949	ppb	0.3830	0.89%
P 214.914†	10250.2	2326.5	µg/L	18.46	2326.5	ppb	18.46	0.79%
Pb 220.353†	1088.7	69.517	µg/L	0.6972	69.517	ppb	0.6972	1.00%
S 181.975 Axial†	830.9	699.02	µg/L	10.806	699.02	ppb	10.806	1.55%
Sb 206.836†	2.0	-2.3394	µg/L	1.66378	-2.3394	ppb	1.66378	71.12%
Se 196.026†	-48.8	5.75	µg/L	0.800	5.75	ppb	0.800	13.90%
SiO2†	372092.4	39404	µg/L	37.3	39404	ppb	37.3	0.09%
Si 251.611†	1170165.0	18452	µg/L	24.3	18452	ppb	24.3	0.13%
Sn 189.927†	4.2	7.7574	µg/L	0.61702	7.7574	ppb	0.61702	7.95%
Sr 421.552†	28186.2	66.385	µg/L	0.1314	66.385	ppb	0.1314	0.20%
Ti 334.940†	2155943.0	2213.8	µg/L	1.57	2213.8	ppb	1.57	0.07%
Tl 190.801†	-230.0	-4.7386	µg/L	1.31864	-4.7386	ppb	1.31864	27.83%
U 409.014†	-6067.0	-380.26	µg/L	10.344	-380.26	ppb	10.344	2.72%
Concentration less than lower limit for U 409.014.								
V 292.402†	36744.9	181.00	µg/L	0.444	181.00	ppb	0.444	0.25%
Zn 213.857†	132731.4	786.15	µg/L	1.415	786.15	ppb	1.415	0.18%

Sequence No.: 15 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/5/2010 13:19:15**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	137686.1	137686.1	98.3	%			13:19:48
1	Al 396.153Radial†	23316.9	23803.1	4987.8	µg/L	4987.8	ppb	13:19:48
1	Ca 317.933Radial†	74157.5	74882.4	5100.2	µg/L	5100.2	ppb	13:19:48
1	Fe 238.204 Radial†	66808.5	67859.0	5067.7	µg/L	5067.7	ppb	13:19:48
1	K 766.490 Radial†	14132.5	12885.8	5101.8	µg/L	5101.8	ppb	13:19:48
1	Mg 279.077 IEC†	11014.2	11034.3	5103.1	µg/L	5103.1	ppb	13:19:48
1	Na 589.592 Radial†	64546.9	64722.7	10028	µg/L	10028	ppb	13:19:48
1	Sr 421.552†	206906.3	210727.7	496.95	µg/L	496.95	ppb	13:19:46
1	Sc 361.383	1764151.9	1764151.9	97.783	%			13:20:15
1	Y 371.029	1025388.3	1025388.3	96.982	%			13:20:15
1	Ag 328.068†	124481.4	122738.8	508.77	µg/L	508.77	ppb	13:20:15
1	As 188.979†	1356.8	1406.2	482.95	µg/L	482.95	ppb	13:20:35
1	B 249.677†	35498.9	32238.7	499.59	µg/L	499.59	ppb	13:20:15
1	Ba 233.527†	110006.0	112644.9	501.10	µg/L	501.10	ppb	13:20:15
1	Be 313.107†	1665582.9	1704440.6	493.88	µg/L	493.88	ppb	13:20:15
1	Cd 226.502†	73149.4	74911.4	505.99	µg/L	505.99	ppb	13:20:15
1	Co 228.616†	37552.7	38614.5	511.11	µg/L	511.11	ppb	13:20:15
1	Cr 267.716†	57324.6	58391.2	505.01	µg/L	505.01	ppb	13:20:15
1	Cu 324.752†	120503.1	120199.3	504.34	µg/L	504.34	ppb	13:20:15
1	Mn 257.610†	372460.1	380720.6	504.83	µg/L	504.83	ppb	13:20:15
1	Mo 202.031†	15163.3	15545.7	508.87	µg/L	508.87	ppb	13:20:35
1	Ni 231.604†	39504.5	40496.1	506.66	µg/L	506.66	ppb	13:20:15
1	P 214.914†	10657.2	10924.5	2518.4	µg/L	2518.4	ppb	13:20:35
1	Pb 220.353†	8249.2	8332.7	514.35	µg/L	514.35	ppb	13:20:35
1	S 181.975 Axial†	1263.9	1203.6	1016.9	µg/L	1016.9	ppb	13:20:35
1	Sb 206.836†	3896.7	3895.3	503.47	µg/L	503.47	ppb	13:20:35
1	Se 196.026†	1255.4	1277.8	506	µg/L	506	ppb	13:20:35
1	SiO2†	51270.6	50694.0	5346.7	µg/L	5346.7	ppb	13:20:15
1	Si 251.611†	156815.2	159603.8	2506.7	µg/L	2506.7	ppb	13:20:15
1	Sn 189.927†	7047.2	7205.1	501.46	µg/L	501.46	ppb	13:20:35
1	Ti 334.940†	478947.9	488984.7	501.57	µg/L	501.57	ppb	13:20:15
1	Tl 190.801†	3509.9	3703.8	513.29	µg/L	513.29	ppb	13:20:35
1	U 409.014†	7443.5	7775.6	521.38	µg/L	521.38	ppb	13:20:15
1	V 292.402†	95292.2	97029.7	509.66	µg/L	509.66	ppb	13:20:15
1	Zn 213.857†	83586.8	84979.1	503.48	µg/L	503.48	ppb	13:20:15
2	Sc RADIAL	135969.5	135969.5	97.1	%			13:19:52
2	Al 396.153Radial†	23142.4	23922.8	5013.1	µg/L	5013.1	ppb	13:19:52
2	Ca 317.933Radial†	73314.9	74966.9	5105.9	µg/L	5105.9	ppb	13:19:52
2	Fe 238.204 Radial†	66100.3	67987.6	5077.3	µg/L	5077.3	ppb	13:19:52
2	K 766.490 Radial†	13867.7	12794.5	5065.6	µg/L	5065.6	ppb	13:19:52
2	Mg 279.077 IEC†	10929.6	11088.6	5128.1	µg/L	5128.1	ppb	13:19:52
2	Na 589.592 Radial†	63867.1	64851.5	10048	µg/L	10048	ppb	13:19:52
2	Sr 421.552†	206242.2	212701.3	501.61	µg/L	501.61	ppb	13:19:50
2	Sc 361.383	1752479.1	1752479.1	97.136	%			13:20:38
2	Y 371.029	1020334.9	1020334.9	96.504	%			13:20:38
2	Ag 328.068†	123684.4	122766.2	508.86	µg/L	508.86	ppb	13:20:38
2	As 188.979†	1330.5	1388.3	476.91	µg/L	476.91	ppb	13:20:58
2	B 249.677†	35109.4	32079.5	497.12	µg/L	497.12	ppb	13:20:38
2	Ba 233.527†	109687.7	113066.5	502.98	µg/L	502.98	ppb	13:20:38
2	Be 313.107†	1653797.6	1703653.3	493.65	µg/L	493.65	ppb	13:20:38
2	Cd 226.502†	72583.7	74827.3	505.42	µg/L	505.42	ppb	13:20:38
2	Co 228.616†	37169.0	38475.2	509.27	µg/L	509.27	ppb	13:20:38
2	Cr 267.716†	56900.5	58345.1	504.61	µg/L	504.61	ppb	13:20:38
2	Cu 324.752†	119629.2	120120.5	504.01	µg/L	504.01	ppb	13:20:38
2	Mn 257.610†	370314.3	381048.7	505.26	µg/L	505.26	ppb	13:20:38
2	Mo 202.031†	15009.0	15490.1	507.05	µg/L	507.05	ppb	13:20:58
2	Ni 231.604†	39199.8	40451.5	506.10	µg/L	506.10	ppb	13:20:38
2	P 214.914†	10555.4	10892.3	2511.0	µg/L	2511.0	ppb	13:20:58
2	Pb 220.353†	8124.2	8260.3	509.89	µg/L	509.89	ppb	13:20:58

2	S 181.975 Axial†	1239.3	1187.0	1002.8 µg/L	1002.8 ppb		13:20:58
2	Sb 206.836†	3878.5	3903.1	504.46 µg/L	504.46 ppb		13:20:58
2	Se 196.026†	1243.7	1274.2	504 µg/L	504 ppb		13:20:58
2	SiO2†	50994.2	50758.8	5353.6 µg/L	5353.6 ppb		13:20:38
2	Si 251.611†	156234.2	160073.9	2514.1 µg/L	2514.1 ppb		13:20:38
2	Sn 189.927†	6997.5	7202.0	501.25 µg/L	501.25 ppb		13:20:58
2	Ti 334.940†	475750.2	488955.2	501.54 µg/L	501.54 ppb		13:20:38
2	Tl 190.801†	3489.7	3706.8	513.71 µg/L	513.71 ppb		13:20:58
2	U 409.014†	7342.0	7721.8	517.90 µg/L	517.90 ppb		13:20:38
2	V 292.402†	94395.8	96755.9	508.22 µg/L	508.22 ppb		13:20:38
2	Zn 213.857†	82925.5	84867.6	502.82 µg/L	502.82 ppb		13:20:38
3	Sc RADIAL	135910.8	135910.8	97.0 %			13:19:56
3	Al 396.153Radial†	23011.1	23797.7	4986.6 µg/L	4986.6 ppb		13:19:56
3	Ca 317.933Radial†	73016.0	74691.3	5087.2 µg/L	5087.2 ppb		13:19:56
3	Fe 238.204 Radial†	65816.6	67724.5	5057.6 µg/L	5057.6 ppb		13:19:56
3	K 766.490 Radial†	14014.9	12952.4	5128.2 µg/L	5128.2 ppb		13:19:56
3	Mg 279.077 IEC†	10852.5	11014.0	5093.7 µg/L	5093.7 ppb		13:19:56
3	Na 589.592 Radial†	64017.8	65035.2	10076 µg/L	10076 ppb		13:19:56
3	Sr 421.552†	207445.1	214032.9	504.75 µg/L	504.75 ppb		13:19:54
3	Sc 361.383	1757185.4	1757185.4	97.397 %			13:21:01
3	Y 371.029	1021114.7	1021114.7	96.578 %			13:21:01
3	Ag 328.068†	123757.2	122499.9	507.77 µg/L	507.77 ppb		13:21:01
3	As 188.979†	1359.9	1414.8	485.88 µg/L	485.88 ppb		13:21:21
3	B 249.677†	35071.9	31944.2	495.02 µg/L	495.02 ppb		13:21:01
3	Ba 233.527†	109828.9	112909.1	502.28 µg/L	502.28 ppb		13:21:01
3	Be 313.107†	1657683.2	1703082.7	493.48 µg/L	493.48 ppb		13:21:01
3	Cd 226.502†	72559.6	74602.4	503.91 µg/L	503.91 ppb		13:21:01
3	Co 228.616†	37343.2	38551.6	510.28 µg/L	510.28 ppb		13:21:01
3	Cr 267.716†	57083.6	58376.2	504.88 µg/L	504.88 ppb		13:21:01
3	Cu 324.752†	120203.7	120380.4	505.08 µg/L	505.08 ppb		13:21:01
3	Mn 257.610†	371130.2	380865.4	505.02 µg/L	505.02 ppb		13:21:01
3	Mo 202.031†	15160.4	15604.2	510.78 µg/L	510.78 ppb		13:21:21
3	Ni 231.604†	39383.3	40531.9	507.10 µg/L	507.10 ppb		13:21:01
3	P 214.914†	10656.5	10967.1	2528.2 µg/L	2528.2 ppb		13:21:21
3	Pb 220.353†	8194.0	8309.5	512.94 µg/L	512.94 ppb		13:21:21
3	S 181.975 Axial†	1261.5	1206.3	1019.2 µg/L	1019.2 ppb		13:21:21
3	Sb 206.836†	3887.7	3901.9	504.35 µg/L	504.35 ppb		13:21:21
3	Se 196.026†	1265.5	1293.2	512 µg/L	512 ppb		13:21:21
3	SiO2†	51195.4	50824.7	5360.4 µg/L	5360.4 ppb		13:21:01
3	Si 251.611†	156725.4	160147.5	2515.2 µg/L	2515.2 ppb		13:21:01
3	Sn 189.927†	7043.2	7229.6	503.16 µg/L	503.16 ppb		13:21:21
3	Ti 334.940†	476862.5	488785.4	501.37 µg/L	501.37 ppb		13:21:01
3	Tl 190.801†	3501.8	3709.6	514.09 µg/L	514.09 ppb		13:21:21
3	U 409.014†	7209.4	7565.4	508.05 µg/L	508.05 ppb		13:21:01
3	V 292.402†	94694.8	96802.7	508.50 µg/L	508.50 ppb		13:21:01
3	Zn 213.857†	83190.2	84910.8	503.07 µg/L	503.07 ppb		13:21:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1757938.8	97.438	%	0.3255				0.33%
Sc RADIAL	136522.1	97.5	%	0.72				0.74%
Y 371.029	1022279.3	96.688	%	0.2573				0.27%
Ag 328.068†	122668.3	508.47	µg/L	0.610	508.47	ppb	0.610	0.12%
QC value within limits for Ag 328.068 Recovery = 101.69%								
Al 396.153Radial†	23841.2	4995.8	µg/L	14.96	4995.8	ppb	14.96	0.30%
QC value within limits for Al 396.153Radial Recovery = 99.92%								
As 188.979†	1403.1	481.91	µg/L	4.574	481.91	ppb	4.574	0.95%
QC value within limits for As 188.979 Recovery = 96.38%								
B 249.677†	32087.5	497.25	µg/L	2.291	497.25	ppb	2.291	0.46%
QC value within limits for B 249.677 Recovery = 99.45%								
Ba 233.527†	112873.5	502.12	µg/L	0.946	502.12	ppb	0.946	0.19%
QC value within limits for Ba 233.527 Recovery = 100.42%								
Be 313.107†	1703725.5	493.67	µg/L	0.199	493.67	ppb	0.199	0.04%
QC value within limits for Be 313.107 Recovery = 98.73%								
Ca 317.933Radial†	74846.9	5097.7	µg/L	9.62	5097.7	ppb	9.62	0.19%
QC value within limits for Ca 317.933Radial Recovery = 101.95%								
Cd 226.502†	74780.4	505.11	µg/L	1.079	505.11	ppb	1.079	0.21%
QC value within limits for Cd 226.502 Recovery = 101.02%								
Co 228.616†	38547.1	510.22	µg/L	0.922	510.22	ppb	0.922	0.18%

```
   QC value within limits for Co 228.616  Recovery = 102.04%
Cr 267.716†            58370.8      504.83 µg/L         0.204      504.83 ppb          0.204   0.04%
   QC value within limits for Cr 267.716  Recovery = 100.97%
Cu 324.752†           120233.4      504.47 µg/L         0.551      504.47 ppb          0.551   0.11%
   QC value within limits for Cu 324.752  Recovery = 100.89%
Fe 238.204 Radial†     67857.1      5067.5 µg/L          9.82      5067.5 ppb           9.82   0.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.35%
K 766.490 Radial†      12877.5      5098.6 µg/L         31.42      5098.6 ppb          31.42   0.62%
   QC value within limits for K 766.490 Radial  Recovery = 101.97%
Mg 279.077 IEC†        11045.6      5108.3 µg/L         17.77      5108.3 ppb          17.77   0.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.17%
Mn 257.610†           380878.2      505.04 µg/L         0.218      505.04 ppb          0.218   0.04%
   QC value within limits for Mn 257.610  Recovery = 101.01%
Mo 202.031†            15546.7      508.90 µg/L         1.865      508.90 ppb          1.865   0.37%
   QC value within limits for Mo 202.031  Recovery = 101.78%
Na 589.592 Radial†     64869.8       10051 µg/L          24.3       10051 ppb           24.3   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 100.51%
Ni 231.604†            40493.2      506.62 µg/L         0.504      506.62 ppb          0.504   0.10%
   QC value within limits for Ni 231.604  Recovery = 101.32%
P 214.914†             10928.0      2519.2 µg/L          8.66      2519.2 ppb           8.66   0.34%
   QC value within limits for P 214.914  Recovery = 100.77%
Pb 220.353†             8300.9      512.39 µg/L         2.280      512.39 ppb          2.280   0.44%
   QC value within limits for Pb 220.353  Recovery = 102.48%
S 181.975 Axial†        1199.0      1012.9 µg/L          8.84      1012.9 ppb           8.84   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 101.29%
Sb 206.836†             3900.1      504.09 µg/L         0.541      504.09 ppb          0.541   0.11%
   QC value within limits for Sb 206.836  Recovery = 100.82%
Se 196.026†             1281.7         507 µg/L           4.0         507 ppb            4.0   0.78%
   QC value within limits for Se 196.026  Recovery = 101.44%
SiO2†                  50759.2      5353.6 µg/L          6.88      5353.6 ppb           6.88   0.13%
   QC value within limits for SiO2  Recovery = 100.11%
Si 251.611†           159941.7      2512.0 µg/L          4.64      2512.0 ppb           4.64   0.18%
   QC value within limits for Si 251.611  Recovery = 100.48%
Sn 189.927†             7212.2      501.96 µg/L         1.049      501.96 ppb          1.049   0.21%
   QC value within limits for Sn 189.927  Recovery = 100.39%
Sr 421.552†           212487.3      501.10 µg/L         3.922      501.10 ppb          3.922   0.78%
   QC value within limits for Sr 421.552  Recovery = 100.22%
Ti 334.940†           488908.4      501.50 µg/L         0.107      501.50 ppb          0.107   0.02%
   QC value within limits for Ti 334.940  Recovery = 100.30%
Tl 190.801†             3706.8      513.69 µg/L         0.398      513.69 ppb          0.398   0.08%
   QC value within limits for Tl 190.801  Recovery = 102.74%
U 409.014†              7687.6      515.78 µg/L         6.915      515.78 ppb          6.915   1.34%
   QC value within limits for U 409.014  Recovery = 103.16%
V 292.402†             96862.8      508.79 µg/L         0.765      508.79 ppb          0.765   0.15%
   QC value within limits for V 292.402  Recovery = 101.76%
Zn 213.857†            84919.2      503.12 µg/L         0.334      503.12 ppb          0.334   0.07%
   QC value within limits for Zn 213.857  Recovery = 100.62%
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/5/2010 13:21:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	136365.9	136365.9	97.3	%			13:21:58
1	Al 396.153Radial†	-72.1	4.4	0.9330	µg/L	0.9330	ppb	13:22:18
1	Ca 317.933Radial†	710.4	158.4	10.786	µg/L	10.786	ppb	13:22:18
1	Fe 238.204 Radial†	185.7	73.4	5.4841	µg/L	5.4841	ppb	13:22:18
1	K 766.490 Radial†	1496.4	43.5	17.215	µg/L	17.215	ppb	13:21:58
1	Mg 279.077 IEC†	179.8	12.2	5.6498	µg/L	5.6498	ppb	13:22:18
1	Na 589.592 Radial†	1238.6	319.9	49.578	µg/L	49.578	ppb	13:21:58
1	Sr 421.552†	-142.4	58.2	0.1373	µg/L	0.1373	ppb	13:21:58
1	Sc 361.383	1782820.6	1782820.6	98.818	%			13:23:20
1	Y 371.029	1046910.4	1046910.4	99.018	%			13:23:20
1	Ag 328.068†	4406.6	-105.9	-0.4491	µg/L	-0.4491	ppb	13:23:22
1	As 188.979†	-21.0	-2.7	-0.9151	µg/L	-0.9151	ppb	13:23:42
1	B 249.677†	4073.3	56.8	0.8834	µg/L	0.8834	ppb	13:23:22
1	Ba 233.527†	-120.0	23.1	0.1023	µg/L	0.1023	ppb	13:23:42
1	Be 313.107†	-879.3	201.9	0.0560	µg/L	0.0560	ppb	13:23:22
1	Cd 226.502†	-86.3	16.0	0.1078	µg/L	0.1078	ppb	13:23:42
1	Co 228.616†	-193.5	14.5	0.1920	µg/L	0.1920	ppb	13:23:42
1	Cr 267.716†	232.1	1.6	0.0206	µg/L	0.0206	ppb	13:23:42
1	Cu 324.752†	2948.4	-52.4	-0.2248	µg/L	-0.2248	ppb	13:23:22
1	Mn 257.610†	249.3	67.6	0.0894	µg/L	0.0894	ppb	13:23:42
1	Mo 202.031†	-36.3	1.9	0.0612	µg/L	0.0612	ppb	13:23:42
1	Ni 231.604†	-71.5	23.5	0.2943	µg/L	0.2943	ppb	13:23:42
1	P 214.914†	2.4	28.1	6.5138	µg/L	6.5138	ppb	13:23:42
1	Pb 220.353†	104.5	2.3	0.1466	µg/L	0.1466	ppb	13:23:42
1	S 181.975 Axial†	101.8	14.1	11.895	µg/L	11.895	ppb	13:23:42
1	Sb 206.836†	82.9	-5.8	-0.7459	µg/L	-0.7459	ppb	13:23:42
1	Se 196.026†	22.2	16.4	6.44	µg/L	6.44	ppb	13:23:42
1	SiO2†	1856.7	139.8	14.797	µg/L	14.797	ppb	13:23:42
1	Si 251.611†	1252.8	500.7	7.8907	µg/L	7.8907	ppb	13:23:22
1	Sn 189.927†	11.8	10.1	0.6995	µg/L	0.6995	ppb	13:23:42
1	Ti 334.940†	676.1	-138.8	-0.1394	µg/L	-0.1394	ppb	13:23:22
1	Tl 190.801†	-128.9	-16.2	-2.2162	µg/L	-2.2162	ppb	13:23:42
1	U 409.014†	-290.7	-130.8	-8.2823	µg/L	-8.2823	ppb	13:23:22
1	V 292.402†	334.4	-84.8	-0.4449	µg/L	-0.4449	ppb	13:23:22
1	Zn 213.857†	588.1	92.2	0.5479	µg/L	0.5479	ppb	13:23:42
2	Sc RADIAL	136466.1	136466.1	97.4	%			13:22:20
2	Al 396.153Radial†	-51.5	25.6	5.3864	µg/L	5.3864	ppb	13:22:40
2	Ca 317.933Radial†	690.1	137.0	9.3304	µg/L	9.3304	ppb	13:22:40
2	Fe 238.204 Radial†	194.0	81.9	6.1145	µg/L	6.1145	ppb	13:22:40
2	K 766.490 Radial†	1714.5	266.3	105.52	µg/L	105.52	ppb	13:22:20
2	Mg 279.077 IEC†	156.6	-11.7	-5.4114	µg/L	-5.4114	ppb	13:22:40
2	Na 589.592 Radial†	1009.5	83.8	12.901	µg/L	12.901	ppb	13:22:20
2	Sr 421.552†	-151.7	48.8	0.1149	µg/L	0.1149	ppb	13:22:20
2	Sc 361.383	1782019.7	1782019.7	98.773	%			13:23:44
2	Y 371.029	1046998.5	1046998.5	99.026	%			13:23:44
2	Ag 328.068†	4298.3	-213.5	-0.8812	µg/L	-0.8812	ppb	13:23:47
2	As 188.979†	-7.3	11.2	3.7928	µg/L	3.7928	ppb	13:24:07
2	B 249.677†	4202.2	189.2	2.9424	µg/L	2.9424	ppb	13:23:47
2	Ba 233.527†	-153.9	-11.3	-0.0501	µg/L	-0.0501	ppb	13:24:07
2	Be 313.107†	-724.1	358.6	0.1019	µg/L	0.1019	ppb	13:23:47
2	Cd 226.502†	-57.2	45.5	0.3068	µg/L	0.3068	ppb	13:24:07
2	Co 228.616†	-193.9	14.0	0.1851	µg/L	0.1851	ppb	13:24:07
2	Cr 267.716†	283.6	53.9	0.4715	µg/L	0.4715	ppb	13:24:07
2	Cu 324.752†	2861.1	-139.5	-0.5881	µg/L	-0.5881	ppb	13:23:47
2	Mn 257.610†	304.8	123.9	0.1645	µg/L	0.1645	ppb	13:24:07
2	Mo 202.031†	-31.6	6.5	0.2141	µg/L	0.2141	ppb	13:24:07
2	Ni 231.604†	-54.3	41.0	0.5126	µg/L	0.5126	ppb	13:24:07
2	P 214.914†	3.2	28.9	6.6884	µg/L	6.6884	ppb	13:24:07
2	Pb 220.353†	117.1	15.1	0.9372	µg/L	0.9372	ppb	13:24:07

2	S 181.975 Axial†	101.7	14.1	11.829 µg/L	11.829 ppb		13:24:07
2	Sb 206.836†	78.2	-10.5	-1.3618 µg/L	-1.3618 ppb		13:24:07
2	Se 196.026†	18.6	12.6	4.97 µg/L	4.97 ppb		13:24:07
2	SiO2†	1894.3	178.7	18.911 µg/L	18.911 ppb		13:24:07
2	Si 251.611†	1331.3	580.8	9.1530 µg/L	9.1530 ppb		13:23:47
2	Sn 189.927†	8.7	6.9	0.4812 µg/L	0.4812 ppb		13:24:07
2	Ti 334.940†	731.4	-82.6	-0.0816 µg/L	-0.0816 ppb		13:23:47
2	Tl 190.801†	-109.0	4.0	0.5399 µg/L	0.5399 ppb		13:24:07
2	U 409.014†	-264.9	-104.9	-6.6122 µg/L	-6.6122 ppb		13:23:47
2	V 292.402†	436.0	18.2	0.0935 µg/L	0.0935 ppb		13:23:47
2	Zn 213.857†	590.3	94.6	0.5614 µg/L	0.5614 ppb		13:24:07
3	Sc RADIAL	137955.3	137955.3	98.5 %			13:22:42
3	Al 396.153Radial†	-70.3	7.2	1.4865 µg/L	1.4865 ppb		13:23:02
3	Ca 317.933Radial†	685.5	124.6	8.4893 µg/L	8.4893 ppb		13:23:02
3	Fe 238.204 Radial†	230.4	116.7	8.7157 µg/L	8.7157 ppb		13:23:02
3	K 766.490 Radial†	1451.8	-19.5	-7.7271 µg/L	-7.7271 ppb		13:22:42
3	Mg 279.077 IEC†	174.1	4.3	2.0013 µg/L	2.0013 ppb		13:23:02
3	Na 589.592 Radial†	1037.1	100.7	15.611 µg/L	15.611 ppb		13:22:42
3	Sr 421.552†	-254.5	-54.0	-0.1273 µg/L	-0.1273 ppb		13:22:42
3	Sc 361.383	1782300.1	1782300.1	98.789 %			13:24:09
3	Y 371.029	1047376.2	1047376.2	99.062 %			13:24:09
3	Ag 328.068†	4223.0	-290.4	-1.2135 µg/L	-1.2135 ppb		13:24:11
3	As 188.979†	-17.7	0.6	0.2088 µg/L	0.2088 ppb		13:24:31
3	B 249.677†	4033.8	18.1	0.2811 µg/L	0.2811 ppb		13:24:11
3	Ba 233.527†	-156.8	-14.2	-0.0638 µg/L	-0.0638 ppb		13:24:31
3	Be 313.107†	-613.6	470.6	0.1332 µg/L	0.1332 ppb		13:24:11
3	Cd 226.502†	-76.8	25.6	0.1726 µg/L	0.1726 ppb		13:24:31
3	Co 228.616†	-205.6	2.2	0.0282 µg/L	0.0282 ppb		13:24:31
3	Cr 267.716†	280.8	51.0	0.4490 µg/L	0.4490 ppb		13:24:31
3	Cu 324.752†	2839.1	-162.2	-0.6856 µg/L	-0.6856 ppb		13:24:11
3	Mn 257.610†	230.8	49.0	0.0648 µg/L	0.0648 ppb		13:24:31
3	Mo 202.031†	-22.6	15.7	0.5131 µg/L	0.5131 ppb		13:24:31
3	Ni 231.604†	-61.1	34.0	0.4255 µg/L	0.4255 ppb		13:24:31
3	P 214.914†	10.7	36.5	8.4493 µg/L	8.4493 ppb		13:24:31
3	Pb 220.353†	119.2	17.2	1.0651 µg/L	1.0651 ppb		13:24:31
3	S 181.975 Axial†	88.3	0.5	0.4233 µg/L	0.4233 ppb		13:24:31
3	Sb 206.836†	75.7	-13.1	-1.6875 µg/L	-1.6875 ppb		13:24:31
3	Se 196.026†	28.9	23.1	9.09 µg/L	9.09 ppb		13:24:31
3	SiO2†	1947.0	231.8	24.527 µg/L	24.527 ppb		13:24:31
3	Si 251.611†	1312.9	562.0	8.8525 µg/L	8.8525 ppb		13:24:11
3	Sn 189.927†	6.2	4.4	0.3051 µg/L	0.3051 ppb		13:24:31
3	Ti 334.940†	636.8	-178.4	-0.1791 µg/L	-0.1791 ppb		13:24:11
3	Tl 190.801†	-114.6	-1.7	-0.2417 µg/L	-0.2417 ppb		13:24:31
3	U 409.014†	-323.8	-164.4	-10.433 µg/L	-10.433 ppb		13:24:11
3	V 292.402†	230.1	-190.3	-0.9870 µg/L	-0.9870 ppb		13:24:11
3	Zn 213.857†	593.7	98.0	0.5817 µg/L	0.5817 ppb		13:24:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1782380.1	98.793	%	0.0225				0.02%
Sc RADIAL	136929.1	97.7	%	0.64				0.65%
Y 371.029	1047095.0	99.035	%	0.0234				0.02%
Ag 328.068†	-203.3	-0.8480	µg/L	0.38329	-0.8480	ppb	0.38329	45.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.4	2.6020	µg/L	2.42724	2.6020	ppb	2.42724	93.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.0288	µg/L	2.45877	1.0288	ppb	2.45877	238.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	88.1	1.3690	µg/L	1.39550	1.3690	ppb	1.39550	101.94%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.8	-0.0039	µg/L	0.09218	-0.0039	ppb	0.09218	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	343.7	0.0970	µg/L	0.03883	0.0970	ppb	0.03883	40.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	140.0	9.5354	µg/L	1.16212	9.5354	ppb	1.16212	12.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	29.0	0.1957	µg/L	0.10147	0.1957	ppb	0.10147	51.84%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.2	0.1351	µg/L	0.09266	0.1351	ppb	0.09266	68.56%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              35.5      0.3137 µg/L       0.25407      0.3137 ppb        0.25407  80.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -118.0     -0.4995 µg/L       0.24283     -0.4995 ppb        0.24283  48.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       90.7      6.7714 µg/L       1.71300      6.7714 ppb        1.71300  25.30%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        96.8      38.335 µg/L       59.5038      38.335 ppb        59.5038 155.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.6      0.7465 µg/L       5.63634      0.7465 ppb        5.63634 755.00%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              80.1      0.1062 µg/L       0.05193      0.1062 ppb        0.05193  48.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               8.0      0.2628 µg/L       0.22982      0.2628 ppb        0.22982  87.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      168.1      26.030 µg/L       20.4379      26.030 ppb        20.4379  78.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              32.8      0.4108 µg/L       0.10989      0.4108 ppb        0.10989  26.75%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               31.2      7.2172 µg/L       1.07061      7.2172 ppb        1.07061  14.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              11.5      0.7163 µg/L       0.49748      0.7163 ppb        0.49748  69.45%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          9.6      8.0489 µg/L       6.60400      8.0489 ppb        6.60400  82.05%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -9.8     -1.2650 µg/L       0.47821     -1.2650 ppb        0.47821  37.80%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              17.4        6.83 µg/L         2.087        6.83 ppb          2.087  30.55%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   183.4      19.412 µg/L        4.8846      19.412 ppb         4.8846  25.16%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             547.8      8.6321 µg/L       0.65940      8.6321 ppb        0.65940   7.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.1      0.4953 µg/L       0.19755      0.4953 ppb        0.19755  39.89%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              17.7      0.0416 µg/L       0.14674      0.0416 ppb        0.14674 352.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -133.3     -0.1333 µg/L       0.04905     -0.1333 ppb        0.04905  36.79%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -4.6     -0.6393 µg/L       1.42042     -0.6393 ppb        1.42042 222.17%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -133.4     -8.4424 µg/L       1.91529     -8.4424 ppb        1.91529  22.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -85.7     -0.4461 µg/L       0.54029     -0.4461 ppb        0.54029 121.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              94.9      0.5636 µg/L       0.01701      0.5636 ppb        0.01701   3.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/7/2010 12:46:53 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040710.sif
Batch ID:
Results Data Set: 040710
Results Library: C:\pe\optima4\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 4/7/2010 11:36:55**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 4/7/2010 12:46:56**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	128947.2	128947.2	100	%	12:47:26
1	Al 396.153Radial†	-75.9	-75.7	[0.00]	µg/L	12:47:46
1	Ca 317.933Radial†	480.3	478.6	[0.00]	µg/L	12:47:46
1	Fe 238.204 Radial†	127.6	127.1	[0.00]	µg/L	12:47:46

1	K 766.490 Radial†	1637.7	1632.1	[0.00] µg/L	12:47:26
1	Mg 279.077 IEC†	166.5	165.9	[0.00] µg/L	12:47:46
1	Na 589.592 Radial†	885.1	882.0	[0.00] µg/L	12:47:26
1	Sr 421.552†	14.6	14.5	[0.00] µg/L	12:47:26
1	Sc 361.383	1738893.0	1738893.0	101.04 %	12:48:48
1	Y 371.029	1005959.7	1005959.7	101.00 %	12:48:48
1	Ag 328.068†	4575.9	4528.6	[0.00] µg/L	12:48:50
1	As 188.979†	-8.3	-8.2	[0.00] µg/L	12:49:10
1	B 249.677†	3925.3	3884.8	[0.00] µg/L	12:48:50
1	Ba 233.527†	-149.4	-147.9	[0.00] µg/L	12:49:10
1	Be 313.107†	-1104.3	-1092.9	[0.00] µg/L	12:48:50
1	Cd 226.502†	-88.9	-88.0	[0.00] µg/L	12:49:10
1	Co 228.616†	-184.3	-182.4	[0.00] µg/L	12:49:10
1	Cr 267.716†	283.3	280.3	[0.00] µg/L	12:49:10
1	Cu 324.752†	3082.3	3050.5	[0.00] µg/L	12:48:50
1	Mn 257.610†	149.3	147.7	[0.00] µg/L	12:49:10
1	Mo 202.031†	-25.8	-25.6	[0.00] µg/L	12:49:10
1	Ni 231.604†	-95.0	-94.1	[0.00] µg/L	12:49:10
1	P 214.914†	9.4	9.3	[0.00] µg/L	12:49:10
1	Pb 220.353†	104.1	103.0	[0.00] µg/L	12:49:10
1	S 181.975 Axial†	324.9	321.5	[0.00] µg/L	12:49:10
1	Sb 206.836†	84.6	83.8	[0.00] µg/L	12:49:10
1	Se 196.026†	19.2	19.0	[0.00] µg/L	12:49:10
1	SiO2†	1824.9	1806.1	[0.00] µg/L	12:48:50
1	Si 251.611†	736.7	729.1	[0.00] µg/L	12:48:50
1	Sn 189.927†	2.7	2.7	[0.00] µg/L	12:49:10
1	Ti 334.940†	769.5	761.6	[0.00] µg/L	12:48:50
1	Tl 190.801†	-109.3	-108.1	[0.00] µg/L	12:49:10
1	U 409.014†	-439.0	-434.4	[0.00] µg/L	12:48:50
1	V 292.402†	423.8	419.4	[0.00] µg/L	12:48:50
1	Zn 213.857†	592.8	586.7	[0.00] µg/L	12:49:10
2	Sc RADIAL	129958.7	129958.7	101 %	12:47:48
2	Al 396.153Radial†	-90.5	-89.5	[0.00] µg/L	12:48:08
2	Ca 317.933Radial†	520.1	514.2	[0.00] µg/L	12:48:08
2	Fe 238.204 Radial†	122.8	121.4	[0.00] µg/L	12:48:08
2	K 766.490 Radial†	1455.3	1439.0	[0.00] µg/L	12:47:48
2	Mg 279.077 IEC†	152.1	150.4	[0.00] µg/L	12:48:08
2	Na 589.592 Radial†	1044.3	1032.6	[0.00] µg/L	12:47:48
2	Sr 421.552†	-92.1	-91.0	[0.00] µg/L	12:47:48
2	Sc 361.383	1711533.2	1711533.2	99.455 %	12:49:12
2	Y 371.029	990444.4	990444.4	99.446 %	12:49:12
2	Ag 328.068†	4597.1	4622.3	[0.00] µg/L	12:49:14
2	As 188.979†	-0.2	-0.2	[0.00] µg/L	12:49:34
2	B 249.677†	4041.9	4064.1	[0.00] µg/L	12:49:14
2	Ba 233.527†	-139.4	-140.1	[0.00] µg/L	12:49:34
2	Be 313.107†	-949.2	-954.4	[0.00] µg/L	12:49:14
2	Cd 226.502†	-74.3	-74.7	[0.00] µg/L	12:49:34
2	Co 228.616†	-213.3	-214.5	[0.00] µg/L	12:49:34
2	Cr 267.716†	255.5	256.9	[0.00] µg/L	12:49:34
2	Cu 324.752†	3273.6	3291.6	[0.00] µg/L	12:49:14
2	Mn 257.610†	179.3	180.3	[0.00] µg/L	12:49:34
2	Mo 202.031†	-13.2	-13.2	[0.00] µg/L	12:49:34
2	Ni 231.604†	-107.2	-107.8	[0.00] µg/L	12:49:34
2	P 214.914†	-15.9	-15.9	[0.00] µg/L	12:49:34
2	Pb 220.353†	135.0	135.8	[0.00] µg/L	12:49:34
2	S 181.975 Axial†	329.8	331.6	[0.00] µg/L	12:49:34
2	Sb 206.836†	70.4	70.8	[0.00] µg/L	12:49:34
2	Se 196.026†	18.3	18.4	[0.00] µg/L	12:49:34
2	SiO2†	1757.9	1767.5	[0.00] µg/L	12:49:14
2	Si 251.611†	644.9	648.4	[0.00] µg/L	12:49:14
2	Sn 189.927†	2.0	2.0	[0.00] µg/L	12:49:34
2	Ti 334.940†	726.0	730.0	[0.00] µg/L	12:49:14
2	Tl 190.801†	-118.9	-119.6	[0.00] µg/L	12:49:34
2	U 409.014†	-200.3	-201.4	[0.00] µg/L	12:49:14
2	V 292.402†	192.5	193.6	[0.00] µg/L	12:49:14
2	Zn 213.857†	615.2	618.6	[0.00] µg/L	12:49:34
3	Sc RADIAL	126604.5	126604.5	98.5 %	12:48:10
3	Al 396.153Radial†	-90.4	-91.7	[0.00] µg/L	12:48:30
3	Ca 317.933Radial†	518.9	526.7	[0.00] µg/L	12:48:30
3	Fe 238.204 Radial†	113.9	115.6	[0.00] µg/L	12:48:30
3	K 766.490 Radial†	1599.5	1623.5	[0.00] µg/L	12:48:10

3	Mg 279.077 IEC†	170.4	172.9	[0.00] µg/L	12:48:30
3	Na 589.592 Radial†	863.8	876.7	[0.00] µg/L	12:48:10
3	Sr 421.552†	-236.8	-240.4	[0.00] µg/L	12:48:10
3	Sc 361.383	1712332.8	1712332.8	99.501 %	12:49:36
3	Y 371.029	991471.9	991471.9	99.550 %	12:49:36
3	Ag 328.068†	4627.1	4650.3	[0.00] µg/L	12:49:38
3	As 188.979†	-17.3	-17.4	[0.00] µg/L	12:49:59
3	B 249.677†	4017.7	4037.8	[0.00] µg/L	12:49:38
3	Ba 233.527†	-131.3	-131.9	[0.00] µg/L	12:49:59
3	Be 313.107†	-978.6	-983.5	[0.00] µg/L	12:49:38
3	Cd 226.502†	-100.6	-101.1	[0.00] µg/L	12:49:59
3	Co 228.616†	-189.0	-190.0	[0.00] µg/L	12:49:59
3	Cr 267.716†	248.2	249.5	[0.00] µg/L	12:49:59
3	Cu 324.752†	3202.1	3218.2	[0.00] µg/L	12:49:38
3	Mn 257.610†	192.9	193.9	[0.00] µg/L	12:49:59
3	Mo 202.031†	-21.8	-21.9	[0.00] µg/L	12:49:59
3	Ni 231.604†	-71.2	-71.5	[0.00] µg/L	12:49:59
3	P 214.914†	-10.3	-10.3	[0.00] µg/L	12:49:59
3	Pb 220.353†	100.5	101.0	[0.00] µg/L	12:49:59
3	S 181.975 Axial†	323.3	325.0	[0.00] µg/L	12:49:59
3	Sb 206.836†	86.0	86.4	[0.00] µg/L	12:49:59
3	Se 196.026†	24.0	24.2	[0.00] µg/L	12:49:59
3	SiO2†	1785.8	1794.8	[0.00] µg/L	12:49:38
3	Si 251.611†	589.9	592.9	[0.00] µg/L	12:49:38
3	Sn 189.927†	12.8	12.9	[0.00] µg/L	12:49:59
3	Ti 334.940†	818.1	822.2	[0.00] µg/L	12:49:38
3	Tl 190.801†	-119.8	-120.4	[0.00] µg/L	12:49:59
3	U 409.014†	-236.9	-238.1	[0.00] µg/L	12:49:38
3	V 292.402†	503.6	506.1	[0.00] µg/L	12:49:38
3	Zn 213.857†	594.0	597.0	[0.00] µg/L	12:49:59

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1720919.7	15570.51	0.90%	100.00	%
Sc RADIAL	128503.5	1720.57	1.34%	100	%
Y 371.029	995958.7	8676.33	0.87%	100.00	%
Ag 328.068†	4600.4	63.76	1.39%	[0.00]	µg/L
Al 396.153Radial†	-85.6	8.71	10.17%	[0.00]	µg/L
As 188.979†	-8.6	8.61	99.91%	[0.00]	µg/L
B 249.677†	3995.6	96.86	2.42%	[0.00]	µg/L
Ba 233.527†	-140.0	7.98	5.70%	[0.00]	µg/L
Be 313.107†	-1010.3	73.02	7.23%	[0.00]	µg/L
Ca 317.933Radial†	506.5	24.95	4.93%	[0.00]	µg/L
Cd 226.502†	-87.9	13.18	14.99%	[0.00]	µg/L
Co 228.616†	-195.6	16.79	8.58%	[0.00]	µg/L
Cr 267.716†	262.2	16.12	6.15%	[0.00]	µg/L
Cu 324.752†	3186.7	123.58	3.88%	[0.00]	µg/L
Fe 238.204 Radial†	121.4	5.76	4.75%	[0.00]	µg/L
K 766.490 Radial†	1564.8	109.08	6.97%	[0.00]	µg/L
Mg 279.077 IEC†	163.1	11.54	7.08%	[0.00]	µg/L
Mn 257.610†	174.0	23.74	13.64%	[0.00]	µg/L
Mo 202.031†	-20.2	6.33	31.26%	[0.00]	µg/L
Na 589.592 Radial†	930.5	88.53	9.51%	[0.00]	µg/L
Ni 231.604†	-91.1	18.28	20.07%	[0.00]	µg/L
P 214.914†	-5.7	13.25	234.04%	[0.00]	µg/L
Pb 220.353†	113.3	19.50	17.21%	[0.00]	µg/L
S 181.975 Axial†	326.0	5.13	1.57%	[0.00]	µg/L
Sb 206.836†	80.3	8.39	10.44%	[0.00]	µg/L
Se 196.026†	20.5	3.19	15.54%	[0.00]	µg/L
SiO2†	1789.5	19.81	1.11%	[0.00]	µg/L
Si 251.611†	656.8	68.49	10.43%	[0.00]	µg/L
Sn 189.927†	5.9	6.07	103.27%	[0.00]	µg/L
Sr 421.552†	-105.6	128.07	121.25%	[0.00]	µg/L
Ti 334.940†	771.3	46.84	6.07%	[0.00]	µg/L
Tl 190.801†	-116.0	6.87	5.92%	[0.00]	µg/L
U 409.014†	-291.3	125.28	43.00%	[0.00]	µg/L
V 292.402†	373.0	161.32	43.25%	[0.00]	µg/L
Zn 213.857†	600.7	16.29	2.71%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 4/7/2010 12:50:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	129551.9	129551.9	101	%	12:50:38
1	K 766.490 Radial†	4206.4	2607.5	[1000]	µg/L	12:50:38
1	Sr 421.552†	45572.7	45309.5	[100]	µg/L	12:50:38
1	Sc 361.383	1729881.5	1729881.5	100.52	%	12:51:00
1	Y 371.029	998168.2	998168.2	100.22	%	12:51:00
1	Ag 328.068†	30725.0	25965.4	[100]	µg/L	12:51:02
1	As 188.979†	278.8	286.0	[100]	µg/L	12:51:22
1	B 249.677†	10965.0	6912.6	[100]	µg/L	12:51:02
1	Ba 233.527†	24100.3	24115.4	[100]	µg/L	12:51:02
1	Be 313.107†	373479.3	372554.8	[100]	µg/L	12:51:00
1	Cd 226.502†	16208.2	16212.2	[100]	µg/L	12:51:02
1	Co 228.616†	8100.1	8253.7	[100]	µg/L	12:51:22
1	Cr 267.716†	12761.1	12432.7	[100]	µg/L	12:51:02
1	Cu 324.752†	28970.7	25633.8	[100]	µg/L	12:51:02
1	Mn 257.610†	83389.3	82783.4	[100]	µg/L	12:51:02
1	Mo 202.031†	3214.5	3218.1	[100]	µg/L	12:51:22
1	Ni 231.604†	8811.7	8857.1	[100]	µg/L	12:51:02
1	P 214.914†	2274.7	2268.6	[500]	µg/L	12:51:22
1	Pb 220.353†	1873.6	1750.6	[100]	µg/L	12:51:22
1	S 181.975 Axial†	360.9	33.0	[200]	µg/L	12:51:22
1	Sb 206.836†	903.3	818.3	[100]	µg/L	12:51:22
1	Se 196.026†	289.1	267.1	[100]	µg/L	12:51:22
1	SiO2†	12655.9	10800.9	[1069.5]	µg/L	12:51:02
1	Si 251.611†	34913.9	34076.2	[500]	µg/L	12:51:02
1	Sn 189.927†	1544.4	1530.5	[100]	µg/L	12:51:22
1	Ti 334.940†	103273.7	101967.5	[100]	µg/L	12:51:02
1	Tl 190.801†	685.3	797.8	[100]	µg/L	12:51:22
1	U 409.014†	1604.9	1887.9	[100]	µg/L	12:51:02
1	V 292.402†	21295.9	20812.6	[100]	µg/L	12:51:02
1	Zn 213.857†	19351.3	18650.3	[100]	µg/L	12:51:02
2	Sc RADIAL	128120.4	128120.4	99.7	%	12:50:40
2	K 766.490 Radial†	4210.8	2658.5	[1000]	µg/L	12:50:40
2	Sr 421.552†	45066.0	45306.4	[100]	µg/L	12:50:40
2	Sc 361.383	1716545.6	1716545.6	99.746	%	12:51:24
2	Y 371.029	990909.5	990909.5	99.493	%	12:51:24
2	Ag 328.068†	31165.7	26644.7	[100]	µg/L	12:51:26
2	As 188.979†	301.7	311.1	[100]	µg/L	12:51:46
2	B 249.677†	11059.1	7091.7	[100]	µg/L	12:51:26
2	Ba 233.527†	24239.2	24441.0	[100]	µg/L	12:51:26
2	Be 313.107†	371434.7	373391.4	[100]	µg/L	12:51:24
2	Cd 226.502†	16273.6	16403.0	[100]	µg/L	12:51:26
2	Co 228.616†	8181.8	8398.3	[100]	µg/L	12:51:46
2	Cr 267.716†	12898.3	12669.0	[100]	µg/L	12:51:26
2	Cu 324.752†	28893.4	25780.3	[100]	µg/L	12:51:26
2	Mn 257.610†	84137.1	84177.5	[100]	µg/L	12:51:26
2	Mo 202.031†	3231.1	3259.6	[100]	µg/L	12:51:46
2	Ni 231.604†	8862.8	8976.5	[100]	µg/L	12:51:26
2	P 214.914†	2318.1	2329.6	[500]	µg/L	12:51:46
2	Pb 220.353†	1873.8	1765.3	[100]	µg/L	12:51:46
2	S 181.975 Axial†	382.1	57.0	[200]	µg/L	12:51:46
2	Sb 206.836†	913.8	835.8	[100]	µg/L	12:51:46
2	Se 196.026†	287.5	267.7	[100]	µg/L	12:51:46
2	SiO2†	12612.7	10855.3	[1069.5]	µg/L	12:51:26
2	Si 251.611†	35065.1	34497.7	[500]	µg/L	12:51:26
2	Sn 189.927†	1552.5	1550.6	[100]	µg/L	12:51:46
2	Ti 334.940†	103839.6	103332.9	[100]	µg/L	12:51:26
2	Tl 190.801†	689.7	807.5	[100]	µg/L	12:51:46
2	U 409.014†	1651.3	1946.8	[100]	µg/L	12:51:26
2	V 292.402†	21246.8	20928.0	[100]	µg/L	12:51:26

2	Zn 213.857†	19530.2	18979.2	[100]	µg/L	12:51:26
3	Sc RADIAL	128681.2	128681.2	100	%	12:50:42
3	K 766.490 Radial†	4215.5	2644.8	[1000]	µg/L	12:50:42
3	Sr 421.552†	45229.4	45272.6	[100]	µg/L	12:50:42
3	Sc 361.383	1720351.8	1720351.8	99.967	%	12:51:48
3	Y 371.029	993057.2	993057.2	99.709	%	12:51:48
3	Ag 328.068†	31105.0	26514.9	[100]	µg/L	12:51:50
3	As 188.979†	300.4	309.1	[100]	µg/L	12:52:10
3	B 249.677†	11048.3	7056.4	[100]	µg/L	12:51:50
3	Ba 233.527†	24475.0	24623.1	[100]	µg/L	12:51:50
3	Be 313.107†	370103.5	371236.0	[100]	µg/L	12:51:48
3	Cd 226.502†	16396.5	16489.8	[100]	µg/L	12:51:50
3	Co 228.616†	8227.5	8425.8	[100]	µg/L	12:52:10
3	Cr 267.716†	13021.5	12763.6	[100]	µg/L	12:51:50
3	Cu 324.752†	29147.7	25970.5	[100]	µg/L	12:51:50
3	Mn 257.610†	84794.8	84648.8	[100]	µg/L	12:51:50
3	Mo 202.031†	3257.9	3279.3	[100]	µg/L	12:52:10
3	Ni 231.604†	8918.1	9012.1	[100]	µg/L	12:51:50
3	P 214.914†	2323.1	2329.5	[500]	µg/L	12:52:10
3	Pb 220.353†	1914.5	1801.9	[100]	µg/L	12:52:10
3	S 181.975 Axial†	374.9	49.0	[200]	µg/L	12:52:10
3	Sb 206.836†	912.6	832.6	[100]	µg/L	12:52:10
3	Se 196.026†	277.1	256.7	[100]	µg/L	12:52:10
3	SiO2†	12853.0	11067.8	[1069.5]	µg/L	12:51:50
3	Si 251.611†	35544.4	34899.3	[500]	µg/L	12:51:50
3	Sn 189.927†	1580.5	1575.1	[100]	µg/L	12:52:10
3	Ti 334.940†	104812.6	104076.0	[100]	µg/L	12:51:50
3	Tl 190.801†	697.7	814.0	[100]	µg/L	12:52:10
3	U 409.014†	1583.0	1874.9	[100]	µg/L	12:51:50
3	V 292.402†	21444.4	21078.4	[100]	µg/L	12:51:50
3	Zn 213.857†	19813.4	19219.2	[100]	µg/L	12:51:50

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1722259.6	6869.62	0.40%	100.08	%
Sc RADIAL	128784.5	721.35	0.56%	100	%
Y 371.029	994044.9	3728.79	0.38%	99.808	%
Ag 328.068†	26375.0	360.63	1.37%	[100]	µg/L
As 188.979†	302.1	13.98	4.63%	[100]	µg/L
B 249.677†	7020.2	94.89	1.35%	[100]	µg/L
Ba 233.527†	24393.2	257.19	1.05%	[100]	µg/L
Be 313.107†	372394.1	1086.68	0.29%	[100]	µg/L
Cd 226.502†	16368.3	142.01	0.87%	[100]	µg/L
Co 228.616†	8359.3	92.43	1.11%	[100]	µg/L
Cr 267.716†	12621.8	170.39	1.35%	[100]	µg/L
Cu 324.752†	25794.9	168.83	0.65%	[100]	µg/L
K 766.490 Radial†	2636.9	26.43	1.00%	[1000]	µg/L
Mn 257.610†	83869.9	970.02	1.16%	[100]	µg/L
Mo 202.031†	3252.3	31.22	0.96%	[100]	µg/L
Ni 231.604†	8948.6	81.18	0.91%	[100]	µg/L
P 214.914†	2309.2	35.23	1.53%	[500]	µg/L
Pb 220.353†	1772.6	26.39	1.49%	[100]	µg/L
S 181.975 Axial†	46.3	12.22	26.37%	[200]	µg/L
Sb 206.836†	828.9	9.30	1.12%	[100]	µg/L
Se 196.026†	263.8	6.18	2.34%	[100]	µg/L
SiO2†	10908.0	141.03	1.29%	[1069.5]	µg/L
Si 251.611†	34491.1	411.59	1.19%	[500]	µg/L
Sn 189.927†	1552.1	22.33	1.44%	[100]	µg/L
Sr 421.552†	45296.2	20.49	0.05%	[100]	µg/L
Ti 334.940†	103125.5	1069.45	1.04%	[100]	µg/L
Tl 190.801†	806.5	8.15	1.01%	[100]	µg/L
U 409.014†	1903.2	38.35	2.01%	[100]	µg/L
V 292.402†	20939.7	133.31	0.64%	[100]	µg/L
Zn 213.857†	18949.6	285.59	1.51%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 4/7/2010 12:52:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	131056.7	131056.7	102	%	12:52:49
1	Al 396.153Radial†	24477.0	24085.7	[5000]	µg/L	12:52:49
1	Ca 317.933Radial†	76360.2	74366.1	[5000]	µg/L	12:52:49
1	K 766.490 Radial†	14893.2	13038.2	[5000]	µg/L	12:52:49
1	Mg 279.077 IEC†	11586.3	11197.5	[5000]	µg/L	12:52:49
1	Sr 421.552†	220085.3	215903.2	[500]	µg/L	12:52:47
1	Sc 361.383	1712313.9	1712313.9	99.500	%	12:53:16
1	Y 371.029	980604.2	980604.2	98.458	%	12:53:16
1	Ag 328.068†	132520.5	128586.1	[500]	µg/L	12:53:16
1	As 188.979†	1526.0	1542.3	[500]	µg/L	12:53:36
1	B 249.677†	38574.3	34772.6	[500]	µg/L	12:53:16
1	Ba 233.527†	117718.8	118450.4	[500]	µg/L	12:53:16
1	Be 313.107†	1829843.1	1840049.9	[500]	µg/L	12:53:16
1	Cd 226.502†	79549.0	80036.7	[500]	µg/L	12:53:16
1	Co 228.616†	40418.0	40816.7	[500]	µg/L	12:53:16
1	Cr 267.716†	60872.4	60916.1	[500]	µg/L	12:53:16
1	Cu 324.752†	128590.4	126050.0	[500]	µg/L	12:53:16
1	Mn 257.610†	399482.2	401316.0	[500]	µg/L	12:53:16
1	Mo 202.031†	16260.8	16362.8	[500]	µg/L	12:53:36
1	Ni 231.604†	42483.8	42788.4	[500]	µg/L	12:53:16
1	P 214.914†	11725.1	11789.7	[2500]	µg/L	12:53:36
1	Pb 220.353†	8861.4	8792.6	[500]	µg/L	12:53:36
1	S 181.975 Axial†	1397.9	1078.9	[1000]	µg/L	12:53:36
1	Sb 206.836†	4264.3	4205.4	[500]	µg/L	12:53:36
1	Se 196.026†	1374.1	1360.5	[500]	µg/L	12:53:36
1	SiO2†	55597.0	54087.0	[5347.5]	µg/L	12:53:16
1	Si 251.611†	171199.5	171403.1	[2500]	µg/L	12:53:16
1	Sn 189.927†	7749.2	7782.2	[500]	µg/L	12:53:36
1	Ti 334.940†	509726.9	511517.5	[500]	µg/L	12:53:16
1	Tl 190.801†	3792.5	3927.6	[500]	µg/L	12:53:36
1	U 409.014†	7647.7	7977.5	[500]	µg/L	12:53:16
1	V 292.402†	102583.4	102725.9	[500]	µg/L	12:53:16
1	Zn 213.857†	90807.7	90663.3	[500]	µg/L	12:53:16
2	Sc RADIAL	129059.1	129059.1	100	%	12:52:53
2	Al 396.153Radial†	24213.1	24194.5	[5000]	µg/L	12:52:53
2	Ca 317.933Radial†	75337.6	74506.7	[5000]	µg/L	12:52:53
2	K 766.490 Radial†	14752.2	13123.8	[5000]	µg/L	12:52:53
2	Mg 279.077 IEC†	11359.7	11147.8	[5000]	µg/L	12:52:53
2	Sr 421.552†	221684.2	220835.3	[500]	µg/L	12:52:51
2	Sc 361.383	1715371.8	1715371.8	99.678	%	12:53:39
2	Y 371.029	982318.1	982318.1	98.630	%	12:53:39
2	Ag 328.068†	133154.8	128985.0	[500]	µg/L	12:53:39
2	As 188.979†	1513.1	1526.6	[500]	µg/L	12:53:59
2	B 249.677†	38661.3	34790.8	[500]	µg/L	12:53:39
2	Ba 233.527†	118169.8	118692.0	[500]	µg/L	12:53:39
2	Be 313.107†	1835076.1	1842021.4	[500]	µg/L	12:53:39
2	Cd 226.502†	80106.9	80453.9	[500]	µg/L	12:53:39
2	Co 228.616†	40648.7	40975.8	[500]	µg/L	12:53:39
2	Cr 267.716†	61220.9	61156.7	[500]	µg/L	12:53:39
2	Cu 324.752†	128842.6	126072.5	[500]	µg/L	12:53:39
2	Mn 257.610†	400789.4	401911.7	[500]	µg/L	12:53:39
2	Mo 202.031†	16206.2	16278.8	[500]	µg/L	12:53:59
2	Ni 231.604†	42804.0	43033.5	[500]	µg/L	12:53:39
2	P 214.914†	11697.6	11741.1	[2500]	µg/L	12:53:59
2	Pb 220.353†	8855.6	8771.0	[500]	µg/L	12:53:59
2	S 181.975 Axial†	1399.9	1078.4	[1000]	µg/L	12:53:59
2	Sb 206.836†	4266.2	4199.7	[500]	µg/L	12:53:59
2	Se 196.026†	1393.6	1377.6	[500]	µg/L	12:53:59
2	SiO2†	55850.8	54242.0	[5347.5]	µg/L	12:53:39

2	Si 251.611†	172018.6	171918.2	[2500]	µg/L	12:53:39
2	Sn 189.927†	7718.8	7737.9	[500]	µg/L	12:53:59
2	Ti 334.940†	511680.4	512564.1	[500]	µg/L	12:53:39
2	Tl 190.801†	3773.4	3901.6	[500]	µg/L	12:53:59
2	U 409.014†	7310.1	7625.1	[500]	µg/L	12:53:39
2	V 292.402†	103200.1	103160.8	[500]	µg/L	12:53:39
2	Zn 213.857†	91032.4	90726.1	[500]	µg/L	12:53:39
3	Sc RADIAL	130605.8	130605.8	102	%	12:52:57
3	Al 396.153Radial†	24299.0	23993.5	[5000]	µg/L	12:52:57
3	Ca 317.933Radial†	76104.0	74372.4	[5000]	µg/L	12:52:57
3	K 766.490 Radial†	15097.9	13290.0	[5000]	µg/L	12:52:57
3	Mg 279.077 IEC†	11617.8	11267.7	[5000]	µg/L	12:52:57
3	Sr 421.552†	220205.0	216766.0	[500]	µg/L	12:52:55
3	Sc 361.383	1719552.0	1719552.0	99.921	%	12:54:02
3	Y 371.029	985894.1	985894.1	98.989	%	12:54:02
3	Ag 328.068†	132754.7	128259.9	[500]	µg/L	12:54:02
3	As 188.979†	1499.6	1509.5	[500]	µg/L	12:54:22
3	B 249.677†	38748.9	34784.2	[500]	µg/L	12:54:02
3	Ba 233.527†	118158.6	118392.6	[500]	µg/L	12:54:02
3	Be 313.107†	1839405.3	1841878.6	[500]	µg/L	12:54:02
3	Cd 226.502†	79998.0	80149.6	[500]	µg/L	12:54:02
3	Co 228.616†	40686.2	40914.2	[500]	µg/L	12:54:02
3	Cr 267.716†	61311.2	61097.7	[500]	µg/L	12:54:02
3	Cu 324.752†	128932.4	125848.2	[500]	µg/L	12:54:02
3	Mn 257.610†	401218.0	401363.2	[500]	µg/L	12:54:02
3	Mo 202.031†	16064.0	16097.0	[500]	µg/L	12:54:22
3	Ni 231.604†	42825.4	42950.5	[500]	µg/L	12:54:02
3	P 214.914†	11530.9	11545.7	[2500]	µg/L	12:54:22
3	Pb 220.353†	8765.3	8659.0	[500]	µg/L	12:54:22
3	S 181.975 Axial†	1364.4	1039.4	[1000]	µg/L	12:54:22
3	Sb 206.836†	4225.8	4148.8	[500]	µg/L	12:54:22
3	Se 196.026†	1373.9	1354.5	[500]	µg/L	12:54:22
3	SiO2†	55876.4	54131.4	[5347.5]	µg/L	12:54:02
3	Si 251.611†	172274.6	171754.8	[2500]	µg/L	12:54:02
3	Sn 189.927†	7625.6	7625.8	[500]	µg/L	12:54:22
3	Ti 334.940†	512141.1	511777.2	[500]	µg/L	12:54:02
3	Tl 190.801†	3728.2	3847.2	[500]	µg/L	12:54:22
3	U 409.014†	7562.5	7859.8	[500]	µg/L	12:54:02
3	V 292.402†	103129.4	102838.4	[500]	µg/L	12:54:02
3	Zn 213.857†	91331.7	90803.6	[500]	µg/L	12:54:02

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1715745.9	3633.52	0.21%	99.699	%
Sc RADIAL	130240.6	1047.67	0.80%	101	%
Y 371.029	982938.8	2699.01	0.27%	98.693	%
Ag 328.068†	128610.3	363.18	0.28%	[500]	µg/L
Al 396.153Radial†	24091.3	100.61	0.42%	[5000]	µg/L
As 188.979†	1526.1	16.42	1.08%	[500]	µg/L
B 249.677†	34782.5	9.24	0.03%	[500]	µg/L
Ba 233.527†	118511.7	158.81	0.13%	[500]	µg/L
Be 313.107†	1841316.6	1099.38	0.06%	[500]	µg/L
Ca 317.933Radial†	74415.1	79.41	0.11%	[5000]	µg/L
Cd 226.502†	80213.4	215.79	0.27%	[500]	µg/L
Co 228.616†	40902.3	80.21	0.20%	[500]	µg/L
Cr 267.716†	61056.8	125.37	0.21%	[500]	µg/L
Cu 324.752†	125990.2	123.51	0.10%	[500]	µg/L
K 766.490 Radial†	13150.7	128.04	0.97%	[5000]	µg/L
Mg 279.077 IEC†	11204.4	60.28	0.54%	[5000]	µg/L
Mn 257.610†	401530.3	331.14	0.08%	[500]	µg/L
Mo 202.031†	16246.2	135.85	0.84%	[500]	µg/L
Ni 231.604†	42924.2	124.66	0.29%	[500]	µg/L
P 214.914†	11692.2	129.12	1.10%	[2500]	µg/L
Pb 220.353†	8740.9	71.72	0.82%	[500]	µg/L
S 181.975 Axial†	1065.6	22.66	2.13%	[1000]	µg/L
Sb 206.836†	4184.6	31.16	0.74%	[500]	µg/L
Se 196.026†	1364.2	12.02	0.88%	[500]	µg/L
SiO2†	54153.5	79.84	0.15%	[5347.5]	µg/L
Si 251.611†	171692.0	263.22	0.15%	[2500]	µg/L

Sn 189.927†	7715.3	80.61	1.04%	[500] µg/L
Sr 421.552†	217834.9	2634.04	1.21%	[500] µg/L
Ti 334.940†	511952.9	544.99	0.11%	[500] µg/L
Tl 190.801†	3892.1	41.01	1.05%	[500] µg/L
U 409.014†	7820.8	179.42	2.29%	[500] µg/L
V 292.402†	102908.4	225.73	0.22%	[500] µg/L
Zn 213.857†	90731.0	70.29	0.08%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 4/7/2010 12:54:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	129761.3	129761.3	101	%	12:55:02
1	Al 396.153Radial†	48331.4	47948.6	[10000]	µg/L	12:55:02
1	Ca 317.933Radial†	150306.4	148342.9	[10000]	µg/L	12:55:02
1	Fe 238.204 Radial†	137156.9	135706.0	[10000]	µg/L	12:55:02
1	K 766.490 Radial†	27950.1	26114.3	[10000]	µg/L	12:55:02
1	Mg 279.077 IEC†	22563.8	22182.0	[10000]	µg/L	12:55:02
1	Na 589.592 Radial†	69124.2	67523.7	[10000]	µg/L	12:55:02
1	Sr 421.552†	435184.5	431071.6	[1000]	µg/L	12:55:00
1	Sc 361.383	1722812.0	1722812.0	100.11	%	12:55:29
1	Y 371.029	981937.6	981937.6	98.592	%	12:55:29
1	Ag 328.068†	260646.6	255759.9	[1000]	µg/L	12:55:31
1	As 188.979†	3023.1	3028.4	[1000]	µg/L	12:55:51
1	B 249.677†	73057.4	68981.6	[1000]	µg/L	12:55:31
1	Ba 233.527†	233926.4	233809.5	[1000]	µg/L	12:55:31
1	Be 313.107†	3647398.3	3644402.3	[1000]	µg/L	12:55:29
1	Cd 226.502†	157901.7	157816.2	[1000]	µg/L	12:55:31
1	Co 228.616†	79953.5	80061.3	[1000]	µg/L	12:55:31
1	Cr 267.716†	121701.6	121305.7	[1000]	µg/L	12:55:31
1	Cu 324.752†	255112.5	251645.6	[1000]	µg/L	12:55:31
1	Mn 257.610†	794094.9	793048.7	[1000]	µg/L	12:55:29
1	Mo 202.031†	31805.4	31790.7	[1000]	µg/L	12:55:51
1	Ni 231.604†	84360.0	84358.5	[1000]	µg/L	12:55:31
1	P 214.914†	22938.8	22919.3	[5000]	µg/L	12:55:51
1	Pb 220.353†	17146.5	17014.4	[1000]	µg/L	12:55:51
1	S 181.975 Axial†	2611.9	2283.0	[2000]	µg/L	12:55:51
1	Sb 206.836†	8272.4	8183.0	[1000]	µg/L	12:55:51
1	Se 196.026†	2667.8	2644.3	[1000]	µg/L	12:55:51
1	SiO2†	108859.2	106950.2	[10695]	µg/L	12:55:31
1	Si 251.611†	338703.9	337675.0	[5000]	µg/L	12:55:31
1	Sn 189.927†	15125.2	15102.8	[1000]	µg/L	12:55:51
1	Ti 334.940†	1016493.9	1014606.1	[1000]	µg/L	12:55:29
1	Tl 190.801†	7508.9	7616.7	[1000]	µg/L	12:55:51
1	U 409.014†	17211.9	17484.3	[1000]	µg/L	12:55:31
1	V 292.402†	206156.4	205556.9	[1000]	µg/L	12:55:31
1	Zn 213.857†	178896.1	178098.9	[1000]	µg/L	12:55:31
2	Sc RADIAL	129384.6	129384.6	101	%	12:55:06
2	Al 396.153Radial†	48251.9	48008.9	[10000]	µg/L	12:55:06
2	Ca 317.933Radial†	149878.9	148351.7	[10000]	µg/L	12:55:06
2	Fe 238.204 Radial†	136669.0	135616.9	[10000]	µg/L	12:55:06
2	K 766.490 Radial†	27986.6	26231.1	[10000]	µg/L	12:55:06
2	Mg 279.077 IEC†	22429.2	22113.4	[10000]	µg/L	12:55:06
2	Na 589.592 Radial†	68833.3	67434.1	[10000]	µg/L	12:55:06
2	Sr 421.552†	435815.1	432952.8	[1000]	µg/L	12:55:04
2	Sc 361.383	1705641.2	1705641.2	99.112	%	12:55:54
2	Y 371.029	972269.4	972269.4	97.621	%	12:55:54
2	Ag 328.068†	262379.3	260129.2	[1000]	µg/L	12:55:56
2	As 188.979†	3011.8	3047.4	[1000]	µg/L	12:56:16
2	B 249.677†	73527.0	70190.1	[1000]	µg/L	12:55:56
2	Ba 233.527†	235631.6	237882.3	[1000]	µg/L	12:55:56
2	Be 313.107†	3623782.3	3657253.0	[1000]	µg/L	12:55:54
2	Cd 226.502†	158877.7	160388.8	[1000]	µg/L	12:55:56
2	Co 228.616†	80429.6	81345.6	[1000]	µg/L	12:55:56
2	Cr 267.716†	122317.9	123151.3	[1000]	µg/L	12:55:56
2	Cu 324.752†	256430.7	255541.0	[1000]	µg/L	12:55:56
2	Mn 257.610†	787245.4	794123.3	[1000]	µg/L	12:55:54
2	Mo 202.031†	31814.6	32119.8	[1000]	µg/L	12:56:16
2	Ni 231.604†	84878.5	85730.0	[1000]	µg/L	12:55:56
2	P 214.914†	22879.9	23090.5	[5000]	µg/L	12:56:16
2	Pb 220.353†	17130.8	17170.9	[1000]	µg/L	12:56:16

2	S 181.975 Axial†	2590.1	2287.3	[2000]	µg/L	12:56:16
2	Sb 206.836†	8291.2	8285.1	[1000]	µg/L	12:56:16
2	Se 196.026†	2686.3	2689.8	[1000]	µg/L	12:56:16
2	SiO2†	109762.2	108956.0	[10695]	µg/L	12:55:56
2	Si 251.611†	341112.0	343510.7	[5000]	µg/L	12:55:56
2	Sn 189.927†	15111.7	15241.2	[1000]	µg/L	12:56:16
2	Ti 334.940†	1008275.2	1016535.7	[1000]	µg/L	12:55:54
2	Tl 190.801†	7503.7	7686.9	[1000]	µg/L	12:56:16
2	U 409.014†	16898.6	17341.2	[1000]	µg/L	12:55:56
2	V 292.402†	207487.1	208972.7	[1000]	µg/L	12:55:56
2	Zn 213.857†	180126.7	181139.5	[1000]	µg/L	12:55:56
3	Sc RADIAL	128620.3	128620.3	100	%	12:55:11
3	Al 396.153Radial†	48136.3	48178.2	[10000]	µg/L	12:55:11
3	Ca 317.933Radial†	149086.9	148444.9	[10000]	µg/L	12:55:11
3	Fe 238.204 Radial†	135518.3	135273.8	[10000]	µg/L	12:55:11
3	K 766.490 Radial†	27672.7	26082.7	[10000]	µg/L	12:55:11
3	Mg 279.077 IEC†	22377.0	22193.6	[10000]	µg/L	12:55:11
3	Na 589.592 Radial†	68287.9	67295.3	[10000]	µg/L	12:55:11
3	Sr 421.552†	431594.6	431308.1	[1000]	µg/L	12:55:08
3	Sc 361.383	1705651.7	1705651.7	99.113	%	12:56:19
3	Y 371.029	972586.6	972586.6	97.653	%	12:56:19
3	Ag 328.068†	261054.7	258791.1	[1000]	µg/L	12:56:21
3	As 188.979†	3023.9	3059.6	[1000]	µg/L	12:56:41
3	B 249.677†	73147.3	69806.5	[1000]	µg/L	12:56:21
3	Ba 233.527†	234476.6	236715.5	[1000]	µg/L	12:56:21
3	Be 313.107†	3624999.5	3658458.6	[1000]	µg/L	12:56:19
3	Cd 226.502†	158015.6	159517.9	[1000]	µg/L	12:56:21
3	Co 228.616†	80162.5	81075.7	[1000]	µg/L	12:56:21
3	Cr 267.716†	121784.1	122612.0	[1000]	µg/L	12:56:21
3	Cu 324.752†	255212.9	254310.7	[1000]	µg/L	12:56:21
3	Mn 257.610†	787450.2	794325.1	[1000]	µg/L	12:56:19
3	Mo 202.031†	31891.9	32197.6	[1000]	µg/L	12:56:41
3	Ni 231.604†	84194.3	85039.1	[1000]	µg/L	12:56:21
3	P 214.914†	22977.8	23189.1	[5000]	µg/L	12:56:41
3	Pb 220.353†	17212.4	17253.2	[1000]	µg/L	12:56:41
3	S 181.975 Axial†	2598.8	2296.0	[2000]	µg/L	12:56:41
3	Sb 206.836†	8312.3	8306.4	[1000]	µg/L	12:56:41
3	Se 196.026†	2709.7	2713.5	[1000]	µg/L	12:56:41
3	SiO2†	108767.0	107951.2	[10695]	µg/L	12:56:21
3	Si 251.611†	338856.7	341233.2	[5000]	µg/L	12:56:21
3	Sn 189.927†	15152.5	15282.3	[1000]	µg/L	12:56:41
3	Ti 334.940†	1007852.0	1016102.4	[1000]	µg/L	12:56:19
3	Tl 190.801†	7508.7	7692.0	[1000]	µg/L	12:56:41
3	U 409.014†	17028.2	17472.0	[1000]	µg/L	12:56:21
3	V 292.402†	206256.7	207730.0	[1000]	µg/L	12:56:21
3	Zn 213.857†	178944.1	179945.1	[1000]	µg/L	12:56:21

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1711368.3	9910.55	0.58%	99.445	%
Sc RADIAL	129255.4	581.36	0.45%	101	%
Y 371.029	975597.9	5492.68	0.56%	97.956	%
Ag 328.068†	258226.7	2238.65	0.87%	[1000]	µg/L
Al 396.153Radial†	48045.2	119.05	0.25%	[10000]	µg/L
As 188.979†	3045.1	15.73	0.52%	[1000]	µg/L
B 249.677†	69659.4	617.54	0.89%	[1000]	µg/L
Ba 233.527†	236135.8	2097.38	0.89%	[1000]	µg/L
Be 313.107†	3653371.3	7790.77	0.21%	[1000]	µg/L
Ca 317.933Radial†	148379.8	56.53	0.04%	[10000]	µg/L
Cd 226.502†	159241.0	1308.49	0.82%	[1000]	µg/L
Co 228.616†	80827.6	677.15	0.84%	[1000]	µg/L
Cr 267.716†	122356.4	949.02	0.78%	[1000]	µg/L
Cu 324.752†	253832.4	1991.26	0.78%	[1000]	µg/L
Fe 238.204 Radial†	135532.2	228.17	0.17%	[10000]	µg/L
K 766.490 Radial†	26142.7	78.19	0.30%	[10000]	µg/L
Mg 279.077 IEC†	22163.0	43.35	0.20%	[10000]	µg/L
Mn 257.610†	793832.3	686.15	0.09%	[1000]	µg/L
Mo 202.031†	32036.1	215.99	0.67%	[1000]	µg/L
Na 589.592 Radial†	67417.7	115.04	0.17%	[10000]	µg/L

Ni 231.604†	85042.5	685.75	0.81%	[1000]	µg/L
P 214.914†	23066.3	136.53	0.59%	[5000]	µg/L
Pb 220.353†	17146.2	121.31	0.71%	[1000]	µg/L
S 181.975 Axial†	2288.8	6.66	0.29%	[2000]	µg/L
Sb 206.836†	8258.2	65.96	0.80%	[1000]	µg/L
Se 196.026†	2682.6	35.15	1.31%	[1000]	µg/L
SiO2†	107952.5	1002.89	0.93%	[10695]	µg/L
Si 251.611†	340806.3	2941.17	0.86%	[5000]	µg/L
Sn 189.927†	15208.8	94.07	0.62%	[1000]	µg/L
Sr 421.552†	431777.5	1024.67	0.24%	[1000]	µg/L
Ti 334.940†	1015748.1	1012.42	0.10%	[1000]	µg/L
Tl 190.801†	7665.2	42.07	0.55%	[1000]	µg/L
U 409.014†	17432.5	79.28	0.45%	[1000]	µg/L
V 292.402†	207419.9	1728.84	0.83%	[1000]	µg/L
Zn 213.857†	179727.8	1531.93	0.85%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 4/7/2010 12:56:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	127734.9	127734.9	99.4	%	12:57:19
1	Al 396.153Radial†	234105.6	235599.8	[50000]	µg/L	12:57:19
1	Ca 317.933Radial†	725174.7	729031.5	[50000]	µg/L	12:57:19
1	Fe 238.204 Radial†	267688.2	269177.5	[20000]	µg/L	12:57:19
1	Mg 279.077 IEC†	107442.6	107926.0	[50000]	µg/L	12:57:19
1	Na 589.592 Radial†	135058.9	134941.1	[20000]	µg/L	12:57:19
1	Sc 361.383	1671976.2	1671976.2	97.156	%	12:57:27
1	Y 371.029	954012.2	954012.2	95.788	%	12:57:27
2	Sc RADIAL	127857.8	127857.8	99.5	%	12:57:21
2	Al 396.153Radial†	235019.2	236291.6	[50000]	µg/L	12:57:21
2	Ca 317.933Radial†	727442.7	730609.5	[50000]	µg/L	12:57:21
2	Fe 238.204 Radial†	268810.0	270046.0	[20000]	µg/L	12:57:21
2	Mg 279.077 IEC†	107849.2	108230.7	[50000]	µg/L	12:57:21
2	Na 589.592 Radial†	135462.0	135215.5	[20000]	µg/L	12:57:21
2	Sc 361.383	1670810.5	1670810.5	97.088	%	12:57:30
2	Y 371.029	953804.0	953804.0	95.767	%	12:57:30
3	Sc RADIAL	126764.5	126764.5	98.6	%	12:57:23
3	Al 396.153Radial†	232042.6	235311.3	[50000]	µg/L	12:57:23
3	Ca 317.933Radial†	715681.9	724993.0	[50000]	µg/L	12:57:23
3	Fe 238.204 Radial†	264498.0	268005.0	[20000]	µg/L	12:57:23
3	Mg 279.077 IEC†	105884.3	107173.7	[50000]	µg/L	12:57:23
3	Na 589.592 Radial†	133593.1	134495.2	[20000]	µg/L	12:57:23
3	Sc 361.383	1671727.2	1671727.2	97.142	%	12:57:32
3	Y 371.029	954746.3	954746.3	95.862	%	12:57:32

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1671504.6	613.87	0.04%	97.129	%
Sc RADIAL	127452.4	598.89	0.47%	99.2	%
Y 371.029	954187.5	495.01	0.05%	95.806	%
Al 396.153Radial†	235734.3	503.78	0.21%	[50000]	µg/L
Ca 317.933Radial†	728211.4	2896.68	0.40%	[50000]	µg/L
Fe 238.204 Radial†	269076.1	1024.30	0.38%	[20000]	µg/L
Mg 279.077 IEC†	107776.8	544.07	0.50%	[50000]	µg/L
Na 589.592 Radial†	134883.9	363.55	0.27%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	258.1	0.00000	0.999997	
Al 396.153Radial	3	Lin Thru 0	0.0	4.719	0.00000	0.999991	
As 188.979	3	Lin Thru 0	0.0	3.046	0.00000	0.999999	
B 249.677	3	Lin Thru 0	0.0	69.64	0.00000	1.000000	
Ba 233.527	3	Lin Thru 0	0.0	236.4	0.00000	0.999995	
Be 313.107	3	Lin Thru 0	0.0	3660	0.00000	0.999994	
Ca 317.933Radial	3	Lin Thru 0	0.0	14.58	0.00000	0.999991	
Cd 226.502	3	Lin Thru 0	0.0	159.5	0.00000	0.999993	
Co 228.616	3	Lin Thru 0	0.0	81.04	0.00000	0.999985	
Cr 267.716	3	Lin Thru 0	0.0	122.3	0.00000	0.999996	
Cu 324.752	3	Lin Thru 0	0.0	253.5	0.00000	0.999995	
Fe 238.204 Radia	2	Lin Thru 0	0.0	13.47	0.00000	0.999996	
K 766.490 Radial	3	Lin Thru 0	0.0	2.618	0.00000	0.999997	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.159	0.00000	0.999979	
Mn 257.610	3	Lin Thru 0	0.0	796.0	0.00000	0.999978	
Mo 202.031	3	Lin Thru 0	0.0	32.13	0.00000	0.999983	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.744	0.00000	1.000000	

Ni 231.604	3	Lin Thru 0	0.0	85.24	0.00000	0.999983
P 214.914	3	Lin Thru 0	0.0	4.626	0.00000	0.999985
Pb 220.353	3	Lin Thru 0	0.0	17.22	0.00000	0.999966
S 181.975 Axial	3	Lin Thru 0	0.0	1.121	0.00000	0.997102
Sb 206.836	3	Lin Thru 0	0.0	8.280	0.00000	0.999986
Se 196.026	3	Lin Thru 0	0.0	2.691	0.00000	0.999975
SiO2	3	Lin Thru 0	0.0	10.10	0.00000	0.999999
Si 251.611	3	Lin Thru 0	0.0	68.27	0.00000	0.999995
Sn 189.927	3	Lin Thru 0	0.0	15.26	0.00000	0.999982
Sr 421.552	3	Lin Thru 0	0.0	432.7	0.00000	0.999985
Ti 334.940	3	Lin Thru 0	0.0	1017	0.00000	0.999994
Tl 190.801	3	Lin Thru 0	0.0	7.692	0.00000	0.999972
U 409.014	3	Lin Thru 0	0.0	17.09	0.00000	0.999078
V 292.402	3	Lin Thru 0	0.0	207.1	0.00000	0.999995
Zn 213.857	3	Lin Thru 0	0.0	180.1	0.00000	0.999982

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 4/7/2010 12:57:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130353.4	130353.4	101	%			12:58:12
1	Al 396.153Radial†	24797.8	24531.5	5173.1	µg/L	5173.1	ppb	12:58:12
1	Ca 317.933Radial†	75121.8	73549.2	5045.3	µg/L	5045.3	ppb	12:58:12
1	Fe 238.204 Radial†	69191.3	68088.0	5053.4	µg/L	5053.4	ppb	12:58:12
1	K 766.490 Radial†	8178.0	6497.1	2479.1	µg/L	2479.1	ppb	12:58:12
1	Mg 279.077 IEC†	11987.2	11654.0	5407.7	µg/L	5407.7	ppb	12:58:12
1	Na 589.592 Radial†	18224.3	17035.2	2523.9	µg/L	2523.9	ppb	12:58:12
1	Sr 421.552†	231442.2	228263.3	527.47	µg/L	527.47	ppb	12:58:10
1	Sc 361.383	1725151.7	1725151.7	100.25	%			12:58:25
1	Y 371.029	990353.1	990353.1	99.437	%			12:58:25
1	Ag 328.068†	70462.9	65689.6	260.94	µg/L	260.94	ppb	12:58:25
1	As 188.979†	1433.8	1438.9	479.63	µg/L	479.63	ppb	12:58:45
1	B 249.677†	39971.3	35877.7	513.38	µg/L	513.38	ppb	12:58:25
1	Ba 233.527†	119674.9	119521.3	506.08	µg/L	506.08	ppb	12:58:25
1	Be 313.107†	973074.7	971697.9	265.64	µg/L	265.64	ppb	12:58:25
1	Cd 226.502†	79465.5	79358.4	497.22	µg/L	497.22	ppb	12:58:25
1	Co 228.616†	41099.7	41194.5	508.63	µg/L	508.63	ppb	12:58:25
1	Cr 267.716†	59829.6	59420.5	485.58	µg/L	485.58	ppb	12:58:25
1	Cu 324.752†	131759.0	128249.0	507.47	µg/L	507.47	ppb	12:58:25
1	Mn 257.610†	419095.4	417893.3	524.75	µg/L	524.75	ppb	12:58:25
1	Mo 202.031†	17520.7	17497.9	545.06	µg/L	545.06	ppb	12:58:45
1	Ni 231.604†	43513.7	43498.0	510.31	µg/L	510.31	ppb	12:58:25
1	P 214.914†	11600.4	11577.6	2494.0	µg/L	2494.0	ppb	12:58:45
1	Pb 220.353†	8749.9	8615.2	502.20	µg/L	502.20	ppb	12:58:45
1	S 181.975 Axial†	3324.1	2989.9	2670.6	µg/L	2670.6	ppb	12:58:45
1	Sb 206.836†	4290.9	4200.0	509.30	µg/L	509.30	ppb	12:58:45
1	Se 196.026†	6856.0	6818.7	2540	µg/L	2540	ppb	12:58:45
1	SiO2†	106764.8	104713.4	10343	µg/L	10343	ppb	12:58:25
1	Si 251.611†	332499.8	331027.3	4837.9	µg/L	4837.9	ppb	12:58:25
1	Sn 189.927†	8328.2	8301.9	545.90	µg/L	545.90	ppb	12:58:45
1	Ti 334.940†	514647.2	512613.5	503.15	µg/L	503.15	ppb	12:58:25
1	Tl 190.801†	4059.8	4165.9	549.22	µg/L	549.22	ppb	12:58:45
1	U 409.014†	7309.8	7583.2	475.06	µg/L	475.06	ppb	12:58:25
1	V 292.402†	106530.1	105895.7	518.30	µg/L	518.30	ppb	12:58:25
1	Zn 213.857†	94419.8	93587.5	515.44	µg/L	515.44	ppb	12:58:25
2	Sc RADIAL	131052.3	131052.3	102	%			12:58:16
2	Al 396.153Radial†	24892.1	24493.6	5165.2	µg/L	5165.2	ppb	12:58:16
2	Ca 317.933Radial†	75714.2	73735.1	5058.1	µg/L	5058.1	ppb	12:58:16
2	Fe 238.204 Radial†	69610.6	68135.4	5056.9	µg/L	5056.9	ppb	12:58:16
2	K 766.490 Radial†	8434.6	6705.7	2558.8	µg/L	2558.8	ppb	12:58:16
2	Mg 279.077 IEC†	12112.6	11713.9	5435.4	µg/L	5435.4	ppb	12:58:16
2	Na 589.592 Radial†	18513.2	17222.7	2551.6	µg/L	2551.6	ppb	12:58:16
2	Sr 421.552†	234256.8	229806.4	531.04	µg/L	531.04	ppb	12:58:14
2	Sc 361.383	1740362.3	1740362.3	101.13	%			12:58:48
2	Y 371.029	999237.5	999237.5	100.33	%			12:58:48
2	Ag 328.068†	70770.6	65379.5	259.75	µg/L	259.75	ppb	12:58:48
2	As 188.979†	1431.8	1424.4	474.89	µg/L	474.89	ppb	12:59:08
2	B 249.677†	40456.9	36009.4	515.28	µg/L	515.28	ppb	12:58:48
2	Ba 233.527†	120819.0	119609.3	506.45	µg/L	506.45	ppb	12:58:48
2	Be 313.107†	982769.1	972800.3	265.95	µg/L	265.95	ppb	12:58:48
2	Cd 226.502†	80342.6	79532.9	498.32	µg/L	498.32	ppb	12:58:48
2	Co 228.616†	41434.9	41167.7	508.29	µg/L	508.29	ppb	12:58:48
2	Cr 267.716†	60403.3	59466.2	485.94	µg/L	485.94	ppb	12:58:48
2	Cu 324.752†	132583.7	127915.8	506.16	µg/L	506.16	ppb	12:58:48
2	Mn 257.610†	422651.3	417755.6	524.58	µg/L	524.58	ppb	12:58:48
2	Mo 202.031†	17556.6	17380.7	541.41	µg/L	541.41	ppb	12:59:08
2	Ni 231.604†	44109.1	43707.5	512.77	µg/L	512.77	ppb	12:58:48
2	P 214.914†	11619.9	11495.8	2476.3	µg/L	2476.3	ppb	12:59:08
2	Pb 220.353†	8811.3	8599.6	501.28	µg/L	501.28	ppb	12:59:08

2	S 181.975 Axial†	3336.4	2973.1	2655.5	µg/L	2655.5 ppb	12:59:08
2	Sb 206.836†	4299.0	4170.6	505.69	µg/L	505.69 ppb	12:59:08
2	Se 196.026†	6847.6	6750.6	2510	µg/L	2510 ppb	12:59:08
2	SiO2†	107892.9	104898.1	10362	µg/L	10362 ppb	12:58:48
2	Si 251.611†	335787.0	331378.9	4843.2	µg/L	4843.2 ppb	12:58:48
2	Sn 189.927†	8343.4	8244.3	542.13	µg/L	542.13 ppb	12:59:08
2	Ti 334.940†	519602.1	513026.0	503.55	µg/L	503.55 ppb	12:58:48
2	Tl 190.801†	4060.6	4131.3	544.73	µg/L	544.73 ppb	12:59:08
2	U 409.014†	7499.5	7707.0	482.33	µg/L	482.33 ppb	12:58:48
2	V 292.402†	107554.2	105979.6	518.68	µg/L	518.68 ppb	12:58:48
2	Zn 213.857†	95530.7	93862.7	516.95	µg/L	516.95 ppb	12:58:48
3	Sc RADIAL	131288.7	131288.7	102	%		12:58:20
3	Al 396.153Radial†	24966.0	24522.0	5171.1	µg/L	5171.1 ppb	12:58:20
3	Ca 317.933Radial†	76132.9	74011.2	5077.0	µg/L	5077.0 ppb	12:58:20
3	Fe 238.204 Radial†	70069.4	68461.5	5081.1	µg/L	5081.1 ppb	12:58:20
3	K 766.490 Radial†	8425.6	6682.0	2549.8	µg/L	2549.8 ppb	12:58:20
3	Mg 279.077 IEC†	12251.6	11828.6	5488.6	µg/L	5488.6 ppb	12:58:20
3	Na 589.592 Radial†	18652.0	17325.9	2566.9	µg/L	2566.9 ppb	12:58:20
3	Sr 421.552†	233030.0	228192.0	527.31	µg/L	527.31 ppb	12:58:18
3	Sc 361.383	1734680.9	1734680.9	100.80	%		12:59:11
3	Y 371.029	995612.9	995612.9	99.965	%		12:59:11
3	Ag 328.068†	70630.9	65470.1	260.11	µg/L	260.11 ppb	12:59:11
3	As 188.979†	1443.3	1440.4	480.16	µg/L	480.16 ppb	12:59:31
3	B 249.677†	40323.8	36008.3	515.26	µg/L	515.26 ppb	12:59:11
3	Ba 233.527†	120552.5	119736.2	506.99	µg/L	506.99 ppb	12:59:11
3	Be 313.107†	980299.7	973533.3	266.15	µg/L	266.15 ppb	12:59:11
3	Cd 226.502†	80260.6	79711.9	499.44	µg/L	499.44 ppb	12:59:11
3	Co 228.616†	41418.4	41285.5	509.75	µg/L	509.75 ppb	12:59:11
3	Cr 267.716†	60334.1	59593.3	486.98	µg/L	486.98 ppb	12:59:11
3	Cu 324.752†	132076.2	127841.7	505.88	µg/L	505.88 ppb	12:59:11
3	Mn 257.610†	421787.5	418267.5	525.22	µg/L	525.22 ppb	12:59:11
3	Mo 202.031†	17614.4	17494.9	544.97	µg/L	544.97 ppb	12:59:31
3	Ni 231.604†	44127.8	43868.9	514.67	µg/L	514.67 ppb	12:59:11
3	P 214.914†	11738.8	11651.4	2509.9	µg/L	2509.9 ppb	12:59:31
3	Pb 220.353†	8808.1	8625.0	502.76	µg/L	502.76 ppb	12:59:31
3	S 181.975 Axial†	3357.9	3005.2	2684.2	µg/L	2684.2 ppb	12:59:31
3	Sb 206.836†	4352.8	4237.9	513.86	µg/L	513.86 ppb	12:59:31
3	Se 196.026†	6898.7	6823.4	2540	µg/L	2540 ppb	12:59:31
3	SiO2†	107809.2	105164.5	10388	µg/L	10388 ppb	12:59:11
3	Si 251.611†	335166.3	331850.6	4850.0	µg/L	4850.0 ppb	12:59:11
3	Sn 189.927†	8394.5	8322.0	547.22	µg/L	547.22 ppb	12:59:31
3	Ti 334.940†	517632.5	512754.8	503.28	µg/L	503.28 ppb	12:59:11
3	Tl 190.801†	4084.9	4168.5	549.57	µg/L	549.57 ppb	12:59:31
3	U 409.014†	7465.8	7697.9	481.84	µg/L	481.84 ppb	12:59:11
3	V 292.402†	107361.9	106137.2	519.48	µg/L	519.48 ppb	12:59:11
3	Zn 213.857†	95632.5	94273.1	519.21	µg/L	519.21 ppb	12:59:11

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733398.3	100.73	%	0.447				0.44%
Sc RADIAL	130898.1	102	%	0.4				0.37%
Y 371.029	995067.8	99.911	%	0.4485				0.45%
Ag 328.068†	65513.1	260.26	µg/L	0.610	260.26	ppb	0.610	0.23%
QC value within limits for Ag 328.068 Recovery = 104.11%								
Al 396.153Radial†	24515.7	5169.8	µg/L	4.09	5169.8	ppb	4.09	0.08%
QC value within limits for Al 396.153Radial Recovery = 103.40%								
As 188.979†	1434.6	478.23	µg/L	2.905	478.23	ppb	2.905	0.61%
QC value within limits for As 188.979 Recovery = 95.65%								
B 249.677†	35965.2	514.64	µg/L	1.086	514.64	ppb	1.086	0.21%
QC value within limits for B 249.677 Recovery = 102.93%								
Ba 233.527†	119622.3	506.51	µg/L	0.457	506.51	ppb	0.457	0.09%
QC value within limits for Ba 233.527 Recovery = 101.30%								
Be 313.107†	972677.2	265.91	µg/L	0.254	265.91	ppb	0.254	0.10%
QC value within limits for Be 313.107 Recovery = 106.37%								
Ca 317.933Radial†	73765.2	5060.1	µg/L	15.95	5060.1	ppb	15.95	0.32%
QC value within limits for Ca 317.933Radial Recovery = 101.20%								
Cd 226.502†	79534.4	498.33	µg/L	1.107	498.33	ppb	1.107	0.22%
QC value within limits for Cd 226.502 Recovery = 99.67%								
Co 228.616†	41215.9	508.89	µg/L	0.761	508.89	ppb	0.761	0.15%

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   QC value within limits for Co 228.616  Recovery = 101.78%
Cr 267.716†            59493.3      486.17 µg/L         0.730      486.17 ppb          0.730   0.15%
   QC value within limits for Cr 267.716  Recovery = 97.23%
Cu 324.752†           128002.1      506.50 µg/L         0.850      506.50 ppb          0.850   0.17%
   QC value within limits for Cu 324.752  Recovery = 101.30%
Fe 238.204 Radial†     68228.3      5063.8 µg/L         15.09      5063.8 ppb          15.09   0.30%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.28%
K 766.490 Radial†       6628.3      2529.3 µg/L         43.63      2529.3 ppb          43.63   1.72%
   QC value within limits for K 766.490 Radial  Recovery = 101.17%
Mg 279.077 IEC†        11732.2      5443.9 µg/L         41.10      5443.9 ppb          41.10   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.88%
Mn 257.610†           417972.1      524.85 µg/L         0.331      524.85 ppb          0.331   0.06%
   QC value within limits for Mn 257.610  Recovery = 104.97%
Mo 202.031†            17457.8      543.82 µg/L         2.080      543.82 ppb          2.080   0.38%
   QC value within limits for Mo 202.031  Recovery = 108.76%
Na 589.592 Radial†     17194.6      2547.5 µg/L         21.81      2547.5 ppb          21.81   0.86%
   QC value within limits for Na 589.592 Radial  Recovery = 101.90%
Ni 231.604†            43691.5      512.58 µg/L         2.182      512.58 ppb          2.182   0.43%
   QC value within limits for Ni 231.604  Recovery = 102.52%
P 214.914†             11574.9      2493.4 µg/L         16.82      2493.4 ppb          16.82   0.67%
   QC value within limits for P 214.914  Recovery = 99.74%
Pb 220.353†             8613.3      502.08 µg/L         0.749      502.08 ppb          0.749   0.15%
   QC value within limits for Pb 220.353  Recovery = 100.42%
S 181.975 Axial†        2989.4      2670.1 µg/L         14.36      2670.1 ppb          14.36   0.54%
   QC value within limits for S 181.975 Axial  Recovery = 106.80%
Sb 206.836†             4202.9      509.62 µg/L         4.095      509.62 ppb          4.095   0.80%
   QC value within limits for Sb 206.836  Recovery = 101.92%
Se 196.026†             6797.6        2530 µg/L          15.1        2530 ppb           15.1   0.60%
   QC value within limits for Se 196.026  Recovery = 101.12%
SiO2†                 104925.3       10364 µg/L          22.4       10364 ppb           22.4   0.22%
   QC value within limits for SiO2  Recovery = 96.91%
Si 251.611†           331419.0      4843.7 µg/L          6.04      4843.7 ppb           6.04   0.12%
   QC value within limits for Si 251.611  Recovery = 96.87%
Sn 189.927†             8289.4      545.08 µg/L         2.642      545.08 ppb          2.642   0.48%
   QC value within limits for Sn 189.927  Recovery = 109.02%
Sr 421.552†           228753.9      528.60 µg/L         2.108      528.60 ppb          2.108   0.40%
   QC value within limits for Sr 421.552  Recovery = 105.72%
Ti 334.940†           512798.1      503.33 µg/L         0.204      503.33 ppb          0.204   0.04%
   QC value within limits for Ti 334.940  Recovery = 100.67%
Tl 190.801†             4155.2      547.84 µg/L         2.699      547.84 ppb          2.699   0.49%
   QC value within limits for Tl 190.801  Recovery = 109.57%
U 409.014†              7662.7      479.74 µg/L         4.061      479.74 ppb          4.061   0.85%
   QC value within limits for U 409.014  Recovery = 95.95%
V 292.402†            106004.2      518.82 µg/L         0.599      518.82 ppb          0.599   0.12%
   QC value within limits for V 292.402  Recovery = 103.76%
Zn 213.857†            93907.8      517.20 µg/L         1.900      517.20 ppb          1.900   0.37%
   QC value within limits for Zn 213.857  Recovery = 103.44%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 4/7/2010 12:59:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130289.0	130289.0	101	%			13:00:08
1	Al 396.153Radial†	-95.4	-8.5	-1.8150	µg/L	-1.8150	ppb	13:00:28
1	Ca 317.933Radial†	510.6	-2.9	-0.2003	µg/L	-0.2003	ppb	13:00:28
1	Fe 238.204 Radial†	129.4	6.3	0.4651	µg/L	0.4651	ppb	13:00:28
1	K 766.490 Radial†	1627.3	40.2	15.341	µg/L	15.341	ppb	13:00:08
1	Mg 279.077 IEC†	178.2	12.7	5.8899	µg/L	5.8899	ppb	13:00:28
1	Na 589.592 Radial†	963.6	19.9	2.9440	µg/L	2.9440	ppb	13:00:08
1	Sr 421.552†	-118.5	-11.2	-0.0259	µg/L	-0.0259	ppb	13:00:08
1	Sc 361.383	1732499.4	1732499.4	100.67	%			13:01:16
1	Y 371.029	1002175.0	1002175.0	100.62	%			13:01:16
1	Ag 328.068†	4379.0	-250.7	-0.9554	µg/L	-0.9554	ppb	13:01:18
1	As 188.979†	-10.9	-2.2	-0.7345	µg/L	-0.7345	ppb	13:01:38
1	B 249.677†	4298.6	274.3	3.9382	µg/L	3.9382	ppb	13:01:18
1	Ba 233.527†	-75.6	64.9	0.2752	µg/L	0.2752	ppb	13:01:38
1	Be 313.107†	-531.1	482.7	0.1327	µg/L	0.1327	ppb	13:01:18
1	Cd 226.502†	-23.6	64.5	0.4044	µg/L	0.4044	ppb	13:01:38
1	Co 228.616†	-196.5	0.4	0.0054	µg/L	0.0054	ppb	13:01:38
1	Cr 267.716†	246.6	-17.3	-0.1432	µg/L	-0.1432	ppb	13:01:38
1	Cu 324.752†	3320.8	111.9	0.4439	µg/L	0.4439	ppb	13:01:18
1	Mn 257.610†	321.7	145.6	0.1826	µg/L	0.1826	ppb	13:01:38
1	Mo 202.031†	-7.6	12.7	0.3961	µg/L	0.3961	ppb	13:01:38
1	Ni 231.604†	-72.9	18.7	0.2196	µg/L	0.2196	ppb	13:01:38
1	P 214.914†	-5.2	0.5	0.0918	µg/L	0.0918	ppb	13:01:38
1	Pb 220.353†	121.2	7.1	0.4120	µg/L	0.4120	ppb	13:01:38
1	S 181.975 Axial†	122.7	-204.1	-182.01	µg/L	-182.01	ppb	13:01:38
1	Sb 206.836†	86.1	5.2	0.6427	µg/L	0.6427	ppb	13:01:38
1	Se 196.026†	28.1	7.4	2.75	µg/L	2.75	ppb	13:01:38
1	SiO2†	1780.4	-20.9	-2.0859	µg/L	-2.0859	ppb	13:01:18
1	Si 251.611†	853.0	190.5	2.7829	µg/L	2.7829	ppb	13:01:18
1	Sn 189.927†	10.4	4.5	0.2930	µg/L	0.2930	ppb	13:01:38
1	Ti 334.940†	1085.4	306.9	0.3000	µg/L	0.3000	ppb	13:01:18
1	Tl 190.801†	-106.6	10.1	1.3285	µg/L	1.3285	ppb	13:01:38
1	U 409.014†	-245.9	47.1	2.8149	µg/L	2.8149	ppb	13:01:18
1	V 292.402†	594.4	217.4	1.0547	µg/L	1.0547	ppb	13:01:18
1	Zn 213.857†	635.3	30.3	0.1666	µg/L	0.1666	ppb	13:01:38
2	Sc RADIAL	129267.7	129267.7	101	%			13:00:30
2	Al 396.153Radial†	-59.8	26.2	5.5286	µg/L	5.5286	ppb	13:00:50
2	Ca 317.933Radial†	480.4	-29.0	-1.9897	µg/L	-1.9897	ppb	13:00:50
2	Fe 238.204 Radial†	127.6	5.4	0.4029	µg/L	0.4029	ppb	13:00:50
2	K 766.490 Radial†	1555.9	-18.1	-6.9341	µg/L	-6.9341	ppb	13:00:30
2	Mg 279.077 IEC†	160.3	-3.7	-1.7039	µg/L	-1.7039	ppb	13:00:50
2	Na 589.592 Radial†	1117.2	180.2	26.722	µg/L	26.722	ppb	13:00:30
2	Sr 421.552†	-77.7	28.3	0.0655	µg/L	0.0655	ppb	13:00:30
2	Sc 361.383	1731079.9	1731079.9	100.59	%			13:01:40
2	Y 371.029	1001314.9	1001314.9	100.54	%			13:01:40
2	Ag 328.068†	4275.6	-350.0	-1.3433	µg/L	-1.3433	ppb	13:01:42
2	As 188.979†	-12.1	-3.4	-1.1090	µg/L	-1.1090	ppb	13:02:03
2	B 249.677†	4087.9	68.4	0.9830	µg/L	0.9830	ppb	13:01:42
2	Ba 233.527†	-152.4	-11.5	-0.0487	µg/L	-0.0487	ppb	13:02:03
2	Be 313.107†	-1001.0	15.1	0.0078	µg/L	0.0078	ppb	13:01:42
2	Cd 226.502†	-43.9	44.3	0.2774	µg/L	0.2774	ppb	13:02:03
2	Co 228.616†	-227.1	-30.1	-0.3717	µg/L	-0.3717	ppb	13:02:03
2	Cr 267.716†	272.2	8.3	0.0586	µg/L	0.0586	ppb	13:02:03
2	Cu 324.752†	3076.9	-127.9	-0.4949	µg/L	-0.4949	ppb	13:01:42
2	Mn 257.610†	182.7	7.6	0.0097	µg/L	0.0097	ppb	13:02:03
2	Mo 202.031†	-8.0	12.3	0.3825	µg/L	0.3825	ppb	13:02:03
2	Ni 231.604†	-119.0	-27.2	-0.3189	µg/L	-0.3189	ppb	13:02:03
2	P 214.914†	-29.8	-23.9	-5.1700	µg/L	-5.1700	ppb	13:02:03
2	Pb 220.353†	95.9	-17.9	-1.0472	µg/L	-1.0472	ppb	13:02:03

2	S 181.975 Axial†	121.6	-205.1	-182.92	µg/L	-182.92 ppb	13:02:03
2	Sb 206.836†	91.9	11.0	1.3388	µg/L	1.3388 ppb	13:02:03
2	Se 196.026†	30.0	9.3	3.46	µg/L	3.46 ppb	13:02:03
2	SiO2†	1772.1	-27.7	-2.7660	µg/L	-2.7660 ppb	13:01:42
2	Si 251.611†	718.4	57.4	0.8317	µg/L	0.8317 ppb	13:01:42
2	Sn 189.927†	14.3	8.4	0.5474	µg/L	0.5474 ppb	13:02:03
2	Ti 334.940†	712.7	-62.7	-0.0665	µg/L	-0.0665 ppb	13:01:42
2	Tl 190.801†	-113.5	3.2	0.4152	µg/L	0.4152 ppb	13:02:03
2	U 409.014†	-86.1	205.7	12.029	µg/L	12.029 ppb	13:01:42
2	V 292.402†	339.4	-35.6	-0.1595	µg/L	-0.1595 ppb	13:01:42
2	Zn 213.857†	587.5	-16.7	-0.0901	µg/L	-0.0901 ppb	13:02:03
3	Sc RADIAL	130192.9	130192.9	101	%		13:00:52
3	Al 396.153Radial†	-87.4	-0.6	-0.1836	µg/L	-0.1836 ppb	13:01:12
3	Ca 317.933Radial†	486.1	-26.7	-1.8347	µg/L	-1.8347 ppb	13:01:12
3	Fe 238.204 Radial†	117.6	-5.3	-0.3929	µg/L	-0.3929 ppb	13:01:12
3	K 766.490 Radial†	1648.4	62.1	23.727	µg/L	23.727 ppb	13:00:52
3	Mg 279.077 IEC†	176.7	11.3	5.2710	µg/L	5.2710 ppb	13:01:12
3	Na 589.592 Radial†	1089.0	144.4	21.393	µg/L	21.393 ppb	13:00:52
3	Sr 421.552†	-53.5	52.8	0.1221	µg/L	0.1221 ppb	13:00:52
3	Sc 361.383	1718692.1	1718692.1	99.871	%		13:02:05
3	Y 371.029	994450.4	994450.4	99.849	%		13:02:05
3	Ag 328.068†	4647.4	53.0	0.2128	µg/L	0.2128 ppb	13:02:07
3	As 188.979†	-3.3	5.4	1.7621	µg/L	1.7621 ppb	13:02:27
3	B 249.677†	4120.4	130.1	1.8688	µg/L	1.8688 ppb	13:02:07
3	Ba 233.527†	-117.5	22.3	0.0950	µg/L	0.0950 ppb	13:02:27
3	Be 313.107†	-864.8	144.4	0.0402	µg/L	0.0402 ppb	13:02:07
3	Cd 226.502†	-68.9	18.9	0.1190	µg/L	0.1190 ppb	13:02:27
3	Co 228.616†	-199.9	-4.5	-0.0559	µg/L	-0.0559 ppb	13:02:27
3	Cr 267.716†	242.3	-19.7	-0.1627	µg/L	-0.1627 ppb	13:02:27
3	Cu 324.752†	2893.1	-289.9	-1.1413	µg/L	-1.1413 ppb	13:02:07
3	Mn 257.610†	182.4	8.6	0.0106	µg/L	0.0106 ppb	13:02:27
3	Mo 202.031†	14.7	35.0	1.0900	µg/L	1.0900 ppb	13:02:27
3	Ni 231.604†	-55.6	35.5	0.4162	µg/L	0.4162 ppb	13:02:27
3	P 214.914†	-6.6	-0.9	-0.1874	µg/L	-0.1874 ppb	13:02:27
3	Pb 220.353†	127.7	14.6	0.8498	µg/L	0.8498 ppb	13:02:27
3	S 181.975 Axial†	120.3	-205.6	-183.34	µg/L	-183.34 ppb	13:02:27
3	Sb 206.836†	84.3	4.1	0.5166	µg/L	0.5166 ppb	13:02:27
3	Se 196.026†	29.9	9.5	3.52	µg/L	3.52 ppb	13:02:27
3	SiO2†	1793.6	6.5	0.5940	µg/L	0.5940 ppb	13:02:07
3	Si 251.611†	687.5	31.6	0.4415	µg/L	0.4415 ppb	13:02:07
3	Sn 189.927†	21.5	15.7	1.0301	µg/L	1.0301 ppb	13:02:27
3	Ti 334.940†	1002.6	232.6	0.2272	µg/L	0.2272 ppb	13:02:07
3	Tl 190.801†	-117.1	-1.2	-0.1504	µg/L	-0.1504 ppb	13:02:27
3	U 409.014†	-247.4	43.6	2.5709	µg/L	2.5709 ppb	13:02:07
3	V 292.402†	444.6	72.2	0.3606	µg/L	0.3606 ppb	13:02:07
3	Zn 213.857†	588.7	-11.3	-0.0642	µg/L	-0.0642 ppb	13:02:27

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1727423.8	100.38	%	0.441				0.44%
Sc RADIAL	129916.6	101	%	0.4				0.43%
Y 371.029	999313.4	100.34	%	0.425				0.42%
Ag 328.068†	-182.5	-0.6953	µg/L	0.80998	-0.6953	ppb	0.80998	116.49%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.7	1.1767	µg/L	3.85613	1.1767	ppb	3.85613	327.71%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.0271	µg/L	1.56080	-0.0271	ppb	1.56080	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	157.6	2.2633	µg/L	1.51656	2.2633	ppb	1.51656	67.01%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	25.2	0.1072	µg/L	0.16229	0.1072	ppb	0.16229	151.45%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	214.1	0.0602	µg/L	0.06484	0.0602	ppb	0.06484	107.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-19.6	-1.3415	µg/L	0.99139	-1.3415	ppb	0.99139	73.90%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	42.6	0.2669	µg/L	0.14299	0.2669	ppb	0.14299	53.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-11.4	-0.1407	µg/L	0.20234	-0.1407	ppb	0.20234	143.79%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -9.5     -0.0824 µg/L       0.12249     -0.0824 ppb        0.12249 148.58%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -102.0     -0.3974 µg/L       0.79707     -0.3974 ppb        0.79707 200.56%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        2.1      0.1584 µg/L       0.47841      0.1584 ppb        0.47841 302.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        28.0      10.711 µg/L       15.8464      10.711 ppb        15.8464 147.94%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           6.8      3.1524 µg/L       4.21697      3.1524 ppb        4.21697 133.77%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              53.9      0.0676 µg/L       0.09960      0.0676 ppb        0.09960 147.24%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              20.0      0.6229 µg/L       0.40460      0.6229 ppb        0.40460  64.96%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      114.8      17.020 µg/L       12.4777      17.020 ppb        12.4777  73.31%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               9.0      0.1057 µg/L       0.38056      0.1057 ppb        0.38056 360.17%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -8.1     -1.7552 µg/L       2.96062     -1.7552 ppb        2.96062 168.68%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               1.3      0.0715 µg/L       0.99331      0.0715 ppb        0.99331 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†       -205.0     -182.76 µg/L         0.683     -182.76 ppb          0.683   0.37%
   QC value less than the lower limit for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.8      0.8327 µg/L       0.44279      0.8327 ppb        0.44279  53.18%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               8.7        3.24 µg/L         0.428        3.24 ppb          0.428  13.18%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -14.1     -1.4193 µg/L       1.77642     -1.4193 ppb        1.77642 125.16%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              93.2      1.3520 µg/L       1.25441      1.3520 ppb        1.25441  92.78%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.5      0.6235 µg/L       0.37439      0.6235 ppb        0.37439  60.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              23.3      0.0539 µg/L       0.07471      0.0539 ppb        0.07471 138.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             158.9      0.1536 µg/L       0.19404      0.1536 ppb        0.19404 126.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               4.0      0.5311 µg/L       0.74622      0.5311 ppb        0.74622 140.51%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               98.8      5.8049 µg/L       5.39155      5.8049 ppb        5.39155  92.88%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               84.7      0.4186 µg/L       0.60920      0.4186 ppb        0.60920 145.54%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               0.8      0.0041 µg/L       0.14134      0.0041 ppb        0.14134 >999.9%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 8 **Autosampler Location: 101**
Sample ID: PQL **Date Collected: 4/7/2010 13:02:34**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128552.9	128552.9	100	%			13:03:04
1	Al 396.153Radial†	943.5	1028.8	217.59	µg/L	217.59	ppb	13:03:06
1	Ca 317.933Radial†	3643.9	3136.0	215.12	µg/L	215.12	ppb	13:03:06
1	Fe 238.204 Radial†	1497.8	1375.8	102.11	µg/L	102.11	ppb	13:03:06
1	K 766.490 Radial†	1938.7	373.1	142.39	µg/L	142.39	ppb	13:03:04
1	Mg 279.077 IEC†	851.6	688.2	318.93	µg/L	318.93	ppb	13:03:06
1	Na 589.592 Radial†	2959.8	2028.2	300.62	µg/L	300.62	ppb	13:03:06
1	Sr 421.552†	2113.2	2218.0	5.1241	µg/L	5.1241	ppb	13:03:06
1	Sc 361.383	1743724.4	1743724.4	101.33	%			13:03:32
1	Y 371.029	1008527.5	1008527.5	101.26	%			13:03:32
1	Ag 328.068†	5813.0	1136.5	4.5247	µg/L	4.5247	ppb	13:03:34
1	As 188.979†	73.8	81.4	26.828	µg/L	26.828	ppb	13:03:54
1	B 249.677†	7573.1	3478.5	49.930	µg/L	49.930	ppb	13:03:34
1	Ba 233.527†	1031.8	1158.3	4.9045	µg/L	4.9045	ppb	13:03:54
1	Be 313.107†	16794.3	17584.9	4.8240	µg/L	4.8240	ppb	13:03:34
1	Cd 226.502†	715.0	793.6	4.9667	µg/L	4.9667	ppb	13:03:54
1	Co 228.616†	182.4	375.7	4.6357	µg/L	4.6357	ppb	13:03:54
1	Cr 267.716†	875.1	601.4	4.8655	µg/L	4.8655	ppb	13:03:54
1	Cu 324.752†	5784.8	2522.4	10.029	µg/L	10.029	ppb	13:03:34
1	Mn 257.610†	8335.1	8052.1	10.103	µg/L	10.103	ppb	13:03:34
1	Mo 202.031†	272.6	289.3	9.0155	µg/L	9.0155	ppb	13:03:54
1	Ni 231.604†	331.7	418.5	4.9093	µg/L	4.9093	ppb	13:03:54
1	P 214.914†	678.2	675.0	145.77	µg/L	145.77	ppb	13:03:54
1	Pb 220.353†	275.8	158.9	9.2219	µg/L	9.2219	ppb	13:03:54
1	S 181.975 Axial†	220.6	-108.3	-96.502	µg/L	-96.502	ppb	13:03:54
1	Sb 206.836†	160.6	78.1	9.5112	µg/L	9.5112	ppb	13:03:54
1	Se 196.026†	91.3	69.6	26.0	µg/L	26.0	ppb	13:03:54
1	SiO2†	4000.7	2159.0	213.34	µg/L	213.34	ppb	13:03:34
1	Si 251.611†	7874.8	7115.0	104.04	µg/L	104.04	ppb	13:03:34
1	Sn 189.927†	148.8	141.0	9.2568	µg/L	9.2568	ppb	13:03:54
1	Ti 334.940†	5899.7	5051.3	4.9167	µg/L	4.9167	ppb	13:03:34
1	Tl 190.801†	46.3	161.7	21.111	µg/L	21.111	ppb	13:03:54
1	U 409.014†	795.6	1076.5	63.288	µg/L	63.288	ppb	13:03:34
1	V 292.402†	1284.3	894.4	4.4598	µg/L	4.4598	ppb	13:03:34
1	Zn 213.857†	2394.5	1762.4	9.7355	µg/L	9.7355	ppb	13:03:54
2	Sc RADIAL	128778.8	128778.8	100	%			13:03:08
2	Al 396.153Radial†	928.8	1012.5	214.12	µg/L	214.12	ppb	13:03:10
2	Ca 317.933Radial†	3537.2	3023.1	207.38	µg/L	207.38	ppb	13:03:10
2	Fe 238.204 Radial†	1465.9	1341.4	99.555	µg/L	99.555	ppb	13:03:10
2	K 766.490 Radial†	2001.6	432.5	165.07	µg/L	165.07	ppb	13:03:08
2	Mg 279.077 IEC†	800.1	635.4	294.48	µg/L	294.48	ppb	13:03:10
2	Na 589.592 Radial†	2928.6	1991.9	295.22	µg/L	295.22	ppb	13:03:10
2	Sr 421.552†	2166.1	2267.1	5.2375	µg/L	5.2375	ppb	13:03:10
2	Sc 361.383	1724473.4	1724473.4	100.21	%			13:03:56
2	Y 371.029	998170.6	998170.6	100.22	%			13:03:56
2	Ag 328.068†	5962.7	1349.9	5.3278	µg/L	5.3278	ppb	13:03:58
2	As 188.979†	75.1	83.5	27.523	µg/L	27.523	ppb	13:04:19
2	B 249.677†	7612.7	3601.5	51.696	µg/L	51.696	ppb	13:03:58
2	Ba 233.527†	1065.9	1203.7	5.0971	µg/L	5.0971	ppb	13:04:19
2	Be 313.107†	16754.5	17730.3	4.8567	µg/L	4.8567	ppb	13:03:58
2	Cd 226.502†	720.2	806.6	5.0491	µg/L	5.0491	ppb	13:04:19
2	Co 228.616†	173.5	368.7	4.5505	µg/L	4.5505	ppb	13:04:19
2	Cr 267.716†	923.9	659.7	5.3609	µg/L	5.3609	ppb	13:04:19
2	Cu 324.752†	5408.8	2210.9	8.7796	µg/L	8.7796	ppb	13:03:58
2	Mn 257.610†	8388.2	8196.9	10.285	µg/L	10.285	ppb	13:03:58
2	Mo 202.031†	279.9	299.5	9.3334	µg/L	9.3334	ppb	13:04:19
2	Ni 231.604†	359.9	450.3	5.2825	µg/L	5.2825	ppb	13:04:19
2	P 214.914†	649.4	653.7	141.19	µg/L	141.19	ppb	13:04:19
2	Pb 220.353†	284.1	170.2	9.8951	µg/L	9.8951	ppb	13:04:19

2	S 181.975 Axial†	207.4	-119.1	-106.08 µg/L	-106.08 ppb	13:04:19
2	Sb 206.836†	149.8	69.2	8.4268 µg/L	8.4268 ppb	13:04:19
2	Se 196.026†	115.4	94.7	35.3 µg/L	35.3 ppb	13:04:19
2	SiO2†	3989.6	2191.9	216.58 µg/L	216.58 ppb	13:03:58
2	Si 251.611†	8019.3	7346.0	107.41 µg/L	107.41 ppb	13:03:58
2	Sn 189.927†	170.1	163.8	10.756 µg/L	10.756 ppb	13:04:19
2	Ti 334.940†	5720.8	4937.7	4.8162 µg/L	4.8162 ppb	13:03:58
2	Tl 190.801†	52.2	168.1	21.944 µg/L	21.944 ppb	13:04:19
2	U 409.014†	390.0	680.5	40.136 µg/L	40.136 ppb	13:03:58
2	V 292.402†	1348.4	972.6	4.8273 µg/L	4.8273 ppb	13:03:58
2	Zn 213.857†	2391.7	1786.0	9.8653 µg/L	9.8653 ppb	13:04:19
3	Sc RADIAL	128809.4	128809.4	100 %		13:03:12
3	Al 396.153Radial†	955.5	1038.9	219.68 µg/L	219.68 ppb	13:03:14
3	Ca 317.933Radial†	3594.2	3079.1	211.22 µg/L	211.22 ppb	13:03:14
3	Fe 238.204 Radial†	1571.3	1446.2	107.33 µg/L	107.33 ppb	13:03:14
3	K 766.490 Radial†	1976.5	407.0	155.31 µg/L	155.31 ppb	13:03:12
3	Mg 279.077 IEC†	865.1	699.9	324.40 µg/L	324.40 ppb	13:03:14
3	Na 589.592 Radial†	3010.2	2072.6	307.20 µg/L	307.20 ppb	13:03:14
3	Sr 421.552†	2230.8	2331.2	5.3856 µg/L	5.3856 ppb	13:03:14
3	Sc 361.383	1722331.2	1722331.2	100.08 %		13:04:21
3	Y 371.029	996524.8	996524.8	100.06 %		13:04:21
3	Ag 328.068†	6038.9	1433.5	5.6857 µg/L	5.6857 ppb	13:04:23
3	As 188.979†	78.9	87.4	28.800 µg/L	28.800 ppb	13:04:43
3	B 249.677†	7480.2	3478.6	49.931 µg/L	49.931 ppb	13:04:23
3	Ba 233.527†	1047.3	1186.4	5.0242 µg/L	5.0242 ppb	13:04:43
3	Be 313.107†	17052.8	18049.1	4.9515 µg/L	4.9515 ppb	13:04:23
3	Cd 226.502†	734.7	822.0	5.1441 µg/L	5.1441 ppb	13:04:43
3	Co 228.616†	182.7	378.2	4.6670 µg/L	4.6670 ppb	13:04:43
3	Cr 267.716†	860.9	597.9	4.8359 µg/L	4.8359 ppb	13:04:43
3	Cu 324.752†	5683.2	2491.8	9.9106 µg/L	9.9106 ppb	13:04:23
3	Mn 257.610†	8588.7	8407.7	10.549 µg/L	10.549 ppb	13:04:23
3	Mo 202.031†	295.1	315.2	9.8203 µg/L	9.8203 ppb	13:04:43
3	Ni 231.604†	318.6	409.5	4.8043 µg/L	4.8043 ppb	13:04:43
3	P 214.914†	686.9	692.0	149.45 µg/L	149.45 ppb	13:04:43
3	Pb 220.353†	276.9	163.4	9.4811 µg/L	9.4811 ppb	13:04:43
3	S 181.975 Axial†	223.4	-102.8	-91.578 µg/L	-91.578 ppb	13:04:43
3	Sb 206.836†	153.4	72.9	8.8964 µg/L	8.8964 ppb	13:04:43
3	Se 196.026†	100.7	80.1	29.9 µg/L	29.9 ppb	13:04:43
3	SiO2†	4099.2	2306.4	227.90 µg/L	227.90 ppb	13:04:23
3	Si 251.611†	8074.2	7410.8	108.35 µg/L	108.35 ppb	13:04:23
3	Sn 189.927†	164.4	158.4	10.398 µg/L	10.398 ppb	13:04:43
3	Ti 334.940†	5907.5	5131.4	4.9940 µg/L	4.9940 ppb	13:04:23
3	Tl 190.801†	43.8	159.8	20.872 µg/L	20.872 ppb	13:04:43
3	U 409.014†	821.0	1111.6	65.377 µg/L	65.377 ppb	13:04:23
3	V 292.402†	1401.7	1027.5	5.1111 µg/L	5.1111 ppb	13:04:23
3	Zn 213.857†	2392.0	1789.3	9.8850 µg/L	9.8850 ppb	13:04:43

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1730176.3	100.54	%	0.685				0.68%
Sc RADIAL	128713.7	100	%	0.1				0.11%
Y 371.029	1001074.3	100.51	%	0.653				0.65%
Ag 328.068†	1306.7	5.1794	µg/L	0.59454	5.1794	ppb	0.59454	11.48%
QC value within limits for Ag 328.068 Recovery = 103.59%								
Al 396.153Radial†	1026.7	217.13	µg/L	2.811	217.13	ppb	2.811	1.29%
QC value within limits for Al 396.153Radial Recovery = 108.57%								
As 188.979†	84.1	27.717	µg/L	1.0004	27.717	ppb	1.0004	3.61%
QC value within limits for As 188.979 Recovery = 92.39%								
B 249.677†	3519.5	50.519	µg/L	1.0196	50.519	ppb	1.0196	2.02%
QC value within limits for B 249.677 Recovery = 101.04%								
Ba 233.527†	1182.8	5.0086	µg/L	0.09727	5.0086	ppb	0.09727	1.94%
QC value within limits for Ba 233.527 Recovery = 100.17%								
Be 313.107†	17788.1	4.8774	µg/L	0.06620	4.8774	ppb	0.06620	1.36%
QC value within limits for Be 313.107 Recovery = 97.55%								
Ca 317.933Radial†	3079.4	211.24	µg/L	3.871	211.24	ppb	3.871	1.83%
QC value within limits for Ca 317.933Radial Recovery = 105.62%								
Cd 226.502†	807.4	5.0533	µg/L	0.08879	5.0533	ppb	0.08879	1.76%
QC value within limits for Cd 226.502 Recovery = 101.07%								
Co 228.616†	374.2	4.6177	µg/L	0.06025	4.6177	ppb	0.06025	1.30%

```
   QC value within limits for Co 228.616  Recovery = 92.35%
Cr 267.716†              619.7      5.0208 µg/L       0.29493      5.0208 ppb        0.29493   5.87%
   QC value within limits for Cr 267.716  Recovery = 100.42%
Cu 324.752†             2408.3      9.5729 µg/L       0.68958      9.5729 ppb        0.68958   7.20%
   QC value within limits for Cu 324.752  Recovery = 95.73%
Fe 238.204 Radial†      1387.8      103.00 µg/L         3.963      103.00 ppb          3.963   3.85%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.00%
K 766.490 Radial†        404.2      154.26 µg/L        11.376      154.26 ppb         11.376   7.37%
   QC value within limits for K 766.490 Radial  Recovery = 102.84%
Mg 279.077 IEC†          674.5      312.60 µg/L        15.932      312.60 ppb         15.932   5.10%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.20%
Mn 257.610†             8218.9      10.312 µg/L        0.2245      10.312 ppb         0.2245   2.18%
   QC value within limits for Mn 257.610  Recovery = 103.12%
Mo 202.031†              301.3      9.3897 µg/L       0.40538      9.3897 ppb        0.40538   4.32%
   QC value within limits for Mo 202.031  Recovery = 93.90%
Na 589.592 Radial†      2030.9      301.01 µg/L         5.997      301.01 ppb          5.997   1.99%
   QC value within limits for Na 589.592 Radial  Recovery = 100.34%
Ni 231.604†              426.1      4.9987 µg/L       0.25135      4.9987 ppb        0.25135   5.03%
   QC value within limits for Ni 231.604  Recovery = 99.97%
P 214.914†               673.6      145.47 µg/L         4.138      145.47 ppb          4.138   2.84%
   QC value within limits for P 214.914  Recovery = 96.98%
Pb 220.353†              164.2      9.5327 µg/L       0.33957      9.5327 ppb        0.33957   3.56%
   QC value within limits for Pb 220.353  Recovery = 95.33%
S 181.975 Axial†        -110.1     -98.053 µg/L        7.3740     -98.053 ppb         7.3740   7.52%
   QC value less than the lower limit for S 181.975 Axial  Recovery = -98.05%
Sb 206.836†               73.4      8.9448 µg/L       0.54382      8.9448 ppb        0.54382   6.08%
   QC value within limits for Sb 206.836  Recovery = 89.45%
Se 196.026†               81.5        30.4 µg/L          4.67        30.4 ppb           4.67  15.38%
   QC value within limits for Se 196.026  Recovery = 101.18%
SiO2†                   2219.1      219.27 µg/L         7.643      219.27 ppb          7.643   3.49%
   QC value within limits for SiO2  Recovery = 102.94%
Si 251.611†             7290.6      106.60 µg/L         2.268      106.60 ppb          2.268   2.13%
   QC value within limits for Si 251.611  Recovery = 106.60%
Sn 189.927†              154.4      10.137 µg/L        0.7829      10.137 ppb         0.7829   7.72%
   QC value within limits for Sn 189.927  Recovery = 101.37%
Sr 421.552†             2272.1      5.2491 µg/L       0.13115      5.2491 ppb        0.13115   2.50%
   QC value within limits for Sr 421.552  Recovery = 104.98%
Ti 334.940†             5040.1      4.9090 µg/L       0.08916      4.9090 ppb        0.08916   1.82%
   QC value within limits for Ti 334.940  Recovery = 98.18%
Tl 190.801†              163.2      21.309 µg/L        0.5625      21.309 ppb         0.5625   2.64%
   QC value within limits for Tl 190.801  Recovery = 106.54%
U 409.014†               956.2      56.267 µg/L       14.0089      56.267 ppb        14.0089  24.90%
   QC value within limits for U 409.014  Recovery = 112.53%
V 292.402†               964.8      4.7994 µg/L       0.32655      4.7994 ppb        0.32655   6.80%
   QC value within limits for V 292.402  Recovery = 95.99%
Zn 213.857†             1779.3      9.8286 µg/L       0.08121      9.8286 ppb        0.08121   0.83%
   QC value within limits for Zn 213.857  Recovery = 98.29%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 4/7/2010 13:04:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	119640.6	119640.6	93.1	%			13:05:23
1	Al 396.153Radial†	2250031.9	2416798.5	512130	µg/L	512130	ppb	13:05:21
1	Ca 317.933Radial†	6726755.4	7224562.7	495590	µg/L	495590	ppb	13:05:21
1	Fe 238.204 Radial†	2438309.8	2618816.9	194370	µg/L	194370	ppb	13:05:21
1	K 766.490 Radial†	1685.7	245.7	-151.59	µg/L	-151.59	ppb	13:05:23
1	Mg 279.077 IEC†	997330.8	1071049.4	496000	µg/L	496000	ppb	13:05:21
1	Na 589.592 Radial†	1617.5	806.9	119.57	µg/L	119.57	ppb	13:05:23
1	Sr 421.552†	4920.4	5390.6	8.5784	µg/L	8.5784	ppb	13:05:23
1	Sc 361.383	1524382.6	1524382.6	88.580	%			13:05:50
1	Y 371.029	869034.7	869034.7	87.256	%			13:05:50
1	Ag 328.068†	7424.8	3781.7	1.0101	µg/L	1.0101	ppb	13:05:50
1	As 188.979†	-107.3	-112.5	6.6284	µg/L	6.6284	ppb	13:06:10
1	B 249.677†	4222.0	770.8	11.054	µg/L	11.054	ppb	13:05:50
1	Ba 233.527†	407.3	599.8	0.0553	µg/L	0.0553	ppb	13:06:10
1	Be 313.107†	-408.1	549.5	0.1552	µg/L	0.1552	ppb	13:05:50
1	Cd 226.502†	2441.5	2844.2	-2.6075	µg/L	-2.6075	ppb	13:06:10
1	Co 228.616†	97.4	305.6	-6.3658	µg/L	-6.3658	ppb	13:06:10
1	Cr 267.716†	178.4	-60.9	0.1892	µg/L	0.1892	ppb	13:06:10
1	Cu 324.752†	-5865.5	-9808.5	3.0350	µg/L	3.0350	ppb	13:05:50
1	Mn 257.610†	16117.3	18021.3	2.4527	µg/L	2.4527	ppb	13:05:50
1	Mo 202.031†	-537.0	-586.0	-1.4818	µg/L	-1.4818	ppb	13:06:10
1	Ni 231.604†	114.2	220.1	2.5821	µg/L	2.5821	ppb	13:06:10
1	P 214.914†	117.4	138.2	11.718	µg/L	11.718	ppb	13:06:10
1	Pb 220.353†	-327.4	-482.8	-2.5690	µg/L	-2.5690	ppb	13:06:10
1	S 181.975 Axial†	177.6	-125.5	-112.05	µg/L	-112.05	ppb	13:06:10
1	Sb 206.836†	124.0	59.7	1.1045	µg/L	1.1045	ppb	13:06:10
1	Se 196.026†	-156.6	-197.3	-5.85	µg/L	-5.85	ppb	13:06:10
1	SiO2†	1694.3	123.3	12.674	µg/L	12.674	ppb	13:06:10
1	Si 251.611†	510.5	-80.4	-0.9576	µg/L	-0.9576	ppb	13:06:10
1	Sn 189.927†	51.9	52.7	3.5385	µg/L	3.5385	ppb	13:06:10
1	Ti 334.940†	22928.2	25113.1	-2.8154	µg/L	-2.8154	ppb	13:05:50
1	Tl 190.801†	-150.4	-53.7	-6.5237	µg/L	-6.5237	ppb	13:06:10
1	U 409.014†	-3.8	287.0	-4.6495	µg/L	-4.6495	ppb	13:05:50
1	V 292.402†	4554.9	4769.1	2.3183	µg/L	2.3183	ppb	13:05:50
1	Zn 213.857†	4422.1	4391.5	7.6332	µg/L	7.6332	ppb	13:06:10
2	Sc RADIAL	119003.9	119003.9	92.6	%			13:05:28
2	Al 396.153Radial†	2247032.3	2426489.1	514190	µg/L	514190	ppb	13:05:26
2	Ca 317.933Radial†	6682736.2	7215684.5	494980	µg/L	494980	ppb	13:05:26
2	Fe 238.204 Radial†	2421284.7	2614444.3	194040	µg/L	194040	ppb	13:05:26
2	K 766.490 Radial†	1486.3	40.0	-230.36	µg/L	-230.36	ppb	13:05:28
2	Mg 279.077 IEC†	988195.8	1066916.3	494080	µg/L	494080	ppb	13:05:26
2	Na 589.592 Radial†	1458.8	644.8	95.600	µg/L	95.600	ppb	13:05:28
2	Sr 421.552†	4703.0	5184.0	8.1058	µg/L	8.1058	ppb	13:05:28
2	Sc 361.383	1532473.1	1532473.1	89.050	%			13:06:13
2	Y 371.029	872925.8	872925.8	87.647	%			13:06:13
2	Ag 328.068†	7070.7	3339.8	-0.7111	µg/L	-0.7111	ppb	13:06:13
2	As 188.979†	-90.6	-93.1	12.920	µg/L	12.920	ppb	13:06:33
2	B 249.677†	4263.2	791.9	11.358	µg/L	11.358	ppb	13:06:13
2	Ba 233.527†	451.7	647.2	0.2595	µg/L	0.2595	ppb	13:06:33
2	Be 313.107†	-180.4	807.7	0.2226	µg/L	0.2226	ppb	13:06:13
2	Cd 226.502†	2450.7	2840.0	-2.5999	µg/L	-2.5999	ppb	13:06:33
2	Co 228.616†	83.3	289.1	-6.5519	µg/L	-6.5519	ppb	13:06:33
2	Cr 267.716†	200.5	-37.1	0.4034	µg/L	0.4034	ppb	13:06:33
2	Cu 324.752†	-5767.0	-9662.9	3.5016	µg/L	3.5016	ppb	13:06:13
2	Mn 257.610†	16249.0	18073.2	2.5946	µg/L	2.5946	ppb	13:06:13
2	Mo 202.031†	-527.2	-571.8	-1.0903	µg/L	-1.0903	ppb	13:06:33
2	Ni 231.604†	117.5	223.1	2.6170	µg/L	2.6170	ppb	13:06:33
2	P 214.914†	123.3	144.2	13.662	µg/L	13.662	ppb	13:06:33
2	Pb 220.353†	-338.6	-493.5	-3.0398	µg/L	-3.0398	ppb	13:06:33

2	S 181.975 Axial†	150.2	-157.3	-140.44 µg/L	-140.44 ppb	13:06:33
2	Sb 206.836†	115.4	49.3	-0.1586 µg/L	-0.1586 ppb	13:06:33
2	Se 196.026†	-159.8	-200.0	-6.97 µg/L	-6.97 ppb	13:06:33
2	SiO2†	1693.8	112.6	11.614 µg/L	11.614 ppb	13:06:33
2	Si 251.611†	470.1	-128.9	-1.6676 µg/L	-1.6676 ppb	13:06:33
2	Sn 189.927†	40.5	39.6	2.6796 µg/L	2.6796 ppb	13:06:33
2	Ti 334.940†	22857.6	24897.1	-2.8834 µg/L	-2.8834 ppb	13:06:13
2	Tl 190.801†	-178.9	-84.9	-10.586 µg/L	-10.586 ppb	13:06:33
2	U 409.014†	-163.2	108.1	-15.135 µg/L	-15.135 ppb	13:06:13
2	V 292.402†	4367.5	4531.5	1.2040 µg/L	1.2040 ppb	13:06:13
2	Zn 213.857†	4474.3	4423.8	7.8861 µg/L	7.8861 ppb	13:06:33
3	Sc RADIAL	117977.5	117977.5	91.8 %		13:05:32
3	Al 396.153Radial†	2245111.7	2445507.1	518220 µg/L	518220 ppb	13:05:30
3	Ca 317.933Radial†	6691999.2	7288555.5	499980 µg/L	499980 ppb	13:05:30
3	Fe 238.204 Radial†	2424695.7	2640906.6	196000 µg/L	196000 ppb	13:05:30
3	K 766.490 Radial†	1745.0	335.8	-119.62 µg/L	-119.62 ppb	13:05:32
3	Mg 279.077 IEC†	989981.8	1078145.2	499280 µg/L	499280 ppb	13:05:30
3	Na 589.592 Radial†	1592.8	804.4	119.17 µg/L	119.17 ppb	13:05:32
3	Sr 421.552†	4732.0	5259.9	8.2420 µg/L	8.2420 ppb	13:05:32
3	Sc 361.383	1518993.8	1518993.8	88.266 %		13:06:36
3	Y 371.029	865744.6	865744.6	86.926 %		13:06:36
3	Ag 328.068†	6709.8	3001.3	-2.1519 µg/L	-2.1519 ppb	13:06:36
3	As 188.979†	-85.6	-88.4	14.907 µg/L	14.907 ppb	13:06:56
3	B 249.677†	4065.4	610.3	8.7503 µg/L	8.7503 ppb	13:06:36
3	Ba 233.527†	486.6	691.3	0.4206 µg/L	0.4206 ppb	13:06:56
3	Be 313.107†	-458.6	490.7	0.1374 µg/L	0.1374 ppb	13:06:36
3	Cd 226.502†	2486.6	2905.1	-2.3980 µg/L	-2.3980 ppb	13:06:56
3	Co 228.616†	79.4	285.5	-6.6984 µg/L	-6.6984 ppb	13:06:56
3	Cr 267.716†	227.9	-4.1	0.6744 µg/L	0.6744 ppb	13:06:56
3	Cu 324.752†	-5773.4	-9727.7	3.6765 µg/L	3.6765 ppb	13:06:36
3	Mn 257.610†	16209.6	18190.4	2.5305 µg/L	2.5305 ppb	13:06:36
3	Mo 202.031†	-543.0	-594.9	-1.6361 µg/L	-1.6361 ppb	13:06:56
3	Ni 231.604†	115.1	221.5	2.5990 µg/L	2.5990 ppb	13:06:56
3	P 214.914†	158.9	185.7	22.209 µg/L	22.209 ppb	13:06:56
3	Pb 220.353†	-325.9	-482.5	-2.2204 µg/L	-2.2204 ppb	13:06:56
3	S 181.975 Axial†	184.8	-116.7	-104.20 µg/L	-104.20 ppb	13:06:56
3	Sb 206.836†	114.5	49.4	-0.2180 µg/L	-0.2180 ppb	13:06:56
3	Se 196.026†	-157.5	-199.0	-5.92 µg/L	-5.92 ppb	13:06:56
3	SiO2†	1662.4	94.0	9.7893 µg/L	9.7893 ppb	13:06:56
3	Si 251.611†	560.7	-21.6	-0.0860 µg/L	-0.0860 ppb	13:06:56
3	Sn 189.927†	40.5	40.0	2.7051 µg/L	2.7051 ppb	13:06:56
3	Ti 334.940†	22883.9	25154.7	-2.9255 µg/L	-2.9255 ppb	13:06:36
3	Tl 190.801†	-176.2	-83.6	-10.411 µg/L	-10.411 ppb	13:06:56
3	U 409.014†	-93.4	185.5	-10.812 µg/L	-10.812 ppb	13:06:36
3	V 292.402†	4417.6	4631.8	1.4774 µg/L	1.4774 ppb	13:06:36
3	Zn 213.857†	4467.4	4460.6	7.9021 µg/L	7.9021 ppb	13:06:56

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1525283.2	88.632	%	0.3942				0.44%
Sc RADIAL	118874.0	92.5	%	0.65				0.71%
Y 371.029	869235.0	87.276	%	0.3609				0.41%
Ag 328.068†	3374.3	-0.6176	µg/L	1.58308	-0.6176	ppb	1.58308	256.31%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2429598.2	514850	µg/L	3094.8	514850	ppb	3094.8	0.60%
QC value within limits for Al 396.153Radial Recovery = 102.97%								
As 188.979†	-98.0	11.485	µg/L	4.3219	11.485	ppb	4.3219	37.63%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	724.3	10.387	µg/L	1.4258	10.387	ppb	1.4258	13.73%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	646.1	0.2451	µg/L	0.18305	0.2451	ppb	0.18305	74.67%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	616.0	0.1717	µg/L	0.04495	0.1717	ppb	0.04495	26.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7242934.2	496850	µg/L	2727.3	496850	ppb	2727.3	0.55%
QC value within limits for Ca 317.933Radial Recovery = 99.37%								
Cd 226.502†	2863.1	-2.5351	µg/L	0.11882	-2.5351	ppb	0.11882	4.69%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	293.4	-6.5387	µg/L	0.16673	-6.5387	ppb	0.16673	2.55%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -34.0      0.4223 µg/L       0.24319      0.4223 ppb        0.24319  57.58%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -9733.0      3.4044 µg/L       0.33164      3.4044 ppb        0.33164   9.74%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2624722.6      194800 µg/L        1052.8      194800 ppb         1052.8   0.54%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.40%
K 766.490 Radial†        207.2     -167.19 µg/L        56.997     -167.19 ppb         56.997  34.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1072037.0      496450 µg/L        2630.0      496450 ppb         2630.0   0.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.29%
Mn 257.610†            18095.0      2.5259 µg/L       0.07110      2.5259 ppb        0.07110   2.81%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -584.2     -1.4027 µg/L       0.28133     -1.4027 ppb        0.28133  20.06%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       752.0      111.44 µg/L        13.724      111.44 ppb         13.724  12.31%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              221.6      2.5994 µg/L       0.01747      2.5994 ppb        0.01747   0.67%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               156.0      15.863 µg/L        5.5808      15.863 ppb         5.5808  35.18%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -486.3     -2.6098 µg/L       0.41122     -2.6098 ppb        0.41122  15.76%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -133.2     -118.90 µg/L        19.063     -118.90 ppb         19.063  16.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               52.8      0.2426 µg/L       0.74696      0.2426 ppb        0.74696 307.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -198.7       -6.25 µg/L         0.624       -6.25 ppb          0.624   9.99%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    109.9      11.359 µg/L        1.4593      11.359 ppb         1.4593  12.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -77.0     -0.9037 µg/L       0.79216     -0.9037 ppb        0.79216  87.65%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               44.1      2.9744 µg/L       0.48867      2.9744 ppb        0.48867  16.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             5278.1      8.3087 µg/L       0.24327      8.3087 ppb        0.24327   2.93%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            25055.0     -2.8748 µg/L       0.05556     -2.8748 ppb        0.05556   1.93%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -74.1     -9.1738 µg/L       2.29669     -9.1738 ppb        2.29669  25.04%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               193.5     -10.199 µg/L        5.2696     -10.199 ppb         5.2696  51.67%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              4644.1      1.6666 µg/L       0.58074      1.6666 ppb        0.58074  34.85%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             4425.3      7.8071 µg/L       0.15085      7.8071 ppb        0.15085   1.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10 **Autosampler Location: 104**
Sample ID: ICSAB **Date Collected: 4/7/2010 13:07:04**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	120215.6	120215.6	93.6	%			13:07:36
1	Al 396.153Radial†	2239458.0	2393934.9	507260	µg/L	507260	ppb	13:07:34
1	Ca 317.933Radial†	6588218.8	7041912.9	483060	µg/L	483060	ppb	13:07:34
1	Fe 238.204 Radial†	2413601.0	2579876.5	191480	µg/L	191480	ppb	13:07:34
1	K 766.490 Radial†	15549.3	15056.4	5509.6	µg/L	5509.6	ppb	13:07:36
1	Mg 279.077 IEC†	990657.5	1058791.6	490330	µg/L	490330	ppb	13:07:36
1	Na 589.592 Radial†	35109.8	36599.8	5422.1	µg/L	5422.1	ppb	13:07:36
1	Sr 421.552†	208016.8	222463.4	510.33	µg/L	510.33	ppb	13:07:36
1	Sc 361.383	1530444.1	1530444.1	88.932	%			13:08:04
1	Y 371.029	873398.8	873398.8	87.694	%			13:08:04
1	Ag 328.068†	67009.7	70749.1	267.33	µg/L	267.33	ppb	13:08:04
1	As 188.979†	1292.1	1461.6	528.76	µg/L	528.76	ppb	13:08:06
1	B 249.677†	35821.6	36284.4	519.39	µg/L	519.39	ppb	13:08:04
1	Ba 233.527†	104559.1	117712.3	496.03	µg/L	496.03	ppb	13:08:04
1	Be 313.107†	790756.8	890183.0	243.38	µg/L	243.38	ppb	13:08:04
1	Cd 226.502†	69782.8	78555.7	472.57	µg/L	472.57	ppb	13:08:04
1	Co 228.616†	32931.4	37225.6	449.92	µg/L	449.92	ppb	13:08:06
1	Cr 267.716†	53460.0	59851.3	489.63	µg/L	489.63	ppb	13:08:06
1	Cu 324.752†	114121.0	125137.5	535.46	µg/L	535.46	ppb	13:08:04
1	Mn 257.610†	355857.6	399972.9	482.51	µg/L	482.51	ppb	13:08:04
1	Mo 202.031†	13794.1	15531.1	500.08	µg/L	500.08	ppb	13:08:06
1	Ni 231.604†	35112.6	39573.8	464.28	µg/L	464.28	ppb	13:08:06
1	P 214.914†	10908.8	12272.2	2628.8	µg/L	2628.8	ppb	13:08:06
1	Pb 220.353†	6893.8	7638.5	470.44	µg/L	470.44	ppb	13:08:06
1	S 181.975 Axial†	3206.2	3279.2	2928.0	µg/L	2928.0	ppb	13:08:06
1	Sb 206.836†	3860.5	4260.6	509.90	µg/L	509.90	ppb	13:08:06
1	Se 196.026†	5749.8	6444.9	2460	µg/L	2460	ppb	13:08:06
1	SiO2†	100016.1	110674.4	10936	µg/L	10936	ppb	13:08:04
1	Si 251.611†	311761.9	349906.3	5115.6	µg/L	5115.6	ppb	13:08:04
1	Sn 189.927†	6681.1	7506.8	493.86	µg/L	493.86	ppb	13:08:06
1	Ti 334.940†	479603.1	538522.1	501.55	µg/L	501.55	ppb	13:08:04
1	Tl 190.801†	3001.3	3490.9	462.02	µg/L	462.02	ppb	13:08:06
1	U 409.014†	7063.8	8234.3	491.94	µg/L	491.94	ppb	13:08:04
1	V 292.402†	97042.0	108746.6	511.79	µg/L	511.79	ppb	13:08:04
1	Zn 213.857†	82289.9	91930.8	490.65	µg/L	490.65	ppb	13:08:04
2	Sc RADIAL	119725.2	119725.2	93.2	%			13:07:41
2	Al 396.153Radial†	2264154.3	2430248.8	514960	µg/L	514960	ppb	13:07:39
2	Ca 317.933Radial†	6706063.1	7197248.1	493720	µg/L	493720	ppb	13:07:39
2	Fe 238.204 Radial†	2458900.6	2639066.9	195870	µg/L	195870	ppb	13:07:39
2	K 766.490 Radial†	15394.6	14958.4	5468.5	µg/L	5468.5	ppb	13:07:41
2	Mg 279.077 IEC†	982845.6	1054745.3	488450	µg/L	488450	ppb	13:07:41
2	Na 589.592 Radial†	34831.2	36454.5	5400.6	µg/L	5400.6	ppb	13:07:41
2	Sr 421.552†	206620.8	221875.9	508.89	µg/L	508.89	ppb	13:07:41
2	Sc 361.383	1535664.7	1535664.7	89.235	%			13:08:09
2	Y 371.029	876446.5	876446.5	88.000	%			13:08:09
2	Ag 328.068†	67238.0	70748.8	267.04	µg/L	267.04	ppb	13:08:09
2	As 188.979†	1325.0	1493.4	540.24	µg/L	540.24	ppb	13:08:11
2	B 249.677†	35953.9	36295.7	519.54	µg/L	519.54	ppb	13:08:09
2	Ba 233.527†	105267.7	118106.6	497.64	µg/L	497.64	ppb	13:08:09
2	Be 313.107†	796460.2	893551.5	244.31	µg/L	244.31	ppb	13:08:09
2	Cd 226.502†	70365.0	78941.4	474.52	µg/L	474.52	ppb	13:08:09
2	Co 228.616†	33289.7	37501.2	453.09	µg/L	453.09	ppb	13:08:11
2	Cr 267.716†	53875.6	60112.7	491.93	µg/L	491.93	ppb	13:08:11
2	Cu 324.752†	115117.6	125818.1	538.75	µg/L	538.75	ppb	13:08:09
2	Mn 257.610†	358430.7	401496.1	484.49	µg/L	484.49	ppb	13:08:09
2	Mo 202.031†	13946.5	15649.2	503.90	µg/L	503.90	ppb	13:08:11
2	Ni 231.604†	35509.5	39884.3	467.92	µg/L	467.92	ppb	13:08:11
2	P 214.914†	10884.0	12202.6	2612.5	µg/L	2612.5	ppb	13:08:11
2	Pb 220.353†	6917.4	7638.6	470.77	µg/L	470.77	ppb	13:08:11

2	S 181.975 Axial†	3187.0	3245.5	2898.0 µg/L	2898.0 ppb	13:08:11
2	Sb 206.836†	3874.9	4262.0	509.99 µg/L	509.99 ppb	13:08:11
2	Se 196.026†	5871.9	6559.7	2510 µg/L	2510 ppb	13:08:11
2	SiO2†	100480.1	110812.1	10949 µg/L	10949 ppb	13:08:09
2	Si 251.611†	313604.6	350779.5	5128.3 µg/L	5128.3 ppb	13:08:09
2	Sn 189.927†	6768.5	7579.2	498.61 µg/L	498.61 ppb	13:08:11
2	Ti 334.940†	481242.5	538525.9	501.97 µg/L	501.97 ppb	13:08:09
2	Tl 190.801†	3114.3	3606.0	476.96 µg/L	476.96 ppb	13:08:11
2	U 409.014†	7407.8	8592.7	512.34 µg/L	512.34 ppb	13:08:09
2	V 292.402†	97243.6	108601.6	510.68 µg/L	510.68 ppb	13:08:09
2	Zn 213.857†	83175.8	92609.0	493.95 µg/L	493.95 ppb	13:08:09
3	Sc RADIAL	120508.9	120508.9	93.8 %		13:07:45
3	Al 396.153Radial†	2242803.9	2391677.4	506790 µg/L	506790 ppb	13:07:43
3	Ca 317.933Radial†	6603032.5	7040571.8	482970 µg/L	482970 ppb	13:07:43
3	Fe 238.204 Radial†	2421570.6	2582096.5	191640 µg/L	191640 ppb	13:07:43
3	K 766.490 Radial†	15696.0	15172.4	5554.0 µg/L	5554.0 ppb	13:07:45
3	Mg 279.077 IEC†	994183.4	1059974.6	490880 µg/L	490880 ppb	13:07:45
3	Na 589.592 Radial†	35145.1	36546.1	5414.1 µg/L	5414.1 ppb	13:07:45
3	Sr 421.552†	208074.2	221983.5	509.22 µg/L	509.22 ppb	13:07:45
3	Sc 361.383	1556427.3	1556427.3	90.442 %		13:08:14
3	Y 371.029	887696.2	887696.2	89.130 %		13:08:14
3	Ag 328.068†	68312.3	70931.5	268.08 µg/L	268.08 ppb	13:08:14
3	As 188.979†	1294.2	1439.6	521.43 µg/L	521.43 ppb	13:08:16
3	B 249.677†	36406.1	36258.1	519.05 µg/L	519.05 ppb	13:08:14
3	Ba 233.527†	106624.7	118033.4	497.38 µg/L	497.38 ppb	13:08:14
3	Be 313.107†	807945.7	894344.4	244.53 µg/L	244.53 ppb	13:08:14
3	Cd 226.502†	71640.8	79300.2	477.21 µg/L	477.21 ppb	13:08:14
3	Co 228.616†	32708.1	36360.5	439.24 µg/L	439.24 ppb	13:08:16
3	Cr 267.716†	52899.7	58228.3	476.34 µg/L	476.34 ppb	13:08:16
3	Cu 324.752†	116431.1	125549.4	537.13 µg/L	537.13 ppb	13:08:14
3	Mn 257.610†	363568.0	401818.0	484.81 µg/L	484.81 ppb	13:08:14
3	Mo 202.031†	13725.7	15196.5	489.69 µg/L	489.69 ppb	13:08:16
3	Ni 231.604†	34738.2	38500.7	451.69 µg/L	451.69 ppb	13:08:16
3	P 214.914†	10795.4	11941.9	2557.2 µg/L	2557.2 ppb	13:08:16
3	Pb 220.353†	6979.0	7603.3	468.31 µg/L	468.31 ppb	13:08:16
3	S 181.975 Axial†	3167.8	3176.5	2836.4 µg/L	2836.4 ppb	13:08:16
3	Sb 206.836†	3774.4	4093.0	489.70 µg/L	489.70 ppb	13:08:16
3	Se 196.026†	5703.5	6285.7	2400 µg/L	2400 ppb	13:08:16
3	SiO2†	102071.1	111069.1	10975 µg/L	10975 ppb	13:08:14
3	Si 251.611†	318591.8	351605.6	5140.7 µg/L	5140.7 ppb	13:08:14
3	Sn 189.927†	6635.5	7330.9	482.34 µg/L	482.34 ppb	13:08:16
3	Ti 334.940†	489408.1	540360.4	503.30 µg/L	503.30 ppb	13:08:14
3	Tl 190.801†	2989.7	3421.7	453.10 µg/L	453.10 ppb	13:08:16
3	U 409.014†	7599.9	8694.4	518.92 µg/L	518.92 ppb	13:08:14
3	V 292.402†	98916.4	108997.5	512.83 µg/L	512.83 ppb	13:08:14
3	Zn 213.857†	84400.7	92720.0	495.09 µg/L	495.09 ppb	13:08:14

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1540845.4	89.536	%	0.7987				0.89%
Sc RADIAL	120149.9	93.5	%	0.31				0.33%
Y 371.029	879180.5	88.275	%	0.7561				0.86%
Ag 328.068†	70809.8	267.48	µg/L	0.537	267.48	ppb	0.537	0.20%
QC value within limits for Ag 328.068 Recovery = 106.99%								
Al 396.153Radial†	2405287.0	509670	µg/L	4586.9	509670	ppb	4586.9	0.90%
QC value within limits for Al 396.153Radial Recovery = 101.93%								
As 188.979†	1464.9	530.14	µg/L	9.476	530.14	ppb	9.476	1.79%
QC value within limits for As 188.979 Recovery = 106.03%								
B 249.677†	36279.4	519.33	µg/L	0.251	519.33	ppb	0.251	0.05%
QC value within limits for B 249.677 Recovery = 103.87%								
Ba 233.527†	117950.8	497.02	µg/L	0.866	497.02	ppb	0.866	0.17%
QC value within limits for Ba 233.527 Recovery = 99.40%								
Be 313.107†	892693.0	244.07	µg/L	0.608	244.07	ppb	0.608	0.25%
QC value within limits for Be 313.107 Recovery = 97.63%								
Ca 317.933Radial†	7093244.3	486580	µg/L	6178.8	486580	ppb	6178.8	1.27%
QC value within limits for Ca 317.933Radial Recovery = 97.32%								
Cd 226.502†	78932.5	474.77	µg/L	2.331	474.77	ppb	2.331	0.49%
QC value within limits for Cd 226.502 Recovery = 94.95%								
Co 228.616†	37029.1	447.42	µg/L	7.260	447.42	ppb	7.260	1.62%

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   QC value within limits for Co 228.616  Recovery = 89.48%
Cr 267.716†            59397.4      485.97 µg/L         8.413      485.97 ppb          8.413   1.73%
   QC value within limits for Cr 267.716  Recovery = 97.19%
Cu 324.752†           125501.7      537.11 µg/L         1.647      537.11 ppb          1.647   0.31%
   QC value within limits for Cu 324.752  Recovery = 107.42%
Fe 238.204 Radial†   2600346.6      192990 µg/L        2490.1      192990 ppb         2490.1   1.29%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.50%
K 766.490 Radial†      15062.4      5510.7 µg/L         42.72      5510.7 ppb          42.72   0.78%
   QC value within limits for K 766.490 Radial  Recovery = 110.21%
Mg 279.077 IEC†      1057837.1      489890 µg/L        1272.2      489890 ppb         1272.2   0.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.98%
Mn 257.610†           401095.7      483.94 µg/L         1.244      483.94 ppb          1.244   0.26%
   QC value within limits for Mn 257.610  Recovery = 96.79%
Mo 202.031†            15458.9      497.89 µg/L         7.355      497.89 ppb          7.355   1.48%
   QC value within limits for Mo 202.031  Recovery = 99.58%
Na 589.592 Radial†     36533.5      5412.3 µg/L         10.87      5412.3 ppb          10.87   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 108.25%
Ni 231.604†            39319.6      461.29 µg/L         8.517      461.29 ppb          8.517   1.85%
   QC value within limits for Ni 231.604  Recovery = 92.26%
P 214.914†             12138.9      2599.5 µg/L         37.53      2599.5 ppb          37.53   1.44%
   QC value within limits for P 214.914  Recovery = 103.98%
Pb 220.353†             7626.8      469.84 µg/L         1.336      469.84 ppb          1.336   0.28%
   QC value within limits for Pb 220.353  Recovery = 93.97%
S 181.975 Axial†        3233.7      2887.5 µg/L         46.71      2887.5 ppb          46.71   1.62%
   QC value within limits for S 181.975 Axial  Recovery = 115.50%
Sb 206.836†             4205.2      503.20 µg/L        11.690      503.20 ppb         11.690   2.32%
   QC value within limits for Sb 206.836  Recovery = 100.64%
Se 196.026†             6430.1        2460 µg/L          51.8        2460 ppb           51.8   2.11%
   QC value within limits for Se 196.026  Recovery = 98.27%
SiO2†                 110851.9       10953 µg/L          20.1       10953 ppb           20.1   0.18%
   QC value within limits for SiO2  Recovery = 102.42%
Si 251.611†           350763.8      5128.2 µg/L         12.55      5128.2 ppb          12.55   0.24%
   QC value within limits for Si 251.611  Recovery = 102.56%
Sn 189.927†             7472.3      491.61 µg/L         8.366      491.61 ppb          8.366   1.70%
   QC value within limits for Sn 189.927  Recovery = 98.32%
Sr 421.552†           222107.6      509.48 µg/L         0.755      509.48 ppb          0.755   0.15%
   QC value within limits for Sr 421.552  Recovery = 101.90%
Ti 334.940†           539136.2      502.28 µg/L         0.915      502.28 ppb          0.915   0.18%
   QC value within limits for Ti 334.940  Recovery = 100.46%
Tl 190.801†             3506.2      464.02 µg/L        12.055      464.02 ppb         12.055   2.60%
   QC value within limits for Tl 190.801  Recovery = 92.80%
U 409.014†              8507.1      507.73 µg/L        14.069      507.73 ppb         14.069   2.77%
   QC value within limits for U 409.014  Recovery = 101.55%
V 292.402†            108781.9      511.77 µg/L         1.074      511.77 ppb          1.074   0.21%
   QC value within limits for V 292.402  Recovery = 102.35%
Zn 213.857†            92419.9      493.23 µg/L         2.306      493.23 ppb          2.306   0.47%
   QC value within limits for Zn 213.857  Recovery = 98.65%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 4/7/2010 13:08:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	117489.3	117489.3	91.4	%			13:08:56
1	Al 396.153Radial†	2204243.6	2410968.9	510900	µg/L	510900	ppb	13:08:54
1	Ca 317.933Radial†	6564397.8	7179279.4	492480	µg/L	492480	ppb	13:08:54
1	Fe 238.204 Radial†	5760144.2	6300015.2	467580	µg/L	467580	ppb	13:08:54
1	K 766.490 Radial†	1979.0	599.6	-99.829	µg/L	-99.829	ppb	13:08:56
1	Mg 279.077 IEC†	973622.9	1064733.4	492840	µg/L	492840	ppb	13:08:54
1	Na 589.592 Radial†	3203770.2	3503181.4	519470	µg/L	519470	ppb	13:08:54
1	Sr 421.552†	4944.5	5513.6	8.8872	µg/L	8.8872	ppb	13:08:56
1	Sc 361.383	1495530.6	1495530.6	86.903	%			13:09:09
1	Y 371.029	851410.8	851410.8	85.487	%			13:09:09
1	Ag 328.068†	3355.1	-739.7	1.6847	µg/L	1.6847	ppb	13:09:09
1	As 188.979†	-240.6	-268.2	16.801	µg/L	16.801	ppb	13:09:11
1	B 249.677†	4925.7	1672.5	23.977	µg/L	23.977	ppb	13:09:09
1	Ba 233.527†	810.9	1073.1	-1.4341	µg/L	-1.4341	ppb	13:09:11
1	Be 313.107†	-15564.3	-16899.7	0.2011	µg/L	0.2011	ppb	13:09:09
1	Cd 226.502†	6136.4	7149.1	-4.3498	µg/L	-4.3498	ppb	13:09:11
1	Co 228.616†	602.3	888.7	-13.421	µg/L	-13.421	ppb	13:09:11
1	Cr 267.716†	636.8	470.5	1.5174	µg/L	1.5174	ppb	13:09:11
1	Cu 324.752†	-16910.6	-22645.9	5.2655	µg/L	5.2655	ppb	13:09:09
1	Mn 257.610†	18055.8	20603.0	5.0985	µg/L	5.0985	ppb	13:09:09
1	Mo 202.031†	-904.6	-1020.7	-4.2540	µg/L	-4.2540	ppb	13:09:11
1	Ni 231.604†	208.9	331.6	3.8897	µg/L	3.8897	ppb	13:09:11
1	P 214.914†	915.5	1059.1	25.467	µg/L	25.467	ppb	13:09:11
1	Pb 220.353†	46.6	-59.6	1.2067	µg/L	1.2067	ppb	13:09:11
1	S 181.975 Axial†	219.5	-73.5	-65.796	µg/L	-65.796	ppb	13:09:11
1	Sb 206.836†	130.2	69.5	-1.3488	µg/L	-1.3488	ppb	13:09:11
1	Se 196.026†	-328.8	-398.8	29.4	µg/L	29.4	ppb	13:09:11
1	SiO2†	1829.8	316.1	32.117	µg/L	32.117	ppb	13:09:11
1	Si 251.611†	-2098.6	-3071.6	-44.604	µg/L	-44.604	ppb	13:09:11
1	Sn 189.927†	75.9	81.5	5.4308	µg/L	5.4308	ppb	13:09:11
1	Ti 334.940†	24393.5	27298.6	-7.0296	µg/L	-7.0296	ppb	13:09:09
1	Tl 190.801†	-166.6	-75.7	-9.2255	µg/L	-9.2255	ppb	13:09:11
1	U 409.014†	236502.1	272436.3	15859	µg/L	15859	ppb	13:09:09
1	V 292.402†	8534.4	9447.6	6.6653	µg/L	6.6653	ppb	13:09:11
1	Zn 213.857†	8761.5	9481.2	7.0576	µg/L	7.0576	ppb	13:09:11
2	Sc RADIAL	119794.0	119794.0	93.2	%			13:09:01
2	Al 396.153Radial†	2223432.4	2385170.5	505430	µg/L	505430	ppb	13:08:59
2	Ca 317.933Radial†	6578344.4	7056109.9	484030	µg/L	484030	ppb	13:08:59
2	Fe 238.204 Radial†	5764771.7	6183772.4	458950	µg/L	458950	ppb	13:08:59
2	K 766.490 Radial†	1895.8	468.8	-144.65	µg/L	-144.65	ppb	13:09:01
2	Mg 279.077 IEC†	973303.1	1043903.1	483190	µg/L	483190	ppb	13:08:59
2	Na 589.592 Radial†	3205123.8	3437218.7	509690	µg/L	509690	ppb	13:08:59
2	Sr 421.552†	4892.9	5354.3	8.5851	µg/L	8.5851	ppb	13:09:01
2	Sc 361.383	1508171.2	1508171.2	87.638	%			13:09:14
2	Y 371.029	858298.1	858298.1	86.178	%			13:09:14
2	Ag 328.068†	3406.8	-713.0	2.0690	µg/L	2.0690	ppb	13:09:14
2	As 188.979†	-293.5	-326.2	-4.1807	µg/L	-4.1807	ppb	13:09:16
2	B 249.677†	4724.4	1395.3	19.993	µg/L	19.993	ppb	13:09:14
2	Ba 233.527†	620.6	848.1	-2.2743	µg/L	-2.2743	ppb	13:09:16
2	Be 313.107†	-15630.5	-16825.1	0.2244	µg/L	0.2244	ppb	13:09:14
2	Cd 226.502†	6242.5	7211.0	-3.0546	µg/L	-3.0546	ppb	13:09:16
2	Co 228.616†	670.0	960.1	-12.090	µg/L	-12.090	ppb	13:09:16
2	Cr 267.716†	522.7	334.2	0.2142	µg/L	0.2142	ppb	13:09:16
2	Cu 324.752†	-17008.2	-22594.1	3.9613	µg/L	3.9613	ppb	13:09:14
2	Mn 257.610†	18430.6	20856.5	5.8223	µg/L	5.8223	ppb	13:09:14
2	Mo 202.031†	-812.1	-906.4	-1.2147	µg/L	-1.2147	ppb	13:09:16
2	Ni 231.604†	264.0	392.4	4.6035	µg/L	4.6035	ppb	13:09:16
2	P 214.914†	1016.7	1165.7	53.160	µg/L	53.160	ppb	13:09:16
2	Pb 220.353†	2.6	-110.2	-1.7873	µg/L	-1.7873	ppb	13:09:16

2	S 181.975 Axial†	157.5	-146.3	-130.71 µg/L	-130.71 ppb	13:09:16
2	Sb 206.836†	214.2	164.1	10.302 µg/L	10.302 ppb	13:09:16
2	Se 196.026†	-370.8	-443.7	9.78 µg/L	9.78 ppb	13:09:16
2	SiO2†	2013.3	507.8	50.951 µg/L	50.951 ppb	13:09:16
2	Si 251.611†	-1854.0	-2772.3	-40.288 µg/L	-40.288 ppb	13:09:16
2	Sn 189.927†	119.4	130.3	8.6412 µg/L	8.6412 ppb	13:09:16
2	Ti 334.940†	26702.7	29698.2	-4.1092 µg/L	-4.1092 ppb	13:09:14
2	Tl 190.801†	-239.1	-156.8	-19.745 µg/L	-19.745 ppb	13:09:16
2	U 409.014†	238647.0	272602.8	15870 µg/L	15870 ppb	13:09:14
2	V 292.402†	8569.9	9405.8	7.4102 µg/L	7.4102 ppb	13:09:16
2	Zn 213.857†	8896.7	9550.9	8.3432 µg/L	8.3432 ppb	13:09:16
3	Sc RADIAL	119198.7	119198.7	92.8 %		13:09:05
3	Al 396.153Radial†	2185064.1	2355718.5	499190 µg/L	499190 ppb	13:09:03
3	Ca 317.933Radial†	6475644.1	6980634.3	478860 µg/L	478860 ppb	13:09:03
3	Fe 238.204 Radial†	5678665.7	6121827.9	454350 µg/L	454350 ppb	13:09:03
3	K 766.490 Radial†	2202.1	809.1	-11.222 µg/L	-11.222 ppb	13:09:05
3	Mg 279.077 IEC†	957986.7	1032605.3	477960 µg/L	477960 ppb	13:09:03
3	Na 589.592 Radial†	3163319.4	3409321.5	505560 µg/L	505560 ppb	13:09:03
3	Sr 421.552†	4648.6	5117.2	8.0775 µg/L	8.0775 ppb	13:09:05
3	Sc 361.383	1505014.3	1505014.3	87.454 %		13:09:19
3	Y 371.029	856854.0	856854.0	86.033 %		13:09:19
3	Ag 328.068†	3175.4	-969.5	1.2576 µg/L	1.2576 ppb	13:09:19
3	As 188.979†	-248.4	-275.4	11.438 µg/L	11.438 ppb	13:09:21
3	B 249.677†	4677.7	1353.2	19.386 µg/L	19.386 ppb	13:09:19
3	Ba 233.527†	697.0	937.0	-1.8410 µg/L	-1.8410 ppb	13:09:21
3	Be 313.107†	-15538.2	-16756.9	0.2499 µg/L	0.2499 ppb	13:09:19
3	Cd 226.502†	6306.0	7298.6	-2.0218 µg/L	-2.0218 ppb	13:09:21
3	Co 228.616†	721.2	1020.2	-11.109 µg/L	-11.109 ppb	13:09:21
3	Cr 267.716†	271.5	48.2	-2.2375 µg/L	-2.2375 ppb	13:09:21
3	Cu 324.752†	-16882.6	-22491.3	3.5751 µg/L	3.5751 ppb	13:09:19
3	Mn 257.610†	18420.9	20889.5	6.0834 µg/L	6.0834 ppb	13:09:19
3	Mo 202.031†	-902.6	-1011.8	-4.7729 µg/L	-4.7729 ppb	13:09:21
3	Ni 231.604†	282.7	414.3	4.8611 µg/L	4.8611 ppb	13:09:21
3	P 214.914†	1075.6	1235.5	70.018 µg/L	70.018 ppb	13:09:21
3	Pb 220.353†	6.3	-106.0	-1.8048 µg/L	-1.8048 ppb	13:09:21
3	S 181.975 Axial†	159.4	-143.8	-128.50 µg/L	-128.50 ppb	13:09:21
3	Sb 206.836†	148.9	89.9	1.4230 µg/L	1.4230 ppb	13:09:21
3	Se 196.026†	-423.5	-504.8	-14.5 µg/L	-14.5 ppb	13:09:21
3	SiO2†	1721.8	179.3	18.533 µg/L	18.533 ppb	13:09:21
3	Si 251.611†	-2067.2	-3020.6	-43.876 µg/L	-43.876 ppb	13:09:21
3	Sn 189.927†	108.9	118.7	7.8819 µg/L	7.8819 ppb	13:09:21
3	Ti 334.940†	27771.0	30983.7	-2.5630 µg/L	-2.5630 ppb	13:09:19
3	Tl 190.801†	-174.8	-83.8	-10.259 µg/L	-10.259 ppb	13:09:21
3	U 409.014†	238487.0	272991.0	15894 µg/L	15894 ppb	13:09:19
3	V 292.402†	8443.5	9281.7	7.2663 µg/L	7.2663 ppb	13:09:21
3	Zn 213.857†	8970.1	9656.2	9.3575 µg/L	9.3575 ppb	13:09:21

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1502905.4	87.332	%	0.3823				0.44%
Sc RADIAL	118827.3	92.5	%	0.93				1.01%
Y 371.029	855521.0	85.899	%	0.3647				0.42%
Ag 328.068†	-807.4	1.6704	µg/L	0.40592	1.6704	ppb	0.40592	24.30%
Al 396.153Radial†	2383952.7	505170	µg/L	5858.2	505170	ppb	5858.2	1.16%
QC value within limits for Al 396.153Radial Recovery = 101.03%								
As 188.979†	-290.0	8.0194	µg/L	10.90055	8.0194	ppb	10.90055	135.93%
B 249.677†	1473.7	21.119	µg/L	2.4940	21.119	ppb	2.4940	11.81%
Ba 233.527†	952.7	-1.8498	µg/L	0.42015	-1.8498	ppb	0.42015	22.71%
Be 313.107†	-16827.3	0.2252	µg/L	0.02442	0.2252	ppb	0.02442	10.84%
Ca 317.933Radial†	7072007.9	485130	µg/L	6878.5	485130	ppb	6878.5	1.42%
QC value within limits for Ca 317.933Radial Recovery = 97.03%								
Cd 226.502†	7219.6	-3.1421	µg/L	1.16645	-3.1421	ppb	1.16645	37.12%
Co 228.616†	956.3	-12.206	µg/L	1.1605	-12.206	ppb	1.1605	9.51%
Cr 267.716†	284.3	-0.1686	µg/L	1.90651	-0.1686	ppb	1.90651	>999.9%
Cu 324.752†	-22577.1	4.2673	µg/L	0.88577	4.2673	ppb	0.88577	20.76%
Fe 238.204 Radial†	6201871.8	460290	µg/L	6714.0	460290	ppb	6714.0	1.46%
QC value within limits for Fe 238.204 Radial Recovery = 92.06%								
K 766.490 Radial†	625.9	-85.235	µg/L	67.9025	-85.235	ppb	67.9025	79.67%
Mg 279.077 IEC†	1047080.6	484660	µg/L	7544.3	484660	ppb	7544.3	1.56%

QC value within limits for Mg 279.077 IEC Recovery = 96.93%

Mn 257.610†	20783.0	5.6681	µg/L	0.51022	5.6681	ppb	0.51022	9.00%
Mo 202.031†	-979.6	-3.4139	µg/L	1.92216	-3.4139	ppb	1.92216	56.30%
Na 589.592 Radial†	3449907.2	511570	µg/L	7147.3	511570	ppb	7147.3	1.40%

QC value within limits for Na 589.592 Radial Recovery = 102.31%

Ni 231.604†	379.4	4.4514	µg/L	0.50321	4.4514	ppb	0.50321	11.30%
P 214.914†	1153.5	49.548	µg/L	22.4942	49.548	ppb	22.4942	45.40%
Pb 220.353†	-92.0	-0.7952	µg/L	1.73366	-0.7952	ppb	1.73366	218.02%
S 181.975 Axial†	-121.2	-108.33	µg/L	36.855	-108.33	ppb	36.855	34.02%
Sb 206.836†	107.8	3.4586	µg/L	6.08606	3.4586	ppb	6.08606	175.97%
Se 196.026†	-449.1	8.23	µg/L	22.002	8.23	ppb	22.002	267.24%
SiO2†	334.4	33.867	µg/L	16.2798	33.867	ppb	16.2798	48.07%
Si 251.611†	-2954.9	-42.923	µg/L	2.3102	-42.923	ppb	2.3102	5.38%
Sn 189.927†	110.2	7.3180	µg/L	1.67786	7.3180	ppb	1.67786	22.93%
Sr 421.552†	5328.4	8.5166	µg/L	0.40913	8.5166	ppb	0.40913	4.80%
Ti 334.940†	29326.9	-4.5673	µg/L	2.26825	-4.5673	ppb	2.26825	49.66%
Tl 190.801†	-105.4	-13.077	µg/L	5.7980	-13.077	ppb	5.7980	44.34%
U 409.014†	272676.7	15874	µg/L	17.8	15874	ppb	17.8	0.11%

QC value within limits for U 409.014 Recovery = 105.83%

V 292.402†	9378.4	7.1139	µg/L	0.39512	7.1139	ppb	0.39512	5.55%
Zn 213.857†	9562.8	8.2528	µg/L	1.15260	8.2528	ppb	1.15260	13.97%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 4/7/2010 13:09:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	128076.8	128076.8	99.7	%			13:10:03
1	Al 396.153Radial†	2942.7	3038.1	191.07	µg/L	191.07	ppb	13:10:05
1	Ca 317.933Radial†	3341.9	2846.5	195.27	µg/L	195.27	ppb	13:10:05
1	Fe 238.204 Radial†	776.3	657.5	48.801	µg/L	48.801	ppb	13:10:05
1	K 766.490 Radial†	776314.7	777336.1	296970	µg/L	296970	ppb	13:10:03
1	Mg 279.077 IEC†	-73.9	-237.2	128.53	µg/L	128.53	ppb	13:10:05
1	Na 589.592 Radial†	3504.2	2585.4	119.27	µg/L	119.27	ppb	13:10:05
1	Sr 421.552†	4212524.2	4226663.8	9767.7	µg/L	9767.7	ppb	13:10:01
1	Sc 361.383	1672860.1	1672860.1	97.207	%			13:10:41
1	Y 371.029	944279.1	944279.1	94.811	%			13:10:41
1	Ag 328.068†	-24458.3	-29761.4	2.4646	µg/L	2.4646	ppb	13:10:43
1	As 188.979†	29970.5	30840.2	10378	µg/L	10378	ppb	13:10:43
1	B 249.677†	339369.7	345123.9	4922.8	µg/L	4922.8	ppb	13:10:41
1	Ba 233.527†	3085881.9	3174676.1	13440	µg/L	13440	ppb	13:10:41
1	Be 313.107†	10269395.2	10565434.7	2886.8	µg/L	2886.8	ppb	13:10:37
1	Cd 226.502†	1495086.0	1538126.2	9647.4	µg/L	9647.4	ppb	13:10:41
1	Co 228.616†	739365.6	760802.4	9405.2	µg/L	9405.2	ppb	13:10:41
1	Cr 267.716†	2839216.2	2920521.8	23875	µg/L	23875	ppb	13:10:41
1	Cu 324.752†	4929271.5	5067697.6	19996	µg/L	19996	ppb	13:10:41
1	Mn 257.610†	7249115.7	7457201.4	9368.1	µg/L	9368.1	ppb	13:10:41
1	Mo 202.031†	304430.2	313196.4	9751.0	µg/L	9751.0	ppb	13:10:43
1	Ni 231.604†	806431.6	829690.7	9733.9	µg/L	9733.9	ppb	13:10:41
1	P 214.914†	68804.8	70787.2	15068	µg/L	15068	ppb	13:10:43
1	Pb 220.353†	395233.1	406474.4	23642	µg/L	23642	ppb	13:10:41
1	S 181.975 Axial†	64173.7	65691.3	58657	µg/L	58657	ppb	13:10:43
1	Sb 206.836†	80714.7	82953.3	9830.9	µg/L	9830.9	ppb	13:10:43
1	Se 196.026†	25963.6	26689.0	9920	µg/L	9920	ppb	13:10:43
1	SiO2†	988902.1	1015522.8	100110	µg/L	100110	ppb	13:10:41
1	Si 251.611†	3111283.4	3200010.6	46677	µg/L	46677	ppb	13:10:41
1	Sn 189.927†	147065.5	151284.7	9950.7	µg/L	9950.7	ppb	13:10:43
1	Ti 334.940†	9923003.3	10207309.8	10024	µg/L	10024	ppb	13:10:37
1	Tl 190.801†	71165.3	73325.9	9684.0	µg/L	9684.0	ppb	13:10:43
1	U 409.014†	-8490.7	-8443.3	112.09	µg/L	112.09	ppb	13:10:43
1	V 292.402†	2006363.3	2063631.0	10157	µg/L	10157	ppb	13:10:41
1	Zn 213.857†	2514836.9	2586484.9	14281	µg/L	14281	ppb	13:10:41
2	Sc RADIAL	128751.2	128751.2	100	%			13:10:09
2	Al 396.153Radial†	2277.3	2358.6	49.708	µg/L	49.708	ppb	13:10:11
2	Ca 317.933Radial†	1461.7	952.4	65.332	µg/L	65.332	ppb	13:10:11
2	Fe 238.204 Radial†	-382.0	-502.7	-37.308	µg/L	-37.308	ppb	13:10:11
2	K 766.490 Radial†	784164.7	781091.0	298400	µg/L	298400	ppb	13:10:09
2	Mg 279.077 IEC†	-376.9	-539.3	-12.723	µg/L	-12.723	ppb	13:10:11
2	Na 589.592 Radial†	3040.8	2104.5	46.684	µg/L	46.684	ppb	13:10:11
2	Sr 421.552†	4187514.1	4179562.4	9658.9	µg/L	9658.9	ppb	13:10:07
2	Sc 361.383	1678933.3	1678933.3	97.560	%			13:10:51
2	Y 371.029	948060.2	948060.2	95.191	%			13:10:51
2	Ag 328.068†	-24421.6	-29632.8	2.9782	µg/L	2.9782	ppb	13:10:53
2	As 188.979†	29767.7	30520.7	10273	µg/L	10273	ppb	13:10:53
2	B 249.677†	341512.7	346057.7	4936.2	µg/L	4936.2	ppb	13:10:51
2	Ba 233.527†	3100706.9	3178388.7	13456	µg/L	13456	ppb	13:10:51
2	Be 313.107†	10304141.9	10562836.1	2886.1	µg/L	2886.1	ppb	13:10:47
2	Cd 226.502†	1503285.1	1540966.9	9665.3	µg/L	9665.3	ppb	13:10:51
2	Co 228.616†	743185.2	761966.3	9419.6	µg/L	9419.6	ppb	13:10:51
2	Cr 267.716†	2852413.3	2923483.6	23899	µg/L	23899	ppb	13:10:51
2	Cu 324.752†	4945342.9	5065828.3	19989	µg/L	19989	ppb	13:10:51
2	Mn 257.610†	7281276.1	7463190.8	9375.6	µg/L	9375.6	ppb	13:10:51
2	Mo 202.031†	303759.8	311376.5	9694.4	µg/L	9694.4	ppb	13:10:53
2	Ni 231.604†	811621.7	832009.7	9761.1	µg/L	9761.1	ppb	13:10:51
2	P 214.914†	68629.2	70351.1	14974	µg/L	14974	ppb	13:10:53
2	Pb 220.353†	397774.7	407608.9	23708	µg/L	23708	ppb	13:10:51

2	S 181.975 Axial†	63921.2	65193.7	58213	µg/L	58213 ppb	13:10:53
2	Sb 206.836†	80635.8	82572.0	9783.7	µg/L	9783.7 ppb	13:10:53
2	Se 196.026†	25789.6	26414.0	9810	µg/L	9810 ppb	13:10:53
2	SiO2†	995415.6	1018519.3	100410	µg/L	100410 ppb	13:10:51
2	Si 251.611†	3129887.7	3207502.5	46788	µg/L	46788 ppb	13:10:51
2	Sn 189.927†	147022.2	150693.0	9911.9	µg/L	9911.9 ppb	13:10:53
2	Ti 334.940†	9940883.5	10188711.9	10006	µg/L	10006 ppb	13:10:47
2	Tl 190.801†	71029.9	72922.2	9631.3	µg/L	9631.3 ppb	13:10:53
2	U 409.014†	-8669.7	-8595.2	103.35	µg/L	103.35 ppb	13:10:53
2	V 292.402†	2014062.5	2064056.7	10159	µg/L	10159 ppb	13:10:51
2	Zn 213.857†	2526872.5	2589463.3	14297	µg/L	14297 ppb	13:10:51
3	Sc RADIAL	128614.7	128614.7	100	%		13:10:16
3	Al 396.153Radial†	2270.8	2354.5	43.298	µg/L	43.298 ppb	13:10:18
3	Ca 317.933Radial†	1112.3	604.8	41.488	µg/L	41.488 ppb	13:10:18
3	Fe 238.204 Radial†	-619.2	-740.0	-54.924	µg/L	-54.924 ppb	13:10:18
3	K 766.490 Radial†	781816.2	779575.4	297820	µg/L	297820 ppb	13:10:16
3	Mg 279.077 IEC†	-375.9	-538.6	-9.4894	µg/L	-9.4894 ppb	13:10:18
3	Na 589.592 Radial†	2860.5	1927.5	20.952	µg/L	20.952 ppb	13:10:18
3	Sr 421.552†	4212106.7	4208570.4	9725.9	µg/L	9725.9 ppb	13:10:14
3	Sc 361.383	1674505.4	1674505.4	97.303	%		13:11:00
3	Y 371.029	944919.4	944919.4	94.875	%		13:11:00
3	Ag 328.068†	-24689.1	-29973.8	1.5712	µg/L	1.5712 ppb	13:11:02
3	As 188.979†	30158.6	31003.2	10432	µg/L	10432 ppb	13:11:02
3	B 249.677†	340239.1	345674.3	4930.7	µg/L	4930.7 ppb	13:11:00
3	Ba 233.527†	3088700.5	3174453.8	13439	µg/L	13439 ppb	13:11:00
3	Be 313.107†	10312246.4	10599093.7	2896.0	µg/L	2896.0 ppb	13:10:57
3	Cd 226.502†	1499051.7	1540690.7	9663.5	µg/L	9663.5 ppb	13:11:00
3	Co 228.616†	740211.9	760924.9	9406.7	µg/L	9406.7 ppb	13:11:00
3	Cr 267.716†	2842554.9	2921083.2	23880	µg/L	23880 ppb	13:11:00
3	Cu 324.752†	4926595.6	5059965.3	19966	µg/L	19966 ppb	13:11:00
3	Mn 257.610†	7254322.2	7455225.0	9365.6	µg/L	9365.6 ppb	13:11:00
3	Mo 202.031†	306689.2	315210.3	9813.7	µg/L	9813.7 ppb	13:11:02
3	Ni 231.604†	808675.1	831181.2	9751.3	µg/L	9751.3 ppb	13:11:00
3	P 214.914†	69339.0	71266.6	15172	µg/L	15172 ppb	13:11:02
3	Pb 220.353†	396497.1	407374.1	23695	µg/L	23695 ppb	13:11:00
3	S 181.975 Axial†	64567.2	66030.9	58960	µg/L	58960 ppb	13:11:02
3	Sb 206.836†	81394.9	83570.7	9906.4	µg/L	9906.4 ppb	13:11:02
3	Se 196.026†	26109.4	26812.6	9960	µg/L	9960 ppb	13:11:02
3	SiO2†	992430.1	1018149.0	100370	µg/L	100370 ppb	13:11:00
3	Si 251.611†	3121474.0	3207338.9	46783	µg/L	46783 ppb	13:11:00
3	Sn 189.927†	148159.4	152260.2	10015	µg/L	10015 ppb	13:11:02
3	Ti 334.940†	9958822.4	10234091.8	10050	µg/L	10050 ppb	13:10:57
3	Tl 190.801†	71488.7	73586.3	9718.0	µg/L	9718.0 ppb	13:11:02
3	U 409.014†	-8483.3	-8427.1	112.65	µg/L	112.65 ppb	13:11:02
3	V 292.402†	2007005.4	2062263.0	10151	µg/L	10151 ppb	13:11:00
3	Zn 213.857†	2517901.7	2587092.6	14284	µg/L	14284 ppb	13:11:00

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1675432.9	97.357	%	0.1825				0.19%
Sc RADIAL	128480.9	100.0	%	0.28				0.28%
Y 371.029	945752.9	94.959	%	0.2032				0.21%
Ag 328.068†	-29789.3	2.3380	µg/L	0.71199	2.3380	ppb	0.71199	30.45%
Al 396.153Radial†	2583.7	94.693	µg/L	83.5300	94.693	ppb	83.5300	88.21%
As 188.979†	30788.0	10361	µg/L	80.6	10361	ppb	80.6	0.78%
QC value within limits for As 188.979 Recovery = 103.61%								
B 249.677†	345618.6	4929.9	µg/L	6.72	4929.9	ppb	6.72	0.14%
QC value within limits for B 249.677 Recovery = 98.60%								
Ba 233.527†	3175839.5	13445	µg/L	9.3	13445	ppb	9.3	0.07%
QC value less than the lower limit for Ba 233.527 Recovery = 89.63%								
Be 313.107†	10575788.2	2889.6	µg/L	5.53	2889.6	ppb	5.53	0.19%
QC value within limits for Be 313.107 Recovery = 96.32%								
Ca 317.933Radial†	1467.9	100.70	µg/L	82.764	100.70	ppb	82.764	82.19%
Cd 226.502†	1539927.9	9658.7	µg/L	9.83	9658.7	ppb	9.83	0.10%
QC value within limits for Cd 226.502 Recovery = 96.59%								
Co 228.616†	761231.2	9410.5	µg/L	7.90	9410.5	ppb	7.90	0.08%
QC value within limits for Co 228.616 Recovery = 94.10%								
Cr 267.716†	2921696.2	23885	µg/L	12.9	23885	ppb	12.9	0.05%
QC value within limits for Cr 267.716 Recovery = 95.54%								

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Cu 324.752†          5064497.1       19984 µg/L          15.9       19984 ppb           15.9   0.08%
   QC value within limits for Cu 324.752  Recovery = 99.92%
Fe 238.204 Radial†      -195.1     -14.477 µg/L       55.5038     -14.477 ppb        55.5038 383.39%
K 766.490 Radial†     779334.2      297730 µg/L         721.7      297730 ppb          721.7   0.24%
   QC value within limits for K 766.490 Radial  Recovery = 99.24%
Mg 279.077 IEC†         -438.4      35.440 µg/L       80.6370      35.440 ppb        80.6370 227.53%
Mn 257.610†          7458539.1      9369.8 µg/L          5.21      9369.8 ppb           5.21   0.06%
   QC value within limits for Mn 257.610  Recovery = 93.70%
Mo 202.031†           313261.0      9753.0 µg/L         59.68      9753.0 ppb          59.68   0.61%
   QC value within limits for Mo 202.031  Recovery = 97.53%
Na 589.592 Radial†      2205.8      62.301 µg/L       50.9844      62.301 ppb        50.9844  81.84%
Ni 231.604†           830960.5      9748.7 µg/L         13.79      9748.7 ppb          13.79   0.14%
   QC value within limits for Ni 231.604  Recovery = 97.49%
P 214.914†             70801.6      15072 µg/L          98.9      15072 ppb           98.9   0.66%
   QC value within limits for P 214.914  Recovery = 100.48%
Pb 220.353†           407152.5      23682 µg/L          34.8      23682 ppb           34.8   0.15%
   QC value within limits for Pb 220.353  Recovery = 94.73%
S 181.975 Axial†       65638.6      58610 µg/L         375.9      58610 ppb          375.9   0.64%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = 117.22%
Sb 206.836†            83032.0      9840.3 µg/L         61.91      9840.3 ppb          61.91   0.63%
   QC value within limits for Sb 206.836  Recovery = 98.40%
Se 196.026†            26638.5       9900 µg/L          75.8       9900 ppb           75.8   0.77%
   QC value within limits for Se 196.026  Recovery = 98.98%
SiO2†                1017397.0     100300 µg/L         161.9     100300 ppb          161.9   0.16%
   QC value within limits for SiO2  Recovery = 93.74%
Si 251.611†          3204950.7      46750 µg/L          62.6      46750 ppb           62.6   0.13%
   QC value within limits for Si 251.611  Recovery = 93.50%
Sn 189.927†           151412.6      9959.1 µg/L         51.95      9959.1 ppb          51.95   0.52%
   QC value within limits for Sn 189.927  Recovery = 99.59%
Sr 421.552†          4204932.2      9717.5 µg/L         54.91      9717.5 ppb          54.91   0.57%
   QC value within limits for Sr 421.552  Recovery = 97.17%
Ti 334.940†         10210037.8      10027 µg/L          22.4      10027 ppb           22.4   0.22%
   QC value within limits for Ti 334.940  Recovery = 100.27%
Tl 190.801†            73278.2      9677.8 µg/L         43.71      9677.8 ppb          43.71   0.45%
   QC value within limits for Tl 190.801  Recovery = 96.78%
U 409.014†             -8488.5     109.37 µg/L         5.213     109.37 ppb          5.213   4.77%
V 292.402†           2063316.9      10156 µg/L           4.0      10156 ppb            4.0   0.04%
   QC value within limits for V 292.402  Recovery = 101.56%
Zn 213.857†          2587680.3      14288 µg/L           8.6      14288 ppb            8.6   0.06%
   QC value within limits for Zn 213.857  Recovery = 95.25%
QC Failed.  Continue with analysis.
```

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Analysis Begun

Start Time: 4/7/2010 13:19:36 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040710.sif
Batch ID:
Results Data Set: 040710
Results Library: C:\pe\optima4\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 4/7/2010 12:50:00**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 4/7/2010 13:19:38**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	129281.3	129281.3	101	%			13:20:10
1	Al 396.153Radial†	24128.7	24069.1	5077.0	µg/L	5077.0	ppb	13:20:10
1	Ca 317.933Radial†	75246.8	74287.5	5096.0	µg/L	5096.0	ppb	13:20:10
1	Fe 238.204 Radial†	68581.9	68047.8	5050.4	µg/L	5050.4	ppb	13:20:10

1	K 766.490 Radial†	14994.7	13339.7	5092.0 µg/L	5092.0 ppb	13:20:10
1	Mg 279.077 IEC†	11262.4	11031.5	5118.3 µg/L	5118.3 ppb	13:20:10
1	Na 589.592 Radial†	69257.0	67909.9	10066 µg/L	10066 ppb	13:20:10
1	Sr 421.552†	216851.8	215652.7	498.33 µg/L	498.33 ppb	13:20:08
1	Sc 361.383	1698187.0	1698187.0	98.679 %		13:20:23
1	Y 371.029	972484.7	972484.7	97.643 %		13:20:23
1	Ag 328.068†	129690.3	126826.0	497.62 µg/L	497.62 ppb	13:20:23
1	As 188.979†	1475.4	1503.8	500.91 µg/L	500.91 ppb	13:20:43
1	B 249.677†	37814.5	34325.1	491.12 µg/L	491.12 ppb	13:20:23
1	Ba 233.527†	115872.4	117563.5	497.77 µg/L	497.77 ppb	13:20:23
1	Be 313.107†	1799261.4	1824357.4	498.63 µg/L	498.63 ppb	13:20:23
1	Cd 226.502†	78169.1	79303.4	496.87 µg/L	496.87 ppb	13:20:23
1	Co 228.616†	39847.0	40576.0	500.99 µg/L	500.99 ppb	13:20:23
1	Cr 267.716†	60073.0	60614.9	495.33 µg/L	495.33 ppb	13:20:23
1	Cu 324.752†	127160.1	125675.5	497.31 µg/L	497.31 ppb	13:20:23
1	Mn 257.610†	393443.8	398536.7	500.45 µg/L	500.45 ppb	13:20:23
1	Mo 202.031†	15925.4	16158.9	503.37 µg/L	503.37 ppb	13:20:43
1	Ni 231.604†	41903.2	42555.3	499.25 µg/L	499.25 ppb	13:20:23
1	P 214.914†	11495.8	11655.3	2511.0 µg/L	2511.0 ppb	13:20:43
1	Pb 220.353†	8730.3	8733.9	508.96 µg/L	508.96 ppb	13:20:43
1	S 181.975 Axial†	1356.7	1048.8	939.42 µg/L	939.42 ppb	13:20:43
1	Sb 206.836†	4185.1	4160.8	503.73 µg/L	503.73 ppb	13:20:43
1	Se 196.026†	1362.1	1359.9	507 µg/L	507 ppb	13:20:43
1	SiO2†	54174.3	53110.1	5236.2 µg/L	5236.2 ppb	13:20:23
1	Si 251.611†	166313.3	167882.9	2449.1 µg/L	2449.1 ppb	13:20:23
1	Sn 189.927†	7595.0	7690.8	505.82 µg/L	505.82 ppb	13:20:43
1	Ti 334.940†	500483.1	506411.6	497.07 µg/L	497.07 ppb	13:20:23
1	Tl 190.801†	3727.3	3893.2	513.55 µg/L	513.55 ppb	13:20:43
1	U 409.014†	7302.9	7692.0	480.18 µg/L	480.18 ppb	13:20:23
1	V 292.402†	101011.9	101991.0	499.07 µg/L	499.07 ppb	13:20:23
1	Zn 213.857†	89019.5	89610.4	493.44 µg/L	493.44 ppb	13:20:23
2	Sc RADIAL	129116.4	129116.4	100 %		13:20:14
2	Al 396.153Radial†	23951.9	23923.8	5046.3 µg/L	5046.3 ppb	13:20:14
2	Ca 317.933Radial†	74863.2	74001.3	5076.3 µg/L	5076.3 ppb	13:20:14
2	Fe 238.204 Radial†	68240.7	67795.4	5031.7 µg/L	5031.7 ppb	13:20:14
2	K 766.490 Radial†	14814.1	13178.9	5030.6 µg/L	5030.6 ppb	13:20:14
2	Mg 279.077 IEC†	11328.8	11111.9	5155.6 µg/L	5155.6 ppb	13:20:14
2	Na 589.592 Radial†	68839.7	67582.5	10017 µg/L	10017 ppb	13:20:14
2	Sr 421.552†	214531.4	213618.6	493.63 µg/L	493.63 ppb	13:20:12
2	Sc 361.383	1705374.4	1705374.4	99.097 %		13:20:46
2	Y 371.029	976761.7	976761.7	98.073 %		13:20:46
2	Ag 328.068†	130724.3	127315.4	499.53 µg/L	499.53 ppb	13:20:46
2	As 188.979†	1490.6	1512.8	503.89 µg/L	503.89 ppb	13:21:06
2	B 249.677†	38277.9	34631.3	495.51 µg/L	495.51 ppb	13:20:46
2	Ba 233.527†	116858.8	118064.0	499.89 µg/L	499.89 ppb	13:20:46
2	Be 313.107†	1810511.9	1828025.8	499.63 µg/L	499.63 ppb	13:20:46
2	Cd 226.502†	79223.9	80034.0	501.46 µg/L	501.46 ppb	13:20:46
2	Co 228.616†	40075.2	40636.1	501.73 µg/L	501.73 ppb	13:20:46
2	Cr 267.716†	60635.8	60926.3	497.88 µg/L	497.88 ppb	13:20:46
2	Cu 324.752†	127596.5	125572.9	496.90 µg/L	496.90 ppb	13:20:46
2	Mn 257.610†	396172.1	399609.4	501.79 µg/L	501.79 ppb	13:20:46
2	Mo 202.031†	15948.4	16114.0	501.98 µg/L	501.98 ppb	13:21:06
2	Ni 231.604†	42301.4	42778.1	501.87 µg/L	501.87 ppb	13:20:46
2	P 214.914†	11537.6	11648.5	2509.5 µg/L	2509.5 ppb	13:21:06
2	Pb 220.353†	8753.3	8719.9	508.15 µg/L	508.15 ppb	13:21:06
2	S 181.975 Axial†	1347.8	1034.1	926.27 µg/L	926.27 ppb	13:21:06
2	Sb 206.836†	4203.5	4161.5	503.76 µg/L	503.76 ppb	13:21:06
2	Se 196.026†	1355.9	1347.8	503 µg/L	503 ppb	13:21:06
2	SiO2†	54609.8	53318.1	5256.9 µg/L	5256.9 ppb	13:20:46
2	Si 251.611†	167887.9	168761.5	2462.0 µg/L	2462.0 ppb	13:20:46
2	Sn 189.927†	7618.1	7681.6	505.22 µg/L	505.22 ppb	13:21:06
2	Ti 334.940†	503181.1	506996.6	497.65 µg/L	497.65 ppb	13:20:46
2	Tl 190.801†	3738.6	3888.7	512.98 µg/L	512.98 ppb	13:21:06
2	U 409.014†	7228.1	7585.3	474.04 µg/L	474.04 ppb	13:20:46
2	V 292.402†	101798.2	102353.1	500.81 µg/L	500.81 ppb	13:20:46
2	Zn 213.857†	89879.6	90098.1	496.13 µg/L	496.13 ppb	13:20:46
3	Sc RADIAL	128539.4	128539.4	100 %		13:20:19
3	Al 396.153Radial†	23844.7	23923.6	5046.4 µg/L	5046.4 ppb	13:20:19
3	Ca 317.933Radial†	74359.0	73831.7	5064.7 µg/L	5064.7 ppb	13:20:19
3	Fe 238.204 Radial†	67648.4	67508.1	5010.4 µg/L	5010.4 ppb	13:20:19
3	K 766.490 Radial†	14713.2	13144.2	5017.4 µg/L	5017.4 ppb	13:20:19

3	Mg 279.077 IEC†	11298.0	11131.8	5164.7 µg/L	5164.7 ppb	13:20:19
3	Na 589.592 Radial†	68321.2	67371.7	9985.8 µg/L	9985.8 ppb	13:20:19
3	Sr 421.552†	217124.9	217169.9	501.83 µg/L	501.83 ppb	13:20:17
3	Sc 361.383	1719482.9	1719482.9	99.917 %		13:21:09
3	Y 371.029	984126.6	984126.6	98.812 %		13:21:09
3	Ag 328.068†	131481.1	126990.5	498.28 µg/L	498.28 ppb	13:21:09
3	As 188.979†	1487.1	1497.0	498.66 µg/L	498.66 ppb	13:21:30
3	B 249.677†	38495.0	34531.7	494.07 µg/L	494.07 ppb	13:21:09
3	Ba 233.527†	117406.2	117644.3	498.11 µg/L	498.11 ppb	13:21:09
3	Be 313.107†	1826304.1	1828840.4	499.86 µg/L	499.86 ppb	13:21:09
3	Cd 226.502†	79610.9	79765.4	499.78 µg/L	499.78 ppb	13:21:09
3	Co 228.616†	40535.9	40765.4	503.33 µg/L	503.33 ppb	13:21:09
3	Cr 267.716†	60974.3	60763.0	496.54 µg/L	496.54 ppb	13:21:09
3	Cu 324.752†	128613.3	125534.0	496.75 µg/L	496.75 ppb	13:21:09
3	Mn 257.610†	398920.3	399079.7	501.13 µg/L	501.13 ppb	13:21:09
3	Mo 202.031†	15962.8	15996.4	498.32 µg/L	498.32 ppb	13:21:30
3	Ni 231.604†	42556.8	42683.5	500.76 µg/L	500.76 ppb	13:21:09
3	P 214.914†	11549.3	11564.6	2491.4 µg/L	2491.4 ppb	13:21:30
3	Pb 220.353†	8792.6	8686.6	506.20 µg/L	506.20 ppb	13:21:30
3	S 181.975 Axial†	1385.3	1060.4	949.72 µg/L	949.72 ppb	13:21:30
3	Sb 206.836†	4218.1	4141.3	501.29 µg/L	501.29 ppb	13:21:30
3	Se 196.026†	1376.8	1357.5	507 µg/L	507 ppb	13:21:30
3	SiO2†	55045.9	53302.5	5255.4 µg/L	5255.4 ppb	13:21:09
3	Si 251.611†	169177.2	168661.7	2460.6 µg/L	2460.6 ppb	13:21:09
3	Sn 189.927†	7641.3	7641.8	502.61 µg/L	502.61 ppb	13:21:30
3	Ti 334.940†	507058.3	506710.7	497.36 µg/L	497.36 ppb	13:21:09
3	Tl 190.801†	3736.3	3855.5	508.64 µg/L	508.64 ppb	13:21:30
3	U 409.014†	7445.2	7742.7	483.26 µg/L	483.26 ppb	13:21:09
3	V 292.402†	102656.3	102369.1	500.86 µg/L	500.86 ppb	13:21:09
3	Zn 213.857†	90577.3	90052.2	495.88 µg/L	495.88 ppb	13:21:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1707681.4	99.231	%	0.6295				0.63%
Sc RADIAL	128979.0	100	%	0.3				0.30%
Y 371.029	977791.0	98.176	%	0.5913				0.60%
Ag 328.068†	127044.0	498.48	µg/L	0.970	498.48	ppb	0.970	0.19%
QC value within limits for Ag 328.068 Recovery = 99.70%								
Al 396.153Radial†	23972.2	5056.6	µg/L	17.71	5056.6	ppb	17.71	0.35%
QC value within limits for Al 396.153Radial Recovery = 101.13%								
As 188.979†	1504.5	501.15	µg/L	2.625	501.15	ppb	2.625	0.52%
QC value within limits for As 188.979 Recovery = 100.23%								
B 249.677†	34496.0	493.57	µg/L	2.240	493.57	ppb	2.240	0.45%
QC value within limits for B 249.677 Recovery = 98.71%								
Ba 233.527†	117757.3	498.59	µg/L	1.137	498.59	ppb	1.137	0.23%
QC value within limits for Ba 233.527 Recovery = 99.72%								
Be 313.107†	1827074.5	499.37	µg/L	0.652	499.37	ppb	0.652	0.13%
QC value within limits for Be 313.107 Recovery = 99.87%								
Ca 317.933Radial†	74040.2	5079.0	µg/L	15.80	5079.0	ppb	15.80	0.31%
QC value within limits for Ca 317.933Radial Recovery = 101.58%								
Cd 226.502†	79700.9	499.37	µg/L	2.318	499.37	ppb	2.318	0.46%
QC value within limits for Cd 226.502 Recovery = 99.87%								
Co 228.616†	40659.2	502.02	µg/L	1.196	502.02	ppb	1.196	0.24%
QC value within limits for Co 228.616 Recovery = 100.40%								
Cr 267.716†	60768.1	496.59	µg/L	1.275	496.59	ppb	1.275	0.26%
QC value within limits for Cr 267.716 Recovery = 99.32%								
Cu 324.752†	125594.1	496.99	µg/L	0.290	496.99	ppb	0.290	0.06%
QC value within limits for Cu 324.752 Recovery = 99.40%								
Fe 238.204 Radial†	67783.8	5030.8	µg/L	20.04	5030.8	ppb	20.04	0.40%
QC value within limits for Fe 238.204 Radial Recovery = 100.62%								
K 766.490 Radial†	13220.9	5046.7	µg/L	39.82	5046.7	ppb	39.82	0.79%
QC value within limits for K 766.490 Radial Recovery = 100.93%								
Mg 279.077 IEC†	11091.7	5146.2	µg/L	24.55	5146.2	ppb	24.55	0.48%
QC value within limits for Mg 279.077 IEC Recovery = 102.92%								
Mn 257.610†	399075.2	501.12	µg/L	0.673	501.12	ppb	0.673	0.13%
QC value within limits for Mn 257.610 Recovery = 100.22%								
Mo 202.031†	16089.8	501.22	µg/L	2.611	501.22	ppb	2.611	0.52%
QC value within limits for Mo 202.031 Recovery = 100.24%								
Na 589.592 Radial†	67621.3	10023	µg/L	40.2	10023	ppb	40.2	0.40%

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   QC value within limits for Na 589.592 Radial  Recovery = 100.23%
Ni 231.604†            42672.3      500.63 µg/L         1.312      500.63 ppb          1.312   0.26%
   QC value within limits for Ni 231.604  Recovery = 100.13%
P 214.914†             11622.8      2504.0 µg/L         10.89      2504.0 ppb          10.89   0.43%
   QC value within limits for P 214.914  Recovery = 100.16%
Pb 220.353†             8713.5      507.77 µg/L         1.418      507.77 ppb          1.418   0.28%
   QC value within limits for Pb 220.353  Recovery = 101.55%
S 181.975 Axial†        1047.8      938.47 µg/L        11.750      938.47 ppb         11.750   1.25%
   QC value within limits for S 181.975 Axial  Recovery = 93.85%
Sb 206.836†             4154.6      502.93 µg/L         1.419      502.93 ppb          1.419   0.28%
   QC value within limits for Sb 206.836  Recovery = 100.59%
Se 196.026†             1355.0         506 µg/L           2.4         506 ppb            2.4   0.47%
   QC value within limits for Se 196.026  Recovery = 101.13%
SiO2†                  53243.6      5249.5 µg/L         11.54      5249.5 ppb          11.54   0.22%
   QC value within limits for SiO2  Recovery = 98.17%
Si 251.611†           168435.4      2457.2 µg/L          7.08      2457.2 ppb           7.08   0.29%
   QC value within limits for Si 251.611  Recovery = 98.29%
Sn 189.927†             7671.4      504.55 µg/L         1.707      504.55 ppb          1.707   0.34%
   QC value within limits for Sn 189.927  Recovery = 100.91%
Sr 421.552†           215480.4      497.93 µg/L         4.118      497.93 ppb          4.118   0.83%
   QC value within limits for Sr 421.552  Recovery = 99.59%
Ti 334.940†           506706.3      497.36 µg/L         0.287      497.36 ppb          0.287   0.06%
   QC value within limits for Ti 334.940  Recovery = 99.47%
Tl 190.801†             3879.1      511.72 µg/L         2.684      511.72 ppb          2.684   0.52%
   QC value within limits for Tl 190.801  Recovery = 102.34%
U 409.014†              7673.3      479.16 µg/L         4.693      479.16 ppb          4.693   0.98%
   QC value within limits for U 409.014  Recovery = 95.83%
V 292.402†            102237.7      500.25 µg/L         1.018      500.25 ppb          1.018   0.20%
   QC value within limits for V 292.402  Recovery = 100.05%
Zn 213.857†            89920.2      495.15 µg/L         1.489      495.15 ppb          1.489   0.30%
   QC value within limits for Zn 213.857  Recovery = 99.03%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/7/2010 13:21:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	129500.5	129500.5	101	%			13:22:07
1	Al 396.153Radial†	-91.2	-4.9	-1.0492	µg/L	-1.0492	ppb	13:22:27
1	Ca 317.933Radial†	549.5	38.7	2.6566	µg/L	2.6566	ppb	13:22:27
1	Fe 238.204 Radial†	141.0	18.6	1.3775	µg/L	1.3775	ppb	13:22:27
1	K 766.490 Radial†	1890.5	311.1	118.83	µg/L	118.83	ppb	13:22:07
1	Mg 279.077 IEC†	195.4	30.8	14.286	µg/L	14.286	ppb	13:22:27
1	Na 589.592 Radial†	1323.8	383.1	56.708	µg/L	56.708	ppb	13:22:07
1	Sr 421.552†	-14.5	91.3	0.2109	µg/L	0.2109	ppb	13:22:07
1	Sc 361.383	1721905.3	1721905.3	100.06	%			13:23:29
1	Y 371.029	996423.8	996423.8	100.05	%			13:23:29
1	Ag 328.068†	4735.2	132.0	0.5321	µg/L	0.5321	ppb	13:23:31
1	As 188.979†	-17.9	-9.2	-3.0327	µg/L	-3.0327	ppb	13:23:51
1	B 249.677†	4155.2	157.3	2.2584	µg/L	2.2584	ppb	13:23:31
1	Ba 233.527†	-127.8	12.3	0.0525	µg/L	0.0525	ppb	13:23:51
1	Be 313.107†	-1047.2	-36.3	-0.0072	µg/L	-0.0072	ppb	13:23:31
1	Cd 226.502†	-17.8	70.2	0.4399	µg/L	0.4399	ppb	13:23:51
1	Co 228.616†	-196.1	-0.4	-0.0046	µg/L	-0.0046	ppb	13:23:51
1	Cr 267.716†	252.1	-10.3	-0.0913	µg/L	-0.0913	ppb	13:23:51
1	Cu 324.752†	3227.4	38.9	0.1613	µg/L	0.1613	ppb	13:23:31
1	Mn 257.610†	250.6	76.5	0.0955	µg/L	0.0955	ppb	13:23:51
1	Mo 202.031†	-8.8	11.5	0.3578	µg/L	0.3578	ppb	13:23:51
1	Ni 231.604†	-66.1	25.1	0.2940	µg/L	0.2940	ppb	13:23:51
1	P 214.914†	-13.0	-7.3	-1.5809	µg/L	-1.5809	ppb	13:23:51
1	Pb 220.353†	103.4	-10.0	-0.5838	µg/L	-0.5838	ppb	13:23:51
1	S 181.975 Axial†	271.3	-54.9	-48.945	µg/L	-48.945	ppb	13:23:51
1	Sb 206.836†	76.5	-3.9	-0.4581	µg/L	-0.4581	ppb	13:23:51
1	Se 196.026†	16.5	-4.1	-1.50	µg/L	-1.50	ppb	13:23:51
1	SiO2†	1685.1	-105.3	-10.441	µg/L	-10.441	ppb	13:23:31
1	Si 251.611†	810.8	153.5	2.2419	µg/L	2.2419	ppb	13:23:31
1	Sn 189.927†	9.7	3.9	0.2528	µg/L	0.2528	ppb	13:23:51
1	Ti 334.940†	857.5	85.8	0.0796	µg/L	0.0796	ppb	13:23:31
1	Tl 190.801†	-106.9	9.2	1.1987	µg/L	1.1987	ppb	13:23:51
1	U 409.014†	-137.1	154.3	9.0724	µg/L	9.0724	ppb	13:23:31
1	V 292.402†	538.7	165.3	0.8075	µg/L	0.8075	ppb	13:23:31
1	Zn 213.857†	716.5	115.4	0.6383	µg/L	0.6383	ppb	13:23:51
2	Sc RADIAL	129217.1	129217.1	101	%			13:22:29
2	Al 396.153Radial†	-33.4	52.4	11.077	µg/L	11.077	ppb	13:22:49
2	Ca 317.933Radial†	611.0	101.1	6.9345	µg/L	6.9345	ppb	13:22:49
2	Fe 238.204 Radial†	199.5	77.0	5.7127	µg/L	5.7127	ppb	13:22:49
2	K 766.490 Radial†	1967.3	391.6	149.57	µg/L	149.57	ppb	13:22:29
2	Mg 279.077 IEC†	179.9	15.8	7.3325	µg/L	7.3325	ppb	13:22:49
2	Na 589.592 Radial†	1415.9	477.6	70.693	µg/L	70.693	ppb	13:22:29
2	Sr 421.552†	-49.9	56.0	0.1294	µg/L	0.1294	ppb	13:22:29
2	Sc 361.383	1738399.8	1738399.8	101.02	%			13:23:53
2	Y 371.029	1006412.3	1006412.3	101.05	%			13:23:53
2	Ag 328.068†	4819.3	170.4	0.6651	µg/L	0.6651	ppb	13:23:55
2	As 188.979†	-17.8	-9.0	-2.9572	µg/L	-2.9572	ppb	13:24:16
2	B 249.677†	3995.1	-40.7	-0.5832	µg/L	-0.5832	ppb	13:23:55
2	Ba 233.527†	-169.9	-28.2	-0.1191	µg/L	-0.1191	ppb	13:24:16
2	Be 313.107†	-781.9	236.2	0.0650	µg/L	0.0650	ppb	13:23:55
2	Cd 226.502†	-24.8	63.4	0.3971	µg/L	0.3971	ppb	13:24:16
2	Co 228.616†	-213.9	-16.2	-0.2000	µg/L	-0.2000	ppb	13:24:16
2	Cr 267.716†	262.5	-2.4	-0.0207	µg/L	-0.0207	ppb	13:24:16
2	Cu 324.752†	3369.4	148.7	0.5890	µg/L	0.5890	ppb	13:23:55
2	Mn 257.610†	214.4	38.3	0.0478	µg/L	0.0478	ppb	13:24:16
2	Mo 202.031†	0.3	20.6	0.6406	µg/L	0.6406	ppb	13:24:16
2	Ni 231.604†	-76.6	15.3	0.1790	µg/L	0.1790	ppb	13:24:16
2	P 214.914†	-4.5	1.3	0.2630	µg/L	0.2630	ppb	13:24:16
2	Pb 220.353†	133.0	18.4	1.0705	µg/L	1.0705	ppb	13:24:16

2	S 181.975 Axial†	257.9	-70.8	-63.096 µg/L	-63.096 ppb		13:24:16
2	Sb 206.836†	76.8	-4.3	-0.5115 µg/L	-0.5115 ppb		13:24:16
2	Se 196.026†	12.0	-8.6	-3.20 µg/L	-3.20 ppb		13:24:16
2	SiO2†	1711.3	-95.4	-9.4718 µg/L	-9.4718 ppb		13:23:55
2	Si 251.611†	614.1	-48.8	-0.7288 µg/L	-0.7288 ppb		13:23:55
2	Sn 189.927†	17.1	11.0	0.7232 µg/L	0.7232 ppb		13:24:16
2	Ti 334.940†	612.4	-165.0	-0.1633 µg/L	-0.1633 ppb		13:23:55
2	Tl 190.801†	-115.8	1.4	0.1877 µg/L	0.1877 ppb		13:24:16
2	U 409.014†	-265.6	28.4	1.6728 µg/L	1.6728 ppb		13:23:55
2	V 292.402†	426.2	48.9	0.2432 µg/L	0.2432 ppb		13:23:55
2	Zn 213.857†	666.3	58.8	0.3243 µg/L	0.3243 ppb		13:24:16
3	Sc RADIAL	128063.0	128063.0	99.7 %			13:22:51
3	Al 396.153Radial†	-62.4	23.0	4.8355 µg/L	4.8355 ppb		13:23:11
3	Ca 317.933Radial†	526.3	21.6	1.4812 µg/L	1.4812 ppb		13:23:11
3	Fe 238.204 Radial†	151.6	30.7	2.2784 µg/L	2.2784 ppb		13:23:11
3	K 766.490 Radial†	1825.6	267.0	102.00 µg/L	102.00 ppb		13:22:51
3	Mg 279.077 IEC†	192.1	29.7	13.791 µg/L	13.791 ppb		13:23:11
3	Na 589.592 Radial†	1476.5	551.1	81.629 µg/L	81.629 ppb		13:22:51
3	Sr 421.552†	-179.9	-74.9	-0.1732 µg/L	-0.1732 ppb		13:22:51
3	Sc 361.383	1739393.1	1739393.1	101.07 %			13:24:18
3	Y 371.029	1006715.8	1006715.8	101.08 %			13:24:18
3	Ag 328.068†	4618.2	-31.3	-0.1233 µg/L	-0.1233 ppb		13:24:20
3	As 188.979†	-10.6	-1.8	-0.6077 µg/L	-0.6077 ppb		13:24:40
3	B 249.677†	4073.8	35.0	0.5029 µg/L	0.5029 ppb		13:24:20
3	Ba 233.527†	-147.0	-5.5	-0.0232 µg/L	-0.0232 ppb		13:24:40
3	Be 313.107†	-666.3	351.1	0.0972 µg/L	0.0972 ppb		13:24:20
3	Cd 226.502†	-27.6	60.6	0.3796 µg/L	0.3796 ppb		13:24:40
3	Co 228.616†	-218.7	-20.7	-0.2559 µg/L	-0.2559 ppb		13:24:40
3	Cr 267.716†	207.4	-57.0	-0.4697 µg/L	-0.4697 ppb		13:24:40
3	Cu 324.752†	3204.1	-16.6	-0.0618 µg/L	-0.0618 ppb		13:24:20
3	Mn 257.610†	235.6	59.1	0.0737 µg/L	0.0737 ppb		13:24:40
3	Mo 202.031†	7.6	27.8	0.8654 µg/L	0.8654 ppb		13:24:40
3	Ni 231.604†	-72.4	19.4	0.2281 µg/L	0.2281 ppb		13:24:40
3	P 214.914†	-3.7	2.0	0.4315 µg/L	0.4315 ppb		13:24:40
3	Pb 220.353†	89.4	-24.8	-1.4430 µg/L	-1.4430 ppb		13:24:40
3	S 181.975 Axial†	269.3	-59.6	-53.122 µg/L	-53.122 ppb		13:24:40
3	Sb 206.836†	88.7	7.4	0.9195 µg/L	0.9195 ppb		13:24:40
3	Se 196.026†	26.3	5.5	2.04 µg/L	2.04 ppb		13:24:40
3	SiO2†	1688.1	-119.3	-11.853 µg/L	-11.853 ppb		13:24:20
3	Si 251.611†	658.7	-5.1	-0.0936 µg/L	-0.0936 ppb		13:24:20
3	Sn 189.927†	24.1	18.0	1.1781 µg/L	1.1781 ppb		13:24:40
3	Ti 334.940†	787.7	8.1	0.0054 µg/L	0.0054 ppb		13:24:20
3	Tl 190.801†	-124.7	-7.4	-0.9615 µg/L	-0.9615 ppb		13:24:40
3	U 409.014†	-224.7	69.0	4.0030 µg/L	4.0030 ppb		13:24:20
3	V 292.402†	255.4	-120.4	-0.5719 µg/L	-0.5719 ppb		13:24:20
3	Zn 213.857†	671.7	63.8	0.3527 µg/L	0.3527 ppb		13:24:40

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1733232.7	100.72	%	0.571				0.57%
Sc RADIAL	128926.9	100	%	0.6				0.59%
Y 371.029	1003184.0	100.73	%	0.588				0.58%
Ag 328.068†	90.4	0.3580	µg/L	0.42204	0.3580	ppb	0.42204	117.90%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	23.5	4.9545	µg/L	6.06414	4.9545	ppb	6.06414	122.40%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.7	-2.1992	µg/L	1.37879	-2.1992	ppb	1.37879	62.70%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.5	0.7260	µg/L	1.43391	0.7260	ppb	1.43391	197.50%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.1	-0.0299	µg/L	0.08598	-0.0299	ppb	0.08598	287.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	183.7	0.0517	µg/L	0.05345	0.0517	ppb	0.05345	103.44%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	53.8	3.6908	µg/L	2.86994	3.6908	ppb	2.86994	77.76%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	64.7	0.4055	µg/L	0.03100	0.4055	ppb	0.03100	7.64%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-12.4	-0.1535	µg/L	0.13190	-0.1535	ppb	0.13190	85.93%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -23.3     -0.1939 µg/L       0.24144     -0.1939 ppb        0.24144 124.52%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               57.0      0.2295 µg/L       0.33071      0.2295 ppb        0.33071 144.08%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        42.1      3.1229 µg/L       2.28765      3.1229 ppb        2.28765  73.26%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        323.2      123.47 µg/L        24.121      123.47 ppb         24.121  19.54%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           25.5      11.803 µg/L        3.8794      11.803 ppb         3.8794  32.87%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               57.9      0.0723 µg/L       0.02387      0.0723 ppb        0.02387  33.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               19.9      0.6213 µg/L       0.25434      0.6213 ppb        0.25434  40.94%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       470.6      69.677 µg/L       12.4916      69.677 ppb        12.4916  17.93%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               19.9      0.2337 µg/L       0.05769      0.2337 ppb        0.05769  24.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -1.3     -0.2955 µg/L       1.11640     -0.2955 ppb        1.11640 377.79%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -5.5     -0.3187 µg/L       1.27756     -0.3187 ppb        1.27756 400.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -61.7     -55.054 µg/L        7.2706     -55.054 ppb         7.2706  13.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.2     -0.0167 µg/L       0.81123     -0.0167 ppb        0.81123 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.4      -0.889 µg/L        2.6729      -0.889 ppb         2.6729 300.61%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -106.7     -10.589 µg/L        1.1976     -10.589 ppb         1.1976  11.31%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               33.2      0.4732 µg/L       1.56437      0.4732 ppb        1.56437 330.61%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               11.0      0.7180 µg/L       0.46268      0.7180 ppb        0.46268  64.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               24.1      0.0557 µg/L       0.20237      0.0557 ppb        0.20237 363.29%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -23.7     -0.0261 µg/L       0.12443     -0.0261 ppb        0.12443 476.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                1.1      0.1416 µg/L       1.08084      0.1416 ppb        1.08084 763.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                83.9      4.9161 µg/L       3.78337      4.9161 ppb        3.78337  76.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                31.3      0.1596 µg/L       0.69346      0.1596 ppb        0.69346 434.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               79.3      0.4384 µg/L       0.17362      0.4384 ppb        0.17362  39.60%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/7/2010 13:49:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130988.5	130988.5	102	%			13:49:45
1	Al 396.153Radial†	24311.4	23935.8	5048.8	µg/L	5048.8	ppb	13:49:45
1	Ca 317.933Radial†	76169.7	74218.1	5091.2	µg/L	5091.2	ppb	13:49:45
1	Fe 238.204 Radial†	69399.5	67961.5	5044.0	µg/L	5044.0	ppb	13:49:45
1	K 766.490 Radial†	15087.6	13236.5	5052.6	µg/L	5052.6	ppb	13:49:45
1	Mg 279.077 IEC†	11553.6	11171.3	5183.1	µg/L	5183.1	ppb	13:49:45
1	Na 589.592 Radial†	70086.7	67826.6	10053	µg/L	10053	ppb	13:49:45
1	Sr 421.552†	220715.3	216633.6	500.59	µg/L	500.59	ppb	13:49:43
1	Sc 361.383	1711704.2	1711704.2	99.465	%			13:49:58
1	Y 371.029	980674.9	980674.9	98.465	%			13:49:58
1	Ag 328.068†	131441.4	127548.6	500.45	µg/L	500.45	ppb	13:49:58
1	As 188.979†	1504.9	1521.6	506.78	µg/L	506.78	ppb	13:50:18
1	B 249.677†	38039.3	34248.5	490.01	µg/L	490.01	ppb	13:49:58
1	Ba 233.527†	117257.0	118028.3	499.74	µg/L	499.74	ppb	13:49:58
1	Be 313.107†	1818217.6	1829016.8	499.91	µg/L	499.91	ppb	13:49:58
1	Cd 226.502†	79048.5	79562.0	498.50	µg/L	498.50	ppb	13:49:58
1	Co 228.616†	40292.7	40705.2	502.58	µg/L	502.58	ppb	13:49:58
1	Cr 267.716†	60853.0	60918.4	497.81	µg/L	497.81	ppb	13:49:58
1	Cu 324.752†	128048.9	125551.5	496.83	µg/L	496.83	ppb	13:49:58
1	Mn 257.610†	398032.8	400001.8	502.28	µg/L	502.28	ppb	13:49:58
1	Mo 202.031†	16037.9	16144.5	502.93	µg/L	502.93	ppb	13:50:18
1	Ni 231.604†	42260.2	42578.9	499.53	µg/L	499.53	ppb	13:49:58
1	P 214.914†	11538.3	11606.1	2500.3	µg/L	2500.3	ppb	13:50:18
1	Pb 220.353†	8796.9	8731.0	508.79	µg/L	508.79	ppb	13:50:18
1	S 181.975 Axial†	1352.9	1034.1	926.34	µg/L	926.34	ppb	13:50:18
1	Sb 206.836†	4222.1	4164.5	504.14	µg/L	504.14	ppb	13:50:18
1	Se 196.026†	1357.1	1343.9	502	µg/L	502	ppb	13:50:18
1	SiO2†	55049.1	53556.0	5280.4	µg/L	5280.4	ppb	13:49:58
1	Si 251.611†	169319.6	169574.4	2473.9	µg/L	2473.9	ppb	13:49:58
1	Sn 189.927†	7629.9	7665.1	504.14	µg/L	504.14	ppb	13:50:18
1	Ti 334.940†	506799.3	508756.6	499.37	µg/L	499.37	ppb	13:49:58
1	Tl 190.801†	3732.8	3868.9	510.42	µg/L	510.42	ppb	13:50:18
1	U 409.014†	7479.6	7811.2	487.26	µg/L	487.26	ppb	13:49:58
1	V 292.402†	102187.3	102364.4	500.88	µg/L	500.88	ppb	13:49:58
1	Zn 213.857†	89846.3	89729.2	494.10	µg/L	494.10	ppb	13:49:58
2	Sc RADIAL	129850.7	129850.7	101	%			13:49:49
2	Al 396.153Radial†	24275.4	24109.1	5085.3	µg/L	5085.3	ppb	13:49:49
2	Ca 317.933Radial†	75608.6	74317.5	5098.0	µg/L	5098.0	ppb	13:49:49
2	Fe 238.204 Radial†	69287.7	68447.4	5080.1	µg/L	5080.1	ppb	13:49:49
2	K 766.490 Radial†	14853.9	13135.0	5013.8	µg/L	5013.8	ppb	13:49:49
2	Mg 279.077 IEC†	11493.5	11211.1	5201.6	µg/L	5201.6	ppb	13:49:49
2	Na 589.592 Radial†	69470.4	67819.2	10052	µg/L	10052	ppb	13:49:49
2	Sr 421.552†	218799.3	216634.7	500.60	µg/L	500.60	ppb	13:49:47
2	Sc 361.383	1715920.8	1715920.8	99.710	%			13:50:21
2	Y 371.029	982922.2	982922.2	98.691	%			13:50:21
2	Ag 328.068†	132035.7	127819.9	501.52	µg/L	501.52	ppb	13:50:21
2	As 188.979†	1515.7	1528.7	509.13	µg/L	509.13	ppb	13:50:41
2	B 249.677†	38239.3	34355.2	491.54	µg/L	491.54	ppb	13:50:21
2	Ba 233.527†	117487.8	117970.1	499.50	µg/L	499.50	ppb	13:50:21
2	Be 313.107†	1826676.2	1833008.0	501.00	µg/L	501.00	ppb	13:50:21
2	Cd 226.502†	79538.1	79857.7	500.35	µg/L	500.35	ppb	13:50:21
2	Co 228.616†	40458.7	40772.2	503.41	µg/L	503.41	ppb	13:50:21
2	Cr 267.716†	60839.2	60754.2	496.47	µg/L	496.47	ppb	13:50:21
2	Cu 324.752†	128535.2	125723.0	497.51	µg/L	497.51	ppb	13:50:21
2	Mn 257.610†	399094.9	400083.6	502.39	µg/L	502.39	ppb	13:50:21
2	Mo 202.031†	16218.8	16286.3	507.34	µg/L	507.34	ppb	13:50:41
2	Ni 231.604†	42543.4	42758.5	501.64	µg/L	501.64	ppb	13:50:21
2	P 214.914†	11724.7	11764.6	2534.6	µg/L	2534.6	ppb	13:50:41
2	Pb 220.353†	8902.7	8815.4	513.70	µg/L	513.70	ppb	13:50:41

2	S 181.975 Axial†	1377.4	1055.4	945.31 µg/L	945.31 ppb	13:50:41
2	Sb 206.836†	4296.0	4228.2	511.92 µg/L	511.92 ppb	13:50:41
2	Se 196.026†	1382.5	1366.0	510 µg/L	510 ppb	13:50:41
2	SiO2†	55259.5	53631.1	5287.6 µg/L	5287.6 ppb	13:50:21
2	Si 251.611†	170028.3	169866.8	2478.0 µg/L	2478.0 ppb	13:50:21
2	Sn 189.927†	7732.6	7749.2	509.66 µg/L	509.66 ppb	13:50:41
2	Ti 334.940†	507539.3	508246.6	498.87 µg/L	498.87 ppb	13:50:21
2	Tl 190.801†	3788.7	3915.8	516.52 µg/L	516.52 ppb	13:50:41
2	U 409.014†	7512.6	7825.8	488.20 µg/L	488.20 ppb	13:50:21
2	V 292.402†	102750.8	102677.1	502.43 µg/L	502.43 ppb	13:50:21
2	Zn 213.857†	90345.2	90007.7	495.62 µg/L	495.62 ppb	13:50:21
3	Sc RADIAL	129487.0	129487.0	101 %		13:49:53
3	Al 396.153Radial†	24337.3	24238.1	5113.0 µg/L	5113.0 ppb	13:49:53
3	Ca 317.933Radial†	75366.9	74287.9	5096.0 µg/L	5096.0 ppb	13:49:53
3	Fe 238.204 Radial†	68864.8	68220.4	5063.2 µg/L	5063.2 ppb	13:49:53
3	K 766.490 Radial†	14824.5	13147.0	5018.4 µg/L	5018.4 ppb	13:49:53
3	Mg 279.077 IEC†	11412.0	11162.2	5178.8 µg/L	5178.8 ppb	13:49:53
3	Na 589.592 Radial†	69312.5	67855.5	10058 µg/L	10058 ppb	13:49:53
3	Sr 421.552†	219205.7	217646.2	502.94 µg/L	502.94 ppb	13:49:51
3	Sc 361.383	1717511.1	1717511.1	99.802 %		13:50:44
3	Y 371.029	983952.2	983952.2	98.794 %		13:50:44
3	Ag 328.068†	132321.5	127983.7	502.14 µg/L	502.14 ppb	13:50:44
3	As 188.979†	1488.7	1500.3	499.80 µg/L	499.80 ppb	13:51:04
3	B 249.677†	38513.4	34594.3	494.97 µg/L	494.97 ppb	13:50:44
3	Ba 233.527†	117796.9	118170.7	500.34 µg/L	500.34 ppb	13:50:44
3	Be 313.107†	1830746.2	1835389.8	501.64 µg/L	501.64 ppb	13:50:44
3	Cd 226.502†	79742.4	79988.5	501.17 µg/L	501.17 ppb	13:50:44
3	Co 228.616†	40604.3	40880.5	504.75 µg/L	504.75 ppb	13:50:44
3	Cr 267.716†	61338.1	61197.6	500.10 µg/L	500.10 ppb	13:50:44
3	Cu 324.752†	128918.9	125988.0	498.55 µg/L	498.55 ppb	13:50:44
3	Mn 257.610†	400073.2	400693.3	503.15 µg/L	503.15 ppb	13:50:44
3	Mo 202.031†	15993.7	16045.7	499.85 µg/L	499.85 ppb	13:51:04
3	Ni 231.604†	42717.5	42893.4	503.22 µg/L	503.22 ppb	13:50:44
3	P 214.914†	11522.0	11550.5	2488.3 µg/L	2488.3 ppb	13:51:04
3	Pb 220.353†	8769.1	8673.3	505.43 µg/L	505.43 ppb	13:51:04
3	S 181.975 Axial†	1360.9	1037.6	929.41 µg/L	929.41 ppb	13:51:04
3	Sb 206.836†	4213.6	4141.7	501.30 µg/L	501.30 ppb	13:51:04
3	Se 196.026†	1382.3	1364.5	509 µg/L	509 ppb	13:51:04
3	SiO2†	55498.5	53819.1	5306.6 µg/L	5306.6 ppb	13:50:44
3	Si 251.611†	170609.7	170291.5	2484.4 µg/L	2484.4 ppb	13:50:44
3	Sn 189.927†	7610.2	7619.4	501.15 µg/L	501.15 ppb	13:51:04
3	Ti 334.940†	508548.4	508786.4	499.40 µg/L	499.40 ppb	13:50:44
3	Tl 190.801†	3712.8	3836.2	506.17 µg/L	506.17 ppb	13:51:04
3	U 409.014†	7403.1	7709.1	481.33 µg/L	481.33 ppb	13:50:44
3	V 292.402†	102681.4	102512.1	501.57 µg/L	501.57 ppb	13:50:44
3	Zn 213.857†	90688.6	90267.9	497.06 µg/L	497.06 ppb	13:50:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1715045.4	99.659	%	0.1744				0.17%
Sc RADIAL	130108.8	101	%	0.6				0.60%
Y 371.029	982516.4	98.650	%	0.1683				0.17%
Ag 328.068†	127784.1	501.37	µg/L	0.853	501.37	ppb	0.853	0.17%
QC value within limits for Ag 328.068 Recovery = 100.27%								
Al 396.153Radial†	24094.3	5082.4	µg/L	32.20	5082.4	ppb	32.20	0.63%
QC value within limits for Al 396.153Radial Recovery = 101.65%								
As 188.979†	1516.9	505.23	µg/L	4.853	505.23	ppb	4.853	0.96%
QC value within limits for As 188.979 Recovery = 101.05%								
B 249.677†	34399.3	492.17	µg/L	2.539	492.17	ppb	2.539	0.52%
QC value within limits for B 249.677 Recovery = 98.43%								
Ba 233.527†	118056.4	499.86	µg/L	0.435	499.86	ppb	0.435	0.09%
QC value within limits for Ba 233.527 Recovery = 99.97%								
Be 313.107†	1832471.5	500.85	µg/L	0.879	500.85	ppb	0.879	0.18%
QC value within limits for Be 313.107 Recovery = 100.17%								
Ca 317.933Radial†	74274.5	5095.1	µg/L	3.50	5095.1	ppb	3.50	0.07%
QC value within limits for Ca 317.933Radial Recovery = 101.90%								
Cd 226.502†	79802.8	500.01	µg/L	1.369	500.01	ppb	1.369	0.27%
QC value within limits for Cd 226.502 Recovery = 100.00%								
Co 228.616†	40786.0	503.58	µg/L	1.092	503.58	ppb	1.092	0.22%

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   QC value within limits for Co 228.616  Recovery = 100.72%
Cr 267.716†            60956.7      498.12 µg/L         1.835      498.12 ppb          1.835   0.37%
   QC value within limits for Cr 267.716  Recovery = 99.62%
Cu 324.752†           125754.2      497.63 µg/L         0.867      497.63 ppb          0.867   0.17%
   QC value within limits for Cu 324.752  Recovery = 99.53%
Fe 238.204 Radial†     68209.8      5062.4 µg/L         18.04      5062.4 ppb          18.04   0.36%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.25%
K 766.490 Radial†      13172.8      5028.3 µg/L         21.19      5028.3 ppb          21.19   0.42%
   QC value within limits for K 766.490 Radial  Recovery = 100.57%
Mg 279.077 IEC†        11181.6      5187.8 µg/L         12.13      5187.8 ppb          12.13   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.76%
Mn 257.610†           400259.5      502.61 µg/L         0.475      502.61 ppb          0.475   0.09%
   QC value within limits for Mn 257.610  Recovery = 100.52%
Mo 202.031†            16158.8      503.38 µg/L         3.764      503.38 ppb          3.764   0.75%
   QC value within limits for Mo 202.031  Recovery = 100.68%
Na 589.592 Radial†     67833.8       10054 µg/L           2.9       10054 ppb            2.9   0.03%
   QC value within limits for Na 589.592 Radial  Recovery = 100.54%
Ni 231.604†            42743.6      501.46 µg/L         1.851      501.46 ppb          1.851   0.37%
   QC value within limits for Ni 231.604  Recovery = 100.29%
P 214.914†             11640.4      2507.7 µg/L         24.00      2507.7 ppb          24.00   0.96%
   QC value within limits for P 214.914  Recovery = 100.31%
Pb 220.353†             8739.9      509.31 µg/L         4.159      509.31 ppb          4.159   0.82%
   QC value within limits for Pb 220.353  Recovery = 101.86%
S 181.975 Axial†        1042.4      933.69 µg/L        10.182      933.69 ppb         10.182   1.09%
   QC value within limits for S 181.975 Axial  Recovery = 93.37%
Sb 206.836†             4178.1      505.78 µg/L         5.501      505.78 ppb          5.501   1.09%
   QC value within limits for Sb 206.836  Recovery = 101.16%
Se 196.026†             1358.2         507 µg/L           4.6         507 ppb            4.6   0.91%
   QC value within limits for Se 196.026  Recovery = 101.37%
SiO2†                  53668.7      5291.5 µg/L         13.52      5291.5 ppb          13.52   0.26%
   QC value within limits for SiO2  Recovery = 98.95%
Si 251.611†           169910.9      2478.8 µg/L          5.32      2478.8 ppb           5.32   0.21%
   QC value within limits for Si 251.611  Recovery = 99.15%
Sn 189.927†             7677.9      504.98 µg/L         4.316      504.98 ppb          4.316   0.85%
   QC value within limits for Sn 189.927  Recovery = 101.00%
Sr 421.552†           216971.5      501.38 µg/L         1.350      501.38 ppb          1.350   0.27%
   QC value within limits for Sr 421.552  Recovery = 100.28%
Ti 334.940†           508596.5      499.21 µg/L         0.300      499.21 ppb          0.300   0.06%
   QC value within limits for Ti 334.940  Recovery = 99.84%
Tl 190.801†             3873.7      511.03 µg/L         5.204      511.03 ppb          5.204   1.02%
   QC value within limits for Tl 190.801  Recovery = 102.21%
U 409.014†              7782.0      485.60 µg/L         3.724      485.60 ppb          3.724   0.77%
   QC value within limits for U 409.014  Recovery = 97.12%
V 292.402†            102517.9      501.63 µg/L         0.775      501.63 ppb          0.775   0.15%
   QC value within limits for V 292.402  Recovery = 100.33%
Zn 213.857†            90001.6      495.59 µg/L         1.482      495.59 ppb          1.482   0.30%
   QC value within limits for Zn 213.857  Recovery = 99.12%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/7/2010 13:51:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130432.5	130432.5	102	%			13:51:41
1	Al 396.153Radial†	-69.4	17.3	3.6730	µg/L	3.6730	ppb	13:52:01
1	Ca 317.933Radial†	513.3	-0.9	-0.0585	µg/L	-0.0585	ppb	13:52:01
1	Fe 238.204 Radial†	154.4	30.7	2.2807	µg/L	2.2807	ppb	13:52:01
1	K 766.490 Radial†	1737.9	147.3	56.269	µg/L	56.269	ppb	13:51:41
1	Mg 279.077 IEC†	179.2	13.5	6.2453	µg/L	6.2453	ppb	13:52:01
1	Na 589.592 Radial†	1231.4	282.8	41.879	µg/L	41.879	ppb	13:51:41
1	Sr 421.552†	-130.6	-23.0	-0.0532	µg/L	-0.0532	ppb	13:51:41
1	Sc 361.383	1732207.3	1732207.3	100.66	%			13:53:03
1	Y 371.029	1002492.5	1002492.5	100.66	%			13:53:03
1	Ag 328.068†	4868.2	236.0	0.9256	µg/L	0.9256	ppb	13:53:05
1	As 188.979†	-10.0	-1.3	-0.4314	µg/L	-0.4314	ppb	13:53:26
1	B 249.677†	4080.5	58.4	0.8377	µg/L	0.8377	ppb	13:53:05
1	Ba 233.527†	-138.5	2.4	0.0105	µg/L	0.0105	ppb	13:53:26
1	Be 313.107†	-783.1	232.3	0.0636	µg/L	0.0636	ppb	13:53:05
1	Cd 226.502†	-48.4	39.8	0.2495	µg/L	0.2495	ppb	13:53:26
1	Co 228.616†	-193.6	3.3	0.0403	µg/L	0.0403	ppb	13:53:26
1	Cr 267.716†	290.8	26.7	0.2183	µg/L	0.2183	ppb	13:53:26
1	Cu 324.752†	3215.9	8.2	0.0332	µg/L	0.0332	ppb	13:53:05
1	Mn 257.610†	243.6	68.1	0.0853	µg/L	0.0853	ppb	13:53:26
1	Mo 202.031†	-26.3	-5.9	-0.1828	µg/L	-0.1828	ppb	13:53:26
1	Ni 231.604†	-93.9	-2.2	-0.0258	µg/L	-0.0258	ppb	13:53:26
1	P 214.914†	-10.7	-4.9	-1.0680	µg/L	-1.0680	ppb	13:53:26
1	Pb 220.353†	121.8	7.8	0.4507	µg/L	0.4507	ppb	13:53:26
1	S 181.975 Axial†	316.1	-12.0	-10.695	µg/L	-10.695	ppb	13:53:26
1	Sb 206.836†	71.6	-9.2	-1.1121	µg/L	-1.1121	ppb	13:53:26
1	Se 196.026†	16.2	-4.4	-1.64	µg/L	-1.64	ppb	13:53:26
1	SiO2†	1815.9	14.6	1.4536	µg/L	1.4536	ppb	13:53:05
1	Si 251.611†	829.4	167.2	2.4537	µg/L	2.4537	ppb	13:53:05
1	Sn 189.927†	1.3	-4.5	-0.2980	µg/L	-0.2980	ppb	13:53:26
1	Ti 334.940†	840.7	63.9	0.0621	µg/L	0.0621	ppb	13:53:05
1	Tl 190.801†	-113.7	3.1	0.4113	µg/L	0.4113	ppb	13:53:26
1	U 409.014†	-286.3	6.8	0.4509	µg/L	0.4509	ppb	13:53:05
1	V 292.402†	558.9	182.2	0.8788	µg/L	0.8788	ppb	13:53:05
1	Zn 213.857†	655.6	50.6	0.2807	µg/L	0.2807	ppb	13:53:26
2	Sc RADIAL	130857.8	130857.8	102	%			13:52:03
2	Al 396.153Radial†	-99.1	-11.6	-2.4667	µg/L	-2.4667	ppb	13:52:23
2	Ca 317.933Radial†	538.6	22.3	1.5321	µg/L	1.5321	ppb	13:52:23
2	Fe 238.204 Radial†	164.8	40.4	2.9994	µg/L	2.9994	ppb	13:52:23
2	K 766.490 Radial†	1607.1	13.3	5.0812	µg/L	5.0812	ppb	13:52:03
2	Mg 279.077 IEC†	162.5	-3.5	-1.6369	µg/L	-1.6369	ppb	13:52:23
2	Na 589.592 Radial†	1160.2	208.8	30.964	µg/L	30.964	ppb	13:52:03
2	Sr 421.552†	-17.4	88.5	0.2045	µg/L	0.2045	ppb	13:52:03
2	Sc 361.383	1717419.4	1717419.4	99.797	%			13:53:28
2	Y 371.029	993844.5	993844.5	99.788	%			13:53:28
2	Ag 328.068†	4668.6	77.7	0.3000	µg/L	0.3000	ppb	13:53:30
2	As 188.979†	-13.9	-5.3	-1.7516	µg/L	-1.7516	ppb	13:53:50
2	B 249.677†	4103.8	116.6	1.6742	µg/L	1.6742	ppb	13:53:30
2	Ba 233.527†	-164.2	-24.6	-0.1042	µg/L	-0.1042	ppb	13:53:50
2	Be 313.107†	-817.2	191.4	0.0533	µg/L	0.0533	ppb	13:53:30
2	Cd 226.502†	-41.3	46.5	0.2916	µg/L	0.2916	ppb	13:53:50
2	Co 228.616†	-197.4	-2.2	-0.0270	µg/L	-0.0270	ppb	13:53:50
2	Cr 267.716†	225.9	-35.9	-0.2958	µg/L	-0.2958	ppb	13:53:50
2	Cu 324.752†	3325.7	145.7	0.5778	µg/L	0.5778	ppb	13:53:30
2	Mn 257.610†	258.8	85.4	0.1073	µg/L	0.1073	ppb	13:53:50
2	Mo 202.031†	-21.5	-1.3	-0.0403	µg/L	-0.0403	ppb	13:53:50
2	Ni 231.604†	-64.5	26.5	0.3112	µg/L	0.3112	ppb	13:53:50
2	P 214.914†	-8.0	-2.4	-0.5161	µg/L	-0.5161	ppb	13:53:50
2	Pb 220.353†	106.4	-6.7	-0.3916	µg/L	-0.3916	ppb	13:53:50

2	S 181.975 Axial†	322.7	-2.7	-2.4321 µg/L	-2.4321 ppb	13:53:50
2	Sb 206.836†	95.5	15.3	1.8548 µg/L	1.8548 ppb	13:53:50
2	Se 196.026†	30.5	10.1	3.75 µg/L	3.75 ppb	13:53:50
2	SiO2†	1857.4	71.8	7.1036 µg/L	7.1036 ppb	13:53:30
2	Si 251.611†	778.6	123.4	1.8076 µg/L	1.8076 ppb	13:53:30
2	Sn 189.927†	6.6	0.8	0.0518 µg/L	0.0518 ppb	13:53:50
2	Ti 334.940†	786.5	16.8	0.0155 µg/L	0.0155 ppb	13:53:30
2	Tl 190.801†	-112.7	3.1	0.3983 µg/L	0.3983 ppb	13:53:50
2	U 409.014†	-235.7	55.1	3.2022 µg/L	3.2022 ppb	13:53:30
2	V 292.402†	285.8	-86.7	-0.4184 µg/L	-0.4184 ppb	13:53:30
2	Zn 213.857†	659.8	60.4	0.3324 µg/L	0.3324 ppb	13:53:50
3	Sc RADIAL	128046.0	128046.0	99.6 %		13:52:25
3	Al 396.153Radial†	-93.8	-8.5	-1.8424 µg/L	-1.8424 ppb	13:52:45
3	Ca 317.933Radial†	507.7	2.9	0.2011 µg/L	0.2011 ppb	13:52:45
3	Fe 238.204 Radial†	154.5	33.6	2.4959 µg/L	2.4959 ppb	13:52:45
3	K 766.490 Radial†	1679.7	120.9	46.182 µg/L	46.182 ppb	13:52:25
3	Mg 279.077 IEC†	171.0	8.6	3.9929 µg/L	3.9929 ppb	13:52:45
3	Na 589.592 Radial†	1174.7	248.4	36.792 µg/L	36.792 ppb	13:52:25
3	Sr 421.552†	-51.3	54.2	0.1251 µg/L	0.1251 ppb	13:52:25
3	Sc 361.383	1738640.5	1738640.5	101.03 %		13:53:52
3	Y 371.029	1004823.8	1004823.8	100.89 %		13:53:52
3	Ag 328.068†	4483.3	-162.8	-0.6214 µg/L	-0.6214 ppb	13:53:54
3	As 188.979†	-5.7	3.0	0.9919 µg/L	0.9919 ppb	13:54:14
3	B 249.677†	4112.9	75.5	1.0838 µg/L	1.0838 ppb	13:53:54
3	Ba 233.527†	-139.4	2.0	0.0090 µg/L	0.0090 ppb	13:54:14
3	Be 313.107†	-605.9	410.6	0.1136 µg/L	0.1136 ppb	13:53:54
3	Cd 226.502†	-47.1	41.3	0.2587 µg/L	0.2587 ppb	13:54:14
3	Co 228.616†	-209.3	-11.6	-0.1427 µg/L	-0.1427 ppb	13:54:14
3	Cr 267.716†	230.2	-34.4	-0.2851 µg/L	-0.2851 ppb	13:54:14
3	Cu 324.752†	3111.3	-107.2	-0.4185 µg/L	-0.4185 ppb	13:53:54
3	Mn 257.610†	283.0	106.2	0.1332 µg/L	0.1332 ppb	13:54:14
3	Mo 202.031†	4.2	24.4	0.7602 µg/L	0.7602 ppb	13:54:14
3	Ni 231.604†	-72.9	19.0	0.2228 µg/L	0.2228 ppb	13:54:14
3	P 214.914†	-0.9	4.8	1.0283 µg/L	1.0283 ppb	13:54:14
3	Pb 220.353†	98.1	-16.2	-0.9402 µg/L	-0.9402 ppb	13:54:14
3	S 181.975 Axial†	323.9	-5.4	-4.8325 µg/L	-4.8325 ppb	13:54:14
3	Sb 206.836†	90.5	9.3	1.1348 µg/L	1.1348 ppb	13:54:14
3	Se 196.026†	24.4	3.7	1.38 µg/L	1.38 ppb	13:54:14
3	SiO2†	1704.6	-102.3	-10.148 µg/L	-10.148 ppb	13:53:54
3	Si 251.611†	861.9	196.3	2.8641 µg/L	2.8641 ppb	13:53:54
3	Sn 189.927†	8.1	2.2	0.1436 µg/L	0.1436 ppb	13:54:14
3	Ti 334.940†	783.1	3.9	0.0016 µg/L	0.0016 ppb	13:53:54
3	Tl 190.801†	-111.4	5.8	0.7585 µg/L	0.7585 ppb	13:54:14
3	U 409.014†	-211.0	82.5	4.8466 µg/L	4.8466 ppb	13:53:54
3	V 292.402†	440.9	63.4	0.3155 µg/L	0.3155 ppb	13:53:54
3	Zn 213.857†	657.8	50.3	0.2781 µg/L	0.2781 ppb	13:54:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729422.4	100.49	%	0.632				0.63%
Sc RADIAL	129778.8	101	%	1.2				1.17%
Y 371.029	1000386.9	100.44	%	0.581				0.58%
Ag 328.068†	50.3	0.2014	µg/L	0.77818	0.2014	ppb	0.77818	386.41%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.0	-0.2120	µg/L	3.37899	-0.2120	ppb	3.37899	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.2	-0.3970	µg/L	1.37211	-0.3970	ppb	1.37211	345.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	83.5	1.1986	µg/L	0.42986	1.1986	ppb	0.42986	35.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.7	-0.0283	µg/L	0.06580	-0.0283	ppb	0.06580	232.75%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	278.1	0.0768	µg/L	0.03228	0.0768	ppb	0.03228	42.01%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.1	0.5582	µg/L	0.85335	0.5582	ppb	0.85335	152.87%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	42.6	0.2666	µg/L	0.02211	0.2666	ppb	0.02211	8.29%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.5	-0.0432	µg/L	0.09256	-0.0432	ppb	0.09256	214.42%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -14.5     -0.1208 µg/L       0.29378     -0.1208 ppb        0.29378 243.11%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               15.6      0.0642 µg/L       0.49885      0.0642 ppb        0.49885 777.44%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        34.9      2.5920 µg/L       0.36886      2.5920 ppb        0.36886  14.23%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         93.8      35.844 µg/L       27.1145      35.844 ppb        27.1145  75.65%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            6.2      2.8671 µg/L       4.05991      2.8671 ppb        4.05991 141.60%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               86.5      0.1086 µg/L       0.02399      0.1086 ppb        0.02399  22.10%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.7      0.1791 µg/L       0.50829      0.1791 ppb        0.50829 283.87%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       246.7      36.545 µg/L        5.4618      36.545 ppb         5.4618  14.95%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               14.4      0.1694 µg/L       0.17474      0.1694 ppb        0.17474 103.15%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.8     -0.1853 µg/L       1.08659     -0.1853 ppb        1.08659 586.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -5.0     -0.2937 µg/L       0.70062     -0.2937 ppb        0.70062 238.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -6.7     -5.9864 µg/L       4.25038     -5.9864 ppb        4.25038  71.00%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.1      0.6259 µg/L       1.54754      0.6259 ppb        1.54754 247.27%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.1        1.16 µg/L         2.704        1.16 ppb          2.704 232.56%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -5.3     -0.5301 µg/L       8.79497     -0.5301 ppb        8.79497 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              162.3      2.3752 µg/L       0.53259      2.3752 ppb        0.53259  22.42%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.5     -0.0342 µg/L       0.23300     -0.0342 ppb        0.23300 681.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               39.9      0.0922 µg/L       0.13196      0.0922 ppb        0.13196 143.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               28.2      0.0264 µg/L       0.03169      0.0264 ppb        0.03169 120.06%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.0      0.5227 µg/L       0.20429      0.5227 ppb        0.20429  39.08%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                48.2      2.8332 µg/L       2.22095      2.8332 ppb        2.22095  78.39%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                53.0      0.2586 µg/L       0.65048      0.2586 ppb        0.65048 251.52%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               53.8      0.2970 µg/L       0.03062      0.2970 ppb        0.03062  10.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 4/7/2010 13:58:22 **Plasma On Time: 3/29/2010 18:07:58**
Logged In Analyst: optima4 **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0022701Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\040710.sif
Batch ID:
Results Data Set: 040710
Results Library: C:\pe\optima4\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 301**
Sample ID: 1202089225|972603|1 **Date Collected: 4/7/2010 13:58:24**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202089225|972603|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	126158.1	126158.1	98.2	%			13:58:55
1	Al 396.153Radial†	-84.9	-0.9	-0.1423	µg/L	-0.1423	ppb	13:59:15
1	Ca 317.933Radial†	702.6	209.2	14.349	µg/L	14.349	ppb	13:59:15
1	Fe 238.204 Radial†	848.0	742.3	55.096	µg/L	55.096	ppb	13:59:15
1	K 766.490 Radial†	1475.5	-61.9	-23.673	µg/L	-23.673	ppb	13:58:55
1	Mg 279.077 IEC†	177.9	18.1	8.3169	µg/L	8.3169	ppb	13:59:15
1	Na 589.592 Radial†	1601.0	700.3	103.87	µg/L	103.87	ppb	13:58:55
1	Sr 421.552†	-48.1	56.6	0.1307	µg/L	0.1307	ppb	13:58:55
1	Sc 361.383	1686932.0	1686932.0	98.025	%			14:00:17
1	Y 371.029	975808.9	975808.9	97.977	%			14:00:17
1	Ag 328.068†	4674.8	168.6	0.6531	µg/L	0.6531	ppb	14:00:19
1	As 188.979†	-14.9	-6.6	-2.1463	µg/L	-2.1463	ppb	14:00:39
1	B 249.677†	4012.9	98.2	1.4107	µg/L	1.4107	ppb	14:00:19
1	Ba 233.527†	-74.7	63.8	0.2691	µg/L	0.2691	ppb	14:00:39
1	Be 313.107†	-815.7	178.1	0.0483	µg/L	0.0483	ppb	14:00:19
1	Cd 226.502†	-73.6	12.8	0.0747	µg/L	0.0747	ppb	14:00:39
1	Co 228.616†	-202.9	-11.3	-0.1423	µg/L	-0.1423	ppb	14:00:39
1	Cr 267.716†	292.9	36.6	0.3016	µg/L	0.3016	ppb	14:00:39
1	Cu 324.752†	3282.7	162.1	0.6467	µg/L	0.6467	ppb	14:00:19
1	Mn 257.610†	974.4	820.1	1.0298	µg/L	1.0298	ppb	14:00:39
1	Mo 202.031†	-46.3	-27.0	-0.8373	µg/L	-0.8373	ppb	14:00:39
1	Ni 231.604†	-81.3	8.2	0.0960	µg/L	0.0960	ppb	14:00:39
1	P 214.914†	26.1	32.3	6.9456	µg/L	6.9456	ppb	14:00:39
1	Pb 220.353†	88.4	-23.1	-1.3442	µg/L	-1.3442	ppb	14:00:39
1	S 181.975 Axial†	309.4	-10.4	-9.2819	µg/L	-9.2819	ppb	14:00:39
1	Sb 206.836†	88.7	10.2	1.2129	µg/L	1.2129	ppb	14:00:39
1	Se 196.026†	31.5	11.7	4.35	µg/L	4.35	ppb	14:00:39
1	SiO2†	2148.6	402.4	39.865	µg/L	39.865	ppb	14:00:19
1	Si 251.611†	2086.0	1471.2	21.562	µg/L	21.562	ppb	14:00:19
1	Sn 189.927†	5.6	-0.2	-0.0109	µg/L	-0.0109	ppb	14:00:39
1	Ti 334.940†	1038.3	287.9	0.2831	µg/L	0.2831	ppb	14:00:19
1	Tl 190.801†	-106.0	7.9	1.0360	µg/L	1.0360	ppb	14:00:39
1	U 409.014†	-305.6	-20.4	-1.1869	µg/L	-1.1869	ppb	14:00:19
1	V 292.402†	407.0	42.2	0.1894	µg/L	0.1894	ppb	14:00:19
1	Zn 213.857†	1120.7	542.6	3.0047	µg/L	3.0047	ppb	14:00:39
2	Sc RADIAL	126575.8	126575.8	98.5	%			13:59:17
2	Al 396.153Radial†	-68.2	16.4	3.4725	µg/L	3.4725	ppb	13:59:37
2	Ca 317.933Radial†	727.1	231.7	15.893	µg/L	15.893	ppb	13:59:37
2	Fe 238.204 Radial†	861.8	753.5	55.924	µg/L	55.924	ppb	13:59:37
2	K 766.490 Radial†	1662.0	122.5	46.781	µg/L	46.781	ppb	13:59:17
2	Mg 279.077 IEC†	160.4	-0.2	-0.1480	µg/L	-0.1480	ppb	13:59:37
2	Na 589.592 Radial†	1711.0	806.6	119.57	µg/L	119.57	ppb	13:59:17
2	Sr 421.552†	-97.7	6.4	0.0147	µg/L	0.0147	ppb	13:59:17
2	Sc 361.383	1674481.6	1674481.6	97.302	%			14:00:41
2	Y 371.029	968155.7	968155.7	97.208	%			14:00:41
2	Ag 328.068†	4556.1	82.0	0.3255	µg/L	0.3255	ppb	14:00:43
2	As 188.979†	-5.8	2.6	0.8783	µg/L	0.8783	ppb	14:01:03

2	B 249.677†	4042.9	159.4	2.2899 µg/L	2.2899 ppb		14:00:43
2	Ba 233.527†	-109.9	27.1	0.1136 µg/L	0.1136 ppb		14:01:03
2	Be 313.107†	-625.9	367.0	0.1034 µg/L	0.1034 ppb		14:00:43
2	Cd 226.502†	-42.6	44.1	0.2710 µg/L	0.2710 ppb		14:01:03
2	Co 228.616†	-208.2	-18.3	-0.2291 µg/L	-0.2291 ppb		14:01:03
2	Cr 267.716†	303.7	49.9	0.4013 µg/L	0.4013 ppb		14:01:03
2	Cu 324.752†	3133.6	33.7	0.1495 µg/L	0.1495 ppb		14:00:43
2	Mn 257.610†	1008.3	862.3	1.0831 µg/L	1.0831 ppb		14:01:03
2	Mo 202.031†	-21.3	-1.7	-0.0495 µg/L	-0.0495 ppb		14:01:03
2	Ni 231.604†	-66.2	23.1	0.2705 µg/L	0.2705 ppb		14:01:03
2	P 214.914†	-19.7	-14.6	-3.1855 µg/L	-3.1855 ppb		14:01:03
2	Pb 220.353†	99.8	-10.7	-0.6287 µg/L	-0.6287 ppb		14:01:03
2	S 181.975 Axial†	326.0	9.0	8.0206 µg/L	8.0206 ppb		14:01:03
2	Sb 206.836†	87.5	9.6	1.1498 µg/L	1.1498 ppb		14:01:03
2	Se 196.026†	21.7	1.8	0.700 µg/L	0.700 ppb		14:01:03
2	SiO2†	2133.1	402.8	39.874 µg/L	39.874 ppb		14:00:43
2	Si 251.611†	1885.3	1280.8	18.758 µg/L	18.758 ppb		14:00:43
2	Sn 189.927†	13.9	8.4	0.5528 µg/L	0.5528 ppb		14:01:03
2	Ti 334.940†	763.5	13.5	0.0093 µg/L	0.0093 ppb		14:00:43
2	Tl 190.801†	-109.3	3.7	0.4849 µg/L	0.4849 ppb		14:01:03
2	U 409.014†	-113.7	174.4	10.183 µg/L	10.183 ppb		14:00:43
2	V 292.402†	299.6	-65.1	-0.3123 µg/L	-0.3123 ppb		14:00:43
2	Zn 213.857†	1151.5	582.7	3.2266 µg/L	3.2266 ppb		14:01:03
3	Sc RADIAL	127354.5	127354.5	99.1 %			13:59:39
3	Al 396.153Radial†	-88.7	-3.8	-0.7929 µg/L	-0.7929 ppb		13:59:59
3	Ca 317.933Radial†	714.2	214.1	14.685 µg/L	14.685 ppb		13:59:59
3	Fe 238.204 Radial†	872.4	758.9	56.325 µg/L	56.325 ppb		13:59:59
3	K 766.490 Radial†	1629.7	79.5	30.367 µg/L	30.367 ppb		13:59:39
3	Mg 279.077 IEC†	158.5	-3.1	-1.4998 µg/L	-1.4998 ppb		13:59:59
3	Na 589.592 Radial†	1751.2	836.5	124.02 µg/L	124.02 ppb		13:59:39
3	Sr 421.552†	143.5	250.4	0.5785 µg/L	0.5785 ppb		13:59:39
3	Sc 361.383	1708500.8	1708500.8	99.278 %			14:01:06
3	Y 371.029	987821.4	987821.4	99.183 %			14:01:06
3	Ag 328.068†	4572.8	5.6	0.0147 µg/L	0.0147 ppb		14:01:08
3	As 188.979†	-17.6	-9.1	-2.9828 µg/L	-2.9828 ppb		14:01:28
3	B 249.677†	4169.6	204.3	2.9333 µg/L	2.9333 ppb		14:01:08
3	Ba 233.527†	-99.1	40.2	0.1692 µg/L	0.1692 ppb		14:01:28
3	Be 313.107†	-873.4	130.6	0.0336 µg/L	0.0336 ppb		14:01:08
3	Cd 226.502†	-66.3	21.2	0.1271 µg/L	0.1271 ppb		14:01:28
3	Co 228.616†	-181.1	13.2	0.1607 µg/L	0.1607 ppb		14:01:28
3	Cr 267.716†	289.9	29.8	0.2504 µg/L	0.2504 ppb		14:01:28
3	Cu 324.752†	3329.0	166.4	0.6593 µg/L	0.6593 ppb		14:01:08
3	Mn 257.610†	964.6	797.7	1.0020 µg/L	1.0020 ppb		14:01:28
3	Mo 202.031†	-33.0	-13.0	-0.4028 µg/L	-0.4028 ppb		14:01:28
3	Ni 231.604†	-49.1	41.6	0.4884 µg/L	0.4884 ppb		14:01:28
3	P 214.914†	-6.4	-0.8	-0.2075 µg/L	-0.2075 ppb		14:01:28
3	Pb 220.353†	98.2	-14.4	-0.8318 µg/L	-0.8318 ppb		14:01:28
3	S 181.975 Axial†	312.7	-11.1	-9.9055 µg/L	-9.9055 ppb		14:01:28
3	Sb 206.836†	79.5	-0.2	-0.0334 µg/L	-0.0334 ppb		14:01:28
3	Se 196.026†	13.3	-7.1	-2.64 µg/L	-2.64 ppb		14:01:28
3	SiO2†	2110.8	336.6	33.323 µg/L	33.323 ppb		14:01:08
3	Si 251.611†	1886.3	1243.2	18.208 µg/L	18.208 ppb		14:01:08
3	Sn 189.927†	21.5	15.7	1.0319 µg/L	1.0319 ppb		14:01:28
3	Ti 334.940†	923.7	159.2	0.1596 µg/L	0.1596 ppb		14:01:08
3	Tl 190.801†	-114.6	0.6	0.0848 µg/L	0.0848 ppb		14:01:28
3	U 409.014†	-403.2	-114.8	-6.7127 µg/L	-6.7127 ppb		14:01:08
3	V 292.402†	409.1	39.0	0.1747 µg/L	0.1747 ppb		14:01:08
3	Zn 213.857†	1160.5	568.2	3.1443 µg/L	3.1443 ppb		14:01:28

Mean Data: 1202089225|972603|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1689971.5	98.202	%	1.0002				1.02%
Sc RADIAL	126696.1	98.6	%	0.47				0.48%
Y 371.029	977262.0	98.123	%	0.9953				1.01%
Ag 328.068†	85.4	0.3311	µg/L	0.31921	0.3311	ppb	0.31921	96.41%
Al 396.153Radial†	3.9	0.8458	µg/L	2.29796	0.8458	ppb	2.29796	271.69%
As 188.979†	-4.4	-1.4169	µg/L	2.03124	-1.4169	ppb	2.03124	143.36%
B 249.677†	154.0	2.2113	µg/L	0.76437	2.2113	ppb	0.76437	34.57%
Ba 233.527†	43.7	0.1840	µg/L	0.07881	0.1840	ppb	0.07881	42.83%

Be 313.107†	225.2	0.0618	µg/L	0.03676	0.0618	ppb	0.03676	59.51%
Ca 317.933Radial†	218.3	14.976	µg/L	0.8119	14.976	ppb	0.8119	5.42%
Cd 226.502†	26.1	0.1576	µg/L	0.10165	0.1576	ppb	0.10165	64.50%
Co 228.616†	-5.5	-0.0702	µg/L	0.20469	-0.0702	ppb	0.20469	291.39%
Cr 267.716†	38.7	0.3178	µg/L	0.07673	0.3178	ppb	0.07673	24.15%
Cu 324.752†	120.8	0.4852	µg/L	0.29073	0.4852	ppb	0.29073	59.92%
Fe 238.204 Radial†	751.6	55.782	µg/L	0.6268	55.782	ppb	0.6268	1.12%
K 766.490 Radial†	46.7	17.825	µg/L	36.8631	17.825	ppb	36.8631	206.81%
Mg 279.077 IEC†	4.9	2.2230	µg/L	5.32054	2.2230	ppb	5.32054	239.34%
Mn 257.610†	826.7	1.0383	µg/L	0.04124	1.0383	ppb	0.04124	3.97%
Mo 202.031†	-13.9	-0.4298	µg/L	0.39459	-0.4298	ppb	0.39459	91.80%
Na 589.592 Radial†	781.1	115.82	µg/L	10.586	115.82	ppb	10.586	9.14%
Ni 231.604†	24.3	0.2849	µg/L	0.19661	0.2849	ppb	0.19661	69.00%
P 214.914†	5.6	1.1842	µg/L	5.20697	1.1842	ppb	5.20697	439.71%
Pb 220.353†	-16.0	-0.9349	µg/L	0.36871	-0.9349	ppb	0.36871	39.44%
S 181.975 Axial†	-4.2	-3.7223	µg/L	10.17440	-3.7223	ppb	10.17440	273.34%
Sb 206.836†	6.5	0.7764	µg/L	0.70202	0.7764	ppb	0.70202	90.42%
Se 196.026†	2.1	0.802	µg/L	3.4975	0.802	ppb	3.4975	435.88%
SiO2†	380.6	37.687	µg/L	3.7795	37.687	ppb	3.7795	10.03%
Si 251.611†	1331.8	19.509	µg/L	1.7985	19.509	ppb	1.7985	9.22%
Sn 189.927†	8.0	0.5246	µg/L	0.52197	0.5246	ppb	0.52197	99.51%
Sr 421.552†	104.5	0.2413	µg/L	0.29771	0.2413	ppb	0.29771	123.36%
Ti 334.940†	153.5	0.1507	µg/L	0.13708	0.1507	ppb	0.13708	90.99%
Tl 190.801†	4.1	0.5352	µg/L	0.47762	0.5352	ppb	0.47762	89.24%
U 409.014†	13.1	0.7610	µg/L	8.61440	0.7610	ppb	8.61440	>999.9%
V 292.402†	5.4	0.0172	µg/L	0.28552	0.0172	ppb	0.28552	>999.9%
Zn 213.857†	564.5	3.1252	µg/L	0.11217	3.1252	ppb	0.11217	3.59%

Sequence No.: 2
Sample ID: 1202089226|972603|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 302
Date Collected: 4/7/2010 14:01:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202089226|972603|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130600.6	130600.6	102	%			14:02:08
1	Al 396.153Radial†	367023.4	361215.5	76520	µg/L	76520	ppb	14:02:08
1	Ca 317.933Radial†	1390140.7	1367311.8	93795	µg/L	93795	ppb	14:02:08
1	Fe 238.204 Radial†	2512465.6	2472000.0	183470	µg/L	183470	ppb	14:02:06
1	K 766.490 Radial†	105763.0	102499.9	39119	µg/L	39119	ppb	14:02:08
1	Mg 279.077 IEC†	79029.0	77597.0	35802	µg/L	35802	ppb	14:02:08
1	Na 589.592 Radial†	66175.1	64182.1	9482.5	µg/L	9482.5	ppb	14:02:08
1	Sr 421.552†	989075.0	973298.5	2248.5	µg/L	2248.5	ppb	14:02:06
1	Sc 361.383	1700036.7	1700036.7	98.787	%			14:02:37
1	Y 371.029	1048136.6	1048136.6	105.24	%			14:02:37
1	Ag 328.068†	80863.0	77255.9	308.70	µg/L	308.70	ppb	14:02:37
1	As 188.979†	3052.3	3098.4	1081.0	µg/L	1081.0	ppb	14:02:39
1	B 249.677†	98206.9	95417.7	1367.0	µg/L	1367.0	ppb	14:02:37
1	Ba 233.527†	428442.2	433845.1	1834.0	µg/L	1834.0	ppb	14:02:37
1	Be 313.107†	2779750.2	2814906.5	769.09	µg/L	769.09	ppb	14:02:37
1	Cd 226.502†	92025.3	93243.7	565.88	µg/L	565.88	ppb	14:02:37
1	Co 228.616†	70482.4	71543.8	875.43	µg/L	875.43	ppb	14:02:37
1	Cr 267.716†	271977.2	275055.9	2253.7	µg/L	2253.7	ppb	14:02:37
1	Cu 324.752†	439490.7	441702.5	1770.5	µg/L	1770.5	ppb	14:02:37
1	Mn 257.610†	4083658.4	4133647.3	5191.0	µg/L	5191.0	ppb	14:02:37
1	Mo 202.031†	16011.0	16228.0	513.39	µg/L	513.39	ppb	14:02:39
1	Ni 231.604†	106782.6	108185.4	1269.2	µg/L	1269.2	ppb	14:02:37
1	P 214.914†	37299.0	37762.9	8040.3	µg/L	8040.3	ppb	14:02:39
1	Pb 220.353†	13991.5	14050.1	823.61	µg/L	823.61	ppb	14:02:39
1	S 181.975 Axial†	4683.8	4415.3	3941.2	µg/L	3941.2	ppb	14:02:39
1	Sb 206.836†	14352.6	14448.6	1719.3	µg/L	1719.3	ppb	14:02:39
1	Se 196.026†	7483.0	7554.4	2870	µg/L	2870	ppb	14:02:39
1	SiO2†	153066.4	153157.2	15133	µg/L	15133	ppb	14:02:37
1	Si 251.611†	478101.4	483317.5	7065.8	µg/L	7065.8	ppb	14:02:37
1	Sn 189.927†	15910.5	16100.1	1075.2	µg/L	1075.2	ppb	14:02:39
1	Ti 334.940†	5893702.4	5965328.4	5861.6	µg/L	5861.6	ppb	14:02:37
1	Tl 190.801†	8487.5	8707.8	1208.8	µg/L	1208.8	ppb	14:02:39
1	U 409.014†	-4139.0	-3898.6	-165.04	µg/L	-165.04	ppb	14:02:37
1	V 292.402†	248311.5	250988.6	1201.8	µg/L	1201.8	ppb	14:02:37
1	Zn 213.857†	1010361.9	1022172.2	5648.1	µg/L	5648.1	ppb	14:02:37
2	Sc RADIAL	130016.4	130016.4	101	%			14:02:12
2	Al 396.153Radial†	366092.2	361917.9	76669	µg/L	76669	ppb	14:02:12
2	Ca 317.933Radial†	1382327.9	1365736.1	93687	µg/L	93687	ppb	14:02:12
2	Fe 238.204 Radial†	2562306.9	2532369.6	187950	µg/L	187950	ppb	14:02:10
2	K 766.490 Radial†	105025.3	102238.3	39019	µg/L	39019	ppb	14:02:12
2	Mg 279.077 IEC†	78397.1	77321.7	35670	µg/L	35670	ppb	14:02:12
2	Na 589.592 Radial†	66174.5	64474.0	9525.9	µg/L	9525.9	ppb	14:02:12
2	Sr 421.552†	1003518.5	991946.9	2291.6	µg/L	2291.6	ppb	14:02:10
2	Sc 361.383	1704765.1	1704765.1	99.061	%			14:02:43
2	Y 371.029	1052299.3	1052299.3	105.66	%			14:02:43
2	Ag 328.068†	81371.3	77542.0	309.82	µg/L	309.82	ppb	14:02:43
2	As 188.979†	3011.1	3048.2	1065.6	µg/L	1065.6	ppb	14:02:45
2	B 249.677†	98721.2	95661.1	1370.5	µg/L	1370.5	ppb	14:02:43
2	Ba 233.527†	430063.4	434278.7	1835.8	µg/L	1835.8	ppb	14:02:43
2	Be 313.107†	2786330.4	2813744.3	768.77	µg/L	768.77	ppb	14:02:43
2	Cd 226.502†	92798.5	93765.8	568.68	µg/L	568.68	ppb	14:02:43
2	Co 228.616†	70743.3	71609.3	876.01	µg/L	876.01	ppb	14:02:43
2	Cr 267.716†	273005.4	275330.2	2256.1	µg/L	2256.1	ppb	14:02:43
2	Cu 324.752†	441128.4	442121.9	1772.8	µg/L	1772.8	ppb	14:02:43
2	Mn 257.610†	4100089.8	4138768.9	5197.4	µg/L	5197.4	ppb	14:02:43
2	Mo 202.031†	16065.2	16237.7	513.87	µg/L	513.87	ppb	14:02:45
2	Ni 231.604†	107093.6	108199.6	1269.4	µg/L	1269.4	ppb	14:02:43
2	P 214.914†	37586.8	37948.6	8077.4	µg/L	8077.4	ppb	14:02:45
2	Pb 220.353†	13985.2	14004.4	820.82	µg/L	820.82	ppb	14:02:45

2	S 181.975 Axial†	4702.9	4421.4	3946.7	µg/L	3946.7 ppb	14:02:45
2	Sb 206.836†	14506.4	14563.6	1733.1	µg/L	1733.1 ppb	14:02:45
2	Se 196.026†	7559.6	7610.7	2890	µg/L	2890 ppb	14:02:45
2	SiO2†	156451.0	156144.1	15428	µg/L	15428 ppb	14:02:43
2	Si 251.611†	489149.9	493128.3	7209.5	µg/L	7209.5 ppb	14:02:43
2	Sn 189.927†	15930.6	16075.6	1073.5	µg/L	1073.5 ppb	14:02:45
2	Ti 334.940†	5906333.6	5961531.6	5857.9	µg/L	5857.9 ppb	14:02:43
2	Tl 190.801†	8434.2	8630.2	1198.7	µg/L	1198.7 ppb	14:02:45
2	U 409.014†	-4229.4	-3978.1	-170.50	µg/L	-170.50 ppb	14:02:43
2	V 292.402†	249641.0	251633.6	1204.4	µg/L	1204.4 ppb	14:02:43
2	Zn 213.857†	1015612.4	1024635.7	5661.3	µg/L	5661.3 ppb	14:02:43
3	Sc RADIAL	130460.5	130460.5	102	%		14:02:17
3	Al 396.153Radial†	366297.9	360888.6	76451	µg/L	76451 ppb	14:02:17
3	Ca 317.933Radial†	1391335.0	1369956.7	93976	µg/L	93976 ppb	14:02:17
3	Fe 238.204 Radial†	2510613.7	2472829.8	183530	µg/L	183530 ppb	14:02:15
3	K 766.490 Radial†	105724.9	102574.0	39147	µg/L	39147 ppb	14:02:17
3	Mg 279.077 IEC†	79157.9	77807.4	35899	µg/L	35899 ppb	14:02:17
3	Na 589.592 Radial†	66728.8	64797.4	9573.7	µg/L	9573.7 ppb	14:02:17
3	Sr 421.552†	990246.7	975497.3	2253.6	µg/L	2253.6 ppb	14:02:15
3	Sc 361.383	1708152.3	1708152.3	99.258	%		14:02:49
3	Y 371.029	1054180.4	1054180.4	105.85	%		14:02:49
3	Ag 328.068†	81640.5	77650.3	310.24	µg/L	310.24 ppb	14:02:49
3	As 188.979†	3025.2	3056.4	1067.3	µg/L	1067.3 ppb	14:02:51
3	B 249.677†	99108.3	95853.5	1373.2	µg/L	1373.2 ppb	14:02:49
3	Ba 233.527†	431302.4	434666.1	1837.5	µg/L	1837.5 ppb	14:02:49
3	Be 313.107†	2794225.8	2816121.2	769.42	µg/L	769.42 ppb	14:02:49
3	Cd 226.502†	92847.8	93629.7	568.29	µg/L	568.29 ppb	14:02:49
3	Co 228.616†	70834.5	71559.6	875.63	µg/L	875.63 ppb	14:02:49
3	Cr 267.716†	273582.3	275364.9	2256.2	µg/L	2256.2 ppb	14:02:49
3	Cu 324.752†	441694.8	441809.4	1770.9	µg/L	1770.9 ppb	14:02:49
3	Mn 257.610†	4112663.8	4143229.5	5203.0	µg/L	5203.0 ppb	14:02:49
3	Mo 202.031†	16160.5	16301.5	515.68	µg/L	515.68 ppb	14:02:51
3	Ni 231.604†	107713.1	108609.3	1274.2	µg/L	1274.2 ppb	14:02:49
3	P 214.914†	37547.1	37833.4	8055.4	µg/L	8055.4 ppb	14:02:51
3	Pb 220.353†	14036.0	14027.7	822.30	µg/L	822.30 ppb	14:02:51
3	S 181.975 Axial†	4712.7	4421.9	3947.2	µg/L	3947.2 ppb	14:02:51
3	Sb 206.836†	14509.8	14537.9	1730.1	µg/L	1730.1 ppb	14:02:51
3	Se 196.026†	7606.6	7643.0	2900	µg/L	2900 ppb	14:02:51
3	SiO2†	154717.3	154084.3	15224	µg/L	15224 ppb	14:02:49
3	Si 251.611†	483139.4	486093.8	7106.5	µg/L	7106.5 ppb	14:02:49
3	Sn 189.927†	15871.6	15984.3	1067.5	µg/L	1067.5 ppb	14:02:51
3	Ti 334.940†	5915756.0	5959201.5	5855.6	µg/L	5855.6 ppb	14:02:49
3	Tl 190.801†	8510.2	8689.8	1206.5	µg/L	1206.5 ppb	14:02:51
3	U 409.014†	-4221.7	-3962.0	-168.58	µg/L	-168.58 ppb	14:02:49
3	V 292.402†	249847.4	251341.8	1203.5	µg/L	1203.5 ppb	14:02:49
3	Zn 213.857†	1019078.1	1026094.3	5669.8	µg/L	5669.8 ppb	14:02:49

Mean Data: 1202089226|972603|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1704318.0	99.035	%	0.2369				0.24%
Sc RADIAL	130359.2	101	%	0.2				0.23%
Y 371.029	1051538.8	105.58	%	0.311				0.29%
Ag 328.068†	77482.7	309.59	µg/L	0.793	309.59	ppb	0.793	0.26%
Al 396.153Radial†	361340.7	76546	µg/L	111.5	76546	ppb	111.5	0.15%
As 188.979†	3067.7	1071.3	µg/L	8.46	1071.3	ppb	8.46	0.79%
B 249.677†	95644.1	1370.2	µg/L	3.14	1370.2	ppb	3.14	0.23%
Ba 233.527†	434263.3	1835.8	µg/L	1.74	1835.8	ppb	1.74	0.09%
Be 313.107†	2814924.0	769.09	µg/L	0.325	769.09	ppb	0.325	0.04%
Ca 317.933Radial†	1367668.2	93819	µg/L	146.3	93819	ppb	146.3	0.16%
Cd 226.502†	93546.4	567.62	µg/L	1.519	567.62	ppb	1.519	0.27%
Co 228.616†	71570.9	875.69	µg/L	0.293	875.69	ppb	0.293	0.03%
Cr 267.716†	275250.3	2255.3	µg/L	1.42	2255.3	ppb	1.42	0.06%
Cu 324.752†	441877.9	1771.4	µg/L	1.22	1771.4	ppb	1.22	0.07%
Fe 238.204 Radial†	2492399.8	184980	µg/L	2569.3	184980	ppb	2569.3	1.39%
K 766.490 Radial†	102437.4	39095	µg/L	67.4	39095	ppb	67.4	0.17%
Mg 279.077 IEC†	77575.4	35790	µg/L	114.8	35790	ppb	114.8	0.32%
Mn 257.610†	4138548.6	5197.1	µg/L	6.02	5197.1	ppb	6.02	0.12%
Mo 202.031†	16255.7	514.31	µg/L	1.210	514.31	ppb	1.210	0.24%
Na 589.592 Radial†	64484.5	9527.4	µg/L	45.63	9527.4	ppb	45.63	0.48%

Ni 231.604†	108331.4	1270.9	µg/L	2.82	1270.9	ppb	2.82	0.22%
P 214.914†	37848.3	8057.7	µg/L	18.66	8057.7	ppb	18.66	0.23%
Pb 220.353†	14027.4	822.25	µg/L	1.397	822.25	ppb	1.397	0.17%
S 181.975 Axial†	4419.5	3945.0	µg/L	3.32	3945.0	ppb	3.32	0.08%
Sb 206.836†	14516.7	1727.5	µg/L	7.25	1727.5	ppb	7.25	0.42%
Se 196.026†	7602.7	2890	µg/L	16.8	2890	ppb	16.8	0.58%
SiO2†	154461.9	15262	µg/L	151.4	15262	ppb	151.4	0.99%
Si 251.611†	487513.2	7127.3	µg/L	74.08	7127.3	ppb	74.08	1.04%
Sn 189.927†	16053.3	1072.1	µg/L	4.01	1072.1	ppb	4.01	0.37%
Sr 421.552†	980247.6	2264.6	µg/L	23.55	2264.6	ppb	23.55	1.04%
Ti 334.940†	5962020.5	5858.4	µg/L	3.04	5858.4	ppb	3.04	0.05%
Tl 190.801†	8675.9	1204.7	µg/L	5.28	1204.7	ppb	5.28	0.44%
U 409.014†	-3946.2	-168.04	µg/L	2.770	-168.04	ppb	2.770	1.65%
Concentration less than lower limit for U 409.014.								
V 292.402†	251321.3	1203.2	µg/L	1.35	1203.2	ppb	1.35	0.11%
Zn 213.857†	1024300.8	5659.7	µg/L	10.95	5659.7	ppb	10.95	0.19%

Sequence No.: 3
Sample ID: 248866001|972603|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 303
Date Collected: 4/7/2010 14:02:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248866001|972603|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130349.5	130349.5	101	%			14:03:31
1	Al 396.153Radial†	63819.9	63001.8	13350	µg/L	13350	ppb	14:03:29
1	Ca 317.933Radial†	66840.9	65387.7	4485.5	µg/L	4485.5	ppb	14:03:31
1	Fe 238.204 Radial†	717151.3	706873.7	52463	µg/L	52463	ppb	14:03:29
1	K 766.490 Radial†	7527.3	5855.8	2232.9	µg/L	2232.9	ppb	14:03:31
1	Mg 279.077 IEC†	6192.9	5942.2	2707.9	µg/L	2707.9	ppb	14:03:31
1	Na 589.592 Radial†	7092.7	6061.8	896.89	µg/L	896.89	ppb	14:03:31
1	Sr 421.552†	14100.7	14006.7	32.334	µg/L	32.334	ppb	14:03:31
1	Sc 361.383	1701067.3	1701067.3	98.846	%			14:03:58
1	Y 371.029	1140814.7	1140814.7	114.54	%			14:03:58
1	Ag 328.068†	4286.2	-264.2	-1.9817	µg/L	-1.9817	ppb	14:03:58
1	As 188.979†	20.5	29.4	21.547	µg/L	21.547	ppb	14:04:18
1	B 249.677†	4402.4	458.2	6.5454	µg/L	6.5454	ppb	14:03:58
1	Ba 233.527†	38778.4	39370.9	165.92	µg/L	165.92	ppb	14:03:58
1	Be 313.107†	13547.1	14715.5	3.9346	µg/L	3.9346	ppb	14:03:58
1	Cd 226.502†	772.4	869.3	-0.0597	µg/L	-0.0597	ppb	14:04:18
1	Co 228.616†	587.6	790.1	7.1784	µg/L	7.1784	ppb	14:04:18
1	Cr 267.716†	1600.2	1356.6	12.560	µg/L	12.560	ppb	14:04:18
1	Cu 324.752†	4467.1	1332.5	12.741	µg/L	12.741	ppb	14:03:58
1	Mn 257.610†	1753219.0	1773506.0	2227.7	µg/L	2227.7	ppb	14:03:58
1	Mo 202.031†	176.2	198.5	8.3174	µg/L	8.3174	ppb	14:04:18
1	Ni 231.604†	1232.9	1338.4	15.702	µg/L	15.702	ppb	14:04:18
1	P 214.914†	1852.4	1879.7	373.65	µg/L	373.65	ppb	14:04:18
1	Pb 220.353†	1248.4	1149.7	67.510	µg/L	67.510	ppb	14:04:18
1	S 181.975 Axial†	392.2	70.8	63.164	µg/L	63.164	ppb	14:04:18
1	Sb 206.836†	132.6	53.8	5.7638	µg/L	5.7638	ppb	14:04:18
1	Se 196.026†	-18.1	-38.8	3.51	µg/L	3.51	ppb	14:04:18
1	SiO2†	103411.0	102828.5	10179	µg/L	10179	ppb	14:03:58
1	Si 251.611†	320079.7	323158.4	4733.3	µg/L	4733.3	ppb	14:03:58
1	Sn 189.927†	258.4	255.5	20.237	µg/L	20.237	ppb	14:04:18
1	Ti 334.940†	1041114.6	1052493.7	1034.4	µg/L	1034.4	ppb	14:03:58
1	Tl 190.801†	-252.3	-139.2	-1.7188	µg/L	-1.7188	ppb	14:04:18
1	U 409.014†	-5112.7	-4881.1	-280.67	µg/L	-280.67	ppb	14:03:58
1	V 292.402†	8353.7	8078.2	32.428	µg/L	32.428	ppb	14:04:18
1	Zn 213.857†	33892.3	33687.2	181.96	µg/L	181.96	ppb	14:03:58
2	Sc RADIAL	129065.8	129065.8	100	%			14:03:35
2	Al 396.153Radial†	64174.5	63980.5	13558	µg/L	13558	ppb	14:03:33
2	Ca 317.933Radial†	66235.9	65440.8	4489.1	µg/L	4489.1	ppb	14:03:35
2	Fe 238.204 Radial†	722590.6	719320.9	53387	µg/L	53387	ppb	14:03:33
2	K 766.490 Radial†	7281.2	5684.6	2167.5	µg/L	2167.5	ppb	14:03:35
2	Mg 279.077 IEC†	6040.3	5851.0	2664.8	µg/L	2664.8	ppb	14:03:35
2	Na 589.592 Radial†	6770.2	5810.2	859.64	µg/L	859.64	ppb	14:03:35
2	Sr 421.552†	13984.7	14029.4	32.386	µg/L	32.386	ppb	14:03:35
2	Sc 361.383	1727174.4	1727174.4	100.36	%			14:04:20
2	Y 371.029	1154833.9	1154833.9	115.95	%			14:04:20
2	Ag 328.068†	4619.0	1.8	-0.9670	µg/L	-0.9670	ppb	14:04:20
2	As 188.979†	23.0	31.5	22.454	µg/L	22.454	ppb	14:04:41
2	B 249.677†	4407.9	396.4	5.6583	µg/L	5.6583	ppb	14:04:20
2	Ba 233.527†	39492.6	39489.6	166.41	µg/L	166.41	ppb	14:04:20
2	Be 313.107†	13838.3	14798.5	3.9572	µg/L	3.9572	ppb	14:04:20
2	Cd 226.502†	797.8	882.8	-0.0722	µg/L	-0.0722	ppb	14:04:41
2	Co 228.616†	569.0	762.6	6.7910	µg/L	6.7910	ppb	14:04:41
2	Cr 267.716†	1594.6	1326.6	12.345	µg/L	12.345	ppb	14:04:41
2	Cu 324.752†	4426.2	1223.5	12.444	µg/L	12.444	ppb	14:04:20
2	Mn 257.610†	1786277.9	1779635.2	2235.4	µg/L	2235.4	ppb	14:04:20
2	Mo 202.031†	172.8	192.4	8.1630	µg/L	8.1630	ppb	14:04:41
2	Ni 231.604†	1228.1	1314.8	15.425	µg/L	15.425	ppb	14:04:41
2	P 214.914†	1854.3	1853.3	367.36	µg/L	367.36	ppb	14:04:41
2	Pb 220.353†	1258.4	1140.6	66.966	µg/L	66.966	ppb	14:04:41

2	S 181.975 Axial†	393.8	66.4	59.226 µg/L	59.226 ppb	14:04:41
2	Sb 206.836†	120.9	40.1	4.0953 µg/L	4.0953 ppb	14:04:41
2	Se 196.026†	-34.0	-54.3	-1.94 µg/L	-1.94 ppb	14:04:41
2	SiO2†	100897.6	98742.8	9775.0 µg/L	9775.0 ppb	14:04:20
2	Si 251.611†	312687.2	310898.1	4553.8 µg/L	4553.8 ppb	14:04:20
2	Sn 189.927†	262.0	255.2	20.226 µg/L	20.226 ppb	14:04:41
2	Ti 334.940†	1060429.3	1055817.9	1037.7 µg/L	1037.7 ppb	14:04:20
2	Tl 190.801†	-265.0	-148.0	-2.8076 µg/L	-2.8076 ppb	14:04:41
2	U 409.014†	-5194.9	-4884.8	-281.09 µg/L	-281.09 ppb	14:04:20
2	V 292.402†	8347.7	7944.5	31.679 µg/L	31.679 ppb	14:04:41
2	Zn 213.857†	34746.0	34019.4	183.71 µg/L	183.71 ppb	14:04:20
3	Sc RADIAL	130413.2	130413.2	101 %		14:03:39
3	Al 396.153Radial†	65082.4	64215.0	13607 µg/L	13607 ppb	14:03:37
3	Ca 317.933Radial†	66957.4	65470.4	4491.1 µg/L	4491.1 ppb	14:03:39
3	Fe 238.204 Radial†	730609.3	719789.4	53422 µg/L	53422 ppb	14:03:37
3	K 766.490 Radial†	7467.5	5793.3	2209.0 µg/L	2209.0 ppb	14:03:39
3	Mg 279.077 IEC†	6165.0	5911.7	2692.9 µg/L	2692.9 ppb	14:03:39
3	Na 589.592 Radial†	7023.7	5990.4	886.33 µg/L	886.33 ppb	14:03:39
3	Sr 421.552†	13855.6	13758.3	31.760 µg/L	31.760 ppb	14:03:39
3	Sc 361.383	1729039.9	1729039.9	100.47 %		14:04:43
3	Y 371.029	1155844.4	1155844.4	116.05 %		14:04:43
3	Ag 328.068†	4619.6	-2.5	-0.9514 µg/L	-0.9514 ppb	14:04:43
3	As 188.979†	30.9	39.4	25.048 µg/L	25.048 ppb	14:05:04
3	B 249.677†	4458.5	442.0	6.3143 µg/L	6.3143 ppb	14:04:43
3	Ba 233.527†	39229.3	39185.1	165.12 µg/L	165.12 ppb	14:04:43
3	Be 313.107†	13524.0	14470.7	3.8736 µg/L	3.8736 ppb	14:04:43
3	Cd 226.502†	775.1	859.4	-0.2227 µg/L	-0.2227 ppb	14:05:04
3	Co 228.616†	563.1	756.1	6.7083 µg/L	6.7083 ppb	14:05:04
3	Cr 267.716†	1646.6	1376.6	12.743 µg/L	12.743 ppb	14:05:04
3	Cu 324.752†	4541.9	1333.8	12.902 µg/L	12.902 ppb	14:04:43
3	Mn 257.610†	1773647.0	1765143.3	2217.2 µg/L	2217.2 ppb	14:04:43
3	Mo 202.031†	179.1	198.5	8.3527 µg/L	8.3527 ppb	14:05:04
3	Ni 231.604†	1229.3	1314.7	15.424 µg/L	15.424 ppb	14:05:04
3	P 214.914†	1869.5	1866.3	370.17 µg/L	370.17 ppb	14:05:04
3	Pb 220.353†	1242.5	1123.4	65.947 µg/L	65.947 ppb	14:05:04
3	S 181.975 Axial†	384.2	56.4	50.315 µg/L	50.315 ppb	14:05:04
3	Sb 206.836†	135.3	54.4	5.8151 µg/L	5.8151 ppb	14:05:04
3	Se 196.026†	-19.2	-39.6	3.55 µg/L	3.55 ppb	14:05:04
3	SiO2†	100513.8	98252.3	9726.4 µg/L	9726.4 ppb	14:04:43
3	Si 251.611†	311610.7	309490.5	4533.1 µg/L	4533.1 ppb	14:04:43
3	Sn 189.927†	264.0	256.8	20.308 µg/L	20.308 ppb	14:05:04
3	Ti 334.940†	1053201.3	1047483.8	1029.5 µg/L	1029.5 ppb	14:04:43
3	Tl 190.801†	-262.8	-145.5	-2.6172 µg/L	-2.6172 ppb	14:05:04
3	U 409.014†	-4862.4	-4548.3	-261.51 µg/L	-261.51 ppb	14:04:43
3	V 292.402†	8416.5	8003.9	31.987 µg/L	31.987 ppb	14:05:04
3	Zn 213.857†	34513.0	33750.2	182.21 µg/L	182.21 ppb	14:04:43

Mean Data: 248866001|972603|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1719093.9	99.894	%	0.9088				0.91%
Sc RADIAL	129942.8	101	%	0.6				0.59%
Y 371.029	1150497.7	115.52	%	0.844				0.73%
Ag 328.068†	-88.3	-1.3000	µg/L	0.59039	-1.3000	ppb	0.59039	45.41%
Al 396.153Radial†	63732.4	13505	µg/L	136.4	13505	ppb	136.4	1.01%
As 188.979†	33.5	23.016	µg/L	1.8172	23.016	ppb	1.8172	7.90%
B 249.677†	432.2	6.1727	µg/L	0.46022	6.1727	ppb	0.46022	7.46%
Ba 233.527†	39348.5	165.81	µg/L	0.650	165.81	ppb	0.650	0.39%
Be 313.107†	14661.6	3.9218	µg/L	0.04325	3.9218	ppb	0.04325	1.10%
Ca 317.933Radial†	65433.0	4488.6	µg/L	2.87	4488.6	ppb	2.87	0.06%
Cd 226.502†	870.5	-0.1182	µg/L	0.09071	-0.1182	ppb	0.09071	76.73%
Co 228.616†	769.6	6.8926	µg/L	0.25099	6.8926	ppb	0.25099	3.64%
Cr 267.716†	1353.3	12.549	µg/L	0.1995	12.549	ppb	0.1995	1.59%
Cu 324.752†	1296.6	12.696	µg/L	0.2321	12.696	ppb	0.2321	1.83%
Fe 238.204 Radial†	715328.0	53091	µg/L	543.7	53091	ppb	543.7	1.02%
K 766.490 Radial†	5777.9	2203.1	µg/L	33.12	2203.1	ppb	33.12	1.50%
Mg 279.077 IEC†	5901.6	2688.5	µg/L	21.86	2688.5	ppb	21.86	0.81%
Mn 257.610†	1772761.5	2226.8	µg/L	9.14	2226.8	ppb	9.14	0.41%
Mo 202.031†	196.5	8.2777	µg/L	0.10092	8.2777	ppb	0.10092	1.22%
Na 589.592 Radial†	5954.1	880.95	µg/L	19.197	880.95	ppb	19.197	2.18%

Ni 231.604†	1322.6	15.517	µg/L	0.1606	15.517	ppb	0.1606	1.03%
P 214.914†	1866.4	370.39	µg/L	3.149	370.39	ppb	3.149	0.85%
Pb 220.353†	1137.9	66.808	µg/L	0.7935	66.808	ppb	0.7935	1.19%
S 181.975 Axial†	64.5	57.568	µg/L	6.5832	57.568	ppb	6.5832	11.44%
Sb 206.836†	49.4	5.2247	µg/L	0.97844	5.2247	ppb	0.97844	18.73%
Se 196.026†	-44.3	1.70	µg/L	3.158	1.70	ppb	3.158	185.41%
SiO2†	99941.2	9893.6	µg/L	248.73	9893.6	ppb	248.73	2.51%
Si 251.611†	314515.6	4606.7	µg/L	110.12	4606.7	ppb	110.12	2.39%
Sn 189.927†	255.8	20.257	µg/L	0.0444	20.257	ppb	0.0444	0.22%
Sr 421.552†	13931.5	32.160	µg/L	0.3475	32.160	ppb	0.3475	1.08%
Ti 334.940†	1051931.8	1033.9	µg/L	4.13	1033.9	ppb	4.13	0.40%
Tl 190.801†	-144.2	-2.3812	µg/L	0.58150	-2.3812	ppb	0.58150	24.42%
U 409.014†	-4771.4	-274.42	µg/L	11.188	-274.42	ppb	11.188	4.08%
Concentration less than lower limit for U 409.014.								
V 292.402†	8008.8	32.031	µg/L	0.3766	32.031	ppb	0.3766	1.18%
Zn 213.857†	33818.9	182.63	µg/L	0.948	182.63	ppb	0.948	0.52%

Sequence No.: 4
Sample ID: 1202068110|972603|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 304
Date Collected: 4/7/2010 14:05:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068110|972603|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	129895.2	129895.2	101	%			14:05:44
1	Al 396.153Radial†	82704.3	81903.9	17355	µg/L	17355	ppb	14:05:42
1	Ca 317.933Radial†	87168.5	85728.0	5880.8	µg/L	5880.8	ppb	14:05:44
1	Fe 238.204 Radial†	859681.4	850349.4	63112	µg/L	63112	ppb	14:05:42
1	K 766.490 Radial†	8881.9	7221.9	2753.5	µg/L	2753.5	ppb	14:05:44
1	Mg 279.077 IEC†	8094.4	7844.6	3580.1	µg/L	3580.1	ppb	14:05:44
1	Na 589.592 Radial†	9202.8	8173.8	1209.6	µg/L	1209.6	ppb	14:05:44
1	Sr 421.552†	18713.5	18618.6	42.981	µg/L	42.981	ppb	14:05:44
1	Sc 361.383	1714543.1	1714543.1	99.629	%			14:06:11
1	Y 371.029	1174455.8	1174455.8	117.92	%			14:06:11
1	Ag 328.068†	4408.5	-175.5	-1.7873	µg/L	-1.7873	ppb	14:06:11
1	As 188.979†	19.0	27.7	23.422	µg/L	23.422	ppb	14:06:31
1	B 249.677†	4293.6	314.0	4.4670	µg/L	4.4670	ppb	14:06:11
1	Ba 233.527†	51395.2	51726.3	218.06	µg/L	218.06	ppb	14:06:11
1	Be 313.107†	17377.4	18452.3	4.9409	µg/L	4.9409	ppb	14:06:11
1	Cd 226.502†	932.3	1023.7	-0.2097	µg/L	-0.2097	ppb	14:06:31
1	Co 228.616†	761.4	959.9	8.7698	µg/L	8.7698	ppb	14:06:31
1	Cr 267.716†	2056.8	1802.2	16.495	µg/L	16.495	ppb	14:06:31
1	Cu 324.752†	4863.7	1695.0	15.707	µg/L	15.707	ppb	14:06:11
1	Mn 257.610†	2111060.3	2118737.6	2661.4	µg/L	2661.4	ppb	14:06:11
1	Mo 202.031†	260.1	281.4	11.336	µg/L	11.336	ppb	14:06:31
1	Ni 231.604†	1604.3	1701.4	19.961	µg/L	19.961	ppb	14:06:31
1	P 214.914†	2156.0	2169.7	429.96	µg/L	429.96	ppb	14:06:31
1	Pb 220.353†	1484.7	1376.9	80.907	µg/L	80.907	ppb	14:06:31
1	S 181.975 Axial†	419.2	94.7	84.559	µg/L	84.559	ppb	14:06:31
1	Sb 206.836†	86.8	6.8	-0.0654	µg/L	-0.0654	ppb	14:06:31
1	Se 196.026†	-34.6	-55.3	1.04	µg/L	1.04	ppb	14:06:31
1	SiO2†	131107.2	129805.3	12850	µg/L	12850	ppb	14:06:11
1	Si 251.611†	408584.9	409447.7	5997.2	µg/L	5997.2	ppb	14:06:11
1	Sn 189.927†	289.7	284.9	22.805	µg/L	22.805	ppb	14:06:31
1	Ti 334.940†	1242410.2	1246259.6	1224.8	µg/L	1224.8	ppb	14:06:11
1	Tl 190.801†	-307.8	-192.9	-5.5978	µg/L	-5.5978	ppb	14:06:31
1	U 409.014†	-5985.3	-5716.3	-328.44	µg/L	-328.44	ppb	14:06:11
1	V 292.402†	10762.0	10429.0	42.488	µg/L	42.488	ppb	14:06:31
1	Zn 213.857†	40402.0	39951.6	215.71	µg/L	215.71	ppb	14:06:11
2	Sc RADIAL	130453.8	130453.8	102	%			14:05:48
2	Al 396.153Radial†	83303.1	82143.3	17406	µg/L	17406	ppb	14:05:46
2	Ca 317.933Radial†	87415.4	85602.0	5872.1	µg/L	5872.1	ppb	14:05:48
2	Fe 238.204 Radial†	863887.1	850850.6	63149	µg/L	63149	ppb	14:05:46
2	K 766.490 Radial†	8826.2	7129.4	2718.2	µg/L	2718.2	ppb	14:05:48
2	Mg 279.077 IEC†	8095.9	7811.8	3564.9	µg/L	3564.9	ppb	14:05:48
2	Na 589.592 Radial†	9183.2	8115.4	1201.0	µg/L	1201.0	ppb	14:05:48
2	Sr 421.552†	18649.0	18475.8	42.651	µg/L	42.651	ppb	14:05:48
2	Sc 361.383	1735289.2	1735289.2	100.83	%			14:06:33
2	Y 371.029	1188552.9	1188552.9	119.34	%			14:06:33
2	Ag 328.068†	4393.1	-243.7	-2.0363	µg/L	-2.0363	ppb	14:06:33
2	As 188.979†	29.5	37.9	26.774	µg/L	26.774	ppb	14:06:54
2	B 249.677†	4360.6	328.9	4.6813	µg/L	4.6813	ppb	14:06:33
2	Ba 233.527†	52178.9	51886.9	218.74	µg/L	218.74	ppb	14:06:33
2	Be 313.107†	17748.4	18611.8	4.9916	µg/L	4.9916	ppb	14:06:33
2	Cd 226.502†	930.0	1010.2	-0.2981	µg/L	-0.2981	ppb	14:06:54
2	Co 228.616†	768.2	957.4	8.7382	µg/L	8.7382	ppb	14:06:54
2	Cr 267.716†	2057.6	1778.3	16.279	µg/L	16.279	ppb	14:06:54
2	Cu 324.752†	4905.1	1677.7	15.663	µg/L	15.663	ppb	14:06:33
2	Mn 257.610†	2147260.4	2129305.6	2674.6	µg/L	2674.6	ppb	14:06:33
2	Mo 202.031†	268.5	286.5	11.496	µg/L	11.496	ppb	14:06:54
2	Ni 231.604†	1613.5	1691.3	19.842	µg/L	19.842	ppb	14:06:54
2	P 214.914†	2185.5	2173.1	430.67	µg/L	430.67	ppb	14:06:54
2	Pb 220.353†	1515.1	1389.2	81.608	µg/L	81.608	ppb	14:06:54

2	S 181.975 Axial†	432.5	102.9	91.828	µg/L	91.828	ppb	14:06:54
2	Sb 206.836†	94.8	13.7	0.7628	µg/L	0.7628	ppb	14:06:54
2	Se 196.026†	-40.0	-60.2	-0.743	µg/L	-0.743	ppb	14:06:54
2	SiO2†	137069.6	134145.1	13280	µg/L	13280	ppb	14:06:33
2	Si 251.611†	427237.6	423042.9	6196.4	µg/L	6196.4	ppb	14:06:33
2	Sn 189.927†	278.7	270.5	21.862	µg/L	21.862	ppb	14:06:54
2	Ti 334.940†	1257653.5	1246468.0	1225.0	µg/L	1225.0	ppb	14:06:33
2	Tl 190.801†	-299.1	-180.6	-3.9624	µg/L	-3.9624	ppb	14:06:54
2	U 409.014†	-5650.3	-5312.2	-304.78	µg/L	-304.78	ppb	14:06:33
2	V 292.402†	10713.7	10252.0	41.646	µg/L	41.646	ppb	14:06:54
2	Zn 213.857†	41126.7	40185.4	217.00	µg/L	217.00	ppb	14:06:33
3	Sc RADIAL	131469.1	131469.1	102	%			14:05:52
3	Al 396.153Radial†	83523.8	81725.3	17318	µg/L	17318	ppb	14:05:50
3	Ca 317.933Radial†	87824.6	85336.9	5853.9	µg/L	5853.9	ppb	14:05:52
3	Fe 238.204 Radial†	864268.2	844650.7	62689	µg/L	62689	ppb	14:05:50
3	K 766.490 Radial†	9094.1	7324.1	2792.6	µg/L	2792.6	ppb	14:05:52
3	Mg 279.077 IEC†	8164.1	7816.9	3567.6	µg/L	3567.6	ppb	14:05:52
3	Na 589.592 Radial†	9276.7	8137.0	1204.1	µg/L	1204.1	ppb	14:05:52
3	Sr 421.552†	18842.7	18523.2	42.761	µg/L	42.761	ppb	14:05:52
3	Sc 361.383	1707266.3	1707266.3	99.207	%			14:06:56
3	Y 371.029	1169519.9	1169519.9	117.43	%			14:06:56
3	Ag 328.068†	4532.8	-31.4	-1.2256	µg/L	-1.2256	ppb	14:06:56
3	As 188.979†	28.6	37.5	26.540	µg/L	26.540	ppb	14:07:16
3	B 249.677†	4394.6	434.2	6.1921	µg/L	6.1921	ppb	14:06:56
3	Ba 233.527†	51143.4	51692.4	217.92	µg/L	217.92	ppb	14:06:56
3	Be 313.107†	17390.9	18540.3	4.9644	µg/L	4.9644	ppb	14:06:56
3	Cd 226.502†	923.4	1018.7	-0.1961	µg/L	-0.1961	ppb	14:07:16
3	Co 228.616†	782.8	984.7	9.0975	µg/L	9.0975	ppb	14:07:16
3	Cr 267.716†	2074.7	1829.1	16.701	µg/L	16.701	ppb	14:07:16
3	Cu 324.752†	4931.3	1783.9	15.995	µg/L	15.995	ppb	14:06:56
3	Mn 257.610†	2103993.0	2120645.1	2663.8	µg/L	2663.8	ppb	14:06:56
3	Mo 202.031†	274.7	297.2	11.811	µg/L	11.811	ppb	14:07:16
3	Ni 231.604†	1602.3	1706.3	20.018	µg/L	20.018	ppb	14:07:16
3	P 214.914†	2183.1	2206.2	438.12	µg/L	438.12	ppb	14:07:16
3	Pb 220.353†	1507.9	1406.7	82.646	µg/L	82.646	ppb	14:07:16
3	S 181.975 Axial†	423.5	100.9	90.030	µg/L	90.030	ppb	14:07:16
3	Sb 206.836†	90.2	10.6	0.4020	µg/L	0.4020	ppb	14:07:16
3	Se 196.026†	-38.7	-59.5	-0.675	µg/L	-0.675	ppb	14:07:16
3	SiO2†	132755.5	132027.7	13070	µg/L	13070	ppb	14:06:56
3	Si 251.611†	413470.8	416120.7	6095.0	µg/L	6095.0	ppb	14:06:56
3	Sn 189.927†	286.4	282.8	22.662	µg/L	22.662	ppb	14:07:16
3	Ti 334.940†	1235572.6	1244682.5	1223.3	µg/L	1223.3	ppb	14:06:56
3	Tl 190.801†	-294.2	-180.5	-3.9910	µg/L	-3.9910	ppb	14:07:16
3	U 409.014†	-5987.2	-5743.7	-329.93	µg/L	-329.93	ppb	14:06:56
3	V 292.402†	10761.3	10474.3	42.758	µg/L	42.758	ppb	14:07:16
3	Zn 213.857†	40386.0	40108.3	216.62	µg/L	216.62	ppb	14:06:56

Mean Data: 1202068110|972603|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1719032.8	99.890	%	0.8450				0.85%
Sc RADIAL	130606.0	102	%	0.6				0.61%
Y 371.029	1177509.5	118.23	%	0.992				0.84%
Ag 328.068†	-150.2	-1.6831	µg/L	0.41529	-1.6831	ppb	0.41529	24.67%
Al 396.153Radial†	81924.2	17360	µg/L	44.5	17360	ppb	44.5	0.26%
As 188.979†	34.4	25.579	µg/L	1.8709	25.579	ppb	1.8709	7.31%
B 249.677†	359.0	5.1134	µg/L	0.94025	5.1134	ppb	0.94025	18.39%
Ba 233.527†	51768.5	218.24	µg/L	0.437	218.24	ppb	0.437	0.20%
Be 313.107†	18534.8	4.9656	µg/L	0.02537	4.9656	ppb	0.02537	0.51%
Ca 317.933Radial†	85555.6	5868.9	µg/L	13.70	5868.9	ppb	13.70	0.23%
Cd 226.502†	1017.5	-0.2346	µg/L	0.05540	-0.2346	ppb	0.05540	23.61%
Co 228.616†	967.3	8.8685	µg/L	0.19896	8.8685	ppb	0.19896	2.24%
Cr 267.716†	1803.2	16.492	µg/L	0.2110	16.492	ppb	0.2110	1.28%
Cu 324.752†	1718.9	15.788	µg/L	0.1800	15.788	ppb	0.1800	1.14%
Fe 238.204 Radial†	848616.9	62983	µg/L	255.6	62983	ppb	255.6	0.41%
K 766.490 Radial†	7225.1	2754.8	µg/L	37.22	2754.8	ppb	37.22	1.35%
Mg 279.077 IEC†	7824.4	3570.9	µg/L	8.13	3570.9	ppb	8.13	0.23%
Mn 257.610†	2122896.1	2666.6	µg/L	7.08	2666.6	ppb	7.08	0.27%
Mo 202.031†	288.3	11.548	µg/L	0.2417	11.548	ppb	0.2417	2.09%
Na 589.592 Radial†	8142.0	1204.9	µg/L	4.36	1204.9	ppb	4.36	0.36%

Ni 231.604†	1699.6	19.940	µg/L	0.0898	19.940	ppb	0.0898	0.45%
P 214.914†	2183.0	432.92	µg/L	4.521	432.92	ppb	4.521	1.04%
Pb 220.353†	1390.9	81.720	µg/L	0.8750	81.720	ppb	0.8750	1.07%
S 181.975 Axial†	99.5	88.806	µg/L	3.7863	88.806	ppb	3.7863	4.26%
Sb 206.836†	10.4	0.3665	µg/L	0.41526	0.3665	ppb	0.41526	113.32%
Se 196.026†	-58.3	-0.126	µg/L	1.0097	-0.126	ppb	1.0097	800.04%
SiO2†	131992.7	13067	µg/L	214.8	13067	ppb	214.8	1.64%
Si 251.611†	416203.8	6096.2	µg/L	99.58	6096.2	ppb	99.58	1.63%
Sn 189.927†	279.4	22.443	µg/L	0.5080	22.443	ppb	0.5080	2.26%
Sr 421.552†	18539.2	42.798	µg/L	0.1680	42.798	ppb	0.1680	0.39%
Ti 334.940†	1245803.3	1224.4	µg/L	0.96	1224.4	ppb	0.96	0.08%
Tl 190.801†	-184.7	-4.5170	µg/L	0.93604	-4.5170	ppb	0.93604	20.72%
U 409.014†	-5590.8	-321.05	µg/L	14.114	-321.05	ppb	14.114	4.40%
Concentration less than lower limit for U 409.014.								
V 292.402†	10385.1	42.297	µg/L	0.5800	42.297	ppb	0.5800	1.37%
Zn 213.857†	40081.7	216.44	µg/L	0.665	216.44	ppb	0.665	0.31%

Sequence No.: 5
Sample ID: 1202068112|972603|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 305
Date Collected: 4/7/2010 14:07:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068112|972603|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130589.4	130589.4	102	%			14:07:56
1	Al 396.153Radial†	178879.5	176107.9	37296	µg/L	37296	ppb	14:07:56
1	Ca 317.933Radial†	156512.2	153505.7	10530	µg/L	10530	ppb	14:07:56
1	Fe 238.204 Radial†	875782.2	861671.9	63952	µg/L	63952	ppb	14:07:54
1	K 766.490 Radial†	23079.9	21146.4	8066.6	µg/L	8066.6	ppb	14:07:56
1	Mg 279.077 IEC†	21803.9	21292.5	9820.6	µg/L	9820.6	ppb	14:07:56
1	Na 589.592 Radial†	40822.0	39239.4	5811.5	µg/L	5811.5	ppb	14:07:56
1	Sr 421.552†	229923.1	226356.2	523.02	µg/L	523.02	ppb	14:07:54
1	Sc 361.383	1713104.7	1713104.7	99.546	%			14:08:23
1	Y 371.029	1185156.9	1185156.9	119.00	%			14:08:23
1	Ag 328.068†	129204.9	125193.9	490.16	µg/L	490.16	ppb	14:08:23
1	As 188.979†	1543.2	1558.9	532.15	µg/L	532.15	ppb	14:08:25
1	B 249.677†	37361.3	33536.1	479.84	µg/L	479.84	ppb	14:08:23
1	Ba 233.527†	164777.1	165668.8	700.54	µg/L	700.54	ppb	14:08:23
1	Be 313.107†	1816851.3	1826149.9	499.03	µg/L	499.03	ppb	14:08:23
1	Cd 226.502†	78432.7	78878.4	488.02	µg/L	488.02	ppb	14:08:23
1	Co 228.616†	38986.9	39360.4	483.12	µg/L	483.12	ppb	14:08:25
1	Cr 267.716†	60645.5	60659.9	497.38	µg/L	497.38	ppb	14:08:25
1	Cu 324.752†	131711.5	129125.7	519.36	µg/L	519.36	ppb	14:08:23
1	Mn 257.610†	2174243.9	2183988.6	2743.1	µg/L	2743.1	ppb	14:08:23
1	Mo 202.031†	15272.1	15362.1	481.00	µg/L	481.00	ppb	14:08:25
1	Ni 231.604†	42461.0	42745.8	501.49	µg/L	501.49	ppb	14:08:25
1	P 214.914†	4445.8	4471.8	925.08	µg/L	925.08	ppb	14:08:25
1	Pb 220.353†	10022.3	9954.8	581.80	µg/L	581.80	ppb	14:08:25
1	S 181.975 Axial†	6602.0	6306.0	5626.9	µg/L	5626.9	ppb	14:08:25
1	Sb 206.836†	3882.5	3819.9	461.26	µg/L	461.26	ppb	14:08:25
1	Se 196.026†	1317.5	1303.0	506	µg/L	506	ppb	14:08:25
1	SiO2†	187688.9	186755.7	18468	µg/L	18468	ppb	14:08:23
1	Si 251.611†	587640.7	589664.7	8627.7	µg/L	8627.7	ppb	14:08:23
1	Sn 189.927†	7330.3	7357.9	488.24	µg/L	488.24	ppb	14:08:25
1	Ti 334.940†	1780566.0	1787917.4	1756.4	µg/L	1756.4	ppb	14:08:23
1	Tl 190.801†	3408.3	3539.9	486.36	µg/L	486.36	ppb	14:08:25
1	U 409.014†	2047.7	2348.4	170.75	µg/L	170.75	ppb	14:08:23
1	V 292.402†	108580.2	108702.5	523.63	µg/L	523.63	ppb	14:08:23
1	Zn 213.857†	126268.7	126244.0	691.59	µg/L	691.59	ppb	14:08:23
2	Sc RADIAL	129614.4	129614.4	101	%			14:08:00
2	Al 396.153Radial†	178472.6	177028.6	37491	µg/L	37491	ppb	14:08:00
2	Ca 317.933Radial†	154898.7	153064.5	10500	µg/L	10500	ppb	14:08:00
2	Fe 238.204 Radial†	878727.6	871074.8	64650	µg/L	64650	ppb	14:07:58
2	K 766.490 Radial†	22896.2	21135.1	8062.2	µg/L	8062.2	ppb	14:08:00
2	Mg 279.077 IEC†	21656.5	21307.8	9827.2	µg/L	9827.2	ppb	14:08:00
2	Na 589.592 Radial†	40697.9	39418.7	5838.1	µg/L	5838.1	ppb	14:08:00
2	Sr 421.552†	230723.8	228852.0	528.79	µg/L	528.79	ppb	14:07:58
2	Sc 361.383	1714468.5	1714468.5	99.625	%			14:08:28
2	Y 371.029	1185794.4	1185794.4	119.06	%			14:08:28
2	Ag 328.068†	129198.5	125084.3	489.72	µg/L	489.72	ppb	14:08:28
2	As 188.979†	1517.2	1531.5	523.37	µg/L	523.37	ppb	14:08:30
2	B 249.677†	37544.6	33690.4	482.03	µg/L	482.03	ppb	14:08:28
2	Ba 233.527†	165109.9	165871.2	701.39	µg/L	701.39	ppb	14:08:28
2	Be 313.107†	1821582.4	1829447.0	499.92	µg/L	499.92	ppb	14:08:28
2	Cd 226.502†	78516.8	78900.2	488.08	µg/L	488.08	ppb	14:08:28
2	Co 228.616†	39538.4	39882.8	489.53	µg/L	489.53	ppb	14:08:30
2	Cr 267.716†	61314.1	61282.5	502.50	µg/L	502.50	ppb	14:08:30
2	Cu 324.752†	132327.0	129638.2	521.48	µg/L	521.48	ppb	14:08:28
2	Mn 257.610†	2180128.5	2188158.0	2748.3	µg/L	2748.3	ppb	14:08:28
2	Mo 202.031†	15487.1	15565.6	487.37	µg/L	487.37	ppb	14:08:30
2	Ni 231.604†	43095.7	43349.0	508.57	µg/L	508.57	ppb	14:08:30
2	P 214.914†	4571.5	4594.4	951.14	µg/L	951.14	ppb	14:08:30
2	Pb 220.353†	10132.6	10057.4	587.76	µg/L	587.76	ppb	14:08:30

2	S 181.975 Axial†	6731.5	6430.8	5738.2 µg/L	5738.2 ppb	14:08:30
2	Sb 206.836†	3959.4	3894.0	470.23 µg/L	470.23 ppb	14:08:30
2	Se 196.026†	1307.1	1291.5	502 µg/L	502 ppb	14:08:30
2	SiO2†	186485.3	185397.6	18333 µg/L	18333 ppb	14:08:28
2	Si 251.611†	583382.4	584920.8	8558.0 µg/L	8558.0 ppb	14:08:28
2	Sn 189.927†	7459.5	7481.7	496.32 µg/L	496.32 ppb	14:08:30
2	Ti 334.940†	1771043.7	1776936.6	1745.6 µg/L	1745.6 ppb	14:08:28
2	Tl 190.801†	3446.4	3575.4	490.85 µg/L	490.85 ppb	14:08:30
2	U 409.014†	1940.1	2238.7	164.23 µg/L	164.23 ppb	14:08:28
2	V 292.402†	108783.5	108819.8	524.22 µg/L	524.22 ppb	14:08:28
2	Zn 213.857†	126913.0	126789.8	694.49 µg/L	694.49 ppb	14:08:28
3	Sc RADIAL	131078.4	131078.4	102 %		14:08:04
3	Al 396.153Radial†	180421.3	176962.6	37477 µg/L	37477 ppb	14:08:04
3	Ca 317.933Radial†	157736.5	154131.3	10573 µg/L	10573 ppb	14:08:04
3	Fe 238.204 Radial†	864980.0	847866.4	62928 µg/L	62928 ppb	14:08:02
3	K 766.490 Radial†	23327.6	21304.5	8126.9 µg/L	8126.9 ppb	14:08:04
3	Mg 279.077 IEC†	21978.2	21383.4	9863.6 µg/L	9863.6 ppb	14:08:04
3	Na 589.592 Radial†	41359.6	39616.7	5867.4 µg/L	5867.4 ppb	14:08:04
3	Sr 421.552†	227724.3	223356.4	516.09 µg/L	516.09 ppb	14:08:02
3	Sc 361.383	1705614.0	1705614.0	99.111 %		14:08:33
3	Y 371.029	1180328.9	1180328.9	118.51 %		14:08:33
3	Ag 328.068†	128794.7	125350.1	490.73 µg/L	490.73 ppb	14:08:33
3	As 188.979†	1517.0	1539.2	525.46 µg/L	525.46 ppb	14:08:35
3	B 249.677†	37158.1	33496.0	479.26 µg/L	479.26 ppb	14:08:33
3	Ba 233.527†	164209.6	165823.2	701.21 µg/L	701.21 ppb	14:08:33
3	Be 313.107†	1808555.7	1825795.5	498.92 µg/L	498.92 ppb	14:08:33
3	Cd 226.502†	78035.9	78824.1	487.79 µg/L	487.79 ppb	14:08:33
3	Co 228.616†	39031.1	39576.9	485.84 µg/L	485.84 ppb	14:08:35
3	Cr 267.716†	60454.5	60734.7	497.97 µg/L	497.97 ppb	14:08:35
3	Cu 324.752†	131135.8	129125.8	519.20 µg/L	519.20 ppb	14:08:33
3	Mn 257.610†	2162646.3	2181879.3	2740.4 µg/L	2740.4 ppb	14:08:33
3	Mo 202.031†	15170.1	15326.5	479.85 µg/L	479.85 ppb	14:08:35
3	Ni 231.604†	42533.2	43006.0	504.54 µg/L	504.54 ppb	14:08:35
3	P 214.914†	4522.1	4568.4	946.78 µg/L	946.78 ppb	14:08:35
3	Pb 220.353†	9879.4	9854.8	576.03 µg/L	576.03 ppb	14:08:35
3	S 181.975 Axial†	6653.6	6387.2	5699.3 µg/L	5699.3 ppb	14:08:35
3	Sb 206.836†	3879.1	3833.6	462.92 µg/L	462.92 ppb	14:08:35
3	Se 196.026†	1324.3	1315.7	511 µg/L	511 ppb	14:08:35
3	SiO2†	187192.0	187082.4	18500 µg/L	18500 ppb	14:08:33
3	Si 251.611†	585719.3	590318.6	8637.2 µg/L	8637.2 ppb	14:08:33
3	Sn 189.927†	7421.8	7482.5	496.37 µg/L	496.37 ppb	14:08:35
3	Ti 334.940†	1760401.4	1775427.5	1744.2 µg/L	1744.2 ppb	14:08:33
3	Tl 190.801†	3399.1	3545.7	486.96 µg/L	486.96 ppb	14:08:35
3	U 409.014†	1784.4	2091.7	155.85 µg/L	155.85 ppb	14:08:33
3	V 292.402†	107789.1	108383.4	522.19 µg/L	522.19 ppb	14:08:33
3	Zn 213.857†	125690.4	126217.6	691.52 µg/L	691.52 ppb	14:08:33

Mean Data: 1202068112|972603|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1711062.4	99.427	%	0.2770				0.28%
Sc RADIAL	130427.4	101	%	0.6				0.57%
Y 371.029	1183760.1	118.86	%	0.300				0.25%
Ag 328.068†	125209.4	490.20	µg/L	0.504	490.20	ppb	0.504	0.10%
Al 396.153Radial†	176699.7	37421	µg/L	108.8	37421	ppb	108.8	0.29%
As 188.979†	1543.2	527.00	µg/L	4.586	527.00	ppb	4.586	0.87%
B 249.677†	33574.2	480.38	µg/L	1.464	480.38	ppb	1.464	0.30%
Ba 233.527†	165787.7	701.05	µg/L	0.447	701.05	ppb	0.447	0.06%
Be 313.107†	1827130.8	499.29	µg/L	0.551	499.29	ppb	0.551	0.11%
Ca 317.933Radial†	153567.2	10534	µg/L	36.8	10534	ppb	36.8	0.35%
Cd 226.502†	78867.6	487.96	µg/L	0.156	487.96	ppb	0.156	0.03%
Co 228.616†	39606.7	486.16	µg/L	3.217	486.16	ppb	3.217	0.66%
Cr 267.716†	60892.4	499.29	µg/L	2.801	499.29	ppb	2.801	0.56%
Cu 324.752†	129296.6	520.02	µg/L	1.273	520.02	ppb	1.273	0.24%
Fe 238.204 Radial†	860204.4	63843	µg/L	866.4	63843	ppb	866.4	1.36%
K 766.490 Radial†	21195.3	8085.2	µg/L	36.16	8085.2	ppb	36.16	0.45%
Mg 279.077 IEC†	21327.9	9837.1	µg/L	23.12	9837.1	ppb	23.12	0.24%
Mn 257.610†	2184675.3	2743.9	µg/L	4.01	2743.9	ppb	4.01	0.15%
Mo 202.031†	15418.1	482.74	µg/L	4.046	482.74	ppb	4.046	0.84%
Na 589.592 Radial†	39424.9	5839.0	µg/L	27.95	5839.0	ppb	27.95	0.48%

Ni 231.604†	43033.6	504.87 µg/L	3.549	504.87 ppb	3.549	0.70%
P 214.914†	4544.9	941.00 µg/L	13.957	941.00 ppb	13.957	1.48%
Pb 220.353†	9955.7	581.86 µg/L	5.865	581.86 ppb	5.865	1.01%
S 181.975 Axial†	6374.7	5688.1 µg/L	56.49	5688.1 ppb	56.49	0.99%
Sb 206.836†	3849.1	464.80 µg/L	4.772	464.80 ppb	4.772	1.03%
Se 196.026†	1303.4	507 µg/L	4.2	507 ppb	4.2	0.83%
SiO2†	186411.9	18434 µg/L	88.6	18434 ppb	88.6	0.48%
Si 251.611†	588301.3	8607.6 µg/L	43.22	8607.6 ppb	43.22	0.50%
Sn 189.927†	7440.7	493.65 µg/L	4.679	493.65 ppb	4.679	0.95%
Sr 421.552†	226188.2	522.63 µg/L	6.359	522.63 ppb	6.359	1.22%
Ti 334.940†	1780093.8	1748.7 µg/L	6.70	1748.7 ppb	6.70	0.38%
Tl 190.801†	3553.6	488.06 µg/L	2.440	488.06 ppb	2.440	0.50%
U 409.014†	2226.3	163.61 µg/L	7.466	163.61 ppb	7.466	4.56%
V 292.402†	108635.2	523.34 µg/L	1.043	523.34 ppb	1.043	0.20%
Zn 213.857†	126417.1	692.53 µg/L	1.695	692.53 ppb	1.695	0.24%

Sequence No.: 6
Sample ID: 1202068113|972603|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 306
Date Collected: 4/7/2010 14:08:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068113|972603|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130084.6	130084.6	101	%			14:09:14
1	Al 396.153Radial†	182097.1	179969.3	38114	µg/L	38114	ppb	14:09:12
1	Ca 317.933Radial†	154059.2	151680.1	10405	µg/L	10405	ppb	14:09:14
1	Fe 238.204 Radial†	917418.6	906146.1	67253	µg/L	67253	ppb	14:09:12
1	K 766.490 Radial†	23167.4	21321.0	8133.1	µg/L	8133.1	ppb	14:09:14
1	Mg 279.077 IEC†	22217.7	21784.6	10046	µg/L	10046	ppb	14:09:14
1	Na 589.592 Radial†	40047.4	38630.2	5721.1	µg/L	5721.1	ppb	14:09:14
1	Sr 421.552†	230424.3	227729.1	526.19	µg/L	526.19	ppb	14:09:12
1	Sc 361.383	1704596.9	1704596.9	99.052	%			14:09:27
1	Y 371.029	1189257.5	1189257.5	119.41	%			14:09:27
1	Ag 328.068†	127422.3	124042.0	485.54	µg/L	485.54	ppb	14:09:27
1	As 188.979†	1458.4	1480.9	507.30	µg/L	507.30	ppb	14:09:29
1	B 249.677†	37211.0	33571.8	480.36	µg/L	480.36	ppb	14:09:27
1	Ba 233.527†	161482.9	163169.2	689.93	µg/L	689.93	ppb	14:09:27
1	Be 313.107†	1784332.6	1802429.3	492.53	µg/L	492.53	ppb	14:09:27
1	Cd 226.502†	77157.0	77983.8	482.06	µg/L	482.06	ppb	14:09:27
1	Co 228.616†	38548.9	39113.7	479.89	µg/L	479.89	ppb	14:09:29
1	Cr 267.716†	60341.4	60657.0	497.45	µg/L	497.45	ppb	14:09:29
1	Cu 324.752†	130472.0	128534.6	517.48	µg/L	517.48	ppb	14:09:27
1	Mn 257.610†	2360457.6	2382886.8	2992.9	µg/L	2992.9	ppb	14:09:27
1	Mo 202.031†	15255.2	15421.5	482.99	µg/L	482.99	ppb	14:09:29
1	Ni 231.604†	42224.2	42719.7	501.18	µg/L	501.18	ppb	14:09:29
1	P 214.914†	4325.3	4372.4	901.66	µg/L	901.66	ppb	14:09:29
1	Pb 220.353†	9576.3	9554.7	558.67	µg/L	558.67	ppb	14:09:29
1	S 181.975 Axial†	6491.1	6227.3	5556.7	µg/L	5556.7	ppb	14:09:29
1	Sb 206.836†	3937.8	3895.2	470.36	µg/L	470.36	ppb	14:09:29
1	Se 196.026†	1259.4	1250.9	488	µg/L	488	ppb	14:09:29
1	SiO2†	176400.8	176300.5	17433	µg/L	17433	ppb	14:09:27
1	Si 251.611†	551309.5	555931.9	8133.5	µg/L	8133.5	ppb	14:09:27
1	Sn 189.927†	7489.7	7555.6	501.51	µg/L	501.51	ppb	14:09:29
1	Ti 334.940†	1863550.4	1880624.1	1847.5	µg/L	1847.5	ppb	14:09:27
1	Tl 190.801†	3379.6	3528.0	486.39	µg/L	486.39	ppb	14:09:29
1	U 409.014†	1229.4	1532.5	123.83	µg/L	123.83	ppb	14:09:27
1	V 292.402†	107916.5	108576.8	522.58	µg/L	522.58	ppb	14:09:27
1	Zn 213.857†	127989.2	128614.0	704.45	µg/L	704.45	ppb	14:09:27
2	Sc RADIAL	130525.4	130525.4	102	%			14:09:18
2	Al 396.153Radial†	179175.1	176485.2	37376	µg/L	37376	ppb	14:09:16
2	Ca 317.933Radial†	153753.1	150864.8	10349	µg/L	10349	ppb	14:09:18
2	Fe 238.204 Radial†	901474.2	887388.5	65861	µg/L	65861	ppb	14:09:16
2	K 766.490 Radial†	22971.9	21051.2	8030.2	µg/L	8030.2	ppb	14:09:18
2	Mg 279.077 IEC†	22143.9	21637.8	9979.0	µg/L	9979.0	ppb	14:09:18
2	Na 589.592 Radial†	39949.2	38399.9	5687.0	µg/L	5687.0	ppb	14:09:18
2	Sr 421.552†	227428.3	224011.0	517.60	µg/L	517.60	ppb	14:09:16
2	Sc 361.383	1690127.1	1690127.1	98.211	%			14:09:32
2	Y 371.029	1179806.1	1179806.1	118.46	%			14:09:32
2	Ag 328.068†	126555.9	124261.2	486.39	µg/L	486.39	ppb	14:09:32
2	As 188.979†	1487.0	1522.7	520.76	µg/L	520.76	ppb	14:09:34
2	B 249.677†	36782.4	33456.9	478.71	µg/L	478.71	ppb	14:09:32
2	Ba 233.527†	160137.8	163195.4	690.05	µg/L	690.05	ppb	14:09:32
2	Be 313.107†	1767820.9	1801039.3	492.15	µg/L	492.15	ppb	14:09:32
2	Cd 226.502†	75967.1	77439.1	478.79	µg/L	478.79	ppb	14:09:32
2	Co 228.616†	38246.3	39138.7	480.27	µg/L	480.27	ppb	14:09:34
2	Cr 267.716†	60405.6	61243.9	502.20	µg/L	502.20	ppb	14:09:34
2	Cu 324.752†	129447.0	128618.7	517.60	µg/L	517.60	ppb	14:09:32
2	Mn 257.610†	2338190.7	2380616.5	2990.1	µg/L	2990.1	ppb	14:09:32
2	Mo 202.031†	15132.9	15428.9	483.16	µg/L	483.16	ppb	14:09:34
2	Ni 231.604†	42150.8	43009.9	504.59	µg/L	504.59	ppb	14:09:34
2	P 214.914†	4333.4	4418.1	912.30	µg/L	912.30	ppb	14:09:34
2	Pb 220.353†	9722.5	9786.4	572.12	µg/L	572.12	ppb	14:09:34

2	S 181.975 Axial†	6547.5	6340.8	5657.9	µg/L	5657.9 ppb	14:09:34
2	Sb 206.836†	3915.4	3906.5	471.67	µg/L	471.67 ppb	14:09:34
2	Se 196.026†	1288.0	1291.0	503	µg/L	503 ppb	14:09:34
2	SiO2†	176456.7	177882.1	17589	µg/L	17589 ppb	14:09:32
2	Si 251.611†	552079.5	561481.1	8214.7	µg/L	8214.7 ppb	14:09:32
2	Sn 189.927†	7418.8	7548.1	501.01	µg/L	501.01 ppb	14:09:34
2	Ti 334.940†	1846329.4	1879196.7	1846.1	µg/L	1846.1 ppb	14:09:32
2	Tl 190.801†	3326.7	3503.4	483.16	µg/L	483.16 ppb	14:09:34
2	U 409.014†	1237.0	1550.9	125.15	µg/L	125.15 ppb	14:09:32
2	V 292.402†	106829.6	108402.9	521.91	µg/L	521.91 ppb	14:09:32
2	Zn 213.857†	126482.4	128186.0	702.18	µg/L	702.18 ppb	14:09:32
3	Sc RADIAL	131441.2	131441.2	102	%		14:09:22
3	Al 396.153Radial†	179261.1	175340.2	37133	µg/L	37133 ppb	14:09:20
3	Ca 317.933Radial†	154672.1	150708.6	10338	µg/L	10338 ppb	14:09:22
3	Fe 238.204 Radial†	900096.3	879857.5	65302	µg/L	65302 ppb	14:09:20
3	K 766.490 Radial†	23190.3	21107.1	8051.6	µg/L	8051.6 ppb	14:09:22
3	Mg 279.077 IEC†	22212.8	21553.2	9940.3	µg/L	9940.3 ppb	14:09:22
3	Na 589.592 Radial†	40251.2	38421.1	5690.2	µg/L	5690.2 ppb	14:09:22
3	Sr 421.552†	227785.3	222799.9	514.80	µg/L	514.80 ppb	14:09:20
3	Sc 361.383	1715764.8	1715764.8	99.700	%		14:09:37
3	Y 371.029	1195918.8	1195918.8	120.08	%		14:09:37
3	Ag 328.068†	128142.9	123927.5	485.11	µg/L	485.11 ppb	14:09:37
3	As 188.979†	1486.1	1499.2	512.85	µg/L	512.85 ppb	14:09:39
3	B 249.677†	37264.7	33381.1	477.64	µg/L	477.64 ppb	14:09:37
3	Ba 233.527†	162255.3	162882.8	688.74	µg/L	688.74 ppb	14:09:37
3	Be 313.107†	1794600.9	1801002.9	492.14	µg/L	492.14 ppb	14:09:37
3	Cd 226.502†	77275.9	77596.0	479.83	µg/L	479.83 ppb	14:09:37
3	Co 228.616†	38450.2	38761.4	475.64	µg/L	475.64 ppb	14:09:39
3	Cr 267.716†	60590.8	60510.6	496.18	µg/L	496.18 ppb	14:09:39
3	Cu 324.752†	131267.3	128474.9	516.96	µg/L	516.96 ppb	14:09:37
3	Mn 257.610†	2370896.1	2377845.4	2986.6	µg/L	2986.6 ppb	14:09:37
3	Mo 202.031†	15353.8	15420.1	482.86	µg/L	482.86 ppb	14:09:39
3	Ni 231.604†	42304.4	42522.6	498.87	µg/L	498.87 ppb	14:09:39
3	P 214.914†	4269.7	4288.2	884.51	µg/L	884.51 ppb	14:09:39
3	Pb 220.353†	9853.8	9770.1	571.18	µg/L	571.18 ppb	14:09:39
3	S 181.975 Axial†	6542.2	6235.8	5564.3	µg/L	5564.3 ppb	14:09:39
3	Sb 206.836†	3864.4	3795.7	458.38	µg/L	458.38 ppb	14:09:39
3	Se 196.026†	1240.7	1224.0	478	µg/L	478 ppb	14:09:39
3	SiO2†	175314.0	174051.3	17210	µg/L	17210 ppb	14:09:37
3	Si 251.611†	548695.4	549687.1	8042.0	µg/L	8042.0 ppb	14:09:37
3	Sn 189.927†	7443.1	7459.6	495.23	µg/L	495.23 ppb	14:09:39
3	Ti 334.940†	1879750.5	1884626.8	1851.5	µg/L	1851.5 ppb	14:09:37
3	Tl 190.801†	3343.6	3469.7	478.84	µg/L	478.84 ppb	14:09:39
3	U 409.014†	1390.8	1686.3	133.18	µg/L	133.18 ppb	14:09:37
3	V 292.402†	108435.6	108388.4	521.87	µg/L	521.87 ppb	14:09:37
3	Zn 213.857†	128518.3	128303.7	702.93	µg/L	702.93 ppb	14:09:37

Mean Data: 1202068113|972603|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1703496.2	98.988	%	0.7469				0.75%
Sc RADIAL	130683.7	102	%	0.5				0.53%
Y 371.029	1188327.4	119.31	%	0.813				0.68%
Ag 328.068†	124076.9	485.68	µg/L	0.652	485.68	ppb	0.652	0.13%
Al 396.153Radial†	177264.9	37541	µg/L	510.9	37541	ppb	510.9	1.36%
As 188.979†	1501.0	513.64	µg/L	6.761	513.64	ppb	6.761	1.32%
B 249.677†	33470.0	478.91	µg/L	1.371	478.91	ppb	1.371	0.29%
Ba 233.527†	163082.4	689.57	µg/L	0.725	689.57	ppb	0.725	0.11%
Be 313.107†	1801490.5	492.27	µg/L	0.221	492.27	ppb	0.221	0.04%
Ca 317.933Radial†	151084.5	10364	µg/L	35.8	10364	ppb	35.8	0.35%
Cd 226.502†	77673.0	480.23	µg/L	1.669	480.23	ppb	1.669	0.35%
Co 228.616†	39004.6	478.60	µg/L	2.569	478.60	ppb	2.569	0.54%
Cr 267.716†	60803.8	498.61	µg/L	3.172	498.61	ppb	3.172	0.64%
Cu 324.752†	128542.7	517.35	µg/L	0.342	517.35	ppb	0.342	0.07%
Fe 238.204 Radial†	891130.7	66139	µg/L	1004.8	66139	ppb	1004.8	1.52%
K 766.490 Radial†	21159.8	8071.7	µg/L	54.29	8071.7	ppb	54.29	0.67%
Mg 279.077 IEC†	21658.5	9988.3	µg/L	53.36	9988.3	ppb	53.36	0.53%
Mn 257.610†	2380449.6	2989.9	µg/L	3.17	2989.9	ppb	3.17	0.11%
Mo 202.031†	15423.5	483.00	µg/L	0.149	483.00	ppb	0.149	0.03%
Na 589.592 Radial†	38483.7	5699.4	µg/L	18.82	5699.4	ppb	18.82	0.33%

Ni 231.604†	42750.7	501.55 µg/L	2.876	501.55 ppb	2.876	0.57%
P 214.914†	4359.6	899.49 µg/L	14.017	899.49 ppb	14.017	1.56%
Pb 220.353†	9703.7	567.32 µg/L	7.510	567.32 ppb	7.510	1.32%
S 181.975 Axial†	6267.9	5593.0 µg/L	56.35	5593.0 ppb	56.35	1.01%
Sb 206.836†	3865.8	466.80 µg/L	7.323	466.80 ppb	7.323	1.57%
Se 196.026†	1255.3	489 µg/L	12.6	489 ppb	12.6	2.57%
SiO2†	176078.0	17411 µg/L	190.5	17411 ppb	190.5	1.09%
Si 251.611†	555700.1	8130.1 µg/L	86.41	8130.1 ppb	86.41	1.06%
Sn 189.927†	7521.1	499.25 µg/L	3.489	499.25 ppb	3.489	0.70%
Sr 421.552†	224846.7	519.53 µg/L	5.936	519.53 ppb	5.936	1.14%
Ti 334.940†	1881482.5	1848.4 µg/L	2.77	1848.4 ppb	2.77	0.15%
Tl 190.801†	3500.3	482.80 µg/L	3.786	482.80 ppb	3.786	0.78%
U 409.014†	1589.9	127.39 µg/L	5.061	127.39 ppb	5.061	3.97%
V 292.402†	108456.0	522.12 µg/L	0.397	522.12 ppb	0.397	0.08%
Zn 213.857†	128367.9	703.19 µg/L	1.153	703.19 ppb	1.153	0.16%

Sequence No.: 7
Sample ID: 1202068111|972603|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 307
Date Collected: 4/7/2010 14:09:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202068111|972603|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130540.4	130540.4	102	%			14:10:17
1	Al 396.153Radial†	13128.5	13009.3	2756.7	µg/L	2756.7	ppb	14:10:19
1	Ca 317.933Radial†	13751.3	13030.2	893.84	µg/L	893.84	ppb	14:10:19
1	Fe 238.204 Radial†	145905.5	143507.4	10651	µg/L	10651	ppb	14:10:17
1	K 766.490 Radial†	2789.3	1180.9	450.27	µg/L	450.27	ppb	14:10:17
1	Mg 279.077 IEC†	1414.9	1229.7	560.57	µg/L	560.57	ppb	14:10:19
1	Na 589.592 Radial†	2372.8	1405.3	207.98	µg/L	207.98	ppb	14:10:19
1	Sr 421.552†	2817.7	2879.4	6.6472	µg/L	6.6472	ppb	14:10:19
1	Sc 361.383	1712294.3	1712294.3	99.499	%			14:10:45
1	Y 371.029	1022268.2	1022268.2	102.64	%			14:10:45
1	Ag 328.068†	4552.9	-24.6	-0.2741	µg/L	-0.2741	ppb	14:10:47
1	As 188.979†	-13.1	-4.6	0.9093	µg/L	0.9093	ppb	14:11:07
1	B 249.677†	4194.0	219.6	3.1467	µg/L	3.1467	ppb	14:10:47
1	Ba 233.527†	7801.0	7980.3	33.630	µg/L	33.630	ppb	14:10:47
1	Be 313.107†	2365.3	3387.5	0.9124	µg/L	0.9124	ppb	14:10:47
1	Cd 226.502†	129.6	218.2	0.2496	µg/L	0.2496	ppb	14:11:07
1	Co 228.616†	-43.6	151.8	1.3506	µg/L	1.3506	ppb	14:11:07
1	Cr 267.716†	532.5	272.9	2.5172	µg/L	2.5172	ppb	14:11:07
1	Cu 324.752†	3395.2	225.6	2.4215	µg/L	2.4215	ppb	14:10:47
1	Mn 257.610†	359869.6	361508.4	454.09	µg/L	454.09	ppb	14:10:47
1	Mo 202.031†	13.9	34.2	1.4983	µg/L	1.4983	ppb	14:11:07
1	Ni 231.604†	188.7	280.8	3.2942	µg/L	3.2942	ppb	14:11:07
1	P 214.914†	343.5	350.9	69.242	µg/L	69.242	ppb	14:11:07
1	Pb 220.353†	346.3	234.8	13.773	µg/L	13.773	ppb	14:11:07
1	S 181.975 Axial†	178.8	-146.3	-130.45	µg/L	-130.45	ppb	14:11:07
1	Sb 206.836†	88.2	8.4	0.8594	µg/L	0.8594	ppb	14:11:07
1	Se 196.026†	-3.1	-23.7	-5.14	µg/L	-5.14	ppb	14:11:07
1	SiO2†	21410.9	19729.3	1953.1	µg/L	1953.1	ppb	14:10:47
1	Si 251.611†	62371.7	62029.1	908.55	µg/L	908.55	ppb	14:10:47
1	Sn 189.927†	63.5	58.0	4.4939	µg/L	4.4939	ppb	14:11:07
1	Ti 334.940†	209105.4	209387.5	205.78	µg/L	205.78	ppb	14:10:47
1	Tl 190.801†	-144.1	-28.7	-0.4506	µg/L	-0.4506	ppb	14:11:07
1	U 409.014†	-1030.3	-744.1	-42.537	µg/L	-42.537	ppb	14:10:47
1	V 292.402†	1971.5	1608.4	6.4426	µg/L	6.4426	ppb	14:10:47
1	Zn 213.857†	7288.0	6724.0	36.300	µg/L	36.300	ppb	14:11:07
2	Sc RADIAL	131176.6	131176.6	102	%			14:10:21
2	Al 396.153Radial†	13230.0	13046.0	2764.5	µg/L	2764.5	ppb	14:10:23
2	Ca 317.933Radial†	13949.7	13158.9	902.67	µg/L	902.67	ppb	14:10:23
2	Fe 238.204 Radial†	146649.6	143539.8	10653	µg/L	10653	ppb	14:10:21
2	K 766.490 Radial†	2812.4	1190.3	453.86	µg/L	453.86	ppb	14:10:21
2	Mg 279.077 IEC†	1332.8	1142.6	520.18	µg/L	520.18	ppb	14:10:23
2	Na 589.592 Radial†	2272.0	1295.2	191.66	µg/L	191.66	ppb	14:10:23
2	Sr 421.552†	2738.9	2788.8	6.4377	µg/L	6.4377	ppb	14:10:23
2	Sc 361.383	1721389.8	1721389.8	100.03	%			14:11:09
2	Y 371.029	1026888.4	1026888.4	103.11	%			14:11:09
2	Ag 328.068†	4610.0	8.3	-0.1522	µg/L	-0.1522	ppb	14:11:11
2	As 188.979†	-17.4	-8.8	-0.4633	µg/L	-0.4633	ppb	14:11:32
2	B 249.677†	4081.3	84.7	1.2094	µg/L	1.2094	ppb	14:11:11
2	Ba 233.527†	7651.9	7789.8	32.824	µg/L	32.824	ppb	14:11:11
2	Be 313.107†	2075.6	3085.3	0.8282	µg/L	0.8282	ppb	14:11:11
2	Cd 226.502†	119.4	207.3	0.1808	µg/L	0.1808	ppb	14:11:32
2	Co 228.616†	-45.1	150.6	1.3351	µg/L	1.3351	ppb	14:11:32
2	Cr 267.716†	565.3	302.9	2.7685	µg/L	2.7685	ppb	14:11:32
2	Cu 324.752†	3439.7	252.0	2.5204	µg/L	2.5204	ppb	14:11:11
2	Mn 257.610†	358592.3	358320.3	450.09	µg/L	450.09	ppb	14:11:11
2	Mo 202.031†	8.5	28.8	1.3293	µg/L	1.3293	ppb	14:11:32
2	Ni 231.604†	198.7	289.8	3.3998	µg/L	3.3998	ppb	14:11:32
2	P 214.914†	352.2	357.7	70.701	µg/L	70.701	ppb	14:11:32
2	Pb 220.353†	313.2	199.8	11.744	µg/L	11.744	ppb	14:11:32

2	S 181.975 Axial†	166.2	-159.9	-142.60 µg/L	-142.60 ppb		14:11:32
2	Sb 206.836†	103.7	23.3	2.6559 µg/L	2.6559 ppb		14:11:32
2	Se 196.026†	12.5	-8.0	0.686 µg/L	0.686 ppb		14:11:32
2	SiO2†	23596.4	21800.5	2158.2 µg/L	2158.2 ppb		14:11:11
2	Si 251.611†	69552.2	68876.4	1008.9 µg/L	1008.9 ppb		14:11:11
2	Sn 189.927†	40.6	34.7	2.9676 µg/L	2.9676 ppb		14:11:32
2	Ti 334.940†	209646.4	208817.9	205.23 µg/L	205.23 ppb		14:11:11
2	Tl 190.801†	-140.0	-23.9	0.1575 µg/L	0.1575 ppb		14:11:32
2	U 409.014†	-1132.3	-840.6	-48.209 µg/L	-48.209 ppb		14:11:11
2	V 292.402†	1989.1	1615.5	6.4724 µg/L	6.4724 ppb		14:11:11
2	Zn 213.857†	7249.6	6646.9	35.871 µg/L	35.871 ppb		14:11:32
3	Sc RADIAL	130347.6	130347.6	101 %			14:10:25
3	Al 396.153Radial†	13072.7	12973.4	2749.1 µg/L	2749.1 ppb		14:10:27
3	Ca 317.933Radial†	14025.9	13320.9	913.79 µg/L	913.79 ppb		14:10:27
3	Fe 238.204 Radial†	145515.6	143335.5	10638 µg/L	10638 ppb		14:10:25
3	K 766.490 Radial†	2828.0	1223.1	466.41 µg/L	466.41 ppb		14:10:25
3	Mg 279.077 IEC†	1342.3	1160.2	528.37 µg/L	528.37 ppb		14:10:27
3	Na 589.592 Radial†	2103.7	1143.5	169.15 µg/L	169.15 ppb		14:10:27
3	Sr 421.552†	2701.4	2768.8	6.3914 µg/L	6.3914 ppb		14:10:27
3	Sc 361.383	1736639.4	1736639.4	100.91 %			14:11:34
3	Y 371.029	1036113.0	1036113.0	104.03 %			14:11:34
3	Ag 328.068†	4657.5	14.9	-0.0972 µg/L	-0.0972 ppb		14:11:36
3	As 188.979†	-5.1	3.5	3.5660 µg/L	3.5660 ppb		14:11:56
3	B 249.677†	4024.5	-7.5	-0.1145 µg/L	-0.1145 ppb		14:11:36
3	Ba 233.527†	7776.0	7845.6	33.061 µg/L	33.061 ppb		14:11:36
3	Be 313.107†	2186.3	3176.8	0.8595 µg/L	0.8595 ppb		14:11:36
3	Cd 226.502†	117.2	204.0	0.1620 µg/L	0.1620 ppb		14:11:56
3	Co 228.616†	-35.6	160.3	1.4561 µg/L	1.4561 ppb		14:11:56
3	Cr 267.716†	528.1	261.1	2.4114 µg/L	2.4114 ppb		14:11:56
3	Cu 324.752†	3411.0	193.3	2.3042 µg/L	2.3042 ppb		14:11:36
3	Mn 257.610†	355760.3	352366.1	442.61 µg/L	442.61 ppb		14:11:36
3	Mo 202.031†	16.8	36.9	1.5805 µg/L	1.5805 ppb		14:11:56
3	Ni 231.604†	187.5	276.9	3.2485 µg/L	3.2485 ppb		14:11:56
3	P 214.914†	380.8	383.0	76.175 µg/L	76.175 ppb		14:11:56
3	Pb 220.353†	316.7	200.6	11.769 µg/L	11.769 ppb		14:11:56
3	S 181.975 Axial†	173.6	-154.0	-137.34 µg/L	-137.34 ppb		14:11:56
3	Sb 206.836†	101.6	20.4	2.3146 µg/L	2.3146 ppb		14:11:56
3	Se 196.026†	18.5	-2.1	2.87 µg/L	2.87 ppb		14:11:56
3	SiO2†	21219.9	19238.4	1904.5 µg/L	1904.5 ppb		14:11:36
3	Si 251.611†	62554.7	61331.7	898.33 µg/L	898.33 ppb		14:11:36
3	Sn 189.927†	62.0	55.6	4.3186 µg/L	4.3186 ppb		14:11:56
3	Ti 334.940†	206853.7	204210.1	200.69 µg/L	200.69 ppb		14:11:36
3	Tl 190.801†	-155.9	-38.5	-1.7945 µg/L	-1.7945 ppb		14:11:56
3	U 409.014†	-782.8	-484.4	-27.398 µg/L	-27.398 ppb		14:11:36
3	V 292.402†	2036.7	1645.2	6.6369 µg/L	6.6369 ppb		14:11:36
3	Zn 213.857†	7291.9	6625.2	35.750 µg/L	35.750 ppb		14:11:56

Mean Data: 1202068111|972603|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1723441.2	100.15	%	0.715				0.71%
Sc RADIAL	130688.2	102	%	0.3				0.33%
Y 371.029	1028423.2	103.26	%	0.708				0.69%
Ag 328.068†	-0.5	-0.1745	µg/L	0.09050	-0.1745	ppb	0.09050	51.86%
Al 396.153Radial†	13009.6	2756.7	µg/L	7.71	2756.7	ppb	7.71	0.28%
As 188.979†	-3.3	1.3373	µg/L	2.04848	1.3373	ppb	2.04848	153.18%
B 249.677†	98.9	1.4139	µg/L	1.64015	1.4139	ppb	1.64015	116.01%
Ba 233.527†	7871.9	33.172	µg/L	0.4143	33.172	ppb	0.4143	1.25%
Be 313.107†	3216.5	0.8667	µg/L	0.04259	0.8667	ppb	0.04259	4.91%
Ca 317.933Radial†	13170.0	903.43	µg/L	9.995	903.43	ppb	9.995	1.11%
Cd 226.502†	209.8	0.1975	µg/L	0.04611	0.1975	ppb	0.04611	23.35%
Co 228.616†	154.2	1.3806	µg/L	0.06584	1.3806	ppb	0.06584	4.77%
Cr 267.716†	279.0	2.5657	µg/L	0.18342	2.5657	ppb	0.18342	7.15%
Cu 324.752†	223.6	2.4154	µg/L	0.10823	2.4154	ppb	0.10823	4.48%
Fe 238.204 Radial†	143460.9	10647	µg/L	8.2	10647	ppb	8.2	0.08%
K 766.490 Radial†	1198.1	456.85	µg/L	8.473	456.85	ppb	8.473	1.85%
Mg 279.077 IEC†	1177.5	536.37	µg/L	21.348	536.37	ppb	21.348	3.98%
Mn 257.610†	357398.3	448.93	µg/L	5.829	448.93	ppb	5.829	1.30%
Mo 202.031†	33.3	1.4693	µg/L	0.12809	1.4693	ppb	0.12809	8.72%
Na 589.592 Radial†	1281.3	189.60	µg/L	19.498	189.60	ppb	19.498	10.28%

Ni 231.604†	282.5	3.3141	µg/L	0.07761	3.3141	ppb	0.07761	2.34%
P 214.914†	363.9	72.039	µg/L	3.6549	72.039	ppb	3.6549	5.07%
Pb 220.353†	211.7	12.429	µg/L	1.1643	12.429	ppb	1.1643	9.37%
S 181.975 Axial†	-153.4	-136.80	µg/L	6.090	-136.80	ppb	6.090	4.45%
Concentration less than lower limit for S 181.975 Axial.								
Sb 206.836†	17.4	1.9433	µg/L	0.95407	1.9433	ppb	0.95407	49.10%
Se 196.026†	-11.3	-0.526	µg/L	4.1403	-0.526	ppb	4.1403	787.02%
SiO2†	20256.1	2005.2	µg/L	134.64	2005.2	ppb	134.64	6.71%
Si 251.611†	64079.1	938.58	µg/L	61.077	938.58	ppb	61.077	6.51%
Sn 189.927†	49.4	3.9267	µg/L	0.83522	3.9267	ppb	0.83522	21.27%
Sr 421.552†	2812.3	6.4921	µg/L	0.13628	6.4921	ppb	0.13628	2.10%
Ti 334.940†	207471.8	203.90	µg/L	2.793	203.90	ppb	2.793	1.37%
Tl 190.801†	-30.4	-0.6959	µg/L	0.99886	-0.6959	ppb	0.99886	143.54%
U 409.014†	-689.7	-39.381	µg/L	10.7583	-39.381	ppb	10.7583	27.32%
V 292.402†	1623.0	6.5173	µg/L	0.10463	6.5173	ppb	0.10463	1.61%
Zn 213.857†	6665.4	35.973	µg/L	0.2887	35.973	ppb	0.2887	0.80%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/7/2010 14:12:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	129749.1	129749.1	101	%			14:12:38
1	Al 396.153Radial†	24044.2	23899.0	5041.3	µg/L	5041.3	ppb	14:12:38
1	Ca 317.933Radial†	75308.1	74078.5	5081.6	µg/L	5081.6	ppb	14:12:38
1	Fe 238.204 Radial†	68656.8	67876.2	5037.7	µg/L	5037.7	ppb	14:12:38
1	K 766.490 Radial†	14844.5	13137.1	5014.7	µg/L	5014.7	ppb	14:12:38
1	Mg 279.077 IEC†	11284.0	11012.6	5109.4	µg/L	5109.4	ppb	14:12:38
1	Na 589.592 Radial†	69309.4	67713.5	10037	µg/L	10037	ppb	14:12:38
1	Sr 421.552†	219398.5	217397.8	502.36	µg/L	502.36	ppb	14:12:36
1	Sc 361.383	1728046.0	1728046.0	100.41	%			14:12:51
1	Y 371.029	989856.1	989856.1	99.387	%			14:12:51
1	Ag 328.068†	132754.5	127606.6	500.70	µg/L	500.70	ppb	14:12:51
1	As 188.979†	1480.9	1483.4	494.23	µg/L	494.23	ppb	14:13:11
1	B 249.677†	38454.1	34300.0	490.76	µg/L	490.76	ppb	14:12:51
1	Ba 233.527†	118248.3	117900.6	499.20	µg/L	499.20	ppb	14:12:51
1	Be 313.107†	1835789.0	1829228.7	499.97	µg/L	499.97	ppb	14:12:51
1	Cd 226.502†	80031.5	79789.4	499.92	µg/L	499.92	ppb	14:12:51
1	Co 228.616†	40533.2	40561.6	500.81	µg/L	500.81	ppb	14:12:51
1	Cr 267.716†	61606.8	61090.5	499.21	µg/L	499.21	ppb	14:12:51
1	Cu 324.752†	129514.1	125793.3	497.79	µg/L	497.79	ppb	14:12:51
1	Mn 257.610†	402019.0	400187.1	502.52	µg/L	502.52	ppb	14:12:51
1	Mo 202.031†	15965.9	15920.3	495.95	µg/L	495.95	ppb	14:13:11
1	Ni 231.604†	42897.7	42811.9	502.27	µg/L	502.27	ppb	14:12:51
1	P 214.914†	11500.1	11458.3	2468.4	µg/L	2468.4	ppb	14:13:11
1	Pb 220.353†	8696.6	8547.5	498.10	µg/L	498.10	ppb	14:13:11
1	S 181.975 Axial†	1328.5	996.9	893.12	µg/L	893.12	ppb	14:13:11
1	Sb 206.836†	4196.0	4098.4	496.02	µg/L	496.02	ppb	14:13:11
1	Se 196.026†	1353.2	1327.1	495	µg/L	495	ppb	14:13:11
1	SiO2†	55593.5	53574.8	5282.6	µg/L	5282.6	ppb	14:12:51
1	Si 251.611†	170862.6	169501.1	2472.9	µg/L	2472.9	ppb	14:12:51
1	Sn 189.927†	7581.0	7543.9	496.20	µg/L	496.20	ppb	14:13:11
1	Ti 334.940†	511453.5	508573.0	499.19	µg/L	499.19	ppb	14:12:51
1	Tl 190.801†	3717.4	3818.1	503.84	µg/L	503.84	ppb	14:13:11
1	U 409.014†	7704.5	7964.1	496.29	µg/L	496.29	ppb	14:12:51
1	V 292.402†	103434.1	102634.5	502.13	µg/L	502.13	ppb	14:12:51
1	Zn 213.857†	91170.4	90193.7	496.66	µg/L	496.66	ppb	14:12:51
2	Sc RADIAL	129036.2	129036.2	100	%			14:12:42
2	Al 396.153Radial†	23925.2	23912.0	5043.7	µg/L	5043.7	ppb	14:12:42
2	Ca 317.933Radial†	74860.4	74044.8	5079.3	µg/L	5079.3	ppb	14:12:42
2	Fe 238.204 Radial†	68146.3	67743.5	5027.8	µg/L	5027.8	ppb	14:12:42
2	K 766.490 Radial†	14829.7	13203.6	5040.1	µg/L	5040.1	ppb	14:12:42
2	Mg 279.077 IEC†	11297.0	11087.3	5144.1	µg/L	5144.1	ppb	14:12:42
2	Na 589.592 Radial†	68991.1	67775.8	10046	µg/L	10046	ppb	14:12:42
2	Sr 421.552†	220214.2	219410.7	507.01	µg/L	507.01	ppb	14:12:40
2	Sc 361.383	1712976.0	1712976.0	99.538	%			14:13:14
2	Y 371.029	983082.6	983082.6	98.707	%			14:13:14
2	Ag 328.068†	131542.1	127551.7	500.47	µg/L	500.47	ppb	14:13:14
2	As 188.979†	1489.0	1504.6	501.17	µg/L	501.17	ppb	14:13:34
2	B 249.677†	38263.2	34445.1	492.84	µg/L	492.84	ppb	14:13:14
2	Ba 233.527†	116881.9	117563.9	497.78	µg/L	497.78	ppb	14:13:14
2	Be 313.107†	1817381.8	1826819.9	499.30	µg/L	499.30	ppb	14:13:14
2	Cd 226.502†	79078.4	79533.0	498.32	µg/L	498.32	ppb	14:13:14
2	Co 228.616†	40156.7	40538.5	500.53	µg/L	500.53	ppb	14:13:14
2	Cr 267.716†	60789.9	60809.6	496.93	µg/L	496.93	ppb	14:13:14
2	Cu 324.752†	128445.8	125854.7	498.01	µg/L	498.01	ppb	14:13:14
2	Mn 257.610†	397858.5	399529.5	501.69	µg/L	501.69	ppb	14:13:14
2	Mo 202.031†	16052.1	16146.8	503.00	µg/L	503.00	ppb	14:13:34
2	Ni 231.604†	42345.2	42632.7	500.16	µg/L	500.16	ppb	14:13:14
2	P 214.914†	11553.5	11612.8	2501.7	µg/L	2501.7	ppb	14:13:34
2	Pb 220.353†	8774.0	8701.4	507.08	µg/L	507.08	ppb	14:13:34

2	S 181.975 Axial†	1350.0	1030.3	922.89 µg/L	922.89 ppb	14:13:34
2	Sb 206.836†	4234.8	4174.1	505.31 µg/L	505.31 ppb	14:13:34
2	Se 196.026†	1369.3	1355.1	506 µg/L	506 ppb	14:13:34
2	SiO2†	55004.3	53469.9	5271.9 µg/L	5271.9 ppb	14:13:14
2	Si 251.611†	169366.3	169494.9	2472.7 µg/L	2472.7 ppb	14:13:14
2	Sn 189.927†	7605.6	7635.0	502.17 µg/L	502.17 ppb	14:13:34
2	Ti 334.940†	507114.4	508694.8	499.31 µg/L	499.31 ppb	14:13:14
2	Tl 190.801†	3730.0	3863.3	509.71 µg/L	509.71 ppb	14:13:34
2	U 409.014†	7307.6	7632.8	476.92 µg/L	476.92 ppb	14:13:14
2	V 292.402†	102579.3	102681.9	502.41 µg/L	502.41 ppb	14:13:14
2	Zn 213.857†	90244.2	90062.0	495.94 µg/L	495.94 ppb	14:13:14
3	Sc RADIAL	129460.3	129460.3	101 %		14:12:46
3	Al 396.153Radial†	24076.9	23984.6	5059.2 µg/L	5059.2 ppb	14:12:46
3	Ca 317.933Radial†	75430.9	74366.9	5101.4 µg/L	5101.4 ppb	14:12:46
3	Fe 238.204 Radial†	68561.4	67933.3	5041.9 µg/L	5041.9 ppb	14:12:46
3	K 766.490 Radial†	14991.9	13316.2	5083.1 µg/L	5083.1 ppb	14:12:46
3	Mg 279.077 IEC†	11480.5	11232.5	5211.4 µg/L	5211.4 ppb	14:12:46
3	Na 589.592 Radial†	69289.4	67846.8	10056 µg/L	10056 ppb	14:12:46
3	Sr 421.552†	216547.0	215052.2	496.94 µg/L	496.94 ppb	14:12:44
3	Sc 361.383	1714432.2	1714432.2	99.623 %		14:13:37
3	Y 371.029	982580.3	982580.3	98.657 %		14:13:37
3	Ag 328.068†	131959.4	127858.3	501.67 µg/L	501.67 ppb	14:13:37
3	As 188.979†	1477.0	1491.2	496.81 µg/L	496.81 ppb	14:13:57
3	B 249.677†	38205.4	34354.4	491.54 µg/L	491.54 ppb	14:13:37
3	Ba 233.527†	117337.8	117921.8	499.29 µg/L	499.29 ppb	14:13:37
3	Be 313.107†	1823724.9	1831636.3	500.62 µg/L	500.62 ppb	14:13:37
3	Cd 226.502†	79347.8	79736.0	499.59 µg/L	499.59 ppb	14:13:37
3	Co 228.616†	40262.0	40609.9	501.41 µg/L	501.41 ppb	14:13:37
3	Cr 267.716†	61015.8	60984.4	498.34 µg/L	498.34 ppb	14:13:37
3	Cu 324.752†	128757.6	126058.0	498.84 µg/L	498.84 ppb	14:13:37
3	Mn 257.610†	398902.0	400237.5	502.58 µg/L	502.58 ppb	14:13:37
3	Mo 202.031†	15999.4	16080.2	500.93 µg/L	500.93 ppb	14:13:57
3	Ni 231.604†	42256.7	42507.8	498.70 µg/L	498.70 ppb	14:13:37
3	P 214.914†	11515.1	11564.3	2491.3 µg/L	2491.3 ppb	14:13:57
3	Pb 220.353†	8725.3	8645.0	503.78 µg/L	503.78 ppb	14:13:57
3	S 181.975 Axial†	1347.3	1026.4	919.40 µg/L	919.40 ppb	14:13:57
3	Sb 206.836†	4228.4	4164.1	504.04 µg/L	504.04 ppb	14:13:57
3	Se 196.026†	1365.8	1350.4	504 µg/L	504 ppb	14:13:57
3	SiO2†	55204.7	53624.2	5287.2 µg/L	5287.2 ppb	14:13:37
3	Si 251.611†	169763.6	169749.2	2476.5 µg/L	2476.5 ppb	14:13:37
3	Sn 189.927†	7587.3	7610.2	500.54 µg/L	500.54 ppb	14:13:57
3	Ti 334.940†	507804.7	508955.0	499.56 µg/L	499.56 ppb	14:13:37
3	Tl 190.801†	3709.5	3839.6	506.62 µg/L	506.62 ppb	14:13:57
3	U 409.014†	7639.1	7959.3	495.96 µg/L	495.96 ppb	14:13:37
3	V 292.402†	102426.5	102441.0	501.24 µg/L	501.24 ppb	14:13:37
3	Zn 213.857†	90490.8	90232.5	496.89 µg/L	496.89 ppb	14:13:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1718484.7	99.859	%	0.4830				0.48%
Sc RADIAL	129415.2	101	%	0.3				0.28%
Y 371.029	985173.0	98.917	%	0.4080				0.41%
Ag 328.068†	127672.2	500.95	µg/L	0.634	500.95	ppb	0.634	0.13%
QC value within limits for Ag 328.068 Recovery = 100.19%								
Al 396.153Radial†	23931.9	5048.1	µg/L	9.71	5048.1	ppb	9.71	0.19%
QC value within limits for Al 396.153Radial Recovery = 100.96%								
As 188.979†	1493.1	497.41	µg/L	3.508	497.41	ppb	3.508	0.71%
QC value within limits for As 188.979 Recovery = 99.48%								
B 249.677†	34366.5	491.71	µg/L	1.053	491.71	ppb	1.053	0.21%
QC value within limits for B 249.677 Recovery = 98.34%								
Ba 233.527†	117795.4	498.75	µg/L	0.848	498.75	ppb	0.848	0.17%
QC value within limits for Ba 233.527 Recovery = 99.75%								
Be 313.107†	1829228.3	499.96	µg/L	0.661	499.96	ppb	0.661	0.13%
QC value within limits for Be 313.107 Recovery = 99.99%								
Ca 317.933Radial†	74163.4	5087.5	µg/L	12.15	5087.5	ppb	12.15	0.24%
QC value within limits for Ca 317.933Radial Recovery = 101.75%								
Cd 226.502†	79686.1	499.28	µg/L	0.848	499.28	ppb	0.848	0.17%
QC value within limits for Cd 226.502 Recovery = 99.86%								
Co 228.616†	40570.0	500.92	µg/L	0.450	500.92	ppb	0.450	0.09%

```
   QC value within limits for Co 228.616  Recovery = 100.18%
Cr 267.716†            60961.5      498.16 µg/L         1.152      498.16 ppb          1.152   0.23%
   QC value within limits for Cr 267.716  Recovery = 99.63%
Cu 324.752†           125902.0      498.21 µg/L         0.551      498.21 ppb          0.551   0.11%
   QC value within limits for Cu 324.752  Recovery = 99.64%
Fe 238.204 Radial†     67851.0      5035.8 µg/L          7.23      5035.8 ppb           7.23   0.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.72%
K 766.490 Radial†      13219.0      5045.9 µg/L         34.58      5045.9 ppb          34.58   0.69%
   QC value within limits for K 766.490 Radial  Recovery = 100.92%
Mg 279.077 IEC†        11110.8      5155.0 µg/L         51.86      5155.0 ppb          51.86   1.01%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.10%
Mn 257.610†           399984.7      502.26 µg/L         0.496      502.26 ppb          0.496   0.10%
   QC value within limits for Mn 257.610  Recovery = 100.45%
Mo 202.031†            16049.1      499.96 µg/L         3.622      499.96 ppb          3.622   0.72%
   QC value within limits for Mo 202.031  Recovery = 99.99%
Na 589.592 Radial†     67778.7       10046 µg/L           9.9       10046 ppb            9.9   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 100.46%
Ni 231.604†            42650.8      500.38 µg/L         1.793      500.38 ppb          1.793   0.36%
   QC value within limits for Ni 231.604  Recovery = 100.08%
P 214.914†             11545.1      2487.1 µg/L         17.06      2487.1 ppb          17.06   0.69%
   QC value within limits for P 214.914  Recovery = 99.49%
Pb 220.353†             8631.3      502.99 µg/L         4.540      502.99 ppb          4.540   0.90%
   QC value within limits for Pb 220.353  Recovery = 100.60%
S 181.975 Axial†        1017.9      911.80 µg/L        16.272      911.80 ppb         16.272   1.78%
   QC value within limits for S 181.975 Axial  Recovery = 91.18%
Sb 206.836†             4145.5      501.79 µg/L         5.037      501.79 ppb          5.037   1.00%
   QC value within limits for Sb 206.836  Recovery = 100.36%
Se 196.026†             1344.2         502 µg/L           5.6         502 ppb            5.6   1.11%
   QC value within limits for Se 196.026  Recovery = 100.33%
SiO2†                  53556.3      5280.6 µg/L          7.87      5280.6 ppb           7.87   0.15%
   QC value within limits for SiO2  Recovery = 98.75%
Si 251.611†           169581.8      2474.0 µg/L          2.11      2474.0 ppb           2.11   0.09%
   QC value within limits for Si 251.611  Recovery = 98.96%
Sn 189.927†             7596.3      499.64 µg/L         3.087      499.64 ppb          3.087   0.62%
   QC value within limits for Sn 189.927  Recovery = 99.93%
Sr 421.552†           217286.9      502.10 µg/L         5.041      502.10 ppb          5.041   1.00%
   QC value within limits for Sr 421.552  Recovery = 100.42%
Ti 334.940†           508741.0      499.35 µg/L         0.187      499.35 ppb          0.187   0.04%
   QC value within limits for Ti 334.940  Recovery = 99.87%
Tl 190.801†             3840.4      506.72 µg/L         2.941      506.72 ppb          2.941   0.58%
   QC value within limits for Tl 190.801  Recovery = 101.34%
U 409.014†              7852.1      489.72 µg/L        11.089      489.72 ppb         11.089   2.26%
   QC value within limits for U 409.014  Recovery = 97.94%
V 292.402†            102585.8      501.93 µg/L         0.609      501.93 ppb          0.609   0.12%
   QC value within limits for V 292.402  Recovery = 100.39%
Zn 213.857†            90162.7      496.50 µg/L         0.497      496.50 ppb          0.497   0.10%
   QC value within limits for Zn 213.857  Recovery = 99.30%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/7/2010 14:14:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	129544.7	129544.7	101	%			14:14:36
1	Al 396.153Radial†	-66.2	20.0	4.2366	µg/L	4.2366	ppb	14:14:56
1	Ca 317.933Radial†	533.9	23.1	1.5843	µg/L	1.5843	ppb	14:14:56
1	Fe 238.204 Radial†	136.7	14.2	1.0557	µg/L	1.0557	ppb	14:14:56
1	K 766.490 Radial†	1662.6	84.3	32.214	µg/L	32.214	ppb	14:14:36
1	Mg 279.077 IEC†	166.0	1.6	0.7577	µg/L	0.7577	ppb	14:14:56
1	Na 589.592 Radial†	1258.2	317.6	47.066	µg/L	47.066	ppb	14:14:36
1	Sr 421.552†	7.1	112.7	0.2605	µg/L	0.2605	ppb	14:14:36
1	Sc 361.383	1733803.7	1733803.7	100.75	%			14:15:58
1	Y 371.029	1004288.5	1004288.5	100.84	%			14:15:58
1	Ag 328.068†	4609.4	-25.2	-0.0896	µg/L	-0.0896	ppb	14:16:00
1	As 188.979†	-3.5	5.2	1.6903	µg/L	1.6903	ppb	14:16:20
1	B 249.677†	4105.4	79.4	1.1403	µg/L	1.1403	ppb	14:16:00
1	Ba 233.527†	-156.3	-15.1	-0.0640	µg/L	-0.0640	ppb	14:16:20
1	Be 313.107†	-745.0	270.8	0.0758	µg/L	0.0758	ppb	14:16:00
1	Cd 226.502†	-35.9	52.3	0.3274	µg/L	0.3274	ppb	14:16:20
1	Co 228.616†	-216.7	-19.4	-0.2400	µg/L	-0.2400	ppb	14:16:20
1	Cr 267.716†	245.9	-18.2	-0.1534	µg/L	-0.1534	ppb	14:16:20
1	Cu 324.752†	3159.2	-51.0	-0.1963	µg/L	-0.1963	ppb	14:16:00
1	Mn 257.610†	226.6	50.9	0.0640	µg/L	0.0640	ppb	14:16:20
1	Mo 202.031†	-21.3	-0.8	-0.0262	µg/L	-0.0262	ppb	14:16:20
1	Ni 231.604†	-111.1	-19.2	-0.2249	µg/L	-0.2249	ppb	14:16:20
1	P 214.914†	-1.4	4.2	0.9158	µg/L	0.9158	ppb	14:16:20
1	Pb 220.353†	103.1	-10.9	-0.6369	µg/L	-0.6369	ppb	14:16:20
1	S 181.975 Axial†	282.3	-45.8	-40.836	µg/L	-40.836	ppb	14:16:20
1	Sb 206.836†	106.4	25.3	3.0561	µg/L	3.0561	ppb	14:16:20
1	Se 196.026†	21.0	0.3	0.118	µg/L	0.118	ppb	14:16:20
1	SiO2†	1824.7	21.7	2.1477	µg/L	2.1477	ppb	14:16:20
1	Si 251.611†	738.2	76.0	1.1140	µg/L	1.1140	ppb	14:16:00
1	Sn 189.927†	3.4	-2.4	-0.1606	µg/L	-0.1606	ppb	14:16:20
1	Ti 334.940†	763.7	-13.2	-0.0154	µg/L	-0.0154	ppb	14:16:00
1	Tl 190.801†	-116.1	0.8	0.1037	µg/L	0.1037	ppb	14:16:20
1	U 409.014†	-189.2	103.5	6.0613	µg/L	6.0613	ppb	14:16:00
1	V 292.402†	390.5	14.5	0.0732	µg/L	0.0732	ppb	14:16:00
1	Zn 213.857†	646.8	41.3	0.2307	µg/L	0.2307	ppb	14:16:20
2	Sc RADIAL	130169.9	130169.9	101	%			14:14:58
2	Al 396.153Radial†	-84.1	2.7	0.5544	µg/L	0.5544	ppb	14:15:18
2	Ca 317.933Radial†	511.3	-1.8	-0.1214	µg/L	-0.1214	ppb	14:15:18
2	Fe 238.204 Radial†	139.2	16.0	1.1862	µg/L	1.1862	ppb	14:15:18
2	K 766.490 Radial†	1686.7	100.3	38.299	µg/L	38.299	ppb	14:14:58
2	Mg 279.077 IEC†	199.0	33.4	15.471	µg/L	15.471	ppb	14:15:18
2	Na 589.592 Radial†	1158.2	212.9	31.535	µg/L	31.535	ppb	14:14:58
2	Sr 421.552†	-163.1	-55.4	-0.1280	µg/L	-0.1280	ppb	14:14:58
2	Sc 361.383	1717358.2	1717358.2	99.793	%			14:16:22
2	Y 371.029	994557.6	994557.6	99.859	%			14:16:22
2	Ag 328.068†	4561.4	-29.6	-0.0809	µg/L	-0.0809	ppb	14:16:24
2	As 188.979†	-12.3	-3.7	-1.2251	µg/L	-1.2251	ppb	14:16:44
2	B 249.677†	4033.2	46.0	0.6620	µg/L	0.6620	ppb	14:16:24
2	Ba 233.527†	-146.0	-6.3	-0.0264	µg/L	-0.0264	ppb	14:16:44
2	Be 313.107†	-674.0	334.9	0.0981	µg/L	0.0981	ppb	14:16:24
2	Cd 226.502†	-73.8	14.0	0.0877	µg/L	0.0877	ppb	14:16:44
2	Co 228.616†	-223.4	-28.3	-0.3492	µg/L	-0.3492	ppb	14:16:44
2	Cr 267.716†	279.6	17.9	0.1294	µg/L	0.1294	ppb	14:16:44
2	Cu 324.752†	2956.1	-224.5	-0.8673	µg/L	-0.8673	ppb	14:16:24
2	Mn 257.610†	241.6	68.1	0.0850	µg/L	0.0850	ppb	14:16:44
2	Mo 202.031†	-12.7	7.5	0.2349	µg/L	0.2349	ppb	14:16:44
2	Ni 231.604†	-96.4	-5.5	-0.0648	µg/L	-0.0648	ppb	14:16:44
2	P 214.914†	-3.3	2.3	0.5087	µg/L	0.5087	ppb	14:16:44
2	Pb 220.353†	128.2	15.2	0.8697	µg/L	0.8697	ppb	14:16:44

2	S 181.975 Axial†	274.7	-50.8	-45.278	µg/L	-45.278 ppb	14:16:44
2	Sb 206.836†	93.7	13.5	1.6374	µg/L	1.6374 ppb	14:16:44
2	Se 196.026†	20.7	0.3	0.116	µg/L	0.116 ppb	14:16:44
2	SiO2†	1812.8	27.1	2.6710	µg/L	2.6710 ppb	14:16:44
2	Si 251.611†	940.4	285.6	4.1791	µg/L	4.1791 ppb	14:16:24
2	Sn 189.927†	7.8	1.9	0.1274	µg/L	0.1274 ppb	14:16:44
2	Ti 334.940†	771.6	2.0	-0.0083	µg/L	-0.0083 ppb	14:16:24
2	Tl 190.801†	-106.4	9.4	1.2294	µg/L	1.2294 ppb	14:16:44
2	U 409.014†	81.5	373.0	21.857	µg/L	21.857 ppb	14:16:24
2	V 292.402†	493.8	121.7	0.6054	µg/L	0.6054 ppb	14:16:24
2	Zn 213.857†	651.1	51.7	0.2881	µg/L	0.2881 ppb	14:16:44
3	Sc RADIAL	129089.7	129089.7	100	%		14:15:20
3	Al 396.153Radial†	-103.0	-16.9	-3.6000	µg/L	-3.6000 ppb	14:15:40
3	Ca 317.933Radial†	542.8	33.8	2.3188	µg/L	2.3188 ppb	14:15:40
3	Fe 238.204 Radial†	146.3	24.2	1.7976	µg/L	1.7976 ppb	14:15:40
3	K 766.490 Radial†	1676.9	104.4	39.886	µg/L	39.886 ppb	14:15:20
3	Mg 279.077 IEC†	191.1	27.2	12.597	µg/L	12.597 ppb	14:15:40
3	Na 589.592 Radial†	1095.4	160.0	23.689	µg/L	23.689 ppb	14:15:20
3	Sr 421.552†	-30.4	75.4	0.1743	µg/L	0.1743 ppb	14:15:20
3	Sc 361.383	1717275.6	1717275.6	99.788	%		14:16:46
3	Y 371.029	995317.5	995317.5	99.936	%		14:16:46
3	Ag 328.068†	4695.7	105.2	0.3970	µg/L	0.3970 ppb	14:16:48
3	As 188.979†	-15.6	-7.0	-2.2912	µg/L	-2.2912 ppb	14:17:08
3	B 249.677†	4033.7	46.8	0.6712	µg/L	0.6712 ppb	14:16:48
3	Ba 233.527†	-153.2	-13.5	-0.0572	µg/L	-0.0572 ppb	14:17:08
3	Be 313.107†	-824.9	183.6	0.0488	µg/L	0.0488 ppb	14:16:48
3	Cd 226.502†	-66.6	21.2	0.1328	µg/L	0.1328 ppb	14:17:08
3	Co 228.616†	-194.0	1.2	0.0151	µg/L	0.0151 ppb	14:17:08
3	Cr 267.716†	238.3	-23.4	-0.1880	µg/L	-0.1880 ppb	14:17:08
3	Cu 324.752†	3054.7	-125.5	-0.4984	µg/L	-0.4984 ppb	14:16:48
3	Mn 257.610†	271.3	97.9	0.1225	µg/L	0.1225 ppb	14:17:08
3	Mo 202.031†	-9.8	10.5	0.3262	µg/L	0.3262 ppb	14:17:08
3	Ni 231.604†	-50.1	40.9	0.4802	µg/L	0.4802 ppb	14:17:08
3	P 214.914†	-4.3	1.3	0.2921	µg/L	0.2921 ppb	14:17:08
3	Pb 220.353†	109.8	-3.2	-0.1829	µg/L	-0.1829 ppb	14:17:08
3	S 181.975 Axial†	287.6	-37.9	-33.775	µg/L	-33.775 ppb	14:17:08
3	Sb 206.836†	117.5	37.4	4.5276	µg/L	4.5276 ppb	14:17:08
3	Se 196.026†	14.6	-5.9	-2.20	µg/L	-2.20 ppb	14:17:08
3	SiO2†	1803.0	17.4	1.7084	µg/L	1.7084 ppb	14:17:08
3	Si 251.611†	992.3	337.6	4.9390	µg/L	4.9390 ppb	14:16:48
3	Sn 189.927†	8.5	2.7	0.1762	µg/L	0.1762 ppb	14:17:08
3	Ti 334.940†	888.5	119.2	0.1181	µg/L	0.1181 ppb	14:16:48
3	Tl 190.801†	-110.6	5.2	0.6794	µg/L	0.6794 ppb	14:17:08
3	U 409.014†	-368.9	-78.3	-4.6056	µg/L	-4.6056 ppb	14:16:48
3	V 292.402†	286.9	-85.6	-0.4139	µg/L	-0.4139 ppb	14:16:48
3	Zn 213.857†	646.0	46.6	0.2558	µg/L	0.2558 ppb	14:17:08

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1722812.5	100.11	%	0.553				0.55%
Sc RADIAL	129601.4	101	%	0.4				0.42%
Y 371.029	998054.5	100.21	%	0.543				0.54%
Ag 328.068†	16.8	0.0755	µg/L	0.27849	0.0755	ppb	0.27849	368.85%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.9	0.3970	µg/L	3.92070	0.3970	ppb	3.92070	987.59%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.9	-0.6087	µg/L	2.06109	-0.6087	ppb	2.06109	338.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	57.4	0.8245	µg/L	0.27353	0.8245	ppb	0.27353	33.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-11.6	-0.0492	µg/L	0.02006	-0.0492	ppb	0.02006	40.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	263.1	0.0742	µg/L	0.02470	0.0742	ppb	0.02470	33.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	18.4	1.2606	µg/L	1.25188	1.2606	ppb	1.25188	99.31%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	29.2	0.1827	µg/L	0.12738	0.1827	ppb	0.12738	69.74%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-15.5	-0.1914	µg/L	0.18694	-0.1914	ppb	0.18694	97.69%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -7.9     -0.0706 µg/L       0.17415     -0.0706 ppb        0.17415 246.51%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -133.7     -0.5207 µg/L       0.33605     -0.5207 ppb        0.33605  64.54%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       18.1      1.3465 µg/L       0.39612      1.3465 ppb        0.39612  29.42%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        96.3     36.800 µg/L        4.0500     36.800 ppb         4.0500  11.01%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          20.7      9.6086 µg/L       7.79868      9.6086 ppb        7.79868  81.16%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              72.3      0.0905 µg/L       0.02966      0.0905 ppb        0.02966  32.79%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.7      0.1783 µg/L       0.18292      0.1783 ppb        0.18292 102.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      230.2     34.097 µg/L       11.8973     34.097 ppb        11.8973  34.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               5.4      0.0635 µg/L       0.36963      0.0635 ppb        0.36963 582.23%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                2.6      0.5722 µg/L       0.31669      0.5722 ppb        0.31669  55.34%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.4      0.0167 µg/L       0.77287      0.0167 ppb        0.77287 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -44.8     -39.963 µg/L        5.8011    -39.963 ppb         5.8011  14.52%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              25.4      3.0737 µg/L       1.44521      3.0737 ppb        1.44521  47.02%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.8     -0.655 µg/L        1.3364     -0.655 ppb         1.3364 204.15%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    22.0      2.1757 µg/L       0.48190      2.1757 ppb        0.48190  22.15%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             233.0      3.4107 µg/L       2.02495      3.4107 ppb        2.02495  59.37%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.7      0.0477 µg/L       0.18203      0.0477 ppb        0.18203 381.85%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              44.2      0.1022 µg/L       0.20402      0.1022 ppb        0.20402 199.57%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              36.0      0.0315 µg/L       0.07511      0.0315 ppb        0.07511 238.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.1      0.6708 µg/L       0.56290      0.6708 ppb        0.56290  83.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              132.7      7.7710 µg/L      13.31412      7.7710 ppb       13.31412 171.33%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               16.9      0.0882 µg/L       0.50982      0.0882 ppb        0.50982 577.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              46.5      0.2582 µg/L       0.02878      0.2582 ppb        0.02878  11.14%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: 248866002|972603|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 308
Date Collected: 4/7/2010 14:17:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248866002|972603|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	130074.9	130074.9	101	%			14:17:51
1	Al 396.153Radial†	55308.0	54725.5	11596	µg/L	11596	ppb	14:17:51
1	Ca 317.933Radial†	146333.1	144058.7	9882.1	µg/L	9882.1	ppb	14:17:51
1	Fe 238.204 Radial†	966088.6	954296.2	70827	µg/L	70827	ppb	14:17:49
1	K 766.490 Radial†	7953.1	6292.1	2398.9	µg/L	2398.9	ppb	14:17:51
1	Mg 279.077 IEC†	7213.7	6963.5	3165.3	µg/L	3165.3	ppb	14:17:51
1	Na 589.592 Radial†	8767.1	7730.7	1144.2	µg/L	1144.2	ppb	14:17:51
1	Sr 421.552†	6321.8	6351.1	14.600	µg/L	14.600	ppb	14:17:51
1	Sc 361.383	1721641.1	1721641.1	100.04	%			14:18:04
1	Y 371.029	1316320.3	1316320.3	132.17	%			14:18:04
1	Ag 328.068†	4608.5	6.2	-1.3685	µg/L	-1.3685	ppb	14:18:04
1	As 188.979†	19.7	28.3	25.287	µg/L	25.287	ppb	14:18:24
1	B 249.677†	4483.5	486.1	6.9526	µg/L	6.9526	ppb	14:18:04
1	Ba 233.527†	17546.7	17679.4	73.915	µg/L	73.915	ppb	14:18:24
1	Be 313.107†	18330.2	19332.9	5.1698	µg/L	5.1698	ppb	14:18:04
1	Cd 226.502†	1050.9	1138.4	-0.2992	µg/L	-0.2992	ppb	14:18:24
1	Co 228.616†	442.0	637.5	4.2465	µg/L	4.2465	ppb	14:18:24
1	Cr 267.716†	1447.9	1185.1	11.785	µg/L	11.785	ppb	14:18:24
1	Cu 324.752†	5599.2	2410.1	19.606	µg/L	19.606	ppb	14:18:04
1	Mn 257.610†	2003353.7	2002340.2	2515.1	µg/L	2515.1	ppb	14:18:04
1	Mo 202.031†	278.9	299.1	12.181	µg/L	12.181	ppb	14:18:24
1	Ni 231.604†	2065.3	2155.5	25.288	µg/L	25.288	ppb	14:18:24
1	P 214.914†	5937.9	5941.1	1238.7	µg/L	1238.7	ppb	14:18:24
1	Pb 220.353†	8581.8	8465.0	491.95	µg/L	491.95	ppb	14:18:24
1	S 181.975 Axial†	339.6	13.4	12.044	µg/L	12.044	ppb	14:18:24
1	Sb 206.836†	76.4	-3.9	-1.3566	µg/L	-1.3566	ppb	14:18:24
1	Se 196.026†	-45.8	-66.3	-0.432	µg/L	-0.432	ppb	14:18:24
1	SiO2†	126993.3	125150.6	12389	µg/L	12389	ppb	14:18:04
1	Si 251.611†	395171.7	394349.3	5776.1	µg/L	5776.1	ppb	14:18:04
1	Sn 189.927†	311.3	305.3	23.994	µg/L	23.994	ppb	14:18:24
1	Ti 334.940†	1201757.1	1200482.2	1180.0	µg/L	1180.0	ppb	14:18:04
1	Tl 190.801†	-287.4	-171.3	-3.6729	µg/L	-3.6729	ppb	14:18:24
1	U 409.014†	-6670.5	-6376.4	-370.21	µg/L	-370.21	ppb	14:18:04
1	V 292.402†	8609.1	8232.5	31.069	µg/L	31.069	ppb	14:18:24
1	Zn 213.857†	134746.0	134088.8	737.26	µg/L	737.26	ppb	14:18:04
2	Sc RADIAL	130884.3	130884.3	102	%			14:17:55
2	Al 396.153Radial†	55748.6	54820.1	11616	µg/L	11616	ppb	14:17:55
2	Ca 317.933Radial†	147081.2	143899.1	9871.2	µg/L	9871.2	ppb	14:17:55
2	Fe 238.204 Radial†	958913.5	941348.8	69866	µg/L	69866	ppb	14:17:53
2	K 766.490 Radial†	7971.3	6261.4	2387.2	µg/L	2387.2	ppb	14:17:55
2	Mg 279.077 IEC†	7155.8	6862.5	3119.4	µg/L	3119.4	ppb	14:17:55
2	Na 589.592 Radial†	8826.4	7735.3	1144.9	µg/L	1144.9	ppb	14:17:55
2	Sr 421.552†	6234.6	6226.8	14.313	µg/L	14.313	ppb	14:17:55
2	Sc 361.383	1726643.3	1726643.3	100.33	%			14:18:27
2	Y 371.029	1319435.4	1319435.4	132.48	%			14:18:27
2	Ag 328.068†	4698.3	82.2	-1.0826	µg/L	-1.0826	ppb	14:18:27
2	As 188.979†	23.9	32.4	26.437	µg/L	26.437	ppb	14:18:47
2	B 249.677†	4280.7	271.0	3.8633	µg/L	3.8633	ppb	14:18:27
2	Ba 233.527†	17652.4	17733.9	74.158	µg/L	74.158	ppb	14:18:47
2	Be 313.107†	18427.9	19377.1	5.1782	µg/L	5.1782	ppb	14:18:27
2	Cd 226.502†	1072.1	1156.5	-0.0847	µg/L	-0.0847	ppb	14:18:47
2	Co 228.616†	445.3	639.5	4.3217	µg/L	4.3217	ppb	14:18:47
2	Cr 267.716†	1487.5	1220.3	12.048	µg/L	12.048	ppb	14:18:47
2	Cu 324.752†	5643.1	2437.6	19.563	µg/L	19.563	ppb	14:18:27
2	Mn 257.610†	2013721.6	2006872.4	2520.8	µg/L	2520.8	ppb	14:18:27
2	Mo 202.031†	279.8	299.2	12.145	µg/L	12.145	ppb	14:18:47
2	Ni 231.604†	2078.2	2162.5	25.370	µg/L	25.370	ppb	14:18:47
2	P 214.914†	5975.9	5961.8	1243.8	µg/L	1243.8	ppb	14:18:47
2	Pb 220.353†	8649.7	8507.8	494.48	µg/L	494.48	ppb	14:18:47

2	S 181.975 Axial†	337.6	10.4	9.3737 µg/L	9.3737 ppb	14:18:47
2	Sb 206.836†	88.4	7.8	0.0685 µg/L	0.0685 ppb	14:18:47
2	Se 196.026†	-49.4	-69.7	-2.04 µg/L	-2.04 ppb	14:18:47
2	SiO2†	128393.4	126178.3	12491 µg/L	12491 ppb	14:18:27
2	Si 251.611†	399844.1	397861.9	5827.5 µg/L	5827.5 ppb	14:18:27
2	Sn 189.927†	306.7	299.8	23.637 µg/L	23.637 ppb	14:18:47
2	Ti 334.940†	1206597.9	1201827.0	1181.3 µg/L	1181.3 ppb	14:18:27
2	Tl 190.801†	-302.6	-185.5	-5.4957 µg/L	-5.4957 ppb	14:18:47
2	U 409.014†	-6899.2	-6585.0	-382.15 µg/L	-382.15 ppb	14:18:27
2	V 292.402†	8656.9	8255.2	31.271 µg/L	31.271 ppb	14:18:47
2	Zn 213.857†	135872.3	134821.1	741.42 µg/L	741.42 ppb	14:18:27
3	Sc RADIAL	130468.5	130468.5	102 %		14:17:59
3	Al 396.153Radial†	55820.3	55065.2	11668 µg/L	11668 ppb	14:17:59
3	Ca 317.933Radial†	147208.2	144484.5	9911.3 µg/L	9911.3 ppb	14:17:59
3	Fe 238.204 Radial†	962574.2	947955.3	70356 µg/L	70356 ppb	14:17:57
3	K 766.490 Radial†	7998.6	6313.3	2407.0 µg/L	2407.0 ppb	14:17:59
3	Mg 279.077 IEC†	7114.3	6844.1	3110.4 µg/L	3110.4 ppb	14:17:59
3	Na 589.592 Radial†	8588.6	7528.8	1114.3 µg/L	1114.3 ppb	14:17:59
3	Sr 421.552†	6221.3	6233.3	14.327 µg/L	14.327 ppb	14:17:59
3	Sc 361.383	1736166.0	1736166.0	100.89 %		14:18:49
3	Y 371.029	1327968.9	1327968.9	133.34 %		14:18:49
3	Ag 328.068†	4523.1	-117.0	-1.8599 µg/L	-1.8599 ppb	14:18:49
3	As 188.979†	14.5	23.0	23.450 µg/L	23.450 ppb	14:19:09
3	B 249.677†	4479.6	444.7	6.3583 µg/L	6.3583 ppb	14:18:49
3	Ba 233.527†	17590.2	17575.8	73.482 µg/L	73.482 ppb	14:19:09
3	Be 313.107†	18395.5	19244.2	5.1429 µg/L	5.1429 ppb	14:18:49
3	Cd 226.502†	1038.8	1117.6	-0.3800 µg/L	-0.3800 ppb	14:19:09
3	Co 228.616†	435.7	627.5	4.1475 µg/L	4.1475 ppb	14:19:09
3	Cr 267.716†	1469.3	1194.1	11.848 µg/L	11.848 ppb	14:19:09
3	Cu 324.752†	5543.0	2307.6	19.124 µg/L	19.124 ppb	14:18:49
3	Mn 257.610†	2025479.6	2007518.7	2521.6 µg/L	2521.6 ppb	14:18:49
3	Mo 202.031†	277.1	294.9	12.032 µg/L	12.032 ppb	14:19:09
3	Ni 231.604†	2069.3	2142.2	25.132 µg/L	25.132 ppb	14:19:09
3	P 214.914†	5941.7	5895.2	1229.1 µg/L	1229.1 ppb	14:19:09
3	Pb 220.353†	8594.4	8405.6	488.53 µg/L	488.53 ppb	14:19:09
3	S 181.975 Axial†	329.7	0.7	0.7367 µg/L	0.7367 ppb	14:19:09
3	Sb 206.836†	97.1	15.9	1.0399 µg/L	1.0399 ppb	14:19:09
3	Se 196.026†	-42.3	-62.4	0.856 µg/L	0.856 ppb	14:19:09
3	SiO2†	121377.9	118522.5	11733 µg/L	11733 ppb	14:18:49
3	Si 251.611†	377861.4	373886.4	5476.3 µg/L	5476.3 ppb	14:18:49
3	Sn 189.927†	313.4	304.8	23.969 µg/L	23.969 ppb	14:19:09
3	Ti 334.940†	1214469.1	1203032.9	1182.5 µg/L	1182.5 ppb	14:18:49
3	Tl 190.801†	-302.5	-183.8	-5.2624 µg/L	-5.2624 ppb	14:19:09
3	U 409.014†	-6882.6	-6530.9	-379.11 µg/L	-379.11 ppb	14:18:49
3	V 292.402†	8624.7	8175.9	30.836 µg/L	30.836 ppb	14:19:09
3	Zn 213.857†	136565.9	134765.9	741.07 µg/L	741.07 ppb	14:18:49

Mean Data: 248866002|972603|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1728150.1	100.42	%	0.429				0.43%
Sc RADIAL	130475.9	102	%	0.3				0.31%
Y 371.029	1321241.5	132.66	%	0.606				0.46%
Ag 328.068†	-9.5	-1.4370	µg/L	0.39315	-1.4370	ppb	0.39315	27.36%
Al 396.153Radial†	54870.3	11627	µg/L	37.2	11627	ppb	37.2	0.32%
As 188.979†	27.9	25.058	µg/L	1.5067	25.058	ppb	1.5067	6.01%
B 249.677†	400.6	5.7247	µg/L	1.63922	5.7247	ppb	1.63922	28.63%
Ba 233.527†	17663.0	73.851	µg/L	0.3421	73.851	ppb	0.3421	0.46%
Be 313.107†	19318.1	5.1636	µg/L	0.01847	5.1636	ppb	0.01847	0.36%
Ca 317.933Radial†	144147.5	9888.2	µg/L	20.76	9888.2	ppb	20.76	0.21%
Cd 226.502†	1137.5	-0.2546	µg/L	0.15263	-0.2546	ppb	0.15263	59.94%
Co 228.616†	634.8	4.2385	µg/L	0.08739	4.2385	ppb	0.08739	2.06%
Cr 267.716†	1199.8	11.894	µg/L	0.1373	11.894	ppb	0.1373	1.15%
Cu 324.752†	2385.1	19.431	µg/L	0.2668	19.431	ppb	0.2668	1.37%
Fe 238.204 Radial†	947866.8	70349	µg/L	480.5	70349	ppb	480.5	0.68%
K 766.490 Radial†	6288.9	2397.7	µg/L	9.95	2397.7	ppb	9.95	0.41%
Mg 279.077 IEC†	6890.0	3131.7	µg/L	29.46	3131.7	ppb	29.46	0.94%
Mn 257.610†	2005577.1	2519.2	µg/L	3.55	2519.2	ppb	3.55	0.14%
Mo 202.031†	297.7	12.119	µg/L	0.0775	12.119	ppb	0.0775	0.64%
Na 589.592 Radial†	7664.9	1134.5	µg/L	17.49	1134.5	ppb	17.49	1.54%

Ni 231.604†	2153.4	25.263	µg/L	0.1207	25.263	ppb	0.1207	0.48%
P 214.914†	5932.7	1237.2	µg/L	7.46	1237.2	ppb	7.46	0.60%
Pb 220.353†	8459.5	491.65	µg/L	2.984	491.65	ppb	2.984	0.61%
S 181.975 Axial†	8.2	7.3848	µg/L	5.91022	7.3848	ppb	5.91022	80.03%
Sb 206.836†	6.6	-0.0827	µg/L	1.20536	-0.0827	ppb	1.20536	>999.9%
Se 196.026†	-66.2	-0.539	µg/L	1.4517	-0.539	ppb	1.4517	269.35%
SiO2†	123283.8	12204	µg/L	411.4	12204	ppb	411.4	3.37%
Si 251.611†	388699.2	5693.3	µg/L	189.66	5693.3	ppb	189.66	3.33%
Sn 189.927†	303.3	23.866	µg/L	0.1990	23.866	ppb	0.1990	0.83%
Sr 421.552†	6270.4	14.413	µg/L	0.1617	14.413	ppb	0.1617	1.12%
Ti 334.940†	1201780.7	1181.3	µg/L	1.26	1181.3	ppb	1.26	0.11%
Tl 190.801†	-180.2	-4.8103	µg/L	0.99193	-4.8103	ppb	0.99193	20.62%
U 409.014†	-6497.4	-377.16	µg/L	6.207	-377.16	ppb	6.207	1.65%
Concentration less than lower limit for U 409.014.								
V 292.402†	8221.2	31.059	µg/L	0.2180	31.059	ppb	0.2180	0.70%
Zn 213.857†	134558.6	739.92	µg/L	2.310	739.92	ppb	2.310	0.31%

Sequence No.: 15
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 4/7/2010 14:27:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	129319.5	129319.5	101	%			14:28:26
1	Al 396.153Radial†	24096.2	24029.8	5068.8	µg/L	5068.8	ppb	14:28:26
1	Ca 317.933Radial†	74906.1	73926.9	5071.2	µg/L	5071.2	ppb	14:28:26
1	Fe 238.204 Radial†	68556.7	68002.7	5047.1	µg/L	5047.1	ppb	14:28:26
1	K 766.490 Radial†	14901.5	13242.7	5055.0	µg/L	5055.0	ppb	14:28:26
1	Mg 279.077 IEC†	11312.5	11078.0	5139.8	µg/L	5139.8	ppb	14:28:26
1	Na 589.592 Radial†	69157.0	67790.2	10048	µg/L	10048	ppb	14:28:26
1	Sr 421.552†	218488.1	217215.0	501.94	µg/L	501.94	ppb	14:28:24
1	Sc 361.383	1704511.4	1704511.4	99.047	%			14:28:39
1	Y 371.029	977093.6	977093.6	98.106	%			14:28:39
1	Ag 328.068†	130395.2	127050.0	498.51	µg/L	498.51	ppb	14:28:39
1	As 188.979†	1482.4	1505.3	501.41	µg/L	501.41	ppb	14:28:59
1	B 249.677†	37643.5	34010.3	486.60	µg/L	486.60	ppb	14:28:39
1	Ba 233.527†	116321.2	117580.9	497.85	µg/L	497.85	ppb	14:28:39
1	Be 313.107†	1802827.7	1821192.8	497.77	µg/L	497.77	ppb	14:28:39
1	Cd 226.502†	78007.7	78846.5	494.01	µg/L	494.01	ppb	14:28:39
1	Co 228.616†	39896.6	40476.3	499.76	µg/L	499.76	ppb	14:28:39
1	Cr 267.716†	60257.9	60575.7	495.01	µg/L	495.01	ppb	14:28:39
1	Cu 324.752†	127510.4	125551.2	496.83	µg/L	496.83	ppb	14:28:39
1	Mn 257.610†	395396.7	399029.0	501.06	µg/L	501.06	ppb	14:28:39
1	Mo 202.031†	15902.8	16076.1	500.80	µg/L	500.80	ppb	14:28:59
1	Ni 231.604†	41919.0	42413.6	497.59	µg/L	497.59	ppb	14:28:39
1	P 214.914†	11405.0	11520.5	2481.8	µg/L	2481.8	ppb	14:28:59
1	Pb 220.353†	8651.4	8621.4	502.41	µg/L	502.41	ppb	14:28:59
1	S 181.975 Axial†	1340.6	1027.5	920.39	µg/L	920.39	ppb	14:28:59
1	Sb 206.836†	4199.4	4159.5	503.53	µg/L	503.53	ppb	14:28:59
1	Se 196.026†	1338.5	1330.9	497	µg/L	497	ppb	14:28:59
1	SiO2†	54624.7	53361.1	5261.2	µg/L	5261.2	ppb	14:28:39
1	Si 251.611†	167838.9	168797.8	2462.5	µg/L	2462.5	ppb	14:28:39
1	Sn 189.927†	7535.0	7601.7	499.98	µg/L	499.98	ppb	14:28:59
1	Ti 334.940†	503937.8	508017.7	498.64	µg/L	498.64	ppb	14:28:39
1	Tl 190.801†	3698.3	3849.9	507.95	µg/L	507.95	ppb	14:28:59
1	U 409.014†	7480.5	7843.8	489.09	µg/L	489.09	ppb	14:28:39
1	V 292.402†	101493.4	102097.4	499.56	µg/L	499.56	ppb	14:28:39
1	Zn 213.857†	88970.4	89226.1	491.32	µg/L	491.32	ppb	14:28:39
2	Sc RADIAL	129632.6	129632.6	101	%			14:28:30
2	Al 396.153Radial†	24120.0	23995.6	5061.6	µg/L	5061.6	ppb	14:28:30
2	Ca 317.933Radial†	75002.5	73842.7	5065.5	µg/L	5065.5	ppb	14:28:30
2	Fe 238.204 Radial†	68452.5	67734.9	5027.2	µg/L	5027.2	ppb	14:28:30
2	K 766.490 Radial†	14608.6	12916.5	4930.4	µg/L	4930.4	ppb	14:28:30
2	Mg 279.077 IEC†	11295.4	11033.9	5119.4	µg/L	5119.4	ppb	14:28:30
2	Na 589.592 Radial†	69206.6	67673.3	10031	µg/L	10031	ppb	14:28:30
2	Sr 421.552†	217232.1	215445.6	497.85	µg/L	497.85	ppb	14:28:28
2	Sc 361.383	1698572.1	1698572.1	98.701	%			14:29:02
2	Y 371.029	973819.8	973819.8	97.777	%			14:29:02
2	Ag 328.068†	130358.9	127473.6	500.15	µg/L	500.15	ppb	14:29:02
2	As 188.979†	1463.1	1490.9	496.67	µg/L	496.67	ppb	14:29:22
2	B 249.677†	37631.5	34131.0	488.34	µg/L	488.34	ppb	14:29:02
2	Ba 233.527†	115891.3	117556.0	497.74	µg/L	497.74	ppb	14:29:02
2	Be 313.107†	1795328.7	1819959.6	497.43	µg/L	497.43	ppb	14:29:02
2	Cd 226.502†	77839.8	78951.8	494.67	µg/L	494.67	ppb	14:29:02
2	Co 228.616†	39600.2	40316.8	497.79	µg/L	497.79	ppb	14:29:02
2	Cr 267.716†	59956.4	60482.9	494.25	µg/L	494.25	ppb	14:29:02
2	Cu 324.752†	126822.1	125303.9	495.85	µg/L	495.85	ppb	14:29:02
2	Mn 257.610†	393291.4	398291.8	500.14	µg/L	500.14	ppb	14:29:02
2	Mo 202.031†	15827.3	16055.8	500.17	µg/L	500.17	ppb	14:29:22
2	Ni 231.604†	41838.0	42479.6	498.37	µg/L	498.37	ppb	14:29:02
2	P 214.914†	11365.4	11520.6	2481.9	µg/L	2481.9	ppb	14:29:22
2	Pb 220.353†	8668.6	8669.3	505.20	µg/L	505.20	ppb	14:29:22

2	S 181.975 Axial†	1357.6	1049.4	939.97 µg/L	939.97 ppb	14:29:22
2	Sb 206.836†	4159.6	4134.0	500.46 µg/L	500.46 ppb	14:29:22
2	Se 196.026†	1335.2	1332.3	497 µg/L	497 ppb	14:29:22
2	SiO2†	54327.3	53252.6	5250.5 µg/L	5250.5 ppb	14:29:02
2	Si 251.611†	167255.6	168799.3	2462.6 µg/L	2462.6 ppb	14:29:02
2	Sn 189.927†	7514.7	7607.7	500.38 µg/L	500.38 ppb	14:29:22
2	Ti 334.940†	501265.8	507089.6	497.74 µg/L	497.74 ppb	14:29:02
2	Tl 190.801†	3694.7	3859.3	509.17 µg/L	509.17 ppb	14:29:22
2	U 409.014†	7424.0	7813.0	487.30 µg/L	487.30 ppb	14:29:02
2	V 292.402†	101182.3	102140.5	499.76 µg/L	499.76 ppb	14:29:02
2	Zn 213.857†	88653.4	89219.0	491.27 µg/L	491.27 ppb	14:29:02
3	Sc RADIAL	127184.9	127184.9	99.0 %		14:28:34
3	Al 396.153Radial†	23774.2	24106.3	5084.9 µg/L	5084.9 ppb	14:28:34
3	Ca 317.933Radial†	73848.0	74107.1	5083.6 µg/L	5083.6 ppb	14:28:34
3	Fe 238.204 Radial†	67351.4	67928.3	5041.5 µg/L	5041.5 ppb	14:28:34
3	K 766.490 Radial†	14483.6	13069.0	4988.6 µg/L	4988.6 ppb	14:28:34
3	Mg 279.077 IEC†	11074.1	11025.9	5115.7 µg/L	5115.7 ppb	14:28:34
3	Na 589.592 Radial†	68306.9	68084.6	10092 µg/L	10092 ppb	14:28:34
3	Sr 421.552†	221099.8	223497.7	516.46 µg/L	516.46 ppb	14:28:32
3	Sc 361.383	1697366.2	1697366.2	98.631 %		14:29:25
3	Y 371.029	973033.9	973033.9	97.698 %		14:29:25
3	Ag 328.068†	130098.0	127302.9	499.52 µg/L	499.52 ppb	14:29:25
3	As 188.979†	1464.4	1493.3	497.48 µg/L	497.48 ppb	14:29:45
3	B 249.677†	37908.5	34439.0	492.76 µg/L	492.76 ppb	14:29:25
3	Ba 233.527†	115786.0	117532.7	497.64 µg/L	497.64 ppb	14:29:25
3	Be 313.107†	1797657.5	1823613.0	498.43 µg/L	498.43 ppb	14:29:25
3	Cd 226.502†	77957.0	79126.7	495.77 µg/L	495.77 ppb	14:29:25
3	Co 228.616†	39638.4	40384.0	498.62 µg/L	498.62 ppb	14:29:25
3	Cr 267.716†	60181.8	60754.6	496.46 µg/L	496.46 ppb	14:29:25
3	Cu 324.752†	127007.9	125583.6	496.96 µg/L	496.96 ppb	14:29:25
3	Mn 257.610†	393560.5	398847.7	500.84 µg/L	500.84 ppb	14:29:25
3	Mo 202.031†	15917.1	16158.2	503.35 µg/L	503.35 ppb	14:29:45
3	Ni 231.604†	41724.4	42394.5	497.37 µg/L	497.37 ppb	14:29:25
3	P 214.914†	11431.4	11595.7	2498.0 µg/L	2498.0 ppb	14:29:45
3	Pb 220.353†	8710.7	8718.3	508.05 µg/L	508.05 ppb	14:29:45
3	S 181.975 Axial†	1346.8	1039.4	931.08 µg/L	931.08 ppb	14:29:45
3	Sb 206.836†	4197.1	4175.0	505.43 µg/L	505.43 ppb	14:29:45
3	Se 196.026†	1350.7	1349.0	503 µg/L	503 ppb	14:29:45
3	SiO2†	54352.1	53316.9	5256.7 µg/L	5256.7 ppb	14:29:25
3	Si 251.611†	167409.6	169075.9	2466.6 µg/L	2466.6 ppb	14:29:25
3	Sn 189.927†	7536.8	7635.5	502.20 µg/L	502.20 ppb	14:29:45
3	Ti 334.940†	500993.9	507174.7	497.82 µg/L	497.82 ppb	14:29:25
3	Tl 190.801†	3694.0	3861.3	509.43 µg/L	509.43 ppb	14:29:45
3	U 409.014†	7555.8	7952.0	495.54 µg/L	495.54 ppb	14:29:25
3	V 292.402†	101481.2	102516.4	501.62 µg/L	501.62 ppb	14:29:25
3	Zn 213.857†	88945.0	89578.5	493.27 µg/L	493.27 ppb	14:29:25

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1700149.9	98.793	%	0.2223				0.22%
Sc RADIAL	128712.3	100	%	1.0				1.03%
Y 371.029	974649.1	97.860	%	0.2162				0.22%
Ag 328.068†	127275.5	499.39	µg/L	0.828	499.39	ppb	0.828	0.17%
QC value within limits for Ag 328.068 Recovery = 99.88%								
Al 396.153Radial†	24043.9	5071.8	µg/L	11.94	5071.8	ppb	11.94	0.24%
QC value within limits for Al 396.153Radial Recovery = 101.44%								
As 188.979†	1496.5	498.52	µg/L	2.532	498.52	ppb	2.532	0.51%
QC value within limits for As 188.979 Recovery = 99.70%								
B 249.677†	34193.5	489.23	µg/L	3.175	489.23	ppb	3.175	0.65%
QC value within limits for B 249.677 Recovery = 97.85%								
Ba 233.527†	117556.5	497.74	µg/L	0.101	497.74	ppb	0.101	0.02%
QC value within limits for Ba 233.527 Recovery = 99.55%								
Be 313.107†	1821588.5	497.88	µg/L	0.509	497.88	ppb	0.509	0.10%
QC value within limits for Be 313.107 Recovery = 99.58%								
Ca 317.933Radial†	73958.9	5073.4	µg/L	9.27	5073.4	ppb	9.27	0.18%
QC value within limits for Ca 317.933Radial Recovery = 101.47%								
Cd 226.502†	78975.0	494.82	µg/L	0.887	494.82	ppb	0.887	0.18%
QC value within limits for Cd 226.502 Recovery = 98.96%								
Co 228.616†	40392.4	498.72	µg/L	0.987	498.72	ppb	0.987	0.20%

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   QC value within limits for Co 228.616  Recovery = 99.74%
Cr 267.716†            60604.4      495.24 µg/L         1.126      495.24 ppb          1.126   0.23%
   QC value within limits for Cr 267.716  Recovery = 99.05%
Cu 324.752†           125479.6      496.54 µg/L         0.608      496.54 ppb          0.608   0.12%
   QC value within limits for Cu 324.752  Recovery = 99.31%
Fe 238.204 Radial†     67888.6      5038.6 µg/L         10.26      5038.6 ppb          10.26   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.77%
K 766.490 Radial†      13076.1      4991.3 µg/L         62.34      4991.3 ppb          62.34   1.25%
   QC value within limits for K 766.490 Radial  Recovery = 99.83%
Mg 279.077 IEC†        11045.9      5125.0 µg/L         12.99      5125.0 ppb          12.99   0.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.50%
Mn 257.610†           398722.8      500.68 µg/L         0.482      500.68 ppb          0.482   0.10%
   QC value within limits for Mn 257.610  Recovery = 100.14%
Mo 202.031†            16096.7      501.44 µg/L         1.688      501.44 ppb          1.688   0.34%
   QC value within limits for Mo 202.031  Recovery = 100.29%
Na 589.592 Radial†     67849.3       10057 µg/L          31.4       10057 ppb           31.4   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 100.57%
Ni 231.604†            42429.2      497.78 µg/L         0.524      497.78 ppb          0.524   0.11%
   QC value within limits for Ni 231.604  Recovery = 99.56%
P 214.914†             11545.6      2487.2 µg/L          9.36      2487.2 ppb           9.36   0.38%
   QC value within limits for P 214.914  Recovery = 99.49%
Pb 220.353†             8669.7      505.22 µg/L         2.817      505.22 ppb          2.817   0.56%
   QC value within limits for Pb 220.353  Recovery = 101.04%
S 181.975 Axial†        1038.8      930.48 µg/L         9.802      930.48 ppb          9.802   1.05%
   QC value within limits for S 181.975 Axial  Recovery = 93.05%
Sb 206.836†             4156.2      503.14 µg/L         2.508      503.14 ppb          2.508   0.50%
   QC value within limits for Sb 206.836  Recovery = 100.63%
Se 196.026†             1337.4         499 µg/L           3.7         499 ppb            3.7   0.75%
   QC value within limits for Se 196.026  Recovery = 99.82%
SiO2†                  53310.2      5256.1 µg/L          5.39      5256.1 ppb           5.39   0.10%
   QC value within limits for SiO2  Recovery = 98.29%
Si 251.611†           168891.0      2463.9 µg/L          2.32      2463.9 ppb           2.32   0.09%
   QC value within limits for Si 251.611  Recovery = 98.56%
Sn 189.927†             7615.0      500.85 µg/L         1.180      500.85 ppb          1.180   0.24%
   QC value within limits for Sn 189.927  Recovery = 100.17%
Sr 421.552†           218719.5      505.42 µg/L         9.779      505.42 ppb          9.779   1.93%
   QC value within limits for Sr 421.552  Recovery = 101.08%
Ti 334.940†           507427.3      498.07 µg/L         0.504      498.07 ppb          0.504   0.10%
   QC value within limits for Ti 334.940  Recovery = 99.61%
Tl 190.801†             3856.9      508.85 µg/L         0.793      508.85 ppb          0.793   0.16%
   QC value within limits for Tl 190.801  Recovery = 101.77%
U 409.014†              7869.6      490.64 µg/L         4.333      490.64 ppb          4.333   0.88%
   QC value within limits for U 409.014  Recovery = 98.13%
V 292.402†            102251.4      500.32 µg/L         1.137      500.32 ppb          1.137   0.23%
   QC value within limits for V 292.402  Recovery = 100.06%
Zn 213.857†            89341.2      491.96 µg/L         1.143      491.96 ppb          1.143   0.23%
   QC value within limits for Zn 213.857  Recovery = 98.39%
All analyte(s) passed QC.
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Sequence No.: 16
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 4/7/2010 14:29:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	128130.4	128130.4	99.7	%			14:30:23
1	Al 396.153Radial†	-64.7	20.8	4.4122	µg/L	4.4122	ppb	14:30:43
1	Ca 317.933Radial†	524.2	19.2	1.3171	µg/L	1.3171	ppb	14:30:43
1	Fe 238.204 Radial†	134.3	13.3	0.9857	µg/L	0.9857	ppb	14:30:43
1	K 766.490 Radial†	1666.1	106.1	40.544	µg/L	40.544	ppb	14:30:23
1	Mg 279.077 IEC†	146.2	-16.5	-7.6353	µg/L	-7.6353	ppb	14:30:43
1	Na 589.592 Radial†	836.4	-91.6	-13.623	µg/L	-13.623	ppb	14:30:23
1	Sr 421.552†	-94.2	11.2	0.0258	µg/L	0.0258	ppb	14:30:23
1	Sc 361.383	1731382.1	1731382.1	100.61	%			14:31:31
1	Y 371.029	1002770.1	1002770.1	100.68	%			14:31:31
1	Ag 328.068†	4445.1	-182.2	-0.6901	µg/L	-0.6901	ppb	14:31:33
1	As 188.979†	-9.7	-1.0	-0.3356	µg/L	-0.3356	ppb	14:31:53
1	B 249.677†	4178.9	158.1	2.2695	µg/L	2.2695	ppb	14:31:33
1	Ba 233.527†	-151.8	-10.9	-0.0462	µg/L	-0.0462	ppb	14:31:53
1	Be 313.107†	-1045.0	-28.4	-0.0030	µg/L	-0.0030	ppb	14:31:33
1	Cd 226.502†	-59.6	28.6	0.1796	µg/L	0.1796	ppb	14:31:53
1	Co 228.616†	-199.1	-2.3	-0.0285	µg/L	-0.0285	ppb	14:31:53
1	Cr 267.716†	258.9	-5.0	-0.0528	µg/L	-0.0528	ppb	14:31:53
1	Cu 324.752†	3023.1	-181.9	-0.7047	µg/L	-0.7047	ppb	14:31:33
1	Mn 257.610†	292.5	116.7	0.1469	µg/L	0.1469	ppb	14:31:53
1	Mo 202.031†	-24.8	-4.4	-0.1386	µg/L	-0.1386	ppb	14:31:53
1	Ni 231.604†	-69.3	22.3	0.2615	µg/L	0.2615	ppb	14:31:53
1	P 214.914†	-3.7	2.0	0.4388	µg/L	0.4388	ppb	14:31:53
1	Pb 220.353†	84.4	-29.4	-1.7171	µg/L	-1.7171	ppb	14:31:53
1	S 181.975 Axial†	254.9	-72.7	-64.797	µg/L	-64.797	ppb	14:31:53
1	Sb 206.836†	94.3	13.4	1.6150	µg/L	1.6150	ppb	14:31:53
1	Se 196.026†	19.4	-1.3	-0.452	µg/L	-0.452	ppb	14:31:53
1	SiO2†	1783.1	-17.1	-1.6940	µg/L	-1.6940	ppb	14:31:33
1	Si 251.611†	765.5	104.1	1.5251	µg/L	1.5251	ppb	14:31:33
1	Sn 189.927†	9.2	3.2	0.2115	µg/L	0.2115	ppb	14:31:53
1	Ti 334.940†	708.9	-66.6	-0.0712	µg/L	-0.0712	ppb	14:31:33
1	Tl 190.801†	-106.4	10.3	1.3311	µg/L	1.3311	ppb	14:31:53
1	U 409.014†	-25.4	266.1	15.558	µg/L	15.558	ppb	14:31:33
1	V 292.402†	323.5	-51.5	-0.2398	µg/L	-0.2398	ppb	14:31:33
1	Zn 213.857†	630.1	25.6	0.1407	µg/L	0.1407	ppb	14:31:53
2	Sc RADIAL	128496.9	128496.9	100.0	%			14:30:45
2	Al 396.153Radial†	-95.6	-9.9	-2.1169	µg/L	-2.1169	ppb	14:31:05
2	Ca 317.933Radial†	521.1	14.5	0.9978	µg/L	0.9978	ppb	14:31:05
2	Fe 238.204 Radial†	157.8	36.4	2.7041	µg/L	2.7041	ppb	14:31:05
2	K 766.490 Radial†	1664.0	99.2	37.895	µg/L	37.895	ppb	14:30:45
2	Mg 279.077 IEC†	173.9	10.9	5.0339	µg/L	5.0339	ppb	14:31:05
2	Na 589.592 Radial†	1009.1	78.7	11.637	µg/L	11.637	ppb	14:30:45
2	Sr 421.552†	133.8	239.4	0.5533	µg/L	0.5533	ppb	14:30:45
2	Sc 361.383	1746121.9	1746121.9	101.46	%			14:31:56
2	Y 371.029	1010322.8	1010322.8	101.44	%			14:31:56
2	Ag 328.068†	4658.9	-8.8	-0.0139	µg/L	-0.0139	ppb	14:31:58
2	As 188.979†	-6.3	2.4	0.7768	µg/L	0.7768	ppb	14:32:18
2	B 249.677†	3988.0	-65.2	-0.9345	µg/L	-0.9345	ppb	14:31:58
2	Ba 233.527†	-151.8	-9.6	-0.0406	µg/L	-0.0406	ppb	14:32:18
2	Be 313.107†	-910.3	113.2	0.0358	µg/L	0.0358	ppb	14:31:58
2	Cd 226.502†	-48.4	40.2	0.2515	µg/L	0.2515	ppb	14:32:18
2	Co 228.616†	-222.4	-23.5	-0.2904	µg/L	-0.2904	ppb	14:32:18
2	Cr 267.716†	259.4	-6.6	-0.0666	µg/L	-0.0666	ppb	14:32:18
2	Cu 324.752†	3126.3	-105.5	-0.4025	µg/L	-0.4025	ppb	14:31:58
2	Mn 257.610†	278.4	100.4	0.1259	µg/L	0.1259	ppb	14:32:18
2	Mo 202.031†	-10.2	10.2	0.3163	µg/L	0.3163	ppb	14:32:18
2	Ni 231.604†	-98.9	-6.4	-0.0750	µg/L	-0.0750	ppb	14:32:18
2	P 214.914†	-20.8	-14.8	-3.2063	µg/L	-3.2063	ppb	14:32:18
2	Pb 220.353†	108.9	-5.9	-0.3555	µg/L	-0.3555	ppb	14:32:18

2	S 181.975 Axial†	268.6	-61.3	-54.683 µg/L	-54.683 ppb	14:32:18
2	Sb 206.836†	86.6	5.0	0.6077 µg/L	0.6077 ppb	14:32:18
2	Se 196.026†	27.2	6.3	2.37 µg/L	2.37 ppb	14:32:18
2	SiO2†	1822.6	6.8	0.6660 µg/L	0.6660 ppb	14:31:58
2	Si 251.611†	859.3	190.1	2.7817 µg/L	2.7817 ppb	14:31:58
2	Sn 189.927†	4.3	-1.6	-0.1081 µg/L	-0.1081 ppb	14:32:18
2	Ti 334.940†	785.5	2.9	-0.0042 µg/L	-0.0042 ppb	14:31:58
2	Tl 190.801†	-134.6	-16.7	-2.1636 µg/L	-2.1636 ppb	14:32:18
2	U 409.014†	-13.7	277.8	16.257 µg/L	16.257 ppb	14:31:58
2	V 292.402†	380.6	2.0	0.0235 µg/L	0.0235 ppb	14:31:58
2	Zn 213.857†	641.8	31.8	0.1772 µg/L	0.1772 ppb	14:32:18
3	Sc RADIAL	128544.1	128544.1	100 %		14:31:08
3	Al 396.153Radial†	-53.6	32.0	6.7645 µg/L	6.7645 ppb	14:31:28
3	Ca 317.933Radial†	511.6	4.9	0.3342 µg/L	0.3342 ppb	14:31:28
3	Fe 238.204 Radial†	155.1	33.7	2.4985 µg/L	2.4985 ppb	14:31:28
3	K 766.490 Radial†	1527.0	-38.3	-14.635 µg/L	-14.635 ppb	14:31:08
3	Mg 279.077 IEC†	186.6	23.4	10.869 µg/L	10.869 ppb	14:31:28
3	Na 589.592 Radial†	944.6	13.9	2.0717 µg/L	2.0717 ppb	14:31:08
3	Sr 421.552†	-29.8	75.9	0.1754 µg/L	0.1754 ppb	14:31:08
3	Sc 361.383	1731365.4	1731365.4	100.61 %		14:32:20
3	Y 371.029	1003281.6	1003281.6	100.74 %		14:32:20
3	Ag 328.068†	4717.8	88.9	0.3463 µg/L	0.3463 ppb	14:32:22
3	As 188.979†	-11.0	-2.3	-0.7487 µg/L	-0.7487 ppb	14:32:42
3	B 249.677†	4092.3	72.0	1.0344 µg/L	1.0344 ppb	14:32:22
3	Ba 233.527†	-142.9	-2.0	-0.0087 µg/L	-0.0087 ppb	14:32:42
3	Be 313.107†	-806.3	208.9	0.0585 µg/L	0.0585 ppb	14:32:22
3	Cd 226.502†	-53.0	35.3	0.2208 µg/L	0.2208 ppb	14:32:42
3	Co 228.616†	-202.3	-5.4	-0.0674 µg/L	-0.0674 ppb	14:32:42
3	Cr 267.716†	247.9	-15.9	-0.1338 µg/L	-0.1338 ppb	14:32:42
3	Cu 324.752†	3446.0	238.5	0.9454 µg/L	0.9454 ppb	14:32:22
3	Mn 257.610†	230.7	55.3	0.0690 µg/L	0.0690 ppb	14:32:42
3	Mo 202.031†	-5.8	14.5	0.4517 µg/L	0.4517 ppb	14:32:42
3	Ni 231.604†	-99.8	-8.1	-0.0945 µg/L	-0.0945 ppb	14:32:42
3	P 214.914†	-6.5	-0.8	-0.1862 µg/L	-0.1862 ppb	14:32:42
3	Pb 220.353†	123.0	8.9	0.5173 µg/L	0.5173 ppb	14:32:42
3	S 181.975 Axial†	267.6	-60.1	-53.565 µg/L	-53.565 ppb	14:32:42
3	Sb 206.836†	96.7	15.8	1.9170 µg/L	1.9170 ppb	14:32:42
3	Se 196.026†	20.6	-0.1	-0.020 µg/L	-0.020 ppb	14:32:42
3	SiO2†	1790.5	-9.8	-0.9780 µg/L	-0.9780 ppb	14:32:22
3	Si 251.611†	903.9	241.6	3.5344 µg/L	3.5344 ppb	14:32:22
3	Sn 189.927†	2.1	-3.7	-0.2459 µg/L	-0.2459 ppb	14:32:42
3	Ti 334.940†	665.4	-109.9	-0.1108 µg/L	-0.1108 ppb	14:32:22
3	Tl 190.801†	-113.1	3.6	0.4645 µg/L	0.4645 ppb	14:32:42
3	U 409.014†	-210.1	82.5	4.8093 µg/L	4.8093 ppb	14:32:22
3	V 292.402†	302.1	-72.8	-0.3443 µg/L	-0.3443 ppb	14:32:22
3	Zn 213.857†	637.1	32.5	0.1800 µg/L	0.1800 ppb	14:32:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1736289.8	100.89	%	0.495				0.49%
Sc RADIAL	128390.5	99.9	%	0.18				0.18%
Y 371.029	1005458.2	100.95	%	0.424				0.42%
Ag 328.068†	-34.0	-0.1192	µg/L	0.52615	-0.1192	ppb	0.52615	441.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.3	3.0199	µg/L	4.60148	3.0199	ppb	4.60148	152.37%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.3	-0.1025	µg/L	0.78902	-0.1025	ppb	0.78902	769.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	55.0	0.7898	µg/L	1.61594	0.7898	ppb	1.61594	204.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.5	-0.0318	µg/L	0.02019	-0.0318	ppb	0.02019	63.42%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	97.9	0.0304	µg/L	0.03115	0.0304	ppb	0.03115	102.31%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	12.9	0.8830	µg/L	0.50137	0.8830	ppb	0.50137	56.78%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	34.7	0.2173	µg/L	0.03610	0.2173	ppb	0.03610	16.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-10.4	-0.1287	µg/L	0.14136	-0.1287	ppb	0.14136	109.79%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -9.1     -0.0844 µg/L       0.04334     -0.0844 ppb        0.04334  51.38%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -16.3     -0.0539 µg/L       0.87857     -0.0539 ppb        0.87857 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       27.8      2.0628 µg/L       0.93841      2.0628 ppb        0.93841  45.49%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        55.7     21.268 µg/L       31.1210     21.268 ppb        31.1210 146.33%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           5.9      2.7558 µg/L       9.46011      2.7558 ppb        9.46011 343.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              90.8      0.1140 µg/L       0.04030      0.1140 ppb        0.04030  35.36%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.7      0.2098 µg/L       0.30922      0.2098 ppb        0.30922 147.38%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        0.3      0.0286 µg/L      12.75343      0.0286 ppb       12.75343 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               2.6      0.0307 µg/L       0.20010      0.0307 ppb        0.20010 652.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.5     -0.9846 µg/L       1.94927     -0.9846 ppb        1.94927 197.98%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -8.8     -0.5185 µg/L       1.12605     -0.5185 ppb        1.12605 217.19%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -64.7     -57.682 µg/L        6.1873     -57.682 ppb         6.1873  10.73%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              11.4      1.3799 µg/L       0.68555      1.3799 ppb        0.68555  49.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.7       0.633 µg/L        1.5209       0.633 ppb         1.5209 240.21%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -6.7     -0.6687 µg/L       1.21001     -0.6687 ppb        1.21001 180.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             178.6      2.6137 µg/L       1.01516      2.6137 ppb        1.01516  38.84%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.7     -0.0475 µg/L       0.23465     -0.0475 ppb        0.23465 494.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             108.8      0.2515 µg/L       0.27188      0.2515 ppb        0.27188 108.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -57.9     -0.0621 µg/L       0.05389     -0.0621 ppb        0.05389  86.84%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.9     -0.1227 µg/L       1.81983     -0.1227 ppb        1.81983 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              208.8      12.208 µg/L        6.4168      12.208 ppb         6.4168  52.56%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -40.8     -0.1869 µg/L       0.18951     -0.1869 ppb        0.18951 101.41%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              30.0      0.1660 µg/L       0.02195      0.1660 ppb        0.02195  13.22%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, May 05, 2010 21:45:42
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100422\Sample.271
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1975.3	1975.337	63.909	3.2
	Mg	24.0	26309.2	26309.208	377.277	1.4
	Co	58.9	34468.7	34468.736	298.520	0.9
	Rh	102.9	75878.4	75878.392	669.093	0.9
	In	114.9	90116.6	90116.552	634.136	0.7
	Pb	208.0	78581.5	78581.536	241.317	0.3
⌈>	Ba	137.9	87309.7	87309.651	892.021	1.0
⌊	Ba++	69.0	1190.2	0.014	0.000	1.1
⌈>	Ce	139.9	108958.9	108958.948	430.511	0.4
⌊	CeO	155.9	1453.0	0.013	0.000	2.4
	Bkgd	220.0	11.7	11.700	2.950	25.2

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
8.75	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
45.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.3	3072.0
Co	59	17	8.3	33064.2
In	115	17	9.8	89891.6

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	587	2080	0.644
Be	9.0	9.0	2038	2080	0.668
Mg	24.0	24.0	5684	2120	0.619
Mg	25.0	24.9	5899	2080	0.666
Mg	26.0	26.0	6172	2120	0.692
Co	58.9	58.9	14162	2170	0.635
Rh	102.9	102.9	24852	2230	0.703
In	114.9	114.9	27789	2260	0.696
Ce	139.9	139.9	33853	2280	0.757
Pb	206.0	205.9	49936	2422	0.732
Pb	207.0	206.9	50137	2385	0.691
Pb	208.0	207.9	50451	2430	0.731
U	238.1	238.0	57733	2470	0.722

Report Date/Time: Wednesday, May 05, 2010 21:44:39

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, May 06, 2010 03:35:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\Blank.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		15	
>	Sc	45		ug/L		769791	
	Ni	60		ug/L		141	
>	Ge	74		ug/L		271613	
	As	75		ug/L		213	
	Se	77		ug/L		8548	
	Se	82		ug/L		-34	
	Kr	83		ug/L		100	
>	Lu	175		ug/L		248666	
	Tl	205		ug/L		1059	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ni	60	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, May 06, 2010 03:39:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\Standard 1.079

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	2.709	3964	0.006
>	Sc	45		ug/L		691921	691921.441
	Ni	60	10.000	ug/L	1.308	8576	0.012
>	Ge	74		ug/L		248170	248169.622
	As	75	10.000	ug/L	4.360	6905	0.027
	Se	77		ug/L		4854	-0.012
	Se	82	10.000	ug/L	3.606	579	0.002
	Kr	83		ug/L		86	-0.000
>	Lu	175		ug/L		251677	251676.873
	Tl	205	10.000	ug/L	1.241	93761	0.368

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, May 06, 2010 03:44:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\Standard 2.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**100.007**	**ug/L**	1.159	36913	0.058
>	Sc	45		**ug/L**		641720	641720.139
	Ni	60	**100.016**	**ug/L**	1.191	79784	0.124
>	Ge	74		**ug/L**		232281	232280.930
	As	75	**99.996**	**ug/L**	1.460	62727	0.269
	Se	77		**ug/L**		8514	0.005
	Se	82	**99.991**	**ug/L**	2.766	5632	0.024
	Kr	83		**ug/L**		96	0.000
>	Lu	175		**ug/L**		238479	238478.760
	Tl	205	**100.003**	**ug/L**	1.091	881915	3.694

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, May 06, 2010 03:48:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 1.081

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.805**	**ug/L**	3.635	20160	0.031
>	Sc	45		**ug/L**		651428	651427.887
	Ni	60	**53.621**	**ug/L**	1.167	43474	0.067
>	Ge	74		**ug/L**		232244	232244.103
	As	75	**53.471**	**ug/L**	1.835	33623	0.144
	Se	77		**ug/L**		6701	-0.003
	Se	82	**54.574**	**ug/L**	2.362	3060	0.013
	Kr	83		**ug/L**		91	0.000
>	Lu	175		**ug/L**		237483	237483.409
	Tl	205	**52.834**	**ug/L**	0.945	464462	1.952

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	107.609				
>	Sc	45		84.6			
	Ni	60	107.242				
>	Ge	74		85.5			
	As	75	106.942				
	Se	77					
	Se	82	109.147				
	Kr	83					
>	Lu	175		95.5			
	Tl	205	105.668				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, May 06, 2010 03:52:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 2.082

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.002	ug/L	449.672	14	-0.000
>	Sc	45		ug/L		765849	765848.844
	Ni	60	-0.010	ug/L	164.409	131	-0.000
>	Ge	74		ug/L		270753	270753.217
	As	75	0.026	ug/L	800.626	231	0.000
	Se	77		ug/L		8366	-0.001
	Se	82	0.252	ug/L	85.164	-17	0.000
	Kr	83		ug/L		84	-0.000
>	Lu	175		ug/L		246065	246064.781
	Tl	205	0.023	ug/L	18.823	1258	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.5			
	Ni	60					
>	Ge	74		99.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		99.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, May 06, 2010 03:57:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 3.083

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.555**	**ug/L**	8.221	232	0.000
>	Sc	45		**ug/L**		686414	686413.745
	Ni	60	**2.197**	**ug/L**	3.568	1998	0.003
>	Ge	74		**ug/L**		243285	243284.513
	As	75	**5.522**	**ug/L**	3.987	3809	0.015
	Se	77		**ug/L**		4647	-0.012
	Se	82	**5.807**	**ug/L**	4.770	314	0.001
	Kr	83		**ug/L**		82	-0.000
>	Lu	175		**ug/L**		246711	246711.034
	Tl	205	**1.095**	**ug/L**	1.071	11028	0.040

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	111.011				
>	Sc	45		89.2			
	Ni	60	109.869				
>	Ge	74		89.6			
	As	75	110.447				
	Se	77					
	Se	82	116.135				
	Kr	83					
>	Lu	175		99.2			
	Tl	205	109.478				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, May 06, 2010 04:01:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 4.084

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.095**	**ug/L**	24.763	43	0.000
>	Sc	45		**ug/L**		574937	574936.525
	Ni	60	**3.002**	**ug/L**	0.851	2248	0.004
>	Ge	74		**ug/L**		202148	202148.259
	As	75	**0.567**	**ug/L**	117.421	469	0.002
	Se	77		**ug/L**		4662	-0.008
	Se	82	**-1.858**	**ug/L**	27.362	-117	-0.000
	Kr	83		**ug/L**		174	0.000
>	Lu	175		**ug/L**		226038	226037.892
	Tl	205	**-0.048**	**ug/L**	5.019	561	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		74.7			
	Ni	60	111.193				
>	Ge	74		74.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		90.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, May 06, 2010 04:06:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 5.085

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.062**	**ug/L**	2.286	6191	0.011
>	Sc	45		**ug/L**		563934	563933.930
	Ni	60	**21.405**	**ug/L**	2.256	15085	0.027
>	Ge	74		**ug/L**		200383	200382.571
	As	75	**20.425**	**ug/L**	3.840	11180	0.055
	Se	77		**ug/L**		5088	-0.006
	Se	82	**19.641**	**ug/L**	1.676	934	0.005
	Kr	83		**ug/L**		160	0.000
>	Lu	175		**ug/L**		223350	223350.374
	Tl	205	**18.229**	**ug/L**	0.711	151339	0.673

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	95.309				
>	Sc	45		73.3			
	Ni	60	94.296				
>	Ge	74		73.8			
	As	75	102.126				
	Se	77					
	Se	82	98.206				
	Kr	83					
>	Lu	175		89.8			
	Tl	205	91.146				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 06, 2010 04:10:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 6.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.525**	**ug/L**	1.511	18426	0.029
>	Sc	45		**ug/L**		633835	633834.911
	Ni	60	**52.602**	**ug/L**	1.284	41501	0.065
>	Ge	74		**ug/L**		226968	226968.371
	As	75	**52.368**	**ug/L**	1.443	32192	0.141
	Se	77		**ug/L**		6278	-0.004
	Se	82	**53.127**	**ug/L**	1.683	2910	0.013
	Kr	83		**ug/L**		66	-0.000
>	Lu	175		**ug/L**		232576	232575.672
	Tl	205	**51.241**	**ug/L**	0.432	441186	1.893

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	101.049				
>	Sc	45		82.3			
	Ni	60	105.203				
>	Ge	74		83.6			
	As	75	104.737				
	Se	77					
	Se	82	106.253				
	Kr	83					
>	Lu	175		93.5			
	Tl	205	102.482				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 06, 2010 04:14:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 7.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.005	ug/L	365.145	12	-0.000
>	Sc	45		ug/L		736536	736536.152
	Ni	60	-0.005	ug/L	111.510	130	-0.000
>	Ge	74		ug/L		258273	258273.105
	As	75	0.203	ug/L	178.097	344	0.001
	Se	77		ug/L		8391	0.001
	Se	82	0.316	ug/L	29.093	-12	0.000
	Kr	83		ug/L		78	-0.000
>	Lu	175		ug/L		237651	237651.190
	Tl	205	0.026	ug/L	10.843	1244	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.7			
	Ni	60					
>	Ge	74		95.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068115
Sample Date/Time: Thursday, May 06, 2010 04:19:08
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 964018|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\1202068115.088

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.003	ug/L	152.220	11	-0.000
>	Sc	45		ug/L		630497	630496.517
	Ni	60	-0.009	ug/L	62.702	108	-0.000
>	Ge	74		ug/L		227552	227552.265
	As	75	-0.254	ug/L	35.722	23	-0.001
	Se	77		ug/L		2808	-0.019
	Se	82	0.311	ug/L	77.796	-11	0.000
	Kr	83		ug/L		54	-0.000
>	Lu	175		ug/L		243174	243174.293
	Tl	205	-0.033	ug/L	3.835	737	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		81.9			
	Ni	60					
>	Ge	74		83.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068120
Sample Date/Time: Thursday, May 06, 2010 04:23:28
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 964018|40|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\1202068120.089

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**18.760**	**ug/L**	0.636	7304	0.011
>	Sc	45		**ug/L**		675907	675907.450
	Ni	60	**34.671**	**ug/L**	1.419	29212	0.043
>	Ge	74		**ug/L**		235319	235319.002
	As	75	**25.547**	**ug/L**	2.773	16373	0.069
	Se	77		**ug/L**		7177	-0.001
	Se	82	**71.783**	**ug/L**	1.087	4088	0.017
	Kr	83		**ug/L**		70	-0.000
>	Lu	175		**ug/L**		241189	241189.101
	Tl	205	**29.127**	**ug/L**	0.753	260505	1.076

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		87.8			
	Ni	60					
>	Ge	74		86.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248866001
Sample Date/Time: Thursday, May 06, 2010 04:27:49
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964018|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\248866001.090

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.636**	**ug/L**	5.877	654	0.001
>	Sc	45		**ug/L**		681076	681076.255
	Ni	60	**8.746**	**ug/L**	1.624	7518	0.011
>	Ge	74		**ug/L**		223461	223460.819
	As	75	**6.624**	**ug/L**	3.156	4161	0.018
	Se	77		**ug/L**		2693	-0.019
	Se	82	**0.538**	**ug/L**	59.151	1	0.000
	Kr	83		**ug/L**		116	0.000
>	Lu	175		**ug/L**		252870	252869.605
	Tl	205	**0.338**	**ug/L**	1.485	4234	0.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		88.5			
	Ni	60					
>	Ge	74		82.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068116
Sample Date/Time: Thursday, May 06, 2010 04:32:11
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 964018|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\1202068116.091

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.743**	**ug/L**	4.629	703	0.001
>	Sc	45		**ug/L**		688476	688475.928
	Ni	60	**10.566**	**ug/L**	1.583	9156	0.013
>	Ge	74		**ug/L**		221576	221575.554
	As	75	**7.736**	**ug/L**	0.695	4790	0.021
	Se	77		**ug/L**		2494	-0.020
	Se	82	**0.812**	**ug/L**	52.284	16	0.000
	Kr	83		**ug/L**		126	0.000
>	Lu	175		**ug/L**		253700	253699.502
	Tl	205	**0.288**	**ug/L**	2.468	3775	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		89.4			
	Ni	60					
>	Ge	74		81.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068118
Sample Date/Time: Thursday, May 06, 2010 04:36:33
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 964018|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\1202068118.092

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**26.079**	**ug/L**	1.825	10420	0.015
>	Sc	45		**ug/L**		693983	693983.490
	Ni	60	**33.308**	**ug/L**	1.005	28820	0.041
>	Ge	74		**ug/L**		222603	222602.551
	As	75	**46.560**	**ug/L**	1.846	28083	0.125
	Se	77		**ug/L**		2804	-0.019
	Se	82	**10.130**	**ug/L**	5.947	522	0.002
	Kr	83		**ug/L**		128	0.000
>	Lu	175		**ug/L**		255381	255381.035
	Tl	205	**46.361**	**ug/L**	1.100	438402	1.712

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.2			
	Ni	60					
>	Ge	74		82.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068119
Sample Date/Time: Thursday, May 06, 2010 04:40:55
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 964018|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\1202068119.093

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**25.690**	**ug/L**	2.115	10255	0.015
>	Sc	45		**ug/L**		693441	693440.682
	Ni	60	**32.747**	**ug/L**	0.539	28313	0.041
>	Ge	74		**ug/L**		221548	221548.253
	As	75	**47.077**	**ug/L**	0.793	28262	0.127
	Se	77		**ug/L**		2738	-0.019
	Se	82	**9.373**	**ug/L**	0.961	479	0.002
	Kr	83		**ug/L**		135	0.000
>	Lu	175		**ug/L**		256222	256221.876
	Tl	205	**45.451**	**ug/L**	0.477	431241	1.679

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.1			
	Ni	60					
>	Ge	74		81.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202068117
Sample Date/Time: Thursday, May 06, 2010 04:45:17
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 964018|10|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\1202068117.094

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.332**	**ug/L**	10.148	150	0.000
>	Sc	45		**ug/L**		711916	711915.992
	Ni	60	**1.732**	**ug/L**	0.799	1661	0.002
>	Ge	74		**ug/L**		240117	240117.228
	As	75	**1.439**	**ug/L**	16.688	1120	0.004
	Se	77		**ug/L**		3723	-0.016
	Se	82	**0.603**	**ug/L**	16.770	5	0.000
	Kr	83		**ug/L**		73	-0.000
>	Lu	175		**ug/L**		243937	243936.944
	Tl	205	**0.094**	**ug/L**	15.662	1887	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		92.5			
	Ni	60					
>	Ge	74		88.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 06, 2010 04:49:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 6.095

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.517**	**ug/L**	0.959	22160	0.031
>	Sc	45		**ug/L**		719698	719697.759
	Ni	60	**48.788**	**ug/L**	0.856	43715	0.061
>	Ge	74		**ug/L**		238454	238453.556
	As	75	**52.209**	**ug/L**	2.752	33709	0.141
	Se	77		**ug/L**		6736	-0.003
	Se	82	**51.537**	**ug/L**	1.228	2966	0.013
	Kr	83		**ug/L**		82	-0.000
>	Lu	175		**ug/L**		237603	237603.384
	Tl	205	**50.995**	**ug/L**	1.180	448545	1.884

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	107.034				
>	Sc	45		93.5			
	Ni	60	97.577				
>	Ge	74		87.8			
	As	75	104.418				
	Se	77					
	Se	82	103.074				
	Kr	83					
>	Lu	175		95.6			
	Tl	205	101.990				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 06, 2010 04:54:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 7.096

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.000	ug/L	3809.222	16	-0.000
>	Sc	45		ug/L		810176	810176.207
	Ni	60	-0.014	ug/L	38.356	134	-0.000
>	Ge	74		ug/L		268166	268165.894
	As	75	0.795	ug/L	36.310	785	0.002
	Se	77		ug/L		8205	-0.001
	Se	82	0.122	ug/L	63.191	-25	0.000
	Kr	83		ug/L		90	-0.000
>	Lu	175		ug/L		235852	235851.690
	Tl	205	0.004	ug/L	72.424	1041	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		105.2			
	Ni	60					
>	Ge	74		98.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248866002
Sample Date/Time: Thursday, May 06, 2010 04:58:23
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 964018|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\248866002.097

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.829**	**ug/L**	4.715	759	0.001
>	Sc	45		**ug/L**		708636	708636.172
	Ni	60	**2.744**	**ug/L**	1.345	2544	0.003
>	Ge	74		**ug/L**		230148	230148.184
	As	75	**6.459**	**ug/L**	11.569	4187	0.017
	Se	77		**ug/L**		2846	-0.019
	Se	82	**1.318**	**ug/L**	18.194	45	0.000
	Kr	83		**ug/L**		123	0.000
>	Lu	175		**ug/L**		265942	265941.557
	Tl	205	**0.529**	**ug/L**	1.878	6326	0.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		92.1			
	Ni	60					
>	Ge	74		84.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		106.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, May 06, 2010 05:20:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 6.102

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.630**	**ug/L**	1.002	21211	0.030
>	Sc	45		**ug/L**		700519	700518.789
	Ni	60	**48.962**	**ug/L**	0.214	42702	0.061
>	Ge	74		**ug/L**		234248	234248.334
	As	75	**52.026**	**ug/L**	1.975	33002	0.140
	Se	77		**ug/L**		6246	-0.005
	Se	82	**52.286**	**ug/L**	1.812	2956	0.013
	Kr	83		**ug/L**		74	-0.000
>	Lu	175		**ug/L**		235462	235462.414
	Tl	205	**50.876**	**ug/L**	1.158	443473	1.879

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	105.261				
>	Sc	45		91.0			
	Ni	60	97.924				
>	Ge	74		86.2			
	As	75	104.052				
	Se	77					
	Se	82	104.572				
	Kr	83					
>	Lu	175		94.7			
	Tl	205	101.752				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, May 06, 2010 05:24:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100505\QC Std 7.103

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.002	ug/L	503.259	14	-0.000
>	Sc	45		ug/L		787417	787416.740
	Ni	60	-0.022	ug/L	92.983	123	-0.000
>	Ge	74		ug/L		260172	260172.410
	As	75	0.057	ug/L	1767.752	247	0.000
	Se	77		ug/L		7676	-0.002
	Se	82	0.381	ug/L	8.637	-8	0.000
	Kr	83		ug/L		73	-0.000
>	Lu	175		ug/L		232823	232823.309
	Tl	205	-0.024	ug/L	43.402	785	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.3			
	Ni	60					
>	Ge	74		95.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		93.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\032410S1.SIF
Batch ID:
Results Data Set: 032410S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 3/16/2010 09:36:57**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/24/2010 09:24:39**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0007	0.0033	0.0007	09:25:32	Yes
2		[0.00]	0.0006	0.0026	0.0006	09:26:02	Yes
Mean:		[0.00]	0.0006				
SD:		0.00	0.0001				
%RSD:		0.00	7.96				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/24/2010 09:26:20**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0025	0.0155	0.0031	09:27:11	Yes
2		[0.2]	0.0025	0.0156	0.0031	09:27:40	Yes
Mean:		[0.2]	0.0025				
SD:		0.0	0.0000				
%RSD:		0.0	0.38				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01232 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/24/2010 09:28:00**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0064	0.0356	0.0070	09:28:51	Yes
2		[0.5]	0.0063	0.0345	0.0069	09:29:21	Yes
Mean:		[0.5]	0.0063				
SD:		0.0	0.0001				
%RSD:		0.0	1.27				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999934 Slope: 0.01265 Intercept: -0.00003

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/24/2010 09:29:40**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0258	0.1358	0.0265	09:30:31	Yes
2		[2.0]	0.0256	0.1334	0.0262	09:31:01	Yes
Mean:		[2.0]	0.0257				
SD:		0.0	0.0002				
%RSD:		0.0	0.65				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999988 Slope: 0.01288 Intercept: -0.00007

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/24/2010 09:31:21**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0621	0.3243	0.0627	09:32:13	Yes
2		[5.0]	0.0616	0.3190	0.0622	09:32:43	Yes
Mean:		[5.0]	0.0618				
SD:		0.0	0.0004				
%RSD:		0.0	0.58				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999865 Slope: 0.01238 Intercept: 0.00019

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/24/2010 09:33:03**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1178	0.6163	0.1185	09:33:54	Yes
2		[10.0]	0.1194	0.6216	0.1201	09:34:23	Yes
Mean:		[10.0]	0.1186				
SD:		0.0	0.0011				
%RSD:		0.0	0.95				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999718 Slope: 0.01189 Intercept: 0.00075

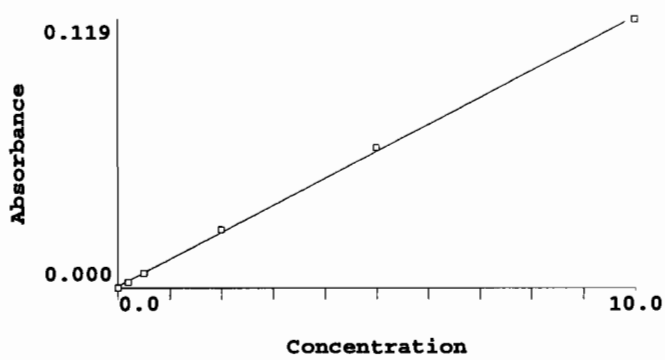

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.063	0.00	8.0
S0.2	0.0025	0.2	0.144	0.00	0.4
S0.5	0.0063	0.5	0.469	0.00	1.3
S2.0	0.0257	2.0	2.099	0.00	0.6

S5.0	0.0618	5.0	5.136	0.00	0.6
S10.0	0.1186	10.0	9.915	0.00	1.0

Correlation Coef.: 0.999718 Slope: 0.01189 Intercept: 0.00075

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/24/2010 09:34:42**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.181	5.181	0.0623	0.3260	0.0630	09:35:34	Yes
2	5.062	5.062	0.0609	0.3154	0.0616	09:36:04	Yes
Mean:	5.122	5.122	0.0616				
SD:	0.084	0.084	0.0010				
%RSD:	1.634	1.634	1.61				

QC value within limits for Hg 253.7 Recovery = 102.43%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/24/2010 09:36:23**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.079	-0.079	-0.0002	0.0016	0.0004	09:37:14	Yes
2	-0.077	-0.077	-0.0002	0.0018	0.0005	09:37:44	Yes
Mean:	-0.078	-0.078	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	2.384	2.384	12.14				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/24/2010 09:38:04**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.132	0.132	0.0023	0.0144	0.0030	09:38:55	Yes
2	0.126	0.126	0.0022	0.0144	0.0029	09:39:25	Yes
Mean:	0.129	0.129	0.0023				
SD:	0.005	0.005	0.0001				
%RSD:	3.623	3.623	2.44				

QC value within limits for Hg 253.7 Recovery = 64.54%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 09:39:45**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.060	5.060	0.0609	0.3200	0.0615	09:40:36	Yes
2	4.996	4.996	0.0601	0.3122	0.0608	09:41:06	Yes
Mean:	5.028	5.028	0.0605				
SD:	0.045	0.045	0.0005				
%RSD:	0.902	0.902	0.89				

QC value within limits for Hg 253.7 Recovery = 100.56%
All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 09:41:25**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.081	-0.081	-0.0002	0.0018	0.0004	09:42:15	Yes
2	-0.081	-0.081	-0.0002	0.0019	0.0004	09:42:45	Yes
Mean:	-0.081	-0.081	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.212	0.212	0.95				

QC value within limits for Hg 253.7 Recovery = Not calculated
A11 analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202076821|967600|1 **Date Collected: 3/24/2010 09:43:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076821|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.082	-0.082	-0.0002	0.0017	0.0004	09:43:56	Yes
2	-0.085	-0.085	-0.0003	0.0016	0.0004	09:44:26	Yes
Mean:	-0.083	-0.083	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	2.755	2.755	11.15				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202076822|967600|10 **Date Collected: 3/24/2010 09:44:46**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076822|967600|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.136	3.136	0.0380	0.1988	0.0387	09:45:38	Yes
2	3.174	3.174	0.0385	0.2027	0.0391	09:46:08	Yes
Mean:	3.155	3.155	0.0383				
SD:	0.027	0.027	0.0003				
%RSD:	0.857	0.857	0.84				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 248834001|967600|1 **Date Collected: 3/24/2010 09:46:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834001|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.044	-0.044	0.0002	0.0040	0.0009	09:47:19	Yes
2	-0.050	-0.050	0.0002	0.0033	0.0008	09:47:49	Yes
Mean:	-0.047	-0.047	0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	8.317	8.317	25.32				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202076823|967600|1 **Date Collected: 3/24/2010 09:48:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076823|967600|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 248834003|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.322	0.322	0.0046	0.0264	0.0052	09:57:16	Yes
2	0.319	0.319	0.0045	0.0264	0.0052	09:57:45	Yes
Mean:	0.320	0.320	0.0046				
SD:	0.002	0.002	0.0000				
%RSD:	0.753	0.753	0.63				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 248834004|967600|1 **Date Collected: 3/24/2010 09:58:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834004|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.065	-0.065	-0.0000	0.0032	0.0006	09:58:56	Yes
2	-0.066	-0.066	-0.0000	0.0035	0.0006	09:59:26	Yes
Mean:	-0.066	-0.066	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	0.765	0.765	17.62				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 09:59:46**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.192	5.192	0.0625	0.3277	0.0631	10:00:36	Yes
2	5.091	5.091	0.0613	0.3179	0.0619	10:01:06	Yes
Mean:	5.141	5.141	0.0619				
SD:	0.072	0.072	0.0009				
%RSD:	1.399	1.399	1.38				

QC value within limits for Hg 253.7 Recovery = 102.83%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 10:01:25**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.081	-0.081	-0.0002	0.0021	0.0004	10:02:16	Yes
2	-0.082	-0.082	-0.0002	0.0023	0.0004	10:02:46	Yes
Mean:	-0.081	-0.081	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.458	0.458	2.00				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 248834005|967600|1 **Date Collected: 3/24/2010 10:03:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 248834005|967600|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.910	5.910	0.0710	0.3730	0.0716	10:03:57	Yes
2	5.838	5.838	0.0702	0.3674	0.0708	10:04:27	Yes

SD:	0.060	0.060	0.0007
%RSD:	1.687	1.687	1.66

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 10:19:49**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.300	5.300	0.0638	0.3306	0.0644	10:20:39	Yes
2	5.271	5.271	0.0634	0.3268	0.0640	10:21:09	Yes
Mean:	5.286	5.286	0.0636				
SD:	0.021	0.021	0.0003				
%RSD:	0.398	0.398	0.39				

QC value within limits for Hg 253.7 Recovery = 105.71%
All analyte(s) passed QC.

==========

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 10:21:27**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.077	-0.077	-0.0002	0.0019	0.0005	10:22:19	Yes
2	-0.077	-0.077	-0.0002	0.0018	0.0005	10:22:49	Yes
Mean:	-0.077	-0.077	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.039	0.039	0.21				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 249072002|967577|1 **Date Collected: 3/24/2010 10:23:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 249072002|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.230	0.230	0.0035	0.0213	0.0041	10:23:59	Yes
2	0.239	0.239	0.0036	0.0212	0.0042	10:24:29	Yes
Mean:	0.235	0.235	0.0035				
SD:	0.006	0.006	0.0001				
%RSD:	2.731	2.731	2.16				

==========

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 249072003|967577|1 **Date Collected: 3/24/2010 10:24:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 249072003|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.306	0.306	0.0044	0.0257	0.0050	10:25:39	Yes
2	0.311	0.311	0.0044	0.0259	0.0051	10:26:09	Yes
Mean:	0.309	0.309	0.0044				
SD:	0.004	0.004	0.0000				
%RSD:	1.245	1.245	1.03				

==========

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 249072004|967577|1 **Date Collected: 3/24/2010 10:26:29**
Analyst: JXL **Data Type: Original**

Sequence No.: 43
Sample ID: 1202076769|967577|1
Analyst: JXL
Autosampler Location: 39
Date Collected: 3/24/2010 10:34:55
Data Type: Original

Replicate Data: 1202076769|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.162	2.162	0.0264	0.1380	0.0271	10:35:46	Yes
2	2.193	2.193	0.0268	0.1399	0.0275	10:36:16	Yes
Mean:	2.178	2.178	0.0266				
SD:	0.023	0.023	0.0003				
%RSD:	1.037	1.037	1.01				

Sequence No.: 44
Sample ID: 1202076768|967577|5
Analyst: JXL
Autosampler Location: 40
Date Collected: 3/24/2010 10:36:36
Data Type: Original

Replicate Data: 1202076768|967577|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.074	-0.074	-0.0001	0.0026	0.0005	10:37:26	Yes
2	-0.074	-0.074	-0.0001	0.0028	0.0005	10:37:56	Yes
Mean:	-0.074	-0.074	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.631	0.631	4.13				

Sequence No.: 45
Sample ID: 249102003|967577|1
Analyst: JXL
Autosampler Location: 41
Date Collected: 3/24/2010 10:38:15
Data Type: Original

Replicate Data: 249102003|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.047	-0.047	0.0002	0.0045	0.0008	10:39:07	Yes
2	-0.051	-0.051	0.0001	0.0041	0.0008	10:39:37	Yes
Mean:	-0.049	-0.049	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	5.014	5.014	17.75				

Sequence No.: 46
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 3/24/2010 10:39:56
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.819	4.819	0.0580	0.2999	0.0587	10:40:46	Yes
2	4.944	4.944	0.0595	0.3056	0.0602	10:41:16	Yes
Mean:	4.881	4.881	0.0588				
SD:	0.089	0.089	0.0011				
%RSD:	1.819	1.819	1.80				

QC value within limits for Hg 253.7 Recovery = 97.63%
All analyte(s) passed QC.

Sequence No.: 47
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 3/24/2010 10:41:35
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	-0.083	-0.083	-0.0002	0.0019	0.0004	10:42:26	Yes
2	-0.082	-0.082	-0.0002	0.0022	0.0004	10:42:56	Yes
Mean:	-0.083	-0.083	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.048	1.048	4.33				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 48 **Autosampler Location: 42**
Sample ID: 249102004|967577|1 **Date Collected: 3/24/2010 10:43:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102004|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.075	0.075	0.0016	0.0115	0.0023	10:44:06	Yes
2	0.080	0.080	0.0017	0.0119	0.0023	10:44:36	Yes
Mean:	0.078	0.078	0.0017				
SD:	0.004	0.004	0.0000				
%RSD:	4.576	4.576	2.53				

==========

Sequence No.: 49 **Autosampler Location: 43**
Sample ID: 249102005|967577|1 **Date Collected: 3/24/2010 10:44:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102005|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.048	-0.048	0.0002	0.0043	0.0008	10:45:46	Yes
2	-0.049	-0.049	0.0002	0.0041	0.0008	10:46:16	Yes
Mean:	-0.049	-0.049	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.335	0.335	1.14				

==========

Sequence No.: 50 **Autosampler Location: 44**
Sample ID: 249102006|967577|1 **Date Collected: 3/24/2010 10:46:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 249102006|967577|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.052	-0.052	0.0001	0.0037	0.0008	10:47:26	Yes
2	-0.051	-0.051	0.0001	0.0038	0.0008	10:47:56	Yes
Mean:	-0.052	-0.052	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	1.201	1.201	5.52				

==========

Sequence No.: 51 **Autosampler Location: 45**
Sample ID: 1202078437|968185|1 **Date Collected: 3/24/2010 10:48:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078437|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.085	-0.085	-0.0003	0.0019	0.0004	10:49:06	Yes
2	-0.085	-0.085	-0.0003	0.0019	0.0004	10:49:36	Yes
Mean:	-0.085	-0.085	-0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	0.593	0.593	2.27				

==========

Sequence No.: 52 **Autosampler Location: 46**
Sample ID: 1202078438|968185|10 **Date Collected: 3/24/2010 10:49:55**

Analyst: JXL Data Type: Original

Replicate Data: 1202078438|968185|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.834	3.834	0.0463	0.2373	0.0470	10:50:47	Yes
2	3.642	3.642	0.0440	0.2262	0.0447	10:51:16	Yes
Mean:	3.738	3.738	0.0452				
SD:	0.136	0.136	0.0016				
%RSD:	3.635	3.635	3.57				

==========

Sequence No.: 53 Autosampler Location: 47
Sample ID: 248860001|968185|1 Date Collected: 3/24/2010 10:51:36
Analyst: JXL Data Type: Original

Replicate Data: 248860001|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.062	0.062	0.0015	0.0106	0.0021	10:52:28	Yes
2	0.059	0.059	0.0014	0.0106	0.0021	10:52:58	Yes
Mean:	0.060	0.060	0.0015				
SD:	0.002	0.002	0.0000				
%RSD:	3.523	3.523	1.73				

==========

Sequence No.: 54 Autosampler Location: 48
Sample ID: 248860002|968185|1 Date Collected: 3/24/2010 10:53:18
Analyst: JXL Data Type: Original

Replicate Data: 248860002|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.882	0.882	0.0112	0.0601	0.0119	10:54:09	Yes
2	0.908	0.908	0.0115	0.0620	0.0122	10:54:39	Yes
Mean:	0.895	0.895	0.0114				
SD:	0.018	0.018	0.0002				
%RSD:	2.040	2.040	1.91				

==========

Sequence No.: 55 Autosampler Location: 49
Sample ID: 248860003|968185|1 Date Collected: 3/24/2010 10:54:59
Analyst: JXL Data Type: Original

Replicate Data: 248860003|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.173	0.173	0.0028	0.0176	0.0034	10:55:51	Yes
2	0.170	0.170	0.0028	0.0170	0.0034	10:56:21	Yes
Mean:	0.171	0.171	0.0028				
SD:	0.003	0.003	0.0000				
%RSD:	1.626	1.626	1.19				

==========

Sequence No.: 56 Autosampler Location: 50
Sample ID: 248860004|968185|1 Date Collected: 3/24/2010 10:56:41
Analyst: JXL Data Type: Original

Replicate Data: 248860004|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.262	0.262	0.0039	0.0225	0.0045	10:57:32	Yes
2	0.259	0.259	0.0038	0.0225	0.0045	10:58:02	Yes
Mean:	0.260	0.260	0.0038				
SD:	0.002	0.002	0.0000				
%RSD:	0.878	0.878	0.71				

Sequence No.: 57 **Autosampler Location: 51**
Sample ID: 248860005|968185|1 **Date Collected: 3/24/2010 10:58:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 248860005|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.190	0.190	0.0030	0.0183	0.0036	10:59:13	Yes
2	0.196	0.196	0.0031	0.0188	0.0037	10:59:43	Yes
Mean:	0.193	0.193	0.0030				
SD:	0.005	0.005	0.0001				
%RSD:	2.435	2.435	1.84				

Sequence No.: 58 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 11:00:03**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.182	5.182	0.0624	0.3187	0.0630	11:00:53	Yes
2	5.191	5.191	0.0625	0.3195	0.0631	11:01:23	Yes
Mean:	5.187	5.187	0.0624				
SD:	0.007	0.007	0.0001				
%RSD:	0.129	0.129	0.13				

QC value within limits for Hg 253.7 Recovery = 103.73%
All analyte(s) passed QC.

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 11:01:42**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.085	-0.085	-0.0003	0.0019	0.0004	11:02:32	Yes
2	-0.084	-0.084	-0.0003	0.0019	0.0004	11:03:02	Yes
Mean:	-0.084	-0.084	-0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	0.839	0.839	3.27				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 60 **Autosampler Location: 52**
Sample ID: 248860006|968185|1 **Date Collected: 3/24/2010 11:03:21**
Analyst: JXL **Data Type: Original**

Replicate Data: 248860006|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.644	1.644	0.0203	0.1066	0.0209	11:04:13	Yes
2	1.649	1.649	0.0203	0.1060	0.0210	11:04:43	Yes
Mean:	1.647	1.647	0.0203				
SD:	0.003	0.003	0.0000				
%RSD:	0.188	0.188	0.18				

Sequence No.: 61 **Autosampler Location: 53**
Sample ID: 248860007|968185|1 **Date Collected: 3/24/2010 11:05:02**
Analyst: JXL **Data Type: Original**

Sample ID: 248863003|968185|1 Date Collected: 3/24/2010 11:13:23
Analyst: JXL Data Type: Original

Replicate Data: 248863003|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.287	0.287	0.0042	0.0244	0.0048	11:14:15	Yes
2	0.286	0.286	0.0042	0.0240	0.0048	11:14:45	Yes
Mean:	0.286	0.286	0.0042				
SD:	0.000	0.000	0.0000				
%RSD:	0.048	0.048	0.04				

Sequence No.: 67 Autosampler Location: 59
Sample ID: 248863004|968185|1 Date Collected: 3/24/2010 11:15:05
Analyst: JXL Data Type: Original

Replicate Data: 248863004|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0011	0.0089	0.0018	11:15:56	Yes
2	0.028	0.028	0.0011	0.0086	0.0017	11:16:26	Yes
Mean:	0.031	0.031	0.0011				
SD:	0.004	0.004	0.0000				
%RSD:	12.64	12.64	4.14				

Sequence No.: 68 Autosampler Location: 60
Sample ID: 248866001|968185|1 Date Collected: 3/24/2010 11:16:46
Analyst: JXL Data Type: Original

Replicate Data: 248866001|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.508	1.508	0.0187	0.0974	0.0193	11:17:38	Yes
2	1.505	1.505	0.0186	0.0967	0.0193	11:18:07	Yes
Mean:	1.506	1.506	0.0187				
SD:	0.002	0.002	0.0000				
%RSD:	0.161	0.161	0.15				

Sequence No.: 69 Autosampler Location: 61
Sample ID: 248866002|968185|1 Date Collected: 3/24/2010 11:18:28
Analyst: JXL Data Type: Original

Replicate Data: 248866002|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0011	0.0085	0.0017	11:19:19	Yes
2	0.028	0.028	0.0011	0.0086	0.0017	11:19:49	Yes
Mean:	0.028	0.028	0.0011				
SD:	0.001	0.001	0.0000				
%RSD:	2.614	2.614	0.81				

Sequence No.: 70 Autosampler Location: 7
Sample ID: CCV Date Collected: 3/24/2010 11:20:09
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.300	5.300	0.0638	0.3270	0.0644	11:21:00	Yes
2	5.102	5.102	0.0614	0.3147	0.0620	11:21:29	Yes
Mean:	5.201	5.201	0.0626				
SD:	0.140	0.140	0.0017				

%RSD: 2.687 2.687 2.66
QC value within limits for Hg 253.7 Recovery = 104.02%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 11:21:48**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.089	-0.089	-0.0003	0.0015	0.0003	11:22:40	Yes
2	-0.092	-0.092	-0.0003	0.0012	0.0003	11:23:09	Yes
Mean:	-0.090	-0.090	-0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	2.647	2.647	8.70				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 72 **Autosampler Location: 62**
Sample ID: 248867001|968185|1 **Date Collected: 3/24/2010 11:23:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 248867001|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.609	3.609	0.0437	0.2267	0.0443	11:24:20	Yes
2	3.588	3.588	0.0434	0.2255	0.0440	11:24:50	Yes
Mean:	3.598	3.598	0.0435				
SD:	0.015	0.015	0.0002				
%RSD:	0.408	0.408	0.40				

==========

Sequence No.: 73 **Autosampler Location: 63**
Sample ID: 1202078439|968185|1 **Date Collected: 3/24/2010 11:25:10**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078439|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.811	2.811	0.0342	0.1764	0.0348	11:26:01	Yes
2	2.779	2.779	0.0338	0.1738	0.0344	11:26:31	Yes
Mean:	2.795	2.795	0.0340				
SD:	0.023	0.023	0.0003				
%RSD:	0.808	0.808	0.79				

==========

Sequence No.: 74 **Autosampler Location: 64**
Sample ID: 1202078440|968185|1 **Date Collected: 3/24/2010 11:26:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078440|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.813	5.813	0.0699	0.3587	0.0705	11:27:41	Yes
2	5.767	5.767	0.0693	0.3561	0.0699	11:28:11	Yes
Mean:	5.790	5.790	0.0696				
SD:	0.033	0.033	0.0004				
%RSD:	0.567	0.567	0.56				

==========

Sequence No.: 75 **Autosampler Location: 65**
Sample ID: 1202078442|968185|1 **Date Collected: 3/24/2010 11:28:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202078442|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.960	5.960	0.0716	0.3690	0.0722	11:29:22	Yes
2	5.970	5.970	0.0717	0.3668	0.0724	11:29:52	Yes
Mean:	5.965	5.965	0.0717				
SD:	0.007	0.007	0.0001				
%RSD:	0.119	0.119	0.12				

Sequence No.: 76 Autosampler Location: 66
Sample ID: 1202078441|968185|5 Date Collected: 3/24/2010 11:30:12
Analyst: JXL Data Type: Original

Replicate Data: 1202078441|968185|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.692	0.692	0.0090	0.0482	0.0096	11:31:03	Yes
2	0.685	0.685	0.0089	0.0480	0.0095	11:31:33	Yes
Mean:	0.688	0.688	0.0089				
SD:	0.005	0.005	0.0001				
%RSD:	0.674	0.674	0.62				

Sequence No.: 77 Autosampler Location: 67
Sample ID: 248867002|968185|1 Date Collected: 3/24/2010 11:31:53
Analyst: JXL Data Type: Original

Replicate Data: 248867002|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.779	2.779	0.0338	0.1735	0.0344	11:32:45	Yes
2	2.746	2.746	0.0334	0.1716	0.0340	11:33:14	Yes
Mean:	2.762	2.762	0.0336				
SD:	0.023	0.023	0.0003				
%RSD:	0.844	0.844	0.83				

Sequence No.: 78 Autosampler Location: 68
Sample ID: 248867003|968185|1 Date Collected: 3/24/2010 11:33:34
Analyst: JXL Data Type: Original

Replicate Data: 248867003|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.577	3.577	0.0433	0.2227	0.0439	11:34:26	Yes
2	3.537	3.537	0.0428	0.2181	0.0434	11:34:56	Yes
Mean:	3.557	3.557	0.0430				
SD:	0.028	0.028	0.0003				
%RSD:	0.798	0.798	0.78				

Sequence No.: 79 Autosampler Location: 69
Sample ID: 248867004|968185|1 Date Collected: 3/24/2010 11:35:15
Analyst: JXL Data Type: Original

Replicate Data: 248867004|968185|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	12.72	12.72	0.1520	0.7783	0.1526	11:36:07	Yes
Sample concentration is greater than that of the highest standard.							
2	12.26	12.26	0.1466	0.7462	0.1472	11:36:37	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	12.49	12.49	0.1493				
SD:	0.322	0.322	0.0038				
%RSD:	2.574	2.574	2.56				

Sample concentration is greater than that of the highest standard.

Sequence No.: 80 **Autosampler Location: 70**
Sample ID: 1202076742|967570|1 **Date Collected: 3/24/2010 11:36:57**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076742|967570|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.089	-0.089	-0.0003	0.0009	0.0003	11:37:48	Yes
2	-0.086	-0.086	-0.0003	0.0015	0.0004	11:38:18	Yes
Mean:	-0.088	-0.088	-0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	2.030	2.030	7.16				

Sequence No.: 81 **Autosampler Location: 71**
Sample ID: 1202076743|967570|1 **Date Collected: 3/24/2010 11:38:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202076743|967570|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.182	2.182	0.0267	0.1380	0.0273	11:39:29	Yes
2	2.193	2.193	0.0268	0.1380	0.0275	11:39:59	Yes
Mean:	2.187	2.187	0.0268				
SD:	0.008	0.008	0.0001				
%RSD:	0.356	0.356	0.35				

Sequence No.: 82 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 11:40:19**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.125	5.125	0.0617	0.3141	0.0623	11:41:09	Yes
2	5.096	5.096	0.0613	0.3103	0.0620	11:41:39	Yes
Mean:	5.111	5.111	0.0615				
SD:	0.021	0.021	0.0002				
%RSD:	0.401	0.401	0.40				

QC value within limits for Hg 253.7 Recovery = 102.21%
All analyte(s) passed QC.

Sequence No.: 83 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 11:41:58**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.090	-0.090	-0.0003	0.0012	0.0003	11:42:48	Yes
2	-0.085	-0.085	-0.0003	0.0016	0.0004	11:43:18	Yes
Mean:	-0.088	-0.088	-0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	3.961	3.961	13.86				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 84 **Autosampler Location: 72**
Sample ID: 249476001|967570|1 **Date Collected: 3/24/2010 11:43:38**
Analyst: JXL **Data Type: Original**

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **964015.0** Verified by: _____

Analyst: Louis Hall

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202068114	Metals Soil LCS SRM ICP/Hg	U1062540-1	.503	g
MS	1202068112	Metals Spike Mix I	U11286772-01	.25	mL
MS	1202068112	Metals Spike Mix II	U11286774-06	.25	mL
MSD	1202068113	Metals Spike Mix I	U11286772-01	.25	mL
MSD	1202068113	Metals Spike Mix II	U11286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202068109 MB	02-APR-2010 10:00:00	Soil	0.518	50	96.5251	<2
1202068114 LCS	02-APR-2010 10:00:00	Soil	0.505	50	99.0099	<2
248866001	02-APR-2010 10:00:00	Soil	0.508	50	98.4252	<2
1202068110 DUP (248866001)	02-APR-2010 10:00:00	Soil	0.501	50	99.8004	<2
1202068111 SDILT (248866001)	02-APR-2010 10:00:00	Soil	0.508	50	98.4252	<2
1202068112 MS (248866001)	02-APR-2010 10:00:00	Soil	0.501	50	99.8004	<2
1202068113 MSD (248866001)	02-APR-2010 10:00:00	Soil	0.505	50	99.0099	<2
248866002	02-APR-2010 10:00:00	Soil	0.52	50	96.15385	<2
248867001	02-APR-2010 10:00:00	Soil	0.523	50	95.60229	<2
248867002	02-APR-2010 10:00:00	Soil	0.5	50	100	<2
248867003	02-APR-2010 10:00:00	Soil	0.588	50	85.03401	<2
248867004	02-APR-2010 10:00:00	Soil	0.52	50	96.15385	<2

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL
1291278	Nitric Acid CONC.	1.25 mL

Comments:

Sample 248866001 consist of gray soil.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 964017.0 **Verified by:** _____
Analyst: Anthony Green
Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19
Instrument: BAL-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202068115 MB	13-MAR-2010 03:00:00	0.5	50	100	
1202068120 LCS	13-MAR-2010 03:00:00	0.503	50	99.40358	
248866001	13-MAR-2010 03:00:00	0.506	50	98.81423	
1202068116 DUP (248866001)	13-MAR-2010 03:00:00	0.508	50	98.4252	
1202068117 SDILT (248866001)	13-MAR-2010 03:00:00	0.506	50	98.81423	
1202068118 MS (248866001)	13-MAR-2010 03:00:00	0.506	50	98.81423	
1202068119 MSD (248866001)	13-MAR-2010 03:00:00	0.514	50	97.27626	
248866002	13-MAR-2010 03:00:00	0.504	50	99.20635	
248867001	13-MAR-2010 03:00:00	0.514	50	97.27626	
248867002	13-MAR-2010 03:00:00	0.514	50	97.27626	
248867003	13-MAR-2010 03:00:00	0.583	50	85.76329	
248867004	13-MAR-2010 03:00:00	0.544	50	91.91176	

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202068120	Metals Soil LCS SRM ICPMS	UI062540-MS	.503	g
MS	1202068118	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MS	1202068118	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
MSD	1202068119	ICP-MS Spike for soil products.	UI090827-A	.5	mL
MSD	1202068119	ICP-MS Spike for Soil Products	UI090827-B	.5	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1282566	5	mL

Comments:

Sample 248866001 consist of gray soil.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **972602.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 20

Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202089226	Metals Soil LCS SRM ICP/Hg	UI062540-I	.521	g
MS	1202068112	Metals Spike Mix I	UI1286772-01	.25	mL
MS	1202068112	Metals Spike Mix II	UI1286774-06	.25	mL
MSD	1202068113	Metals Spike Mix I	UI1286772-01	.25	mL
MSD	1202068113	Metals Spike Mix II	UI1286774-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202089225 MB	07-APR-2010 08:00:00	Soil	0.51	50	98.03922	
1202089226 LCS	07-APR-2010 08:00:00	Soil	0.521	50	95.96929	
248866001 - 2	07-APR-2010 08:00:00	Soil	0.5	50	100	
1202068110 - 2 DUP (248866001)	07-APR-2010 08:00:00	Soil	0.521	50	95.96929	
1202068111 - 2 SDILT (248866001)	07-APR-2010 08:00:00	Soil	0.5	50	100	
1202068112 - 2 MS (248866001)	07-APR-2010 08:00:00	Soil	0.508	50	98.4252	
1202068113 - 2 MSD (248866001)	07-APR-2010 08:00:00	Soil	0.515	50	97.08738	
248866002 - 2	07-APR-2010 08:00:00	Soil	0.503	50	99.40358	
248867001 - 2	07-APR-2010 08:00:00	Soil	0.529	50	94.51796	
248867002 - 2	07-APR-2010 08:00:00	Soil	0.506	50	98.81423	
248867003 - 2	07-APR-2010 08:00:00	Soil	0.504	50	99.20635	
248867004 - 2	07-APR-2010 08:00:00	Soil	0.531	50	94.16196	

Reagent/Solvent Lot ID	Description	Amount
1282564	HYDROCHLORIC ACID	10 mL
1291278	Nitric Acid CONC.	1.25 mL

Comments:

Sample 248866001 consist of gray soil.

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **968184.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202078438	Metals LCS Soil SRM	UI031809A	.203	g
MS	1202078440	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL
MSD	1202078442	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202078437 MB	23-MAR-2010 14:45:00	Soil	0.583	30	51.45798	
1202078438 LCS	23-MAR-2010 14:45:00	Soil	0.203	30	147.78325	
248860001	23-MAR-2010 14:45:00	Soil	0.592	30	50.67568	
248860002	23-MAR-2010 14:45:00	Soil	0.549	30	54.64481	
248860003	23-MAR-2010 14:45:00	Soil	0.517	30	58.02708	
248860004	23-MAR-2010 14:45:00	Soil	0.511	30	58.70841	
248860005	23-MAR-2010 14:45:00	Soil	0.525	30	57.14286	
248860006	23-MAR-2010 14:45:00	Soil	0.502	30	59.76096	
248860007	23-MAR-2010 14:45:00	Soil	0.568	30	52.8169	
248860008	23-MAR-2010 14:45:00	Soil	0.578	30	51.90311	
248860009	23-MAR-2010 14:45:00	Soil	0.545	30	55.04587	
248863001	23-MAR-2010 14:45:00	Soil	0.541	30	55.45287	
248863002	23-MAR-2010 14:45:00	Soil	0.557	30	53.85996	
248863003	23-MAR-2010 14:45:00	Soil	0.523	30	57.36138	
248863004	23-MAR-2010 14:45:00	Soil	0.558	30	53.76344	
248866001	23-MAR-2010 14:45:00	Soil	0.522	30	57.47126	
248866002	23-MAR-2010 14:45:00	Soil	0.555	30	54.05405	
248867001	23-MAR-2010 14:45:00	Soil	0.575	30	52.17391	
1202078439 DUP (248867001)	23-MAR-2010 14:45:00	Soil	0.539	30	55.65863	
1202078440 MS (248867001)	23-MAR-2010 14:45:00	Soil	0.578	30	51.90311	
1202078442 MSD (248867001)	23-MAR-2010 14:45:00	Soil	0.537	30	55.86592	
1202078441 SDILT (248867001)	23-MAR-2010 14:45:00	Soil	0.575	30	52.17391	
248867002	23-MAR-2010 14:45:00	Soil	0.565	30	53.09735	
248867003	23-MAR-2010 14:45:00	Soil	0.518	30	57.91506	
248867004	23-MAR-2010 14:45:00	Soil	0.535	30	56.07477	

Reagent/Solvent Lot ID	Description	Amount

Prep Logbook

Batch ID: **968184.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202078438	Metals LCS Soil SRM	UI031809A	.203	g
MS	1202078440	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL
MSD	1202078442	Mercury soil working intermediate standard for MS	WHG100323-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1

Reagent/Solvent Lot ID	Description	Amount
1255532-C	Hg reducing agent	2 mL
1274391-I	NITRIC ACID	.375 mL
1277235-A	Hydrochloric Acid Conc.	1.125 mL
1277238-C	5% KMnO4 solution	7.5 mL
WHG100323-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL
WHG100323-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL
WHG100323-09	Mercury Working 1st Source CAL S 2.0	300 uL
WHG100323-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL
WHG100323-11	Mercury Working 1st Source CAL S 10.0	1.5 mL
WHG100323-12	Mercury Working 2nd Source S 5.0/ICV	750 uL

Comments:

Sample 248867001 is a rocky brown soil.

Digestion Start Date: 23-MAR-10 14:45

Digestion End Date: 23-MAR-10 15:15

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
MERCURY	SW846 7471A	Solid	LANL
Batch ID:	**Sample Numbers:**		
968185	See Below		

Potentially affected work order(s)(SDG): 248860(10-2313),248863(10-2315),248866(10-2319),248867(10-2320)

Application Issues:

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MSD/PSD: QC 1202078442MSD	1. The matrix spike recovery failed outside of the control limits for Hg due to possible matrix interferences and/or non-homogeneity. Sample is a rocky, brown soil. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Jason Loy 24-MAR-10

Data Validator/Group Leader:

Eric Lawson 25-MAR-10

DER Report No.: 814045
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
06-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
964016	See Below		

Potentially affected work order(s)(SDG): 248866(10-2319),248867(10-2320)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202068112MS 2. Failed RPD for DUP: QC 1202068110DUP 3. Failed Recovery for MSD/PSD: QC 1202068113MSD	1./3. The matrix spike and matrix spike duplicate recovery failed outside of the control limits for magnesium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for lead due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 06-APR-10

Data Validator/Group Leader:

Christopher Louviere 08-APR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 12-JUN-10
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 22-APR-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID:	UI090701-09	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #1	**Received:**	01-JUL-09	**Catalog Number :**	160044-09-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016477
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Master Soln #1				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID:	UI090701-10	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #2	**Received:**	01-JUL-09	**Catalog Number :**	160044-08-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016476
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Soln #2				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID:	UI090701-40	**Opened:**	01-JUL-09	**Amount :**	500 mL
Name:	TRACE ICP Stock PQL Sta	**Received:**	30-JUN-09	**Catalog Number :**	160543-01-03
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016475
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3+TrHF
Supplier:	02si				
Description:	TRACE ICP Stock PQL Standard				
Comments:	None				

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090827-A **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 27-AUG-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090827-B **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 27-AUG-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100310-49.16 **Opened:** 05-APR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 06-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L

Analyte	Concentration	Analyte	Concentration
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100310-49.18 **Opened:** 07-APR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 08-APR-10 **Lot Number :** 1019142
Employee: Louise Smith **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100329-40 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008325
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI100329-41 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 29-MAR-10 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 26-MAR-11 **Lot Number :** 1008323
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI100329-42 **Opened:** 01-APR-10 **Amount :** 200 mL
Name: SILICON **Received:** 29-MAR-10 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 01-APR-11 **Lot Number :** 1004838
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100331-42 **Opened:** 08-APR-10 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 31-MAR-10 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 08-APR-11 **Lot Number :** 1019414
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100401-48 **Opened:** 02-APR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-APR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 16-APR-10 **Lot Number :** 1019463
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100405-40 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100405-41 **Opened:** 05-APR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 02-APR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100415-11 **Opened:** 15-APR-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 15-APR-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 15-APR-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI

Standard Logbook

Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI1286772-01 **Opened:** 16-MAR-10 **Lot Number :** 1019097
Name: METALSPIKE-1 **Received:** 16-MAR-10
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1286774-06 **Opened:** 16-MAR-10 **Lot Number :** 1018913
Name: METALSPIKE-2 **Received:** 16-MAR-10
Type: Source Material **Expires:** 16-MAR-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL

Analyte	Concentration	Analyte	Concentration
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100415-03 **Opened:** 15-APR-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100323-01 **Opened:** 23-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 23-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 24-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100323-02 **Opened:** 23-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 24-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100323-07 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100323-08 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100323-09 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100323-10 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100323-11 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100323-12 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100323-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100323-14 **Opened:** 23-MAR-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 23-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 30-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100405-42 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100405-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100405-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100405-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100405-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100405-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100405-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100405-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100405-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100405-43 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100405-44 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1296961
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100405-45 **Opened:** 05-APR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100405-46 **Opened:** 05-APR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1296961
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100405-47 **Opened:** 05-APR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-APR-10 **Solvent :** 3%HCL &1%HNO3-1296961
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100407-42 **Opened:** 07-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 08-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100407-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100407-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100407-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100407-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100407-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100407-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100407-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100407-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100407-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100407-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100407-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100407-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100407-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100407-43 **Opened:** 07-APR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 08-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI100329-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI100329-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI100329-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100329-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI100331-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L

Serial ID: WI100407-44 **Opened:** 07-APR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 08-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1296961
Employee: Louise Smith
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI100329-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI100329-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100329-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100329-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI100331-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI100331-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100407-45 **Opened:** 07-APR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 08-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1296961
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100407-46 **Opened:** 07-APR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 08-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1296961
Employee: Louise Smith
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI100329-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI100329-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100407-47 **Opened:** 07-APR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 08-APR-10 **Solvent :** 3%HCL &1%HNO3-1296961
Employee: Louise Smith
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100505-04 **Opened:** 05-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 05-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 06-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1333263
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100505-04AB **Opened:** 05-MAY-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 05-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 06-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100505-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100505-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100505-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100505-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100505-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100505-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100505-04B **Opened:** 05-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 05-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 06-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1333263
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100505-06B **Opened:** 05-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 05-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 06-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100505-07B **Opened:** 05-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 05-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 06-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1333263
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100505-08B **Opened:** 05-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 05-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 06-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-08
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Standard Logbook

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1277235-A **Opened:** 01-MAR-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 01-MAR-11
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1282564 **Opened:** 09-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 09-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1282566 **Opened:** 09-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 09-MAR-10
Type: Reagent/Solvent **Expires:** 09-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1291278 **Opened:** 25-MAR-10 **Lot Number :** J 08035 L
Name: I-HNO3 **Received:** 25-MAR-10
Type: Reagent/Solvent **Expires:** 25-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1296961 **Opened:** 05-APR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-APR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 11-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1302252 **Opened:** 15-APR-10 **Lot Number :** J 10027 L
Name: I-HNO3 **Received:** 15-APR-10
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1302255 **Opened:** 15-APR-10 **Lot Number :** J07033
Name: I-HCL **Received:** 15-APR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1333263 **Opened:** 03-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 03-MAY-10
Type: Reagent/Solvent **Expires:** 10-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1302255	I-HCL	36.5-38.0	80 mL	8 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2319

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	962258	**Method:**	SW9012A Cyanide and Total
Prep Batch :	962257	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
248866001	RE46-10-11885
248866002	RE46-10-11886
1202064133	Method Blank (MB)
1202064134	248798001(RE11-10-1756) Sample Duplicate (DUP)
1202064135	248798002(RE11-10-1762) Sample Duplicate (DUP)
1202064136	248798001(RE11-10-1756) Matrix Spike (MS)
1202064137	248798002(RE11-10-1762) Matrix Spike (MS)
1202064138	248798001(RE11-10-1756) Matrix Spike Duplicate (MSD)
1202064139	248798002(RE11-10-1762) Matrix Spike Duplicate (MSD)
1202064140	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 248798001 (RE11-10-1756) and 248798002 (RE11-10-1762).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202064134 (RE11-10-1756) and 1202064135 (RE11-10-1762).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
Samples were initially analyzed within holding; however, due to instrument failure the holding times had expired prior to reanalysis 1202064134 (RE11-10-1756).

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202064140 (LCS).

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 1202064134 (RE11-10-1756).

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 809564 1202064134 (RE11-10-1756).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Ion Chromatography**		
Analytical Batch:	968640	**Method:**	EPA 300.0 Nitrate in Soil
Prep Batch :	968639	**Method:**	EPA 300.0 PREP

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
248866001	RE46-10-11885
248866002	RE46-10-11886
1202079398	Method Blank (MB)
1202079399	248814001(RE46-10-13553) Sample Duplicate (DUP)
1202079400	248865001(RE46-10-11924) Sample Duplicate (DUP)
1202079401	248814001(RE46-10-13553) Matrix Spike (MS)
1202079402	248865001(RE46-10-11924) Matrix Spike (MS)
1202079403	248814001(RE46-10-13553) Matrix Spike Duplicate (MSD)
1202079404	248865001(RE46-10-11924) Matrix Spike Duplicate (MSD)
1202079405	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 248814001 (RE46-10-13553) and 248865001 (RE46-10-11924).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the established acceptance limits due to matrix interference: 1202079401 (RE46-10-13553).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the established acceptance limits due to matrix interference: 1202079403 (RE46-10-13553).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 811593 1202079401 (RE46-10-13553) and 1202079403 (RE46-10-13553).

Manual Integrations

Manual integrations were not required for the samples in this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer:_____ **Date:** 04/01/10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2319 GEL Work Order: 248866

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2319

Client Sample ID:	RE46-10-11885	Project:	LANL01004
Sample ID:	248866001	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	3.88%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	68.0	250	ug/kg	1	AXC2	03/15/10	1326	962258	1
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	0.312	1.04	mg/kg	1	VH1	03/30/10	0532	968640	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1557	962257

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 300.0	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: April 1, 2010

Client SDG: 10-2319

Client Sample ID:	RE46-10-11886	Project:	LANL01004
Sample ID:	248866002	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10 12:00		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	4.77%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	67.4	248	ug/kg	1	AXC2	03/15/10	1327	962258	1
Ion Chromatography											
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"											
Nitrate-N	U	ND	0.315	1.05	mg/kg	1	VH1	03/30/10	0559	968640	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	VH1	03/29/10	1637	968639
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/12/10	1557	962257

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 300.0	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: April 1, 2010

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 248866

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 962258										
QC1202064134 248798001 DUP										
Cyanide, Total	J	145	H	-108	ug/kg	1380 ^		(+/-269)	AXC2	03/16/10 20:41
QC1202064135 248798002 DUP										
Cyanide, Total	H	-128	U	ND	ug/kg	200 ^				03/15/10 13:04
QC1202064140 LCS										
Cyanide, Total	67900			66800	ug/kg		98.3	(32%-157%)		03/15/10 12:59
QC1202064133 MB										
Cyanide, Total			U	250	ug/kg					03/15/10 12:54
QC1202064136 248798001 MS										
Cyanide, Total	5590 J	145		5650	ug/kg		98.4	(26%-158%)		03/15/10 13:02
QC1202064137 248798002 MS										
Cyanide, Total	5920 H	-128		5610	ug/kg		94.9	(26%-158%)		03/15/10 13:05
QC1202064138 248798001 MSD										
Cyanide, Total	5590 J	145		5710	ug/kg	0.985	99.4	(0%-30%)		03/15/10 13:03
QC1202064139 248798002 MSD										
Cyanide, Total	5480 H	-128		5390	ug/kg	4.03	98.3	(0%-30%)		03/15/10 13:06
Ion Chromatography										
Batch 968640										
QC1202079399 248814001 DUP										
Nitrate-N	U	ND	U	ND	mg/kg	N/A			VH1	03/29/10 20:07
QC1202079400 248865001 DUP										
Nitrate-N		1.55		1.64	mg/kg	5.23 ^		(+/-1.21)		03/30/10 03:18
QC1202079405 LCS										
Nitrate-N	50.0			49.0	mg/kg		98	(90%-110%)		03/29/10 19:13
QC1202079398 MB										
Nitrate-N			U	1.00	mg/kg					03/29/10 18:47
QC1202079401 248814001 MS										
Nitrate-N	58.1 U	ND		43.7	mg/kg		75.3 *	(90%-110%)		03/29/10 20:34
QC1202079402 248865001 MS										
Nitrate-N	60.4	1.55		56.8	mg/kg		91.6	(90%-110%)		03/30/10 03:45
QC1202079403 248814001 MSD										
Nitrate-N	58.1 U	ND		43.5	mg/kg	0.562	74.9 *	(0%-20%)		03/29/10 21:01
QC1202079404 248865001 MSD										
Nitrate-N	60.4	1.55		56.9	mg/kg	0.0446	91.6	(0%-20%)		03/30/10 04:11

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

QC Summary

Workorder: 248866

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
JNX	Non Calibrated Compound
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-APR-2010 15:10

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2319

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**15-MAR-2010 12:16:42**	**OM_3-15-2010_12-08-48**	**145**	**150**	**96.7**	**(90%-110%)**	**Yes**
CCV	15-MAR-2010 12:43:26	OM_3-15-2010_12-08-48	104	100	104	(90%-110%)	Yes
CCV	15-MAR-2010 12:55:49	OM_3-15-2010_12-08-48	103	100	103	(90%-110%)	Yes
CCV	15-MAR-2010 13:08:20	OM_3-15-2010_12-08-48	103	100	103	(90%-110%)	Yes
CCV	15-MAR-2010 13:20:48	OM_3-15-2010_12-08-48	105	100	105	(90%-110%)	Yes
CCV	15-MAR-2010 13:31:33	OM_3-15-2010_12-08-48	105	100	105	(90%-110%)	Yes
ICV	**16-MAR-2010 11:44:35**	**OM_3-16-2010_11-35-56**	**150**	**150**	**100**	**(90%-110%)**	**Yes**
CCV	16-MAR-2010 20:37:28	OM_3-16-2010_20-23-30	106	100	106	(90%-110%)	Yes
CCV	16-MAR-2010 20:50:00	OM_3-16-2010_20-23-30	107	100	107	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**15-MAR-2010 12:18:33**	**OM_3-15-2010_12-08-48**	**-2.21**	**10**	**Yes**
CCB	15-MAR-2010 12:45:15	OM_3-15-2010_12-08-48	-1.54	10	Yes
CCB	15-MAR-2010 12:57:40	OM_3-15-2010_12-08-48	-1.66	10	Yes
CCB	15-MAR-2010 13:10:10	OM_3-15-2010_12-08-48	-1.72	10	Yes
CCB	15-MAR-2010 13:22:38	OM_3-15-2010_12-08-48	-1.53	10	Yes
CCB	15-MAR-2010 13:33:23	OM_3-15-2010_12-08-48	-1.57	10	Yes
ICB	**16-MAR-2010 11:46:25**	**OM_3-16-2010_11-35-56**	**-1.57**	**10**	**Yes**
CCB	16-MAR-2010 20:39:18	OM_3-16-2010_20-23-30	-1.61	10	Yes
CCB	16-MAR-2010 20:51:50	OM_3-16-2010_20-23-30	-2.4	10	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 01-APR-2010 15:10

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2319

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Nitrate-N

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**29-MAR-2010 17:53:00**	**100329**	**4.9061**	**5**	**98.1**	**(90%-110%)**	**Yes**
CCV	29-MAR-2010 23:15:00	100329	7.6315	7.5	102	(90%-110%)	Yes
CCV	30-MAR-2010 04:38:00	100329	4.9119	5	98.2	(90%-110%)	Yes
CCV	30-MAR-2010 06:26:00	100329	7.6452	7.5	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**29-MAR-2010 18:20:00**	**100329**	**0**	**0.1**	**Yes**
CCB	29-MAR-2010 23:42:00	100329	0	0.1	Yes
CCB	30-MAR-2010 05:05:00	100329	0	0.1	Yes
CCB	30-MAR-2010 06:53:00	100329	0	0.1	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **962257.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064140	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202064136	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064137	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064138	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064139	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202064133 MB	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12
1202064140 LCS	12-MAR-2010 15:57:00	Soil	0.25	25	100	>12
248798001	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12
1202064134 DUP (248798001)	12-MAR-2010 15:57:00	Soil	0.52	25	48.07692	>12
1202064136 MS (248798001)	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12
1202064138 MSD (248798001)	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12
248798002	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12
1202064135 DUP (248798002)	12-MAR-2010 15:57:00	Soil	0.56	25	44.64286	>12
1202064137 MS (248798002)	12-MAR-2010 15:57:00	Soil	0.51	25	49.01961	>12
1202064139 MSD (248798002)	12-MAR-2010 15:57:00	Soil	0.55	25	45.45455	>12
248798003	12-MAR-2010 15:57:00	Soil	0.51	25	49.01961	>12
248798004	12-MAR-2010 15:57:00	Soil	0.58	25	43.10345	>12
248798005	12-MAR-2010 15:57:00	Soil	0.53	25	47.16981	>12
248798006	12-MAR-2010 15:57:00	Soil	0.58	25	43.10345	>12
248798007	12-MAR-2010 15:57:00	Soil	0.59	25	42.37288	>12
248798008	12-MAR-2010 15:57:00	Soil	0.51	25	49.01961	>12
248798009	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12
248798010	12-MAR-2010 15:57:00	Soil	0.53	25	47.16981	>12
248798011	12-MAR-2010 15:57:00	Soil	0.51	25	49.01961	>12
248798012	12-MAR-2010 15:57:00	Soil	0.51	25	49.01961	>12
248824001	12-MAR-2010 15:57:00	Soil	0.59	25	42.37288	>12

Prep Logbook

Batch ID: **962257.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202064140	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202064136	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202064137	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064138	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202064139	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
248824002	12-MAR-2010 15:57:00	Soil	0.54	25	46.2963	>12
248866001	12-MAR-2010 15:57:00	Soil	0.52	25	48.07692	>12
248866002	12-MAR-2010 15:57:00	Soil	0.53	25	47.16981	>12
248867001	12-MAR-2010 15:57:00	Soil	0.56	25	44.64286	>12
248867002	12-MAR-2010 15:57:00	Soil	0.55	25	45.45455	>12
248867003	12-MAR-2010 15:57:00	Soil	0.56	25	44.64286	>12
248867004	12-MAR-2010 15:57:00	Soil	0.5	25	50	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100312-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/15/2010 12:09:33	OM_3-15-2010_12-08-48
150 ppb		1	axc2	3/15/2010 12:10:25	OM_3-15-2010_12-08-48
100 ppb		1	axc2	3/15/2010 12:11:17	OM_3-15-2010_12-08-48
50 ppb		1	axc2	3/15/2010 12:12:10	OM_3-15-2010_12-08-48
10 ppb		1	axc2	3/15/2010 12:13:04	OM_3-15-2010_12-08-48
CRDL 5.0 ppb		1	axc2	3/15/2010 12:13:57	OM_3-15-2010_12-08-48
ICAL-00		1	axc2	3/15/2010 12:14:52	OM_3-15-2010_12-08-48
ICV		1	axc2	3/15/2010 12:16:42	OM_3-15-2010_12-08-48
ICB		1	axc2	3/15/2010 12:18:33	OM_3-15-2010_12-08-48
CRDL		1	axc2	3/15/2010 12:20:22	OM_3-15-2010_12-08-48
1202064117	962254	1	axc2	3/15/2010 12:22:12	OM_3-15-2010_12-08-48
1202064124	962254	25	axc2	3/15/2010 12:23:05	OM_3-15-2010_12-08-48
248666001	962254	1	axc2	3/15/2010 12:23:59	OM_3-15-2010_12-08-48
1202064118	962254	1	axc2	3/15/2010 12:24:52	OM_3-15-2010_12-08-48
1202064120	962254	1	axc2	3/15/2010 12:25:45	OM_3-15-2010_12-08-48
1202064122	962254	1	axc2	3/15/2010 12:26:37	OM_3-15-2010_12-08-48
248666002	962254	1	axc2	3/15/2010 12:27:30	OM_3-15-2010_12-08-48
1202064119	962254	1	axc2	3/15/2010 12:28:23	OM_3-15-2010_12-08-48
1202064121	962254	1	axc2	3/15/2010 12:29:15	OM_3-15-2010_12-08-48
1202064123*	962254	1	axc2	3/15/2010 12:30:07	OM_3-15-2010_12-08-48
CCV		1	axc2	3/15/2010 12:31:00	OM_3-15-2010_12-08-48
CCB		1	axc2	3/15/2010 12:32:51	OM_3-15-2010_12-08-48
1202064123	962254	1	axc2	3/15/2010 12:34:40	OM_3-15-2010_12-08-48
248666003	962254	1	axc2	3/15/2010 12:35:31	OM_3-15-2010_12-08-48
248666004	962254	1	axc2	3/15/2010 12:36:23	OM_3-15-2010_12-08-48
248666005	962254	1	axc2	3/15/2010 12:37:15	OM_3-15-2010_12-08-48
248666006	962254	1	axc2	3/15/2010 12:38:07	OM_3-15-2010_12-08-48
248666007	962254	1	axc2	3/15/2010 12:38:59	OM_3-15-2010_12-08-48
248666008	962254	1	axc2	3/15/2010 12:39:52	OM_3-15-2010_12-08-48
248666009	962254	1	axc2	3/15/2010 12:40:46	OM_3-15-2010_12-08-48
248666010	962254	1	axc2	3/15/2010 12:41:40	OM_3-15-2010_12-08-48
248666011	962254	1	axc2	3/15/2010 12:42:33	OM_3-15-2010_12-08-48
CCV		1	axc2	3/15/2010 12:43:26	OM_3-15-2010_12-08-48
CCB		1	axc2	3/15/2010 12:45:15	OM_3-15-2010_12-08-48
248666012	962254	1	axc2	3/15/2010 12:47:04	OM_3-15-2010_12-08-48
248666013	962254	1	axc2	3/15/2010 12:47:57	OM_3-15-2010_12-08-48
248666014	962254	1	axc2	3/15/2010 12:48:50	OM_3-15-2010_12-08-48
248666015	962254	1	axc2	3/15/2010 12:49:43	OM_3-15-2010_12-08-48
248666016	962254	1	axc2	3/15/2010 12:50:36	OM_3-15-2010_12-08-48
248666017	962254	1	axc2	3/15/2010 12:51:29	OM_3-15-2010_12-08-48
248666018	962254	1	axc2	3/15/2010 12:52:20	OM_3-15-2010_12-08-48
248666019	962254	1	axc2	3/15/2010 12:53:13	OM_3-15-2010_12-08-48
248666020	962254	1	axc2	3/15/2010 12:54:05	OM_3-15-2010_12-08-48
1202064133	962258	1	axc2	3/15/2010 12:54:57	OM_3-15-2010_12-08-48
CCV		1	axc2	3/15/2010 12:55:49	OM_3-15-2010_12-08-48
CCB		1	axc2	3/15/2010 12:57:40	OM_3-15-2010_12-08-48
1202064140	962258	25	axc2	3/15/2010 12:59:27	OM_3-15-2010_12-08-48
248798001	962258	1	axc2	3/15/2010 13:00:22	OM_3-15-2010_12-08-48
1202064134	962258	1	axc2	3/15/2010 13:01:15	OM_3-15-2010_12-08-48
1202064136	962258	1	axc2	3/15/2010 13:02:10	OM_3-15-2010_12-08-48
1202064138	962258	1	axc2	3/15/2010 13:03:02	OM_3-15-2010_12-08-48
248798002	962258	1	axc2	3/15/2010 13:03:56	OM_3-15-2010_12-08-48
1202064135	962258	1	axc2	3/15/2010 13:04:49	OM_3-15-2010_12-08-48
1202064137	962258	1	axc2	3/15/2010 13:05:42	OM_3-15-2010_12-08-48
1202064139	962258	1	axc2	3/15/2010 13:06:35	OM_3-15-2010_12-08-48
248798003	962258	1	axc2	3/15/2010 13:07:27	OM_3-15-2010_12-08-48
CCV		1	axc2	3/15/2010 13:08:20	OM_3-15-2010_12-08-48
CCB		1	axc2	3/15/2010 13:10:10	OM_3-15-2010_12-08-48

248798004	962258	1	axc2	3/15/2010	13:11:59	OM_3-15-2010_12-08-48
248798005	962258	1	axc2	3/15/2010	13:12:51	OM_3-15-2010_12-08-48
248798006	962258	1	axc2	3/15/2010	13:13:44	OM_3-15-2010_12-08-48
248798007	962258	1	axc2	3/15/2010	13:14:36	OM_3-15-2010_12-08-48
248798008	962258	1	axc2	3/15/2010	13:15:28	OM_3-15-2010_12-08-48
248798009	962258	1	axc2	3/15/2010	13:16:20	OM_3-15-2010_12-08-48
248798010*	962258	1	axc2	3/15/2010	13:17:14	OM_3-15-2010_12-08-48
248798011	962258	1	axc2	3/15/2010	13:18:08	OM_3-15-2010_12-08-48
248798012	962258	1	axc2	3/15/2010	13:19:02	OM_3-15-2010_12-08-48
248824001	962258	1	axc2	3/15/2010	13:19:56	OM_3-15-2010_12-08-48
CCV		1	axc2	3/15/2010	13:20:48	OM_3-15-2010_12-08-48
CCB		1	axc2	3/15/2010	13:22:38	OM_3-15-2010_12-08-48
248798010	962258	1	axc2	3/15/2010	13:24:29	OM_3-15-2010_12-08-48
248824002	962258	1	axc2	3/15/2010	13:25:23	OM_3-15-2010_12-08-48
248866001	962258	1	axc2	3/15/2010	13:26:15	OM_3-15-2010_12-08-48
248866002	962258	1	axc2	3/15/2010	13:27:09	OM_3-15-2010_12-08-48
248867001	962258	1	axc2	3/15/2010	13:28:01	OM_3-15-2010_12-08-48
248867002	962258	1	axc2	3/15/2010	13:28:55	OM_3-15-2010_12-08-48
248867003	962258	1	axc2	3/15/2010	13:29:47	OM_3-15-2010_12-08-48
248867004	962258	1	axc2	3/15/2010	13:30:40	OM_3-15-2010_12-08-48
CCV		1	axc2	3/15/2010	13:31:33	OM_3-15-2010_12-08-48
CCB		1	axc2	3/15/2010	13:33:23	OM_3-15-2010_12-08-48

Author: axc2 Date : 3/15/2010

Original Run Filename: OM_3-15-2010_12-08-48.OMN created 3/15/2010 12:08:48
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-15-2010_12-08-48.OMN last modified 3/15/2010 13:34:28
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100315-01	1	S1	200	10.2	3/15/2010@12:09:33			200 ppb
WCN100315-02	1	S2	150	7.68	3/15/2010@12:10:25			150 ppb
WCN100315-03	1	S3	100	5.17	3/15/2010@12:11:17			100 ppb
WCN100315-04	1	S4	50.0	2.73	3/15/2010@12:12:10			50 ppb
WCN100315-05	1	S5	10.0	0.640	3/15/2010@12:13:04			10 ppb
WCN100315-06	1	S6	5.00	0.360	3/15/2010@12:13:57			CRDL 5.0 ppb
WCN100315-08	1	S7	0.00	0.0305	3/15/2010@12:14:52			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99991 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100315-07	1	S8	145	7.45	3/15/2010@12:16:42			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-3.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-3.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100315-08	1	S7	-2.21	-1.34e-4	3/15/2010@12:18:33			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.21 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.21 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100315-06	1	S6	4.95	0.362	3/15/2010@12:20:22			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	4.95 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	4.95 > 2.50					
		Message	Pass					
		Action	None					
1202064117|962254|MB	1	1	-0.201	0.102	3/15/2010@12:22:12			
1202064124||LCS	1	2	22.9	1.27	3/15/2010@12:23:05		25.00	
248666001	1	3	-1.47	0.0374	3/15/2010@12:23:59			
1202064118||DUP	1	4	-1.75	0.0232	3/15/2010@12:24:52			
1202064120||MS	1	5	100	5.18	3/15/2010@12:25:45			
1202064122||MSD	1	6	99.1	5.12	3/15/2010@12:26:37			
248666002	1	7	-1.01	0.0608	3/15/2010@12:27:30			
1202064119||DUP	1	8	-1.01	0.0605	3/15/2010@12:28:23			
1202064121||MS	1	9	84.2	4.37	3/15/2010@12:29:15			
1202064123||MSD	1	10	57.0	3.00	3/15/2010@12:30:07			
WCN100315-03	1	S3	103	5.33	3/15/2010@12:31:00			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.3 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100315-08	1	S7	-1.70	0.0259	3/15/2010@12:32:51			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.70 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.70 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064123||MSD	1	10	84.6	4.39	3/15/2010@12:34:40			
248666003	1	11	-1.15	0.0538	3/15/2010@12:35:31			
248666004	1	12	-1.82	0.0198	3/15/2010@12:36:23			
248666005	1	13	-1.32	0.0448	3/15/2010@12:37:15			
248666006	1	14	-1.82	0.0198	3/15/2010@12:38:07			
248666007	1	15	-1.57	0.0324	3/15/2010@12:38:59			
248666008	1	16	-1.24	0.0489	3/15/2010@12:39:52			
248666009	1	17	-0.908	0.0658	3/15/2010@12:40:46			
248666010	1	18	-0.968	0.0628	3/15/2010@12:41:40			
248666011	1	19	0.197	0.122	3/15/2010@12:42:33			
WCN100315-03	1	S3	104	5.36	3/15/2010@12:43:26			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100315-08	1	S7	-1.54	0.0337	3/15/2010@12:45:15			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.54 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.54 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248666012	1	20	-1.30	0.0461	3/15/2010@12:47:04			
248666013	1	21	-2.31	-0.00489	3/15/2010@12:47:57			
248666014	1	22	-1.47	0.0376	3/15/2010@12:48:50			
248666015	1	23	1.37	0.181	3/15/2010@12:49:43			
248666016	1	24	-1.13	0.0546	3/15/2010@12:50:36			
248666017	1	25	-1.48	0.0368	3/15/2010@12:51:29			
248666018	1	26	-1.59	0.0315	3/15/2010@12:52:20			
248666019	1	27	-1.19	0.0517	3/15/2010@12:53:13			
248666020	1	28	-0.118	0.106	3/15/2010@12:54:05			
1202064133|962258|MB	1	29	-1.30	0.0459	3/15/2010@12:54:57			
WCN100315-03	1	S3	103	5.32	3/15/2010@12:55:49			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100315-08	1	S7	-1.66	0.0278	3/15/2010@12:57:40			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.66 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.66 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064140|LCS	1	30	26.7	1.46	3/15/2010@12:59:27		25.00	
248798001	1	31	2.59	0.243	3/15/2010@13:00:22			
1202064134|DUP	1	32	-11.5	-0.472	3/15/2010@13:01:15			
1202064136|MS	1	33	101	5.24	3/15/2010@13:02:10			
1202064138|MSD	1	34	102	5.29	3/15/2010@13:03:02			
248798002	1	35	-8.86	-0.336	3/15/2010@13:03:56			
1202064135|DUP	1	36	-0.0671	0.108	3/15/2010@13:04:49			
1202064137|MS	1	37	94.9	4.91	3/15/2010@13:05:42			
1202064139|MSD	1	38	98.3	5.08	3/15/2010@13:06:35			
248798003	1	39	-0.592	0.0818	3/15/2010@13:07:27			
WCN100315-03	1	S3	103	5.35	3/15/2010@13:08:20			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100315-08	1	S7	-1.72	0.0248	3/15/2010@13:10:10			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.72 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.72 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248798004	1	40	-0.249	0.0991	3/15/2010@13:11:59			
248798005	1	41	-1.51	0.0352	3/15/2010@13:12:51			
248798006	1	42	1.77	0.201	3/15/2010@13:13:44			
248798007	1	43	-0.993	0.0615	3/15/2010@13:14:36			
248798008	1	44	6.67	0.449	3/15/2010@13:15:28			
248798009	1	45	-0.620	0.0804	3/15/2010@13:16:20			
248798010	1	46	8.81	0.557	3/15/2010@13:17:14			
248798011	1	47	4.05	0.316	3/15/2010@13:18:08			
248798012	1	48	-2.21	-1.20e-4	3/15/2010@13:19:02			
248824001	1	49	-1.53	0.0344	3/15/2010@13:19:56			
WCN100315-03	1	S3	105	5.40	3/15/2010@13:20:48			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100315-08	1	S7	-1.53	0.0343	3/15/2010@13:22:38			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.53 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.53 > -5.00					
		Message	CCB Passed					
		Action	Continue					

248798010	1	46	7.45	0.489	3/15/2010@13:24:29			
248824002	1	50	-1.44	0.0387	3/15/2010@13:25:23			
248866001	1	51	-1.14	0.0540	3/15/2010@13:26:15			
248866002	1	52	-0.763	0.0731	3/15/2010@13:27:09			
248867001	1	53	-0.0921	0.107	3/15/2010@13:28:01			
248867002	1	54	-1.38	0.0421	3/15/2010@13:28:55			
248867003	1	55	-1.58	0.0319	3/15/2010@13:29:47			
248867004	1	56	-1.35	0.0434	3/15/2010@13:30:40			
WCN100315-03	1	S3	105	5.40	3/15/2010@13:31:33			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100315-08	1	S7	-1.57	0.0325	3/15/2010@13:33:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.57 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.57 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_3-15-2010_12-08-48.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 3/15/2010

Channel 1: Current View

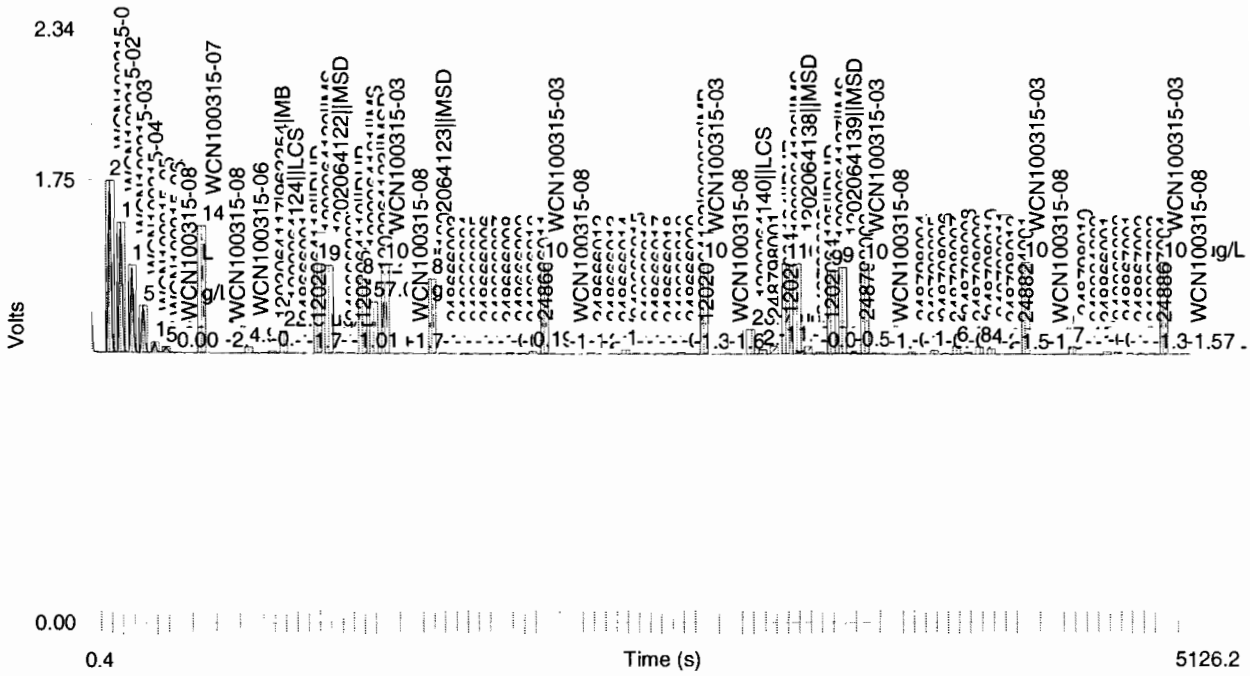

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.2	0.676	0.1	3/15/2010	12:10:36
2	150	1	7.68	0.511	0.2	3/15/2010	12:11:28
3	100	1	5.17	0.344	0.1	3/15/2010	12:12:20
4	50.0	1	2.73	0.183	-3.6	3/15/2010	12:13:13
5	10.0	1	0.640	0.0416	-3.6	3/15/2010	12:14:07
6	5.00	1	0.360	0.0234	1.3	3/15/2010	12:15:00
7	0.00	1	0.0305	0.00154		3/15/2010	12:15:55

Figure 1: TCYANIDE

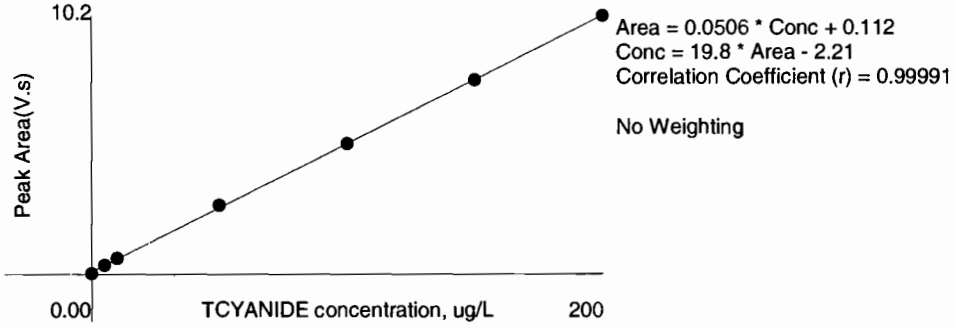

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/16/2010 11:37:26	OM_3-16-2010_11-35-56
150 ppb		1	axc2	3/16/2010 11:38:18	OM_3-16-2010_11-35-56
100 ppb		1	axc2	3/16/2010 11:39:11	OM_3-16-2010_11-35-56
50 ppb		1	axc2	3/16/2010 11:40:04	OM_3-16-2010_11-35-56
10 ppb		1	axc2	3/16/2010 11:40:57	OM_3-16-2010_11-35-56
CRDL 5.0 ppb		1	axc2	3/16/2010 11:41:50	OM_3-16-2010_11-35-56
ICAL-00		1	axc2	3/16/2010 11:42:45	OM_3-16-2010_11-35-56
ICV		1	axc2	3/16/2010 11:44:35	OM_3-16-2010_11-35-56
ICB		1	axc2	3/16/2010 11:46:25	OM_3-16-2010_11-35-56
CRDL		1	axc2	3/16/2010 11:48:15	OM_3-16-2010_11-35-56
1202068586	964224	1	axc2	3/16/2010 11:50:05	OM_3-16-2010_11-35-56
1202068593	964224	25	axc2	3/16/2010 11:50:58	OM_3-16-2010_11-35-56
249057002	964224	1	axc2	3/16/2010 11:51:51	OM_3-16-2010_11-35-56
1202068588	964224	1	axc2	3/16/2010 11:52:44	OM_3-16-2010_11-35-56
1202068590	964224	1	axc2	3/16/2010 11:53:37	OM_3-16-2010_11-35-56
1202068592	964224	1	axc2	3/16/2010 11:54:29	OM_3-16-2010_11-35-56
249076003	964224	1	axc2	3/16/2010 11:55:22	OM_3-16-2010_11-35-56
249076004	964224	1	axc2	3/16/2010 11:56:15	OM_3-16-2010_11-35-56
249076005	964224	1	axc2	3/16/2010 11:57:07	OM_3-16-2010_11-35-56
249076006	964224	1	axc2	3/16/2010 11:58:00	OM_3-16-2010_11-35-56
CCV		1	axc2	3/16/2010 11:58:52	OM_3-16-2010_11-35-56
CCB		1	axc2	3/16/2010 12:00:42	OM_3-16-2010_11-35-56
1202068587	964224	1	axc2	3/16/2010 12:02:30	OM_3-16-2010_11-35-56
1202068589	964224	1	axc2	3/16/2010 12:03:22	OM_3-16-2010_11-35-56
1202068591	964224	1	axc2	3/16/2010 12:04:14	OM_3-16-2010_11-35-56
249076007	964224	1	axc2	3/16/2010 12:05:06	OM_3-16-2010_11-35-56
249076008	964224	1	axc2	3/16/2010 12:05:57	OM_3-16-2010_11-35-56
249076009	964224	1	axc2	3/16/2010 12:06:51	OM_3-16-2010_11-35-56
249076010	964224	1	axc2	3/16/2010 12:07:45	OM_3-16-2010_11-35-56
249076011	964224	1	axc2	3/16/2010 12:08:39	OM_3-16-2010_11-35-56
249076012*	964224	1	axc2	3/16/2010 12:09:32	OM_3-16-2010_11-35-56
249076013	964224	1	axc2	3/16/2010 12:10:25	OM_3-16-2010_11-35-56
CCV		1	axc2	3/16/2010 12:11:17	OM_3-16-2010_11-35-56
CCB		1	axc2	3/16/2010 12:13:08	OM_3-16-2010_11-35-56
249076012*	964224	1	axc2	3/16/2010 12:14:57	OM_3-16-2010_11-35-56
249076014*	964224	1	axc2	3/16/2010 12:15:50	OM_3-16-2010_11-35-56
249076015*	964224	1	axc2	3/16/2010 12:16:43	OM_3-16-2010_11-35-56
249076016*	964224	1	axc2	3/16/2010 12:17:36	OM_3-16-2010_11-35-56
249076017*	964224	1	axc2	3/16/2010 12:18:28	OM_3-16-2010_11-35-56
249076018*	964224	1	axc2	3/16/2010 12:19:21	OM_3-16-2010_11-35-56
249076019*	964224	1	axc2	3/16/2010 12:20:13	OM_3-16-2010_11-35-56
249076020*	964224	1	axc2	3/16/2010 12:21:06	OM_3-16-2010_11-35-56
249097002*	964224	1	axc2	3/16/2010 12:21:57	OM_3-16-2010_11-35-56
249076016*	964224	1	axc2	3/16/2010 12:22:50	OM_3-16-2010_11-35-56
CCV		1	axc2	3/16/2010 12:23:42	OM_3-16-2010_11-35-56
CCB		1	axc2	3/16/2010 12:25:32	OM_3-16-2010_11-35-56

Author: axc2 Date : 3/16/2010

Original Run Filename: OM_3-16-2010_11-35-56.OMN created 3/16/2010 11:35:56
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-16-2010_11-35-56.OMN last modified 3/16/2010 12:26:37
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100316-01	1	S1	200	9.76	3/16/2010@11:37:26			200 ppb
WCN100316-02	1	S2	150	7.51	3/16/2010@11:38:18			150 ppb
WCN100316-03	1	S3	100	4.94	3/16/2010@11:39:11			100 ppb
WCN100316-04	1	S4	50.0	2.64	3/16/2010@11:40:04			50 ppb
WCN100316-05	1	S5	10.0	0.638	3/16/2010@11:40:57			10 ppb
WCN100316-06	1	S6	5.00	0.357	3/16/2010@11:41:50			CRDL 5.0 ppb
WCN100316-08	1	S7	0.00	-0.00167	3/16/2010@11:42:45			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99976 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100316-07	1	S8	150	7.40	3/16/2010@11:44:35			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-0.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100316-08	1	S7	-1.57	0.0343	3/16/2010@11:46:25			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.57 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.57 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100316-06	1	S6	5.32	0.370	3/16/2010@11:48:15			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.32 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.32 > 2.50					
		Message	Pass					
		Action	None					
1202068586|964224|MB	1	1	-2.27	6.18e-4	3/16/2010@11:50:05			
1202068593||LCS	1	2	25.7	1.36	3/16/2010@11:50:58		25.00	
249057002	1	3	-0.148	0.104	3/16/2010@11:51:51			
1202068588||DUP	1	4	-1.32	0.0465	3/16/2010@11:52:44			
1202068590||MS	1	5	65.5	3.30	3/16/2010@11:53:37			
1202068592||MSD	1	6	50.1	2.55	3/16/2010@11:54:29			
249076003	1	7	-1.29	0.0482	3/16/2010@11:55:22			
249076004	1	8	-1.74	0.0261	3/16/2010@11:56:15			
249076005	1	9	-1.54	0.0360	3/16/2010@11:57:07			
249076006	1	10	-1.62	0.0319	3/16/2010@11:58:00			
WCN100316-03	1	S3	104	5.18	3/16/2010@11:58:52			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.0 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-0.661	0.0787	3/16/2010@12:00:42			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.661 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.661 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202068587||DUP	1	11	-1.57	0.0343	3/16/2010@12:02:30			
1202068589||MS	1	12	105	5.23	3/16/2010@12:03:22			
1202068591||MSD	1	13	102	5.06	3/16/2010@12:04:14			
249076007	1	14	-1.54	0.0360	3/16/2010@12:05:06			
249076008	1	15	-1.55	0.0353	3/16/2010@12:05:57			
249076009	1	16	-2.51	-0.0113	3/16/2010@12:06:51			
249076010	1	17	-2.28	-1.61e-4	3/16/2010@12:07:45			
249076011	1	18	-1.46	0.0401	3/16/2010@12:08:39			
249076012	1	19	-10.7	-0.410	3/16/2010@12:09:32			
249076013	1	20	1.99	0.208	3/16/2010@12:10:25			
WCN100316-03	1	S3	103	5.14	3/16/2010@12:11:17			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	4.21	0.316	3/16/2010@12:13:08			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	4.21 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	4.21 > -5.00					
		Message	CCB Passed					
		Action	Continue					
249076012	1	19	-3.02	-0.0360	3/16/2010@12:14:57			
249076014	1	21	-1.62	0.0320	3/16/2010@12:15:50			
249076015	1	22	0.262	0.124	3/16/2010@12:16:43			
249076016	1	23	-5.77	-0.170	3/16/2010@12:17:36			
249076017	1	24	-1.58	0.0341	3/16/2010@12:18:28			
249076018	1	25	-2.16	0.00576	3/16/2010@12:19:21			
249076019	1	26	-4.94	-0.130	3/16/2010@12:20:13			
249076020	1	27	-2.28	-2.14e-4	3/16/2010@12:21:06			
249097002	1	28	-1.64	0.0313	3/16/2010@12:21:57			
249076016	1	23	-1.01	0.0618	3/16/2010@12:22:50			
WCN100316-03	1	S3	103	5.10	3/16/2010@12:23:42			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	9.14	0.556	3/16/2010@12:25:32			CCB
		Known Conc:	0.00					

Author: axc2 Date : 3/16/2010

DQM Test: > + Concentration Limit						
Result:	9.14 > 5.00					
Message	CCB Failed					
Action	Stop Run					
DQM Test: < - Concentration Limit						
Result:	9.14 > -5.00					
Message	CCB Passed					
Action	Continue					

Analyte Properties Table for OM_3-16-2010_11-35-56.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

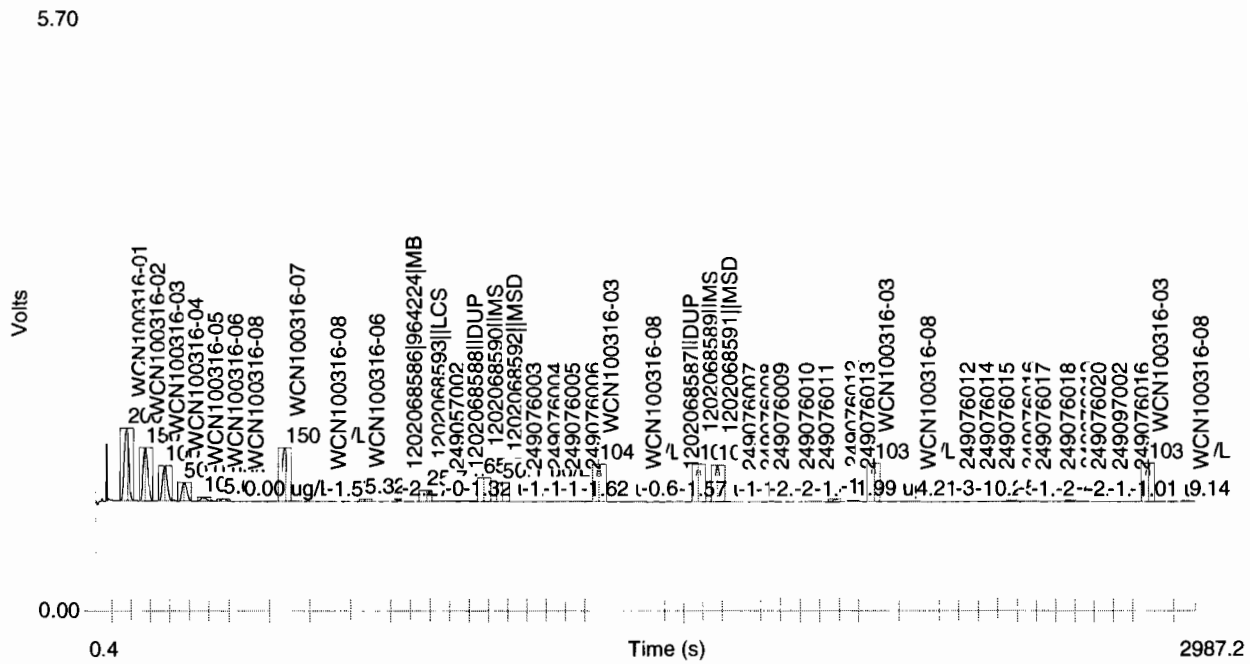

Author: axc2 Date : 3/16/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.76	0.694	0.8	3/16/2010	11:38:29
2	150	1	7.51	0.508	-1.4	3/16/2010	11:39:21
3	100	1	4.94	0.333	0.7	3/16/2010	11:40:14
4	50.0	1	2.64	0.177	-3.6	3/16/2010	11:41:07
5	10.0	1	0.638	0.0416	-6.6	3/16/2010	11:42:00
6	5.00	1	0.357	0.0229	-0.2	3/16/2010	11:42:53
7	0.00	1	-0.00167	-0.00189		3/16/2010	11:43:48

Figure 1: TCYANIDE

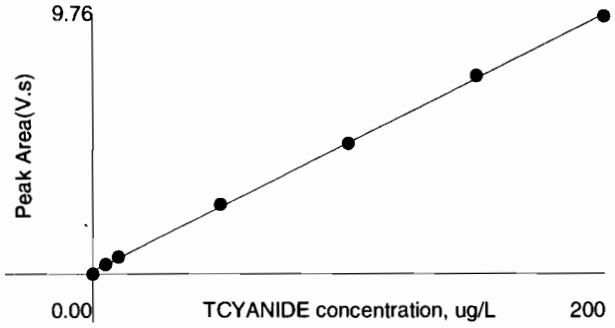

Area = 0.0487 * Conc + 0.113
Conc = 20.5 * Area - 2.28
Correlation Coefficient (r) = 0.99976

No Weighting

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	3/16/2010 20:25:01	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 20:26:51	OM_3-16-2010_20-23-30
249076012	964224	1	axc2	3/16/2010 20:28:41	OM_3-16-2010_20-23-30
249076014	964224	1	axc2	3/16/2010 20:29:34	OM_3-16-2010_20-23-30
249076015	964224	1	axc2	3/16/2010 20:30:27	OM_3-16-2010_20-23-30
249076016	964224	1	axc2	3/16/2010 20:31:20	OM_3-16-2010_20-23-30
249076017	964224	1	axc2	3/16/2010 20:32:13	OM_3-16-2010_20-23-30
249076018	964224	1	axc2	3/16/2010 20:33:05	OM_3-16-2010_20-23-30
249076019	964224	1	axc2	3/16/2010 20:33:57	OM_3-16-2010_20-23-30
249076020	964224	1	axc2	3/16/2010 20:34:49	OM_3-16-2010_20-23-30
249097002	964224	1	axc2	3/16/2010 20:35:42	OM_3-16-2010_20-23-30
1202064134*	962258	1	axc2	3/16/2010 20:36:36	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 20:37:28	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 20:39:18	OM_3-16-2010_20-23-30
1202064134	962258	1	axc2	3/16/2010 20:41:09	OM_3-16-2010_20-23-30
248798002	962258	1	axc2	3/16/2010 20:42:03	OM_3-16-2010_20-23-30
1202064149	962262	1	axc2	3/16/2010 20:42:54	OM_3-16-2010_20-23-30
1202064156	962262	25	axc2	3/16/2010 20:43:46	OM_3-16-2010_20-23-30
248814001	962262	1	axc2	3/16/2010 20:44:40	OM_3-16-2010_20-23-30
1202064150	962262	1	axc2	3/16/2010 20:45:34	OM_3-16-2010_20-23-30
1202064152	962262	1	axc2	3/16/2010 20:46:27	OM_3-16-2010_20-23-30
1202064154	962262	1	axc2	3/16/2010 20:47:21	OM_3-16-2010_20-23-30
248814002	962262	1	axc2	3/16/2010 20:48:14	OM_3-16-2010_20-23-30
1202064151	962262	1	axc2	3/16/2010 20:49:07	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 20:50:00	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 20:51:50	OM_3-16-2010_20-23-30
1202064153	962262	1	axc2	3/16/2010 20:53:39	OM_3-16-2010_20-23-30
1202064155	962262	1	axc2	3/16/2010 20:54:32	OM_3-16-2010_20-23-30
248814003	962262	1	axc2	3/16/2010 20:55:25	OM_3-16-2010_20-23-30
248814004	962262	1	axc2	3/16/2010 20:56:18	OM_3-16-2010_20-23-30
248814005	962262	1	axc2	3/16/2010 20:57:10	OM_3-16-2010_20-23-30
248814006	962262	1	axc2	3/16/2010 20:58:02	OM_3-16-2010_20-23-30
248814007	962262	1	axc2	3/16/2010 20:58:55	OM_3-16-2010_20-23-30
248814008	962262	1	axc2	3/16/2010 20:59:46	OM_3-16-2010_20-23-30
248814009	962262	1	axc2	3/16/2010 21:00:38	OM_3-16-2010_20-23-30
248834001	962262	1	axc2	3/16/2010 21:01:32	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 21:02:25	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 21:04:15	OM_3-16-2010_20-23-30
248834002	962262	1	axc2	3/16/2010 21:06:05	OM_3-16-2010_20-23-30
248834003	962262	1	axc2	3/16/2010 21:06:58	OM_3-16-2010_20-23-30
248834004	962262	1	axc2	3/16/2010 21:07:52	OM_3-16-2010_20-23-30
248834005	962262	1	axc2	3/16/2010 21:08:45	OM_3-16-2010_20-23-30
248834006	962262	1	axc2	3/16/2010 21:09:39	OM_3-16-2010_20-23-30
248834007	962262	1	axc2	3/16/2010 21:10:32	OM_3-16-2010_20-23-30
248834008	962262	1	axc2	3/16/2010 21:11:25	OM_3-16-2010_20-23-30
248834009	962262	1	axc2	3/16/2010 21:12:18	OM_3-16-2010_20-23-30
248834010	962262	1	axc2	3/16/2010 21:13:11	OM_3-16-2010_20-23-30
248834011	962262	1	axc2	3/16/2010 21:14:04	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010 21:14:56	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010 21:16:46	OM_3-16-2010_20-23-30
1202064141	962260	1	axc2	3/16/2010 21:18:34	OM_3-16-2010_20-23-30
248700001	962260	1	axc2	3/16/2010 21:19:26	OM_3-16-2010_20-23-30
1202064148*	962260	25	axc2	3/16/2010 21:20:18	OM_3-16-2010_20-23-30
1202064142	962260	1	axc2	3/16/2010 21:21:11	OM_3-16-2010_20-23-30
1202064144	962260	1	axc2	3/16/2010 21:22:04	OM_3-16-2010_20-23-30
1202064146	962260	1	axc2	3/16/2010 21:22:59	OM_3-16-2010_20-23-30
248700002	962260	1	axc2	3/16/2010 21:23:53	OM_3-16-2010_20-23-30
1202064143	962260	1	axc2	3/16/2010 21:24:47	OM_3-16-2010_20-23-30

1202064145	962260	1	axc2	3/16/2010	21:25:41	OM_3-16-2010_20-23-30
1202064147	962260	1	axc2	3/16/2010	21:26:35	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010	21:27:27	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010	21:29:17	OM_3-16-2010_20-23-30
1202064148	962260	25	axc2	3/16/2010	21:31:06	OM_3-16-2010_20-23-30
248700003	962260	1	axc2	3/16/2010	21:31:59	OM_3-16-2010_20-23-30
248700004	962260	1	axc2	3/16/2010	21:32:52	OM_3-16-2010_20-23-30
248700005	962260	1	axc2	3/16/2010	21:33:45	OM_3-16-2010_20-23-30
248700006	962260	1	axc2	3/16/2010	21:34:38	OM_3-16-2010_20-23-30
248700007	962260	1	axc2	3/16/2010	21:35:31	OM_3-16-2010_20-23-30
248700008	962260	1	axc2	3/16/2010	21:36:24	OM_3-16-2010_20-23-30
248700009	962260	1	axc2	3/16/2010	21:37:16	OM_3-16-2010_20-23-30
248700010	962260	1	axc2	3/16/2010	21:38:09	OM_3-16-2010_20-23-30
248700011	962260	1	axc2	3/16/2010	21:39:01	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010	21:39:53	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010	21:41:43	OM_3-16-2010_20-23-30
248700012*	962260	1	axc2	3/16/2010	21:43:35	OM_3-16-2010_20-23-30
248700013*	962260	1	axc2	3/16/2010	21:44:29	OM_3-16-2010_20-23-30
248700014*	962260	1	axc2	3/16/2010	21:45:23	OM_3-16-2010_20-23-30
248700015*	962260	1	axc2	3/16/2010	21:46:17	OM_3-16-2010_20-23-30
248700016*	962260	1	axc2	3/16/2010	21:47:11	OM_3-16-2010_20-23-30
1202068608*	964231	1	axc2	3/16/2010	21:48:04	OM_3-16-2010_20-23-30
1202068618*	964231	1	axc2	3/16/2010	21:48:58	OM_3-16-2010_20-23-30
249076001*	964231	1	axc2	3/16/2010	21:49:51	OM_3-16-2010_20-23-30
248634002*	964231	1	axc2	3/16/2010	21:50:45	OM_3-16-2010_20-23-30
248885002*	964231	1	axc2	3/16/2010	21:51:37	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010	21:52:30	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010	21:54:21	OM_3-16-2010_20-23-30
248952011*	964231	1	axc2	3/16/2010	21:56:10	OM_3-16-2010_20-23-30
1202068610*	964231	1	axc2	3/16/2010	21:57:03	OM_3-16-2010_20-23-30
1202068613*	964231	1	axc2	3/16/2010	21:57:57	OM_3-16-2010_20-23-30
1202068616*	964231	1	axc2	3/16/2010	21:58:49	OM_3-16-2010_20-23-30
248952012*	964231	1	axc2	3/16/2010	21:59:41	OM_3-16-2010_20-23-30
248952018*	964231	1	axc2	3/16/2010	22:00:33	OM_3-16-2010_20-23-30
248964002*	964231	1	axc2	3/16/2010	22:01:28	OM_3-16-2010_20-23-30
1202068611*	964231	1	axc2	3/16/2010	22:02:23	OM_3-16-2010_20-23-30
1202068614*	964231	1	axc2	3/16/2010	22:03:17	OM_3-16-2010_20-23-30
1202068617*	964231	1	axc2	3/16/2010	22:04:11	OM_3-16-2010_20-23-30
CCV		1	axc2	3/16/2010	22:05:03	OM_3-16-2010_20-23-30
CCB		1	axc2	3/16/2010	22:06:55	OM_3-16-2010_20-23-30
1202068608*	964231	1	axc2	3/16/2010	22:08:43	OM_3-16-2010_20-23-30
1202068618*	964231	1	axc2	3/16/2010	22:09:37	OM_3-16-2010_20-23-30
249076001*	964231	1	axc2	3/16/2010	22:10:30	OM_3-16-2010_20-23-30
248964003*	964231	1	axc2	3/16/2010	22:11:25	OM_3-16-2010_20-23-30
1202068608*	964231	1	axc2	3/16/2010	22:12:18	OM_3-16-2010_20-23-30
1202068618*	964231	1	axc2	3/16/2010	22:13:11	OM_3-16-2010_20-23-30

Author: axc2 Date : 3/30/2010

Original Run Filename: OM_3-16-2010_20-23-30.OMN created 3/16/2010 20:23:30
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-16-2010_20-23-30.OMN last modified 3/16/2010 22:15:07
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100316-03	1	S3	105	5.22	3/16/2010@20:25:01			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		5.0 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		5.0 < 10.0					
	Message		CCV Passed					
	Action		Continue					
	Calibration:		Table/Fig. 1					
WCN100316-08	1	S7	-1.78	0.0243	3/16/2010@20:26:51			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.78 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.78 > -5.00					
	Message		CCB Passed					
	Action		Continue					
249076012|964224|	1	19	-1.65	0.0306	3/16/2010@20:28:41			
249076014	1	21	-1.68	0.0291	3/16/2010@20:29:34			
249076015	1	22	-2.19	0.00410	3/16/2010@20:30:27			
249076016	1	23	0.0867	0.115	3/16/2010@20:31:20			
249076017	1	24	-1.82	0.0224	3/16/2010@20:32:13			
249076018	1	25	-1.50	0.0380	3/16/2010@20:33:05			
249076019	1	26	-1.82	0.0222	3/16/2010@20:33:57			
249076020	1	27	-2.06	0.0107	3/16/2010@20:34:49			
249097002	1	28	-1.44	0.0407	3/16/2010@20:35:42			
1202064134|962258|DUP	1	112	519	25.4	3/16/2010@20:36:36			
WCN100316-03	1	S3	106	5.29	3/16/2010@20:37:28			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		6.3 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		6.3 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100316-08	1	S7	-1.61	0.0325	3/16/2010@20:39:18			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.61 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.61 > -5.00					
	Message		CCB Passed					
	Action		Continue					
1202064134|962258|DUP	1	112	-2.01	0.0133	3/16/2010@20:41:09			
248798002	1	113	-2.12	0.00795	3/16/2010@20:42:03			
1202064149|962262|MB	1	29	-1.85	0.0208	3/16/2010@20:42:54			
1202064156||LCS	1	30	21.2	1.14	3/16/2010@20:43:46		25.00	
248814001	1	31	-1.92	0.0176	3/16/2010@20:44:40			

1202064150||DUP	1	32	-1.94	0.0167	3/16/2010@20:45:34			
1202064152||MS	1	33	93.0	4.64	3/16/2010@20:46:27			
1202064154||MSD	1	34	95.0	4.73	3/16/2010@20:47:21			
248814002	1	35	-1.81	0.0230	3/16/2010@20:48:14			
1202064151||DUP	1	36	-1.70	0.0279	3/16/2010@20:49:07			
WCN100316-03	1	S3	107	5.32	3/16/2010@20:50:00			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	7.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-2.40	-0.00592	3/16/2010@20:51:50			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.40 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.40 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064153||MS	1	37	56.8	2.87	3/16/2010@20:53:39			
1202064155||MSD	1	38	68.7	3.45	3/16/2010@20:54:32			
248814003	1	39	-1.21	0.0520	3/16/2010@20:55:25			
248814004	1	40	-1.64	0.0311	3/16/2010@20:56:18			
248814005	1	41	-1.31	0.0473	3/16/2010@20:57:10			
248814006	1	42	-1.36	0.0446	3/16/2010@20:58:02			
248814007	1	43	-1.56	0.0349	3/16/2010@20:58:55			
248814008	1	44	-1.71	0.0279	3/16/2010@20:59:46			
248814009	1	45	-1.60	0.0332	3/16/2010@21:00:38			
248834001	1	46	-1.80	0.0231	3/16/2010@21:01:32			
WCN100316-03	1	S3	108	5.36	3/16/2010@21:02:25			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	7.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-1.85	0.0210	3/16/2010@21:04:15			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.85 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.85 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248834002	1	47	1.43	0.181	3/16/2010@21:06:05			
248834003	1	48	-1.90	0.0185	3/16/2010@21:06:58			
248834004	1	49	-1.78	0.0243	3/16/2010@21:07:52			
248834005	1	50	-1.74	0.0262	3/16/2010@21:08:45			
248834006	1	51	-2.13	0.00738	3/16/2010@21:09:39			
248834007	1	52	-2.40	-0.00569	3/16/2010@21:10:32			
248834008	1	53	-2.10	0.00869	3/16/2010@21:11:25			
248834009	1	54	-1.82	0.0221	3/16/2010@21:12:18			
248834010	1	55	-1.46	0.0397	3/16/2010@21:13:11			
248834011	1	56	-1.79	0.0236	3/16/2010@21:14:04			
WCN100316-03	1	S3	109	5.40	3/16/2010@21:14:56			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								

		Result:	8.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	8.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-2.15	0.00636	3/16/2010@21:16:46			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.15 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.15 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064141|962260|MB	1	57	-1.27	0.0492	3/16/2010@21:18:34			
248700001	1	58	-1.98	0.0144	3/16/2010@21:19:26		25.00	
1202064148||LCS	1	59	711	34.7	3/16/2010@21:20:18			
1202064142||DUP	1	60	1.08	0.163	3/16/2010@21:21:11			
1202064144||MS	1	61	102	5.07	3/16/2010@21:22:04			
1202064146||MSD	1	62	99.0	4.93	3/16/2010@21:22:59			
248700002	1	63	-0.804	0.0718	3/16/2010@21:23:53			
1202064143||DUP	1	64	-2.28	-2.93e-4	3/16/2010@21:24:47			
1202064145||MS	1	65	103	5.13	3/16/2010@21:25:41			
1202064147||MSD	1	66	105	5.24	3/16/2010@21:26:35			
WCN100316-03	1	S3	105	5.22	3/16/2010@21:27:27			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-2.13	0.00714	3/16/2010@21:29:17			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.13 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.13 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202064148||LCS	1	59	25.3	1.34	3/16/2010@21:31:06		25.00	
248700003	1	67	-0.850	0.0695	3/16/2010@21:31:59			
248700004	1	68	-0.511	0.0860	3/16/2010@21:32:52			
248700005	1	69	-0.731	0.0753	3/16/2010@21:33:45			
248700006	1	70	0.111	0.116	3/16/2010@21:34:38			
248700007	1	71	-1.12	0.0562	3/16/2010@21:35:31			
248700008	1	72	-1.75	0.0256	3/16/2010@21:36:24			
248700009	1	73	-0.966	0.0639	3/16/2010@21:37:16			
248700010	1	74	2.32	0.224	3/16/2010@21:38:09			
248700011	1	75	-0.512	0.0860	3/16/2010@21:39:01			
WCN100316-03	1	S3	103	5.13	3/16/2010@21:39:53			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-1.67	0.0295	3/16/2010@21:41:43			CCB

		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.67 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.67 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248700012	1	76	7.01	0.452	3/16/2010@21:43:35			
248700013	1	77	-57.1	-2.67	3/16/2010@21:44:29			
248700014	1	78	1.66	0.192	3/16/2010@21:45:23			
248700015	1	79	12.0	0.695	3/16/2010@21:46:17			
248700016	1	80	20.0	1.08	3/16/2010@21:47:11			
1202068608|964231|MB	1	81	9.84	0.590	3/16/2010@21:48:04			
1202068618||LCS	1	82	61.6	3.11	3/16/2010@21:48:58			
249076001	1	102	-10.7	-0.409	3/16/2010@21:49:51			
248634002	1	83	-1.11	0.0570	3/16/2010@21:50:45			
248885002	1	84	-0.520	0.0856	3/16/2010@21:51:37			
WCN100316-03	1	S3	103	5.13	3/16/2010@21:52:30			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-1.84	0.0211	3/16/2010@21:54:21			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.84 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.84 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248952011	1	85	-3.64	-0.0664	3/16/2010@21:56:10			
1202068610||DUP	1	86	-1.43	0.0415	3/16/2010@21:57:03			
1202068613||MS	1	87	102	5.09	3/16/2010@21:57:57			
1202068616||MSD	1	88	109	5.41	3/16/2010@21:58:49			
248952012	1	89	-1.36	0.0445	3/16/2010@21:59:41			
248952018	1	90	-1.18	0.0533	3/16/2010@22:00:33			
248964002	1	91	-1.61	0.0323	3/16/2010@22:01:28			
1202068611||DUP	1	92	0.111	0.116	3/16/2010@22:02:23			
1202068614||MS	1	93	121	5.99	3/16/2010@22:03:17			
1202068617||MSD	1	94	108	5.38	3/16/2010@22:04:11			
WCN100316-03	1	S3	105	5.23	3/16/2010@22:05:03			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100316-08	1	S7	-0.763	0.0738	3/16/2010@22:06:55			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.763 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.763 > -5.00					
		Message	CCB Passed					

Author: axc2 Date : 3/30/2010

		Action	Continue					
1202068608|964231|MB	1	81	13.0	0.742	3/16/2010@22:08:43			
1202068618||LCS	1	82	59.6	3.01	3/16/2010@22:09:37			
249076001	1	102	-0.852	0.0694	3/16/2010@22:10:30			
248964003	1	95	15.4	0.863	3/16/2010@22:11:25			
1202068608|964231|MB	1	81	-2.86	-0.0283	3/16/2010@22:12:18			
1202068618||LCS	1	82	68.5	3.45	3/16/2010@22:13:11			

Analyte Properties Table for OM_3-16-2010_20-23-30.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

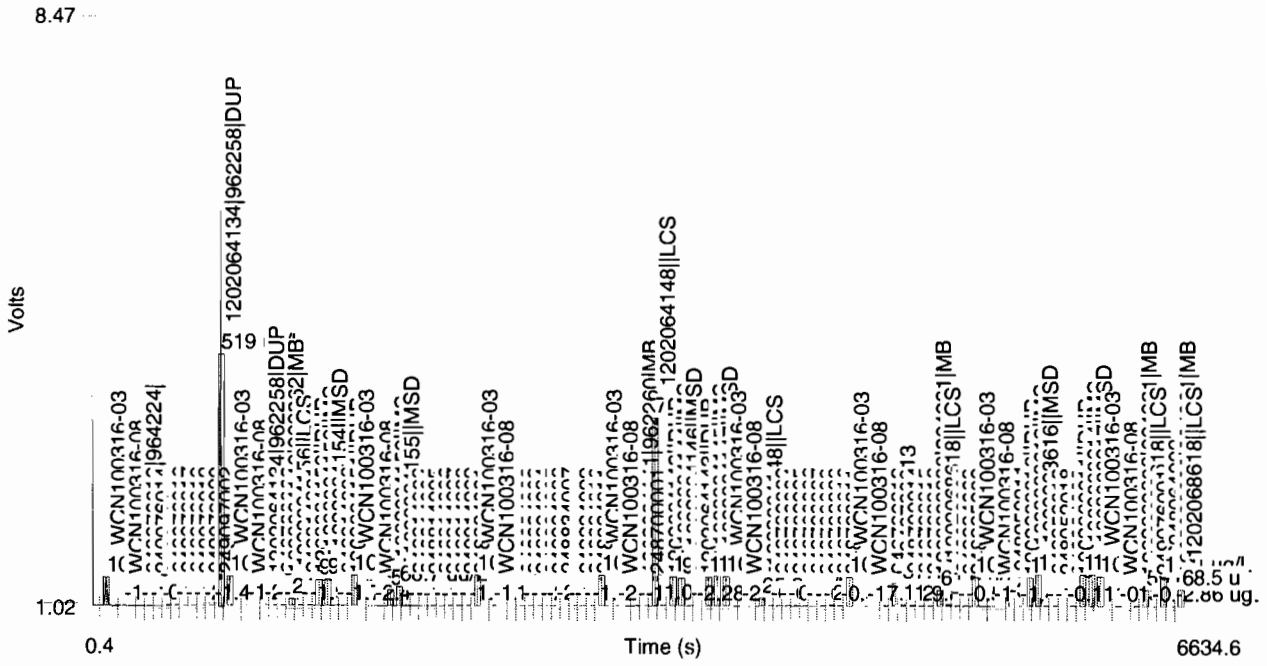

Author: axc2 Date : 3/30/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.76	0.694	0.8	3/16/2010	11:38:29
2	150	1	7.51	0.508	-1.4	3/16/2010	11:39:21
3	100	1	4.94	0.333	0.7	3/16/2010	11:40:14
4	50.0	1	2.64	0.177	-3.6	3/16/2010	11:41:07
5	10.0	1	0.638	0.0416	-6.6	3/16/2010	11:42:00
6	5.00	1	0.357	0.0229	-0.2	3/16/2010	11:42:53
7	0.00	1	-0.00167	-0.00189		3/16/2010	11:43:48

Figure 1: TCYANIDE

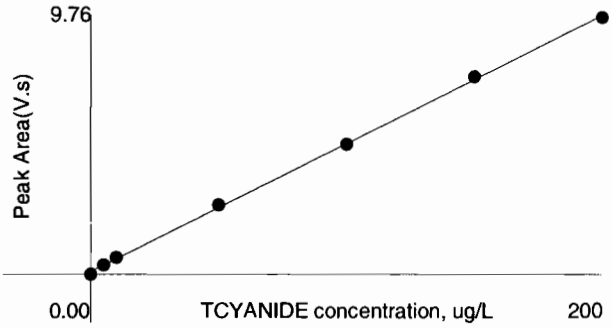

Area = 0.0487 * Conc + 0.113
Conc = 20.5 * Area - 2.28
Correlation Coefficient (r) = 0.99976

No Weighting

Ion Chromatography

Prep Logbook

Ion Chromatography (IC)

Batch ID: **968639.0** Verified by: _____

Analyst: Virginia Wininger

Method: EPA 300.0 PREP

Lab SOP: GL-GC-E-086 REV# 17

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202079405	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202079401	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202079402	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202079403	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202079404	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202079398 MB	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079405 LCS	29-MAR-2010 16:37:00	Soil	4	40	10	
248814001	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079399 DUP (248814001)	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079401 MS (248814001)	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079403 MSD (248814001)	29-MAR-2010 16:37:00	Soil	4	40	10	
248814002	29-MAR-2010 16:37:00	Soil	4	40	10	
248814003	29-MAR-2010 16:37:00	Soil	4	40	10	
248814004	29-MAR-2010 16:37:00	Soil	4	40	10	
248814005	29-MAR-2010 16:37:00	Soil	4	40	10	
248814006	29-MAR-2010 16:37:00	Soil	4	40	10	
248814007	29-MAR-2010 16:37:00	Soil	4	40	10	
248814008	29-MAR-2010 16:37:00	Soil	4	40	10	
248814009	29-MAR-2010 16:37:00	Soil	4	40	10	
248824001	29-MAR-2010 16:37:00	Soil	4	40	10	
248824002	29-MAR-2010 16:37:00	Soil	4	40	10	
248865001	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079400 DUP (248865001)	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079402 MS (248865001)	29-MAR-2010 16:37:00	Soil	4	40	10	
1202079404 MSD (248865001)	29-MAR-2010 16:37:00	Soil	4	40	10	
248866001	29-MAR-2010 16:37:00	Soil	4	40	10	
248866002	29-MAR-2010 16:37:00	Soil	4	40	10	

Reagent/Solvent Lot ID	Description	Amount

Prep Logbook

Batch ID: **968639.0** Verified by: _____

Analyst: Virginia Wininger

Method: EPA 300.0 PREP

Lab SOP: GL-GC-E-086 REV# 17

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202079405	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202079401	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MS	1202079402	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202079403	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL
MSD	1202079404	GEL-ANION-4C Spiking Solution	UIC100324SPK	.8	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1

Comments:

This is runlog for Sequence 100331.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	03/23/10 16:00		1	100331	MAR1
ICAL-06	03/23/10 16:27		1	100331	MAR1
ICAL-05	03/23/10 16:53		1	100331	MAR1
ICAL-04	03/23/10 17:20		1	100331	MAR1
ICAL-03	03/23/10 17:47		1	100331	MAR1
ICAL-02	03/23/10 18:14		1	100331	MAR1
ICAL-01	03/23/10 18:41		1	100331	MAR1

8 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	1.0
Vial Number:	46	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 16:00	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

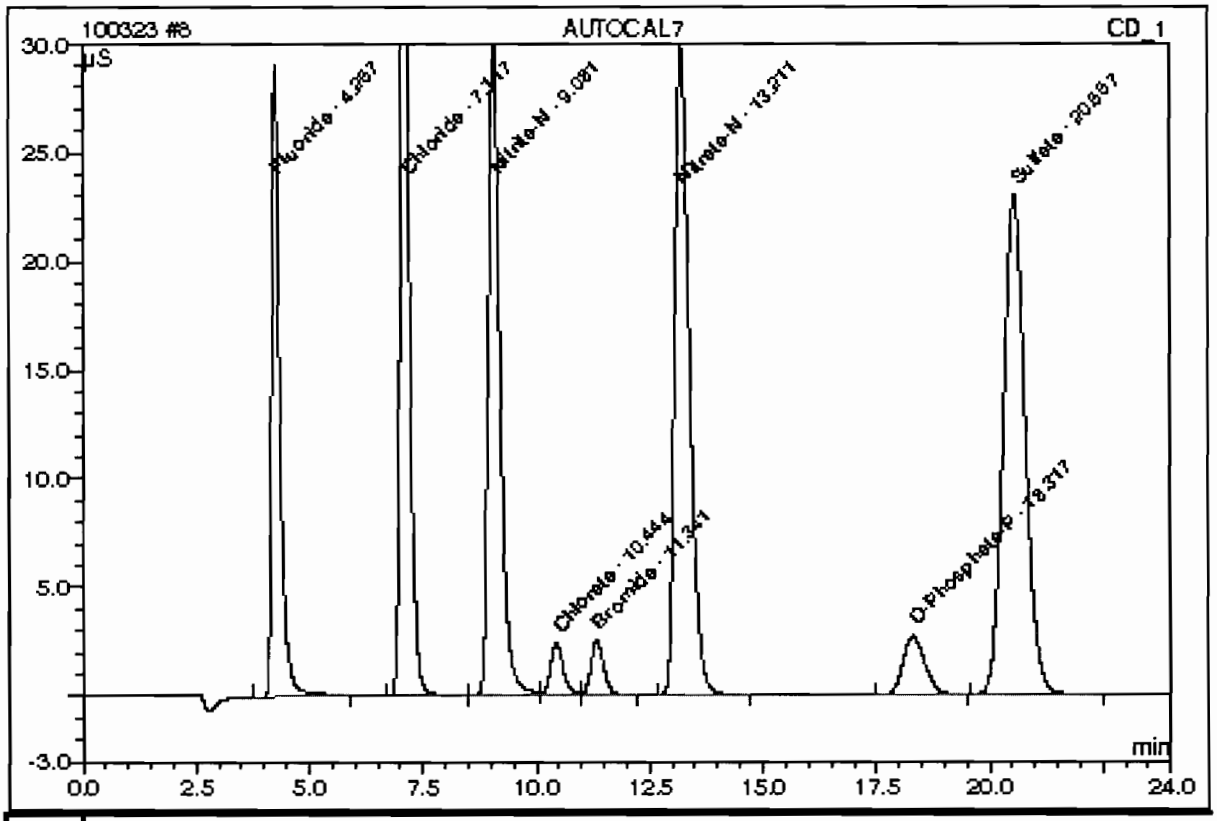

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	10.0000	10.0652		6.02041	11.75
2	7.12	Chloride	20.0000	20.3058		9.29780	18.14
3	9.08	Nitrite-N	10.0000	10.0773		8.89622	17.36
4	10.44	Chlorate	5.0000	5.0763		0.77530	1.51
5	11.34	Bromide	5.0000	5.0450		0.82220	1.60
6	13.21	Nitrate-N	10.0000	10.1395		11.02745	21.52
7	18.32	O-Phosphate-P	5.0000	5.1121		1.49471	2.92
8	20.56	Sulfate	40.0000	40.4690		12.91152	25.20
Total:				106.2901	0.000	51.246	100.00

9 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	1.0
Vial Number:	47	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 16:27	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

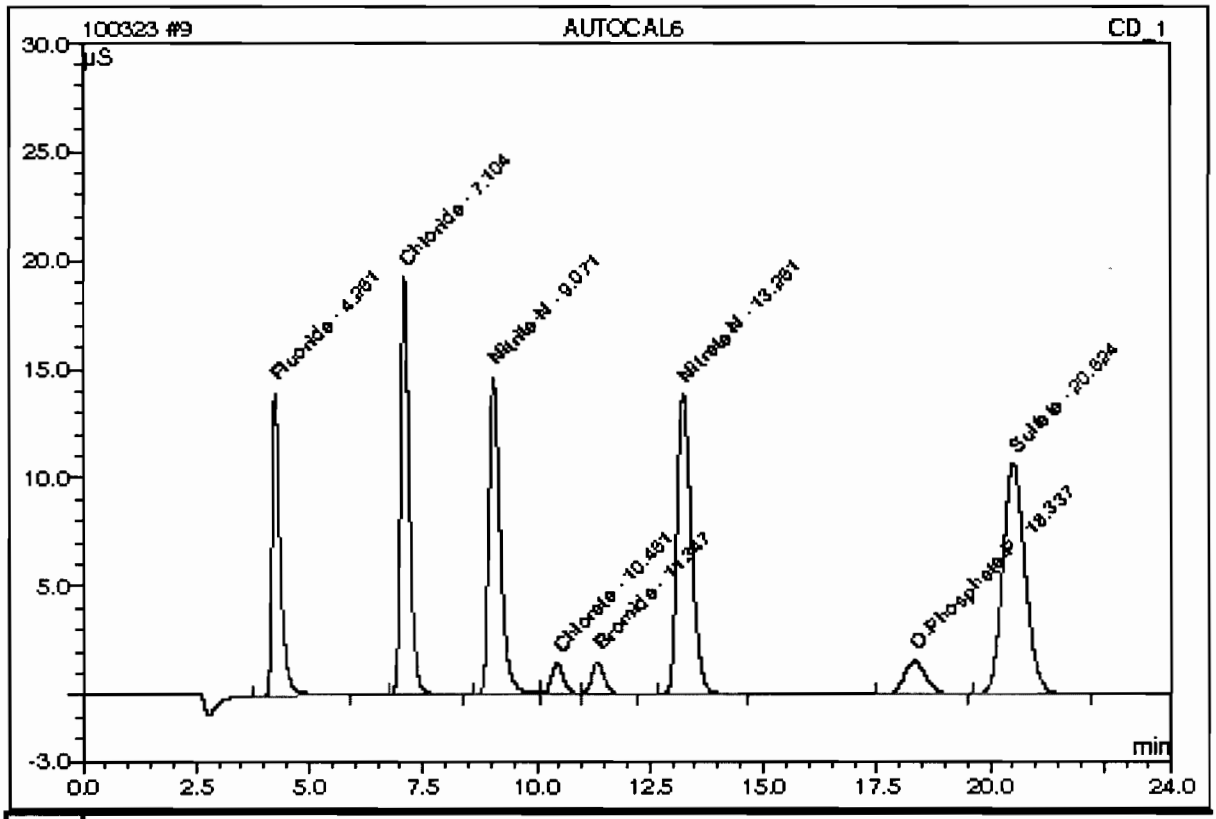

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	5.0000	4.8849		2.90201	11.92
2	7.10	Chloride	10.0000	9.4230		4.26930	17.53
3	9.07	Nitrite-N	5.0000	4.8599		4.25796	17.48
4	10.45	Chlorate	3.0000	2.9924		0.45332	1.86
5	11.35	Bromide	3.0000	3.0046		0.48728	2.00
6	13.25	Nitrate-N	5.0000	4.7372		5.09401	20.92
7	18.34	O-Phosphate-P	3.0000	2.9633		0.84358	3.46
8	20.52	Sulfate	20.0000	19.1180		6.04506	24.82
Total:				51.9833	0.000	24.353	100.00

10 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	1.0
Vial Number:	48	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 16:53	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

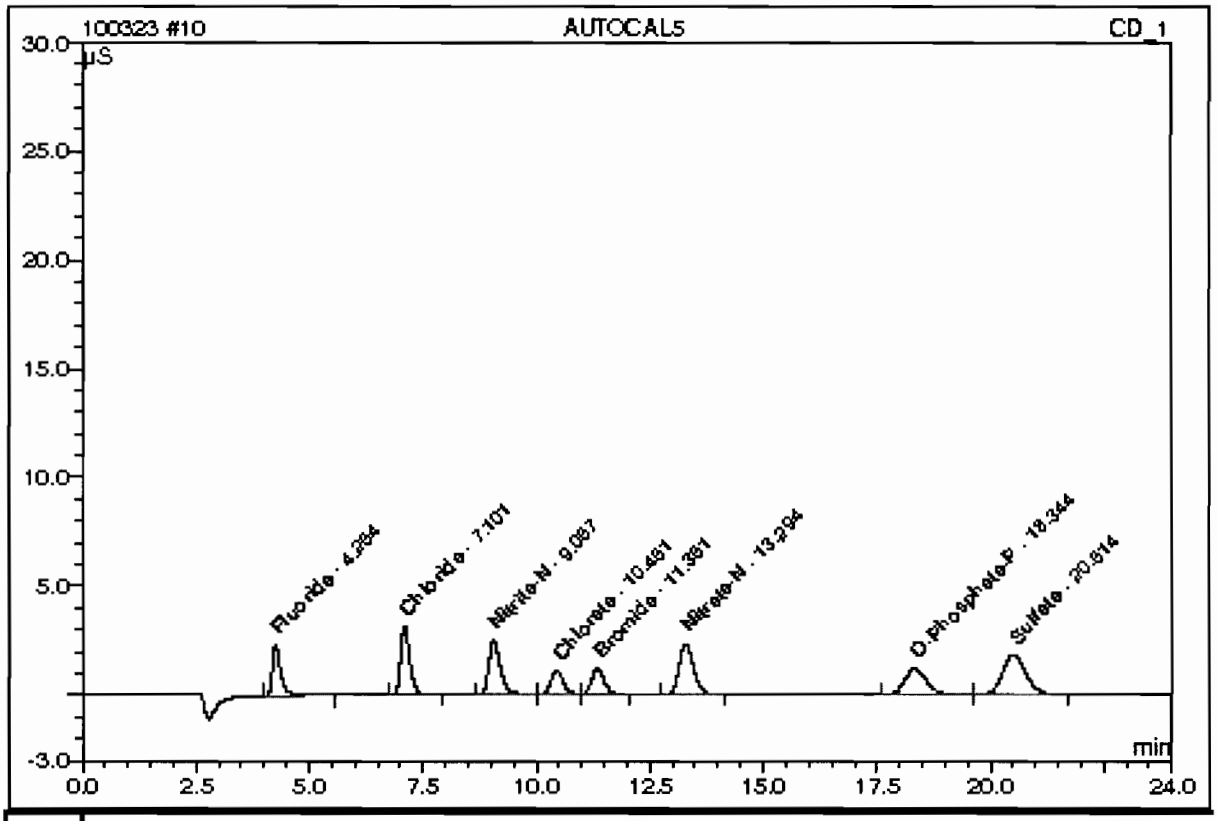

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	1.0000	0.9125		0.51078	9.53
2	7.10	Chloride	2.0000	1.7708		0.73350	13.68
3	9.07	Nitrite-N	1.0000	0.9189		0.75453	14.07
4	10.45	Chlorate	2.5000	2.3650		0.35638	6.65
5	11.35	Bromide	2.5000	2.4114		0.38991	7.27
6	13.29	Nitrate-N	1.0000	0.9005		0.88006	16.42
7	18.34	O-Phosphate-P	2.5000	2.3684		0.66331	12.37
8	20.51	Sulfate	4.0000	3.6570		1.07282	20.01
Total:				15.3047	0.000	5.361	100.00

11 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	1.0
Vial Number:	49	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 17:20	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

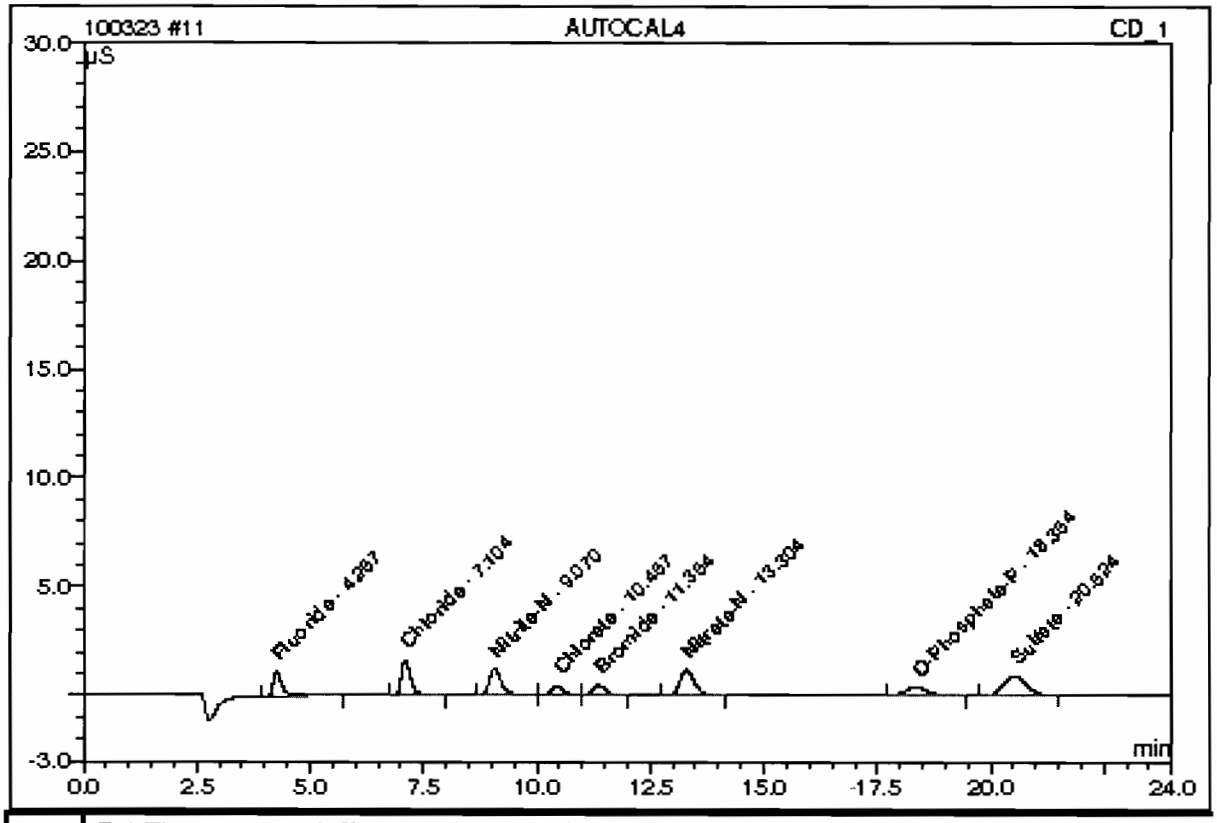

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.5000	0.5017		0.26350	10.50
2	7.10	Chloride	1.0000	1.0243		0.38857	15.49
3	9.07	Nitrite-N	0.5000	0.4901		0.37331	14.88
4	10.46	Chlorate	1.0000	0.9701		0.14085	5.61
5	11.35	Bromide	1.0000	0.9780		0.15461	6.16
6	13.30	Nitrate-N	0.5000	0.4967		0.43652	17.40
7	18.36	O-Phosphate-P	1.0000	0.8958		0.21705	8.65
8	20.52	Sulfate	2.0000	1.9836		0.53465	21.31
Total:				7.3402	0.000	2.509	100.00

12 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	1.0
Vial Number:	50	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 17:47	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

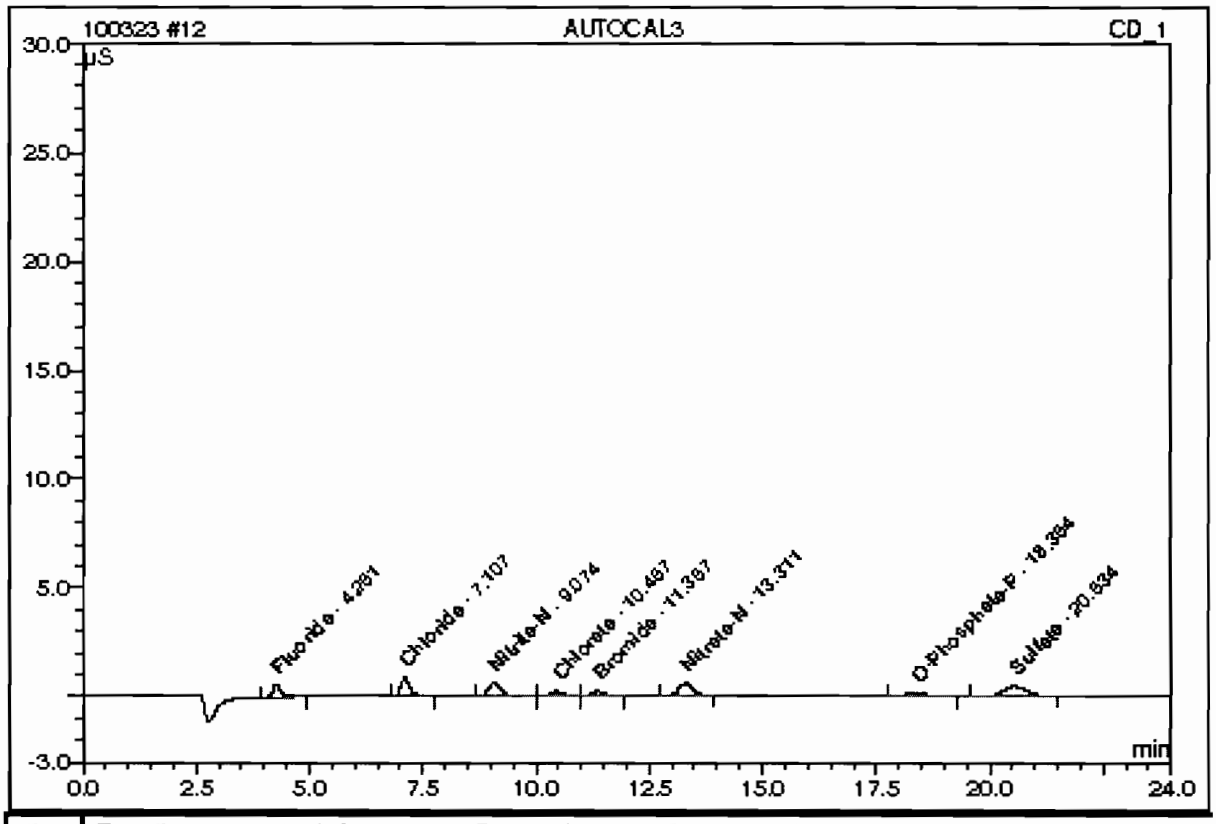

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	0.2500	0.2725		0.12551	10.22
2	7.11	Chloride	0.5000	0.6010		0.19297	15.72
3	9.07	Nitrite-N	0.2500	0.2827		0.18893	15.39
4	10.46	Chlorate	0.5000	0.5047		0.06895	5.62
5	11.36	Bromide	0.5000	0.4987		0.07594	6.19
6	13.31	Nitrate-N	0.2500	0.2965		0.21665	17.65
7	18.36	O-Phosphate-P	0.5000	0.4552		0.08354	6.81
8	20.53	Sulfate	1.0000	1.1764		0.27506	22.41
Total:				4.0878	0.000	1.228	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	1.0
Vial Number:	1	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:14	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

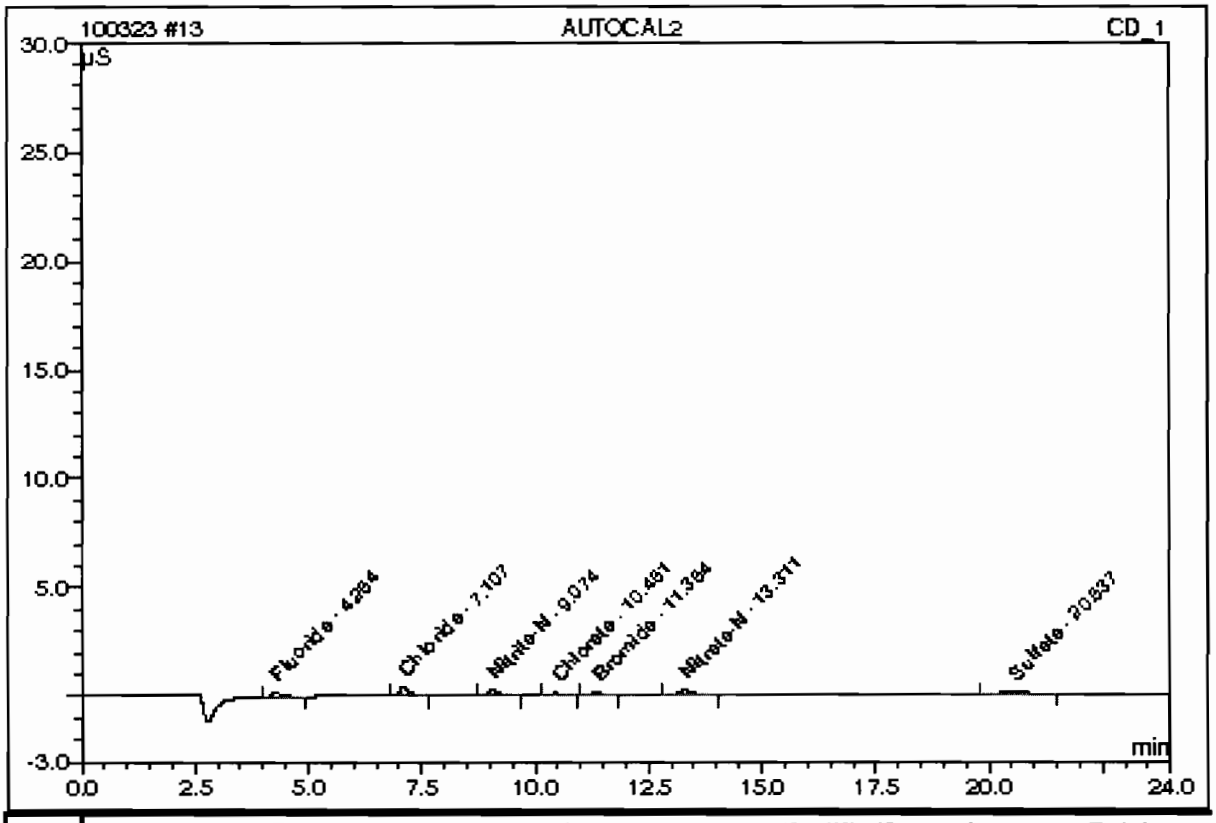

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.1000	0.1492		0.05126	10.67
2	7.11	Chloride	0.2000	0.3919		0.09636	20.06
3	9.07	Nitrite-N	0.1000	0.1509		0.07173	14.93
4	10.46	Chlorate	0.2000	0.2331		0.02698	5.62
5	11.35	Bromide	0.2000	0.2262		0.03122	6.50
6	13.31	Nitrate-N	0.1000	0.1803		0.08899	18.53
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	20.54	Sulfate	0.4000	0.6748		0.11374	23.68
Total:				2.0063	0.000	0.480	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	1.0
Vial Number:	1	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:14	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

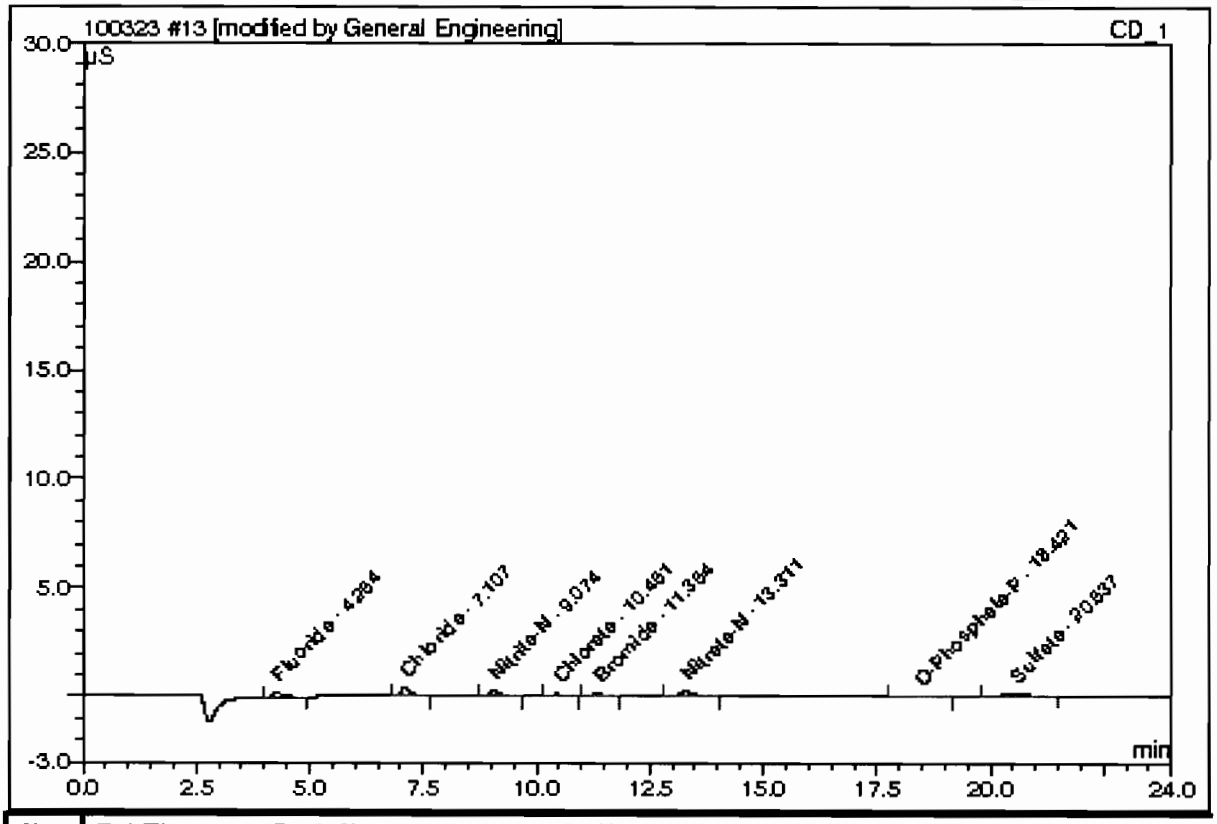

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	0.1000	0.1492		0.05126	10.37
2	7.11	Chloride	0.2000	0.3919		0.09636	19.50
3	9.07	Nitrite-N	0.1000	0.1509		0.07173	14.51
4	10.46	Chlorate	0.2000	0.2331		0.02698	5.46
5	11.35	Bromide	0.2000	0.2262		0.03122	6.32
6	13.31	Nitrate-N	0.1000	0.1803		0.08899	18.00
7	18.42	O-Phosphate-P	0.2000	0.2257		0.01399	2.83
8	20.54	Sulfate	0.4000	0.6748		0.11374	23.01
Total:				2.2320	0.000	0.494	100.00

14 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	1.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:41	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

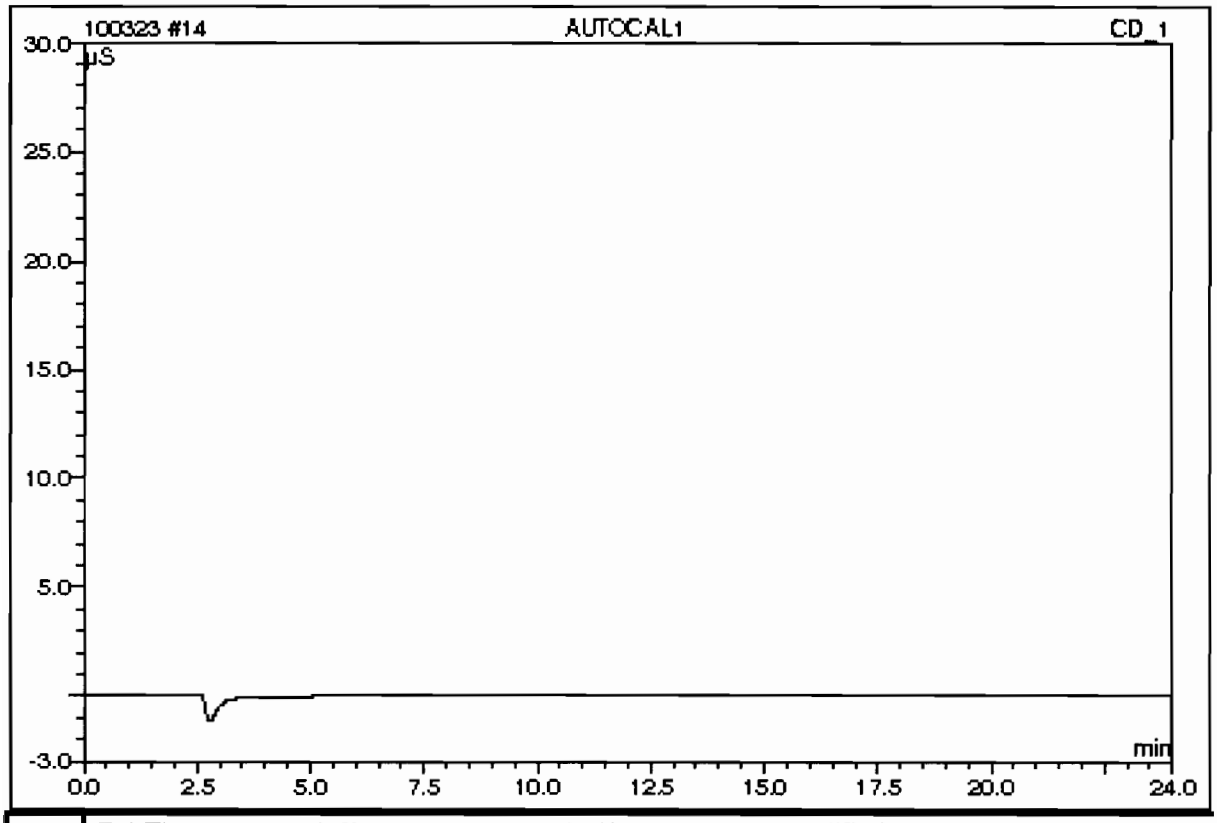

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

14 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	1.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 18:41	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-002712; GL GCE086;300;9056

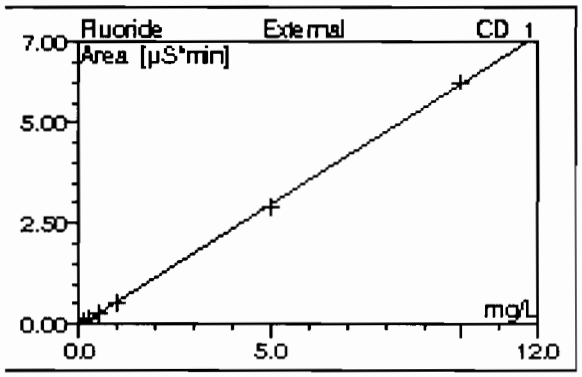

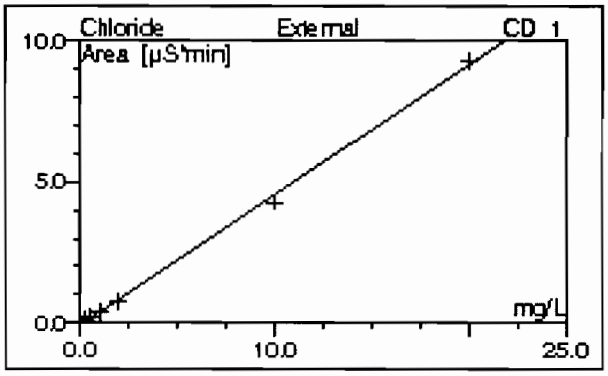

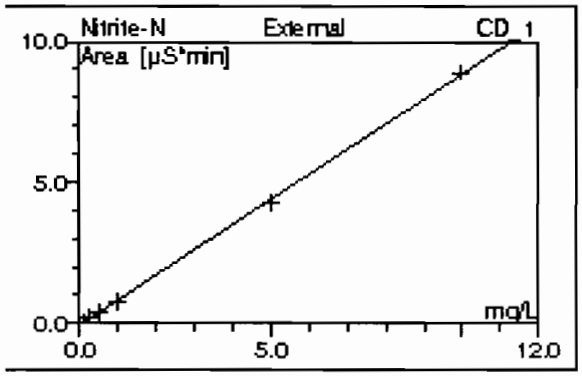

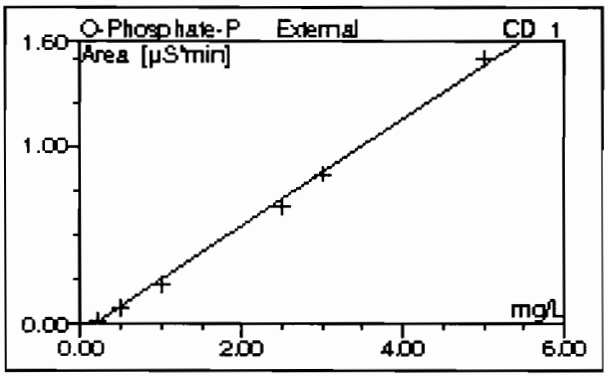

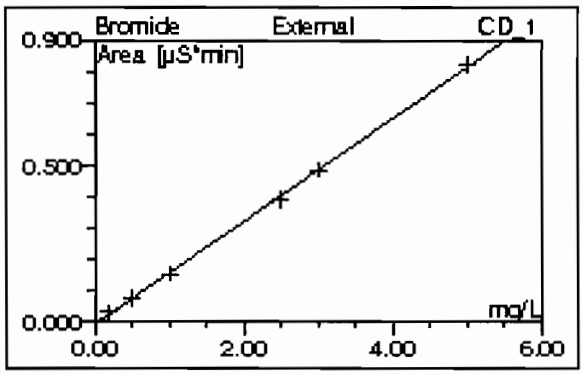

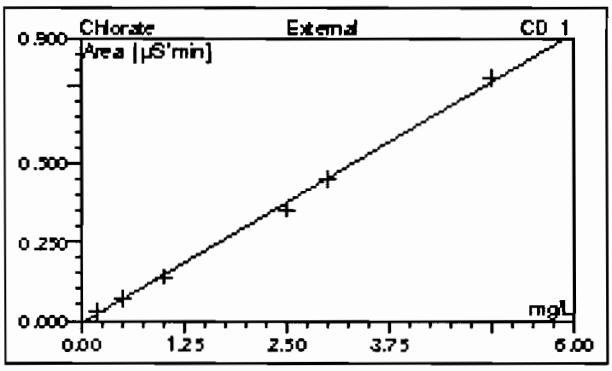

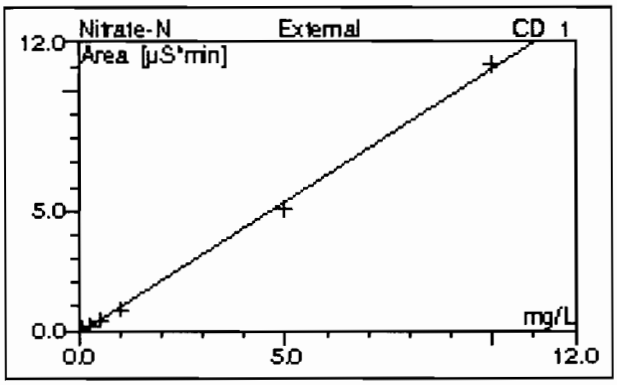

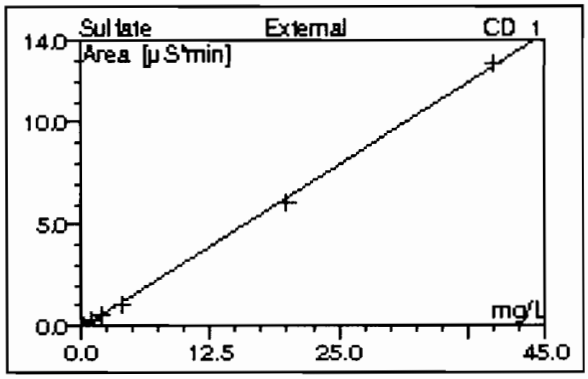

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	OLOff	99.9646	-0.0385	0.6020	0.0000
n.a.	n.a.	Chloride	OLOff	99.8347	-0.0847	0.4621	0.0000
n.a.	n.a.	Nitrite-N	OLOff	99.9547	-0.0624	0.8890	0.0000
n.a.	n.a.	Chlorate	OLOff	99.8463	-0.0090	0.1545	0.0000
n.a.	n.a.	Bromide	OLOff	99.9345	-0.0059	0.1641	0.0000
n.a.	n.a.	Nitrate-N	OLOff	99.8657	-0.1090	1.0983	0.0000
n.a.	n.a.	O-Phosphate-P	OLOff	99.7443	-0.0544	0.3030	0.0000
n.a.	n.a.	Sulfate	OLOff	99.9039	-0.1033	0.3216	0.0000
Average:				99.8811	-0.0584	0.4993	0.0000

This is runlog for Sequence 100323.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/23/10 15:33		1	100323	MAR1
ICAL-07	03/23/10 16:00		1	100323	MAR1
ICAL-06	03/23/10 16:27		1	100323	MAR1
ICAL-05	03/23/10 16:53		1	100323	MAR1
ICAL-04	03/23/10 17:20		1	100323	MAR1
ICAL-03	03/23/10 17:47		1	100323	MAR1
ICAL-02	03/23/10 18:14		1	100323	MAR1
ICAL-01	03/23/10 18:41		1	100323	MAR1
ICV	03/23/10 19:08		1	100323	MAR1
ICB	03/23/10 19:35		1	100323	MAR1
1202073661	03/23/10 20:02	966275	1	100323	MAR1
1202073665	03/23/10 20:29	966275	1	100323	MAR1
248534001	03/23/10 20:56	966275	1	100323	MAR1
1202073662	03/23/10 21:23	966275	1	100323	MAR1
1202073663	03/23/10 21:50	966275	1	100323	MAR1
1202073664	03/23/10 22:16	966275	1	100323	MAR1
248534002	03/23/10 22:43	966275	1	100323	MAR1
248534003	03/23/10 23:10	966275	1	100323	MAR1
248534004	03/23/10 23:37	966275	1	100323	MAR1

15 WIC100323-02ICV

Sample Name:	WIC100323-02ICV	*Injection Volume:*	1.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 19:08	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

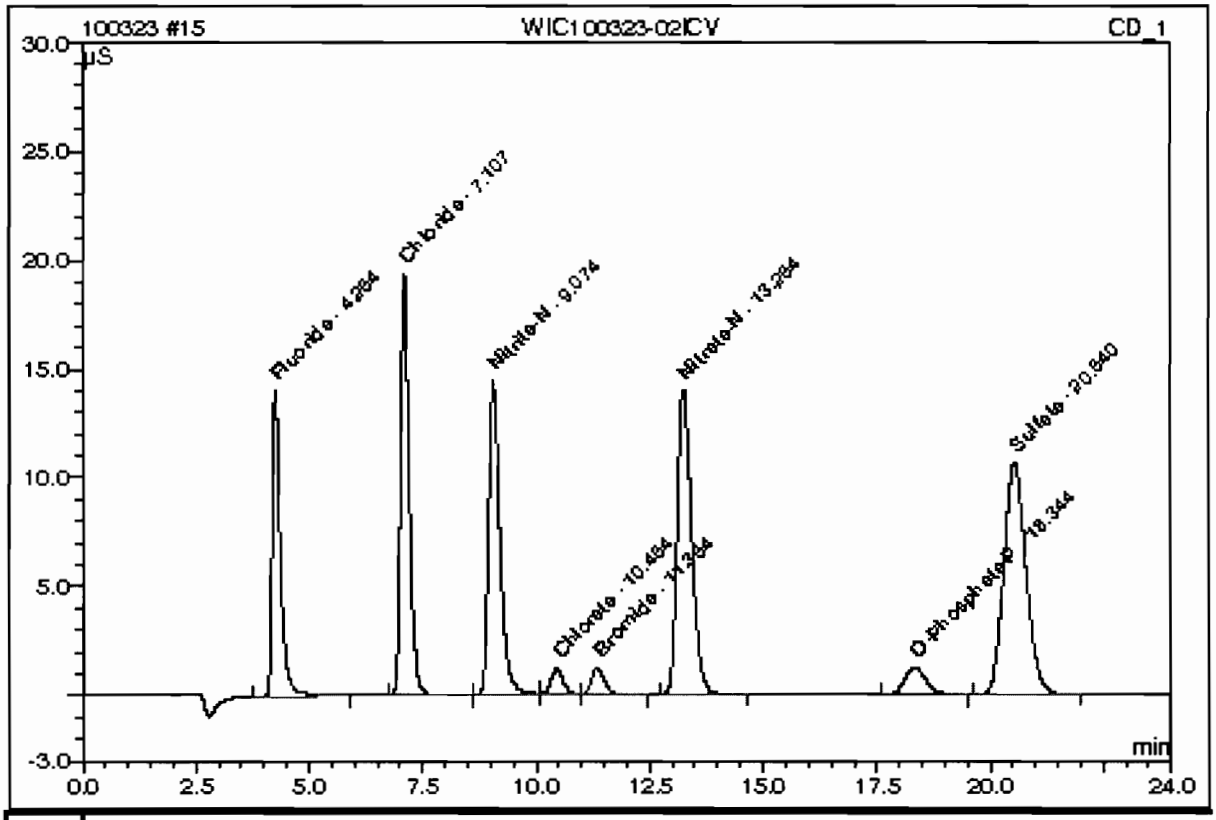

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.8960		2.90874	12.07
2	7.11	Chloride	n.a.	9.4929		4.30159	17.85
3	9.07	Nitrite-N	n.a.	4.8019		4.20641	17.46
4	10.45	Chlorate	n.a.	2.5622		0.38685	1.61
5	11.35	Bromide	n.a.	2.5972		0.42040	1.74
6	13.25	Nitrate-N	n.a.	4.7960		5.15850	21.41
7	18.34	O-Phosphate-P	n.a.	2.4576		0.69032	2.86
8	20.54	Sulfate	n.a.	19.0532		6.02422	25.00
Total:				50.6569	0.000	24.097	100.00

15 WIC100323-02ICV

Sample Name:	WIC100323-02ICV	*Injection Volume:*	1.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 19:08	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

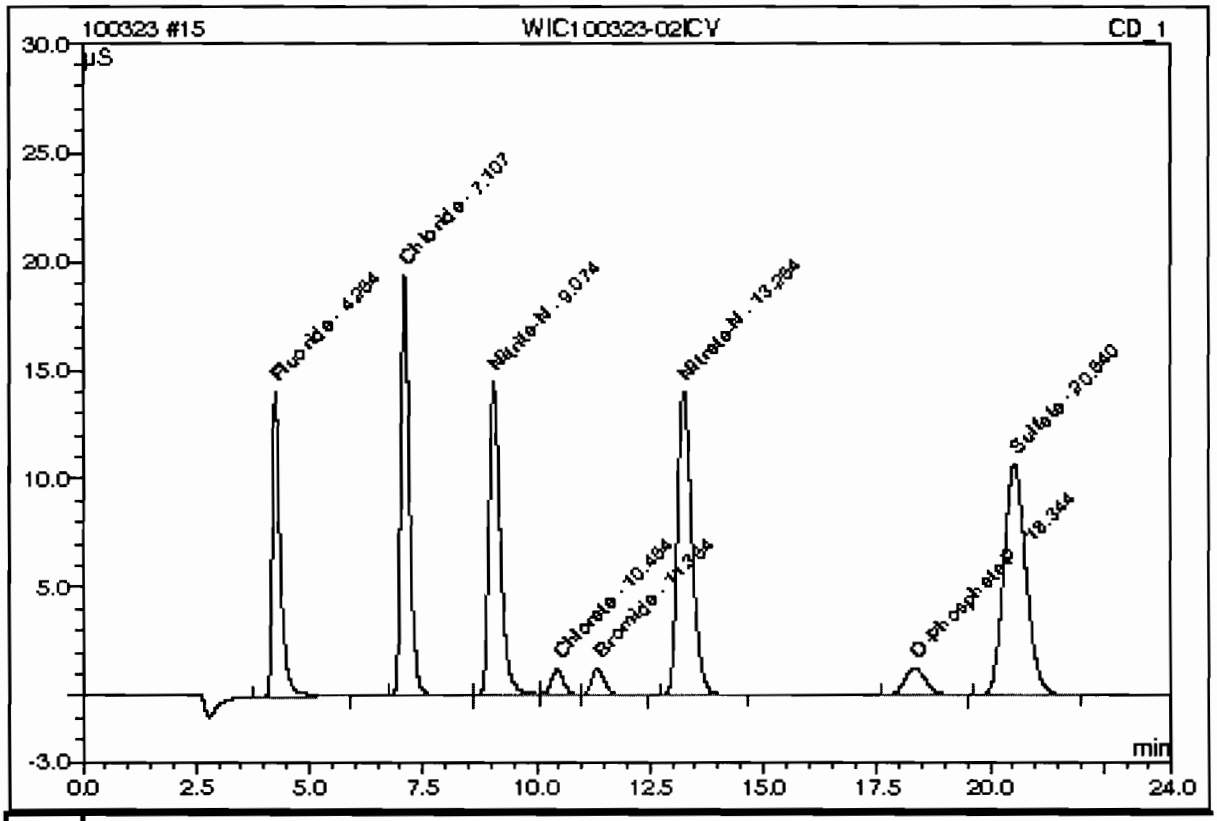

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.8960		2.90874	12.07
2	7.11	Chloride	n.a.	9.4929		4.30159	17.85
3	9.07	Nitrite-N	n.a.	4.8019		4.20641	17.46
4	10.45	Chlorate	n.a.	2.5622		0.38685	1.61
5	11.35	Bromide	n.a.	2.5972		0.42040	1.74
6	13.25	Nitrate-N	n.a.	4.7960		5.15850	21.41
7	18.34	O-Phosphate-P	n.a.	2.4576		0.69032	2.86
8	20.54	Sulfate	n.a.	19.0532		6.02422	25.00
Total:				50.6569	0.000	24.097	100.00

16 ICB

Sample Name:	ICB	*Injection Volume:*	1.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/23/2010 19:35	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

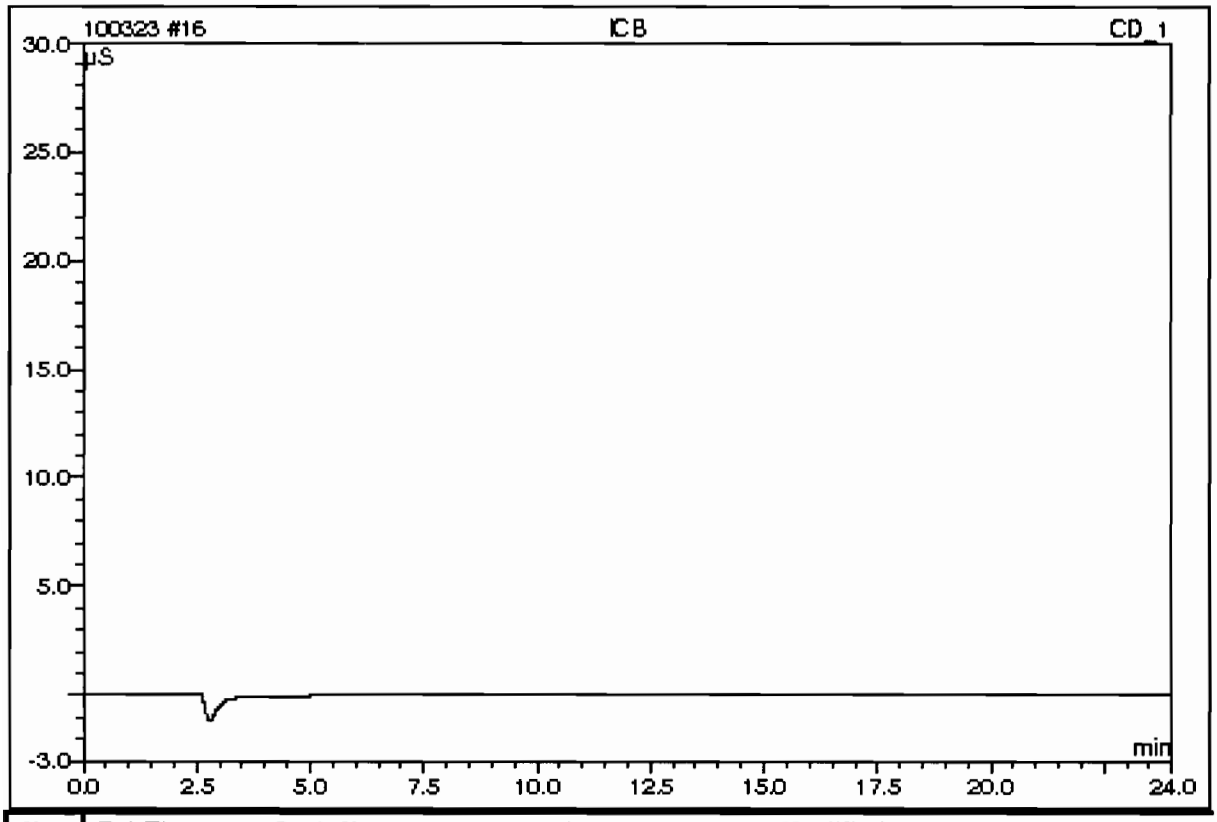

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100329.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/29/10 17:00		1	100329	VH1
BLK	03/29/10 17:26		1	100329	VH1
ICV	03/29/10 17:53		1	100329	VH1
ICB	03/29/10 18:20		1	100329	VH1
1202079398	03/29/10 18:47	968640	1	100329	VH1
1202079405	03/29/10 19:13	968640	1	100329	VH1
248814001	03/29/10 19:40	968640	1	100329	VH1
1202079399	03/29/10 20:07	968640	1	100329	VH1
1202079401	03/29/10 20:34	968640	1	100329	VH1
1202079403	03/29/10 21:01	968640	1	100329	VH1
248814002	03/29/10 21:28	968640	1	100329	VH1
248814003	03/29/10 21:55	968640	1	100329	VH1
248814004	03/29/10 22:22	968640	1	100329	VH1
248814005	03/29/10 22:49	968640	1	100329	VH1
CVH	03/29/10 23:15		1	100329	VH1
CCB	03/29/10 23:42		1	100329	VH1

16 WIC100329-02ICV

Sample Name:	WIC100329-02ICV	*Injection Volume:*	1.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 17:53	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

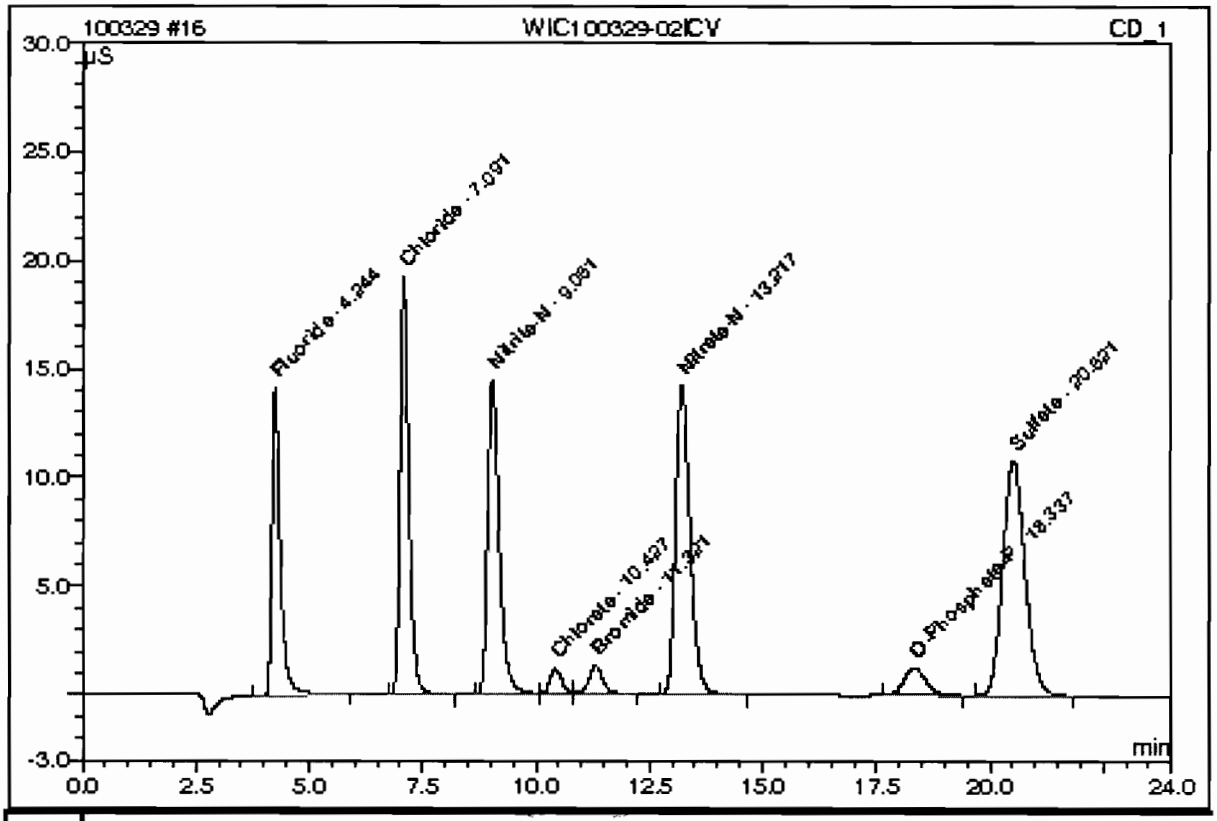

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	5.0909		3.02601	12.24
2	7.09	Chloride	n.a.	9.6162		4.35858	17.63
3	9.05	Nitrite-N	n.a.	4.8968		4.29077	17.35
4	10.43	Chlorate	n.a.	2.4223		0.36524	1.48
5	11.32	Bromide	n.a.	3.0172		0.48934	1.98
6	13.22	Nitrate-N	n.a.	4.9061		5.27947	21.35
7	18.34	O-Phosphate-P	n.a.	2.5597		0.72126	2.92
8	20.52	Sulfate	n.a.	19.5894		6.19667	25.06
Total:				52.0986	0.000	24.727	100.00

17 ICB

Sample Name:	ICB	*Injection Volume:*	1.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 18:20	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GC B086;300;9056

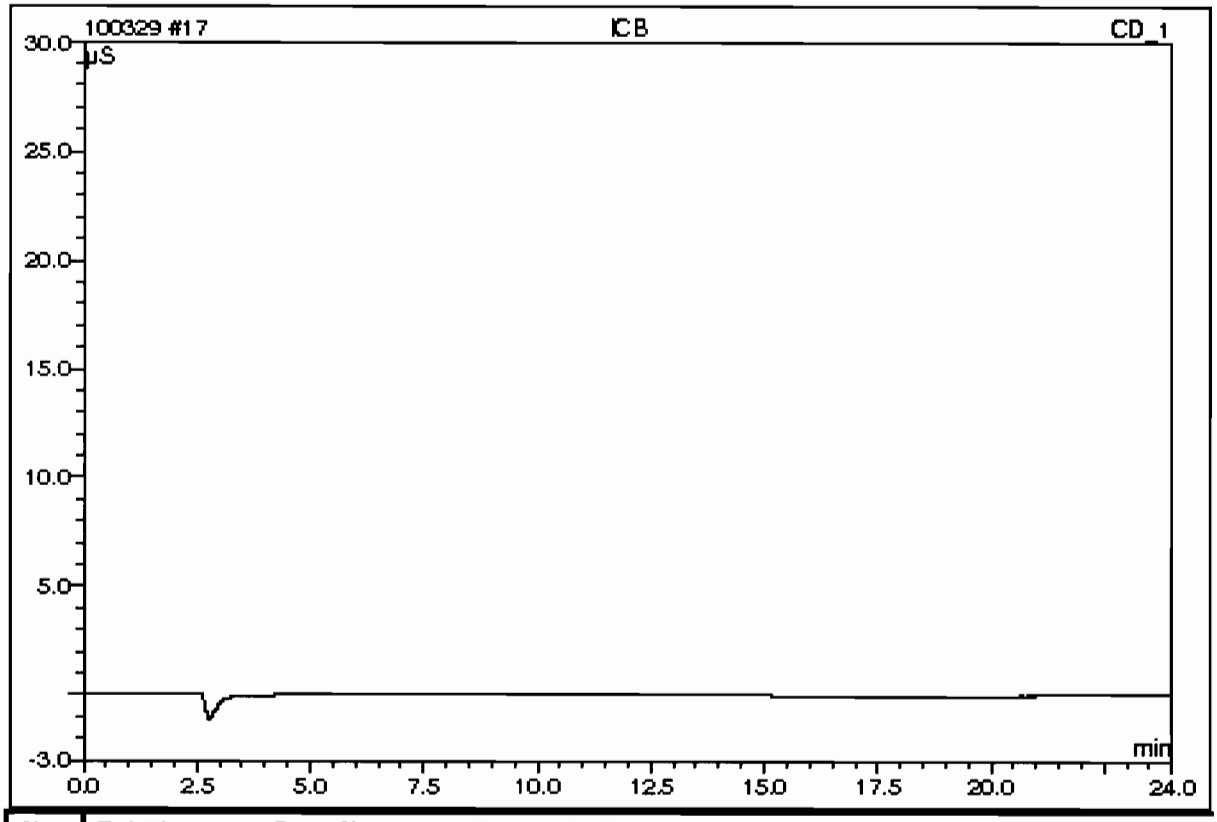

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

18 1202079398/968640/1/1/MB

Sample Name:	1202079398/968640/1/1/MB	*Injection Volume:*	1.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 18:47	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

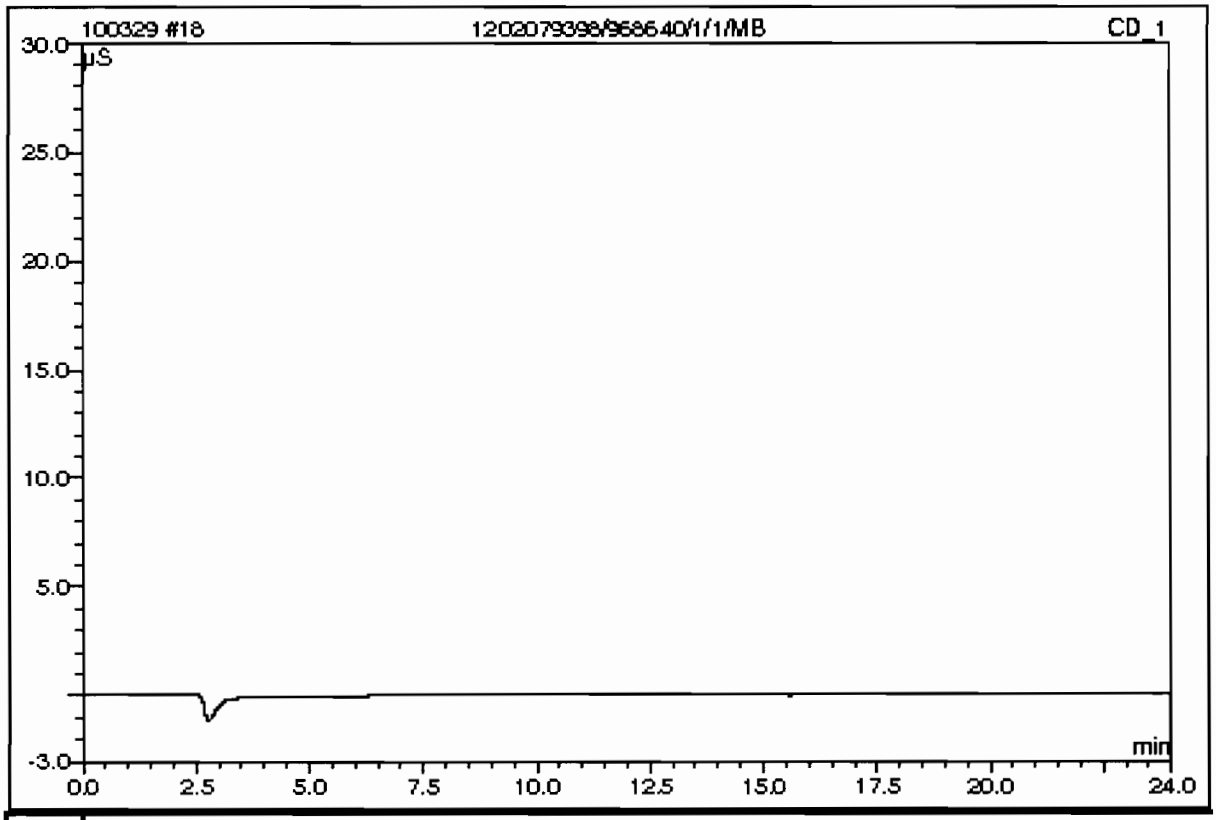

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

19 1202079405/968640/1/1/LCS

Sample Name:	1202079405/968640/1/1/LCS	*Injection Volume:*	1.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 19:13	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

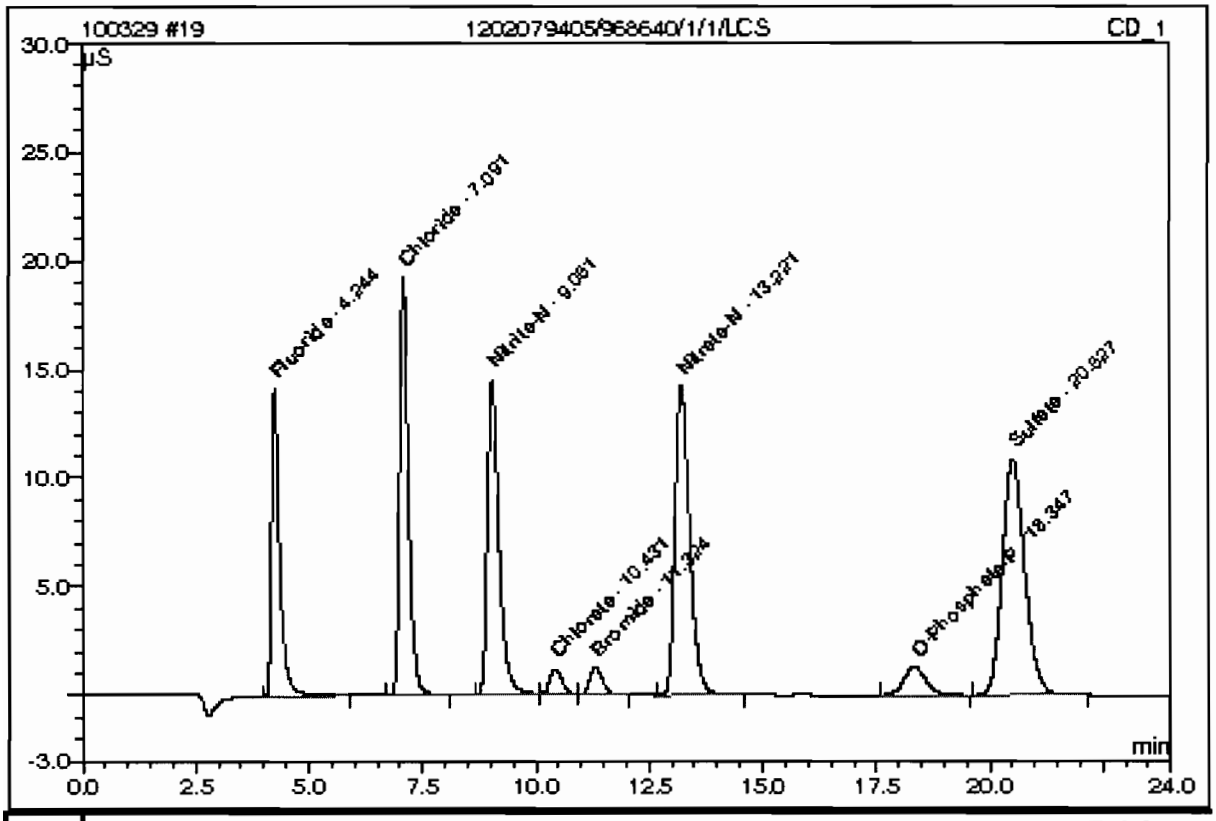

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	5.0300		2.98940	12.12
2	7.09	Chloride	n.a.	9.6004		4.35128	17.64
3	9.05	Nitrite-N	n.a.	4.9223		4.31350	17.49
4	10.43	Chlorate	n.a.	2.5905		0.39122	1.59
5	11.32	Bromide	n.a.	2.5475		0.41224	1.67
6	13.22	Nitrate-N	n.a.	4.9015		5.27443	21.38
7	18.35	O-Phosphate-P	n.a.	2.5426		0.71610	2.90
8	20.53	Sulfate	n.a.	19.6645		6.22082	25.22
Total:				51.7994	0.000	24.669	100.00

20 248814001/968640/1/1/

Sample Name:	248814001/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 19:40	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

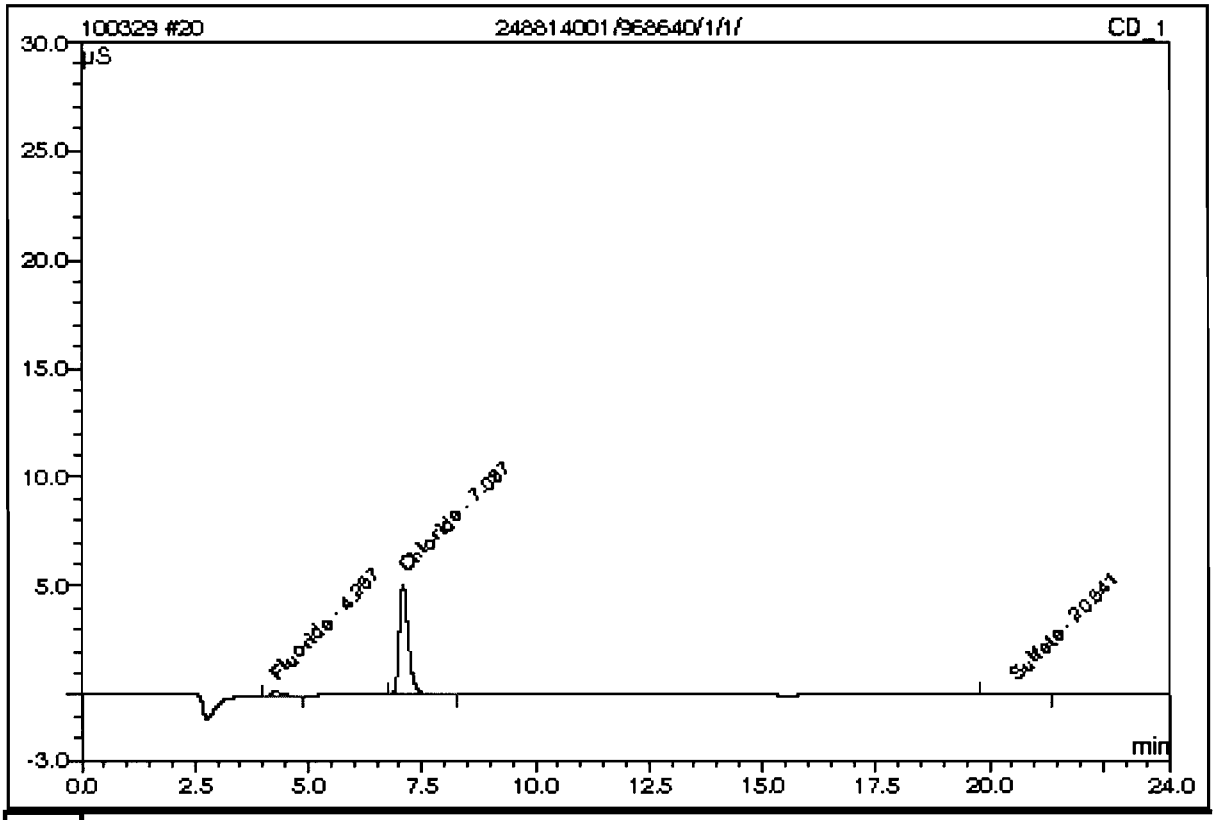

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1556		0.05514	4.22
2	7.09	Chloride	n.a.	2.7852		1.20222	92.04
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.54	Sulfate	n.a.	0.4730		0.04884	3.74
Total:				3.4138	0.000	1.306	100.00

21 1202079399/968640/1/1/DUP

Sample Name:	1202079399/968640/1/1/DUP	*Injection Volume:*	1.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 20:07	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

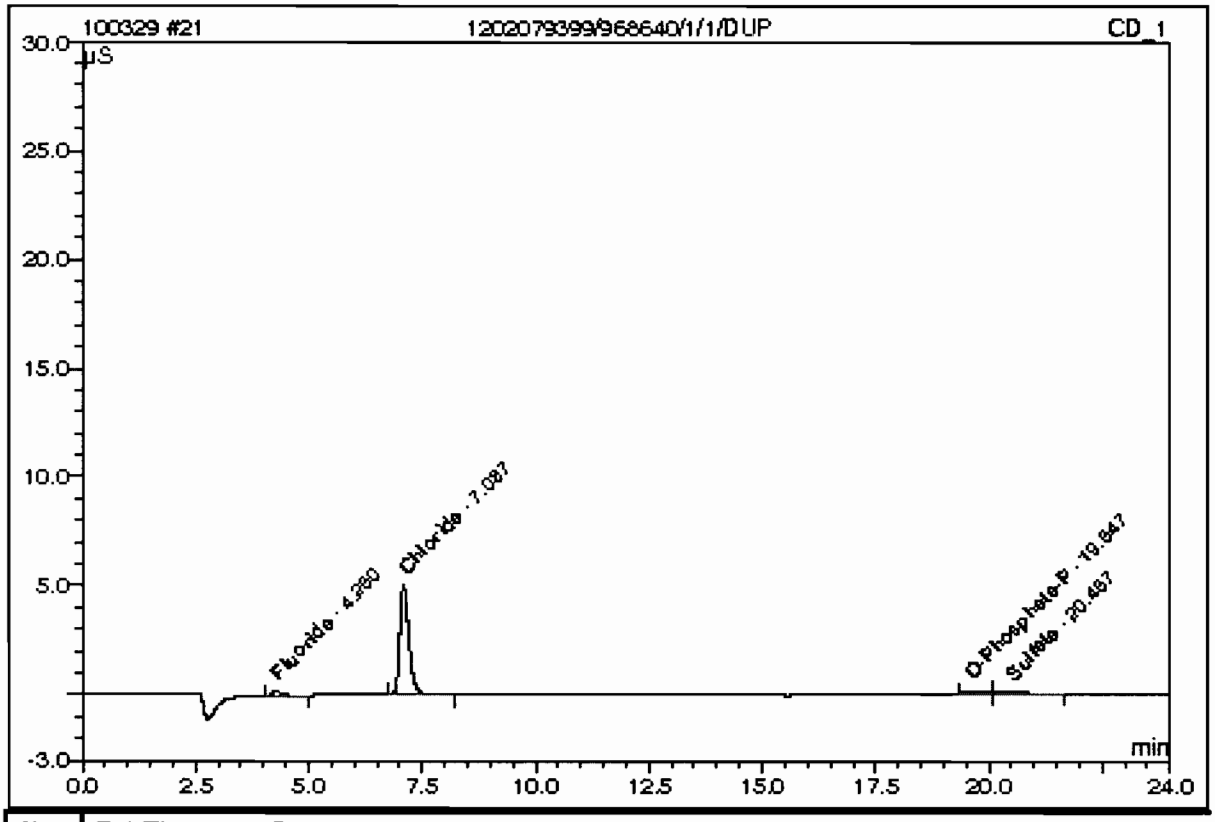

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1524		0.05323	3.63
2	7.09	Chloride	n.a.	2.7558		1.18863	80.99
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
3	19.55	O-Phosphate-P	n.a.	0.5604		0.11542	7.86
4	20.47	Sulfate	n.a.	0.6645		0.11043	7.52
Total:				4.1331	0.000	1.468	100.00

22 1202079401/968640/1/1/MS

Sample Name:	1202079401/968640/1/1/MS	*Injection Volume:*	1.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 20:34	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

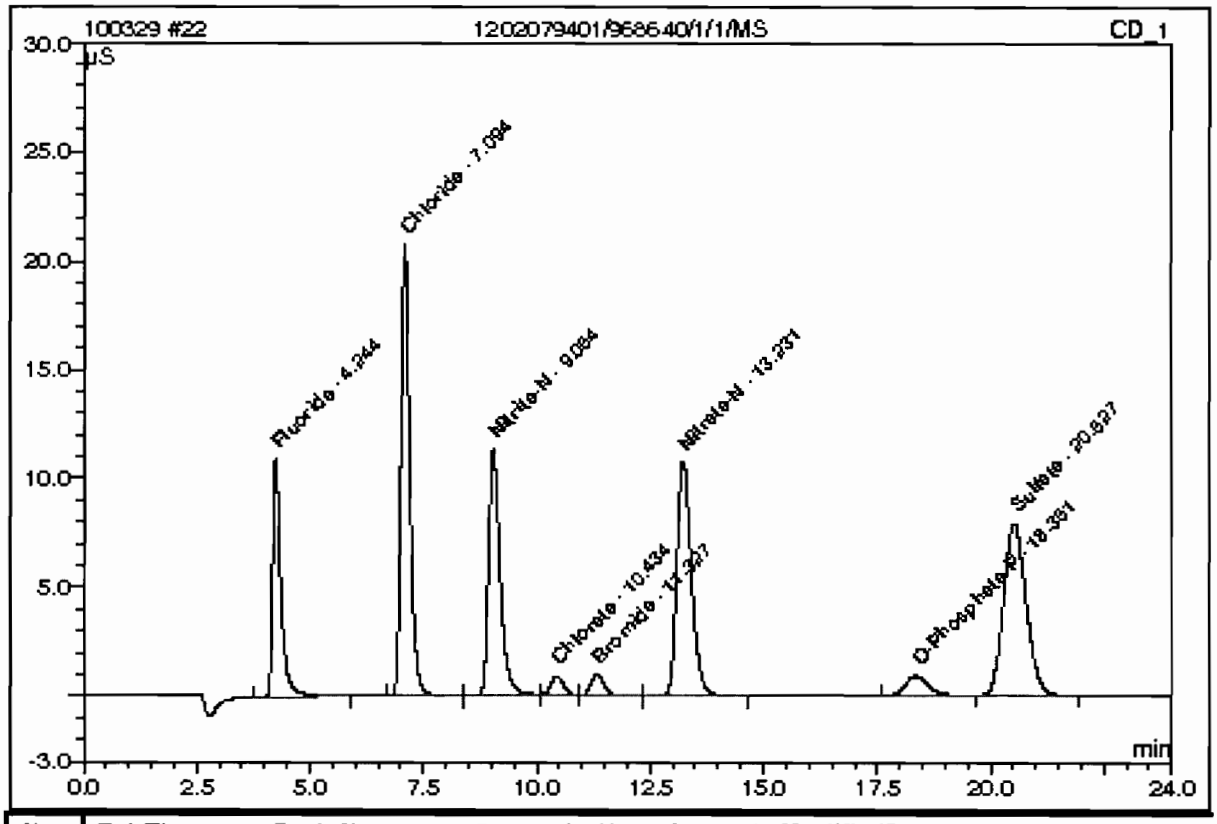

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	3.9468		2.33731	11.51
2	7.09	Chloride	n.a.	10.3461		4.69584	23.12
3	9.05	Nitrite-N	n.a.	3.8967		3.40172	16.75
4	10.43	Chlorate	n.a.	2.1056		0.31630	1.56
5	11.33	Bromide	n.a.	2.0992		0.33866	1.67
6	13.23	Nitrate-N	n.a.	3.7642		4.02533	19.82
7	18.36	O-Phosphate-P	n.a.	1.9965		0.55060	2.71
8	20.53	Sulfate	n.a.	14.7572		4.64263	22.86
Total:				42.9123	0.000	20.308	100.00

23 1202079403/968640/1/1/MSD

Sample Name:	1202079403/968640/1/1/MSD	*Injection Volume:*	1.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 21:01	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

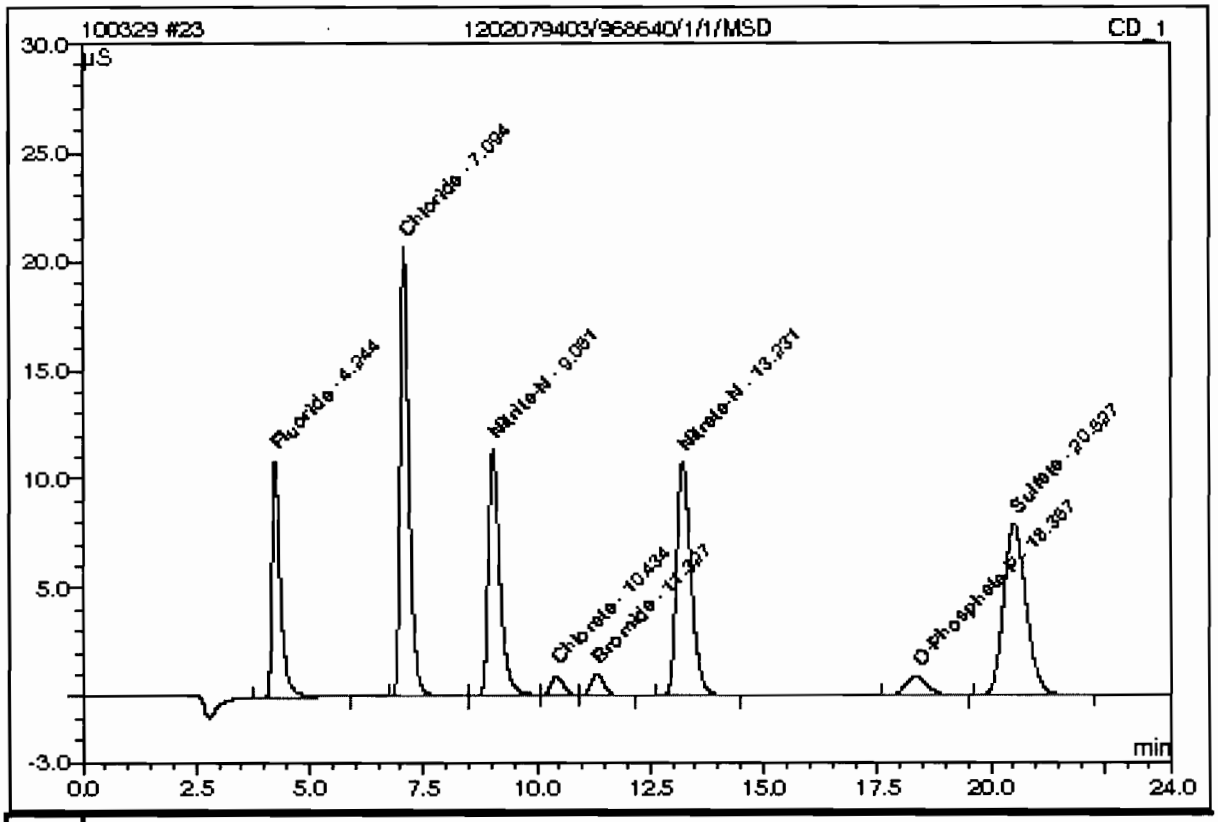

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	3.9227		2.32279	11.55
2	7.09	Chloride	n.a.	10.2975		4.67337	23.24
3	9.05	Nitrite-N	n.a.	3.8682		3.37635	16.79
4	10.43	Chlorate	n.a.	2.0549		0.30848	1.53
5	11.33	Bromide	n.a.	2.0620		0.33256	1.65
6	13.23	Nitrate-N	n.a.	3.7431		4.00210	19.90
7	18.36	O-Phosphate-P	n.a.	1.8390		0.50287	2.50
8	20.53	Sulfate	n.a.	14.6018		4.59266	22.84
Total:				42.3892	0.000	20.111	100.00

28 WIC100329-02CVH

Sample Name:	WIC100329-02CVH	*Injection Volume:*	1.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 23:15	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

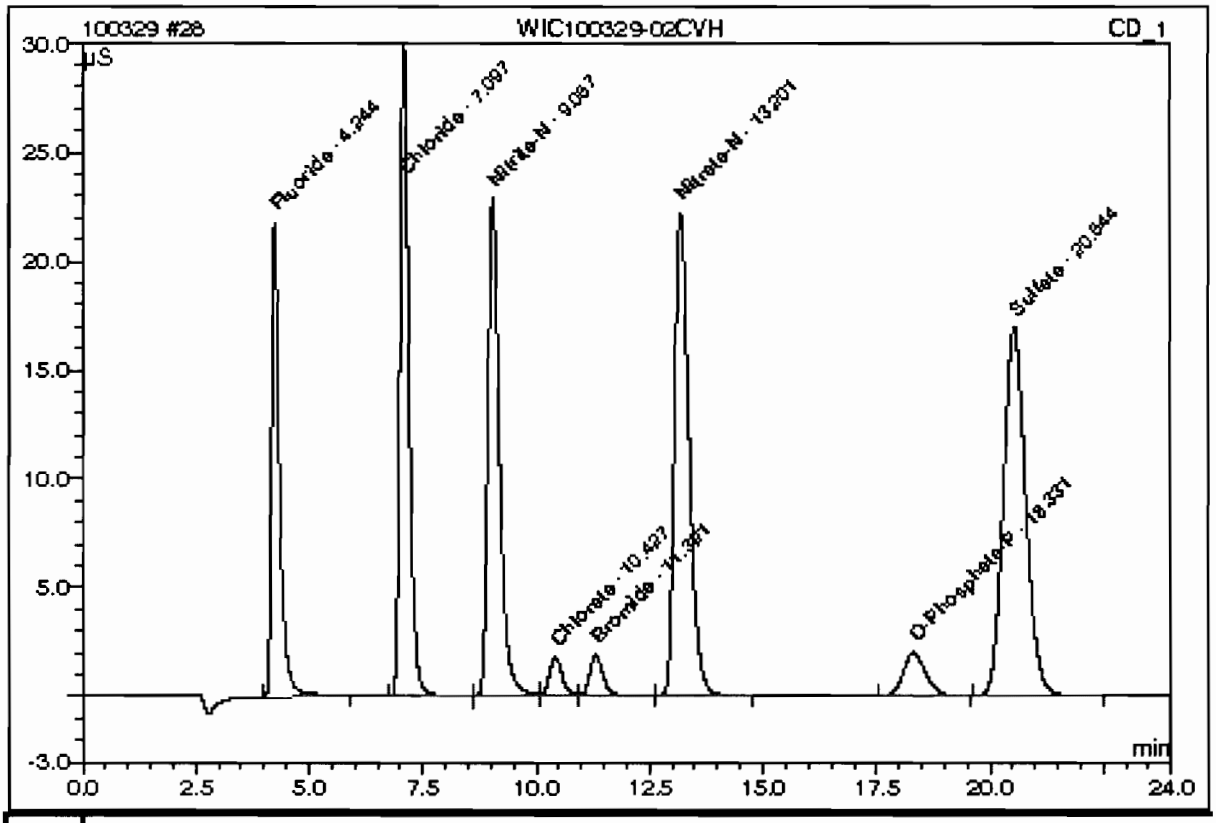

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	7.6885		4.58972	11.92
2	7.10	Chloride	n.a.	15.0164		6.85380	17.81
3	9.06	Nitrite-N	n.a.	7.6708		6.75687	17.55
4	10.43	Chlorate	n.a.	3.9182		0.59636	1.55
5	11.32	Bromide	n.a.	3.9191		0.63739	1.66
6	13.20	Nitrate-N	n.a.	7.6315		8.27283	21.49
7	18.33	O-Phosphate-P	n.a.	3.9213		1.13389	2.95
8	20.54	Sulfate	n.a.	30.3346		9.65232	25.08
Total:				80.1005	0.000	38.493	100.00

29 CCB

Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/29/2010 23:42	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

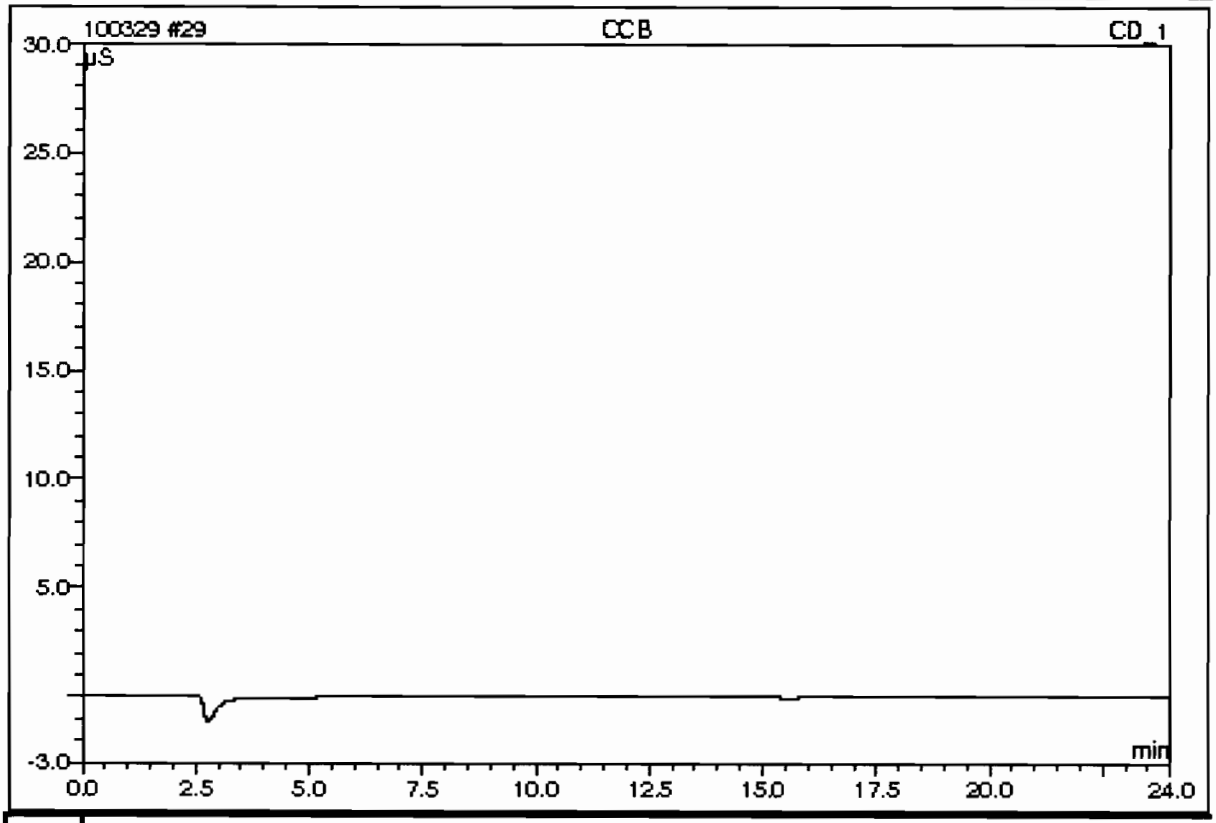

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100329.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
248814006	03/30/10 00:09	968640	1	100329	VH1
248814007	03/30/10 00:36	968640	1	100329	VH1
248814008	03/30/10 01:03	968640	1	100329	VH1
248814009	03/30/10 01:30	968640	1	100329	VH1
248824001	03/30/10 01:57	968640	1	100329	VH1
248824002	03/30/10 02:24	968640	1	100329	VH1
248865001	03/30/10 02:51	968640	1	100329	VH1
1202079400	03/30/10 03:18	968640	1	100329	VH1
1202079402	03/30/10 03:45	968640	1	100329	VH1
1202079404	03/30/10 04:11	968640	1	100329	VH1
CCV	03/30/10 04:38		1	100329	VH1
CCB	03/30/10 05:05		1	100329	VH1
248866001	03/30/10 05:32	968640	1	100329	VH1
248866002	03/30/10 05:59	968640	1	100329	VH1
CVH	03/30/10 06:26		1	100329	VH1
CCB	03/30/10 06:53		1	100329	VH1
1202083083	03/30/10 07:20	970116	1	100329	VH1
1202083086	03/30/10 07:47	970116	1	100329	VH1
248847001	03/30/10 08:14	970116	100	100329	VH1
248847003	03/30/10 08:41	970116	100	100329	VH1
248847005	03/30/10 09:07	970116	100	100329	VH1
1202083084	03/30/10 09:34	970116	100	100329	VH1
1202083085	03/30/10 10:01	970116	100	100329	VH1
248847007	03/30/10 10:28	970116	100	100329	VH1
248847009	03/30/10 10:55	970116	100	100329	VH1
CVH	03/30/10 11:22		1	100329	VH1
CCB	03/30/10 11:49		1	100329	VH1

36 248865001/968640/1/1/

Sample Name:	248865001/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	23	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 2:51	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

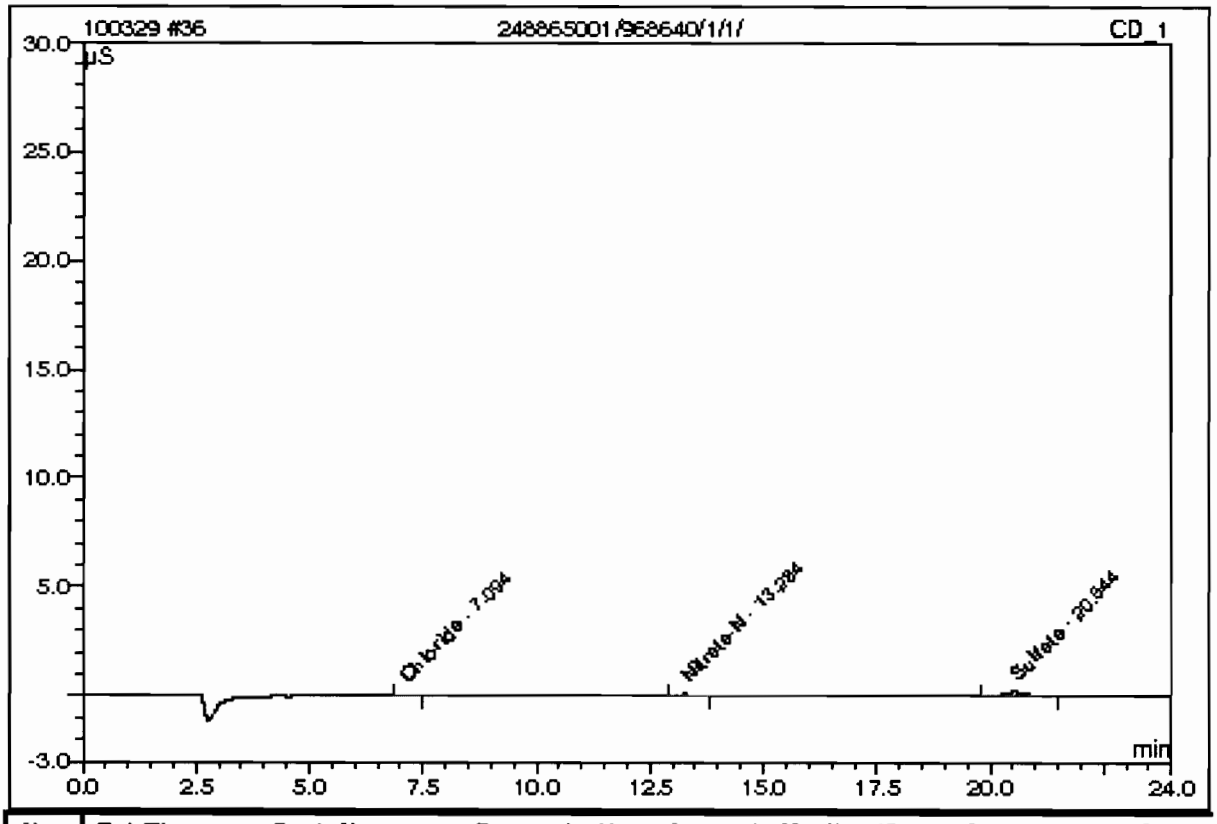

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.09	Chloride	n.a.	0.2180		0.01602	8.82
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
2	13.28	Nitrate-N	n.a.	0.1286		0.03219	17.73
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.54	Sulfate	n.a.	0.7360		0.13342	73.46
Total:				1.0826	0.000	0.182	100.00

37 1202079400/968640/1/1/DUP

Sample Name:	1202079400/968640/1/1/DUP	*Injection Volume:*	1.0
Vial Number:	24	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 3:18	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

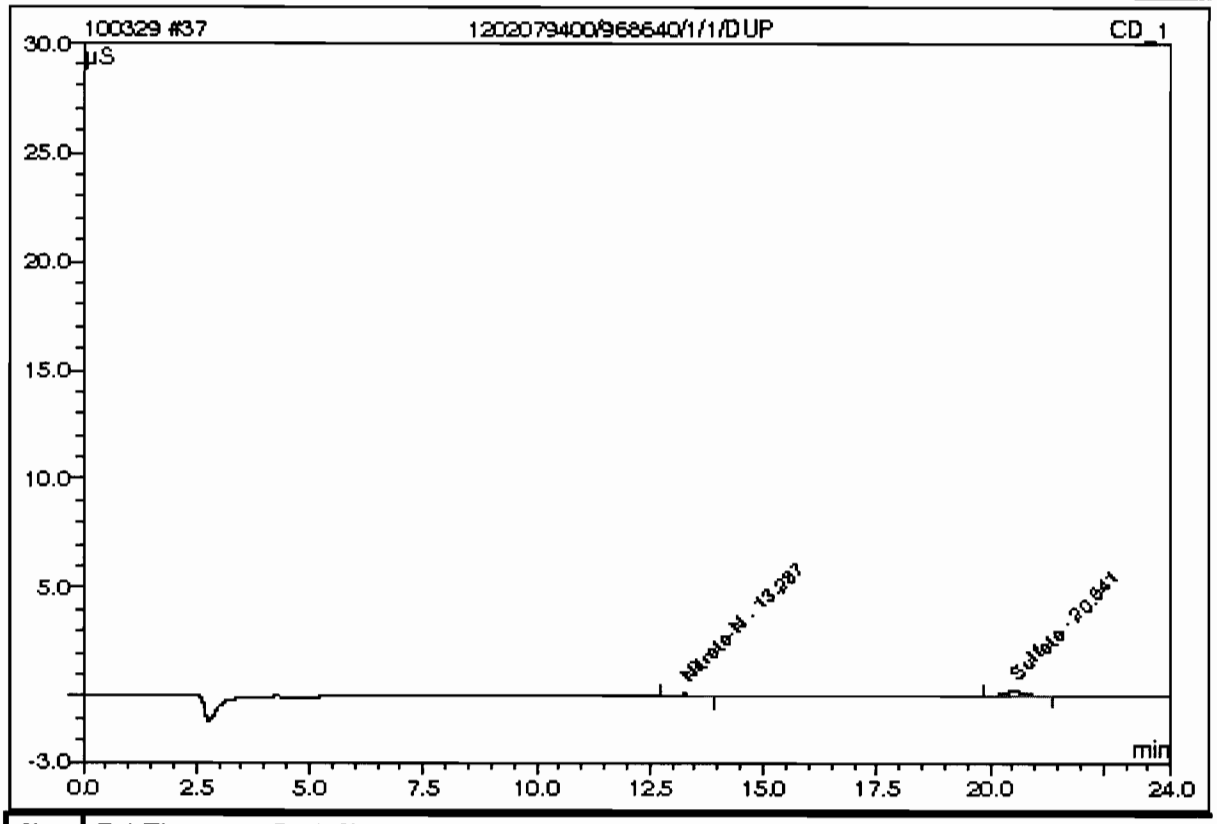

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
1	13.29	Nitrate-N	n.a.	0.1355		0.03982	23.47
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
2	20.54	Sulfate	n.a.	0.7248		0.12982	76.53
Total:				0.8603	0.000	0.170	100.00

38 1202079402/968640/1/1/MS

Sample Name:	1202079402/968640/1/1/MS	*Injection Volume:*	1.0
Vial Number:	25	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 3:45	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

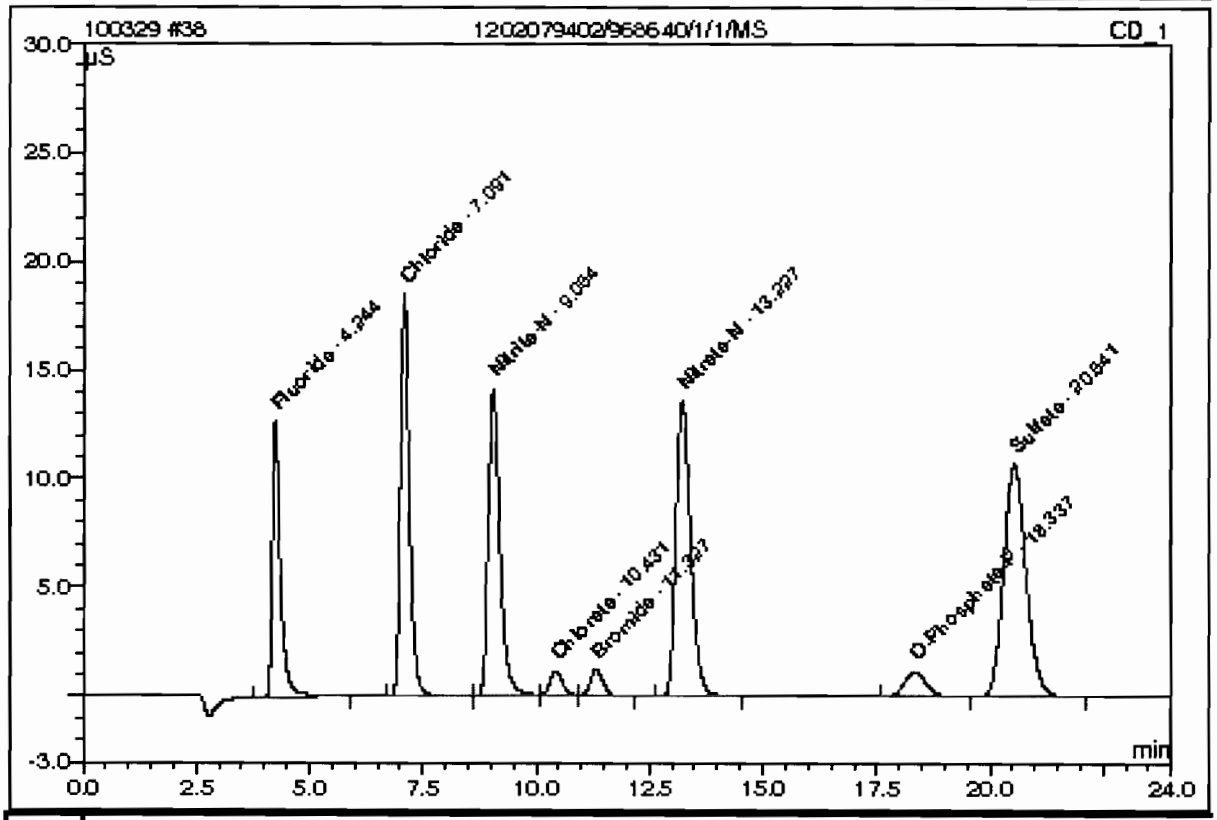

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	4.5439		2.69676	11.36
2	7.09	Chloride	n.a.	9.2811		4.20373	17.71
3	9.05	Nitrite-N	n.a.	4.7837		4.19022	17.66
4	10.43	Chlorate	n.a.	2.5201		0.38035	1.60
5	11.33	Bromide	n.a.	2.4931		0.40331	1.70
6	13.23	Nitrate-N	n.a.	4.7085		5.06242	21.33
7	18.34	O-Phosphate-P	n.a.	2.3203		0.64873	2.73
8	20.54	Sulfate	n.a.	19.4286		6.14494	25.89
Total:				50.0792	0.000	23.730	100.00

39 1202079404/968640/1/1/MSD

Sample Name:	1202079404/968640/1/1/MSD	*Injection Volume:*	1.0
Vial Number:	26	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 4:11	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

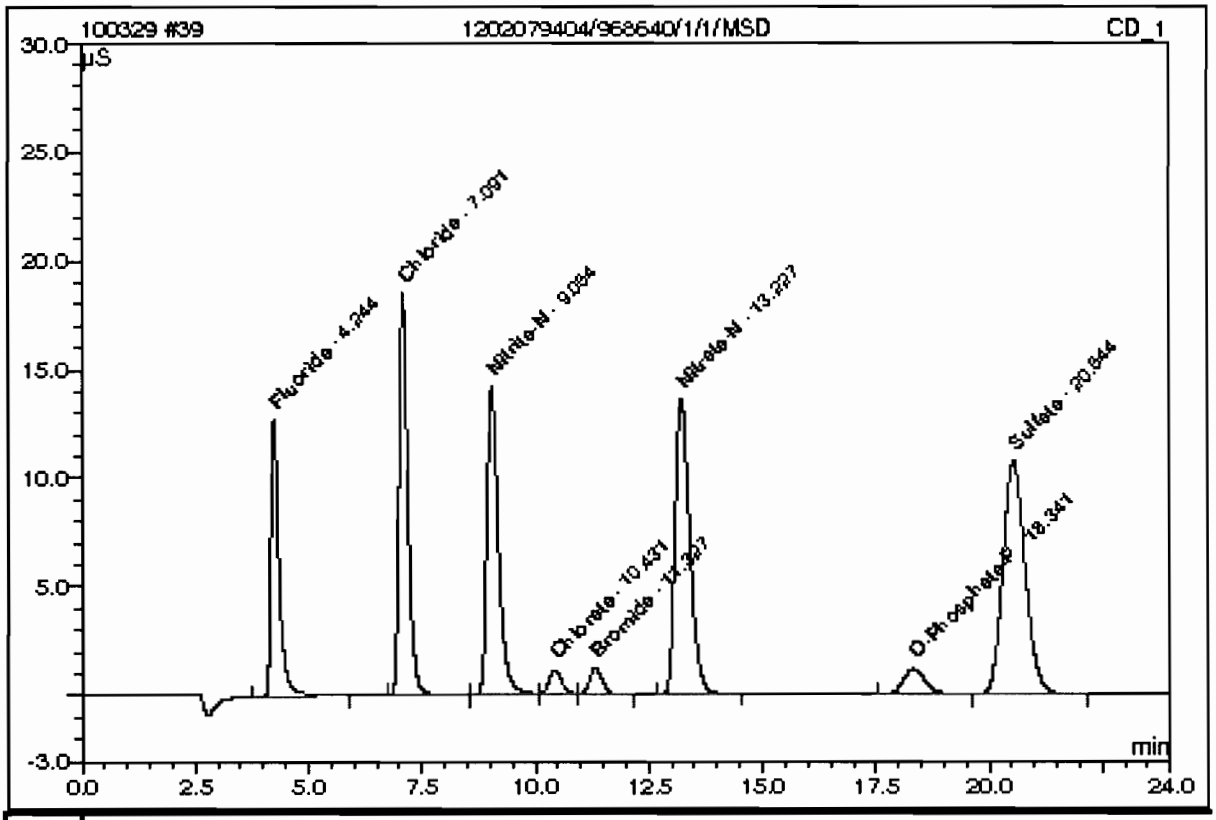

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	4.5453		2.69759	11.33
2	7.09	Chloride	n.a.	9.2944		4.20987	17.69
3	9.05	Nitrite-N	n.a.	4.8022		4.20673	17.67
4	10.43	Chlorate	n.a.	2.5162		0.37974	1.60
5	11.33	Bromide	n.a.	2.5045		0.40518	1.70
6	13.23	Nitrate-N	n.a.	4.7106		5.06479	21.28
7	18.34	O-Phosphate-P	n.a.	2.3793		0.66661	2.80
8	20.54	Sulfate	n.a.	19.5124		6.17190	25.93
Total:				50.2649	0.000	23.802	100.00

40 WIC100329-02CCV

Sample Name:	WIC100329-02CCV	*Injection Volume:*	1.0
Vial Number:	27	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 4:38	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

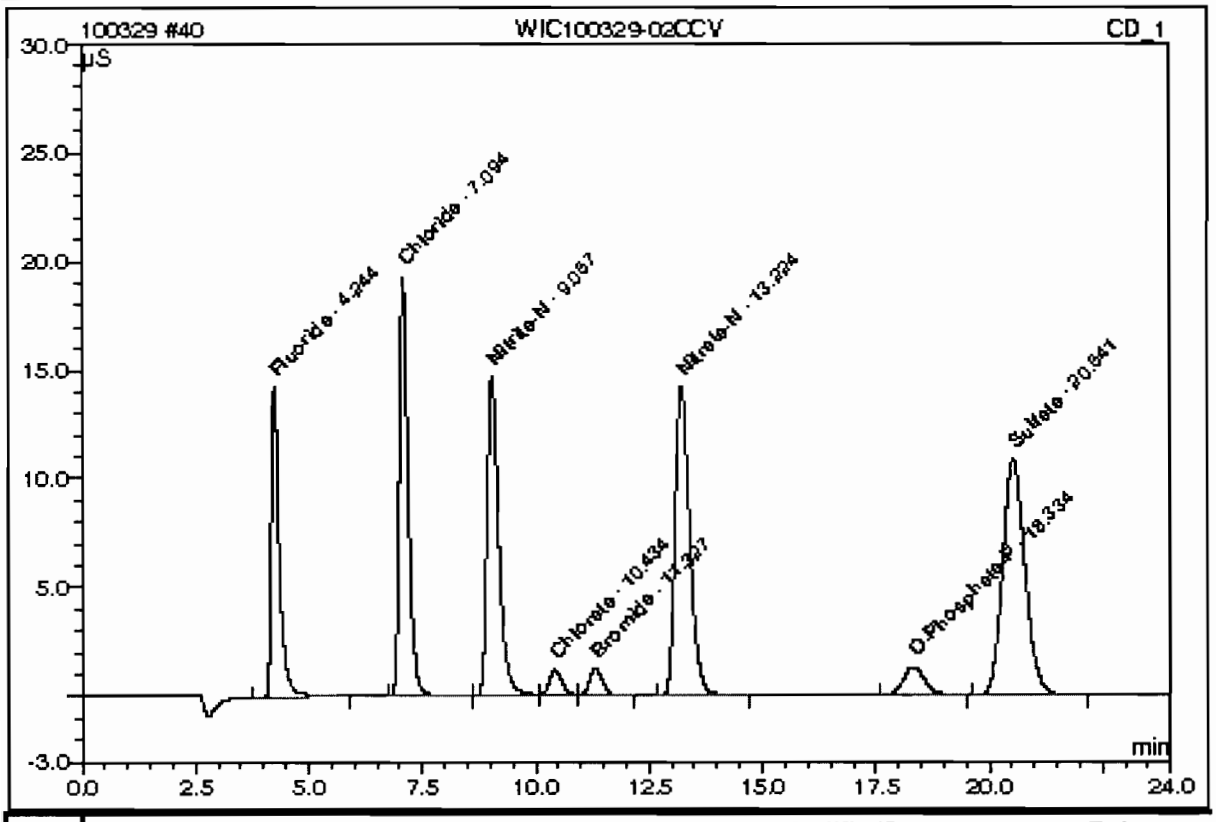

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.24	Fluoride	n.a.	5.0481		3.00029	12.11
2	7.09	Chloride	n.a.	9.6466		4.37260	17.65
3	9.06	Nitrite-N	n.a.	4.9604		4.34732	17.55
4	10.43	Chlorate	n.a.	2.5856		0.39047	1.58
5	11.33	Bromide	n.a.	2.5695		0.41585	1.68
6	13.22	Nitrate-N	n.a.	4.9119		5.28580	21.34
7	18.33	O-Phosphate-P	n.a.	2.5842		0.72869	2.94
8	20.54	Sulfate	n.a.	19.6878		6.22832	25.15
Total:				51.9941	0.000	24.769	100.00

41 CCB

Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	28	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 5:05	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

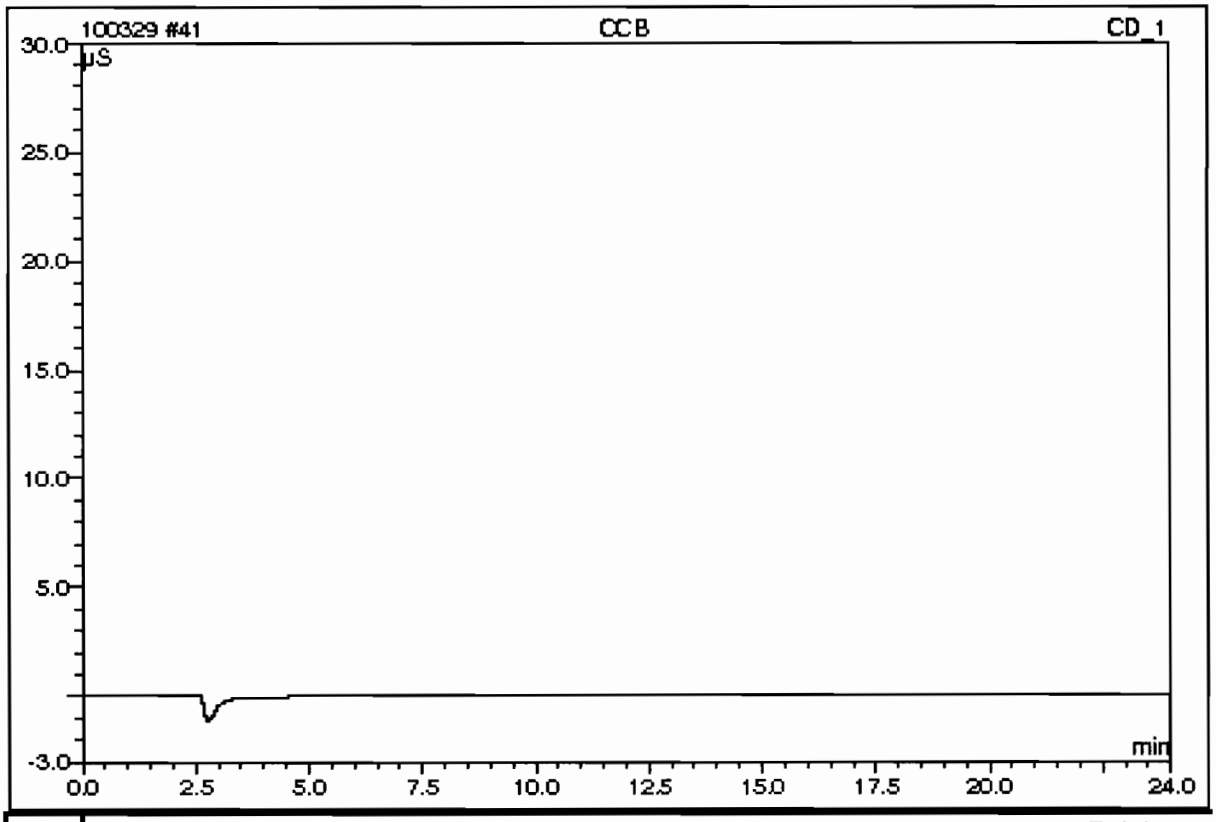

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

42 248866001/968640/1/1/

Sample Name:	248866001/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	29	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 5:32	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCB086;300;9056

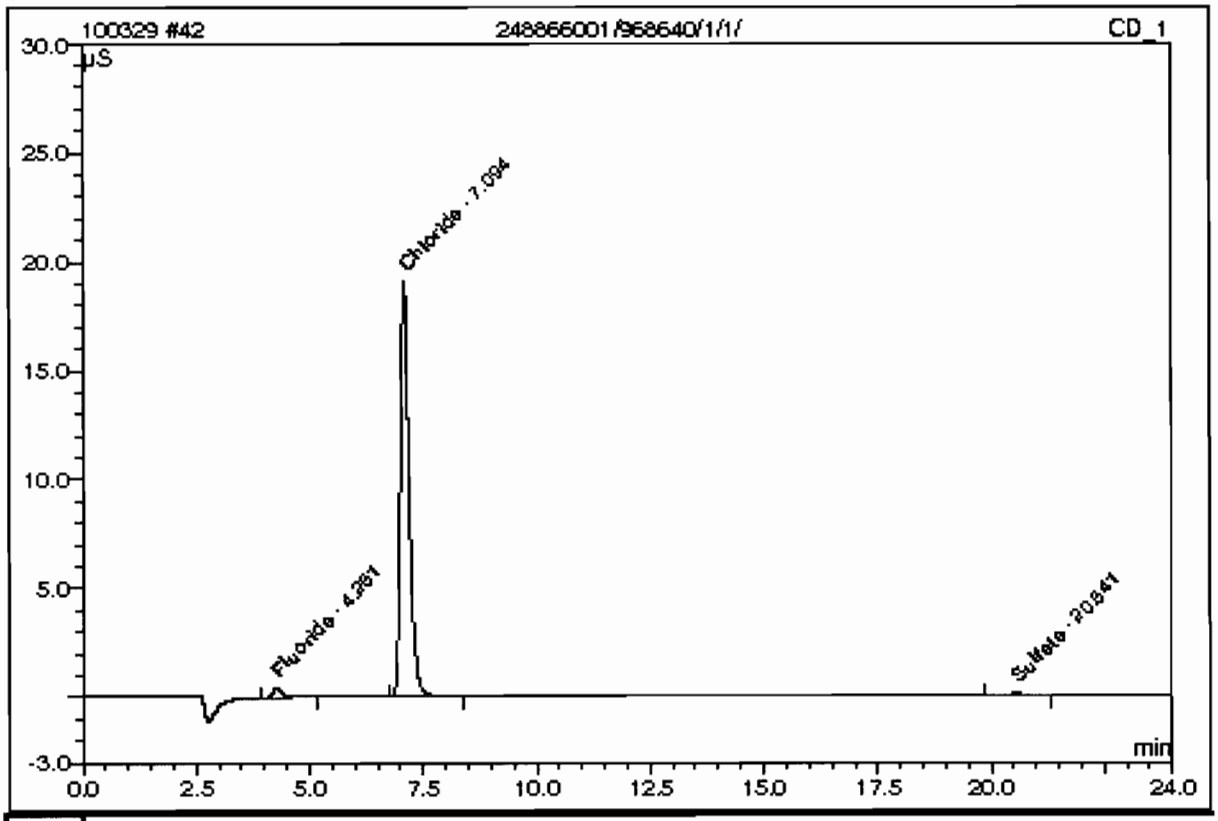

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	0.2471		0.11023	2.48
2	7.09	Chloride	n.a.	9.4586		4.28573	96.31
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.54	Sulfate	n.a.	0.4888		0.05390	1.21
Total:				10.1945	0.000	4.450	100.00

43 248866002/968640/1/1/

Sample Name:	248866002/968640/1/1/	*Injection Volume:*	1.0
Vial Number:	30	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 5:59	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056

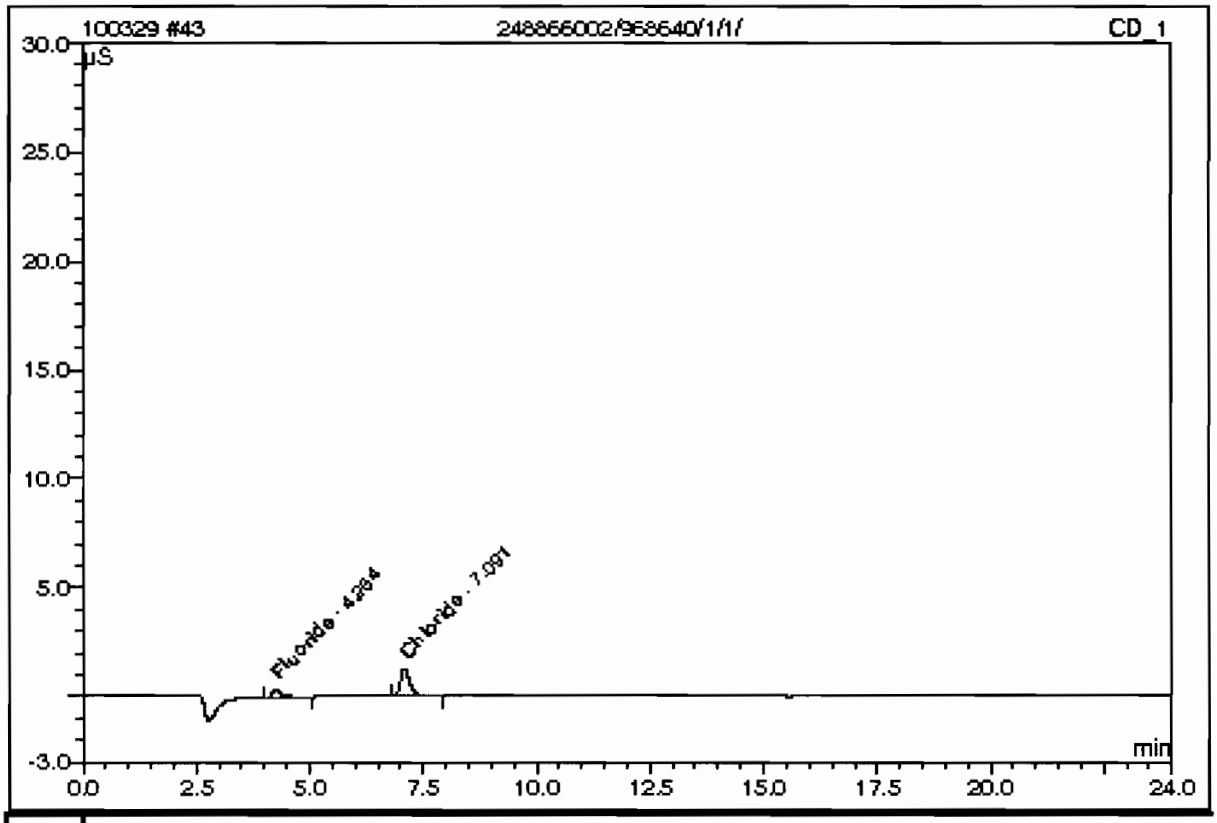

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	0.1954		0.07907	20.55
2	7.09	Chloride	n.a.	0.8450		0.30572	79.45
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				1.0403	0.000	0.385	100.00

44 WIC100329-02CVH

Sample Name:	WIC100329-02CVH	*Injection Volume:*	1.0
Vial Number:	31	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 6:26	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GLGCE086;300;9056

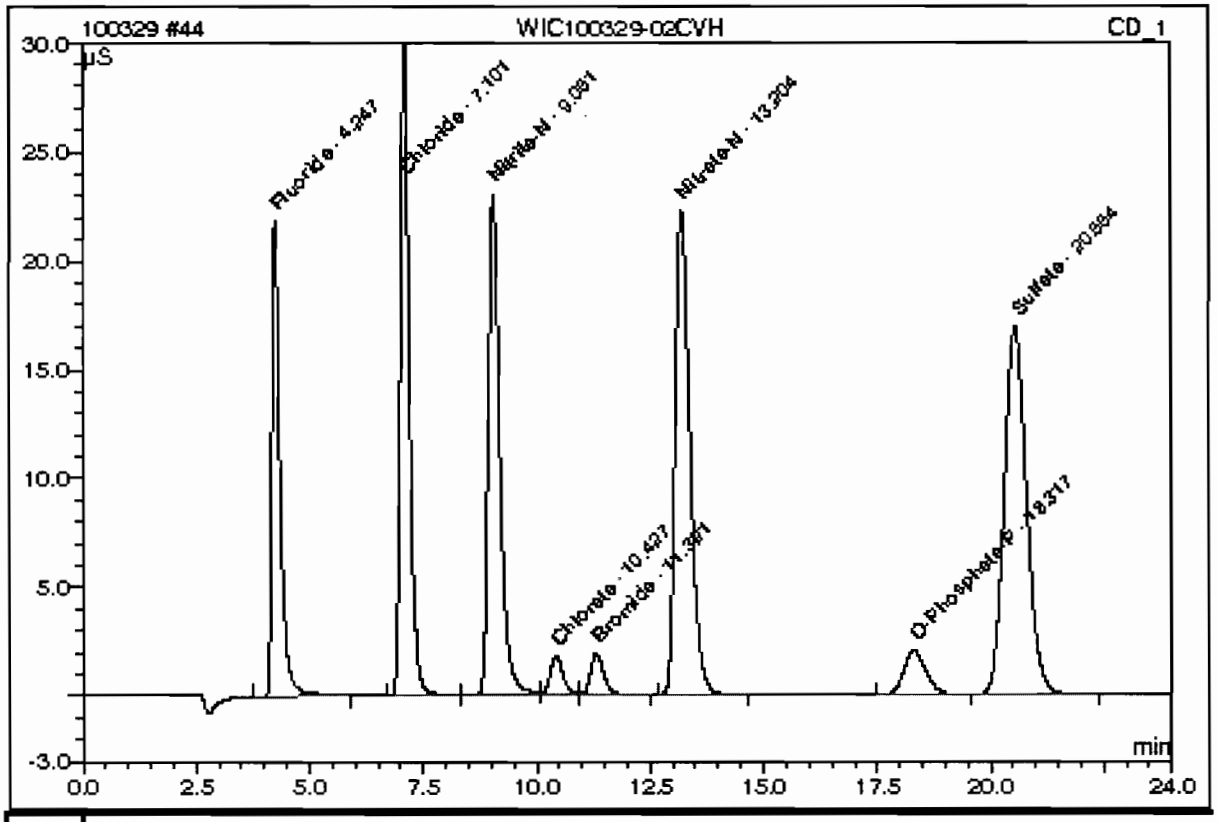

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	7.6980		4.59544	11.89
2	7.10	Chloride	n.a.	15.0756		6.88114	17.80
3	9.06	Nitrite-N	n.a.	7.7413		6.81947	17.64
4	10.43	Chlorate	n.a.	3.9552		0.60207	1.56
5	11.32	Bromide	n.a.	3.9802		0.64742	1.67
6	13.20	Nitrate-N	n.a.	7.6452		8.28785	21.44
7	18.32	O-Phosphate-P	n.a.	3.9509		1.14285	2.96
8	20.55	Sulfate	n.a.	30.4139		9.67783	25.04
Total:				80.4602	0.000	38.654	100.00

45 CCB

Sample Name:	CCB	*Injection Volume:*	1.0
Vial Number:	32	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100323an	*Sample Amount:*	1.0000
Recording Time:	3/30/2010 6:53	Analyst:	VH1
Run Time (min):	24.00	Column:	AS23-001528; GL GCB086;300;9056

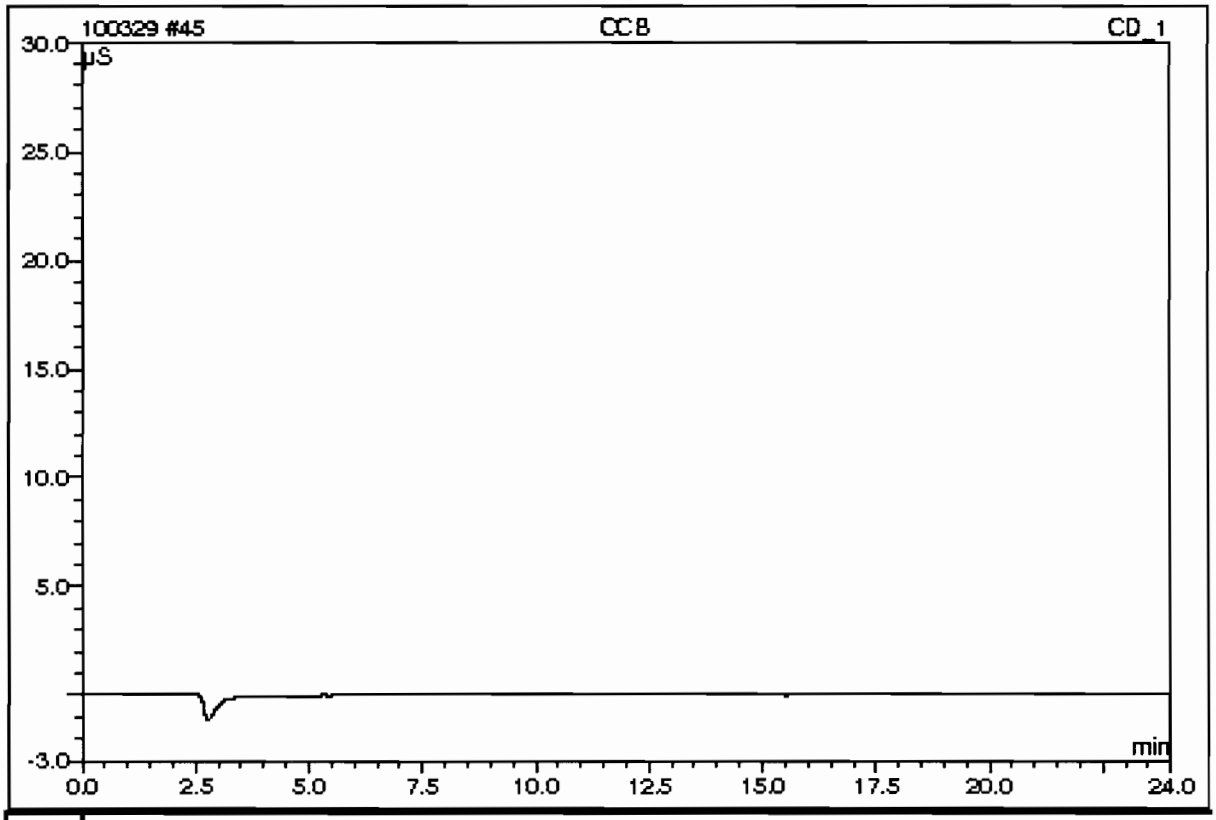

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
25-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	SW846 9012A	Solid	LANL
Batch ID:	**Sample Numbers:**		
962258	See Below		

Potentially affected work order(s)(SDG): 248798(10-2289),248824(10-2305),248866(10-2319),248867(10-2320)

Application Issues:

Sample Analyzed out of Holding

Specification and Requirements Exception Description:	DER Disposition:
1. Sample Analyzed out of Holding: 248798 002 QC 1202064134DUP	1. Samples were initially analyzed within holding; however, due to instrument failure the holding times had expired prior to reanalysis.

Originator's Name:

Ashley Earl 25-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc 25-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
30-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
IC	EPA 300.0	Solid	LANL
Batch ID:	**Sample Numbers:**		
968640	See Below		

Potentially affected work order(s)(SDG): 248814(10-2303),248824(10-2305),248865(10-2318),248866(10-2319)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS, MSD/PSD: QC 1202079401MS, 1202079403MSD	1. . MS and MSD failed required acceptance limits for nitrate due to matrix interference. The MSD was performed with the QC to verify that matrix interference caused unacceptable recoveries in the spike QC.

Originator's Name:

Virginia Wininger 30-MAR-10

Data Validator/Group Leader:

Mary Sherwood 01-APR-10

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2319

Method/Analysis Information

Procedure:	**Dry Weight-Percent Moisture**
Analytical Method:	Dry Soil Prep
Analytical Batch Number:	962369

Sample ID	Client ID
248866001	RE46-10-11885
248866002	RE46-10-11886
1202064417	248800001(RE11-10-1756) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 248800001 (RE11-10-1756). The QC was from LANL work order 248800.

QC Information
All of the QC samples met the required acceptance limits.

CSU
Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962716
Prep Batch Number:	962369

Sample ID	Client ID
248866001	RE46-10-11885
248866002	RE46-10-11886
1202065371	Method Blank (MB)
1202065372	248866001(RE46-10-11885) Sample Duplicate (DUP)
1202065373	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202065371 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248866001 (RE46-10-11885). The QC was from LANL work order 248866.

QC Information
Refer to Data Exception Report (DER).

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG:
DER 809656 was generated due to Result is more negative than the three sigma TPU. 1. The Am-241 results for Duplicate Sample 1202065372 is more negative than three sigma TPU. 1. The Quality Control Sample 248866001 does not have a high Am-241 negative result. There is no reportable Am-241 activity in either of the samples. Reporting results.

Manual Integration

No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962718
Prep Batch Number:	962369

Sample ID	Client ID
248866001	RE46-10-11885
248866002	RE46-10-11886
1202065378	Method Blank (MB)
1202065379	248866001(RE46-10-11885) Sample Duplicate (DUP)
1202065380	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202065378 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248866001 (RE46-10-11885). The QC was from LANL work order 248866.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962721
Prep Batch Number:	962369

Sample ID	Client ID
248866001	RE46-10-11885
248866002	RE46-10-11886
1202065398	Method Blank (MB)
1202065399	248866001(RE46-10-11885) Sample Duplicate (DUP)
1202065400	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202065398 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248866001 (RE46-10-11885). The QC was from LANL work order 248866.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U233/234 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962633
Prep Batch Number:	962369

Sample ID	Client ID
248866001	RE46-10-11885
248866002	RE46-10-11886
1202065188	Method Blank (MB)
1202065189	248867001(RE46-10-12931) Sample Duplicate (DUP)
1202065190	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 19.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in July 2009, December 2009, January 2010 and February 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 248867001 (RE46-10-12931). The QC was from LANL work order 248867.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank, 1202065188 (MB), results for Co-60 and Ra-224 are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank, 1202065188 (MB), results for Co-60 and Ra-224 are greater than the decision level but less than the MDC.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	248866001	RE46-10-11885
			248866002	RE46-10-11886
			1202065189	RE46-10-12931(248867001DUP)
		Cadmium-109	248866001	RE46-10-11885
			248866002	RE46-10-11886
			1202065189	RE46-10-12931(248867001DUP)
		Radium-224	248866001	RE46-10-11885
			248866002	RE46-10-11886
			1202065189	RE46-10-12931(248867001DUP)
UI	Data rejected due to low abundance.	Cesium-134	248866001	RE46-10-11885
			248866002	RE46-10-11886
			1202065189	RE46-10-12931(248867001DUP)
		Strontium-85	248866001	RE46-10-11885

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all

of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 3/30/10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
25-MAR-10	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ALPHA SPECTROMETER	DOE EML HASL-300, Am-05-RC Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
962716	See Below		

Potentially affected work order(s)(SDG): 248800(10-2290),248863(10-2315),248865(10-2318),248866(10-2319)

Application Issues:

Result is more negative than the three sigma TPU

Specification and Requirements Exception Description:	DER Disposition:
1. The Am-241 results for Duplicate Sample 1202065372 is more negative than three sigma TPU.	1. The Quality Control Sample 248866001 does not have a high Am-241 negative result. There is no reportable Am-241 activity in either of the samples. Reporting results.

Originator's Name:

Jessica Downey 25-MAR-10

Data Validator/Group Leader:

Kate Gellatly 25-MAR-10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2319 GEL Work Order: 248866

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 29, 2010

Client Sample ID:	RE46-10-11885	Project:	LANL01004
Sample ID:	248866001	Client ID:	LANL010
Matrix:	S		
Collect Date:	04-MAR-10		
Receive Date:	06-MAR-10		
Collector:	Client		
Moisture:	3.88%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00278	0.0276	+/-0.00232	0.050	pCi/g		MXE1	03/23/10	1334	962716	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00212	0.022	+/-0.00263	0.050	pCi/g		MXE1	03/24/10	1126	962718	3
Plutonium-239/240	U	0.00661	0.0186	+/-0.00333	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.963	0.102	+/-0.0913	0.100	pCi/g		MXE1	03/24/10	1155	962721	4
Uranium-235/236	U	0.0178	0.0621	+/-0.011	0.100	pCi/g						
Uranium-238		0.906	0.0715	+/-0.0869	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.334	0.511	+/-0.153	0.200	pCi/g		MXR1	03/24/10	2032	962633	5
Bismuth-211	UI	4.12	0.460	+/-0.333		pCi/g						
Bismuth-214		1.40	0.147	+/-0.112	0.200	pCi/g						
Cadmium-109	UI	2.36	2.20	+/-0.727		pCi/g						
Cerium-139	U	0.00101	0.0682	+/-0.0209	0.050	pCi/g						
Cesium-134	UI	0.128	0.108	+/-0.0325	0.100	pCi/g						
Cesium-137	U	0.0237	0.0768	+/-0.0217	0.100	pCi/g						
Cobalt-60	U	0.00209	0.0812	+/-0.025	0.100	pCi/g						
Europium-152	U	-0.0532	0.207	+/-0.0768	0.200	pCi/g						
Lanthanum-140	U	-0.0454	0.212	+/-0.066		pCi/g						
Lead-212		2.05	0.126	+/-0.142	0.100	pCi/g						
Lead-214		1.49	0.160	+/-0.128	0.100	pCi/g						
Mercury-203	U	0.0837	0.0928	+/-0.034	0.100	pCi/g						
Potassium-40		35.9	0.482	+/-2.06	1.00	pCi/g						
Radium-223	U	-0.909	1.44	+/-0.452		pCi/g						
Radium-224	UI	5.58	1.35	+/-0.942		pCi/g						
Radium-226		1.40	0.147	+/-0.112		pCi/g						
Radium-228		1.96	0.288	+/-0.217	0.500	pCi/g						
Ruthenium-106	U	0.599	0.678	+/-0.185	0.800	pCi/g						

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 29, 2010

Client Sample ID: RE46-10-11885
Sample ID: 248866001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Sodium-22	U	0.00914	0.0973	+/-0.0295	0.080	pCi/g						
Strontium-85	UI	0.135	0.103	+/-0.0313		pCi/g						
Thallium-208		0.577	0.0678	+/-0.0572	0.080	pCi/g						
Thorium-227	U	-0.185	0.540	+/-0.161		pCi/g						
Thorium-231	U	-0.909	1.44	+/-0.452		pCi/g						
Thorium-234	U	2.23	4.46	+/-1.26	2.00	pCi/g						
Tin-113	U	0.0202	0.103	+/-0.0299	0.100	pCi/g						
Uranium-235	U	-0.112	0.457	+/-0.140	0.500	pCi/g						
Yttrium-88	U	0.00182	0.0684	+/-0.0208	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	67.2	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	87.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 29, 2010

Client Sample ID: RE46-10-11885
Sample ID: 248866001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
JNX Non Calibrated Compound
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 29, 2010

Client Sample ID: RE46-10-11886
Sample ID: 248866002
Matrix: S
Collect Date: 04-MAR-10
Receive Date: 06-MAR-10
Collector: Client
Moisture: 4.77%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00345	0.0237	+/-0.00237	0.050	pCi/g		MXE1	03/23/10	1334	962716	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00231	0.024	+/-0.00287	0.050	pCi/g		MXE1	03/24/10	1126	962718	3
Plutonium-239/240	U	0.00412	0.0203	+/-0.0034	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.812	0.0819	+/-0.0752	0.100	pCi/g		MXE1	03/24/10	1155	962721	4
Uranium-235/236	U	0.0323	0.050	+/-0.0121	0.100	pCi/g						
Uranium-238		0.688	0.0576	+/-0.0661	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0934	0.129	+/-0.0393	0.200	pCi/g		MXR1	03/24/10	2032	962633	5
Bismuth-211	UI	4.86	0.397	+/-0.357		pCi/g						
Bismuth-214		1.65	0.158	+/-0.136	0.200	pCi/g						
Cadmium-109	UI	3.85	1.55	+/-0.515		pCi/g						
Cerium-139	U	0.00257	0.0596	+/-0.0179	0.050	pCi/g						
Cesium-134	UI	0.140	0.130	+/-0.0508	0.100	pCi/g						
Cesium-137	U	-0.0498	0.0839	+/-0.0291	0.100	pCi/g						
Cobalt-60	U	0.0452	0.104	+/-0.0284	0.100	pCi/g						
Europium-152	U	-0.0591	0.190	+/-0.0631	0.200	pCi/g						
Lanthanum-140	U	-0.175	0.242	+/-0.0891		pCi/g						
Lead-212		2.05	0.110	+/-0.127	0.100	pCi/g						
Lead-214		1.77	0.146	+/-0.139	0.100	pCi/g						
Mercury-203	U	0.016	0.0869	+/-0.0252	0.100	pCi/g						
Potassium-40		37.4	0.815	+/-2.09	1.00	pCi/g						
Radium-223	U	0.433	1.28	+/-0.409		pCi/g						
Radium-224	UI	5.78	1.18	+/-0.816		pCi/g						
Radium-226		1.65	0.158	+/-0.136		pCi/g						
Radium-228		2.30	0.323	+/-0.280	0.500	pCi/g						
Ruthenium-106	U	-0.0304	0.653	+/-0.204	0.800	pCi/g						
Sodium-22	U	-0.0383	0.101	+/-0.0338	0.080	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 29, 2010

Client Sample ID: RE46-10-11886
Sample ID: 248866002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0907	0.0959	+/-0.0286		pCi/g						
Thallium-208		0.650	0.0892	+/-0.0607	0.080	pCi/g						
Thorium-227	U	-0.136	0.486	+/-0.156		pCi/g						
Thorium-231	U	0.433	1.28	+/-0.409		pCi/g						
Thorium-234		2.08	1.25	+/-0.601	2.00	pCi/g						
Tin-113	U	-0.0603	0.092	+/-0.0297	0.100	pCi/g						
Uranium-235	U	0.123	0.391	+/-0.117	0.500	pCi/g						
Yttrium-88	U	0.0586	0.101	+/-0.0249	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	74.1	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	81.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 29, 2010

Client Sample ID: RE46-10-11886
Sample ID: 248866002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
JNX Non Calibrated Compound
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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QC Summary

Report Date: March 29, 2010

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 248866

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 962716										
QC1202065372 248866001 DUP										
Americium-241	U	-0.00278	U	-0.0205	pCi/g	1.21		(0-1)	MXE1	03/23/1013:35
	TPU:	+/-0.00232		+/-0.00501						
	Yield:	67.2		85.4						
QC1202065373 LCS										
Americium-241	33.1			30.0	pCi/g		90.5	(75%-125%)		03/23/1009:05
	TPU:			+/-2.30						
	Yield:			87.6						
QC1202065371 MB										
Americium-241			U	-0.00672	pCi/g					03/23/1013:34
	TPU:			+/-0.0036						
	Yield:			80.3						
Batch 962718										
QC1202065379 248866001 DUP										
Plutonium-238	U	0.00212	U	0.00361	pCi/g	0.104		(0-1)	MXE1	03/24/1010:20
	TPU:	+/-0.00263		+/-0.00453						
	Yield:	87.1		84.3						
Plutonium-239/240	U	0.00661	U	0.0051	pCi/g	0.120		(0-1)		
	TPU:	+/-0.00333		+/-0.00296						
	Yield:	87.1		84.3						
QC1202065380 LCS										
Plutonium-238				4.61	pCi/g			(75%-125%)		
	TPU:			+/-0.431						
	Yield:			81.4						
Plutonium-239/240	41.8			38.6	pCi/g		92.4	(75%-125%)		
	TPU:			+/-2.68						
	Yield:			81.4						
QC1202065378 MB										
Plutonium-238			U	-0.000958	pCi/g					
	TPU:			+/-0.00311						
	Yield:			87.7						
Plutonium-239/240			U	-0.00253	pCi/g					
	TPU:			+/-0.00348						
	Yield:			87.7						
Batch 962721										
QC1202065399 248866001 DUP										
Uranium-233/234		0.963		0.758	pCi/g	0.615		(0-1)	MXE1	03/24/1011:55
	TPU:	+/-0.0913		+/-0.075						
	Yield:	94.3		76.8						
Uranium-235/236	U	0.0178	U	0.0389	pCi/g	0.377		(0-1)		
	TPU:	+/-0.011		+/-0.017						
	Yield:	94.3		76.8						
Uranium-238		0.906		0.843	pCi/g	0.187		(0-1)		
	TPU:	+/-0.0869		+/-0.0812						

QC Summary

Workorder: 248866

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 962721										
	Yield:	94.3		76.8						
QC1202065400 LCS										
Uranium-233/234				5.99	pCi/g					
	TPU:			+/-0.541						
	Yield:			87.8						
Uranium-235/236			U	0.208	pCi/g					
	TPU:			+/-0.0668						
	Yield:			87.8						
Uranium-238	5.75			5.05	pCi/g		87.9	(75%-125%)		
	TPU:			+/-0.468						
	Yield:			87.8						
QC1202065398 MB										
Uranium-233/234			U	0.0138	pCi/g					
	TPU:			+/-0.00662						
	Yield:			82.0						
Uranium-235/236			U	0.00652	pCi/g					
	TPU:			+/-0.00488						
	Yield:			82.0						
Uranium-238			U	-0.00352	pCi/g					
	TPU:			+/-0.00498						
	Yield:			82.0						
Rad Gamma Spec										
Batch 962633										
QC1202065189 248867001 DUP										
Americium-241	U	-0.0252	U	-0.0361	pCi/g	0.0477		(0-1)	MXR1	03/24/1023:00
	TPU:	+/-0.0965		+/-0.0183						
Bismuth-211	UI	3.83	UI	3.94	pCi/g	0.0946		(0-1)		
	TPU:	+/-0.303		+/-0.247						
Bismuth-214		1.17		1.48	pCi/g	0.715		(0-1)		
	TPU:	+/-0.103		+/-0.116						
Cadmium-109	UI	2.48	UI	4.66	pCi/g	1.14		(0-1)		
	TPU:	+/-0.596		+/-0.357						
Cerium-139	U	0.00997	U	-0.00147	pCi/g	0.207		(0-1)		
	TPU:	+/-0.0185		+/-0.00912						
Cesium-134	UI	0.141	UI	0.110	pCi/g	0.204		(0-1)		
	TPU:	+/-0.0479		+/-0.0293						
Cesium-137	UI	0.126		0.113	pCi/g	0.118		(0-1)		
	TPU:	+/-0.0246		+/-0.0324						
Cobalt-60	U	-0.0193	U	-0.000883	pCi/g	0.241		(0-1)		
	TPU:	+/-0.0213		+/-0.0169						
Europium-152	U	0.00124	U	0.0619	pCi/g	0.297		(0-1)		
	TPU:	+/-0.0666		+/-0.0356						
Lanthanum-140	U	-0.056	U	0.0733	pCi/g	0.559		(0-1)		
	TPU:	+/-0.0648		+/-0.0509						
Lead-212		1.84		1.91	pCi/g	0.165		(0-1)		
	TPU:	+/-0.111		+/-0.105						
Lead-214		1.39		1.43	pCi/g	0.0887		(0-1)		
	TPU:	+/-0.117		+/-0.0978						
Mercury-203	U	0.028	U	0.0029	pCi/g	0.308		(0-1)		
	TPU:	+/-0.0246		+/-0.0161						

QC Summary

Workorder: 248866

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962633										
Potassium-40		35.2		33.1	pCi/g	0.282		(0-1)		
	TPU:	+/-2.16		+/-1.65						
Radium-223	U	0.0653	U	0.0788	pCi/g	0.010		(0-1)		
	TPU:	+/-0.415		+/-0.260						
Radium-224	U1	4.78	U1	4.63	pCi/g	0.0588		(0-1)		
	TPU:	+/-0.778		+/-0.473						
Radium-226		1.17		1.48	pCi/g	0.715		(0-1)		
	TPU:	+/-0.103		+/-0.116						
Radium-228		1.69		1.98	pCi/g	0.356		(0-1)		
	TPU:	+/-0.213		+/-0.186						
Ruthenium-106	U	-0.102	U	0.201	pCi/g	0.492		(0-1)		
	TPU:	+/-0.172		+/-0.136						
Sodium-22	U	-0.0499	U	-0.00156	pCi/g	0.536		(0-1)		
	TPU:	+/-0.024		+/-0.0211						
Strontium-85	U	-0.18	U	0.0208	pCi/g	2.02		(0-1)		
	TPU:	+/-0.0321		+/-0.0177						
Thallium-208		0.586		0.584	pCi/g	0.0121		(0-1)		
	TPU:	+/-0.0518		+/-0.0471						
Thorium-227	U	0.00176	U	-0.102	pCi/g	0.224		(0-1)		
	TPU:	+/-0.142		+/-0.0906						
Thorium-231	U	0.0653	U	0.0788	pCi/g	0.010		(0-1)		
	TPU:	+/-0.415		+/-0.260						
Thorium-234	U	0.746		1.78	pCi/g	0.428		(0-1)		
	TPU:	+/-0.855		+/-0.350						
Tin-113	U	0.0304	U	-0.0268	pCi/g	0.631		(0-1)		
	TPU:	+/-0.0265		+/-0.0188						
Uranium-235	U	0.341	U	0.110	pCi/g	0.573		(0-1)		
	TPU:	+/-0.134		+/-0.0669						
Yttrium-88	U	-0.0065	U	0.0289	pCi/g	0.481		(0-1)		
	TPU:	+/-0.0191		+/-0.0177						
QC1202065190 LCS										
Americium-241	16.3			13.9	pCi/g		85.2	(75%-125%)		03/25/1009:16
	TPU:			+/-0.638						
Bismuth-211				3.46	pCi/g					
	TPU:			+/-0.367						
Bismuth-214				0.890	pCi/g					
	TPU:			+/-0.108						
Cadmium-109				35.4	pCi/g					
	TPU:			+/-2.11						
Cerium-139			U	0.0101	pCi/g					
	TPU:			+/-0.0215						
Cesium-134			U	0.071	pCi/g					
	TPU:			+/-0.0385						
Cesium-137	5.69			5.89	pCi/g		104	(75%-125%)		
	TPU:			+/-0.331						
Cobalt-60	6.49			6.90	pCi/g		106	(75%-125%)		
	TPU:			+/-0.337						
Europium-152			U	0.0108	pCi/g					
	TPU:			+/-0.0883						
Lanthanum-140			U	-0.0747	pCi/g					
	TPU:			+/-0.0628						

QC Summary

Workorder: 248866

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962633										
Lead-212				1.43	pCi/g					
	TPU:			+/-0.119						
Lead-214				1.26	pCi/g					
	TPU:			+/-0.138						
Mercury-203			U	-0.0163	pCi/g					
	TPU:			+/-0.0331						
Potassium-40				1.02	pCi/g					
	TPU:			+/-0.254						
Radium-223			U	-0.894	pCi/g					
	TPU:			+/-0.541						
Radium-224				2.93	pCi/g					
	TPU:			+/-0.863						
Radium-226				0.890	pCi/g					
	TPU:			+/-0.108						
Radium-228				1.59	pCi/g					
	TPU:			+/-0.301						
Ruthenium-106			U	-0.181	pCi/g					
	TPU:			+/-0.248						
Sodium-22			U	0.0353	pCi/g					
	TPU:			+/-0.0239						
Strontium-85			U	-0.0677	pCi/g					
	TPU:			+/-0.0364						
Thallium-208				0.427	pCi/g					
	TPU:			+/-0.054						
Thorium-227			U	-0.0226	pCi/g					
	TPU:			+/-0.208						
Thorium-231			U	-0.894	pCi/g					
	TPU:			+/-0.541						
Thorium-234			U	-0.854	pCi/g					
	TPU:			+/-0.967						
Tin-113			U	-0.0231	pCi/g					
	TPU:			+/-0.0386						
Uranium-235			U	-0.147	pCi/g					
	TPU:			+/-0.135						
Yttrium-88			U	0.0459	pCi/g					
	TPU:			+/-0.0238						
QC1202065188 MB										
Americium-241			U	-0.0948	pCi/g					03/24/1022:59
	TPU:			+/-0.0289						
Bismuth-211			U	0.0297	pCi/g					
	TPU:			+/-0.0459						
Bismuth-214			U	-0.0119	pCi/g					
	TPU:			+/-0.0183						
Cadmium-109			U	-0.612	pCi/g					
	TPU:			+/-0.169						
Cerium-139			U	-0.0106	pCi/g					
	TPU:			+/-0.00641						
Cesium-134			U	-0.00286	pCi/g					
	TPU:			+/-0.00786						
Cesium-137			U	-0.00571	pCi/g					
	TPU:			+/-0.00718						

QC Summary

Workorder: **248866**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 962633										
Cobalt-60			U	0.0175	pCi/g					
	TPU:			+/-0.00761						
Europium-152			U	-0.017	pCi/g					
	TPU:			+/-0.0203						
Lanthanum-140			U	0.0232	pCi/g					
	TPU:			+/-0.0181						
Lead-212			U	-0.0174	pCi/g					
	TPU:			+/-0.0172						
Lead-214			U	0.0115	pCi/g					
	TPU:			+/-0.0166						
Mercury-203			U	-0.0075	pCi/g					
	TPU:			+/-0.00762						
Potassium-40			U	-0.0404	pCi/g					
	TPU:			+/-0.105						
Radium-223			U	-0.0221	pCi/g					
	TPU:			+/-0.128						
Radium-224			U	0.304	pCi/g					
	TPU:			+/-0.137						
Radium-226			U	-0.0119	pCi/g					
	TPU:			+/-0.0183						
Radium-228			U	-0.0353	pCi/g					
	TPU:			+/-0.0343						
Ruthenium-106			U	-0.0657	pCi/g					
	TPU:			+/-0.0658						
Sodium-22			U	-2.09E-06	pCi/g					
	TPU:			+/-0.00745						
Strontium-85			U	-0.0416	pCi/g					
	TPU:			+/-0.0134						
Thallium-208			U	0.00936	pCi/g					
	TPU:			+/-0.00937						
Thorium-227			U	0.0445	pCi/g					
	TPU:			+/-0.0518						
Thorium-231			U	-0.0221	pCi/g					
	TPU:			+/-0.128						
Thorium-234			U	0.199	pCi/g					
	TPU:			+/-0.296						
Tin-113			U	-0.00326	pCi/g					
	TPU:			+/-0.00929						
Uranium-235			U	-0.0127	pCi/g					
	TPU:			+/-0.0458						
Yttrium-88			U	-0.0106	pCi/g					
	TPU:			+/-0.00801						

Notes:
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported

QC Summary

Workorder: 248866

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time

A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
JNX	Non Calibrated Compound
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 962716 Product: AM Date: 3/25/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	✓		DER# 809656
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	✓		DER# 809686
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: 3/25/10

Secondary Review Performed By: 3/26/10

3/16 3/26

LAW

P ✓

Am/Cm Que Sheet

08-MAR-10

Batch #: 962716 | Analyst: MXE1 | First Client Due Date: 26-MAR-10 | Internal Due Date: 16-MAR-10 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-VV | Expiration Date: 3/9/11 | Vol: 0.1

LCS Isotope(s): Am241/Cm244 | LCS Code(s): / 03/25/10 / 03/25/10 | Expiration Date: / 03/25/10 / 03/25/10 | Vol(s): / 03/25/10 / 03/25/10

Spike Isotope(s): Am241/Cm244 | Spike Code(s): / / | Expiration Date: / / | Vol(s): / /

Prep Date: 3/18/10 | Initials: ME | Pipet ID: 29710584 | Balance ID: 50410272 | Witness: JEH 3-18-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) 1/1	Am/Cm Det #
248800001-1	RE11-10-1756	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	1	1	1.251	228
248800002-1	RE11-10-1762	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	2	2	1.244	229
248800003-1	RE11-10-1764	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	3	3	1.246	230
248800004-1	RE11-10-1776	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	4	4	1.241	231
248800005-1	RE11-10-1766	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	5	5	1.249	232
248800006-1	RE11-10-1763	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	6	6	1.248	233
248800007-1	RE11-10-1761	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	7	7	1.243	234
248800008-1	RE11-10-1765	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	8	8	1.252	209
248800009-1	RE11-10-1768	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	9	9	1.250	210
248800010-1	RE11-10-1767	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	10	10	1.249	211
248800011-1	RE11-10-1769	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	11	11	1.238	216
248800012-1	RE11-10-1770	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	12	12	1.250	217
248863001-1	RE46-10-12936	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	13	13	1.240	218
248863002-1	RE46-10-12930	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	14	14	1.249	239
248863003-1	RE46-10-12929	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	15	15	1.263	240
248863004-1	RE46-10-12935	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	16	16	1.238	241
248865001-1	RE46-10-11924	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	17	17	1.246	242
248866001-1	RE46-10-11885	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	18	18	1.246	235
248866002-1	RE46-10-11886	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	19	19	1.262	236
1202065371-1	MB for batch 962716	MB		.05 pCi/g	SOIL	QC ACCOUNT		20	20	1.00	237
1202065372-1	RE46-10-11885(248866001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	04-MAR-10	21	21	1.256	238
1202065373-1	LCS for batch 962716	LCS		.05 pCi/g	SOIL	QC ACCOUNT		22	22	0.100	234

SRM 0244B exp 4/30/20

Choose SOP Used: GL-RAD-A-011 ~~GL-RAD-A-036~~

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 03/25/10

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 962716

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202065372	DUP	Americium-241	1.26 g	-0.0205	0.00501	0.0213	-.00533333	pCi/g	NO
1202065373	LCS	Americium-241	0.106 g	30.0	2.30	0.249	-.06339623	pCi/g	NO
1202065371	MB	Americium-241	1.00 g	-0.00672	0.0036	0.0278	-.00672	pCi/g	NO
248800001	RE11-10-1756	Americium-241	1.25 g	-0.00142	0.00184	0.0269	-.005376	pCi/g	NO
248800002	RE11-10-1762	Americium-241	1.24 g	0.000279	0.00171	0.0251	-.00541935	pCi/g	NO
248800003	RE11-10-1764	Americium-241	1.25 g	-0.00271	0.00219	0.026	-.005376	pCi/g	NO
248800004	RE11-10-1776	Americium-241	1.24 g	-0.00143	0.00181	0.0264	-.00541935	pCi/g	NO
248800005	RE11-10-1766	Americium-241	1.25 g	0.000633	0.00423	0.0269	-.005376	pCi/g	NO
248800006	RE11-10-1763	Americium-241	1.25 g	0.00739	0.00364	0.0258	-.005376	pCi/g	NO
248800007	RE11-10-1761	Americium-241	1.24 g	-0.00143	0.00169	0.0247	-.00541935	pCi/g	NO
248800008	RE11-10-1765	Americium-241	1.25 g	0.000668	0.0021	0.0239	-.005376	pCi/g	NO
248800009	RE11-10-1768	Americium-241	1.25 g	0.00435	0.00252	0.0212	-.005376	pCi/g	NO
248800010	RE11-10-1767	Americium-241	1.25 g	0.00846	0.00414	0.029	-.005376	pCi/g	NO
248800011	RE11-10-1769	Americium-241	1.24 g	0.00125	0.00308	0.0252	-.00541935	pCi/g	NO
248800012	RE11-10-1770	Americium-241	1.25 g	-0.0022	0.0025	0.0257	-.005376	pCi/g	NO
248863001	RE46-10-12936	Americium-241	1.24 g	-0.00357	0.0037	0.0237	-.00541935	pCi/g	NO
248863002	RE46-10-12930	Americium-241	1.25 g	0.00419	0.0033	0.0251	-.005376	pCi/g	NO
248863003	RE46-10-12929	Americium-241	1.26 g	0.0021	0.00192	0.0257	-.00533333	pCi/g	NO
248863004	RE46-10-12935	Americium-241	1.24 g	0.00411	0.00472	0.0287	-.00541935	pCi/g	NO
248865001	RE46-10-11924	Americium-241	1.24 g	0.0108	0.00542	0.0274	-.00541935	pCi/g	NO
248866001	RE46-10-11885	Americium-241	1.25 g	-0.00278	0.00232	0.0276	-.005376	pCi/g	NO
248866002	RE46-10-11886	Americium-241	1.26 g	0.00345	0.00237	0.0237	-.00533333	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962716	CHAMBER : 235	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248866001_AM	DETECTOR S/N : 79428	BKG FILE : B235.CNF;91
SAMPLE QTY : 1.246 G	AVERAGE %EFFICIENCY : 39.7692	BKG DATE : 21-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 23-MAR-2010 13:34:51	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W235.CNF;30
% YIELD : 67.155		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.5280E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5509.341	0.000	0.000	-1.480	0.720	2.7707	99.94000	-2.78E-03	2.32E-03	1.12E-02	2.76E-02	2.32E-03
AM243	5270.000	5277.514	39.621	438.000	436.560	1.440	1.2000	99.78000	8.23E-01	6.99E-02	4.88E-03	1.49E-02	3.95E-02
CM-242	6102.000	6068.685	19.645	2.000	2.000	0.000	4.0092	100.0000	4.09E-03	2.91E-03	1.63E-02	3.76E-02	2.89E-03
CM-3/4	5795.020	5817.650	63.845	3.000	-1.320	4.320	4.8510	100.0000	-2.49E-03	4.66E-03	1.97E-02	4.44E-02	4.66E-03
CM-5/6	5386.000	5386.670	0.000	4.000	4.000	0.000	6.1294	86.09000	8.74E-03	4.41E-03	2.89E-02	6.37E-02	4.37E-03
CM-247	4946.000	4826.137	29.467	2.000	2.000	0.000	6.3427	79.30000	4.74E-03	3.37E-03	3.24E-02	7.13E-02	3.35E-03
CM-248	5078.600	5059.530	53.920	11.000	11.000	0.000	11.0244	91.00000	2.27E-02	7.04E-03	4.91E-02	1.04E-01	6.85E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

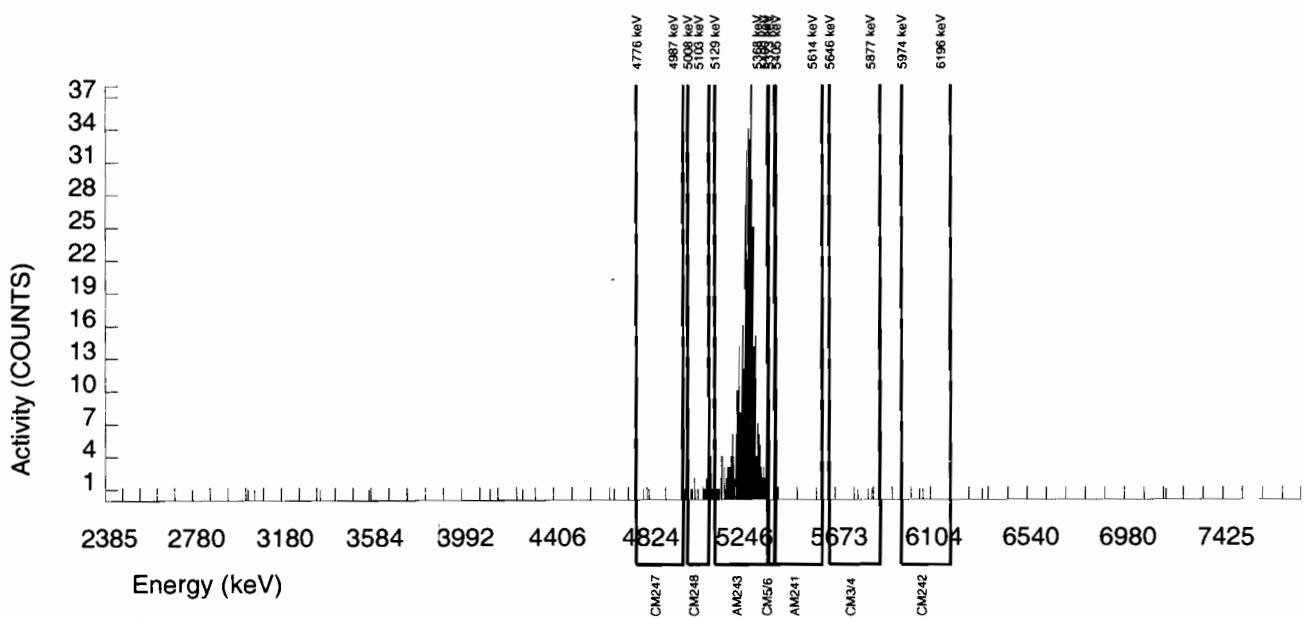

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962716	CHAMBER : 236	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0248866002_AM	DETECTOR S/N : 79429	BKG FILE : B236.CNF;91
SAMPLE QTY : 1.262 G	AVERAGE %EFFICIENCY : 41.3400	BKG DATE : 21-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 23-MAR-2010 13:34:53	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W236.CNF;30
% YIELD : 74.116		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.6864E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5515.107	54.097	3.000	2.129	0.000	2.7707	99.94000	3.45E-03	2.37E-03	9.68E-03	2.37E-02	2.36E-03
AM243	5270.000	5274.367	40.505	503.000	500.840	2.160	1.4697	99.78000	8.12E-01	6.62E-02	5.14E-03	1.47E-02	3.64E-02
CM-242	6102.000	6055.399	78.686	3.000	3.000	0.000	4.0092	100.0000	5.28E-03	3.07E-03	1.40E-02	3.24E-02	3.05E-03
CM-3/4	5795.020	5762.037	73.768	4.000	0.400	3.600	4.8510	100.0000	6.49E-04	4.16E-03	1.69E-02	3.83E-02	4.16E-03
CM-5/6	5386.000	5374.906	0.000	9.000	9.000	0.000	6.1294	86.09000	1.69E-02	5.75E-03	2.49E-02	5.48E-02	5.64E-03
CM-247	4946.000	4866.462	127.865	4.000	1.840	2.160	6.3427	79.30000	3.75E-03	4.82E-03	2.79E-02	6.14E-02	4.81E-03
CM-248	5078.600	5075.022	6.096	8.000	8.000	0.000	11.0244	91.00000	1.42E-02	5.12E-03	4.23E-02	8.94E-02	5.03E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

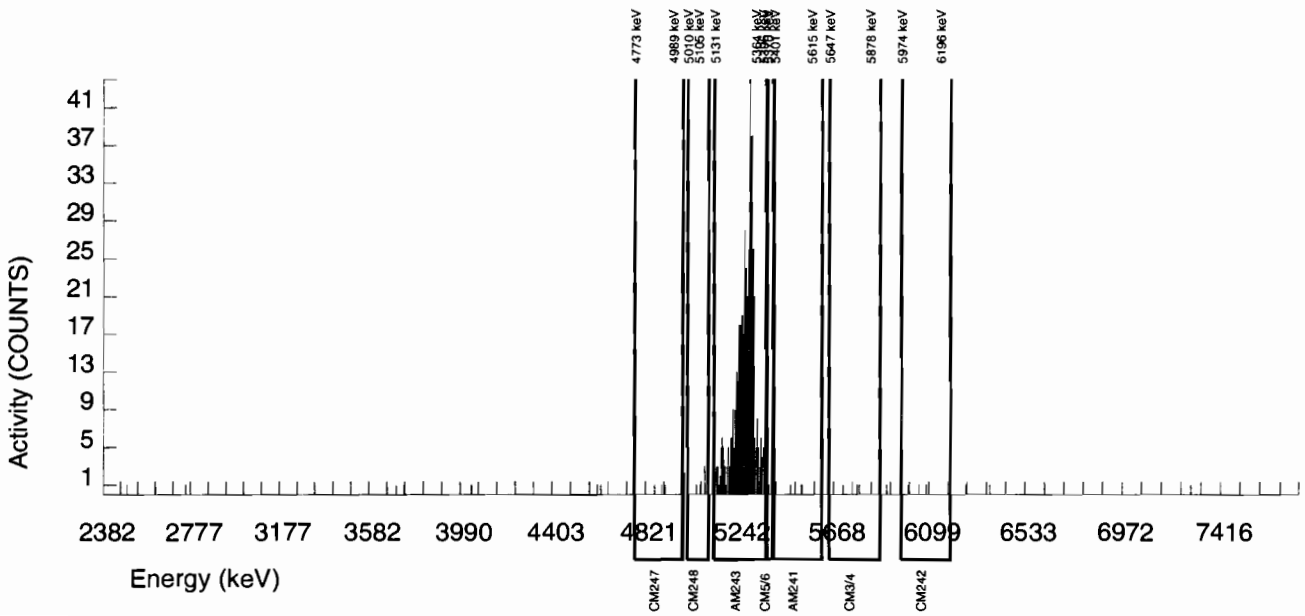

Alpha Spectroscopy Software Version 2.1
effective date. 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962716	CHAMBER : 237	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202065371_AM	DETECTOR S/N : 79430	BKG FILE : B237.CNF;91
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 41.0426	BKG DATE : 21-MAR-2010
SAMPLE DATE : 18-MAR-2010 00:00:00	COUNT DATE : 23-MAR-2010 13:34:58	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W237.CNF;30
% YIELD : 80.317		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3149E+01 pCi/G	NOMINAL : 3.3149E+01 pCi/G
RESULTS : 1.8275E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5489.086	4.935	1.000	-3.538	3.600	2.7707	99.94000	-6.72E-03	3.60E-03	1.14E-02	2.78E-02	3.60E-03
AM243	5270.000	5280.875	53.401	541.000	538.840	2.160	1.4697	99.78000	1.02E+00	8.17E-02	6.03E-03	1.72E-02	4.43E-02
CM-242	6102.000	6076.652	113.495	4.000	4.000	0.000	4.0092	100.0000	7.78E-03	3.93E-03	1.64E-02	3.80E-02	3.89E-03
CM-3/4	5795.020	5788.000	133.233	9.000	9.000	0.000	4.8510	100.0000	1.71E-02	5.81E-03	1.99E-02	4.49E-02	5.70E-03
CM-5/6	5386.000	5382.614	0.000	9.000	8.280	0.720	6.1294	86.09000	1.83E-02	6.91E-03	2.92E-02	6.43E-02	6.80E-03
CM-247	4946.000	4910.235	83.887	3.000	2.280	0.720	6.3427	79.30000	5.46E-03	4.50E-03	3.27E-02	7.20E-02	4.49E-03
CM-248	5078.600	5067.409	6.117	8.000	8.000	0.000	11.0244	91.00000	1.67E-02	6.00E-03	4.96E-02	1.05E-01	5.90E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

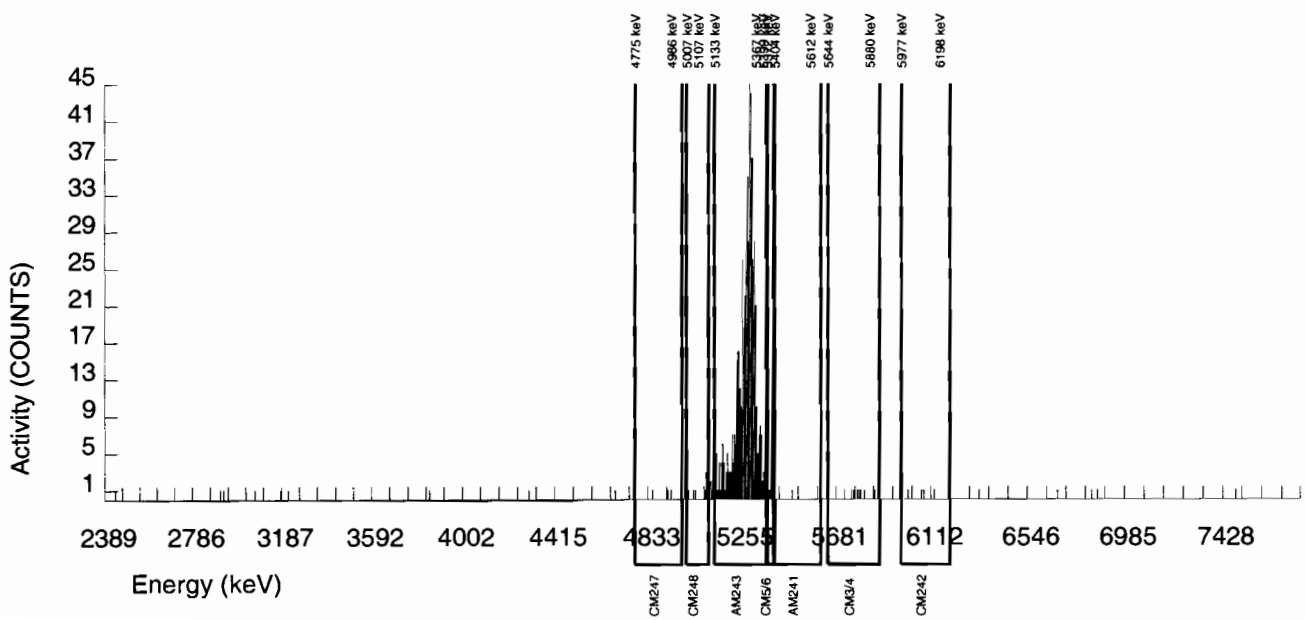

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962716	CHAMBER : 238	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202065372_AM	DETECTOR S/N : 79431	BKG FILE : B238.CNF;93
SAMPLE QTY : 1.256 G	AVERAGE %EFFICIENCY : 40.1819	BKG DATE : 21-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 23-MAR-2010 13:35:01	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W238.CNF;32
% YIELD : 85.430		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 1.9438E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5521.792	142.251	2.000	-14.096	15.120	2.7707	99.94000	-2.05E-02	5.01E-03	8.68E-03	2.13E-02	5.01E-03
AM243	5270.000	5273.047	38.901	564.000	561.120	2.880	1.6971	99.78000	8.16E-01	6.43E-02	5.32E-03	1.46E-02	3.46E-02
CM-242	6102.000	6021.360	63.768	4.000	4.000	0.000	4.0092	100.0000	6.31E-03	3.19E-03	1.26E-02	2.90E-02	3.16E-03
CM-3/4	5795.020	5762.755	4.905	1.000	1.000	0.000	4.8510	100.0000	1.45E-03	1.46E-03	1.52E-02	3.43E-02	1.45E-03
CM-5/6	5386.000	5383.220	0.000	3.000	2.280	0.720	6.1294	86.09000	3.84E-03	3.17E-03	2.23E-02	4.91E-02	3.16E-03
CM-247	4946.000	4925.201	58.862	12.000	11.280	0.720	6.3427	79.30000	2.06E-02	6.62E-03	2.50E-02	5.50E-02	6.47E-03
CM-248	5078.600	5056.569	49.052	17.000	16.280	0.720	11.0244	91.00000	2.60E-02	6.89E-03	3.79E-02	8.02E-02	6.67E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

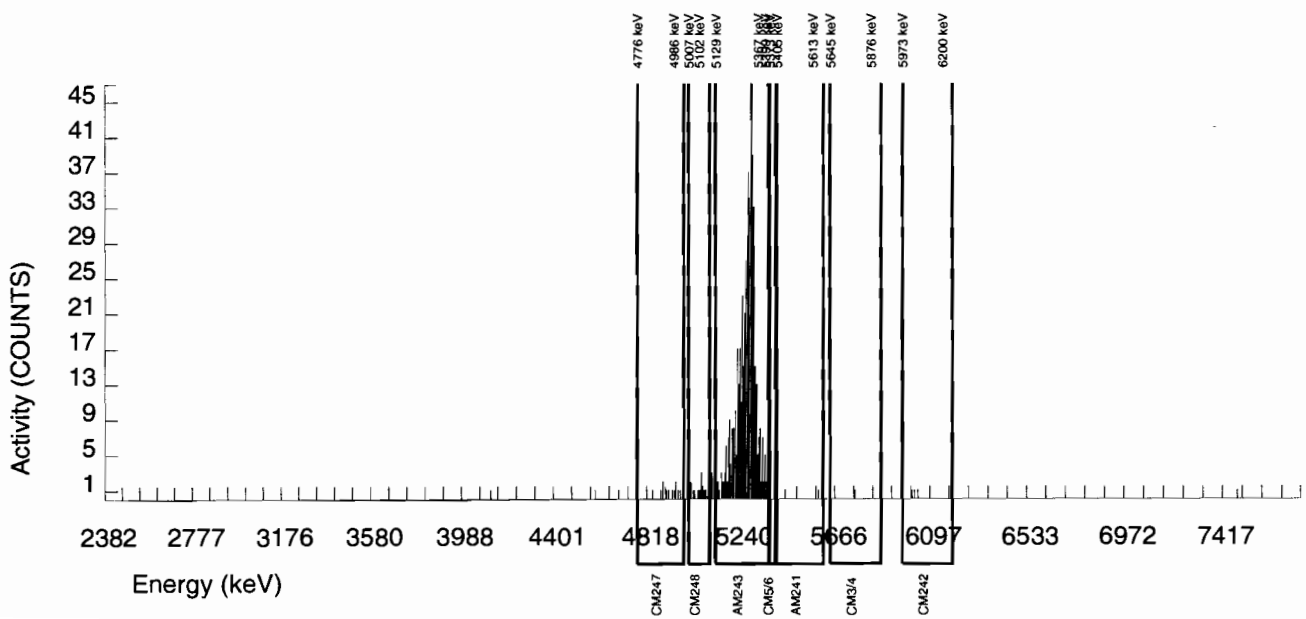

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962716	CHAMBER : 234	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202065373_AM	DETECTOR S/N : 79427	BKG FILE : B234.CNF;92
SAMPLE QTY : 0.106 G	AVERAGE %EFFICIENCY : 39.7384	BKG DATE : 21-MAR-2010
SAMPLE DATE : 18-MAR-2010 00:00:00	COUNT DATE : 23-MAR-2010 09:05:42	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W234.CNF;30
% YIELD : 87.596		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-VV	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.2753E+00 dpm	NOMINAL : 3.3149E+01 pCi/G	NOMINAL : 3.3149E+01 pCi/G
RESULTS : 1.9931E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5505.154	45.988	1769.000	1768.010	0.000	2.7707	99.94000	3.00E+01	2.30E+00	1.01E-01	2.49E-01	7.13E-01
AM243	5270.000	5283.462	32.436	569.000	569.000	0.000	0.0000	99.78000	9.67E+00	8.12E-01	0.00E+00	4.61E-02	4.05E-01
CM-242	6102.000	6041.672	83.537	7.000	7.000	0.000	4.0092	100.0000	1.22E-01	4.68E-02	1.47E-01	3.39E-01	4.59E-02
CM-3/4	5795.020	5735.781	156.632	8.000	7.280	0.720	4.8510	100.0000	1.24E-01	5.03E-02	1.77E-01	4.01E-01	4.95E-02
CM-5/6	5386.000	5387.921	0.000	43.000	43.000	0.000	6.1294	86.09000	8.47E-01	1.43E-01	2.60E-01	5.74E-01	1.29E-01
CM-247	4946.000	4897.436	167.075	5.000	3.560	1.440	6.3427	79.30000	7.61E-02	5.28E-02	2.93E-01	6.43E-01	5.25E-02
CM-248	5078.600	5054.535	44.226	10.000	10.000	0.000	11.0244	91.00000	1.86E-01	6.05E-02	4.43E-01	9.37E-01	5.89E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

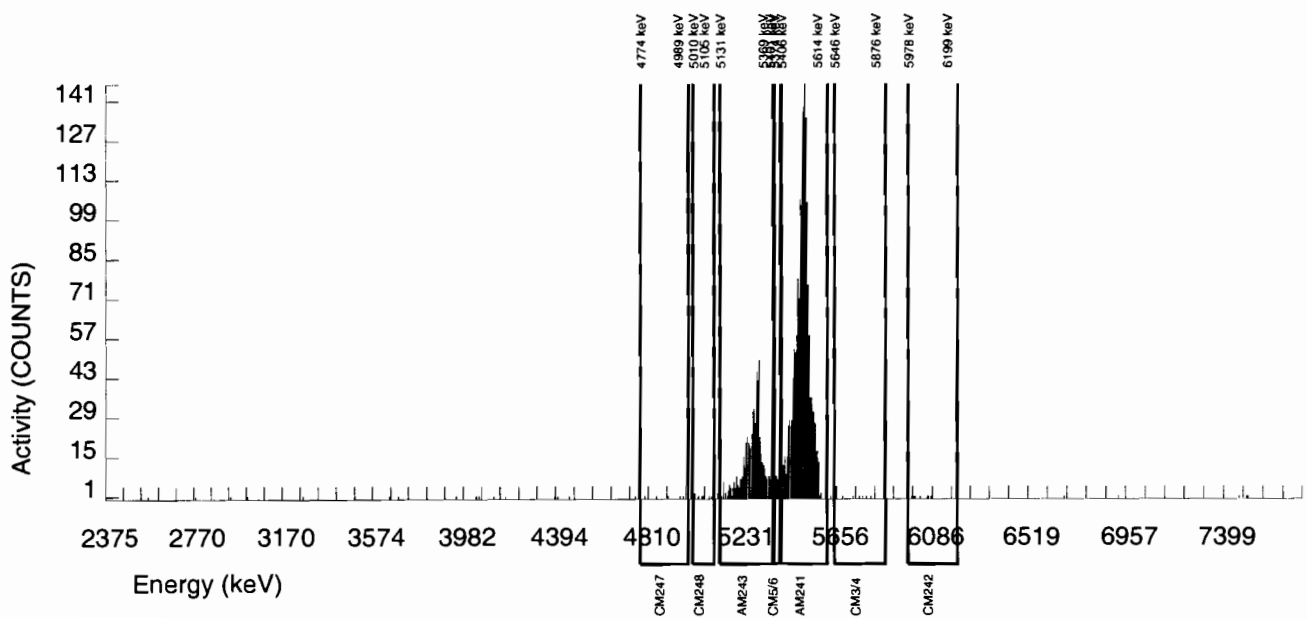

Radiochemistry Batch Checklist, Rev10

Batch# 962718 Product: Pu Date: 3/25/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 3/25/10

Secondary Review Performed By: [illegible] 3/25/10

QP 3/25/10

3/25 3/26

LANL

PL

Plutonium Que Sheet

08-MAR-10

Batch #: 962718 Pu-236 **Analyst:** MXE1 **First Client Due Date:** 26-MAR-10 **Internal Due Date:** 16-MAR-10

Tracer Isotope(s): ~~Pu-242/Pu-238~~ **Tracer Code:** 1430-C **Expiration Date:** 3/4/11 **Vol:** 0.1

LCS Isotope(s): Pu-239/Pu-238 **LCS Code:** NA **Expiration Date:** NA **Vol:** NA

Spike Isotope(s): Pu-239/Pu-238 **Spike Code:** / **Expiration Date:** / **Vol:** /

Prep Date: 3/18/10 **Initials:** [illegible] **Pipet ID:** 29710058 **Balance ID:** 50410272 **Witness:** JEH 3-18-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/ Dry Aliquot (g / l / f)	Pu Det #
248800001-1	RE11-10-1756	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	1	1	1.251	13
248800002-1	RE11-10-1762	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	2	2	1.244	14
248800003-1	RE11-10-1764	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	3	3	1.246	16
248800004-1	RE11-10-1776	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	4	4	1.241	17
248800005-1	RE11-10-1766	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	5	5	1.249	18
248800006-1	RE11-10-1763	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	6	6	1.248	19
248800007-1	RE11-10-1761	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	7	7	1.243	20
248800008-1	RE11-10-1765	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	8	8	1.252	22
248800009-1	RE11-10-1768	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	9	9	1.250	23
248800010-1	RE11-10-1767	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	10	10	1.249	24
248800011-1	RE11-10-1769	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	11	11	1.258	101
248800012-1	RE11-10-1770	SAMPLE		.05 pCi/g	SOIL	LANL010	01-MAR-10	12	12	1.250	102
248863001-1	RE46-10-12936	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	13	13	1.240	103
248863002-1	RE46-10-12930	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	14	14	1.249	105
248863003-1	RE46-10-12929	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	15	15	1.263	107
248863004-1	RE46-10-12935	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	16	16	1.238	108
248865001-1	RE46-10-11924	SAMPLE		.05 pCi/g	SOIL	LANL010	03-MAR-10	17	17	1.240	109
248866001-1	RE46-10-11885	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	18	18	1.246	111
248866002-1	RE46-10-11886	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	19	19	1.262	112
1202065378-1	MB for batch 962718	MB		.05 pCi/g	SOIL	QC ACCOUNT		20	20	1.0	96
1202065379-1	RE46-10-11885(248866001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	04-MAR-10	21	21	1.256	97
1202065380-1	LCS for batch 962718	LCS		.05 pCi/g	SOIL	QC ACCOUNT		22	22	1.106	98

SRM 0244-B exp 4/30/20

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, ~~GL-RAD-A-045~~, GL-RAD-A-043

Solid Sample Dissolution by LEACH or DIGESTION (Circle One)

Data Reviewed By: [illegible] 3/25/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 962718

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202065379	DUP	Plutonium-238	1.26 g	0.00361	0.00453	0.0226	-.00076032	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0051	0.00296	0.0191	-.00200794	pCi/g	NO
1202065380	LCS	Plutonium-238	0.106 g	4.61	0.431	0.271	-.00903774	pCi/g	NO
		Plutonium-239/240	0.106 g	38.6	2.68	0.229	-.02386792	pCi/g	NO
1202065378	MB	Plutonium-238	1.00 g	-0.000958	0.00311	0.0289	-.000958	pCi/g	NO
		Plutonium-239/240	1.00 g	-0.00253	0.00348	0.0244	-.00253	pCi/g	NO
248800001	RE11-10-1756	Plutonium-238	1.25 g	0.0205	0.00787	0.0227	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00493	0.003	0.0192	-.002024	pCi/g	NO
248800002	RE11-10-1762	Plutonium-238	1.24 g	0.0119	0.0109	0.0244	-.00077258	pCi/g	NO
		Plutonium-239/240	1.24 g	-0.000589	0.00491	0.0207	-.00204032	pCi/g	NO
248800003	RE11-10-1764	Plutonium-238	1.25 g	0.0199	0.0069	0.025	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00135	0.00232	0.0211	-.002024	pCi/g	NO
248800004	RE11-10-1776	Plutonium-238	1.24 g	0.00218	0.00705	0.0301	-.00077258	pCi/g	NO
		Plutonium-239/240	1.24 g	0.0029	0.00361	0.0255	-.00204032	pCi/g	NO
248800005	RE11-10-1766	Plutonium-238	1.25 g	0.00236	0.00699	0.023	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00396	0.00326	0.0195	-.002024	pCi/g	NO
248800006	RE11-10-1763	Plutonium-238	1.25 g	0.00317	0.0094	0.031	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0326	0.00896	0.0262	-.002024	pCi/g	NO
248800007	RE11-10-1761	Plutonium-238	1.24 g	0.0123	0.00709	0.0226	-.00077258	pCi/g	NO
		Plutonium-239/240	1.24 g	0.00218	0.00271	0.0191	-.00204032	pCi/g	NO
248800008	RE11-10-1765	Plutonium-238	1.25 g	-0.0164	0.00926	0.0295	-.0007664	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0152	0.00728	0.0249	-.002024	pCi/g	NO
248800009	RE11-10-1768	Plutonium-238	1.25 g	0.00984	0.00623	0.0242	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0156	0.00612	0.0204	-.002024	pCi/g	NO
248800010	RE11-10-1767	Plutonium-238	1.25 g	0.0027	0.00633	0.0236	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0419	0.00939	0.0199	-.002024	pCi/g	NO
248800011	RE11-10-1769	Plutonium-238	1.24 g	0.00241	0.00299	0.025	-.00077258	pCi/g	NO
		Plutonium-239/240	1.24 g	0.0231	0.00706	0.0211	-.00204032	pCi/g	NO
248800012	RE11-10-1770	Plutonium-238	1.25 g	0.00332	0.00236	0.022	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00	0.00166	0.0186	-.002024	pCi/g	NO
248863001	RE46-10-12936	Plutonium-238	1.24 g	0.00531	0.00308	0.0235	-.00077258	pCi/g	NO
		Plutonium-239/240	1.24 g	0.00	0.00177	0.0199	-.00204032	pCi/g	NO
248863002	RE46-10-12930	Plutonium-238	1.25 g	0.00355	0.00252	0.0236	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00383	0.00284	0.0199	-.002024	pCi/g	NO
248863003	RE46-10-12929	Plutonium-238	1.26 g	0.00488	0.00429	0.0253	-.00076032	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00762	0.00384	0.0214	-.00200794	pCi/g	NO
248863004	RE46-10-12935	Plutonium-238	1.24 g	0.00601	0.00349	0.0266	-.00077258	pCi/g	NO
		Plutonium-239/240	1.24 g	0.00312	0.00402	0.0225	-.00204032	pCi/g	NO
248865001	RE46-10-11924	Plutonium-238	1.24 g	0.00392	0.00323	0.0228	-.00077258	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248865001	RE46-10-11924	Plutonium-239/240	1.24 g	0.00192	0.00423	0.0193	-.00204032	pCi/g	NO
248866001	RE46-10-11885	Plutonium-238	1.25 g	0.00212	0.00263	0.022	-.0007664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00661	0.00333	0.0186	-.002024	pCi/g	NO
248866002	RE46-10-11886	Plutonium-238	1.26 g	0.00231	0.00287	0.024	-.00076032	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00412	0.0034	0.0203	-.00200794	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962718	CHAMBER : 111	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248866001_PU	DETECTOR S/N : 79462	BKG FILE : B111.CNF;690
SAMPLE QTY : 1.246 G	AVERAGE %EFFICIENCY : 34.9158	BKG DATE : 21-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 24-MAR-2010 11:26:40	BKG LIVE TIME(SEC) : 59999.99
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W111.CNF;211
% YIELD : 87.054		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0020E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6134E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5766.549	43.903	648.000	648.000	0.000	0.0000	100.0000	1.09E+00	7.54E-02	0.00E+00	4.48E-03	4.26E-02
PU-238	5499.000	5422.754	29.720	2.000	1.280	0.720	2.4495	99.90000	2.12E-03	2.63E-03	8.74E-03	2.20E-02	2.63E-03
PU-9/0	5155.000	5130.161	4.953	4.000	4.000	0.000	1.9732	99.90000	6.61E-03	3.33E-03	7.04E-03	1.86E-02	3.31E-03
PU242	4890.000	4806.607	188.230	4.000	1.120	2.880	*******	100.0000	1.85E-03	4.07E-03	4.44E-01	8.93E-01	4.07E-03
PU-244	4589.000	4560.380	4.953	1.000	1.000	0.000	6.4609	99.90000	1.65E-03	1.66E-03	2.30E-02	5.06E-02	1.65E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

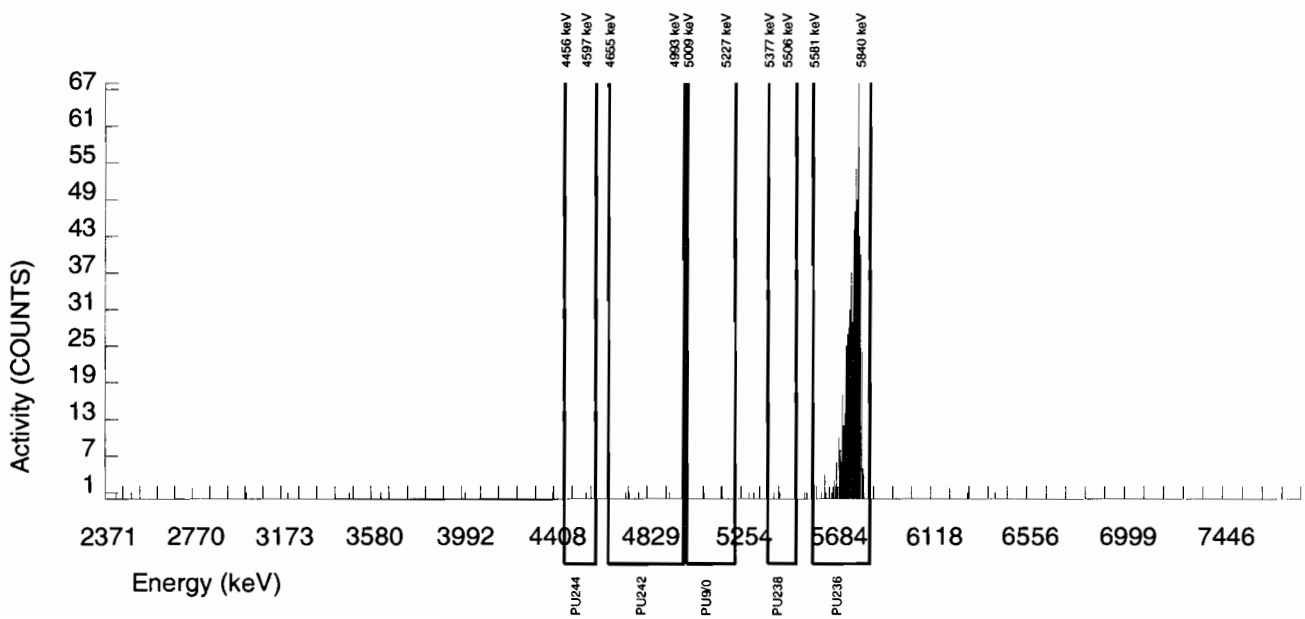

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962718	CHAMBER : 112	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248866002_PU	DETECTOR S/N : 78261	BKG FILE : B112.CNF;698
SAMPLE QTY : 1.262 G	AVERAGE %EFFICIENCY : 33.5504	BKG DATE : 21-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 24-MAR-2010 11:26:40	BKG LIVE TIME(SEC) : 59999.99
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W112.CNF;223
% YIELD : 81.828		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0020E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.4565E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5759.198	43.148	586.000	585.280	0.720	0.8485	100.0000	1.07E+00	7.71E-02	3.31E-03	1.15E-02	4.43E-02
PU-238	5499.000	5459.428	9.196	2.000	1.280	0.720	2.4495	99.90000	2.31E-03	2.87E-03	9.55E-03	2.40E-02	2.87E-03
PU-9/0	5155.000	5079.912	0.000	3.000	2.280	0.720	1.9732	99.90000	4.12E-03	3.40E-03	7.69E-03	2.03E-02	3.39E-03
PU242	4890.000	4877.047	250.141	5.000	2.840	2.160	*******	100.0000	5.13E-03	4.63E-03	4.86E-01	9.76E-01	4.62E-03
PU-244	4589.000	4525.294	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.81E-03	2.52E-02	5.53E-02	1.81E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

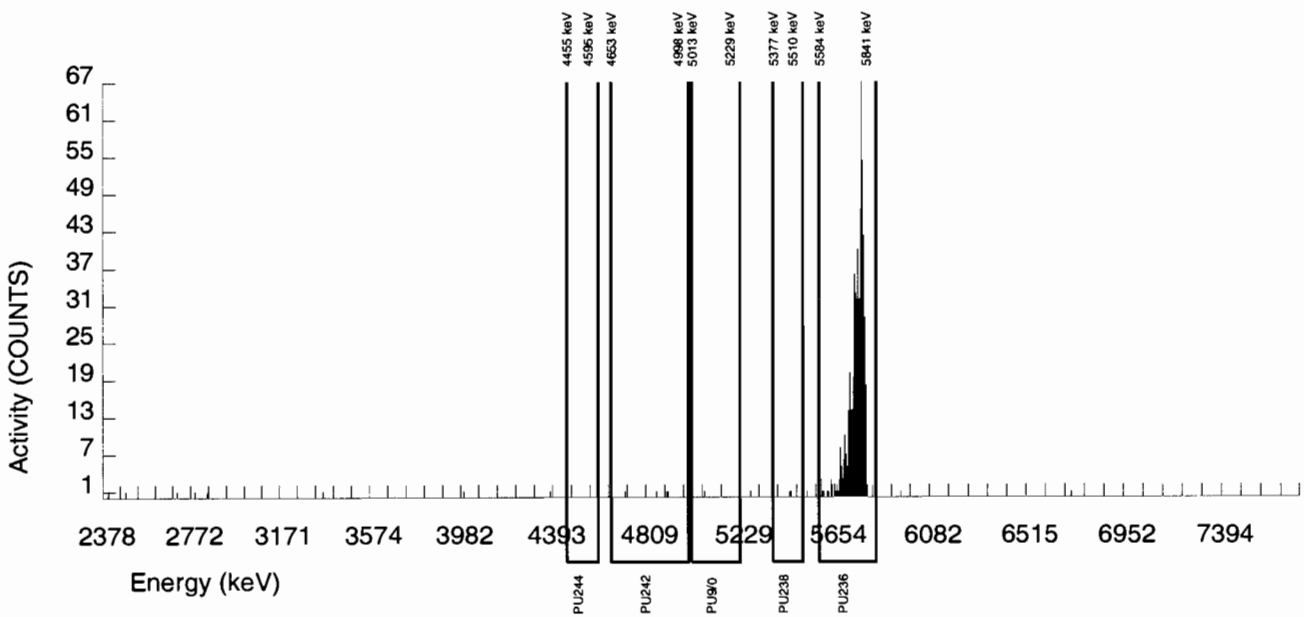

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962718	CHAMBER : 096	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202065378_PU	DETECTOR S/N : 80016	BKG FILE : B096.CNF;689
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 32.7970	BKG DATE : 21-MAR-2010
SAMPLE DATE : 18-MAR-2010 00:00:00	COUNT DATE : 24-MAR-2010 10:20:39	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W096.CNF;181
% YIELD : 87.670		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9742E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6075E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5772.466	28.919	613.000	613.000	0.000	0.0000	100.0000	1.34E+00	9.49E-02	0.00E+00	5.90E-03	5.41E-02
PU-238	5499.000	5399.575	4.925	1.000	-0.440	1.440	2.4495	99.90000	-9.58E-04	3.11E-03	1.15E-02	2.89E-02	3.11E-03
PU-9/0	5155.000	5112.762	4.925	1.000	-1.160	2.160	1.9732	99.90000	-2.53E-03	3.48E-03	9.27E-03	2.44E-02	3.48E-03
PU242	4890.000	4825.302	0.000	0.000	-2.880	2.880	*******	100.0000	-6.27E-03	3.82E-03	5.85E-01	1.18E+00	3.81E-03
PU-244	4589.000	4526.814	0.000	0.000	-0.720	0.720	6.4609	99.90000	-1.57E-03	2.69E-03	3.04E-02	6.66E-02	2.68E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

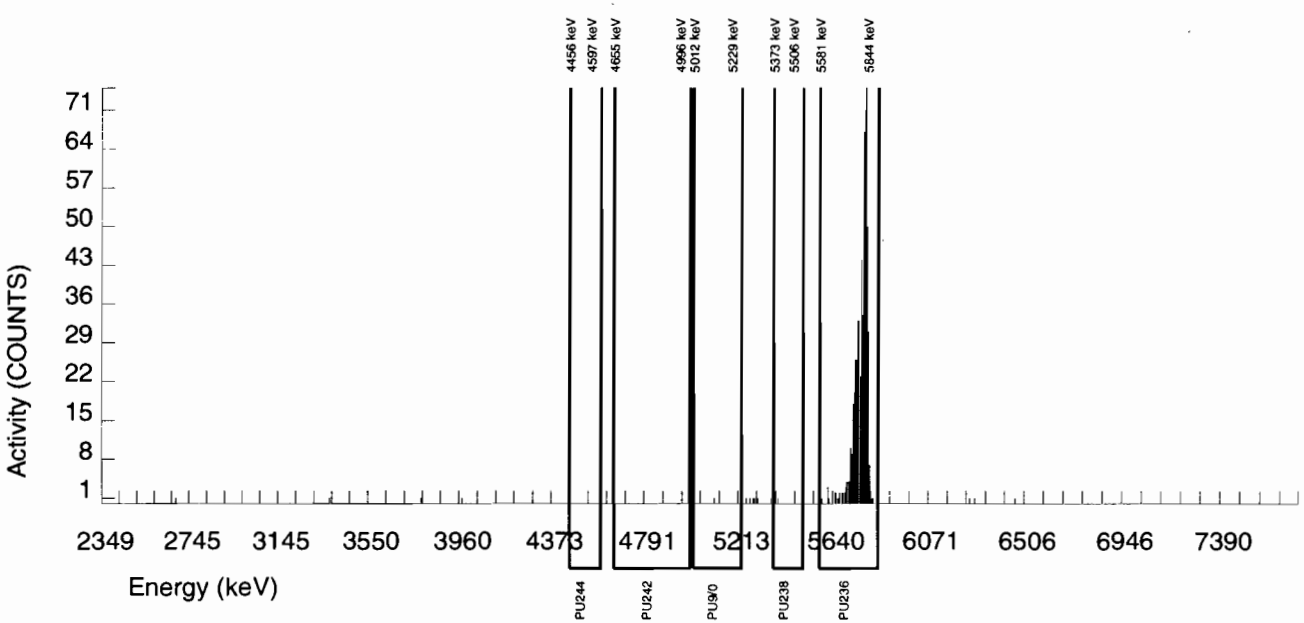

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962718	CHAMBER : 097	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202065379_PU	DETECTOR S/N : 67599	BKG FILE : B097.CNF;686
SAMPLE QTY : 1.256 G	AVERAGE %EFFICIENCY : 34.7742	BKG DATE : 21-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 24-MAR-2010 10:20:39	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W097.CNF;195
% YIELD : 84.320		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0020E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.5313E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5775.399	53.625	628.000	625.120	2.880	1.6971	100.0000	1.08E+00	7.59E-02	6.22E-03	1.70E-02	4.32E-02
PU-238	5499.000	5468.490	29.576	5.000	2.120	2.880	2.4495	99.90000	3.61E-03	4.53E-03	8.99E-03	2.26E-02	4.52E-03
PU-9/0	5155.000	5162.713	59.152	3.000	3.000	0.000	1.9732	99.90000	5.10E-03	2.96E-03	7.24E-03	1.91E-02	2.95E-03
PU242	4890.000	4891.467	197.174	4.000	-1.040	5.040	*******	100.0000	-1.77E-03	4.69E-03	4.57E-01	9.18E-01	4.69E-03
PU-244	4589.000	4538.821	103.516	4.000	4.000	0.000	6.4609	99.90000	6.80E-03	3.42E-03	2.37E-02	5.20E-02	3.40E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

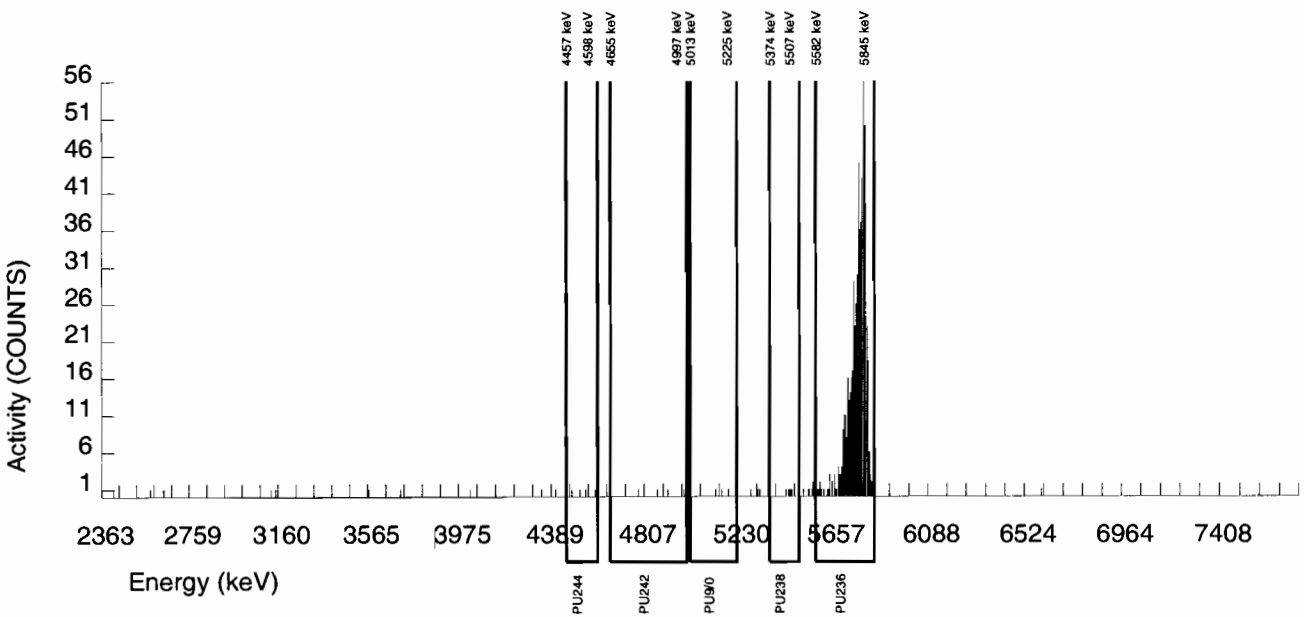

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962718	CHAMBER : 098	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202065380_PU	DETECTOR S/N : 80017	BKG FILE : B098.CNF;692
SAMPLE QTY : 0.106 G	AVERAGE %EFFICIENCY : 35.6488	BKG DATE : 21-MAR-2010
SAMPLE DATE : 18-MAR-2010 00:00:00	COUNT DATE : 24-MAR-2010 10:20:39	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W098.CNF;200
% YIELD : 81.351		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9742E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.4195E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5764.159	31.897	619.000	618.280	0.720	0.8485	100.0000	1.26E+01	9.71E-01	3.73E-02	1.30E-01	5.09E-01
PU-238	5499.000	5471.833	0.000	227.000	226.280	0.720	2.4495	99.90000	4.61E+00	4.31E-01	1.08E-01	2.71E-01	3.07E-01
PU-9/0	5155.000	5147.091	39.185	1895.000	1894.280	0.720	1.9732	99.90000	3.86E+01	2.68E+00	8.67E-02	2.29E-01	8.87E-01
PU242	4890.000	4889.764	62.747	41.000	40.280	0.720	*******	100.0000	8.20E-01	1.42E-01	5.47E+00	1.10E+01	1.31E-01
PU-244	4589.000	4547.598	0.000	5.000	4.280	0.720	6.4609	99.90000	8.72E-02	4.82E-02	2.84E-01	6.23E-01	4.79E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

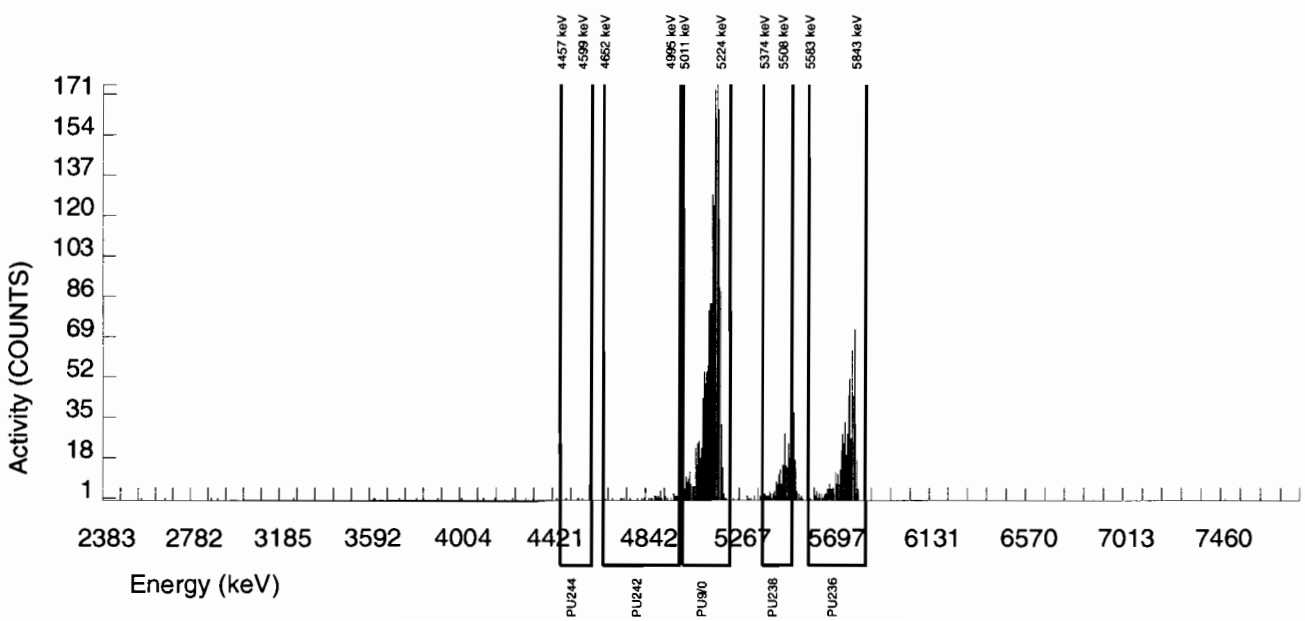

Radiochemistry Batch Checklist, Rev10

Batch# 962721 Product: U Date: 3/25/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples. < 5% of lowest activity)	✓		case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/25/10

Secondary Review Performed By: [signature] 3/25/10

3/26

LANL

PV

Uranium Que Sheet

08-MAR-10

Batch #: 962721 **Analyst:** MXE1 **First Client Due Date:** 26-MAR-10 **Internal Due Date:** 16-MAR-10

Tracer Isotope: U-232/U-236 **Tracer Code:** 1283-H **Expiration Date:** 12/9/10 **Vol:** 0.1 **Analyzed Sequentially with Pu**

LCS Isotope: U-238 **LCS Code:** / **Expiration Date:** / **Vol:** / **Pu-236 ID:** N/A

Spike Isotope: U-238 **Spike Code:** NA **Expiration Date:** NA **Vol:** NA **Vol.:**

Prep Date: 3/18/10 **Initials:** ME **Pipet ID:** 2971058 **Balance ID:** 50410212 **Witness:** JEH 3-18-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/l)	U Det #
248800001-1	RE11-10-1756	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	1	1	0.501	115
248800002-1	RE11-10-1762	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	2	2	0.497	116
248800003-1	RE11-10-1764	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	3	3	0.501	145
248800004-1	RE11-10-1776	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	4	4	0.492	146
248800005-1	RE11-10-1766	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	5	5	0.499	147
248800006-1	RE11-10-1763	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	6	6	0.490	148
248800007-1	RE11-10-1761	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	7	7	0.494	149
248800008-1	RE11-10-1765	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	8	8	0.498	150
248800009-1	RE11-10-1768	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	9	9	0.504	151
248800010-1	RE11-10-1767	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	10	10	0.493	152
248800011-1	RE11-10-1769	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	11	11	0.494	153
248800012-1	RE11-10-1770	SAMPLE		.1 pCi/g	SOIL	LANL010	01-MAR-10	12	12	0.499	154
248863001-1	RE46-10-12936	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	13	13	0.492	155
248863002-1	RE46-10-12930	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	14	14	0.513	156
248863003-1	RE46-10-12929	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	15	15	0.515	157
248863004-1	RE46-10-12935	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	16	16	0.516	158
248865001-1	RE46-10-11924	SAMPLE		.1 pCi/g	SOIL	LANL010	03-MAR-10	17	17	0.527	159
248866001-1	RE46-10-11885	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	18	18	0.513	160
248866002-1	RE46-10-11886	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	19	19	0.511	3
1202065398-1	MB for batch 962721	MB		.1 pCi/g	SOIL	QC ACCOUNT		20	20	1.0	4
1202065399-1	RE46-10-11885(248866001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	04-MAR-10	21	21	0.500	5
1202065400-1	LCS for batch 962721	LCS		.1 pCi/g	SOIL	QC ACCOUNT		22	22	0.114	6

SRM 0244-A exp 10/31/20

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: [illegible] 3/25/10

Blank Correction Report

Batch ID 962721

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202065399	DUP	Uranium-233/234	0.500 g	0.758	0.075	0.0986	.0276	pCi/g	NO
		Uranium-235/236	0.500 g	0.0389	0.017	0.0602	.01304	pCi/g	YES
		Uranium-238	0.500 g	0.843	0.0812	0.0693	-.00704	pCi/g	NO
1202065400	LCS	Uranium-233/234	0.114 g	5.99	0.541	0.396	.121052632	pCi/g	NO
		Uranium-235/236	0.114 g	0.208	0.0668	0.242	.057192982	pCi/g	YES
		Uranium-238	0.114 g	5.05	0.468	0.278	-.03087719	pCi/g	NO
1202065398	MB	Uranium-233/234	1.00 g	0.0138	0.00662	0.0496	.0138	pCi/g	YES
		Uranium-235/236	1.00 g	0.00652	0.00488	0.0303	.00652	pCi/g	YES
		Uranium-238	1.00 g	-0.00352	0.00498	0.0349	-.00352	pCi/g	NO
248800001	RE11-10-1756	Uranium-233/234	0.501 g	0.973	0.0931	0.108	.027544910	pCi/g	NO
		Uranium-235/236	0.501 g	0.0618	0.0177	0.0662	.013013972	pCi/g	YES
		Uranium-238	0.501 g	1.03	0.0972	0.0762	-.00702595	pCi/g	NO
248800002	RE11-10-1762	Uranium-233/234	0.497 g	0.842	0.0839	0.112	.027766600	pCi/g	NO
		Uranium-235/236	0.497 g	0.0196	0.00988	0.0681	.013118712	pCi/g	YES
		Uranium-238	0.497 g	0.803	0.0809	0.0784	-.00708249	pCi/g	NO
248800003	RE11-10-1764	Uranium-233/234	0.501 g	0.834	0.0867	0.126	.027544910	pCi/g	NO
		Uranium-235/236	0.501 g	0.0717	0.022	0.0768	.013013972	pCi/g	NO
		Uranium-238	0.501 g	0.861	0.0887	0.0884	-.00702595	pCi/g	NO
248800004	RE11-10-1776	Uranium-233/234	0.492 g	1.10	0.113	0.154	.028048780	pCi/g	NO
		Uranium-235/236	0.492 g	0.0542	0.0196	0.0944	.013252033	pCi/g	YES
		Uranium-238	0.492 g	1.08	0.112	0.109	-.00715447	pCi/g	NO
248800005	RE11-10-1766	Uranium-233/234	0.499 g	0.637	0.0657	0.0962	.027655311	pCi/g	NO
		Uranium-235/236	0.499 g	0.0295	0.0114	0.0587	.013066132	pCi/g	YES
		Uranium-238	0.499 g	0.627	0.0648	0.0676	-.00705411	pCi/g	NO
248800006	RE11-10-1763	Uranium-233/234	0.490 g	1.84	0.161	0.122	.028163265	pCi/g	NO
		Uranium-235/236	0.490 g	0.0855	0.0247	0.0744	.013306122	pCi/g	NO
		Uranium-238	0.490 g	1.82	0.159	0.0857	-.00718367	pCi/g	NO
248800007	RE11-10-1761	Uranium-233/234	0.494 g	1.03	0.102	0.130	.027935223	pCi/g	NO
		Uranium-235/236	0.494 g	0.0625	0.0194	0.0792	.013198381	pCi/g	YES
		Uranium-238	0.494 g	1.06	0.105	0.0912	-.00712551	pCi/g	NO
248800008	RE11-10-1765	Uranium-233/234	0.498 g	1.34	0.127	0.131	.027710843	pCi/g	NO
		Uranium-235/236	0.498 g	0.0403	0.0155	0.0803	.013092369	pCi/g	YES
		Uranium-238	0.498 g	1.35	0.127	0.0924	-.00706827	pCi/g	NO
248800009	RE11-10-1768	Uranium-233/234	0.504 g	0.772	0.0825	0.129	.027380952	pCi/g	NO
		Uranium-235/236	0.504 g	0.0284	0.0129	0.0791	.012936508	pCi/g	YES
		Uranium-238	0.504 g	0.831	0.0872	0.091	-.00698413	pCi/g	NO
248800010	RE11-10-1767	Uranium-233/234	0.493 g	2.56	0.223	0.145	.027991886	pCi/g	NO
		Uranium-235/236	0.493 g	0.146	0.0324	0.0886	.013225152	pCi/g	NO
		Uranium-238	0.493 g	2.69	0.232	0.102	-.00713996	pCi/g	NO
248800011	RE11-10-1769	Uranium-233/234	0.494 g	2.38	0.204	0.130	.027935223	pCi/g	NO
		Uranium-235/236	0.494 g	0.103	0.0253	0.0794	.013198381	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248800011	RE11-10-1769	Uranium-238	0.494 g	2.38	0.204	0.0914	-.00712551	pCi/g	NO
248800012	RE11-10-1770	Uranium-233/234	0.499 g	0.757	0.0753	0.101	.027655311	pCi/g	NO
		Uranium-235/236	0.499 g	0.0265	0.0126	0.0616	.013066132	pCi/g	YES
		Uranium-238	0.499 g	0.783	0.0772	0.0709	-.00705411	pCi/g	NO
248863001	RE46-10-12936	Uranium-233/234	0.492 g	0.824	0.0821	0.109	.028048780	pCi/g	NO
		Uranium-235/236	0.492 g	0.0383	0.0154	0.0667	.013252033	pCi/g	YES
		Uranium-238	0.492 g	0.848	0.0839	0.0767	-.00715447	pCi/g	NO
248863002	RE46-10-12930	Uranium-233/234	0.513 g	0.713	0.0735	0.106	.026900585	pCi/g	NO
		Uranium-235/236	0.513 g	0.0606	0.0186	0.065	.012709552	pCi/g	YES
		Uranium-238	0.513 g	0.755	0.0765	0.0748	-.00686160	pCi/g	NO
248863003	RE46-10-12929	Uranium-233/234	0.515 g	0.861	0.0844	0.105	.026796117	pCi/g	NO
		Uranium-235/236	0.515 g	0.0369	0.0148	0.0642	.012660194	pCi/g	YES
		Uranium-238	0.515 g	0.749	0.0756	0.0739	-.00683495	pCi/g	NO
248863004	RE46-10-12935	Uranium-233/234	0.516 g	0.915	0.0904	0.114	.026744186	pCi/g	NO
		Uranium-235/236	0.516 g	0.0747	0.0224	0.0694	.012635659	pCi/g	NO
		Uranium-238	0.516 g	0.886	0.0881	0.0799	-.00682171	pCi/g	NO
248865001	RE46-10-11924	Uranium-233/234	0.527 g	0.865	0.0842	0.104	.026185958	pCi/g	NO
		Uranium-235/236	0.527 g	0.050	0.0155	0.0634	.012371917	pCi/g	YES
		Uranium-238	0.527 g	0.865	0.0844	0.073	-.00667932	pCi/g	NO
248866001	RE46-10-11885	Uranium-233/234	0.513 g	0.963	0.0913	0.102	.026900585	pCi/g	NO
		Uranium-235/236	0.513 g	0.0178	0.011	0.0621	.012709552	pCi/g	YES
		Uranium-238	0.513 g	0.906	0.0869	0.0715	-.00686160	pCi/g	NO
248866002	RE46-10-11886	Uranium-233/234	0.511 g	0.812	0.0752	0.0819	.027005871	pCi/g	NO
		Uranium-235/236	0.511 g	0.0323	0.0121	0.050	.012759295	pCi/g	YES
		Uranium-238	0.511 g	0.688	0.0661	0.0576	-.00688845	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962721	CHAMBER : 160	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248866001_UU	DETECTOR S/N : 79994	BKG FILE : B160.CNF;385
SAMPLE QTY : 0.513 G	AVERAGE %EFFICIENCY : 25.7982	BKG DATE : 21-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 24-MAR-2010 11:55:42	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W160.CNF;120
% YIELD : 94.337		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5018E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.2469E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5308.451	32.656	1099.000	1095.000	4.000	2.0000	100.0000	3.95E+00	3.09E-01	1.68E-02	4.34E-02	1.20E-01
U-3/4	4763.020	4762.850	33.995	270.000	266.891	2.000	5.4790	100.0000	9.63E-01	9.13E-02	4.60E-02	1.02E-01	5.94E-02
U-235	4391.000	4398.664	7.332	5.000	4.000	1.000	2.4127	80.90000	1.78E-02	1.10E-02	2.50E-02	6.21E-02	1.09E-02
U-238	4184.730	4191.603	31.843	252.000	251.000	1.000	3.6781	100.0000	9.06E-01	8.69E-02	3.09E-02	7.15E-02	5.74E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

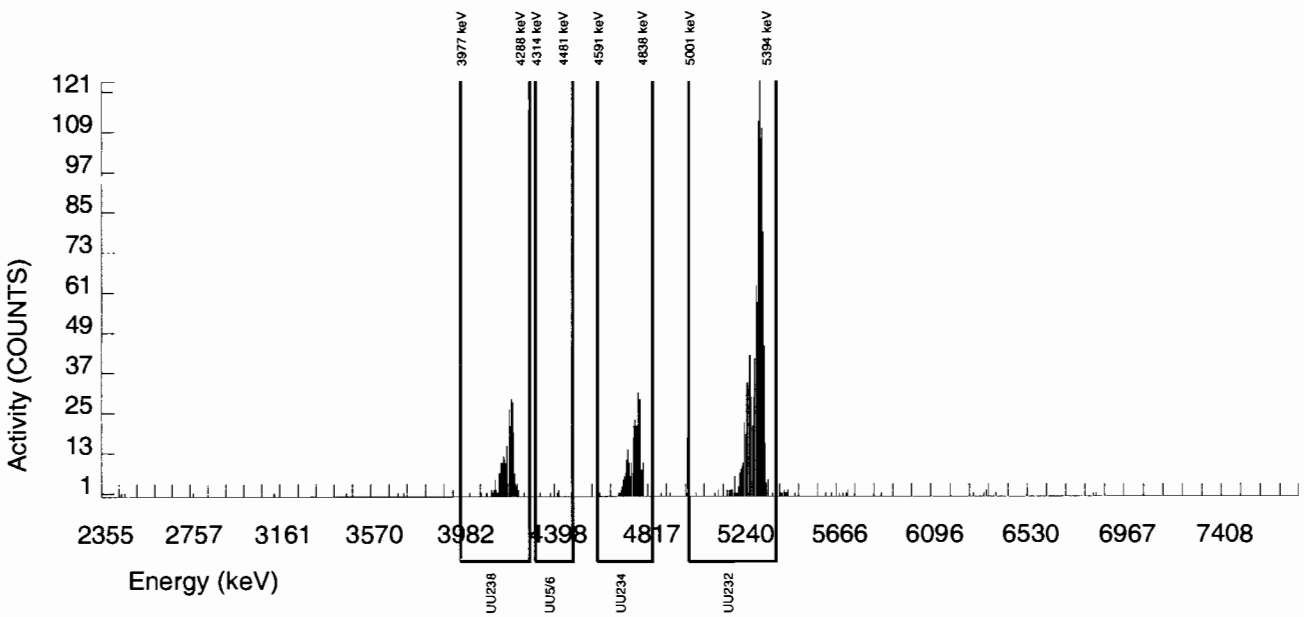

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962721	CHAMBER : 003	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248866002_UU	DETECTOR S/N : 79453	BKG FILE : B003.CNF;1120
SAMPLE QTY : 0.511 G	AVERAGE %EFFICIENCY : 32.1827	BKG DATE : 21-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 24-MAR-2010 11:55:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W003.CNF;343
% YIELD : 94.338		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5018E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.2470E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5318.867	38.784	1372.000	1366.000	6.000	2.4495	100.0000	3.97E+00	3.01E-01	1.65E-02	4.10E-02	1.08E-01
U-3/4	4763.020	4772.257	36.559	281.000	279.616	0.000	5.4790	100.0000	8.12E-01	7.52E-02	3.70E-02	8.19E-02	4.86E-02
U-235	4391.000	4405.897	14.857	10.000	9.000	1.000	2.4127	80.90000	3.23E-02	1.21E-02	2.01E-02	5.00E-02	1.19E-02
U-238	4184.730	4199.359	62.130	237.000	237.000	0.000	3.6781	100.0000	6.88E-01	6.61E-02	2.48E-02	5.76E-02	4.47E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

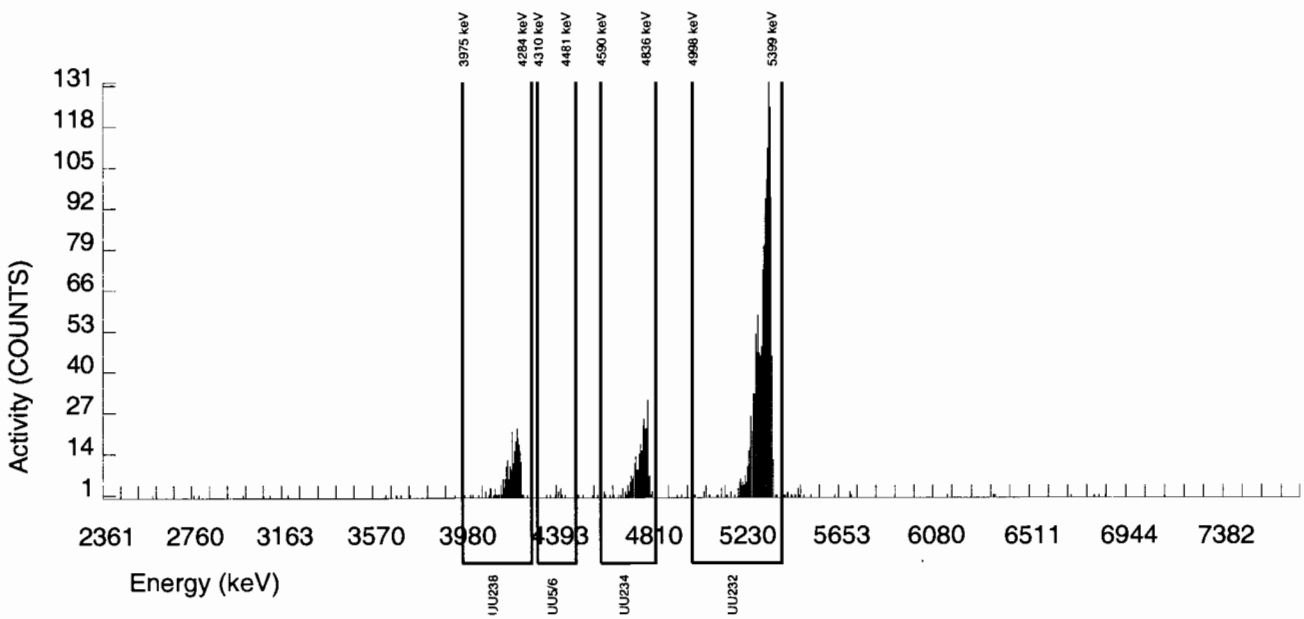

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962721	CHAMBER : 004	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202065398_UU	DETECTOR S/N : 68548	BKG FILE : B004.CNF;1129
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 31.2086	BKG DATE : 21-MAR-2010
SAMPLE DATE : 18-MAR-2010 00:00:00	COUNT DATE : 24-MAR-2010 11:55:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W004.CNF;332
% YIELD : 82.042		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5001E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.6920E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5273.533	36.911	1158.000	1152.000	6.000	2.4495	100.0000	2.03E+00	1.57E-01	1.00E-02	2.48E-02	6.00E-02
U-3/4	4763.020	4702.550	214.003	12.000	7.833	3.000	5.4790	100.0000	1.38E-02	6.62E-03	2.24E-02	4.96E-02	6.54E-03
U-235	4391.000	4366.312	92.410	4.000	3.000	1.000	2.4127	80.90000	6.52E-03	4.88E-03	1.22E-02	3.03E-02	4.86E-03
U-238	4184.730	4108.434	131.320	3.000	-2.000	5.000	3.6781	100.0000	-3.52E-03	4.98E-03	1.51E-02	3.49E-02	4.98E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

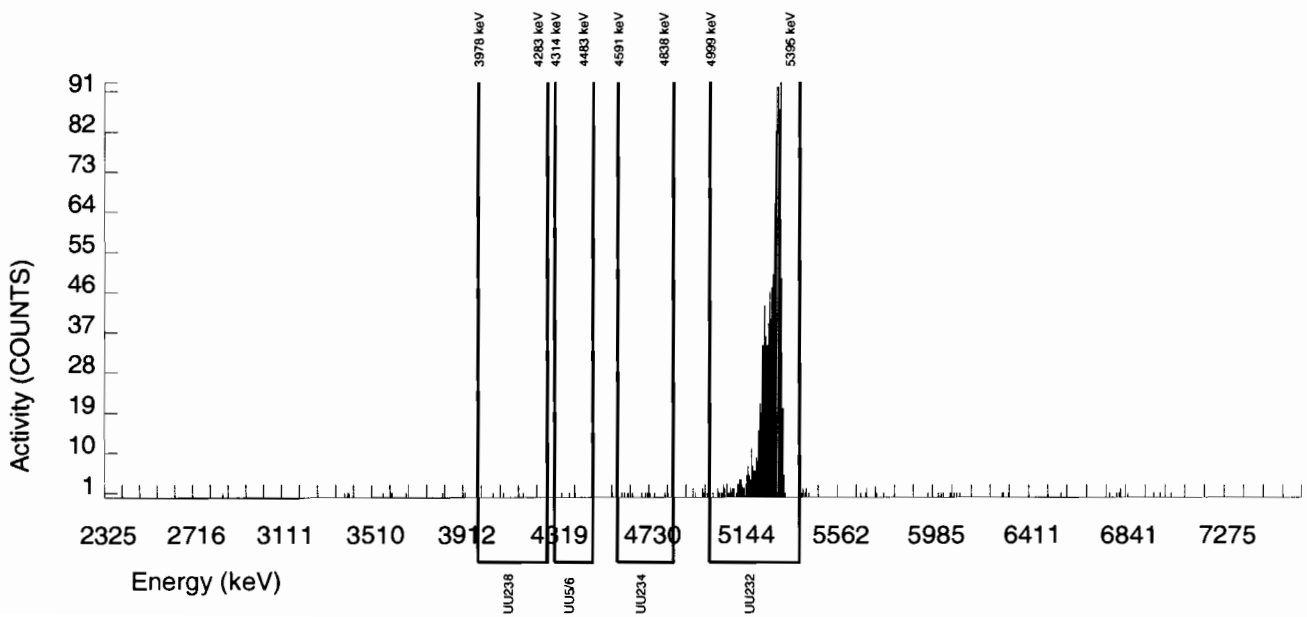

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962721	CHAMBER : 005	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202065399_UU	DETECTOR S/N : 79454	BKG FILE : B005.CNF;1115
SAMPLE QTY : 0.500 G	AVERAGE %EFFICIENCY : 33.5469	BKG DATE : 21-MAR-2010
SAMPLE DATE : 4-MAR-2010 00:00:00.	COUNT DATE : 24-MAR-2010 11:55:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W005.CNF;339
% YIELD : 76.788		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5018E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.4568E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5273.021	34.245	1164.000	1159.000	5.000	2.2361	100.0000	4.06E+00	3.14E-01	1.82E-02	4.59E-02	1.20E-01
U-3/4	4763.020	4727.656	76.853	219.000	216.826	1.000	5.4790	100.0000	7.58E-01	7.50E-02	4.46E-02	9.86E-02	5.17E-02
U-235	4391.000	4409.247	63.380	12.000	9.000	3.000	2.4127	80.90000	3.89E-02	1.70E-02	2.43E-02	6.02E-02	1.67E-02
U-238	4184.730	4162.262	36.103	241.000	241.000	0.000	3.6781	100.0000	8.43E-01	8.12E-02	2.99E-02	6.93E-02	5.43E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

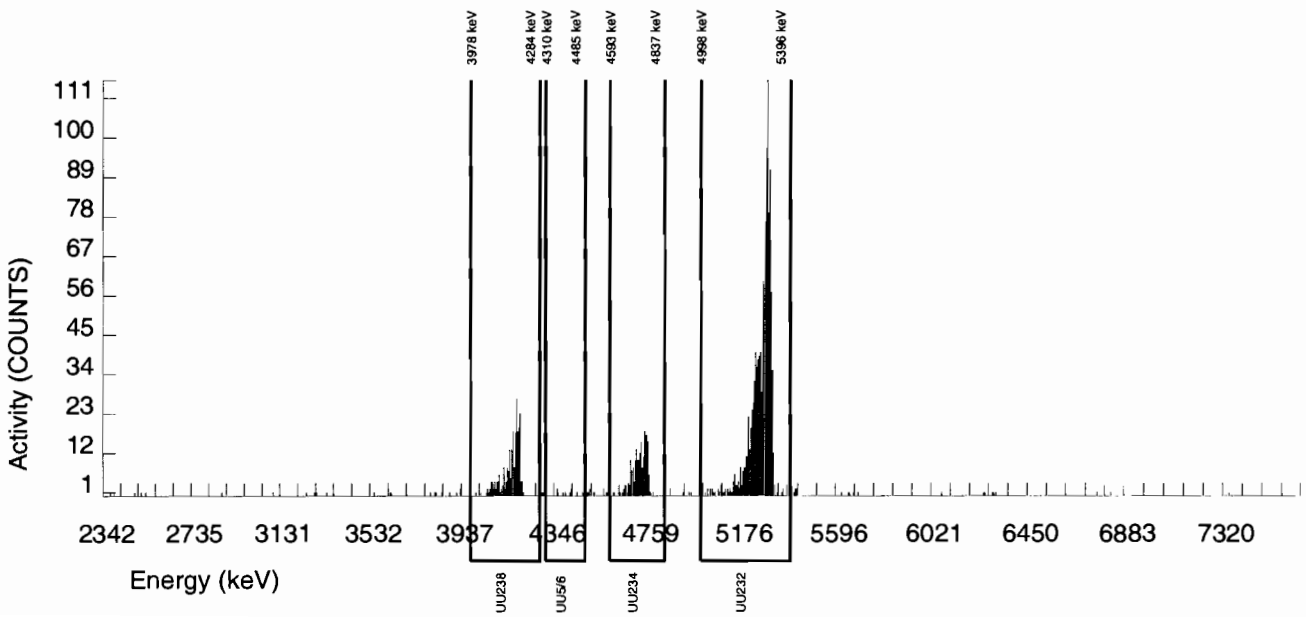

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962721	CHAMBER : 006	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202065400_UU	DETECTOR S/N : 79455	BKG FILE : B006.CNF;1128
SAMPLE QTY : 0.114 G	AVERAGE %EFFICIENCY : 32.0671	BKG DATE : 21-MAR-2010
SAMPLE DATE : 18-MAR-2010 00:00:00	COUNT DATE : 24-MAR-2010 11:55:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXE1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W006.CNF;363
% YIELD : 87.817		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5001E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9518E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.930	33.478	1268.000	1267.000	1.000	1.0000	100.0000	1.78E+01	1.44E+00	3.26E-02	1.03E-01	5.00E-01
U-3/4	4763.020	4763.992	54.364	430.000	426.716	2.000	5.4790	100.0000	5.99E+00	5.41E-01	1.79E-01	3.96E-01	2.91E-01
U-235	4391.000	4395.259	48.288	13.000	12.000	1.000	2.4127	80.90000	2.08E-01	6.68E-02	9.74E-02	2.42E-01	6.49E-02
U-238	4184.730	4188.036	45.857	360.000	360.000	0.000	3.6781	100.0000	5.05E+00	4.68E-01	1.20E-01	2.78E-01	2.66E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

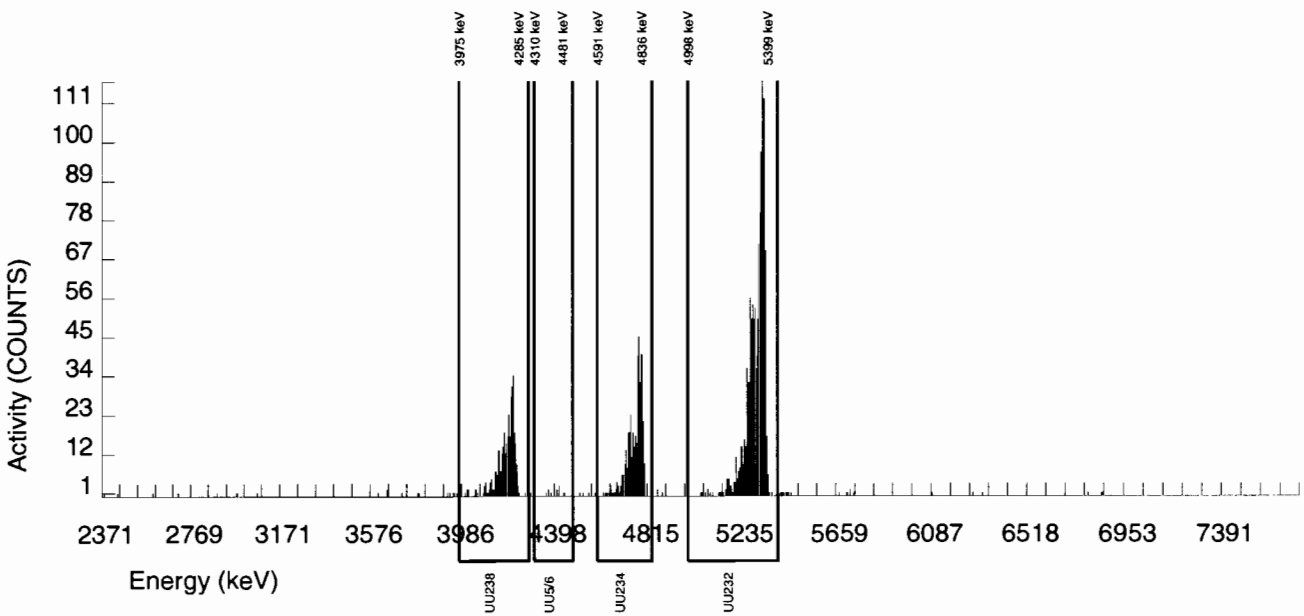

Radiochemistry Batch Checklist, Rev10

Batch# 962633 **Product:** Gamma Solid LANL **Date:** 03/26/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: 3/26/10

Secondary Review Performed By: 3/29/10

4/3

Gamma Spec Que Sheet I.G.- 3/16/10

03/08/2010

Batch #:962633 **Analyst:** MXR1 **First Client DueDate**04/03/2010 **Internal Due Date:** 03/23/2010

Gamma Spike Isotope: Mixed Gamma **Spike Code:** Na **Expiration Date:** Na **Vol:** Na **Nominal Concentration:** Na

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 10 ml **Nominal Concentration:** Cs137-5.685 Co60-6.485 Am241-16.29

Initials: MS **Prep Date:** 3/9/10 **Library:** SOLID **Witness:** Na

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Wet/Dry Aliquot (1/E/F)	Detector	Sealing Date/Time (if Applicable)
248860001-1	RE46-10-13782	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF	can	125.62	15	3/9/10
248860002-1	RE46-10-13783	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		124.16	18	
248860003-1	RE46-10-13777	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		133.02	22	
248860004-1	RE46-10-13775	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		143.70	23	
248860005-1	RE46-10-13776	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		127.04	25	
248860006-1	RE46-10-13781	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		132.12	2	
248860007-1	RE46-10-13779	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		129.80	5	
248860008-1	RE46-10-13780	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		129.23	10	
248860009-1	RE46-10-13778	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF		143.35	12	
248863001-1	RE46-10-12936	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		125.19	15	
248863002-1	RE46-10-12930	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		123.50	22	
248863003-1	RE46-10-12929	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		122.05	23	
248863004-1	RE46-10-12935	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		126.96	4	
248865001-1	RE46-10-11924	SAMPLE		LANL010	SOIL	03-MAR-10 12:00:00 K		125.14	7	
248866001-1	RE46-10-11885	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		133.00	15	
248866002-1	RE46-10-11886	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 K		115.19	17	
248867001-1	RE46-10-12931	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		122.07	29	
248867002-1	RE46-10-12932	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		143.48	22	
248867003-1	RE46-10-12934	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		112.39	5	
248867004-1	RE46-10-12933	SAMPLE		LANL010	SOIL	05-MAR-10 12:00:00 K		121.04	15	
1202065188-1	MB	MB		QC ACCOUNT	SOIL	3/9/10 K		143.70	29	
1202065189-1	DUP RE46-10-12931(248867001)	DUP		QC ACCOUNT	SOIL	05-MAR-10 12:00:00 K		122.07	21	
1202065190-1	LCS	LCS		QC ACCOUNT	SOIL	3/9/10 RF		151.73	22	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: [illegible] 3/26/10

M Stamps 3/29/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
962633	248860001	SAMPLE	24-MAR-10		Americium-241	-0.3988	0.5503	0.200
					Cerium-139	-0.0071	0.0713	0.050
					Europium-152	0.06987	0.2181	0.200
					Sodium-22	0.02774	0.101	0.080
					Thorium-234	0.3111	4.547	2.00
962633	248860002	SAMPLE	24-MAR-10		Americium-241	0.1165	0.3079	0.200
					Thorium-234	1.922	2.747	2.00
962633	248860003	SAMPLE	24-MAR-10		Americium-241	-0.02836	0.2157	0.200
					Thorium-234	0.6605	2.082	2.00
962633	248860004	SAMPLE	24-MAR-10		Americium-241	-0.15	0.3195	0.200
					Cerium-139	-0.01747	0.05093	0.050
					Thorium-234	1.76	2.867	2.00
962633	248860005	SAMPLE	24-MAR-10		Sodium-22	0.01003	0.09245	0.080
962633	248860006	SAMPLE	24-MAR-10		Americium-241	-0.1191	0.3087	0.200
					Cerium-139	-0.01638	0.0569	0.050
					Thorium-234	1.156	3.073	2.00
962633	248860007	SAMPLE	24-MAR-10		Cerium-139	-0.00892	0.05761	0.050
					Cesium-134	0.08795	0.1079	0.100
					Europium-152	0.1143	0.2013	0.200
					Sodium-22	0.00767	0.09701	0.080
962633	248860008	SAMPLE	24-MAR-10		Americium-241	0.02648	0.392	0.200
					Cerium-139	0.00647	0.05278	0.050
					Sodium-22	-0.02702	0.08143	0.080
					Thorium-234	1.437	3.271	2.00
962633	248860009	SAMPLE	24-MAR-10		Americium-241	0.08355	0.2671	0.200
					Cerium-139	-0.01125	0.05385	0.050
					Thorium-234	0.6321	2.451	2.00
962633	248863001	SAMPLE	24-MAR-10		Americium-241	-0.2062	0.5504	0.200
					Cerium-139	0.00164	0.06933	0.050
					Cesium-134	0.09766	0.1196	0.100
					Europium-152	0.00035	0.2226	0.200
					Mercury-203	0.0466	0.1027	0.100
					Sodium-22	-0.03472	0.09586	0.080
					Thorium-234	1.347	4.581	2.00
962633	248863002	SAMPLE	24-MAR-10		Americium-241	0.2093	0.245	0.200
					Cerium-139	0.02473	0.05406	0.050
962633	248863003	SAMPLE	24-MAR-10		Americium-241	0.06604	0.3876	0.200
					Cerium-139	-0.0204	0.06107	0.050
					Cesium-134	0.07323	0.1031	0.100
					Sodium-22	-0.01091	0.08483	0.080
962633	248863004	SAMPLE	24-MAR-10		Americium-241	0.1208	0.4152	0.200
					Thorium-234	-0.4912	3.22	2.00
962633	248865001	SAMPLE	24-MAR-10		Cerium-139	-0.00785	0.05556	0.050
					Sodium-22	0.01389	0.08378	0.080

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
962633	248866001	SAMPLE	24-MAR-10		Americium-241	-0.3335	0.5114	0.200
					Cerium-139	0.00101	0.06824	0.050
					Europium-152	-0.05316	0.2073	0.200
					Sodium-22	0.00914	0.09725	0.080
					Thorium-234	2.229	4.463	2.00
					Tin-113	0.02021	0.1026	0.100
962633	248866002	SAMPLE	24-MAR-10		Cerium-139	0.00257	0.05962	0.050
					Cobalt-60	0.04517	0.1039	0.100
					Sodium-22	-0.03833	0.1005	0.080
					Yttrium-88	0.0586	0.1006	0.100
962633	248867001	SAMPLE	24-MAR-10		Americium-241	-0.02518	0.3301	0.200
					Cerium-139	0.00997	0.06152	0.050
					Thorium-234	0.7463	2.926	2.00
962633	248867002	SAMPLE	24-MAR-10					
962633	248867003	SAMPLE	24-MAR-10		Cerium-139	-0.00662	0.06122	0.050
					Cesium-134	0.103	0.1249	0.100
					Sodium-22	0.02208	0.1114	0.080
962633	248867004	SAMPLE	24-MAR-10		Americium-241	-0.1815	0.3894	0.200
					Thorium-234	1.582	3.174	2.00
962633	1202065188	MB	24-MAR-10					
962633	1202065189	DUP	24-MAR-10					
962633	1202065190	LCS	25-MAR-10		Cerium-139	0.01006	0.07681	0.050
					Cesium-134	0.07098	0.1333	0.100
					Europium-152	0.01084	0.2676	0.200
					Mercury-203	-0.0163	0.1102	0.100
					Ruthenium-106	-0.1807	0.8255	0.800
					Sodium-22	0.0353	0.08544	0.080
					Thorium-234	-0.8535	3.134	2.00
					Tin-113	-0.02312	0.1307	0.100

Gamma Review Report based on Result > MDA for Batch:962633

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860001	04-MAR-10 12:00	24-MAR-10 16:15	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.904	0.2344	pCi/g	0.3102	N	911.2	3	1.685	IDENTIFIED	10.72	☐		
Annihilation Rad.		0.2352	0.04407	pCi/g	0.06345	N	510.6	1	1.904	IDENTIFIED	18.23	☐		
Bismuth-211	int	4.727	0.3554	pCi/g	0.4474	Y	352.1	2	1.367	IDENTIFIED	5.644	☐	ui	
Bismuth-212	HE	2.345	0.5085	pCi/g	1.505	N	0	7	0	FAIL_ABUND	0	☐		
Bismuth-214	✔	1.243	0.1128	pCi/g	0.1403	0.200	609.4	3	1.637	IDENTIFIED	7.585	☐		
Cadmium-109	int	2.31	0.7012	pCi/g	1.92	Y	87.42	3	1.229	IDENTIFIED	29.73	☐	ui	
Cerium-143		13160	2149	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.195	0.04362	pCi/g	0.121	0.100	0	7	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma		11.45	1.686	pCi/g	4.76	N		0				☐		
Iodine-135		1.74E+21	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-212	✔	2.027	0.1428	pCi/g	0.1271	0.100	238.8	2	1.375	IDENTIFIED	3.727	☐		
Lead-214	✔	1.716	0.1374	pCi/g	0.1601	0.100	352.1	2	1.367	IDENTIFIED	5.644	☐		
Neptunium-237	HE	0.6685	0.2147	pCi/g	0.5708	N	87.42	3	1.229	IDENTIFIED	29.73	☐		
Niobium-95m	HE	0.4874	0.1088	pCi/g	0.3509	N	0	7	0	NOT_IDENTI	0	☐		
Potassium-40	✔	39.73	2.271	pCi/g	0.7555	1.00	1460	1	2.215	IDENTIFIED	2.922	☐		
Promethium-149		656.2	302.6	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Radium-224	int	3.765	0.8432	pCi/g	1.362	Y	241.8	1	1.802	IDENTIFIED	21.71	☐	ui	
Radium-226	✔	1.243	0.1128	pCi/g	0.1403	Y	609.4	3	1.637	IDENTIFIED	7.585	☐		
Radium-228	✔	1.904	0.2344	pCi/g	0.3102	0.500	911.2	3	1.685	IDENTIFIED	10.72	☐		
Strontium-85	la	0.124	0.03193	pCi/g	0.1041	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208	✔	0.5989	0.05573	pCi/g	0.06969	0.080	583.1	1	1.569	IDENTIFIED	8.104	☐		
Thorium-228	nr	2.027	0.1428	pCi/g	0.1271	N	238.8	2	1.375	IDENTIFIED	3.727	☐		
Thorium-230	nr	1.243	0.108	pCi/g	0.1403	N	609.4	3	1.637	IDENTIFIED	7.585	☐		
Thorium-232	nr	1.904	0.2344	pCi/g	0.3102	N	911.2	3	1.685	IDENTIFIED	10.72	☐		
Tin-126	HE	0.224	0.06803	pCi/g	0.1877	N	87.42	3	1.229	IDENTIFIED	29.73	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860002	04-MAR-10 12:00	24-MAR-10 16:15	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.74	0.1822	pCi/g	0.1998	N	910.8	3	1.832	IDENTIFIED	7.983	☐		
Annihilation Rad.		0.1382	0.03062	pCi/g	0.03685	N	510.4	1	2.172	IDENTIFIED	21.9	☐		
Bismuth-211	int	3.582	0.2284	pCi/g	0.278	Y	351.8	2	1.441	IDENTIFIED	5.509	☐	ui	
Bismuth-212	la nr	1.929	0.4139	pCi/g	1.053	N	0	8	0	FAIL_ABUND	0	☐		
Bismuth-214	✔	1.181	0.08634	pCi/g	0.1063	0.200	609	3	1.456	IDENTIFIED	5.765	☐		
Cadmium-109	int	2.394	0.5305	pCi/g	1.314	Y	87.35	3	1.24	IDENTIFIED	21.68	☐	ui	
Cadmium-115	HE	28.61	22.72	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Cerium-143		9978	1438	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.08997	0.027	pCi/g	0.0759	0.100	0	8	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.

Gross Gamma		9.864	1.2	pCi/g	2.367	N		0				☐	
Iodine-133	HE	1.16E+05	1.38E+05	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.801	0.08331	pCi/g	0.08423	0.100	238.7	2	1.157	IDENTIFIED	2.899	☐	
Lead-214 ✔		1.3	0.09032	pCi/g	0.1011	0.100	351.8	2	1.441	IDENTIFIED	5.509	☐	
Mercury-203	la	0.06698	0.02051	pCi/g	0.06549	0.100	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Neptunium-237	HE	0.693	0.1699	pCi/g	0.4016	N	87.35	3	1.24	IDENTIFIED	21.68	☐	
Potassium-40 ✔		34.42	1.533	pCi/g	0.4415	1.00	1460	1	2.198	IDENTIFIED	2.329	☐	
Promethium-149	HE	48.72	188.4	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Radium-224	int	3.793	0.5787	pCi/g	0.9015	Y	241.6	1	1.767	IDENTIFIED	15	☐ ui	
Radium-226 ✔		1.181	0.08634	pCi/g	0.1063	Y	609	3	1.456	IDENTIFIED	5.765	☐	
Radium-228 ✔		1.74	0.1822	pCi/g	0.1998	0.500	910.8	3	1.832	IDENTIFIED	7.983	☐	
Strontium-85	la	0.09479	0.01855	pCi/g	0.06299	Y	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✔		0.5245	0.04041	pCi/g	0.04889	0.080	583	1	1.629	IDENTIFIED	6.637	☐	
Thorium-228	nr	1.801	0.08331	pCi/g	0.08423	N	238.7	2	1.157	IDENTIFIED	2.899	☐	
Thorium-230	nr	1.181	0.08052	pCi/g	0.1063	N	609	3	1.456	IDENTIFIED	5.765	☐	
Thorium-232	nr	1.74	0.1822	pCi/g	0.1998	N	910.8	3	1.832	IDENTIFIED	7.983	☐	
Tin-126	HE	0.2322	0.05146	pCi/g	0.1381	N	87.35	3	1.24	IDENTIFIED	21.68	☐	
Total Uranium		5.7742	2.32E-06	ug/g	4.0899	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860003	04-MAR-10 12:00	24-MAR-10 16:15	20.2	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.839	0.1776	pCi/g	0.2121	N	911.3	3	2.042	IDENTIFIED	6.886	☐	
Annihilation Rad.	HE	0.1044	0.03447	pCi/g	0.04102	N	511	1	2.195	IDENTIFIED	32.63	☐	
Bismuth-211	int	3.859	0.3032	pCi/g	0.3037	Y	352.1	2	1.506	IDENTIFIED	5.289	☐ ui	
Bismuth-212	HE	1.705	0.4014	pCi/g	0.9792	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		0.9632	0.09305	pCi/g	0.1009	0.200	609.3	3	1.751	IDENTIFIED	7.699	☐	
Cadmium-109	int	3.638	0.5037	pCi/g	1.089	Y	87.18	3	1.26	IDENTIFIED	13.02	☐ ui	
Cerium-143		9254	1550	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1052	0.027	pCi/g	0.07901	0.100	0	8	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.2809	0.08439	pCi/g	0.26	N	0	8	0	NOT_IDENTI	0	☐	
Gross Gamma		9.716	1.217	pCi/g	2.534	N		0				☐	
Iodine-135		1.38E+21	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.649	0.12	pCi/g	0.08777	0.100	238.8	2	1.174	IDENTIFIED	3.016	☐	
Lead-214 ✔		1.401	0.1166	pCi/g	0.1104	0.100	352.1	2	1.506	IDENTIFIED	5.289	☐	
Mercury-203	int	0.1122	0.03255	pCi/g	0.05885	0.100	278.3	1	1.976	IDENTIFIED	28.15	☐ ui	
Neptunium-237	int nr	1.053	0.1829	pCi/g	0.3199	N	87.18	3	1.26	IDENTIFIED	13.02	☐	
Niobium-95	HE	0.08004	0.02241	pCi/g	0.07112	N	0	8	0	NOT_IDENTI	0	☐	
Potassium-40 ✔		34.36	1.767	pCi/g	0.4769	1.00	1461	1	2.677	IDENTIFIED	2.342	☐	
Promethium-149	HE	84.07	214.9	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Radium-224	int	4.464	0.6253	pCi/g	0.9396	Y	241.8	1	1.789	IDENTIFIED	12.53	☐ ui	
Radium-226 ✔		0.9632	0.09305	pCi/g	0.1009	Y	609.3	3	1.751	IDENTIFIED	7.699	☐	
Radium-228 ✔		1.839	0.1776	pCi/g	0.2121	0.500	911.3	3	2.042	IDENTIFIED	6.886	☐	
Strontium-85	la	0.1674	0.02235	pCi/g	0.07408	Y	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208 ✔		0.4779	0.04318	pCi/g	0.05092	0.080	583.3	1	1.71	IDENTIFIED	7.231	☐	
Thorium-228	nr	1.649	0.12	pCi/g	0.08777	N	238.8	2	1.174	IDENTIFIED	3.016	☐	

Thorium-230	nr	0.9632	0.08951	pCi/g	0.1009	N	609.3	3	1.751	IDENTIFIED	7.699	☐
Thorium-232	nr	1.839	0.1776	pCi/g	0.2121	N	911.3	3	2.042	IDENTIFIED	6.886	☐
Tin-126	int nr	0.3529	0.04886	pCi/g	0.1061	N	87.18	3	1.26	IDENTIFIED	13.02	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860004	04-MAR-10 12:00	24-MAR-10 16:16	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.307	0.1527	pCi/g	0.2158	N	910.1	3	1.418	IDENTIFIED	11.68	☐	
Annihilation Rad.		0.132	0.03179	pCi/g	0.04806	N	510.4	1	2.075	IDENTIFIED	24.07	☐	
Bismuth-211	int	3.065	0.2289	pCi/g	0.3357	Y	351.4	2	1.328	IDENTIFIED	7.467	☐ ui	
Bismuth-212	HE	1.668	0.4443	pCi/g	1.148	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.9447	0.07533	pCi/g	0.1276	0.200	608.6	3	1.596	IDENTIFIED	7.974	☐	
Cadmium-109	int	1.94	0.6161	pCi/g	1.444	Y	87.22	3	1.215	IDENTIFIED	31.76	☐ ui	
Cadmium-115	HE	6.572	27.39	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cerium-143		12840	1419	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma		7.395	1.154	pCi/g	2.608	N		0				☐	
Lead-212	✓	1.503	0.05399	pCi/g	0.09129	0.100	238.3	2	1.214	IDENTIFIED	3.592	☐	
Lead-214	✓	1.112	0.08306	pCi/g	0.1234	0.100	351.4	2	1.328	IDENTIFIED	7.467	☐	
Neptunium-237	HE	0.5616	0.1783	pCi/g	0.4624	N	87.22	3	1.215	IDENTIFIED	31.76	☐	
Niobium-95m	la nr	0.8159	0.08629	pCi/g	0.3138	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	✓	26.89	0.8756	pCi/g	0.6185	1.00	1459	1	2.233	IDENTIFIED	3.257	☐	
Promethium-149	HE	269.5	213.1	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Radium-224	int	3.749	0.4822	pCi/g	0.9783	Y	241.2	1	1.878	IDENTIFIED	12.86	☐ ui	
Radium-226	✓	0.9447	0.07533	pCi/g	0.1276	Y	608.6	3	1.596	IDENTIFIED	7.974	☐	
Radium-228	✓	1.307	0.1527	pCi/g	0.2158	0.500	910.1	3	1.418	IDENTIFIED	11.68	☐	
Technetium-99m		4.99E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4531	0.03396	pCi/g	0.05076	0.080	582.5	1	1.607	IDENTIFIED	7.495	☐	
Thorium-228	nr	1.503	0.05399	pCi/g	0.09129	N	238.3	2	1.214	IDENTIFIED	3.592	☐	
Thorium-230	nr	0.9447	0.07533	pCi/g	0.1276	N	608.6	3	1.596	IDENTIFIED	7.974	☐	
Thorium-232	nr	1.307	0.1527	pCi/g	0.2158	N	910.1	3	1.418	IDENTIFIED	11.68	☐	
Tin-126	HE	0.1882	0.05977	pCi/g	0.1409	N	87.22	3	1.215	IDENTIFIED	31.76	☐	

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860005	04-MAR-10 12:00	24-MAR-10 16:16	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	2.189	0.2087	pCi/g	0.2453	N	911.2	3	1.726	IDENTIFIED	7.317	☐	
Americium-241	la	0.08707	0.0264	pCi/g	0.08642	0.200	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Annihilation Rad.		0.1253	0.03652	pCi/g	0.04992	N	510.7	1	1.386	IDENTIFIED	28.69	☐	
Bismuth-211	int	4.83	0.3333	pCi/g	0.332	Y	352	2	1.168	IDENTIFIED	4.468	☐ ui	
Bismuth-212	nr	2.414	0.4645	pCi/g	0.8466	N	727.2	1	1.246	IDENTIFIED	17.9	☐	
Bismuth-214	✓	1.424	0.1184	pCi/g	0.1131	0.200	609.4	3	1.291	IDENTIFIED	5.706	☐	
Cadmium-109	int	4.738	0.4677	pCi/g	0.7387	Y	87.32	3	1.325	IDENTIFIED	8.292	☐ ui	
Cerium-143		6943	1254	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1669	0.03531	pCi/g	0.1057	0.100	0	6	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.3926	0.1399	pCi/g	0.2203	N	269.6	1	1.081	IDENTIFIED	35.12	☐	

Gadolinium-153	HE	0.1342	0.05165	pCi/g	0.09547	N	0	6	0	FAIL_ABUND	0	☐	
Gross Gamma		12.02	1.601	pCi/g	3.667	N		0				☐	
Lead-210	HE	0.884	0.3691	pCi/g	0.6106	N	46.63	1	0.7942	IDENTIFIED	41.43	☐	
Lead-212 ✔		2.029	0.13	pCi/g	0.08538	0.100	238.7	2	1.016	IDENTIFIED	2.899	☐	
Lead-214 ✔		1.753	0.1303	pCi/g	0.1159	0.100	352	2	1.168	IDENTIFIED	4.468	☐	
Neptunium-237	int nr	1.371	0.1975	pCi/g	0.2124	N	87.32	3	1.325	IDENTIFIED	8.292	☐	
Potassium-40 ✔		39.4	1.97	pCi/g	0.573	1.00	1461	1	2.056	IDENTIFIED	2.618	☐	
Promethium-149	HE	2.832	217.6	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Radium-224	int	5.003	0.6121	pCi/g	0.9162	Y	241.6	1	1.463	IDENTIFIED	11.04	☐	ui
Radium-226 ✔		1.424	0.1184	pCi/g	0.1131	Y	609.4	3	1.291	IDENTIFIED	5.706	☐	
Radium-228 ✔		2.189	0.2087	pCi/g	0.2453	0.500	911.2	3	1.726	IDENTIFIED	7.317	☐	
Technetium-99m		2.93E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208 ✔		0.6192	0.05549	pCi/g	0.05957	0.080	583.3	1	1.447	IDENTIFIED	6.971	☐	
Thorium-228	nr	2.029	0.13	pCi/g	0.08538	N	238.7	2	1.016	IDENTIFIED	2.899	☐	
Thorium-230	nr	1.424	0.1123	pCi/g	0.1131	N	609.4	3	1.291	IDENTIFIED	5.706	☐	
Thorium-232	nr	2.189	0.2087	pCi/g	0.2453	N	911.2	3	1.726	IDENTIFIED	7.317	☐	
Thorium-234 ✔		1.433	0.4637	pCi/g	0.8081	2.00	63.31	2	0.8813	IDENTIFIED	30.94	☐	
Tin-126	int nr	0.4596	0.04537	pCi/g	0.07151	N	87.32	3	1.325	IDENTIFIED	8.292	☐	
Total Uranium		4.314	1.38E-06	ug/g	1.2049	N		0				☐	
Uranium-238	HE	1.433	0.4637	pCi/g	0.8081	N	63.31	2	0.8813	IDENTIFIED	30.94	☐	

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860006	04-MAR-10 12:00	24-MAR-10 16:27	20.2	SAMPLE	LOAD	1	LANL	LANL010041GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.96	0.2006	pCi/g	0.2775	N	910.5	3	1.802	IDENTIFIED	7.993	☐		
Annihilation Rad.		0.1713	0.03991	pCi/g	0.05218	N	510	1	1.672	IDENTIFIED	22.76	☐		
Bismuth-211	int	4.181	0.3398	pCi/g	0.3571	Y	351.6	2	1.288	IDENTIFIED	5.729	☐	ui	
Bismuth-212	HE	2.312	0.5498	pCi/g	1.334	N	0	8	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔	MS 3/24/10	1.149	0.116	pCi/g	0.1318	0.200	608.8	3	1.333	IDENTIFIED	8.582	☐		
Cadmium-109	~~int~~ LA	3.86	0.4886	pCi/g	1.775	Y	0	8	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Cerium-143		18790	2819	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Cesium-135	HE	0.3571	0.1005	pCi/g	0.3325	N	0	8	0	NOT_IDENTI	0	☐		
Gross Gamma		10.24	1.458	pCi/g	3.354	N		0				☐		
Iodine-135		4.33E+20	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Lead-212 ✔		1.772	0.1361	pCi/g	0.1357	0.100	238.3	2	1.13	IDENTIFIED	4.377	☐		
Lead-214 ✔		1.517	0.1302	pCi/g	0.1299	0.100	351.6	2	1.288	IDENTIFIED	5.729	☐		
Neptunium-237		1.188	0.1916	pCi/g	0.5291	N	0	8	0	NOT_IDENTI	0	☐		
Potassium-40 ✔		36.4	2.012	pCi/g	0.5121	1.00	1460	1	1.98	IDENTIFIED	2.82	☐		
Radium-224	int	3.311	0.5362	pCi/g	1.455	Y	241.4	1	1.377	IDENTIFIED	15.08	☐	ui	
Radium-226 ✔		1.149	0.116	pCi/g	0.1318	Y	608.8	3	1.333	IDENTIFIED	8.582	☐		
Radium-228 ✔		1.96	0.2006	pCi/g	0.2775	0.500	910.5	3	1.802	IDENTIFIED	7.993	☐		
Sodium-24	HE	2.04E+07	1.04E+08	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Thallium-208 ✔		0.6008	0.05471	pCi/g	0.06371	0.080	582.7	1	1.59	IDENTIFIED	7.608	☐		
Thorium-228	nr	1.772	0.1361	pCi/g	0.1357	N	238.3	2	1.13	IDENTIFIED	4.377	☐		
Thorium-230	nr	1.149	0.112	pCi/g	0.1318	N	608.8	3	1.333	IDENTIFIED	8.582	☐		
Thorium-232	nr	1.96	0.2006	pCi/g	0.2775	N	910.5	3	1.802	IDENTIFIED	7.993	☐		

Tin-126	int nr	0.3885	0.04805	pCi/g	0.1744	N	0	8	0	NOT_IDENTI	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860007	04-MAR-10 12:00	24-MAR-10 16:27	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.851	0.2352	pCi/g	0.3028	N	910.8	3	1.702	IDENTIFIED	11.01	☐		
Annihilation Rad.	HE	0.1229	0.04146	pCi/g	0.0584	N	510.3	1	1.356	IDENTIFIED	33.57	☐		
Bismuth-211	int	4.042	0.2985	pCi/g	0.3679	Y	351.4	2	1.228	IDENTIFIED	6.235	☐	ui	
Bismuth-212	HE	2.491	0.6333	pCi/g	1.563	N	0	7	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔		1.406	0.106	pCi/g	0.1447	0.200	608.8	3	1.56	IDENTIFIED	6.246	☐		
Cadmium-109	int	4.826	0.462	pCi/g	1.027	Y	86.88	3	1.323	IDENTIFIED	8.78	☐	ui	
Cadmium-115	HE	21.34	33.84	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cerium-143		13840	2131	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-135	HE	0.5718	0.1563	pCi/g	0.2743	N	269.6	1	1.231	IDENTIFIED	26.81	☐		
Gross Gamma		10.74	1.451	pCi/g	4.519	N		0				☐		
Iodine-135		2.73E+21	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-212 ✔		1.883	0.1194	pCi/g	0.104	0.100	238.3	2	1.262	IDENTIFIED	3.302	☐		
Lead-214 ✔		1.467	0.1156	pCi/g	0.1351	0.100	351.4	2	1.228	IDENTIFIED	6.235	☐		
Neptunium-237	int nr	1.397	0.1983	pCi/g	0.2959	N	86.88	3	1.323	IDENTIFIED	8.78	☐		
Niobium-95m		1.082	0.1142	pCi/g	0.3633	N	0	7	0	NOT_IDENTI	0	☐		
Potassium-40 ✔		34.04	1.456	pCi/g	0.6049	1.00	1460	1	1.982	IDENTIFIED	2.936	☐		
Radium-224	int	5.411	0.7124	pCi/g	1.115	Y	241.2	1	1.859	IDENTIFIED	12.22	☐	ui	
Radium-226 ✔		1.406	0.106	pCi/g	0.1447	Y	608.8	3	1.56	IDENTIFIED	6.246	☐		
Radium-228 ✔		1.851	0.2352	pCi/g	0.3028	0.500	910.8	3	1.702	IDENTIFIED	11.01	☐		
Sodium-24		2.35E+08	1.05E+08	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Strontium-85	la	0.1105	0.02791	pCi/g	0.09269	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔		0.5723	0.04943	pCi/g	0.0694	0.080	582.9	1	1.626	IDENTIFIED	7.818	☐		
Thorium-228	nr	1.883	0.1194	pCi/g	0.104	N	238.3	2	1.262	IDENTIFIED	3.302	☐		
Thorium-230	nr	1.406	0.0993	pCi/g	0.1447	N	608.8	3	1.56	IDENTIFIED	6.246	☐		
Thorium-232	nr	1.851	0.2352	pCi/g	0.3028	N	910.8	3	1.702	IDENTIFIED	11.01	☐		
Thorium-234 ✔		1.606	0.5638	pCi/g	1.225	2.00	63.1	2	1.33	IDENTIFIED	33.92	☐		
Tin-126	int nr	0.4682	0.04481	pCi/g	0.09946	N	86.88	3	1.323	IDENTIFIED	8.78	☐		
Total Uranium		4.8301	1.68E-06	ug/g	1.8262	N		0				☐		
Uranium-238	HE	1.606	0.5638	pCi/g	1.225	N	63.1	2	1.33	IDENTIFIED	33.92	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860008	04-MAR-10 12:00	24-MAR-10 16:28	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.839	0.2138	pCi/g	0.2279	N	911.8	3	2.139	IDENTIFIED	9.826	☐		
Annihilation Rad.		0.1607	0.0345	pCi/g	0.04849	N	511.1	1	1.823	IDENTIFIED	21.04	☐		
Bismuth-211	int	3.837	0.2991	pCi/g	0.3394	Y	352	2	1.295	IDENTIFIED	6.223	☐	ui	
Bismuth-212	la nr	2.497	0.573	pCi/g	1.274	N	0	5	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔		1.253	0.1004	pCi/g	0.1119	0.200	609.7	3	1.494	IDENTIFIED	6.328	☐		
Cadmium-109	int	2.881	0.5392	pCi/g	1.243	Y	87.04	3	1.09	IDENTIFIED	17.85	☐	ui	
Cadmium-115	HE	23.34	26.35	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		

Cerium-143	7307	1349	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		
Cesium-134 la	0.1338	0.03914	pCi/g	0.1022	0.100	0	5	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	10.4	1.353	pCi/g	3.147	N		0				☐		
Lead-212 ✔	1.839	0.1159	pCi/g	0.1016	0.100	238.7	2	1.148	IDENTIFIED	3.269	☐		
Lead-214 ✔	1.393	0.1151	pCi/g	0.1234	0.100	352	2	1.295	IDENTIFIED	6.223	☐		
Neptunium-237 HE	0.8341	0.1789	pCi/g	0.4888	N	87.04	3	1.09	IDENTIFIED	17.85	☐		
Potassium-40 ✔	37.51	2.057	pCi/g	0.5285	1.00	1462	1	2.353	IDENTIFIED	2.722	☐		
Radium-224 int	3.197	0.6352	pCi/g	1.089	Y	241.5	1	1.647	IDENTIFIED	19.26	☐	ui	
Radium-226 ✔	1.253	0.1004	pCi/g	0.1119	Y	609.7	3	1.494	IDENTIFIED	6.328	☐		
Radium-228 ✔	1.839	0.2138	pCi/g	0.2279	0.500	911.8	3	2.139	IDENTIFIED	9.826	☐		
Strontium-85 la	0.0929	0.02327	pCi/g	0.07764	Y	0	5	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔	0.552	0.05048	pCi/g	0.05923	0.080	583.7	1	1.375	IDENTIFIED	7.959	☐		
Thorium-228 nr	1.839	0.1159	pCi/g	0.1016	N	238.7	2	1.148	IDENTIFIED	3.269	☐		
Thorium-230 nr	1.253	0.09484	pCi/g	0.1119	N	609.7	3	1.494	IDENTIFIED	6.328	☐		
Thorium-232 nr	1.839	0.2138	pCi/g	0.2279	N	911.8	3	2.139	IDENTIFIED	9.826	☐		
Tin-126 int nr	0.2795	0.05231	pCi/g	0.1561	N	87.04	3	1.09	IDENTIFIED	17.85	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248860009	04-MAR-10 12:00	24-MAR-10 16:28	20.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	1.824	0.205	pCi/g	0.2429	N	911.2	3	1.378	IDENTIFIED	9.227	☐	
Annihilation Rad.	0.1539	0.03762	pCi/g	0.04647	N	511.1	1	1.847	IDENTIFIED	24.05	☐	
Bismuth-211 int	4.1	0.293	pCi/g	0.3092	Y	351.9	2	1.073	IDENTIFIED	5.589	☐	ui
Bismuth-212 la nr	2.37	0.4223	pCi/g	1.289	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔	1.188	0.1032	pCi/g	0.1096	0.200	609.3	3	1.578	IDENTIFIED	6.964	☐	
Cadmium-109 int	3.444	0.5209	pCi/g	1.185	Y	87.24	3	1.139	IDENTIFIED	14.39	☐	ui
Cerium-143	7884	1423	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma	10.01	1.343	pCi/g	2.889	N		0				☐	
Iodine-135	5.18E+20	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212 ✔	1.615	0.1079	pCi/g	0.112	0.100	238.5	2	1.116	IDENTIFIED	4.604	☐	
Lead-214 ✔	1.488	0.114	pCi/g	0.1125	0.100	351.9	2	1.073	IDENTIFIED	5.589	☐	
Neptunium-237 int nr	0.9969	0.1835	pCi/g	0.3484	N	87.24	3	1.139	IDENTIFIED	14.39	☐	
Potassium-40 ✔	37.08	1.96	pCi/g	0.5342	1.00	1461	1	2.152	IDENTIFIED	2.716	☐	
Radium-224 int	2.52	0.5512	pCi/g	1.49	Y	241.5	1	2.313	IDENTIFIED	21.45	☐	ui
Radium-226 ✔	1.188	0.1032	pCi/g	0.1096	Y	609.3	3	1.578	IDENTIFIED	6.964	☐	
Radium-228 ✔	1.824	0.205	pCi/g	0.2429	0.500	911.2	3	1.378	IDENTIFIED	9.227	☐	
Sodium-24 HE	9.62E+07	1.07E+08	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Strontium-85 la	0.1023	0.02298	pCi/g	0.08026	Y	0	6	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Technetium-99m	5.12E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208 ✔	0.5606	0.04946	pCi/g	0.05463	0.080	583.3	1	1.432	IDENTIFIED	7.431	☐	
Thorium-228 nr	1.615	0.1079	pCi/g	0.112	N	238.5	2	1.116	IDENTIFIED	4.604	☐	
Thorium-230 nr	1.188	0.0983	pCi/g	0.1096	N	609.3	3	1.578	IDENTIFIED	6.964	☐	
Thorium-232 nr	1.824	0.205	pCi/g	0.2429	N	911.2	3	1.378	IDENTIFIED	9.227	☐	
Tin-126 int nr	0.3341	0.05053	pCi/g	0.1154	N	87.24	3	1.139	IDENTIFIED	14.39	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863001	04-MAR-10 12:00	24-MAR-10 18:28	20.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.295	0.2334	pCi/g	0.2823	N	911.2	3	1.541	IDENTIFIED	8.168	☐	
Annihilation Rad. HE	0.09426	0.0428	pCi/g	0.06554	N	510.9	1	2.12	IDENTIFIED	45.2	☐	
Bismuth-211 int	4.466	0.34	pCi/g	0.4462	Y	352	2	1.664	IDENTIFIED	5.768	☐ ui	
Bismuth-212 HE	2.245	0.4752	pCi/g	1.542	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	1.511	0.1301	pCi/g	0.151	0.200	609.3	3	1.345	IDENTIFIED	7.027	☐	
Cadmium-109 int	2.884	0.7692	pCi/g	1.933	Y	87.6	3	1.29	IDENTIFIED	25.94	☐ ui	
Cerium-143	13780	2286	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma	11.54	1.75	pCi/g	4.932	N		0				☐	
Iodine-135	2.74E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	2.086	0.1469	pCi/g	0.1232	0.100	238.8	2	1.488	IDENTIFIED	3.73	☐	
Lead-214	1.621	0.1313	pCi/g	0.1639	0.100	352	2	1.664	IDENTIFIED	5.768	☐	
Neptunium-237 HE	0.8348	0.2392	pCi/g	0.6099	N	87.6	3	1.29	IDENTIFIED	25.94	☐	
Niobium-95m la nr	0.6273	0.1117	pCi/g	0.3616	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	38.47	2.205	pCi/g	0.6976	1.00	1461	1	2.099	IDENTIFIED	2.951	☐	
Promethium-149 HE	217.2	311.1	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Radium-224 int	6.639	0.9857	pCi/g	1.32	Y	241.7	1	2.04	IDENTIFIED	13.78	☐ ui	
Radium-226	1.511	0.1301	pCi/g	0.151	Y	609.3	3	1.345	IDENTIFIED	7.027	☐	
Radium-228	2.295	0.2334	pCi/g	0.2823	0.500	911.2	3	1.541	IDENTIFIED	8.168	☐	
Strontium-85 la	0.153	0.03144	pCi/g	0.1055	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	0.6224	0.05917	pCi/g	0.08054	0.080	583.2	1	1.616	IDENTIFIED	8.335	☐	
Thorium-228 nr	2.086	0.1469	pCi/g	0.1232	N	238.8	2	1.488	IDENTIFIED	3.73	☐	
Thorium-230 nr	1.511	0.1239	pCi/g	0.151	N	609.3	3	1.345	IDENTIFIED	7.027	☐	
Thorium-232 nr	2.295	0.2334	pCi/g	0.2823	N	911.2	3	1.541	IDENTIFIED	8.168	☐	
Tin-126 nr HE	0.2798	0.07461	pCi/g	0.1889	N	87.6	3	1.29	IDENTIFIED	25.94	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863002	04-MAR-10 12:00	24-MAR-10 18:28	20.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.113	0.2065	pCi/g	0.2426	N	911.2	3	2.069	IDENTIFIED	7.046	☐	
Annihilation Rad.	0.169	0.03745	pCi/g	0.04468	N	511.1	1	2.131	IDENTIFIED	21.58	☐	
Bismuth-211 int	3.909	0.3008	pCi/g	0.3038	Y	352	2	1.434	IDENTIFIED	5.043	☐ ui	
Bismuth-212 la nr	1.9	0.383	pCi/g	1.083	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214	1.306	0.1045	pCi/g	0.1051	0.200	609.4	3	1.681	IDENTIFIED	5.469	☐	
Cadmium-109 int	2.152	0.5302	pCi/g	1.269	Y	87.14	3	0.9491	IDENTIFIED	24.18	☐ ui	
Cadmium-115 HE	24.47	25.62	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cerium-143	10480	1752	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1472	0.03475	pCi/g	0.09059	0.100	0	9	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135 HE	0.3588	0.09591	pCi/g	0.2922	N	0	9	0	NOT_IDENTI	0	☐	
Gross Gamma	11.2	1.329	pCi/g	2.337	N		0				☐	
Iodine-133 HE	23700	1.68E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212	2.103	0.1502	pCi/g	0.0976	0.100	238.7	2	1.25	IDENTIFIED	2.668	☐	
Lead-214	1.419	0.116	pCi/g	0.1125	0.100	352	2	1.434	IDENTIFIED	5.043	☐	

Neptunium-237	HE	0.623	0.1668	pCi/g	0.3903	N	87.14	3	0.9491	IDENTIFIED	24.18	☐		
Potassium-40		39.51	1.987	pCi/g	0.4874	1.00	1461	1	2.669	IDENTIFIED	2.076	☐		
Promethium-149	HE	201.7	237.1	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Radium-224	int	5.025	0.7407	pCi/g	1.045	Y	241.6	1	1.886	IDENTIFIED	13.34	☐	ui	
Radium-226		1.306	0.1045	pCi/g	0.1051	Y	609.4	3	1.681	IDENTIFIED	5.469	☐		
Radium-228		2.113	0.2065	pCi/g	0.2426	0.500	911.2	3	2.069	IDENTIFIED	7.046	☐		
Sodium-24	HE	1.10E+07	1.07E+08	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Strontium-85	la	0.1556	0.02288	pCi/g	0.08092	Y	0	9	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208		0.687	0.05449	pCi/g	0.05431	0.080	583.4	1	1.605	IDENTIFIED	5.793	☐		
Thorium-228	nr	2.103	0.1502	pCi/g	0.0976	N	238.7	2	1.25	IDENTIFIED	2.668	☐		
Thorium-230	nr	1.306	0.09861	pCi/g	0.1051	N	609.4	3	1.681	IDENTIFIED	5.469	☐		
Thorium-232	nr	2.113	0.2065	pCi/g	0.2426	N	911.2	3	2.069	IDENTIFIED	7.046	☐		
Thorium-234		3.361	0.9648	pCi/g	2.018	2.00	63.36	2	1.167	IDENTIFIED	27.29	☐		
Tin-126	HE	0.2088	0.05143	pCi/g	0.138	N	87.14	3	0.9491	IDENTIFIED	24.18	☐		
Total Uranium		10.045	2.87E-06	ug/g	3.0045	N		0				☐		
Uranium-238	HE	3.361	0.9648	pCi/g	2.018	N	63.36	2	1.167	IDENTIFIED	27.29	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863003	04-MAR-10 12:00	24-MAR-10 18:29	20.3	SAMPLE	LOAD	1	LANL	LANL010041GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	2.279	0.249	pCi/g	0.2666	N	910.4	3	2.049	IDENTIFIED	9.166	☐		
Annihilation Rad.		0.1521	0.04186	pCi/g	0.05416	N	510.2	1	1.559	IDENTIFIED	27.38	☐		
Bismuth-211	int	4.45	0.2897	pCi/g	0.4075	Y	351.4	2	1.394	IDENTIFIED	5.636	☐	ui	
Bismuth-212	HE	2.434	0.5602	pCi/g	1.454	N	0	5	0	FAIL_ABUND	0	☐		
Bismuth-214		1.226	0.1147	pCi/g	0.1442	0.200	608.5	3	1.533	IDENTIFIED	8.547	☐		
Cadmium-109	int	3.195	0.6337	pCi/g	1.648	Y	87.07	3	1.23	IDENTIFIED	19.23	☐	ui	
Cerium-143		18850	2639	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		
Cesium-135	HE	0.3625	0.1148	pCi/g	0.3585	N	0	5	0	NOT_IDENTI	0	☐		
Gross Gamma		10.62	1.587	pCi/g	3.815	N		0				☐		
Lead-212		2.101	0.1019	pCi/g	0.1141	0.100	238.3	2	1.185	IDENTIFIED	3.219	☐		
Lead-214		1.615	0.1142	pCi/g	0.1482	0.100	351.4	2	1.394	IDENTIFIED	5.636	☐		
Neptunium-237	int nr	0.9248	0.2075	pCi/g	0.5089	N	87.07	3	1.23	IDENTIFIED	19.23	☐		
Niobium-95m	la nr	0.9859	0.1132	pCi/g	0.3754	N	0	5	0	NOT_IDENTI	0	☐		
Potassium-40		34.11	1.641	pCi/g	0.4822	1.00	1459	1	2.423	IDENTIFIED	3.026	☐		
Radium-224	int	4.879	0.7766	pCi/g	1.223	Y	241.2	1	1.774	IDENTIFIED	15.66	☐	ui	
Radium-226		1.226	0.1147	pCi/g	0.1442	Y	608.5	3	1.533	IDENTIFIED	8.547	☐		
Radium-228		2.279	0.249	pCi/g	0.2666	0.500	910.4	3	2.049	IDENTIFIED	9.166	☐		
Sodium-24	HE	1.03E+07	1.39E+08	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		
Thallium-208		0.6091	0.04992	pCi/g	0.07139	0.080	582.5	1	1.854	IDENTIFIED	7.528	☐		
Thorium-228	nr	2.101	0.1019	pCi/g	0.1141	N	238.3	2	1.185	IDENTIFIED	3.219	☐		
Thorium-230	nr	1.226	0.11	pCi/g	0.1442	N	608.5	3	1.533	IDENTIFIED	8.547	☐		
Thorium-232	nr	2.279	0.249	pCi/g	0.2666	N	910.4	3	2.049	IDENTIFIED	9.166	☐		
Thorium-234		4.332	1.024	pCi/g	3.141	2.00	63.12	2	1.288	IDENTIFIED	21.77	☐		
Tin-126	int nr	0.3099	0.06147	pCi/g	0.1609	N	87.07	3	1.23	IDENTIFIED	19.23	☐		
Total Uranium		13.001	3.05E-06	ug/g	4.6757	N		0				☐		
Uranium-238	HE	4.332	1.024	pCi/g	3.141	N	63.12	2	1.288	IDENTIFIED	21.77	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248863004	04-MAR-10 12:00	24-MAR-10 20:31	20.4	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 nr	2.23	0.2094	pCi/g	0.2551	N	911.8	3	1.771	IDENTIFIED	7.513	☐	
Annihilation Rad.	0.1789	0.03649	pCi/g	0.05063	N	511.2	1	1.886	IDENTIFIED	20.2	☐	
Bismuth-211 int	4.243	0.2798	pCi/g	0.3539	Y	352	2	1.26	IDENTIFIED	5.667	☐ ui	
Bismuth-212 HE	2.31	0.5131	pCi/g	1.349	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔	1.375	0.1023	pCi/g	0.1131	0.200	609.8	3	1.531	IDENTIFIED	6.452	☐	
Cadmium-109 int	4.326	0.6342	pCi/g	1.438	Y	87.22	3	1.161	IDENTIFIED	13.38	☐ ui	
Cadmium-115 HE	17.78	29.88	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cerium-143	6255	1239	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma	11.01	1.531	pCi/g	3.912	N		0				☐	
Iodine-135	2.60E+21	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212 ✔	1.979	0.1013	pCi/g	0.09264	0.100	238.7	2	1.087	IDENTIFIED	3.135	☐	
Lead-214 ✔	1.54	0.1101	pCi/g	0.1287	0.100	352	2	1.26	IDENTIFIED	5.667	☐	
Mercury-203 int	0.08901	0.0408	pCi/g	0.06855	0.100	279.1	1	0.7118	IDENTIFIED	45.71	☐ ui	
Neptunium-237 int nr	1.252	0.2256	pCi/g	0.4558	N	87.22	3	1.161	IDENTIFIED	13.38	☐	
Potassium-40 ✔	34.49	1.583	pCi/g	0.5163	1.00	1462	1	2.074	IDENTIFIED	2.907	☐	
Radium-224 int	5.46	0.8092	pCi/g	0.9931	Y	241.7	1	2.05	IDENTIFIED	14.44	☐ ui	
Radium-226 ✔	1.375	0.1023	pCi/g	0.1131	Y	609.8	3	1.531	IDENTIFIED	6.452	☐	
Radium-228 ✔	2.23	0.2094	pCi/g	0.2551	0.500	911.8	3	1.771	IDENTIFIED	7.513	☐	
Strontium-85 la	0.1127	0.02507	pCi/g	0.08577	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	3.34E+22	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208 ✔	0.6579	0.04856	pCi/g	0.05717	0.080	583.6	1	1.335	IDENTIFIED	6.682	☐	
Thorium-228 nr	1.979	0.1013	pCi/g	0.09264	N	238.7	2	1.087	IDENTIFIED	3.135	☐	
Thorium-230 nr	1.375	0.09565	pCi/g	0.1131	N	609.8	3	1.531	IDENTIFIED	6.452	☐	
Thorium-232 nr	2.23	0.2094	pCi/g	0.2551	N	911.8	3	1.771	IDENTIFIED	7.513	☐	
Tin-126 int nr	0.4195	0.0615	pCi/g	0.1405	N	87.22	3	1.161	IDENTIFIED	13.38	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248865001	03-MAR-10 12:00	24-MAR-10 20:31	21.4	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228 nr	2.33	0.2122	pCi/g	0.2403	N	911.5	3	1.892	IDENTIFIED	6.858	☐	
Annihilation Rad.	0.2517	0.04297	pCi/g	0.04807	N	511	1	2.055	IDENTIFIED	16.48	☐	
Bismuth-211 int	4.974	0.3277	pCi/g	0.3796	Y	352.1	2	1.28	IDENTIFIED	4.828	☐ ui	
Bismuth-212 HE	2.531	0.6066	pCi/g	1.427	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔	1.445	0.1124	pCi/g	0.14	0.200	609.6	3	1.273	IDENTIFIED	5.794	☐	
Cadmium-109 int	4.636	0.498	pCi/g	1.163	Y	87.28	3	1.063	IDENTIFIED	9.675	☐ ui	
Cadmium-115 HE	43.87	40.62	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cerium-143	13920	2558	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1857	0.03922	pCi/g	0.1211	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	12.04	1.565	pCi/g	4.152	N		0				☐	
Iodine-135	6.99E+22	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212 ✔	2.145	0.1214	pCi/g	0.1	0.100	238.8	2	1.049	IDENTIFIED	2.984	☐	

Lead-214 ✓		1.805	0.1289	pCi/g	0.1366	0.100	352.1	2	1.28	IDENTIFIED	4.828	☐		
Neptunium-237	int nr	1.34	0.2011	pCi/g	0.3388	N	87.28	3	1.063	IDENTIFIED	9.675	☐		
Potassium-40 ✓		37.59	1.901	pCi/g	0.5494	1.00	1461	1	2.019	IDENTIFIED	2.673	☐		
Radium-224	int	4.759	0.5883	pCi/g	1.072	Y	241.8	1	1.512	IDENTIFIED	11.62	☐	ui	
Radium-226 ✓		1.445	0.1124	pCi/g	0.14	Y	609.6	3	1.273	IDENTIFIED	5.794	☐		
Radium-228 ✓		2.33	0.2122	pCi/g	0.2403	0.500	911.5	3	1.892	IDENTIFIED	6.858	☐		
Sodium-24	HE	2.98E+08	4.15E+08	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Strontium-85	la	0.0982	0.02275	pCi/g	0.08554	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✓		0.7326	0.06078	pCi/g	0.06242	0.080	583.3	1	1.502	IDENTIFIED	6.783	☐		
Thorium-228	nr	2.145	0.1214	pCi/g	0.1	N	238.8	2	1.049	IDENTIFIED	2.984	☐		
Thorium-230	nr	1.445	0.1058	pCi/g	0.14	N	609.6	3	1.273	IDENTIFIED	5.794	☐		
Thorium-232	nr	2.33	0.2122	pCi/g	0.2403	N	911.5	3	1.892	IDENTIFIED	6.858	☐		
Thorium-234 ✓		3.259	0.9134	pCi/g	1.741	2.00	62.62	2	1.194	IDENTIFIED	26.58	☐		
Tin-126	int nr	0.4489	0.04822	pCi/g	0.1129	N	87.28	3	1.063	IDENTIFIED	9.675	☐		
Total Uranium		9.682	2.72E-06	ug/g	2.5922	N		0				☐		
Uranium-238	HE	3.259	0.9134	pCi/g	1.741	N	62.62	2	1.194	IDENTIFIED	26.58	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248866001	04-MAR-10 12:00	24-MAR-10 20:32	20.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.963	0.2172	pCi/g	0.2879	N	911.3	3	1.686	IDENTIFIED	9.257	☐		
Annihilation Rad.	HE	0.1031	0.04332	pCi/g	0.06023	N	510.6	1	1.637	IDENTIFIED	41.78	☐		
Bismuth-211	int	4.116	0.3332	pCi/g	0.4596	Y	352	2	1.459	IDENTIFIED	6.393	☐	ui	
Bismuth-212	HE	2.104	0.5701	pCi/g	1.439	N	0	6	0	FAIL_ABUND	0	☐		
Bismuth-214 ✓		1.397	0.1121	pCi/g	0.1472	0.200	609.3	3	1.5	IDENTIFIED	6.291	☐		
Cadmium-109	int	2.358	0.7274	pCi/g	2.198	Y	87.63	3	1.088	IDENTIFIED	30.22	☐	ui	
Cerium-143		12370	2167	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1276	0.03245	pCi/g	0.1081	0.100	0	6	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cobalt-58	HE	0.08646	0.03537	pCi/g	0.07687	N	809.9	1	2.813	IDENTIFIED	40.66	☐		
Gross Gamma		10.63	1.7	pCi/g	3.871	N		0				☐		
Lead-212 ✓		2.046	0.142	pCi/g	0.1263	0.100	238.8	2	1.34	IDENTIFIED	3.533	☐		
Lead-214 ✓		1.494	0.1278	pCi/g	0.1599	0.100	352	2	1.459	IDENTIFIED	6.393	☐		
Neptunium-237	HE	0.6824	0.2223	pCi/g	0.6171	N	87.63	3	1.088	IDENTIFIED	30.22	☐		
Niobium-95	HE	0.1123	0.03211	pCi/g	0.1078	N	0	6	0	NOT_IDENTI	0	☐		
Niobium-95m	HE	0.3981	0.1048	pCi/g	0.3382	N	0	6	0	NOT_IDENTI	0	☐		
Potassium-40 ✓		35.88	2.056	pCi/g	0.4818	1.00	1461	1	2.163	IDENTIFIED	2.948	☐		
Radium-224	int	5.583	0.942	pCi/g	1.353	Y	241.7	1	2.04	IDENTIFIED	15.95	☐	ui	
Radium-226 ✓		1.397	0.1121	pCi/g	0.1472	Y	609.3	3	1.5	IDENTIFIED	6.291	☐		
Radium-228 ✓		1.963	0.2172	pCi/g	0.2879	0.500	911.3	3	1.686	IDENTIFIED	9.257	☐		
Strontium-85	la	0.1346	0.0313	pCi/g	0.1033	Y	0	6	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✓		0.5766	0.05722	pCi/g	0.06778	0.080	583.5	1	1.522	IDENTIFIED	8.807	☐		
Thorium-228	nr	2.046	0.142	pCi/g	0.1263	N	238.8	2	1.34	IDENTIFIED	3.533	☐		
Thorium-230	nr	1.396	0.1058	pCi/g	0.1472	N	609.3	3	1.5	IDENTIFIED	6.291	☐		
Thorium-232	nr	1.963	0.2172	pCi/g	0.2879	N	911.3	3	1.686	IDENTIFIED	9.257	☐		
Tin-126	HE	0.2287	0.07054	pCi/g	0.2142	N	87.63	3	1.088	IDENTIFIED	30.22	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248866002	04-MAR-10 12:00	24-MAR-10 20:32	20.4	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	2.304	0.2798	pCi/g	0.3232	N	911.2	3	1.767	IDENTIFIED	10.65	☐	
Annihilation Rad. HE	0.1405	0.04642	pCi/g	0.06209	N	511	1	1.263	IDENTIFIED	32.74	☐	
Bismuth-211 int	4.864	0.3573	pCi/g	0.397	Y	352	2	1.222	IDENTIFIED	5.676	☐ ui	
Bismuth-212 HE	1.957	0.6148	pCi/g	1.699	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓	1.652	0.1359	pCi/g	0.158	0.200	609.3	3	1.451	IDENTIFIED	6.446	☐	
Cadmium-109 int	3.853	0.5148	pCi/g	1.55	Y	87.31	3	1.019	IDENTIFIED	12.44	☐ ui	
Cerium-143	7260	1441	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1403	0.05076	pCi/g	0.1296	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	11.4	1.597	pCi/g	3.988	N		0				☐	
Lead-210 HE	1.308	0.4664	pCi/g	0.9292	N	46.62	1	0.882	IDENTIFIED	35.25	☐	
Lead-212 ✓	2.053	0.1268	pCi/g	0.1101	0.100	238.7	2	1.063	IDENTIFIED	3.534	☐	
Lead-214 ✓	1.765	0.1385	pCi/g	0.1462	0.100	352	2	1.222	IDENTIFIED	5.676	☐	
Neptunium-237 int nr	1.115	0.1894	pCi/g	0.4356	N	87.31	3	1.019	IDENTIFIED	12.44	☐	
Potassium-40 ✓	37.4	2.091	pCi/g	0.8153	1.00	1461	1	2.013	IDENTIFIED	3.398	☐	
Promethium-149 HE	410.7	267.3	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Radium-224 int	5.782	0.8164	pCi/g	1.181	Y	241.7	1	1.685	IDENTIFIED	13.37	☐ ui	
Radium-226 ✓	1.652	0.1359	pCi/g	0.158	Y	609.3	3	1.451	IDENTIFIED	6.446	☐	
Radium-228 ✓	2.304	0.2798	pCi/g	0.3232	0.500	911.2	3	1.767	IDENTIFIED	10.65	☐	
Thallium-208 ✓	0.6501	0.06073	pCi/g	0.08923	0.080	583.3	1	1.376	IDENTIFIED	8.06	☐	
Thorium-228 nr	2.053	0.1268	pCi/g	0.1101	N	238.7	2	1.063	IDENTIFIED	3.534	☐	
Thorium-230 nr	1.652	0.1287	pCi/g	0.158	N	609.3	3	1.451	IDENTIFIED	6.446	☐	
Thorium-232 nr	2.304	0.2798	pCi/g	0.3232	N	911.2	3	1.767	IDENTIFIED	10.65	☐	
Thorium-234 ✓	2.082	0.6011	pCi/g	1.25	2.00	63.29	2	1.032	IDENTIFIED	27.26	☐	
Tin-126 int nr	0.3737	0.04993	pCi/g	0.1501	N	87.31	3	1.019	IDENTIFIED	12.44	☐	
Total Uranium	6.2503	1.79E-06	ug/g	1.8624	N		0				☐	
Uranium-238 HE	2.082	0.6011	pCi/g	1.25	N	63.29	2	1.032	IDENTIFIED	27.26	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867001	05-MAR-10 12:00	24-MAR-10 20:33	19.4	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	1.693	0.2131	pCi/g	0.2795	N	911.3	3	1.621	IDENTIFIED	10.02	☐	
Annihilation Rad. HE	0.12	0.02722	pCi/g	0.1023	N	0	10	0	NOT_IDENTI	0	☐	
Barium-137m HE	0.1196	0.02324	pCi/g	0.08773	N	0	10	0	NOT_IDENTI	0	☐	
Bismuth-211 int	3.834	0.3032	pCi/g	0.3984	Y	351.8	2	1.235	IDENTIFIED	6.295	☐ ui	
Bismuth-212 nr	1.882	0.4297	pCi/g	0.8862	N	727.4	1	1.236	IDENTIFIED	21.88	☐	
Bismuth-214 ✓	1.167	0.1025	pCi/g	0.1397	0.200	609.3	3	1.276	IDENTIFIED	7.183	☐	
Cadmium-109 int	2.483	0.5959	pCi/g	1.883	Y	86.89	3	1.116	IDENTIFIED	23.54	☐ ui	
Cadmium-115 HE	5.067	24.22	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cerium-143	9059	1384	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-134 la	0.1411	0.04788	pCi/g	0.1011	0.100	0	10	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135 HE	0.3862	0.1115	pCi/g	0.3567	N	0	10	0	NOT_IDENTI	0	☐	
Cesium-137 la	0.1263	0.02456	pCi/g	0.09268	0.100	0	10	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	10.33	1.575	pCi/g	4.849	N		0				☐	

Iodine-133	HE	79750	1.04E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-212 ✓		1.839	0.1106	pCi/g	0.1166	0.100	238.5	2	1.068	IDENTIFIED	3.363	☐	
Lead-214 ✓		1.391	0.1165	pCi/g	0.1459	0.100	351.8	2	1.235	IDENTIFIED	6.295	☐	
Neptunium-237	HE	0.7197	0.1885	pCi/g	0.5047	N	86.89	3	1.116	IDENTIFIED	23.54	☐	
Niobium-95m	la nr	0.6736	0.09957	pCi/g	0.3253	N	0	10	0	NOT_IDENTI	0	☐	
Potassium-40 ✓		35.23	2.162	pCi/g	0.5852	1.00	1461	1	1.745	IDENTIFIED	2.847	☐	
Promethium-149	HE	209.8	200.8	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Radium-224	int	4.777	0.778	pCi/g	1.248	Y	241.4	1	1.769	IDENTIFIED	15.67	☐	ui
Radium-226 ✓		1.167	0.1025	pCi/g	0.1397	Y	609.3	3	1.276	IDENTIFIED	7.183	☐	
Radium-228 ✓		1.693	0.2131	pCi/g	0.2795	0.500	911.3	3	1.621	IDENTIFIED	10.02	☐	
Thallium-208 ✓		0.5863	0.05179	pCi/g	0.06836	0.080	583	1	1.469	IDENTIFIED	7.489	☐	
Thorium-228	nr	1.839	0.1106	pCi/g	0.1166	N	238.5	2	1.068	IDENTIFIED	3.363	☐	
Thorium-230	nr	1.167	0.09777	pCi/g	0.1397	N	609.3	3	1.276	IDENTIFIED	7.183	☐	
Thorium-232	nr	1.693	0.2131	pCi/g	0.2795	N	911.3	3	1.621	IDENTIFIED	10.02	☐	
Tin-126	HE	0.2412	0.05788	pCi/g	0.1881	N	86.89	3	1.116	IDENTIFIED	23.54	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867002	05-MAR-10 12:00	24-MAR-10 20:37	19.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.652	0.1636	pCi/g	0.1826	N	911.5	3	1.896	IDENTIFIED	7.223	☐		
Annihilation Rad.		0.1421	0.03004	pCi/g	0.03846	N	511.6	1	2.19	IDENTIFIED	20.54	☐		
Bismuth-211	int	3.234	0.2646	pCi/g	0.2742	Y	352	2	1.328	IDENTIFIED	5.756	☐	ui	
Bismuth-212	HE	1.511	0.3782	pCi/g	0.943	N	0	10	0	FAIL_ABUND	0	☐		
Bismuth-214 ✓		1.118	0.08867	pCi/g	0.09313	0.200	609.4	3	1.568	IDENTIFIED	5.371	☐		
Cadmium-109	int	2.836	0.3944	pCi/g	1.036	Y	87.18	3	1.122	IDENTIFIED	13.09	☐	ui	
Cadmium-115	HE	6.266	16.61	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Cerium-143		5744	947.6	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.08554	0.01966	pCi/g	0.07097	0.100	0	10	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Cesium-135	HE	0.2682	0.07661	pCi/g	0.2394	N	0	10	0	NOT_IDENTI	0	☐		
Gross Gamma		8.782	1.158	pCi/g	2.306	N		0				☐		
Iodine-135		5.73E+19	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Lead-212 ✓		1.625	0.1181	pCi/g	0.07933	0.100	238.7	2	1.262	IDENTIFIED	2.989	☐		
Lead-214 ✓		1.174	0.1013	pCi/g	0.1005	0.100	352	2	1.328	IDENTIFIED	5.756	☐		
Neptunium-237	int nr	0.8219	0.1431	pCi/g	0.3497	N	87.18	3	1.122	IDENTIFIED	13.09	☐		
Niobium-95m	HE	0.2345	0.06596	pCi/g	0.2072	N	0	10	0	NOT_IDENTI	0	☐		
Potassium-40 ✓		29.16	1.485	pCi/g	0.456	1.00	1461	1	2.847	IDENTIFIED	2.228	☐		
Promethium-149	HE	69.31	146.6	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Radium-224	int	4.236	0.6252	pCi/g	0.8492	Y	241.6	1	1.886	IDENTIFIED	13.36	☐	ui	
Radium-226 ✓		1.118	0.08867	pCi/g	0.09313	Y	609.4	3	1.568	IDENTIFIED	5.371	☐		
Radium-228 ✓		1.652	0.1636	pCi/g	0.1826	0.500	911.5	3	1.896	IDENTIFIED	7.223	☐		
Sodium-24	HE	2.66E+07	3.27E+07	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Strontium-85	la	0.144	0.01975	pCi/g	0.07095	Y	0	10	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✓		0.487	0.03971	pCi/g	0.04867	0.080	583.4	1	1.765	IDENTIFIED	6.094	☐		
Thorium-228	nr	1.625	0.1181	pCi/g	0.07933	N	238.7	2	1.262	IDENTIFIED	2.989	☐		
Thorium-230	nr	1.118	0.08362	pCi/g	0.09313	N	609.4	3	1.568	IDENTIFIED	5.371	☐		
Thorium-232	nr	1.652	0.1636	pCi/g	0.1826	N	911.5	3	1.896	IDENTIFIED	7.223	☐		

Thorium-234 ✔		1.881	0.9198	pCi/g	1.667	2.00	63.04	2	1.13	IDENTIFIED	48.08	☐	
Tin-126	int nr	0.2755	0.03831	pCi/g	0.1125	N	87.18	3	1.122	IDENTIFIED	13.09	☐	
Total Uranium		5.674	2.74E-06	ug/g	2.4817	N		0				☐	
Uranium-238	HE	1.881	0.9198	pCi/g	1.667	N	63.04	2	1.13	IDENTIFIED	48.08	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867003	05-MAR-10 12:00	24-MAR-10 20:51	19.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.575	0.2171	pCi/g	0.3616	N	911	3	1.703	IDENTIFIED	12.24	☐		
Annihilation Rad.		0.1776	0.03803	pCi/g	0.06258	N	510.2	1	1.938	IDENTIFIED	21.17	☐		
Bismuth-211	int	4.376	0.3127	pCi/g	0.4462	Y	351.6	2	1.404	IDENTIFIED	5.953	☐	ui	
Bismuth-212	HE	1.72	0.7059	pCi/g	1.543	N	0	6	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔		1.334	0.1238	pCi/g	0.1637	0.200	609	3	1.417	IDENTIFIED	8.263	☐		
Cadmium-109	int	2.228	0.6204	pCi/g	1.323	Y	87.14	3	1.33	IDENTIFIED	27.58	☐	ui	
Cerium-143		11830	1907	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Gross Gamma		10.54	1.528	pCi/g	4.223	N		0				☐		
Iodine-133	HE	80310	1.20E+05	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Lead-210	nr	2.127	0.5158	pCi/g	0.9645	N	45.94	1	1.211	IDENTIFIED	23.94	☐		
Lead-212 ✔		1.93	0.1255	pCi/g	0.1149	0.100	238.3	2	1.266	IDENTIFIED	3.599	☐		
Lead-214 ✔		1.588	0.1217	pCi/g	0.1574	0.100	351.6	2	1.404	IDENTIFIED	5.953	☐		
Neptunium-237	HE	0.6457	0.1921	pCi/g	0.4396	N	87.14	3	1.33	IDENTIFIED	27.58	☐		
Niobium-95	HE	0.1457	0.03373	pCi/g	0.126	N	0	6	0	NOT_IDENTI	0	☐		
Niobium-95m	la nr	1.086	0.1247	pCi/g	0.3938	N	0	6	0	NOT_IDENTI	0	☐		
Potassium-40 ✔		34.38	1.518	pCi/g	0.6877	1.00	1460	1	1.972	IDENTIFIED	3.134	☐		
Promethium-149	HE	335.9	216.6	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Radium-224	int	4.226	0.7754	pCi/g	1.231	Y	241.3	1	1.784	IDENTIFIED	17.69	☐	ui	
Radium-226 ✔		1.334	0.1238	pCi/g	0.1637	Y	609	3	1.417	IDENTIFIED	8.263	☐		
Radium-228 ✔		1.575	0.2171	pCi/g	0.3616	0.500	911	3	1.703	IDENTIFIED	12.24	☐		
Thallium-208 ✔		0.5497	0.05356	pCi/g	0.08389	0.080	582.8	1	1.312	IDENTIFIED	9.026	☐		
Thorium-228	nr	1.93	0.1255	pCi/g	0.1149	N	238.3	2	1.266	IDENTIFIED	3.599	☐		
Thorium-230	nr	1.334	0.1187	pCi/g	0.1637	N	609	3	1.417	IDENTIFIED	8.263	☐		
Thorium-232	nr	1.575	0.2171	pCi/g	0.3616	N	911	3	1.703	IDENTIFIED	12.24	☐		
Tin-126	HE	0.2164	0.06025	pCi/g	0.1283	N	87.14	3	1.33	IDENTIFIED	27.58	☐		
Total Uranium		3.9374	1.85E-06	ug/g	1.8648	N		0				☐		
Uranium-235	nvp	0.505	0.1393	pCi/g	0.4593	0.500	92.57	1	1.299	IDENTIFIED	14.7	☐	ui	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248867004	05-MAR-10 12:00	24-MAR-10 22:58	19.5	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	2.029	0.1939	pCi/g	0.2151	N	911.2	3	1.785	IDENTIFIED	7.388	☐		
Annihilation Rad.		0.1353	0.03352	pCi/g	0.04351	N	511	1	2.293	IDENTIFIED	24.39	☐		
Bismuth-211	int	4.541	0.3077	pCi/g	0.3307	Y	352.1	2	1.416	IDENTIFIED	4.61	☐	ui	
Bismuth-212	HE	1.488	0.402	pCi/g	1.033	N	0	7	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔		1.385	0.1061	pCi/g	0.1032	0.200	609.3	3	1.555	IDENTIFIED	5.818	☐		
Cadmium-109	int	4.474	0.6052	pCi/g	1.276	Y	87.39	3	1.575	IDENTIFIED	12.04	☐	ui	

Cerium-143		8611	1279	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.118	0.02485	pCi/g	0.08056	0.100	0	7	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-135	HE	0.3367	0.08958	pCi/g	0.2804	N	0	7	0	NOT_IDENTI	0	☐		
Gross Gamma		11.16	1.43	pCi/g	3.744	N		0				☐		
Iodine-133	HE	23680	86680	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-212		1.98	0.1308	pCi/g	0.08567	0.100	238.8	2	1.431	IDENTIFIED	2.821	☐		
Lead-214		1.648	0.1206	pCi/g	0.1174	0.100	352.1	2	1.416	IDENTIFIED	4.61	☐		
Neptunium-237	int nr	1.296	0.2219	pCi/g	0.3797	N	87.39	3	1.575	IDENTIFIED	12.04	☐		
Niobium-95m	la nr	0.5469	0.07934	pCi/g	0.2455	N	0	7	0	NOT_IDENTI	0	☐		
Potassium-40		35.67	1.924	pCi/g	0.5141	1.00	1461	1	2.08	IDENTIFIED	2.226	☐		
Radium-224	int	4.578	0.6137	pCi/g	0.9179	Y	241.7	1	1.678	IDENTIFIED	12.22	☐	ui	
Radium-226		1.385	0.1061	pCi/g	0.1032	Y	609.3	3	1.555	IDENTIFIED	5.818	☐		
Radium-228		2.029	0.1939	pCi/g	0.2151	0.500	911.2	3	1.785	IDENTIFIED	7.388	☐		
Strontium-85	la	0.1884	0.02288	pCi/g	0.07659	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208		0.5801	0.04755	pCi/g	0.05345	0.080	583.3	1	1.669	IDENTIFIED	6.803	☐		
Thorium-228	nr	1.98	0.1308	pCi/g	0.08567	N	238.8	2	1.431	IDENTIFIED	2.821	☐		
Thorium-230	nr	1.385	0.09958	pCi/g	0.1032	N	609.3	3	1.555	IDENTIFIED	5.818	☐		
Thorium-232	nr	2.029	0.1939	pCi/g	0.2151	N	911.2	3	1.785	IDENTIFIED	7.388	☐		
Tin-126	int nr	0.4344	0.05877	pCi/g	0.1249	N	87.39	3	1.575	IDENTIFIED	12.04	☐		
Total Uranium		4.7481	2.80E-06	ug/g	4.7247	N		0				☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065188		24-MAR-10 22:59	0	MB	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Cerium-143	93.1	39.91	pCi/g	0	N	0	2	0	SHORT_HLIF	0	☐	
Iodine-135	1.18E+15	0	pCi/g	0	N	0	2	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065189	05-MAR-10 12:00	24-MAR-10 23:00	19.5	DUP	LOAD	1		LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.977	0.1855	pCi/g	0.2107	N	911.1	3	1.489	IDENTIFIED	7.342	☐		
Annihilation Rad.		0.1489	0.03314	pCi/g	0.03984	N	510.8	1	1.525	IDENTIFIED	21.74	☐		
Barium-137m	HE	0.1069	0.0307	pCi/g	0.0573	N	661.7	2	1.357	IDENTIFIED	28.18	☐		
Bismuth-211	int	3.938	0.2465	pCi/g	0.2469	Y	351.9	2	1.131	IDENTIFIED	4.341	☐	ui	
Bismuth-212	la nr	2.347	0.4101	pCi/g	1.124	N	0	7	0	FAIL_ABUND	0	☐		
Bismuth-214		1.48	0.1164	pCi/g	0.1012	0.200	609.1	3	1.302	IDENTIFIED	5.174	☐		
Cadmium-109	int	4.658	0.3566	pCi/g	0.5224	Y	87.3	3	1.213	IDENTIFIED	6.062	☐	ui	
Cadmium-115	HE	7.571	17.53	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cerium-143		1929	529.2	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1096	0.02929	pCi/g	0.08081	0.100	0	7	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137		0.1129	0.03243	pCi/g	0.06053	0.100	661.7	2	1.357	IDENTIFIED	28.18	☐		
Europium-155	HE	0.1071	0.02887	pCi/g	0.09983	N	0	7	0	FAIL_ABUND	0	☐		
Gross Gamma		10.99	1.251	pCi/g	3.798	N		0				☐		
Iodine-135		4.59E+20	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-210	nr	2.719	0.2845	pCi/g	0.4671	N	46.64	1	0.6556	IDENTIFIED	9.337	☐		

Lead-212	1.91	0.1048	pCi/g	0.06247	0.100	238.5	2	0.8926	IDENTIFIED	2.271	☐	
Lead-214	1.429	0.09776	pCi/g	0.08987	0.100	351.9	2	1.131	IDENTIFIED	4.341	☐	
Neptunium-237 int nr	1.35	0.1752	pCi/g	0.1505	N	87.3	3	1.213	IDENTIFIED	6.062	☐	
Potassium-40	33.08	1.65	pCi/g	0.4812	1.00	1461	1	1.975	IDENTIFIED	2.582	☐	
Radium-224 int	4.63	0.4727	pCi/g	0.6714	Y	241.5	1	1.734	IDENTIFIED	9.192	☐	ui
Radium-226	1.48	0.1164	pCi/g	0.1012	Y	609.1	3	1.302	IDENTIFIED	5.174	☐	
Radium-228	1.977	0.1855	pCi/g	0.2107	0.500	911.1	3	1.489	IDENTIFIED	7.342	☐	
Technetium-99m	1.51E+21	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-208	0.5839	0.04711	pCi/g	0.04622	0.080	583.1	1	1.224	IDENTIFIED	5.957	☐	
Thorium-228 nr	1.91	0.1048	pCi/g	0.06247	N	238.5	2	0.8926	IDENTIFIED	2.271	☐	
Thorium-230 nr	1.479	0.1097	pCi/g	0.1011	N	609.1	3	1.302	IDENTIFIED	5.174	☐	
Thorium-232 nr	1.977	0.1855	pCi/g	0.2107	N	911.1	3	1.489	IDENTIFIED	7.342	☐	
Thorium-234	1.778	0.3504	pCi/g	0.58	2.00	63.32	2	0.7981	IDENTIFIED	17.52	☐	
Tin-126 int nr	0.4523	0.03463	pCi/g	0.05064	N	87.3	3	1.213	IDENTIFIED	6.062	☐	
Total Uranium	5.3397	1.04E-06	ug/g	0.86471	N		0				☐	
Uranium-238 nr	1.778	0.3504	pCi/g	0.58	N	63.32	2	0.7981	IDENTIFIED	17.52	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202065190		25-MAR-10 09:16	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	1.589	0.3005	pCi/g	0.4709	N	911.5	3	2.202	IDENTIFIED	17.65	☐	
Americium-241	13.88	0.6378	pCi/g	0.4687	0.200	59.48	1	1.075	IDENTIFIED	2.418	☐ 85.2%	
Barium-137m	5.58	0.3133	pCi/g	0.08739	N	661.7	2	1.696	IDENTIFIED	1.93	☐	
Bismuth-211	3.464	0.3672	pCi/g	0.5321	Y	351.9	2	1.399	IDENTIFIED	8.86	☐	
Bismuth-214	0.8897	0.1076	pCi/g	0.1724	0.200	609.4	3	1.786	IDENTIFIED	10.6	☐	
Cadmium-109	35.43	2.107	pCi/g	1.99	Y	88.09	2	1.148	IDENTIFIED	3.59	☐	
Cerium-143	688.5	238.6	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-137	5.894	0.3313	pCi/g	0.09232	0.100	661.7	2	1.696	IDENTIFIED	1.93	☐ 107.7%	
Cobalt-57	0.2454	0.03596	pCi/g	0.06108	N	122	1	1.08	IDENTIFIED	14.06	☐	
Cobalt-60	6.898	0.337	pCi/g	0.07391	0.100	1333	1	2.484	IDENTIFIED	1.998	☐ 106.4%	
Gross Gamma	28.98	2.749	pCi/g	3.013	N		0				☐	
Iodine-135	1.47E+17	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	1.427	0.119	pCi/g	0.1487	0.100	238.7	2	1.322	IDENTIFIED	5.07	☐	
Lead-214	1.257	0.1377	pCi/g	0.1935	0.100	351.9	2	1.399	IDENTIFIED	8.86	☐	
Neptunium-237	4.949	0.6238	pCi/g	1.033	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	1.02	0.254	pCi/g	1.017	1.00	0	6	0	NOT_IDENTI	0	☐	
Radium-224	2.93	0.8629	pCi/g	1.592	Y	241.6	1	1.823	IDENTIFIED	28.78	☐	
Radium-226	0.8897	0.1076	pCi/g	0.1724	Y	609.4	3	1.786	IDENTIFIED	10.6	☐	
Radium-228	1.589	0.3005	pCi/g	0.4709	0.500	911.5	3	2.202	IDENTIFIED	17.65	☐	
Silver-110m	0.713	0.0596	pCi/g	0.1823	N	0	6	0	NOT_IDENTI	0	☐	
Technetium-99m	6.93E+12	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-208	0.4272	0.05399	pCi/g	0.09842	0.080	583.4	1	1.159	IDENTIFIED	11.42	☐	
Thorium-228	1.427	0.119	pCi/g	0.1487	N	238.7	2	1.322	IDENTIFIED	5.07	☐	
Thorium-230	0.8897	0.105	pCi/g	0.1724	N	609.4	3	1.786	IDENTIFIED	10.6	☐	
Thorium-232	1.589	0.3005	pCi/g	0.4709	N	911.5	3	2.202	IDENTIFIED	17.65	☐	
Tin-126	3.456	0.2056	pCi/g	0.195	N	88.09	2	1.148	IDENTIFIED	3.59	☐	

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

MS 3/29/10

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
962633	248867003	SAMPLE	24-MAR-10	Cerium-143	11830	1907	pCi/g	0	N
				Cesium-134	0.103	0.03425	pCi/g	0.06249	0.100
				Gross Gamma	10.54	1.528	pCi/g	2.063	N
				Iodine-133	80310	1.20E+05	pCi/g	0	N
				Lead-212	1.93	0.1255	pCi/g	0.05748	0.100
				Lead-214	1.588	0.1217	pCi/g	0.07875	0.100
				Potassium-40	34.38	1.518	pCi/g	0.3441	1.00
				Promethium-149	335.9	216.6	pCi/g	0	N
				Radium-224	4.226	0.7754	pCi/g	0.6161	Y
				Radium-226	1.334	0.1238	pCi/g	0.08192	Y
				Radium-228	1.575	0.2171	pCi/g	0.1809	0.500
				Strontium-85	0.08679	0.02844	pCi/g	0.04588	Y
				Thallium-208	0.5497	0.05356	pCi/g	0.04197	0.080
				Thorium-234	1.245	0.6213	pCi/g	0.6258	2.00
				Uranium-235	0.505	0.1393	pCi/g	0.2298	0.500
962633	248867004	SAMPLE	24-MAR-10	Bismuth-211	4.541	0.3077	pCi/g	0.1655	Y
				Bismuth-214	1.385	0.1061	pCi/g	0.05161	0.200
				Cadmium-109	4.474	0.6052	pCi/g	0.6383	Y
				Cerium-143	8611	1279	pCi/g	0	N
				Cesium-134	0.118	0.02485	pCi/g	0.0403	0.100
				Gross Gamma	11.16	1.43	pCi/g	1.834	N
				Iodine-133	23680	86680	pCi/g	0	N
				Lead-212	1.98	0.1308	pCi/g	0.04286	0.100
				Lead-214	1.648	0.1206	pCi/g	0.05875	0.100
				Potassium-40	35.87	1.924	pCi/g	0.2572	1.00
				Protactinium-234m	5.523	2.229	pCi/g	3.777	N
				Radium-224	4.578	0.6137	pCi/g	0.4592	Y
				Radium-226	1.385	0.1061	pCi/g	0.05161	Y
				Radium-228	2.029	0.1939	pCi/g	0.1076	0.500
				Strontium-85	0.1884	0.02288	pCi/g	0.03832	Y
				Thallium-208	0.5801	0.04755	pCi/g	0.02674	0.080
				Thorium-227	0.2363	0.1211	pCi/g	0.211	Y
962633	1202065188	MB	24-MAR-10	Cerium-143	93.1	39.91	pCi/g	0	N
				Cobalt-60	0.01748	0.00761	pCi/g	0.01444	0.100
				Iodine-135	1.18E+15	0	pCi/g	0	N
				Radium-224	0.3042	0.1365	pCi/g	0.2493	Y
962633	1202065189	DUP	24-MAR-10	Bismuth-211	3.938	0.2465	pCi/g	0.1235	Y

MS 3/29/10

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:33:27.13

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248866001.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:32:18
Sample ID         : G248866001           Sample quantity  : 1.33000E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.42  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	74.95*	344	610	1.76	148.83	141	18	4.77E-02	16.3	2.34E+00
2	3	77.31*	479	390	1.21	153.55	141	18	6.66E-02	8.7	
3	0	87.63	134	502	1.09	174.19	169	8	1.86E-02	30.2	
4	0	93.56*	156	687	1.31	186.04	180	11	2.17E-02	35.2	
5	0	186.12*	212	449	1.70	371.16	366	12	2.95E-02	21.7	
6	0	210.06	108	466	1.38	419.03	411	12	1.51E-02	41.0	
7	3	238.78*	1300	227	1.34	476.46	470	19	1.81E-01	3.5	1.42E+00
8	3	241.73*	331	265	2.04	482.36	470	19	4.59E-02	15.9	
9	0	271.05	106	262	1.37	541.00	535	11	1.47E-02	31.3	
10	0	277.71	66	196	1.01	554.31	550	9	9.19E-03	40.2	
11	0	295.32*	383	167	1.34	589.54	585	9	5.32E-02	8.1	
12	0	301.36*	88	231	1.70	601.61	596	13	1.23E-02	38.3	
13	0	338.52	271	229	1.44	675.95	671	12	3.77E-02	12.7	
14	0	352.03*	592	210	1.46	702.95	697	11	8.22E-02	6.4	
15	0	463.69	145	137	1.89	926.29	917	19	2.01E-02	21.4	
16	0	510.60*	88	195	1.64	1020.10	1011	17	1.23E-02	41.8	
17	0	583.47*	380	143	1.52	1165.85	1160	14	5.28E-02	8.8	
18	0	609.30*	477	98	1.50	1217.51	1212	12	6.62E-02	6.3	
19	0	727.79*	91	94	1.66	1454.52	1447	16	1.26E-02	26.4	
20	0	767.91	68	63	1.60	1534.77	1529	11	9.40E-03	25.8	
21	4	795.38	58	36	2.80	1589.71	1583	47	8.02E-03	25.0	2.80E+00
22	4	809.91	42	31	2.81	1618.78	1583	47	5.77E-03	40.7	
23	0	860.79*	69	76	1.87	1720.55	1713	16	9.58E-03	31.2	
24	0	911.30*	268	67	1.69	1821.58	1814	15	3.72E-02	9.3	
25	5	964.77	66	69	1.97	1928.54	1922	23	9.17E-03	28.1	1.57E+00
26	5	968.95	166	64	2.08	1936.90	1922	23	2.31E-02	12.7	
27	0	1120.74	77	124	1.78	2240.56	2232	19	1.06E-02	36.7	
28	0	1460.65*	1310	23	2.16	2920.56	2912	21	1.82E-01	2.9	
29	0	1764.14	87	0	2.52	3527.76	3518	17	1.21E-02	10.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 22:33:30

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248866001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 4-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 20:32:18
Sample ID : G248866001 Sample quantity : 133.00 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.42 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.588E+01	4.112E+00	4.810E-01	4.727E-02	74.597
CO-58	+	810.76	*	8.646E-02	7.074E-02	7.594E-02	6.827E-03	1.138
CD-109	+	88.03	*	2.358E+00	1.455E+00	2.091E+00	2.596E-01	1.128
SN-126		64.28		4.532E-01	9.232E-01	1.545E+00	2.616E-01	0.293
	+	86.94		9.508E-01	7.014E-01	8.166E-01	3.453E-01	1.164
	+	87.57	*	2.287E-01	1.411E-01	2.037E-01	2.521E-02	1.123
HG-203		70.83		-8.774E-01	2.583E+00	3.673E+00	6.509E-01	-0.239
		72.87		3.141E+00	1.411E+00	2.304E+00	3.978E-01	1.364
	+	279.20	*	8.374E-02	6.799E-02	9.000E-02	9.890E-03	0.930
TL-208	+	277.37		7.640E-01	6.239E-01	7.823E-01	1.106E-01	0.977
	+	583.19	*	5.766E-01	1.144E-01	6.658E-02	6.089E-03	8.661
	+	860.56		9.883E-01	6.248E-01	5.770E-01	5.642E-02	1.713
BI-211		72.87		1.167E+01	5.022E+00	8.559E+00	9.803E-01	1.364
	+	351.06	*	4.116E+00	6.665E-01	4.475E-01	4.457E-02	9.197
PB-212	+	74.82		2.909E+00	1.043E+00	8.180E-01	1.232E-01	3.557
	+	77.11		2.256E+00	4.711E-01	4.562E-01	5.288E-02	4.944
	+	238.63	*	2.046E+00	2.840E-01	1.221E-01	1.459E-02	16.753
	+	300.09		2.161E+00	1.676E+00	1.525E+00	1.856E-01	1.418
BI-214	+	609.32	*	1.397E+00	2.241E-01	1.447E-01	1.442E-02	9.649
	+	1120.29		1.180E+00	8.750E-01	6.196E-01	6.710E-02	1.905
	+	1764.49		1.876E+00	4.346E-01	2.652E-01	2.325E-02	7.075
PB-214	+	74.82		5.157E+00	1.825E+00	1.450E+00	2.026E-01	3.557
	+	77.11		3.977E+00	8.930E-01	8.043E-01	1.144E-01	4.944
	+	242.00		3.157E+00	1.081E+00	7.425E-01	9.249E-02	4.252
	+	295.22		1.655E+00	3.389E-01	2.902E-01	3.617E-02	5.704
	+	351.93	*	1.494E+00	2.555E-01	1.557E-01	1.769E-02	9.595
RA-224	+	240.99	*	5.583E+00	1.884E+00	1.309E+00	1.443E-01	4.266
RA-226	+	609.32	*	1.397E+00	2.241E-01	1.447E-01	1.442E-02	9.649
	+	1120.29		1.180E+00	8.750E-01	6.196E-01	6.710E-02	1.905
	+	1764.49		1.876E+00	4.346E-01	2.652E-01	2.325E-02	7.075
AC-228	+	338.32		2.105E+00	1.033E+00	4.900E-01	2.057E-01	4.297
	+	911.20	*	1.963E+00	4.343E-01	2.850E-01	3.452E-02	6.888
	+	968.97		2.103E+00	7.427E-01	4.643E-01	1.141E-01	4.530
RA-228	+	338.32		2.105E+00	1.033E+00	4.900E-01	2.057E-01	4.297

Sample ID : G248866001 Acquisition date : 24-MAR-2010 20:32:18

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	911.20	*	1.963E+00	4.343E-01	2.850E-01	3.452E-02	6.888
	+	968.97		2.103E+00	7.427E-01	4.643E-01	1.141E-01	4.530
TH-228	+	74.82		2.909E+00	1.004E+00	8.180E-01	9.458E-02	3.557
	+	77.11		2.256E+00	4.711E-01	4.562E-01	5.288E-02	4.944
	+	238.63	*	2.046E+00	2.840E-01	1.221E-01	1.459E-02	16.753
	+	300.09		2.161E+00	2.123E+00	1.525E+00	9.379E-01	1.418
TH-230	+	609.32	*	1.396E+00	2.117E-01	1.447E-01	1.223E-02	9.649
	+	1120.29		1.180E+00	8.713E-01	6.196E-01	5.270E-02	1.905
	+	1764.49		1.876E+00	4.346E-01	2.652E-01	2.325E-02	7.075
TH-232	+	338.32		2.105E+00	5.731E-01	4.900E-01	4.831E-02	4.297
	+	911.20	*	1.963E+00	4.343E-01	2.850E-01	3.452E-02	6.888
	+	968.97		2.103E+00	7.427E-01	4.643E-01	1.141E-01	4.530
NP-237	+	86.48	*	6.824E-01	4.446E-01	5.868E-01	1.425E-01	1.163
		95.86		6.194E-01	1.397E+00	2.034E+00	5.092E-01	0.305
ANH-511	+	511.00	*	1.031E-01	8.664E-02	5.902E-02	5.100E-03	1.747

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	4.956E-01	4.378E-01	7.613E-01	7.076E-02	0.651
NA-22		1274.54	*	9.139E-03	5.908E-02	9.686E-02	8.799E-03	0.094
NA-24		1368.63	*	-1.867E+02	5.908E-02	Half-Life too short		
SC-46		889.28	*	4.320E-03	4.684E-02	7.802E-02	7.250E-03	0.055
	+	1120.55		2.085E-01	1.539E-01	1.586E-01	1.348E-02	1.315
V-48		944.13		-2.593E-01	1.333E+00	2.156E+00	1.993E-01	-0.120
		983.53	*	9.306E-03	1.135E-01	1.877E-01	1.716E-02	0.050
		1312.11		6.816E-02	1.258E-01	2.146E-01	2.023E-02	0.318
CR-51		320.08	*	1.172E-01	5.557E-01	9.318E-01	9.888E-02	0.126
MN-54		834.85	*	1.811E-02	4.701E-02	8.009E-02	7.268E-03	0.226
CO-56		846.77	*	2.216E-03	4.784E-02	7.956E-02	7.260E-03	0.028
		1037.84		-7.345E-02	4.058E-01	6.530E-01	6.123E-02	-0.112
		1238.28		1.274E-01	1.258E-01	2.181E-01	1.960E-02	0.584
		1771.35		-1.360E+00	4.484E-01	3.579E-01	3.127E-02	-3.799
CO-57		122.06	*	-2.149E-02	3.475E-02	5.438E-02	5.478E-03	-0.395
		136.47		-1.044E-02	2.807E-01	4.539E-01	4.822E-02	-0.023
FE-59		1099.45	*	-6.571E-02	1.248E-01	1.933E-01	1.803E-02	-0.340
		1291.59		-1.675E-01	1.774E-01	2.560E-01	2.644E-02	-0.654
CO-60		1173.23		-1.263E-02	6.223E-02	9.939E-02	8.090E-03	-0.127
		1332.49	*	2.088E-03	4.999E-02	8.093E-02	7.780E-03	0.026
ZN-65		1115.54	*	-8.996E-02	1.481E-01	1.914E-01	1.636E-02	-0.470
SE-75		121.12		1.492E-03	1.797E-01	2.886E-01	3.535E-02	0.005
		136.00		-7.964E-03	5.489E-02	8.840E-02	8.949E-03	-0.090
		264.66	*	2.717E-03	6.744E-02	9.837E-02	1.079E-02	0.028
		279.54		1.422E-01	1.675E-01	2.550E-01	2.823E-02	0.558
		400.66		1.723E-01	3.378E-01	5.704E-01	6.249E-02	0.302
SR-85		514.00	*	1.346E-01	6.259E-02	1.013E-01	8.748E-03	1.330
Y-88		898.04		6.769E-03	5.057E-02	8.445E-02	7.908E-03	0.080
		1836.06	*	1.821E-03	4.149E-02	6.861E-02	5.778E-03	0.027

Sample ID : G248866001 Acquisition date : 24-MAR-2010 20:32:18

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91		1204.77	*	-6.058E+00	2.948E+01	4.695E+01	3.958E+00	-0.129
NB-94		702.65	*	2.161E-04	4.222E-02	7.065E-02	5.965E-03	0.003
		871.09		3.484E-03	4.469E-02	7.259E-02	6.695E-03	0.048
NB-95		765.81	*	1.123E-01	6.422E-02	1.064E-01	9.320E-03	1.056
NB-95M		235.69	*	3.981E-01	2.097E-01	3.270E-01	3.940E-02	1.217
ZR-95		724.19		-2.984E-02	1.399E-01	1.971E-01	1.830E-02	-0.151
		756.73	*	9.238E-03	9.285E-02	1.559E-01	1.498E-02	0.059
MO-99		140.51		-7.568E+01	1.150E+02	1.760E+02	4.281E+01	-0.430
		181.07		7.191E+00	9.757E+01	1.371E+02	2.725E+01	0.052
		366.42		-1.810E+02	4.819E+02	7.785E+02	7.134E+01	-0.232
		739.50	*	-1.427E+01	5.605E+01	9.166E+01	1.445E+01	-0.156
		777.92		-1.475E+02	1.662E+02	2.564E+02	2.261E+01	-0.575
TC-99M		140.51	*	-6.730E+16	1.662E+02	Half-Life too short		
RU-103		497.08	*	7.463E-03	5.332E-02	8.760E-02	1.225E-02	0.085
	+	610.33		1.581E+01	3.250E+00	3.722E+00	6.050E-01	4.248
RH-106		621.93	*	5.994E-01	3.751E-01	6.663E-01	8.739E-02	0.900
		1050.41		3.683E-01	3.238E+00	5.350E+00	4.754E-01	0.069
RU-106		621.93	*	5.994E-01	3.703E-01	6.663E-01	5.599E-02	0.900
		1050.41		3.683E-01	3.238E+00	5.350E+00	4.754E-01	0.069
AG-108M		433.94	*	-2.599E-03	3.784E-02	6.172E-02	5.455E-03	-0.042
		614.28		4.037E-02	4.747E-02	7.177E-02	6.260E-03	0.563
		722.91		-2.314E-02	4.830E-02	6.565E-02	5.795E-03	-0.352
AG-110M		657.76	*	-1.056E-02	4.012E-02	6.603E-02	5.619E-03	-0.160
		677.62		9.570E-02	3.552E-01	6.073E-01	5.202E-02	0.158
		706.68		-5.959E-02	2.613E-01	4.299E-01	3.747E-02	-0.139
		763.94		2.489E-01	2.205E-01	3.524E-01	3.166E-02	0.706
		884.68		-9.421E-03	5.587E-02	9.083E-02	8.659E-03	-0.104
		937.49		-1.789E-01	1.498E-01	2.089E-01	1.995E-02	-0.857
		1384.29		-2.193E-01	1.980E-01	2.843E-01	2.799E-02	-0.771
		1505.03		-3.113E-02	3.327E-01	5.459E-01	5.217E-02	-0.057
SN-113		391.69	*	2.021E-02	5.974E-02	1.001E-01	8.695E-03	0.202
CD-115		260.90		-2.689E-04	5.974E-02	Half-Life too short		
		492.35		-1.257E-04	5.974E-02	Half-Life too short		
		527.90	*	-7.532E-06	5.974E-02	Half-Life too short		
SN-117M		156.02		2.685E+00	4.116E+00	6.780E+00	7.067E-01	0.396
		158.56	*	2.582E-02	9.816E-02	1.597E-01	1.674E-02	0.162
TE-123M		159.00	*	-1.129E-02	4.017E-02	6.399E-02	6.744E-03	-0.176
SB-124		602.73		5.278E-02	5.724E-02	8.680E-02	7.357E-03	0.608
		645.85		-3.067E-01	6.643E-01	1.026E+00	9.043E-02	-0.299
		722.78		-2.516E-01	5.151E-01	6.991E-01	6.115E-02	-0.360
		1690.97	*	-4.017E-02	9.513E-02	1.445E-01	1.361E-02	-0.278
SB-125		427.87	*	-3.553E-02	1.157E-01	1.860E-01	1.619E-02	-0.191
	+	463.37		1.515E+00	6.623E-01	6.808E-01	6.308E-02	2.226
		600.60		1.738E-02	2.280E-01	3.694E-01	3.372E-02	0.047
		635.95		1.688E-02	3.196E-01	5.157E-01	4.676E-02	0.033
TE-125M		109.28	*	-1.818E+01	1.400E+01	2.145E+01	2.551E+00	-0.847
I-126		388.63		1.258E-01	2.920E-01	4.916E-01	4.183E-02	0.256
		666.33	*	2.860E-02	3.495E-01	5.896E-01	4.862E-02	0.048
		753.82		3.143E+00	2.939E+00	5.250E+00	4.569E-01	0.599

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-126		414.70		-1.290E-01	1.322E-01	2.036E-01	1.731E-02	-0.634
		666.50		1.757E-02	1.221E-01	2.069E-01	1.706E-02	0.085
		695.00		-6.602E-03	1.333E-01	2.225E-01	1.869E-02	-0.030
		697.00		4.292E-01	4.659E-01	8.225E-01	6.919E-02	0.522
		720.70	*	-3.023E-02	2.615E-01	3.718E-01	3.174E-02	-0.081
		856.80		4.596E-01	8.534E-01	1.292E+00	1.184E-01	0.356
SB-127		252.40		1.176E+01	1.475E+01	2.410E+01	1.026E+01	0.488
		473.00		-1.285E+00	5.253E+00	8.181E+00	1.168E+00	-0.157
		685.70	*	1.335E+00	4.083E+00	6.991E+00	8.992E-01	0.191
		783.70		6.526E+00	1.084E+01	1.877E+01	2.637E+00	0.348
I-131		80.19		-1.210E+01	1.193E+01	1.628E+01	1.926E+00	-0.743
		284.31		-1.967E+00	3.139E+00	4.927E+00	5.494E-01	-0.399
		364.49	*	-7.963E-02	2.292E-01	3.706E-01	3.592E-02	-0.215
		636.99		-1.501E+00	3.007E+00	4.624E+00	4.113E-01	-0.325
TE-132		49.72		7.841E+00	1.704E+02	2.837E+02	4.659E+01	0.028
		111.76		2.142E+01	1.362E+02	2.232E+02	3.066E+01	0.096
		116.30		-1.039E+02	1.197E+02	1.870E+02	2.556E+01	-0.555
		228.16	*	-1.736E+00	2.994E+00	4.894E+00	8.964E-01	-0.355
BA-133		81.00		-2.800E-01	1.749E-01	2.054E-01	3.592E-02	-1.364
	+	276.40		7.068E-01	5.791E-01	8.191E-01	1.275E-01	0.863
	+	302.85		3.906E-01	3.044E-01	3.074E-01	4.423E-02	1.271
		356.01	*	3.246E-02	5.972E-02	8.900E-02	1.203E-02	0.365
		383.85		-2.241E-01	3.789E-01	6.013E-01	7.487E-02	-0.373
I-133		529.87	*	-1.266E-01	3.789E-01	Half-Life too short		
		875.33		3.974E+00	3.789E-01	Half-Life too short		
		1298.22		7.008E+00	3.789E-01	Half-Life too short		
CS-134		563.25		2.899E-01	4.730E-01	7.955E-01	6.891E-02	0.364
		569.33		2.024E-01	2.513E-01	4.278E-01	3.716E-02	0.473
		604.72		-1.497E-02	4.937E-02	6.637E-02	5.634E-03	-0.226
	+	795.86	*	1.276E-01	6.489E-02	1.067E-01	9.566E-03	1.196
		801.95		1.502E-01	4.720E-01	8.080E-01	7.254E-02	0.186
		1365.19		4.597E-01	1.366E+00	2.378E+00	2.376E-01	0.193
CS-135		268.22	*	1.086E-01	2.401E-01	3.580E-01	4.295E-02	0.303
I-135		546.56		-6.026E+15	2.401E-01	Half-Life too short		
		836.80		1.537E+16	2.401E-01	Half-Life too short		
		1038.76		1.195E+14	2.401E-01	Half-Life too short		
		1131.51		-1.248E+15	2.401E-01	Half-Life too short		
		1260.41	*	-2.041E+15	2.401E-01	Half-Life too short		
		1457.56		6.500E+17	2.401E-01	Half-Life too short		
		1678.03		1.664E+15	2.401E-01	Half-Life too short		
		1791.20		1.412E+16	2.401E-01	Half-Life too short		
CS-136		153.25		1.226E+00	1.545E+00	2.555E+00	3.007E-01	0.480
		176.60		-7.477E-02	8.484E-01	1.357E+00	1.558E-01	-0.055
		273.65		4.743E-01	1.378E+00	1.404E+00	1.608E-01	0.338
		340.55		1.331E+00	3.431E-01	5.544E-01	5.601E-02	2.400
		818.51		6.504E-02	1.171E-01	1.797E-01	1.621E-02	0.362
		1048.07	*	-3.219E-02	1.743E-01	2.801E-01	2.592E-02	-0.115
		1235.36		1.321E-01	1.012E+00	1.655E+00	1.959E-01	0.080
BA-137M		661.66	*	2.247E-02	4.113E-02	7.158E-02	5.884E-03	0.314

Sample ID : G248866001 Acquisition date : 24-MAR-2010 20:32:18

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-137		661.66	*	2.373E-02	4.345E-02	7.561E-02	6.229E-03	0.314
CE-139		165.86	*	1.007E-03	4.182E-02	6.559E-02	7.002E-03	0.015
BA-140		162.66		-3.907E-01	1.414E+00	2.250E+00	2.489E-01	-0.174
		304.85		1.197E+00	2.517E+00	3.724E+00	1.112E+00	0.321
		423.72		5.774E-01	3.307E+00	5.471E+00	1.798E+00	0.106
		537.26	*	2.157E-01	4.356E-01	7.215E-01	2.447E-01	0.299
LA-140		328.76		6.399E-01	5.544E-01	9.590E-01	1.006E-01	0.667
		487.02		1.548E-01	2.206E-01	3.761E-01	3.448E-02	0.412
		815.77		-1.900E-01	5.806E-01	7.938E-01	7.911E-02	-0.239
		1596.21	*	-4.541E-02	1.319E-01	2.121E-01	1.989E-02	-0.214
CE-141		145.44	*	6.460E-02	9.328E-02	1.543E-01	1.594E-02	0.419
CE-143		57.36		-5.637E-03	9.328E-02	Half-Life too short		
		293.27	*	1.237E-02	9.328E-02	Half-Life too short		
		664.57		-5.871E-03	9.328E-02	Half-Life too short		
		721.93		-2.379E-03	9.328E-02	Half-Life too short		
CE-144		80.12		-3.730E+00	4.165E+00	5.730E+00	6.735E-01	-0.651
		133.52	*	-2.958E-01	2.809E-01	4.206E-01	6.787E-02	-0.703
PM-144		476.78		1.270E-01	8.132E-02	1.445E-01	1.355E-02	0.879
		618.01		-2.526E-02	4.055E-02	6.195E-02	5.370E-03	-0.408
		696.49	*	4.395E-02	4.453E-02	7.891E-02	6.641E-03	0.557
PR-144		696.51	*	3.629E+00	3.323E+00	5.923E+00	4.981E-01	0.613
		1489.16		-1.691E+01	1.751E+01	2.533E+01	2.426E+00	-0.667
PM-146		453.88	*	3.479E-02	5.409E-02	8.961E-02	9.476E-03	0.388
		633.25		3.078E-01	1.692E+00	2.753E+00	1.050E+00	0.112
		735.93		1.381E-02	1.985E-01	2.992E-01	8.386E-02	0.046
		747.24		-1.113E-01	1.226E-01	1.886E-01	2.756E-02	-0.590
ND-147		91.11		8.004E-01	9.028E-01	9.846E-01	1.219E-01	0.813
		319.41		-1.371E+00	6.042E+00	9.915E+00	1.016E+00	-0.138
		531.02	*	-2.912E-02	9.461E-01	1.531E+00	2.290E-01	-0.019
PM-149		285.90	*	-5.285E-04	9.461E-01	Half-Life too short		
EU-152		121.78		-7.795E-02	9.916E-02	1.539E-01	1.721E-02	-0.507
		244.70		9.360E-01	4.734E-01	7.536E-01	8.306E-02	1.242
		344.28	*	-5.316E-02	1.536E-01	2.017E-01	2.053E-02	-0.264
		778.90		-2.664E-01	3.073E-01	4.737E-01	4.179E-02	-0.562
	+	964.08		9.013E-01	5.138E-01	7.469E-01	6.869E-02	1.207
		1085.87		1.004E-01	5.143E-01	8.536E-01	7.433E-02	0.118
		1112.07		5.594E-01	4.367E-01	7.226E-01	6.184E-02	0.774
		1408.01		1.058E-01	2.075E-01	3.669E-01	3.535E-02	0.288
GD-153		69.67		-1.123E-02	3.205E+00	4.641E+00	5.298E-01	-0.002
		97.43	*	1.284E-02	1.284E-01	1.849E-01	2.041E-02	0.069
		103.18		-1.054E-01	1.533E-01	2.435E-01	2.574E-02	-0.433
EU-154		123.07		-6.391E-02	6.970E-02	1.085E-01	1.354E-02	-0.589
		723.31		-9.978E-02	2.218E-01	3.027E-01	2.855E-02	-0.330
		873.19		-5.292E-02	3.506E-01	5.723E-01	7.065E-02	-0.092
		996.26		-3.554E-01	4.679E-01	7.093E-01	1.256E-01	-0.501
		1004.73		-1.495E-01	2.731E-01	4.252E-01	5.092E-02	-0.352
		1274.44	*	4.005E-02	1.668E-01	2.755E-01	3.231E-02	0.145
EU-155	+	86.55		2.779E-01	1.715E-01	2.483E-01	3.063E-02	1.119
		105.31	*	1.118E-01	1.414E-01	2.366E-01	2.492E-02	0.473

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TB-160	+	86.79		7.737E-01	4.773E-01	6.894E-01	8.477E-02	1.122
		197.04		6.528E-01	8.044E-01	1.324E+00	1.443E-01	0.493
		215.65		-2.449E-01	1.031E+00	1.624E+00	1.786E-01	-0.151
		298.57		2.644E-01	2.559E-01	2.789E-01	2.951E-02	0.948
		879.36	*	-4.397E-02	1.655E-01	2.666E-01	2.467E-02	-0.165
		962.29		1.544E+00	8.184E-01	1.364E+00	1.255E-01	1.132
	+	966.15		6.616E-01	3.771E-01	7.320E-01	6.728E-02	0.904
		1177.93		-3.571E-01	5.112E-01	7.787E-01	6.372E-02	-0.459
		1271.85		1.501E-01	9.805E-01	1.608E+00	1.455E-01	0.093
HO-166M		80.57		-6.309E-01	4.468E-01	5.934E-01	6.991E-02	-1.063
		184.41		2.014E-01	5.702E-02	8.751E-02	9.463E-03	2.302
		280.46		9.564E-02	1.215E-01	1.848E-01	1.996E-02	0.518
		410.95		7.205E-01	3.332E-01	5.992E-01	5.086E-02	1.202
		711.68	*	-2.328E-02	7.347E-02	1.200E-01	1.019E-02	-0.194
		752.31		5.648E-02	3.401E-01	5.737E-01	4.989E-02	0.098
	+	810.29		1.238E-01	1.013E-01	1.256E-01	1.127E-02	0.985
TA-182		67.75		-2.913E-01	2.239E-01	3.181E-01	3.630E-02	-0.916
		100.11		2.360E-01	2.423E-01	4.079E-01	4.403E-02	0.578
		152.43		1.245E-01	4.948E-01	8.056E-01	8.331E-02	0.155
		222.11		3.521E-01	4.761E-01	8.209E-01	9.047E-02	0.429
	+	1121.30		5.710E-01	4.215E-01	4.433E-01	3.768E-02	1.288
		1189.05		-2.349E-02	4.453E-01	7.196E-01	5.962E-02	-0.033
		1221.41	*	-1.409E-01	2.866E-01	4.460E-01	3.828E-02	-0.316
		1231.02		-2.409E-01	6.610E-01	1.038E+00	9.004E-02	-0.232
IR-192	+	295.96		1.286E+00	2.499E-01	3.725E-01	3.974E-02	3.451
		308.46		2.356E-02	1.404E-01	2.145E-01	2.246E-02	0.110
		316.51	*	-2.638E-02	4.733E-02	7.628E-02	7.865E-03	-0.346
		468.07		-2.269E-02	8.987E-02	1.233E-01	1.141E-02	-0.184
BI-207		72.81		6.005E-01	2.853E-01	4.866E-01	5.573E-02	1.234
	+	74.97		8.388E-01	2.894E-01	3.446E-01	3.966E-02	2.434
		569.70		2.985E-02	3.893E-02	6.612E-02	5.664E-03	0.451
		1063.66	*	2.048E-02	7.047E-02	1.180E-01	1.041E-02	0.174
		1770.23		-4.695E-01	5.594E-01	5.484E-01	4.794E-02	-0.856
PB-210		46.54	*	1.438E+00	1.286E+01	2.122E+01	2.612E+00	0.068
PB-211		404.85	*	-1.314E+00	1.157E+00	1.467E+00	7.095E-01	-0.896
		427.09		-3.087E-01	1.964E+00	3.181E+00	1.471E+00	-0.097
		832.01		8.238E-01	1.281E+00	2.107E+00	1.094E+00	0.391
BI-212	+	727.33	*	2.104E+00	1.140E+00	1.419E+00	1.763E-01	1.483
		785.37		3.787E+00	3.823E+00	6.791E+00	6.012E-01	0.558
		1620.50		2.040E+00	2.917E+00	5.277E+00	4.911E-01	0.387
RN-219	+	271.23		7.359E-01	4.694E-01	5.823E-01	7.116E-02	1.264
		401.81	*	1.499E-01	5.192E-01	8.668E-01	1.281E-01	0.173
RA-223		81.07		-6.332E-01	3.871E-01	4.644E-01	5.487E-02	-1.364
		83.79		2.519E-02	2.120E-01	2.801E-01	3.368E-02	0.090
	+	94.87		1.587E+00	1.131E+00	1.142E+00	1.293E-01	1.389
		144.24		9.147E-02	9.239E-01	1.480E+00	1.635E-01	0.062
		154.21		2.900E-01	5.381E-01	8.836E-01	9.786E-02	0.328
		269.46		5.127E-01	2.876E-01	4.520E-01	4.988E-02	1.134
		323.87	*	-9.087E-01	9.031E-01	1.402E+00	2.544E-01	-0.648

Sample ID : G248866001 Acquisition date : 24-MAR-2010 20:32:18

---- Non-Identified Nuclides ----

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	+	338.28		8.355E+00	2.381E+00	3.053E+00	3.964E-01	2.737
AC-227		79.69		1.617E+00	2.083E+00	3.073E+00	5.834E-01	0.526
		235.96		9.047E-01	2.712E-01	4.199E-01	5.218E-02	2.154
		256.23	*	-1.846E-01	3.214E-01	5.227E-01	7.234E-02	-0.353
	+	299.98		2.378E+00	1.852E+00	2.026E+00	2.855E-01	1.174
		304.50		1.196E+00	2.273E+00	3.394E+00	5.966E-01	0.352
		334.37		-1.142E-01	2.583E+00	3.702E+00	6.055E-01	-0.031
TH-227		79.80		-9.747E-01	2.752E+00	3.893E+00	9.028E-01	-0.250
		235.96		9.047E-01	2.695E-01	4.199E-01	5.016E-02	2.154
		256.23	*	-1.846E-01	3.216E-01	5.227E-01	7.951E-02	-0.353
	+	299.98		2.378E+00	1.852E+00	2.026E+00	2.855E-01	1.174
		304.50		1.196E+00	2.273E+00	3.394E+00	5.966E-01	0.352
		334.37		-1.142E-01	2.583E+00	3.702E+00	6.055E-01	-0.031
TH-229		85.43		6.007E-01	3.310E-01	5.017E-01	6.104E-02	1.197
	+	88.47		3.526E-01	2.175E-01	3.302E-01	4.069E-02	1.068
		193.51	*	1.716E-01	7.672E-01	1.195E+00	1.300E-01	0.144
	+	210.85		2.435E+00	2.014E+00	2.203E+00	2.419E-01	1.106
PA-231		283.69	*	2.095E-01	1.967E+00	3.116E+00	4.969E-01	0.067
	+	301.36		1.527E+00	1.188E+00	1.322E+00	1.796E-01	1.155
TH-231		81.07		-6.332E-01	3.871E-01	4.644E-01	5.487E-02	-1.364
		83.79		2.519E-02	2.120E-01	2.801E-01	3.368E-02	0.090
	+	94.87		1.587E+00	1.131E+00	1.142E+00	1.293E-01	1.389
		144.24		9.147E-02	9.239E-01	1.480E+00	1.635E-01	0.062
		154.21		2.900E-01	5.381E-01	8.836E-01	9.786E-02	0.328
		269.46		5.127E-01	2.876E-01	4.520E-01	4.988E-02	1.134
		323.87	*	-9.087E-01	9.031E-01	1.402E+00	2.544E-01	-0.648
	+	338.28		8.355E+00	2.381E+00	3.053E+00	3.964E-01	2.737
PA-233	+	300.13		1.076E+00	8.419E-01	9.175E-01	1.471E-01	1.173
		311.90	*	2.063E-02	8.381E-02	1.409E-01	1.491E-02	0.146
		340.48		4.469E+00	1.503E+00	1.814E+00	4.449E-01	2.463
PA-234	+	94.67		5.751E-01	4.130E-01	4.273E-01	6.166E-02	1.346
		98.44		8.614E-02	1.458E-01	2.033E-01	1.142E-01	0.424
		111.00		6.432E-02	2.391E-01	3.933E-01	5.221E-02	0.164
		131.20		-2.440E-02	1.421E-01	2.289E-01	2.298E-02	-0.107
		569.50		2.188E-01	3.472E-01	5.848E-01	5.010E-02	0.374
		733.00		-2.026E-01	5.349E-01	7.352E-01	1.631E-01	-0.276
		880.51		-1.300E-01	3.158E-01	5.013E-01	4.642E-02	-0.259
		883.24		-2.339E-02	3.225E-01	5.287E-01	3.559E-01	-0.044
		926.50		-7.824E-02	2.073E-01	3.281E-01	8.370E-02	-0.238
		946.00	*	-1.556E-01	3.752E-01	5.930E-01	1.130E-01	-0.262
		949.00		2.019E-01	5.483E-01	9.303E-01	8.591E-02	0.217
PA-234M	+	766.42		3.417E+01	2.474E+01	2.749E+01	1.396E+01	1.243
		1001.03	*	5.249E+00	5.908E+00	1.031E+01	1.069E+00	0.509
TH-234		63.29	*	2.229E+00	2.519E+00	4.222E+00	8.372E-01	0.528
	+	92.59		2.135E+00	1.582E+00	1.798E+00	4.210E-01	1.188
U-235		89.96		-6.687E-01	2.018E+00	2.031E+00	5.283E-01	-0.329
	+	93.35		1.612E+00	1.200E+00	1.324E+00	3.221E-01	1.218
		143.76	*	-1.122E-01	2.793E-01	4.382E-01	7.797E-02	-0.256
		163.33		3.017E-02	5.859E-01	9.202E-01	1.747E-01	0.033

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	185.72		2.159E-01	9.669E-02	1.158E-01	1.253E-02	1.865
		205.31		1.321E-01	7.550E-01	1.053E+00	2.039E-01	0.125
U-238		63.29	*	2.229E+00	2.519E+00	4.222E+00	8.372E-01	0.528
	+	92.59		2.135E+00	1.521E+00	1.798E+00	2.090E-01	1.188
NP-239		99.53		2.500E-01	2.245E-01	3.676E-01	3.986E-02	0.680
		103.37		-1.856E-02	1.352E-01	2.197E-01	2.320E-02	-0.085
		106.12		1.156E-01	1.119E-01	1.883E-01	1.960E-02	0.614
		117.23	*	-1.376E-01	5.227E-01	8.415E-01	8.493E-02	-0.164
		228.18		-1.642E-01	2.842E-01	4.662E-01	5.143E-02	-0.352
	+	277.60		3.492E-01	2.834E-01	4.040E-01	4.375E-02	0.864
AM-241		59.54	*	-3.335E-01	3.069E-01	4.833E-01	5.673E-02	-0.690
CM-247	+	278.00		1.483E+00	1.204E+00	1.715E+00	1.857E-01	0.865
		287.50		6.026E-01	1.612E+00	2.731E+00	2.928E-01	0.221
		402.40	*	1.426E-02	4.765E-02	7.964E-02	6.735E-03	0.179
CF-249		252.80		4.110E-01	1.211E+00	2.058E+00	2.263E-01	0.200
		333.37		-1.702E-01	2.899E-01	3.997E-01	3.983E-02	-0.426
		388.16	*	3.096E-02	5.240E-02	8.894E-02	7.582E-03	0.348
CF-251		177.52	*	-1.112E-02	1.670E-01	2.673E-01	2.876E-02	-0.042
		227.38		-2.830E-01	4.687E-01	7.683E-01	8.475E-02	-0.368
		285.41		-2.333E+00	2.839E+00	4.534E+00	4.873E-01	-0.515

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248866001       *
* Acquisition date : 24-MAR-2010 20:32:18 Detector SN#    :                 *
* Detector ID       : GAM15                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.42      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  4-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248866001           Analyst initials: MXR1           *
* Batch Number      : 962633               Sample Quantity : 1.3300E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.588E+01	4.030E+00	4.818E-01	0.000E+00
CO-58	8.646E-02	6.932E-02	7.687E-02	0.000E+00
CD-109	2.358E+00	1.426E+00	2.198E+00	0.000E+00
SN-126	2.287E-01	1.383E-01	2.142E-01	0.000E+00
HG-203	8.374E-02	6.663E-02	9.281E-02	0.000E+00
TL-208	5.766E-01	1.122E-01	6.778E-02	0.000E+00
BI-211	4.116E+00	6.531E-01	4.596E-01	0.000E+00
PB-212	2.046E+00	2.783E-01	1.263E-01	0.000E+00
BI-214	1.397E+00	2.196E-01	1.472E-01	0.000E+00
PB-214	1.494E+00	2.504E-01	1.599E-01	0.000E+00
RA-224	5.583E+00	1.846E+00	1.353E+00	0.000E+00
RA-226	1.397E+00	2.196E-01	1.472E-01	0.000E+00
AC-228	1.963E+00	4.256E-01	2.879E-01	0.000E+00
RA-228	1.963E+00	4.256E-01	2.879E-01	0.000E+00
TH-228	2.046E+00	2.783E-01	1.263E-01	0.000E+00
TH-230	1.396E+00	2.074E-01	1.472E-01	0.000E+00
TH-232	1.963E+00	4.256E-01	2.879E-01	0.000E+00
NP-237	6.824E-01	4.357E-01	6.171E-01	0.000E+00
ANH-511	1.031E-01	8.490E-02	6.023E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	4.956E-01	4.291E-01	7.778E-01	0.000E+00	NOT IDENT.
NA-22	9.139E-03	5.790E-02	9.725E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.653E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	4.320E-03	4.591E-02	7.884E-02	0.000E+00	FAIL ABUN
V-48	9.306E-03	1.112E-01	1.893E-01	0.000E+00	NOT IDENT.
CR-51	1.172E-01	5.446E-01	9.586E-01	0.000E+00	NOT IDENT.
MN-54	1.811E-02	4.607E-02	8.103E-02	0.000E+00	NOT IDENT.
CO-56	2.216E-03	4.689E-02	8.047E-02	0.000E+00	NOT IDENT.

CO-57	-2.149E-02	3.405E-02	5.686E-02	0.000E+00	NOT IDENT.
FE-59	-6.571E-02	1.223E-01	1.946E-01	0.000E+00	NOT IDENT.
CO-60	2.088E-03	4.899E-02	8.119E-02	0.000E+00	NOT IDENT.
ZN-65	-8.996E-02	1.451E-01	1.927E-01	0.000E+00	NOT IDENT.
SE-75	2.717E-03	6.609E-02	1.015E-01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	6.134E-02	1.033E-01	0.000E+00	NOT IDENT.
Y-88	1.821E-03	4.066E-02	6.843E-02	0.000E+00	NOT IDENT.
Y-91	-6.058E+00	2.889E+01	4.719E+01	0.000E+00	NOT IDENT.
NB-94	2.161E-04	4.137E-02	7.169E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	6.293E-02	1.078E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.055E-01	3.382E-01	0.000E+00	NOT IDENT.
ZR-95	9.238E-03	9.100E-02	1.580E-01	0.000E+00	NOT IDENT.
MO-99	-1.427E+01	5.493E+01	9.293E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.022E+23	0.000E+00	0.000E+00	SHORT HLIF
RU-103	7.463E-03	5.225E-02	8.944E-02	0.000E+00	FAIL ABUN
RH-106	5.994E-01	3.676E-01	6.776E-01	0.000E+00	NOT IDENT.
RU-106	5.994E-01	3.628E-01	6.776E-01	0.000E+00	NOT IDENT.
AG-108M	-2.599E-03	3.708E-02	6.316E-02	0.000E+00	NOT IDENT.
AG-110M	-1.056E-02	3.932E-02	6.708E-02	0.000E+00	NOT IDENT.
SN-113	2.021E-02	5.854E-02	1.026E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	6.958E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	2.582E-02	9.620E-02	1.663E-01	0.000E+00	NOT IDENT.
TE-123M	-1.129E-02	3.937E-02	6.662E-02	0.000E+00	NOT IDENT.
SB-124	-4.017E-02	9.323E-02	1.443E-01	0.000E+00	NOT IDENT.
SB-125	-3.553E-02	1.134E-01	1.903E-01	0.000E+00	FAIL ABUN
TE-125M	-1.818E+01	1.372E+01	2.247E+01	0.000E+00	NOT IDENT.
I-126	2.860E-02	3.425E-01	5.989E-01	0.000E+00	NOT IDENT.
SB-126	-3.023E-02	2.562E-01	3.771E-01	0.000E+00	NOT IDENT.
SB-127	1.335E+00	4.001E+00	7.097E+00	0.000E+00	NOT IDENT.
I-131	-7.963E-02	2.246E-01	3.804E-01	0.000E+00	NOT IDENT.
TE-132	-1.736E+00	2.934E+00	5.064E+00	0.000E+00	NOT IDENT.
BA-133	3.246E-02	5.852E-02	9.140E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	4.702E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.359E-02	1.081E-01	0.000E+00	FAIL ABUN
CS-135	1.086E-01	2.353E-01	3.694E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.942E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.219E-02	1.708E-01	2.823E-01	0.000E+00	NOT IDENT.
BA-137M	2.247E-02	4.031E-02	7.271E-02	0.000E+00	NOT IDENT.
CS-137	2.373E-02	4.258E-02	7.681E-02	0.000E+00	NOT IDENT.
CE-139	1.007E-03	4.098E-02	6.824E-02	0.000E+00	NOT IDENT.
BA-140	2.157E-01	4.269E-01	7.356E-01	0.000E+00	NOT IDENT.
LA-140	-4.541E-02	1.293E-01	2.121E-01	0.000E+00	NOT IDENT.
CE-141	6.460E-02	9.141E-02	1.608E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.247E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.958E-01	2.753E-01	4.391E-01	0.000E+00	NOT IDENT.
PM-144	4.395E-02	4.364E-02	8.009E-02	0.000E+00	NOT IDENT.
PR-144	3.629E+00	3.257E+00	6.012E+00	0.000E+00	NOT IDENT.
PM-146	3.479E-02	5.301E-02	9.164E-02	0.000E+00	NOT IDENT.
ND-147	-2.912E-02	9.272E-01	1.561E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	6.097E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-5.316E-02	1.506E-01	2.073E-01	0.000E+00	FAIL ABUN
GD-153	1.284E-02	1.258E-01	1.941E-01	0.000E+00	NOT IDENT.
EU-154	4.005E-02	1.635E-01	2.767E-01	0.000E+00	NOT IDENT.
EU-155	1.118E-01	1.386E-01	2.480E-01	0.000E+00	FAIL ABUN
TB-160	-4.397E-02	1.621E-01	2.695E-01	0.000E+00	FAIL ABUN
HO-166M	-2.328E-02	7.200E-02	1.217E-01	0.000E+00	FAIL ABUN
TA-182	-1.409E-01	2.809E-01	4.481E-01	0.000E+00	FAIL ABUN
IR-192	-2.638E-02	4.639E-02	7.849E-02	0.000E+00	FAIL ABUN
BI-207	2.048E-02	6.906E-02	1.188E-01	0.000E+00	FAIL ABUN
PB-210	1.438E+00	1.260E+01	2.254E+01	0.000E+00	NOT IDENT.
PB-211	-1.314E+00	1.134E+00	1.503E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.117E+00	1.439E+00	0.000E+00	FAIL ABUN
RN-219	1.499E-01	5.088E-01	8.882E-01	0.000E+00	FAIL ABUN
RA-223	-9.087E-01	8.851E-01	1.442E+00	0.000E+00	FAIL ABUN
AC-227	-1.846E-01	3.149E-01	5.398E-01	0.000E+00	FAIL ABUN
TH-227	-1.846E-01	3.151E-01	5.398E-01	0.000E+00	FAIL ABUN
TH-229	1.716E-01	7.518E-01	1.240E+00	0.000E+00	FAIL ABUN
PA-231	2.095E-01	1.927E+00	3.212E+00	0.000E+00	FAIL ABUN
TH-231	-9.087E-01	8.851E-01	1.442E+00	0.000E+00	FAIL ABUN
PA-233	2.063E-02	8.213E-02	1.450E-01	0.000E+00	FAIL ABUN
PA-234	-1.556E-01	3.677E-01	5.986E-01	0.000E+00	FAIL ABUN
PA-234M	5.249E+00	5.790E+00	1.040E+01	0.000E+00	FAIL ABUN
TH-234	2.229E+00	2.469E+00	4.463E+00	0.000E+00	FAIL ABUN
U-235	-1.122E-01	2.737E-01	4.569E-01	0.000E+00	FAIL ABUN
U-238	2.229E+00	2.469E+00	4.463E+00	0.000E+00	FAIL ABUN
NP-239	-1.376E-01	5.122E-01	8.805E-01	0.000E+00	FAIL ABUN
AM-241	-3.335E-01	3.007E-01	5.114E-01	0.000E+00	NOT IDENT.
CM-247	1.426E-02	4.670E-02	8.161E-02	0.000E+00	FAIL ABUN

CF-249	3.096E-02	5.136E-02	9.120E-02	0.000E+00	NOT IDENT.
CF-251	-1.112E-02	1.637E-01	2.778E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:33:28.14

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248866001.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:32:18
Sample ID         : G248866001           Sample quantity  : 1.33000E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.42  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1310	10.66*	9.662E-01	3.588E+01	3.588E+01	11.46
CO-58	810.76	42	99.45*	1.665E+00	7.082E-02	8.646E-02	81.82
CD-109	88.03	134	3.70*	4.470E+00	2.287E+00	2.358E+00	61.69
SN-126	64.28	------	9.60	1.941E+00	------ Line Not Found		------
	86.94	134	8.90	4.470E+00	9.508E-01	9.508E-01	73.77
	87.57	134	37.00*	4.470E+00	2.287E-01	2.287E-01	61.69
HG-203	70.83	------	3.69	2.755E+00	------ Line Not Found		------
	72.87	------	6.19	3.001E+00	------ Line Not Found		------
	279.20	66	81.56*	3.702E+00	6.182E-02	8.374E-02	81.18
TL-208	277.37	66	6.60	3.702E+00	7.640E-01	7.640E-01	81.67
	583.19	380	85.00*	2.190E+00	5.766E-01	5.766E-01	19.85
	860.56	69	12.50	1.575E+00	9.883E-01	9.883E-01	63.22
BI-211	72.87	------	1.23	3.001E+00	------ Line Not Found		------
	351.06	592	12.92*	3.140E+00	4.116E+00	4.116E+00	16.19
PB-212	74.82	344	10.28	3.243E+00	2.909E+00	2.909E+00	35.84
	77.11	479	17.10	3.507E+00	2.256E+00	2.256E+00	20.88
	238.63	1300	43.60*	4.114E+00	2.046E+00	2.046E+00	13.88
	300.09	88	3.30	3.497E+00	2.161E+00	2.161E+00	77.56
BI-214	609.32	477	45.49*	2.117E+00	1.396E+00	1.397E+00	16.05
	1120.29	77	14.92	1.226E+00	1.180E+00	1.180E+00	74.12
	1764.49	87	15.30	8.554E-01	1.876E+00	1.876E+00	23.17
PB-214	74.82	344	5.80	3.243E+00	5.157E+00	5.157E+00	35.40
	77.11	479	9.70	3.507E+00	3.977E+00	3.977E+00	22.45
	242.00	331	7.25	4.079E+00	3.157E+00	3.157E+00	34.24
	295.22	383	18.42	3.546E+00	1.655E+00	1.655E+00	20.48
	351.93	592	35.60*	3.140E+00	1.494E+00	1.494E+00	17.11
RA-224	240.99	331	4.10*	4.079E+00	5.583E+00	5.583E+00	33.75
RA-226	609.32	477	45.49*	2.117E+00	1.396E+00	1.397E+00	16.05
	1120.29	77	14.92	1.226E+00	1.180E+00	1.180E+00	74.12
	1764.49	87	15.30	8.554E-01	1.876E+00	1.876E+00	23.17
AC-228	338.32	271	11.27	3.226E+00	2.105E+00	2.105E+00	49.06
	911.20	268	25.80*	1.494E+00	1.963E+00	1.963E+00	22.12

Sample ID : G248866001 Acquisition date : 24-MAR-2010 20:32:18

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	166	15.80	1.410E+00	2.103E+00	2.103E+00	35.31
RA-228	338.32	271	11.27	3.226E+00	2.105E+00	2.105E+00	49.06
	911.20	268	25.80*	1.494E+00	1.963E+00	1.963E+00	22.12
	968.97	166	15.80	1.410E+00	2.103E+00	2.103E+00	35.31
TH-228	74.82	344	10.28	3.243E+00	2.909E+00	2.909E+00	34.52
	77.11	479	17.10	3.507E+00	2.256E+00	2.256E+00	20.88
	238.63	1300	43.60*	4.114E+00	2.046E+00	2.046E+00	13.88
	300.09	88	3.30	3.497E+00	2.161E+00	2.161E+00	98.24
TH-230	609.32	477	45.49*	2.117E+00	1.396E+00	1.396E+00	15.16
	1120.29	77	14.92	1.226E+00	1.180E+00	1.180E+00	73.82
	1764.49	87	15.30	8.554E-01	1.876E+00	1.876E+00	23.17
TH-232	338.32	271	11.27	3.226E+00	2.105E+00	2.105E+00	27.22
	911.20	268	25.80*	1.494E+00	1.963E+00	1.963E+00	22.12
	968.97	166	15.80	1.410E+00	2.103E+00	2.103E+00	35.31
NP-237	86.48	134	12.40*	4.470E+00	6.824E-01	6.824E-01	65.15
	95.86	------	2.68	5.004E+00	------	Line Not Found	------
ANH-511	511.00	88	100.00*	2.420E+00	1.031E-01	1.031E-01	84.01

Flag: "*" = Keyline

Sample ID : G248866001 Acquisition date : 24-MAR-2010 20:32:18

Total number of lines in spectrum 29
Number of unidentified lines 0
Number of lines tentatively identified by NID 29 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.588E+01	3.588E+01	0.411E+01	11.46	
CO-58	70.86D	1.22	7.082E-02	8.646E-02	7.074E-02	81.82	
CD-109	461.40D	1.03	2.287E+00	2.358E+00	1.455E+00	61.69	
SN-126	2.30E+05Y	1.00	2.287E-01	2.287E-01	1.411E-01	61.69	
HG-203	46.59D	1.35	6.182E-02	8.374E-02	6.799E-02	81.18	
TL-208	1.41E+10Y	1.00	5.766E-01	5.766E-01	1.144E-01	19.85	
BI-211	7.04E+08Y	1.00	4.116E+00	4.116E+00	0.666E+00	16.19	
PB-212	1.41E+10Y	1.00	2.046E+00	2.046E+00	0.284E+00	13.88	
BI-214	1600.00Y	1.00	1.396E+00	1.397E+00	0.224E+00	16.05	
PB-214	1600.00Y	1.00	1.494E+00	1.494E+00	0.256E+00	17.11	
RA-224	1.41E+10Y	1.00	5.583E+00	5.583E+00	1.884E+00	33.75	
RA-226	1600.00Y	1.00	1.396E+00	1.397E+00	0.224E+00	16.05	
AC-228	1.41E+10Y	1.00	1.963E+00	1.963E+00	0.434E+00	22.12	
RA-228	1.41E+10Y	1.00	1.963E+00	1.963E+00	0.434E+00	22.12	
TH-228	1.41E+10Y	1.00	2.046E+00	2.046E+00	0.284E+00	13.88	
TH-230	7.54E+04Y	1.00	1.396E+00	1.396E+00	0.212E+00	15.16	
TH-232	1.41E+10Y	1.00	1.963E+00	1.963E+00	0.434E+00	22.12	
NP-237	2.14E+06Y	1.00	6.824E-01	6.824E-01	4.446E-01	65.15	
ANH-511	1.00E+09Y	1.00	1.031E-01	1.031E-01	0.866E-01	84.01	
			---	---			
	Total Activity :		6.526E+01	6.537E+01			

Grand Total Activity : 6.526E+01 6.537E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248866001 Acquisition date : 24-MAR-2010 20:32:18

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	93.56	156	687	1.31	186.04	180	11	2.17E-02	70.3	4.87E+00	T
0	186.12	212	449	1.70	371.16	366	12	2.95E-02	43.4	4.86E+00	T
0	210.06	108	466	1.38	419.03	411	12	1.51E-02	82.0	4.49E+00	T
0	271.05	106	262	1.37	541.00	535	11	1.47E-02	62.6	3.77E+00	T
0	463.69	145	137	1.89	926.29	917	19	2.01E-02	42.7	2.59E+00	T
0	727.79	91	94	1.66	1454.52	1447	16	1.26E-02	52.8	1.83E+00	T
0	767.91	68	63	1.60	1534.77	1529	11	9.40E-03	51.6	1.75E+00	T
4	795.38	58	36	2.80	1589.71	1583	47	8.02E-03	50.1	1.69E+00	T
5	964.77	66	69	1.97	1928.54	1922	23	9.17E-03	56.3	1.42E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:33:32.28

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248866001.CNF;1  *
* Acquisition date : 24-MAR-2010 20:32:18  Detector SN#    :                *
* Detector ID      : GAM15                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.42         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 4-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248866001            Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.33000E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.588E+01	4.112E+00	4.810E-01	4.727E-02	74.597
CO-58	8.646E-02	7.074E-02	7.594E-02	6.827E-03	1.138
CD-109	2.358E+00	1.455E+00	2.091E+00	2.596E-01	1.128
SN-126	2.287E-01	1.411E-01	2.037E-01	2.521E-02	1.123
HG-203	8.374E-02	6.799E-02	9.000E-02	9.890E-03	0.930
TL-208	5.766E-01	1.144E-01	6.658E-02	6.089E-03	8.661
BI-211	4.116E+00	6.665E-01	4.475E-01	4.457E-02	9.197
PB-212	2.046E+00	2.840E-01	1.221E-01	1.459E-02	16.753
BI-214	1.397E+00	2.241E-01	1.447E-01	1.442E-02	9.649
PB-214	1.494E+00	2.555E-01	1.557E-01	1.769E-02	9.595
RA-224	5.583E+00	1.884E+00	1.309E+00	1.443E-01	4.266
RA-226	1.397E+00	2.241E-01	1.447E-01	1.442E-02	9.649
AC-228	1.963E+00	4.343E-01	2.850E-01	3.452E-02	6.888
RA-228	1.963E+00	4.343E-01	2.850E-01	3.452E-02	6.888
TH-228	2.046E+00	2.840E-01	1.221E-01	1.459E-02	16.753
TH-230	1.396E+00	2.117E-01	1.447E-01	1.223E-02	9.649
TH-232	1.963E+00	4.343E-01	2.850E-01	3.452E-02	6.888
NP-237	6.824E-01	4.446E-01	5.868E-01	1.425E-01	1.163

Sample ID : G248866001 Acquisition date : 24-MAR-2010 20:32:18

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	1.031E-01	8.664E-02	5.902E-02	5.100E-03	1.747

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.956E-01		4.378E-01	7.613E-01	7.076E-02	0.651
NA-22	9.139E-03		5.908E-02	9.686E-02	8.799E-03	0.094
NA-24	-1.867E+02		1.353E+02	Half-Life too short		
SC-46	4.320E-03		4.684E-02	7.802E-02	7.250E-03	0.055
V-48	9.306E-03		1.135E-01	1.877E-01	1.716E-02	0.050
CR-51	1.172E-01		5.557E-01	9.318E-01	9.888E-02	0.126
MN-54	1.811E-02		4.701E-02	8.009E-02	7.268E-03	0.226
CO-56	2.216E-03		4.784E-02	7.956E-02	7.260E-03	0.028
CO-57	-2.149E-02		3.475E-02	5.438E-02	5.478E-03	-0.395
FE-59	-6.571E-02		1.248E-01	1.933E-01	1.803E-02	-0.340
CO-60	2.088E-03		4.999E-02	8.093E-02	7.780E-03	0.026
ZN-65	-8.996E-02		1.481E-01	1.914E-01	1.636E-02	-0.470
SE-75	2.717E-03		6.744E-02	9.837E-02	1.079E-02	0.028
SR-85	1.346E-01		6.259E-02	1.013E-01	8.748E-03	1.330
Y-88	1.821E-03		4.149E-02	6.861E-02	5.778E-03	0.027
Y-91	-6.058E+00		2.948E+01	4.695E+01	3.958E+00	-0.129
NB-94	2.161E-04		4.222E-02	7.065E-02	5.965E-03	0.003
NB-95	1.123E-01		6.422E-02	1.064E-01	9.320E-03	1.056
NB-95M	3.981E-01		2.097E-01	3.270E-01	3.940E-02	1.217
ZR-95	9.238E-03		9.285E-02	1.559E-01	1.498E-02	0.059
MO-99	-1.427E+01		5.605E+01	9.166E+01	1.445E+01	-0.156
TC-99M	-6.730E+16		5.213E+16	Half-Life too short		
RU-103	7.463E-03		5.332E-02	8.760E-02	1.225E-02	0.085
RH-106	5.994E-01		3.751E-01	6.663E-01	8.739E-02	0.900
RU-106	5.994E-01		3.703E-01	6.663E-01	5.599E-02	0.900
AG-108M	-2.599E-03		3.784E-02	6.172E-02	5.455E-03	-0.042
AG-110M	-1.056E-02		4.012E-02	6.603E-02	5.619E-03	-0.160
SN-113	2.021E-02		5.974E-02	1.001E-01	8.695E-03	0.202
CD-115	-7.532E-06		3.550E-05	Half-Life too short		
SN-117M	2.582E-02		9.816E-02	1.597E-01	1.674E-02	0.162
TE-123M	-1.129E-02		4.017E-02	6.399E-02	6.744E-03	-0.176
SB-124	-4.017E-02		9.513E-02	1.445E-01	1.361E-02	-0.278
SB-125	-3.553E-02		1.157E-01	1.860E-01	1.619E-02	-0.191
TE-125M	-1.818E+01		1.400E+01	2.145E+01	2.551E+00	-0.847
I-126	2.860E-02		3.495E-01	5.896E-01	4.862E-02	0.048
SB-126	-3.023E-02		2.615E-01	3.718E-01	3.174E-02	-0.081
SB-127	1.335E+00		4.083E+00	6.991E+00	8.992E-01	0.191
I-131	-7.963E-02		2.292E-01	3.706E-01	3.592E-02	-0.215
TE-132	-1.736E+00		2.994E+00	4.894E+00	8.964E-01	-0.355
BA-133	3.246E-02		5.972E-02	8.900E-02	1.203E-02	0.365
I-133	-1.266E-01		2.399E-01	Half-Life too short		
CS-134	1.276E-01	+	6.489E-02	1.067E-01	9.566E-03	1.196

Sample ID : G248866001 Acquisition date : 24-MAR-2010 20:32:18

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-135	1.086E-01		2.401E-01	3.580E-01	4.295E-02	0.303
I-135	-2.041E+15		2.522E+15	Half-Life too short		
CS-136	-3.219E-02		1.743E-01	2.801E-01	2.592E-02	-0.115
BA-137M	2.247E-02		4.113E-02	7.158E-02	5.884E-03	0.314
CS-137	2.373E-02		4.345E-02	7.561E-02	6.229E-03	0.314
CE-139	1.007E-03		4.182E-02	6.559E-02	7.002E-03	0.015
BA-140	2.157E-01		4.356E-01	7.215E-01	2.447E-01	0.299
LA-140	-4.541E-02		1.319E-01	2.121E-01	1.989E-02	-0.214
CE-141	6.460E-02		9.328E-02	1.543E-01	1.594E-02	0.419
CE-143	1.237E-02		2.167E-03	Half-Life too short		
CE-144	-2.958E-01		2.809E-01	4.206E-01	6.787E-02	-0.703
PM-144	4.395E-02		4.453E-02	7.891E-02	6.641E-03	0.557
PR-144	3.629E+00		3.323E+00	5.923E+00	4.981E-01	0.613
PM-146	3.479E-02		5.409E-02	8.961E-02	9.476E-03	0.388
ND-147	-2.912E-02		9.461E-01	1.531E+00	2.290E-01	-0.019
PM-149	-5.285E-04		3.111E-04	Half-Life too short		
EU-152	-5.316E-02		1.536E-01	2.017E-01	2.053E-02	-0.264
GD-153	1.284E-02		1.284E-01	1.849E-01	2.041E-02	0.069
EU-154	4.005E-02		1.668E-01	2.755E-01	3.231E-02	0.145
EU-155	1.118E-01		1.414E-01	2.366E-01	2.492E-02	0.473
TB-160	-4.397E-02		1.655E-01	2.666E-01	2.467E-02	-0.165
HO-166M	-2.328E-02		7.347E-02	1.200E-01	1.019E-02	-0.194
TA-182	-1.409E-01		2.866E-01	4.460E-01	3.828E-02	-0.316
IR-192	-2.638E-02		4.733E-02	7.628E-02	7.865E-03	-0.346
BI-207	2.048E-02		7.047E-02	1.180E-01	1.041E-02	0.174
PB-210	1.438E+00		1.286E+01	2.122E+01	2.612E+00	0.068
PB-211	-1.314E+00		1.157E+00	1.467E+00	7.095E-01	-0.896
BI-212	2.104E+00	+	1.140E+00	1.419E+00	1.763E-01	1.483
RN-219	1.499E-01		5.192E-01	8.668E-01	1.281E-01	0.173
RA-223	-9.087E-01		9.031E-01	1.402E+00	2.544E-01	-0.648
AC-227	-1.846E-01		3.214E-01	5.227E-01	7.234E-02	-0.353
TH-227	-1.846E-01		3.216E-01	5.227E-01	7.951E-02	-0.353
TH-229	1.716E-01		7.672E-01	1.195E+00	1.300E-01	0.144
PA-231	2.095E-01		1.967E+00	3.116E+00	4.969E-01	0.067
TH-231	-9.087E-01		9.031E-01	1.402E+00	2.544E-01	-0.648
PA-233	2.063E-02		8.381E-02	1.409E-01	1.491E-02	0.146
PA-234	-1.556E-01		3.752E-01	5.930E-01	1.130E-01	-0.262
PA-234M	5.249E+00		5.908E+00	1.031E+01	1.069E+00	0.509
TH-234	2.229E+00		2.519E+00	4.222E+00	8.372E-01	0.528
U-235	-1.122E-01		2.793E-01	4.382E-01	7.797E-02	-0.256
U-238	2.229E+00		2.519E+00	4.222E+00	8.372E-01	0.528
NP-239	-1.376E-01		5.227E-01	8.415E-01	8.493E-02	-0.164
AM-241	-3.335E-01		3.069E-01	4.833E-01	5.673E-02	-0.690
CM-247	1.426E-02		4.765E-02	7.964E-02	6.735E-03	0.179
CF-249	3.096E-02		5.240E-02	8.894E-02	7.582E-03	0.348
CF-251	-1.112E-02		1.670E-01	2.673E-01	2.876E-02	-0.042

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248866001            *
* Acquisition date : 24-MAR-2010 20:32:18 Detector SN#    :                 *
* Detector ID      : GAM15                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.42     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  4-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248866001           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.3300E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.588E+01	4.030E+00	2.410E-01	2.056E+00
CO-58	8.646E-02	6.932E-02	3.846E-02	3.537E-02
CD-109	2.358E+00	1.426E+00	1.100E+00	7.274E-01
SN-126	2.287E-01	1.383E-01	1.072E-01	7.054E-02
HG-203	8.374E-02	6.663E-02	4.643E-02	3.399E-02
TL-208	5.766E-01	1.122E-01	3.391E-02	5.722E-02
BI-211	4.116E+00	6.531E-01	2.300E-01	3.332E-01
PB-212	2.046E+00	2.783E-01	6.318E-02	1.420E-01
BI-214	1.397E+00	2.196E-01	7.367E-02	1.121E-01
PB-214	1.494E+00	2.504E-01	7.999E-02	1.278E-01
RA-224	5.583E+00	1.846E+00	6.768E-01	9.420E-01
RA-226	1.397E+00	2.196E-01	7.367E-02	1.121E-01
AC-228	1.963E+00	4.256E-01	1.440E-01	2.172E-01
RA-228	1.963E+00	4.256E-01	1.440E-01	2.172E-01
TH-228	2.046E+00	2.783E-01	6.318E-02	1.420E-01
TH-230	1.396E+00	2.074E-01	7.366E-02	1.058E-01
TH-232	1.963E+00	4.256E-01	1.440E-01	2.172E-01
NP-237	6.824E-01	4.357E-01	3.087E-01	2.223E-01
ANH-511	1.031E-01	8.490E-02	3.013E-02	4.332E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	4.956E-01	4.291E-01	3.891E-01	2.189E-01	NOT IDENT.
NA-22	9.139E-03	5.790E-02	4.866E-02	2.954E-02	NOT IDENT.
NA-24	-1.867E+08	2.653E+08	0.000E+00	1.353E+08	SHORT HLIF
SC-46	4.320E-03	4.591E-02	3.944E-02	2.342E-02	FAIL ABUN
V-48	9.306E-03	1.112E-01	9.471E-02	5.674E-02	NOT IDENT.
CR-51	1.172E-01	5.446E-01	4.796E-01	2.779E-01	NOT IDENT.
MN-54	1.811E-02	4.607E-02	4.054E-02	2.350E-02	NOT IDENT.
CO-56	2.216E-03	4.689E-02	4.026E-02	2.392E-02	NOT IDENT.

CO-57	-2.149E-02	3.405E-02	2.845E-02	1.737E-02	NOT IDENT.
FE-59	-6.571E-02	1.223E-01	9.734E-02	6.239E-02	NOT IDENT.
CO-60	2.088E-03	4.899E-02	4.062E-02	2.499E-02	NOT IDENT.
ZN-65	-8.996E-02	1.451E-01	9.639E-02	7.406E-02	NOT IDENT.
SE-75	2.717E-03	6.609E-02	5.080E-02	3.372E-02	NOT IDENT.
SR-85	1.346E-01	6.134E-02	5.169E-02	3.130E-02	NOT IDENT.
Y-88	1.821E-03	4.066E-02	3.424E-02	2.075E-02	NOT IDENT.
Y-91	-6.058E+00	2.889E+01	2.361E+01	1.474E+01	NOT IDENT.
NB-94	2.161E-04	4.137E-02	3.587E-02	2.111E-02	NOT IDENT.
NB-95	1.123E-01	6.293E-02	5.392E-02	3.211E-02	NOT IDENT.
NB-95M	3.981E-01	2.055E-01	1.692E-01	1.048E-01	NOT IDENT.
ZR-95	9.238E-03	9.100E-02	7.903E-02	4.643E-02	NOT IDENT.
MO-99	-1.427E+01	5.493E+01	4.649E+01	2.803E+01	NOT IDENT.
TC-99M	-6.730E+22	1.022E+23	0.000E+00	0.000E+00	SHORT HLIF
RU-103	7.463E-03	5.225E-02	4.475E-02	2.666E-02	FAIL ABUN
RH-106	5.994E-01	3.676E-01	3.390E-01	1.876E-01	NOT IDENT.
RU-106	5.994E-01	3.628E-01	3.390E-01	1.851E-01	NOT IDENT.
AG-108M	-2.599E-03	3.708E-02	3.160E-02	1.892E-02	NOT IDENT.
AG-110M	-1.056E-02	3.932E-02	3.356E-02	2.006E-02	NOT IDENT.
SN-113	2.021E-02	5.854E-02	5.135E-02	2.987E-02	NOT IDENT.
CD-115	-7.532E+00	6.958E+01	0.000E+00	3.550E+01	SHORT HLIF
SN-117M	2.582E-02	9.620E-02	8.319E-02	4.908E-02	NOT IDENT.
TE-123M	-1.129E-02	3.937E-02	3.333E-02	2.009E-02	NOT IDENT.
SB-124	-4.017E-02	9.323E-02	7.220E-02	4.757E-02	NOT IDENT.
SB-125	-3.553E-02	1.134E-01	9.523E-02	5.785E-02	FAIL ABUN
TE-125M	-1.818E+01	1.372E+01	1.124E+01	7.001E+00	NOT IDENT.
I-126	2.860E-02	3.425E-01	2.996E-01	1.748E-01	NOT IDENT.
SB-126	-3.023E-02	2.562E-01	1.887E-01	1.307E-01	NOT IDENT.
SB-127	1.335E+00	4.001E+00	3.551E+00	2.041E+00	NOT IDENT.
I-131	-7.963E-02	2.246E-01	1.903E-01	1.146E-01	NOT IDENT.
TE-132	-1.736E+00	2.934E+00	2.533E+00	1.497E+00	NOT IDENT.
BA-133	3.246E-02	5.852E-02	4.573E-02	2.986E-02	FAIL ABUN
I-133	-1.266E+05	4.702E+05	0.000E+00	2.399E+05	SHORT HLIF
CS-134	1.276E-01	6.359E-02	5.406E-02	3.245E-02	FAIL ABUN
CS-135	1.086E-01	2.353E-01	1.848E-01	1.200E-01	NOT IDENT.
I-135	-2.041E+21	4.942E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.219E-02	1.708E-01	1.412E-01	8.714E-02	NOT IDENT.
BA-137M	2.247E-02	4.031E-02	3.638E-02	2.056E-02	NOT IDENT.
CS-137	2.373E-02	4.258E-02	3.843E-02	2.172E-02	NOT IDENT.
CE-139	1.007E-03	4.098E-02	3.414E-02	2.091E-02	NOT IDENT.
BA-140	2.157E-01	4.269E-01	3.680E-01	2.178E-01	NOT IDENT.
LA-140	-4.541E-02	1.293E-01	1.061E-01	6.596E-02	NOT IDENT.
CE-141	6.460E-02	9.141E-02	8.046E-02	4.664E-02	NOT IDENT.
CE-143	1.237E+04	4.247E+03	0.000E+00	2.167E+03	SHORT HLIF
CE-144	-2.958E-01	2.753E-01	2.197E-01	1.405E-01	NOT IDENT.
PM-144	4.395E-02	4.364E-02	4.007E-02	2.226E-02	NOT IDENT.
PR-144	3.629E+00	3.257E+00	3.008E+00	1.662E+00	NOT IDENT.
PM-146	3.479E-02	5.301E-02	4.585E-02	2.704E-02	NOT IDENT.
ND-147	-2.912E-02	9.272E-01	7.811E-01	4.731E-01	NOT IDENT.
PM-149	-5.285E+02	6.097E+02	0.000E+00	3.111E+02	SHORT HLIF
EU-152	-5.316E-02	1.506E-01	1.037E-01	7.681E-02	FAIL ABUN
GD-153	1.284E-02	1.258E-01	9.709E-02	6.419E-02	NOT IDENT.
EU-154	4.005E-02	1.635E-01	1.384E-01	8.339E-02	NOT IDENT.
EU-155	1.118E-01	1.386E-01	1.241E-01	7.070E-02	FAIL ABUN
TB-160	-4.397E-02	1.621E-01	1.348E-01	8.273E-02	FAIL ABUN
HO-166M	-2.328E-02	7.200E-02	6.090E-02	3.673E-02	FAIL ABUN
TA-182	-1.409E-01	2.809E-01	2.242E-01	1.433E-01	FAIL ABUN
IR-192	-2.638E-02	4.639E-02	3.927E-02	2.367E-02	FAIL ABUN
BI-207	2.048E-02	6.906E-02	5.945E-02	3.523E-02	FAIL ABUN
PB-210	1.438E+00	1.260E+01	1.128E+01	6.430E+00	NOT IDENT.
PB-211	-1.314E+00	1.134E+00	7.520E-01	5.786E-01	NOT IDENT.
BI-212	2.104E+00	1.117E+00	7.198E-01	5.701E-01	FAIL ABUN
RN-219	1.499E-01	5.088E-01	4.444E-01	2.596E-01	FAIL ABUN
RA-223	-9.087E-01	8.851E-01	7.215E-01	4.516E-01	FAIL ABUN
AC-227	-1.846E-01	3.149E-01	2.701E-01	1.607E-01	FAIL ABUN
TH-227	-1.846E-01	3.151E-01	2.701E-01	1.608E-01	FAIL ABUN
TH-229	1.716E-01	7.518E-01	6.204E-01	3.836E-01	FAIL ABUN
PA-231	2.095E-01	1.927E+00	1.607E+00	9.834E-01	FAIL ABUN
TH-231	-9.087E-01	8.851E-01	7.215E-01	4.516E-01	FAIL ABUN
PA-233	2.063E-02	8.213E-02	7.255E-02	4.190E-02	FAIL ABUN
PA-234	-1.556E-01	3.677E-01	2.995E-01	1.876E-01	FAIL ABUN
PA-234M	5.249E+00	5.790E+00	5.202E+00	2.954E+00	FAIL ABUN
TH-234	2.229E+00	2.469E+00	2.233E+00	1.260E+00	FAIL ABUN
U-235	-1.122E-01	2.737E-01	2.286E-01	1.396E-01	FAIL ABUN
U-238	2.229E+00	2.469E+00	2.233E+00	1.260E+00	FAIL ABUN
NP-239	-1.376E-01	5.122E-01	4.405E-01	2.613E-01	FAIL ABUN
AM-241	-3.335E-01	3.007E-01	2.558E-01	1.534E-01	NOT IDENT.
CM-247	1.426E-02	4.670E-02	4.083E-02	2.383E-02	FAIL ABUN

CF-249	3.096E-02	5.136E-02	4.563E-02	2.620E-02	NOT IDENT.
CF-251	-1.112E-02	1.637E-01	1.390E-01	8.352E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                    GAMMA SPECTROSCOPY BACKGROUND REPORT                   *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	314.8600
49.72	305.1013
57.36	0.0000
59.54	386.6534
63.29	378.0644
63.29	378.0644
64.28	413.8270
67.75	516.4817
69.67	444.7834
70.83	464.4461
72.81	426.6858
72.87	426.7195
72.87	426.7195
74.82	427.8268
74.82	427.8268
74.82	427.8268
74.97	427.9123
77.11	429.1093
77.11	429.1093
77.11	429.1093
79.69	482.6747
79.80	525.9020
80.12	526.1149
80.19	526.1611
80.57	536.0143
81.00	558.3171
81.07	558.3661
81.07	558.3661
83.79	463.8717
83.79	463.8717
85.43	447.4996
86.48	589.4442
86.55	589.4955
86.79	589.8549
86.94	598.0276
87.57	657.6559
88.03	662.0559
88.47	658.3647
89.96	659.5287
91.11	640.1633
92.59	499.7944
92.59	499.7944
93.35	500.2340
94.67	372.6659
94.87	390.6563
94.87	390.6563
95.86	402.5042
97.43	377.0993
98.44	367.7206
99.53	348.2976
100.11	352.0297
103.18	425.0913
103.37	399.5046
105.31	368.4377
106.12	358.4562
109.28	433.0352
111.00	366.5142
111.76	381.3095
116.30	403.9008
117.23	371.9789
121.12	349.3607
121.78	392.5009
122.06	386.3279
123.07	406.6197
131.20	409.7901
133.52	415.9674
136.00	388.2747

136.47	385.2582
140.51	410.1023
140.51	0.0000
143.76	405.9505
144.24	381.5405
144.24	381.5405
145.44	366.9654
152.43	396.1014
153.25	376.9886
154.21	392.3875
154.21	392.3875
156.02	385.4299
158.56	373.2666
159.00	386.3887
162.66	353.9037
163.33	341.0634
165.86	346.1166
176.60	317.2403
177.52	313.0712
181.07	318.9948
184.41	298.6031
185.72	359.2526
193.51	349.4208
197.04	318.7912
205.31	315.7473
210.85	256.6392
215.65	289.1094
222.11	284.9305
227.38	315.9810
228.16	309.7665
228.18	309.7706
235.69	306.7119
235.96	306.7650
235.96	306.7650
238.63	278.8547
238.63	278.8547
240.99	279.2740
242.00	279.4540
244.70	208.7204
252.40	210.9570
252.80	225.8162
256.23	243.9131
256.23	243.9131
260.90	0.0000
264.66	223.7168
268.22	250.6584
269.46	232.1456
269.46	232.1456
271.23	208.2135
273.65	206.1667
276.40	206.4971
277.37	212.4822
277.60	221.9054
278.00	222.3459
279.20	231.9034
279.54	211.5747
280.46	194.4387
283.69	212.0773
284.31	233.6316
285.41	234.9299
285.90	0.0000
287.50	210.6495
293.27	0.0000
295.22	208.7153
295.96	204.0558
298.57	204.3524
299.98	180.7296
299.98	180.7296
300.09	180.7412
300.09	180.7412
300.13	180.7458
301.36	190.3857
302.85	188.9541
304.50	173.2309
304.50	173.2309
304.85	173.2641
308.46	182.9321
311.90	189.5623

316.51	201.5457
319.41	195.1273
320.08	192.3096
323.87	243.7565
323.87	243.7565
328.76	209.6042
333.37	238.8258
334.37	201.8153
334.37	201.8153
338.28	184.4220
338.28	184.4220
338.32	184.4266
338.32	184.4266
338.32	184.4266
340.48	161.9547
340.55	161.9598
344.28	184.9810
351.06	192.1197
351.93	175.9131
356.01	148.5211
364.49	159.2967
366.42	171.2558
383.85	166.7203
388.16	151.1446
388.63	156.1491
391.69	151.3895
400.66	144.0105
401.81	146.0856
402.40	146.1248
404.85	195.3832
410.95	127.5969
414.70	167.0578
423.72	137.4095
427.09	142.6696
427.87	140.6934
433.94	135.9874
453.88	113.7126
463.37	108.9075
468.07	99.5081
473.00	116.8985
476.78	90.9068
477.60	103.3362
487.02	95.4275
492.35	0.0000
497.08	105.1771
511.00	118.3086
514.00	117.0462
527.90	0.0000
529.87	0.0000
531.02	99.1636
537.26	91.9915
546.56	0.0000
563.25	105.6733
569.33	96.2754
569.50	100.5612
569.70	97.3585
583.19	89.2209
600.60	109.2260
602.73	88.3818
604.72	117.3206
609.32	112.8029
609.32	112.8029
609.32	112.8029
610.33	101.2699
614.28	79.6748
618.01	104.4328
621.93	59.9092
621.93	59.9092
633.25	79.8152
635.95	78.7904
636.99	91.9550
645.85	98.8088
657.76	86.3311
661.66	80.0013
661.66	80.0013
664.57	0.0000
666.33	93.0128
666.50	93.0190

677.62	73.9372
685.70	83.3899
695.00	105.9310
696.49	91.1054
696.51	88.3164
697.00	93.9087
702.65	102.4536
706.68	96.0533
711.68	93.3960
720.70	83.4844
721.93	0.0000
722.78	83.5352
722.91	83.5388
723.31	85.1564
724.19	102.8571
727.33	80.7002
733.00	91.8477
735.93	83.2586
739.50	85.7013
747.24	99.1104
752.31	84.1328
753.82	69.9832
756.73	81.4019
763.94	68.2925
765.81	73.2097
766.42	86.2396
777.92	92.3722
778.90	85.7300
783.70	73.4470
785.37	69.6643
795.86	61.2565
801.95	61.3607
810.29	61.5026
810.76	61.5104
815.77	67.6446
818.51	46.2314
832.01	67.6687
834.85	79.3291
836.80	0.0000
846.77	64.0557
856.80	61.7252
860.56	75.0058
871.09	70.3301
873.19	71.3455
875.33	0.0000
879.36	59.7143
880.51	60.7109
883.24	56.8341
884.68	56.8554
889.28	56.9238
898.04	60.9858
911.20	70.0741
911.20	70.0741
911.20	70.0741
926.50	63.4089
937.49	82.4596
944.13	63.6875
946.00	70.6851
949.00	60.7754
962.29	61.6867
964.08	61.7143
966.15	62.0303
968.97	62.0732
968.97	62.0732
968.97	62.0732
983.53	65.3055
996.26	78.6046
1001.03	52.4623
1004.73	74.7227
1037.84	64.1074
1038.76	0.0000
1048.07	62.2187
1050.41	61.2329
1050.41	61.2329
1063.66	67.5576
1085.87	65.8385
1099.45	69.1319
1112.07	52.7701

1115.54	92.3058
1120.29	74.6309
1120.29	74.6309
1120.29	74.6309
1120.55	74.6367
1121.30	74.6484
1131.51	0.0000
1173.23	82.8188
1177.93	85.0012
1189.05	84.1471
1204.77	74.9233
1221.41	97.4168
1231.02	90.1811
1235.36	89.1987
1238.28	78.6250
1260.41	0.0000
1271.85	55.6224
1274.44	57.7903
1274.54	58.8627
1291.59	63.3549
1298.22	0.0000
1312.11	38.8125
1332.49	40.0472
1365.19	25.2042
1368.63	0.0000
1384.29	44.9665
1408.01	26.3457
1457.56	0.0000
1460.82	14.2493
1489.16	39.1439
1505.03	26.8066
1596.21	22.3647
1620.50	18.5494
1678.03	0.0000
1690.97	17.7746
1764.49	6.9927
1764.49	6.9927
1764.49	6.9927
1770.23	15.7473
1771.35	62.0000
1791.20	0.0000
1836.06	14.1382

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248866001

Total Uranium Activity	6.5790E+00	ug/g
Total Uranium Counting Unc.	7.3458E+00	ug/g
Total Uranium Tpu	3.7478E-06	ug/g
Total Uranium Mda	6.6434E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248866001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM15            *
*   SAMPLE DATE   :  4-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 20:32:18.01    SAMPLE ALQT:  133.000 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.063E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.700E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.871E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.885E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:34:14.05

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248866002.CNF;1
Sample date       : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:32:46
Sample ID         : G248866002           Sample quantity  : 1.15190E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:10.30  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.62*	108	395	0.88	92.86	89	8	1.49E-02	35.3	
2	0	63.29*	160	546	1.03	126.22	123	8	2.22E-02	27.3	
3	3	74.93*	636	444	0.99	149.52	144	20	8.84E-02	6.6	1.56E+00
4	3	77.22*	968	391	1.01	154.08	144	20	1.34E-01	4.7	
5	5	84.21*	150	408	1.19	168.08	165	13	2.08E-02	24.1	3.39E+00
6	5	87.31*	283	373	1.02	174.28	165	13	3.93E-02	12.4	
7	0	93.10*	340	435	1.58	185.87	183	10	4.72E-02	13.3	
8	0	129.48	57	304	0.91	258.64	255	8	7.85E-03	55.1	
9	0	186.08*	145	269	1.17	371.89	368	9	2.01E-02	23.3	
10	0	209.14	119	301	1.17	418.02	413	11	1.66E-02	29.7	
11	5	238.75*	1104	141	1.06	477.27	471	18	1.53E-01	3.5	1.44E+00
12	5	241.74	290	216	1.69	483.26	471	18	4.02E-02	13.4	
13	0	270.56*	118	183	1.23	540.93	535	12	1.64E-02	25.1	
14	0	295.26*	290	160	1.21	590.34	586	11	4.02E-02	10.4	
15	0	327.90	87	113	1.04	655.64	651	10	1.21E-02	25.1	
16	0	338.51*	215	162	1.04	676.87	671	12	2.99E-02	13.9	
17	0	351.97*	561	111	1.22	703.80	699	11	7.79E-02	5.7	
18	0	462.78	76	91	1.62	925.54	920	11	1.05E-02	26.9	
19	0	511.02*	89	130	1.26	1022.07	1015	14	1.23E-02	32.7	
20	0	583.32*	307	76	1.38	1166.75	1162	10	4.26E-02	8.1	
21	0	609.26*	400	60	1.45	1218.65	1212	12	5.56E-02	6.4	
22	0	727.55	59	70	1.60	1455.38	1451	11	8.14E-03	30.8	
23	0	794.95*	44	46	1.52	1590.25	1584	13	6.07E-03	35.9	
24	0	911.21*	215	54	1.77	1822.93	1814	18	2.99E-02	10.6	
25	3	964.70	68	57	2.21	1929.99	1924	19	9.50E-03	22.2	3.31E+00
26	3	968.84*	116	37	1.57	1938.26	1924	19	1.62E-02	13.9	
27	0	1120.32	64	62	1.98	2241.44	2236	11	8.83E-03	27.2	
28	0	1460.70*	952	19	2.01	2922.77	2915	15	1.32E-01	3.4	
29	0	1764.72*	63	9	1.74	3531.38	3525	12	8.79E-03	16.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 22:34:17

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248866002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 4-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 20:32:46
Sample ID : G248866002 Sample quantity : 115.19 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA17 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:10.30 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.740E+01	4.182E+00	8.186E-01	7.268E-02	45.695
CD-109	+	88.03	*	3.853E+00	1.030E+00	1.515E+00	1.479E-01	2.544
SN-126	+	64.28		8.024E-01	4.559E-01	4.665E-01	7.447E-02	1.720
	+	86.94		1.554E+00	7.531E-01	5.938E-01	2.471E-01	2.616
	+	87.57	*	3.737E-01	9.986E-02	1.467E-01	1.432E-02	2.547
TL-208		277.37		2.745E-01	4.672E-01	8.050E-01	1.040E-01	0.341
	+	583.19	*	6.501E-01	1.215E-01	8.879E-02	8.388E-03	7.322
		860.56		5.718E-01	4.501E-01	8.233E-01	7.743E-02	0.694
PB-210	+	46.54	*	1.308E+00	9.328E-01	9.028E-01	9.733E-02	1.449
BI-211		72.87		2.731E+00	2.535E+00	4.003E+00	3.914E-01	0.682
	+	351.06	*	4.864E+00	7.145E-01	3.931E-01	3.668E-02	12.374
PB-212	+	74.82		2.969E+00	5.653E-01	4.295E-01	5.919E-02	6.913
	+	77.11		2.719E+00	3.690E-01	2.594E-01	2.528E-02	10.484
	+	238.63	*	2.053E+00	2.535E-01	1.086E-01	1.100E-02	18.897
		300.09		1.177E+00	1.127E+00	1.783E+00	1.961E-01	0.660
BI-214	+	609.32	*	1.652E+00	2.718E-01	1.573E-01	1.608E-02	10.501
	+	1120.29		1.422E+00	7.894E-01	7.823E-01	8.402E-02	1.818
	+	1764.49		2.008E+00	6.680E-01	4.470E-01	3.780E-02	4.492
PB-214	+	74.82		5.263E+00	9.571E-01	7.613E-01	9.575E-02	6.913
	+	77.11		4.794E+00	7.613E-01	4.573E-01	5.839E-02	10.484
	+	242.00		3.270E+00	9.426E-01	6.614E-01	7.107E-02	4.944
	+	295.22		1.513E+00	3.574E-01	2.873E-01	3.234E-02	5.267
	+	351.93	*	1.765E+00	2.770E-01	1.448E-01	1.569E-02	12.189
RA-224	+	240.99	*	5.782E+00	1.633E+00	1.165E+00	1.054E-01	4.962
RA-226	+	609.32	*	1.652E+00	2.718E-01	1.573E-01	1.608E-02	10.501
	+	1120.29		1.422E+00	7.894E-01	7.823E-01	8.402E-02	1.818
	+	1764.49		2.008E+00	6.680E-01	4.470E-01	3.780E-02	4.492
AC-228	+	338.32		2.069E+00	1.040E+00	4.436E-01	1.854E-01	4.664
	+	911.20	*	2.304E+00	5.597E-01	3.229E-01	3.775E-02	7.133
	+	968.97		2.152E+00	7.949E-01	5.325E-01	1.299E-01	4.042
RA-228	+	338.32		2.069E+00	1.040E+00	4.436E-01	1.854E-01	4.664
	+	911.20	*	2.304E+00	5.597E-01	3.229E-01	3.775E-02	7.133
	+	968.97		2.152E+00	7.949E-01	5.325E-01	1.299E-01	4.042
TH-228	+	74.82		2.969E+00	4.872E-01	4.295E-01	4.222E-02	6.913

Sample ID : G248866002 Acquisition date : 24-MAR-2010 20:32:46

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		2.719E+00	3.690E-01	2.594E-01	2.528E-02	10.484
	+	238.63	*	2.053E+00	2.535E-01	1.086E-01	1.100E-02	18.897
		300.09		1.177E+00	1.332E+00	1.783E+00	1.093E+00	0.660
TH-229	+	85.43		4.957E-01	2.436E-01	3.579E-01	3.489E-02	1.385
	+	88.47		5.761E-01	1.539E-01	2.067E-01	2.022E-02	2.787
		193.51	*	-1.441E-02	6.036E-01	9.727E-01	8.411E-02	-0.015
		210.85		9.426E-01	1.283E+00	1.920E+00	1.693E-01	0.491
TH-230	+	609.32	*	1.652E+00	2.574E-01	1.573E-01	1.377E-02	10.501
	+	1120.29		1.422E+00	7.836E-01	7.823E-01	6.565E-02	1.818
	+	1764.49		2.008E+00	6.679E-01	4.470E-01	3.780E-02	4.492
TH-232	+	338.32		2.069E+00	6.064E-01	4.436E-01	3.997E-02	4.664
	+	911.20	*	2.304E+00	5.597E-01	3.229E-01	3.775E-02	7.133
	+	968.97		2.152E+00	7.949E-01	5.325E-01	1.299E-01	4.042
TH-234	+	63.29	*	2.082E+00	1.202E+00	1.218E+00	2.317E-01	1.710
	+	92.59		3.976E+00	1.388E+00	1.256E+00	2.844E-01	3.166
NP-237	+	86.48	*	1.115E+00	3.787E-01	4.256E-01	9.843E-02	2.620
		95.86		3.254E-01	9.238E-01	1.408E+00	3.461E-01	0.231
U-238	+	63.29	*	2.082E+00	1.202E+00	1.218E+00	2.317E-01	1.710
	+	92.59		3.976E+00	1.129E+00	1.256E+00	1.253E-01	3.166
ANH-511	+	511.00	*	1.405E-01	9.284E-02	6.170E-02	5.510E-03	2.277

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.969E-02	4.479E-01	7.370E-01	7.011E-02	0.027
NA-22		1274.54	*	-3.833E-02	6.766E-02	1.007E-01	8.485E-03	-0.381
NA-24		1368.63	*	-2.260E+02	6.766E-02	Half-Life too short		
SC-46		889.28	*	-4.400E-02	5.871E-02	8.890E-02	7.783E-03	-0.495
	+	1120.55		2.512E-01	1.384E-01	2.021E-01	1.696E-02	1.243
V-48		944.13		-2.507E-01	1.703E+00	2.763E+00	2.417E-01	-0.091
		983.53	*	-9.888E-02	1.327E-01	1.989E-01	1.735E-02	-0.497
		1312.11		-6.788E-03	1.563E-01	2.608E-01	2.214E-02	-0.026
CR-51		320.08	*	-5.436E-01	4.988E-01	7.744E-01	7.390E-02	-0.702
MN-54		834.85	*	-2.182E-02	5.417E-02	8.658E-02	7.612E-03	-0.252
CO-56		846.77	*	5.670E-03	5.558E-02	9.333E-02	8.204E-03	0.061
		1037.84		-1.395E-01	4.767E-01	7.528E-01	6.839E-02	-0.185
		1238.28		1.545E-01	1.522E-01	2.665E-01	2.290E-02	0.580
		1771.35		-7.179E-01	4.492E-01	4.831E-01	4.080E-02	-1.486
CO-57		122.06	*	-1.026E-02	2.705E-02	4.386E-02	5.138E-03	-0.234
		136.47		-1.188E-01	2.396E-01	3.841E-01	4.321E-02	-0.309
CO-58		810.76	*	-8.107E-03	6.020E-02	9.905E-02	8.723E-03	-0.082
FE-59		1099.45	*	-3.623E-02	1.610E-01	2.558E-01	2.347E-02	-0.142
		1291.59		6.333E-02	2.076E-01	3.457E-01	3.331E-02	0.183
CO-60		1173.23		-5.983E-02	7.586E-02	1.125E-01	9.186E-03	-0.532
		1332.49	*	4.517E-02	5.683E-02	1.042E-01	8.882E-03	0.433
ZN-65		1115.54	*	8.529E-02	1.629E-01	2.456E-01	2.068E-02	0.347
SE-75		121.12		-7.123E-03	1.413E-01	2.332E-01	3.166E-02	-0.031
		136.00		-9.230E-04	4.703E-02	7.728E-02	8.358E-03	-0.012

Sample ID : G248866002 Acquisition date : 24-MAR-2010 20:32:46

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		264.66	*	-2.655E-02	6.536E-02	8.843E-02	8.126E-03	-0.300
		279.54		-1.556E-02	1.332E-01	2.214E-01	2.101E-02	-0.070
		400.66		-9.281E-02	3.556E-01	5.793E-01	6.361E-02	-0.160
SR-85		514.00	*	9.069E-02	5.727E-02	9.526E-02	8.510E-03	0.952
Y-88		898.04		-2.252E-02	6.988E-02	1.120E-01	9.839E-03	-0.201
		1836.06	*	5.860E-02	4.986E-02	1.012E-01	8.441E-03	0.579
Y-91		1204.77	*	1.623E+01	4.137E+01	6.908E+01	5.701E+00	0.235
NB-94		702.65	*	4.000E-02	4.911E-02	8.774E-02	7.526E-03	0.456
		871.09		-3.043E-02	5.064E-02	7.856E-02	6.894E-03	-0.387
NB-95		765.81	*	2.207E-02	6.607E-02	1.136E-01	9.919E-03	0.194
NB-95M		235.69	*	1.022E-02	1.741E-01	2.481E-01	2.537E-02	0.041
ZR-95		724.19		3.878E-03	1.608E-01	2.361E-01	2.212E-02	0.016
		756.73	*	4.599E-02	1.185E-01	2.046E-01	1.967E-02	0.225
MO-99		140.51		-1.416E+01	9.467E+01	1.501E+02	3.672E+01	-0.094
		181.07		1.806E+01	7.998E+01	1.249E+02	2.341E+01	0.145
		366.42		-1.287E+01	4.594E+02	7.651E+02	6.697E+01	-0.017
		739.50	*	1.343E+01	6.883E+01	1.174E+02	1.854E+01	0.114
		777.92		-7.096E+01	1.818E+02	2.919E+02	2.556E+01	-0.243
TC-99M		140.51	*	-1.260E+16	1.818E+02	Half-Life too short		
RU-103		497.08	*	-1.524E-02	6.020E-02	9.627E-02	1.362E-02	-0.158
	+	610.33		1.870E+01	3.904E+00	4.513E+00	7.408E-01	4.144
RH-106		621.93	*	-3.043E-02	4.073E-01	6.496E-01	8.640E-02	-0.047
		1050.41		-9.289E-01	3.865E+00	6.141E+00	5.285E-01	-0.151
RU-106		621.93	*	-3.043E-02	4.073E-01	6.496E-01	5.644E-02	-0.047
		1050.41		-9.289E-01	3.865E+00	6.141E+00	5.285E-01	-0.151
AG-108M		433.94	*	7.838E-03	3.746E-02	6.282E-02	5.631E-03	0.125
		614.28		3.637E-02	5.421E-02	8.265E-02	7.444E-03	0.440
		722.91		-1.636E-02	6.282E-02	8.908E-02	7.942E-03	-0.184
AG-110M		657.76	*	-5.723E-03	4.802E-02	7.591E-02	6.617E-03	-0.075
		677.62		-1.139E-01	4.616E-01	7.185E-01	6.280E-02	-0.159
		706.68		-3.388E-02	2.943E-01	4.906E-01	4.337E-02	-0.069
		763.94		-3.791E-01	2.613E-01	3.808E-01	3.414E-02	-0.996
		884.68		1.641E-02	7.430E-02	1.257E-01	1.136E-02	0.131
		937.49		-1.043E-01	1.742E-01	2.690E-01	2.436E-02	-0.388
		1384.29		1.191E-01	2.049E-01	3.715E-01	3.275E-02	0.321
		1505.03		-4.592E-01	3.896E-01	5.003E-01	4.326E-02	-0.918
SN-113		391.69	*	-6.027E-02	5.945E-02	9.116E-02	7.920E-03	-0.661
CD-115		260.90		-2.330E-04	5.945E-02	Half-Life too short		
		492.35		9.376E-05	5.945E-02	Half-Life too short		
		527.90	*	-2.762E-06	5.945E-02	Half-Life too short		
SN-117M		156.02		-1.860E+00	3.467E+00	5.506E+00	5.069E-01	-0.338
		158.56	*	-1.571E-02	8.321E-02	1.345E-01	1.209E-02	-0.117
TE-123M		159.00	*	-2.279E-03	3.367E-02	5.474E-02	4.927E-03	-0.042
SB-124		602.73		2.591E-02	6.462E-02	9.546E-02	8.384E-03	0.271
		645.85		4.810E-02	7.688E-01	1.240E+00	1.121E-01	0.039
		722.78		-2.163E-02	6.507E-01	9.489E-01	8.385E-02	-0.023
		1690.97	*	6.277E-02	9.730E-02	1.842E-01	1.643E-02	0.341
SB-125		427.87	*	5.220E-02	1.166E-01	1.989E-01	1.753E-02	0.262
	+	463.37		1.051E+00	5.741E-01	7.466E-01	7.059E-02	1.407

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		600.60		1.364E-01	2.570E-01	4.330E-01	4.077E-02	0.315
		635.95		2.400E-02	3.522E-01	5.695E-01	5.300E-02	0.042
TE-125M		109.28	*	-3.323E+00	1.060E+01	1.735E+01	2.157E+00	-0.191
I-126		388.63		3.492E-01	2.773E-01	4.980E-01	4.214E-02	0.701
		666.33	*	-2.139E-02	4.356E-01	6.935E-01	5.855E-02	-0.031
		753.82		1.609E+00	3.607E+00	6.266E+00	5.459E-01	0.257
SB-126		414.70		-1.909E-02	1.283E-01	2.101E-01	1.801E-02	-0.091
		666.50		3.555E-03	1.499E-01	2.402E-01	2.028E-02	0.015
		695.00		8.279E-02	1.368E-01	2.424E-01	2.073E-02	0.342
		697.00		7.451E-02	5.110E-01	8.714E-01	7.458E-02	0.086
		720.70	*	1.026E-01	2.803E-01	4.745E-01	4.096E-02	0.216
		856.80		-9.953E-01	9.902E-01	1.480E+00	1.300E-01	-0.673
SB-127		252.40		5.099E+00	1.346E+01	2.164E+01	9.115E+00	0.236
		473.00		-1.041E+00	5.638E+00	9.107E+00	1.313E+00	-0.114
		685.70	*	9.497E-01	4.852E+00	7.896E+00	1.024E+00	0.120
		783.70		1.734E+01	1.418E+01	2.565E+01	3.589E+00	0.676
I-131		80.19		-5.052E+00	6.402E+00	9.308E+00	9.148E-01	-0.543
		284.31		-1.799E+00	2.716E+00	4.414E+00	4.255E-01	-0.408
		364.49	*	-2.163E-01	2.301E-01	3.573E-01	3.313E-02	-0.605
		636.99		-2.624E+00	3.376E+00	4.925E+00	4.499E-01	-0.533
TE-132		49.72		-6.522E+00	1.370E+01	2.062E+01	2.807E+00	-0.316
		111.76		-1.292E+01	1.085E+02	1.792E+02	2.576E+01	-0.072
		116.30		1.279E+01	9.688E+01	1.615E+02	2.357E+01	0.079
		228.16	*	-2.118E+00	2.642E+00	3.963E+00	6.796E-01	-0.534
BA-133		81.00		3.292E-02	9.685E-02	1.197E-01	1.935E-02	0.275
		276.40		3.670E-01	4.473E-01	7.391E-01	1.069E-01	0.497
		302.85		-1.284E-01	1.779E-01	2.868E-01	3.854E-02	-0.448
		356.01	*	-7.423E-03	5.433E-02	7.884E-02	1.034E-02	-0.094
		383.85		-3.050E-01	3.714E-01	5.779E-01	7.145E-02	-0.528
I-133		529.87	*	-2.557E-01	3.714E-01	Half-Life too short		
		875.33		1.353E+01	3.714E-01	Half-Life too short		
		1298.22		-1.384E+01	3.714E-01	Half-Life too short		
CS-134		563.25		3.195E-01	5.407E-01	9.169E-01	8.239E-02	0.348
		569.33		2.520E-01	2.935E-01	5.070E-01	4.567E-02	0.497
		604.72		-2.327E-03	5.398E-02	7.554E-02	6.643E-03	-0.031
	+	795.86	*	1.403E-01	1.015E-01	1.294E-01	1.143E-02	1.084
		801.95		2.184E-01	5.511E-01	9.089E-01	8.023E-02	0.240
		1365.19		1.167E+00	1.793E+00	3.253E+00	2.916E-01	0.359
CS-135		268.22	*	1.015E-01	2.097E-01	3.080E-01	3.214E-02	0.330
I-135		546.56		-2.328E+15	2.097E-01	Half-Life too short		
		836.80		-9.020E+15	2.097E-01	Half-Life too short		
		1038.76		-2.522E+15	2.097E-01	Half-Life too short		
		1131.51		5.279E+15	2.097E-01	Half-Life too short		
		1260.41	*	-2.256E+14	2.097E-01	Half-Life too short		
		1457.56		4.345E+17	2.097E-01	Half-Life too short		
		1678.03		-5.255E+15	2.097E-01	Half-Life too short		
		1791.20		2.877E+15	2.097E-01	Half-Life too short		
CS-136		153.25		9.557E-01	1.303E+00	2.197E+00	2.410E-01	0.435
		176.60		-2.148E-01	7.813E-01	1.249E+00	1.170E-01	-0.172

Sample ID : G248866002 Acquisition date : 24-MAR-2010 20:32:46

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		273.65		2.162E-01	9.344E-01	1.337E+00	1.319E-01	0.162
		340.55		5.604E-01	2.642E-01	4.483E-01	4.175E-02	1.250
		818.51		2.597E-02	1.502E-01	2.541E-01	2.237E-02	0.102
		1048.07	*	-2.401E-01	2.183E-01	3.093E-01	2.778E-02	-0.776
		1235.36		6.624E-01	1.277E+00	2.148E+00	2.483E-01	0.308
BA-137M		661.66	*	-4.710E-02	5.502E-02	7.911E-02	6.664E-03	-0.595
CS-137		661.66	*	-4.976E-02	5.812E-02	8.358E-02	7.054E-03	-0.595
CE-139		165.86	*	2.571E-03	3.588E-02	5.861E-02	4.887E-03	0.044
BA-140		162.66		-1.851E-01	1.261E+00	2.016E+00	1.856E-01	-0.092
		304.85		-6.263E-01	2.133E+00	3.524E+00	1.037E+00	-0.178
		423.72		-1.764E-01	3.323E+00	5.470E+00	1.799E+00	-0.032
		537.26	*	-4.098E-02	4.568E-01	7.359E-01	2.502E-01	-0.056
LA-140	+	328.76		1.372E+00	7.022E-01	9.204E-01	8.781E-02	1.491
		487.02		2.057E-01	2.541E-01	4.412E-01	4.151E-02	0.466
		815.77		4.109E-01	6.756E-01	1.184E+00	1.158E-01	0.347
		1596.21	*	-1.747E-01	1.782E-01	2.430E-01	2.098E-02	-0.719
CE-141		145.44	*	-1.693E-02	8.274E-02	1.316E-01	1.343E-02	-0.129
CE-143		57.36		-4.538E-03	8.274E-02	Half-Life too short		
		293.27	*	7.260E-03	8.274E-02	Half-Life too short		
		664.57		1.381E-02	8.274E-02	Half-Life too short		
		721.93		5.784E-03	8.274E-02	Half-Life too short		
CE-144		80.12		-1.716E+00	2.229E+00	3.244E+00	3.160E-01	-0.529
		133.52	*	1.700E-01	2.536E-01	3.865E-01	6.458E-02	0.440
PM-144		476.78		-9.110E-03	8.387E-02	1.362E-01	1.307E-02	-0.067
		618.01		-3.493E-02	4.376E-02	6.432E-02	5.756E-03	-0.543
		696.49	*	2.857E-02	4.810E-02	8.492E-02	7.271E-03	0.336
PR-144		696.51	*	2.137E+00	3.609E+00	6.371E+00	5.452E-01	0.335
		1489.16		-1.702E+01	1.725E+01	2.294E+01	1.983E+00	-0.742
PM-146		453.88	*	-1.595E-02	5.307E-02	8.507E-02	9.122E-03	-0.187
		633.25		6.740E-01	1.919E+00	3.165E+00	1.209E+00	0.213
		735.93		6.633E-02	2.176E-01	3.734E-01	1.047E-01	0.178
		747.24		3.049E-02	1.414E-01	2.415E-01	3.534E-02	0.126
ND-147		91.11		9.365E-01	5.000E-01	6.625E-01	6.981E-02	1.413
		319.41		-2.572E+00	5.344E+00	8.698E+00	7.934E-01	-0.296
		531.02	*	-5.695E-01	1.050E+00	1.616E+00	2.446E-01	-0.352
PM-149		285.90	*	4.107E-04	1.050E+00	Half-Life too short		
EU-152		121.78		-1.445E-02	7.674E-02	1.257E-01	1.592E-02	-0.115
		244.70		-3.006E-01	4.341E-01	5.751E-01	5.213E-02	-0.523
		344.28	*	-5.909E-02	1.262E-01	1.885E-01	1.782E-02	-0.313
		778.90		-2.895E-01	3.481E-01	5.304E-01	4.643E-02	-0.546
	+	964.08		1.362E+00	6.160E-01	8.690E-01	7.595E-02	1.568
		1085.87		2.942E-01	5.948E-01	1.020E+00	8.677E-02	0.289
		1112.07		-7.276E-02	5.248E-01	8.415E-01	7.088E-02	-0.086
		1408.01		3.682E-02	2.403E-01	4.100E-01	3.527E-02	0.090
GD-153		69.67		-1.169E+00	1.346E+00	1.969E+00	1.933E-01	-0.594
		97.43	*	-7.272E-02	9.283E-02	1.325E-01	1.355E-02	-0.549
		103.18		-3.296E-02	1.147E-01	1.886E-01	1.988E-02	-0.175
EU-154		123.07		-3.195E-03	5.506E-02	9.075E-02	1.252E-02	-0.035
		723.31		-8.312E-02	2.844E-01	4.016E-01	3.820E-02	-0.207

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		873.19		2.173E-01	4.234E-01	7.356E-01	8.832E-02	0.295
		996.26		-3.773E-01	5.412E-01	8.118E-01	1.422E-01	-0.465
		1004.73		-6.482E-02	3.390E-01	5.447E-01	6.369E-02	-0.119
		1274.44	*	-1.280E-01	1.948E-01	2.862E-01	3.212E-02	-0.447
EU-155	+	86.55		4.540E-01	1.215E-01	1.838E-01	1.807E-02	2.470
		105.31	*	9.945E-02	1.142E-01	1.926E-01	2.069E-02	0.516
TB-160	+	86.79		1.264E+00	3.378E-01	5.172E-01	5.045E-02	2.444
		197.04		-2.655E-01	7.141E-01	1.128E+00	9.793E-02	-0.235
		215.65		-9.878E-01	9.747E-01	1.465E+00	1.298E-01	-0.674
		298.57		1.888E-01	1.597E-01	2.580E-01	2.367E-02	0.732
		879.36	*	-7.935E-02	2.197E-01	3.444E-01	3.020E-02	-0.230
		962.29		1.049E+00	9.677E-01	1.562E+00	1.365E-01	0.672
	+	966.15		9.999E-01	4.522E-01	7.938E-01	6.936E-02	1.260
		1177.93		-1.653E-01	6.149E-01	9.667E-01	7.910E-02	-0.171
		1271.85		-8.919E-01	1.162E+00	1.679E+00	1.412E-01	-0.531
HO-166M		80.57		1.279E-01	2.754E-01	3.438E-01	3.348E-02	0.372
		184.41		2.057E-02	4.795E-02	7.305E-02	6.245E-03	0.282
		280.46		-9.428E-02	1.022E-01	1.637E-01	1.503E-02	-0.576
		410.95		3.226E-01	3.081E-01	5.457E-01	4.666E-02	0.591
		711.68	*	-3.509E-02	8.362E-02	1.354E-01	1.165E-02	-0.259
		752.31		-1.896E-01	4.164E-01	6.701E-01	5.836E-02	-0.283
		810.29		-4.173E-02	8.876E-02	1.412E-01	1.241E-02	-0.295
TA-182		67.75		3.738E-02	8.251E-02	1.274E-01	1.255E-02	0.293
		100.11		7.014E-02	1.810E-01	3.066E-01	3.178E-02	0.229
		152.43		-2.008E-01	4.229E-01	6.751E-01	6.417E-02	-0.297
		222.11		-1.226E-02	4.483E-01	7.165E-01	6.386E-02	-0.017
	+	1121.30		6.878E-01	3.790E-01	5.585E-01	4.685E-02	1.231
		1189.05		3.591E-01	4.890E-01	8.491E-01	6.973E-02	0.423
		1221.41	*	1.912E-01	3.495E-01	5.910E-01	4.902E-02	0.323
		1231.02		-1.693E-01	7.903E-01	1.246E+00	1.037E-01	-0.136
IR-192	+	295.96		1.175E+00	2.672E-01	3.731E-01	3.448E-02	3.150
		308.46		7.463E-02	1.202E-01	2.100E-01	1.932E-02	0.355
		316.51	*	1.061E-02	4.292E-02	7.337E-02	6.713E-03	0.145
		468.07		-7.543E-03	1.043E-01	1.489E-01	1.407E-02	-0.051
HG-203		70.83		-5.910E-01	1.115E+00	1.654E+00	2.765E-01	-0.357
		72.87		7.351E-01	6.890E-01	1.077E+00	1.746E-01	0.682
		279.20	*	1.603E-02	5.041E-02	8.584E-02	8.058E-03	0.187
BI-207		72.81		1.469E-01	1.455E-01	2.292E-01	2.242E-02	0.641
	+	74.97		8.560E-01	1.401E-01	2.027E-01	1.978E-02	4.223
		569.70		2.888E-02	4.546E-02	7.730E-02	6.874E-03	0.374
		1063.66	*	-4.726E-02	8.459E-02	1.296E-01	1.111E-02	-0.365
		1770.23		-6.743E-01	8.835E-01	9.325E-01	7.877E-02	-0.723
PB-211		404.85	*	4.445E-01	9.209E-01	1.537E+00	7.436E-01	0.289
		427.09		7.108E-01	1.990E+00	3.331E+00	1.541E+00	0.213
		832.01		5.821E-01	1.517E+00	2.561E+00	1.329E+00	0.227
BI-212	+	727.33	*	1.957E+00	1.230E+00	1.694E+00	2.115E-01	1.155
		785.37		7.543E+00	4.886E+00	9.090E+00	7.965E-01	0.830
		1620.50		1.815E+00	3.134E+00	5.715E+00	4.924E-01	0.318
RN-219	+	271.23		9.787E-01	5.020E-01	5.791E-01	6.207E-02	1.690

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		401.81	*	1.910E-01	5.367E-01	9.106E-01	1.348E-01	0.210
RA-223		81.07		3.756E-02	2.218E-01	2.709E-01	2.638E-02	0.139
	+	83.79		2.950E-01	1.450E-01	1.925E-01	1.875E-02	1.533
		94.87		-1.688E-01	4.634E-01	7.645E-01	7.714E-02	-0.221
		144.24		2.844E-01	7.974E-01	1.303E+00	1.436E-01	0.218
		154.21		2.312E-01	4.516E-01	7.549E-01	7.642E-02	0.306
	+	269.46		7.604E-01	3.879E-01	4.258E-01	3.970E-02	1.786
		323.87	*	4.332E-01	8.170E-01	1.265E+00	2.223E-01	0.343
	+	338.28		8.211E+00	2.504E+00	3.117E+00	3.851E-01	2.634
AC-227		79.69		-8.649E-01	1.098E+00	1.586E+00	2.826E-01	-0.545
		235.96		7.616E-02	2.012E-01	2.933E-01	3.130E-02	0.260
		256.23	*	-1.357E-01	3.118E-01	4.794E-01	5.951E-02	-0.283
		299.98		1.029E+00	1.266E+00	1.972E+00	2.581E-01	0.522
		304.50		-3.030E-01	1.965E+00	3.285E+00	5.526E-01	-0.092
		334.37		-5.105E-01	2.236E+00	3.235E+00	5.119E-01	-0.158
TH-227		79.80		-1.217E+00	1.458E+00	2.084E+00	4.636E-01	-0.584
		235.96		7.616E-02	2.012E-01	2.933E-01	2.964E-02	0.260
		256.23	*	-1.357E-01	3.119E-01	4.794E-01	6.677E-02	-0.283
		299.98		1.029E+00	1.266E+00	1.972E+00	2.581E-01	0.522
		304.50		-3.030E-01	1.965E+00	3.285E+00	5.526E-01	-0.092
		334.37		-5.105E-01	2.236E+00	3.235E+00	5.119E-01	-0.158
PA-231		283.69	*	-4.763E-01	1.681E+00	2.800E+00	4.179E-01	-0.170
		301.36		1.477E+00	7.710E-01	1.308E+00	1.641E-01	1.129
TH-231		81.07		3.756E-02	2.218E-01	2.709E-01	2.638E-02	0.139
	+	83.79		2.950E-01	1.450E-01	1.925E-01	1.875E-02	1.533
		94.87		-1.688E-01	4.634E-01	7.645E-01	7.714E-02	-0.221
		144.24		2.844E-01	7.974E-01	1.303E+00	1.436E-01	0.218
		154.21		2.312E-01	4.516E-01	7.549E-01	7.642E-02	0.306
	+	269.46		7.604E-01	3.879E-01	4.258E-01	3.970E-02	1.786
		323.87	*	4.332E-01	8.170E-01	1.265E+00	2.223E-01	0.343
	+	338.28		8.211E+00	2.504E+00	3.117E+00	3.851E-01	2.634
PA-233		300.13		3.716E-01	5.755E-01	8.870E-01	1.345E-01	0.419
		311.90	*	-4.682E-02	7.587E-02	1.226E-01	1.150E-02	-0.382
		340.48		2.051E+00	9.863E-01	1.494E+00	3.616E-01	1.373
PA-234		94.67		8.477E-02	1.735E-01	2.944E-01	3.962E-02	0.288
		98.44		9.203E-02	1.093E-01	1.522E-01	8.532E-02	0.605
		111.00		-1.592E-01	1.929E-01	3.063E-01	4.253E-02	-0.520
		131.20		2.187E-02	1.321E-01	1.968E-01	2.185E-02	0.111
		569.50		3.916E-01	3.982E-01	6.943E-01	6.174E-02	0.564
		733.00		-3.328E-01	6.349E-01	8.600E-01	1.910E-01	-0.387
		880.51		-5.455E-02	4.227E-01	6.800E-01	5.960E-02	-0.080
		883.24		4.136E-01	4.941E-01	7.454E-01	5.012E-01	0.555
		926.50		-1.095E-01	2.377E-01	3.679E-01	9.317E-02	-0.298
		946.00	*	1.450E-01	4.794E-01	8.117E-01	1.528E-01	0.179
		949.00		3.403E-01	7.330E-01	1.258E+00	1.101E-01	0.270
PA-234M		766.42		1.740E+01	1.935E+01	3.104E+01	1.576E+01	0.560
		1001.03	*	2.103E+00	6.697E+00	1.134E+01	1.138E+00	0.185
U-235		89.96		2.279E+00	1.205E+00	1.458E+00	3.655E-01	1.563
	+	93.35		3.003E+00	1.068E+00	1.068E+00	2.526E-01	2.812

Sample ID : G248866002 Acquisition date : 24-MAR-2010 20:32:46

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		143.76	*	1.228E-01	2.341E-01	3.840E-01	6.837E-02	0.320
		163.33		-1.446E-01	5.133E-01	8.137E-01	1.459E-01	-0.178
	+	185.72		1.716E-01	8.114E-02	1.097E-01	9.394E-03	1.564
		205.31		-1.536E-01	6.439E-01	9.050E-01	1.649E-01	-0.170
NP-239		99.53		2.797E-02	1.611E-01	2.708E-01	2.798E-02	0.103
		103.37		-3.108E-02	1.035E-01	1.702E-01	1.795E-02	-0.183
		106.12		3.323E-02	8.984E-02	1.489E-01	1.594E-02	0.223
		117.23	*	6.530E-02	4.228E-01	7.053E-01	8.034E-02	0.093
		228.18		-2.022E-01	2.498E-01	3.773E-01	3.380E-02	-0.536
		277.60		9.281E-02	2.162E-01	3.704E-01	3.400E-02	0.251
AM-241		59.54	*	9.337E-02	7.849E-02	1.258E-01	1.335E-02	0.742
CM-247		278.00		5.561E-01	9.168E-01	1.583E+00	1.453E-01	0.351
		287.50		3.595E-01	1.363E+00	2.344E+00	2.153E-01	0.153
		402.40	*	1.173E-02	4.881E-02	8.227E-02	6.988E-03	0.143
CF-249		252.80		-1.267E-01	1.190E+00	1.876E+00	1.708E-01	-0.068
		333.37		5.107E-02	2.753E-01	3.527E-01	3.190E-02	0.145
		388.16	*	3.518E-02	5.237E-02	9.081E-02	7.691E-03	0.387
CF-251		177.52	*	-3.798E-02	1.501E-01	2.401E-01	2.034E-02	-0.158
		227.38		-4.064E-01	4.103E-01	6.112E-01	5.472E-02	-0.665
		285.41		8.154E-02	2.496E+00	4.237E+00	3.891E-01	0.019

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248866002       *
* Acquisition date : 24-MAR-2010 20:32:46 Detector SN#    :                 *
* Detector ID      : GAM17                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:10.30     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  4-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248866002           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.1519E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.740E+01	4.099E+00	8.153E-01	0.000E+00
CD-109	3.853E+00	1.009E+00	1.550E+00	0.000E+00
SN-126	3.737E-01	9.786E-02	1.501E-01	0.000E+00
TL-208	6.501E-01	1.190E-01	8.923E-02	0.000E+00
PB-210	1.308E+00	9.142E-01	9.292E-01	0.000E+00
BI-211	4.864E+00	7.002E-01	3.970E-01	0.000E+00
PB-212	2.053E+00	2.484E-01	1.101E-01	0.000E+00
BI-214	1.652E+00	2.663E-01	1.580E-01	0.000E+00
PB-214	1.765E+00	2.715E-01	1.462E-01	0.000E+00
RA-224	5.782E+00	1.600E+00	1.181E+00	0.000E+00
RA-226	1.652E+00	2.663E-01	1.580E-01	0.000E+00
AC-228	2.304E+00	5.485E-01	3.232E-01	0.000E+00
RA-228	2.304E+00	5.485E-01	3.232E-01	0.000E+00
TH-228	2.053E+00	2.484E-01	1.101E-01	0.000E+00
TH-229	-1.441E-02	5.915E-01	9.879E-01	0.000E+00
TH-230	1.652E+00	2.523E-01	1.580E-01	0.000E+00
TH-232	2.304E+00	5.485E-01	3.232E-01	0.000E+00
TH-234	2.082E+00	1.178E+00	1.250E+00	0.000E+00
NP-237	1.115E+00	3.712E-01	4.356E-01	0.000E+00
U-238	2.082E+00	1.178E+00	1.250E+00	0.000E+00
ANH-511	1.405E-01	9.099E-02	6.209E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.969E-02	4.390E-01	7.421E-01	0.000E+00	NOT IDENT.
NA-22	-3.833E-02	6.631E-02	1.005E-01	0.000E+00	NOT IDENT.
NA-24	0.000E+00	3.525E+08	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-4.400E-02	5.754E-02	8.898E-02	0.000E+00	FAIL ABUN
V-48	-9.888E-02	1.300E-01	1.989E-01	0.000E+00	NOT IDENT.
CR-51	-5.436E-01	4.888E-01	7.828E-01	0.000E+00	NOT IDENT.

MN-54	-2.182E-02	5.309E-02	8.671E-02	0.000E+00	NOT IDENT.
CO-56	5.670E-03	5.446E-02	9.346E-02	0.000E+00	NOT IDENT.
CO-57	-1.026E-02	2.651E-02	4.474E-02	0.000E+00	NOT IDENT.
CO-58	-8.107E-03	5.900E-02	9.923E-02	0.000E+00	NOT IDENT.
FE-59	-3.623E-02	1.578E-01	2.555E-01	0.000E+00	NOT IDENT.
CO-60	4.517E-02	5.569E-02	1.039E-01	0.000E+00	NOT IDENT.
ZN-65	8.529E-02	1.597E-01	2.453E-01	0.000E+00	NOT IDENT.
SE-75	-2.655E-02	6.405E-02	8.955E-02	0.000E+00	NOT IDENT.
SR-85	9.069E-02	5.612E-02	9.585E-02	0.000E+00	NOT IDENT.
Y-88	5.860E-02	4.886E-02	1.006E-01	0.000E+00	NOT IDENT.
Y-91	1.623E+01	4.054E+01	6.894E+01	0.000E+00	NOT IDENT.
NB-94	4.000E-02	4.813E-02	8.802E-02	0.000E+00	NOT IDENT.
NB-95	2.207E-02	6.475E-02	1.138E-01	0.000E+00	NOT IDENT.
NB-95M	1.022E-02	1.706E-01	2.515E-01	0.000E+00	NOT IDENT.
ZR-95	4.599E-02	1.161E-01	2.051E-01	0.000E+00	NOT IDENT.
MO-99	1.343E+01	6.745E+01	1.177E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.266E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.524E-02	5.900E-02	9.690E-02	0.000E+00	FAIL ABUN
RH-106	-3.043E-02	3.992E-01	6.525E-01	0.000E+00	NOT IDENT.
RU-106	-3.043E-02	3.992E-01	6.525E-01	0.000E+00	NOT IDENT.
AG-108M	7.838E-03	3.671E-02	6.332E-02	0.000E+00	NOT IDENT.
AG-110M	-5.723E-03	4.706E-02	7.621E-02	0.000E+00	NOT IDENT.
SN-113	-6.027E-02	5.826E-02	9.197E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	7.792E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-1.571E-02	8.154E-02	1.368E-01	0.000E+00	NOT IDENT.
TE-123M	-2.279E-03	3.299E-02	5.570E-02	0.000E+00	NOT IDENT.
SB-124	6.277E-02	9.535E-02	1.832E-01	0.000E+00	NOT IDENT.
SB-125	5.220E-02	1.142E-01	2.005E-01	0.000E+00	FAIL ABUN
TE-125M	-3.323E+00	1.039E+01	1.772E+01	0.000E+00	NOT IDENT.
I-126	-2.139E-02	4.269E-01	6.960E-01	0.000E+00	NOT IDENT.
SB-126	1.026E-01	2.747E-01	4.759E-01	0.000E+00	NOT IDENT.
SB-127	9.497E-01	4.755E+00	7.923E+00	0.000E+00	NOT IDENT.
I-131	-2.163E-01	2.255E-01	3.607E-01	0.000E+00	NOT IDENT.
TE-132	-2.118E+00	2.589E+00	4.019E+00	0.000E+00	NOT IDENT.
BA-133	-7.423E-03	5.324E-02	7.961E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.129E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.948E-02	1.296E-01	0.000E+00	FAIL ABUN
CS-135	1.015E-01	2.055E-01	3.118E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.902E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.401E-01	2.139E-01	3.091E-01	0.000E+00	NOT IDENT.
BA-137M	-4.710E-02	5.391E-02	7.941E-02	0.000E+00	NOT IDENT.
CS-137	-4.976E-02	5.696E-02	8.389E-02	0.000E+00	NOT IDENT.
CE-139	2.571E-03	3.516E-02	5.962E-02	0.000E+00	NOT IDENT.
BA-140	-4.098E-02	4.477E-01	7.402E-01	0.000E+00	NOT IDENT.
LA-140	-1.747E-01	1.746E-01	2.419E-01	0.000E+00	FAIL ABUN
CE-141	-1.693E-02	8.109E-02	1.341E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.824E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.700E-01	2.485E-01	3.940E-01	0.000E+00	NOT IDENT.
PM-144	2.857E-02	4.714E-02	8.520E-02	0.000E+00	NOT IDENT.
PR-144	2.137E+00	3.537E+00	6.392E+00	0.000E+00	NOT IDENT.
PM-146	-1.595E-02	5.201E-02	8.570E-02	0.000E+00	NOT IDENT.
ND-147	-5.695E-01	1.029E+00	1.625E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	5.239E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-5.909E-02	1.237E-01	1.904E-01	0.000E+00	FAIL ABUN
GD-153	-7.272E-02	9.097E-02	1.355E-01	0.000E+00	NOT IDENT.
EU-154	-1.280E-01	1.909E-01	2.854E-01	0.000E+00	NOT IDENT.
EU-155	9.945E-02	1.120E-01	1.968E-01	0.000E+00	FAIL ABUN
TB-160	-7.935E-02	2.154E-01	3.448E-01	0.000E+00	FAIL ABUN
HO-166M	-3.509E-02	8.194E-02	1.358E-01	0.000E+00	NOT IDENT.
TA-182	1.912E-01	3.425E-01	5.897E-01	0.000E+00	FAIL ABUN
IR-192	1.061E-02	4.206E-02	7.417E-02	0.000E+00	FAIL ABUN
HG-203	1.603E-02	4.940E-02	8.688E-02	0.000E+00	NOT IDENT.
BI-207	-4.726E-02	8.290E-02	1.295E-01	0.000E+00	FAIL ABUN
PB-211	4.445E-01	9.024E-01	1.550E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.205E+00	1.699E+00	0.000E+00	FAIL ABUN
RN-219	1.910E-01	5.260E-01	9.185E-01	0.000E+00	FAIL ABUN
RA-223	4.332E-01	8.006E-01	1.278E+00	0.000E+00	FAIL ABUN
AC-227	-1.357E-01	3.055E-01	4.856E-01	0.000E+00	NOT IDENT.
TH-227	-1.357E-01	3.057E-01	4.856E-01	0.000E+00	NOT IDENT.
PA-231	-4.763E-01	1.648E+00	2.834E+00	0.000E+00	NOT IDENT.
TH-231	4.332E-01	8.006E-01	1.278E+00	0.000E+00	FAIL ABUN
PA-233	-4.682E-02	7.435E-02	1.240E-01	0.000E+00	NOT IDENT.
PA-234	1.450E-01	4.699E-01	8.119E-01	0.000E+00	NOT IDENT.
PA-234M	2.103E+00	6.563E+00	1.134E+01	0.000E+00	NOT IDENT.
U-235	1.228E-01	2.294E-01	3.911E-01	0.000E+00	FAIL ABUN
NP-239	6.530E-02	4.144E-01	7.198E-01	0.000E+00	NOT IDENT.
AM-241	9.337E-02	7.692E-02	1.292E-01	0.000E+00	NOT IDENT.
CM-247	1.173E-02	4.783E-02	8.298E-02	0.000E+00	NOT IDENT.

CF-249	3.518E-02	5.133E-02	9.162E-02	0.000E+00	NOT IDENT.
CF-251	-3.798E-02	1.471E-01	2.441E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:34:15.04

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248866002.CNF;1
Sample date      : 4-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:32:46
Sample ID        : G248866002           Sample quantity  : 1.15190E+02 GRAM
Detector name    : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:10.30  0.1%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 962633               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	952	10.66*	7.778E-01	3.740E+01	3.740E+01	11.18
CD-109	88.03	283	3.70*	6.674E+00	3.737E+00	3.853E+00	26.72
SN-126	64.28	160	9.60	6.777E+00	8.024E-01	8.024E-01	56.81
	86.94	283	8.90	6.674E+00	1.554E+00	1.554E+00	48.48
	87.57	283	37.00*	6.674E+00	3.737E-01	3.737E-01	26.72
TL-208	277.37	------	6.60	3.568E+00	------ Line Not Found		------
	583.19	307	85.00*	1.811E+00	6.501E-01	6.501E-01	18.68
	860.56	------	12.50	1.246E+00	------ Line Not Found		------
PB-210	46.54	108	4.25*	6.318E+00	1.306E+00	1.308E+00	71.33
BI-211	72.87	------	1.23	6.803E+00	------ Line Not Found		------
	351.06	561	12.92*	2.907E+00	4.864E+00	4.864E+00	14.69
PB-212	74.82	636	10.28	6.795E+00	2.969E+00	2.969E+00	19.04
	77.11	968	17.10	6.781E+00	2.719E+00	2.719E+00	13.57
	238.63	1104	43.60*	4.020E+00	2.053E+00	2.053E+00	12.35
	300.09	------	3.30	3.340E+00	------ Line Not Found		------
BI-214	609.32	400	45.49*	1.736E+00	1.652E+00	1.652E+00	16.45
	1120.29	64	14.92	9.769E-01	1.422E+00	1.422E+00	55.51
	1764.49	63	15.30	6.713E-01	2.008E+00	2.008E+00	33.27
PB-214	74.82	636	5.80	6.795E+00	5.263E+00	5.263E+00	18.19
	77.11	968	9.70	6.781E+00	4.794E+00	4.794E+00	15.88
	242.00	290	7.25	3.982E+00	3.270E+00	3.270E+00	28.83
	295.22	290	18.42	3.387E+00	1.513E+00	1.513E+00	23.62
	351.93	561	35.60*	2.907E+00	1.765E+00	1.765E+00	15.69
RA-224	240.99	290	4.10*	3.982E+00	5.782E+00	5.782E+00	28.24
RA-226	609.32	400	45.49*	1.736E+00	1.652E+00	1.652E+00	16.45
	1120.29	64	14.92	9.769E-01	1.422E+00	1.422E+00	55.51
	1764.49	63	15.30	6.713E-01	2.008E+00	2.008E+00	33.27
AC-228	338.32	215	11.27	3.009E+00	2.069E+00	2.069E+00	50.25
	911.20	215	25.80*	1.181E+00	2.304E+00	2.304E+00	24.29
	968.97	116	15.80	1.115E+00	2.152E+00	2.152E+00	36.93
RA-228	338.32	215	11.27	3.009E+00	2.069E+00	2.069E+00	50.25
	911.20	215	25.80*	1.181E+00	2.304E+00	2.304E+00	24.29

Sample ID : G248866002 Acquisition date : 24-MAR-2010 20:32:46

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	116	15.80	1.115E+00	2.152E+00	2.152E+00	36.93
TH-228	74.82	636	10.28	6.795E+00	2.969E+00	2.969E+00	16.41
	77.11	968	17.10	6.781E+00	2.719E+00	2.719E+00	13.57
	238.63	1104	43.60*	4.020E+00	2.053E+00	2.053E+00	12.35
	300.09	------	3.30	3.340E+00	------ Line Not Found		------
TH-229	85.43	150	14.70	6.714E+00	4.957E-01	4.957E-01	49.16
	88.47	283	24.00	6.674E+00	5.761E-01	5.761E-01	26.72
	193.51	------	4.41*	4.680E+00	------ Line Not Found		------
	210.85	------	2.80	4.409E+00	------ Line Not Found		------
TH-230	609.32	400	45.49*	1.736E+00	1.652E+00	1.652E+00	15.58
	1120.29	64	14.92	9.769E-01	1.422E+00	1.422E+00	55.11
	1764.49	63	15.30	6.713E-01	2.008E+00	2.008E+00	33.27
TH-232	338.32	215	11.27	3.009E+00	2.069E+00	2.069E+00	29.31
	911.20	215	25.80*	1.181E+00	2.304E+00	2.304E+00	24.29
	968.97	116	15.80	1.115E+00	2.152E+00	2.152E+00	36.93
TH-234	63.29	160	3.70*	6.777E+00	2.082E+00	2.082E+00	57.74
	92.59	340	4.23	6.588E+00	3.976E+00	3.976E+00	34.92
NP-237	86.48	283	12.40*	6.674E+00	1.115E+00	1.115E+00	33.97
	95.86	------	2.68	6.543E+00	------ Line Not Found		------
U-238	63.29	160	3.70*	6.777E+00	2.082E+00	2.082E+00	57.74
	92.59	340	4.23	6.588E+00	3.976E+00	3.976E+00	28.39
ANH-511	511.00	89	100.00*	2.056E+00	1.405E-01	1.405E-01	66.09

Flag: "*" = Keyline

Sample ID : G248866002 Acquisition date : 24-MAR-2010 20:32:46

Total number of lines in spectrum 29
Number of unidentified lines 2
Number of lines tentatively identified by NID 27 93.10%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.740E+01	3.740E+01	0.418E+01	11.18	
CD-109	461.40D	1.03	3.737E+00	3.853E+00	1.030E+00	26.72	
SN-126	2.30E+05Y	1.00	3.737E-01	3.737E-01	0.999E-01	26.72	
TL-208	1.41E+10Y	1.00	6.501E-01	6.501E-01	1.215E-01	18.68	
PB-210	22.20Y	1.00	1.306E+00	1.308E+00	0.933E+00	71.33	
BI-211	7.04E+08Y	1.00	4.864E+00	4.864E+00	0.715E+00	14.69	
PB-212	1.41E+10Y	1.00	2.053E+00	2.053E+00	0.254E+00	12.35	
BI-214	1600.00Y	1.00	1.652E+00	1.652E+00	0.272E+00	16.45	
PB-214	1600.00Y	1.00	1.765E+00	1.765E+00	0.277E+00	15.69	
RA-224	1.41E+10Y	1.00	5.782E+00	5.782E+00	1.633E+00	28.24	
RA-226	1600.00Y	1.00	1.652E+00	1.652E+00	0.272E+00	16.45	
AC-228	1.41E+10Y	1.00	2.304E+00	2.304E+00	0.560E+00	24.29	
RA-228	1.41E+10Y	1.00	2.304E+00	2.304E+00	0.560E+00	24.29	
TH-228	1.41E+10Y	1.00	2.053E+00	2.053E+00	0.254E+00	12.35	
TH-229	7340.00Y	1.00	5.761E-01	5.761E-01	1.539E-01	26.72	K
TH-230	7.54E+04Y	1.00	1.652E+00	1.652E+00	0.257E+00	15.58	
TH-232	1.41E+10Y	1.00	2.304E+00	2.304E+00	0.560E+00	24.29	
TH-234	4.47E+09Y	1.00	2.082E+00	2.082E+00	1.202E+00	57.74	
NP-237	2.14E+06Y	1.00	1.115E+00	1.115E+00	0.379E+00	33.97	
U-238	4.47E+09Y	1.00	2.082E+00	2.082E+00	1.202E+00	57.74	
ANH-511	1.00E+09Y	1.00	1.405E-01	1.405E-01	0.928E-01	66.09	
	Total Activity :		7.785E+01	7.797E+01			

Grand Total Activity : 7.785E+01 7.797E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248866002 Acquisition date : 24-MAR-2010 20:32:46

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.48	57	304	0.91	258.64	255	8	7.85E-03	****	5.88E+00	
0	186.08	145	269	1.17	371.89	368	9	2.01E-02	46.5	4.80E+00	T
0	209.14	119	301	1.17	418.02	413	11	1.66E-02	59.4	4.43E+00	
0	270.56	118	183	1.23	540.93	535	12	1.64E-02	50.2	3.64E+00	T
0	327.90	87	113	1.04	655.64	651	10	1.21E-02	50.3	3.09E+00	T
0	462.78	76	91	1.62	925.54	920	11	1.05E-02	53.8	2.26E+00	T
0	727.55	59	70	1.60	1455.38	1451	11	8.14E-03	61.6	1.46E+00	T
0	794.95	44	46	1.52	1590.25	1584	13	6.07E-03	71.8	1.34E+00	T
3	964.70	68	57	2.21	1929.99	1924	19	9.50E-03	44.4	1.12E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:34:19.26

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248866002.CNF;1    *
* Acquisition date : 24-MAR-2010 20:32:46  Detector SN#    :                  *
* Detector ID      : GAM17                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:10.30         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 4-MAR-2010 12:00:00.  Nuclide Library : SOLID             *
* Sample ID        : G248866002            Analyst initials: MXR1              *
* Batch Number     : 962633                Sample Quantity : 1.15190E+02 GRAM  *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 6-JAN-2010 11:41:36.18MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.740E+01	4.182E+00	8.186E-01	7.268E-02	45.695
CD-109	3.853E+00	1.030E+00	1.515E+00	1.479E-01	2.544
SN-126	3.737E-01	9.986E-02	1.467E-01	1.432E-02	2.547
TL-208	6.501E-01	1.215E-01	8.879E-02	8.388E-03	7.322
PB-210	1.308E+00	9.328E-01	9.028E-01	9.733E-02	1.449
BI-211	4.864E+00	7.145E-01	3.931E-01	3.668E-02	12.374
PB-212	2.053E+00	2.535E-01	1.086E-01	1.100E-02	18.897
BI-214	1.652E+00	2.718E-01	1.573E-01	1.608E-02	10.501
PB-214	1.765E+00	2.770E-01	1.448E-01	1.569E-02	12.189
RA-224	5.782E+00	1.633E+00	1.165E+00	1.054E-01	4.962
RA-226	1.652E+00	2.718E-01	1.573E-01	1.608E-02	10.501
AC-228	2.304E+00	5.597E-01	3.229E-01	3.775E-02	7.133
RA-228	2.304E+00	5.597E-01	3.229E-01	3.775E-02	7.133
TH-228	2.053E+00	2.535E-01	1.086E-01	1.100E-02	18.897
TH-229	5.761E-01	1.539E-01	9.727E-01	8.411E-02	0.592
TH-230	1.652E+00	2.574E-01	1.573E-01	1.377E-02	10.501
TH-232	2.304E+00	5.597E-01	3.229E-01	3.775E-02	7.133
TH-234	2.082E+00	1.202E+00	1.218E+00	2.317E-01	1.710

Sample ID : G248866002 Acquisition date : 24-MAR-2010 20:32:46

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	1.115E+00	3.787E-01	4.256E-01	9.843E-02	2.620
U-238	2.082E+00	1.202E+00	1.218E+00	2.317E-01	1.710
ANH-511	1.405E-01	9.284E-02	6.170E-02	5.510E-03	2.277

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.969E-02		4.479E-01	7.370E-01	7.011E-02	0.027
NA-22	-3.833E-02		6.766E-02	1.007E-01	8.485E-03	-0.381
NA-24	-2.260E+02		1.799E+02	Half-Life too short		
SC-46	-4.400E-02		5.871E-02	8.890E-02	7.783E-03	-0.495
V-48	-9.888E-02		1.327E-01	1.989E-01	1.735E-02	-0.497
CR-51	-5.436E-01		4.988E-01	7.744E-01	7.390E-02	-0.702
MN-54	-2.182E-02		5.417E-02	8.658E-02	7.612E-03	-0.252
CO-56	5.670E-03		5.558E-02	9.333E-02	8.204E-03	0.061
CO-57	-1.026E-02		2.705E-02	4.386E-02	5.138E-03	-0.234
CO-58	-8.107E-03		6.020E-02	9.905E-02	8.723E-03	-0.082
FE-59	-3.623E-02		1.610E-01	2.558E-01	2.347E-02	-0.142
CO-60	4.517E-02		5.683E-02	1.042E-01	8.882E-03	0.433
ZN-65	8.529E-02		1.629E-01	2.456E-01	2.068E-02	0.347
SE-75	-2.655E-02		6.536E-02	8.843E-02	8.126E-03	-0.300
SR-85	9.069E-02		5.727E-02	9.526E-02	8.510E-03	0.952
Y-88	5.860E-02		4.986E-02	1.012E-01	8.441E-03	0.579
Y-91	1.623E+01		4.137E+01	6.908E+01	5.701E+00	0.235
NB-94	4.000E-02		4.911E-02	8.774E-02	7.526E-03	0.456
NB-95	2.207E-02		6.607E-02	1.136E-01	9.919E-03	0.194
NB-95M	1.022E-02		1.741E-01	2.481E-01	2.537E-02	0.041
ZR-95	4.599E-02		1.185E-01	2.046E-01	1.967E-02	0.225
MO-99	1.343E+01		6.883E+01	1.174E+02	1.854E+01	0.114
TC-99M	-1.260E+16		4.217E+16	Half-Life too short		
RU-103	-1.524E-02		6.020E-02	9.627E-02	1.362E-02	-0.158
RH-106	-3.043E-02		4.073E-01	6.496E-01	8.640E-02	-0.047
RU-106	-3.043E-02		4.073E-01	6.496E-01	5.644E-02	-0.047
AG-108M	7.838E-03		3.746E-02	6.282E-02	5.631E-03	0.125
AG-110M	-5.723E-03		4.802E-02	7.591E-02	6.617E-03	-0.075
SN-113	-6.027E-02		5.945E-02	9.116E-02	7.920E-03	-0.661
CD-115	-2.762E-06		3.975E-05	Half-Life too short		
SN-117M	-1.571E-02		8.321E-02	1.345E-01	1.209E-02	-0.117
TE-123M	-2.279E-03		3.367E-02	5.474E-02	4.927E-03	-0.042
SB-124	6.277E-02		9.730E-02	1.842E-01	1.643E-02	0.341
SB-125	5.220E-02		1.166E-01	1.989E-01	1.753E-02	0.262
TE-125M	-3.323E+00		1.060E+01	1.735E+01	2.157E+00	-0.191
I-126	-2.139E-02		4.356E-01	6.935E-01	5.855E-02	-0.031
SB-126	1.026E-01		2.803E-01	4.745E-01	4.096E-02	0.216
SB-127	9.497E-01		4.852E+00	7.896E+00	1.024E+00	0.120
I-131	-2.163E-01		2.301E-01	3.573E-01	3.313E-02	-0.605
TE-132	-2.118E+00		2.642E+00	3.963E+00	6.796E-01	-0.534

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-133	-7.423E-03		5.433E-02	7.884E-02	1.034E-02	-0.094
I-133	-2.557E-01		2.617E-01	Half-Life too short		
CS-134	1.403E-01	+	1.015E-01	1.294E-01	1.143E-02	1.084
CS-135	1.015E-01		2.097E-01	3.080E-01	3.214E-02	0.330
I-135	-2.256E+14		3.011E+15	Half-Life too short		
CS-136	-2.401E-01		2.183E-01	3.093E-01	2.778E-02	-0.776
BA-137M	-4.710E-02		5.502E-02	7.911E-02	6.664E-03	-0.595
CS-137	-4.976E-02		5.812E-02	8.358E-02	7.054E-03	-0.595
CE-139	2.571E-03		3.588E-02	5.861E-02	4.887E-03	0.044
BA-140	-4.098E-02		4.568E-01	7.359E-01	2.502E-01	-0.056
LA-140	-1.747E-01		1.782E-01	2.430E-01	2.098E-02	-0.719
CE-141	-1.693E-02		8.274E-02	1.316E-01	1.343E-02	-0.129
CE-143	7.260E-03		1.441E-03	Half-Life too short		
CE-144	1.700E-01		2.536E-01	3.865E-01	6.458E-02	0.440
PM-144	2.857E-02		4.810E-02	8.492E-02	7.271E-03	0.336
PR-144	2.137E+00		3.609E+00	6.371E+00	5.452E-01	0.335
PM-146	-1.595E-02		5.307E-02	8.507E-02	9.122E-03	-0.187
ND-147	-5.695E-01		1.050E+00	1.616E+00	2.446E-01	-0.352
PM-149	4.107E-04		2.673E-04	Half-Life too short		
EU-152	-5.909E-02		1.262E-01	1.885E-01	1.782E-02	-0.313
GD-153	-7.272E-02		9.283E-02	1.325E-01	1.355E-02	-0.549
EU-154	-1.280E-01		1.948E-01	2.862E-01	3.212E-02	-0.447
EU-155	9.945E-02		1.142E-01	1.926E-01	2.069E-02	0.516
TB-160	-7.935E-02		2.197E-01	3.444E-01	3.020E-02	-0.230
HO-166M	-3.509E-02		8.362E-02	1.354E-01	1.165E-02	-0.259
TA-182	1.912E-01		3.495E-01	5.910E-01	4.902E-02	0.323
IR-192	1.061E-02		4.292E-02	7.337E-02	6.713E-03	0.145
HG-203	1.603E-02		5.041E-02	8.584E-02	8.058E-03	0.187
BI-207	-4.726E-02		8.459E-02	1.296E-01	1.111E-02	-0.365
PB-211	4.445E-01		9.209E-01	1.537E+00	7.436E-01	0.289
BI-212	1.957E+00	+	1.230E+00	1.694E+00	2.115E-01	1.155
RN-219	1.910E-01		5.367E-01	9.106E-01	1.348E-01	0.210
RA-223	4.332E-01		8.170E-01	1.265E+00	2.223E-01	0.343
AC-227	-1.357E-01		3.118E-01	4.794E-01	5.951E-02	-0.283
TH-227	-1.357E-01		3.119E-01	4.794E-01	6.677E-02	-0.283
PA-231	-4.763E-01		1.681E+00	2.800E+00	4.179E-01	-0.170
TH-231	4.332E-01		8.170E-01	1.265E+00	2.223E-01	0.343
PA-233	-4.682E-02		7.587E-02	1.226E-01	1.150E-02	-0.382
PA-234	1.450E-01		4.794E-01	8.117E-01	1.528E-01	0.179
PA-234M	2.103E+00		6.697E+00	1.134E+01	1.138E+00	0.185
U-235	1.228E-01		2.341E-01	3.840E-01	6.837E-02	0.320
NP-239	6.530E-02		4.228E-01	7.053E-01	8.034E-02	0.093
AM-241	9.337E-02		7.849E-02	1.258E-01	1.335E-02	0.742
CM-247	1.173E-02		4.881E-02	8.227E-02	6.988E-03	0.143
CF-249	3.518E-02		5.237E-02	9.081E-02	7.691E-03	0.387
CF-251	-3.798E-02		1.501E-01	2.401E-01	2.034E-02	-0.158

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248866002           *
* Acquisition date  : 24-MAR-2010 20:32:46 Detector SN#     :               *
* Detector ID       : GAM17                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:10.30      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  4-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G248866002           Analyst initials: MXR1           *
* Batch Number      : 962633               Sample Quantity : 1.1519E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.740E+01	4.099E+00	4.079E-01	2.091E+00
CD-109	3.853E+00	1.009E+00	7.754E-01	5.148E-01
SN-126	3.737E-01	9.786E-02	7.510E-02	4.993E-02
TL-208	6.501E-01	1.190E-01	4.464E-02	6.073E-02
PB-210	1.308E+00	9.142E-01	4.649E-01	4.664E-01
BI-211	4.864E+00	7.002E-01	1.986E-01	3.573E-01
PB-212	2.053E+00	2.484E-01	5.509E-02	1.268E-01
BI-214	1.652E+00	2.663E-01	7.907E-02	1.359E-01
PB-214	1.765E+00	2.715E-01	7.317E-02	1.385E-01
RA-224	5.782E+00	1.600E+00	5.909E-01	8.164E-01
RA-226	1.652E+00	2.663E-01	7.907E-02	1.359E-01
AC-228	2.304E+00	5.485E-01	1.617E-01	2.798E-01
RA-228	2.304E+00	5.485E-01	1.617E-01	2.798E-01
TH-228	2.053E+00	2.484E-01	5.509E-02	1.268E-01
TH-229	-1.441E-02	5.915E-01	4.942E-01	3.018E-01
TH-230	1.652E+00	2.523E-01	7.907E-02	1.287E-01
TH-232	2.304E+00	5.485E-01	1.617E-01	2.798E-01
TH-234	2.082E+00	1.178E+00	6.253E-01	6.011E-01
NP-237	1.115E+00	3.712E-01	2.179E-01	1.894E-01
U-238	2.082E+00	1.178E+00	6.253E-01	6.011E-01
ANH-511	1.405E-01	9.099E-02	3.106E-02	4.642E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.969E-02	4.390E-01	3.713E-01	2.240E-01	NOT IDENT.
NA-22	-3.833E-02	6.631E-02	5.026E-02	3.383E-02	NOT IDENT.
NA-24	-2.260E+08	3.525E+08	0.000E+00	1.799E+08	SHORT HLIF
SC-46	-4.400E-02	5.754E-02	4.452E-02	2.936E-02	FAIL ABUN
V-48	-9.888E-02	1.300E-01	9.951E-02	6.634E-02	NOT IDENT.
CR-51	-5.436E-01	4.888E-01	3.916E-01	2.494E-01	NOT IDENT.

MN-54	-2.182E-02	5.309E-02	4.338E-02	2.709E-02	NOT IDENT.
CO-56	5.670E-03	5.446E-02	4.676E-02	2.779E-02	NOT IDENT.
CO-57	-1.026E-02	2.651E-02	2.238E-02	1.352E-02	NOT IDENT.
CO-58	-8.107E-03	5.900E-02	4.964E-02	3.010E-02	NOT IDENT.
FE-59	-3.623E-02	1.578E-01	1.278E-01	8.051E-02	NOT IDENT.
CO-60	4.517E-02	5.569E-02	5.198E-02	2.842E-02	NOT IDENT.
ZN-65	8.529E-02	1.597E-01	1.227E-01	8.147E-02	NOT IDENT.
SE-75	-2.655E-02	6.405E-02	4.480E-02	3.268E-02	NOT IDENT.
SR-85	9.069E-02	5.612E-02	4.795E-02	2.863E-02	NOT IDENT.
Y-88	5.860E-02	4.886E-02	5.033E-02	2.493E-02	NOT IDENT.
Y-91	1.623E+01	4.054E+01	3.449E+01	2.068E+01	NOT IDENT.
NB-94	4.000E-02	4.813E-02	4.404E-02	2.456E-02	NOT IDENT.
NB-95	2.207E-02	6.475E-02	5.695E-02	3.304E-02	NOT IDENT.
NB-95M	1.022E-02	1.706E-01	1.258E-01	8.706E-02	NOT IDENT.
ZR-95	4.599E-02	1.161E-01	1.026E-01	5.923E-02	NOT IDENT.
MO-99	1.343E+01	6.745E+01	5.888E+01	3.441E+01	NOT IDENT.
TC-99M	-1.260E+22	8.266E+22	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.524E-02	5.900E-02	4.848E-02	3.010E-02	FAIL ABUN
RH-106	-3.043E-02	3.992E-01	3.264E-01	2.037E-01	NOT IDENT.
RU-106	-3.043E-02	3.992E-01	3.264E-01	2.037E-01	NOT IDENT.
AG-108M	7.838E-03	3.671E-02	3.168E-02	1.873E-02	NOT IDENT.
AG-110M	-5.723E-03	4.706E-02	3.813E-02	2.401E-02	NOT IDENT.
SN-113	-6.027E-02	5.826E-02	4.601E-02	2.973E-02	NOT IDENT.
CD-115	-2.762E+00	7.792E+01	0.000E+00	3.975E+01	SHORT HLIF
SN-117M	-1.571E-02	8.154E-02	6.845E-02	4.160E-02	NOT IDENT.
TE-123M	-2.279E-03	3.299E-02	2.786E-02	1.683E-02	NOT IDENT.
SB-124	6.277E-02	9.535E-02	9.168E-02	4.865E-02	NOT IDENT.
SB-125	5.220E-02	1.142E-01	1.003E-01	5.829E-02	FAIL ABUN
TE-125M	-3.323E+00	1.039E+01	8.865E+00	5.299E+00	NOT IDENT.
I-126	-2.139E-02	4.269E-01	3.482E-01	2.178E-01	NOT IDENT.
SB-126	1.026E-01	2.747E-01	2.381E-01	1.401E-01	NOT IDENT.
SB-127	9.497E-01	4.755E+00	3.964E+00	2.426E+00	NOT IDENT.
I-131	-2.163E-01	2.255E-01	1.805E-01	1.150E-01	NOT IDENT.
TE-132	-2.118E+00	2.589E+00	2.010E+00	1.321E+00	NOT IDENT.
BA-133	-7.423E-03	5.324E-02	3.983E-02	2.716E-02	NOT IDENT.
I-133	-2.557E+05	5.129E+05	0.000E+00	2.617E+05	SHORT HLIF
CS-134	1.403E-01	9.948E-02	6.486E-02	5.076E-02	FAIL ABUN
CS-135	1.015E-01	2.055E-01	1.560E-01	1.048E-01	NOT IDENT.
I-135	-2.256E+20	5.902E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.401E-01	2.139E-01	1.546E-01	1.091E-01	NOT IDENT.
BA-137M	-4.710E-02	5.391E-02	3.973E-02	2.751E-02	NOT IDENT.
CS-137	-4.976E-02	5.696E-02	4.197E-02	2.906E-02	NOT IDENT.
CE-139	2.571E-03	3.516E-02	2.983E-02	1.794E-02	NOT IDENT.
BA-140	-4.098E-02	4.477E-01	3.703E-01	2.284E-01	NOT IDENT.
LA-140	-1.747E-01	1.746E-01	1.210E-01	8.910E-02	FAIL ABUN
CE-141	-1.693E-02	8.109E-02	6.707E-02	4.137E-02	NOT IDENT.
CE-143	7.260E+03	2.824E+03	0.000E+00	1.441E+03	SHORT HLIF
CE-144	1.700E-01	2.485E-01	1.971E-01	1.268E-01	NOT IDENT.
PM-144	2.857E-02	4.714E-02	4.262E-02	2.405E-02	NOT IDENT.
PR-144	2.137E+00	3.537E+00	3.198E+00	1.805E+00	NOT IDENT.
PM-146	-1.595E-02	5.201E-02	4.288E-02	2.653E-02	NOT IDENT.
ND-147	-5.695E-01	1.029E+00	8.131E-01	5.248E-01	NOT IDENT.
PM-149	4.107E+02	5.239E+02	0.000E+00	2.673E+02	SHORT HLIF
EU-152	-5.909E-02	1.237E-01	9.526E-02	6.311E-02	FAIL ABUN
GD-153	-7.272E-02	9.097E-02	6.777E-02	4.641E-02	NOT IDENT.
EU-154	-1.280E-01	1.909E-01	1.428E-01	9.739E-02	NOT IDENT.
EU-155	9.945E-02	1.120E-01	9.844E-02	5.712E-02	FAIL ABUN
TB-160	-7.935E-02	2.154E-01	1.725E-01	1.099E-01	FAIL ABUN
HO-166M	-3.509E-02	8.194E-02	6.793E-02	4.181E-02	NOT IDENT.
TA-182	1.912E-01	3.425E-01	2.950E-01	1.747E-01	FAIL ABUN
IR-192	1.061E-02	4.206E-02	3.711E-02	2.146E-02	FAIL ABUN
HG-203	1.603E-02	4.940E-02	4.347E-02	2.520E-02	NOT IDENT.
BI-207	-4.726E-02	8.290E-02	6.477E-02	4.229E-02	FAIL ABUN
PB-211	4.445E-01	9.024E-01	7.756E-01	4.604E-01	NOT IDENT.
BI-212	1.957E+00	1.205E+00	8.501E-01	6.148E-01	FAIL ABUN
RN-219	1.910E-01	5.260E-01	4.595E-01	2.684E-01	FAIL ABUN
RA-223	4.332E-01	8.006E-01	6.395E-01	4.085E-01	FAIL ABUN
AC-227	-1.357E-01	3.055E-01	2.429E-01	1.559E-01	NOT IDENT.
TH-227	-1.357E-01	3.057E-01	2.429E-01	1.560E-01	NOT IDENT.
PA-231	-4.763E-01	1.648E+00	1.418E+00	8.407E-01	NOT IDENT.
TH-231	4.332E-01	8.006E-01	6.395E-01	4.085E-01	FAIL ABUN
PA-233	-4.682E-02	7.435E-02	6.202E-02	3.793E-02	NOT IDENT.
PA-234	1.450E-01	4.699E-01	4.062E-01	2.397E-01	NOT IDENT.
PA-234M	2.103E+00	6.563E+00	5.673E+00	3.348E+00	NOT IDENT.
U-235	1.228E-01	2.294E-01	1.957E-01	1.170E-01	FAIL ABUN
NP-239	6.530E-02	4.144E-01	3.601E-01	2.114E-01	NOT IDENT.
AM-241	9.337E-02	7.692E-02	6.462E-02	3.925E-02	NOT IDENT.
CM-247	1.173E-02	4.783E-02	4.151E-02	2.440E-02	NOT IDENT.

CF-249	3.518E-02	5.133E-02	4.584E-02	2.619E-02	NOT IDENT.
CF-251	-3.798E-02	1.471E-01	1.221E-01	7.507E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	254.6988
49.72	276.0123
57.36	0.0000
59.54	332.7077
63.29	406.0120
63.29	406.0120
64.28	402.1997
67.75	393.6850
69.67	463.1482
70.83	443.0989
72.81	418.3681
72.87	418.4254
72.87	418.4254
74.82	392.0587
74.82	392.0587
74.82	392.0587
74.97	392.1901
77.11	394.0347
77.11	394.0347
77.11	394.0347
79.69	396.2268
79.80	396.3182
80.12	396.5877
80.19	396.6457
80.57	304.5205
81.00	304.7974
81.07	315.7290
81.07	315.7290
83.79	303.8332
83.79	303.8332
85.43	541.0436
86.48	542.1949
86.55	542.2700
86.79	542.5286
86.94	542.6939
87.57	570.9620
88.03	571.4863
88.47	475.2728
89.96	329.7885
91.11	349.9722
92.59	534.8203
92.59	534.8203
93.35	372.8741
94.67	373.8102
94.87	373.9510
94.87	373.9510
95.86	248.0542
97.43	282.5152
98.44	228.1240
99.53	254.9199
100.11	248.5984
103.18	265.1290
103.37	269.0075
105.31	241.4194
106.12	247.4740
109.28	245.0052
111.00	259.1634
111.76	245.0806
116.30	234.3526
117.23	219.1927
121.12	204.9596
121.78	212.9915
122.06	216.9956
123.07	214.4063
131.20	231.9886
133.52	211.9080
136.00	231.6602

136.47	238.8152
140.51	220.1206
140.51	0.0000
143.76	203.9809
144.24	216.2444
144.24	216.2444
145.44	222.6833
152.43	239.1559
153.25	205.6578
154.21	212.0727
154.21	212.0727
156.02	233.1285
158.56	214.3392
159.00	206.2154
162.66	199.9540
163.33	204.2745
165.86	204.9418
176.60	206.6649
177.52	194.2291
181.07	188.2827
184.41	202.7667
185.72	213.2080
193.51	176.4238
197.04	207.3770
205.31	191.3131
210.85	208.9214
215.65	203.9321
222.11	177.5732
227.38	166.2654
228.16	161.9302
228.18	161.9332
235.69	172.1624
235.96	172.2090
235.96	172.2090
238.63	157.9942
238.63	157.9942
240.99	158.3602
242.00	158.5168
244.70	156.6622
252.40	128.0850
252.80	145.2935
256.23	145.7631
256.23	145.7631
260.90	0.0000
264.66	144.0089
268.22	113.1450
269.46	132.4387
269.46	132.4387
271.23	132.6498
273.65	136.4357
276.40	126.2483
277.37	130.7433
277.60	137.7918
278.00	133.4500
279.20	130.0759
279.54	130.1143
280.46	155.7339
283.69	129.7017
284.31	135.0692
285.41	120.1756
285.90	0.0000
287.50	107.1139
293.27	0.0000
295.22	139.8952
295.96	139.9838
298.57	118.6661
299.98	131.6862
299.98	131.6862
300.09	121.6791
300.09	121.6791
300.13	135.9989
301.36	102.6989
302.85	155.1367
304.50	129.3069
304.50	129.3069
304.85	126.6496
308.46	104.5002
311.90	119.2463

316.51	104.2749
319.41	109.0594
320.08	123.6650
323.87	91.9329
323.87	91.9329
328.76	112.7911
333.37	100.4530
334.37	107.3952
334.37	107.3952
338.28	98.6782
338.28	98.6782
338.32	98.6814
338.32	98.6814
338.32	98.6814
340.48	88.6816
340.55	88.6860
344.28	109.9336
351.06	95.3438
351.93	97.8271
356.01	89.7100
364.49	112.8278
366.42	96.9790
383.85	105.7969
388.16	91.7710
388.63	74.5877
391.69	111.1572
400.66	108.9377
401.81	94.5502
402.40	94.5876
404.85	83.1393
410.95	75.7089
414.70	88.5437
423.72	86.1241
427.09	79.4439
427.87	76.5396
433.94	75.8474
453.88	76.7862
463.37	85.0484
468.07	77.2406
473.00	80.6934
476.78	71.7735
477.60	71.8082
487.02	68.1328
492.35	0.0000
497.08	78.7506
511.00	70.0892
514.00	54.5124
527.90	0.0000
529.87	0.0000
531.02	70.8575
537.26	60.6391
546.56	0.0000
563.25	71.0035
569.33	65.9091
569.50	62.7253
569.70	69.1121
583.19	81.3577
600.60	64.7827
602.73	62.2547
604.72	70.9692
609.32	67.2241
609.32	67.2241
609.32	67.2241
610.33	69.4258
614.28	53.9079
618.01	64.2378
621.93	50.1777
621.93	50.1777
633.25	48.2512
635.95	47.2150
636.99	54.9271
645.85	60.6682
657.76	54.3429
661.66	71.1035
661.66	71.1035
664.57	0.0000
666.33	65.6872
666.50	63.4657

677.62	60.4237
685.70	52.7775
695.00	47.8061
696.49	54.1538
696.51	54.1553
697.00	62.2920
702.65	57.9188
706.68	58.9253
711.68	60.8676
720.70	54.7163
721.93	0.0000
722.78	62.3708
722.91	68.4595
723.31	68.4705
724.19	65.4518
727.33	65.5376
733.00	65.6933
735.93	56.9004
739.50	57.9043
747.24	54.4007
752.31	67.4484
753.82	56.3952
756.73	60.1647
763.94	90.9730
765.81	62.2416
766.42	59.4703
777.92	50.4075
778.90	54.1626
783.70	50.5235
785.37	45.8753
795.86	39.1693
801.95	38.8693
810.29	58.6094
810.76	52.0016
815.77	49.2591
818.51	52.1560
832.01	50.5156
834.85	57.2476
836.80	0.0000
846.77	40.2517
856.80	68.2959
860.56	40.4558
871.09	52.2136
873.19	42.5767
875.33	0.0000
879.36	45.5806
880.51	43.6586
883.24	33.0188
884.68	43.7234
889.28	49.6353
898.04	59.5510
911.20	42.1728
911.20	42.1728
911.20	42.1728
926.50	40.4244
937.49	55.4217
944.13	48.6028
946.00	47.6414
949.00	49.6765
962.29	46.5710
964.08	46.9323
966.15	46.9644
968.97	38.3399
968.97	38.3399
968.97	38.3399
983.53	49.2440
996.26	50.4565
1001.03	40.4277
1004.73	51.6064
1037.84	42.9475
1038.76	0.0000
1048.07	54.3690
1050.41	44.1422
1050.41	44.1422
1063.66	53.5996
1085.87	38.3965
1099.45	52.0996
1112.07	58.5703

1115.54	45.3688
1120.29	56.6156
1120.29	56.6156
1120.29	56.6156
1120.55	50.6768
1121.30	55.9323
1131.51	0.0000
1173.23	61.7439
1177.93	55.4303
1189.05	40.6329
1204.77	63.3645
1221.41	58.2583
1231.02	60.5746
1235.36	62.8116
1238.28	53.1081
1260.41	0.0000
1271.85	44.8377
1274.44	44.8678
1274.54	42.6810
1291.59	32.9780
1298.22	0.0000
1312.11	35.9166
1332.49	21.2920
1365.19	18.6678
1368.63	0.0000
1384.29	15.0052
1408.01	18.8656
1457.56	0.0000
1460.82	20.0601
1489.16	20.1934
1505.03	24.1272
1596.21	25.6096
1620.50	9.9015
1678.03	0.0000
1690.97	5.0252
1764.49	9.1820
1764.49	9.1820
1764.49	9.1820
1770.23	17.5098
1771.35	26.5618
1791.20	0.0000
1836.06	4.1388

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248866002

Total Uranium Activity	6.2503E+00	ug/g
Total Uranium Counting Unc.	3.5065E+00	ug/g
Total Uranium Tpu	1.7890E-06	ug/g
Total Uranium Mda	1.8624E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 962633                    SAMPLE ID  : G248866002        *
*   ANALYST      : MXR1                      DETECTOR   : GAM17             *
*   SAMPLE DATE  :  4-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 20:32:46.28   SAMPLE ALQT:  115.190 GRAM     *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.140E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.597E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.988E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.935E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:35:03.53

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:33:15
Sample ID         : G248867001           Sample quantity  : 1.22070E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:57.45  0.8%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	74.70*	595	709	1.78	149.61	143	15	8.26E-02	10.2	6.48E+00
2	3	77.13*	699	378	0.98	154.46	143	15	9.71E-02	5.9	
3	0	86.89*	170	508	1.12	173.95	172	7	2.36E-02	23.5	
4	0	93.22*	169	756	1.39	186.60	181	10	2.35E-02	33.0	
5	0	129.40	102	529	1.21	258.87	253	12	1.41E-02	46.4	
6	0	185.85*	158	426	1.20	371.63	365	11	2.19E-02	27.7	
7	0	209.14	75	344	1.00	418.17	414	9	1.04E-02	46.1	
8	4	238.54*	1301	172	1.07	476.91	471	18	1.81E-01	3.4	1.51E+00
9	4	241.43	315	310	1.77	482.67	471	18	4.38E-02	15.7	
10	0	270.01	120	335	1.39	539.77	534	14	1.66E-02	33.7	
11	4	295.15	406	145	1.16	590.01	585	19	5.64E-02	7.0	1.26E+00
12	4	299.92	131	150	1.42	599.54	585	19	1.82E-02	18.5	
13	0	328.37	95	195	1.05	656.39	651	11	1.32E-02	30.1	
14	0	338.29	271	184	1.41	676.21	669	12	3.76E-02	11.7	
15	0	351.81	620	227	1.23	703.23	698	12	8.61E-02	6.3	
16	0	463.34	92	115	0.98	926.09	921	13	1.28E-02	26.2	
17	0	583.03*	429	125	1.47	1165.32	1158	14	5.96E-02	7.5	
18	0	609.34*	441	129	1.28	1217.91	1213	12	6.13E-02	7.2	
19	0	663.39	83	184	1.04	1325.96	1316	20	1.15E-02	41.8	
20	0	727.40	90	78	1.24	1453.93	1448	11	1.25E-02	21.9	
21	0	795.70	71	83	0.99	1590.48	1580	19	9.82E-03	33.5	
22	0	860.37	65	49	1.51	1719.81	1715	12	8.96E-03	24.9	
23	0	911.26*	257	85	1.62	1821.57	1813	14	3.57E-02	10.0	
24	4	964.31*	85	37	2.53	1927.66	1922	25	1.18E-02	18.9	1.63E+00
25	4	969.05*	171	51	2.05	1937.14	1922	25	2.38E-02	11.6	
26	0	1120.33*	113	55	2.02	2239.74	2233	13	1.56E-02	17.2	
27	0	1378.58*	26	35	1.04	2756.43	2747	14	3.66E-03	52.7	
28	0	1402.03	18	24	0.99	2803.36	2794	12	2.47E-03	60.1	
29	0	1460.89*	1478	45	1.75	2921.16	2911	20	2.05E-01	2.8	
30	0	1620.67	30	4	1.43	3240.97	3233	15	4.20E-03	22.9	
31	0	1764.57*	92	3	1.88	3529.07	3522	13	1.28E-02	12.4	
32	0	1847.98	18	7	1.33	3696.08	3689	14	2.50E-03	39.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 22:35:06

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 20:33:15
Sample ID : G248867001 Sample quantity : 122.07 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAM29 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:57.45 0.8%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.523E+01	4.325E+00	5.862E-01	6.376E-02	60.093
CD-109	+	88.03	*	2.483E+00	1.192E+00	1.820E+00	1.719E-01	1.364
SN-126		64.28		2.422E-03	6.348E-01	1.037E+00	1.537E-01	0.002
	+	86.94		1.003E+00	6.294E-01	7.645E-01	3.174E-01	1.312
	+	87.57	*	2.412E-01	1.158E-01	1.819E-01	1.710E-02	1.326
TL-208		277.37		4.630E-01	4.993E-01	7.893E-01	1.015E-01	0.587
	+	583.19	*	5.863E-01	1.036E-01	6.767E-02	6.341E-03	8.663
	+	860.56		8.343E-01	4.289E-01	5.000E-01	6.413E-02	1.668
BI-211		72.87		1.569E+01	4.825E+00	7.495E+00	6.194E-01	2.093
	+	351.06	*	3.834E+00	6.063E-01	3.919E-01	3.753E-02	9.782
BI-212	+	727.33	*	1.882E+00	8.594E-01	8.798E-01	1.150E-01	2.139
		785.37		6.275E+00	3.919E+00	6.750E+00	7.215E-01	0.930
	+	1620.50		5.596E+00	2.626E+00	3.759E+00	3.755E-01	1.489
PB-212	+	74.82		3.681E+00	8.883E-01	7.004E-01	8.989E-02	5.255
	+	77.11		2.474E+00	3.618E-01	4.007E-01	3.412E-02	6.175
	+	238.63	*	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
	+	300.09		2.841E+00	1.095E+00	1.418E+00	1.558E-01	2.003
BI-214	+	609.32	*	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
	+	1120.29		1.544E+00	5.596E-01	5.108E-01	5.962E-02	3.022
	+	1764.49		1.707E+00	4.519E-01	2.887E-01	2.622E-02	5.912
PB-214	+	74.82		6.524E+00	1.531E+00	1.241E+00	1.432E-01	5.255
	+	77.11		4.362E+00	7.323E-01	7.064E-01	8.374E-02	6.175
	+	242.00		2.702E+00	8.938E-01	6.932E-01	7.350E-02	3.897
	+	295.22		1.563E+00	2.793E-01	2.497E-01	2.806E-02	6.256
	+	351.93	*	1.391E+00	2.331E-01	1.435E-01	1.586E-02	9.695
RA-224	+	240.99	*	4.777E+00	1.556E+00	1.222E+00	1.084E-01	3.909
RA-226	+	609.32	*	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
	+	1120.29		1.544E+00	5.596E-01	5.108E-01	5.962E-02	3.022
	+	1764.49		1.707E+00	4.519E-01	2.887E-01	2.622E-02	5.912
AC-228	+	338.32		1.867E+00	8.953E-01	4.700E-01	1.966E-01	3.973
	+	911.20	*	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
	+	968.97		1.951E+00	6.782E-01	4.648E-01	1.204E-01	4.197
RA-228	+	338.32		1.867E+00	8.953E-01	4.700E-01	1.966E-01	3.973
	+	911.20	*	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		1.951E+00	6.782E-01	4.648E-01	1.204E-01	4.197
TH-228	+	74.82		3.681E+00	8.141E-01	7.004E-01	5.920E-02	5.255
	+	77.11		2.474E+00	3.618E-01	4.007E-01	3.412E-02	6.175
	+	238.63	*	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
	+	300.09		2.841E+00	2.033E+00	1.418E+00	8.694E-01	2.003
TH-230	+	609.32	*	1.167E+00	1.955E-01	1.384E-01	1.192E-02	8.437
	+	1120.29		1.544E+00	5.499E-01	5.108E-01	4.882E-02	3.022
	+	1764.49		1.707E+00	4.519E-01	2.887E-01	2.622E-02	5.912
TH-232	+	338.32		1.867E+00	4.698E-01	4.700E-01	4.316E-02	3.973
	+	911.20	*	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
	+	968.97		1.951E+00	6.782E-01	4.648E-01	1.204E-01	4.197
NP-237	+	86.48	*	7.197E-01	3.769E-01	4.879E-01	1.119E-01	1.475
		95.86		5.234E-01	1.246E+00	1.808E+00	4.364E-01	0.290

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-2.460E-02	3.972E-01	6.430E-01	6.260E-02	-0.038
NA-22		1274.54	*	-4.993E-02	4.804E-02	7.200E-02	7.188E-03	-0.693
NA-24		1368.63	*	-5.110E+01	4.804E-02	Half-Life too short		
SC-46		889.28	*	-2.542E-02	4.469E-02	6.961E-02	9.088E-03	-0.365
	+	1120.55		2.704E-01	9.634E-02	1.501E-01	1.434E-02	1.802
V-48		944.13		-8.359E-01	1.282E+00	1.980E+00	2.515E-01	-0.422
		983.53	*	-3.953E-02	9.753E-02	1.536E-01	1.863E-02	-0.257
		1312.11		-2.539E-02	1.141E-01	1.866E-01	1.981E-02	-0.136
CR-51		320.08	*	-1.087E-01	4.670E-01	7.636E-01	7.342E-02	-0.142
MN-54		834.85	*	-3.045E-02	4.396E-02	6.857E-02	8.082E-03	-0.444
CO-56		846.77	*	1.498E-02	4.718E-02	7.976E-02	9.618E-03	0.188
		1037.84		1.155E-01	3.678E-01	6.162E-01	7.129E-02	0.187
		1238.28		1.860E-01	1.184E-01	2.104E-01	2.020E-02	0.884
		1771.35		2.082E-02	2.953E-01	4.195E-01	3.789E-02	0.050
CO-57		122.06	*	2.208E-02	3.147E-02	5.225E-02	4.721E-03	0.423
		136.47		1.856E-01	2.559E-01	4.238E-01	3.937E-02	0.438
CO-58		810.76	*	-2.382E-03	4.833E-02	7.967E-02	8.971E-03	-0.030
FE-59		1099.45	*	-5.190E-02	1.038E-01	1.600E-01	1.699E-02	-0.324
		1291.59		-2.755E-02	1.360E-01	2.227E-01	2.508E-02	-0.124
CO-60		1173.23		-2.246E-02	5.635E-02	8.814E-02	7.327E-03	-0.255
		1332.49	*	-1.929E-02	4.266E-02	6.761E-02	7.415E-03	-0.285
ZN-65		1115.54	*	-6.619E-02	1.148E-01	1.464E-01	1.416E-02	-0.452
SE-75		121.12		2.459E-01	1.655E-01	2.795E-01	3.184E-02	0.880
		136.00		2.277E-02	5.162E-02	8.191E-02	7.149E-03	0.278
		264.66	*	1.681E-02	6.110E-02	9.012E-02	8.171E-03	0.187
		279.54		3.291E-02	1.346E-01	2.264E-01	2.131E-02	0.145
		400.66		1.953E-02	3.028E-01	4.982E-01	5.681E-02	0.039
SR-85		514.00	*	-1.800E-01	6.424E-02	8.613E-02	7.791E-03	-2.090
Y-88		898.04		-1.017E-02	5.214E-02	8.444E-02	1.122E-02	-0.120
		1836.06	*	-6.498E-03	3.818E-02	6.045E-02	5.169E-03	-0.108
Y-91		1204.77	*	-9.039E+00	2.724E+01	4.277E+01	3.772E+00	-0.211

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94		702.65	*	-9.570E-03	3.608E-02	5.900E-02	5.300E-03	-0.162
		871.09		3.748E-02	3.723E-02	6.606E-02	8.339E-03	0.567
NB-95		765.81	*	7.055E-02	5.146E-02	9.219E-02	9.469E-03	0.765
NB-95M		235.69	*	6.736E-01	1.991E-01	3.184E-01	3.207E-02	2.115
ZR-95		724.19		8.915E-02	1.270E-01	1.939E-01	1.955E-02	0.460
		756.73	*	2.077E-02	8.542E-02	1.443E-01	1.568E-02	0.144
MO-99		140.51		-1.268E+02	8.891E+01	1.275E+02	3.025E+01	-0.995
		181.07		-5.081E+01	7.467E+01	9.920E+01	1.850E+01	-0.512
		366.42		-2.952E+02	3.331E+02	5.187E+02	4.729E+01	-0.569
		739.50	*	5.954E+01	4.271E+01	7.590E+01	1.244E+01	0.785
		777.92		-1.019E+02	1.178E+02	1.811E+02	1.907E+01	-0.563
TC-99M		140.51	*	-9.175E+15	1.178E+02	Half-Life too short		
RU-103		497.08	*	-1.237E-02	5.221E-02	8.333E-02	1.188E-02	-0.148
	+	610.33		1.299E+01	2.825E+00	3.251E+00	5.312E-01	3.994
RH-106		621.93	*	-1.023E-01	3.442E-01	5.652E-01	7.457E-02	-0.181
		1050.41		-2.472E-01	2.962E+00	4.790E+00	5.264E-01	-0.052
RU-106		621.93	*	-1.023E-01	3.440E-01	5.652E-01	4.817E-02	-0.181
		1050.41		-2.472E-01	2.962E+00	4.790E+00	5.264E-01	-0.052
AG-108M		433.94	*	-1.315E-03	3.302E-02	5.377E-02	5.031E-03	-0.024
		614.28		-1.303E-02	4.400E-02	6.191E-02	5.487E-03	-0.210
		722.91		-1.182E-02	4.617E-02	6.396E-02	6.166E-03	-0.185
AG-110M		657.76	*	9.767E-03	4.395E-02	6.487E-02	5.515E-03	0.151
		677.62		-4.171E-01	3.367E-01	5.053E-01	4.421E-02	-0.825
		706.68		7.301E-02	2.321E-01	3.953E-01	3.676E-02	0.185
		763.94		-4.864E-02	1.859E-01	3.027E-01	3.158E-02	-0.161
		884.68		1.415E-02	5.420E-02	9.121E-02	1.198E-02	0.155
		937.49		1.227E-01	1.312E-01	2.298E-01	2.988E-02	0.534
		1384.29		4.885E-02	1.903E-01	2.833E-01	3.135E-02	0.172
		1505.03		-3.317E-01	3.144E-01	4.432E-01	4.664E-02	-0.748
SN-113		391.69	*	3.037E-02	5.294E-02	8.953E-02	8.280E-03	0.339
CD-115		260.90		-1.476E-04	5.294E-02	Half-Life too short		
		492.35		-3.479E-05	5.294E-02	Half-Life too short		
		527.90	*	5.067E-06	5.294E-02	Half-Life too short		
SN-117M		156.02		-2.836E+00	3.424E+00	5.307E+00	4.408E-01	-0.534
		158.56	*	1.580E-02	8.013E-02	1.298E-01	1.073E-02	0.122
TE-123M		159.00	*	-8.985E-03	3.464E-02	5.504E-02	4.575E-03	-0.163
SB-124		602.73		2.073E-02	5.026E-02	7.570E-02	6.553E-03	0.274
		645.85		-3.962E-01	5.572E-01	8.830E-01	7.813E-02	-0.449
		722.78		-1.171E-01	4.874E-01	6.766E-01	6.472E-02	-0.173
		1690.97	*	-4.839E-02	8.496E-02	1.248E-01	1.236E-02	-0.388
SB-125		427.87	*	-5.397E-02	1.117E-01	1.772E-01	1.636E-02	-0.305
	+	463.37		8.628E-01	4.607E-01	5.931E-01	5.769E-02	1.455
		600.60		-1.330E-01	2.086E-01	3.188E-01	2.966E-02	-0.417
		635.95		-9.029E-02	3.066E-01	5.034E-01	4.597E-02	-0.179
TE-125M		109.28	*	1.845E+00	1.305E+01	2.132E+01	2.278E+00	0.087
I-126		388.63		-1.694E-01	2.520E-01	3.973E-01	3.581E-02	-0.426
		666.33	*	2.483E-01	3.624E-01	5.558E-01	4.605E-02	0.447
		753.82		2.187E+00	2.572E+00	4.516E+00	4.525E-01	0.484
SB-126		414.70		1.935E-02	1.094E-01	1.809E-01	1.639E-02	0.107

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		666.50		9.092E-02	1.250E-01	1.925E-01	1.596E-02	0.472
		695.00		6.494E-02	1.131E-01	1.956E-01	1.728E-02	0.332
		697.00		1.064E-01	3.845E-01	6.532E-01	5.795E-02	0.163
		720.70	*	-6.002E-02	2.262E-01	3.147E-01	2.940E-02	-0.191
		856.80		2.453E-01	7.521E-01	1.107E+00	1.360E-01	0.222
SB-127		252.40		1.186E+00	1.028E+01	1.725E+01	7.244E+00	0.069
		473.00		-1.305E+00	4.007E+00	6.367E+00	9.086E-01	-0.205
		685.70	*	-2.427E-01	3.197E+00	5.310E+00	6.756E-01	-0.046
		783.70		1.078E+01	8.970E+00	1.585E+01	2.371E+00	0.680
I-131		80.19		-1.328E+01	9.677E+00	1.304E+01	1.151E+00	-1.018
		284.31		-1.311E-01	2.494E+00	4.138E+00	3.959E-01	-0.032
		364.49	*	4.339E-03	1.903E-01	3.136E-01	3.008E-02	0.014
		636.99		-2.847E+00	2.601E+00	4.009E+00	3.588E-01	-0.710
TE-132		49.72		-1.142E+02	6.056E+01	8.921E+01	1.098E+01	-1.280
		111.76		-2.708E+01	1.071E+02	1.725E+02	2.149E+01	-0.157
		116.30		1.419E+01	9.153E+01	1.494E+02	1.867E+01	0.095
		228.16	*	1.995E+00	2.269E+00	3.887E+00	6.534E-01	0.513
BA-133		81.00		-1.325E-01	1.381E-01	1.885E-01	2.945E-02	-0.703
		276.40		4.598E-01	4.828E-01	7.325E-01	1.055E-01	0.628
		302.85		-4.779E-02	1.851E-01	2.616E-01	3.515E-02	-0.183
		356.01	*	5.465E-02	5.492E-02	8.367E-02	1.114E-02	0.653
		383.85		2.454E-01	3.446E-01	5.857E-01	7.449E-02	0.419
I-133		529.87	*	7.975E-02	3.446E-01	Half-Life too short		
		875.33		4.246E-01	3.446E-01	Half-Life too short		
		1298.22		2.458E+00	3.446E-01	Half-Life too short		
CS-134		563.25		-7.646E-03	4.073E-01	6.555E-01	5.869E-02	-0.012
		569.33		-4.779E-02	2.261E-01	3.585E-01	3.212E-02	-0.133
		604.72		4.817E-03	4.603E-02	6.428E-02	5.570E-03	0.075
	+	795.86	*	1.411E-01	9.575E-02	1.005E-01	1.102E-02	1.405
		801.95		-7.164E-01	5.492E-01	6.565E-01	7.280E-02	-1.091
		1365.19		-9.385E-01	1.231E+00	1.836E+00	2.063E-01	-0.511
CS-135		268.22	*	3.862E-01	2.230E-01	3.497E-01	3.615E-02	1.104
I-135		546.56		7.085E+14	2.230E-01	Half-Life too short		
		836.80		1.538E+14	2.230E-01	Half-Life too short		
		1038.76		6.268E+13	2.230E-01	Half-Life too short		
		1131.51		-1.536E+14	2.230E-01	Half-Life too short		
		1260.41	*	-2.956E+13	2.230E-01	Half-Life too short		
		1457.56		4.530E+16	2.230E-01	Half-Life too short		
		1678.03		-4.196E+14	2.230E-01	Half-Life too short		
		1791.20		-1.634E+14	2.230E-01	Half-Life too short		
CS-136		153.25		8.770E-01	1.284E+00	2.116E+00	2.126E-01	0.414
		176.60		-3.017E-01	7.744E-01	1.219E+00	1.119E-01	-0.248
		273.65		-8.157E-01	8.916E-01	1.212E+00	1.185E-01	-0.673
		340.55		8.495E-01	2.750E-01	4.403E-01	4.179E-02	1.929
		818.51		2.060E-02	1.033E-01	1.736E-01	1.984E-02	0.119
		1048.07	*	-6.837E-02	1.522E-01	2.373E-01	2.687E-02	-0.288
		1235.36		-1.335E-01	8.882E-01	1.416E+00	1.741E-01	-0.094
BA-137M		661.66	*	1.196E-01	4.649E-02	8.699E-02	7.132E-03	1.375
CS-137		661.66	*	1.263E-01	4.912E-02	9.190E-02	7.550E-03	1.375

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-139		165.86	*	9.968E-03	3.697E-02	5.995E-02	4.886E-03	0.166
BA-140		162.66		-5.853E-01	1.271E+00	1.978E+00	1.742E-01	-0.296
		304.85		5.957E-02	2.222E+00	3.205E+00	9.436E-01	0.019
		423.72		1.372E+00	3.049E+00	5.054E+00	1.669E+00	0.271
		537.26	*	5.443E-02	4.064E-01	6.618E-01	2.251E-01	0.082
LA-140	+	328.76		1.028E+00	6.276E-01	8.132E-01	7.851E-02	1.264
		487.02		1.024E-01	2.040E-01	3.416E-01	3.279E-02	0.300
		815.77		5.523E-02	4.708E-01	7.859E-01	9.541E-02	0.070
		1596.21	*	-5.603E-02	1.297E-01	2.019E-01	2.042E-02	-0.278
CE-141		145.44	*	2.067E-02	8.851E-02	1.438E-01	1.243E-02	0.144
CE-143		57.36		-4.083E-03	8.851E-02	Half-Life too short		
		293.27	*	9.059E-03	8.851E-02	Half-Life too short		
	+	664.57		3.267E-02	8.851E-02	Half-Life too short		
		721.93		3.150E-03	8.851E-02	Half-Life too short		
CE-144		80.12		-1.372E+00	3.510E+00	4.963E+00	4.335E-01	-0.276
		133.52	*	-1.194E-01	2.813E-01	3.872E-01	5.940E-02	-0.308
PM-144		476.78		-1.607E-02	7.645E-02	1.225E-01	1.203E-02	-0.131
		618.01		3.137E-02	3.593E-02	6.247E-02	5.495E-03	0.502
		696.49	*	2.249E-02	3.890E-02	6.731E-02	5.968E-03	0.334
PR-144		696.51	*	1.183E+00	2.949E+00	5.047E+00	4.473E-01	0.234
		1489.16		-1.855E+01	1.447E+01	1.933E+01	2.045E+00	-0.960
PM-146		453.88	*	4.661E-02	4.888E-02	8.387E-02	9.219E-03	0.556
		633.25		1.239E+00	1.657E+00	2.800E+00	1.068E+00	0.442
		735.93		6.594E-02	1.720E-01	2.920E-01	8.281E-02	0.226
		747.24		1.615E-03	1.099E-01	1.829E-01	2.810E-02	0.009
ND-147		91.11		3.945E-01	8.282E-01	8.768E-01	8.695E-02	0.450
		319.41		5.101E-01	4.970E+00	8.269E+00	7.602E-01	0.062
		531.02	*	6.399E-01	8.369E-01	1.416E+00	2.149E-01	0.452
PM-149		285.90	*	2.098E-04	8.369E-01	Half-Life too short		
EU-152		121.78		9.315E-02	8.904E-02	1.492E-01	1.530E-02	0.624
		244.70		2.638E-01	4.226E-01	6.370E-01	5.670E-02	0.414
		344.28	*	1.243E-03	1.332E-01	1.907E-01	1.841E-02	0.007
		778.90		-1.723E-01	2.934E-01	4.635E-01	4.890E-02	-0.372
	+	964.08		1.041E+00	4.136E-01	6.716E-01	8.341E-02	1.551
		1085.87		-3.718E-01	4.914E-01	7.449E-01	7.667E-02	-0.499
		1112.07		3.569E-02	3.773E-01	5.531E-01	5.386E-02	0.065
		1408.01		1.721E-01	2.304E-01	3.742E-01	4.051E-02	0.460
GD-153		69.67		4.578E-01	2.424E+00	3.527E+00	2.864E-01	0.130
		97.43	*	1.264E-01	1.174E-01	1.737E-01	1.560E-02	0.728
		103.18		-3.733E-02	1.318E-01	2.124E-01	1.885E-02	-0.176
EU-154		123.07		-2.435E-02	6.909E-02	1.016E-01	1.183E-02	-0.240
		723.31		-5.521E-02	2.133E-01	2.956E-01	3.015E-02	-0.187
		873.19		-1.445E-01	3.166E-01	5.000E-01	7.546E-02	-0.289
		996.26		2.408E-01	4.333E-01	7.364E-01	1.423E-01	0.327
		1004.73		-2.723E-01	2.563E-01	3.747E-01	5.302E-02	-0.727
		1274.44	*	-1.385E-01	1.364E-01	2.045E-01	2.543E-02	-0.677
EU-155	+	86.55		2.930E-01	1.406E-01	2.263E-01	2.123E-02	1.295
		105.31	*	-1.860E-02	1.299E-01	2.104E-01	1.884E-02	-0.088
TB-160	+	86.79		8.081E-01	3.879E-01	6.164E-01	5.746E-02	1.311

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		197.04		-8.149E-02	6.858E-01	1.128E+00	9.551E-02	-0.072
		215.65		1.483E-01	9.179E-01	1.513E+00	1.310E-01	0.098
	+	298.57		4.167E-01	1.585E-01	2.563E-01	2.348E-02	1.626
		879.36	*	-1.272E-02	1.675E-01	2.741E-01	3.514E-02	-0.046
		962.29		1.587E+00	7.975E-01	1.309E+00	1.629E-01	1.213
		966.15		1.473E+00	3.728E-01	6.551E-01	8.117E-02	2.249
		1177.93		1.951E-01	4.861E-01	8.105E-01	6.798E-02	0.241
		1271.85		-4.315E-01	7.518E-01	1.184E+00	1.175E-01	-0.365
HO-166M		80.57		-5.202E-01	3.950E-01	5.339E-01	4.682E-02	-0.974
	+	184.41		1.165E-01	6.530E-02	8.328E-02	6.943E-03	1.398
		280.46		-5.871E-02	1.022E-01	1.655E-01	1.506E-02	-0.355
		410.95		2.596E-01	2.868E-01	4.914E-01	4.447E-02	0.528
		711.68	*	-2.686E-02	7.282E-02	1.106E-01	1.013E-02	-0.243
		752.31		-1.723E-01	3.262E-01	5.208E-01	5.201E-02	-0.331
		810.29		2.619E-02	6.938E-02	1.179E-01	1.325E-02	0.222
TA-182		67.75		-4.754E-02	1.540E-01	2.322E-01	1.870E-02	-0.205
		100.11		5.709E-03	2.155E-01	3.517E-01	3.137E-02	0.016
		152.43		2.453E-01	4.389E-01	7.207E-01	6.029E-02	0.340
		222.11		-1.690E-01	4.247E-01	7.018E-01	6.116E-02	-0.241
	+	1121.30		7.422E-01	2.644E-01	4.184E-01	3.989E-02	1.774
		1189.05		-1.402E-01	3.688E-01	5.760E-01	4.934E-02	-0.243
		1221.41	*	-2.094E-01	2.591E-01	3.905E-01	3.550E-02	-0.536
		1231.02		-7.762E-01	6.271E-01	9.056E-01	8.375E-02	-0.857
IR-192	+	295.96		1.202E+00	2.005E-01	3.338E-01	3.076E-02	3.602
		308.46		2.599E-02	1.170E-01	1.961E-01	1.808E-02	0.133
		316.51	*	2.985E-02	4.093E-02	7.011E-02	6.455E-03	0.426
		468.07		-4.780E-03	8.830E-02	1.234E-01	1.198E-02	-0.039
HG-203		70.83		1.177E+00	2.003E+00	2.946E+00	4.662E-01	0.399
		72.87		4.161E+00	1.388E+00	1.988E+00	3.049E-01	2.093
		279.20	*	2.803E-02	4.929E-02	8.391E-02	7.810E-03	0.334
BI-207		72.81		8.380E-01	2.751E-01	4.267E-01	3.525E-02	1.964
	+	74.97		1.061E+00	2.344E-01	3.014E-01	2.526E-02	3.520
		569.70		8.771E-03	3.466E-02	5.682E-02	5.025E-03	0.154
		1063.66	*	1.272E-02	5.727E-02	9.518E-02	1.022E-02	0.134
		1770.23		3.546E-01	4.794E-01	8.056E-01	7.282E-02	0.440
PB-210		46.54	*	7.241E-01	4.304E+00	7.269E+00	6.936E-01	0.100
PB-211		404.85	*	-3.471E-01	8.807E-01	1.385E+00	6.711E-01	-0.251
		427.09		-2.108E-01	1.896E+00	3.074E+00	1.425E+00	-0.069
		832.01		1.985E-01	1.158E+00	1.931E+00	1.013E+00	0.103
RN-219	+	271.23		7.402E-01	5.055E-01	5.237E-01	5.566E-02	1.414
		401.81	*	9.623E-02	4.678E-01	7.753E-01	1.172E-01	0.124
RA-223		81.07		-2.935E-01	3.101E-01	4.273E-01	3.764E-02	-0.687
		83.79		1.111E-01	1.782E-01	2.606E-01	2.356E-02	0.426
		94.87		1.663E+00	6.599E-01	1.018E+00	9.232E-02	1.633
		144.24		7.337E-01	8.846E-01	1.447E+00	1.378E-01	0.507
		154.21		6.837E-01	4.592E-01	7.753E-01	7.122E-02	0.882
	+	269.46		5.751E-01	3.916E-01	4.113E-01	3.791E-02	1.398
		323.87	*	6.526E-02	8.300E-01	1.198E+00	2.111E-01	0.054
	+	338.28		7.410E+00	1.967E+00	2.612E+00	3.260E-01	2.837

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227		79.69		5.276E-02	1.753E+00	2.525E+00	4.362E-01	0.021
		235.96		1.428E+00	2.794E-01	4.283E-01	4.506E-02	3.334
		256.23	*	1.762E-03	2.844E-01	4.751E-01	5.848E-02	0.004
	+	299.98		3.126E+00	1.224E+00	1.890E+00	2.472E-01	1.654
		304.50		1.194E+00	2.084E+00	3.107E+00	5.227E-01	0.384
		334.37		7.957E-02	3.145E+00	3.022E+00	4.807E-01	0.026
TH-227		79.80		-1.771E-01	2.305E+00	3.304E+00	7.207E-01	-0.054
		235.96		1.428E+00	2.750E-01	4.283E-01	4.260E-02	3.334
		256.23	*	1.762E-03	2.844E-01	4.751E-01	6.573E-02	0.004
	+	299.98		3.126E+00	1.224E+00	1.890E+00	2.472E-01	1.654
		304.50		1.194E+00	2.084E+00	3.107E+00	5.227E-01	0.384
		334.37		7.957E-02	3.145E+00	3.022E+00	4.807E-01	0.026
TH-229	+	85.43		6.071E-01	2.914E-01	4.747E-01	4.363E-02	1.279
		88.47		-4.030E-02	2.879E-01	2.949E-01	2.775E-02	-0.137
		193.51	*	-3.620E-01	6.550E-01	1.019E+00	8.593E-02	-0.355
		210.85		2.298E+00	1.223E+00	1.934E+00	1.665E-01	1.188
PA-231		283.69	*	-1.594E-01	1.695E+00	2.807E+00	4.177E-01	-0.057
	+	301.36		2.008E+00	7.830E-01	1.227E+00	1.539E-01	1.637
TH-231		81.07		-2.935E-01	3.101E-01	4.273E-01	3.764E-02	-0.687
		83.79		1.111E-01	1.782E-01	2.606E-01	2.356E-02	0.426
		94.87		1.663E+00	6.599E-01	1.018E+00	9.232E-02	1.633
		144.24		7.337E-01	8.846E-01	1.447E+00	1.378E-01	0.507
		154.21		6.837E-01	4.592E-01	7.753E-01	7.122E-02	0.882
	+	269.46		5.751E-01	3.916E-01	4.113E-01	3.791E-02	1.398
		323.87	*	6.526E-02	8.300E-01	1.198E+00	2.111E-01	0.054
	+	338.28		7.410E+00	1.967E+00	2.612E+00	3.260E-01	2.837
PA-233	+	300.13		1.414E+00	5.644E-01	8.567E-01	1.298E-01	1.651
		311.90	*	1.334E-02	7.383E-02	1.234E-01	1.162E-02	0.108
		340.48		2.945E+00	1.163E+00	1.530E+00	3.714E-01	1.925
PA-234	+	94.67		5.338E-01	3.585E-01	3.838E-01	4.883E-02	1.391
		98.44		7.603E-02	1.266E-01	1.823E-01	1.018E-01	0.417
		111.00		-3.363E-02	2.351E-01	3.801E-01	4.660E-02	-0.088
		131.20		1.253E-01	1.455E-01	2.142E-01	1.880E-02	0.585
		569.50		3.634E-02	3.047E-01	4.950E-01	4.377E-02	0.073
		733.00		-5.555E-01	5.400E-01	6.687E-01	1.511E-01	-0.831
		880.51		1.957E-01	3.122E-01	5.395E-01	6.931E-02	0.363
		883.24		2.430E-01	3.577E-01	5.561E-01	3.776E-01	0.437
		926.50		3.674E-03	1.975E-01	3.247E-01	8.785E-02	0.011
		946.00	*	4.000E-01	3.700E-01	6.427E-01	1.346E-01	0.622
		949.00		5.016E-02	5.518E-01	9.112E-01	1.151E-01	0.055
PA-234M		766.42		1.013E+01	1.469E+01	2.340E+01	1.195E+01	0.433
		1001.03	*	-2.274E+00	5.690E+00	9.072E+00	1.167E+00	-0.251
TH-234		63.29	*	7.463E-01	1.709E+00	2.818E+00	5.091E-01	0.265
	+	92.59		1.981E+00	1.379E+00	1.650E+00	3.679E-01	1.201
U-235		89.96		-2.479E+00	2.017E+00	1.813E+00	4.508E-01	-1.367
	+	93.35		1.496E+00	1.046E+00	1.221E+00	2.843E-01	1.226
		143.76	*	3.406E-01	2.688E-01	4.377E-01	7.397E-02	0.778
		163.33		-5.112E-01	5.572E-01	8.396E-01	1.490E-01	-0.609
	+	185.72		1.466E-01	8.220E-02	1.052E-01	8.784E-03	1.393

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		205.31		2.507E-01	6.241E-01	9.330E-01	1.690E-01	0.269
U-238		63.29	*	7.463E-01	1.709E+00	2.818E+00	5.091E-01	0.265
	+	92.59		1.981E+00	1.319E+00	1.650E+00	1.512E-01	1.201
NP-239		99.53		3.516E-02	1.990E-01	3.206E-01	2.863E-02	0.110
		103.37		2.603E-02	1.173E-01	1.927E-01	1.709E-02	0.135
		106.12		3.422E-02	1.028E-01	1.692E-01	1.498E-02	0.202
		117.23	*	-2.888E-01	5.135E-01	8.153E-01	7.282E-02	-0.354
		228.18		2.344E-01	2.661E-01	4.594E-01	4.028E-02	0.510
		277.60		1.705E-01	2.281E-01	3.587E-01	3.261E-02	0.475
AM-241		59.54	*	-2.518E-02	1.931E-01	3.177E-01	2.742E-02	-0.079
CM-247		278.00		4.777E-01	9.370E-01	1.509E+00	1.372E-01	0.317
		287.50		4.054E-02	1.455E+00	2.359E+00	2.154E-01	0.017
		402.40	*	7.683E-03	4.300E-02	7.117E-02	6.425E-03	0.108
CF-249		252.80		6.513E-01	1.053E+00	1.806E+00	1.617E-01	0.361
		333.37		6.435E-02	3.328E-01	3.279E-01	3.013E-02	0.196
		388.16	*	-1.102E-02	4.693E-02	7.600E-02	6.851E-03	-0.145
CF-251		177.52	*	1.016E-01	1.582E-01	2.596E-01	2.145E-02	0.392
		227.38		3.744E-01	4.306E-01	7.435E-01	6.514E-02	0.504
		285.41		-6.903E-01	2.563E+00	4.208E+00	3.838E-01	-0.164
ANH-511		511.00	*	1.200E-01	5.445E-02	1.011E-01	9.151E-03	1.187

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001       *
* Acquisition date : 24-MAR-2010 20:33:15 Detector SN#    :                 *
* Detector ID      : GAM29                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:57.45     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  5-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248867001           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.2207E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.523E+01	4.238E+00	5.852E-01	0.000E+00
CD-109	2.483E+00	1.168E+00	1.883E+00	0.000E+00
SN-126	2.412E-01	1.134E-01	1.881E-01	0.000E+00
TL-208	5.863E-01	1.015E-01	6.836E-02	0.000E+00
BI-211	3.834E+00	5.942E-01	3.984E-01	0.000E+00
BI-212	1.882E+00	8.422E-01	8.862E-01	0.000E+00
PB-212	1.839E+00	2.167E-01	1.166E-01	0.000E+00
BI-214	1.167E+00	2.009E-01	1.397E-01	0.000E+00
PB-214	1.391E+00	2.284E-01	1.459E-01	0.000E+00
RA-224	4.777E+00	1.525E+00	1.248E+00	0.000E+00
RA-226	1.167E+00	2.009E-01	1.397E-01	0.000E+00
AC-228	1.693E+00	4.177E-01	2.795E-01	0.000E+00
RA-228	1.693E+00	4.177E-01	2.795E-01	0.000E+00
TH-228	1.839E+00	2.167E-01	1.166E-01	0.000E+00
TH-230	1.167E+00	1.916E-01	1.397E-01	0.000E+00
TH-232	1.693E+00	4.177E-01	2.795E-01	0.000E+00
NP-237	7.197E-01	3.694E-01	5.047E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.460E-02	3.893E-01	6.512E-01	0.000E+00	NOT IDENT.
NA-22	-4.993E-02	4.708E-02	7.200E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.825E+07	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.542E-02	4.380E-02	6.993E-02	0.000E+00	FAIL ABUN
V-48	-3.953E-02	9.558E-02	1.541E-01	0.000E+00	NOT IDENT.
CR-51	-1.087E-01	4.577E-01	7.772E-01	0.000E+00	NOT IDENT.
MN-54	-3.045E-02	4.308E-02	6.895E-02	0.000E+00	NOT IDENT.
CO-56	1.498E-02	4.624E-02	8.018E-02	0.000E+00	NOT IDENT.
CO-57	2.208E-02	3.084E-02	5.382E-02	0.000E+00	NOT IDENT.
CO-58	-2.382E-03	4.736E-02	8.013E-02	0.000E+00	NOT IDENT.

FE-59	-5.190E-02	1.017E-01	1.603E-01	0.000E+00	NOT IDENT.
CO-60	-1.929E-02	4.181E-02	6.757E-02	0.000E+00	NOT IDENT.
ZN-65	-6.619E-02	1.125E-01	1.466E-01	0.000E+00	NOT IDENT.
SE-75	1.681E-02	5.988E-02	9.194E-02	0.000E+00	NOT IDENT.
SR-85	-1.800E-01	6.295E-02	8.714E-02	0.000E+00	NOT IDENT.
Y-88	-6.498E-03	3.742E-02	6.016E-02	0.000E+00	NOT IDENT.
Y-91	-9.039E+00	2.670E+01	4.280E+01	0.000E+00	NOT IDENT.
NB-94	-9.570E-03	3.536E-02	5.945E-02	0.000E+00	NOT IDENT.
NB-95	7.055E-02	5.043E-02	9.280E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.952E-01	3.253E-01	0.000E+00	NOT IDENT.
ZR-95	2.077E-02	8.372E-02	1.453E-01	0.000E+00	NOT IDENT.
MO-99	5.954E+01	4.185E+01	7.643E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.787E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.237E-02	5.116E-02	8.435E-02	0.000E+00	FAIL ABUN
RH-106	-1.023E-01	3.373E-01	5.704E-01	0.000E+00	NOT IDENT.
RU-106	-1.023E-01	3.371E-01	5.704E-01	0.000E+00	NOT IDENT.
AG-108M	-1.315E-03	3.236E-02	5.452E-02	0.000E+00	NOT IDENT.
AG-110M	9.767E-03	4.308E-02	6.543E-02	0.000E+00	NOT IDENT.
SN-113	3.037E-02	5.188E-02	9.089E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	4.747E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	1.580E-02	7.853E-02	1.333E-01	0.000E+00	NOT IDENT.
TE-123M	-8.985E-03	3.395E-02	5.651E-02	0.000E+00	NOT IDENT.
SB-124	-4.839E-02	8.326E-02	1.244E-01	0.000E+00	NOT IDENT.
SB-125	-5.397E-02	1.094E-01	1.796E-01	0.000E+00	FAIL ABUN
TE-125M	1.845E+00	1.279E+01	2.199E+01	0.000E+00	NOT IDENT.
I-126	2.483E-01	3.551E-01	5.605E-01	0.000E+00	NOT IDENT.
SB-126	-6.002E-02	2.217E-01	3.171E-01	0.000E+00	NOT IDENT.
SB-127	-2.427E-01	3.134E+00	5.353E+00	0.000E+00	NOT IDENT.
I-131	4.339E-03	1.865E-01	3.186E-01	0.000E+00	NOT IDENT.
TE-132	1.995E+00	2.223E+00	3.973E+00	0.000E+00	NOT IDENT.
BA-133	5.465E-02	5.382E-02	8.504E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.030E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.384E-02	1.011E-01	0.000E+00	FAIL ABUN
CS-135	0.000E+00	2.186E-01	3.567E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.521E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.837E-02	1.491E-01	2.379E-01	0.000E+00	NOT IDENT.
BA-137M	0.000E+00	4.556E-02	8.773E-02	0.000E+00	NOT IDENT.
CS-137	0.000E+00	4.813E-02	9.268E-02	0.000E+00	NOT IDENT.
CE-139	9.968E-03	3.623E-02	6.152E-02	0.000E+00	NOT IDENT.
BA-140	5.443E-02	3.983E-01	6.692E-01	0.000E+00	NOT IDENT.
LA-140	-5.603E-02	1.271E-01	2.013E-01	0.000E+00	FAIL ABUN
CE-141	2.067E-02	8.674E-02	1.478E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.713E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.194E-01	2.756E-01	3.983E-01	0.000E+00	NOT IDENT.
PM-144	2.249E-02	3.812E-02	6.784E-02	0.000E+00	NOT IDENT.
PR-144	1.183E+00	2.890E+00	5.086E+00	0.000E+00	NOT IDENT.
PM-146	4.661E-02	4.790E-02	8.499E-02	0.000E+00	NOT IDENT.
ND-147	6.399E-01	8.201E-01	1.432E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	3.935E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	1.243E-03	1.306E-01	1.939E-01	0.000E+00	FAIL ABUN
GD-153	1.264E-01	1.150E-01	1.794E-01	0.000E+00	NOT IDENT.
EU-154	-1.385E-01	1.337E-01	2.045E-01	0.000E+00	NOT IDENT.
EU-155	-1.860E-02	1.273E-01	2.171E-01	0.000E+00	FAIL ABUN
TB-160	-1.272E-02	1.641E-01	2.754E-01	0.000E+00	FAIL ABUN
HO-166M	-2.686E-02	7.137E-02	1.115E-01	0.000E+00	FAIL ABUN
TA-182	-2.094E-01	2.540E-01	3.907E-01	0.000E+00	FAIL ABUN
IR-192	2.985E-02	4.011E-02	7.137E-02	0.000E+00	FAIL ABUN
HG-203	2.803E-02	4.830E-02	8.555E-02	0.000E+00	NOT IDENT.
BI-207	1.272E-02	5.612E-02	9.541E-02	0.000E+00	FAIL ABUN
PB-210	7.241E-01	4.218E+00	7.575E+00	0.000E+00	NOT IDENT.
PB-211	-3.471E-01	8.631E-01	1.405E+00	0.000E+00	NOT IDENT.
RN-219	9.623E-02	4.585E-01	7.869E-01	0.000E+00	FAIL ABUN
RA-223	6.526E-02	8.134E-01	1.219E+00	0.000E+00	FAIL ABUN
AC-227	1.762E-03	2.787E-01	4.849E-01	0.000E+00	FAIL ABUN
TH-227	1.762E-03	2.787E-01	4.849E-01	0.000E+00	FAIL ABUN
TH-229	-3.620E-01	6.419E-01	1.044E+00	0.000E+00	FAIL ABUN
PA-231	-1.594E-01	1.661E+00	2.861E+00	0.000E+00	FAIL ABUN
TH-231	6.526E-02	8.134E-01	1.219E+00	0.000E+00	FAIL ABUN
PA-233	1.334E-02	7.235E-02	1.257E-01	0.000E+00	FAIL ABUN
PA-234	4.000E-01	3.626E-01	6.452E-01	0.000E+00	FAIL ABUN
PA-234M	-2.274E+00	5.577E+00	9.101E+00	0.000E+00	NOT IDENT.
TH-234	7.463E-01	1.675E+00	2.926E+00	0.000E+00	FAIL ABUN
U-235	3.406E-01	2.635E-01	4.499E-01	0.000E+00	FAIL ABUN
U-238	7.463E-01	1.675E+00	2.926E+00	0.000E+00	FAIL ABUN
NP-239	-2.888E-01	5.032E-01	8.402E-01	0.000E+00	NOT IDENT.
AM-241	-2.518E-02	1.892E-01	3.301E-01	0.000E+00	NOT IDENT.
CM-247	7.683E-03	4.214E-02	7.223E-02	0.000E+00	NOT IDENT.
CF-249	-1.102E-02	4.599E-02	7.716E-02	0.000E+00	NOT IDENT.

CF-251	1.016E-01	1.550E-01	2.662E-01	0.000E+00 NOT IDENT.
ANH-511	0.000E+00	5.336E-02	1.023E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:35:04.49

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1
Sample date      : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 20:33:15
Sample ID        : G248867001           Sample quantity  : 1.22070E+02 GRAM
Detector name    : GAM29                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:57.45  0.8%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 962633               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1478	10.66*	1.210E+00	3.523E+01	3.523E+01	12.28
CD-109	88.03	170	3.70*	5.857E+00	2.412E+00	2.483E+00	47.99
SN-126	64.28	------	9.60	3.540E+00	------ Line Not Found		------
	86.94	170	8.90	5.857E+00	1.003E+00	1.003E+00	62.77
	87.57	170	37.00*	5.857E+00	2.412E-01	2.412E-01	47.99
TL-208	277.37	------	6.60	4.524E+00	------ Line Not Found		------
	583.19	429	85.00*	2.646E+00	5.863E-01	5.863E-01	17.67
	860.56	65	12.50	1.903E+00	8.343E-01	8.343E-01	51.41
BI-211	72.87	------	1.23	4.632E+00	------ Line Not Found		------
	351.06	620	12.92*	3.848E+00	3.834E+00	3.834E+00	15.82
BI-212	727.33	90	6.67*	2.204E+00	1.882E+00	1.882E+00	45.67
	785.37	------	1.10	2.062E+00	------ Line Not Found		------
	1620.50	30	1.47	1.130E+00	5.596E+00	5.596E+00	46.93
PB-212	74.82	595	10.28	4.832E+00	3.681E+00	3.681E+00	24.13
	77.11	699	17.10	5.079E+00	2.474E+00	2.474E+00	14.62
	238.63	1301	43.60*	4.991E+00	1.839E+00	1.839E+00	12.03
	300.09	131	3.30	4.293E+00	2.841E+00	2.841E+00	38.52
BI-214	609.32	441	45.49*	2.554E+00	1.167E+00	1.167E+00	17.56
	1120.29	113	14.92	1.503E+00	1.544E+00	1.544E+00	36.25
	1764.49	92	15.30	1.081E+00	1.707E+00	1.707E+00	26.48
PB-214	74.82	595	5.80	4.832E+00	6.524E+00	6.524E+00	23.47
	77.11	699	9.70	5.079E+00	4.362E+00	4.362E+00	16.79
	242.00	315	7.25	4.953E+00	2.701E+00	2.702E+00	33.09
	295.22	406	18.42	4.340E+00	1.562E+00	1.563E+00	17.87
	351.93	620	35.60*	3.848E+00	1.391E+00	1.391E+00	16.75
RA-224	240.99	315	4.10*	4.953E+00	4.777E+00	4.777E+00	32.57
RA-226	609.32	441	45.49*	2.554E+00	1.167E+00	1.167E+00	17.56
	1120.29	113	14.92	1.503E+00	1.544E+00	1.544E+00	36.25
	1764.49	92	15.30	1.081E+00	1.707E+00	1.707E+00	26.48
AC-228	338.32	271	11.27	3.954E+00	1.867E+00	1.867E+00	47.95
	911.20	257	25.80*	1.808E+00	1.693E+00	1.693E+00	25.18
	968.97	171	15.80	1.711E+00	1.951E+00	1.951E+00	34.77

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	271	11.27	3.954E+00	1.867E+00	1.867E+00	47.95
	911.20	257	25.80*	1.808E+00	1.693E+00	1.693E+00	25.18
	968.97	171	15.80	1.711E+00	1.951E+00	1.951E+00	34.77
TH-228	74.82	595	10.28	4.832E+00	3.681E+00	3.681E+00	22.12
	77.11	699	17.10	5.079E+00	2.474E+00	2.474E+00	14.62
	238.63	1301	43.60*	4.991E+00	1.839E+00	1.839E+00	12.03
	300.09	131	3.30	4.293E+00	2.841E+00	2.841E+00	71.56
TH-230	609.32	441	45.49*	2.554E+00	1.167E+00	1.167E+00	16.75
	1120.29	113	14.92	1.503E+00	1.544E+00	1.544E+00	35.62
	1764.49	92	15.30	1.081E+00	1.707E+00	1.707E+00	26.48
TH-232	338.32	271	11.27	3.954E+00	1.867E+00	1.867E+00	25.16
	911.20	257	25.80*	1.808E+00	1.693E+00	1.693E+00	25.18
	968.97	171	15.80	1.711E+00	1.951E+00	1.951E+00	34.77
NP-237	86.48	170	12.40*	5.857E+00	7.197E-01	7.197E-01	52.37
	95.86	------	2.68	6.306E+00	------ Line Not Found		------

Flag: "*" = Keyline

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

Total number of lines in spectrum 32
Number of unidentified lines 5
Number of lines tentatively identified by NID 27 84.38%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.523E+01	3.523E+01	0.432E+01	12.28	
CD-109	461.40D	1.03	2.412E+00	2.483E+00	1.192E+00	47.99	
SN-126	2.30E+05Y	1.00	2.412E-01	2.412E-01	1.158E-01	47.99	
TL-208	1.41E+10Y	1.00	5.863E-01	5.863E-01	1.036E-01	17.67	
BI-211	7.04E+08Y	1.00	3.834E+00	3.834E+00	0.606E+00	15.82	
BI-212	1.41E+10Y	1.00	1.882E+00	1.882E+00	0.859E+00	45.67	
PB-212	1.41E+10Y	1.00	1.839E+00	1.839E+00	0.221E+00	12.03	
BI-214	1600.00Y	1.00	1.167E+00	1.167E+00	0.205E+00	17.56	
PB-214	1600.00Y	1.00	1.391E+00	1.391E+00	0.233E+00	16.75	
RA-224	1.41E+10Y	1.00	4.777E+00	4.777E+00	1.556E+00	32.57	
RA-226	1600.00Y	1.00	1.167E+00	1.167E+00	0.205E+00	17.56	
AC-228	1.41E+10Y	1.00	1.693E+00	1.693E+00	0.426E+00	25.18	
RA-228	1.41E+10Y	1.00	1.693E+00	1.693E+00	0.426E+00	25.18	
TH-228	1.41E+10Y	1.00	1.839E+00	1.839E+00	0.221E+00	12.03	
TH-230	7.54E+04Y	1.00	1.167E+00	1.167E+00	0.196E+00	16.75	
TH-232	1.41E+10Y	1.00	1.693E+00	1.693E+00	0.426E+00	25.18	
NP-237	2.14E+06Y	1.00	7.197E-01	7.197E-01	3.769E-01	52.37	
	Total Activity :		6.333E+01	6.340E+01			

Grand Total Activity : 6.333E+01 6.340E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	93.22	169	756	1.39	186.60	181	10	2.35E-02	65.9	6.20E+00	T
0	129.40	102	529	1.21	258.87	253	12	1.41E-02	92.8	6.64E+00	
0	185.85	158	426	1.20	371.63	365	11	2.19E-02	55.5	5.79E+00	T
0	209.14	75	344	1.00	418.17	414	9	1.04E-02	92.2	5.41E+00	
0	270.01	120	335	1.39	539.77	534	14	1.66E-02	67.5	4.61E+00	T
0	328.37	95	195	1.05	656.39	651	11	1.32E-02	60.3	4.04E+00	T
0	463.34	92	115	0.98	926.09	921	13	1.28E-02	52.5	3.16E+00	T
0	663.39	83	184	1.04	1325.96	1316	20	1.15E-02	83.7	2.38E+00	T
0	795.70	71	83	0.99	1590.48	1580	19	9.82E-03	66.9	2.04E+00	T
4	964.31	85	37	2.53	1927.66	1922	25	1.18E-02	37.7	1.72E+00	T
0	1378.58	26	35	1.04	2756.43	2747	14	3.66E-03	****	1.26E+00	
0	1402.03	18	24	0.99	2803.36	2794	12	2.47E-03	****	1.25E+00	
0	1847.98	18	7	1.33	3696.08	3689	14	2.50E-03	78.2	1.06E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 22:35:08.79

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248867001.CNF;1  *
* Acquisition date : 24-MAR-2010 20:33:15  Detector SN#    :                *
* Detector ID      : GAM29                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:57.45         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 5-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G248867001            Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.22070E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.523E+01	4.325E+00	5.862E-01	6.376E-02	60.093
CD-109	2.483E+00	1.192E+00	1.820E+00	1.719E-01	1.364
SN-126	2.412E-01	1.158E-01	1.819E-01	1.710E-02	1.326
TL-208	5.863E-01	1.036E-01	6.767E-02	6.341E-03	8.663
BI-211	3.834E+00	6.063E-01	3.919E-01	3.753E-02	9.782
BI-212	1.882E+00	8.594E-01	8.798E-01	1.150E-01	2.139
PB-212	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
BI-214	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
PB-214	1.391E+00	2.331E-01	1.435E-01	1.586E-02	9.695
RA-224	4.777E+00	1.556E+00	1.222E+00	1.084E-01	3.909
RA-226	1.167E+00	2.050E-01	1.384E-01	1.397E-02	8.437
AC-228	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
RA-228	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
TH-228	1.839E+00	2.211E-01	1.141E-01	1.138E-02	16.111
TH-230	1.167E+00	1.955E-01	1.384E-01	1.192E-02	8.437
TH-232	1.693E+00	4.262E-01	2.782E-01	4.239E-02	6.084
NP-237	7.197E-01	3.769E-01	4.879E-01	1.119E-01	1.475

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.460E-02		3.972E-01	6.430E-01	6.260E-02	-0.038

Sample ID : G248867001 Acquisition date : 24-MAR-2010 20:33:15

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	-4.993E-02		4.804E-02	7.200E-02	7.188E-03	-0.693
NA-24	-5.110E+01		4.503E+01	Half-Life too short		
SC-46	-2.542E-02		4.469E-02	6.961E-02	9.088E-03	-0.365
V-48	-3.953E-02		9.753E-02	1.536E-01	1.863E-02	-0.257
CR-51	-1.087E-01		4.670E-01	7.636E-01	7.342E-02	-0.142
MN-54	-3.045E-02		4.396E-02	6.857E-02	8.082E-03	-0.444
CO-56	1.498E-02		4.718E-02	7.976E-02	9.618E-03	0.188
CO-57	2.208E-02		3.147E-02	5.225E-02	4.721E-03	0.423
CO-58	-2.382E-03		4.833E-02	7.967E-02	8.971E-03	-0.030
FE-59	-5.190E-02		1.038E-01	1.600E-01	1.699E-02	-0.324
CO-60	-1.929E-02		4.266E-02	6.761E-02	7.415E-03	-0.285
ZN-65	-6.619E-02		1.148E-01	1.464E-01	1.416E-02	-0.452
SE-75	1.681E-02		6.110E-02	9.012E-02	8.171E-03	0.187
SR-85	-1.800E-01		6.424E-02	8.613E-02	7.791E-03	-2.090
Y-88	-6.498E-03		3.818E-02	6.045E-02	5.169E-03	-0.108
Y-91	-9.039E+00		2.724E+01	4.277E+01	3.772E+00	-0.211
NB-94	-9.570E-03		3.608E-02	5.900E-02	5.300E-03	-0.162
NB-95	7.055E-02		5.146E-02	9.219E-02	9.469E-03	0.765
NB-95M	6.736E-01		1.991E-01	3.184E-01	3.207E-02	2.115
ZR-95	2.077E-02		8.542E-02	1.443E-01	1.568E-02	0.144
MO-99	5.954E+01		4.271E+01	7.590E+01	1.244E+01	0.785
TC-99M	-9.175E+15		3.463E+15	Half-Life too short		
RU-103	-1.237E-02		5.221E-02	8.333E-02	1.188E-02	-0.148
RH-106	-1.023E-01		3.442E-01	5.652E-01	7.457E-02	-0.181
RU-106	-1.023E-01		3.440E-01	5.652E-01	4.817E-02	-0.181
AG-108M	-1.315E-03		3.302E-02	5.377E-02	5.031E-03	-0.024
AG-110M	9.767E-03		4.395E-02	6.487E-02	5.515E-03	0.151
SN-113	3.037E-02		5.294E-02	8.953E-02	8.280E-03	0.339
CD-115	5.067E-06		2.422E-05	Half-Life too short		
SN-117M	1.580E-02		8.013E-02	1.298E-01	1.073E-02	0.122
TE-123M	-8.985E-03		3.464E-02	5.504E-02	4.575E-03	-0.163
SB-124	-4.839E-02		8.496E-02	1.248E-01	1.236E-02	-0.388
SB-125	-5.397E-02		1.117E-01	1.772E-01	1.636E-02	-0.305
TE-125M	1.845E+00		1.305E+01	2.132E+01	2.278E+00	0.087
I-126	2.483E-01		3.624E-01	5.558E-01	4.605E-02	0.447
SB-126	-6.002E-02		2.262E-01	3.147E-01	2.940E-02	-0.191
SB-127	-2.427E-01		3.197E+00	5.310E+00	6.756E-01	-0.046
I-131	4.339E-03		1.903E-01	3.136E-01	3.008E-02	0.014
TE-132	1.995E+00		2.269E+00	3.887E+00	6.534E-01	0.513
BA-133	5.465E-02		5.492E-02	8.367E-02	1.114E-02	0.653
I-133	7.975E-02		1.036E-01	Half-Life too short		
CS-134	1.411E-01	+	9.575E-02	1.005E-01	1.102E-02	1.405
CS-135	3.862E-01		2.230E-01	3.497E-01	3.615E-02	1.104
I-135	-2.956E+13		1.797E+14	Half-Life too short		
CS-136	-6.837E-02		1.522E-01	2.373E-01	2.687E-02	-0.288
BA-137M	1.196E-01		4.649E-02	8.699E-02	7.132E-03	1.375
CS-137	1.263E-01		4.912E-02	9.190E-02	7.550E-03	1.375
CE-139	9.968E-03		3.697E-02	5.995E-02	4.886E-03	0.166

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-140	5.443E-02		4.064E-01	6.618E-01	2.251E-01	0.082
LA-140	-5.603E-02		1.297E-01	2.019E-01	2.042E-02	-0.278
CE-141	2.067E-02		8.851E-02	1.438E-01	1.243E-02	0.144
CE-143	9.059E-03		1.384E-03	Half-Life too short		
CE-144	-1.194E-01		2.813E-01	3.872E-01	5.940E-02	-0.308
PM-144	2.249E-02		3.890E-02	6.731E-02	5.968E-03	0.334
PR-144	1.183E+00		2.949E+00	5.047E+00	4.473E-01	0.234
PM-146	4.661E-02		4.888E-02	8.387E-02	9.219E-03	0.556
ND-147	6.399E-01		8.369E-01	1.416E+00	2.149E-01	0.452
PM-149	2.098E-04		2.008E-04	Half-Life too short		
EU-152	1.243E-03		1.332E-01	1.907E-01	1.841E-02	0.007
GD-153	1.264E-01		1.174E-01	1.737E-01	1.560E-02	0.728
EU-154	-1.385E-01		1.364E-01	2.045E-01	2.543E-02	-0.677
EU-155	-1.860E-02		1.299E-01	2.104E-01	1.884E-02	-0.088
TB-160	-1.272E-02		1.675E-01	2.741E-01	3.514E-02	-0.046
HO-166M	-2.686E-02		7.282E-02	1.106E-01	1.013E-02	-0.243
TA-182	-2.094E-01		2.591E-01	3.905E-01	3.550E-02	-0.536
IR-192	2.985E-02		4.093E-02	7.011E-02	6.455E-03	0.426
HG-203	2.803E-02		4.929E-02	8.391E-02	7.810E-03	0.334
BI-207	1.272E-02		5.727E-02	9.518E-02	1.022E-02	0.134
PB-210	7.241E-01		4.304E+00	7.269E+00	6.936E-01	0.100
PB-211	-3.471E-01		8.807E-01	1.385E+00	6.711E-01	-0.251
RN-219	9.623E-02		4.678E-01	7.753E-01	1.172E-01	0.124
RA-223	6.526E-02		8.300E-01	1.198E+00	2.111E-01	0.054
AC-227	1.762E-03		2.844E-01	4.751E-01	5.848E-02	0.004
TH-227	1.762E-03		2.844E-01	4.751E-01	6.573E-02	0.004
TH-229	-3.620E-01		6.550E-01	1.019E+00	8.593E-02	-0.355
PA-231	-1.594E-01		1.695E+00	2.807E+00	4.177E-01	-0.057
TH-231	6.526E-02		8.300E-01	1.198E+00	2.111E-01	0.054
PA-233	1.334E-02		7.383E-02	1.234E-01	1.162E-02	0.108
PA-234	4.000E-01		3.700E-01	6.427E-01	1.346E-01	0.622
PA-234M	-2.274E+00		5.690E+00	9.072E+00	1.167E+00	-0.251
TH-234	7.463E-01		1.709E+00	2.818E+00	5.091E-01	0.265
U-235	3.406E-01		2.688E-01	4.377E-01	7.397E-02	0.778
U-238	7.463E-01		1.709E+00	2.818E+00	5.091E-01	0.265
NP-239	-2.888E-01		5.135E-01	8.153E-01	7.282E-02	-0.354
AM-241	-2.518E-02		1.931E-01	3.177E-01	2.742E-02	-0.079
CM-247	7.683E-03		4.300E-02	7.117E-02	6.425E-03	0.108
CF-249	-1.102E-02		4.693E-02	7.600E-02	6.851E-03	-0.145
CF-251	1.016E-01		1.582E-01	2.596E-01	2.145E-02	0.392
ANH-511	1.200E-01		5.445E-02	1.011E-01	9.151E-03	1.187

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248867001            *
* Acquisition date : 24-MAR-2010 20:33:15 Detector SN#    :                 *
* Detector ID      : GAM29                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:57.45     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  5-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G248867001           Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.2207E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.523E+01	4.238E+00	2.928E-01	2.162E+00
CD-109	2.483E+00	1.168E+00	9.418E-01	5.959E-01
SN-126	2.412E-01	1.134E-01	9.410E-02	5.788E-02
TL-208	5.863E-01	1.015E-01	3.420E-02	5.179E-02
BI-211	3.834E+00	5.942E-01	1.993E-01	3.032E-01
BI-212	1.882E+00	8.422E-01	4.434E-01	4.297E-01
PB-212	1.839E+00	2.167E-01	5.832E-02	1.106E-01
BI-214	1.167E+00	2.009E-01	6.989E-02	1.025E-01
PB-214	1.391E+00	2.284E-01	7.299E-02	1.165E-01
RA-224	4.777E+00	1.525E+00	6.245E-01	7.780E-01
RA-226	1.167E+00	2.009E-01	6.989E-02	1.025E-01
AC-228	1.693E+00	4.177E-01	1.398E-01	2.131E-01
RA-228	1.693E+00	4.177E-01	1.398E-01	2.131E-01
TH-228	1.839E+00	2.167E-01	5.832E-02	1.106E-01
TH-230	1.167E+00	1.916E-01	6.988E-02	9.777E-02
TH-232	1.693E+00	4.177E-01	1.398E-01	2.131E-01
NP-237	7.197E-01	3.694E-01	2.525E-01	1.885E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.460E-02	3.893E-01	3.258E-01	1.986E-01	NOT IDENT.
NA-22	-4.993E-02	4.708E-02	3.602E-02	2.402E-02	NOT IDENT.
NA-24	-5.110E+07	8.825E+07	0.000E+00	4.503E+07	SHORT HLIF
SC-46	-2.542E-02	4.380E-02	3.499E-02	2.234E-02	FAIL ABUN
V-48	-3.953E-02	9.558E-02	7.708E-02	4.876E-02	NOT IDENT.
CR-51	-1.087E-01	4.577E-01	3.888E-01	2.335E-01	NOT IDENT.
MN-54	-3.045E-02	4.308E-02	3.449E-02	2.198E-02	NOT IDENT.
CO-56	1.498E-02	4.624E-02	4.011E-02	2.359E-02	NOT IDENT.
CO-57	2.208E-02	3.084E-02	2.692E-02	1.573E-02	NOT IDENT.
CO-58	-2.382E-03	4.736E-02	4.009E-02	2.416E-02	NOT IDENT.

FE-59	-5.190E-02	1.017E-01	8.020E-02	5.189E-02	NOT IDENT.
CO-60	-1.929E-02	4.181E-02	3.381E-02	2.133E-02	NOT IDENT.
ZN-65	-6.619E-02	1.125E-01	7.336E-02	5.739E-02	NOT IDENT.
SE-75	1.681E-02	5.988E-02	4.600E-02	3.055E-02	NOT IDENT.
SR-85	-1.800E-01	6.295E-02	4.360E-02	3.212E-02	NOT IDENT.
Y-88	-6.498E-03	3.742E-02	3.010E-02	1.909E-02	NOT IDENT.
Y-91	-9.039E+00	2.670E+01	2.141E+01	1.362E+01	NOT IDENT.
NB-94	-9.570E-03	3.536E-02	2.974E-02	1.804E-02	NOT IDENT.
NB-95	7.055E-02	5.043E-02	4.643E-02	2.573E-02	NOT IDENT.
NB-95M	6.736E-01	1.952E-01	1.628E-01	9.957E-02	NOT IDENT.
ZR-95	2.077E-02	8.372E-02	7.270E-02	4.271E-02	NOT IDENT.
MO-99	5.954E+01	4.185E+01	3.824E+01	2.135E+01	NOT IDENT.
TC-99M	-9.175E+21	6.787E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.237E-02	5.116E-02	4.220E-02	2.610E-02	FAIL ABUN
RH-106	-1.023E-01	3.373E-01	2.854E-01	1.721E-01	NOT IDENT.
RU-106	-1.023E-01	3.371E-01	2.854E-01	1.720E-01	NOT IDENT.
AG-108M	-1.315E-03	3.236E-02	2.728E-02	1.651E-02	NOT IDENT.
AG-110M	9.767E-03	4.308E-02	3.273E-02	2.198E-02	NOT IDENT.
SN-113	3.037E-02	5.188E-02	4.547E-02	2.647E-02	NOT IDENT.
CD-115	5.067E+00	4.747E+01	0.000E+00	2.422E+01	SHORT HLIF
SN-117M	1.580E-02	7.853E-02	6.668E-02	4.007E-02	NOT IDENT.
TE-123M	-8.985E-03	3.395E-02	2.827E-02	1.732E-02	NOT IDENT.
SB-124	-4.839E-02	8.326E-02	6.223E-02	4.248E-02	NOT IDENT.
SB-125	-5.397E-02	1.094E-01	8.988E-02	5.584E-02	FAIL ABUN
TE-125M	1.845E+00	1.279E+01	1.100E+01	6.525E+00	NOT IDENT.
I-126	2.483E-01	3.551E-01	2.804E-01	1.812E-01	NOT IDENT.
SB-126	-6.002E-02	2.217E-01	1.586E-01	1.131E-01	NOT IDENT.
SB-127	-2.427E-01	3.134E+00	2.678E+00	1.599E+00	NOT IDENT.
I-131	4.339E-03	1.865E-01	1.594E-01	9.513E-02	NOT IDENT.
TE-132	1.995E+00	2.223E+00	1.987E+00	1.134E+00	NOT IDENT.
BA-133	5.465E-02	5.382E-02	4.255E-02	2.746E-02	NOT IDENT.
I-133	7.975E+04	2.030E+05	0.000E+00	1.036E+05	SHORT HLIF
CS-134	1.411E-01	9.384E-02	5.058E-02	4.788E-02	FAIL ABUN
CS-135	3.862E-01	2.186E-01	1.785E-01	1.115E-01	NOT IDENT.
I-135	-2.956E+19	3.521E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.837E-02	1.491E-01	1.190E-01	7.609E-02	NOT IDENT.
BA-137M	1.196E-01	4.556E-02	4.389E-02	2.324E-02	NOT IDENT.
CS-137	1.263E-01	4.813E-02	4.637E-02	2.456E-02	NOT IDENT.
CE-139	9.968E-03	3.623E-02	3.078E-02	1.848E-02	NOT IDENT.
BA-140	5.443E-02	3.983E-01	3.348E-01	2.032E-01	NOT IDENT.
LA-140	-5.603E-02	1.271E-01	1.007E-01	6.483E-02	FAIL ABUN
CE-141	2.067E-02	8.674E-02	7.396E-02	4.426E-02	NOT IDENT.
CE-143	9.059E+03	2.713E+03	0.000E+00	1.384E+03	SHORT HLIF
CE-144	-1.194E-01	2.756E-01	1.993E-01	1.406E-01	NOT IDENT.
PM-144	2.249E-02	3.812E-02	3.394E-02	1.945E-02	NOT IDENT.
PR-144	1.183E+00	2.890E+00	2.545E+00	1.474E+00	NOT IDENT.
PM-146	4.661E-02	4.790E-02	4.252E-02	2.444E-02	NOT IDENT.
ND-147	6.399E-01	8.201E-01	7.166E-01	4.184E-01	NOT IDENT.
PM-149	2.098E+02	3.935E+02	0.000E+00	2.008E+02	SHORT HLIF
EU-152	1.243E-03	1.306E-01	9.700E-02	6.661E-02	FAIL ABUN
GD-153	1.264E-01	1.150E-01	8.977E-02	5.868E-02	NOT IDENT.
EU-154	-1.385E-01	1.337E-01	1.023E-01	6.822E-02	NOT IDENT.
EU-155	-1.860E-02	1.273E-01	1.086E-01	6.496E-02	FAIL ABUN
TB-160	-1.272E-02	1.641E-01	1.378E-01	8.373E-02	FAIL ABUN
HO-166M	-2.686E-02	7.137E-02	5.576E-02	3.641E-02	FAIL ABUN
TA-182	-2.094E-01	2.540E-01	1.955E-01	1.296E-01	FAIL ABUN
IR-192	2.985E-02	4.011E-02	3.570E-02	2.046E-02	FAIL ABUN
HG-203	2.803E-02	4.830E-02	4.280E-02	2.464E-02	NOT IDENT.
BI-207	1.272E-02	5.612E-02	4.773E-02	2.863E-02	FAIL ABUN
PB-210	7.241E-01	4.218E+00	3.790E+00	2.152E+00	NOT IDENT.
PB-211	-3.471E-01	8.631E-01	7.030E-01	4.404E-01	NOT IDENT.
RN-219	9.623E-02	4.585E-01	3.937E-01	2.339E-01	FAIL ABUN
RA-223	6.526E-02	8.134E-01	6.099E-01	4.150E-01	FAIL ABUN
AC-227	1.762E-03	2.787E-01	2.426E-01	1.422E-01	FAIL ABUN
TH-227	1.762E-03	2.787E-01	2.426E-01	1.422E-01	FAIL ABUN
TH-229	-3.620E-01	6.419E-01	5.222E-01	3.275E-01	FAIL ABUN
PA-231	-1.594E-01	1.661E+00	1.431E+00	8.473E-01	FAIL ABUN
TH-231	6.526E-02	8.134E-01	6.099E-01	4.150E-01	FAIL ABUN
PA-233	1.334E-02	7.235E-02	6.287E-02	3.691E-02	FAIL ABUN
PA-234	4.000E-01	3.626E-01	3.228E-01	1.850E-01	FAIL ABUN
PA-234M	-2.274E+00	5.577E+00	4.553E+00	2.845E+00	NOT IDENT.
TH-234	7.463E-01	1.675E+00	1.464E+00	8.547E-01	FAIL ABUN
U-235	3.406E-01	2.635E-01	2.251E-01	1.344E-01	FAIL ABUN
U-238	7.463E-01	1.675E+00	1.464E+00	8.547E-01	FAIL ABUN
NP-239	-2.888E-01	5.032E-01	4.204E-01	2.568E-01	NOT IDENT.
AM-241	-2.518E-02	1.892E-01	1.652E-01	9.654E-02	NOT IDENT.
CM-247	7.683E-03	4.214E-02	3.614E-02	2.150E-02	NOT IDENT.
CF-249	-1.102E-02	4.599E-02	3.860E-02	2.347E-02	NOT IDENT.

CF-251	1.016E-01	1.550E-01	1.332E-01	7.910E-02	NOT IDENT.
ANH-511	1.200E-01	5.336E-02	5.117E-02	2.722E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	399.1819
49.72	507.5309
57.36	0.0000
59.54	526.4267
63.29	541.2366
63.29	541.2366
64.28	563.7461
67.75	591.3801
69.67	561.9409
70.83	580.3849
72.81	601.1479
72.87	601.1960
72.87	601.1960
74.82	595.1647
74.82	595.1647
74.82	595.1647
74.97	595.2848
77.11	591.7491
77.11	591.7491
77.11	591.7491
79.69	611.4868
79.80	611.5724
80.12	611.8246
80.19	689.3741
80.57	689.7077
81.00	670.6946
81.07	670.7529
81.07	670.7529
83.79	577.3723
83.79	577.3723
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86.48	608.5878
86.55	608.6403
86.79	777.3015
86.94	777.4472
87.57	770.7123
88.03	735.2753
88.47	872.6861
89.96	874.2535
91.11	875.4519
92.59	595.5837
92.59	595.5837
93.35	449.5480
94.67	451.8835
94.87	451.9876
94.87	451.9876
95.86	427.8225
97.43	370.8984
98.44	382.3264
99.53	390.3705
100.11	393.7260
103.18	389.8857
103.37	369.2245
105.31	417.8181
106.12	400.5017
109.28	437.3492
111.00	443.3752
111.76	452.1009
116.30	410.0695
117.23	434.6659
121.12	321.2037
121.78	339.3886
122.06	356.4041
123.07	389.5779
131.20	355.0980
133.52	384.9609
136.00	360.1300

136.47	351.7081
140.51	478.9372
140.51	0.0000
143.76	378.8771
144.24	393.0790
144.24	393.0790
145.44	416.2002
152.43	357.8482
153.25	339.5980
154.21	301.7494
154.21	301.7494
156.02	381.8619
158.56	322.5482
159.00	339.0743
162.66	359.8611
163.33	382.0162
165.86	333.3088
176.60	353.9466
177.52	313.1191
181.07	377.6742
184.41	323.2768
185.72	379.0251
193.51	346.1828
197.04	313.7289
205.31	297.7745
210.85	303.4953
215.65	292.3320
222.11	310.1455
227.38	288.2259
228.16	293.9048
228.18	293.9087
235.69	285.4906
235.96	285.5414
235.96	285.5414
238.63	301.4978
238.63	301.4978
240.99	301.9580
242.00	302.1544
244.70	243.6931
252.40	220.8582
252.80	204.9997
256.23	226.0736
256.23	226.0736
260.90	0.0000
264.66	226.2979
268.22	234.6586
269.46	251.5408
269.46	251.5408
271.23	251.8038
273.65	287.5594
276.40	226.3061
277.37	226.6603
277.60	232.1221
278.00	238.7948
279.20	235.8725
279.54	242.5768
280.46	257.9363
283.69	225.0441
284.31	220.3552
285.41	229.0840
285.90	0.0000
287.50	211.3079
293.27	0.0000
295.22	194.8522
295.96	194.9340
298.57	195.2190
299.98	194.0894
299.98	194.0894
300.09	197.3075
300.09	197.3075
300.13	197.3125
301.36	210.2898
302.85	215.2828
304.50	181.7099
304.50	181.7099
304.85	201.0447
308.46	195.3201
311.90	186.0000

316.51	168.0098
319.41	181.8890
320.08	187.7910
323.87	181.9954
323.87	181.9954
328.76	192.2373
333.37	166.5718
334.37	166.6589
334.37	166.6589
338.28	214.4741
338.28	214.4741
338.32	214.4768
338.32	214.4768
338.32	214.4768
340.48	175.3771
340.55	165.5490
344.28	190.4966
351.06	186.2068
351.93	188.9249
356.01	148.6725
364.49	157.2555
366.42	178.3248
383.85	148.6775
388.16	167.0983
388.63	182.2373
391.69	146.2001
400.66	154.9050
401.81	149.9223
402.40	150.9753
404.85	177.5186
410.95	143.4234
414.70	141.6266
423.72	154.4709
427.09	164.9444
427.87	166.0263
433.94	128.4454
453.88	116.0701
463.37	131.0972
468.07	118.1478
473.00	128.4834
476.78	131.8201
477.60	128.7251
487.02	116.6083
492.35	0.0000
497.08	135.0047
511.00	108.1696
514.00	321.6989
527.90	0.0000
529.87	0.0000
531.02	95.1079
537.26	118.8941
546.56	0.0000
563.25	104.8955
569.33	110.5440
569.50	101.8808
569.70	101.8876
583.19	113.2701
600.60	121.6312
602.73	100.2589
604.72	118.8757
609.32	126.3905
609.32	126.3905
609.32	126.3905
610.33	95.2847
614.28	106.9449
618.01	84.1771
621.93	98.4186
621.93	98.4186
633.25	85.8668
635.95	101.6547
636.99	116.4792
645.85	98.2773
657.76	87.7579
661.66	86.6691
661.66	86.6691
664.57	0.0000
666.33	92.7996
666.50	91.2056

677.62	100.2276
685.70	94.8478
695.00	94.1833
696.49	90.4570
696.51	95.1683
697.00	96.1272
702.65	94.4071
706.68	85.0708
711.68	90.8828
720.70	86.2507
721.93	0.0000
722.78	84.6759
722.91	84.6795
723.31	87.9478
724.19	92.8576
727.33	81.8025
733.00	115.9718
735.93	88.6898
739.50	71.6003
747.24	86.1182
752.31	103.4956
753.82	75.7389
756.73	83.4794
763.94	99.0415
765.81	81.7783
766.42	85.6411
777.92	92.6836
778.90	90.7775
783.70	77.3649
785.37	68.3706
795.86	79.5726
801.95	98.3176
810.29	78.9219
810.76	85.7531
815.77	76.1147
818.51	70.3125
832.01	82.3372
834.85	99.0767
836.80	0.0000
846.77	73.8098
856.80	67.6660
860.56	69.1455
871.09	52.4997
873.19	74.3332
875.33	0.0000
879.36	73.4610
880.51	59.5801
883.24	57.6354
884.68	60.6401
889.28	71.6602
898.04	84.7925
911.20	82.3627
911.20	82.3627
911.20	82.3627
926.50	66.3196
937.49	61.4654
944.13	83.7717
946.00	61.5957
949.00	79.8310
962.29	66.0441
964.08	86.9385
966.15	77.1257
968.97	77.1782
968.97	77.1782
968.97	77.1782
983.53	70.3182
996.26	67.4677
1001.03	78.8016
1004.73	86.0422
1037.84	60.9062
1038.76	0.0000
1048.07	68.2935
1050.41	66.2604
1050.41	66.2604
1063.66	56.0764
1085.87	86.6272
1099.45	61.7656
1112.07	61.4136

1115.54	70.2414
1120.29	64.1547
1120.29	64.1547
1120.29	64.1547
1120.55	81.1387
1121.30	77.5446
1131.51	0.0000
1173.23	88.2956
1177.93	84.1239
1189.05	77.9189
1204.77	84.5997
1221.41	106.3839
1231.02	115.2070
1235.36	101.2979
1238.28	75.4801
1260.41	0.0000
1271.85	53.0399
1274.44	66.1019
1274.54	66.1019
1291.59	47.6435
1298.22	0.0000
1312.11	57.2152
1332.49	45.1992
1365.19	35.0592
1368.63	0.0000
1384.29	29.9553
1408.01	28.0824
1457.56	0.0000
1460.82	27.9683
1489.16	37.8030
1505.03	38.8811
1596.21	35.5455
1620.50	19.0842
1678.03	0.0000
1690.97	20.0572
1764.49	11.1604
1764.49	11.1604
1764.49	11.1604
1770.23	8.8855
1771.35	15.9966
1791.20	0.0000
1836.06	17.4382

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248867001

Total Uranium Activity	2.3778E+00	ug/g
Total Uranium Counting Unc.	4.9855E+00	ug/g
Total Uranium Tpu	2.5436E-06	ug/g
Total Uranium Mda	4.3560E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G248867001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM29            *
*   SAMPLE DATE   :  5-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 20:33:15.40    SAMPLE ALQT:  122.070 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.033E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.575E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 4.849E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.369E+00
```

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:01:37.14

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1
Sample date      : 9-MAR-2010 00:00:00. Acquisition date : 24-MAR-2010 22:59:45
Sample ID        : G1202065188          Sample quantity  : 1.43700E+02 GRAM
Detector name    : GAM29                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:01:22.05  0.6%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 962633               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
No peaks were found
```

VMS Nuclide Identification Report V3.1 Generated 25-MAR-2010 03:01:40

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 9-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 22:59:45
Sample ID : G1202065188 Sample quantity : 143.70 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAM29 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:01:22.05 0.6%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Energy Ided (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	477.60	*	4.447E-02	1.381E-01	2.297E-01	2.236E-02	0.194
NA-22	1274.54	*	-2.092E-06	1.491E-02	2.494E-02	2.490E-03	0.000
NA-24	1368.63	*	-2.708E-01	1.491E-02	Half-Life too short		
K-40	1460.82	*	-4.044E-02	2.100E-01	3.411E-01	3.710E-02	-0.119
SC-46	889.28	*	-9.628E-03	1.646E-02	2.541E-02	3.318E-03	-0.379
	1120.55		-2.244E-02	2.531E-02	3.084E-02	2.945E-03	-0.728
V-48	944.13		-3.854E-02	3.468E-01	5.617E-01	7.133E-02	-0.069
	983.53	*	-4.179E-03	2.624E-02	4.210E-02	5.107E-03	-0.099
	1312.11		1.339E-02	2.882E-02	5.094E-02	5.408E-03	0.263
CR-51	320.08	*	-6.487E-02	1.533E-01	2.469E-01	2.374E-02	-0.263
MN-54	834.85	*	1.374E-02	1.323E-02	2.392E-02	2.819E-03	0.575
CO-56	846.77	*	-9.102E-03	1.753E-02	2.752E-02	3.318E-03	-0.331
	1037.84		5.229E-02	1.030E-01	1.787E-01	2.067E-02	0.293
	1238.28		-3.877E-02	3.075E-02	3.890E-02	3.733E-03	-0.997
	1771.35		-2.633E-02	1.281E-01	2.036E-01	1.838E-02	-0.129
CO-57	122.06	*	-6.051E-03	1.005E-02	1.576E-02	1.424E-03	-0.384
	136.47		-1.839E-02	8.128E-02	1.297E-01	1.205E-02	-0.142
CO-58	810.76	*	-1.067E-02	1.443E-02	2.188E-02	2.464E-03	-0.487
FE-59	1099.45	*	1.909E-02	3.252E-02	5.651E-02	6.000E-03	0.338
	1291.59		-1.749E-02	4.688E-02	7.482E-02	8.424E-03	-0.234
CO-60	1173.23		-1.427E-04	1.349E-02	2.179E-02	1.812E-03	-0.007
	1332.49	*	1.748E-02	1.523E-02	2.865E-02	3.143E-03	0.610
ZN-65	1115.54	*	-1.286E-03	3.514E-02	5.682E-02	5.495E-03	-0.023
SE-75	121.12		-2.678E-02	5.350E-02	8.443E-02	9.617E-03	-0.317
	136.00		-1.021E-03	1.558E-02	2.509E-02	2.190E-03	-0.041
	264.66	*	1.106E-02	1.802E-02	3.101E-02	2.812E-03	0.357
	279.54		-1.256E-02	4.264E-02	6.974E-02	6.563E-03	-0.180
	400.66		-5.993E-02	1.032E-01	1.618E-01	1.845E-02	-0.370
SR-85	514.00	*	-4.163E-02	2.674E-02	3.976E-02	3.597E-03	-1.047
Y-88	898.04		-7.746E-03	1.593E-02	2.475E-02	3.291E-03	-0.313
	1836.06	*	-1.055E-02	1.601E-02	2.288E-02	1.956E-03	-0.461
Y-91	1204.77	*	-8.383E-01	7.269E+00	1.157E+01	1.020E+00	-0.072
NB-94	702.65	*	4.069E-03	1.379E-02	2.351E-02	2.112E-03	0.173
	871.09		7.689E-03	1.364E-02	2.367E-02	2.988E-03	0.325

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	1.099E-02	1.639E-02	2.868E-02	2.945E-03	0.383
NB-95M		235.69	*	-7.634E-02	5.271E-02	8.150E-02	8.207E-03	-0.937
ZR-95		724.19		1.091E-02	3.168E-02	5.442E-02	5.486E-03	0.200
		756.73	*	-1.520E-03	2.738E-02	4.524E-02	4.914E-03	-0.034
MO-99		140.51		-2.238E+00	1.084E+01	1.729E+01	4.101E+00	-0.130
		181.07		-1.850E+01	1.049E+01	1.437E+01	2.679E+00	-1.287
		366.42		-1.187E+01	5.328E+01	8.642E+01	7.877E+00	-0.137
		739.50	*	2.823E+00	5.625E+00	9.765E+00	1.600E+00	0.289
		777.92		-1.979E+01	1.812E+01	2.976E+01	3.133E+00	-0.067
TC-99M		140.51	*	-3.517E+10	1.812E+01	Half-Life too short		
RU-103		497.08	*	-6.258E-03	1.733E-02	2.728E-02	3.889E-03	-0.229
		610.33		-2.000E-01	3.860E-01	5.527E-01	9.030E-02	-0.362
RH-106		621.93	*	-6.571E-02	1.318E-01	2.122E-01	2.799E-02	-0.310
		1050.41		7.229E-01	9.649E-01	1.699E+00	1.867E-01	0.425
RU-106		621.93	*	-6.571E-02	1.316E-01	2.122E-01	1.809E-02	-0.310
		1050.41		7.229E-01	9.649E-01	1.699E+00	1.867E-01	0.425
AG-108M		433.94	*	2.998E-03	1.134E-02	1.889E-02	1.768E-03	0.159
		614.28		-1.604E-02	1.466E-02	2.248E-02	1.992E-03	-0.713
		722.91		-2.911E-03	1.513E-02	2.196E-02	2.117E-03	-0.133
CD-109		88.03	*	-6.119E-01	3.382E-01	4.429E-01	4.182E-02	-1.382
AG-110M		657.76	*	7.019E-03	1.350E-02	2.353E-02	2.001E-03	0.298
		677.62		2.770E-02	1.198E-01	2.041E-01	1.786E-02	0.136
		706.68		1.980E-02	8.634E-02	1.466E-01	1.363E-02	0.135
		763.94		1.426E-02	6.264E-02	1.060E-01	1.106E-02	0.135
		884.68		-1.074E-03	1.922E-02	3.145E-02	4.130E-03	-0.034
		937.49		2.161E-02	4.072E-02	7.052E-02	9.167E-03	0.306
		1384.29		5.108E-04	5.818E-02	9.697E-02	1.073E-02	0.005
		1505.03		-1.309E-01	1.203E-01	1.653E-01	1.739E-02	-0.792
SN-113		391.69	*	-3.263E-03	1.857E-02	3.010E-02	2.784E-03	-0.108
CD-115		260.90		-6.292E+01	7.404E+01	1.174E+02	1.058E+01	-0.536
		492.35		-3.511E+00	2.582E+01	3.634E+01	3.303E+00	-0.097
		527.90	*	2.372E+00	5.830E+00	9.759E+00	8.791E-01	0.243
SN-117M		156.02		-7.593E-01	8.825E-01	1.346E+00	1.118E-01	-0.564
		158.56	*	5.880E-03	2.178E-02	3.551E-02	2.935E-03	0.166
TE-123M		159.00	*	-1.452E-03	1.121E-02	1.789E-02	1.487E-03	-0.081
SB-124		602.73		7.734E-03	1.828E-02	3.025E-02	2.619E-03	0.256
		645.85		2.878E-02	1.943E-01	3.293E-01	2.914E-02	0.087
		722.78		-5.106E-02	1.549E-01	2.220E-01	2.124E-02	-0.230
		1690.97	*	9.078E-03	3.550E-02	6.077E-02	6.017E-03	0.149
SB-125		427.87	*	-8.882E-03	3.634E-02	5.827E-02	5.382E-03	-0.152
		463.37		-2.803E-02	1.050E-01	1.672E-01	1.626E-02	-0.168
		600.60		-3.584E-03	8.472E-02	1.356E-01	1.262E-02	-0.026
		635.95		-1.340E-01	1.081E-01	1.607E-01	1.467E-02	-0.834
TE-125M		109.28	*	-3.711E+00	3.800E+00	5.844E+00	6.237E-01	-0.635
I-126		388.63		7.257E-03	6.887E-02	1.139E-01	1.026E-02	0.064
		666.33	*	9.224E-03	8.450E-02	1.426E-01	1.182E-02	0.065
		753.82		-5.061E-02	7.403E-01	1.222E+00	1.224E-01	-0.041
SB-126		414.70		7.638E-04	3.172E-02	5.199E-02	4.709E-03	0.015
		666.50		6.982E-03	2.874E-02	4.907E-02	4.066E-03	0.142

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		695.00		-9.048E-03	3.398E-02	5.548E-02	4.901E-03	-0.163
		697.00		1.287E-02	1.170E-01	1.968E-01	1.746E-02	0.065
		720.70	*	-3.690E-02	5.563E-02	8.663E-02	8.092E-03	-0.426
		856.80		-2.855E-01	2.012E-01	2.784E-01	3.422E-02	-1.025
SN-126		64.28		4.436E-02	2.181E-01	3.189E-01	4.730E-02	0.139
		86.94		-3.316E-02	1.340E-01	1.911E-01	7.933E-02	-0.174
		87.57	*	-2.509E-02	3.209E-02	4.471E-02	4.202E-03	-0.561
SB-127		252.40		6.393E-01	2.094E+00	3.526E+00	1.469E+00	0.181
		473.00		-9.163E-02	8.177E-01	1.318E+00	1.757E-01	-0.070
		685.70	*	-7.514E-02	6.235E-01	1.031E+00	1.201E-01	-0.073
		783.70		2.006E-01	1.572E+00	2.636E+00	3.707E-01	0.076
I-131		80.19		-8.559E-01	1.680E+00	2.690E+00	2.367E-01	-0.318
		284.31		4.831E-01	6.454E-01	1.115E+00	1.064E-01	0.433
		364.49	*	-4.238E-03	5.537E-02	9.071E-02	8.679E-03	-0.047
		636.99		-4.711E-01	6.570E-01	1.031E+00	9.196E-02	-0.457
TE-132		49.72		-1.949E+01	1.031E+01	1.260E+01	1.422E+00	-1.546
		111.76		1.849E+01	1.533E+01	2.614E+01	2.991E+00	0.708
		116.30		-1.374E+01	1.381E+01	2.114E+01	2.428E+00	-0.650
		228.16	*	9.357E-02	3.469E-01	5.891E-01	9.471E-02	0.159
BA-133		81.00		-2.372E-02	3.208E-02	5.047E-02	7.884E-03	-0.470
		276.40		5.120E-02	1.368E-01	2.322E-01	3.344E-02	0.220
		302.85		8.849E-03	5.884E-02	9.841E-02	1.322E-02	0.090
		356.01	*	-7.671E-03	1.894E-02	3.041E-02	4.048E-03	-0.252
		383.85		-5.162E-02	1.221E-01	1.945E-01	2.474E-02	-0.265
I-133		529.87	*	-3.748E-03	1.221E-01	Half-Life too short		
		875.33		4.458E-02	1.221E-01	Half-Life too short		
		1298.22		1.730E-01	1.221E-01	Half-Life too short		
CS-134		563.25		5.073E-02	1.616E-01	2.666E-01	2.387E-02	0.190
		569.33		-4.702E-02	8.633E-02	1.327E-01	1.189E-02	-0.354
		604.72		-9.258E-03	1.648E-02	2.535E-02	2.197E-03	-0.365
		795.86	*	-2.862E-03	1.573E-02	2.555E-02	2.802E-03	-0.112
		801.95		-2.592E-02	1.731E-01	2.644E-01	2.931E-02	-0.098
		1365.19		-2.353E-01	4.990E-01	7.770E-01	8.729E-02	-0.303
CS-135		268.22	*	3.162E-03	6.127E-02	1.024E-01	1.059E-02	0.031
I-135		546.56		-3.426E+10	6.127E-02	Half-Life too short		
		836.80		3.256E+10	6.127E-02	Half-Life too short		
		1038.76		2.043E+10	6.127E-02	Half-Life too short		
		1131.51		-4.012E+09	6.127E-02	Half-Life too short		
		1260.41	*	1.180E+09	6.127E-02	Half-Life too short		
		1457.56		3.098E+10	6.127E-02	Half-Life too short		
		1678.03		-3.355E+10	6.127E-02	Half-Life too short		
		1791.20		1.722E+10	6.127E-02	Half-Life too short		
CS-136		153.25		1.398E-01	3.258E-01	5.360E-01	5.383E-02	0.261
		176.60		-1.705E-01	2.144E-01	3.274E-01	3.006E-02	-0.521
		273.65		3.292E-02	2.108E-01	3.540E-01	3.459E-02	0.093
		340.55		-1.313E-02	7.603E-02	9.891E-02	9.386E-03	-0.133
		818.51		-1.633E-03	3.026E-02	4.978E-02	5.687E-03	-0.033
		1048.07	*	3.396E-02	4.212E-02	7.459E-02	8.443E-03	0.455
		1235.36		-5.172E-02	1.832E-01	2.843E-01	3.494E-02	-0.182

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-137M		661.66	*	-5.400E-03	1.360E-02	2.196E-02	1.800E-03	-0.246
CS-137		661.66	*	-5.705E-03	1.436E-02	2.320E-02	1.906E-03	-0.246
CE-139		165.86	*	-1.062E-02	1.281E-02	1.964E-02	1.601E-03	-0.541
BA-140		162.66		1.332E-01	3.854E-01	5.782E-01	5.092E-02	0.230
		304.85		-2.023E-01	6.075E-01	9.841E-01	2.897E-01	-0.206
		423.72		9.198E-01	8.754E-01	1.448E+00	4.781E-01	0.635
		537.26	*	-1.804E-02	1.085E-01	1.724E-01	5.863E-02	-0.105
LA-140		328.76		-3.500E-03	1.249E-01	2.062E-01	1.990E-02	-0.017
		487.02		2.896E-02	5.856E-02	9.872E-02	9.478E-03	0.293
		815.77		-2.301E-02	1.284E-01	2.085E-01	2.531E-02	-0.110
		1596.21	*	2.319E-02	3.615E-02	6.523E-02	6.600E-03	0.356
CE-141		145.44	*	1.356E-02	2.568E-02	4.242E-02	3.667E-03	0.320
CE-143		57.36		1.276E-04	2.568E-02	Half-Life too short		
		293.27	*	9.310E-05	2.568E-02	Half-Life too short		
		664.57		1.965E-04	2.568E-02	Half-Life too short		
		721.93		-4.701E-04	2.568E-02	Half-Life too short		
CE-144		80.12		-1.558E-01	8.297E-01	1.349E+00	1.178E-01	-0.115
		133.52	*	4.401E-03	7.606E-02	1.233E-01	1.892E-02	0.036
PM-144		476.78		-1.947E-02	2.841E-02	4.369E-02	4.287E-03	-0.446
		618.01		-7.797E-03	1.301E-02	2.078E-02	1.828E-03	-0.375
		696.49	*	3.863E-03	1.438E-02	2.448E-02	2.170E-03	0.158
PR-144		696.51	*	4.565E-01	1.064E+00	1.833E+00	1.624E-01	0.249
		1489.16		5.606E+00	5.670E+00	1.056E+01	1.118E+00	0.531
PM-146		453.88	*	-4.587E-03	1.846E-02	2.953E-02	3.246E-03	-0.155
		633.25		-1.391E-01	5.600E-01	9.153E-01	3.492E-01	-0.152
		735.93		-5.098E-02	5.548E-02	8.061E-02	2.286E-02	-0.632
		747.24		9.279E-03	4.014E-02	6.798E-02	1.044E-02	0.136
ND-147		91.11		3.569E-01	1.185E-01	2.059E-01	2.042E-02	1.733
		319.41		2.942E-01	1.429E+00	2.395E+00	2.202E-01	0.123
		531.02	*	-1.707E-01	2.360E-01	3.542E-01	5.373E-02	-0.482
PM-149		285.90	*	3.938E+00	4.987E+01	8.328E+01	1.318E+01	0.047
EU-152		121.78		-9.455E-03	2.857E-02	4.550E-02	4.667E-03	-0.208
		244.70		-8.345E-02	1.300E-01	2.100E-01	1.869E-02	-0.397
		344.28	*	-1.697E-02	4.054E-02	6.511E-02	6.286E-03	-0.261
		778.90		-1.716E-03	1.045E-01	1.730E-01	1.825E-02	-0.010
		964.08		-1.348E-01	1.119E-01	1.566E-01	1.945E-02	-0.860
		1085.87		6.445E-02	1.361E-01	2.341E-01	2.409E-02	0.275
		1112.07		-4.296E-03	1.138E-01	1.841E-01	1.792E-02	-0.023
		1408.01		1.994E-03	9.038E-02	1.133E-01	1.226E-02	0.018
GD-153		69.67		-1.960E-01	5.774E-01	9.352E-01	7.595E-02	-0.210
		97.43	*	-2.554E-02	3.668E-02	5.067E-02	4.551E-03	-0.504
		103.18		1.640E-02	4.095E-02	6.800E-02	6.033E-03	0.241
EU-154		123.07		2.092E-03	2.029E-02	3.305E-02	3.847E-03	0.063
		723.31		2.702E-03	6.807E-02	1.011E-01	1.031E-02	0.027
		873.19		-2.273E-02	1.160E-01	1.873E-01	2.827E-02	-0.121
		996.26		-4.496E-02	1.411E-01	2.221E-01	4.291E-02	-0.202
		1004.73		-5.096E-02	8.704E-02	1.328E-01	1.878E-02	-0.384
		1274.44	*	-1.679E-03	4.200E-02	6.992E-02	8.694E-03	-0.024
EU-155		86.55		3.256E-02	3.855E-02	5.782E-02	5.424E-03	0.563

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		105.31	*	-2.498E-04	3.972E-02	6.465E-02	5.789E-03	-0.004
TB-160		86.79		-1.580E-02	1.046E-01	1.508E-01	1.406E-02	-0.105
		197.04		-6.047E-02	2.654E-01	3.879E-01	3.285E-02	-0.156
		215.65		-1.493E-01	2.913E-01	4.768E-01	4.127E-02	-0.313
		298.57		-8.077E-03	4.617E-02	7.589E-02	6.953E-03	-0.106
		879.36	*	-1.909E-02	5.448E-02	8.629E-02	1.106E-02	-0.221
		962.29		-2.284E-01	2.280E-01	3.063E-01	3.812E-02	-0.746
		966.15		-1.985E-02	7.529E-02	1.186E-01	1.469E-02	-0.167
		1177.93		-3.600E-02	1.086E-01	1.670E-01	1.401E-02	-0.216
		1271.85		2.192E-02	2.439E-01	4.126E-01	4.096E-02	0.053
HO-166M		80.57		-5.438E-02	9.125E-02	1.454E-01	1.275E-02	-0.374
		184.41		-1.579E-02	1.882E-02	2.746E-02	2.289E-03	-0.575
		280.46		-1.431E-02	3.323E-02	5.390E-02	4.906E-03	-0.266
		410.95		-3.081E-02	9.429E-02	1.506E-01	1.363E-02	-0.205
		711.68	*	-5.989E-03	3.500E-02	4.325E-02	3.962E-03	-0.138
		752.31		3.713E-02	1.070E-01	1.832E-01	1.830E-02	0.203
		810.29		-2.291E-02	2.227E-02	3.256E-02	3.658E-03	-0.704
TA-182		67.75		-4.363E-02	3.826E-02	5.940E-02	4.785E-03	-0.734
		100.11		5.399E-03	6.519E-02	1.067E-01	9.518E-03	0.051
		152.43		1.234E-01	1.295E-01	2.184E-01	1.827E-02	0.565
		222.11		-3.527E-02	1.390E-01	2.305E-01	2.009E-02	-0.153
		1121.30		-2.153E-03	5.392E-02	8.714E-02	8.308E-03	-0.025
		1189.05		1.129E-02	9.401E-02	1.546E-01	1.324E-02	0.073
		1221.41	*	-7.653E-03	5.488E-02	8.670E-02	7.881E-03	-0.088
		1231.02		1.167E-01	1.534E-01	2.699E-01	2.496E-02	0.432
IR-192		295.96		-4.517E-02	4.378E-02	6.822E-02	6.286E-03	-0.662
		308.46		-2.052E-03	4.252E-02	7.030E-02	6.483E-03	-0.029
		316.51	*	2.258E-03	1.451E-02	2.424E-02	2.232E-03	0.093
		468.07		1.503E-02	2.778E-02	4.695E-02	4.556E-03	0.320
HG-203		70.83		-1.554E-01	4.750E-01	7.694E-01	1.217E-01	-0.202
		72.87		1.270E-01	2.728E-01	4.562E-01	6.998E-02	0.278
		279.20	*	-7.503E-03	1.523E-02	2.461E-02	2.290E-03	-0.305
BI-207		72.81		2.755E-02	6.212E-02	1.040E-01	8.590E-03	0.265
		74.97		5.036E-02	4.183E-02	6.160E-02	5.162E-03	0.818
		569.70		7.279E-06	1.309E-02	2.108E-02	1.864E-03	0.000
		1063.66	*	1.456E-02	2.060E-02	3.602E-02	3.867E-03	0.404
		1770.23		-2.701E-01	2.656E-01	3.684E-01	3.330E-02	-0.733
TL-208		277.37		4.317E-02	1.476E-01	2.495E-01	3.208E-02	0.173
		583.19	*	9.359E-03	1.873E-02	2.912E-02	2.729E-03	0.321
		860.56		9.249E-02	1.133E-01	1.999E-01	2.564E-02	0.463
PB-210		46.54	*	-2.527E+00	1.589E+00	2.317E+00	2.210E-01	-1.091
BI-211		72.87		5.032E-01	1.079E+00	1.808E+00	1.494E-01	0.278
		351.06	*	2.971E-02	9.187E-02	1.541E-01	1.476E-02	0.193
PB-211		404.85	*	1.858E-01	3.004E-01	4.904E-01	2.377E-01	0.379
		427.09		-2.297E-01	6.240E-01	9.767E-01	4.527E-01	-0.235
		832.01		-1.769E-01	3.777E-01	5.746E-01	3.014E-01	-0.308
BI-212		727.33	*	-4.767E-02	1.847E-01	2.998E-01	3.917E-02	-0.159
		785.37		7.090E-02	1.206E+00	2.010E+00	2.149E-01	0.035
		1620.50		5.468E-01	1.139E+00	1.994E+00	1.992E-01	0.274

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PB-212		74.82		1.698E-01	1.463E-01	2.137E-01	2.742E-02	0.794
		77.11		-9.961E-02	7.422E-02	1.091E-01	9.290E-03	-0.913
		238.63	*	-1.736E-02	3.442E-02	5.065E-02	5.051E-03	-0.343
		300.09		-1.580E-03	3.275E-01	5.434E-01	5.971E-02	-0.003
BI-214		609.32	*	-1.192E-02	3.661E-02	5.343E-02	5.396E-03	-0.223
		1120.29		-1.340E-01	1.496E-01	1.822E-01	2.127E-02	-0.736
		1764.49		-1.890E-01	1.357E-01	2.067E-01	1.877E-02	-0.915
PB-214		74.82		3.009E-01	2.587E-01	3.787E-01	4.367E-02	0.794
		77.11		-1.756E-01	1.316E-01	1.923E-01	2.280E-02	-0.913
		242.00		-4.019E-01	1.649E-01	2.363E-01	2.505E-02	-1.701
		295.22		8.099E-03	5.735E-02	9.597E-02	1.078E-02	0.084
		351.93	*	1.149E-02	3.324E-02	5.582E-02	6.168E-03	0.206
RN-219		271.23		-8.085E-03	9.223E-02	1.529E-01	1.626E-02	-0.053
		401.81	*	-4.395E-02	1.648E-01	2.648E-01	4.002E-02	-0.166
RA-223		81.07		-5.461E-02	7.227E-02	1.142E-01	1.006E-02	-0.478
		83.79		-4.076E-02	5.086E-02	7.183E-02	6.494E-03	-0.567
		94.87		-2.109E-01	1.910E-01	2.964E-01	2.688E-02	-0.711
		144.24		-5.739E-02	3.107E-01	4.464E-01	4.251E-02	-0.129
		154.21		-5.222E-02	1.438E-01	2.265E-01	2.080E-02	-0.231
		269.46		-1.817E-02	7.276E-02	1.196E-01	1.102E-02	-0.152
		323.87	*	-2.208E-02	2.558E-01	4.209E-01	7.418E-02	-0.052
		338.28		2.843E-01	3.726E-01	6.408E-01	7.997E-02	0.444
RA-224		240.99	*	3.042E-01	2.730E-01	4.766E-01	4.229E-02	0.638
RA-226		609.32	*	-1.192E-02	3.661E-02	5.343E-02	5.396E-03	-0.223
		1120.29		-1.340E-01	1.496E-01	1.822E-01	2.127E-02	-0.736
		1764.49		-1.890E-01	1.357E-01	2.067E-01	1.877E-02	-0.915
AC-227		79.69		-1.814E-01	4.102E-01	6.573E-01	1.135E-01	-0.276
		235.96		-6.537E-02	6.375E-02	1.013E-01	1.066E-02	-0.645
		256.23	*	4.453E-02	1.035E-01	1.764E-01	2.172E-02	0.252
		299.98		-2.497E-02	3.610E-01	5.969E-01	7.808E-02	-0.042
		304.50		-1.665E-01	7.029E-01	1.150E+00	1.934E-01	-0.145
		334.37		3.316E-02	6.961E-01	1.153E+00	1.835E-01	0.029
TH-227		79.80		-2.040E-01	5.424E-01	8.714E-01	1.901E-01	-0.234
		235.96		-6.537E-02	6.371E-02	1.013E-01	1.008E-02	-0.645
		256.23	*	4.453E-02	1.035E-01	1.764E-01	2.441E-02	0.252
		299.98		-2.497E-02	3.610E-01	5.969E-01	7.808E-02	-0.042
		304.50		-1.665E-01	7.029E-01	1.150E+00	1.934E-01	-0.145
		334.37		3.316E-02	6.961E-01	1.153E+00	1.835E-01	0.029
AC-228		338.32		7.048E-02	9.795E-02	1.613E-01	6.747E-02	0.437
		911.20	*	-3.534E-02	6.857E-02	9.124E-02	1.390E-02	-0.387
		968.97		4.036E-03	1.015E-01	1.544E-01	4.001E-02	0.026
RA-228		338.32		7.048E-02	9.795E-02	1.613E-01	6.747E-02	0.437
		911.20	*	-3.534E-02	6.857E-02	9.124E-02	1.390E-02	-0.387
		968.97		4.036E-03	1.015E-01	1.544E-01	4.001E-02	0.026
TH-228		74.82		1.698E-01	1.453E-01	2.137E-01	1.806E-02	0.794
		77.11		-9.961E-02	7.422E-02	1.091E-01	9.290E-03	-0.913
		238.63	*	-1.736E-02	3.442E-02	5.065E-02	5.051E-03	-0.343
		300.09		-1.580E-03	3.275E-01	5.434E-01	3.331E-01	-0.003
TH-229		85.43		1.143E-01	8.210E-02	1.269E-01	1.166E-02	0.901

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		88.47		-1.843E-01	5.553E-02	6.523E-02	6.138E-03	-2.825
		193.51	*	2.037E-01	2.135E-01	3.569E-01	3.010E-02	0.571
		210.85		7.686E-03	3.282E-01	5.527E-01	4.758E-02	0.014
TH-230		609.32	*	-1.192E-02	3.660E-02	5.342E-02	4.601E-03	-0.223
		1120.29		-1.340E-01	1.493E-01	1.822E-01	1.742E-02	-0.736
		1764.49		-1.890E-01	1.357E-01	2.067E-01	1.877E-02	-0.915
PA-231		283.69	*	3.917E-01	5.797E-01	9.958E-01	1.482E-01	0.393
		301.36		1.951E-01	2.299E-01	3.968E-01	4.978E-02	0.492
TH-231		81.07		-5.461E-02	7.227E-02	1.142E-01	1.006E-02	-0.478
		83.79		-4.076E-02	5.086E-02	7.183E-02	6.494E-03	-0.567
		94.87		-2.109E-01	1.910E-01	2.964E-01	2.688E-02	-0.711
		144.24		-5.739E-02	3.107E-01	4.464E-01	4.251E-02	-0.129
		154.21		-5.222E-02	1.438E-01	2.265E-01	2.080E-02	-0.231
		269.46		-1.817E-02	7.276E-02	1.196E-01	1.102E-02	-0.152
		323.87	*	-2.208E-02	2.558E-01	4.209E-01	7.418E-02	-0.052
		338.28		2.843E-01	3.726E-01	6.408E-01	7.997E-02	0.444
TH-232		338.32		7.048E-02	9.363E-02	1.613E-01	1.481E-02	0.437
		911.20	*	-3.534E-02	6.857E-02	9.124E-02	1.390E-02	-0.387
		968.97		4.036E-03	1.015E-01	1.544E-01	4.001E-02	0.026
PA-233		300.13		-4.207E-04	1.631E-01	2.706E-01	4.100E-02	-0.002
		311.90	*	9.803E-03	2.795E-02	4.720E-02	4.444E-03	0.208
		340.48		-6.080E-02	3.103E-01	4.029E-01	9.780E-02	-0.151
PA-234		94.67		9.342E-02	6.669E-02	1.133E-01	1.442E-02	0.824
		98.44		-1.743E-02	4.038E-02	5.477E-02	3.058E-02	-0.318
		111.00		8.053E-02	7.003E-02	1.191E-01	1.460E-02	0.676
		131.20		-4.243E-02	4.097E-02	6.241E-02	5.477E-03	-0.680
		569.50		-1.051E-02	1.154E-01	1.844E-01	1.631E-02	-0.057
		733.00		4.892E-02	1.350E-01	2.315E-01	5.229E-02	0.211
		880.51		-1.023E-01	1.100E-01	1.614E-01	2.073E-02	-0.634
		883.24		-1.051E-02	1.097E-01	1.784E-01	1.211E-01	-0.059
		926.50		3.754E-03	6.229E-02	1.030E-01	2.786E-02	0.036
		946.00	*	5.780E-02	1.150E-01	1.978E-01	4.140E-02	0.292
		949.00		-6.368E-02	1.789E-01	2.819E-01	3.561E-02	-0.226
PA-234M		766.42		-1.278E+00	5.648E+00	7.548E+00	3.853E+00	-0.169
		1001.03	*	-3.860E-01	2.080E+00	3.216E+00	4.137E-01	-0.120
TH-234		63.29	*	1.989E-01	5.925E-01	8.713E-01	1.574E-01	0.228
		92.59		4.009E-01	3.275E-01	5.065E-01	1.130E-01	0.791
U-235		89.96		-1.525E+00	5.056E-01	4.421E-01	1.099E-01	-3.449
		93.35		1.512E-01	2.424E-01	3.777E-01	8.798E-02	0.400
		143.76	*	-1.272E-02	9.163E-02	1.316E-01	2.224E-02	-0.097
		163.33		5.033E-02	1.995E-01	2.980E-01	5.289E-02	0.169
		185.72		-7.239E-03	2.345E-02	3.502E-02	2.924E-03	-0.207
		205.31		8.914E-02	1.918E-01	3.286E-01	5.952E-02	0.271
NP-237		86.48	*	8.849E-02	9.707E-02	1.435E-01	3.291E-02	0.617
		95.86		-1.760E+00	5.872E-01	5.375E-01	1.298E-01	-3.274
U-238		63.29	*	1.989E-01	5.925E-01	8.713E-01	1.574E-01	0.228
		92.59		4.009E-01	3.172E-01	5.065E-01	4.643E-02	0.791
NP-239		99.53		-3.625E-02	7.015E-02	9.719E-02	8.679E-03	-0.373
		103.37		2.007E-02	3.705E-02	6.191E-02	5.491E-03	0.324

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		106.12		-7.113E-03	3.175E-02	5.110E-02	4.523E-03	-0.139
		117.23	*	-3.081E-02	1.565E-01	2.514E-01	2.245E-02	-0.123
		228.18		2.225E-02	8.479E-02	1.440E-01	1.263E-02	0.155
		277.60		2.123E-03	6.727E-02	1.122E-01	1.020E-02	0.019
AM-241		59.54	*	-9.476E-02	5.773E-02	8.730E-02	7.534E-03	-1.085
CM-247		278.00		-1.139E-01	2.873E-01	4.673E-01	4.249E-02	-0.244
		287.50		-1.386E-01	5.099E-01	8.346E-01	7.619E-02	-0.166
		402.40	*	-2.755E-03	1.513E-02	2.448E-02	2.209E-03	-0.113
CF-249		252.80		1.480E-01	3.933E-01	6.695E-01	5.996E-02	0.221
		333.37		1.039E-02	7.234E-02	1.206E-01	1.108E-02	0.086
		388.16	*	-4.165E-03	1.600E-02	2.578E-02	2.324E-03	-0.162
CF-251		177.52	*	-5.726E-02	5.347E-02	8.024E-02	6.631E-03	-0.714
		227.38		9.225E-02	1.396E-01	2.413E-01	2.115E-02	0.382
		285.41		4.945E-01	8.902E-01	1.524E+00	1.390E-01	0.325
ANH-511		511.00	*	-1.433E-02	2.821E-02	4.552E-02	4.121E-03	-0.315

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188      *
* Acquisition date : 24-MAR-2010 22:59:45 Detector SN#    :                 *
* Detector ID      : GAM29                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:01:22.05     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065188          Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.4370E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)	
BE-7	4.447E-02	1.353E-01	2.367E-01	0.000E+00 NOT IDENT.
NA-22	-2.092E-06	1.461E-02	2.514E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	7.762E+05	0.000E+00	0.000E+00 SHORT HLIF
K-40	-4.044E-02	2.058E-01	3.427E-01	0.000E+00 NOT IDENT.
SC-46	-9.628E-03	1.613E-02	2.582E-02	0.000E+00 NOT IDENT.
V-48	-4.179E-03	2.572E-02	4.269E-02	0.000E+00 NOT IDENT.
CR-51	-6.487E-02	1.502E-01	2.567E-01	0.000E+00 NOT IDENT.
MN-54	1.374E-02	1.296E-02	2.435E-02	0.000E+00 NOT IDENT.
CO-56	-9.102E-03	1.717E-02	2.800E-02	0.000E+00 NOT IDENT.
CO-57	-6.051E-03	9.848E-03	1.672E-02	0.000E+00 NOT IDENT.
CO-58	-1.067E-02	1.414E-02	2.228E-02	0.000E+00 NOT IDENT.
FE-59	1.909E-02	3.187E-02	5.715E-02	0.000E+00 NOT IDENT.
CO-60	1.748E-02	1.492E-02	2.885E-02	0.000E+00 NOT IDENT.
ZN-65	-1.286E-03	3.443E-02	5.745E-02	0.000E+00 NOT IDENT.
SE-75	1.106E-02	1.766E-02	3.236E-02	0.000E+00 NOT IDENT.
SR-85	-4.163E-02	2.620E-02	4.090E-02	0.000E+00 NOT IDENT.
Y-88	-1.055E-02	1.569E-02	2.287E-02	0.000E+00 NOT IDENT.
Y-91	-8.383E-01	7.123E+00	1.168E+01	0.000E+00 NOT IDENT.
NB-94	4.069E-03	1.351E-02	2.402E-02	0.000E+00 NOT IDENT.
NB-95	1.099E-02	1.606E-02	2.924E-02	0.000E+00 NOT IDENT.
NB-95M	-7.634E-02	5.165E-02	8.527E-02	0.000E+00 NOT IDENT.
ZR-95	-1.520E-03	2.684E-02	4.615E-02	0.000E+00 NOT IDENT.
MO-99	2.823E+00	5.512E+00	9.966E+00	0.000E+00 NOT IDENT.
TC-99M	0.000E+00	1.670E+17	0.000E+00	0.000E+00 SHORT HLIF
RU-103	-6.258E-03	1.699E-02	2.809E-02	0.000E+00 NOT IDENT.
RH-106	-6.571E-02	1.292E-01	2.174E-01	0.000E+00 NOT IDENT.

RU-106	-6.571E-02	1.290E-01	2.174E-01	0.000E+00	NOT IDENT.
AG-108M	2.998E-03	1.111E-02	1.951E-02	0.000E+00	NOT IDENT.
CD-109	-6.119E-01	3.315E-01	4.730E-01	0.000E+00	NOT IDENT.
AG-110M	7.019E-03	1.323E-02	2.408E-02	0.000E+00	NOT IDENT.
SN-113	-3.263E-03	1.820E-02	3.115E-02	0.000E+00	NOT IDENT.
CD-115	2.372E+00	5.714E+00	1.003E+01	0.000E+00	NOT IDENT.
SN-117M	5.880E-03	2.135E-02	3.746E-02	0.000E+00	NOT IDENT.
TE-123M	-1.452E-03	1.099E-02	1.887E-02	0.000E+00	NOT IDENT.
SB-124	9.078E-03	3.479E-02	6.086E-02	0.000E+00	NOT IDENT.
SB-125	-8.882E-03	3.562E-02	6.019E-02	0.000E+00	NOT IDENT.
TE-125M	-3.711E+00	3.724E+00	6.213E+00	0.000E+00	NOT IDENT.
I-126	9.224E-03	8.281E-02	1.459E-01	0.000E+00	NOT IDENT.
SB-126	-3.690E-02	5.452E-02	8.846E-02	0.000E+00	NOT IDENT.
SN-126	-2.509E-02	3.145E-02	4.774E-02	0.000E+00	NOT IDENT.
SB-127	-7.514E-02	6.111E-01	1.053E+00	0.000E+00	NOT IDENT.
I-131	-4.238E-03	5.426E-02	9.402E-02	0.000E+00	NOT IDENT.
TE-132	9.357E-02	3.400E-01	6.168E-01	0.000E+00	NOT IDENT.
BA-133	-7.671E-03	1.856E-02	3.154E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.796E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-2.862E-03	1.541E-02	2.603E-02	0.000E+00	NOT IDENT.
CS-135	3.162E-03	6.005E-02	1.069E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.027E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.396E-02	4.128E-02	7.553E-02	0.000E+00	NOT IDENT.
BA-137M	-5.400E-03	1.332E-02	2.247E-02	0.000E+00	NOT IDENT.
CS-137	-5.705E-03	1.408E-02	2.374E-02	0.000E+00	NOT IDENT.
CE-139	-1.062E-02	1.256E-02	2.070E-02	0.000E+00	NOT IDENT.
BA-140	-1.804E-02	1.063E-01	1.772E-01	0.000E+00	NOT IDENT.
LA-140	2.319E-02	3.543E-02	6.542E-02	0.000E+00	NOT IDENT.
CE-141	1.356E-02	2.517E-02	4.483E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.823E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	4.401E-03	7.454E-02	1.305E-01	0.000E+00	NOT IDENT.
PM-144	3.863E-03	1.409E-02	2.502E-02	0.000E+00	NOT IDENT.
PR-144	4.565E-01	1.043E+00	1.873E+00	0.000E+00	NOT IDENT.
PM-146	-4.587E-03	1.809E-02	3.046E-02	0.000E+00	NOT IDENT.
ND-147	-1.707E-01	2.313E-01	3.641E-01	0.000E+00	NOT IDENT.
PM-149	3.938E+00	4.887E+01	8.677E+01	0.000E+00	NOT IDENT.
EU-152	-1.697E-02	3.973E-02	6.757E-02	0.000E+00	NOT IDENT.
GD-153	-2.554E-02	3.595E-02	5.400E-02	0.000E+00	NOT IDENT.
EU-154	-1.679E-03	4.116E-02	7.048E-02	0.000E+00	NOT IDENT.
EU-155	-2.498E-04	3.893E-02	6.879E-02	0.000E+00	NOT IDENT.
TB-160	-1.909E-02	5.339E-02	8.772E-02	0.000E+00	NOT IDENT.
HO-166M	-5.989E-03	3.430E-02	4.418E-02	0.000E+00	NOT IDENT.
TA-182	-7.653E-03	5.378E-02	8.749E-02	0.000E+00	NOT IDENT.
IR-192	2.258E-03	1.422E-02	2.520E-02	0.000E+00	NOT IDENT.
HG-203	-7.503E-03	1.492E-02	2.565E-02	0.000E+00	NOT IDENT.
BI-207	1.456E-02	2.019E-02	3.646E-02	0.000E+00	NOT IDENT.
TL-208	9.359E-03	1.835E-02	2.988E-02	0.000E+00	NOT IDENT.
PB-210	-2.527E+00	1.557E+00	2.506E+00	0.000E+00	NOT IDENT.
BI-211	2.971E-02	9.003E-02	1.599E-01	0.000E+00	NOT IDENT.
PB-211	1.858E-01	2.944E-01	5.071E-01	0.000E+00	NOT IDENT.
BI-212	-4.767E-02	1.810E-01	3.061E-01	0.000E+00	NOT IDENT.
PB-212	-1.736E-02	3.374E-02	5.298E-02	0.000E+00	NOT IDENT.
BI-214	-1.192E-02	3.588E-02	5.476E-02	0.000E+00	NOT IDENT.
PB-214	1.149E-02	3.258E-02	5.791E-02	0.000E+00	NOT IDENT.
RN-219	-4.395E-02	1.615E-01	2.739E-01	0.000E+00	NOT IDENT.
RA-223	-2.208E-02	2.507E-01	4.374E-01	0.000E+00	NOT IDENT.
RA-224	3.042E-01	2.675E-01	4.984E-01	0.000E+00	NOT IDENT.
RA-226	-1.192E-02	3.588E-02	5.476E-02	0.000E+00	NOT IDENT.
AC-227	4.453E-02	1.014E-01	1.843E-01	0.000E+00	NOT IDENT.
TH-227	4.453E-02	1.014E-01	1.843E-01	0.000E+00	NOT IDENT.
AC-228	-3.534E-02	6.720E-02	9.268E-02	0.000E+00	NOT IDENT.
RA-228	-3.534E-02	6.720E-02	9.268E-02	0.000E+00	NOT IDENT.
TH-228	-1.736E-02	3.374E-02	5.298E-02	0.000E+00	NOT IDENT.
TH-229	2.037E-01	2.092E-01	3.750E-01	0.000E+00	NOT IDENT.
TH-230	-1.192E-02	3.587E-02	5.476E-02	0.000E+00	NOT IDENT.
PA-231	3.917E-01	5.681E-01	1.038E+00	0.000E+00	NOT IDENT.
TH-231	-2.208E-02	2.507E-01	4.374E-01	0.000E+00	NOT IDENT.
TH-232	-3.534E-02	6.720E-02	9.268E-02	0.000E+00	NOT IDENT.
PA-233	9.803E-03	2.739E-02	4.908E-02	0.000E+00	NOT IDENT.
PA-234	5.780E-02	1.127E-01	2.007E-01	0.000E+00	NOT IDENT.
PA-234M	-3.860E-01	2.038E+00	3.260E+00	0.000E+00	NOT IDENT.
TH-234	1.989E-01	5.806E-01	9.367E-01	0.000E+00	NOT IDENT.
U-235	-1.272E-02	8.979E-02	1.391E-01	0.000E+00	NOT IDENT.
NP-237	8.849E-02	9.512E-02	1.533E-01	0.000E+00	NOT IDENT.
U-238	1.989E-01	5.806E-01	9.367E-01	0.000E+00	NOT IDENT.
NP-239	-3.081E-02	1.534E-01	2.669E-01	0.000E+00	NOT IDENT.
AM-241	-9.476E-02	5.657E-02	9.396E-02	0.000E+00	NOT IDENT.
CM-247	-2.755E-03	1.483E-02	2.531E-02	0.000E+00	NOT IDENT.

CF-249	-4.165E-03	1.568E-02	2.668E-02	0.000E+00	NOT IDENT.
CF-251	-5.726E-02	5.240E-02	8.445E-02	0.000E+00	NOT IDENT.
ANH-511	-1.433E-02	2.764E-02	4.683E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:01:38.10

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 24-MAR-2010 22:59:45
Sample ID         : G1202065188          Sample quantity  : 1.43700E+02 GRAM
Detector name     : GAM29                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:01:22.05  0.6%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 962633                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

None

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:01:42.35

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065188.CNF;1 *
* Acquisition date : 24-MAR-2010 22:59:45  Detector SN#    :                *
* Detector ID      : GAM29                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 04:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 04:01:22.05         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 9-MAR-2010 00:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G1202065188           Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.43700E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.447E-02		1.381E-01	2.297E-01	2.236E-02	0.194
NA-22	-2.092E-06		1.491E-02	2.494E-02	2.490E-03	0.000
NA-24	-2.708E-01		3.960E-01	Half-Life too short		
K-40	-4.044E-02		2.100E-01	3.411E-01	3.710E-02	-0.119
SC-46	-9.628E-03		1.646E-02	2.541E-02	3.318E-03	-0.379
V-48	-4.179E-03		2.624E-02	4.210E-02	5.107E-03	-0.099
CR-51	-6.487E-02		1.533E-01	2.469E-01	2.374E-02	-0.263
MN-54	1.374E-02		1.323E-02	2.392E-02	2.819E-03	0.575
CO-56	-9.102E-03		1.753E-02	2.752E-02	3.318E-03	-0.331
CO-57	-6.051E-03		1.005E-02	1.576E-02	1.424E-03	-0.384
CO-58	-1.067E-02		1.443E-02	2.188E-02	2.464E-03	-0.487
FE-59	1.909E-02		3.252E-02	5.651E-02	6.000E-03	0.338
CO-60	1.748E-02		1.523E-02	2.865E-02	3.143E-03	0.610
ZN-65	-1.286E-03		3.514E-02	5.682E-02	5.495E-03	-0.023
SE-75	1.106E-02		1.802E-02	3.101E-02	2.812E-03	0.357
SR-85	-4.163E-02		2.674E-02	3.976E-02	3.597E-03	-1.047
Y-88	-1.055E-02		1.601E-02	2.288E-02	1.956E-03	-0.461

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	-8.383E-01		7.269E+00	1.157E+01	1.020E+00	-0.072
NB-94	4.069E-03		1.379E-02	2.351E-02	2.112E-03	0.173
NB-95	1.099E-02		1.639E-02	2.868E-02	2.945E-03	0.383
NB-95M	-7.634E-02		5.271E-02	8.150E-02	8.207E-03	-0.937
ZR-95	-1.520E-03		2.738E-02	4.524E-02	4.914E-03	-0.034
MO-99	2.823E+00		5.625E+00	9.765E+00	1.600E+00	0.289
TC-99M	-3.517E+10		8.522E+10	Half-Life too short		
RU-103	-6.258E-03		1.733E-02	2.728E-02	3.889E-03	-0.229
RH-106	-6.571E-02		1.318E-01	2.122E-01	2.799E-02	-0.310
RU-106	-6.571E-02		1.316E-01	2.122E-01	1.809E-02	-0.310
AG-108M	2.998E-03		1.134E-02	1.889E-02	1.768E-03	0.159
CD-109	-6.119E-01		3.382E-01	4.429E-01	4.182E-02	-1.382
AG-110M	7.019E-03		1.350E-02	2.353E-02	2.001E-03	0.298
SN-113	-3.263E-03		1.857E-02	3.010E-02	2.784E-03	-0.108
CD-115	2.372E+00		5.830E+00	9.759E+00	8.791E-01	0.243
SN-117M	5.880E-03		2.178E-02	3.551E-02	2.935E-03	0.166
TE-123M	-1.452E-03		1.121E-02	1.789E-02	1.487E-03	-0.081
SB-124	9.078E-03		3.550E-02	6.077E-02	6.017E-03	0.149
SB-125	-8.882E-03		3.634E-02	5.827E-02	5.382E-03	-0.152
TE-125M	-3.711E+00		3.800E+00	5.844E+00	6.237E-01	-0.635
I-126	9.224E-03		8.450E-02	1.426E-01	1.182E-02	0.065
SB-126	-3.690E-02		5.563E-02	8.663E-02	8.092E-03	-0.426
SN-126	-2.509E-02		3.209E-02	4.471E-02	4.202E-03	-0.561
SB-127	-7.514E-02		6.235E-01	1.031E+00	1.201E-01	-0.073
I-131	-4.238E-03		5.537E-02	9.071E-02	8.679E-03	-0.047
TE-132	9.357E-02		3.469E-01	5.891E-01	9.471E-02	0.159
BA-133	-7.671E-03		1.894E-02	3.041E-02	4.048E-03	-0.252
I-133	-3.748E-03		2.447E-03	Half-Life too short		
CS-134	-2.862E-03		1.573E-02	2.555E-02	2.802E-03	-0.112
CS-135	3.162E-03		6.127E-02	1.024E-01	1.059E-02	0.031
I-135	1.180E+09		1.034E+10	Half-Life too short		
CS-136	3.396E-02		4.212E-02	7.459E-02	8.443E-03	0.455
BA-137M	-5.400E-03		1.360E-02	2.196E-02	1.800E-03	-0.246
CS-137	-5.705E-03		1.436E-02	2.320E-02	1.906E-03	-0.246
CE-139	-1.062E-02		1.281E-02	1.964E-02	1.601E-03	-0.541
BA-140	-1.804E-02		1.085E-01	1.724E-01	5.863E-02	-0.105
LA-140	2.319E-02		3.615E-02	6.523E-02	6.600E-03	0.356
CE-141	1.356E-02		2.568E-02	4.242E-02	3.667E-03	0.320
CE-143	9.310E-05		3.991E-05	Half-Life too short		
CE-144	4.401E-03		7.606E-02	1.233E-01	1.892E-02	0.036
PM-144	3.863E-03		1.438E-02	2.448E-02	2.170E-03	0.158
PR-144	4.565E-01		1.064E+00	1.833E+00	1.624E-01	0.249
PM-146	-4.587E-03		1.846E-02	2.953E-02	3.246E-03	-0.155
ND-147	-1.707E-01		2.360E-01	3.542E-01	5.373E-02	-0.482
PM-149	3.938E+00		4.987E+01	8.328E+01	1.318E+01	0.047
EU-152	-1.697E-02		4.054E-02	6.511E-02	6.286E-03	-0.261
GD-153	-2.554E-02		3.668E-02	5.067E-02	4.551E-03	-0.504
EU-154	-1.679E-03		4.200E-02	6.992E-02	8.694E-03	-0.024

Sample ID : G1202065188 Acquisition date : 24-MAR-2010 22:59:45

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	-2.498E-04		3.972E-02	6.465E-02	5.789E-03	-0.004
TB-160	-1.909E-02		5.448E-02	8.629E-02	1.106E-02	-0.221
HO-166M	-5.989E-03		3.500E-02	4.325E-02	3.962E-03	-0.138
TA-182	-7.653E-03		5.488E-02	8.670E-02	7.881E-03	-0.088
IR-192	2.258E-03		1.451E-02	2.424E-02	2.232E-03	0.093
HG-203	-7.503E-03		1.523E-02	2.461E-02	2.290E-03	-0.305
BI-207	1.456E-02		2.060E-02	3.602E-02	3.867E-03	0.404
TL-208	9.359E-03		1.873E-02	2.912E-02	2.729E-03	0.321
PB-210	-2.527E+00		1.589E+00	2.317E+00	2.210E-01	-1.091
BI-211	2.971E-02		9.187E-02	1.541E-01	1.476E-02	0.193
PB-211	1.858E-01		3.004E-01	4.904E-01	2.377E-01	0.379
BI-212	-4.767E-02		1.847E-01	2.998E-01	3.917E-02	-0.159
PB-212	-1.736E-02		3.442E-02	5.065E-02	5.051E-03	-0.343
BI-214	-1.192E-02		3.661E-02	5.343E-02	5.396E-03	-0.223
PB-214	1.149E-02		3.324E-02	5.582E-02	6.168E-03	0.206
RN-219	-4.395E-02		1.648E-01	2.648E-01	4.002E-02	-0.166
RA-223	-2.208E-02		2.558E-01	4.209E-01	7.418E-02	-0.052
RA-224	3.042E-01		2.730E-01	4.766E-01	4.229E-02	0.638
RA-226	-1.192E-02		3.661E-02	5.343E-02	5.396E-03	-0.223
AC-227	4.453E-02		1.035E-01	1.764E-01	2.172E-02	0.252
TH-227	4.453E-02		1.035E-01	1.764E-01	2.441E-02	0.252
AC-228	-3.534E-02		6.857E-02	9.124E-02	1.390E-02	-0.387
RA-228	-3.534E-02		6.857E-02	9.124E-02	1.390E-02	-0.387
TH-228	-1.736E-02		3.442E-02	5.065E-02	5.051E-03	-0.343
TH-229	2.037E-01		2.135E-01	3.569E-01	3.010E-02	0.571
TH-230	-1.192E-02		3.660E-02	5.342E-02	4.601E-03	-0.223
PA-231	3.917E-01		5.797E-01	9.958E-01	1.482E-01	0.393
TH-231	-2.208E-02		2.558E-01	4.209E-01	7.418E-02	-0.052
TH-232	-3.534E-02		6.857E-02	9.124E-02	1.390E-02	-0.387
PA-233	9.803E-03		2.795E-02	4.720E-02	4.444E-03	0.208
PA-234	5.780E-02		1.150E-01	1.978E-01	4.140E-02	0.292
PA-234M	-3.860E-01		2.080E+00	3.216E+00	4.137E-01	-0.120
TH-234	1.989E-01		5.925E-01	8.713E-01	1.574E-01	0.228
U-235	-1.272E-02		9.163E-02	1.316E-01	2.224E-02	-0.097
NP-237	8.849E-02		9.707E-02	1.435E-01	3.291E-02	0.617
U-238	1.989E-01		5.925E-01	8.713E-01	1.574E-01	0.228
NP-239	-3.081E-02		1.565E-01	2.514E-01	2.245E-02	-0.123
AM-241	-9.476E-02		5.773E-02	8.730E-02	7.534E-03	-1.085
CM-247	-2.755E-03		1.513E-02	2.448E-02	2.209E-03	-0.113
CF-249	-4.165E-03		1.600E-02	2.578E-02	2.324E-03	-0.162
CF-251	-5.726E-02		5.347E-02	8.024E-02	6.631E-03	-0.714
ANH-511	-1.433E-02		2.821E-02	4.552E-02	4.121E-03	-0.315

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065188           *
* Acquisition date : 24-MAR-2010 22:59:45 Detector SN#    :                 *
* Detector ID      : GAM29                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:01:22.05     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065188          Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.4370E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 23-FEB-2010 10:06:45 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act Error	DLC (pCi/GRAM)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	4.447E-02	1.353E-01	1.184E-01	6.905E-02 NOT IDENT.
NA-22	-2.092E-06	1.461E-02	1.258E-02	7.453E-03 NOT IDENT.
NA-24	-2.708E+05	7.762E+05	0.000E+00	3.960E+05 SHORT HLIF
K-40	-4.044E-02	2.058E-01	1.715E-01	1.050E-01 NOT IDENT.
SC-46	-9.628E-03	1.613E-02	1.292E-02	8.229E-03 NOT IDENT.
V-48	-4.179E-03	2.572E-02	2.136E-02	1.312E-02 NOT IDENT.
CR-51	-6.487E-02	1.502E-01	1.284E-01	7.665E-02 NOT IDENT.
MN-54	1.374E-02	1.296E-02	1.218E-02	6.614E-03 NOT IDENT.
CO-56	-9.102E-03	1.717E-02	1.401E-02	8.763E-03 NOT IDENT.
CO-57	-6.051E-03	9.848E-03	8.366E-03	5.024E-03 NOT IDENT.
CO-58	-1.067E-02	1.414E-02	1.115E-02	7.214E-03 NOT IDENT.
FE-59	1.909E-02	3.187E-02	2.859E-02	1.626E-02 NOT IDENT.
CO-60	1.748E-02	1.492E-02	1.444E-02	7.614E-03 NOT IDENT.
ZN-65	-1.286E-03	3.443E-02	2.874E-02	1.757E-02 NOT IDENT.
SE-75	1.106E-02	1.766E-02	1.619E-02	9.012E-03 NOT IDENT.
SR-85	-4.163E-02	2.620E-02	2.046E-02	1.337E-02 NOT IDENT.
Y-88	-1.055E-02	1.569E-02	1.144E-02	8.007E-03 NOT IDENT.
Y-91	-8.383E-01	7.123E+00	5.842E+00	3.634E+00 NOT IDENT.
NB-94	4.069E-03	1.351E-02	1.202E-02	6.894E-03 NOT IDENT.
NB-95	1.099E-02	1.606E-02	1.463E-02	8.193E-03 NOT IDENT.
NB-95M	-7.634E-02	5.165E-02	4.266E-02	2.635E-02 NOT IDENT.
ZR-95	-1.520E-03	2.684E-02	2.309E-02	1.369E-02 NOT IDENT.
MO-99	2.823E+00	5.512E+00	4.986E+00	2.812E+00 NOT IDENT.
TC-99M	-3.517E+16	1.670E+17	0.000E+00	0.000E+00 SHORT HLIF
RU-103	-6.258E-03	1.699E-02	1.405E-02	8.667E-03 NOT IDENT.
RH-106	-6.571E-02	1.292E-01	1.087E-01	6.589E-02 NOT IDENT.

RU-106	-6.571E-02	1.290E-01	1.087E-01	6.581E-02	NOT IDENT.
AG-108M	2.998E-03	1.111E-02	9.761E-03	5.671E-03	NOT IDENT.
CD-109	-6.119E-01	3.315E-01	2.366E-01	1.691E-01	NOT IDENT.
AG-110M	7.019E-03	1.323E-02	1.205E-02	6.752E-03	NOT IDENT.
SN-113	-3.263E-03	1.820E-02	1.559E-02	9.286E-03	NOT IDENT.
CD-115	2.372E+00	5.714E+00	5.020E+00	2.915E+00	NOT IDENT.
SN-117M	5.880E-03	2.135E-02	1.874E-02	1.089E-02	NOT IDENT.
TE-123M	-1.452E-03	1.099E-02	9.442E-03	5.606E-03	NOT IDENT.
SB-124	9.078E-03	3.479E-02	3.045E-02	1.775E-02	NOT IDENT.
SB-125	-8.882E-03	3.562E-02	3.011E-02	1.817E-02	NOT IDENT.
TE-125M	-3.711E+00	3.724E+00	3.108E+00	1.900E+00	NOT IDENT.
I-126	9.224E-03	8.281E-02	7.299E-02	4.225E-02	NOT IDENT.
SB-126	-3.690E-02	5.452E-02	4.425E-02	2.782E-02	NOT IDENT.
SN-126	-2.509E-02	3.145E-02	2.389E-02	1.605E-02	NOT IDENT.
SB-127	-7.514E-02	6.111E-01	5.270E-01	3.118E-01	NOT IDENT.
I-131	-4.238E-03	5.426E-02	4.704E-02	2.769E-02	NOT IDENT.
TE-132	9.357E-02	3.400E-01	3.086E-01	1.735E-01	NOT IDENT.
BA-133	-7.671E-03	1.856E-02	1.578E-02	9.468E-03	NOT IDENT.
I-133	-3.748E+03	4.796E+03	0.000E+00	2.447E+03	SHORT HLIF
CS-134	-2.862E-03	1.541E-02	1.302E-02	7.864E-03	NOT IDENT.
CS-135	3.162E-03	6.005E-02	5.347E-02	3.064E-02	NOT IDENT.
I-135	1.180E+15	2.027E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.396E-02	4.128E-02	3.779E-02	2.106E-02	NOT IDENT.
BA-137M	-5.400E-03	1.332E-02	1.124E-02	6.798E-03	NOT IDENT.
CS-137	-5.705E-03	1.408E-02	1.188E-02	7.182E-03	NOT IDENT.
CE-139	-1.062E-02	1.256E-02	1.036E-02	6.406E-03	NOT IDENT.
BA-140	-1.804E-02	1.063E-01	8.865E-02	5.426E-02	NOT IDENT.
LA-140	2.319E-02	3.543E-02	3.273E-02	1.808E-02	NOT IDENT.
CE-141	1.356E-02	2.517E-02	2.243E-02	1.284E-02	NOT IDENT.
CE-143	9.310E+01	7.823E+01	0.000E+00	3.991E+01	SHORT HLIF
CE-144	4.401E-03	7.454E-02	6.531E-02	3.803E-02	NOT IDENT.
PM-144	3.863E-03	1.409E-02	1.252E-02	7.191E-03	NOT IDENT.
PR-144	4.565E-01	1.043E+00	9.371E-01	5.321E-01	NOT IDENT.
PM-146	-4.587E-03	1.809E-02	1.524E-02	9.229E-03	NOT IDENT.
ND-147	-1.707E-01	2.313E-01	1.821E-01	1.180E-01	NOT IDENT.
PM-149	3.938E+00	4.887E+01	4.341E+01	2.493E+01	NOT IDENT.
EU-152	-1.697E-02	3.973E-02	3.380E-02	2.027E-02	NOT IDENT.
GD-153	-2.554E-02	3.595E-02	2.701E-02	1.834E-02	NOT IDENT.
EU-154	-1.679E-03	4.116E-02	3.526E-02	2.100E-02	NOT IDENT.
EU-155	-2.498E-04	3.893E-02	3.441E-02	1.986E-02	NOT IDENT.
TB-160	-1.909E-02	5.339E-02	4.389E-02	2.724E-02	NOT IDENT.
HO-166M	-5.989E-03	3.430E-02	2.210E-02	1.750E-02	NOT IDENT.
TA-182	-7.653E-03	5.378E-02	4.377E-02	2.744E-02	NOT IDENT.
IR-192	2.258E-03	1.422E-02	1.261E-02	7.253E-03	NOT IDENT.
HG-203	-7.503E-03	1.492E-02	1.283E-02	7.615E-03	NOT IDENT.
BI-207	1.456E-02	2.019E-02	1.824E-02	1.030E-02	NOT IDENT.
TL-208	9.359E-03	1.835E-02	1.495E-02	9.365E-03	NOT IDENT.
PB-210	-2.527E+00	1.557E+00	1.254E+00	7.943E-01	NOT IDENT.
BI-211	2.971E-02	9.003E-02	7.999E-02	4.593E-02	NOT IDENT.
PB-211	1.858E-01	2.944E-01	2.537E-01	1.502E-01	NOT IDENT.
BI-212	-4.767E-02	1.810E-01	1.531E-01	9.233E-02	NOT IDENT.
PB-212	-1.736E-02	3.374E-02	2.651E-02	1.721E-02	NOT IDENT.
BI-214	-1.192E-02	3.588E-02	2.739E-02	1.830E-02	NOT IDENT.
PB-214	1.149E-02	3.258E-02	2.897E-02	1.662E-02	NOT IDENT.
RN-219	-4.395E-02	1.615E-01	1.370E-01	8.241E-02	NOT IDENT.
RA-223	-2.208E-02	2.507E-01	2.188E-01	1.279E-01	NOT IDENT.
RA-224	3.042E-01	2.675E-01	2.493E-01	1.365E-01	NOT IDENT.
RA-226	-1.192E-02	3.588E-02	2.739E-02	1.830E-02	NOT IDENT.
AC-227	4.453E-02	1.014E-01	9.218E-02	5.174E-02	NOT IDENT.
TH-227	4.453E-02	1.014E-01	9.218E-02	5.176E-02	NOT IDENT.
AC-228	-3.534E-02	6.720E-02	4.637E-02	3.428E-02	NOT IDENT.
RA-228	-3.534E-02	6.720E-02	4.637E-02	3.428E-02	NOT IDENT.
TH-228	-1.736E-02	3.374E-02	2.651E-02	1.721E-02	NOT IDENT.
TH-229	2.037E-01	2.092E-01	1.876E-01	1.067E-01	NOT IDENT.
TH-230	-1.192E-02	3.587E-02	2.739E-02	1.830E-02	NOT IDENT.
PA-231	3.917E-01	5.681E-01	5.192E-01	2.898E-01	NOT IDENT.
TH-231	-2.208E-02	2.507E-01	2.188E-01	1.279E-01	NOT IDENT.
TH-232	-3.534E-02	6.720E-02	4.637E-02	3.428E-02	NOT IDENT.
PA-233	9.803E-03	2.739E-02	2.456E-02	1.398E-02	NOT IDENT.
PA-234	5.780E-02	1.127E-01	1.004E-01	5.751E-02	NOT IDENT.
PA-234M	-3.860E-01	2.038E+00	1.631E+00	1.040E+00	NOT IDENT.
TH-234	1.989E-01	5.806E-01	4.686E-01	2.962E-01	NOT IDENT.
U-235	-1.272E-02	8.979E-02	6.959E-02	4.581E-02	NOT IDENT.
NP-237	8.849E-02	9.512E-02	7.668E-02	4.853E-02	NOT IDENT.
U-238	1.989E-01	5.806E-01	4.686E-01	2.962E-01	NOT IDENT.
NP-239	-3.081E-02	1.534E-01	1.335E-01	7.824E-02	NOT IDENT.
AM-241	-9.476E-02	5.657E-02	4.701E-02	2.886E-02	NOT IDENT.
CM-247	-2.755E-03	1.483E-02	1.266E-02	7.566E-03	NOT IDENT.

CF-249	-4.165E-03	1.568E-02	1.335E-02	8.001E-03	NOT IDENT.
CF-251	-5.726E-02	5.240E-02	4.225E-02	2.674E-02	NOT IDENT.
ANH-511	-1.433E-02	2.764E-02	2.343E-02	1.410E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	202.4697
49.72	267.2739
57.36	0.0000
59.54	291.1522
63.29	220.8324
63.29	220.8324
64.28	221.1543
67.75	264.9304
69.67	243.7598
70.83	277.0381
72.81	265.8001
72.87	265.8214
72.87	265.8214
74.82	235.4608
74.82	235.4608
74.82	235.4608
74.97	235.5083
77.11	275.3724
77.11	275.3724
77.11	275.3724
79.69	250.0804
79.80	250.1154
80.12	250.2185
80.19	265.3767
80.57	265.5052
81.00	268.6819
81.07	268.7052
81.07	268.7052
83.79	279.7661
83.79	279.7661
85.43	203.1425
86.48	214.5923
86.55	214.6108
86.79	254.3526
86.94	254.4003
87.57	271.9083
88.03	315.8749
88.47	408.8167
89.96	476.9584
91.11	269.9992
92.59	183.3879
92.59	183.3879
93.35	216.3655
94.67	265.9951
94.87	360.5628
94.87	360.5628
95.86	451.4762
97.43	236.9629
98.44	222.7945
99.53	218.9380
100.11	206.6803
103.18	200.1275
103.37	196.0209
105.31	215.1452
106.12	221.5763
109.28	243.2037
111.00	188.2253
111.76	187.3288
116.30	241.8359
117.23	219.9641
121.12	233.5066
121.78	218.8581
122.06	228.4371
123.07	211.7271
131.20	236.8743
133.52	202.1045
136.00	211.1477

136.47	216.6007
140.51	223.8628
140.51	0.0000
143.76	213.7256
144.24	221.3769
144.24	221.3769
145.44	216.2079
152.43	168.5911
153.25	174.1528
154.21	194.9933
154.21	194.9933
156.02	202.9323
158.56	183.6885
159.00	203.4446
162.66	199.6790
163.33	206.3766
165.86	250.8066
176.60	223.0197
177.52	228.7324
181.07	298.3982
184.41	233.3040
185.72	207.8380
193.51	176.4633
197.04	205.5465
205.31	201.3379
210.85	187.5601
215.65	195.4970
222.11	190.8588
227.38	168.5155
228.16	174.1317
228.18	174.1340
235.69	259.2563
235.96	259.3025
235.96	259.3025
238.63	179.9710
238.63	179.9710
240.99	207.1896
242.00	304.9435
244.70	189.9874
252.40	163.7720
252.80	161.9404
256.23	157.5948
256.23	157.5948
260.90	174.0405
264.66	142.3791
268.22	154.0242
269.46	168.3243
269.46	168.3243
271.23	159.0340
273.65	155.4717
276.40	140.5314
277.37	140.6108
277.60	144.4315
278.00	153.0188
279.20	154.0780
279.54	148.3999
280.46	151.3353
283.69	131.5936
284.31	131.6407
285.41	139.3594
285.90	149.9013
287.50	156.7289
293.27	0.0000
295.22	154.5380
295.96	181.4903
298.57	162.5222
299.98	162.6501
299.98	162.6501
300.09	160.7334
300.09	160.7334
300.13	160.7375
301.36	140.6212
302.85	154.2324
304.50	165.9510
304.50	165.9510
304.85	164.0525
308.46	156.6429
311.90	144.3438

316.51	133.0482
319.41	125.4742
320.08	136.2214
323.87	129.6718
323.87	129.6718
328.76	135.8694
333.37	129.3381
334.37	134.3075
334.37	134.3075
338.28	115.9143
338.28	115.9143
338.32	115.9157
338.32	115.9157
338.32	115.9157
340.48	126.8615
340.55	125.8828
344.28	136.9605
351.06	148.3063
351.93	146.3921
356.01	153.6282
364.49	133.3686
366.42	129.5096
383.85	119.5447
388.16	108.7146
388.63	99.6768
391.69	113.9352
400.66	112.3821
401.81	109.4027
402.40	108.4185
404.85	94.3385
410.95	100.7016
414.70	97.8141
423.72	80.8159
427.09	100.4010
427.87	96.3362
433.94	80.1500
453.88	108.8157
463.37	89.4791
468.07	84.4409
473.00	97.1460
476.78	108.8039
477.60	88.9564
487.02	75.6378
492.35	91.5900
497.08	94.9252
511.00	100.7462
514.00	314.2669
527.90	64.0415
529.87	0.0000
531.02	80.1471
537.26	70.6938
546.56	0.0000
563.25	87.5931
569.33	94.2875
569.50	83.4555
569.70	83.4612
583.19	64.2590
600.60	104.0988
602.73	96.4992
604.72	123.9965
609.32	89.0229
609.32	89.0229
609.32	89.0229
610.33	92.3528
614.28	99.0813
618.01	81.7553
621.93	83.7018
621.93	83.7018
633.25	69.2474
635.95	81.3237
636.99	72.1062
645.85	63.0458
657.76	58.6382
661.66	68.9625
661.66	68.9625
664.57	0.0000
666.33	57.8664
666.50	55.0700

677.62	58.0758
685.70	67.6143
695.00	78.1722
696.49	72.5541
696.51	68.7850
697.00	73.5090
702.65	69.8613
706.68	67.1114
711.68	64.3753
720.70	61.7045
721.93	0.0000
722.78	52.2440
722.91	49.3964
723.31	45.6025
724.19	47.5149
727.33	58.0227
733.00	46.6882
735.93	61.0339
739.50	44.8695
747.24	61.2396
752.31	53.6644
753.82	58.4819
756.73	53.7339
763.94	58.6557
765.81	54.8395
766.42	49.0753
777.92	59.8582
778.90	58.9088
783.70	54.1554
785.37	55.1480
795.86	45.6087
801.95	50.5474
810.29	57.4863
810.76	51.6467
815.77	47.8157
818.51	49.8047
832.01	51.9508
834.85	35.3145
836.80	0.0000
846.77	68.8892
856.80	69.0757
860.56	44.4507
871.09	42.5941
873.19	53.5199
875.33	0.0000
879.36	48.6431
880.51	54.6151
883.24	44.7171
884.68	45.7286
889.28	57.7262
898.04	48.8804
911.20	39.0365
911.20	39.0365
911.20	39.0365
926.50	36.1743
937.49	35.2670
944.13	42.3905
946.00	37.3613
949.00	50.5259
962.29	55.7609
964.08	53.7570
966.15	39.5776
968.97	35.5426
968.97	35.5426
968.97	35.5426
983.53	36.6877
996.26	47.0229
1001.03	38.8891
1004.73	53.2642
1037.84	25.8077
1038.76	0.0000
1048.07	31.0425
1050.41	32.0949
1050.41	32.0949
1063.66	35.3074
1085.87	29.2236
1099.45	29.3125
1112.07	39.8926

1115.54	47.2778
1120.29	49.4307
1120.29	49.4307
1120.29	49.4307
1120.55	48.3827
1121.30	47.3383
1131.51	0.0000
1173.23	26.5951
1177.93	28.7512
1189.05	26.6846
1204.77	35.3391
1221.41	25.7900
1231.02	27.9942
1235.36	35.5620
1238.28	34.5052
1260.41	0.0000
1271.85	28.8463
1274.44	29.7924
1274.54	29.7924
1291.59	36.4333
1298.22	0.0000
1312.11	22.5109
1332.49	19.7747
1365.19	30.3214
1368.63	0.0000
1384.29	22.8231
1408.01	15.2829
1457.56	0.0000
1460.82	26.0395
1489.16	17.4475
1505.03	33.0490
1596.21	15.7980
1620.50	22.8019
1678.03	0.0000
1690.97	16.0458
1764.49	17.2478
1764.49	17.2478
1764.49	17.2478
1770.23	35.5420
1771.35	26.4072
1791.20	0.0000
1836.06	20.5155

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065188

Total Uranium Activity	5.8577E-01	ug/g
Total Uranium Counting Unc.	1.7279E+00	ug/g
Total Uranium Tpu	8.8156E-07	ug/g
Total Uranium Mda	1.3945E+00	ug/g

THERE ARE NO PEAKS !

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:02:26.60

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 23:00:25
Sample ID         : G1202065189          Sample quantity  : 1.22070E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:50.22  0.3%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.64*	552	737	0.66	93.27	90	7	3.83E-02	9.3	
2	0	63.32	350	1140	0.80	126.61	123	8	2.43E-02	17.5	
3	3	74.87*	1388	627	0.69	149.69	148	17	9.64E-02	3.7	1.49E+00
4	3	77.13*	2112	560	0.69	154.20	148	17	1.47E-01	2.7	
5	8	84.29	346	922	1.31	168.52	165	27	2.40E-02	15.5	6.37E+00
6	8	87.30*	885	753	1.21	174.54	165	27	6.15E-02	6.1	
7	8	89.90	456	500	0.83	179.74	165	27	3.17E-02	8.9	
8	8	93.09*	857	827	1.54	186.11	165	27	5.95E-02	7.3	
9	0	99.35	86	678	0.85	198.64	195	8	5.99E-03	53.6	
10	0	128.90	140	664	0.94	257.71	255	8	9.71E-03	33.0	
11	0	154.10	121	551	1.09	308.09	305	8	8.43E-03	34.7	
12	0	185.86*	455	654	1.06	371.58	367	10	3.16E-02	11.8	
13	1	209.03	241	275	0.97	417.90	413	14	1.67E-02	12.6	2.59E+00
14	1	211.67	70	286	1.02	423.18	413	14	4.86E-03	39.5	
15	7	238.55*	2375	210	0.89	476.91	474	15	1.65E-01	2.3	3.85E+00
16	7	241.50	535	388	1.73	482.82	474	15	3.72E-02	9.2	
17	0	270.08*	146	277	1.53	539.96	536	8	1.02E-02	21.9	
18	0	277.26	113	266	1.01	554.31	551	8	7.88E-03	26.7	
19	0	295.07*	706	238	0.89	589.92	585	10	4.90E-02	5.7	
20	0	299.88	132	239	0.99	599.55	596	8	9.20E-03	21.9	
21	0	327.96	114	221	0.99	655.68	652	8	7.89E-03	24.6	
22	0	338.11	405	287	1.02	675.98	671	11	2.82E-02	9.5	
23	0	351.87*	991	240	1.13	703.48	699	9	6.89E-02	4.3	
24	0	410.14	71	228	1.66	820.01	815	10	4.93E-03	41.6	
25	0	462.58	119	182	1.17	924.87	920	11	8.23E-03	23.9	
26	0	510.82*	197	248	1.52	1021.35	1014	16	1.37E-02	21.7	
27	0	583.13*	574	131	1.22	1165.96	1159	13	3.98E-02	6.0	
28	0	609.11*	744	153	1.30	1217.92	1211	13	5.17E-02	5.2	
29	0	661.74*	98	159	1.36	1323.18	1317	12	6.77E-03	28.2	
30	0	727.18	145	103	1.39	1454.07	1448	11	1.00E-02	16.0	
31	0	768.11	59	71	1.28	1535.94	1532	8	4.08E-03	28.1	
32	0	795.09	70	70	0.93	1589.90	1585	11	4.86E-03	26.2	
33	0	860.35	60	58	1.81	1720.46	1716	8	4.18E-03	25.4	
34	0	911.10	377	92	1.49	1821.98	1817	13	2.62E-02	7.3	
35	4	964.65	86	50	2.37	1929.11	1924	20	6.00E-03	19.9	1.05E+00
36	4	968.79	214	68	1.90	1937.39	1924	20	1.48E-02	10.0	
37	0	1120.31*	127	103	1.40	2240.56	2235	14	8.79E-03	19.6	
38	0	1460.56*	1652	29	1.97	2921.49	2914	17	1.15E-01	2.6	

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1508.85	27	4	2.21	3018.15	3014	8	1.88E-03	23.1	
40	2	1587.81	37	16	2.40	3176.22	3168	23	2.56E-03	24.9	1.26E+00
41	2	1592.31	40	5	2.40	3185.22	3168	23	2.81E-03	23.1	
42	0	1729.10*	25	14	1.12	3459.06	3452	14	1.72E-03	38.7	
43	0	1764.43*	85	7	1.71	3529.81	3522	16	5.89E-03	14.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 25-MAR-2010 03:02:30

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 23:00:25
Sample ID : G1202065189 Sample quantity : 122.07 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA21 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:00:50.22 0.3%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.308E+01	3.301E+00	4.821E-01	4.116E-02	68.620
CD-109	+	88.03	*	4.658E+00	7.132E-01	5.051E-01	4.753E-02	9.222
SN-126	+	64.28		6.852E-01	2.606E-01	2.152E-01	3.189E-02	3.184
	+	86.94		1.880E+00	8.133E-01	2.031E-01	8.429E-02	9.260
	+	87.57	*	4.523E-01	6.926E-02	4.896E-02	4.590E-03	9.238
BA-137M	+	661.66	*	1.069E-01	6.140E-02	5.681E-02	6.275E-03	1.882
CS-137	+	661.66	*	1.129E-01	6.487E-02	6.002E-02	6.636E-03	1.882
TL-208	+	277.37		6.952E-01	3.811E-01	4.263E-01	5.430E-02	1.631
	+	583.19	*	5.839E-01	9.423E-02	4.576E-02	4.981E-03	12.760
	+	860.56		6.159E-01	3.192E-01	4.200E-01	4.167E-02	1.467
PB-210	+	46.54	*	2.719E+00	5.690E-01	4.482E-01	4.239E-02	6.066
BI-211		72.87		1.059E+00	1.193E+00	1.860E+00	1.557E-01	0.569
	+	351.06	*	3.938E+00	4.930E-01	2.429E-01	2.192E-02	16.215
PB-212	+	74.82		2.509E+00	3.732E-01	2.141E-01	2.764E-02	11.718
	+	77.11		2.298E+00	2.342E-01	1.294E-01	1.116E-02	17.752
	+	238.63	*	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
	+	300.09		1.753E+00	7.914E-01	9.200E-01	9.922E-02	1.905
BI-214	+	609.32	*	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
	+	1120.29		1.404E+00	5.705E-01	4.649E-01	5.015E-02	3.020
	+	1764.49		1.426E+00	4.285E-01	2.975E-01	2.474E-02	4.791
PB-214	+	74.82		4.448E+00	6.122E-01	3.796E-01	4.408E-02	11.718
	+	77.11		4.050E+00	5.311E-01	2.282E-01	2.723E-02	17.752
	+	242.00		2.618E+00	5.558E-01	3.735E-01	3.963E-02	7.011
	+	295.22		1.648E+00	2.605E-01	1.463E-01	1.616E-02	11.266
	+	351.93	*	1.429E+00	1.955E-01	8.840E-02	9.345E-03	16.167
RA-224	+	240.99	*	4.630E+00	9.454E-01	6.574E-01	5.842E-02	7.043
RA-226	+	609.32	*	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
	+	1120.29		1.404E+00	5.705E-01	4.649E-01	5.015E-02	3.020
	+	1764.49		1.426E+00	4.285E-01	2.975E-01	2.474E-02	4.791
AC-228	+	338.32		1.772E+00	8.122E-01	2.552E-01	1.065E-01	6.946
	+	911.20	*	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
	+	968.97		1.944E+00	6.143E-01	3.729E-01	9.102E-02	5.212
RA-228	+	338.32		1.772E+00	8.122E-01	2.552E-01	1.065E-01	6.946
	+	911.20	*	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		1.944E+00	6.143E-01	3.729E-01	9.102E-02	5.212
TH-228	+	74.82		2.509E+00	2.838E-01	2.141E-01	1.834E-02	11.718
	+	77.11		2.298E+00	2.342E-01	1.294E-01	1.116E-02	17.752
	+	238.63	*	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
	+	300.09		1.753E+00	1.320E+00	9.200E-01	5.636E-01	1.905
TH-229	+	85.43		4.425E-01	1.431E-01	1.223E-01	1.126E-02	3.619
	+	88.47		6.973E-01	1.068E-01	7.575E-02	7.142E-03	9.206
		193.51	*	-2.275E-01	3.339E-01	5.488E-01	4.659E-02	-0.415
	+	210.85		7.865E-01	6.258E-01	8.998E-01	7.805E-02	0.874
TH-230	+	609.32	*	1.479E+00	2.193E-01	1.002E-01	1.064E-02	14.766
	+	1120.29		1.404E+00	5.627E-01	4.649E-01	3.929E-02	3.020
	+	1764.49		1.426E+00	4.284E-01	2.975E-01	2.474E-02	4.791
TH-232	+	338.32		1.772E+00	3.693E-01	2.552E-01	2.225E-02	6.946
	+	911.20	*	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
	+	968.97		1.944E+00	6.143E-01	3.729E-01	9.102E-02	5.212
TH-234	+	63.29	*	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
	+	92.59		3.887E+00	1.042E+00	4.371E-01	9.832E-02	8.894
U-235	+	89.96		2.498E+00	7.645E-01	5.270E-01	1.314E-01	4.741
	+	93.35		2.936E+00	8.120E-01	3.312E-01	7.786E-02	8.865
		143.76	*	1.100E-01	1.338E-01	2.091E-01	3.701E-02	0.526
		163.33		1.339E-01	2.588E-01	4.480E-01	7.989E-02	0.299
	+	185.72		2.243E-01	5.607E-02	4.151E-02	3.484E-03	5.402
		205.31		-3.362E-02	3.294E-01	4.946E-01	8.974E-02	-0.068
NP-237	+	86.48	*	1.350E+00	3.504E-01	1.455E-01	3.337E-02	9.276
		95.86		1.856E-01	5.062E-01	6.727E-01	1.644E-01	0.276
U-238	+	63.29	*	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
	+	92.59		3.887E+00	6.795E-01	4.371E-01	4.207E-02	8.894
ANH-511	+	511.00	*	1.489E-01	6.629E-02	3.937E-02	3.775E-03	3.781

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	5.292E-02	2.715E-01	4.604E-01	4.510E-02	0.115
NA-22		1274.54	*	-1.556E-03	4.226E-02	6.780E-02	5.562E-03	-0.023
NA-24		1368.63	*	-8.318E+01	4.226E-02	Half-Life too short		
SC-46		889.28	*	1.971E-02	3.822E-02	6.623E-02	5.889E-03	0.298
	+	1120.55		2.463E-01	9.870E-02	1.302E-01	1.101E-02	1.891
V-48		944.13		-7.994E-01	1.035E+00	1.609E+00	1.410E-01	-0.497
		983.53	*	3.861E-02	8.415E-02	1.440E-01	1.260E-02	0.268
		1312.11		-1.883E-02	1.097E-01	1.732E-01	1.411E-02	-0.109
CR-51		320.08	*	-2.034E-01	3.022E-01	4.699E-01	4.365E-02	-0.433
MN-54		834.85	*	-1.687E-03	3.282E-02	5.493E-02	5.324E-03	-0.031
CO-56		846.77	*	6.398E-03	3.581E-02	6.091E-02	5.806E-03	0.105
		1037.84		-1.535E-01	3.144E-01	4.954E-01	4.519E-02	-0.310
		1238.28		5.210E-02	1.035E-01	1.725E-01	1.464E-02	0.302
		1771.35		4.264E-02	2.568E-01	3.741E-01	3.108E-02	0.114
CO-57		122.06	*	-9.237E-03	1.481E-02	2.271E-02	2.609E-03	-0.407
		136.47		-2.357E-02	1.249E-01	1.938E-01	2.146E-02	-0.122

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-58		810.76	*	-1.424E-02	3.502E-02	5.711E-02	5.715E-03	-0.249
FE-59		1099.45	*	-3.716E-02	9.604E-02	1.518E-01	1.401E-02	-0.245
		1291.59		-6.168E-02	1.388E-01	2.134E-01	2.005E-02	-0.289
CO-60		1173.23		-5.779E-03	4.700E-02	7.560E-02	6.230E-03	-0.076
		1332.49	*	-8.831E-04	3.383E-02	5.659E-02	4.593E-03	-0.016
ZN-65		1115.54	*	-4.955E-04	1.110E-01	1.566E-01	1.328E-02	-0.003
SE-75		121.12		-6.611E-02	7.786E-02	1.178E-01	1.576E-02	-0.561
		136.00		-2.771E-02	2.460E-02	3.632E-02	3.861E-03	-0.763
		264.66	*	-1.302E-02	2.985E-02	4.802E-02	4.312E-03	-0.271
		279.54		4.763E-03	8.577E-02	1.192E-01	1.101E-02	0.040
		400.66		3.553E-02	2.124E-01	3.399E-01	3.630E-02	0.105
SR-85		514.00	*	2.077E-02	3.530E-02	5.415E-02	5.210E-03	0.384
Y-88		898.04		-8.581E-03	4.371E-02	7.008E-02	6.160E-03	-0.122
		1836.06	*	2.893E-02	3.540E-02	6.532E-02	5.393E-03	0.443
Y-91		1204.77	*	-8.734E-02	2.542E+01	4.116E+01	3.391E+00	-0.002
NB-94		702.65	*	-1.641E-02	3.242E-02	5.046E-02	5.496E-03	-0.325
		871.09		2.977E-02	3.136E-02	5.600E-02	5.140E-03	0.532
NB-95		765.81	*	2.001E-02	4.798E-02	6.984E-02	7.299E-03	0.287
NB-95M		235.69	*	4.864E-02	9.064E-02	1.387E-01	1.400E-02	0.351
ZR-95		724.19		5.194E-02	1.045E-01	1.540E-01	1.749E-02	0.337
		756.73	*	-8.187E-03	7.409E-02	1.179E-01	1.329E-02	-0.069
MO-99		140.51		1.460E+01	4.160E+01	6.566E+01	1.601E+01	0.222
		181.07		-1.487E+01	3.522E+01	5.252E+01	9.799E+00	-0.283
		366.42		-5.710E+01	2.199E+02	3.455E+02	2.898E+01	-0.165
		739.50	*	-2.756E+01	3.474E+01	5.171E+01	8.771E+00	-0.533
		777.92		-1.031E+02	1.020E+02	1.480E+02	1.530E+01	-0.697
TC-99M		140.51	*	1.507E+15	1.020E+02	Half-Life too short		
RU-103		497.08	*	-4.041E-03	3.496E-02	5.799E-02	8.392E-03	-0.070
	+	610.33		1.650E+01	3.352E+00	2.922E+00	5.110E-01	5.647
RH-106		621.93	*	2.005E-01	2.717E-01	4.652E-01	6.845E-02	0.431
		1050.41		9.697E-01	2.583E+00	4.368E+00	3.777E-01	0.222
RU-106		621.93	*	2.005E-01	2.709E-01	4.652E-01	4.991E-02	0.431
		1050.41		9.697E-01	2.583E+00	4.368E+00	3.777E-01	0.222
AG-108M		433.94	*	1.199E-02	2.328E-02	4.041E-02	3.578E-03	0.297
		614.28		3.466E-02	3.297E-02	5.179E-02	5.642E-03	0.669
		722.91		-1.148E-02	4.120E-02	5.633E-02	6.196E-03	-0.204
AG-110M		657.76	*	1.921E-03	3.529E-02	5.053E-02	5.668E-03	0.038
		677.62		-2.419E-02	3.023E-01	4.877E-01	5.458E-02	-0.050
		706.68		1.916E-01	2.054E-01	3.514E-01	3.890E-02	0.545
		763.94		7.500E-02	1.725E-01	2.520E-01	2.687E-02	0.298
		884.68		-2.682E-02	4.348E-02	6.875E-02	6.348E-03	-0.390
		937.49		-7.407E-02	1.136E-01	1.793E-01	1.627E-02	-0.413
		1384.29		5.574E-02	1.456E-01	2.533E-01	2.137E-02	0.220
		1505.03		1.609E-01	2.603E-01	4.175E-01	3.474E-02	0.385
SN-113		391.69	*	-2.679E-02	3.762E-02	5.700E-02	4.694E-03	-0.470
CD-115		260.90		-2.042E-04	3.762E-02	Half-Life too short		
		492.35		7.916E-05	3.762E-02	Half-Life too short		
		527.90	*	7.571E-06	3.762E-02	Half-Life too short		
SN-117M		156.02		3.988E-01	1.791E+00	2.799E+00	2.526E-01	0.142

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		158.56	*	-1.996E-02	4.490E-02	6.659E-02	5.862E-03	-0.300
TE-123M		159.00	*	-5.911E-03	1.816E-02	2.867E-02	2.527E-03	-0.206
SB-124		602.73		1.050E-02	3.968E-02	5.846E-02	6.174E-03	0.180
		645.85		-3.995E-02	4.432E-01	7.175E-01	8.122E-02	-0.056
		722.78		-1.278E-01	4.349E-01	5.937E-01	6.492E-02	-0.215
		1690.97	*	1.140E-02	8.283E-02	1.385E-01	1.209E-02	0.082
SB-125		427.87	*	-7.887E-02	7.205E-02	1.142E-01	9.877E-03	-0.691
	+	463.37		7.747E-01	3.771E-01	4.562E-01	4.382E-02	1.698
		600.60		-1.804E-02	1.597E-01	2.603E-01	2.881E-02	-0.069
		635.95		7.166E-02	2.327E-01	3.884E-01	4.432E-02	0.185
TE-125M		109.28	*	5.010E-01	5.511E+00	8.811E+00	1.072E+00	0.057
I-126		388.63		-1.880E-02	1.673E-01	2.639E-01	2.113E-02	-0.071
		666.33	*	3.679E-02	2.976E-01	4.280E-01	4.722E-02	0.086
		753.82		2.858E-01	2.253E+00	3.651E+00	3.852E-01	0.078
SB-126		414.70		4.458E-02	8.027E-02	1.253E-01	1.039E-02	0.356
		666.50		1.673E-02	1.027E-01	1.483E-01	1.636E-02	0.113
		695.00		-5.110E-02	9.027E-02	1.396E-01	1.525E-02	-0.366
		697.00		-1.547E-01	3.125E-01	4.863E-01	5.309E-02	-0.318
		720.70	*	1.016E-01	1.833E-01	2.863E-01	3.089E-02	0.355
		856.80		4.486E-01	5.789E-01	9.149E-01	8.591E-02	0.490
SB-127		252.40		5.598E+00	7.050E+00	1.137E+01	4.776E+00	0.492
		473.00		2.363E+00	2.797E+00	4.893E+00	7.005E-01	0.483
		685.70	*	3.703E+00	2.908E+00	5.031E+00	7.264E-01	0.736
		783.70		9.306E-01	7.185E+00	1.160E+01	1.711E+00	0.080
I-131		80.19		-3.411E+00	2.983E+00	4.283E+00	3.820E-01	-0.796
		284.31		-9.521E-02	1.482E+00	2.415E+00	2.266E-01	-0.039
		364.49	*	2.967E-02	1.261E-01	2.045E-01	1.825E-02	0.145
		636.99		1.427E+00	1.949E+00	3.343E+00	3.771E-01	0.427
TE-132		49.72		1.705E+00	5.475E+00	8.645E+00	1.051E+00	0.197
		111.76		3.685E+01	4.590E+01	7.488E+01	1.041E+01	0.492
		116.30		5.491E+01	4.255E+01	6.974E+01	9.867E+00	0.787
		228.16	*	-9.806E-01	1.239E+00	1.978E+00	3.336E-01	-0.496
BA-133		81.00		-6.013E-02	4.324E-02	6.018E-02	9.427E-03	-0.999
	+	276.40		6.431E-01	3.550E-01	4.738E-01	6.775E-02	1.357
		302.85		4.562E-02	1.091E-01	1.627E-01	2.157E-02	0.280
		356.01	*	2.983E-02	3.349E-02	5.089E-02	6.561E-03	0.586
		383.85		-1.405E-01	2.300E-01	3.508E-01	4.234E-02	-0.400
I-133		529.87	*	-6.207E-02	2.300E-01	Half-Life too short		
		875.33		-1.068E+00	2.300E-01	Half-Life too short		
		1298.22		3.051E-01	2.300E-01	Half-Life too short		
CS-134		563.25		2.169E-01	3.042E-01	5.242E-01	5.369E-02	0.414
		569.33		-1.239E-01	1.635E-01	2.471E-01	2.553E-02	-0.502
		604.72		-8.163E-03	3.263E-02	4.581E-02	4.854E-03	-0.178
	+	795.86	*	1.096E-01	5.859E-02	8.032E-02	8.199E-03	1.364
		801.95		6.988E-03	3.850E-01	6.150E-01	6.231E-02	0.011
		1365.19		8.671E-01	1.162E+00	2.091E+00	1.796E-01	0.415
CS-135		268.22	*	1.258E-01	1.188E-01	1.831E-01	1.875E-02	0.687
I-135		546.56		-4.109E+13	1.188E-01	Half-Life too short		
		836.80		1.763E+14	1.188E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1038.76		-5.573E+14	1.188E-01	Half-Life too short		
		1131.51		2.101E+13	1.188E-01	Half-Life too short		
		1260.41	*	4.587E+14	1.188E-01	Half-Life too short		
		1457.56		5.113E+16	1.188E-01	Half-Life too short		
		1678.03		4.439E+14	1.188E-01	Half-Life too short		
		1791.20		3.148E+14	1.188E-01	Half-Life too short		
CS-136	+	153.25		1.448E+00	1.016E+00	1.157E+00	1.251E-01	1.252
		176.60		1.364E-01	3.725E-01	6.409E-01	5.897E-02	0.213
		273.65		3.875E-01	5.724E-01	7.083E-01	6.829E-02	0.547
		340.55		1.400E-02	1.513E-01	2.183E-01	1.970E-02	0.064
		818.51		-9.439E-03	8.022E-02	1.338E-01	1.326E-02	-0.071
		1048.07	*	-5.081E-02	1.362E-01	2.168E-01	1.956E-02	-0.234
		1235.36		4.398E-01	8.063E-01	1.347E+00	1.547E-01	0.326
CE-139		165.86	*	-1.466E-03	1.825E-02	3.107E-02	2.526E-03	-0.047
BA-140		162.66		4.953E-02	6.027E-01	1.033E+00	9.323E-02	0.048
		304.85		-6.560E-01	1.266E+00	1.875E+00	5.506E-01	-0.350
		423.72		1.917E+00	2.037E+00	3.447E+00	1.132E+00	0.556
		537.26	*	-1.037E-01	2.844E-01	4.569E-01	1.565E-01	-0.227
LA-140	+	328.76		7.738E-01	3.878E-01	5.341E-01	4.955E-02	1.449
		487.02		1.514E-01	1.431E-01	2.529E-01	2.475E-02	0.599
		815.77		2.346E-01	3.536E-01	6.238E-01	6.749E-02	0.376
		1596.21	*	7.334E-02	1.018E-01	1.664E-01	1.392E-02	0.441
CE-141		145.44	*	-1.156E-02	4.375E-02	6.733E-02	6.751E-03	-0.172
CE-143		57.36		2.211E-03	4.375E-02	Half-Life too short		
		293.27	*	1.929E-03	4.375E-02	Half-Life too short		
		664.57		1.012E-02	4.375E-02	Half-Life too short		
		721.93		5.237E-03	4.375E-02	Half-Life too short		
CE-144		80.12		-1.295E+00	1.115E+00	1.599E+00	1.411E-01	-0.810
		133.52	*	6.507E-02	1.204E-01	1.923E-01	3.189E-02	0.338
PM-144		476.78		-3.715E-03	5.202E-02	8.687E-02	8.568E-03	-0.043
		618.01		-2.019E-02	2.861E-02	4.435E-02	4.831E-03	-0.455
		696.49	*	-2.446E-02	3.198E-02	4.863E-02	5.312E-03	-0.503
PR-144		696.51	*	-1.821E+00	2.400E+00	3.651E+00	3.987E-01	-0.499
		1489.16		-3.152E+00	1.121E+01	1.784E+01	1.482E+00	-0.177
PM-146		453.88	*	1.388E-02	3.327E-02	5.728E-02	6.175E-03	0.242
		633.25		-2.766E-01	1.244E+00	1.990E+00	7.713E-01	-0.139
		735.93		1.209E-02	1.323E-01	2.144E-01	6.159E-02	0.056
		747.24		7.701E-02	9.605E-02	1.622E-01	2.569E-02	0.475
ND-147	+	91.11		1.067E+00	2.181E-01	2.829E-01	2.888E-02	3.771
		319.41		-2.975E+00	3.279E+00	5.028E+00	4.452E-01	-0.592
		531.02	*	-1.449E-01	6.120E-01	1.000E+00	1.567E-01	-0.145
PM-149		285.90	*	-1.055E-04	6.120E-01	Half-Life too short		
EU-152		121.78		-3.397E-02	4.240E-02	6.440E-02	8.022E-03	-0.527
		244.70		1.102E-01	2.239E-01	3.418E-01	3.043E-02	0.322
		344.28	*	6.194E-02	7.127E-02	1.199E-01	1.099E-02	0.517
		778.90		-2.147E-01	2.406E-01	3.535E-01	3.651E-02	-0.607
	+	964.08		8.471E-01	3.451E-01	5.494E-01	4.814E-02	1.542
		1085.87		-3.109E-01	3.838E-01	5.828E-01	4.989E-02	-0.534
		1112.07		1.040E-01	3.146E-01	5.269E-01	4.468E-02	0.197

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1408.01		2.461E-01	1.705E-01	3.242E-01	2.667E-02	0.759
GD-153		69.67		-2.143E-01	5.666E-01	9.215E-01	7.555E-02	-0.233
		97.43	*	-2.240E-03	5.054E-02	6.565E-02	6.485E-03	-0.034
		103.18		-8.740E-02	6.599E-02	9.052E-02	9.241E-03	-0.965
EU-154		123.07		3.778E-02	2.962E-02	4.850E-02	6.599E-03	0.779
		723.31		-6.404E-02	1.907E-01	2.592E-01	2.977E-02	-0.247
		873.19		1.408E-01	2.591E-01	4.504E-01	5.532E-02	0.313
		996.26		-2.241E-01	3.399E-01	5.265E-01	9.227E-02	-0.426
		1004.73		-5.835E-02	2.222E-01	3.593E-01	4.209E-02	-0.162
		1274.44	*	-3.064E-02	1.204E-01	1.890E-01	2.090E-02	-0.162
EU-155	+	86.55		5.494E-01	8.440E-02	9.530E-02	8.936E-03	5.765
		105.31	*	1.071E-01	5.775E-02	9.674E-02	1.008E-02	1.107
TB-160	+	86.79		1.518E+00	2.324E-01	2.754E-01	2.565E-02	5.510
		197.04		7.559E-02	3.570E-01	6.063E-01	5.172E-02	0.125
		215.65		-1.525E-01	5.752E-01	8.523E-01	7.430E-02	-0.179
	+	298.57		2.574E-01	1.152E-01	1.452E-01	1.296E-02	1.773
		879.36	*	-5.747E-03	1.194E-01	1.988E-01	1.799E-02	-0.029
		962.29		8.535E-01	5.639E-01	9.297E-01	8.146E-02	0.918
		966.15		9.983E-01	2.596E-01	4.898E-01	4.290E-02	2.038
		1177.93		1.139E-01	4.019E-01	6.663E-01	5.491E-02	0.171
		1271.85		-1.482E-01	7.620E-01	1.205E+00	9.876E-02	-0.123
HO-166M		80.57		-1.497E-01	1.208E-01	1.726E-01	1.529E-02	-0.867
	+	184.41		1.782E-01	4.454E-02	4.307E-02	3.608E-03	4.136
		280.46		1.429E-02	6.615E-02	9.308E-02	8.301E-03	0.154
	+	410.95		3.810E-01	3.188E-01	3.682E-01	3.033E-02	1.035
		711.68	*	-3.356E-02	5.628E-02	8.652E-02	9.381E-03	-0.388
		752.31		-1.090E-01	2.796E-01	4.356E-01	4.602E-02	-0.250
		810.29		-3.490E-02	5.183E-02	8.267E-02	8.262E-03	-0.422
TA-182		67.75		6.395E-03	3.503E-02	5.803E-02	4.703E-03	0.110
	+	100.11		1.345E-01	1.447E-01	1.521E-01	1.526E-02	0.884
		152.43		1.185E-01	2.471E-01	3.605E-01	3.363E-02	0.329
		222.11		8.180E-02	2.370E-01	4.009E-01	3.516E-02	0.204
	+	1121.30		6.756E-01	2.708E-01	3.530E-01	2.982E-02	1.914
		1189.05		-5.085E-02	3.457E-01	5.546E-01	4.570E-02	-0.092
		1221.41	*	-2.550E-01	2.285E-01	3.377E-01	2.780E-02	-0.755
		1231.02		7.543E-04	5.409E-01	8.742E-01	7.192E-02	0.001
IR-192	+	295.96		1.270E+00	1.834E-01	2.385E-01	2.143E-02	5.324
		308.46		-1.074E-02	6.820E-02	1.097E-01	9.814E-03	-0.098
		316.51	*	-4.150E-03	2.693E-02	4.326E-02	3.844E-03	-0.096
		468.07		6.869E-03	5.927E-02	8.864E-02	8.547E-03	0.077
HG-203		70.83		-4.926E-01	4.910E-01	7.737E-01	1.228E-01	-0.637
		72.87		2.814E-01	3.190E-01	4.942E-01	7.610E-02	0.569
		279.20	*	2.902E-03	3.225E-02	4.509E-02	4.117E-03	0.064
BI-207		72.81		5.791E-02	6.852E-02	1.067E-01	8.930E-03	0.543
	+	74.97		7.234E-01	8.138E-02	1.091E-01	9.269E-03	6.628
		569.70		-2.825E-02	2.580E-02	3.788E-02	3.879E-03	-0.746
		1063.66	*	8.562E-03	5.134E-02	8.539E-02	7.359E-03	0.100
		1770.23		-2.096E-02	4.981E-01	6.869E-01	5.707E-02	-0.031
PB-211		404.85	*	-2.759E-01	6.908E-01	9.211E-01	4.450E-01	-0.300

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.09		3.373E-02	1.177E+00	1.995E+00	9.226E-01	0.017
		832.01		2.002E-01	8.751E-01	1.485E+00	7.731E-01	0.135
BI-212	+	727.33	*	2.347E+00	8.201E-01	1.116E+00	1.564E-01	2.102
		785.37		3.314E+00	2.909E+00	5.035E+00	5.168E-01	0.658
		1620.50		1.630E+00	2.279E+00	4.102E+00	3.430E-01	0.397
RN-219	+	271.23		5.336E-01	2.400E-01	3.068E-01	3.228E-02	1.739
		401.81	*	-7.249E-02	3.289E-01	5.134E-01	7.485E-02	-0.141
RA-223		81.07		-1.375E-01	9.636E-02	1.362E-01	1.211E-02	-1.009
	+	83.79		2.633E-01	8.516E-02	9.830E-02	8.931E-03	2.679
		94.87		1.937E-01	2.187E-01	3.365E-01	3.278E-02	0.576
		144.24		4.270E-01	4.466E-01	7.050E-01	7.656E-02	0.606
	+	154.21		5.220E-01	3.655E-01	4.328E-01	4.310E-02	1.206
	+	269.46		4.146E-01	1.852E-01	2.499E-01	2.275E-02	1.659
		323.87	*	7.878E-02	5.194E-01	7.566E-01	1.319E-01	0.104
	+	338.28		7.033E+00	1.581E+00	1.956E+00	2.375E-01	3.595
AC-227		79.69		-6.972E-01	5.554E-01	7.786E-01	1.349E-01	-0.895
		235.96		5.651E-02	1.057E-01	1.617E-01	1.705E-02	0.350
		256.23	*	-1.023E-01	1.810E-01	2.906E-01	3.568E-02	-0.352
	+	299.98		1.928E+00	8.813E-01	1.219E+00	1.574E-01	1.582
		304.50		-6.445E-01	1.211E+00	1.807E+00	3.014E-01	-0.357
		334.37		-9.197E-01	1.351E+00	1.826E+00	2.860E-01	-0.504
TH-227		79.80		-9.010E-01	7.430E-01	1.030E+00	2.251E-01	-0.875
		235.96		5.651E-02	1.057E-01	1.617E-01	1.612E-02	0.350
		256.23	*	-1.023E-01	1.811E-01	2.906E-01	4.012E-02	-0.352
	+	299.98		1.928E+00	8.813E-01	1.219E+00	1.574E-01	1.582
		304.50		-6.445E-01	1.211E+00	1.807E+00	3.014E-01	-0.357
		334.37		-9.197E-01	1.351E+00	1.826E+00	2.860E-01	-0.504
PA-231		283.69	*	-7.276E-01	9.947E-01	1.557E+00	2.299E-01	-0.467
	+	301.36		1.239E+00	5.643E-01	7.559E-01	9.347E-02	1.639
TH-231		81.07		-1.375E-01	9.636E-02	1.362E-01	1.211E-02	-1.009
	+	83.79		2.633E-01	8.516E-02	9.830E-02	8.931E-03	2.679
		94.87		1.937E-01	2.187E-01	3.365E-01	3.278E-02	0.576
		144.24		4.270E-01	4.466E-01	7.050E-01	7.656E-02	0.606
	+	154.21		5.220E-01	3.655E-01	4.328E-01	4.310E-02	1.206
	+	269.46		4.146E-01	1.852E-01	2.499E-01	2.275E-02	1.659
		323.87	*	7.878E-02	5.194E-01	7.566E-01	1.319E-01	0.104
	+	338.28		7.033E+00	1.581E+00	1.956E+00	2.375E-01	3.595
PA-233	+	300.13		8.724E-01	4.043E-01	5.509E-01	8.266E-02	1.584
		311.90	*	-5.600E-03	4.670E-02	7.526E-02	6.870E-03	-0.074
		340.48		1.524E-01	5.183E-01	7.563E-01	1.822E-01	0.202
PA-234		94.67		1.406E-01	8.615E-02	1.336E-01	1.763E-02	1.052
	+	98.44		6.633E-02	8.019E-02	7.511E-02	4.207E-02	0.883
		111.00		-5.948E-02	1.013E-01	1.569E-01	2.143E-02	-0.379
		131.20		3.076E-03	6.880E-02	9.962E-02	1.086E-02	0.031
		569.50		-2.383E-01	2.296E-01	3.392E-01	3.472E-02	-0.703
		733.00		9.710E-02	3.571E-01	5.439E-01	1.256E-01	0.179
		880.51		3.447E-02	2.261E-01	3.830E-01	3.459E-02	0.090
		883.24		-2.550E-02	2.412E-01	3.984E-01	2.680E-01	-0.064
		926.50		1.824E-02	1.637E-01	2.746E-01	6.956E-02	0.066

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	-1.728E-01	2.950E-01	4.641E-01	8.741E-02	-0.372
		949.00		2.064E-01	4.414E-01	7.573E-01	6.638E-02	0.273
PA-234M		766.42		9.208E+00	1.359E+01	1.905E+01	9.731E+00	0.483
		1001.03	*	2.070E+00	4.634E+00	7.895E+00	7.943E-01	0.262
NP-239	+	99.53		1.203E-01	1.295E-01	1.392E-01	1.392E-02	0.864
		103.37		-7.215E-02	5.946E-02	8.216E-02	8.397E-03	-0.878
		106.12		5.567E-02	4.653E-02	7.694E-02	7.993E-03	0.724
		117.23	*	-3.099E-01	2.407E-01	3.582E-01	3.986E-02	-0.865
		228.18		-1.111E-01	1.411E-01	2.269E-01	2.000E-02	-0.490
	+	277.60		3.178E-01	1.718E-01	2.319E-01	2.069E-02	1.370
AM-241		59.54	*	-3.614E-02	3.662E-02	5.412E-02	4.591E-03	-0.668
CM-247	+	278.00		1.350E+00	7.295E-01	9.772E-01	8.716E-02	1.381
		287.50		8.215E-02	8.786E-01	1.442E+00	1.287E-01	0.057
		402.40	*	-1.819E-02	3.102E-02	4.729E-02	3.835E-03	-0.385
CF-249		252.80		4.709E-01	6.685E-01	1.136E+00	1.014E-01	0.415
		333.37		3.215E-02	1.406E-01	2.055E-01	1.800E-02	0.156
		388.16	*	9.434E-03	3.128E-02	5.064E-02	4.060E-03	0.186
CF-251		177.52	*	2.961E-02	7.738E-02	1.332E-01	1.103E-02	0.222
		227.38		-2.032E-01	2.279E-01	3.644E-01	3.210E-02	-0.558
		285.41		-1.928E-01	1.492E+00	2.422E+00	2.162E-01	-0.080

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189      *
* Acquisition date : 24-MAR-2010 23:00:25 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:50.22     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  5-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065189          Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.2207E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.308E+01	3.235E+00	4.812E-01	0.000E+00
CD-109	4.658E+00	6.989E-01	5.224E-01	0.000E+00
SN-126	4.523E-01	6.787E-02	5.064E-02	0.000E+00
BA-137M	1.069E-01	6.017E-02	5.730E-02	0.000E+00
CS-137	1.129E-01	6.357E-02	6.053E-02	0.000E+00
TL-208	5.839E-01	9.234E-02	4.622E-02	0.000E+00
PB-210	2.719E+00	5.576E-01	4.671E-01	0.000E+00
BI-211	3.938E+00	4.831E-01	2.469E-01	0.000E+00
PB-212	1.910E+00	2.054E-01	6.247E-02	0.000E+00
BI-214	1.480E+00	2.282E-01	1.012E-01	0.000E+00
PB-214	1.429E+00	1.916E-01	8.987E-02	0.000E+00
RA-224	4.630E+00	9.265E-01	6.714E-01	0.000E+00
RA-226	1.480E+00	2.282E-01	1.012E-01	0.000E+00
AC-228	1.977E+00	3.637E-01	2.107E-01	0.000E+00
RA-228	1.977E+00	3.637E-01	2.107E-01	0.000E+00
TH-228	1.910E+00	2.054E-01	6.247E-02	0.000E+00
TH-229	-2.275E-01	3.272E-01	5.621E-01	0.000E+00
TH-230	1.479E+00	2.150E-01	1.011E-01	0.000E+00
TH-232	1.977E+00	3.637E-01	2.107E-01	0.000E+00
TH-234	1.778E+00	6.867E-01	5.800E-01	0.000E+00
U-235	1.100E-01	1.311E-01	2.149E-01	0.000E+00
NP-237	1.350E+00	3.434E-01	1.505E-01	0.000E+00
U-238	1.778E+00	6.867E-01	5.800E-01	0.000E+00
ANH-511	1.489E-01	6.496E-02	3.984E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	5.292E-02	2.661E-01	4.663E-01	0.000E+00	NOT IDENT.
NA-22	-1.556E-03	4.142E-02	6.780E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.363E+07	0.000E+00	0.000E+00	SHORT HLIF

SC-46	1.971E-02	3.746E-02	6.654E-02	0.000E+00	FAIL ABUN
V-48	3.861E-02	8.247E-02	1.445E-01	0.000E+00	NOT IDENT.
CR-51	-2.034E-01	2.961E-01	4.782E-01	0.000E+00	NOT IDENT.
MN-54	-1.687E-03	3.216E-02	5.523E-02	0.000E+00	NOT IDENT.
CO-56	6.398E-03	3.510E-02	6.123E-02	0.000E+00	NOT IDENT.
CO-57	-9.237E-03	1.451E-02	2.340E-02	0.000E+00	NOT IDENT.
CO-58	-1.424E-02	3.432E-02	5.745E-02	0.000E+00	NOT IDENT.
FE-59	-3.716E-02	9.412E-02	1.521E-01	0.000E+00	NOT IDENT.
CO-60	-8.831E-04	3.316E-02	5.656E-02	0.000E+00	NOT IDENT.
ZN-65	-4.955E-04	1.088E-01	1.569E-01	0.000E+00	NOT IDENT.
SE-75	-1.302E-02	2.925E-02	4.899E-02	0.000E+00	NOT IDENT.
SR-85	2.077E-02	3.460E-02	5.478E-02	0.000E+00	NOT IDENT.
Y-88	2.893E-02	3.469E-02	6.501E-02	0.000E+00	NOT IDENT.
Y-91	-8.734E-02	2.491E+01	4.119E+01	0.000E+00	NOT IDENT.
NB-94	-1.641E-02	3.177E-02	5.085E-02	0.000E+00	NOT IDENT.
NB-95	2.001E-02	4.702E-02	7.030E-02	0.000E+00	NOT IDENT.
NB-95M	4.864E-02	8.883E-02	1.417E-01	0.000E+00	NOT IDENT.
ZR-95	-8.187E-03	7.261E-02	1.187E-01	0.000E+00	NOT IDENT.
MO-99	-2.756E+01	3.404E+01	5.208E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.227E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.041E-03	3.426E-02	5.870E-02	0.000E+00	FAIL ABUN
RH-106	2.005E-01	2.662E-01	4.695E-01	0.000E+00	NOT IDENT.
RU-106	2.005E-01	2.655E-01	4.695E-01	0.000E+00	NOT IDENT.
AG-108M	1.199E-02	2.282E-02	4.097E-02	0.000E+00	NOT IDENT.
AG-110M	1.921E-03	3.458E-02	5.096E-02	0.000E+00	NOT IDENT.
SN-113	-2.679E-02	3.686E-02	5.787E-02	0.000E+00	NOT IDENT.
CD-115	0.000E+00	3.436E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-1.996E-02	4.400E-02	6.837E-02	0.000E+00	NOT IDENT.
TE-123M	-5.911E-03	1.780E-02	2.943E-02	0.000E+00	NOT IDENT.
SB-124	1.140E-02	8.117E-02	1.380E-01	0.000E+00	NOT IDENT.
SB-125	-7.887E-02	7.061E-02	1.158E-01	0.000E+00	FAIL ABUN
TE-125M	5.010E-01	5.401E+00	9.088E+00	0.000E+00	NOT IDENT.
I-126	3.679E-02	2.916E-01	4.316E-01	0.000E+00	NOT IDENT.
SB-126	1.016E-01	1.796E-01	2.884E-01	0.000E+00	NOT IDENT.
SB-127	3.703E+00	2.850E+00	5.071E+00	0.000E+00	NOT IDENT.
I-131	2.967E-02	1.236E-01	2.078E-01	0.000E+00	NOT IDENT.
TE-132	-9.806E-01	1.214E+00	2.021E+00	0.000E+00	NOT IDENT.
BA-133	2.983E-02	3.282E-02	5.173E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.574E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.742E-02	8.081E-02	0.000E+00	FAIL ABUN
CS-135	1.258E-01	1.164E-01	1.868E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.676E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.081E-02	1.334E-01	2.174E-01	0.000E+00	FAIL ABUN
CE-139	-1.466E-03	1.788E-02	3.188E-02	0.000E+00	NOT IDENT.
BA-140	-1.037E-01	2.787E-01	4.620E-01	0.000E+00	NOT IDENT.
LA-140	7.334E-02	9.976E-02	1.659E-01	0.000E+00	FAIL ABUN
CE-141	-1.156E-02	4.288E-02	6.920E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.037E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	6.507E-02	1.180E-01	1.979E-01	0.000E+00	NOT IDENT.
PM-144	-2.446E-02	3.134E-02	4.901E-02	0.000E+00	NOT IDENT.
PR-144	-1.821E+00	2.352E+00	3.679E+00	0.000E+00	NOT IDENT.
PM-146	1.388E-02	3.260E-02	5.804E-02	0.000E+00	NOT IDENT.
ND-147	-1.449E-01	5.997E-01	1.011E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	2.501E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	6.194E-02	6.985E-02	1.219E-01	0.000E+00	FAIL ABUN
GD-153	-2.240E-03	4.953E-02	6.781E-02	0.000E+00	NOT IDENT.
EU-154	-3.064E-02	1.180E-01	1.890E-01	0.000E+00	NOT IDENT.
EU-155	0.000E+00	5.659E-02	9.983E-02	0.000E+00	FAIL ABUN
TB-160	-5.747E-03	1.170E-01	1.997E-01	0.000E+00	FAIL ABUN
HO-166M	-3.356E-02	5.515E-02	8.717E-02	0.000E+00	FAIL ABUN
TA-182	-2.550E-01	2.239E-01	3.379E-01	0.000E+00	FAIL ABUN
IR-192	-4.150E-03	2.639E-02	4.403E-02	0.000E+00	FAIL ABUN
HG-203	2.902E-03	3.161E-02	4.597E-02	0.000E+00	NOT IDENT.
BI-207	8.562E-03	5.032E-02	8.559E-02	0.000E+00	FAIL ABUN
PB-211	-2.759E-01	6.770E-01	9.347E-01	0.000E+00	NOT IDENT.
BI-212	0.000E+00	8.037E-01	1.124E+00	0.000E+00	FAIL ABUN
RN-219	-7.249E-02	3.223E-01	5.211E-01	0.000E+00	FAIL ABUN
RA-223	7.878E-02	5.091E-01	7.699E-01	0.000E+00	FAIL ABUN
AC-227	-1.023E-01	1.774E-01	2.966E-01	0.000E+00	FAIL ABUN
TH-227	-1.023E-01	1.775E-01	2.966E-01	0.000E+00	FAIL ABUN
PA-231	-7.276E-01	9.748E-01	1.587E+00	0.000E+00	FAIL ABUN
TH-231	7.878E-02	5.091E-01	7.699E-01	0.000E+00	FAIL ABUN
PA-233	-5.600E-03	4.577E-02	7.663E-02	0.000E+00	FAIL ABUN
PA-234	-1.728E-01	2.891E-01	4.659E-01	0.000E+00	FAIL ABUN
PA-234M	2.070E+00	4.541E+00	7.920E+00	0.000E+00	NOT IDENT.
NP-239	-3.099E-01	2.359E-01	3.691E-01	0.000E+00	FAIL ABUN
AM-241	-3.614E-02	3.589E-02	5.623E-02	0.000E+00	NOT IDENT.
CM-247	-1.819E-02	3.040E-02	4.799E-02	0.000E+00	FAIL ABUN

CF-249	9.434E-03	3.066E-02	5.141E-02	0.000E+00 NOT IDENT.
CF-251	2.961E-02	7.583E-02	1.365E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:02:27.68

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1
Sample date       : 5-MAR-2010 12:00:00. Acquisition date : 24-MAR-2010 23:00:25
Sample ID         : G1202065189          Sample quantity  : 1.22070E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:50.22  0.3%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1652	10.66*	7.204E-01	3.308E+01	3.308E+01	9.98
CD-109	88.03	885	3.70*	8.135E+00	4.523E+00	4.658E+00	15.31
SN-126	64.28	350	9.60	8.182E+00	6.852E-01	6.852E-01	38.04
	86.94	885	8.90	8.135E+00	1.880E+00	1.880E+00	43.25
	87.57	885	37.00*	8.135E+00	4.523E-01	4.523E-01	15.31
BA-137M	661.66	98	89.90*	1.562E+00	1.068E-01	1.069E-01	57.44
CS-137	661.66	98	85.10*	1.562E+00	1.128E-01	1.129E-01	57.44
TL-208	277.37	113	6.60	3.803E+00	6.952E-01	6.952E-01	54.81
	583.19	574	85.00*	1.777E+00	5.839E-01	5.839E-01	16.14
	860.56	60	12.50	1.201E+00	6.159E-01	6.159E-01	51.82
PB-210	46.54	552	4.25*	7.360E+00	2.714E+00	2.719E+00	20.93
BI-211	72.87	------	1.23	8.278E+00	------ Line Not Found		------
	351.06	991	12.92*	2.996E+00	3.938E+00	3.938E+00	12.52
PB-212	74.82	1388	10.28	8.275E+00	2.509E+00	2.509E+00	14.87
	77.11	2112	17.10	8.264E+00	2.298E+00	2.298E+00	10.19
	238.63	2375	43.60*	4.386E+00	1.910E+00	1.910E+00	10.97
	300.09	132	3.30	3.520E+00	1.753E+00	1.753E+00	45.15
BI-214	609.32	744	45.49*	1.699E+00	1.479E+00	1.480E+00	15.74
	1120.29	127	14.92	9.295E-01	1.404E+00	1.404E+00	40.64
	1764.49	85	15.30	5.982E-01	1.426E+00	1.426E+00	30.05
PB-214	74.82	1388	5.80	8.275E+00	4.448E+00	4.448E+00	13.76
	77.11	2112	9.70	8.264E+00	4.050E+00	4.050E+00	13.11
	242.00	535	7.25	4.337E+00	2.618E+00	2.618E+00	21.23
	295.22	706	18.42	3.577E+00	1.648E+00	1.648E+00	15.81
	351.93	991	35.60*	2.996E+00	1.429E+00	1.429E+00	13.68
RA-224	240.99	535	4.10*	4.337E+00	4.630E+00	4.630E+00	20.42
RA-226	609.32	744	45.49*	1.699E+00	1.479E+00	1.480E+00	15.74
	1120.29	127	14.92	9.295E-01	1.404E+00	1.404E+00	40.64
	1764.49	85	15.30	5.982E-01	1.426E+00	1.426E+00	30.05
AC-228	338.32	405	11.27	3.120E+00	1.772E+00	1.772E+00	45.83
	911.20	377	25.80*	1.135E+00	1.977E+00	1.977E+00	18.77
	968.97	214	15.80	1.070E+00	1.944E+00	1.944E+00	31.61

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	405	11.27	3.120E+00	1.772E+00	1.772E+00	45.83
	911.20	377	25.80*	1.135E+00	1.977E+00	1.977E+00	18.77
	968.97	214	15.80	1.070E+00	1.944E+00	1.944E+00	31.61
TH-228	74.82	1388	10.28	8.275E+00	2.509E+00	2.509E+00	11.31
	77.11	2112	17.10	8.264E+00	2.298E+00	2.298E+00	10.19
	238.63	2375	43.60*	4.386E+00	1.910E+00	1.910E+00	10.97
	300.09	132	3.30	3.520E+00	1.753E+00	1.753E+00	75.33
TH-229	85.43	346	14.70	8.185E+00	4.424E-01	4.425E-01	32.34
	88.47	885	24.00	8.135E+00	6.973E-01	6.973E-01	15.31
	193.51	------	4.41*	5.271E+00	------ Line Not Found		------
	210.85	70	2.80	4.884E+00	7.865E-01	7.865E-01	79.57
TH-230	609.32	744	45.49*	1.699E+00	1.479E+00	1.479E+00	14.83
	1120.29	127	14.92	9.295E-01	1.404E+00	1.404E+00	40.08
	1764.49	85	15.30	5.982E-01	1.426E+00	1.426E+00	30.05
TH-232	338.32	405	11.27	3.120E+00	1.772E+00	1.772E+00	20.83
	911.20	377	25.80*	1.135E+00	1.977E+00	1.977E+00	18.77
	968.97	214	15.80	1.070E+00	1.944E+00	1.944E+00	31.61
TH-234	63.29	350	3.70*	8.182E+00	1.778E+00	1.778E+00	39.42
	92.59	857	4.23	8.017E+00	3.887E+00	3.887E+00	26.81
U-235	89.96	456	3.47	8.085E+00	2.498E+00	2.498E+00	30.60
	93.35	857	5.60	8.017E+00	2.936E+00	2.936E+00	27.65
	143.76	------	10.96*	6.567E+00	------ Line Not Found		------
	163.33	------	5.08	6.017E+00	------ Line Not Found		------
	185.72	455	57.20	5.448E+00	2.243E-01	2.243E-01	25.00
	205.31	------	5.01	5.015E+00	------ Line Not Found		------
NP-237	86.48	885	12.40*	8.135E+00	1.350E+00	1.350E+00	25.96
	95.86	------	2.68	7.953E+00	------ Line Not Found		------
U-238	63.29	350	3.70*	8.182E+00	1.778E+00	1.778E+00	39.42
	92.59	857	4.23	8.017E+00	3.887E+00	3.887E+00	17.48
ANH-511	511.00	197	100.00*	2.037E+00	1.489E-01	1.489E-01	44.52

Flag: "*" = Keyline

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

Total number of lines in spectrum 43
Number of unidentified lines 7
Number of lines tentatively identified by NID 36 83.72%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.308E+01	3.308E+01	0.330E+01	9.98	
CD-109	461.40D	1.03	4.523E+00	4.658E+00	0.713E+00	15.31	
SN-126	2.30E+05Y	1.00	4.523E-01	4.523E-01	0.693E-01	15.31	
BA-137M	30.08Y	1.00	1.068E-01	1.069E-01	0.614E-01	57.44	
CS-137	30.08Y	1.00	1.128E-01	1.129E-01	0.649E-01	57.44	
TL-208	1.41E+10Y	1.00	5.839E-01	5.839E-01	0.942E-01	16.14	
PB-210	22.20Y	1.00	2.714E+00	2.719E+00	0.569E+00	20.93	
BI-211	7.04E+08Y	1.00	3.938E+00	3.938E+00	0.493E+00	12.52	
PB-212	1.41E+10Y	1.00	1.910E+00	1.910E+00	0.210E+00	10.97	
BI-214	1600.00Y	1.00	1.479E+00	1.480E+00	0.233E+00	15.74	
PB-214	1600.00Y	1.00	1.429E+00	1.429E+00	0.196E+00	13.68	
RA-224	1.41E+10Y	1.00	4.630E+00	4.630E+00	0.945E+00	20.42	
RA-226	1600.00Y	1.00	1.479E+00	1.480E+00	0.233E+00	15.74	
AC-228	1.41E+10Y	1.00	1.977E+00	1.977E+00	0.371E+00	18.77	
RA-228	1.41E+10Y	1.00	1.977E+00	1.977E+00	0.371E+00	18.77	
TH-228	1.41E+10Y	1.00	1.910E+00	1.910E+00	0.210E+00	10.97	
TH-229	7340.00Y	1.00	6.973E-01	6.973E-01	1.068E-01	15.31	K
TH-230	7.54E+04Y	1.00	1.479E+00	1.479E+00	0.219E+00	14.83	
TH-232	1.41E+10Y	1.00	1.977E+00	1.977E+00	0.371E+00	18.77	
TH-234	4.47E+09Y	1.00	1.778E+00	1.778E+00	0.701E+00	39.42	
U-235	7.04E+08Y	1.00	2.243E-01	2.243E-01	0.561E-01	25.00	K
NP-237	2.14E+06Y	1.00	1.350E+00	1.350E+00	0.350E+00	25.96	
U-238	4.47E+09Y	1.00	1.778E+00	1.778E+00	0.701E+00	39.42	
ANH-511	1.00E+09Y	1.00	1.489E-01	1.489E-01	0.663E-01	44.52	
	Total Activity :		7.173E+01	7.187E+01			

Grand Total Activity : 7.173E+01 7.187E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	99.35	86	678	0.85	198.64	195	8	5.99E-03	****	7.87E+00	T
0	128.90	140	664	0.94	257.71	255	8	9.71E-03	66.0	7.01E+00	
0	154.10	121	551	1.09	308.09	305	8	8.43E-03	69.3	6.27E+00	T
1	209.03	241	275	0.97	417.90	413	14	1.67E-02	25.3	4.94E+00	
0	270.08	146	277	1.53	539.96	536	8	1.02E-02	43.7	3.90E+00	T
0	327.96	114	221	0.99	655.68	652	8	7.89E-03	49.2	3.22E+00	T
0	410.14	71	228	1.66	820.01	815	10	4.93E-03	83.3	2.56E+00	T
0	462.58	119	182	1.17	924.87	920	11	8.23E-03	47.7	2.26E+00	T
0	727.18	145	103	1.39	1454.07	1448	11	1.00E-02	32.0	1.42E+00	T
0	768.11	59	71	1.28	1535.94	1532	8	4.08E-03	56.3	1.34E+00	
0	795.09	70	70	0.93	1589.90	1585	11	4.86E-03	52.5	1.30E+00	T
4	964.65	86	50	2.37	1929.11	1924	20	6.00E-03	39.8	1.07E+00	T
0	1508.85	27	4	2.21	3018.15	3014	8	1.88E-03	46.1	6.98E-01	
2	1587.81	37	16	2.40	3176.22	3168	23	2.56E-03	49.7	6.64E-01	
2	1592.31	40	5	2.40	3185.22	3168	23	2.81E-03	46.1	6.62E-01	
0	1729.10	25	14	1.12	3459.06	3452	14	1.72E-03	77.3	6.10E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 03:02:34.27

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065189.CNF;1 *
* Acquisition date : 24-MAR-2010 23:00:25  Detector SN#    :                *
* Detector ID      : GAM21                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 04:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 04:00:50.22         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 5-MAR-2010 12:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G1202065189           Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.22070E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.308E+01	3.301E+00	4.821E-01	4.116E-02	68.620
CD-109	4.658E+00	7.132E-01	5.051E-01	4.753E-02	9.222
SN-126	4.523E-01	6.926E-02	4.896E-02	4.590E-03	9.238
BA-137M	1.069E-01	6.140E-02	5.681E-02	6.275E-03	1.882
CS-137	1.129E-01	6.487E-02	6.002E-02	6.636E-03	1.882
TL-208	5.839E-01	9.423E-02	4.576E-02	4.981E-03	12.760
PB-210	2.719E+00	5.690E-01	4.482E-01	4.239E-02	6.066
BI-211	3.938E+00	4.930E-01	2.429E-01	2.192E-02	16.215
PB-212	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
BI-214	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
PB-214	1.429E+00	1.955E-01	8.840E-02	9.345E-03	16.167
RA-224	4.630E+00	9.454E-01	6.574E-01	5.842E-02	7.043
RA-226	1.480E+00	2.328E-01	1.002E-01	1.188E-02	14.766
AC-228	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
RA-228	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
TH-228	1.910E+00	2.096E-01	6.116E-02	6.110E-03	31.229
TH-229	6.973E-01	1.068E-01	5.488E-01	4.659E-02	1.271
TH-230	1.479E+00	2.193E-01	1.002E-01	1.064E-02	14.766

Sample ID : G1202065189 Acquisition date : 24-MAR-2010 23:00:25

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.977E+00	3.711E-01	2.098E-01	2.453E-02	9.424
TH-234	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
U-235	2.243E-01	5.607E-02	2.091E-01	3.701E-02	1.073
NP-237	1.350E+00	3.504E-01	1.455E-01	3.337E-02	9.276
U-238	1.778E+00	7.008E-01	5.586E-01	1.008E-01	3.182
ANH-511	1.489E-01	6.629E-02	3.937E-02	3.775E-03	3.781

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	5.292E-02		2.715E-01	4.604E-01	4.510E-02	0.115
NA-22	-1.556E-03		4.226E-02	6.780E-02	5.562E-03	-0.023
NA-24	-8.318E+01		4.267E+01	Half-Life too short		
SC-46	1.971E-02		3.822E-02	6.623E-02	5.889E-03	0.298
V-48	3.861E-02		8.415E-02	1.440E-01	1.260E-02	0.268
CR-51	-2.034E-01		3.022E-01	4.699E-01	4.365E-02	-0.433
MN-54	-1.687E-03		3.282E-02	5.493E-02	5.324E-03	-0.031
CO-56	6.398E-03		3.581E-02	6.091E-02	5.806E-03	0.105
CO-57	-9.237E-03		1.481E-02	2.271E-02	2.609E-03	-0.407
CO-58	-1.424E-02		3.502E-02	5.711E-02	5.715E-03	-0.249
FE-59	-3.716E-02		9.604E-02	1.518E-01	1.401E-02	-0.245
CO-60	-8.831E-04		3.383E-02	5.659E-02	4.593E-03	-0.016
ZN-65	-4.955E-04		1.110E-01	1.566E-01	1.328E-02	-0.003
SE-75	-1.302E-02		2.985E-02	4.802E-02	4.312E-03	-0.271
SR-85	2.077E-02		3.530E-02	5.415E-02	5.210E-03	0.384
Y-88	2.893E-02		3.540E-02	6.532E-02	5.393E-03	0.443
Y-91	-8.734E-02		2.542E+01	4.116E+01	3.391E+00	-0.002
NB-94	-1.641E-02		3.242E-02	5.046E-02	5.496E-03	-0.325
NB-95	2.001E-02		4.798E-02	6.984E-02	7.299E-03	0.287
NB-95M	4.864E-02		9.064E-02	1.387E-01	1.400E-02	0.351
ZR-95	-8.187E-03		7.409E-02	1.179E-01	1.329E-02	-0.069
MO-99	-2.756E+01		3.474E+01	5.171E+01	8.771E+00	-0.533
TC-99M	1.507E+15		2.157E+15	Half-Life too short		
RU-103	-4.041E-03		3.496E-02	5.799E-02	8.392E-03	-0.070
RH-106	2.005E-01		2.717E-01	4.652E-01	6.845E-02	0.431
RU-106	2.005E-01		2.709E-01	4.652E-01	4.991E-02	0.431
AG-108M	1.199E-02		2.328E-02	4.041E-02	3.578E-03	0.297
AG-110M	1.921E-03		3.529E-02	5.053E-02	5.668E-03	0.038
SN-113	-2.679E-02		3.762E-02	5.700E-02	4.694E-03	-0.470
CD-115	7.571E-06		1.753E-05	Half-Life too short		
SN-117M	-1.996E-02		4.490E-02	6.659E-02	5.862E-03	-0.300
TE-123M	-5.911E-03		1.816E-02	2.867E-02	2.527E-03	-0.206
SB-124	1.140E-02		8.283E-02	1.385E-01	1.209E-02	0.082
SB-125	-7.887E-02		7.205E-02	1.142E-01	9.877E-03	-0.691
TE-125M	5.010E-01		5.511E+00	8.811E+00	1.072E+00	0.057
I-126	3.679E-02		2.976E-01	4.280E-01	4.722E-02	0.086
SB-126	1.016E-01		1.833E-01	2.863E-01	3.089E-02	0.355

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-127	3.703E+00		2.908E+00	5.031E+00	7.264E-01	0.736
I-131	2.967E-02		1.261E-01	2.045E-01	1.825E-02	0.145
TE-132	-9.806E-01		1.239E+00	1.978E+00	3.336E-01	-0.496
BA-133	2.983E-02		3.349E-02	5.089E-02	6.561E-03	0.586
I-133	-6.207E-02		8.031E-02	Half-Life too short		
CS-134	1.096E-01	+	5.859E-02	8.032E-02	8.199E-03	1.364
CS-135	1.258E-01		1.188E-01	1.831E-01	1.875E-02	0.687
I-135	4.587E+14		2.386E+14	Half-Life too short		
CS-136	-5.081E-02		1.362E-01	2.168E-01	1.956E-02	-0.234
CE-139	-1.466E-03		1.825E-02	3.107E-02	2.526E-03	-0.047
BA-140	-1.037E-01		2.844E-01	4.569E-01	1.565E-01	-0.227
LA-140	7.334E-02		1.018E-01	1.664E-01	1.392E-02	0.441
CE-141	-1.156E-02		4.375E-02	6.733E-02	6.751E-03	-0.172
CE-143	1.929E-03		5.292E-04	Half-Life too short		
CE-144	6.507E-02		1.204E-01	1.923E-01	3.189E-02	0.338
PM-144	-2.446E-02		3.198E-02	4.863E-02	5.312E-03	-0.503
PR-144	-1.821E+00		2.400E+00	3.651E+00	3.987E-01	-0.499
PM-146	1.388E-02		3.327E-02	5.728E-02	6.175E-03	0.242
ND-147	-1.449E-01		6.120E-01	1.000E+00	1.567E-01	-0.145
PM-149	-1.055E-04		1.276E-04	Half-Life too short		
EU-152	6.194E-02		7.127E-02	1.199E-01	1.099E-02	0.517
GD-153	-2.240E-03		5.054E-02	6.565E-02	6.485E-03	-0.034
EU-154	-3.064E-02		1.204E-01	1.890E-01	2.090E-02	-0.162
EU-155	1.071E-01		5.775E-02	9.674E-02	1.008E-02	1.107
TB-160	-5.747E-03		1.194E-01	1.988E-01	1.799E-02	-0.029
HO-166M	-3.356E-02		5.628E-02	8.652E-02	9.381E-03	-0.388
TA-182	-2.550E-01		2.285E-01	3.377E-01	2.780E-02	-0.755
IR-192	-4.150E-03		2.693E-02	4.326E-02	3.844E-03	-0.096
HG-203	2.902E-03		3.225E-02	4.509E-02	4.117E-03	0.064
BI-207	8.562E-03		5.134E-02	8.539E-02	7.359E-03	0.100
PB-211	-2.759E-01		6.908E-01	9.211E-01	4.450E-01	-0.300
BI-212	2.347E+00	+	8.201E-01	1.116E+00	1.564E-01	2.102
RN-219	-7.249E-02		3.289E-01	5.134E-01	7.485E-02	-0.141
RA-223	7.878E-02		5.194E-01	7.566E-01	1.319E-01	0.104
AC-227	-1.023E-01		1.810E-01	2.906E-01	3.568E-02	-0.352
TH-227	-1.023E-01		1.811E-01	2.906E-01	4.012E-02	-0.352
PA-231	-7.276E-01		9.947E-01	1.557E+00	2.299E-01	-0.467
TH-231	7.878E-02		5.194E-01	7.566E-01	1.319E-01	0.104
PA-233	-5.600E-03		4.670E-02	7.526E-02	6.870E-03	-0.074
PA-234	-1.728E-01		2.950E-01	4.641E-01	8.741E-02	-0.372
PA-234M	2.070E+00		4.634E+00	7.895E+00	7.943E-01	0.262
NP-239	-3.099E-01		2.407E-01	3.582E-01	3.986E-02	-0.865
AM-241	-3.614E-02		3.662E-02	5.412E-02	4.591E-03	-0.668
CM-247	-1.819E-02		3.102E-02	4.729E-02	3.835E-03	-0.385
CF-249	9.434E-03		3.128E-02	5.064E-02	4.060E-03	0.186
CF-251	2.961E-02		7.738E-02	1.332E-01	1.103E-02	0.222

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065189           *
* Acquisition date : 24-MAR-2010 23:00:25 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:50.22     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  5-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065189          Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.2207E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.308E+01	3.235E+00	2.407E-01	1.650E+00
CD-109	4.658E+00	6.989E-01	2.613E-01	3.566E-01
SN-126	4.523E-01	6.787E-02	2.533E-02	3.463E-02
BA-137M	1.069E-01	6.017E-02	2.866E-02	3.070E-02
CS-137	1.129E-01	6.357E-02	3.028E-02	3.243E-02
TL-208	5.839E-01	9.234E-02	2.313E-02	4.711E-02
PB-210	2.719E+00	5.576E-01	2.337E-01	2.845E-01
BI-211	3.938E+00	4.831E-01	1.235E-01	2.465E-01
PB-212	1.910E+00	2.054E-01	3.125E-02	1.048E-01
BI-214	1.480E+00	2.282E-01	5.061E-02	1.164E-01
PB-214	1.429E+00	1.916E-01	4.496E-02	9.776E-02
RA-224	4.630E+00	9.265E-01	3.359E-01	4.727E-01
RA-226	1.480E+00	2.282E-01	5.061E-02	1.164E-01
AC-228	1.977E+00	3.637E-01	1.054E-01	1.855E-01
RA-228	1.977E+00	3.637E-01	1.054E-01	1.855E-01
TH-228	1.910E+00	2.054E-01	3.125E-02	1.048E-01
TH-229	-2.275E-01	3.272E-01	2.812E-01	1.670E-01
TH-230	1.479E+00	2.150E-01	5.060E-02	1.097E-01
TH-232	1.977E+00	3.637E-01	1.054E-01	1.855E-01
TH-234	1.778E+00	6.867E-01	2.902E-01	3.504E-01
U-235	1.100E-01	1.311E-01	1.075E-01	6.689E-02
NP-237	1.350E+00	3.434E-01	7.530E-02	1.752E-01
U-238	1.778E+00	6.867E-01	2.902E-01	3.504E-01
ANH-511	1.489E-01	6.496E-02	1.993E-02	3.314E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	5.292E-02	2.661E-01	2.333E-01	1.358E-01	NOT IDENT.
NA-22	-1.556E-03	4.142E-02	3.392E-02	2.113E-02	NOT IDENT.
NA-24	-8.318E+07	8.363E+07	0.000E+00	4.267E+07	SHORT HLIF

SC-46	1.971E-02	3.746E-02	3.329E-02	1.911E-02	FAIL ABUN
V-48	3.861E-02	8.247E-02	7.229E-02	4.208E-02	NOT IDENT.
CR-51	-2.034E-01	2.961E-01	2.393E-01	1.511E-01	NOT IDENT.
MN-54	-1.687E-03	3.216E-02	2.763E-02	1.641E-02	NOT IDENT.
CO-56	6.398E-03	3.510E-02	3.063E-02	1.791E-02	NOT IDENT.
CO-57	-9.237E-03	1.451E-02	1.171E-02	7.403E-03	NOT IDENT.
CO-58	-1.424E-02	3.432E-02	2.874E-02	1.751E-02	NOT IDENT.
FE-59	-3.716E-02	9.412E-02	7.610E-02	4.802E-02	NOT IDENT.
CO-60	-8.831E-04	3.316E-02	2.830E-02	1.692E-02	NOT IDENT.
ZN-65	-4.955E-04	1.088E-01	7.849E-02	5.550E-02	NOT IDENT.
SE-75	-1.302E-02	2.925E-02	2.451E-02	1.493E-02	NOT IDENT.
SR-85	2.077E-02	3.460E-02	2.741E-02	1.765E-02	NOT IDENT.
Y-88	2.893E-02	3.469E-02	3.252E-02	1.770E-02	NOT IDENT.
Y-91	-8.734E-02	2.491E+01	2.061E+01	1.271E+01	NOT IDENT.
NB-94	-1.641E-02	3.177E-02	2.544E-02	1.621E-02	NOT IDENT.
NB-95	2.001E-02	4.702E-02	3.517E-02	2.399E-02	NOT IDENT.
NB-95M	4.864E-02	8.883E-02	7.090E-02	4.532E-02	NOT IDENT.
ZR-95	-8.187E-03	7.261E-02	5.936E-02	3.704E-02	NOT IDENT.
MO-99	-2.756E+01	3.404E+01	2.605E+01	1.737E+01	NOT IDENT.
TC-99M	1.507E+21	4.227E+21	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-4.041E-03	3.426E-02	2.936E-02	1.748E-02	FAIL ABUN
RH-106	2.005E-01	2.662E-01	2.349E-01	1.358E-01	NOT IDENT.
RU-106	2.005E-01	2.655E-01	2.349E-01	1.355E-01	NOT IDENT.
AG-108M	1.199E-02	2.282E-02	2.050E-02	1.164E-02	NOT IDENT.
AG-110M	1.921E-03	3.458E-02	2.549E-02	1.764E-02	NOT IDENT.
SN-113	-2.679E-02	3.686E-02	2.895E-02	1.881E-02	NOT IDENT.
CD-115	7.571E+00	3.436E+01	0.000E+00	1.753E+01	SHORT HLIF
SN-117M	-1.996E-02	4.400E-02	3.421E-02	2.245E-02	NOT IDENT.
TE-123M	-5.911E-03	1.780E-02	1.472E-02	9.082E-03	NOT IDENT.
SB-124	1.140E-02	8.117E-02	6.904E-02	4.141E-02	NOT IDENT.
SB-125	-7.887E-02	7.061E-02	5.793E-02	3.603E-02	FAIL ABUN
TE-125M	5.010E-01	5.401E+00	4.547E+00	2.756E+00	NOT IDENT.
I-126	3.679E-02	2.916E-01	2.159E-01	1.488E-01	NOT IDENT.
SB-126	1.016E-01	1.796E-01	1.443E-01	9.164E-02	NOT IDENT.
SB-127	3.703E+00	2.850E+00	2.537E+00	1.454E+00	NOT IDENT.
I-131	2.967E-02	1.236E-01	1.040E-01	6.305E-02	NOT IDENT.
TE-132	-9.806E-01	1.214E+00	1.011E+00	6.194E-01	NOT IDENT.
BA-133	2.983E-02	3.282E-02	2.588E-02	1.675E-02	FAIL ABUN
I-133	-6.207E+04	1.574E+05	0.000E+00	8.031E+04	SHORT HLIF
CS-134	1.096E-01	5.742E-02	4.043E-02	2.929E-02	FAIL ABUN
CS-135	1.258E-01	1.164E-01	9.344E-02	5.938E-02	NOT IDENT.
I-135	4.587E+20	4.676E+20	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.081E-02	1.334E-01	1.088E-01	6.808E-02	FAIL ABUN
CE-139	-1.466E-03	1.788E-02	1.595E-02	9.124E-03	NOT IDENT.
BA-140	-1.037E-01	2.787E-01	2.311E-01	1.422E-01	NOT IDENT.
LA-140	7.334E-02	9.976E-02	8.302E-02	5.090E-02	FAIL ABUN
CE-141	-1.156E-02	4.288E-02	3.462E-02	2.188E-02	NOT IDENT.
CE-143	1.929E+03	1.037E+03	0.000E+00	5.292E+02	SHORT HLIF
CE-144	6.507E-02	1.180E-01	9.900E-02	6.021E-02	NOT IDENT.
PM-144	-2.446E-02	3.134E-02	2.452E-02	1.599E-02	NOT IDENT.
PR-144	-1.821E+00	2.352E+00	1.841E+00	1.200E+00	NOT IDENT.
PM-146	1.388E-02	3.260E-02	2.904E-02	1.663E-02	NOT IDENT.
ND-147	-1.449E-01	5.997E-01	5.060E-01	3.060E-01	FAIL ABUN
PM-149	-1.055E+02	2.501E+02	0.000E+00	1.276E+02	SHORT HLIF
EU-152	6.194E-02	6.985E-02	6.097E-02	3.564E-02	FAIL ABUN
GD-153	-2.240E-03	4.953E-02	3.392E-02	2.527E-02	NOT IDENT.
EU-154	-3.064E-02	1.180E-01	9.455E-02	6.022E-02	NOT IDENT.
EU-155	1.071E-01	5.659E-02	4.994E-02	2.887E-02	FAIL ABUN
TB-160	-5.747E-03	1.170E-01	9.991E-02	5.969E-02	FAIL ABUN
HO-166M	-3.356E-02	5.515E-02	4.361E-02	2.814E-02	FAIL ABUN
TA-182	-2.550E-01	2.239E-01	1.691E-01	1.142E-01	FAIL ABUN
IR-192	-4.150E-03	2.639E-02	2.203E-02	1.346E-02	FAIL ABUN
HG-203	2.902E-03	3.161E-02	2.300E-02	1.613E-02	NOT IDENT.
BI-207	8.562E-03	5.032E-02	4.282E-02	2.567E-02	FAIL ABUN
PB-211	-2.759E-01	6.770E-01	4.676E-01	3.454E-01	NOT IDENT.
BI-212	2.347E+00	8.037E-01	5.625E-01	4.101E-01	FAIL ABUN
RN-219	-7.249E-02	3.223E-01	2.607E-01	1.644E-01	FAIL ABUN
RA-223	7.878E-02	5.091E-01	3.852E-01	2.597E-01	FAIL ABUN
AC-227	-1.023E-01	1.774E-01	1.484E-01	9.051E-02	FAIL ABUN
TH-227	-1.023E-01	1.775E-01	1.484E-01	9.057E-02	FAIL ABUN
PA-231	-7.276E-01	9.748E-01	7.939E-01	4.974E-01	FAIL ABUN
TH-231	7.878E-02	5.091E-01	3.852E-01	2.597E-01	FAIL ABUN
PA-233	-5.600E-03	4.577E-02	3.834E-02	2.335E-02	FAIL ABUN
PA-234	-1.728E-01	2.891E-01	2.331E-01	1.475E-01	FAIL ABUN
PA-234M	2.070E+00	4.541E+00	3.962E+00	2.317E+00	NOT IDENT.
NP-239	-3.099E-01	2.359E-01	1.847E-01	1.204E-01	FAIL ABUN
AM-241	-3.614E-02	3.589E-02	2.813E-02	1.831E-02	NOT IDENT.
CM-247	-1.819E-02	3.040E-02	2.401E-02	1.551E-02	FAIL ABUN

CF-249	9.434E-03	3.066E-02	2.572E-02	1.564E-02	NOT IDENT.
CF-251	2.961E-02	7.583E-02	6.831E-02	3.869E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.54	382.3819
49.72	381.1498
57.36	0.0000
59.54	550.4957
63.29	559.4451
63.29	559.4451
64.28	561.6814
67.75	588.1947
69.67	620.4482
70.83	683.2540
72.81	631.0656
72.87	631.2015
72.87	631.2015
74.82	649.2062
74.82	649.2062
74.82	649.2062
74.97	649.5571
77.11	654.4687
77.11	654.4687
77.11	654.4687
79.69	660.3061
79.80	660.5546
80.12	661.2709
80.19	661.4268
80.57	662.2795
81.00	663.2346
81.07	663.3904
81.07	663.3904
83.79	419.2444
83.79	419.2444
85.43	421.4813
86.48	422.9004
86.55	422.9950
86.79	423.3154
86.94	423.5229
87.57	424.3683
88.03	424.9847
88.47	425.5707
89.96	427.5513
91.11	429.0680
92.59	431.0028
92.59	431.0028
93.35	431.9916
94.67	433.7006
94.87	399.2432
94.87	399.2432
95.86	376.4735
97.43	400.0696
98.44	379.3152
99.53	380.5045
100.11	381.1353
103.18	472.5843
103.37	472.8342
105.31	364.3499
106.12	399.8791
109.28	393.1222
111.00	416.4730
111.76	350.2151
116.30	345.1195
117.23	454.3180
121.12	384.2086
121.78	391.8261
122.06	383.9254
123.07	317.0178
131.20	386.3469
133.52	351.2325
136.00	386.9476

136.47	359.5998
140.51	378.6374
140.51	0.0000
143.76	376.3907
144.24	371.8658
144.24	371.8658
145.44	397.4217
152.43	354.5406
153.25	377.6382
154.21	365.0069
154.21	365.0069
156.02	347.0552
158.56	342.4923
159.00	341.0150
162.66	347.3612
163.33	340.1570
165.86	355.4814
176.60	312.0628
177.52	312.5799
181.07	336.0922
184.41	339.3945
185.72	327.7660
193.51	352.7901
197.04	309.7168
205.31	307.4907
210.85	298.1895
215.65	325.0573
222.11	288.3309
227.38	293.4285
228.16	297.5532
228.18	297.5628
235.69	270.1439
235.96	278.8735
235.96	278.8735
238.63	267.4234
238.63	267.4234
240.99	268.3086
242.00	268.6875
244.70	218.2755
252.40	240.1799
252.80	240.3095
256.23	276.8838
256.23	276.8838
260.90	0.0000
264.66	215.1958
268.22	195.1627
269.46	230.5568
269.46	230.5568
271.23	227.5553
273.65	190.4612
276.40	230.5559
277.37	223.7427
277.60	223.8102
278.00	200.6144
279.20	196.3463
279.54	184.2473
280.46	185.9822
283.69	219.3654
284.31	204.2155
285.41	205.5106
285.90	0.0000
287.50	215.2551
293.27	0.0000
295.22	181.5521
295.96	161.5193
298.57	162.0144
299.98	223.1320
299.98	223.1320
300.09	223.1626
300.09	223.1626
300.13	223.1713
301.36	200.0469
302.85	190.9973
304.50	209.5573
304.50	209.5573
304.85	203.3622
308.46	174.3689
311.90	192.9743

316.51	199.2681
319.41	210.5402
320.08	200.0560
323.87	182.7208
323.87	182.7208
328.76	190.1331
333.37	166.7841
334.37	183.1698
334.37	183.1698
338.28	157.3400
338.28	157.3400
338.32	157.3459
338.32	157.3459
338.32	157.3459
340.48	199.0319
340.55	199.0468
344.28	152.8658
351.06	173.7190
351.93	173.8733
356.01	134.2576
364.49	147.0928
366.42	151.8379
383.85	165.7500
388.16	149.3206
388.63	159.6505
391.69	179.5445
400.66	156.8101
401.81	161.5902
402.40	176.6915
404.85	177.0806
410.95	153.6079
414.70	131.7010
423.72	135.0353
427.09	144.2790
427.87	169.1738
433.94	135.3286
453.88	128.5337
463.37	135.9043
468.07	117.1875
473.00	107.5345
476.78	128.1321
477.60	123.6008
487.02	108.7074
492.35	0.0000
497.08	123.5828
511.00	125.8138
514.00	121.3486
527.90	0.0000
529.87	0.0000
531.02	116.1257
537.26	119.5309
546.56	0.0000
563.25	101.0763
569.33	96.5645
569.50	105.4424
569.70	105.4555
583.19	93.4722
600.60	124.6963
602.73	111.1715
604.72	119.3756
609.32	117.2957
609.32	117.2957
609.32	117.2957
610.33	127.8928
614.28	86.0137
618.01	116.9162
621.93	86.6264
621.93	86.6264
633.25	100.5720
635.95	88.4014
636.99	81.2566
645.85	93.0652
657.76	96.6374
661.66	124.2041
661.66	124.2041
664.57	0.0000
666.33	110.5178
666.50	108.8560

677.62	110.6076
685.70	94.1850
695.00	109.5727
696.49	116.0520
696.51	116.0553
697.00	109.6953
702.65	122.8613
706.68	95.2958
711.68	107.3669
720.70	89.1956
721.93	0.0000
722.78	114.0659
722.91	114.0756
723.31	119.2878
724.19	103.7754
727.33	91.8235
733.00	81.0970
735.93	85.9385
739.50	100.2684
747.24	88.6407
752.31	114.1118
753.82	99.9256
756.73	101.1781
763.94	90.0743
765.81	99.0008
766.42	106.1045
777.92	98.9462
778.90	95.6582
783.70	88.0842
785.37	72.5359
795.86	68.2052
801.95	88.8871
810.29	86.7656
810.76	79.5545
815.77	63.4358
818.51	73.5012
832.01	76.7197
834.85	84.1387
836.80	0.0000
846.77	71.7387
856.80	61.6016
860.56	77.7533
871.09	63.2486
873.19	68.8962
875.33	0.0000
879.36	60.6868
880.51	56.0479
883.24	63.5989
884.68	73.9352
889.28	71.2741
898.04	82.8523
911.20	73.8658
911.20	73.8658
911.20	73.8658
926.50	72.4523
937.49	97.6994
944.13	88.3703
946.00	87.4786
949.00	77.0039
962.29	64.5296
964.08	64.5768
966.15	77.5586
968.97	77.6504
968.97	77.6504
968.97	77.6504
983.53	71.2819
996.26	80.4865
1001.03	80.6427
1004.73	92.5817
1037.84	79.8320
1038.76	0.0000
1048.07	83.1581
1050.41	73.2032
1050.41	73.2032
1063.66	71.5616
1085.87	83.3453
1099.45	79.6796
1112.07	80.0528

1115.54	95.9128
1120.29	81.3222
1120.29	81.3222
1120.29	81.3222
1120.55	81.3299
1121.30	81.3530
1131.51	0.0000
1173.23	90.2160
1177.93	89.3123
1189.05	100.2046
1204.77	106.0498
1221.41	127.9805
1231.02	111.2719
1235.36	112.5059
1238.28	114.7585
1260.41	0.0000
1271.85	69.4031
1274.44	62.9476
1274.54	59.6943
1291.59	69.8438
1298.22	0.0000
1312.11	70.3031
1332.49	38.6931
1365.19	31.6384
1368.63	0.0000
1384.29	33.6943
1408.01	25.4498
1457.56	0.0000
1460.82	26.8003
1489.16	26.0519
1505.03	18.2755
1596.21	15.3262
1620.50	19.9943
1678.03	0.0000
1690.97	19.3386
1764.49	14.5081
1764.49	14.5081
1764.49	14.5081
1770.23	16.0105
1771.35	14.2355
1791.20	0.0000
1836.06	11.5935

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202065189

Total Uranium Activity	5.3397E+00	ug/g
Total Uranium Counting Unc.	2.0440E+00	ug/g
Total Uranium Tpu	1.0428E-06	ug/g
Total Uranium Mda	8.6471E-01	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G1202065189      *
*   ANALYST       : MXR1                      DETECTOR   : GAM21            *
*   SAMPLE DATE   :  5-MAR-2010 12:00:00.00   COUNT TIME :    0 04:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 23:00:25.28    SAMPLE ALQT:  122.070 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.099E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.251E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.798E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.851E+00
```

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 10:17:29.46

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 25-MAR-2010 09:16:55
Sample ID         : G1202065190          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:02.21  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.48	3653	1120	1.07	119.22	113	11	1.01E+00	2.4	
2	2	74.80	274	459	1.22	149.83	145	15	7.62E-02	14.2	3.12E+00
3	2	77.10*	407	386	1.08	154.42	145	15	1.13E-01	9.4	
4	0	88.09	1951	721	1.15	176.38	171	12	5.42E-01	3.6	
5	0	92.85*	119	426	1.77	185.90	183	9	3.31E-02	33.6	
6	0	122.01	348	514	1.08	244.16	238	12	9.68E-02	14.1	
7	0	186.19*	142	575	1.24	372.40	365	13	3.94E-02	36.4	
8	0	209.26	60	349	1.10	418.50	415	8	1.67E-02	55.4	
9	3	238.69*	843	316	1.32	477.30	470	20	2.34E-01	5.1	2.05E+00
10	3	241.58	162	435	1.82	483.08	470	20	4.50E-02	28.8	
11	0	270.41	89	437	1.23	540.69	534	14	2.47E-02	51.1	
12	0	295.39*	209	346	1.61	590.59	585	12	5.80E-02	19.2	
13	0	338.36*	158	363	1.27	676.47	669	12	4.40E-02	25.5	
14	0	351.92*	489	321	1.40	703.58	697	13	1.36E-01	8.9	
15	0	583.37*	288	179	1.16	1166.15	1160	13	8.01E-02	11.4	
16	0	609.38*	312	179	1.79	1218.14	1214	13	8.66E-02	10.6	
17	0	661.69	3635	233	1.70	1322.71	1314	18	1.01E+00	1.9	
18	0	911.46*	231	257	2.20	1822.04	1815	18	6.42E-02	17.7	
19	0	969.01*	95	171	1.57	1937.11	1933	10	2.64E-02	28.2	
20	0	1120.06*	81	135	3.88	2239.14	2232	16	2.24E-02	34.5	
21	0	1173.30	2983	187	2.28	2345.61	2334	24	8.29E-01	2.2	
22	0	1238.38*	58	32	3.31	2475.76	2466	16	1.62E-02	25.9	
23	0	1332.59	2827	60	2.48	2664.18	2653	21	7.85E-01	2.0	
24	0	1764.73*	48	21	3.69	3528.67	3519	17	1.33E-02	27.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 25-MAR-2010 10:17:32

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 9-MAR-2010 00:00:00 Acquisition date : 25-MAR-2010 09:16:55
Sample ID : G1202065190 Sample quantity : 151.73 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:02.21 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	+	122.06	*	2.454E-01	7.192E-02	5.698E-02	4.699E-03	4.306
		136.47		2.217E-01	2.863E-01	4.960E-01	4.597E-02	0.447
CO-60	+	1173.23		6.587E+00	6.035E-01	1.006E-01	8.091E-03	65.472
	+	1332.49	*	6.898E+00	6.740E-01	7.319E-02	6.526E-03	94.247
CD-109	+	88.03	*	3.543E+01	4.214E+00	1.843E+00	1.749E-01	19.226
SN-126		64.28		-6.603E-01	6.794E-01	1.045E+00	1.517E-01	-0.632
	+	86.94		1.437E+01	6.058E+00	7.547E-01	3.134E-01	19.038
	+	87.57	*	3.456E+00	4.111E-01	1.805E-01	1.704E-02	19.148
BA-137M	+	661.66	*	5.580E+00	6.266E-01	8.497E-02	8.961E-03	65.662
CS-137	+	661.66	*	5.894E+00	6.626E-01	8.977E-02	9.478E-03	65.662
TL-208		277.37		2.304E-01	6.904E-01	1.035E+00	1.722E-01	0.223
	+	583.19	*	4.272E-01	1.080E-01	9.539E-02	1.034E-02	4.478
		860.56		2.452E-01	5.082E-01	8.648E-01	1.008E-01	0.284
BI-211		72.87		1.759E+00	4.575E+00	6.832E+00	5.468E-01	0.257
	+	351.06	*	3.464E+00	7.343E-01	5.093E-01	5.942E-02	6.803
PB-212	+	74.82		2.143E+00	6.663E-01	7.556E-01	9.596E-02	2.836
	+	77.11		1.821E+00	3.750E-01	4.352E-01	3.639E-02	4.185
	+	238.63	*	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
		300.09		2.117E+00	1.358E+00	2.110E+00	3.094E-01	1.003
BI-214	+	609.32	*	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
	+	1120.29		1.141E+00	7.986E-01	7.309E-01	8.111E-02	1.562
	+	1764.49		9.010E-01	5.089E-01	4.442E-01	3.700E-02	2.029
PB-214	+	74.82		3.798E+00	1.162E+00	1.339E+00	1.524E-01	2.836
	+	77.11		3.211E+00	7.122E-01	7.672E-01	9.011E-02	4.185
	+	242.00		1.657E+00	9.807E-01	8.560E-01	1.184E-01	1.936
	+	295.22		9.401E-01	3.882E-01	3.710E-01	5.566E-02	2.534
	+	351.93	*	1.257E+00	2.754E-01	1.852E-01	2.384E-02	6.790
RA-224	+	240.99	*	2.930E+00	1.726E+00	1.509E+00	1.889E-01	1.941
RA-226	+	609.32	*	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
	+	1120.29		1.141E+00	7.986E-01	7.309E-01	8.111E-02	1.562
	+	1764.49		9.010E-01	5.089E-01	4.442E-01	3.700E-02	2.029
AC-228	+	338.32		1.258E+00	8.356E-01	5.950E-01	2.530E-01	2.114
	+	911.20	*	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
	+	968.97		1.124E+00	6.948E-01	7.823E-01	1.967E-01	1.436

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	+	338.32		1.258E+00	8.356E-01	5.950E-01	2.530E-01	2.114
	+	911.20	*	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
	+	968.97		1.124E+00	6.948E-01	7.823E-01	1.967E-01	1.436
TH-228	+	74.82		2.143E+00	6.334E-01	7.556E-01	6.231E-02	2.836
	+	77.11		1.821E+00	3.750E-01	4.352E-01	3.639E-02	4.185
	+	238.63	*	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
		300.09		2.117E+00	1.864E+00	2.110E+00	1.309E+00	1.003
TH-230	+	609.32	*	8.897E-01	2.101E-01	1.672E-01	1.741E-02	5.320
	+	1120.29		1.141E+00	7.949E-01	7.309E-01	6.464E-02	1.562
	+	1764.49		9.009E-01	5.089E-01	4.441E-01	3.700E-02	2.029
TH-232	+	338.32		1.258E+00	6.593E-01	5.950E-01	7.076E-02	2.114
	+	911.20	*	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
	+	968.97		1.124E+00	6.948E-01	7.823E-01	1.967E-01	1.436
AM-241	+	59.54	*	1.388E+01	1.276E+00	4.300E-01	3.361E-02	32.276

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-6.283E-01	6.229E-01	9.539E-01	9.954E-02	-0.659
NA-22		1274.54	*	3.530E-02	4.785E-02	8.450E-02	7.283E-03	0.418
NA-24		1368.63	*	-4.793E+00	4.785E-02	Half-Life too short		
K-40		1460.82	*	1.020E+00	5.080E-01	1.009E+00	9.248E-02	1.010
SC-46		889.28	*	1.936E-02	7.345E-02	1.235E-01	1.382E-02	0.157
	+	1120.55		1.951E-01	1.359E-01	1.669E-01	1.476E-02	1.169
V-48		944.13		-1.120E+00	1.997E+00	3.200E+00	3.471E-01	-0.350
		983.53	*	8.991E-02	1.497E-01	2.529E-01	2.652E-02	0.356
		1312.11		-1.098E-01	9.952E-02	1.444E-01	1.272E-02	-0.760
CR-51		320.08	*	2.543E-01	6.268E-01	1.064E+00	1.377E-01	0.239
MN-54		834.85	*	5.691E-03	6.465E-02	1.084E-01	1.204E-02	0.053
CO-56		846.77	*	9.840E-03	7.148E-02	1.199E-01	1.335E-02	0.082
		1037.84		-1.871E-02	5.661E-01	9.231E-01	9.511E-02	-0.020
	+	1238.28		2.310E-01	1.211E-01	1.784E-01	1.546E-02	1.295
		1771.35		1.750E-01	3.558E-01	5.459E-01	4.536E-02	0.320
CO-58		810.76	*	-4.948E-02	6.825E-02	1.094E-01	1.212E-02	-0.452
FE-59		1099.45	*	6.726E-02	1.725E-01	2.863E-01	2.805E-02	0.235
		1291.59		1.053E-03	1.448E-01	2.395E-01	2.361E-02	0.004
ZN-65		1115.54	*	4.760E-02	1.851E-01	2.607E-01	2.326E-02	0.183
SE-75	+	121.12		1.288E+00	3.880E-01	4.214E-01	4.549E-02	3.056
		136.00		4.249E-02	5.623E-02	9.736E-02	8.451E-03	0.436
		264.66	*	-3.781E-02	8.181E-02	1.112E-01	1.496E-02	-0.340
		279.54		-3.865E-02	1.868E-01	2.960E-01	4.203E-02	-0.131
		400.66		-1.363E-01	4.402E-01	7.125E-01	8.320E-02	-0.191
SR-85		514.00	*	-6.774E-02	7.280E-02	1.115E-01	1.119E-02	-0.608
Y-88		898.04		-1.224E-02	7.860E-02	1.292E-01	1.452E-02	-0.095
		1836.06	*	4.593E-02	4.760E-02	8.778E-02	7.097E-03	0.523
Y-91		1204.77	*	-5.302E+00	2.374E+01	3.875E+01	3.186E+00	-0.137
NB-94		702.65	*	-1.147E-02	5.099E-02	8.211E-02	8.799E-03	-0.140
		871.09		-2.237E-02	6.412E-02	1.046E-01	1.168E-02	-0.214

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	1.970E-02	6.972E-02	1.146E-01	1.253E-02	0.172
NB-95M		235.69	*	6.343E-02	2.291E-01	3.296E-01	4.361E-02	0.192
ZR-95		724.19		3.637E-02	1.474E-01	2.431E-01	2.768E-02	0.150
		756.73	*	-6.121E-02	1.216E-01	1.909E-01	2.221E-02	-0.321
MO-99		140.51		1.745E-04	4.089E+01	6.899E+01	1.642E+01	0.000
		181.07		9.353E+00	4.009E+01	5.901E+01	1.158E+01	0.158
		366.42		2.582E+00	2.206E+02	3.652E+02	3.874E+01	0.007
		739.50	*	-5.276E-01	2.630E+01	4.266E+01	7.287E+00	-0.012
		777.92		-1.249E+01	8.222E+01	1.317E+02	1.445E+01	-0.095
TC-99M		140.51	*	6.925E+06	8.222E+01	Half-Life too short		
RU-103		497.08	*	2.732E-02	6.869E-02	1.127E-01	1.670E-02	0.243
	+	610.33		9.387E+00	2.572E+00	3.130E+00	5.433E-01	2.999
RH-106		621.93	*	-1.807E-01	4.959E-01	8.014E-01	1.163E-01	-0.225
		1050.41		-1.497E+00	4.721E+00	7.558E+00	7.378E-01	-0.198
RU-106		621.93	*	-1.807E-01	4.956E-01	8.014E-01	8.371E-02	-0.225
		1050.41		-1.497E+00	4.721E+00	7.558E+00	7.378E-01	-0.198
AG-108M		433.94	*	-5.355E-02	5.411E-02	8.384E-02	8.251E-03	-0.639
		614.28		2.403E-02	6.516E-02	9.506E-02	1.013E-02	0.253
		722.91		-7.880E-02	6.189E-02	9.243E-02	1.018E-02	-0.852
AG-110M		657.76	*	7.130E-01	1.192E-01	1.773E-01	1.905E-02	4.023
		677.62		1.271E-01	4.526E-01	7.539E-01	8.155E-02	0.169
		706.68		-2.418E-01	3.183E-01	4.932E-01	5.392E-02	-0.490
		763.94		-2.733E-01	2.676E-01	4.047E-01	4.499E-02	-0.675
		884.68		-1.028E-03	9.467E-02	1.570E-01	1.791E-02	-0.007
		937.49		-2.892E-02	2.334E-01	3.829E-01	4.270E-02	-0.076
		1384.29		-1.079E-01	1.977E-01	3.046E-01	2.791E-02	-0.354
		1505.03		-1.076E-01	3.587E-01	5.624E-01	5.001E-02	-0.191
SN-113		391.69	*	-2.312E-02	7.727E-02	1.254E-01	1.198E-02	-0.184
CD-115		260.90		1.167E+02	3.285E+02	5.361E+02	7.124E+01	0.218
		492.35		3.925E+01	9.848E+01	1.617E+02	1.605E+01	0.243
		527.90	*	1.856E+00	2.666E+01	4.483E+01	4.527E+00	0.041
SN-117M		156.02		-1.087E+00	3.445E+00	5.702E+00	5.346E-01	-0.191
		158.56	*	-2.678E-02	8.457E-02	1.398E-01	1.326E-02	-0.192
TE-123M		159.00	*	4.039E-03	4.073E-02	6.837E-02	6.530E-03	0.059
SB-124		602.73		1.380E-02	6.525E-02	9.822E-02	1.020E-02	0.140
		645.85		-1.820E-01	7.986E-01	1.297E+00	1.416E-01	-0.140
		722.78		-7.815E-01	6.315E-01	9.460E-01	1.036E-01	-0.826
		1690.97	*	1.561E-02	9.962E-02	1.685E-01	1.503E-02	0.093
SB-125		427.87	*	5.091E-03	1.563E-01	2.555E-01	2.477E-02	0.020
		463.37		3.834E-01	5.168E-01	8.610E-01	8.908E-02	0.445
		600.60		2.445E-02	2.696E-01	4.487E-01	4.898E-02	0.054
		635.95		5.052E-01	4.458E-01	7.722E-01	8.545E-02	0.654
TE-125M		109.28	*	-4.316E+00	1.409E+01	2.212E+01	2.275E+00	-0.195
I-126		388.63		3.775E-02	3.027E-01	5.008E-01	4.742E-02	0.075
		666.33	*	6.479E-01	4.249E-01	6.622E-01	6.997E-02	0.978
		753.82		3.102E+00	3.189E+00	5.430E+00	5.918E-01	0.571
SB-126		414.70		-7.470E-04	1.388E-01	2.271E-01	2.149E-02	-0.003
		666.50		1.642E-01	1.426E-01	2.180E-01	2.304E-02	0.753
		695.00		1.876E-02	1.282E-01	2.113E-01	2.258E-02	0.089

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		697.00		-7.329E-02	4.456E-01	7.210E-01	7.711E-02	-0.102
		720.70	*	-2.106E-02	2.478E-01	4.016E-01	4.331E-02	-0.052
		856.80		-6.932E-03	9.058E-01	1.507E+00	1.680E-01	-0.005
SB-127		252.40		-9.839E-01	8.641E+00	1.386E+01	5.924E+00	-0.071
		473.00		1.102E+00	3.889E+00	6.363E+00	8.859E-01	0.173
		685.70	*	1.226E+00	2.581E+00	4.330E+00	5.761E-01	0.283
		783.70		1.995E+00	7.273E+00	1.193E+01	1.719E+00	0.167
I-131		80.19		-2.751E+00	7.741E+00	1.110E+01	9.673E-01	-0.248
		284.31		-1.483E+00	2.847E+00	4.431E+00	6.264E-01	-0.335
		364.49	*	-1.378E-01	2.102E-01	3.368E-01	3.734E-02	-0.409
		636.99		1.242E-01	2.859E+00	4.721E+00	5.148E-01	0.026
TE-132		49.72		5.517E+00	4.220E+01	7.111E+01	7.756E+00	0.078
		111.76		-2.937E+01	6.331E+01	9.891E+01	1.102E+01	-0.297
		116.30		9.154E+00	6.094E+01	8.690E+01	9.647E+00	0.105
		228.16	*	-6.566E-01	1.545E+00	2.465E+00	4.470E-01	-0.266
BA-133		81.00		-4.321E-02	1.469E-01	2.110E-01	3.287E-02	-0.205
		276.40		8.390E-01	6.628E-01	9.708E-01	1.731E-01	0.864
		302.85		6.460E-02	2.181E-01	3.612E-01	5.960E-02	0.179
		356.01	*	1.313E-02	7.462E-02	1.086E-01	1.599E-02	0.121
		383.85		3.371E-01	4.963E-01	8.383E-01	1.108E-01	0.402
I-133		529.87	*	-2.273E-02	4.963E-01	Half-Life too short		
		875.33		-3.329E-01	4.963E-01	Half-Life too short		
		1298.22		1.715E-01	4.963E-01	Half-Life too short		
CS-134		563.25		2.318E-01	5.912E-01	1.003E+00	1.034E-01	0.231
		569.33		-2.969E-01	3.309E-01	5.240E-01	5.434E-02	-0.567
		604.72		1.602E-02	5.513E-02	8.028E-02	8.358E-03	0.200
		795.86	*	7.098E-02	7.708E-02	1.302E-01	1.442E-02	0.545
		801.95		-3.819E-01	7.103E-01	1.107E+00	1.226E-01	-0.345
		1365.19		1.616E+00	1.488E+00	2.715E+00	2.530E-01	0.595
CS-135		268.22	*	2.535E-01	2.738E-01	4.019E-01	5.813E-02	0.631
I-135		546.56		-2.443E+11	2.738E-01	Half-Life too short		
		836.80		6.952E+11	2.738E-01	Half-Life too short		
		1038.76		1.407E+11	2.738E-01	Half-Life too short		
		1131.51		8.949E+09	2.738E-01	Half-Life too short		
		1260.41	*	1.469E+11	2.738E-01	Half-Life too short		
		1457.56		1.196E+12	2.738E-01	Half-Life too short		
		1678.03		4.265E+09	2.738E-01	Half-Life too short		
		1791.20		-1.507E+11	2.738E-01	Half-Life too short		
CS-136		153.25		7.859E-01	1.296E+00	2.216E+00	2.395E-01	0.355
		176.60		9.649E-02	7.804E-01	1.301E+00	1.422E-01	0.074
		273.65		-6.261E-01	1.046E+00	1.405E+00	2.003E-01	-0.446
		340.55		4.365E-01	2.906E-01	4.473E-01	5.385E-02	0.976
		818.51		4.071E-02	1.422E-01	2.411E-01	2.672E-02	0.169
		1048.07	*	-2.620E-02	2.080E-01	3.369E-01	3.407E-02	-0.078
		1235.36		1.072E+00	7.350E-01	1.202E+00	1.394E-01	0.892
CE-139		165.86	*	1.006E-02	4.292E-02	7.218E-02	7.079E-03	0.139
BA-140		162.66		-7.156E-01	1.282E+00	2.095E+00	2.133E-01	-0.342
		304.85		-4.603E+00	2.633E+00	3.400E+00	1.051E+00	-1.354
		423.72		1.004E+00	3.518E+00	5.797E+00	1.921E+00	0.173

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		537.26	*	2.555E-01	4.698E-01	7.925E-01	2.721E-01	0.322
LA-140		328.76		2.339E-01	5.107E-01	8.663E-01	1.095E-01	0.270
		487.02		5.407E-02	2.615E-01	4.260E-01	4.416E-02	0.127
		815.77		2.431E-01	6.094E-01	1.039E+00	1.233E-01	0.234
		1596.21	*	-7.469E-02	1.255E-01	1.933E-01	1.694E-02	-0.386
CE-141		145.44	*	-9.325E-02	8.903E-02	1.435E-01	1.306E-02	-0.650
CE-143		57.36		1.360E-02	8.903E-02	Half-Life too short		
		293.27	*	6.885E-04	8.903E-02	Half-Life too short		
		664.57		2.009E-01	8.903E-02	Half-Life too short		
		721.93		-3.067E-03	8.903E-02	Half-Life too short		
CE-144		80.12		-1.489E+00	3.765E+00	5.387E+00	4.657E-01	-0.276
		133.52	*	-2.078E-01	2.823E-01	4.627E-01	7.052E-02	-0.449
PM-144		476.78		-8.818E-02	1.223E-01	1.905E-01	2.001E-02	-0.463
		618.01		3.062E-02	5.630E-02	8.899E-02	9.464E-03	0.344
		696.49	*	-2.925E-03	5.313E-02	8.652E-02	9.253E-03	-0.034
PR-144		696.51	*	-1.968E-01	3.980E+00	6.484E+00	6.932E-01	-0.030
		1489.16		-7.258E+00	1.691E+01	2.607E+01	2.322E+00	-0.278
PM-146		453.88	*	-1.790E-02	7.911E-02	1.271E-01	1.461E-02	-0.141
		633.25		1.191E+00	2.386E+00	3.962E+00	1.531E+00	0.301
		735.93		-3.607E-02	2.360E-01	3.797E-01	1.093E-01	-0.095
		747.24		-5.684E-02	1.548E-01	2.450E-01	3.926E-02	-0.232
ND-147		91.11		1.133E+00	4.999E-01	6.529E-01	6.454E-02	1.735
		319.41		6.263E+00	5.893E+00	1.018E+01	1.289E+00	0.615
		531.02	*	-5.022E-01	9.584E-01	1.558E+00	2.470E-01	-0.322
PM-149		285.90	*	-9.432E+01	2.346E+02	3.669E+02	6.943E+01	-0.257
EU-152	+	121.78		7.042E-01	2.092E-01	2.340E-01	2.241E-02	3.009
		244.70		-1.162E-01	5.865E-01	8.195E-01	1.038E-01	-0.142
		344.28	*	1.084E-02	1.766E-01	2.560E-01	3.076E-02	0.042
		778.90		-3.505E-02	4.294E-01	6.905E-01	7.577E-02	-0.051
		964.08		6.815E-01	6.438E-01	9.622E-01	1.027E-01	0.708
		1085.87		5.522E-01	7.090E-01	1.202E+00	1.120E-01	0.459
		1112.07		1.361E-01	6.035E-01	8.493E-01	7.610E-02	0.160
		1408.01		1.995E-01	2.127E-01	3.831E-01	3.425E-02	0.521
GD-153		69.67		1.741E+00	2.575E+00	3.906E+00	3.031E-01	0.446
		97.43	*	1.063E-02	1.262E-01	1.821E-01	1.601E-02	0.058
		103.18		-6.306E-02	1.586E-01	2.501E-01	2.138E-02	-0.252
EU-154	+	123.07		4.979E-01	1.505E-01	1.633E-01	1.810E-02	3.049
		723.31		-3.501E-01	2.795E-01	4.175E-01	4.803E-02	-0.838
		873.19		-1.989E-01	5.418E-01	8.824E-01	1.223E-01	-0.225
		996.26		-2.573E-01	6.599E-01	1.056E+00	1.942E-01	-0.244
		1004.73		6.650E-02	3.860E-01	6.386E-01	8.244E-02	0.104
		1274.44	*	9.591E-02	1.353E-01	2.380E-01	2.707E-02	0.403
EU-155		86.55		2.227E+00	2.999E-01	4.013E-01	3.775E-02	5.550
		105.31	*	1.250E-01	1.480E-01	2.449E-01	2.101E-02	0.511
TB-160	+	86.79		1.125E+01	1.339E+00	1.163E+00	1.087E-01	9.679
		197.04		-3.828E-01	8.637E-01	1.398E+00	1.520E-01	-0.274
		215.65		-7.725E-02	1.238E+00	2.019E+00	2.333E-01	-0.038
		298.57		1.395E-01	1.969E-01	2.985E-01	4.001E-02	0.467
		879.36	*	1.579E-01	2.792E-01	4.721E-01	5.279E-02	0.334

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		962.29		2.237E-01	1.213E+00	1.728E+00	1.846E-01	0.129
		966.15		1.234E+00	5.060E-01	7.894E-01	8.409E-02	1.563
		1177.93		1.119E+01	1.389E+00	2.227E+00	1.797E-01	5.023
		1271.85		-1.349E-01	7.676E-01	1.248E+00	1.073E-01	-0.108
HO-166M		80.57		-9.026E-02	4.105E-01	5.922E-01	5.146E-02	-0.152
		184.41		5.621E-02	5.358E-02	9.226E-02	9.619E-03	0.609
		280.46		-2.474E-02	1.417E-01	2.248E-01	3.140E-02	-0.110
		410.95		1.279E-01	4.175E-01	6.927E-01	6.538E-02	0.185
		711.68	*	-1.588E-02	9.174E-02	1.480E-01	1.591E-02	-0.107
		752.31		5.142E-01	4.519E-01	7.749E-01	8.442E-02	0.664
		810.29		-4.304E-02	1.016E-01	1.660E-01	1.836E-02	-0.259
TA-182		67.75		1.150E-02	1.506E-01	2.497E-01	1.904E-02	0.046
		100.11		-2.538E-03	2.407E-01	3.869E-01	3.353E-02	-0.007
		152.43		1.371E-02	4.968E-01	8.343E-01	7.697E-02	0.016
		222.11		6.560E-03	5.948E-01	9.703E-01	1.145E-01	0.007
	+	1121.30		5.389E-01	3.753E-01	4.468E-01	3.945E-02	1.206
		1189.05		-2.458E-01	3.723E-01	5.872E-01	4.775E-02	-0.419
		1221.41	*	-4.006E-02	2.117E-01	3.461E-01	2.878E-02	-0.116
		1231.02		-1.390E-01	5.403E-01	7.356E-01	6.156E-02	-0.189
IR-192	+	295.96		7.034E-01	2.869E-01	3.395E-01	4.593E-02	2.072
		308.46		9.459E-02	1.498E-01	2.569E-01	3.364E-02	0.368
		316.51	*	-2.151E-02	5.621E-02	9.255E-02	1.183E-02	-0.232
		468.07		-1.002E-01	1.321E-01	2.062E-01	2.134E-02	-0.486
HG-203		70.83		5.832E-01	2.008E+00	2.991E+00	4.683E-01	0.195
		72.87		4.461E-01	1.162E+00	1.733E+00	2.634E-01	0.257
		279.20	*	-1.630E-02	6.628E-02	1.049E-01	1.483E-02	-0.155
BI-207		72.81		9.041E-02	2.632E-01	3.924E-01	3.139E-02	0.230
	+	74.97		6.177E-01	1.824E-01	2.712E-01	2.217E-02	2.278
		569.70		-2.357E-02	5.004E-02	8.121E-02	8.342E-03	-0.290
		1063.66	*	4.345E-02	9.695E-02	1.619E-01	1.554E-02	0.268
		1770.23		7.526E-01	7.657E-01	1.253E+00	1.042E-01	0.601
PB-210		46.54	*	-9.424E-01	5.493E+00	9.202E+00	8.474E-01	-0.102
PB-211		404.85	*	-5.866E-01	1.262E+00	1.975E+00	9.587E-01	-0.297
		427.09		-2.420E+00	2.866E+00	4.120E+00	1.913E+00	-0.587
		832.01		-9.521E-01	1.833E+00	2.864E+00	1.499E+00	-0.332
BI-212		727.33	*	4.134E-03	8.732E-01	1.422E+00	2.000E-01	0.003
		785.37		4.290E+00	5.199E+00	8.762E+00	9.631E-01	0.490
		1620.50		-2.024E+00	2.877E+00	4.334E+00	3.778E-01	-0.467
RN-219	+	271.23		6.485E-01	6.698E-01	6.503E-01	9.607E-02	0.997
		401.81	*	-2.733E-01	7.024E-01	1.131E+00	1.733E-01	-0.242
RA-223		81.07		-8.385E-02	3.328E-01	4.792E-01	4.188E-02	-0.175
		83.79		3.097E-02	2.012E-01	2.943E-01	2.655E-02	0.105
		94.87		6.172E-01	6.478E-01	9.757E-01	8.724E-02	0.633
		144.24		-7.471E-01	9.104E-01	1.476E+00	1.458E-01	-0.506
		154.21		4.311E-01	5.470E-01	9.396E-01	9.461E-02	0.459
	+	269.46		5.039E-01	5.197E-01	4.959E-01	6.809E-02	1.016
		323.87	*	-8.937E-01	1.081E+00	1.725E+00	3.372E-01	-0.518
	+	338.28		4.991E+00	2.650E+00	3.163E+00	4.615E-01	1.578
AC-227		79.69		-1.439E+00	1.876E+00	2.614E+00	4.503E-01	-0.551

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		235.96		4.373E-01	2.840E-01	4.245E-01	5.767E-02	1.030
		256.23	*	-2.257E-02	4.155E-01	6.680E-01	1.041E-01	-0.034
		299.98		1.643E+00	1.520E+00	2.325E+00	3.788E-01	0.707
		304.50		-4.167E+00	2.616E+00	3.892E+00	7.519E-01	-1.071
		334.37		1.731E-01	3.153E+00	4.583E+00	8.122E-01	0.038
TH-227		79.80		-1.688E+00	2.484E+00	3.469E+00	7.554E-01	-0.487
		235.96		4.373E-01	2.836E-01	4.245E-01	5.580E-02	1.030
		256.23	*	-2.257E-02	4.155E-01	6.680E-01	1.123E-01	-0.034
		299.98		1.643E+00	1.520E+00	2.325E+00	3.788E-01	0.707
		304.50		-4.167E+00	2.616E+00	3.892E+00	7.519E-01	-1.071
		334.37		1.731E-01	3.153E+00	4.583E+00	8.122E-01	0.038
TH-229		85.43		3.726E-01	3.410E-01	5.148E-01	4.736E-02	0.724
	+	88.47		5.329E+00	6.338E-01	5.928E-01	5.600E-02	8.988
		193.51	*	-5.836E-01	7.982E-01	1.275E+00	1.371E-01	-0.458
		210.85		7.206E-01	1.624E+00	2.378E+00	2.706E-01	0.303
PA-231		283.69	*	-3.662E-01	2.451E+00	3.888E+00	7.072E-01	-0.094
		301.36		1.757E+00	9.721E-01	1.507E+00	2.386E-01	1.166
TH-231		81.07		-8.385E-02	3.328E-01	4.792E-01	4.188E-02	-0.175
		83.79		3.097E-02	2.012E-01	2.943E-01	2.655E-02	0.105
		94.87		6.172E-01	6.478E-01	9.757E-01	8.724E-02	0.633
		144.24		-7.471E-01	9.104E-01	1.476E+00	1.458E-01	-0.506
		154.21		4.311E-01	5.470E-01	9.396E-01	9.461E-02	0.459
	+	269.46		5.039E-01	5.197E-01	4.959E-01	6.809E-02	1.016
		323.87	*	-8.937E-01	1.081E+00	1.725E+00	3.372E-01	-0.518
	+	338.28		4.991E+00	2.650E+00	3.163E+00	4.615E-01	1.578
PA-233		300.13		1.057E+00	6.852E-01	1.051E+00	1.891E-01	1.006
		311.90	*	6.103E-02	1.006E-01	1.723E-01	2.258E-02	0.354
		340.48		1.757E+00	1.240E+00	1.808E+00	4.589E-01	0.972
PA-234		94.67		2.927E-01	2.393E-01	3.622E-01	4.577E-02	0.808
		98.44		-1.647E-02	1.293E-01	1.964E-01	1.096E-01	-0.084
		111.00		-1.023E-01	2.634E-01	4.113E-01	4.892E-02	-0.249
		131.20		-1.650E-02	1.461E-01	2.466E-01	2.089E-02	-0.067
		569.50		-2.014E-01	4.445E-01	7.222E-01	7.417E-02	-0.279
		733.00		-4.800E-01	6.579E-01	1.011E+00	2.340E-01	-0.475
		880.51		1.041E-01	5.499E-01	9.147E-01	1.023E-01	0.114
		883.24		-5.849E-02	5.542E-01	9.127E-01	6.170E-01	-0.064
		926.50		-5.388E-02	3.599E-01	5.898E-01	1.544E-01	-0.091
		946.00	*	-2.163E-01	6.427E-01	1.040E+00	2.068E-01	-0.208
		949.00		-2.714E-01	9.596E-01	1.560E+00	1.686E-01	-0.174
PA-234M		766.42		5.938E+00	1.873E+01	3.044E+01	1.558E+01	0.195
		1001.03	*	1.848E+00	8.268E+00	1.377E+01	1.578E+00	0.134
TH-234		63.29	*	-8.535E-01	1.934E+00	2.879E+00	5.124E-01	-0.296
	+	92.59		1.770E+00	1.254E+00	1.547E+00	3.445E-01	1.145
U-235		89.96		1.035E+01	3.019E+00	2.526E+00	6.279E-01	4.099
	+	93.35		1.337E+00	9.517E-01	1.174E+00	2.730E-01	1.139
		143.76	*	-1.472E-01	2.700E-01	4.419E-01	7.553E-02	-0.333
		163.33		-5.418E-01	6.497E-01	1.039E+00	1.922E-01	-0.521
	+	185.72		1.613E-01	1.187E-01	1.212E-01	1.269E-02	1.331
		205.31		-2.797E-01	8.060E-01	1.135E+00	2.212E-01	-0.246

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237		86.48	*	4.949E+00	1.248E+00	9.559E-01	2.193E-01	5.177
		95.86		9.849E-02	1.320E+00	1.905E+00	4.589E-01	0.052
U-238		63.29	*	-8.535E-01	1.934E+00	2.879E+00	5.124E-01	-0.296
	+	92.59		1.770E+00	1.201E+00	1.547E+00	1.407E-01	1.145
NP-239		99.53		-1.067E-01	2.240E-01	3.527E-01	3.066E-02	-0.303
		103.37		-2.145E-03	1.417E-01	2.273E-01	1.941E-02	-0.009
		106.12		-8.509E-02	1.193E-01	1.849E-01	1.564E-02	-0.460
		117.23	*	-2.970E-01	6.546E-01	8.999E-01	7.436E-02	-0.330
		228.18		-1.474E-01	3.487E-01	5.574E-01	6.705E-02	-0.264
		277.60		1.086E-02	3.032E-01	4.688E-01	6.535E-02	0.023
CM-247		278.00		-2.292E-02	1.289E+00	1.988E+00	2.774E-01	-0.012
		287.50		1.600E+00	2.096E+00	3.437E+00	4.728E-01	0.466
		402.40	*	3.664E-02	6.265E-02	1.053E-01	9.875E-03	0.348
CF-249		252.80		-1.459E-01	1.514E+00	2.433E+00	3.156E-01	-0.060
		333.37		-2.101E-02	3.286E-01	4.744E-01	5.740E-02	-0.044
		388.16	*	6.796E-03	6.811E-02	1.126E-01	1.069E-02	0.060
CF-251		177.52	*	1.287E-03	1.909E-01	3.169E-01	3.229E-02	0.004
		227.38		-2.177E-01	5.655E-01	9.055E-01	1.087E-01	-0.240
		285.41		-1.641E+00	3.761E+00	5.881E+00	8.127E-01	-0.279
ANH-511		511.00	*	5.184E-02	6.036E-02	1.083E-01	1.085E-02	0.479

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190      *
* Acquisition date : 25-MAR-2010 09:16:55 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:02.21     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202065190          Analyst initials: MXR1            *
* Batch Number     : 962633               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-57	2.454E-01	7.048E-02	6.108E-02	0.000E+00
CO-60	6.898E+00	6.605E-01	7.391E-02	0.000E+00
CD-109	3.543E+01	4.130E+00	1.990E+00	0.000E+00
SN-126	3.456E+00	4.029E-01	1.950E-01	0.000E+00
BA-137M	5.580E+00	6.140E-01	8.739E-02	0.000E+00
CS-137	5.894E+00	6.494E-01	9.232E-02	0.000E+00
TL-208	4.272E-01	1.058E-01	9.842E-02	0.000E+00
BI-211	3.464E+00	7.196E-01	5.321E-01	0.000E+00
PB-212	1.427E+00	2.333E-01	1.487E-01	0.000E+00
BI-214	8.897E-01	2.110E-01	1.724E-01	0.000E+00
PB-214	1.257E+00	2.699E-01	1.935E-01	0.000E+00
RA-224	2.930E+00	1.691E+00	1.592E+00	0.000E+00
RA-226	8.897E-01	2.110E-01	1.724E-01	0.000E+00
AC-228	1.589E+00	5.890E-01	4.709E-01	0.000E+00
RA-228	1.589E+00	5.890E-01	4.709E-01	0.000E+00
TH-228	1.427E+00	2.333E-01	1.487E-01	0.000E+00
TH-230	8.897E-01	2.059E-01	1.724E-01	0.000E+00
TH-232	1.589E+00	5.890E-01	4.709E-01	0.000E+00
AM-241	1.388E+01	1.250E+00	4.687E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-6.283E-01	6.105E-01	9.892E-01	0.000E+00	NOT IDENT.
NA-22	3.530E-02	4.690E-02	8.544E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	3.888E+06	0.000E+00	0.000E+00	SHORT HLIF
K-40	0.000E+00	4.979E-01	1.017E+00	0.000E+00	NOT IDENT.
SC-46	1.936E-02	7.198E-02	1.260E-01	0.000E+00	FAIL ABUN
V-48	8.991E-02	1.467E-01	2.574E-01	0.000E+00	NOT IDENT.
CR-51	2.543E-01	6.143E-01	1.114E+00	0.000E+00	NOT IDENT.
MN-54	5.691E-03	6.336E-02	1.108E-01	0.000E+00	NOT IDENT.

CO-56	9.840E-03	7.005E-02	1.226E-01	0.000E+00	FAIL ABUN
CO-58	-4.948E-02	6.689E-02	1.120E-01	0.000E+00	NOT IDENT.
FE-59	6.726E-02	1.691E-01	2.906E-01	0.000E+00	NOT IDENT.
ZN-65	4.760E-02	1.814E-01	2.645E-01	0.000E+00	NOT IDENT.
SE-75	-3.781E-02	8.017E-02	1.170E-01	0.000E+00	FAIL ABUN
SR-85	-6.774E-02	7.135E-02	1.154E-01	0.000E+00	NOT IDENT.
Y-88	4.593E-02	4.665E-02	8.788E-02	0.000E+00	NOT IDENT.
Y-91	-5.302E+00	2.326E+01	3.923E+01	0.000E+00	NOT IDENT.
NB-94	-1.147E-02	4.997E-02	8.432E-02	0.000E+00	NOT IDENT.
NB-95	1.970E-02	6.833E-02	1.174E-01	0.000E+00	NOT IDENT.
NB-95M	6.343E-02	2.245E-01	3.477E-01	0.000E+00	NOT IDENT.
ZR-95	-6.121E-02	1.192E-01	1.957E-01	0.000E+00	NOT IDENT.
MO-99	-5.276E-01	2.577E+01	4.375E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.590E+18	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.732E-02	6.732E-02	1.167E-01	0.000E+00	FAIL ABUN
RH-106	-1.807E-01	4.860E-01	8.255E-01	0.000E+00	NOT IDENT.
RU-106	-1.807E-01	4.857E-01	8.255E-01	0.000E+00	NOT IDENT.
AG-108M	-5.355E-02	5.302E-02	8.714E-02	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	1.168E-01	1.823E-01	0.000E+00	NOT IDENT.
SN-113	-2.312E-02	7.572E-02	1.307E-01	0.000E+00	NOT IDENT.
CD-115	1.856E+00	2.613E+01	4.637E+01	0.000E+00	NOT IDENT.
SN-117M	-2.678E-02	8.287E-02	1.489E-01	0.000E+00	NOT IDENT.
TE-123M	4.039E-03	3.991E-02	7.283E-02	0.000E+00	NOT IDENT.
SB-124	1.561E-02	9.763E-02	1.691E-01	0.000E+00	NOT IDENT.
SB-125	5.091E-03	1.532E-01	2.656E-01	0.000E+00	NOT IDENT.
TE-125M	-4.316E+00	1.381E+01	2.378E+01	0.000E+00	NOT IDENT.
I-126	6.479E-01	4.164E-01	6.809E-01	0.000E+00	NOT IDENT.
SB-126	-2.106E-02	2.428E-01	4.121E-01	0.000E+00	NOT IDENT.
SB-127	1.226E+00	2.529E+00	4.449E+00	0.000E+00	NOT IDENT.
I-131	-1.378E-01	2.060E-01	3.516E-01	0.000E+00	NOT IDENT.
TE-132	-6.566E-01	1.514E+00	2.604E+00	0.000E+00	NOT IDENT.
BA-133	1.313E-02	7.313E-02	1.134E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.499E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.098E-02	7.554E-02	1.333E-01	0.000E+00	NOT IDENT.
CS-135	2.535E-01	2.683E-01	4.227E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.638E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.620E-02	2.038E-01	3.424E-01	0.000E+00	NOT IDENT.
CE-139	1.006E-02	4.207E-02	7.681E-02	0.000E+00	NOT IDENT.
BA-140	2.555E-01	4.604E-01	8.193E-01	0.000E+00	NOT IDENT.
LA-140	-7.469E-02	1.230E-01	1.943E-01	0.000E+00	NOT IDENT.
CE-141	-9.325E-02	8.725E-02	1.532E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.676E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.078E-01	2.767E-01	4.950E-01	0.000E+00	NOT IDENT.
PM-144	-2.925E-03	5.206E-02	8.887E-02	0.000E+00	NOT IDENT.
PR-144	-1.968E-01	3.900E+00	6.659E+00	0.000E+00	NOT IDENT.
PM-146	-1.790E-02	7.753E-02	1.320E-01	0.000E+00	NOT IDENT.
ND-147	-5.022E-01	9.393E-01	1.611E+00	0.000E+00	NOT IDENT.
PM-149	-9.432E+01	2.299E+02	3.854E+02	0.000E+00	NOT IDENT.
EU-152	1.084E-02	1.730E-01	2.676E-01	0.000E+00	FAIL ABUN
GD-153	1.063E-02	1.237E-01	1.962E-01	0.000E+00	NOT IDENT.
EU-154	9.591E-02	1.326E-01	2.407E-01	0.000E+00	FAIL ABUN
EU-155	1.250E-01	1.450E-01	2.634E-01	0.000E+00	NOT IDENT.
TB-160	1.579E-01	2.736E-01	4.819E-01	0.000E+00	FAIL ABUN
HO-166M	-1.588E-02	8.991E-02	1.519E-01	0.000E+00	NOT IDENT.
TA-182	-4.006E-02	2.074E-01	3.503E-01	0.000E+00	FAIL ABUN
IR-192	-2.151E-02	5.508E-02	9.696E-02	0.000E+00	FAIL ABUN
HG-203	-1.630E-02	6.496E-02	1.102E-01	0.000E+00	NOT IDENT.
BI-207	4.345E-02	9.501E-02	1.645E-01	0.000E+00	FAIL ABUN
PB-210	-9.424E-01	5.383E+00	1.008E+01	0.000E+00	NOT IDENT.
PB-211	-5.866E-01	1.237E+00	2.057E+00	0.000E+00	NOT IDENT.
BI-212	4.134E-03	8.557E-01	1.459E+00	0.000E+00	NOT IDENT.
RN-219	-2.733E-01	6.883E-01	1.178E+00	0.000E+00	FAIL ABUN
RA-223	-8.937E-01	1.060E+00	1.806E+00	0.000E+00	FAIL ABUN
AC-227	-2.257E-02	4.072E-01	7.035E-01	0.000E+00	NOT IDENT.
TH-227	-2.257E-02	4.072E-01	7.035E-01	0.000E+00	NOT IDENT.
TH-229	-5.836E-01	7.823E-01	1.352E+00	0.000E+00	FAIL ABUN
PA-231	-3.662E-01	2.402E+00	4.084E+00	0.000E+00	NOT IDENT.
TH-231	-8.937E-01	1.060E+00	1.806E+00	0.000E+00	FAIL ABUN
PA-233	6.103E-02	9.862E-02	1.806E-01	0.000E+00	NOT IDENT.
PA-234	-2.163E-01	6.299E-01	1.060E+00	0.000E+00	NOT IDENT.
PA-234M	1.848E+00	8.103E+00	1.401E+01	0.000E+00	NOT IDENT.
TH-234	-8.535E-01	1.895E+00	3.134E+00	0.000E+00	FAIL ABUN
U-235	-1.472E-01	2.646E-01	4.719E-01	0.000E+00	FAIL ABUN
NP-237	0.000E+00	1.223E+00	1.033E+00	0.000E+00	NOT IDENT.
U-238	-8.535E-01	1.895E+00	3.134E+00	0.000E+00	FAIL ABUN
NP-239	-2.970E-01	6.415E-01	9.655E-01	0.000E+00	NOT IDENT.
CM-247	3.664E-02	6.140E-02	1.096E-01	0.000E+00	NOT IDENT.
CF-249	6.796E-03	6.675E-02	1.174E-01	0.000E+00	NOT IDENT.

CF-251	1.287E-03	1.871E-01	3.367E-01	0.000E+00	NOT IDENT.
ANH-511	5.184E-02	5.915E-02	1.121E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 10:17:30.53

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1
Sample date       : 9-MAR-2010 00:00:00. Acquisition date : 25-MAR-2010 09:16:55
Sample ID         : Gl202065190          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:02.21  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 962633               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	348	85.60*	8.558E+00	2.353E-01	2.454E-01	29.31
	136.47	------	10.68	8.461E+00	------ Line Not Found		------
CO-60	1173.23	2983	99.85	2.258E+00	6.548E+00	6.587E+00	9.16
	1332.49	2827	99.98*	2.040E+00	6.857E+00	6.898E+00	9.77
CD-109	88.03	1951	3.70*	7.548E+00	3.456E+01	3.543E+01	11.89
SN-126	64.28	------	9.60	4.512E+00	------ Line Not Found		------
	86.94	1951	8.90	7.548E+00	1.437E+01	1.437E+01	42.16
	87.57	1951	37.00*	7.548E+00	3.456E+00	3.456E+00	11.89
BA-137M	661.66	3635	89.90*	3.590E+00	5.574E+00	5.580E+00	11.23
CS-137	661.66	3635	85.10*	3.590E+00	5.888E+00	5.894E+00	11.24
TL-208	277.37	------	6.60	6.182E+00	------ Line Not Found		------
	583.19	288	85.00*	3.930E+00	4.272E-01	4.272E-01	25.28
	860.56	------	12.50	2.923E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	5.897E+00	------ Line Not Found		------
	351.06	489	12.92*	5.401E+00	3.464E+00	3.464E+00	21.20
PB-212	74.82	274	10.28	6.165E+00	2.143E+00	2.143E+00	31.09
	77.11	407	17.10	6.460E+00	1.821E+00	1.821E+00	20.59
	238.63	843	43.60*	6.709E+00	1.427E+00	1.427E+00	16.69
	300.09	------	3.30	5.916E+00	------ Line Not Found		------
BI-214	609.32	312	45.49*	3.811E+00	8.897E-01	8.897E-01	24.20
	1120.29	81	14.92	2.346E+00	1.141E+00	1.141E+00	69.97
	1764.49	48	15.30	1.716E+00	9.009E-01	9.010E-01	56.49
PB-214	74.82	274	5.80	6.165E+00	3.798E+00	3.798E+00	30.58
	77.11	407	9.70	6.460E+00	3.211E+00	3.211E+00	22.18
	242.00	162	7.25	6.666E+00	1.657E+00	1.657E+00	59.19
	295.22	209	18.42	5.968E+00	9.401E-01	9.401E-01	41.29
	351.93	489	35.60*	5.401E+00	1.257E+00	1.257E+00	21.90
RA-224	240.99	162	4.10*	6.666E+00	2.930E+00	2.930E+00	58.90
RA-226	609.32	312	45.49*	3.811E+00	8.897E-01	8.897E-01	24.20
	1120.29	81	14.92	2.346E+00	1.141E+00	1.141E+00	69.97
	1764.49	48	15.30	1.716E+00	9.009E-01	9.010E-01	56.49
AC-228	338.32	158	11.27	5.525E+00	1.258E+00	1.258E+00	66.44

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	231	25.80*	2.788E+00	1.589E+00	1.589E+00	37.81
	968.97	95	15.80	2.649E+00	1.124E+00	1.124E+00	61.84
RA-228	338.32	158	11.27	5.525E+00	1.258E+00	1.258E+00	66.44
	911.20	231	25.80*	2.788E+00	1.589E+00	1.589E+00	37.81
	968.97	95	15.80	2.649E+00	1.124E+00	1.124E+00	61.84
TH-228	74.82	274	10.28	6.165E+00	2.143E+00	2.143E+00	29.56
	77.11	407	17.10	6.460E+00	1.821E+00	1.821E+00	20.59
	238.63	843	43.60*	6.709E+00	1.427E+00	1.427E+00	16.69
	300.09	------	3.30	5.916E+00	------	Line Not Found	------
TH-230	609.32	312	45.49*	3.811E+00	8.897E-01	8.897E-01	23.61
	1120.29	81	14.92	2.346E+00	1.141E+00	1.141E+00	69.65
	1764.49	48	15.30	1.716E+00	9.009E-01	9.009E-01	56.49
TH-232	338.32	158	11.27	5.525E+00	1.258E+00	1.258E+00	52.42
	911.20	231	25.80*	2.788E+00	1.589E+00	1.589E+00	37.81
	968.97	95	15.80	2.649E+00	1.124E+00	1.124E+00	61.84
AM-241	59.54	3653	35.90*	3.628E+00	1.388E+01	1.388E+01	9.19

Flag: "*" = Keyline

Sample ID : Gl202065190 Acquisition date : 25-MAR-2010 09:16:55

Total number of lines in spectrum 24
Number of unidentified lines 1
Number of lines tentatively identified by NID 23 95.83%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	271.74D	1.04	2.353E-01	2.454E-01	0.719E-01	29.31	
CO-60	5.27Y	1.01	6.857E+00	6.898E+00	0.674E+00	9.77	
CD-109	461.40D	1.02	3.456E+01	3.543E+01	0.421E+01	11.89	
SN-126	2.30E+05Y	1.00	3.456E+00	3.456E+00	0.411E+00	11.89	
BA-137M	30.08Y	1.00	5.574E+00	5.580E+00	0.627E+00	11.23	
CS-137	30.08Y	1.00	5.888E+00	5.894E+00	0.663E+00	11.24	
TL-208	1.41E+10Y	1.00	4.272E-01	4.272E-01	1.080E-01	25.28	
BI-211	7.04E+08Y	1.00	3.464E+00	3.464E+00	0.734E+00	21.20	
PB-212	1.41E+10Y	1.00	1.427E+00	1.427E+00	0.238E+00	16.69	
BI-214	1600.00Y	1.00	8.897E-01	8.897E-01	2.153E-01	24.20	
PB-214	1600.00Y	1.00	1.257E+00	1.257E+00	0.275E+00	21.90	
RA-224	1.41E+10Y	1.00	2.930E+00	2.930E+00	1.726E+00	58.90	
RA-226	1600.00Y	1.00	8.897E-01	8.897E-01	2.153E-01	24.20	
AC-228	1.41E+10Y	1.00	1.589E+00	1.589E+00	0.601E+00	37.81	
RA-228	1.41E+10Y	1.00	1.589E+00	1.589E+00	0.601E+00	37.81	
TH-228	1.41E+10Y	1.00	1.427E+00	1.427E+00	0.238E+00	16.69	
TH-230	7.54E+04Y	1.00	8.897E-01	8.897E-01	2.101E-01	23.61	
TH-232	1.41E+10Y	1.00	1.589E+00	1.589E+00	0.601E+00	37.81	
AM-241	432.60Y	1.00	1.388E+01	1.388E+01	0.128E+01	9.19	
	Total Activity :		8.882E+01	8.975E+01			

Grand Total Activity : 8.882E+01 8.975E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.85	119	426	1.77	185.90	183	9	3.31E-02	67.3	7.87E+00	T
0	186.19	142	575	1.24	372.40	365	13	3.94E-02	72.8	7.60E+00	T
0	209.26	60	349	1.10	418.50	415	8	1.67E-02	****	7.18E+00	
0	270.41	89	437	1.23	540.69	534	14	2.47E-02	****	6.27E+00	T
0	1238.38	58	32	3.31	2475.76	2466	16	1.62E-02	51.7	2.16E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 10:17:34.80

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202065190.CNF;1 *
* Acquisition date : 25-MAR-2010 09:16:55  Detector SN#    :                *
* Detector ID      : GAM22                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 01:00:02.21         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 9-MAR-2010 00:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G1202065190           Analyst initials: MXR1           *
* Batch Number     : 962633                Sample Quantity : 1.51730E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	2.454E-01	7.192E-02	5.698E-02	4.699E-03	4.306
CO-60	6.898E+00	6.740E-01	7.319E-02	6.526E-03	94.247
CD-109	3.543E+01	4.214E+00	1.843E+00	1.749E-01	19.226
SN-126	3.456E+00	4.111E-01	1.805E-01	1.704E-02	19.148
BA-137M	5.580E+00	6.266E-01	8.497E-02	8.961E-03	65.662
CS-137	5.894E+00	6.626E-01	8.977E-02	9.478E-03	65.662
TL-208	4.272E-01	1.080E-01	9.539E-02	1.034E-02	4.478
BI-211	3.464E+00	7.343E-01	5.093E-01	5.942E-02	6.803
PB-212	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
BI-214	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
PB-214	1.257E+00	2.754E-01	1.852E-01	2.384E-02	6.790
RA-224	2.930E+00	1.726E+00	1.509E+00	1.889E-01	1.941
RA-226	8.897E-01	2.153E-01	1.672E-01	1.951E-02	5.320
AC-228	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
RA-228	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442
TH-228	1.427E+00	2.380E-01	1.409E-01	1.867E-02	10.121
TH-230	8.897E-01	2.101E-01	1.672E-01	1.741E-02	5.320
TH-232	1.589E+00	6.011E-01	4.617E-01	6.254E-02	3.442

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-241	1.388E+01	1.276E+00	4.300E-01	3.361E-02	32.276

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.283E-01		6.229E-01	9.539E-01	9.954E-02	-0.659
NA-22	3.530E-02		4.785E-02	8.450E-02	7.283E-03	0.418
NA-24	-4.793E+00		1.984E+00	Half-Life too short		
K-40	1.020E+00		5.080E-01	1.009E+00	9.248E-02	1.010
SC-46	1.936E-02		7.345E-02	1.235E-01	1.382E-02	0.157
V-48	8.991E-02		1.497E-01	2.529E-01	2.652E-02	0.356
CR-51	2.543E-01		6.268E-01	1.064E+00	1.377E-01	0.239
MN-54	5.691E-03		6.465E-02	1.084E-01	1.204E-02	0.053
CO-56	9.840E-03		7.148E-02	1.199E-01	1.335E-02	0.082
CO-58	-4.948E-02		6.825E-02	1.094E-01	1.212E-02	-0.452
FE-59	6.726E-02		1.725E-01	2.863E-01	2.805E-02	0.235
ZN-65	4.760E-02		1.851E-01	2.607E-01	2.326E-02	0.183
SE-75	-3.781E-02		8.181E-02	1.112E-01	1.496E-02	-0.340
SR-85	-6.774E-02		7.280E-02	1.115E-01	1.119E-02	-0.608
Y-88	4.593E-02		4.760E-02	8.778E-02	7.097E-03	0.523
Y-91	-5.302E+00		2.374E+01	3.875E+01	3.186E+00	-0.137
NB-94	-1.147E-02		5.099E-02	8.211E-02	8.799E-03	-0.140
NB-95	1.970E-02		6.972E-02	1.146E-01	1.253E-02	0.172
NB-95M	6.343E-02		2.291E-01	3.296E-01	4.361E-02	0.192
ZR-95	-6.121E-02		1.216E-01	1.909E-01	2.221E-02	-0.321
MO-99	-5.276E-01		2.630E+01	4.266E+01	7.287E+00	-0.012
TC-99M	6.925E+06		8.112E+11	Half-Life too short		
RU-103	2.732E-02		6.869E-02	1.127E-01	1.670E-02	0.243
RH-106	-1.807E-01		4.959E-01	8.014E-01	1.163E-01	-0.225
RU-106	-1.807E-01		4.956E-01	8.014E-01	8.371E-02	-0.225
AG-108M	-5.355E-02		5.411E-02	8.384E-02	8.251E-03	-0.639
AG-110M	7.130E-01		1.192E-01	1.773E-01	1.905E-02	4.023
SN-113	-2.312E-02		7.727E-02	1.254E-01	1.198E-02	-0.184
CD-115	1.856E+00		2.666E+01	4.483E+01	4.527E+00	0.041
SN-117M	-2.678E-02		8.457E-02	1.398E-01	1.326E-02	-0.192
TE-123M	4.039E-03		4.073E-02	6.837E-02	6.530E-03	0.059
SB-124	1.561E-02		9.962E-02	1.685E-01	1.503E-02	0.093
SB-125	5.091E-03		1.563E-01	2.555E-01	2.477E-02	0.020
TE-125M	-4.316E+00		1.409E+01	2.212E+01	2.275E+00	-0.195
I-126	6.479E-01		4.249E-01	6.622E-01	6.997E-02	0.978
SB-126	-2.106E-02		2.478E-01	4.016E-01	4.331E-02	-0.052
SB-127	1.226E+00		2.581E+00	4.330E+00	5.761E-01	0.283
I-131	-1.378E-01		2.102E-01	3.368E-01	3.734E-02	-0.409
TE-132	-6.566E-01		1.545E+00	2.465E+00	4.470E-01	-0.266
BA-133	1.313E-02		7.462E-02	1.086E-01	1.599E-02	0.121
I-133	-2.273E-02		1.275E-02	Half-Life too short		
CS-134	7.098E-02		7.708E-02	1.302E-01	1.442E-02	0.545

Sample ID : G1202065190 Acquisition date : 25-MAR-2010 09:16:55

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-135	2.535E-01		2.738E-01	4.019E-01	5.813E-02	0.631
I-135	1.469E+11		8.356E+10	Half-Life too short		
CS-136	-2.620E-02		2.080E-01	3.369E-01	3.407E-02	-0.078
CE-139	1.006E-02		4.292E-02	7.218E-02	7.079E-03	0.139
BA-140	2.555E-01		4.698E-01	7.925E-01	2.721E-01	0.322
LA-140	-7.469E-02		1.255E-01	1.933E-01	1.694E-02	-0.386
CE-141	-9.325E-02		8.903E-02	1.435E-01	1.306E-02	-0.650
CE-143	6.885E-04		2.386E-04	Half-Life too short		
CE-144	-2.078E-01		2.823E-01	4.627E-01	7.052E-02	-0.449
PM-144	-2.925E-03		5.313E-02	8.652E-02	9.253E-03	-0.034
PR-144	-1.968E-01		3.980E+00	6.484E+00	6.932E-01	-0.030
PM-146	-1.790E-02		7.911E-02	1.271E-01	1.461E-02	-0.141
ND-147	-5.022E-01		9.584E-01	1.558E+00	2.470E-01	-0.322
PM-149	-9.432E+01		2.346E+02	3.669E+02	6.943E+01	-0.257
EU-152	1.084E-02		1.766E-01	2.560E-01	3.076E-02	0.042
GD-153	1.063E-02		1.262E-01	1.821E-01	1.601E-02	0.058
EU-154	9.591E-02		1.353E-01	2.380E-01	2.707E-02	0.403
EU-155	1.250E-01		1.480E-01	2.449E-01	2.101E-02	0.511
TB-160	1.579E-01		2.792E-01	4.721E-01	5.279E-02	0.334
HO-166M	-1.588E-02		9.174E-02	1.480E-01	1.591E-02	-0.107
TA-182	-4.006E-02		2.117E-01	3.461E-01	2.878E-02	-0.116
IR-192	-2.151E-02		5.621E-02	9.255E-02	1.183E-02	-0.232
HG-203	-1.630E-02		6.628E-02	1.049E-01	1.483E-02	-0.155
BI-207	4.345E-02		9.695E-02	1.619E-01	1.554E-02	0.268
PB-210	-9.424E-01		5.493E+00	9.202E+00	8.474E-01	-0.102
PB-211	-5.866E-01		1.262E+00	1.975E+00	9.587E-01	-0.297
BI-212	4.134E-03		8.732E-01	1.422E+00	2.000E-01	0.003
RN-219	-2.733E-01		7.024E-01	1.131E+00	1.733E-01	-0.242
RA-223	-8.937E-01		1.081E+00	1.725E+00	3.372E-01	-0.518
AC-227	-2.257E-02		4.155E-01	6.680E-01	1.041E-01	-0.034
TH-227	-2.257E-02		4.155E-01	6.680E-01	1.123E-01	-0.034
TH-229	-5.836E-01		7.982E-01	1.275E+00	1.371E-01	-0.458
PA-231	-3.662E-01		2.451E+00	3.888E+00	7.072E-01	-0.094
TH-231	-8.937E-01		1.081E+00	1.725E+00	3.372E-01	-0.518
PA-233	6.103E-02		1.006E-01	1.723E-01	2.258E-02	0.354
PA-234	-2.163E-01		6.427E-01	1.040E+00	2.068E-01	-0.208
PA-234M	1.848E+00		8.268E+00	1.377E+01	1.578E+00	0.134
TH-234	-8.535E-01		1.934E+00	2.879E+00	5.124E-01	-0.296
U-235	-1.472E-01		2.700E-01	4.419E-01	7.553E-02	-0.333
NP-237	4.949E+00		1.248E+00	9.559E-01	2.193E-01	5.177
U-238	-8.535E-01		1.934E+00	2.879E+00	5.124E-01	-0.296
NP-239	-2.970E-01		6.546E-01	8.999E-01	7.436E-02	-0.330
CM-247	3.664E-02		6.265E-02	1.053E-01	9.875E-03	0.348
CF-249	6.796E-03		6.811E-02	1.126E-01	1.069E-02	0.060
CF-251	1.287E-03		1.909E-01	3.169E-01	3.229E-02	0.004
ANH-511	5.184E-02		6.036E-02	1.083E-01	1.085E-02	0.479

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202065190          *
* Acquisition date : 25-MAR-2010 09:16:55 Detector SN#    :                *
* Detector ID      : GAM22                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:02.21     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  9-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202065190          Analyst initials: MXR1           *
* Batch Number     : 962633               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
CO-57	2.454E-01	7.048E-02	3.056E-02	3.596E-02
CO-60	6.898E+00	6.605E-01	3.698E-02	3.370E-01
CD-109	3.543E+01	4.130E+00	9.957E-01	2.107E+00
SN-126	3.456E+00	4.029E-01	9.755E-02	2.056E-01
BA-137M	5.580E+00	6.140E-01	4.372E-02	3.133E-01
CS-137	5.894E+00	6.494E-01	4.619E-02	3.313E-01
TL-208	4.272E-01	1.058E-01	4.924E-02	5.399E-02
BI-211	3.464E+00	7.196E-01	2.662E-01	3.672E-01
PB-212	1.427E+00	2.333E-01	7.438E-02	1.190E-01
BI-214	8.897E-01	2.110E-01	8.623E-02	1.076E-01
PB-214	1.257E+00	2.699E-01	9.680E-02	1.377E-01
RA-224	2.930E+00	1.691E+00	7.963E-01	8.629E-01
RA-226	8.897E-01	2.110E-01	8.623E-02	1.076E-01
AC-228	1.589E+00	5.890E-01	2.356E-01	3.005E-01
RA-228	1.589E+00	5.890E-01	2.356E-01	3.005E-01
TH-228	1.427E+00	2.333E-01	7.438E-02	1.190E-01
TH-230	8.897E-01	2.059E-01	8.623E-02	1.050E-01
TH-232	1.589E+00	5.890E-01	2.356E-01	3.005E-01
AM-241	1.388E+01	1.250E+00	2.345E-01	6.378E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-6.283E-01	6.105E-01	4.949E-01	3.115E-01	NOT IDENT.
NA-22	3.530E-02	4.690E-02	4.274E-02	2.393E-02	NOT IDENT.
NA-24	-4.793E+06	3.888E+06	0.000E+00	1.984E+06	SHORT HLIF
K-40	1.020E+00	4.979E-01	5.088E-01	2.540E-01	NOT IDENT.
SC-46	1.936E-02	7.198E-02	6.304E-02	3.673E-02	FAIL ABUN
V-48	8.991E-02	1.467E-01	1.288E-01	7.483E-02	NOT IDENT.
CR-51	2.543E-01	6.143E-01	5.574E-01	3.134E-01	NOT IDENT.
MN-54	5.691E-03	6.336E-02	5.542E-02	3.233E-02	NOT IDENT.

CO-56	9.840E-03	7.005E-02	6.132E-02	3.574E-02	FAIL ABUN
CO-58	-4.948E-02	6.689E-02	5.601E-02	3.413E-02	NOT IDENT.
FE-59	6.726E-02	1.691E-01	1.454E-01	8.627E-02	NOT IDENT.
ZN-65	4.760E-02	1.814E-01	1.323E-01	9.257E-02	NOT IDENT.
SE-75	-3.781E-02	8.017E-02	5.851E-02	4.090E-02	FAIL ABUN
SR-85	-6.774E-02	7.135E-02	5.773E-02	3.640E-02	NOT IDENT.
Y-88	4.593E-02	4.665E-02	4.397E-02	2.380E-02	NOT IDENT.
Y-91	-5.302E+00	2.326E+01	1.963E+01	1.187E+01	NOT IDENT.
NB-94	-1.147E-02	4.997E-02	4.218E-02	2.549E-02	NOT IDENT.
NB-95	1.970E-02	6.833E-02	5.874E-02	3.486E-02	NOT IDENT.
NB-95M	6.343E-02	2.245E-01	1.740E-01	1.146E-01	NOT IDENT.
ZR-95	-6.121E-02	1.192E-01	9.790E-02	6.082E-02	NOT IDENT.
MO-99	-5.276E-01	2.577E+01	2.189E+01	1.315E+01	NOT IDENT.
TC-99M	6.925E+12	1.590E+18	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.732E-02	6.732E-02	5.839E-02	3.434E-02	FAIL ABUN
RH-106	-1.807E-01	4.860E-01	4.130E-01	2.480E-01	NOT IDENT.
RU-106	-1.807E-01	4.857E-01	4.130E-01	2.478E-01	NOT IDENT.
AG-108M	-5.355E-02	5.302E-02	4.360E-02	2.705E-02	NOT IDENT.
AG-110M	7.130E-01	1.168E-01	9.121E-02	5.960E-02	NOT IDENT.
SN-113	-2.312E-02	7.572E-02	6.538E-02	3.863E-02	NOT IDENT.
CD-115	1.856E+00	2.613E+01	2.320E+01	1.333E+01	NOT IDENT.
SN-117M	-2.678E-02	8.287E-02	7.451E-02	4.228E-02	NOT IDENT.
TE-123M	4.039E-03	3.991E-02	3.644E-02	2.036E-02	NOT IDENT.
SB-124	1.561E-02	9.763E-02	8.461E-02	4.981E-02	NOT IDENT.
SB-125	5.091E-03	1.532E-01	1.329E-01	7.814E-02	NOT IDENT.
TE-125M	-4.316E+00	1.381E+01	1.190E+01	7.044E+00	NOT IDENT.
I-126	6.479E-01	4.164E-01	3.407E-01	2.125E-01	NOT IDENT.
SB-126	-2.106E-02	2.428E-01	2.062E-01	1.239E-01	NOT IDENT.
SB-127	1.226E+00	2.529E+00	2.226E+00	1.290E+00	NOT IDENT.
I-131	-1.378E-01	2.060E-01	1.759E-01	1.051E-01	NOT IDENT.
TE-132	-6.566E-01	1.514E+00	1.303E+00	7.727E-01	NOT IDENT.
BA-133	1.313E-02	7.313E-02	5.674E-02	3.731E-02	NOT IDENT.
I-133	-2.273E+04	2.499E+04	0.000E+00	1.275E+04	SHORT HLIF
CS-134	7.098E-02	7.554E-02	6.670E-02	3.854E-02	NOT IDENT.
CS-135	2.535E-01	2.683E-01	2.115E-01	1.369E-01	NOT IDENT.
I-135	1.469E+17	1.638E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.620E-02	2.038E-01	1.713E-01	1.040E-01	NOT IDENT.
CE-139	1.006E-02	4.207E-02	3.843E-02	2.146E-02	NOT IDENT.
BA-140	2.555E-01	4.604E-01	4.099E-01	2.349E-01	NOT IDENT.
LA-140	-7.469E-02	1.230E-01	9.719E-02	6.277E-02	NOT IDENT.
CE-141	-9.325E-02	8.725E-02	7.662E-02	4.452E-02	NOT IDENT.
CE-143	6.885E+02	4.676E+02	0.000E+00	2.386E+02	SHORT HLIF
CE-144	-2.078E-01	2.767E-01	2.476E-01	1.412E-01	NOT IDENT.
PM-144	-2.925E-03	5.206E-02	4.446E-02	2.656E-02	NOT IDENT.
PR-144	-1.968E-01	3.900E+00	3.332E+00	1.990E+00	NOT IDENT.
PM-146	-1.790E-02	7.753E-02	6.602E-02	3.955E-02	NOT IDENT.
ND-147	-5.022E-01	9.393E-01	8.059E-01	4.792E-01	NOT IDENT.
PM-149	-9.432E+01	2.299E+02	1.928E+02	1.173E+02	NOT IDENT.
EU-152	1.084E-02	1.730E-01	1.339E-01	8.828E-02	FAIL ABUN
GD-153	1.063E-02	1.237E-01	9.816E-02	6.312E-02	NOT IDENT.
EU-154	9.591E-02	1.326E-01	1.204E-01	6.763E-02	FAIL ABUN
EU-155	1.250E-01	1.450E-01	1.318E-01	7.400E-02	NOT IDENT.
TB-160	1.579E-01	2.736E-01	2.411E-01	1.396E-01	FAIL ABUN
HO-166M	-1.588E-02	8.991E-02	7.599E-02	4.587E-02	NOT IDENT.
TA-182	-4.006E-02	2.074E-01	1.753E-01	1.058E-01	FAIL ABUN
IR-192	-2.151E-02	5.508E-02	4.851E-02	2.810E-02	FAIL ABUN
HG-203	-1.630E-02	6.496E-02	5.513E-02	3.314E-02	NOT IDENT.
BI-207	4.345E-02	9.501E-02	8.229E-02	4.847E-02	FAIL ABUN
PB-210	-9.424E-01	5.383E+00	5.045E+00	2.746E+00	NOT IDENT.
PB-211	-5.866E-01	1.237E+00	1.029E+00	6.312E-01	NOT IDENT.
BI-212	4.134E-03	8.557E-01	7.300E-01	4.366E-01	NOT IDENT.
RN-219	-2.733E-01	6.883E-01	5.894E-01	3.512E-01	FAIL ABUN
RA-223	-8.937E-01	1.060E+00	9.037E-01	5.406E-01	FAIL ABUN
AC-227	-2.257E-02	4.072E-01	3.519E-01	2.077E-01	NOT IDENT.
TH-227	-2.257E-02	4.072E-01	3.519E-01	2.077E-01	NOT IDENT.
TH-229	-5.836E-01	7.823E-01	6.765E-01	3.991E-01	FAIL ABUN
PA-231	-3.662E-01	2.402E+00	2.043E+00	1.225E+00	NOT IDENT.
TH-231	-8.937E-01	1.060E+00	9.037E-01	5.406E-01	FAIL ABUN
PA-233	6.103E-02	9.862E-02	9.035E-02	5.032E-02	NOT IDENT.
PA-234	-2.163E-01	6.299E-01	5.304E-01	3.214E-01	NOT IDENT.
PA-234M	1.848E+00	8.103E+00	7.011E+00	4.134E+00	NOT IDENT.
TH-234	-8.535E-01	1.895E+00	1.568E+00	9.669E-01	FAIL ABUN
U-235	-1.472E-01	2.646E-01	2.361E-01	1.350E-01	FAIL ABUN
NP-237	4.949E+00	1.223E+00	5.167E-01	6.238E-01	NOT IDENT.
U-238	-8.535E-01	1.895E+00	1.568E+00	9.669E-01	FAIL ABUN
NP-239	-2.970E-01	6.415E-01	4.831E-01	3.273E-01	NOT IDENT.
CM-247	3.664E-02	6.140E-02	5.486E-02	3.133E-02	NOT IDENT.
CF-249	6.796E-03	6.675E-02	5.872E-02	3.406E-02	NOT IDENT.

CF-251	1.287E-03	1.871E-01	1.685E-01	9.547E-02	NOT IDENT.
ANH-511	5.184E-02	5.915E-02	5.606E-02	3.018E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	486.0000
49.72	573.9034
57.36	0.0000
59.54	596.3845
63.29	384.0284
63.29	384.0284
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69.67	406.5132
70.83	423.1225
72.81	438.0719
72.87	438.1629
72.87	438.1629
74.82	433.4862
74.82	433.4862
74.82	433.4862
74.97	433.7044
77.11	436.7876
77.11	436.7876
77.11	436.7876
79.69	463.5518
79.80	463.7148
80.12	461.1036
80.19	461.2062
80.57	461.7628
81.00	484.0429
81.07	484.1504
81.07	484.1504
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83.79	497.6319
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86.79	473.8467
86.94	474.0626
87.57	474.9536
88.03	475.6035
88.47	476.2236
89.96	298.7451
91.11	299.7440
92.59	301.0192
92.59	301.0192
93.35	325.7398
94.67	314.0706
94.87	314.2462
94.87	314.2462
95.86	313.4991
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111.76	356.0139
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121.78	302.5153
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136.00	322.2599

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153.25	335.5181
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154.21	323.2090
156.02	358.6140
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210.85	399.8431
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228.18	366.6335
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235.96	370.5840
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238.63	321.2072
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256.23	320.0340
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268.22	258.1257
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269.46	314.3530
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273.65	353.5107
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277.60	328.5421
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279.20	334.7302
279.54	334.8634
280.46	319.6343
283.69	315.2577
284.31	331.1482
285.41	331.5728
285.90	329.5208
287.50	288.5838
293.27	0.0000
295.22	314.4730
295.96	314.7356
298.57	278.9686
299.98	262.7029
299.98	262.7029
300.09	236.9199
300.09	236.9199
300.13	236.9294
301.36	228.1281
302.85	271.1574
304.50	316.8274
304.50	316.8274
304.85	327.9423
308.46	245.5507
311.90	251.0820

316.51	285.7196
319.41	255.8957
320.08	281.2154
323.87	328.1498
323.87	328.1498
328.76	287.5362
333.37	284.8084
334.37	288.2458
334.37	288.2458
338.28	259.3430
338.28	259.3430
338.32	259.3564
338.32	259.3564
338.32	259.3564
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344.28	257.7228
351.06	239.2704
351.93	239.4740
356.01	236.5602
364.49	263.7917
366.42	251.5972
383.85	246.7598
388.16	266.6227
388.63	262.7528
391.69	278.4414
400.66	275.6222
401.81	280.9345
402.40	243.8020
404.85	282.6865
410.95	261.8454
414.70	257.5924
423.72	234.9291
427.09	271.5958
427.87	246.0340
433.94	293.8180
453.88	284.8775
463.37	282.7521
468.07	316.7232
473.00	268.8390
476.78	283.5164
477.60	294.3964
487.02	225.3179
492.35	209.9685
497.08	196.5746
511.00	221.5836
514.00	326.4843
527.90	184.0726
529.87	0.0000
531.02	193.7392
537.26	183.3929
546.56	0.0000
563.25	192.2743
569.33	219.6596
569.50	201.6139
569.70	201.6398
583.19	191.8742
600.60	170.6934
602.73	167.5165
604.72	153.3472
609.32	158.7917
609.32	158.7917
609.32	158.7917
610.33	167.8113
614.28	181.0672
618.01	169.8985
621.93	171.9345
621.93	171.9345
633.25	167.1571
635.95	149.5930
636.99	171.4901
645.85	168.3914
657.76	158.2245
661.66	141.7717
661.66	141.7717
664.57	0.0000
666.33	133.0715
666.50	133.0850

677.62	126.8133
685.70	142.6632
695.00	153.6316
696.49	158.8819
696.51	158.8851
697.00	162.0021
702.65	157.3548
706.68	156.6634
711.68	145.7132
720.70	157.8324
721.93	0.0000
722.78	198.5464
722.91	198.5581
723.31	196.5212
724.19	163.3213
727.33	179.2191
733.00	193.3331
735.93	154.9014
739.50	140.5075
747.24	151.5908
752.31	135.0964
753.82	139.4229
756.73	168.1902
763.94	187.9077
765.81	167.8943
766.42	172.1942
777.92	157.1415
778.90	154.0107
783.70	155.4431
785.37	143.7681
795.86	144.5015
801.95	173.0436
810.29	174.0440
810.76	178.7377
815.77	158.6309
818.51	169.1130
832.01	193.6854
834.85	181.7015
836.80	0.0000
846.77	172.2849
856.80	181.6305
860.56	170.5064
871.09	185.6674
873.19	195.4194
875.33	0.0000
879.36	180.5841
880.51	184.5201
883.24	189.5520
884.68	183.8955
889.28	167.8646
898.04	183.9995
911.20	208.4171
911.20	208.4171
911.20	208.4171
926.50	208.7953
937.49	224.5290
944.13	235.0242
946.00	229.2772
949.00	234.5078
962.29	224.5965
964.08	210.8195
966.15	217.9718
968.97	202.5079
968.97	202.5079
968.97	202.5079
983.53	175.6012
996.26	169.4297
1001.03	150.5512
1004.73	155.8289
1037.84	151.6855
1038.76	0.0000
1048.07	154.3318
1050.41	162.7061
1050.41	162.7061
1063.66	149.0223
1085.87	137.7271
1099.45	154.1367
1112.07	132.7192

1115.54	155.0288
1120.29	123.5984
1120.29	123.5984
1120.29	123.5984
1120.55	112.7815
1121.30	118.3594
1131.51	0.0000
1173.23	96.0359
1177.93	92.2097
1189.05	86.1401
1204.77	68.5151
1221.41	68.8931
1231.02	58.0169
1235.36	51.2646
1238.28	53.0239
1260.41	0.0000
1271.85	50.5718
1274.44	43.7997
1274.54	43.8011
1291.59	52.8448
1298.22	0.0000
1312.11	61.0596
1332.49	41.6219
1365.19	30.0238
1368.63	0.0000
1384.29	49.3155
1408.01	30.4028
1457.56	0.0000
1460.82	20.5750
1489.16	40.4366
1505.03	40.6127
1596.21	42.6721
1620.50	35.3048
1678.03	0.0000
1690.97	23.3060
1764.49	25.6974
1764.49	25.6974
1764.49	25.6974
1770.23	23.1588
1771.35	21.3832
1791.20	0.0000
1836.06	19.0923

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:Gl202065190

Total Uranium Activity	-2.6073E+00	ug/g
Total Uranium Counting Unc.	5.6392E+00	ug/g
Total Uranium Tpu	2.8771E-06	ug/g
Total Uranium Mda	4.6652E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 962633                    SAMPLE ID  : G1202065190      *
*   ANALYST       : MXR1                      DETECTOR   : GAM22            *
*   SAMPLE DATE   :  9-MAR-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 25-MAR-2010 09:16:55.57    SAMPLE ALQT:  151.730 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.898E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 2.749E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.013E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.466E+00
```

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W003.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.295986 through 0.329192

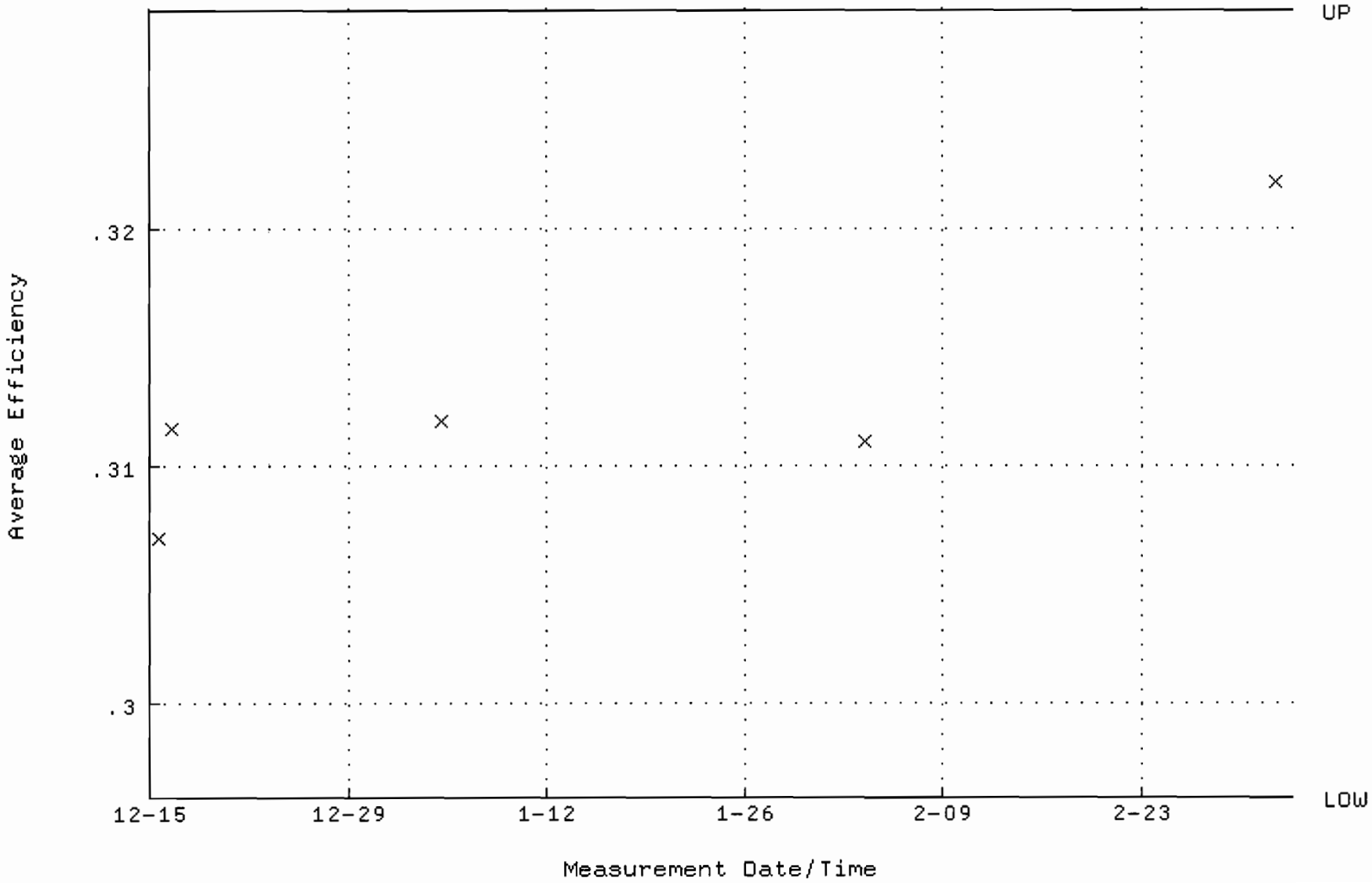

QA filename : DKA100:[ENV_ALPHA.QA.W]W003.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 85.9157 through 93.4313

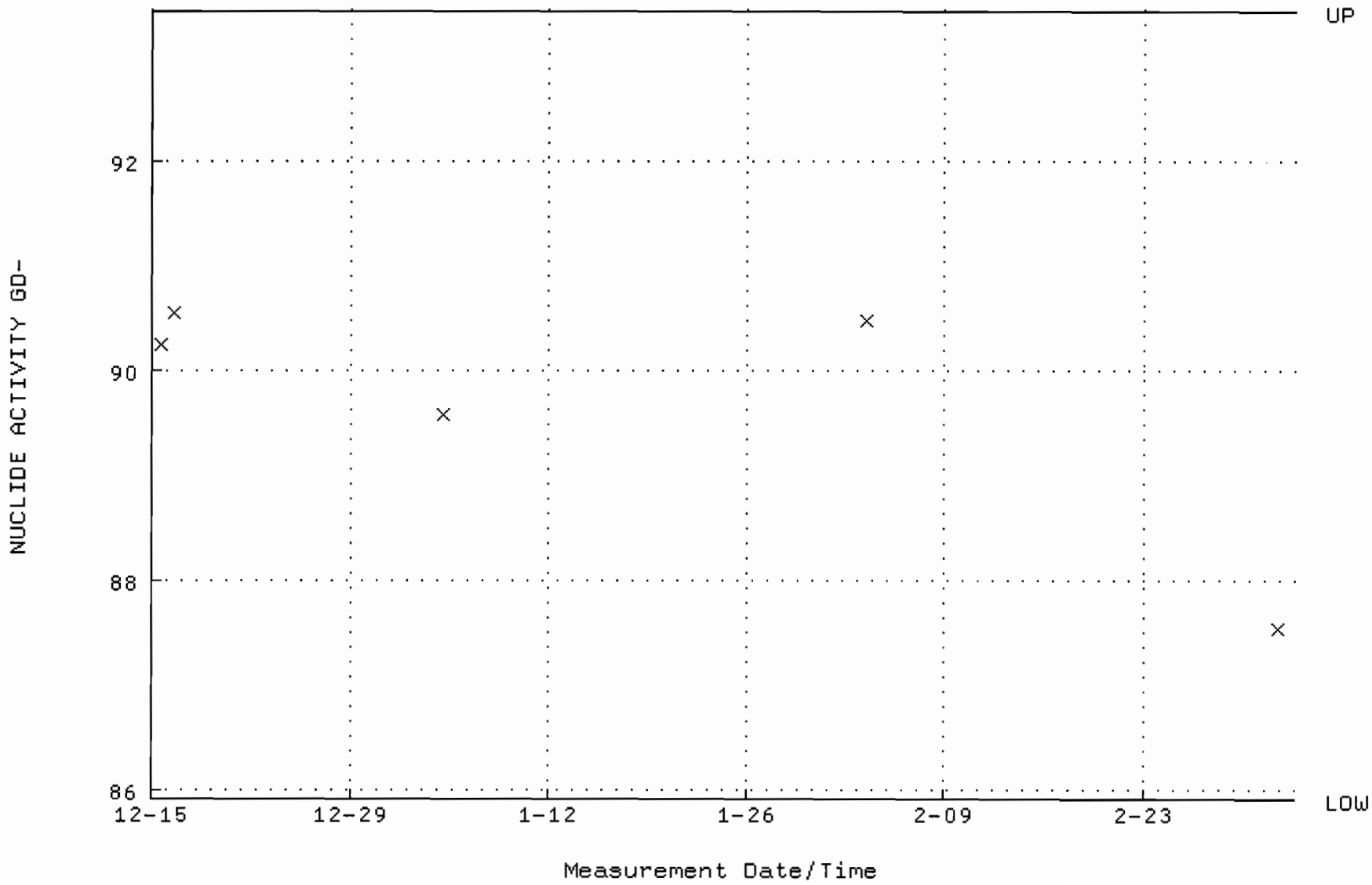

QA filename : DKA100:[ENV_ALPHA.QA.B]B003.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

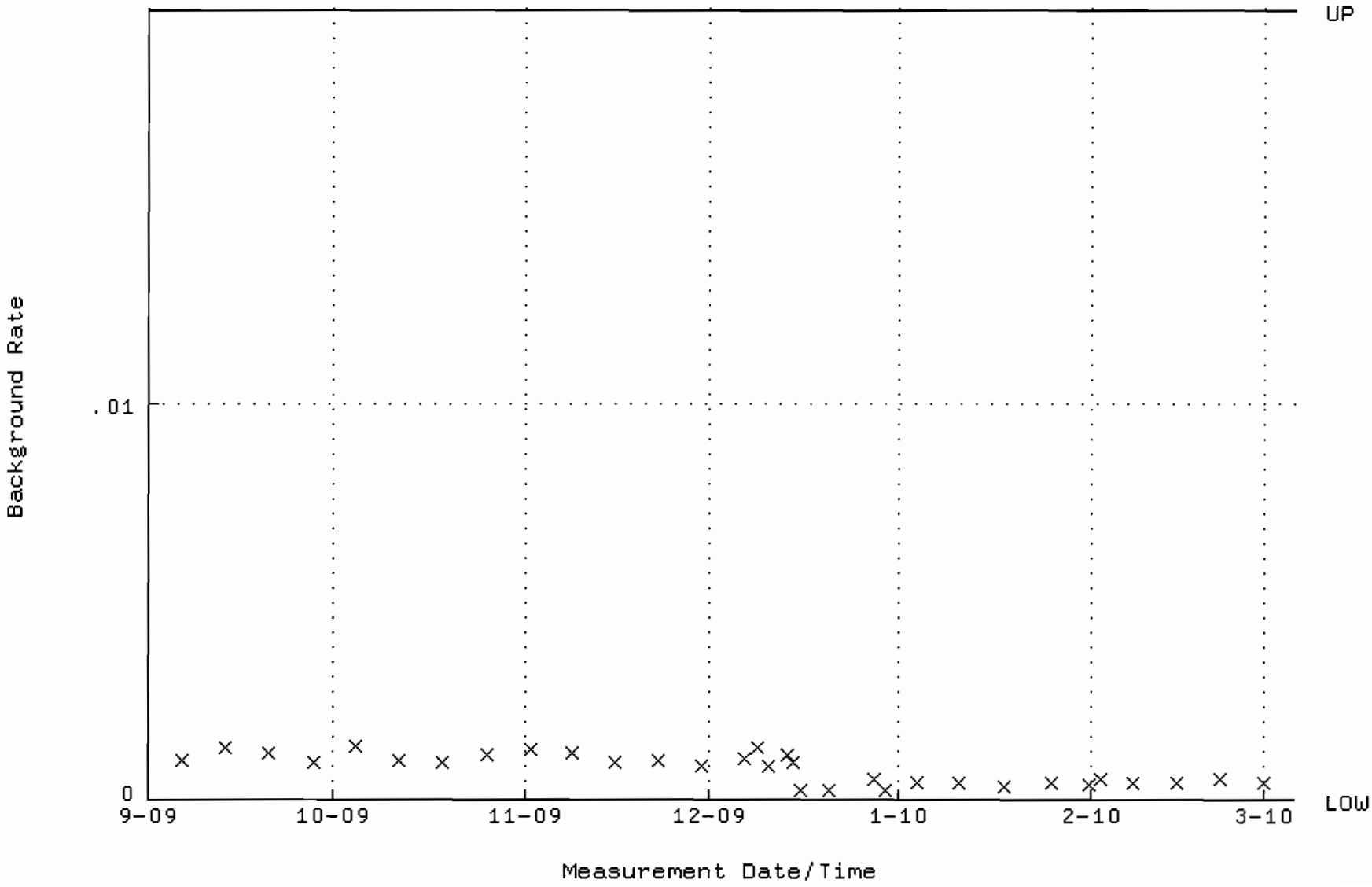

QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-DEC-2009 15:29:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.294995 through 0.314995

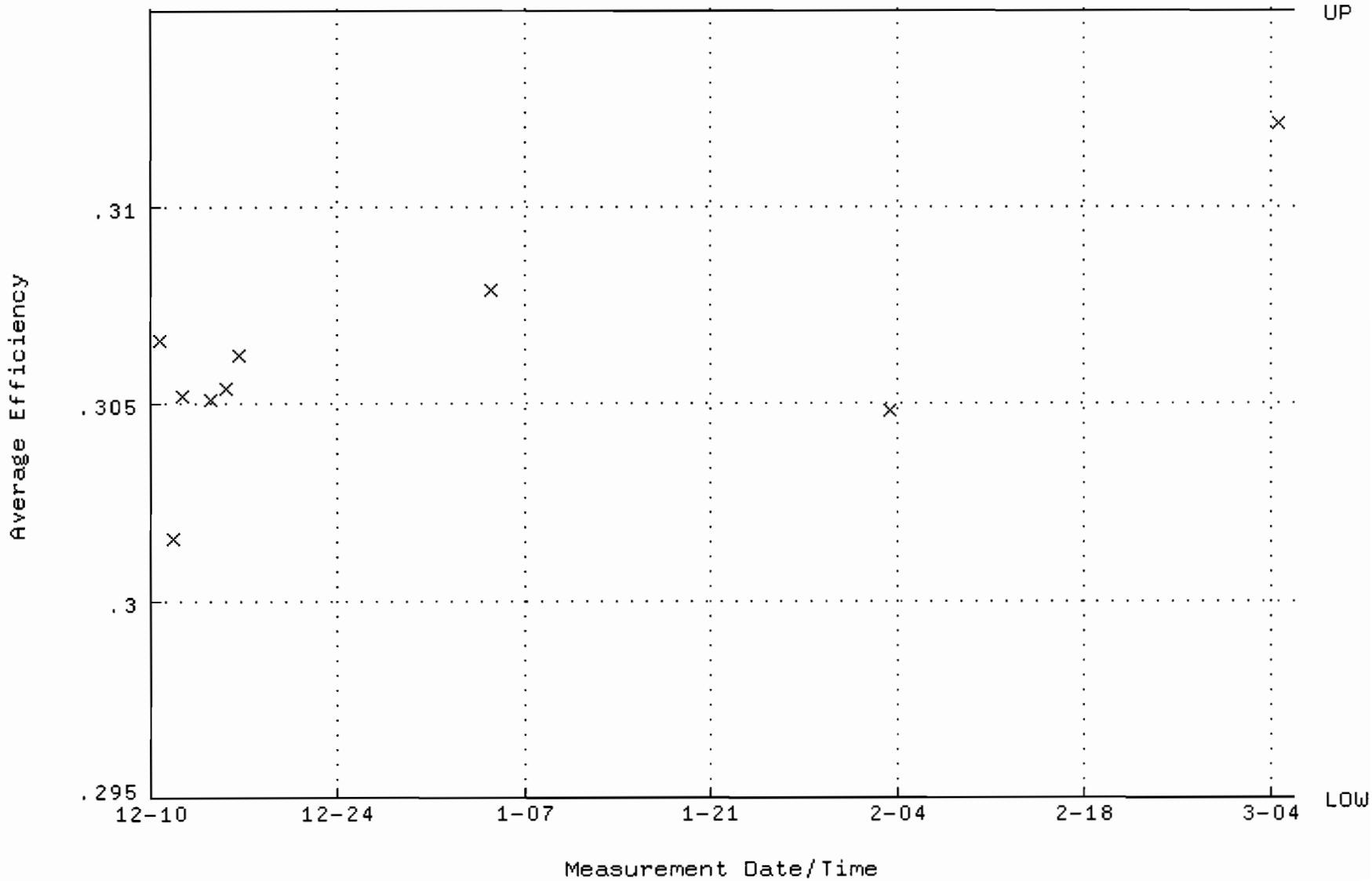

QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-DEC-2009 15:29:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 87.5863 through 96.8059

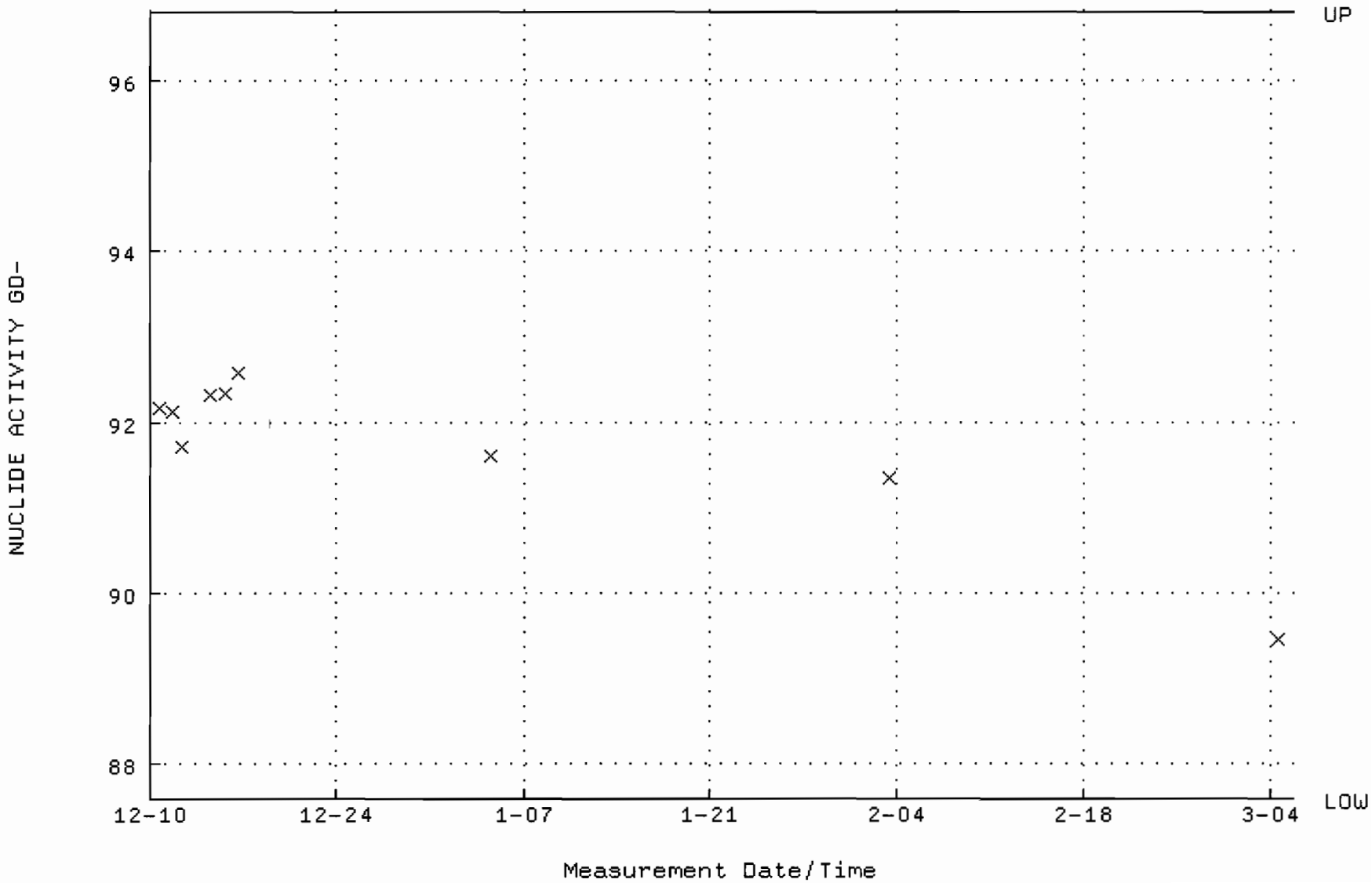

QA filename : DKA100:[ENV_ALPHA.QA.B]B004.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

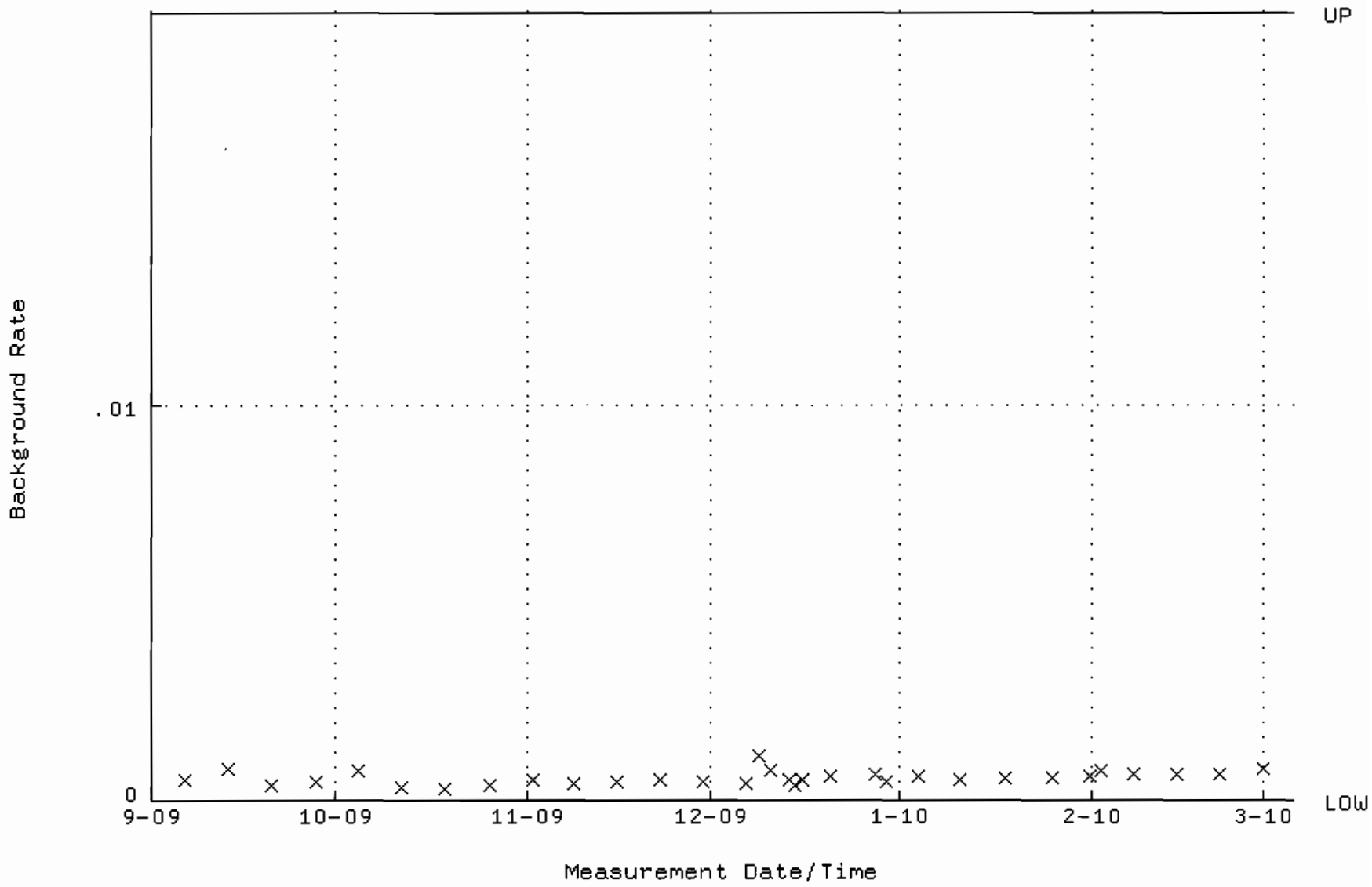

QA filename : DKA100:[ENV_ALPHA.QA.W]W005.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.302314 through 0.344088

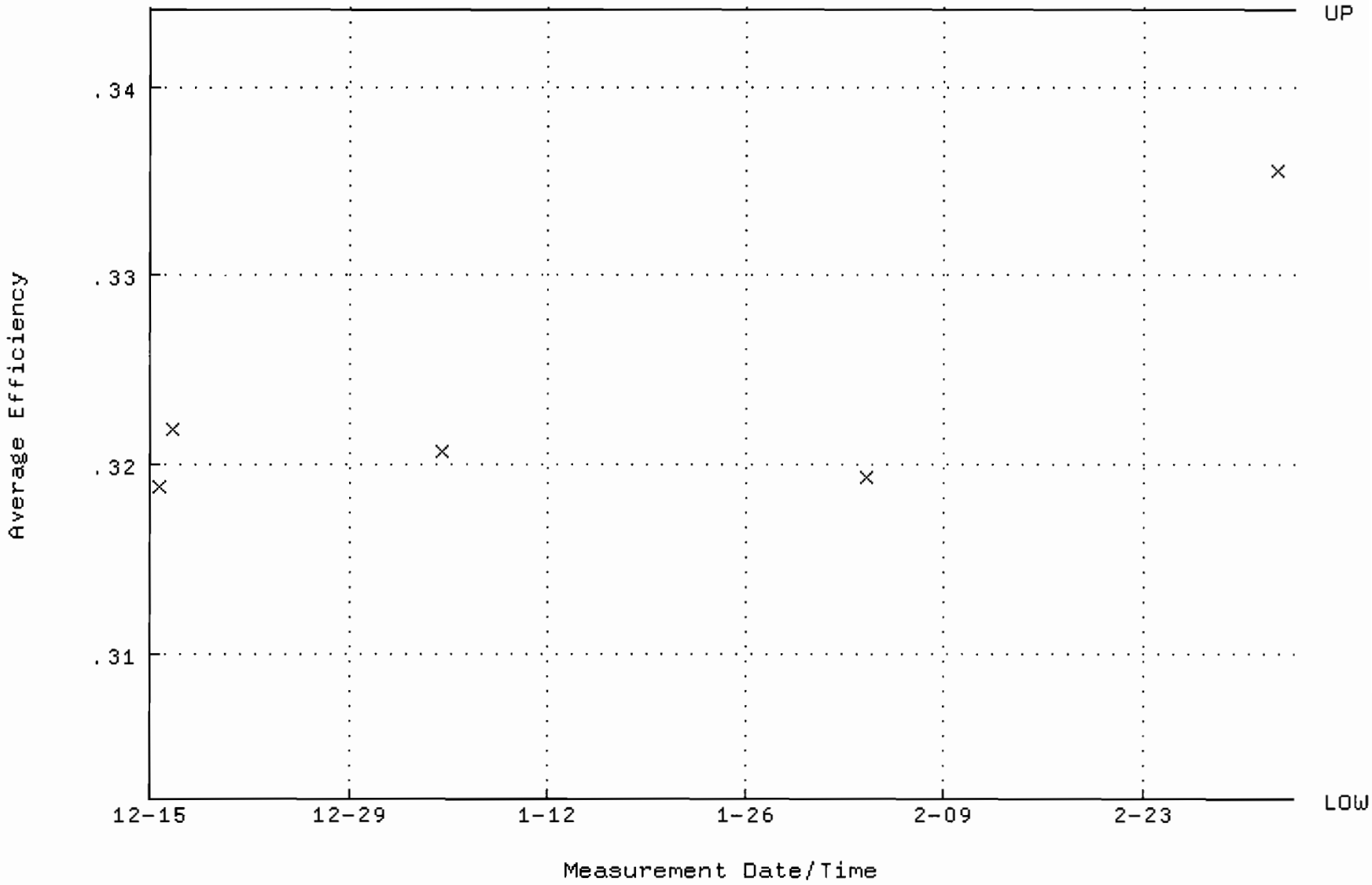

QA filename : DKA100:[ENV_ALPHA.QA.W]W005.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 88.6685 through 97.7693

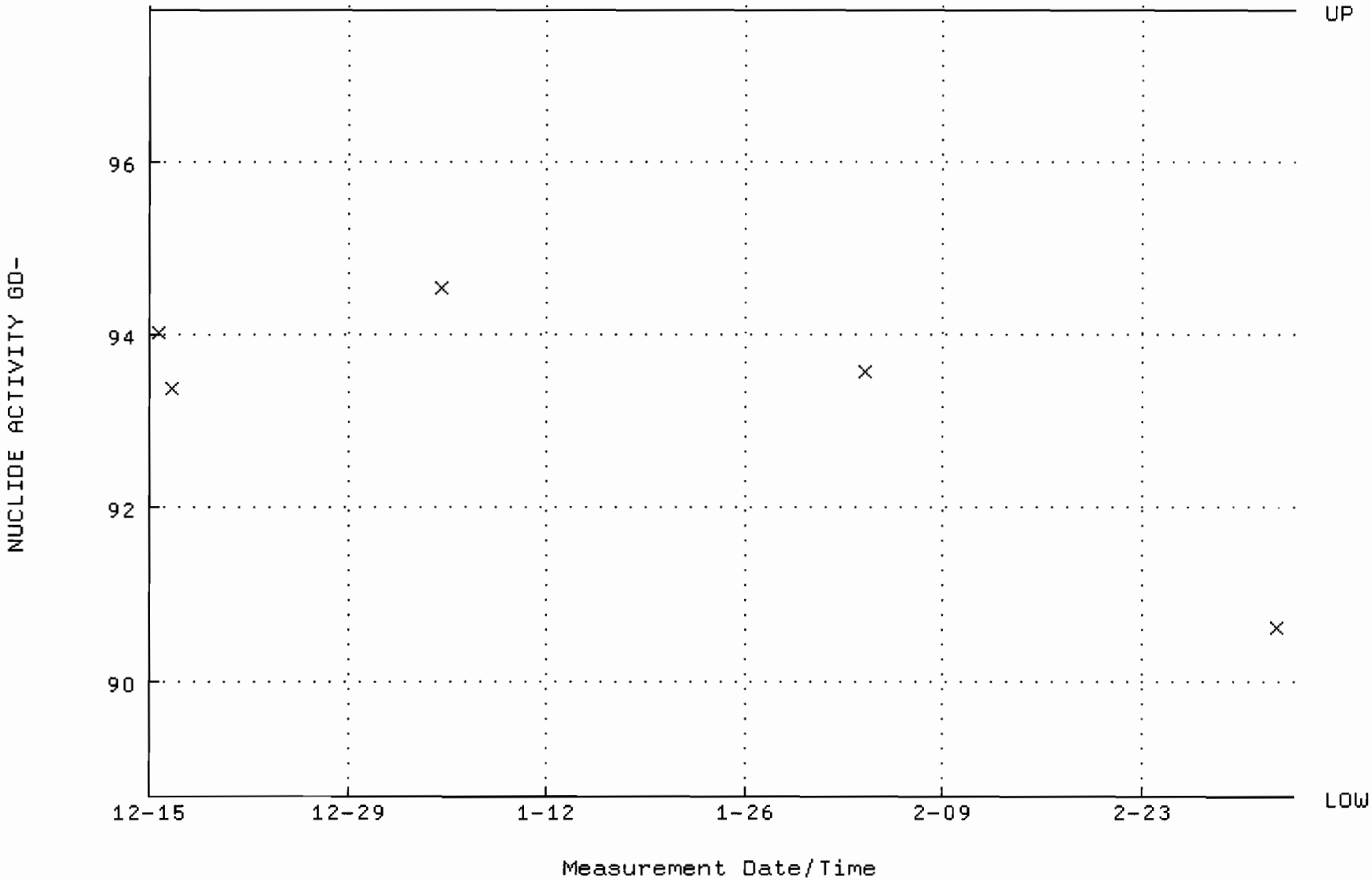

QA filename : DKA100:[ENV_ALPHA.QA.B]B005.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

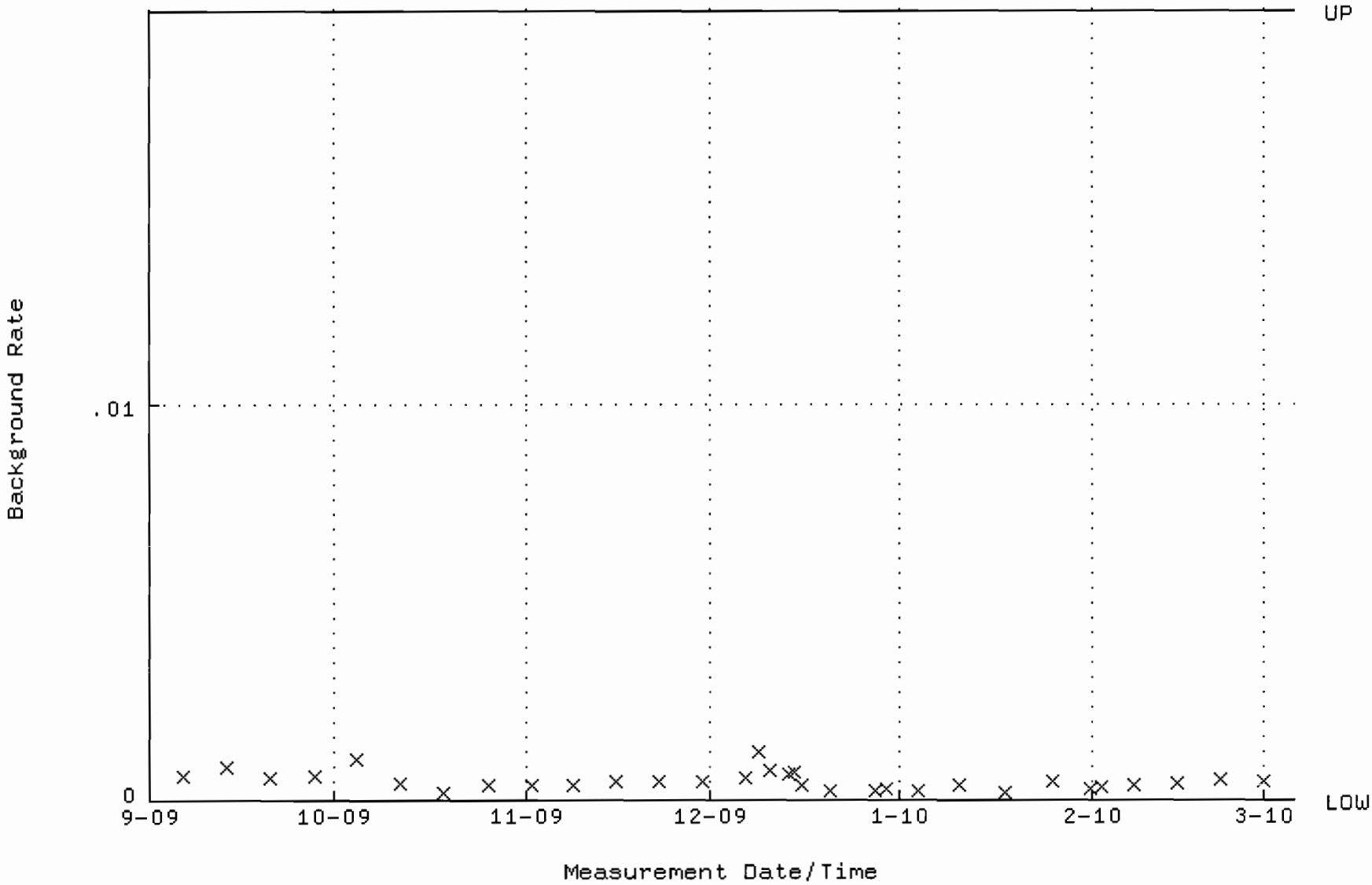

QA filename : DKA100:[ENV_ALPHA.QA.W]W006.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.288996 through 0.330714

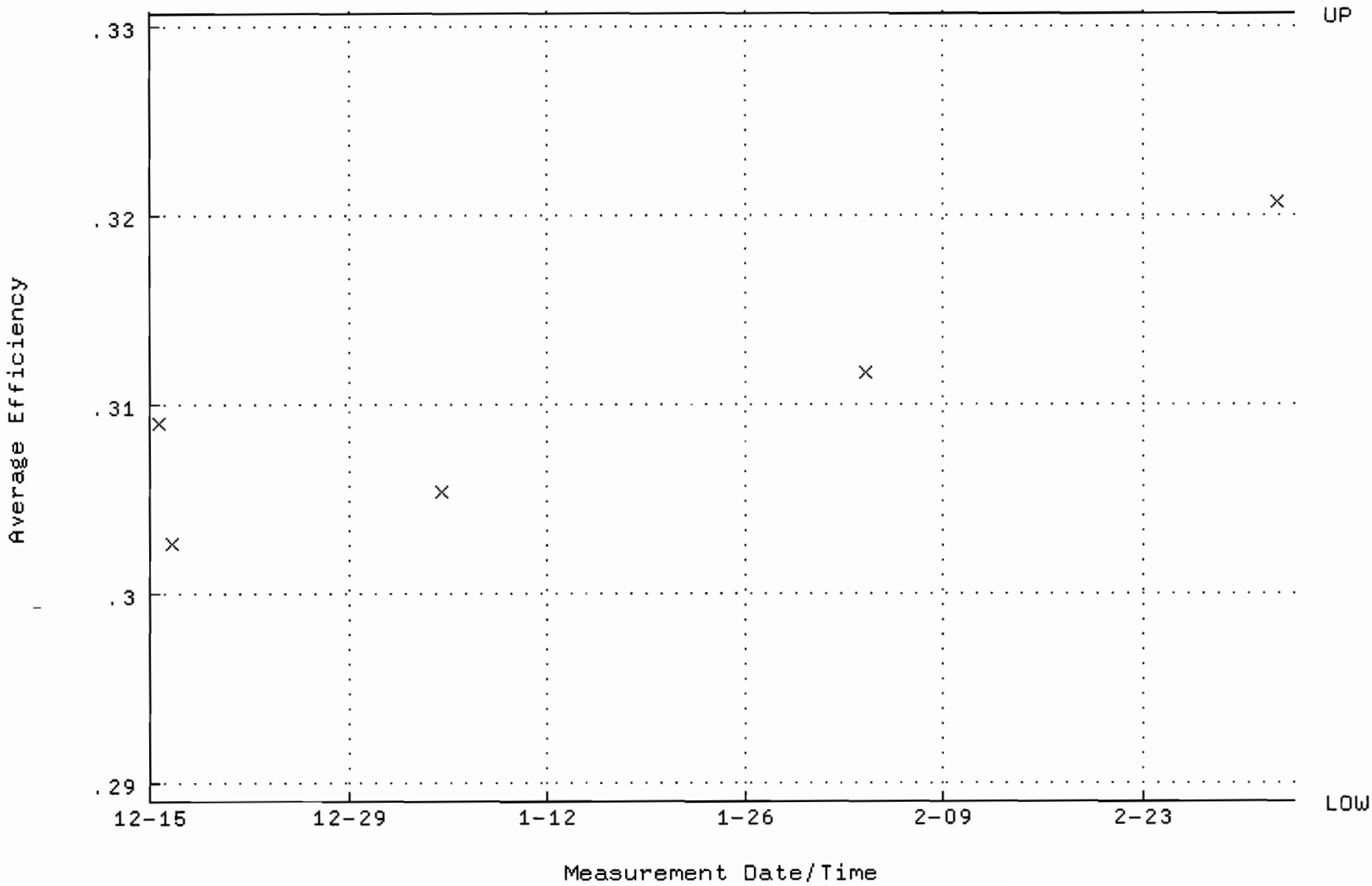

QA filename : DKA100:[ENV_ALPHA.QA.W]W006.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5567 through 97.8515

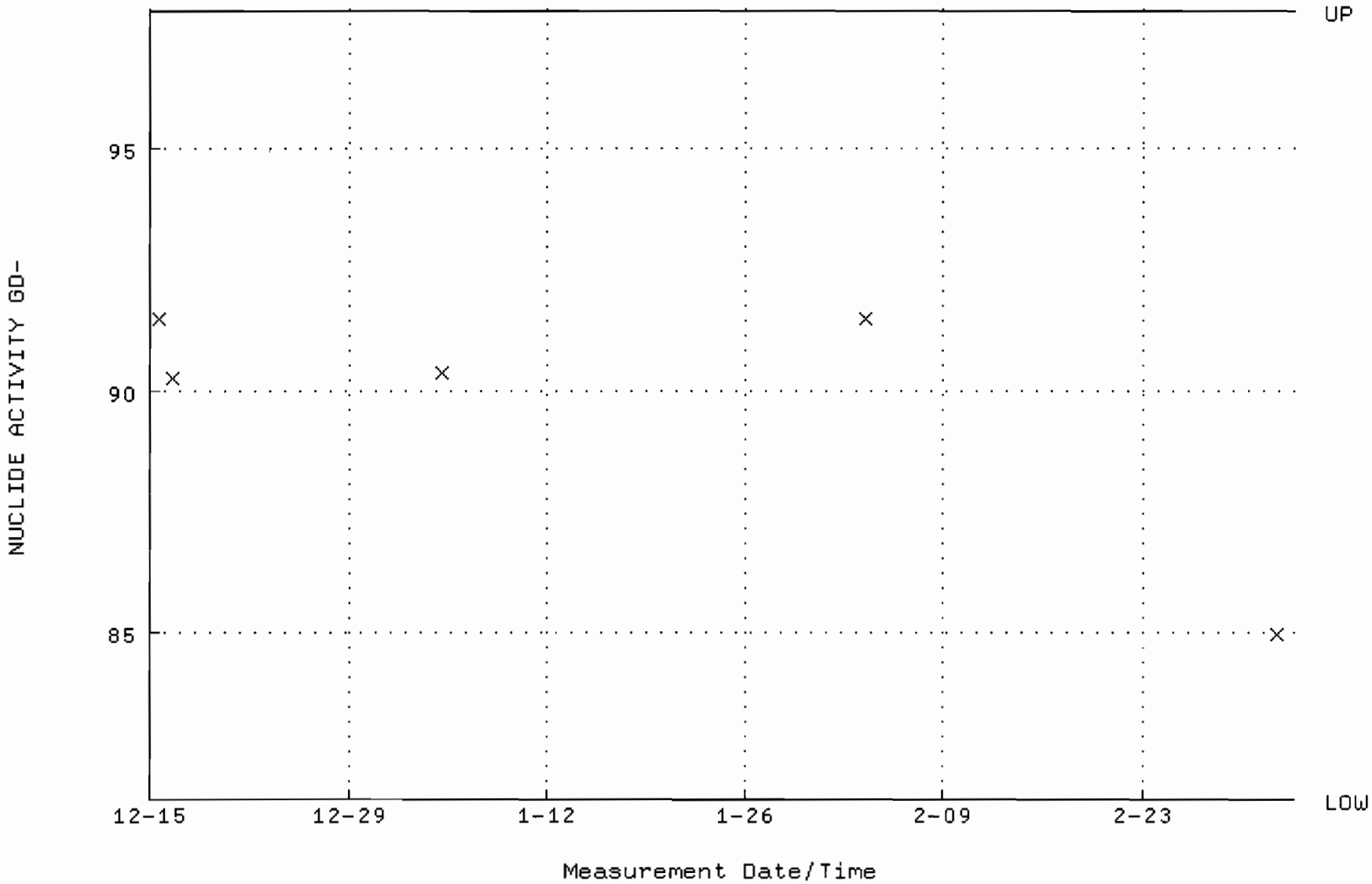

QA filename : DKA100:[ENV_ALPHA.QA.B]B006.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

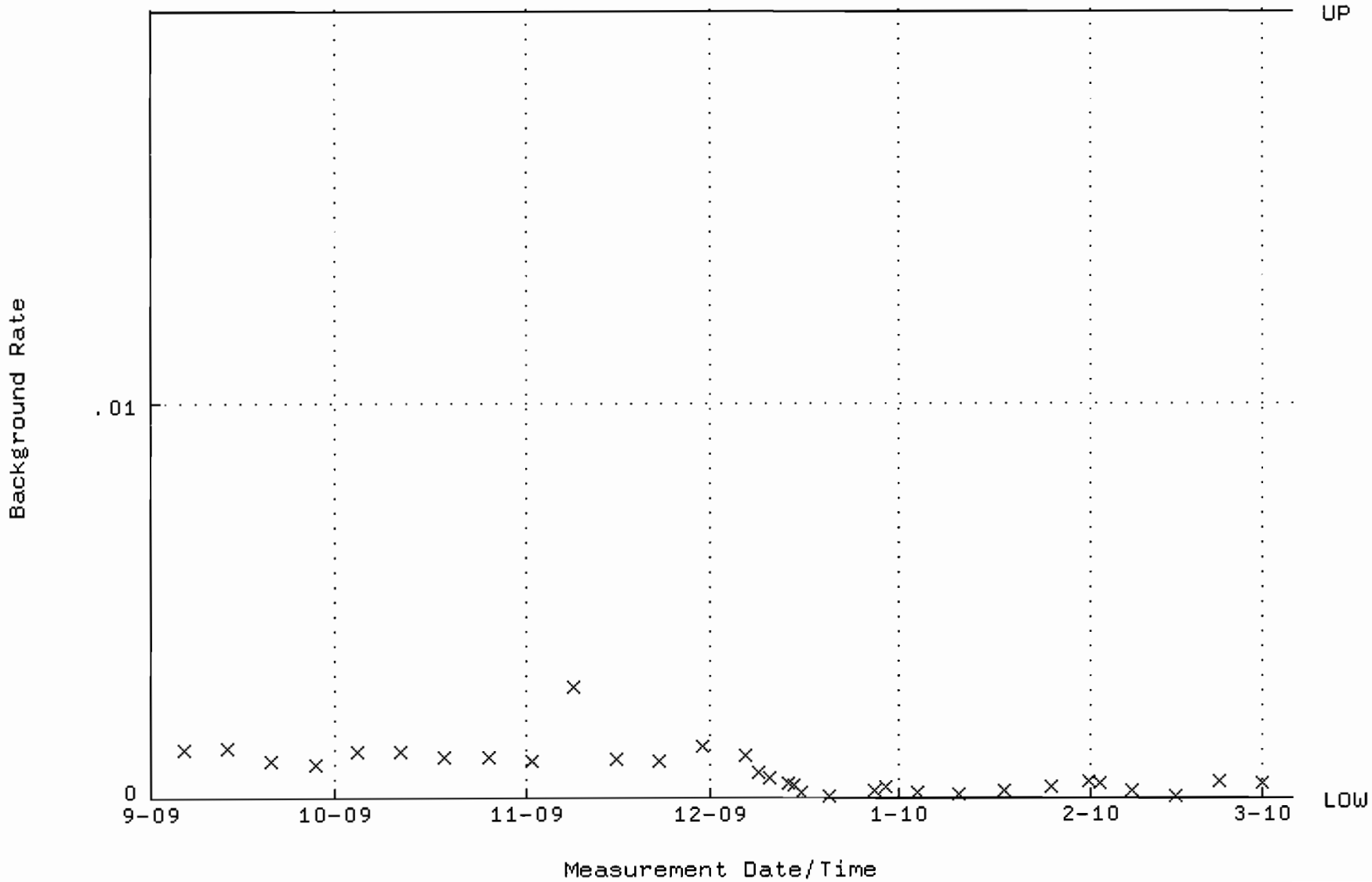

QA filename : DKA100:[ENV_ALPHA.QA.W]W096.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.317970 through 0.337970

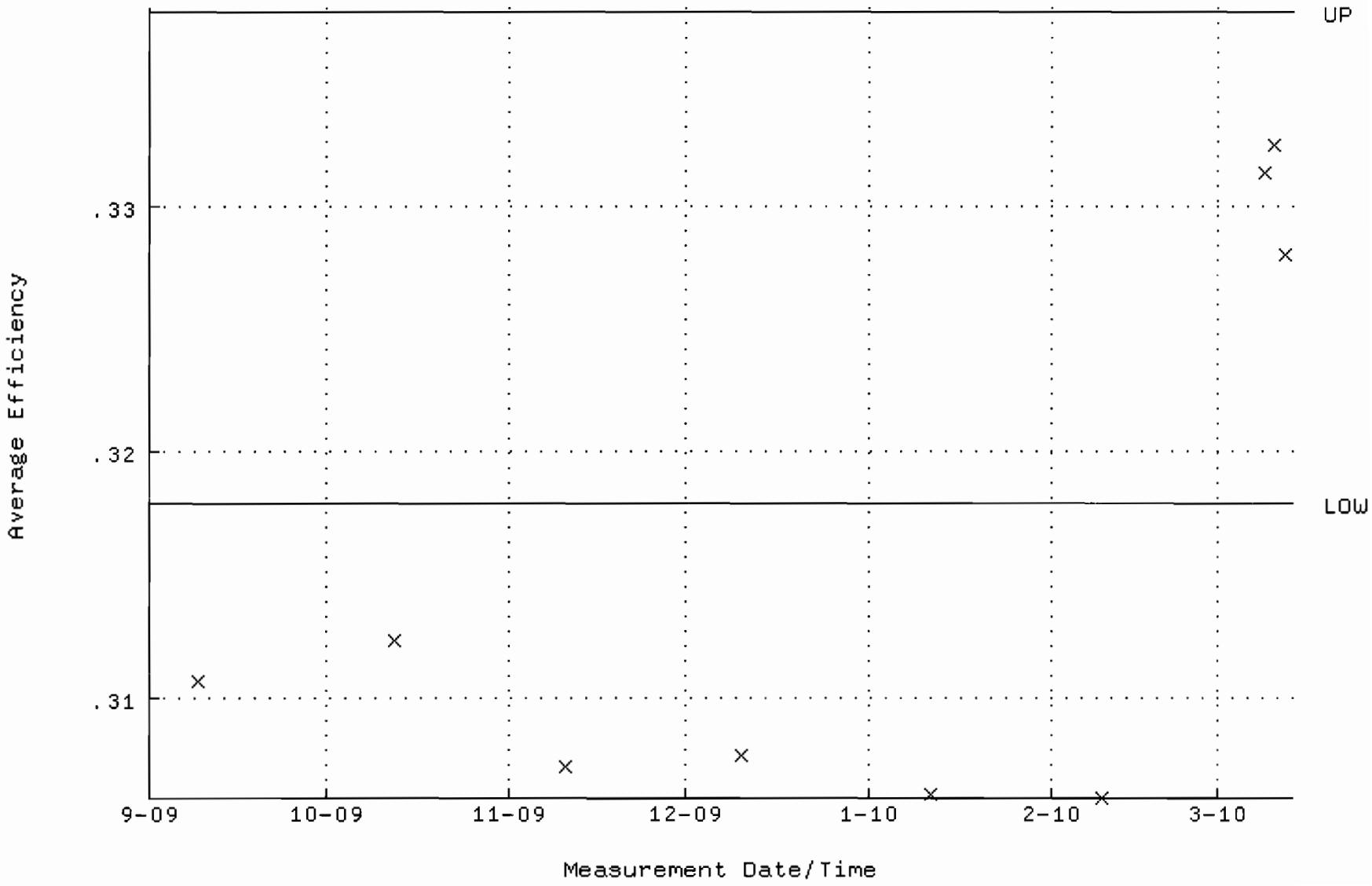

QA filename : DKA100:[ENV_ALPHA.QA.W]W096.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 62.4466 through 69.0200

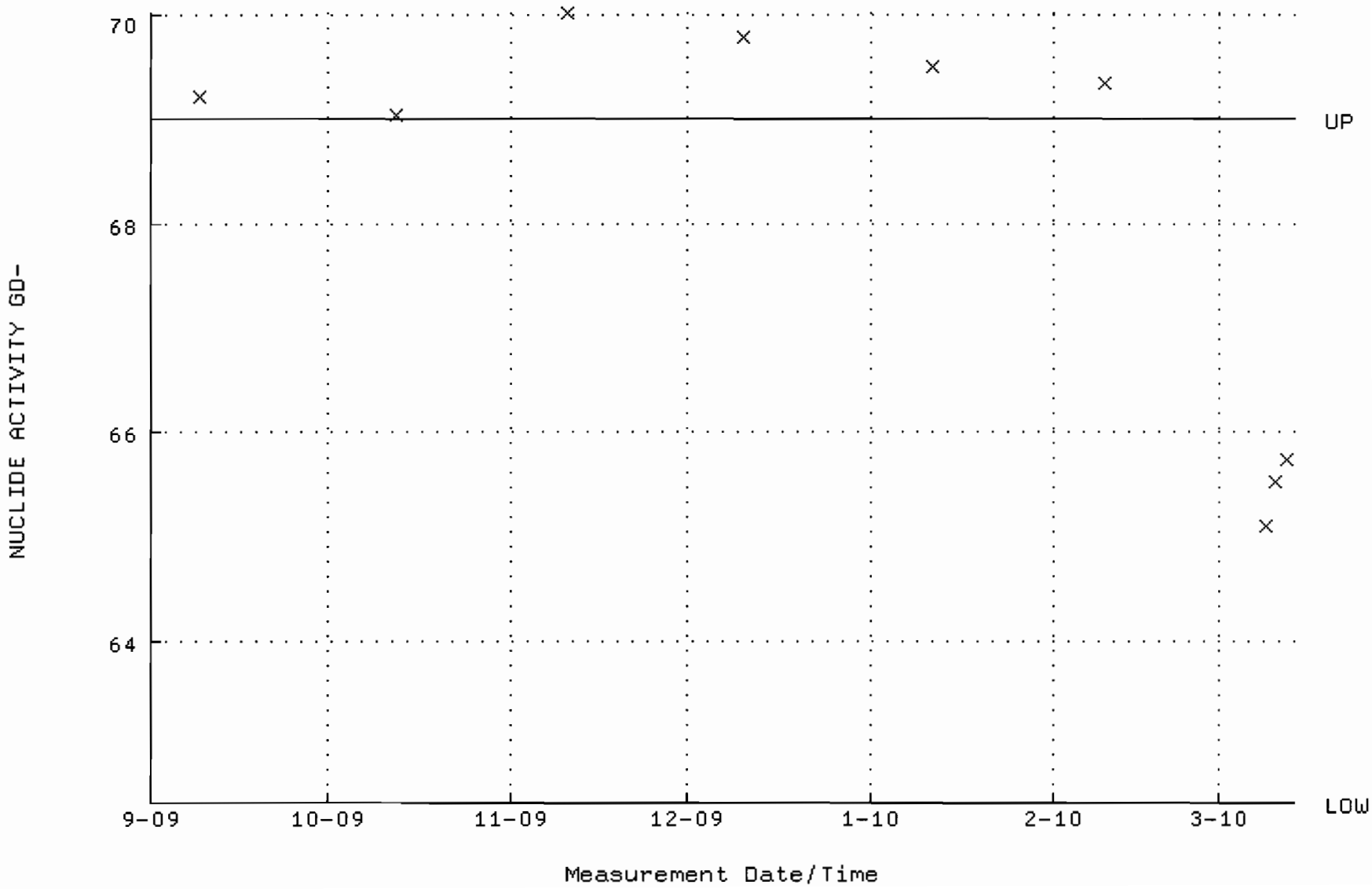

QA filename : DKA100:[ENV_ALPHA.QA.B]B096.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

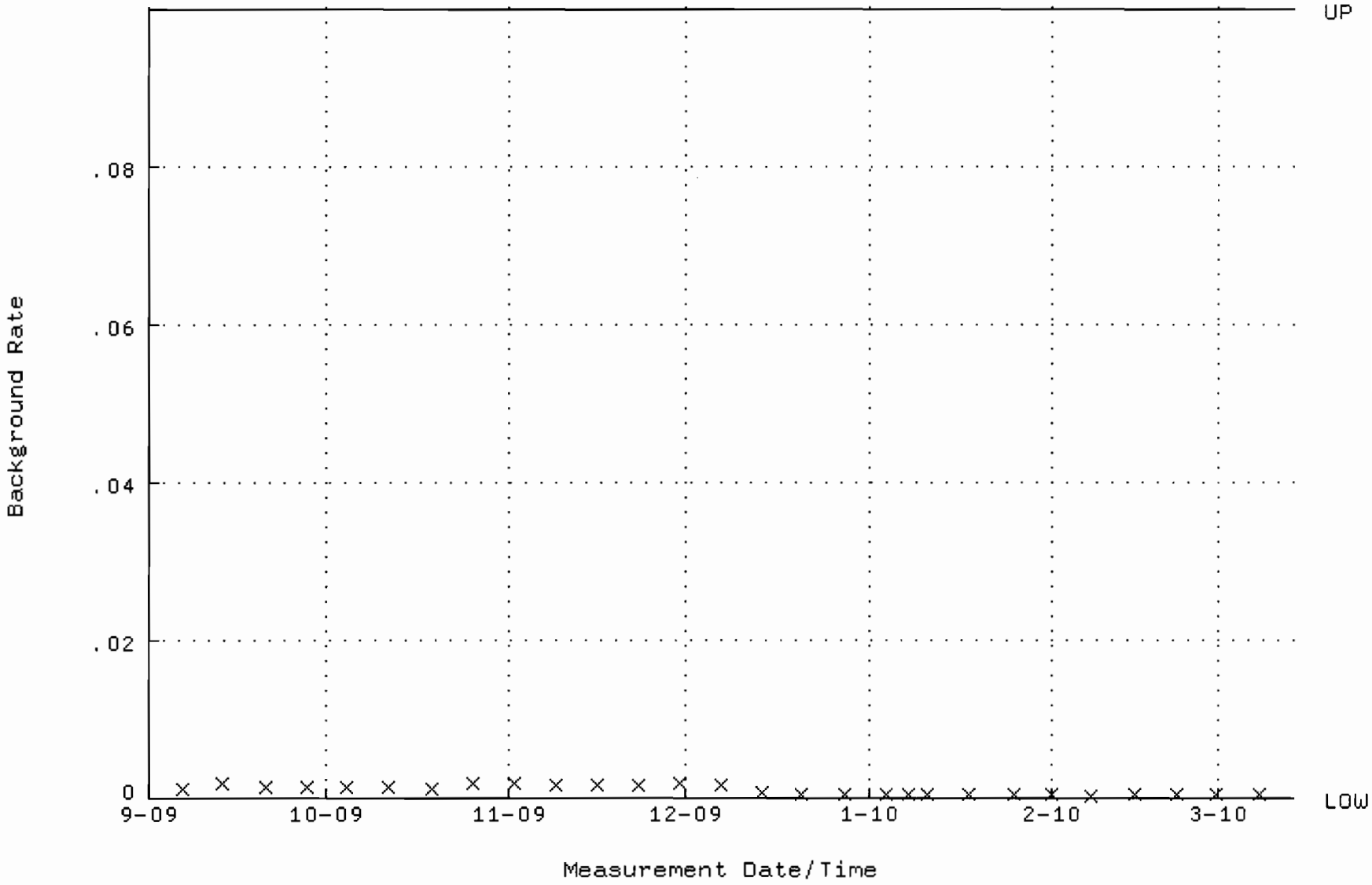

QA filename : DKA100:[ENV_ALPHA.QA.W]W097.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.338442 through 0.349972

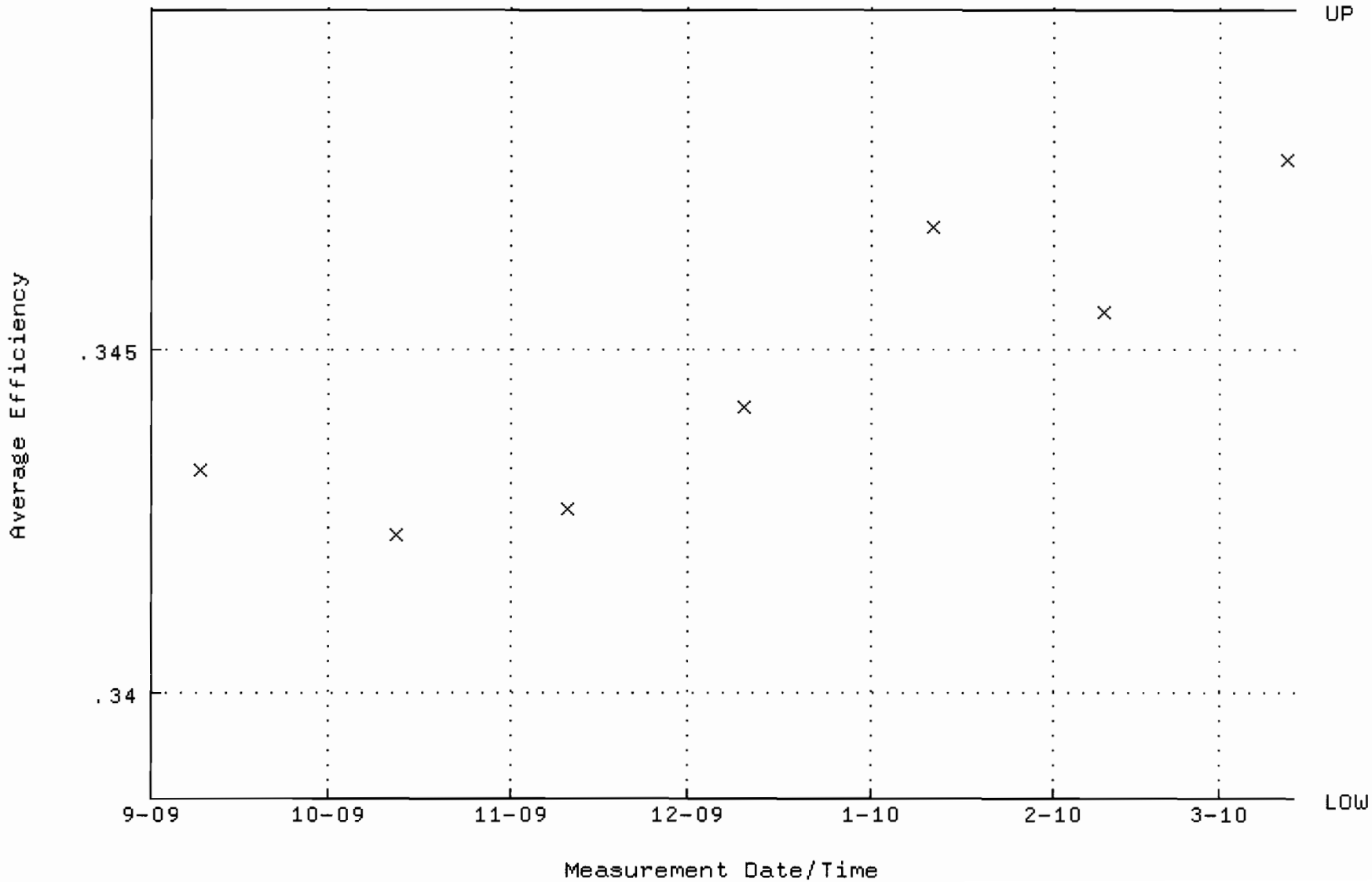

QA filename : DKA100:[ENV_ALPHA.QA.W]W097.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 66.0956 through 69.6464

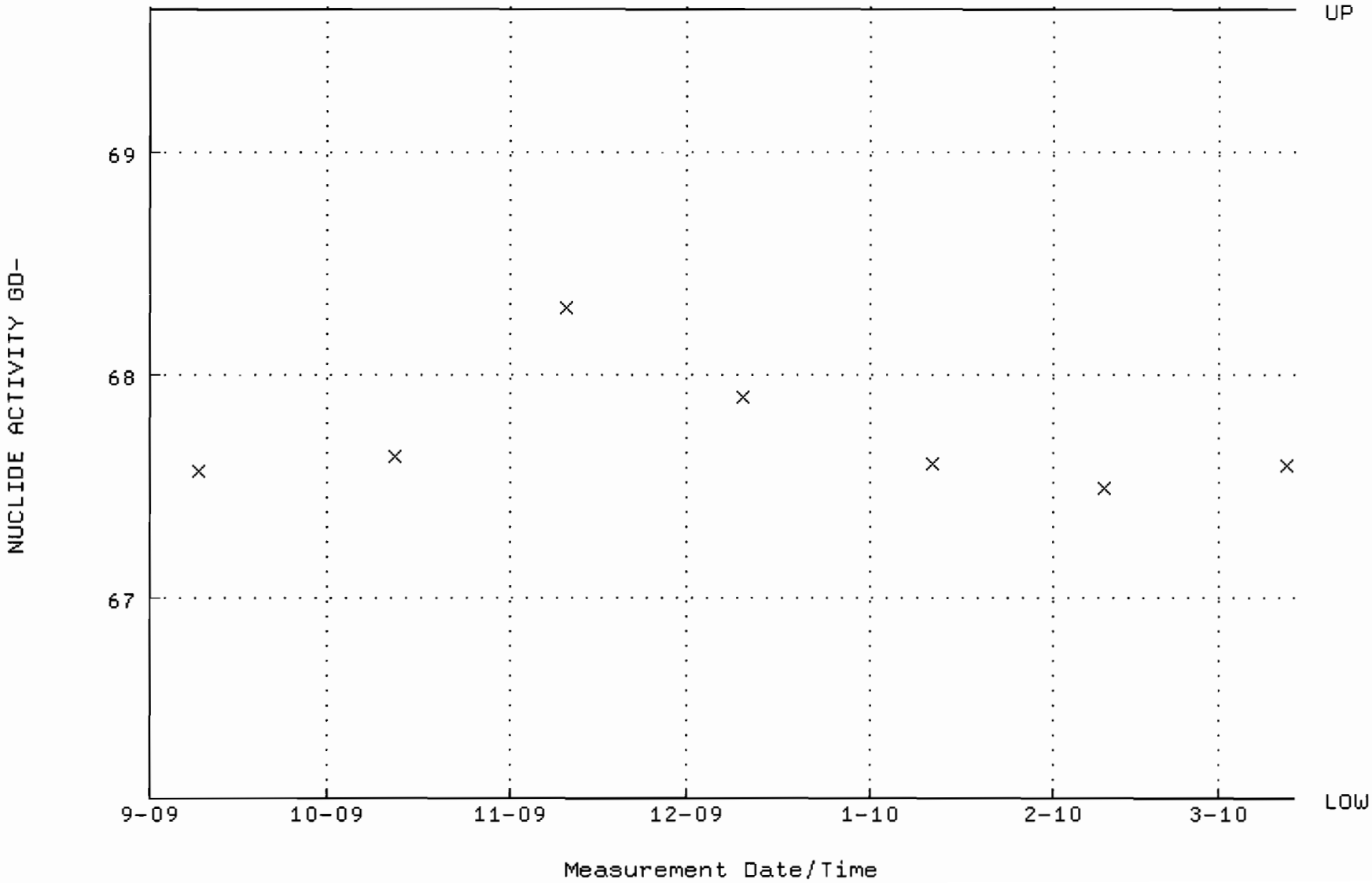

QA filename : DKA100:[ENV_ALPHA.QA.B]B097.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

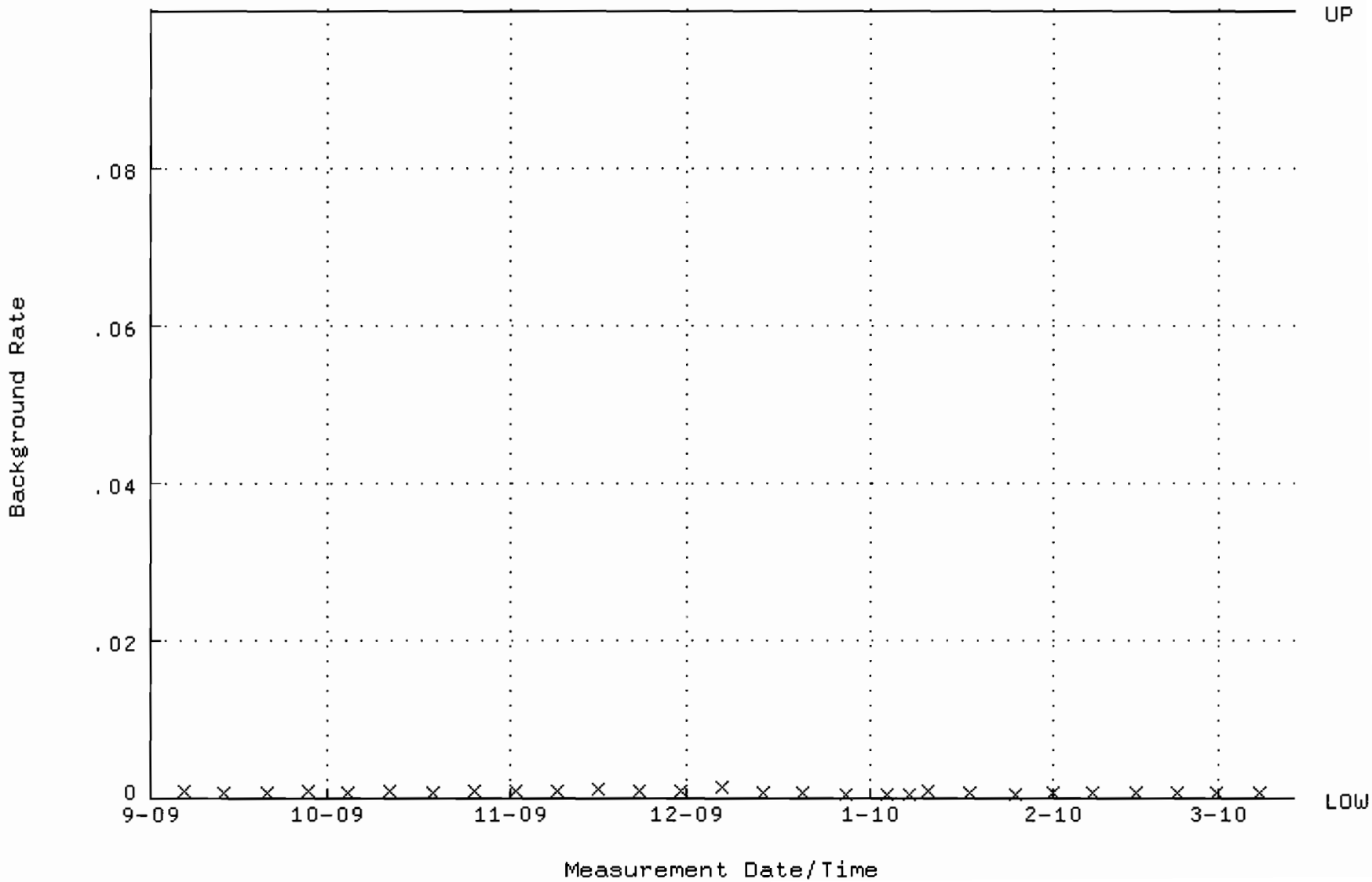

QA filename : DKA100:[ENV_ALPHA.QA.W]W098.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.346488 through 0.366488

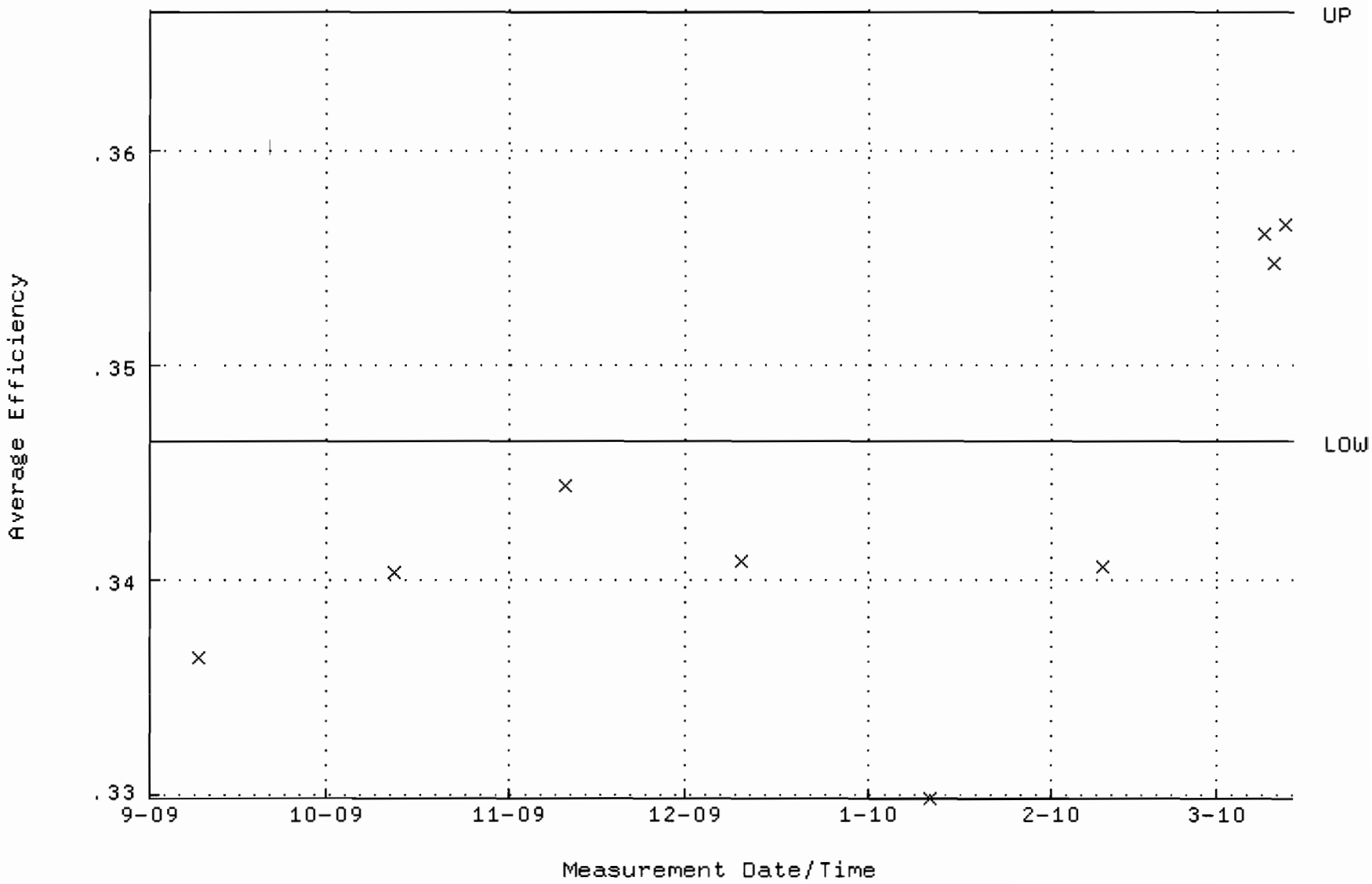

QA filename : DKA100:[ENV_ALPHA.QA.W]W098.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 62.6847 through 69.2831

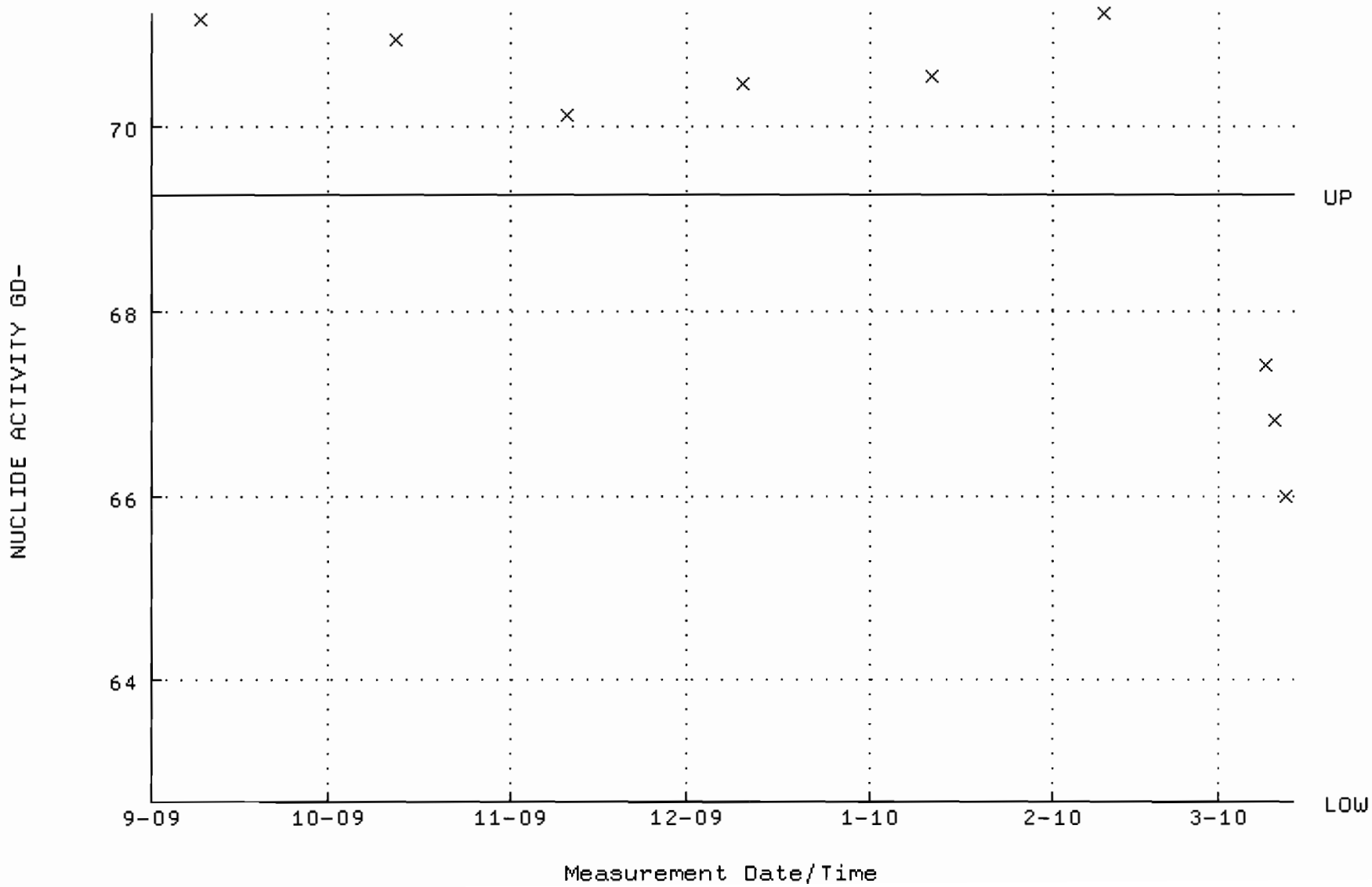

QA filename : DKA100:[ENV_ALPHA.QA.B]B098.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

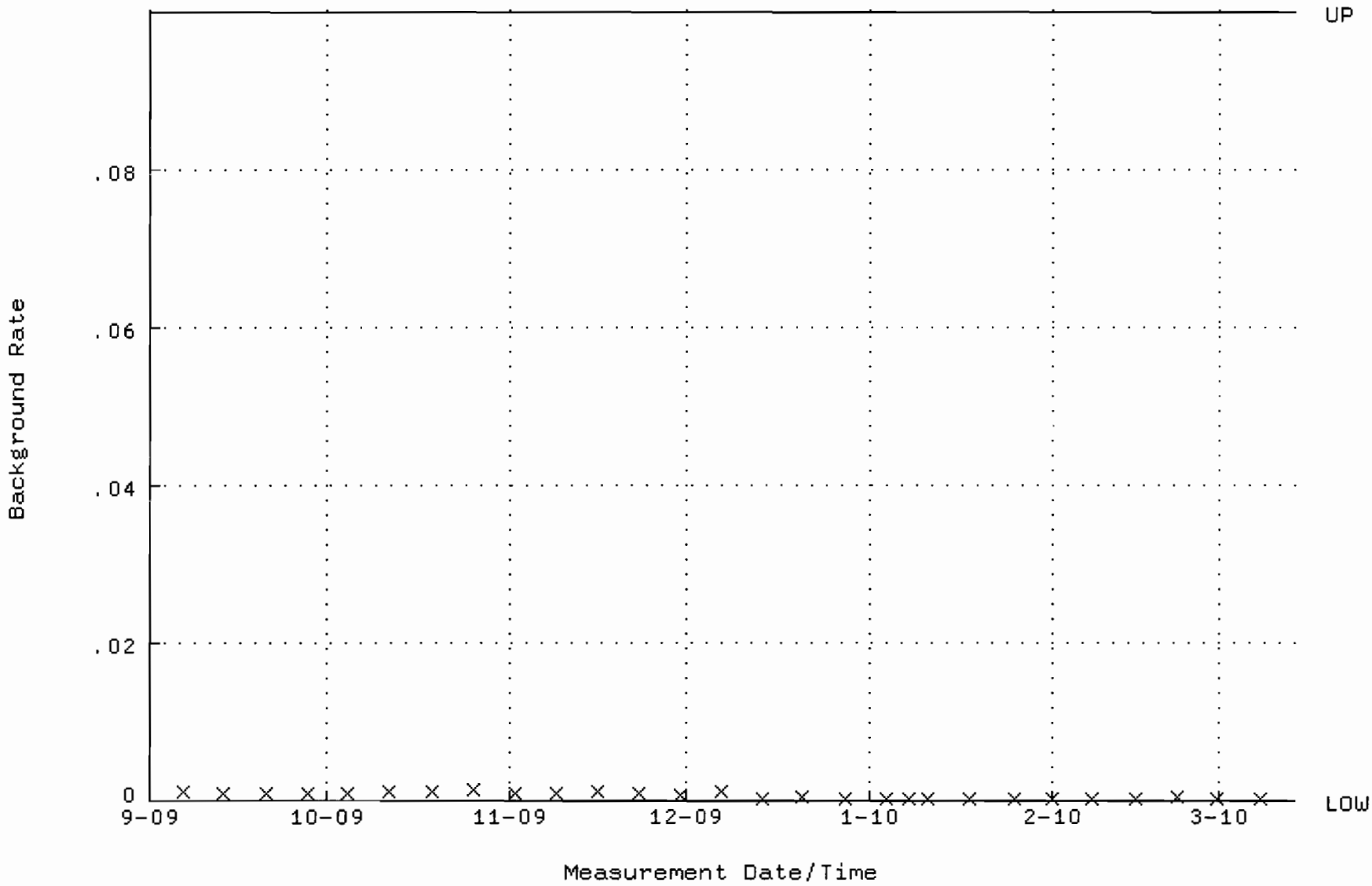

QA filename : DKA100:[ENV_ALPHA.QA.W]W111.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.320109 through 0.359725

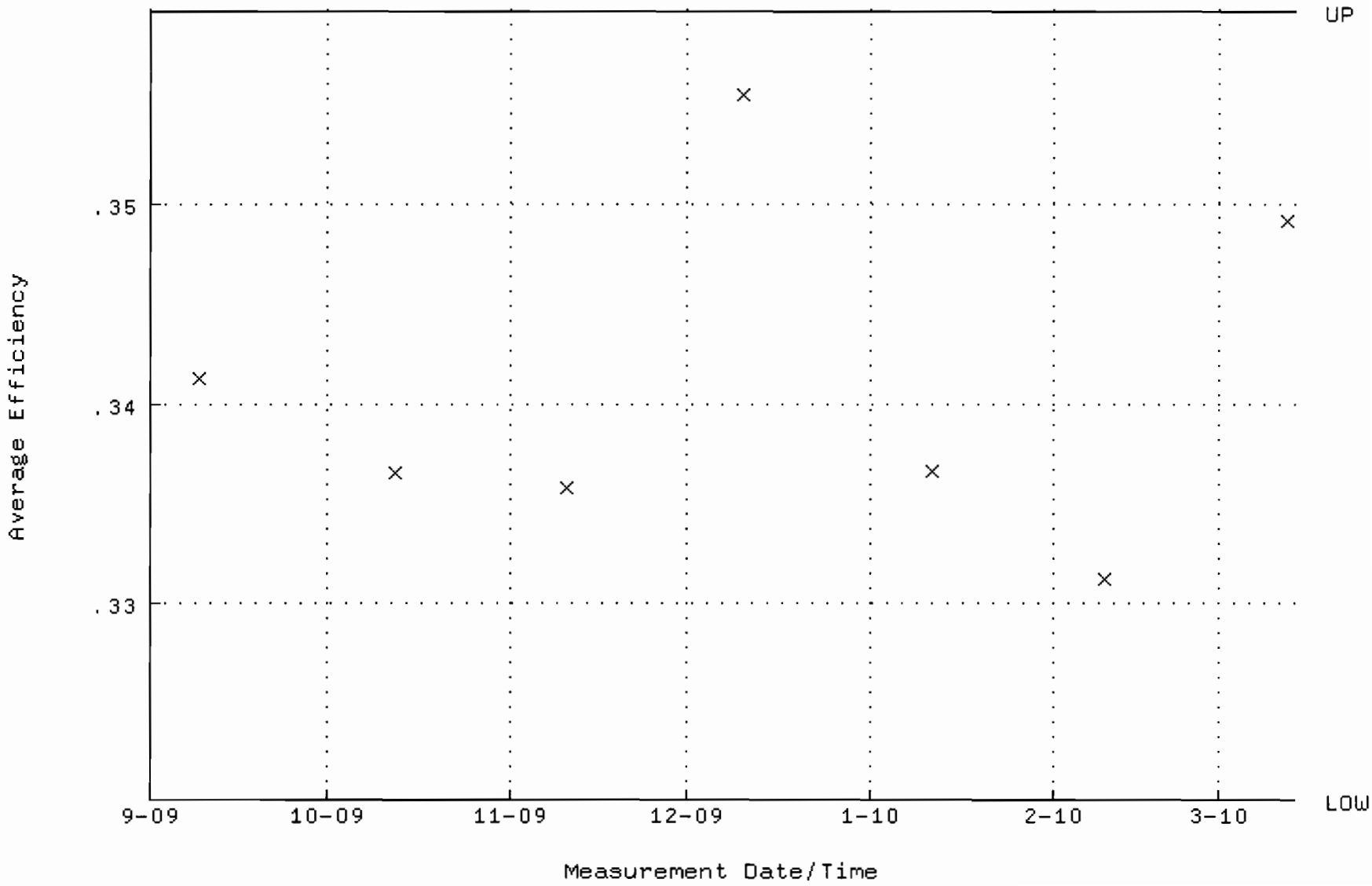

QA filename : DKA100:[ENV_ALPHA.QA.W]W111.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 67.6917 through 72.9869

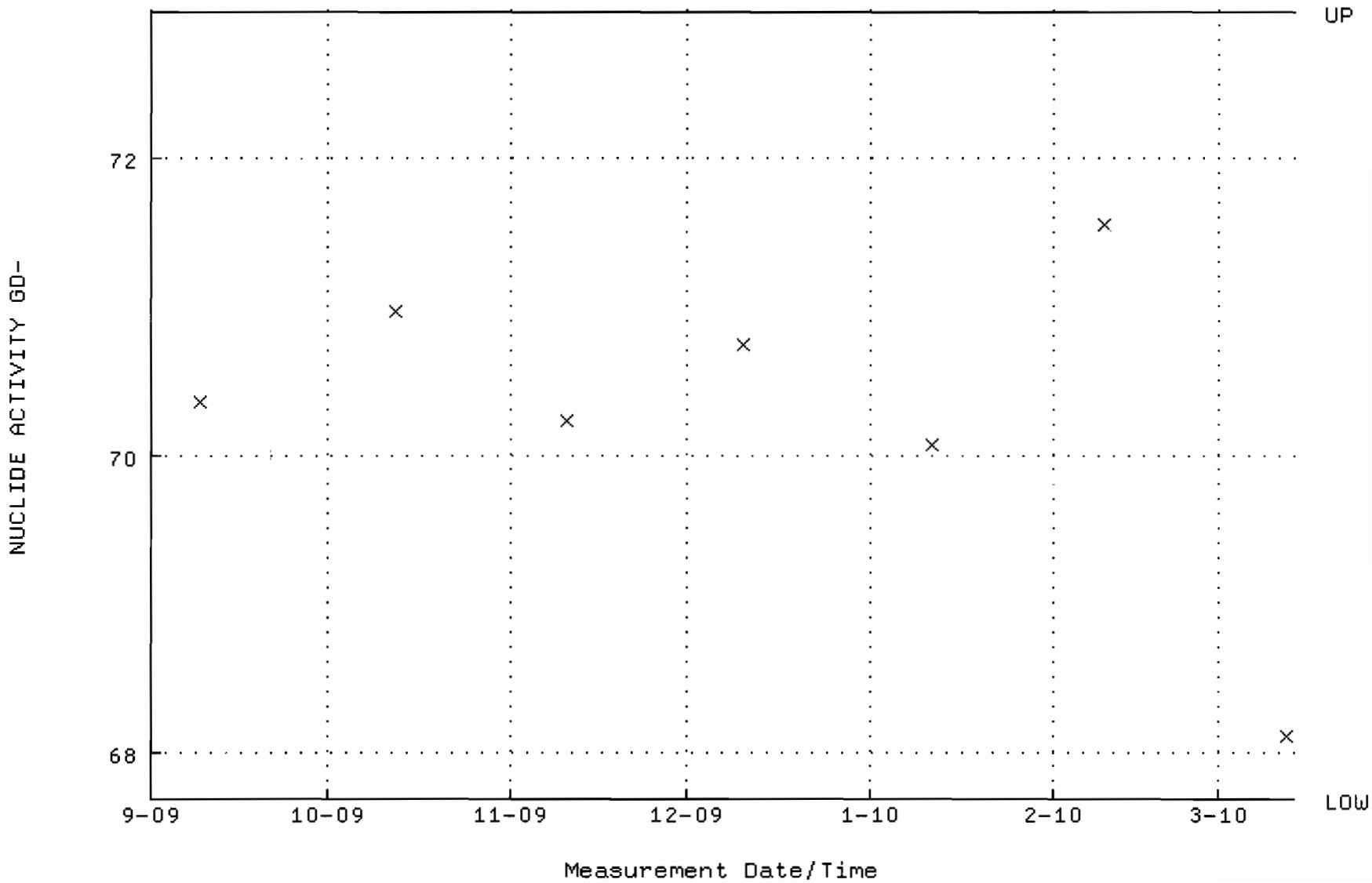

QA filename : DKA100:[ENV_ALPHA.QA.B]B111.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:12 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

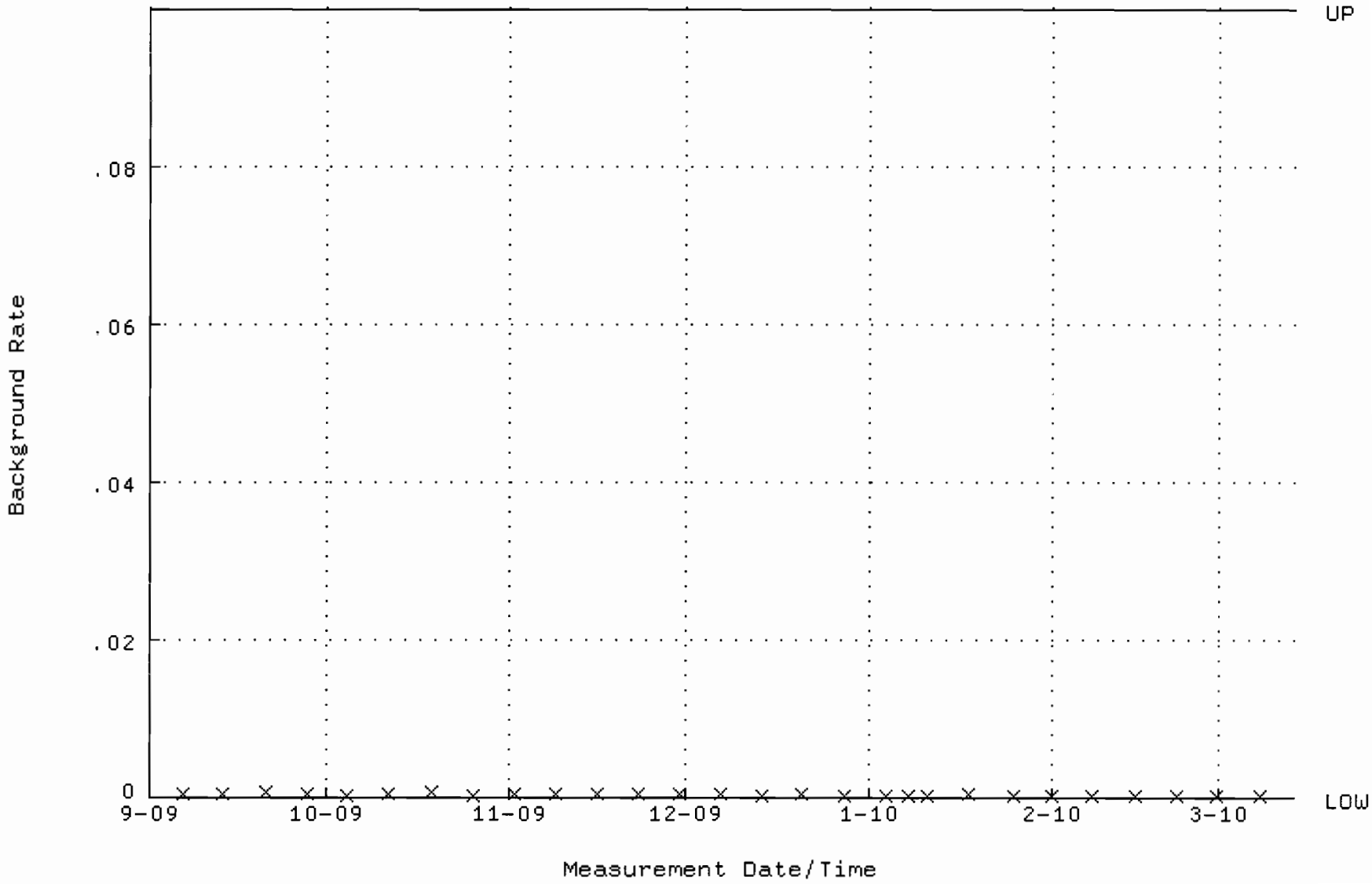

QA filename : DKA100:[ENV_ALPHA.QA.W]W112.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.297499 through 0.340389

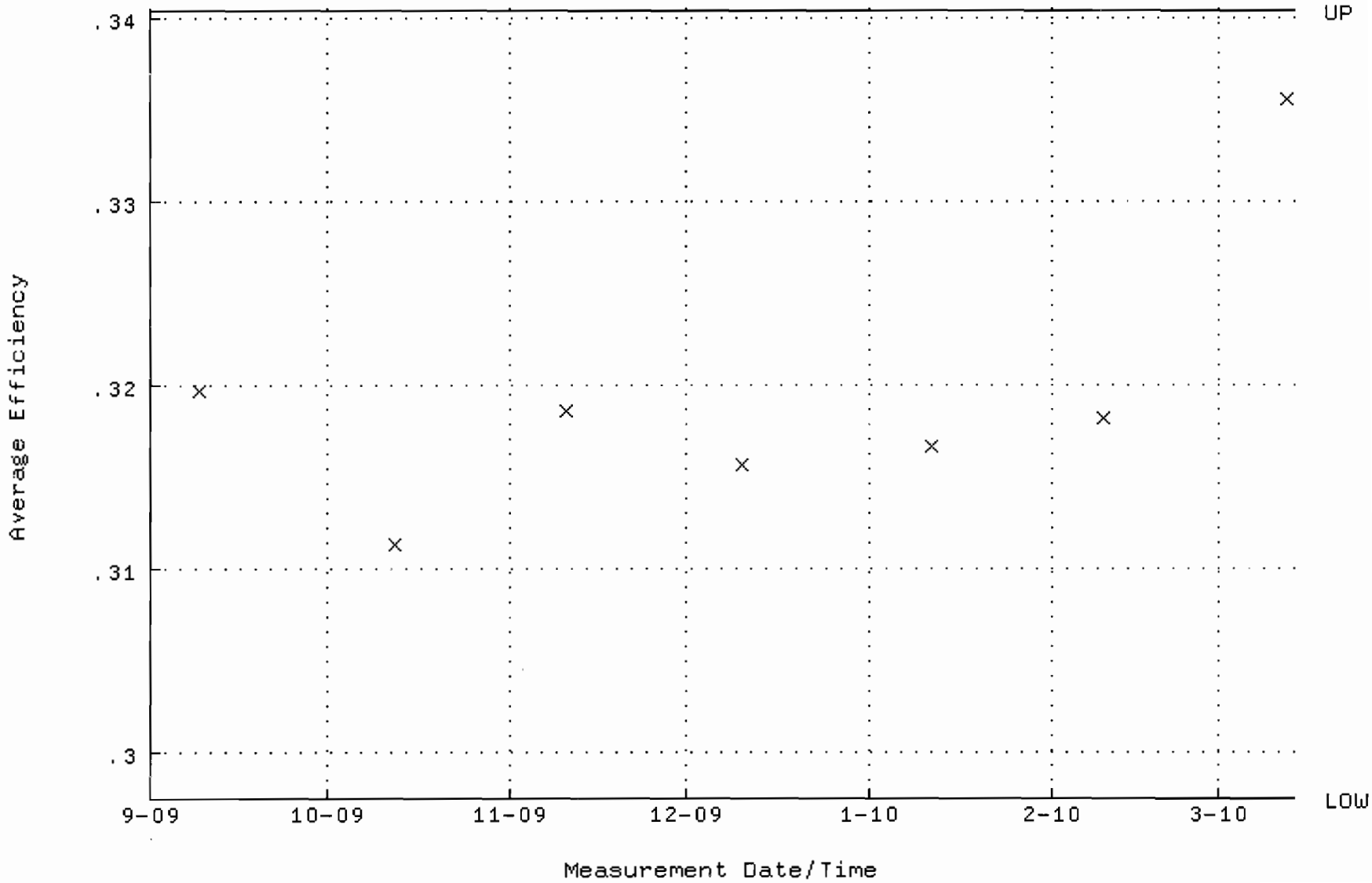

QA filename : DKA100:[ENV_ALPHA.QA.W]W112.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:52 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 63.4111 through 72.0947

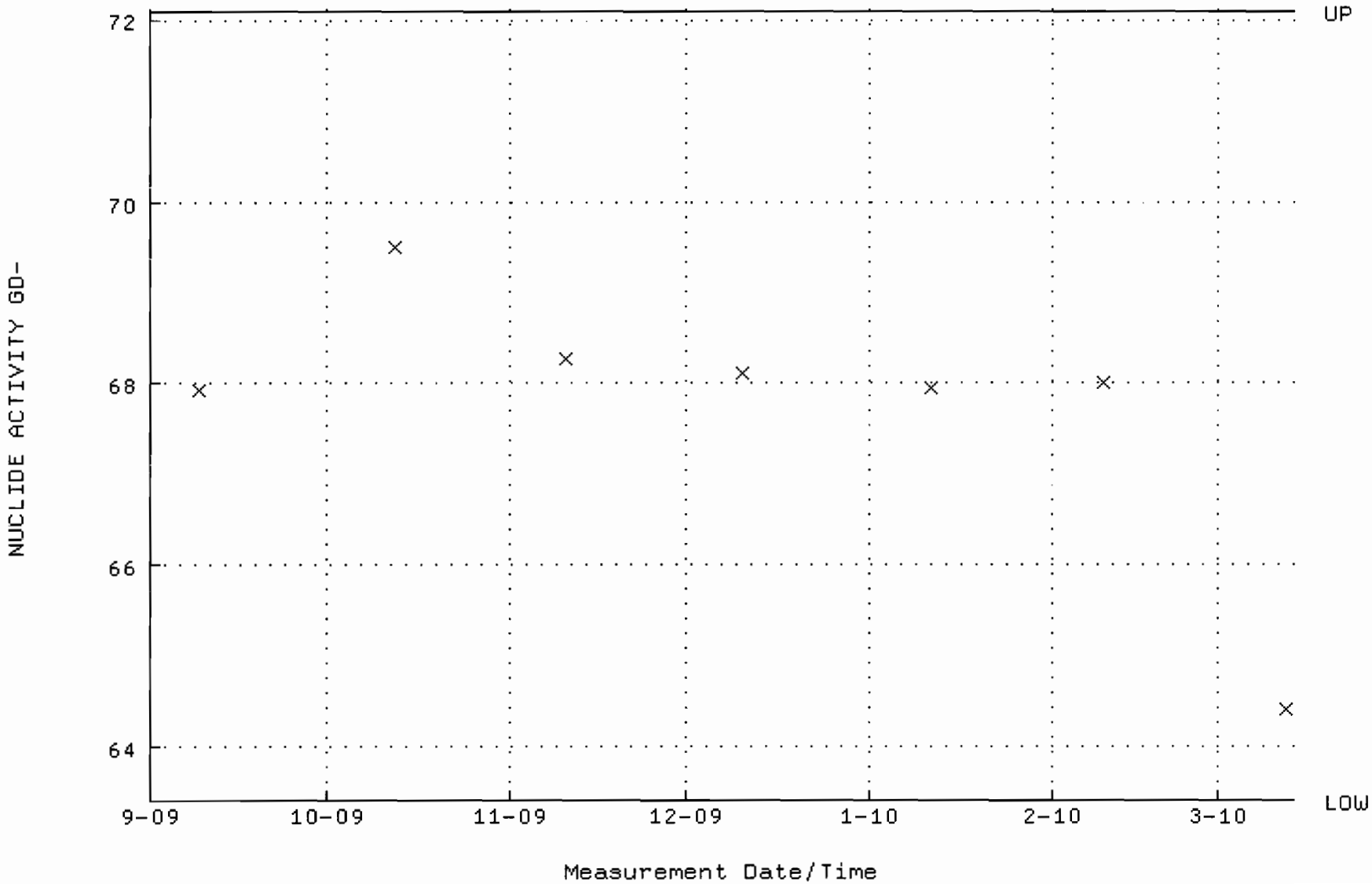

QA filename : DKA100:[ENV_ALPHA.QA.B]B112.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:12 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

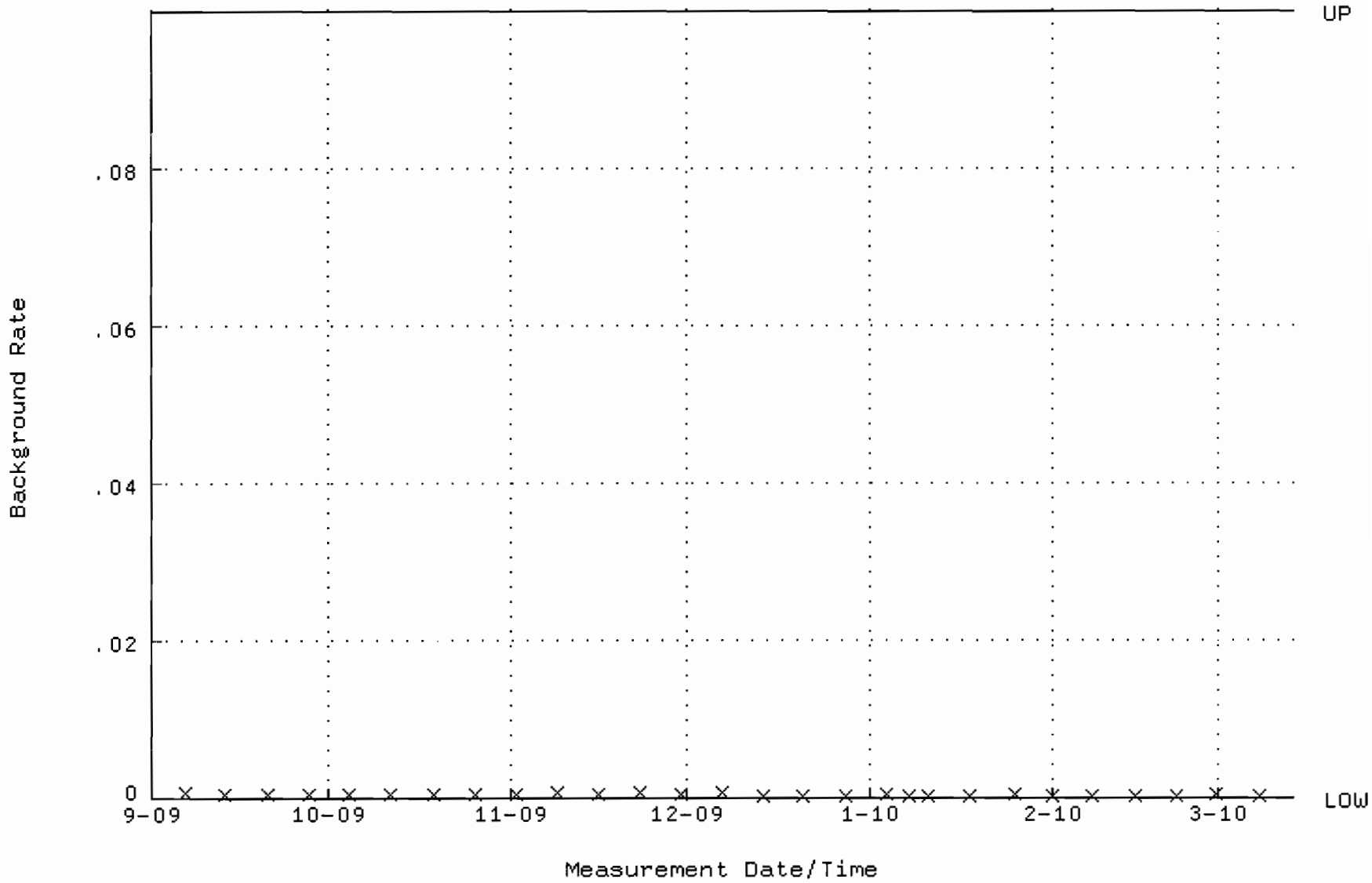

QA filename : DKA100:[ENV_ALPHA.QA.W]W160.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:18:19 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.234333 through 0.259825

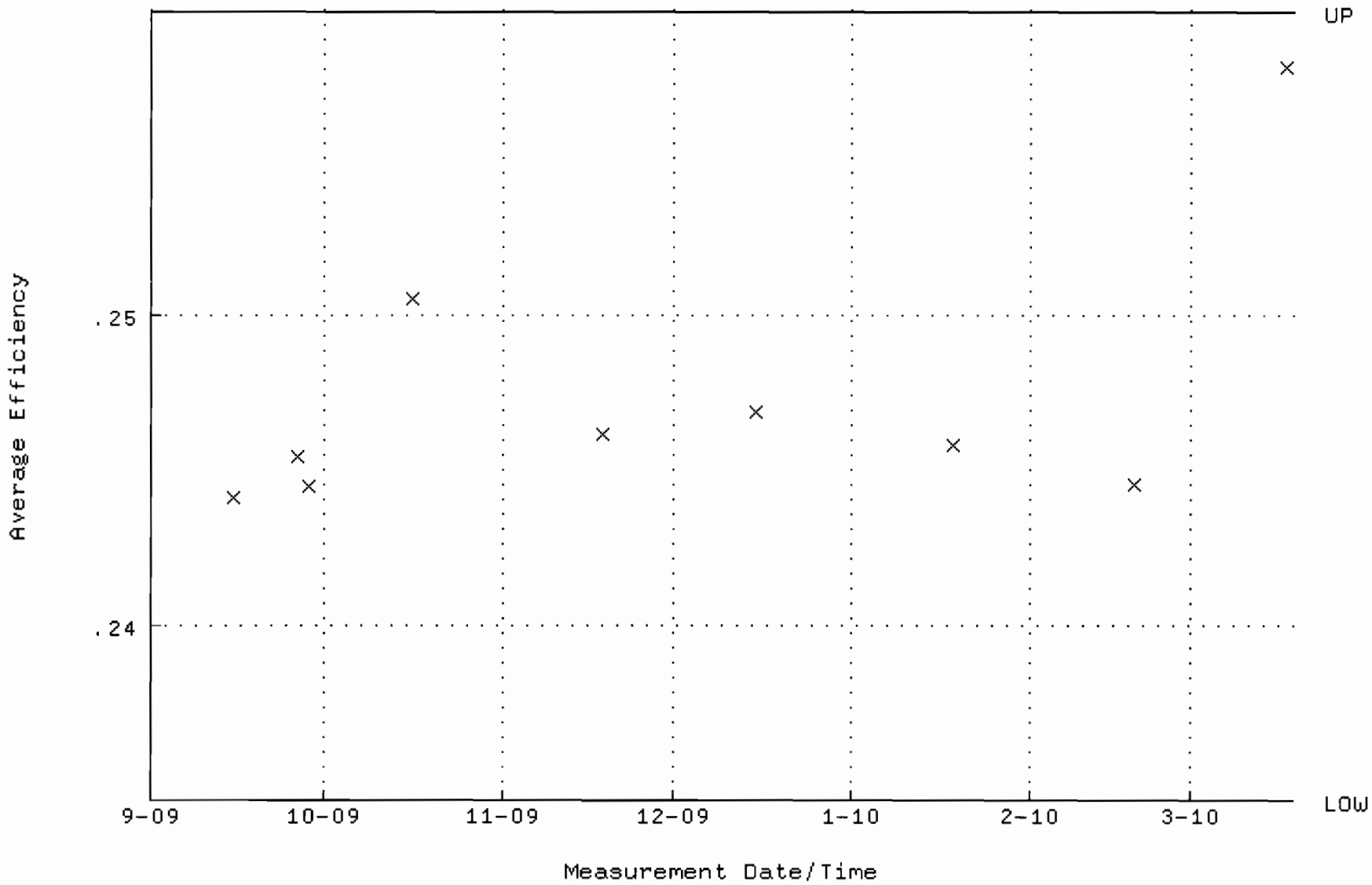

QA filename : DKA100:[ENV_ALPHA.QA.W]W160.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:18:19 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 80.4990 through 91.4457

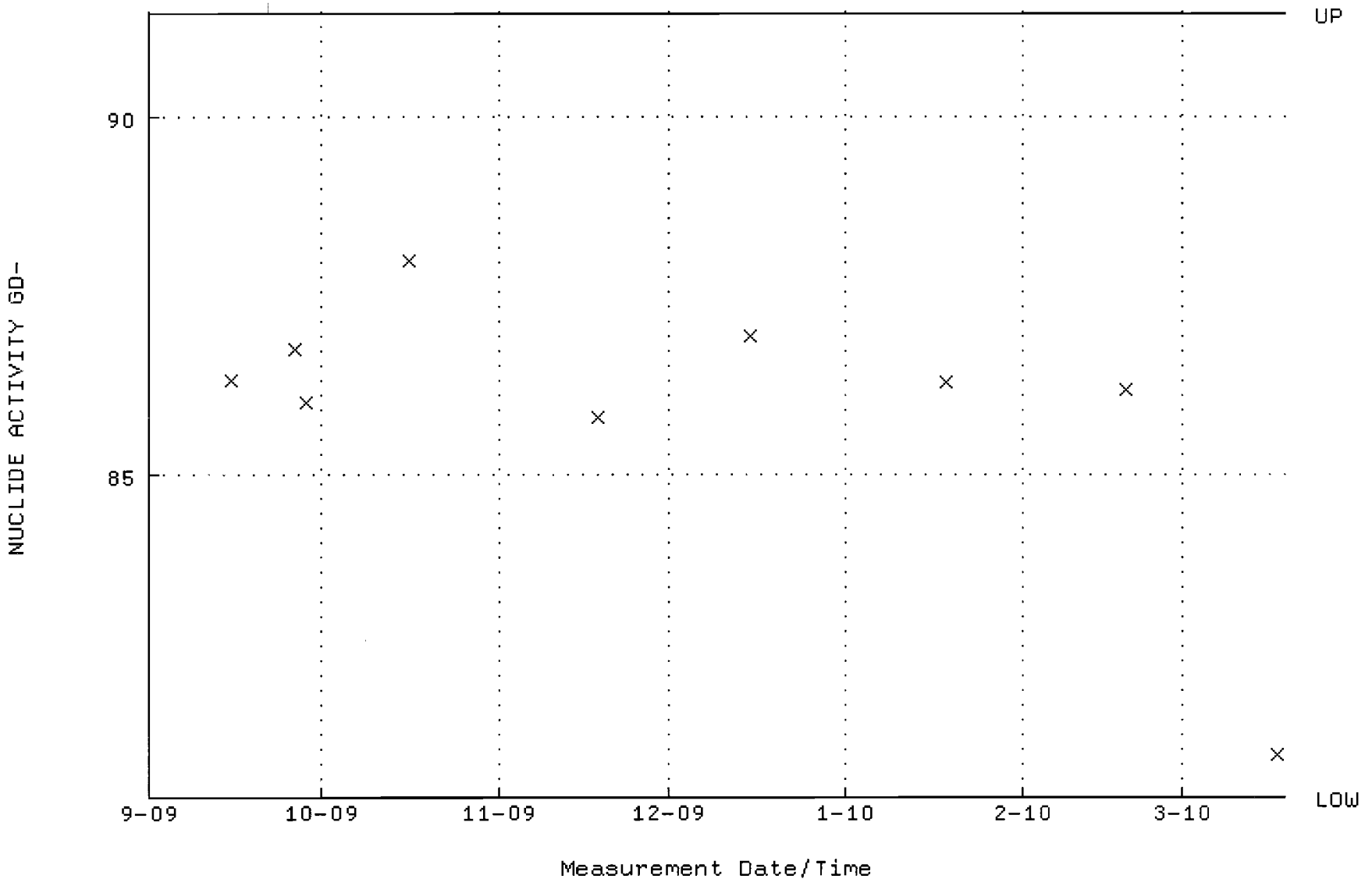

QA filename : DKA100:[ENV_ALPHA.QA.B]B160.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:43:26 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

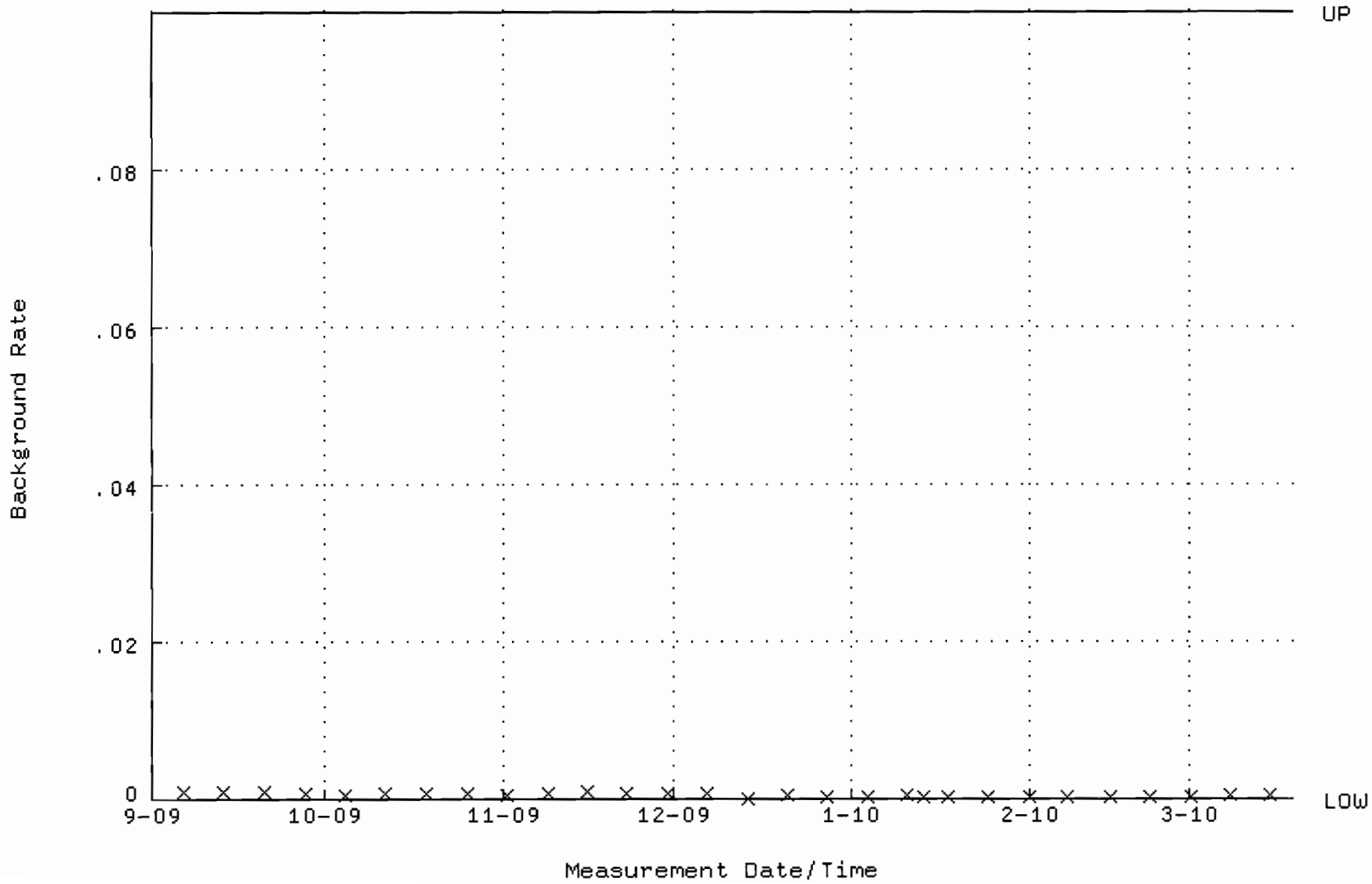

QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:41 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.368938 through 0.401788

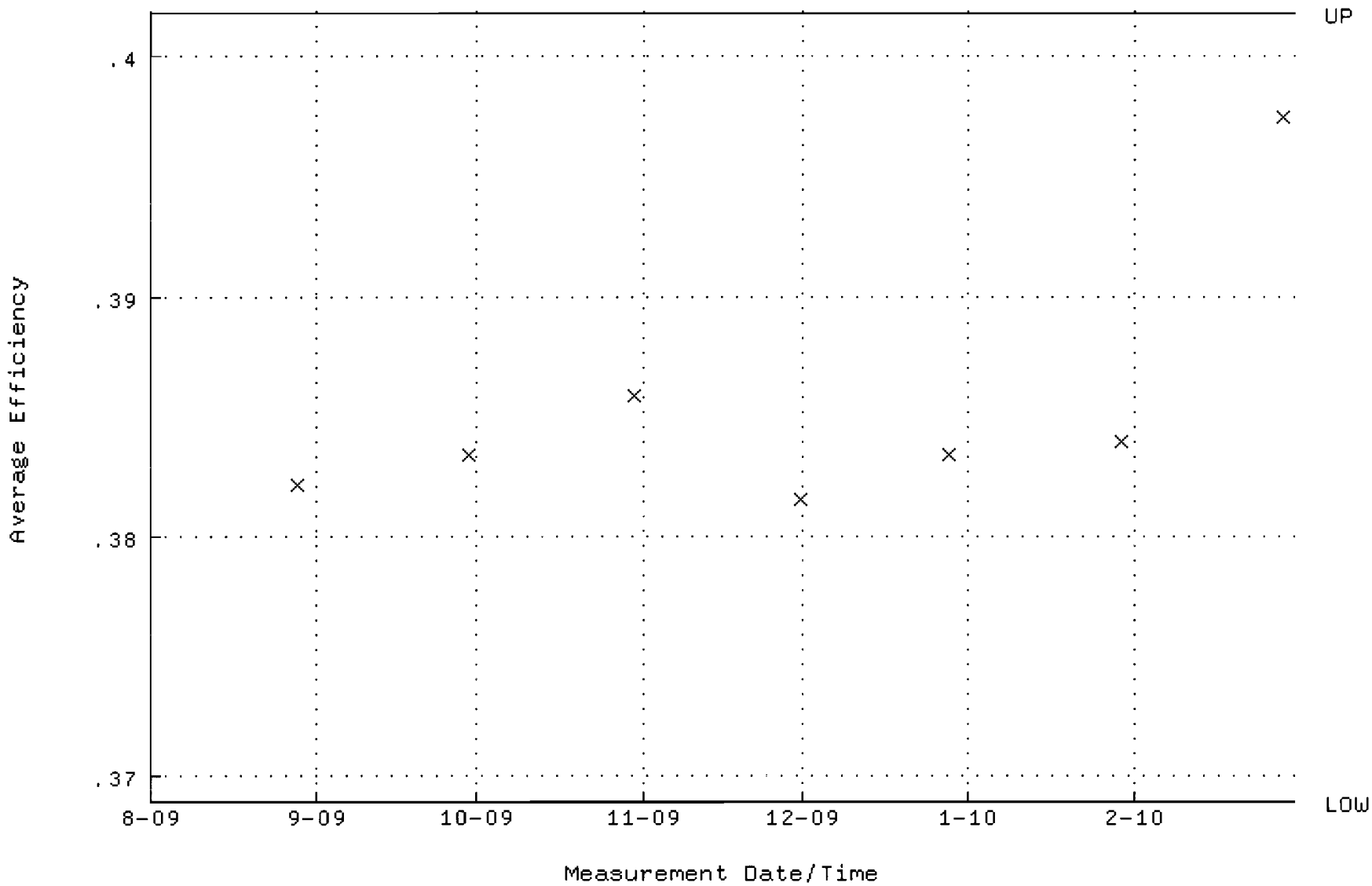

QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:41 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5490 through 88.3592

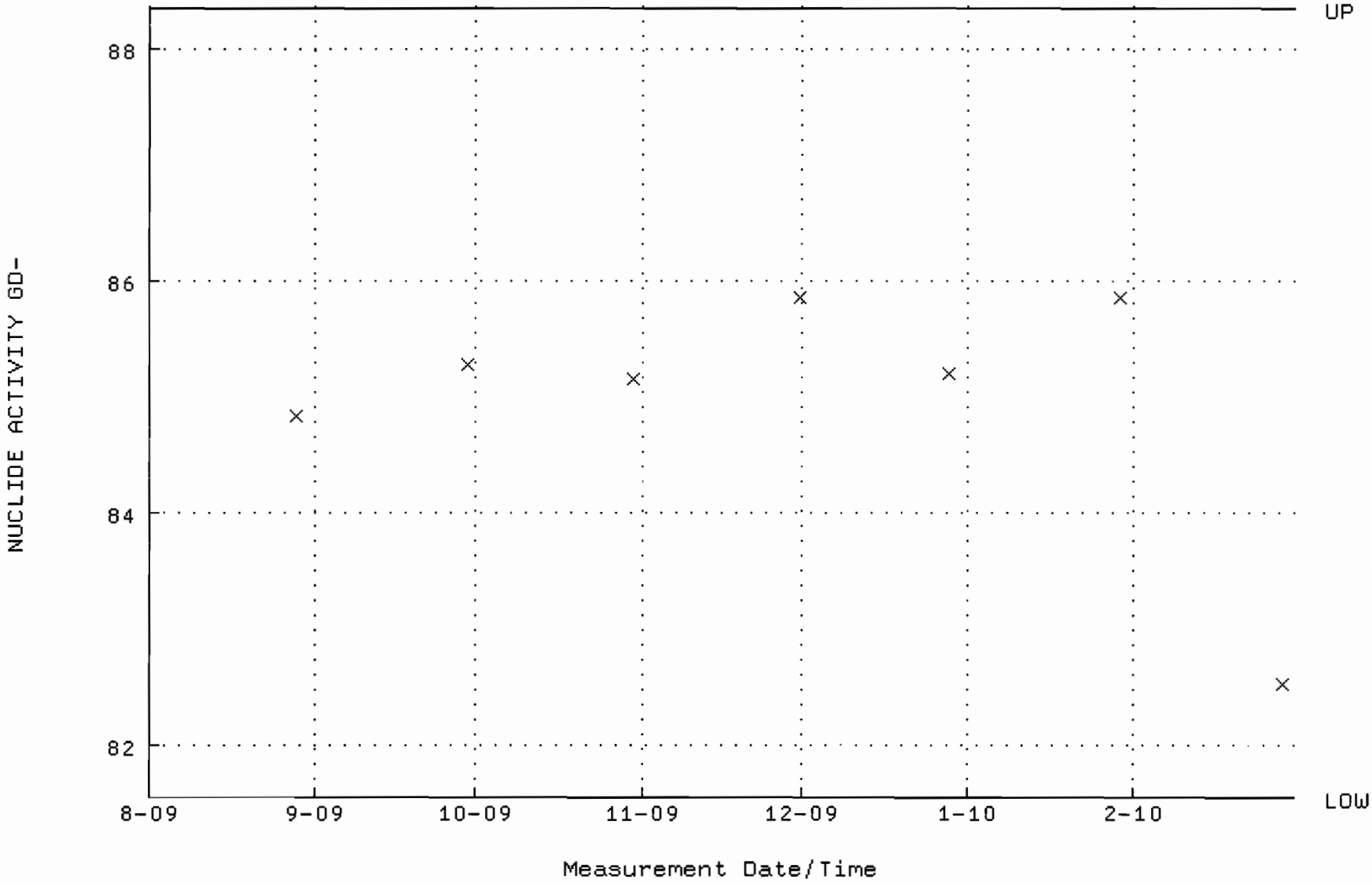

QA filename : DKA100:[ENV_ALPHA.QA.B]B234.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:56 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

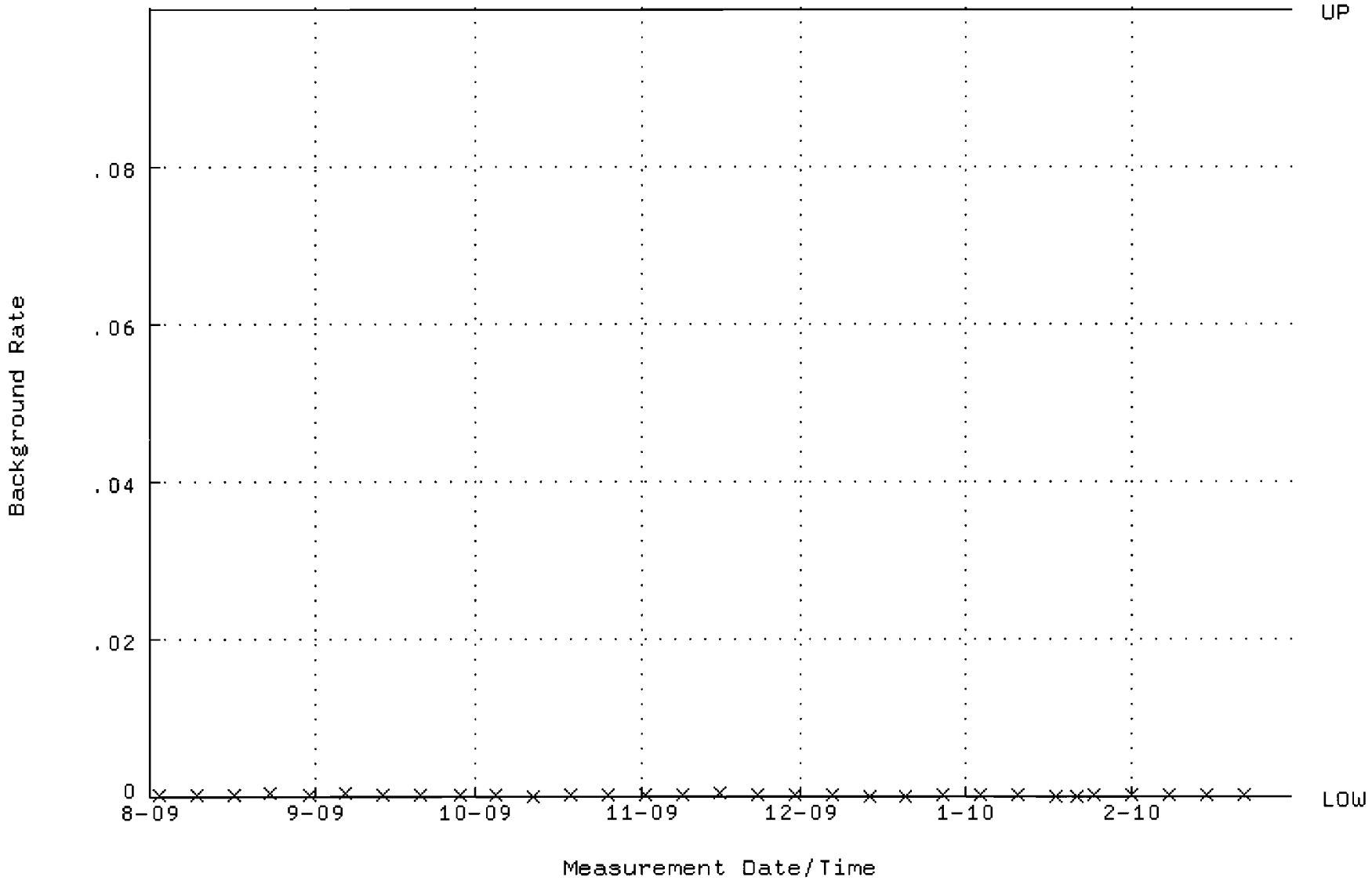

QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:45 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.350020 through 0.404668

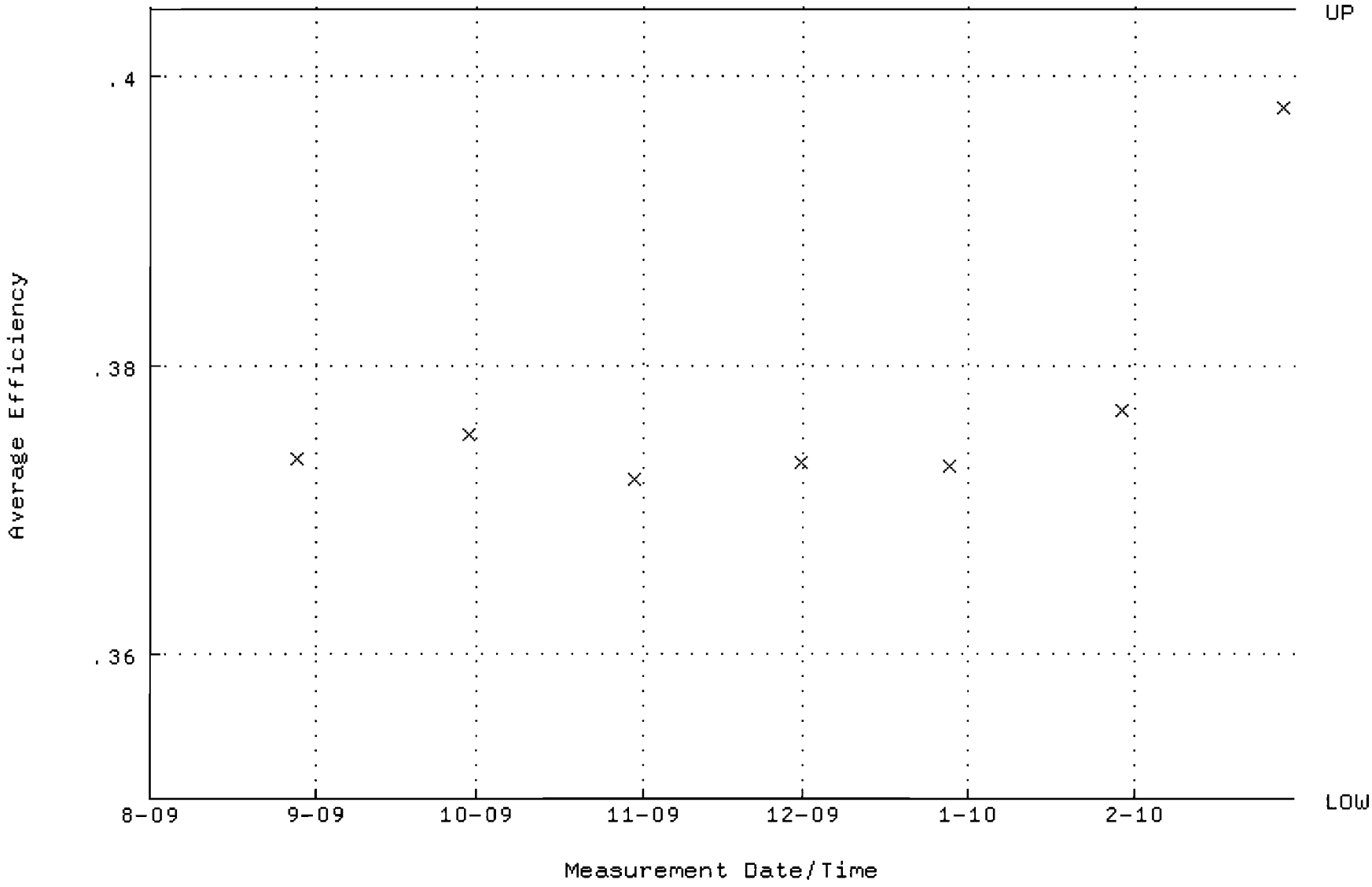

QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:45 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 86.7703 through 90.3803

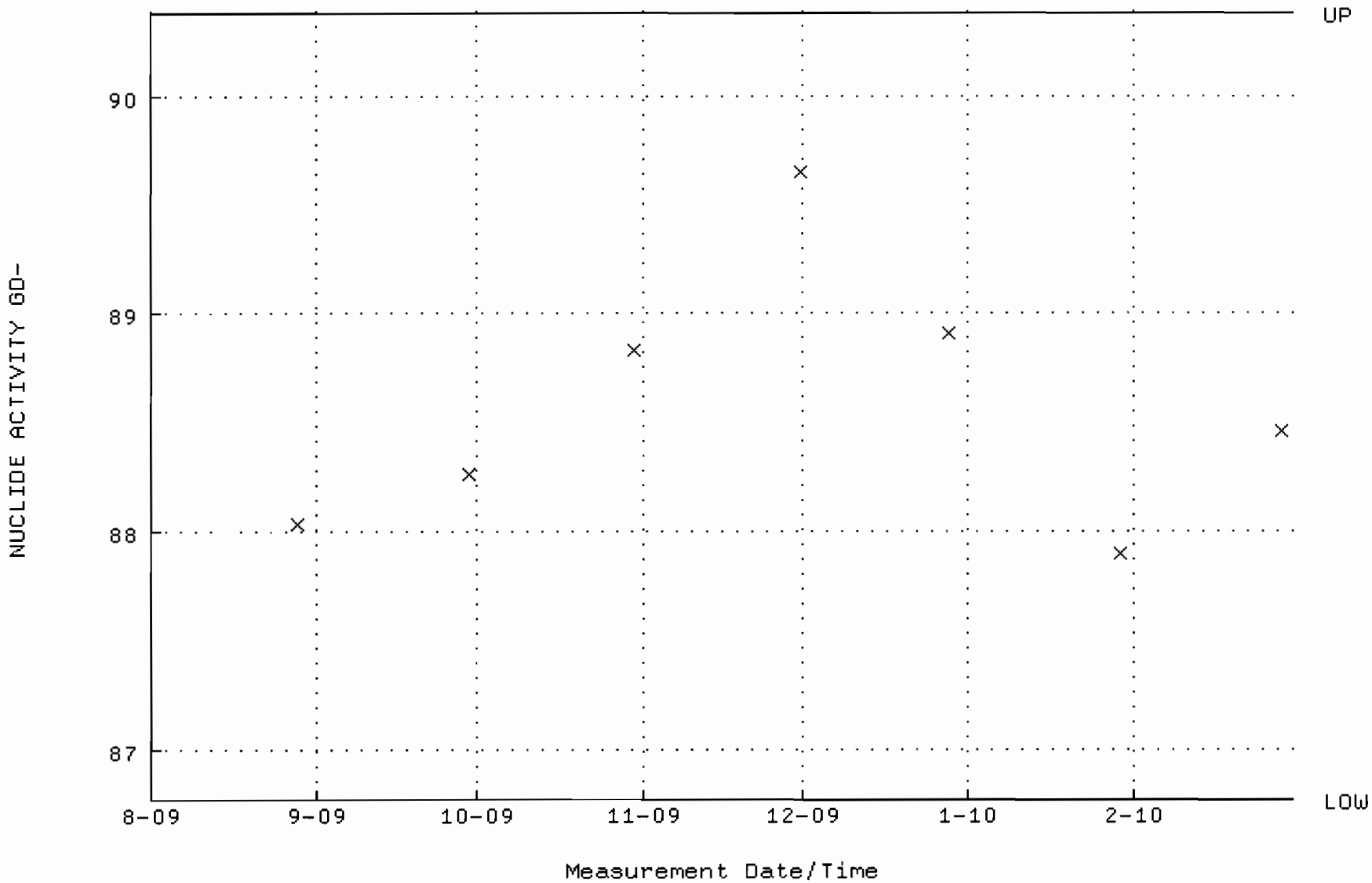

QA filename : DKA100:[ENV_ALPHA.QA.B]B235.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:27:00 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

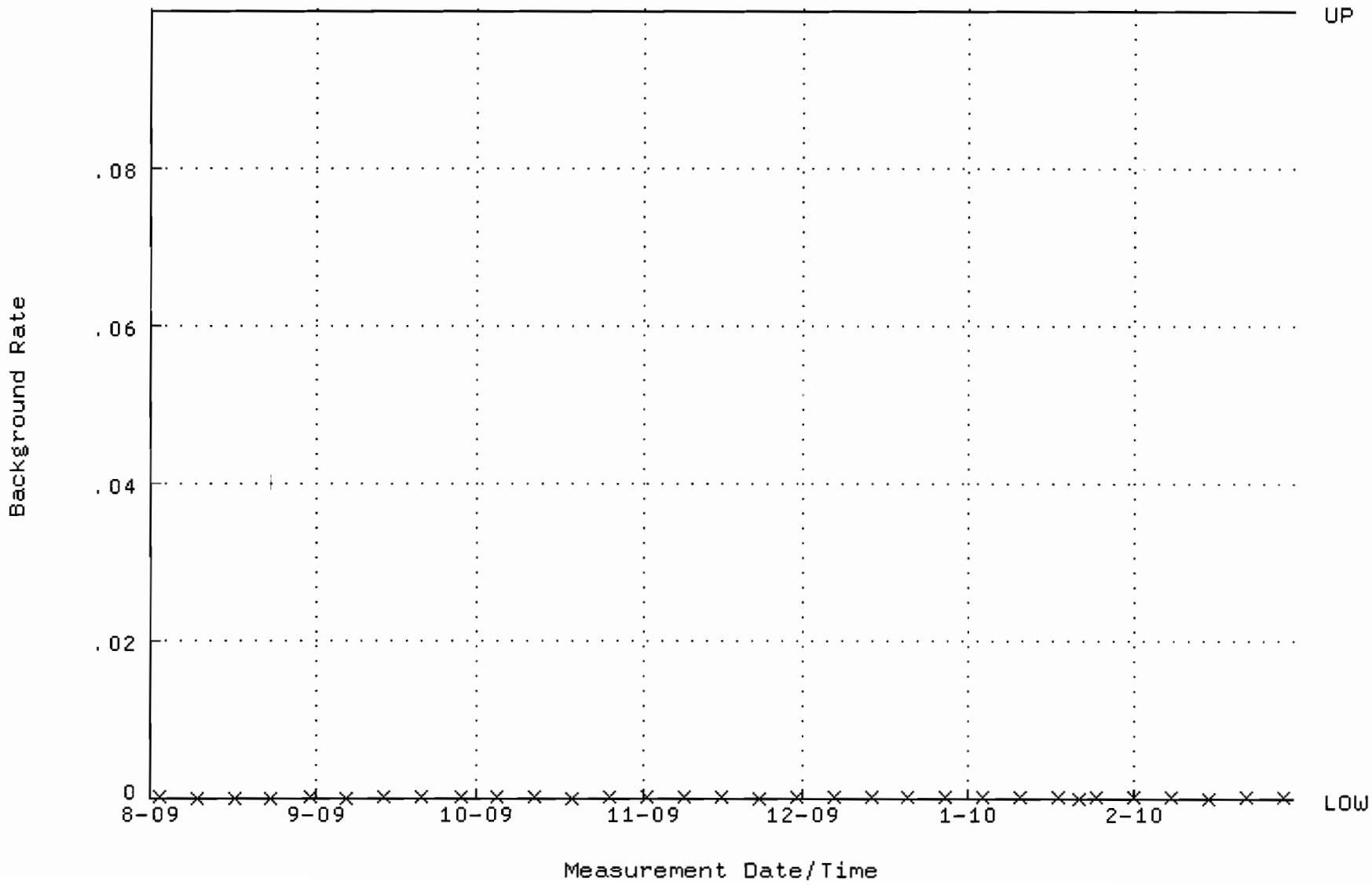

QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:51 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.362418 through 0.420706

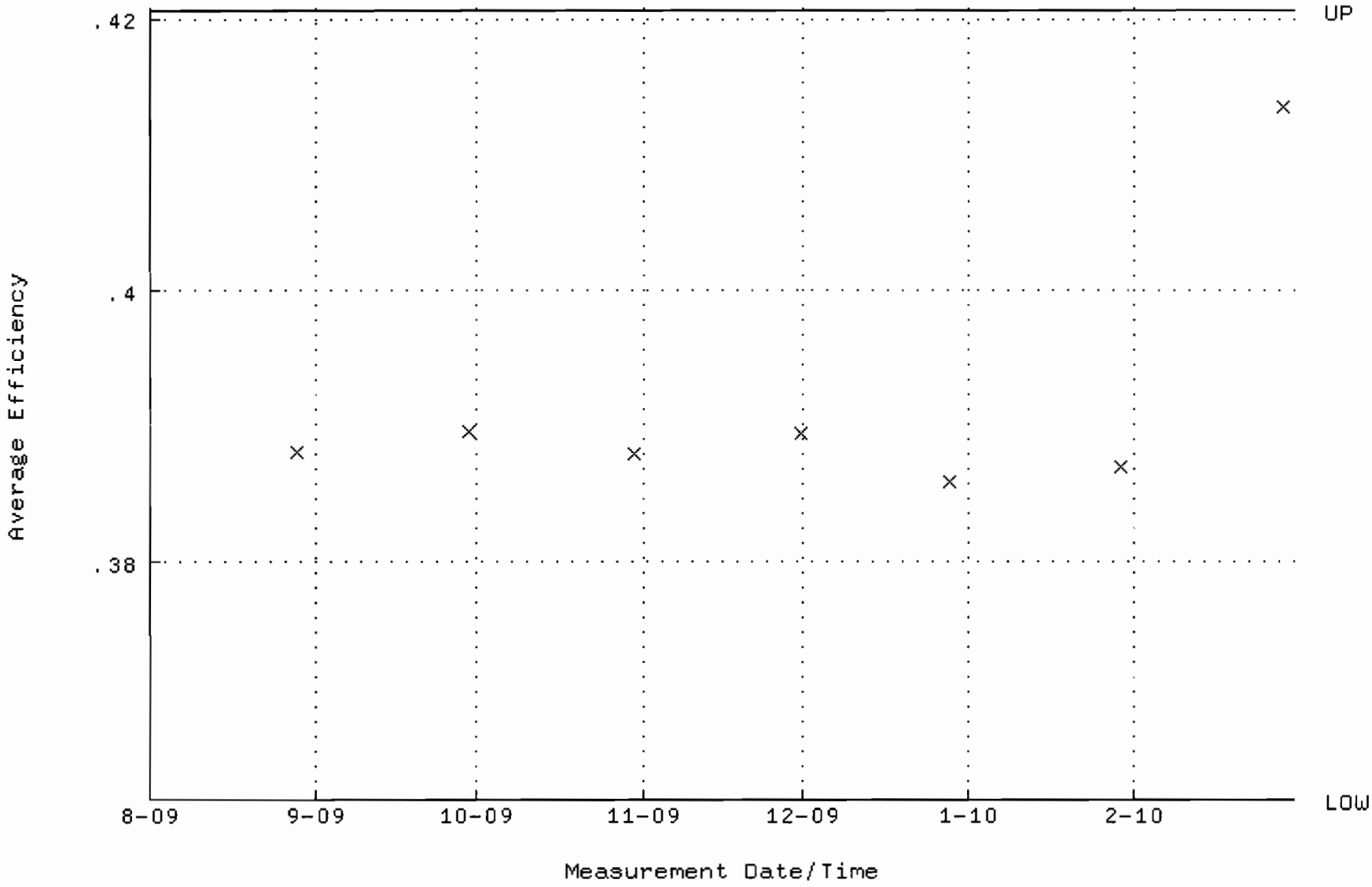

QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:51 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 79.2135 through 91.8401

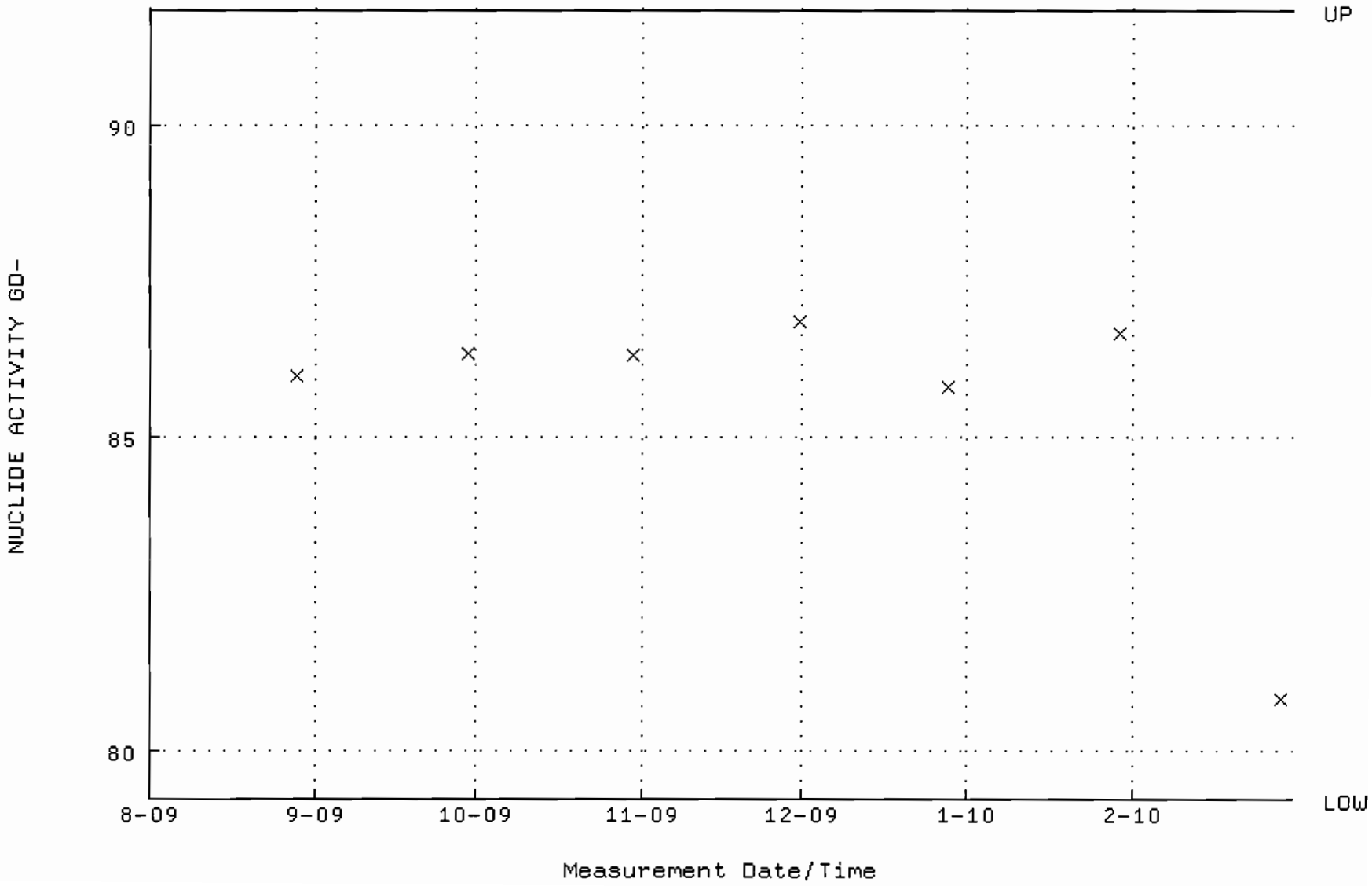

QA filename : DKA100:[ENV_ALPHA.QA.B]B236.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:27:04 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

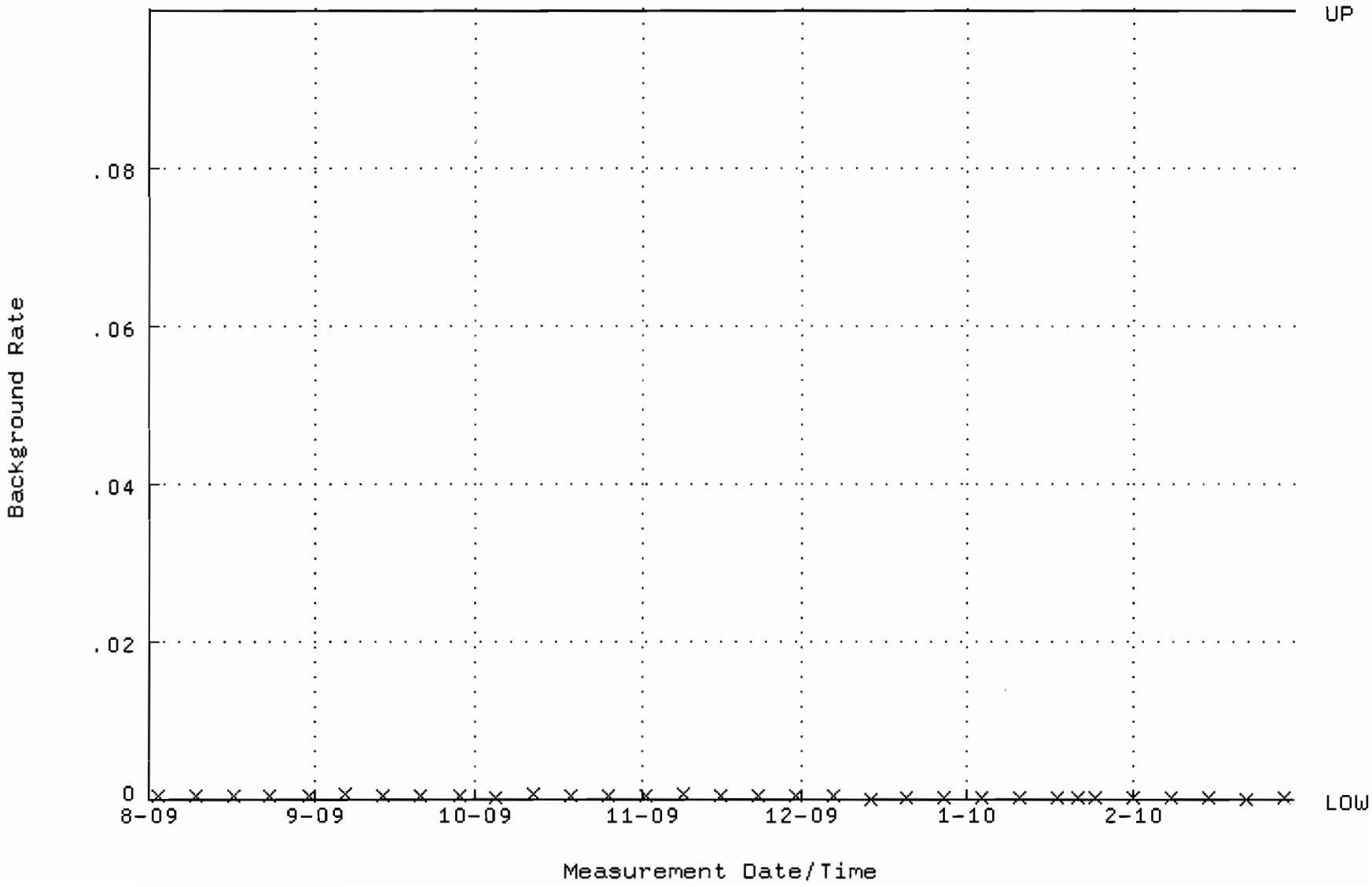

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:55 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.384343 through 0.415273

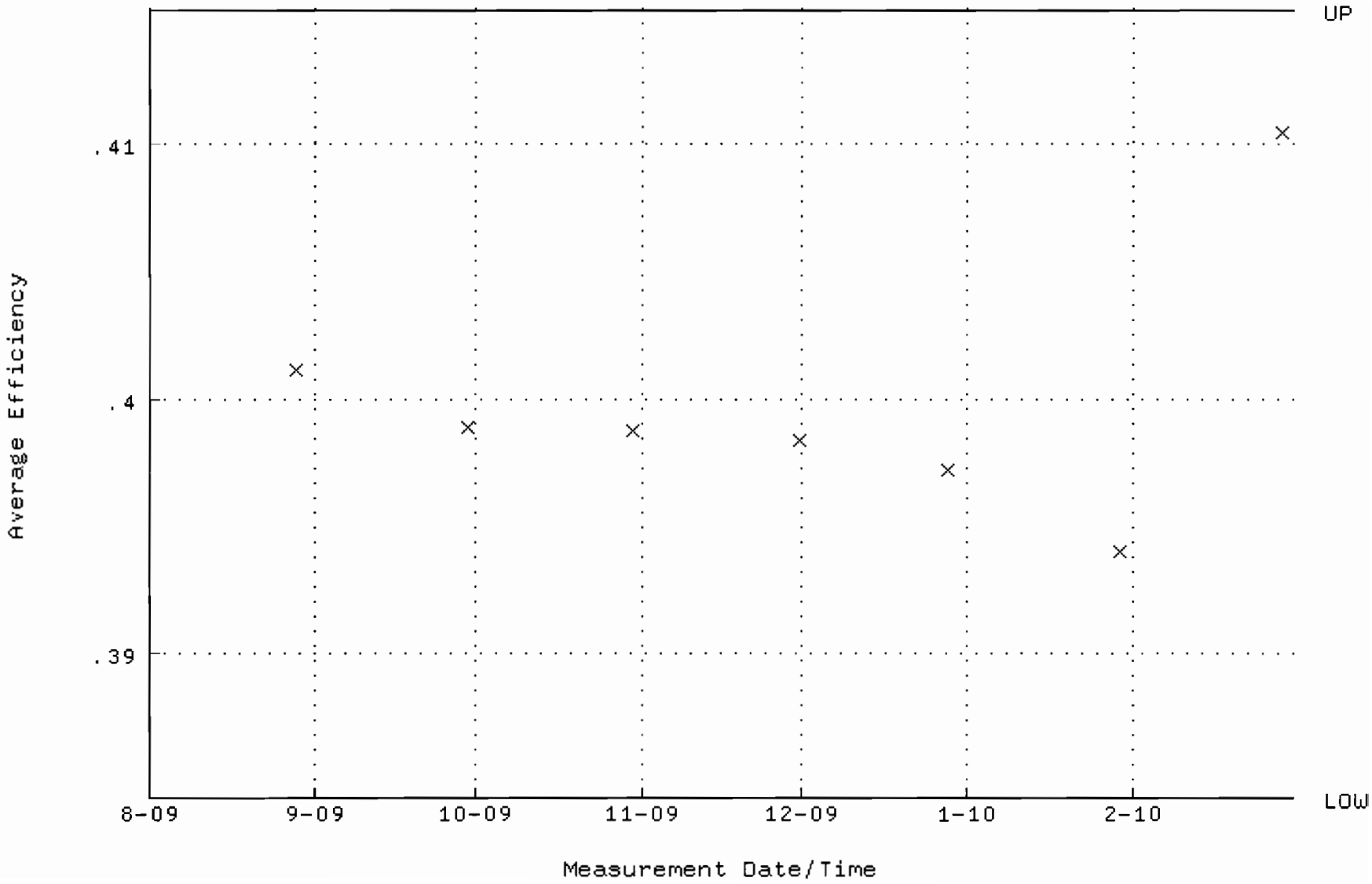

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:55 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 81.6308 through 85.7646

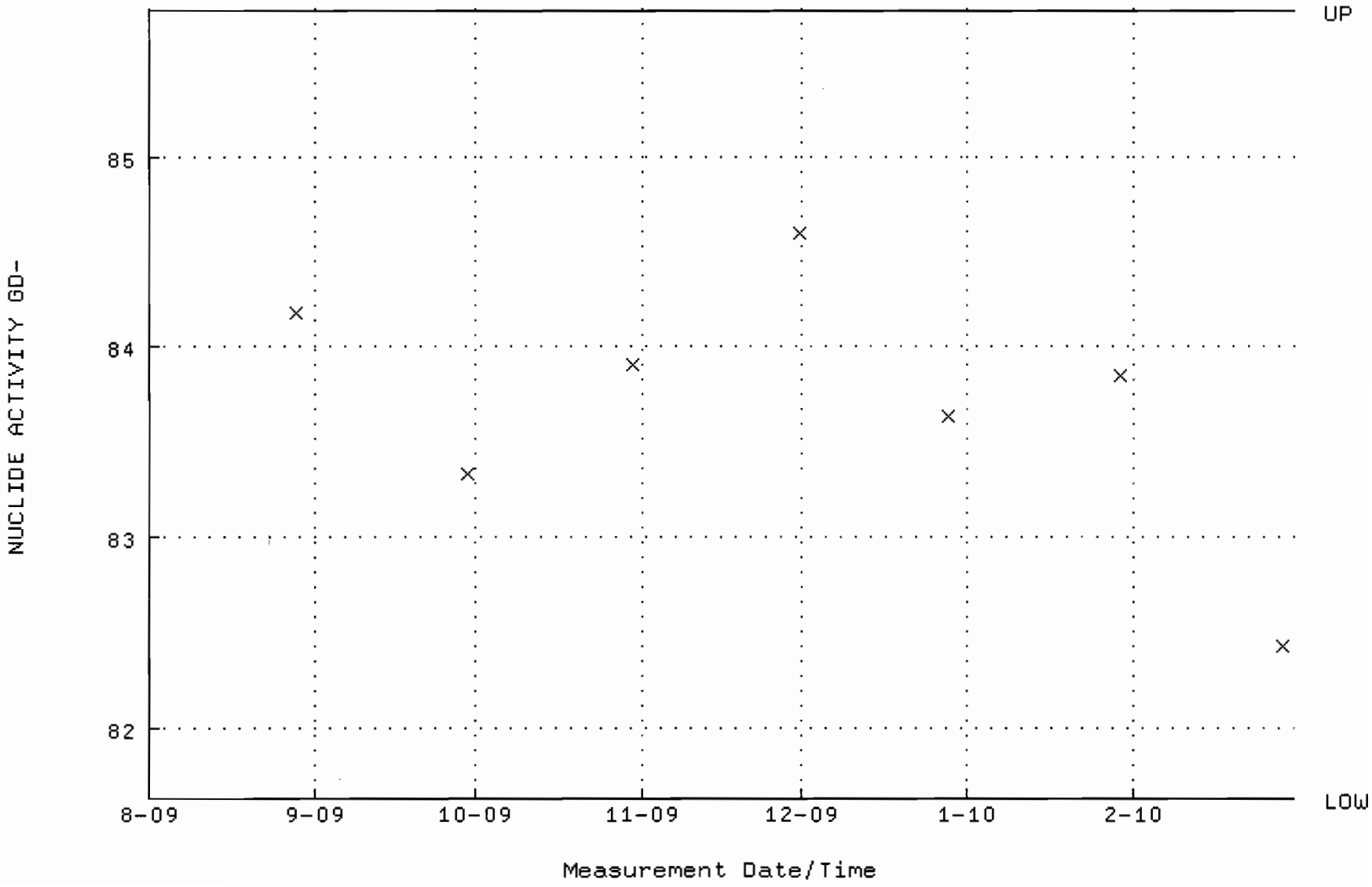

QA filename : DKA100:[ENV_ALPHA.QA.B]B237.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:27:08 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

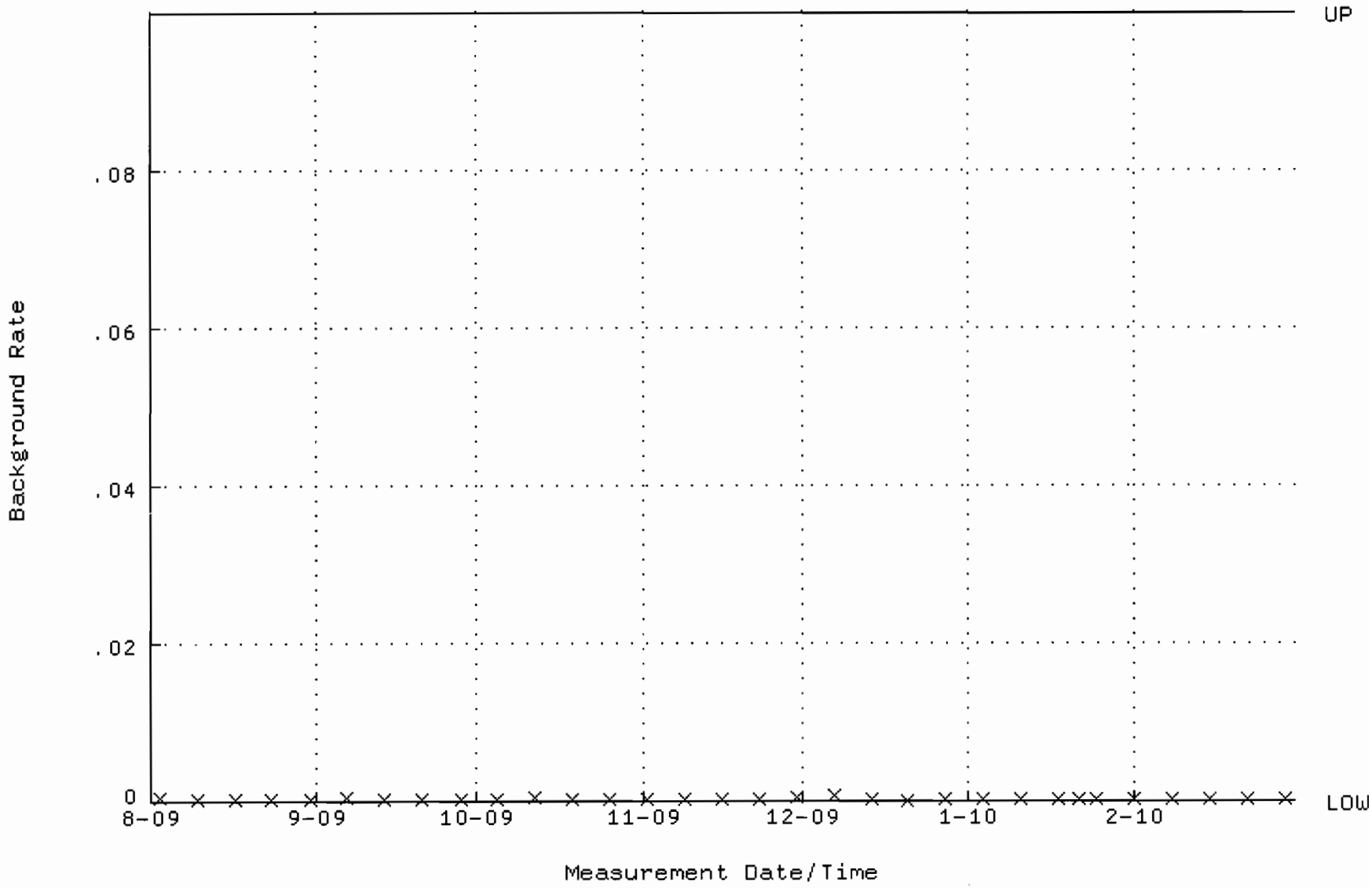

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:09:00 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.389351 through 0.404525

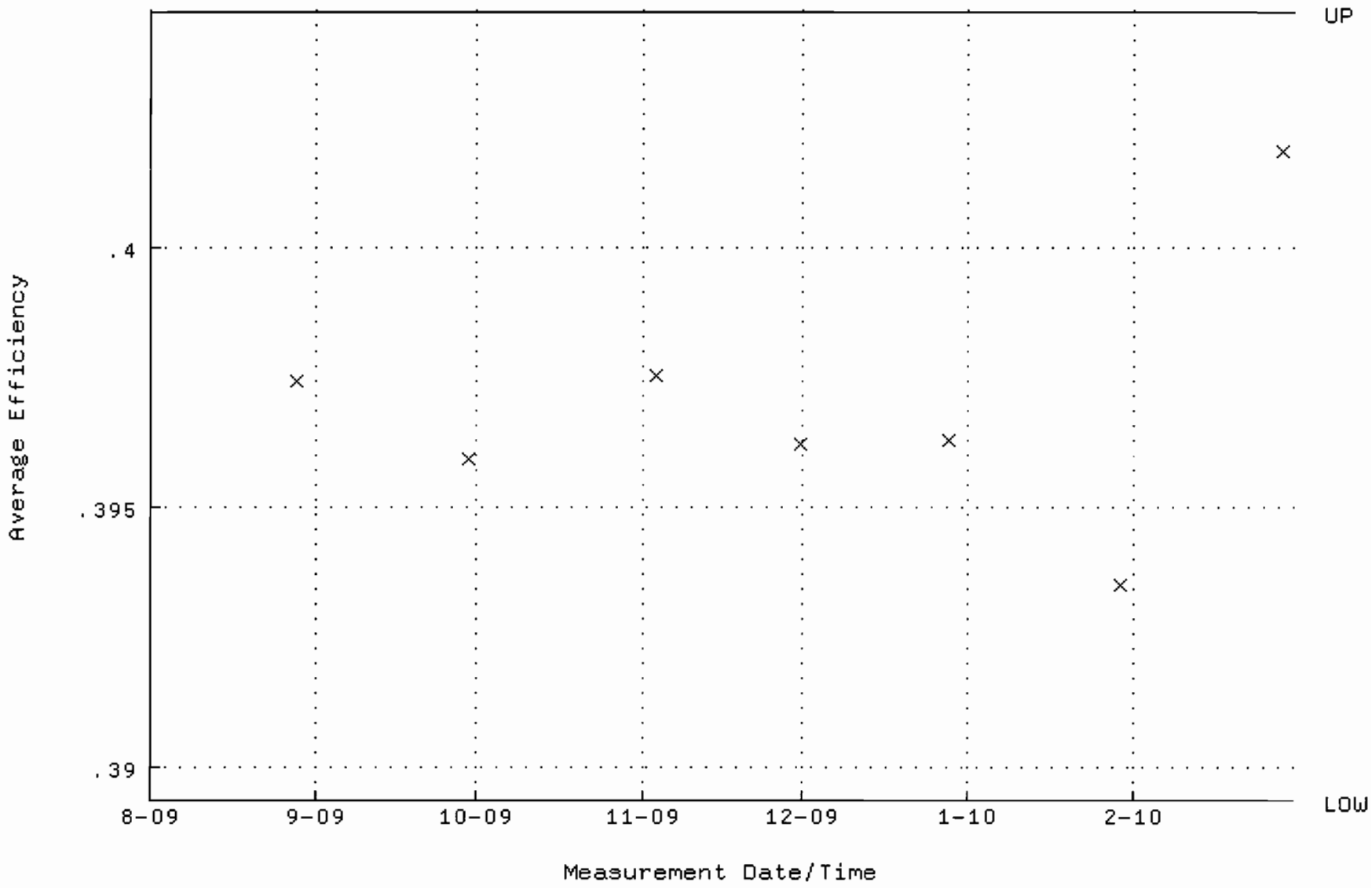

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:09:00 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 82.7118 through 85.8726

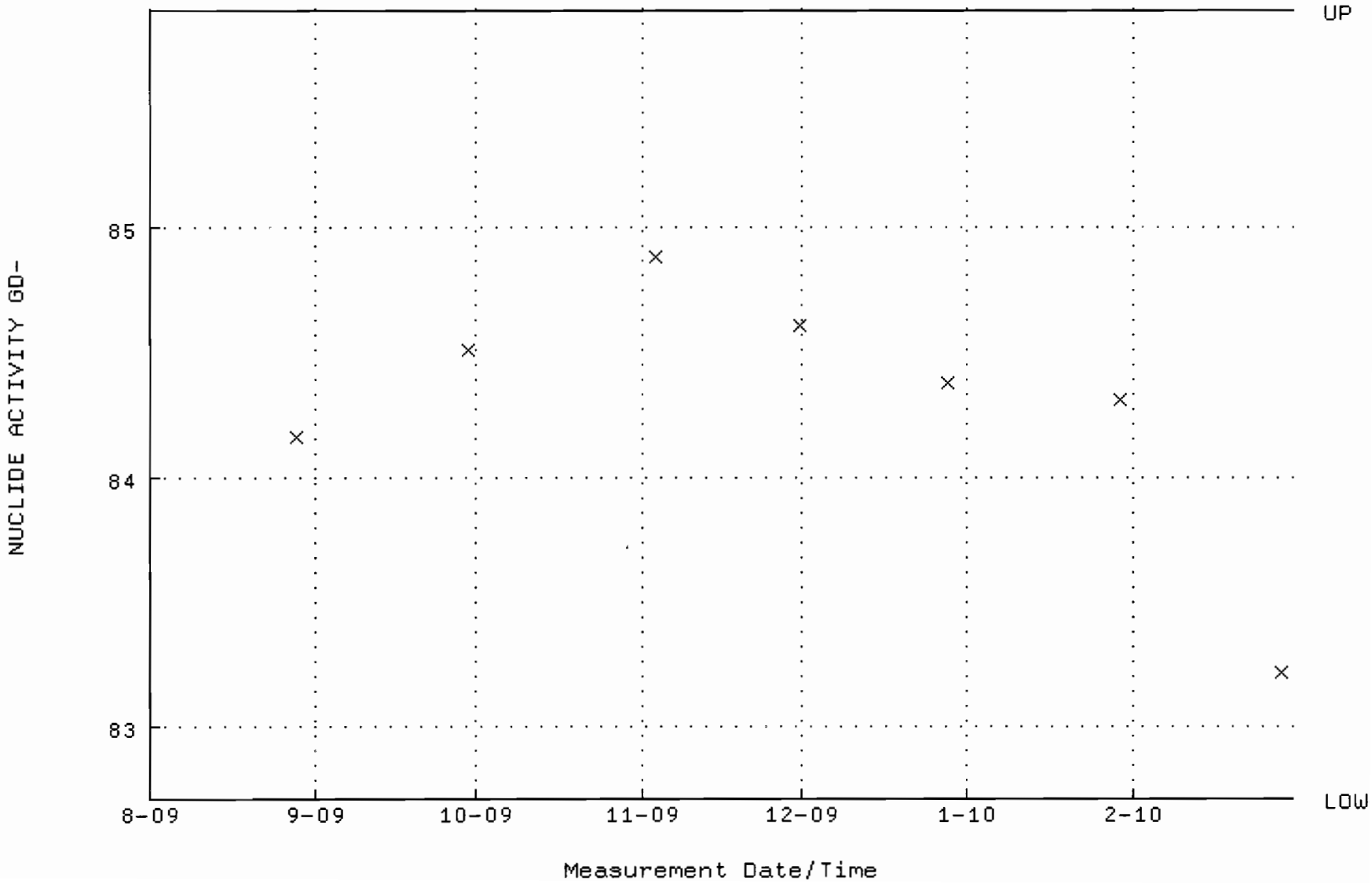

QA filename : DKA100:[ENV_ALPHA.QA.B]B238.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:27:12 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

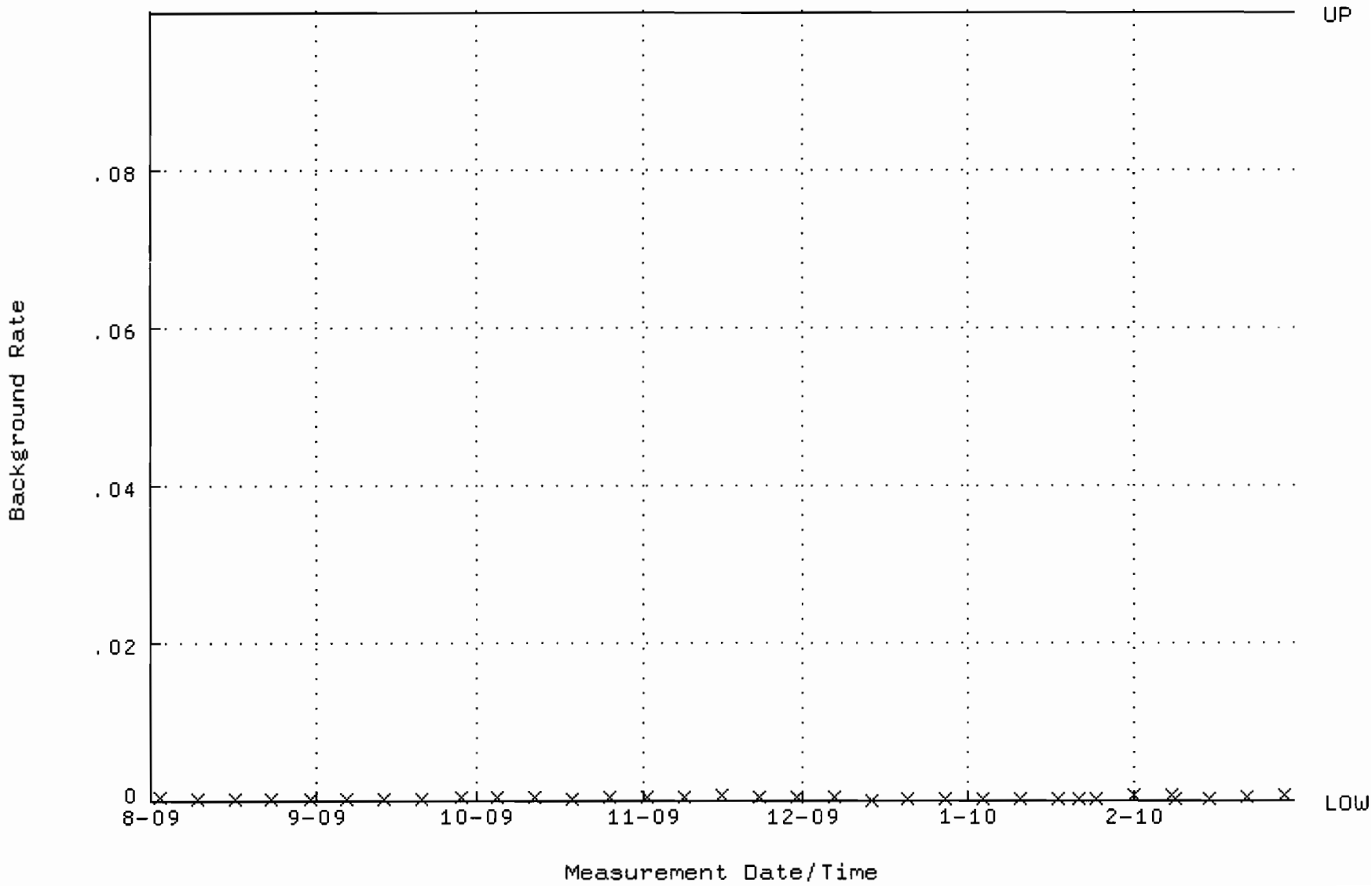

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:32:23 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

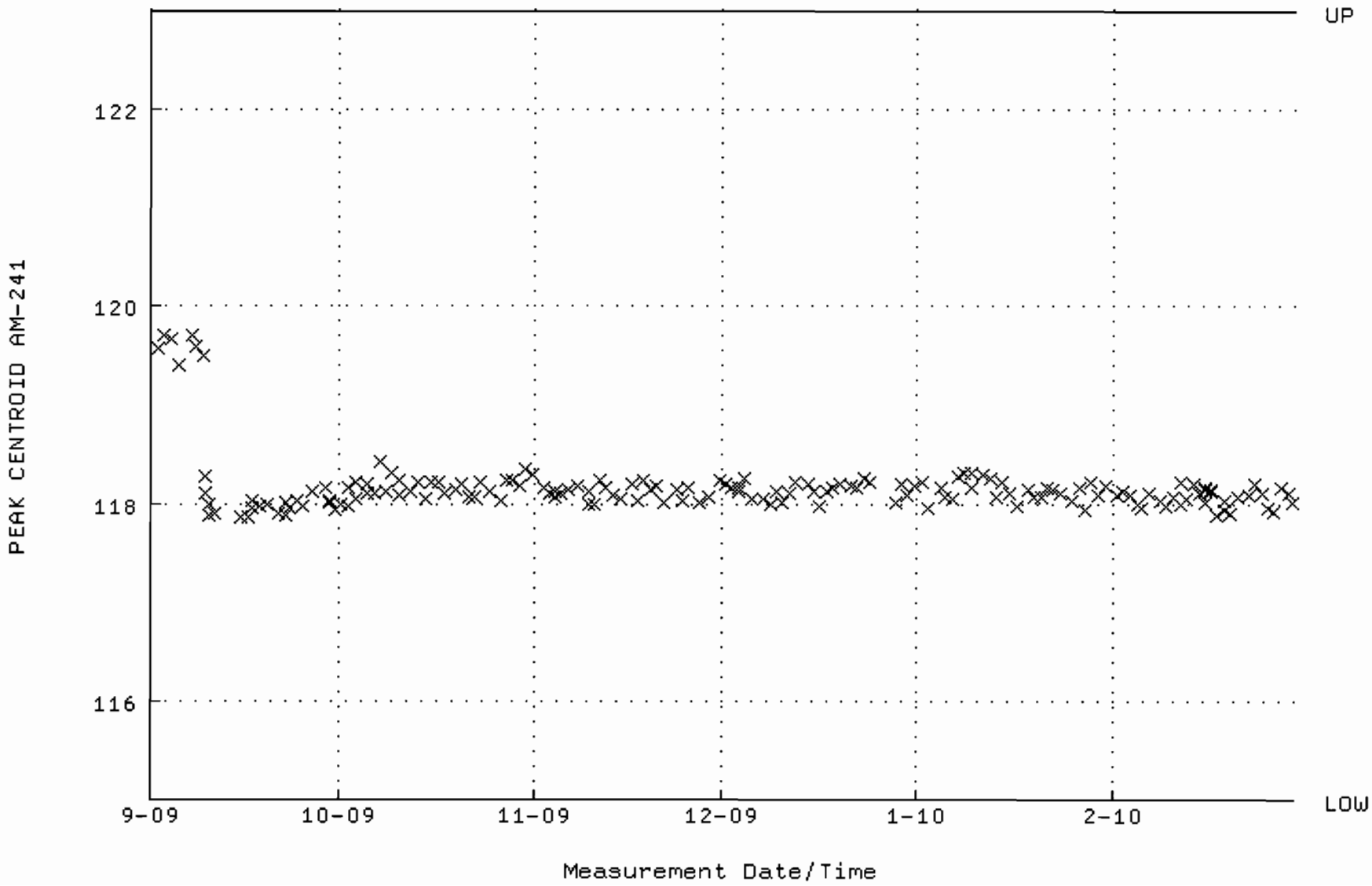

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:43:44 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)

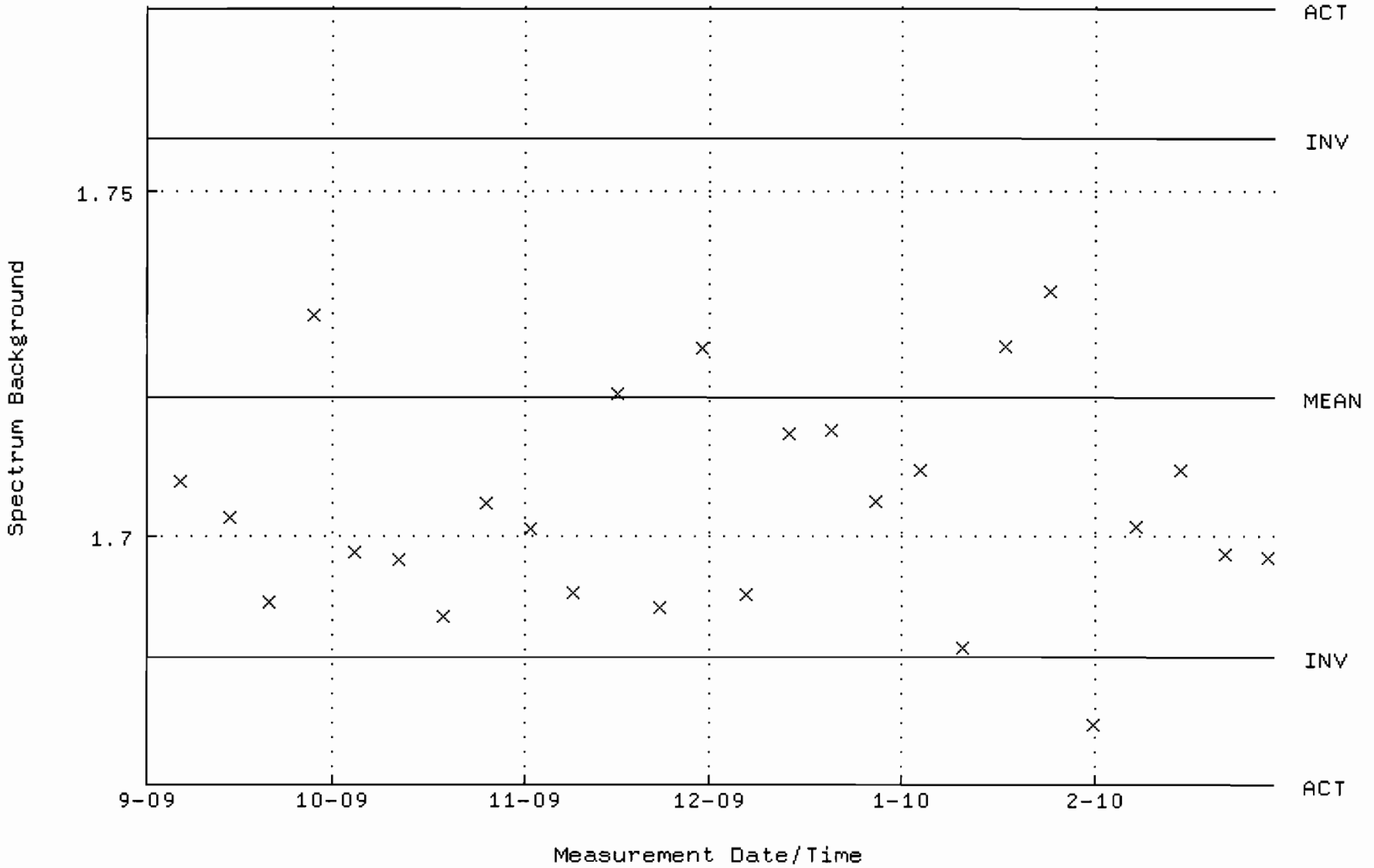

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM17_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 05:06:49 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

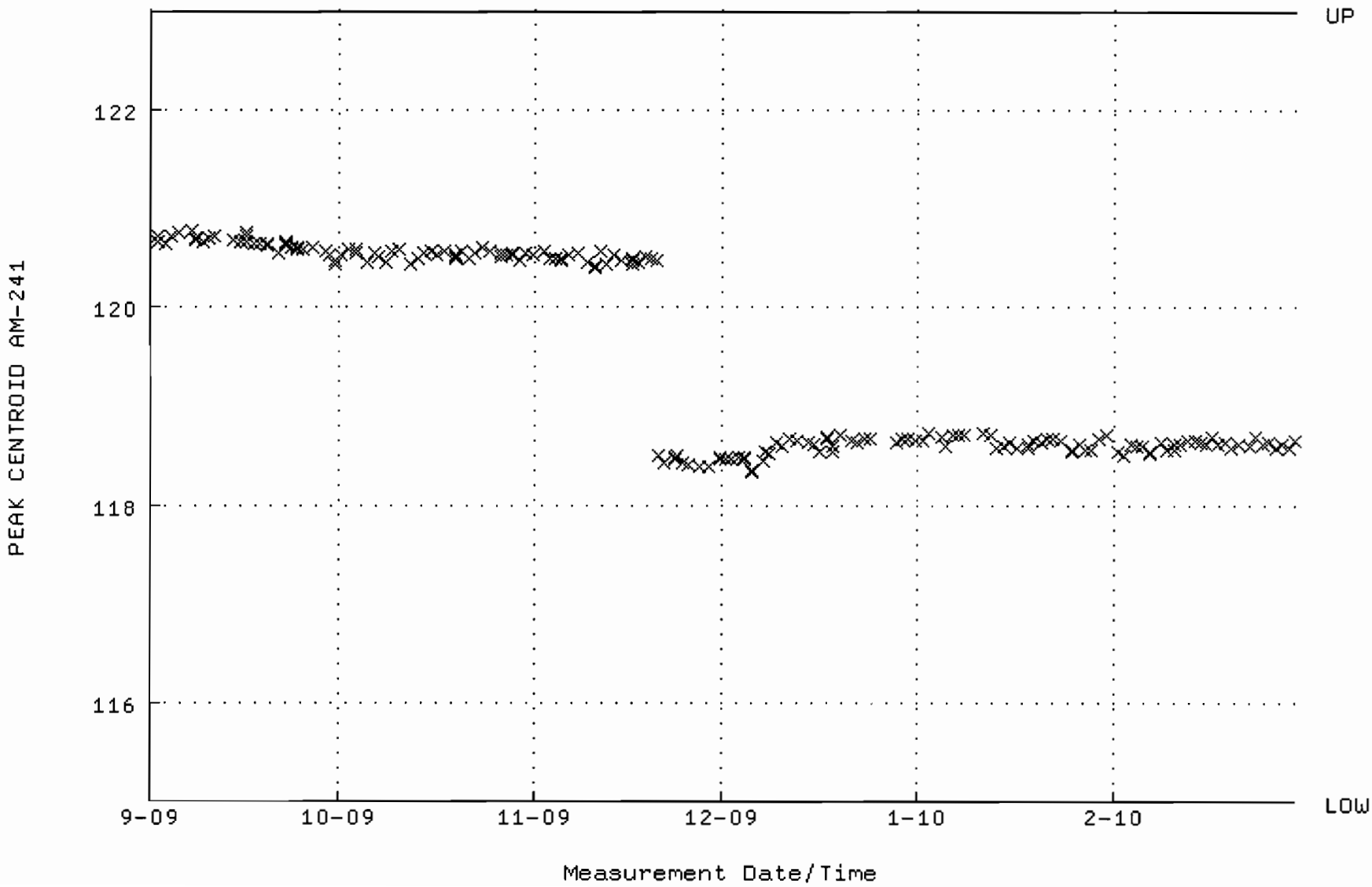

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM17.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:44:33 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.42766 +- 1.396974E-02 (0.98 %)

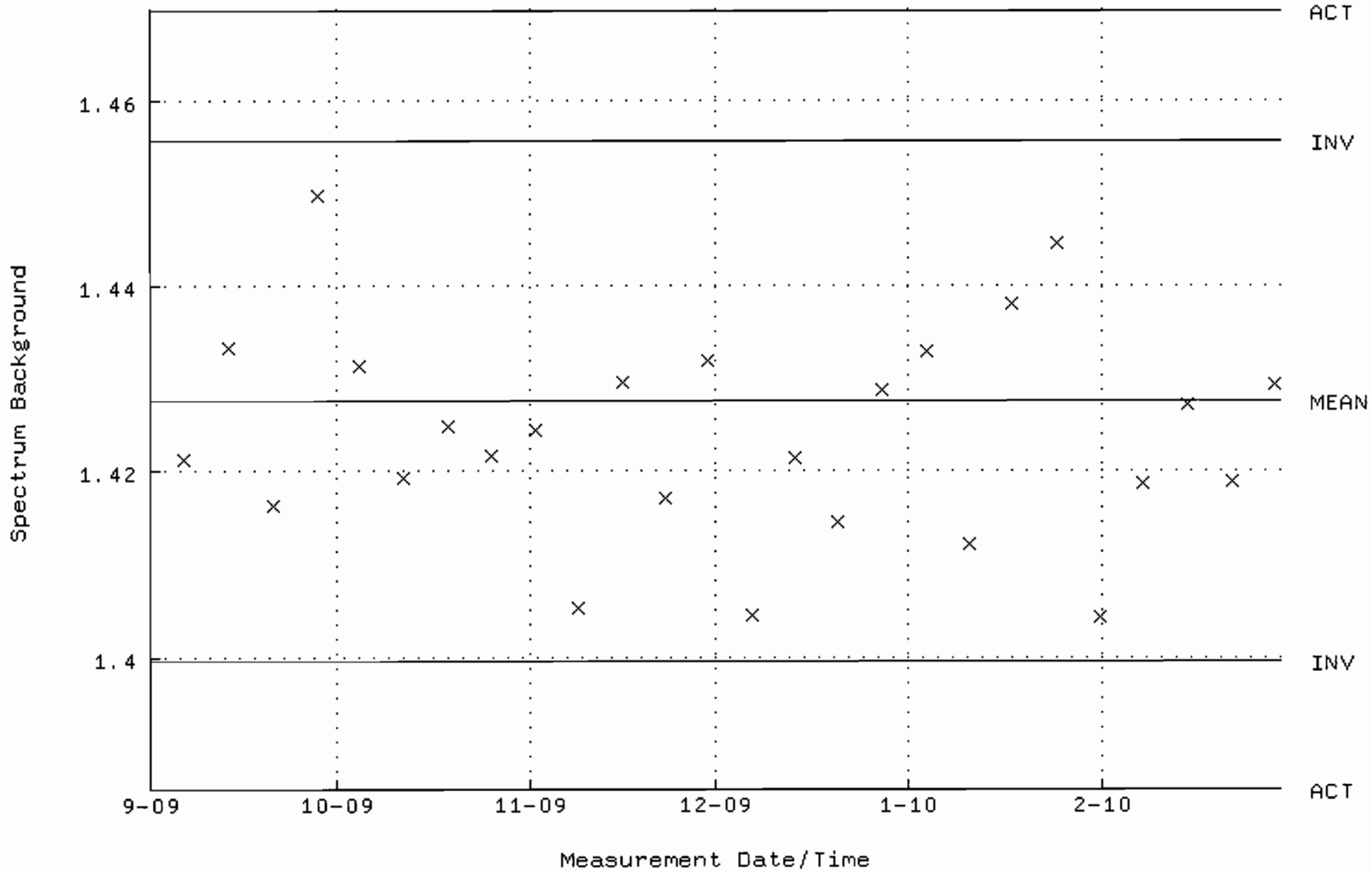

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM21_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-DEC-2009 13:07:42 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

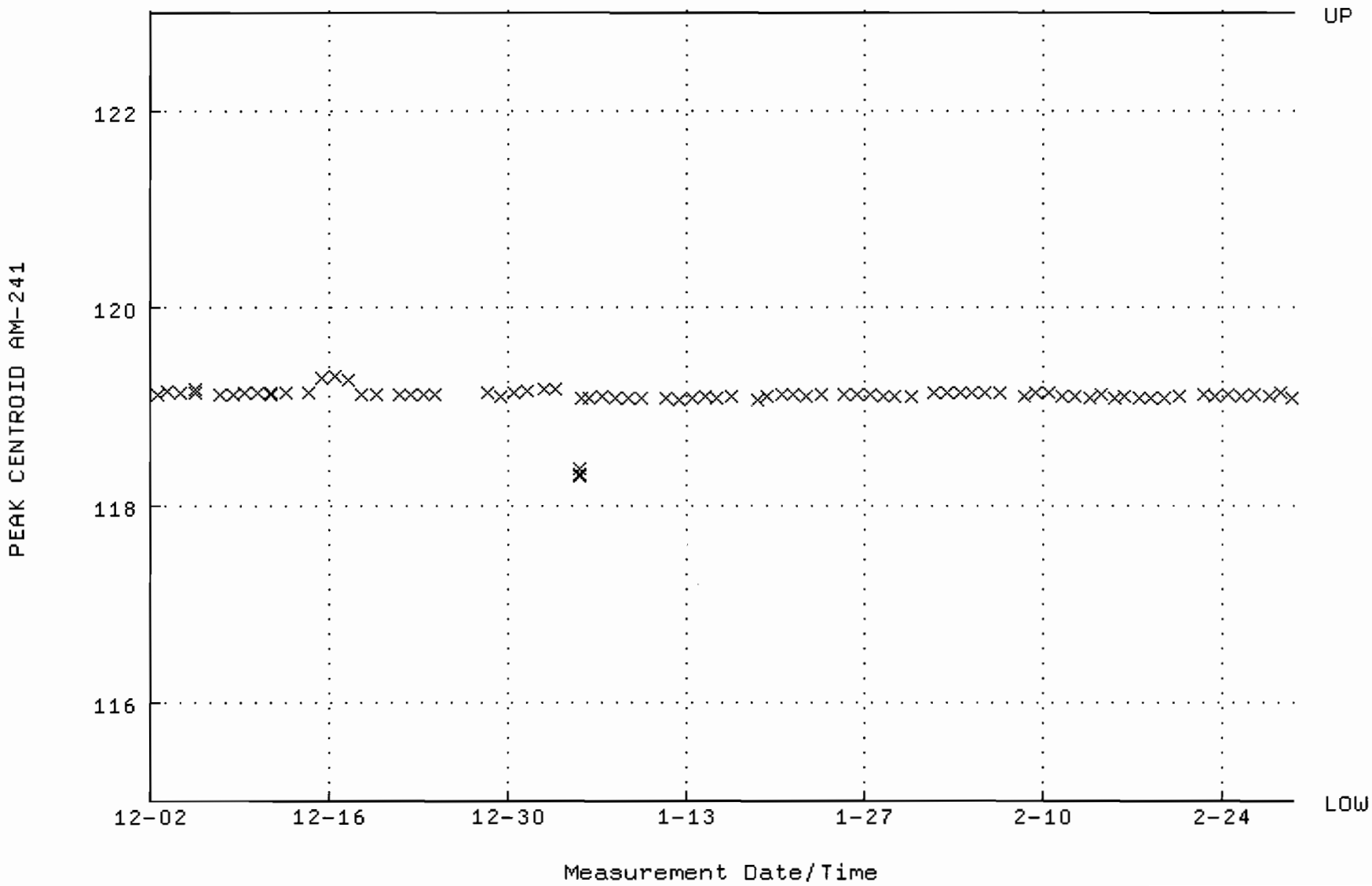

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM21.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-DEC-2009 15:25:38 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.04443 +- 1.452671E-02 (1.39 %)

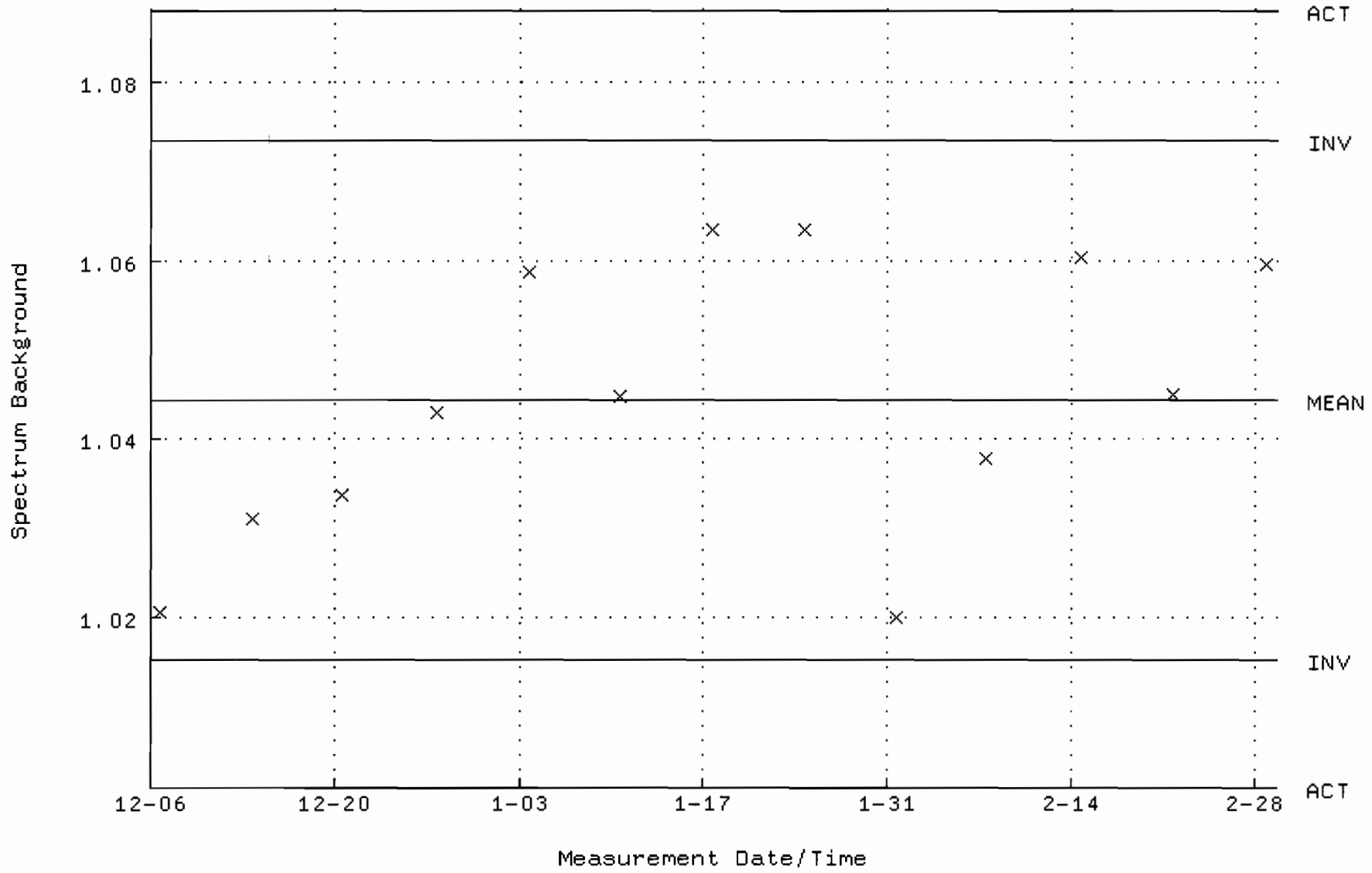

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

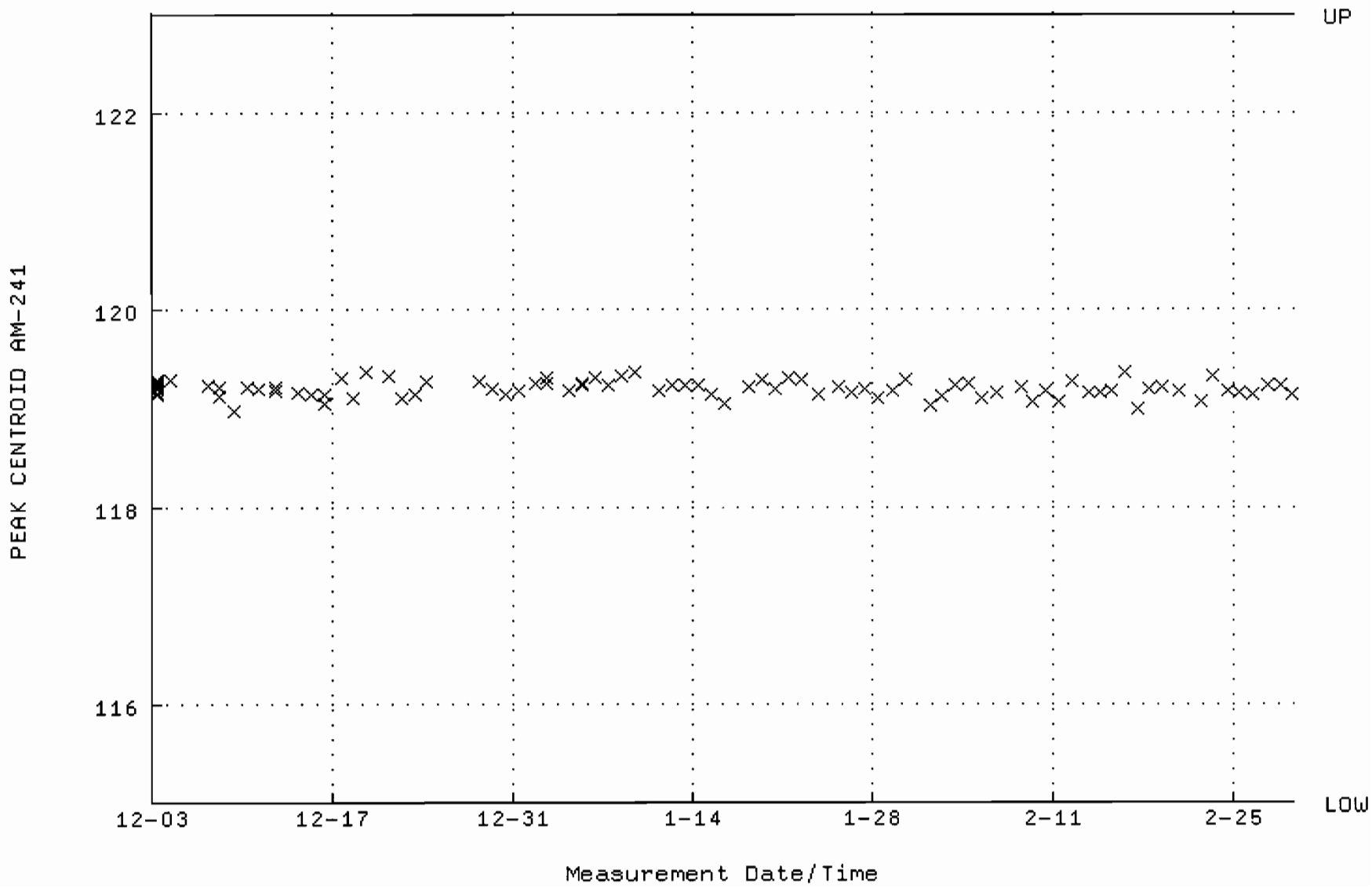

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

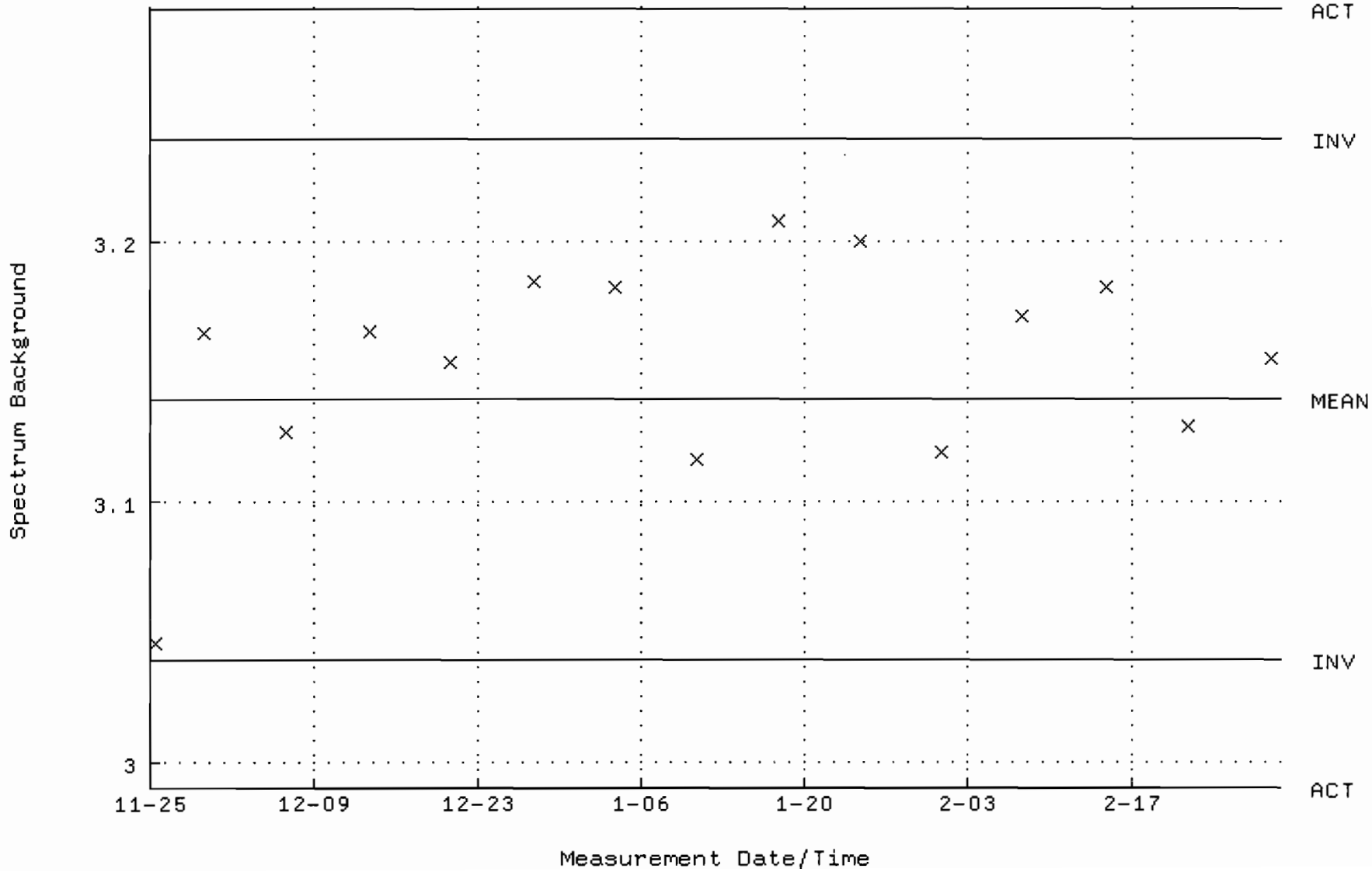

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM29_CAN.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 2-MAR-2010 08:30:43 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

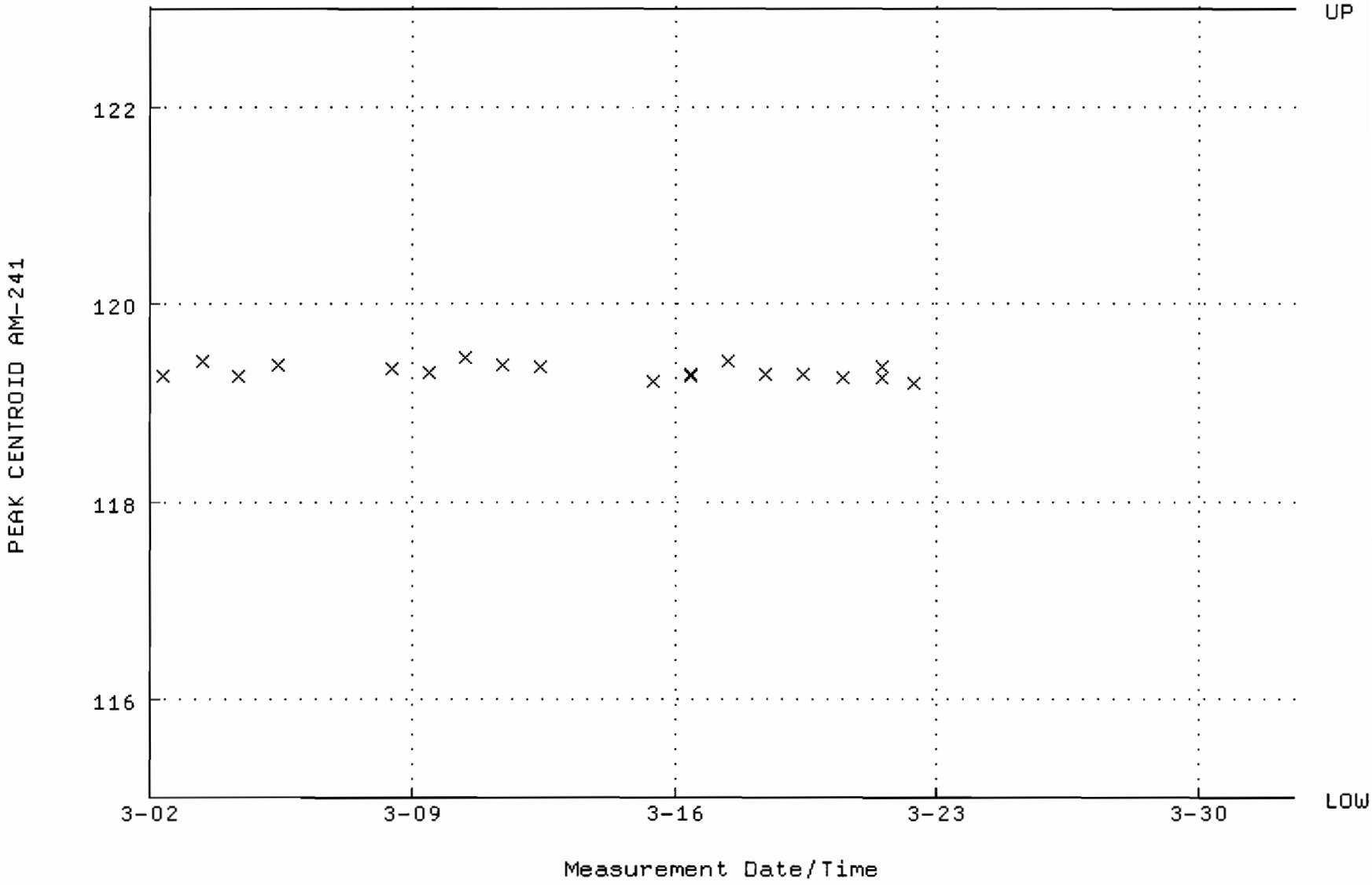

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM29.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 7-MAR-2010 16:47:12 through 1-APR-2010 12:00:00
Lower/Upper Lmts: 1.94193 through 2.37347

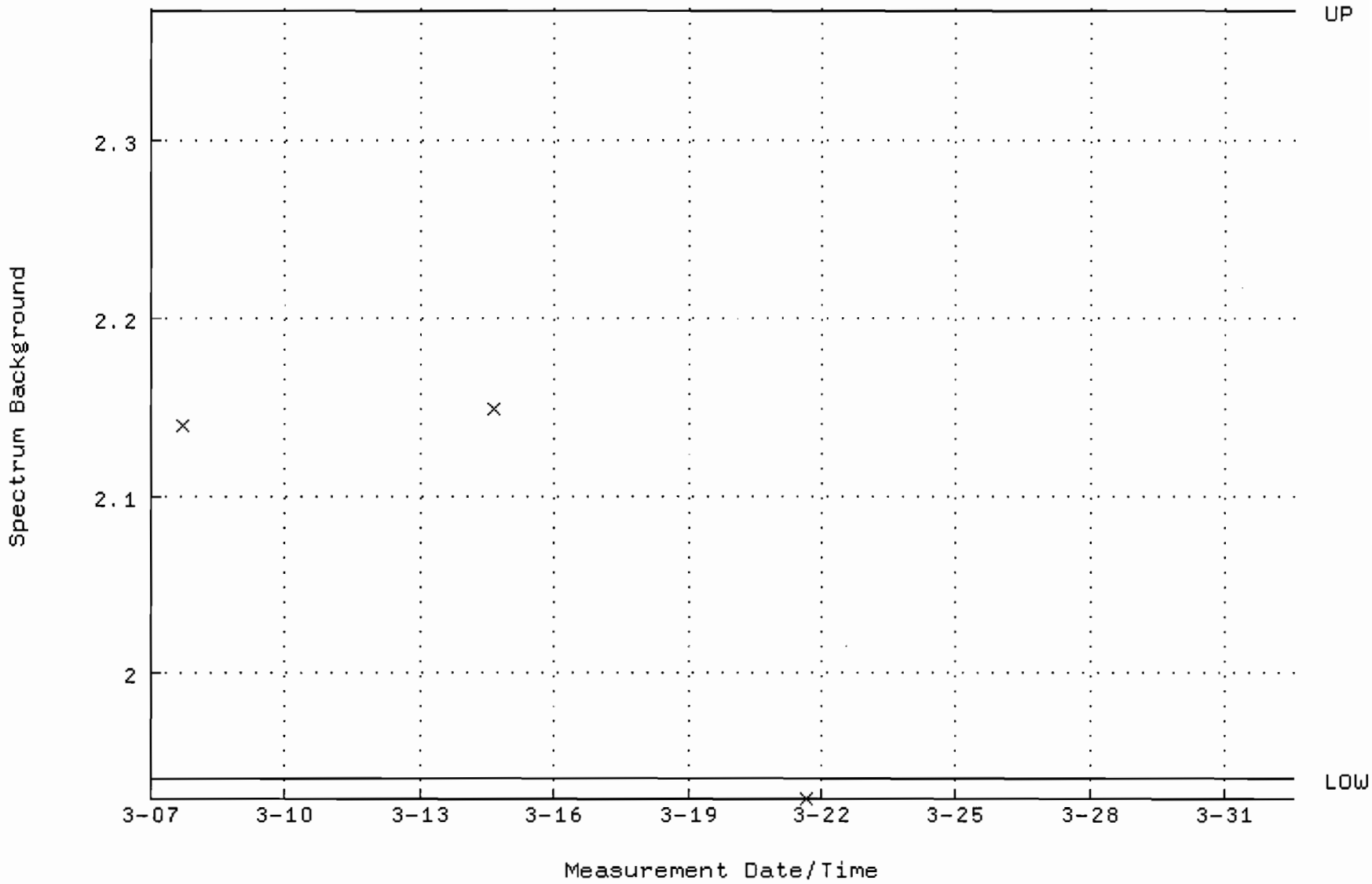

STANDARDS DATA

ANALYTICS
An Isotope Products Laboratories Company

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1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

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ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER-JAR-1
	Mixed Gamma N2	2510	pCi/L	- VER-JAR-3
	Mixed Gamma N3	2413	pCi/L	- VER-JAR-5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER. JAR.1
	Mixed Gamma N2	907.6	pCi/L	- VER. JAR.3
	Mixed Gamma N3	898.9	pCi/L	- VER. JAR.2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result		
	Mixed Gamma N1	1572	pCi/L	- VER-JAR-5
	Mixed Gamma N2	1495	pCi/L	- VER-JAR-2
	Mixed Gamma N3	1501	pCi/L	- VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**	
Stdev =	42.829	**Rule 3 (Pass/Fail)**		

Certificate Value =	1545.8378	pCi/L
Lower Limit =	1437.008431	pCi/L
Upper Limit =	1608.324902	pCi/L
Rule 1 (Pass/Fail)	**Pass**	
Two sigma =	85.65823564	
10 % of Mean =	152.26666667	
Rule 2 (Pass/Fail)	**Pass**	

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATA 4/14/2000 Jeff C Neff 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 boxes of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM-1	TRM-2	TRM-3	TRM-4
U-238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U-234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th-230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra-225	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb-210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are soil decontaminated and materials being sent to GEL on behalf of Hank Minter
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date
QC Limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
[illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 13
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by
QC Limits

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well decontaminated rad materials being sent to GEL on behalf of Hank Mintzer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Khan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	03/09/2010
Expiration Date:	03/09/2011
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Tara Sides	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/14/2009	09/14/2010
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/09/2010	Ashley Drochter	.011	1000	445-96-2-VV	22.7878 dpm/mL	03/09/2010	03/09/2011
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
03/23/2010	Ashley Drochter	.0163	1000	445-96-2-WW	33.7674 dpm/mL	03/23/2010	03/23/2011
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-VV*

A.Drochter	Isotope	Value	Uncertainty
3/15/2010	445-96-2-VV #1	1.040	0.1630
	445-96-2-VV #2	0.964	0.1480
	445-96-2-VV #3	0.970	0.1550

Mean Value (Counting) =	0.991	96.72	**Pass**
Stdev =	0.042253205		**Rule 3 (Pass/Fail)**

Target =	1.025
Lower Limit =	0.906826923
Upper Limit =	1.075839743
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.08450641
10 % of Mean =	0.099133333
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-VV*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

3/15/10

3/16/10

1430

NATIONAL PHYSICAL LABORATORY

Teddington Middlesex UK TW11 0LW Telephone +44 20 8977 3222

Certificate of Calibration

UKAS CALIBRATION 0478

PLUTONIUM-236 SOLUTION
R37-02

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

FOR:	GEL Laboratories LLC 2040 Savage Road Charleston, SC 29407 USA
FOR THE ATTENTION OF:	Mr Tim Winters
NPL PRODUCT CODE:	R37-02
IDENTIFICATION:	A09881
DESCRIPTION:	An aqueous solution of ^{236}Pu also containing 2 mol dm^{-3} of nitric acid. The solution is contained in a flame sealed ampoule of type Q and nominal volume 5 ml (squat) as defined in BS 795:1983.
DATE(S) OF CALIBRATION:	26 June 2009 to 1 July 2009
INTENDED USE:	Calibration of instruments for response to ^{236}Pu
STORAGE:	The material may be stored at room temperature in a suitably sealed container. Flame-sealed glass ampoules are recommended for long-term storage. Regulatory conditions may apply to the manner in which this material is stored.

RECEIVED 11/12/09 AMS.

MEASUREMENTS

The samples were prepared by gravimetric dilution of a ^{236}Pu solution, which had been previously standardised using liquid scintillation counting. The accuracy of the dilution factor was checked using liquid scintillation counting.

Reference: 2009100356

Date of Issue: 4 November 2009

Checked by:

Signed:

Name: Dr Arvic Harms

(Authorised Signatory)

for Managing Director

RESULTS

Principal radionuclide:	^{236}Pu
Reference time:	2009-07-01 12:00 UTC
Activity concentration of principal radionuclide:	170.8 Bq g^{-1}
Expanded uncertainty:	±0.6 Bq g^{-1} (±0.36 %)
Contaminants present:	^{226}Ra, ^{232}U, ^{228}Th, ^{237}Np
Activity concentration of ^{226}Ra:	11.0 mBq g^{-1}
Expanded uncertainty:	±4.0 mBq g^{-1} (±36 %)
Activity concentration of ^{232}U:	0.67 Bq g^{-1}
Expanded uncertainty:	±0.12 Bq g^{-1} (±18 %)
Activity concentration of ^{228}Th:	11.38 mBq g^{-1}
Expanded uncertainty:	±0.46 mBq g^{-1} (±4 %)
Activity concentration of ^{237}Np:	5.00 mBq g^{-1}
Expanded uncertainty:	±0.34 mBq g^{-1} (±8 %)
Sample Mass:	4.97 g ± 0.02 g

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

NOTES

[1]. The reported reference time is stated consistent with the format given in ISO 8601:2004. UTC is the abbreviation for Universal Time, Coordinated. The date is stated in the format YYYY-MM-DD such that 2008-09-01 represents 1 September 2008.

[2]. The recommended half life of ^{236}Pu is 1044 (6) days and is taken from the evaluations published in *Nuclear Data Sheets*.

[3]. The recommended half life of ^{226}Ra is 5.844 (50) × 10^5 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[4]. The recommended half life of ^{232}U is 25800 (800) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[5]. The recommended half life of ^{237}Np is 7.83 (6) × 10^8 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[6]. The recommended half life of ^{228}Th is 698.60 (46) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Checked by:

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1430
Prepared By:	Ashley Drochter
Carrier Conc:	2 M HNO3
Reference Date:	07/01/2009
Ampoule Mass (g):	4.97 g
Uncertainty:	+/- .36 %
LogBook No:	RC-S-051-149

A Solution Material Info	
Isotope:	Plutonium-236
Prepared By:	Ashley Drochter
Prep Date:	01/27/2010
Verification Date:	01/27/2010
Expiration Date:	01/27/2011
Primary Code:	1430-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8051 g
Density(g/mL):	1.0610
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (100 mL) = 492.4266 dpm/mL
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (1.0610 g/mL) / (100 mL) = 464.1156 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/27/2010	Bethany Fiem	33.0429	200	1430-B	76.6786262 dpm/mL	01/27/2010	01/27/2011
03/01/2010	Ashley Drochter	15.2331	200	1430-C	35.3496 dpm/mL	03/01/2010	03/01/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-236 Standard 1430-C

	Isotope	Value	Uncertainty
A. Drochter	1430-C	2.760	0.4480
3/4/2010	1430-C	2.770	0.4520
	1430-C	2.950	0.4850

Mean Value (Counting) =	2.827	104.54659	% of Known Value
Stdev =	0.106926766		
Target =	2.70		
Lower Limit =	2.612813134		
Upper Limit =	3.040520199		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.213853532		
10 % of Mean =	0.282666667		
Rule 2 (Pass/Fail)	**Pass**		

The analyst prepared three standard verification sources for standard 1430-B using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. After approximately ten minutes, two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-236 were calculated by comparison to Pu-239 certified values.

3/5/10

3/5/10

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-08

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 962633**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248860001	SAMPLE	MXR1	GAM15	24-MAR-10 16:15	DONE	CAN	03-FEB-10 00:00
248860002	SAMPLE	MXR1	GAM18	24-MAR-10 16:15	DONE	CAN	23-APR-09 00:00
248860003	SAMPLE	MXR1	GAM22	24-MAR-10 16:15	DONE	CAN	02-DEC-09 00:00
248860004	SAMPLE	MXR1	GAM23	24-MAR-10 16:16	DONE	CAN	02-JUN-09 00:00
248860005	SAMPLE	MXR1	GAM25	24-MAR-10 16:16	DONE	CAN	07-OCT-09 00:00
248860006	SAMPLE	MXR1	GAM02	24-MAR-10 16:27	DONE	CAN	29-OCT-09 00:00
248860007	SAMPLE	MXR1	GAM05	24-MAR-10 16:27	DONE	CAN	11-JUN-09 00:00
248860008	SAMPLE	MXR1	GAM10	24-MAR-10 16:28	DONE	CAN	13-MAR-10 00:00
248860009	SAMPLE	MXR1	GAM12	24-MAR-10 16:28	DONE	CAN	25-FEB-10 00:00
248863001	SAMPLE	MXR1	GAM15	24-MAR-10 18:28	DONE	CAN	03-FEB-10 00:00
248863002	SAMPLE	MXR1	GAM22	24-MAR-10 18:28	DONE	CAN	02-DEC-09 00:00
248863003	SAMPLE	MXR1	GAM23	24-MAR-10 18:29	DONE	CAN	02-JUN-09 00:00
248863004	SAMPLE	MXR1	GAM04	24-MAR-10 20:31	DONE	CAN	05-MAY-09 00:00
248865001	SAMPLE	MXR1	GAM07	24-MAR-10 20:31	DONE	CAN	20-JUL-09 00:00
248866001	SAMPLE	MXR1	GAM15	24-MAR-10 20:32	DONE	CAN	03-FEB-10 00:00
248866002	SAMPLE	MXR1	GAM17	24-MAR-10 20:32	DONE	CAN	06-JAN-10 00:00
248867001	SAMPLE	MXR1	GAM29	24-MAR-10 20:33	DONE	CAN	23-FEB-10 00:00
248867002	SAMPLE	MXR1	GAM22	24-MAR-10 20:37	DONE	CAN	02-DEC-09 00:00
248867003	SAMPLE	MXR1	GAM05	24-MAR-10 20:51	DONE	CAN	11-JUN-09 00:00
248867004	SAMPLE	MXR1	GAM15	24-MAR-10 22:58	DONE	CAN	03-FEB-10 00:00
1202065188	MB	MXR1	GAM29	24-MAR-10 22:59	DONE	CAN	23-FEB-10 00:00
1202065189	DUP	MXR1	GAM21	24-MAR-10 23:00	DONE	CAN	28-JUL-09 00:00
1202065190	LCS	MXR1	GAM22	25-MAR-10 09:16	DONE	CAN	02-DEC-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 962716**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202065373	LCS	MXE1	1234	23-MAR-10 09:05	DONE		
248866001	SAMPLE	MXE1	1235	23-MAR-10 13:34	DONE		
248866002	SAMPLE	MXE1	1236	23-MAR-10 13:34	DONE		
1202065371	MB	MXE1	1237	23-MAR-10 13:34	DONE		
1202065372	DUP	MXE1	1238	23-MAR-10 13:35	DONE		
248863002	SAMPLE	MXE1	1239	23-MAR-10 13:35	DONE		
248863003	SAMPLE	MXE1	1240	23-MAR-10 13:35	DONE		
248863004	SAMPLE	MXE1	1241	23-MAR-10 13:35	DONE		
248865001	SAMPLE	MXE1	1242	23-MAR-10 13:35	DONE		
248800001	SAMPLE	MXE1	1228	23-MAR-10 21:41	DONE		
248800002	SAMPLE	MXE1	1229	23-MAR-10 21:41	DONE		
248800003	SAMPLE	MXE1	1230	23-MAR-10 21:41	DONE		
248800004	SAMPLE	MXE1	1231	23-MAR-10 21:41	DONE		
248800005	SAMPLE	MXE1	1232	23-MAR-10 21:41	DONE		
248800006	SAMPLE	MXE1	1233	23-MAR-10 21:41	DONE		
248800007	SAMPLE	MXE1	1234	23-MAR-10 21:41	DONE		
248800008	SAMPLE	MXE1	1209	24-MAR-10 08:04	DONE		
248800009	SAMPLE	MXE1	1210	24-MAR-10 08:04	DONE		
248800010	SAMPLE	MXE1	1211	24-MAR-10 08:04	DONE		
248800011	SAMPLE	MXE1	1216	24-MAR-10 08:04	DONE		
248800012	SAMPLE	MXE1	1217	24-MAR-10 08:04	DONE		
248863001	SAMPLE	MXE1	1218	24-MAR-10 08:04	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 962718**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202065378	MB	MXE1	1096	24-MAR-10 10:20	DONE		
1202065379	DUP	MXE1	1097	24-MAR-10 10:20	DONE		
1202065380	LCS	MXE1	1098	24-MAR-10 10:20	DONE		
248863003	SAMPLE	MXE1	1107	24-MAR-10 11:26	DONE		
248863004	SAMPLE	MXE1	1108	24-MAR-10 11:26	DONE		
248865001	SAMPLE	MXE1	1109	24-MAR-10 11:26	DONE		
248866001	SAMPLE	MXE1	1111	24-MAR-10 11:26	DONE		
248866002	SAMPLE	MXE1	1112	24-MAR-10 11:26	DONE		
248800001	SAMPLE	MXE1	1013	24-MAR-10 16:31	DONE		
248800002	SAMPLE	MXE1	1014	24-MAR-10 16:31	DONE		
248800003	SAMPLE	MXE1	1016	24-MAR-10 16:31	DONE		
248800004	SAMPLE	MXE1	1017	24-MAR-10 16:31	DONE		
248800005	SAMPLE	MXE1	1018	24-MAR-10 16:31	DONE		
248800006	SAMPLE	MXE1	1019	24-MAR-10 16:31	DONE		
248800007	SAMPLE	MXE1	1020	24-MAR-10 16:31	DONE		
248800008	SAMPLE	MXE1	1022	24-MAR-10 16:31	DONE		
248800009	SAMPLE	MXE1	1023	24-MAR-10 16:31	DONE		
248800010	SAMPLE	MXE1	1024	24-MAR-10 16:31	DONE		
248800011	SAMPLE	MXE1	1101	24-MAR-10 16:31	DONE		
248800012	SAMPLE	MXE1	1102	24-MAR-10 16:31	DONE		
248863001	SAMPLE	MXE1	1103	24-MAR-10 16:31	DONE		
248863002	SAMPLE	MXE1	1105	24-MAR-10 16:31	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 962721**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248800001	SAMPLE	MXE1	1115	24-MAR-10 11:54	DONE		
248800002	SAMPLE	MXE1	1116	24-MAR-10 11:54	DONE		
248800003	SAMPLE	MXE1	1145	24-MAR-10 11:55	DONE		
248800004	SAMPLE	MXE1	1146	24-MAR-10 11:55	DONE		
248800005	SAMPLE	MXE1	1147	24-MAR-10 11:55	DONE		
248800006	SAMPLE	MXE1	1148	24-MAR-10 11:55	DONE		
248800007	SAMPLE	MXE1	1149	24-MAR-10 11:55	DONE		
248800008	SAMPLE	MXE1	1150	24-MAR-10 11:55	DONE		
248866002	SAMPLE	MXE1	1003	24-MAR-10 11:55	DONE		
1202065398	MB	MXE1	1004	24-MAR-10 11:55	DONE		
1202065399	DUP	MXE1	1005	24-MAR-10 11:55	DONE		
1202065400	LCS	MXE1	1006	24-MAR-10 11:55	DONE		
248800009	SAMPLE	MXE1	1151	24-MAR-10 11:55	DONE		
248800010	SAMPLE	MXE1	1152	24-MAR-10 11:55	DONE		
248800011	SAMPLE	MXE1	1153	24-MAR-10 11:55	DONE		
248800012	SAMPLE	MXE1	1154	24-MAR-10 11:55	DONE		
248863001	SAMPLE	MXE1	1155	24-MAR-10 11:55	DONE		
248863002	SAMPLE	MXE1	1156	24-MAR-10 11:55	DONE		
248863003	SAMPLE	MXE1	1157	24-MAR-10 11:55	DONE		
248863004	SAMPLE	MXE1	1158	24-MAR-10 11:55	DONE		
248865001	SAMPLE	MXE1	1159	24-MAR-10 11:55	DONE		
248866001	SAMPLE	MXE1	1160	24-MAR-10 11:55	DONE		

Friday, March 12, 2010

REQUEST NUMBER: 10-2435

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-2435
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	HASL-300:AM-241	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2435

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	HASL-300:ISOPU	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	HASL-300:ISOU	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2435

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2435C

REQUEST NUMBER: 10-2435

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-12972	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13003	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-12967	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-12971	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-12968	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-12969	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-12970	1	POLY	AM241+GS+ISOPU+ ISOU	None	S

Relinquished By:	Date	Time	Received By:	Date	Time
	3/12/10	3:00			
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name / Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12970 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1100	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611502		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Brown sandy sediment 5YR 5/4

SAMPLE COMMENTS: O.M. present

LOCATION DESC: 4q-2

FIELD SCREENING/MEASUREMENT RESULTS: Background samples < MDA

PID: 0.2ppm α: 7 β: 906 DPM

COLLECTED BY (PRINT) ~~D. Thomas~~ 3-16-10 M. Lovick **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Lovick (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12971 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1342	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611503		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Dark reddish brown sandy sediment. 5YR 3/4

SAMPLE COMMENTS: NA

LOCATION DESC: 4q-3

FIELD SCREENING/MEASUREMENT RESULTS: Background Samples < MDA

PID: 1.0 ppm

α: 7 dpm DPM

β: 906

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/10/10 1650	(Printed Name)	3/11/10 1650
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12997 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	Ok
TIME COLLECTED (HH:MM)		0914	SUB-MEDIA:	OTHER	
PRS ID:	46-004(q)	Ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-~~611501~~ 611503 HD 3-11-10	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	Ok	FIELD PREP:	UF	
TOP DEPTH:	0	HD 0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	3-11-10 1' 2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH <2
1		SW-846:6850	250 ML POLY	Ice	Y	pH 3/11/10
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH >12

SAMPLE DESC: QC Sample of RE46-10-12967 HD 3-11-10 72

SAMPLE COMMENTS: NA

LOCATION DESC: 4q-3

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature)	3/11/10 1650	(Printed Name) (Signature)	3/11/10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12994 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1415	SUB-MEDIA:	OTHER	
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46611503	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	1/2 0' 1'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1' 2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	<2 pH
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	>12 ~~pH~~ pH 3/11/10

SAMPLE DESC: QC Sample of RE 46-10-12972

SAMPLE COMMENTS: NA

LOCATION DESC: 49-3

FIELD SCREENING/MEASUREMENT RESULTS: MR 2/10/10 ~~B~~ NA

COLLECTED BY (PRINT) ~~D. Thomas~~ M. Nauck REVIEWED BY (PRINT) Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature) [signature]	3/11/10 1650	(Printed Name) (Signature) [signature]	3/11/10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-13003 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1350	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	46-611503	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-12972

SAMPLE COMMENTS: NA

LOCATION DESC: 49-3

FIELD SCREENING/MEASUREMENT RESULTS: Background samples < MDA

PID: 1.0ppm α: 7 DPM β: 906

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature)	3/11/10 1650	(Printed Name) (Signature)	3/11/10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12972 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1350	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	46-611503		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Pinkish gray weathered tuff 5YR 6/2

SAMPLE COMMENTS: Roots present

LOCATION DESC: 4q-3

FIELD SCREENING/MEASUREMENT RESULTS: Background samples < MDA

PID: 0.6 ppm α: 7 β: 906 DPM

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature)	3/11/10 1650	(Printed Name) (Signature)	3/11/10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12968 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		0945	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611501	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Pinkish gray weathered tuff + sediment 5YR 8/2

SAMPLE COMMENTS: Plant roots

LOCATION DESC: 4q-1

FIELD SCREENING/MEASUREMENT RESULTS: Background Samples < MDA

PID: 3.9ppm α: 7 β: 906 DPM

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** [illegible]

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [illegible] (Signature)	3-11-10 1650	(Printed Name) [illegible] (Signature)	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12969 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1055 3-11-10 ~~1010~~	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611502	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: ~~Gray~~ Brown sandy sediment 5YR 5/4 3-11-10

SAMPLE COMMENTS: O.M. present

LOCATION DESC: 4q-2

FIELD SCREENING/MEASUREMENT RESULTS: Background samples <MDA

PID: 0.7 ppm α: 7 β: 906 DPM

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** M. Nauck

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Nauck (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12967 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-1-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		0915	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611501	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Silty sediment 7.5 YR 4/3 Dark Brown

SAMPLE COMMENTS: roots + O.M. present

LOCATION DESC: Aq-1

FIELD SCREENING/MEASUREMENT RESULTS: Background samples <MDA

PID: 10.7 ppm α: 7 β: 906 DPM

COLLECTED BY (PRINT) ~~D. Thomas~~ H. Hauck REVIEWED BY (PRINT) Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) H. Hauck	3-1-10	(Printed Name)	3/1/10
(Signature)	1650	(Signature)	4:50
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-13000 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		~~1415~~ 1350	SUB-MEDIA:	OTHER	
PRS ID:	46-004(q)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611503	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	2	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of 46-10-12972

SAMPLE COMMENTS: NA

LOCATION DESC: 49-3

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) ~~M. Rains~~ H. Lacet **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress	3/11/10	(Printed Name)	3/11/10
(Signature)	1650	(Signature)	1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2435 VALIDATION DATE: 4/24/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. All gamma spec sample results that were rejected by the laboratory due to interference or low abundance were qualified R,R5a. In the duplicate sample, the laboratory also rejected several results. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 04/26/10

VALIDATOR'S SIGNATURE: DATE: 4/24/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY est. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 **Rad Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☐	☒	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID:	RE46-10-12972	Project:	LANL01004
Sample ID:	249334001	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	12.3%		

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
ericium-241	U	0.00647		0.0205	+/-0.00348	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
)PU "Dry Weight Corrected"													
tonium-238	U	-0.00287		0.0265	+/-0.00285	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
tonium-239/240	U	0.00567		0.0224	+/-0.00512	0.050	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		1.90		0.122	+/-0.166	0.100	pCi/g		CXM2	03/27/10	1254	965504	3
nium-235/236		0.128		0.0744	+/-0.0288	0.100	pCi/g						
nium-238		1.31		0.0856	+/-0.123	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	0.00495		0.324	+/-0.0978	0.200	pCi/g		MXR1	03/24/10	0922	965250	4
muth-211	UI	5.61	R,R5a	0.295	+/-0.276		pCi/g						
muth-214		1.60		0.103	+/-0.103	0.200	pCi/g						
lmium-109	UI	4.00	R,R5a	1.49	+/-0.553		pCi/g						
ium-139	U	-0.00558		0.0477	+/-0.0139	0.050	pCi/g						
ium-134	UI	0.169	R,R5a	0.0906	+/-0.0443	0.100	pCi/g						
ium-137	U	0.0215		0.063	+/-0.0181	0.100	pCi/g						
alt-60	U	0.0195		0.0622	+/-0.0182	0.100	pCi/g						
opium-152	U	-0.00996		0.138	+/-0.0491	0.200	pCi/g						
thanum-140	U	-0.0542		0.0905	+/-0.0327		pCi/g						
d-212		2.40		0.0901	+/-0.104	0.100	pCi/g						
d-214		2.04		0.107	+/-0.115	0.100	pCi/g						
rcury-203	U	0.0584		0.0602	+/-0.019	0.100	pCi/g						
assium-40		35.1		0.512	+/-1.55	1.00	pCi/g						
lium-223	U	0.305		0.928	+/-0.315		pCi/g						
lium-224	UI	5.58	R,R5a	0.964	+/-0.636		pCi/g						
lium-226		1.60		0.103	+/-0.103		pCi/g						
lium-228		2.82		0.197	+/-0.253	0.500	pCi/g						
henium-106	U	0.019		0.446	+/-0.137	0.800	pCi/g						
lium-22	U	-0.00918		0.0645	+/-0.020	0.080	pCi/g						
ontium-85	UI	0.0957	R,R5a	0.0642	+/-0.0193		pCi/g						

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4/24/10

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Certificate of Analysis

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Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12972
Sample ID: 249334001
Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis												
ıMMA SPEC "Dry Weight Corrected"												
ıllium-208		0.713	0.0493	+/-0.0471	0.080	pCi/g						
›rium-227	U	0.0592	0.398	+/-0.118		pCi/g						
›rium-231	U	0.305	0.928	+/-0.315		pCi/g						
›rium-234	U	2.54	2.78	+/-0.947	2.00	pCi/g						
-113	U	-0.0297	0.0634	+/-0.0194	0.100	pCi/g						
.nium-235	U	0.0103	0.337	+/-0.104	0.500	pCi/g						
:ium-88	U	-0.0225	0.044	+/-0.0152	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
:ricium-243 Tracer	AM241 "Dry Weight Corrected"	85.4	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	81.5	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	77.6	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
ıe Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
3D Results are either below the MDC or tracer recovery is low
: Analyte has been confirmed by GC/MS analysis
) Results are reported from a diluted aliquot of the sample
: Estimated Value
I Analytical holding time was exceeded
Value is estimated
/ M if above MDC and less than LLD
/ Matrix Related Failure

LMF
4/24/10

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Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID:	RE46-10-13003	Project:	LANL01004
Sample ID:	249334002	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	11.5%		

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	M
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
ericium-241	U	-0.00141		0.0215	+/-0.00239	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
PU "Dry Weight Corrected"													
tonium-238	U	-0.00202		0.0258	+/-0.00536	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
tonium-239/240	U	0.000466		0.0218	+/-0.00618	0.050	pCi/g						
U "Dry Weight Corrected"													
nium-233/234		1.64		0.121	+/-0.146	0.100	pCi/g		CXM2	03/27/10	1254	965504	3
nium-235/236		0.116		0.0738	+/-0.0273	0.100	pCi/g						
nium-238		1.31		0.0849	+/-0.122	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.178		0.379	+/-0.128	0.200	pCi/g		MXR1	03/24/10	0922	965250	4
muth-211	UI	5.23	R,R5a	0.390	+/-0.331		pCi/g						
muth-214		1.54		0.133	+/-0.110	0.200	pCi/g						
lmium-109	UI	4.29	R,R5a	1.83	+/-0.664		pCi/g						
ium-139	U	-0.0302		0.059	+/-0.0185	0.050	pCi/g						
ium-134	UI	0.120	R,R5a	0.107	+/-0.049	0.100	pCi/g						
ium-137	U	0.00619		0.0814	+/-0.0247	0.100	pCi/g						
alt-60	U	-0.00959		0.0741	+/-0.0234	0.100	pCi/g						
opium-152	U	-0.0891		0.186	+/-0.0707	0.200	pCi/g						
thanum-140	U	0.00888		0.159	+/-0.0475		pCi/g						
d-212		2.27		0.115	+/-0.107	0.100	pCi/g						
d-214		1.90		0.142	+/-0.131	0.100	pCi/g						
rcury-203	U	-0.0114		0.0766	+/-0.0225	0.100	pCi/g						
assium-40		32.1		0.444	+/-1.58	1.00	pCi/g						
lium-223	U	-0.757		1.20	+/-0.440		pCi/g						
lium-224	UI	6.57	R,R5a	1.23	+/-0.824		pCi/g						
lium-226		1.54		0.133	+/-0.110		pCi/g						
lium-228		2.26		0.288	+/-0.223	0.500	pCi/g						
henium-106	U	0.0126		0.637	+/-0.194	0.800	pCi/g						
lium-22	U	-0.0151		0.094	+/-0.0296	0.080	pCi/g						
ntium-85	U	0.0166		0.0736	+/-0.0248		pCi/g						
llium-208		0.677		0.0632	+/-0.0485	0.080	pCi/g						

LMF
4/24/10

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Certificate of Analysis

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Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-13003
Sample ID: 249334002
Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis												
ıMMA SPEC "Dry Weight Corrected"												
›rium-227	U	0.168	0.538	+/-0.161		pCi/g						
›rium-231	U	-0.757	1.20	+/-0.440		pCi/g						
›rium-234	U	3.22	3.30	+/-1.42	2.00	pCi/g						
-113	U	-0.0526	0.089	+/-0.0279	0.100	pCi/g						
.nium-235	U	0.0476	0.434	+/-0.131	0.500	pCi/g						
:ium-88	U	0.0202	0.0701	+/-0.0194	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery %	Acceptable Limits
:ricium-243 Tracer	AM241 "Dry Weight Corrected"	80.4	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	79.0	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	80.2	(50%-105%)

tes:
?U is calculated at the 67% confidence level (1-sigma).
ıe Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported
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} For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
}D Results are either below the MDC or tracer recovery is low
: Analyte has been confirmed by GC/MS analysis
) Results are reported from a diluted aliquot of the sample
? Estimated Value
I Analytical holding time was exceeded
Value is estimated
/I M if above MDC and less than LLD
/I Matrix Related Failure
J/A RPD or %Recovery limits do not apply.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12967
Sample ID: 249334003
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 20.7%

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
ericium-241	U	0.00802		0.0209	+/-0.00332	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
)PU "Dry Weight Corrected"													
tonium-238	U	0.00943		0.0234	+/-0.00793	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
tonium-239/240	U	0.0165		0.0197	+/-0.00701	0.050	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		86.7		0.161	+/-6.59	0.100	pCi/g		CXM2	03/27/10	1254	965504	3
nium-235/236		4.33		0.0984	+/-0.371	0.100	pCi/g						
nium-238		1.99		0.113	+/-0.185	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	0.0872		0.139	+/-0.0433	0.200	pCi/g		MXR1	03/24/10	0948	965250	4
muth-211	UI	4.85	R,R5a	0.416	+/-0.375		pCi/g						
muth-214		1.48		0.153	+/-0.152	0.200	pCi/g						
lmium-109	UI	4.00	R,R5a	1.32	+/-0.543		pCi/g						
ium-139	U	0.025		0.0675	+/-0.0224	0.050	pCi/g						
ium-134	UI	0.234	R,R5a	0.139	+/-0.0496	0.100	pCi/g						
ium-137		0.425		0.0866	+/-0.0681	0.100	pCi/g						
alt-60	U	0.0185		0.111	+/-0.0321	0.100	pCi/g						
opium-152	U	0.0252		0.212	+/-0.0708	0.200	pCi/g						
thanum-140	U	-0.0407		0.190	+/-0.0616		pCi/g						
d-212		1.85		0.113	+/-0.119	0.100	pCi/g						
d-214		1.76		0.151	+/-0.145	0.100	pCi/g						
rcury-203	U	0.0237		0.085	+/-0.0248	0.100	pCi/g						
assium-40		30.3		0.735	+/-1.81	1.00	pCi/g						
lium-223	U	0.727		1.47	+/-0.467		pCi/g						
lium-224	UI	5.17	R,R5a	1.22	+/-0.849		pCi/g						
lium-226		1.48		0.153	+/-0.152		pCi/g						
lium-228		1.72		0.319	+/-0.245	0.500	pCi/g						
henium-106	U	0.256		0.804	+/-0.239	0.800	pCi/g						
lium-22	U	-0.0402		0.109	+/-0.0367	0.080	pCi/g						
ontium-85	U	0.0744		0.0977	+/-0.0305		pCi/g						
illium-208		0.544		0.0879	+/-0.0634	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12967
Sample ID: 249334003
Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis												
MMA SPEC "Dry Weight Corrected"												
rium-227	U	0.0477	0.541	+/-0.169		pCi/g						
rium-231	U	0.727	1.47	+/-0.467		pCi/g						
rium-234		2.42	1.35	+/-0.682	2.00	pCi/g						
-113	U	-0.0122	0.0994	+/-0.0304	0.100	pCi/g						
nium-235		3.87	0.481	+/-0.441	0.500	pCi/g						
ium-88	U	0.00334	0.084	+/-0.0256	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery %	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	83.0	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	87.1	(50%-105%)
ium-232 Tracer	ISOU "Dry Weight Corrected"	60.6	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
e Qualifiers in this report are defined as follows :

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. Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
3D Results are either below the MDC or tracer recovery is low
: Analyte has been confirmed by GC/MS analysis
) Results are reported from a diluted aliquot of the sample
; Estimated Value
I Analytical holding time was exceeded
Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID:	RE46-10-12971	Project:	LANL01004
Sample ID:	249334004	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	21.8%		

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
ericium-241	U	0.00613		0.0236	+/-0.00568	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
)PU "Dry Weight Corrected"													
tonium-238	U	0.00388		0.0257	+/-0.00275	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
tonium-239/240	U	0.0213		0.0218	+/-0.00656	0.050	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		4.25		0.154	+/-0.354	0.100	pCi/g		CXM2	03/29/10	1237	965504	2
nium-235/236		0.156		0.0941	+/-0.0358	0.100	pCi/g						
nium-238		1.39		0.108	+/-0.137	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.0329		0.0867	+/-0.0257	0.200	pCi/g		MXR1	03/24/10	1053	965250	5
muth-211	UI	4.75	R,R5a	0.360	+/-0.341		pCi/g						
muth-214		1.37		0.146	+/-0.125	0.200	pCi/g						
lmium-109	UI	3.23	R,R5a	0.939	+/-0.419		pCi/g						
ium-139	U	-0.0218		0.0445	+/-0.0132	0.050	pCi/g						
ium-134	UI	0.153	R,R5a	0.122	+/-0.0402	0.100	pCi/g						
ium-137		0.396		0.0944	+/-0.0528	0.100	pCi/g						
alt-60	U	0.0221		0.0982	+/-0.0279	0.100	pCi/g						
opium-152	U	0.0124		0.175	+/-0.0531	0.200	pCi/g						
thanum-140	U	-0.0341		0.194	+/-0.0619		pCi/g						
d-212		2.07		0.0938	+/-0.121	0.100	pCi/g						
d-214		1.73		0.131	+/-0.133	0.100	pCi/g						
rcury-203	U	0.000958		0.064	+/-0.0196	0.100	pCi/g						
assium-40		34.1		0.696	+/-1.90	1.00	pCi/g						
lium-223	U	0.0509		1.13	+/-0.383		pCi/g						
lium-224	UI	6.26	R,R5a	1.01	+/-0.638		pCi/g						
lium-226		1.37		0.146	+/-0.125		pCi/g						
lium-228		2.05		0.298	+/-0.243	0.500	pCi/g						
henium-106	U	-0.102		0.604	+/-0.188	0.800	pCi/g						
lium-22	U	-0.0336		0.100	+/-0.0333	0.080	pCi/g						
ntium-85	U	0.0229		0.0694	+/-0.022		pCi/g						
llium-208		0.616		0.076	+/-0.0638	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12971
Sample ID: 249334004

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis												
MMA SPEC "Dry Weight Corrected"												
rium-227	U	0.0735	0.444	+/-0.130		pCi/g						
rium-231	U	0.0509	1.13	+/-0.383		pCi/g						
rium-234		1.44	0.874	+/-0.435	2.00	pCi/g						
-113	U	-0.0316	0.0816	+/-0.0266	0.100	pCi/g						
nium-235		0.495	0.284	+/-0.145	0.500	pCi/g						
ium-88	U	-0.0025	0.0759	+/-0.0238	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery %	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	71.3	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	84.4	(50%-105%)
ium-232 Tracer	ISOU "Dry Weight Corrected"	60.4	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
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BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Estimated Value
H Analytical holding time was exceeded
Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID:	RE46-10-12968	Project:	LANL01004
Sample ID:	249334005	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	10.4%		

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
ericium-241	U	0.00732		0.0227	+/-0.00389	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
)PU "Dry Weight Corrected"													
tonium-238	U	0.0105		0.0233	+/-0.00433	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
tonium-239/240	U	0.0123		0.0197	+/-0.00469	0.050	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		34.2		0.131	+/-2.56	0.100	pCi/g		CXM2	03/29/10	1238	965504	3
nium-235/236		1.75		0.0801	+/-0.164	0.100	pCi/g						
nium-238		1.30		0.0922	+/-0.124	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.387		0.619	+/-0.190	0.200	pCi/g		MXR1	03/24/10	1116	965250	5
muth-211	UI	5.15	R,R5a	0.496	+/-0.420		pCi/g						
muth-214		1.51		0.158	+/-0.144	0.200	pCi/g						
lmium-109	UI	4.56	R,R5a	1.90	+/-0.793		pCi/g						
ium-139	U	0.041		0.084	+/-0.0289	0.050	pCi/g						
ium-134	U	0.112		0.120	+/-0.0324	0.100	pCi/g						
ium-137		0.119		0.0939	+/-0.0367	0.100	pCi/g						
alt-60	U	0.00656		0.0892	+/-0.0274	0.100	pCi/g						
opium-152	U	-0.096		0.231	+/-0.0886	0.200	pCi/g						
thanum-140	U	-0.059		0.149	+/-0.0576		pCi/g						
d-212		2.33		0.137	+/-0.163	0.100	pCi/g						
d-214		1.87		0.167	+/-0.161	0.100	pCi/g						
rcury-203	U	0.0968		0.0999	+/-0.028	0.100	pCi/g						
assium-40		35.9		0.767	+/-2.12	1.00	pCi/g						
lium-223	U	-0.0157		1.43	+/-0.493		pCi/g						
lium-224	UI	5.98	R,R5a	1.46	+/-0.969		pCi/g						
lium-226		1.51		0.158	+/-0.144		pCi/g						
lium-228		2.51		0.297	+/-0.258	0.500	pCi/g						
henium-106	U	0.388		0.769	+/-0.224	0.800	pCi/g						
lium-22	U	-0.0604		0.0965	+/-0.0332	0.080	pCi/g						
ontium-85	UI	0.172	R,R5a	0.104	+/-0.0306		pCi/g						
illium-208		0.747		0.0789	+/-0.0597	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12968
Sample ID: 249334005

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis												
MMA SPEC "Dry Weight Corrected"												
rium-227	U	0.0777	0.627	+/-0.183		pCi/g						
rium-231	U	-0.0157	1.43	+/-0.493		pCi/g						
rium-234	U	1.56	5.23	+/-1.52	2.00	pCi/g						
-113	U	0.00999	0.108	+/-0.0321	0.100	pCi/g						
nium-235		1.77	0.539	+/-0.304	0.500	pCi/g						
ium-88	U	-0.0167	0.0663	+/-0.0237	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery %	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	76.2	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	81.5	(50%-105%)
ium-232 Tracer	ISOU "Dry Weight Corrected"	74.1	(50%-105%)

tes:
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; Estimated Value
I Analytical holding time was exceeded
Value is estimated
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M Matrix Related Failure

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Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12969
Sample ID: 249334006
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 12.4%

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
ericium-241	U	-0.00139		0.021	+/-0.00191	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
)PU "Dry Weight Corrected"													
tonium-238	U	0.00		0.0279	+/-0.0021	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
tonium-239/240	U	0.0105		0.0236	+/-0.00474	0.050	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		0.906		0.119	+/-0.0907	0.100	pCi/g		CXM2	03/27/10	1254	965504	3
nium-235/236	U	0.0573		0.0726	+/-0.0178	0.100	pCi/g						
nium-238		0.851		0.0835	+/-0.0868	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.105		0.338	+/-0.115	0.200	pCi/g		MXR1	03/24/10	1101	965250	4
muth-211	UI	4.98	R,R5a	0.416	+/-0.404		pCi/g						
muth-214		1.51		0.153	+/-0.132	0.200	pCi/g						
dmium-109	UI	3.84	R,R5a	1.77	+/-0.684		pCi/g						
ium-139	U	0.0272		0.0615	+/-0.0185	0.050	pCi/g						
ium-134	UI	0.126	R,R5a	0.119	+/-0.0422	0.100	pCi/g						
ium-137	U	0.0189		0.0874	+/-0.0257	0.100	pCi/g						
balt-60	U	-0.00584		0.0908	+/-0.0282	0.100	pCi/g						
opium-152	U	-0.0897		0.196	+/-0.0782	0.200	pCi/g						
thanum-140	U	-0.00484		0.172	+/-0.0521		pCi/g						
d-212		2.15		0.121	+/-0.135	0.100	pCi/g						
d-214		1.81		0.151	+/-0.155	0.100	pCi/g						
rcury-203	U	0.0581		0.0869	+/-0.0277	0.100	pCi/g						
assium-40		34.3		0.768	+/-2.00	1.00	pCi/g						
lium-223	U	-0.0476		1.30	+/-0.452		pCi/g						
lium-224	UI	4.87	R,R5a	1.30	+/-0.920		pCi/g						
lium-226		1.51		0.153	+/-0.132		pCi/g						
lium-228		2.41		0.301	+/-0.228	0.500	pCi/g						
henium-106	U	0.515		0.720	+/-0.197	0.800	pCi/g						
lium-22	U	-0.0233		0.101	+/-0.0321	0.080	pCi/g						
ontium-85	U	0.0724		0.0898	+/-0.0276		pCi/g						
llium-208		0.729		0.0652	+/-0.0614	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12969
Sample ID: 249334006

Project: LANL01004
Client ID: LANL010

ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	M'd.
Gamma Spec Analysis												
MMA SPEC "Dry Weight Corrected"												
rium-227	U	-0.0329	0.528	+/-0.158		pCi/g						
rium-231	U	-0.0476	1.30	+/-0.452		pCi/g						
rium-234		3.82	2.84	+/-1.40	2.00	pCi/g						
-113	U	-0.0488	0.0899	+/-0.0294	0.100	pCi/g						
nium-235	U	0.145	0.455	+/-0.140	0.500	pCi/g						
ium-88	U	-0.0138	0.0584	+/-0.0195	0.100	pCi/g						

following Analytical Methods were performed

thod	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R

rogate/Tracer recovery	Test	Recovery %	Acceptable Limits
ericium-243 Tracer	AM241 "Dry Weight Corrected"	78.4	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	66.4	(50%-105%)
ium-232 Tracer	ISOU "Dry Weight Corrected"	78.3	(50%-105%)

tes:
PU is calculated at the 67% confidence level (1-sigma).
e Qualifiers in this report are defined as follows :

* Analyte is a surrogate compound
: Result is less than value reported
• Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
3 For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
3D Results are either below the MDC or tracer recovery is low
: Analyte has been confirmed by GC/MS analysis
) Results are reported from a diluted aliquot of the sample
? Estimated Value
I Analytical holding time was exceeded
Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.

LMF
4/24/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID:	RE46-10-12970	Project:	LANL01004
Sample ID:	249334007	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	15.4%		

ameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Alpha Spec Analysis													
1241 "Dry Weight Corrected"													
ericium-241	U	-0.000124		0.0201	+/-0.00183	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
)PU "Dry Weight Corrected"													
tonium-238	U	0.00697		0.026	+/-0.00483	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
tonium-239/240	U	0.00838		0.022	+/-0.00463	0.050	pCi/g						
)U "Dry Weight Corrected"													
nium-233/234		1.07		0.116	+/-0.103	0.100	pCi/g		CXM2	03/27/10	1254	965504	3
nium-235/236		0.0813		0.0708	+/-0.0212	0.100	pCi/g						
nium-238		1.09		0.0815	+/-0.104	0.100	pCi/g						
Gamma Spec Analysis													
MMA SPEC "Dry Weight Corrected"													
ericium-241	U	-0.0108		0.257	+/-0.0759	0.200	pCi/g		MXR1	03/25/10	1447	965250	4
muth-211	UI	5.85	R,R5a	0.365	+/-0.424		pCi/g						
muth-214		1.70		0.112	+/-0.131	0.200	pCi/g						
lmium-109	UI	6.12	R,R5a	1.27	+/-0.683		pCi/g						
ium-139	U	-0.00107		0.0559	+/-0.0166	0.050	pCi/g						
ium-134	UI	0.163	R,R5a	0.0936	+/-0.0359	0.100	pCi/g						
ium-137	U	-0.00116		0.0658	+/-0.0201	0.100	pCi/g						
alt-60		0.182		0.0704	+/-0.0378	0.100	pCi/g						
opium-152	U	-0.118		0.170	+/-0.0721	0.200	pCi/g						
thanum-140	U	-0.151		0.152	+/-0.0545		pCi/g						
d-212		2.20		0.126	+/-0.169	0.100	pCi/g						
d-214		2.12		0.133	+/-0.165	0.100	pCi/g						
rcury-203	U	0.0499		0.0693	+/-0.0234	0.100	pCi/g						
assium-40		38.8		0.553	+/-1.98	1.00	pCi/g						
lium-223	U	-0.272		1.24	+/-0.433		pCi/g						
lium-224	UI	4.30	R,R5a	1.64	+/-0.566		pCi/g						
lium-226		1.70		0.112	+/-0.131		pCi/g						
lium-228		2.43		0.243	+/-0.235	0.500	pCi/g						
henium-106	U	0.0772		0.559	+/-0.167	0.800	pCi/g						
lium-22	U	-0.0147		0.0773	+/-0.024	0.080	pCi/g						
ontium-85	UI	0.177	R,R5a	0.0851	+/-0.0267		pCi/g						
allium-208		0.710		0.065	+/-0.0568	0.080	pCi/g						

LMF
4/24/10

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12970
Sample ID: 249334007
Project: LANL01004
Client ID: LANL010

·ameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gamma Spec Analysis												
ıMMA SPEC "Dry Weight Corrected"												
›rium-227	U	-0.0534	0.467	+/-0.145		pCi/g						
›rium-231	U	-0.272	1.24	+/-0.433		pCi/g						
›rium-234	U	0.943	2.52	+/-0.727	2.00	pCi/g						
-113	U	-0.00249	0.0822	+/-0.0249	0.100	pCi/g						
ınium-235	U	0.0508	0.387	+/-0.115	0.500	pCi/g						
:ium-88	U	-0.0321	0.0498	+/-0.0175	0.100	pCi/g						

: following Analytical Methods were performed

thod	Description
	DOE EML HASL-300, Am-05-RC Modified
	DOE EML HASL-300, Pu-11-RC Modified
	DOE EML HASL-300, U-02-RC Modified
	DOE HASL 300, 4.5.2.3/Ga-01-R
	DOE HASL 300, 4.5.2.3/Ga-01-R

·rogate/Tracer recovery	Test	Recovery%	Acceptable Limits
ɜricium-243 Tracer	AM241 "Dry Weight Corrected"	83.5	(50%-105%)
onium-236 Tracer	ISOPU "Dry Weight Corrected"	75.8	(50%-105%)
ıium-232 Tracer	ISOU "Dry Weight Corrected"	78.5	(50%-105%)

tes:
?U is calculated at the 67% confidence level (1-sigma).
ıe Qualifiers in this report are defined as follows :

:* Analyte is a surrogate compound
: Result is less than value reported
· Result is greater than value reported
\ The TIC is a suspected aldol-condensation product
ɜ For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
ɜD Results are either below the MDC or tracer recovery is low
: Analyte has been confirmed by GC/MS analysis
) Results are reported from a diluted aliquot of the sample
ɜ Estimated Value
I Analytical holding time was exceeded
Value is estimated
/ M if above MDC and less than LLD
/ Matrix Related Failure

LMF
4/24/10

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2435C

REQUEST NUMBER: 10-2435

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

249334'/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-12972	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13003	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-12967	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-12971	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-12968	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-12969	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-12970	1	POLY	AM241+GS+ISOPU+ ISOU	None	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/12/10	3:00	Greg Tyler		3-13-10	0936
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Friday, March 12, 2010

REQUEST NUMBER: 10-2435

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2435
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	HASL-300:AM-241	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2435

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	HASL-300:ISOPU	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	HASL-300:ISOU	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2435

GEL Laboratories LLC

a member of The GEL Group Inc.

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

March 18, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 249334
SDG: 10-2435

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 13, 2010, and analyzed for Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2435
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 249334
SDG: 10-2435

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 249334
SDG # : 10-2435

March 18, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 13, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 12/13C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
249334001	RE46-10-12972
249334002	RE46-10-13003
249334003	RE46-10-12967
249334004	RE46-10-12971
249334005	RE46-10-12968
249334006	RE46-10-12969
249334007	RE46-10-12970

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 18 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2435C

REQUEST NUMBER: 10-2435

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

249334%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-12972	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-13003	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-12967	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-12971	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-12968	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-12969	1	POLY	AM241+GS+ISOPU+ ISOU	None	S
RE46-10-12970	1	POLY	AM241+GS+ISOPU+ ISOU	None	S

Relinquished By:		Date	Time	Received By:		Date	Time
		3/12/10	3:00	Greg Tyler		3-13-10	0930
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Friday, March 12, 2010

REQUEST NUMBER: 10-2435

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2435
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	HASL-300:AM-241	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	

Hard Copy Required

Friday, March 12, 2010

REQUEST NUMBER: 10-2435

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	HASL-300:ISOPU	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
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		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2435

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2435**
Received By: Greg Tyler	**Date Received: 3/13/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **2,3,6C** **12,13C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:
7209 7850 4789 2C
7209 7850 4756 2C
7209 7850 4804 2C
7209 7850 4790 3C
7209 7850 4767 6C
7209 7850 4815 12C
7209 7850 4778 13C

PM (or PMA) review: Initials MS Date 3/15/10

N ID: SAFA (505) 665-9968
NE VALDEZ
LAMOS NATL LAB
BLDG 1237 DPU 03

LAMOS, NM 87545
ED STATES US

SHIP DATE: 12MAR10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

LERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
) 556-8171
F: MR2A0515BY00

2°

FedEx Express

1 of 3
C# 7209 7850 4789
MASTER ##

SATURDAY ### A1
PRIORITY OVERNIGHT

2940
SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

2°

FedEx Express

1 of 3
TRK# 7209 7850 4756
MASTER ##

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

2°

FedEx Express

3 of 3
S# 7209 7850 4804
trK# 7209 7850 4789

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US

0 CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

3°

FedEx Express

2 of 3
MPS# 7209 7850 4790
MstrK 7209 7850 4789

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2450

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

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2 of 3
MPS# 0263 7209 7850 4767
Mstr# 7209 7850 4756 0201

SATURDAY
PRIORITY OVERN

X0 CHSA

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Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

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1 of 2
TRK# 0201 7209 7850 4815
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SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

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CHS

Part # 156148-434 NRIT V3 04-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT:
CAD: 0014176/CAFE2450

BILL SENDER

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3 of 3
MPS# 0263 7209 7850 4778
Mstr# 7209 7850 4756 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2435

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965502
Prep Batch Number:	965113

Sample ID	Client ID
249334001	RE46-10-12972
249334002	RE46-10-13003
249334003	RE46-10-12967
249334004	RE46-10-12971
249334005	RE46-10-12968
249334006	RE46-10-12969
249334007	RE46-10-12970
1202071683	Method Blank (MB)
1202071684	249334001(RE46-10-12972) Sample Duplicate (DUP)
1202071685	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202071683 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249334001 (RE46-10-12972). The QC was from LANL work order 249334.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965503
Prep Batch Number:	965113

Sample ID	Client ID
249334001	RE46-10-12972
249334002	RE46-10-13003
249334003	RE46-10-12967
249334004	RE46-10-12971
249334005	RE46-10-12968
249334006	RE46-10-12969
249334007	RE46-10-12970
1202071686	Method Blank (MB)
1202071687	249334001(RE46-10-12972) Sample Duplicate (DUP)
1202071688	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202071686 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249334001 (RE46-10-12972). The QC was from LANL work order 249334.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The Pu239/240 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965504
Prep Batch Number:	965113

Sample ID	Client ID
249334001	RE46-10-12972
249334002	RE46-10-13003
249334003	RE46-10-12967
249334004	RE46-10-12971
249334005	RE46-10-12968
249334006	RE46-10-12969
249334007	RE46-10-12970
1202071689	Method Blank (MB)
1202071690	249334001(RE46-10-12972) Sample Duplicate (DUP)
1202071691	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202071689 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 249334001 (RE46-10-12972). The QC was from LANL work order 249334.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-233/234 and U-235/236 blank results are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples 249334004 (RE46-10-12971) and 249334005 (RE46-10-12968) were recounted due to detector error.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	965250
Prep Batch Number:	965113

Sample ID	Client ID
249334001	RE46-10-12972
249334002	RE46-10-13003
249334003	RE46-10-12967
249334004	RE46-10-12971
249334005	RE46-10-12968
249334006	RE46-10-12969
249334007	RE46-10-12970
1202071014	Method Blank (MB)
1202071015	249334001(RE46-10-12972) Sample Duplicate (DUP)
1202071016	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 19.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in March 2009, April 2009, May 2009, June 2009, July 2009, December 2009, January 2010 and February 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 249334001 (RE46-10-12972). The QC was from LANL work order 249334.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank 1202071014 (MB) result is greater than 1.65 times the CSU but less than the MDC for Th-234.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 249334007 (RE46-10-12970) was recounted to verify the Co-60 results. The results verified with a relative percent difference of 12.5%. The second count is being reported.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank 1202071014 (MB) result is greater than the decision level but less than the MDC for Th-234.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	249334001	RE46-10-12972
			249334002	RE46-10-13003
			249334003	RE46-10-12967
			249334004	RE46-10-12971
			249334005	RE46-10-12968
			249334006	RE46-10-12969
			249334007	RE46-10-12970
			1202071015	RE46-10-12972(249334001DUP)
		Cadmium-109	249334001	RE46-10-12972
			249334002	RE46-10-13003
			249334003	RE46-10-12967
			249334004	RE46-10-12971
			249334005	RE46-10-12968

			249334006	RE46-10-12969
			249334007	RE46-10-12970
			1202071015	RE46-10-12972(249334001DUP)
		Radium-224	249334001	RE46-10-12972
			249334002	RE46-10-13003
			249334003	RE46-10-12967
			249334004	RE46-10-12971
			249334005	RE46-10-12968
			249334006	RE46-10-12969
			249334007	RE46-10-12970
			1202071015	RE46-10-12972(249334001DUP)
UI	Data rejected due to low abundance.	Cesium-134	249334001	RE46-10-12972
			249334002	RE46-10-13003
			249334003	RE46-10-12967
			249334004	RE46-10-12971
			249334006	RE46-10-12969
			249334007	RE46-10-12970
			1202071015	RE46-10-12972(249334001DUP)
		Strontium-85	249334001	RE46-10-12972
			249334005	RE46-10-12968
			249334007	RE46-10-12970
			1202071015	RE46-10-12972(249334001DUP)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 4/5/10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2435 GEL Work Order: 249334

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID:	RE46-10-12972	Project:	LANL01004
Sample ID:	249334001	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	12.3%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00647	0.0205	+/-0.00348	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00287	0.0265	+/-0.00285	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
Plutonium-239/240	U	0.00567	0.0224	+/-0.00512	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.90	0.122	+/-0.166	0.100	pCi/g		CXM2	03/27/10	1254	965504	3
Uranium-235/236		0.128	0.0744	+/-0.0288	0.100	pCi/g						
Uranium-238		1.31	0.0856	+/-0.123	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.00495	0.324	+/-0.0978	0.200	pCi/g		MXR1	03/24/10	0922	965250	4
Bismuth-211	UI	5.61	0.295	+/-0.276		pCi/g						
Bismuth-214		1.60	0.103	+/-0.103	0.200	pCi/g						
Cadmium-109	UI	4.00	1.49	+/-0.553		pCi/g						
Cerium-139	U	-0.00558	0.0477	+/-0.0139	0.050	pCi/g						
Cesium-134	UI	0.169	0.0906	+/-0.0443	0.100	pCi/g						
Cesium-137	U	0.0215	0.063	+/-0.0181	0.100	pCi/g						
Cobalt-60	U	0.0195	0.0622	+/-0.0182	0.100	pCi/g						
Europium-152	U	-0.00996	0.138	+/-0.0491	0.200	pCi/g						
Lanthanum-140	U	-0.0542	0.0905	+/-0.0327		pCi/g						
Lead-212		2.40	0.0901	+/-0.104	0.100	pCi/g						
Lead-214		2.04	0.107	+/-0.115	0.100	pCi/g						
Mercury-203	U	0.0584	0.0602	+/-0.019	0.100	pCi/g						
Potassium-40		35.1	0.512	+/-1.55	1.00	pCi/g						
Radium-223	U	0.305	0.928	+/-0.315		pCi/g						
Radium-224	UI	5.58	0.964	+/-0.636		pCi/g						
Radium-226		1.60	0.103	+/-0.103		pCi/g						
Radium-228		2.82	0.197	+/-0.253	0.500	pCi/g						
Ruthenium-106	U	0.019	0.446	+/-0.137	0.800	pCi/g						
Sodium-22	U	-0.00918	0.0645	+/-0.020	0.080	pCi/g						
Strontium-85	UI	0.0957	0.0642	+/-0.0193		pCi/g						

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12972
Sample ID: 249334001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.713	0.0493	+/-0.0471	0.080	pCi/g						
Thorium-227	U	0.0592	0.398	+/-0.118		pCi/g						
Thorium-231	U	0.305	0.928	+/-0.315		pCi/g						
Thorium-234	U	2.54	2.78	+/-0.947	2.00	pCi/g						
Tin-113	U	-0.0297	0.0634	+/-0.0194	0.100	pCi/g						
Uranium-235	U	0.0103	0.337	+/-0.104	0.500	pCi/g						
Yttrium-88	U	-0.0225	0.044	+/-0.0152	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.4	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	81.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	77.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12972
Sample ID: 249334001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID:	RE46-10-13003	Project:	LANL01004
Sample ID:	249334002	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	11.5%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00141	0.0215	+/-0.00239	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00202	0.0258	+/-0.00536	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
Plutonium-239/240	U	0.000466	0.0218	+/-0.00618	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.64	0.121	+/-0.146	0.100	pCi/g		CXM2	03/27/10	1254	965504	3
Uranium-235/236		0.116	0.0738	+/-0.0273	0.100	pCi/g						
Uranium-238		1.31	0.0849	+/-0.122	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.178	0.379	+/-0.128	0.200	pCi/g		MXR1	03/24/10	0922	965250	4
Bismuth-211	UI	5.23	0.390	+/-0.331		pCi/g						
Bismuth-214		1.54	0.133	+/-0.110	0.200	pCi/g						
Cadmium-109	UI	4.29	1.83	+/-0.664		pCi/g						
Cerium-139	U	-0.0302	0.059	+/-0.0185	0.050	pCi/g						
Cesium-134	UI	0.120	0.107	+/-0.049	0.100	pCi/g						
Cesium-137	U	0.00619	0.0814	+/-0.0247	0.100	pCi/g						
Cobalt-60	U	-0.00959	0.0741	+/-0.0234	0.100	pCi/g						
Europium-152	U	-0.0891	0.186	+/-0.0707	0.200	pCi/g						
Lanthanum-140	U	0.00888	0.159	+/-0.0475		pCi/g						
Lead-212		2.27	0.115	+/-0.107	0.100	pCi/g						
Lead-214		1.90	0.142	+/-0.131	0.100	pCi/g						
Mercury-203	U	-0.0114	0.0766	+/-0.0225	0.100	pCi/g						
Potassium-40		32.1	0.444	+/-1.58	1.00	pCi/g						
Radium-223	U	-0.757	1.20	+/-0.440		pCi/g						
Radium-224	UI	6.57	1.23	+/-0.824		pCi/g						
Radium-226		1.54	0.133	+/-0.110		pCi/g						
Radium-228		2.26	0.288	+/-0.223	0.500	pCi/g						
Ruthenium-106	U	0.0126	0.637	+/-0.194	0.800	pCi/g						
Sodium-22	U	-0.0151	0.094	+/-0.0296	0.080	pCi/g						
Strontium-85	U	0.0166	0.0736	+/-0.0248		pCi/g						
Thallium-208		0.677	0.0632	+/-0.0485	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-13003
Sample ID: 249334002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.168	0.538	+/-0.161		pCi/g						
Thorium-231	U	-0.757	1.20	+/-0.440		pCi/g						
Thorium-234	U	3.22	3.30	+/-1.42	2.00	pCi/g						
Tin-113	U	-0.0526	0.089	+/-0.0279	0.100	pCi/g						
Uranium-235	U	0.0476	0.434	+/-0.131	0.500	pCi/g						
Yttrium-88	U	0.0202	0.0701	+/-0.0194	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	80.4	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	79.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	80.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.

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Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-13003
Sample ID: 249334002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID:	RE46-10-12967	Project:	LANL01004
Sample ID:	249334003	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	20.7%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00802	0.0209	+/-0.00332	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00943	0.0234	+/-0.00793	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
Plutonium-239/240	U	0.0165	0.0197	+/-0.00701	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		86.7	0.161	+/-6.59	0.100	pCi/g		CXM2	03/27/10	1254	965504	3
Uranium-235/236		4.33	0.0984	+/-0.371	0.100	pCi/g						
Uranium-238		1.99	0.113	+/-0.185	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0872	0.139	+/-0.0433	0.200	pCi/g		MXR1	03/24/10	0948	965250	4
Bismuth-211	UI	4.85	0.416	+/-0.375		pCi/g						
Bismuth-214		1.48	0.153	+/-0.152	0.200	pCi/g						
Cadmium-109	UI	4.00	1.32	+/-0.543		pCi/g						
Cerium-139	U	0.025	0.0675	+/-0.0224	0.050	pCi/g						
Cesium-134	UI	0.234	0.139	+/-0.0496	0.100	pCi/g						
Cesium-137		0.425	0.0866	+/-0.0681	0.100	pCi/g						
Cobalt-60	U	0.0185	0.111	+/-0.0321	0.100	pCi/g						
Europium-152	U	0.0252	0.212	+/-0.0708	0.200	pCi/g						
Lanthanum-140	U	-0.0407	0.190	+/-0.0616		pCi/g						
Lead-212		1.85	0.113	+/-0.119	0.100	pCi/g						
Lead-214		1.76	0.151	+/-0.145	0.100	pCi/g						
Mercury-203	U	0.0237	0.085	+/-0.0248	0.100	pCi/g						
Potassium-40		30.3	0.735	+/-1.81	1.00	pCi/g						
Radium-223	U	0.727	1.47	+/-0.467		pCi/g						
Radium-224	UI	5.17	1.22	+/-0.849		pCi/g						
Radium-226		1.48	0.153	+/-0.152		pCi/g						
Radium-228		1.72	0.319	+/-0.245	0.500	pCi/g						
Ruthenium-106	U	0.256	0.804	+/-0.239	0.800	pCi/g						
Sodium-22	U	-0.0402	0.109	+/-0.0367	0.080	pCi/g						
Strontium-85	U	0.0744	0.0977	+/-0.0305		pCi/g						
Thallium-208		0.544	0.0879	+/-0.0634	0.080	pCi/g						

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Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12967
Sample ID: 249334003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.0477	0.541	+/-0.169		pCi/g						
Thorium-231	U	0.727	1.47	+/-0.467		pCi/g						
Thorium-234		2.42	1.35	+/-0.682	2.00	pCi/g						
Tin-113	U	-0.0122	0.0994	+/-0.0304	0.100	pCi/g						
Uranium-235		3.87	0.481	+/-0.441	0.500	pCi/g						
Yttrium-88	U	0.00334	0.084	+/-0.0256	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.0	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	87.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	60.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.

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Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12967
Sample ID: 249334003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID:	RE46-10-12971	Project:	LANL01004
Sample ID:	249334004	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	21.8%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00613	0.0236	+/-0.00568	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00388	0.0257	+/-0.00275	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
Plutonium-239/240	U	0.0213	0.0218	+/-0.00656	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		4.25	0.154	+/-0.354	0.100	pCi/g		CXM2	03/29/10	1237	965504	3
Uranium-235/236		0.156	0.0941	+/-0.0358	0.100	pCi/g						
Uranium-238		1.39	0.108	+/-0.137	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0329	0.0867	+/-0.0257	0.200	pCi/g		MXR1	03/24/10	1053	965250	5
Bismuth-211	UI	4.75	0.360	+/-0.341		pCi/g						
Bismuth-214		1.37	0.146	+/-0.125	0.200	pCi/g						
Cadmium-109	UI	3.23	0.939	+/-0.419		pCi/g						
Cerium-139	U	-0.0218	0.0445	+/-0.0132	0.050	pCi/g						
Cesium-134	UI	0.153	0.122	+/-0.0402	0.100	pCi/g						
Cesium-137		0.396	0.0944	+/-0.0528	0.100	pCi/g						
Cobalt-60	U	0.0221	0.0982	+/-0.0279	0.100	pCi/g						
Europium-152	U	0.0124	0.175	+/-0.0531	0.200	pCi/g						
Lanthanum-140	U	-0.0341	0.194	+/-0.0619		pCi/g						
Lead-212		2.07	0.0938	+/-0.121	0.100	pCi/g						
Lead-214		1.73	0.131	+/-0.133	0.100	pCi/g						
Mercury-203	U	0.000958	0.064	+/-0.0196	0.100	pCi/g						
Potassium-40		34.1	0.696	+/-1.90	1.00	pCi/g						
Radium-223	U	0.0509	1.13	+/-0.383		pCi/g						
Radium-224	UI	6.26	1.01	+/-0.638		pCi/g						
Radium-226		1.37	0.146	+/-0.125		pCi/g						
Radium-228		2.05	0.298	+/-0.243	0.500	pCi/g						
Ruthenium-106	U	-0.102	0.604	+/-0.188	0.800	pCi/g						
Sodium-22	U	-0.0336	0.100	+/-0.0333	0.080	pCi/g						
Strontium-85	U	0.0229	0.0694	+/-0.022		pCi/g						
Thallium-208		0.616	0.076	+/-0.0638	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12971
Sample ID: 249334004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.0735	0.444	+/-0.130		pCi/g						
Thorium-231	U	0.0509	1.13	+/-0.383		pCi/g						
Thorium-234		1.44	0.874	+/-0.435	2.00	pCi/g						
Tin-113	U	-0.0316	0.0816	+/-0.0266	0.100	pCi/g						
Uranium-235		0.495	0.284	+/-0.145	0.500	pCi/g						
Yttrium-88	U	-0.0025	0.0759	+/-0.0238	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	71.3	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	84.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	60.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12971
Sample ID: 249334004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12968
Sample ID: 249334005
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 10.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00732	0.0227	+/-0.00389	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0105	0.0233	+/-0.00433	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
Plutonium-239/240	U	0.0123	0.0197	+/-0.00469	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		34.2	0.131	+/-2.56	0.100	pCi/g		CXM2	03/29/10	1238	965504	3
Uranium-235/236		1.75	0.0801	+/-0.164	0.100	pCi/g						
Uranium-238		1.30	0.0922	+/-0.124	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.387	0.619	+/-0.190	0.200	pCi/g		MXR1	03/24/10	1116	965250	5
Bismuth-211	UI	5.15	0.496	+/-0.420		pCi/g						
Bismuth-214		1.51	0.158	+/-0.144	0.200	pCi/g						
Cadmium-109	UI	4.56	1.90	+/-0.793		pCi/g						
Cerium-139	U	0.041	0.084	+/-0.0289	0.050	pCi/g						
Cesium-134	U	0.112	0.120	+/-0.0324	0.100	pCi/g						
Cesium-137		0.119	0.0939	+/-0.0367	0.100	pCi/g						
Cobalt-60	U	0.00656	0.0892	+/-0.0274	0.100	pCi/g						
Europium-152	U	-0.096	0.231	+/-0.0886	0.200	pCi/g						
Lanthanum-140	U	-0.059	0.149	+/-0.0576		pCi/g						
Lead-212		2.33	0.137	+/-0.163	0.100	pCi/g						
Lead-214		1.87	0.167	+/-0.161	0.100	pCi/g						
Mercury-203	U	0.0968	0.0999	+/-0.028	0.100	pCi/g						
Potassium-40		35.9	0.767	+/-2.12	1.00	pCi/g						
Radium-223	U	-0.0157	1.43	+/-0.493		pCi/g						
Radium-224	UI	5.98	1.46	+/-0.969		pCi/g						
Radium-226		1.51	0.158	+/-0.144		pCi/g						
Radium-228		2.51	0.297	+/-0.258	0.500	pCi/g						
Ruthenium-106	U	0.388	0.769	+/-0.224	0.800	pCi/g						
Sodium-22	U	-0.0604	0.0965	+/-0.0332	0.080	pCi/g						
Strontium-85	UI	0.172	0.104	+/-0.0306		pCi/g						
Thallium-208		0.747	0.0789	+/-0.0597	0.080	pCi/g						

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Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12968
Sample ID: 249334005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.0777	0.627	+/-0.183		pCi/g						
Thorium-231	U	-0.0157	1.43	+/-0.493		pCi/g						
Thorium-234	U	1.56	5.23	+/-1.52	2.00	pCi/g						
Tin-113	U	0.00999	0.108	+/-0.0321	0.100	pCi/g						
Uranium-235		1.77	0.539	+/-0.304	0.500	pCi/g						
Yttrium-88	U	-0.0167	0.0663	+/-0.0237	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	76.2	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	81.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	74.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12968
Sample ID: 249334005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID:	RE46-10-12969	Project:	LANL01004
Sample ID:	249334006	Client ID:	LANL010
Matrix:	S		
Collect Date:	11-MAR-10		
Receive Date:	13-MAR-10		
Collector:	Client		
Moisture:	12.4%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00139	0.021	+/-0.00191	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0279	+/-0.0021	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
Plutonium-239/240	U	0.0105	0.0236	+/-0.00474	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.906	0.119	+/-0.0907	0.100	pCi/g		CXM2	03/27/10	1254	965504	3
Uranium-235/236	U	0.0573	0.0726	+/-0.0178	0.100	pCi/g						
Uranium-238		0.851	0.0835	+/-0.0868	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.105	0.338	+/-0.115	0.200	pCi/g		MXR1	03/24/10	1101	965250	4
Bismuth-211	UI	4.98	0.416	+/-0.404		pCi/g						
Bismuth-214		1.51	0.153	+/-0.132	0.200	pCi/g						
Cadmium-109	UI	3.84	1.77	+/-0.684		pCi/g						
Cerium-139	U	0.0272	0.0615	+/-0.0185	0.050	pCi/g						
Cesium-134	UI	0.126	0.119	+/-0.0422	0.100	pCi/g						
Cesium-137	U	0.0189	0.0874	+/-0.0257	0.100	pCi/g						
Cobalt-60	U	-0.00584	0.0908	+/-0.0282	0.100	pCi/g						
Europium-152	U	-0.0897	0.196	+/-0.0782	0.200	pCi/g						
Lanthanum-140	U	-0.00484	0.172	+/-0.0521		pCi/g						
Lead-212		2.15	0.121	+/-0.135	0.100	pCi/g						
Lead-214		1.81	0.151	+/-0.155	0.100	pCi/g						
Mercury-203	U	0.0581	0.0869	+/-0.0277	0.100	pCi/g						
Potassium-40		34.3	0.768	+/-2.00	1.00	pCi/g						
Radium-223	U	-0.0476	1.30	+/-0.452		pCi/g						
Radium-224	UI	4.87	1.30	+/-0.920		pCi/g						
Radium-226		1.51	0.153	+/-0.132		pCi/g						
Radium-228		2.41	0.301	+/-0.228	0.500	pCi/g						
Ruthenium-106	U	0.515	0.720	+/-0.197	0.800	pCi/g						
Sodium-22	U	-0.0233	0.101	+/-0.0321	0.080	pCi/g						
Strontium-85	U	0.0724	0.0898	+/-0.0276		pCi/g						
Thallium-208		0.729	0.0652	+/-0.0614	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12969
Sample ID: 249334006
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0329	0.528	+/-0.158		pCi/g						
Thorium-231	U	-0.0476	1.30	+/-0.452		pCi/g						
Thorium-234		3.82	2.84	+/-1.40	2.00	pCi/g						
Tin-113	U	-0.0488	0.0899	+/-0.0294	0.100	pCi/g						
Uranium-235	U	0.145	0.455	+/-0.140	0.500	pCi/g						
Yttrium-88	U	-0.0138	0.0584	+/-0.0195	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.4	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	66.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	78.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
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A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.

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Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12969
Sample ID: 249334006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12970
Sample ID: 249334007
Matrix: S
Collect Date: 11-MAR-10
Receive Date: 13-MAR-10
Collector: Client
Moisture: 15.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000124	0.0201	+/-0.00183	0.050	pCi/g		CXM2	03/27/10	1340	965502	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00697	0.026	+/-0.00483	0.050	pCi/g		CXM2	03/26/10	1720	965503	2
Plutonium-239/240	U	0.00838	0.022	+/-0.00463	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.07	0.116	+/-0.103	0.100	pCi/g		CXM2	03/27/10	1254	965504	3
Uranium-235/236		0.0813	0.0708	+/-0.0212	0.100	pCi/g						
Uranium-238		1.09	0.0815	+/-0.104	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0108	0.257	+/-0.0759	0.200	pCi/g		MXR1	03/25/10	1447	965250	4
Bismuth-211	UI	5.85	0.365	+/-0.424		pCi/g						
Bismuth-214		1.70	0.112	+/-0.131	0.200	pCi/g						
Cadmium-109	UI	6.12	1.27	+/-0.683		pCi/g						
Cerium-139	U	-0.00107	0.0559	+/-0.0166	0.050	pCi/g						
Cesium-134	UI	0.163	0.0936	+/-0.0359	0.100	pCi/g						
Cesium-137	U	-0.00116	0.0658	+/-0.0201	0.100	pCi/g						
Cobalt-60		0.182	0.0704	+/-0.0378	0.100	pCi/g						
Europium-152	U	-0.118	0.170	+/-0.0721	0.200	pCi/g						
Lanthanum-140	U	-0.151	0.152	+/-0.0545		pCi/g						
Lead-212		2.20	0.126	+/-0.169	0.100	pCi/g						
Lead-214		2.12	0.133	+/-0.165	0.100	pCi/g						
Mercury-203	U	0.0499	0.0693	+/-0.0234	0.100	pCi/g						
Potassium-40		38.8	0.553	+/-1.98	1.00	pCi/g						
Radium-223	U	-0.272	1.24	+/-0.433		pCi/g						
Radium-224	UI	4.30	1.64	+/-0.566		pCi/g						
Radium-226		1.70	0.112	+/-0.131		pCi/g						
Radium-228		2.43	0.243	+/-0.235	0.500	pCi/g						
Ruthenium-106	U	0.0772	0.559	+/-0.167	0.800	pCi/g						
Sodium-22	U	-0.0147	0.0773	+/-0.024	0.080	pCi/g						
Strontium-85	UI	0.177	0.0851	+/-0.0267		pCi/g						
Thallium-208		0.710	0.065	+/-0.0568	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12970
Sample ID: 249334007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0534	0.467	+/-0.145		pCi/g						
Thorium-231	U	-0.272	1.24	+/-0.433		pCi/g						
Thorium-234	U	0.943	2.52	+/-0.727	2.00	pCi/g						
Tin-113	U	-0.00249	0.0822	+/-0.0249	0.100	pCi/g						
Uranium-235	U	0.0508	0.387	+/-0.115	0.500	pCi/g						
Yttrium-88	U	-0.0321	0.0498	+/-0.0175	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.5	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	75.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	78.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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> Result is greater than value reported
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B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure

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Project: LANL ER Project

Report Date: March 30, 2010

Client Sample ID: RE46-10-12970
Sample ID: 249334007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

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QC Summary

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 249334

Report Date: March 30, 2010

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965502										
QC1202071684 249334001 DUP										
Americium-241	U	0.00647	U	0.00344	pCi/g	0.194		(0-1)	CXM2	03/27/1013:40
	TPU:	+/-0.00348		+/-0.00435						
	Yield:	85.4		82.4						
QC1202071685 LCS										
Americium-241	33.1			26.7	pCi/g		80.6	(75%-125%)		
	TPU:			+/-1.92						
	Yield:			101						
QC1202071683 MB										
Americium-241			U	0.00639	pCi/g					03/27/1013:40
	TPU:			+/-0.004						
	Yield:			81.5						
Batch 965503										
QC1202071687 249334001 DUP										
Plutonium-238	U	-0.00287	U	0.0121	pCi/g	0.767		(0-1)	CXM2	03/26/1021:18
	TPU:	+/-0.00285		+/-0.00691						
	Yield:	81.5		79.9						
Plutonium-239/240	U	0.00567	U	0.00368	pCi/g	0.102		(0-1)		
	TPU:	+/-0.00512		+/-0.00463						
	Yield:	81.5		79.9						
QC1202071688 LCS										
Plutonium-238				5.19	pCi/g			(75%-125%)		
	TPU:			+/-0.475						
	Yield:			84.6						
Plutonium-239/240	41.8			37.6	pCi/g		90.4	(75%-125%)		
	TPU:			+/-2.61						
	Yield:			84.6						
QC1202071686 MB										
Plutonium-238			U	0.00219	pCi/g					03/26/1017:20
	TPU:			+/-0.0022						
	Yield:			84.5						
Plutonium-239/240			U	0.00877	pCi/g					
	TPU:			+/-0.00441						
	Yield:			84.5						
Batch 965504										
QC1202071690 249334001 DUP										
Uranium-233/234		1.90		1.84	pCi/g	0.0878		(0-1)	CXM2	03/27/1012:54
	TPU:	+/-0.166		+/-0.163						
	Yield:	77.6		78.6						
Uranium-235/236		0.128		0.106	pCi/g	0.203		(0-1)		
	TPU:	+/-0.0288		+/-0.0256						
	Yield:	77.6		78.6						
Uranium-238		1.31		1.21	pCi/g	0.215		(0-1)		
	TPU:	+/-0.123		+/-0.116						

QC Summary

Workorder: 249334

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 965504										
	Yield:	77.6		78.6						
QC1202071691 LCS										
Uranium-233/234				5.98	pCi/g					03/27/1012:54
	TPU:			+/-0.566						
	Yield:			86.8						
Uranium-235/236			U	0.108	pCi/g					
	TPU:			+/-0.0492						
	Yield:			86.8						
Uranium-238	5.75			5.93	pCi/g		103	(75%-125%)		
	TPU:			+/-0.562						
	Yield:			86.8						
QC1202071689 MB										
Uranium-233/234			U	0.0143	pCi/g					03/27/1012:54
	TPU:			+/-0.0062						
	Yield:			84.6						
Uranium-235/236			U	0.00756	pCi/g					
	TPU:			+/-0.0044						
	Yield:			84.6						
Uranium-238			U	0.00612	pCi/g					
	TPU:			+/-0.00458						
	Yield:			84.6						
Rad Gamma Spec										
Batch 965250										
QC1202071015 249334001 DUP										
Americium-241	U	0.00495	U	0.0717	pCi/g	0.155		(0-1)	MXR1	03/24/1011:24
	TPU:	+/-0.0978		+/-0.117						
Bismuth-211	UI	5.61	UI	5.79	pCi/g	0.135		(0-1)		
	TPU:	+/-0.276		+/-0.395						
Bismuth-214		1.60		1.94	pCi/g	0.681		(0-1)		
	TPU:	+/-0.103		+/-0.143						
Cadmium-109	UI	4.00	UI	3.91	pCi/g	0.0359		(0-1)		
	TPU:	+/-0.553		+/-0.685						
Cerium-139	U	-0.00558	U	0.0107	pCi/g	0.250		(0-1)		
	TPU:	+/-0.0139		+/-0.0187						
Cesium-134	UI	0.169	UI	0.161	pCi/g	0.0457		(0-1)		
	TPU:	+/-0.0443		+/-0.0399						
Cesium-137	U	0.0215	U	-0.0433	pCi/g	0.762		(0-1)		
	TPU:	+/-0.0181		+/-0.0244						
Cobalt-60	U	0.0195	U	-0.0197	pCi/g	0.443		(0-1)		
	TPU:	+/-0.0182		+/-0.026						
Europium-152	U	-0.00996	U	0.0114	pCi/g	0.0881		(0-1)		
	TPU:	+/-0.0491		+/-0.0723						
Lanthanum-140	U	-0.0542	U	0.0955	pCi/g	0.925		(0-1)		
	TPU:	+/-0.0327		+/-0.0481						
Lead-212		2.40		2.38	pCi/g	0.0342		(0-1)		
	TPU:	+/-0.104		+/-0.145						
Lead-214		2.04		2.10	pCi/g	0.122		(0-1)		
	TPU:	+/-0.115		+/-0.155						
Mercury-203	U	0.0584	U	0.0382	pCi/g	0.226		(0-1)		
	TPU:	+/-0.019		+/-0.0255						

QC Summary

Workorder: 249334

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 965250										
Potassium-40		35.1		36.8	pCi/g	0.231		(0-1)		
	TPU:	+/-1.55		+/-2.00						
Radium-223	U	0.305	U	0.597	pCi/g	0.196		(0-1)		
	TPU:	+/-0.315		+/-0.429						
Radium-224	UI	5.58	UI	6.11	pCi/g	0.175		(0-1)		
	TPU:	+/-0.636		+/-0.881						
Radium-226		1.60		1.94	pCi/g	0.681		(0-1)		
	TPU:	+/-0.103		+/-0.143						
Radium-228		2.82		2.54	pCi/g	0.276		(0-1)		
	TPU:	+/-0.253		+/-0.267						
Ruthenium-106	U	0.019	U	0.113	pCi/g	0.140		(0-1)		
	TPU:	+/-0.137		+/-0.199						
Sodium-22	U	-0.00918	U	-0.0365	pCi/g	0.280		(0-1)		
	TPU:	+/-0.020		+/-0.0287						
Strontium-85	UI	0.0957	UI	0.174	pCi/g	0.796		(0-1)		
	TPU:	+/-0.0193		+/-0.0299						
Thallium-208		0.713		0.771	pCi/g	0.259		(0-1)		
	TPU:	+/-0.0471		+/-0.0642						
Thorium-227	U	0.0592	U	-0.0329	pCi/g	0.166		(0-1)		
	TPU:	+/-0.118		+/-0.160						
Thorium-231	U	0.305	U	0.597	pCi/g	0.196		(0-1)		
	TPU:	+/-0.315		+/-0.429						
Thorium-234	U	2.54		3.87	pCi/g	0.264		(0-1)		
	TPU:	+/-0.947		+/-1.59						
Tin-113	U	-0.0297	U	-0.0194	pCi/g	0.107		(0-1)		
	TPU:	+/-0.0194		+/-0.0286						
Uranium-235	U	0.0103	U	0.109	pCi/g	0.211		(0-1)		
	TPU:	+/-0.104		+/-0.129						
Yttrium-88	U	-0.0225	U	0.0225	pCi/g	0.622		(0-1)		
	TPU:	+/-0.0152		+/-0.021						
QC1202071016 LCS										
Americium-241	16.3			14.7	pCi/g		90.2	(75%-125%)		03/24/1011:06
	TPU:			+/-1.06						
Bismuth-211				2.98	pCi/g					
	TPU:			+/-0.361						
Bismuth-214				0.768	pCi/g					
	TPU:			+/-0.149						
Cadmium-109				34.5	pCi/g					
	TPU:			+/-2.58						
Cerium-139			U	0.0376	pCi/g					
	TPU:			+/-0.0231						
Cesium-134			U	0.00727	pCi/g					
	TPU:			+/-0.0465						
Cesium-137	5.68			5.65	pCi/g		99.4	(75%-125%)		
	TPU:			+/-0.195						
Cobalt-60	6.47			6.47	pCi/g		100	(75%-125%)		
	TPU:			+/-0.284						
Europium-152			U	-0.161	pCi/g					
	TPU:			+/-0.0905						
Lanthanum-140			U	0.0518	pCi/g					
	TPU:			+/-0.043						

QC Summary

Workorder: 249334

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 965250										
Lead-212				1.46	pCi/g					
	TPU:			+/-0.0965						
Lead-214				1.08	pCi/g					
	TPU:			+/-0.134						
Mercury-203			U	0.0484	pCi/g					
	TPU:			+/-0.0302						
Potassium-40			U	0.978	pCi/g					
	TPU:			+/-0.323						
Radium-223			U	-0.829	pCi/g					
	TPU:			+/-0.584						
Radium-224				3.80	pCi/g					
	TPU:			+/-1.08						
Radium-226				0.768	pCi/g					
	TPU:			+/-0.149						
Radium-228				1.05	pCi/g					
	TPU:			+/-0.320						
Ruthenium-106			U	0.147	pCi/g					
	TPU:			+/-0.277						
Sodium-22			U	0.0074	pCi/g					
	TPU:			+/-0.026						
Strontium-85			U	0.0661	pCi/g					
	TPU:			+/-0.0329						
Thallium-208				0.378	pCi/g					
	TPU:			+/-0.0593						
Thorium-227			U	-0.293	pCi/g					
	TPU:			+/-0.221						
Thorium-231			U	-0.829	pCi/g					
	TPU:			+/-0.584						
Thorium-234			U	-0.655	pCi/g					
	TPU:			+/-1.55						
Tin-113			U	-0.0188	pCi/g					
	TPU:			+/-0.0391						
Uranium-235			U	-0.158	pCi/g					
	TPU:			+/-0.144						
Yttrium-88			U	0.0245	pCi/g					
	TPU:			+/-0.0218						
QC1202071014 MB										
Americium-241			U	0.0412	pCi/g					03/24/1011:03
	TPU:			+/-0.0313						
Bismuth-211			U	0.0839	pCi/g					
	TPU:			+/-0.0569						
Bismuth-214			U	0.0104	pCi/g					
	TPU:			+/-0.0208						
Cadmium-109			U	-0.156	pCi/g					
	TPU:			+/-0.173						
Cerium-139			U	-0.0101	pCi/g					
	TPU:			+/-0.00741						
Cesium-134			U	0.000215	pCi/g					
	TPU:			+/-0.0125						
Cesium-137			U	-0.0095	pCi/g					
	TPU:			+/-0.0106						

QC Summary

Workorder: 249334

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 965250										
Cobalt-60			U	0.00435	pCi/g					
	TPU:			+/-0.0106						
Europium-152			U	-0.00625	pCi/g					
	TPU:			+/-0.0261						
Lanthanum-140			U	-0.0042	pCi/g					
	TPU:			+/-0.0155						
Lead-212			U	-0.00202	pCi/g					
	TPU:			+/-0.0172						
Lead-214			U	0.00673	pCi/g					
	TPU:			+/-0.021						
Mercury-203			U	0.00957	pCi/g					
	TPU:			+/-0.00871						
Potassium-40			U	0.189	pCi/g					
	TPU:			+/-0.132						
Radium-223			U	-0.0193	pCi/g					
	TPU:			+/-0.146						
Radium-224			U	0.230	pCi/g					
	TPU:			+/-0.161						
Radium-226			U	0.0104	pCi/g					
	TPU:			+/-0.0208						
Radium-228			U	-0.0717	pCi/g					
	TPU:			+/-0.041						
Ruthenium-106			U	-0.0223	pCi/g					
	TPU:			+/-0.0782						
Sodium-22			U	0.00519	pCi/g					
	TPU:			+/-0.00893						
Strontium-85			U	-0.0198	pCi/g					
	TPU:			+/-0.0156						
Thallium-208			U	-0.00734	pCi/g					
	TPU:			+/-0.0104						
Thorium-227			U	-0.0177	pCi/g					
	TPU:			+/-0.0637						
Thorium-231			U	-0.0193	pCi/g					
	TPU:			+/-0.146						
Thorium-234			U	0.833	pCi/g					
	TPU:			+/-0.410						
Tin-113			U	0.0029	pCi/g					
	TPU:			+/-0.0118						
Uranium-235			U	-0.146	pCi/g					
	TPU:			+/-0.052						
Yttrium-88			U	0.00938	pCi/g					
	TPU:			+/-0.0116						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported

QC Summary

Workorder: 249334

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time

A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 965502 Product: Am Date: 3/29/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time	✓		
Sample was correctly preserved if required			N/A
Smears Taken for Radioactive batches	✓		
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are accarent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JoeLMr 3/29/10

Secondary Review Performed By: Kath B Bell 3/29/10

3/31
LANL

Am/Cm Que Sheet

22-MAR-10

Batch #: 965502 Analyst: CXM2 First Client Due Date: 31-MAR-10 Internal Due Date21-MAR-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-46-2-VV Expiration Date: 3/9/11 Vol: 0.1mL

LCS Isotope(s): Am241/Cm244 LCS Code(s): 0244-B / — Expiration Date: 4/30/20 / — Vol(s): 0.115g / —

Spike Isotope(s): Am241/Cm244 Spike Code(s): — / — Expiration Date: — / — Vol(s): — / —

Prep Date: 3/23/10 Initials: CMM Pipet ID: 4497063 Balance ID: 50410272 Witness: 3/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (B x 1 / f)	Am/Cm Det #
249060003-1	RE16-10-2826	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	1	1	1.259	13
249329001-1	RE46-10-13964	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	2	2	1.290	19
249329002-1	RE46-10-13966	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	3	3	1.254	20
249329003-1	RE46-10-13963	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	4	4	1.260	22
249329004-1	RE46-10-13965	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	5	5	1.252	23
249331001-1	RE46-10-13219	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	6	6	1.266	24
249331002-1	RE46-10-13221	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	7	7	1.252	43
249331003-1	RE46-10-13220	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	8	8	1.256	44
249331004-1	RE46-10-13216	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	9	9	1.251	45
249331005-1	RE46-10-13217	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	10	10	1.256	46
249331006-1	RE46-10-13218	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	11	11	1.277	48
249331007-1	RE46-10-13234	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	12	12	1.255	72
249331008-1	RE46-10-14199	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	13	13	1.261	73
249334001-1	RE46-10-12972	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	14	14	1.267	74
249334002-1	RE46-10-13003	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	15	15	1.264	75
249334003-1	RE46-10-12967	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	16	16	1.292	76
249334004-1	RE46-10-12971	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	17	17	1.250	77
249334005-1	RE46-10-12968	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	18	18	1.260	79
249334006-1	RE46-10-12969	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	19	19	1.280	80
249334007-1	RE46-10-12970	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	20	20	1.259	81
1202071683-1	MB for batch 965502	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1	82
1202071684-1	RE46-10-12972(249334001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	11-MAR-10	22	22	1.259	83
1202071685-1	LCS for batch 965502	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.115	85

*SRM 0244-B Exp 4/30/20

Choose SOP Used: GL-RAD-A-011
GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: JoL MLr 3/29/10

Blank Correction Report

Batch ID 965502

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202071684	DUP	Americium-241	1.26 g	0.00344	0.00435	0.0189	.005071429	pCi/g	YES
1202071685	LCS	Americium-241	0.115 g	26.7	1.92	0.185	.055565217	pCi/g	NO
1202071683	MB	Americium-241	1.00 g	0.00639	0.004	0.0255	.00639	pCi/g	YES
249060003	RE16-10-2826	Americium-241	1.26 g	0.00677	0.00529	0.0213	.005071429	pCi/g	YES
249329001	RE46-10-13964	Americium-241	1.29 g	2.38E-05	0.00628	0.0219	.004953488	pCi/g	YES
249329002	RE46-10-13966	Americium-241	1.25 g	0.000963	0.00517	0.0186	.005112	pCi/g	YES
249329003	RE46-10-13963	Americium-241	1.26 g	0.010	0.00825	0.0198	.005071429	pCi/g	YES
249329004	RE46-10-13965	Americium-241	1.25 g	0.0102	0.00552	0.0202	.005112	pCi/g	YES
249331001	RE46-10-13219	Americium-241	1.27 g	-0.00269	0.00477	0.020	.005031496	pCi/g	YES
249331002	RE46-10-13221	Americium-241	1.25 g	0.000989	0.00121	0.0188	.005112	pCi/g	YES
249331003	RE46-10-13220	Americium-241	1.26 g	0.0112	0.00364	0.0179	.005071429	pCi/g	YES
249331004	RE46-10-13216	Americium-241	1.25 g	0.00326	0.00197	0.0183	.005112	pCi/g	YES
249331005	RE46-10-13217	Americium-241	1.26 g	-0.000235	0.00167	0.0184	.005071429	pCi/g	YES
249331006	RE46-10-13218	Americium-241	1.28 g	0.0106	0.00657	0.0208	.004992188	pCi/g	YES
249331007	RE46-10-13234	Americium-241	1.26 g	-0.000124	0.00606	0.0202	.005071429	pCi/g	YES
249331008	RE46-10-14199	Americium-241	1.26 g	0.00616	0.00378	0.0197	.005071429	pCi/g	YES
249334001	RE46-10-12972	Americium-241	1.27 g	0.00647	0.00348	0.0205	.005031496	pCi/g	YES
249334002	RE46-10-13003	Americium-241	1.26 g	-0.00141	0.00239	0.0215	.005071429	pCi/g	YES
249334003	RE46-10-12967	Americium-241	1.29 g	0.00802	0.00332	0.0209	.004953488	pCi/g	YES
249334004	RE46-10-12971	Americium-241	1.25 g	0.00613	0.00568	0.0236	.005112	pCi/g	YES
249334005	RE46-10-12968	Americium-241	1.26 g	0.00732	0.00389	0.0227	.005071429	pCi/g	YES
249334006	RE46-10-12969	Americium-241	1.28 g	-0.00139	0.00191	0.021	.004992188	pCi/g	YES
249334007	RE46-10-12970	Americium-241	1.26 g	-0.000124	0.00183	0.0201	.005071429	pCi/g	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249334001_AM
SAMPLE QTY : 1.267 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 85.417

CHAMBER : 074
DETECTOR S/N : 78266
AVERAGE %EFFICIENCY : 31.7138
COUNT DATE : 27-MAR-2010 13:40:29
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B074.CNF;1134
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W074.CNF;334
CAL DATE : 12-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.9435E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5488.044	99.355	7.000	4.930	1.000	2.7707	99.94000	6.47E-03	3.48E-03	8.46E-03	2.05E-02	3.46E-03
AM243	5270.000	5271.861	35.684	616.000	615.000	1.000	1.0000	99.78000	8.09E-01	6.21E-02	3.06E-03	9.68E-03	3.27E-02
CM-242	6102.000	6032.807	34.153	12.000	12.000	0.000	4.0092	100.0000	1.69E-02	5.01E-03	1.22E-02	2.80E-02	4.89E-03
CM-3/4	5795.020	5732.833	114.258	6.000	4.000	2.000	4.8510	100.0000	5.26E-03	3.73E-03	1.48E-02	3.32E-02	3.72E-03
CM-5/6	5386.000	5383.201	0.000	1.000	1.000	0.000	6.1294	86.09000	1.52E-03	1.53E-03	2.17E-02	4.76E-02	1.52E-03
CM-247	4946.000	4853.142	183.186	4.000	1.000	3.000	6.3427	79.30000	1.66E-03	4.38E-03	2.44E-02	5.33E-02	4.38E-03
CM-248	5078.600	5064.426	9.315	2.000	2.000	0.000	11.0244	91.00000	2.88E-03	2.05E-03	3.70E-02	7.79E-02	2.04E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

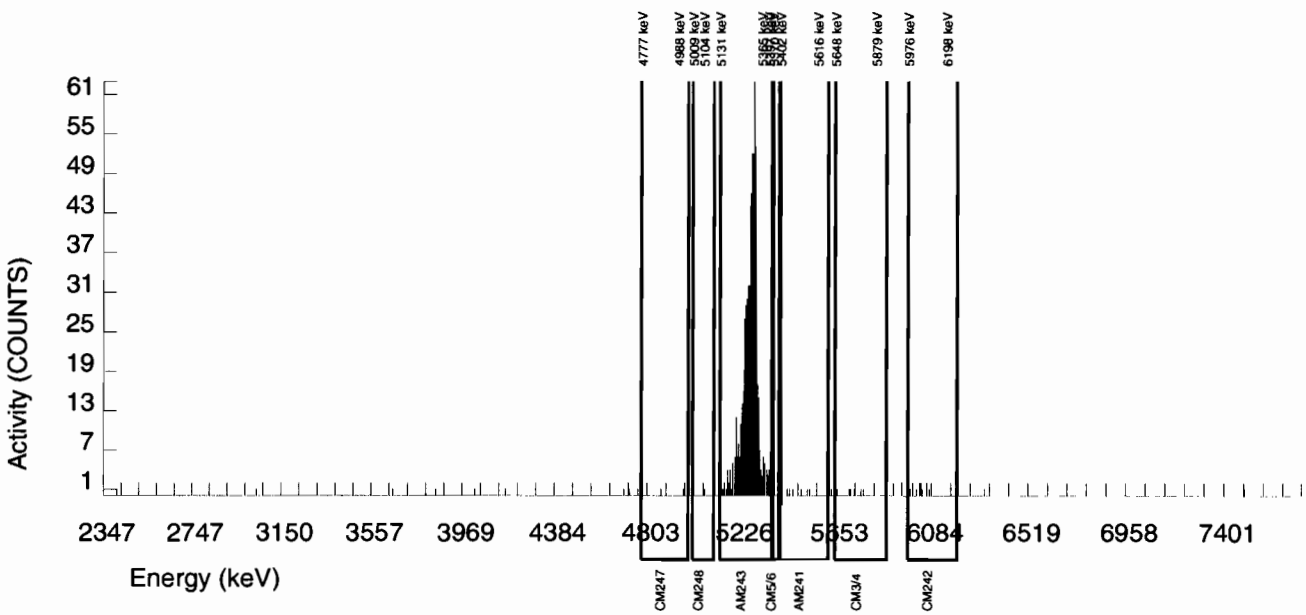

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249334002_AM
SAMPLE QTY : 1.264 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 80.398

CHAMBER : 075
DETECTOR S/N : 80010
AVERAGE %EFFICIENCY : 32.1597
COUNT DATE : 27-MAR-2010 13:40:29
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B075.CNF;1115
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W075.CNF;292
CAL DATE : 12-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.8293E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5515.725	0.000	2.000	-1.021	2.000	2.7707	99.94000	-1.41E-03	2.39E-03	8.89E-03	2.15E-02	2.39E-03
AM243	5270.000	5282.775	32.445	588.000	587.000	1.000	1.0000	99.78000	8.11E-01	6.30E-02	3.21E-03	1.02E-02	3.35E-02
CM-242	6102.000	6058.074	118.797	5.000	4.000	1.000	4.0092	100.0000	5.92E-03	3.65E-03	1.29E-02	2.94E-02	3.63E-03
CM-3/4	5795.020	5773.324	7.270	6.000	6.000	0.000	4.8510	100.0000	8.28E-03	3.43E-03	1.56E-02	3.48E-02	3.38E-03
CM-5/6	5386.000	5376.385	0.000	6.000	5.000	1.000	6.1294	86.09000	8.01E-03	4.27E-03	2.28E-02	5.00E-02	4.24E-03
CM-247	4946.000	4932.825	98.997	2.000	0.000	2.000	6.3427	79.30000	-4.14E-10	3.48E-03	2.56E-02	5.60E-02	3.48E-03
CM-248	5078.600	5068.793	0.000	7.000	3.000	4.000	11.0244	91.00000	4.54E-03	5.03E-03	3.88E-02	8.18E-02	5.02E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)
* BKG Sg of AM243 calculated as sqrt(BKG AREA).
* Corrections made to the following net area due to tracer impurity:
  AM-241

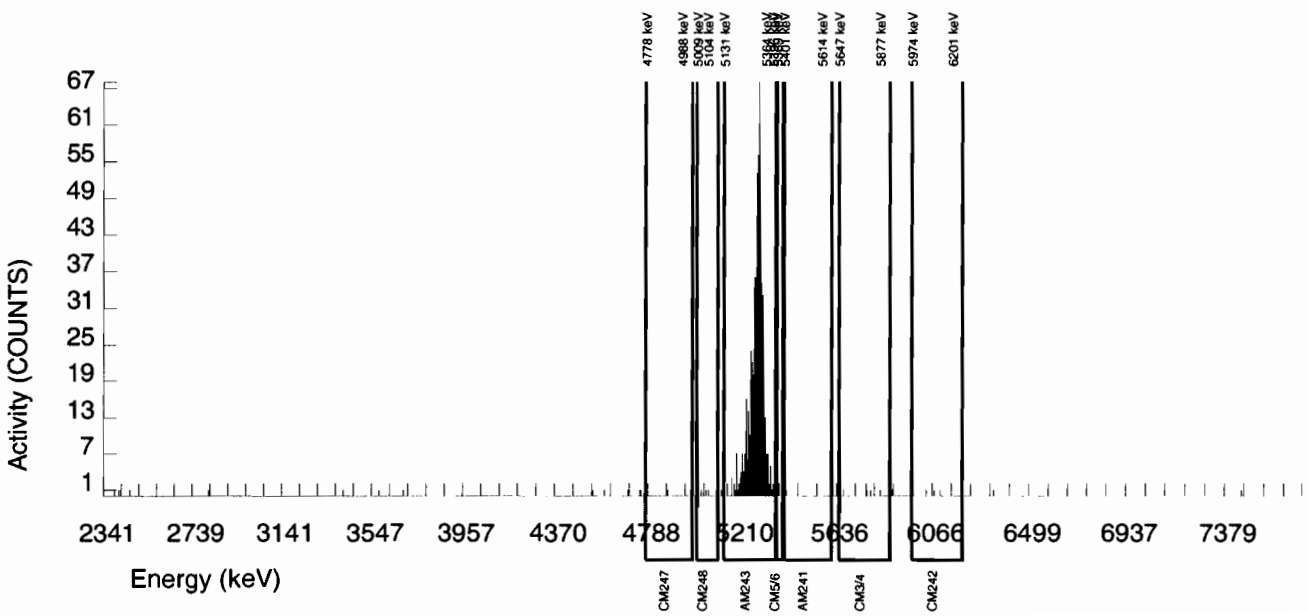

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249334003_AM
SAMPLE QTY : 1.292 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 82.953

CHAMBER : 076
DETECTOR S/N : 78779
AVERAGE %EFFICIENCY : 31.3281
COUNT DATE : 27-MAR-2010 13:40:29
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B076.CNF;1118
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W076.CNF;297
CAL DATE : 12-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.8874E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5509.470	4.952	7.000	5.973	0.000	2.7707	99.94000	8.02E-03	3.32E-03	8.65E-03	2.09E-02	3.28E-03
AM243	5270.000	5275.981	39.123	593.000	590.000	3.000	1.7321	99.78000	7.93E-01	6.17E-02	5.42E-03	1.45E-02	3.28E-02
CM-242	6102.000	6007.921	0.000	5.000	5.000	0.000	4.0092	100.0000	7.21E-03	3.26E-03	1.25E-02	2.87E-02	3.22E-03
CM-3/4	5795.020	5756.542	108.937	9.000	9.000	0.000	4.8510	100.0000	1.21E-02	4.11E-03	1.51E-02	3.39E-02	4.03E-03
CM-5/6	5386.000	5384.359	0.000	2.000	1.000	1.000	6.1294	86.09000	1.56E-03	2.70E-03	2.22E-02	4.87E-02	2.70E-03
CM-247	4946.000	4883.368	133.695	4.000	2.000	2.000	6.3427	79.30000	3.38E-03	4.15E-03	2.50E-02	5.45E-02	4.14E-03
CM-248	5078.600	5083.190	0.000	6.000	3.000	3.000	11.0244	91.00000	4.42E-03	4.43E-03	3.78E-02	7.96E-02	4.42E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

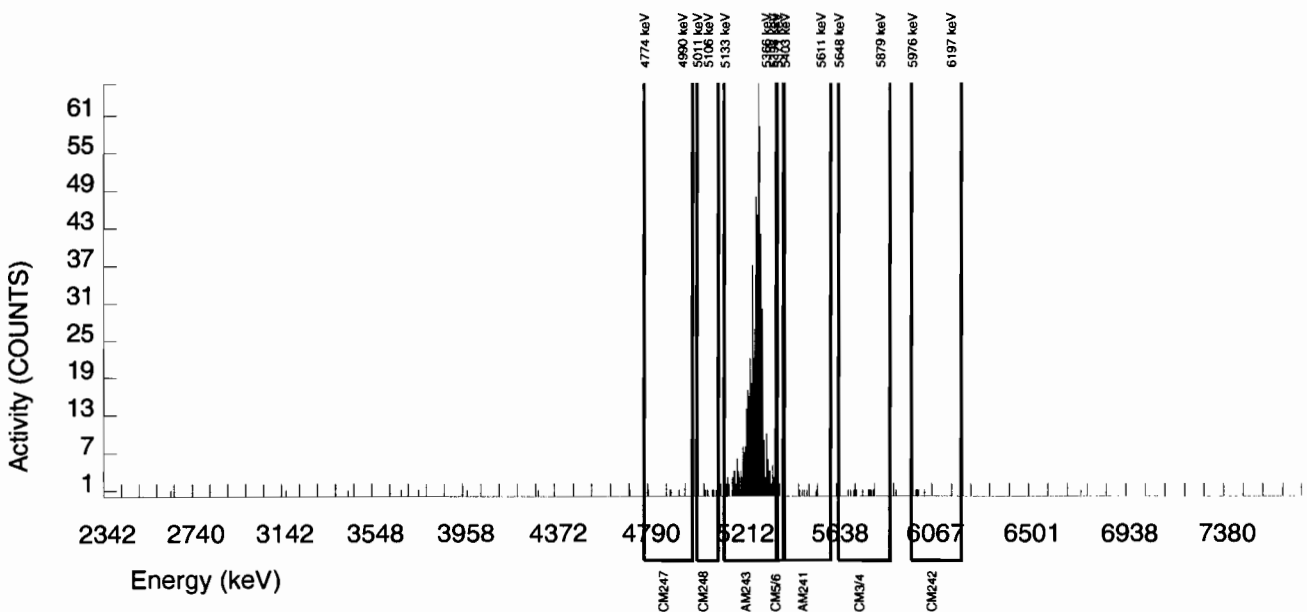

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249334004_AM
SAMPLE QTY : 1.250 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 71.332

CHAMBER : 077
DETECTOR S/N : 67576
AVERAGE %EFFICIENCY : 33.4679
COUNT DATE : 27-MAR-2010 13:40:30
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B077.CNF;1027
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W077.CNF;265
CAL DATE : 12-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.6230E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5484.536	4.940	10.000	4.057	5.000	2.7707	99.94000	6.13E-03	5.68E-03	9.74E-03	2.36E-02	5.66E-03
AM243	5270.000	5277.652	41.917	547.000	542.000	5.000	2.2361	99.78000	8.20E-01	6.55E-02	7.87E-03	1.98E-02	3.55E-02
CM-242	6102.000	6029.670	0.000	8.000	5.000	3.000	4.0092	100.0000	8.11E-03	5.41E-03	1.41E-02	3.22E-02	5.38E-03
CM-3/4	5795.020	5742.630	4.940	9.000	5.000	4.000	4.8510	100.0000	7.56E-03	5.48E-03	1.70E-02	3.82E-02	5.45E-03
CM-5/6	5386.000	5374.097	0.000	3.000	1.000	2.000	6.1294	86.09000	1.75E-03	3.92E-03	2.50E-02	5.48E-02	3.92E-03
CM-247	4946.000	4871.042	138.317	3.000	2.000	1.000	6.3427	79.30000	3.81E-03	3.82E-03	2.81E-02	6.13E-02	3.81E-03
CM-248	5078.600	5061.464	0.000	5.000	4.000	1.000	11.0244	91.00000	6.63E-03	4.09E-03	4.25E-02	8.96E-02	4.06E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

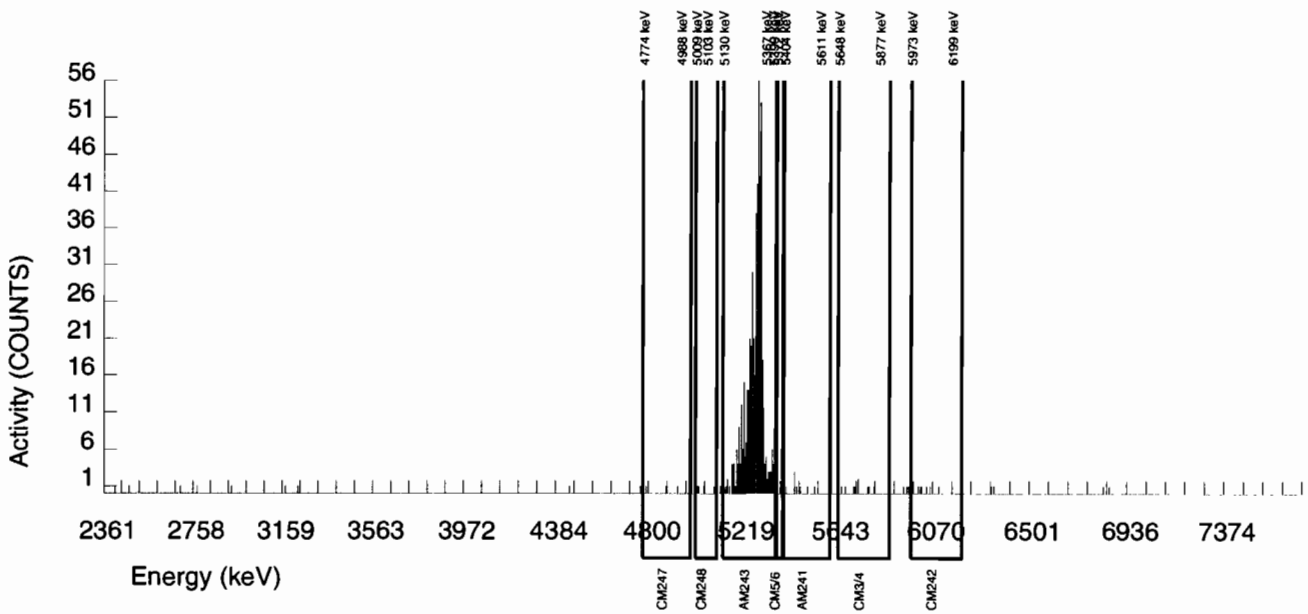

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249334005_AM
SAMPLE QTY : 1.260 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 76.227

CHAMBER : 079
DETECTOR S/N : 79466
AVERAGE %EFFICIENCY : 32.2433
COUNT DATE : 27-MAR-2010 13:40:30
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B079.CNF;1029
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W079.CNF;270
CAL DATE : 12-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.7344E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5504.578	176.408	7.000	5.029	1.000	2.7707	99.94000	7.32E-03	3.89E-03	9.38E-03	2.27E-02	3.86E-03
AM243	5270.000	5259.124	57.796	558.000	558.000	0.000	0.0000	99.78000	8.13E-01	6.41E-02	0.00E+00	3.95E-03	3.44E-02
CM-242	6102.000	6022.225	4.900	8.000	8.000	0.000	4.0092	100.0000	1.25E-02	4.50E-03	1.36E-02	3.11E-02	4.42E-03
CM-3/4	5795.020	5760.902	107.805	6.000	6.000	0.000	4.8510	100.0000	8.74E-03	3.62E-03	1.64E-02	3.68E-02	3.57E-03
CM-5/6	5386.000	5385.208	0.000	0.000	0.000	0.000	6.1294	86.09000	0.00E+00	1.69E-03	2.41E-02	5.28E-02	1.69E-03
CM-247	4946.000	4896.815	142.106	4.000	3.000	1.000	6.3427	79.30000	5.50E-03	4.12E-03	2.71E-02	5.91E-02	4.10E-03
CM-248	5078.600	5060.746	83.304	12.000	12.000	0.000	11.0244	91.00000	1.92E-02	5.68E-03	4.10E-02	8.63E-02	5.54E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

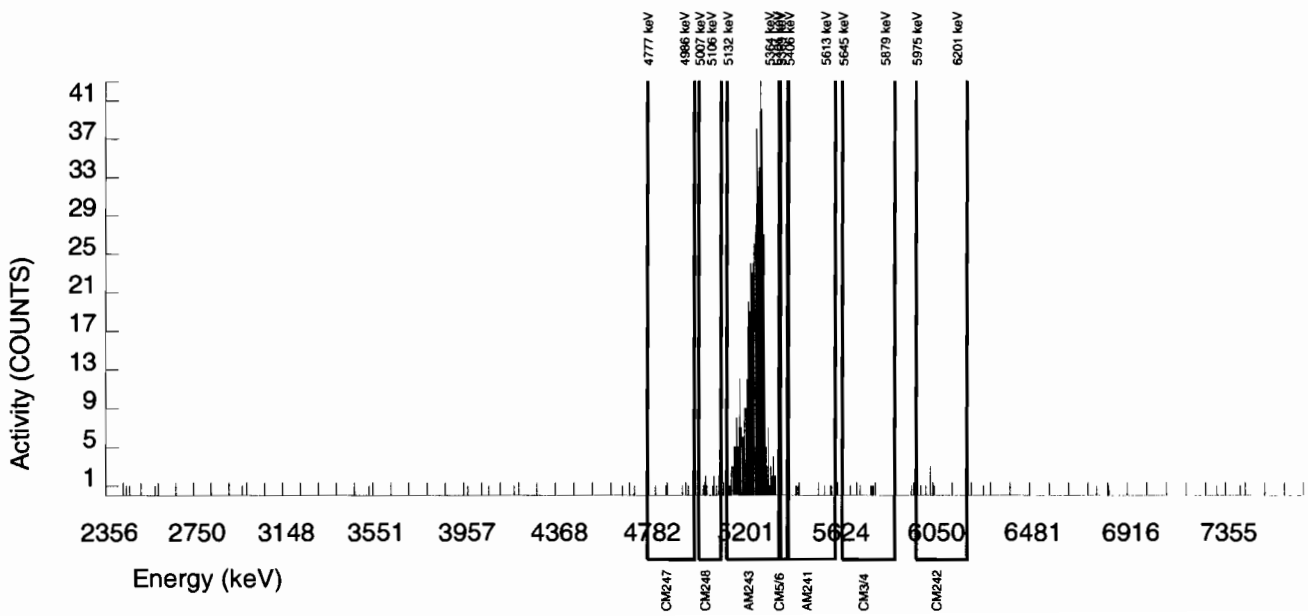

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249334006_AM
SAMPLE QTY : 1.280 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 78.402

CHAMBER : 080
DETECTOR S/N : 78197
AVERAGE %EFFICIENCY : 33.3151
COUNT DATE : 27-MAR-2010 13:40:30
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B080.CNF;1030
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W080.CNF;278
CAL DATE : 12-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.7839E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5433.717	4.995	1.000	-1.032	1.000	2.7707	99.94000	-1.39E-03	1.91E-03	8.69E-03	2.10E-02	1.91E-03
AM243	5270.000	5271.955	32.474	593.000	593.000	0.000	0.0000	99.78000	8.01E-01	6.20E-02	0.00E+00	3.66E-03	3.29E-02
CM-242	6102.000	6038.621	6.192	7.000	7.000	0.000	4.0092	100.0000	1.01E-02	3.89E-03	1.26E-02	2.88E-02	3.83E-03
CM-3/4	5795.020	5741.423	109.893	7.000	5.000	2.000	4.8510	100.0000	6.75E-03	4.07E-03	1.52E-02	3.41E-02	4.05E-03
CM-5/6	5386.000	5372.618	0.000	2.000	2.000	0.000	6.1294	86.09000	3.13E-03	2.22E-03	2.23E-02	4.89E-02	2.21E-03
CM-247	4946.000	4924.783	0.000	5.000	5.000	0.000	6.3427	79.30000	8.49E-03	3.84E-03	2.51E-02	5.47E-02	3.80E-03
CM-248	5078.600	5076.979	49.952	3.000	3.000	0.000	11.0244	91.00000	4.44E-03	2.58E-03	3.80E-02	8.00E-02	2.56E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

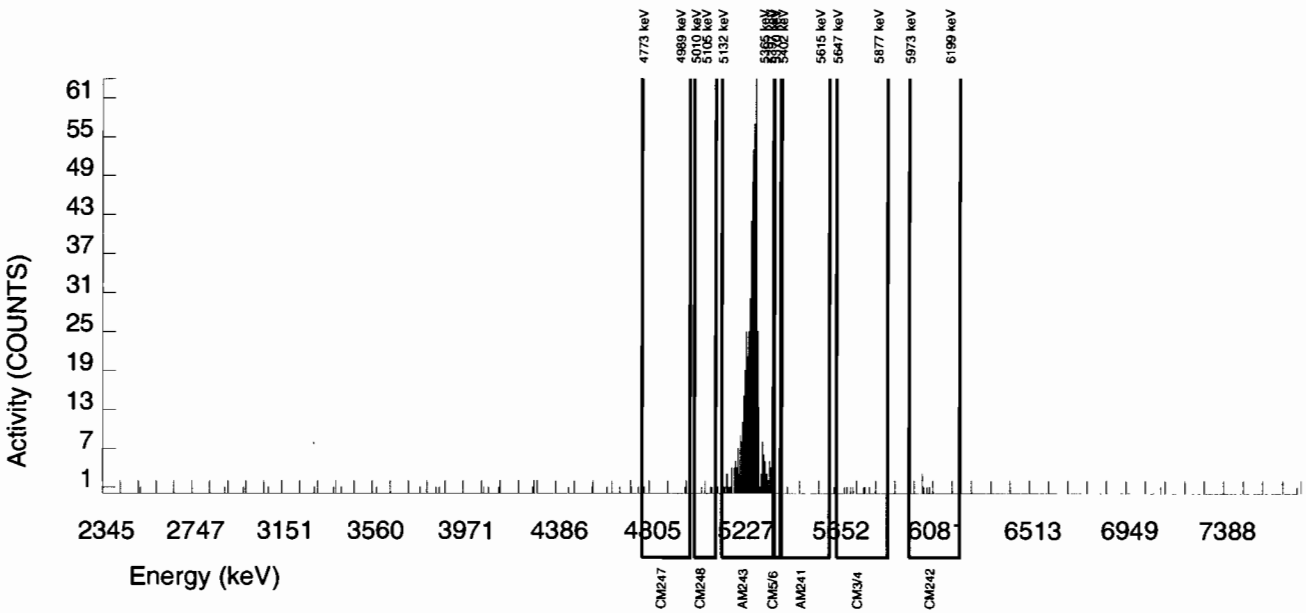

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S0249334007_AM
SAMPLE QTY : 1.259 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 83.495

CHAMBER : 081
DETECTOR S/N : 79996
AVERAGE %EFFICIENCY : 33.2352
COUNT DATE : 27-MAR-2010 13:40:30
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B081.CNF;1037
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W081.CNF;276
CAL DATE : 12-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.8998E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5470.282	58.612	2.000	-0.096	1.000	2.7707	99.94000	-1.24E-04	1.83E-03	8.32E-03	2.01E-02	1.82E-03
AM243	5270.000	5266.034	37.071	630.000	630.000	0.000	0.0000	99.78000	8.14E-01	6.20E-02	0.00E+00	3.50E-03	3.24E-02
CM-242	6102.000	6015.549	68.380	6.000	6.000	0.000	4.0092	100.0000	8.31E-03	3.44E-03	1.20E-02	2.75E-02	3.39E-03
CM-3/4	5795.020	5717.603	4.884	9.000	9.000	0.000	4.8510	100.0000	1.16E-02	3.95E-03	1.46E-02	3.26E-02	3.87E-03
CM-5/6	5386.000	5378.426	4.884	1.000	1.000	0.000	6.1294	86.09000	1.50E-03	1.50E-03	2.14E-02	4.68E-02	1.50E-03
CM-247	4946.000	4888.187	4.884	1.000	1.000	0.000	6.3427	79.30000	1.63E-03	1.63E-03	2.40E-02	5.24E-02	1.63E-03
CM-248	5078.600	5078.955	16.942	10.000	10.000	0.000	11.0244	91.00000	1.42E-02	4.57E-03	3.63E-02	7.65E-02	4.48E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

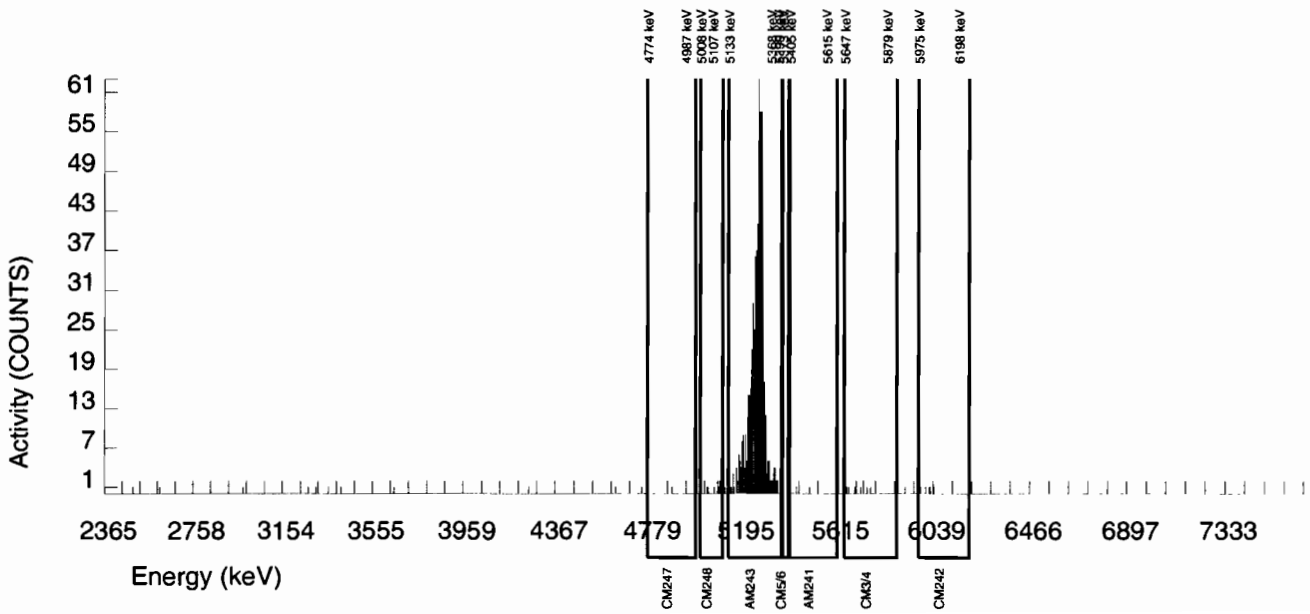

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S1202071683_AM
SAMPLE QTY : 1.000 G
SAMPLE DATE : 23-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 81.471

CHAMBER : 082
DETECTOR S/N : 79997
AVERAGE %EFFICIENCY : 33.8443
COUNT DATE : 27-MAR-2010 13:40:30
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B082.CNF;1027
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W082.CNF;259
CAL DATE : 12-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.8537E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3148E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3148E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5530.466	113.058	6.000	3.911	1.000	2.7707	99.94000	6.39E-03	4.00E-03	1.05E-02	2.55E-02	3.97E-03
AM243	5270.000	5277.986	28.480	627.000	626.000	1.000	1.0000	99.78000	1.02E+00	7.83E-02	3.81E-03	1.21E-02	4.10E-02
CM-242	6102.000	6052.082	59.206	12.000	12.000	0.000	4.0092	100.0000	2.00E-02	5.92E-03	1.52E-02	3.49E-02	5.78E-03
CM-3/4	5795.020	5788.211	4.942	5.000	5.000	0.000	4.8510	100.0000	8.17E-03	3.69E-03	1.84E-02	4.13E-02	3.65E-03
CM-5/6	5386.000	5374.251	0.000	5.000	5.000	0.000	6.1294	86.09000	9.49E-03	4.29E-03	2.71E-02	5.93E-02	4.24E-03
CM-247	4946.000	4880.654	163.100	3.000	0.000	3.000	6.3427	79.30000	0.00E+00	5.05E-03	3.04E-02	6.64E-02	5.05E-03
CM-248	5078.600	5067.046	4.942	8.000	8.000	0.000	11.0244	91.00000	1.44E-02	5.16E-03	4.60E-02	9.69E-02	5.08E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

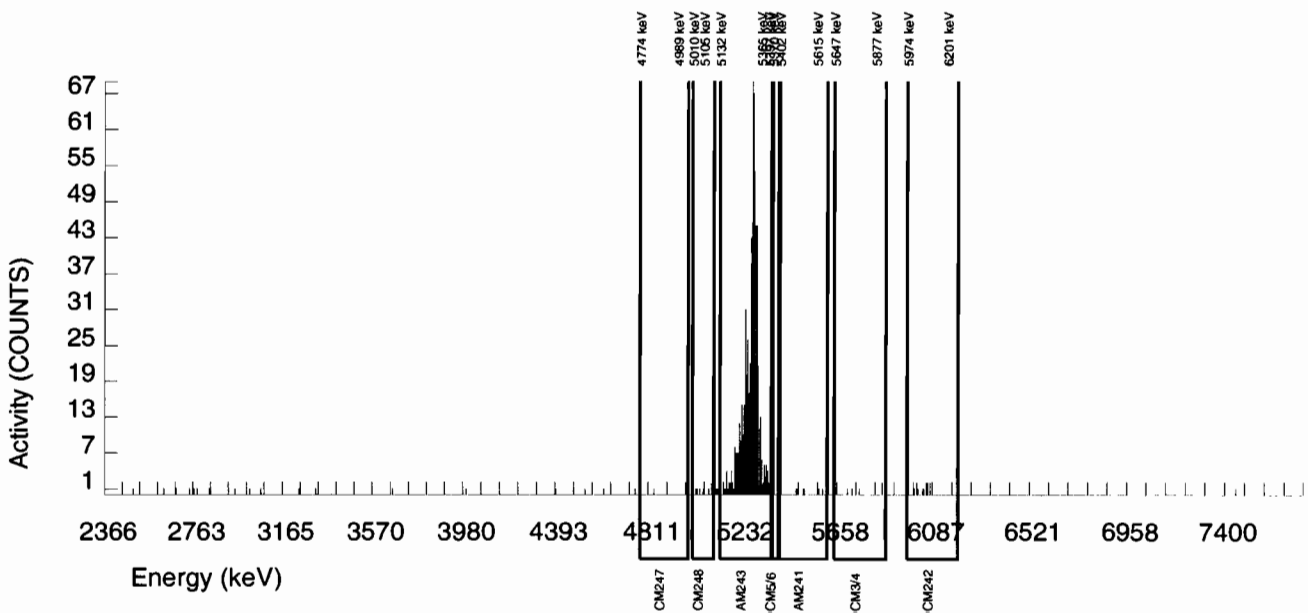

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S1202071684_AM
SAMPLE QTY : 1.259 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 82.403

CHAMBER : 083
DETECTOR S/N : 64278
AVERAGE %EFFICIENCY : 35.8135
COUNT DATE : 27-MAR-2010 13:40:31
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B083.CNF;1034
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W083.CNF;294
CAL DATE : 12-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 1.8749E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3150E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5479.340	7.431	9.000	2.834	5.000	2.7707	99.94000	3.44E-03	4.35E-03	7.82E-03	1.89E-02	4.35E-03
AM243	5270.000	5290.171	53.958	672.000	670.000	2.000	1.4142	99.78000	8.14E-01	6.11E-02	4.00E-03	1.13E-02	3.15E-02
CM-242	6102.000	6057.787	0.000	11.000	8.000	3.000	4.0092	100.0000	1.04E-02	4.92E-03	1.13E-02	2.59E-02	4.87E-03
CM-3/4	5795.020	5756.569	6.272	8.000	0.000	8.000	4.8510	100.0000	5.79E-10	4.86E-03	1.37E-02	3.06E-02	4.86E-03
CM-5/6	5386.000	5380.197	10.409	11.000	8.000	3.000	6.1294	86.09000	1.13E-02	5.32E-03	2.01E-02	4.40E-02	5.27E-03
CM-247	4946.000	4880.540	156.852	4.000	1.000	3.000	6.3427	79.30000	1.53E-03	4.05E-03	2.26E-02	4.93E-02	4.04E-03
CM-248	5078.600	5067.657	7.431	11.000	11.000	0.000	11.0244	91.00000	1.47E-02	4.52E-03	3.42E-02	7.19E-02	4.42E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

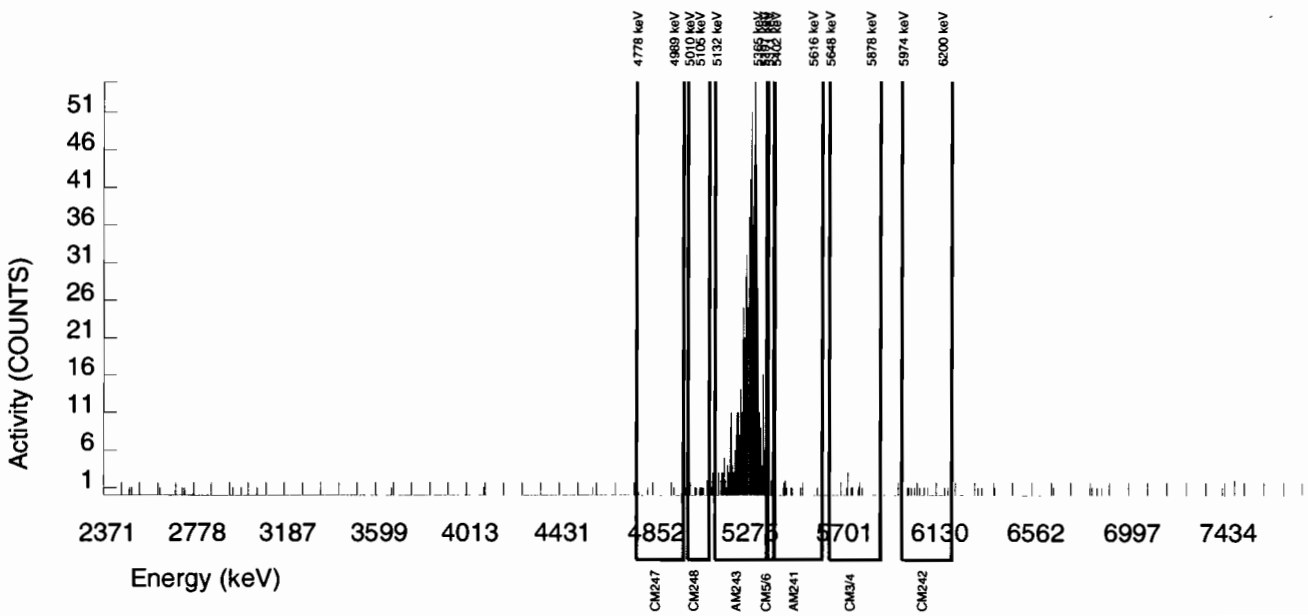

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965502
SAMPLE ID : S1202071685_AM
SAMPLE QTY : 0.115 G
SAMPLE DATE : 23-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 100.827

CHAMBER : 085
DETECTOR S/N : 78776
AVERAGE %EFFICIENCY : 32.8080
COUNT DATE : 27-MAR-2010 13:40:31
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B085.CNF;1035
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W085.CNF;304
CAL DATE : 12-MAR-2010

TRACER
ID : 445-96-2-VV
NUCLIDE : AM243
NOMINAL : 2.2753E+00 dpm
RESULTS : 2.2941E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3148E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3148E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5482.168	40.262	2260.000	2255.693	3.000	2.7707	99.94000	2.67E+01	1.92E+00	7.64E-02	1.85E-01	5.63E-01
AM243	5270.000	5265.295	41.816	752.000	751.000	1.000	1.0000	99.78000	8.91E+00	6.95E-01	2.76E-02	8.74E-02	3.26E-01
CM-242	6102.000	6036.202	6.201	10.000	10.000	0.000	4.0092	100.0000	1.21E-01	3.91E-02	1.10E-01	2.53E-01	3.82E-02
CM-3/4	5795.020	5734.394	6.201	7.000	6.000	1.000	4.8510	100.0000	7.11E-02	3.39E-02	1.34E-01	2.99E-01	3.35E-02
CM-5/6	5386.000	5386.222	0.000	69.000	69.000	0.000	6.1294	86.09000	9.49E-01	1.32E-01	1.96E-01	4.30E-01	1.14E-01
CM-247	4946.000	4886.554	0.000	23.000	23.000	0.000	6.3427	79.30000	3.43E-01	7.54E-02	2.20E-01	4.81E-01	7.16E-02
CM-248	5078.600	5060.574	0.000	23.000	23.000	0.000	11.0244	91.00000	2.99E-01	6.57E-02	3.34E-01	7.03E-01	6.24E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

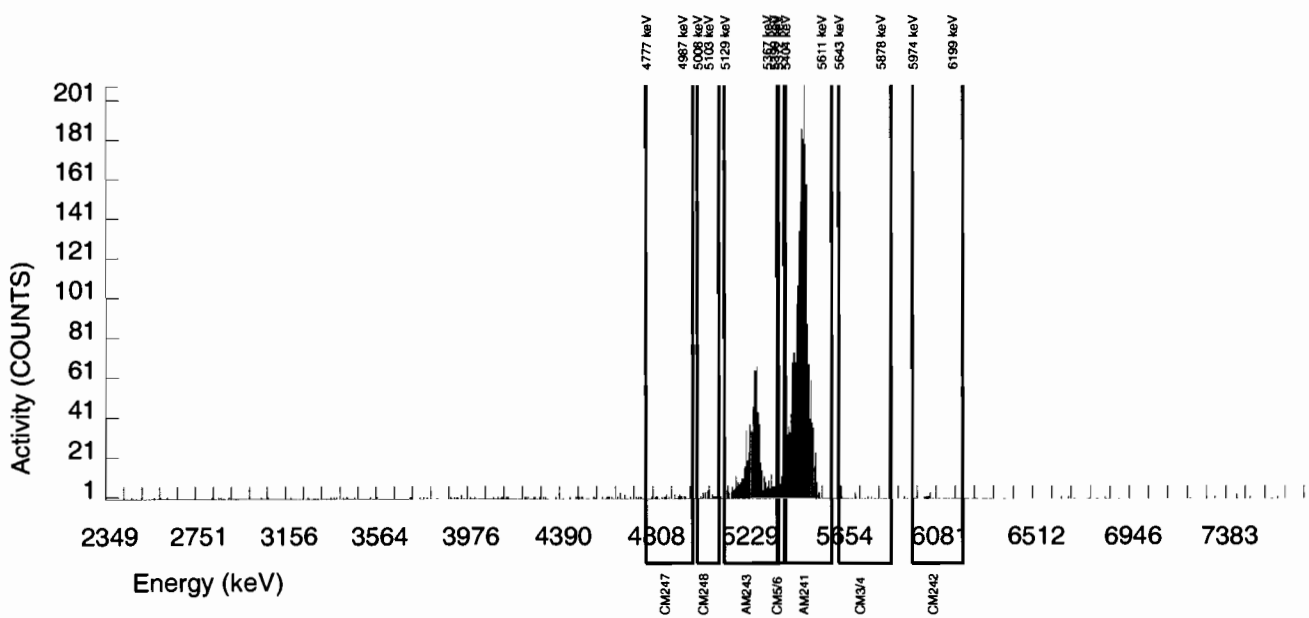

Radiochemistry Batch Checklist, Rev10

Batch# 965503 Product: Pu Date: 3/30/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		Case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		case narrative
Sample was run within hold time	✓		
Sample was correctly preserved if required	✓		
Smears Taken for Radioactive batches			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Jo LAL 3/30/10

Secondary Review Performed By: Kath Bullett 3/30/10

3/31

LANL

Plutonium Que Sheet

15-MAR-10

Batch #: 965503 Pu-236 **Analyst:** CXM2 **First Client Due Date:** 31-MAR-10 **Internal Due Date:** 21-MAR-10

Tracer Isotope(s): ~~Pu-242/Pu-238~~ 3/25/10 CMM **Tracer Code:** 1430-C **Expiration Date:** 3/4/11 **Vol:** 0.1 mL

LCS Isotope(s): Pu-239/Pu-238 **LCS Code:** 0244-B **Expiration Date:** 4/30/20 **Vol:** 0.115 g * SRM

Spike Isotope(s): Pu-239/Pu-238 **Spike Code:** _____ **Expiration Date:** — **Vol:** —

Prep Date: 3/23/10 **Initials:** CMM **Pipet ID:** 4497063 **Balance ID:** 50410272 **Witness:** MW 3/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) (l / f)	Pu Det #
249060003-1	RE16-10-2826	SAMPLE		.05 pCi/g	SOIL	LANL010	04-MAR-10	1	1	1.259	72
249329001-1	RE46-10-13964	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	2	2	1.290	73
249329002-1	RE46-10-13966	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	3	3	1.254	74
249329003-1	RE46-10-13963	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	4	4	1.260	75
249329004-1	RE46-10-13965	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	5	5	1.252	76
249331001-1	RE46-10-13219	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	6	6	1.266	77
249331002-1	RE46-10-13221	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	7	7	1.252	78
249331003-1	RE46-10-13220	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	8	8	1.256	80
249331004-1	RE46-10-13216	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	9	9	1.251	81
249331005-1	RE46-10-13217	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	10	10	1.256	82
249331006-1	RE46-10-13218	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	11	11	1.277	83
249331007-1	RE46-10-13234	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	12	12	1.255	84
249331008-1	RE46-10-14199	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	13	13	1.261	31 ~~85~~ 3/31
249334001-1	RE46-10-12972	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	14	14	1.267	86
249334002-1	RE46-10-13003	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	15	15	1.264	87
249334003-1	RE46-10-12967	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	16	16	1.292	88
249334004-1	RE46-10-12971	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	17	17	1.250	89
249334005-1	RE46-10-12968	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	18	18	1.260	90
249334006-1	RE46-10-12969	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	19	19	1.280	91
249334007-1	RE46-10-12970	SAMPLE		.05 pCi/g	SOIL	LANL010	11-MAR-10	20	20	1.254	93
1202071686-1	MB for batch 965503	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1	94
1202071687-1	RE46-10-12972(249334001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	11-MAR-10	22	22	1.259	13
1202071688-1	LCS for batch 965503	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.115	14

* SRM 0244-B Exp 4/30/20

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [illegible] 3/30/10

Blank Correction Report

Batch ID 965503

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202071687	DUP	Plutonium-238	1.26 g	0.0121	0.00691	0.0231	.001738095	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00368	0.00463	0.0195	.006960317	pCi/g	YES
1202071688	LCS	Plutonium-238	0.115 g	5.19	0.475	0.255	.019043478	pCi/g	NO
		Plutonium-239/240	0.115 g	37.6	2.61	0.215	.076260870	pCi/g	NO
1202071686	MB	Plutonium-238	1.00 g	0.00219	0.0022	0.0291	.00219	pCi/g	YES
		Plutonium-239/240	1.00 g	0.00877	0.00441	0.0246	.00877	pCi/g	YES
249060003	RE16-10-2826	Plutonium-238	1.26 g	0.00681	0.00904	0.0293	.001738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0161	0.00652	0.0248	.006960317	pCi/g	YES
249329001	RE46-10-13964	Plutonium-238	1.29 g	0.00	0.0018	0.0239	.001697674	pCi/g	YES
		Plutonium-239/240	1.29 g	0.00151	0.00384	0.0202	.006798450	pCi/g	YES
249329002	RE46-10-13966	Plutonium-238	1.25 g	0.00463	0.00382	0.027	.001752	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0133	0.00616	0.0228	.007016	pCi/g	YES
249329003	RE46-10-13963	Plutonium-238	1.26 g	0.0135	0.00656	0.0338	.001738095	pCi/g	NO
		Plutonium-239/240	1.26 g	-0.00662	0.00483	0.0286	.006960317	pCi/g	YES
249329004	RE46-10-13965	Plutonium-238	1.25 g	0.000577	0.00254	0.0273	.001752	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00585	0.00529	0.0231	.007016	pCi/g	YES
249331001	RE46-10-13219	Plutonium-238	1.27 g	0.00509	0.00605	0.0252	.001724409	pCi/g	YES
		Plutonium-239/240	1.27 g	-0.000304	0.00358	0.0213	.006905512	pCi/g	YES
249331002	RE46-10-13221	Plutonium-238	1.25 g	0.000669	0.00295	0.0317	.001752	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00477	0.00339	0.0268	.007016	pCi/g	YES
249331003	RE46-10-13220	Plutonium-238	1.26 g	0.00496	0.00409	0.0289	.001738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0152	0.00583	0.0244	.006960317	pCi/g	YES
249331004	RE46-10-13216	Plutonium-238	1.25 g	0.0139	0.00565	0.0254	.001752	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00819	0.00452	0.0215	.007016	pCi/g	YES
249331005	RE46-10-13217	Plutonium-238	1.26 g	0.00258	0.0032	0.0267	.001738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00403	0.00286	0.0226	.006960317	pCi/g	YES
249331006	RE46-10-13218	Plutonium-238	1.28 g	-0.00128	0.00511	0.0224	.001710938	pCi/g	YES
		Plutonium-239/240	1.28 g	0.0359	0.00828	0.019	.006851563	pCi/g	NO
249331007	RE46-10-13234	Plutonium-238	1.26 g	0.00324	0.00417	0.0276	.001738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00946	0.00553	0.0233	.006960317	pCi/g	YES
249331008	RE46-10-14199	Plutonium-238	1.26 g	0.00926	0.00599	0.0344	.001738095	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0304	0.0101	0.029	.006960317	pCi/g	YES
249334001	RE46-10-12972	Plutonium-238	1.27 g	-0.00287	0.00285	0.0265	.001724409	pCi/g	YES
		Plutonium-239/240	1.27 g	0.00567	0.00512	0.0224	.006905512	pCi/g	YES
249334002	RE46-10-13003	Plutonium-238	1.26 g	-0.00202	0.00536	0.0258	.001738095	pCi/g	YES
		Plutonium-239/240	1.26 g	0.000466	0.00618	0.0218	.006960317	pCi/g	YES
249334003	RE46-10-12967	Plutonium-238	1.29 g	0.00943	0.00793	0.0234	.001697674	pCi/g	NO
		Plutonium-239/240	1.29 g	0.0165	0.00701	0.0197	.006798450	pCi/g	YES
249334004	RE46-10-12971	Plutonium-238	1.25 g	0.00388	0.00275	0.0257	.001752	pCi/g	YES

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
249334004	RE46-10-12971	Plutonium-239/240	1.25 g	0.0213	0.00656	0.0218	.007016	pCi/g	YES
249334005	RE46-10-12968	Plutonium-238	1.26 g	0.0105	0.00433	0.0233	.001738095	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0123	0.00469	0.0197	.006960317	pCi/g	YES
249334006	RE46-10-12969	Plutonium-238	1.28 g	0.00	0.0021	0.0279	.001710938	pCi/g	YES
		Plutonium-239/240	1.28 g	0.0105	0.00474	0.0236	.006851563	pCi/g	YES
249334007	RE46-10-12970	Plutonium-238	1.25 g	0.00697	0.00483	0.026	.001752	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00838	0.00463	0.022	.007016	pCi/g	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249334001_PU
SAMPLE QTY : 1.267 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 81.504

CHAMBER : 086
DETECTOR S/N : 78198
AVERAGE %EFFICIENCY : 30.3911
COUNT DATE : 26-MAR-2010 17:20:08
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B086.CNF;1034
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W086.CNF;285
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.4354E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5772.089	43.163	528.000	527.280	0.720	0.8485	100.0000	1.06E+00	7.91E-02	3.65E-03	1.27E-02	4.63E-02
PU-238	5499.000	5442.401	0.000	0.000	-1.440	1.440	2.4495	99.90000	-2.87E-03	2.85E-03	1.05E-02	2.65E-02	2.85E-03
PU-9/0	5155.000	5139.289	105.576	5.000	2.840	2.160	1.9732	99.90000	5.67E-03	5.12E-03	8.49E-03	2.24E-02	5.11E-03
PU242	4890.000	4825.089	0.000	0.000	-2.160	2.160	*******	100.0000	-4.31E-03	3.19E-03	5.36E-01	1.08E+00	3.19E-03
PU-244	4589.000	4550.141	75.412	3.000	2.280	0.720	6.4609	99.90000	4.55E-03	3.75E-03	2.78E-02	6.10E-02	3.74E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

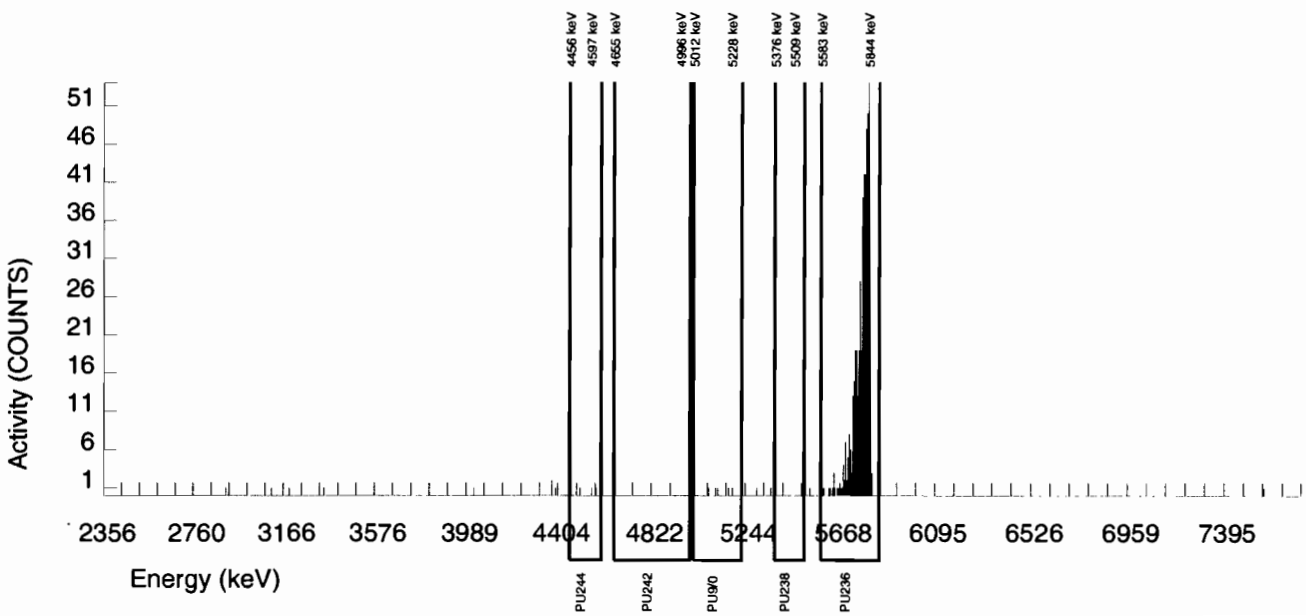

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249334002_PU
SAMPLE QTY : 1.264 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 79.024

CHAMBER : 087
DETECTOR S/N : 78199
AVERAGE %EFFICIENCY : 32.3127
COUNT DATE : 26-MAR-2010 17:20:08
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B087.CNF;1041
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W087.CNF;278
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.3613E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5769.189	35.613	545.000	543.560	1.440	1.2000	100.0000	1.06E+00	7.85E-02	5.02E-03	1.53E-02	4.58E-02
PU-238	5499.000	5438.418	104.408	4.000	-1.040	5.040	2.4495	99.90000	-2.02E-03	5.36E-03	1.03E-02	2.58E-02	5.36E-03
PU-9/0	5155.000	5123.536	169.041	6.000	0.240	5.760	1.9732	99.90000	4.66E-04	6.18E-03	8.26E-03	2.18E-02	6.18E-03
PU242	4890.000	4911.695	0.000	6.000	4.560	1.440	*******	100.0000	8.84E-03	5.17E-03	5.21E-01	1.05E+00	5.14E-03
PU-244	4589.000	4532.762	4.972	1.000	-0.440	1.440	6.4609	99.90000	-8.54E-04	2.77E-03	2.70E-02	5.93E-02	2.77E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

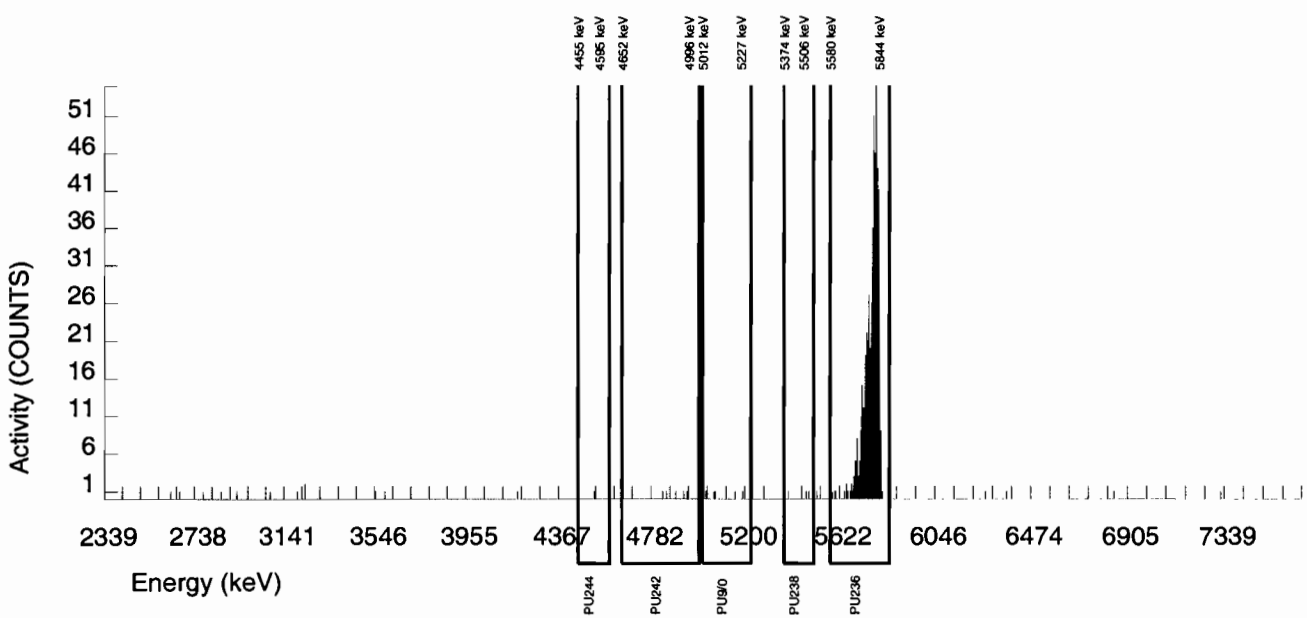

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249334003_PU
SAMPLE QTY : 1.292 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 87.098

CHAMBER : 088
DETECTOR S/N : 33452
AVERAGE %EFFICIENCY : 31.6430
COUNT DATE : 26-MAR-2010 17:20:08
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B088.CNF;1029
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W088.CNF;288
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.6025E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5784.363	50.911	591.000	586.680	4.320	2.0785	100.0000	1.04E+00	7.51E-02	7.88E-03	2.05E-02	4.33E-02
PU-238	5499.000	5461.889	39.997	14.000	5.360	8.640	2.4495	99.90000	9.43E-03	7.93E-03	9.29E-03	2.34E-02	7.91E-03
PU-9/0	5155.000	5170.074	5.000	13.000	9.400	3.600	1.9732	99.90000	1.65E-02	7.01E-03	7.49E-03	1.97E-02	6.94E-03
PU242	4890.000	4736.706	49.996	2.000	1.280	0.720	*******	100.0000	2.25E-03	2.79E-03	4.72E-01	9.50E-01	2.79E-03
PU-244	4589.000	4526.248	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.76E-03	2.45E-02	5.38E-02	1.76E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

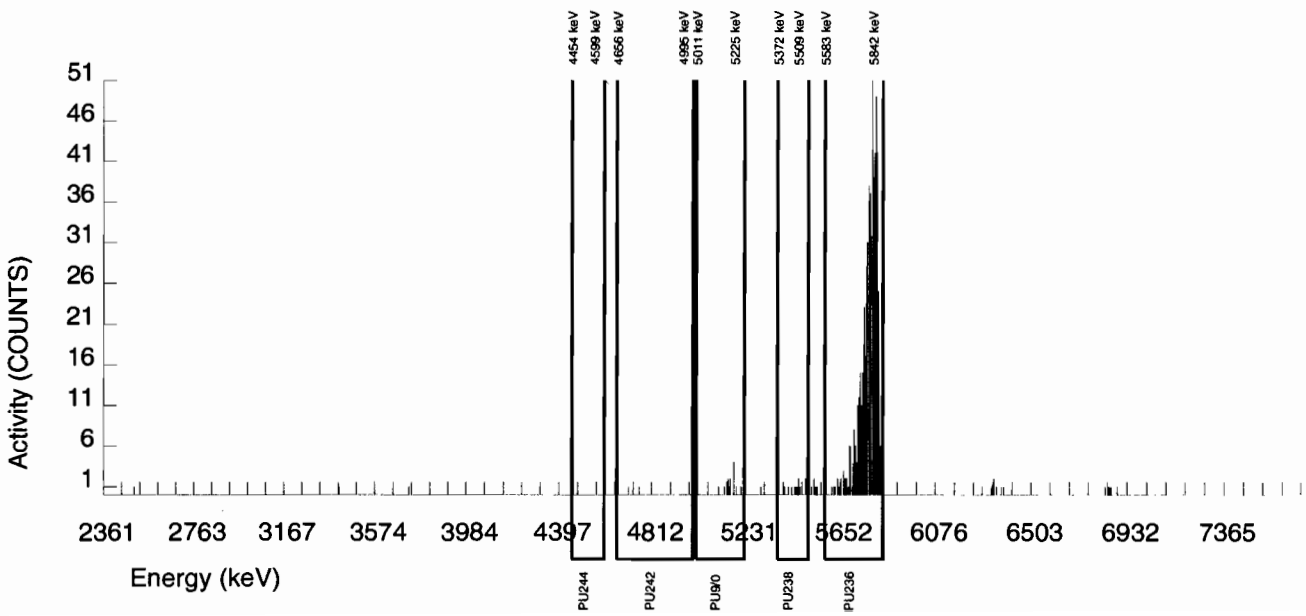

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249334004_PU
SAMPLE QTY : 1.250 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 84.448

CHAMBER : 089
DETECTOR S/N : 78262
AVERAGE %EFFICIENCY : 30.5954
COUNT DATE : 26-MAR-2010 17:20:09
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B089.CNF;729
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W089.CNF;197
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.5234E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5761.451	26.126	550.000	550.000	0.000	0.0000	100.0000	1.08E+00	7.90E-02	0.00E+00	5.25E-03	4.59E-02
PU-238	5499.000	5460.279	19.994	2.000	2.000	0.000	2.4495	99.90000	3.88E-03	2.75E-03	1.02E-02	2.57E-02	2.74E-03
PU-9/0	5155.000	5126.385	27.336	11.000	11.000	0.000	1.9732	99.90000	2.13E-02	6.56E-03	8.25E-03	2.18E-02	6.43E-03
PU242	4890.000	4777.235	4.998	6.000	6.000	0.000	*******	100.0000	1.16E-02	4.80E-03	5.21E-01	1.05E+00	4.74E-03
PU-244	4589.000	4526.067	0.000	1.000	0.280	0.720	6.4609	99.90000	5.43E-04	2.39E-03	2.70E-02	5.93E-02	2.39E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

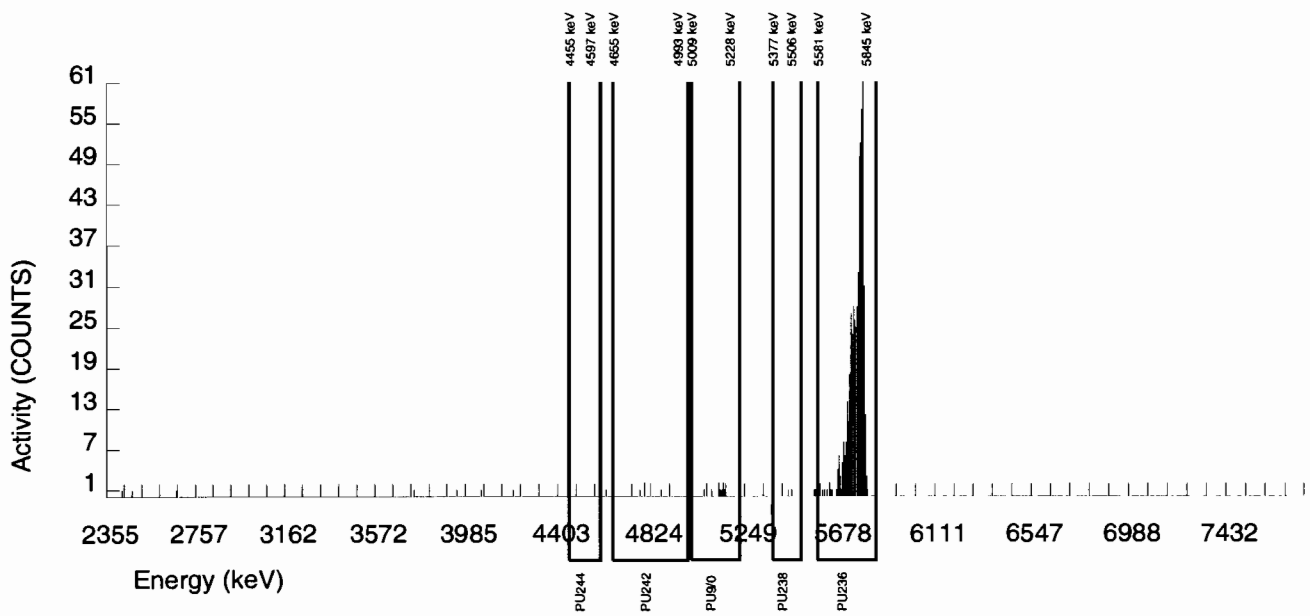

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249334005_PU
SAMPLE QTY : 1.260 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 81.490

CHAMBER : 090
DETECTOR S/N : 78263
AVERAGE %EFFICIENCY : 34.8354
COUNT DATE : 26-MAR-2010 17:20:09
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B090.CNF;737
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W090.CNF;203
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.4350E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5755.642	50.083	605.000	604.280	0.720	0.8485	100.0000	1.07E+00	7.60E-02	3.20E-03	1.11E-02	4.35E-02
PU-238	5499.000	5463.700	4.885	6.000	6.000	0.000	2.4495	99.90000	1.05E-02	4.33E-03	9.25E-03	2.33E-02	4.29E-03
PU-9/0	5155.000	5129.092	17.098	7.000	7.000	0.000	1.9732	99.90000	1.23E-02	4.69E-03	7.45E-03	1.97E-02	4.63E-03
PU242	4890.000	4947.417	4.885	1.000	0.280	0.720	*******	100.0000	4.90E-04	2.16E-03	4.70E-01	9.45E-01	2.16E-03
PU-244	4589.000	4517.249	39.082	2.000	1.280	0.720	6.4609	99.90000	2.24E-03	2.78E-03	2.44E-02	5.36E-02	2.78E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

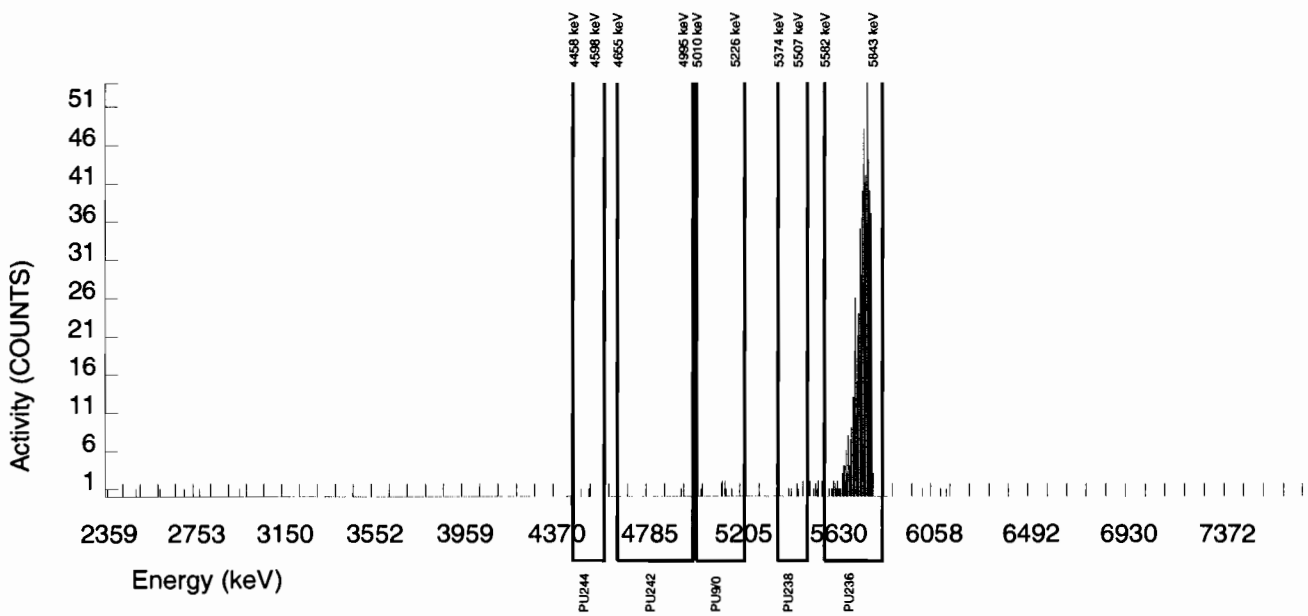

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249334006_PU
SAMPLE QTY : 1.280 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 66.362

CHAMBER : 091
DETECTOR S/N : 78259
AVERAGE %EFFICIENCY : 35.1113
COUNT DATE : 26-MAR-2010 17:20:09
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B091.CNF;735
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W091.CNF;194
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 1.9829E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5753.173	49.776	496.000	496.000	0.000	0.0000	100.0000	1.05E+00	7.99E-02	0.00E+00	5.68E-03	4.72E-02
PU-238	5499.000	5441.742	0.000	0.000	0.000	0.000	2.4495	99.90000	0.00E+00	2.10E-03	1.11E-02	2.79E-02	2.10E-03
PU-9/0	5155.000	5148.461	4.964	5.000	5.000	0.000	1.9732	99.90000	1.05E-02	4.74E-03	8.94E-03	2.36E-02	4.70E-03
PU242	4890.000	4695.177	74.455	2.000	2.000	0.000	*******	100.0000	4.20E-03	2.98E-03	5.64E-01	1.13E+00	2.97E-03
PU-244	4589.000	4524.354	0.000	0.000	-2.160	2.160	6.4609	99.90000	-4.54E-03	3.36E-03	2.93E-02	6.42E-02	3.36E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

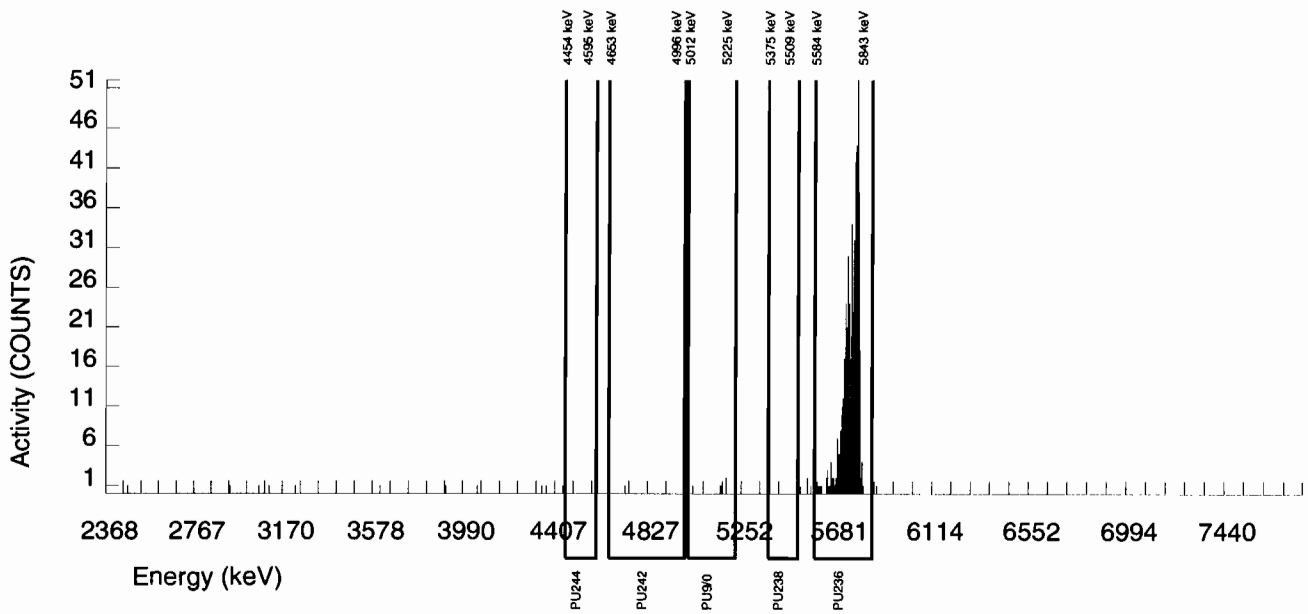

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S0249334007_PU
SAMPLE QTY : 1.254 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 75.836

CHAMBER : 093
DETECTOR S/N : 33206
AVERAGE %EFFICIENCY : 33.6363
COUNT DATE : 26-MAR-2010 17:20:09
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B093.CNF;726
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W093.CNF;203
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.2660E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5758.053	53.789	543.000	543.000	0.000	0.0000	100.0000	1.07E+00	7.91E-02	0.00E+00	5.30E-03	4.61E-02
PU-238	5499.000	5439.682	0.000	5.000	3.560	1.440	2.4495	99.90000	6.97E-03	4.83E-03	1.03E-02	2.60E-02	4.81E-03
PU-9/0	5155.000	5109.684	127.634	5.000	4.280	0.720	1.9732	99.90000	8.38E-03	4.63E-03	8.33E-03	2.20E-02	4.60E-03
PU242	4890.000	4784.372	44.181	2.000	1.280	0.720	*******	100.0000	2.50E-03	3.11E-03	5.26E-01	1.06E+00	3.10E-03
PU-244	4589.000	4526.486	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.96E-03	2.73E-02	5.99E-02	1.96E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

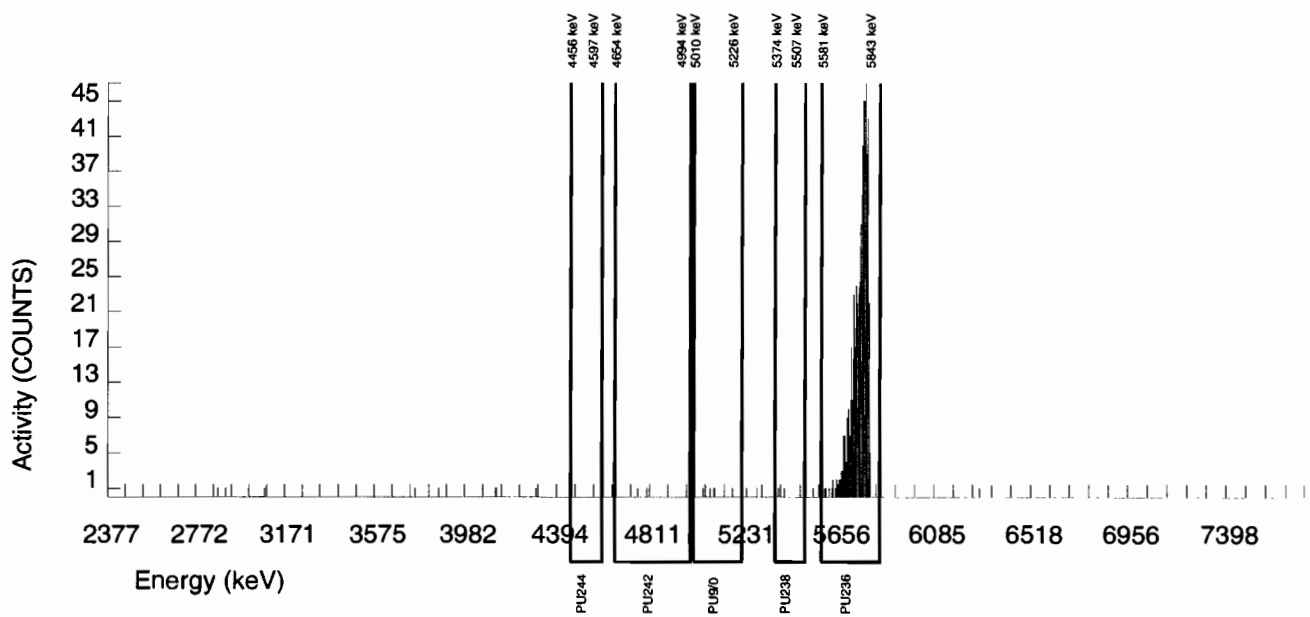

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S1202071686_PU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 23-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 84.468

CHAMBER : 094
DETECTOR S/N : 78267
AVERAGE %EFFICIENCY : 33.8294
COUNT DATE : 26-MAR-2010 17:20:09
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B094.CNF;727
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W094.CNF;195
CAL DATE : 12-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9643E+00 dpm
RESULTS : 2.5039E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5762.012	35.124	609.000	608.280	0.720	0.8485	100.0000	1.34E+00	9.48E-02	4.01E-03	1.39E-02	5.42E-02
PU-238	5499.000	5458.919	4.913	1.000	1.000	0.000	2.4495	99.90000	2.19E-03	2.20E-03	1.16E-02	2.91E-02	2.19E-03
PU-9/0	5155.000	5115.934	117.921	4.000	4.000	0.000	1.9732	99.90000	8.77E-03	4.41E-03	9.33E-03	2.46E-02	4.38E-03
PU242	4890.000	4699.958	68.787	3.000	1.560	1.440	*******	100.0000	3.42E-03	4.40E-03	5.89E-01	1.18E+00	4.40E-03
PU-244	4589.000	4525.383	0.000	0.000	-1.440	1.440	6.4609	99.90000	-3.16E-03	3.13E-03	3.05E-02	6.70E-02	3.13E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

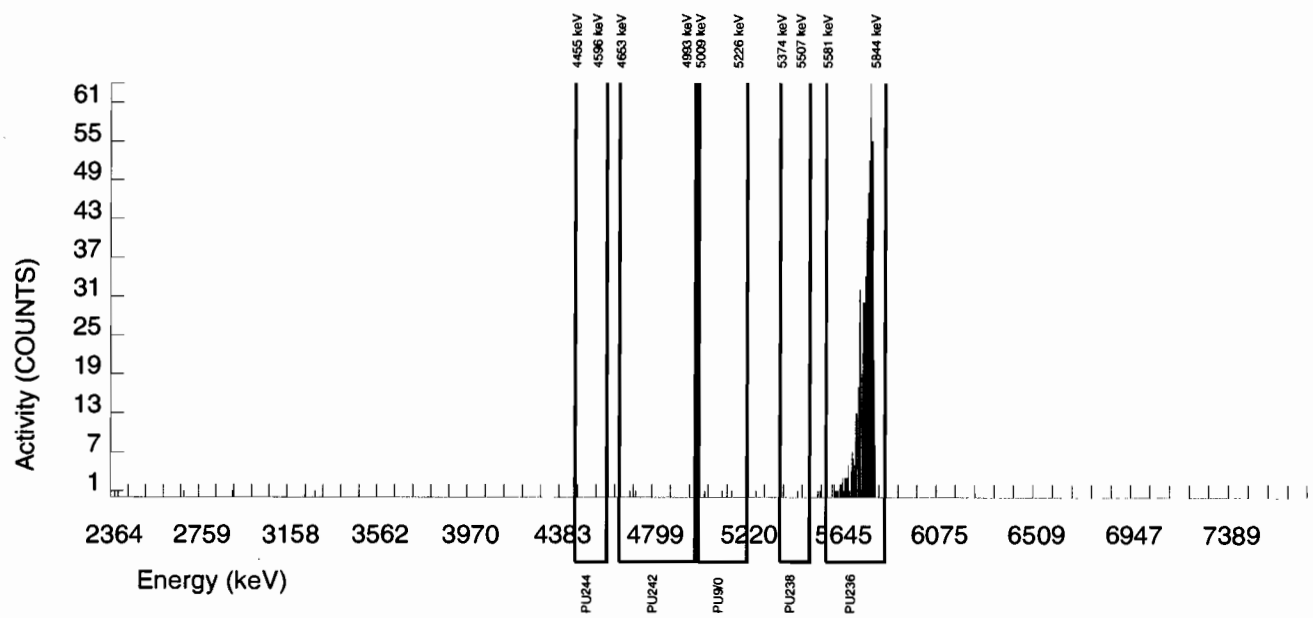

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503
SAMPLE ID : S1202071687_PU
SAMPLE QTY : 1.259 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 79.887

CHAMBER : 013
DETECTOR S/N : 78790
AVERAGE %EFFICIENCY : 35.8414
COUNT DATE : 26-MAR-2010 21:18:56
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B013.CNF;1105
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W013.CNF;330
CAL DATE : 4-MAR-2010

TRACER
ID : 1430-C
NUCLIDE : PU-236
NOMINAL : 2.9881E+00 dpm
RESULTS : 2.3871E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5774.821	34.843	626.000	609.440	16.560	4.0694	100.0000	1.07E+00	7.69E-02	1.52E-02	3.52E-02	4.43E-02
PU-238	5499.000	5434.900	0.000	12.000	6.960	5.040	2.4495	99.90000	1.21E-02	6.91E-03	9.18E-03	2.31E-02	6.87E-03
PU-9/0	5155.000	5122.941	88.452	5.000	2.120	2.880	1.9732	99.90000	3.68E-03	4.63E-03	7.40E-03	1.95E-02	4.62E-03
PU242	4890.000	4836.007	206.388	4.000	3.280	0.720	*******	100.0000	5.69E-03	3.70E-03	4.67E-01	9.38E-01	3.69E-03
PU-244	4589.000	4478.529	4.914	1.000	0.280	0.720	6.4609	99.90000	4.86E-04	2.14E-03	2.42E-02	5.31E-02	2.14E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

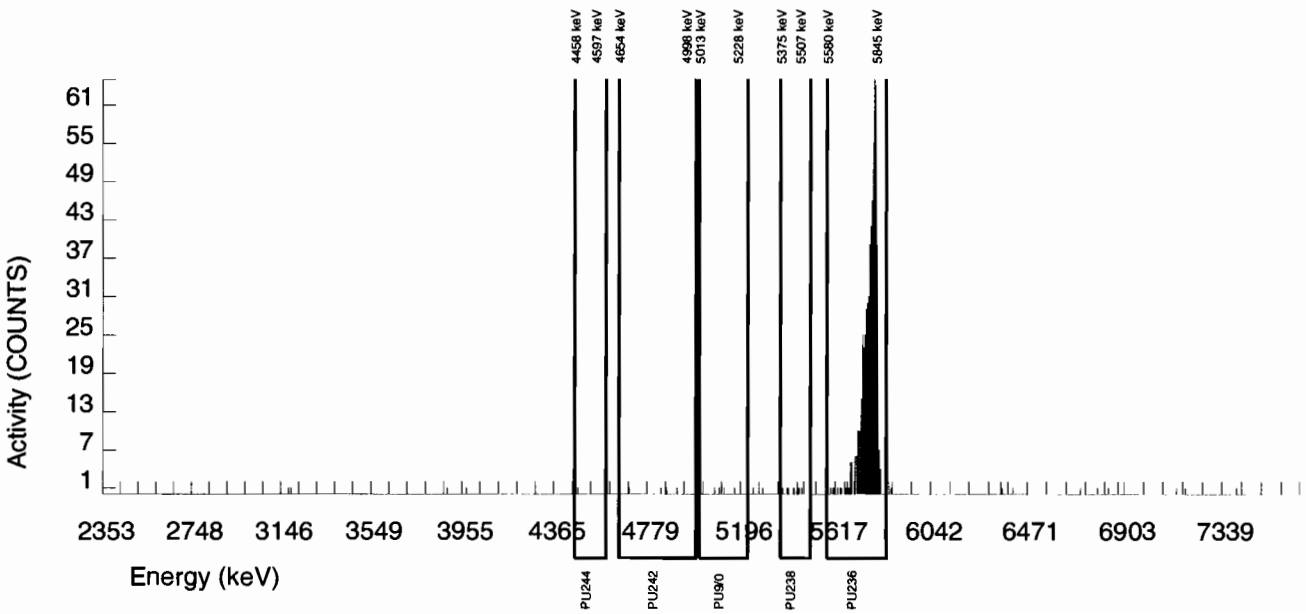

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965503	CHAMBER : 014	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202071688_PU	DETECTOR S/N : 67616	BKG FILE : B014.CNF;1106
SAMPLE QTY : 0.115 G	AVERAGE %EFFICIENCY : 33.5532	BKG DATE : 21-MAR-2010
SAMPLE DATE : 23-MAR-2010 00:00:00	COUNT DATE : 26-MAR-2010 21:18:56	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W014.CNF;328
% YIELD : 84.568		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9643E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.5069E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5763.887	52.821	627.000	603.960	23.040	4.8000	100.0000	1.16E+01	9.03E-01	1.99E-01	4.49E-01	4.88E-01
PU-238	5499.000	5477.447	0.000	287.000	270.440	16.560	2.4495	99.90000	5.19E+00	4.75E-01	1.01E-01	2.55E-01	3.32E-01
PU-9/0	5155.000	5148.260	45.032	1965.000	1960.680	4.320	1.9732	99.90000	3.76E+01	2.61E+00	8.17E-02	2.15E-01	8.51E-01
PU242	4890.000	4886.226	0.000	36.000	34.560	1.440	*******	100.0000	6.63E-01	1.24E-01	5.16E+00	1.04E+01	1.17E-01
PU-244	4589.000	4524.693	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.92E-02	2.68E-01	5.87E-01	1.92E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

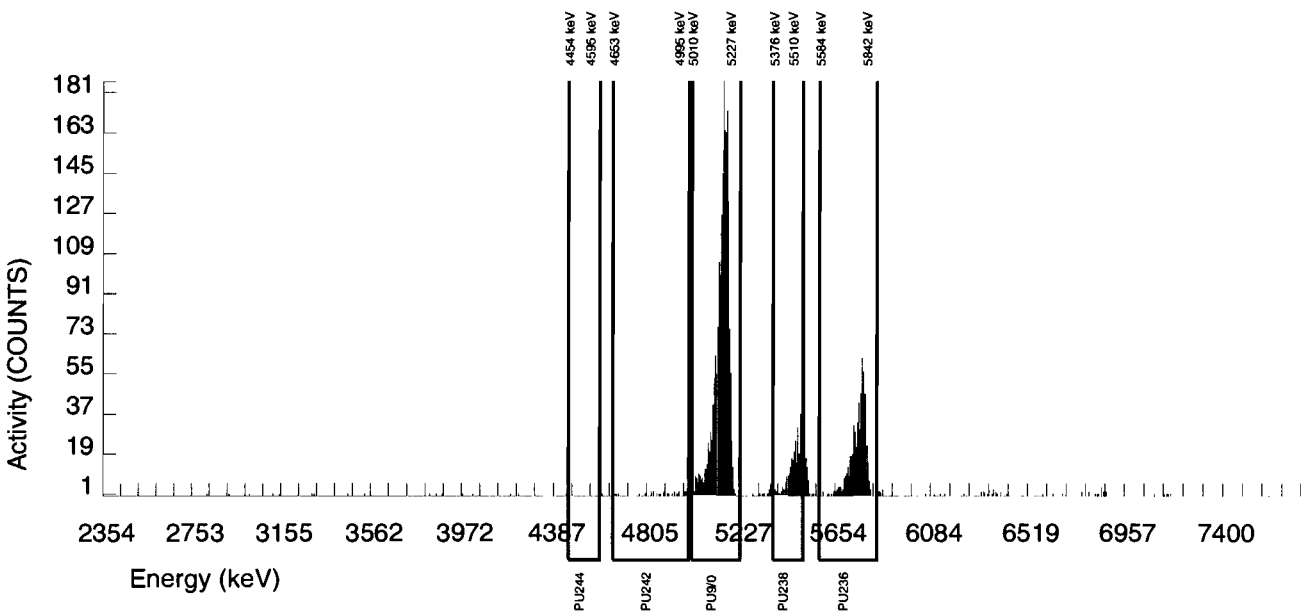

Radiochemistry Batch Checklist, Rev10

Batch# 965504 Product: U Date: 3/30/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time	✓		
Sample was correctly preserved if required	✓		
Smears Taken for Radioactive batches			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/30/10

Secondary Review Performed By: [signature] 3/30/10

3/31

LANL

Uranium Que Sheet

22-MAR-10

Batch #: 965504 Analyst: CXM2 First Client Due Date:31-MAR-10 Internal Due Date:21-MAR-10

Tracer Isotope: U-232 U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: 0.1mL

LCS Isotope: U-238 LCS Code: 0244-A Expiration Date: 10/31/20 Vol: 0.113 g

Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 3/23/10 Initials: CMM Pipet ID: 4497063 Balance ID: 50410272

N/A Analyzed Sequentially with Pu

Pu-236 ID: ____ Vol.: ____

Witness: MW 3/22/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) (1/f)	U Det #
249060003-1	RE16-10-2826	SAMPLE		.1 pCi/g	SOIL	LANL010	04-MAR-10	1	1	0.518	131
249329001-1	RE46-10-13964	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	2	2	0.523	132
249329002-1	RE46-10-13966	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	3	3	0.505	133
249329003-1	RE46-10-13963	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	4	4	0.522	134
249329004-1	RE46-10-13965	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	5	5	0.508	135
249331001-1	RE46-10-13219	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	6	6	0.537	136
249331002-1	RE46-10-13221	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	7	7	0.543	154 ~~137~~ 3-27-
249331003-1	RE46-10-13220	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	8	8	0.513	138
249331004-1	RE46-10-13216	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	9	9	0.509	139
249331005-1	RE46-10-13217	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	10	10	0.517	140
249331006-1	RE46-10-13218	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	11	11	0.532	141
249331007-1	RE46-10-13234	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	12	12	~~0.545~~ 0.515 3/22/10	142
249331008-1	RE46-10-14199	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	13	13	0.553	143
249334001-1	RE46-10-12972	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	14	14	0.519	144
249334002-1	RE46-10-13003	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	15	15	0.504	145
249334003-1	RE46-10-12967	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	16	16	0.504	146
249334004-1	RE46-10-12971	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	17	17	0.509	117 ~~147~~
249334005-1	RE46-10-12968	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	18	18	0.518	118 ~~148~~ 3/30/1
249334006-1	RE46-10-12969	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	19	19	0.527	149
249334007-1	RE46-10-12970	SAMPLE		.1 pCi/g	SOIL	LANL010	11-MAR-10	20	20	0.524	150
1202071689-1	MB for batch 965504	MB		.1 pCi/g	SOIL	QC ACCOUNT		21	21	1.0	151
1202071690-1	RE46-10-12972(249334001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	11-MAR-10	22	22	0.503	152
1202071691-1	LCS for batch 965504	LCS		.1 pCi/g	SOIL	QC ACCOUNT		23	23	0.113	153

*SRM 0244-A Exp 10/31/20

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: JdMC 3/30/10

Blank Correction Report

Batch ID 965504

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202071690	DUP	Uranium-233/234	0.503 g	1.84	0.163	0.127	.028429423	pCi/g	NO
		Uranium-235/236	0.503 g	0.106	0.0256	0.0778	.015029821	pCi/g	NO
		Uranium-238	0.503 g	1.21	0.116	0.0895	.012166998	pCi/g	NO
1202071691	LCS	Uranium-233/234	0.113 g	5.98	0.566	0.494	.126548673	pCi/g	NO
		Uranium-235/236	0.113 g	0.108	0.0492	0.302	.066902655	pCi/g	YES
		Uranium-238	0.113 g	5.93	0.562	0.348	.054159292	pCi/g	NO
1202071689	MB	Uranium-233/234	1.00 g	0.0143	0.0062	0.0575	.0143	pCi/g	YES
		Uranium-235/236	1.00 g	0.00756	0.0044	0.0351	.00756	pCi/g	YES
		Uranium-238	1.00 g	0.00612	0.00458	0.0404	.00612	pCi/g	YES
249060003	RE16-10-2826	Uranium-233/234	0.518 g	0.900	0.0911	0.121	.027606178	pCi/g	NO
		Uranium-235/236	0.518 g	0.0266	0.0121	0.0741	.014594595	pCi/g	YES
		Uranium-238	0.518 g	0.908	0.0913	0.0853	.011814672	pCi/g	NO
249329001	RE46-10-13964	Uranium-233/234	0.523 g	1.55	0.144	0.136	.027342256	pCi/g	NO
		Uranium-235/236	0.523 g	0.0891	0.0239	0.0828	.014455067	pCi/g	NO
		Uranium-238	0.523 g	1.01	0.103	0.0953	.011701721	pCi/g	NO
249329002	RE46-10-13966	Uranium-233/234	0.505 g	0.971	0.0988	0.134	.028316832	pCi/g	NO
		Uranium-235/236	0.505 g	0.0176	0.0103	0.0819	.014970297	pCi/g	YES
		Uranium-238	0.505 g	0.956	0.0976	0.0943	.012118812	pCi/g	NO
249329003	RE46-10-13963	Uranium-233/234	0.522 g	0.866	0.0912	0.134	.027394636	pCi/g	NO
		Uranium-235/236	0.522 g	0.00587	0.00589	0.0819	.014482759	pCi/g	YES
		Uranium-238	0.522 g	0.813	0.0866	0.0942	.011724138	pCi/g	NO
249329004	RE46-10-13965	Uranium-233/234	0.508 g	1.31	0.127	0.144	.028149606	pCi/g	NO
		Uranium-235/236	0.508 g	0.0632	0.0224	0.0881	.014881890	pCi/g	YES
		Uranium-238	0.508 g	0.742	0.083	0.101	.012047244	pCi/g	NO
249331001	RE46-10-13219	Uranium-233/234	0.537 g	1.18	0.108	0.104	.026629423	pCi/g	NO
		Uranium-235/236	0.537 g	0.0365	0.0147	0.0635	.014078212	pCi/g	YES
		Uranium-238	0.537 g	1.02	0.0962	0.0731	.011396648	pCi/g	NO
249331002	RE46-10-13221	Uranium-233/234	0.543 g	0.915	0.0904	0.114	.026335175	pCi/g	NO
		Uranium-235/236	0.543 g	0.0399	0.016	0.0694	.013922652	pCi/g	YES
		Uranium-238	0.543 g	0.975	0.095	0.0799	.011270718	pCi/g	NO
249331003	RE46-10-13220	Uranium-233/234	0.513 g	1.05	0.106	0.137	.027875244	pCi/g	NO
		Uranium-235/236	0.513 g	0.0601	0.0213	0.0838	.014736842	pCi/g	YES
		Uranium-238	0.513 g	1.21	0.119	0.0964	.011929825	pCi/g	NO
249331004	RE46-10-13216	Uranium-233/234	0.509 g	3.13	0.272	0.161	.028094303	pCi/g	NO
		Uranium-235/236	0.509 g	0.177	0.0378	0.0984	.014852652	pCi/g	NO
		Uranium-238	0.509 g	1.22	0.124	0.113	.012023576	pCi/g	NO
249331005	RE46-10-13217	Uranium-233/234	0.517 g	2.67	0.222	0.118	.027659574	pCi/g	NO
		Uranium-235/236	0.517 g	0.134	0.028	0.0718	.014622824	pCi/g	NO
		Uranium-238	0.517 g	1.72	0.152	0.0827	.011837524	pCi/g	NO
249331006	RE46-10-13218	Uranium-233/234	0.532 g	1.32	0.132	0.153	.026879699	pCi/g	NO
		Uranium-235/236	0.532 g	0.094	0.0278	0.0936	.014210526	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
249331006	RE46-10-13218	Uranium-238	0.532 g	1.27	0.127	0.108	.011503759	pCi/g	NO
249331007	RE46-10-13234	Uranium-233/234	0.515 g	1.04	0.104	0.129	.027766990	pCi/g	NO
		Uranium-235/236	0.515 g	0.0793	0.022	0.0789	.014679612	pCi/g	NO
		Uranium-238	0.515 g	0.985	0.0992	0.0908	.011883495	pCi/g	NO
249331008	RE46-10-14199	Uranium-233/234	0.553 g	1.27	0.124	0.140	.025858951	pCi/g	NO
		Uranium-235/236	0.553 g	0.0981	0.027	0.0854	.013670886	pCi/g	NO
		Uranium-238	0.553 g	1.16	0.115	0.0983	.011066908	pCi/g	NO
249334001	RE46-10-12972	Uranium-233/234	0.519 g	1.90	0.166	0.122	.027552987	pCi/g	NO
		Uranium-235/236	0.519 g	0.128	0.0288	0.0744	.014566474	pCi/g	NO
		Uranium-238	0.519 g	1.31	0.123	0.0856	.011791908	pCi/g	NO
249334002	RE46-10-13003	Uranium-233/234	0.504 g	1.64	0.146	0.121	.028373016	pCi/g	NO
		Uranium-235/236	0.504 g	0.116	0.0273	0.0738	.015	pCi/g	NO
		Uranium-238	0.504 g	1.31	0.122	0.0849	.012142857	pCi/g	NO
249334003	RE46-10-12967	Uranium-233/234	0.504 g	86.7	6.59	0.161	.028373016	pCi/g	NO
		Uranium-235/236	0.504 g	4.33	0.371	0.0984	.015	pCi/g	NO
		Uranium-238	0.504 g	1.99	0.185	0.113	.012142857	pCi/g	NO
249334004	RE46-10-12971	Uranium-233/234	0.509 g	4.25	0.354	0.154	.028094303	pCi/g	NO
		Uranium-235/236	0.509 g	0.156	0.0358	0.0941	.014852652	pCi/g	NO
		Uranium-238	0.509 g	1.39	0.137	0.108	.012023576	pCi/g	NO
249334005	RE46-10-12968	Uranium-233/234	0.518 g	34.2	2.56	0.131	.027606178	pCi/g	NO
		Uranium-235/236	0.518 g	1.75	0.164	0.0801	.014594595	pCi/g	NO
		Uranium-238	0.518 g	1.30	0.124	0.0922	.011814672	pCi/g	NO
249334006	RE46-10-12969	Uranium-233/234	0.527 g	0.906	0.0907	0.119	.027134725	pCi/g	NO
		Uranium-235/236	0.527 g	0.0573	0.0178	0.0726	.014345351	pCi/g	YES
		Uranium-238	0.527 g	0.851	0.0868	0.0835	.011612903	pCi/g	NO
249334007	RE46-10-12970	Uranium-233/234	0.524 g	1.07	0.103	0.116	.027290076	pCi/g	NO
		Uranium-235/236	0.524 g	0.0813	0.0212	0.0708	.014427481	pCi/g	NO
		Uranium-238	0.524 g	1.09	0.104	0.0815	.011679389	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249334001_UU
SAMPLE QTY : 0.519 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 77.641

CHAMBER : 144
DETECTOR S/N : 75551
AVERAGE %EFFICIENCY : 25.8806
COUNT DATE : 27-MAR-2010 12:54:20
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B144.CNF;405
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W144.CNF;110
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 3.4946E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.610	37.762	909.000	904.000	5.000	2.2361	100.0000	3.91E+00	3.15E-01	2.25E-02	5.66E-02	1.31E-01
U-3/4	4763.020	4757.353	56.941	443.000	439.084	3.000	5.4790	100.0000	1.90E+00	1.66E-01	5.51E-02	1.22E-01	9.11E-02
U-235	4391.000	4389.645	52.975	25.000	24.000	1.000	2.4127	80.90000	1.28E-01	2.88E-02	3.00E-02	7.44E-02	2.72E-02
U-238	4184.730	4184.521	62.212	307.000	304.000	3.000	3.6781	100.0000	1.31E+00	1.23E-01	3.70E-02	8.56E-02	7.60E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

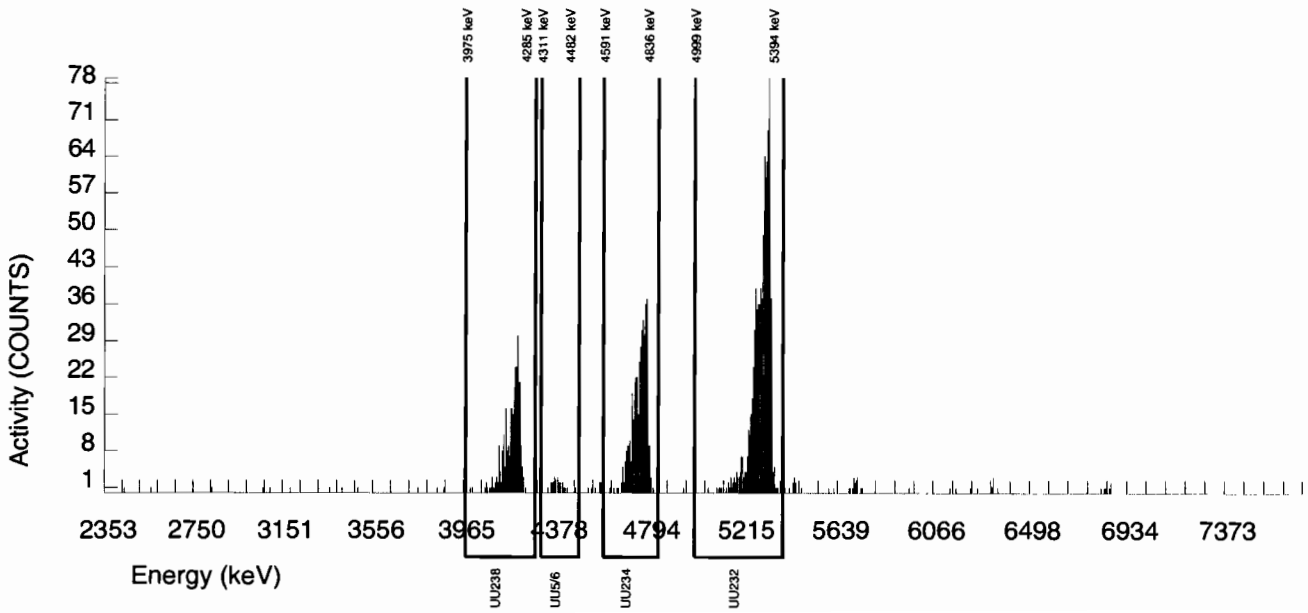

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249334002_UU
SAMPLE QTY : 0.504 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 80.185

CHAMBER : 145
DETECTOR S/N : 72526
AVERAGE %EFFICIENCY : 26.0296
COUNT DATE : 27-MAR-2010 12:54:23
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B145.CNF;403
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W145.CNF;115
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 3.6091E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5301.803	55.077	948.000	939.000	9.000	3.0000	100.0000	4.02E+00	3.23E-01	2.99E-02	7.14E-02	1.33E-01
U-3/4	4763.020	4757.811	52.437	384.000	382.049	1.000	5.4790	100.0000	1.64E+00	1.46E-01	5.46E-02	1.21E-01	8.39E-02
U-235	4391.000	4383.559	38.018	23.000	22.000	1.000	2.4127	80.90000	1.16E-01	2.73E-02	2.97E-02	7.38E-02	2.59E-02
U-238	4184.730	4186.622	57.475	308.000	307.000	1.000	3.6781	100.0000	1.31E+00	1.22E-01	3.66E-02	8.49E-02	7.53E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

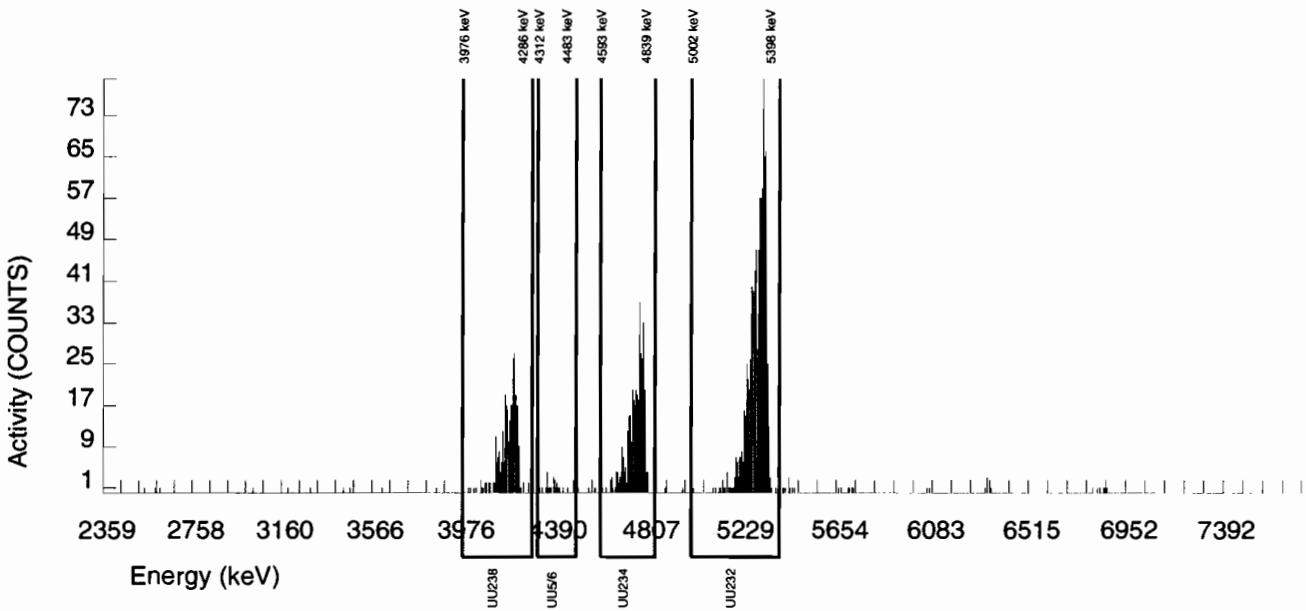

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249334003_UU
SAMPLE QTY : 0.504 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 60.603

CHAMBER : 146
DETECTOR S/N : 72527
AVERAGE %EFFICIENCY : 25.8212
COUNT DATE : 27-MAR-2010 12:54:26
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B146.CNF;408
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W146.CNF;117
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 2.7277E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.899	68.261	709.000	704.000	5.000	2.2361	100.0000	4.02E+00	3.40E-01	2.97E-02	7.49E-02	1.53E-01
U-3/4	4763.020	4759.188	58.071	15189.000	15188.287	0.000	5.4790	100.0000	8.67E+01	6.59E+00	7.28E-02	1.61E-01	7.04E-01
U-235	4391.000	4400.755	67.826	613.000	613.000	0.000	2.4127	80.90000	4.33E+00	3.71E-01	3.96E-02	9.84E-02	1.75E-01
U-238	4184.730	4194.073	37.904	349.000	349.000	0.000	3.6781	100.0000	1.99E+00	1.85E-01	4.89E-02	1.13E-01	1.07E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

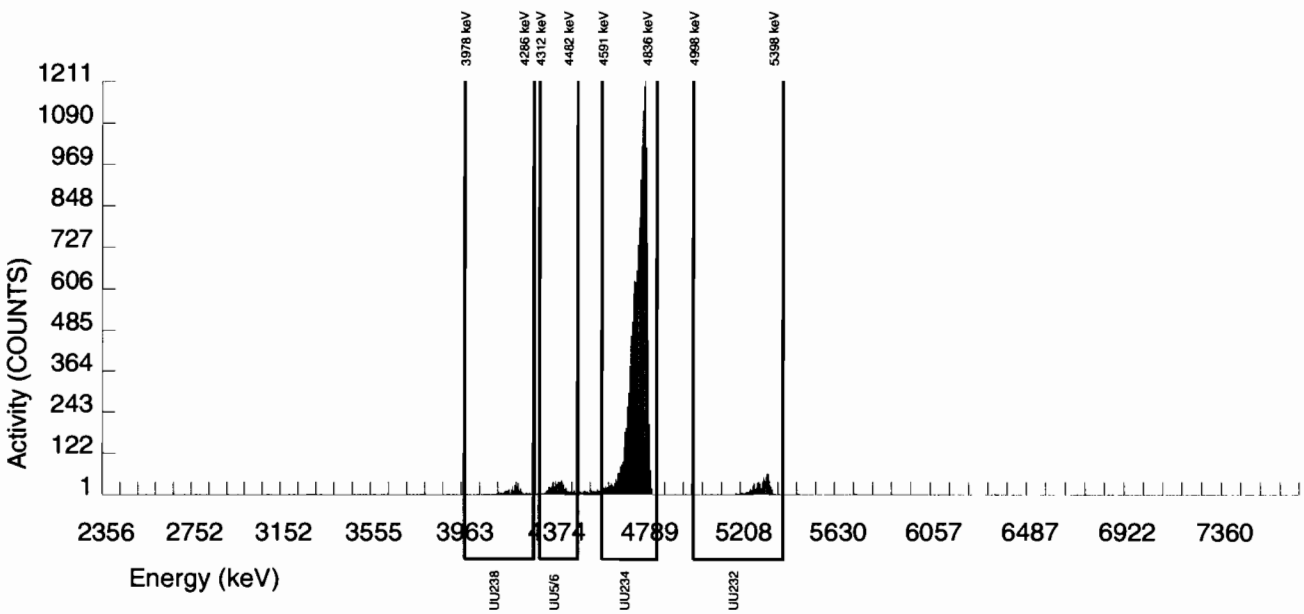

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504	CHAMBER : 117	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0249334004_UU	DETECTOR S/N : 80003	BKG FILE : B117.CNF;465
SAMPLE QTY : 0.509 G	AVERAGE %EFFICIENCY : 27.2036	BKG DATE : 28-MAR-2010
SAMPLE DATE : 11-MAR-2010 00:00:00	COUNT DATE : 29-MAR-2010 12:37:58	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 58945.77	EFF FILE : W117.CNF;126
% YIELD : 60.388		CAL DATE : 19-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5010E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.7180E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5304.215	60.739	728.000	726.035	1.965	1.4017	100.0000	3.98E+00	3.34E-01	1.78E-02	5.05E-02	1.48E-01
U-3/4	4763.020	4757.944	65.857	775.000	774.264	0.000	5.4790	100.0000	4.25E+00	3.54E-01	6.96E-02	1.54E-01	1.53E-01
U-235	4391.000	4394.256	0.000	24.000	23.018	0.982	2.4127	80.90000	1.56E-01	3.58E-02	3.79E-02	9.41E-02	3.39E-02
U-238	4184.730	4188.223	43.934	255.000	254.018	0.982	3.6781	100.0000	1.39E+00	1.37E-01	4.67E-02	1.08E-01	8.77E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

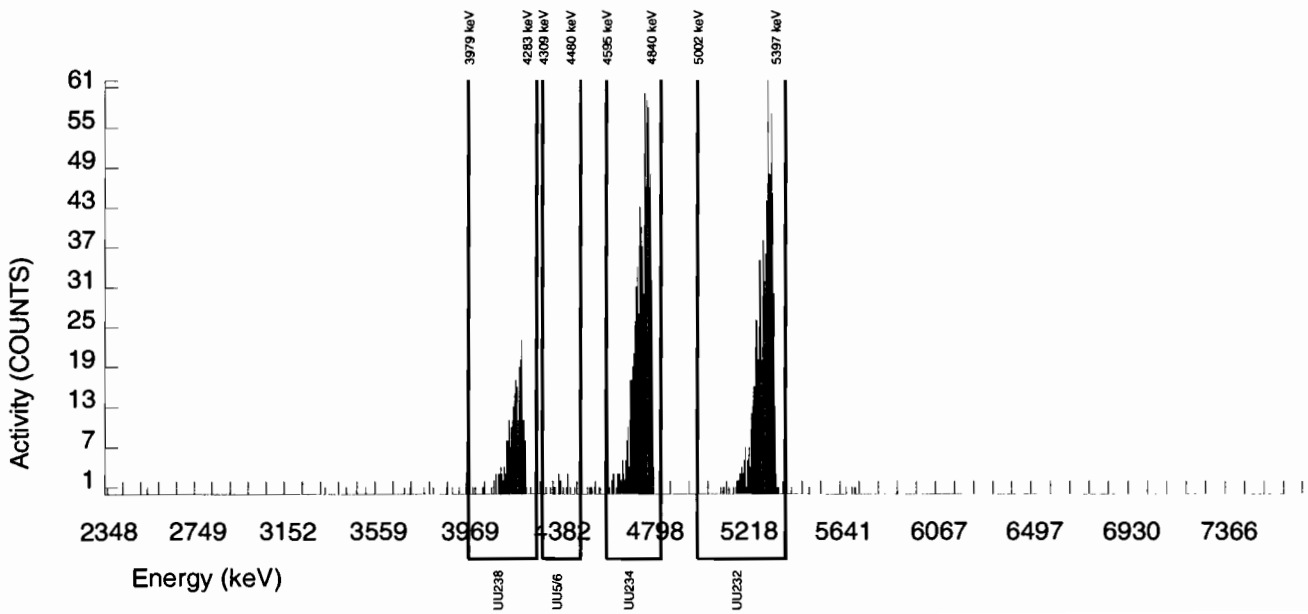

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249334005_UU
SAMPLE QTY : 0.518 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 74.113

CHAMBER : 118
DETECTOR S/N : 75544
AVERAGE %EFFICIENCY : 25.5870
COUNT DATE : 29-MAR-2010 12:38:00
ELAPSED LIVE TIME(SEC) : 58952.67

LIB FILE : ENV_ALPHA_UU
BKG FILE : B118.CNF;466
BKG DATE : 28-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W118.CNF;121
CAL DATE : 19-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 3.3358E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5292.227	55.971	849.000	838.192	10.808	3.2876	100.0000	3.91E+00	3.20E-01	3.55E-02	8.37E-02	1.37E-01
U-3/4	4763.020	4750.516	57.178	7335.000	7332.186	1.965	5.4790	100.0000	3.42E+01	2.56E+00	5.92E-02	1.31E-01	4.00E-01
U-235	4391.000	4394.663	66.103	305.000	303.035	1.965	2.4127	80.90000	1.75E+00	1.64E-01	3.22E-02	8.01E-02	1.01E-01
U-238	4184.730	4182.439	82.618	278.000	278.000	0.000	3.6781	100.0000	1.30E+00	1.24E-01	3.98E-02	9.22E-02	7.78E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

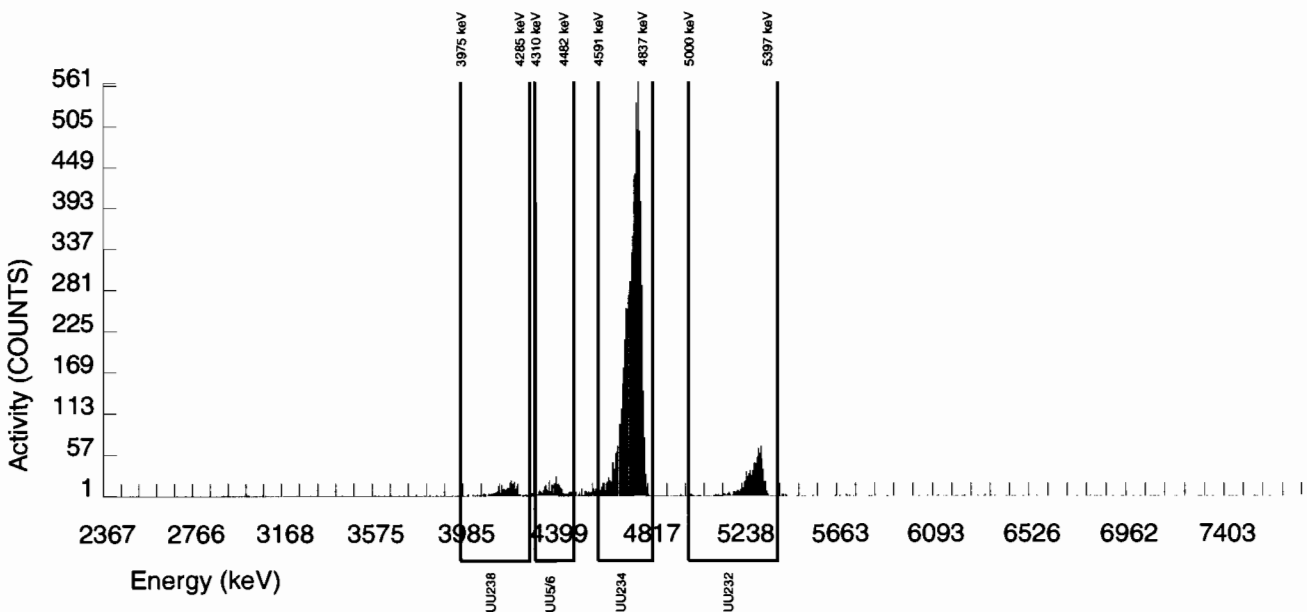

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249334006_UU
SAMPLE QTY : 0.527 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 78.266

CHAMBER : 149
DETECTOR S/N : 33449
AVERAGE %EFFICIENCY : 25.9295
COUNT DATE : 27-MAR-2010 12:54:34
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B149.CNF;411
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W149.CNF;116
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 3.5227E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5286.264	75.997	917.000	913.000	4.000	2.0000	100.0000	3.85E+00	3.10E-01	1.96E-02	5.06E-02	1.28E-01
U-3/4	4763.020	4749.420	53.926	216.000	215.075	0.000	5.4790	100.0000	9.06E-01	9.07E-02	5.37E-02	1.19E-01	6.18E-02
U-235	4391.000	4416.933	4.939	11.000	11.000	0.000	2.4127	80.90000	5.73E-02	1.78E-02	2.92E-02	7.26E-02	1.73E-02
U-238	4184.730	4175.271	55.979	204.000	202.000	2.000	3.6781	100.0000	8.51E-01	8.68E-02	3.60E-02	8.35E-02	6.05E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

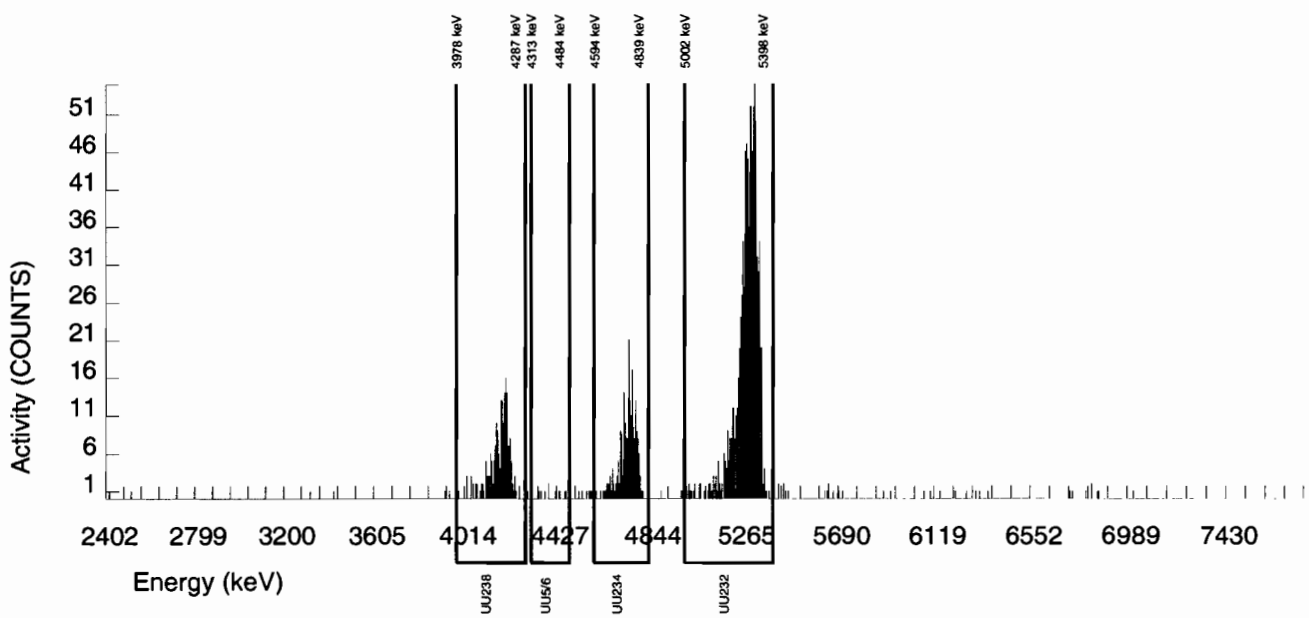

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S0249334007_UU
SAMPLE QTY : 0.524 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 78.517

CHAMBER : 150
DETECTOR S/N : 75552
AVERAGE %EFFICIENCY : 26.6394
COUNT DATE : 27-MAR-2010 12:54:36
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B150.CNF;412
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W150.CNF;124
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 3.5340E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5301.689	63.647	944.000	941.000	3.000	1.7321	100.0000	3.87E+00	3.10E-01	1.66E-02	4.43E-02	1.27E-01
U-3/4	4763.020	4757.847	74.262	262.000	260.047	1.000	5.4790	100.0000	1.07E+00	1.03E-01	5.24E-02	1.16E-01	6.65E-02
U-235	4391.000	4407.265	61.843	16.000	16.000	0.000	2.4127	80.90000	8.13E-02	2.12E-02	2.85E-02	7.08E-02	2.03E-02
U-238	4184.730	4187.190	39.735	267.000	266.000	1.000	3.6781	100.0000	1.09E+00	1.04E-01	3.52E-02	8.15E-02	6.73E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

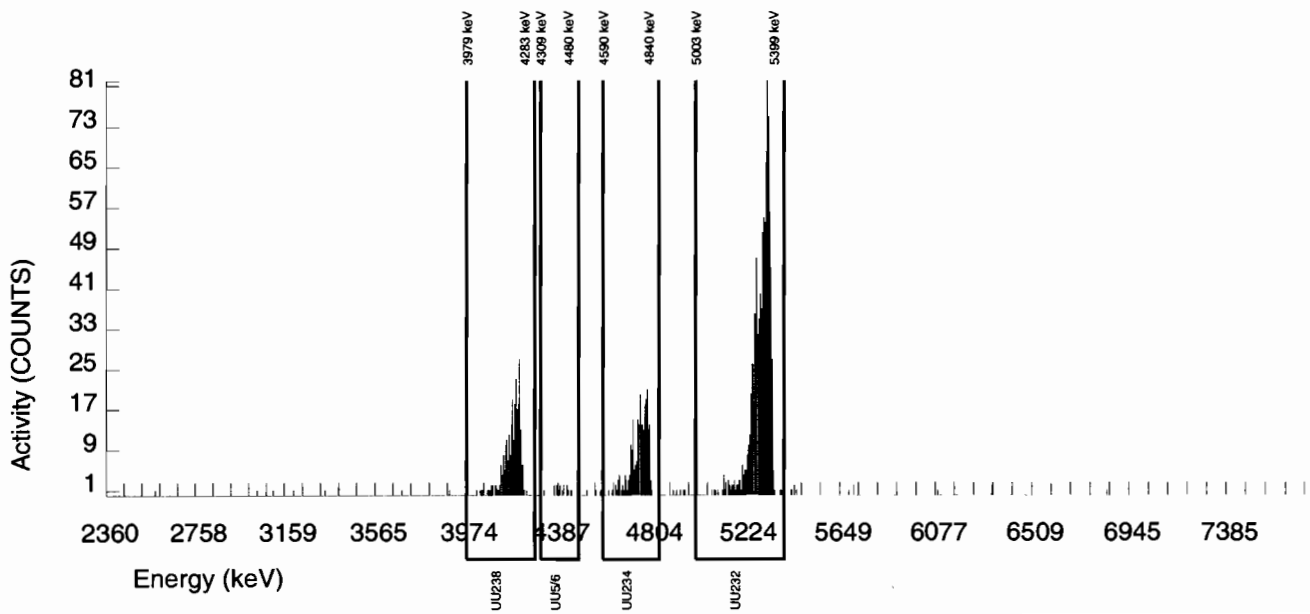

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S1202071689_UU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 23-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 84.613

CHAMBER : 151
DETECTOR S/N : 75556
AVERAGE %EFFICIENCY : 26.1124
COUNT DATE : 27-MAR-2010 12:54:39
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B151.CNF;407
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W151.CNF;122
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.4995E+00 dpm
RESULTS : 3.8071E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.331	62.610	998.000	994.000	4.000	2.0000	100.0000	2.03E+00	1.60E-01	9.49E-03	2.45E-02	6.45E-02
U-3/4	4763.020	4745.047	34.407	9.000	6.993	1.000	5.4790	100.0000	1.43E-02	6.20E-03	2.60E-02	5.75E-02	6.11E-03
U-235	4391.000	4401.571	123.249	3.000	3.000	0.000	2.4127	80.90000	7.56E-03	4.40E-03	1.41E-02	3.51E-02	4.36E-03
U-238	4184.730	4189.966	4.930	4.000	3.000	1.000	3.6781	100.0000	6.12E-03	4.58E-03	1.74E-02	4.04E-02	4.56E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

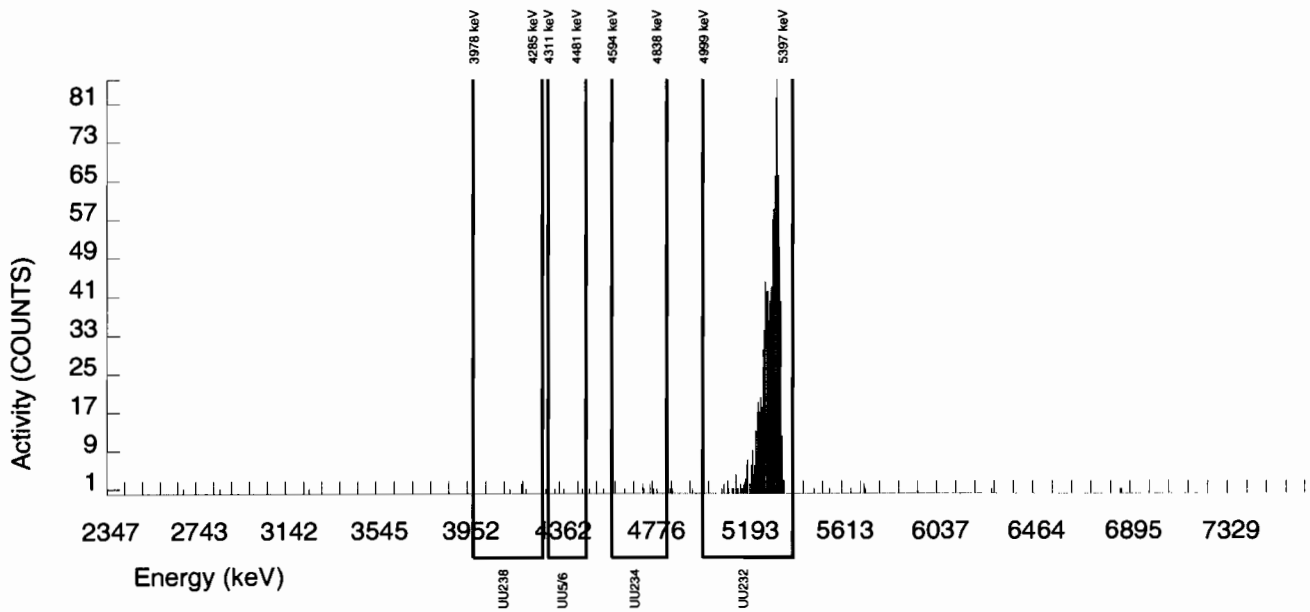

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504
SAMPLE ID : S1202071690_UU
SAMPLE QTY : 0.503 G
SAMPLE DATE : 11-MAR-2010 00:00:00
ANALYST : CXM2
% YIELD : 78.600

CHAMBER : 152
DETECTOR S/N : 76222
AVERAGE %EFFICIENCY : 25.2253
COUNT DATE : 27-MAR-2010 12:54:43
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B152.CNF;404
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W152.CNF;109
CAL DATE : 17-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5010E+00 dpm
RESULTS : 3.5378E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5304.253	28.479	895.000	892.000	3.000	1.7321	100.0000	4.03E+00	3.26E-01	1.82E-02	4.86E-02	1.35E-01
U-3/4	4763.020	4757.159	63.619	408.000	407.096	0.000	5.4790	100.0000	1.84E+00	1.63E-01	5.76E-02	1.27E-01	9.11E-02
U-235	4391.000	4390.489	74.134	19.000	19.000	0.000	2.4127	80.90000	1.06E-01	2.56E-02	3.13E-02	7.78E-02	2.43E-02
U-238	4184.730	4176.903	76.454	268.000	268.000	0.000	3.6781	100.0000	1.21E+00	1.16E-01	3.86E-02	8.95E-02	7.39E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

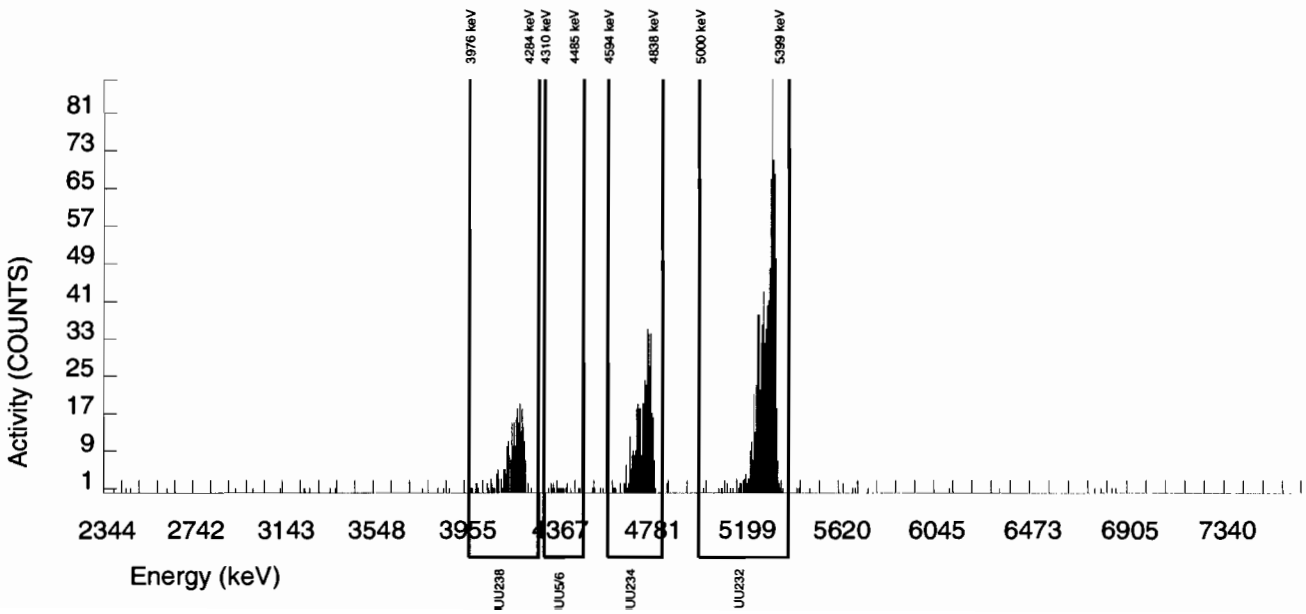

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 965504	CHAMBER : 153	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202071691_UU	DETECTOR S/N : 76223	BKG FILE : B153.CNF;399
SAMPLE QTY : 0.113 G	AVERAGE %EFFICIENCY : 26.2002	BKG DATE : 21-MAR-2010
SAMPLE DATE : 23-MAR-2010 00:00:00	COUNT DATE : 27-MAR-2010 12:54:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W153.CNF;112
% YIELD : 86.790		CAL DATE : 17-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.4995E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9051E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5299.472	57.587	1029.000	1023.000	6.000	2.4495	100.0000	1.79E+01	1.50E+00	9.99E-02	2.47E-01	5.64E-01
U-3/4	4763.020	4754.737	68.329	342.000	340.964	0.000	5.4790	100.0000	5.98E+00	5.66E-01	2.23E-01	4.94E-01	3.24E-01
U-235	4391.000	4389.542	68.822	5.000	5.000	0.000	2.4127	80.90000	1.08E-01	4.92E-02	1.22E-01	3.02E-01	4.85E-02
U-238	4184.730	4183.175	45.683	338.000	338.000	0.000	3.6781	100.0000	5.93E+00	5.62E-01	1.50E-01	3.48E-01	3.22E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

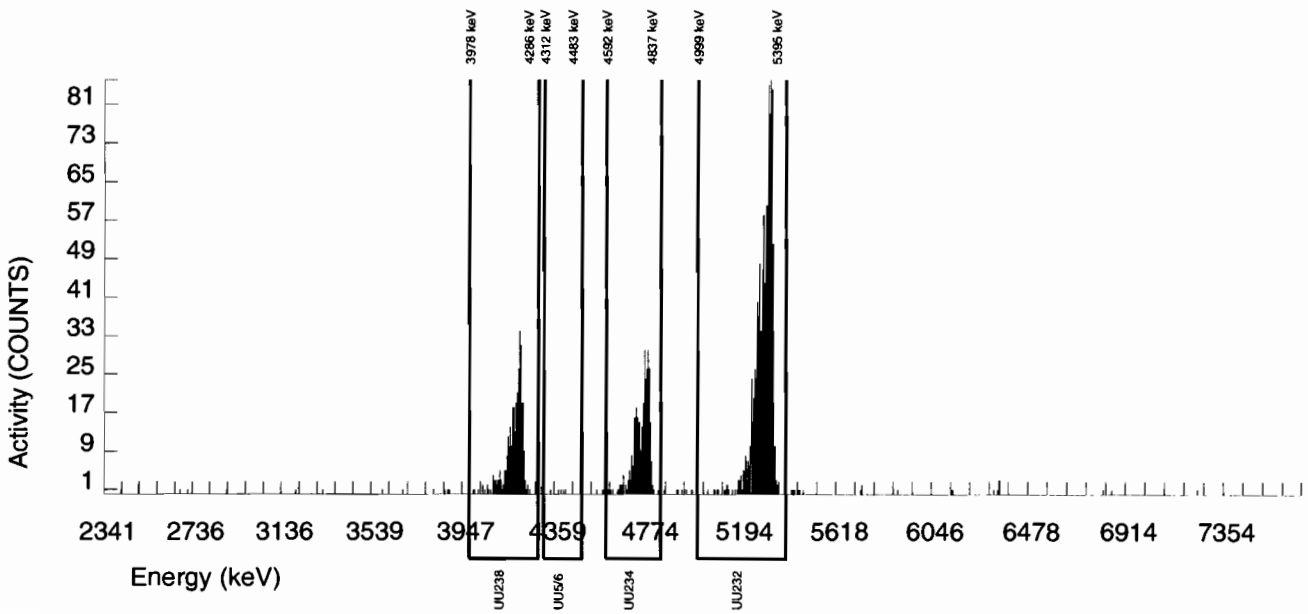

Radiochemistry Batch Checklist, Rev10

Batch# 965250 Product: γ-S Date: 3/26/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 3/26/10

Secondary Review Performed By: M. Stamps 3/26/10

LANL
3/31

I.6. -3/24/10

Gamma Spec Que Sheet

03/23/2010

Batch #: 965250 **Analyst:** ~~GSO~~ MXRI **First Client DueDate** 03/31/2010 **Internal Due Date:** 03/21/2010

Gamma Spike Isotope: Mixed Gamma **Spike Code:** n/a **Expiration Date:** n/a **Vol:** n/a **Nominal Concentration:** n/a Co-60 6.46

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0mL **Nominal Concentration:** Cs-137 5.682 Am-241 16.29

Initials: RF **Prep Date:** 3/17/10 **Library:** Solid **Witness:** n/a

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Wet/Dry Aliquot (1/g/F)	Detector	Sealing Date/Time (if Applicable)
249060003-1	RE16-10-2826	SAMPLE		LANL010	SOIL	04-MAR-10 12:00:00 RF	can	116.26	5	3/17/10
249329001-1	RE46-10-13964	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		135.71	6	
249329002-1	RE46-10-13966	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		122.41	7	
249329003-1	RE46-10-13963	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		120.02	19	
249329004-1	RE46-10-13965	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		118.49	22	
249331001-1	RE46-10-13219	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		122.51	4	
249331002-1	RE46-10-13221	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		123.63	10	
249331003-1	RE46-10-13220	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		133.14	11	
249331004-1	RE46-10-13216	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		129.85	15	
249331005-1	RE46-10-13217	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		118.26	25	
249331006-1	RE46-10-13218	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		113.55	29	
249331007-1	RE46-10-13234	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		122.74	1	
249331008-1	RE46-10-14199	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		128.17	16	
249334001-1	RE46-10-12972	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		120.31	18	
249334002-1	RE46-10-13003	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		122.81	23	
249334003-1	RE46-10-12967	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		102.94	17	
249334004-1	RE46-10-12971	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		123.57	21	
249334005-1	RE46-10-12968	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		115.515	15	
249334006-1	RE46-10-12969	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		112.40	6	
249334007-1	RE46-10-12970	SAMPLE		LANL010	SOIL	11-MAR-10 12:00:00 RF		110.71	~~22~~ 21	3/24/10
1202071014-1	MB	MB		QC ACCOUNT	SOIL	3/17/10 RF		135.71	19	
1202071015-1	DUP RE46-10-12972(249334001)	DUP		QC ACCOUNT	SOIL	11-MAR-10 12:00:00 RF		120.31	1	
1202071016-1	LCS	LCS		QC ACCOUNT	SOIL	3/17/10 RF		151.73	4	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: 3/26/10

✓ no history
✓ dot lines

H Stamps 3/26/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
965250	249060003	SAMPLE	24-MAR-10		Cerium-139	0.02054	0.05938	0.050
					Cesium-134	0.1015	0.1144	0.100
					Sodium-22	0.02652	0.09303	0.080
965250	249329001	SAMPLE	24-MAR-10		Americium-241	-0.2777	0.3037	0.200
					Cerium-139	-0.01071	0.05399	0.050
					Sodium-22	0.00343	0.0899	0.080
					Thorium-234	2.317	2.946	2.00
965250	249329002	SAMPLE	24-MAR-10		Cerium-139	0.00467	0.0553	0.050
					Sodium-22	0.01483	0.08891	0.080
965250	249329003	SAMPLE	24-MAR-10		Americium-241	0.05444	0.2922	0.200
					Cerium-139	-0.02353	0.05575	0.050
					Cesium-134	0.07045	0.1004	0.100
965250	249329004	SAMPLE	24-MAR-10		Americium-241	-0.06037	0.2308	0.200
					Cerium-139	-0.02966	0.05027	0.050
					Thorium-234	0.8055	2.328	2.00
965250	249331001	SAMPLE	24-MAR-10		Americium-241	0.07702	0.4299	0.200
					Cerium-139	0.00374	0.05309	0.050
					Sodium-22	0.01298	0.08577	0.080
					Thorium-234	1.682	3.581	2.00
965250	249331002	SAMPLE	24-MAR-10		Americium-241	-0.1455	0.4228	0.200
					Cerium-139	-0.01861	0.05223	0.050
					Sodium-22	0.00137	0.08483	0.080
					Thorium-234	0.3896	3.652	2.00
965250	249331003	SAMPLE	24-MAR-10					
965250	249331004	SAMPLE	24-MAR-10		Americium-241	-0.3863	0.5304	0.200
					Cerium-139	0.0153	0.06607	0.050
					Europium-152	-0.1267	0.2134	0.200
					Sodium-22	0.00408	0.09388	0.080
					Thorium-234	1.481	4.403	2.00
965250	249331005	SAMPLE	24-MAR-10		Sodium-22	-0.03147	0.09217	0.080
965250	249331006	SAMPLE	24-MAR-10		Americium-241	0.06295	0.3445	0.200
					Cerium-139	-0.00511	0.06533	0.050
					Cesium-134	0.07548	0.1019	0.100
					Europium-152	0.02785	0.2066	0.200
					Sodium-22	-0.01763	0.08904	0.080
965250	249331007	SAMPLE	24-MAR-10		Americium-241	-0.1499	0.3314	0.200
					Cerium-139	0.00775	0.06235	0.050
					Sodium-22	-0.00114	0.08854	0.080
					Thorium-234	1.435	3.127	2.00
965250	249331008	SAMPLE	24-MAR-10		Americium-241	0.03972	0.2464	0.200
					Thorium-234	1.725	2.347	2.00
965250	249334001	SAMPLE	24-MAR-10		Americium-241	0.00495	0.3239	0.200
					Thorium-234	2.535	2.775	2.00
965250	249334002	SAMPLE	24-MAR-10		Americium-241	-0.1776	0.3787	0.200

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
965250	249334002	SAMPLE	24-MAR-10		Cerium-139	-0.0302	0.05895	0.050
					Sodium-22	-0.01509	0.09395	0.080
					Thorium-234	3.219	3.297	2.00
965250	249334003	SAMPLE	24-MAR-10		Cerium-139	0.02498	0.06754	0.050
					Cobalt-60	0.01846	0.1106	0.100
					Europium-152	0.0252	0.2121	0.200
					Ruthenium-106	0.2558	0.8041	0.800
					Sodium-22	-0.04015	0.1085	0.080
965250	249334004	SAMPLE	24-MAR-10		Sodium-22	-0.03361	0.1004	0.080
965250	249334005	SAMPLE	24-MAR-10		Americium-241	-0.3871	0.6185	0.200
					Cerium-139	0.04101	0.08399	0.050
					Cesium-134	0.1118	0.1199	0.100
					Europium-152	-0.09595	0.2308	0.200
					Sodium-22	-0.06042	0.09652	0.080
					Thorium-234	1.563	5.23	2.00
					Tin-113	0.00999	0.1076	0.100
965250	249334006	SAMPLE	24-MAR-10		Americium-241	-0.1051	0.3377	0.200
					Cerium-139	0.02722	0.06153	0.050
					Sodium-22	-0.02334	0.1007	0.080
965250	249334007	SAMPLE	25-MAR-10		Americium-241	-0.01084	0.2566	0.200
					Cerium-139	-0.00107	0.05585	0.050
					Thorium-234	0.9429	2.515	2.00
965250	1202071014	MB	24-MAR-10					
965250	1202071015	DUP	24-MAR-10		Americium-241	0.07168	0.3571	0.200
					Cerium-139	0.0107	0.06517	0.050
					Europium-152	0.01143	0.2111	0.200
					Sodium-22	-0.03645	0.0896	0.080
965250	1202071016	LCS	24-MAR-10		Cerium-139	0.03763	0.08267	0.050
					Cesium-134	0.00727	0.1589	0.100
					Europium-152	-0.1612	0.2874	0.200
					Mercury-203	0.04835	0.1109	0.100
					Potassium-40	0.9781	1.267	1.00
					Ruthenium-106	0.1469	0.9319	0.800
					Sodium-22	0.0074	0.08969	0.080
					Thorium-234	-0.6548	5.086	2.00
					Tin-113	-0.0188	0.1327	0.100

Gamma Review Report based on Result > MDA for Batch:965250

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249060003	04-MAR-10 12:00	24-MAR-10 08:56	19.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.723	0.2088	pCi/g	0.2502	N	910.9	3	1.717	IDENTIFIED	10.32	☐	
Annihilation Rad.	HE	0.1009	0.0413	pCi/g	0.06099	N	510.3	1	2.325	IDENTIFIED	40.8	☐	
Bismuth-211	INT	3.205	0.2945	pCi/g	0.3662	Y	351.6	2	1.469	IDENTIFIED	8.293	☑ UI	
Bismuth-212	—	2.947	0.5338	pCi/g	1.447	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.9593	0.09985	pCi/g	0.1212	0.200	608.8	3	1.515	IDENTIFIED	9.515	☐	
Cadmium-109	INT	3.627	0.4518	pCi/g	0.9853	Y	86.86	3	1.263	IDENTIFIED	11.86	☑ UI	
Cadmium-115	HE	1.413	30.65	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cerium-143	—	10670	1686	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.3592	0.09972	pCi/g	0.3253	N	0	10	0	NOT_IDENTI	0	☐	
Gross Gamma	—	8.255	1.4	pCi/g	3.301	N		0				☐	
Iodine-133	HE	1.60E+05	1.62E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.646	0.1077	pCi/g	0.101	0.100	238.3	2	1.234	IDENTIFIED	3.668	☐	
Lead-214	✓	1.163	0.1116	pCi/g	0.1332	0.100	351.6	2	1.469	IDENTIFIED	8.293	☐	
Neptunium-237	INT	1.05	0.171	pCi/g	0.2841	N	86.86	3	1.263	IDENTIFIED	11.86	☐	
Niobium-95m	—	1.041	0.1111	pCi/g	0.3568	N	0	10	0	NOT_IDENTI	0	☐	
Potassium-40	✓	25.18	1.211	pCi/g	0.6373	1.00	1460	1	1.965	IDENTIFIED	3.667	☐	
Promethium-149	HE	127.7	236.5	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Radium-224	INT	3.99	0.699	pCi/g	1.082	Y	241.2	1	1.833	IDENTIFIED	16.82	☑ UI	
Radium-226	✓	0.9593	0.09985	pCi/g	0.1212	Y	608.8	3	1.515	IDENTIFIED	9.515	☐	
Radium-228	✓	1.723	0.2088	pCi/g	0.2502	0.500	910.9	3	1.717	IDENTIFIED	10.32	☐	
Sodium-24	HE	7.63E+07	8.37E+07	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.1148	0.02909	pCi/g	0.09642	Y	0	10	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	—	4.12E+21	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4579	0.05011	pCi/g	0.06949	0.080	582.8	1	1.462	IDENTIFIED	10.31	☐	
Thorium-228	NR	1.646	0.1077	pCi/g	0.101	N	238.3	2	1.234	IDENTIFIED	3.668	☐	
Thorium-230	NR	0.9592	0.09659	pCi/g	0.1212	N	608.8	3	1.515	IDENTIFIED	9.515	☐	
Thorium-232	NR	1.723	0.2088	pCi/g	0.2502	N	910.9	3	1.717	IDENTIFIED	10.32	☐	
Thorium-234	✓	1.176	0.5778	pCi/g	1.149	2.00	62.57	2	1.442	IDENTIFIED	48.3	☐	
Tin-126	NR	0.352	0.04385	pCi/g	0.09551	N	86.86	3	1.263	IDENTIFIED	11.86	☐	
Total Uranium	—	3.564	1.72E-06	ug/g	1.7123	N		0				☐	
Uranium-238	HE	1.176	0.5778	pCi/g	1.149	N	62.57	2	1.442	IDENTIFIED	48.3	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249329001	11-MAR-10 12:00	24-MAR-10 08:56	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.186	0.2294	pCi/g	0.2494	N	911.5	3	1.969	IDENTIFIED	8.581	☐	
Annihilation Rad.	—	0.1267	0.0355	pCi/g	0.05193	N	511	1	1.872	IDENTIFIED	27.68	☐	
Bismuth-211	INT	3.633	0.2995	pCi/g	0.4253	Y	352.1	2	1.314	IDENTIFIED	6.781	☑ UI	
Bismuth-212	—	3.197	0.8334	pCi/g	1.441	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.205	0.1076	pCi/g	0.1317	0.200	609.6	3	1.24	IDENTIFIED	7.425	☐	
Cadmium-109	INT	4.182	0.69	pCi/g	1.308	Y	87.05	3	1.449	IDENTIFIED	15.56	☑ UI	
Cerium-143	—	182.7	35.84	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1339	0.03601	pCi/g	0.1024	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	—	10.32	1.468	pCi/g	3.5	N		0				☐	
Lead-212	✓	1.964	0.1207	pCi/g	0.1102	0.100	238.7	2	1.122	IDENTIFIED	3.379	☐	
Lead-214	✓	1.318	0.1146	pCi/g	0.1421	0.100	352.1	2	1.314	IDENTIFIED	6.781	☐	
Neptunium-237	INT	1.224	0.2393	pCi/g	0.3897	N	87.05	3	1.449	IDENTIFIED	15.56	☐	
Potassium-40	✓	32.6	1.834	pCi/g	0.5972	1.00	1461	1	2.199	IDENTIFIED	3.07	☐	
Radium-224	INT	3.958	0.6687	pCi/g	1.181	Y	241.8	1	1.678	IDENTIFIED	16.26	☑ UI	
Radium-226	✓	1.205	0.1076	pCi/g	0.1317	Y	609.6	3	1.24	IDENTIFIED	7.425	☐	
Radium-228	✓	2.186	0.2294	pCi/g	0.2494	0.500	911.5	3	1.969	IDENTIFIED	8.581	☐	

Sodium-24	HE	35830	33070	pCi/g	0	N	0	4	0	SHORT_HLIF	0		☐
Thallium-208	✓	0.6314	0.05164	pCi/g	0.06611	0.080	583.3	1	1.64	IDENTIFIED	6.787		☐
Thorium-228	NR	1.964	0.1207	pCi/g	0.1102	N	238.7	2	1.122	IDENTIFIED	3.379		☐
Thorium-230	NR	1.205	0.1028	pCi/g	0.1317	N	609.6	3	1.24	IDENTIFIED	7.425		☐
Thorium-232	NR	2.186	0.2294	pCi/g	0.2494	N	911.5	3	1.969	IDENTIFIED	8.581		☐
Tin-126	NR	0.4101	0.06768	pCi/g	0.129	N	87.05	3	1.449	IDENTIFIED	15.56		☐
Total Uranium	✓	6.9421	2.49E-06	ug/g	4.385	N		0					☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249329002	11-MAR-10 12:00	24-MAR-10 08:57	12.9	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.873	0.2221	pCi/g	0.2695	N	911.5	3	1.616	IDENTIFIED	10.23	☐	
Annihilation Rad.	HE	0.1266	0.03785	pCi/g	0.05238	N	510.6	1	2.129	IDENTIFIED	29.57	☐	
Barium-137m	HE	0.1243	0.02993	pCi/g	0.07221	N	661.7	2	1.973	IDENTIFIED	23.66	☐	
Bismuth-211	INT	4.35	0.3263	pCi/g	0.3573	Y	352.1	2	1.266	IDENTIFIED	6.013	☑ UI	
Bismuth-212	✓	2.337	0.4498	pCi/g	0.8388	N	727.7	1	1.224	IDENTIFIED	18.16	☐	
Bismuth-214	✓	1.251	0.1112	pCi/g	0.1305	0.200	609.6	3	1.615	IDENTIFIED	7.211	☐	
Cadmium-109	INT	3.264	0.5441	pCi/g	1.241	Y	87.32	3	1.198	IDENTIFIED	16	☑ UI	
Cerium-143	—	134.2	32.38	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1199	0.04813	pCi/g	0.1112	0.100	0	3	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-137	✓	0.1313	0.03162	pCi/g	0.07628	0.100	661.7	2	1.973	IDENTIFIED	23.66	☐	
Europium-155	HE	0.2152	0.06945	pCi/g	0.169	N	105	1	1.169	IDENTIFIED	31.97	☐	
Gross Gamma	—	11.16	1.536	pCi/g	4.834	N		0				☐	
Lead-212	✓	2.054	0.119	pCi/g	0.1071	0.100	238.8	2	1.09	IDENTIFIED	3.234	☐	
Lead-214	✓	1.579	0.1262	pCi/g	0.1299	0.100	352.1	2	1.266	IDENTIFIED	6.013	☐	
Neptunium-237	INT	0.9554	0.1881	pCi/g	0.4224	N	87.32	3	1.198	IDENTIFIED	16	☐	
Potassium-40	✓	34.99	1.835	pCi/g	0.5076	1.00	1461	1	2.127	IDENTIFIED	3.012	☐	
Radium-224	INT	4.669	0.7058	pCi/g	1.148	Y	241.7	1	1.659	IDENTIFIED	14.51	☑ UI	
Radium-226	✓	1.251	0.1112	pCi/g	0.1305	Y	609.6	3	1.615	IDENTIFIED	7.211	☐	
Radium-228	✓	1.873	0.2221	pCi/g	0.2695	0.500	911.5	3	1.616	IDENTIFIED	10.23	☐	
Sodium-24	HE	557.5	32090	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.6734	0.05546	pCi/g	0.06863	0.080	583.5	1	1.468	IDENTIFIED	6.709	☐	
Thorium-228	NR	2.054	0.119	pCi/g	0.1071	N	238.8	2	1.09	IDENTIFIED	3.234	☐	
Thorium-230	NR	1.251	0.1062	pCi/g	0.1305	N	609.6	3	1.615	IDENTIFIED	7.211	☐	
Thorium-232	NR	1.873	0.2221	pCi/g	0.2695	N	911.5	3	1.616	IDENTIFIED	10.23	☐	
Tin-126	NR	0.3202	0.05337	pCi/g	0.122	N	87.32	3	1.198	IDENTIFIED	16	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249329003	11-MAR-10 12:00	24-MAR-10 08:57	12.9	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.393	0.2245	pCi/g	0.2838	N	911.4	3	1.614	IDENTIFIED	7.356	☐	
Annihilation Rad.	—	0.1416	0.04049	pCi/g	0.05022	N	511	1	1.882	IDENTIFIED	28.45	☐	
Bismuth-211	INT	4.385	0.2818	pCi/g	0.3809	Y	351.9	2	1.365	IDENTIFIED	5.578	☑ UI	
Bismuth-212	HE	2.015	0.4899	pCi/g	1.308	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.426	0.1145	pCi/g	0.1197	0.200	609.3	3	1.516	IDENTIFIED	6.986	☐	
Cadmium-109	INT	2.974	0.5657	pCi/g	1.485	Y	87.53	3	1.245	IDENTIFIED	18.5	☑ UI	
Cerium-143	—	324.5	47.42	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.3735	0.1039	pCi/g	0.3407	N	0	8	0	NOT_IDENTI	0	☐	
Europium-155	HE	0.2194	0.07175	pCi/g	0.2017	N	105.4	1	1.497	IDENTIFIED	32.51	☐	
Gross Gamma	—	10.93	1.714	pCi/g	4.699	N		0				☐	
Iodine-133	HE	64.8	511.6	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Iodine-135	HE	4.56E+12	1.33E+13	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.004	0.09842	pCi/g	0.1089	0.100	238.6	2	1.27	IDENTIFIED	3.297	☐	
Lead-214	✓	1.591	0.1113	pCi/g	0.1382	0.100	351.9	2	1.365	IDENTIFIED	5.578	☐	
Neptunium-237	INT	0.8702	0.189	pCi/g	0.4413	N	87.53	3	1.245	IDENTIFIED	18.5	☐	
Niobium-95m	—	0.4731	0.08687	pCi/g	0.2794	N	0	8	0	NOT_IDENTI	0	☐	
Potassium-40	✓	32.35	1.538	pCi/g	0.5047	1.00	1462	1	2.039	IDENTIFIED	2.958	☐	

Radium-224	INT	5.423	0.7386	pCi/g	1.166	Y	241.5	1	1.798	IDENTIFIED	13.32	☑ UI		
Radium-226	✓	1.426	0.1145	pCi/g	0.1197	Y	609.3	3	1.516	IDENTIFIED	6.986	☐		
Radium-228	✓	2.393	0.2245	pCi/g	0.2838	0.500	911.4	3	1.614	IDENTIFIED	7.356	☐		
Sodium-24	HE	1573	32020	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Strontium-85	LA	0.1245	0.02277	pCi/g	0.08048	Y	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.	
Thallium-208	✓	0.5575	0.04781	pCi/g	0.06662	0.080	583.3	1	1.522	IDENTIFIED	7.876	☐		
Thorium-228	NR	2.004	0.09842	pCi/g	0.1089	N	238.6	2	1.27	IDENTIFIED	3.297	☐		
Thorium-230	NR	1.426	0.1082	pCi/g	0.1197	N	609.3	3	1.516	IDENTIFIED	6.986	☐		
Thorium-232	NR	2.393	0.2245	pCi/g	0.2838	N	911.4	3	1.614	IDENTIFIED	7.356	☐		
Thorium-234	✓	3.102	1.275	pCi/g	2.459	2.00	63.11	2	1.338	IDENTIFIED	40.11	☐		
Tin-126	NR	0.2916	0.05549	pCi/g	0.1463	N	87.53	3	1.245	IDENTIFIED	18.5	☐		
Total Uranium	–	9.2774	3.79E-06	ug/g	3.6618	N		0				☐		
Uranium-238	HE	3.102	1.275	pCi/g	2.459	N	63.11	2	1.338	IDENTIFIED	40.11	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249329004	11-MAR-10 12:00	24-MAR-10 08:58	12.9	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.466	0.219	pCi/g	0.2163	N	911.4	3	2.092	IDENTIFIED	5.745	☐	
Annihilation Rad.	–	0.1712	0.03158	pCi/g	0.04466	N	510.9	1	1.89	IDENTIFIED	17.75	☐	
Barium-137m	HE	0.0736	0.03394	pCi/g	0.05492	N	662.8	2	3.706	IDENTIFIED	45.81	☐	
Bismuth-211	INT	4.361	0.3257	pCi/g	0.3376	Y	352.1	2	1.302	IDENTIFIED	4.691	☑ UI	
Bismuth-212	–	2.114	0.4754	pCi/g	1.143	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.499	0.1171	pCi/g	0.113	0.200	609.5	3	1.744	IDENTIFIED	5.199	☐	
Cadmium-109	INT	3.267	0.5433	pCi/g	1.275	Y	87.19	3	1.173	IDENTIFIED	15.95	☑ UI	
Cerium-143	–	315.9	47.51	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1457	0.0413	pCi/g	0.09149	0.100	0	6	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.3326	0.09805	pCi/g	0.2968	N	0	6	0	NOT_IDENTI	0	☐	
Cesium-137	↑PW	0.07775	0.03586	pCi/g	0.05801	0.100	662.8	2	3.706	IDENTIFIED	45.81	☑ UI	Data rejected due to high peak-width.
Gross Gamma	–	11.87	1.491	pCi/g	3.081	N		0				☐	
Lead-212	✓	2.248	0.1605	pCi/g	0.09992	0.100	238.7	2	1.248	IDENTIFIED	2.659	☐	
Lead-214	✓	1.583	0.126	pCi/g	0.1246	0.100	352.1	2	1.302	IDENTIFIED	4.691	☐	
Neptunium-237	INT	0.9561	0.188	pCi/g	0.3683	N	87.19	3	1.173	IDENTIFIED	15.95	☐	
Niobium-95	HE	0.08319	0.02423	pCi/g	0.07557	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	✓	38.06	1.94	pCi/g	0.4688	1.00	1461	1	2.749	IDENTIFIED	2.237	☐	
Radium-224	INT	5.42	0.7383	pCi/g	1.07	Y	241.7	1	1.829	IDENTIFIED	12.09	☑ UI	
Radium-226	✓	1.499	0.1171	pCi/g	0.113	Y	609.5	3	1.744	IDENTIFIED	5.199	☐	
Radium-228	✓	2.466	0.219	pCi/g	0.2163	0.500	911.4	3	2.092	IDENTIFIED	5.745	☐	
Strontium-85	LA	0.1435	0.02436	pCi/g	0.07756	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.6578	0.05365	pCi/g	0.05382	0.080	583.2	1	1.625	IDENTIFIED	6.096	☐	
Thorium-228	NR	2.248	0.1605	pCi/g	0.09992	N	238.7	2	1.248	IDENTIFIED	2.659	☐	
Thorium-230	NR	1.499	0.1103	pCi/g	0.113	N	609.5	3	1.744	IDENTIFIED	5.199	☐	
Thorium-232	NR	2.466	0.219	pCi/g	0.2163	N	911.4	3	2.092	IDENTIFIED	5.745	☐	
Tin-126	NR	0.3204	0.05329	pCi/g	0.1336	N	87.19	3	1.173	IDENTIFIED	15.95	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331001	11-MAR-10 12:00	24-MAR-10 08:58	12.9	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.463	0.2204	pCi/g	0.2335	N	911.7	3	1.695	IDENTIFIED	6.96	☐	
Annihilation Rad.	–	0.1977	0.03558	pCi/g	0.05256	N	511.3	1	1.503	IDENTIFIED	17.78	☐	
Bismuth-211	INT	4.806	0.3149	pCi/g	0.3408	Y	352.2	2	1.186	IDENTIFIED	5.618	☑ UI	
Bismuth-212	HE	1.703	0.4294	pCi/g	1.301	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.508	0.1097	pCi/g	0.108	0.200	609.6	3	1.32	IDENTIFIED	6.26	☐	
Cadmium-109	INT	4.952	0.7346	pCi/g	1.363	Y	87.3	3	1.275	IDENTIFIED	13.57	☑ UI	
Cerium-143	–	174.2	32.06	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1053	0.02663	pCi/g	0.101	0.100	0	4	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	–	11.38	1.643	pCi/g	3.53	N		0				☐	
Lead-212	✓	2.309	0.1155	pCi/g	0.09866	0.100	238.8	2	1.181	IDENTIFIED	2.947	☐	

Lead-214	✓	1.744	0.124	pCi/g	0.1239	0.100	352.2	2	1.186	IDENTIFIED	5.618	☐	
Neptunium-237	INT	1.449	0.2633	pCi/g	0.4098	N	87.3	3	1.275	IDENTIFIED	13.57	☐	
Potassium-40	✓	32.39	1.543	pCi/g	0.6825	1.00	1462	1	1.931	IDENTIFIED	3.173	☐	
Radium-224	INT	5.12	0.7761	pCi/g	1.058	Y	241.5	1	1.863	IDENTIFIED	14.79	☑	UI
Radium-226	✓	1.508	0.1097	pCi/g	0.108	Y	609.6	3	1.32	IDENTIFIED	6.26	☐	
Radium-228	✓	2.463	0.2204	pCi/g	0.2335	0.500	911.7	3	1.695	IDENTIFIED	6.96	☐	
Sodium-24	HE	22630	31720	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.6975	0.05165	pCi/g	0.05906	0.080	583.4	1	1.344	IDENTIFIED	6.708	☐	
Thorium-228	NR	2.309	0.1155	pCi/g	0.09866	N	238.8	2	1.181	IDENTIFIED	2.947	☐	
Thorium-230	NR	1.508	0.1022	pCi/g	0.108	N	609.6	3	1.32	IDENTIFIED	6.26	☐	
Thorium-232	NR	2.463	0.2204	pCi/g	0.2335	N	911.7	3	1.695	IDENTIFIED	6.96	☐	
Tin-126	NR	0.4857	0.07205	pCi/g	0.1347	N	87.3	3	1.275	IDENTIFIED	13.57	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331002	11-MAR-10 12:00	24-MAR-10 09:11	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.593	0.2594	pCi/g	0.2671	N	911.8	3	2.095	IDENTIFIED	7.848	☐	
Annihilation Rad.	—	0.205	0.03622	pCi/g	0.04991	N	510.6	1	2.031	IDENTIFIED	17.15	☐	
Bismuth-211	INT	4.911	0.3415	pCi/g	0.3875	Y	352.1	2	1.233	IDENTIFIED	5.133	☑	UI
Bismuth-212	—	2.584	0.4983	pCi/g	1.315	N	0	3	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.592	0.125	pCi/g	0.1232	0.200	609.7	3	1.536	IDENTIFIED	6.119	☐	
Cadmium-109	INT	3.891	0.6682	pCi/g	1.472	Y	86.98	3	1.106	IDENTIFIED	16.23	☑	UI
Cerium-143	—	221.1	37.25	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Europium-155	HE	0.2484	0.06055	pCi/g	0.2162	N	0	3	0	FAIL_ABUND	0	☐	
Gross Gamma	—	11.43	1.641	pCi/g	4.071	N		0				☐	
Lead-212	✓	2.239	0.138	pCi/g	0.1038	0.100	238.7	2	1.167	IDENTIFIED	2.993	☐	
Lead-214	✓	1.782	0.1333	pCi/g	0.1322	0.100	352.1	2	1.233	IDENTIFIED	5.133	☐	
Neptunium-237	INT	1.139	0.2291	pCi/g	0.5044	N	86.98	3	1.106	IDENTIFIED	16.23	☐	
Potassium-40	✓	35.68	1.978	pCi/g	0.6017	1.00	1462	1	2.039	IDENTIFIED	2.838	☐	
Radium-224	INT	4.574	0.72	pCi/g	1.113	Y	241.7	1	1.617	IDENTIFIED	14.97	☑	UI
Radium-226	✓	1.592	0.125	pCi/g	0.1232	Y	609.7	3	1.536	IDENTIFIED	6.119	☐	
Radium-228	✓	2.593	0.2594	pCi/g	0.2671	0.500	911.8	3	2.095	IDENTIFIED	7.848	☐	
Thallium-208	✓	0.6294	0.05214	pCi/g	0.0688	0.080	583.6	1	1.524	IDENTIFIED	6.952	☐	
Thorium-228	NR	2.239	0.138	pCi/g	0.1038	N	238.7	2	1.167	IDENTIFIED	2.993	☐	
Thorium-230	NR	1.592	0.1177	pCi/g	0.1232	N	609.7	3	1.536	IDENTIFIED	6.119	☐	
Thorium-232	NR	2.593	0.2594	pCi/g	0.2671	N	911.8	3	2.095	IDENTIFIED	7.848	☐	
Tin-126	NR	0.3817	0.06553	pCi/g	0.1454	N	86.98	3	1.106	IDENTIFIED	16.23	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331003	11-MAR-10 12:00	24-MAR-10 09:11	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2	0.2041	pCi/g	0.2106	N	911.7	3	1.579	IDENTIFIED	8.065	☐	
Annihilation Rad.	—	0.1642	0.03527	pCi/g	0.04327	N	511.2	1	1.4	IDENTIFIED	20.8	☐	
Barium-137m	NR	0.1681	0.03258	pCi/g	0.05527	N	662.4	2	1.118	IDENTIFIED	18.79	☐	
Bismuth-211	INT	4.913	0.4046	pCi/g	0.2852	Y	352	2	1.169	IDENTIFIED	4.96	☑	UI
Bismuth-212	HE	1.622	0.5529	pCi/g	1.165	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.325	0.1147	pCi/g	0.106	0.200	609.6	3	1.371	IDENTIFIED	6.546	☐	
Cadmium-109	INT	4.993	0.5069	pCi/g	0.9115	Y	87.2	3	1.236	IDENTIFIED	9.002	☑	UI
Cerium-143	—	86.7	25.49	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.08709	0.025	pCi/g	0.08254	0.100	0	4	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Cesium-137	✓	0.1776	0.03442	pCi/g	0.05839	0.100	662.4	2	1.118	IDENTIFIED	18.79	☐	
Gross Gamma	—	11.46	1.409	pCi/g	3.464	N		0				☐	
Iodine-135	HE	9.12E+12	1.21E+13	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.109	0.1592	pCi/g	0.0843	0.100	238.7	2	1.002	IDENTIFIED	2.773	☐	
Lead-214	✓	1.783	0.1548	pCi/g	0.1037	0.100	352	2	1.169	IDENTIFIED	4.96	☐	
Neptunium-237	INT	1.461	0.2132	pCi/g	0.2698	N	87.2	3	1.236	IDENTIFIED	9.002	☐	
Potassium-40	✓	35.89	1.808	pCi/g	0.471	1.00	1462	1	1.767	IDENTIFIED	2.584	☐	

Radium-224	INT	5.237	0.7259	pCi/g	0.9037	Y	241.6	1	1.685	IDENTIFIED	12.13	☑ UI	
Radium-226	✓	1.325	0.1147	pCi/g	0.106	Y	609.6	3	1.371	IDENTIFIED	6.546	☐	
Radium-228	✓	2	0.2041	pCi/g	0.2106	0.500	911.7	3	1.579	IDENTIFIED	8.065	☐	
Thallium-208	✓	0.6912	0.05609	pCi/g	0.05378	0.080	583.4	1	1.319	IDENTIFIED	6.063	☐	
Thorium-228	NR	2.109	0.1592	pCi/g	0.0843	N	238.7	2	1.002	IDENTIFIED	2.773	☐	
Thorium-230	NR	1.325	0.1093	pCi/g	0.106	N	609.6	3	1.371	IDENTIFIED	6.546	☐	
Thorium-232	NR	2	0.2041	pCi/g	0.2106	N	911.7	3	1.579	IDENTIFIED	8.065	☐	
Thorium-234	✓	2.538	0.8358	pCi/g	1.66	2.00	63.06	2	1.243	IDENTIFIED	31.71	☐	
Tin-126	NR	0.4897	0.04971	pCi/g	0.08969	N	87.2	3	1.236	IDENTIFIED	9.002	☐	
Total Uranium	—	7.6199	2.49E-06	ug/g	2.4723	N		0				☐	
Uranium-238	HE	2.538	0.8358	pCi/g	1.66	N	63.06	2	1.243	IDENTIFIED	31.71	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331004	11-MAR-10 12:00	24-MAR-10 09:12	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.057	0.2248	pCi/g	0.2902	N	911	3	1.748	IDENTIFIED	9.098	☐	
Annihilation Rad.	—	0.2476	0.0419	pCi/g	0.0576	N	510.8	1	1.81	IDENTIFIED	16.36	☐	
Bismuth-211	INT	5.082	0.3759	pCi/g	0.4377	Y	352	2	1.566	IDENTIFIED	5.48	☑ UI	
Bismuth-212	✓	2.62	0.5469	pCi/g	0.9775	N	727.6	1	1.443	IDENTIFIED	19.93	☐	
Bismuth-214	✓	1.278	0.1101	pCi/g	0.1672	0.200	609.3	3	1.577	IDENTIFIED	7.023	☐	
Cadmium-109	INT	3.434	0.7752	pCi/g	2.196	Y	87.33	3	1.35	IDENTIFIED	21.71	☑ UI	
Cerium-143	—	284.4	45.46	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1225	0.03081	pCi/g	0.1155	0.100	0	5	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	—	10.81	1.659	pCi/g	4.178	N		0				☐	
Lead-212	✓	1.954	0.1378	pCi/g	0.1274	0.100	238.8	2	1.341	IDENTIFIED	3.747	☐	
Lead-214	✓	1.844	0.1456	pCi/g	0.1592	0.100	352	2	1.566	IDENTIFIED	5.48	☐	
Neptunium-237	HE	1.005	0.2501	pCi/g	0.6166	N	87.33	3	1.35	IDENTIFIED	21.71	☐	
Niobium-95m	HE	0.4499	0.1013	pCi/g	0.3269	N	0	5	0	NOT_IDENTI	0	☐	
Potassium-40	✓	38.6	2.187	pCi/g	0.5585	1.00	1460	1	2.049	IDENTIFIED	2.821	☐	
Radium-224	INT	5.166	0.9566	pCi/g	1.365	Y	241.7	1	2.04	IDENTIFIED	17.68	☑ UI	
Radium-226	✓	1.278	0.1101	pCi/g	0.1672	Y	609.3	3	1.577	IDENTIFIED	7.023	☐	
Radium-228	✓	2.057	0.2248	pCi/g	0.2902	0.500	911	3	1.748	IDENTIFIED	9.098	☐	
Sodium-24	HE	50770	37410	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.1286	0.02756	pCi/g	0.09258	Y	0	5	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.5367	0.06467	pCi/g	0.07092	0.080	583.4	1	1.703	IDENTIFIED	11.15	☐	
Thorium-228	NR	1.954	0.1378	pCi/g	0.1274	N	238.8	2	1.341	IDENTIFIED	3.747	☐	
Thorium-230	NR	1.278	0.1048	pCi/g	0.1672	N	609.3	3	1.577	IDENTIFIED	7.023	☐	
Thorium-232	NR	2.057	0.2248	pCi/g	0.2902	N	911	3	1.748	IDENTIFIED	9.098	☐	
Tin-126	HE	0.3368	0.07603	pCi/g	0.2204	N	87.33	3	1.35	IDENTIFIED	21.71	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331005	11-MAR-10 12:00	24-MAR-10 09:13	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.563	0.2709	pCi/g	0.2912	N	911.2	3	1.957	IDENTIFIED	8.626	☐	
Annihilation Rad.	—	0.1479	0.03846	pCi/g	0.05298	N	510.7	1	1.724	IDENTIFIED	25.49	☐	
Bismuth-211	INT	5.285	0.3662	pCi/g	0.3525	Y	351.9	2	1.215	IDENTIFIED	4.511	☑ UI	
Bismuth-212	—	2.889	0.5218	pCi/g	1.432	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.636	0.1442	pCi/g	0.1262	0.200	609.4	3	1.336	IDENTIFIED	6.407	☐	
Cadmium-109	INT	5.109	0.4388	pCi/g	0.8882	Y	87.24	3	0.914	IDENTIFIED	6.716	☑ UI	
Cerium-143	—	185.5	31.77	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.2249	0.04292	pCi/g	0.1129	0.100	0	5	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	—	12.88	1.354	pCi/g	3.92	N		0				☐	
Iodine-133	HE	668.1	563.4	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Iodine-135	HE	2.48E+13	1.54E+13	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-210	✓	1.393	0.3553	pCi/g	0.6751	N	46.43	1	0.843	IDENTIFIED	24.99	☐	
Lead-212	✓	2.549	0.1596	pCi/g	0.09132	0.100	238.7	2	1.012	IDENTIFIED	2.558	☐	
Lead-214	✓	1.918	0.143	pCi/g	0.1283	0.100	351.9	2	1.215	IDENTIFIED	4.511	☐	

Neptunium-237	INT	1.495	0.2026	pCi/g	0.3299	N	87.24	3	0.914	IDENTIFIED	6.716	☐	
Potassium-40	✓	36.73	1.877	pCi/g	0.5724	1.00	1461	1	2.031	IDENTIFIED	2.825	☐	
Radium-224	INT	6.334	0.7125	pCi/g	0.98	Y	241.7	1	1.773	IDENTIFIED	9.944	☑ UI	
Radium-226	✓	1.636	0.1442	pCi/g	0.1262	Y	609.4	3	1.336	IDENTIFIED	6.407	☐	
Radium-228	✓	2.563	0.2709	pCi/g	0.2912	0.500	911.2	3	1.957	IDENTIFIED	8.626	☐	
Thallium-208	✓	0.7523	0.06843	pCi/g	0.06444	0.080	583.1	1	1.432	IDENTIFIED	7.142	☐	
Thorium-228	NR	2.549	0.1596	pCi/g	0.09132	N	238.7	2	1.012	IDENTIFIED	2.558	☐	
Thorium-230	NR	1.636	0.1376	pCi/g	0.1262	N	609.4	3	1.336	IDENTIFIED	6.407	☐	
Thorium-232	NR	2.563	0.2709	pCi/g	0.2912	N	911.2	3	1.957	IDENTIFIED	8.626	☐	
Thorium-234	✓	2.843	0.5748	pCi/g	0.9105	2.00	63.31	2	0.802	IDENTIFIED	17.86	☐	
Tin-126	NR	0.5011	0.04303	pCi/g	0.08694	N	87.24	3	0.914	IDENTIFIED	6.716	☐	
Total Uranium	—	8.4693	1.71E-06	ug/g	1.3573	N		0				☐	
Uranium-238	NR	2.843	0.5748	pCi/g	0.9105	N	63.31	2	0.802	IDENTIFIED	17.86	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331006	11-MAR-10 12:00	24-MAR-10 09:13	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.147	0.2477	pCi/g	0.2967	N	911.1	3	1.237	IDENTIFIED	8.665	☐	
Annihilation Rad.	—	0.1603	0.04487	pCi/g	0.05942	N	510.6	1	1.659	IDENTIFIED	27.63	☐	
Barium-137m	NR	0.2001	0.04918	pCi/g	0.07096	N	661.3	2	1.025	IDENTIFIED	24.23	☐	
Bismuth-211	INT	5.487	0.3881	pCi/g	0.4211	Y	351.9	2	1.294	IDENTIFIED	5.208	☑ UI	
Bismuth-212	—	4.545	0.5942	pCi/g	1.542	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.581	0.1263	pCi/g	0.1406	0.200	609.2	3	1.469	IDENTIFIED	6.191	☐	
Cadmium-109	INT	3.583	0.6697	pCi/g	1.684	Y	87.12	3	1.185	IDENTIFIED	18.1	☑ UI	
Cerium-143	—	540.4	71.01	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.2114	0.05196	pCi/g	0.07497	0.100	661.3	2	1.025	IDENTIFIED	24.23	☐	
Gross Gamma	—	12.87	1.806	pCi/g	6.078	N		0				☐	
Iodine-135	HE	1.32E+13	1.45E+13	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.482	0.144	pCi/g	0.1185	0.100	238.5	2	1.129	IDENTIFIED	2.963	☐	
Lead-214	✓	1.991	0.1512	pCi/g	0.1531	0.100	351.9	2	1.294	IDENTIFIED	5.208	☐	
Neptunium-237	INT	1.048	0.2247	pCi/g	0.5005	N	87.12	3	1.185	IDENTIFIED	18.1	☐	
Niobium-95m	—	0.8399	0.1091	pCi/g	0.3499	N	0	6	0	NOT_IDENTI	0	☐	
Potassium-40	✓	33.02	2.052	pCi/g	0.7182	1.00	1461	1	1.879	IDENTIFIED	3.007	☐	
Radium-224	INT	7.223	0.9299	pCi/g	1.268	Y	241.5	1	2.065	IDENTIFIED	12.08	☑ UI	
Radium-226	✓	1.581	0.1263	pCi/g	0.1406	Y	609.2	3	1.469	IDENTIFIED	6.191	☐	
Radium-228	✓	2.147	0.2477	pCi/g	0.2967	0.500	911.1	3	1.237	IDENTIFIED	8.665	☐	
Sodium-24	HE	24160	40320	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.1188	0.02765	pCi/g	0.0897	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.6473	0.05676	pCi/g	0.08623	0.080	583.2	1	1.446	IDENTIFIED	7.413	☐	
Thorium-228	NR	2.482	0.144	pCi/g	0.1185	N	238.5	2	1.129	IDENTIFIED	2.963	☐	
Thorium-230	NR	1.581	0.1192	pCi/g	0.1406	N	609.2	3	1.469	IDENTIFIED	6.191	☐	
Thorium-232	NR	2.147	0.2477	pCi/g	0.2967	N	911.1	3	1.237	IDENTIFIED	8.665	☐	
Thorium-234	✓	4.956	1.62	pCi/g	2.933	2.00	62.85	2	1.415	IDENTIFIED	31.42	☐	
Tin-126	NR	0.3514	0.06569	pCi/g	0.1659	N	87.12	3	1.185	IDENTIFIED	18.1	☐	
Total Uranium	—	14.748	4.82E-06	ug/g	4.367	N		0				☐	
Uranium-238	HE	4.956	1.62	pCi/g	2.933	N	62.85	2	1.415	IDENTIFIED	31.42	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331007	11-MAR-10 12:00	24-MAR-10 09:21	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.227	0.2635	pCi/g	0.261	N	911.9	3	1.675	IDENTIFIED	10.22	☐	
Annihilation Rad.	—	0.2125	0.04084	pCi/g	0.05969	N	511.3	1	1.712	IDENTIFIED	18.74	☐	
Barium-137m	HE	0.114	0.03092	pCi/g	0.07762	N	662.1	2	1.027	IDENTIFIED	26.82	☐	
Bismuth-211	INT	5.107	0.3518	pCi/g	0.4581	Y	352.4	2	1.505	IDENTIFIED	5.179	☑ UI	
Bismuth-212	—	2.833	0.4906	pCi/g	1.488	N	0	3	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.514	0.122	pCi/g	0.1345	0.200	609.8	3	1.532	IDENTIFIED	6.351	☐	
Cadmium-109	INT	4.099	0.6351	pCi/g	1.441	Y	87.24	3	1.092	IDENTIFIED	14.77	☑ UI	

Cerium-143	—	91.07	32.26	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.1604	0.03922	pCi/g	0.1217	0.100	0	3	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137	✓	0.1204	0.03267	pCi/g	0.082	0.100	662.1	2	1.027	IDENTIFIED	26.82	☐		
Gross Gamma	—	11.35	1.809	pCi/g	4.536	N		0				☐		
Lead-212	✓	2.222	0.134	pCi/g	0.1153	0.100	239.1	2	1.24	IDENTIFIED	3.243	☐		
Lead-214	✓	1.854	0.1375	pCi/g	0.1705	0.100	352.4	2	1.505	IDENTIFIED	5.179	☐		
Neptunium-237	INT	1.199	0.2244	pCi/g	0.5021	N	87.24	3	1.092	IDENTIFIED	14.77	☐		
Potassium-40	✓	33.22	1.798	pCi/g	0.4402	1.00	1461	1	1.922	IDENTIFIED	3.086	☐		
Radium-224	INT	4.487	0.6646	pCi/g	1.236	Y	241.9	1	1.558	IDENTIFIED	14.1	☑	UI	
Radium-226	✓	1.514	0.122	pCi/g	0.1345	Y	609.8	3	1.532	IDENTIFIED	6.351	☐		
Radium-228	✓	2.227	0.2635	pCi/g	0.261	0.500	911.9	3	1.675	IDENTIFIED	10.22	☐		
Thallium-208	✓	0.6058	0.05615	pCi/g	0.06818	0.080	583.6	1	1.592	IDENTIFIED	8.084	☐		
Thorium-228	NR	2.222	0.134	pCi/g	0.1153	N	239.1	2	1.24	IDENTIFIED	3.243	☐		
Thorium-230	NR	1.514	0.1153	pCi/g	0.1345	N	609.8	3	1.532	IDENTIFIED	6.351	☐		
Thorium-232	NR	2.227	0.2635	pCi/g	0.261	N	911.9	3	1.675	IDENTIFIED	10.22	☐		
Tin-126	NR	0.402	0.06229	pCi/g	0.1421	N	87.24	3	1.092	IDENTIFIED	14.77	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249331008	11-MAR-10 12:00	24-MAR-10 09:21	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	2.104	0.213	pCi/g	0.2212	N	910.8	3	1.406	IDENTIFIED	8.074	☐		
Annihilation Rad.	—	0.1618	0.03573	pCi/g	0.04644	N	510.6	1	1.461	IDENTIFIED	21.56	☐		
Barium-137m	NR	0.3905	0.04215	pCi/g	0.06493	N	661.3	2	1.293	IDENTIFIED	9.84	☐		
Bismuth-211	INT	5.433	0.3926	pCi/g	0.3186	Y	351.8	2	1.137	IDENTIFIED	4.736	☑	UI	
Bismuth-212	✓	2.276	0.484	pCi/g	0.761	N	727.3	1	1.275	IDENTIFIED	20.28	☐		
Bismuth-214	✓	1.615	0.1177	pCi/g	0.1172	0.200	609.1	3	1.43	IDENTIFIED	4.989	☐		
Cadmium-109	INT	4.039	0.5167	pCi/g	1.191	Y	87.23	3	1.05	IDENTIFIED	11.87	☑	UI	
Cerium-143	—	219	36.78	pCi/g	0	N	0	1	0	SHORT_HLIF	0	☐		
Cesium-137	✓	0.4125	0.04454	pCi/g	0.0686	0.100	661.3	2	1.293	IDENTIFIED	9.84	☐		
Gross Gamma	—	12.35	1.601	pCi/g	4.275	N		0				☐		
Lead-212	✓	2.098	0.1389	pCi/g	0.09458	0.100	238.5	2	0.9542	IDENTIFIED	2.932	☐		
Lead-214	✓	1.972	0.1525	pCi/g	0.1159	0.100	351.8	2	1.137	IDENTIFIED	4.736	☐		
Neptunium-237	INT	1.182	0.1955	pCi/g	0.3578	N	87.23	3	1.05	IDENTIFIED	11.87	☐		
Potassium-40	✓	34	1.767	pCi/g	0.5376	1.00	1460	1	1.881	IDENTIFIED	2.773	☐		
Radium-224	INT	6.109	0.7385	pCi/g	1.014	Y	241.4	1	1.705	IDENTIFIED	10.76	☑	UI	
Radium-226	✓	1.615	0.1177	pCi/g	0.1172	Y	609.1	3	1.43	IDENTIFIED	4.989	☐		
Radium-228	✓	2.104	0.213	pCi/g	0.2212	0.500	910.8	3	1.406	IDENTIFIED	8.074	☐		
Thallium-208	✓	0.565	0.05	pCi/g	0.05633	0.080	583	1	1.134	IDENTIFIED	7.334	☐		
Thorium-228	NR	2.098	0.1389	pCi/g	0.09458	N	238.5	2	0.9542	IDENTIFIED	2.932	☐		
Thorium-230	NR	1.615	0.1097	pCi/g	0.1172	N	609.1	3	1.43	IDENTIFIED	4.989	☐		
Thorium-232	NR	2.104	0.213	pCi/g	0.2212	N	910.8	3	1.406	IDENTIFIED	8.074	☐		
Tin-126	NR	0.3961	0.05067	pCi/g	0.1173	N	87.23	3	1.05	IDENTIFIED	11.87	☐		
Total Uranium	—	5.1294	2.06E-06	ug/g	3.4941	N		0				☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334001	11-MAR-10 12:00	24-MAR-10 09:22	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	2.824	0.2525	pCi/g	0.1969	N	910.6	3	1.947	IDENTIFIED	5.829	☐		
Annihilation Rad.	—	0.1913	0.03195	pCi/g	0.04016	N	510.7	1	2.188	IDENTIFIED	16.38	☐		
Bismuth-211	INT	5.613	0.2762	pCi/g	0.2951	Y	351.8	2	1.274	IDENTIFIED	3.73	☑	UI	
Bismuth-212	—	2.478	0.4042	pCi/g	1.14	N	0	9	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.602	0.1031	pCi/g	0.1028	0.200	608.9	3	1.659	IDENTIFIED	4.607	☐		
Cadmium-109	INT	3.997	0.5531	pCi/g	1.485	Y	87.4	3	1.044	IDENTIFIED	13.05	☑	UI	
Cerium-143	—	379.1	48.15	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.1685	0.04429	pCi/g	0.09058	0.100	0	9	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-135	HE	0.2972	0.08343	pCi/g	0.2658	N	0	9	0	NOT_IDENTI	0	☐		
Gross Gamma	—	12.58	1.346	pCi/g	3	N		0				☐		

Iodine-133	HE	171.5	449	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Iodine-135	HE	4.88E+12	1.07E+13	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Lead-212	✓	2.396	0.1042	pCi/g	0.09005	0.100	238.7	2	1.179	IDENTIFIED	2.432	☐		
Lead-214	✓	2.037	0.1149	pCi/g	0.1073	0.100	351.8	2	1.274	IDENTIFIED	3.73	☐		
Neptunium-237	INT	1.17	0.2031	pCi/g	0.4445	N	87.4	3	1.044	IDENTIFIED	13.05	☐		
Niobium-95	HE	0.09081	0.02095	pCi/g	0.07602	N	0	9	0	NOT_IDENTI	0	☐		
Potassium-40	✓	35.11	1.551	pCi/g	0.5115	1.00	1460	1	2.167	IDENTIFIED	2.257	☐		
Radium-224	INT	5.582	0.6355	pCi/g	0.9639	Y	241.6	1	1.767	IDENTIFIED	11.04	☑ UI		
Radium-226	✓	1.602	0.1031	pCi/g	0.1028	Y	608.9	3	1.659	IDENTIFIED	4.607	☐		
Radium-228	✓	2.824	0.2525	pCi/g	0.1969	0.500	910.6	3	1.947	IDENTIFIED	5.829	☐		
Strontium-85	LA	0.0957	0.01925	pCi/g	0.06416	Y	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.	
Technetium-99m	HE	6.00E+12	4.14E+13	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.7132	0.04713	pCi/g	0.0493	0.080	582.8	1	1.537	IDENTIFIED	5.325	☐		
Thorium-228	NR	2.396	0.1042	pCi/g	0.09005	N	238.7	2	1.179	IDENTIFIED	2.432	☐		
Thorium-230	NR	1.602	0.094	pCi/g	0.1028	N	608.9	3	1.659	IDENTIFIED	4.607	☐		
Thorium-232	NR	2.824	0.2525	pCi/g	0.1969	N	910.6	3	1.947	IDENTIFIED	5.829	☐		
Tin-126	NR	0.392	0.05425	pCi/g	0.1466	N	87.4	3	1.044	IDENTIFIED	13.05	☐		
Total Uranium	—	7.546	2.82E-06	ug/g	4.1308	N		0				☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334002	11-MAR-10 12:00	24-MAR-10 09:22	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.261	0.2226	pCi/g	0.2877	N	910.1	3	1.839	IDENTIFIED	7.852	☐	
Annihilation Rad.	—	0.1409	0.03796	pCi/g	0.05484	N	510.2	1	1.544	IDENTIFIED	26.79	☐	
Bismuth-211	INT	5.225	0.3313	pCi/g	0.3903	Y	351.3	2	1.268	IDENTIFIED	5.439	☑ UI	
Bismuth-212	—	3.067	0.4932	pCi/g	1.436	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.538	0.1097	pCi/g	0.133	0.200	608.6	3	1.487	IDENTIFIED	6.041	☐	
Cadmium-109	INT	4.289	0.6639	pCi/g	1.83	Y	87.05	3	1.086	IDENTIFIED	14.7	☑ UI	
Cerium-143	—	511.8	69.24	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1204	0.04904	pCi/g	0.1069	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.5252	0.167	pCi/g	0.3245	N	270	1	1.38	IDENTIFIED	31.57	☐	
Gross Gamma	—	11.17	1.647	pCi/g	3.822	N		0				☐	
Iodine-133	HE	211.7	610.3	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Iodine-135	HE	4.75E+12	1.65E+13	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.266	0.1073	pCi/g	0.1148	0.100	238.3	2	1.17	IDENTIFIED	3.043	☐	
Lead-214	✓	1.896	0.1311	pCi/g	0.142	0.100	351.3	2	1.268	IDENTIFIED	5.439	☐	
Neptunium-237	INT	1.255	0.2347	pCi/g	0.5666	N	87.05	3	1.086	IDENTIFIED	14.7	☐	
Niobium-95m	—	0.9718	0.1067	pCi/g	0.3539	N	0	7	0	NOT_IDENTI	0	☐	
Potassium-40	✓	32.12	1.578	pCi/g	0.4438	1.00	1459	1	2.141	IDENTIFIED	3.186	☐	
Radium-224	INT	6.573	0.8237	pCi/g	1.23	Y	241.3	1	1.952	IDENTIFIED	12.21	☑ UI	
Radium-226	✓	1.538	0.1097	pCi/g	0.133	Y	608.6	3	1.487	IDENTIFIED	6.041	☐	
Radium-228	✓	2.261	0.2226	pCi/g	0.2877	0.500	910.1	3	1.839	IDENTIFIED	7.852	☐	
Technetium-99m	HE	4.42E+12	5.17E+13	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.6767	0.04846	pCi/g	0.06319	0.080	582.5	1	1.41	IDENTIFIED	6.387	☐	
Thorium-228	NR	2.266	0.1073	pCi/g	0.1148	N	238.3	2	1.17	IDENTIFIED	3.043	☐	
Thorium-230	NR	1.538	0.1019	pCi/g	0.133	N	608.6	3	1.487	IDENTIFIED	6.041	☐	
Thorium-232	NR	2.261	0.2226	pCi/g	0.2877	N	910.1	3	1.839	IDENTIFIED	7.852	☐	
Tin-126	NR	0.4206	0.06511	pCi/g	0.198	N	87.05	3	1.086	IDENTIFIED	14.7	☐	
Total Uranium	—	9.5977	4.21E-06	ug/g	4.9088	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334003	11-MAR-10 12:00	24-MAR-10 09:48	12.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.722	0.2454	pCi/g	0.3194	N	911.2	3	1.296	IDENTIFIED	13	☐	
Annihilation Rad.	HE	0.1123	0.04446	pCi/g	0.07079	N	510.9	1	1.75	IDENTIFIED	39.32	☐	
Barium-137m	NR	0.4024	0.06442	pCi/g	0.08194	N	661.9	2	1.363	IDENTIFIED	15.45	☐	
Bismuth-211	INT	4.851	0.3752	pCi/g	0.416	Y	352	2	1.279	IDENTIFIED	6.17	☑ UI	

Bismuth-212	HE	2.12	0.6131	pCi/g	1.802	N	0	5	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.483	0.1515	pCi/g	0.1526	0.200	609.2	3	1.397	IDENTIFIED	8.846	☐		
Cadmium-109	INT	3.997	0.543	pCi/g	1.323	Y	87.35	3	1.111	IDENTIFIED	12.68	☑ UI		
Cerium-141	—	0.6223	0.06729	pCi/g	0.2111	N	0	5	0	NOT_IDENTI	0	☐		
Cerium-143	—	124.8	34.36	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.234	0.04962	pCi/g	0.139	0.100	0	5	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137	✓	0.4251	0.06806	pCi/g	0.08656	0.100	661.9	2	1.363	IDENTIFIED	15.45	☐		
Europium-155	HE	0.3049	0.09552	pCi/g	0.2385	N	105.7	1	1.245	IDENTIFIED	30.87	☐		
Gross Gamma	—	15.14	1.842	pCi/g	6.257	N		0				☐		
Lead-210	HE	1.996	0.6107	pCi/g	1.05	N	46.72	1	1.033	IDENTIFIED	30.12	☐		
Lead-212	✓	1.85	0.119	pCi/g	0.1134	0.100	238.8	2	1.061	IDENTIFIED	3.966	☐		
Lead-214	✓	1.761	0.1446	pCi/g	0.1514	0.100	352	2	1.279	IDENTIFIED	6.17	☐		
Neptunium-237	INT	1.17	0.2007	pCi/g	0.4156	N	87.35	3	1.111	IDENTIFIED	12.68	☐		
Potassium-40	✓	30.34	1.813	pCi/g	0.7345	1.00	1461	1	2.007	IDENTIFIED	3.998	☐		
Radium-224	INT	5.169	0.8488	pCi/g	1.216	Y	241.7	1	1.823	IDENTIFIED	15.78	☑ UI		
Radium-226	✓	1.483	0.1515	pCi/g	0.1526	Y	609.2	3	1.397	IDENTIFIED	8.846	☐		
Radium-228	✓	1.722	0.2454	pCi/g	0.3194	0.500	911.2	3	1.296	IDENTIFIED	13	☐		
Technetium-99m	HE	1.26E+14	7.03E+13	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		
Tellurium-125m	HE	29.61	8.094	pCi/g	21.3	N	109	1	1.309	IDENTIFIED	26.62	☐		
Thallium-208	✓	0.544	0.06342	pCi/g	0.08792	0.080	583.2	1	1.102	IDENTIFIED	10.66	☐		
Thorium-228	NR	1.85	0.119	pCi/g	0.1134	N	238.8	2	1.061	IDENTIFIED	3.966	☐		
Thorium-230	NR	1.483	0.1463	pCi/g	0.1526	N	609.2	3	1.397	IDENTIFIED	8.846	☐		
Thorium-232	NR	1.722	0.2454	pCi/g	0.3194	N	911.2	3	1.296	IDENTIFIED	13	☐		
Thorium-234	✓	2.422	0.6816	pCi/g	1.351	2.00	63.46	2	1.058	IDENTIFIED	26.49	☐		
Tin-126	NR	0.392	0.05326	pCi/g	0.1295	N	87.35	3	1.111	IDENTIFIED	12.68	☐		
Total Uranium	—	8.9962	2.04E-06	ug/g	2.0144	N		0				☐		
Uranium-235	✓	3.871	0.4409	pCi/g	0.4806	0.500	143.9	1	1.076	IDENTIFIED	7.107	☐		
Uranium-238	HE	2.422	0.6816	pCi/g	1.351	N	63.46	2	1.058	IDENTIFIED	26.49	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334004	11-MAR-10 12:00	24-MAR-10 10:53	13	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	2.046	0.2431	pCi/g	0.2983	N	910.9 3	1.412	IDENTIFIED	10.34	☐		
Annihilation Rad.	—	0.1383	0.03706	pCi/g	0.05957	N	510.7 1	1.501	IDENTIFIED	26.37	☐		
Barium-137m	NR	0.375	0.04994	pCi/g	0.08932	N	661.6 2	1.234	IDENTIFIED	12.12	☐		
Bismuth-211	INT	4.753	0.3413	pCi/g	0.3604	Y	351.7 2	1.051	IDENTIFIED	5.588	☑ UI		
Bismuth-212	—	3.315	0.5626	pCi/g	1.678	N	0 4	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.369	0.1253	pCi/g	0.1463	0.200	609.2 3	1.23	IDENTIFIED	6.976	☐		
Cadmium-109	INT	3.23	0.419	pCi/g	0.9388	Y	87.3 3	0.9418	IDENTIFIED	12.1	☑ UI		
Cerium-143	—	137.6	30.53	pCi/g	0	N	0 4	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.1533	0.0402	pCi/g	0.1219	0.100	0 4	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137	✓	0.3961	0.05277	pCi/g	0.09436	0.100	661.6 2	1.234	IDENTIFIED	12.12	☐		
Gross Gamma	—	12.05	1.676	pCi/g	4.965	N	0				☐		
Lead-210	✓	2.445	0.373	pCi/g	0.69	N	46.46 1	0.6974	IDENTIFIED	14.5	☐		
Lead-212	✓	2.067	0.1212	pCi/g	0.0938	0.100	238.5 2	0.8382	IDENTIFIED	3.068	☐		
Lead-214	✓	1.725	0.1327	pCi/g	0.1312	0.100	351.7 2	1.051	IDENTIFIED	5.588	☐		
Neptunium-237	INT	0.9452	0.1577	pCi/g	0.2732	N	87.3 3	0.9418	IDENTIFIED	12.1	☐		
Potassium-40	✓	34.14	1.899	pCi/g	0.6962	1.00	1460 1	1.981	IDENTIFIED	3.566	☐		
Radium-224	INT	6.259	0.6379	pCi/g	1.008	Y	241.4 1	1.577	IDENTIFIED	9.172	☑ UI		
Radium-226	✓	1.369	0.1253	pCi/g	0.1463	Y	609.2 3	1.23	IDENTIFIED	6.976	☐		
Radium-228	✓	2.046	0.2431	pCi/g	0.2983	0.500	910.9 3	1.412	IDENTIFIED	10.34	☐		
Sodium-24	HE	15860	38880	pCi/g	0	N	0 4	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.6157	0.0638	pCi/g	0.07603	0.080	583 1	1.163	IDENTIFIED	8.818	☐		
Thorium-228	NR	2.067	0.1212	pCi/g	0.0938	N	238.5 2	0.8382	IDENTIFIED	3.068	☐		
Thorium-230	NR	1.369	0.12	pCi/g	0.1463	N	609.2 3	1.23	IDENTIFIED	6.976	☐		
Thorium-232	NR	2.046	0.2431	pCi/g	0.2983	N	910.9 3	1.412	IDENTIFIED	10.34	☐		
Thorium-234	✓	1.444	0.4345	pCi/g	0.8742	2.00	63.19 2	0.8891	IDENTIFIED	28.71	☐		
Tin-126	NR	0.3168	0.04109	pCi/g	0.09191	N	87.3 3	0.9418	IDENTIFIED	12.1	☐		

Total Uranium	–	4.5241	1.29E-06	ug/g	1.3029	N		0				☐
Uranium-235	✓	0.4947	0.1448	pCi/g	0.284	0.500	143.5	1	0.9349	IDENTIFIED	27.89	☐
Uranium-238	HE	1.444	0.4345	pCi/g	0.8742	N	63.19	2	0.8891	IDENTIFIED	28.71	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334005	11-MAR-10 12:00	24-MAR-10 11:16	13	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.512	0.2579	pCi/g	0.2968	N	910.9	3	1.521	IDENTIFIED	8.293	☐	
Annihilation Rad.	–	0.2686	0.04895	pCi/g	0.05755	N	510.9	1	2.19	IDENTIFIED	17.71	☐	
Barium-137m	HE	0.1124	0.03469	pCi/g	0.08889	N	661.5	2	0.9593	IDENTIFIED	30.57	☐	
Bismuth-211	INT	5.148	0.4203	pCi/g	0.4957	Y	352.1	2	1.318	IDENTIFIED	6.479	☑ UI	
Bismuth-212	HE	1.736	0.5964	pCi/g	1.614	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.506	0.1436	pCi/g	0.1583	0.200	609.5	3	1.573	IDENTIFIED	8.134	☐	
Cadmium-109	INT	4.556	0.7926	pCi/g	1.903	Y	87.24	3	1.241	IDENTIFIED	16.27	☑ UI	
Cerium-141	–	0.4947	0.06614	pCi/g	0.2053	N	0	9	0	NOT_IDENTI	0	☐	
Cerium-143	–	379.6	60.92	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.1188	0.03665	pCi/g	0.0939	0.100	661.5	2	0.9593	IDENTIFIED	30.57	☐	
Gross Gamma	–	13.96	1.928	pCi/g	6.244	N		0				☐	
Iodine-133	HE	9.693	764.3	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Iodine-135	HE	1.67E+13	2.09E+13	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.326	0.1628	pCi/g	0.1366	0.100	238.8	2	1.311	IDENTIFIED	3.643	☐	
Lead-214	✓	1.868	0.161	pCi/g	0.1669	0.100	352.1	2	1.318	IDENTIFIED	6.479	☐	
Neptunium-237	INT	1.333	0.2708	pCi/g	0.6739	N	87.24	3	1.241	IDENTIFIED	16.27	☐	
Niobium-95	HE	0.1282	0.03389	pCi/g	0.1137	N	0	9	0	NOT_IDENTI	0	☐	
Niobium-95m	HE	0.4949	0.1114	pCi/g	0.3544	N	0	9	0	NOT_IDENTI	0	☐	
Potassium-40	✓	35.91	2.123	pCi/g	0.7671	1.00	1461	1	2.412	IDENTIFIED	3.29	☐	
Radium-224	INT	5.983	0.9688	pCi/g	1.464	Y	241.8	1	1.888	IDENTIFIED	15.22	☑ UI	
Radium-226	✓	1.506	0.1436	pCi/g	0.1583	Y	609.5	3	1.573	IDENTIFIED	8.134	☐	
Radium-228	✓	2.512	0.2579	pCi/g	0.2968	0.500	910.9	3	1.521	IDENTIFIED	8.293	☐	
Sodium-24	HE	53810	46310	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.1718	0.03055	pCi/g	0.1043	Y	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.7471	0.05965	pCi/g	0.07889	0.080	583.2	1	1.637	IDENTIFIED	6.544	☐	
Thorium-228	NR	2.326	0.1628	pCi/g	0.1366	N	238.8	2	1.311	IDENTIFIED	3.643	☐	
Thorium-230	NR	1.506	0.138	pCi/g	0.1583	N	609.5	3	1.573	IDENTIFIED	8.134	☐	
Thorium-232	NR	2.512	0.2579	pCi/g	0.2968	N	910.9	3	1.521	IDENTIFIED	8.293	☐	
Tin-126	NR	0.4468	0.07772	pCi/g	0.1881	N	87.24	3	1.241	IDENTIFIED	16.27	☐	
Uranium-235	✓	1.766	0.3038	pCi/g	0.5385	0.500	143.9	1	1.471	IDENTIFIED	14.72	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334006	11-MAR-10 12:00	24-MAR-10 11:01	13	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	2.412	0.228	pCi/g	0.3006	N	911.5	3	1.589	IDENTIFIED	7.274	☐	
Annihilation Rad.	HE	0.1237	0.04488	pCi/g	0.06284	N	511	1	2.038	IDENTIFIED	36.01	☐	
Bismuth-211	INT	4.978	0.4041	pCi/g	0.4159	Y	352	2	1.369	IDENTIFIED	6.627	☑ UI	
Bismuth-212	HE	2.894	0.6737	pCi/g	1.566	N	0	3	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.506	0.1317	pCi/g	0.153	0.200	609.7	3	1.522	IDENTIFIED	7.204	☐	
Cadmium-109	INT	3.835	0.6835	pCi/g	1.771	Y	87.2	3	0.9961	IDENTIFIED	16.95	☑ UI	
Cerium-143	–	277.7	46.92	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1258	0.04219	pCi/g	0.1194	0.100	0	3	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	–	11.68	1.791	pCi/g	4.203	N		0				☐	
Lead-212	✓	2.153	0.1345	pCi/g	0.1213	0.100	238.7	2	1.113	IDENTIFIED	3.564	☐	
Lead-214	✓	1.807	0.1549	pCi/g	0.1513	0.100	352	2	1.369	IDENTIFIED	6.627	☐	
Neptunium-237	INT	1.122	0.232	pCi/g	0.487	N	87.2	3	0.9961	IDENTIFIED	16.95	☐	
Potassium-40	✓	34.28	1.995	pCi/g	0.7676	1.00	1461	1	2.283	IDENTIFIED	3.415	☐	
Radium-224	INT	4.874	0.9198	pCi/g	1.301	Y	241.7	1	1.846	IDENTIFIED	18.3	☑ UI	
Radium-226	✓	1.506	0.1317	pCi/g	0.153	Y	609.7	3	1.522	IDENTIFIED	7.204	☐	
Radium-228	✓	2.412	0.228	pCi/g	0.3006	0.500	911.5	3	1.589	IDENTIFIED	7.274	☐	

Thallium-208	✓	0.729	0.06143	pCi/g	0.06518	0.080	583.1	1	1.332	IDENTIFIED	7.082	☐
Thorium-228	NR	2.153	0.1345	pCi/g	0.1213	N	238.7	2	1.113	IDENTIFIED	3.564	☐
Thorium-230	NR	1.506	0.1256	pCi/g	0.153	N	609.7	3	1.522	IDENTIFIED	7.204	☐
Thorium-232	NR	2.412	0.228	pCi/g	0.3006	N	911.5	3	1.589	IDENTIFIED	7.274	☐
Thorium-234	✓	3.818	1.399	pCi/g	2.836	2.00	63.31	2	1.289	IDENTIFIED	35.46	☐
Tin-126	NR	0.3761	0.06703	pCi/g	0.1838	N	87.2	3	0.9961	IDENTIFIED	16.95	☐
Total Uranium	—	11.426	4.16E-06	ug/g	4.2222	N		0				☐
Uranium-238	HE	3.818	1.399	pCi/g	2.836	N	63.31	2	1.289	IDENTIFIED	35.46	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334007	11-MAR-10 12:00	24-MAR-10 11:02	13	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.206	0.2454	pCi/g	0.2867	N	911.6	3	1.652	IDENTIFIED	9.371	☐	
Annihilation Rad.	—	0.2229	0.04405	pCi/g	0.05337	N	510.9	1	1.603	IDENTIFIED	19.26	☐	
Bismuth-211	INT	5.817	0.3771	pCi/g	0.3906	Y	352	2	1.211	IDENTIFIED	4.681	☑ UI	
Bismuth-212	—	3.816	0.6487	pCi/g	1.515	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.734	0.1364	pCi/g	0.1308	0.200	609.6	3	1.705	IDENTIFIED	5.903	☐	
Cadmium-109	INT	4.871	0.5414	pCi/g	1.321	Y	87.33	3	1.019	IDENTIFIED	10.08	☑ UI	
Cerium-143	—	232.4	42.13	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1329	0.04147	pCi/g	0.1106	0.100	0	6	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cobalt-60	✓	0.2057	0.04519	pCi/g	0.07852	0.100	1333	1	1.689	IDENTIFIED	21.58	☐	
Europium-155	HE	0.2253	0.06009	pCi/g	0.2091	N	0	6	0	FAIL_ABUND	0	☐	
Gross Gamma	—	12.88	1.655	pCi/g	5.548	N		0				☐	
Iodine-135	HE	1.61E+13	1.86E+13	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	✓	2.459	0.139	pCi/g	0.1057	0.100	238.8	2	1.139	IDENTIFIED	2.973	☐	
Lead-214	✓	2.111	0.1487	pCi/g	0.1421	0.100	352	2	1.211	IDENTIFIED	4.681	☐	
Mercury-203	INT	0.07542	0.03506	pCi/g	0.06542	0.100	277.8	1	1.002	IDENTIFIED	46.28	☑ UI	
Neptunium-237	INT	1.425	0.2178	pCi/g	0.4425	N	87.33	3	1.019	IDENTIFIED	10.08	☐	
Potassium-40	✓	35.98	1.879	pCi/g	0.5435	1.00	1461	1	2.15	IDENTIFIED	2.971	☐	
Radium-224	INT	6.609	0.776	pCi/g	1.134	Y	241.6	1	1.715	IDENTIFIED	10.95	☑ UI	
Radium-226	✓	1.734	0.1364	pCi/g	0.1308	Y	609.6	3	1.705	IDENTIFIED	5.903	☐	
Radium-228	✓	2.206	0.2454	pCi/g	0.2867	0.500	911.6	3	1.652	IDENTIFIED	9.371	☐	
Strontium-85	LA	0.09379	0.02398	pCi/g	0.08161	Y	0	6	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.6796	0.05944	pCi/g	0.07524	0.080	583.5	1	1.657	IDENTIFIED	7.326	☐	
Thorium-228	NR	2.459	0.139	pCi/g	0.1057	N	238.8	2	1.139	IDENTIFIED	2.973	☐	
Thorium-230	NR	1.734	0.1284	pCi/g	0.1308	N	609.6	3	1.705	IDENTIFIED	5.903	☐	
Thorium-232	NR	2.206	0.2454	pCi/g	0.2867	N	911.6	3	1.652	IDENTIFIED	9.371	☐	
Thorium-234	✓	2.731	1.004	pCi/g	1.859	2.00	63.6	2	1.223	IDENTIFIED	35.66	☐	
Tin-126	NR	0.4777	0.05309	pCi/g	0.1298	N	87.33	3	1.019	IDENTIFIED	10.08	☐	
Total Uranium	—	8.1903	2.99E-06	ug/g	2.7677	N		0				☐	
Uranium-238	HE	2.731	1.004	pCi/g	1.859	N	63.6	2	1.223	IDENTIFIED	35.66	☐	

*** = Number of isotopes identified with a keyline at this energy.

3/26/10

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202071014		24-MAR-10 11:03	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Technetium-99m	HE	8.99E+06	5.62E+06	pCi/g	0	N	0	1	0	SHORT_HLIF	0	☐	
Total Uranium	—	2.4106	1.22E-06	ug/g	1.4732	N		0				☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202071015	11-MAR-10 12:00	24-MAR-10 11:24	13	DUP	LOAD	1		LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	2.537	0.2671	pCi/g	0.3245	N	911.6	3	1.671	IDENTIFIED	8.683	☐	
Annihilation Rad.	—	0.2689	0.04812	pCi/g	0.05498	N	511.3	1	1.8	IDENTIFIED	17.38	☐	
Bismuth-211	INT	5.794	0.3945	pCi/g	0.4297	Y	352.4	2	1.359	IDENTIFIED	5.074	☑ UI	
Bismuth-212	—	3.294	0.6754	pCi/g	1.563	N	0	4	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.937	0.1429	pCi/g	0.1449	0.200	609.6	3	1.477	IDENTIFIED	5.466	☐	

Cadmium-109	INT	3.908	0.6848	pCi/g	1.679	Y	87.26	3	1.209	IDENTIFIED	16.88	☑ UI		
Cerium-143	–	128.8	37.93	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.1608	0.03993	pCi/g	0.123	0.100	0	4	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.	
Gross Gamma	–	13.56	1.899	pCi/g	5.468	N		0				☐		
Lead-212	✓	2.379	0.1446	pCi/g	0.1225	0.100	239.1	2	1.284	IDENTIFIED	3.328	☐		
Lead-214	✓	2.103	0.1545	pCi/g	0.1508	0.100	352.4	2	1.359	IDENTIFIED	5.074	☐		
Neptunium-237	INT	1.144	0.2335	pCi/g	0.5209	N	87.26	3	1.209	IDENTIFIED	16.88	☐		
Potassium-40	✓	36.75	2.003	pCi/g	0.6657	1.00	1461	1	1.989	IDENTIFIED	3.152	☐		
Radium-224	INT	6.112	0.881	pCi/g	1.313	Y	241.9	1	1.74	IDENTIFIED	13.68	☑ UI		
Radium-226	✓	1.937	0.1429	pCi/g	0.1449	Y	609.6	3	1.477	IDENTIFIED	5.466	☐		
Radium-228	✓	2.537	0.2671	pCi/g	0.3245	0.500	911.6	3	1.671	IDENTIFIED	8.683	☐		
Strontium-85	LA	0.1739	0.02989	pCi/g	0.1025	Y	0	4	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.	
Thallium-208	✓	0.7708	0.06423	pCi/g	0.0744	0.080	583.8	1	1.431	IDENTIFIED	6.99	☐		
Thorium-228	NR	2.379	0.1446	pCi/g	0.1225	N	239.1	2	1.284	IDENTIFIED	3.328	☐		
Thorium-230	NR	1.936	0.1334	pCi/g	0.1449	N	609.6	3	1.477	IDENTIFIED	5.466	☐		
Thorium-232	NR	2.537	0.2671	pCi/g	0.3245	N	911.6	3	1.671	IDENTIFIED	8.683	☐		
Thorium-234	✓	3.872	1.585	pCi/g	2.868	2.00	63.15	2	1.13	IDENTIFIED	39.94	☐		
Tin-126	NR	0.3833	0.06716	pCi/g	0.1655	N	87.26	3	1.209	IDENTIFIED	16.88	☐		
Total Uranium	–	11.568	4.72E-06	ug/g	4.2703	N		0				☐		
Uranium-238	HE	3.872	1.585	pCi/g	2.868	N	63.15	2	1.13	IDENTIFIED	39.94	☐		

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202071016		24-MAR-10 11:06	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	HE	1.049	0.3204	pCi/g	0.6158	N	911.3	3	1.258	IDENTIFIED	30.03	☐	
Americium-241	✓	14.7	1.056	pCi/g	0.7765	0.200	59.59	1	1.03	IDENTIFIED	3.422	☐ 90.2%	
Annihilation Rad.	HE	0.1709	0.06458	pCi/g	0.09087	N	511.1	1	2.164	IDENTIFIED	37.68	☐	
Barium-137m		5.347	0.1841	pCi/g	0.1153	N	662	2	1.459	IDENTIFIED	2.428	☐	
Bismuth-211		2.983	0.3611	pCi/g	0.6226	Y	352.1	2	1.076	IDENTIFIED	11.63	☐	
Bismuth-214		0.7681	0.1494	pCi/g	0.2124	0.200	609.9	3	1.599	IDENTIFIED	19.09	☐	
Cadmium-109		34.47	2.58	pCi/g	2.249	Y	88.02	2	0.9683	IDENTIFIED	4.463	☐	
Cesium-137	✓	5.648	0.195	pCi/g	0.1218	0.100	662	2	1.459	IDENTIFIED	2.428	☐ 99.4%	
Cobalt-57		0.1617	0.02843	pCi/g	0.06764	N	122.1	1	0.9509	IDENTIFIED	17.24	☐	
Cobalt-60	✓	6.474	0.2836	pCi/g	0.09371	0.100	1333	1	1.998	IDENTIFIED	2.73	☐ 100.1%	
Gross Gamma		28.09	2.836	pCi/g	3.595	N		0				☐	
Iodine-135	HE	2.06E+06	1.45E+07	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Lead-212		1.461	0.09654	pCi/g	0.1695	0.100	238.7	2	1.078	IDENTIFIED	5.222	☐	
Lead-214		1.083	0.1344	pCi/g	0.2248	0.100	352.1	2	1.076	IDENTIFIED	11.63	☐	
Neptunium-237		3.757	0.5351	pCi/g	1.139	N	0	4	0	NOT_IDENTI	0	☐	
Radium-224		3.796	1.084	pCi/g	1.817	Y	241.5	1	1.863	IDENTIFIED	28.37	☐	
Radium-226		0.7681	0.1494	pCi/g	0.2124	Y	609.9	3	1.599	IDENTIFIED	19.09	☐	
Radium-228		1.049	0.3204	pCi/g	0.6158	0.500	911.3	3	1.258	IDENTIFIED	30.03	☐	
Sodium-24	HE	120.9	82.15	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	6.14E+06	1.74E+07	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Thallium-208		0.3783	0.05932	pCi/g	0.1085	0.080	583.4	1	1.472	IDENTIFIED	15.37	☐	
Thorium-228		1.461	0.09654	pCi/g	0.1695	N	238.7	2	1.078	IDENTIFIED	5.222	☐	
Thorium-230		0.7681	0.148	pCi/g	0.2124	N	609.9	3	1.599	IDENTIFIED	19.09	☐	
Thorium-232	HE	1.049	0.3204	pCi/g	0.6158	N	911.3	3	1.258	IDENTIFIED	30.03	☐	
Tin-126		3.408	0.2552	pCi/g	0.2242	N	88.02	2	0.9683	IDENTIFIED	4.463	☐	

*** = Number of isotopes identified with a keyline at this energy.

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334006	11-MAR-10 12:00	24-MAR-10 11:01	13	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228		2.412	0.228	pCi/g	0.3006	N	911.5	3	1.589	IDENTIFIED	7.274	☐		
Annihilation Rad.	HE	0.1237	0.04488	pCi/g	0.06284	N	511	1	2.038	IDENTIFIED	36.01	☐		
Bismuth-211		4.978	0.4041	pCi/g	0.4159	Y	352	2	1.369	IDENTIFIED	6.627	☐		
Bismuth-212	HE	2.894	0.6737	pCi/g	1.566	N	0	3	0	FAIL_ABUND	0	☐		
Bismuth-214		1.506	0.1317	pCi/g	0.153	0.200	609.7	3	1.522	IDENTIFIED	7.204	☐		
Cadmium-109		3.835	0.6835	pCi/g	1.771	Y	87.2	3	0.9961	IDENTIFIED	16.95	☐		
Cerium-143		277.7	46.92	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐		
Cesium-134		0.1258	0.04219	pCi/g	0.1194	0.100	0	3	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma		11.68	1.791	pCi/g	4.203	N		0				☐		
Lead-212		2.153	0.1345	pCi/g	0.1213	0.100	238.7	2	1.113	IDENTIFIED	3.564	☐		
Lead-214		1.807	0.1549	pCi/g	0.1513	0.100	352	2	1.369	IDENTIFIED	6.627	☐		
Neptunium-237		1.122	0.232	pCi/g	0.487	N	87.2	3	0.9961	IDENTIFIED	16.95	☐		
Potassium-40		34.28	1.995	pCi/g	0.7676	1.00	1461	1	2.283	IDENTIFIED	3.415	☐		
Radium-224		4.874	0.9198	pCi/g	1.301	Y	241.7	1	1.846	IDENTIFIED	18.3	☐		
Radium-226		1.506	0.1317	pCi/g	0.153	Y	609.7	3	1.522	IDENTIFIED	7.204	☐		
Radium-228		2.412	0.228	pCi/g	0.3006	0.500	911.5	3	1.589	IDENTIFIED	7.274	☐		
Thallium-208		0.729	0.06143	pCi/g	0.06518	0.080	583.1	1	1.332	IDENTIFIED	7.082	☐		
Thorium-228		2.153	0.1345	pCi/g	0.1213	N	238.7	2	1.113	IDENTIFIED	3.564	☐		
Thorium-230		1.506	0.1256	pCi/g	0.153	N	609.7	3	1.522	IDENTIFIED	7.204	☐		
Thorium-232		2.412	0.228	pCi/g	0.3006	N	911.5	3	1.589	IDENTIFIED	7.274	☐		
Thorium-234		3.818	1.399	pCi/g	2.836	2.00	63.31	2	1.289	IDENTIFIED	35.46	☐		
Tin-126		0.3761	0.06703	pCi/g	0.1838	N	87.2	3	0.9961	IDENTIFIED	16.95	☐		
Total Uranium		11.426	4.16E-06	ug/g	4.2222	N		0				☐		
Uranium-238	HE	3.818	1.399	pCi/g	2.836	N	63.31	2	1.289	IDENTIFIED	35.46	☐		

*** = Number of isotopes identified with a keyline at this energy.

3/26/10

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
249334007	11-MAR-10 12:00	25-MAR-10 14:47	14.1	SAMPLE	LOAD	2	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	2.428	0.2349	pCi/g	0.2433	N	911.4	3	1.863	IDENTIFIED	6.906	☐		
Annihilation Rad.	—	0.1761	0.03511	pCi/g	0.05254	N	510.7	1	1.926	IDENTIFIED	19.3	☐		
Bismuth-211	INT	5.847	0.4237	pCi/g	0.3647	Y	352	2	1.376	IDENTIFIED	4.328	☑	UI	
Bismuth-212	HE	1.786	0.4508	pCi/g	1.232	N	0	7	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.698	0.131	pCi/g	0.1123	0.200	609.4	3	1.643	IDENTIFIED	5.051	☐		
Cadmium-109	INT	6.115	0.6833	pCi/g	1.266	Y	87.22	3	1.448	IDENTIFIED	10.14	☑	UI	
Cerium-143	←	649.6	98.31	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.1633	0.03585	pCi/g	0.0936	0.100	0	7	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cobalt-60	✓	0.1815	0.03779	pCi/g	0.07036	0.100	1333	1	2.943	IDENTIFIED	20.34	☐		
Gross Gamma	—	13.14	1.589	pCi/g	3.229	N		0				☐		
Iodine-133	HE	435.2	1397	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Iodine-135	HE	3.31E+14	2.63E+14	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-212	✓	2.201	0.1691	pCi/g	0.1264	0.100	238.6	2	1.176	IDENTIFIED	3.888	☐		
Lead-214	✓	2.122	0.1645	pCi/g	0.1326	0.100	352	2	1.376	IDENTIFIED	4.328	☐		

RPD = 12.5%

Neptunium-237	INT	1.786	0.2737	pCi/g	0.3753	N	87.22	3	1.448	IDENTIFIED	10.14	☐		
Niobium-95m	HE	0.3015	0.08439	pCi/g	0.2548	N	0	7	0	NOT_IDENTI	0	☐		
Potassium-40	✓	38.8	1.979	pCi/g	0.5527	1.00	1461	1	2.628	IDENTIFIED	2.246	☐		
Radium-224	INT	4.3	0.5655	pCi/g	1.64	Y	241.8	1	1.477	IDENTIFIED	11.56	☑	UI	
Radium-226	✓	1.698	0.131	pCi/g	0.1123	Y	609.4	3	1.643	IDENTIFIED	5.051	☐		
Radium-228	✓	2.428	0.2349	pCi/g	0.2433	0.500	911.4	3	1.863	IDENTIFIED	6.906	☐		
Strontium-85	LA	0.1769	0.02669	pCi/g	0.08514	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208	✓	0.71	0.05676	pCi/g	0.06501	0.080	583.1	1	1.574	IDENTIFIED	5.879	☐		
Thorium-228	NR	2.201	0.1691	pCi/g	0.1264	N	238.6	2	1.176	IDENTIFIED	3.888	☐		
Thorium-230	NR	1.698	0.1231	pCi/g	0.1123	N	609.4	3	1.643	IDENTIFIED	5.051	☐		
Thorium-232	NR	2.428	0.2349	pCi/g	0.2433	N	911.4	3	1.863	IDENTIFIED	6.906	☐		
Tin-126	NR	0.5987	0.0669	pCi/g	0.1245	N	87.22	3	1.448	IDENTIFIED	10.14	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202071014		24-MAR-10 11:03	0	MB	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Technetium-99m HE	8.99E+06	5.62E+06	pCi/g	0	N	0	1	0	SHORT_HLIF	0	☐		
Total Uranium	2.4106	1.22E-06	ug/g	1.4732	N		0				☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202071015	11-MAR-10 12:00	24-MAR-10 11:24	13	DUP	LOAD	1		LANL01004GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	2.537	0.2671	pCi/g	0.3245	N	911.6	3	1.671	IDENTIFIED	8.683	☐		
Annihilation Rad.	0.2689	0.04812	pCi/g	0.05498	N	511.3	1	1.8	IDENTIFIED	17.38	☐		
Bismuth-211	5.794	0.3945	pCi/g	0.4297	Y	352.4	2	1.359	IDENTIFIED	5.074	☐		
Bismuth-212	3.294	0.6754	pCi/g	1.563	N	0	4	0	FAIL_ABUND	0	☐		
Bismuth-214	1.937	0.1429	pCi/g	0.1449	0.200	609.6	3	1.477	IDENTIFIED	5.466	☐		
Cadmium-109	3.908	0.6848	pCi/g	1.679	Y	87.26	3	1.209	IDENTIFIED	16.88	☐		
Cerium-143	128.8	37.93	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐		
Cesium-134	0.1608	0.03993	pCi/g	0.123	0.100	0	4	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	13.56	1.899	pCi/g	5.468	N		0				☐		
Lead-212	2.379	0.1446	pCi/g	0.1225	0.100	239.1	2	1.284	IDENTIFIED	3.328	☐		
Lead-214	2.103	0.1545	pCi/g	0.1508	0.100	352.4	2	1.359	IDENTIFIED	5.074	☐		
Neptunium-237	1.144	0.2335	pCi/g	0.5209	N	87.26	3	1.209	IDENTIFIED	16.88	☐		
Potassium-40	36.75	2.003	pCi/g	0.6657	1.00	1461	1	1.989	IDENTIFIED	3.152	☐		
Radium-224	6.112	0.881	pCi/g	1.313	Y	241.9	1	1.74	IDENTIFIED	13.68	☐		
Radium-226	1.937	0.1429	pCi/g	0.1449	Y	609.6	3	1.477	IDENTIFIED	5.466	☐		
Radium-228	2.537	0.2671	pCi/g	0.3245	0.500	911.6	3	1.671	IDENTIFIED	8.683	☐		
Strontium-85	0.1739	0.02989	pCi/g	0.1025	Y	0	4	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208	0.7708	0.06423	pCi/g	0.0744	0.080	583.8	1	1.431	IDENTIFIED	6.99	☐		
Thorium-228	2.379	0.1446	pCi/g	0.1225	N	239.1	2	1.284	IDENTIFIED	3.328	☐		
Thorium-230	1.936	0.1334	pCi/g	0.1449	N	609.6	3	1.477	IDENTIFIED	5.466	☐		
Thorium-232	2.537	0.2671	pCi/g	0.3245	N	911.6	3	1.671	IDENTIFIED	8.683	☐		
Thorium-234	3.872	1.585	pCi/g	2.868	2.00	63.15	2	1.13	IDENTIFIED	39.94	☐		
Tin-126	0.3833	0.06716	pCi/g	0.1655	N	87.26	3	1.209	IDENTIFIED	16.88	☐		
Total Uranium	11.568	4.72E-06	ug/g	4.2703	N		0				☐		

3/26/10

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
965250	249334006	SAMPLE	24-MAR-10	Cerium-143	277.7	46.92	pCi/g	0	N
				Cesium-134	0.1258	0.04219	pCi/g	0.05973	0.100
				Gross Gamma	11.68	1.791	pCi/g	2.038	N
				Lead-212	2.153	0.1345	pCi/g	0.0607	0.100
				Lead-214	1.807	0.1549	pCi/g	0.07568	0.100
				Mercury-203	0.05806	0.02769	pCi/g	0.04348	0.100
				Potassium-40	34.28	1.995	pCi/g	0.3841	1.00
				Radium-224	4.874	0.9198	pCi/g	0.6508	Y
				Radium-226	1.506	0.1317	pCi/g	0.07654	Y
				Radium-228	2.412	0.228	pCi/g	0.1504	0.500
				Ruthenium-106	0.5145	0.1973	pCi/g	0.3601	0.800
				Strontium-85	0.07237	0.02755	pCi/g	0.04495	Y
				Thallium-208	0.729	0.06143	pCi/g	0.03261	0.080
				Thorium-234	3.818	1.399	pCi/g	1.419	2.00
965250	249334007	SAMPLE	25-MAR-10	Bismuth-211	5.847	0.4237	pCi/g	0.1825	Y
				Bismuth-214	1.698	0.131	pCi/g	0.05619	0.200
				Cadmium-109	6.115	0.6833	pCi/g	0.6336	Y
				Cerium-143	649.6	98.31	pCi/g	0	N
				Cesium-134	0.1633	0.03585	pCi/g	0.04683	0.100
				Cobalt-60	0.1815	0.03779	pCi/g	0.0352	0.100
				Gross Gamma	13.14	1.589	pCi/g	1.574	N
				Iodine-133	435.2	1397	pCi/g	0	N
				Iodine-135	3.31E+14	2.63E+14	pCi/g	0	N
				Lead-212	2.201	0.1691	pCi/g	0.06324	0.100
				Lead-214	2.122	0.1645	pCi/g	0.06635	0.100
				Mercury-203	0.04987	0.02335	pCi/g	0.03465	0.100
				Molybdenum-99	9.073	5.135	pCi/g	8.697	N
				Potassium-40	38.8	1.979	pCi/g	0.2765	1.00
				Radium-224	4.3	0.5655	pCi/g	0.8206	Y
				Radium-226	1.698	0.131	pCi/g	0.05619	Y
				Radium-228	2.428	0.2349	pCi/g	0.1217	0.500
				Strontium-85	0.1769	0.02669	pCi/g	0.0426	Y
				Thallium-208	0.71	0.05876	pCi/g	0.03252	0.080
965250	1202071014	MB	24-MAR-10	Technetium-99m	8.99E+06	5.62E+06	pCi/g	0	N
				Thorium-234	0.8329	0.4096	pCi/g	0.4951	2.00
~~965250~~	~~1202071015~~	~~DUP~~	~~24-MAR-10~~	~~Bismuth-211~~	~~5.794~~	~~0.3945~~	~~pCi/g~~	~~0.215~~	~~Y~~
				~~Bismuth-214~~	~~1.937~~	~~0.1429~~	~~pCi/g~~	~~0.07252~~	~~0.200~~

no 3/26/10

no 3/26/10

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:23:34.95

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334001.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:22:02
Sample ID         : G249334001           Sample quantity  : 1.20310E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.94  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 965250                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.60*	94	409	0.91	126.32	124	6	1.31E-02	36.2	
2	3	75.05	461	542	0.98	149.22	145	14	6.41E-02	9.2	5.29E-01
3	3	77.27*	876	517	1.04	153.65	145	14	1.22E-01	5.4	
4	1	87.40	300	516	1.04	173.92	169	13	4.17E-02	13.0	2.98E+00
5	1	90.02	213	465	0.92	179.14	169	13	2.96E-02	17.5	
6	0	93.14*	438	611	1.39	185.38	182	9	6.08E-02	11.7	
7	0	186.03*	423	470	1.41	371.10	366	11	5.87E-02	11.4	
8	0	209.31	198	483	1.37	417.63	413	12	2.76E-02	23.3	
9	3	238.67*	2274	256	1.18	476.34	472	24	3.16E-01	2.4	2.01E+00
10	3	241.62*	495	349	1.77	482.24	472	24	6.88E-02	11.0	
11	0	270.17	199	277	1.73	539.32	535	11	2.77E-02	17.7	
12	0	277.43	72	230	1.00	553.84	550	8	1.00E-02	38.4	
13	0	295.12*	760	316	1.29	589.21	583	13	1.06E-01	6.1	
14	0	300.23	148	262	1.34	599.43	595	10	2.06E-02	22.0	
15	0	327.92	143	226	1.75	654.78	650	10	1.98E-02	21.4	
16	0	338.33*	467	352	1.35	675.59	668	16	6.48E-02	10.3	
17	0	351.82*	1267	225	1.27	702.58	697	12	1.76E-01	3.7	
18	0	409.62*	91	161	1.82	818.13	814	10	1.27E-02	28.7	
19	0	462.88	157	153	1.44	924.63	920	11	2.18E-02	17.1	
20	0	510.67*	264	225	2.19	1020.17	1011	18	3.67E-02	16.4	
21	0	582.85*	765	177	1.54	1164.49	1158	15	1.06E-01	5.3	
22	0	608.91*	890	172	1.66	1216.61	1210	13	1.24E-01	4.6	
23	0	726.94*	177	125	1.41	1452.60	1447	12	2.46E-02	15.1	
24	0	795.06	128	159	1.96	1588.81	1579	20	1.77E-02	25.8	
25	0	860.49*	143	105	1.69	1719.64	1712	17	1.99E-02	18.7	
26	0	910.61*	649	129	1.95	1819.87	1811	19	9.02E-02	5.8	
27	1	964.01	130	120	2.31	1926.64	1920	21	1.81E-02	19.5	9.40E-01
28	1	968.39*	283	74	1.90	1935.40	1920	21	3.93E-02	8.8	
29	0	1119.59*	218	78	1.75	2237.75	2231	14	3.02E-02	11.3	
30	0	1237.99*	82	166	1.11	2474.51	2468	16	1.14E-02	37.7	
31	0	1459.64*	2272	48	2.17	2917.76	2906	24	3.16E-01	2.3	
32	0	1587.99	36	32	2.11	3174.44	3164	14	4.97E-03	37.3	
33	0	1729.44	59	22	1.02	3457.34	3447	19	8.22E-03	23.5	
34	0	1763.18*	193	24	2.30	3524.81	3515	19	2.68E-02	9.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 11:23:37

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334001.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:22:02
Sample ID         : G249334001           Sample quantity  : 120.31 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA18              Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.94   0.0%
Peak Width (FWHM):      3.00             Confidence level :      5.00 %
Energy tolerance :      1.50 keV         Half life ratio  :      8.00
Errors propagated: Yes                   Systematic Error :      0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :      3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.511E+01	3.101E+00	5.127E-01	3.891E-02	68.482
CD-109	+	88.03	*	3.997E+00	1.106E+00	1.440E+00	1.331E-01	2.776
SN-126	+	64.28		9.770E-01	7.228E-01	1.053E+00	1.556E-01	0.928
	+	86.94		1.630E+00	7.988E-01	5.962E-01	2.473E-01	2.734
	+	87.57	*	3.920E-01	1.085E-01	1.421E-01	1.310E-02	2.758
TL-208	+	277.37		5.438E-01	4.222E-01	5.564E-01	5.969E-02	0.977
	+	583.19	*	7.132E-01	9.426E-02	4.887E-02	3.824E-03	14.596
	+	860.56		1.227E+00	4.787E-01	3.985E-01	4.458E-02	3.078
BI-211		72.87		4.467E+00	3.944E+00	6.086E+00	5.025E-01	0.734
	+	351.06	*	5.613E+00	5.524E-01	2.907E-01	1.867E-02	19.307
PB-212	+	74.82		2.832E+00	6.357E-01	6.408E-01	8.216E-02	4.420
	+	77.11		3.041E+00	4.184E-01	3.626E-01	3.074E-02	8.386
	+	238.63	*	2.396E+00	2.084E-01	8.832E-02	6.367E-03	27.128
	+	300.09		2.343E+00	1.047E+00	1.157E+00	9.666E-02	2.025
BI-214	+	609.32	*	1.602E+00	2.061E-01	1.019E-01	9.161E-03	15.711
	+	1120.29		1.950E+00	4.808E-01	4.510E-01	4.343E-02	4.324
	+	1764.49		2.325E+00	4.698E-01	3.250E-01	1.976E-02	7.154
PB-214	+	74.82		5.020E+00	1.091E+00	1.136E+00	1.308E-01	4.420
	+	77.11		5.361E+00	8.600E-01	6.393E-01	7.561E-02	8.386
	+	242.00		3.157E+00	7.417E-01	5.362E-01	4.311E-02	5.887
	+	295.22		2.130E+00	3.194E-01	1.955E-01	1.698E-02	10.894
	+	351.93	*	2.037E+00	2.298E-01	1.057E-01	8.948E-03	19.271
RA-224	+	240.99	*	5.582E+00	1.271E+00	9.455E-01	5.267E-02	5.903
RA-226	+	609.32	*	1.602E+00	2.061E-01	1.019E-01	9.161E-03	15.711
	+	1120.29		1.950E+00	4.808E-01	4.510E-01	4.343E-02	4.324
	+	1764.49		2.325E+00	4.698E-01	3.250E-01	1.976E-02	7.154
AC-228	+	338.32		2.316E+00	1.067E+00	3.331E-01	1.373E-01	6.954
	+	911.20	*	2.824E+00	5.049E-01	1.962E-01	2.657E-02	14.396
	+	968.97		2.118E+00	6.460E-01	3.442E-01	8.586E-02	6.153
RA-228	+	338.32		2.316E+00	1.067E+00	3.331E-01	1.373E-01	6.954
	+	911.20	*	2.824E+00	5.049E-01	1.962E-01	2.657E-02	14.396
	+	968.97		2.118E+00	6.460E-01	3.442E-01	8.586E-02	6.153
TH-228	+	74.82		2.832E+00	5.739E-01	6.408E-01	5.404E-02	4.420
	+	77.11		3.041E+00	4.184E-01	3.626E-01	3.074E-02	8.386

Sample ID : G249334001 Acquisition date : 24-MAR-2010 09:22:02

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	2.396E+00	2.084E-01	8.832E-02	6.367E-03	27.128
	+	300.09		2.343E+00	1.759E+00	1.157E+00	7.045E-01	2.025
TH-230	+	609.32	*	1.602E+00	1.880E-01	1.019E-01	7.416E-03	15.711
	+	1120.29		1.950E+00	4.627E-01	4.510E-01	3.118E-02	4.324
	+	1764.49		2.325E+00	4.698E-01	3.250E-01	1.976E-02	7.154
TH-232	+	338.32		2.316E+00	4.947E-01	3.331E-01	1.927E-02	6.954
	+	911.20	*	2.824E+00	5.049E-01	1.962E-01	2.657E-02	14.396
	+	968.97		2.118E+00	6.460E-01	3.442E-01	8.586E-02	6.153
TH-234	+	63.29	*	2.535E+00	1.894E+00	2.680E+00	4.828E-01	0.946
	+	92.59		4.631E+00	1.484E+00	1.054E+00	2.321E-01	4.395
U-235	+	89.96		2.859E+00	1.222E+00	1.452E+00	3.589E-01	1.968
	+	93.35		3.498E+00	1.146E+00	7.427E-01	1.708E-01	4.710
		143.76	*	1.029E-02	2.087E-01	3.284E-01	5.122E-02	0.031
		163.33		2.830E-01	4.145E-01	7.121E-01	1.183E-01	0.397
	+	185.72		3.014E-01	7.058E-02	6.287E-02	3.344E-03	4.795
		205.31		-1.158E-01	5.160E-01	7.470E-01	1.259E-01	-0.155
NP-237	+	86.48	*	1.170E+00	4.062E-01	4.309E-01	9.852E-02	2.715
		95.86		3.169E-01	1.064E+00	1.566E+00	3.724E-01	0.202
U-238	+	63.29	*	2.535E+00	1.894E+00	2.680E+00	4.828E-01	0.946
	+	92.59		4.631E+00	1.147E+00	1.054E+00	8.923E-02	4.395
ANH-511	+	511.00	*	1.913E-01	6.390E-02	3.975E-02	2.625E-03	4.811

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-2.588E-02	2.696E-01	4.421E-01	3.202E-02	-0.059
NA-22		1274.54	*	-9.178E-03	3.999E-02	6.450E-02	4.389E-03	-0.142
NA-24		1368.63	*	-7.959E-02	3.999E-02	Half-Life too short		
SC-46		889.28	*	1.279E-02	3.529E-02	5.909E-02	6.591E-03	0.216
	+	1120.55		3.239E-01	7.684E-02	1.195E-01	8.257E-03	2.709
V-48		944.13		-7.567E-02	7.375E-01	1.190E+00	1.259E-01	-0.064
		983.53	*	1.443E-02	6.253E-02	1.029E-01	1.017E-02	0.140
		1312.11		-2.628E-02	7.139E-02	1.135E-01	8.267E-03	-0.232
CR-51		320.08	*	-2.627E-02	3.236E-01	5.190E-01	3.336E-02	-0.051
MN-54		834.85	*	1.262E-02	3.534E-02	5.930E-02	6.075E-03	0.213
CO-56		846.77	*	5.661E-03	3.258E-02	5.416E-02	5.654E-03	0.105
		1037.84		-1.787E-01	2.743E-01	4.377E-01	4.051E-02	-0.408
	+	1238.28		1.995E-01	1.511E-01	1.744E-01	1.162E-02	1.144
		1771.35		1.473E-01	1.996E-01	3.235E-01	1.955E-02	0.455
CO-57		122.06	*	-2.208E-02	2.639E-02	4.091E-02	2.424E-03	-0.540
		136.47		5.356E-02	2.014E-01	3.241E-01	2.117E-02	0.165
CO-58		810.76	*	4.418E-03	3.281E-02	5.458E-02	5.388E-03	0.081
FE-59		1099.45	*	-1.782E-02	8.302E-02	1.363E-01	1.121E-02	-0.131
		1291.59		8.654E-02	1.133E-01	1.959E-01	1.647E-02	0.442
CO-60		1173.23		-2.178E-02	4.209E-02	6.727E-02	3.718E-03	-0.324
		1332.49	*	1.949E-02	3.647E-02	6.229E-02	4.706E-03	0.313
ZN-65		1115.54	*	1.083E-01	1.021E-01	1.581E-01	1.114E-02	0.685
SE-75		121.12		-2.714E-03	1.330E-01	2.133E-01	1.957E-02	-0.013

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		136.00		1.625E-02	3.823E-02	6.194E-02	3.529E-03	0.262
		264.66	*	6.306E-03	4.388E-02	6.689E-02	3.827E-03	0.094
		279.54		1.219E-01	1.085E-01	1.653E-01	1.023E-02	0.737
		400.66		-3.666E-03	2.336E-01	3.807E-01	3.456E-02	-0.010
SR-85		514.00	*	9.570E-02	3.851E-02	6.350E-02	4.207E-03	1.507
Y-88		898.04		-2.721E-02	3.883E-02	5.844E-02	6.624E-03	-0.466
		1836.06	*	-2.247E-02	3.030E-02	4.425E-02	2.520E-03	-0.508
Y-91		1204.77	*	2.737E+00	2.165E+01	3.600E+01	2.128E+00	0.076
NB-94		702.65	*	1.529E-02	3.092E-02	5.296E-02	4.345E-03	0.289
		871.09		-7.436E-03	3.079E-02	4.952E-02	5.371E-03	-0.150
NB-95		765.81	*	9.081E-02	4.191E-02	7.560E-02	6.916E-03	1.201
NB-95M		235.69	*	1.425E-01	1.308E-01	1.989E-01	1.465E-02	0.716
ZR-95		724.19		2.046E-01	1.095E-01	1.748E-01	1.617E-02	1.171
		756.73	*	3.617E-02	6.525E-02	1.116E-01	1.102E-02	0.324
MO-99		140.51		9.350E-01	1.290E+01	2.025E+01	4.618E+00	0.046
		181.07		8.471E+00	1.043E+01	1.591E+01	2.786E+00	0.532
		366.42		-1.005E+01	4.961E+01	8.277E+01	4.781E+00	-0.121
		739.50	*	1.015E+01	6.363E+00	1.125E+01	1.781E+00	0.902
		777.92		-1.770E+01	1.859E+01	2.871E+01	2.680E+00	-0.616
TC-99M		140.51	*	6.003E+06	1.859E+01	Half-Life too short		
RU-103		497.08	*	-1.127E-02	3.124E-02	5.012E-02	6.401E-03	-0.225
	+	610.33		1.589E+01	2.890E+00	2.649E+00	4.155E-01	5.999
RH-106		621.93	*	1.902E-02	2.732E-01	4.425E-01	5.519E-02	0.043
		1050.41		-1.736E-01	2.276E+00	3.786E+00	3.236E-01	-0.046
RU-106		621.93	*	1.902E-02	2.732E-01	4.425E-01	3.256E-02	0.043
		1050.41		-1.736E-01	2.276E+00	3.786E+00	3.236E-01	-0.046
AG-108M		433.94	*	-7.436E-03	2.569E-02	4.204E-02	2.710E-03	-0.177
		614.28		7.566E-03	3.547E-02	5.030E-02	3.843E-03	0.150
		722.91		-3.398E-04	4.088E-02	5.858E-02	5.144E-03	-0.006
AG-110M		657.76	*	-2.212E-02	3.209E-02	5.172E-02	4.080E-03	-0.428
		677.62		-1.018E-01	2.854E-01	4.679E-01	3.798E-02	-0.218
		706.68		-1.312E-01	1.937E-01	3.100E-01	2.641E-02	-0.423
		763.94		-1.626E-01	1.643E-01	2.565E-01	2.396E-02	-0.634
		884.68		-5.005E-02	4.446E-02	6.592E-02	7.444E-03	-0.759
		937.49		-1.539E-01	1.165E-01	1.710E-01	1.872E-02	-0.900
		1384.29		5.999E-02	1.527E-01	2.573E-01	1.991E-02	0.233
		1505.03		3.562E-01	2.889E-01	5.281E-01	3.790E-02	0.675
SN-113		391.69	*	-2.969E-02	3.884E-02	6.256E-02	3.837E-03	-0.475
CD-115		260.90		1.190E+01	6.534E+01	1.078E+02	6.084E+00	0.110
		492.35		-1.222E+01	1.546E+01	2.408E+01	1.559E+00	-0.508
		527.90	*	1.976E-01	5.075E+00	8.319E+00	5.591E-01	0.024
SN-117M		156.02		1.690E+00	2.008E+00	3.490E+00	1.864E-01	0.484
		158.56	*	-2.814E-02	4.748E-02	7.886E-02	4.191E-03	-0.357
TE-123M		159.00	*	-1.455E-02	2.681E-02	4.459E-02	2.406E-03	-0.326
SB-124		602.73		-2.016E-02	4.157E-02	5.555E-02	4.018E-03	-0.363
		645.85		-3.187E-02	4.283E-01	6.844E-01	5.531E-02	-0.047
		722.78		-2.425E-02	3.992E-01	5.696E-01	4.956E-02	-0.043
		1690.97	*	7.094E-03	6.707E-02	1.123E-01	7.775E-03	0.063
SB-125		427.87	*	6.241E-02	7.917E-02	1.370E-01	8.548E-03	0.456

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	463.37		1.019E+00	3.568E-01	5.183E-01	3.699E-02	1.967
		600.60		-4.874E-02	1.721E-01	2.656E-01	2.117E-02	-0.183
		635.95		7.828E-02	2.427E-01	3.987E-01	3.290E-02	0.196
TE-125M		109.28	*	-2.134E+00	9.882E+00	1.584E+01	1.420E+00	-0.135
I-126		388.63		4.361E-03	1.320E-01	2.217E-01	1.274E-02	0.020
		666.33	*	-4.838E-02	1.878E-01	3.106E-01	2.388E-02	-0.156
		753.82		4.116E-01	1.448E+00	2.443E+00	2.190E-01	0.168
SB-126		414.70		4.811E-02	6.577E-02	1.004E-01	5.937E-03	0.479
		666.50		-1.958E-02	6.394E-02	1.055E-01	8.109E-03	-0.186
		695.00		-4.482E-02	6.185E-02	9.881E-02	7.998E-03	-0.454
		697.00		6.457E-02	2.188E-01	3.714E-01	3.016E-02	0.174
		720.70	*	9.608E-02	1.340E-01	2.035E-01	1.723E-02	0.472
		856.80		6.808E-01	4.400E-01	6.998E-01	7.422E-02	0.973
SB-127		252.40		-7.513E-01	2.739E+00	4.414E+00	1.803E+00	-0.170
		473.00		3.370E-01	9.777E-01	1.643E+00	1.763E-01	0.205
		685.70	*	-2.397E-01	8.210E-01	1.350E+00	1.381E-01	-0.178
		783.70		3.007E+00	2.178E+00	3.841E+00	4.759E-01	0.783
I-131		80.19		3.581E-01	4.336E+00	6.411E+00	5.579E-01	0.056
		284.31		-3.569E-01	1.141E+00	1.828E+00	1.159E-01	-0.195
		364.49	*	5.552E-02	8.366E-02	1.452E-01	9.339E-03	0.382
		636.99		1.271E-01	1.155E+00	1.871E+00	1.498E-01	0.068
TE-132		49.72		-6.164E+00	1.729E+01	2.880E+01	2.801E+00	-0.214
		111.76		-7.067E+00	2.112E+01	3.364E+01	2.945E+00	-0.210
		116.30		1.035E+01	1.828E+01	3.003E+01	2.564E+00	0.344
		228.16	*	1.024E-01	4.298E-01	7.166E-01	9.971E-02	0.143
BA-133		81.00		-1.089E-01	1.129E-01	1.574E-01	2.450E-02	-0.692
	+	276.40		5.025E-01	3.915E-01	5.824E-01	7.303E-02	0.863
		302.85		1.487E-01	1.447E-01	2.169E-01	2.469E-02	0.685
		356.01	*	1.196E-02	4.284E-02	6.085E-02	6.856E-03	0.197
		383.85		-1.940E-01	2.688E-01	4.345E-01	4.622E-02	-0.447
I-133		529.87	*	1.715E-04	2.688E-01	Half-Life too short		
		875.33		-1.581E-03	2.688E-01	Half-Life too short		
		1298.22		-1.127E-02	2.688E-01	Half-Life too short		
CS-134		563.25		2.415E-01	3.252E-01	5.513E-01	3.896E-02	0.438
		569.33		2.429E-02	1.845E-01	2.862E-01	2.047E-02	0.085
		604.72		1.755E-02	3.652E-02	5.284E-02	3.842E-03	0.332
	+	795.86	*	1.685E-01	8.858E-02	9.013E-02	8.717E-03	1.870
		801.95		-9.850E-02	4.254E-01	5.875E-01	5.732E-02	-0.168
		1365.19		1.482E-01	1.143E+00	1.886E+00	1.502E-01	0.079
CS-135		268.22	*	2.972E-01	1.669E-01	2.610E-01	1.973E-02	1.139
I-135		546.56		2.158E+07	1.669E-01	Half-Life too short		
		836.80		9.793E+07	1.669E-01	Half-Life too short		
		1038.76		-4.700E+07	1.669E-01	Half-Life too short		
		1131.51		-1.001E+07	1.669E-01	Half-Life too short		
		1260.41	*	4.879E+06	1.669E-01	Half-Life too short		
		1457.56		6.323E+09	1.669E-01	Half-Life too short		
		1678.03		3.581E+06	1.669E-01	Half-Life too short		
		1791.20		1.361E+07	1.669E-01	Half-Life too short		
CS-136		153.25		4.725E-01	7.423E-01	1.283E+00	9.934E-02	0.368

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		176.60		1.264E-01	4.204E-01	7.145E-01	4.738E-02	0.177
		273.65		-1.384E-01	6.297E-01	6.296E-01	4.242E-02	-0.220
		340.55		5.637E-01	1.467E-01	2.450E-01	1.534E-02	2.300
		818.51		-2.190E-02	5.548E-02	8.862E-02	8.847E-03	-0.247
		1048.07	*	-3.366E-02	9.072E-02	1.480E-01	1.326E-02	-0.227
		1235.36		5.943E-01	6.632E-01	9.890E-01	1.007E-01	0.601
BA-137M		661.66	*	2.033E-02	3.427E-02	5.920E-02	4.512E-03	0.343
CS-137		661.66	*	2.148E-02	3.621E-02	6.253E-02	4.779E-03	0.343
CE-139		165.86	*	-5.575E-03	2.775E-02	4.657E-02	2.444E-03	-0.120
BA-140		162.66		5.937E-01	6.798E-01	1.181E+00	7.297E-02	0.503
		304.85		3.535E-02	1.226E+00	1.735E+00	4.955E-01	0.020
		423.72		-7.112E-01	1.520E+00	2.441E+00	7.885E-01	-0.291
		537.26	*	-4.873E-02	2.066E-01	3.313E-01	1.110E-01	-0.147
LA-140	+	328.76		7.793E-01	3.372E-01	4.741E-01	3.078E-02	1.644
		487.02		4.523E-02	1.050E-01	1.771E-01	1.263E-02	0.255
		815.77		-9.874E-02	2.418E-01	3.858E-01	4.176E-02	-0.256
		1596.21	*	-5.417E-02	6.548E-02	9.080E-02	6.231E-03	-0.597
CE-141		145.44	*	3.928E-03	6.233E-02	9.805E-02	5.598E-03	0.040
CE-143		57.36		1.958E-04	6.233E-02	Half-Life too short		
		293.27	*	3.791E-04	6.233E-02	Half-Life too short		
		664.57		2.265E-04	6.233E-02	Half-Life too short		
		721.93		1.831E-05	6.233E-02	Half-Life too short		
CE-144		80.12		3.000E-01	2.829E+00	4.187E+00	3.626E-01	0.072
		133.52	*	-2.073E-01	2.038E-01	3.086E-01	4.267E-02	-0.672
PM-144		476.78		-7.019E-03	5.728E-02	9.384E-02	6.888E-03	-0.075
		618.01		-4.111E-03	2.859E-02	4.567E-02	3.478E-03	-0.090
		696.49	*	8.547E-03	3.127E-02	5.301E-02	4.303E-03	0.161
PR-144		696.51	*	6.557E-01	2.338E+00	3.966E+00	3.219E-01	0.165
		1489.16		-1.279E+01	1.265E+01	1.812E+01	1.309E+00	-0.706
PM-146		453.88	*	3.610E-04	3.789E-02	6.280E-02	5.486E-03	0.006
		633.25		-5.994E-01	1.330E+00	2.045E+00	7.760E-01	-0.293
		735.93		-1.603E-01	1.362E-01	1.964E-01	5.510E-02	-0.816
		747.24		-4.022E-02	8.765E-02	1.410E-01	2.077E-02	-0.285
ND-147	+	91.11		8.043E-01	2.911E-01	4.720E-01	4.442E-02	1.704
		319.41		8.211E-01	2.643E+00	4.325E+00	2.498E-01	0.190
		531.02	*	1.803E-01	4.420E-01	7.387E-01	1.031E-01	0.244
PM-149		285.90	*	2.793E+01	4.207E+01	7.017E+01	9.918E+00	0.398
EU-152		121.78		-2.261E-02	7.462E-02	1.183E-01	9.080E-03	-0.191
		244.70		-8.813E-02	3.101E-01	5.042E-01	2.816E-02	-0.175
		344.28	*	-9.960E-03	9.814E-02	1.359E-01	8.863E-03	-0.073
		778.90		-7.246E-02	2.313E-01	3.746E-01	3.503E-02	-0.193
	+	964.08		1.050E+00	4.239E-01	6.000E-01	6.145E-02	1.749
		1085.87		-2.085E-01	3.649E-01	5.768E-01	4.469E-02	-0.361
		1112.07		5.379E-02	3.366E-01	4.863E-01	3.461E-02	0.111
		1408.01		1.823E-01	1.750E-01	3.096E-01	2.299E-02	0.589
GD-153		69.67		-2.109E+00	2.011E+00	3.214E+00	2.609E-01	-0.656
		97.43	*	-3.827E-02	1.012E-01	1.443E-01	1.129E-02	-0.265
		103.18		-8.308E-02	1.151E-01	1.814E-01	1.308E-02	-0.458
EU-154		123.07		-4.788E-03	5.244E-02	8.379E-02	7.912E-03	-0.057

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		723.31		3.557E-02	1.900E-01	2.765E-01	2.596E-02	0.129
		873.19		-1.608E-02	2.553E-01	4.160E-01	5.668E-02	-0.039
		996.26		-1.540E-01	3.297E-01	5.122E-01	9.219E-02	-0.301
		1004.73		-6.775E-02	2.082E-01	3.250E-01	3.995E-02	-0.208
		1274.44	*	-4.764E-02	1.151E-01	1.829E-01	1.841E-02	-0.260
EU-155	+	86.55		4.750E-01	1.316E-01	2.088E-01	1.924E-02	2.274
		105.31	*	-2.408E-02	1.126E-01	1.793E-01	1.281E-02	-0.134
TB-160	+	86.79		1.235E+00	3.417E-01	5.455E-01	4.991E-02	2.263
		197.04		-4.909E-01	5.334E-01	8.437E-01	4.531E-02	-0.582
		215.65		9.807E-02	7.981E-01	1.172E+00	6.396E-02	0.084
		298.57		4.061E-01	1.415E-01	1.884E-01	1.082E-02	2.155
		879.36	*	1.957E-02	1.212E-01	2.006E-01	2.204E-02	0.098
		962.29		1.988E+00	6.244E-01	1.039E+00	1.067E-01	1.913
		966.15		2.015E+00	3.320E-01	5.497E-01	5.610E-02	3.665
		1177.93		2.841E-01	3.171E-01	5.548E-01	3.098E-02	0.512
		1271.85		-7.393E-02	6.032E-01	9.809E-01	6.629E-02	-0.075
HO-166M		80.57		-9.446E-02	3.126E-01	4.540E-01	3.945E-02	-0.208
		184.41		1.168E-01	4.039E-02	6.661E-02	3.539E-03	1.753
		280.46		4.142E-02	8.412E-02	1.237E-01	7.055E-03	0.335
	+	410.95		5.112E-01	2.954E-01	4.069E-01	2.395E-02	1.256
		711.68	*	-3.037E-03	5.431E-02	9.025E-02	7.523E-03	-0.034
		752.31		-1.124E-01	2.477E-01	3.989E-01	3.567E-02	-0.282
		810.29		-3.153E-03	5.128E-02	8.417E-02	8.287E-03	-0.037
TA-182		67.75		-7.585E-03	1.403E-01	2.204E-01	1.772E-02	-0.034
		100.11		5.701E-02	1.843E-01	3.028E-01	2.276E-02	0.188
		152.43		-1.271E-02	3.549E-01	5.600E-01	3.013E-02	-0.023
		222.11		-9.138E-02	3.272E-01	5.361E-01	2.943E-02	-0.170
		1121.30		7.248E-01	1.875E-01	3.266E-01	2.250E-02	2.219
		1189.05		-6.060E-02	2.795E-01	4.553E-01	2.604E-02	-0.133
		1221.41	*	2.972E-02	1.865E-01	3.105E-01	1.899E-02	0.096
		1231.02		-6.363E-02	5.554E-01	7.732E-01	4.823E-02	-0.082
IR-192	+	295.96		1.543E+00	2.089E-01	2.932E-01	1.710E-02	5.262
		308.46		-6.005E-02	8.761E-02	1.365E-01	7.955E-03	-0.440
		316.51	*	1.049E-03	3.174E-02	5.048E-02	2.928E-03	0.021
		468.07		-6.619E-04	6.760E-02	9.676E-02	6.905E-03	-0.007
HG-203		70.83		3.519E-01	1.628E+00	2.439E+00	3.858E-01	0.144
		72.87		1.076E+00	9.601E-01	1.466E+00	2.248E-01	0.734
		279.20	*	5.838E-02	3.807E-02	5.919E-02	3.568E-03	0.986
BI-207		72.81		2.288E-01	2.263E-01	3.479E-01	2.872E-02	0.658
	+	74.97		8.162E-01	1.651E-01	2.648E-01	2.214E-02	3.082
		569.70		-1.294E-03	2.890E-02	4.436E-02	3.109E-03	-0.029
		1063.66	*	4.019E-02	4.729E-02	8.324E-02	6.871E-03	0.483
		1770.23		3.001E-01	4.010E-01	6.511E-01	3.939E-02	0.461
PB-210		46.54	*	9.467E-01	5.483E+00	9.336E+00	7.157E-01	0.101
PB-211		404.85	*	6.120E-02	7.334E-01	1.072E+00	5.141E-01	0.057
		427.09		4.997E-01	1.370E+00	2.291E+00	1.050E+00	0.218
		832.01		3.130E-01	9.501E-01	1.571E+00	8.193E-01	0.199
BI-212	+	727.33	*	2.478E+00	8.084E-01	1.134E+00	1.408E-01	2.186
		785.37		2.025E+00	3.098E+00	4.967E+00	4.695E-01	0.408

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		2.506E+00	2.198E+00	4.050E+00	2.739E-01	0.619
RN-219	+	271.23		9.074E-01	3.283E-01	4.175E-01	3.317E-02	2.173
		401.81	*	-1.222E-01	3.814E-01	6.120E-01	8.229E-02	-0.200
RA-223		81.07		-2.501E-01	2.537E-01	3.560E-01	3.105E-02	-0.702
		83.79		8.540E-02	1.499E-01	2.231E-01	1.989E-02	0.383
		94.87		1.429E+00	5.482E-01	8.678E-01	7.067E-02	1.646
		144.24		-5.536E-02	7.001E-01	1.096E+00	7.622E-02	-0.051
		154.21		4.804E-01	3.856E-01	6.769E-01	4.471E-02	0.710
	+	269.46		7.050E-01	2.524E-01	3.277E-01	1.943E-02	2.152
		323.87	*	3.054E-01	6.296E-01	9.134E-01	1.471E-01	0.334
	+	338.28		9.192E+00	2.111E+00	2.330E+00	2.386E-01	3.945
AC-227		79.69		3.038E-01	1.435E+00	2.133E+00	3.677E-01	0.142
		235.96		5.266E-01	1.771E-01	2.832E-01	2.256E-02	1.859
		256.23	*	5.921E-02	2.360E-01	3.909E-01	3.959E-02	0.151
	+	299.98		2.577E+00	1.167E+00	1.539E+00	1.687E-01	1.675
		304.50		-1.560E-01	1.690E+00	2.373E+00	3.614E-01	-0.066
		334.37		-4.702E-01	1.998E+00	2.548E+00	3.622E-01	-0.185
TH-227		79.80		4.129E-01	1.885E+00	2.801E+00	6.102E-01	0.147
		235.96		5.266E-01	1.762E-01	2.832E-01	2.036E-02	1.859
		256.23	*	5.921E-02	2.361E-01	3.909E-01	4.666E-02	0.151
	+	299.98		2.577E+00	1.167E+00	1.539E+00	1.687E-01	1.675
		304.50		-1.560E-01	1.690E+00	2.373E+00	3.614E-01	-0.066
		334.37		-4.702E-01	1.998E+00	2.548E+00	3.622E-01	-0.185
TH-229		85.43		2.524E-01	2.538E-01	3.824E-01	3.457E-02	0.660
	+	88.47		6.044E-01	1.673E-01	2.614E-01	2.394E-02	2.312
		193.51	*	-1.301E-01	4.954E-01	8.206E-01	4.393E-02	-0.159
		210.85		1.623E+00	9.745E-01	1.530E+00	8.315E-02	1.061
PA-231		283.69	*	-6.686E-01	1.323E+00	2.095E+00	2.740E-01	-0.319
	+	301.36		1.656E+00	7.469E-01	9.977E-01	1.029E-01	1.660
TH-231		81.07		-2.501E-01	2.537E-01	3.560E-01	3.105E-02	-0.702
		83.79		8.540E-02	1.499E-01	2.231E-01	1.989E-02	0.383
		94.87		1.429E+00	5.482E-01	8.678E-01	7.067E-02	1.646
		144.24		-5.536E-02	7.001E-01	1.096E+00	7.622E-02	-0.051
		154.21		4.804E-01	3.856E-01	6.769E-01	4.471E-02	0.710
	+	269.46		7.050E-01	2.524E-01	3.277E-01	1.943E-02	2.152
		323.87	*	3.054E-01	6.296E-01	9.134E-01	1.471E-01	0.334
	+	338.28		9.192E+00	2.111E+00	2.330E+00	2.386E-01	3.945
PA-233	+	300.13		1.166E+00	5.354E-01	7.024E-01	9.387E-02	1.660
		311.90	*	-3.654E-03	6.031E-02	9.666E-02	5.923E-03	-0.038
		340.48		2.967E+00	9.765E-01	1.206E+00	2.798E-01	2.461
PA-234		94.67		6.843E-01	2.157E-01	3.306E-01	3.999E-02	2.070
		98.44		1.646E-01	1.350E-01	1.641E-01	9.134E-02	1.003
		111.00		1.928E-02	1.874E-01	3.037E-01	3.258E-02	0.063
		131.20		-2.019E-02	1.107E-01	1.755E-01	9.988E-03	-0.115
		569.50		-1.997E-02	2.561E-01	3.922E-01	2.748E-02	-0.051
		733.00		-7.930E-02	3.647E-01	5.105E-01	1.134E-01	-0.155
		880.51		-2.733E-03	2.466E-01	4.031E-01	4.436E-02	-0.007
		883.24		-5.656E-02	2.514E-01	3.994E-01	2.699E-01	-0.142
		926.50		-2.320E-01	1.822E-01	2.526E-01	6.601E-02	-0.918

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	9.976E-02	2.746E-01	4.569E-01	9.013E-02	0.218
		949.00		2.533E-02	4.212E-01	6.870E-01	7.215E-02	0.037
PA-234M		766.42		2.499E+01	1.706E+01	2.090E+01	1.062E+01	1.196
		1001.03	*	3.219E+00	4.349E+00	7.327E+00	7.904E-01	0.439
NP-239		99.53		2.216E-01	1.717E-01	2.907E-01	2.204E-02	0.762
		103.37		5.511E-03	1.028E-01	1.671E-01	1.202E-02	0.033
		106.12		-3.002E-02	9.180E-02	1.456E-01	1.012E-02	-0.206
		117.23	*	8.212E-02	4.076E-01	6.608E-01	4.081E-02	0.124
		228.18		5.009E-02	2.062E-01	3.440E-01	1.897E-02	0.146
	+	277.60		2.486E-01	1.917E-01	2.838E-01	1.617E-02	0.876
AM-241		59.54	*	4.950E-03	1.955E-01	3.127E-01	2.593E-02	0.016
CM-247	+	278.00		1.056E+00	8.140E-01	1.209E+00	6.889E-02	0.873
		287.50		1.185E+00	1.134E+00	1.928E+00	1.103E-01	0.615
		402.40	*	-1.311E-02	3.504E-02	5.612E-02	3.268E-03	-0.234
CF-249		252.80		-4.975E-01	9.141E-01	1.464E+00	8.225E-02	-0.340
		333.37		4.034E-02	2.624E-01	2.678E-01	1.549E-02	0.151
		388.16	*	2.136E-03	3.587E-02	6.032E-02	3.467E-03	0.035
CF-251		177.52	*	3.801E-02	1.211E-01	2.058E-01	1.088E-02	0.185
		227.38		-1.598E-01	3.405E-01	5.527E-01	3.047E-02	-0.289
		285.41		6.831E-01	2.012E+00	3.321E+00	1.898E-01	0.206

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334001       *
* Acquisition date : 24-MAR-2010 09:22:02 Detector SN#    :                 *
* Detector ID       : GAM18               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.94     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 11-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G249334001           Analyst initials: MXR1           *
* Batch Number      : 965250               Sample Quantity : 1.2031E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.511E+01	3.039E+00	5.115E-01	0.000E+00
CD-109	3.997E+00	1.084E+00	1.485E+00	0.000E+00
SN-126	3.920E-01	1.063E-01	1.466E-01	0.000E+00
TL-208	7.132E-01	9.237E-02	4.930E-02	0.000E+00
BI-211	5.613E+00	5.414E-01	2.951E-01	0.000E+00
PB-212	2.396E+00	2.042E-01	9.005E-02	0.000E+00
BI-214	1.602E+00	2.020E-01	1.028E-01	0.000E+00
PB-214	2.037E+00	2.252E-01	1.073E-01	0.000E+00
RA-224	5.582E+00	1.246E+00	9.639E-01	0.000E+00
RA-226	1.602E+00	2.020E-01	1.028E-01	0.000E+00
AC-228	2.824E+00	4.948E-01	1.969E-01	0.000E+00
RA-228	2.824E+00	4.948E-01	1.969E-01	0.000E+00
TH-228	2.396E+00	2.042E-01	9.005E-02	0.000E+00
TH-230	1.602E+00	1.842E-01	1.028E-01	0.000E+00
TH-232	2.824E+00	4.948E-01	1.969E-01	0.000E+00
TH-234	2.535E+00	1.856E+00	2.775E+00	0.000E+00
U-235	1.029E-02	2.045E-01	3.368E-01	0.000E+00
NP-237	1.170E+00	3.980E-01	4.445E-01	0.000E+00
U-238	2.535E+00	1.856E+00	2.775E+00	0.000E+00
ANH-511	1.913E-01	6.262E-02	4.016E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.588E-02	2.642E-01	4.471E-01	0.000E+00	NOT IDENT.
NA-22	-9.178E-03	3.919E-02	6.446E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.274E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	1.279E-02	3.458E-02	5.931E-02	0.000E+00	FAIL ABUN
V-48	1.443E-02	6.128E-02	1.031E-01	0.000E+00	NOT IDENT.
CR-51	-2.627E-02	3.171E-01	5.274E-01	0.000E+00	NOT IDENT.
MN-54	1.262E-02	3.463E-02	5.957E-02	0.000E+00	NOT IDENT.

CO-56	5.661E-03	3.193E-02	5.440E-02	0.000E+00	FAIL ABUN
CO-57	-2.208E-02	2.587E-02	4.204E-02	0.000E+00	NOT IDENT.
CO-58	4.418E-03	3.215E-02	5.484E-02	0.000E+00	NOT IDENT.
FE-59	-1.782E-02	8.136E-02	1.364E-01	0.000E+00	NOT IDENT.
CO-60	1.949E-02	3.574E-02	6.221E-02	0.000E+00	NOT IDENT.
ZN-65	1.083E-01	1.001E-01	1.582E-01	0.000E+00	NOT IDENT.
SE-75	6.306E-03	4.300E-02	6.811E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.774E-02	6.416E-02	0.000E+00	NOT IDENT.
Y-88	-2.247E-02	2.970E-02	4.402E-02	0.000E+00	NOT IDENT.
Y-91	2.737E+00	2.122E+01	3.600E+01	0.000E+00	NOT IDENT.
NB-94	1.529E-02	3.030E-02	5.331E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	4.107E-02	7.602E-02	0.000E+00	NOT IDENT.
NB-95M	1.425E-01	1.281E-01	2.029E-01	0.000E+00	NOT IDENT.
ZR-95	3.617E-02	6.395E-02	1.123E-01	0.000E+00	NOT IDENT.
MO-99	1.015E+01	6.235E+00	1.132E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.119E+13	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.127E-02	3.062E-02	5.066E-02	0.000E+00	FAIL ABUN
RH-106	1.902E-02	2.678E-01	4.460E-01	0.000E+00	NOT IDENT.
RU-106	1.902E-02	2.678E-01	4.460E-01	0.000E+00	NOT IDENT.
AG-108M	-7.436E-03	2.518E-02	4.256E-02	0.000E+00	NOT IDENT.
AG-110M	-2.212E-02	3.145E-02	5.210E-02	0.000E+00	NOT IDENT.
SN-113	-2.969E-02	3.806E-02	6.341E-02	0.000E+00	NOT IDENT.
CD-115	1.976E-01	4.973E+00	8.402E+00	0.000E+00	NOT IDENT.
SN-117M	-2.814E-02	4.653E-02	8.078E-02	0.000E+00	NOT IDENT.
TE-123M	-1.455E-02	2.628E-02	4.567E-02	0.000E+00	NOT IDENT.
SB-124	7.094E-03	6.572E-02	1.118E-01	0.000E+00	NOT IDENT.
SB-125	6.241E-02	7.759E-02	1.387E-01	0.000E+00	FAIL ABUN
TE-125M	-2.134E+00	9.684E+00	1.630E+01	0.000E+00	NOT IDENT.
I-126	-4.838E-02	1.841E-01	3.128E-01	0.000E+00	NOT IDENT.
SB-126	9.608E-02	1.313E-01	2.047E-01	0.000E+00	NOT IDENT.
SB-127	-2.397E-01	8.046E-01	1.359E+00	0.000E+00	NOT IDENT.
I-131	5.552E-02	8.199E-02	1.473E-01	0.000E+00	NOT IDENT.
TE-132	1.024E-01	4.212E-01	7.309E-01	0.000E+00	NOT IDENT.
BA-133	1.196E-02	4.198E-02	6.175E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	8.801E+02	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.680E-02	9.058E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.635E-01	2.658E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.097E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.366E-02	8.891E-02	1.482E-01	0.000E+00	NOT IDENT.
BA-137M	2.033E-02	3.359E-02	5.963E-02	0.000E+00	NOT IDENT.
CS-137	2.148E-02	3.548E-02	6.299E-02	0.000E+00	NOT IDENT.
CE-139	-5.575E-03	2.720E-02	4.768E-02	0.000E+00	NOT IDENT.
BA-140	-4.873E-02	2.024E-01	3.345E-01	0.000E+00	NOT IDENT.
LA-140	-5.417E-02	6.417E-02	9.049E-02	0.000E+00	FAIL ABUN
CE-141	3.928E-03	6.108E-02	1.005E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	9.437E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.073E-01	1.997E-01	3.167E-01	0.000E+00	NOT IDENT.
PM-144	8.547E-03	3.064E-02	5.337E-02	0.000E+00	NOT IDENT.
PR-144	6.557E-01	2.292E+00	3.992E+00	0.000E+00	NOT IDENT.
PM-146	3.610E-04	3.714E-02	6.354E-02	0.000E+00	NOT IDENT.
ND-147	1.803E-01	4.332E-01	7.460E-01	0.000E+00	FAIL ABUN
PM-149	2.793E+01	4.123E+01	7.139E+01	0.000E+00	NOT IDENT.
EU-152	-9.960E-03	9.618E-02	1.380E-01	0.000E+00	FAIL ABUN
GD-153	-3.827E-02	9.918E-02	1.487E-01	0.000E+00	NOT IDENT.
EU-154	-4.764E-02	1.128E-01	1.828E-01	0.000E+00	NOT IDENT.
EU-155	-2.408E-02	1.103E-01	1.845E-01	0.000E+00	FAIL ABUN
TB-160	1.957E-02	1.188E-01	2.014E-01	0.000E+00	FAIL ABUN
HO-166M	-3.037E-03	5.322E-02	9.083E-02	0.000E+00	FAIL ABUN
TA-182	2.972E-02	1.828E-01	3.104E-01	0.000E+00	NOT IDENT.
IR-192	1.049E-03	3.111E-02	5.130E-02	0.000E+00	FAIL ABUN
HG-203	5.838E-02	3.731E-02	6.024E-02	0.000E+00	NOT IDENT.
BI-207	4.019E-02	4.634E-02	8.337E-02	0.000E+00	FAIL ABUN
PB-210	9.467E-01	5.373E+00	9.699E+00	0.000E+00	NOT IDENT.
PB-211	6.120E-02	7.187E-01	1.086E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.922E-01	1.140E+00	0.000E+00	FAIL ABUN
RN-219	-1.222E-01	3.737E-01	6.201E-01	0.000E+00	FAIL ABUN
RA-223	3.054E-01	6.170E-01	9.279E-01	0.000E+00	FAIL ABUN
AC-227	5.921E-02	2.313E-01	3.982E-01	0.000E+00	FAIL ABUN
TH-227	5.921E-02	2.313E-01	3.982E-01	0.000E+00	FAIL ABUN
TH-229	-1.301E-01	4.855E-01	8.387E-01	0.000E+00	FAIL ABUN
PA-231	-6.686E-01	1.297E+00	2.132E+00	0.000E+00	FAIL ABUN
TH-231	3.054E-01	6.170E-01	9.279E-01	0.000E+00	FAIL ABUN
PA-233	-3.654E-03	5.910E-02	9.824E-02	0.000E+00	FAIL ABUN
PA-234	9.976E-02	2.691E-01	4.582E-01	0.000E+00	NOT IDENT.
PA-234M	3.219E+00	4.262E+00	7.344E+00	0.000E+00	NOT IDENT.
NP-239	8.212E-02	3.994E-01	6.793E-01	0.000E+00	FAIL ABUN
AM-241	4.950E-03	1.916E-01	3.239E-01	0.000E+00	NOT IDENT.
CM-247	-1.311E-02	3.434E-02	5.686E-02	0.000E+00	FAIL ABUN

CF-249	2.136E-03	3.515E-02	6.115E-02	0.000E+00 NOT IDENT.
CF-251	3.801E-02	1.187E-01	2.106E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:23:35.86

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                             Charleston, SC 29414                           *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334001.CNF;1
Sample date      : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:22:02
Sample ID        : G249334001           Sample quantity  : 1.20310E+02 GRAM
Detector name    : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:01.94  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 965250               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	2272	10.66*	1.894E+00	3.511E+01	3.511E+01	8.83
CD-109	88.03	300	3.70*	6.458E+00	3.920E+00	3.997E+00	27.67
SN-126	64.28	94	9.60	3.132E+00	9.770E-01	9.770E-01	73.99
	86.94	300	8.90	6.458E+00	1.630E+00	1.630E+00	49.01
	87.57	300	37.00*	6.458E+00	3.920E-01	3.920E-01	27.67
TL-208	277.37	72	6.60	6.257E+00	5.438E-01	5.438E-01	77.64
	583.19	765	85.00*	3.935E+00	7.132E-01	7.132E-01	13.22
	860.56	143	12.50	2.915E+00	1.227E+00	1.227E+00	39.03
BI-211	72.87	------	1.23	4.622E+00	------ Line Not Found		------
	351.06	1267	12.92*	5.452E+00	5.613E+00	5.613E+00	9.84
PB-212	74.82	461	10.28	4.944E+00	2.832E+00	2.832E+00	22.45
	77.11	876	17.10	5.255E+00	3.041E+00	3.041E+00	13.76
	238.63	2274	43.60*	6.793E+00	2.396E+00	2.396E+00	8.70
	300.09	148	3.30	5.983E+00	2.343E+00	2.343E+00	44.71
BI-214	609.32	890	45.49*	3.813E+00	1.602E+00	1.602E+00	12.87
	1120.29	218	14.92	2.335E+00	1.950E+00	1.950E+00	24.66
	1764.49	193	15.30	1.695E+00	2.325E+00	2.325E+00	20.21
PB-214	74.82	461	5.80	4.944E+00	5.020E+00	5.020E+00	21.73
	77.11	876	9.70	5.255E+00	5.361E+00	5.361E+00	16.04
	242.00	495	7.25	6.749E+00	3.156E+00	3.157E+00	23.50
	295.22	760	18.42	6.042E+00	2.130E+00	2.130E+00	14.99
	351.93	1267	35.60*	5.452E+00	2.037E+00	2.037E+00	11.28
RA-224	240.99	495	4.10*	6.749E+00	5.582E+00	5.582E+00	22.77
RA-226	609.32	890	45.49*	3.813E+00	1.602E+00	1.602E+00	12.87
	1120.29	218	14.92	2.335E+00	1.950E+00	1.950E+00	24.66
	1764.49	193	15.30	1.695E+00	2.325E+00	2.325E+00	20.21
AC-228	338.32	467	11.27	5.580E+00	2.316E+00	2.316E+00	46.07
	911.20	649	25.80*	2.780E+00	2.824E+00	2.824E+00	17.88
	968.97	283	15.80	2.640E+00	2.118E+00	2.118E+00	30.51
RA-228	338.32	467	11.27	5.580E+00	2.316E+00	2.316E+00	46.07
	911.20	649	25.80*	2.780E+00	2.824E+00	2.824E+00	17.88
	968.97	283	15.80	2.640E+00	2.118E+00	2.118E+00	30.51

Sample ID : G249334001 Acquisition date : 24-MAR-2010 09:22:02

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	461	10.28	4.944E+00	2.832E+00	2.832E+00	20.26
	77.11	876	17.10	5.255E+00	3.041E+00	3.041E+00	13.76
	238.63	2274	43.60*	6.793E+00	2.396E+00	2.396E+00	8.70
	300.09	148	3.30	5.983E+00	2.343E+00	2.343E+00	75.07
TH-230	609.32	890	45.49*	3.813E+00	1.602E+00	1.602E+00	11.74
	1120.29	218	14.92	2.335E+00	1.950E+00	1.950E+00	23.73
	1764.49	193	15.30	1.695E+00	2.325E+00	2.325E+00	20.21
TH-232	338.32	467	11.27	5.580E+00	2.316E+00	2.316E+00	21.36
	911.20	649	25.80*	2.780E+00	2.824E+00	2.824E+00	17.88
	968.97	283	15.80	2.640E+00	2.118E+00	2.118E+00	30.51
TH-234	63.29	94	3.70*	3.132E+00	2.535E+00	2.535E+00	74.70
	92.59	438	4.23	6.974E+00	4.631E+00	4.631E+00	32.05
U-235	89.96	213	3.47	6.707E+00	2.859E+00	2.859E+00	42.77
	93.35	438	5.60	6.974E+00	3.498E+00	3.498E+00	32.76
	143.76	------	10.96*	8.222E+00	------ Line Not Found		------
	163.33	------	5.08	8.005E+00	------ Line Not Found		------
	185.72	423	57.20	7.647E+00	3.014E-01	3.014E-01	23.42
	205.31	------	5.01	7.323E+00	------ Line Not Found		------
NP-237	86.48	300	12.40*	6.458E+00	1.170E+00	1.170E+00	34.72
	95.86	------	2.68	7.180E+00	------ Line Not Found		------
U-238	63.29	94	3.70*	3.132E+00	2.535E+00	2.535E+00	74.70
	92.59	438	4.23	6.974E+00	4.631E+00	4.631E+00	24.78
ANH-511	511.00	264	100.00*	4.311E+00	1.913E-01	1.913E-01	33.41

Flag: "*" = Keyline

Sample ID : G249334001 Acquisition date : 24-MAR-2010 09:22:02

Total number of lines in spectrum 34
Number of unidentified lines 3
Number of lines tentatively identified by NID 31 91.18%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.511E+01	3.511E+01	0.310E+01	8.83	
CD-109	461.40D	1.02	3.920E+00	3.997E+00	1.106E+00	27.67	
SN-126	2.30E+05Y	1.00	3.920E-01	3.920E-01	1.085E-01	27.67	
TL-208	1.41E+10Y	1.00	7.132E-01	7.132E-01	0.943E-01	13.22	
BI-211	7.04E+08Y	1.00	5.613E+00	5.613E+00	0.552E+00	9.84	
PB-212	1.41E+10Y	1.00	2.396E+00	2.396E+00	0.208E+00	8.70	
BI-214	1600.00Y	1.00	1.602E+00	1.602E+00	0.206E+00	12.87	
PB-214	1600.00Y	1.00	2.037E+00	2.037E+00	0.230E+00	11.28	
RA-224	1.41E+10Y	1.00	5.582E+00	5.582E+00	1.271E+00	22.77	
RA-226	1600.00Y	1.00	1.602E+00	1.602E+00	0.206E+00	12.87	
AC-228	1.41E+10Y	1.00	2.824E+00	2.824E+00	0.505E+00	17.88	
RA-228	1.41E+10Y	1.00	2.824E+00	2.824E+00	0.505E+00	17.88	
TH-228	1.41E+10Y	1.00	2.396E+00	2.396E+00	0.208E+00	8.70	
TH-230	7.54E+04Y	1.00	1.602E+00	1.602E+00	0.188E+00	11.74	
TH-232	1.41E+10Y	1.00	2.824E+00	2.824E+00	0.505E+00	17.88	
TH-234	4.47E+09Y	1.00	2.535E+00	2.535E+00	1.894E+00	74.70	
U-235	7.04E+08Y	1.00	3.014E-01	3.014E-01	0.706E-01	23.42	K
NP-237	2.14E+06Y	1.00	1.170E+00	1.170E+00	0.406E+00	34.72	
U-238	4.47E+09Y	1.00	2.535E+00	2.535E+00	1.894E+00	74.70	
ANH-511	1.00E+09Y	1.00	1.913E-01	1.913E-01	0.639E-01	33.41	
			---	---			
	Total Activity :		7.817E+01	7.825E+01			

Grand Total Activity : 7.817E+01 7.825E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249334001 Acquisition date : 24-MAR-2010 09:22:02

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.31	198	483	1.37	417.63	413	12	2.76E-02	46.5	7.26E+00	
0	270.17	199	277	1.73	539.32	535	11	2.77E-02	35.3	6.35E+00	T
0	327.92	143	226	1.75	654.78	650	10	1.98E-02	42.8	5.68E+00	T
0	409.62	91	161	1.82	818.13	814	10	1.27E-02	57.5	4.97E+00	T
0	462.88	157	153	1.44	924.63	920	11	2.18E-02	34.3	4.60E+00	T
0	726.94	177	125	1.41	1452.60	1447	12	2.46E-02	30.2	3.34E+00	T
0	795.06	128	159	1.96	1588.81	1579	20	1.77E-02	51.7	3.11E+00	T
1	964.01	130	120	2.31	1926.64	1920	21	1.81E-02	39.1	2.65E+00	T
0	1237.99	82	166	1.11	2474.51	2468	16	1.14E-02	75.4	2.15E+00	T
0	1587.99	36	32	2.11	3174.44	3164	14	4.97E-03	74.6	1.79E+00	
0	1729.44	59	22	1.02	3457.34	3447	19	8.22E-03	47.0	1.71E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:23:39.52

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*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                 DETECTOR DATA                               *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334001.CNF;1    *
* Acquisition date : 24-MAR-2010 09:22:02  Detector SN#    :                  *
* Detector ID      : GAM18                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:01.94         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 11-MAR-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G249334001            Analyst initials: MXR1             *
* Batch Number     : 965250                Sample Quantity : 1.20310E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23.2MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.511E+01	3.101E+00	5.127E-01	3.891E-02	68.482
CD-109	3.997E+00	1.106E+00	1.440E+00	1.331E-01	2.776
SN-126	3.920E-01	1.085E-01	1.421E-01	1.310E-02	2.758
TL-208	7.132E-01	9.426E-02	4.887E-02	3.824E-03	14.596
BI-211	5.613E+00	5.524E-01	2.907E-01	1.867E-02	19.307
PB-212	2.396E+00	2.084E-01	8.832E-02	6.367E-03	27.128
BI-214	1.602E+00	2.061E-01	1.019E-01	9.161E-03	15.711
PB-214	2.037E+00	2.298E-01	1.057E-01	8.948E-03	19.271
RA-224	5.582E+00	1.271E+00	9.455E-01	5.267E-02	5.903
RA-226	1.602E+00	2.061E-01	1.019E-01	9.161E-03	15.711
AC-228	2.824E+00	5.049E-01	1.962E-01	2.657E-02	14.396
RA-228	2.824E+00	5.049E-01	1.962E-01	2.657E-02	14.396
TH-228	2.396E+00	2.084E-01	8.832E-02	6.367E-03	27.128
TH-230	1.602E+00	1.880E-01	1.019E-01	7.416E-03	15.711
TH-232	2.824E+00	5.049E-01	1.962E-01	2.657E-02	14.396
TH-234	2.535E+00	1.894E+00	2.680E+00	4.828E-01	0.946
U-235	3.014E-01	7.058E-02	3.284E-01	5.122E-02	0.918
NP-237	1.170E+00	4.062E-01	4.309E-01	9.852E-02	2.715

Sample ID : G249334001 Acquisition date : 24-MAR-2010 09:22:02

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-238	2.535E+00	1.894E+00	2.680E+00	4.828E-01	0.946
ANH-511	1.913E-01	6.390E-02	3.975E-02	2.625E-03	4.811

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.588E-02		2.696E-01	4.421E-01	3.202E-02	-0.059
NA-22	-9.178E-03		3.999E-02	6.450E-02	4.389E-03	-0.142
NA-24	-7.959E-02		3.201E-02	Half-Life too short		
SC-46	1.279E-02		3.529E-02	5.909E-02	6.591E-03	0.216
V-48	1.443E-02		6.253E-02	1.029E-01	1.017E-02	0.140
CR-51	-2.627E-02		3.236E-01	5.190E-01	3.336E-02	-0.051
MN-54	1.262E-02		3.534E-02	5.930E-02	6.075E-03	0.213
CO-56	5.661E-03		3.258E-02	5.416E-02	5.654E-03	0.105
CO-57	-2.208E-02		2.639E-02	4.091E-02	2.424E-03	-0.540
CO-58	4.418E-03		3.281E-02	5.458E-02	5.388E-03	0.081
FE-59	-1.782E-02		8.302E-02	1.363E-01	1.121E-02	-0.131
CO-60	1.949E-02		3.647E-02	6.229E-02	4.706E-03	0.313
ZN-65	1.083E-01		1.021E-01	1.581E-01	1.114E-02	0.685
SE-75	6.306E-03		4.388E-02	6.689E-02	3.827E-03	0.094
SR-85	9.570E-02		3.851E-02	6.350E-02	4.207E-03	1.507
Y-88	-2.247E-02		3.030E-02	4.425E-02	2.520E-03	-0.508
Y-91	2.737E+00		2.165E+01	3.600E+01	2.128E+00	0.076
NB-94	1.529E-02		3.092E-02	5.296E-02	4.345E-03	0.289
NB-95	9.081E-02		4.191E-02	7.560E-02	6.916E-03	1.201
NB-95M	1.425E-01		1.308E-01	1.989E-01	1.465E-02	0.716
ZR-95	3.617E-02		6.525E-02	1.116E-01	1.102E-02	0.324
MO-99	1.015E+01		6.363E+00	1.125E+01	1.781E+00	0.902
TC-99M	6.003E+06		4.142E+07	Half-Life too short		
RU-103	-1.127E-02		3.124E-02	5.012E-02	6.401E-03	-0.225
RH-106	1.902E-02		2.732E-01	4.425E-01	5.519E-02	0.043
RU-106	1.902E-02		2.732E-01	4.425E-01	3.256E-02	0.043
AG-108M	-7.436E-03		2.569E-02	4.204E-02	2.710E-03	-0.177
AG-110M	-2.212E-02		3.209E-02	5.172E-02	4.080E-03	-0.428
SN-113	-2.969E-02		3.884E-02	6.256E-02	3.837E-03	-0.475
CD-115	1.976E-01		5.075E+00	8.319E+00	5.591E-01	0.024
SN-117M	-2.814E-02		4.748E-02	7.886E-02	4.191E-03	-0.357
TE-123M	-1.455E-02		2.681E-02	4.459E-02	2.406E-03	-0.326
SB-124	7.094E-03		6.707E-02	1.123E-01	7.775E-03	0.063
SB-125	6.241E-02		7.917E-02	1.370E-01	8.548E-03	0.456
TE-125M	-2.134E+00		9.882E+00	1.584E+01	1.420E+00	-0.135
I-126	-4.838E-02		1.878E-01	3.106E-01	2.388E-02	-0.156
SB-126	9.608E-02		1.340E-01	2.035E-01	1.723E-02	0.472
SB-127	-2.397E-01		8.210E-01	1.350E+00	1.381E-01	-0.178
I-131	5.552E-02		8.366E-02	1.452E-01	9.339E-03	0.382
TE-132	1.024E-01		4.298E-01	7.166E-01	9.971E-02	0.143
BA-133	1.196E-02		4.284E-02	6.085E-02	6.856E-03	0.197

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	1.715E-04		4.490E-04	Half-Life too short		
CS-134	1.685E-01	+	8.858E-02	9.013E-02	8.717E-03	1.870
CS-135	2.972E-01		1.669E-01	2.610E-01	1.973E-02	1.139
I-135	4.879E+06		1.070E+07	Half-Life too short		
CS-136	-3.366E-02		9.072E-02	1.480E-01	1.326E-02	-0.227
BA-137M	2.033E-02		3.427E-02	5.920E-02	4.512E-03	0.343
CS-137	2.148E-02		3.621E-02	6.253E-02	4.779E-03	0.343
CE-139	-5.575E-03		2.775E-02	4.657E-02	2.444E-03	-0.120
BA-140	-4.873E-02		2.066E-01	3.313E-01	1.110E-01	-0.147
LA-140	-5.417E-02		6.548E-02	9.080E-02	6.231E-03	-0.597
CE-141	3.928E-03		6.233E-02	9.805E-02	5.598E-03	0.040
CE-143	3.791E-04		4.815E-05	Half-Life too short		
CE-144	-2.073E-01		2.038E-01	3.086E-01	4.267E-02	-0.672
PM-144	8.547E-03		3.127E-02	5.301E-02	4.303E-03	0.161
PR-144	6.557E-01		2.338E+00	3.966E+00	3.219E-01	0.165
PM-146	3.610E-04		3.789E-02	6.280E-02	5.486E-03	0.006
ND-147	1.803E-01		4.420E-01	7.387E-01	1.031E-01	0.244
PM-149	2.793E+01		4.207E+01	7.017E+01	9.918E+00	0.398
EU-152	-9.960E-03		9.814E-02	1.359E-01	8.863E-03	-0.073
GD-153	-3.827E-02		1.012E-01	1.443E-01	1.129E-02	-0.265
EU-154	-4.764E-02		1.151E-01	1.829E-01	1.841E-02	-0.260
EU-155	-2.408E-02		1.126E-01	1.793E-01	1.281E-02	-0.134
TB-160	1.957E-02		1.212E-01	2.006E-01	2.204E-02	0.098
HO-166M	-3.037E-03		5.431E-02	9.025E-02	7.523E-03	-0.034
TA-182	2.972E-02		1.865E-01	3.105E-01	1.899E-02	0.096
IR-192	1.049E-03		3.174E-02	5.048E-02	2.928E-03	0.021
HG-203	5.838E-02		3.807E-02	5.919E-02	3.568E-03	0.986
BI-207	4.019E-02		4.729E-02	8.324E-02	6.871E-03	0.483
PB-210	9.467E-01		5.483E+00	9.336E+00	7.157E-01	0.101
PB-211	6.120E-02		7.334E-01	1.072E+00	5.141E-01	0.057
BI-212	2.478E+00	+	8.084E-01	1.134E+00	1.408E-01	2.186
RN-219	-1.222E-01		3.814E-01	6.120E-01	8.229E-02	-0.200
RA-223	3.054E-01		6.296E-01	9.134E-01	1.471E-01	0.334
AC-227	5.921E-02		2.360E-01	3.909E-01	3.959E-02	0.151
TH-227	5.921E-02		2.361E-01	3.909E-01	4.666E-02	0.151
TH-229	-1.301E-01		4.954E-01	8.206E-01	4.393E-02	-0.159
PA-231	-6.686E-01		1.323E+00	2.095E+00	2.740E-01	-0.319
TH-231	3.054E-01		6.296E-01	9.134E-01	1.471E-01	0.334
PA-233	-3.654E-03		6.031E-02	9.666E-02	5.923E-03	-0.038
PA-234	9.976E-02		2.746E-01	4.569E-01	9.013E-02	0.218
PA-234M	3.219E+00		4.349E+00	7.327E+00	7.904E-01	0.439
NP-239	8.212E-02		4.076E-01	6.608E-01	4.081E-02	0.124
AM-241	4.950E-03		1.955E-01	3.127E-01	2.593E-02	0.016
CM-247	-1.311E-02		3.504E-02	5.612E-02	3.268E-03	-0.234
CF-249	2.136E-03		3.587E-02	6.032E-02	3.467E-03	0.035
CF-251	3.801E-02		1.211E-01	2.058E-01	1.088E-02	0.185

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249334001            *
* Acquisition date : 24-MAR-2010 09:22:02 Detector SN#    :                 *
* Detector ID      : GAM18                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.94     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249334001           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.2031E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.511E+01	3.039E+00	2.559E-01	1.551E+00
CD-109	3.997E+00	1.084E+00	7.430E-01	5.531E-01
SN-126	3.920E-01	1.063E-01	7.334E-02	5.425E-02
TL-208	7.132E-01	9.237E-02	2.466E-02	4.713E-02
BI-211	5.613E+00	5.414E-01	1.476E-01	2.762E-01
PB-212	2.396E+00	2.042E-01	4.505E-02	1.042E-01
BI-214	1.602E+00	2.020E-01	5.142E-02	1.031E-01
PB-214	2.037E+00	2.252E-01	5.367E-02	1.149E-01
RA-224	5.582E+00	1.246E+00	4.822E-01	6.355E-01
RA-226	1.602E+00	2.020E-01	5.142E-02	1.031E-01
AC-228	2.824E+00	4.948E-01	9.849E-02	2.525E-01
RA-228	2.824E+00	4.948E-01	9.849E-02	2.525E-01
TH-228	2.396E+00	2.042E-01	4.505E-02	1.042E-01
TH-230	1.602E+00	1.842E-01	5.142E-02	9.400E-02
TH-232	2.824E+00	4.948E-01	9.849E-02	2.525E-01
TH-234	2.535E+00	1.856E+00	1.388E+00	9.468E-01
U-235	1.029E-02	2.045E-01	1.685E-01	1.044E-01
NP-237	1.170E+00	3.980E-01	2.224E-01	2.031E-01
U-238	2.535E+00	1.856E+00	1.388E+00	9.468E-01
ANH-511	1.913E-01	6.262E-02	2.009E-02	3.195E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.588E-02	2.642E-01	2.237E-01	1.348E-01	NOT IDENT.
NA-22	-9.178E-03	3.919E-02	3.225E-02	1.999E-02	NOT IDENT.
NA-24	-7.959E+04	6.274E+04	0.000E+00	3.201E+04	SHORT HLIF
SC-46	1.279E-02	3.458E-02	2.967E-02	1.764E-02	FAIL ABUN
V-48	1.443E-02	6.128E-02	5.159E-02	3.126E-02	NOT IDENT.
CR-51	-2.627E-02	3.171E-01	2.638E-01	1.618E-01	NOT IDENT.
MN-54	1.262E-02	3.463E-02	2.980E-02	1.767E-02	NOT IDENT.

CO-56	5.661E-03	3.193E-02	2.721E-02	1.629E-02	FAIL ABUN
CO-57	-2.208E-02	2.587E-02	2.103E-02	1.320E-02	NOT IDENT.
CO-58	4.418E-03	3.215E-02	2.744E-02	1.640E-02	NOT IDENT.
FE-59	-1.782E-02	8.136E-02	6.825E-02	4.151E-02	NOT IDENT.
CO-60	1.949E-02	3.574E-02	3.112E-02	1.824E-02	NOT IDENT.
ZN-65	1.083E-01	1.001E-01	7.917E-02	5.107E-02	NOT IDENT.
SE-75	6.306E-03	4.300E-02	3.408E-02	2.194E-02	NOT IDENT.
SR-85	9.570E-02	3.774E-02	3.210E-02	1.925E-02	NOT IDENT.
Y-88	-2.247E-02	2.970E-02	2.202E-02	1.515E-02	NOT IDENT.
Y-91	2.737E+00	2.122E+01	1.801E+01	1.083E+01	NOT IDENT.
NB-94	1.529E-02	3.030E-02	2.667E-02	1.546E-02	NOT IDENT.
NB-95	9.081E-02	4.107E-02	3.803E-02	2.095E-02	NOT IDENT.
NB-95M	1.425E-01	1.281E-01	1.015E-01	6.538E-02	NOT IDENT.
ZR-95	3.617E-02	6.395E-02	5.616E-02	3.263E-02	NOT IDENT.
MO-99	1.015E+01	6.235E+00	5.662E+00	3.181E+00	NOT IDENT.
TC-99M	6.003E+12	8.119E+13	0.000E+00	4.142E+13	SHORT HLIF
RU-103	-1.127E-02	3.062E-02	2.534E-02	1.562E-02	FAIL ABUN
RH-106	1.902E-02	2.678E-01	2.231E-01	1.366E-01	NOT IDENT.
RU-106	1.902E-02	2.678E-01	2.231E-01	1.366E-01	NOT IDENT.
AG-108M	-7.436E-03	2.518E-02	2.129E-02	1.285E-02	NOT IDENT.
AG-110M	-2.212E-02	3.145E-02	2.607E-02	1.605E-02	NOT IDENT.
SN-113	-2.969E-02	3.806E-02	3.172E-02	1.942E-02	NOT IDENT.
CD-115	1.976E-01	4.973E+00	4.203E+00	2.537E+00	NOT IDENT.
SN-117M	-2.814E-02	4.653E-02	4.041E-02	2.374E-02	NOT IDENT.
TE-123M	-1.455E-02	2.628E-02	2.285E-02	1.341E-02	NOT IDENT.
SB-124	7.094E-03	6.572E-02	5.593E-02	3.353E-02	NOT IDENT.
SB-125	6.241E-02	7.759E-02	6.938E-02	3.959E-02	FAIL ABUN
TE-125M	-2.134E+00	9.684E+00	8.152E+00	4.941E+00	NOT IDENT.
I-126	-4.838E-02	1.841E-01	1.565E-01	9.391E-02	NOT IDENT.
SB-126	9.608E-02	1.313E-01	1.024E-01	6.698E-02	NOT IDENT.
SB-127	-2.397E-01	8.046E-01	6.799E-01	4.105E-01	NOT IDENT.
I-131	5.552E-02	8.199E-02	7.370E-02	4.183E-02	NOT IDENT.
TE-132	1.024E-01	4.212E-01	3.657E-01	2.149E-01	NOT IDENT.
BA-133	1.196E-02	4.198E-02	3.089E-02	2.142E-02	FAIL ABUN
I-133	1.715E+02	8.801E+02	0.000E+00	4.490E+02	SHORT HLIF
CS-134	1.685E-01	8.680E-02	4.532E-02	4.429E-02	FAIL ABUN
CS-135	2.972E-01	1.635E-01	1.330E-01	8.343E-02	NOT IDENT.
I-135	4.879E+12	2.097E+13	0.000E+00	1.070E+13	SHORT HLIF
CS-136	-3.366E-02	8.891E-02	7.416E-02	4.536E-02	NOT IDENT.
BA-137M	2.033E-02	3.359E-02	2.983E-02	1.714E-02	NOT IDENT.
CS-137	2.148E-02	3.548E-02	3.151E-02	1.810E-02	NOT IDENT.
CE-139	-5.575E-03	2.720E-02	2.385E-02	1.388E-02	NOT IDENT.
BA-140	-4.873E-02	2.024E-01	1.674E-01	1.033E-01	NOT IDENT.
LA-140	-5.417E-02	6.417E-02	4.527E-02	3.274E-02	FAIL ABUN
CE-141	3.928E-03	6.108E-02	5.030E-02	3.116E-02	NOT IDENT.
CE-143	3.791E+02	9.437E+01	0.000E+00	4.815E+01	SHORT HLIF
CE-144	-2.073E-01	1.997E-01	1.585E-01	1.019E-01	NOT IDENT.
PM-144	8.547E-03	3.064E-02	2.670E-02	1.563E-02	NOT IDENT.
PR-144	6.557E-01	2.292E+00	1.997E+00	1.169E+00	NOT IDENT.
PM-146	3.610E-04	3.714E-02	3.179E-02	1.895E-02	NOT IDENT.
ND-147	1.803E-01	4.332E-01	3.732E-01	2.210E-01	FAIL ABUN
PM-149	2.793E+01	4.123E+01	3.572E+01	2.103E+01	NOT IDENT.
EU-152	-9.960E-03	9.618E-02	6.903E-02	4.907E-02	FAIL ABUN
GD-153	-3.827E-02	9.918E-02	7.439E-02	5.060E-02	NOT IDENT.
EU-154	-4.764E-02	1.128E-01	9.145E-02	5.755E-02	NOT IDENT.
EU-155	-2.408E-02	1.103E-01	9.233E-02	5.628E-02	FAIL ABUN
TB-160	1.957E-02	1.188E-01	1.008E-01	6.062E-02	FAIL ABUN
HO-166M	-3.037E-03	5.322E-02	4.544E-02	2.715E-02	FAIL ABUN
TA-182	2.972E-02	1.828E-01	1.553E-01	9.325E-02	NOT IDENT.
IR-192	1.049E-03	3.111E-02	2.566E-02	1.587E-02	FAIL ABUN
HG-203	5.838E-02	3.731E-02	3.014E-02	1.904E-02	NOT IDENT.
BI-207	4.019E-02	4.634E-02	4.171E-02	2.365E-02	FAIL ABUN
PB-210	9.467E-01	5.373E+00	4.852E+00	2.741E+00	NOT IDENT.
PB-211	6.120E-02	7.187E-01	5.432E-01	3.667E-01	NOT IDENT.
BI-212	2.478E+00	7.922E-01	5.706E-01	4.042E-01	FAIL ABUN
RN-219	-1.222E-01	3.737E-01	3.102E-01	1.907E-01	FAIL ABUN
RA-223	3.054E-01	6.170E-01	4.642E-01	3.148E-01	FAIL ABUN
AC-227	5.921E-02	2.313E-01	1.992E-01	1.180E-01	FAIL ABUN
TH-227	5.921E-02	2.313E-01	1.992E-01	1.180E-01	FAIL ABUN
TH-229	-1.301E-01	4.855E-01	4.196E-01	2.477E-01	FAIL ABUN
PA-231	-6.686E-01	1.297E+00	1.067E+00	6.616E-01	FAIL ABUN
TH-231	3.054E-01	6.170E-01	4.642E-01	3.148E-01	FAIL ABUN
PA-233	-3.654E-03	5.910E-02	4.915E-02	3.015E-02	FAIL ABUN
PA-234	9.976E-02	2.691E-01	2.292E-01	1.373E-01	NOT IDENT.
PA-234M	3.219E+00	4.262E+00	3.674E+00	2.175E+00	NOT IDENT.
NP-239	8.212E-02	3.994E-01	3.399E-01	2.038E-01	FAIL ABUN
AM-241	4.950E-03	1.916E-01	1.621E-01	9.775E-02	NOT IDENT.
CM-247	-1.311E-02	3.434E-02	2.845E-02	1.752E-02	FAIL ABUN

CF-249	2.136E-03	3.515E-02	3.059E-02	1.793E-02	NOT IDENT.
CF-251	3.801E-02	1.187E-01	1.054E-01	6.054E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	338.5255
49.72	364.4930
57.36	0.0000
59.54	360.9886
63.29	443.4100
63.29	443.4100
64.28	511.1403
67.75	454.9262
69.67	519.1625
70.83	471.2564
72.81	487.2626
72.87	487.3517
72.87	487.3517
74.82	497.0704
74.82	497.0704
74.82	497.0704
74.97	497.2926
77.11	500.4397
77.11	500.4397
77.11	500.4397
79.69	454.0584
79.80	451.2220
80.12	451.6335
80.19	451.7213
80.57	474.5957
81.00	517.0096
81.07	517.1125
81.07	517.1125
83.79	480.3789
83.79	480.3789
85.43	502.1971
86.48	549.1285
86.55	549.2335
86.79	549.5815
86.94	549.8052
87.57	550.7304
88.03	551.4043
88.47	552.0450
89.96	541.9599
91.11	451.4481
92.59	453.1685
92.59	453.1685
93.35	401.5369
94.67	399.7787
94.87	399.9795
94.87	399.9795
95.86	411.8486
97.43	435.2947
98.44	347.8461
99.53	359.6421
100.11	393.6479
103.18	416.5775
103.37	377.7256
105.31	398.5208
106.12	423.6920
109.28	407.5061
111.00	379.0197
111.76	400.0956
116.30	364.9835
117.23	365.7141
121.12	368.7373
121.78	381.3333
122.06	413.4436
123.07	372.4381
131.20	425.6368
133.52	415.1926
136.00	340.3029

136.47	348.5303
140.51	378.5659
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144.24	392.6682
145.44	385.4763
152.43	407.7957
153.25	402.5491
154.21	395.3338
154.21	395.3338
156.02	404.4899
158.56	416.8531
159.00	402.1379
162.66	356.6022
163.33	361.4544
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176.60	362.0023
177.52	348.8616
181.07	329.7189
184.41	369.6980
185.72	359.7306
193.51	365.7744
197.04	379.8420
205.31	370.4588
210.85	350.3515
215.65	351.0899
222.11	339.7408
227.38	349.8907
228.16	324.8039
228.18	324.8115
235.69	341.3443
235.96	343.0412
235.96	343.0412
238.63	325.1472
238.63	325.1472
240.99	326.0931
242.00	326.4960
244.70	327.5721
252.40	289.2794
252.80	302.5269
256.23	268.3097
256.23	268.3097
260.90	269.7674
264.66	254.9146
268.22	239.7950
269.46	241.7712
269.46	241.7712
271.23	251.3160
273.65	251.9936
276.40	237.5673
277.37	250.9546
277.60	251.0174
278.00	235.7699
279.20	214.4656
279.54	214.5444
280.46	218.0913
283.69	252.6828
284.31	257.0320
285.41	238.5066
285.90	227.1189
287.50	219.1190
293.27	0.0000
295.22	224.9246
295.96	225.0999
298.57	161.2217
299.98	248.1323
299.98	248.1323
300.09	248.1608
300.09	248.1608
300.13	248.1679
301.36	241.6739
302.85	213.0676
304.50	233.9135
304.50	233.9135
304.85	225.4570
308.46	242.1389
311.90	216.0959

316.51	213.8464
319.41	206.8749
320.08	222.1824
323.87	184.4959
323.87	184.4959
328.76	222.0888
333.37	219.5496
334.37	243.9304
334.37	243.9304
338.28	208.4318
338.28	208.4318
338.32	208.4404
338.32	208.4404
338.32	208.4404
340.48	187.4228
340.55	187.4332
344.28	193.4031
351.06	199.7389
351.93	199.8946
356.01	184.7135
364.49	177.9781
366.42	199.0930
383.85	219.5462
388.16	196.3698
388.63	193.6809
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400.66	190.0173
401.81	200.4510
402.40	202.4124
404.85	191.5969
410.95	189.4047
414.70	158.5687
423.72	180.2472
427.09	167.4020
427.87	153.2251
433.94	168.2807
453.88	169.8346
463.37	159.2831
468.07	166.6838
473.00	154.4779
476.78	159.8227
477.60	150.0443
487.02	135.1334
492.35	135.6298
497.08	132.0661
511.00	139.3653
514.00	136.6059
527.90	139.8932
529.87	0.0000
531.02	139.1510
537.26	139.7088
546.56	0.0000
563.25	133.6375
569.33	136.2302
569.50	141.4830
569.70	141.5028
583.19	126.7998
600.60	164.8702
602.73	174.5745
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609.32	148.4145
609.32	148.4145
609.32	148.4145
610.33	127.0321
614.28	130.9045
618.01	133.6966
621.93	121.0262
621.93	121.0262
633.25	140.2780
635.95	118.7051
636.99	120.9537
645.85	123.7317
657.76	159.7974
661.66	151.8475
661.66	151.8475
664.57	0.0000
666.33	166.9846
666.50	166.9993

677.62	145.7054
685.70	145.3867
695.00	152.6400
696.49	140.5731
696.51	140.5762
697.00	143.4219
702.65	139.1354
706.68	154.4907
711.68	132.2127
720.70	123.5928
721.93	0.0000
722.78	151.3975
722.91	151.4072
723.31	156.3214
724.19	156.3884
727.33	128.8930
733.00	112.8927
735.93	138.5866
739.50	90.9547
747.24	129.7348
752.31	131.0140
753.82	119.5397
756.73	120.6716
763.94	189.8591
765.81	128.9466
766.42	135.7731
777.92	133.5800
778.90	120.9600
783.70	105.5852
785.37	117.4072
795.86	114.0412
801.95	111.5384
810.29	103.8998
810.76	97.9849
815.77	98.2044
818.51	98.3232
832.01	119.8926
834.85	129.0446
836.80	0.0000
846.77	91.5036
856.80	90.0225
860.56	100.1380
871.09	103.6332
873.19	102.7076
875.33	0.0000
879.36	94.8164
880.51	94.8618
883.24	94.9697
884.68	114.4404
889.28	97.2556
898.04	113.0190
911.20	94.0011
911.20	94.0011
911.20	94.0011
926.50	134.0758
937.49	155.5388
944.13	101.5212
946.00	93.2171
949.00	105.9111
962.29	93.9598
964.08	93.8744
966.15	93.9505
968.97	97.8260
968.97	97.8260
968.97	97.8260
983.53	104.1390
996.26	104.6394
1001.03	89.8516
1004.73	112.4683
1037.84	107.7992
1038.76	0.0000
1048.07	114.7291
1050.41	98.0200
1050.41	98.0200
1063.66	85.3538
1085.87	103.0353
1099.45	112.0654
1112.07	110.1665

1115.54	115.3088
1120.29	117.1680
1120.29	117.1680
1120.29	117.1680
1120.55	117.1808
1121.30	112.1874
1131.51	0.0000
1173.23	122.6470
1177.93	92.6144
1189.05	115.4484
1204.77	143.5609
1221.41	129.4877
1231.02	152.6787
1235.36	178.9487
1238.28	142.0973
1260.41	0.0000
1271.85	80.3153
1274.44	96.4520
1274.54	91.4316
1291.59	77.7627
1298.22	0.0000
1312.11	90.4279
1332.49	62.3488
1365.19	56.7456
1368.63	0.0000
1384.29	61.2018
1408.01	52.2095
1457.56	0.0000
1460.82	50.8443
1489.16	60.8329
1505.03	50.6382
1596.21	42.5201
1620.50	31.8580
1678.03	0.0000
1690.97	28.4716
1764.49	33.7283
1764.49	33.7283
1764.49	33.7283
1770.23	15.9971
1771.35	16.0015
1791.20	0.0000
1836.06	32.4639

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249334001

Total Uranium Activity	7.5460E+00	ug/g
Total Uranium Counting Unc.	5.5217E+00	ug/g
Total Uranium Tpu	2.8172E-06	ug/g
Total Uranium Mda	4.1308E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G249334001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM18            *
*   SAMPLE DATE   : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 09:22:02.99    SAMPLE ALQT:  120.310 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.258E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.346E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.000E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.461E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 15:04:19.32

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334002.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:22:29
Sample ID         : G249334002           Sample quantity  : 1.22810E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.89  0.0%
Energy tolerance : 2.00000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 965250                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.86*	99	506	0.88	125.73	122	9	1.37E-02	43.0	
2	2	74.70*	565	610	1.52	149.40	143	15	7.85E-02	9.3	4.74E+00
3	2	76.98	720	382	1.04	153.96	143	15	1.00E-01	5.8	
4	2	84.18	128	497	1.32	168.35	164	14	1.78E-02	31.7	7.09E-01
5	2	87.05	265	472	1.09	174.09	164	14	3.69E-02	14.7	
6	0	92.75*	291	521	1.49	185.50	182	9	4.04E-02	15.9	
7	0	128.77	94	401	1.90	257.55	253	9	1.30E-02	39.9	
8	0	185.82*	180	510	1.06	371.64	367	11	2.50E-02	26.3	
9	0	208.65	114	351	0.72	417.30	413	10	1.58E-02	32.2	
10	3	238.32*	1499	185	1.17	476.64	468	23	2.08E-01	3.0	1.28E+00
11	3	241.33	405	264	1.95	482.65	468	23	5.63E-02	12.2	
12	0	269.97	116	289	1.38	539.94	533	13	1.61E-02	31.6	
13	0	294.97*	421	217	1.41	589.94	585	11	5.84E-02	8.5	
14	0	299.63	83	162	0.78	599.26	596	8	1.15E-02	28.7	
15	0	327.87	101	175	1.15	655.75	652	11	1.40E-02	27.0	
16	0	338.08	233	297	1.27	676.16	669	12	3.23E-02	16.2	
17	0	351.33*	760	207	1.27	702.66	696	14	1.06E-01	5.4	
18	0	408.77	50	128	0.70	817.54	813	10	6.93E-03	44.7	
19	0	462.50	60	190	1.71	925.01	921	13	8.32E-03	49.6	
20	0	510.22*	117	163	1.54	1020.44	1014	13	1.63E-02	26.8	
21	0	582.46*	429	74	1.41	1164.91	1159	12	5.95E-02	6.4	
22	0	608.58*	502	101	1.49	1217.16	1211	12	6.97E-02	6.0	
23	0	726.65	126	52	2.15	1453.30	1446	14	1.75E-02	15.1	
24	0	794.39	52	81	1.75	1588.78	1580	15	7.20E-03	40.6	
25	0	860.45	38	57	1.71	1720.90	1714	10	5.24E-03	40.9	
26	0	910.10*	291	43	1.84	1820.21	1813	16	4.05E-02	7.9	
27	0	968.17	141	65	1.22	1936.33	1931	12	1.96E-02	14.3	
28	0	1119.57	92	56	2.39	2239.13	2232	12	1.28E-02	19.4	
29	0	1459.25*	1117	25	2.14	2918.50	2908	19	1.55E-01	3.2	
30	0	1762.61	108	4	2.21	3525.21	3517	15	1.50E-02	10.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 15:04:21

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334002.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:22:29
Sample ID         : G249334002           Sample quantity  : 122.81 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA23              Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.89   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     2.00 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.212E+01	3.157E+00	4.445E-01	3.325E-02	72.259
CD-109	+	88.03	*	4.289E+00	1.328E+00	1.768E+00	1.726E-01	2.426
SN-126	+	64.28		1.241E+00	1.084E+00	1.207E+00	1.837E-01	1.028
	+	86.94		1.749E+00	8.908E-01	8.254E-01	3.433E-01	2.119
	+	87.57	*	4.206E-01	1.302E-01	1.913E-01	1.861E-02	2.199
CS-135	+	268.22	*	5.252E-01	3.340E-01	3.178E-01	2.428E-02	1.653
TL-208		277.37		4.798E-01	4.870E-01	8.111E-01	8.753E-02	0.592
	+	583.19	*	6.767E-01	9.693E-02	6.253E-02	4.049E-03	10.822
	+	860.56		5.738E-01	4.725E-01	5.674E-01	5.129E-02	1.011
BI-211	+	72.87		3.475E+01	7.148E+00	6.951E+00	6.131E-01	4.999
	+	351.06	*	5.225E+00	6.626E-01	3.837E-01	2.500E-02	13.619
PB-212	+	74.82		4.158E+00	9.460E-01	7.726E-01	1.018E-01	5.381
	+	77.11		2.997E+00	4.410E-01	4.321E-01	3.887E-02	6.936
	+	238.63	*	2.266E+00	2.146E-01	1.123E-01	8.144E-03	20.189
	+	300.09		1.964E+00	1.141E+00	1.493E+00	1.261E-01	1.316
BI-214	+	609.32	*	1.538E+00	2.194E-01	1.316E-01	9.981E-03	11.681
	+	1120.29		1.502E+00	5.982E-01	6.038E-01	5.646E-02	2.488
	+	1764.49		2.467E+00	5.355E-01	3.914E-01	2.434E-02	6.302
PB-214	+	74.82		7.369E+00	1.625E+00	1.369E+00	1.632E-01	5.381
	+	77.11		5.283E+00	8.912E-01	7.617E-01	9.297E-02	6.936
	+	242.00		3.717E+00	9.562E-01	6.828E-01	5.521E-02	5.444
	+	295.22		1.768E+00	3.369E-01	2.681E-01	2.351E-02	6.594
	+	351.93	*	1.896E+00	2.622E-01	1.395E-01	1.191E-02	13.589
RA-224	+	240.99	*	6.573E+00	1.647E+00	1.203E+00	6.780E-02	5.462
RA-226	+	609.32	*	1.538E+00	2.194E-01	1.316E-01	9.981E-03	11.681
	+	1120.29		1.502E+00	5.982E-01	6.038E-01	5.646E-02	2.488
	+	1764.49		2.467E+00	5.355E-01	3.914E-01	2.434E-02	6.302
AC-228	+	338.32		1.777E+00	9.323E-01	4.729E-01	1.950E-01	3.758
	+	911.20	*	2.261E+00	4.452E-01	2.864E-01	3.402E-02	7.895
	+	968.97		1.891E+00	7.088E-01	5.211E-01	1.267E-01	3.629
RA-228	+	338.32		1.777E+00	9.323E-01	4.729E-01	1.950E-01	3.758
	+	911.20	*	2.261E+00	4.452E-01	2.864E-01	3.402E-02	7.895
	+	968.97		1.891E+00	7.088E-01	5.211E-01	1.267E-01	3.629
TH-228	+	74.82		4.158E+00	8.566E-01	7.726E-01	6.929E-02	5.381

Sample ID : G249334002 Acquisition date : 24-MAR-2010 09:22:29

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		2.997E+00	4.410E-01	4.321E-01	3.887E-02	6.936
	+	238.63	*	2.266E+00	2.146E-01	1.123E-01	8.144E-03	20.189
	+	300.09		1.964E+00	1.645E+00	1.493E+00	9.091E-01	1.316
TH-229	+	85.43		5.332E-01	3.418E-01	4.687E-01	4.475E-02	1.138
	+	88.47		6.485E-01	2.008E-01	2.566E-01	2.482E-02	2.527
		193.51	*	-2.811E-01	6.374E-01	1.012E+00	5.358E-02	-0.278
		210.85		8.060E-01	1.329E+00	1.934E+00	1.050E-01	0.417
TH-230	+	609.32	*	1.538E+00	2.038E-01	1.316E-01	7.168E-03	11.681
	+	1120.29		1.502E+00	5.897E-01	6.038E-01	3.936E-02	2.488
	+	1764.49		2.467E+00	5.355E-01	3.914E-01	2.434E-02	6.302
TH-232	+	338.32		1.777E+00	5.857E-01	4.729E-01	2.793E-02	3.758
	+	911.20	*	2.261E+00	4.452E-01	2.864E-01	3.402E-02	7.895
	+	968.97		1.891E+00	7.088E-01	5.211E-01	1.267E-01	3.629
TH-234	+	63.29	*	3.219E+00	2.832E+00	3.172E+00	5.835E-01	1.015
	+	92.59		3.764E+00	1.456E+00	1.625E+00	3.607E-01	2.316
NP-237	+	86.48	*	1.255E+00	4.693E-01	5.472E-01	1.263E-01	2.294
		95.86		-7.282E-01	1.321E+00	1.856E+00	4.436E-01	-0.392
U-238	+	63.29	*	3.219E+00	2.832E+00	3.172E+00	5.835E-01	1.015
	+	92.59		3.764E+00	1.239E+00	1.625E+00	1.446E-01	2.316
ANH-511	+	511.00	*	1.409E-01	7.592E-02	5.417E-02	3.147E-03	2.601

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	8.151E-02	4.008E-01	6.685E-01	4.541E-02	0.122
NA-22		1274.54	*	-1.509E-02	5.912E-02	9.392E-02	6.307E-03	-0.161
NA-24		1368.63	*	-5.137E-02	5.912E-02	Half-Life too short		
SC-46		889.28	*	-1.343E-02	4.727E-02	7.675E-02	6.858E-03	-0.175
	+	1120.55		2.495E-01	9.793E-02	1.513E-01	9.859E-03	1.649
V-48		944.13		-2.424E-02	9.788E-01	1.621E+00	1.413E-01	-0.015
		983.53	*	-2.177E-02	8.349E-02	1.351E-01	1.124E-02	-0.161
		1312.11		6.125E-02	9.450E-02	1.642E-01	1.168E-02	0.373
CR-51		320.08	*	1.405E-01	4.144E-01	7.068E-01	4.628E-02	0.199
MN-54		834.85	*	-1.775E-02	5.055E-02	8.239E-02	6.524E-03	-0.215
CO-56		846.77	*	-1.467E-02	4.541E-02	7.264E-02	5.910E-03	-0.202
		1037.84		-2.134E-01	3.881E-01	6.072E-01	4.971E-02	-0.352
		1238.28		1.948E-01	1.217E-01	2.204E-01	1.466E-02	0.884
		1771.35		-2.136E-01	2.781E-01	3.924E-01	2.428E-02	-0.544
CO-57		122.06	*	6.978E-03	3.093E-02	5.130E-02	3.024E-03	0.136
		136.47		-1.910E-01	2.541E-01	4.040E-01	2.622E-02	-0.473
CO-58		810.76	*	1.525E-02	4.361E-02	7.521E-02	5.651E-03	0.203
FE-59		1099.45	*	2.068E-02	1.149E-01	1.921E-01	1.479E-02	0.108
		1291.59		-3.708E-04	1.441E-01	2.345E-01	1.947E-02	-0.002
CO-60		1173.23		7.478E-03	5.943E-02	9.843E-02	5.553E-03	0.076
		1332.49	*	-9.594E-03	4.688E-02	7.415E-02	5.444E-03	-0.129
ZN-65		1115.54	*	1.593E-02	1.526E-01	2.177E-01	1.438E-02	0.073
SE-75		121.12		3.134E-02	1.614E-01	2.674E-01	2.451E-02	0.117
		136.00		-1.807E-02	4.797E-02	7.747E-02	4.377E-03	-0.233

Sample ID : G249334002 Acquisition date : 24-MAR-2010 09:22:29

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		264.66	*	8.755E-03	6.273E-02	8.828E-02	5.140E-03	0.099
		279.54		-9.766E-02	1.304E-01	2.122E-01	1.336E-02	-0.460
		400.66		1.118E-01	3.139E-01	5.314E-01	4.818E-02	0.210
SR-85		514.00	*	1.657E-02	4.964E-02	7.275E-02	4.221E-03	0.228
Y-88		898.04		4.065E-02	5.617E-02	9.845E-02	9.002E-03	0.413
		1836.06	*	2.019E-02	3.883E-02	7.043E-02	4.147E-03	0.287
Y-91		1204.77	*	-6.158E+00	2.905E+01	4.669E+01	2.784E+00	-0.132
NB-94		702.65	*	8.412E-03	4.427E-02	7.245E-02	4.140E-03	0.116
		871.09		-2.824E-02	4.006E-02	6.228E-02	5.349E-03	-0.453
NB-95		765.81	*	6.187E-02	5.639E-02	9.760E-02	6.559E-03	0.634
NB-95M		235.69	*	9.718E-01	2.134E-01	3.461E-01	2.562E-02	2.808
ZR-95		724.19		1.083E-01	1.511E-01	2.240E-01	1.578E-02	0.483
		756.73	*	8.199E-02	9.205E-02	1.583E-01	1.222E-02	0.518
MO-99		140.51		6.883E-01	1.609E+01	2.624E+01	5.981E+00	0.026
		181.07		3.417E-01	1.485E+01	2.111E+01	3.690E+00	0.016
		366.42		-1.575E+01	7.121E+01	1.155E+02	6.769E+00	-0.136
		739.50	*	3.019E+00	1.025E+01	1.683E+01	2.459E+00	0.179
		777.92		2.260E+01	2.694E+01	4.782E+01	3.311E+00	0.473
TC-99M		140.51	*	4.423E+06	2.694E+01	Half-Life too short		
RU-103		497.08	*	1.780E-02	4.698E-02	7.913E-02	9.844E-03	0.225
	+	610.33		1.526E+01	2.930E+00	3.253E+00	4.852E-01	4.691
RH-106		621.93	*	1.256E-02	3.873E-01	6.308E-01	7.200E-02	0.020
		1050.41		-1.508E-01	3.404E+00	5.595E+00	4.209E-01	-0.027
RU-106		621.93	*	1.256E-02	3.873E-01	6.308E-01	3.389E-02	0.020
		1050.41		-1.508E-01	3.404E+00	5.595E+00	4.209E-01	-0.027
AG-108M		433.94	*	-2.038E-02	3.662E-02	5.842E-02	3.651E-03	-0.349
		614.28		3.833E-02	4.446E-02	6.861E-02	4.019E-03	0.559
		722.91		2.002E-02	5.525E-02	7.983E-02	5.123E-03	0.251
AG-110M		657.76	*	-2.474E-02	4.447E-02	6.877E-02	3.822E-03	-0.360
		677.62		-5.783E-02	3.950E-01	6.309E-01	3.616E-02	-0.092
		706.68		-1.243E-01	2.888E-01	4.503E-01	2.765E-02	-0.276
		763.94		-2.000E-01	2.250E-01	3.351E-01	2.342E-02	-0.597
		884.68		-6.597E-03	5.829E-02	9.614E-02	8.765E-03	-0.069
		937.49		-1.888E-01	1.419E-01	2.057E-01	1.868E-02	-0.918
		1384.29		-7.222E-02	1.814E-01	2.766E-01	2.094E-02	-0.261
		1505.03		2.262E-01	3.311E-01	5.871E-01	4.169E-02	0.385
SN-113		391.69	*	-5.263E-02	5.577E-02	8.757E-02	5.394E-03	-0.601
CD-115		260.90		-7.968E+01	9.011E+01	1.374E+02	7.889E+00	-0.580
		492.35		-1.381E+01	2.336E+01	3.678E+01	2.147E+00	-0.375
		527.90	*	9.011E-01	6.799E+00	1.125E+01	6.492E-01	0.080
SN-117M		156.02		-2.047E-01	2.591E+00	4.214E+00	2.205E-01	-0.049
		158.56	*	3.260E-02	6.070E-02	1.010E-01	5.248E-03	0.323
TE-123M		159.00	*	1.574E-02	3.460E-02	5.739E-02	3.029E-03	0.274
SB-124		602.73		2.834E-02	5.237E-02	7.778E-02	4.264E-03	0.364
		645.85		-1.226E-01	6.369E-01	1.017E+00	6.106E-02	-0.121
		722.78		1.687E-01	5.391E-01	7.750E-01	4.887E-02	0.218
		1690.97	*	8.605E-03	8.066E-02	1.368E-01	9.577E-03	0.063
SB-125		427.87	*	9.748E-02	1.140E-01	1.979E-01	1.202E-02	0.493
	+	463.37		6.335E-01	6.303E-01	7.201E-01	4.881E-02	0.880

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		600.60		-1.529E-01	2.295E-01	3.434E-01	2.214E-02	-0.445
		635.95		-1.769E-01	3.462E-01	5.383E-01	3.425E-02	-0.329
TE-125M		109.28	*	-1.281E+01	1.151E+01	1.810E+01	1.645E+00	-0.708
I-126		388.63		9.216E-02	1.916E-01	3.266E-01	1.889E-02	0.282
		666.33	*	2.954E-02	2.483E-01	4.055E-01	2.098E-02	0.073
		753.82		2.247E-01	2.072E+00	3.360E+00	2.192E-01	0.067
SB-126		414.70		2.858E-02	8.954E-02	1.382E-01	8.044E-03	0.207
		666.50		1.196E-02	8.387E-02	1.372E-01	7.105E-03	0.087
		695.00		-4.569E-02	8.381E-02	1.289E-01	7.219E-03	-0.354
		697.00		1.058E-01	2.916E-01	4.845E-01	2.727E-02	0.218
		720.70	*	1.544E-01	1.833E-01	2.791E-01	1.673E-02	0.553
		856.80		3.762E-01	5.842E-01	9.036E-01	7.518E-02	0.416
SB-127		252.40		-1.395E+00	3.691E+00	5.727E+00	2.340E+00	-0.244
		473.00		-9.777E-01	1.395E+00	2.187E+00	2.287E-01	-0.447
		685.70	*	6.639E-01	1.113E+00	1.883E+00	1.588E-01	0.353
		783.70		-3.906E-01	3.135E+00	5.215E+00	5.566E-01	-0.075
I-131		80.19		1.845E+00	7.320E+00	7.916E+00	7.290E-01	0.233
		284.31		-9.959E-02	1.439E+00	2.417E+00	1.559E-01	-0.041
		364.49	*	-9.282E-02	1.227E-01	1.929E-01	1.256E-02	-0.481
		636.99		-8.036E-01	1.638E+00	2.550E+00	1.538E-01	-0.315
TE-132		49.72		-1.266E+01	1.998E+01	3.282E+01	3.355E+00	-0.386
		111.76		1.642E+01	2.500E+01	4.213E+01	3.730E+00	0.390
		116.30		4.635E+00	2.221E+01	3.686E+01	3.164E+00	0.126
		228.16	*	-3.115E-01	5.781E-01	9.042E-01	1.259E-01	-0.345
BA-133		81.00		2.247E-02	1.812E-01	1.940E-01	3.077E-02	0.116
		276.40		2.827E-01	4.921E-01	7.477E-01	9.416E-02	0.378
		302.85		7.710E-03	1.942E-01	2.850E-01	3.263E-02	0.027
		356.01	*	-6.365E-02	6.124E-02	7.973E-02	9.025E-03	-0.798
		383.85		7.841E-04	3.854E-01	6.413E-01	6.840E-02	0.001
I-133		529.87	*	2.117E-04	3.854E-01	Half-Life too short		
		875.33		-8.689E-03	3.854E-01	Half-Life too short		
		1298.22		-1.948E-02	3.854E-01	Half-Life too short		
CS-134		563.25		5.802E-02	4.696E-01	7.733E-01	4.473E-02	0.075
		569.33		6.668E-02	2.411E-01	4.015E-01	2.334E-02	0.166
		604.72		5.569E-02	4.909E-02	7.640E-02	4.205E-03	0.729
	+	795.86	*	1.204E-01	9.808E-02	1.062E-01	7.754E-03	1.134
		801.95		5.911E-01	4.967E-01	8.587E-01	6.347E-02	0.688
		1365.19		-1.909E-01	1.433E+00	2.280E+00	1.774E-01	-0.084
I-135		546.56		2.739E+06	1.433E+00	Half-Life too short		
		836.80		1.063E+08	1.433E+00	Half-Life too short		
		1038.76		-1.011E+08	1.433E+00	Half-Life too short		
		1131.51		-3.472E+07	1.433E+00	Half-Life too short		
		1260.41	*	4.753E+06	1.433E+00	Half-Life too short		
	+	1457.56		6.218E+09	1.433E+00	Half-Life too short		
		1678.03		5.412E+07	1.433E+00	Half-Life too short		
		1791.20		-3.569E+07	1.433E+00	Half-Life too short		
CS-136		153.25		1.112E+00	9.704E-01	1.644E+00	1.261E-01	0.677
		176.60		-1.025E-01	5.671E-01	9.144E-01	5.982E-02	-0.112
		273.65		-9.066E-01	7.026E-01	8.851E-01	6.049E-02	-1.024

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		340.55		4.087E-01	1.828E-01	3.019E-01	1.923E-02	1.354
		818.51		9.710E-03	7.969E-02	1.348E-01	1.028E-02	0.072
		1048.07	*	-1.997E-03	1.261E-01	2.078E-01	1.654E-02	-0.010
		1235.36		1.186E+00	7.662E-01	1.367E+00	1.391E-01	0.868
BA-137M		661.66	*	5.863E-03	4.676E-02	7.641E-02	3.903E-03	0.077
CS-137		661.66	*	6.194E-03	4.940E-02	8.071E-02	4.146E-03	0.077
CE-139		165.86	*	-3.020E-02	3.704E-02	5.740E-02	2.926E-03	-0.526
BA-140		162.66		1.839E-01	8.630E-01	1.418E+00	8.595E-02	0.130
		304.85		-1.045E+00	1.753E+00	2.426E+00	6.933E-01	-0.431
		423.72		-2.302E+00	2.234E+00	3.250E+00	1.049E+00	-0.709
		537.26	*	-1.095E-02	2.875E-01	4.692E-01	1.563E-01	-0.023
LA-140	+	328.76		8.461E-01	4.601E-01	6.115E-01	4.040E-02	1.384
		487.02		1.596E-01	1.553E-01	2.717E-01	1.794E-02	0.587
		815.77		-2.321E-01	3.513E-01	5.539E-01	4.824E-02	-0.419
		1596.21	*	8.884E-03	9.493E-02	1.589E-01	1.090E-02	0.056
CE-141		145.44	*	-2.632E-02	7.702E-02	1.220E-01	6.882E-03	-0.216
CE-143		57.36		-2.330E-05	7.702E-02	Half-Life too short		
	+	293.27	*	5.118E-04	7.702E-02	Half-Life too short		
		664.57		3.142E-04	7.702E-02	Half-Life too short		
		721.93		5.586E-04	7.702E-02	Half-Life too short		
CE-144		80.12		1.250E+00	4.773E+00	5.166E+00	4.736E-01	0.242
		133.52	*	4.177E-03	2.763E-01	3.975E-01	5.490E-02	0.011
PM-144		476.78		1.891E-02	8.207E-02	1.371E-01	9.465E-03	0.138
		618.01		9.431E-03	3.963E-02	6.558E-02	3.785E-03	0.144
		696.49	*	1.995E-02	4.167E-02	6.986E-02	3.929E-03	0.286
PR-144		696.51	*	1.515E+00	3.117E+00	5.228E+00	2.939E-01	0.290
		1489.16		-2.114E+00	1.582E+01	2.497E+01	1.782E+00	-0.085
PM-146		453.88	*	3.379E-03	5.112E-02	8.476E-02	7.201E-03	0.040
		633.25		1.767E-01	1.742E+00	2.847E+00	1.070E+00	0.062
		735.93		1.126E-01	2.087E-01	3.459E-01	9.473E-02	0.326
		747.24		-1.976E-03	1.246E-01	2.000E-01	2.680E-02	-0.010
ND-147	+	91.11		1.291E+00	4.276E-01	6.117E-01	6.016E-02	2.111
		319.41		1.900E+00	3.436E+00	5.920E+00	3.497E-01	0.321
		531.02	*	-3.268E-02	5.918E-01	9.654E-01	1.304E-01	-0.034
PM-149		285.90	*	1.997E+00	5.234E+01	8.834E+01	1.253E+01	0.023
EU-152		121.78		2.773E-02	8.981E-02	1.494E-01	1.144E-02	0.186
		244.70		1.964E-01	4.359E-01	6.289E-01	3.557E-02	0.312
		344.28	*	-8.910E-02	1.413E-01	1.829E-01	1.211E-02	-0.487
		778.90		9.717E-02	3.489E-01	5.969E-01	4.142E-02	0.163
		964.08		4.868E-01	4.538E-01	7.145E-01	6.088E-02	0.681
		1085.87		6.664E-02	5.537E-01	9.206E-01	6.477E-02	0.072
		1112.07		-6.109E-01	5.488E-01	6.701E-01	4.454E-02	-0.912
		1408.01		2.191E-01	2.487E-01	4.426E-01	3.219E-02	0.495
GD-153		69.67		-6.310E-01	2.742E+00	3.991E+00	3.487E-01	-0.158
		97.43	*	7.678E-02	1.188E-01	1.779E-01	1.453E-02	0.432
		103.18		-2.203E-02	1.410E-01	2.318E-01	1.732E-02	-0.095
EU-154		123.07		1.431E-02	6.841E-02	1.051E-01	9.908E-03	0.136
		723.31		1.147E-01	2.647E-01	3.844E-01	2.778E-02	0.298
		873.19		-1.820E-01	3.292E-01	5.195E-01	6.183E-02	-0.350

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		996.26		-1.959E-01	4.826E-01	7.691E-01	1.327E-01	-0.255
		1004.73		-2.451E-01	2.862E-01	4.357E-01	4.900E-02	-0.563
		1274.44	*	-4.281E-02	1.677E-01	2.664E-01	2.665E-02	-0.161
EU-155	+	86.55		5.096E-01	1.579E-01	2.531E-01	2.461E-02	2.013
		105.31	*	1.903E-01	1.319E-01	2.276E-01	1.677E-02	0.836
TB-160	+	86.79		1.325E+00	4.101E-01	6.507E-01	6.287E-02	2.036
		197.04		2.256E-01	6.804E-01	1.106E+00	5.886E-02	0.204
		215.65		4.945E-01	9.293E-01	1.532E+00	8.369E-02	0.323
	+	298.57		2.708E-01	1.564E-01	2.491E-01	1.464E-02	1.087
		879.36	*	1.408E-01	1.634E-01	2.919E-01	2.553E-02	0.482
		962.29		2.656E-01	7.886E-01	1.166E+00	9.958E-02	0.228
		966.15		1.130E+00	3.881E-01	6.622E-01	5.629E-02	1.707
		1177.93		1.205E-02	4.763E-01	7.818E-01	4.448E-02	0.015
		1271.85		-4.922E-01	9.813E-01	1.522E+00	1.016E-01	-0.323
HO-166M		80.57		1.015E-01	5.201E-01	5.600E-01	5.149E-02	0.181
	+	184.41		1.393E-01	7.363E-02	9.042E-02	4.726E-03	1.541
		280.46		-1.330E-01	1.024E-01	1.618E-01	9.425E-03	-0.822
		410.95		2.992E-01	3.608E-01	5.522E-01	3.210E-02	0.542
		711.68	*	8.077E-02	8.042E-02	1.394E-01	8.157E-03	0.580
		752.31		-4.080E-01	3.771E-01	5.490E-01	3.567E-02	-0.743
		810.29		3.526E-03	6.892E-02	1.159E-01	8.672E-03	0.030
TA-182		67.75		-1.945E-02	1.920E-01	2.621E-01	2.282E-02	-0.074
		100.11		7.506E-02	2.201E-01	3.684E-01	2.883E-02	0.204
		152.43		4.772E-01	4.304E-01	7.303E-01	3.859E-02	0.653
		222.11		1.308E-01	4.350E-01	7.097E-01	3.911E-02	0.184
	+	1121.30		6.947E-01	2.726E-01	4.036E-01	2.625E-02	1.721
		1189.05		-6.211E-02	3.779E-01	6.091E-01	3.534E-02	-0.102
		1221.41	*	-1.668E-02	2.374E-01	3.855E-01	2.366E-02	-0.043
		1231.02		-4.273E-01	7.074E-01	1.103E+00	6.879E-02	-0.388
IR-192	+	295.96		1.280E+00	2.296E-01	3.464E-01	2.065E-02	3.696
		308.46		9.446E-02	1.177E-01	2.049E-01	1.221E-02	0.461
		316.51	*	-3.613E-03	3.995E-02	6.672E-02	3.958E-03	-0.054
		468.07		3.870E-02	9.326E-02	1.382E-01	9.325E-03	0.280
HG-203		70.83		1.501E+00	2.006E+00	3.019E+00	4.872E-01	0.497
	+	72.87		8.370E+00	2.033E+00	2.084E+00	3.261E-01	4.016
		279.20	*	-1.135E-02	4.500E-02	7.503E-02	4.608E-03	-0.151
BI-207	+	72.81		1.999E+00	4.111E-01	4.921E-01	4.340E-02	4.062
	+	74.97		1.198E+00	2.464E-01	3.545E-01	3.155E-02	3.380
		569.70		1.332E-02	3.692E-02	6.185E-02	3.484E-03	0.215
		1063.66	*	4.431E-02	6.659E-02	1.162E-01	8.537E-03	0.381
		1770.23		-1.575E+00	7.372E-01	7.809E-01	4.835E-02	-2.017
PB-210		46.54	*	3.601E+00	6.499E+00	1.103E+01	8.523E-01	0.326
PB-211		404.85	*	-4.307E-01	1.001E+00	1.357E+00	6.509E-01	-0.317
		427.09		1.831E+00	2.063E+00	3.299E+00	1.512E+00	0.555
		832.01		4.900E-01	1.336E+00	2.254E+00	1.166E+00	0.217
BI-212	+	727.33	*	3.067E+00	9.865E-01	1.425E+00	1.548E-01	2.153
		785.37		1.192E-02	4.487E+00	6.992E+00	4.928E-01	0.002
		1620.50		4.658E+00	2.836E+00	5.754E+00	3.902E-01	0.810
RN-219	+	271.23		7.781E-01	4.952E-01	5.441E-01	4.366E-02	1.430

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		401.81	*	2.053E-01	5.122E-01	8.474E-01	1.139E-01	0.242
RA-223		81.07		4.847E-02	4.104E-01	4.391E-01	4.052E-02	0.110
	+	83.79		3.173E-01	2.034E-01	2.809E-01	2.646E-02	1.130
		94.87		1.058E+00	6.584E-01	1.016E+00	8.673E-02	1.041
		144.24		1.208E-01	8.715E-01	1.407E+00	9.707E-02	0.086
		154.21		1.874E-01	4.980E-01	8.237E-01	5.374E-02	0.228
	+	269.46		6.046E-01	3.834E-01	4.208E-01	2.539E-02	1.437
		323.87	*	-7.566E-01	8.807E-01	1.174E+00	1.897E-01	-0.645
	+	338.28		7.052E+00	2.399E+00	3.072E+00	3.167E-01	2.296
AC-227		79.69		1.134E+00	2.392E+00	2.625E+00	4.593E-01	0.432
		235.96		2.262E+00	3.104E-01	5.095E-01	4.078E-02	4.438
		256.23	*	1.680E-01	3.211E-01	5.266E-01	5.361E-02	0.319
	+	299.98		2.161E+00	1.265E+00	2.006E+00	2.213E-01	1.077
		304.50		-7.520E-01	2.339E+00	3.346E+00	5.113E-01	-0.225
		334.37		-1.551E+00	3.855E+00	3.557E+00	5.076E-01	-0.436
TH-227		79.80		1.435E+00	3.155E+00	3.450E+00	7.588E-01	0.416
		235.96		2.262E+00	3.006E-01	5.095E-01	3.685E-02	4.438
		256.23	*	1.680E-01	3.213E-01	5.266E-01	6.309E-02	0.319
	+	299.98		2.161E+00	1.265E+00	2.006E+00	2.213E-01	1.077
		304.50		-7.520E-01	2.339E+00	3.346E+00	5.113E-01	-0.225
		334.37		-1.551E+00	3.855E+00	3.557E+00	5.076E-01	-0.436
PA-231		283.69	*	-2.727E-01	1.689E+00	2.825E+00	3.709E-01	-0.097
	+	301.36		1.388E+00	8.107E-01	1.301E+00	1.352E-01	1.067
TH-231		81.07		4.847E-02	4.104E-01	4.391E-01	4.052E-02	0.110
	+	83.79		3.173E-01	2.034E-01	2.809E-01	2.646E-02	1.130
		94.87		1.058E+00	6.584E-01	1.016E+00	8.673E-02	1.041
		144.24		1.208E-01	8.715E-01	1.407E+00	9.707E-02	0.086
		154.21		1.874E-01	4.980E-01	8.237E-01	5.374E-02	0.228
	+	269.46		6.046E-01	3.834E-01	4.208E-01	2.539E-02	1.437
		323.87	*	-7.566E-01	8.807E-01	1.174E+00	1.897E-01	-0.645
	+	338.28		7.052E+00	2.399E+00	3.072E+00	3.167E-01	2.296
PA-233	+	300.13		9.777E-01	5.771E-01	9.125E-01	1.225E-01	1.071
		311.90	*	-1.806E-02	7.725E-02	1.282E-01	8.015E-03	-0.141
		340.48		2.255E+00	1.025E+00	1.490E+00	3.463E-01	1.513
PA-234	+	94.67		1.014E+00	3.459E-01	3.837E-01	4.745E-02	2.643
		98.44		1.068E-01	1.363E-01	1.950E-01	1.086E-01	0.547
		111.00		1.488E-01	2.229E-01	3.757E-01	4.063E-02	0.396
		131.20		-3.817E-02	1.526E-01	2.167E-01	1.225E-02	-0.176
		569.50		7.990E-02	3.322E-01	5.517E-01	3.108E-02	0.145
		733.00		-1.281E-01	6.057E-01	8.188E-01	1.750E-01	-0.156
		880.51		-1.431E-01	3.418E-01	5.480E-01	4.804E-02	-0.261
		883.24		-3.557E-02	3.440E-01	5.666E-01	3.811E-01	-0.063
		926.50		-8.322E-02	2.174E-01	3.470E-01	8.802E-02	-0.240
		946.00	*	-1.543E-01	3.759E-01	5.990E-01	1.126E-01	-0.258
		949.00		1.358E-01	5.512E-01	9.345E-01	8.100E-02	0.145
PA-234M		766.42		1.536E+01	1.748E+01	2.694E+01	1.359E+01	0.570
		1001.03	*	5.384E+00	6.105E+00	1.090E+01	1.040E+00	0.494
U-235		89.96		1.072E+00	1.751E+00	1.907E+00	4.746E-01	0.562
	+	93.35		2.843E+00	1.117E+00	1.284E+00	2.974E-01	2.214

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		143.76	*	4.762E-02	2.611E-01	4.222E-01	6.574E-02	0.113
		163.33		-2.275E-02	5.267E-01	8.563E-01	1.418E-01	-0.027
	+	185.72		1.754E-01	9.268E-02	1.129E-01	5.914E-03	1.553
		205.31		1.735E-01	6.927E-01	9.907E-01	1.670E-01	0.175
NP-239		99.53		1.481E-01	2.052E-01	3.474E-01	2.744E-02	0.426
		103.37		8.431E-02	1.263E-01	2.133E-01	1.589E-02	0.395
		106.12		1.267E-01	1.038E-01	1.781E-01	1.277E-02	0.711
		117.23	*	8.758E-03	4.941E-01	8.142E-01	5.068E-02	0.011
		228.18		-1.497E-01	2.767E-01	4.338E-01	2.409E-02	-0.345
		277.60		2.487E-01	2.222E-01	3.736E-01	2.172E-02	0.666
AM-241		59.54	*	-1.776E-01	2.556E-01	3.641E-01	3.387E-02	-0.488
CM-247		278.00		1.149E+00	9.002E-01	1.596E+00	9.284E-02	0.720
		287.50		-8.006E-01	1.489E+00	2.375E+00	1.388E-01	-0.337
		402.40	*	-1.147E-02	5.069E-02	7.520E-02	4.358E-03	-0.152
CF-249		252.80		-3.022E-01	1.197E+00	1.892E+00	1.079E-01	-0.160
		333.37		-2.259E-01	4.071E-01	3.691E-01	2.181E-02	-0.612
		388.16	*	2.302E-02	5.196E-02	8.841E-02	5.115E-03	0.260
CF-251		177.52	*	-1.813E-02	1.659E-01	2.682E-01	1.388E-02	-0.068
		227.38		4.232E-02	4.388E-01	7.089E-01	3.932E-02	0.060
		285.41		8.119E-01	2.535E+00	4.335E+00	2.532E-01	0.187

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334002       *
* Acquisition date : 24-MAR-2010 09:22:29 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.89     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249334002           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.2281E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.212E+01	3.094E+00	4.438E-01	0.000E+00
CD-109	4.289E+00	1.301E+00	1.830E+00	0.000E+00
SN-126	4.206E-01	1.276E-01	1.980E-01	0.000E+00
CS-135	5.252E-01	3.273E-01	3.245E-01	0.000E+00
TL-208	6.767E-01	9.499E-02	6.319E-02	0.000E+00
BI-211	5.225E+00	6.493E-01	3.903E-01	0.000E+00
PB-212	2.266E+00	2.103E-01	1.148E-01	0.000E+00
BI-214	1.538E+00	2.150E-01	1.330E-01	0.000E+00
PB-214	1.896E+00	2.570E-01	1.420E-01	0.000E+00
RA-224	6.573E+00	1.614E+00	1.230E+00	0.000E+00
RA-226	1.538E+00	2.150E-01	1.330E-01	0.000E+00
AC-228	2.261E+00	4.363E-01	2.877E-01	0.000E+00
RA-228	2.261E+00	4.363E-01	2.877E-01	0.000E+00
TH-228	2.266E+00	2.103E-01	1.148E-01	0.000E+00
TH-229	-2.811E-01	6.247E-01	1.037E+00	0.000E+00
TH-230	1.538E+00	1.997E-01	1.330E-01	0.000E+00
TH-232	2.261E+00	4.363E-01	2.877E-01	0.000E+00
TH-234	3.219E+00	2.776E+00	3.297E+00	0.000E+00
NP-237	1.255E+00	4.599E-01	5.666E-01	0.000E+00
U-238	3.219E+00	2.776E+00	3.297E+00	0.000E+00
ANH-511	1.409E-01	7.440E-02	5.484E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	8.151E-02	3.928E-01	6.774E-01	0.000E+00	NOT IDENT.
NA-22	-1.509E-02	5.794E-02	9.395E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.423E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-1.343E-02	4.632E-02	7.714E-02	0.000E+00	FAIL ABUN
V-48	-2.177E-02	8.182E-02	1.356E-01	0.000E+00	NOT IDENT.
CR-51	1.405E-01	4.061E-01	7.199E-01	0.000E+00	NOT IDENT.

MN-54	-1.775E-02	4.954E-02	8.287E-02	0.000E+00	NOT IDENT.
CO-56	-1.467E-02	4.450E-02	7.306E-02	0.000E+00	NOT IDENT.
CO-57	6.978E-03	3.031E-02	5.289E-02	0.000E+00	NOT IDENT.
CO-58	1.525E-02	4.274E-02	7.569E-02	0.000E+00	NOT IDENT.
FE-59	2.068E-02	1.126E-01	1.925E-01	0.000E+00	NOT IDENT.
CO-60	-9.594E-03	4.595E-02	7.413E-02	0.000E+00	NOT IDENT.
ZN-65	1.593E-02	1.495E-01	2.182E-01	0.000E+00	NOT IDENT.
SE-75	8.755E-03	6.147E-02	9.014E-02	0.000E+00	NOT IDENT.
SR-85	1.657E-02	4.865E-02	7.364E-02	0.000E+00	NOT IDENT.
Y-88	2.019E-02	3.806E-02	7.010E-02	0.000E+00	NOT IDENT.
Y-91	-6.158E+00	2.847E+01	4.673E+01	0.000E+00	NOT IDENT.
NB-94	8.412E-03	4.338E-02	7.304E-02	0.000E+00	NOT IDENT.
NB-95	6.187E-02	5.526E-02	9.828E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.091E-01	3.539E-01	0.000E+00	NOT IDENT.
ZR-95	8.199E-02	9.021E-02	1.595E-01	0.000E+00	NOT IDENT.
MO-99	3.019E+00	1.004E+01	1.695E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.013E+14	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.780E-02	4.604E-02	8.014E-02	0.000E+00	FAIL ABUN
RH-106	1.256E-02	3.796E-01	6.369E-01	0.000E+00	NOT IDENT.
RU-106	1.256E-02	3.796E-01	6.369E-01	0.000E+00	NOT IDENT.
AG-108M	-2.038E-02	3.589E-02	5.927E-02	0.000E+00	NOT IDENT.
AG-110M	-2.474E-02	4.358E-02	6.940E-02	0.000E+00	NOT IDENT.
SN-113	-5.263E-02	5.465E-02	8.896E-02	0.000E+00	NOT IDENT.
CD-115	9.011E-01	6.663E+00	1.138E+01	0.000E+00	NOT IDENT.
SN-117M	3.260E-02	5.949E-02	1.038E-01	0.000E+00	NOT IDENT.
TE-123M	1.574E-02	3.391E-02	5.898E-02	0.000E+00	NOT IDENT.
SB-124	8.605E-03	7.905E-02	1.364E-01	0.000E+00	NOT IDENT.
SB-125	9.748E-02	1.117E-01	2.008E-01	0.000E+00	FAIL ABUN
TE-125M	-1.281E+01	1.128E+01	1.869E+01	0.000E+00	NOT IDENT.
I-126	2.954E-02	2.433E-01	4.091E-01	0.000E+00	NOT IDENT.
SB-126	1.544E-01	1.796E-01	2.813E-01	0.000E+00	NOT IDENT.
SB-127	6.639E-01	1.091E+00	1.899E+00	0.000E+00	NOT IDENT.
I-131	-9.282E-02	1.202E-01	1.962E-01	0.000E+00	NOT IDENT.
TE-132	-3.115E-01	5.665E-01	9.250E-01	0.000E+00	NOT IDENT.
BA-133	-6.365E-02	6.001E-02	8.110E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.196E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.612E-02	1.069E-01	0.000E+00	FAIL ABUN
I-135	0.000E+00	3.236E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.997E-03	1.236E-01	2.084E-01	0.000E+00	NOT IDENT.
BA-137M	5.863E-03	4.582E-02	7.709E-02	0.000E+00	NOT IDENT.
CS-137	6.194E-03	4.841E-02	8.144E-02	0.000E+00	NOT IDENT.
CE-139	-3.020E-02	3.630E-02	5.895E-02	0.000E+00	NOT IDENT.
BA-140	-1.095E-02	2.817E-01	4.747E-01	0.000E+00	NOT IDENT.
LA-140	8.884E-03	9.303E-02	1.585E-01	0.000E+00	FAIL ABUN
CE-141	-2.632E-02	7.548E-02	1.255E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.357E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	4.177E-03	2.708E-01	4.094E-01	0.000E+00	NOT IDENT.
PM-144	1.995E-02	4.083E-02	7.044E-02	0.000E+00	NOT IDENT.
PR-144	1.515E+00	3.054E+00	5.272E+00	0.000E+00	NOT IDENT.
PM-146	3.379E-03	5.010E-02	8.594E-02	0.000E+00	NOT IDENT.
ND-147	-3.268E-02	5.800E-01	9.769E-01	0.000E+00	FAIL ABUN
PM-149	1.997E+00	5.129E+01	9.011E+01	0.000E+00	NOT IDENT.
EU-152	-8.910E-02	1.385E-01	1.861E-01	0.000E+00	NOT IDENT.
GD-153	7.678E-02	1.164E-01	1.840E-01	0.000E+00	NOT IDENT.
EU-154	-4.281E-02	1.644E-01	2.665E-01	0.000E+00	NOT IDENT.
EU-155	1.903E-01	1.293E-01	2.351E-01	0.000E+00	FAIL ABUN
TB-160	1.408E-01	1.602E-01	2.934E-01	0.000E+00	FAIL ABUN
HO-166M	8.077E-02	7.881E-02	1.405E-01	0.000E+00	FAIL ABUN
TA-182	-1.668E-02	2.327E-01	3.858E-01	0.000E+00	FAIL ABUN
IR-192	-3.613E-03	3.915E-02	6.797E-02	0.000E+00	FAIL ABUN
HG-203	-1.135E-02	4.410E-02	7.655E-02	0.000E+00	FAIL ABUN
BI-207	4.431E-02	6.526E-02	1.165E-01	0.000E+00	FAIL ABUN
PB-210	3.601E+00	6.369E+00	1.151E+01	0.000E+00	NOT IDENT.
PB-211	-4.307E-01	9.810E-01	1.378E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	9.668E-01	1.436E+00	0.000E+00	FAIL ABUN
RN-219	2.053E-01	5.019E-01	8.606E-01	0.000E+00	FAIL ABUN
RA-223	-7.566E-01	8.631E-01	1.195E+00	0.000E+00	FAIL ABUN
AC-227	1.680E-01	3.147E-01	5.379E-01	0.000E+00	FAIL ABUN
TH-227	1.680E-01	3.148E-01	5.379E-01	0.000E+00	FAIL ABUN
PA-231	-2.727E-01	1.655E+00	2.881E+00	0.000E+00	FAIL ABUN
TH-231	-7.566E-01	8.631E-01	1.195E+00	0.000E+00	FAIL ABUN
PA-233	-1.806E-02	7.571E-02	1.306E-01	0.000E+00	FAIL ABUN
PA-234	-1.543E-01	3.684E-01	6.015E-01	0.000E+00	FAIL ABUN
PA-234M	5.384E+00	5.982E+00	1.094E+01	0.000E+00	NOT IDENT.
U-235	4.762E-02	2.559E-01	4.344E-01	0.000E+00	FAIL ABUN
NP-239	8.758E-03	4.842E-01	8.399E-01	0.000E+00	NOT IDENT.
AM-241	-1.776E-01	2.505E-01	3.787E-01	0.000E+00	NOT IDENT.
CM-247	-1.147E-02	4.967E-02	7.636E-02	0.000E+00	NOT IDENT.

CF-249	2.302E-02	5.092E-02	8.982E-02	0.000E+00	NOT IDENT.
CF-251	-1.813E-02	1.626E-01	2.752E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 15:04:20.26

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334002.CNF;1
Sample date      : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:22:29
Sample ID        : G249334002           Sample quantity  : 1.22810E+02 GRAM
Detector name    : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:01.89  0.0%
Energy tolerance : 2.00000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 965250               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1117	10.66*	9.975E-01	3.212E+01	3.212E+01	9.83
CD-109	88.03	265	3.70*	5.213E+00	4.206E+00	4.289E+00	30.96
SN-126	64.28	99	9.60	2.531E+00	1.241E+00	1.241E+00	87.39
	86.94	265	8.90	5.213E+00	1.749E+00	1.749E+00	50.94
	87.57	265	37.00*	5.213E+00	4.206E-01	4.206E-01	30.96
CS-135	268.22	116	16.00*	4.226E+00	5.252E-01	5.252E-01	63.60
TL-208	277.37	------	6.60	4.139E+00	------	Line Not Found	------
	583.19	429	85.00*	2.278E+00	6.767E-01	6.767E-01	14.32
	860.56	38	12.50	1.609E+00	5.738E-01	5.738E-01	82.35
BI-211	72.87	565	1.23	4.043E+00	3.475E+01	3.475E+01	20.57
	351.06	760	12.92*	3.443E+00	5.225E+00	5.225E+00	12.68
PB-212	74.82	565	10.28	4.043E+00	4.158E+00	4.158E+00	22.75
	77.11	720	17.10	4.296E+00	2.997E+00	2.997E+00	14.72
	238.63	1499	43.60*	4.638E+00	2.266E+00	2.266E+00	9.47
	300.09	83	3.30	3.900E+00	1.964E+00	1.964E+00	58.09
BI-214	609.32	502	45.49*	2.194E+00	1.538E+00	1.538E+00	14.27
	1120.29	92	14.92	1.259E+00	1.502E+00	1.502E+00	39.82
	1764.49	108	15.30	8.745E-01	2.467E+00	2.467E+00	21.71
PB-214	74.82	565	5.80	4.043E+00	7.369E+00	7.369E+00	22.05
	77.11	720	9.70	4.296E+00	5.283E+00	5.283E+00	16.87
	242.00	405	7.25	4.596E+00	3.717E+00	3.717E+00	25.72
	295.22	421	18.42	3.948E+00	1.768E+00	1.768E+00	19.05
	351.93	760	35.60*	3.443E+00	1.896E+00	1.896E+00	13.83
RA-224	240.99	405	4.10*	4.596E+00	6.573E+00	6.573E+00	25.06
RA-226	609.32	502	45.49*	2.194E+00	1.538E+00	1.538E+00	14.27
	1120.29	92	14.92	1.259E+00	1.502E+00	1.502E+00	39.82
	1764.49	108	15.30	8.745E-01	2.467E+00	2.467E+00	21.71
AC-228	338.32	233	11.27	3.549E+00	1.777E+00	1.777E+00	52.46
	911.20	291	25.80*	1.527E+00	2.261E+00	2.261E+00	19.69
	968.97	141	15.80	1.441E+00	1.891E+00	1.891E+00	37.48
RA-228	338.32	233	11.27	3.549E+00	1.777E+00	1.777E+00	52.46
	911.20	291	25.80*	1.527E+00	2.261E+00	2.261E+00	19.69

Sample ID : G249334002 Acquisition date : 24-MAR-2010 09:22:29

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	968.97	141	15.80	1.441E+00	1.891E+00	1.891E+00	37.48
TH-228	74.82	565	10.28	4.043E+00	4.158E+00	4.158E+00	20.60
	77.11	720	17.10	4.296E+00	2.997E+00	2.997E+00	14.72
	238.63	1499	43.60*	4.638E+00	2.266E+00	2.266E+00	9.47
	300.09	83	3.30	3.900E+00	1.964E+00	1.964E+00	83.73
TH-229	85.43	128	14.70	4.985E+00	5.332E-01	5.332E-01	64.10
	88.47	265	24.00	5.213E+00	6.485E-01	6.485E-01	30.96
	193.51	------	4.41*	5.353E+00	------	Line Not Found	------
	210.85	------	2.80	5.059E+00	------	Line Not Found	------
TH-230	609.32	502	45.49*	2.194E+00	1.538E+00	1.538E+00	13.25
	1120.29	92	14.92	1.259E+00	1.502E+00	1.502E+00	39.25
	1764.49	108	15.30	8.745E-01	2.467E+00	2.467E+00	21.71
TH-232	338.32	233	11.27	3.549E+00	1.777E+00	1.777E+00	32.96
	911.20	291	25.80*	1.527E+00	2.261E+00	2.261E+00	19.69
	968.97	141	15.80	1.441E+00	1.891E+00	1.891E+00	37.48
TH-234	63.29	99	3.70*	2.531E+00	3.219E+00	3.219E+00	88.00
	92.59	291	4.23	5.591E+00	3.764E+00	3.764E+00	38.70
NP-237	86.48	265	12.40*	5.213E+00	1.255E+00	1.255E+00	37.39
	95.86	------	2.68	5.757E+00	------	Line Not Found	------
U-238	63.29	99	3.70*	2.531E+00	3.219E+00	3.219E+00	88.00
	92.59	291	4.23	5.591E+00	3.764E+00	3.764E+00	32.92
ANH-511	511.00	117	100.00*	2.547E+00	1.409E-01	1.409E-01	53.89

Flag: "*" = Keyline

Sample ID : G249334002 Acquisition date : 24-MAR-2010 09:22:29

Total number of lines in spectrum 30
Number of unidentified lines 3
Number of lines tentatively identified by NID 27 90.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.212E+01	3.212E+01	0.316E+01	9.83	
CD-109	461.40D	1.02	4.206E+00	4.289E+00	1.328E+00	30.96	
SN-126	2.30E+05Y	1.00	4.206E-01	4.206E-01	1.302E-01	30.96	
CS-135	2.30E+06Y	1.00	5.252E-01	5.252E-01	3.340E-01	63.60	
TL-208	1.41E+10Y	1.00	6.767E-01	6.767E-01	0.969E-01	14.32	
BI-211	7.04E+08Y	1.00	5.225E+00	5.225E+00	0.663E+00	12.68	
PB-212	1.41E+10Y	1.00	2.266E+00	2.266E+00	0.215E+00	9.47	
BI-214	1600.00Y	1.00	1.538E+00	1.538E+00	0.219E+00	14.27	
PB-214	1600.00Y	1.00	1.896E+00	1.896E+00	0.262E+00	13.83	
RA-224	1.41E+10Y	1.00	6.573E+00	6.573E+00	1.647E+00	25.06	
RA-226	1600.00Y	1.00	1.538E+00	1.538E+00	0.219E+00	14.27	
AC-228	1.41E+10Y	1.00	2.261E+00	2.261E+00	0.445E+00	19.69	
RA-228	1.41E+10Y	1.00	2.261E+00	2.261E+00	0.445E+00	19.69	
TH-228	1.41E+10Y	1.00	2.266E+00	2.266E+00	0.215E+00	9.47	
TH-229	7340.00Y	1.00	6.485E-01	6.485E-01	2.008E-01	30.96	K
TH-230	7.54E+04Y	1.00	1.538E+00	1.538E+00	0.204E+00	13.25	
TH-232	1.41E+10Y	1.00	2.261E+00	2.261E+00	0.445E+00	19.69	
TH-234	4.47E+09Y	1.00	3.219E+00	3.219E+00	2.832E+00	88.00	
NP-237	2.14E+06Y	1.00	1.255E+00	1.255E+00	0.469E+00	37.39	
U-238	4.47E+09Y	1.00	3.219E+00	3.219E+00	2.832E+00	88.00	
ANH-511	1.00E+09Y	1.00	1.409E-01	1.409E-01	0.759E-01	53.89	
	Total Activity :		7.605E+01	7.613E+01			

Grand Total Activity : 7.605E+01 7.613E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249334002 Acquisition date : 24-MAR-2010 09:22:29

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.77	94	401	1.90	257.55	253	9	1.30E-02	79.9	6.32E+00	
0	185.82	180	510	1.06	371.64	367	11	2.50E-02	52.6	5.49E+00	T
0	208.65	114	351	0.72	417.30	413	10	1.58E-02	64.5	5.09E+00	
0	327.87	101	175	1.15	655.75	652	11	1.40E-02	54.0	3.64E+00	T
0	408.77	50	128	0.70	817.54	813	10	6.93E-03	89.4	3.05E+00	
0	462.50	60	190	1.71	925.01	921	13	8.32E-03	99.3	2.76E+00	T
0	726.65	126	52	2.15	1453.30	1446	14	1.75E-02	30.3	1.88E+00	T
0	794.39	52	81	1.75	1588.78	1580	15	7.20E-03	81.1	1.73E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 15:04:23.94

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334002.CNF;1  *
* Acquisition date  : 24-MAR-2010 09:22:29  Detector SN#     :               *
* Detector ID       : GAM23                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 2.00000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.89          Half life ratio : 8.00000        *
*****************************************************************************
*                                                                            *
*                                SAMPLE DATA                                 *
*                                                                            *
* Sample date       : 11-MAR-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID         : G249334002            Analyst initials: MXR1           *
* Batch Number      : 965250                Sample Quantity : 1.22810E+02 GRAM *
*****************************************************************************
*                                                                            *
*                                  QC DATA                                   *
*                                                                            *
* CALIB. DATE/TIME : 2-JUN-2009 11:17:00.62MS Isotope      :                 *
* MSD ID           :                       MSD Isotope     :                 *
* LCS ID           : 1032-A                LCS Isotope     :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.212E+01	3.157E+00	4.445E-01	3.325E-02	72.259
CD-109	4.289E+00	1.328E+00	1.768E+00	1.726E-01	2.426
SN-126	4.206E-01	1.302E-01	1.913E-01	1.861E-02	2.199
CS-135	5.252E-01	3.340E-01	3.178E-01	2.428E-02	1.653
TL-208	6.767E-01	9.693E-02	6.253E-02	4.049E-03	10.822
BI-211	5.225E+00	6.626E-01	3.837E-01	2.500E-02	13.619
PB-212	2.266E+00	2.146E-01	1.123E-01	8.144E-03	20.189
BI-214	1.538E+00	2.194E-01	1.316E-01	9.981E-03	11.681
PB-214	1.896E+00	2.622E-01	1.395E-01	1.191E-02	13.589
RA-224	6.573E+00	1.647E+00	1.203E+00	6.780E-02	5.462
RA-226	1.538E+00	2.194E-01	1.316E-01	9.981E-03	11.681
AC-228	2.261E+00	4.452E-01	2.864E-01	3.402E-02	7.895
RA-228	2.261E+00	4.452E-01	2.864E-01	3.402E-02	7.895
TH-228	2.266E+00	2.146E-01	1.123E-01	8.144E-03	20.189
TH-229	6.485E-01	2.008E-01	1.012E+00	5.358E-02	0.641
TH-230	1.538E+00	2.038E-01	1.316E-01	7.168E-03	11.681
TH-232	2.261E+00	4.452E-01	2.864E-01	3.402E-02	7.895
TH-234	3.219E+00	2.832E+00	3.172E+00	5.835E-01	1.015

Sample ID : G249334002 Acquisition date : 24-MAR-2010 09:22:29

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	1.255E+00	4.693E-01	5.472E-01	1.263E-01	2.294
U-238	3.219E+00	2.832E+00	3.172E+00	5.835E-01	1.015
ANH-511	1.409E-01	7.592E-02	5.417E-02	3.147E-03	2.601

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	8.151E-02		4.008E-01	6.685E-01	4.541E-02	0.122
NA-22	-1.509E-02		5.912E-02	9.392E-02	6.307E-03	-0.161
NA-24	-5.137E-02		3.787E-02	Half-Life too short		
SC-46	-1.343E-02		4.727E-02	7.675E-02	6.858E-03	-0.175
V-48	-2.177E-02		8.349E-02	1.351E-01	1.124E-02	-0.161
CR-51	1.405E-01		4.144E-01	7.068E-01	4.628E-02	0.199
MN-54	-1.775E-02		5.055E-02	8.239E-02	6.524E-03	-0.215
CO-56	-1.467E-02		4.541E-02	7.264E-02	5.910E-03	-0.202
CO-57	6.978E-03		3.093E-02	5.130E-02	3.024E-03	0.136
CO-58	1.525E-02		4.361E-02	7.521E-02	5.651E-03	0.203
FE-59	2.068E-02		1.149E-01	1.921E-01	1.479E-02	0.108
CO-60	-9.594E-03		4.688E-02	7.415E-02	5.444E-03	-0.129
ZN-65	1.593E-02		1.526E-01	2.177E-01	1.438E-02	0.073
SE-75	8.755E-03		6.273E-02	8.828E-02	5.140E-03	0.099
SR-85	1.657E-02		4.964E-02	7.275E-02	4.221E-03	0.228
Y-88	2.019E-02		3.883E-02	7.043E-02	4.147E-03	0.287
Y-91	-6.158E+00		2.905E+01	4.669E+01	2.784E+00	-0.132
NB-94	8.412E-03		4.427E-02	7.245E-02	4.140E-03	0.116
NB-95	6.187E-02		5.639E-02	9.760E-02	6.559E-03	0.634
NB-95M	9.718E-01		2.134E-01	3.461E-01	2.562E-02	2.808
ZR-95	8.199E-02		9.205E-02	1.583E-01	1.222E-02	0.518
MO-99	3.019E+00		1.025E+01	1.683E+01	2.459E+00	0.179
TC-99M	4.423E+06		5.169E+07	Half-Life too short		
RU-103	1.780E-02		4.698E-02	7.913E-02	9.844E-03	0.225
RH-106	1.256E-02		3.873E-01	6.308E-01	7.200E-02	0.020
RU-106	1.256E-02		3.873E-01	6.308E-01	3.389E-02	0.020
AG-108M	-2.038E-02		3.662E-02	5.842E-02	3.651E-03	-0.349
AG-110M	-2.474E-02		4.447E-02	6.877E-02	3.822E-03	-0.360
SN-113	-5.263E-02		5.577E-02	8.757E-02	5.394E-03	-0.601
CD-115	9.011E-01		6.799E+00	1.125E+01	6.492E-01	0.080
SN-117M	3.260E-02		6.070E-02	1.010E-01	5.248E-03	0.323
TE-123M	1.574E-02		3.460E-02	5.739E-02	3.029E-03	0.274
SB-124	8.605E-03		8.066E-02	1.368E-01	9.577E-03	0.063
SB-125	9.748E-02		1.140E-01	1.979E-01	1.202E-02	0.493
TE-125M	-1.281E+01		1.151E+01	1.810E+01	1.645E+00	-0.708
I-126	2.954E-02		2.483E-01	4.055E-01	2.098E-02	0.073
SB-126	1.544E-01		1.833E-01	2.791E-01	1.673E-02	0.553
SB-127	6.639E-01		1.113E+00	1.883E+00	1.588E-01	0.353
I-131	-9.282E-02		1.227E-01	1.929E-01	1.256E-02	-0.481
TE-132	-3.115E-01		5.781E-01	9.042E-01	1.259E-01	-0.345

Sample ID : G249334002 Acquisition date : 24-MAR-2010 09:22:29

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-133	-6.365E-02		6.124E-02	7.973E-02	9.025E-03	-0.798
I-133	2.117E-04		6.103E-04	Half-Life too short		
CS-134	1.204E-01	+	9.808E-02	1.062E-01	7.754E-03	1.134
I-135	4.753E+06		1.651E+07	Half-Life too short		
CS-136	-1.997E-03		1.261E-01	2.078E-01	1.654E-02	-0.010
BA-137M	5.863E-03		4.676E-02	7.641E-02	3.903E-03	0.077
CS-137	6.194E-03		4.940E-02	8.071E-02	4.146E-03	0.077
CE-139	-3.020E-02		3.704E-02	5.740E-02	2.926E-03	-0.526
BA-140	-1.095E-02		2.875E-01	4.692E-01	1.563E-01	-0.023
LA-140	8.884E-03		9.493E-02	1.589E-01	1.090E-02	0.056
CE-141	-2.632E-02		7.702E-02	1.220E-01	6.882E-03	-0.216
CE-143	5.118E-04	+	6.924E-05	Half-Life too short		
CE-144	4.177E-03		2.763E-01	3.975E-01	5.490E-02	0.011
PM-144	1.995E-02		4.167E-02	6.986E-02	3.929E-03	0.286
PR-144	1.515E+00		3.117E+00	5.228E+00	2.939E-01	0.290
PM-146	3.379E-03		5.112E-02	8.476E-02	7.201E-03	0.040
ND-147	-3.268E-02		5.918E-01	9.654E-01	1.304E-01	-0.034
PM-149	1.997E+00		5.234E+01	8.834E+01	1.253E+01	0.023
EU-152	-8.910E-02		1.413E-01	1.829E-01	1.211E-02	-0.487
GD-153	7.678E-02		1.188E-01	1.779E-01	1.453E-02	0.432
EU-154	-4.281E-02		1.677E-01	2.664E-01	2.665E-02	-0.161
EU-155	1.903E-01		1.319E-01	2.276E-01	1.677E-02	0.836
TB-160	1.408E-01		1.634E-01	2.919E-01	2.553E-02	0.482
HO-166M	8.077E-02		8.042E-02	1.394E-01	8.157E-03	0.580
TA-182	-1.668E-02		2.374E-01	3.855E-01	2.366E-02	-0.043
IR-192	-3.613E-03		3.995E-02	6.672E-02	3.958E-03	-0.054
HG-203	-1.135E-02		4.500E-02	7.503E-02	4.608E-03	-0.151
BI-207	4.431E-02		6.659E-02	1.162E-01	8.537E-03	0.381
PB-210	3.601E+00		6.499E+00	1.103E+01	8.523E-01	0.326
PB-211	-4.307E-01		1.001E+00	1.357E+00	6.509E-01	-0.317
BI-212	3.067E+00	+	9.865E-01	1.425E+00	1.548E-01	2.153
RN-219	2.053E-01		5.122E-01	8.474E-01	1.139E-01	0.242
RA-223	-7.566E-01		8.807E-01	1.174E+00	1.897E-01	-0.645
AC-227	1.680E-01		3.211E-01	5.266E-01	5.361E-02	0.319
TH-227	1.680E-01		3.213E-01	5.266E-01	6.309E-02	0.319
PA-231	-2.727E-01		1.689E+00	2.825E+00	3.709E-01	-0.097
TH-231	-7.566E-01		8.807E-01	1.174E+00	1.897E-01	-0.645
PA-233	-1.806E-02		7.725E-02	1.282E-01	8.015E-03	-0.141
PA-234	-1.543E-01		3.759E-01	5.990E-01	1.126E-01	-0.258
PA-234M	5.384E+00		6.105E+00	1.090E+01	1.040E+00	0.494
U-235	4.762E-02		2.611E-01	4.222E-01	6.574E-02	0.113
NP-239	8.758E-03		4.941E-01	8.142E-01	5.068E-02	0.011
AM-241	-1.776E-01		2.556E-01	3.641E-01	3.387E-02	-0.488
CM-247	-1.147E-02		5.069E-02	7.520E-02	4.358E-03	-0.152
CF-249	2.302E-02		5.196E-02	8.841E-02	5.115E-03	0.260
CF-251	-1.813E-02		1.659E-01	2.682E-01	1.388E-02	-0.068

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249334002            *
* Acquisition date : 24-MAR-2010 09:22:29 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.89     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249334002           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.2281E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.212E+01	3.094E+00	2.220E-01	1.578E+00
CD-109	4.289E+00	1.301E+00	9.156E-01	6.639E-01
SN-126	4.206E-01	1.276E-01	9.908E-02	6.511E-02
CS-135	5.252E-01	3.273E-01	1.623E-01	1.670E-01
TL-208	6.767E-01	9.499E-02	3.162E-02	4.846E-02
BI-211	5.225E+00	6.493E-01	1.953E-01	3.313E-01
PB-212	2.266E+00	2.103E-01	5.742E-02	1.073E-01
BI-214	1.538E+00	2.150E-01	6.652E-02	1.097E-01
PB-214	1.896E+00	2.570E-01	7.102E-02	1.311E-01
RA-224	6.573E+00	1.614E+00	6.154E-01	8.237E-01
RA-226	1.538E+00	2.150E-01	6.652E-02	1.097E-01
AC-228	2.261E+00	4.363E-01	1.440E-01	2.226E-01
RA-228	2.261E+00	4.363E-01	1.440E-01	2.226E-01
TH-228	2.266E+00	2.103E-01	5.742E-02	1.073E-01
TH-229	-2.811E-01	6.247E-01	5.189E-01	3.187E-01
TH-230	1.538E+00	1.997E-01	6.652E-02	1.019E-01
TH-232	2.261E+00	4.363E-01	1.440E-01	2.226E-01
TH-234	3.219E+00	2.776E+00	1.650E+00	1.416E+00
NP-237	1.255E+00	4.599E-01	2.835E-01	2.347E-01
U-238	3.219E+00	2.776E+00	1.650E+00	1.416E+00
ANH-511	1.409E-01	7.440E-02	2.744E-02	3.796E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	8.151E-02	3.928E-01	3.389E-01	2.004E-01	NOT IDENT.
NA-22	-1.509E-02	5.794E-02	4.700E-02	2.956E-02	NOT IDENT.
NA-24	-5.137E+04	7.423E+04	0.000E+00	3.787E+04	SHORT HLIF
SC-46	-1.343E-02	4.632E-02	3.859E-02	2.363E-02	FAIL ABUN
V-48	-2.177E-02	8.182E-02	6.782E-02	4.174E-02	NOT IDENT.
CR-51	1.405E-01	4.061E-01	3.602E-01	2.072E-01	NOT IDENT.

MN-54	-1.775E-02	4.954E-02	4.146E-02	2.528E-02	NOT IDENT.
CO-56	-1.467E-02	4.450E-02	3.655E-02	2.270E-02	NOT IDENT.
CO-57	6.978E-03	3.031E-02	2.646E-02	1.547E-02	NOT IDENT.
CO-58	1.525E-02	4.274E-02	3.787E-02	2.181E-02	NOT IDENT.
FE-59	2.068E-02	1.126E-01	9.632E-02	5.747E-02	NOT IDENT.
CO-60	-9.594E-03	4.595E-02	3.709E-02	2.344E-02	NOT IDENT.
ZN-65	1.593E-02	1.495E-01	1.091E-01	7.628E-02	NOT IDENT.
SE-75	8.755E-03	6.147E-02	4.510E-02	3.136E-02	NOT IDENT.
SR-85	1.657E-02	4.865E-02	3.684E-02	2.482E-02	NOT IDENT.
Y-88	2.019E-02	3.806E-02	3.507E-02	1.942E-02	NOT IDENT.
Y-91	-6.158E+00	2.847E+01	2.338E+01	1.453E+01	NOT IDENT.
NB-94	8.412E-03	4.338E-02	3.654E-02	2.213E-02	NOT IDENT.
NB-95	6.187E-02	5.526E-02	4.917E-02	2.819E-02	NOT IDENT.
NB-95M	9.718E-01	2.091E-01	1.771E-01	1.067E-01	NOT IDENT.
ZR-95	8.199E-02	9.021E-02	7.978E-02	4.602E-02	NOT IDENT.
MO-99	3.019E+00	1.004E+01	8.482E+00	5.123E+00	NOT IDENT.
TC-99M	4.423E+12	1.013E+14	0.000E+00	5.169E+13	SHORT HLIF
RU-103	1.780E-02	4.604E-02	4.009E-02	2.349E-02	FAIL ABUN
RH-106	1.256E-02	3.796E-01	3.187E-01	1.937E-01	NOT IDENT.
RU-106	1.256E-02	3.796E-01	3.187E-01	1.937E-01	NOT IDENT.
AG-108M	-2.038E-02	3.589E-02	2.965E-02	1.831E-02	NOT IDENT.
AG-110M	-2.474E-02	4.358E-02	3.472E-02	2.224E-02	NOT IDENT.
SN-113	-5.263E-02	5.465E-02	4.451E-02	2.788E-02	NOT IDENT.
CD-115	9.011E-01	6.663E+00	5.695E+00	3.399E+00	NOT IDENT.
SN-117M	3.260E-02	5.949E-02	5.192E-02	3.035E-02	NOT IDENT.
TE-123M	1.574E-02	3.391E-02	2.951E-02	1.730E-02	NOT IDENT.
SB-124	8.605E-03	7.905E-02	6.822E-02	4.033E-02	NOT IDENT.
SB-125	9.748E-02	1.117E-01	1.005E-01	5.699E-02	FAIL ABUN
TE-125M	-1.281E+01	1.128E+01	9.349E+00	5.754E+00	NOT IDENT.
I-126	2.954E-02	2.433E-01	2.047E-01	1.241E-01	NOT IDENT.
SB-126	1.544E-01	1.796E-01	1.407E-01	9.163E-02	NOT IDENT.
SB-127	6.639E-01	1.091E+00	9.501E-01	5.566E-01	NOT IDENT.
I-131	-9.282E-02	1.202E-01	9.814E-02	6.135E-02	NOT IDENT.
TE-132	-3.115E-01	5.665E-01	4.628E-01	2.890E-01	NOT IDENT.
BA-133	-6.365E-02	6.001E-02	4.057E-02	3.062E-02	NOT IDENT.
I-133	2.117E+02	1.196E+03	0.000E+00	6.103E+02	SHORT HLIF
CS-134	1.204E-01	9.612E-02	5.346E-02	4.904E-02	FAIL ABUN
I-135	4.753E+12	3.236E+13	0.000E+00	1.651E+13	SHORT HLIF
CS-136	-1.997E-03	1.236E-01	1.042E-01	6.305E-02	NOT IDENT.
BA-137M	5.863E-03	4.582E-02	3.857E-02	2.338E-02	NOT IDENT.
CS-137	6.194E-03	4.841E-02	4.074E-02	2.470E-02	NOT IDENT.
CE-139	-3.020E-02	3.630E-02	2.949E-02	1.852E-02	NOT IDENT.
BA-140	-1.095E-02	2.817E-01	2.375E-01	1.437E-01	NOT IDENT.
LA-140	8.884E-03	9.303E-02	7.928E-02	4.747E-02	FAIL ABUN
CE-141	-2.632E-02	7.548E-02	6.280E-02	3.851E-02	NOT IDENT.
CE-143	5.118E+02	1.357E+02	0.000E+00	6.924E+01	SHORT HLIF
CE-144	4.177E-03	2.708E-01	2.048E-01	1.381E-01	NOT IDENT.
PM-144	1.995E-02	4.083E-02	3.524E-02	2.083E-02	NOT IDENT.
PR-144	1.515E+00	3.054E+00	2.637E+00	1.558E+00	NOT IDENT.
PM-146	3.379E-03	5.010E-02	4.300E-02	2.556E-02	NOT IDENT.
ND-147	-3.268E-02	5.800E-01	4.887E-01	2.959E-01	FAIL ABUN
PM-149	1.997E+00	5.129E+01	4.508E+01	2.617E+01	NOT IDENT.
EU-152	-8.910E-02	1.385E-01	9.312E-02	7.067E-02	NOT IDENT.
GD-153	7.678E-02	1.164E-01	9.203E-02	5.938E-02	NOT IDENT.
EU-154	-4.281E-02	1.644E-01	1.333E-01	8.386E-02	NOT IDENT.
EU-155	1.903E-01	1.293E-01	1.176E-01	6.596E-02	FAIL ABUN
TB-160	1.408E-01	1.602E-01	1.468E-01	8.171E-02	FAIL ABUN
HO-166M	8.077E-02	7.881E-02	7.029E-02	4.021E-02	FAIL ABUN
TA-182	-1.668E-02	2.327E-01	1.930E-01	1.187E-01	FAIL ABUN
IR-192	-3.613E-03	3.915E-02	3.400E-02	1.998E-02	FAIL ABUN
HG-203	-1.135E-02	4.410E-02	3.830E-02	2.250E-02	FAIL ABUN
BI-207	4.431E-02	6.526E-02	5.829E-02	3.330E-02	FAIL ABUN
PB-210	3.601E+00	6.369E+00	5.760E+00	3.249E+00	NOT IDENT.
PB-211	-4.307E-01	9.810E-01	6.893E-01	5.005E-01	NOT IDENT.
BI-212	3.067E+00	9.668E-01	7.183E-01	4.932E-01	FAIL ABUN
RN-219	2.053E-01	5.019E-01	4.306E-01	2.561E-01	FAIL ABUN
RA-223	-7.566E-01	8.631E-01	5.981E-01	4.404E-01	FAIL ABUN
AC-227	1.680E-01	3.147E-01	2.691E-01	1.605E-01	FAIL ABUN
TH-227	1.680E-01	3.148E-01	2.691E-01	1.606E-01	FAIL ABUN
PA-231	-2.727E-01	1.655E+00	1.442E+00	8.446E-01	FAIL ABUN
TH-231	-7.566E-01	8.631E-01	5.981E-01	4.404E-01	FAIL ABUN
PA-233	-1.806E-02	7.571E-02	6.533E-02	3.863E-02	FAIL ABUN
PA-234	-1.543E-01	3.684E-01	3.009E-01	1.879E-01	FAIL ABUN
PA-234M	5.384E+00	5.982E+00	5.473E+00	3.052E+00	NOT IDENT.
U-235	4.762E-02	2.559E-01	2.173E-01	1.306E-01	FAIL ABUN
NP-239	8.758E-03	4.842E-01	4.202E-01	2.471E-01	NOT IDENT.
AM-241	-1.776E-01	2.505E-01	1.895E-01	1.278E-01	NOT IDENT.
CM-247	-1.147E-02	4.967E-02	3.820E-02	2.534E-02	NOT IDENT.

CF-249	2.302E-02	5.092E-02	4.494E-02	2.598E-02	NOT IDENT.
CF-251	-1.813E-02	1.626E-01	1.377E-01	8.294E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	337.9074
49.72	379.8171
57.36	0.0000
59.54	409.3459
63.29	457.0670
63.29	457.0670
64.28	492.7362
67.75	508.7466
69.67	522.1721
70.83	482.4561
72.81	530.5287
72.87	530.5739
72.87	530.5739
74.82	513.8744
74.82	513.8744
74.82	513.8744
74.97	513.9802
77.11	501.8375
77.11	501.8375
77.11	501.8375
79.69	452.6071
79.80	452.6725
80.12	464.2817
80.19	464.3245
80.57	464.5572
81.00	464.8197
81.07	464.8625
81.07	464.8625
83.79	607.0342
83.79	607.0342
85.43	608.3059
86.48	609.1149
86.55	609.1707
86.79	609.3524
86.94	723.6840
87.57	683.9132
88.03	568.9744
88.47	530.8207
89.96	570.3361
91.11	509.3972
92.59	728.7433
92.59	728.7433
93.35	383.8611
94.67	395.3200
94.87	426.4279
94.87	426.4279
95.86	442.4545
97.43	374.8386
98.44	367.2359
99.53	370.2994
100.11	384.1990
103.18	410.9910
103.37	369.9712
105.31	342.3327
106.12	341.6598
109.28	393.0974
111.00	342.5074
111.76	347.7273
116.30	367.2787
117.23	360.6819
121.12	351.1635
121.78	346.4083
122.06	346.5076
123.07	347.8633
131.20	401.4760
133.52	357.1314
136.00	362.4357

136.47	379.8180
140.51	379.2322
140.51	0.0000
143.76	369.1587
144.24	366.2610
144.24	366.2610
145.44	369.7276
152.43	338.1442
153.25	350.7301
154.21	376.7617
154.21	376.7617
156.02	382.5173
158.56	330.6641
159.00	327.6874
162.66	317.3111
163.33	326.8289
165.86	349.3634
176.60	348.2692
177.52	344.3284
181.07	358.7823
184.41	374.9285
185.72	348.6864
193.51	304.0168
197.04	292.0385
205.31	308.8499
210.85	334.2119
215.65	283.0684
222.11	270.2465
227.38	260.3377
228.16	290.9924
228.18	290.9964
235.69	282.1804
235.96	254.1837
235.96	254.1837
238.63	254.6368
238.63	254.6368
240.99	255.0350
242.00	255.2050
244.70	211.5776
252.40	236.9964
252.80	229.3027
256.23	216.4821
256.23	216.4821
260.90	250.5226
264.66	205.3519
268.22	230.8568
269.46	229.4645
269.46	229.4645
271.23	199.0114
273.65	283.6941
276.40	215.8213
277.37	200.2011
277.60	197.9785
278.00	196.2266
279.20	224.2915
279.54	233.3466
280.46	240.6846
283.69	195.0856
284.31	194.2532
285.41	182.6261
285.90	181.7759
287.50	202.1614
293.27	0.0000
295.22	187.9173
295.96	159.1919
298.57	159.4290
299.98	191.4686
299.98	191.4686
300.09	182.3633
300.09	182.3633
300.13	182.3682
301.36	209.8694
302.85	199.3918
304.50	214.8133
304.50	214.8133
304.85	222.4753
308.46	177.7307
311.90	180.8254

316.51	168.4016
319.41	157.6093
320.08	162.2779
323.87	178.6280
323.87	178.6280
328.76	152.8506
333.37	218.2327
334.37	218.3475
334.37	218.3475
338.28	176.9027
338.28	176.9027
338.32	176.9050
338.32	176.9050
338.32	176.9050
340.48	155.3568
340.55	155.3629
344.28	169.9852
351.06	144.3374
351.93	144.4013
356.01	180.0946
364.49	170.8011
366.42	156.7962
383.85	166.7157
388.16	154.6495
388.63	151.8205
391.69	169.2541
400.66	140.2042
401.81	134.5142
402.40	146.9086
404.85	139.5147
410.95	141.5176
414.70	128.4134
423.72	146.5485
427.09	113.7222
427.87	118.6238
433.94	134.5450
453.88	115.0676
463.37	141.2073
468.07	112.1353
473.00	131.8668
476.78	116.1845
477.60	118.2112
487.02	98.7257
492.35	111.9330
497.08	99.1305
511.00	93.9765
514.00	105.8492
527.90	89.1945
529.87	0.0000
531.02	95.3907
537.26	95.6179
546.56	0.0000
563.25	106.8285
569.33	91.6248
569.50	91.6313
569.70	87.5193
583.19	72.4285
600.60	108.7411
602.73	86.8266
604.72	92.0987
609.32	85.2854
609.32	85.2854
609.32	85.2854
610.33	104.4678
614.28	64.5106
618.01	84.8463
621.93	84.9610
621.93	84.9610
633.25	80.0245
635.95	93.7998
636.99	91.7238
645.85	96.2276
657.76	96.6097
661.66	93.5451
661.66	93.5451
664.57	0.0000
666.33	87.3012
666.50	85.1758

677.62	85.4844
685.70	72.8510
695.00	87.0374
696.49	74.1784
696.51	74.1784
697.00	77.4158
702.65	91.5555
706.68	104.6136
711.68	75.6140
720.70	68.6044
721.93	0.0000
722.78	81.2933
722.91	81.2970
723.31	90.3422
724.19	104.8253
727.33	70.5542
733.00	96.0474
735.93	87.0645
739.50	94.7845
747.24	76.4429
752.31	101.7142
753.82	76.5950
756.73	67.9003
763.94	110.8485
765.81	82.3590
766.42	88.9636
777.92	72.5517
778.90	84.5149
783.70	92.9121
785.37	89.5826
795.86	71.2149
801.95	46.8557
810.29	61.1808
810.76	54.6991
815.77	72.4172
818.51	62.2523
832.01	76.4796
834.85	96.1413
836.80	0.0000
846.77	55.2525
856.80	59.5636
860.56	64.4587
871.09	63.1615
873.19	61.3104
875.33	0.0000
879.36	48.1850
880.51	64.2674
883.24	58.6384
884.68	57.7149
889.28	63.4695
898.04	67.4147
911.20	62.8848
911.20	62.8848
911.20	62.8848
926.50	63.1345
937.49	80.5786
944.13	57.6538
946.00	64.4114
949.00	56.7637
962.29	79.4314
964.08	79.4665
966.15	92.7598
968.97	69.6182
968.97	69.6182
968.97	69.6182
983.53	65.0180
996.26	73.0087
1001.03	53.6024
1004.73	78.0371
1037.84	64.8936
1038.76	0.0000
1048.07	63.0781
1050.41	65.0869
1050.41	65.0869
1063.66	50.4501
1085.87	70.5955
1099.45	59.8413
1112.07	101.1634

1115.54	85.7980
1120.29	63.5602
1120.29	63.5602
1120.29	63.5602
1120.55	63.5628
1121.30	72.1641
1131.51	0.0000
1173.23	65.8966
1177.93	70.0220
1189.05	62.0524
1204.77	79.6091
1221.41	63.5011
1231.02	106.7337
1235.36	80.1233
1238.28	68.8647
1260.41	0.0000
1271.85	66.2370
1274.44	59.0225
1274.54	59.0248
1291.59	41.5625
1298.22	0.0000
1312.11	37.5601
1332.49	34.5697
1365.19	27.4102
1368.63	0.0000
1384.29	29.6270
1408.01	29.7603
1457.56	0.0000
1460.82	11.0399
1489.16	23.7349
1505.03	18.3925
1596.21	21.6716
1620.50	9.4615
1678.03	0.0000
1690.97	11.4873
1764.49	13.5610
1764.49	13.5610
1764.49	13.5610
1770.23	41.6892
1771.35	19.3938
1791.20	0.0000
1836.06	9.7949

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249334002

Total Uranium Activity	9.5977E+00	ug/g
Total Uranium Counting Unc.	8.2589E+00	ug/g
Total Uranium Tpu	4.2137E-06	ug/g
Total Uranium Mda	4.9088E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G249334002       *
*   ANALYST       : MXR1                      DETECTOR   : GAM23            *
*   SAMPLE DATE   : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 09:22:29.74    SAMPLE ALQT:  122.810 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.117E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.647E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.822E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.862E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:48:52.92

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334003.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:48:18
Sample ID         : G249334003           Sample quantity  : 1.02940E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:10.23  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.72*	147	517	1.03	93.07	89	9	2.04E-02	30.1	
2	0	53.70	217	596	1.03	107.04	102	10	3.01E-02	22.2	
3	0	63.46*	167	560	1.06	126.56	123	8	2.31E-02	26.5	
4	3	74.94*	471	632	0.93	149.53	146	13	6.54E-02	9.4	2.80E+00
5	3	77.29*	787	442	0.86	154.22	146	13	1.09E-01	5.5	
6	0	84.35*	537	545	1.01	168.35	165	7	7.45E-02	8.5	
7	2	87.35*	265	367	1.11	174.36	172	11	3.69E-02	12.7	5.49E-01
8	2	90.11	421	357	0.85	179.87	172	11	5.85E-02	8.4	
9	0	93.46*	657	653	1.59	186.58	183	11	9.12E-02	8.8	
10	0	105.72*	112	382	1.24	211.11	208	7	1.55E-02	30.9	
11	0	109.02	118	349	1.31	217.71	215	6	1.64E-02	26.6	
12	0	143.88*	650	446	1.08	287.45	284	9	9.03E-02	7.1	
13	0	163.67*	314	417	1.07	327.05	322	11	4.35E-02	14.0	
14	0	185.87*	3339	369	1.11	371.47	365	11	4.64E-01	2.1	
15	0	205.59	274	210	1.06	410.92	407	9	3.80E-02	11.3	
16	0	209.28	84	190	1.07	418.31	416	7	1.16E-02	29.2	
17	5	238.76*	889	121	1.06	477.29	472	21	1.24E-01	4.0	1.33E+00
18	5	241.70	231	163	1.82	483.18	472	21	3.21E-02	15.8	
19	0	269.81*	69	174	1.17	539.42	534	11	9.63E-03	39.4	
20	0	295.48*	263	187	1.15	590.78	584	13	3.66E-02	12.6	
21	0	300.37*	64	114	0.91	600.57	597	9	8.83E-03	33.5	
22	0	327.94	53	107	1.08	655.72	652	8	7.36E-03	36.4	
23	0	338.62*	213	147	1.11	677.11	672	12	2.96E-02	13.7	
24	0	351.97*	500	110	1.28	703.82	698	11	6.94E-02	6.2	
25	0	510.90*	63	91	1.75	1021.83	1015	13	8.80E-03	39.3	
26	0	583.19*	230	91	1.10	1166.48	1161	11	3.19E-02	10.7	
27	0	609.20*	321	92	1.40	1218.53	1211	16	4.46E-02	8.8	
28	0	661.89*	159	95	1.36	1323.97	1318	14	2.21E-02	15.4	
29	0	727.48	57	56	1.50	1455.23	1450	10	7.88E-03	28.2	
30	0	794.80*	66	25	1.19	1589.96	1583	14	9.11E-03	20.7	
31	0	911.20*	144	55	1.30	1822.90	1818	10	2.00E-02	13.0	
32	1	964.65	64	41	1.83	1929.89	1923	33	8.92E-03	21.5	2.45E+00
33	1	968.76*	125	34	1.83	1938.11	1923	33	1.74E-02	12.4	
34	0	1120.25	91	45	2.23	2241.31	2234	14	1.26E-02	18.9	
35	0	1239.11	54	69	5.01	2479.21	2467	25	7.46E-03	43.8	
36	0	1460.50*	690	12	2.01	2922.36	2912	17	9.58E-02	4.0	
37	0	1587.64*	24	0	1.14	3176.88	3171	11	3.28E-03	21.6	
38	0	1763.90*	46	6	1.47	3529.73	3522	14	6.38E-03	19.6	

Sample ID : G249334003 Acquisition date : 24-MAR-2010 09:48:18

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 11:48:55

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334003.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:48:18
Sample ID         : G249334003           Sample quantity  : 102.94 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA17              Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:10.23   0.1%
Peak Width (FWHM):      3.00             Confidence level :      5.00 %
Energy tolerance :      1.50 keV         Half life ratio  :      8.00
Errors propagated: Yes                   Systematic Error :      0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :     75.00             WTM error limit  :      3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.034E+01	3.625E+00	7.402E-01	6.572E-02	40.987
CD-109	+	88.03	*	3.997E+00	1.086E+00	1.318E+00	1.287E-01	3.032
TE-125M	+	109.28	*	2.961E+01	1.619E+01	2.124E+01	2.637E+00	1.394
SN-126	+	64.28		9.334E-01	5.165E-01	5.204E-01	8.306E-02	1.794
	+	86.94		1.630E+00	7.941E-01	5.779E-01	2.405E-01	2.820
	+	87.57	*	3.920E-01	1.065E-01	1.291E-01	1.260E-02	3.037
BA-137M	+	661.66	*	4.024E-01	1.288E-01	8.232E-02	6.934E-03	4.888
CS-137	+	661.66	*	4.251E-01	1.361E-01	8.696E-02	7.340E-03	4.888
EU-155	+	86.55		4.749E-01	1.292E-01	1.682E-01	1.654E-02	2.823
	+	105.31	*	3.049E-01	1.910E-01	2.379E-01	2.555E-02	1.282
TL-208		277.37		3.119E-01	5.155E-01	8.890E-01	1.148E-01	0.351
	+	583.19	*	5.440E-01	1.268E-01	8.828E-02	8.340E-03	6.163
		860.56		7.939E-01	5.157E-01	9.567E-01	8.997E-02	0.830
PB-210	+	46.54	*	1.996E+00	1.221E+00	1.044E+00	1.125E-01	1.912
BI-211		72.87		6.513E-01	3.164E+00	4.848E+00	4.740E-01	0.134
	+	351.06	*	4.851E+00	7.503E-01	4.169E-01	3.891E-02	11.636
PB-212	+	74.82		2.458E+00	5.741E-01	5.430E-01	7.482E-02	4.527
	+	77.11		2.474E+00	3.646E-01	3.279E-01	3.196E-02	7.546
	+	238.63	*	1.850E+00	2.380E-01	1.135E-01	1.149E-02	16.306
	+	300.09		2.104E+00	1.428E+00	1.396E+00	1.535E-01	1.508
BI-214	+	609.32	*	1.483E+00	3.029E-01	1.533E-01	1.566E-02	9.673
	+	1120.29		2.272E+00	8.937E-01	7.991E-01	8.583E-02	2.843
	+	1764.49		1.629E+00	6.541E-01	4.366E-01	3.692E-02	3.732
PB-214	+	74.82		4.356E+00	9.875E-01	9.624E-01	1.210E-01	4.527
	+	77.11		4.362E+00	7.366E-01	5.780E-01	7.381E-02	7.546
	+	242.00		2.923E+00	9.748E-01	6.909E-01	7.424E-02	4.231
	+	295.22		1.541E+00	4.242E-01	2.903E-01	3.268E-02	5.309
	+	351.93	*	1.761E+00	2.891E-01	1.517E-01	1.643E-02	11.606
RA-224	+	240.99	*	5.169E+00	1.698E+00	1.217E+00	1.101E-01	4.247
RA-226	+	609.32	*	1.483E+00	3.029E-01	1.533E-01	1.566E-02	9.673
	+	1120.29		2.272E+00	8.937E-01	7.991E-01	8.583E-02	2.843
	+	1764.49		1.629E+00	6.541E-01	4.366E-01	3.692E-02	3.732
AC-228	+	338.32		2.291E+00	1.146E+00	4.987E-01	2.085E-01	4.595
	+	911.20	*	1.722E+00	4.907E-01	3.213E-01	3.756E-02	5.358

Sample ID : G249334003 Acquisition date : 24-MAR-2010 09:48:18

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		2.594E+00	9.022E-01	5.693E-01	1.389E-01	4.555
RA-228	+	338.32		2.291E+00	1.146E+00	4.987E-01	2.085E-01	4.595
	+	911.20	*	1.722E+00	4.907E-01	3.213E-01	3.756E-02	5.358
	+	968.97		2.594E+00	9.022E-01	5.693E-01	1.389E-01	4.555
TH-228	+	74.82		2.458E+00	5.227E-01	5.430E-01	5.338E-02	4.527
	+	77.11		2.474E+00	3.646E-01	3.279E-01	3.196E-02	7.546
	+	238.63	*	1.850E+00	2.380E-01	1.135E-01	1.149E-02	16.306
	+	300.09		2.104E+00	1.910E+00	1.396E+00	8.554E-01	1.508
TH-229	+	85.43		1.984E+00	3.887E-01	3.483E-01	3.396E-02	5.695
	+	88.47		6.043E-01	1.642E-01	1.996E-01	1.952E-02	3.028
		193.51	*	5.948E-01	6.532E-01	1.105E+00	9.560E-02	0.538
		210.85		2.162E+00	1.340E+00	2.110E+00	1.861E-01	1.025
TH-230	+	609.32	*	1.483E+00	2.926E-01	1.533E-01	1.341E-02	9.673
	+	1120.29		2.272E+00	8.807E-01	7.991E-01	6.706E-02	2.843
	+	1764.49		1.629E+00	6.541E-01	4.366E-01	3.692E-02	3.732
TH-232	+	338.32		2.291E+00	6.626E-01	4.987E-01	4.494E-02	4.595
	+	911.20	*	1.722E+00	4.907E-01	3.213E-01	3.756E-02	5.358
	+	968.97		2.594E+00	9.022E-01	5.693E-01	1.389E-01	4.555
TH-234	+	63.29	*	2.422E+00	1.363E+00	1.345E+00	2.559E-01	1.801
	+	92.59		8.600E+00	2.468E+00	1.200E+00	2.718E-01	7.166
U-235	+	89.96		6.668E+00	2.010E+00	1.387E+00	3.477E-01	4.809
	+	93.35		6.496E+00	1.915E+00	8.000E-01	1.892E-01	8.120
	+	143.76	*	3.871E+00	8.817E-01	4.799E-01	8.545E-02	8.066
	+	163.33		4.324E+00	1.435E+00	9.385E-01	1.682E-01	4.608
	+	185.72		4.428E+00	4.215E-01	9.089E-02	7.783E-03	48.719
	+	205.31		4.438E+00	1.290E+00	1.123E+00	2.046E-01	3.950
NP-237	+	86.48	*	1.170E+00	4.014E-01	4.142E-01	9.579E-02	2.824
		95.86		2.047E+00	1.269E+00	1.896E+00	4.659E-01	1.080
U-238	+	63.29	*	2.422E+00	1.363E+00	1.345E+00	2.559E-01	1.801
	+	92.59		8.600E+00	1.742E+00	1.200E+00	1.197E-01	7.166
ANH-511	+	511.00	*	1.123E-01	8.892E-02	7.104E-02	6.345E-03	1.581

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	4.831E-02	4.141E-01	6.860E-01	6.526E-02	0.070
NA-22		1274.54	*	-4.015E-02	7.338E-02	1.093E-01	9.209E-03	-0.367
NA-24		1368.63	*	-3.714E-02	7.338E-02	Half-Life too short		
SC-46		889.28	*	9.953E-03	5.706E-02	9.630E-02	8.430E-03	0.103
	+	1120.55		3.774E-01	1.463E-01	2.157E-01	1.810E-02	1.749
V-48		944.13		-2.412E-01	1.316E+00	2.125E+00	1.859E-01	-0.114
		983.53	*	2.704E-02	1.009E-01	1.707E-01	1.489E-02	0.158
		1312.11		4.596E-02	1.195E-01	2.093E-01	1.777E-02	0.220
CR-51		320.08	*	-3.592E-01	4.466E-01	7.083E-01	6.759E-02	-0.507
MN-54		834.85	*	3.853E-02	5.993E-02	1.053E-01	9.261E-03	0.366
CO-56		846.77	*	1.632E-02	5.999E-02	1.024E-01	9.002E-03	0.159
		1037.84		3.916E-01	5.026E-01	8.889E-01	8.075E-02	0.441
	+	1238.28		3.678E-01	3.237E-01	2.438E-01	2.095E-02	1.509

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1771.35		-1.858E-01	3.548E-01	5.057E-01	4.270E-02	-0.367
CO-57		122.06	*	5.503E-02	3.740E-02	6.434E-02	7.538E-03	0.855
		136.47		1.480E-01	2.813E-01	4.722E-01	5.313E-02	0.313
CO-58		810.76	*	2.360E-02	6.297E-02	1.086E-01	9.561E-03	0.217
FE-59		1099.45	*	4.377E-02	1.459E-01	2.453E-01	2.251E-02	0.178
		1291.59		1.849E-01	1.817E-01	3.306E-01	3.185E-02	0.559
CO-60		1173.23		-2.900E-02	7.736E-02	1.198E-01	9.790E-03	-0.242
		1332.49	*	1.846E-02	6.425E-02	1.114E-01	9.497E-03	0.166
ZN-65		1115.54	*	-5.178E-02	1.655E-01	2.202E-01	1.854E-02	-0.235
SE-75		121.12		-1.862E-03	1.935E-01	3.199E-01	4.342E-02	-0.006
		136.00		3.898E-02	5.334E-02	9.023E-02	9.758E-03	0.432
		264.66	*	-5.449E-02	6.421E-02	8.218E-02	7.552E-03	-0.663
		279.54		2.356E-02	1.411E-01	2.383E-01	2.261E-02	0.099
		400.66		7.518E-02	3.365E-01	5.675E-01	6.231E-02	0.132
SR-85		514.00	*	7.435E-02	6.091E-02	9.803E-02	8.758E-03	0.758
Y-88		898.04		2.400E-02	6.557E-02	1.125E-01	9.881E-03	0.213
		1836.06	*	3.342E-03	5.113E-02	8.468E-02	7.062E-03	0.039
Y-91		1204.77	*	-1.643E+01	3.689E+01	5.670E+01	4.679E+00	-0.290
NB-94		702.65	*	-1.731E-03	4.936E-02	8.288E-02	7.109E-03	-0.021
		871.09		-2.796E-02	5.241E-02	8.155E-02	7.157E-03	-0.343
NB-95		765.81	*	-1.204E-02	6.749E-02	1.113E-01	9.720E-03	-0.108
NB-95M		235.69	*	1.101E-02	1.771E-01	2.524E-01	2.582E-02	0.044
ZR-95		724.19		8.781E-02	1.487E-01	2.338E-01	2.190E-02	0.376
		756.73	*	8.657E-02	1.106E-01	1.976E-01	1.899E-02	0.438
MO-99		140.51		1.873E+01	2.087E+01	3.094E+01	7.568E+00	0.606
		181.07		8.073E+00	1.554E+01	2.311E+01	4.330E+00	0.349
		366.42		3.294E+01	7.574E+01	1.301E+02	1.139E+01	0.253
		739.50	*	-5.047E+00	1.060E+01	1.691E+01	2.670E+00	-0.299
		777.92		-6.563E+00	3.195E+01	5.236E+01	4.583E+00	-0.125
TC-99M		140.51	*	1.259E+08	3.195E+01	Half-Life too short		
RU-103		497.08	*	-1.469E-02	5.187E-02	8.243E-02	1.166E-02	-0.178
	+	610.33		1.472E+01	3.552E+00	4.035E+00	6.623E-01	3.647
RH-106		621.93	*	2.558E-01	4.783E-01	8.076E-01	1.074E-01	0.317
		1050.41		1.786E+00	3.819E+00	6.585E+00	5.667E-01	0.271
RU-106		621.93	*	2.558E-01	4.776E-01	8.076E-01	7.016E-02	0.317
		1050.41		1.786E+00	3.819E+00	6.585E+00	5.667E-01	0.271
AG-108M		433.94	*	1.321E-02	4.457E-02	7.512E-02	6.733E-03	0.176
		614.28		8.904E-03	5.522E-02	7.941E-02	7.152E-03	0.112
		722.91		-1.485E-03	6.125E-02	8.939E-02	7.970E-03	-0.017
AG-110M		657.76	*	3.358E-02	5.495E-02	8.379E-02	7.303E-03	0.401
		677.62		-9.726E-02	4.936E-01	7.720E-01	6.747E-02	-0.126
		706.68		-5.018E-02	3.338E-01	5.550E-01	4.906E-02	-0.090
		763.94		1.080E-01	2.605E-01	4.510E-01	4.043E-02	0.240
		884.68		-1.528E-03	6.892E-02	1.138E-01	1.028E-02	-0.013
		937.49		-1.319E-01	1.773E-01	2.672E-01	2.421E-02	-0.493
		1384.29		-4.642E-02	2.231E-01	3.601E-01	3.174E-02	-0.129
		1505.03		-1.919E-01	3.808E-01	5.688E-01	4.919E-02	-0.337
SN-113		391.69	*	-1.217E-02	6.085E-02	9.961E-02	8.655E-03	-0.122
CD-115		260.90		3.784E+01	8.547E+01	1.398E+02	1.278E+01	0.271

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		492.35		-1.790E+01	2.732E+01	4.190E+01	3.730E+00	-0.427
		527.90	*	2.811E+00	7.116E+00	1.207E+01	1.079E+00	0.233
SN-117M		156.02		-1.363E+00	2.985E+00	4.774E+00	4.395E-01	-0.286
		158.56	*	-4.000E-02	8.032E-02	1.134E-01	1.019E-02	-0.353
TE-123M		159.00	*	-1.889E-02	4.533E-02	6.432E-02	5.789E-03	-0.294
SB-124		602.73		-7.237E-02	6.706E-02	7.988E-02	7.016E-03	-0.906
		645.85		-4.365E-01	7.002E-01	1.041E+00	9.412E-02	-0.419
		722.78		-5.570E-02	6.053E-01	8.753E-01	7.734E-02	-0.064
		1690.97	*	5.445E-02	9.019E-02	1.716E-01	1.530E-02	0.317
SB-125		427.87	*	-1.395E-02	1.271E-01	2.081E-01	1.835E-02	-0.067
		463.37		6.038E-01	4.402E-01	7.843E-01	7.416E-02	0.770
		600.60		1.386E-01	2.575E-01	4.362E-01	4.107E-02	0.318
		635.95		-1.757E-01	4.248E-01	6.522E-01	6.070E-02	-0.269
I-126		388.63		3.069E-02	2.026E-01	3.405E-01	2.881E-02	0.090
		666.33	*	2.133E-02	3.686E-01	5.179E-01	4.373E-02	0.041
		753.82		3.651E+00	2.580E+00	4.809E+00	4.190E-01	0.759
SB-126		414.70		2.401E-03	8.758E-02	1.453E-01	1.246E-02	0.017
		666.50		1.727E-02	1.248E-01	1.772E-01	1.497E-02	0.097
		695.00		1.324E-01	1.033E-01	1.915E-01	1.638E-02	0.691
		697.00		1.283E-01	3.645E-01	6.320E-01	5.410E-02	0.203
		720.70	*	-1.149E-01	1.971E-01	2.921E-01	2.521E-02	-0.393
		856.80		-9.027E-01	7.272E-01	1.054E+00	9.265E-02	-0.856
SB-127		252.40		2.111E+00	3.991E+00	6.405E+00	2.656E+00	0.330
		473.00		2.701E-01	1.450E+00	2.419E+00	2.997E-01	0.112
		685.70	*	1.402E-01	1.392E+00	2.246E+00	2.397E-01	0.062
		783.70		-5.108E-01	3.657E+00	6.031E+00	7.174E-01	-0.085
I-131		80.19		-8.592E-01	5.169E+00	6.164E+00	6.026E-01	-0.139
		284.31		1.335E+00	1.546E+00	2.743E+00	2.629E-01	0.487
		364.49	*	1.043E-02	1.239E-01	2.081E-01	1.918E-02	0.050
		636.99		-1.482E+00	2.032E+00	2.989E+00	2.714E-01	-0.496
TE-132		49.72		-6.369E-01	4.075E+00	4.988E+00	5.789E-01	-0.128
		111.76		3.004E+01	3.174E+01	4.911E+01	6.137E+00	0.612
		116.30		-5.705E+00	2.545E+01	4.180E+01	5.329E+00	-0.136
		228.16	*	2.633E-02	5.652E-01	9.059E-01	1.414E-01	0.029
BA-133		81.00		8.739E-02	1.276E-01	1.599E-01	2.585E-02	0.547
		276.40		2.215E-01	4.690E-01	8.140E-01	1.177E-01	0.272
		302.85		-3.559E-03	1.932E-01	2.875E-01	3.862E-02	-0.012
		356.01	*	-3.796E-02	6.045E-02	8.280E-02	1.086E-02	-0.459
		383.85		4.640E-02	4.080E-01	6.842E-01	8.460E-02	0.068
I-133		529.87	*	-8.118E-04	4.080E-01	Half-Life too short		
		875.33		2.435E-02	4.080E-01	Half-Life too short		
		1298.22		-3.039E-02	4.080E-01	Half-Life too short		
CS-134		563.25		1.925E-01	4.975E-01	8.364E-01	7.516E-02	0.230
		569.33		-7.350E-03	2.678E-01	4.323E-01	3.894E-02	-0.017
		604.72		1.912E-02	5.053E-02	7.493E-02	6.590E-03	0.255
	+	795.86	*	2.340E-01	9.923E-02	1.397E-01	1.235E-02	1.675
		801.95		2.503E-01	6.463E-01	1.063E+00	9.380E-02	0.236
		1365.19		2.079E-01	1.729E+00	2.947E+00	2.641E-01	0.071
CS-135		268.22	*	1.519E-01	2.322E-01	3.458E-01	3.608E-02	0.439

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-135		546.56		-3.155E+06	2.322E-01	Half-Life too short		
		836.80		5.258E+07	2.322E-01	Half-Life too short		
		1038.76		8.981E+07	2.322E-01	Half-Life too short		
		1131.51		1.071E+07	2.322E-01	Half-Life too short		
		1260.41	*	-1.462E+07	2.322E-01	Half-Life too short		
		1457.56		2.711E+09	2.322E-01	Half-Life too short		
		1678.03		1.249E+07	2.322E-01	Half-Life too short		
		1791.20		1.304E+07	2.322E-01	Half-Life too short		
CS-136		153.25		5.283E-01	1.074E+00	1.792E+00	1.964E-01	0.295
		176.60		-2.567E-02	6.254E-01	1.012E+00	9.480E-02	-0.025
		273.65		6.250E-02	6.875E-01	9.720E-01	9.583E-02	0.064
		340.55		4.290E-01	1.928E-01	3.305E-01	3.076E-02	1.298
		818.51		-1.785E-02	9.897E-02	1.616E-01	1.422E-02	-0.110
		1048.07	*	7.507E-02	1.377E-01	2.401E-01	2.154E-02	0.313
		1235.36		8.003E-01	9.269E-01	1.445E+00	1.669E-01	0.554
CE-139		165.86	*	2.498E-02	4.488E-02	6.748E-02	5.626E-03	0.370
BA-140	+	162.66		7.141E+00	2.098E+00	2.442E+00	2.249E-01	2.924
		304.85		8.040E-01	1.620E+00	2.496E+00	7.347E-01	0.322
		423.72		1.320E+00	2.387E+00	4.049E+00	1.332E+00	0.326
		537.26	*	-2.300E-01	3.610E-01	5.376E-01	1.828E-01	-0.428
LA-140	+	328.76		6.217E-01	4.566E-01	6.810E-01	6.497E-02	0.913
		487.02		9.978E-02	1.760E-01	3.017E-01	2.838E-02	0.331
		815.77		7.509E-02	4.435E-01	7.516E-01	7.352E-02	0.100
		1596.21	*	-4.068E-02	1.232E-01	1.914E-01	1.652E-02	-0.212
CE-141		145.44	*	6.223E-01	1.346E-01	2.108E-01	2.150E-02	2.952
CE-143		57.36		-1.062E-04	1.346E-01	Half-Life too short		
		293.27	*	1.248E-04	1.346E-01	Half-Life too short		
		664.57		8.961E-04	1.346E-01	Half-Life too short		
		721.93		-1.191E-04	1.346E-01	Half-Life too short		
CE-144		80.12		-7.306E-01	3.356E+00	3.987E+00	3.884E-01	-0.183
		133.52	*	-3.577E-01	2.818E-01	4.277E-01	7.146E-02	-0.836
PM-144		476.78		-3.204E-02	8.293E-02	1.308E-01	1.254E-02	-0.245
		618.01		-2.416E-02	4.670E-02	7.089E-02	6.342E-03	-0.341
		696.49	*	3.081E-02	5.059E-02	8.960E-02	7.670E-03	0.344
PR-144		696.51	*	2.341E+00	3.785E+00	6.709E+00	5.741E-01	0.349
		1489.16		2.697E-01	1.933E+01	3.217E+01	2.781E+00	0.008
PM-146		453.88	*	-1.382E-02	6.229E-02	1.007E-01	1.079E-02	-0.137
		633.25		3.212E-01	2.281E+00	3.707E+00	1.416E+00	0.087
		735.93		1.082E-01	2.163E-01	3.766E-01	1.056E-01	0.287
		747.24		5.749E-02	1.415E-01	2.461E-01	3.601E-02	0.234
ND-147	+	91.11		1.878E+00	3.711E-01	5.939E-01	6.257E-02	3.163
		319.41		-1.819E+00	3.617E+00	5.871E+00	5.354E-01	-0.310
		531.02	*	-8.586E-01	6.710E-01	9.197E-01	1.392E-01	-0.933
PM-149		285.90	*	5.127E+00	5.639E+01	9.605E+01	1.523E+01	0.053
EU-152		121.78		1.114E-01	1.087E-01	1.852E-01	2.346E-02	0.602
		244.70		1.474E-02	4.087E-01	5.801E-01	5.259E-02	0.025
		344.28	*	2.520E-02	1.416E-01	2.125E-01	2.010E-02	0.119
		778.90		2.188E-01	3.909E-01	6.879E-01	6.022E-02	0.318
	+	964.08		1.430E+00	6.285E-01	9.912E-01	8.663E-02	1.443

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1085.87		5.860E-02	5.540E-01	9.149E-01	7.786E-02	0.064
		1112.07		-5.827E-02	5.600E-01	8.457E-01	7.123E-02	-0.069
		1408.01		3.140E-01	2.817E-01	5.385E-01	4.633E-02	0.583
GD-153		69.67		-3.706E-01	1.424E+00	2.393E+00	2.349E-01	-0.155
		97.43	*	-2.676E-02	1.130E-01	1.673E-01	1.710E-02	-0.160
		103.18		-1.204E-02	1.559E-01	2.320E-01	2.445E-02	-0.052
EU-154		123.07		1.192E-02	7.448E-02	1.238E-01	1.708E-02	0.096
		723.31		3.150E-03	2.784E-01	4.083E-01	3.883E-02	0.008
		873.19		1.882E-01	4.265E-01	7.396E-01	8.880E-02	0.254
		996.26		-5.526E-01	5.115E-01	6.978E-01	1.222E-01	-0.792
		1004.73		7.499E-02	3.458E-01	5.801E-01	6.783E-02	0.129
		1274.44	*	-5.901E-02	2.016E-01	3.111E-01	3.492E-02	-0.190
TB-160	+	86.79		1.235E+00	3.355E-01	5.574E-01	5.437E-02	2.215
		197.04		-8.058E-01	7.350E-01	1.107E+00	9.617E-02	-0.728
		215.65		-7.383E-03	8.936E-01	1.432E+00	1.269E-01	-0.005
		298.57		2.540E-01	1.902E-01	2.482E-01	2.278E-02	1.023
		879.36	*	-9.428E-02	2.028E-01	3.103E-01	2.721E-02	-0.304
		962.29		1.176E+00	9.555E-01	1.575E+00	1.377E-01	0.746
	+	966.15		9.786E-01	4.300E-01	7.925E-01	6.925E-02	1.235
		1177.93		-6.298E-02	5.978E-01	9.557E-01	7.819E-02	-0.066
		1271.85		-9.569E-02	1.107E+00	1.759E+00	1.479E-01	-0.054
HO-166M		80.57		-2.542E-02	3.778E-01	4.535E-01	4.417E-02	-0.056
	+	184.41		3.518E+00	3.349E-01	2.317E-01	1.981E-02	15.182
		280.46		-1.120E-01	1.099E-01	1.746E-01	1.603E-02	-0.642
		410.95		2.352E-01	3.305E-01	5.752E-01	4.919E-02	0.409
		711.68	*	-1.221E-02	9.158E-02	1.523E-01	1.310E-02	-0.080
		752.31		-9.111E-02	4.268E-01	7.010E-01	6.105E-02	-0.130
		810.29		-2.268E-02	9.810E-02	1.599E-01	1.405E-02	-0.142
TA-182		67.75		-9.741E-04	9.319E-02	1.413E-01	1.392E-02	-0.007
		100.11		1.057E-01	2.160E-01	3.666E-01	3.800E-02	0.288
		152.43		1.747E-01	4.834E-01	8.024E-01	7.628E-02	0.218
		222.11		1.311E-01	4.355E-01	7.100E-01	6.328E-02	0.185
	+	1121.30		1.051E+00	4.072E-01	6.105E-01	5.122E-02	1.721
		1189.05		-5.785E-02	5.186E-01	8.280E-01	6.799E-02	-0.070
		1221.41	*	1.637E-01	3.118E-01	5.311E-01	4.405E-02	0.308
		1231.02		2.673E-01	7.977E-01	1.170E+00	9.732E-02	0.228
IR-192	+	295.96		1.116E+00	2.987E-01	3.770E-01	3.484E-02	2.961
		308.46		-8.029E-04	1.145E-01	1.930E-01	1.776E-02	-0.004
		316.51	*	-2.309E-03	4.325E-02	7.257E-02	6.639E-03	-0.032
		468.07		-2.542E-02	9.529E-02	1.530E-01	1.445E-02	-0.166
HG-203		70.83		-6.871E-01	1.250E+00	1.857E+00	3.105E-01	-0.370
		72.87		1.569E-01	7.626E-01	1.168E+00	1.893E-01	0.134
		279.20	*	2.369E-02	4.960E-02	8.512E-02	7.991E-03	0.278
BI-207		72.81		3.173E-02	1.818E-01	2.783E-01	2.721E-02	0.114
	+	74.97		7.083E-01	1.504E-01	2.224E-01	2.170E-02	3.185
		569.70		-5.648E-03	4.252E-02	6.789E-02	6.036E-03	-0.083
		1063.66	*	-1.147E-02	7.804E-02	1.249E-01	1.071E-02	-0.092
		1770.23		-2.969E+00	1.164E+00	9.385E-01	7.927E-02	-3.164
PB-211		404.85	*	-1.981E-01	9.699E-01	1.575E+00	7.619E-01	-0.126

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.09		4.645E-01	2.142E+00	3.581E+00	1.657E+00	0.130
		832.01		-1.245E-01	1.648E+00	2.719E+00	1.411E+00	-0.046
BI-212	+	727.33	*	2.120E+00	1.226E+00	1.811E+00	2.260E-01	1.170
		785.37		9.090E-01	4.872E+00	8.281E+00	7.256E-01	0.110
		1620.50		1.691E+00	3.703E+00	6.595E+00	5.682E-01	0.256
RN-219	+	271.23		6.417E-01	5.103E-01	5.736E-01	6.148E-02	1.119
		401.81	*	-4.433E-02	5.534E-01	9.124E-01	1.350E-01	-0.049
RA-223		81.07		2.523E-01	2.846E-01	3.622E-01	3.527E-02	0.697
	+	83.79		1.181E+00	2.313E-01	3.189E-01	3.107E-02	3.702
	+	94.87		6.393E+00	1.295E+00	1.122E+00	1.132E-01	5.700
	+	144.24		1.297E+01	2.336E+00	2.901E+00	3.198E-01	4.472
		154.21		1.467E-01	5.624E-01	9.289E-01	9.404E-02	0.158
	+	269.46		4.986E-01	3.956E-01	4.545E-01	4.237E-02	1.097
		323.87	*	7.266E-01	9.344E-01	1.468E+00	2.580E-01	0.495
	+	338.28		9.093E+00	2.739E+00	3.467E+00	4.283E-01	2.623
AC-227		79.69		-1.553E+00	1.491E+00	1.921E+00	3.423E-01	-0.808
		235.96		8.055E-03	2.182E-01	3.103E-01	3.311E-02	0.026
		256.23	*	4.767E-02	3.382E-01	5.417E-01	6.724E-02	0.088
	+	299.98		2.314E+00	1.580E+00	2.086E+00	2.731E-01	1.109
		304.50		5.337E-01	2.191E+00	3.333E+00	5.607E-01	0.160
		334.37		-6.597E-01	2.651E+00	3.833E+00	6.065E-01	-0.172
TH-227		79.80		-1.968E+00	1.986E+00	2.546E+00	5.663E-01	-0.773
		235.96		8.055E-03	2.182E-01	3.103E-01	3.135E-02	0.026
		256.23	*	4.767E-02	3.382E-01	5.417E-01	7.544E-02	0.088
	+	299.98		2.314E+00	1.580E+00	2.086E+00	2.731E-01	1.109
		304.50		5.337E-01	2.191E+00	3.333E+00	5.607E-01	0.160
		334.37		-6.597E-01	2.651E+00	3.833E+00	6.065E-01	-0.172
PA-231		283.69	*	1.335E+00	1.805E+00	3.174E+00	4.737E-01	0.421
	+	301.36		1.487E+00	1.013E+00	1.368E+00	1.717E-01	1.087
TH-231		81.07		2.523E-01	2.846E-01	3.622E-01	3.527E-02	0.697
	+	83.79		1.181E+00	2.313E-01	3.189E-01	3.107E-02	3.702
	+	94.87		6.393E+00	1.295E+00	1.122E+00	1.132E-01	5.700
	+	144.24		1.297E+01	2.336E+00	2.901E+00	3.198E-01	4.472
		154.21		1.467E-01	5.624E-01	9.289E-01	9.404E-02	0.158
	+	269.46		4.986E-01	3.956E-01	4.545E-01	4.237E-02	1.097
		323.87	*	7.266E-01	9.344E-01	1.468E+00	2.580E-01	0.495
	+	338.28		9.093E+00	2.739E+00	3.467E+00	4.283E-01	2.623
PA-233	+	300.13		1.047E+00	7.193E-01	9.498E-01	1.440E-01	1.103
		311.90	*	-1.730E-02	8.046E-02	1.336E-01	1.254E-02	-0.129
		340.48		2.393E+00	1.091E+00	1.646E+00	3.984E-01	1.454
PA-234	+	94.67		2.317E+00	5.128E-01	4.294E-01	5.780E-02	5.395
		98.44		1.621E-02	1.219E-01	1.833E-01	1.028E-01	0.088
		111.00		1.720E-01	2.888E-01	4.408E-01	6.120E-02	0.390
		131.20		-1.542E-02	1.521E-01	2.495E-01	2.771E-02	-0.062
		569.50		-5.422E-02	3.733E-01	5.952E-01	5.293E-02	-0.091
		733.00		-1.216E-02	6.023E-01	9.192E-01	2.042E-01	-0.013
		880.51		-3.915E-01	4.230E-01	6.057E-01	5.309E-02	-0.646
		883.24		4.837E-02	3.925E-01	6.577E-01	4.422E-01	0.074
		926.50		1.709E-01	2.769E-01	4.818E-01	1.220E-01	0.355

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		946.00	*	1.054E-01	4.861E-01	8.187E-01	1.541E-01	0.129
		949.00		3.137E-01	7.346E-01	1.262E+00	1.104E-01	0.248
PA-234M		766.42		1.250E+00	1.898E+01	3.192E+01	1.620E+01	0.039
		1001.03	*	2.288E+00	7.036E+00	1.196E+01	1.200E+00	0.191
NP-239		99.53		1.809E-01	2.074E-01	3.416E-01	3.531E-02	0.529
		103.37		5.898E-02	1.404E-01	2.141E-01	2.259E-02	0.275
	+	106.12		2.433E-01	1.524E-01	2.142E-01	2.294E-02	1.136
		117.23	*	1.077E-01	5.606E-01	9.355E-01	1.065E-01	0.115
		228.18		1.133E-02	2.701E-01	4.327E-01	3.877E-02	0.026
		277.60		1.484E-01	2.351E-01	4.066E-01	3.731E-02	0.365
AM-241		59.54	*	8.716E-02	8.655E-02	1.380E-01	1.466E-02	0.632
CM-247		278.00		6.593E-01	9.958E-01	1.724E+00	1.583E-01	0.382
		287.50		-8.960E-01	1.497E+00	2.435E+00	2.237E-01	-0.368
		402.40	*	-5.075E-03	5.102E-02	8.399E-02	7.134E-03	-0.060
CF-249		252.80		6.931E-01	1.284E+00	2.109E+00	1.921E-01	0.329
		333.37		-2.352E-01	3.080E-01	3.910E-01	3.536E-02	-0.602
		388.16	*	3.878E-02	5.545E-02	9.653E-02	8.175E-03	0.402
CF-251		177.52	*	3.657E-02	1.817E-01	2.976E-01	2.521E-02	0.123
		227.38		-3.210E-02	4.486E-01	7.137E-01	6.390E-02	-0.045
		285.41		7.530E-01	2.682E+00	4.620E+00	4.243E-01	0.163

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334003       *
* Acquisition date : 24-MAR-2010 09:48:18 Detector SN#    :                 *
* Detector ID       : GAM17                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:10.23      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 11-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G249334003           Analyst initials: MXR1           *
* Batch Number      : 965250               Sample Quantity : 1.0294E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.034E+01	3.553E+00	7.345E-01	0.000E+00
CD-109	3.997E+00	1.064E+00	1.323E+00	0.000E+00
TE-125M	2.961E+01	1.586E+01	2.130E+01	0.000E+00
SN-126	3.920E-01	1.044E-01	1.295E-01	0.000E+00
BA-137M	4.024E-01	1.263E-01	8.194E-02	0.000E+00
CS-137	4.251E-01	1.334E-01	8.656E-02	0.000E+00
EU-155	3.049E-01	1.872E-01	2.385E-01	0.000E+00
TL-208	5.440E-01	1.243E-01	8.792E-02	0.000E+00
PB-210	1.996E+00	1.197E+00	1.050E+00	0.000E+00
BI-211	4.851E+00	7.353E-01	4.160E-01	0.000E+00
PB-212	1.850E+00	2.333E-01	1.134E-01	0.000E+00
BI-214	1.483E+00	2.969E-01	1.526E-01	0.000E+00
PB-214	1.761E+00	2.833E-01	1.514E-01	0.000E+00
RA-224	5.169E+00	1.664E+00	1.216E+00	0.000E+00
RA-226	1.483E+00	2.969E-01	1.526E-01	0.000E+00
AC-228	1.722E+00	4.809E-01	3.194E-01	0.000E+00
RA-228	1.722E+00	4.809E-01	3.194E-01	0.000E+00
TH-228	1.850E+00	2.333E-01	1.134E-01	0.000E+00
TH-229	5.948E-01	6.401E-01	1.106E+00	0.000E+00
TH-230	1.483E+00	2.868E-01	1.526E-01	0.000E+00
TH-232	1.722E+00	4.809E-01	3.194E-01	0.000E+00
TH-234	2.422E+00	1.336E+00	1.351E+00	0.000E+00
U-235	3.871E+00	8.641E-01	4.806E-01	0.000E+00
NP-237	1.170E+00	3.934E-01	4.156E-01	0.000E+00
U-238	2.422E+00	1.336E+00	1.351E+00	0.000E+00
ANH-511	1.123E-01	8.714E-02	7.079E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	4.831E-02	4.058E-01	6.838E-01	0.000E+00	NOT IDENT.

NA-22	-4.015E-02	7.191E-02	1.085E-01	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.662E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	9.953E-03	5.592E-02	9.574E-02	0.000E+00	FAIL ABUN
V-48	2.704E-02	9.888E-02	1.696E-01	0.000E+00	NOT IDENT.
CR-51	-3.592E-01	4.376E-01	7.071E-01	0.000E+00	NOT IDENT.
MN-54	3.853E-02	5.873E-02	1.047E-01	0.000E+00	NOT IDENT.
CO-56	1.632E-02	5.879E-02	1.018E-01	0.000E+00	FAIL ABUN
CO-57	5.503E-02	3.666E-02	6.448E-02	0.000E+00	NOT IDENT.
CO-58	2.360E-02	6.171E-02	1.080E-01	0.000E+00	NOT IDENT.
FE-59	4.377E-02	1.430E-01	2.437E-01	0.000E+00	NOT IDENT.
CO-60	1.846E-02	6.296E-02	1.106E-01	0.000E+00	NOT IDENT.
ZN-65	-5.178E-02	1.622E-01	2.187E-01	0.000E+00	NOT IDENT.
SE-75	-5.449E-02	6.293E-02	8.210E-02	0.000E+00	NOT IDENT.
SR-85	7.435E-02	5.969E-02	9.767E-02	0.000E+00	NOT IDENT.
Y-88	3.342E-03	5.011E-02	8.395E-02	0.000E+00	NOT IDENT.
Y-91	-1.643E+01	3.616E+01	5.630E+01	0.000E+00	NOT IDENT.
NB-94	-1.731E-03	4.837E-02	8.248E-02	0.000E+00	NOT IDENT.
NB-95	-1.204E-02	6.614E-02	1.107E-01	0.000E+00	NOT IDENT.
NB-95M	1.101E-02	1.736E-01	2.523E-01	0.000E+00	NOT IDENT.
ZR-95	8.657E-02	1.084E-01	1.966E-01	0.000E+00	NOT IDENT.
MO-99	-5.047E+00	1.038E+01	1.682E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.379E+14	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.469E-02	5.083E-02	8.215E-02	0.000E+00	FAIL ABUN
RH-106	2.558E-01	4.687E-01	8.041E-01	0.000E+00	NOT IDENT.
RU-106	2.558E-01	4.681E-01	8.041E-01	0.000E+00	NOT IDENT.
AG-108M	1.321E-02	4.368E-02	7.490E-02	0.000E+00	NOT IDENT.
AG-110M	3.358E-02	5.385E-02	8.341E-02	0.000E+00	NOT IDENT.
SN-113	-1.217E-02	5.963E-02	9.936E-02	0.000E+00	NOT IDENT.
CD-115	2.811E+00	6.974E+00	1.202E+01	0.000E+00	NOT IDENT.
SN-117M	-4.000E-02	7.872E-02	1.135E-01	0.000E+00	NOT IDENT.
TE-123M	-1.889E-02	4.443E-02	6.439E-02	0.000E+00	NOT IDENT.
SB-124	5.445E-02	8.838E-02	1.702E-01	0.000E+00	NOT IDENT.
SB-125	-1.395E-02	1.246E-01	2.075E-01	0.000E+00	NOT IDENT.
I-126	2.133E-02	3.613E-01	5.155E-01	0.000E+00	NOT IDENT.
SB-126	-1.149E-01	1.931E-01	2.906E-01	0.000E+00	NOT IDENT.
SB-127	1.402E-01	1.365E+00	2.235E+00	0.000E+00	NOT IDENT.
I-131	1.043E-02	1.214E-01	2.076E-01	0.000E+00	NOT IDENT.
TE-132	2.633E-02	5.539E-01	9.056E-01	0.000E+00	NOT IDENT.
BA-133	-3.796E-02	5.924E-02	8.262E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.323E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.725E-02	1.390E-01	0.000E+00	FAIL ABUN
CS-135	1.519E-01	2.275E-01	3.454E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.626E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	7.507E-02	1.350E-01	2.386E-01	0.000E+00	NOT IDENT.
CE-139	2.498E-02	4.398E-02	6.754E-02	0.000E+00	NOT IDENT.
BA-140	-2.300E-01	3.538E-01	5.356E-01	0.000E+00	FAIL ABUN
LA-140	-4.068E-02	1.207E-01	1.899E-01	0.000E+00	FAIL ABUN
CE-141	0.000E+00	1.319E-01	2.111E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	6.735E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.577E-01	2.762E-01	4.285E-01	0.000E+00	NOT IDENT.
PM-144	3.081E-02	4.957E-02	8.917E-02	0.000E+00	NOT IDENT.
PR-144	2.341E+00	3.710E+00	6.677E+00	0.000E+00	NOT IDENT.
PM-146	-1.382E-02	6.105E-02	1.003E-01	0.000E+00	NOT IDENT.
ND-147	-8.586E-01	6.576E-01	9.163E-01	0.000E+00	FAIL ABUN
PM-149	5.127E+00	5.527E+01	9.592E+01	0.000E+00	NOT IDENT.
EU-152	2.520E-02	1.388E-01	2.121E-01	0.000E+00	FAIL ABUN
GD-153	-2.676E-02	1.107E-01	1.678E-01	0.000E+00	NOT IDENT.
EU-154	-5.901E-02	1.975E-01	3.089E-01	0.000E+00	NOT IDENT.
TB-160	-9.428E-02	1.988E-01	3.086E-01	0.000E+00	FAIL ABUN
HO-166M	-1.221E-02	8.974E-02	1.515E-01	0.000E+00	FAIL ABUN
TA-182	1.637E-01	3.056E-01	5.273E-01	0.000E+00	FAIL ABUN
IR-192	-2.309E-03	4.239E-02	7.245E-02	0.000E+00	FAIL ABUN
HG-203	2.369E-02	4.860E-02	8.502E-02	0.000E+00	NOT IDENT.
BI-207	-1.147E-02	7.648E-02	1.241E-01	0.000E+00	FAIL ABUN
PB-211	-1.981E-01	9.505E-01	1.571E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.202E+00	1.802E+00	0.000E+00	FAIL ABUN
RN-219	-4.433E-02	5.424E-01	9.100E-01	0.000E+00	FAIL ABUN
RA-223	7.266E-01	9.157E-01	1.466E+00	0.000E+00	FAIL ABUN
AC-227	4.767E-02	3.315E-01	5.412E-01	0.000E+00	FAIL ABUN
TH-227	4.767E-02	3.315E-01	5.412E-01	0.000E+00	FAIL ABUN
PA-231	1.335E+00	1.769E+00	3.170E+00	0.000E+00	FAIL ABUN
TH-231	7.266E-01	9.157E-01	1.466E+00	0.000E+00	FAIL ABUN
PA-233	-1.730E-02	7.886E-02	1.334E-01	0.000E+00	FAIL ABUN
PA-234	1.054E-01	4.764E-01	8.137E-01	0.000E+00	FAIL ABUN
PA-234M	2.288E+00	6.895E+00	1.188E+01	0.000E+00	NOT IDENT.
NP-239	1.077E-01	5.494E-01	9.376E-01	0.000E+00	FAIL ABUN
AM-241	8.716E-02	8.482E-02	1.387E-01	0.000E+00	NOT IDENT.
CM-247	-5.075E-03	5.000E-02	8.377E-02	0.000E+00	NOT IDENT.

CF-249	3.878E-02	5.434E-02	9.629E-02	0.000E+00 NOT IDENT.
CF-251	3.657E-02	1.781E-01	2.978E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:48:53.80

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334003.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 09:48:18
Sample ID         : G249334003           Sample quantity  : 1.02940E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:10.23  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	690	10.66*	7.779E-01	3.034E+01	3.034E+01	11.95
CD-109	88.03	265	3.70*	6.674E+00	3.920E+00	3.997E+00	27.17
TE-125M	109.28	118	0.27*	6.300E+00	2.533E+01	2.961E+01	54.67
SN-126	64.28	167	9.60	6.778E+00	9.334E-01	9.334E-01	55.33
	86.94	265	8.90	6.674E+00	1.630E+00	1.630E+00	48.73
	87.57	265	37.00*	6.674E+00	3.920E-01	3.920E-01	27.17
BA-137M	661.66	159	89.90*	1.603E+00	4.021E-01	4.024E-01	32.02
CS-137	661.66	159	85.10*	1.603E+00	4.247E-01	4.251E-01	32.02
EU-155	86.55	265	30.70	6.674E+00	4.724E-01	4.749E-01	27.20
	105.31	112	21.10*	6.364E+00	3.033E-01	3.049E-01	62.66
TL-208	277.37	------	6.60	3.568E+00	------ Line Not Found		------
	583.19	230	85.00*	1.811E+00	5.440E-01	5.440E-01	23.31
	860.56	------	12.50	1.246E+00	------ Line Not Found		------
PB-210	46.54	147	4.25*	6.323E+00	1.993E+00	1.996E+00	61.20
BI-211	72.87	------	1.23	6.803E+00	------ Line Not Found		------
	351.06	500	12.92*	2.907E+00	4.851E+00	4.851E+00	15.47
PB-212	74.82	471	10.28	6.795E+00	2.458E+00	2.458E+00	23.36
	77.11	787	17.10	6.781E+00	2.474E+00	2.474E+00	14.74
	238.63	889	43.60*	4.020E+00	1.850E+00	1.850E+00	12.86
	300.09	64	3.30	3.338E+00	2.104E+00	2.104E+00	67.88
BI-214	609.32	321	45.49*	1.736E+00	1.483E+00	1.483E+00	20.43
	1120.29	91	14.92	9.769E-01	2.272E+00	2.272E+00	39.33
	1764.49	46	15.30	6.716E-01	1.629E+00	1.629E+00	40.15
PB-214	74.82	471	5.80	6.795E+00	4.356E+00	4.356E+00	22.67
	77.11	787	9.70	6.781E+00	4.362E+00	4.362E+00	16.89
	242.00	231	7.25	3.982E+00	2.923E+00	2.923E+00	33.35
	295.22	263	18.42	3.384E+00	1.541E+00	1.541E+00	27.53
	351.93	500	35.60*	2.907E+00	1.760E+00	1.761E+00	16.42
RA-224	240.99	231	4.10*	3.982E+00	5.169E+00	5.169E+00	32.84
RA-226	609.32	321	45.49*	1.736E+00	1.483E+00	1.483E+00	20.43
	1120.29	91	14.92	9.769E-01	2.272E+00	2.272E+00	39.33
	1764.49	46	15.30	6.716E-01	1.629E+00	1.629E+00	40.15

Sample ID : G249334003 Acquisition date : 24-MAR-2010 09:48:18

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
AC-228	338.32	213	11.27	3.008E+00	2.291E+00	2.291E+00	50.02
	911.20	144	25.80*	1.181E+00	1.722E+00	1.722E+00	28.50
	968.97	125	15.80	1.115E+00	2.594E+00	2.594E+00	34.79
RA-228	338.32	213	11.27	3.008E+00	2.291E+00	2.291E+00	50.02
	911.20	144	25.80*	1.181E+00	1.722E+00	1.722E+00	28.50
	968.97	125	15.80	1.115E+00	2.594E+00	2.594E+00	34.79
TH-228	74.82	471	10.28	6.795E+00	2.458E+00	2.458E+00	21.27
	77.11	787	17.10	6.781E+00	2.474E+00	2.474E+00	14.74
	238.63	889	43.60*	4.020E+00	1.850E+00	1.850E+00	12.86
	300.09	64	3.30	3.338E+00	2.104E+00	2.104E+00	90.80
TH-229	85.43	537	14.70	6.712E+00	1.984E+00	1.984E+00	19.59
	88.47	265	24.00	6.674E+00	6.043E-01	6.043E-01	27.17
	193.51	------	4.41*	4.680E+00	------ Line Not Found		------
	210.85	------	2.80	4.409E+00	------ Line Not Found		------
TH-230	609.32	321	45.49*	1.736E+00	1.483E+00	1.483E+00	19.74
	1120.29	91	14.92	9.769E-01	2.272E+00	2.272E+00	38.76
	1764.49	46	15.30	6.716E-01	1.629E+00	1.629E+00	40.15
TH-232	338.32	213	11.27	3.008E+00	2.291E+00	2.291E+00	28.91
	911.20	144	25.80*	1.181E+00	1.722E+00	1.722E+00	28.50
	968.97	125	15.80	1.115E+00	2.594E+00	2.594E+00	34.79
TH-234	63.29	167	3.70*	6.778E+00	2.422E+00	2.422E+00	56.29
	92.59	657	4.23	6.583E+00	8.600E+00	8.600E+00	28.70
U-235	89.96	421	3.47	6.635E+00	6.668E+00	6.668E+00	30.15
	93.35	657	5.60	6.583E+00	6.496E+00	6.496E+00	29.49
	143.76	650	10.96*	5.590E+00	3.871E+00	3.871E+00	22.78
	163.33	314	5.08	5.204E+00	4.324E+00	4.324E+00	33.18
	185.72	3339	57.20	4.807E+00	4.428E+00	4.428E+00	9.52
	205.31	274	5.01	4.489E+00	4.438E+00	4.438E+00	29.06
NP-237	86.48	265	12.40*	6.674E+00	1.170E+00	1.170E+00	34.32
	95.86	------	2.68	6.543E+00	------ Line Not Found		------
U-238	63.29	167	3.70*	6.778E+00	2.422E+00	2.422E+00	56.29
	92.59	657	4.23	6.583E+00	8.600E+00	8.600E+00	20.26
ANH-511	511.00	63	100.00*	2.056E+00	1.123E-01	1.123E-01	79.14

Flag: "*" = Keyline

Sample ID : G249334003 Acquisition date : 24-MAR-2010 09:48:18

Total number of lines in spectrum 38
Number of unidentified lines 3
Number of lines tentatively identified by NID 35 92.11%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.034E+01	3.034E+01	0.363E+01	11.95	
CD-109	461.40D	1.02	3.920E+00	3.997E+00	1.086E+00	27.17	
TE-125M	57.40D	1.17	2.533E+01	2.961E+01	1.619E+01	54.67	
SN-126	2.30E+05Y	1.00	3.920E-01	3.920E-01	1.065E-01	27.17	
BA-137M	30.08Y	1.00	4.021E-01	4.024E-01	1.288E-01	32.02	
CS-137	30.08Y	1.00	4.247E-01	4.251E-01	1.361E-01	32.02	
EU-155	4.75Y	1.01	3.033E-01	3.049E-01	1.910E-01	62.66	
TL-208	1.41E+10Y	1.00	5.440E-01	5.440E-01	1.268E-01	23.31	
PB-210	22.20Y	1.00	1.993E+00	1.996E+00	1.221E+00	61.20	
BI-211	7.04E+08Y	1.00	4.851E+00	4.851E+00	0.750E+00	15.47	
PB-212	1.41E+10Y	1.00	1.850E+00	1.850E+00	0.238E+00	12.86	
BI-214	1600.00Y	1.00	1.483E+00	1.483E+00	0.303E+00	20.43	
PB-214	1600.00Y	1.00	1.760E+00	1.761E+00	0.289E+00	16.42	
RA-224	1.41E+10Y	1.00	5.169E+00	5.169E+00	1.698E+00	32.84	
RA-226	1600.00Y	1.00	1.483E+00	1.483E+00	0.303E+00	20.43	
AC-228	1.41E+10Y	1.00	1.722E+00	1.722E+00	0.491E+00	28.50	
RA-228	1.41E+10Y	1.00	1.722E+00	1.722E+00	0.491E+00	28.50	
TH-228	1.41E+10Y	1.00	1.850E+00	1.850E+00	0.238E+00	12.86	
TH-229	7340.00Y	1.00	6.043E-01	6.043E-01	1.642E-01	27.17	K
TH-230	7.54E+04Y	1.00	1.483E+00	1.483E+00	0.293E+00	19.74	
TH-232	1.41E+10Y	1.00	1.722E+00	1.722E+00	0.491E+00	28.50	
TH-234	4.47E+09Y	1.00	2.422E+00	2.422E+00	1.363E+00	56.29	
U-235	7.04E+08Y	1.00	3.871E+00	3.871E+00	0.882E+00	22.78	
NP-237	2.14E+06Y	1.00	1.170E+00	1.170E+00	0.401E+00	34.32	
U-238	4.47E+09Y	1.00	2.422E+00	2.422E+00	1.363E+00	56.29	
ANH-511	1.00E+09Y	1.00	1.123E-01	1.123E-01	0.889E-01	79.14	
			---	---			
	Total Activity :		9.934E+01	1.037E+02			

Grand Total Activity : 9.934E+01 1.037E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249334003 Acquisition date : 24-MAR-2010 09:48:18

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	53.70	217	596	1.03	107.04	102	10	3.01E-02	44.4	6.60E+00	
0	209.28	84	190	1.07	418.31	416	7	1.16E-02	58.4	4.43E+00	
0	269.81	69	174	1.17	539.42	534	11	9.63E-03	78.8	3.65E+00	T
0	327.94	53	107	1.08	655.72	652	8	7.36E-03	72.8	3.09E+00	T
0	727.48	57	56	1.50	1455.23	1450	10	7.88E-03	56.5	1.46E+00	T
0	794.80	66	25	1.19	1589.96	1583	14	9.11E-03	41.5	1.34E+00	T
1	964.65	64	41	1.83	1929.89	1923	33	8.92E-03	43.1	1.12E+00	T
0	1239.11	54	69	5.01	2479.21	2467	25	7.46E-03	87.6	8.94E-01	T
0	1587.64	24	0	1.14	3176.88	3171	11	3.28E-03	43.1	7.28E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 11:48:57.32

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                 DETECTOR DATA                               *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334003.CNF;1   *
* Acquisition date  : 24-MAR-2010 09:48:18  Detector SN#     :                *
* Detector ID       : GAM17                 Sensitivity      : 5.00000        *
* Geometry          : CAN                   Energy tolerance: 1.50000         *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000        *
* Elapsed real time: 0 02:00:10.23          Half life ratio : 8.00000         *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 11-MAR-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID         : G249334003            Analyst initials: MXR1            *
* Batch Number      : 965250                Sample Quantity : 1.02940E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 6-JAN-2010 11:41:36.18MS Isotope      :                  *
* MSD ID           :                      MSD Isotope     :                  *
* LCS ID           : 1032-A               LCS Isotope     :                  *
*******************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.034E+01	3.625E+00	7.402E-01	6.572E-02	40.987
CD-109	3.997E+00	1.086E+00	1.318E+00	1.287E-01	3.032
TE-125M	2.961E+01	1.619E+01	2.124E+01	2.637E+00	1.394
SN-126	3.920E-01	1.065E-01	1.291E-01	1.260E-02	3.037
BA-137M	4.024E-01	1.288E-01	8.232E-02	6.934E-03	4.888
CS-137	4.251E-01	1.361E-01	8.696E-02	7.340E-03	4.888
EU-155	3.049E-01	1.910E-01	2.379E-01	2.555E-02	1.282
TL-208	5.440E-01	1.268E-01	8.828E-02	8.340E-03	6.163
PB-210	1.996E+00	1.221E+00	1.044E+00	1.125E-01	1.912
BI-211	4.851E+00	7.503E-01	4.169E-01	3.891E-02	11.636
PB-212	1.850E+00	2.380E-01	1.135E-01	1.149E-02	16.306
BI-214	1.483E+00	3.029E-01	1.533E-01	1.566E-02	9.673
PB-214	1.761E+00	2.891E-01	1.517E-01	1.643E-02	11.606
RA-224	5.169E+00	1.698E+00	1.217E+00	1.101E-01	4.247
RA-226	1.483E+00	3.029E-01	1.533E-01	1.566E-02	9.673
AC-228	1.722E+00	4.907E-01	3.213E-01	3.756E-02	5.358
RA-228	1.722E+00	4.907E-01	3.213E-01	3.756E-02	5.358
TH-228	1.850E+00	2.380E-01	1.135E-01	1.149E-02	16.306

Sample ID : G249334003 Acquisition date : 24-MAR-2010 09:48:18

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-229	6.043E-01	1.642E-01	1.105E+00	9.560E-02	0.547
TH-230	1.483E+00	2.926E-01	1.533E-01	1.341E-02	9.673
TH-232	1.722E+00	4.907E-01	3.213E-01	3.756E-02	5.358
TH-234	2.422E+00	1.363E+00	1.345E+00	2.559E-01	1.801
U-235	3.871E+00	8.817E-01	4.799E-01	8.545E-02	8.066
NP-237	1.170E+00	4.014E-01	4.142E-01	9.579E-02	2.824
U-238	2.422E+00	1.363E+00	1.345E+00	2.559E-01	1.801
ANH-511	1.123E-01	8.892E-02	7.104E-02	6.345E-03	1.581

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.831E-02		4.141E-01	6.860E-01	6.526E-02	0.070
NA-22	-4.015E-02		7.338E-02	1.093E-01	9.209E-03	-0.367
NA-24	-3.714E-02		4.420E-02	Half-Life too short		
SC-46	9.953E-03		5.706E-02	9.630E-02	8.430E-03	0.103
V-48	2.704E-02		1.009E-01	1.707E-01	1.489E-02	0.158
CR-51	-3.592E-01		4.466E-01	7.083E-01	6.759E-02	-0.507
MN-54	3.853E-02		5.993E-02	1.053E-01	9.261E-03	0.366
CO-56	1.632E-02		5.999E-02	1.024E-01	9.002E-03	0.159
CO-57	5.503E-02		3.740E-02	6.434E-02	7.538E-03	0.855
CO-58	2.360E-02		6.297E-02	1.086E-01	9.561E-03	0.217
FE-59	4.377E-02		1.459E-01	2.453E-01	2.251E-02	0.178
CO-60	1.846E-02		6.425E-02	1.114E-01	9.497E-03	0.166
ZN-65	-5.178E-02		1.655E-01	2.202E-01	1.854E-02	-0.235
SE-75	-5.449E-02		6.421E-02	8.218E-02	7.552E-03	-0.663
SR-85	7.435E-02		6.091E-02	9.803E-02	8.758E-03	0.758
Y-88	3.342E-03		5.113E-02	8.468E-02	7.062E-03	0.039
Y-91	-1.643E+01		3.689E+01	5.670E+01	4.679E+00	-0.290
NB-94	-1.731E-03		4.936E-02	8.288E-02	7.109E-03	-0.021
NB-95	-1.204E-02		6.749E-02	1.113E-01	9.720E-03	-0.108
NB-95M	1.101E-02		1.771E-01	2.524E-01	2.582E-02	0.044
ZR-95	8.657E-02		1.106E-01	1.976E-01	1.899E-02	0.438
MO-99	-5.047E+00		1.060E+01	1.691E+01	2.670E+00	-0.299
TC-99M	1.259E+08		7.034E+07	Half-Life too short		
RU-103	-1.469E-02		5.187E-02	8.243E-02	1.166E-02	-0.178
RH-106	2.558E-01		4.783E-01	8.076E-01	1.074E-01	0.317
RU-106	2.558E-01		4.776E-01	8.076E-01	7.016E-02	0.317
AG-108M	1.321E-02		4.457E-02	7.512E-02	6.733E-03	0.176
AG-110M	3.358E-02		5.495E-02	8.379E-02	7.303E-03	0.401
SN-113	-1.217E-02		6.085E-02	9.961E-02	8.655E-03	-0.122
CD-115	2.811E+00		7.116E+00	1.207E+01	1.079E+00	0.233
SN-117M	-4.000E-02		8.032E-02	1.134E-01	1.019E-02	-0.353
TE-123M	-1.889E-02		4.533E-02	6.432E-02	5.789E-03	-0.294
SB-124	5.445E-02		9.019E-02	1.716E-01	1.530E-02	0.317
SB-125	-1.395E-02		1.271E-01	2.081E-01	1.835E-02	-0.067
I-126	2.133E-02		3.686E-01	5.179E-01	4.373E-02	0.041

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-126	-1.149E-01		1.971E-01	2.921E-01	2.521E-02	-0.393
SB-127	1.402E-01		1.392E+00	2.246E+00	2.397E-01	0.062
I-131	1.043E-02		1.239E-01	2.081E-01	1.918E-02	0.050
TE-132	2.633E-02		5.652E-01	9.059E-01	1.414E-01	0.029
BA-133	-3.796E-02		6.045E-02	8.280E-02	1.086E-02	-0.459
I-133	-8.118E-04		6.752E-04	Half-Life too short		
CS-134	2.340E-01	+	9.923E-02	1.397E-01	1.235E-02	1.675
CS-135	1.519E-01		2.322E-01	3.458E-01	3.608E-02	0.439
I-135	-1.462E+07		1.850E+07	Half-Life too short		
CS-136	7.507E-02		1.377E-01	2.401E-01	2.154E-02	0.313
CE-139	2.498E-02		4.488E-02	6.748E-02	5.626E-03	0.370
BA-140	-2.300E-01		3.610E-01	5.376E-01	1.828E-01	-0.428
LA-140	-4.068E-02		1.232E-01	1.914E-01	1.652E-02	-0.212
CE-141	6.223E-01		1.346E-01	2.108E-01	2.150E-02	2.952
CE-143	1.248E-04		3.436E-05	Half-Life too short		
CE-144	-3.577E-01		2.818E-01	4.277E-01	7.146E-02	-0.836
PM-144	3.081E-02		5.059E-02	8.960E-02	7.670E-03	0.344
PR-144	2.341E+00		3.785E+00	6.709E+00	5.741E-01	0.349
PM-146	-1.382E-02		6.229E-02	1.007E-01	1.079E-02	-0.137
ND-147	-8.586E-01		6.710E-01	9.197E-01	1.392E-01	-0.933
PM-149	5.127E+00		5.639E+01	9.605E+01	1.523E+01	0.053
EU-152	2.520E-02		1.416E-01	2.125E-01	2.010E-02	0.119
GD-153	-2.676E-02		1.130E-01	1.673E-01	1.710E-02	-0.160
EU-154	-5.901E-02		2.016E-01	3.111E-01	3.492E-02	-0.190
TB-160	-9.428E-02		2.028E-01	3.103E-01	2.721E-02	-0.304
HO-166M	-1.221E-02		9.158E-02	1.523E-01	1.310E-02	-0.080
TA-182	1.637E-01		3.118E-01	5.311E-01	4.405E-02	0.308
IR-192	-2.309E-03		4.325E-02	7.257E-02	6.639E-03	-0.032
HG-203	2.369E-02		4.960E-02	8.512E-02	7.991E-03	0.278
BI-207	-1.147E-02		7.804E-02	1.249E-01	1.071E-02	-0.092
PB-211	-1.981E-01		9.699E-01	1.575E+00	7.619E-01	-0.126
BI-212	2.120E+00	+	1.226E+00	1.811E+00	2.260E-01	1.170
RN-219	-4.433E-02		5.534E-01	9.124E-01	1.350E-01	-0.049
RA-223	7.266E-01		9.344E-01	1.468E+00	2.580E-01	0.495
AC-227	4.767E-02		3.382E-01	5.417E-01	6.724E-02	0.088
TH-227	4.767E-02		3.382E-01	5.417E-01	7.544E-02	0.088
PA-231	1.335E+00		1.805E+00	3.174E+00	4.737E-01	0.421
TH-231	7.266E-01		9.344E-01	1.468E+00	2.580E-01	0.495
PA-233	-1.730E-02		8.046E-02	1.336E-01	1.254E-02	-0.129
PA-234	1.054E-01		4.861E-01	8.187E-01	1.541E-01	0.129
PA-234M	2.288E+00		7.036E+00	1.196E+01	1.200E+00	0.191
NP-239	1.077E-01		5.606E-01	9.355E-01	1.065E-01	0.115
AM-241	8.716E-02		8.655E-02	1.380E-01	1.466E-02	0.632
CM-247	-5.075E-03		5.102E-02	8.399E-02	7.134E-03	-0.060
CF-249	3.878E-02		5.545E-02	9.653E-02	8.175E-03	0.402
CF-251	3.657E-02		1.817E-01	2.976E-01	2.521E-02	0.123

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249334003            *
* Acquisition date : 24-MAR-2010 09:48:18 Detector SN#    :                 *
* Detector ID      : GAM17                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:10.23     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249334003           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.0294E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.034E+01	3.553E+00	3.675E-01	1.813E+00
CD-109	3.997E+00	1.064E+00	6.617E-01	5.430E-01
TE-125M	2.961E+01	1.586E+01	1.065E+01	8.094E+00
SN-126	3.920E-01	1.044E-01	6.480E-02	5.326E-02
BA-137M	4.024E-01	1.263E-01	4.099E-02	6.442E-02
CS-137	4.251E-01	1.334E-01	4.331E-02	6.806E-02
EU-155	3.049E-01	1.872E-01	1.193E-01	9.552E-02
TL-208	5.440E-01	1.243E-01	4.398E-02	6.342E-02
PB-210	1.996E+00	1.197E+00	5.252E-01	6.107E-01
BI-211	4.851E+00	7.353E-01	2.081E-01	3.752E-01
PB-212	1.850E+00	2.333E-01	5.674E-02	1.190E-01
BI-214	1.483E+00	2.969E-01	7.635E-02	1.515E-01
PB-214	1.761E+00	2.833E-01	7.573E-02	1.446E-01
RA-224	5.169E+00	1.664E+00	6.086E-01	8.488E-01
RA-226	1.483E+00	2.969E-01	7.635E-02	1.515E-01
AC-228	1.722E+00	4.809E-01	1.598E-01	2.454E-01
RA-228	1.722E+00	4.809E-01	1.598E-01	2.454E-01
TH-228	1.850E+00	2.333E-01	5.674E-02	1.190E-01
TH-229	5.948E-01	6.401E-01	5.532E-01	3.266E-01
TH-230	1.483E+00	2.868E-01	7.635E-02	1.463E-01
TH-232	1.722E+00	4.809E-01	1.598E-01	2.454E-01
TH-234	2.422E+00	1.336E+00	6.761E-01	6.816E-01
U-235	3.871E+00	8.641E-01	2.404E-01	4.409E-01
NP-237	1.170E+00	3.934E-01	2.079E-01	2.007E-01
U-238	2.422E+00	1.336E+00	6.761E-01	6.816E-01
ANH-511	1.123E-01	8.714E-02	3.542E-02	4.446E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	4.831E-02	4.058E-01	3.421E-01	2.070E-01 NOT IDENT.

NA-22	-4.015E-02	7.191E-02	5.430E-02	3.669E-02	NOT IDENT.
NA-24	-3.714E+04	8.662E+04	0.000E+00	4.420E+04	SHORT HLIF
SC-46	9.953E-03	5.592E-02	4.790E-02	2.853E-02	FAIL ABUN
V-48	2.704E-02	9.888E-02	8.487E-02	5.045E-02	NOT IDENT.
CR-51	-3.592E-01	4.376E-01	3.538E-01	2.233E-01	NOT IDENT.
MN-54	3.853E-02	5.873E-02	5.240E-02	2.997E-02	NOT IDENT.
CO-56	1.632E-02	5.879E-02	5.095E-02	2.999E-02	FAIL ABUN
CO-57	5.503E-02	3.666E-02	3.226E-02	1.870E-02	NOT IDENT.
CO-58	2.360E-02	6.171E-02	5.402E-02	3.148E-02	NOT IDENT.
FE-59	4.377E-02	1.430E-01	1.219E-01	7.297E-02	NOT IDENT.
CO-60	1.846E-02	6.296E-02	5.534E-02	3.212E-02	NOT IDENT.
ZN-65	-5.178E-02	1.622E-01	1.094E-01	8.276E-02	NOT IDENT.
SE-75	-5.449E-02	6.293E-02	4.108E-02	3.211E-02	NOT IDENT.
SR-85	7.435E-02	5.969E-02	4.887E-02	3.045E-02	NOT IDENT.
Y-88	3.342E-03	5.011E-02	4.200E-02	2.557E-02	NOT IDENT.
Y-91	-1.643E+01	3.616E+01	2.817E+01	1.845E+01	NOT IDENT.
NB-94	-1.731E-03	4.837E-02	4.126E-02	2.468E-02	NOT IDENT.
NB-95	-1.204E-02	6.614E-02	5.539E-02	3.375E-02	NOT IDENT.
NB-95M	1.101E-02	1.736E-01	1.262E-01	8.856E-02	NOT IDENT.
ZR-95	8.657E-02	1.084E-01	9.836E-02	5.529E-02	NOT IDENT.
MO-99	-5.047E+00	1.038E+01	8.416E+00	5.298E+00	NOT IDENT.
TC-99M	1.259E+14	1.379E+14	0.000E+00	7.034E+13	SHORT HLIF
RU-103	-1.469E-02	5.083E-02	4.110E-02	2.593E-02	FAIL ABUN
RH-106	2.558E-01	4.687E-01	4.023E-01	2.391E-01	NOT IDENT.
RU-106	2.558E-01	4.681E-01	4.023E-01	2.388E-01	NOT IDENT.
AG-108M	1.321E-02	4.368E-02	3.747E-02	2.228E-02	NOT IDENT.
AG-110M	3.358E-02	5.385E-02	4.173E-02	2.748E-02	NOT IDENT.
SN-113	-1.217E-02	5.963E-02	4.971E-02	3.043E-02	NOT IDENT.
CD-115	2.811E+00	6.974E+00	6.015E+00	3.558E+00	NOT IDENT.
SN-117M	-4.000E-02	7.872E-02	5.680E-02	4.016E-02	NOT IDENT.
TE-123M	-1.889E-02	4.443E-02	3.221E-02	2.267E-02	NOT IDENT.
SB-124	5.445E-02	8.838E-02	8.513E-02	4.509E-02	NOT IDENT.
SB-125	-1.395E-02	1.246E-01	1.038E-01	6.355E-02	NOT IDENT.
I-126	2.133E-02	3.613E-01	2.579E-01	1.843E-01	NOT IDENT.
SB-126	-1.149E-01	1.931E-01	1.454E-01	9.855E-02	NOT IDENT.
SB-127	1.402E-01	1.365E+00	1.118E+00	6.962E-01	NOT IDENT.
I-131	1.043E-02	1.214E-01	1.039E-01	6.195E-02	NOT IDENT.
TE-132	2.633E-02	5.539E-01	4.531E-01	2.826E-01	NOT IDENT.
BA-133	-3.796E-02	5.924E-02	4.133E-02	3.022E-02	NOT IDENT.
I-133	-8.118E+02	1.323E+03	0.000E+00	6.752E+02	SHORT HLIF
CS-134	2.340E-01	9.725E-02	6.954E-02	4.962E-02	FAIL ABUN
CS-135	1.519E-01	2.275E-01	1.728E-01	1.161E-01	NOT IDENT.
I-135	-1.462E+13	3.626E+13	0.000E+00	1.850E+13	SHORT HLIF
CS-136	7.507E-02	1.350E-01	1.194E-01	6.887E-02	NOT IDENT.
CE-139	2.498E-02	4.398E-02	3.379E-02	2.244E-02	NOT IDENT.
BA-140	-2.300E-01	3.538E-01	2.680E-01	1.805E-01	FAIL ABUN
LA-140	-4.068E-02	1.207E-01	9.500E-02	6.160E-02	FAIL ABUN
CE-141	6.223E-01	1.319E-01	1.056E-01	6.729E-02	NOT IDENT.
CE-143	1.248E+02	6.735E+01	0.000E+00	3.436E+01	SHORT HLIF
CE-144	-3.577E-01	2.762E-01	2.144E-01	1.409E-01	NOT IDENT.
PM-144	3.081E-02	4.957E-02	4.461E-02	2.529E-02	NOT IDENT.
PR-144	2.341E+00	3.710E+00	3.340E+00	1.893E+00	NOT IDENT.
PM-146	-1.382E-02	6.105E-02	5.020E-02	3.115E-02	NOT IDENT.
ND-147	-8.586E-01	6.576E-01	4.584E-01	3.355E-01	FAIL ABUN
PM-149	5.127E+00	5.527E+01	4.799E+01	2.820E+01	NOT IDENT.
EU-152	2.520E-02	1.388E-01	1.061E-01	7.081E-02	FAIL ABUN
GD-153	-2.676E-02	1.107E-01	8.394E-02	5.649E-02	NOT IDENT.
EU-154	-5.901E-02	1.975E-01	1.545E-01	1.008E-01	NOT IDENT.
TB-160	-9.428E-02	1.988E-01	1.544E-01	1.014E-01	FAIL ABUN
HO-166M	-1.221E-02	8.974E-02	7.580E-02	4.579E-02	FAIL ABUN
TA-182	1.637E-01	3.056E-01	2.638E-01	1.559E-01	FAIL ABUN
IR-192	-2.309E-03	4.239E-02	3.625E-02	2.163E-02	FAIL ABUN
HG-203	2.369E-02	4.860E-02	4.254E-02	2.480E-02	NOT IDENT.
BI-207	-1.147E-02	7.648E-02	6.210E-02	3.902E-02	FAIL ABUN
PB-211	-1.981E-01	9.505E-01	7.859E-01	4.849E-01	NOT IDENT.
BI-212	2.120E+00	1.202E+00	9.016E-01	6.131E-01	FAIL ABUN
RN-219	-4.433E-02	5.424E-01	4.553E-01	2.767E-01	FAIL ABUN
RA-223	7.266E-01	9.157E-01	7.332E-01	4.672E-01	FAIL ABUN
AC-227	4.767E-02	3.315E-01	2.708E-01	1.691E-01	FAIL ABUN
TH-227	4.767E-02	3.315E-01	2.708E-01	1.691E-01	FAIL ABUN
PA-231	1.335E+00	1.769E+00	1.586E+00	9.025E-01	FAIL ABUN
TH-231	7.266E-01	9.157E-01	7.332E-01	4.672E-01	FAIL ABUN
PA-233	-1.730E-02	7.886E-02	6.675E-02	4.023E-02	FAIL ABUN
PA-234	1.054E-01	4.764E-01	4.071E-01	2.431E-01	FAIL ABUN
PA-234M	2.288E+00	6.895E+00	5.944E+00	3.518E+00	NOT IDENT.
NP-239	1.077E-01	5.494E-01	4.691E-01	2.803E-01	FAIL ABUN
AM-241	8.716E-02	8.482E-02	6.939E-02	4.327E-02	NOT IDENT.
CM-247	-5.075E-03	5.000E-02	4.191E-02	2.551E-02	NOT IDENT.

CF-249	3.878E-02	5.434E-02	4.817E-02	2.772E-02 NOT IDENT.
CF-251	3.657E-02	1.781E-01	1.490E-01	9.087E-02 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	272.1782
49.72	307.5206
57.36	0.0000
59.54	328.8239
63.29	395.5568
63.29	395.5568
64.28	399.5795
67.75	455.7763
69.67	517.5582
70.83	553.5410
72.81	557.3787
72.87	557.4550
72.87	557.4550
74.82	500.3671
74.82	500.3671
74.82	500.3671
74.97	500.5348
77.11	502.8890
77.11	502.8890
77.11	502.8890
79.69	484.8803
79.80	484.9921
80.12	456.3475
80.19	456.4142
80.57	473.0944
81.00	413.6536
81.07	397.3831
81.07	397.3831
83.79	492.7025
83.79	492.7025
85.43	409.2157
86.48	410.0865
86.55	410.1433
86.79	410.3389
86.94	410.4639
87.57	353.0586
88.03	353.3828
88.47	353.6914
89.96	354.7305
91.11	388.8580
92.59	389.9731
92.59	389.9731
93.35	302.6696
94.67	303.4295
94.87	303.5437
94.87	303.5437
95.86	285.8929
97.43	335.9260
98.44	311.2061
99.53	288.9719
100.11	307.9230
103.18	322.4158
103.37	299.7919
105.31	352.1491
106.12	325.5234
109.28	331.6184
111.00	334.0328
111.76	308.5132
116.30	335.0661
117.23	307.4517
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144.24	301.1254
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153.25	252.7237
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154.21	270.4695
156.02	291.6674
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159.00	266.0179
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163.33	214.6437
165.86	210.6635
176.60	226.6987
177.52	217.4521
181.07	206.7293
184.41	217.1360
185.72	217.4722
193.51	147.3784
197.04	214.9376
205.31	222.3810
210.85	162.8600
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222.11	140.9488
227.38	145.0638
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228.18	138.4808
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235.96	167.1441
235.96	167.1441
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238.63	137.6806
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252.80	124.7007
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256.23	128.5470
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268.22	107.9229
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269.46	120.8213
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277.60	125.5047
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279.54	122.2019
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284.31	102.4054
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295.96	114.1270
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299.98	82.3039
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300.09	82.3123
300.13	93.0519
301.36	98.8775
302.85	106.1745
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304.50	94.8251
304.85	90.5410
308.46	95.4915
311.90	102.0821

316.51	101.5547
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320.08	111.8441
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323.87	91.9329
328.76	114.2559
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334.37	120.6357
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338.28	99.6004
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338.32	99.6037
338.32	99.6037
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340.55	79.8174
344.28	91.8996
351.06	85.6604
351.93	85.7151
356.01	94.1955
364.49	82.7404
366.42	83.7974
383.85	90.5469
388.16	81.2556
388.63	86.0628
391.69	91.9922
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401.81	85.8670
402.40	86.8661
404.85	86.0395
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427.87	80.4648
433.94	84.7127
453.88	83.7667
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476.78	60.6537
477.60	58.6602
487.02	61.0144
492.35	71.4003
497.08	61.3641
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514.00	62.7719
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529.87	0.0000
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546.56	0.0000
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569.33	52.0894
569.50	54.2202
569.70	55.2897
583.19	64.2297
600.60	51.8262
602.73	77.8184
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609.32	50.9602
609.32	50.9602
609.32	50.9602
610.33	50.9846
614.28	48.6910
618.01	57.7051
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621.93	50.1777
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636.99	57.1241
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657.76	39.0382
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661.66	48.8837
664.57	0.0000
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666.50	60.5708

677.62	57.0668
685.70	51.6545
695.00	42.3941
696.49	48.7384
696.51	48.7397
697.00	55.9726
702.65	55.2038
706.68	63.4580
711.68	55.4168
720.70	55.8562
721.93	0.0000
722.78	51.7222
722.91	50.2036
723.31	50.2117
724.19	47.1862
727.33	48.4673
733.00	48.4515
735.93	42.2165
739.50	53.3087
747.24	41.4921
752.31	54.5131
753.82	39.7540
756.73	44.4293
763.94	56.6260
765.81	66.8865
766.42	68.7626
777.92	51.3409
778.90	41.0889
783.70	53.3303
785.37	49.6202
795.86	39.1693
801.95	43.5807
810.29	54.8281
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815.77	41.6808
818.51	42.6731
832.01	54.3281
834.85	46.7522
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856.80	70.2197
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875.33	0.0000
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889.28	35.0367
898.04	40.0261
911.20	33.3459
911.20	33.3459
911.20	33.3459
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937.49	49.4836
944.13	44.6353
946.00	39.7012
949.00	39.7412
962.29	39.9180
964.08	34.9496
966.15	34.9735
968.97	35.0060
968.97	35.0060
968.97	35.0060
983.53	35.1743
996.26	39.3561
1001.03	35.3743
1004.73	39.4637
1037.84	33.7444
1038.76	0.0000
1048.07	26.6716
1050.41	29.7703
1050.41	29.7703
1063.66	34.0151
1085.87	29.0568
1099.45	38.5537
1112.07	47.0654

1115.54	45.3688
1120.29	47.1797
1120.29	47.1797
1120.29	47.1797
1120.55	47.1819
1121.30	45.4450
1131.51	0.0000
1173.23	47.9048
1177.93	46.9025
1189.05	48.1179
1204.77	55.8467
1221.41	39.9177
1231.02	36.0563
1235.36	39.7085
1238.28	39.0182
1260.41	0.0000
1271.85	32.8081
1274.44	36.1131
1274.54	40.4922
1291.59	19.7868
1298.22	0.0000
1312.11	28.5491
1332.49	25.9207
1365.19	16.8010
1368.63	0.0000
1384.29	19.6943
1408.01	14.1492
1457.56	0.0000
1460.82	13.1004
1489.16	15.3854
1505.03	16.4065
1596.21	18.7147
1620.50	11.8818
1678.03	0.0000
1690.97	4.0202
1764.49	6.9958
1764.49	6.9958
1764.49	6.9958
1770.23	43.9203
1771.35	12.2593
1791.20	0.0000
1836.06	8.2777

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249334003

Total Uranium Activity	8.9962E+00	ug/g
Total Uranium Counting Unc.	3.9946E+00	ug/g
Total Uranium Tpu	2.0381E-06	ug/g
Total Uranium Mda	2.0144E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 965250                    SAMPLE ID  : G249334003        *
*   ANALYST      : MXR1                      DETECTOR   : GAM17             *
*   SAMPLE DATE  : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 09:48:18.79   SAMPLE ALQT:  102.940 GRAM     *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.514E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.842E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 6.257E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 3.043E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 12:54:23.84

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334004.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 10:53:29
Sample ID         : G249334004           Sample quantity  : 1.23570E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:25.29  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.46*	251	383	0.70	92.90	89	7	3.49E-02	14.5	
2	0	63.19	144	572	0.89	126.35	124	7	2.00E-02	28.7	
3	4	74.84*	793	416	0.81	149.64	145	13	1.10E-01	5.2	1.31E+00
4	4	77.12*	1165	288	0.71	154.19	145	13	1.62E-01	3.6	
5	3	84.30	135	423	0.93	168.54	165	19	1.88E-02	26.0	4.98E+00
6	3	87.30*	314	447	0.94	174.53	165	19	4.36E-02	12.1	
7	3	89.91	210	469	0.92	179.76	165	19	2.92E-02	17.1	
8	6	92.99*	536	303	1.27	185.92	183	12	7.45E-02	6.8	6.47E+00
9	6	94.88	63	362	1.28	189.69	183	12	8.69E-03	62.7	
10	0	128.98	81	268	0.62	257.85	255	6	1.12E-02	33.9	
11	0	143.53*	117	308	0.93	286.94	283	8	1.63E-02	27.9	
12	0	153.95	62	274	0.70	307.78	305	7	8.61E-03	46.0	
13	0	185.69*	468	326	0.93	371.24	365	10	6.49E-02	8.6	
14	0	209.14	146	257	0.87	418.12	414	9	2.03E-02	21.5	
15	8	238.50*	1302	120	0.84	476.81	473	14	1.81E-01	3.1	6.51E+00
16	8	241.44	366	161	1.58	482.70	473	14	5.09E-02	9.2	
17	0	270.26*	96	174	1.07	540.31	536	9	1.34E-02	27.0	
18	0	295.15*	435	170	0.87	590.08	585	10	6.04E-02	7.4	
19	0	299.90	79	105	0.85	599.57	596	8	1.09E-02	25.2	
20	1	327.73	101	88	1.18	655.21	652	29	1.40E-02	18.7	2.02E+00
21	1	338.20	274	111	1.17	676.16	652	29	3.81E-02	8.5	
22	0	351.71*	606	138	1.05	703.17	698	11	8.42E-02	5.6	
23	0	409.45	39	108	0.67	818.62	813	11	5.48E-03	53.3	
24	0	462.77	112	65	1.62	925.26	920	12	1.55E-02	17.3	
25	0	510.66*	93	89	1.50	1021.03	1016	12	1.29E-02	26.4	
26	0	582.99*	306	90	1.16	1165.68	1159	14	4.25E-02	8.8	
27	0	609.16*	348	52	1.23	1218.01	1213	12	4.84E-02	7.0	
28	0	661.58*	173	74	1.23	1322.85	1318	10	2.41E-02	12.1	
29	0	727.10	103	36	1.57	1453.90	1447	13	1.44E-02	15.5	
30	0	768.24	61	80	2.13	1536.20	1530	15	8.48E-03	34.2	
31	0	794.91	50	31	1.02	1589.55	1585	11	6.92E-03	25.7	
32	0	860.35	39	59	1.39	1720.45	1712	14	5.43E-03	44.8	
33	0	910.90	197	48	1.41	1821.57	1816	14	2.74E-02	10.3	
34	1	964.47	47	13	1.78	1928.75	1922	34	6.52E-03	24.5	1.46E+00
35	1	968.75	146	20	1.78	1937.32	1922	34	2.03E-02	10.4	
36	0	1120.37*	51	58	1.14	2240.68	2236	12	7.02E-03	33.5	
37	0	1377.50	19	8	1.22	2755.25	2750	8	2.58E-03	35.3	
38	0	1460.39*	863	16	1.98	2921.14	2913	16	1.20E-01	3.6	

Sample ID : G249334004 Acquisition date : 24-MAR-2010 10:53:29

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1764.23*	47	10	2.50	3529.40	3522	14	6.56E-03	21.5	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 12:54:26

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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334004.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 10:53:29
Sample ID         : G249334004           Sample quantity  : 123.57 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA21              Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:25.29   0.4%
Peak Width (FWHM):      3.00             Confidence level :      5.00 %
Energy tolerance :      1.50 keV         Half life ratio  :      8.00
Errors propagated: Yes                   Systematic Error :      0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :      3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.414E+01	3.798E+00	6.971E-01	5.952E-02	48.972
CD-109	+	88.03	*	3.230E+00	8.381E-01	9.057E-01	8.522E-02	3.566
SN-126	+	64.28		5.564E-01	3.299E-01	3.236E-01	4.794E-02	1.720
	+	86.94		1.317E+00	6.328E-01	3.677E-01	1.526E-01	3.581
	+	87.57	*	3.168E-01	8.219E-02	8.866E-02	8.311E-03	3.573
BA-137M	+	661.66	*	3.750E-01	9.989E-02	8.848E-02	9.772E-03	4.238
CS-137	+	661.66	*	3.961E-01	1.055E-01	9.347E-02	1.033E-02	4.238
TL-208		277.37		3.676E-01	4.012E-01	6.892E-01	8.778E-02	0.533
	+	583.19	*	6.157E-01	1.276E-01	7.518E-02	8.184E-03	8.190
	+	860.56		7.910E-01	7.124E-01	6.294E-01	6.245E-02	1.257
PB-210	+	46.54	*	2.445E+00	7.459E-01	6.603E-01	6.244E-02	3.703
BI-211		72.87		4.607E-01	1.755E+00	2.695E+00	2.256E-01	0.171
	+	351.06	*	4.753E+00	6.826E-01	3.540E-01	3.196E-02	13.425
PB-212	+	74.82		2.831E+00	4.697E-01	3.018E-01	3.896E-02	9.382
	+	77.11		2.505E+00	2.822E-01	1.824E-01	1.573E-02	13.732
	+	238.63	*	2.067E+00	2.423E-01	9.166E-02	9.158E-03	22.551
	+	300.09		2.057E+00	1.059E+00	1.168E+00	1.259E-01	1.762
BI-214	+	609.32	*	1.369E+00	2.507E-01	1.447E-01	1.716E-02	9.460
	+	1120.29		1.107E+00	7.501E-01	7.780E-01	8.392E-02	1.423
	+	1764.49		1.566E+00	6.862E-01	6.505E-01	5.408E-02	2.408
PB-214	+	74.82		5.019E+00	7.831E-01	5.349E-01	6.213E-02	9.382
	+	77.11		4.416E+00	6.166E-01	3.216E-01	3.838E-02	13.732
	+	242.00		3.540E+00	7.501E-01	5.142E-01	5.456E-02	6.884
	+	295.22		2.006E+00	3.714E-01	2.203E-01	2.435E-02	9.104
	+	351.93	*	1.725E+00	2.654E-01	1.289E-01	1.362E-02	13.386
RA-224	+	240.99	*	6.259E+00	1.276E+00	9.853E-01	8.756E-02	6.353
RA-226	+	609.32	*	1.369E+00	2.507E-01	1.447E-01	1.716E-02	9.460
	+	1120.29		1.107E+00	7.501E-01	7.780E-01	8.392E-02	1.423
	+	1764.49		1.566E+00	6.862E-01	6.505E-01	5.408E-02	2.408
AC-228	+	338.32		2.371E+00	1.069E+00	4.124E-01	1.721E-01	5.750
	+	911.20	*	2.046E+00	4.861E-01	2.968E-01	3.471E-02	6.895
	+	968.97		2.631E+00	8.439E-01	5.010E-01	1.223E-01	5.251
RA-228	+	338.32		2.371E+00	1.069E+00	4.124E-01	1.721E-01	5.750
	+	911.20	*	2.046E+00	4.861E-01	2.968E-01	3.471E-02	6.895

Sample ID : G249334004 Acquisition date : 24-MAR-2010 10:53:29

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	968.97		2.631E+00	8.439E-01	5.010E-01	1.223E-01	5.251
TH-228	+	74.82		2.831E+00	3.819E-01	3.018E-01	2.585E-02	9.382
	+	77.11		2.505E+00	2.822E-01	1.824E-01	1.573E-02	13.732
	+	238.63	*	2.067E+00	2.423E-01	9.166E-02	9.158E-03	22.551
	+	300.09		2.057E+00	1.631E+00	1.168E+00	7.152E-01	1.762
TH-229	+	85.43		3.409E-01	1.802E-01	2.214E-01	2.039E-02	1.540
	+	88.47		4.883E-01	1.267E-01	1.372E-01	1.293E-02	3.560
		193.51	*	-3.405E-02	4.866E-01	8.185E-01	6.948E-02	-0.042
		210.85		9.371E-01	8.660E-01	1.395E+00	1.210E-01	0.672
TH-230	+	609.32	*	1.369E+00	2.400E-01	1.447E-01	1.537E-02	9.460
	+	1120.29		1.107E+00	7.465E-01	7.780E-01	6.575E-02	1.423
	+	1764.49		1.566E+00	6.862E-01	6.505E-01	5.408E-02	2.408
TH-232	+	338.32		2.371E+00	4.538E-01	4.124E-01	3.595E-02	5.750
	+	911.20	*	2.046E+00	4.861E-01	2.968E-01	3.471E-02	6.895
	+	968.97		2.631E+00	8.439E-01	5.010E-01	1.223E-01	5.251
TH-234	+	63.29	*	1.444E+00	8.689E-01	8.399E-01	1.516E-01	1.719
	+	92.59		4.801E+00	1.263E+00	7.344E-01	1.652E-01	6.537
U-235	+	89.96		2.274E+00	9.611E-01	9.543E-01	2.380E-01	2.383
	+	93.35		3.626E+00	9.852E-01	4.912E-01	1.155E-01	7.383
	+	143.76	*	4.947E-01	2.895E-01	2.758E-01	4.882E-02	1.794
		163.33		3.752E-01	3.975E-01	6.969E-01	1.243E-01	0.538
	+	185.72		4.554E-01	8.755E-02	6.015E-02	5.048E-03	7.572
		205.31		5.815E-01	4.911E-01	7.823E-01	1.420E-01	0.743
NP-237	+	86.48	*	9.452E-01	3.153E-01	2.635E-01	6.042E-02	3.587
	+	95.86		8.888E-01	1.135E+00	1.038E+00	2.536E-01	0.856
U-238	+	63.29	*	1.444E+00	8.689E-01	8.399E-01	1.516E-01	1.719
	+	92.59		4.801E+00	8.017E-01	7.344E-01	7.069E-02	6.537
ANH-511	+	511.00	*	1.383E-01	7.411E-02	5.880E-02	5.637E-03	2.351

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.170E-01	3.436E-01	5.590E-01	5.476E-02	-0.209
NA-22		1274.54	*	-3.361E-02	6.659E-02	1.003E-01	8.229E-03	-0.335
NA-24		1368.63	*	1.586E-02	6.659E-02	Half-Life too short		
SC-46		889.28	*	-2.898E-02	5.526E-02	8.728E-02	7.761E-03	-0.332
	+	1120.55		1.839E-01	1.240E-01	1.746E-01	1.476E-02	1.053
V-48		944.13		-4.038E-01	9.077E-01	1.416E+00	1.241E-01	-0.285
		983.53	*	-4.743E-02	9.041E-02	1.405E-01	1.229E-02	-0.338
		1312.11		-5.233E-02	1.088E-01	1.626E-01	1.324E-02	-0.322
CR-51		320.08	*	3.427E-01	3.594E-01	6.203E-01	5.762E-02	0.552
MN-54		834.85	*	-3.232E-02	4.819E-02	7.541E-02	7.309E-03	-0.429
CO-56		846.77	*	4.449E-02	5.118E-02	9.282E-02	8.847E-03	0.479
		1037.84		1.207E-01	4.054E-01	6.897E-01	6.291E-02	0.175
		1238.28		1.359E-01	1.481E-01	2.570E-01	2.181E-02	0.529
		1771.35		-5.180E-01	4.762E-01	6.208E-01	5.158E-02	-0.834
CO-57		122.06	*	5.804E-03	2.185E-02	3.499E-02	4.020E-03	0.166
		136.47		-1.105E-01	1.889E-01	2.852E-01	3.158E-02	-0.387

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-58		810.76	*	1.990E-02	4.757E-02	8.349E-02	8.355E-03	0.238
FE-59		1099.45	*	5.270E-02	1.212E-01	2.078E-01	1.917E-02	0.254
		1291.59		-6.104E-02	1.801E-01	2.765E-01	2.597E-02	-0.221
CO-60		1173.23		3.583E-02	6.832E-02	1.168E-01	9.629E-03	0.307
		1332.49	*	2.211E-02	5.582E-02	9.822E-02	7.972E-03	0.225
ZN-65		1115.54	*	2.742E-02	1.573E-01	2.276E-01	1.929E-02	0.120
SE-75		121.12		9.473E-02	1.112E-01	1.827E-01	2.444E-02	0.518
		136.00		-1.637E-02	3.555E-02	5.414E-02	5.754E-03	-0.302
		264.66	*	-1.506E-02	4.278E-02	6.872E-02	6.171E-03	-0.219
		279.54		-3.224E-02	1.138E-01	1.783E-01	1.646E-02	-0.181
		400.66		1.620E-01	2.917E-01	4.831E-01	5.158E-02	0.335
SR-85		514.00	*	2.292E-02	4.408E-02	6.855E-02	6.596E-03	0.334
Y-88		898.04		-7.020E-02	5.676E-02	8.126E-02	7.142E-03	-0.864
		1836.06	*	-2.503E-03	4.765E-02	7.626E-02	6.296E-03	-0.033
Y-91		1204.77	*	-2.032E+01	3.326E+01	5.040E+01	4.152E+00	-0.403
NB-94		702.65	*	-2.702E-02	4.538E-02	6.880E-02	7.493E-03	-0.393
		871.09		-1.612E-02	4.208E-02	6.725E-02	6.173E-03	-0.240
NB-95		765.81	*	7.655E-02	7.041E-02	1.109E-01	1.159E-02	0.690
NB-95M		235.69	*	-1.044E-02	1.254E-01	1.856E-01	1.874E-02	-0.056
ZR-95		724.19		2.865E-03	1.206E-01	1.704E-01	1.935E-02	0.017
		756.73	*	-7.876E-04	9.051E-02	1.451E-01	1.636E-02	-0.005
MO-99		140.51		-7.225E+00	1.285E+01	1.755E+01	4.279E+00	-0.412
		181.07		-6.135E+00	1.065E+01	1.559E+01	2.909E+00	-0.393
		366.42		-6.016E+01	6.427E+01	9.417E+01	7.897E+00	-0.639
		739.50	*	-1.126E+00	1.026E+01	1.631E+01	2.767E+00	-0.069
		777.92		-5.645E+01	2.795E+01	3.157E+01	3.264E+00	-1.788
TC-99M		140.51	*	-5.442E+07	2.795E+01	Half-Life too short		
RU-103		497.08	*	-3.766E-03	4.349E-02	7.211E-02	1.044E-02	-0.052
	+	610.33		1.360E+01	3.042E+00	3.479E+00	6.085E-01	3.909
RH-106		621.93	*	-1.016E-01	3.762E-01	5.979E-01	8.798E-02	-0.170
		1050.41		-3.442E+00	3.826E+00	5.635E+00	4.873E-01	-0.611
RU-106		621.93	*	-1.016E-01	3.761E-01	5.979E-01	6.415E-02	-0.170
		1050.41		-3.442E+00	3.826E+00	5.635E+00	4.873E-01	-0.611
AG-108M		433.94	*	-2.400E-02	3.085E-02	4.868E-02	4.309E-03	-0.493
		614.28		1.683E-02	4.307E-02	6.533E-02	7.116E-03	0.258
		722.91		1.102E-03	4.673E-02	6.605E-02	7.264E-03	0.017
AG-110M		657.76	*	7.134E-03	5.432E-02	7.865E-02	8.823E-03	0.091
		677.62		-3.479E-02	4.076E-01	6.556E-01	7.337E-02	-0.053
		706.68		1.127E-01	3.018E-01	5.039E-01	5.577E-02	0.224
		763.94		2.440E-01	2.330E-01	3.735E-01	3.982E-02	0.653
		884.68		6.733E-03	7.401E-02	1.247E-01	1.151E-02	0.054
		937.49		1.568E-03	1.314E-01	2.187E-01	1.984E-02	0.007
		1384.29		-1.176E-02	2.069E-01	3.352E-01	2.828E-02	-0.035
		1505.03		-3.228E-01	3.538E-01	4.775E-01	3.974E-02	-0.676
SN-113		391.69	*	-3.158E-02	5.324E-02	8.028E-02	6.611E-03	-0.393
CD-115		260.90		-4.796E+01	7.406E+01	1.170E+02	1.046E+01	-0.410
		492.35		-1.808E+01	2.234E+01	3.457E+01	3.235E+00	-0.523
		527.90	*	1.030E+00	7.370E+00	1.239E+01	1.212E+00	0.083
SN-117M		156.02		-6.303E-01	1.927E+00	2.924E+00	2.639E-01	-0.216

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		158.56	*	-1.183E-02	4.622E-02	7.440E-02	6.549E-03	-0.159
TE-123M		159.00	*	-9.244E-03	2.510E-02	4.194E-02	3.697E-03	-0.220
SB-124		602.73		-8.984E-03	5.001E-02	7.788E-02	8.225E-03	-0.115
		645.85		-4.485E-01	6.163E-01	9.252E-01	1.047E-01	-0.485
		722.78		4.063E-02	4.609E-01	6.585E-01	7.201E-02	0.062
		1690.97	*	-3.361E-02	9.407E-02	1.390E-01	1.213E-02	-0.242
SB-125		427.87	*	1.037E-01	1.021E-01	1.846E-01	1.597E-02	0.562
	+	463.37		1.439E+00	5.168E-01	6.970E-01	6.695E-02	2.064
		600.60		-1.401E-01	2.262E-01	3.493E-01	3.866E-02	-0.401
		635.95		-1.115E-01	3.538E-01	5.593E-01	6.382E-02	-0.199
TE-125M		109.28	*	5.264E+00	7.679E+00	1.261E+01	1.532E+00	0.417
I-126		388.63		-1.848E-02	1.800E-01	2.837E-01	2.272E-02	-0.065
		666.33	*	2.448E-01	2.855E-01	4.504E-01	4.969E-02	0.543
		753.82		1.777E+00	2.148E+00	3.736E+00	3.942E-01	0.476
SB-126		414.70		7.628E-02	7.461E-02	1.282E-01	1.063E-02	0.595
		666.50		7.256E-02	9.948E-02	1.545E-01	1.705E-02	0.470
		695.00		-3.117E-02	9.416E-02	1.474E-01	1.610E-02	-0.212
		697.00		1.787E-01	3.128E-01	5.332E-01	5.821E-02	0.335
		720.70	*	-4.387E-02	1.906E-01	2.589E-01	2.794E-02	-0.169
		856.80		7.970E-05	6.536E-01	9.535E-01	8.954E-02	0.000
SB-127		252.40		1.007E+00	2.850E+00	4.760E+00	1.972E+00	0.212
		473.00		-2.590E-01	1.234E+00	2.034E+00	2.560E-01	-0.127
		685.70	*	-7.198E-01	1.228E+00	1.866E+00	2.374E-01	-0.386
		783.70		4.212E+00	3.356E+00	5.969E+00	7.798E-01	0.706
I-131		80.19		2.639E+00	2.286E+00	3.629E+00	3.219E-01	0.727
		284.31		6.211E-01	1.258E+00	2.121E+00	1.981E-01	0.293
		364.49	*	7.894E-02	1.037E-01	1.759E-01	1.561E-02	0.449
		636.99		-2.063E-02	1.621E+00	2.642E+00	2.969E-01	-0.008
TE-132		49.72		5.756E-01	1.897E+00	3.226E+00	3.297E-01	0.178
		111.76		5.412E+00	1.647E+01	2.663E+01	3.262E+00	0.203
		116.30		-1.109E+00	1.513E+01	2.389E+01	2.992E+00	-0.046
		228.16	*	-7.587E-02	4.346E-01	7.169E-01	1.113E-01	-0.106
BA-133		81.00		-1.022E-02	6.036E-02	9.008E-02	1.411E-02	-0.113
		276.40		1.280E-01	3.735E-01	6.242E-01	8.926E-02	0.205
		302.85		1.282E-02	1.488E-01	2.178E-01	2.889E-02	0.059
		356.01	*	-2.019E-03	4.955E-02	7.035E-02	9.070E-03	-0.029
		383.85		-5.776E-02	3.486E-01	5.470E-01	6.602E-02	-0.106
I-133		529.87	*	-5.889E-04	3.486E-01	Half-Life too short		
		875.33		8.945E-03	3.486E-01	Half-Life too short		
		1298.22		2.720E-02	3.486E-01	Half-Life too short		
CS-134		563.25		1.994E-01	4.439E-01	7.611E-01	7.796E-02	0.262
		569.33		1.281E-01	2.707E-01	4.643E-01	4.798E-02	0.276
		604.72		4.471E-02	4.414E-02	7.129E-02	7.553E-03	0.627
	+	795.86	*	1.533E-01	8.040E-02	1.210E-01	1.235E-02	1.267
		801.95		-1.443E-01	5.363E-01	8.280E-01	8.388E-02	-0.174
		1365.19		-8.877E-01	1.434E+00	2.124E+00	1.824E-01	-0.418
CS-135		268.22	*	1.867E-01	1.747E-01	2.780E-01	2.847E-02	0.671
I-135		546.56		-6.161E+07	1.747E-01	Half-Life too short		
		836.80		9.029E+07	1.747E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1038.76		-1.078E+07	1.747E-01	Half-Life too short		
		1131.51		-4.919E+07	1.747E-01	Half-Life too short		
		1260.41	*	-3.694E+07	1.747E-01	Half-Life too short		
		1457.56		4.110E+09	1.747E-01	Half-Life too short		
		1678.03		2.515E+07	1.747E-01	Half-Life too short		
		1791.20		2.552E+07	1.747E-01	Half-Life too short		
CS-136	+	153.25		1.035E+00	9.590E-01	1.228E+00	1.328E-01	0.842
		176.60		-2.490E-01	4.044E-01	6.665E-01	6.128E-02	-0.374
		273.65		1.707E-01	4.827E-01	7.295E-01	7.028E-02	0.234
		340.55		-7.482E-02	1.624E-01	2.224E-01	2.006E-02	-0.336
		818.51		6.450E-02	7.563E-02	1.388E-01	1.375E-02	0.465
		1048.07	*	-3.466E-02	1.390E-01	2.221E-01	2.001E-02	-0.156
		1235.36		-4.852E-03	9.056E-01	1.462E+00	1.678E-01	-0.003
CE-139		165.86	*	-2.182E-02	2.640E-02	4.330E-02	3.520E-03	-0.504
BA-140		162.66		8.211E-01	6.541E-01	1.170E+00	1.055E-01	0.702
		304.85		-4.614E-01	1.263E+00	1.884E+00	5.530E-01	-0.245
		423.72		-1.145E+00	1.929E+00	3.060E+00	1.005E+00	-0.374
		537.26	*	-1.215E-02	2.995E-01	4.952E-01	1.696E-01	-0.025
LA-140	+	328.76		9.503E-01	3.665E-01	5.707E-01	5.295E-02	1.665
		487.02		7.442E-03	1.413E-01	2.375E-01	2.324E-02	0.031
		815.77		-7.443E-02	3.557E-01	5.854E-01	6.333E-02	-0.127
		1596.21	*	-3.414E-02	1.237E-01	1.946E-01	1.627E-02	-0.175
CE-141		145.44	*	-7.859E-03	5.821E-02	8.246E-02	8.268E-03	-0.095
CE-143		57.36		-7.319E-06	5.821E-02	Half-Life too short		
		293.27	*	1.376E-04	5.821E-02	Half-Life too short		
		664.57		6.511E-04	5.821E-02	Half-Life too short		
		721.93		7.064E-05	5.821E-02	Half-Life too short		
CE-144		80.12		1.661E+00	1.478E+00	2.344E+00	2.068E-01	0.709
		133.52	*	1.080E-01	1.756E-01	2.833E-01	4.698E-02	0.381
PM-144		476.78		-3.704E-02	7.117E-02	1.139E-01	1.123E-02	-0.325
		618.01		-6.268E-03	3.742E-02	6.018E-02	6.554E-03	-0.104
		696.49	*	3.365E-02	4.408E-02	7.644E-02	8.349E-03	0.440
PR-144		696.51	*	2.515E+00	3.295E+00	5.715E+00	6.240E-01	0.440
		1489.16		-5.366E+00	1.645E+01	2.557E+01	2.124E+00	-0.210
PM-146		453.88	*	2.087E-02	4.967E-02	8.616E-02	9.288E-03	0.242
		633.25		5.771E-01	1.789E+00	2.993E+00	1.160E+00	0.193
		735.93		-6.219E-02	1.966E-01	3.041E-01	8.738E-02	-0.204
		747.24		-8.653E-02	1.372E-01	2.044E-01	3.237E-02	-0.423
ND-147	+	91.11		6.424E-01	2.287E-01	2.797E-01	2.854E-02	2.297
		319.41		9.027E-02	3.048E+00	4.945E+00	4.378E-01	0.018
		531.02	*	5.230E-03	6.439E-01	1.070E+00	1.677E-01	0.005
PM-149		285.90	*	-8.372E+00	4.945E+01	7.992E+01	1.255E+01	-0.105
EU-152		121.78		3.969E-02	6.280E-02	1.023E-01	1.274E-02	0.388
		244.70		3.823E-01	3.105E-01	5.054E-01	4.498E-02	0.756
		344.28	*	1.243E-02	1.062E-01	1.722E-01	1.579E-02	0.072
		778.90		-7.104E-01	3.424E-01	3.782E-01	3.906E-02	-1.878
	+	964.08		9.081E-01	4.513E-01	7.758E-01	6.797E-02	1.170
		1085.87		1.514E-02	5.494E-01	9.024E-01	7.724E-02	0.017
		1112.07		2.000E-02	4.666E-01	7.655E-01	6.491E-02	0.026

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1408.01		1.243E-01	2.647E-01	4.690E-01	3.858E-02	0.265
GD-153		69.67		-4.809E-01	8.367E-01	1.345E+00	1.103E-01	-0.358
		97.43	*	-1.231E-01	6.966E-02	9.045E-02	8.935E-03	-1.361
		103.18		-5.142E-02	8.712E-02	1.351E-01	1.379E-02	-0.381
EU-154		123.07		-1.535E-02	4.521E-02	6.995E-02	9.517E-03	-0.219
		723.31		-2.057E-02	2.092E-01	2.893E-01	3.322E-02	-0.071
		873.19		-2.226E-01	3.638E-01	5.652E-01	6.942E-02	-0.394
		996.26		-1.546E-01	4.858E-01	7.719E-01	1.353E-01	-0.200
		1004.73		-2.447E-01	2.832E-01	4.159E-01	4.873E-02	-0.588
		1274.44	*	-6.396E-02	1.842E-01	2.832E-01	3.133E-02	-0.226
EU-155	+	86.55		3.838E-01	9.968E-02	1.365E-01	1.280E-02	2.811
		105.31	*	1.062E-01	8.541E-02	1.435E-01	1.495E-02	0.740
TB-160	+	86.79		9.982E-01	2.590E-01	3.713E-01	3.458E-02	2.688
		197.04		-3.245E-01	4.934E-01	8.027E-01	6.846E-02	-0.404
		215.65		-1.365E-01	6.483E-01	1.072E+00	9.346E-02	-0.127
	+	298.57		2.838E-01	1.450E-01	1.910E-01	1.704E-02	1.486
		879.36	*	-3.474E-02	1.993E-01	3.275E-01	2.964E-02	-0.106
		962.29		7.415E-01	7.599E-01	1.240E+00	1.086E-01	0.598
		966.15		1.303E+00	3.631E-01	7.142E-01	6.256E-02	1.825
		1177.93		-5.394E-01	5.374E-01	7.712E-01	6.355E-02	-0.699
		1271.85		-4.794E-01	9.919E-01	1.492E+00	1.223E-01	-0.321
HO-166M		80.57		1.000E-01	1.890E-01	2.592E-01	2.295E-02	0.386
	+	184.41		3.618E-01	6.955E-02	7.606E-02	6.371E-03	4.757
		280.46		-7.441E-02	9.086E-02	1.368E-01	1.220E-02	-0.544
		410.95		2.305E-01	3.245E-01	4.902E-01	4.038E-02	0.470
		711.68	*	-3.208E-02	7.864E-02	1.212E-01	1.315E-02	-0.265
		752.31		5.785E-03	3.811E-01	6.128E-01	6.474E-02	0.009
		810.29		3.383E-03	7.651E-02	1.295E-01	1.294E-02	0.026
TA-182		67.75		1.227E-02	5.111E-02	8.497E-02	6.887E-03	0.144
		100.11		1.322E-01	1.357E-01	2.266E-01	2.273E-02	0.583
		152.43		1.872E-01	3.419E-01	5.055E-01	4.716E-02	0.370
		222.11		5.102E-02	3.130E-01	5.273E-01	4.625E-02	0.097
	+	1121.30		5.120E-01	3.452E-01	4.877E-01	4.120E-02	1.050
		1189.05		-2.306E-01	4.589E-01	7.028E-01	5.791E-02	-0.328
		1221.41	*	1.249E-02	2.815E-01	4.575E-01	3.766E-02	0.027
		1231.02		5.021E-01	8.111E-01	1.380E+00	1.135E-01	0.364
IR-192	+	295.96		1.453E+00	2.524E-01	3.527E-01	3.170E-02	4.120
		308.46		-6.739E-02	1.017E-01	1.569E-01	1.403E-02	-0.429
		316.51	*	2.550E-03	3.638E-02	5.923E-02	5.264E-03	0.043
		468.07		7.277E-02	8.166E-02	1.324E-01	1.276E-02	0.550
HG-203		70.83		-5.813E-01	7.050E-01	1.022E+00	1.621E-01	-0.569
		72.87		1.111E-01	4.234E-01	6.499E-01	1.001E-01	0.171
		279.20	*	9.581E-04	3.915E-02	6.263E-02	5.718E-03	0.015
BI-207		72.81		1.948E-02	1.007E-01	1.542E-01	1.290E-02	0.126
	+	74.97		8.159E-01	1.096E-01	1.598E-01	1.357E-02	5.107
		569.70		1.069E-02	4.214E-02	7.116E-02	7.286E-03	0.150
		1063.66	*	4.449E-02	7.058E-02	1.240E-01	1.069E-02	0.359
		1770.23		1.148E-01	8.925E-01	1.291E+00	1.073E-01	0.089
PB-211		404.85	*	-2.240E-01	1.012E+00	1.380E+00	6.667E-01	-0.162

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.09		1.317E+00	1.803E+00	3.033E+00	1.403E+00	0.434
		832.01		-1.251E+00	1.427E+00	1.911E+00	9.950E-01	-0.655
BI-212	+	727.33	*	3.315E+00	1.125E+00	1.665E+00	2.333E-01	1.991
		785.37		1.550E+00	4.528E+00	7.485E+00	7.683E-01	0.207
		1620.50		4.714E+00	3.189E+00	6.576E+00	5.500E-01	0.717
RN-219	+	271.23		6.950E-01	3.829E-01	4.661E-01	4.904E-02	1.491
		401.81	*	8.370E-02	4.935E-01	7.923E-01	1.155E-01	0.106
RA-223		81.07		-2.768E-02	1.368E-01	2.038E-01	1.811E-02	-0.136
	+	83.79		2.029E-01	1.073E-01	1.461E-01	1.327E-02	1.389
	+	94.87		4.186E-01	5.264E-01	5.126E-01	4.993E-02	0.817
	+	144.24		1.658E+00	9.424E-01	1.104E+00	1.199E-01	1.502
	+	154.21		5.264E-01	4.874E-01	6.418E-01	6.392E-02	0.820
	+	269.46		5.400E-01	2.961E-01	3.746E-01	3.409E-02	1.442
		323.87	*	5.086E-02	7.665E-01	1.112E+00	1.939E-01	0.046
	+	338.28		9.408E+00	1.969E+00	3.029E+00	3.678E-01	3.106
AC-227		79.69		-5.570E-01	7.904E-01	1.141E+00	1.976E-01	-0.488
		235.96		-2.045E-02	1.570E-01	2.315E-01	2.441E-02	-0.088
		256.23	*	7.347E-02	2.589E-01	4.341E-01	5.329E-02	0.169
	+	299.98		2.263E+00	1.176E+00	1.704E+00	2.200E-01	1.328
		304.50		-1.465E+00	1.767E+00	2.520E+00	4.204E-01	-0.582
		334.37		6.614E-01	1.893E+00	3.122E+00	4.890E-01	0.212
TH-227		79.80		1.508E-01	1.003E+00	1.523E+00	3.327E-01	0.099
		235.96		-2.045E-02	1.570E-01	2.315E-01	2.309E-02	-0.088
		256.23	*	7.347E-02	2.590E-01	4.341E-01	5.993E-02	0.169
	+	299.98		2.263E+00	1.176E+00	1.704E+00	2.200E-01	1.328
		304.50		-1.465E+00	1.767E+00	2.520E+00	4.204E-01	-0.582
		334.37		6.614E-01	1.893E+00	3.122E+00	4.890E-01	0.212
PA-231		283.69	*	-1.076E+00	1.496E+00	2.314E+00	3.416E-01	-0.465
	+	301.36		1.454E+00	7.535E-01	1.053E+00	1.303E-01	1.380
TH-231		81.07		-2.768E-02	1.368E-01	2.038E-01	1.811E-02	-0.136
	+	83.79		2.029E-01	1.073E-01	1.461E-01	1.327E-02	1.389
	+	94.87		4.186E-01	5.264E-01	5.126E-01	4.993E-02	0.817
	+	144.24		1.658E+00	9.424E-01	1.104E+00	1.199E-01	1.502
	+	154.21		5.264E-01	4.874E-01	6.418E-01	6.392E-02	0.820
	+	269.46		5.400E-01	2.961E-01	3.746E-01	3.409E-02	1.442
		323.87	*	5.086E-02	7.665E-01	1.112E+00	1.939E-01	0.046
	+	338.28		9.408E+00	1.969E+00	3.029E+00	3.678E-01	3.106
PA-233	+	300.13		1.024E+00	5.378E-01	7.685E-01	1.153E-01	1.333
		311.90	*	1.200E-02	7.045E-02	1.156E-01	1.055E-02	0.104
		340.48		-2.506E-01	7.843E-01	1.087E+00	2.620E-01	-0.231
PA-234	+	94.67		1.517E-01	1.913E-01	2.050E-01	2.706E-02	0.740
		98.44		5.193E-02	7.782E-02	1.116E-01	6.249E-02	0.465
		111.00		-1.100E-01	1.527E-01	2.327E-01	3.177E-02	-0.473
		131.20		3.602E-02	1.005E-01	1.486E-01	1.621E-02	0.242
		569.50		1.131E-01	3.756E-01	6.364E-01	6.515E-02	0.178
		733.00		8.954E-02	5.431E-01	7.821E-01	1.806E-01	0.114
		880.51		-1.593E-01	4.210E-01	6.780E-01	6.124E-02	-0.235
		883.24		5.349E-01	5.578E-01	7.927E-01	5.333E-01	0.675
		926.50		-4.457E-02	2.244E-01	3.643E-01	9.227E-02	-0.122

Sample ID : G249334004 Acquisition date : 24-MAR-2010 10:53:29

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	-1.056E-01	3.575E-01	5.703E-01	1.074E-01	-0.185
		949.00		1.267E-01	5.546E-01	9.449E-01	8.283E-02	0.134
PA-234M		766.42		1.963E+01	2.228E+01	3.105E+01	1.586E+01	0.632
		1001.03	*	9.510E+00	6.161E+00	1.169E+01	1.176E+00	0.814
NP-239		99.53		1.372E-01	1.273E-01	2.133E-01	2.132E-02	0.643
		103.37		-3.971E-02	8.013E-02	1.249E-01	1.276E-02	-0.318
		106.12		2.784E-02	6.732E-02	1.096E-01	1.139E-02	0.254
		117.23	*	-4.556E-01	3.415E-01	4.949E-01	5.508E-02	-0.920
		228.18		-3.807E-02	2.055E-01	3.389E-01	2.987E-02	-0.112
		277.60		1.866E-01	1.835E-01	3.177E-01	2.834E-02	0.587
AM-241		59.54	*	-3.291E-02	5.148E-02	8.325E-02	7.062E-03	-0.395
CM-247		278.00		9.306E-01	7.815E-01	1.364E+00	1.216E-01	0.682
		287.50		5.821E-01	1.295E+00	2.176E+00	1.942E-01	0.268
		402.40	*	-6.563E-03	4.685E-02	7.337E-02	5.951E-03	-0.089
CF-249		252.80		7.266E-02	9.090E-01	1.509E+00	1.347E-01	0.048
		333.37		1.315E-01	2.030E-01	3.414E-01	2.990E-02	0.385
		388.16	*	1.042E-02	4.793E-02	7.749E-02	6.213E-03	0.134
CF-251		177.52	*	-1.119E-02	1.184E-01	2.002E-01	1.659E-02	-0.056
		227.38		2.196E-02	3.265E-01	5.462E-01	4.811E-02	0.040
		285.41		-3.182E-01	2.300E+00	3.726E+00	3.325E-01	-0.085

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
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*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334004      *
* Acquisition date : 24-MAR-2010 10:53:29 Detector SN#     :               *
* Detector ID        : GAM21               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:25.29     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 11-MAR-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G249334004           Analyst initials: MXR1         *
* Batch Number       : 965250               Sample Quantity : 1.2357E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM            :    0.000            MSD Isotope     :               *
* LCS DPM            :    0.000            LCS Isotope     :               *
* LCSD DPM           :    0.000            LCSD Isotope    :               *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.414E+01	3.722E+00	6.962E-01	0.000E+00
CD-109	3.230E+00	8.213E-01	9.388E-01	0.000E+00
SN-126	3.168E-01	8.055E-02	9.191E-02	0.000E+00
BA-137M	3.750E-01	9.789E-02	8.932E-02	0.000E+00
CS-137	3.961E-01	1.034E-01	9.436E-02	0.000E+00
TL-208	6.157E-01	1.250E-01	7.603E-02	0.000E+00
PB-210	2.445E+00	7.310E-01	6.900E-01	0.000E+00
BI-211	4.753E+00	6.689E-01	3.604E-01	0.000E+00
PB-212	2.067E+00	2.375E-01	9.380E-02	0.000E+00
BI-214	1.369E+00	2.457E-01	1.463E-01	0.000E+00
PB-214	1.725E+00	2.601E-01	1.312E-01	0.000E+00
RA-224	6.259E+00	1.250E+00	1.008E+00	0.000E+00
RA-226	1.369E+00	2.457E-01	1.463E-01	0.000E+00
AC-228	2.046E+00	4.764E-01	2.983E-01	0.000E+00
RA-228	2.046E+00	4.764E-01	2.983E-01	0.000E+00
TH-228	2.067E+00	2.375E-01	9.380E-02	0.000E+00
TH-229	-3.405E-02	4.769E-01	8.398E-01	0.000E+00
TH-230	1.369E+00	2.352E-01	1.463E-01	0.000E+00
TH-232	2.046E+00	4.764E-01	2.983E-01	0.000E+00
TH-234	1.444E+00	8.516E-01	8.742E-01	0.000E+00
U-235	4.947E-01	2.837E-01	2.840E-01	0.000E+00
NP-237	9.452E-01	3.090E-01	2.732E-01	0.000E+00
U-238	1.444E+00	8.516E-01	8.742E-01	0.000E+00
ANH-511	1.383E-01	7.263E-02	5.957E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-1.170E-01	3.367E-01	5.668E-01	0.000E+00	NOT IDENT.
NA-22	-3.361E-02	6.526E-02	1.004E-01	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.620E+04	0.000E+00	0.000E+00	SHORT HLIF

SC-46	-2.898E-02	5.416E-02	8.776E-02	0.000E+00	FAIL ABUN
V-48	-4.743E-02	8.860E-02	1.411E-01	0.000E+00	NOT IDENT.
CR-51	3.427E-01	3.522E-01	6.323E-01	0.000E+00	NOT IDENT.
MN-54	-3.232E-02	4.723E-02	7.589E-02	0.000E+00	NOT IDENT.
CO-56	4.449E-02	5.015E-02	9.338E-02	0.000E+00	NOT IDENT.
CO-57	5.804E-03	2.141E-02	3.612E-02	0.000E+00	NOT IDENT.
CO-58	1.990E-02	4.662E-02	8.405E-02	0.000E+00	NOT IDENT.
FE-59	5.270E-02	1.187E-01	2.084E-01	0.000E+00	NOT IDENT.
CO-60	2.211E-02	5.471E-02	9.822E-02	0.000E+00	NOT IDENT.
ZN-65	2.742E-02	1.542E-01	2.281E-01	0.000E+00	NOT IDENT.
SE-75	-1.506E-02	4.192E-02	7.023E-02	0.000E+00	NOT IDENT.
SR-85	2.292E-02	4.320E-02	6.943E-02	0.000E+00	NOT IDENT.
Y-88	-2.503E-03	4.670E-02	7.592E-02	0.000E+00	NOT IDENT.
Y-91	-2.032E+01	3.260E+01	5.046E+01	0.000E+00	NOT IDENT.
NB-94	-2.702E-02	4.447E-02	6.940E-02	0.000E+00	NOT IDENT.
NB-95	7.655E-02	6.900E-02	1.118E-01	0.000E+00	NOT IDENT.
NB-95M	-1.044E-02	1.229E-01	1.899E-01	0.000E+00	NOT IDENT.
ZR-95	-7.876E-04	8.870E-02	1.462E-01	0.000E+00	NOT IDENT.
MO-99	-1.126E+00	1.005E+01	1.644E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	9.496E+13	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-3.766E-03	4.262E-02	7.307E-02	0.000E+00	FAIL ABUN
RH-106	-1.016E-01	3.687E-01	6.041E-01	0.000E+00	NOT IDENT.
RU-106	-1.016E-01	3.686E-01	6.041E-01	0.000E+00	NOT IDENT.
AG-108M	-2.400E-02	3.024E-02	4.942E-02	0.000E+00	NOT IDENT.
AG-110M	7.134E-03	5.323E-02	7.941E-02	0.000E+00	NOT IDENT.
SN-113	-3.158E-02	5.218E-02	8.161E-02	0.000E+00	NOT IDENT.
CD-115	1.030E+00	7.222E+00	1.254E+01	0.000E+00	NOT IDENT.
SN-117M	-1.183E-02	4.529E-02	7.653E-02	0.000E+00	NOT IDENT.
TE-123M	-9.244E-03	2.460E-02	4.315E-02	0.000E+00	NOT IDENT.
SB-124	-3.361E-02	9.219E-02	1.386E-01	0.000E+00	NOT IDENT.
SB-125	1.037E-01	1.001E-01	1.875E-01	0.000E+00	FAIL ABUN
TE-125M	5.264E+00	7.526E+00	1.304E+01	0.000E+00	NOT IDENT.
I-126	2.448E-01	2.798E-01	4.546E-01	0.000E+00	NOT IDENT.
SB-126	-4.387E-02	1.868E-01	2.611E-01	0.000E+00	NOT IDENT.
SB-127	-7.198E-01	1.203E+00	1.883E+00	0.000E+00	NOT IDENT.
I-131	7.894E-02	1.016E-01	1.790E-01	0.000E+00	NOT IDENT.
TE-132	-7.587E-02	4.259E-01	7.339E-01	0.000E+00	NOT IDENT.
BA-133	-2.019E-03	4.856E-02	7.161E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.369E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.879E-02	1.219E-01	0.000E+00	FAIL ABUN
CS-135	1.867E-01	1.713E-01	2.840E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.023E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.466E-02	1.362E-01	2.228E-01	0.000E+00	FAIL ABUN
CE-139	-2.182E-02	2.588E-02	4.452E-02	0.000E+00	NOT IDENT.
BA-140	-1.215E-02	2.935E-01	5.013E-01	0.000E+00	NOT IDENT.
LA-140	-3.414E-02	1.212E-01	1.941E-01	0.000E+00	FAIL ABUN
CE-141	-7.859E-03	5.704E-02	8.493E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.983E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.080E-01	1.721E-01	2.921E-01	0.000E+00	NOT IDENT.
PM-144	3.365E-02	4.320E-02	7.712E-02	0.000E+00	NOT IDENT.
PR-144	2.515E+00	3.229E+00	5.765E+00	0.000E+00	NOT IDENT.
PM-146	2.087E-02	4.868E-02	8.742E-02	0.000E+00	NOT IDENT.
ND-147	5.230E-03	6.310E-01	1.083E+00	0.000E+00	FAIL ABUN
PM-149	-8.372E+00	4.847E+01	8.159E+01	0.000E+00	NOT IDENT.
EU-152	1.243E-02	1.041E-01	1.754E-01	0.000E+00	FAIL ABUN
GD-153	-1.231E-01	6.827E-02	9.363E-02	0.000E+00	NOT IDENT.
EU-154	-6.396E-02	1.805E-01	2.834E-01	0.000E+00	NOT IDENT.
EU-155	1.062E-01	8.370E-02	1.484E-01	0.000E+00	FAIL ABUN
TB-160	-3.474E-02	1.953E-01	3.293E-01	0.000E+00	FAIL ABUN
HO-166M	-3.208E-02	7.707E-02	1.223E-01	0.000E+00	FAIL ABUN
TA-182	1.249E-02	2.759E-01	4.580E-01	0.000E+00	FAIL ABUN
IR-192	2.550E-03	3.565E-02	6.039E-02	0.000E+00	FAIL ABUN
HG-203	9.581E-04	3.837E-02	6.395E-02	0.000E+00	NOT IDENT.
BI-207	4.449E-02	6.917E-02	1.244E-01	0.000E+00	FAIL ABUN
PB-211	-2.240E-01	9.917E-01	1.402E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.103E+00	1.678E+00	0.000E+00	FAIL ABUN
RN-219	8.370E-02	4.836E-01	8.052E-01	0.000E+00	FAIL ABUN
RA-223	5.086E-02	7.512E-01	1.133E+00	0.000E+00	FAIL ABUN
AC-227	7.347E-02	2.537E-01	4.438E-01	0.000E+00	FAIL ABUN
TH-227	7.347E-02	2.538E-01	4.438E-01	0.000E+00	FAIL ABUN
PA-231	-1.076E+00	1.466E+00	2.362E+00	0.000E+00	FAIL ABUN
TH-231	5.086E-02	7.512E-01	1.133E+00	0.000E+00	FAIL ABUN
PA-233	1.200E-02	6.904E-02	1.179E-01	0.000E+00	FAIL ABUN
PA-234	-1.056E-01	3.503E-01	5.729E-01	0.000E+00	FAIL ABUN
PA-234M	9.510E+00	6.038E+00	1.173E+01	0.000E+00	NOT IDENT.
NP-239	-4.556E-01	3.347E-01	5.111E-01	0.000E+00	NOT IDENT.
AM-241	-3.291E-02	5.045E-02	8.672E-02	0.000E+00	NOT IDENT.
CM-247	-6.563E-03	4.592E-02	7.456E-02	0.000E+00	NOT IDENT.

CF-249	1.042E-02	4.697E-02	7.879E-02	0.000E+00 NOT IDENT.
CF-251	-1.119E-02	1.160E-01	2.057E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 12:54:24.72

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334004.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 10:53:29
Sample ID         : G249334004           Sample quantity  : 1.23570E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:25.29  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 965250                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	863	10.66*	7.204E-01	3.414E+01	3.414E+01	11.13
CD-109	88.03	314	3.70*	8.135E+00	3.168E+00	3.230E+00	25.95
SN-126	64.28	144	9.60	8.180E+00	5.564E-01	5.564E-01	59.29
	86.94	314	8.90	8.135E+00	1.317E+00	1.317E+00	48.06
	87.57	314	37.00*	8.135E+00	3.168E-01	3.168E-01	25.95
BA-137M	661.66	173	89.90*	1.562E+00	3.746E-01	3.750E-01	26.64
CS-137	661.66	173	85.10*	1.562E+00	3.958E-01	3.961E-01	26.65
TL-208	277.37	------	6.60	3.801E+00	------ Line Not Found		------
	583.19	306	85.00*	1.778E+00	6.157E-01	6.157E-01	20.72
	860.56	39	12.50	1.201E+00	7.910E-01	7.910E-01	90.07
PB-210	46.54	251	4.25*	7.345E+00	2.442E+00	2.445E+00	30.51
BI-211	72.87	------	1.23	8.278E+00	------ Line Not Found		------
	351.06	606	12.92*	2.998E+00	4.753E+00	4.753E+00	14.36
PB-212	74.82	793	10.28	8.275E+00	2.831E+00	2.831E+00	16.59
	77.11	1165	17.10	8.264E+00	2.505E+00	2.505E+00	11.27
	238.63	1302	43.60*	4.387E+00	2.067E+00	2.067E+00	11.72
	300.09	79	3.30	3.520E+00	2.057E+00	2.057E+00	51.47
BI-214	609.32	348	45.49*	1.699E+00	1.369E+00	1.369E+00	18.31
	1120.29	51	14.92	9.294E-01	1.107E+00	1.107E+00	67.77
	1764.49	47	15.30	5.983E-01	1.566E+00	1.566E+00	43.81
PB-214	74.82	793	5.80	8.275E+00	5.019E+00	5.019E+00	15.60
	77.11	1165	9.70	8.264E+00	4.416E+00	4.416E+00	13.96
	242.00	366	7.25	4.338E+00	3.540E+00	3.540E+00	21.19
	295.22	435	18.42	3.576E+00	2.006E+00	2.006E+00	18.52
	351.93	606	35.60*	2.998E+00	1.725E+00	1.725E+00	15.38
RA-224	240.99	366	4.10*	4.338E+00	6.259E+00	6.259E+00	20.38
RA-226	609.32	348	45.49*	1.699E+00	1.369E+00	1.369E+00	18.31
	1120.29	51	14.92	9.294E-01	1.107E+00	1.107E+00	67.77
	1764.49	47	15.30	5.983E-01	1.566E+00	1.566E+00	43.81
AC-228	338.32	274	11.27	3.120E+00	2.371E+00	2.371E+00	45.08
	911.20	197	25.80*	1.136E+00	2.046E+00	2.046E+00	23.76
	968.97	146	15.80	1.070E+00	2.631E+00	2.631E+00	32.08

Sample ID : G249334004 Acquisition date : 24-MAR-2010 10:53:29

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-228	338.32	274	11.27	3.120E+00	2.371E+00	2.371E+00	45.08
	911.20	197	25.80*	1.136E+00	2.046E+00	2.046E+00	23.76
	968.97	146	15.80	1.070E+00	2.631E+00	2.631E+00	32.08
TH-228	74.82	793	10.28	8.275E+00	2.831E+00	2.831E+00	13.49
	77.11	1165	17.10	8.264E+00	2.505E+00	2.505E+00	11.27
	238.63	1302	43.60*	4.387E+00	2.067E+00	2.067E+00	11.72
	300.09	79	3.30	3.520E+00	2.057E+00	2.057E+00	79.28
TH-229	85.43	135	14.70	8.185E+00	3.409E-01	3.409E-01	52.87
	88.47	314	24.00	8.135E+00	4.883E-01	4.883E-01	25.95
	193.51	------	4.41*	5.271E+00	------	Line Not Found	------
	210.85	------	2.80	4.900E+00	------	Line Not Found	------
TH-230	609.32	348	45.49*	1.699E+00	1.369E+00	1.369E+00	17.53
	1120.29	51	14.92	9.294E-01	1.107E+00	1.107E+00	67.44
	1764.49	47	15.30	5.983E-01	1.566E+00	1.566E+00	43.81
TH-232	338.32	274	11.27	3.120E+00	2.371E+00	2.371E+00	19.14
	911.20	197	25.80*	1.136E+00	2.046E+00	2.046E+00	23.76
	968.97	146	15.80	1.070E+00	2.631E+00	2.631E+00	32.08
TH-234	63.29	144	3.70*	8.180E+00	1.444E+00	1.444E+00	60.19
	92.59	536	4.23	8.020E+00	4.801E+00	4.801E+00	26.31
U-235	89.96	210	3.47	8.085E+00	2.274E+00	2.274E+00	42.26
	93.35	536	5.60	8.020E+00	3.626E+00	3.626E+00	27.17
	143.76	117	10.96*	6.573E+00	4.947E-01	4.947E-01	58.53
	163.33	------	5.08	6.017E+00	------	Line Not Found	------
	185.72	468	57.20	5.452E+00	4.554E-01	4.554E-01	19.22
	205.31	------	5.01	5.015E+00	------	Line Not Found	------
NP-237	86.48	314	12.40*	8.135E+00	9.452E-01	9.452E-01	33.36
	95.86	63	2.68	7.977E+00	8.888E-01	8.888E-01	127.72
U-238	63.29	144	3.70*	8.180E+00	1.444E+00	1.444E+00	60.19
	92.59	536	4.23	8.020E+00	4.801E+00	4.801E+00	16.70
ANH-511	511.00	93	100.00*	2.038E+00	1.383E-01	1.383E-01	53.60

Flag: "*" = Keyline

Sample ID : G249334004 Acquisition date : 24-MAR-2010 10:53:29

Total number of lines in spectrum 39
Number of unidentified lines 5
Number of lines tentatively identified by NID 34 87.18%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.414E+01	3.414E+01	0.380E+01	11.13	
CD-109	461.40D	1.02	3.168E+00	3.230E+00	0.838E+00	25.95	
SN-126	2.30E+05Y	1.00	3.168E-01	3.168E-01	0.822E-01	25.95	
BA-137M	30.08Y	1.00	3.746E-01	3.750E-01	0.999E-01	26.64	
CS-137	30.08Y	1.00	3.958E-01	3.961E-01	1.055E-01	26.65	
TL-208	1.41E+10Y	1.00	6.157E-01	6.157E-01	1.276E-01	20.72	
PB-210	22.20Y	1.00	2.442E+00	2.445E+00	0.746E+00	30.51	
BI-211	7.04E+08Y	1.00	4.753E+00	4.753E+00	0.683E+00	14.36	
PB-212	1.41E+10Y	1.00	2.067E+00	2.067E+00	0.242E+00	11.72	
BI-214	1600.00Y	1.00	1.369E+00	1.369E+00	0.251E+00	18.31	
PB-214	1600.00Y	1.00	1.725E+00	1.725E+00	0.265E+00	15.38	
RA-224	1.41E+10Y	1.00	6.259E+00	6.259E+00	1.276E+00	20.38	
RA-226	1600.00Y	1.00	1.369E+00	1.369E+00	0.251E+00	18.31	
AC-228	1.41E+10Y	1.00	2.046E+00	2.046E+00	0.486E+00	23.76	
RA-228	1.41E+10Y	1.00	2.046E+00	2.046E+00	0.486E+00	23.76	
TH-228	1.41E+10Y	1.00	2.067E+00	2.067E+00	0.242E+00	11.72	
TH-229	7340.00Y	1.00	4.883E-01	4.883E-01	1.267E-01	25.95	K
TH-230	7.54E+04Y	1.00	1.369E+00	1.369E+00	0.240E+00	17.53	
TH-232	1.41E+10Y	1.00	2.046E+00	2.046E+00	0.486E+00	23.76	
TH-234	4.47E+09Y	1.00	1.444E+00	1.444E+00	0.869E+00	60.19	
U-235	7.04E+08Y	1.00	4.947E-01	4.947E-01	2.895E-01	58.53	
NP-237	2.14E+06Y	1.00	9.452E-01	9.452E-01	3.153E-01	33.36	
U-238	4.47E+09Y	1.00	1.444E+00	1.444E+00	0.869E+00	60.19	
ANH-511	1.00E+09Y	1.00	1.383E-01	1.383E-01	0.741E-01	53.60	
		Total Activity :	7.352E+01	7.359E+01			

Grand Total Activity : 7.352E+01 7.359E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249334004 Acquisition date : 24-MAR-2010 10:53:29

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.98	81	268	0.62	257.85	255	6	1.12E-02	67.7	7.01E+00	
0	153.95	62	274	0.70	307.78	305	7	8.61E-03	92.1	6.27E+00	T
0	209.14	146	257	0.87	418.12	414	9	2.03E-02	43.0	4.94E+00	
0	270.26	96	174	1.07	540.31	536	9	1.34E-02	54.1	3.90E+00	T
1	327.73	101	88	1.18	655.21	652	29	1.40E-02	37.4	3.22E+00	T
0	409.45	39	108	0.67	818.62	813	11	5.48E-03	****	2.56E+00	
0	462.77	112	65	1.62	925.26	920	12	1.55E-02	34.6	2.26E+00	T
0	727.10	103	36	1.57	1453.90	1447	13	1.44E-02	30.9	1.42E+00	T
0	768.24	61	80	2.13	1536.20	1530	15	8.48E-03	68.4	1.34E+00	
0	794.91	50	31	1.02	1589.55	1585	11	6.92E-03	51.4	1.30E+00	T
1	964.47	47	13	1.78	1928.75	1922	34	6.52E-03	48.9	1.07E+00	T
0	1377.50	19	8	1.22	2755.25	2750	8	2.58E-03	70.7	7.62E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 12:54:28.22

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334004.CNF;1  *
* Acquisition date : 24-MAR-2010 10:53:29  Detector SN#     :               *
* Detector ID      : GAM21                 Sensitivity      : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:25.29         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G249334004            Analyst initials: MXR1           *
* Batch Number     : 965250                Sample Quantity : 1.23570E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.414E+01	3.798E+00	6.971E-01	5.952E-02	48.972
CD-109	3.230E+00	8.381E-01	9.057E-01	8.522E-02	3.566
SN-126	3.168E-01	8.219E-02	8.866E-02	8.311E-03	3.573
BA-137M	3.750E-01	9.989E-02	8.848E-02	9.772E-03	4.238
CS-137	3.961E-01	1.055E-01	9.347E-02	1.033E-02	4.238
TL-208	6.157E-01	1.276E-01	7.518E-02	8.184E-03	8.190
PB-210	2.445E+00	7.459E-01	6.603E-01	6.244E-02	3.703
BI-211	4.753E+00	6.826E-01	3.540E-01	3.196E-02	13.425
PB-212	2.067E+00	2.423E-01	9.166E-02	9.158E-03	22.551
BI-214	1.369E+00	2.507E-01	1.447E-01	1.716E-02	9.460
PB-214	1.725E+00	2.654E-01	1.289E-01	1.362E-02	13.386
RA-224	6.259E+00	1.276E+00	9.853E-01	8.756E-02	6.353
RA-226	1.369E+00	2.507E-01	1.447E-01	1.716E-02	9.460
AC-228	2.046E+00	4.861E-01	2.968E-01	3.471E-02	6.895
RA-228	2.046E+00	4.861E-01	2.968E-01	3.471E-02	6.895
TH-228	2.067E+00	2.423E-01	9.166E-02	9.158E-03	22.551
TH-229	4.883E-01	1.267E-01	8.185E-01	6.948E-02	0.597
TH-230	1.369E+00	2.400E-01	1.447E-01	1.537E-02	9.460

Sample ID : G249334004 Acquisition date : 24-MAR-2010 10:53:29

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	2.046E+00	4.861E-01	2.968E-01	3.471E-02	6.895
TH-234	1.444E+00	8.689E-01	8.399E-01	1.516E-01	1.719
U-235	4.947E-01	2.895E-01	2.758E-01	4.882E-02	1.794
NP-237	9.452E-01	3.153E-01	2.635E-01	6.042E-02	3.587
U-238	1.444E+00	8.689E-01	8.399E-01	1.516E-01	1.719
ANH-511	1.383E-01	7.411E-02	5.880E-02	5.637E-03	2.351

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.170E-01		3.436E-01	5.590E-01	5.476E-02	-0.209
NA-22	-3.361E-02		6.659E-02	1.003E-01	8.229E-03	-0.335
NA-24	1.586E-02		3.888E-02	Half-Life too short		
SC-46	-2.898E-02		5.526E-02	8.728E-02	7.761E-03	-0.332
V-48	-4.743E-02		9.041E-02	1.405E-01	1.229E-02	-0.338
CR-51	3.427E-01		3.594E-01	6.203E-01	5.762E-02	0.552
MN-54	-3.232E-02		4.819E-02	7.541E-02	7.309E-03	-0.429
CO-56	4.449E-02		5.118E-02	9.282E-02	8.847E-03	0.479
CO-57	5.804E-03		2.185E-02	3.499E-02	4.020E-03	0.166
CO-58	1.990E-02		4.757E-02	8.349E-02	8.355E-03	0.238
FE-59	5.270E-02		1.212E-01	2.078E-01	1.917E-02	0.254
CO-60	2.211E-02		5.582E-02	9.822E-02	7.972E-03	0.225
ZN-65	2.742E-02		1.573E-01	2.276E-01	1.929E-02	0.120
SE-75	-1.506E-02		4.278E-02	6.872E-02	6.171E-03	-0.219
SR-85	2.292E-02		4.408E-02	6.855E-02	6.596E-03	0.334
Y-88	-2.503E-03		4.765E-02	7.626E-02	6.296E-03	-0.033
Y-91	-2.032E+01		3.326E+01	5.040E+01	4.152E+00	-0.403
NB-94	-2.702E-02		4.538E-02	6.880E-02	7.493E-03	-0.393
NB-95	7.655E-02		7.041E-02	1.109E-01	1.159E-02	0.690
NB-95M	-1.044E-02		1.254E-01	1.856E-01	1.874E-02	-0.056
ZR-95	-7.876E-04		9.051E-02	1.451E-01	1.636E-02	-0.005
MO-99	-1.126E+00		1.026E+01	1.631E+01	2.767E+00	-0.069
TC-99M	-5.442E+07		4.845E+07	Half-Life too short		
RU-103	-3.766E-03		4.349E-02	7.211E-02	1.044E-02	-0.052
RH-106	-1.016E-01		3.762E-01	5.979E-01	8.798E-02	-0.170
RU-106	-1.016E-01		3.761E-01	5.979E-01	6.415E-02	-0.170
AG-108M	-2.400E-02		3.085E-02	4.868E-02	4.309E-03	-0.493
AG-110M	7.134E-03		5.432E-02	7.865E-02	8.823E-03	0.091
SN-113	-3.158E-02		5.324E-02	8.028E-02	6.611E-03	-0.393
CD-115	1.030E+00		7.370E+00	1.239E+01	1.212E+00	0.083
SN-117M	-1.183E-02		4.622E-02	7.440E-02	6.549E-03	-0.159
TE-123M	-9.244E-03		2.510E-02	4.194E-02	3.697E-03	-0.220
SB-124	-3.361E-02		9.407E-02	1.390E-01	1.213E-02	-0.242
SB-125	1.037E-01		1.021E-01	1.846E-01	1.597E-02	0.562
TE-125M	5.264E+00		7.679E+00	1.261E+01	1.532E+00	0.417
I-126	2.448E-01		2.855E-01	4.504E-01	4.969E-02	0.543
SB-126	-4.387E-02		1.906E-01	2.589E-01	2.794E-02	-0.169

Sample ID : G249334004 Acquisition date : 24-MAR-2010 10:53:29

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-127	-7.198E-01		1.228E+00	1.866E+00	2.374E-01	-0.386
I-131	7.894E-02		1.037E-01	1.759E-01	1.561E-02	0.449
TE-132	-7.587E-02		4.346E-01	7.169E-01	1.113E-01	-0.106
BA-133	-2.019E-03		4.955E-02	7.035E-02	9.070E-03	-0.029
I-133	-5.889E-04		6.983E-04	Half-Life too short		
CS-134	1.533E-01	+	8.040E-02	1.210E-01	1.235E-02	1.267
CS-135	1.867E-01		1.747E-01	2.780E-01	2.847E-02	0.671
I-135	-3.694E+07		2.052E+07	Half-Life too short		
CS-136	-3.466E-02		1.390E-01	2.221E-01	2.001E-02	-0.156
CE-139	-2.182E-02		2.640E-02	4.330E-02	3.520E-03	-0.504
BA-140	-1.215E-02		2.995E-01	4.952E-01	1.696E-01	-0.025
LA-140	-3.414E-02		1.237E-01	1.946E-01	1.627E-02	-0.175
CE-141	-7.859E-03		5.821E-02	8.246E-02	8.268E-03	-0.095
CE-143	1.376E-04		3.053E-05	Half-Life too short		
CE-144	1.080E-01		1.756E-01	2.833E-01	4.698E-02	0.381
PM-144	3.365E-02		4.408E-02	7.644E-02	8.349E-03	0.440
PR-144	2.515E+00		3.295E+00	5.715E+00	6.240E-01	0.440
PM-146	2.087E-02		4.967E-02	8.616E-02	9.288E-03	0.242
ND-147	5.230E-03		6.439E-01	1.070E+00	1.677E-01	0.005
PM-149	-8.372E+00		4.945E+01	7.992E+01	1.255E+01	-0.105
EU-152	1.243E-02		1.062E-01	1.722E-01	1.579E-02	0.072
GD-153	-1.231E-01		6.966E-02	9.045E-02	8.935E-03	-1.361
EU-154	-6.396E-02		1.842E-01	2.832E-01	3.133E-02	-0.226
EU-155	1.062E-01		8.541E-02	1.435E-01	1.495E-02	0.740
TB-160	-3.474E-02		1.993E-01	3.275E-01	2.964E-02	-0.106
HO-166M	-3.208E-02		7.864E-02	1.212E-01	1.315E-02	-0.265
TA-182	1.249E-02		2.815E-01	4.575E-01	3.766E-02	0.027
IR-192	2.550E-03		3.638E-02	5.923E-02	5.264E-03	0.043
HG-203	9.581E-04		3.915E-02	6.263E-02	5.718E-03	0.015
BI-207	4.449E-02		7.058E-02	1.240E-01	1.069E-02	0.359
PB-211	-2.240E-01		1.012E+00	1.380E+00	6.667E-01	-0.162
BI-212	3.315E+00	+	1.125E+00	1.665E+00	2.333E-01	1.991
RN-219	8.370E-02		4.935E-01	7.923E-01	1.155E-01	0.106
RA-223	5.086E-02		7.665E-01	1.112E+00	1.939E-01	0.046
AC-227	7.347E-02		2.589E-01	4.341E-01	5.329E-02	0.169
TH-227	7.347E-02		2.590E-01	4.341E-01	5.993E-02	0.169
PA-231	-1.076E+00		1.496E+00	2.314E+00	3.416E-01	-0.465
TH-231	5.086E-02		7.665E-01	1.112E+00	1.939E-01	0.046
PA-233	1.200E-02		7.045E-02	1.156E-01	1.055E-02	0.104
PA-234	-1.056E-01		3.575E-01	5.703E-01	1.074E-01	-0.185
PA-234M	9.510E+00		6.161E+00	1.169E+01	1.176E+00	0.814
NP-239	-4.556E-01		3.415E-01	4.949E-01	5.508E-02	-0.920
AM-241	-3.291E-02		5.148E-02	8.325E-02	7.062E-03	-0.395
CM-247	-6.563E-03		4.685E-02	7.337E-02	5.951E-03	-0.089
CF-249	1.042E-02		4.793E-02	7.749E-02	6.213E-03	0.134
CF-251	-1.119E-02		1.184E-01	2.002E-01	1.659E-02	-0.056

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249334004            *
* Acquisition date : 24-MAR-2010 10:53:29 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:25.29     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249334004           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.2357E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.414E+01	3.722E+00	3.483E-01	1.899E+00
CD-109	3.230E+00	8.213E-01	4.697E-01	4.190E-01
SN-126	3.168E-01	8.055E-02	4.598E-02	4.109E-02
BA-137M	3.750E-01	9.789E-02	4.469E-02	4.994E-02
CS-137	3.961E-01	1.034E-01	4.721E-02	5.277E-02
TL-208	6.157E-01	1.250E-01	3.804E-02	6.380E-02
PB-210	2.445E+00	7.310E-01	3.452E-01	3.730E-01
BI-211	4.753E+00	6.689E-01	1.803E-01	3.413E-01
PB-212	2.067E+00	2.375E-01	4.693E-02	1.212E-01
BI-214	1.369E+00	2.457E-01	7.317E-02	1.253E-01
PB-214	1.725E+00	2.601E-01	6.563E-02	1.327E-01
RA-224	6.259E+00	1.250E+00	5.043E-01	6.379E-01
RA-226	1.369E+00	2.457E-01	7.317E-02	1.253E-01
AC-228	2.046E+00	4.764E-01	1.492E-01	2.431E-01
RA-228	2.046E+00	4.764E-01	1.492E-01	2.431E-01
TH-228	2.067E+00	2.375E-01	4.693E-02	1.212E-01
TH-229	-3.405E-02	4.769E-01	4.201E-01	2.433E-01
TH-230	1.369E+00	2.352E-01	7.317E-02	1.200E-01
TH-232	2.046E+00	4.764E-01	1.492E-01	2.431E-01
TH-234	1.444E+00	8.516E-01	4.374E-01	4.345E-01
U-235	4.947E-01	2.837E-01	1.421E-01	1.448E-01
NP-237	9.452E-01	3.090E-01	1.367E-01	1.577E-01
U-238	1.444E+00	8.516E-01	4.374E-01	4.345E-01
ANH-511	1.383E-01	7.263E-02	2.980E-02	3.706E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.170E-01	3.367E-01	2.836E-01	1.718E-01	NOT IDENT.
NA-22	-3.361E-02	6.526E-02	5.021E-02	3.330E-02	NOT IDENT.
NA-24	1.586E+04	7.620E+04	0.000E+00	3.888E+04	SHORT HLIF

SC-46	-2.898E-02	5.416E-02	4.390E-02	2.763E-02	FAIL ABUN
V-48	-4.743E-02	8.860E-02	7.058E-02	4.521E-02	NOT IDENT.
CR-51	3.427E-01	3.522E-01	3.163E-01	1.797E-01	NOT IDENT.
MN-54	-3.232E-02	4.723E-02	3.797E-02	2.410E-02	NOT IDENT.
CO-56	4.449E-02	5.015E-02	4.672E-02	2.559E-02	NOT IDENT.
CO-57	5.804E-03	2.141E-02	1.807E-02	1.093E-02	NOT IDENT.
CO-58	1.990E-02	4.662E-02	4.205E-02	2.379E-02	NOT IDENT.
FE-59	5.270E-02	1.187E-01	1.042E-01	6.058E-02	NOT IDENT.
CO-60	2.211E-02	5.471E-02	4.914E-02	2.791E-02	NOT IDENT.
ZN-65	2.742E-02	1.542E-01	1.141E-01	7.866E-02	NOT IDENT.
SE-75	-1.506E-02	4.192E-02	3.513E-02	2.139E-02	NOT IDENT.
SR-85	2.292E-02	4.320E-02	3.474E-02	2.204E-02	NOT IDENT.
Y-88	-2.503E-03	4.670E-02	3.798E-02	2.383E-02	NOT IDENT.
Y-91	-2.032E+01	3.260E+01	2.525E+01	1.663E+01	NOT IDENT.
NB-94	-2.702E-02	4.447E-02	3.472E-02	2.269E-02	NOT IDENT.
NB-95	7.655E-02	6.900E-02	5.591E-02	3.520E-02	NOT IDENT.
NB-95M	-1.044E-02	1.229E-01	9.503E-02	6.269E-02	NOT IDENT.
ZR-95	-7.876E-04	8.870E-02	7.314E-02	4.526E-02	NOT IDENT.
MO-99	-1.126E+00	1.005E+01	8.226E+00	5.129E+00	NOT IDENT.
TC-99M	-5.442E+13	9.496E+13	0.000E+00	4.845E+13	SHORT HLIF
RU-103	-3.766E-03	4.262E-02	3.656E-02	2.174E-02	FAIL ABUN
RH-106	-1.016E-01	3.687E-01	3.022E-01	1.881E-01	NOT IDENT.
RU-106	-1.016E-01	3.686E-01	3.022E-01	1.880E-01	NOT IDENT.
AG-108M	-2.400E-02	3.024E-02	2.472E-02	1.543E-02	NOT IDENT.
AG-110M	7.134E-03	5.323E-02	3.973E-02	2.716E-02	NOT IDENT.
SN-113	-3.158E-02	5.218E-02	4.083E-02	2.662E-02	NOT IDENT.
CD-115	1.030E+00	7.222E+00	6.275E+00	3.685E+00	NOT IDENT.
SN-117M	-1.183E-02	4.529E-02	3.829E-02	2.311E-02	NOT IDENT.
TE-123M	-9.244E-03	2.460E-02	2.159E-02	1.255E-02	NOT IDENT.
SB-124	-3.361E-02	9.219E-02	6.932E-02	4.704E-02	NOT IDENT.
SB-125	1.037E-01	1.001E-01	9.378E-02	5.105E-02	FAIL ABUN
TE-125M	5.264E+00	7.526E+00	6.523E+00	3.840E+00	NOT IDENT.
I-126	2.448E-01	2.798E-01	2.274E-01	1.427E-01	NOT IDENT.
SB-126	-4.387E-02	1.868E-01	1.306E-01	9.528E-02	NOT IDENT.
SB-127	-7.198E-01	1.203E+00	9.418E-01	6.138E-01	NOT IDENT.
I-131	7.894E-02	1.016E-01	8.955E-02	5.186E-02	NOT IDENT.
TE-132	-7.587E-02	4.259E-01	3.672E-01	2.173E-01	NOT IDENT.
BA-133	-2.019E-03	4.856E-02	3.583E-02	2.478E-02	NOT IDENT.
I-133	-5.889E+02	1.369E+03	0.000E+00	6.983E+02	SHORT HLIF
CS-134	1.533E-01	7.879E-02	6.096E-02	4.020E-02	FAIL ABUN
CS-135	1.867E-01	1.713E-01	1.421E-01	8.737E-02	NOT IDENT.
I-135	-3.694E+13	4.023E+13	0.000E+00	2.052E+13	SHORT HLIF
CS-136	-3.466E-02	1.362E-01	1.115E-01	6.951E-02	FAIL ABUN
CE-139	-2.182E-02	2.588E-02	2.227E-02	1.320E-02	NOT IDENT.
BA-140	-1.215E-02	2.935E-01	2.508E-01	1.498E-01	NOT IDENT.
LA-140	-3.414E-02	1.212E-01	9.712E-02	6.185E-02	FAIL ABUN
CE-141	-7.859E-03	5.704E-02	4.249E-02	2.910E-02	NOT IDENT.
CE-143	1.376E+02	5.983E+01	0.000E+00	3.053E+01	SHORT HLIF
CE-144	1.080E-01	1.721E-01	1.461E-01	8.781E-02	NOT IDENT.
PM-144	3.365E-02	4.320E-02	3.858E-02	2.204E-02	NOT IDENT.
PR-144	2.515E+00	3.229E+00	2.884E+00	1.648E+00	NOT IDENT.
PM-146	2.087E-02	4.868E-02	4.373E-02	2.484E-02	NOT IDENT.
ND-147	5.230E-03	6.310E-01	5.420E-01	3.219E-01	FAIL ABUN
PM-149	-8.372E+00	4.847E+01	4.082E+01	2.473E+01	NOT IDENT.
EU-152	1.243E-02	1.041E-01	8.773E-02	5.309E-02	FAIL ABUN
GD-153	-1.231E-01	6.827E-02	4.684E-02	3.483E-02	NOT IDENT.
EU-154	-6.396E-02	1.805E-01	1.418E-01	9.212E-02	NOT IDENT.
EU-155	1.062E-01	8.370E-02	7.423E-02	4.270E-02	FAIL ABUN
TB-160	-3.474E-02	1.953E-01	1.648E-01	9.963E-02	FAIL ABUN
HO-166M	-3.208E-02	7.707E-02	6.117E-02	3.932E-02	FAIL ABUN
TA-182	1.249E-02	2.759E-01	2.291E-01	1.408E-01	FAIL ABUN
IR-192	2.550E-03	3.565E-02	3.021E-02	1.819E-02	FAIL ABUN
HG-203	9.581E-04	3.837E-02	3.200E-02	1.957E-02	NOT IDENT.
BI-207	4.449E-02	6.917E-02	6.224E-02	3.529E-02	FAIL ABUN
PB-211	-2.240E-01	9.917E-01	7.016E-01	5.059E-01	NOT IDENT.
BI-212	3.315E+00	1.103E+00	8.397E-01	5.626E-01	FAIL ABUN
RN-219	8.370E-02	4.836E-01	4.028E-01	2.467E-01	FAIL ABUN
RA-223	5.086E-02	7.512E-01	5.668E-01	3.833E-01	FAIL ABUN
AC-227	7.347E-02	2.537E-01	2.220E-01	1.295E-01	FAIL ABUN
TH-227	7.347E-02	2.538E-01	2.220E-01	1.295E-01	FAIL ABUN
PA-231	-1.076E+00	1.466E+00	1.182E+00	7.478E-01	FAIL ABUN
TH-231	5.086E-02	7.512E-01	5.668E-01	3.833E-01	FAIL ABUN
PA-233	1.200E-02	6.904E-02	5.897E-02	3.522E-02	FAIL ABUN
PA-234	-1.056E-01	3.503E-01	2.866E-01	1.787E-01	FAIL ABUN
PA-234M	9.510E+00	6.038E+00	5.869E+00	3.081E+00	NOT IDENT.
NP-239	-4.556E-01	3.347E-01	2.557E-01	1.707E-01	NOT IDENT.
AM-241	-3.291E-02	5.045E-02	4.338E-02	2.574E-02	NOT IDENT.
CM-247	-6.563E-03	4.592E-02	3.730E-02	2.343E-02	NOT IDENT.

CF-249	1.042E-02	4.697E-02	3.942E-02	2.396E-02	NOT IDENT.
CF-251	-1.119E-02	1.160E-01	1.029E-01	5.919E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	212.8352
49.72	229.9726
57.36	0.0000
59.54	323.7834
63.29	323.9917
63.29	323.9917
64.28	325.2868
67.75	344.5989
69.67	367.0819
70.83	379.3629
72.81	361.9544
72.87	362.0324
72.87	362.0324
74.82	330.3633
74.82	330.3633
74.82	330.3633
74.97	330.5418
77.11	333.0412
77.11	333.0412
77.11	333.0412
79.69	348.7629
79.80	307.5233
80.12	265.0605
80.19	265.1230
80.57	294.5001
81.00	328.1557
81.07	328.2328
81.07	328.2328
83.79	352.1653
83.79	352.1653
85.43	354.0443
86.48	355.2363
86.55	355.3158
86.79	355.5850
86.94	355.7593
87.57	356.4694
88.03	356.9872
88.47	357.4794
89.96	359.1431
91.11	218.8247
92.59	311.7587
92.59	311.7587
93.35	243.3553
94.67	244.3180
94.87	244.4641
94.87	244.4641
95.86	245.1793
97.43	290.0322
98.44	216.3339
99.53	226.5431
100.11	224.7156
103.18	254.4400
103.37	254.5745
105.31	213.4688
106.12	227.3822
109.28	214.6357
111.00	247.3872
111.76	204.6712
116.30	218.5757
117.23	242.1492
121.12	187.4472
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122.06	207.7165
123.07	222.2634
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133.52	192.9981
136.00	218.1854

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140.51	225.6403
140.51	0.0000
143.76	197.3906
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144.24	175.0919
145.44	200.1463
152.43	184.7606
153.25	201.3237
154.21	206.3082
154.21	206.3082
156.02	209.9935
158.56	210.2978
159.00	207.4424
162.66	185.1461
163.33	189.6376
165.86	218.7578
176.60	205.7174
177.52	195.5807
181.07	217.4714
184.41	175.8842
185.72	176.2850
193.51	184.0254
197.04	186.9136
205.31	145.5090
210.85	141.2477
215.65	149.7403
222.11	140.8783
227.38	142.9280
228.16	155.4100
228.18	155.4150
235.69	160.9368
235.96	166.7491
235.96	166.7491
238.63	153.9128
238.63	153.9128
240.99	154.4222
242.00	130.4778
244.70	94.5860
252.40	120.5801
252.80	120.6452
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256.23	134.0078
260.90	150.6981
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268.22	108.0901
269.46	125.3026
269.46	125.3026
271.23	119.0521
273.65	111.8582
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277.37	119.4644
277.60	118.4877
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279.54	125.8769
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283.69	129.5786
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285.41	125.7602
285.90	126.8583
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293.27	0.0000
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295.96	68.3351
298.57	74.7759
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299.98	92.0615
300.09	92.0741
300.09	92.0741
300.13	92.0777
301.36	95.3348
302.85	93.9331
304.50	119.2092
304.50	119.2092
304.85	106.7024
308.46	119.7473
311.90	108.6139

316.51	102.8138
319.41	97.8267
320.08	80.8737
323.87	102.5801
323.87	102.5801
328.76	104.1972
333.37	104.7123
334.37	104.8228
334.37	104.8228
338.28	105.2550
338.28	105.2550
338.32	105.2590
338.32	105.2590
338.32	105.2590
340.48	123.9871
340.55	123.9963
344.28	94.9952
351.06	94.5559
351.93	94.6399
356.01	84.5326
364.49	71.3177
366.42	99.3645
383.85	94.2278
388.16	90.0483
388.63	95.7903
391.69	100.6364
400.66	76.0990
401.81	88.8746
402.40	99.3168
404.85	98.9568
410.95	76.8040
414.70	59.5457
423.72	83.8454
427.09	67.2712
427.87	64.6581
433.94	73.8965
453.88	72.4133
463.37	72.0566
468.07	55.6641
473.00	67.0941
476.78	68.2142
477.60	65.4900
487.02	64.1095
492.35	70.9009
497.08	61.7914
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514.00	54.6069
527.90	66.0731
529.87	0.0000
531.02	72.9385
537.26	67.4771
546.56	0.0000
563.25	56.9167
569.33	63.0625
569.50	66.0247
569.70	66.0329
583.19	64.6350
600.60	70.3931
602.73	67.8998
604.72	45.1691
609.32	62.6925
609.32	62.6925
609.32	62.6925
610.33	62.7322
614.28	40.5725
618.01	49.8165
621.93	51.9759
621.93	51.9759
633.25	48.2335
635.95	58.5916
636.99	50.3997
645.85	59.9753
657.76	59.9818
661.66	77.2361
661.66	77.2361
664.57	0.0000
666.33	45.2118
666.50	48.5665

677.62	53.7237
685.70	62.4372
695.00	62.7649
696.49	44.7173
696.51	44.7186
697.00	48.9901
702.65	64.1016
706.68	58.8907
711.68	53.6835
720.70	51.7910
721.93	0.0000
722.78	36.2937
722.91	36.2968
723.31	36.3050
724.19	43.2397
727.33	42.2302
733.00	43.4448
735.93	52.2158
739.50	56.6735
747.24	59.0938
752.31	51.5698
753.82	39.5310
756.73	43.9905
763.94	37.0894
765.81	54.8040
766.42	61.8943
777.92	62.2583
778.90	61.1768
783.70	39.0247
785.37	51.3331
795.86	39.4872
801.95	47.2564
810.29	43.3828
810.76	36.1611
815.77	39.8739
818.51	25.4078
832.01	52.9731
834.85	53.9585
836.80	0.0000
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856.80	47.7412
860.56	44.7390
871.09	38.1352
873.19	43.7584
875.33	0.0000
879.36	50.4167
880.51	55.1137
883.24	37.4111
884.68	50.5380
889.28	51.5800
898.04	50.8412
911.20	37.8799
911.20	37.8799
911.20	37.8799
926.50	37.1795
937.49	31.6086
944.13	30.7375
946.00	32.6843
949.00	31.7641
962.29	35.4913
964.08	35.8401
966.15	35.8708
968.97	35.9133
968.97	35.9133
968.97	35.9133
983.53	44.9174
996.26	41.2248
1001.03	24.5862
1004.73	44.3210
1037.84	32.9307
1038.76	0.0000
1048.07	44.0838
1050.41	53.1475
1050.41	53.1475
1063.66	30.2373
1085.87	38.6234
1099.45	33.7106
1112.07	47.2106

1115.54	49.6691
1120.29	58.3324
1120.29	58.3324
1120.29	58.3324
1120.55	51.4746
1121.30	54.9219
1131.51	0.0000
1173.23	43.0100
1177.93	57.7903
1189.05	52.7393
1204.77	60.4484
1221.41	46.9262
1231.02	62.0555
1235.36	78.2184
1238.28	61.1331
1260.41	0.0000
1271.85	36.8704
1274.44	39.0709
1274.54	42.3287
1291.59	37.1045
1298.22	0.0000
1312.11	34.0531
1332.49	23.9529
1365.19	18.6108
1368.63	0.0000
1384.29	19.3998
1408.01	20.7369
1457.56	0.0000
1460.82	14.3573
1489.16	15.4382
1505.03	19.3831
1596.21	21.8541
1620.50	4.9986
1678.03	0.0000
1690.97	9.1604
1764.49	17.7651
1764.49	17.7651
1764.49	17.7651
1770.23	12.4526
1771.35	26.9881
1791.20	0.0000
1836.06	8.4316

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249334004

Total Uranium Activity	4.5241E+00	ug/g
Total Uranium Counting Unc.	2.5368E+00	ug/g
Total Uranium Tpu	1.2943E-06	ug/g
Total Uranium Mda	1.3029E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 965250                    SAMPLE ID  : G249334004        *
*   ANALYST      : MXR1                      DETECTOR   : GAM21             *
*   SAMPLE DATE  : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 10:53:29.91   SAMPLE ALQT:  123.570 GRAM     *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.205E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.676E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 4.965E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 2.407E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:16:43.42

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334005.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 11:16:13
Sample ID         : G249334005           Sample quantity  : 1.15515E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.45  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	1	74.95*	311	589	1.42	148.82	145	14	4.32E-02	16.3	1.70E+00
2	1	77.17*	446	466	1.19	153.27	145	14	6.19E-02	9.8	
3	3	84.47*	221	347	1.34	167.86	165	12	3.07E-02	15.4	1.82E+00
4	3	87.24	226	408	1.24	173.41	165	12	3.14E-02	16.3	
5	3	89.97	170	413	1.03	178.85	176	14	2.36E-02	19.7	2.63E+00
6	3	93.14*	343	588	1.66	185.21	176	14	4.77E-02	15.1	
7	0	143.92*	328	516	1.47	286.74	282	11	4.55E-02	14.7	
8	0	163.71*	131	480	0.94	326.33	322	10	1.82E-02	32.9	
9	0	185.88*	1859	490	1.41	370.66	365	12	2.58E-01	3.4	
10	3	205.44*	178	269	1.62	409.78	406	17	2.47E-02	17.6	1.74E+00
11	3	209.59	151	299	1.71	418.08	406	17	2.10E-02	23.2	
12	3	238.76*	1284	244	1.31	476.43	470	20	1.78E-01	3.6	1.80E+00
13	3	241.77*	308	280	1.89	482.44	470	20	4.28E-02	15.2	
14	0	270.15	87	313	1.57	539.20	535	13	1.21E-02	43.0	
15	0	295.27*	370	215	1.31	589.43	584	11	5.14E-02	9.4	
16	0	300.47*	92	263	1.53	599.84	595	14	1.28E-02	39.7	
17	0	328.00	113	149	1.45	654.90	650	11	1.56E-02	23.0	
18	0	338.14	210	289	1.27	675.17	669	14	2.91E-02	18.5	
19	0	352.15*	643	228	1.32	703.19	697	14	8.93E-02	6.5	
20	0	462.67	108	121	2.28	924.25	918	13	1.50E-02	23.0	
21	0	510.87*	200	132	2.19	1020.64	1011	21	2.78E-02	17.7	
22	0	583.25*	428	73	1.64	1165.40	1160	12	5.95E-02	6.5	
23	0	609.47*	446	163	1.57	1217.85	1211	16	6.20E-02	8.1	
24	0	661.54	62	81	0.96	1322.00	1315	11	8.56E-03	30.6	
25	0	727.31*	65	100	1.20	1453.56	1449	12	9.06E-03	33.8	
26	0	768.63	53	72	0.97	1536.20	1530	12	7.41E-03	35.5	
27	0	860.32*	57	65	1.38	1719.61	1713	13	7.92E-03	32.7	
28	0	910.95*	298	60	1.52	1820.88	1813	15	4.14E-02	8.3	
29	0	969.77	141	136	2.00	1938.54	1929	17	1.96E-02	21.6	
30	0	1120.49	114	45	2.49	2240.04	2235	16	1.59E-02	16.0	
31	0	1238.69	85	53	2.12	2476.51	2470	17	1.19E-02	22.6	
32	0	1460.75*	1138	33	2.41	2920.76	2912	22	1.58E-01	3.3	
33	0	1593.28	19	18	1.29	3185.90	3178	12	2.63E-03	52.8	
34	0	1729.20	31	5	1.36	3457.85	3451	17	4.32E-03	23.6	
35	0	1764.81*	78	14	2.28	3529.11	3523	15	1.08E-02	17.1	
36	0	1846.26	16	6	1.20	3692.08	3684	14	2.20E-03	43.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 13:16:46

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334005.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 11:16:13
Sample ID : G249334005 Sample quantity : 115.51 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.45 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.591E+01	4.247E+00	7.701E-01	7.567E-02	46.629
CD-109	+	88.03	*	4.556E+00	1.585E+00	1.859E+00	2.308E-01	2.450
SN-126		64.28		4.478E-01	1.110E+00	1.855E+00	3.140E-01	0.241
	+	86.94		1.857E+00	9.910E-01	1.067E+00	4.511E-01	1.741
	+	87.57	*	4.468E-01	1.554E-01	1.837E-01	2.273E-02	2.432
BA-137M	+	661.66	*	1.124E-01	6.937E-02	8.853E-02	7.278E-03	1.270
CS-137	+	661.66	*	1.188E-01	7.329E-02	9.352E-02	7.705E-03	1.270
TL-208		277.37		3.717E-01	6.478E-01	9.714E-01	1.373E-01	0.383
	+	583.19	*	7.471E-01	1.193E-01	7.848E-02	7.178E-03	9.520
	+	860.56		9.408E-01	6.222E-01	6.723E-01	6.573E-02	1.399
BI-211		72.87		1.213E+01	6.861E+00	1.042E+01	1.194E+00	1.164
	+	351.06	*	5.148E+00	8.406E-01	4.906E-01	4.886E-02	10.492
PB-212	+	74.82		3.034E+00	1.088E+00	1.051E+00	1.584E-01	2.886
	+	77.11		2.425E+00	5.525E-01	5.863E-01	6.797E-02	4.136
	+	238.63	*	2.326E+00	3.255E-01	1.347E-01	1.610E-02	17.268
	+	300.09		2.589E+00	2.082E+00	1.823E+00	2.220E-01	1.420
BI-214	+	609.32	*	1.506E+00	2.873E-01	1.576E-01	1.570E-02	9.557
	+	1120.29		2.034E+00	6.865E-01	6.419E-01	6.951E-02	3.168
	+	1764.49		1.928E+00	6.810E-01	6.107E-01	5.354E-02	3.158
PB-214	+	74.82		5.377E+00	1.904E+00	1.863E+00	2.603E-01	2.886
	+	77.11		4.275E+00	1.036E+00	1.034E+00	1.471E-01	4.136
	+	242.00		3.384E+00	1.113E+00	8.190E-01	1.020E-01	4.132
	+	295.22		1.839E+00	4.161E-01	3.328E-01	4.148E-02	5.525
	+	351.93	*	1.868E+00	3.220E-01	1.652E-01	1.878E-02	11.306
RA-224	+	240.99	*	5.983E+00	1.938E+00	1.443E+00	1.592E-01	4.145
RA-226	+	609.32	*	1.506E+00	2.873E-01	1.576E-01	1.570E-02	9.557
	+	1120.29		2.034E+00	6.865E-01	6.419E-01	6.951E-02	3.168
	+	1764.49		1.928E+00	6.810E-01	6.107E-01	5.354E-02	3.158
AC-228	+	338.32		1.872E+00	1.048E+00	5.368E-01	2.254E-01	3.487
	+	911.20	*	2.512E+00	5.158E-01	2.966E-01	3.592E-02	8.469
	+	968.97		2.056E+00	1.023E+00	6.147E-01	1.510E-01	3.345
RA-228	+	338.32		1.872E+00	1.048E+00	5.368E-01	2.254E-01	3.487
	+	911.20	*	2.512E+00	5.158E-01	2.966E-01	3.592E-02	8.469
	+	968.97		2.056E+00	1.023E+00	6.147E-01	1.510E-01	3.345

Sample ID : G249334005 Acquisition date : 24-MAR-2010 11:16:13

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	74.82		3.034E+00	1.048E+00	1.051E+00	1.216E-01	2.886
	+	77.11		2.425E+00	5.525E-01	5.863E-01	6.797E-02	4.136
	+	238.63	*	2.326E+00	3.255E-01	1.347E-01	1.610E-02	17.268
	+	300.09		2.589E+00	2.602E+00	1.823E+00	1.122E+00	1.420
TH-229	+	85.43		1.163E+00	3.837E-01	5.660E-01	6.886E-02	2.054
	+	88.47		6.888E-01	2.396E-01	2.791E-01	3.440E-02	2.468
		193.51	*	9.972E-03	8.299E-01	1.328E+00	1.445E-01	0.008
	+	210.85		3.906E+00	1.860E+00	1.873E+00	2.056E-01	2.086
TH-230	+	609.32	*	1.506E+00	2.761E-01	1.576E-01	1.332E-02	9.557
	+	1120.29		2.034E+00	6.728E-01	6.419E-01	5.460E-02	3.168
	+	1764.49		1.928E+00	6.810E-01	6.106E-01	5.354E-02	3.158
TH-232	+	338.32		1.872E+00	7.167E-01	5.368E-01	5.292E-02	3.487
	+	911.20	*	2.512E+00	5.158E-01	2.966E-01	3.592E-02	8.469
	+	968.97		2.056E+00	1.023E+00	6.147E-01	1.510E-01	3.345
U-235	+	89.96		3.423E+00	1.616E+00	1.887E+00	4.909E-01	1.814
	+	93.35		4.109E+00	1.596E+00	1.149E+00	2.796E-01	3.575
	+	143.76	*	1.766E+00	6.075E-01	5.285E-01	9.403E-02	3.341
	+	163.33		1.605E+00	1.101E+00	1.146E+00	2.175E-01	1.401
	+	185.72		2.174E+00	2.776E-01	1.055E-01	1.142E-02	20.606
	+	205.31		2.529E+00	1.015E+00	1.344E+00	2.602E-01	1.882
NP-237	+	86.48	*	1.333E+00	5.415E-01	6.581E-01	1.599E-01	2.026
		95.86		1.254E+00	1.723E+00	2.511E+00	6.287E-01	0.500
ANH-511	+	511.00	*	2.686E-01	9.789E-02	5.718E-02	4.941E-03	4.697

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-3.171E-01	4.336E-01	6.685E-01	6.214E-02	-0.474
NA-22		1274.54	*	-6.042E-02	6.631E-02	9.676E-02	8.790E-03	-0.624
NA-24		1368.63	*	5.381E-02	6.631E-02	Half-Life too short		
SC-46		889.28	*	-5.325E-02	5.446E-02	8.169E-02	7.592E-03	-0.652
	+	1120.55		3.379E-01	1.118E-01	1.668E-01	1.418E-02	2.026
V-48		944.13		-2.462E-01	1.046E+00	1.683E+00	1.556E-01	-0.146
		983.53	*	-6.302E-03	8.359E-02	1.362E-01	1.245E-02	-0.046
		1312.11		3.226E-02	9.969E-02	1.668E-01	1.572E-02	0.193
CR-51		320.08	*	-1.609E-01	4.747E-01	7.727E-01	8.201E-02	-0.208
MN-54		834.85	*	1.212E-02	5.318E-02	8.962E-02	8.133E-03	0.135
CO-56		846.77	*	1.366E-02	5.217E-02	8.829E-02	8.057E-03	0.155
		1037.84		1.921E-02	4.168E-01	6.852E-01	6.425E-02	0.028
	+	1238.28		4.181E-01	1.927E-01	2.493E-01	2.240E-02	1.677
		1771.35		-8.986E-02	3.052E-01	3.857E-01	3.370E-02	-0.233
CO-57		122.06	*	-1.741E-02	4.207E-02	6.662E-02	6.711E-03	-0.261
		136.47		-1.059E-01	3.337E-01	5.339E-01	5.672E-02	-0.198
CO-58		810.76	*	1.821E-02	5.028E-02	8.597E-02	7.729E-03	0.212
FE-59		1099.45	*	5.297E-02	1.239E-01	2.100E-01	1.959E-02	0.252
		1291.59		1.217E-01	1.767E-01	3.045E-01	3.145E-02	0.400
CO-60		1173.23		1.878E-02	6.541E-02	1.089E-01	8.866E-03	0.172
		1332.49	*	6.556E-03	5.472E-02	8.945E-02	8.599E-03	0.073

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZN-65		1115.54	*	4.615E-02	1.375E-01	2.006E-01	1.714E-02	0.230
SE-75		121.12		-3.403E-02	2.157E-01	3.450E-01	4.225E-02	-0.099
		136.00		-2.464E-02	6.355E-02	1.014E-01	1.027E-02	-0.243
		264.66	*	-5.151E-02	7.668E-02	1.064E-01	1.167E-02	-0.484
		279.54		2.164E-01	1.598E-01	2.795E-01	3.095E-02	0.774
		400.66		-2.659E-01	3.409E-01	5.304E-01	5.811E-02	-0.501
SR-85		514.00	*	1.718E-01	6.111E-02	1.036E-01	8.950E-03	1.658
Y-88		898.04		-3.619E-02	5.689E-02	8.845E-02	8.282E-03	-0.409
		1836.06	*	-1.674E-02	4.741E-02	6.671E-02	5.619E-03	-0.251
Y-91		1204.77	*	-1.016E+01	3.170E+01	4.998E+01	4.213E+00	-0.203
NB-94		702.65	*	-3.485E-02	4.520E-02	7.118E-02	6.009E-03	-0.490
		871.09		-4.613E-02	4.559E-02	6.529E-02	6.021E-03	-0.707
NB-95		765.81	*	1.282E-01	6.778E-02	1.135E-01	9.940E-03	1.130
NB-95M		235.69	*	4.949E-01	2.228E-01	3.494E-01	4.210E-02	1.416
ZR-95		724.19		9.208E-02	1.421E-01	2.177E-01	2.021E-02	0.423
		756.73	*	8.189E-02	9.442E-02	1.671E-01	1.606E-02	0.490
MO-99		140.51		-8.260E-01	2.411E+01	3.372E+01	8.205E+00	-0.024
		181.07		1.090E+01	1.874E+01	2.688E+01	5.343E+00	0.406
		366.42		1.197E+01	8.462E+01	1.407E+02	1.290E+01	0.085
		739.50	*	2.077E-01	9.703E+00	1.622E+01	2.556E+00	0.013
		777.92		-2.283E+01	3.045E+01	4.767E+01	4.204E+00	-0.479
TC-99M		140.51	*	-6.471E+06	3.045E+01	Half-Life too short		
RU-103		497.08	*	-1.785E-03	5.271E-02	8.556E-02	1.196E-02	-0.021
	+	610.33		1.497E+01	3.442E+00	3.741E+00	6.081E-01	4.000
RH-106		621.93	*	3.878E-01	4.495E-01	7.658E-01	1.004E-01	0.506
		1050.41		2.532E+00	3.570E+00	6.203E+00	5.512E-01	0.408
RU-106		621.93	*	3.878E-01	4.478E-01	7.658E-01	6.436E-02	0.506
		1050.41		2.532E+00	3.570E+00	6.203E+00	5.512E-01	0.408
AG-108M		433.94	*	4.208E-02	4.301E-02	7.438E-02	6.574E-03	0.566
		614.28		-9.274E-03	5.431E-02	7.381E-02	6.438E-03	-0.126
		722.91		-1.910E-02	5.611E-02	7.765E-02	6.854E-03	-0.246
AG-110M		657.76	*	6.065E-03	5.251E-02	7.703E-02	6.555E-03	0.079
		677.62		-1.244E-02	4.144E-01	6.931E-01	5.937E-02	-0.018
		706.68		5.257E-02	2.796E-01	4.740E-01	4.131E-02	0.111
		763.94		2.042E-01	2.403E-01	3.760E-01	3.379E-02	0.543
		884.68		-3.332E-02	6.644E-02	1.046E-01	9.974E-03	-0.318
		937.49		4.055E-02	1.568E-01	2.519E-01	2.405E-02	0.161
		1384.29		-2.194E-01	2.235E-01	3.276E-01	3.225E-02	-0.670
		1505.03		2.049E-01	3.464E-01	6.222E-01	5.946E-02	0.329
SN-113		391.69	*	9.994E-03	6.422E-02	1.066E-01	9.260E-03	0.094
CD-115		260.90		4.918E+01	1.060E+02	1.807E+02	1.980E+01	0.272
		492.35		-3.602E+00	2.749E+01	4.433E+01	3.830E+00	-0.081
		527.90	*	-6.479E-02	8.178E+00	1.326E+01	1.144E+00	-0.005
SN-117M		156.02		1.857E+00	3.281E+00	5.389E+00	5.617E-01	0.345
		158.56	*	-2.044E-02	9.358E-02	1.301E-01	1.364E-02	-0.157
TE-123M		159.00	*	2.794E-02	5.193E-02	7.497E-02	7.901E-03	0.373
SB-124		602.73		-6.297E-03	6.314E-02	8.676E-02	7.353E-03	-0.073
		645.85		3.484E-01	6.968E-01	1.161E+00	1.023E-01	0.300
		722.78		-1.872E-01	5.499E-01	7.610E-01	6.656E-02	-0.246

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1690.97	*	5.368E-02	8.065E-02	1.512E-01	1.424E-02	0.355
SB-125		427.87	*	-4.355E-02	1.353E-01	2.173E-01	1.892E-02	-0.200
	+	463.37		1.295E+00	6.072E-01	7.919E-01	7.337E-02	1.635
		600.60		-3.445E-02	2.607E-01	4.042E-01	3.689E-02	-0.085
		635.95		9.179E-02	3.911E-01	6.398E-01	5.801E-02	0.143
TE-125M		109.28	*	-1.082E+01	1.628E+01	2.588E+01	3.073E+00	-0.418
I-126		388.63		7.874E-02	2.167E-01	3.640E-01	3.097E-02	0.216
		666.33	*	2.620E-01	2.835E-01	4.499E-01	3.710E-02	0.582
		753.82		1.731E+00	2.217E+00	3.899E+00	3.393E-01	0.444
SB-126		414.70		-3.822E-02	9.764E-02	1.564E-01	1.329E-02	-0.244
		666.50		8.133E-02	9.616E-02	1.516E-01	1.251E-02	0.536
		695.00		1.232E-01	9.458E-02	1.713E-01	1.439E-02	0.719
		697.00		1.450E-01	3.327E-01	5.729E-01	4.820E-02	0.253
		720.70	*	-1.736E-02	1.906E-01	2.832E-01	2.417E-02	-0.061
		856.80		6.050E-01	5.863E-01	9.425E-01	8.639E-02	0.642
SB-127		252.40		2.038E+00	4.127E+00	6.921E+00	2.902E+00	0.295
		473.00		6.273E-01	1.536E+00	2.572E+00	3.149E-01	0.244
		685.70	*	7.529E-01	1.232E+00	2.149E+00	2.269E-01	0.350
		783.70		3.459E+00	3.374E+00	5.983E+00	7.163E-01	0.578
I-131		80.19		1.095E+00	1.046E+01	1.097E+01	1.293E+00	0.100
		284.31		-1.402E+00	1.794E+00	2.868E+00	3.185E-01	-0.489
		364.49	*	-4.092E-02	1.416E-01	2.300E-01	2.217E-02	-0.178
		636.99		3.601E-01	1.876E+00	3.059E+00	2.703E-01	0.118
TE-132		49.72		-6.859E+00	4.302E+01	7.108E+01	1.053E+01	-0.096
		111.76		-1.006E+00	3.502E+01	5.700E+01	6.706E+00	-0.018
		116.30		-8.333E+00	3.032E+01	4.885E+01	5.709E+00	-0.171
		228.16	*	5.445E-02	6.815E-01	1.150E+00	1.942E-01	0.047
BA-133		81.00		-3.692E-02	2.558E-01	2.628E-01	4.598E-02	-0.140
		276.40		4.921E-01	6.078E-01	9.197E-01	1.432E-01	0.535
		302.85		1.039E-01	2.325E-01	3.456E-01	4.974E-02	0.301
		356.01	*	3.852E-02	6.730E-02	1.006E-01	1.359E-02	0.383
		383.85		-6.811E-02	4.231E-01	6.903E-01	8.595E-02	-0.099
I-133		529.87	*	9.693E-06	4.231E-01	Half-Life too short		
		875.33		-9.126E-03	4.231E-01	Half-Life too short		
		1298.22		-4.073E-02	4.231E-01	Half-Life too short		
CS-134		563.25		4.738E-01	4.882E-01	8.434E-01	7.306E-02	0.562
		569.33		9.052E-02	2.697E-01	4.467E-01	3.880E-02	0.203
		604.72		-1.411E-02	5.706E-02	7.721E-02	6.555E-03	-0.183
		795.86	*	1.118E-01	6.479E-02	1.196E-01	1.072E-02	0.935
		801.95		-3.477E-01	5.288E-01	8.340E-01	7.487E-02	-0.417
		1365.19		-1.884E-01	1.645E+00	2.712E+00	2.709E-01	-0.069
CS-135		268.22	*	3.381E-01	2.595E-01	4.033E-01	4.840E-02	0.838
I-135		546.56		8.829E+06	2.595E-01	Half-Life too short		
		836.80		1.737E+08	2.595E-01	Half-Life too short		
		1038.76		3.503E+07	2.595E-01	Half-Life too short		
		1131.51		-3.265E+07	2.595E-01	Half-Life too short		
		1260.41	*	1.668E+07	2.595E-01	Half-Life too short		
		1457.56		4.755E+09	2.595E-01	Half-Life too short		
		1678.03		-3.614E+07	2.595E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1791.20		-1.246E+06	2.595E-01	Half-Life too short		
CS-136		153.25		7.198E-01	1.199E+00	1.972E+00	2.320E-01	0.365
		176.60		3.536E-02	7.333E-01	1.179E+00	1.353E-01	0.030
		273.65		-1.138E+00	8.500E-01	1.121E+00	1.283E-01	-1.015
		340.55		7.982E-01	2.555E-01	4.099E-01	4.138E-02	1.947
		818.51		-2.966E-02	8.830E-02	1.422E-01	1.281E-02	-0.209
		1048.07	*	5.612E-02	1.342E-01	2.278E-01	2.107E-02	0.246
		1235.36		6.130E-01	9.464E-01	1.398E+00	1.654E-01	0.439
CE-139		165.86	*	4.101E-02	5.781E-02	8.254E-02	8.811E-03	0.497
BA-140	+	162.66		2.660E+00	1.777E+00	2.222E+00	2.458E-01	1.197
		304.85		4.504E-01	1.919E+00	2.814E+00	8.406E-01	0.160
		423.72		7.146E-01	2.544E+00	4.224E+00	1.388E+00	0.169
		537.26	*	8.129E-02	3.151E-01	5.190E-01	1.760E-01	0.157
LA-140	+	328.76		1.108E+00	5.227E-01	7.056E-01	7.399E-02	1.570
		487.02		1.860E-02	1.760E-01	2.888E-01	2.648E-02	0.064
		815.77		-2.360E-01	3.791E-01	5.929E-01	5.908E-02	-0.398
		1596.21	*	-5.899E-02	1.152E-01	1.499E-01	1.405E-02	-0.394
CE-141		145.44	*	4.947E-01	1.323E-01	2.015E-01	2.083E-02	2.455
CE-143		57.36		-1.075E-03	1.323E-01	Half-Life too short		
		293.27	*	3.796E-04	1.323E-01	Half-Life too short		
		664.57		7.642E-04	1.323E-01	Half-Life too short		
		721.93		-2.233E-04	1.323E-01	Half-Life too short		
CE-144		80.12		1.080E+00	6.787E+00	7.143E+00	8.396E-01	0.151
		133.52	*	-2.099E-01	3.293E-01	5.080E-01	8.198E-02	-0.413
PM-144		476.78		-6.265E-02	8.947E-02	1.383E-01	1.297E-02	-0.453
		618.01		-2.075E-02	4.921E-02	6.838E-02	5.925E-03	-0.303
		696.49	*	6.237E-02	4.745E-02	8.589E-02	7.225E-03	0.726
PR-144		696.51	*	3.656E+00	3.604E+00	6.414E+00	5.395E-01	0.570
		1489.16		-5.063E-01	1.677E+01	2.777E+01	2.660E+00	-0.018
PM-146		453.88	*	-2.821E-02	6.092E-02	9.644E-02	1.020E-02	-0.292
		633.25		9.630E-01	2.079E+00	3.409E+00	1.300E+00	0.283
		735.93		-3.200E-01	2.334E-01	2.975E-01	8.338E-02	-1.075
		747.24		4.922E-02	1.278E-01	2.192E-01	3.204E-02	0.225
ND-147	+	91.11		9.679E-01	4.002E-01	7.877E-01	9.754E-02	1.229
		319.41		4.283E-01	4.075E+00	6.803E+00	6.968E-01	0.063
		531.02	*	3.937E-02	6.984E-01	1.137E+00	1.701E-01	0.035
PM-149		285.90	*	1.736E+01	6.709E+01	1.132E+02	1.902E+01	0.153
EU-152		121.78		-2.039E-02	1.208E-01	1.931E-01	2.160E-02	-0.106
		244.70		1.062E+00	5.305E-01	8.474E-01	9.341E-02	1.253
		344.28	*	-9.595E-02	1.773E-01	2.285E-01	2.325E-02	-0.420
		778.90		-3.455E-01	3.702E-01	5.691E-01	5.021E-02	-0.607
		964.08		4.214E-01	5.159E-01	7.857E-01	7.226E-02	0.536
		1085.87		1.027E-01	5.438E-01	9.034E-01	7.866E-02	0.114
		1112.07		-4.726E-02	4.345E-01	6.848E-01	5.859E-02	-0.069
		1408.01		1.121E-02	2.388E-01	4.007E-01	3.861E-02	0.028
GD-153		69.67		2.111E+00	3.617E+00	5.640E+00	6.438E-01	0.374
		97.43	*	9.527E-02	1.515E-01	2.232E-01	2.464E-02	0.427
		103.18		-1.692E-01	1.824E-01	2.868E-01	3.032E-02	-0.590
EU-154		123.07		1.795E-02	8.377E-02	1.371E-01	1.711E-02	0.131

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		723.31		-9.091E-02	2.615E-01	3.619E-01	3.413E-02	-0.251
		873.19		1.131E-01	3.461E-01	5.897E-01	7.280E-02	0.192
		996.26		8.978E-02	5.092E-01	8.482E-01	1.502E-01	0.106
		1004.73		-1.805E-01	2.629E-01	3.980E-01	4.766E-02	-0.453
		1274.44	*	-1.512E-01	1.849E-01	2.720E-01	3.189E-02	-0.556
EU-155	+	86.55		5.413E-01	1.884E-01	3.185E-01	3.928E-02	1.699
		105.31	*	1.012E-02	1.761E-01	2.880E-01	3.033E-02	0.035
TB-160	+	86.79		1.408E+00	4.899E-01	8.033E-01	9.877E-02	1.753
		197.04		-3.027E-01	8.621E-01	1.357E+00	1.480E-01	-0.223
		215.65		-5.651E-02	1.083E+00	1.721E+00	1.893E-01	-0.033
		298.57		3.981E-01	2.733E-01	3.098E-01	3.278E-02	1.285
		879.36	*	4.109E-03	1.851E-01	3.066E-01	2.838E-02	0.013
		962.29		4.538E-01	9.093E-01	1.350E+00	1.242E-01	0.336
		966.15		1.244E+00	4.329E-01	7.280E-01	6.691E-02	1.709
		1177.93		1.506E-01	5.337E-01	8.873E-01	7.260E-02	0.170
		1271.85		-8.438E-03	9.743E-01	1.573E+00	1.424E-01	-0.005
HO-166M		80.57		1.910E-01	7.213E-01	7.650E-01	9.014E-02	0.250
	+	184.41		1.727E+00	2.205E-01	1.973E-01	2.133E-02	8.754
		280.46		-7.225E-02	1.233E-01	1.998E-01	2.158E-02	-0.362
		410.95		1.108E-01	3.591E-01	5.999E-01	5.092E-02	0.185
		711.68	*	-3.373E-02	8.043E-02	1.301E-01	1.104E-02	-0.259
		752.31		-1.911E-01	3.805E-01	6.094E-01	5.299E-02	-0.314
		810.29		2.751E-02	7.786E-02	1.330E-01	1.193E-02	0.207
TA-182		67.75		-3.043E-01	2.363E-01	3.661E-01	4.177E-02	-0.831
		100.11		6.499E-02	2.795E-01	4.605E-01	4.970E-02	0.141
		152.43		7.266E-02	5.410E-01	8.771E-01	9.071E-02	0.083
		222.11		5.380E-02	5.085E-01	8.594E-01	9.471E-02	0.063
	+	1121.30		9.407E-01	3.112E-01	4.648E-01	3.951E-02	2.024
		1189.05		-1.278E-01	4.150E-01	6.534E-01	5.413E-02	-0.196
		1221.41	*	2.403E-01	2.866E-01	4.954E-01	4.252E-02	0.485
		1231.02		7.671E-01	8.017E-01	1.232E+00	1.068E-01	0.623
IR-192	+	295.96		1.333E+00	2.891E-01	3.981E-01	4.247E-02	3.348
		308.46		-2.692E-02	1.494E-01	2.232E-01	2.336E-02	-0.121
		316.51	*	1.038E-02	4.824E-02	8.100E-02	8.351E-03	0.128
		468.07		-1.912E-02	1.074E-01	1.489E-01	1.377E-02	-0.128
HG-203		70.83		3.992E-01	2.823E+00	4.109E+00	7.283E-01	0.097
		72.87		2.926E+00	1.697E+00	2.513E+00	4.340E-01	1.164
		279.20	*	9.675E-02	5.593E-02	9.865E-02	1.084E-02	0.981
BI-207		72.81		6.379E-01	3.926E-01	5.952E-01	6.816E-02	1.072
	+	74.97		8.742E-01	3.017E-01	4.127E-01	4.750E-02	2.118
		569.70		1.067E-02	4.310E-02	7.091E-02	6.073E-03	0.151
		1063.66	*	-8.252E-02	7.139E-02	1.021E-01	9.005E-03	-0.808
		1770.23		-2.484E-02	6.837E-01	9.486E-01	8.292E-02	-0.026
PB-210		46.54	*	3.042E+00	1.570E+01	2.601E+01	3.202E+00	0.117
PB-211		404.85	*	-1.936E-01	1.046E+00	1.693E+00	8.189E-01	-0.114
		427.09		1.301E+00	2.288E+00	3.747E+00	1.733E+00	0.347
		832.01		-8.731E-02	1.412E+00	2.329E+00	1.209E+00	-0.037
BI-212	+	727.33	*	1.736E+00	1.193E+00	1.609E+00	1.999E-01	1.079
		785.37		4.103E+00	4.480E+00	7.913E+00	7.007E-01	0.518

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1620.50		2.063E+00	3.170E+00	5.729E+00	5.332E-01	0.360
RN-219	+	271.23		6.939E-01	6.033E-01	6.586E-01	8.048E-02	1.054
		401.81	*	-5.172E-02	5.553E-01	9.074E-01	1.341E-01	-0.057
RA-223		81.07		-1.038E-01	5.787E-01	5.930E-01	7.007E-02	-0.175
	+	83.79		6.920E-01	2.284E-01	3.904E-01	4.693E-02	1.773
		94.87		3.725E+00	9.623E-01	1.454E+00	1.646E-01	2.562
	+	144.24		5.918E+00	1.861E+00	2.297E+00	2.537E-01	2.577
		154.21		2.935E-01	6.155E-01	1.009E+00	1.117E-01	0.291
	+	269.46		5.392E-01	4.679E-01	4.986E-01	5.501E-02	1.081
		323.87	*	-1.572E-02	9.858E-01	1.418E+00	2.573E-01	-0.011
	+	338.28		7.428E+00	2.913E+00	3.375E+00	4.382E-01	2.201
AC-227		79.69		1.879E+00	3.036E+00	3.792E+00	7.197E-01	0.496
		235.96		1.111E+00	3.130E-01	4.836E-01	6.009E-02	2.297
		256.23	*	7.771E-02	3.665E-01	6.192E-01	8.568E-02	0.126
	+	299.98		2.848E+00	2.299E+00	2.429E+00	3.424E-01	1.172
		304.50		4.641E-01	2.588E+00	3.786E+00	6.655E-01	0.123
		334.37		-1.846E-01	3.515E+00	3.949E+00	6.460E-01	-0.047
TH-227		79.80		1.845E+00	4.549E+00	4.855E+00	1.126E+00	0.380
		235.96		1.111E+00	3.107E-01	4.836E-01	5.776E-02	2.297
		256.23	*	7.771E-02	3.665E-01	6.192E-01	9.419E-02	0.126
	+	299.98		2.848E+00	2.299E+00	2.429E+00	3.424E-01	1.172
		304.50		4.641E-01	2.588E+00	3.786E+00	6.655E-01	0.123
		334.37		-1.846E-01	3.515E+00	3.949E+00	6.460E-01	-0.047
PA-231		283.69	*	-1.530E+00	2.089E+00	3.338E+00	5.323E-01	-0.458
	+	301.36		1.829E+00	1.475E+00	1.536E+00	2.086E-01	1.191
TH-231		81.07		-1.038E-01	5.787E-01	5.930E-01	7.007E-02	-0.175
	+	83.79		6.920E-01	2.284E-01	3.904E-01	4.693E-02	1.773
		94.87		3.725E+00	9.623E-01	1.454E+00	1.646E-01	2.562
	+	144.24		5.918E+00	1.861E+00	2.297E+00	2.537E-01	2.577
		154.21		2.935E-01	6.155E-01	1.009E+00	1.117E-01	0.291
	+	269.46		5.392E-01	4.679E-01	4.986E-01	5.501E-02	1.081
		323.87	*	-1.572E-02	9.858E-01	1.418E+00	2.573E-01	-0.011
	+	338.28		7.428E+00	2.913E+00	3.375E+00	4.382E-01	2.201
PA-233	+	300.13		1.289E+00	1.045E+00	1.097E+00	1.759E-01	1.174
		311.90	*	-1.967E-02	9.102E-02	1.495E-01	1.582E-02	-0.132
		340.48		4.023E+00	1.528E+00	1.985E+00	4.866E-01	2.027
PA-234		94.67		1.619E+00	3.922E-01	5.432E-01	7.838E-02	2.981
		98.44		5.106E-02	1.609E-01	2.428E-01	1.365E-01	0.210
		111.00		1.077E-01	3.082E-01	5.076E-01	6.738E-02	0.212
		131.20		1.003E-01	1.685E-01	2.784E-01	2.795E-02	0.360
		569.50		9.065E-02	3.762E-01	6.188E-01	5.301E-02	0.146
		733.00		6.737E-01	5.838E-01	9.175E-01	2.036E-01	0.734
		880.51		2.189E-01	3.703E-01	6.433E-01	5.956E-02	0.340
		883.24		-1.250E-01	3.993E-01	6.264E-01	4.216E-01	-0.200
		926.50		3.251E-02	2.351E-01	3.921E-01	1.000E-01	0.083
		946.00	*	-1.248E-01	3.956E-01	6.302E-01	1.201E-01	-0.198
		949.00		5.932E-02	6.205E-01	1.030E+00	9.508E-02	0.058
PA-234M		766.42		3.035E+01	2.441E+01	3.121E+01	1.584E+01	0.972
		1001.03	*	3.969E-01	6.284E+00	1.031E+01	1.070E+00	0.038

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	1.563E+00	3.046E+00	5.093E+00	1.010E+00	0.307
	+	92.59		5.440E+00	2.080E+00	2.263E+00	5.299E-01	2.404
U-238		63.29	*	1.563E+00	3.046E+00	5.093E+00	1.010E+00	0.307
	+	92.59		5.440E+00	1.762E+00	2.263E+00	2.630E-01	2.404
NP-239		99.53		-2.770E-02	2.617E-01	4.262E-01	4.621E-02	-0.065
		103.37		-3.628E-03	1.626E-01	2.653E-01	2.802E-02	-0.014
		106.12		4.697E-02	1.400E-01	2.309E-01	2.403E-02	0.203
		117.23	*	-9.274E-02	6.596E-01	1.068E+00	1.078E-01	-0.087
		228.18		2.623E-02	3.214E-01	5.423E-01	5.982E-02	0.048
		277.60		3.092E-01	2.888E-01	4.452E-01	4.820E-02	0.695
AM-241		59.54	*	-3.871E-01	3.797E-01	6.019E-01	7.066E-02	-0.643
CM-247		278.00		1.569E+00	1.183E+00	1.915E+00	2.073E-01	0.819
		287.50		9.361E-01	1.857E+00	3.088E+00	3.311E-01	0.303
		402.40	*	-6.619E-03	5.104E-02	8.321E-02	7.037E-03	-0.080
CF-249		252.80		5.210E-02	1.334E+00	2.239E+00	2.462E-01	0.023
		333.37		2.054E-01	3.986E-01	4.145E-01	4.131E-02	0.496
		388.16	*	-6.178E-04	5.820E-02	9.576E-02	8.163E-03	-0.006
CF-251		177.52	*	-4.809E-02	2.133E-01	3.392E-01	3.650E-02	-0.142
		227.38		1.443E-01	5.280E-01	8.971E-01	9.895E-02	0.161
		285.41		-1.855E+00	3.160E+00	5.110E+00	5.492E-01	-0.363

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334005       *
* Acquisition date : 24-MAR-2010 11:16:13 Detector SN#    :                 *
* Detector ID       : GAM15               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.45     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 11-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G249334005          Analyst initials: MXR1            *
* Batch Number      : 965250              Sample Quantity : 1.1551E+02 GRAM *
* Recovery          :    1.00000          Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.591E+01	4.162E+00	7.671E-01	0.000E+00
CD-109	4.556E+00	1.553E+00	1.903E+00	0.000E+00
SN-126	4.468E-01	1.523E-01	1.881E-01	0.000E+00
BA-137M	1.124E-01	6.799E-02	8.889E-02	0.000E+00
CS-137	1.188E-01	7.182E-02	9.390E-02	0.000E+00
TL-208	7.471E-01	1.169E-01	7.889E-02	0.000E+00
BI-211	5.148E+00	8.237E-01	4.957E-01	0.000E+00
PB-212	2.326E+00	3.190E-01	1.366E-01	0.000E+00
BI-214	1.506E+00	2.815E-01	1.583E-01	0.000E+00
PB-214	1.868E+00	3.156E-01	1.669E-01	0.000E+00
RA-224	5.983E+00	1.899E+00	1.464E+00	0.000E+00
RA-226	1.506E+00	2.815E-01	1.583E-01	0.000E+00
AC-228	2.512E+00	5.055E-01	2.968E-01	0.000E+00
RA-228	2.512E+00	5.055E-01	2.968E-01	0.000E+00
TH-228	2.326E+00	3.190E-01	1.366E-01	0.000E+00
TH-229	9.972E-03	8.133E-01	1.350E+00	0.000E+00
TH-230	1.506E+00	2.706E-01	1.583E-01	0.000E+00
TH-232	2.512E+00	5.055E-01	2.968E-01	0.000E+00
U-235	1.766E+00	5.954E-01	5.385E-01	0.000E+00
NP-237	1.333E+00	5.307E-01	6.739E-01	0.000E+00
ANH-511	2.686E-01	9.594E-02	5.755E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-3.171E-01	4.249E-01	6.733E-01	0.000E+00	NOT IDENT.
NA-22	-6.042E-02	6.499E-02	9.652E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	9.077E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-5.325E-02	5.337E-02	8.178E-02	0.000E+00	FAIL ABUN
V-48	-6.302E-03	8.192E-02	1.362E-01	0.000E+00	NOT IDENT.
CR-51	-1.609E-01	4.652E-01	7.814E-01	0.000E+00	NOT IDENT.

MN-54	1.212E-02	5.211E-02	8.978E-02	0.000E+00	NOT IDENT.
CO-56	1.366E-02	5.113E-02	8.843E-02	0.000E+00	FAIL ABUN
CO-57	-1.741E-02	4.123E-02	6.799E-02	0.000E+00	NOT IDENT.
CO-58	1.821E-02	4.927E-02	8.614E-02	0.000E+00	NOT IDENT.
FE-59	5.297E-02	1.215E-01	2.097E-01	0.000E+00	NOT IDENT.
CO-60	6.556E-03	5.362E-02	8.919E-02	0.000E+00	NOT IDENT.
ZN-65	4.615E-02	1.347E-01	2.004E-01	0.000E+00	NOT IDENT.
SE-75	-5.151E-02	7.514E-02	1.078E-01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.989E-02	1.043E-01	0.000E+00	NOT IDENT.
Y-88	-1.674E-02	4.647E-02	6.631E-02	0.000E+00	NOT IDENT.
Y-91	-1.016E+01	3.107E+01	4.988E+01	0.000E+00	NOT IDENT.
NB-94	-3.485E-02	4.429E-02	7.142E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	6.643E-02	1.137E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.183E-01	3.544E-01	0.000E+00	NOT IDENT.
ZR-95	8.189E-02	9.254E-02	1.676E-01	0.000E+00	NOT IDENT.
MO-99	2.077E-01	9.509E+00	1.626E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.851E+14	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.785E-03	5.165E-02	8.615E-02	0.000E+00	FAIL ABUN
RH-106	3.878E-01	4.405E-01	7.693E-01	0.000E+00	NOT IDENT.
RU-106	3.878E-01	4.388E-01	7.693E-01	0.000E+00	NOT IDENT.
AG-108M	4.208E-02	4.215E-02	7.499E-02	0.000E+00	NOT IDENT.
AG-110M	6.065E-03	5.146E-02	7.734E-02	0.000E+00	NOT IDENT.
SN-113	9.994E-03	6.294E-02	1.076E-01	0.000E+00	NOT IDENT.
CD-115	-6.479E-02	8.015E+00	1.334E+01	0.000E+00	NOT IDENT.
SN-117M	-2.044E-02	9.171E-02	1.325E-01	0.000E+00	NOT IDENT.
TE-123M	2.794E-02	5.089E-02	7.632E-02	0.000E+00	NOT IDENT.
SB-124	5.368E-02	7.904E-02	1.504E-01	0.000E+00	NOT IDENT.
SB-125	-4.355E-02	1.326E-01	2.192E-01	0.000E+00	FAIL ABUN
TE-125M	-1.082E+01	1.596E+01	2.644E+01	0.000E+00	NOT IDENT.
I-126	2.620E-01	2.778E-01	4.517E-01	0.000E+00	NOT IDENT.
SB-126	-1.736E-02	1.868E-01	2.841E-01	0.000E+00	NOT IDENT.
SB-127	7.529E-01	1.208E+00	2.156E+00	0.000E+00	NOT IDENT.
I-131	-4.092E-02	1.388E-01	2.322E-01	0.000E+00	NOT IDENT.
TE-132	5.445E-02	6.679E-01	1.166E+00	0.000E+00	NOT IDENT.
BA-133	3.852E-02	6.595E-02	1.016E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.498E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.118E-01	6.350E-02	1.199E-01	0.000E+00	NOT IDENT.
CS-135	3.381E-01	2.543E-01	4.085E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.095E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.612E-02	1.315E-01	2.277E-01	0.000E+00	NOT IDENT.
CE-139	4.101E-02	5.666E-02	8.399E-02	0.000E+00	NOT IDENT.
BA-140	8.129E-02	3.088E-01	5.222E-01	0.000E+00	FAIL ABUN
LA-140	-5.899E-02	1.129E-01	1.492E-01	0.000E+00	FAIL ABUN
CE-141	0.000E+00	1.296E-01	2.053E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.194E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.099E-01	3.227E-01	5.180E-01	0.000E+00	NOT IDENT.
PM-144	6.237E-02	4.650E-02	8.619E-02	0.000E+00	NOT IDENT.
PR-144	3.656E+00	3.532E+00	6.437E+00	0.000E+00	NOT IDENT.
PM-146	-2.821E-02	5.970E-02	9.719E-02	0.000E+00	NOT IDENT.
ND-147	3.937E-02	6.845E-01	1.144E+00	0.000E+00	FAIL ABUN
PM-149	1.736E+01	6.575E+01	1.146E+02	0.000E+00	NOT IDENT.
EU-152	-9.595E-02	1.737E-01	2.308E-01	0.000E+00	NOT IDENT.
GD-153	9.527E-02	1.485E-01	2.283E-01	0.000E+00	NOT IDENT.
EU-154	-1.512E-01	1.812E-01	2.713E-01	0.000E+00	NOT IDENT.
EU-155	1.012E-02	1.726E-01	2.943E-01	0.000E+00	FAIL ABUN
TB-160	4.109E-03	1.814E-01	3.070E-01	0.000E+00	FAIL ABUN
HO-166M	-3.373E-02	7.882E-02	1.305E-01	0.000E+00	FAIL ABUN
TA-182	2.403E-01	2.809E-01	4.943E-01	0.000E+00	FAIL ABUN
IR-192	1.038E-02	4.728E-02	8.191E-02	0.000E+00	FAIL ABUN
HG-203	9.675E-02	5.482E-02	9.988E-02	0.000E+00	NOT IDENT.
BI-207	-8.252E-02	6.996E-02	1.020E-01	0.000E+00	FAIL ABUN
PB-210	3.042E+00	1.539E+01	2.678E+01	0.000E+00	NOT IDENT.
PB-211	-1.936E-01	1.025E+00	1.708E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.169E+00	1.614E+00	0.000E+00	FAIL ABUN
RN-219	-5.172E-02	5.442E-01	9.155E-01	0.000E+00	FAIL ABUN
RA-223	-1.572E-02	9.660E-01	1.434E+00	0.000E+00	FAIL ABUN
AC-227	7.771E-02	3.591E-01	6.274E-01	0.000E+00	FAIL ABUN
TH-227	7.771E-02	3.592E-01	6.274E-01	0.000E+00	FAIL ABUN
PA-231	-1.530E+00	2.048E+00	3.379E+00	0.000E+00	FAIL ABUN
TH-231	-1.572E-02	9.660E-01	1.434E+00	0.000E+00	FAIL ABUN
PA-233	-1.967E-02	8.920E-02	1.512E-01	0.000E+00	FAIL ABUN
PA-234	-1.248E-01	3.877E-01	6.305E-01	0.000E+00	NOT IDENT.
PA-234M	3.969E-01	6.159E+00	1.031E+01	0.000E+00	NOT IDENT.
TH-234	1.563E+00	2.986E+00	5.230E+00	0.000E+00	FAIL ABUN
U-238	1.563E+00	2.986E+00	5.230E+00	0.000E+00	FAIL ABUN
NP-239	-9.274E-02	6.464E-01	1.090E+00	0.000E+00	NOT IDENT.
AM-241	-3.871E-01	3.721E-01	6.185E-01	0.000E+00	NOT IDENT.
CM-247	-6.619E-03	5.002E-02	8.395E-02	0.000E+00	NOT IDENT.

CF-249	-6.178E-04	5.704E-02	9.665E-02	0.000E+00	NOT IDENT.
CF-251	-4.809E-02	2.090E-01	3.449E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:16:44.29

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334005.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 11:16:13
Sample ID         : G249334005           Sample quantity  : 1.15515E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.45  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1138	10.66*	9.661E-01	3.591E+01	3.591E+01	11.83
CD-109	88.03	226	3.70*	4.440E+00	4.468E+00	4.556E+00	34.79
SN-126	64.28	------	9.60	1.941E+00	------ Line Not Found		------
	86.94	226	8.90	4.440E+00	1.857E+00	1.857E+00	53.35
	87.57	226	37.00*	4.440E+00	4.468E-01	4.468E-01	34.79
BA-137M	661.66	62	89.90*	1.982E+00	1.123E-01	1.124E-01	61.70
CS-137	661.66	62	85.10*	1.982E+00	1.187E-01	1.188E-01	61.70
TL-208	277.37	------	6.60	3.705E+00	------ Line Not Found		------
	583.19	428	85.00*	2.190E+00	7.471E-01	7.471E-01	15.97
	860.56	57	12.50	1.576E+00	9.408E-01	9.408E-01	66.13
BI-211	72.87	------	1.23	3.001E+00	------ Line Not Found		------
	351.06	643	12.92*	3.140E+00	5.148E+00	5.148E+00	16.33
PB-212	74.82	311	10.28	3.243E+00	3.034E+00	3.034E+00	35.86
	77.11	446	17.10	3.491E+00	2.425E+00	2.425E+00	22.78
	238.63	1284	43.60*	4.114E+00	2.326E+00	2.326E+00	13.99
	300.09	92	3.30	3.504E+00	2.589E+00	2.589E+00	80.41
BI-214	609.32	446	45.49*	2.117E+00	1.506E+00	1.506E+00	19.08
	1120.29	114	14.92	1.226E+00	2.034E+00	2.034E+00	33.76
	1764.49	78	15.30	8.553E-01	1.928E+00	1.928E+00	35.32
PB-214	74.82	311	5.80	3.243E+00	5.377E+00	5.377E+00	35.41
	77.11	446	9.70	3.491E+00	4.275E+00	4.275E+00	24.23
	242.00	308	7.25	4.078E+00	3.384E+00	3.384E+00	32.90
	295.22	370	18.42	3.547E+00	1.839E+00	1.839E+00	22.63
	351.93	643	35.60*	3.140E+00	1.868E+00	1.868E+00	17.23
RA-224	240.99	308	4.10*	4.078E+00	5.983E+00	5.983E+00	32.38
RA-226	609.32	446	45.49*	2.117E+00	1.506E+00	1.506E+00	19.08
	1120.29	114	14.92	1.226E+00	2.034E+00	2.034E+00	33.76
	1764.49	78	15.30	8.553E-01	1.928E+00	1.928E+00	35.32
AC-228	338.32	210	11.27	3.229E+00	1.872E+00	1.872E+00	55.96
	911.20	298	25.80*	1.494E+00	2.512E+00	2.512E+00	20.54
	968.97	141	15.80	1.409E+00	2.056E+00	2.056E+00	49.74
RA-228	338.32	210	11.27	3.229E+00	1.872E+00	1.872E+00	55.96

Sample ID : G249334005 Acquisition date : 24-MAR-2010 11:16:13

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	298	25.80*	1.494E+00	2.512E+00	2.512E+00	20.54
	968.97	141	15.80	1.409E+00	2.056E+00	2.056E+00	49.74
TH-228	74.82	311	10.28	3.243E+00	3.034E+00	3.034E+00	34.53
	77.11	446	17.10	3.491E+00	2.425E+00	2.425E+00	22.78
	238.63	1284	43.60*	4.114E+00	2.326E+00	2.326E+00	13.99
	300.09	92	3.30	3.504E+00	2.589E+00	2.589E+00	100.51
TH-229	85.43	221	14.70	4.209E+00	1.163E+00	1.163E+00	33.00
	88.47	226	24.00	4.440E+00	6.888E-01	6.888E-01	34.79
	193.51	------	4.41*	4.739E+00	------ Line Not Found		------
	210.85	151	2.80	4.498E+00	3.906E+00	3.906E+00	47.62
TH-230	609.32	446	45.49*	2.117E+00	1.506E+00	1.506E+00	18.33
	1120.29	114	14.92	1.226E+00	2.034E+00	2.034E+00	33.08
	1764.49	78	15.30	8.553E-01	1.928E+00	1.928E+00	35.32
TH-232	338.32	210	11.27	3.229E+00	1.872E+00	1.872E+00	38.29
	911.20	298	25.80*	1.494E+00	2.512E+00	2.512E+00	20.54
	968.97	141	15.80	1.409E+00	2.056E+00	2.056E+00	49.74
U-235	89.96	170	3.47	4.642E+00	3.423E+00	3.423E+00	47.20
	93.35	343	5.60	4.850E+00	4.109E+00	4.109E+00	38.83
	143.76	328	10.96*	5.505E+00	1.766E+00	1.766E+00	34.41
	163.33	131	5.08	5.218E+00	1.605E+00	1.605E+00	68.58
	185.72	1859	57.20	4.859E+00	2.174E+00	2.174E+00	12.77
	205.31	178	5.01	4.558E+00	2.529E+00	2.529E+00	40.13
NP-237	86.48	226	12.40*	4.440E+00	1.333E+00	1.333E+00	40.62
	95.86	------	2.68	5.004E+00	------ Line Not Found		------
ANH-511	511.00	200	100.00*	2.419E+00	2.686E-01	2.686E-01	36.45

Flag: "*" = Keyline

Sample ID : G249334005 Acquisition date : 24-MAR-2010 11:16:13

Total number of lines in spectrum	36	
Number of unidentified lines	4	
Number of lines tentatively identified by NID	32	88.89%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.591E+01	3.591E+01	0.425E+01	11.83	
CD-109	461.40D	1.02	4.468E+00	4.556E+00	1.585E+00	34.79	
SN-126	2.30E+05Y	1.00	4.468E-01	4.468E-01	1.554E-01	34.79	
BA-137M	30.08Y	1.00	1.123E-01	1.124E-01	0.694E-01	61.70	
CS-137	30.08Y	1.00	1.187E-01	1.188E-01	0.733E-01	61.70	
TL-208	1.41E+10Y	1.00	7.471E-01	7.471E-01	1.193E-01	15.97	
BI-211	7.04E+08Y	1.00	5.148E+00	5.148E+00	0.841E+00	16.33	
PB-212	1.41E+10Y	1.00	2.326E+00	2.326E+00	0.326E+00	13.99	
BI-214	1600.00Y	1.00	1.506E+00	1.506E+00	0.287E+00	19.08	
PB-214	1600.00Y	1.00	1.868E+00	1.868E+00	0.322E+00	17.23	
RA-224	1.41E+10Y	1.00	5.983E+00	5.983E+00	1.938E+00	32.38	
RA-226	1600.00Y	1.00	1.506E+00	1.506E+00	0.287E+00	19.08	
AC-228	1.41E+10Y	1.00	2.512E+00	2.512E+00	0.516E+00	20.54	
RA-228	1.41E+10Y	1.00	2.512E+00	2.512E+00	0.516E+00	20.54	
TH-228	1.41E+10Y	1.00	2.326E+00	2.326E+00	0.326E+00	13.99	
TH-229	7340.00Y	1.00	6.888E-01	6.888E-01	2.396E-01	34.79	K
TH-230	7.54E+04Y	1.00	1.506E+00	1.506E+00	0.276E+00	18.33	
TH-232	1.41E+10Y	1.00	2.512E+00	2.512E+00	0.516E+00	20.54	
U-235	7.04E+08Y	1.00	1.766E+00	1.766E+00	0.608E+00	34.41	
NP-237	2.14E+06Y	1.00	1.333E+00	1.333E+00	0.542E+00	40.62	
ANH-511	1.00E+09Y	1.00	2.686E-01	2.686E-01	0.979E-01	36.45	
			---	---			
	Total Activity :		7.556E+01	7.565E+01			
	Grand Total Activity :		7.556E+01	7.565E+01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249334005 Acquisition date : 24-MAR-2010 11:16:13

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	270.15	87	313	1.57	539.20	535	13	1.21E-02	86.1	3.77E+00	T
0	328.00	113	149	1.45	654.90	650	11	1.56E-02	46.0	3.30E+00	T
0	462.67	108	121	2.28	924.25	918	13	1.50E-02	46.0	2.60E+00	T
0	727.31	65	100	1.20	1453.56	1449	12	9.06E-03	67.6	1.83E+00	T
0	768.63	53	72	0.97	1536.20	1530	12	7.41E-03	71.0	1.74E+00	
0	1238.69	85	53	2.12	2476.51	2470	17	1.19E-02	45.2	1.12E+00	T
0	1593.28	19	18	1.29	3185.90	3178	12	2.63E-03	****	9.06E-01	
0	1729.20	31	5	1.36	3457.85	3451	17	4.32E-03	47.3	8.64E-01	
0	1846.26	16	6	1.20	3692.08	3684	14	2.20E-03	86.0	8.40E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:16:49.74

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*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334005.CNF;1   *
* Acquisition date  : 24-MAR-2010 11:16:13  Detector SN#     :                *
* Detector ID       : GAM15                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.45          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 11-MAR-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID         : G249334005            Analyst initials: MXR1            *
* Batch Number      : 965250                Sample Quantity : 1.15515E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                  *
* MSD ID           :                      MSD Isotope     :                  *
* LCS ID           : 1032-A               LCS Isotope     :                  *
*******************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.591E+01	4.247E+00	7.701E-01	7.567E-02	46.629
CD-109	4.556E+00	1.585E+00	1.859E+00	2.308E-01	2.450
SN-126	4.468E-01	1.554E-01	1.837E-01	2.273E-02	2.432
BA-137M	1.124E-01	6.937E-02	8.853E-02	7.278E-03	1.270
CS-137	1.188E-01	7.329E-02	9.352E-02	7.705E-03	1.270
TL-208	7.471E-01	1.193E-01	7.848E-02	7.178E-03	9.520
BI-211	5.148E+00	8.406E-01	4.906E-01	4.886E-02	10.492
PB-212	2.326E+00	3.255E-01	1.347E-01	1.610E-02	17.268
BI-214	1.506E+00	2.873E-01	1.576E-01	1.570E-02	9.557
PB-214	1.868E+00	3.220E-01	1.652E-01	1.878E-02	11.306
RA-224	5.983E+00	1.938E+00	1.443E+00	1.592E-01	4.145
RA-226	1.506E+00	2.873E-01	1.576E-01	1.570E-02	9.557
AC-228	2.512E+00	5.158E-01	2.966E-01	3.592E-02	8.469
RA-228	2.512E+00	5.158E-01	2.966E-01	3.592E-02	8.469
TH-228	2.326E+00	3.255E-01	1.347E-01	1.610E-02	17.268
TH-229	6.888E-01	2.396E-01	1.328E+00	1.445E-01	0.518
TH-230	1.506E+00	2.761E-01	1.576E-01	1.332E-02	9.557
TH-232	2.512E+00	5.158E-01	2.966E-01	3.592E-02	8.469

Sample ID : G249334005 Acquisition date : 24-MAR-2010 11:16:13

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	1.766E+00	6.075E-01	5.285E-01	9.403E-02	3.341
NP-237	1.333E+00	5.415E-01	6.581E-01	1.599E-01	2.026
ANH-511	2.686E-01	9.789E-02	5.718E-02	4.941E-03	4.697

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.171E-01		4.336E-01	6.685E-01	6.214E-02	-0.474
NA-22	-6.042E-02		6.631E-02	9.676E-02	8.790E-03	-0.624
NA-24	5.381E-02		4.631E-02	Half-Life too short		
SC-46	-5.325E-02		5.446E-02	8.169E-02	7.592E-03	-0.652
V-48	-6.302E-03		8.359E-02	1.362E-01	1.245E-02	-0.046
CR-51	-1.609E-01		4.747E-01	7.727E-01	8.201E-02	-0.208
MN-54	1.212E-02		5.318E-02	8.962E-02	8.133E-03	0.135
CO-56	1.366E-02		5.217E-02	8.829E-02	8.057E-03	0.155
CO-57	-1.741E-02		4.207E-02	6.662E-02	6.711E-03	-0.261
CO-58	1.821E-02		5.028E-02	8.597E-02	7.729E-03	0.212
FE-59	5.297E-02		1.239E-01	2.100E-01	1.959E-02	0.252
CO-60	6.556E-03		5.472E-02	8.945E-02	8.599E-03	0.073
ZN-65	4.615E-02		1.375E-01	2.006E-01	1.714E-02	0.230
SE-75	-5.151E-02		7.668E-02	1.064E-01	1.167E-02	-0.484
SR-85	1.718E-01		6.111E-02	1.036E-01	8.950E-03	1.658
Y-88	-1.674E-02		4.741E-02	6.671E-02	5.619E-03	-0.251
Y-91	-1.016E+01		3.170E+01	4.998E+01	4.213E+00	-0.203
NB-94	-3.485E-02		4.520E-02	7.118E-02	6.009E-03	-0.490
NB-95	1.282E-01		6.778E-02	1.135E-01	9.940E-03	1.130
NB-95M	4.949E-01		2.228E-01	3.494E-01	4.210E-02	1.416
ZR-95	8.189E-02		9.442E-02	1.671E-01	1.606E-02	0.490
MO-99	2.077E-01		9.703E+00	1.622E+01	2.556E+00	0.013
TC-99M	-6.471E+06		9.443E+07	Half-Life too short		
RU-103	-1.785E-03		5.271E-02	8.556E-02	1.196E-02	-0.021
RH-106	3.878E-01		4.495E-01	7.658E-01	1.004E-01	0.506
RU-106	3.878E-01		4.478E-01	7.658E-01	6.436E-02	0.506
AG-108M	4.208E-02		4.301E-02	7.438E-02	6.574E-03	0.566
AG-110M	6.065E-03		5.251E-02	7.703E-02	6.555E-03	0.079
SN-113	9.994E-03		6.422E-02	1.066E-01	9.260E-03	0.094
CD-115	-6.479E-02		8.178E+00	1.326E+01	1.144E+00	-0.005
SN-117M	-2.044E-02		9.358E-02	1.301E-01	1.364E-02	-0.157
TE-123M	2.794E-02		5.193E-02	7.497E-02	7.901E-03	0.373
SB-124	5.368E-02		8.065E-02	1.512E-01	1.424E-02	0.355
SB-125	-4.355E-02		1.353E-01	2.173E-01	1.892E-02	-0.200
TE-125M	-1.082E+01		1.628E+01	2.588E+01	3.073E+00	-0.418
I-126	2.620E-01		2.835E-01	4.499E-01	3.710E-02	0.582
SB-126	-1.736E-02		1.906E-01	2.832E-01	2.417E-02	-0.061
SB-127	7.529E-01		1.232E+00	2.149E+00	2.269E-01	0.350
I-131	-4.092E-02		1.416E-01	2.300E-01	2.217E-02	-0.178
TE-132	5.445E-02		6.815E-01	1.150E+00	1.942E-01	0.047

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-133	3.852E-02		6.730E-02	1.006E-01	1.359E-02	0.383
I-133	9.693E-06		7.643E-04	Half-Life too short		
CS-134	1.118E-01		6.479E-02	1.196E-01	1.072E-02	0.935
CS-135	3.381E-01		2.595E-01	4.033E-01	4.840E-02	0.838
I-135	1.668E+07		2.089E+07	Half-Life too short		
CS-136	5.612E-02		1.342E-01	2.278E-01	2.107E-02	0.246
CE-139	4.101E-02		5.781E-02	8.254E-02	8.811E-03	0.497
BA-140	8.129E-02		3.151E-01	5.190E-01	1.760E-01	0.157
LA-140	-5.899E-02		1.152E-01	1.499E-01	1.405E-02	-0.394
CE-141	4.947E-01		1.323E-01	2.015E-01	2.083E-02	2.455
CE-143	3.796E-04		6.092E-05	Half-Life too short		
CE-144	-2.099E-01		3.293E-01	5.080E-01	8.198E-02	-0.413
PM-144	6.237E-02		4.745E-02	8.589E-02	7.225E-03	0.726
PR-144	3.656E+00		3.604E+00	6.414E+00	5.395E-01	0.570
PM-146	-2.821E-02		6.092E-02	9.644E-02	1.020E-02	-0.292
ND-147	3.937E-02		6.984E-01	1.137E+00	1.701E-01	0.035
PM-149	1.736E+01		6.709E+01	1.132E+02	1.902E+01	0.153
EU-152	-9.595E-02		1.773E-01	2.285E-01	2.325E-02	-0.420
GD-153	9.527E-02		1.515E-01	2.232E-01	2.464E-02	0.427
EU-154	-1.512E-01		1.849E-01	2.720E-01	3.189E-02	-0.556
EU-155	1.012E-02		1.761E-01	2.880E-01	3.033E-02	0.035
TB-160	4.109E-03		1.851E-01	3.066E-01	2.838E-02	0.013
HO-166M	-3.373E-02		8.043E-02	1.301E-01	1.104E-02	-0.259
TA-182	2.403E-01		2.866E-01	4.954E-01	4.252E-02	0.485
IR-192	1.038E-02		4.824E-02	8.100E-02	8.351E-03	0.128
HG-203	9.675E-02		5.593E-02	9.865E-02	1.084E-02	0.981
BI-207	-8.252E-02		7.139E-02	1.021E-01	9.005E-03	-0.808
PB-210	3.042E+00		1.570E+01	2.601E+01	3.202E+00	0.117
PB-211	-1.936E-01		1.046E+00	1.693E+00	8.189E-01	-0.114
BI-212	1.736E+00	+	1.193E+00	1.609E+00	1.999E-01	1.079
RN-219	-5.172E-02		5.553E-01	9.074E-01	1.341E-01	-0.057
RA-223	-1.572E-02		9.858E-01	1.418E+00	2.573E-01	-0.011
AC-227	7.771E-02		3.665E-01	6.192E-01	8.568E-02	0.126
TH-227	7.771E-02		3.665E-01	6.192E-01	9.419E-02	0.126
PA-231	-1.530E+00		2.089E+00	3.338E+00	5.323E-01	-0.458
TH-231	-1.572E-02		9.858E-01	1.418E+00	2.573E-01	-0.011
PA-233	-1.967E-02		9.102E-02	1.495E-01	1.582E-02	-0.132
PA-234	-1.248E-01		3.956E-01	6.302E-01	1.201E-01	-0.198
PA-234M	3.969E-01		6.284E+00	1.031E+01	1.070E+00	0.038
TH-234	1.563E+00		3.046E+00	5.093E+00	1.010E+00	0.307
U-238	1.563E+00		3.046E+00	5.093E+00	1.010E+00	0.307
NP-239	-9.274E-02		6.596E-01	1.068E+00	1.078E-01	-0.087
AM-241	-3.871E-01		3.797E-01	6.019E-01	7.066E-02	-0.643
CM-247	-6.619E-03		5.104E-02	8.321E-02	7.037E-03	-0.080
CF-249	-6.178E-04		5.820E-02	9.576E-02	8.163E-03	-0.006
CF-251	-4.809E-02		2.133E-01	3.392E-01	3.650E-02	-0.142

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249334005            *
* Acquisition date : 24-MAR-2010 11:16:13 Detector SN#    :                 *
* Detector ID      : GAM15                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.45     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249334005           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.1551E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.591E+01	4.162E+00	3.838E-01	2.123E+00
CD-109	4.556E+00	1.553E+00	9.522E-01	7.926E-01
SN-126	4.468E-01	1.523E-01	9.409E-02	7.772E-02
BA-137M	1.124E-01	6.799E-02	4.447E-02	3.469E-02
CS-137	1.188E-01	7.182E-02	4.698E-02	3.665E-02
TL-208	7.471E-01	1.169E-01	3.947E-02	5.965E-02
BI-211	5.148E+00	8.237E-01	2.480E-01	4.203E-01
PB-212	2.326E+00	3.190E-01	6.834E-02	1.628E-01
BI-214	1.506E+00	2.815E-01	7.922E-02	1.436E-01
PB-214	1.868E+00	3.156E-01	8.352E-02	1.610E-01
RA-224	5.983E+00	1.899E+00	7.322E-01	9.688E-01
RA-226	1.506E+00	2.815E-01	7.922E-02	1.436E-01
AC-228	2.512E+00	5.055E-01	1.485E-01	2.579E-01
RA-228	2.512E+00	5.055E-01	1.485E-01	2.579E-01
TH-228	2.326E+00	3.190E-01	6.834E-02	1.628E-01
TH-229	9.972E-03	8.133E-01	6.753E-01	4.150E-01
TH-230	1.506E+00	2.706E-01	7.922E-02	1.380E-01
TH-232	2.512E+00	5.055E-01	1.485E-01	2.579E-01
U-235	1.766E+00	5.954E-01	2.694E-01	3.038E-01
NP-237	1.333E+00	5.307E-01	3.371E-01	2.708E-01
ANH-511	2.686E-01	9.594E-02	2.879E-02	4.895E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-3.171E-01	4.249E-01	3.369E-01	2.168E-01	NOT IDENT.
NA-22	-6.042E-02	6.499E-02	4.829E-02	3.316E-02	NOT IDENT.
NA-24	5.381E+04	9.077E+04	0.000E+00	4.631E+04	SHORT HLIF
SC-46	-5.325E-02	5.337E-02	4.091E-02	2.723E-02	FAIL ABUN
V-48	-6.302E-03	8.192E-02	6.816E-02	4.179E-02	NOT IDENT.
CR-51	-1.609E-01	4.652E-01	3.909E-01	2.374E-01	NOT IDENT.

MN-54	1.212E-02	5.211E-02	4.492E-02	2.659E-02	NOT IDENT.
CO-56	1.366E-02	5.113E-02	4.424E-02	2.609E-02	FAIL ABUN
CO-57	-1.741E-02	4.123E-02	3.402E-02	2.103E-02	NOT IDENT.
CO-58	1.821E-02	4.927E-02	4.310E-02	2.514E-02	NOT IDENT.
FE-59	5.297E-02	1.215E-01	1.049E-01	6.197E-02	NOT IDENT.
CO-60	6.556E-03	5.362E-02	4.462E-02	2.736E-02	NOT IDENT.
ZN-65	4.615E-02	1.347E-01	1.002E-01	6.874E-02	NOT IDENT.
SE-75	-5.151E-02	7.514E-02	5.393E-02	3.834E-02	NOT IDENT.
SR-85	1.718E-01	5.989E-02	5.216E-02	3.055E-02	NOT IDENT.
Y-88	-1.674E-02	4.647E-02	3.317E-02	2.371E-02	NOT IDENT.
Y-91	-1.016E+01	3.107E+01	2.495E+01	1.585E+01	NOT IDENT.
NB-94	-3.485E-02	4.429E-02	3.573E-02	2.260E-02	NOT IDENT.
NB-95	1.282E-01	6.643E-02	5.691E-02	3.389E-02	NOT IDENT.
NB-95M	4.949E-01	2.183E-01	1.773E-01	1.114E-01	NOT IDENT.
ZR-95	8.189E-02	9.254E-02	8.385E-02	4.721E-02	NOT IDENT.
MO-99	2.077E-01	9.509E+00	8.137E+00	4.852E+00	NOT IDENT.
TC-99M	-6.471E+12	1.851E+14	0.000E+00	9.443E+13	SHORT HLIF
RU-103	-1.785E-03	5.165E-02	4.310E-02	2.635E-02	FAIL ABUN
RH-106	3.878E-01	4.405E-01	3.849E-01	2.248E-01	NOT IDENT.
RU-106	3.878E-01	4.388E-01	3.849E-01	2.239E-01	NOT IDENT.
AG-108M	4.208E-02	4.215E-02	3.752E-02	2.151E-02	NOT IDENT.
AG-110M	6.065E-03	5.146E-02	3.869E-02	2.626E-02	NOT IDENT.
SN-113	9.994E-03	6.294E-02	5.383E-02	3.211E-02	NOT IDENT.
CD-115	-6.479E-02	8.015E+00	6.676E+00	4.089E+00	NOT IDENT.
SN-117M	-2.044E-02	9.171E-02	6.628E-02	4.679E-02	NOT IDENT.
TE-123M	2.794E-02	5.089E-02	3.818E-02	2.596E-02	NOT IDENT.
SB-124	5.368E-02	7.904E-02	7.524E-02	4.033E-02	NOT IDENT.
SB-125	-4.355E-02	1.326E-01	1.096E-01	6.765E-02	FAIL ABUN
TE-125M	-1.082E+01	1.596E+01	1.323E+01	8.140E+00	NOT IDENT.
I-126	2.620E-01	2.778E-01	2.260E-01	1.418E-01	NOT IDENT.
SB-126	-1.736E-02	1.868E-01	1.421E-01	9.532E-02	NOT IDENT.
SB-127	7.529E-01	1.208E+00	1.079E+00	6.161E-01	NOT IDENT.
I-131	-4.092E-02	1.388E-01	1.162E-01	7.082E-02	NOT IDENT.
TE-132	5.445E-02	6.679E-01	5.835E-01	3.407E-01	NOT IDENT.
BA-133	3.852E-02	6.595E-02	5.083E-02	3.365E-02	NOT IDENT.
I-133	9.693E+00	1.498E+03	0.000E+00	7.643E+02	SHORT HLIF
CS-134	1.118E-01	6.350E-02	5.997E-02	3.240E-02	NOT IDENT.
CS-135	3.381E-01	2.543E-01	2.044E-01	1.297E-01	NOT IDENT.
I-135	1.668E+13	4.095E+13	0.000E+00	2.089E+13	SHORT HLIF
CS-136	5.612E-02	1.315E-01	1.139E-01	6.710E-02	NOT IDENT.
CE-139	4.101E-02	5.666E-02	4.202E-02	2.891E-02	NOT IDENT.
BA-140	8.129E-02	3.088E-01	2.612E-01	1.576E-01	FAIL ABUN
LA-140	-5.899E-02	1.129E-01	7.462E-02	5.759E-02	FAIL ABUN
CE-141	4.947E-01	1.296E-01	1.027E-01	6.614E-02	NOT IDENT.
CE-143	3.796E+02	1.194E+02	0.000E+00	6.092E+01	SHORT HLIF
CE-144	-2.099E-01	3.227E-01	2.592E-01	1.646E-01	NOT IDENT.
PM-144	6.237E-02	4.650E-02	4.312E-02	2.373E-02	NOT IDENT.
PR-144	3.656E+00	3.532E+00	3.220E+00	1.802E+00	NOT IDENT.
PM-146	-2.821E-02	5.970E-02	4.862E-02	3.046E-02	NOT IDENT.
ND-147	3.937E-02	6.845E-01	5.725E-01	3.492E-01	FAIL ABUN
PM-149	1.736E+01	6.575E+01	5.731E+01	3.355E+01	NOT IDENT.
EU-152	-9.595E-02	1.737E-01	1.155E-01	8.863E-02	NOT IDENT.
GD-153	9.527E-02	1.485E-01	1.142E-01	7.575E-02	NOT IDENT.
EU-154	-1.512E-01	1.812E-01	1.357E-01	9.245E-02	NOT IDENT.
EU-155	1.012E-02	1.726E-01	1.473E-01	8.806E-02	FAIL ABUN
TB-160	4.109E-03	1.814E-01	1.536E-01	9.257E-02	FAIL ABUN
HO-166M	-3.373E-02	7.882E-02	6.530E-02	4.022E-02	FAIL ABUN
TA-182	2.403E-01	2.809E-01	2.473E-01	1.433E-01	FAIL ABUN
IR-192	1.038E-02	4.728E-02	4.098E-02	2.412E-02	FAIL ABUN
HG-203	9.675E-02	5.482E-02	4.997E-02	2.797E-02	NOT IDENT.
BI-207	-8.252E-02	6.996E-02	5.103E-02	3.569E-02	FAIL ABUN
PB-210	3.042E+00	1.539E+01	1.340E+01	7.850E+00	NOT IDENT.
PB-211	-1.936E-01	1.025E+00	8.546E-01	5.229E-01	NOT IDENT.
BI-212	1.736E+00	1.169E+00	8.074E-01	5.964E-01	FAIL ABUN
RN-219	-5.172E-02	5.442E-01	4.580E-01	2.776E-01	FAIL ABUN
RA-223	-1.572E-02	9.660E-01	7.172E-01	4.929E-01	FAIL ABUN
AC-227	7.771E-02	3.591E-01	3.139E-01	1.832E-01	FAIL ABUN
TH-227	7.771E-02	3.592E-01	3.139E-01	1.832E-01	FAIL ABUN
PA-231	-1.530E+00	2.048E+00	1.691E+00	1.045E+00	FAIL ABUN
TH-231	-1.572E-02	9.660E-01	7.172E-01	4.929E-01	FAIL ABUN
PA-233	-1.967E-02	8.920E-02	7.565E-02	4.551E-02	FAIL ABUN
PA-234	-1.248E-01	3.877E-01	3.154E-01	1.978E-01	NOT IDENT.
PA-234M	3.969E-01	6.159E+00	5.160E+00	3.142E+00	NOT IDENT.
TH-234	1.563E+00	2.986E+00	2.616E+00	1.523E+00	FAIL ABUN
U-238	1.563E+00	2.986E+00	2.616E+00	1.523E+00	FAIL ABUN
NP-239	-9.274E-02	6.464E-01	5.454E-01	3.298E-01	NOT IDENT.
AM-241	-3.871E-01	3.721E-01	3.094E-01	1.898E-01	NOT IDENT.
CM-247	-6.619E-03	5.002E-02	4.200E-02	2.552E-02	NOT IDENT.

CF-249	-6.178E-04	5.704E-02	4.835E-02	2.910E-02 NOT IDENT.
CF-251	-4.809E-02	2.090E-01	1.726E-01	1.066E-01 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	353.8608
49.72	365.3564
57.36	0.0000
59.54	442.9998
63.29	444.4943
63.29	444.4943
64.28	459.8078
67.75	552.5306
69.67	477.1169
70.83	508.6790
72.81	510.0430
72.87	510.0833
72.87	510.0833
74.82	533.0464
74.82	533.0464
74.82	533.0464
74.97	533.1530
77.11	534.6442
77.11	534.6442
77.11	534.6442
79.69	562.0549
79.80	543.4854
80.12	543.7053
80.19	543.7531
80.57	516.0138
81.00	544.3092
81.07	544.3569
81.07	544.3569
83.79	524.1147
83.79	524.1147
85.43	558.5696
86.48	559.2813
86.55	559.3300
86.79	769.9017
86.94	770.0446
87.57	403.4698
88.03	403.6926
88.47	403.9047
89.96	404.6188
91.11	515.3719
92.59	516.2609
92.59	516.2609
93.35	428.9710
94.67	390.5669
94.87	411.8168
94.87	411.8168
95.86	444.8730
97.43	398.3214
98.44	418.1120
99.53	424.4147
100.11	413.4302
103.18	477.4576
103.37	432.3688
105.31	461.0618
106.12	452.1904
109.28	512.6144
111.00	457.6251
111.76	472.4922
116.30	465.3186
117.23	442.8321
121.12	421.5340
121.78	425.9943
122.06	439.7227
123.07	416.0516
131.20	410.8462
133.52	443.4868
136.00	433.8916

136.47	434.0788
140.51	431.1933
140.51	0.0000
143.76	445.4772
144.24	445.6649
144.24	445.6649
145.44	410.8301
152.43	393.9487
153.25	379.1428
154.21	389.1536
154.21	389.1536
156.02	395.1466
158.56	427.5796
159.00	382.7088
162.66	401.2356
163.33	404.9313
165.86	398.7960
176.60	385.2988
177.52	388.8674
181.07	352.4805
184.41	376.3459
185.72	376.9388
193.51	336.8734
197.04	350.0015
205.31	412.6243
210.85	241.6310
215.65	273.2987
222.11	284.9305
227.38	282.2885
228.16	284.2563
228.18	284.2601
235.69	291.4526
235.96	291.5031
235.96	291.5031
238.63	255.9226
238.63	255.9226
240.99	256.3074
242.00	256.4726
244.70	196.4427
252.40	198.9288
252.80	212.8595
256.23	223.5097
256.23	223.5097
260.90	225.0730
264.66	250.1278
268.22	199.2813
269.46	210.3333
269.46	210.3333
271.23	200.2593
273.65	313.9357
276.40	220.5764
277.37	219.1345
277.60	197.2493
278.00	193.2665
279.20	188.0298
279.54	192.7681
280.46	227.6815
283.69	216.7902
284.31	220.6404
285.41	216.0600
285.90	193.4713
287.50	197.3199
293.27	0.0000
295.22	207.1342
295.96	194.5648
298.57	194.8476
299.98	194.9977
299.98	194.9977
300.09	195.0103
300.09	195.0103
300.13	195.0153
301.36	188.7992
302.85	192.1298
304.50	176.4094
304.50	176.4094
304.85	176.4433
308.46	185.6624
311.90	177.1163

316.51	167.9547
319.41	164.3683
320.08	162.5016
323.87	155.7601
323.87	155.7601
328.76	167.4258
333.37	140.3909
334.37	174.3684
334.37	174.3684
338.28	166.9504
338.28	166.9504
338.32	166.9547
338.32	166.9547
338.32	166.9547
340.48	173.2916
340.55	173.2970
344.28	188.8753
351.06	174.2103
351.93	149.5261
356.01	141.9927
364.49	163.2300
366.42	156.4923
383.85	150.8422
388.16	151.1446
388.63	144.2141
391.69	147.4056
400.66	140.0103
401.81	132.0773
402.40	133.1136
404.85	152.2987
410.95	146.6862
414.70	148.9431
423.72	134.3784
427.09	124.4564
427.87	146.7665
433.94	114.6760
453.88	133.0437
463.37	107.8801
468.07	121.8117
473.00	104.1772
476.78	119.8317
477.60	119.8700
487.02	112.0236
492.35	108.1019
497.08	103.0944
511.00	83.7583
514.00	83.8540
527.90	99.0465
529.87	0.0000
531.02	102.3284
537.26	85.6472
546.56	0.0000
563.25	80.0555
569.33	90.9268
569.50	94.1424
569.70	97.3585
583.19	93.5208
600.60	105.7413
602.73	110.0264
604.72	119.1255
609.32	100.8718
609.32	100.8718
609.32	100.8718
610.33	100.9082
614.28	90.5396
618.01	94.7976
621.93	80.6051
621.93	80.6051
633.25	85.2820
635.95	87.5449
636.99	87.5762
645.85	84.5364
657.76	81.8703
661.66	108.7703
661.66	108.7703
664.57	0.0000
666.33	66.3062
666.50	66.3105

677.62	83.1793
685.70	77.8306
695.00	72.4791
696.49	74.3717
696.51	81.8089
697.00	89.2598
702.65	98.7280
706.68	81.1324
711.68	85.9243
720.70	82.8823
721.93	0.0000
722.78	83.5352
722.91	83.5388
723.31	88.3698
724.19	83.5714
727.33	72.3889
733.00	61.2318
735.93	103.8616
739.50	77.2253
747.24	67.9614
752.31	87.9141
753.82	69.9832
756.73	64.3643
763.94	66.6665
765.81	69.9560
766.42	81.3581
777.92	95.2291
778.90	94.3030
783.70	70.5854
785.37	73.4815
795.86	59.3422
801.95	69.9895
810.29	61.5026
810.76	60.5493
815.77	69.2944
818.51	68.3840
832.01	79.2690
834.85	81.2639
836.80	0.0000
846.77	63.0851
856.80	45.0427
860.56	76.8148
871.09	65.4460
873.19	47.8894
875.33	0.0000
879.36	61.6721
880.51	51.8980
883.24	65.6532
884.68	66.6580
889.28	77.5342
898.04	72.7896
911.20	57.2436
911.20	57.2436
911.20	57.2436
926.50	56.4735
937.49	54.6419
944.13	56.7217
946.00	58.7383
949.00	61.7717
962.29	85.6759
964.08	89.1429
966.15	96.0469
968.97	82.0968
968.97	82.0968
968.97	82.0968
983.53	52.2444
996.26	61.4728
1001.03	52.4623
1004.73	54.5273
1037.84	55.9668
1038.76	0.0000
1048.07	54.0589
1050.41	51.0274
1050.41	51.0274
1063.66	66.5340
1085.87	55.5513
1099.45	54.6864
1112.07	60.9537

1115.54	55.0285
1120.29	60.4155
1120.29	60.4155
1120.29	60.4155
1120.55	69.3055
1121.30	67.3909
1131.51	0.0000
1173.23	63.9487
1177.93	69.2603
1189.05	63.1104
1204.77	79.1443
1221.41	64.5916
1231.02	65.4760
1235.36	87.3783
1238.28	83.7857
1260.41	0.0000
1271.85	49.2044
1274.44	64.2114
1274.54	67.4246
1291.59	44.0263
1298.22	0.0000
1312.11	36.6563
1332.49	35.7178
1365.19	31.7386
1368.63	0.0000
1384.29	44.0297
1408.01	30.1094
1457.56	0.0000
1460.82	27.5486
1489.16	22.9135
1505.03	18.1902
1596.21	22.1216
1620.50	16.5968
1678.03	0.0000
1690.97	6.9124
1764.49	27.9707
1764.49	27.9707
1764.49	27.9707
1770.23	13.9976
1771.35	12.2500
1791.20	0.0000
1836.06	15.4235

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249334005

Total Uranium Activity	5.4655E+00	ug/g
Total Uranium Counting Unc.	8.8863E+00	ug/g
Total Uranium Tpu	4.5338E-06	ug/g
Total Uranium Mda	7.7846E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 965250                    SAMPLE ID  : G249334005        *
*   ANALYST      : MXR1                      DETECTOR   : GAM15             *
*   SAMPLE DATE  : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 11:16:13.76   SAMPLE ALQT:  115.515 GRAM     *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.396E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.928E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 6.244E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 3.047E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:02:20.33

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334006.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 11:01:46
Sample ID         : G249334006           Sample quantity  : 1.12400E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.29  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 965250                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.31*	115	456	1.29	126.20	122	9	1.59E-02	35.5	
2	3	74.84*	343	417	1.00	149.24	145	13	4.77E-02	10.8	7.07E-01
3	3	77.16	608	348	1.01	153.88	145	13	8.44E-02	6.5	
4	0	87.20*	216	403	1.00	173.95	171	7	2.99E-02	16.9	
5	0	92.95*	261	528	1.22	185.46	182	11	3.62E-02	18.7	
6	0	129.38	143	476	1.44	258.28	252	13	1.99E-02	32.4	
7	0	186.18*	246	384	1.15	371.82	365	14	3.41E-02	18.5	
8	0	209.47	140	282	1.14	418.38	415	10	1.95E-02	24.1	
9	4	238.73*	1178	186	1.11	476.87	472	18	1.64E-01	3.6	2.04E+00
10	4	241.66	249	231	1.85	482.72	472	18	3.45E-02	18.3	
11	0	270.07	77	174	1.25	539.53	536	8	1.08E-02	31.5	
12	0	277.31	47	177	0.99	553.99	550	9	6.53E-03	52.9	
13	0	295.38*	368	186	0.98	590.12	586	10	5.11E-02	8.8	
14	0	300.28	83	131	1.34	599.93	596	8	1.16E-02	26.3	
15	0	328.23	75	162	1.62	655.81	650	12	1.05E-02	35.6	
16	0	338.26*	245	279	1.35	675.85	669	15	3.40E-02	16.3	
17	0	352.05*	605	202	1.37	703.42	696	15	8.41E-02	6.6	
18	0	463.45	72	75	1.21	926.16	922	9	9.96E-03	24.9	
19	0	511.00*	88	137	2.04	1021.25	1014	17	1.22E-02	36.0	
20	0	583.15*	394	80	1.33	1165.50	1158	14	5.48E-02	7.1	
21	0	609.65*	420	96	1.52	1218.51	1213	14	5.84E-02	7.2	
22	0	727.89	102	83	1.45	1454.95	1447	16	1.41E-02	22.4	
23	0	771.00*	105	97	5.71	1541.19	1530	26	1.46E-02	27.7	
24	0	795.68	46	49	1.46	1590.53	1585	12	6.46E-03	33.3	
25	0	861.99	62	63	2.05	1723.15	1715	19	8.56E-03	34.1	
26	0	911.45*	267	23	1.59	1822.09	1816	13	3.71E-02	7.3	
27	0	969.23*	135	73	1.62	1937.65	1933	14	1.88E-02	16.7	
28	0	1120.79	103	47	2.40	2240.83	2234	14	1.43E-02	17.4	
29	0	1460.93*	1022	35	2.28	2921.37	2912	17	1.42E-01	3.4	
30	0	1730.56*	18	11	0.97	3460.94	3451	14	2.57E-03	45.6	
31	0	1765.02	93	12	2.07	3529.90	3521	15	1.30E-02	13.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 13:02:30

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334006.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 11:01:46
Sample ID         : G249334006           Sample quantity  : 112.40 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA6               Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.29   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.428E+01	3.990E+00	7.714E-01	7.271E-02	44.437
CD-109	+	88.03	*	3.835E+00	1.367E+00	1.739E+00	1.935E-01	2.206
SN-126	+	64.28		1.472E+00	1.068E+00	1.067E+00	1.652E-01	1.379
	+	86.94		1.564E+00	8.429E-01	7.486E-01	3.138E-01	2.089
	+	87.57	*	3.761E-01	1.341E-01	1.804E-01	1.998E-02	2.085
TL-208	+	277.37		6.340E-01	6.757E-01	7.934E-01	1.032E-01	0.799
	+	583.19	*	7.290E-01	1.229E-01	6.499E-02	5.933E-03	11.218
	+	860.56		1.091E+00	7.510E-01	5.580E-01	5.426E-02	1.955
BI-211		72.87		6.999E+00	4.660E+00	7.244E+00	6.962E-01	0.966
	+	351.06	*	4.978E+00	8.082E-01	4.129E-01	3.875E-02	12.056
PB-212	+	74.82		2.702E+00	6.942E-01	7.132E-01	9.826E-02	3.789
	+	77.11		2.719E+00	4.442E-01	4.068E-01	4.045E-02	6.683
	+	238.63	*	2.153E+00	2.691E-01	1.201E-01	1.232E-02	17.934
	+	300.09		2.381E+00	1.278E+00	1.556E+00	1.725E-01	1.530
BI-214	+	609.32	*	1.506E+00	2.634E-01	1.526E-01	1.514E-02	9.868
	+	1120.29		1.958E+00	7.131E-01	5.903E-01	6.376E-02	3.318
	+	1764.49		2.470E+00	6.769E-01	3.935E-01	3.392E-02	6.276
PB-214	+	74.82		4.789E+00	1.200E+00	1.264E+00	1.589E-01	3.789
	+	77.11		4.793E+00	8.771E-01	7.171E-01	9.264E-02	6.683
	+	242.00		2.756E+00	1.053E+00	7.307E-01	7.945E-02	3.772
	+	295.22		1.860E+00	3.898E-01	2.888E-01	3.279E-02	6.441
	+	351.93	*	1.807E+00	3.098E-01	1.502E-01	1.634E-02	12.030
RA-224	+	240.99	*	4.874E+00	1.840E+00	1.288E+00	1.184E-01	3.786
RA-226	+	609.32	*	1.506E+00	2.634E-01	1.526E-01	1.514E-02	9.868
	+	1120.29		1.958E+00	7.131E-01	5.903E-01	6.376E-02	3.318
	+	1764.49		2.470E+00	6.769E-01	3.935E-01	3.392E-02	6.276
AC-228	+	338.32		2.240E+00	1.188E+00	4.859E-01	2.032E-01	4.611
	+	911.20	*	2.412E+00	4.561E-01	3.008E-01	3.633E-02	8.019
	+	968.97		2.118E+00	8.783E-01	8.349E-01	2.050E-01	2.536
RA-228	+	338.32		2.240E+00	1.188E+00	4.859E-01	2.032E-01	4.611
	+	911.20	*	2.412E+00	4.561E-01	3.008E-01	3.633E-02	8.019
	+	968.97		2.118E+00	8.783E-01	8.349E-01	2.050E-01	2.536
TH-228	+	74.82		2.702E+00	6.433E-01	7.132E-01	7.007E-02	3.789
	+	77.11		2.719E+00	4.442E-01	4.068E-01	4.045E-02	6.683

Sample ID : G249334006 Acquisition date : 24-MAR-2010 11:01:46

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	2.153E+00	2.691E-01	1.201E-01	1.232E-02	17.934
	+	300.09		2.381E+00	1.922E+00	1.556E+00	9.540E-01	1.530
TH-230	+	609.32	*	1.506E+00	2.512E-01	1.526E-01	1.282E-02	9.868
	+	1120.29		1.958E+00	7.009E-01	5.902E-01	5.000E-02	3.318
	+	1764.49		2.470E+00	6.769E-01	3.935E-01	3.392E-02	6.276
TH-232	+	338.32		2.240E+00	7.579E-01	4.859E-01	4.410E-02	4.611
	+	911.20	*	2.412E+00	4.561E-01	3.008E-01	3.633E-02	8.019
	+	968.97		2.118E+00	8.783E-01	8.349E-01	2.050E-01	2.536
TH-234	+	63.29	*	3.818E+00	2.799E+00	2.776E+00	5.161E-01	1.375
	+	92.59		3.750E+00	1.643E+00	1.326E+00	3.031E-01	2.828
NP-237	+	86.48	*	1.122E+00	4.641E-01	4.780E-01	1.130E-01	2.348
		95.86		-1.385E-01	1.203E+00	1.735E+00	4.258E-01	-0.080
U-238	+	63.29	*	3.818E+00	2.799E+00	2.776E+00	5.161E-01	1.375
	+	92.59		3.750E+00	1.456E+00	1.326E+00	1.383E-01	2.828
ANH-511	+	511.00	*	1.237E-01	8.976E-02	6.259E-02	5.432E-03	1.977

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-3.582E-02	4.182E-01	7.013E-01	6.549E-02	-0.051
NA-22		1274.54	*	-2.334E-02	6.413E-02	1.010E-01	8.876E-03	-0.231
NA-24		1368.63	*	-6.259E-02	6.413E-02	Half-Life too short		
SC-46		889.28	*	-1.928E-02	5.789E-02	9.021E-02	8.337E-03	-0.214
	+	1120.55		3.254E-01	1.165E-01	1.747E-01	1.480E-02	1.862
V-48		944.13		-5.055E-01	1.069E+00	1.711E+00	1.574E-01	-0.295
		983.53	*	2.038E-02	9.047E-02	1.544E-01	1.405E-02	0.132
		1312.11		-8.894E-03	1.070E-01	1.733E-01	1.563E-02	-0.051
CR-51		320.08	*	-8.336E-02	4.535E-01	7.347E-01	7.073E-02	-0.113
MN-54		834.85	*	3.952E-02	5.376E-02	9.229E-02	8.316E-03	0.428
CO-56		846.77	*	3.805E-02	5.101E-02	8.841E-02	8.014E-03	0.430
		1037.84		1.437E-01	4.127E-01	7.097E-01	6.628E-02	0.203
		1238.28		3.019E-01	1.389E-01	2.592E-01	2.279E-02	1.165
		1771.35		-1.895E+00	5.639E-01	4.493E-01	3.862E-02	-4.218
CO-57		122.06	*	1.283E-02	3.093E-02	5.070E-02	4.269E-03	0.253
		136.47		-1.924E-01	2.660E-01	4.100E-01	3.682E-02	-0.469
CO-58		810.76	*	-1.315E-02	4.986E-02	7.873E-02	7.023E-03	-0.167
FE-59		1099.45	*	-6.296E-02	1.217E-01	1.913E-01	1.779E-02	-0.329
		1291.59		-1.663E-01	1.608E-01	2.277E-01	2.282E-02	-0.730
CO-60		1173.23		9.759E-02	6.594E-02	1.216E-01	9.856E-03	0.803
		1332.49	*	-5.836E-03	5.636E-02	9.119E-02	8.341E-03	-0.064
ZN-65		1115.54	*	-3.829E-02	1.368E-01	1.869E-01	1.591E-02	-0.205
SE-75		121.12		3.008E-02	1.627E-01	2.642E-01	2.893E-02	0.114
		136.00		-2.484E-02	5.034E-02	7.859E-02	6.591E-03	-0.316
		264.66	*	1.192E-02	6.027E-02	9.386E-02	8.760E-03	0.127
		279.54		1.086E-01	1.574E-01	2.398E-01	2.306E-02	0.453
		400.66		-1.308E-01	3.345E-01	5.246E-01	5.764E-02	-0.249
SR-85		514.00	*	7.237E-02	5.511E-02	8.948E-02	7.764E-03	0.809
Y-88		898.04		-5.766E-03	5.515E-02	8.778E-02	8.176E-03	-0.066

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1836.06	*	-1.376E-02	3.898E-02	5.884E-02	4.918E-03	-0.234
Y-91		1204.77	*	1.071E+01	3.018E+01	5.121E+01	4.260E+00	0.209
NB-94		702.65	*	-1.309E-02	4.733E-02	7.595E-02	6.329E-03	-0.172
		871.09		-1.742E-04	5.226E-02	7.625E-02	6.990E-03	-0.002
NB-95		765.81	*	8.244E-03	6.179E-02	8.852E-02	7.681E-03	0.093
NB-95M		235.69	*	-1.049E-03	1.741E-01	2.557E-01	2.650E-02	-0.004
ZR-95		724.19		2.404E-02	1.409E-01	2.036E-01	1.872E-02	0.118
		756.73	*	-2.888E-02	1.004E-01	1.598E-01	1.523E-02	-0.181
MO-99		140.51		-8.727E+00	1.678E+01	2.595E+01	6.134E+00	-0.336
		181.07		5.398E+00	1.352E+01	2.066E+01	3.883E+00	0.261
		366.42		-7.712E+01	7.519E+01	1.128E+02	9.918E+00	-0.684
		739.50	*	4.904E+00	1.008E+01	1.710E+01	2.687E+00	0.287
		777.92		-6.809E+00	3.085E+01	4.202E+01	3.672E+00	-0.162
TC-99M		140.51	*	-6.667E+07	3.085E+01	Half-Life too short		
RU-103		497.08	*	-2.649E-02	4.816E-02	7.522E-02	1.054E-02	-0.352
	+	610.33		1.496E+01	3.247E+00	3.690E+00	5.989E-01	4.054
RH-106		621.93	*	5.145E-01	3.979E-01	7.180E-01	9.388E-02	0.717
		1050.41		1.688E-02	3.541E+00	5.895E+00	5.215E-01	0.003
RU-106		621.93	*	5.145E-01	3.945E-01	7.180E-01	5.987E-02	0.717
		1050.41		1.688E-02	3.541E+00	5.895E+00	5.215E-01	0.003
AG-108M		433.94	*	-8.750E-03	3.616E-02	5.686E-02	5.053E-03	-0.154
		614.28		3.201E-02	4.640E-02	7.224E-02	6.263E-03	0.443
		722.91		4.275E-03	5.781E-02	8.264E-02	7.214E-03	0.052
AG-110M		657.76	*	-2.502E-02	4.461E-02	6.992E-02	5.867E-03	-0.358
		677.62		3.673E-01	3.947E-01	6.991E-01	5.906E-02	0.525
		706.68		2.710E-01	2.853E-01	5.022E-01	4.325E-02	0.540
		763.94		-1.751E-01	2.294E-01	2.869E-01	2.554E-02	-0.610
		884.68		-2.085E-02	7.205E-02	1.128E-01	1.069E-02	-0.185
		937.49		3.707E-02	1.515E-01	2.597E-01	2.469E-02	0.143
		1384.29		-2.236E-01	2.597E-01	3.768E-01	3.544E-02	-0.593
		1505.03		-1.091E-01	3.654E-01	5.600E-01	5.138E-02	-0.195
SN-113		391.69	*	-4.877E-02	5.887E-02	8.931E-02	7.790E-03	-0.546
CD-115		260.90		-8.932E+00	8.847E+01	1.460E+02	1.356E+01	-0.061
		492.35		-1.088E+00	2.275E+01	3.814E+01	3.313E+00	-0.029
		527.90	*	-6.058E+00	7.805E+00	1.169E+01	1.012E+00	-0.518
SN-117M		156.02		-1.080E+00	2.664E+00	4.145E+00	3.477E-01	-0.261
		158.56	*	-4.244E-02	6.415E-02	9.826E-02	8.259E-03	-0.432
TE-123M		159.00	*	-3.493E-02	3.759E-02	5.673E-02	4.800E-03	-0.616
SB-124		602.73		8.553E-03	5.135E-02	8.163E-02	6.886E-03	0.105
		645.85		-6.587E-02	6.105E-01	9.987E-01	8.707E-02	-0.066
		722.78		1.539E-02	5.646E-01	8.026E-01	6.941E-02	0.019
		1690.97	*	-6.604E-02	9.329E-02	1.310E-01	1.205E-02	-0.504
SB-125		427.87	*	-3.265E-02	1.117E-01	1.752E-01	1.533E-02	-0.186
	+	463.37		8.968E-01	4.544E-01	7.035E-01	6.551E-02	1.275
		600.60		-6.794E-02	2.356E-01	3.825E-01	3.478E-02	-0.178
		635.95		-2.722E-02	3.562E-01	5.852E-01	5.260E-02	-0.047
TE-125M		109.28	*	1.355E+00	1.196E+01	1.923E+01	2.069E+00	0.070
I-126		388.63		2.376E-01	1.931E-01	3.371E-01	2.865E-02	0.705
		666.33	*	-1.779E-01	2.791E-01	4.363E-01	3.543E-02	-0.408

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		753.82		1.378E+00	2.293E+00	3.924E+00	3.380E-01	0.351
SB-126		414.70		-1.129E-02	8.915E-02	1.423E-01	1.216E-02	-0.079
		666.50		-6.693E-02	9.484E-02	1.473E-01	1.196E-02	-0.454
		695.00		1.743E-02	9.154E-02	1.527E-01	1.266E-02	0.114
		697.00		-5.275E-02	3.297E-01	5.344E-01	4.436E-02	-0.099
		720.70	*	-9.638E-03	2.160E-01	3.046E-01	2.570E-02	-0.032
		856.80		6.987E-02	5.956E-01	8.449E-01	7.696E-02	0.083
SB-127		252.40		-3.807E+00	3.884E+00	5.544E+00	2.301E+00	-0.687
		473.00		-8.538E-02	1.499E+00	2.382E+00	2.924E-01	-0.036
		685.70	*	7.512E-01	1.014E+00	1.781E+00	1.864E-01	0.422
		783.70		2.925E+00	3.218E+00	5.622E+00	6.698E-01	0.520
I-131		80.19		2.145E+00	4.796E+00	7.192E+00	7.384E-01	0.298
		284.31		-1.412E+00	1.617E+00	2.528E+00	2.454E-01	-0.559
		364.49	*	6.827E-03	1.196E-01	1.951E-01	1.806E-02	0.035
		636.99		-3.767E-01	1.740E+00	2.825E+00	2.472E-01	-0.133
TE-132		49.72		-2.351E+01	1.829E+01	2.863E+01	3.193E+00	-0.821
		111.76		1.063E+01	2.721E+01	4.403E+01	4.669E+00	0.241
		116.30		-1.484E+00	2.230E+01	3.585E+01	3.740E+00	-0.041
		228.16	*	1.265E-01	6.104E-01	1.030E+00	1.617E-01	0.123
BA-133		81.00		-1.064E-01	1.265E-01	1.756E-01	2.900E-02	-0.606
	+	276.40		5.858E-01	6.255E-01	8.143E-01	1.184E-01	0.719
		302.85		-1.266E-01	2.102E-01	2.875E-01	3.884E-02	-0.440
		356.01	*	-8.282E-03	6.267E-02	8.817E-02	1.159E-02	-0.094
		383.85		-1.900E-01	3.788E-01	5.899E-01	7.308E-02	-0.322
I-133		529.87	*	-7.158E-04	3.788E-01	Half-Life too short		
		875.33		5.204E-03	3.788E-01	Half-Life too short		
		1298.22		3.801E-02	3.788E-01	Half-Life too short		
CS-134		563.25		-1.762E-01	4.678E-01	7.574E-01	6.563E-02	-0.233
		569.33		4.857E-02	2.653E-01	4.415E-01	3.833E-02	0.110
		604.72		1.072E-02	5.022E-02	7.397E-02	6.248E-03	0.145
	+	795.86	*	1.258E-01	8.439E-02	1.193E-01	1.061E-02	1.054
		801.95		-3.116E-01	6.365E-01	8.181E-01	7.285E-02	-0.381
		1365.19		3.055E-01	1.449E+00	2.439E+00	2.329E-01	0.125
CS-135		268.22	*	2.509E-01	2.315E-01	3.606E-01	3.808E-02	0.696
I-135		546.56		-3.584E+07	2.315E-01	Half-Life too short		
		836.80		7.444E+07	2.315E-01	Half-Life too short		
		1038.76		2.546E+06	2.315E-01	Half-Life too short		
		1131.51		-1.833E+07	2.315E-01	Half-Life too short		
		1260.41	*	-1.906E+07	2.315E-01	Half-Life too short		
		1457.56		3.331E+09	2.315E-01	Half-Life too short		
		1678.03		-4.789E+07	2.315E-01	Half-Life too short		
		1791.20		-4.909E+06	2.315E-01	Half-Life too short		
CS-136		153.25		1.175E-01	9.899E-01	1.582E+00	1.592E-01	0.074
		176.60		-3.465E-01	5.695E-01	9.404E-01	8.906E-02	-0.368
		273.65		-2.062E-01	9.046E-01	9.207E-01	9.195E-02	-0.224
		340.55		7.124E-01	2.193E-01	3.685E-01	3.452E-02	1.933
		818.51		2.987E-02	8.594E-02	1.442E-01	1.290E-02	0.207
		1048.07	*	-9.859E-02	1.311E-01	2.012E-01	1.853E-02	-0.490
		1235.36		-3.887E-02	8.245E-01	1.349E+00	1.578E-01	-0.029

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-137M		661.66	*	1.787E-02	4.871E-02	8.255E-02	6.681E-03	0.216
CS-137		661.66	*	1.887E-02	5.145E-02	8.721E-02	7.073E-03	0.216
CE-139		165.86	*	2.722E-02	3.703E-02	6.071E-02	5.134E-03	0.448
BA-140		162.66		5.554E-01	9.253E-01	1.508E+00	1.361E-01	0.368
		304.85		-5.037E-01	1.764E+00	2.474E+00	7.292E-01	-0.204
		423.72		-4.171E-01	2.213E+00	3.500E+00	1.151E+00	-0.119
		537.26	*	1.322E-01	2.835E-01	4.860E-01	1.649E-01	0.272
LA-140	+	328.76		7.600E-01	5.465E-01	6.381E-01	6.135E-02	1.191
		487.02		6.086E-02	1.599E-01	2.762E-01	2.544E-02	0.220
		815.77		-6.179E-02	3.867E-01	6.172E-01	6.112E-02	-0.100
		1596.21	*	-4.843E-03	1.043E-01	1.729E-01	1.566E-02	-0.028
CE-141		145.44	*	8.246E-02	8.325E-02	1.356E-01	1.152E-02	0.608
CE-143		57.36		3.499E-05	8.325E-02	Half-Life too short		
		293.27	*	2.777E-04	8.325E-02	Half-Life too short		
		664.57		3.118E-04	8.325E-02	Half-Life too short		
		721.93		-3.467E-04	8.325E-02	Half-Life too short		
CE-144		80.12		1.260E+00	3.103E+00	4.645E+00	4.750E-01	0.271
		133.52	*	8.568E-02	2.812E-01	4.080E-01	6.170E-02	0.210
PM-144		476.78		5.881E-02	8.487E-02	1.493E-01	1.406E-02	0.394
		618.01		-2.848E-02	4.337E-02	6.325E-02	5.444E-03	-0.450
		696.49	*	-1.200E-02	4.771E-02	7.676E-02	6.371E-03	-0.156
PR-144		696.51	*	-8.580E-01	3.570E+00	5.748E+00	4.770E-01	-0.149
		1489.16		-1.127E+01	1.504E+01	2.049E+01	1.882E+00	-0.550
PM-146		453.88	*	-5.034E-03	5.838E-02	9.284E-02	9.855E-03	-0.054
		633.25		7.475E-01	1.861E+00	3.143E+00	1.198E+00	0.238
		735.93		-5.657E-02	2.222E-01	3.328E-01	9.318E-02	-0.170
		747.24		-4.013E-02	1.279E-01	2.026E-01	2.951E-02	-0.198
ND-147		91.11		6.427E-01	4.243E-01	5.328E-01	5.980E-02	1.206
		319.41		-2.343E+00	3.892E+00	6.137E+00	5.650E-01	-0.382
		531.02	*	-7.394E-02	5.942E-01	9.851E-01	1.475E-01	-0.075
PM-149		285.90	*	3.411E+01	6.111E+01	1.036E+02	1.650E+01	0.329
EU-152		121.78		2.610E-02	8.991E-02	1.466E-01	1.427E-02	0.178
		244.70		-1.342E-01	4.624E-01	6.636E-01	6.115E-02	-0.202
		344.28	*	-8.965E-02	1.565E-01	1.948E-01	1.853E-02	-0.460
		778.90		-3.553E-01	3.919E-01	4.755E-01	4.158E-02	-0.747
		964.08		4.631E-01	4.924E-01	7.897E-01	7.228E-02	0.586
		1085.87		2.148E-01	5.449E-01	9.371E-01	8.125E-02	0.229
		1112.07		1.001E-02	4.391E-01	6.958E-01	5.929E-02	0.014
		1408.01		1.878E-01	2.581E-01	4.575E-01	4.208E-02	0.410
GD-153		69.67		-1.818E+00	2.382E+00	3.623E+00	3.407E-01	-0.502
		97.43	*	8.061E-02	1.116E-01	1.684E-01	1.662E-02	0.479
		103.18		-9.060E-04	1.277E-01	2.071E-01	1.939E-02	-0.004
EU-154		123.07		3.580E-02	6.694E-02	1.052E-01	1.177E-02	0.340
		723.31		-3.177E-02	2.705E-01	3.778E-01	3.529E-02	-0.084
		873.19		3.750E-01	3.847E-01	6.761E-01	8.319E-02	0.555
		996.26		-1.106E-01	4.576E-01	7.454E-01	1.319E-01	-0.148
		1004.73		-3.070E-01	2.621E-01	3.766E-01	4.498E-02	-0.815
		1274.44	*	-4.646E-03	1.747E-01	2.854E-01	3.282E-02	-0.016
EU-155	+	86.55		4.556E-01	1.625E-01	2.373E-01	2.615E-02	1.920

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		105.31	*	-1.691E-02	1.276E-01	2.055E-01	1.912E-02	-0.082
TB-160	+	86.79		1.185E+00	4.224E-01	6.155E-01	6.757E-02	1.925
		197.04		1.308E-01	7.413E-01	1.222E+00	1.077E-01	0.107
		215.65		-2.370E-01	9.873E-01	1.517E+00	1.366E-01	-0.156
		298.57		3.002E-01	2.225E-01	2.707E-01	2.515E-02	1.109
		879.36	*	-1.311E-01	1.873E-01	2.786E-01	2.564E-02	-0.470
		962.29		1.499E-03	8.247E-01	1.300E+00	1.190E-01	0.001
		966.15		1.245E+00	3.901E-01	6.958E-01	6.365E-02	1.790
		1177.93		-4.989E-02	5.108E-01	8.348E-01	6.795E-02	-0.060
		1271.85		1.922E-02	1.022E+00	1.677E+00	1.469E-01	0.011
HO-166M		80.57		1.782E-01	3.414E-01	5.136E-01	5.275E-02	0.347
		184.41		9.113E-02	4.611E-02	8.179E-02	7.093E-03	1.114
		280.46		2.517E-02	1.195E-01	1.763E-01	1.642E-02	0.143
		410.95		4.365E-01	3.426E-01	5.880E-01	5.017E-02	0.742
		711.68	*	-6.558E-02	8.490E-02	1.298E-01	1.088E-02	-0.505
		752.31		1.792E-01	3.998E-01	6.761E-01	5.819E-02	0.265
		810.29		-2.172E-02	7.954E-02	1.256E-01	1.118E-02	-0.173
TA-182		67.75		-2.105E-02	1.619E-01	2.370E-01	2.204E-02	-0.089
		100.11		-1.608E-02	2.111E-01	3.418E-01	3.286E-02	-0.047
		152.43		7.814E-02	4.390E-01	7.040E-01	5.891E-02	0.111
		222.11		3.390E-01	4.686E-01	8.074E-01	7.316E-02	0.420
	+	1121.30		9.058E-01	3.242E-01	4.785E-01	4.050E-02	1.893
		1189.05		2.493E-01	4.648E-01	7.994E-01	6.566E-02	0.312
		1221.41	*	-3.861E-02	2.726E-01	4.424E-01	3.729E-02	-0.087
		1231.02		2.540E-01	6.950E-01	1.176E+00	9.986E-02	0.216
IR-192	+	295.96		1.348E+00	2.688E-01	3.898E-01	3.647E-02	3.458
		308.46		6.295E-02	1.267E-01	2.139E-01	1.989E-02	0.294
		316.51	*	-1.775E-02	4.639E-02	7.433E-02	6.869E-03	-0.239
		468.07		6.388E-04	9.140E-02	1.273E-01	1.183E-02	0.005
HG-203		70.83		4.788E-01	1.871E+00	2.792E+00	4.616E-01	0.172
		72.87		1.688E+00	1.145E+00	1.747E+00	2.813E-01	0.966
		279.20	*	5.806E-02	5.538E-02	8.613E-02	8.197E-03	0.674
BI-207		72.81		3.725E-01	2.672E-01	4.142E-01	3.979E-02	0.899
	+	74.97		7.786E-01	1.852E-01	2.938E-01	2.869E-02	2.651
		569.70		3.685E-03	4.164E-02	6.883E-02	5.894E-03	0.054
		1063.66	*	2.778E-02	7.282E-02	1.253E-01	1.101E-02	0.222
		1770.23		5.160E-02	8.581E-01	1.243E+00	1.069E-01	0.042
PB-210		46.54	*	4.277E+00	5.907E+00	1.003E+01	9.653E-01	0.426
PB-211		404.85	*	3.031E-01	9.508E-01	1.550E+00	7.500E-01	0.196
		427.09		-6.874E-01	1.922E+00	2.957E+00	1.368E+00	-0.232
		832.01		-1.806E-01	1.416E+00	2.261E+00	1.174E+00	-0.080
BI-212	+	727.33	*	2.894E+00	1.347E+00	1.564E+00	1.933E-01	1.850
		785.37		2.217E+00	4.336E+00	7.362E+00	6.461E-01	0.301
		1620.50		2.295E+00	3.613E+00	6.519E+00	5.877E-01	0.352
RN-219	+	271.23		6.254E-01	3.998E-01	5.924E-01	6.421E-02	1.056
		401.81	*	-8.758E-02	5.328E-01	8.498E-01	1.258E-01	-0.103
RA-223		81.07		-2.371E-01	2.849E-01	3.982E-01	4.111E-02	-0.595
		83.79		9.055E-02	1.637E-01	2.458E-01	2.610E-02	0.368
		94.87		-2.030E-01	5.890E-01	9.462E-01	9.601E-02	-0.214

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		144.24		9.832E-01	9.347E-01	1.525E+00	1.428E-01	0.645
		154.21		2.283E-01	5.065E-01	8.213E-01	7.576E-02	0.278
	+	269.46		4.859E-01	3.096E-01	4.540E-01	4.296E-02	1.070
		323.87	*	-4.759E-02	9.040E-01	1.291E+00	2.275E-01	-0.037
	+	338.28		8.890E+00	3.100E+00	3.461E+00	4.292E-01	2.569
AC-227		79.69		3.239E-01	1.575E+00	2.334E+00	4.217E-01	0.139
		235.96		2.358E-01	2.216E-01	3.442E-01	3.717E-02	0.685
		256.23	*	-3.291E-02	3.165E-01	5.229E-01	6.547E-02	-0.063
	+	299.98		2.619E+00	1.418E+00	2.144E+00	2.823E-01	1.221
		304.50		-1.049E+00	2.395E+00	3.319E+00	5.602E-01	-0.316
		334.37		8.288E-01	2.820E+00	3.518E+00	5.580E-01	0.236
TH-227		79.80		3.714E-01	2.073E+00	3.068E+00	6.886E-01	0.121
		235.96		2.358E-01	2.214E-01	3.442E-01	3.525E-02	0.685
		256.23	*	-3.291E-02	3.165E-01	5.229E-01	7.333E-02	-0.063
	+	299.98		2.619E+00	1.418E+00	2.144E+00	2.823E-01	1.221
		304.50		-1.049E+00	2.395E+00	3.319E+00	5.602E-01	-0.316
		334.37		8.288E-01	2.820E+00	3.518E+00	5.580E-01	0.236
TH-229		85.43		5.394E-01	2.776E-01	4.349E-01	4.702E-02	1.240
	+	88.47		5.798E-01	2.067E-01	3.002E-01	3.318E-02	1.931
		193.51	*	-3.464E-01	6.681E-01	1.084E+00	9.512E-02	-0.320
	+	210.85		3.638E+00	1.786E+00	2.110E+00	1.891E-01	1.724
PA-231		283.69	*	-2.144E+00	1.907E+00	2.902E+00	4.354E-01	-0.739
	+	301.36		1.683E+00	9.088E-01	1.384E+00	1.748E-01	1.216
TH-231		81.07		-2.371E-01	2.849E-01	3.982E-01	4.111E-02	-0.595
		83.79		9.055E-02	1.637E-01	2.458E-01	2.610E-02	0.368
		94.87		-2.030E-01	5.890E-01	9.462E-01	9.601E-02	-0.214
		144.24		9.832E-01	9.347E-01	1.525E+00	1.428E-01	0.645
		154.21		2.283E-01	5.065E-01	8.213E-01	7.576E-02	0.278
	+	269.46		4.859E-01	3.096E-01	4.540E-01	4.296E-02	1.070
		323.87	*	-4.759E-02	9.040E-01	1.291E+00	2.275E-01	-0.037
	+	338.28		8.890E+00	3.100E+00	3.461E+00	4.292E-01	2.569
PA-233	+	300.13		1.185E+00	6.480E-01	9.677E-01	1.473E-01	1.225
		311.90	*	4.071E-02	8.837E-02	1.487E-01	1.409E-02	0.274
		340.48		3.472E+00	1.329E+00	1.804E+00	4.370E-01	1.925
PA-234		94.67		4.374E-02	2.178E-01	3.572E-01	4.832E-02	0.122
		98.44		1.412E-01	1.446E-01	1.875E-01	1.050E-01	0.753
		111.00		1.594E-01	2.327E-01	3.861E-01	4.737E-02	0.413
		131.20		5.301E-02	1.532E-01	2.229E-01	1.858E-02	0.238
		569.50		6.710E-02	3.664E-01	6.097E-01	5.221E-02	0.110
		733.00		-9.374E-02	5.889E-01	8.160E-01	1.808E-01	-0.115
		880.51		-3.088E-01	3.900E-01	5.739E-01	5.284E-02	-0.538
		883.24		4.996E-02	4.100E-01	6.667E-01	4.487E-01	0.075
		926.50		2.116E-02	2.326E-01	3.771E-01	9.614E-02	0.056
		946.00	*	-1.617E-01	4.136E-01	6.672E-01	1.270E-01	-0.242
		949.00		5.054E-01	6.216E-01	1.112E+00	1.022E-01	0.455
PA-234M		766.42		2.359E+01	2.030E+01	2.709E+01	1.375E+01	0.871
		1001.03	*	-1.182E+00	5.821E+00	9.573E+00	9.891E-01	-0.124
U-235		89.96		8.264E-01	1.473E+00	1.748E+00	4.451E-01	0.473
	+	93.35		2.833E+00	1.256E+00	1.265E+00	3.009E-01	2.239

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		143.76	*	1.450E-01	2.807E-01	4.483E-01	7.535E-02	0.323
		163.33		8.959E-02	5.727E-01	9.138E-01	1.633E-01	0.098
	+	185.72		2.882E-01	1.096E-01	1.148E-01	9.971E-03	2.511
		205.31		1.504E-01	6.905E-01	1.037E+00	1.896E-01	0.145
NP-239		99.53		2.034E-01	2.046E-01	3.309E-01	3.198E-02	0.615
		103.37		1.688E-02	1.177E-01	1.921E-01	1.796E-02	0.088
		106.12		2.353E-02	1.007E-01	1.648E-01	1.509E-02	0.143
		117.23	*	-6.144E-02	4.965E-01	7.958E-01	6.834E-02	-0.077
		228.18		1.736E-01	2.835E-01	4.865E-01	4.431E-02	0.357
	+	277.60		2.898E-01	3.077E-01	4.093E-01	3.812E-02	0.708
AM-241		59.54	*	-1.051E-01	2.295E-01	3.305E-01	3.137E-02	-0.318
CM-247	+	278.00		1.231E+00	1.307E+00	1.774E+00	1.652E-01	0.694
		287.50		2.003E+00	1.624E+00	2.841E+00	2.645E-01	0.705
		402.40	*	-1.270E-02	4.884E-02	7.734E-02	6.573E-03	-0.164
CF-249		252.80		-1.132E+00	1.157E+00	1.808E+00	1.674E-01	-0.626
		333.37		2.129E-01	3.160E-01	3.626E-01	3.305E-02	0.587
		388.16	*	6.800E-02	5.214E-02	9.135E-02	7.769E-03	0.744
CF-251		177.52	*	-5.140E-02	1.607E-01	2.687E-01	2.308E-02	-0.191
		227.38		1.929E-01	4.778E-01	8.129E-01	7.400E-02	0.237
		285.41		-4.638E-01	2.860E+00	4.679E+00	4.357E-01	-0.099

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334006      *
* Acquisition date : 24-MAR-2010 11:01:46 Detector SN#    :                 *
* Detector ID        : GAM06               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.29      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 11-MAR-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G249334006          Analyst initials: MXR1          *
* Batch Number       : 965250              Sample Quantity : 1.1240E+02 GRAM *
* Recovery           :    1.00000          Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04 MS Isotope      :                 *
* MSD DPM            :    0.000            MSD Isotope     :               *
* LCS DPM            :    0.000            LCS Isotope     :               *
* LCSD DPM           :    0.000            LCSD Isotope    :               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.428E+01	3.910E+00	7.676E-01	0.000E+00
CD-109	3.835E+00	1.340E+00	1.771E+00	0.000E+00
SN-126	3.761E-01	1.314E-01	1.838E-01	0.000E+00
TL-208	7.290E-01	1.204E-01	6.518E-02	0.000E+00
BI-211	4.978E+00	7.920E-01	4.159E-01	0.000E+00
PB-212	2.153E+00	2.637E-01	1.213E-01	0.000E+00
BI-214	1.506E+00	2.582E-01	1.530E-01	0.000E+00
PB-214	1.807E+00	3.036E-01	1.513E-01	0.000E+00
RA-224	4.874E+00	1.803E+00	1.301E+00	0.000E+00
RA-226	1.506E+00	2.582E-01	1.530E-01	0.000E+00
AC-228	2.412E+00	4.470E-01	3.006E-01	0.000E+00
RA-228	2.412E+00	4.470E-01	3.006E-01	0.000E+00
TH-228	2.153E+00	2.637E-01	1.213E-01	0.000E+00
TH-230	1.506E+00	2.461E-01	1.530E-01	0.000E+00
TH-232	2.412E+00	4.470E-01	3.006E-01	0.000E+00
TH-234	3.818E+00	2.743E+00	2.836E+00	0.000E+00
NP-237	1.122E+00	4.548E-01	4.870E-01	0.000E+00
U-238	3.818E+00	2.743E+00	2.836E+00	0.000E+00
ANH-511	1.237E-01	8.797E-02	6.284E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-3.582E-02	4.098E-01	7.045E-01	0.000E+00	NOT IDENT.
NA-22	-2.334E-02	6.285E-02	1.007E-01	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.990E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-1.928E-02	5.673E-02	9.016E-02	0.000E+00	FAIL ABUN
V-48	2.038E-02	8.867E-02	1.541E-01	0.000E+00	NOT IDENT.
CR-51	-8.336E-02	4.444E-01	7.406E-01	0.000E+00	NOT IDENT.
MN-54	3.952E-02	5.268E-02	9.228E-02	0.000E+00	NOT IDENT.
CO-56	3.805E-02	4.999E-02	8.839E-02	0.000E+00	NOT IDENT.

CO-57	1.283E-02	3.031E-02	5.151E-02	0.000E+00	NOT IDENT.
CO-58	-1.315E-02	4.887E-02	7.874E-02	0.000E+00	NOT IDENT.
FE-59	-6.296E-02	1.193E-01	1.909E-01	0.000E+00	NOT IDENT.
CO-60	-5.836E-03	5.523E-02	9.082E-02	0.000E+00	NOT IDENT.
ZN-65	-3.829E-02	1.340E-01	1.865E-01	0.000E+00	NOT IDENT.
SE-75	1.192E-02	5.907E-02	9.476E-02	0.000E+00	NOT IDENT.
SR-85	7.237E-02	5.401E-02	8.984E-02	0.000E+00	NOT IDENT.
Y-88	-1.376E-02	3.820E-02	5.844E-02	0.000E+00	NOT IDENT.
Y-91	1.071E+01	2.958E+01	5.104E+01	0.000E+00	NOT IDENT.
NB-94	-1.309E-02	4.638E-02	7.605E-02	0.000E+00	NOT IDENT.
NB-95	8.244E-03	6.055E-02	8.858E-02	0.000E+00	NOT IDENT.
NB-95M	-1.049E-03	1.706E-01	2.584E-01	0.000E+00	NOT IDENT.
ZR-95	-2.888E-02	9.844E-02	1.599E-01	0.000E+00	NOT IDENT.
MO-99	4.904E+00	9.877E+00	1.712E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.258E+14	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.649E-02	4.720E-02	7.555E-02	0.000E+00	FAIL ABUN
RH-106	5.145E-01	3.900E-01	7.197E-01	0.000E+00	NOT IDENT.
RU-106	5.145E-01	3.866E-01	7.197E-01	0.000E+00	NOT IDENT.
AG-108M	-8.750E-03	3.543E-02	5.717E-02	0.000E+00	NOT IDENT.
AG-110M	-2.502E-02	4.372E-02	7.005E-02	0.000E+00	NOT IDENT.
SN-113	-4.877E-02	5.770E-02	8.987E-02	0.000E+00	NOT IDENT.
CD-115	-6.058E+00	7.649E+00	1.173E+01	0.000E+00	NOT IDENT.
SN-117M	-4.244E-02	6.286E-02	9.962E-02	0.000E+00	NOT IDENT.
TE-123M	-3.493E-02	3.684E-02	5.751E-02	0.000E+00	NOT IDENT.
SB-124	-6.604E-02	9.143E-02	1.302E-01	0.000E+00	NOT IDENT.
SB-125	-3.265E-02	1.095E-01	1.761E-01	0.000E+00	FAIL ABUN
TE-125M	1.355E+00	1.172E+01	1.955E+01	0.000E+00	NOT IDENT.
I-126	-1.779E-01	2.735E-01	4.371E-01	0.000E+00	NOT IDENT.
SB-126	-9.638E-03	2.117E-01	3.050E-01	0.000E+00	NOT IDENT.
SB-127	7.512E-01	9.933E-01	1.784E+00	0.000E+00	NOT IDENT.
I-131	6.827E-03	1.172E-01	1.964E-01	0.000E+00	NOT IDENT.
TE-132	1.265E-01	5.982E-01	1.041E+00	0.000E+00	NOT IDENT.
BA-133	-8.282E-03	6.142E-02	8.879E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.260E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.270E-02	1.194E-01	0.000E+00	FAIL ABUN
CS-135	2.509E-01	2.269E-01	3.640E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.032E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-9.859E-02	1.284E-01	2.008E-01	0.000E+00	NOT IDENT.
BA-137M	1.787E-02	4.773E-02	8.271E-02	0.000E+00	NOT IDENT.
CS-137	1.887E-02	5.043E-02	8.737E-02	0.000E+00	NOT IDENT.
CE-139	2.722E-02	3.629E-02	6.153E-02	0.000E+00	NOT IDENT.
BA-140	1.322E-01	2.778E-01	4.878E-01	0.000E+00	NOT IDENT.
LA-140	-4.843E-03	1.022E-01	1.719E-01	0.000E+00	FAIL ABUN
CE-141	8.246E-02	8.159E-02	1.376E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	9.195E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	8.568E-02	2.756E-01	4.142E-01	0.000E+00	NOT IDENT.
PM-144	-1.200E-02	4.676E-02	7.687E-02	0.000E+00	NOT IDENT.
PR-144	-8.580E-01	3.498E+00	5.757E+00	0.000E+00	NOT IDENT.
PM-146	-5.034E-03	5.722E-02	9.331E-02	0.000E+00	NOT IDENT.
ND-147	-7.394E-02	5.823E-01	9.887E-01	0.000E+00	NOT IDENT.
PM-149	3.411E+01	5.989E+01	1.045E+02	0.000E+00	NOT IDENT.
EU-152	-8.965E-02	1.533E-01	1.962E-01	0.000E+00	NOT IDENT.
GD-153	8.061E-02	1.094E-01	1.714E-01	0.000E+00	NOT IDENT.
EU-154	-4.646E-03	1.712E-01	2.844E-01	0.000E+00	NOT IDENT.
EU-155	-1.691E-02	1.250E-01	2.090E-01	0.000E+00	FAIL ABUN
TB-160	-1.311E-01	1.835E-01	2.785E-01	0.000E+00	FAIL ABUN
HO-166M	-6.558E-02	8.320E-02	1.299E-01	0.000E+00	NOT IDENT.
TA-182	-3.861E-02	2.672E-01	4.409E-01	0.000E+00	FAIL ABUN
IR-192	-1.775E-02	4.547E-02	7.493E-02	0.000E+00	FAIL ABUN
HG-203	5.806E-02	5.428E-02	8.691E-02	0.000E+00	NOT IDENT.
BI-207	2.778E-02	7.136E-02	1.250E-01	0.000E+00	FAIL ABUN
PB-210	4.277E+00	5.789E+00	1.027E+01	0.000E+00	NOT IDENT.
PB-211	3.031E-01	9.318E-01	1.560E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.320E+00	1.566E+00	0.000E+00	FAIL ABUN
RN-219	-8.758E-02	5.222E-01	8.550E-01	0.000E+00	FAIL ABUN
RA-223	-4.759E-02	8.859E-01	1.301E+00	0.000E+00	FAIL ABUN
AC-227	-3.291E-02	3.102E-01	5.280E-01	0.000E+00	FAIL ABUN
TH-227	-3.291E-02	3.102E-01	5.280E-01	0.000E+00	FAIL ABUN
TH-229	-3.464E-01	6.547E-01	1.097E+00	0.000E+00	FAIL ABUN
PA-231	-2.144E+00	1.869E+00	2.928E+00	0.000E+00	FAIL ABUN
TH-231	-4.759E-02	8.859E-01	1.301E+00	0.000E+00	FAIL ABUN
PA-233	4.071E-02	8.660E-02	1.500E-01	0.000E+00	FAIL ABUN
PA-234	-1.617E-01	4.053E-01	6.665E-01	0.000E+00	NOT IDENT.
PA-234M	-1.182E+00	5.704E+00	9.557E+00	0.000E+00	NOT IDENT.
U-235	1.450E-01	2.751E-01	4.548E-01	0.000E+00	FAIL ABUN
NP-239	-6.144E-02	4.866E-01	8.088E-01	0.000E+00	FAIL ABUN
AM-241	-1.051E-01	2.249E-01	3.377E-01	0.000E+00	NOT IDENT.
CM-247	-1.270E-02	4.786E-02	7.781E-02	0.000E+00	FAIL ABUN

CF-249	6.800E-02	5.110E-02	9.193E-02	0.000E+00	NOT IDENT.
CF-251	-5.140E-02	1.575E-01	2.721E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:02:23.93

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334006.CNF;1
Sample date      : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 11:01:46
Sample ID        : G249334006           Sample quantity  : 1.12400E+02 GRAM
Detector name    : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:01.29  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 965250               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1022	10.66*	9.337E-01	3.428E+01	3.428E+01	11.64
CD-109	88.03	216	3.70*	5.175E+00	3.761E+00	3.835E+00	35.64
SN-126	64.28	115	9.60	2.711E+00	1.472E+00	1.472E+00	72.57
	86.94	216	8.90	5.175E+00	1.564E+00	1.564E+00	53.91
	87.57	216	37.00*	5.175E+00	3.761E-01	3.761E-01	35.64
TL-208	277.37	47	6.60	3.754E+00	6.340E-01	6.340E-01	106.58
	583.19	394	85.00*	2.126E+00	7.290E-01	7.290E-01	16.85
	860.56	62	12.50	1.509E+00	1.091E+00	1.091E+00	68.85
BI-211	72.87	------	1.23	3.914E+00	------	Line Not Found	------
	351.06	605	12.92*	3.143E+00	4.978E+00	4.978E+00	16.23
PB-212	74.82	343	10.28	4.129E+00	2.702E+00	2.702E+00	25.69
	77.11	608	17.10	4.366E+00	2.719E+00	2.719E+00	16.34
	238.63	1178	43.60*	4.191E+00	2.153E+00	2.153E+00	12.50
	300.09	83	3.30	3.539E+00	2.381E+00	2.381E+00	53.67
BI-214	609.32	420	45.49*	2.049E+00	1.506E+00	1.506E+00	17.49
	1120.29	103	14.92	1.179E+00	1.958E+00	1.958E+00	36.41
	1764.49	93	15.30	8.243E-01	2.470E+00	2.470E+00	27.41
PB-214	74.82	343	5.80	4.129E+00	4.789E+00	4.789E+00	25.07
	77.11	608	9.70	4.366E+00	4.792E+00	4.793E+00	18.30
	242.00	249	7.25	4.154E+00	2.756E+00	2.756E+00	38.18
	295.22	368	18.42	3.582E+00	1.860E+00	1.860E+00	20.95
	351.93	605	35.60*	3.143E+00	1.807E+00	1.807E+00	17.15
RA-224	240.99	249	4.10*	4.154E+00	4.874E+00	4.874E+00	37.74
RA-226	609.32	420	45.49*	2.049E+00	1.506E+00	1.506E+00	17.49
	1120.29	103	14.92	1.179E+00	1.958E+00	1.958E+00	36.41
	1764.49	93	15.30	8.243E-01	2.470E+00	2.470E+00	27.41
AC-228	338.32	245	11.27	3.239E+00	2.240E+00	2.240E+00	53.01
	911.20	267	25.80*	1.433E+00	2.412E+00	2.412E+00	18.91
	968.97	135	15.80	1.352E+00	2.118E+00	2.118E+00	41.47
RA-228	338.32	245	11.27	3.239E+00	2.240E+00	2.240E+00	53.01
	911.20	267	25.80*	1.433E+00	2.412E+00	2.412E+00	18.91
	968.97	135	15.80	1.352E+00	2.118E+00	2.118E+00	41.47

Sample ID : G249334006 Acquisition date : 24-MAR-2010 11:01:46

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-228	74.82	343	10.28	4.129E+00	2.702E+00	2.702E+00	23.81
	77.11	608	17.10	4.366E+00	2.719E+00	2.719E+00	16.34
	238.63	1178	43.60*	4.191E+00	2.153E+00	2.153E+00	12.50
	300.09	83	3.30	3.539E+00	2.381E+00	2.381E+00	80.73
TH-230	609.32	420	45.49*	2.049E+00	1.506E+00	1.506E+00	16.68
	1120.29	103	14.92	1.179E+00	1.958E+00	1.958E+00	35.79
	1764.49	93	15.30	8.243E-01	2.470E+00	2.470E+00	27.41
TH-232	338.32	245	11.27	3.239E+00	2.240E+00	2.240E+00	33.83
	911.20	267	25.80*	1.433E+00	2.412E+00	2.412E+00	18.91
	968.97	135	15.80	1.352E+00	2.118E+00	2.118E+00	41.47
TH-234	63.29	115	3.70*	2.711E+00	3.818E+00	3.818E+00	73.31
	92.59	261	4.23	5.489E+00	3.750E+00	3.750E+00	43.81
NP-237	86.48	216	12.40*	5.175E+00	1.122E+00	1.122E+00	41.35
	95.86	------	2.68	5.611E+00	------ Line Not Found		------
U-238	63.29	115	3.70*	2.711E+00	3.818E+00	3.818E+00	73.31
	92.59	261	4.23	5.489E+00	3.750E+00	3.750E+00	38.81
ANH-511	511.00	88	100.00*	2.365E+00	1.237E-01	1.237E-01	72.54

Flag: "*" = Keyline

Sample ID : G249334006 Acquisition date : 24-MAR-2010 11:01:46

Total number of lines in spectrum 31
Number of unidentified lines 3
Number of lines tentatively identified by NID 28 90.32%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.428E+01	3.428E+01	0.399E+01	11.64	
CD-109	461.40D	1.02	3.761E+00	3.835E+00	1.367E+00	35.64	
SN-126	2.30E+05Y	1.00	3.761E-01	3.761E-01	1.341E-01	35.64	
TL-208	1.41E+10Y	1.00	7.290E-01	7.290E-01	1.229E-01	16.85	
BI-211	7.04E+08Y	1.00	4.978E+00	4.978E+00	0.808E+00	16.23	
PB-212	1.41E+10Y	1.00	2.153E+00	2.153E+00	0.269E+00	12.50	
BI-214	1600.00Y	1.00	1.506E+00	1.506E+00	0.263E+00	17.49	
PB-214	1600.00Y	1.00	1.807E+00	1.807E+00	0.310E+00	17.15	
RA-224	1.41E+10Y	1.00	4.874E+00	4.874E+00	1.840E+00	37.74	
RA-226	1600.00Y	1.00	1.506E+00	1.506E+00	0.263E+00	17.49	
AC-228	1.41E+10Y	1.00	2.412E+00	2.412E+00	0.456E+00	18.91	
RA-228	1.41E+10Y	1.00	2.412E+00	2.412E+00	0.456E+00	18.91	
TH-228	1.41E+10Y	1.00	2.153E+00	2.153E+00	0.269E+00	12.50	
TH-230	7.54E+04Y	1.00	1.506E+00	1.506E+00	0.251E+00	16.68	
TH-232	1.41E+10Y	1.00	2.412E+00	2.412E+00	0.456E+00	18.91	
TH-234	4.47E+09Y	1.00	3.818E+00	3.818E+00	2.799E+00	73.31	
NP-237	2.14E+06Y	1.00	1.122E+00	1.122E+00	0.464E+00	41.35	
U-238	4.47E+09Y	1.00	3.818E+00	3.818E+00	2.799E+00	73.31	
ANH-511	1.00E+09Y	1.00	1.237E-01	1.237E-01	0.898E-01	72.54	
		Total Activity :	7.575E+01	7.582E+01			

Grand Total Activity : 7.575E+01 7.582E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249334006 Acquisition date : 24-MAR-2010 11:01:46

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.38	143	476	1.44	258.28	252	13	1.99E-02	64.8	5.91E+00	
0	186.18	246	384	1.15	371.82	365	14	3.41E-02	37.0	4.98E+00	T
0	209.47	140	282	1.14	418.38	415	10	1.95E-02	48.3	4.60E+00	T
0	270.07	77	174	1.25	539.53	536	8	1.08E-02	63.0	3.83E+00	T
0	328.23	75	162	1.62	655.81	650	12	1.05E-02	71.3	3.31E+00	T
0	463.45	72	75	1.21	926.16	922	9	9.96E-03	49.8	2.55E+00	T
0	727.89	102	83	1.45	1454.95	1447	16	1.41E-02	44.9	1.76E+00	T
0	771.00	105	97	5.71	1541.19	1530	26	1.46E-02	55.3	1.67E+00	
0	795.68	46	49	1.46	1590.53	1585	12	6.46E-03	66.5	1.62E+00	T
0	1730.56	18	11	0.97	3460.94	3451	14	2.57E-03	91.2	8.33E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:02:37.59

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334006.CNF;1  *
* Acquisition date : 24-MAR-2010 11:01:46  Detector SN#    :                *
* Detector ID      : GAM06                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.29         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                 SAMPLE DATA                               *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G249334006            Analyst initials: MXR1           *
* Batch Number     : 965250                Sample Quantity : 1.12400E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                   QC DATA                                 *
*                                                                           *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04.7MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.428E+01	3.990E+00	7.714E-01	7.271E-02	44.437
CD-109	3.835E+00	1.367E+00	1.739E+00	1.935E-01	2.206
SN-126	3.761E-01	1.341E-01	1.804E-01	1.998E-02	2.085
TL-208	7.290E-01	1.229E-01	6.499E-02	5.933E-03	11.218
BI-211	4.978E+00	8.082E-01	4.129E-01	3.875E-02	12.056
PB-212	2.153E+00	2.691E-01	1.201E-01	1.232E-02	17.934
BI-214	1.506E+00	2.634E-01	1.526E-01	1.514E-02	9.868
PB-214	1.807E+00	3.098E-01	1.502E-01	1.634E-02	12.030
RA-224	4.874E+00	1.840E+00	1.288E+00	1.184E-01	3.786
RA-226	1.506E+00	2.634E-01	1.526E-01	1.514E-02	9.868
AC-228	2.412E+00	4.561E-01	3.008E-01	3.633E-02	8.019
RA-228	2.412E+00	4.561E-01	3.008E-01	3.633E-02	8.019
TH-228	2.153E+00	2.691E-01	1.201E-01	1.232E-02	17.934
TH-230	1.506E+00	2.512E-01	1.526E-01	1.282E-02	9.868
TH-232	2.412E+00	4.561E-01	3.008E-01	3.633E-02	8.019
TH-234	3.818E+00	2.799E+00	2.776E+00	5.161E-01	1.375
NP-237	1.122E+00	4.641E-01	4.780E-01	1.130E-01	2.348
U-238	3.818E+00	2.799E+00	2.776E+00	5.161E-01	1.375

Sample ID : G249334006 Acquisition date : 24-MAR-2010 11:01:46

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	1.237E-01	8.976E-02	6.259E-02	5.432E-03	1.977

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.582E-02		4.182E-01	7.013E-01	6.549E-02	-0.051
NA-22	-2.334E-02		6.413E-02	1.010E-01	8.876E-03	-0.231
NA-24	-6.259E-02		4.077E-02	Half-Life too short		
SC-46	-1.928E-02		5.789E-02	9.021E-02	8.337E-03	-0.214
V-48	2.038E-02		9.047E-02	1.544E-01	1.405E-02	0.132
CR-51	-8.336E-02		4.535E-01	7.347E-01	7.073E-02	-0.113
MN-54	3.952E-02		5.376E-02	9.229E-02	8.316E-03	0.428
CO-56	3.805E-02		5.101E-02	8.841E-02	8.014E-03	0.430
CO-57	1.283E-02		3.093E-02	5.070E-02	4.269E-03	0.253
CO-58	-1.315E-02		4.986E-02	7.873E-02	7.023E-03	-0.167
FE-59	-6.296E-02		1.217E-01	1.913E-01	1.779E-02	-0.329
CO-60	-5.836E-03		5.636E-02	9.119E-02	8.341E-03	-0.064
ZN-65	-3.829E-02		1.368E-01	1.869E-01	1.591E-02	-0.205
SE-75	1.192E-02		6.027E-02	9.386E-02	8.760E-03	0.127
SR-85	7.237E-02		5.511E-02	8.948E-02	7.764E-03	0.809
Y-88	-1.376E-02		3.898E-02	5.884E-02	4.918E-03	-0.234
Y-91	1.071E+01		3.018E+01	5.121E+01	4.260E+00	0.209
NB-94	-1.309E-02		4.733E-02	7.595E-02	6.329E-03	-0.172
NB-95	8.244E-03		6.179E-02	8.852E-02	7.681E-03	0.093
NB-95M	-1.049E-03		1.741E-01	2.557E-01	2.650E-02	-0.004
ZR-95	-2.888E-02		1.004E-01	1.598E-01	1.523E-02	-0.181
MO-99	4.904E+00		1.008E+01	1.710E+01	2.687E+00	0.287
TC-99M	-6.667E+07		6.416E+07	Half-Life too short		
RU-103	-2.649E-02		4.816E-02	7.522E-02	1.054E-02	-0.352
RH-106	5.145E-01		3.979E-01	7.180E-01	9.388E-02	0.717
RU-106	5.145E-01		3.945E-01	7.180E-01	5.987E-02	0.717
AG-108M	-8.750E-03		3.616E-02	5.686E-02	5.053E-03	-0.154
AG-110M	-2.502E-02		4.461E-02	6.992E-02	5.867E-03	-0.358
SN-113	-4.877E-02		5.887E-02	8.931E-02	7.790E-03	-0.546
CD-115	-6.058E+00		7.805E+00	1.169E+01	1.012E+00	-0.518
SN-117M	-4.244E-02		6.415E-02	9.826E-02	8.259E-03	-0.432
TE-123M	-3.493E-02		3.759E-02	5.673E-02	4.800E-03	-0.616
SB-124	-6.604E-02		9.329E-02	1.310E-01	1.205E-02	-0.504
SB-125	-3.265E-02		1.117E-01	1.752E-01	1.533E-02	-0.186
TE-125M	1.355E+00		1.196E+01	1.923E+01	2.069E+00	0.070
I-126	-1.779E-01		2.791E-01	4.363E-01	3.543E-02	-0.408
SB-126	-9.638E-03		2.160E-01	3.046E-01	2.570E-02	-0.032
SB-127	7.512E-01		1.014E+00	1.781E+00	1.864E-01	0.422
I-131	6.827E-03		1.196E-01	1.951E-01	1.806E-02	0.035
TE-132	1.265E-01		6.104E-01	1.030E+00	1.617E-01	0.123
BA-133	-8.282E-03		6.267E-02	8.817E-02	1.159E-02	-0.094
I-133	-7.158E-04		6.431E-04	Half-Life too short		

Sample ID : G249334006 Acquisition date : 24-MAR-2010 11:01:46

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-134	1.258E-01	+	8.439E-02	1.193E-01	1.061E-02	1.054
CS-135	2.509E-01		2.315E-01	3.606E-01	3.808E-02	0.696
I-135	-1.906E+07		2.057E+07	Half-Life too short		
CS-136	-9.859E-02		1.311E-01	2.012E-01	1.853E-02	-0.490
BA-137M	1.787E-02		4.871E-02	8.255E-02	6.681E-03	0.216
CS-137	1.887E-02		5.145E-02	8.721E-02	7.073E-03	0.216
CE-139	2.722E-02		3.703E-02	6.071E-02	5.134E-03	0.448
BA-140	1.322E-01		2.835E-01	4.860E-01	1.649E-01	0.272
LA-140	-4.843E-03		1.043E-01	1.729E-01	1.566E-02	-0.028
CE-141	8.246E-02		8.325E-02	1.356E-01	1.152E-02	0.608
CE-143	2.777E-04		4.692E-05	Half-Life too short		
CE-144	8.568E-02		2.812E-01	4.080E-01	6.170E-02	0.210
PM-144	-1.200E-02		4.771E-02	7.676E-02	6.371E-03	-0.156
PR-144	-8.580E-01		3.570E+00	5.748E+00	4.770E-01	-0.149
PM-146	-5.034E-03		5.838E-02	9.284E-02	9.855E-03	-0.054
ND-147	-7.394E-02		5.942E-01	9.851E-01	1.475E-01	-0.075
PM-149	3.411E+01		6.111E+01	1.036E+02	1.650E+01	0.329
EU-152	-8.965E-02		1.565E-01	1.948E-01	1.853E-02	-0.460
GD-153	8.061E-02		1.116E-01	1.684E-01	1.662E-02	0.479
EU-154	-4.646E-03		1.747E-01	2.854E-01	3.282E-02	-0.016
EU-155	-1.691E-02		1.276E-01	2.055E-01	1.912E-02	-0.082
TB-160	-1.311E-01		1.873E-01	2.786E-01	2.564E-02	-0.470
HO-166M	-6.558E-02		8.490E-02	1.298E-01	1.088E-02	-0.505
TA-182	-3.861E-02		2.726E-01	4.424E-01	3.729E-02	-0.087
IR-192	-1.775E-02		4.639E-02	7.433E-02	6.869E-03	-0.239
HG-203	5.806E-02		5.538E-02	8.613E-02	8.197E-03	0.674
BI-207	2.778E-02		7.282E-02	1.253E-01	1.101E-02	0.222
PB-210	4.277E+00		5.907E+00	1.003E+01	9.653E-01	0.426
PB-211	3.031E-01		9.508E-01	1.550E+00	7.500E-01	0.196
BI-212	2.894E+00	+	1.347E+00	1.564E+00	1.933E-01	1.850
RN-219	-8.758E-02		5.328E-01	8.498E-01	1.258E-01	-0.103
RA-223	-4.759E-02		9.040E-01	1.291E+00	2.275E-01	-0.037
AC-227	-3.291E-02		3.165E-01	5.229E-01	6.547E-02	-0.063
TH-227	-3.291E-02		3.165E-01	5.229E-01	7.333E-02	-0.063
TH-229	-3.464E-01		6.681E-01	1.084E+00	9.512E-02	-0.320
PA-231	-2.144E+00		1.907E+00	2.902E+00	4.354E-01	-0.739
TH-231	-4.759E-02		9.040E-01	1.291E+00	2.275E-01	-0.037
PA-233	4.071E-02		8.837E-02	1.487E-01	1.409E-02	0.274
PA-234	-1.617E-01		4.136E-01	6.672E-01	1.270E-01	-0.242
PA-234M	-1.182E+00		5.821E+00	9.573E+00	9.891E-01	-0.124
U-235	1.450E-01		2.807E-01	4.483E-01	7.535E-02	0.323
NP-239	-6.144E-02		4.965E-01	7.958E-01	6.834E-02	-0.077
AM-241	-1.051E-01		2.295E-01	3.305E-01	3.137E-02	-0.318
CM-247	-1.270E-02		4.884E-02	7.734E-02	6.573E-03	-0.164
CF-249	6.800E-02		5.214E-02	9.135E-02	7.769E-03	0.744
CF-251	-5.140E-02		1.607E-01	2.687E-01	2.308E-02	-0.191

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249334006            *
* Acquisition date : 24-MAR-2010 11:01:46 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.29     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249334006           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.1240E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-FEB-2010 15:10:04 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.428E+01	3.910E+00	3.841E-01	1.995E+00
CD-109	3.835E+00	1.340E+00	8.862E-01	6.835E-01
SN-126	3.761E-01	1.314E-01	9.193E-02	6.703E-02
TL-208	7.290E-01	1.204E-01	3.261E-02	6.143E-02
BI-211	4.978E+00	7.920E-01	2.081E-01	4.041E-01
PB-212	2.153E+00	2.637E-01	6.070E-02	1.345E-01
BI-214	1.506E+00	2.582E-01	7.654E-02	1.317E-01
PB-214	1.807E+00	3.036E-01	7.568E-02	1.549E-01
RA-224	4.874E+00	1.803E+00	6.508E-01	9.198E-01
RA-226	1.506E+00	2.582E-01	7.654E-02	1.317E-01
AC-228	2.412E+00	4.470E-01	1.504E-01	2.280E-01
RA-228	2.412E+00	4.470E-01	1.504E-01	2.280E-01
TH-228	2.153E+00	2.637E-01	6.070E-02	1.345E-01
TH-230	1.506E+00	2.461E-01	7.654E-02	1.256E-01
TH-232	2.412E+00	4.470E-01	1.504E-01	2.280E-01
TH-234	3.818E+00	2.743E+00	1.419E+00	1.399E+00
NP-237	1.122E+00	4.548E-01	2.436E-01	2.320E-01
U-238	3.818E+00	2.743E+00	1.419E+00	1.399E+00
ANH-511	1.237E-01	8.797E-02	3.144E-02	4.488E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-3.582E-02	4.098E-01	3.525E-01	2.091E-01	NOT IDENT.
NA-22	-2.334E-02	6.285E-02	5.036E-02	3.207E-02	NOT IDENT.
NA-24	-6.259E+04	7.990E+04	0.000E+00	4.077E+04	SHORT HLIF
SC-46	-1.928E-02	5.673E-02	4.511E-02	2.894E-02	FAIL ABUN
V-48	2.038E-02	8.867E-02	7.712E-02	4.524E-02	NOT IDENT.
CR-51	-8.336E-02	4.444E-01	3.705E-01	2.267E-01	NOT IDENT.
MN-54	3.952E-02	5.268E-02	4.617E-02	2.688E-02	NOT IDENT.
CO-56	3.805E-02	4.999E-02	4.422E-02	2.551E-02	NOT IDENT.

CO-57	1.283E-02	3.031E-02	2.577E-02	1.546E-02	NOT IDENT.
CO-58	-1.315E-02	4.887E-02	3.939E-02	2.493E-02	NOT IDENT.
FE-59	-6.296E-02	1.193E-01	9.550E-02	6.087E-02	NOT IDENT.
CO-60	-5.836E-03	5.523E-02	4.544E-02	2.818E-02	NOT IDENT.
ZN-65	-3.829E-02	1.340E-01	9.329E-02	6.839E-02	NOT IDENT.
SE-75	1.192E-02	5.907E-02	4.741E-02	3.014E-02	NOT IDENT.
SR-85	7.237E-02	5.401E-02	4.495E-02	2.755E-02	NOT IDENT.
Y-88	-1.376E-02	3.820E-02	2.924E-02	1.949E-02	NOT IDENT.
Y-91	1.071E+01	2.958E+01	2.554E+01	1.509E+01	NOT IDENT.
NB-94	-1.309E-02	4.638E-02	3.805E-02	2.366E-02	NOT IDENT.
NB-95	8.244E-03	6.055E-02	4.432E-02	3.089E-02	NOT IDENT.
NB-95M	-1.049E-03	1.706E-01	1.293E-01	8.703E-02	NOT IDENT.
ZR-95	-2.888E-02	9.844E-02	8.000E-02	5.022E-02	NOT IDENT.
MO-99	4.904E+00	9.877E+00	8.564E+00	5.039E+00	NOT IDENT.
TC-99M	-6.667E+13	1.258E+14	0.000E+00	6.416E+13	SHORT HLIF
RU-103	-2.649E-02	4.720E-02	3.780E-02	2.408E-02	FAIL ABUN
RH-106	5.145E-01	3.900E-01	3.601E-01	1.990E-01	NOT IDENT.
RU-106	5.145E-01	3.866E-01	3.601E-01	1.973E-01	NOT IDENT.
AG-108M	-8.750E-03	3.543E-02	2.860E-02	1.808E-02	NOT IDENT.
AG-110M	-2.502E-02	4.372E-02	3.505E-02	2.231E-02	NOT IDENT.
SN-113	-4.877E-02	5.770E-02	4.496E-02	2.944E-02	NOT IDENT.
CD-115	-6.058E+00	7.649E+00	5.870E+00	3.903E+00	NOT IDENT.
SN-117M	-4.244E-02	6.286E-02	4.984E-02	3.207E-02	NOT IDENT.
TE-123M	-3.493E-02	3.684E-02	2.877E-02	1.880E-02	NOT IDENT.
SB-124	-6.604E-02	9.143E-02	6.516E-02	4.665E-02	NOT IDENT.
SB-125	-3.265E-02	1.095E-01	8.811E-02	5.585E-02	FAIL ABUN
TE-125M	1.355E+00	1.172E+01	9.782E+00	5.980E+00	NOT IDENT.
I-126	-1.779E-01	2.735E-01	2.187E-01	1.395E-01	NOT IDENT.
SB-126	-9.638E-03	2.117E-01	1.526E-01	1.080E-01	NOT IDENT.
SB-127	7.512E-01	9.933E-01	8.926E-01	5.068E-01	NOT IDENT.
I-131	6.827E-03	1.172E-01	9.828E-02	5.978E-02	NOT IDENT.
TE-132	1.265E-01	5.982E-01	5.208E-01	3.052E-01	NOT IDENT.
BA-133	-8.282E-03	6.142E-02	4.442E-02	3.134E-02	FAIL ABUN
I-133	-7.158E+02	1.260E+03	0.000E+00	6.431E+02	SHORT HLIF
CS-134	1.258E-01	8.270E-02	5.973E-02	4.219E-02	FAIL ABUN
CS-135	2.509E-01	2.269E-01	1.821E-01	1.158E-01	NOT IDENT.
I-135	-1.906E+13	4.032E+13	0.000E+00	2.057E+13	SHORT HLIF
CS-136	-9.859E-02	1.284E-01	1.005E-01	6.553E-02	NOT IDENT.
BA-137M	1.787E-02	4.773E-02	4.138E-02	2.435E-02	NOT IDENT.
CS-137	1.887E-02	5.043E-02	4.371E-02	2.573E-02	NOT IDENT.
CE-139	2.722E-02	3.629E-02	3.078E-02	1.852E-02	NOT IDENT.
BA-140	1.322E-01	2.778E-01	2.440E-01	1.417E-01	NOT IDENT.
LA-140	-4.843E-03	1.022E-01	8.601E-02	5.213E-02	FAIL ABUN
CE-141	8.246E-02	8.159E-02	6.882E-02	4.163E-02	NOT IDENT.
CE-143	2.777E+02	9.195E+01	0.000E+00	4.692E+01	SHORT HLIF
CE-144	8.568E-02	2.756E-01	2.072E-01	1.406E-01	NOT IDENT.
PM-144	-1.200E-02	4.676E-02	3.846E-02	2.386E-02	NOT IDENT.
PR-144	-8.580E-01	3.498E+00	2.880E+00	1.785E+00	NOT IDENT.
PM-146	-5.034E-03	5.722E-02	4.668E-02	2.919E-02	NOT IDENT.
ND-147	-7.394E-02	5.823E-01	4.947E-01	2.971E-01	NOT IDENT.
PM-149	3.411E+01	5.989E+01	5.228E+01	3.055E+01	NOT IDENT.
EU-152	-8.965E-02	1.533E-01	9.818E-02	7.823E-02	NOT IDENT.
GD-153	8.061E-02	1.094E-01	8.577E-02	5.581E-02	NOT IDENT.
EU-154	-4.646E-03	1.712E-01	1.423E-01	8.736E-02	NOT IDENT.
EU-155	-1.691E-02	1.250E-01	1.046E-01	6.378E-02	FAIL ABUN
TB-160	-1.311E-01	1.835E-01	1.393E-01	9.365E-02	FAIL ABUN
HO-166M	-6.558E-02	8.320E-02	6.501E-02	4.245E-02	NOT IDENT.
TA-182	-3.861E-02	2.672E-01	2.206E-01	1.363E-01	FAIL ABUN
IR-192	-1.775E-02	4.547E-02	3.749E-02	2.320E-02	FAIL ABUN
HG-203	5.806E-02	5.428E-02	4.348E-02	2.769E-02	NOT IDENT.
BI-207	2.778E-02	7.136E-02	6.256E-02	3.641E-02	FAIL ABUN
PB-210	4.277E+00	5.789E+00	5.140E+00	2.953E+00	NOT IDENT.
PB-211	3.031E-01	9.318E-01	7.804E-01	4.754E-01	NOT IDENT.
BI-212	2.894E+00	1.320E+00	7.833E-01	6.737E-01	FAIL ABUN
RN-219	-8.758E-02	5.222E-01	4.277E-01	2.664E-01	FAIL ABUN
RA-223	-4.759E-02	8.859E-01	6.511E-01	4.520E-01	FAIL ABUN
AC-227	-3.291E-02	3.102E-01	2.642E-01	1.582E-01	FAIL ABUN
TH-227	-3.291E-02	3.102E-01	2.642E-01	1.582E-01	FAIL ABUN
TH-229	-3.464E-01	6.547E-01	5.489E-01	3.340E-01	FAIL ABUN
PA-231	-2.144E+00	1.869E+00	1.465E+00	9.537E-01	FAIL ABUN
TH-231	-4.759E-02	8.859E-01	6.511E-01	4.520E-01	FAIL ABUN
PA-233	4.071E-02	8.660E-02	7.502E-02	4.419E-02	FAIL ABUN
PA-234	-1.617E-01	4.053E-01	3.334E-01	2.068E-01	NOT IDENT.
PA-234M	-1.182E+00	5.704E+00	4.781E+00	2.910E+00	NOT IDENT.
U-235	1.450E-01	2.751E-01	2.275E-01	1.404E-01	FAIL ABUN
NP-239	-6.144E-02	4.866E-01	4.046E-01	2.482E-01	FAIL ABUN
AM-241	-1.051E-01	2.249E-01	1.690E-01	1.148E-01	NOT IDENT.
CM-247	-1.270E-02	4.786E-02	3.893E-02	2.442E-02	FAIL ABUN

CF-249	6.800E-02	5.110E-02	4.599E-02	2.607E-02	NOT IDENT.
CF-251	-5.140E-02	1.575E-01	1.362E-01	8.035E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	259.5135
49.72	308.7431
57.36	0.0000
59.54	299.8236
63.29	321.1062
63.29	321.1062
64.28	351.5495
67.75	363.3221
69.67	414.9058
70.83	388.1627
72.81	403.3098
72.87	403.3656
72.87	403.3656
74.82	379.7113
74.82	379.7113
74.82	379.7113
74.97	379.8373
77.11	381.6221
77.11	381.6221
77.11	381.6221
79.69	321.7995
79.80	321.8742
80.12	311.5084
80.19	311.5540
80.57	313.3174
81.00	380.2610
81.07	380.3166
81.07	380.3166
83.79	339.8031
83.79	339.8031
85.43	313.4214
86.48	383.0319
86.55	419.8635
86.79	420.0642
86.94	489.7125
87.57	499.0299
88.03	450.8183
88.47	387.6323
89.96	388.7704
91.11	389.6433
92.59	390.7565
92.59	390.7565
93.35	391.3256
94.67	392.3080
94.87	392.4561
94.87	392.4561
95.86	288.6504
97.43	256.6341
98.44	244.5712
99.53	243.8037
100.11	275.7227
103.18	249.8428
103.37	249.9272
105.31	271.9501
106.12	258.5612
109.28	271.7001
111.00	270.3606
111.76	271.7780
116.30	264.1369
117.23	264.5394
121.12	253.1668
121.78	245.8196
122.06	240.4879
123.07	240.6555
131.20	278.1295
133.52	257.5040
136.00	277.9033

136.47	286.9956
140.51	294.2805
140.51	0.0000
143.76	288.9054
144.24	269.9780
144.24	269.9780
145.44	268.1810
152.43	253.7174
153.25	264.2498
154.21	257.7514
154.21	257.7514
156.02	275.5256
158.56	268.4297
159.00	285.8014
162.66	230.6620
163.33	251.6389
165.86	211.9270
176.60	273.7764
177.52	249.4063
181.07	212.4225
184.41	216.8266
185.72	217.1617
193.51	239.7952
197.04	242.5642
205.31	232.9785
210.85	190.4392
215.65	218.4132
222.11	221.4404
227.38	221.7123
228.16	220.0238
228.18	203.2457
235.69	225.4523
235.96	216.4922
235.96	216.4922
238.63	199.7285
238.63	199.7285
240.99	200.1911
242.00	200.3885
244.70	191.0580
252.40	175.6642
252.80	170.9563
256.23	165.7578
256.23	165.7578
260.90	160.7034
264.66	157.0745
268.22	158.0975
269.46	166.0329
269.46	166.0329
271.23	163.1884
273.65	171.3298
276.40	167.0621
277.37	160.1738
277.60	160.2063
278.00	162.6092
279.20	150.2578
279.54	150.3024
280.46	145.7235
283.69	177.7548
284.31	173.9211
285.41	162.2834
285.90	146.6082
287.50	134.9869
293.27	0.0000
295.22	150.7499
295.96	150.8450
298.57	143.2178
299.98	143.3848
299.98	143.3848
300.09	137.0247
300.09	137.0247
300.13	137.0289
301.36	118.0296
302.85	166.0826
304.50	153.5156
304.50	153.5156
304.85	150.3610
308.46	140.3760
311.90	144.7910

316.51	155.4193
319.41	151.7303
320.08	136.6294
323.87	125.0611
323.87	125.0611
328.76	122.2778
333.37	94.0790
334.37	117.3489
334.37	117.3489
338.28	130.3583
338.28	130.3583
338.32	130.3622
338.32	130.3622
338.32	130.3622
340.48	128.3134
340.55	118.4484
344.28	136.1028
351.06	117.1020
351.93	117.1761
356.01	124.8083
364.49	102.5534
366.42	129.9412
383.85	114.5654
388.16	89.3705
388.63	89.3987
391.69	125.8467
400.66	116.9501
401.81	110.5974
402.40	111.7156
404.85	104.3650
410.95	93.9827
414.70	108.2901
423.72	96.9391
427.09	92.7820
427.87	89.5511
433.94	85.5089
453.88	103.2130
463.37	90.4094
468.07	77.0074
473.00	93.1711
476.78	86.4023
477.60	100.8506
487.02	86.0091
492.35	71.7413
497.08	80.1292
511.00	90.8487
514.00	85.7893
527.90	79.6487
529.87	0.0000
531.02	73.2891
537.26	62.3627
546.56	0.0000
563.25	86.8003
569.33	77.6057
569.50	77.6137
569.70	80.4595
583.19	57.1816
600.60	88.4332
602.73	79.3841
604.72	83.4738
609.32	83.9796
609.32	83.9796
609.32	83.9796
610.33	84.0200
614.28	54.8294
618.01	78.7566
621.93	51.4693
621.93	51.4693
633.25	64.4354
635.95	71.3586
636.99	75.3043
645.85	66.7748
657.76	75.0370
661.66	74.1797
661.66	74.1797
664.57	0.0000
666.33	93.1669
666.50	93.1761

677.62	52.7956
685.70	41.9867
695.00	70.2615
696.49	83.3637
696.51	83.3647
697.00	81.3738
702.65	85.5997
706.68	61.5361
711.68	84.9187
720.70	82.8749
721.93	0.0000
722.78	71.0989
722.91	71.1023
723.31	77.8870
724.19	74.5275
727.33	63.0929
733.00	69.7013
735.93	76.5948
739.50	64.4350
747.24	64.6396
752.31	69.9142
753.82	64.8119
756.73	75.1886
763.94	65.4223
765.81	65.4718
766.42	49.9771
777.92	57.1310
778.90	65.8135
783.70	54.1379
785.37	61.4660
795.86	53.3495
801.95	62.9121
810.29	59.9585
810.76	55.7613
815.77	55.8674
818.51	47.4840
832.01	66.8175
834.85	62.6414
836.80	0.0000
846.77	44.7901
856.80	46.3823
860.56	46.0885
871.09	53.7964
873.19	41.9926
875.33	0.0000
879.36	59.3519
880.51	61.5352
883.24	55.1114
884.68	62.7083
889.28	66.0605
898.04	52.1426
911.20	51.2915
911.20	51.2915
911.20	51.2915
926.50	46.0780
937.49	54.1433
944.13	56.1053
946.00	58.9010
949.00	47.9058
962.29	74.0299
964.08	66.6665
966.15	55.5933
968.97	131.9570
968.97	131.9570
968.97	131.9570
983.53	52.1844
996.26	48.6580
1001.03	42.1729
1004.73	53.4816
1037.84	46.4599
1038.76	0.0000
1048.07	58.0240
1050.41	52.3547
1050.41	52.3547
1063.66	47.7885
1085.87	48.1120
1099.45	57.0026
1112.07	52.3674

1115.54	54.9187
1120.29	44.7179
1120.29	44.7179
1120.29	44.7179
1120.55	44.7216
1121.30	46.6758
1131.51	0.0000
1173.23	44.4177
1177.93	61.2785
1189.05	61.4702
1204.77	57.7546
1221.41	63.0231
1231.02	66.1960
1235.36	90.3735
1238.28	56.2757
1260.41	0.0000
1271.85	48.6719
1274.44	45.6610
1274.54	52.7638
1291.59	46.8853
1298.22	0.0000
1312.11	42.0110
1332.49	32.9609
1365.19	18.6936
1368.63	0.0000
1384.29	47.9990
1408.01	24.1380
1457.56	0.0000
1460.82	24.4450
1489.16	19.2576
1505.03	22.5492
1596.21	21.6042
1620.50	19.8296
1678.03	0.0000
1690.97	15.3348
1764.49	10.2155
1764.49	10.2155
1764.49	10.2155
1770.23	11.9317
1771.35	75.0181
1791.20	0.0000
1836.06	10.8538

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249334006

Total Uranium Activity	1.1426E+01	ug/g
Total Uranium Counting Unc.	8.1612E+00	ug/g
Total Uranium Tpu	4.1639E-06	ug/g
Total Uranium Mda	4.2222E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 965250                    SAMPLE ID  : G249334006        *
*   ANALYST      : MXR1                      DETECTOR   : GAM06             *
*   SAMPLE DATE  : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 11:01:46.73   SAMPLE ALQT:  112.400 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.168E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.791E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.203E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.038E+00
```

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 16:55:31.66

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334007.CNF;2
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 25-MAR-2010 14:47:57
Sample ID         : G249334007           Sample quantity  : 1.10710E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.41  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	3	74.84	636	636	1.23	149.90	145	14	8.83E-02	7.7	5.63E-01
2	3	77.12*	909	522	0.97	154.47	145	14	1.26E-01	5.3	
3	6	87.22	489	602	1.45	174.65	164	29	6.79E-02	10.1	1.67E+00
4	6	89.87	327	509	1.32	179.94	164	29	4.54E-02	13.6	
5	6	92.83*	436	538	1.43	185.85	164	29	6.06E-02	11.7	
6	0	105.46	99	483	1.42	211.08	207	8	1.37E-02	39.8	
7	0	129.12	155	533	1.07	258.36	254	8	2.15E-02	27.2	
8	0	185.93*	325	596	1.00	371.88	367	11	4.51E-02	16.2	
9	0	209.63	115	538	1.03	419.24	413	10	1.59E-02	39.2	
10	0	238.62*	1899	894	1.18	477.16	471	11	2.64E-01	3.9	
11	0	241.80	346	427	1.48	483.52	481	7	4.81E-02	11.6	
12	0	270.38	162	329	1.28	540.63	536	10	2.24E-02	22.5	
13	0	277.74	60	262	1.09	555.34	553	7	8.34E-03	46.3	
14	0	295.28*	653	356	1.28	590.39	584	12	9.07E-02	7.1	
15	0	300.24	148	329	0.85	600.29	596	11	2.06E-02	25.2	
16	0	328.35	103	279	0.86	656.46	652	10	1.43E-02	32.0	
17	0	338.32*	426	284	1.39	676.39	671	11	5.92E-02	9.2	
18	0	352.00*	1203	324	1.38	703.72	696	14	1.67E-01	4.3	
19	0	463.10	137	146	1.45	925.76	921	10	1.90E-02	18.7	
20	0	510.72*	223	235	1.93	1020.94	1013	17	3.10E-02	19.3	
21	0	583.14*	700	192	1.57	1165.69	1157	15	9.72E-02	5.9	
22	0	609.37*	868	189	1.64	1218.13	1211	16	1.21E-01	5.1	
23	0	727.97*	117	153	2.38	1455.20	1449	12	1.63E-02	24.2	
24	0	770.58	149	203	5.75	1540.38	1530	27	2.06E-02	28.3	
25	0	794.64	114	105	1.53	1588.49	1581	14	1.58E-02	21.2	
26	0	860.65	92	141	1.59	1720.44	1711	15	1.27E-02	30.2	
27	0	911.39*	515	145	1.86	1821.90	1815	15	7.15E-02	6.9	
28	2	964.89	121	80	2.81	1928.88	1920	25	1.68E-02	22.7	1.05E+00
29	2	969.15*	325	82	2.11	1937.38	1920	25	4.52E-02	8.2	
30	0	1121.07*	178	154	2.31	2241.16	2230	18	2.47E-02	18.3	
31	0	1173.69	184	143	2.10	2346.38	2337	21	2.56E-02	18.0	
32	0	1332.77	109	72	2.94	2664.55	2655	17	1.51E-02	20.3	
33	0	1460.92*	2328	57	2.63	2920.86	2907	23	3.23E-01	2.2	
34	0	1729.66	63	26	3.04	3458.49	3445	20	8.76E-03	23.2	
35	0	1764.54*	170	9	3.30	3528.28	3518	19	2.36E-02	9.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 25-MAR-2010 16:55:34

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334007.CNF;2
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 25-MAR-2010 14:47:57
Sample ID         : G249334007           Sample quantity  : 110.71 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA22              Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.41   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.880E+01	3.959E+00	5.557E-01	5.091E-02	69.818
CO-60	+	1173.23		2.788E-01	1.027E-01	8.128E-02	6.537E-03	3.430
	+	1332.49	*	1.815E-01	7.557E-02	7.068E-02	6.303E-03	2.567
CD-109	+	88.03	*	6.115E+00	1.367E+00	1.247E+00	1.183E-01	4.906
SN-126		64.28		5.983E-01	5.353E-01	9.141E-01	1.328E-01	0.655
	+	86.94		2.489E+00	1.150E+00	5.123E-01	2.127E-01	4.858
	+	87.57	*	5.987E-01	1.338E-01	1.225E-01	1.157E-02	4.886
EU-155	+	86.55		7.256E-01	1.624E-01	1.499E-01	1.410E-02	4.840
	+	105.31	*	1.903E-01	1.525E-01	1.878E-01	1.612E-02	1.013
HG-203		70.83		3.849E-01	1.522E+00	2.260E+00	3.539E-01	0.170
		72.87		1.179E+00	9.285E-01	1.402E+00	2.132E-01	0.841
	+	279.20	*	4.987E-02	4.670E-02	6.876E-02	9.721E-03	0.725
TL-208	+	277.37		4.992E-01	4.696E-01	6.968E-01	1.159E-01	0.716
	+	583.19	*	7.100E-01	1.135E-01	6.490E-02	7.031E-03	10.940
	+	860.56		8.511E-01	5.237E-01	4.526E-01	5.273E-02	1.880
BI-211		72.87		4.807E+00	3.734E+00	5.716E+00	4.575E-01	0.841
	+	351.06	*	5.847E+00	8.475E-01	3.627E-01	4.233E-02	16.119
PB-212	+	74.82		3.398E+00	6.759E-01	5.868E-01	7.452E-02	5.791
	+	77.11		2.789E+00	3.777E-01	3.380E-01	2.826E-02	8.251
	+	238.63	*	2.201E+00	3.381E-01	1.253E-01	1.661E-02	17.560
	+	300.09		2.571E+00	1.350E+00	1.390E+00	2.038E-01	1.850
BI-214	+	609.32	*	1.698E+00	2.620E-01	1.122E-01	1.309E-02	15.134
	+	1120.29		1.727E+00	6.621E-01	5.595E-01	6.209E-02	3.087
	+	1764.49		2.194E+00	4.639E-01	2.402E-01	2.002E-02	9.134
PB-214	+	74.82		6.023E+00	1.149E+00	1.040E+00	1.184E-01	5.791
	+	77.11		4.916E+00	7.796E-01	5.958E-01	6.998E-02	8.251
	+	242.00		2.432E+00	6.549E-01	8.532E-01	1.180E-01	2.850
	+	295.22		2.014E+00	4.152E-01	2.403E-01	3.605E-02	8.381
	+	351.93	*	2.122E+00	3.291E-01	1.319E-01	1.698E-02	16.089
RA-224	+	240.99	*	4.300E+00	1.131E+00	1.627E+00	2.036E-01	2.644
RA-226	+	609.32	*	1.698E+00	2.620E-01	1.122E-01	1.309E-02	15.134
	+	1120.29		1.727E+00	6.621E-01	5.595E-01	6.209E-02	3.087
	+	1764.49		2.194E+00	4.639E-01	2.402E-01	2.002E-02	9.134
AC-228	+	338.32		2.320E+00	1.076E+00	4.060E-01	1.726E-01	5.715

Sample ID : G249334007 Acquisition date : 25-MAR-2010 14:47:57

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	911.20	*	2.428E+00	4.697E-01	2.437E-01	3.302E-02	9.962
	+	968.97		2.635E+00	7.907E-01	3.706E-01	9.316E-02	7.111
RA-228	+	338.32		2.320E+00	1.076E+00	4.060E-01	1.726E-01	5.715
	+	911.20	*	2.428E+00	4.697E-01	2.437E-01	3.302E-02	9.962
	+	968.97		2.635E+00	7.907E-01	3.706E-01	9.316E-02	7.111
TH-228	+	74.82		3.398E+00	5.908E-01	5.868E-01	4.839E-02	5.791
	+	77.11		2.789E+00	3.777E-01	3.380E-01	2.826E-02	8.251
	+	238.63	*	2.201E+00	3.381E-01	1.253E-01	1.661E-02	17.560
	+	300.09		2.571E+00	2.056E+00	1.390E+00	8.625E-01	1.850
TH-230	+	609.32	*	1.698E+00	2.462E-01	1.122E-01	1.167E-02	15.134
	+	1120.29		1.727E+00	6.519E-01	5.595E-01	4.948E-02	3.087
	+	1764.49		2.194E+00	4.638E-01	2.402E-01	2.002E-02	9.134
TH-232	+	338.32		2.320E+00	5.102E-01	4.060E-01	4.828E-02	5.715
	+	911.20	*	2.428E+00	4.697E-01	2.437E-01	3.302E-02	9.962
	+	968.97		2.635E+00	7.907E-01	3.706E-01	9.316E-02	7.111
U-235	+	89.96		4.164E+00	1.532E+00	1.281E+00	3.185E-01	3.251
	+	93.35		3.358E+00	1.107E+00	7.760E-01	1.805E-01	4.327
		143.76	*	5.079E-02	2.295E-01	3.819E-01	6.527E-02	0.133
		163.33		3.419E-01	4.851E-01	8.213E-01	1.519E-01	0.416
	+	185.72		2.531E-01	8.611E-02	7.509E-02	7.863E-03	3.371
		205.31		2.598E-02	6.369E-01	9.180E-01	1.789E-01	0.028
NP-237	+	86.48	*	1.786E+00	5.474E-01	3.693E-01	8.473E-02	4.837
		95.86		-8.135E-01	1.103E+00	1.504E+00	3.623E-01	-0.541
ANH-511	+	511.00	*	1.761E-01	7.022E-02	5.240E-02	5.250E-03	3.361

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.450E-01	3.578E-01	5.653E-01	5.898E-02	-0.256
NA-22		1274.54	*	-1.472E-02	4.790E-02	7.762E-02	6.690E-03	-0.190
NA-24		1368.63	*	-1.088E-01	4.790E-02	Half-Life too short		
SC-46		889.28	*	-2.763E-03	4.141E-02	6.839E-02	7.656E-03	-0.040
	+	1120.55		2.898E-01	1.094E-01	1.377E-01	1.218E-02	2.104
V-48		944.13		-3.570E-01	8.880E-01	1.424E+00	1.545E-01	-0.251
		983.53	*	6.554E-02	7.433E-02	1.284E-01	1.346E-02	0.511
		1312.11		-6.816E-02	8.567E-02	1.328E-01	1.170E-02	-0.513
CR-51		320.08	*	3.499E-01	4.099E-01	7.041E-01	9.114E-02	0.497
MN-54		834.85	*	5.350E-03	4.112E-02	6.909E-02	7.675E-03	0.077
CO-56		846.77	*	-3.009E-02	4.228E-02	6.724E-02	7.485E-03	-0.448
		1037.84		-2.218E-01	3.411E-01	5.318E-01	5.479E-02	-0.417
		1238.28		1.193E-01	1.040E-01	1.786E-01	1.548E-02	0.668
		1771.35		7.558E-03	2.341E-01	3.287E-01	2.731E-02	0.023
CO-57		122.06	*	1.615E-02	2.937E-02	4.747E-02	3.915E-03	0.340
		136.47		-1.519E-01	2.287E-01	3.781E-01	3.504E-02	-0.402
CO-58		810.76	*	-9.807E-03	4.161E-02	6.866E-02	7.602E-03	-0.143
FE-59		1099.45	*	-1.115E-01	1.037E-01	1.555E-01	1.523E-02	-0.717
		1291.59		-2.578E-02	1.311E-01	2.136E-01	2.105E-02	-0.121
ZN-65		1115.54	*	3.458E-02	1.225E-01	1.729E-01	1.543E-02	0.200

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SE-75		121.12		-2.776E-02	1.514E-01	2.384E-01	2.574E-02	-0.116
		136.00		-3.827E-02	4.409E-02	7.236E-02	6.281E-03	-0.529
		264.66	*	-3.003E-03	5.926E-02	8.287E-02	1.115E-02	-0.036
		279.54		1.776E-01	1.496E-01	2.195E-01	3.116E-02	0.809
		400.66		-2.818E-02	2.925E-01	4.781E-01	5.584E-02	-0.059
SR-85		514.00	*	1.769E-01	5.338E-02	8.492E-02	8.521E-03	2.083
Y-88		898.04		-2.569E-02	4.459E-02	7.109E-02	7.988E-03	-0.361
		1836.06	*	-3.212E-02	3.501E-02	5.016E-02	4.055E-03	-0.640
Y-91		1204.77	*	4.845E+00	2.457E+01	4.132E+01	3.397E+00	0.117
NB-94		702.65	*	1.518E-02	3.647E-02	6.085E-02	6.521E-03	0.249
		871.09		2.357E-02	3.464E-02	5.989E-02	6.690E-03	0.394
NB-95		765.81	*	7.063E-02	5.481E-02	8.281E-02	9.055E-03	0.853
NB-95M		235.69	*	3.015E-01	1.688E-01	2.526E-01	3.343E-02	1.193
ZR-95		724.19		1.458E-01	1.233E-01	1.854E-01	2.110E-02	0.787
		756.73	*	2.729E-02	8.127E-02	1.342E-01	1.561E-02	0.203
MO-99		140.51		-2.032E+01	1.999E+01	3.171E+01	7.547E+00	-0.641
		181.07		2.151E+00	1.761E+01	2.577E+01	5.057E+00	0.083
		366.42		1.924E+01	8.490E+01	1.418E+02	1.504E+01	0.136
		739.50	*	9.073E+00	1.027E+01	1.739E+01	2.970E+00	0.522
		777.92		-1.465E+01	3.453E+01	4.569E+01	5.013E+00	-0.321
TC-99M		140.51	*	-2.836E+09	3.453E+01	Half-Life too short		
RU-103		497.08	*	4.725E-03	4.278E-02	6.928E-02	1.027E-02	0.068
	+	610.33		1.721E+01	3.457E+00	2.982E+00	5.176E-01	5.773
RH-106		621.93	*	7.723E-02	3.341E-01	5.584E-01	8.102E-02	0.138
		1050.41		-1.041E+00	2.887E+00	4.597E+00	4.487E-01	-0.226
RU-106		621.93	*	7.723E-02	3.340E-01	5.584E-01	5.832E-02	0.138
		1050.41		-1.041E+00	2.887E+00	4.597E+00	4.487E-01	-0.226
AG-108M		433.94	*	-3.222E-02	3.355E-02	5.182E-02	5.101E-03	-0.622
		614.28		-1.936E-03	4.127E-02	5.843E-02	6.228E-03	-0.033
		722.91		3.190E-02	4.706E-02	6.907E-02	7.608E-03	0.462
AG-110M		657.76	*	-1.255E-02	3.580E-02	5.755E-02	6.186E-03	-0.218
		677.62		1.791E-01	3.246E-01	5.479E-01	5.927E-02	0.327
		706.68		-3.626E-02	2.365E-01	3.826E-01	4.183E-02	-0.095
		763.94		5.675E-02	2.064E-01	2.923E-01	3.250E-02	0.194
		884.68		-1.417E-02	5.397E-02	8.809E-02	1.004E-02	-0.161
		937.49		1.366E-02	1.193E-01	1.982E-01	2.210E-02	0.069
		1384.29		-2.180E-01	1.791E-01	2.616E-01	2.397E-02	-0.833
		1505.03		-2.484E-01	3.100E-01	4.640E-01	4.126E-02	-0.535
SN-113		391.69	*	-2.489E-03	4.985E-02	8.180E-02	7.812E-03	-0.030
CD-115		260.90		-2.166E+01	1.169E+02	1.865E+02	2.479E+01	-0.116
		492.35		-2.208E+01	3.115E+01	4.808E+01	4.772E+00	-0.459
		527.90	*	-2.250E-01	8.680E+00	1.453E+01	1.467E+00	-0.015
SN-117M		156.02		1.019E+00	2.346E+00	3.981E+00	3.732E-01	0.256
		158.56	*	-1.252E-02	5.785E-02	9.609E-02	9.112E-03	-0.130
TE-123M		159.00	*	2.329E-03	3.088E-02	5.178E-02	4.945E-03	0.045
SB-124		602.73		3.133E-03	4.355E-02	6.239E-02	6.481E-03	0.050
		645.85		8.149E-02	5.116E-01	8.494E-01	9.274E-02	0.096
		722.78		3.311E-01	4.681E-01	6.884E-01	7.538E-02	0.481
		1690.97	*	-4.169E-02	7.210E-02	1.100E-01	9.803E-03	-0.379

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-125		427.87	*	2.342E-02	9.908E-02	1.636E-01	1.586E-02	0.143
	+	463.37		9.677E-01	3.752E-01	5.637E-01	5.833E-02	1.717
		600.60		-4.578E-03	1.843E-01	2.908E-01	3.175E-02	-0.016
		635.95		-4.225E-03	2.655E-01	4.371E-01	4.838E-02	-0.010
TE-125M		109.28	*	6.681E+00	1.261E+01	1.815E+01	1.865E+00	0.368
I-126		388.63		2.745E-01	1.793E-01	3.116E-01	2.950E-02	0.881
		666.33	*	1.604E-01	2.272E-01	3.859E-01	4.078E-02	0.416
		753.82		3.047E-01	1.864E+00	3.051E+00	3.325E-01	0.100
SB-126		414.70		-2.550E-02	7.826E-02	1.260E-01	1.193E-02	-0.202
		666.50		5.919E-02	7.807E-02	1.329E-01	1.404E-02	0.445
		695.00		5.303E-02	7.897E-02	1.335E-01	1.427E-02	0.397
		697.00		-9.363E-02	2.768E-01	4.434E-01	4.742E-02	-0.211
		720.70	*	-4.715E-02	1.799E-01	2.449E-01	2.641E-02	-0.193
		856.80		2.166E-01	5.425E-01	7.990E-01	8.908E-02	0.271
SB-127		252.40		-7.439E-01	4.062E+00	6.485E+00	2.760E+00	-0.115
		473.00		1.840E-02	1.488E+00	2.408E+00	3.220E-01	0.008
		685.70	*	-1.484E-01	1.140E+00	1.851E+00	2.355E-01	-0.080
		783.70		6.450E+00	3.502E+00	5.744E+00	7.972E-01	1.123
I-131		80.19		-5.020E-01	5.953E+00	6.809E+00	5.923E-01	-0.074
		284.31		-7.227E-01	1.612E+00	2.520E+00	3.561E-01	-0.287
		364.49	*	1.585E-01	1.168E-01	2.027E-01	2.244E-02	0.782
		636.99		-1.429E-01	1.429E+00	2.340E+00	2.548E-01	-0.061
TE-132		49.72		-8.038E+00	1.384E+01	2.272E+01	2.328E+00	-0.354
		111.76		-2.403E+01	3.154E+01	4.879E+01	5.123E+00	-0.492
		116.30		2.073E+01	2.699E+01	4.400E+01	4.599E+00	0.471
		228.16	*	7.276E-02	6.908E-01	1.128E+00	2.001E-01	0.065
BA-133		81.00		3.082E-03	1.300E-01	1.496E-01	2.331E-02	0.021
	+	276.40		4.614E-01	4.350E-01	6.792E-01	1.211E-01	0.679
		302.85		8.485E-02	1.682E-01	2.523E-01	4.163E-02	0.336
		356.01	*	5.446E-02	4.940E-02	7.526E-02	1.108E-02	0.724
		383.85		-2.918E-01	3.267E-01	5.123E-01	6.769E-02	-0.570
I-133		529.87	*	4.352E-04	3.267E-01	Half-Life too short		
		875.33		-4.428E-02	3.267E-01	Half-Life too short		
		1298.22		-6.112E-02	3.267E-01	Half-Life too short		
CS-134		563.25		-4.458E-02	4.080E-01	6.763E-01	6.977E-02	-0.066
		569.33		3.034E-02	2.133E-01	3.500E-01	3.630E-02	0.087
		604.72		2.887E-02	3.728E-02	5.618E-02	5.850E-03	0.514
	+	795.86	*	1.633E-01	7.170E-02	9.367E-02	1.037E-02	1.744
		801.95		-1.550E-01	5.347E-01	7.401E-01	8.196E-02	-0.209
		1365.19		-8.437E-01	1.303E+00	2.014E+00	1.876E-01	-0.419
CS-135		268.22	*	1.306E-01	2.184E-01	3.145E-01	4.549E-02	0.415
I-135		546.56		4.889E+08	2.184E-01	Half-Life too short		
		836.80		1.151E+09	2.184E-01	Half-Life too short		
		1038.76		-1.827E+09	2.184E-01	Half-Life too short		
		1131.51		-1.010E+08	2.184E-01	Half-Life too short		
		1260.41	*	3.313E+08	2.184E-01	Half-Life too short		
		1457.56		1.195E+11	2.184E-01	Half-Life too short		
		1678.03		8.404E+08	2.184E-01	Half-Life too short		
		1791.20		-4.202E+08	2.184E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-136		153.25		7.960E-01	8.976E-01	1.540E+00	1.664E-01	0.517
		176.60		1.102E-01	5.332E-01	8.910E-01	9.732E-02	0.124
		273.65		7.377E-01	7.643E-01	8.404E-01	1.198E-01	0.878
		340.55		8.624E-01	2.146E-01	3.301E-01	3.973E-02	2.613
		818.51		-1.703E-02	7.467E-02	1.231E-01	1.364E-02	-0.138
		1048.07	*	-3.317E-03	1.152E-01	1.878E-01	1.898E-02	-0.018
		1235.36		9.902E-01	6.186E-01	1.092E+00	1.266E-01	0.907
BA-137M		661.66	*	-1.099E-03	3.795E-02	6.221E-02	6.560E-03	-0.018
CS-137		661.66	*	-1.161E-03	4.009E-02	6.571E-02	6.939E-03	-0.018
CE-139		165.86	*	-1.070E-03	3.315E-02	5.523E-02	5.417E-03	-0.019
BA-140		162.66		2.859E-01	8.540E-01	1.441E+00	1.467E-01	0.198
		304.85		-1.744E-02	1.516E+00	2.216E+00	6.853E-01	-0.008
		423.72		9.644E-01	1.858E+00	3.074E+00	1.019E+00	0.314
		537.26	*	-6.384E-02	2.671E-01	4.400E-01	1.511E-01	-0.145
LA-140	+	328.76		6.610E-01	4.315E-01	5.687E-01	7.189E-02	1.162
		487.02		-1.978E-02	1.423E-01	2.277E-01	2.361E-02	-0.087
		815.77		6.081E-02	3.171E-01	5.363E-01	6.367E-02	0.113
		1596.21	*	-1.513E-01	1.089E-01	1.529E-01	1.340E-02	-0.989
CE-141		145.44	*	6.522E-02	6.801E-02	1.173E-01	1.068E-02	0.556
CE-143		57.36		2.854E-04	6.801E-02	Half-Life too short		
		293.27	*	6.496E-04	6.801E-02	Half-Life too short		
		664.57		5.308E-04	6.801E-02	Half-Life too short		
		721.93		4.487E-04	6.801E-02	Half-Life too short		
CE-144		80.12		-1.813E-01	3.502E+00	4.015E+00	3.471E-01	-0.045
		133.52	*	-3.863E-02	2.332E-01	3.647E-01	5.558E-02	-0.106
PM-144		476.78		-2.386E-02	7.243E-02	1.149E-01	1.207E-02	-0.208
		618.01		5.759E-04	3.705E-02	5.677E-02	6.037E-03	0.010
		696.49	*	3.494E-03	3.702E-02	6.080E-02	6.502E-03	0.057
PR-144		696.51	*	2.644E-01	2.769E+00	4.549E+00	4.863E-01	0.058
		1489.16		-9.155E+00	1.429E+01	2.176E+01	1.938E+00	-0.421
PM-146		453.88	*	9.589E-03	4.766E-02	7.812E-02	8.983E-03	0.123
		633.25		-1.195E+00	1.472E+00	2.181E+00	8.432E-01	-0.548
		735.93		-8.028E-02	1.658E-01	2.453E-01	7.062E-02	-0.327
		747.24		-3.635E-02	1.018E-01	1.612E-01	2.582E-02	-0.226
ND-147	+	91.11		1.266E+00	3.657E-01	5.291E-01	5.230E-02	2.393
		319.41		1.968E+00	3.565E+00	6.078E+00	7.693E-01	0.324
		531.02	*	1.094E-01	5.582E-01	9.436E-01	1.496E-01	0.116
PM-149		285.90	*	3.773E+01	7.690E+01	1.249E+02	2.362E+01	0.302
EU-152		121.78		4.970E-02	8.430E-02	1.364E-01	1.306E-02	0.364
		244.70		3.186E-01	4.178E-01	6.123E-01	7.752E-02	0.520
		344.28	*	-1.175E-01	1.441E-01	1.693E-01	2.034E-02	-0.694
		778.90		-1.970E-01	3.369E-01	4.391E-01	4.818E-02	-0.449
	+	964.08		1.055E+00	4.926E-01	6.197E-01	6.613E-02	1.703
		1085.87		-3.441E-01	4.534E-01	6.991E-01	6.513E-02	-0.492
		1112.07		-6.643E-02	4.247E-01	5.771E-01	5.171E-02	-0.115
		1408.01		8.637E-03	2.200E-01	3.615E-01	3.232E-02	0.024
GD-153		69.67		9.086E-01	1.962E+00	2.943E+00	2.284E-01	0.309
		97.43	*	-2.157E-02	1.037E-01	1.474E-01	1.296E-02	-0.146
		103.18		-2.999E-02	1.388E-01	1.962E-01	1.677E-02	-0.153

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-154		123.07		-4.138E-03	6.105E-02	9.648E-02	1.069E-02	-0.043
		723.31		7.267E-02	2.200E-01	3.145E-01	3.618E-02	0.231
		873.19		1.999E-02	2.873E-01	4.796E-01	6.646E-02	0.042
		996.26		-1.573E-01	3.995E-01	6.372E-01	1.172E-01	-0.247
		1004.73		6.872E-02	2.317E-01	3.868E-01	4.993E-02	0.178
		1274.44	*	-4.726E-02	1.355E-01	2.188E-01	2.488E-02	-0.216
TB-160	+	86.79		1.908E+00	4.263E-01	5.428E-01	5.076E-02	3.514
		197.04		4.026E-02	6.630E-01	1.072E+00	1.166E-01	0.038
		215.65		3.274E-01	8.593E-01	1.422E+00	1.644E-01	0.230
		298.57		3.495E-01	2.094E-01	2.357E-01	3.159E-02	1.483
		879.36	*	-3.578E-02	1.589E-01	2.468E-01	2.760E-02	-0.145
		962.29		9.215E-01	6.657E-01	1.028E+00	1.098E-01	0.897
	+	966.15		7.301E-01	3.409E-01	6.036E-01	6.430E-02	1.210
		1177.93		1.539E-03	4.791E-01	6.810E-01	5.495E-02	0.002
		1271.85		9.770E-02	7.407E-01	1.237E+00	1.063E-01	0.079
HO-166M		80.57		-8.274E-02	3.809E-01	4.315E-01	3.749E-02	-0.192
		184.41		1.272E-01	5.044E-02	7.878E-02	8.213E-03	1.614
		280.46		3.352E-02	1.144E-01	1.621E-01	2.264E-02	0.207
		410.95		2.920E-01	2.804E-01	4.779E-01	4.511E-02	0.611
		711.68	*	-4.170E-02	6.888E-02	1.082E-01	1.164E-02	-0.385
		752.31		3.045E-02	2.920E-01	4.766E-01	5.192E-02	0.064
		810.29		1.587E-02	6.368E-02	1.080E-01	1.194E-02	0.147
TA-182		67.75		-1.565E-01	1.183E-01	1.840E-01	1.404E-02	-0.850
		100.11		9.212E-02	2.088E-01	3.249E-01	2.815E-02	0.284
		152.43		3.703E-01	3.796E-01	6.536E-01	6.030E-02	0.567
		222.11		-2.516E-01	4.061E-01	6.456E-01	7.618E-02	-0.390
	+	1121.30		8.046E-01	3.037E-01	3.868E-01	3.415E-02	2.080
		1189.05		-1.545E-01	3.245E-01	5.248E-01	4.268E-02	-0.294
		1221.41	*	2.734E-02	2.129E-01	3.564E-01	2.964E-02	0.077
		1231.02		-6.604E-01	5.323E-01	8.180E-01	6.846E-02	-0.807
IR-192	+	295.96		1.475E+00	2.890E-01	3.221E-01	4.357E-02	4.581
		308.46		3.368E-02	1.024E-01	1.740E-01	2.278E-02	0.194
		316.51	*	-5.103E-02	3.884E-02	6.064E-02	7.750E-03	-0.842
		468.07		6.510E-02	7.978E-02	1.180E-01	1.222E-02	0.552
BI-207		72.81		2.266E-01	2.134E-01	3.248E-01	2.598E-02	0.698
	+	74.97		9.793E-01	1.699E-01	2.516E-01	2.057E-02	3.892
		569.70		4.978E-03	3.350E-02	5.501E-02	5.651E-03	0.090
		1063.66	*	-1.088E-02	6.222E-02	1.003E-01	9.628E-03	-0.109
		1770.23		8.767E-01	6.080E-01	1.029E+00	8.550E-02	0.852
PB-210		46.54	*	2.451E+00	3.293E+00	5.544E+00	5.106E-01	0.442
PB-211		404.85	*	-7.789E-01	9.361E-01	1.349E+00	6.548E-01	-0.577
		427.09		-1.584E-03	1.619E+00	2.642E+00	1.227E+00	-0.001
		832.01		-2.552E-01	1.123E+00	1.837E+00	9.614E-01	-0.139
BI-212	+	727.33	*	1.786E+00	9.015E-01	1.232E+00	1.733E-01	1.450
		785.37		5.604E+00	3.664E+00	6.124E+00	6.732E-01	0.915
		1620.50		3.806E+00	2.652E+00	4.932E+00	4.300E-01	0.772
RN-219	+	271.23		8.092E-01	3.832E-01	4.878E-01	7.207E-02	1.659
		401.81	*	7.348E-02	4.675E-01	7.724E-01	1.184E-01	0.095
RA-223		81.07		1.512E-03	2.944E-01	3.384E-01	2.957E-02	0.004

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		83.79		3.033E-01	1.325E-01	2.234E-01	2.015E-02	1.357
		94.87		1.102E+00	5.380E-01	8.299E-01	7.420E-02	1.328
		144.24		4.520E-01	7.637E-01	1.283E+00	1.268E-01	0.352
		154.21		2.601E-02	4.326E-01	7.266E-01	7.316E-02	0.036
	+	269.46		6.287E-01	2.959E-01	3.846E-01	5.280E-02	1.635
		323.87	*	-2.724E-01	8.663E-01	1.235E+00	2.414E-01	-0.220
	+	338.28		9.207E+00	2.169E+00	2.654E+00	3.872E-01	3.470
AC-227		79.69		9.562E-01	1.700E+00	2.022E+00	3.484E-01	0.473
		235.96		1.032E+00	2.556E-01	3.636E-01	4.940E-02	2.840
		256.23	*	-5.338E-02	2.901E-01	4.637E-01	7.224E-02	-0.115
	+	299.98		2.828E+00	1.499E+00	1.830E+00	2.982E-01	1.545
		304.50		5.124E-02	1.915E+00	2.806E+00	5.421E-01	0.018
		334.37		6.324E-01	2.501E+00	2.923E+00	5.180E-01	0.216
TH-227		79.80		1.227E+00	2.246E+00	2.662E+00	5.796E-01	0.461
		235.96		1.032E+00	2.532E-01	3.636E-01	4.780E-02	2.840
		256.23	*	-5.338E-02	2.901E-01	4.637E-01	7.795E-02	-0.115
	+	299.98		2.828E+00	1.499E+00	1.830E+00	2.982E-01	1.545
		304.50		5.124E-02	1.915E+00	2.806E+00	5.421E-01	0.018
		334.37		6.324E-01	2.501E+00	2.923E+00	5.180E-01	0.216
TH-229		85.43		8.185E-01	2.357E-01	3.969E-01	3.651E-02	2.062
	+	88.47		9.229E-01	2.063E-01	2.658E-01	2.511E-02	3.472
		193.51	*	-9.310E-02	5.994E-01	9.828E-01	1.056E-01	-0.095
	+	210.85		1.933E+00	1.530E+00	1.779E+00	2.025E-01	1.086
PA-231		283.69	*	-1.277E+00	1.797E+00	2.651E+00	4.823E-01	-0.481
	+	301.36		1.816E+00	9.603E-01	1.155E+00	1.828E-01	1.573
TH-231		81.07		1.512E-03	2.944E-01	3.384E-01	2.957E-02	0.004
		83.79		3.033E-01	1.325E-01	2.234E-01	2.015E-02	1.357
		94.87		1.102E+00	5.380E-01	8.299E-01	7.420E-02	1.328
		144.24		4.520E-01	7.637E-01	1.283E+00	1.268E-01	0.352
		154.21		2.601E-02	4.326E-01	7.266E-01	7.316E-02	0.036
	+	269.46		6.287E-01	2.959E-01	3.846E-01	5.280E-02	1.635
		323.87	*	-2.724E-01	8.663E-01	1.235E+00	2.414E-01	-0.220
	+	338.28		9.207E+00	2.169E+00	2.654E+00	3.872E-01	3.470
PA-233	+	300.13		1.279E+00	6.851E-01	8.276E-01	1.489E-01	1.546
		311.90	*	3.874E-02	6.986E-02	1.194E-01	1.565E-02	0.324
		340.48		4.262E+00	1.376E+00	1.514E+00	3.843E-01	2.815
PA-234		94.67		5.699E-01	2.094E-01	3.172E-01	4.008E-02	1.796
		98.44		9.594E-02	1.244E-01	1.674E-01	9.345E-02	0.573
		111.00		7.866E-02	2.197E-01	3.495E-01	4.157E-02	0.225
		131.20		4.001E-02	1.304E-01	1.977E-01	1.675E-02	0.202
		569.50		9.339E-02	2.933E-01	4.855E-01	4.986E-02	0.192
		733.00		-3.458E-01	4.681E-01	5.968E-01	1.381E-01	-0.580
		880.51		1.064E-01	3.179E-01	5.107E-01	5.711E-02	0.208
		883.24		2.639E-01	3.552E-01	5.363E-01	3.626E-01	0.492
		926.50		-1.486E-01	1.922E-01	2.949E-01	7.722E-02	-0.504
		946.00	*	1.397E-01	3.220E-01	5.436E-01	1.080E-01	0.257
		949.00		3.586E-01	4.810E-01	8.270E-01	8.935E-02	0.434
PA-234M		766.42		1.272E+01	1.650E+01	2.234E+01	1.143E+01	0.570
		1001.03	*	8.362E-03	5.356E+00	8.646E+00	9.908E-01	0.001

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234		63.29	*	9.429E-01	1.455E+00	2.470E+00	4.395E-01	0.382
	+	92.59		4.445E+00	1.434E+00	1.491E+00	3.321E-01	2.981
U-238		63.29	*	9.429E-01	1.455E+00	2.470E+00	4.395E-01	0.382
	+	92.59		4.445E+00	1.113E+00	1.491E+00	1.356E-01	2.981
NP-239		99.53		2.047E-01	1.840E-01	3.060E-01	2.660E-02	0.669
		103.37		2.214E-02	1.260E-01	1.814E-01	1.549E-02	0.122
	+	106.12		1.518E-01	1.216E-01	1.596E-01	1.350E-02	0.951
		117.23	*	1.002E-01	4.691E-01	7.516E-01	6.210E-02	0.133
		228.18		2.430E-02	2.540E-01	4.147E-01	4.990E-02	0.059
	+	277.60		2.282E-01	2.136E-01	3.469E-01	4.836E-02	0.658
AM-241		59.54	*	-1.084E-02	1.518E-01	2.518E-01	1.968E-02	-0.043
CM-247	+	278.00		9.691E-01	9.074E-01	1.496E+00	2.088E-01	0.648
		287.50		3.361E-01	1.426E+00	2.297E+00	3.160E-01	0.146
		402.40	*	1.116E-02	4.327E-02	7.179E-02	6.733E-03	0.155
CF-249		252.80		-2.447E-01	1.078E+00	1.722E+00	2.234E-01	-0.142
		333.37		6.135E-02	3.080E-01	3.069E-01	3.713E-02	0.200
		388.16	*	7.734E-02	4.536E-02	7.918E-02	7.517E-03	0.977
CF-251		177.52	*	6.028E-02	1.475E-01	2.478E-01	2.525E-02	0.243
		227.38		-7.332E-02	4.203E-01	6.796E-01	8.155E-02	-0.108
		285.41		-4.988E-01	2.530E+00	4.003E+00	5.532E-01	-0.125

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334007       *
* Acquisition date : 25-MAR-2010 14:47:57 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.41     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249334007           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.1071E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.880E+01	3.879E+00	5.527E-01	0.000E+00
CO-60	1.815E-01	7.406E-02	7.036E-02	0.000E+00
CD-109	6.115E+00	1.339E+00	1.266E+00	0.000E+00
SN-126	5.987E-01	1.311E-01	1.245E-01	0.000E+00
EU-155	1.903E-01	1.494E-01	1.906E-01	0.000E+00
HG-203	4.987E-02	4.577E-02	6.926E-02	0.000E+00
TL-208	7.100E-01	1.112E-01	6.501E-02	0.000E+00
BI-211	5.847E+00	8.305E-01	3.647E-01	0.000E+00
PB-212	2.201E+00	3.313E-01	1.264E-01	0.000E+00
BI-214	1.698E+00	2.568E-01	1.123E-01	0.000E+00
PB-214	2.122E+00	3.225E-01	1.326E-01	0.000E+00
RA-224	4.300E+00	1.108E+00	1.640E+00	0.000E+00
RA-226	1.698E+00	2.568E-01	1.123E-01	0.000E+00
AC-228	2.428E+00	4.603E-01	2.433E-01	0.000E+00
RA-228	2.428E+00	4.603E-01	2.433E-01	0.000E+00
TH-228	2.201E+00	3.313E-01	1.264E-01	0.000E+00
TH-230	1.698E+00	2.413E-01	1.123E-01	0.000E+00
TH-232	2.428E+00	4.603E-01	2.433E-01	0.000E+00
U-235	5.079E-02	2.249E-01	3.866E-01	0.000E+00
NP-237	1.786E+00	5.365E-01	3.753E-01	0.000E+00
ANH-511	1.761E-01	6.882E-02	5.254E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-1.450E-01	3.506E-01	5.671E-01	0.000E+00	NOT IDENT.
NA-22	-1.472E-02	4.694E-02	7.729E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.584E+05	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.763E-03	4.058E-02	6.829E-02	0.000E+00	FAIL ABUN
V-48	6.554E-02	7.285E-02	1.281E-01	0.000E+00	NOT IDENT.
CR-51	3.499E-01	4.017E-01	7.085E-01	0.000E+00	NOT IDENT.

MN-54	5.350E-03	4.030E-02	6.902E-02	0.000E+00	NOT IDENT.
CO-56	-3.009E-02	4.143E-02	6.716E-02	0.000E+00	NOT IDENT.
CO-57	1.615E-02	2.879E-02	4.811E-02	0.000E+00	NOT IDENT.
CO-58	-9.807E-03	4.078E-02	6.860E-02	0.000E+00	NOT IDENT.
FE-59	-1.115E-01	1.016E-01	1.550E-01	0.000E+00	NOT IDENT.
ZN-65	3.458E-02	1.200E-01	1.724E-01	0.000E+00	NOT IDENT.
SE-75	-3.003E-03	5.808E-02	8.350E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.231E-02	8.514E-02	0.000E+00	NOT IDENT.
Y-88	-3.212E-02	3.431E-02	4.980E-02	0.000E+00	NOT IDENT.
Y-91	4.845E+00	2.408E+01	4.116E+01	0.000E+00	NOT IDENT.
NB-94	1.518E-02	3.574E-02	6.087E-02	0.000E+00	NOT IDENT.
NB-95	7.063E-02	5.371E-02	8.278E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.654E-01	2.548E-01	0.000E+00	NOT IDENT.
ZR-95	2.729E-02	7.964E-02	1.341E-01	0.000E+00	NOT IDENT.
MO-99	9.073E+00	1.006E+01	1.738E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.762E+15	0.000E+00	0.000E+00	SHORT HLIF
RU-103	4.725E-03	4.192E-02	6.948E-02	0.000E+00	FAIL ABUN
RH-106	7.723E-02	3.274E-01	5.590E-01	0.000E+00	NOT IDENT.
RU-106	7.723E-02	3.274E-01	5.590E-01	0.000E+00	NOT IDENT.
AG-108M	-3.222E-02	3.288E-02	5.203E-02	0.000E+00	NOT IDENT.
AG-110M	-1.255E-02	3.508E-02	5.760E-02	0.000E+00	NOT IDENT.
SN-113	-2.489E-03	4.885E-02	8.219E-02	0.000E+00	NOT IDENT.
CD-115	-2.250E-01	8.507E+00	1.456E+01	0.000E+00	NOT IDENT.
SN-117M	-1.252E-02	5.669E-02	9.720E-02	0.000E+00	NOT IDENT.
TE-123M	2.329E-03	3.026E-02	5.238E-02	0.000E+00	NOT IDENT.
SB-124	-4.169E-02	7.066E-02	1.092E-01	0.000E+00	NOT IDENT.
SB-125	2.342E-02	9.710E-02	1.642E-01	0.000E+00	FAIL ABUN
TE-125M	6.681E+00	1.236E+01	1.841E+01	0.000E+00	NOT IDENT.
I-126	1.604E-01	2.227E-01	3.862E-01	0.000E+00	NOT IDENT.
SB-126	-4.715E-02	1.763E-01	2.449E-01	0.000E+00	NOT IDENT.
SB-127	-1.484E-01	1.117E+00	1.852E+00	0.000E+00	NOT IDENT.
I-131	1.585E-01	1.145E-01	2.037E-01	0.000E+00	NOT IDENT.
TE-132	7.276E-02	6.769E-01	1.138E+00	0.000E+00	NOT IDENT.
BA-133	5.446E-02	4.841E-02	7.567E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	2.739E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.027E-02	9.360E-02	0.000E+00	FAIL ABUN
CS-135	1.306E-01	2.141E-01	3.169E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.148E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.317E-03	1.129E-01	1.872E-01	0.000E+00	NOT IDENT.
BA-137M	-1.099E-03	3.719E-02	6.225E-02	0.000E+00	NOT IDENT.
CS-137	-1.161E-03	3.929E-02	6.576E-02	0.000E+00	NOT IDENT.
CE-139	-1.070E-03	3.249E-02	5.585E-02	0.000E+00	NOT IDENT.
BA-140	-6.384E-02	2.618E-01	4.410E-01	0.000E+00	NOT IDENT.
LA-140	-1.513E-01	1.067E-01	1.520E-01	0.000E+00	FAIL ABUN
CE-141	6.522E-02	6.665E-02	1.188E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.927E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.863E-02	2.285E-01	3.694E-01	0.000E+00	NOT IDENT.
PM-144	3.494E-03	3.628E-02	6.082E-02	0.000E+00	NOT IDENT.
PR-144	2.644E-01	2.714E+00	4.550E+00	0.000E+00	NOT IDENT.
PM-146	9.589E-03	4.671E-02	7.840E-02	0.000E+00	NOT IDENT.
ND-147	1.094E-01	5.470E-01	9.459E-01	0.000E+00	FAIL ABUN
PM-149	3.773E+01	7.536E+01	1.258E+02	0.000E+00	NOT IDENT.
EU-152	-1.175E-01	1.412E-01	1.703E-01	0.000E+00	FAIL ABUN
GD-153	-2.157E-02	1.016E-01	1.496E-01	0.000E+00	NOT IDENT.
EU-154	-4.726E-02	1.328E-01	2.179E-01	0.000E+00	NOT IDENT.
TB-160	-3.578E-02	1.557E-01	2.465E-01	0.000E+00	FAIL ABUN
HO-166M	-4.170E-02	6.750E-02	1.082E-01	0.000E+00	NOT IDENT.
TA-182	2.734E-02	2.087E-01	3.550E-01	0.000E+00	FAIL ABUN
IR-192	-5.103E-02	3.806E-02	6.103E-02	0.000E+00	FAIL ABUN
BI-207	-1.088E-02	6.097E-02	1.000E-01	0.000E+00	FAIL ABUN
PB-210	2.451E+00	3.227E+00	5.659E+00	0.000E+00	NOT IDENT.
PB-211	-7.789E-01	9.174E-01	1.355E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	8.835E-01	1.232E+00	0.000E+00	FAIL ABUN
RN-219	7.348E-02	4.582E-01	7.759E-01	0.000E+00	FAIL ABUN
RA-223	-2.724E-01	8.490E-01	1.243E+00	0.000E+00	FAIL ABUN
AC-227	-5.338E-02	2.843E-01	4.674E-01	0.000E+00	FAIL ABUN
TH-227	-5.338E-02	2.843E-01	4.674E-01	0.000E+00	FAIL ABUN
TH-229	-9.310E-02	5.875E-01	9.927E-01	0.000E+00	FAIL ABUN
PA-231	-1.277E+00	1.761E+00	2.670E+00	0.000E+00	FAIL ABUN
TH-231	-2.724E-01	8.490E-01	1.243E+00	0.000E+00	FAIL ABUN
PA-233	3.874E-02	6.846E-02	1.202E-01	0.000E+00	FAIL ABUN
PA-234	1.397E-01	3.156E-01	5.425E-01	0.000E+00	NOT IDENT.
PA-234M	8.362E-03	5.248E+00	8.625E+00	0.000E+00	NOT IDENT.
TH-234	9.429E-01	1.426E+00	2.515E+00	0.000E+00	FAIL ABUN
U-238	9.429E-01	1.426E+00	2.515E+00	0.000E+00	FAIL ABUN
NP-239	1.002E-01	4.597E-01	7.620E-01	0.000E+00	FAIL ABUN
AM-241	-1.084E-02	1.488E-01	2.566E-01	0.000E+00	NOT IDENT.
CM-247	1.116E-02	4.241E-02	7.211E-02	0.000E+00	FAIL ABUN

CF-249	7.734E-02	4.445E-02	7.956E-02	0.000E+00 NOT IDENT.
CF-251	6.028E-02	1.446E-01	2.505E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 16:55:32.73

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334007.CNF;2
Sample date      : 11-MAR-2010 12:00:00 Acquisition date : 25-MAR-2010 14:47:57
Sample ID        : G249334007           Sample quantity  : 1.10710E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:02.41  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 965250               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	2328	10.66*	1.909E+00	3.880E+01	3.880E+01	10.20
CO-60	1173.23	184	99.85	2.257E+00	2.774E-01	2.788E-01	36.85
	1332.49	109	99.98*	2.040E+00	1.805E-01	1.815E-01	41.65
CD-109	88.03	489	3.70*	7.480E+00	5.987E+00	6.115E+00	22.35
SN-126	64.28	------	9.60	4.512E+00	------ Line Not Found		------
	86.94	489	8.90	7.480E+00	2.489E+00	2.489E+00	46.21
	87.57	489	37.00*	7.480E+00	5.987E-01	5.987E-01	22.35
EU-155	86.55	489	30.70	7.480E+00	7.215E-01	7.256E-01	22.38
	105.31	99	21.10*	8.382E+00	1.892E-01	1.903E-01	80.12
HG-203	70.83	------	3.69	5.596E+00	------ Line Not Found		------
	72.87	------	6.19	5.897E+00	------ Line Not Found		------
	279.20	60	81.56*	6.177E+00	4.040E-02	4.987E-02	93.65
TL-208	277.37	60	6.60	6.177E+00	4.992E-01	4.992E-01	94.07
	583.19	700	85.00*	3.931E+00	7.100E-01	7.100E-01	15.99
	860.56	92	12.50	2.923E+00	8.511E-01	8.511E-01	61.53
BI-211	72.87	------	1.23	5.897E+00	------ Line Not Found		------
	351.06	1203	12.92*	5.401E+00	5.847E+00	5.847E+00	14.50
PB-212	74.82	636	10.28	6.169E+00	3.398E+00	3.398E+00	19.89
	77.11	909	17.10	6.463E+00	2.789E+00	2.789E+00	13.54
	238.63	1899	43.60*	6.710E+00	2.201E+00	2.201E+00	15.36
	300.09	148	3.30	5.914E+00	2.571E+00	2.571E+00	52.52
BI-214	609.32	868	45.49*	3.811E+00	1.698E+00	1.698E+00	15.43
	1120.29	178	14.92	2.344E+00	1.727E+00	1.727E+00	38.33
	1764.49	170	15.30	1.716E+00	2.194E+00	2.194E+00	21.14
PB-214	74.82	636	5.80	6.169E+00	6.023E+00	6.023E+00	19.08
	77.11	909	9.70	6.463E+00	4.916E+00	4.916E+00	15.86
	242.00	346	7.25	6.663E+00	2.432E+00	2.432E+00	26.93
	295.22	653	18.42	5.970E+00	2.014E+00	2.014E+00	20.62
	351.93	1203	35.60*	5.401E+00	2.122E+00	2.122E+00	15.51
RA-224	240.99	346	4.10*	6.663E+00	4.300E+00	4.300E+00	26.30
RA-226	609.32	868	45.49*	3.811E+00	1.698E+00	1.698E+00	15.43
	1120.29	178	14.92	2.344E+00	1.727E+00	1.727E+00	38.33

Sample ID : G249334007 Acquisition date : 25-MAR-2010 14:47:57

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1764.49	170	15.30	1.716E+00	2.194E+00	2.194E+00	21.14
AC-228	338.32	426	11.27	5.526E+00	2.320E+00	2.320E+00	46.36
	911.20	515	25.80*	2.788E+00	2.428E+00	2.428E+00	19.34
	968.97	325	15.80	2.648E+00	2.635E+00	2.635E+00	30.01
RA-228	338.32	426	11.27	5.526E+00	2.320E+00	2.320E+00	46.36
	911.20	515	25.80*	2.788E+00	2.428E+00	2.428E+00	19.34
	968.97	325	15.80	2.648E+00	2.635E+00	2.635E+00	30.01
TH-228	74.82	636	10.28	6.169E+00	3.398E+00	3.398E+00	17.39
	77.11	909	17.10	6.463E+00	2.789E+00	2.789E+00	13.54
	238.63	1899	43.60*	6.710E+00	2.201E+00	2.201E+00	15.36
	300.09	148	3.30	5.914E+00	2.571E+00	2.571E+00	79.97
TH-230	609.32	868	45.49*	3.811E+00	1.698E+00	1.698E+00	14.50
	1120.29	178	14.92	2.344E+00	1.727E+00	1.727E+00	37.74
	1764.49	170	15.30	1.716E+00	2.194E+00	2.194E+00	21.14
TH-232	338.32	426	11.27	5.526E+00	2.320E+00	2.320E+00	21.99
	911.20	515	25.80*	2.788E+00	2.428E+00	2.428E+00	19.34
	968.97	325	15.80	2.648E+00	2.635E+00	2.635E+00	30.01
U-235	89.96	327	3.47	7.677E+00	4.164E+00	4.164E+00	36.79
	93.35	436	5.60	7.867E+00	3.358E+00	3.358E+00	32.96
	143.76	------	10.96*	8.364E+00	------ Line Not Found		------
	163.33	------	5.08	8.031E+00	------ Line Not Found		------
	185.72	325	57.20	7.606E+00	2.531E-01	2.531E-01	34.02
	205.31	------	5.01	7.253E+00	------ Line Not Found		------
NP-237	86.48	489	12.40*	7.480E+00	1.786E+00	1.786E+00	30.65
	95.86	------	2.68	8.032E+00	------ Line Not Found		------
ANH-511	511.00	223	100.00*	4.299E+00	1.761E-01	1.761E-01	39.88

Flag: "*" = Keyline

Sample ID : G249334007 Acquisition date : 25-MAR-2010 14:47:57

Total number of lines in spectrum 35
Number of unidentified lines 3
Number of lines tentatively identified by NID 32 91.43%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.880E+01	3.880E+01	0.396E+01	10.20	
CO-60	5.27Y	1.01	1.805E-01	1.815E-01	0.756E-01	41.65	
CD-109	461.40D	1.02	5.987E+00	6.115E+00	1.367E+00	22.35	
SN-126	2.30E+05Y	1.00	5.987E-01	5.987E-01	1.338E-01	22.35	
EU-155	4.75Y	1.01	1.892E-01	1.903E-01	1.525E-01	80.12	
HG-203	46.59D	1.23	4.040E-02	4.987E-02	4.670E-02	93.65	
TL-208	1.41E+10Y	1.00	7.100E-01	7.100E-01	1.135E-01	15.99	
BI-211	7.04E+08Y	1.00	5.847E+00	5.847E+00	0.847E+00	14.50	
PB-212	1.41E+10Y	1.00	2.201E+00	2.201E+00	0.338E+00	15.36	
BI-214	1600.00Y	1.00	1.698E+00	1.698E+00	0.262E+00	15.43	
PB-214	1600.00Y	1.00	2.122E+00	2.122E+00	0.329E+00	15.51	
RA-224	1.41E+10Y	1.00	4.300E+00	4.300E+00	1.131E+00	26.30	
RA-226	1600.00Y	1.00	1.698E+00	1.698E+00	0.262E+00	15.43	
AC-228	1.41E+10Y	1.00	2.428E+00	2.428E+00	0.470E+00	19.34	
RA-228	1.41E+10Y	1.00	2.428E+00	2.428E+00	0.470E+00	19.34	
TH-228	1.41E+10Y	1.00	2.201E+00	2.201E+00	0.338E+00	15.36	
TH-230	7.54E+04Y	1.00	1.698E+00	1.698E+00	0.246E+00	14.50	
TH-232	1.41E+10Y	1.00	2.428E+00	2.428E+00	0.470E+00	19.34	
U-235	7.04E+08Y	1.00	2.531E-01	2.531E-01	0.861E-01	34.02	K
NP-237	2.14E+06Y	1.00	1.786E+00	1.786E+00	0.547E+00	30.65	
ANH-511	1.00E+09Y	1.00	1.761E-01	1.761E-01	0.702E-01	39.88	
		Total Activity :	7.777E+01	7.791E+01			

Grand Total Activity : 7.777E+01 7.791E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G249334007 Acquisition date : 25-MAR-2010 14:47:57

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.12	155	533	1.07	258.36	254	8	2.15E-02	54.4	8.53E+00	
0	209.63	115	538	1.03	419.24	413	10	1.59E-02	78.4	7.18E+00	T
0	270.38	162	329	1.28	540.63	536	10	2.24E-02	45.0	6.27E+00	T
0	328.35	103	279	0.86	656.46	652	10	1.43E-02	64.0	5.62E+00	T
0	463.10	137	146	1.45	925.76	921	10	1.90E-02	37.4	4.58E+00	T
0	727.97	117	153	2.38	1455.20	1449	12	1.63E-02	48.5	3.34E+00	T
0	770.58	149	203	5.75	1540.38	1530	27	2.06E-02	56.6	3.19E+00	
0	794.64	114	105	1.53	1588.49	1581	14	1.58E-02	42.5	3.12E+00	T
2	964.89	121	80	2.81	1928.88	1920	25	1.68E-02	45.5	2.66E+00	T
0	1729.66	63	26	3.04	3458.49	3445	20	8.76E-03	46.4	1.73E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 25-MAR-2010 16:55:36.99

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*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                 DETECTOR DATA                               *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G249334007.CNF;2   *
* Acquisition date  : 25-MAR-2010 14:47:57  Detector SN#     :                *
* Detector ID       : GAM22                 Sensitivity      : 5.00000        *
* Geometry          : CAN                   Energy tolerance: 1.50000         *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000        *
* Elapsed real time: 0 02:00:02.41          Half life ratio : 8.00000         *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 11-MAR-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID         : G249334007            Analyst initials: MXR1            *
* Batch Number      : 965250                Sample Quantity : 1.10710E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.880E+01	3.959E+00	5.557E-01	5.091E-02	69.818
CO-60	1.815E-01	7.557E-02	7.068E-02	6.303E-03	2.567
CD-109	6.115E+00	1.367E+00	1.247E+00	1.183E-01	4.906
SN-126	5.987E-01	1.338E-01	1.225E-01	1.157E-02	4.886
EU-155	1.903E-01	1.525E-01	1.878E-01	1.612E-02	1.013
HG-203	4.987E-02	4.670E-02	6.876E-02	9.721E-03	0.725
TL-208	7.100E-01	1.135E-01	6.490E-02	7.031E-03	10.940
BI-211	5.847E+00	8.475E-01	3.627E-01	4.233E-02	16.119
PB-212	2.201E+00	3.381E-01	1.253E-01	1.661E-02	17.560
BI-214	1.698E+00	2.620E-01	1.122E-01	1.309E-02	15.134
PB-214	2.122E+00	3.291E-01	1.319E-01	1.698E-02	16.089
RA-224	4.300E+00	1.131E+00	1.627E+00	2.036E-01	2.644
RA-226	1.698E+00	2.620E-01	1.122E-01	1.309E-02	15.134
AC-228	2.428E+00	4.697E-01	2.437E-01	3.302E-02	9.962
RA-228	2.428E+00	4.697E-01	2.437E-01	3.302E-02	9.962
TH-228	2.201E+00	3.381E-01	1.253E-01	1.661E-02	17.560
TH-230	1.698E+00	2.462E-01	1.122E-01	1.167E-02	15.134
TH-232	2.428E+00	4.697E-01	2.437E-01	3.302E-02	9.962

Sample ID : G249334007 Acquisition date : 25-MAR-2010 14:47:57

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	2.531E-01	8.611E-02	3.819E-01	6.527E-02	0.663
NP-237	1.786E+00	5.474E-01	3.693E-01	8.473E-02	4.837
ANH-511	1.761E-01	7.022E-02	5.240E-02	5.250E-03	3.361

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.450E-01		3.578E-01	5.653E-01	5.898E-02	-0.256
NA-22	-1.472E-02		4.790E-02	7.762E-02	6.690E-03	-0.190
NA-24	-1.088E-01		1.318E-01	Half-Life too short		
SC-46	-2.763E-03		4.141E-02	6.839E-02	7.656E-03	-0.040
V-48	6.554E-02		7.433E-02	1.284E-01	1.346E-02	0.511
CR-51	3.499E-01		4.099E-01	7.041E-01	9.114E-02	0.497
MN-54	5.350E-03		4.112E-02	6.909E-02	7.675E-03	0.077
CO-56	-3.009E-02		4.228E-02	6.724E-02	7.485E-03	-0.448
CO-57	1.615E-02		2.937E-02	4.747E-02	3.915E-03	0.340
CO-58	-9.807E-03		4.161E-02	6.866E-02	7.602E-03	-0.143
FE-59	-1.115E-01		1.037E-01	1.555E-01	1.523E-02	-0.717
ZN-65	3.458E-02		1.225E-01	1.729E-01	1.543E-02	0.200
SE-75	-3.003E-03		5.926E-02	8.287E-02	1.115E-02	-0.036
SR-85	1.769E-01		5.338E-02	8.492E-02	8.521E-03	2.083
Y-88	-3.212E-02		3.501E-02	5.016E-02	4.055E-03	-0.640
Y-91	4.845E+00		2.457E+01	4.132E+01	3.397E+00	0.117
NB-94	1.518E-02		3.647E-02	6.085E-02	6.521E-03	0.249
NB-95	7.063E-02		5.481E-02	8.281E-02	9.055E-03	0.853
NB-95M	3.015E-01		1.688E-01	2.526E-01	3.343E-02	1.193
ZR-95	2.729E-02		8.127E-02	1.342E-01	1.561E-02	0.203
MO-99	9.073E+00		1.027E+01	1.739E+01	2.970E+00	0.522
TC-99M	-2.836E+09		1.409E+09	Half-Life too short		
RU-103	4.725E-03		4.278E-02	6.928E-02	1.027E-02	0.068
RH-106	7.723E-02		3.341E-01	5.584E-01	8.102E-02	0.138
RU-106	7.723E-02		3.340E-01	5.584E-01	5.832E-02	0.138
AG-108M	-3.222E-02		3.355E-02	5.182E-02	5.101E-03	-0.622
AG-110M	-1.255E-02		3.580E-02	5.755E-02	6.186E-03	-0.218
SN-113	-2.489E-03		4.985E-02	8.180E-02	7.812E-03	-0.030
CD-115	-2.250E-01		8.680E+00	1.453E+01	1.467E+00	-0.015
SN-117M	-1.252E-02		5.785E-02	9.609E-02	9.112E-03	-0.130
TE-123M	2.329E-03		3.088E-02	5.178E-02	4.945E-03	0.045
SB-124	-4.169E-02		7.210E-02	1.100E-01	9.803E-03	-0.379
SB-125	2.342E-02		9.908E-02	1.636E-01	1.586E-02	0.143
TE-125M	6.681E+00		1.261E+01	1.815E+01	1.865E+00	0.368
I-126	1.604E-01		2.272E-01	3.859E-01	4.078E-02	0.416
SB-126	-4.715E-02		1.799E-01	2.449E-01	2.641E-02	-0.193
SB-127	-1.484E-01		1.140E+00	1.851E+00	2.355E-01	-0.080
I-131	1.585E-01		1.168E-01	2.027E-01	2.244E-02	0.782
TE-132	7.276E-02		6.908E-01	1.128E+00	2.001E-01	0.065
BA-133	5.446E-02		4.940E-02	7.526E-02	1.108E-02	0.724

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	4.352E-04		1.397E-03	Half-Life too short		
CS-134	1.633E-01	+	7.170E-02	9.367E-02	1.037E-02	1.744
CS-135	1.306E-01		2.184E-01	3.145E-01	4.549E-02	0.415
I-135	3.313E+08		2.626E+08	Half-Life too short		
CS-136	-3.317E-03		1.152E-01	1.878E-01	1.898E-02	-0.018
BA-137M	-1.099E-03		3.795E-02	6.221E-02	6.560E-03	-0.018
CS-137	-1.161E-03		4.009E-02	6.571E-02	6.939E-03	-0.018
CE-139	-1.070E-03		3.315E-02	5.523E-02	5.417E-03	-0.019
BA-140	-6.384E-02		2.671E-01	4.400E-01	1.511E-01	-0.145
LA-140	-1.513E-01		1.089E-01	1.529E-01	1.340E-02	-0.989
CE-141	6.522E-02		6.801E-02	1.173E-01	1.068E-02	0.556
CE-143	6.496E-04		9.831E-05	Half-Life too short		
CE-144	-3.863E-02		2.332E-01	3.647E-01	5.558E-02	-0.106
PM-144	3.494E-03		3.702E-02	6.080E-02	6.502E-03	0.057
PR-144	2.644E-01		2.769E+00	4.549E+00	4.863E-01	0.058
PM-146	9.589E-03		4.766E-02	7.812E-02	8.983E-03	0.123
ND-147	1.094E-01		5.582E-01	9.436E-01	1.496E-01	0.116
PM-149	3.773E+01		7.690E+01	1.249E+02	2.362E+01	0.302
EU-152	-1.175E-01		1.441E-01	1.693E-01	2.034E-02	-0.694
GD-153	-2.157E-02		1.037E-01	1.474E-01	1.296E-02	-0.146
EU-154	-4.726E-02		1.355E-01	2.188E-01	2.488E-02	-0.216
TB-160	-3.578E-02		1.589E-01	2.468E-01	2.760E-02	-0.145
HO-166M	-4.170E-02		6.888E-02	1.082E-01	1.164E-02	-0.385
TA-182	2.734E-02		2.129E-01	3.564E-01	2.964E-02	0.077
IR-192	-5.103E-02		3.884E-02	6.064E-02	7.750E-03	-0.842
BI-207	-1.088E-02		6.222E-02	1.003E-01	9.628E-03	-0.109
PB-210	2.451E+00		3.293E+00	5.544E+00	5.106E-01	0.442
PB-211	-7.789E-01		9.361E-01	1.349E+00	6.548E-01	-0.577
BI-212	1.786E+00	+	9.015E-01	1.232E+00	1.733E-01	1.450
RN-219	7.348E-02		4.675E-01	7.724E-01	1.184E-01	0.095
RA-223	-2.724E-01		8.663E-01	1.235E+00	2.414E-01	-0.220
AC-227	-5.338E-02		2.901E-01	4.637E-01	7.224E-02	-0.115
TH-227	-5.338E-02		2.901E-01	4.637E-01	7.795E-02	-0.115
TH-229	-9.310E-02		5.994E-01	9.828E-01	1.056E-01	-0.095
PA-231	-1.277E+00		1.797E+00	2.651E+00	4.823E-01	-0.481
TH-231	-2.724E-01		8.663E-01	1.235E+00	2.414E-01	-0.220
PA-233	3.874E-02		6.986E-02	1.194E-01	1.565E-02	0.324
PA-234	1.397E-01		3.220E-01	5.436E-01	1.080E-01	0.257
PA-234M	8.362E-03		5.356E+00	8.646E+00	9.908E-01	0.001
TH-234	9.429E-01		1.455E+00	2.470E+00	4.395E-01	0.382
U-238	9.429E-01		1.455E+00	2.470E+00	4.395E-01	0.382
NP-239	1.002E-01		4.691E-01	7.516E-01	6.210E-02	0.133
AM-241	-1.084E-02		1.518E-01	2.518E-01	1.968E-02	-0.043
CM-247	1.116E-02		4.327E-02	7.179E-02	6.733E-03	0.155
CF-249	7.734E-02		4.536E-02	7.918E-02	7.517E-03	0.977
CF-251	6.028E-02		1.475E-01	2.478E-01	2.525E-02	0.243

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G249334007            *
* Acquisition date : 25-MAR-2010 14:47:57 Detector SN#    :                 *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.41     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G249334007           Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.1071E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.880E+01	3.879E+00	2.765E-01	1.979E+00
CO-60	1.815E-01	7.406E-02	3.520E-02	3.779E-02
CD-109	6.115E+00	1.339E+00	6.336E-01	6.833E-01
SN-126	5.987E-01	1.311E-01	6.228E-02	6.690E-02
EU-155	1.903E-01	1.494E-01	9.536E-02	7.624E-02
HG-203	4.987E-02	4.577E-02	3.465E-02	2.335E-02
TL-208	7.100E-01	1.112E-01	3.252E-02	5.676E-02
BI-211	5.847E+00	8.305E-01	1.825E-01	4.237E-01
PB-212	2.201E+00	3.313E-01	6.324E-02	1.691E-01
BI-214	1.698E+00	2.568E-01	5.619E-02	1.310E-01
PB-214	2.122E+00	3.225E-01	6.635E-02	1.645E-01
RA-224	4.300E+00	1.108E+00	8.206E-01	5.655E-01
RA-226	1.698E+00	2.568E-01	5.619E-02	1.310E-01
AC-228	2.428E+00	4.603E-01	1.217E-01	2.349E-01
RA-228	2.428E+00	4.603E-01	1.217E-01	2.349E-01
TH-228	2.201E+00	3.313E-01	6.324E-02	1.691E-01
TH-230	1.698E+00	2.413E-01	5.619E-02	1.231E-01
TH-232	2.428E+00	4.603E-01	1.217E-01	2.349E-01
U-235	5.079E-02	2.249E-01	1.934E-01	1.148E-01
NP-237	1.786E+00	5.365E-01	1.877E-01	2.737E-01
ANH-511	1.761E-01	6.882E-02	2.629E-02	3.511E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.450E-01	3.506E-01	2.837E-01	1.789E-01	NOT IDENT.
NA-22	-1.472E-02	4.694E-02	3.867E-02	2.395E-02	NOT IDENT.
NA-24	-1.088E+05	2.584E+05	0.000E+00	1.318E+05	SHORT HLIF
SC-46	-2.763E-03	4.058E-02	3.416E-02	2.070E-02	FAIL ABUN
V-48	6.554E-02	7.285E-02	6.408E-02	3.717E-02	NOT IDENT.
CR-51	3.499E-01	4.017E-01	3.545E-01	2.050E-01	NOT IDENT.

MN-54	5.350E-03	4.030E-02	3.453E-02	2.056E-02	NOT IDENT.
CO-56	-3.009E-02	4.143E-02	3.360E-02	2.114E-02	NOT IDENT.
CO-57	1.615E-02	2.879E-02	2.407E-02	1.469E-02	NOT IDENT.
CO-58	-9.807E-03	4.078E-02	3.432E-02	2.081E-02	NOT IDENT.
FE-59	-1.115E-01	1.016E-01	7.755E-02	5.184E-02	NOT IDENT.
ZN-65	3.458E-02	1.200E-01	8.623E-02	6.123E-02	NOT IDENT.
SE-75	-3.003E-03	5.808E-02	4.178E-02	2.963E-02	NOT IDENT.
SR-85	1.769E-01	5.231E-02	4.260E-02	2.669E-02	NOT IDENT.
Y-88	-3.212E-02	3.431E-02	2.492E-02	1.751E-02	NOT IDENT.
Y-91	4.845E+00	2.408E+01	2.059E+01	1.229E+01	NOT IDENT.
NB-94	1.518E-02	3.574E-02	3.045E-02	1.824E-02	NOT IDENT.
NB-95	7.063E-02	5.371E-02	4.141E-02	2.741E-02	NOT IDENT.
NB-95M	3.015E-01	1.654E-01	1.275E-01	8.439E-02	NOT IDENT.
ZR-95	2.729E-02	7.964E-02	6.711E-02	4.064E-02	NOT IDENT.
MO-99	9.073E+00	1.006E+01	8.697E+00	5.135E+00	NOT IDENT.
TC-99M	-2.836E+15	2.762E+15	0.000E+00	1.409E+15	SHORT HLIF
RU-103	4.725E-03	4.192E-02	3.476E-02	2.139E-02	FAIL ABUN
RH-106	7.723E-02	3.274E-01	2.797E-01	1.671E-01	NOT IDENT.
RU-106	7.723E-02	3.274E-01	2.797E-01	1.670E-01	NOT IDENT.
AG-108M	-3.222E-02	3.288E-02	2.603E-02	1.678E-02	NOT IDENT.
AG-110M	-1.255E-02	3.508E-02	2.882E-02	1.790E-02	NOT IDENT.
SN-113	-2.489E-03	4.885E-02	4.112E-02	2.492E-02	NOT IDENT.
CD-115	-2.250E-01	8.507E+00	7.285E+00	4.340E+00	NOT IDENT.
SN-117M	-1.252E-02	5.669E-02	4.863E-02	2.892E-02	NOT IDENT.
TE-123M	2.329E-03	3.026E-02	2.620E-02	1.544E-02	NOT IDENT.
SB-124	-4.169E-02	7.066E-02	5.465E-02	3.605E-02	NOT IDENT.
SB-125	2.342E-02	9.710E-02	8.216E-02	4.954E-02	FAIL ABUN
TE-125M	6.681E+00	1.236E+01	9.210E+00	6.304E+00	NOT IDENT.
I-126	1.604E-01	2.227E-01	1.932E-01	1.136E-01	NOT IDENT.
SB-126	-4.715E-02	1.763E-01	1.225E-01	8.994E-02	NOT IDENT.
SB-127	-1.484E-01	1.117E+00	9.263E-01	5.701E-01	NOT IDENT.
I-131	1.585E-01	1.145E-01	1.019E-01	5.842E-02	NOT IDENT.
TE-132	7.276E-02	6.769E-01	5.694E-01	3.454E-01	NOT IDENT.
BA-133	5.446E-02	4.841E-02	3.786E-02	2.470E-02	FAIL ABUN
I-133	4.352E+02	2.739E+03	0.000E+00	1.397E+03	SHORT HLIF
CS-134	1.633E-01	7.027E-02	4.683E-02	3.585E-02	FAIL ABUN
CS-135	1.306E-01	2.141E-01	1.586E-01	1.092E-01	NOT IDENT.
I-135	3.313E+14	5.148E+14	0.000E+00	2.626E+14	SHORT HLIF
CS-136	-3.317E-03	1.129E-01	9.367E-02	5.762E-02	NOT IDENT.
BA-137M	-1.099E-03	3.719E-02	3.114E-02	1.898E-02	NOT IDENT.
CS-137	-1.161E-03	3.929E-02	3.290E-02	2.005E-02	NOT IDENT.
CE-139	-1.070E-03	3.249E-02	2.794E-02	1.658E-02	NOT IDENT.
BA-140	-6.384E-02	2.618E-01	2.206E-01	1.336E-01	NOT IDENT.
LA-140	-1.513E-01	1.067E-01	7.604E-02	5.445E-02	FAIL ABUN
CE-141	6.522E-02	6.665E-02	5.943E-02	3.401E-02	NOT IDENT.
CE-143	6.496E+02	1.927E+02	0.000E+00	9.831E+01	SHORT HLIF
CE-144	-3.863E-02	2.285E-01	1.848E-01	1.166E-01	NOT IDENT.
PM-144	3.494E-03	3.628E-02	3.043E-02	1.851E-02	NOT IDENT.
PR-144	2.644E-01	2.714E+00	2.276E+00	1.385E+00	NOT IDENT.
PM-146	9.589E-03	4.671E-02	3.922E-02	2.383E-02	NOT IDENT.
ND-147	1.094E-01	5.470E-01	4.732E-01	2.791E-01	FAIL ABUN
PM-149	3.773E+01	7.536E+01	6.293E+01	3.845E+01	NOT IDENT.
EU-152	-1.175E-01	1.412E-01	8.518E-02	7.207E-02	FAIL ABUN
GD-153	-2.157E-02	1.016E-01	7.485E-02	5.185E-02	NOT IDENT.
EU-154	-4.726E-02	1.328E-01	1.090E-01	6.773E-02	NOT IDENT.
TB-160	-3.578E-02	1.557E-01	1.233E-01	7.944E-02	FAIL ABUN
HO-166M	-4.170E-02	6.750E-02	5.416E-02	3.444E-02	NOT IDENT.
TA-182	2.734E-02	2.087E-01	1.776E-01	1.065E-01	FAIL ABUN
IR-192	-5.103E-02	3.806E-02	3.053E-02	1.942E-02	FAIL ABUN
BI-207	-1.088E-02	6.097E-02	5.003E-02	3.111E-02	FAIL ABUN
PB-210	2.451E+00	3.227E+00	2.831E+00	1.646E+00	NOT IDENT.
PB-211	-7.789E-01	9.174E-01	6.779E-01	4.680E-01	NOT IDENT.
BI-212	1.786E+00	8.835E-01	6.164E-01	4.508E-01	FAIL ABUN
RN-219	7.348E-02	4.582E-01	3.882E-01	2.338E-01	FAIL ABUN
RA-223	-2.724E-01	8.490E-01	6.218E-01	4.332E-01	FAIL ABUN
AC-227	-5.338E-02	2.843E-01	2.338E-01	1.450E-01	FAIL ABUN
TH-227	-5.338E-02	2.843E-01	2.338E-01	1.450E-01	FAIL ABUN
TH-229	-9.310E-02	5.875E-01	4.967E-01	2.997E-01	FAIL ABUN
PA-231	-1.277E+00	1.761E+00	1.336E+00	8.985E-01	FAIL ABUN
TH-231	-2.724E-01	8.490E-01	6.218E-01	4.332E-01	FAIL ABUN
PA-233	3.874E-02	6.846E-02	6.012E-02	3.493E-02	FAIL ABUN
PA-234	1.397E-01	3.156E-01	2.714E-01	1.610E-01	NOT IDENT.
PA-234M	8.362E-03	5.248E+00	4.315E+00	2.678E+00	NOT IDENT.
TH-234	9.429E-01	1.426E+00	1.258E+00	7.274E-01	FAIL ABUN
U-238	9.429E-01	1.426E+00	1.258E+00	7.274E-01	FAIL ABUN
NP-239	1.002E-01	4.597E-01	3.812E-01	2.345E-01	FAIL ABUN
AM-241	-1.084E-02	1.488E-01	1.284E-01	7.591E-02	NOT IDENT.
CM-247	1.116E-02	4.241E-02	3.608E-02	2.164E-02	FAIL ABUN

CF-249	7.734E-02	4.445E-02	3.980E-02	2.268E-02	NOT IDENT.
CF-251	6.028E-02	1.446E-01	1.253E-01	7.376E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	308.0409
49.72	365.7946
57.36	0.0000
59.54	439.6424
63.29	493.6122
63.29	493.6122
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67.75	558.0257
69.67	518.1927
70.83	556.1893
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74.82	556.7620
74.97	557.0423
77.11	561.0023
77.11	561.0023
77.11	561.0023
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80.12	524.3318
80.19	524.4485
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81.00	494.8682
81.07	494.9780
81.07	494.9780
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85.43	463.0266
86.48	464.4957
86.55	464.5926
86.79	464.9261
86.94	465.1378
87.57	466.0121
88.03	466.6497
88.47	467.2581
89.96	469.3052
91.11	470.8745
92.59	472.8777
92.59	472.8777
93.35	473.9006
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122.06	418.9607
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154.21	459.8802
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163.33	410.5010
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185.72	429.7177
193.51	430.2409
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205.31	444.8782
210.85	357.5833
215.65	405.1423
222.11	420.3025
227.38	417.2025
228.16	399.9521
228.18	399.9639
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235.96	382.3753
235.96	382.3753
238.63	540.9805
238.63	540.9805
240.99	797.0837
242.00	682.6786
244.70	334.0422
252.40	326.0038
252.80	327.2467
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256.23	335.1707
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269.46	334.1375
269.46	334.1375
271.23	292.5588
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276.40	304.4317
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279.54	315.0609
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284.31	332.2669
285.41	314.7701
285.90	286.9297
287.50	299.8128
293.27	0.0000
295.22	280.9413
295.96	294.7812
298.57	295.6461
299.98	296.1102
299.98	296.1102
300.09	296.1499
300.09	296.1499
300.13	261.2299
301.36	258.5451
302.85	269.6340
304.50	264.0228
304.50	264.0228
304.85	268.7051
308.46	263.9440
311.90	259.3899

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319.41	281.9505
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323.87	331.8895
328.76	252.1423
333.37	236.0291
334.37	236.2671
334.37	236.2671
338.28	257.1291
338.28	257.1291
338.32	257.1424
338.32	257.1424
338.32	257.1424
340.48	245.6532
340.55	252.0120
344.28	293.5176
351.06	258.4889
351.93	258.7089
356.01	197.9381
364.49	207.3344
366.42	241.8454
383.85	260.6339
388.16	208.9208
388.63	212.9890
391.69	248.5015
400.66	261.5393
401.81	253.7473
402.40	255.8914
404.85	301.8688
410.95	232.4132
414.70	231.1205
423.72	169.2720
427.09	201.6393
427.87	206.9157
433.94	242.0894
453.88	212.3441
463.37	209.6813
468.07	166.5100
473.00	193.0947
476.78	208.6252
477.60	211.9654
487.02	187.5853
492.35	201.3100
497.08	181.3699
511.00	204.0324
514.00	177.7159
527.90	170.1978
529.87	0.0000
531.02	173.3456
537.26	180.6001
546.56	0.0000
563.25	206.4817
569.33	162.6052
569.50	157.8675
569.70	166.4480
583.19	189.1331
600.60	157.1155
602.73	156.4874
604.72	141.6795
609.32	152.1057
609.32	152.1057
609.32	152.1057
610.33	152.2009
614.28	160.9487
618.01	167.2847
621.93	157.1973
621.93	157.1973
633.25	148.3643
635.95	131.7607
636.99	136.7955
645.85	148.4634
657.76	154.4982
661.66	162.8866
661.66	162.8866
664.57	0.0000
666.33	155.2501
666.50	155.2658

677.62	135.9438
685.70	143.6822
695.00	149.5348
696.49	162.9821
696.51	162.9854
697.00	174.3060
702.65	159.4117
706.68	175.2157
711.68	181.8831
720.70	165.5460
721.93	0.0000
722.78	149.6895
722.91	149.6982
723.31	165.7730
724.19	169.4142
727.33	150.0439
733.00	152.2778
735.93	150.7148
739.50	123.7305
747.24	140.0110
752.31	138.2627
753.82	143.6478
756.73	153.3810
763.94	156.5139
765.81	151.1959
766.42	173.1053
777.92	137.4416
778.90	154.0107
783.70	112.9196
785.37	123.5977
795.86	140.4961
801.95	147.6278
810.29	134.9539
810.76	141.5007
815.77	119.4397
818.51	133.6086
832.01	159.8375
834.85	157.2236
836.80	0.0000
846.77	146.7262
856.80	124.8116
860.56	110.0195
871.09	100.4901
873.19	112.0788
875.33	0.0000
879.36	126.7931
880.51	112.4419
883.24	109.6900
884.68	132.8669
889.28	122.5219
898.04	136.5470
911.20	123.6868
911.20	123.6868
911.20	123.6868
926.50	132.3350
937.49	123.0970
944.13	120.4746
946.00	111.6738
949.00	109.8328
962.29	123.6151
964.08	96.5737
966.15	96.6549
968.97	96.7649
968.97	96.7649
968.97	96.7649
983.53	105.3607
996.26	133.1233
1001.03	122.2597
1004.73	117.3776
1037.84	131.1875
1038.76	0.0000
1048.07	126.5520
1050.41	131.8125
1050.41	131.8125
1063.66	140.7433
1085.87	143.9874
1099.45	148.8940
1112.07	145.6225

1115.54	145.8009
1120.29	154.2339
1120.29	154.2339
1120.29	154.2339
1120.55	153.4568
1121.30	138.7024
1131.51	0.0000
1173.23	133.6970
1177.93	149.2121
1189.05	137.2562
1204.77	155.1107
1221.41	145.4409
1231.02	184.2891
1235.36	142.2594
1238.28	155.8647
1260.41	0.0000
1271.85	99.1985
1274.44	114.8527
1274.54	114.8563
1291.59	101.7751
1298.22	0.0000
1312.11	107.3468
1332.49	82.8033
1365.19	73.0579
1368.63	0.0000
1384.29	92.5924
1408.01	88.1682
1457.56	0.0000
1460.82	51.4374
1489.16	63.2469
1505.03	69.7705
1596.21	89.1373
1620.50	38.1673
1678.03	0.0000
1690.97	33.0168
1764.49	16.0115
1764.49	16.0115
1764.49	16.0115
1770.23	28.5031
1771.35	23.1651
1791.20	0.0000
1836.06	38.1845

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G249334007

Total Uranium Activity	2.8285E+00	ug/g
Total Uranium Counting Unc.	4.2428E+00	ug/g
Total Uranium Tpu	2.1647E-06	ug/g
Total Uranium Mda	3.7445E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 965250                    SAMPLE ID  : G249334007        *
*   ANALYST      : MXR1                      DETECTOR   : GAM22             *
*   SAMPLE DATE  : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 25-MAR-2010 14:47:57.32   SAMPLE ALQT:  110.710 GRAM     *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.314E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.589E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.229E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.574E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:06:22.75

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071014.CNF;1
Sample date      : 17-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 11:03:00
Sample ID        : G1202071014          Sample quantity  : 1.35710E+02 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:00.61  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 965250               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.11*	38	60	1.03	124.09	118	12	5.34E-03	48.4	
2	0	1119.95	13	6	1.45	2239.05	2235	8	1.84E-03	42.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 13:06:35

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071014.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 17-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 11:03:00
Sample ID : G1202071014 Sample quantity : 135.71 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA19 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.61 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-6.890E-02	1.577E-01	2.402E-01	1.630E-02	-0.287
NA-22		1274.54	*	5.185E-03	1.787E-02	3.158E-02	2.106E-03	0.164
NA-24		1368.63	*	-9.599E-06	1.787E-02	Half-Life too short		
K-40		1460.82	*	1.887E-01	2.649E-01	5.089E-01	3.790E-02	0.371
SC-46		889.28	*	7.283E-03	1.846E-02	3.194E-02	2.776E-03	0.228
	+	1120.55		2.676E-02	2.258E-02	4.596E-02	2.899E-03	0.582
V-48		944.13		-6.181E-02	3.134E-01	4.838E-01	4.076E-02	-0.128
		983.53	*	-2.209E-02	2.660E-02	3.508E-02	2.820E-03	-0.630
		1312.11		-2.710E-04	2.923E-02	4.837E-02	3.442E-03	-0.006
CR-51		320.08	*	5.273E-02	1.405E-01	2.451E-01	1.584E-02	0.215
MN-54		834.85	*	-1.752E-04	1.529E-02	2.468E-02	1.963E-03	-0.007
CO-56		846.77	*	1.967E-02	1.988E-02	3.709E-02	3.009E-03	0.530
		1037.84		2.382E-02	1.338E-01	2.315E-01	1.839E-02	0.103
		1238.28		-2.190E-03	3.844E-02	6.342E-02	4.166E-03	-0.035
		1771.35		1.738E-02	1.367E-01	2.309E-01	1.391E-02	0.075
CO-57		122.06	*	6.969E-03	1.219E-02	2.073E-02	1.237E-03	0.336
		136.47		-8.433E-02	9.503E-02	1.416E-01	9.331E-03	-0.595
CO-58		810.76	*	-6.667E-03	1.712E-02	2.558E-02	1.960E-03	-0.261
FE-59		1099.45	*	1.041E-02	3.246E-02	5.787E-02	4.341E-03	0.180
		1291.59		-2.880E-02	4.928E-02	7.046E-02	5.834E-03	-0.409
CO-60		1173.23		1.515E-02	1.955E-02	3.710E-02	2.033E-03	0.408
		1332.49	*	4.349E-03	2.117E-02	3.649E-02	2.689E-03	0.119
ZN-65		1115.54	*	-2.531E-03	4.087E-02	5.778E-02	3.694E-03	-0.044
SE-75		121.12		-7.747E-03	6.191E-02	9.973E-02	9.182E-03	-0.078
		136.00		-1.278E-02	1.792E-02	2.722E-02	1.568E-03	-0.470
		264.66	*	8.449E-03	2.143E-02	3.737E-02	2.174E-03	0.226
		279.54		3.279E-02	5.353E-02	9.477E-02	5.941E-03	0.346
		400.66		7.803E-02	1.458E-01	2.374E-01	2.123E-02	0.329
SR-85		514.00	*	-1.984E-02	3.129E-02	4.928E-02	2.910E-03	-0.403
Y-88		898.04		2.410E-03	2.488E-02	4.045E-02	3.580E-03	0.060
		1836.06	*	9.380E-03	2.319E-02	4.154E-02	2.371E-03	0.226
Y-91		1204.77	*	1.291E+00	7.962E+00	1.368E+01	7.988E-01	0.094
NB-94		702.65	*	1.026E-02	1.974E-02	3.431E-02	2.161E-03	0.299
		871.09		-6.833E-03	1.701E-02	2.524E-02	2.130E-03	-0.271

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.81	*	9.520E-03	2.125E-02	3.669E-02	2.592E-03	0.260
NB-95M		235.69	*	-6.697E-02	5.835E-02	8.268E-02	6.145E-03	-0.810
ZR-95		724.19		-3.141E-02	4.377E-02	6.298E-02	4.714E-03	-0.499
		756.73	*	-3.089E-04	3.512E-02	5.700E-02	4.585E-03	-0.005
MO-99		140.51		1.169E+00	1.475E+00	2.516E+00	5.742E-01	0.465
		181.07		-8.127E-01	1.303E+00	1.973E+00	3.457E-01	-0.412
		366.42		5.169E+00	7.831E+00	1.391E+01	7.917E-01	0.372
		739.50	*	1.629E-01	8.186E-01	1.379E+00	2.043E-01	0.118
		777.92		7.561E-01	2.575E+00	4.389E+00	3.169E-01	0.172
TC-99M		140.51	*	8.991E+00	2.575E+00	Half-Life too short		
RU-103		497.08	*	-1.393E-02	1.889E-02	2.807E-02	3.499E-03	-0.496
		610.33		-7.717E-03	3.581E-01	5.857E-01	8.841E-02	-0.013
RH-106		621.93	*	-2.225E-02	1.564E-01	2.507E-01	2.926E-02	-0.089
		1050.41		-2.857E-01	1.271E+00	2.046E+00	1.488E-01	-0.140
RU-106		621.93	*	-2.225E-02	1.564E-01	2.507E-01	1.478E-02	-0.089
		1050.41		-2.857E-01	1.271E+00	2.046E+00	1.488E-01	-0.140
AG-108M		433.94	*	6.937E-03	1.640E-02	2.848E-02	1.748E-03	0.244
		614.28		-1.314E-02	1.862E-02	2.739E-02	1.729E-03	-0.480
		722.91		1.372E-03	1.923E-02	3.165E-02	2.184E-03	0.043
CD-109		88.03	*	-1.556E-01	3.463E-01	5.483E-01	4.911E-02	-0.284
AG-110M		657.76	*	-1.536E-02	1.798E-02	2.539E-02	1.576E-03	-0.605
		677.62		3.860E-02	1.696E-01	2.858E-01	1.817E-02	0.135
		706.68		-1.288E-01	1.185E-01	1.608E-01	1.074E-02	-0.801
		763.94		-1.374E-02	8.793E-02	1.395E-01	1.023E-02	-0.098
		884.68		-2.112E-02	2.649E-02	3.612E-02	3.216E-03	-0.585
		937.49		2.114E-03	6.231E-02	1.009E-01	8.875E-03	0.021
		1384.29		-6.967E-03	8.430E-02	1.369E-01	1.037E-02	-0.051
		1505.03		1.760E-02	1.491E-01	2.524E-01	1.779E-02	0.070
SN-113		391.69	*	2.896E-03	2.354E-02	3.973E-02	2.370E-03	0.073
CD-115		260.90		4.481E+00	6.184E+00	1.064E+01	6.111E-01	0.421
		492.35		1.262E+00	1.924E+00	3.427E+00	2.012E-01	0.368
		527.90	*	3.182E-01	5.292E-01	9.428E-01	5.580E-02	0.337
SN-117M		156.02		8.511E-02	7.264E-01	1.187E+00	6.364E-02	0.072
		158.56	*	-1.038E-02	1.832E-02	2.816E-02	1.499E-03	-0.369
TE-123M		159.00	*	-1.307E-02	1.379E-02	2.043E-02	1.103E-03	-0.640
SB-124		602.73		-1.670E-02	2.298E-02	3.456E-02	2.046E-03	-0.483
		645.85		9.441E-02	2.612E-01	4.476E-01	2.938E-02	0.211
		722.78		1.262E-02	1.768E-01	2.911E-01	1.979E-02	0.043
		1690.97	*	4.714E-03	5.813E-02	9.671E-02	6.650E-03	0.049
SB-125		427.87	*	-1.510E-02	4.709E-02	7.526E-02	4.475E-03	-0.201
		463.37		5.111E-02	1.483E-01	2.549E-01	1.717E-02	0.200
		600.60		8.150E-02	1.048E-01	1.872E-01	1.276E-02	0.435
		635.95		6.934E-02	1.605E-01	2.771E-01	1.901E-02	0.250
TE-125M		109.28	*	-7.127E-01	4.034E+00	6.482E+00	5.833E-01	-0.110
I-126		388.63		1.766E-02	6.075E-02	1.042E-01	5.818E-03	0.169
		666.33	*	-2.415E-02	7.570E-02	1.177E-01	6.914E-03	-0.205
		753.82		-2.859E-01	6.046E-01	9.011E-01	6.233E-02	-0.317
SB-126		414.70		-2.035E-02	2.473E-02	3.693E-02	2.089E-03	-0.551
		666.50		-7.504E-03	2.558E-02	3.993E-02	2.347E-03	-0.188

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		695.00		1.780E-02	3.723E-02	6.036E-02	3.747E-03	0.295
		697.00		5.852E-02	1.135E-01	1.961E-01	1.222E-02	0.298
		720.70	*	-5.584E-03	4.909E-02	7.853E-02	5.115E-03	-0.071
		856.80		-8.836E-03	1.322E-01	2.106E-01	1.737E-02	-0.042
SN-126		64.28		-1.479E-01	2.505E-01	3.578E-01	5.225E-02	-0.413
		86.94		8.538E-02	1.431E-01	2.375E-01	9.836E-02	0.359
		87.57	*	2.430E-03	3.313E-02	5.458E-02	4.869E-03	0.045
SB-127		252.40		2.171E-01	5.768E-01	9.452E-01	3.833E-01	0.230
		473.00		5.326E-02	2.009E-01	3.440E-01	3.168E-02	0.155
		685.70	*	-4.929E-02	1.645E-01	2.550E-01	1.878E-02	-0.193
		783.70		3.515E-02	4.945E-01	8.110E-01	7.844E-02	0.043
I-131		80.19		-4.968E-01	8.922E-01	1.395E+00	1.158E-01	-0.356
		284.31		4.549E-02	3.712E-01	6.320E-01	4.032E-02	0.072
		364.49	*	2.155E-02	3.208E-02	5.712E-02	3.612E-03	0.377
		636.99		-3.756E-01	5.049E-01	7.446E-01	4.856E-02	-0.504
TE-132		49.72		3.132E-01	1.403E+00	2.362E+00	1.869E-01	0.133
		111.76		1.408E+00	2.771E+00	4.713E+00	3.492E-01	0.299
		116.30		-2.415E+00	2.374E+00	3.480E+00	2.488E-01	-0.694
		228.16	*	1.083E-02	6.831E-02	1.111E-01	1.457E-02	0.097
BA-133		81.00		-3.265E-02	3.710E-02	5.595E-02	8.600E-03	-0.584
		276.40		-1.523E-01	1.788E-01	2.763E-01	3.476E-02	-0.551
		302.85		-3.700E-02	6.703E-02	1.061E-01	1.211E-02	-0.349
		356.01	*	-1.968E-02	2.334E-02	3.556E-02	3.997E-03	-0.553
		383.85		-7.276E-02	1.543E-01	2.438E-01	2.574E-02	-0.298
I-133		529.87	*	-7.053E-06	1.543E-01	Half-Life too short		
		875.33		7.754E-06	1.543E-01	Half-Life too short		
		1298.22		3.304E-05	1.543E-01	Half-Life too short		
CS-134		563.25		-1.456E-01	2.007E-01	2.981E-01	1.805E-02	-0.488
		569.33		1.263E-01	1.310E-01	2.274E-01	1.389E-02	0.555
		604.72		9.415E-03	2.021E-02	3.486E-02	2.074E-03	0.270
		795.86	*	2.151E-04	2.490E-02	4.044E-02	3.041E-03	0.005
		801.95		-1.184E-01	2.737E-01	4.205E-01	3.188E-02	-0.281
		1365.19		1.132E+00	7.500E-01	1.557E+00	1.213E-01	0.727
CS-135		268.22	*	2.663E-02	7.911E-02	1.371E-01	1.046E-02	0.194
I-135		546.56		-6.965E+00	7.911E-02	Half-Life too short		
		836.80		3.525E+01	7.911E-02	Half-Life too short		
		1038.76		-2.232E+01	7.911E-02	Half-Life too short		
		1131.51		-4.255E+00	7.911E-02	Half-Life too short		
		1260.41	*	-1.403E+00	7.911E-02	Half-Life too short		
		1457.56		-3.693E+01	7.911E-02	Half-Life too short		
		1678.03		1.496E+01	7.911E-02	Half-Life too short		
		1791.20		4.669E+00	7.911E-02	Half-Life too short		
CS-136		153.25		-5.647E-03	2.665E-01	4.308E-01	3.341E-02	-0.013
		176.60		6.005E-02	1.584E-01	2.643E-01	1.752E-02	0.227
		273.65		5.237E-02	1.688E-01	2.920E-01	1.989E-02	0.179
		340.55		-5.188E-03	4.833E-02	8.007E-02	5.001E-03	-0.065
		818.51		-3.914E-04	2.282E-02	3.683E-02	2.851E-03	-0.011
		1048.07	*	1.502E-03	3.792E-02	6.396E-02	4.936E-03	0.023
		1235.36		-9.102E-03	1.907E-01	3.147E-01	3.185E-02	-0.029

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-137M		661.66	*	-8.994E-03	2.003E-02	2.814E-02	1.638E-03	-0.320
CS-137		661.66	*	-9.501E-03	2.116E-02	2.972E-02	1.738E-03	-0.320
CE-139		165.86	*	-1.013E-02	1.482E-02	2.253E-02	1.176E-03	-0.450
BA-140		162.66		2.569E-01	2.563E-01	4.488E-01	2.768E-02	0.572
		304.85		-3.208E-01	4.238E-01	6.378E-01	1.822E-01	-0.503
		423.72		-4.546E-02	6.443E-01	1.062E+00	3.424E-01	-0.043
		537.26	*	1.218E-02	1.082E-01	1.804E-01	6.014E-02	0.068
LA-140		328.76		6.483E-02	9.424E-02	1.684E-01	1.096E-02	0.385
		487.02		-2.776E-02	4.501E-02	6.794E-02	4.498E-03	-0.409
		815.77		5.426E-02	8.980E-02	1.634E-01	1.441E-02	0.332
		1596.21	*	-4.196E-03	3.092E-02	4.893E-02	3.311E-03	-0.086
CE-141		145.44	*	-9.850E-03	2.465E-02	3.854E-02	2.220E-03	-0.256
CE-143		57.36		-2.580E+00	9.634E+00	1.349E+01	1.183E+00	-0.191
		293.27	*	6.372E-01	1.278E+00	2.236E+00	4.494E-01	0.285
		664.57		2.059E+00	1.196E+01	2.006E+01	5.833E+00	0.103
		721.93		2.914E-01	1.369E+01	2.237E+01	6.078E+00	0.013
CE-144		80.12		-5.210E-01	9.162E-01	1.430E+00	1.185E-01	-0.364
		133.52	*	6.765E-02	9.074E-02	1.559E-01	2.160E-02	0.434
PM-144		476.78		-9.944E-03	3.466E-02	5.393E-02	3.716E-03	-0.184
		618.01		1.093E-02	1.664E-02	2.971E-02	1.855E-03	0.368
		696.49	*	1.923E-02	2.232E-02	3.989E-02	2.484E-03	0.482
PR-144		696.51	*	1.434E+00	1.664E+00	2.974E+00	1.851E-01	0.482
		1489.16		1.592E+00	7.737E+00	1.332E+01	9.439E-01	0.120
PM-146		453.88	*	-6.912E-03	2.365E-02	3.791E-02	3.202E-03	-0.182
		633.25		5.383E-02	8.606E-01	1.406E+00	5.297E-01	0.038
		735.93		-7.065E-02	8.481E-02	1.161E-01	3.192E-02	-0.609
		747.24		2.858E-02	4.524E-02	8.131E-02	1.106E-02	0.351
ND-147		91.11		6.114E-02	7.204E-02	1.245E-01	1.151E-02	0.491
		319.41		1.753E-01	9.508E-01	1.626E+00	9.452E-02	0.108
		531.02	*	-1.445E-01	1.869E-01	2.735E-01	3.713E-02	-0.528
PM-149		285.90	*	-2.714E+00	4.073E+00	6.375E+00	9.023E-01	-0.426
EU-152		121.78		7.805E-03	3.589E-02	5.943E-02	4.583E-03	0.131
		244.70		7.289E-02	1.759E-01	2.919E-01	1.659E-02	0.250
		344.28	*	-6.247E-03	5.211E-02	8.619E-02	5.606E-03	-0.072
		778.90		3.625E-02	1.314E-01	2.231E-01	1.613E-02	0.162
		964.08		1.967E-04	1.500E-01	2.411E-01	1.986E-02	0.001
		1085.87		1.775E-01	2.086E-01	3.936E-01	2.678E-02	0.451
		1112.07		-8.715E-02	1.533E-01	2.229E-01	1.434E-02	-0.391
		1408.01		-2.290E-02	9.102E-02	1.411E-01	1.025E-02	-0.162
GD-153		69.67		-5.278E-01	7.061E-01	1.094E+00	8.419E-02	-0.482
		97.43	*	-1.430E-04	3.929E-02	6.424E-02	4.996E-03	-0.002
		103.18		-5.794E-02	5.024E-02	7.365E-02	5.333E-03	-0.787
EU-154		123.07		2.007E-02	2.561E-02	4.413E-02	4.180E-03	0.455
		723.31		-2.500E-02	9.043E-02	1.411E-01	1.080E-02	-0.177
		873.19		6.653E-02	1.369E-01	2.410E-01	2.840E-02	0.276
		996.26		1.036E-01	1.778E-01	3.158E-01	5.408E-02	0.328
		1004.73		3.881E-02	9.692E-02	1.741E-01	1.924E-02	0.223
		1274.44	*	-5.191E-03	5.414E-02	8.802E-02	8.780E-03	-0.059
EU-155		86.55		3.743E-02	4.020E-02	7.014E-02	6.249E-03	0.534

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		105.31	*	1.164E-02	4.822E-02	8.027E-02	5.771E-03	0.145
TB-160		86.79		9.062E-02	9.903E-02	1.726E-01	1.527E-02	0.525
		197.04		-6.973E-02	2.916E-01	4.390E-01	2.379E-02	-0.159
		215.65		1.231E-02	3.375E-01	5.434E-01	3.007E-02	0.023
		298.57		-1.005E-02	5.018E-02	8.275E-02	4.811E-03	-0.122
		879.36	*	1.660E-02	8.285E-02	1.284E-01	1.098E-02	0.129
		962.29		1.070E-01	2.428E-01	4.197E-01	3.464E-02	0.255
		966.15		-1.952E-02	9.983E-02	1.553E-01	1.275E-02	-0.126
		1177.93		-2.736E-02	1.271E-01	2.015E-01	1.115E-02	-0.136
		1271.85		-2.409E-01	2.973E-01	4.001E-01	2.651E-02	-0.602
HO-166M		80.57		-8.191E-02	1.044E-01	1.599E-01	1.330E-02	-0.512
		184.41		-1.354E-03	1.985E-02	3.341E-02	1.782E-03	-0.041
		280.46		3.201E-02	4.355E-02	7.785E-02	4.510E-03	0.411
		410.95		3.799E-02	1.197E-01	2.064E-01	1.164E-02	0.184
		711.68	*	4.726E-03	3.562E-02	5.909E-02	3.785E-03	0.080
		752.31		-1.568E-02	1.349E-01	2.149E-01	1.482E-02	-0.073
		810.29		-1.869E-02	2.836E-02	3.981E-02	3.039E-03	-0.470
TA-182		67.75		-7.496E-03	5.176E-02	7.257E-02	5.537E-03	-0.103
		100.11		9.816E-02	7.747E-02	1.386E-01	1.041E-02	0.708
		152.43		-1.612E-02	1.602E-01	2.572E-01	1.392E-02	-0.063
		222.11		-2.877E-02	1.617E-01	2.546E-01	1.419E-02	-0.113
	+	1121.30		7.541E-02	6.362E-02	1.237E-01	7.787E-03	0.610
		1189.05		-8.405E-03	1.091E-01	1.786E-01	1.010E-02	-0.047
		1221.41	*	1.811E-02	6.923E-02	1.216E-01	7.331E-03	0.149
		1231.02		3.267E-02	2.240E-01	3.812E-01	2.341E-02	0.086
IR-192		295.96		-7.987E-03	5.384E-02	8.228E-02	4.859E-03	-0.097
		308.46		2.705E-02	4.512E-02	8.003E-02	4.708E-03	0.338
		316.51	*	-4.260E-03	1.513E-02	2.462E-02	1.438E-03	-0.173
		468.07		-7.789E-03	3.287E-02	5.287E-02	3.550E-03	-0.147
HG-203		70.83		-3.807E-01	4.827E-01	7.391E-01	1.153E-01	-0.515
		72.87		1.775E-01	2.752E-01	4.716E-01	7.128E-02	0.376
		279.20	*	9.574E-03	1.743E-02	3.071E-02	1.878E-03	0.312
BI-207		72.81		3.136E-02	7.191E-02	1.219E-01	9.550E-03	0.257
		74.97		2.795E-02	4.368E-02	7.197E-02	5.720E-03	0.388
		569.70		7.654E-03	2.078E-02	3.404E-02	2.020E-03	0.225
		1063.66	*	3.389E-03	2.746E-02	4.690E-02	3.330E-03	0.072
		1770.23		-1.685E-01	3.196E-01	4.464E-01	2.693E-02	-0.377
TL-208		277.37		-3.139E-02	1.953E-01	3.243E-01	3.495E-02	-0.097
		583.19	*	-7.342E-03	2.076E-02	3.021E-02	2.050E-03	-0.243
		860.56		-7.308E-02	1.403E-01	2.036E-01	1.823E-02	-0.359
PB-210		46.54	*	-8.288E-01	1.463E+00	2.294E+00	1.729E-01	-0.361
BI-211		72.87		7.987E-01	1.234E+00	2.123E+00	1.663E-01	0.376
		351.06	*	8.389E-02	1.138E-01	2.026E-01	1.294E-02	0.414
PB-211		404.85	*	-1.621E-01	3.823E-01	5.930E-01	2.843E-01	-0.273
		427.09		-4.832E-01	8.374E-01	1.247E+00	5.713E-01	-0.387
		832.01		-3.780E-01	5.421E-01	7.031E-01	3.638E-01	-0.538
BI-212		727.33	*	-7.653E-02	3.122E-01	4.917E-01	5.484E-02	-0.156
		785.37		8.848E-01	1.674E+00	2.934E+00	2.146E-01	0.302
		1620.50		8.530E-01	1.597E+00	2.907E+00	1.942E-01	0.293

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PB-212		74.82		1.083E-01	1.525E-01	2.519E-01	3.163E-02	0.430
		77.11		-3.712E-02	7.985E-02	1.263E-01	1.020E-02	-0.294
		238.63	*	-2.018E-03	3.431E-02	5.413E-02	3.942E-03	-0.037
		300.09		4.107E-02	3.724E-01	6.324E-01	5.311E-02	0.065
BI-214		609.32	*	1.043E-02	4.164E-02	7.030E-02	5.570E-03	0.148
	+	1120.29		1.686E-01	1.426E-01	2.925E-01	2.693E-02	0.576
		1764.49		6.564E-02	1.588E-01	2.825E-01	1.712E-02	0.232
PB-214		74.82		1.920E-01	2.701E-01	4.464E-01	5.010E-02	0.430
		77.11		-6.545E-02	1.409E-01	2.226E-01	2.570E-02	-0.294
		242.00		-2.909E-01	2.026E-01	2.795E-01	2.266E-02	-1.041
		295.22		3.375E-03	7.778E-02	1.210E-01	1.057E-02	0.028
		351.93	*	6.726E-03	4.190E-02	7.109E-02	5.998E-03	0.095
RN-219		271.23		7.747E-02	1.192E-01	2.114E-01	1.694E-02	0.366
		401.81	*	6.873E-02	2.186E-01	3.756E-01	5.017E-02	0.183
RA-223		81.07		-7.495E-02	8.355E-02	1.266E-01	1.059E-02	-0.592
		83.79		-3.763E-04	5.449E-02	8.559E-02	7.342E-03	-0.004
		94.87		4.607E-03	2.012E-01	3.298E-01	2.656E-02	0.014
		144.24		-4.092E-01	3.454E-01	4.740E-01	3.317E-02	-0.863
		154.21		3.747E-02	1.837E-01	3.026E-01	2.005E-02	0.124
		269.46		-5.203E-02	9.270E-02	1.486E-01	8.948E-03	-0.350
		323.87	*	-1.928E-02	2.913E-01	4.849E-01	7.816E-02	-0.040
		338.28		-4.191E-01	4.956E-01	7.579E-01	7.761E-02	-0.553
RA-224		240.99	*	2.303E-01	3.227E-01	5.490E-01	3.111E-02	0.420
RA-226		609.32	*	1.043E-02	4.164E-02	7.030E-02	5.570E-03	0.148
	+	1120.29		1.686E-01	1.426E-01	2.925E-01	2.693E-02	0.576
		1764.49		6.564E-02	1.588E-01	2.825E-01	1.712E-02	0.232
AC-227		79.69		-1.060E-01	4.510E-01	7.249E-01	1.236E-01	-0.146
		235.96		-6.581E-02	7.620E-02	1.116E-01	8.964E-03	-0.590
		256.23	*	-1.769E-02	1.273E-01	2.001E-01	2.038E-02	-0.088
		299.98		4.994E-02	4.100E-01	6.970E-01	7.665E-02	0.072
		304.50		-1.057E+00	8.016E-01	1.132E+00	1.726E-01	-0.934
		334.37		4.136E-01	8.739E-01	1.526E+00	2.170E-01	0.271
TH-227		79.80		-1.451E-01	5.942E-01	9.537E-01	2.064E-01	-0.152
		235.96		-6.581E-02	7.617E-02	1.116E-01	8.106E-03	-0.590
		256.23	*	-1.769E-02	1.273E-01	2.001E-01	2.398E-02	-0.088
		299.98		4.994E-02	4.100E-01	6.970E-01	7.665E-02	0.072
		304.50		-1.057E+00	8.016E-01	1.132E+00	1.726E-01	-0.934
		334.37		4.136E-01	8.739E-01	1.526E+00	2.170E-01	0.271
AC-228		338.32		-1.066E-01	1.319E-01	1.907E-01	7.860E-02	-0.559
		911.20	*	-7.166E-02	8.200E-02	1.099E-01	1.281E-02	-0.652
		968.97		1.579E-02	1.346E-01	2.206E-01	5.340E-02	0.072
RA-228		338.32		-1.066E-01	1.319E-01	1.907E-01	7.860E-02	-0.559
		911.20	*	-7.166E-02	8.200E-02	1.099E-01	1.281E-02	-0.652
		968.97		1.579E-02	1.346E-01	2.206E-01	5.340E-02	0.072
TH-228		74.82		1.083E-01	1.522E-01	2.519E-01	2.021E-02	0.430
		77.11		-3.712E-02	7.985E-02	1.263E-01	1.020E-02	-0.294
		238.63	*	-2.018E-03	3.431E-02	5.413E-02	3.942E-03	-0.037
		300.09		4.107E-02	3.732E-01	6.324E-01	3.850E-01	0.065
TH-229		85.43		3.974E-02	9.230E-02	1.498E-01	1.307E-02	0.265

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		88.47		-7.200E-02	5.565E-02	8.209E-02	7.297E-03	-0.877
		193.51	*	-6.190E-02	2.558E-01	4.023E-01	2.170E-02	-0.154
		210.85		1.282E-01	4.120E-01	6.810E-01	3.749E-02	0.188
TH-230		609.32	*	1.042E-02	4.164E-02	7.030E-02	4.156E-03	0.148
	+	1120.29		1.686E-01	1.422E-01	2.925E-01	1.846E-02	0.576
		1764.49		6.564E-02	1.588E-01	2.825E-01	1.712E-02	0.232
PA-231		283.69	*	-1.609E-01	7.253E-01	1.195E+00	1.568E-01	-0.135
		301.36		5.563E-02	2.511E-01	4.312E-01	4.464E-02	0.129
TH-231		81.07		-7.495E-02	8.355E-02	1.266E-01	1.059E-02	-0.592
		83.79		-3.763E-04	5.449E-02	8.559E-02	7.342E-03	-0.004
		94.87		4.607E-03	2.012E-01	3.298E-01	2.656E-02	0.014
		144.24		-4.092E-01	3.454E-01	4.740E-01	3.317E-02	-0.863
		154.21		3.747E-02	1.837E-01	3.026E-01	2.005E-02	0.124
		269.46		-5.203E-02	9.270E-02	1.486E-01	8.948E-03	-0.350
		323.87	*	-1.928E-02	2.913E-01	4.849E-01	7.816E-02	-0.040
		338.28		-4.191E-01	4.956E-01	7.579E-01	7.761E-02	-0.553
TH-232		338.32		-1.066E-01	1.245E-01	1.907E-01	1.102E-02	-0.559
		911.20	*	-7.166E-02	8.200E-02	1.099E-01	1.281E-02	-0.652
		968.97		1.579E-02	1.346E-01	2.206E-01	5.340E-02	0.072
PA-233		300.13		1.966E-02	1.853E-01	3.145E-01	4.213E-02	0.063
		311.90	*	-3.677E-03	3.250E-02	5.394E-02	3.331E-03	-0.068
		340.48		-3.537E-02	3.085E-01	5.106E-01	1.185E-01	-0.069
PA-234		94.67		1.575E-02	7.611E-02	1.264E-01	1.520E-02	0.125
		98.44		2.705E-02	4.574E-02	7.399E-02	4.117E-02	0.366
		111.00		-2.054E-03	8.167E-02	1.329E-01	1.431E-02	-0.015
		131.20		2.117E-02	4.672E-02	7.891E-02	4.542E-03	0.268
		569.50		1.556E-01	1.797E-01	3.091E-01	1.835E-02	0.503
		733.00		8.440E-02	2.291E-01	3.899E-01	8.387E-02	0.216
		880.51		8.997E-02	1.716E-01	2.785E-01	2.387E-02	0.323
		883.24		-7.010E-02	1.675E-01	2.392E-01	1.608E-01	-0.293
		926.50		8.286E-03	1.056E-01	1.722E-01	4.350E-02	0.048
		946.00	*	-7.583E-02	1.576E-01	2.283E-01	4.262E-02	-0.332
		949.00		2.363E-01	2.293E-01	4.343E-01	3.639E-02	0.544
PA-234M		766.42		1.954E+00	6.333E+00	1.060E+01	5.355E+00	0.184
		1001.03	*	-1.805E+00	2.369E+00	3.589E+00	3.341E-01	-0.503
TH-234	+	63.29	*	8.329E-01	8.192E-01	9.321E-01	1.667E-01	0.894
		92.59		-4.000E-01	3.390E-01	5.189E-01	1.140E-01	-0.771
U-235		89.96		-5.414E-01	3.889E-01	5.318E-01	1.310E-01	-1.018
		93.35		-2.174E-01	2.504E-01	3.976E-01	9.128E-02	-0.547
		143.76	*	-1.455E-01	1.039E-01	1.354E-01	2.115E-02	-1.074
		163.33		1.291E-01	2.173E-01	3.669E-01	6.091E-02	0.352
		185.72		-2.608E-03	2.491E-02	4.185E-02	2.236E-03	-0.062
		205.31		-1.384E-01	2.308E-01	3.471E-01	5.859E-02	-0.399
NP-237		86.48	*	9.297E-02	1.012E-01	1.734E-01	3.943E-02	0.536
		95.86		-8.310E-01	5.032E-01	6.554E-01	1.557E-01	-1.268
U-238	+	63.29	*	8.329E-01	8.192E-01	9.321E-01	1.667E-01	0.894
		92.59		-4.000E-01	3.291E-01	5.189E-01	4.320E-02	-0.771
NP-239		99.53		8.217E-02	7.657E-02	1.350E-01	1.022E-02	0.608
		103.37		-3.938E-02	4.532E-02	6.826E-02	4.931E-03	-0.577

Sample ID : G1202071014 Acquisition date : 24-MAR-2010 11:03:00

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		106.12		2.418E-02	3.817E-02	6.547E-02	4.584E-03	0.369
		117.23	*	-1.634E-01	1.795E-01	2.673E-01	1.668E-02	-0.611
		228.18		1.627E-02	1.062E-01	1.727E-01	9.678E-03	0.094
		277.60		-6.553E-03	9.006E-02	1.507E-01	8.723E-03	-0.043
AM-241		59.54	*	4.122E-02	6.249E-02	9.764E-02	8.039E-03	0.422
CM-247		278.00		-1.244E-01	3.856E-01	6.314E-01	3.654E-02	-0.197
		287.50		-3.832E-01	5.924E-01	9.317E-01	5.407E-02	-0.411
		402.40	*	-1.462E-03	2.010E-02	3.322E-02	1.863E-03	-0.044
CF-249		252.80		1.450E-01	5.085E-01	8.350E-01	4.772E-02	0.174
		333.37		-4.321E-04	9.428E-02	1.579E-01	9.144E-03	-0.003
		388.16	*	1.464E-02	2.137E-02	3.809E-02	2.127E-03	0.384
CF-251		177.52	*	3.724E-02	6.307E-02	1.070E-01	5.659E-03	0.348
		227.38		5.136E-02	1.725E-01	2.844E-01	1.593E-02	0.181
		285.41		-6.538E-01	1.065E+00	1.683E+00	9.764E-02	-0.388
ANH-511		511.00	*	-2.693E-02	3.347E-02	6.054E-02	3.572E-03	-0.445

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071014    *
* Acquisition date : 24-MAR-2010 11:03:00 Detector SN#    :                *
* Detector ID        : GAM19               Sensitivity     : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500        *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000       *
* Elapsed real time:    0 02:00:00.61      Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 17-MAR-2010 00:00:00 Nuclide Library : SOLID        *
* Sample ID          : G1202071014         Analyst initials: MXR1          *
* Batch Number       : 965250              Sample Quantity : 1.3571E+02 GRAM *
* Recovery           :    1.00000          Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)	
BE-7	-6.890E-02	1.546E-01	2.460E-01	0.000E+00 NOT IDENT.
NA-22	5.185E-03	1.751E-02	3.174E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	9.548E+01	0.000E+00	0.000E+00 SHORT HLIF
K-40	1.887E-01	2.596E-01	5.102E-01	0.000E+00 NOT IDENT.
SC-46	7.283E-03	1.809E-02	3.233E-02	0.000E+00 FAIL ABUN
V-48	-2.209E-02	2.607E-02	3.543E-02	0.000E+00 NOT IDENT.
CR-51	5.273E-02	1.377E-01	2.528E-01	0.000E+00 NOT IDENT.
MN-54	-1.752E-04	1.498E-02	2.501E-02	0.000E+00 NOT IDENT.
CO-56	1.967E-02	1.948E-02	3.757E-02	0.000E+00 NOT IDENT.
CO-57	6.969E-03	1.194E-02	2.176E-02	0.000E+00 NOT IDENT.
CO-58	-6.667E-03	1.678E-02	2.593E-02	0.000E+00 NOT IDENT.
FE-59	1.041E-02	3.181E-02	5.833E-02	0.000E+00 NOT IDENT.
CO-60	4.349E-03	2.074E-02	3.665E-02	0.000E+00 NOT IDENT.
ZN-65	-2.531E-03	4.006E-02	5.822E-02	0.000E+00 NOT IDENT.
SE-75	8.449E-03	2.100E-02	3.868E-02	0.000E+00 NOT IDENT.
SR-85	-1.984E-02	3.066E-02	5.039E-02	0.000E+00 NOT IDENT.
Y-88	9.380E-03	2.273E-02	4.146E-02	0.000E+00 NOT IDENT.
Y-91	1.291E+00	7.802E+00	1.377E+01	0.000E+00 NOT IDENT.
NB-94	1.026E-02	1.934E-02	3.488E-02	0.000E+00 NOT IDENT.
NB-95	9.520E-03	2.082E-02	3.723E-02	0.000E+00 NOT IDENT.
NB-95M	-6.697E-02	5.719E-02	8.576E-02	0.000E+00 NOT IDENT.
ZR-95	-3.089E-04	3.442E-02	5.786E-02	0.000E+00 NOT IDENT.
MO-99	1.629E-01	8.022E-01	1.401E+00	0.000E+00 NOT IDENT.
TC-99M	0.000E+00	1.102E+07	0.000E+00	0.000E+00 SHORT HLIF
RU-103	-1.393E-02	1.851E-02	2.872E-02	0.000E+00 NOT IDENT.
RH-106	-2.225E-02	1.533E-01	2.554E-01	0.000E+00 NOT IDENT.

RU-106	-2.225E-02	1.533E-01	2.554E-01	0.000E+00	NOT IDENT.
AG-108M	6.937E-03	1.608E-02	2.922E-02	0.000E+00	NOT IDENT.
CD-109	-1.556E-01	3.394E-01	5.788E-01	0.000E+00	NOT IDENT.
AG-110M	-1.536E-02	1.762E-02	2.584E-02	0.000E+00	NOT IDENT.
SN-113	2.896E-03	2.307E-02	4.083E-02	0.000E+00	NOT IDENT.
CD-115	3.182E-01	5.186E-01	9.635E-01	0.000E+00	NOT IDENT.
SN-117M	-1.038E-02	1.796E-02	2.941E-02	0.000E+00	NOT IDENT.
TE-123M	-1.307E-02	1.351E-02	2.134E-02	0.000E+00	NOT IDENT.
SB-124	4.714E-03	5.697E-02	9.668E-02	0.000E+00	NOT IDENT.
SB-125	-1.510E-02	4.615E-02	7.722E-02	0.000E+00	NOT IDENT.
TE-125M	-7.127E-01	3.953E+00	6.816E+00	0.000E+00	NOT IDENT.
I-126	-2.415E-02	7.419E-02	1.197E-01	0.000E+00	NOT IDENT.
SB-126	-5.584E-03	4.811E-02	7.979E-02	0.000E+00	NOT IDENT.
SN-126	2.430E-03	3.247E-02	5.762E-02	0.000E+00	NOT IDENT.
SB-127	-4.929E-02	1.612E-01	2.593E-01	0.000E+00	NOT IDENT.
I-131	2.155E-02	3.144E-02	5.878E-02	0.000E+00	NOT IDENT.
TE-132	1.083E-02	6.695E-02	1.153E-01	0.000E+00	NOT IDENT.
BA-133	-1.968E-02	2.287E-02	3.661E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.690E+00	0.000E+00	0.000E+00	SHORT HLIF
CS-134	2.151E-04	2.440E-02	4.101E-02	0.000E+00	NOT IDENT.
CS-135	2.663E-02	7.753E-02	1.419E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.331E+07	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.502E-03	3.716E-02	6.452E-02	0.000E+00	NOT IDENT.
BA-137M	-8.994E-03	1.963E-02	2.863E-02	0.000E+00	NOT IDENT.
CS-137	-9.501E-03	2.074E-02	3.025E-02	0.000E+00	NOT IDENT.
CE-139	-1.013E-02	1.452E-02	2.351E-02	0.000E+00	NOT IDENT.
BA-140	1.218E-02	1.060E-01	1.843E-01	0.000E+00	NOT IDENT.
LA-140	-4.196E-03	3.030E-02	4.896E-02	0.000E+00	NOT IDENT.
CE-141	-9.850E-03	2.416E-02	4.032E-02	0.000E+00	NOT IDENT.
CE-143	6.372E-01	1.252E+00	2.310E+00	0.000E+00	NOT IDENT.
CE-144	6.765E-02	8.892E-02	1.633E-01	0.000E+00	NOT IDENT.
PM-144	1.923E-02	2.187E-02	4.056E-02	0.000E+00	NOT IDENT.
PR-144	1.434E+00	1.630E+00	3.023E+00	0.000E+00	NOT IDENT.
PM-146	-6.912E-03	2.318E-02	3.885E-02	0.000E+00	NOT IDENT.
ND-147	-1.445E-01	1.832E-01	2.795E-01	0.000E+00	NOT IDENT.
PM-149	-2.714E+00	3.992E+00	6.589E+00	0.000E+00	NOT IDENT.
EU-152	-6.247E-03	5.107E-02	8.879E-02	0.000E+00	NOT IDENT.
GD-153	-1.430E-04	3.851E-02	6.769E-02	0.000E+00	NOT IDENT.
EU-154	-5.191E-03	5.306E-02	8.847E-02	0.000E+00	NOT IDENT.
EU-155	1.164E-02	4.725E-02	8.447E-02	0.000E+00	NOT IDENT.
TB-160	1.660E-02	8.120E-02	1.299E-01	0.000E+00	NOT IDENT.
HO-166M	4.726E-03	3.490E-02	6.005E-02	0.000E+00	NOT IDENT.
TA-182	1.811E-02	6.785E-02	1.223E-01	0.000E+00	FAIL ABUN
IR-192	-4.260E-03	1.483E-02	2.540E-02	0.000E+00	NOT IDENT.
HG-203	9.574E-03	1.708E-02	3.176E-02	0.000E+00	NOT IDENT.
BI-207	3.389E-03	2.691E-02	4.731E-02	0.000E+00	NOT IDENT.
TL-208	-7.342E-03	2.034E-02	3.081E-02	0.000E+00	NOT IDENT.
PB-210	-8.288E-01	1.434E+00	2.448E+00	0.000E+00	NOT IDENT.
BI-211	8.389E-02	1.115E-01	2.087E-01	0.000E+00	NOT IDENT.
PB-211	-1.621E-01	3.746E-01	6.090E-01	0.000E+00	NOT IDENT.
BI-212	-7.653E-02	3.060E-01	4.995E-01	0.000E+00	NOT IDENT.
PB-212	-2.018E-03	3.363E-02	5.614E-02	0.000E+00	NOT IDENT.
BI-214	1.043E-02	4.081E-02	7.165E-02	0.000E+00	FAIL ABUN
PB-214	6.726E-03	4.106E-02	7.320E-02	0.000E+00	NOT IDENT.
RN-219	6.873E-02	2.142E-01	3.858E-01	0.000E+00	NOT IDENT.
RA-223	-1.928E-02	2.855E-01	5.000E-01	0.000E+00	NOT IDENT.
RA-224	2.303E-01	3.162E-01	5.692E-01	0.000E+00	NOT IDENT.
RA-226	1.043E-02	4.081E-02	7.165E-02	0.000E+00	FAIL ABUN
AC-227	-1.769E-02	1.248E-01	2.073E-01	0.000E+00	NOT IDENT.
TH-227	-1.769E-02	1.248E-01	2.073E-01	0.000E+00	NOT IDENT.
AC-228	-7.166E-02	8.036E-02	1.112E-01	0.000E+00	NOT IDENT.
RA-228	-7.166E-02	8.036E-02	1.112E-01	0.000E+00	NOT IDENT.
TH-228	-2.018E-03	3.363E-02	5.614E-02	0.000E+00	NOT IDENT.
TH-229	-6.190E-02	2.507E-01	4.187E-01	0.000E+00	NOT IDENT.
TH-230	1.042E-02	4.081E-02	7.165E-02	0.000E+00	FAIL ABUN
PA-231	-1.609E-01	7.108E-01	1.236E+00	0.000E+00	NOT IDENT.
TH-231	-1.928E-02	2.855E-01	5.000E-01	0.000E+00	NOT IDENT.
TH-232	-7.166E-02	8.036E-02	1.112E-01	0.000E+00	NOT IDENT.
PA-233	-3.677E-03	3.185E-02	5.566E-02	0.000E+00	NOT IDENT.
PA-234	-7.583E-02	1.545E-01	2.308E-01	0.000E+00	NOT IDENT.
PA-234M	-1.805E+00	2.321E+00	3.624E+00	0.000E+00	NOT IDENT.
TH-234	8.329E-01	8.029E-01	9.895E-01	0.000E+00	FAIL ABUN
U-235	-1.455E-01	1.019E-01	1.417E-01	0.000E+00	NOT IDENT.
NP-237	9.297E-02	9.920E-02	1.831E-01	0.000E+00	NOT IDENT.
U-238	8.329E-01	8.029E-01	9.895E-01	0.000E+00	FAIL ABUN
NP-239	-1.634E-01	1.759E-01	2.808E-01	0.000E+00	NOT IDENT.
AM-241	4.122E-02	6.124E-02	1.038E-01	0.000E+00	NOT IDENT.
CM-247	-1.462E-03	1.970E-02	3.412E-02	0.000E+00	NOT IDENT.

CF-249	1.464E-02	2.094E-02	3.915E-02	0.000E+00	NOT IDENT.
CF-251	3.724E-02	6.181E-02	1.115E-01	0.000E+00	NOT IDENT.
ANH-511	-2.693E-02	3.280E-02	6.191E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:06:27.55

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071014.CNF;1
Sample date      : 17-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 11:03:00
Sample ID        : G1202071014          Sample quantity  : 1.35710E+02 GRAM
Detector name    : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:00.61  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 965250               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202071014 Acquisition date : 24-MAR-2010 11:03:00

Total number of lines in spectrum	2	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	2	100.00%

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202071014 Acquisition date : 24-MAR-2010 11:03:00

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	62.11	38	60	1.03	124.09	118	12	5.34E-03	96.7	3.45E+00	T
0	1119.95	13	6	1.45	2239.05	2235	8	1.84E-03	84.1	1.46E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:06:44.05

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071014.CNF;1  *
* Acquisition date  : 24-MAR-2010 11:03:00  Detector SN#     :              *
* Detector ID       : GAM19                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:00.61          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 17-MAR-2010 00:00:00  Nuclide Library : SOLID        *
* Sample ID         : G1202071014           Analyst initials: MXR1         *
* Batch Number      : 965250                Sample Quantity : 1.35710E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54.1MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.890E-02		1.577E-01	2.402E-01	1.630E-02	-0.287
NA-22	5.185E-03		1.787E-02	3.158E-02	2.106E-03	0.164
NA-24	-9.599E-06		4.872E-05	Half-Life too short		
K-40	1.887E-01		2.649E-01	5.089E-01	3.790E-02	0.371
SC-46	7.283E-03		1.846E-02	3.194E-02	2.776E-03	0.228
V-48	-2.209E-02		2.660E-02	3.508E-02	2.820E-03	-0.630
CR-51	5.273E-02		1.405E-01	2.451E-01	1.584E-02	0.215
MN-54	-1.752E-04		1.529E-02	2.468E-02	1.963E-03	-0.007
CO-56	1.967E-02		1.988E-02	3.709E-02	3.009E-03	0.530
CO-57	6.969E-03		1.219E-02	2.073E-02	1.237E-03	0.336
CO-58	-6.667E-03		1.712E-02	2.558E-02	1.960E-03	-0.261
FE-59	1.041E-02		3.246E-02	5.787E-02	4.341E-03	0.180
CO-60	4.349E-03		2.117E-02	3.649E-02	2.689E-03	0.119
ZN-65	-2.531E-03		4.087E-02	5.778E-02	3.694E-03	-0.044
SE-75	8.449E-03		2.143E-02	3.737E-02	2.174E-03	0.226
SR-85	-1.984E-02		3.129E-02	4.928E-02	2.910E-03	-0.403
Y-88	9.380E-03		2.319E-02	4.154E-02	2.371E-03	0.226

Sample ID : G1202071014 Acquisition date : 24-MAR-2010 11:03:00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	1.291E+00		7.962E+00	1.368E+01	7.988E-01	0.094
NB-94	1.026E-02		1.974E-02	3.431E-02	2.161E-03	0.299
NB-95	9.520E-03		2.125E-02	3.669E-02	2.592E-03	0.260
NB-95M	-6.697E-02		5.835E-02	8.268E-02	6.145E-03	-0.810
ZR-95	-3.089E-04		3.512E-02	5.700E-02	4.585E-03	-0.005
MO-99	1.629E-01		8.186E-01	1.379E+00	2.043E-01	0.118
TC-99M	8.991E+00		5.620E+00	Half-Life too short		
RU-103	-1.393E-02		1.889E-02	2.807E-02	3.499E-03	-0.496
RH-106	-2.225E-02		1.564E-01	2.507E-01	2.926E-02	-0.089
RU-106	-2.225E-02		1.564E-01	2.507E-01	1.478E-02	-0.089
AG-108M	6.937E-03		1.640E-02	2.848E-02	1.748E-03	0.244
CD-109	-1.556E-01		3.463E-01	5.483E-01	4.911E-02	-0.284
AG-110M	-1.536E-02		1.798E-02	2.539E-02	1.576E-03	-0.605
SN-113	2.896E-03		2.354E-02	3.973E-02	2.370E-03	0.073
CD-115	3.182E-01		5.292E-01	9.428E-01	5.580E-02	0.337
SN-117M	-1.038E-02		1.832E-02	2.816E-02	1.499E-03	-0.369
TE-123M	-1.307E-02		1.379E-02	2.043E-02	1.103E-03	-0.640
SB-124	4.714E-03		5.813E-02	9.671E-02	6.650E-03	0.049
SB-125	-1.510E-02		4.709E-02	7.526E-02	4.475E-03	-0.201
TE-125M	-7.127E-01		4.034E+00	6.482E+00	5.833E-01	-0.110
I-126	-2.415E-02		7.570E-02	1.177E-01	6.914E-03	-0.205
SB-126	-5.584E-03		4.909E-02	7.853E-02	5.115E-03	-0.071
SN-126	2.430E-03		3.313E-02	5.458E-02	4.869E-03	0.045
SB-127	-4.929E-02		1.645E-01	2.550E-01	1.878E-02	-0.193
I-131	2.155E-02		3.208E-02	5.712E-02	3.612E-03	0.377
TE-132	1.083E-02		6.831E-02	1.111E-01	1.457E-02	0.097
BA-133	-1.968E-02		2.334E-02	3.556E-02	3.997E-03	-0.553
I-133	-7.053E-06		3.413E-06	Half-Life too short		
CS-134	2.151E-04		2.490E-02	4.044E-02	3.041E-03	0.005
CS-135	2.663E-02		7.911E-02	1.371E-01	1.046E-02	0.194
I-135	-1.403E+00		6.791E+00	Half-Life too short		
CS-136	1.502E-03		3.792E-02	6.396E-02	4.936E-03	0.023
BA-137M	-8.994E-03		2.003E-02	2.814E-02	1.638E-03	-0.320
CS-137	-9.501E-03		2.116E-02	2.972E-02	1.738E-03	-0.320
CE-139	-1.013E-02		1.482E-02	2.253E-02	1.176E-03	-0.450
BA-140	1.218E-02		1.082E-01	1.804E-01	6.014E-02	0.068
LA-140	-4.196E-03		3.092E-02	4.893E-02	3.311E-03	-0.086
CE-141	-9.850E-03		2.465E-02	3.854E-02	2.220E-03	-0.256
CE-143	6.372E-01		1.278E+00	2.236E+00	4.494E-01	0.285
CE-144	6.765E-02		9.074E-02	1.559E-01	2.160E-02	0.434
PM-144	1.923E-02		2.232E-02	3.989E-02	2.484E-03	0.482
PR-144	1.434E+00		1.664E+00	2.974E+00	1.851E-01	0.482
PM-146	-6.912E-03		2.365E-02	3.791E-02	3.202E-03	-0.182
ND-147	-1.445E-01		1.869E-01	2.735E-01	3.713E-02	-0.528
PM-149	-2.714E+00		4.073E+00	6.375E+00	9.023E-01	-0.426
EU-152	-6.247E-03		5.211E-02	8.619E-02	5.606E-03	-0.072
GD-153	-1.430E-04		3.929E-02	6.424E-02	4.996E-03	-0.002
EU-154	-5.191E-03		5.414E-02	8.802E-02	8.780E-03	-0.059

Sample ID : G1202071014 Acquisition date : 24-MAR-2010 11:03:00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	1.164E-02		4.822E-02	8.027E-02	5.771E-03	0.145
TB-160	1.660E-02		8.285E-02	1.284E-01	1.098E-02	0.129
HO-166M	4.726E-03		3.562E-02	5.909E-02	3.785E-03	0.080
TA-182	1.811E-02		6.923E-02	1.216E-01	7.331E-03	0.149
IR-192	-4.260E-03		1.513E-02	2.462E-02	1.438E-03	-0.173
HG-203	9.574E-03		1.743E-02	3.071E-02	1.878E-03	0.312
BI-207	3.389E-03		2.746E-02	4.690E-02	3.330E-03	0.072
TL-208	-7.342E-03		2.076E-02	3.021E-02	2.050E-03	-0.243
PB-210	-8.288E-01		1.463E+00	2.294E+00	1.729E-01	-0.361
BI-211	8.389E-02		1.138E-01	2.026E-01	1.294E-02	0.414
PB-211	-1.621E-01		3.823E-01	5.930E-01	2.843E-01	-0.273
BI-212	-7.653E-02		3.122E-01	4.917E-01	5.484E-02	-0.156
PB-212	-2.018E-03		3.431E-02	5.413E-02	3.942E-03	-0.037
BI-214	1.043E-02		4.164E-02	7.030E-02	5.570E-03	0.148
PB-214	6.726E-03		4.190E-02	7.109E-02	5.998E-03	0.095
RN-219	6.873E-02		2.186E-01	3.756E-01	5.017E-02	0.183
RA-223	-1.928E-02		2.913E-01	4.849E-01	7.816E-02	-0.040
RA-224	2.303E-01		3.227E-01	5.490E-01	3.111E-02	0.420
RA-226	1.043E-02		4.164E-02	7.030E-02	5.570E-03	0.148
AC-227	-1.769E-02		1.273E-01	2.001E-01	2.038E-02	-0.088
TH-227	-1.769E-02		1.273E-01	2.001E-01	2.398E-02	-0.088
AC-228	-7.166E-02		8.200E-02	1.099E-01	1.281E-02	-0.652
RA-228	-7.166E-02		8.200E-02	1.099E-01	1.281E-02	-0.652
TH-228	-2.018E-03		3.431E-02	5.413E-02	3.942E-03	-0.037
TH-229	-6.190E-02		2.558E-01	4.023E-01	2.170E-02	-0.154
TH-230	1.042E-02		4.164E-02	7.030E-02	4.156E-03	0.148
PA-231	-1.609E-01		7.253E-01	1.195E+00	1.568E-01	-0.135
TH-231	-1.928E-02		2.913E-01	4.849E-01	7.816E-02	-0.040
TH-232	-7.166E-02		8.200E-02	1.099E-01	1.281E-02	-0.652
PA-233	-3.677E-03		3.250E-02	5.394E-02	3.331E-03	-0.068
PA-234	-7.583E-02		1.576E-01	2.283E-01	4.262E-02	-0.332
PA-234M	-1.805E+00		2.369E+00	3.589E+00	3.341E-01	-0.503
TH-234	8.329E-01	+	8.192E-01	9.321E-01	1.667E-01	0.894
U-235	-1.455E-01		1.039E-01	1.354E-01	2.115E-02	-1.074
NP-237	9.297E-02		1.012E-01	1.734E-01	3.943E-02	0.536
U-238	8.329E-01	+	8.192E-01	9.321E-01	1.667E-01	0.894
NP-239	-1.634E-01		1.795E-01	2.673E-01	1.668E-02	-0.611
AM-241	4.122E-02		6.249E-02	9.764E-02	8.039E-03	0.422
CM-247	-1.462E-03		2.010E-02	3.322E-02	1.863E-03	-0.044
CF-249	1.464E-02		2.137E-02	3.809E-02	2.127E-03	0.384
CF-251	3.724E-02		6.307E-02	1.070E-01	5.659E-03	0.348
ANH-511	-2.693E-02		3.347E-02	6.054E-02	3.572E-03	-0.445

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202071014           *
* Acquisition date : 24-MAR-2010 11:03:00 Detector SN#    :                 *
* Detector ID      : GAM19                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.61     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 17-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202071014          Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.3571E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act Error	DLC (pCi/GRAM)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-6.890E-02	1.546E-01	1.231E-01	7.886E-02 NOT IDENT.
NA-22	5.185E-03	1.751E-02	1.588E-02	8.934E-03 NOT IDENT.
NA-24	-9.599E+00	9.548E+01	0.000E+00	4.872E+01 SHORT HLIF
K-40	1.887E-01	2.596E-01	2.552E-01	1.324E-01 NOT IDENT.
SC-46	7.283E-03	1.809E-02	1.617E-02	9.228E-03 FAIL ABUN
V-48	-2.209E-02	2.607E-02	1.773E-02	1.330E-02 NOT IDENT.
CR-51	5.273E-02	1.377E-01	1.265E-01	7.027E-02 NOT IDENT.
MN-54	-1.752E-04	1.498E-02	1.251E-02	7.644E-03 NOT IDENT.
CO-56	1.967E-02	1.948E-02	1.880E-02	9.939E-03 NOT IDENT.
CO-57	6.969E-03	1.194E-02	1.089E-02	6.093E-03 NOT IDENT.
CO-58	-6.667E-03	1.678E-02	1.297E-02	8.560E-03 NOT IDENT.
FE-59	1.041E-02	3.181E-02	2.918E-02	1.623E-02 NOT IDENT.
CO-60	4.349E-03	2.074E-02	1.833E-02	1.058E-02 NOT IDENT.
ZN-65	-2.531E-03	4.006E-02	2.913E-02	2.044E-02 NOT IDENT.
SE-75	8.449E-03	2.100E-02	1.935E-02	1.072E-02 NOT IDENT.
SR-85	-1.984E-02	3.066E-02	2.521E-02	1.564E-02 NOT IDENT.
Y-88	9.380E-03	2.273E-02	2.074E-02	1.159E-02 NOT IDENT.
Y-91	1.291E+00	7.802E+00	6.889E+00	3.981E+00 NOT IDENT.
NB-94	1.026E-02	1.934E-02	1.745E-02	9.869E-03 NOT IDENT.
NB-95	9.520E-03	2.082E-02	1.863E-02	1.062E-02 NOT IDENT.
NB-95M	-6.697E-02	5.719E-02	4.290E-02	2.918E-02 NOT IDENT.
ZR-95	-3.089E-04	3.442E-02	2.895E-02	1.756E-02 NOT IDENT.
MO-99	1.629E-01	8.022E-01	7.007E-01	4.093E-01 NOT IDENT.
TC-99M	8.991E+06	1.102E+07	0.000E+00	5.620E+06 SHORT HLIF
RU-103	-1.393E-02	1.851E-02	1.437E-02	9.443E-03 NOT IDENT.
RH-106	-2.225E-02	1.533E-01	1.278E-01	7.820E-02 NOT IDENT.

RU-106	-2.225E-02	1.533E-01	1.278E-01	7.820E-02	NOT IDENT.
AG-108M	6.937E-03	1.608E-02	1.462E-02	8.202E-03	NOT IDENT.
CD-109	-1.556E-01	3.394E-01	2.896E-01	1.732E-01	NOT IDENT.
AG-110M	-1.536E-02	1.762E-02	1.293E-02	8.992E-03	NOT IDENT.
SN-113	2.896E-03	2.307E-02	2.043E-02	1.177E-02	NOT IDENT.
CD-115	3.182E-01	5.186E-01	4.820E-01	2.646E-01	NOT IDENT.
SN-117M	-1.038E-02	1.796E-02	1.472E-02	9.162E-03	NOT IDENT.
TE-123M	-1.307E-02	1.351E-02	1.068E-02	6.893E-03	NOT IDENT.
SB-124	4.714E-03	5.697E-02	4.837E-02	2.907E-02	NOT IDENT.
SB-125	-1.510E-02	4.615E-02	3.863E-02	2.355E-02	NOT IDENT.
TE-125M	-7.127E-01	3.953E+00	3.410E+00	2.017E+00	NOT IDENT.
I-126	-2.415E-02	7.419E-02	5.990E-02	3.785E-02	NOT IDENT.
SB-126	-5.584E-03	4.811E-02	3.992E-02	2.454E-02	NOT IDENT.
SN-126	2.430E-03	3.247E-02	2.883E-02	1.656E-02	NOT IDENT.
SB-127	-4.929E-02	1.612E-01	1.297E-01	8.225E-02	NOT IDENT.
I-131	2.155E-02	3.144E-02	2.941E-02	1.604E-02	NOT IDENT.
TE-132	1.083E-02	6.695E-02	5.770E-02	3.416E-02	NOT IDENT.
BA-133	-1.968E-02	2.287E-02	1.832E-02	1.167E-02	NOT IDENT.
I-133	-7.053E+00	6.690E+00	0.000E+00	3.413E+00	SHORT HLIF
CS-134	2.151E-04	2.440E-02	2.052E-02	1.245E-02	NOT IDENT.
CS-135	2.663E-02	7.753E-02	7.098E-02	3.956E-02	NOT IDENT.
I-135	-1.403E+06	1.331E+07	0.000E+00	6.791E+06	SHORT HLIF
CS-136	1.502E-03	3.716E-02	3.228E-02	1.896E-02	NOT IDENT.
BA-137M	-8.994E-03	1.963E-02	1.433E-02	1.002E-02	NOT IDENT.
CS-137	-9.501E-03	2.074E-02	1.513E-02	1.058E-02	NOT IDENT.
CE-139	-1.013E-02	1.452E-02	1.176E-02	7.408E-03	NOT IDENT.
BA-140	1.218E-02	1.060E-01	9.222E-02	5.408E-02	NOT IDENT.
LA-140	-4.196E-03	3.030E-02	2.450E-02	1.546E-02	NOT IDENT.
CE-141	-9.850E-03	2.416E-02	2.017E-02	1.233E-02	NOT IDENT.
CE-143	6.372E-01	1.252E+00	1.156E+00	6.389E-01	NOT IDENT.
CE-144	6.765E-02	8.892E-02	8.172E-02	4.537E-02	NOT IDENT.
PM-144	1.923E-02	2.187E-02	2.029E-02	1.116E-02	NOT IDENT.
PR-144	1.434E+00	1.630E+00	1.513E+00	8.318E-01	NOT IDENT.
PM-146	-6.912E-03	2.318E-02	1.944E-02	1.183E-02	NOT IDENT.
ND-147	-1.445E-01	1.832E-01	1.398E-01	9.345E-02	NOT IDENT.
PM-149	-2.714E+00	3.992E+00	3.296E+00	2.036E+00	NOT IDENT.
EU-152	-6.247E-03	5.107E-02	4.442E-02	2.606E-02	NOT IDENT.
GD-153	-1.430E-04	3.851E-02	3.386E-02	1.965E-02	NOT IDENT.
EU-154	-5.191E-03	5.306E-02	4.426E-02	2.707E-02	NOT IDENT.
EU-155	1.164E-02	4.725E-02	4.226E-02	2.411E-02	NOT IDENT.
TB-160	1.660E-02	8.120E-02	6.501E-02	4.143E-02	NOT IDENT.
HO-166M	4.726E-03	3.490E-02	3.004E-02	1.781E-02	NOT IDENT.
TA-182	1.811E-02	6.785E-02	6.118E-02	3.462E-02	FAIL ABUN
IR-192	-4.260E-03	1.483E-02	1.271E-02	7.567E-03	NOT IDENT.
HG-203	9.574E-03	1.708E-02	1.589E-02	8.713E-03	NOT IDENT.
BI-207	3.389E-03	2.691E-02	2.367E-02	1.373E-02	NOT IDENT.
TL-208	-7.342E-03	2.034E-02	1.542E-02	1.038E-02	NOT IDENT.
PB-210	-8.288E-01	1.434E+00	1.225E+00	7.315E-01	NOT IDENT.
BI-211	8.389E-02	1.115E-01	1.044E-01	5.688E-02	NOT IDENT.
PB-211	-1.621E-01	3.746E-01	3.047E-01	1.911E-01	NOT IDENT.
BI-212	-7.653E-02	3.060E-01	2.499E-01	1.561E-01	NOT IDENT.
PB-212	-2.018E-03	3.363E-02	2.809E-02	1.716E-02	NOT IDENT.
BI-214	1.043E-02	4.081E-02	3.585E-02	2.082E-02	FAIL ABUN
PB-214	6.726E-03	4.106E-02	3.662E-02	2.095E-02	NOT IDENT.
RN-219	6.873E-02	2.142E-01	1.930E-01	1.093E-01	NOT IDENT.
RA-223	-1.928E-02	2.855E-01	2.502E-01	1.457E-01	NOT IDENT.
RA-224	2.303E-01	3.162E-01	2.848E-01	1.613E-01	NOT IDENT.
RA-226	1.043E-02	4.081E-02	3.585E-02	2.082E-02	FAIL ABUN
AC-227	-1.769E-02	1.248E-01	1.037E-01	6.365E-02	NOT IDENT.
TH-227	-1.769E-02	1.248E-01	1.037E-01	6.365E-02	NOT IDENT.
AC-228	-7.166E-02	8.036E-02	5.561E-02	4.100E-02	NOT IDENT.
RA-228	-7.166E-02	8.036E-02	5.561E-02	4.100E-02	NOT IDENT.
TH-228	-2.018E-03	3.363E-02	2.809E-02	1.716E-02	NOT IDENT.
TH-229	-6.190E-02	2.507E-01	2.095E-01	1.279E-01	NOT IDENT.
TH-230	1.042E-02	4.081E-02	3.585E-02	2.082E-02	FAIL ABUN
PA-231	-1.609E-01	7.108E-01	6.182E-01	3.627E-01	NOT IDENT.
TH-231	-1.928E-02	2.855E-01	2.502E-01	1.457E-01	NOT IDENT.
TH-232	-7.166E-02	8.036E-02	5.561E-02	4.100E-02	NOT IDENT.
PA-233	-3.677E-03	3.185E-02	2.785E-02	1.625E-02	NOT IDENT.
PA-234	-7.583E-02	1.545E-01	1.155E-01	7.882E-02	NOT IDENT.
PA-234M	-1.805E+00	2.321E+00	1.813E+00	1.184E+00	NOT IDENT.
TH-234	8.329E-01	8.029E-01	4.951E-01	4.096E-01	FAIL ABUN
U-235	-1.455E-01	1.019E-01	7.090E-02	5.197E-02	NOT IDENT.
NP-237	9.297E-02	9.920E-02	9.158E-02	5.061E-02	NOT IDENT.
U-238	8.329E-01	8.029E-01	4.951E-01	4.096E-01	FAIL ABUN
NP-239	-1.634E-01	1.759E-01	1.405E-01	8.975E-02	NOT IDENT.
AM-241	4.122E-02	6.124E-02	5.191E-02	3.125E-02	NOT IDENT.
CM-247	-1.462E-03	1.970E-02	1.707E-02	1.005E-02	NOT IDENT.

CF-249	1.464E-02	2.094E-02	1.959E-02	1.069E-02	NOT IDENT.
CF-251	3.724E-02	6.181E-02	5.580E-02	3.153E-02	NOT IDENT.
ANH-511	-2.693E-02	3.280E-02	3.097E-02	1.674E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	79.6931
49.72	70.2426
57.36	66.1303
59.54	53.6601
63.29	93.4832
63.29	93.4832
64.28	84.0618
67.75	74.8061
69.67	101.6584
70.83	97.7817
72.81	84.9721
72.87	79.9783
72.87	79.9783
74.82	73.1147
74.82	73.1147
74.82	73.1147
74.97	74.1267
77.11	91.3374
77.11	91.3374
77.11	91.3374
79.69	73.4433
79.80	73.4509
80.12	82.5302
80.19	82.5355
80.57	89.6118
81.00	92.6682
81.07	92.6738
81.07	92.6738
83.79	80.7809
83.79	80.7809
85.43	79.8854
86.48	76.9219
86.55	76.9266
86.79	76.9422
86.94	83.0276
87.57	90.1642
88.03	104.3882
88.47	127.7462
89.96	122.8320
91.11	88.4025
92.59	84.4422
92.59	84.4422
93.35	78.3873
94.67	93.7593
94.87	88.6783
94.87	88.6783
95.86	131.5948
97.43	86.8200
98.44	76.6683
99.53	67.5267
100.11	61.4163
103.18	92.3470
103.37	84.1508
105.31	72.9720
106.12	66.8468
109.28	76.2857
111.00	70.1909
111.76	61.9684
116.30	74.6106
117.23	77.7720
121.12	80.0689
121.78	76.9852
122.06	71.7977
123.07	70.8077
131.20	61.7818
133.52	61.8786
136.00	80.8902

136.47	81.9663
140.51	60.0576
140.51	0.0000
143.76	87.6359
144.24	86.6070
144.24	86.6070
145.44	76.1034
152.43	76.4385
153.25	71.1665
154.21	70.1456
154.21	70.1456
156.02	70.2237
158.56	82.0545
159.00	90.6037
162.66	58.7547
163.33	68.3965
165.86	88.8347
176.60	61.3870
177.52	61.4192
181.07	84.2151
184.41	68.1468
185.72	67.1134
193.51	68.4857
197.04	74.0606
205.31	70.0073
210.85	58.1402
215.65	60.4810
222.11	59.5730
227.38	54.1971
228.16	56.4307
228.18	56.4310
235.69	83.2872
235.96	79.9662
235.96	79.9662
238.63	61.1629
238.63	61.1629
240.99	59.0043
242.00	99.1296
244.70	62.4523
252.40	52.6021
252.80	54.8504
256.23	52.6937
256.23	52.6937
260.90	39.3227
264.66	50.4171
268.22	55.0057
269.46	66.7644
269.46	66.7644
271.23	52.3692
273.65	53.3283
276.40	66.0618
277.37	59.7521
277.60	59.7577
278.00	63.3905
279.20	49.8323
279.54	49.8397
280.46	48.0461
283.69	53.5595
284.31	46.3090
285.41	54.5068
285.90	54.5178
287.50	52.7367
293.27	44.6611
295.22	49.2582
295.96	52.0104
298.57	52.0668
299.98	45.6989
299.98	45.6989
300.09	45.7013
300.09	45.7013
300.13	45.7019
301.36	40.2381
302.85	51.2429
304.50	58.6031
304.50	58.6031
304.85	49.4536
308.46	40.3541
311.90	46.8388

316.51	41.4047
319.41	35.9253
320.08	34.0918
323.87	37.8339
323.87	37.8339
328.76	36.9814
333.37	50.0139
334.37	42.6208
334.37	42.6208
338.28	59.3875
338.28	59.3875
338.32	59.3883
338.32	59.3883
338.32	59.3883
340.48	49.2210
340.55	49.2223
344.28	49.2922
351.06	44.7551
351.93	52.2313
356.01	57.9154
364.49	36.5435
366.42	38.4445
383.85	44.3459
388.16	34.9630
388.63	40.6395
391.69	42.5753
400.66	36.0638
401.81	37.9766
402.40	41.7828
404.85	42.7681
410.95	31.4281
414.70	41.0033
423.72	33.4747
427.09	41.1718
427.87	37.3518
433.94	34.5467
453.88	40.5629
463.37	34.8719
468.07	34.9229
473.00	25.2605
476.78	28.2081
477.60	29.1881
487.02	31.2230
492.35	26.3866
497.08	37.1896
511.00	45.2043
514.00	110.1591
527.90	20.7380
529.87	0.0000
531.02	34.5941
537.26	36.6360
546.56	0.0000
563.25	36.9024
569.33	22.9775
569.50	22.9787
569.70	29.9736
583.19	20.0557
600.60	28.2078
602.73	49.3912
604.72	34.2897
609.32	33.3215
609.32	33.3215
609.32	33.3215
610.33	32.3203
614.28	32.3531
618.01	20.2402
621.93	23.2999
621.93	23.2999
633.25	22.3513
635.95	26.4335
636.99	38.6438
645.85	25.4803
657.76	29.6450
661.66	23.5346
661.66	23.5346
664.57	19.4555
666.33	25.6104
666.50	25.6116

677.62	23.6267
685.70	21.6142
695.00	29.9151
696.49	29.9261
696.51	29.9261
697.00	31.9937
702.65	25.8362
706.68	35.1704
711.68	26.9268
720.70	22.8325
721.93	20.7627
722.78	21.8049
722.91	21.8060
723.31	25.9619
724.19	28.0441
727.33	33.2617
733.00	26.0199
735.93	30.2036
739.50	14.5930
747.24	12.5306
752.31	18.8174
753.82	21.9613
756.73	20.9292
763.94	26.2036
765.81	22.0203
766.42	24.1208
777.92	15.7712
778.90	16.8266
783.70	23.1612
785.37	17.9035
795.86	22.1674
801.95	29.5955
810.29	19.0600
810.76	16.9441
815.77	8.4811
818.51	13.7900
832.01	22.3402
834.85	12.7734
836.80	0.0000
846.77	12.8057
856.80	12.8323
860.56	19.2634
871.09	17.1605
873.19	11.8030
875.33	0.0000
879.36	18.2638
880.51	13.9699
883.24	21.5039
884.68	22.5858
889.28	12.9182
898.04	11.8626
911.20	19.4629
911.20	19.4629
911.20	19.4629
926.50	20.6064
937.49	19.5640
944.13	15.2359
946.00	18.5078
949.00	9.8040
962.29	15.2896
964.08	20.7571
966.15	22.9513
968.97	18.5896
968.97	18.5896
968.97	18.5896
983.53	19.7376
996.26	10.9917
1001.03	17.4190
1004.73	11.0090
1037.84	11.9997
1038.76	0.0000
1048.07	16.6458
1050.41	16.6523
1050.41	16.6523
1063.66	15.7653
1085.87	12.1034
1099.45	8.3994
1112.07	18.3659

1115.54	11.2305
1120.29	9.3665
1120.29	9.3665
1120.29	9.3665
1120.55	13.1136
1121.30	17.6655
1131.51	0.0000
1173.23	8.5060
1177.93	10.4043
1189.05	9.4759
1204.77	10.4508
1221.41	8.5737
1231.02	17.1746
1235.36	20.0507
1238.28	14.3286
1260.41	0.0000
1271.85	14.4061
1274.44	10.5685
1274.54	7.6865
1291.59	12.5239
1298.22	0.0000
1312.11	11.5977
1332.49	10.6643
1365.19	4.8716
1368.63	0.0000
1384.29	10.7485
1408.01	9.8055
1457.56	0.0000
1460.82	5.9287
1489.16	8.9290
1505.03	7.9548
1596.21	8.0550
1620.50	8.0811
1678.03	0.0000
1690.97	11.2148
1764.49	8.2331
1764.49	8.2331
1764.49	8.2331
1770.23	10.2987
1771.35	6.1799
1791.20	0.0000
1836.06	6.2295

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202071014

Total Uranium Activity	2.4106E+00	ug/g
Total Uranium Counting Unc.	2.3889E+00	ug/g
Total Uranium Tpu	1.2189E-06	ug/g
Total Uranium Mda	1.4732E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G1202071014      *
*   ANALYST       : MXR1                      DETECTOR   : GAM19            *
*   SAMPLE DATE   : 17-MAR-2010 00:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 11:03:00.83    SAMPLE ALQT:  135.710 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 5.597E-02
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 2.621E-02
        GROSS GAMMA MDA     (pCi/GRAM  )  : 1.146E-01
        GROSS GAMMA DLC     (pCi/GRAM  )  : 5.367E-02
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:24:36.03

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071015.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 11:24:08
Sample ID         : G1202071015          Sample quantity  : 1.20310E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.33  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 965250                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.15*	127	619	1.13	127.03	122	11	1.76E-02	39.9	
2	3	74.92	452	498	1.18	150.55	146	15	6.28E-02	9.4	1.27E+00
3	3	77.22*	792	438	1.23	155.14	146	15	1.10E-01	6.1	
4	1	84.04*	112	343	1.20	168.78	166	13	1.56E-02	27.0	2.80E+00
5	1	87.26*	236	482	1.21	175.22	166	13	3.28E-02	16.9	
6	3	89.96	176	200	1.24	180.63	179	17	2.45E-02	12.3	5.89E-01
7	3	93.00*	298	465	1.36	186.69	179	17	4.13E-02	15.0	
8	0	105.72	78	340	1.51	212.12	208	8	1.09E-02	42.3	
9	0	129.43	69	436	1.27	259.51	255	9	9.64E-03	55.6	
10	0	186.32*	348	482	1.54	373.22	366	14	4.83E-02	14.9	
11	0	209.67*	120	281	1.03	419.91	416	8	1.67E-02	26.7	
12	4	239.06*	1444	253	1.28	478.65	473	17	2.01E-01	3.3	5.54E-01
13	4	241.93	346	294	1.74	484.40	473	17	4.80E-02	13.7	
14	0	270.84*	181	206	1.82	542.18	538	11	2.52E-02	17.3	
15	0	295.76	433	235	1.31	591.99	587	10	6.01E-02	8.2	
16	0	328.59	57	132	0.88	657.60	656	6	7.95E-03	35.0	
17	0	338.77	263	218	1.09	677.96	673	11	3.66E-02	12.5	
18	0	352.35*	774	172	1.36	705.11	700	13	1.07E-01	5.1	
19	0	410.01	72	155	1.38	820.36	815	13	9.97E-03	37.7	
20	0	463.34	113	123	1.28	926.95	921	12	1.57E-02	21.7	
21	0	511.29*	206	153	1.80	1022.79	1014	19	2.86E-02	17.4	
22	0	583.79*	450	114	1.43	1167.70	1162	13	6.25E-02	7.0	
23	0	609.65*	583	95	1.48	1219.38	1213	13	8.09E-02	5.5	
24	0	728.34	125	83	2.33	1456.61	1449	18	1.73E-02	19.5	
25	0	795.62*	64	45	1.36	1591.08	1586	11	8.89E-03	24.4	
26	0	861.17	50	51	1.23	1722.10	1719	11	6.89E-03	31.5	
27	0	911.64*	303	80	1.67	1822.98	1814	14	4.21E-02	8.7	
28	1	965.33	60	50	1.92	1930.27	1925	23	8.36E-03	25.7	1.13E+00
29	1	969.58*	178	38	1.89	1938.78	1925	23	2.47E-02	10.6	
30	0	1121.06*	136	46	1.94	2241.52	2234	17	1.90E-02	14.7	
31	0	1238.90*	48	53	2.11	2477.02	2472	11	6.66E-03	33.9	
32	0	1461.46*	1187	33	1.99	2921.81	2912	19	1.65E-01	3.2	
33	2	1588.90	46	32	2.42	3176.48	3169	21	6.33E-03	26.7	3.94E+00
34	2	1593.29	30	9	2.18	3185.27	3169	21	4.21E-03	26.5	
35	0	1662.84	21	2	0.80	3324.25	3319	11	2.85E-03	26.9	
36	0	1765.73*	107	4	1.69	3529.85	3523	15	1.49E-02	10.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 13:24:39

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071015.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 11:24:08
Sample ID         : G1202071015          Sample quantity  : 120.31 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA1               Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.33   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.82	*	3.675E+01	4.006E+00	6.672E-01	5.932E-02	55.082
CD-109	+	88.03	*	3.908E+00	1.370E+00	1.628E+00	1.541E-01	2.400
SN-126	+	64.28		1.492E+00	1.212E+00	1.021E+00	1.503E-01	1.461
	+	86.94		1.593E+00	8.527E-01	6.996E-01	2.905E-01	2.277
	+	87.57	*	3.833E-01	1.343E-01	1.605E-01	1.512E-02	2.388
EU-155	+	86.55		4.643E-01	1.628E-01	2.048E-01	1.925E-02	2.267
	+	105.31	*	1.966E-01	1.671E-01	2.073E-01	1.823E-02	0.948
TL-208		277.37		1.320E+00	5.644E-01	9.346E-01	1.205E-01	1.412
	+	583.19	*	7.708E-01	1.285E-01	7.375E-02	6.689E-03	10.452
	+	860.56		8.144E-01	5.193E-01	4.322E-01	4.141E-02	1.884
BI-211		72.87		7.968E+00	4.748E+00	7.253E+00	5.949E-01	1.099
	+	351.06	*	5.794E+00	7.890E-01	4.234E-01	3.852E-02	13.685
PB-212	+	74.82		3.298E+00	7.486E-01	7.403E-01	9.479E-02	4.454
	+	77.11		3.291E+00	4.871E-01	4.226E-01	3.586E-02	7.787
	+	238.63	*	2.379E+00	2.892E-01	1.201E-01	1.222E-02	19.804
		300.09		2.581E+00	1.123E+00	1.828E+00	1.997E-01	1.412
BI-214	+	609.32	*	1.937E+00	2.858E-01	1.438E-01	1.425E-02	13.471
	+	1120.29		2.393E+00	7.477E-01	5.827E-01	6.263E-02	4.107
	+	1764.49		2.646E+00	6.178E-01	3.744E-01	3.139E-02	7.069
PB-214	+	74.82		5.845E+00	1.285E+00	1.312E+00	1.509E-01	4.454
	+	77.11		5.801E+00	9.830E-01	7.450E-01	8.816E-02	7.787
	+	242.00		3.456E+00	1.016E+00	7.308E-01	7.878E-02	4.730
	+	295.22		1.981E+00	3.945E-01	3.035E-01	3.398E-02	6.528
	+	351.93	*	2.103E+00	3.089E-01	1.485E-01	1.579E-02	14.155
RA-224	+	240.99	*	6.112E+00	1.762E+00	1.288E+00	1.170E-01	4.746
RA-226	+	609.32	*	1.937E+00	2.858E-01	1.438E-01	1.425E-02	13.471
	+	1120.29		2.393E+00	7.477E-01	5.827E-01	6.263E-02	4.107
	+	1764.49		2.646E+00	6.178E-01	3.744E-01	3.139E-02	7.069
AC-228	+	338.32		2.193E+00	1.067E+00	4.826E-01	2.015E-01	4.545
	+	911.20	*	2.537E+00	5.342E-01	3.234E-01	3.853E-02	7.844
	+	968.97		2.574E+00	8.332E-01	4.617E-01	1.130E-01	5.576
RA-228	+	338.32		2.193E+00	1.067E+00	4.826E-01	2.015E-01	4.545
	+	911.20	*	2.537E+00	5.342E-01	3.234E-01	3.853E-02	7.844
	+	968.97		2.574E+00	8.332E-01	4.617E-01	1.130E-01	5.576

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	+	74.82		3.298E+00	6.775E-01	7.403E-01	6.224E-02	4.454
	+	77.11		3.291E+00	4.871E-01	4.226E-01	3.586E-02	7.787
	+	238.63	*	2.379E+00	2.892E-01	1.201E-01	1.222E-02	19.804
		300.09		2.581E+00	1.919E+00	1.828E+00	1.120E+00	1.412
TH-229	+	85.43		4.800E-01	2.632E-01	4.316E-01	3.971E-02	1.112
	+	88.47		5.909E-01	2.071E-01	2.450E-01	2.308E-02	2.412
		193.51	*	8.141E-02	6.523E-01	1.098E+00	9.622E-02	0.074
	+	210.85		2.805E+00	1.520E+00	1.721E+00	1.533E-01	1.630
TH-230	+	609.32	*	1.936E+00	2.669E-01	1.438E-01	1.206E-02	13.471
	+	1120.29		2.393E+00	7.303E-01	5.827E-01	4.896E-02	4.107
	+	1764.49		2.646E+00	6.178E-01	3.744E-01	3.139E-02	7.069
TH-232	+	338.32		2.193E+00	5.797E-01	4.826E-01	4.248E-02	4.545
	+	911.20	*	2.537E+00	5.342E-01	3.234E-01	3.853E-02	7.844
	+	968.97		2.574E+00	8.332E-01	4.617E-01	1.130E-01	5.576
TH-234	+	63.29	*	3.872E+00	3.170E+00	2.771E+00	4.976E-01	1.397
	+	92.59		3.983E+00	1.485E+00	1.177E+00	2.624E-01	3.383
U-235	+	89.96		2.963E+00	1.036E+00	1.669E+00	4.149E-01	1.776
	+	93.35		3.009E+00	1.140E+00	8.840E-01	2.057E-01	3.403
		143.76	*	1.086E-01	2.577E-01	4.364E-01	7.382E-02	0.249
		163.33		-1.078E-01	5.470E-01	9.154E-01	1.639E-01	-0.118
	+	185.72		3.678E-01	1.144E-01	8.640E-02	7.508E-03	4.257
		205.31		2.021E-01	7.149E-01	1.058E+00	1.932E-01	0.191
NP-237	+	86.48	*	1.144E+00	4.670E-01	5.049E-01	1.158E-01	2.265
		95.86		-3.710E-02	1.297E+00	1.844E+00	4.445E-01	-0.020
U-238	+	63.29	*	3.872E+00	3.170E+00	2.771E+00	4.976E-01	1.397
	+	92.59		3.983E+00	1.245E+00	1.177E+00	1.074E-01	3.383
ANH-511	+	511.00	*	2.689E-01	9.624E-02	5.441E-02	4.612E-03	4.942

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	1.610E-02	4.229E-01	6.801E-01	6.185E-02	0.024
NA-22		1274.54	*	-3.645E-02	5.745E-02	8.966E-02	7.529E-03	-0.407
NA-24		1368.63	*	-1.078E-02	5.745E-02	Half-Life too short		
SC-46		889.28	*	-2.980E-02	4.931E-02	7.557E-02	6.831E-03	-0.394
	+	1120.55		3.977E-01	1.214E-01	1.708E-01	1.435E-02	2.329
V-48		944.13		-6.660E-01	1.005E+00	1.518E+00	1.367E-01	-0.439
		983.53	*	8.125E-03	8.711E-02	1.427E-01	1.274E-02	0.057
		1312.11		6.878E-02	9.050E-02	1.629E-01	1.381E-02	0.422
CR-51		320.08	*	-1.107E-01	4.487E-01	7.245E-01	6.810E-02	-0.153
MN-54		834.85	*	-2.061E-02	4.599E-02	7.233E-02	6.438E-03	-0.285
CO-56		846.77	*	-1.101E-02	5.000E-02	8.030E-02	7.175E-03	-0.137
		1037.84		-2.794E-02	3.946E-01	6.335E-01	5.835E-02	-0.044
	+	1238.28		2.308E-01	1.575E-01	2.348E-01	2.007E-02	0.983
		1771.35		4.508E-03	2.738E-01	3.845E-01	3.219E-02	0.012
CO-57		122.06	*	-1.141E-02	3.351E-02	5.235E-02	4.609E-03	-0.218
		136.47		-1.451E-01	2.519E-01	4.182E-01	3.859E-02	-0.347
CO-58		810.76	*	-2.030E-02	5.188E-02	8.236E-02	7.286E-03	-0.247

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
FE-59		1099.45	*	8.203E-02	1.191E-01	2.045E-01	1.885E-02	0.401
		1291.59		1.143E-02	1.560E-01	2.621E-01	2.521E-02	0.044
CO-60		1173.23		2.247E-02	6.296E-02	1.086E-01	8.791E-03	0.207
		1332.49	*	-1.965E-02	5.197E-02	8.269E-02	7.048E-03	-0.238
ZN-65		1115.54	*	-8.327E-02	1.342E-01	1.684E-01	1.421E-02	-0.494
SE-75		121.12		1.478E-02	1.732E-01	2.758E-01	3.092E-02	0.054
		136.00		-3.646E-02	4.839E-02	7.977E-02	6.906E-03	-0.457
		264.66	*	2.605E-04	5.823E-02	9.307E-02	8.551E-03	0.003
		279.54		4.805E-03	1.484E-01	2.451E-01	2.317E-02	0.020
		400.66		-2.319E-01	3.410E-01	5.268E-01	5.630E-02	-0.440
SR-85		514.00	*	1.739E-01	5.978E-02	1.014E-01	8.598E-03	1.715
Y-88		898.04		-2.379E-02	5.504E-02	8.618E-02	7.841E-03	-0.276
		1836.06	*	2.252E-02	4.208E-02	7.567E-02	6.224E-03	0.298
Y-91		1204.77	*	2.579E+01	2.857E+01	5.115E+01	4.190E+00	0.504
NB-94		702.65	*	6.258E-02	4.630E-02	8.344E-02	7.004E-03	0.750
		871.09		-1.869E-02	4.107E-02	6.394E-02	5.753E-03	-0.292
NB-95		765.81	*	-2.459E-02	6.265E-02	9.913E-02	8.590E-03	-0.248
NB-95M		235.69	*	2.440E-02	1.733E-01	2.553E-01	2.623E-02	0.096
ZR-95		724.19		-3.928E-03	1.300E-01	1.861E-01	1.717E-02	-0.021
		756.73	*	1.403E-02	9.204E-02	1.539E-01	1.467E-02	0.091
MO-99		140.51		-1.273E+01	1.640E+01	2.638E+01	6.257E+00	-0.483
		181.07		2.138E+00	1.473E+01	2.198E+01	4.133E+00	0.097
		366.42		2.556E+01	7.011E+01	1.168E+02	9.875E+00	0.219
		739.50	*	7.370E+00	9.130E+00	1.598E+01	2.512E+00	0.461
		777.92		-2.378E+01	2.847E+01	4.350E+01	3.789E+00	-0.547
TC-99M		140.51	*	-1.011E+08	2.847E+01	Half-Life too short		
RU-103		497.08	*	-5.076E-03	5.089E-02	8.080E-02	1.120E-02	-0.063
	+	610.33		1.924E+01	3.765E+00	3.953E+00	6.414E-01	4.869
RH-106		621.93	*	1.130E-01	3.985E-01	6.794E-01	8.889E-02	0.166
		1050.41		1.400E+00	3.368E+00	5.669E+00	4.944E-01	0.247
RU-106		621.93	*	1.130E-01	3.984E-01	6.794E-01	5.675E-02	0.166
		1050.41		1.400E+00	3.368E+00	5.669E+00	4.944E-01	0.247
AG-108M		433.94	*	3.744E-02	3.624E-02	6.260E-02	5.357E-03	0.598
		614.28		-2.253E-03	4.950E-02	7.163E-02	6.209E-03	-0.031
		722.91		-8.397E-03	5.446E-02	7.685E-02	6.738E-03	-0.109
AG-110M		657.76	*	-3.756E-03	4.418E-02	7.310E-02	6.198E-03	-0.051
		677.62		3.319E-02	4.027E-01	6.737E-01	5.747E-02	0.049
		706.68		-3.238E-01	2.757E-01	4.116E-01	3.568E-02	-0.787
		763.94		-3.020E-01	2.416E-01	3.601E-01	3.203E-02	-0.839
		884.68		2.483E-02	5.914E-02	1.007E-01	9.364E-03	0.246
		937.49		4.781E-02	1.532E-01	2.564E-01	2.388E-02	0.186
		1384.29		5.695E-02	1.816E-01	3.143E-01	2.773E-02	0.181
		1505.03		-3.595E-01	3.227E-01	4.260E-01	3.688E-02	-0.844
SN-113		391.69	*	-1.942E-02	5.726E-02	9.075E-02	7.559E-03	-0.214
CD-115		260.90		-2.482E+01	9.049E+01	1.476E+02	1.350E+01	-0.168
		492.35		-1.760E+01	2.654E+01	4.022E+01	3.398E+00	-0.438
		527.90	*	5.935E+00	7.132E+00	1.269E+01	1.077E+00	0.468
SN-117M		156.02		-7.490E-01	2.603E+00	4.352E+00	3.706E-01	-0.172
		158.56	*	-1.742E-02	6.127E-02	1.024E-01	8.714E-03	-0.170

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-123M		159.00	*	4.224E-03	3.450E-02	5.851E-02	5.013E-03	0.072
SB-124		602.73		3.760E-03	5.066E-02	7.774E-02	6.538E-03	0.048
		645.85		-3.277E-01	5.876E-01	9.338E-01	8.197E-02	-0.351
		722.78		-7.296E-02	5.344E-01	7.557E-01	6.565E-02	-0.097
		1690.97	*	-1.095E-02	8.319E-02	1.321E-01	1.174E-02	-0.083
SB-125		427.87	*	-1.446E-02	1.150E-01	1.839E-01	1.546E-02	-0.079
	+	463.37		1.302E+00	5.779E-01	7.583E-01	6.857E-02	1.716
		600.60		-1.562E-02	2.210E-01	3.682E-01	3.338E-02	-0.042
		635.95		9.227E-02	3.315E-01	5.651E-01	5.101E-02	0.163
TE-125M		109.28	*	8.446E+00	1.374E+01	2.006E+01	2.109E+00	0.421
I-126		388.63		5.748E-02	1.923E-01	3.178E-01	2.574E-02	0.181
		666.33	*	-1.290E-02	2.538E-01	4.208E-01	3.457E-02	-0.031
		753.82		1.230E+00	2.030E+00	3.518E+00	3.032E-01	0.350
SB-126		414.70		5.480E-02	9.337E-02	1.393E-01	1.139E-02	0.393
		666.50		5.300E-03	8.642E-02	1.445E-01	1.187E-02	0.037
		695.00		-1.122E-02	8.847E-02	1.454E-01	1.215E-02	-0.077
		697.00		-2.287E-01	3.191E-01	5.001E-01	4.185E-02	-0.457
		720.70	*	-2.914E-02	1.911E-01	2.833E-01	2.402E-02	-0.103
		856.80		-1.764E-01	6.022E-01	8.190E-01	7.340E-02	-0.215
SB-127		252.40		1.551E+00	3.690E+00	6.144E+00	2.548E+00	0.253
		473.00		-3.503E-02	1.438E+00	2.303E+00	2.785E-01	-0.015
		685.70	*	-6.680E-01	1.122E+00	1.768E+00	1.862E-01	-0.378
		783.70		4.058E-01	3.130E+00	5.213E+00	6.198E-01	0.078
I-131		80.19		5.956E+00	6.262E+00	7.559E+00	6.627E-01	0.788
		284.31		7.182E-01	1.623E+00	2.730E+00	2.605E-01	0.263
		364.49	*	3.138E-02	1.157E-01	1.916E-01	1.713E-02	0.164
		636.99		-5.955E-01	1.623E+00	2.628E+00	2.311E-01	-0.227
TE-132		49.72		-1.761E+01	1.712E+01	2.660E+01	2.744E+00	-0.662
		111.76		8.956E+00	2.756E+01	4.441E+01	4.650E+00	0.202
		116.30		-2.697E+00	2.380E+01	3.763E+01	3.950E+00	-0.072
		228.16	*	-1.611E-01	5.666E-01	9.300E-01	1.456E-01	-0.173
BA-133		81.00		1.497E-01	1.559E-01	1.869E-01	2.919E-02	0.801
		276.40		8.461E-01	5.366E-01	8.356E-01	1.207E-01	1.013
		302.85		-1.824E-01	1.841E-01	2.839E-01	3.796E-02	-0.643
		356.01	*	-1.409E-02	5.727E-02	7.980E-02	1.033E-02	-0.177
		383.85		-1.587E-01	3.766E-01	5.935E-01	7.197E-02	-0.267
I-133		529.87	*	-5.372E-04	3.766E-01	Half-Life too short		
		875.33		3.346E-02	3.766E-01	Half-Life too short		
		1298.22		4.837E-02	3.766E-01	Half-Life too short		
CS-134		563.25		1.580E-01	4.638E-01	7.968E-01	6.823E-02	0.198
		569.33		-3.551E-02	2.526E-01	4.201E-01	3.609E-02	-0.085
		604.72		1.867E-02	4.466E-02	6.786E-02	5.718E-03	0.275
	+	795.86	*	1.608E-01	7.985E-02	1.224E-01	1.082E-02	1.314
		801.95		-2.883E-01	6.174E-01	8.806E-01	7.789E-02	-0.327
		1365.19		-7.426E-01	1.546E+00	2.380E+00	2.135E-01	-0.312
CS-135		268.22	*	2.159E-01	2.309E-01	3.537E-01	3.688E-02	0.610
I-135		546.56		-3.006E+07	2.309E-01	Half-Life too short		
		836.80		-3.879E+07	2.309E-01	Half-Life too short		
		1038.76		3.774E+07	2.309E-01	Half-Life too short		

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1131.51		1.240E+07	2.309E-01	Half-Life too short		
		1260.41	*	-3.295E+07	2.309E-01	Half-Life too short		
		1457.56		1.069E+09	2.309E-01	Half-Life too short		
		1678.03		3.149E+07	2.309E-01	Half-Life too short		
		1791.20		-8.472E+06	2.309E-01	Half-Life too short		
CS-136		153.25		1.117E+00	9.610E-01	1.678E+00	1.709E-01	0.666
		176.60		-1.080E-01	5.710E-01	9.533E-01	9.053E-02	-0.113
		273.65		-8.653E-01	7.059E-01	9.321E-01	9.170E-02	-0.928
		340.55		8.723E-01	2.341E-01	3.888E-01	3.538E-02	2.244
		818.51		-2.857E-02	8.292E-02	1.317E-01	1.167E-02	-0.217
		1048.07	*	-6.827E-02	1.309E-01	2.000E-01	1.817E-02	-0.341
		1235.36		4.753E-01	7.329E-01	1.136E+00	1.309E-01	0.418
BA-137M		661.66	*	-4.097E-02	4.617E-02	7.139E-02	5.848E-03	-0.574
CS-137		661.66	*	-4.328E-02	4.877E-02	7.542E-02	6.191E-03	-0.574
CE-139		165.86	*	1.070E-02	3.738E-02	6.365E-02	5.421E-03	0.168
BA-140		162.66		-4.089E-01	9.078E-01	1.505E+00	1.370E-01	-0.272
		304.85		-1.330E+00	1.578E+00	2.390E+00	7.028E-01	-0.556
		423.72		3.114E-01	2.280E+00	3.712E+00	1.217E+00	0.084
		537.26	*	7.998E-02	2.983E-01	5.096E-01	1.727E-01	0.157
LA-140	+	328.76		5.237E-01	3.697E-01	6.485E-01	6.078E-02	0.808
		487.02		2.349E-01	1.669E-01	2.919E-01	2.622E-02	0.804
		815.77		-7.407E-03	3.466E-01	5.685E-01	5.589E-02	-0.013
		1596.21	*	9.548E-02	9.629E-02	1.676E-01	1.446E-02	0.570
CE-141		145.44	*	4.033E-02	7.677E-02	1.306E-01	1.136E-02	0.309
CE-143		57.36		2.161E-04	7.677E-02	Half-Life too short		
		293.27	*	1.288E-04	7.677E-02	Half-Life too short		
		664.57		2.288E-04	7.677E-02	Half-Life too short		
		721.93		-3.953E-05	7.677E-02	Half-Life too short		
CE-144		80.12		3.698E+00	4.047E+00	4.875E+00	4.252E-01	0.759
		133.52	*	9.810E-02	2.941E-01	4.199E-01	6.419E-02	0.234
PM-144		476.78		-1.479E-02	8.677E-02	1.374E-01	1.261E-02	-0.108
		618.01		-4.437E-03	4.115E-02	6.824E-02	5.878E-03	-0.065
		696.49	*	-1.104E-02	4.496E-02	7.324E-02	6.128E-03	-0.151
PR-144		696.51	*	-8.198E-01	3.362E+00	5.476E+00	4.581E-01	-0.150
		1489.16		-2.286E+01	1.496E+01	1.723E+01	1.491E+00	-1.327
PM-146		453.88	*	4.235E-02	5.488E-02	9.281E-02	9.623E-03	0.456
		633.25		7.339E-03	1.796E+00	2.999E+00	1.143E+00	0.002
		735.93		-6.870E-02	2.111E-01	2.892E-01	8.099E-02	-0.238
		747.24		9.145E-02	1.203E-01	2.103E-01	3.064E-02	0.435
ND-147	+	91.11		8.382E-01	2.224E-01	5.896E-01	5.831E-02	1.422
		319.41		-6.753E-01	3.738E+00	6.062E+00	5.438E-01	-0.111
		531.02	*	1.606E-01	6.099E-01	1.046E+00	1.556E-01	0.154
PM-149		285.90	*	-1.904E+01	6.253E+01	1.013E+02	1.603E+01	-0.188
EU-152		121.78		-2.798E-02	9.713E-02	1.521E-01	1.529E-02	-0.184
		244.70		5.433E-01	4.635E-01	7.212E-01	6.565E-02	0.753
		344.28	*	1.143E-02	1.446E-01	2.080E-01	1.922E-02	0.055
		778.90		-2.274E-01	3.380E-01	5.234E-01	4.562E-02	-0.434
	+	964.08		9.382E-01	4.895E-01	7.871E-01	7.061E-02	1.192
		1085.87		-4.496E-02	5.429E-01	8.683E-01	7.443E-02	-0.052

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1112.07		9.623E-02	4.202E-01	6.738E-01	5.691E-02	0.143
		1408.01		9.656E-02	2.236E-01	3.909E-01	3.367E-02	0.247
GD-153		69.67		-1.126E+00	2.480E+00	3.746E+00	3.004E-01	-0.301
		97.43	*	-3.138E-04	1.198E-01	1.704E-01	1.513E-02	-0.002
		103.18		6.456E-02	1.427E-01	2.079E-01	1.814E-02	0.310
EU-154		123.07		-1.882E-02	6.869E-02	1.076E-01	1.234E-02	-0.175
		723.31		-7.499E-02	2.468E-01	3.419E-01	3.205E-02	-0.219
		873.19		-1.078E-01	3.531E-01	5.598E-01	6.816E-02	-0.193
		996.26		-7.483E-02	4.718E-01	7.529E-01	1.326E-01	-0.099
		1004.73		1.729E-01	2.980E-01	5.076E-01	6.003E-02	0.341
		1274.44	*	-1.194E-01	1.648E-01	2.542E-01	2.849E-02	-0.470
TB-160	+	86.79		1.208E+00	4.233E-01	6.342E-01	5.923E-02	1.905
		197.04		-3.536E-01	7.045E-01	1.134E+00	9.965E-02	-0.312
		215.65		4.566E-01	9.477E-01	1.610E+00	1.440E-01	0.284
		298.57		1.440E-01	1.598E-01	2.441E-01	2.219E-02	0.590
		879.36	*	-6.345E-02	1.625E-01	2.545E-01	2.295E-02	-0.249
		962.29		6.855E-01	7.313E-01	1.147E+00	1.030E-01	0.597
	+	966.15		6.423E-01	3.351E-01	6.079E-01	5.451E-02	1.057
		1177.93		-2.656E-01	4.926E-01	7.892E-01	6.400E-02	-0.337
		1271.85		-4.954E-02	9.185E-01	1.526E+00	1.279E-01	-0.032
HO-166M		80.57		1.338E-02	4.744E-01	5.353E-01	4.689E-02	0.025
		184.41		1.516E-01	4.832E-02	8.605E-02	7.467E-03	1.762
		280.46		-1.494E-01	1.154E-01	1.768E-01	1.617E-02	-0.845
	+	410.95		6.992E-01	5.309E-01	5.717E-01	4.663E-02	1.223
		711.68	*	7.138E-03	7.743E-02	1.293E-01	1.091E-02	0.055
		752.31		-2.496E-01	3.516E-01	5.442E-01	4.686E-02	-0.459
		810.29		-2.321E-02	7.869E-02	1.260E-01	1.112E-02	-0.184
TA-182		67.75		1.012E-01	1.656E-01	2.449E-01	1.941E-02	0.413
		100.11		-4.783E-02	2.316E-01	3.484E-01	3.063E-02	-0.137
		152.43		3.017E-01	4.333E-01	7.490E-01	6.382E-02	0.403
		222.11		1.911E-01	4.308E-01	7.308E-01	6.567E-02	0.261
	+	1121.30		1.107E+00	3.378E-01	4.817E-01	4.045E-02	2.298
		1189.05		-3.478E-02	4.015E-01	6.685E-01	5.444E-02	-0.052
		1221.41	*	2.913E-02	2.454E-01	4.150E-01	3.420E-02	0.070
		1231.02		-1.115E-01	6.323E-01	9.932E-01	8.214E-02	-0.112
IR-192	+	295.96		1.436E+00	2.706E-01	3.840E-01	3.518E-02	3.739
		308.46		-5.259E-02	1.221E-01	1.954E-01	1.775E-02	-0.269
		316.51	*	-1.263E-03	4.364E-02	7.143E-02	6.435E-03	-0.018
		468.07		2.457E-02	9.254E-02	1.333E-01	1.204E-02	0.184
HG-203		70.83		-2.748E-01	1.977E+00	2.829E+00	4.464E-01	-0.097
		72.87		1.922E+00	1.172E+00	1.749E+00	2.677E-01	1.099
		279.20	*	3.819E-02	5.108E-02	8.691E-02	8.129E-03	0.439
BI-207		72.81		3.913E-01	2.710E-01	4.113E-01	3.372E-02	0.951
	+	74.97		9.503E-01	1.949E-01	3.103E-01	2.586E-02	3.063
		569.70		2.913E-03	3.878E-02	6.545E-02	5.544E-03	0.045
		1063.66	*	-4.823E-03	6.641E-02	1.064E-01	9.223E-03	-0.045
		1770.23		2.312E-01	6.405E-01	9.875E-01	8.270E-02	0.234
PB-210		46.54	*	2.987E+00	5.158E+00	8.538E+00	7.996E-01	0.350
PB-211		404.85	*	7.942E-02	1.114E+00	1.585E+00	7.656E-01	0.050

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.09		-5.884E-01	2.024E+00	3.172E+00	1.465E+00	-0.186
		832.01		-7.047E-01	1.313E+00	1.964E+00	1.019E+00	-0.359
BI-212	+	727.33	*	3.294E+00	1.351E+00	1.554E+00	1.923E-01	2.120
		785.37		4.083E+00	4.050E+00	7.191E+00	6.284E-01	0.568
		1620.50		3.593E+00	3.421E+00	6.382E+00	5.492E-01	0.563
RN-219	+	271.23		1.323E+00	4.804E-01	6.146E-01	6.579E-02	2.153
		401.81	*	-2.992E-01	5.642E-01	8.806E-01	1.284E-01	-0.340
RA-223		81.07		3.504E-01	3.509E-01	4.247E-01	3.738E-02	0.825
	+	83.79		2.857E-01	1.567E-01	2.808E-01	2.540E-02	1.017
		94.87		1.694E+00	6.742E-01	1.048E+00	9.428E-02	1.616
		144.24		9.478E-01	8.631E-01	1.490E+00	1.423E-01	0.636
		154.21		9.758E-01	4.920E-01	8.736E-01	8.169E-02	1.117
	+	269.46		1.028E+00	3.693E-01	4.570E-01	4.256E-02	2.250
		323.87	*	5.971E-01	8.587E-01	1.405E+00	2.458E-01	0.425
	+	338.28		8.703E+00	2.415E+00	3.188E+00	3.890E-01	2.730
AC-227		79.69		1.237E+00	1.888E+00	2.543E+00	4.392E-01	0.486
		235.96		1.501E-01	2.151E-01	3.259E-01	3.492E-02	0.460
		256.23	*	-3.287E-02	3.193E-01	5.260E-01	6.535E-02	-0.062
		299.98		2.488E+00	1.260E+00	2.006E+00	2.612E-01	1.241
		304.50		-3.611E+00	2.222E+00	3.188E+00	5.345E-01	-1.132
		334.37		-1.549E+00	2.717E+00	3.412E+00	5.361E-01	-0.454
TH-227		79.80		3.125E+00	2.775E+00	3.306E+00	7.209E-01	0.945
		235.96		1.501E-01	2.151E-01	3.259E-01	3.309E-02	0.460
		256.23	*	-3.287E-02	3.193E-01	5.260E-01	7.331E-02	-0.062
		299.98		2.488E+00	1.260E+00	2.006E+00	2.612E-01	1.241
		304.50		-3.611E+00	2.222E+00	3.188E+00	5.345E-01	-1.132
		334.37		-1.549E+00	2.717E+00	3.412E+00	5.361E-01	-0.454
PA-231		283.69	*	1.716E+00	1.874E+00	3.201E+00	4.768E-01	0.536
		301.36		1.309E+00	7.753E-01	1.275E+00	1.592E-01	1.027
TH-231		81.07		3.504E-01	3.509E-01	4.247E-01	3.738E-02	0.825
	+	83.79		2.857E-01	1.567E-01	2.808E-01	2.540E-02	1.017
		94.87		1.694E+00	6.742E-01	1.048E+00	9.428E-02	1.616
		144.24		9.478E-01	8.631E-01	1.490E+00	1.423E-01	0.636
		154.21		9.758E-01	4.920E-01	8.736E-01	8.169E-02	1.117
	+	269.46		1.028E+00	3.693E-01	4.570E-01	4.256E-02	2.250
		323.87	*	5.971E-01	8.587E-01	1.405E+00	2.458E-01	0.425
	+	338.28		8.703E+00	2.415E+00	3.188E+00	3.890E-01	2.730
PA-233		300.13		1.285E+00	5.748E-01	9.101E-01	1.375E-01	1.412
		311.90	*	1.112E-03	8.307E-02	1.364E-01	1.263E-02	0.008
		340.48		4.605E+00	1.522E+00	1.877E+00	4.528E-01	2.453
PA-234		94.67		8.088E-01	2.647E-01	3.996E-01	5.064E-02	2.024
		98.44		1.967E-01	1.665E-01	1.933E-01	1.079E-01	1.018
		111.00		2.279E-01	2.420E-01	3.974E-01	4.817E-02	0.573
		131.20		1.017E-01	1.553E-01	2.258E-01	1.952E-02	0.451
		569.50		1.549E-02	3.435E-01	5.785E-01	4.901E-02	0.027
		733.00		-1.147E-01	5.114E-01	7.117E-01	1.577E-01	-0.161
		880.51		-1.996E-01	3.489E-01	5.363E-01	4.838E-02	-0.372
		883.24		-2.407E-02	3.499E-01	5.675E-01	3.818E-01	-0.042
		926.50		1.246E-01	2.053E-01	3.524E-01	8.959E-02	0.354

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		946.00	*	7.313E-02	3.796E-01	6.296E-01	1.193E-01	0.116
		949.00		4.873E-01	5.701E-01	1.002E+00	9.014E-02	0.486
PA-234M		766.42		1.318E+01	1.771E+01	2.815E+01	1.429E+01	0.468
		1001.03	*	2.139E+00	6.419E+00	1.096E+01	1.117E+00	0.195
NP-239		99.53		1.691E-01	2.271E-01	3.355E-01	2.956E-02	0.504
		103.37		7.943E-02	1.314E-01	1.930E-01	1.683E-02	0.412
	+	106.12		1.569E-01	1.333E-01	1.777E-01	1.543E-02	0.883
		117.23	*	-4.026E-01	5.342E-01	8.195E-01	7.139E-02	-0.491
		228.18		-7.639E-02	2.667E-01	4.381E-01	3.953E-02	-0.174
		277.60		5.133E-01	2.467E-01	4.264E-01	3.900E-02	1.204
AM-241		59.54	*	7.168E-02	2.344E-01	3.447E-01	2.841E-02	0.208
CM-247		278.00		1.691E+00	1.009E+00	1.771E+00	1.619E-01	0.955
		287.50		-7.810E-01	1.662E+00	2.671E+00	2.438E-01	-0.292
		402.40	*	1.007E-02	5.059E-02	8.292E-02	6.723E-03	0.121
CF-249		252.80		-1.958E-01	1.195E+00	1.964E+00	1.793E-01	-0.100
		333.37		-1.418E-01	3.704E-01	3.605E-01	3.191E-02	-0.393
		388.16	*	5.015E-03	5.112E-02	8.345E-02	6.766E-03	0.060
CF-251		177.52	*	-1.518E-01	1.695E-01	2.745E-01	2.365E-02	-0.553
		227.38		-4.157E-02	4.306E-01	7.135E-01	6.435E-02	-0.058
		285.41		-3.040E-01	2.858E+00	4.683E+00	4.277E-01	-0.065

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071015      *
* Acquisition date : 24-MAR-2010 11:24:08 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.33     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 11-MAR-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202071015          Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.2031E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.675E+01	3.926E+00	6.657E-01	0.000E+00
CD-109	3.908E+00	1.342E+00	1.679E+00	0.000E+00
SN-126	3.833E-01	1.316E-01	1.655E-01	0.000E+00
EU-155	1.966E-01	1.638E-01	2.134E-01	0.000E+00
TL-208	7.708E-01	1.259E-01	7.440E-02	0.000E+00
BI-211	5.794E+00	7.732E-01	4.297E-01	0.000E+00
PB-212	2.379E+00	2.834E-01	1.225E-01	0.000E+00
BI-214	1.937E+00	2.800E-01	1.449E-01	0.000E+00
PB-214	2.103E+00	3.028E-01	1.508E-01	0.000E+00
RA-224	6.112E+00	1.727E+00	1.313E+00	0.000E+00
RA-226	1.937E+00	2.800E-01	1.449E-01	0.000E+00
AC-228	2.537E+00	5.235E-01	3.245E-01	0.000E+00
RA-228	2.537E+00	5.235E-01	3.245E-01	0.000E+00
TH-228	2.379E+00	2.834E-01	1.225E-01	0.000E+00
TH-229	8.141E-02	6.393E-01	1.123E+00	0.000E+00
TH-230	1.936E+00	2.615E-01	1.449E-01	0.000E+00
TH-232	2.537E+00	5.235E-01	3.245E-01	0.000E+00
TH-234	3.872E+00	3.106E+00	2.868E+00	0.000E+00
U-235	1.086E-01	2.526E-01	4.475E-01	0.000E+00
NP-237	1.144E+00	4.577E-01	5.209E-01	0.000E+00
U-238	3.872E+00	3.106E+00	2.868E+00	0.000E+00
ANH-511	2.689E-01	9.431E-02	5.498E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.610E-02	4.145E-01	6.877E-01	0.000E+00	NOT IDENT.
NA-22	-3.645E-02	5.630E-02	8.960E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.590E+04	0.000E+00	0.000E+00	SHORT HLIF
SC-46	-2.980E-02	4.832E-02	7.585E-02	0.000E+00	FAIL ABUN
V-48	8.125E-03	8.537E-02	1.431E-01	0.000E+00	NOT IDENT.

CR-51	-1.107E-01	4.397E-01	7.361E-01	0.000E+00	NOT IDENT.
MN-54	-2.061E-02	4.507E-02	7.265E-02	0.000E+00	NOT IDENT.
CO-56	-1.101E-02	4.900E-02	8.064E-02	0.000E+00	FAIL ABUN
CO-57	-1.141E-02	3.284E-02	5.379E-02	0.000E+00	NOT IDENT.
CO-58	-2.030E-02	5.084E-02	8.275E-02	0.000E+00	NOT IDENT.
FE-59	8.203E-02	1.168E-01	2.048E-01	0.000E+00	NOT IDENT.
CO-60	-1.965E-02	5.093E-02	8.259E-02	0.000E+00	NOT IDENT.
ZN-65	-8.327E-02	1.316E-01	1.686E-01	0.000E+00	NOT IDENT.
SE-75	2.605E-04	5.707E-02	9.477E-02	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.858E-02	1.025E-01	0.000E+00	NOT IDENT.
Y-88	2.252E-02	4.124E-02	7.528E-02	0.000E+00	NOT IDENT.
Y-91	2.579E+01	2.800E+01	5.115E+01	0.000E+00	NOT IDENT.
NB-94	6.258E-02	4.538E-02	8.399E-02	0.000E+00	NOT IDENT.
NB-95	-2.459E-02	6.140E-02	9.967E-02	0.000E+00	NOT IDENT.
NB-95M	2.440E-02	1.699E-01	2.604E-01	0.000E+00	NOT IDENT.
ZR-95	1.403E-02	9.020E-02	1.548E-01	0.000E+00	NOT IDENT.
MO-99	7.370E+00	8.948E+00	1.607E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.280E+14	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-5.076E-03	4.988E-02	8.166E-02	0.000E+00	FAIL ABUN
RH-106	1.130E-01	3.906E-01	6.848E-01	0.000E+00	NOT IDENT.
RU-106	1.130E-01	3.904E-01	6.848E-01	0.000E+00	NOT IDENT.
AG-108M	3.744E-02	3.552E-02	6.337E-02	0.000E+00	NOT IDENT.
AG-110M	-3.756E-03	4.329E-02	7.363E-02	0.000E+00	NOT IDENT.
SN-113	-1.942E-02	5.612E-02	9.199E-02	0.000E+00	NOT IDENT.
CD-115	5.935E+00	6.990E+00	1.281E+01	0.000E+00	NOT IDENT.
SN-117M	-1.742E-02	6.005E-02	1.048E-01	0.000E+00	NOT IDENT.
TE-123M	4.224E-03	3.381E-02	5.994E-02	0.000E+00	NOT IDENT.
SB-124	-1.095E-02	8.152E-02	1.315E-01	0.000E+00	NOT IDENT.
SB-125	-1.446E-02	1.127E-01	1.862E-01	0.000E+00	FAIL ABUN
TE-125M	8.446E+00	1.346E+01	2.064E+01	0.000E+00	NOT IDENT.
I-126	-1.290E-02	2.487E-01	4.238E-01	0.000E+00	NOT IDENT.
SB-126	-2.914E-02	1.873E-01	2.851E-01	0.000E+00	NOT IDENT.
SB-127	-6.680E-01	1.100E+00	1.780E+00	0.000E+00	NOT IDENT.
I-131	3.138E-02	1.133E-01	1.944E-01	0.000E+00	NOT IDENT.
TE-132	-1.611E-01	5.553E-01	9.486E-01	0.000E+00	NOT IDENT.
BA-133	-1.409E-02	5.613E-02	8.098E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.318E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.825E-02	1.230E-01	0.000E+00	FAIL ABUN
CS-135	2.159E-01	2.263E-01	3.601E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.531E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.827E-02	1.282E-01	2.003E-01	0.000E+00	NOT IDENT.
BA-137M	-4.097E-02	4.524E-02	7.191E-02	0.000E+00	NOT IDENT.
CS-137	-4.328E-02	4.779E-02	7.597E-02	0.000E+00	NOT IDENT.
CE-139	1.070E-02	3.664E-02	6.517E-02	0.000E+00	NOT IDENT.
BA-140	7.998E-02	2.924E-01	5.146E-01	0.000E+00	NOT IDENT.
LA-140	9.548E-02	9.436E-02	1.671E-01	0.000E+00	FAIL ABUN
CE-141	4.033E-02	7.523E-02	1.339E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.434E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	9.810E-02	2.882E-01	4.310E-01	0.000E+00	NOT IDENT.
PM-144	-1.104E-02	4.407E-02	7.372E-02	0.000E+00	NOT IDENT.
PR-144	-8.198E-01	3.295E+00	5.513E+00	0.000E+00	NOT IDENT.
PM-146	4.235E-02	5.378E-02	9.391E-02	0.000E+00	NOT IDENT.
ND-147	1.606E-01	5.977E-01	1.056E+00	0.000E+00	FAIL ABUN
PM-149	-1.904E+01	6.128E+01	1.031E+02	0.000E+00	NOT IDENT.
EU-152	1.143E-02	1.417E-01	2.111E-01	0.000E+00	FAIL ABUN
GD-153	-3.138E-04	1.174E-01	1.755E-01	0.000E+00	NOT IDENT.
EU-154	-1.194E-01	1.615E-01	2.541E-01	0.000E+00	NOT IDENT.
TB-160	-6.345E-02	1.592E-01	2.555E-01	0.000E+00	FAIL ABUN
HO-166M	7.138E-03	7.588E-02	1.301E-01	0.000E+00	FAIL ABUN
TA-182	2.913E-02	2.405E-01	4.149E-01	0.000E+00	FAIL ABUN
IR-192	-1.263E-03	4.277E-02	7.258E-02	0.000E+00	FAIL ABUN
HG-203	3.819E-02	5.005E-02	8.844E-02	0.000E+00	NOT IDENT.
BI-207	-4.823E-03	6.508E-02	1.066E-01	0.000E+00	FAIL ABUN
PB-210	2.987E+00	5.055E+00	8.870E+00	0.000E+00	NOT IDENT.
PB-211	7.942E-02	1.092E+00	1.606E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	1.324E+00	1.563E+00	0.000E+00	FAIL ABUN
RN-219	-2.992E-01	5.529E-01	8.923E-01	0.000E+00	FAIL ABUN
RA-223	5.971E-01	8.415E-01	1.427E+00	0.000E+00	FAIL ABUN
AC-227	-3.287E-02	3.129E-01	5.358E-01	0.000E+00	NOT IDENT.
TH-227	-3.287E-02	3.129E-01	5.358E-01	0.000E+00	NOT IDENT.
PA-231	1.716E+00	1.836E+00	3.257E+00	0.000E+00	NOT IDENT.
TH-231	5.971E-01	8.415E-01	1.427E+00	0.000E+00	FAIL ABUN
PA-233	1.112E-03	8.141E-02	1.386E-01	0.000E+00	NOT IDENT.
PA-234	7.313E-02	3.720E-01	6.315E-01	0.000E+00	NOT IDENT.
PA-234M	2.139E+00	6.291E+00	1.098E+01	0.000E+00	NOT IDENT.
NP-239	-4.026E-01	5.235E-01	8.424E-01	0.000E+00	FAIL ABUN
AM-241	7.168E-02	2.297E-01	3.571E-01	0.000E+00	NOT IDENT.
CM-247	1.007E-02	4.958E-02	8.402E-02	0.000E+00	NOT IDENT.

CF-249	5.015E-03	5.009E-02	8.460E-02	0.000E+00 NOT IDENT.
CF-251	-1.518E-01	1.661E-01	2.809E-01	0.000E+00 NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:24:37.37

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071015.CNF;1
Sample date       : 11-MAR-2010 12:00:00 Acquisition date : 24-MAR-2010 11:24:08
Sample ID         : G1202071015          Sample quantity  : 1.20310E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.33  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 965250               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.82	1187	10.66*	9.453E-01	3.675E+01	3.675E+01	10.90
CD-109	88.03	236	3.70*	5.191E+00	3.833E+00	3.908E+00	35.04
SN-126	64.28	127	9.60	2.758E+00	1.492E+00	1.492E+00	81.22
	86.94	236	8.90	5.191E+00	1.593E+00	1.593E+00	53.52
	87.57	236	37.00*	5.191E+00	3.833E-01	3.833E-01	35.04
EU-155	86.55	236	30.70	5.191E+00	4.619E-01	4.643E-01	35.07
	105.31	78	21.10*	5.927E+00	1.956E-01	1.966E-01	84.99
TL-208	277.37	------	6.60	3.885E+00	------ Line Not Found		------
	583.19	450	85.00*	2.142E+00	7.708E-01	7.708E-01	16.66
	860.56	50	12.50	1.521E+00	8.144E-01	8.144E-01	63.77
BI-211	72.87	------	1.23	3.944E+00	------ Line Not Found		------
	351.06	774	12.92*	3.225E+00	5.794E+00	5.794E+00	13.62
PB-212	74.82	452	10.28	4.162E+00	3.298E+00	3.298E+00	22.70
	77.11	792	17.10	4.390E+00	3.291E+00	3.291E+00	14.80
	238.63	1444	43.60*	4.345E+00	2.379E+00	2.379E+00	12.16
	300.09	------	3.30	3.656E+00	------ Line Not Found		------
BI-214	609.32	583	45.49*	2.064E+00	1.936E+00	1.937E+00	14.76
	1120.29	136	14.92	1.193E+00	2.393E+00	2.393E+00	31.25
	1764.49	107	15.30	8.253E-01	2.646E+00	2.646E+00	23.35
PB-214	74.82	452	5.80	4.162E+00	5.845E+00	5.845E+00	21.99
	77.11	792	9.70	4.390E+00	5.801E+00	5.801E+00	16.94
	242.00	346	7.25	4.307E+00	3.456E+00	3.456E+00	29.41
	295.22	433	18.42	3.698E+00	1.981E+00	1.981E+00	19.91
	351.93	774	35.60*	3.225E+00	2.103E+00	2.103E+00	14.69
RA-224	240.99	346	4.10*	4.307E+00	6.112E+00	6.112E+00	28.83
RA-226	609.32	583	45.49*	2.064E+00	1.936E+00	1.937E+00	14.76
	1120.29	136	14.92	1.193E+00	2.393E+00	2.393E+00	31.25
	1764.49	107	15.30	8.253E-01	2.646E+00	2.646E+00	23.35
AC-228	338.32	263	11.27	3.326E+00	2.193E+00	2.193E+00	48.63
	911.20	303	25.80*	1.444E+00	2.537E+00	2.537E+00	21.06
	968.97	178	15.80	1.364E+00	2.574E+00	2.574E+00	32.36
RA-228	338.32	263	11.27	3.326E+00	2.193E+00	2.193E+00	48.63

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	303	25.80*	1.444E+00	2.537E+00	2.537E+00	21.06
	968.97	178	15.80	1.364E+00	2.574E+00	2.574E+00	32.36
TH-228	74.82	452	10.28	4.162E+00	3.298E+00	3.298E+00	20.54
	77.11	792	17.10	4.390E+00	3.291E+00	3.291E+00	14.80
	238.63	1444	43.60*	4.345E+00	2.379E+00	2.379E+00	12.16
	300.09	------	3.30	3.656E+00	------ Line Not Found		------
TH-229	85.43	112	14.70	4.969E+00	4.800E-01	4.800E-01	54.83
	88.47	236	24.00	5.191E+00	5.909E-01	5.909E-01	35.04
	193.51	------	4.41*	5.034E+00	------ Line Not Found		------
	210.85	120	2.80	4.771E+00	2.805E+00	2.805E+00	54.19
TH-230	609.32	583	45.49*	2.064E+00	1.936E+00	1.936E+00	13.78
	1120.29	136	14.92	1.193E+00	2.393E+00	2.393E+00	30.52
	1764.49	107	15.30	8.253E-01	2.646E+00	2.646E+00	23.35
TH-232	338.32	263	11.27	3.326E+00	2.193E+00	2.193E+00	26.43
	911.20	303	25.80*	1.444E+00	2.537E+00	2.537E+00	21.06
	968.97	178	15.80	1.364E+00	2.574E+00	2.574E+00	32.36
TH-234	63.29	127	3.70*	2.758E+00	3.872E+00	3.872E+00	81.87
	92.59	298	4.23	5.510E+00	3.983E+00	3.983E+00	37.29
U-235	89.96	176	3.47	5.353E+00	2.963E+00	2.963E+00	34.97
	93.35	298	5.60	5.510E+00	3.009E+00	3.009E+00	37.90
	143.76	------	10.96*	5.865E+00	------ Line Not Found		------
	163.33	------	5.08	5.555E+00	------ Line Not Found		------
	185.72	348	57.20	5.156E+00	3.678E-01	3.678E-01	31.10
	205.31	------	5.01	4.840E+00	------ Line Not Found		------
NP-237	86.48	236	12.40*	5.191E+00	1.144E+00	1.144E+00	40.84
	95.86	------	2.68	5.636E+00	------ Line Not Found		------
U-238	63.29	127	3.70*	2.758E+00	3.872E+00	3.872E+00	81.87
	92.59	298	4.23	5.510E+00	3.983E+00	3.983E+00	31.26
ANH-511	511.00	206	100.00*	2.392E+00	2.689E-01	2.689E-01	35.79

Flag: "*" = Keyline

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

Total number of lines in spectrum 36
Number of unidentified lines 4
Number of lines tentatively identified by NID 32 88.89%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.25E+09Y	1.00	3.675E+01	3.675E+01	0.401E+01	10.90	
CD-109	461.40D	1.02	3.833E+00	3.908E+00	1.370E+00	35.04	
SN-126	2.30E+05Y	1.00	3.833E-01	3.833E-01	1.343E-01	35.04	
EU-155	4.75Y	1.01	1.956E-01	1.966E-01	1.671E-01	84.99	
TL-208	1.41E+10Y	1.00	7.708E-01	7.708E-01	1.285E-01	16.66	
BI-211	7.04E+08Y	1.00	5.794E+00	5.794E+00	0.789E+00	13.62	
PB-212	1.41E+10Y	1.00	2.379E+00	2.379E+00	0.289E+00	12.16	
BI-214	1600.00Y	1.00	1.936E+00	1.937E+00	0.286E+00	14.76	
PB-214	1600.00Y	1.00	2.103E+00	2.103E+00	0.309E+00	14.69	
RA-224	1.41E+10Y	1.00	6.112E+00	6.112E+00	1.762E+00	28.83	
RA-226	1600.00Y	1.00	1.936E+00	1.937E+00	0.286E+00	14.76	
AC-228	1.41E+10Y	1.00	2.537E+00	2.537E+00	0.534E+00	21.06	
RA-228	1.41E+10Y	1.00	2.537E+00	2.537E+00	0.534E+00	21.06	
TH-228	1.41E+10Y	1.00	2.379E+00	2.379E+00	0.289E+00	12.16	
TH-229	7340.00Y	1.00	5.909E-01	5.909E-01	2.071E-01	35.04	K
TH-230	7.54E+04Y	1.00	1.936E+00	1.936E+00	0.267E+00	13.78	
TH-232	1.41E+10Y	1.00	2.537E+00	2.537E+00	0.534E+00	21.06	
TH-234	4.47E+09Y	1.00	3.872E+00	3.872E+00	3.170E+00	81.87	
U-235	7.04E+08Y	1.00	3.678E-01	3.678E-01	1.144E-01	31.10	K
NP-237	2.14E+06Y	1.00	1.144E+00	1.144E+00	0.467E+00	40.84	
U-238	4.47E+09Y	1.00	3.872E+00	3.872E+00	3.170E+00	81.87	
ANH-511	1.00E+09Y	1.00	2.689E-01	2.689E-01	0.962E-01	35.79	
	Total Activity :		8.423E+01	8.431E+01			

Grand Total Activity : 8.423E+01 8.431E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.43	69	436	1.27	259.51	255	9	9.64E-03	****	6.02E+00	
0	270.84	181	206	1.82	542.18	538	11	2.52E-02	34.7	3.96E+00	T
0	328.59	57	132	0.88	657.60	656	6	7.95E-03	70.0	3.41E+00	T
0	410.01	72	155	1.38	820.36	815	13	9.97E-03	75.5	2.86E+00	T
0	463.34	113	123	1.28	926.95	921	12	1.57E-02	43.5	2.59E+00	T
0	728.34	125	83	2.33	1456.61	1449	18	1.73E-02	39.1	1.77E+00	T
0	795.62	64	45	1.36	1591.08	1586	11	8.89E-03	48.9	1.63E+00	T
1	965.33	60	50	1.92	1930.27	1925	23	8.36E-03	51.4	1.37E+00	T
0	1238.90	48	53	2.11	2477.02	2472	11	6.66E-03	67.7	1.09E+00	T
2	1588.90	46	32	2.42	3176.48	3169	21	6.33E-03	53.4	8.86E-01	
2	1593.29	30	9	2.18	3185.27	3169	21	4.21E-03	52.9	8.84E-01	
0	1662.84	21	2	0.80	3324.25	3319	11	2.85E-03	53.8	8.58E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 13:24:41.52

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                 DETECTOR DATA                               *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071015.CNF;1  *
* Acquisition date  : 24-MAR-2010 11:24:08  Detector SN#     :                *
* Detector ID       : GAM01                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.33          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 11-MAR-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID         : G1202071015           Analyst initials: MXR1           *
* Batch Number      : 965250                Sample Quantity : 1.20310E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52.7MS Isotope      :                  *
* MSD ID           :                      MSD Isotope     :                  *
* LCS ID           : 1032-A               LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.675E+01	4.006E+00	6.672E-01	5.932E-02	55.082
CD-109	3.908E+00	1.370E+00	1.628E+00	1.541E-01	2.400
SN-126	3.833E-01	1.343E-01	1.605E-01	1.512E-02	2.388
EU-155	1.966E-01	1.671E-01	2.073E-01	1.823E-02	0.948
TL-208	7.708E-01	1.285E-01	7.375E-02	6.689E-03	10.452
BI-211	5.794E+00	7.890E-01	4.234E-01	3.852E-02	13.685
PB-212	2.379E+00	2.892E-01	1.201E-01	1.222E-02	19.804
BI-214	1.937E+00	2.858E-01	1.438E-01	1.425E-02	13.471
PB-214	2.103E+00	3.089E-01	1.485E-01	1.579E-02	14.155
RA-224	6.112E+00	1.762E+00	1.288E+00	1.170E-01	4.746
RA-226	1.937E+00	2.858E-01	1.438E-01	1.425E-02	13.471
AC-228	2.537E+00	5.342E-01	3.234E-01	3.853E-02	7.844
RA-228	2.537E+00	5.342E-01	3.234E-01	3.853E-02	7.844
TH-228	2.379E+00	2.892E-01	1.201E-01	1.222E-02	19.804
TH-229	5.909E-01	2.071E-01	1.098E+00	9.622E-02	0.538
TH-230	1.936E+00	2.669E-01	1.438E-01	1.206E-02	13.471
TH-232	2.537E+00	5.342E-01	3.234E-01	3.853E-02	7.844
TH-234	3.872E+00	3.170E+00	2.771E+00	4.976E-01	1.397

Sample ID : G1202071015 Acquisition date : 24-MAR-2010 11:24:08

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	3.678E-01	1.144E-01	4.364E-01	7.382E-02	0.843
NP-237	1.144E+00	4.670E-01	5.049E-01	1.158E-01	2.265
U-238	3.872E+00	3.170E+00	2.771E+00	4.976E-01	1.397
ANH-511	2.689E-01	9.624E-02	5.441E-02	4.612E-03	4.942

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.610E-02		4.229E-01	6.801E-01	6.185E-02	0.024
NA-22	-3.645E-02		5.745E-02	8.966E-02	7.529E-03	-0.407
NA-24	-1.078E-02		3.872E-02	Half-Life too short		
SC-46	-2.980E-02		4.931E-02	7.557E-02	6.831E-03	-0.394
V-48	8.125E-03		8.711E-02	1.427E-01	1.274E-02	0.057
CR-51	-1.107E-01		4.487E-01	7.245E-01	6.810E-02	-0.153
MN-54	-2.061E-02		4.599E-02	7.233E-02	6.438E-03	-0.285
CO-56	-1.101E-02		5.000E-02	8.030E-02	7.175E-03	-0.137
CO-57	-1.141E-02		3.351E-02	5.235E-02	4.609E-03	-0.218
CO-58	-2.030E-02		5.188E-02	8.236E-02	7.286E-03	-0.247
FE-59	8.203E-02		1.191E-01	2.045E-01	1.885E-02	0.401
CO-60	-1.965E-02		5.197E-02	8.269E-02	7.048E-03	-0.238
ZN-65	-8.327E-02		1.342E-01	1.684E-01	1.421E-02	-0.494
SE-75	2.605E-04		5.823E-02	9.307E-02	8.551E-03	0.003
SR-85	1.739E-01		5.978E-02	1.014E-01	8.598E-03	1.715
Y-88	2.252E-02		4.208E-02	7.567E-02	6.224E-03	0.298
Y-91	2.579E+01		2.857E+01	5.115E+01	4.190E+00	0.504
NB-94	6.258E-02		4.630E-02	8.344E-02	7.004E-03	0.750
NB-95	-2.459E-02		6.265E-02	9.913E-02	8.590E-03	-0.248
NB-95M	2.440E-02		1.733E-01	2.553E-01	2.623E-02	0.096
ZR-95	1.403E-02		9.204E-02	1.539E-01	1.467E-02	0.091
MO-99	7.370E+00		9.130E+00	1.598E+01	2.512E+00	0.461
TC-99M	-1.011E+08		6.529E+07	Half-Life too short		
RU-103	-5.076E-03		5.089E-02	8.080E-02	1.120E-02	-0.063
RH-106	1.130E-01		3.985E-01	6.794E-01	8.889E-02	0.166
RU-106	1.130E-01		3.984E-01	6.794E-01	5.675E-02	0.166
AG-108M	3.744E-02		3.624E-02	6.260E-02	5.357E-03	0.598
AG-110M	-3.756E-03		4.418E-02	7.310E-02	6.198E-03	-0.051
SN-113	-1.942E-02		5.726E-02	9.075E-02	7.559E-03	-0.214
CD-115	5.935E+00		7.132E+00	1.269E+01	1.077E+00	0.468
SN-117M	-1.742E-02		6.127E-02	1.024E-01	8.714E-03	-0.170
TE-123M	4.224E-03		3.450E-02	5.851E-02	5.013E-03	0.072
SB-124	-1.095E-02		8.319E-02	1.321E-01	1.174E-02	-0.083
SB-125	-1.446E-02		1.150E-01	1.839E-01	1.546E-02	-0.079
TE-125M	8.446E+00		1.374E+01	2.006E+01	2.109E+00	0.421
I-126	-1.290E-02		2.538E-01	4.208E-01	3.457E-02	-0.031
SB-126	-2.914E-02		1.911E-01	2.833E-01	2.402E-02	-0.103
SB-127	-6.680E-01		1.122E+00	1.768E+00	1.862E-01	-0.378
I-131	3.138E-02		1.157E-01	1.916E-01	1.713E-02	0.164

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-132	-1.611E-01		5.666E-01	9.300E-01	1.456E-01	-0.173
BA-133	-1.409E-02		5.727E-02	7.980E-02	1.033E-02	-0.177
I-133	-5.372E-04		6.723E-04	Half-Life too short		
CS-134	1.608E-01	+	7.985E-02	1.224E-01	1.082E-02	1.314
CS-135	2.159E-01		2.309E-01	3.537E-01	3.688E-02	0.610
I-135	-3.295E+07		1.802E+07	Half-Life too short		
CS-136	-6.827E-02		1.309E-01	2.000E-01	1.817E-02	-0.341
BA-137M	-4.097E-02		4.617E-02	7.139E-02	5.848E-03	-0.574
CS-137	-4.328E-02		4.877E-02	7.542E-02	6.191E-03	-0.574
CE-139	1.070E-02		3.738E-02	6.365E-02	5.421E-03	0.168
BA-140	7.998E-02		2.983E-01	5.096E-01	1.727E-01	0.157
LA-140	9.548E-02		9.629E-02	1.676E-01	1.446E-02	0.570
CE-141	4.033E-02		7.677E-02	1.306E-01	1.136E-02	0.309
CE-143	1.288E-04		3.793E-05	Half-Life too short		
CE-144	9.810E-02		2.941E-01	4.199E-01	6.419E-02	0.234
PM-144	-1.104E-02		4.496E-02	7.324E-02	6.128E-03	-0.151
PR-144	-8.198E-01		3.362E+00	5.476E+00	4.581E-01	-0.150
PM-146	4.235E-02		5.488E-02	9.281E-02	9.623E-03	0.456
ND-147	1.606E-01		6.099E-01	1.046E+00	1.556E-01	0.154
PM-149	-1.904E+01		6.253E+01	1.013E+02	1.603E+01	-0.188
EU-152	1.143E-02		1.446E-01	2.080E-01	1.922E-02	0.055
GD-153	-3.138E-04		1.198E-01	1.704E-01	1.513E-02	-0.002
EU-154	-1.194E-01		1.648E-01	2.542E-01	2.849E-02	-0.470
TB-160	-6.345E-02		1.625E-01	2.545E-01	2.295E-02	-0.249
HO-166M	7.138E-03		7.743E-02	1.293E-01	1.091E-02	0.055
TA-182	2.913E-02		2.454E-01	4.150E-01	3.420E-02	0.070
IR-192	-1.263E-03		4.364E-02	7.143E-02	6.435E-03	-0.018
HG-203	3.819E-02		5.108E-02	8.691E-02	8.129E-03	0.439
BI-207	-4.823E-03		6.641E-02	1.064E-01	9.223E-03	-0.045
PB-210	2.987E+00		5.158E+00	8.538E+00	7.996E-01	0.350
PB-211	7.942E-02		1.114E+00	1.585E+00	7.656E-01	0.050
BI-212	3.294E+00	+	1.351E+00	1.554E+00	1.923E-01	2.120
RN-219	-2.992E-01		5.642E-01	8.806E-01	1.284E-01	-0.340
RA-223	5.971E-01		8.587E-01	1.405E+00	2.458E-01	0.425
AC-227	-3.287E-02		3.193E-01	5.260E-01	6.535E-02	-0.062
TH-227	-3.287E-02		3.193E-01	5.260E-01	7.331E-02	-0.062
PA-231	1.716E+00		1.874E+00	3.201E+00	4.768E-01	0.536
TH-231	5.971E-01		8.587E-01	1.405E+00	2.458E-01	0.425
PA-233	1.112E-03		8.307E-02	1.364E-01	1.263E-02	0.008
PA-234	7.313E-02		3.796E-01	6.296E-01	1.193E-01	0.116
PA-234M	2.139E+00		6.419E+00	1.096E+01	1.117E+00	0.195
NP-239	-4.026E-01		5.342E-01	8.195E-01	7.139E-02	-0.491
AM-241	7.168E-02		2.344E-01	3.447E-01	2.841E-02	0.208
CM-247	1.007E-02		5.059E-02	8.292E-02	6.723E-03	0.121
CF-249	5.015E-03		5.112E-02	8.345E-02	6.766E-03	0.060
CF-251	-1.518E-01		1.695E-01	2.745E-01	2.365E-02	-0.553

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202071015          *
* Acquisition date  : 24-MAR-2010 11:24:08 Detector SN#     :               *
* Detector ID       : GAM01                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.33      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 11-MAR-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202071015          Analyst initials: MXR1           *
* Batch Number      : 965250               Sample Quantity : 1.2031E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.675E+01	3.926E+00	3.330E-01	2.003E+00
CD-109	3.908E+00	1.342E+00	8.402E-01	6.848E-01
SN-126	3.833E-01	1.316E-01	8.282E-02	6.716E-02
EU-155	1.966E-01	1.638E-01	1.068E-01	8.355E-02
TL-208	7.708E-01	1.259E-01	3.722E-02	6.423E-02
BI-211	5.794E+00	7.732E-01	2.150E-01	3.945E-01
PB-212	2.379E+00	2.834E-01	6.126E-02	1.446E-01
BI-214	1.937E+00	2.800E-01	7.252E-02	1.429E-01
PB-214	2.103E+00	3.028E-01	7.542E-02	1.545E-01
RA-224	6.112E+00	1.727E+00	6.567E-01	8.810E-01
RA-226	1.937E+00	2.800E-01	7.252E-02	1.429E-01
AC-228	2.537E+00	5.235E-01	1.623E-01	2.671E-01
RA-228	2.537E+00	5.235E-01	1.623E-01	2.671E-01
TH-228	2.379E+00	2.834E-01	6.126E-02	1.446E-01
TH-229	8.141E-02	6.393E-01	5.616E-01	3.262E-01
TH-230	1.936E+00	2.615E-01	7.252E-02	1.334E-01
TH-232	2.537E+00	5.235E-01	1.623E-01	2.671E-01
TH-234	3.872E+00	3.106E+00	1.435E+00	1.585E+00
U-235	1.086E-01	2.526E-01	2.239E-01	1.289E-01
NP-237	1.144E+00	4.577E-01	2.606E-01	2.335E-01
U-238	3.872E+00	3.106E+00	1.435E+00	1.585E+00
ANH-511	2.689E-01	9.431E-02	2.751E-02	4.812E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.610E-02	4.145E-01	3.441E-01	2.115E-01	NOT IDENT.
NA-22	-3.645E-02	5.630E-02	4.483E-02	2.873E-02	NOT IDENT.
NA-24	-1.078E+04	7.590E+04	0.000E+00	3.872E+04	SHORT HLIF
SC-46	-2.980E-02	4.832E-02	3.795E-02	2.465E-02	FAIL ABUN
V-48	8.125E-03	8.537E-02	7.159E-02	4.356E-02	NOT IDENT.

CR-51	-1.107E-01	4.397E-01	3.683E-01	2.243E-01	NOT IDENT.
MN-54	-2.061E-02	4.507E-02	3.635E-02	2.300E-02	NOT IDENT.
CO-56	-1.101E-02	4.900E-02	4.035E-02	2.500E-02	FAIL ABUN
CO-57	-1.141E-02	3.284E-02	2.691E-02	1.676E-02	NOT IDENT.
CO-58	-2.030E-02	5.084E-02	4.140E-02	2.594E-02	NOT IDENT.
FE-59	8.203E-02	1.168E-01	1.024E-01	5.957E-02	NOT IDENT.
CO-60	-1.965E-02	5.093E-02	4.132E-02	2.598E-02	NOT IDENT.
ZN-65	-8.327E-02	1.316E-01	8.433E-02	6.712E-02	NOT IDENT.
SE-75	2.605E-04	5.707E-02	4.741E-02	2.912E-02	NOT IDENT.
SR-85	1.739E-01	5.858E-02	5.126E-02	2.989E-02	NOT IDENT.
Y-88	2.252E-02	4.124E-02	3.766E-02	2.104E-02	NOT IDENT.
Y-91	2.579E+01	2.800E+01	2.559E+01	1.429E+01	NOT IDENT.
NB-94	6.258E-02	4.538E-02	4.202E-02	2.315E-02	NOT IDENT.
NB-95	-2.459E-02	6.140E-02	4.987E-02	3.132E-02	NOT IDENT.
NB-95M	2.440E-02	1.699E-01	1.303E-01	8.667E-02	NOT IDENT.
ZR-95	1.403E-02	9.020E-02	7.742E-02	4.602E-02	NOT IDENT.
MO-99	7.370E+00	8.948E+00	8.041E+00	4.565E+00	NOT IDENT.
TC-99M	-1.011E+14	1.280E+14	0.000E+00	6.529E+13	SHORT HLIF
RU-103	-5.076E-03	4.988E-02	4.086E-02	2.545E-02	FAIL ABUN
RH-106	1.130E-01	3.906E-01	3.426E-01	1.993E-01	NOT IDENT.
RU-106	1.130E-01	3.904E-01	3.426E-01	1.992E-01	NOT IDENT.
AG-108M	3.744E-02	3.552E-02	3.170E-02	1.812E-02	NOT IDENT.
AG-110M	-3.756E-03	4.329E-02	3.684E-02	2.209E-02	NOT IDENT.
SN-113	-1.942E-02	5.612E-02	4.602E-02	2.863E-02	NOT IDENT.
CD-115	5.935E+00	6.990E+00	6.410E+00	3.566E+00	NOT IDENT.
SN-117M	-1.742E-02	6.005E-02	5.245E-02	3.064E-02	NOT IDENT.
TE-123M	4.224E-03	3.381E-02	2.999E-02	1.725E-02	NOT IDENT.
SB-124	-1.095E-02	8.152E-02	6.580E-02	4.159E-02	NOT IDENT.
SB-125	-1.446E-02	1.127E-01	9.315E-02	5.750E-02	FAIL ABUN
TE-125M	8.446E+00	1.346E+01	1.033E+01	6.868E+00	NOT IDENT.
I-126	-1.290E-02	2.487E-01	2.120E-01	1.269E-01	NOT IDENT.
SB-126	-2.914E-02	1.873E-01	1.426E-01	9.556E-02	NOT IDENT.
SB-127	-6.680E-01	1.100E+00	8.907E-01	5.610E-01	NOT IDENT.
I-131	3.138E-02	1.133E-01	9.725E-02	5.783E-02	NOT IDENT.
TE-132	-1.611E-01	5.553E-01	4.746E-01	2.833E-01	NOT IDENT.
BA-133	-1.409E-02	5.613E-02	4.051E-02	2.864E-02	NOT IDENT.
I-133	-5.372E+02	1.318E+03	0.000E+00	6.723E+02	SHORT HLIF
CS-134	1.608E-01	7.825E-02	6.156E-02	3.993E-02	FAIL ABUN
CS-135	2.159E-01	2.263E-01	1.802E-01	1.155E-01	NOT IDENT.
I-135	-3.295E+13	3.531E+13	0.000E+00	1.802E+13	SHORT HLIF
CS-136	-6.827E-02	1.282E-01	1.002E-01	6.543E-02	NOT IDENT.
BA-137M	-4.097E-02	4.524E-02	3.598E-02	2.308E-02	NOT IDENT.
CS-137	-4.328E-02	4.779E-02	3.801E-02	2.438E-02	NOT IDENT.
CE-139	1.070E-02	3.664E-02	3.260E-02	1.869E-02	NOT IDENT.
BA-140	7.998E-02	2.924E-01	2.575E-01	1.492E-01	NOT IDENT.
LA-140	9.548E-02	9.436E-02	8.359E-02	4.814E-02	FAIL ABUN
CE-141	4.033E-02	7.523E-02	6.698E-02	3.838E-02	NOT IDENT.
CE-143	1.288E+02	7.434E+01	0.000E+00	3.793E+01	SHORT HLIF
CE-144	9.810E-02	2.882E-01	2.156E-01	1.470E-01	NOT IDENT.
PM-144	-1.104E-02	4.407E-02	3.688E-02	2.248E-02	NOT IDENT.
PR-144	-8.198E-01	3.295E+00	2.758E+00	1.681E+00	NOT IDENT.
PM-146	4.235E-02	5.378E-02	4.698E-02	2.744E-02	NOT IDENT.
ND-147	1.606E-01	5.977E-01	5.284E-01	3.049E-01	FAIL ABUN
PM-149	-1.904E+01	6.128E+01	5.157E+01	3.126E+01	NOT IDENT.
EU-152	1.143E-02	1.417E-01	1.056E-01	7.228E-02	FAIL ABUN
GD-153	-3.138E-04	1.174E-01	8.780E-02	5.989E-02	NOT IDENT.
EU-154	-1.194E-01	1.615E-01	1.271E-01	8.239E-02	NOT IDENT.
TB-160	-6.345E-02	1.592E-01	1.278E-01	8.123E-02	FAIL ABUN
HO-166M	7.138E-03	7.588E-02	6.510E-02	3.871E-02	FAIL ABUN
TA-182	2.913E-02	2.405E-01	2.076E-01	1.227E-01	FAIL ABUN
IR-192	-1.263E-03	4.277E-02	3.631E-02	2.182E-02	FAIL ABUN
HG-203	3.819E-02	5.005E-02	4.425E-02	2.554E-02	NOT IDENT.
BI-207	-4.823E-03	6.508E-02	5.331E-02	3.320E-02	FAIL ABUN
PB-210	2.987E+00	5.055E+00	4.437E+00	2.579E+00	NOT IDENT.
PB-211	7.942E-02	1.092E+00	8.034E-01	5.570E-01	NOT IDENT.
BI-212	3.294E+00	1.324E+00	7.820E-01	6.754E-01	FAIL ABUN
RN-219	-2.992E-01	5.529E-01	4.464E-01	2.821E-01	FAIL ABUN
RA-223	5.971E-01	8.415E-01	7.141E-01	4.293E-01	FAIL ABUN
AC-227	-3.287E-02	3.129E-01	2.680E-01	1.596E-01	NOT IDENT.
TH-227	-3.287E-02	3.129E-01	2.680E-01	1.596E-01	NOT IDENT.
PA-231	1.716E+00	1.836E+00	1.629E+00	9.369E-01	NOT IDENT.
TH-231	5.971E-01	8.415E-01	7.141E-01	4.293E-01	FAIL ABUN
PA-233	1.112E-03	8.141E-02	6.934E-02	4.154E-02	NOT IDENT.
PA-234	7.313E-02	3.720E-01	3.159E-01	1.898E-01	NOT IDENT.
PA-234M	2.139E+00	6.291E+00	5.493E+00	3.210E+00	NOT IDENT.
NP-239	-4.026E-01	5.235E-01	4.214E-01	2.671E-01	FAIL ABUN
AM-241	7.168E-02	2.297E-01	1.787E-01	1.172E-01	NOT IDENT.
CM-247	1.007E-02	4.958E-02	4.203E-02	2.529E-02	NOT IDENT.

CF-249	5.015E-03	5.009E-02	4.232E-02	2.556E-02	NOT IDENT.
CF-251	-1.518E-01	1.661E-01	1.405E-01	8.473E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	290.7350
49.72	349.3412
57.36	0.0000
59.54	359.1706
63.29	384.8551
63.29	384.8551
64.28	385.5239
67.75	413.9293
69.67	493.8288
70.83	494.7734
72.81	464.1416
72.87	464.1855
72.87	464.1855
74.82	474.2609
74.82	474.2609
74.82	474.2609
74.97	474.3728
77.11	475.9729
77.11	475.9729
77.11	475.9729
79.69	408.3641
79.80	351.9476
80.12	352.1190
80.19	352.1569
80.57	427.3991
81.00	352.5886
81.07	352.6265
81.07	352.6265
83.79	460.6104
83.79	460.6104
85.43	491.3019
86.48	492.0547
86.55	492.1027
86.79	492.2737
86.94	492.3810
87.57	454.9203
88.03	455.2214
88.47	455.5078
89.96	456.4764
91.11	354.5093
92.59	355.2424
92.59	355.2424
93.35	355.6180
94.67	356.2645
94.87	356.3625
94.87	356.3625
95.86	370.1841
97.43	349.2481
98.44	284.4639
99.53	304.9866
100.11	339.4329
103.18	267.7242
103.37	267.7909
105.31	315.1752
106.12	326.2073
109.28	327.5119
111.00	325.3814
111.76	347.2476
116.30	342.3294
117.23	364.4159
121.12	332.8182
121.78	345.7096
122.06	345.8221
123.07	345.0790
131.20	323.9050
133.52	326.4825
136.00	351.8788

136.47	343.3021
140.51	363.2687
140.51	0.0000
143.76	327.4499
144.24	304.6545
144.24	304.6545
145.44	318.2986
152.43	324.1514
153.25	308.3780
154.21	281.9124
154.21	281.9124
156.02	357.4951
158.56	327.0358
159.00	306.5611
162.66	335.5441
163.33	326.7615
165.86	314.0209
176.60	319.9281
177.52	346.6537
181.07	310.4330
184.41	309.3452
185.72	309.7051
193.51	276.6626
197.04	295.1336
205.31	285.6070
210.85	249.3566
215.65	266.7246
222.11	235.8881
227.38	231.1533
228.16	240.8106
228.18	240.8144
235.69	269.5795
235.96	260.4432
235.96	260.4432
238.63	246.5747
238.63	246.5747
240.99	247.0100
242.00	247.1962
244.70	203.5494
252.40	190.9324
252.80	205.5303
256.23	206.0357
256.23	206.0357
260.90	206.7207
264.66	198.8873
268.22	197.5887
269.46	213.4529
269.46	213.4529
271.23	213.1226
273.65	259.7139
276.40	181.3496
277.37	164.3753
277.60	179.2438
278.00	187.4661
279.20	210.3316
279.54	227.1713
280.46	244.1130
283.69	169.3666
284.31	186.2788
285.41	196.3323
285.90	205.3228
287.50	212.4914
293.27	0.0000
295.22	203.5860
295.96	203.6825
298.57	177.6244
299.98	142.5477
299.98	142.5477
300.09	131.3461
300.09	131.3461
300.13	131.3481
301.36	152.2922
302.85	207.5938
304.50	218.8549
304.50	218.8549
304.85	190.7886
308.46	176.1269
311.90	164.4028

316.51	160.8293
319.41	162.1289
320.08	163.2085
323.87	150.9586
323.87	150.9586
328.76	172.2234
333.37	171.6786
334.37	173.8235
334.37	173.8235
338.28	155.7805
338.28	155.7805
338.32	155.7828
338.32	155.7828
338.32	155.7828
340.48	146.1308
340.55	159.2709
344.28	153.0368
351.06	148.6824
351.93	138.4267
356.01	127.5651
364.49	112.3638
366.42	114.5671
383.85	134.5957
388.16	125.4207
388.63	124.3991
391.69	135.1602
400.66	149.5952
401.81	153.9297
402.40	135.9258
404.85	139.5021
410.95	123.7279
414.70	99.1735
423.72	118.0936
427.09	122.5949
427.87	110.8080
433.94	84.1664
453.88	95.8821
463.37	101.7883
468.07	91.2628
473.00	101.1486
476.78	110.1364
477.60	107.9741
487.02	84.0980
492.35	110.9222
497.08	100.0429
511.00	80.5303
514.00	82.4277
527.90	73.9121
529.87	0.0000
531.02	85.7435
537.26	86.8781
546.56	0.0000
563.25	90.5671
569.33	96.2944
569.50	90.7991
569.70	90.8064
583.19	85.7662
600.60	89.1445
602.73	86.2964
604.72	75.9564
609.32	86.6517
609.32	86.6517
609.32	86.6517
610.33	86.6857
614.28	84.0168
618.01	86.9423
621.93	77.7092
621.93	77.7092
633.25	78.0415
635.95	68.7084
636.99	79.0925
645.85	78.4103
657.76	80.6525
661.66	95.0195
661.66	95.0195
664.57	0.0000
666.33	83.7590
666.50	81.8596

677.62	77.4088
685.70	78.5907
695.00	81.7336
696.49	87.5475
696.51	87.5497
697.00	97.1854
702.65	73.2743
706.68	95.5824
711.68	73.5044
720.70	85.9268
721.93	0.0000
722.78	77.6680
722.91	77.6699
723.31	79.3000
724.19	77.7051
727.33	64.1744
733.00	63.3242
735.93	69.8872
739.50	57.6042
747.24	54.8160
752.31	77.4609
753.82	59.8414
756.73	69.7173
763.94	120.0789
765.81	109.3198
766.42	84.7150
777.92	84.0433
778.90	76.1559
783.70	71.3215
785.37	57.4846
795.86	72.9233
801.95	79.7070
810.29	69.9265
810.76	72.9341
815.77	52.0343
818.51	60.0908
832.01	68.3868
834.85	67.4384
836.80	0.0000
846.77	62.6327
856.80	60.7954
860.56	32.1228
871.09	52.9141
873.19	56.0017
875.33	0.0000
879.36	51.0034
880.51	57.1430
883.24	50.0408
884.68	43.9312
889.28	60.3583
898.04	65.6406
911.20	68.9776
911.20	68.9776
911.20	68.9776
926.50	37.2243
937.49	60.1580
944.13	56.1133
946.00	48.8646
949.00	43.7032
962.29	50.4774
964.08	59.2095
966.15	47.0457
968.97	47.0819
968.97	47.0819
968.97	47.0819
983.53	54.6216
996.26	55.8622
1001.03	51.7120
1004.73	54.9326
1037.84	51.1477
1038.76	0.0000
1048.07	60.8993
1050.41	48.1069
1050.41	48.1069
1063.66	48.2695
1085.87	58.2504
1099.45	47.6244
1112.07	53.0807

1115.54	61.5780
1120.29	51.1309
1120.29	51.1309
1120.29	51.1309
1120.55	51.1354
1121.30	51.1446
1131.51	0.0000
1173.23	64.2721
1177.93	74.4543
1189.05	62.6681
1204.77	56.4205
1221.41	59.4219
1231.02	66.9961
1235.36	57.4830
1238.28	62.3140
1260.41	0.0000
1271.85	48.8304
1274.44	56.3770
1274.54	54.4977
1291.59	43.3852
1298.22	0.0000
1312.11	29.3678
1332.49	39.9629
1365.19	29.7008
1368.63	0.0000
1384.29	22.1240
1408.01	24.1659
1457.56	0.0000
1460.82	21.4933
1489.16	27.5078
1505.03	26.6078
1596.21	10.3125
1620.50	17.1204
1678.03	0.0000
1690.97	11.2189
1764.49	10.6251
1764.49	10.6251
1764.49	10.6251
1770.23	10.6356
1771.35	8.8647
1791.20	0.0000
1836.06	9.4094

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202071015

Total Uranium Activity	1.1568E+01	ug/g
Total Uranium Counting Unc.	9.2420E+00	ug/g
Total Uranium Tpu	4.7153E-06	ug/g
Total Uranium Mda	4.2703E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G1202071015      *
*   ANALYST       : MXR1                      DETECTOR   : GAM01            *
*   SAMPLE DATE   : 11-MAR-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 11:24:08.41    SAMPLE ALQT:  120.310 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.356E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.899E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 5.468E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.661E+00
```

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 12:07:25.39

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071016.CNF;1
Sample date       : 17-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 11:06:54
Sample ID         : G1202071016          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.40  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 965250                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.59	1680	508	1.03	119.20	114	9	4.67E-01	3.4	
2	2	74.82	120	269	0.86	149.68	146	13	3.34E-02	22.2	1.56E+00
3	2	77.16*	214	330	0.99	154.37	146	13	5.94E-02	15.0	
4	0	88.02	1296	547	0.97	176.09	171	11	3.60E-01	4.5	
5	0	122.14*	178	254	0.95	244.33	241	8	4.95E-02	17.2	
6	0	185.83*	91	259	1.27	371.71	368	8	2.51E-02	32.8	
7	5	238.73*	621	172	1.08	477.53	473	15	1.73E-01	5.2	1.38E+00
8	5	241.47*	151	280	1.86	483.02	473	15	4.18E-02	28.4	
9	0	295.39*	126	206	0.97	590.86	587	9	3.50E-02	22.5	
10	0	338.42*	99	183	1.39	676.93	673	9	2.74E-02	26.7	
11	0	352.05*	282	210	1.08	704.19	699	11	7.84E-02	11.6	
12	0	463.43	66	166	1.38	926.94	923	9	1.83E-02	37.3	
13	0	511.05*	94	199	2.16	1022.20	1015	18	2.62E-02	37.7	
14	0	583.35	159	129	1.47	1166.81	1163	10	4.43E-02	15.4	
15	0	609.91*	167	165	1.60	1219.91	1212	16	4.64E-02	19.1	
16	0	662.00*	2143	123	1.46	1324.09	1317	14	5.95E-01	2.4	
17	0	911.33*	90	152	1.26	1822.71	1818	13	2.51E-02	30.0	
18	0	969.44*	101	83	2.80	1938.93	1934	11	2.81E-02	20.2	
19	0	1173.78	1693	70	1.91	2347.56	2338	20	4.70E-01	2.7	
20	0	1333.21	1511	33	2.00	2666.36	2657	19	4.20E-01	2.7	
21	0	1765.38*	37	6	1.95	3530.48	3525	11	1.04E-02	21.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-MAR-2010 12:07:27

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071016.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 17-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 11:06:54
Sample ID : G1202071016 Sample quantity : 151.73 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA4 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.40 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	+	122.06	*	1.617E-01	5.687E-02	6.310E-02	4.380E-03	2.563
		136.47		-1.718E-01	3.185E-01	5.069E-01	3.764E-02	-0.339
CO-60	+	1173.23		6.472E+00	5.214E-01	1.200E-01	7.140E-03	53.910
	+	1332.49	*	6.474E+00	5.672E-01	9.280E-02	6.359E-03	69.763
CD-109	+	88.03	*	3.447E+01	5.161E+00	2.083E+00	2.503E-01	16.551
SN-126		64.28		-4.913E-01	1.022E+00	1.682E+00	2.898E-01	-0.292
	+	86.94		1.417E+01	6.112E+00	8.720E-01	3.678E-01	16.249
	+	87.57	*	3.408E+00	5.103E-01	2.075E-01	2.489E-02	16.425
BA-137M	+	661.66	*	5.347E+00	3.681E-01	1.121E-01	5.469E-03	47.681
CS-137	+	661.66	*	5.648E+00	3.901E-01	1.185E-01	5.812E-03	47.681
TL-208		277.37		3.281E-01	6.751E-01	1.163E+00	1.310E-01	0.282
	+	583.19	*	3.783E-01	1.186E-01	1.052E-01	6.600E-03	3.596
		860.56		-2.508E-02	6.753E-01	1.112E+00	9.275E-02	-0.023
BI-211		72.87		-9.937E-01	6.376E+00	9.550E+00	1.095E+00	-0.104
	+	351.06	*	2.983E+00	7.222E-01	5.958E-01	4.026E-02	5.006
PB-212	+	74.82		1.590E+00	7.464E-01	1.070E+00	1.608E-01	1.486
	+	77.11		1.573E+00	5.047E-01	5.975E-01	6.855E-02	2.633
	+	238.63	*	1.461E+00	1.931E-01	1.607E-01	1.300E-02	9.095
		300.09		1.912E+00	1.559E+00	2.485E+00	2.220E-01	0.769
BI-214	+	609.32	*	7.681E-01	2.987E-01	2.061E-01	1.528E-02	3.727
		1120.29		1.213E+00	6.676E-01	1.218E+00	1.142E-01	0.996
	+	1764.49		1.270E+00	5.388E-01	4.553E-01	2.776E-02	2.789
PB-214	+	74.82		2.818E+00	1.313E+00	1.896E+00	2.642E-01	1.486
	+	77.11		2.773E+00	9.186E-01	1.053E+00	1.488E-01	2.633
	+	242.00		2.147E+00	1.233E+00	9.225E-01	8.149E-02	2.327
	+	295.22		8.188E-01	3.768E-01	4.152E-01	3.848E-02	1.972
	+	351.93	*	1.083E+00	2.688E-01	2.152E-01	1.875E-02	5.031
RA-224	+	240.99	*	3.796E+00	2.169E+00	1.723E+00	1.149E-01	2.204
RA-226	+	609.32	*	7.681E-01	2.987E-01	2.061E-01	1.528E-02	3.727
		1120.29		1.213E+00	6.676E-01	1.218E+00	1.142E-01	0.996
	+	1764.49		1.270E+00	5.388E-01	4.553E-01	2.776E-02	2.789
AC-228	+	338.32		1.161E+00	7.841E-01	6.861E-01	2.833E-01	1.692
	+	911.20	*	1.049E+00	6.407E-01	6.037E-01	6.799E-02	1.737
	+	968.97		2.034E+00	9.557E-01	1.020E+00	2.457E-01	1.995

Sample ID : G1202071016 Acquisition date : 24-MAR-2010 11:06:54

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	+	338.32		1.161E+00	7.841E-01	6.861E-01	2.833E-01	1.692
	+	911.20	*	1.049E+00	6.407E-01	6.037E-01	6.799E-02	1.737
	+	968.97		2.034E+00	9.557E-01	1.020E+00	2.457E-01	1.995
TH-228	+	74.82		1.590E+00	7.304E-01	1.070E+00	1.232E-01	1.486
	+	77.11		1.573E+00	5.047E-01	5.975E-01	6.855E-02	2.633
	+	238.63	*	1.461E+00	1.931E-01	1.607E-01	1.300E-02	9.095
		300.09		1.912E+00	1.939E+00	2.485E+00	1.515E+00	0.769
TH-230	+	609.32	*	7.681E-01	2.959E-01	2.061E-01	1.073E-02	3.727
		1120.29		1.213E+00	6.626E-01	1.218E+00	7.980E-02	0.996
	+	1764.49		1.270E+00	5.388E-01	4.553E-01	2.776E-02	2.789
TH-232	+	338.32		1.161E+00	6.247E-01	6.861E-01	4.313E-02	1.692
	+	911.20	*	1.049E+00	6.407E-01	6.037E-01	6.799E-02	1.737
	+	968.97		2.034E+00	9.557E-01	1.020E+00	2.457E-01	1.995
AM-241	+	59.54	*	1.470E+01	2.111E+00	7.125E-01	8.995E-02	20.638
ANH-511	+	511.00	*	1.709E-01	1.292E-01	8.778E-02	4.909E-03	1.947

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.60	*	-1.682E-01	6.198E-01	9.936E-01	6.578E-02	-0.169
NA-22		1274.54	*	7.400E-03	5.193E-02	8.871E-02	5.800E-03	0.083
NA-24		1368.63	*	1.209E-04	5.193E-02	Half-Life too short		
K-40		1460.82	*	9.781E-01	6.465E-01	1.258E+00	8.939E-02	0.778
SC-46		889.28	*	-6.434E-03	8.597E-02	1.410E-01	1.140E-02	-0.046
		1120.55		1.657E-01	1.068E-01	1.930E-01	1.264E-02	0.859
V-48		944.13		1.501E+00	1.661E+00	2.881E+00	2.303E-01	0.521
		983.53	*	1.516E-02	1.237E-01	2.038E-01	1.579E-02	0.074
		1312.11		-5.109E-02	5.850E-02	7.955E-02	5.360E-03	-0.642
CR-51		320.08	*	-2.852E-02	5.499E-01	9.179E-01	6.455E-02	-0.031
MN-54		834.85	*	-2.639E-02	7.709E-02	1.244E-01	9.003E-03	-0.212
CO-56		846.77	*	-7.737E-03	7.969E-02	1.308E-01	9.703E-03	-0.059
		1037.84		-1.404E-01	6.618E-01	1.058E+00	8.313E-02	-0.133
		1238.28		7.778E-02	9.918E-02	1.810E-01	1.205E-02	0.430
		1771.35		-7.524E-01	5.177E-01	6.368E-01	3.866E-02	-1.182
CO-58		810.76	*	3.654E-02	7.871E-02	1.347E-01	9.300E-03	0.271
FE-59		1099.45	*	1.244E-01	1.970E-01	3.336E-01	2.548E-02	0.373
		1291.59		2.637E-02	1.547E-01	2.643E-01	2.136E-02	0.100
ZN-65		1115.54	*	-2.488E-01	2.058E-01	2.993E-01	1.980E-02	-0.831
SE-75	+	121.12		8.245E-01	2.956E-01	4.005E-01	3.959E-02	2.059
		136.00		-3.188E-02	5.959E-02	9.488E-02	6.361E-03	-0.336
		264.66	*	2.231E-02	7.276E-02	1.249E-01	8.404E-03	0.179
		279.54		1.133E-01	1.839E-01	3.188E-01	2.253E-02	0.355
		400.66		3.061E-01	4.874E-01	8.304E-01	7.449E-02	0.369
SR-85		514.00	*	6.609E-02	6.579E-02	1.134E-01	6.333E-03	0.583
Y-88		898.04		-1.328E-04	9.702E-02	1.596E-01	1.321E-02	-0.001
		1836.06	*	2.451E-02	4.363E-02	8.076E-02	4.712E-03	0.303
Y-91		1204.77	*	-3.416E+00	2.771E+01	4.378E+01	2.683E+00	-0.078
NB-94		702.65	*	2.038E-02	6.177E-02	1.059E-01	5.706E-03	0.192

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		871.09		-4.229E-02	7.789E-02	1.232E-01	9.605E-03	-0.343
NB-95		765.81	*	4.872E-03	7.299E-02	1.222E-01	7.613E-03	0.040
NB-95M		235.69	*	8.219E-02	2.174E-01	3.140E-01	2.584E-02	0.262
ZR-95		724.19		-1.760E-01	1.635E-01	2.519E-01	1.694E-02	-0.698
		756.73	*	-1.846E-02	1.322E-01	2.182E-01	1.598E-02	-0.085
MO-99		140.51		8.336E-01	4.736E+00	7.783E+00	1.796E+00	0.107
		181.07		-3.651E-01	4.305E+00	6.565E+00	1.174E+00	-0.056
		366.42		-2.074E+01	2.734E+01	4.339E+01	2.593E+00	-0.478
		739.50	*	9.348E-01	3.518E+00	5.982E+00	8.637E-01	0.156
		777.92		-6.479E+00	1.012E+01	1.598E+01	1.023E+00	-0.406
TC-99M		140.51	*	6.135E+00	1.012E+01	Half-Life too short		
RU-103		497.08	*	-1.165E-02	6.871E-02	1.104E-01	1.363E-02	-0.106
	+	610.33		6.923E+00	2.835E+00	3.178E+00	4.713E-01	2.178
RH-106		621.93	*	1.469E-01	5.534E-01	9.047E-01	1.023E-01	0.162
		1050.41		-3.703E+00	5.927E+00	9.134E+00	6.603E-01	-0.405
RU-106		621.93	*	1.469E-01	5.532E-01	9.047E-01	4.648E-02	0.162
		1050.41		-3.703E+00	5.927E+00	9.134E+00	6.603E-01	-0.405
AG-108M		433.94	*	1.888E-02	5.859E-02	9.800E-02	5.965E-03	0.193
		614.28		-3.091E-02	7.162E-02	9.476E-02	5.344E-03	-0.326
		722.91		-7.786E-02	7.235E-02	1.114E-01	6.758E-03	-0.699
AG-110M		657.76	*	-2.212E-02	7.786E-02	1.112E-01	5.940E-03	-0.199
		677.62		-5.801E-03	5.485E-01	9.209E-01	5.049E-02	-0.006
		706.68		2.166E-02	4.171E-01	7.011E-01	4.083E-02	0.031
		763.94		-1.630E-01	2.950E-01	4.707E-01	3.074E-02	-0.346
		884.68		-1.039E-02	1.148E-01	1.879E-01	1.562E-02	-0.055
		937.49		-2.728E-01	2.833E-01	4.326E-01	3.619E-02	-0.630
		1384.29		4.555E-02	2.177E-01	3.736E-01	2.666E-02	0.122
		1505.03		-1.040E-01	4.015E-01	6.321E-01	4.266E-02	-0.165
SN-113		391.69	*	-1.880E-02	7.818E-02	1.273E-01	7.670E-03	-0.148
CD-115		260.90		4.316E-02	2.236E+01	3.788E+01	2.529E+00	0.001
		492.35		8.054E-01	7.215E+00	1.182E+01	6.656E-01	0.068
		527.90	*	1.012E+00	1.980E+00	3.324E+00	1.844E-01	0.304
SN-117M		156.02		1.237E+00	2.219E+00	3.703E+00	2.376E-01	0.334
		158.56	*	4.156E-02	5.669E-02	9.519E-02	6.089E-03	0.437
TE-123M		159.00	*	3.120E-02	4.148E-02	6.971E-02	4.506E-03	0.448
SB-124		602.73		-7.445E-02	7.760E-02	9.604E-02	5.039E-03	-0.775
		645.85		1.698E-01	8.777E-01	1.499E+00	8.695E-02	0.113
		722.78		-4.905E-01	6.484E-01	1.024E+00	6.090E-02	-0.479
		1690.97	*	-9.782E-02	1.162E-01	1.531E-01	1.045E-02	-0.639
SB-125		427.87	*	1.831E-01	1.830E-01	3.171E-01	1.875E-02	0.577
	+	463.37		1.056E+00	7.907E-01	1.099E+00	7.267E-02	0.961
		600.60		-7.751E-02	3.186E-01	5.005E-01	3.127E-02	-0.155
		635.95		-1.427E-01	5.046E-01	7.856E-01	4.847E-02	-0.182
TE-125M		109.28	*	-3.113E-01	1.343E+01	2.217E+01	2.232E+00	-0.014
I-126		388.63		1.097E-01	2.017E-01	3.439E-01	1.951E-02	0.319
		666.33	*	-3.525E-01	3.227E-01	4.197E-01	2.070E-02	-0.840
		753.82		1.960E+00	2.247E+00	3.982E+00	2.416E-01	0.492
SB-126		414.70		-1.406E-02	9.314E-02	1.519E-01	8.597E-03	-0.093
		666.50		-1.373E-01	1.100E-01	1.405E-01	6.936E-03	-0.977

---- Non-Identified Nuclides ----

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		695.00		7.743E-02	9.141E-02	1.623E-01	8.583E-03	0.477
		697.00		-2.750E-01	2.995E-01	4.653E-01	2.473E-02	-0.591
		720.70	*	1.151E-02	1.757E-01	2.953E-01	1.660E-02	0.039
		856.80		-3.104E-01	7.008E-01	1.121E+00	8.490E-02	-0.277
SB-127		252.40		4.130E-01	1.881E+00	3.211E+00	1.307E+00	0.129
		473.00		3.463E-01	8.826E-01	1.472E+00	1.339E-01	0.235
		685.70	*	1.306E-02	6.225E-01	1.047E+00	6.921E-02	0.012
		783.70		1.286E+00	1.737E+00	3.034E+00	2.753E-01	0.424
I-131		80.19		-1.196E+00	4.522E+00	6.701E+00	7.750E-01	-0.178
		284.31		-8.913E-01	1.288E+00	2.091E+00	1.494E-01	-0.426
		364.49	*	3.224E-02	1.118E-01	1.886E-01	1.245E-02	0.171
		636.99		-9.455E-02	1.548E+00	2.459E+00	1.423E-01	-0.038
TE-132		49.72		9.764E+00	1.400E+01	2.439E+01	3.118E+00	0.400
		111.76		1.315E+00	9.703E+00	1.611E+01	1.379E+00	0.082
		116.30		-5.644E-01	8.446E+00	1.387E+01	1.131E+00	-0.041
		228.16	*	3.843E-02	2.436E-01	3.901E-01	5.300E-02	0.099
BA-133		81.00		-1.941E-02	1.769E-01	2.642E-01	4.582E-02	-0.073
		276.40		1.526E-01	6.156E-01	1.051E+00	1.366E-01	0.145
		302.85		-2.122E-01	2.487E-01	3.975E-01	4.693E-02	-0.534
		356.01	*	2.772E-02	8.484E-02	1.272E-01	1.454E-02	0.218
		383.85		-2.455E-01	5.208E-01	8.354E-01	8.882E-02	-0.294
I-133		529.87	*	-1.262E-06	5.208E-01	Half-Life too short		
		875.33		9.765E-05	5.208E-01	Half-Life too short		
		1298.22		1.502E-04	5.208E-01	Half-Life too short		
CS-134		563.25		3.607E-04	6.708E-01	1.080E+00	6.005E-02	0.000
		569.33		1.698E-01	3.632E-01	6.053E-01	3.383E-02	0.281
		604.72		2.316E-02	6.867E-02	9.884E-02	5.209E-03	0.234
		795.86	*	7.273E-03	9.294E-02	1.552E-01	1.046E-02	0.047
		801.95		3.809E-01	8.058E-01	1.383E+00	9.415E-02	0.276
		1365.19		8.715E-01	1.443E+00	2.662E+00	1.956E-01	0.327
CS-135		268.22	*	-1.343E-01	2.677E-01	4.417E-01	3.682E-02	-0.304
I-135		546.56		2.819E+01	2.677E-01	Half-Life too short		
		836.80		5.619E+01	2.677E-01	Half-Life too short		
		1038.76		1.519E+02	2.677E-01	Half-Life too short		
		1131.51		-3.138E+01	2.677E-01	Half-Life too short		
		1260.41	*	2.058E+00	2.677E-01	Half-Life too short		
		1457.56		-5.637E+01	2.677E-01	Half-Life too short		
		1678.03		-4.597E+01	2.677E-01	Half-Life too short		
		1791.20		-1.425E+01	2.677E-01	Half-Life too short		
CS-136		153.25		3.304E-01	8.236E-01	1.365E+00	1.162E-01	0.242
		176.60		9.627E-02	5.475E-01	8.904E-01	6.722E-02	0.108
		273.65		-4.878E-01	5.828E-01	9.434E-01	7.146E-02	-0.517
		340.55		1.478E-01	1.978E-01	3.049E-01	2.043E-02	0.485
		818.51		8.207E-02	1.156E-01	2.003E-01	1.401E-02	0.410
		1048.07	*	1.434E-02	1.576E-01	2.581E-01	1.980E-02	0.056
		1235.36		-9.747E-02	4.534E-01	7.404E-01	7.542E-02	-0.132
CE-139		165.86	*	3.763E-02	4.627E-02	7.768E-02	4.936E-03	0.484
BA-140		162.66		-1.239E+00	8.516E-01	1.270E+00	9.061E-02	-0.976
		304.85		-1.413E+00	1.616E+00	2.504E+00	7.192E-01	-0.564

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		423.72		-3.905E+00	2.973E+00	4.054E+00	1.307E+00	-0.963
		537.26	*	-7.288E-02	3.430E-01	5.445E-01	1.811E-01	-0.134
LA-140		328.76		-1.471E-01	3.474E-01	5.673E-01	3.985E-02	-0.259
		487.02		-2.011E-01	1.800E-01	2.696E-01	1.732E-02	-0.746
		815.77		-3.113E-01	4.899E-01	7.747E-01	6.330E-02	-0.402
		1596.21	*	5.184E-02	8.594E-02	1.556E-01	1.025E-02	0.333
CE-141		145.44	*	2.802E-02	7.510E-02	1.247E-01	8.369E-03	0.225
CE-143		57.36		8.444E+01	8.556E+01	1.350E+02	1.804E+01	0.625
		293.27	*	3.971E+00	5.165E+00	7.964E+00	1.620E+00	0.499
		664.57		1.168E+03	3.526E+02	2.200E+02	6.360E+01	5.308
		721.93		-3.257E+01	5.173E+01	8.132E+01	2.193E+01	-0.400
CE-144		80.12		-1.280E+00	4.656E+00	6.896E+00	7.967E-01	-0.186
		133.52	*	-4.445E-02	2.972E-01	4.827E-01	6.891E-02	-0.092
PM-144		476.78		5.463E-02	1.362E-01	2.273E-01	1.530E-02	0.240
		618.01		-3.458E-02	5.748E-02	8.708E-02	4.833E-03	-0.397
		696.49	*	-1.291E-04	5.896E-02	9.886E-02	5.249E-03	-0.001
PR-144		696.51	*	-4.030E-01	4.414E+00	7.352E+00	3.903E-01	-0.055
		1489.16		-1.602E+00	1.805E+01	2.933E+01	1.985E+00	-0.055
PM-146		453.88	*	4.870E-02	8.947E-02	1.508E-01	1.262E-02	0.323
		633.25		1.659E+00	2.809E+00	4.587E+00	1.722E+00	0.362
		735.93		1.366E-01	2.824E-01	4.841E-01	1.321E-01	0.282
		747.24		4.135E-03	1.759E-01	2.941E-01	3.881E-02	0.014
ND-147		91.11		-3.943E-02	2.760E-01	4.089E-01	4.797E-02	-0.096
		319.41		6.796E-01	3.653E+00	6.175E+00	3.980E-01	0.110
		531.02	*	-1.359E-02	6.533E-01	1.055E+00	1.415E-01	-0.013
PM-149		285.90	*	-8.682E+00	1.416E+01	2.301E+01	3.339E+00	-0.377
EU-152	+	121.78		4.742E-01	1.683E-01	2.376E-01	2.019E-02	1.996
		244.70		-4.403E-02	6.219E-01	8.684E-01	5.794E-02	-0.051
		344.28	*	-1.612E-01	1.810E-01	2.749E-01	1.901E-02	-0.587
		778.90		-5.047E-01	5.026E-01	7.678E-01	4.926E-02	-0.657
		964.08		4.908E-01	7.742E-01	1.158E+00	9.120E-02	0.424
		1085.87		-2.464E-01	9.461E-01	1.501E+00	1.037E-01	-0.164
		1112.07		4.512E-01	7.115E-01	1.206E+00	8.007E-02	0.374
		1408.01		-1.276E-01	2.466E-01	3.723E-01	2.547E-02	-0.343
GD-153		69.67		-4.496E-01	3.286E+00	5.502E+00	6.353E-01	-0.082
		97.43	*	-7.915E-02	1.265E-01	2.035E-01	1.997E-02	-0.389
		103.18		-1.001E-01	1.709E-01	2.751E-01	2.448E-02	-0.364
EU-154	+	123.07		3.351E-01	1.204E-01	1.675E-01	1.693E-02	2.001
		723.31		-3.554E-01	3.274E-01	5.035E-01	3.482E-02	-0.706
		873.19		1.688E-01	6.510E-01	1.093E+00	1.239E-01	0.154
		996.26		-1.268E-01	8.559E-01	1.381E+00	2.349E-01	-0.092
		1004.73		-4.056E-02	5.051E-01	8.187E-01	8.923E-02	-0.050
		1274.44	*	1.186E-02	1.496E-01	2.532E-01	2.504E-02	0.047
EU-155	+	86.55		4.120E+00	6.190E-01	4.483E-01	5.370E-02	9.190
		105.31	*	7.645E-02	1.594E-01	2.695E-01	2.348E-02	0.284
TB-160	+	86.79		1.019E+01	1.525E+00	1.271E+00	1.516E-01	8.018
		197.04		-2.788E-01	8.607E-01	1.360E+00	8.848E-02	-0.205
		215.65		-1.016E+00	1.240E+00	1.890E+00	1.247E-01	-0.537
		298.57		3.195E-02	2.078E-01	3.111E-01	2.045E-02	0.103

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		879.36	*	6.932E-02	3.232E-01	5.402E-01	4.284E-02	0.128
		962.29		1.566E-01	1.271E+00	1.978E+00	1.560E-01	0.079
		966.15		-3.047E-01	5.401E-01	7.242E-01	5.693E-02	-0.421
		1177.93		1.356E+00	8.011E-01	1.326E+00	7.923E-02	1.022
		1271.85		4.705E-01	8.117E-01	1.467E+00	9.549E-02	0.321
HO-166M		80.57		-1.335E-01	5.163E-01	7.653E-01	8.855E-02	-0.174
	+	184.41		1.092E-01	7.190E-02	9.154E-02	5.896E-03	1.193
		280.46		4.602E-02	1.463E-01	2.505E-01	1.664E-02	0.184
		410.95		-9.617E-02	4.673E-01	7.604E-01	4.300E-02	-0.126
		711.68	*	-1.045E-01	1.132E-01	1.762E-01	9.699E-03	-0.593
		752.31		-2.643E-02	5.186E-01	8.615E-01	5.209E-02	-0.031
		810.29		5.803E-02	1.277E-01	2.184E-01	1.500E-02	0.266
TA-182		67.75		-2.917E-02	2.109E-01	3.535E-01	4.112E-02	-0.083
		100.11		1.196E-01	2.571E-01	4.353E-01	4.074E-02	0.275
		152.43		-2.490E-01	4.891E-01	7.736E-01	4.983E-02	-0.322
		222.11		2.804E-01	5.842E-01	9.523E-01	6.303E-02	0.294
		1121.30		4.620E-01	3.008E-01	5.430E-01	3.552E-02	0.851
		1189.05		1.484E-01	4.852E-01	8.062E-01	4.868E-02	0.184
		1221.41	*	-1.295E-01	2.341E-01	3.658E-01	2.277E-02	-0.354
		1231.02		-1.891E-01	5.391E-01	8.641E-01	5.425E-02	-0.219
IR-192	+	295.96		5.634E-01	2.567E-01	3.616E-01	2.411E-02	1.558
		308.46		1.344E-01	1.638E-01	2.855E-01	1.878E-02	0.471
		316.51	*	-2.074E-02	5.701E-02	9.359E-02	6.076E-03	-0.222
		468.07		1.805E-01	1.515E-01	2.363E-01	1.554E-02	0.764
HG-203		70.83		1.702E+00	2.502E+00	3.890E+00	6.916E-01	0.438
		72.87		-2.207E-01	1.416E+00	2.121E+00	3.665E-01	-0.104
		279.20	*	4.835E-02	6.044E-02	1.056E-01	7.317E-03	0.458
BI-207		72.81		-6.308E-02	3.672E-01	5.496E-01	6.302E-02	-0.115
	+	74.97		4.581E-01	2.103E-01	3.571E-01	4.089E-02	1.283
		569.70		2.197E-02	5.677E-02	9.406E-02	5.080E-03	0.234
		1063.66	*	-8.138E-02	1.128E-01	1.710E-01	1.216E-02	-0.476
		1770.23		-3.779E-02	8.873E-01	1.220E+00	7.411E-02	-0.031
PB-210		46.54	*	-6.425E+00	1.537E+01	2.579E+01	2.250E+00	-0.249
PB-211		404.85	*	-1.682E-01	1.432E+00	2.342E+00	1.123E+00	-0.072
		427.09		2.901E+00	3.346E+00	5.318E+00	2.436E+00	0.546
		832.01		-1.645E+00	2.296E+00	3.330E+00	1.720E+00	-0.494
BI-212		727.33	*	1.430E+00	1.015E+00	1.833E+00	1.953E-01	0.780
		785.37		2.589E+00	6.317E+00	1.080E+01	7.030E-01	0.240
		1620.50		1.837E+00	2.833E+00	5.318E+00	3.472E-01	0.346
RN-219		271.23		3.005E-01	3.998E-01	6.976E-01	6.053E-02	0.431
		401.81	*	-3.977E-01	8.303E-01	1.331E+00	1.779E-01	-0.299
RA-223		81.07		-5.131E-02	4.006E-01	5.978E-01	6.929E-02	-0.086
		83.79		1.227E-01	2.294E-01	3.529E-01	4.140E-02	0.348
		94.87		-2.670E-01	6.817E-01	1.113E+00	1.148E-01	-0.240
		144.24		-1.706E-01	9.660E-01	1.555E+00	1.213E-01	-0.110
		154.21		-1.175E-01	5.698E-01	9.156E-01	6.865E-02	-0.128
		269.46		3.488E-01	3.088E-01	5.473E-01	3.770E-02	0.637
		323.87	*	-8.285E-01	1.168E+00	1.868E+00	3.053E-01	-0.444
	+	338.28		4.607E+00	2.509E+00	3.496E+00	3.683E-01	1.318

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227		79.69		-8.733E-01	2.394E+00	3.523E+00	6.645E-01	-0.248
		235.96		1.931E-01	2.793E-01	4.115E-01	3.611E-02	0.469
		256.23	*	-2.929E-01	4.411E-01	7.230E-01	7.771E-02	-0.405
		299.98		2.080E+00	1.720E+00	2.729E+00	3.114E-01	0.762
		304.50		-3.216E+00	2.952E+00	4.609E+00	7.165E-01	-0.698
		334.37		-4.820E-01	3.369E+00	4.894E+00	7.070E-01	-0.098
TH-227		79.80		-1.188E+00	3.154E+00	4.631E+00	1.069E+00	-0.257
		235.96		1.931E-01	2.792E-01	4.115E-01	3.324E-02	0.469
		256.23	*	-2.929E-01	4.415E-01	7.230E-01	9.013E-02	-0.405
		299.98		2.080E+00	1.720E+00	2.729E+00	3.114E-01	0.762
		304.50		-3.216E+00	2.952E+00	4.609E+00	7.165E-01	-0.698
		334.37		-4.820E-01	3.369E+00	4.894E+00	7.070E-01	-0.098
TH-229		85.43		1.177E-01	3.829E-01	5.823E-01	6.891E-02	0.202
	+	88.47		5.255E+00	7.867E-01	7.288E-01	8.663E-02	7.210
		193.51	*	-6.601E-02	8.780E-01	1.403E+00	9.104E-02	-0.047
		210.85		1.100E+00	1.594E+00	2.623E+00	1.724E-01	0.419
PA-231		283.69	*	-5.384E-01	2.402E+00	4.000E+00	5.403E-01	-0.135
		301.36		9.028E-01	1.005E+00	1.704E+00	1.838E-01	0.530
TH-231		81.07		-5.131E-02	4.006E-01	5.978E-01	6.929E-02	-0.086
		83.79		1.227E-01	2.294E-01	3.529E-01	4.140E-02	0.348
		94.87		-2.670E-01	6.817E-01	1.113E+00	1.148E-01	-0.240
		144.24		-1.706E-01	9.660E-01	1.555E+00	1.213E-01	-0.110
		154.21		-1.175E-01	5.698E-01	9.156E-01	6.865E-02	-0.128
		269.46		3.488E-01	3.088E-01	5.473E-01	3.770E-02	0.637
		323.87	*	-8.285E-01	1.168E+00	1.868E+00	3.053E-01	-0.444
	+	338.28		4.607E+00	2.509E+00	3.496E+00	3.683E-01	1.318
PA-233		300.13		9.560E-01	7.829E-01	1.238E+00	1.700E-01	0.772
		311.90	*	1.062E-02	1.142E-01	1.924E-01	1.312E-02	0.055
		340.48		1.117E+00	1.297E+00	1.977E+00	4.613E-01	0.565
PA-234		94.67		-7.223E-02	2.492E-01	4.088E-01	5.586E-02	-0.177
		98.44		-1.065E-01	1.509E-01	2.218E-01	1.241E-01	-0.480
		111.00		2.897E-01	2.832E-01	4.859E-01	5.645E-02	0.596
		131.20		-9.056E-02	1.600E-01	2.547E-01	1.708E-02	-0.356
		569.50		1.543E-01	5.070E-01	8.349E-01	4.510E-02	0.185
		733.00		-4.268E-01	7.536E-01	1.199E+00	2.549E-01	-0.356
		880.51		-5.042E-02	7.100E-01	1.164E+00	9.255E-02	-0.043
		883.24		6.799E-02	6.839E-01	1.132E+00	7.601E-01	0.060
		926.50		-3.144E-02	4.386E-01	7.162E-01	1.798E-01	-0.044
		946.00	*	-7.501E-02	8.077E-01	1.315E+00	2.431E-01	-0.057
		949.00		1.217E-01	1.192E+00	1.966E+00	1.566E-01	0.062
PA-234M		766.42		8.630E+00	2.078E+01	3.490E+01	1.758E+01	0.247
		1001.03	*	1.629E+00	1.079E+01	1.779E+01	1.622E+00	0.092
TH-234		63.29	*	-6.548E-01	3.104E+00	4.673E+00	9.406E-01	-0.140
		92.59		-1.233E-01	1.106E+00	1.661E+00	3.825E-01	-0.074
U-235		89.96		4.371E+00	1.962E+00	2.697E+00	6.945E-01	1.621
		93.35		6.271E-01	7.603E-01	1.245E+00	2.979E-01	0.504
		143.76	*	-1.580E-01	2.887E-01	4.542E-01	7.262E-02	-0.348
		163.33		-5.246E-01	6.801E-01	1.048E+00	1.781E-01	-0.500
	+	185.72		1.374E-01	9.050E-02	1.245E-01	8.030E-03	1.103

Sample ID : G1202071016 Acquisition date : 24-MAR-2010 11:06:54

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		205.31		-1.469E-01	8.133E-01	1.287E+00	2.222E-01	-0.114
NP-237		86.48	*	3.757E+00	1.070E+00	1.054E+00	2.542E-01	3.563
		95.86		-7.173E-01	1.427E+00	2.301E+00	5.653E-01	-0.312
U-238		63.29	*	-6.548E-01	3.104E+00	4.673E+00	9.406E-01	-0.140
		92.59		-1.233E-01	1.105E+00	1.661E+00	1.796E-01	-0.074
NP-239		99.53		1.043E-01	2.485E-01	4.200E-01	3.970E-02	0.248
		103.37		-8.415E-02	1.575E-01	2.542E-01	2.255E-02	-0.331
		106.12		-4.583E-02	1.264E-01	2.054E-01	1.747E-02	-0.223
		117.23	*	-2.467E-01	6.244E-01	1.009E+00	7.402E-02	-0.245
		228.18		6.000E-02	3.803E-01	6.092E-01	4.043E-02	0.098
		277.60		2.591E-01	3.040E-01	5.323E-01	3.541E-02	0.487
CM-247		278.00		1.042E+00	1.298E+00	2.269E+00	1.509E-01	0.459
		287.50		7.301E-01	2.105E+00	3.607E+00	2.388E-01	0.202
		402.40	*	-2.288E-02	7.637E-02	1.239E-01	6.993E-03	-0.185
CF-249		252.80		4.057E-01	1.635E+00	2.805E+00	1.873E-01	0.145
		333.37		-4.734E-02	3.528E-01	5.130E-01	3.248E-02	-0.092
		388.16	*	3.645E-02	7.360E-02	1.252E-01	7.107E-03	0.291
CF-251		177.52	*	9.308E-02	2.112E-01	3.478E-01	2.228E-02	0.268
		227.38		2.711E-01	6.094E-01	9.909E-01	6.575E-02	0.274
		285.41		-2.418E+00	3.676E+00	5.977E+00	3.962E-01	-0.404

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071016    *
* Acquisition date : 24-MAR-2010 11:06:54 Detector SN#    :                *
* Detector ID      : GAM04                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:01.40     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 17-MAR-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202071016          Analyst initials: MXR1            *
* Batch Number     : 965250               Sample Quantity : 1.5173E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-57	1.617E-01	5.573E-02	6.764E-02	0.000E+00
CO-60	6.474E+00	5.558E-01	9.371E-02	0.000E+00
CD-109	3.447E+01	5.058E+00	2.249E+00	0.000E+00
SN-126	3.408E+00	5.001E-01	2.242E-01	0.000E+00
BA-137M	5.347E+00	3.608E-01	1.153E-01	0.000E+00
CS-137	5.648E+00	3.823E-01	1.218E-01	0.000E+00
TL-208	3.783E-01	1.163E-01	1.085E-01	0.000E+00
BI-211	2.983E+00	7.078E-01	6.226E-01	0.000E+00
PB-212	1.461E+00	1.892E-01	1.695E-01	0.000E+00
BI-214	7.681E-01	2.927E-01	2.124E-01	0.000E+00
PB-214	1.083E+00	2.634E-01	2.248E-01	0.000E+00
RA-224	3.796E+00	2.125E+00	1.817E+00	0.000E+00
RA-226	7.681E-01	2.927E-01	2.124E-01	0.000E+00
AC-228	1.049E+00	6.279E-01	6.158E-01	0.000E+00
RA-228	1.049E+00	6.279E-01	6.158E-01	0.000E+00
TH-228	1.461E+00	1.892E-01	1.695E-01	0.000E+00
TH-230	7.681E-01	2.900E-01	2.124E-01	0.000E+00
TH-232	1.049E+00	6.279E-01	6.158E-01	0.000E+00
AM-241	1.470E+01	2.069E+00	7.765E-01	0.000E+00
ANH-511	1.709E-01	1.266E-01	9.087E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-1.682E-01	6.074E-01	1.030E+00	0.000E+00	NOT IDENT.
NA-22	7.400E-03	5.089E-02	8.969E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.610E+02	0.000E+00	0.000E+00	SHORT HLIF
K-40	9.781E-01	6.336E-01	1.267E+00	0.000E+00	NOT IDENT.
SC-46	-6.434E-03	8.425E-02	1.439E-01	0.000E+00	NOT IDENT.
V-48	1.516E-02	1.212E-01	2.075E-01	0.000E+00	NOT IDENT.
CR-51	-2.852E-02	5.389E-01	9.613E-01	0.000E+00	NOT IDENT.

MN-54	-2.639E-02	7.555E-02	1.272E-01	0.000E+00	NOT IDENT.
CO-56	-7.737E-03	7.810E-02	1.336E-01	0.000E+00	NOT IDENT.
CO-58	3.654E-02	7.713E-02	1.378E-01	0.000E+00	NOT IDENT.
FE-59	1.244E-01	1.930E-01	3.386E-01	0.000E+00	NOT IDENT.
ZN-65	-2.488E-01	2.017E-01	3.037E-01	0.000E+00	NOT IDENT.
SE-75	2.231E-02	7.131E-02	1.314E-01	0.000E+00	FAIL ABUN
SR-85	6.609E-02	6.447E-02	1.174E-01	0.000E+00	NOT IDENT.
Y-88	2.451E-02	4.276E-02	8.086E-02	0.000E+00	NOT IDENT.
Y-91	-3.416E+00	2.716E+01	4.433E+01	0.000E+00	NOT IDENT.
NB-94	2.038E-02	6.054E-02	1.088E-01	0.000E+00	NOT IDENT.
NB-95	4.872E-03	7.153E-02	1.252E-01	0.000E+00	NOT IDENT.
NB-95M	8.219E-02	2.130E-01	3.313E-01	0.000E+00	NOT IDENT.
ZR-95	-1.846E-02	1.296E-01	2.236E-01	0.000E+00	NOT IDENT.
MO-99	9.348E-01	3.448E+00	6.134E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.415E+07	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.165E-02	6.733E-02	1.144E-01	0.000E+00	FAIL ABUN
RH-106	1.469E-01	5.423E-01	9.319E-01	0.000E+00	NOT IDENT.
RU-106	1.469E-01	5.421E-01	9.319E-01	0.000E+00	NOT IDENT.
AG-108M	1.888E-02	5.742E-02	1.019E-01	0.000E+00	NOT IDENT.
AG-110M	-2.212E-02	7.630E-02	1.143E-01	0.000E+00	NOT IDENT.
SN-113	-1.880E-02	7.662E-02	1.327E-01	0.000E+00	NOT IDENT.
CD-115	1.012E+00	1.940E+00	3.438E+00	0.000E+00	NOT IDENT.
SN-117M	4.156E-02	5.556E-02	1.014E-01	0.000E+00	NOT IDENT.
TE-123M	3.120E-02	4.065E-02	7.426E-02	0.000E+00	NOT IDENT.
SB-124	-9.782E-02	1.139E-01	1.537E-01	0.000E+00	NOT IDENT.
SB-125	1.831E-01	1.793E-01	3.298E-01	0.000E+00	FAIL ABUN
TE-125M	-3.113E-01	1.317E+01	2.383E+01	0.000E+00	NOT IDENT.
I-126	-3.525E-01	3.163E-01	4.315E-01	0.000E+00	NOT IDENT.
SB-126	1.151E-02	1.721E-01	3.030E-01	0.000E+00	NOT IDENT.
SB-127	1.306E-02	6.100E-01	1.075E+00	0.000E+00	NOT IDENT.
I-131	3.224E-02	1.096E-01	1.969E-01	0.000E+00	NOT IDENT.
TE-132	3.843E-02	2.387E-01	4.119E-01	0.000E+00	NOT IDENT.
BA-133	2.772E-02	8.314E-02	1.328E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.418E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.273E-03	9.109E-02	1.589E-01	0.000E+00	NOT IDENT.
CS-135	-1.343E-01	2.624E-01	4.646E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.836E+07	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.434E-02	1.545E-01	2.623E-01	0.000E+00	NOT IDENT.
CE-139	3.763E-02	4.535E-02	8.267E-02	0.000E+00	NOT IDENT.
BA-140	-7.288E-02	3.361E-01	5.629E-01	0.000E+00	NOT IDENT.
LA-140	5.184E-02	8.422E-02	1.564E-01	0.000E+00	NOT IDENT.
CE-141	2.802E-02	7.360E-02	1.331E-01	0.000E+00	NOT IDENT.
CE-143	3.971E+00	5.062E+00	8.359E+00	0.000E+00	NOT IDENT.
CE-144	-4.445E-02	2.913E-01	5.164E-01	0.000E+00	NOT IDENT.
PM-144	-1.291E-04	5.778E-02	1.015E-01	0.000E+00	NOT IDENT.
PR-144	-4.030E-01	4.326E+00	7.551E+00	0.000E+00	NOT IDENT.
PM-146	4.870E-02	8.768E-02	1.566E-01	0.000E+00	NOT IDENT.
ND-147	-1.359E-02	6.402E-01	1.091E+00	0.000E+00	NOT IDENT.
PM-149	-8.682E+00	1.387E+01	2.416E+01	0.000E+00	NOT IDENT.
EU-152	-1.612E-01	1.774E-01	2.874E-01	0.000E+00	FAIL ABUN
GD-153	-7.915E-02	1.239E-01	2.193E-01	0.000E+00	NOT IDENT.
EU-154	1.186E-02	1.466E-01	2.560E-01	0.000E+00	FAIL ABUN
EU-155	7.645E-02	1.562E-01	2.898E-01	0.000E+00	FAIL ABUN
TB-160	6.932E-02	3.168E-01	5.515E-01	0.000E+00	FAIL ABUN
HO-166M	-1.045E-01	1.110E-01	1.809E-01	0.000E+00	FAIL ABUN
TA-182	-1.295E-01	2.294E-01	3.703E-01	0.000E+00	NOT IDENT.
IR-192	-2.074E-02	5.587E-02	9.805E-02	0.000E+00	FAIL ABUN
HG-203	4.835E-02	5.923E-02	1.109E-01	0.000E+00	NOT IDENT.
BI-207	-8.138E-02	1.106E-01	1.737E-01	0.000E+00	FAIL ABUN
PB-210	-6.425E+00	1.507E+01	2.826E+01	0.000E+00	NOT IDENT.
PB-211	-1.682E-01	1.404E+00	2.439E+00	0.000E+00	NOT IDENT.
BI-212	1.430E+00	9.945E-01	1.880E+00	0.000E+00	NOT IDENT.
RN-219	-3.977E-01	8.137E-01	1.386E+00	0.000E+00	NOT IDENT.
RA-223	-8.285E-01	1.145E+00	1.955E+00	0.000E+00	FAIL ABUN
AC-227	-2.929E-01	4.323E-01	7.614E-01	0.000E+00	NOT IDENT.
TH-227	-2.929E-01	4.327E-01	7.614E-01	0.000E+00	NOT IDENT.
TH-229	-6.601E-02	8.604E-01	1.487E+00	0.000E+00	FAIL ABUN
PA-231	-5.384E-01	2.354E+00	4.202E+00	0.000E+00	NOT IDENT.
TH-231	-8.285E-01	1.145E+00	1.955E+00	0.000E+00	FAIL ABUN
PA-233	1.062E-02	1.119E-01	2.016E-01	0.000E+00	NOT IDENT.
PA-234	-7.501E-02	7.915E-01	1.340E+00	0.000E+00	NOT IDENT.
PA-234M	1.629E+00	1.057E+01	1.810E+01	0.000E+00	NOT IDENT.
TH-234	-6.548E-01	3.042E+00	5.086E+00	0.000E+00	NOT IDENT.
U-235	-1.580E-01	2.830E-01	4.849E-01	0.000E+00	FAIL ABUN
NP-237	0.000E+00	1.049E+00	1.139E+00	0.000E+00	NOT IDENT.
U-238	-6.548E-01	3.042E+00	5.086E+00	0.000E+00	NOT IDENT.
NP-239	-2.467E-01	6.119E-01	1.082E+00	0.000E+00	NOT IDENT.
CM-247	-2.288E-02	7.485E-02	1.290E-01	0.000E+00	NOT IDENT.

CF-249	3.645E-02	7.212E-02	1.305E-01	0.000E+00	NOT IDENT.
CF-251	9.308E-02	2.070E-01	3.695E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 12:07:26.27

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071016.CNF;1
Sample date       : 17-MAR-2010 00:00:00 Acquisition date : 24-MAR-2010 11:06:54
Sample ID         : G1202071016          Sample quantity  : 1.51730E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.40  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 965250                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	178	85.60*	6.487E+00	1.587E-01	1.617E-01	35.17
	136.47	------	10.68	6.470E+00	------ Line Not Found		------
CO-60	1173.23	1693	99.85	1.299E+00	6.454E+00	6.472E+00	8.06
	1332.49	1511	99.98*	1.158E+00	6.456E+00	6.474E+00	8.76
CD-109	88.03	1296	3.70*	5.086E+00	3.408E+01	3.447E+01	14.97
SN-126	64.28	------	9.60	2.203E+00	------ Line Not Found		------
	86.94	1296	8.90	5.086E+00	1.417E+01	1.417E+01	43.13
	87.57	1296	37.00*	5.086E+00	3.408E+00	3.408E+00	14.97
BA-137M	661.66	2143	89.90*	2.207E+00	5.344E+00	5.347E+00	6.89
CS-137	661.66	2143	85.10*	2.207E+00	5.646E+00	5.648E+00	6.91
TL-208	277.37	------	6.60	4.326E+00	------ Line Not Found		------
	583.19	159	85.00*	2.454E+00	3.783E-01	3.783E-01	31.37
	860.56	------	12.50	1.744E+00	------ Line Not Found		------
BI-211	72.87	------	1.23	3.384E+00	------ Line Not Found		------
	351.06	282	12.92*	3.625E+00	2.983E+00	2.983E+00	24.21
PB-212	74.82	120	10.28	3.639E+00	1.590E+00	1.590E+00	46.94
	77.11	214	17.10	3.935E+00	1.573E+00	1.573E+00	32.08
	238.63	621	43.60*	4.824E+00	1.461E+00	1.461E+00	13.21
	300.09	------	3.30	4.082E+00	------ Line Not Found		------
BI-214	609.32	167	45.49*	2.365E+00	7.681E-01	7.681E-01	38.89
	1120.29	------	14.92	1.358E+00	------ Line Not Found		------
	1764.49	37	15.30	9.527E-01	1.270E+00	1.270E+00	42.43
PB-214	74.82	120	5.80	3.639E+00	2.818E+00	2.818E+00	46.60
	77.11	214	9.70	3.935E+00	2.773E+00	2.773E+00	33.12
	242.00	151	7.25	4.785E+00	2.147E+00	2.147E+00	57.41
	295.22	126	18.42	4.130E+00	8.188E-01	8.188E-01	46.02
	351.93	282	35.60*	3.625E+00	1.083E+00	1.083E+00	24.83
RA-224	240.99	151	4.10*	4.785E+00	3.796E+00	3.796E+00	57.12
RA-226	609.32	167	45.49*	2.365E+00	7.681E-01	7.681E-01	38.89
	1120.29	------	14.92	1.358E+00	------ Line Not Found		------
	1764.49	37	15.30	9.527E-01	1.270E+00	1.270E+00	42.43
AC-228	338.32	99	11.27	3.733E+00	1.161E+00	1.161E+00	67.54

Sample ID : G1202071016 Acquisition date : 24-MAR-2010 11:06:54

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.20	90	25.80*	1.652E+00	1.049E+00	1.049E+00	61.10
	968.97	101	15.80	1.558E+00	2.034E+00	2.034E+00	46.99
RA-228	338.32	99	11.27	3.733E+00	1.161E+00	1.161E+00	67.54
	911.20	90	25.80*	1.652E+00	1.049E+00	1.049E+00	61.10
	968.97	101	15.80	1.558E+00	2.034E+00	2.034E+00	46.99
TH-228	74.82	120	10.28	3.639E+00	1.590E+00	1.590E+00	45.93
	77.11	214	17.10	3.935E+00	1.573E+00	1.573E+00	32.08
	238.63	621	43.60*	4.824E+00	1.461E+00	1.461E+00	13.21
	300.09	------	3.30	4.082E+00	------ Line Not Found		------
TH-230	609.32	167	45.49*	2.365E+00	7.681E-01	7.681E-01	38.53
	1120.29	------	14.92	1.358E+00	------ Line Not Found		------
	1764.49	37	15.30	9.527E-01	1.270E+00	1.270E+00	42.43
TH-232	338.32	99	11.27	3.733E+00	1.161E+00	1.161E+00	53.82
	911.20	90	25.80*	1.652E+00	1.049E+00	1.049E+00	61.10
	968.97	101	15.80	1.558E+00	2.034E+00	2.034E+00	46.99
AM-241	59.54	1680	35.90*	1.575E+00	1.470E+01	1.470E+01	14.36
ANH-511	511.00	94	100.00*	2.730E+00	1.709E-01	1.709E-01	75.57

Flag: "*" = Keyline

Sample ID : G1202071016 Acquisition date : 24-MAR-2010 11:06:54

Total number of lines in spectrum 21
Number of unidentified lines 0
Number of lines tentatively identified by NID 21 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	271.74D	1.02	1.587E-01	1.617E-01	0.569E-01	35.17	
CO-60	5.27Y	1.00	6.456E+00	6.474E+00	0.567E+00	8.76	
CD-109	461.40D	1.01	3.408E+01	3.447E+01	0.516E+01	14.97	
SN-126	2.30E+05Y	1.00	3.408E+00	3.408E+00	0.510E+00	14.97	
BA-137M	30.08Y	1.00	5.344E+00	5.347E+00	0.368E+00	6.89	
CS-137	30.08Y	1.00	5.646E+00	5.648E+00	0.390E+00	6.91	
TL-208	1.41E+10Y	1.00	3.783E-01	3.783E-01	1.186E-01	31.37	
BI-211	7.04E+08Y	1.00	2.983E+00	2.983E+00	0.722E+00	24.21	
PB-212	1.41E+10Y	1.00	1.461E+00	1.461E+00	0.193E+00	13.21	
BI-214	1600.00Y	1.00	7.681E-01	7.681E-01	2.987E-01	38.89	
PB-214	1600.00Y	1.00	1.083E+00	1.083E+00	0.269E+00	24.83	
RA-224	1.41E+10Y	1.00	3.796E+00	3.796E+00	2.169E+00	57.12	
RA-226	1600.00Y	1.00	7.681E-01	7.681E-01	2.987E-01	38.89	
AC-228	1.41E+10Y	1.00	1.049E+00	1.049E+00	0.641E+00	61.10	
RA-228	1.41E+10Y	1.00	1.049E+00	1.049E+00	0.641E+00	61.10	
TH-228	1.41E+10Y	1.00	1.461E+00	1.461E+00	0.193E+00	13.21	
TH-230	7.54E+04Y	1.00	7.681E-01	7.681E-01	2.959E-01	38.53	
TH-232	1.41E+10Y	1.00	1.049E+00	1.049E+00	0.641E+00	61.10	
AM-241	432.60Y	1.00	1.470E+01	1.470E+01	0.211E+01	14.36	
ANH-511	1.00E+09Y	1.00	1.709E-01	1.709E-01	1.292E-01	75.57	
		Total Activity :	8.658E+01	8.700E+01			

Grand Total Activity : 8.658E+01 8.700E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202071016 Acquisition date : 24-MAR-2010 11:06:54

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	185.83	91	259	1.27	371.71	368	8	2.51E-02	65.5	5.70E+00	T
0	463.43	66	166	1.38	926.94	923	9	1.83E-02	74.6	2.95E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-MAR-2010 12:07:29.85

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*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202071016.CNF;1   *
* Acquisition date : 24-MAR-2010 11:06:54  Detector SN#    :                  *
* Detector ID      : GAM04                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 01:00:01.40         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date      : 17-MAR-2010 00:00:00  Nuclide Library : SOLID            *
* Sample ID        : G1202071016           Analyst initials: MXR1             *
* Batch Number     : 965250                Sample Quantity : 1.51730E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 5-MAY-2009 14:25:41.36MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	1.617E-01	5.687E-02	6.310E-02	4.380E-03	2.563
CO-60	6.474E+00	5.672E-01	9.280E-02	6.359E-03	69.763
CD-109	3.447E+01	5.161E+00	2.083E+00	2.503E-01	16.551
SN-126	3.408E+00	5.103E-01	2.075E-01	2.489E-02	16.425
BA-137M	5.347E+00	3.681E-01	1.121E-01	5.469E-03	47.681
CS-137	5.648E+00	3.901E-01	1.185E-01	5.812E-03	47.681
TL-208	3.783E-01	1.186E-01	1.052E-01	6.600E-03	3.596
BI-211	2.983E+00	7.222E-01	5.958E-01	4.026E-02	5.006
PB-212	1.461E+00	1.931E-01	1.607E-01	1.300E-02	9.095
BI-214	7.681E-01	2.987E-01	2.061E-01	1.528E-02	3.727
PB-214	1.083E+00	2.688E-01	2.152E-01	1.875E-02	5.031
RA-224	3.796E+00	2.169E+00	1.723E+00	1.149E-01	2.204
RA-226	7.681E-01	2.987E-01	2.061E-01	1.528E-02	3.727
AC-228	1.049E+00	6.407E-01	6.037E-01	6.799E-02	1.737
RA-228	1.049E+00	6.407E-01	6.037E-01	6.799E-02	1.737
TH-228	1.461E+00	1.931E-01	1.607E-01	1.300E-02	9.095
TH-230	7.681E-01	2.959E-01	2.061E-01	1.073E-02	3.727
TH-232	1.049E+00	6.407E-01	6.037E-01	6.799E-02	1.737

Sample ID : G1202071016 Acquisition date : 24-MAR-2010 11:06:54

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-241	1.470E+01	2.111E+00	7.125E-01	8.995E-02	20.638
ANH-511	1.709E-01	1.292E-01	8.778E-02	4.909E-03	1.947

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.682E-01		6.198E-01	9.936E-01	6.578E-02	-0.169
NA-22	7.400E-03		5.193E-02	8.871E-02	5.800E-03	0.083
NA-24	1.209E-04		8.215E-05	Half-Life too short		
K-40	9.781E-01		6.465E-01	1.258E+00	8.939E-02	0.778
SC-46	-6.434E-03		8.597E-02	1.410E-01	1.140E-02	-0.046
V-48	1.516E-02		1.237E-01	2.038E-01	1.579E-02	0.074
CR-51	-2.852E-02		5.499E-01	9.179E-01	6.455E-02	-0.031
MN-54	-2.639E-02		7.709E-02	1.244E-01	9.003E-03	-0.212
CO-56	-7.737E-03		7.969E-02	1.308E-01	9.703E-03	-0.059
CO-58	3.654E-02		7.871E-02	1.347E-01	9.300E-03	0.271
FE-59	1.244E-01		1.970E-01	3.336E-01	2.548E-02	0.373
ZN-65	-2.488E-01		2.058E-01	2.993E-01	1.980E-02	-0.831
SE-75	2.231E-02		7.276E-02	1.249E-01	8.404E-03	0.179
SR-85	6.609E-02		6.579E-02	1.134E-01	6.333E-03	0.583
Y-88	2.451E-02		4.363E-02	8.076E-02	4.712E-03	0.303
Y-91	-3.416E+00		2.771E+01	4.378E+01	2.683E+00	-0.078
NB-94	2.038E-02		6.177E-02	1.059E-01	5.706E-03	0.192
NB-95	4.872E-03		7.299E-02	1.222E-01	7.613E-03	0.040
NB-95M	8.219E-02		2.174E-01	3.140E-01	2.584E-02	0.262
ZR-95	-1.846E-02		1.322E-01	2.182E-01	1.598E-02	-0.085
MO-99	9.348E-01		3.518E+00	5.982E+00	8.637E-01	0.156
TC-99M	6.135E+00		1.742E+01	Half-Life too short		
RU-103	-1.165E-02		6.871E-02	1.104E-01	1.363E-02	-0.106
RH-106	1.469E-01		5.534E-01	9.047E-01	1.023E-01	0.162
RU-106	1.469E-01		5.532E-01	9.047E-01	4.648E-02	0.162
AG-108M	1.888E-02		5.859E-02	9.800E-02	5.965E-03	0.193
AG-110M	-2.212E-02		7.786E-02	1.112E-01	5.940E-03	-0.199
SN-113	-1.880E-02		7.818E-02	1.273E-01	7.670E-03	-0.148
CD-115	1.012E+00		1.980E+00	3.324E+00	1.844E-01	0.304
SN-117M	4.156E-02		5.669E-02	9.519E-02	6.089E-03	0.437
TE-123M	3.120E-02		4.148E-02	6.971E-02	4.506E-03	0.448
SB-124	-9.782E-02		1.162E-01	1.531E-01	1.045E-02	-0.639
SB-125	1.831E-01		1.830E-01	3.171E-01	1.875E-02	0.577
TE-125M	-3.113E-01		1.343E+01	2.217E+01	2.232E+00	-0.014
I-126	-3.525E-01		3.227E-01	4.197E-01	2.070E-02	-0.840
SB-126	1.151E-02		1.757E-01	2.953E-01	1.660E-02	0.039
SB-127	1.306E-02		6.225E-01	1.047E+00	6.921E-02	0.012
I-131	3.224E-02		1.118E-01	1.886E-01	1.245E-02	0.171
TE-132	3.843E-02		2.436E-01	3.901E-01	5.300E-02	0.099
BA-133	2.772E-02		8.484E-02	1.272E-01	1.454E-02	0.218
I-133	-1.262E-06		1.234E-05	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-134	7.273E-03		9.294E-02	1.552E-01	1.046E-02	0.047
CS-135	-1.343E-01		2.677E-01	4.417E-01	3.682E-02	-0.304
I-135	2.058E+00		1.447E+01	Half-Life too short		
CS-136	1.434E-02		1.576E-01	2.581E-01	1.980E-02	0.056
CE-139	3.763E-02		4.627E-02	7.768E-02	4.936E-03	0.484
BA-140	-7.288E-02		3.430E-01	5.445E-01	1.811E-01	-0.134
LA-140	5.184E-02		8.594E-02	1.556E-01	1.025E-02	0.333
CE-141	2.802E-02		7.510E-02	1.247E-01	8.369E-03	0.225
CE-143	3.971E+00		5.165E+00	7.964E+00	1.620E+00	0.499
CE-144	-4.445E-02		2.972E-01	4.827E-01	6.891E-02	-0.092
PM-144	-1.291E-04		5.896E-02	9.886E-02	5.249E-03	-0.001
PR-144	-4.030E-01		4.414E+00	7.352E+00	3.903E-01	-0.055
PM-146	4.870E-02		8.947E-02	1.508E-01	1.262E-02	0.323
ND-147	-1.359E-02		6.533E-01	1.055E+00	1.415E-01	-0.013
PM-149	-8.682E+00		1.416E+01	2.301E+01	3.339E+00	-0.377
EU-152	-1.612E-01		1.810E-01	2.749E-01	1.901E-02	-0.587
GD-153	-7.915E-02		1.265E-01	2.035E-01	1.997E-02	-0.389
EU-154	1.186E-02		1.496E-01	2.532E-01	2.504E-02	0.047
EU-155	7.645E-02		1.594E-01	2.695E-01	2.348E-02	0.284
TB-160	6.932E-02		3.232E-01	5.402E-01	4.284E-02	0.128
HO-166M	-1.045E-01		1.132E-01	1.762E-01	9.699E-03	-0.593
TA-182	-1.295E-01		2.341E-01	3.658E-01	2.277E-02	-0.354
IR-192	-2.074E-02		5.701E-02	9.359E-02	6.076E-03	-0.222
HG-203	4.835E-02		6.044E-02	1.056E-01	7.317E-03	0.458
BI-207	-8.138E-02		1.128E-01	1.710E-01	1.216E-02	-0.476
PB-210	-6.425E+00		1.537E+01	2.579E+01	2.250E+00	-0.249
PB-211	-1.682E-01		1.432E+00	2.342E+00	1.123E+00	-0.072
BI-212	1.430E+00		1.015E+00	1.833E+00	1.953E-01	0.780
RN-219	-3.977E-01		8.303E-01	1.331E+00	1.779E-01	-0.299
RA-223	-8.285E-01		1.168E+00	1.868E+00	3.053E-01	-0.444
AC-227	-2.929E-01		4.411E-01	7.230E-01	7.771E-02	-0.405
TH-227	-2.929E-01		4.415E-01	7.230E-01	9.013E-02	-0.405
TH-229	-6.601E-02		8.780E-01	1.403E+00	9.104E-02	-0.047
PA-231	-5.384E-01		2.402E+00	4.000E+00	5.403E-01	-0.135
TH-231	-8.285E-01		1.168E+00	1.868E+00	3.053E-01	-0.444
PA-233	1.062E-02		1.142E-01	1.924E-01	1.312E-02	0.055
PA-234	-7.501E-02		8.077E-01	1.315E+00	2.431E-01	-0.057
PA-234M	1.629E+00		1.079E+01	1.779E+01	1.622E+00	0.092
TH-234	-6.548E-01		3.104E+00	4.673E+00	9.406E-01	-0.140
U-235	-1.580E-01		2.887E-01	4.542E-01	7.262E-02	-0.348
NP-237	3.757E+00		1.070E+00	1.054E+00	2.542E-01	3.563
U-238	-6.548E-01		3.104E+00	4.673E+00	9.406E-01	-0.140
NP-239	-2.467E-01		6.244E-01	1.009E+00	7.402E-02	-0.245
CM-247	-2.288E-02		7.637E-02	1.239E-01	6.993E-03	-0.185
CF-249	3.645E-02		7.360E-02	1.252E-01	7.107E-03	0.291
CF-251	9.308E-02		2.112E-01	3.478E-01	2.228E-02	0.268

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202071016          *
* Acquisition date  : 24-MAR-2010 11:06:54 Detector SN#     :               *
* Detector ID       : GAM04                 Sensitivity     : 5.000         *
* Geometry          : CAN                   Energy tolerance: 1.500         *
* Elapsed live time:    0 01:00:00.00       Abundance limit : 75.000        *
* Elapsed real time:    0 01:00:01.40       Half life ratio : 8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 17-MAR-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202071016          Analyst initials: MXR1           *
* Batch Number      : 965250               Sample Quantity : 1.5173E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
CO-57	1.617E-01	5.573E-02	3.384E-02	2.843E-02
CO-60	6.474E+00	5.558E-01	4.688E-02	2.836E-01
CD-109	3.447E+01	5.058E+00	1.125E+00	2.580E+00
SN-126	3.408E+00	5.001E-01	1.121E-01	2.552E-01
BA-137M	5.347E+00	3.608E-01	5.769E-02	1.841E-01
CS-137	5.648E+00	3.823E-01	6.095E-02	1.950E-01
TL-208	3.783E-01	1.163E-01	5.429E-02	5.932E-02
BI-211	2.983E+00	7.078E-01	3.115E-01	3.611E-01
PB-212	1.461E+00	1.892E-01	8.480E-02	9.654E-02
BI-214	7.681E-01	2.927E-01	1.063E-01	1.494E-01
PB-214	1.083E+00	2.634E-01	1.125E-01	1.344E-01
RA-224	3.796E+00	2.125E+00	9.090E-01	1.084E+00
RA-226	7.681E-01	2.927E-01	1.063E-01	1.494E-01
AC-228	1.049E+00	6.279E-01	3.081E-01	3.204E-01
RA-228	1.049E+00	6.279E-01	3.081E-01	3.204E-01
TH-228	1.461E+00	1.892E-01	8.480E-02	9.654E-02
TH-230	7.681E-01	2.900E-01	1.063E-01	1.480E-01
TH-232	1.049E+00	6.279E-01	3.081E-01	3.204E-01
AM-241	1.470E+01	2.069E+00	3.885E-01	1.056E+00
ANH-511	1.709E-01	1.266E-01	4.546E-02	6.458E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.682E-01	6.074E-01	5.154E-01	3.099E-01	NOT IDENT.
NA-22	7.400E-03	5.089E-02	4.487E-02	2.597E-02	NOT IDENT.
NA-24	1.209E+02	1.610E+02	0.000E+00	8.215E+01	SHORT HLIF
K-40	9.781E-01	6.336E-01	6.339E-01	3.233E-01	NOT IDENT.
SC-46	-6.434E-03	8.425E-02	7.198E-02	4.298E-02	NOT IDENT.
V-48	1.516E-02	1.212E-01	1.038E-01	6.183E-02	NOT IDENT.
CR-51	-2.852E-02	5.389E-01	4.809E-01	2.750E-01	NOT IDENT.

MN-54	-2.639E-02	7.555E-02	6.362E-02	3.855E-02	NOT IDENT.
CO-56	-7.737E-03	7.810E-02	6.686E-02	3.985E-02	NOT IDENT.
CO-58	3.654E-02	7.713E-02	6.895E-02	3.935E-02	NOT IDENT.
FE-59	1.244E-01	1.930E-01	1.694E-01	9.848E-02	NOT IDENT.
ZN-65	-2.488E-01	2.017E-01	1.519E-01	1.029E-01	NOT IDENT.
SE-75	2.231E-02	7.131E-02	6.575E-02	3.638E-02	FAIL ABUN
SR-85	6.609E-02	6.447E-02	5.871E-02	3.289E-02	NOT IDENT.
Y-88	2.451E-02	4.276E-02	4.045E-02	2.182E-02	NOT IDENT.
Y-91	-3.416E+00	2.716E+01	2.218E+01	1.386E+01	NOT IDENT.
NB-94	2.038E-02	6.054E-02	5.441E-02	3.089E-02	NOT IDENT.
NB-95	4.872E-03	7.153E-02	6.261E-02	3.650E-02	NOT IDENT.
NB-95M	8.219E-02	2.130E-01	1.658E-01	1.087E-01	NOT IDENT.
ZR-95	-1.846E-02	1.296E-01	1.119E-01	6.611E-02	NOT IDENT.
MO-99	9.348E-01	3.448E+00	3.069E+00	1.759E+00	NOT IDENT.
TC-99M	6.135E+06	3.415E+07	0.000E+00	1.742E+07	SHORT HLIF
RU-103	-1.165E-02	6.733E-02	5.721E-02	3.435E-02	FAIL ABUN
RH-106	1.469E-01	5.423E-01	4.662E-01	2.767E-01	NOT IDENT.
RU-106	1.469E-01	5.421E-01	4.662E-01	2.766E-01	NOT IDENT.
AG-108M	1.888E-02	5.742E-02	5.096E-02	2.929E-02	NOT IDENT.
AG-110M	-2.212E-02	7.630E-02	5.720E-02	3.893E-02	NOT IDENT.
SN-113	-1.880E-02	7.662E-02	6.637E-02	3.909E-02	NOT IDENT.
CD-115	1.012E+00	1.940E+00	1.720E+00	9.899E-01	NOT IDENT.
SN-117M	4.156E-02	5.556E-02	5.073E-02	2.834E-02	NOT IDENT.
TE-123M	3.120E-02	4.065E-02	3.715E-02	2.074E-02	NOT IDENT.
SB-124	-9.782E-02	1.139E-01	7.688E-02	5.809E-02	NOT IDENT.
SB-125	1.831E-01	1.793E-01	1.650E-01	9.148E-02	FAIL ABUN
TE-125M	-3.113E-01	1.317E+01	1.192E+01	6.717E+00	NOT IDENT.
I-126	-3.525E-01	3.163E-01	2.159E-01	1.614E-01	NOT IDENT.
SB-126	1.151E-02	1.721E-01	1.516E-01	8.783E-02	NOT IDENT.
SB-127	1.306E-02	6.100E-01	5.380E-01	3.112E-01	NOT IDENT.
I-131	3.224E-02	1.096E-01	9.852E-02	5.592E-02	NOT IDENT.
TE-132	3.843E-02	2.387E-01	2.061E-01	1.218E-01	NOT IDENT.
BA-133	2.772E-02	8.314E-02	6.645E-02	4.242E-02	NOT IDENT.
I-133	-1.262E+00	2.418E+01	0.000E+00	1.234E+01	SHORT HLIF
CS-134	7.273E-03	9.109E-02	7.948E-02	4.647E-02	NOT IDENT.
CS-135	-1.343E-01	2.624E-01	2.324E-01	1.339E-01	NOT IDENT.
I-135	2.058E+06	2.836E+07	0.000E+00	1.447E+07	SHORT HLIF
CS-136	1.434E-02	1.545E-01	1.312E-01	7.882E-02	NOT IDENT.
CE-139	3.763E-02	4.535E-02	4.136E-02	2.314E-02	NOT IDENT.
BA-140	-7.288E-02	3.361E-01	2.816E-01	1.715E-01	NOT IDENT.
LA-140	5.184E-02	8.422E-02	7.826E-02	4.297E-02	NOT IDENT.
CE-141	2.802E-02	7.360E-02	6.658E-02	3.755E-02	NOT IDENT.
CE-143	3.971E+00	5.062E+00	4.182E+00	2.582E+00	NOT IDENT.
CE-144	-4.445E-02	2.913E-01	2.583E-01	1.486E-01	NOT IDENT.
PM-144	-1.291E-04	5.778E-02	5.080E-02	2.948E-02	NOT IDENT.
PR-144	-4.030E-01	4.326E+00	3.778E+00	2.207E+00	NOT IDENT.
PM-146	4.870E-02	8.768E-02	7.833E-02	4.473E-02	NOT IDENT.
ND-147	-1.359E-02	6.402E-01	5.461E-01	3.266E-01	NOT IDENT.
PM-149	-8.682E+00	1.387E+01	1.209E+01	7.079E+00	NOT IDENT.
EU-152	-1.612E-01	1.774E-01	1.438E-01	9.051E-02	FAIL ABUN
GD-153	-7.915E-02	1.239E-01	1.097E-01	6.323E-02	NOT IDENT.
EU-154	1.186E-02	1.466E-01	1.281E-01	7.480E-02	FAIL ABUN
EU-155	7.645E-02	1.562E-01	1.450E-01	7.971E-02	FAIL ABUN
TB-160	6.932E-02	3.168E-01	2.759E-01	1.616E-01	FAIL ABUN
HO-166M	-1.045E-01	1.110E-01	9.050E-02	5.661E-02	FAIL ABUN
TA-182	-1.295E-01	2.294E-01	1.852E-01	1.171E-01	NOT IDENT.
IR-192	-2.074E-02	5.587E-02	4.905E-02	2.851E-02	FAIL ABUN
HG-203	4.835E-02	5.923E-02	5.550E-02	3.022E-02	NOT IDENT.
BI-207	-8.138E-02	1.106E-01	8.691E-02	5.641E-02	FAIL ABUN
PB-210	-6.425E+00	1.507E+01	1.414E+01	7.686E+00	NOT IDENT.
PB-211	-1.682E-01	1.404E+00	1.220E+00	7.161E-01	NOT IDENT.
BI-212	1.430E+00	9.945E-01	9.407E-01	5.074E-01	NOT IDENT.
RN-219	-3.977E-01	8.137E-01	6.934E-01	4.152E-01	NOT IDENT.
RA-223	-8.285E-01	1.145E+00	9.783E-01	5.841E-01	FAIL ABUN
AC-227	-2.929E-01	4.323E-01	3.809E-01	2.205E-01	NOT IDENT.
TH-227	-2.929E-01	4.327E-01	3.809E-01	2.207E-01	NOT IDENT.
TH-229	-6.601E-02	8.604E-01	7.442E-01	4.390E-01	FAIL ABUN
PA-231	-5.384E-01	2.354E+00	2.102E+00	1.201E+00	NOT IDENT.
TH-231	-8.285E-01	1.145E+00	9.783E-01	5.841E-01	FAIL ABUN
PA-233	1.062E-02	1.119E-01	1.009E-01	5.711E-02	NOT IDENT.
PA-234	-7.501E-02	7.915E-01	6.705E-01	4.038E-01	NOT IDENT.
PA-234M	1.629E+00	1.057E+01	9.058E+00	5.393E+00	NOT IDENT.
TH-234	-6.548E-01	3.042E+00	2.545E+00	1.552E+00	NOT IDENT.
U-235	-1.580E-01	2.830E-01	2.426E-01	1.444E-01	FAIL ABUN
NP-237	3.757E+00	1.049E+00	5.700E-01	5.351E-01	NOT IDENT.
U-238	-6.548E-01	3.042E+00	2.545E+00	1.552E+00	NOT IDENT.
NP-239	-2.467E-01	6.119E-01	5.415E-01	3.122E-01	NOT IDENT.
CM-247	-2.288E-02	7.485E-02	6.456E-02	3.819E-02	NOT IDENT.

CF-249	3.645E-02	7.212E-02	6.526E-02	3.680E-02 NOT IDENT.
CF-251	9.308E-02	2.070E-01	1.849E-01	1.056E-01 NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	245.8286
49.72	249.8552
57.36	364.2346
59.54	304.3602
63.29	238.4623
63.29	238.4623
64.28	247.0970
67.75	269.9164
69.67	285.6354
70.83	265.9366
72.81	306.8567
72.87	306.8977
72.87	306.8977
74.82	302.7232
74.82	302.7232
74.82	302.7232
74.97	302.8223
77.11	304.2355
77.11	304.2355
77.11	304.2355
79.69	312.8666
79.80	312.9387
80.12	308.9737
80.19	309.0186
80.57	312.0520
81.00	299.7832
81.07	299.8259
81.07	299.8259
83.79	286.0859
83.79	286.0859
85.43	308.1425
86.48	324.3026
86.55	324.3482
86.79	283.1153
86.94	283.2010
87.57	283.5562
88.03	283.8134
88.47	284.0599
89.96	295.2993
91.11	280.3048
92.59	265.4053
92.59	265.4053
93.35	221.7762
94.67	256.9010
94.87	256.0427
94.87	256.0427
95.86	253.6443
97.43	236.1441
98.44	235.6203
99.53	209.1073
100.11	208.3623
103.18	249.2772
103.37	244.5095
105.31	209.3223
106.12	225.2170
109.28	223.5028
111.00	204.4929
111.76	227.3941
116.30	228.1165
117.23	237.4015
121.12	229.3914
121.78	223.1270
122.06	223.2257
123.07	201.5234
131.20	239.5843
133.52	226.1530
136.00	245.3833

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140.51	0.0000
143.76	210.9104
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144.24	203.8115
145.44	187.5732
152.43	216.5852
153.25	191.6861
154.21	209.7616
154.21	209.7616
156.02	186.0891
158.56	197.2627
159.00	195.2659
162.66	258.7685
163.33	232.4558
165.86	212.9761
176.60	226.6327
177.52	215.0003
181.07	227.8568
184.41	217.3244
185.72	254.2085
193.51	226.7836
197.04	222.1645
205.31	233.1329
210.85	249.1222
215.65	252.6494
222.11	205.5288
227.38	195.2226
228.16	209.0881
228.18	209.0918
235.69	212.3935
235.96	198.6319
235.96	198.6319
238.63	215.8935
238.63	215.8935
240.99	216.3900
242.00	192.8578
244.70	188.1348
252.40	195.6558
252.80	189.5850
256.23	213.0867
256.23	213.0867
260.90	198.0884
264.66	176.5846
268.22	204.7490
269.46	170.2201
269.46	170.2201
271.23	178.5217
273.65	212.0039
276.40	190.9967
277.37	189.3643
277.60	175.9382
278.00	178.6919
279.20	177.0824
279.54	179.8309
280.46	176.3779
283.69	166.0425
284.31	177.8669
285.41	178.0353
285.90	179.9186
287.50	162.0576
293.27	168.8542
295.22	188.6329
295.96	199.8742
298.57	188.6089
299.98	159.5535
299.98	159.5535
300.09	159.5695
300.09	159.5695
300.13	159.5748
301.36	163.2935
302.85	196.2461
304.50	200.1837
304.50	200.1837
304.85	190.1364
308.46	158.4523
311.90	159.8170

316.51	164.1145
319.41	155.1967
320.08	164.5763
323.87	181.8514
323.87	181.8514
328.76	176.9251
333.37	156.3224
334.37	157.9460
334.37	157.9460
338.28	157.4697
338.28	157.4697
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338.32	157.4748
338.32	157.4748
340.48	164.7215
340.55	164.7294
344.28	168.8703
351.06	147.7426
351.93	145.7394
356.01	139.1038
364.49	143.2229
366.42	169.4097
383.85	136.4069
388.16	129.9680
388.63	126.0986
391.69	140.0739
400.66	147.8142
401.81	174.5558
402.40	172.6501
404.85	162.0581
410.95	149.8088
414.70	139.2352
423.72	188.0545
427.09	130.3174
427.87	129.3779
433.94	131.8855
453.88	142.6788
463.37	175.2635
468.07	131.5566
473.00	141.2144
476.78	137.3917
477.60	147.7939
487.02	136.1252
492.35	124.0316
497.08	119.1367
511.00	108.4772
514.00	108.6556
527.90	91.4065
529.87	0.0000
531.02	99.0112
537.26	107.8858
546.56	0.0000
563.25	95.2751
569.33	87.9684
569.50	91.2341
569.70	89.0694
583.19	90.9848
600.60	91.5437
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604.72	86.6424
609.32	93.0363
609.32	93.0363
609.32	93.0363
610.33	93.0824
614.28	88.8159
618.01	88.9746
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621.93	73.5390
633.25	79.5305
635.95	84.1164
636.99	85.2773
645.85	94.6384
657.76	107.2338
661.66	93.5022
661.66	93.5022
664.57	81.8086
666.33	112.1954
666.50	116.7533

677.62	80.4547
685.70	86.2455
695.00	73.6953
696.49	79.2739
696.51	81.1186
697.00	88.5117
702.65	84.1039
706.68	101.8386
711.68	97.4172
720.70	84.7482
721.93	97.8376
722.78	100.6699
722.91	109.9970
723.31	110.0143
724.19	112.8526
727.33	74.7109
733.00	101.0971
735.93	77.7882
739.50	84.4739
747.24	73.4411
752.31	81.1415
753.82	67.9728
756.73	90.7383
763.94	91.9487
765.81	88.2229
766.42	77.8059
777.92	89.6006
778.90	93.4493
783.70	77.3831
785.37	85.0823
795.86	91.1893
801.95	80.8192
810.29	86.8689
810.76	86.8843
815.77	109.2977
818.51	93.9190
832.01	105.0996
834.85	100.3395
836.80	0.0000
846.77	90.9997
856.80	109.9930
860.56	112.1102
871.09	99.7030
873.19	91.8761
875.33	0.0000
879.36	106.9295
880.51	113.9078
883.24	98.1541
884.68	100.1888
889.28	93.3964
898.04	107.6388
911.20	125.1526
911.20	125.1526
911.20	125.1526
926.50	106.6910
937.49	132.3465
944.13	100.2423
946.00	122.5952
949.00	119.6767
962.29	123.5175
964.08	110.4254
966.15	144.4993
968.97	119.1105
968.97	119.1105
968.97	119.1105
983.53	93.3505
996.26	95.7973
1001.03	90.7844
1004.73	93.9904
1037.84	84.5398
1038.76	0.0000
1048.07	74.3385
1050.41	94.3022
1050.41	94.3022
1063.66	79.9559
1085.87	94.2626
1099.45	84.0108
1112.07	78.9899

1115.54	111.1246
1120.29	60.9883
1120.29	60.9883
1120.29	60.9883
1120.55	67.4143
1121.30	67.4297
1131.51	0.0000
1173.23	45.6278
1177.93	52.5767
1189.05	42.5553
1204.77	35.0703
1221.41	34.8627
1231.02	31.2746
1235.36	32.2314
1238.28	24.8840
1260.41	0.0000
1271.85	17.6679
1274.44	20.4719
1274.54	19.5414
1291.59	25.2367
1298.22	0.0000
1312.11	16.9138
1332.49	21.7249
1365.19	9.5231
1368.63	0.0000
1384.29	17.2229
1408.01	20.2096
1457.56	0.0000
1460.82	16.5670
1489.16	14.7144
1505.03	17.7217
1596.21	12.0566
1620.50	6.0601
1678.03	0.0000
1690.97	16.4017
1764.49	8.3245
1764.49	8.3245
1764.49	8.3245
1770.23	12.5010
1771.35	35.4263
1791.20	0.0000
1836.06	5.2763

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202071016

Total Uranium Activity	-2.0213E+00	ug/g
Total Uranium Counting Unc.	9.0509E+00	ug/g
Total Uranium Tpu	4.6178E-06	ug/g
Total Uranium Mda	7.5710E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 965250                    SAMPLE ID  : G1202071016      *
*   ANALYST       : MXR1                      DETECTOR   : GAM04            *
*   SAMPLE DATE   : 17-MAR-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 24-MAR-2010 11:06:54.77    SAMPLE ALQT:  151.730 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.809E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 2.836E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 3.595E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.739E+00
```

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W013.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.311179 through 0.370113

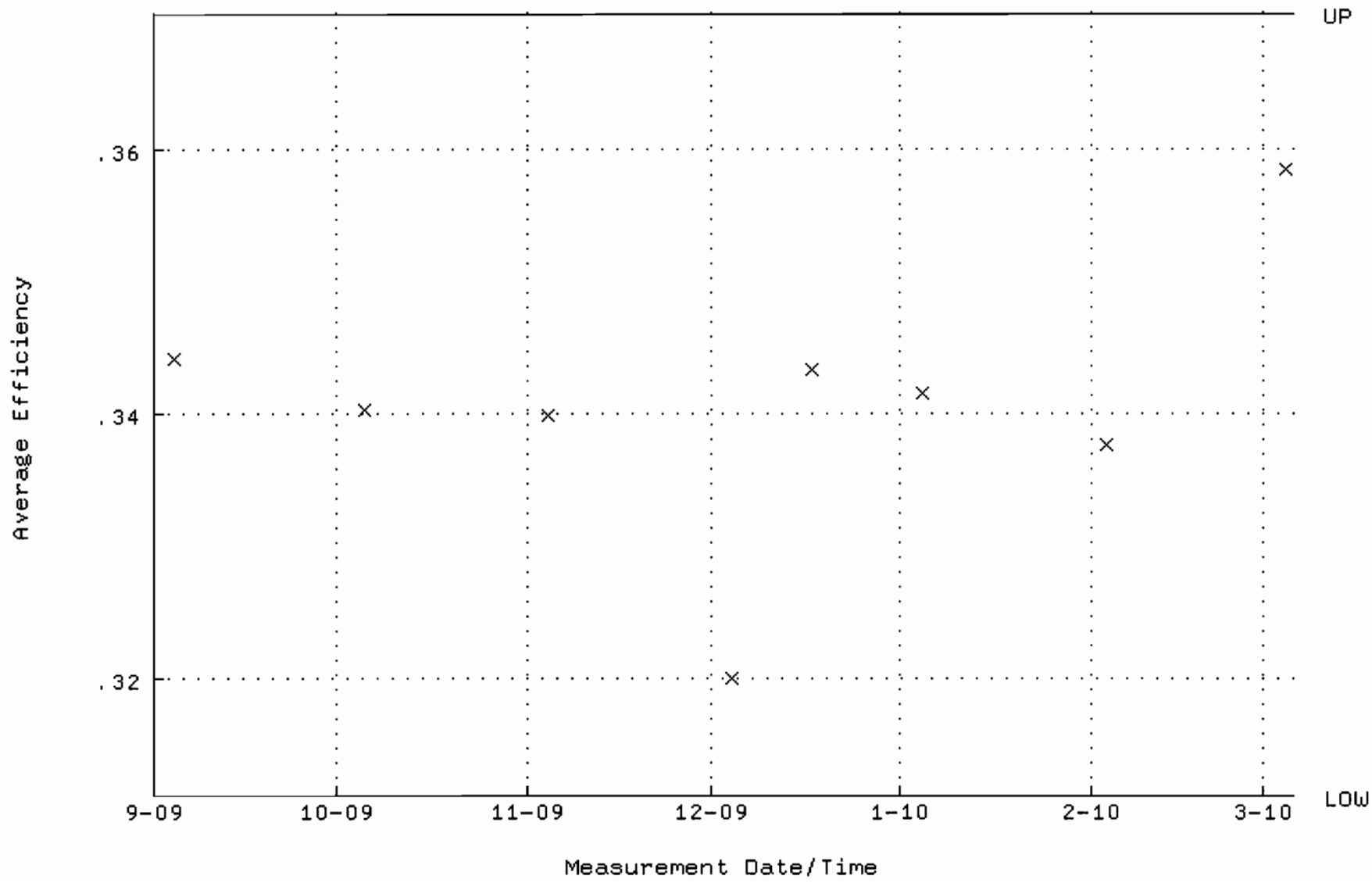

QA filename : DKA100:[ENV_ALPHA.QA.W]W013.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 85.5651 through 97.2315

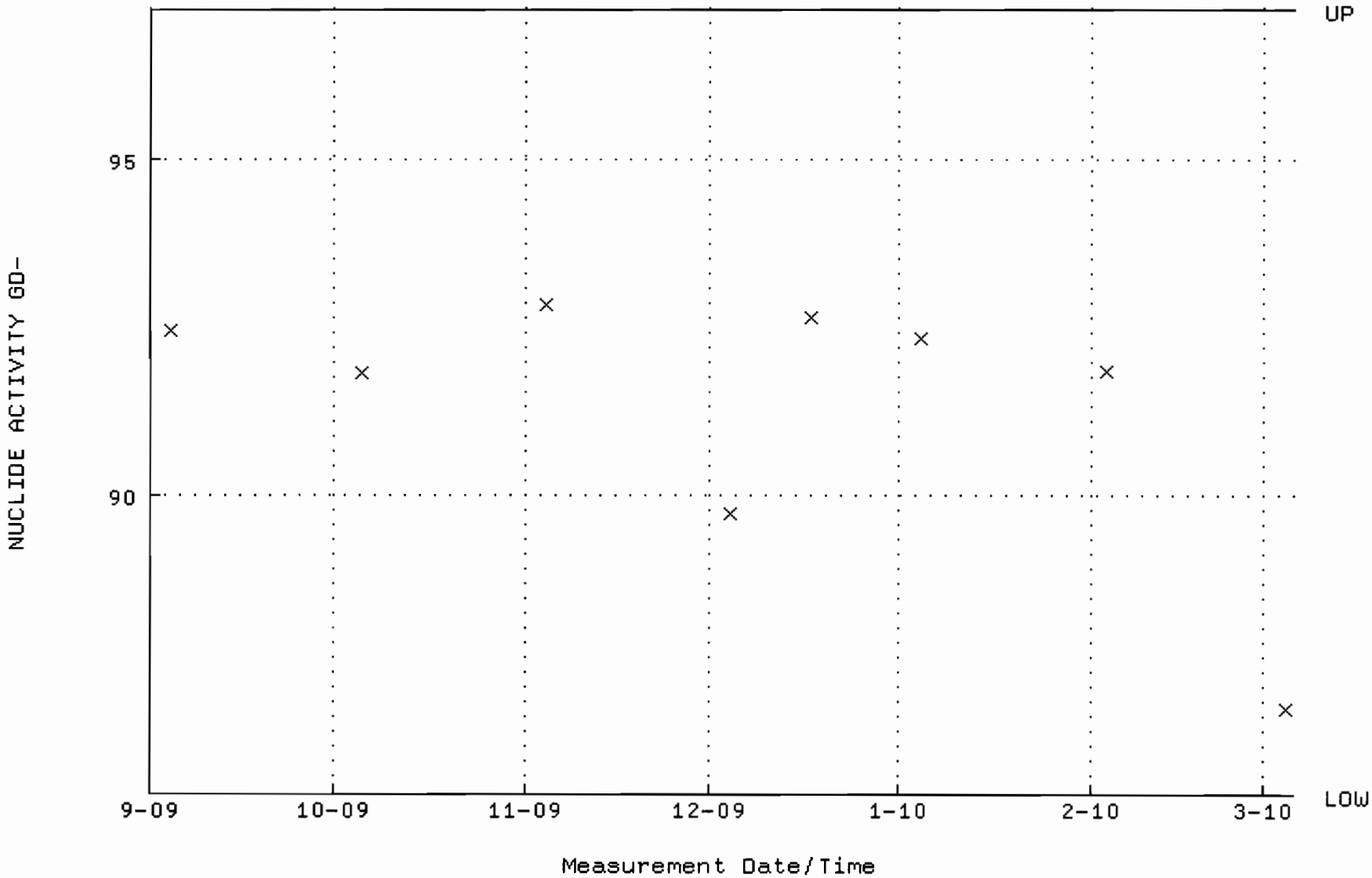

QA filename : DKA100:[ENV_ALPHA.QA.B]B013.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:02 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

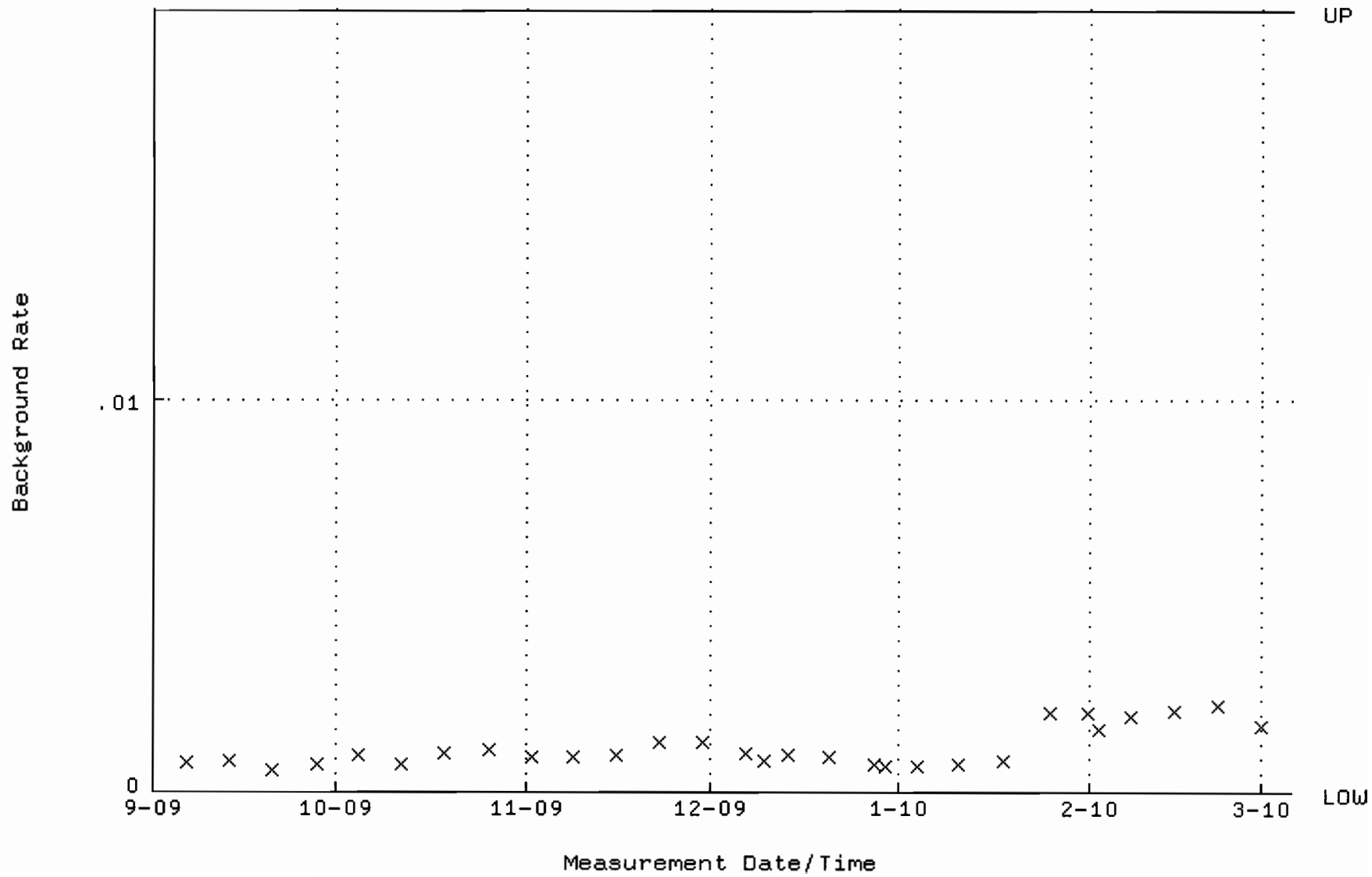

QA filename : DKA100:[ENV_ALPHA.QA.W]W014.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.288973 through 0.340739

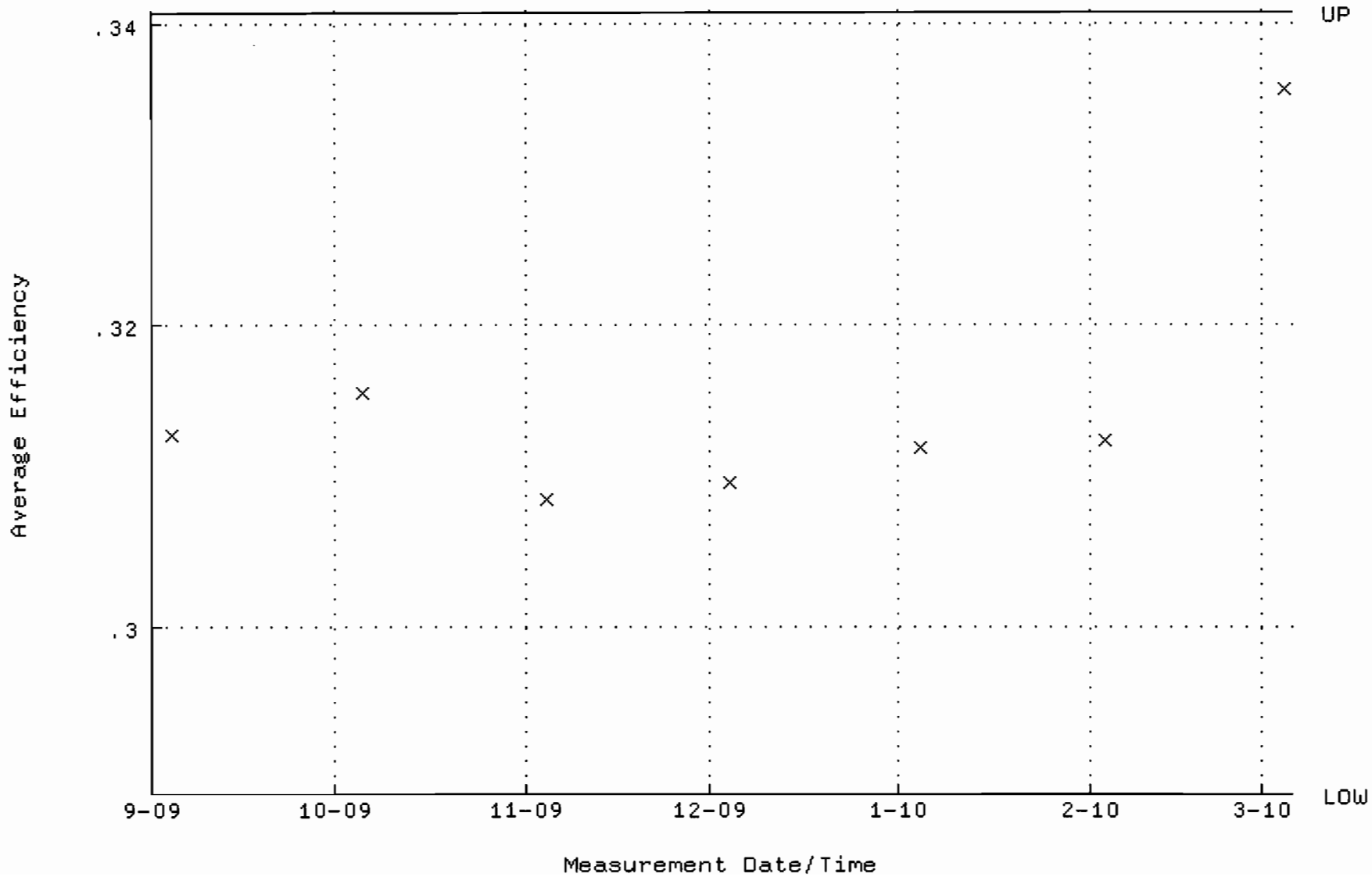

QA filename : DKA100:[ENV_ALPHA.QA.W]W014.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:41 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 87.9529 through 99.8771

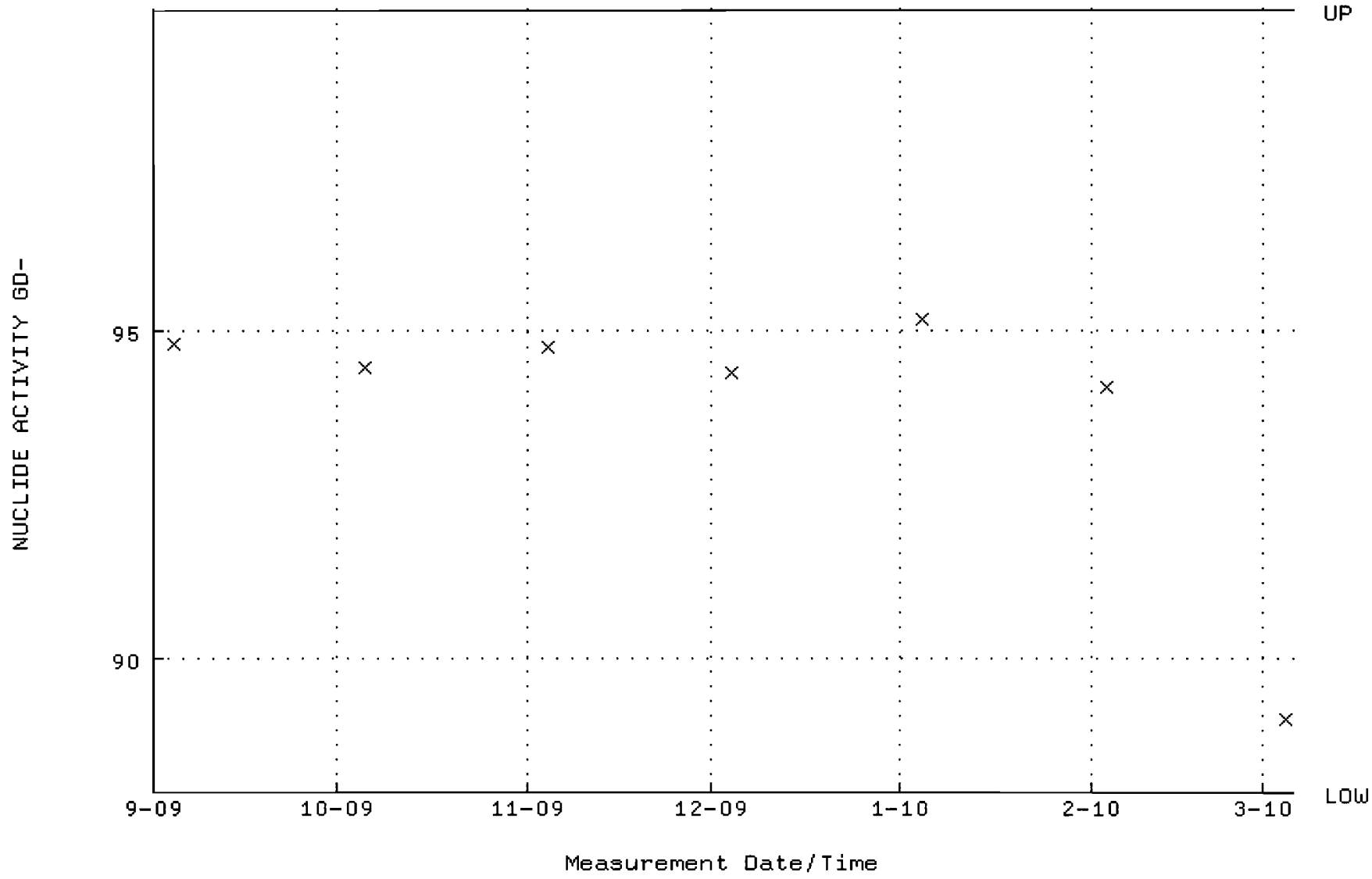

QA filename : DKA100:[ENV_ALPHA.QA.B]B014.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:02 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

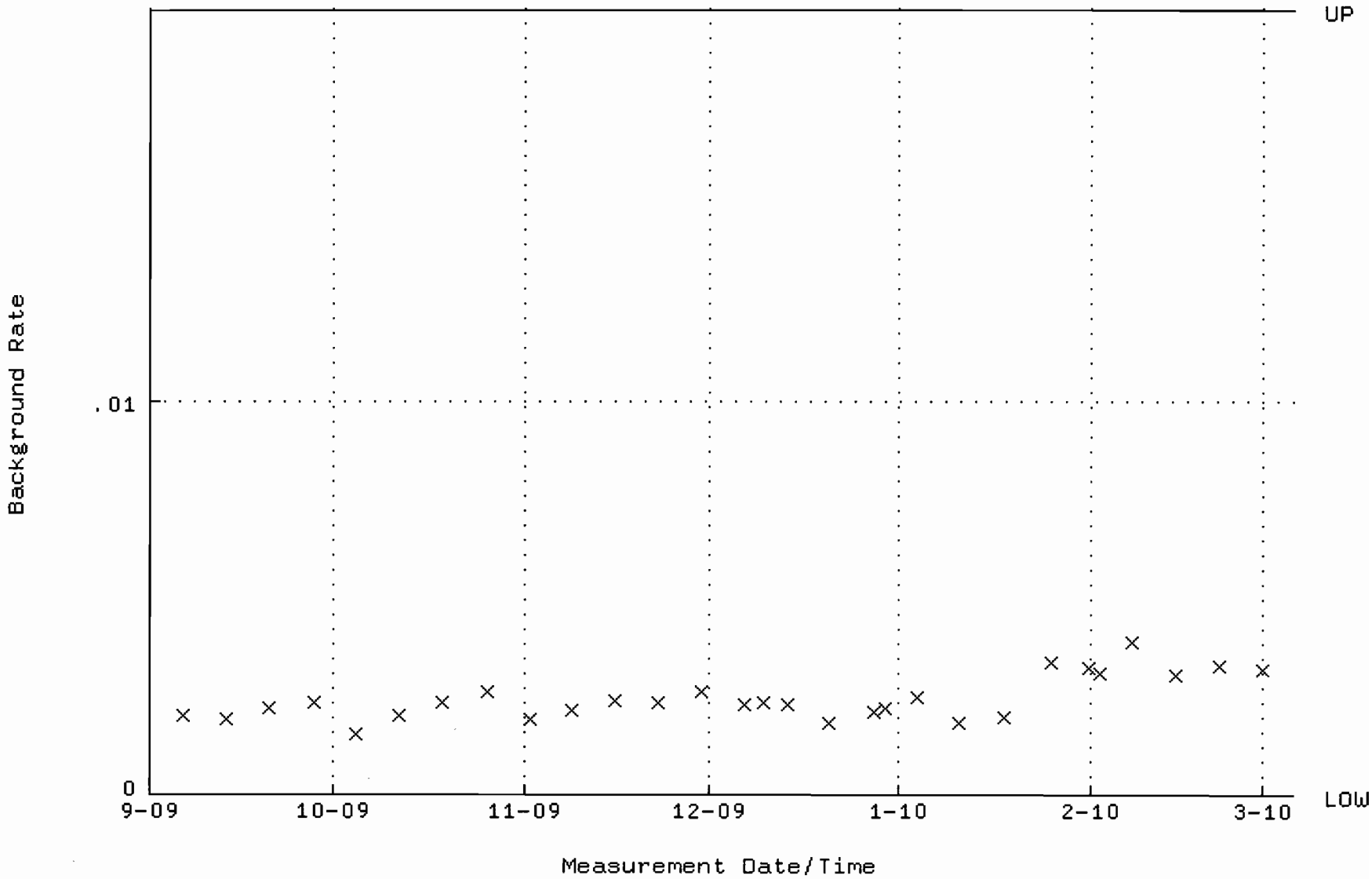

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.309960 through 0.321424

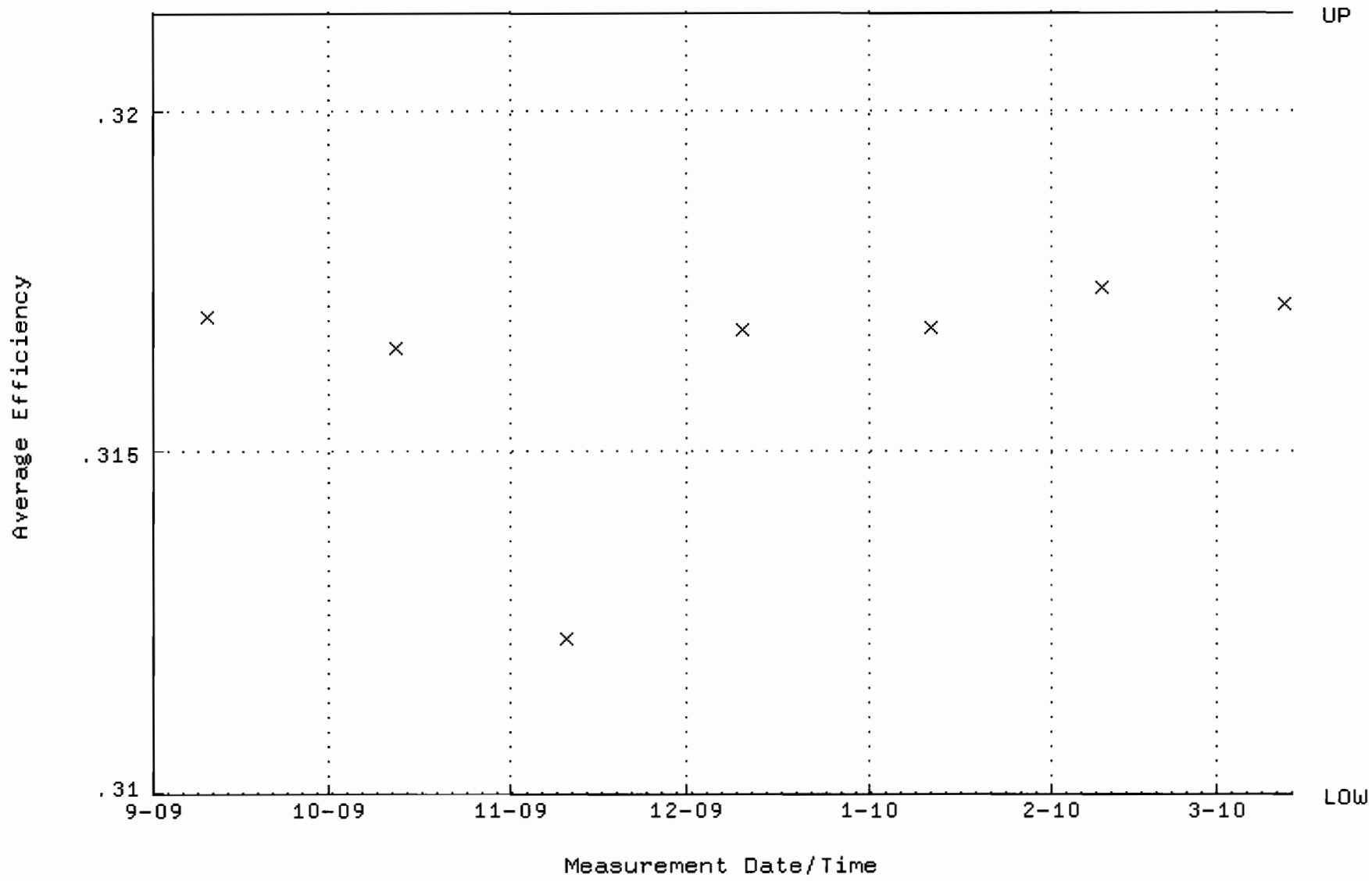

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 88.0938 through 92.5190

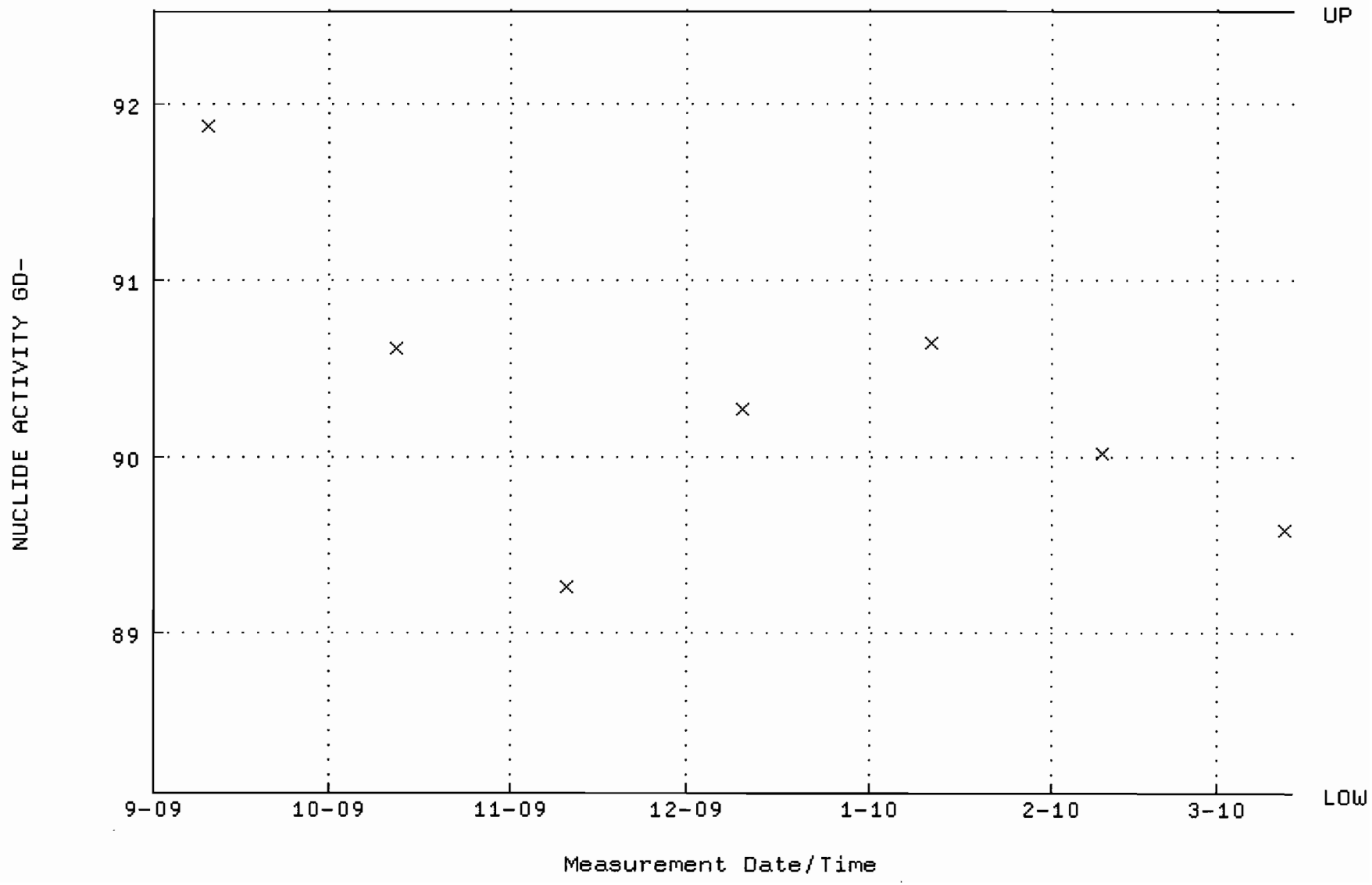

QA filename : DKA100:[ENV_ALPHA.QA.B]B074.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:07 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

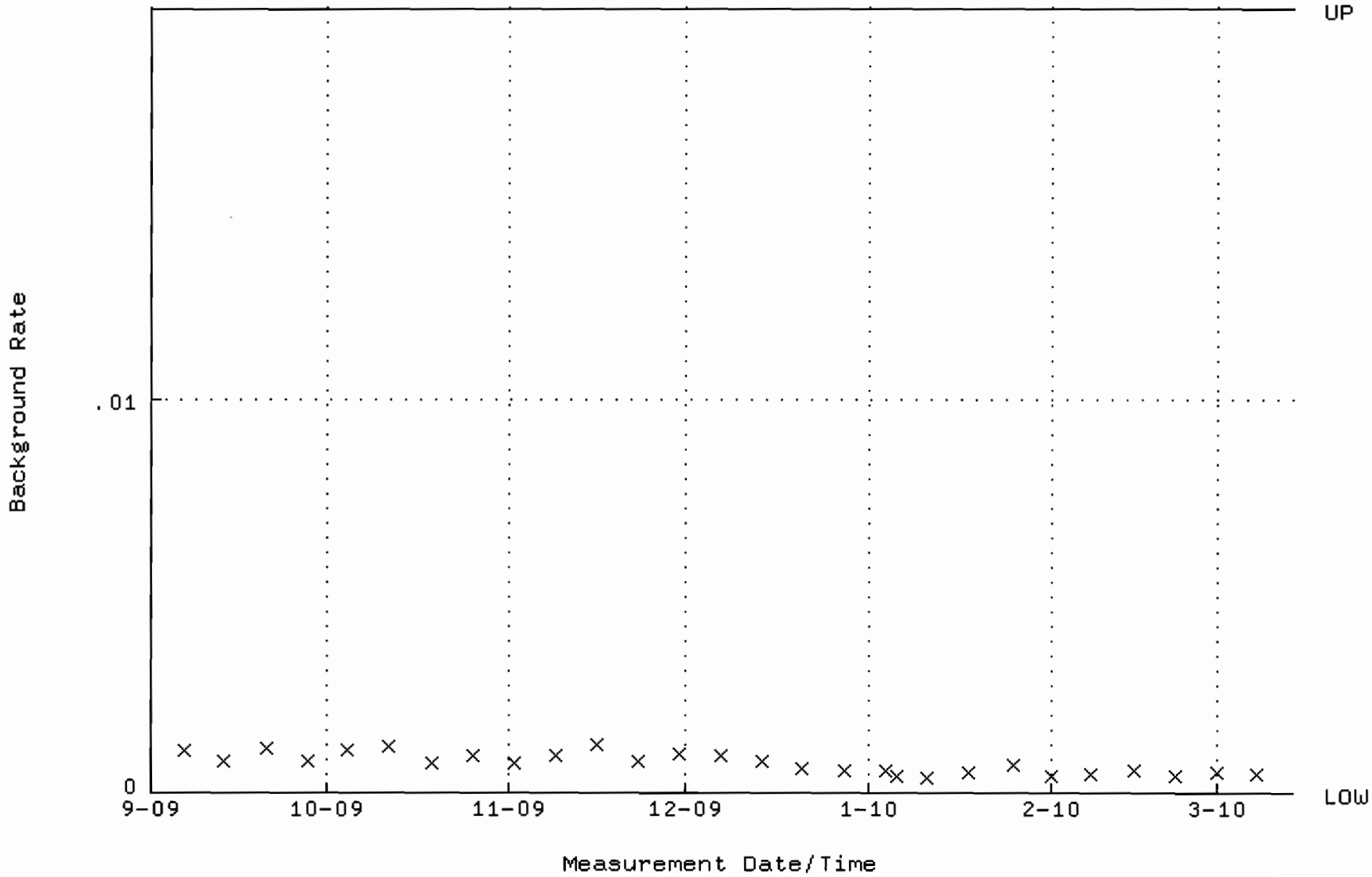

QA filename : DKA100:[ENV_ALPHA.QA.W]W075.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.279983 through 0.335803

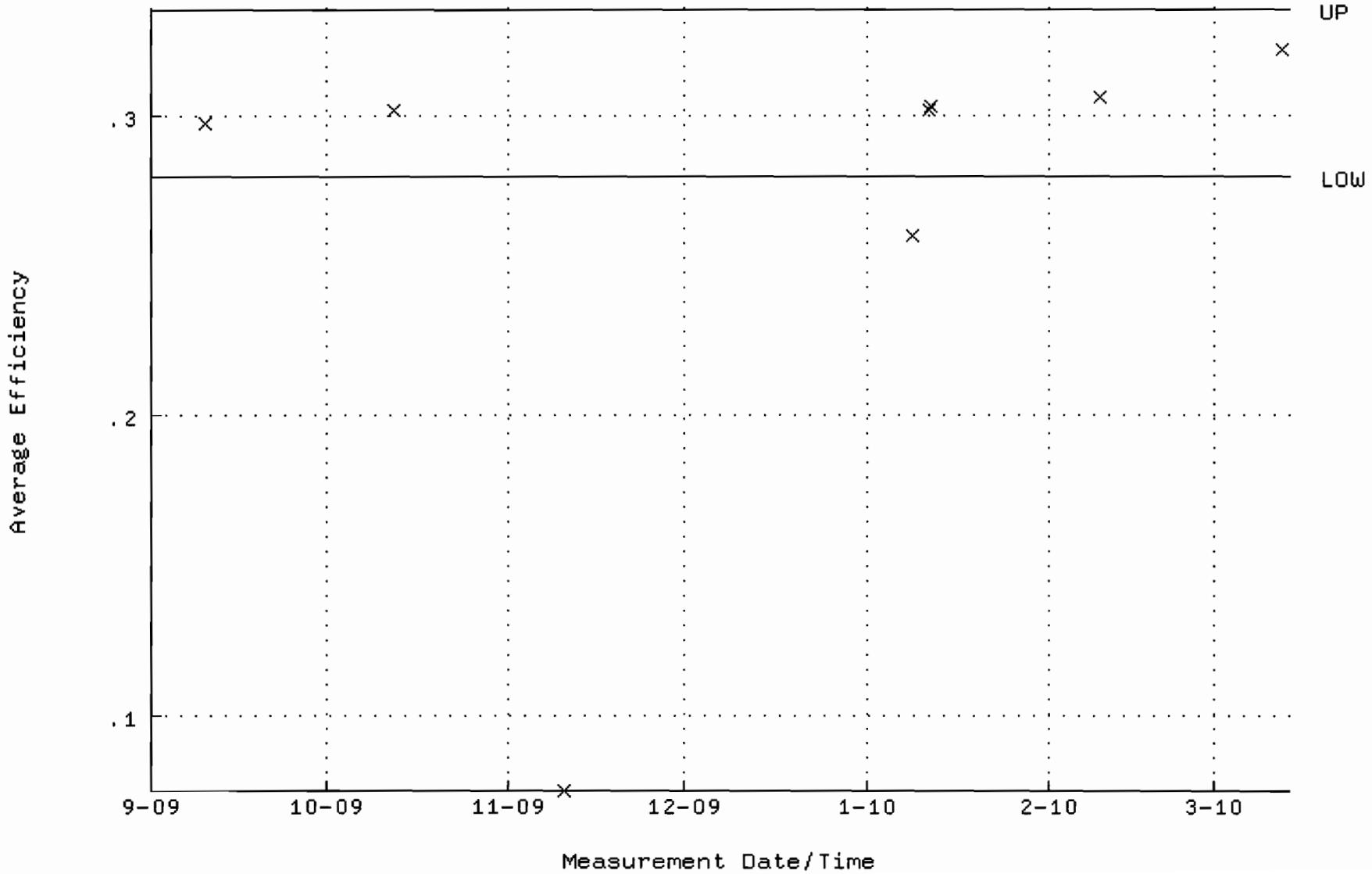

QA filename : DKA100:[ENV_ALPHA.QA.W]W075.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 86.1031 through 102.173

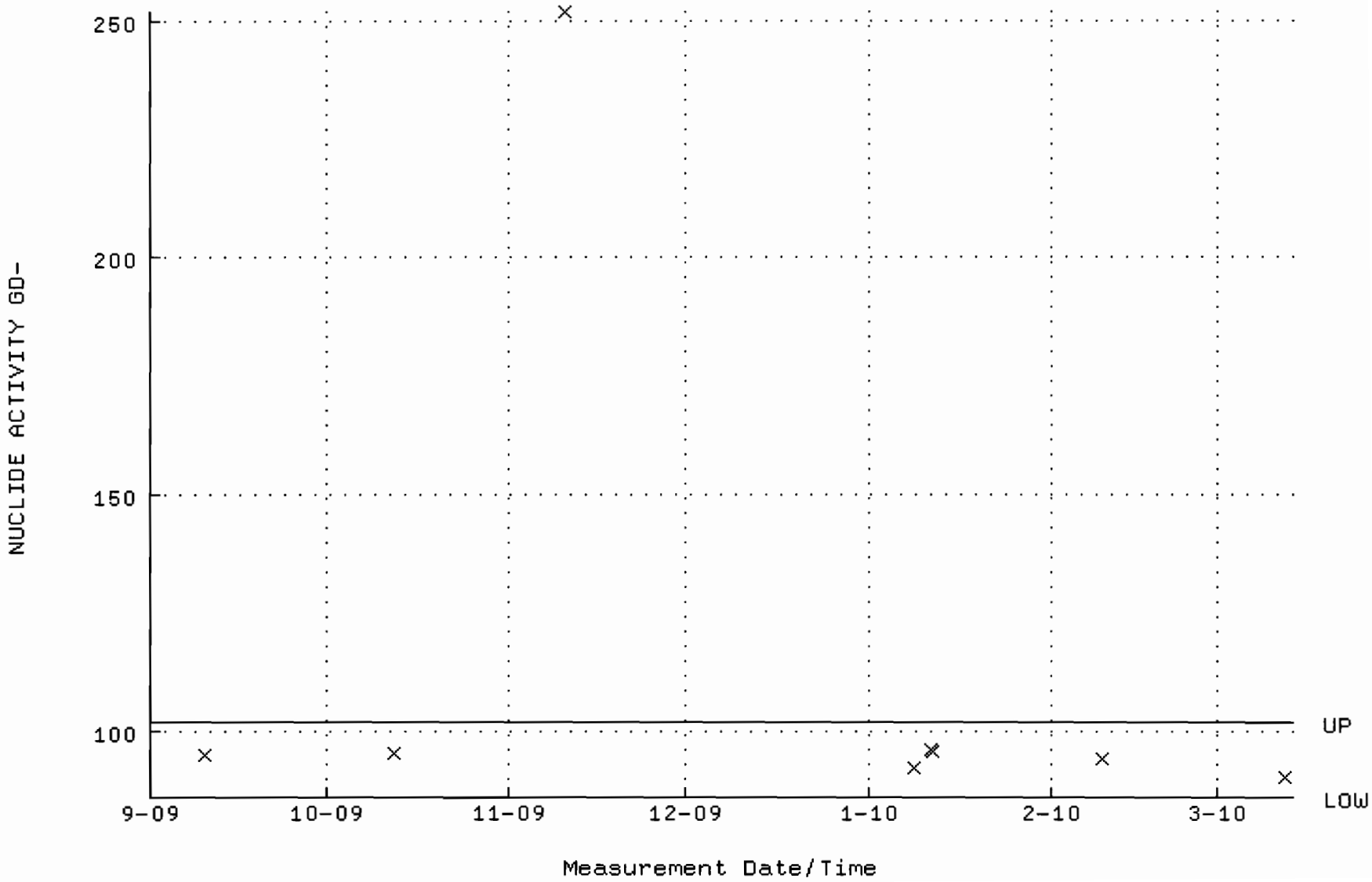

QA filename : DKA100:[ENV_ALPHA.QA.B]B075.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:07 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

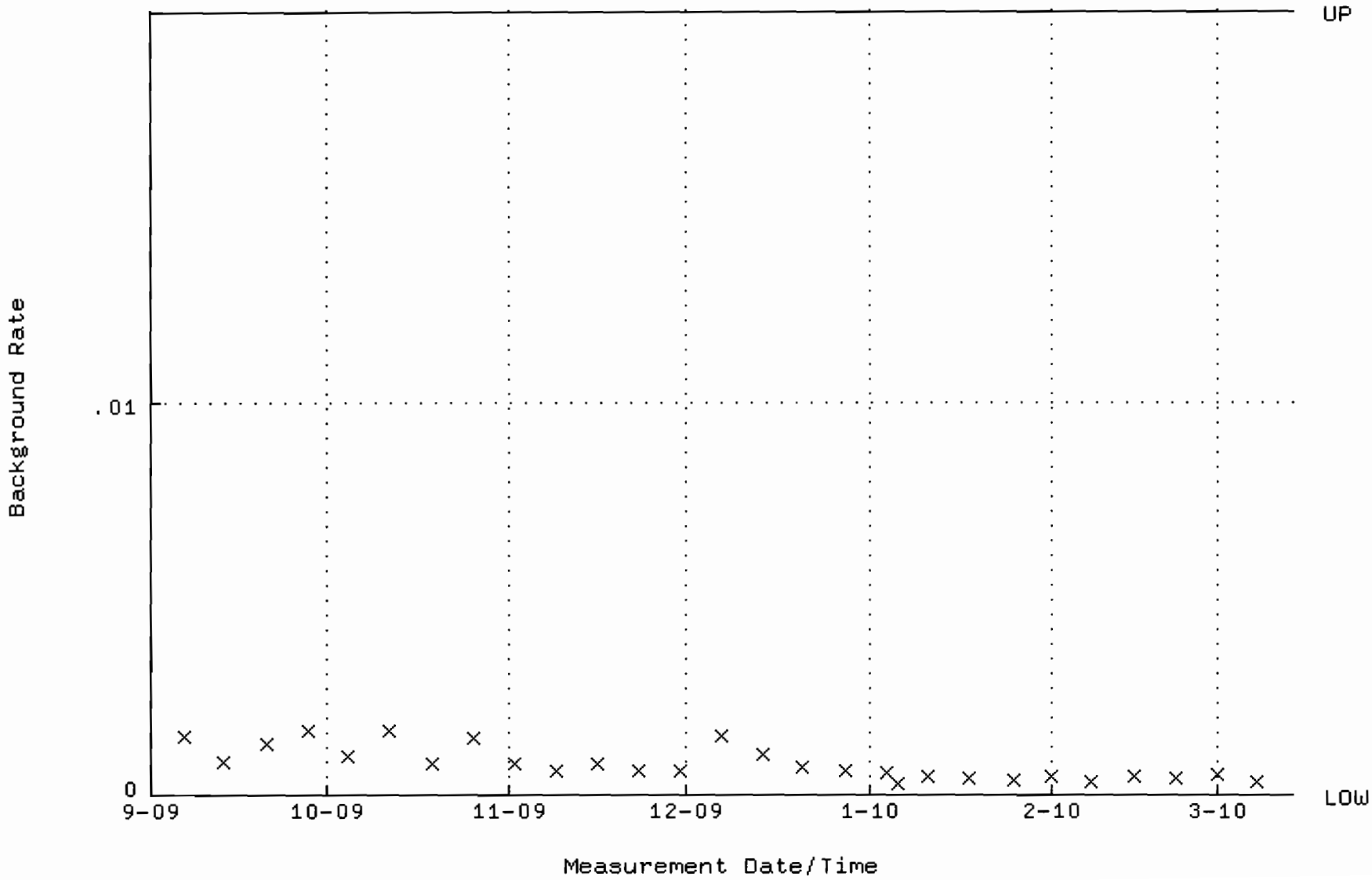

QA filename : DKA100:[ENV_ALPHA.QA.W]W076.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.296554 through 0.316286

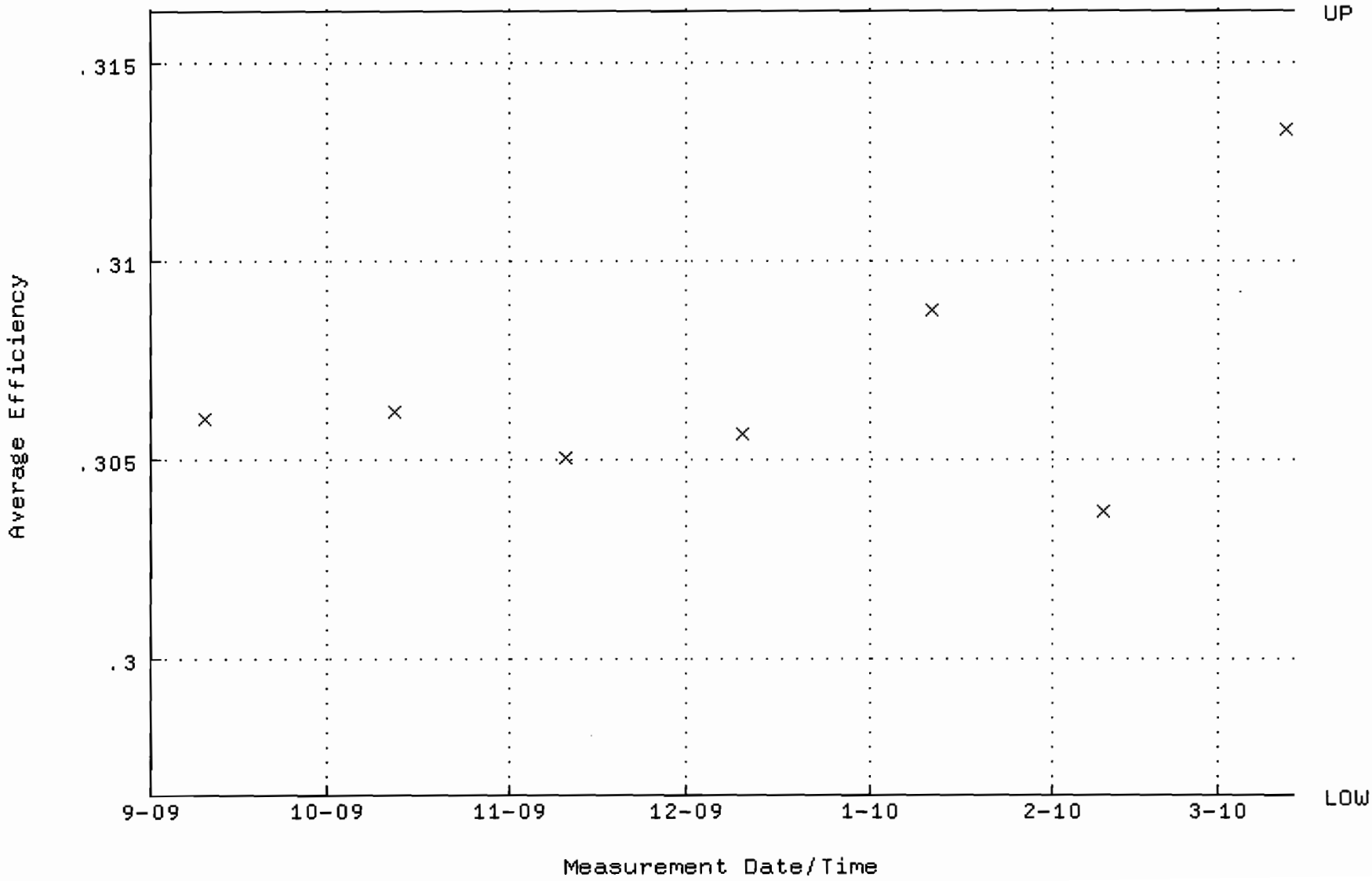

QA filename : DKA100:[ENV_ALPHA.QA.W]W076.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-SEP-2009 07:45:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 89.7306 through 94.6123

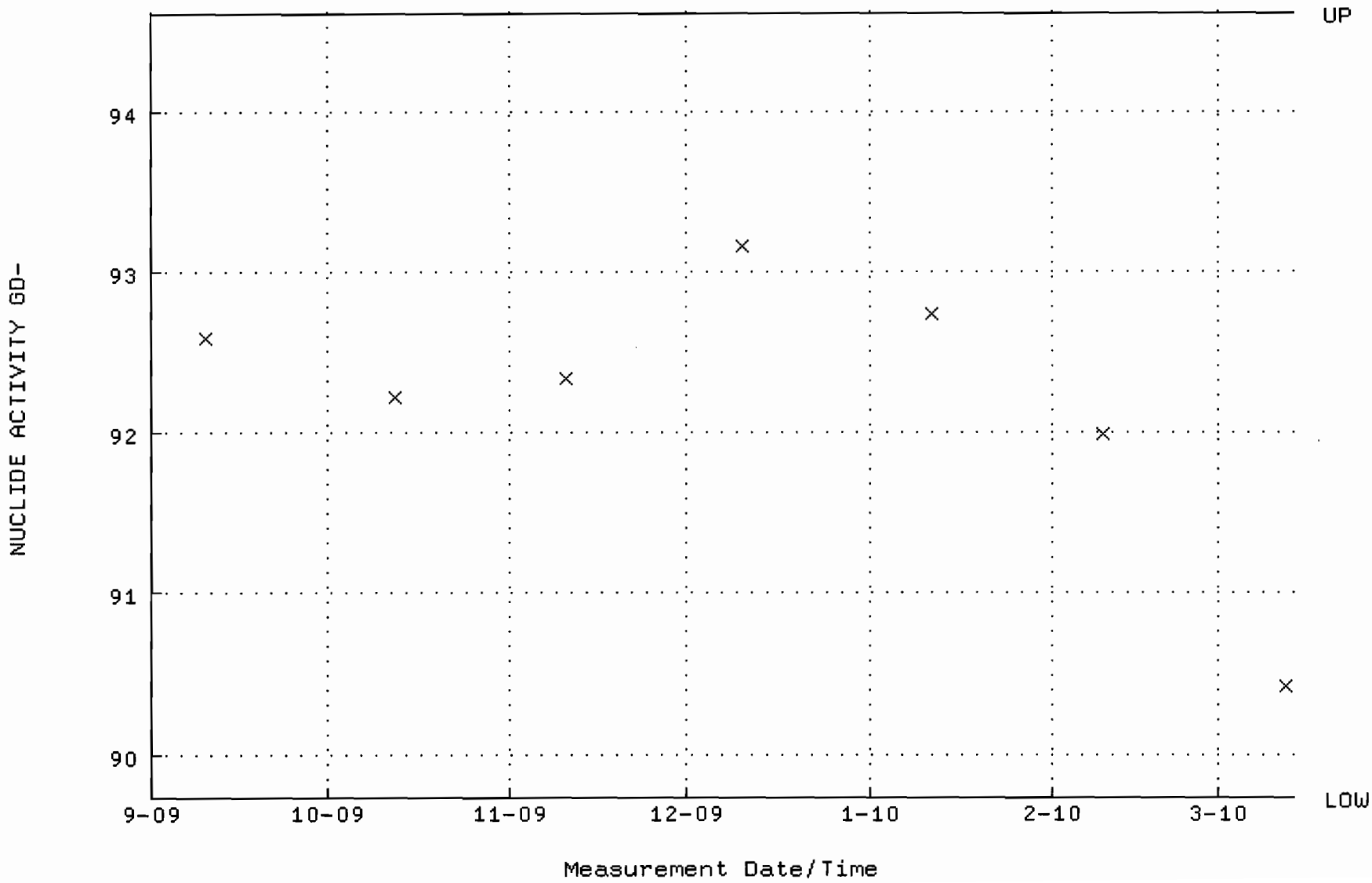

QA filename : DKA100:[ENV_ALPHA.QA.B]B076.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:07 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

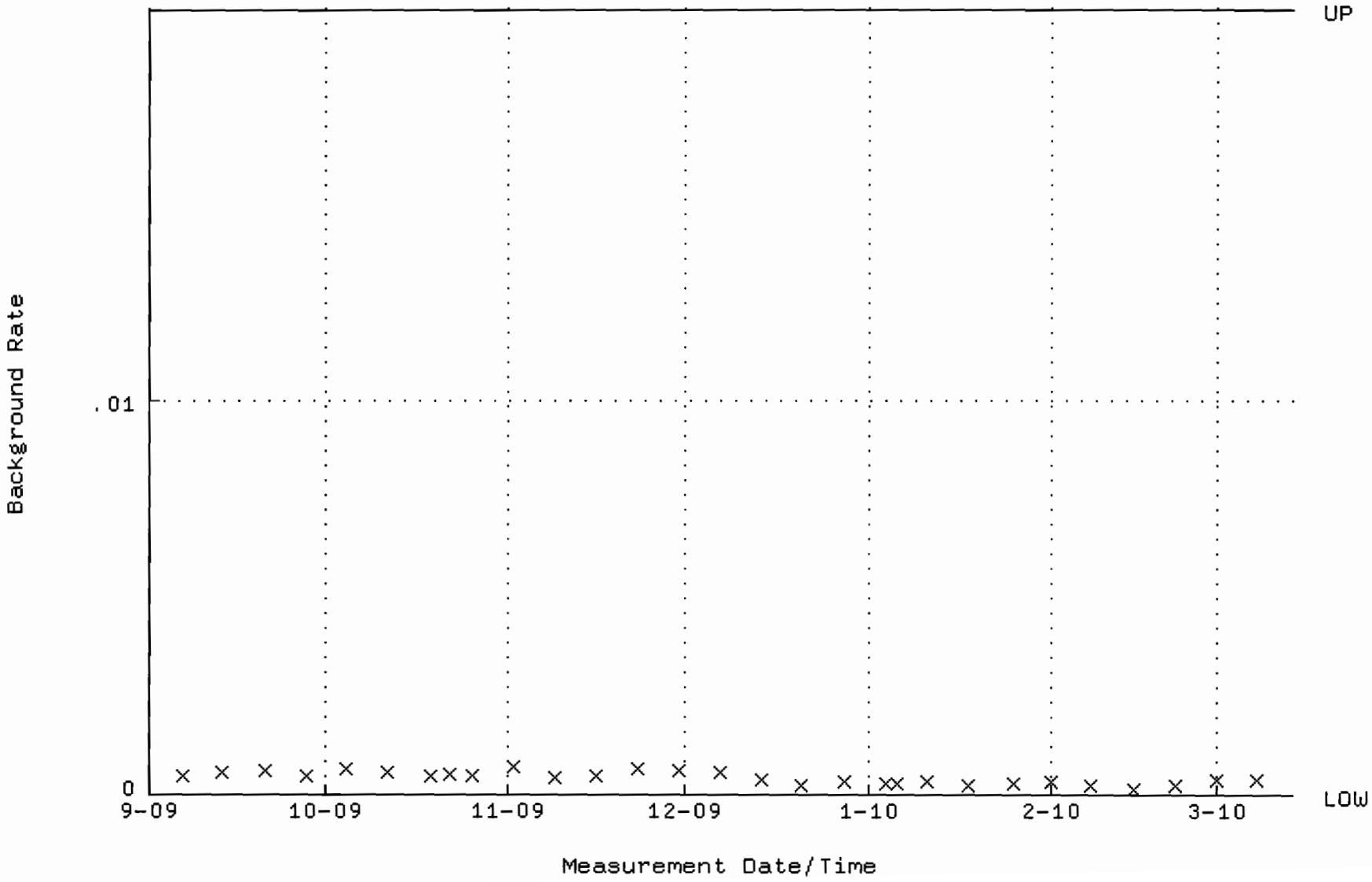

QA filename : DKA100:[ENV_ALPHA.QA.W]W077.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.308586 through 0.334896

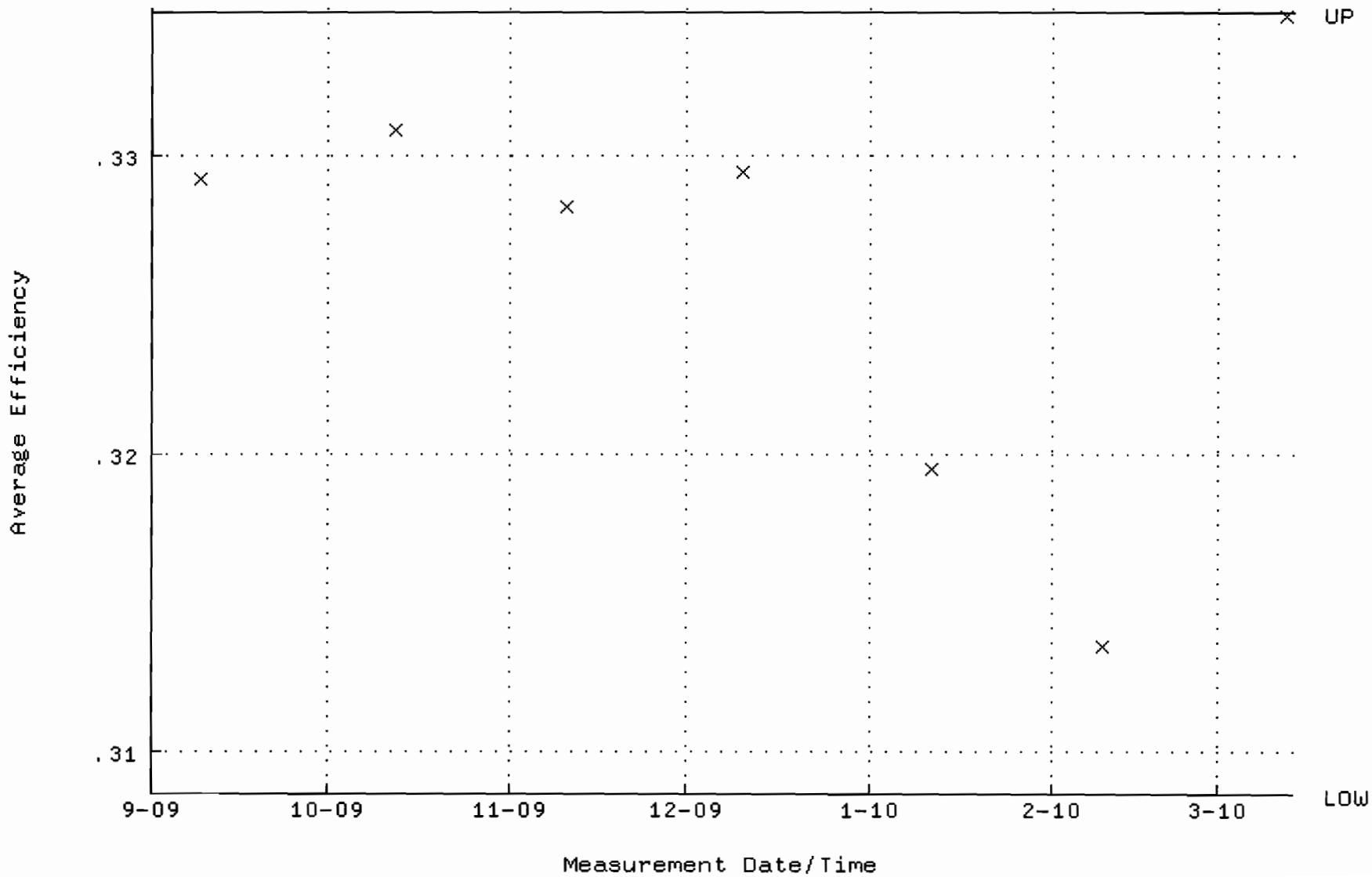

QA filename : DKA100:[ENV_ALPHA.QA.W]W077.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5208 through 109.251

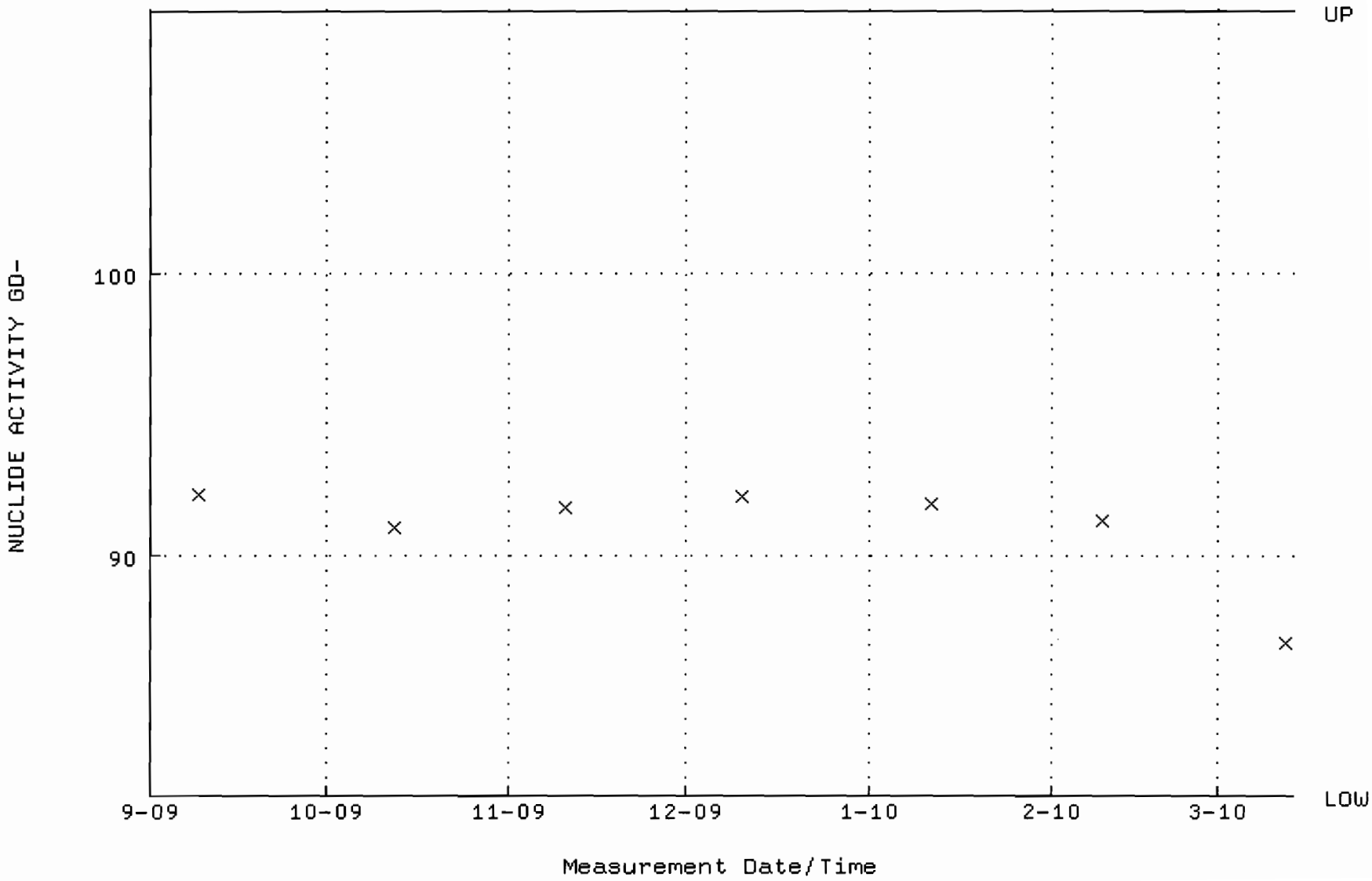

QA filename : DKA100:[ENV_ALPHA.QA.B]B077.QAF;3
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:08 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

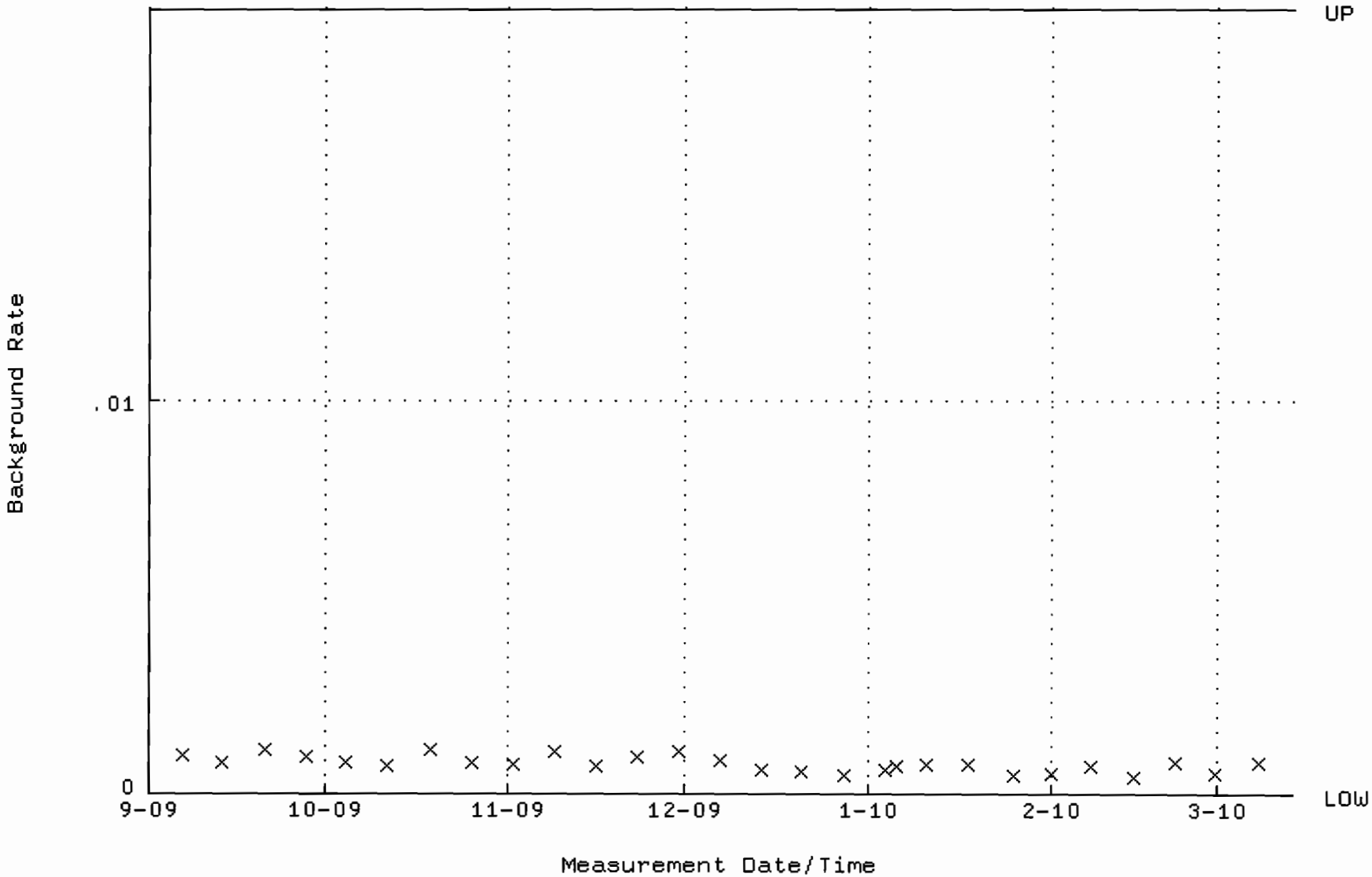

QA filename : DKA100:[ENV_ALPHA.QA.W]W079.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.318618 through 0.329958

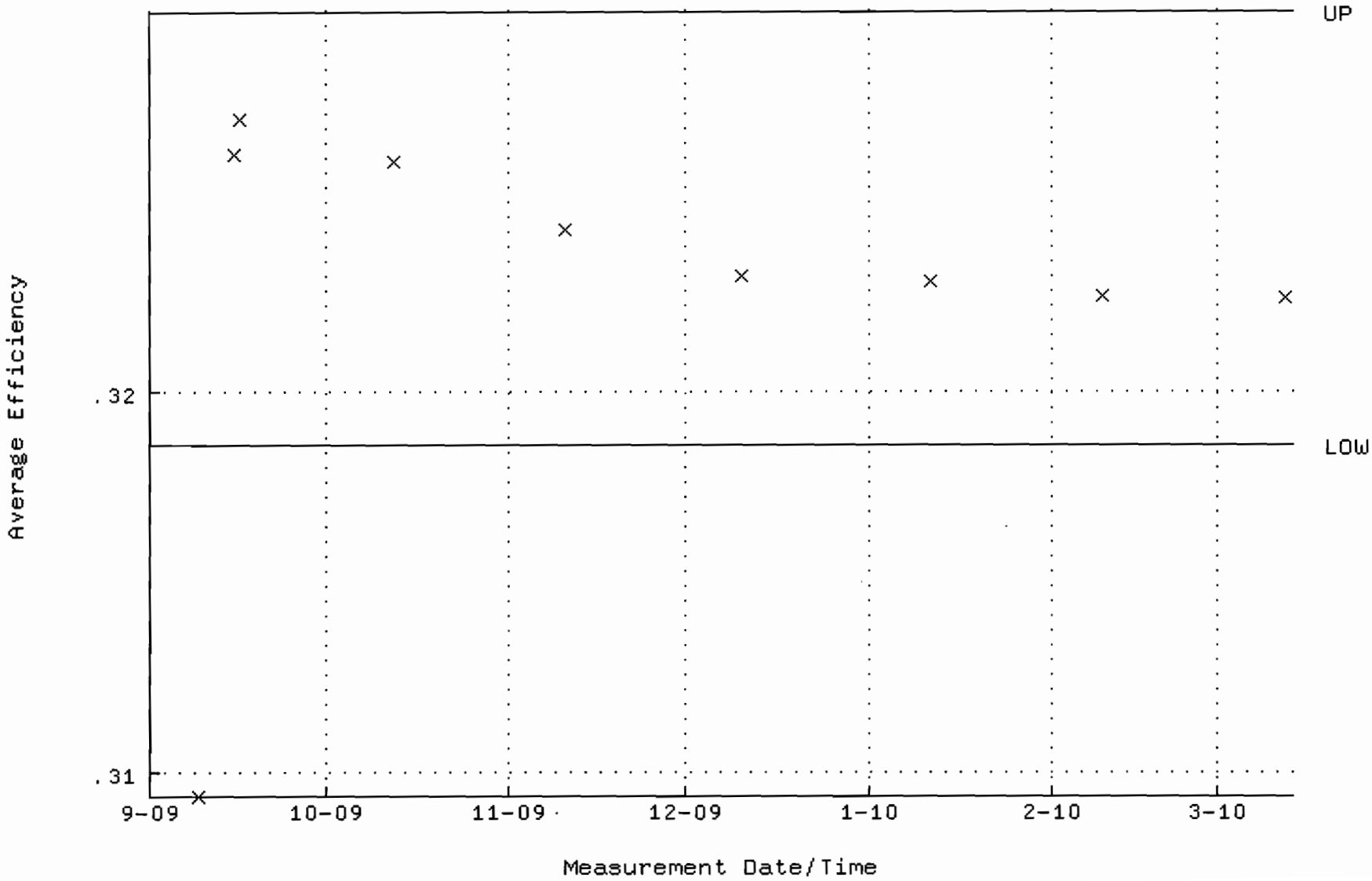

QA filename : DKA100:[ENV_ALPHA.QA.W]W079.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 88.8821 through 92.8259

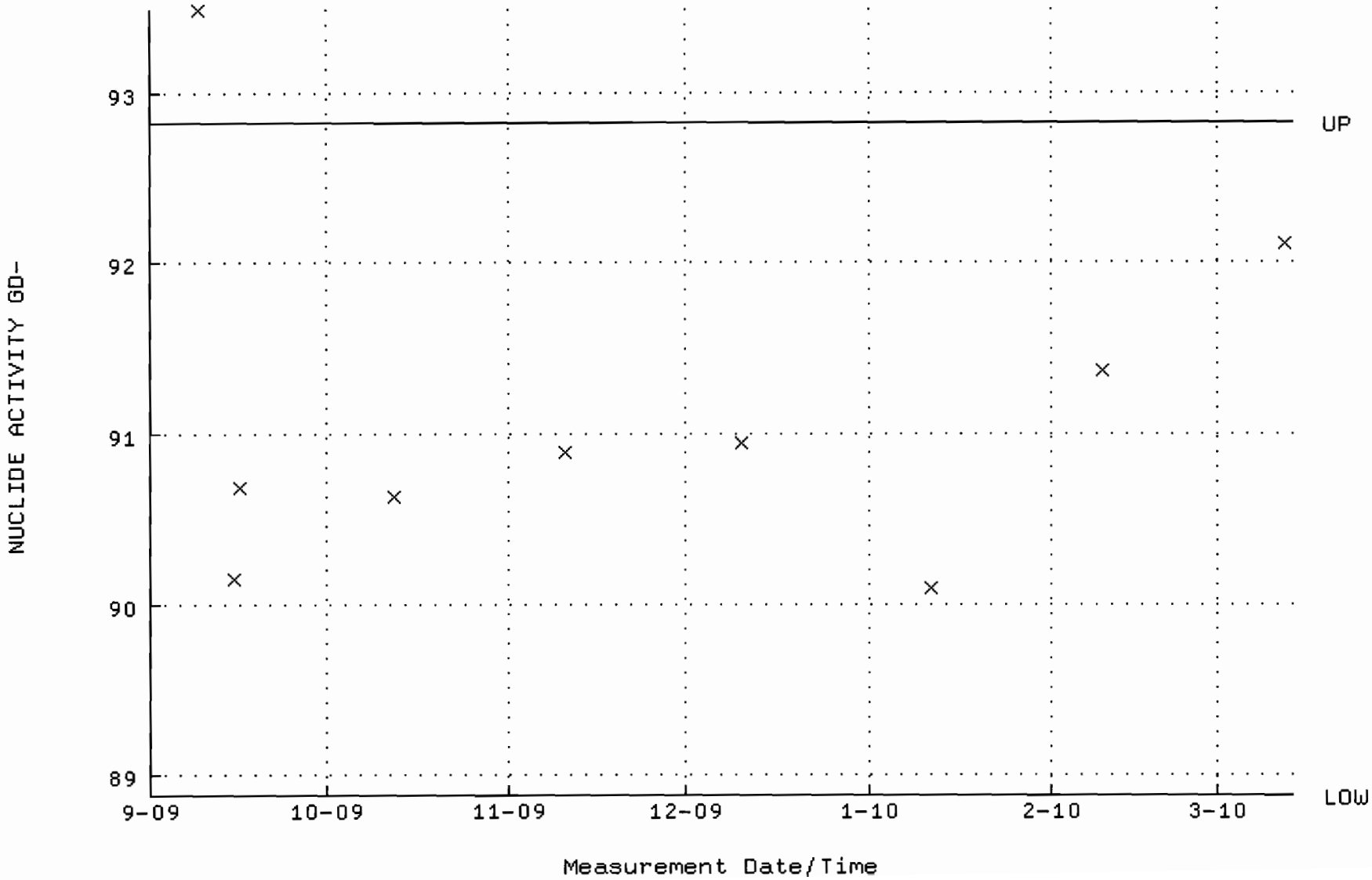

QA filename : DKA100:[ENV_ALPHA.QA.B]B079.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:08 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

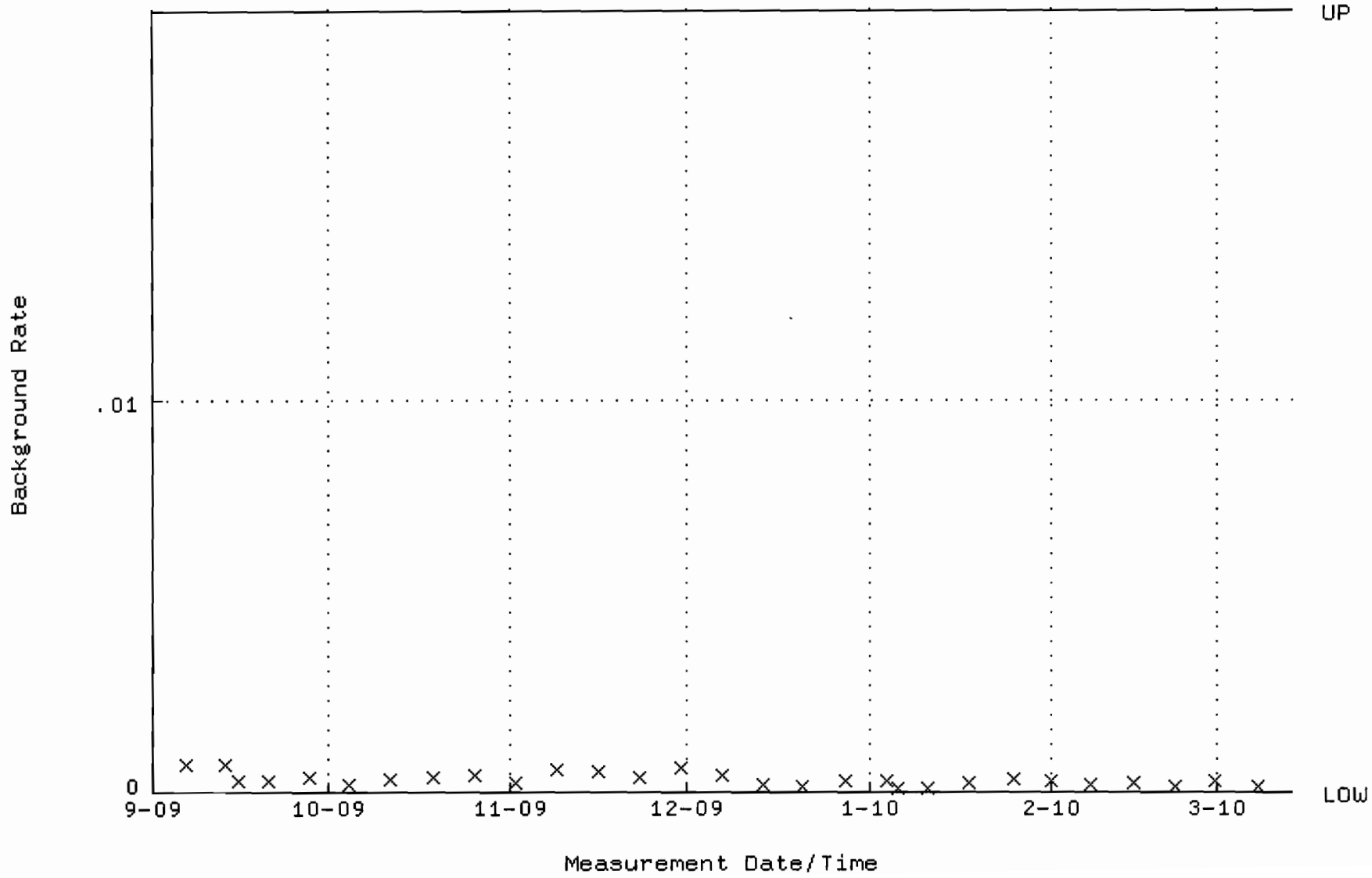

QA filename : DKA100:[ENV_ALPHA.QA.W]W080.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.329119 through 0.338613

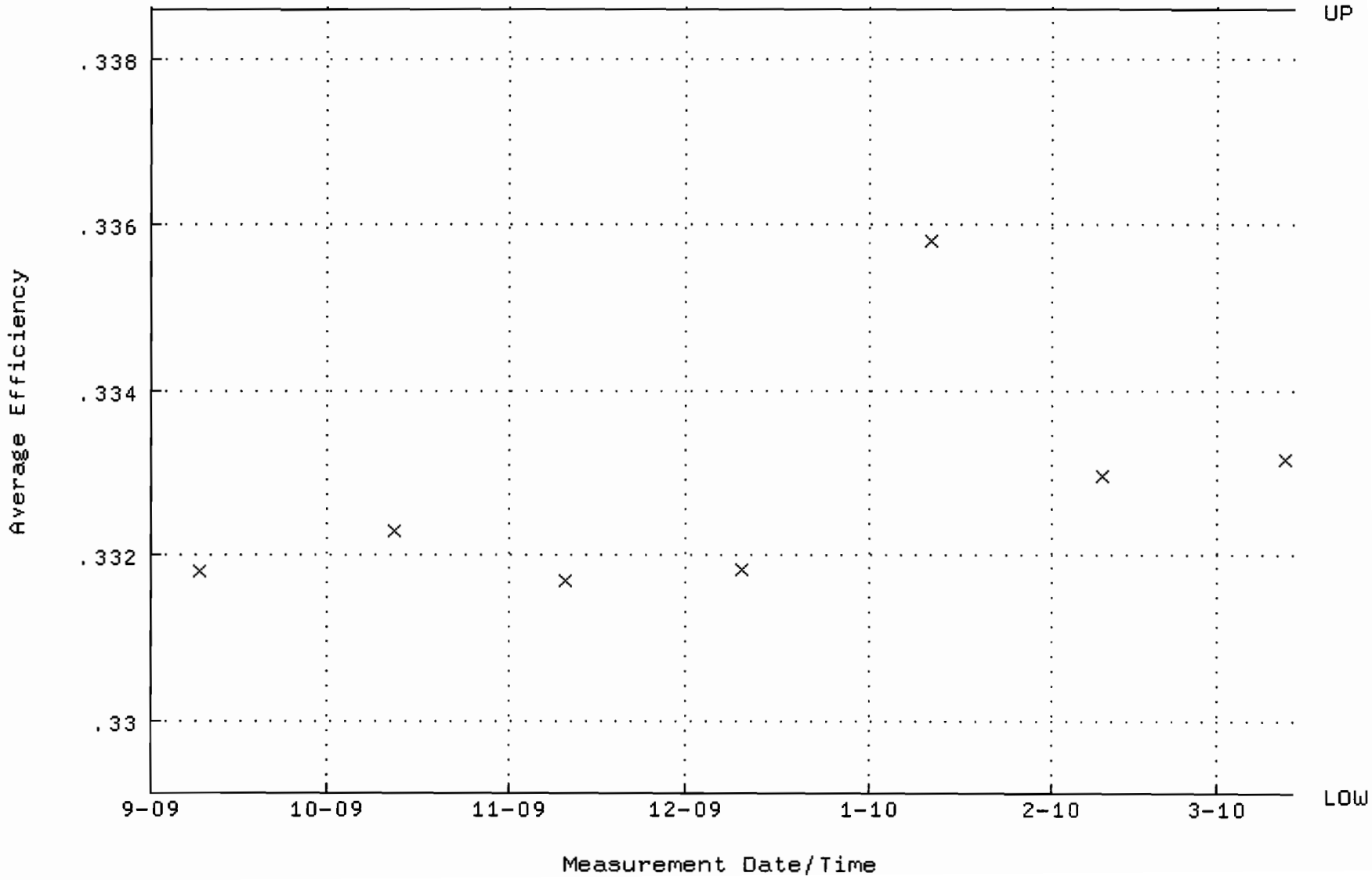

QA filename : DKA100:[ENV_ALPHA.QA.W]W080.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 89.2967 through 92.1199

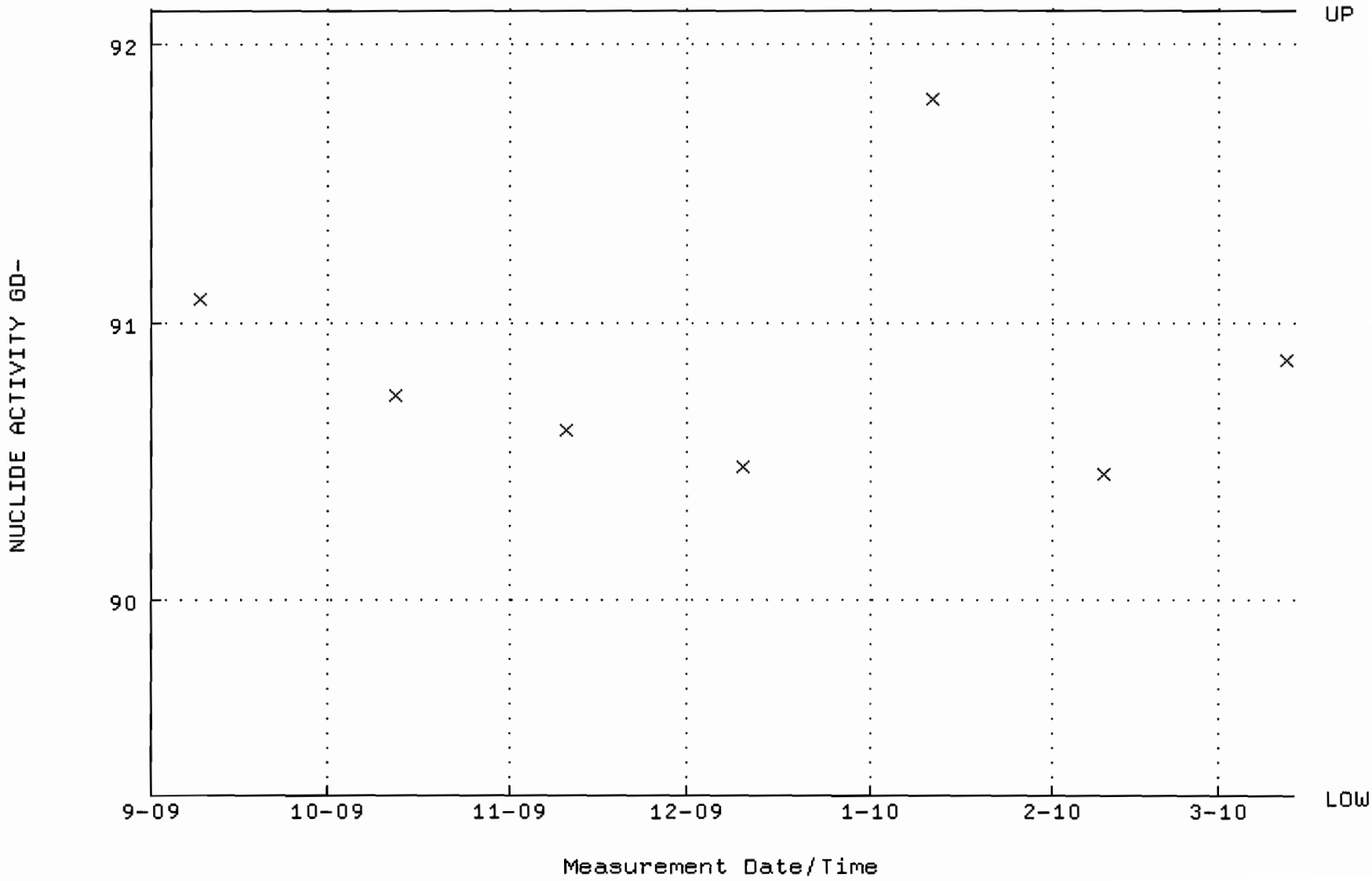

QA filename : DKA100:[ENV_ALPHA.QA.B]B080.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:08 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

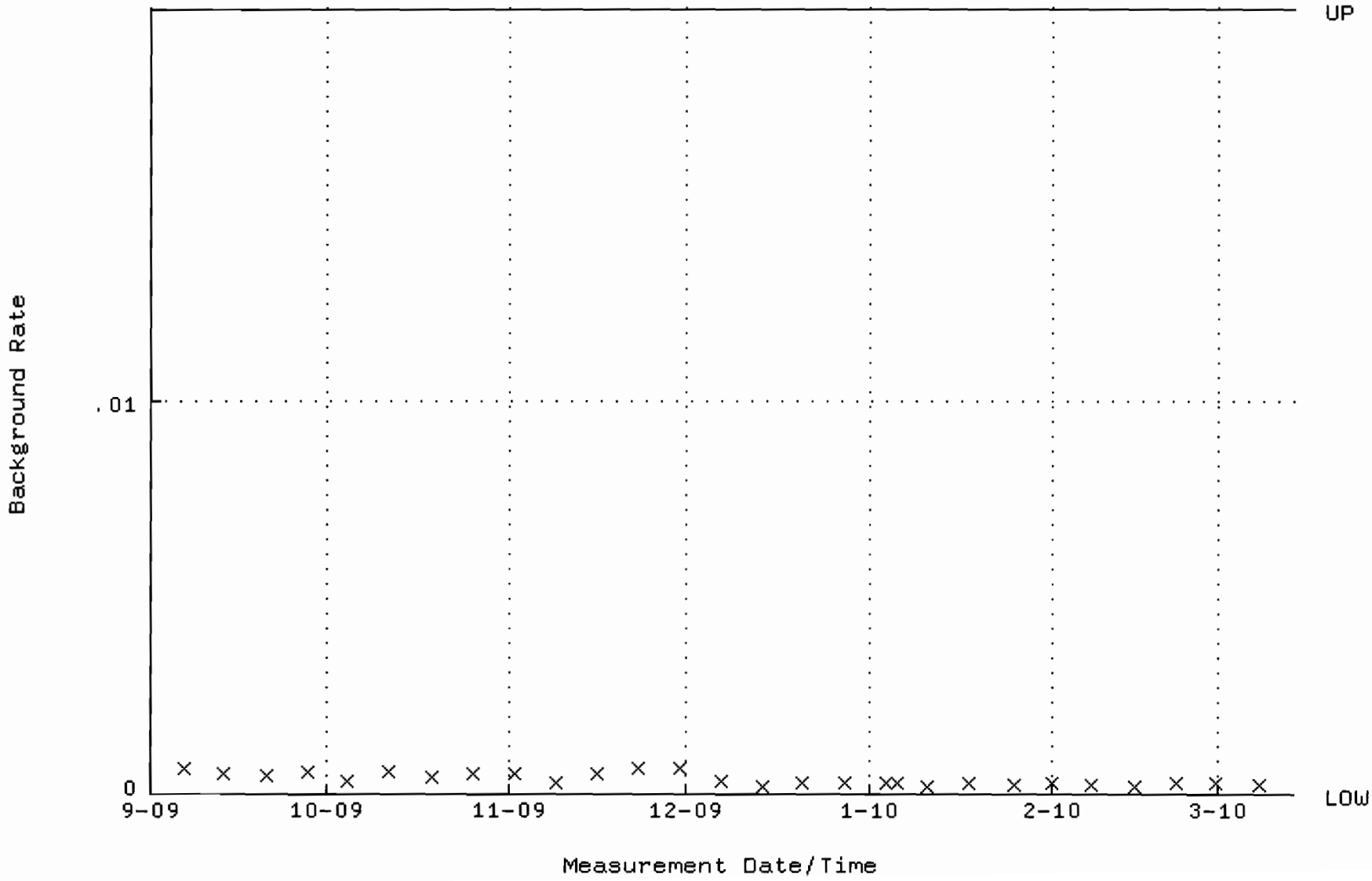

QA filename : DKA100:[ENV_ALPHA.QA.W]W081.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.306696 through 0.339366

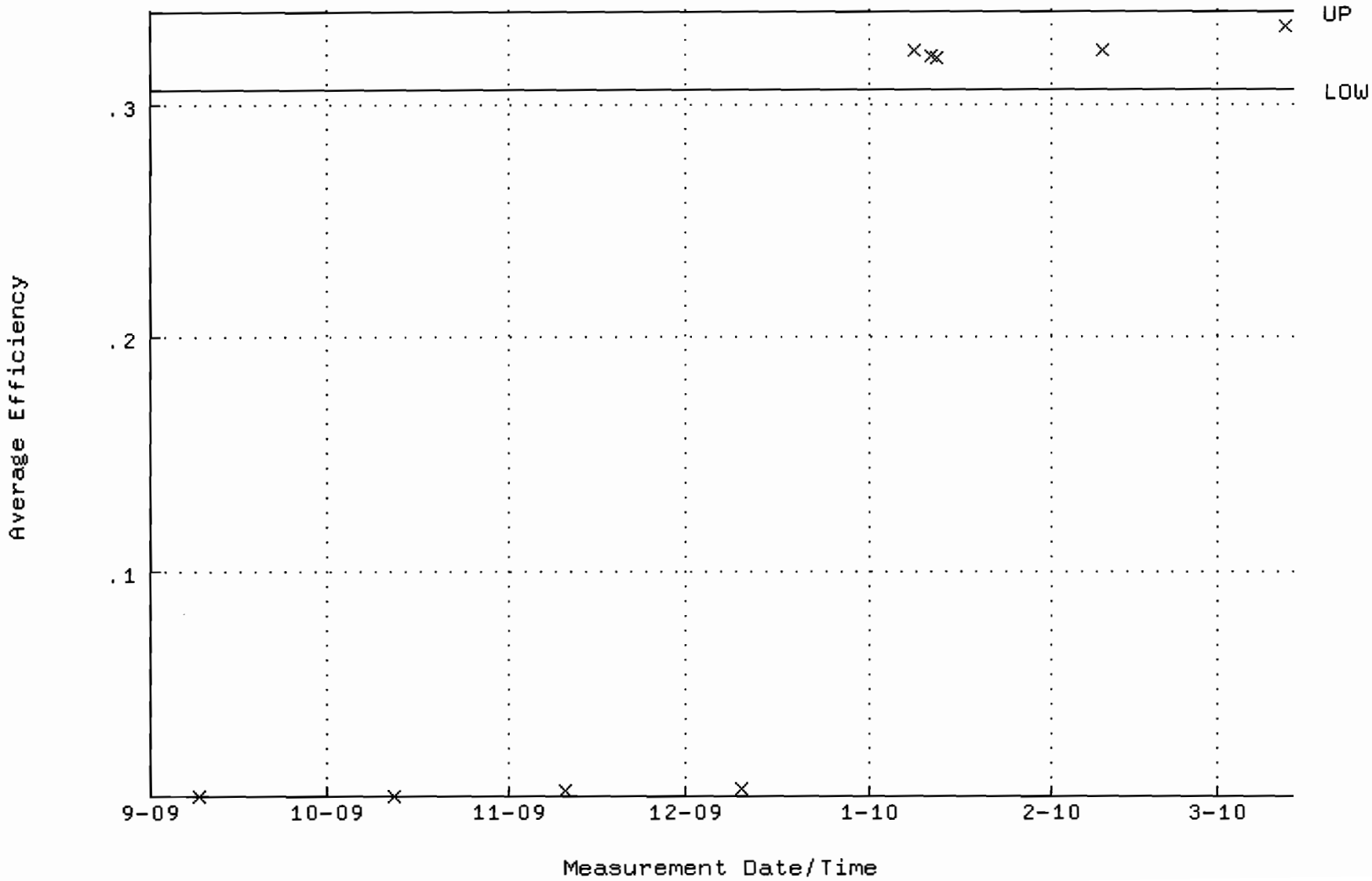

QA filename : DKA100:[ENV_ALPHA.QA.W]W081.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 87.8151 through 98.1913

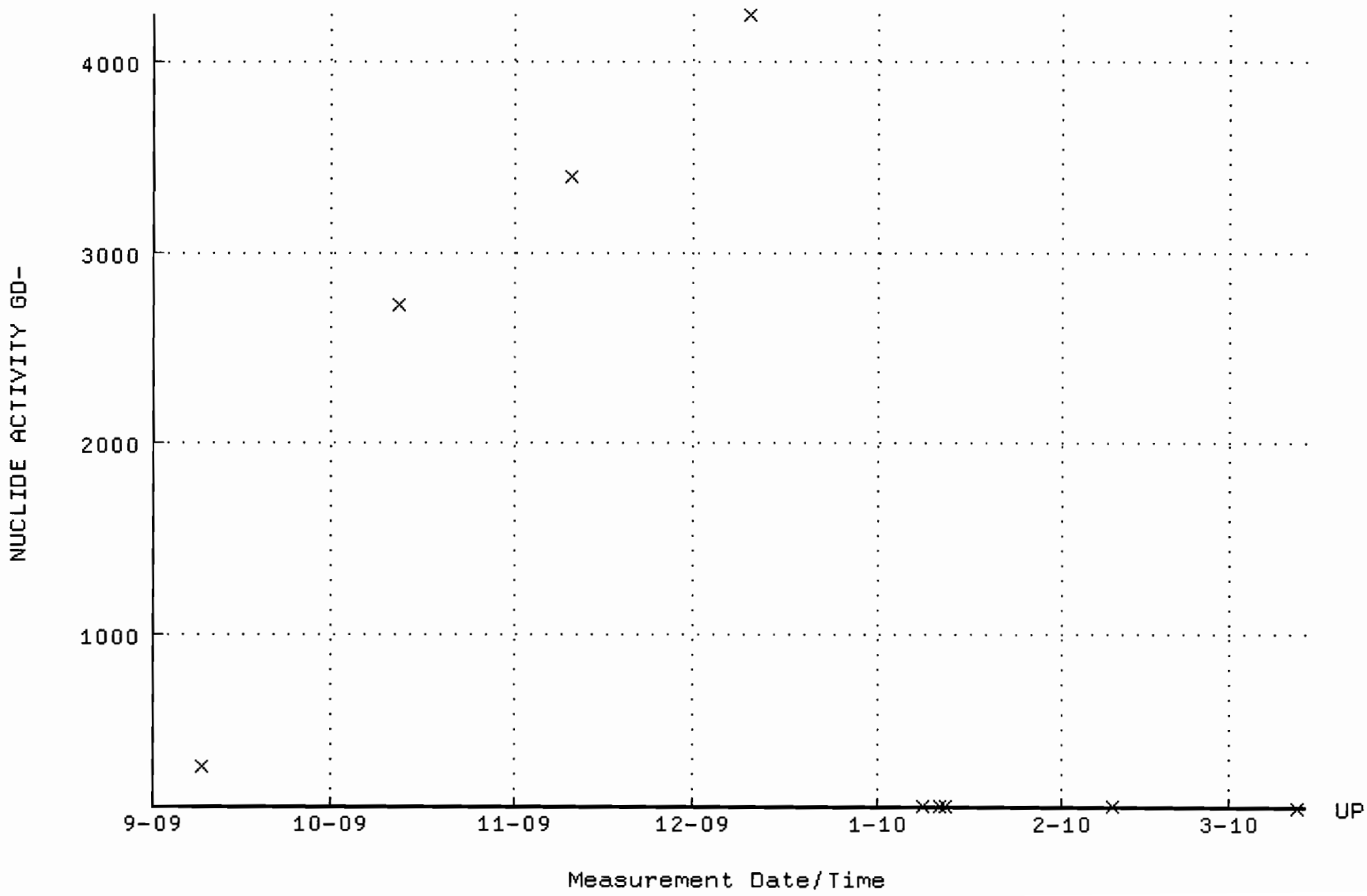

QA filename : DKA100:[ENV_ALPHA.QA.B]B081.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:08 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

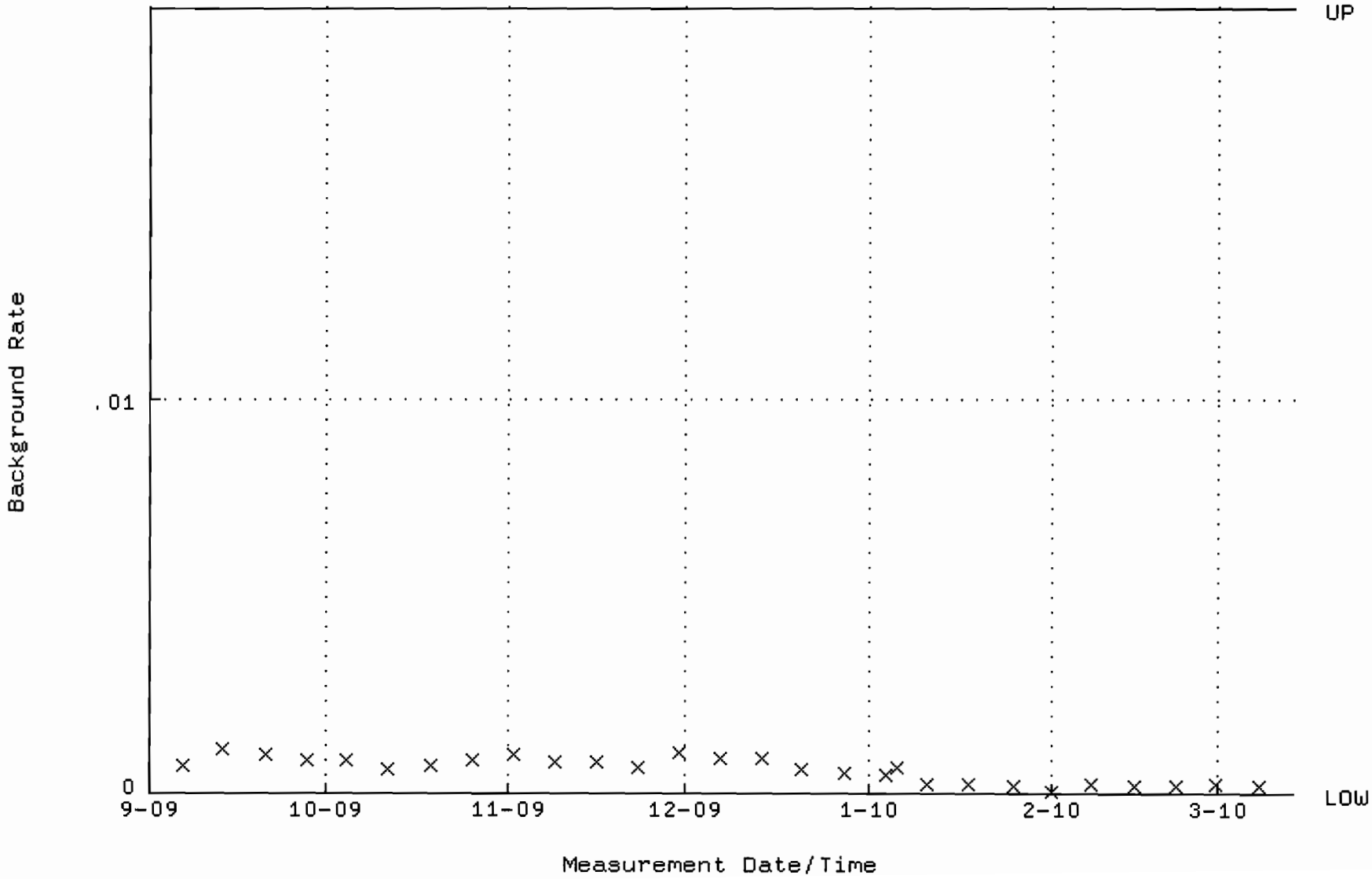

QA filename : DKA100:[ENV_ALPHA.QA.W]W082.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.300260 through 0.351240

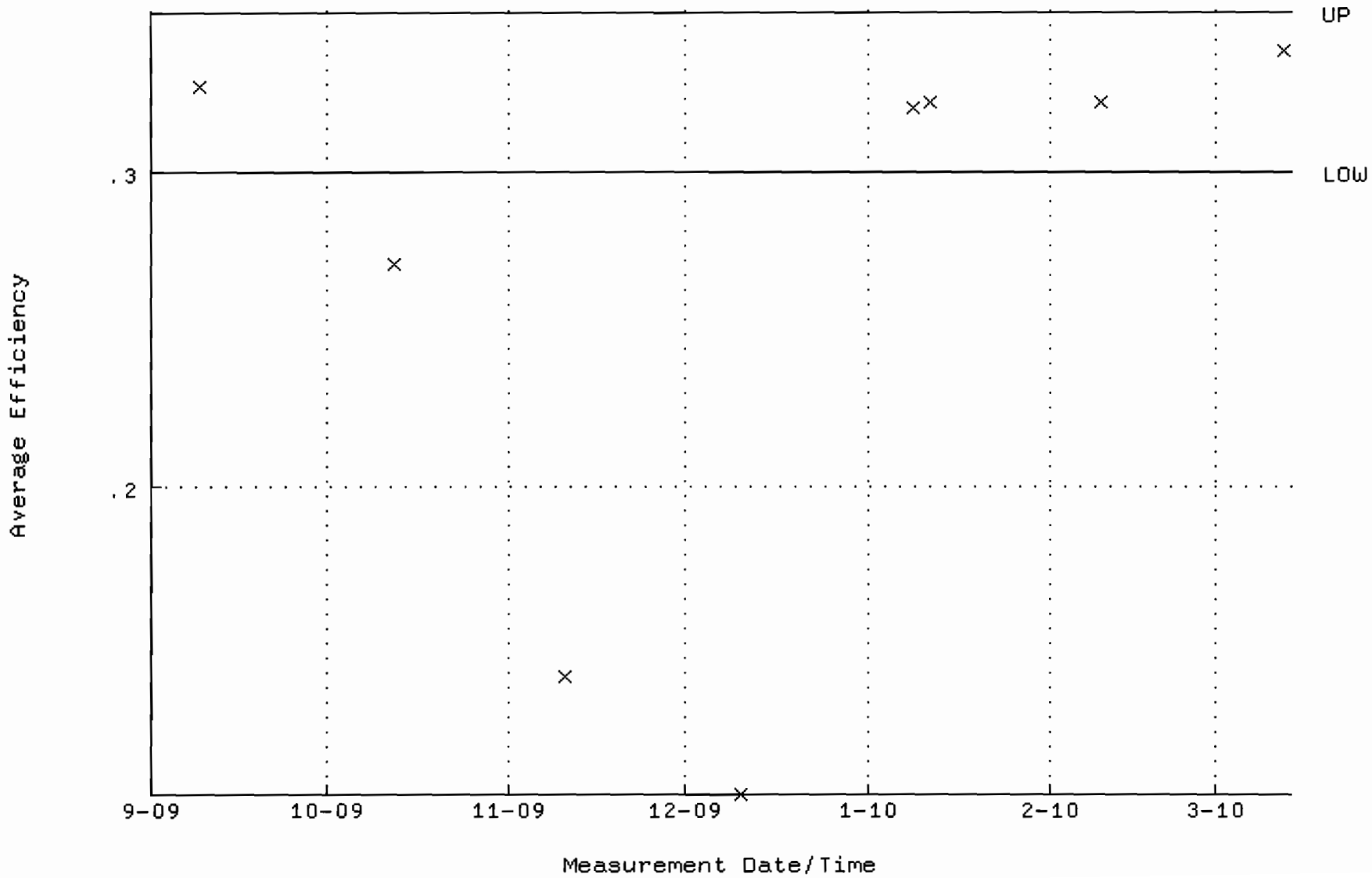

QA filename : DKA100:[ENV_ALPHA.QA.W]W082.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:47 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 85.2649 through 95.7657

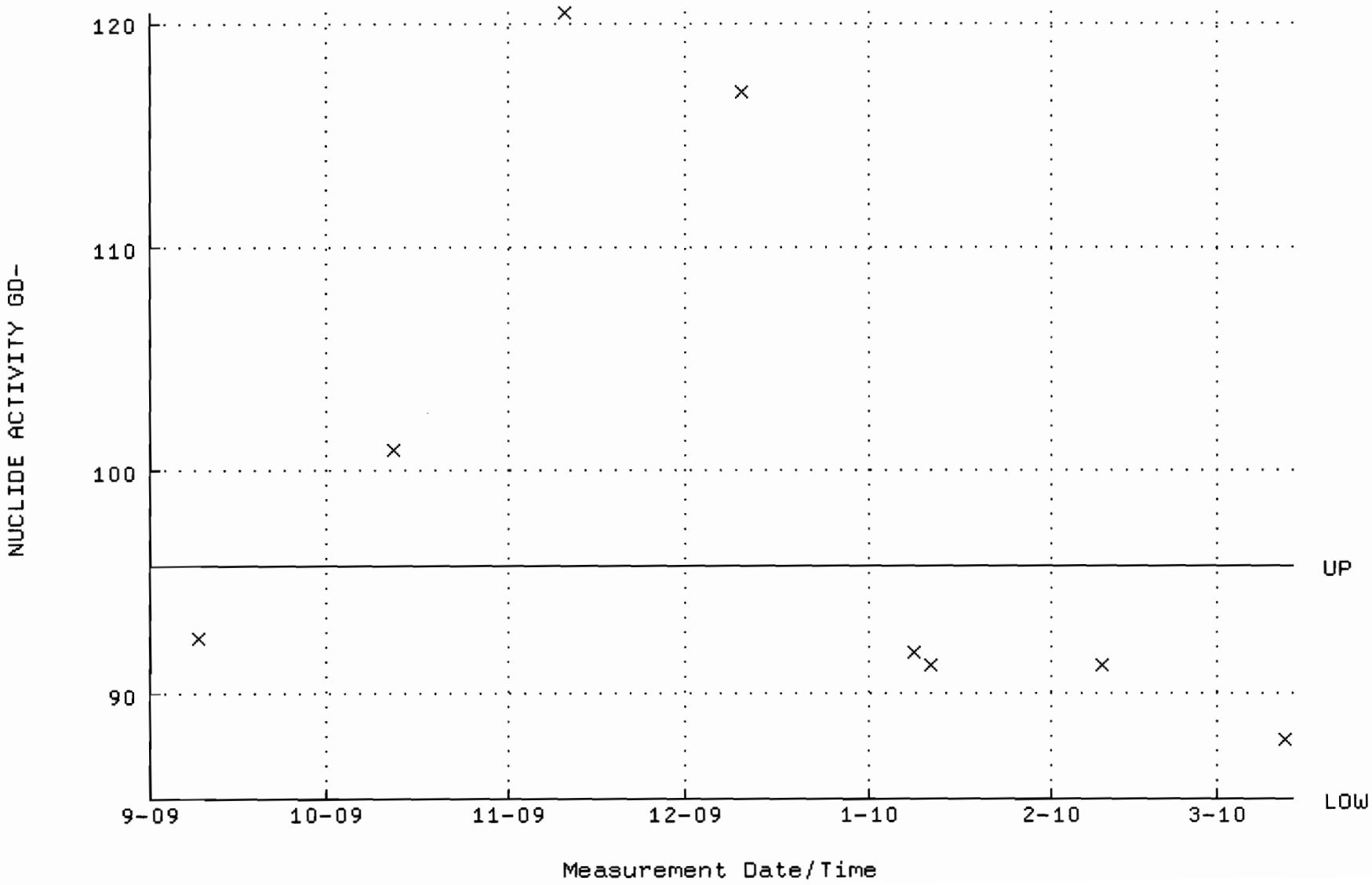

QA filename : DKA100:[ENV_ALPHA.QA.B]B082.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:08 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

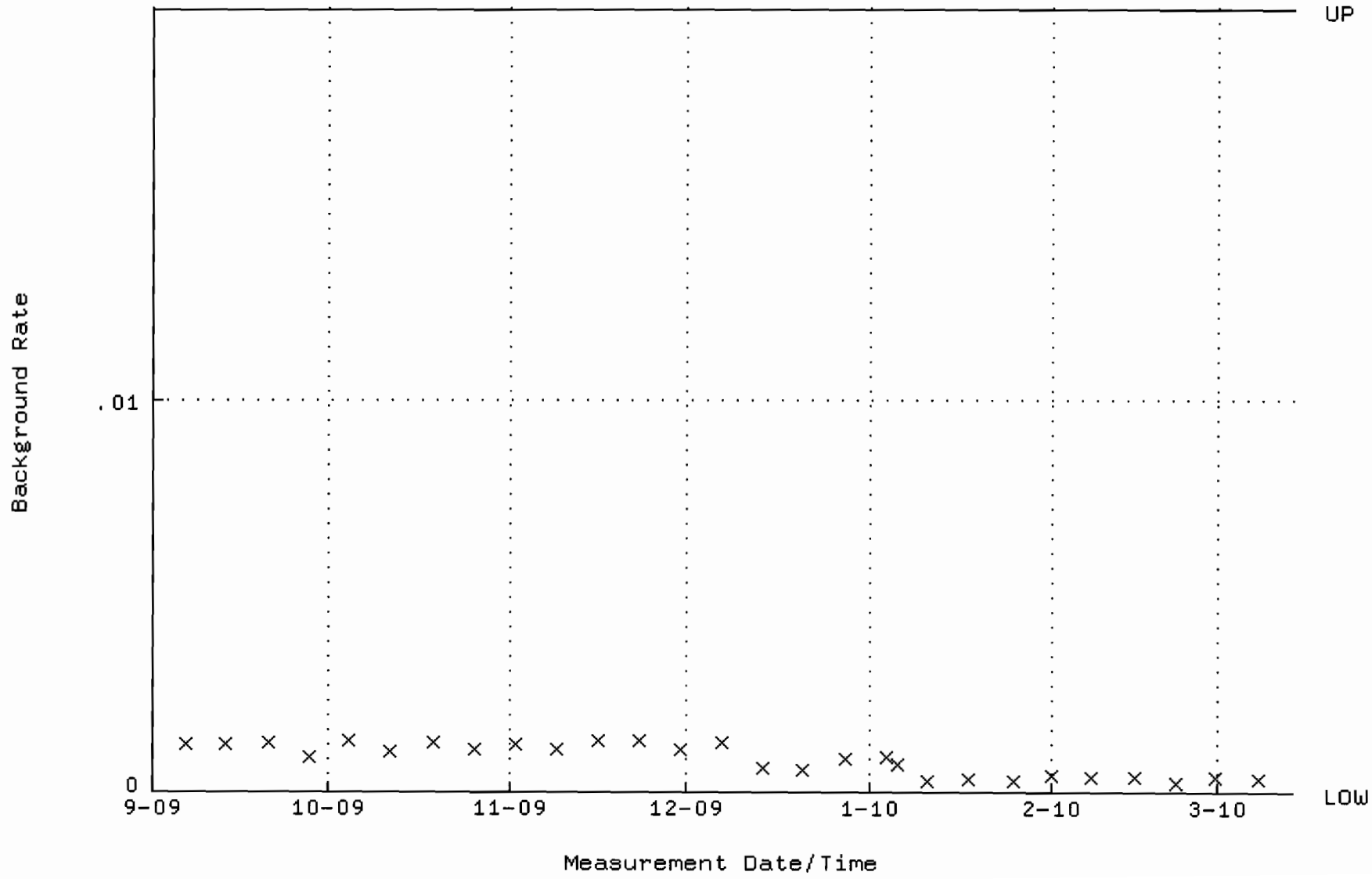

QA filename : DKA100:[ENV_ALPHA.QA.W]W083.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.316282 through 0.365366

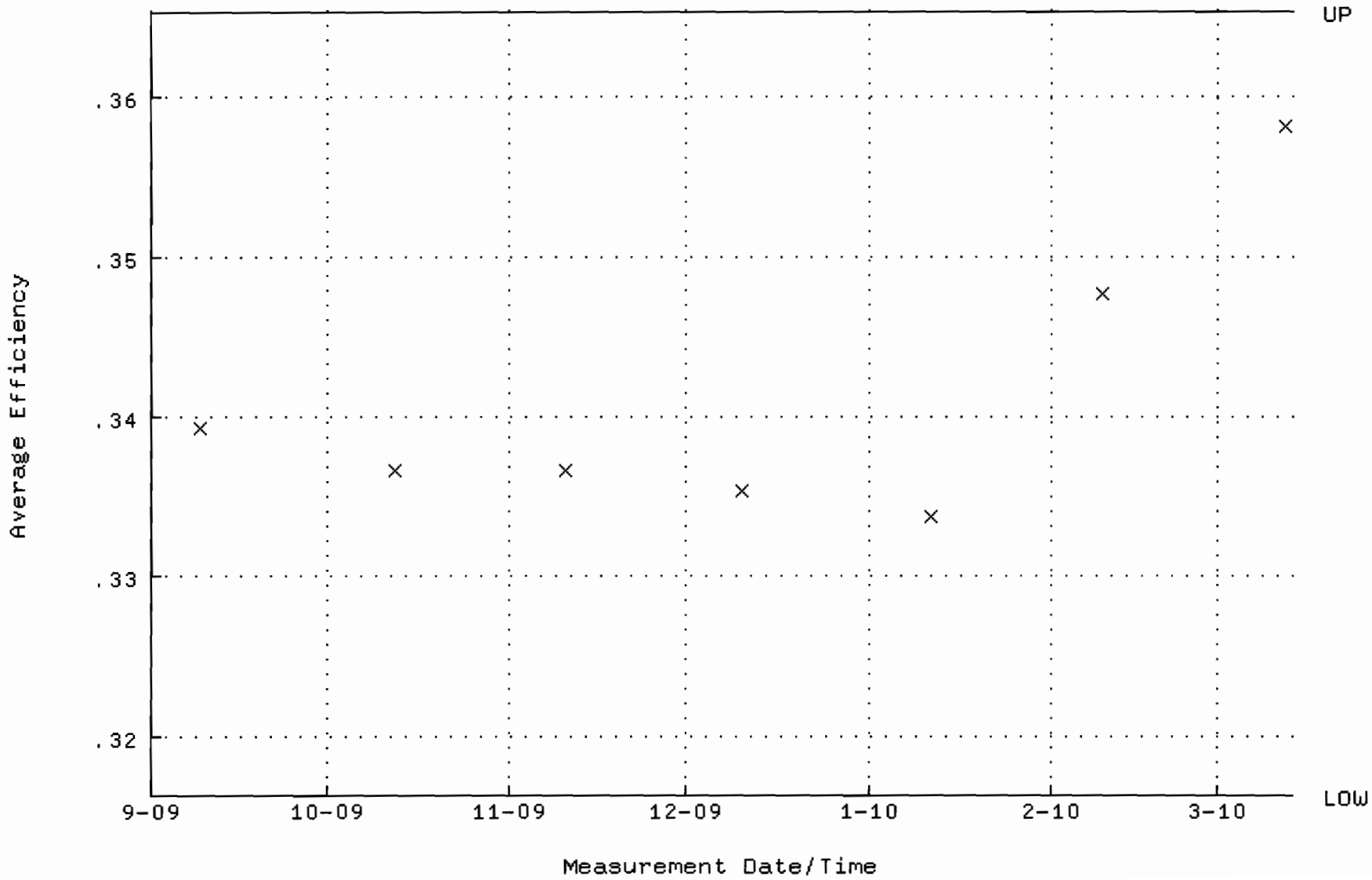

QA filename : DKA100:[ENV_ALPHA.QA.W]W083.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 82.1020 through 93.7348

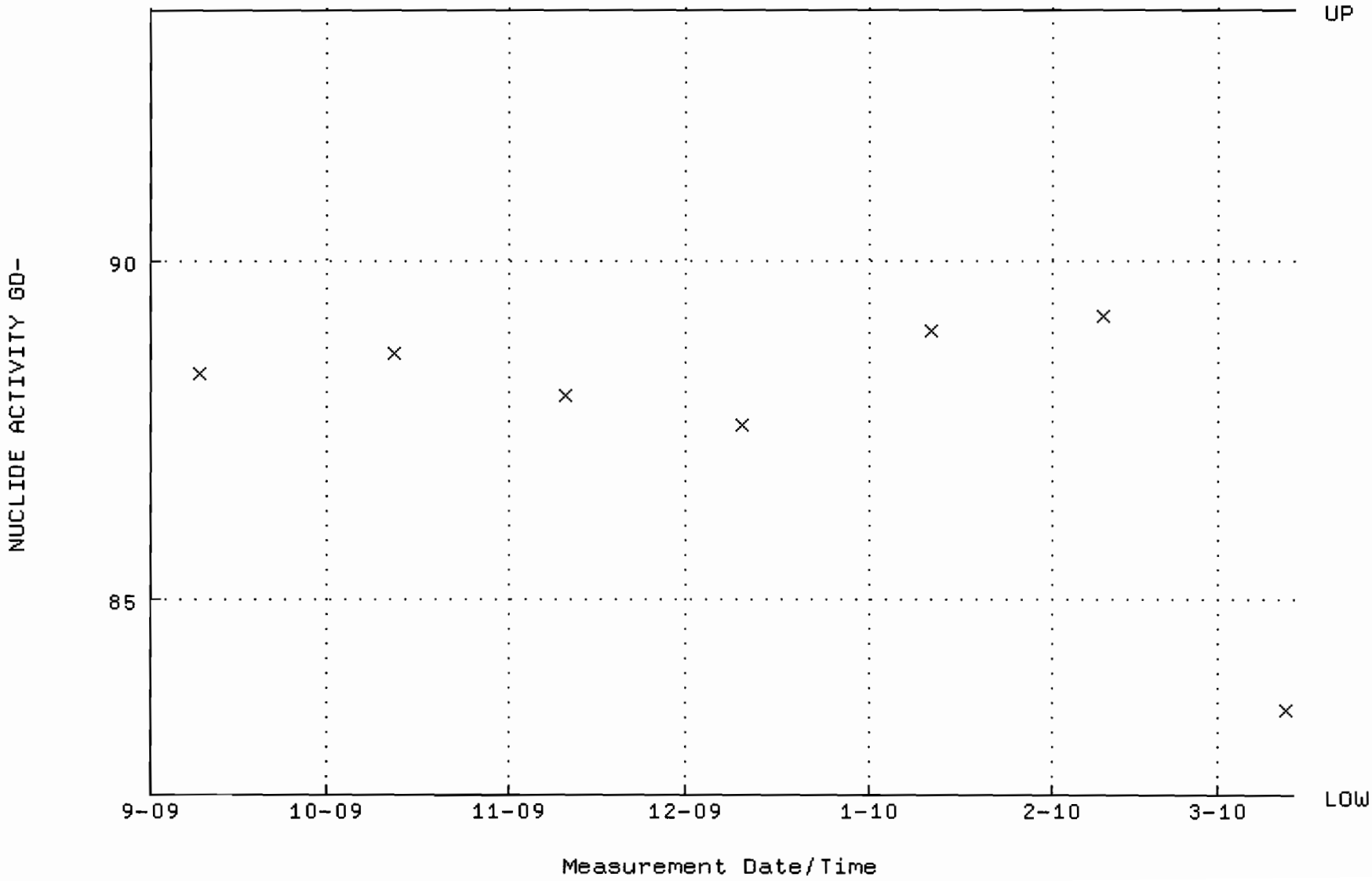

QA filename : DKA100:[ENV_ALPHA.QA.B]B083.QAF;3
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:09 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

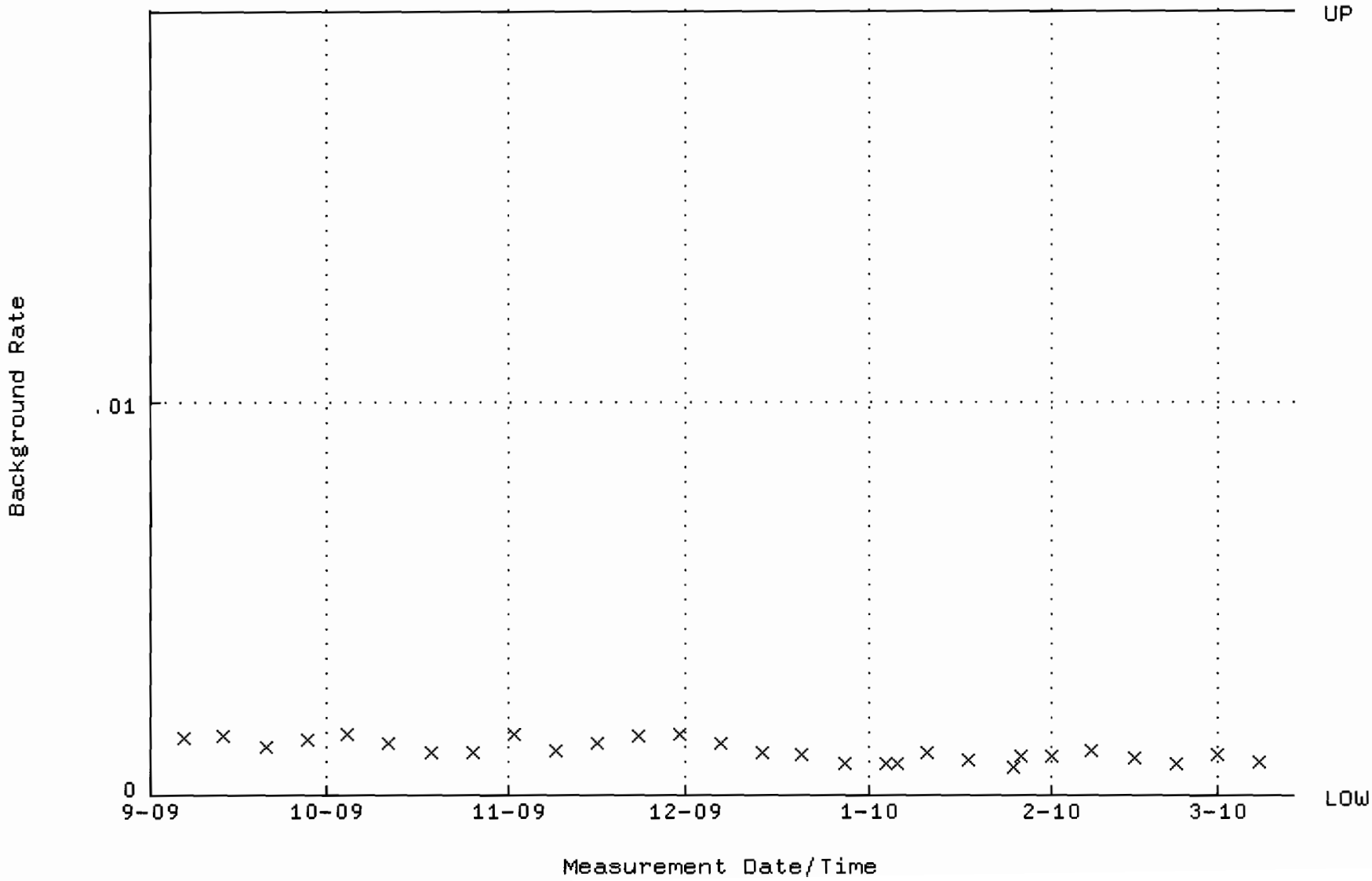

QA filename : DKA100:[ENV_ALPHA.QA.W]W085.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.306815 through 0.344543

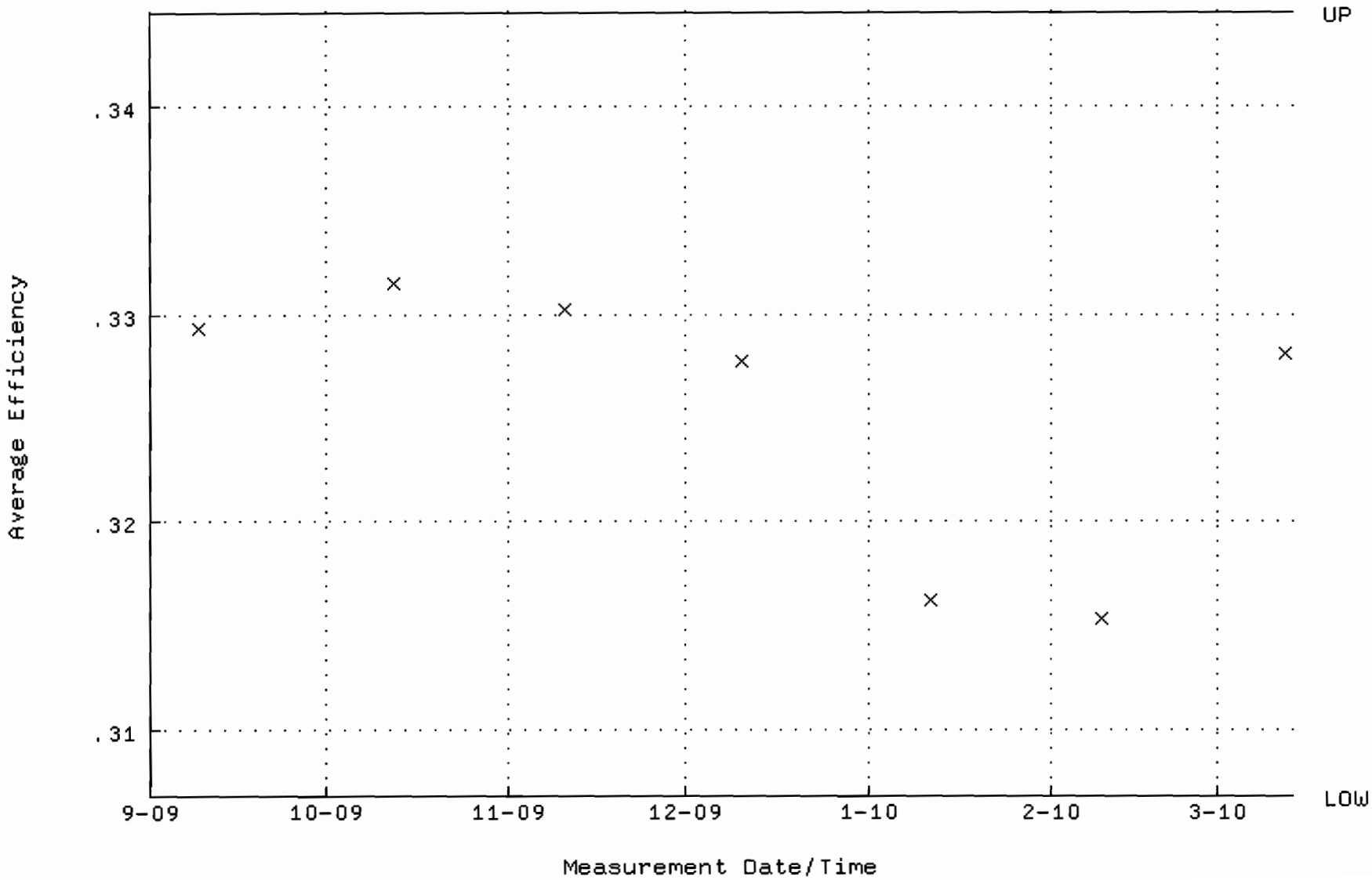

QA filename : DKA100:[ENV_ALPHA.QA.W]W085.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 86.1313 through 96.4525

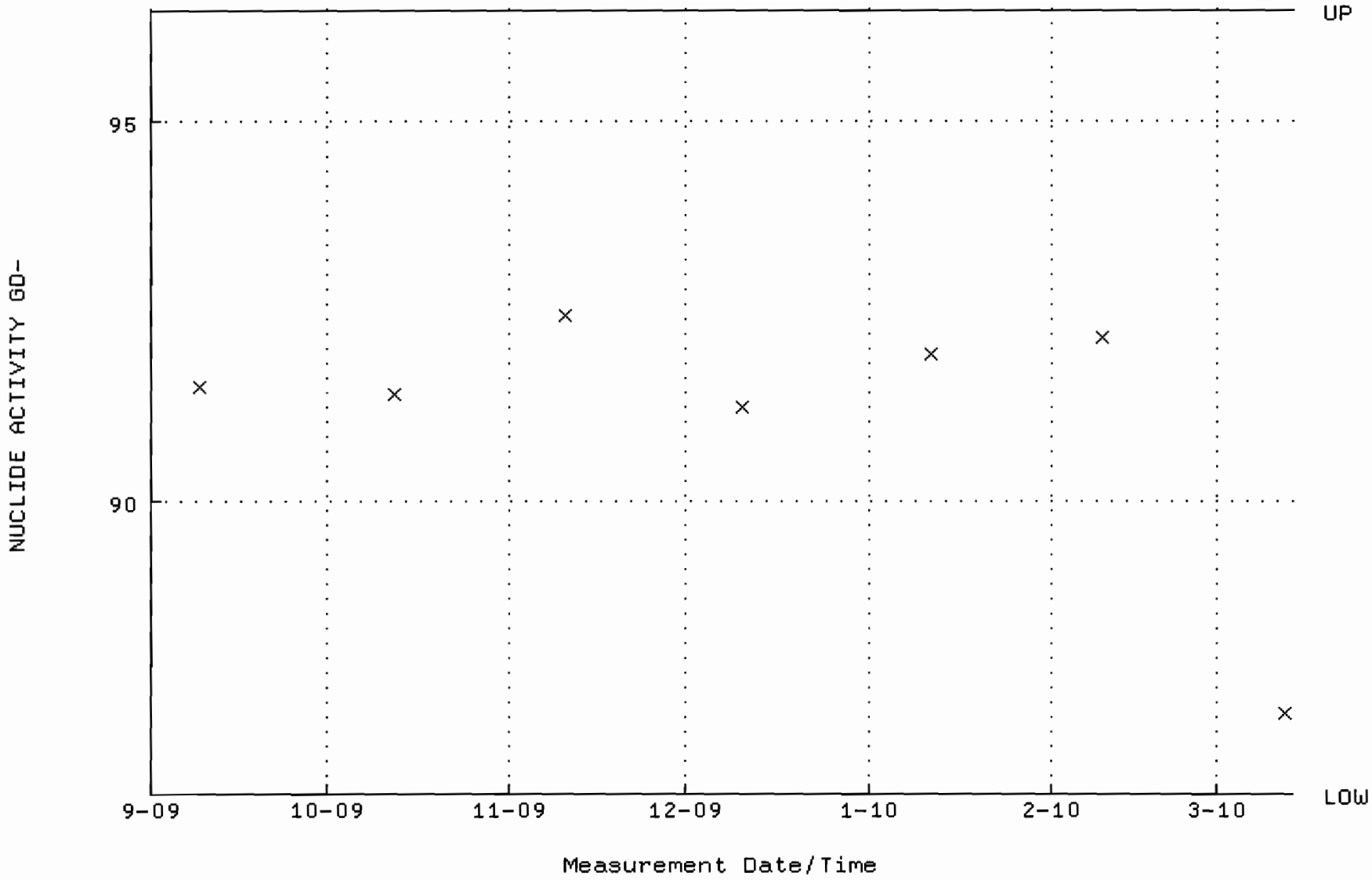

QA filename : DKA100:[ENV_ALPHA.QA.B]B085.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:09 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

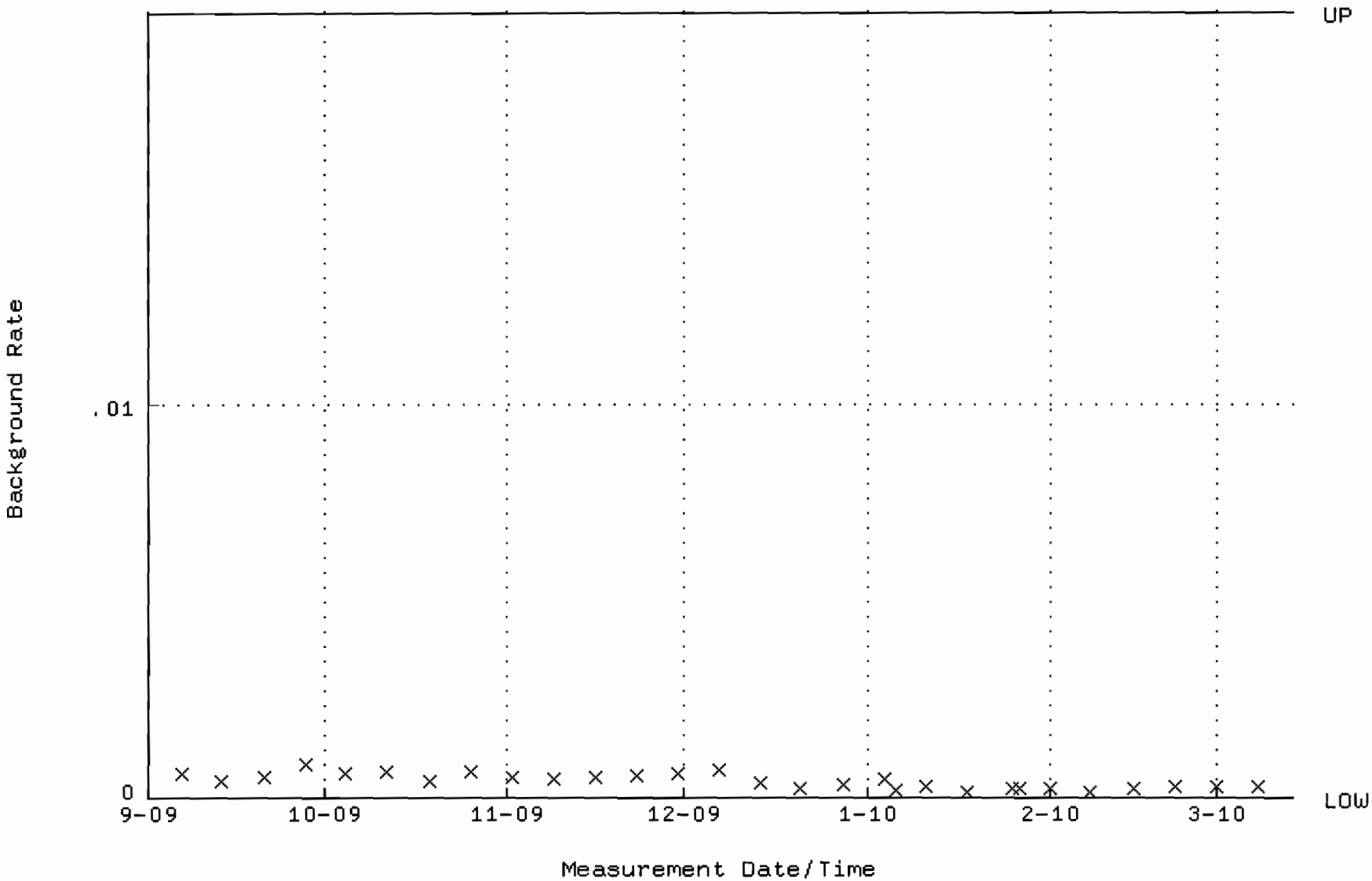

QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.287158 through 0.309794

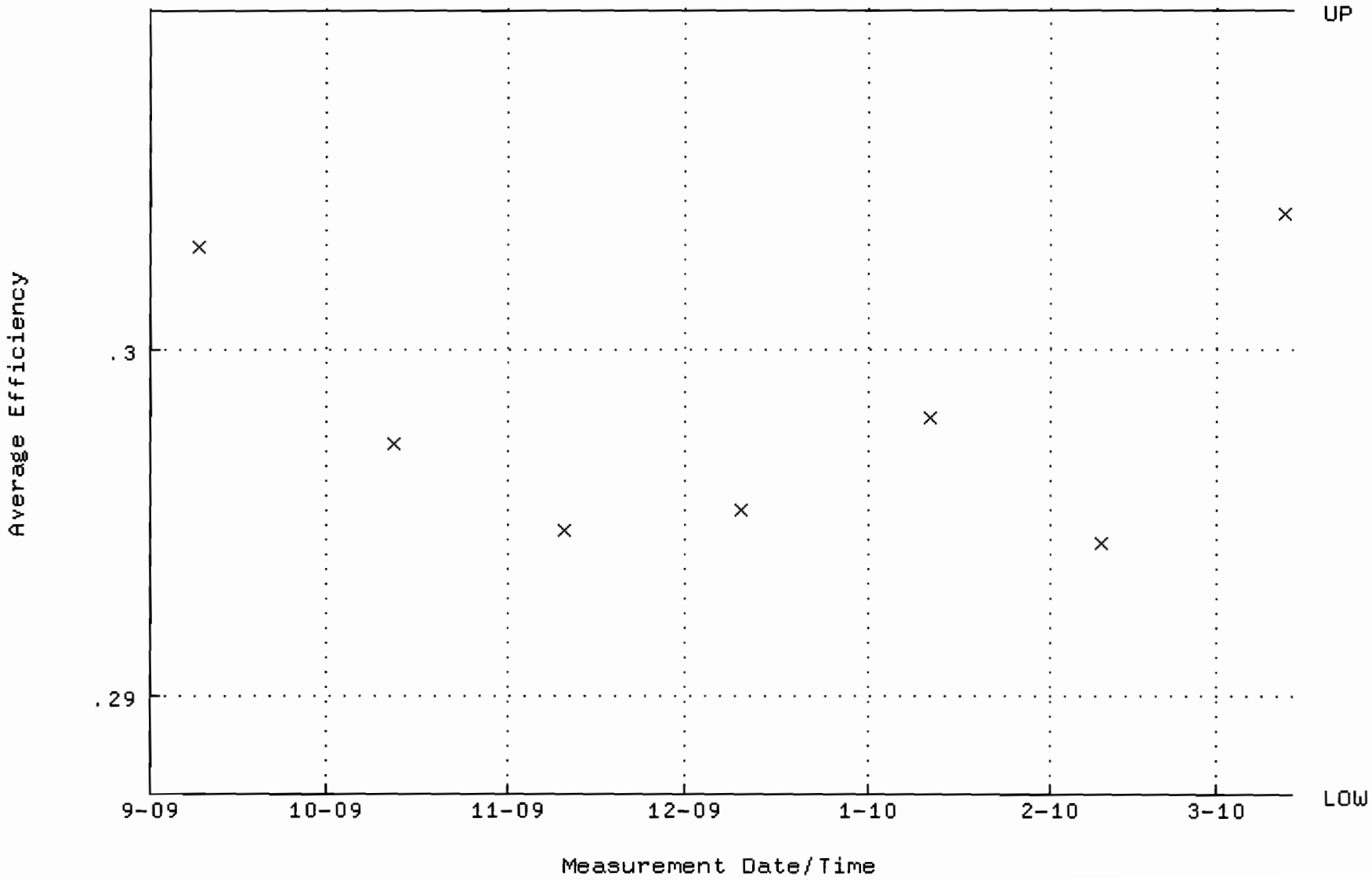

QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 89.1886 through 95.1274

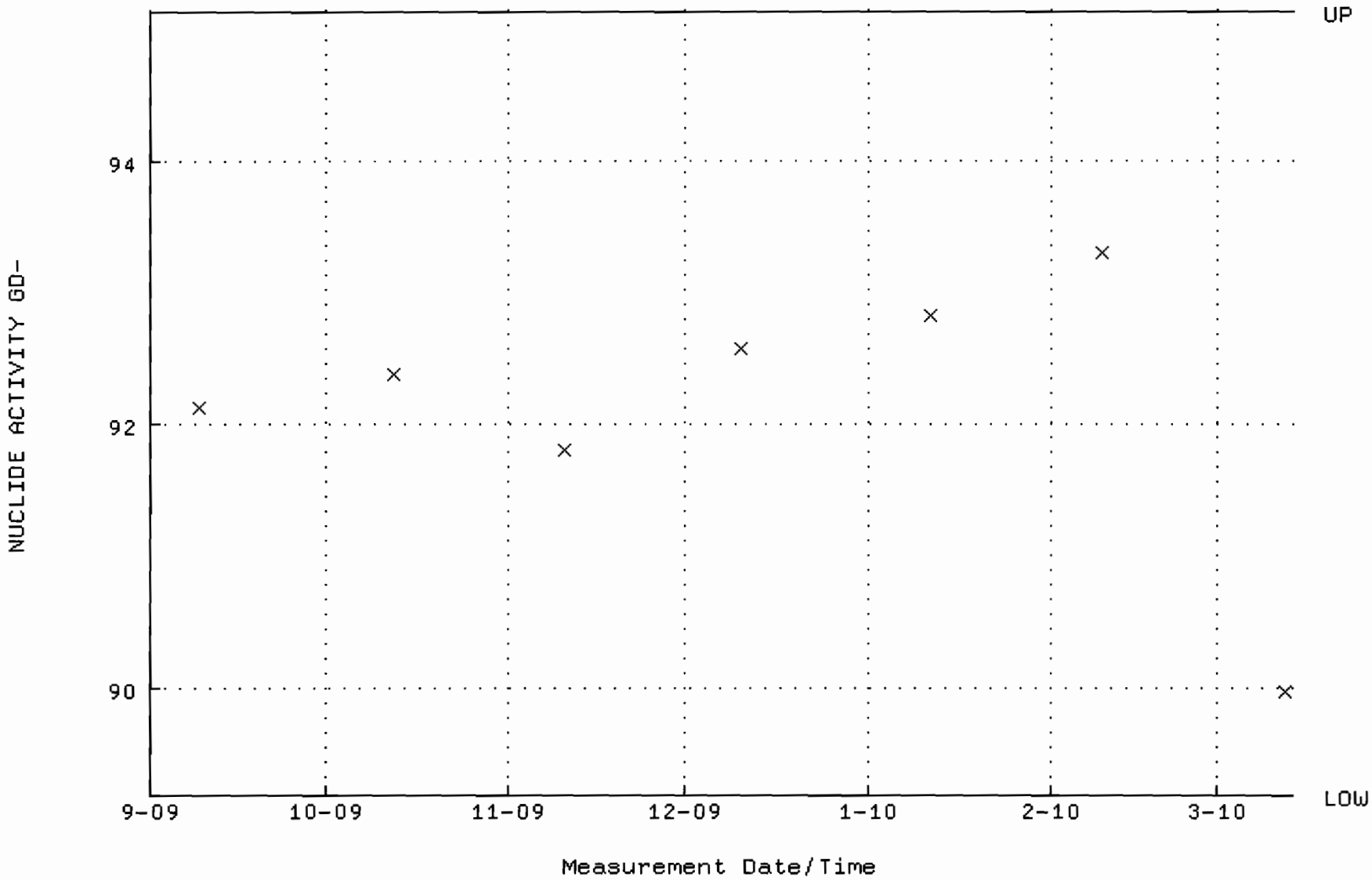

QA filename : DKA100:[ENV_ALPHA.QA.B]B086.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:09 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

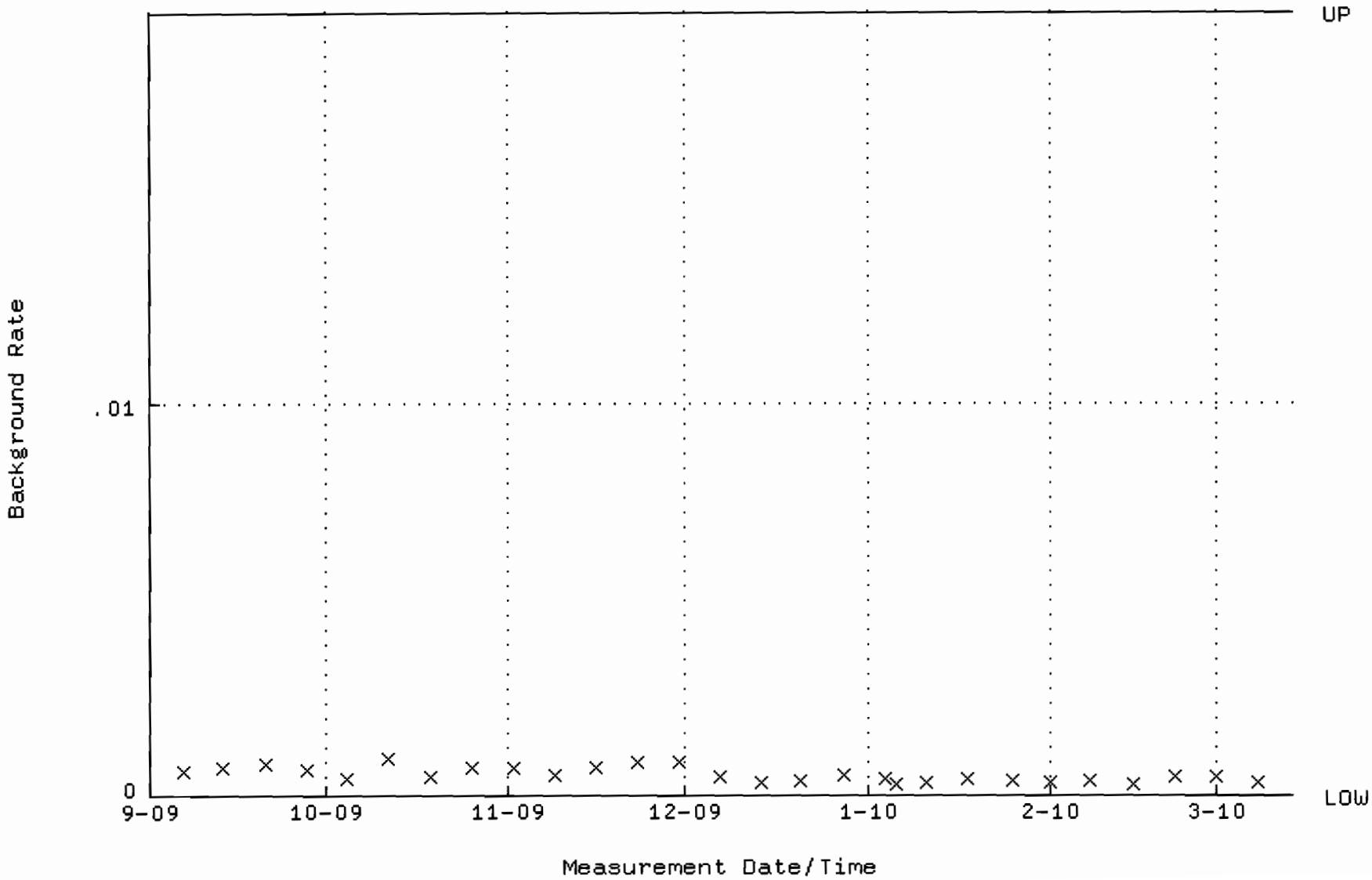

QA filename : DKA100:[ENV_ALPHA.QA.W]W087.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.300487 through 0.326465

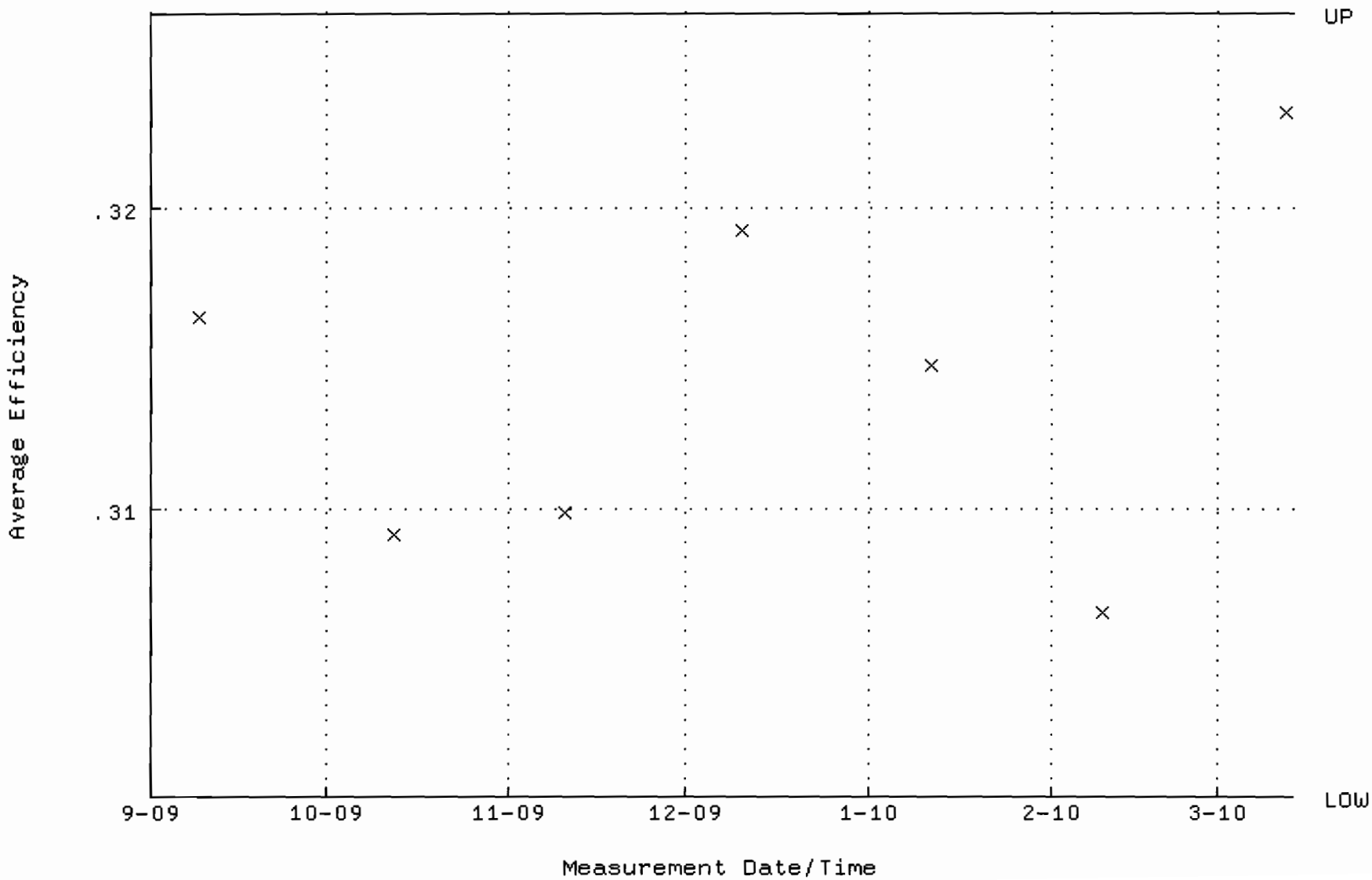

QA filename : DKA100:[ENV_ALPHA.QA.W]W087.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 89.7763 through 93.5625

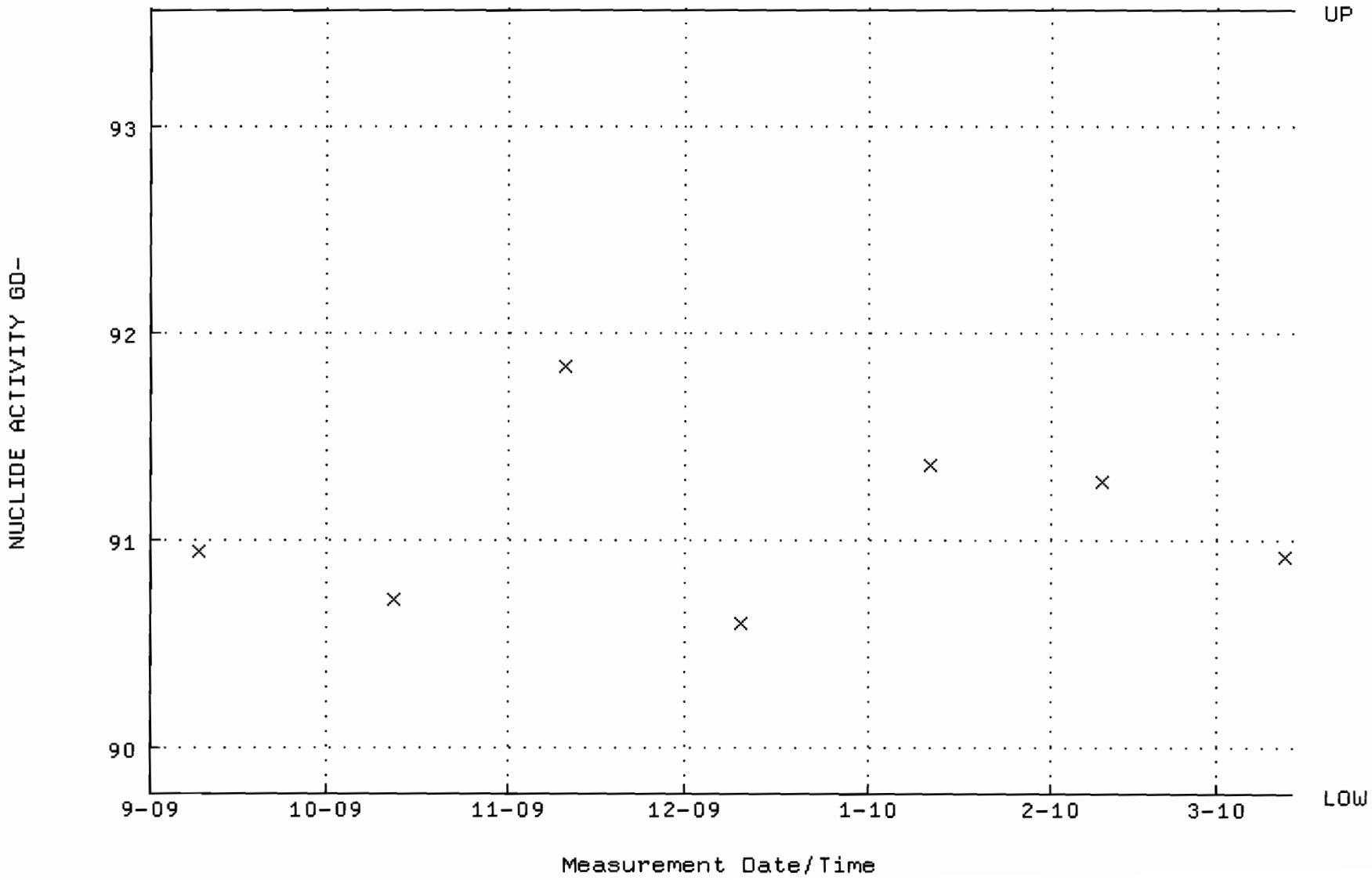

QA filename : DKA100:[ENV_ALPHA.QA.B]B087.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:09 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

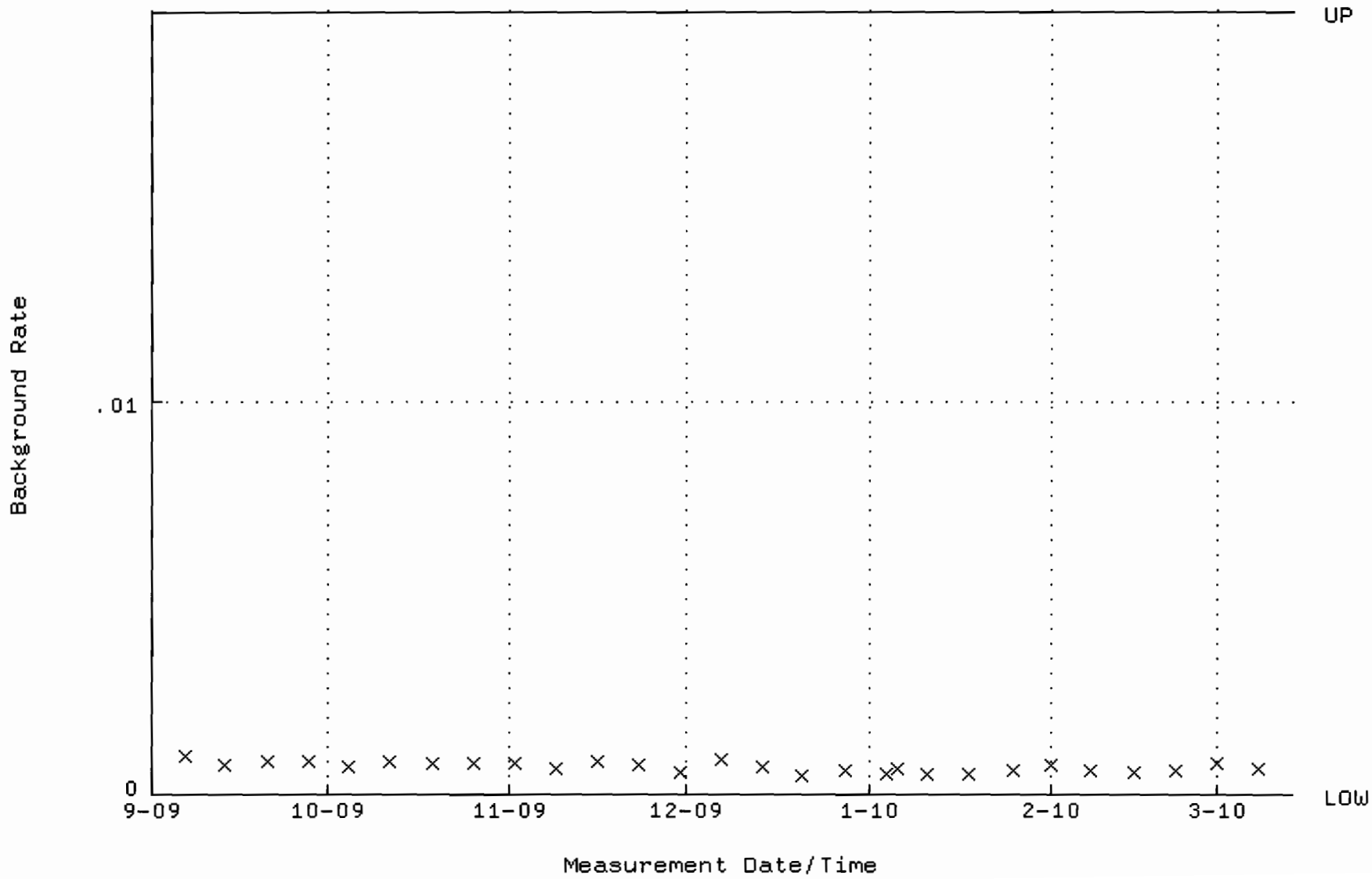

QA filename : DKA100:[ENV_ALPHA.QA.W]W088.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.284264 through 0.317864

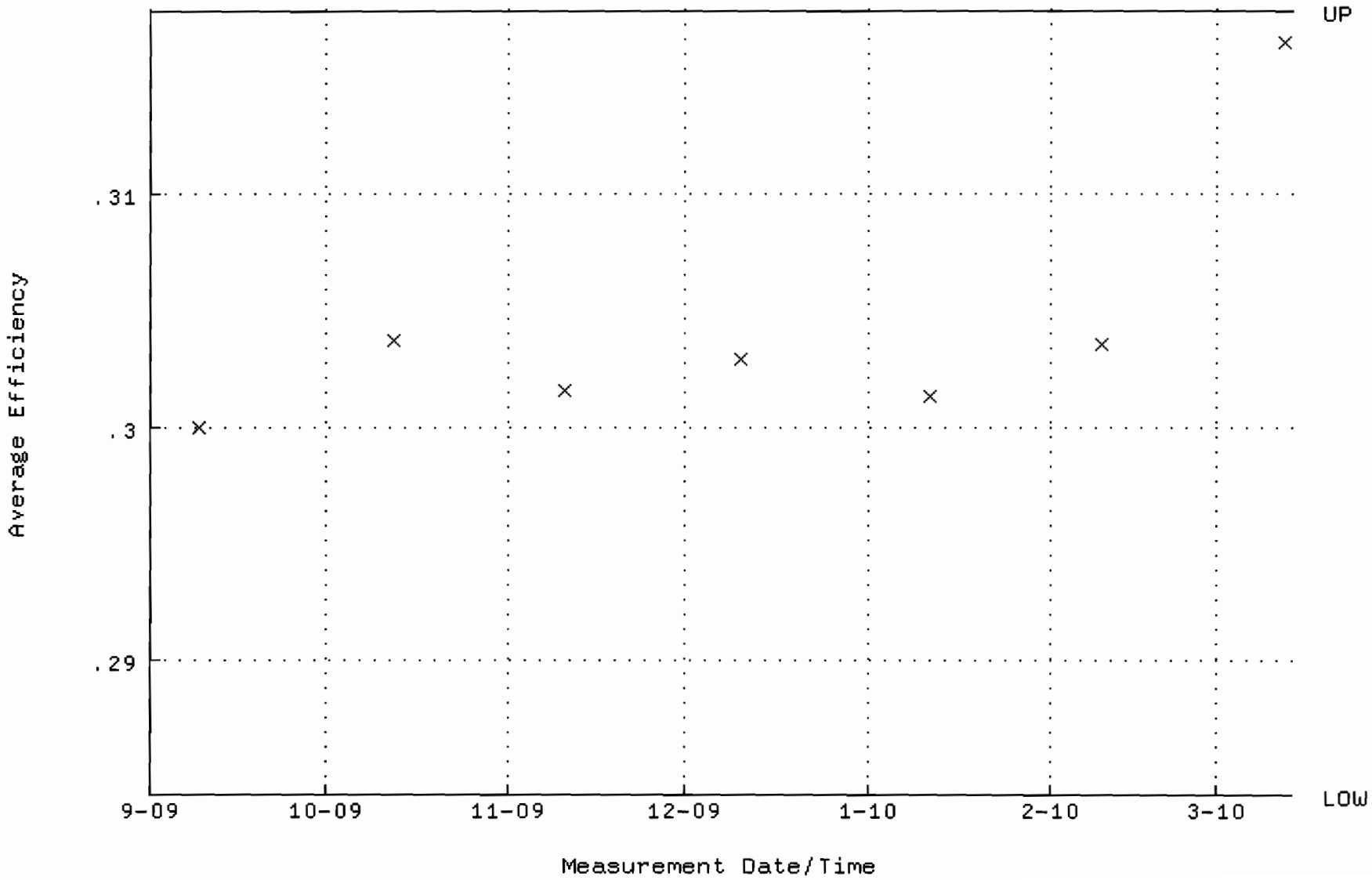

QA filename : DKA100:[ENV_ALPHA.QA.W]W088.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:48 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 80.4493 through 103.037

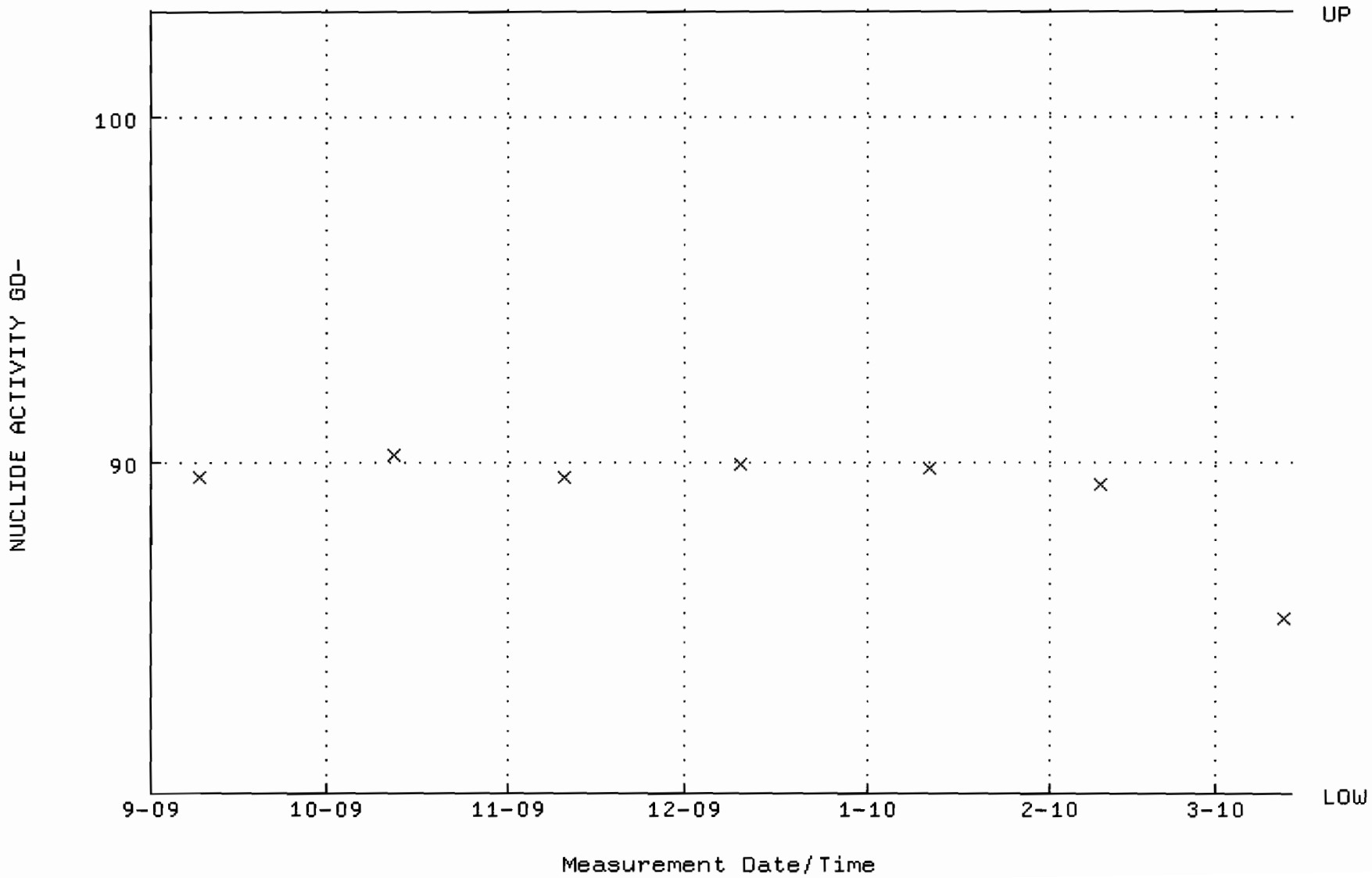

QA filename : DKA100:[ENV_ALPHA.QA.B]B088.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:09 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

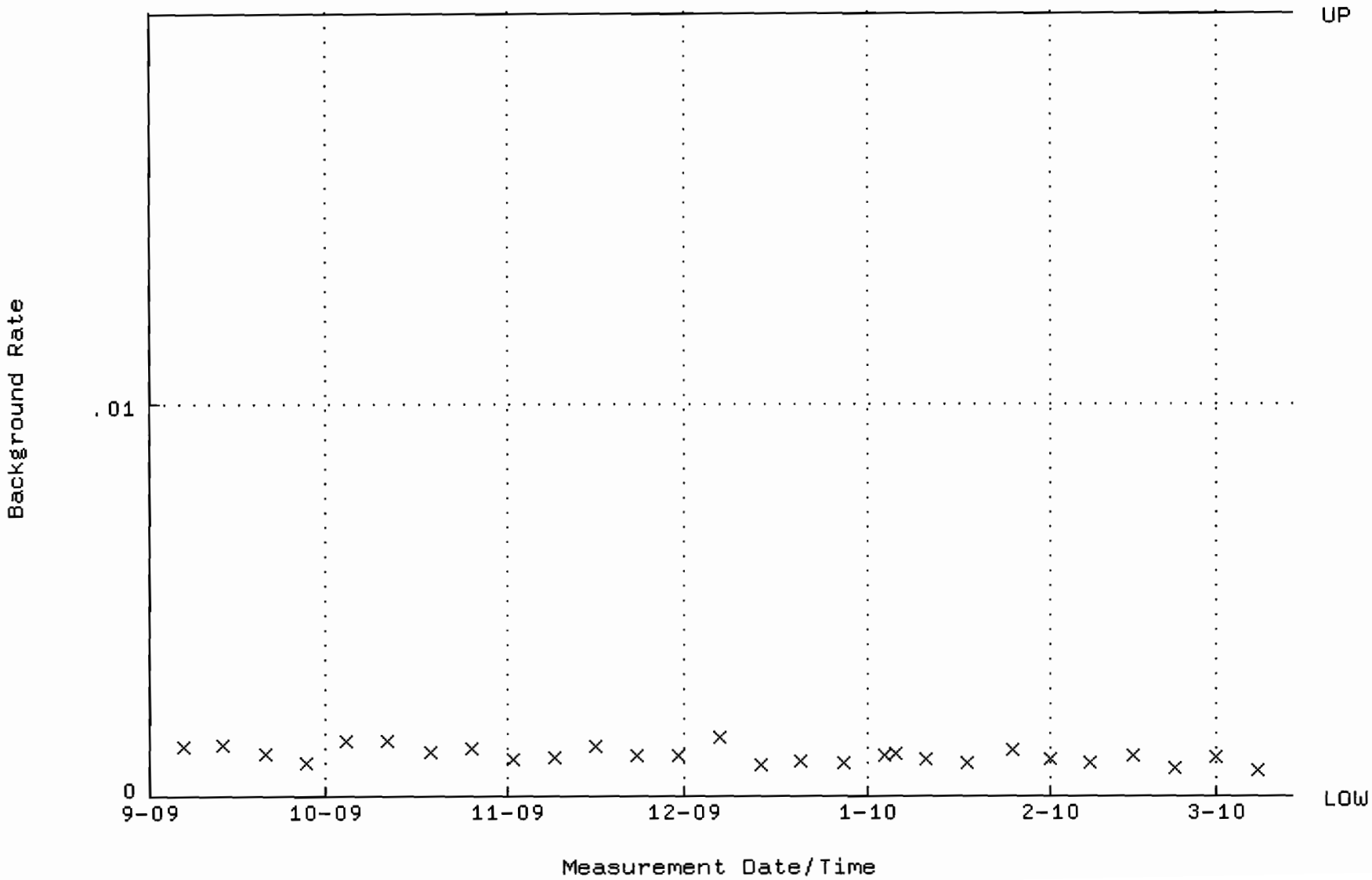

QA filename : DKA100:[ENV_ALPHA.QA.W]W089.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.285061 through 0.309915

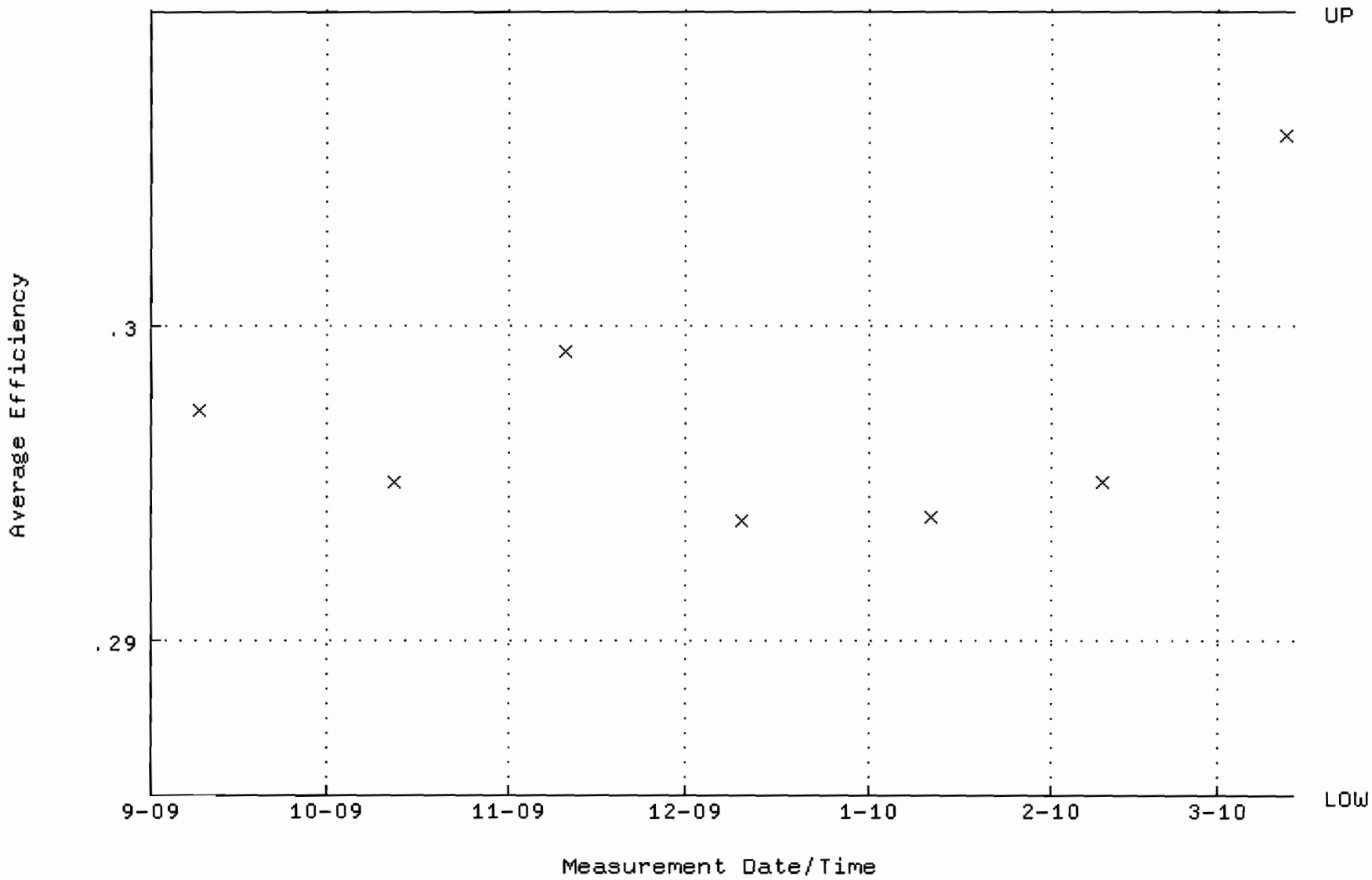

QA filename : DKA100:[ENV_ALPHA.QA.W]W089.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 84.7074 through 92.5526

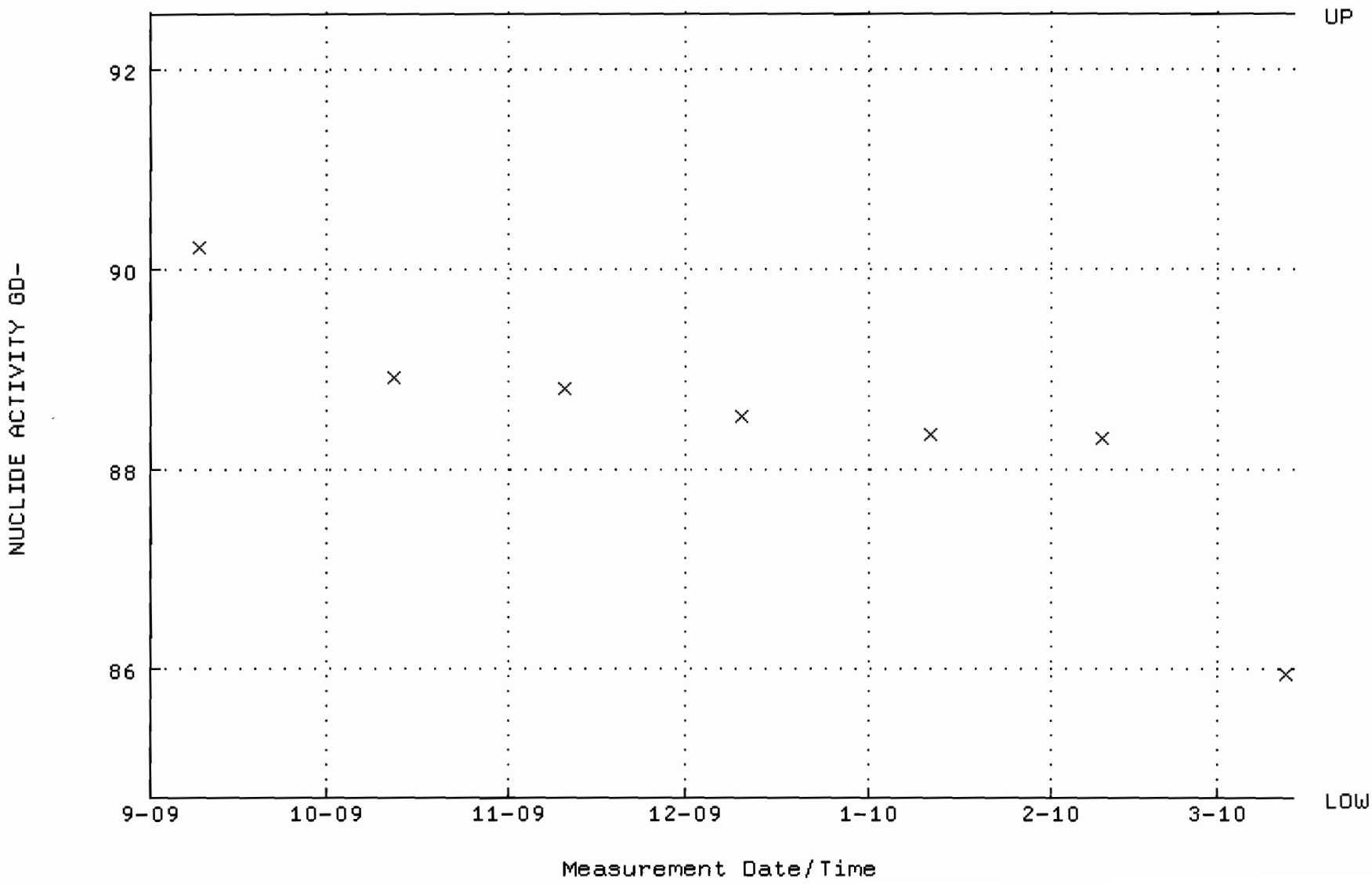

QA filename : DKA100:[ENV_ALPHA.QA.B]B089.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:10 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

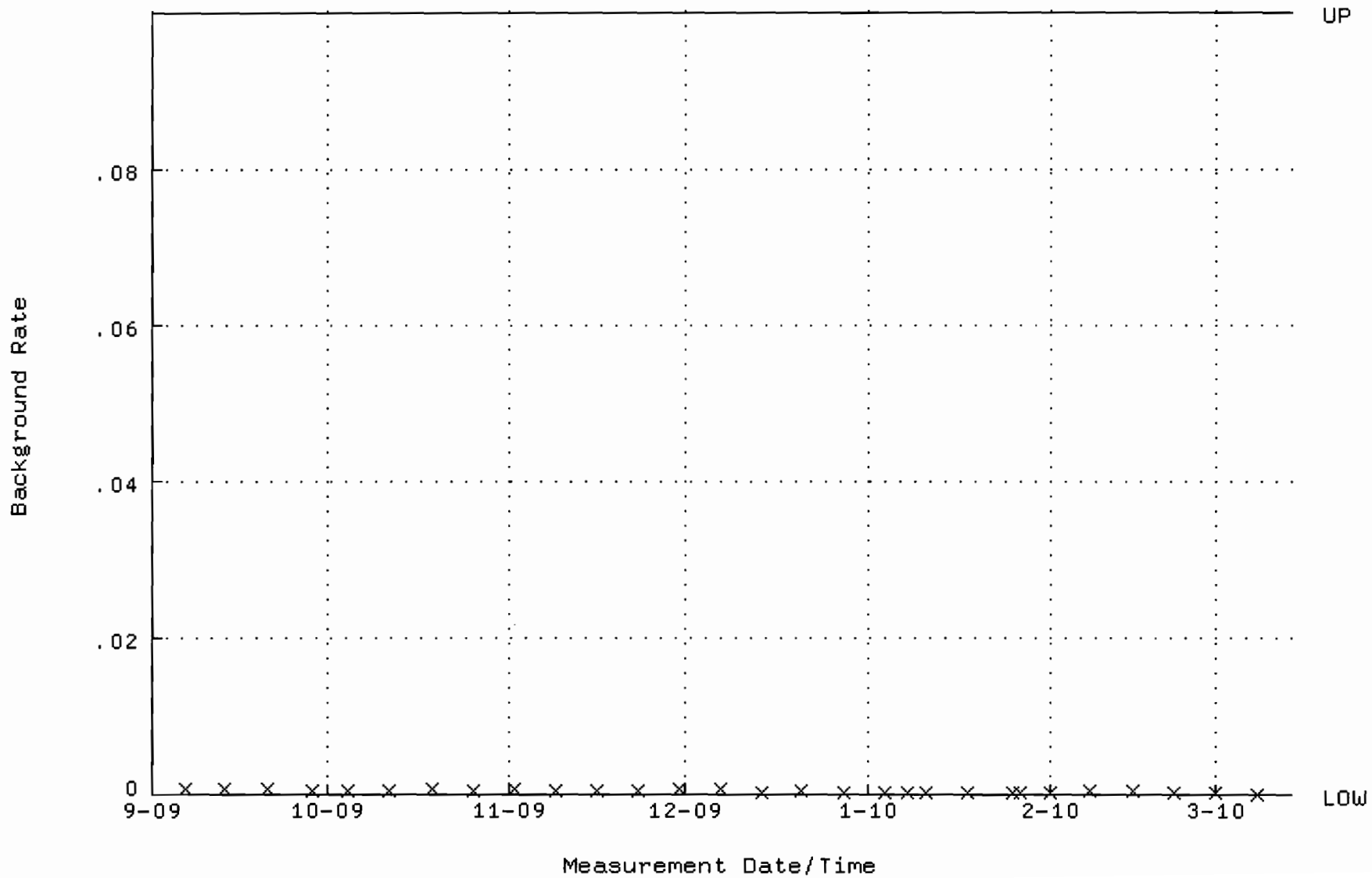

QA filename : DKA100:[ENV_ALPHA.QA.W]W090.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.305824 through 0.352694

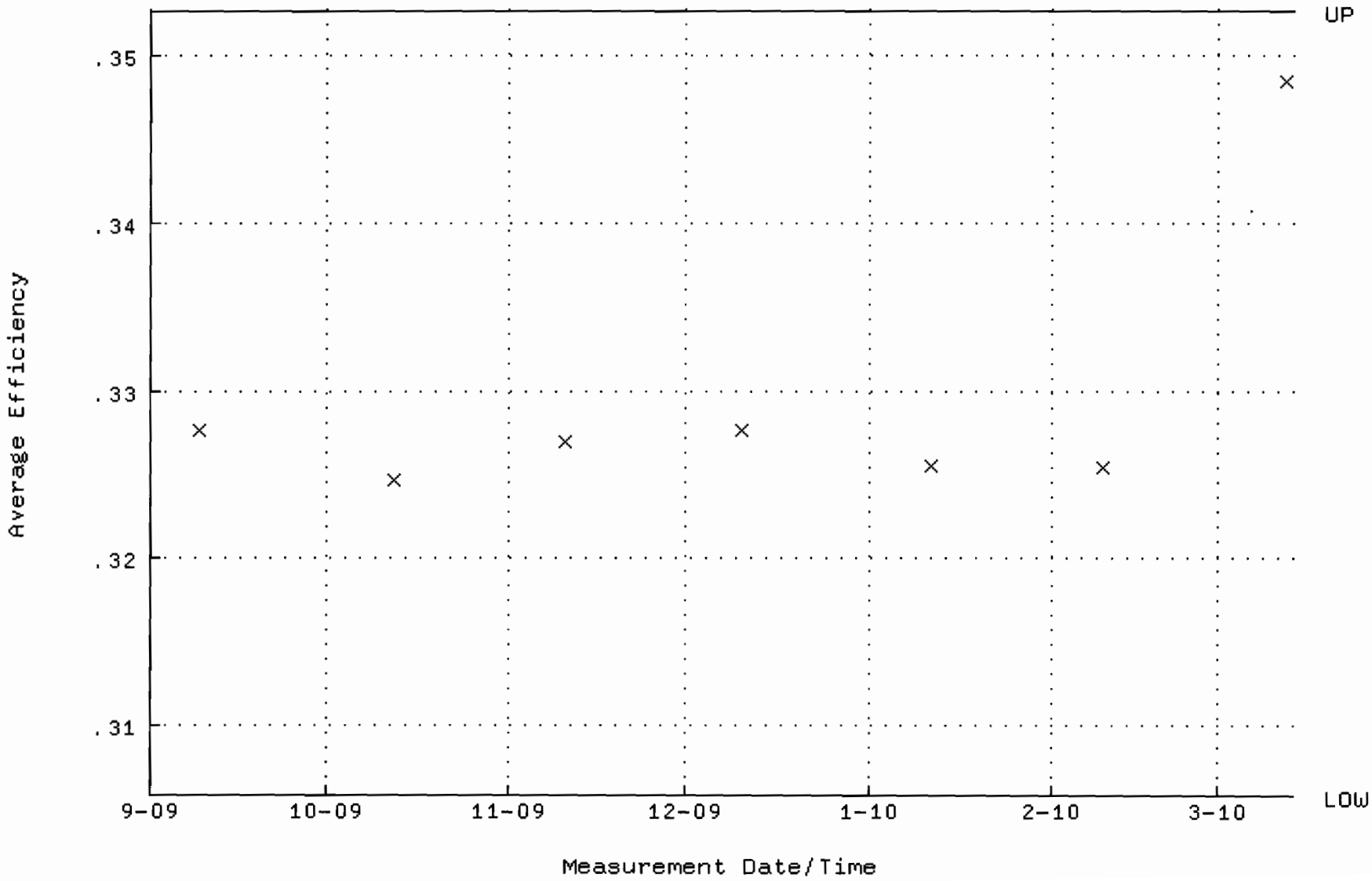

QA filename : DKA100:[ENV_ALPHA.QA.W]W090.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 87.7860 through 91.1302

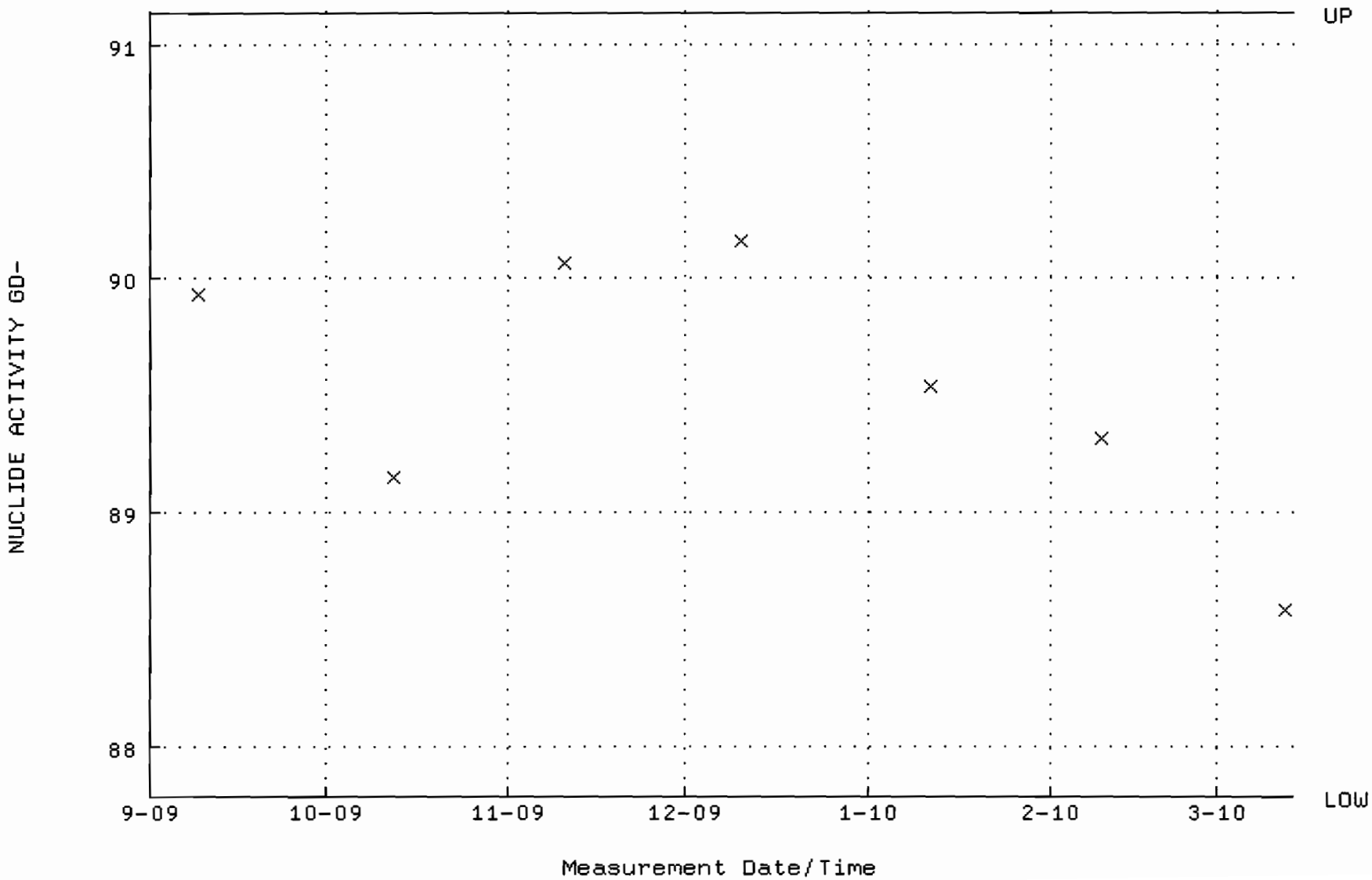

QA filename : DKA100:[ENV_ALPHA.QA.B]B090.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:10 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

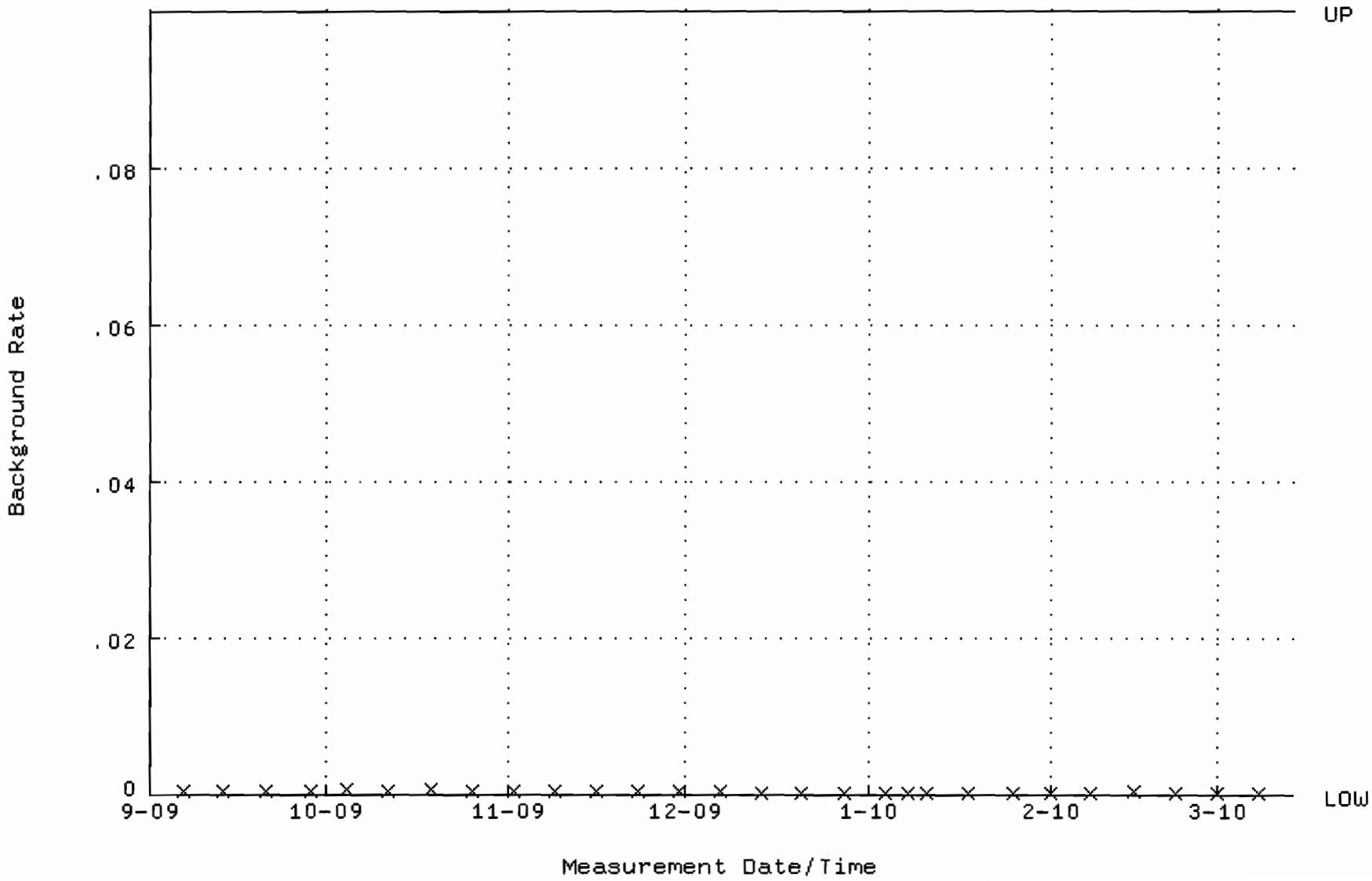

QA filename : DKA100:[ENV_ALPHA.QA.W]W091.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.333733 through 0.359273

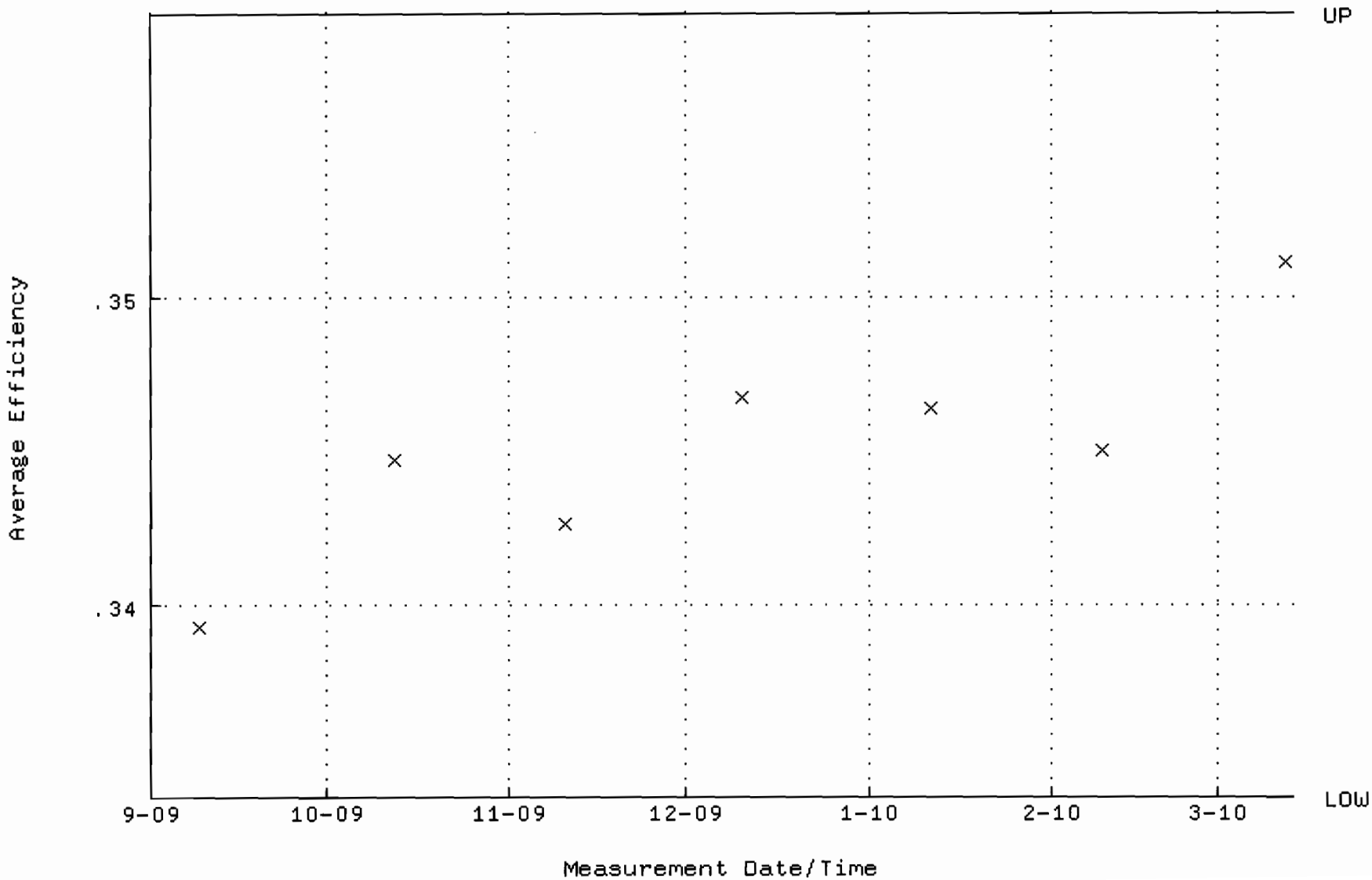

QA filename : DKA100:[ENV_ALPHA.QA.W]W091.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 83.2831 through 87.0563

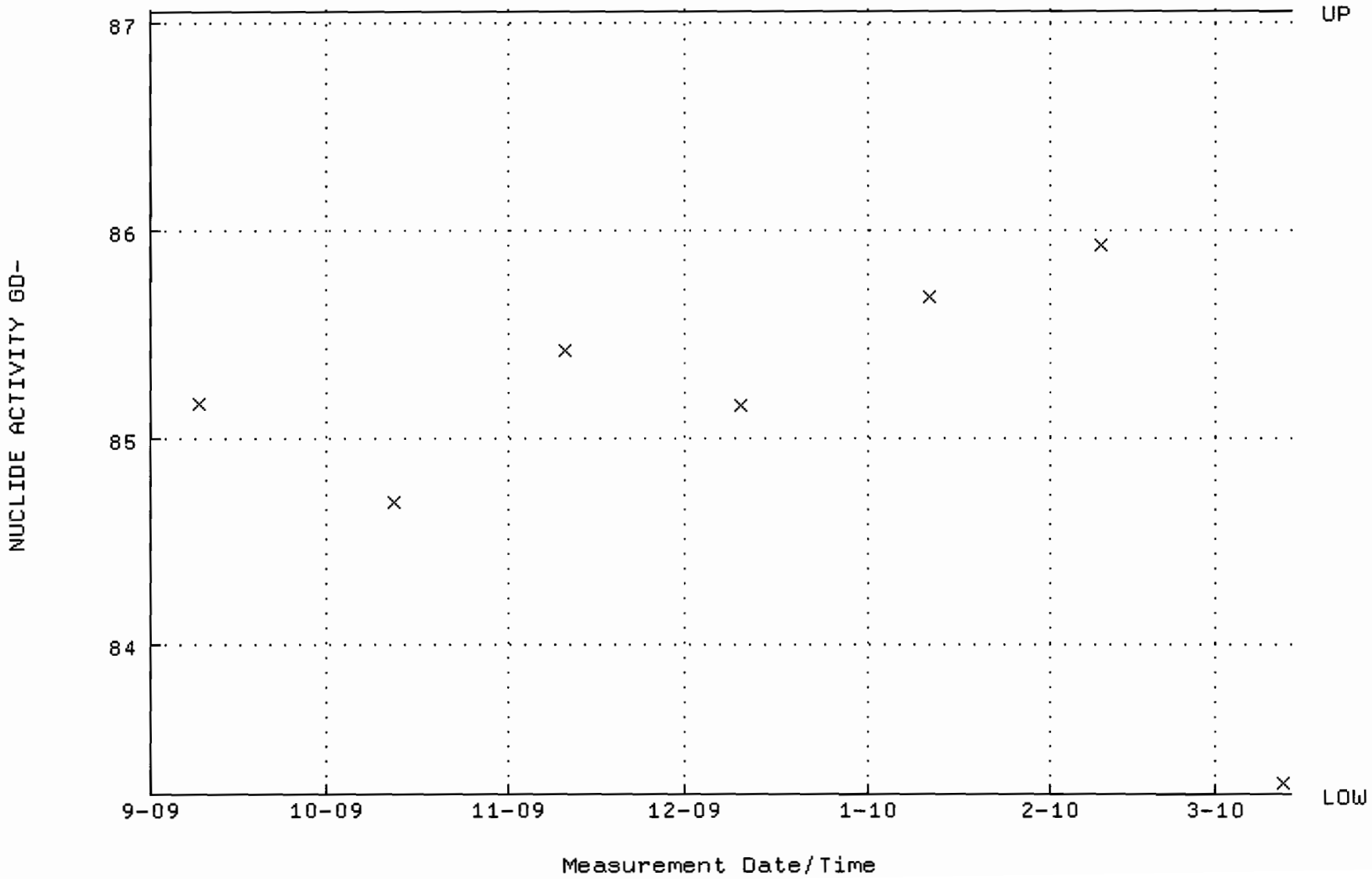

QA filename : DKA100:[ENV_ALPHA.QA.B]B091.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:10 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

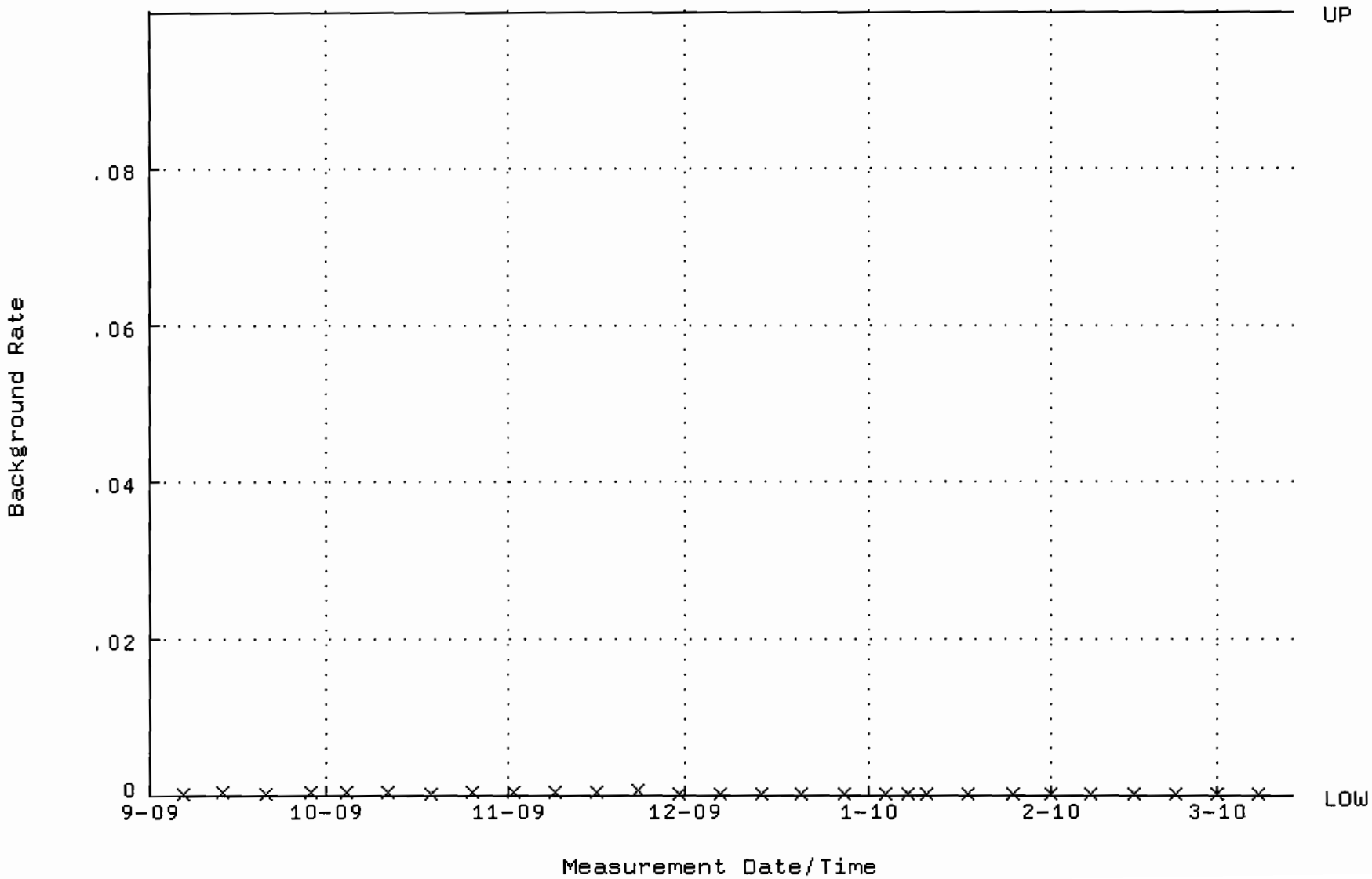

QA filename : DKA100:[ENV_ALPHA.QA.W]W093.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.334257 through 0.354343

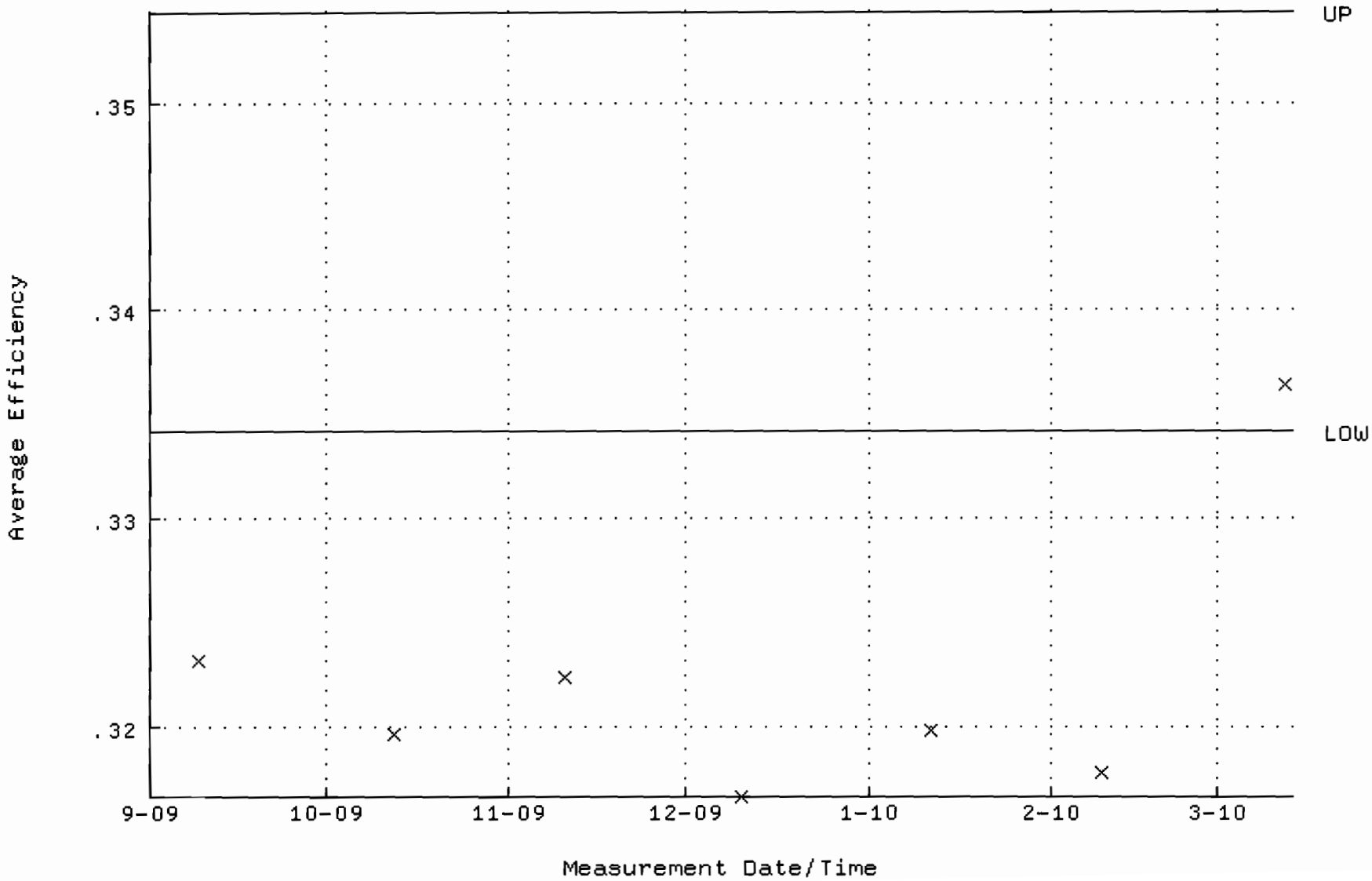

QA filename : DKA100:[ENV_ALPHA.QA.W]W093.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: -1.071934E+06 through 1.284428E+06

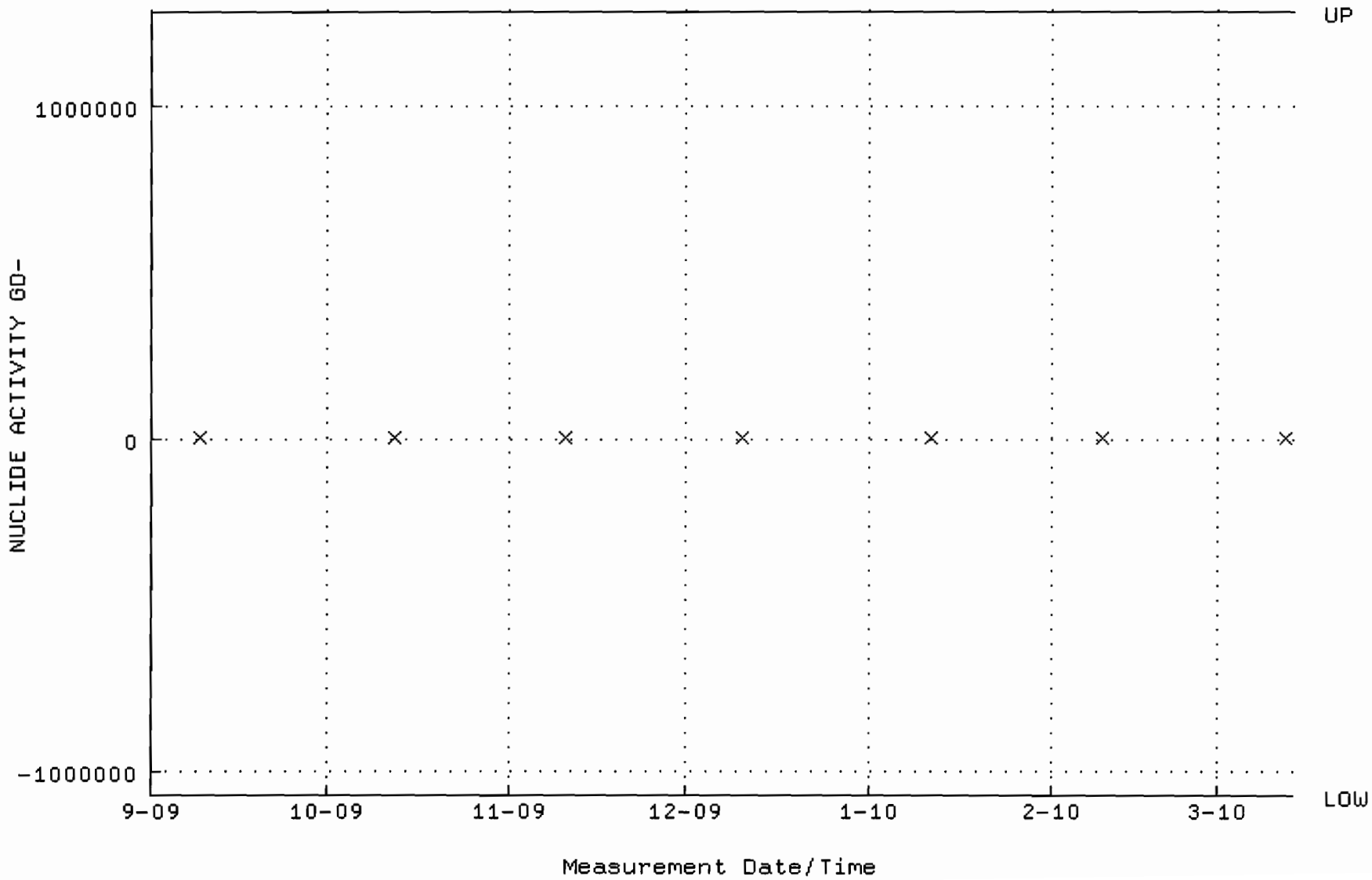

QA filename : DKA100:[ENV_ALPHA.QA.B]B093.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:10 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: -1.00000 through 0.100000

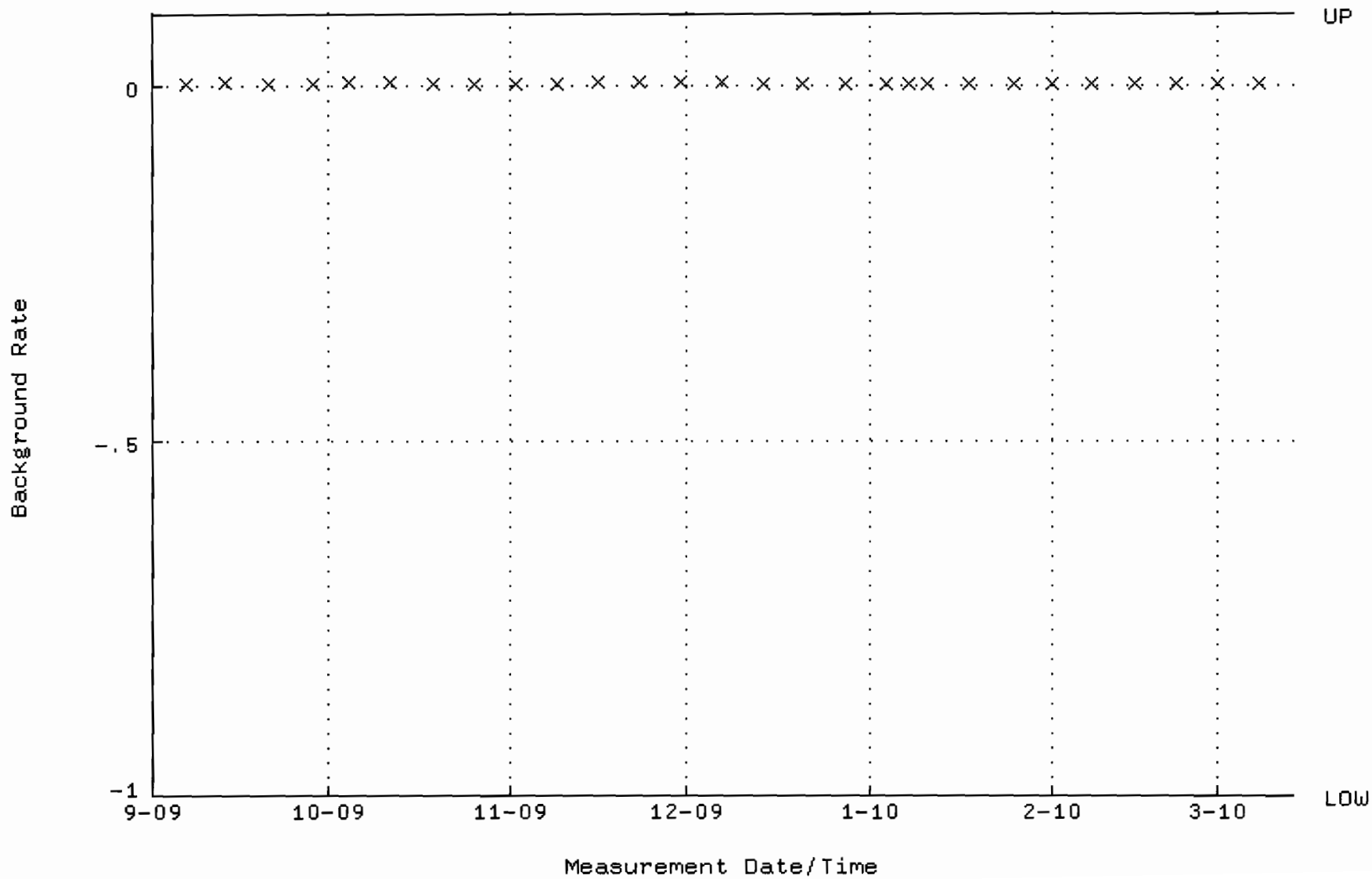

QA filename : DKA100:[ENV_ALPHA.QA.W]W094.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.276224 through 0.344338

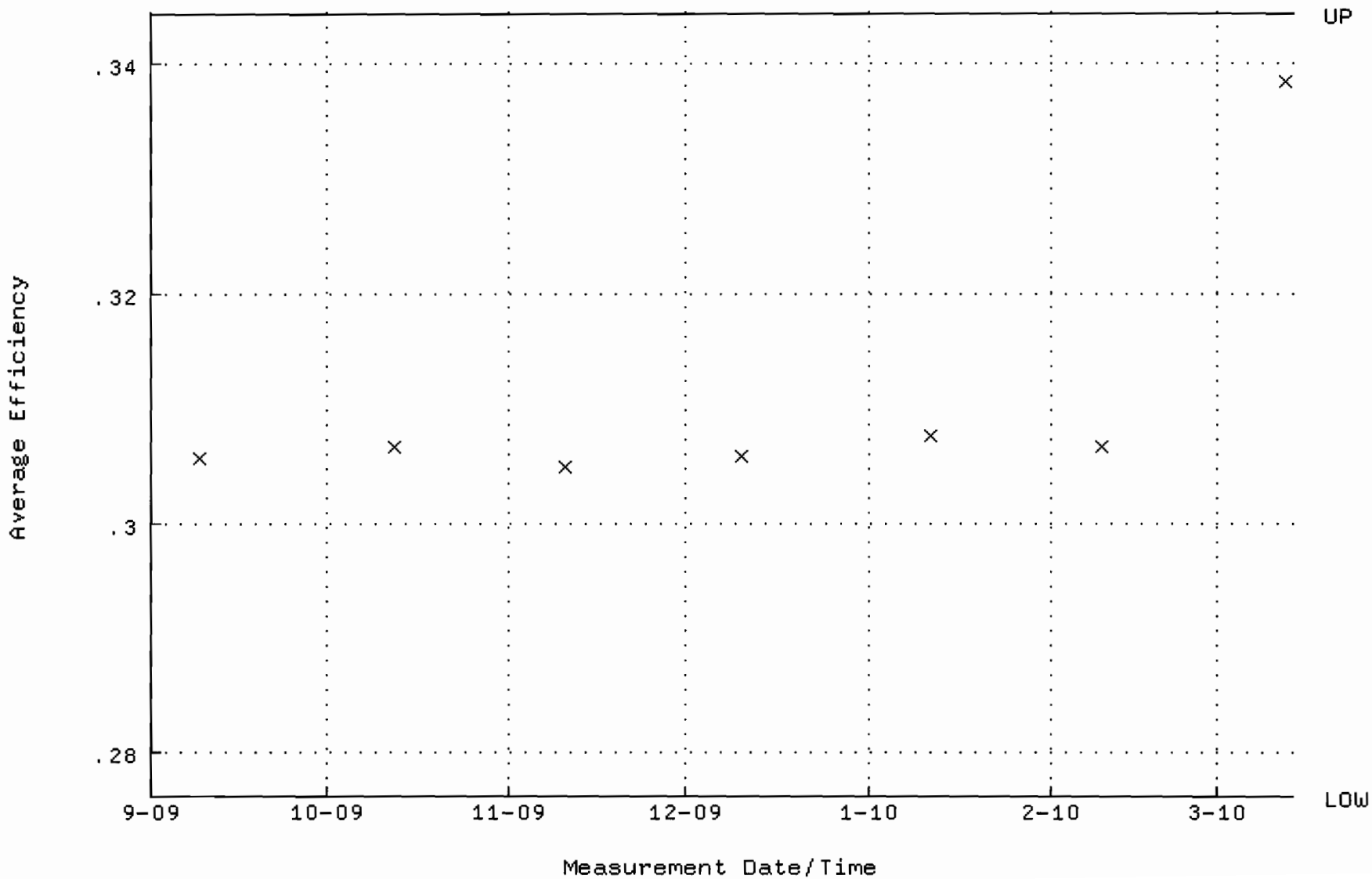

QA filename : DKA100:[ENV_ALPHA.QA.W]W094.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 85.1305 through 90.3863

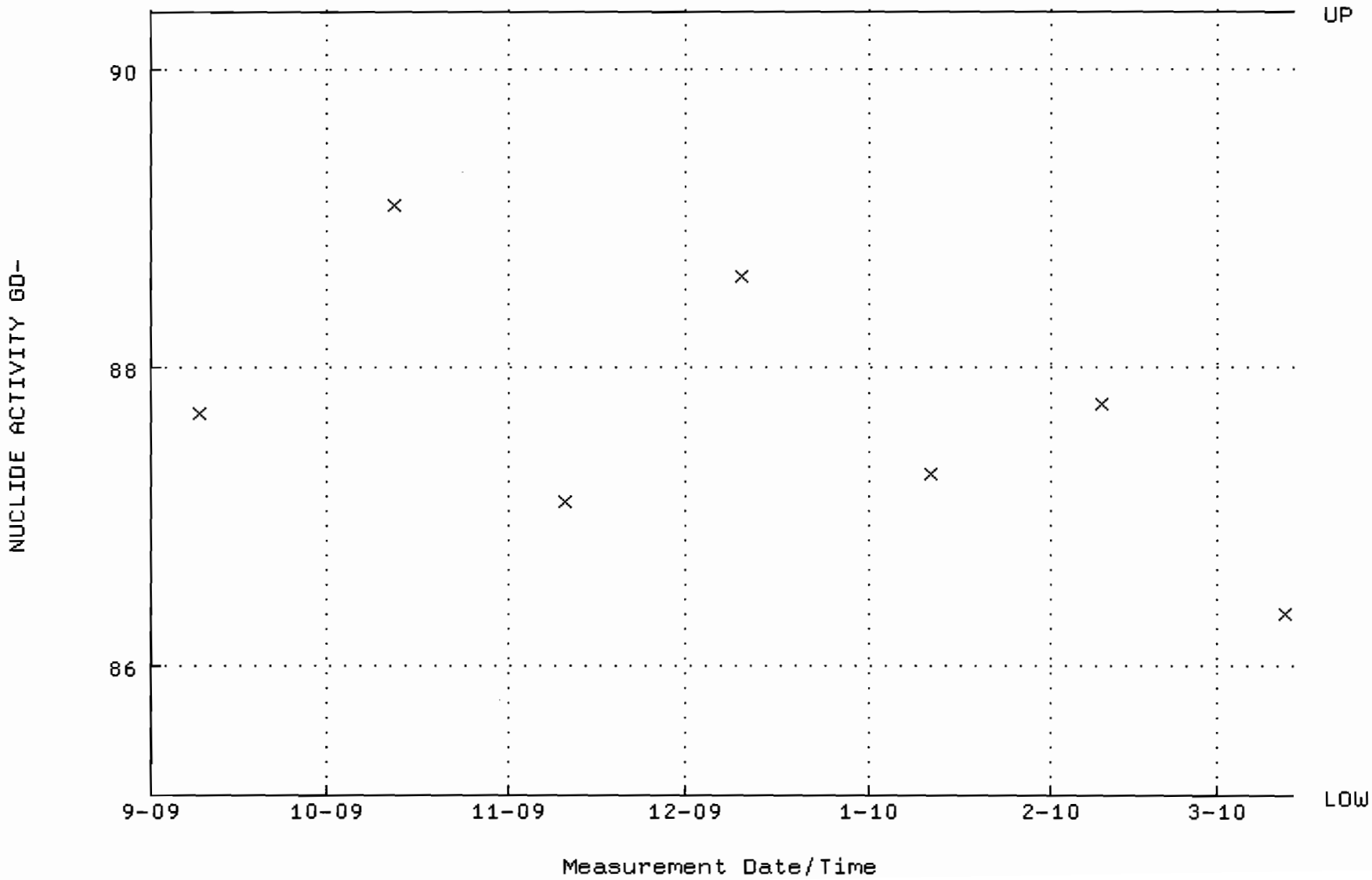

QA filename : DKA100:[ENV_ALPHA.QA.B]B094.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:10 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

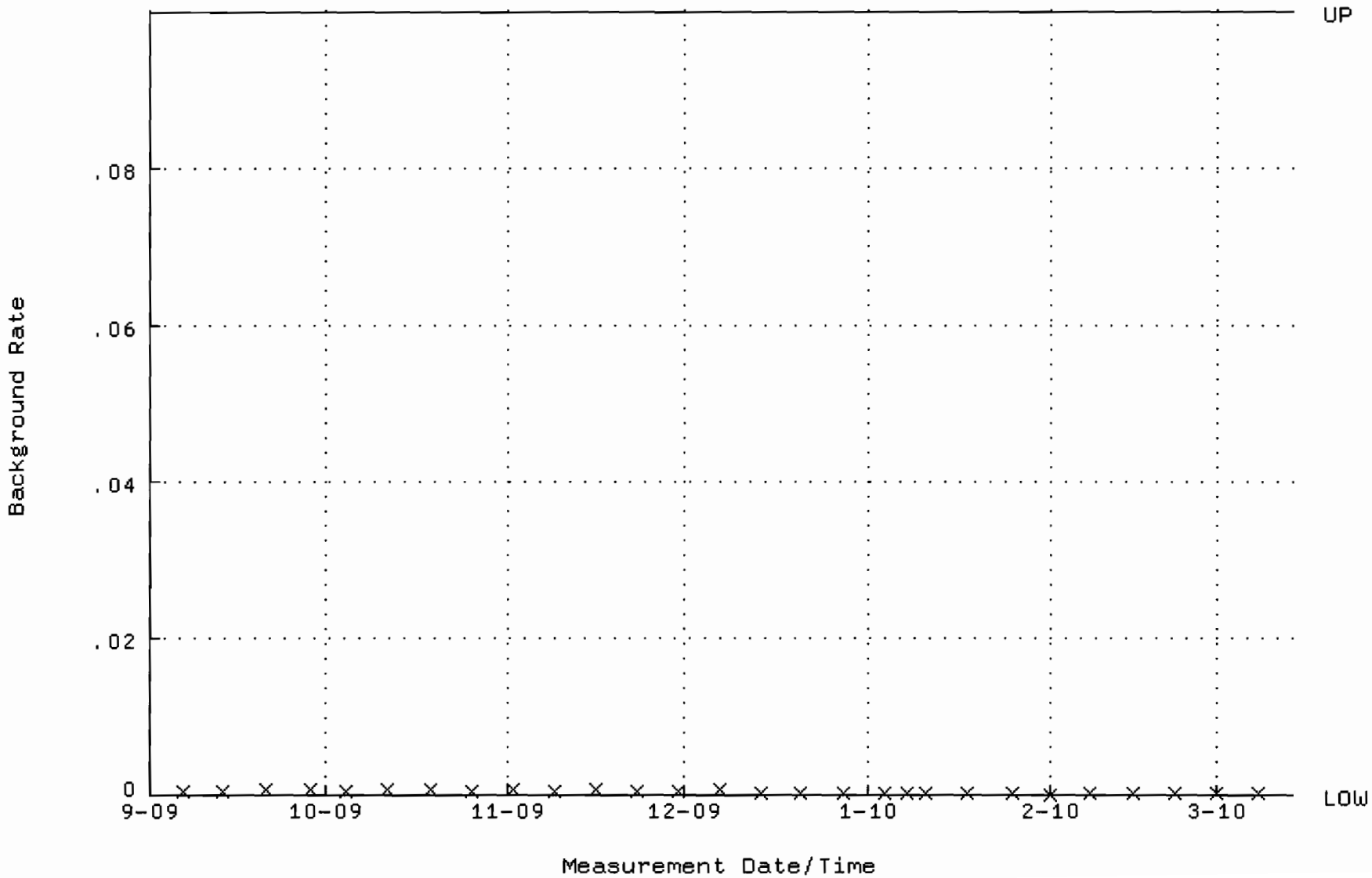

QA filename : DKA100:[ENV_ALPHA.QA.W]W117.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:22:59 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.262036 through 0.282036

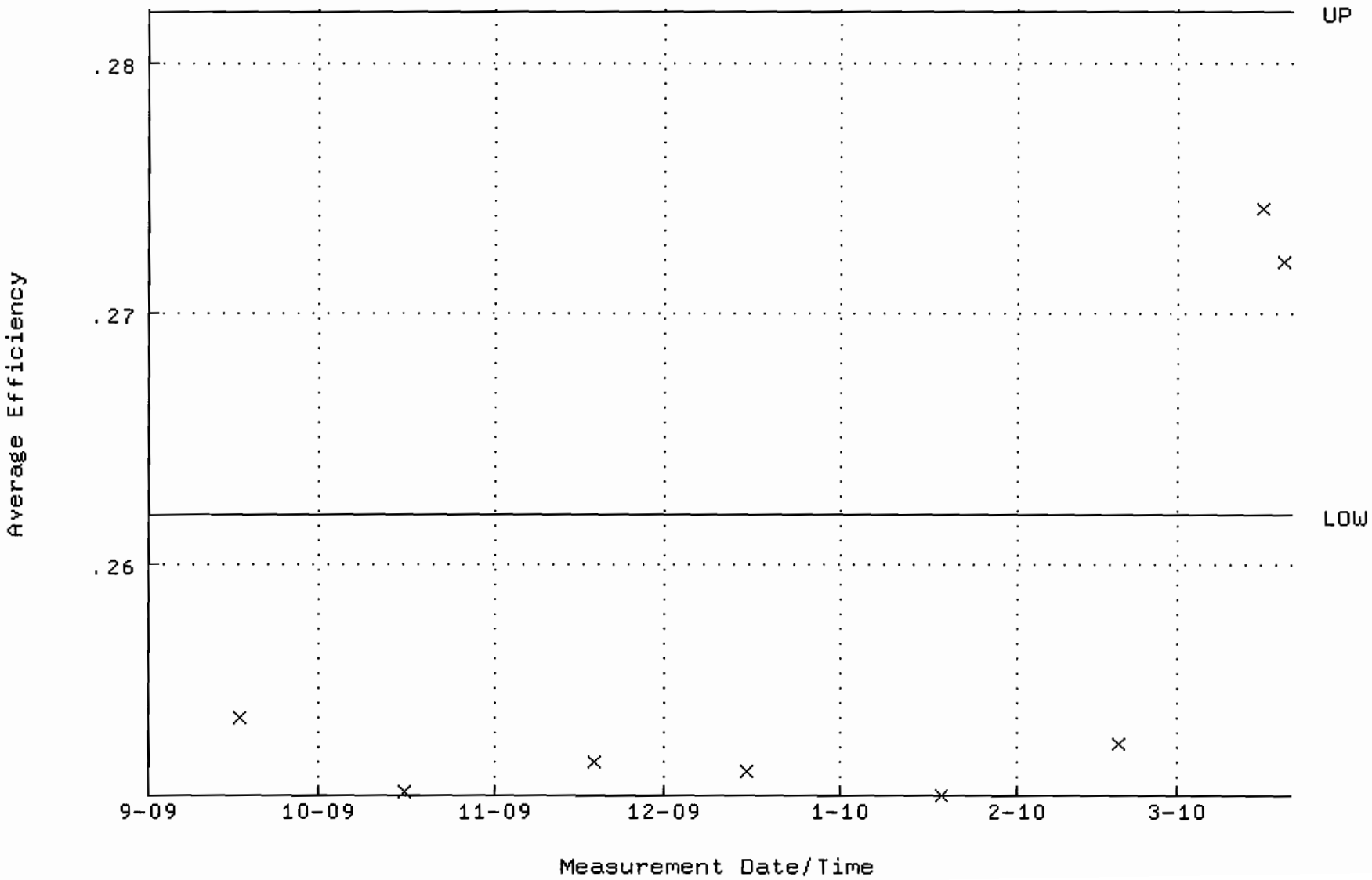

QA filename : DKA100:[ENV_ALPHA.QA.W]W117.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:22:59 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 83.9311 through 92.7659

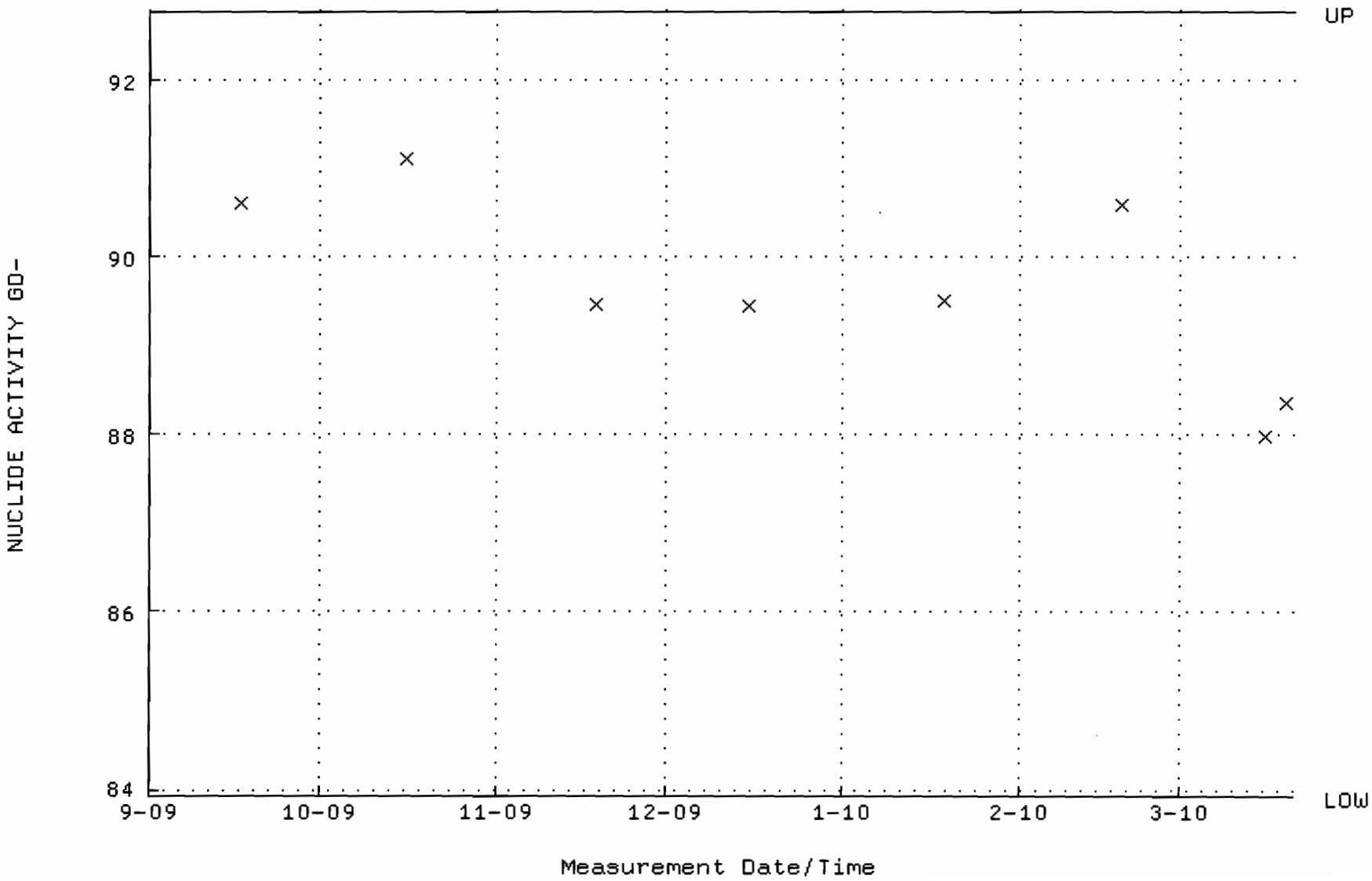

QA filename : DKA100:[ENV_ALPHA.QA.B]B117.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:26 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

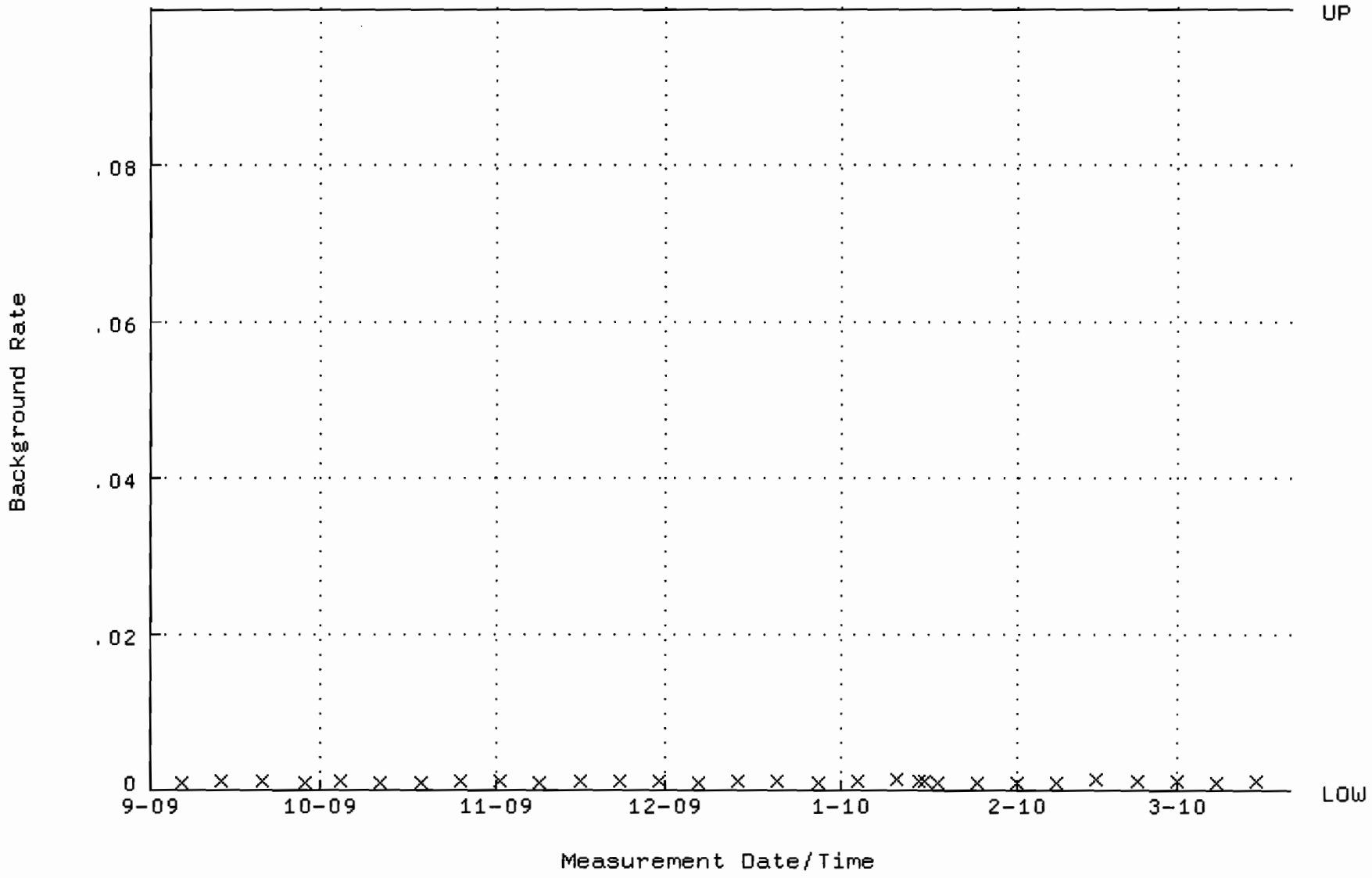

QA filename : DKA100:[ENV_ALPHA.QA.W]W118.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:23:06 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250494 through 0.264074

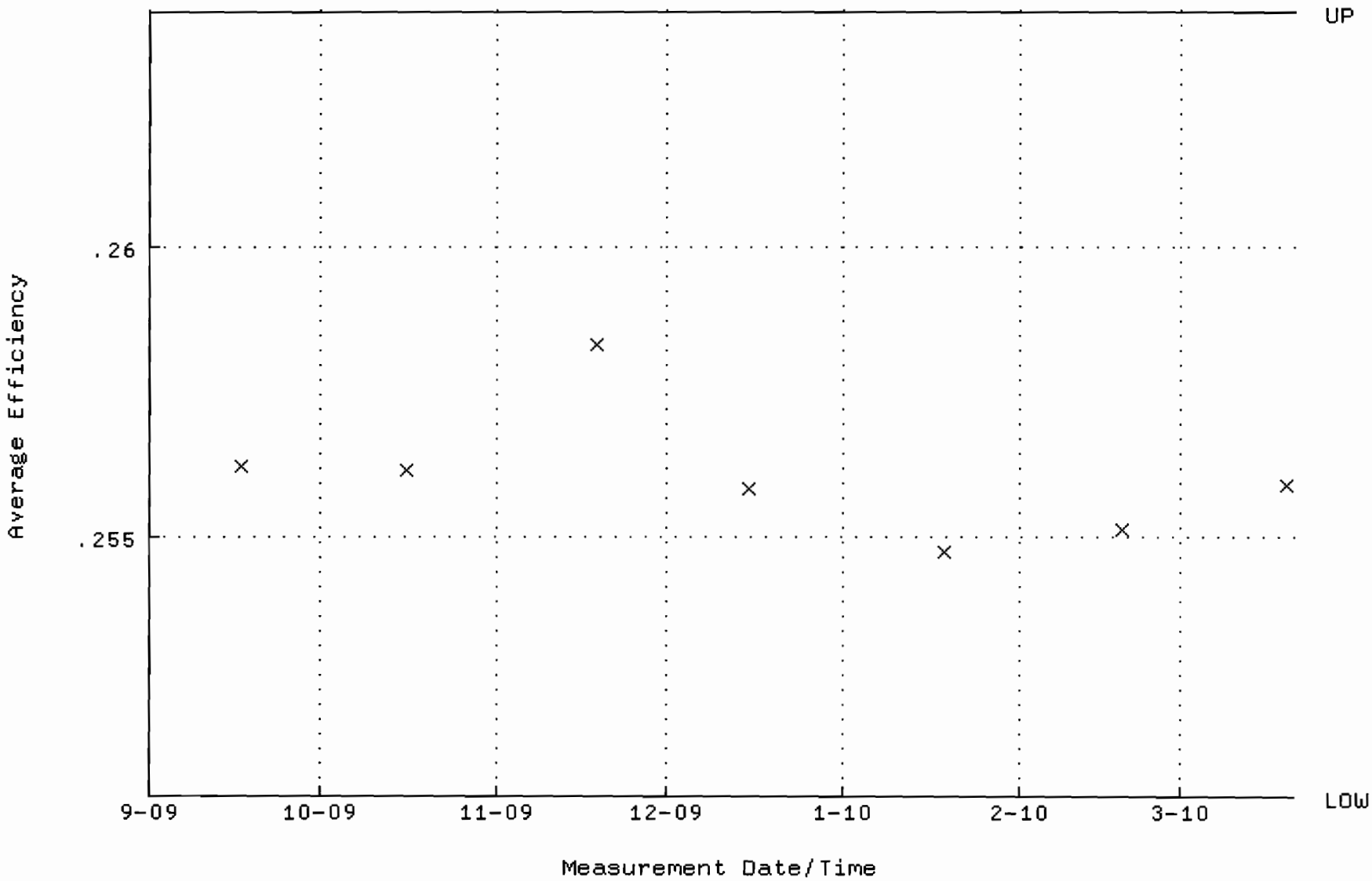

QA filename : DKA100:[ENV_ALPHA.QA.W]W118.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:23:06 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 89.7572 through 92.9316

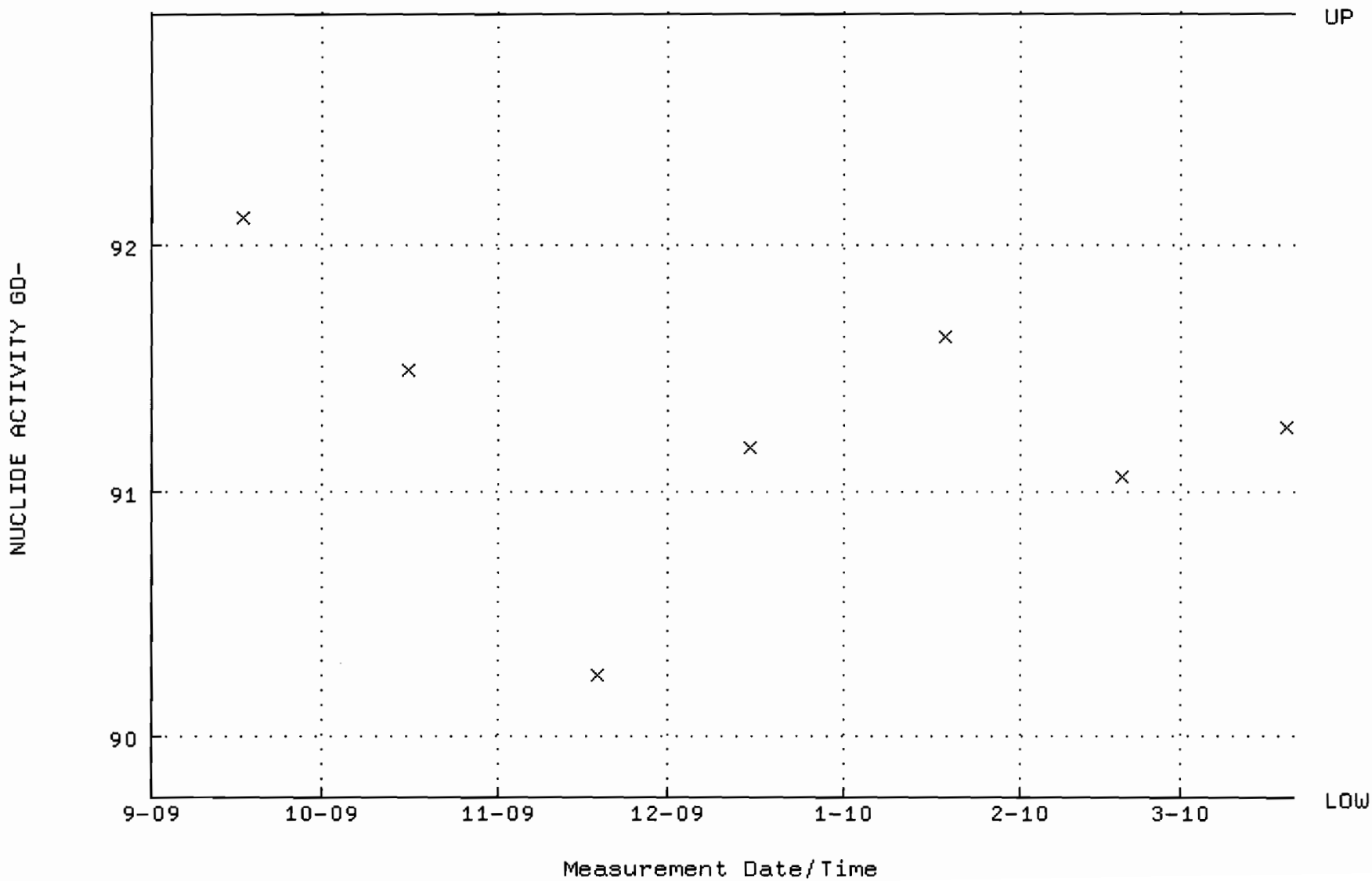

QA filename : DKA100:[ENV_ALPHA.QA.B]B118.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:30 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

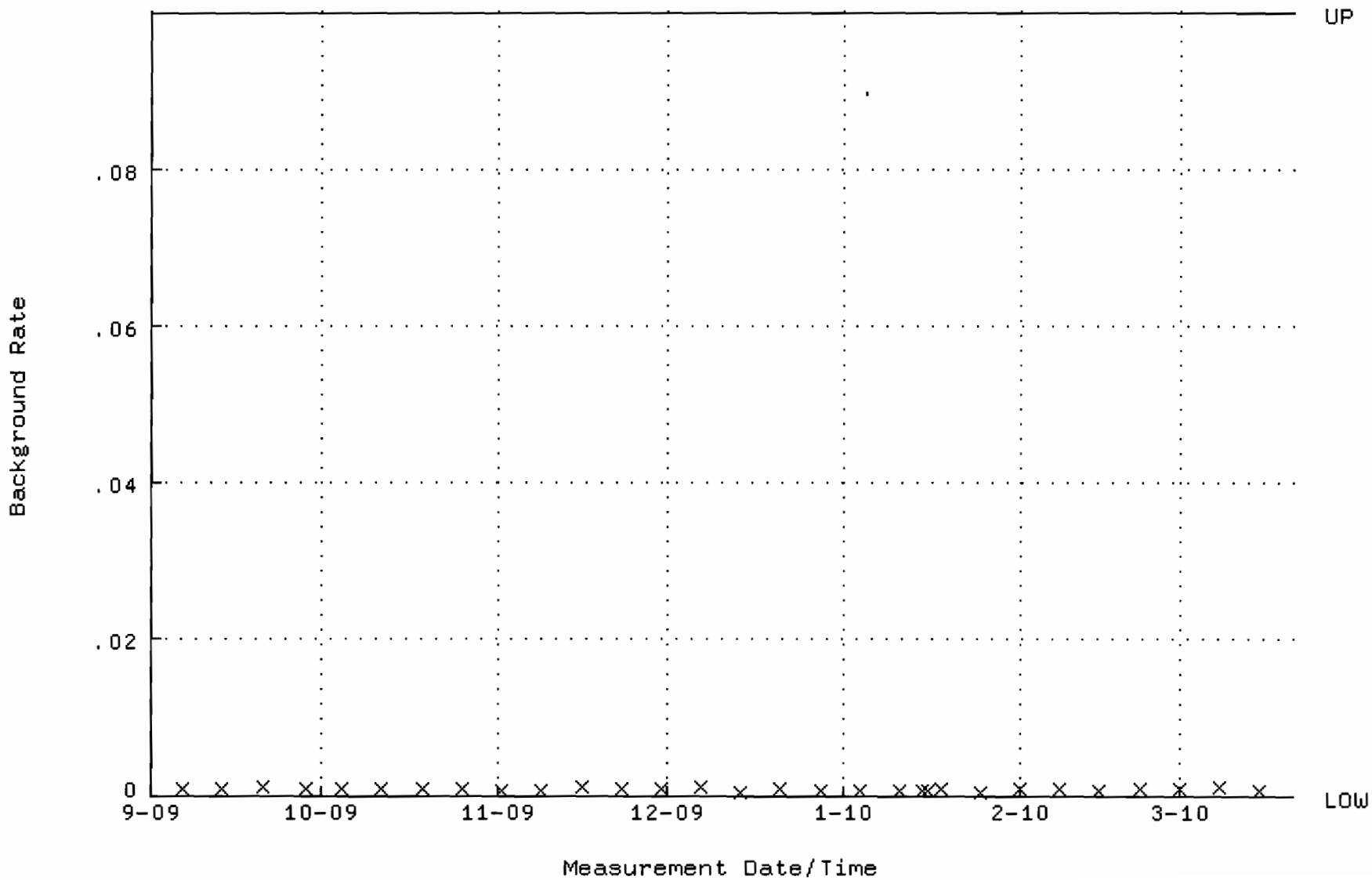

QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:04:02 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.237368 through 0.264286

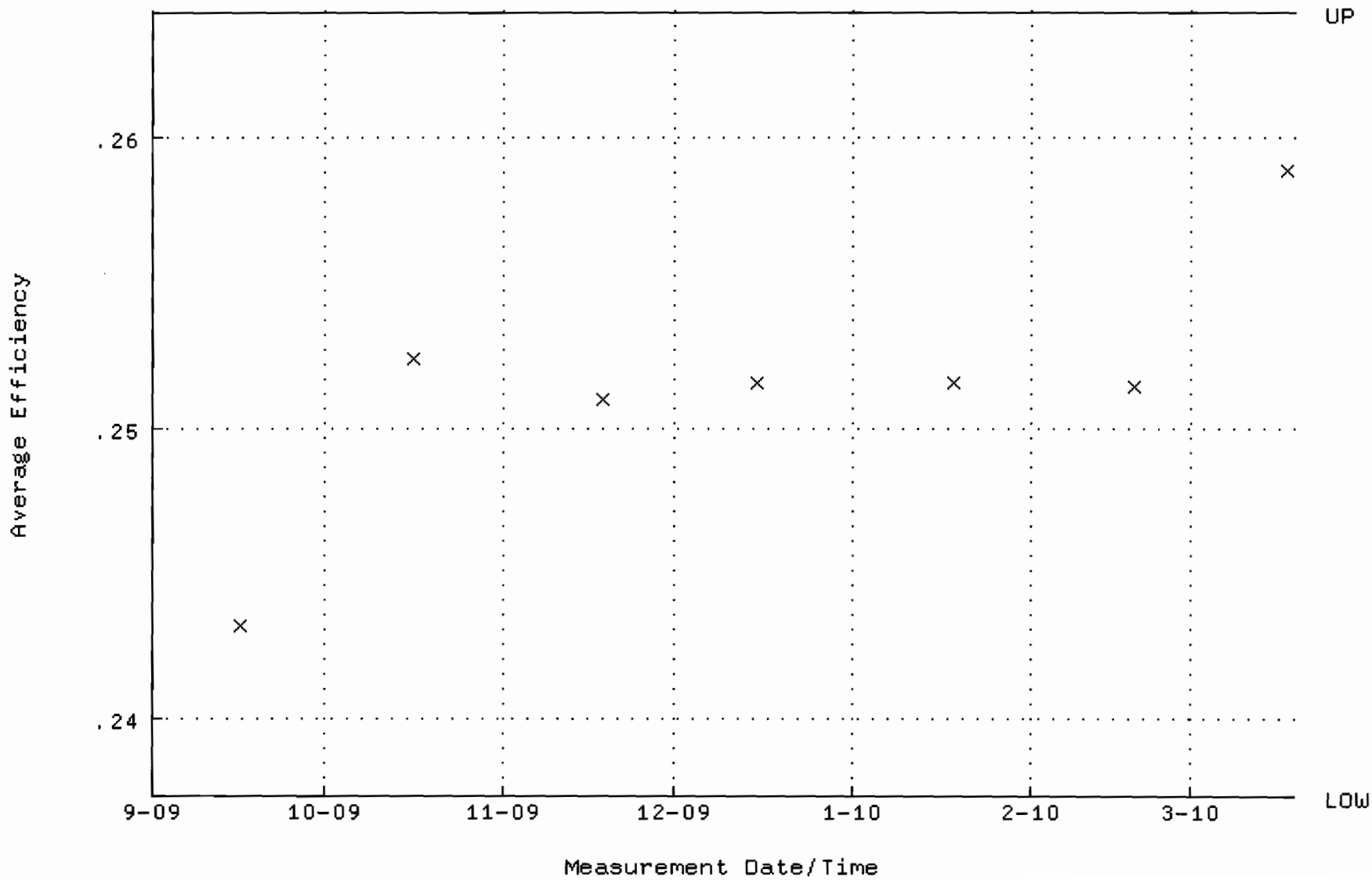

QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:04:02 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 84.3705 through 92.6214

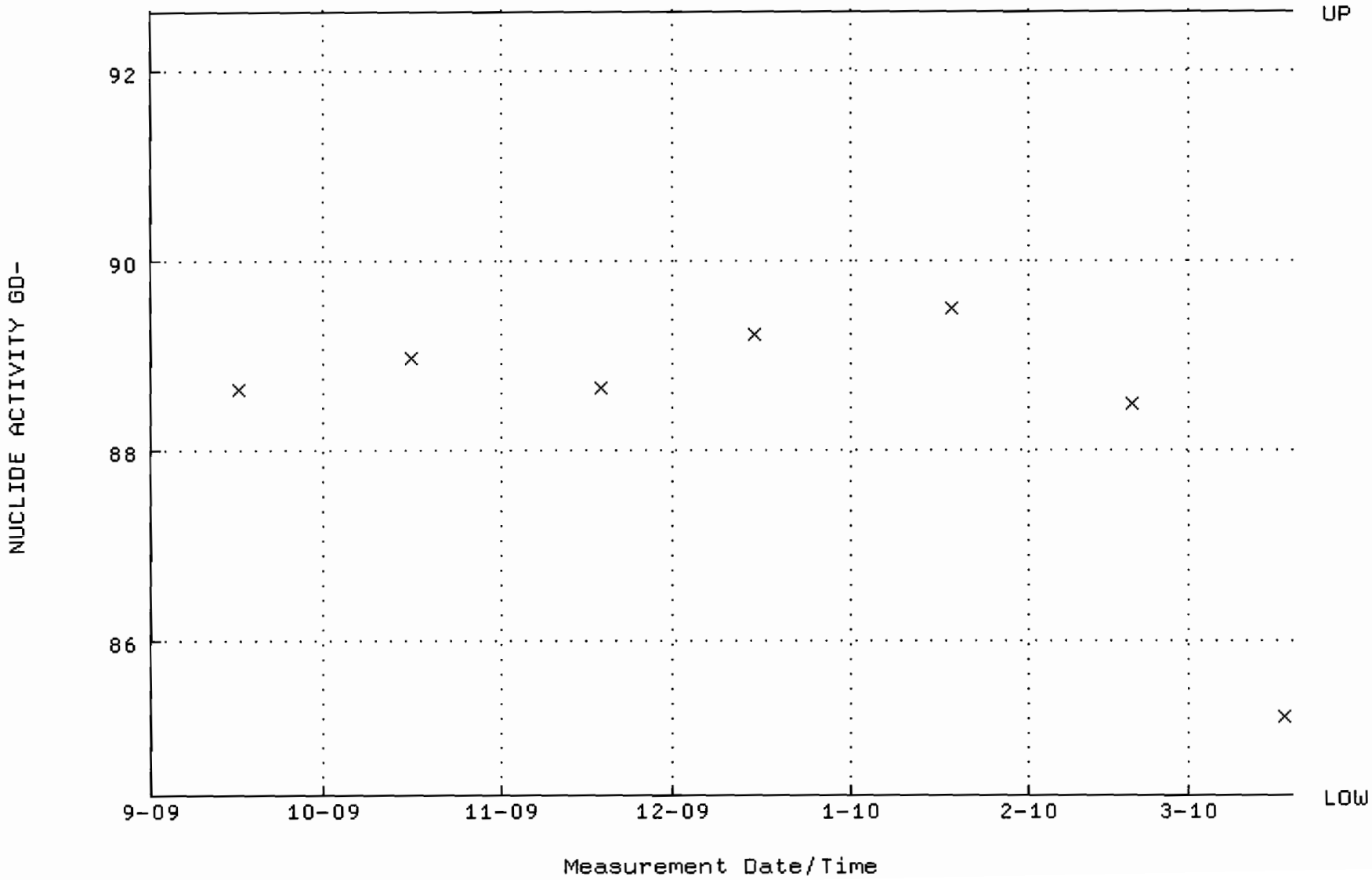

QA filename : DKA100:[ENV_ALPHA.QA.B]B144.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:22 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

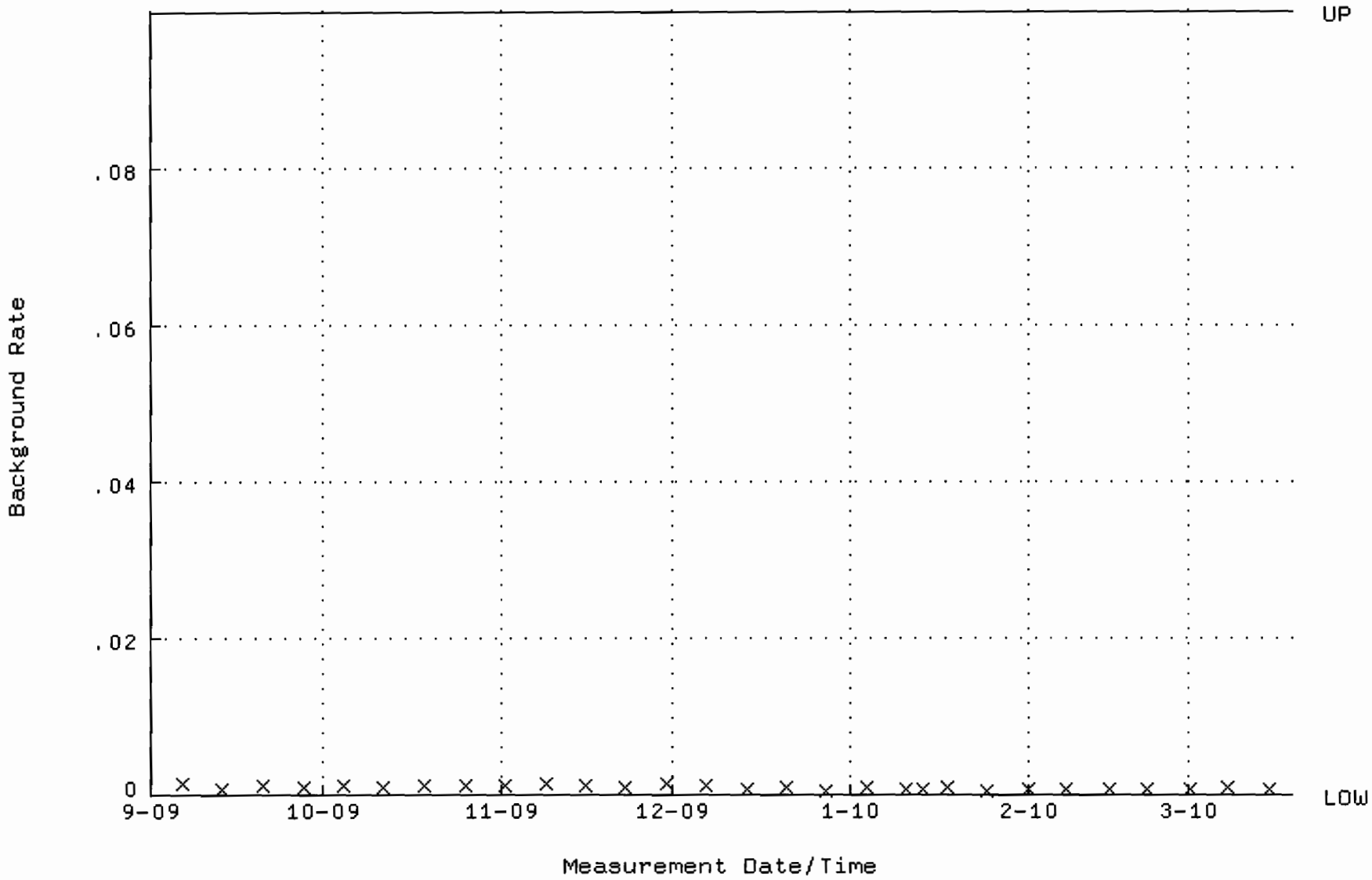

QA filename : DKA100:[ENV_ALPHA.QA.W]W145.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:04:08 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.240306 through 0.262496

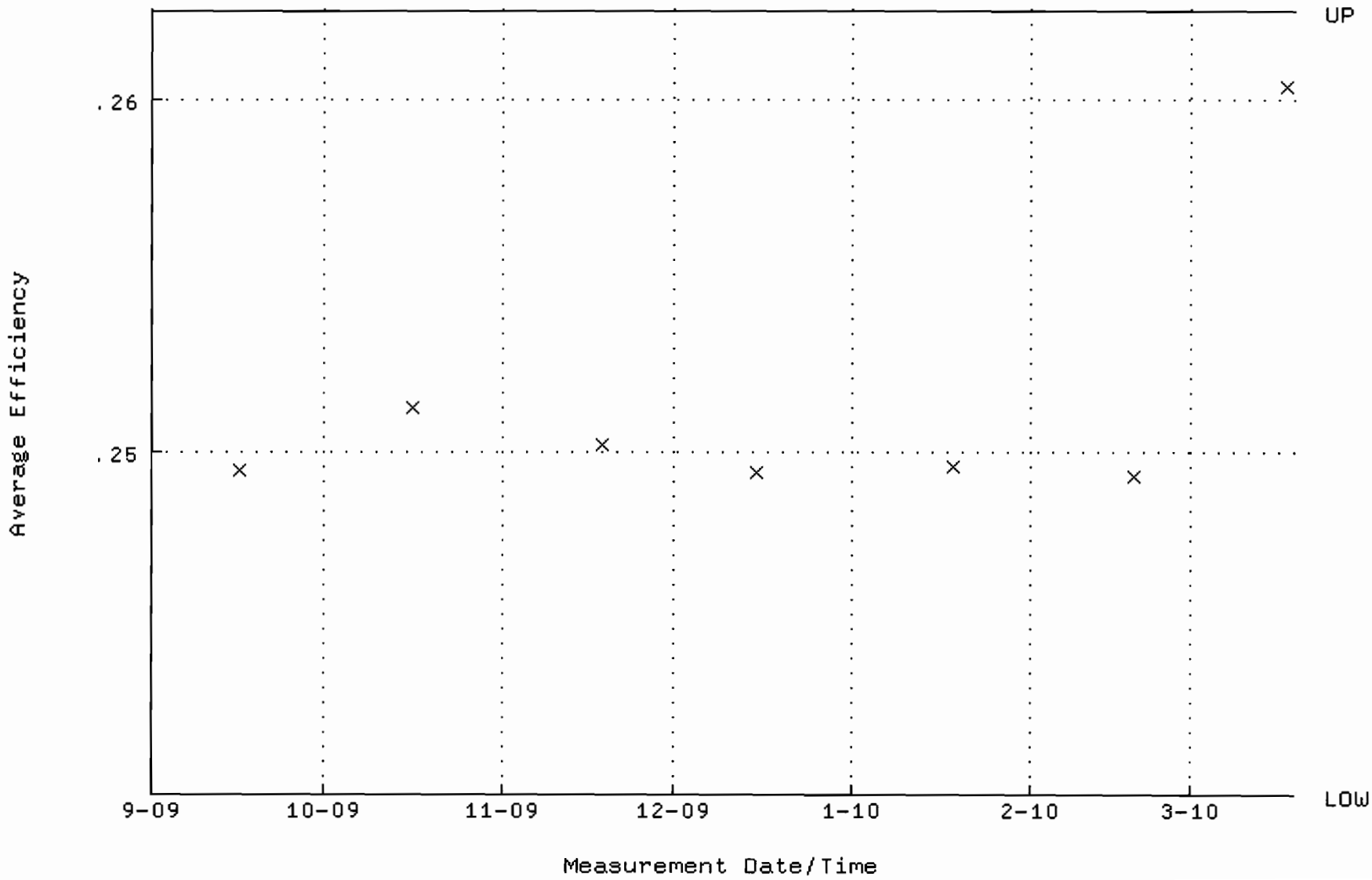

QA filename : DKA100:[ENV_ALPHA.QA.W]W145.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:04:08 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 85.7312 through 92.6692

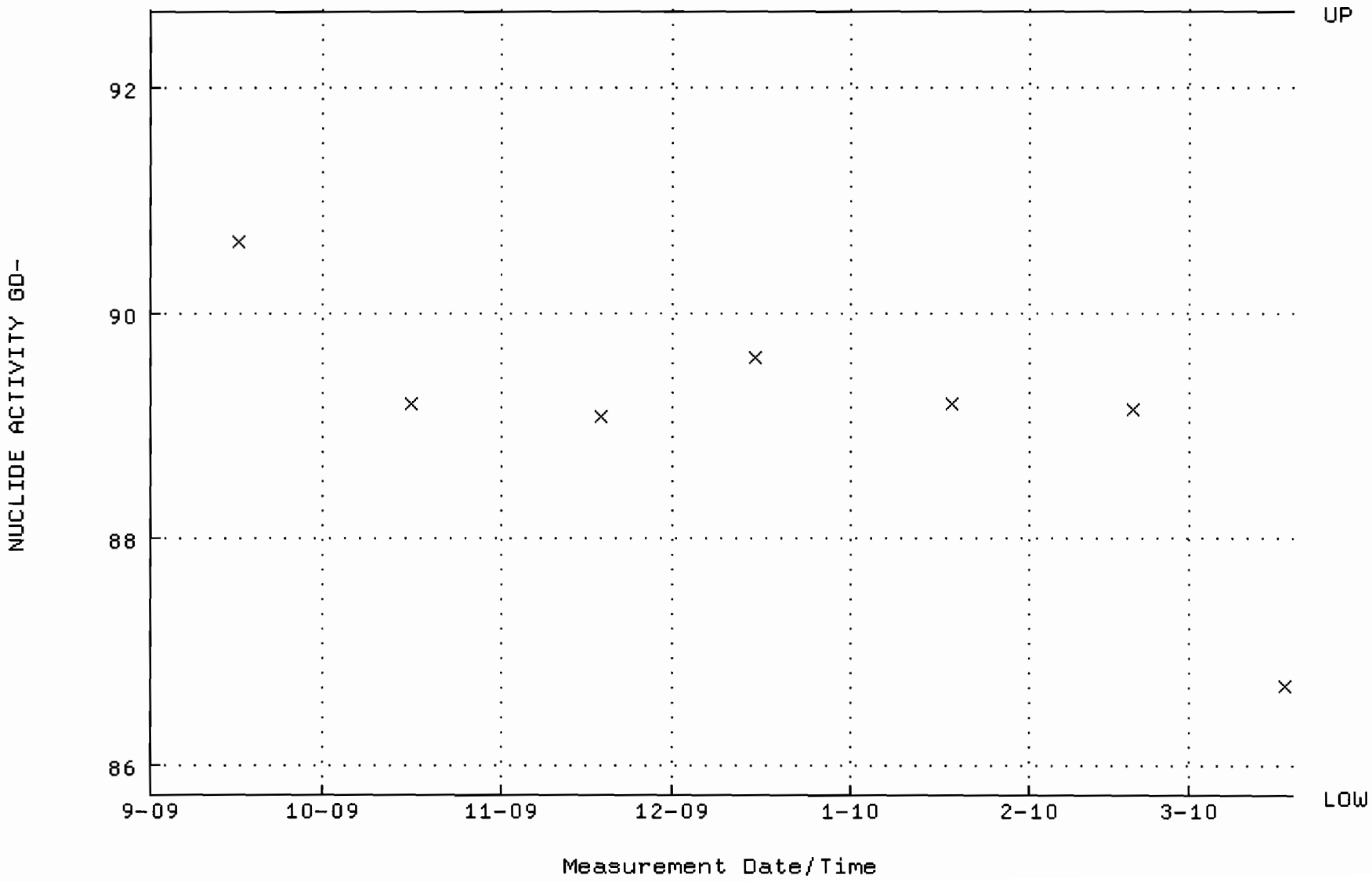

QA filename : DKA100:[ENV_ALPHA.QA.B]B145.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:26 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

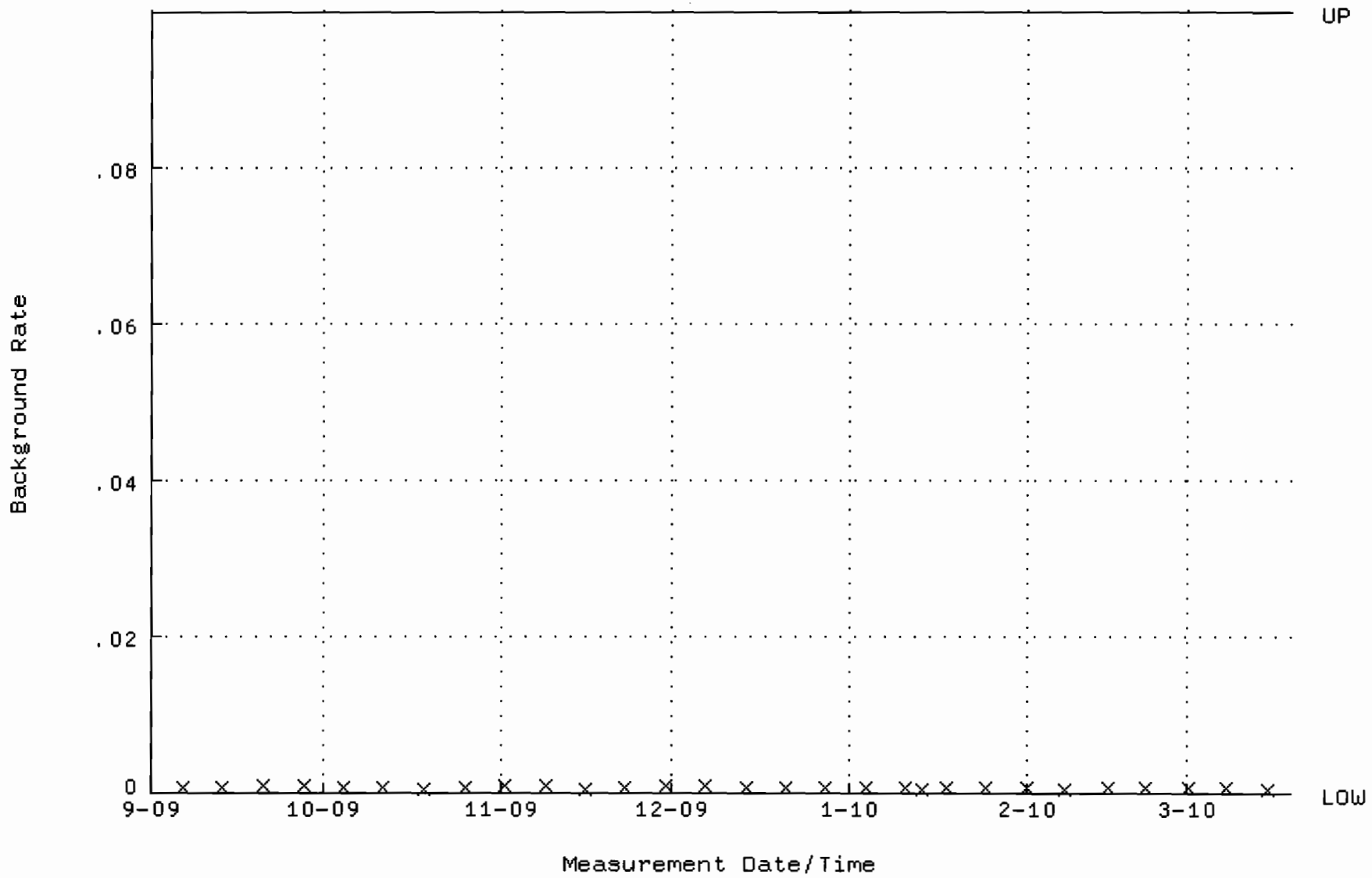

QA filename : DKA100:[ENV_ALPHA.QA.W]W146.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 16-SEP-2009 07:04:13 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 4.713000E-02 through 0.423864

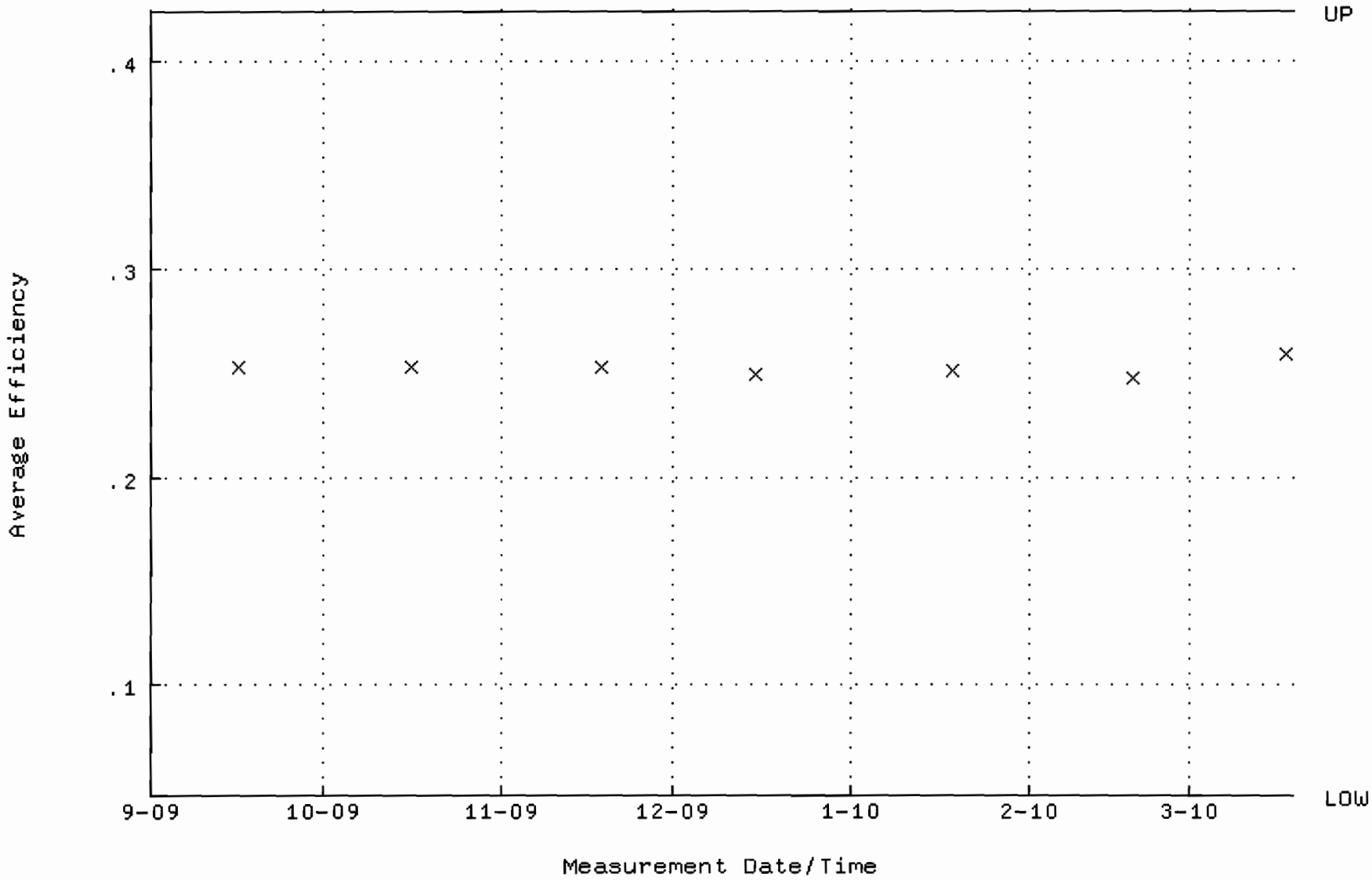

QA filename : DKA100:[ENV_ALPHA.QA.W]W146.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 16-SEP-2009 07:04:13 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 57.4058 through 116.767

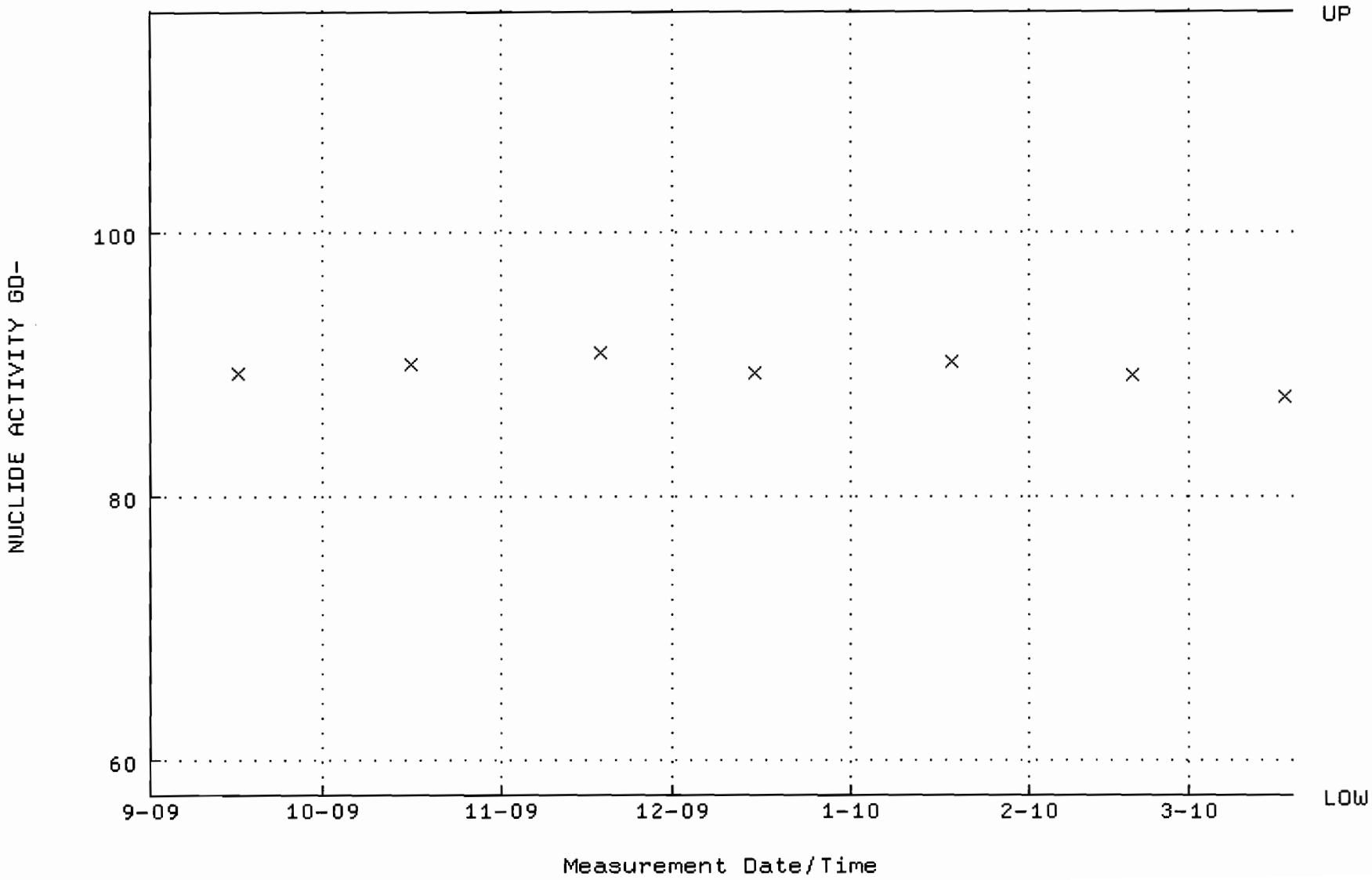

QA filename : DKA100:[ENV_ALPHA.QA.B]B146.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:30 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

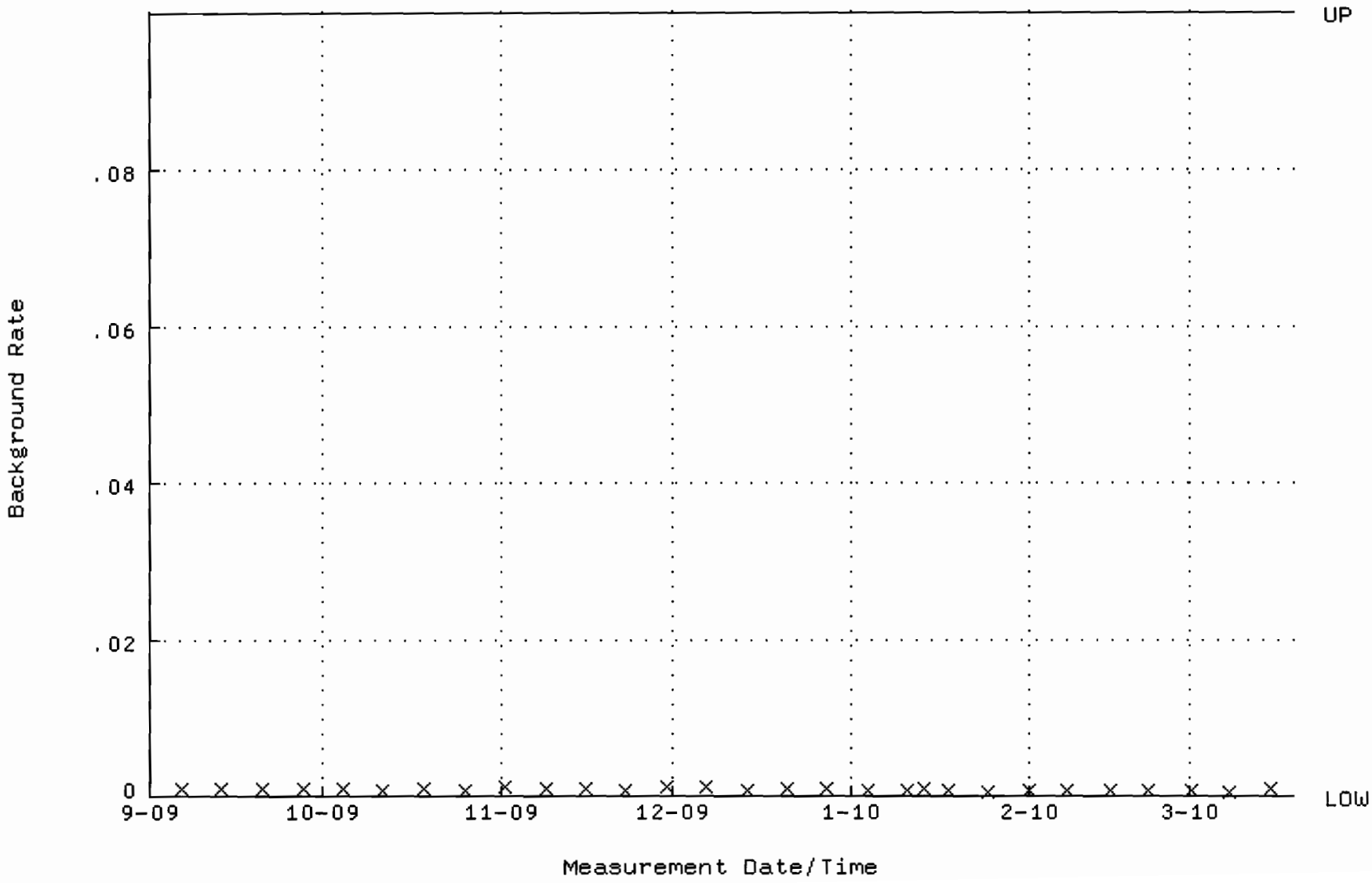

QA filename : DKA100:[ENV_ALPHA.QA.W]W149.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:20 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.232775 through 0.262555

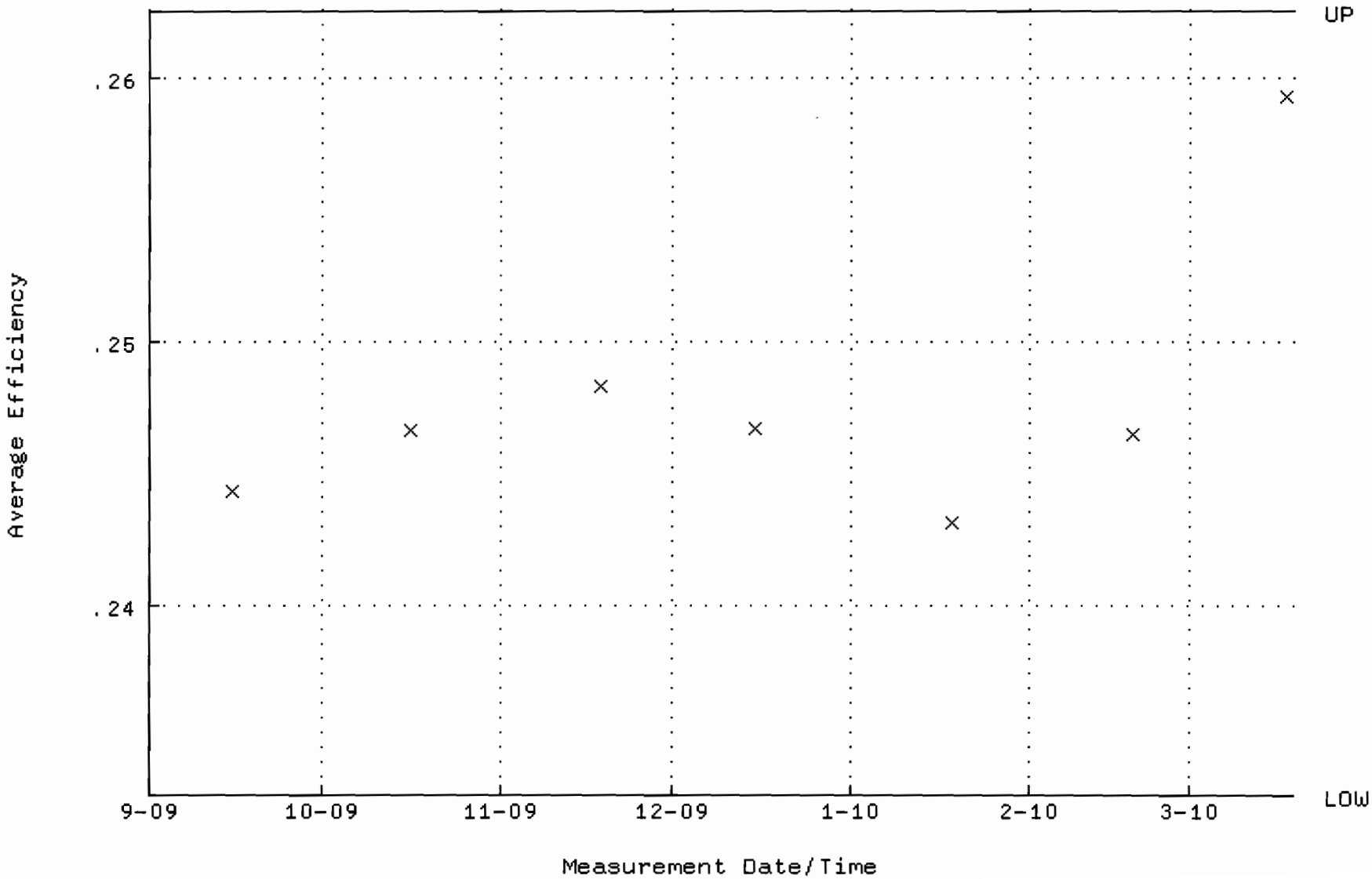

QA filename : DKA100:[ENV_ALPHA.QA.W]W149.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:20 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5753 through 92.6757

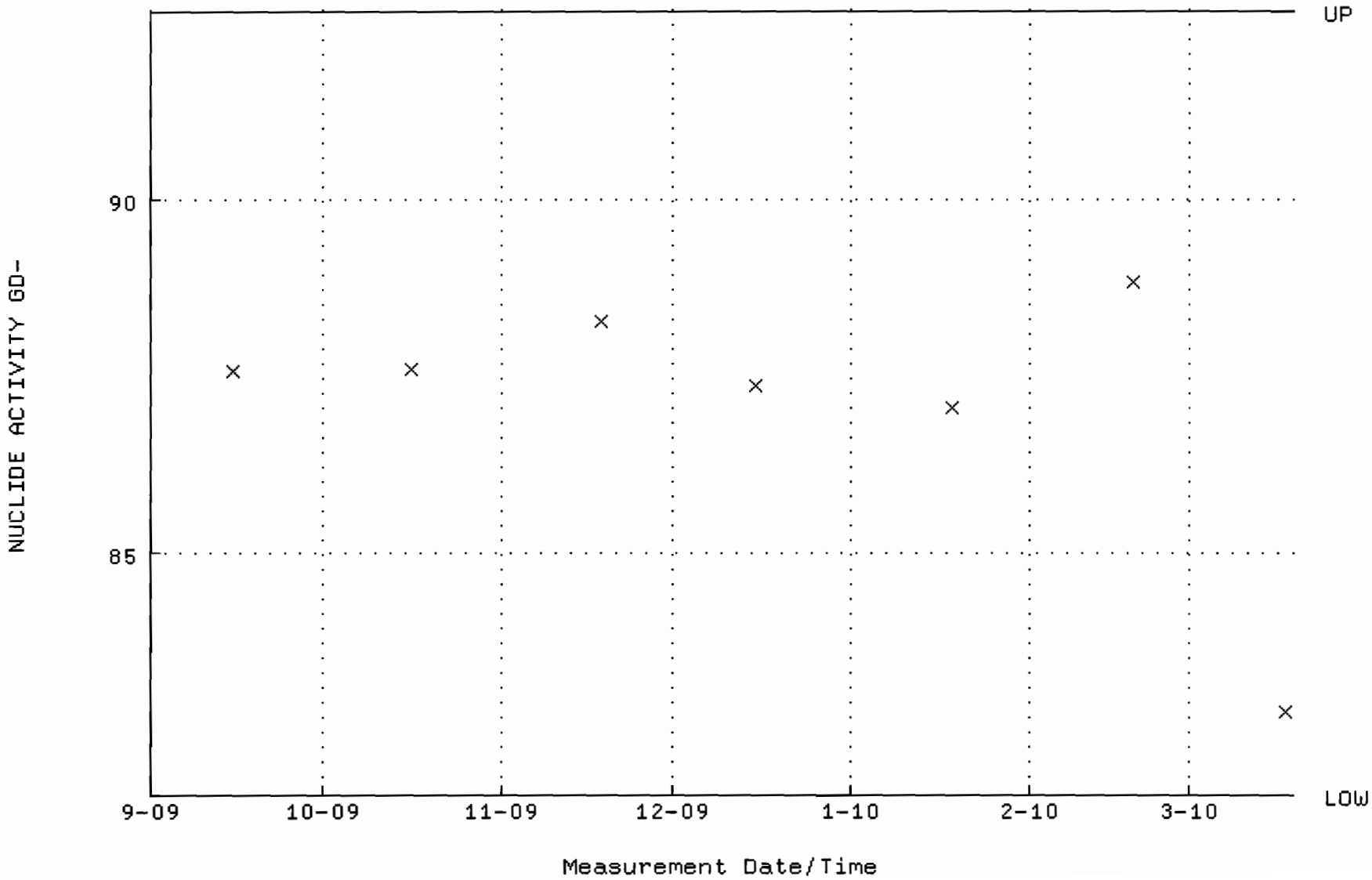

QA filename : DKA100:[ENV_ALPHA.QA.B]B149.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:42 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

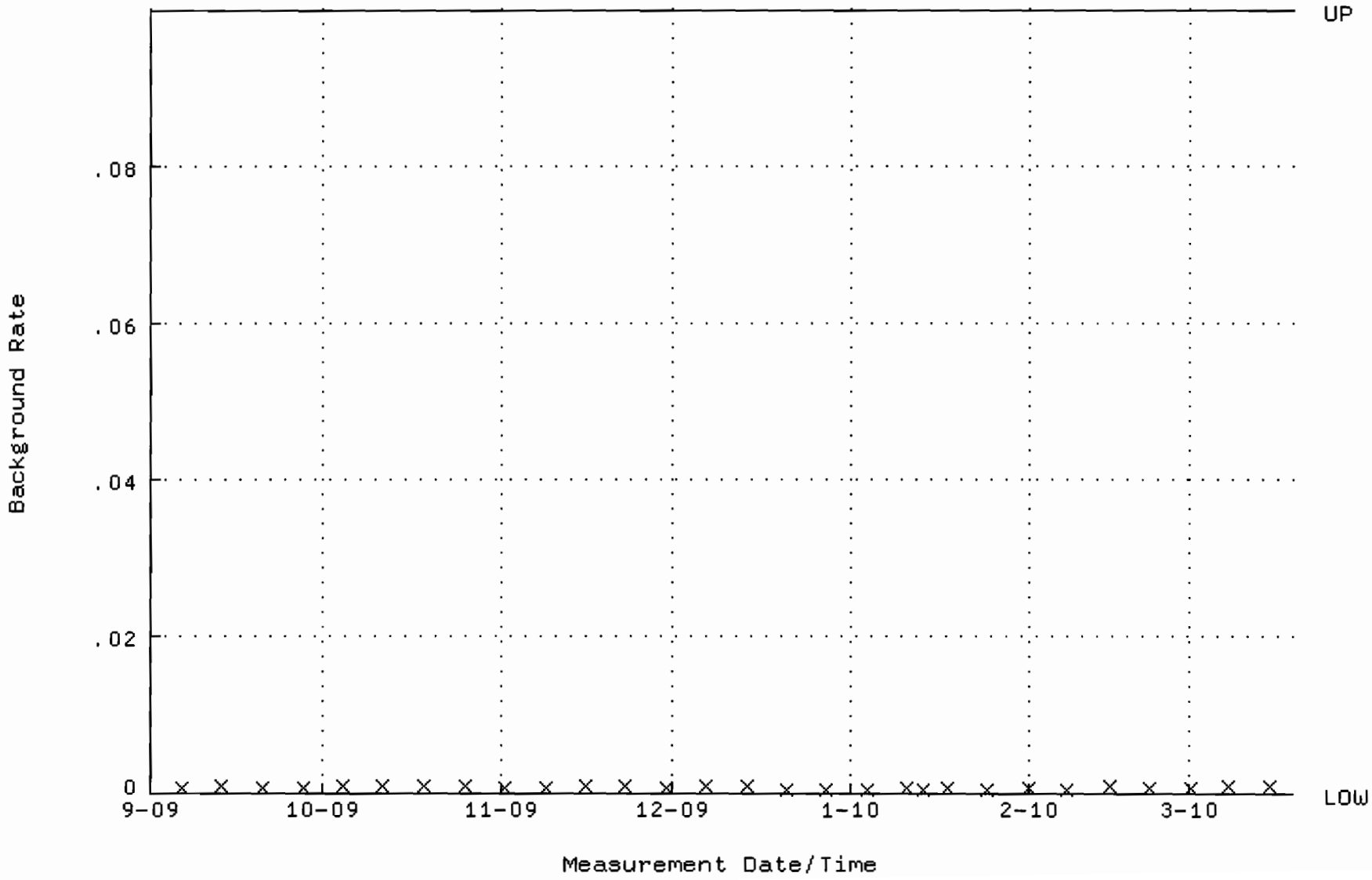

QA filename : DKA100:[ENV_ALPHA.QA.W]W150.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:25 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.230847 through 0.270601

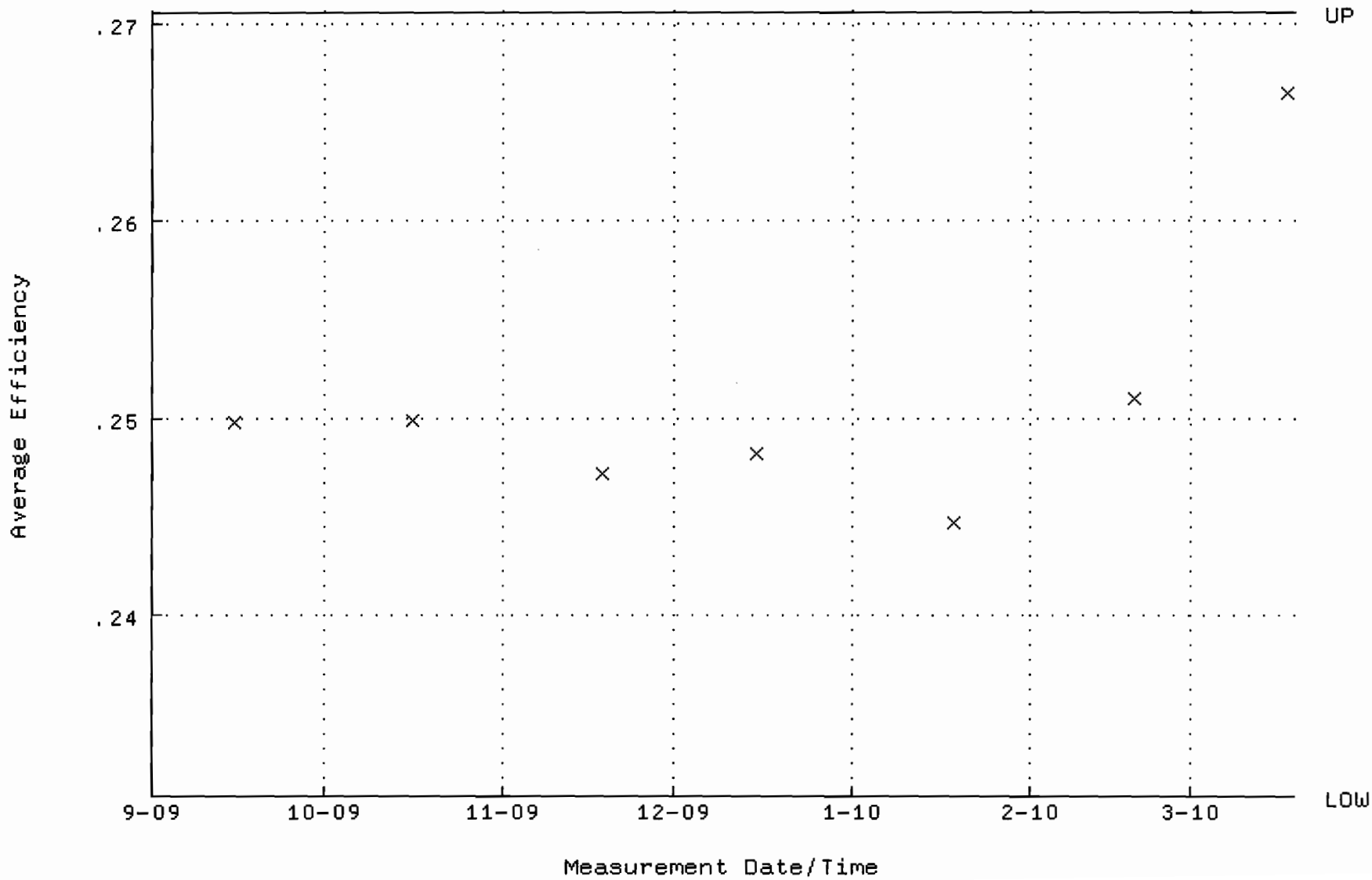

QA filename : DKA100:[ENV_ALPHA.QA.W]W150.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:25 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 82.2504 through 95.1354

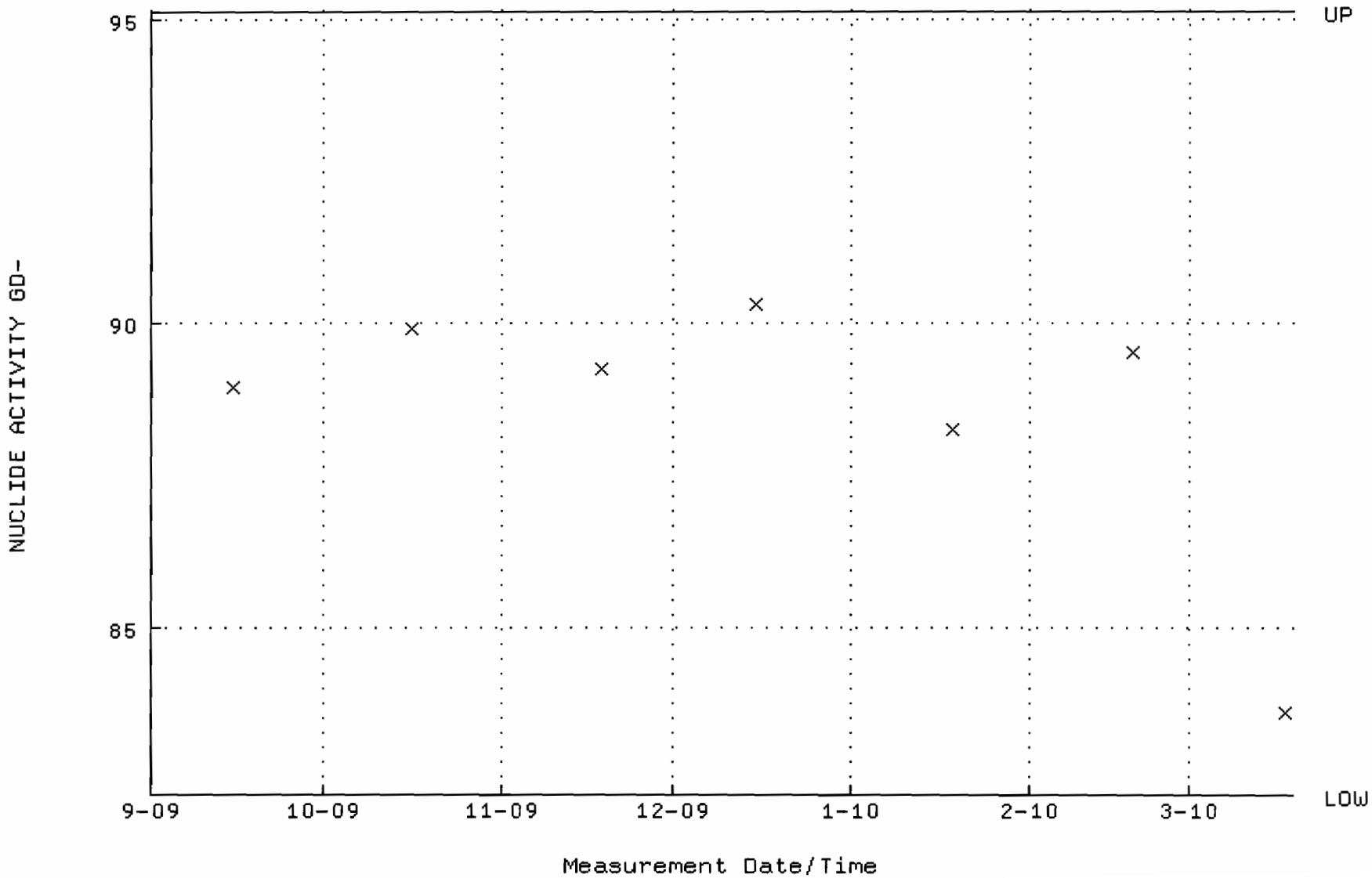

QA filename : DKA100:[ENV_ALPHA.QA.B]B150.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:46 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

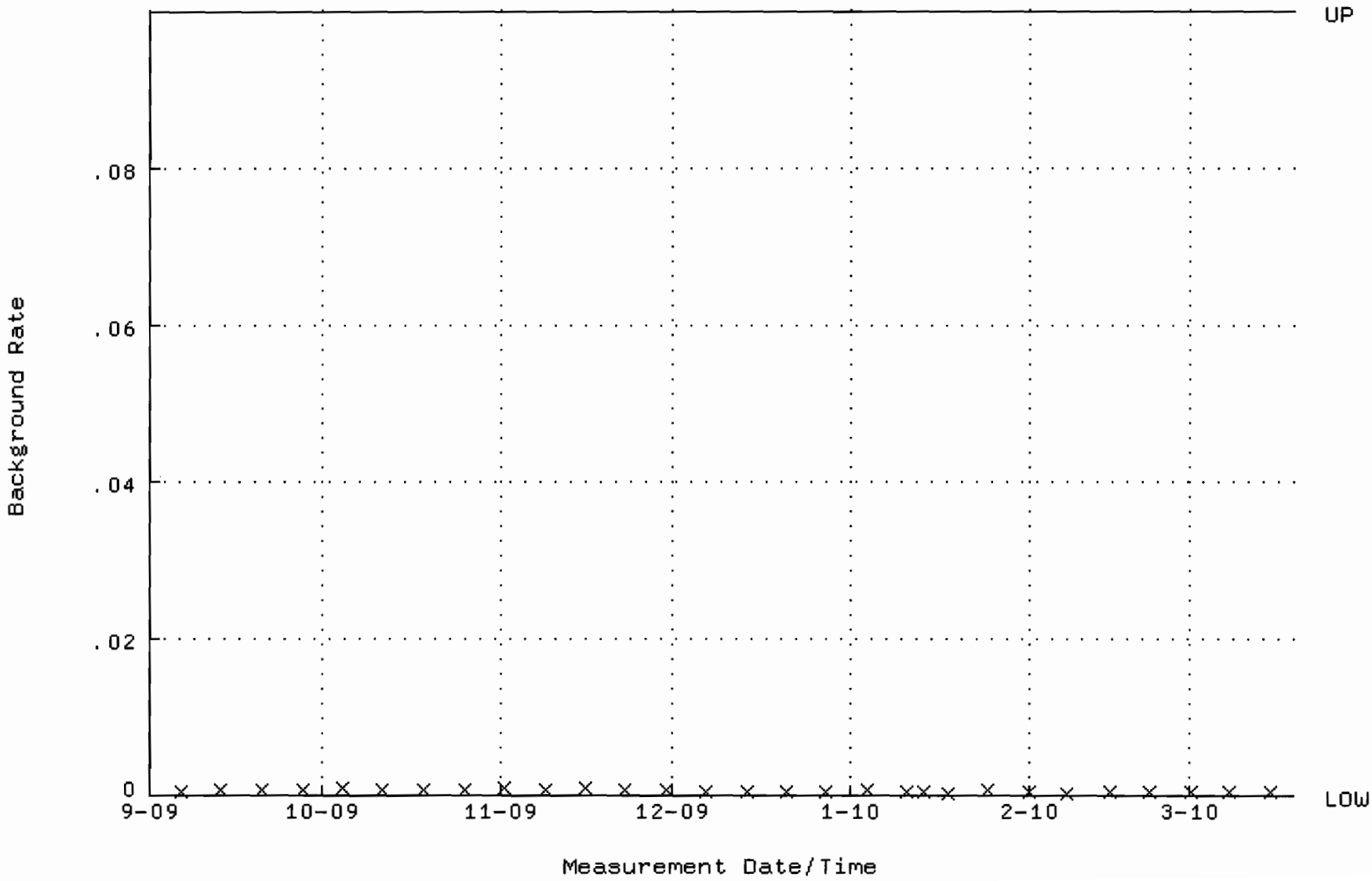

QA filename : DKA100:[ENV_ALPHA.QA.W]W151.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:30 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.229470 through 0.264472

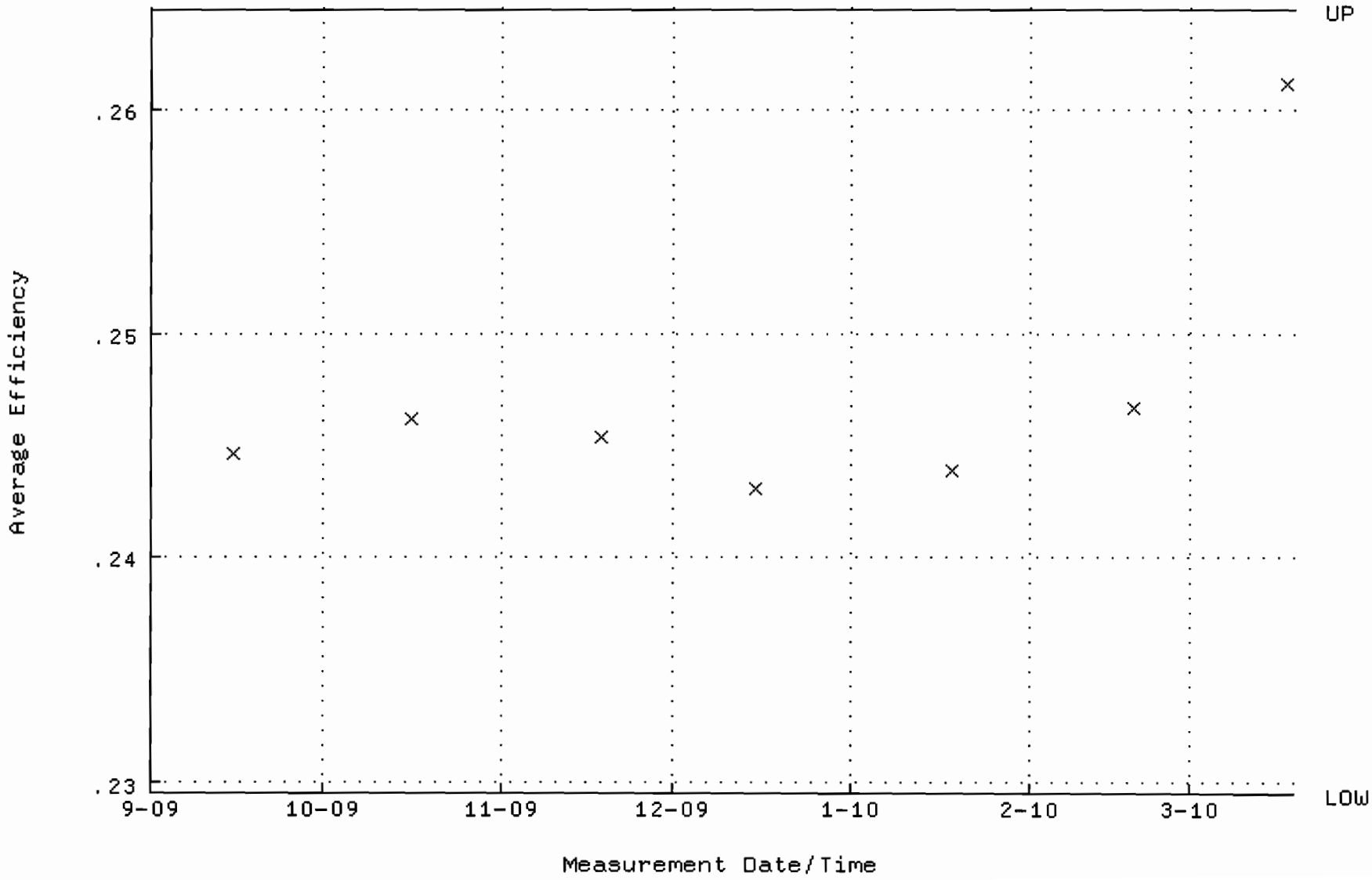

QA filename : DKA100:[ENV_ALPHA.QA.W]W151.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:30 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 84.8674 through 94.1592

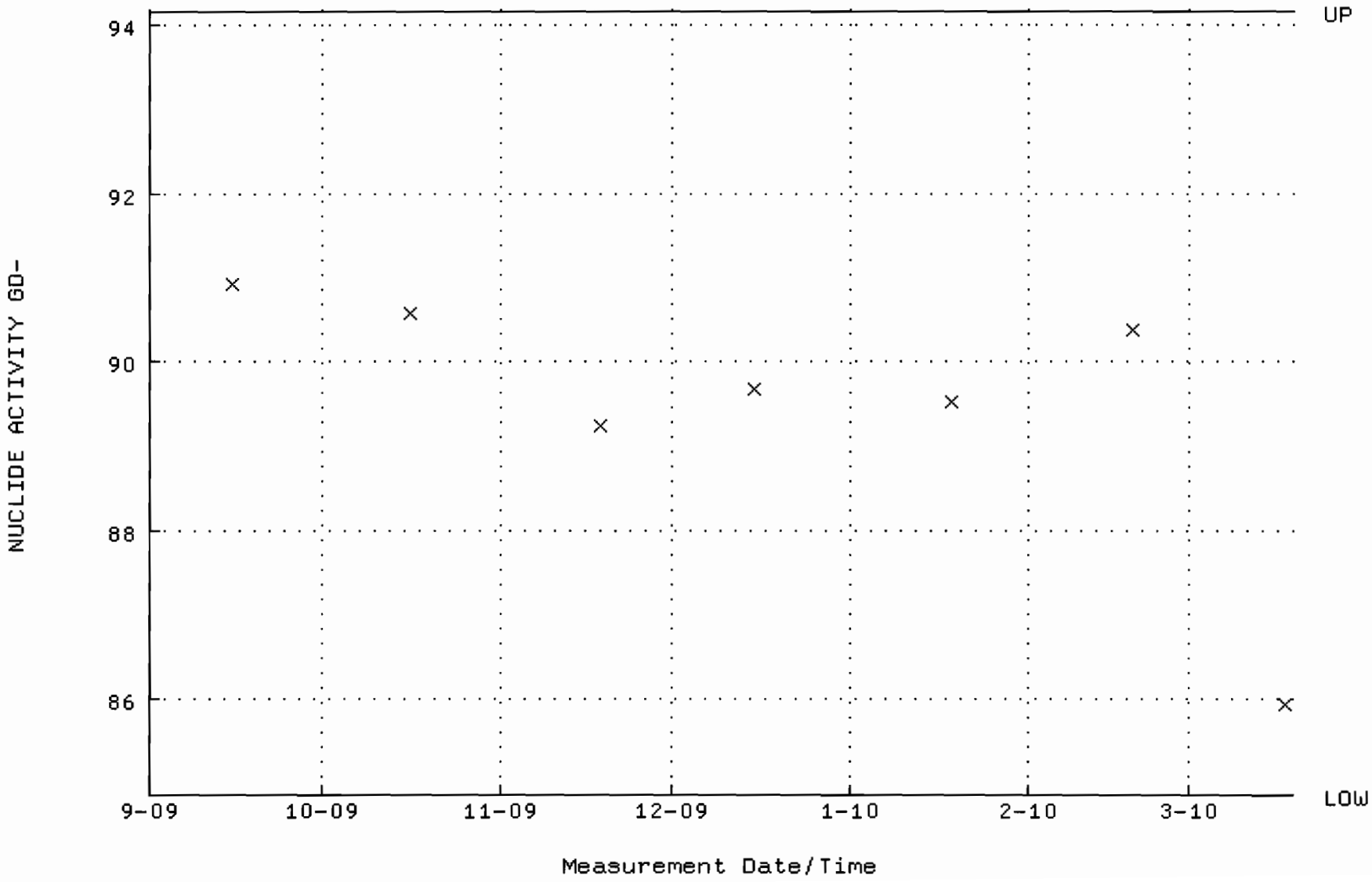

QA filename : DKA100:[ENV_ALPHA.QA.B]B151.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:51 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

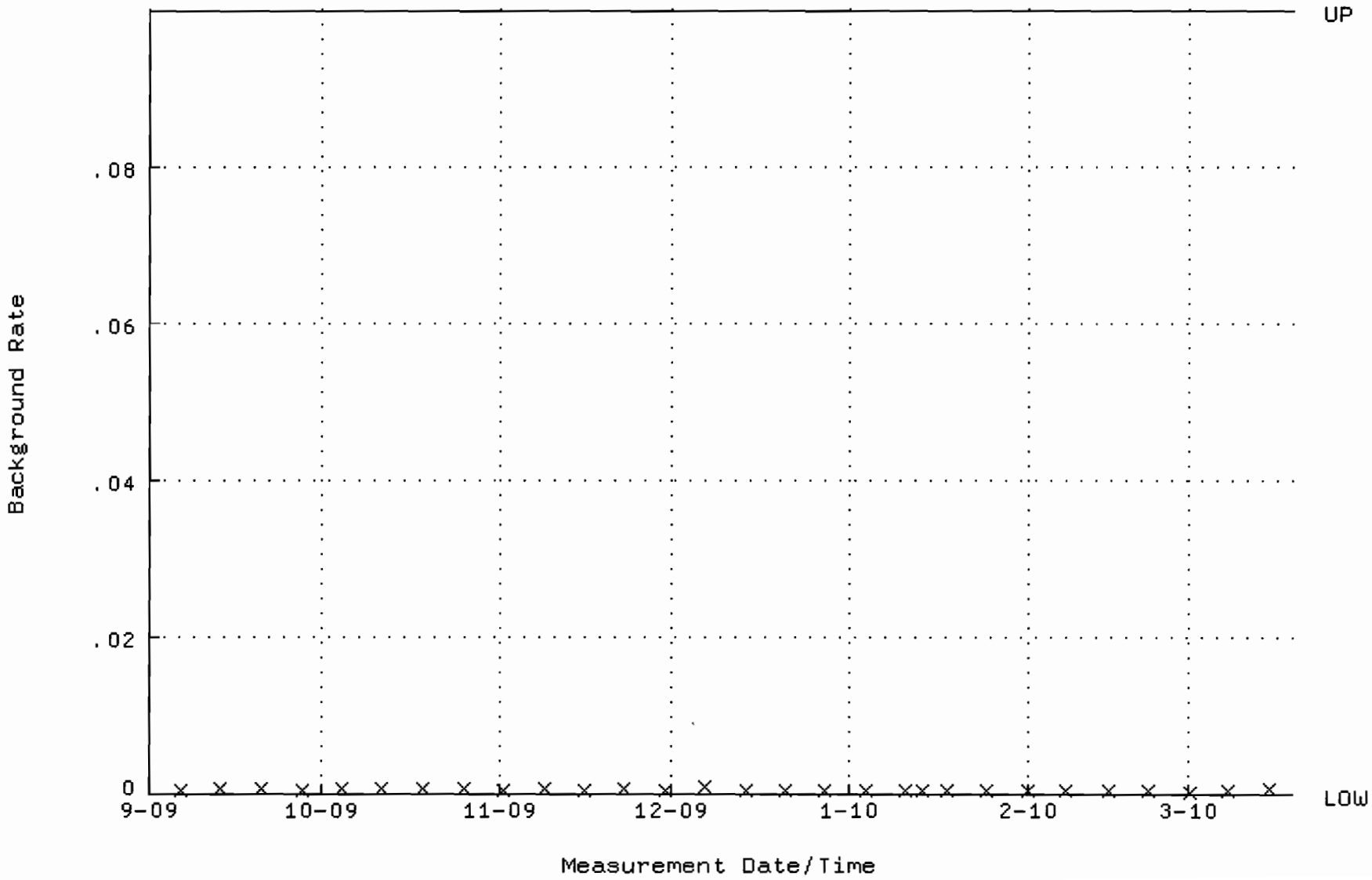

QA filename : DKA100:[ENV_ALPHA.QA.W]W152.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:36 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.236513 through 0.255567

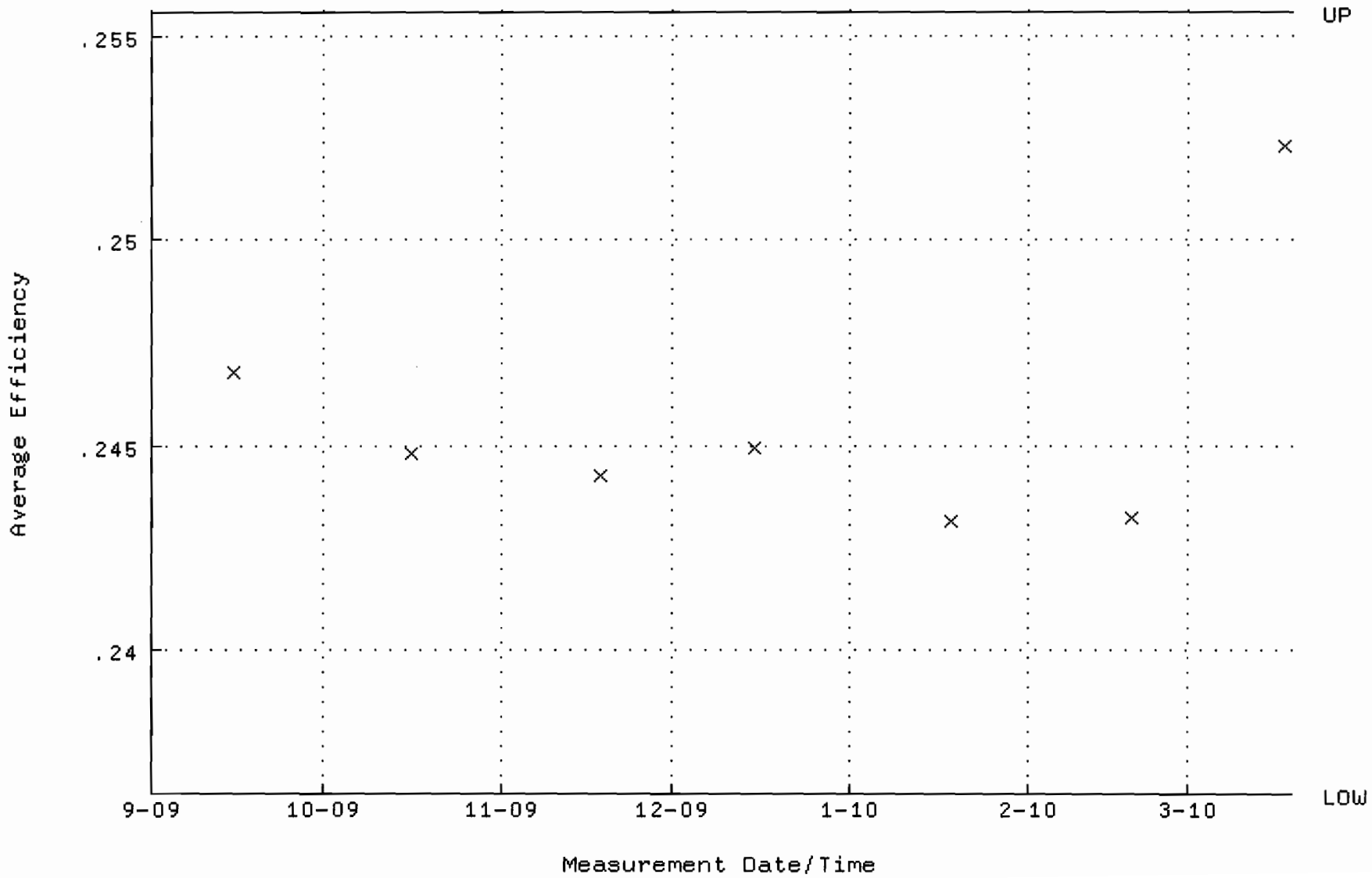

QA filename : DKA100:[ENV_ALPHA.QA.W]W152.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:36 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 83.6285 through 91.5809

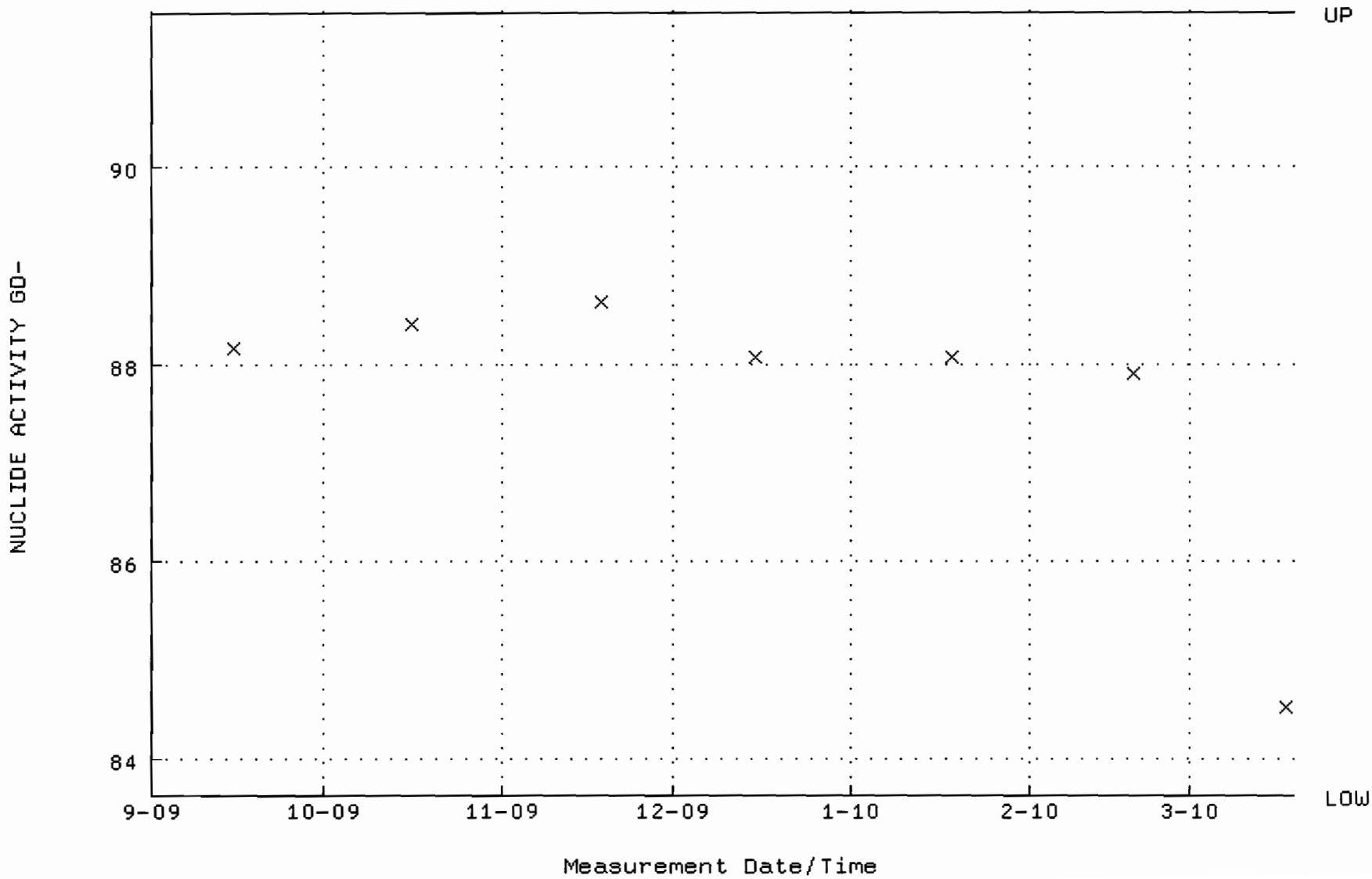

QA filename : DKA100:[ENV_ALPHA.QA.B]B152.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:55 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

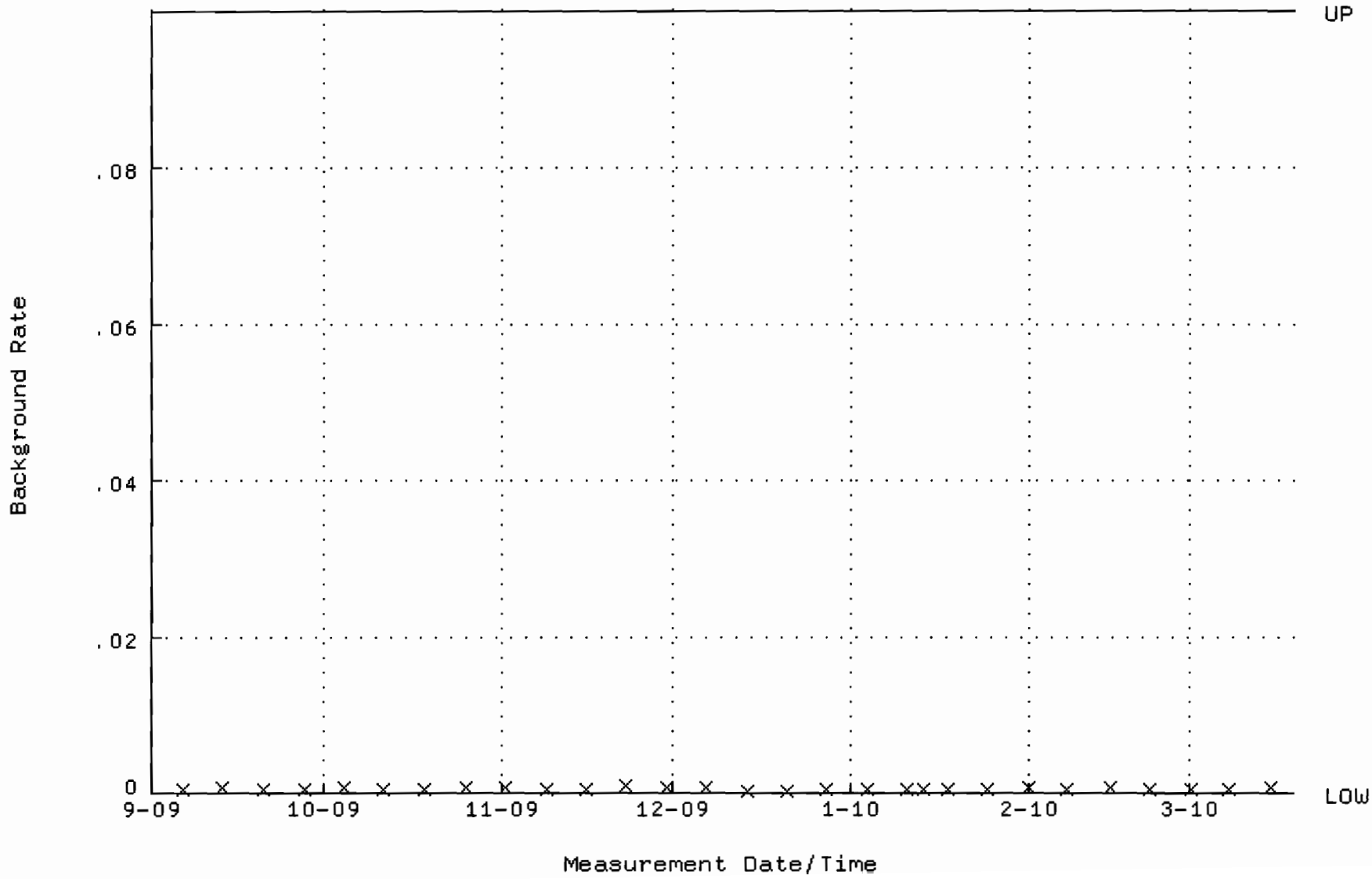

QA filename : DKA100:[ENV_ALPHA.QA.W]W153.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:41 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.243195 through 0.264993

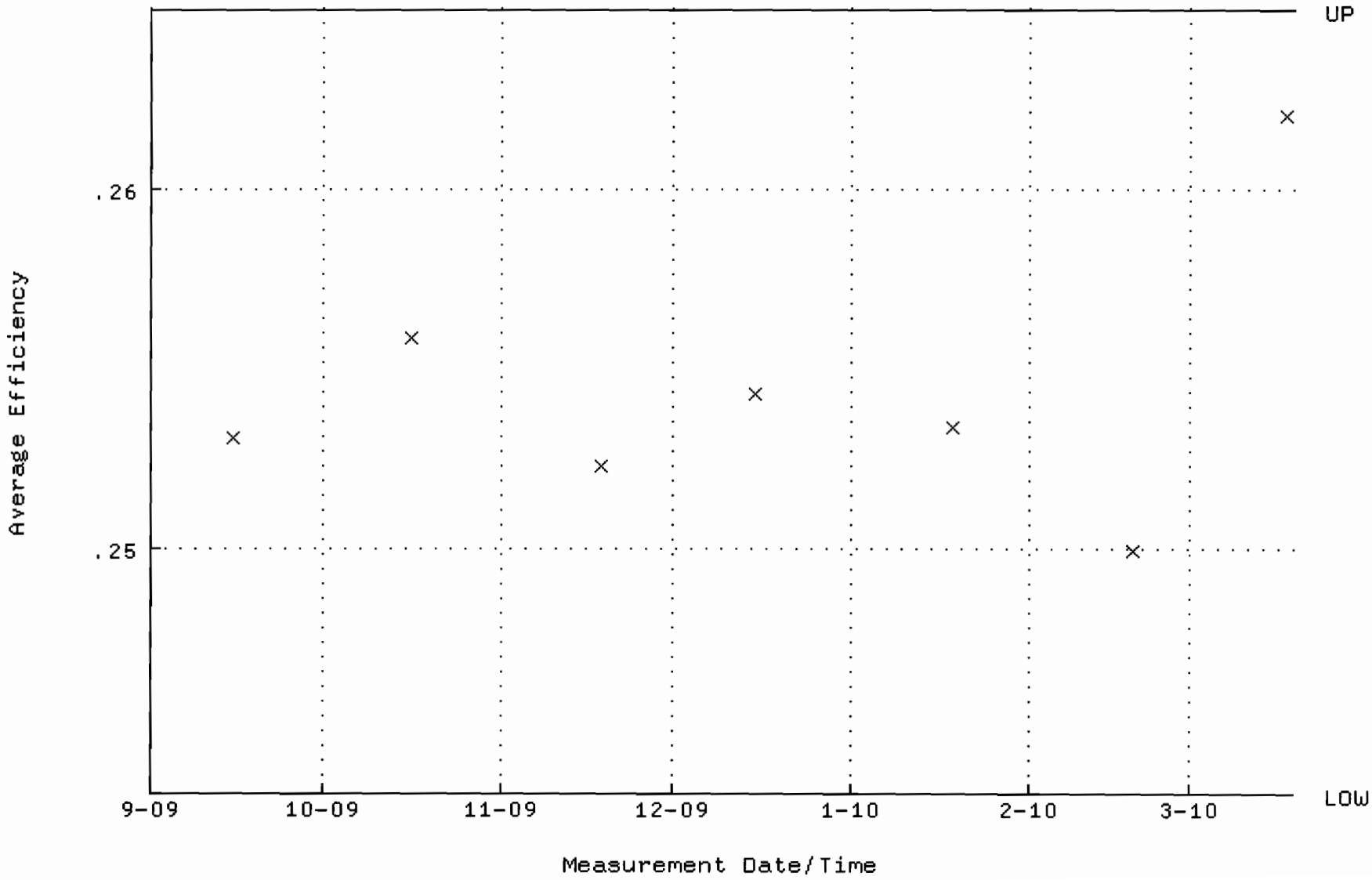

QA filename : DKA100:[ENV_ALPHA.QA.W]W153.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:41 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 82.6961 through 88.8445

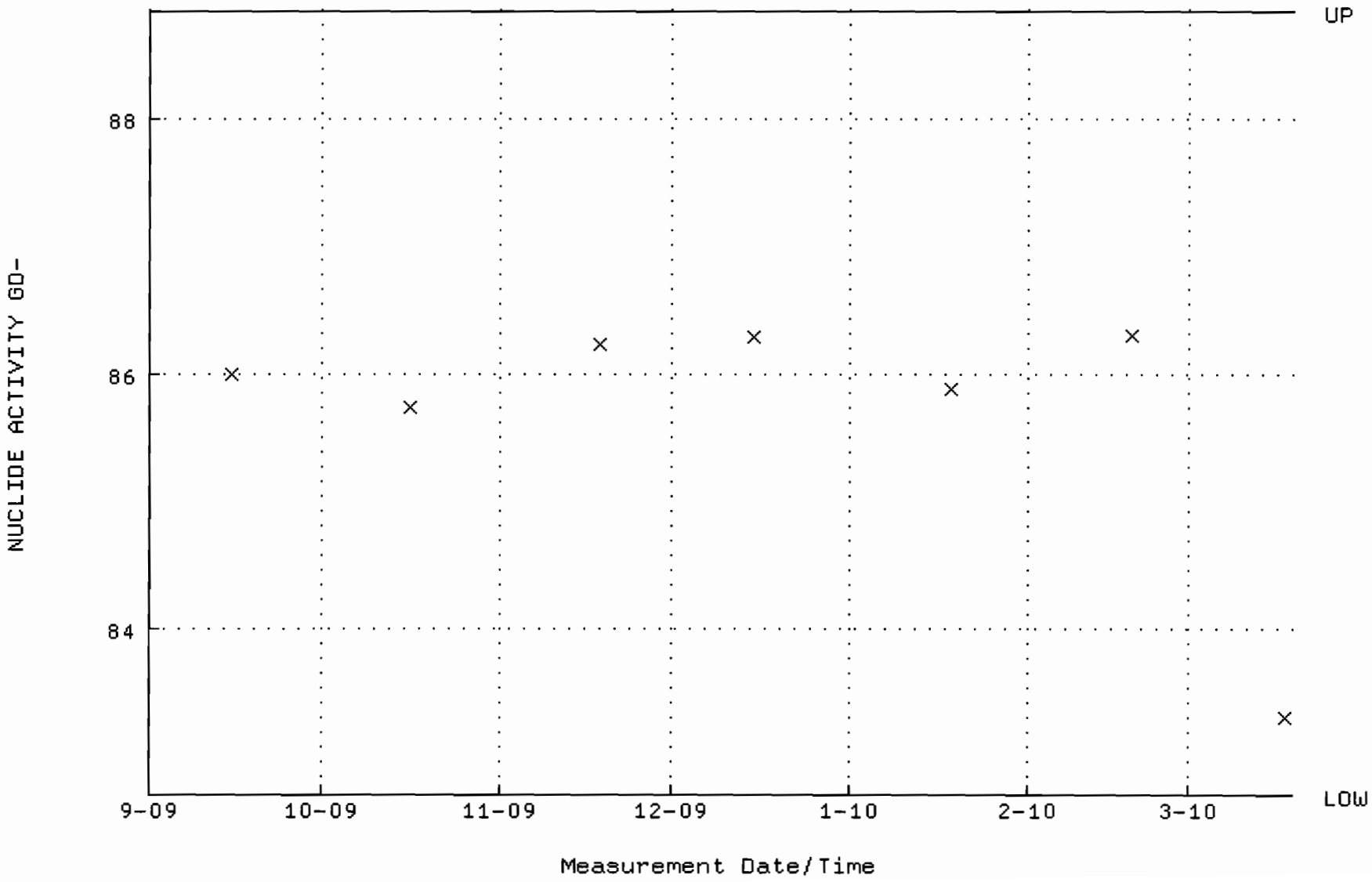

QA filename : DKA100:[ENV_ALPHA.QA.B]B153.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:58 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

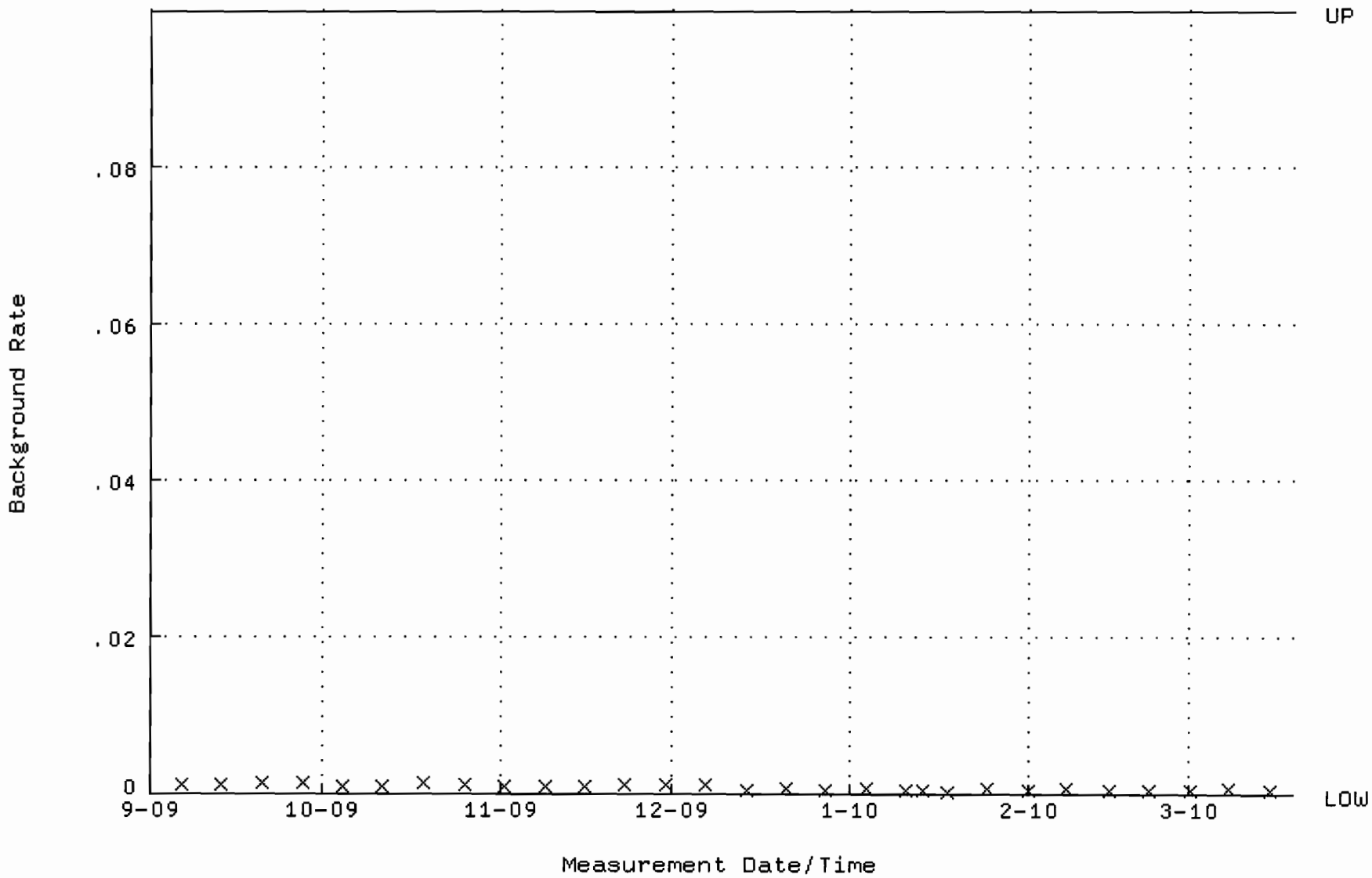

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:39:53 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

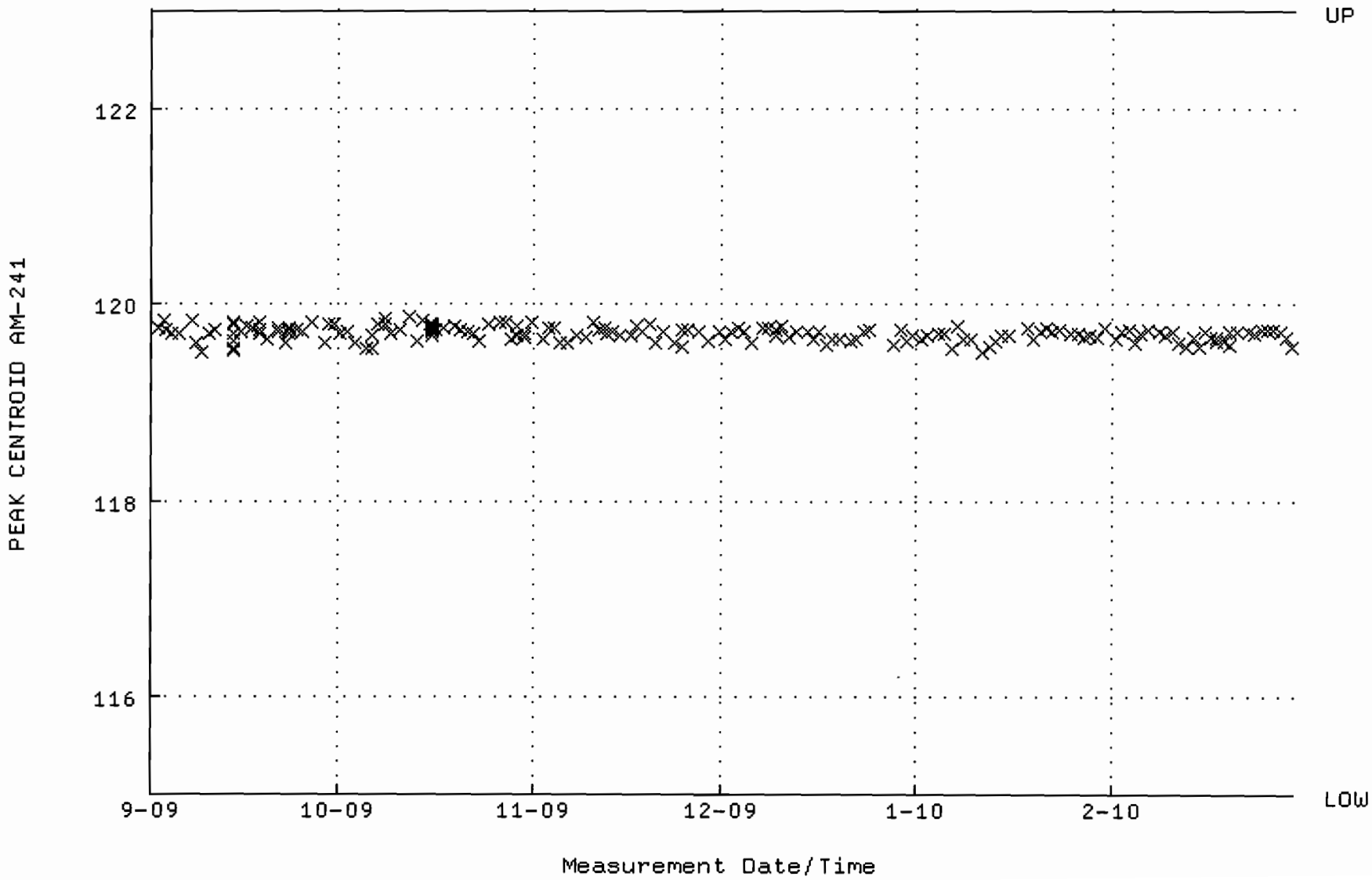

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM01.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:36:28 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.73723 +- 3.552524E-02 (2.04 %)

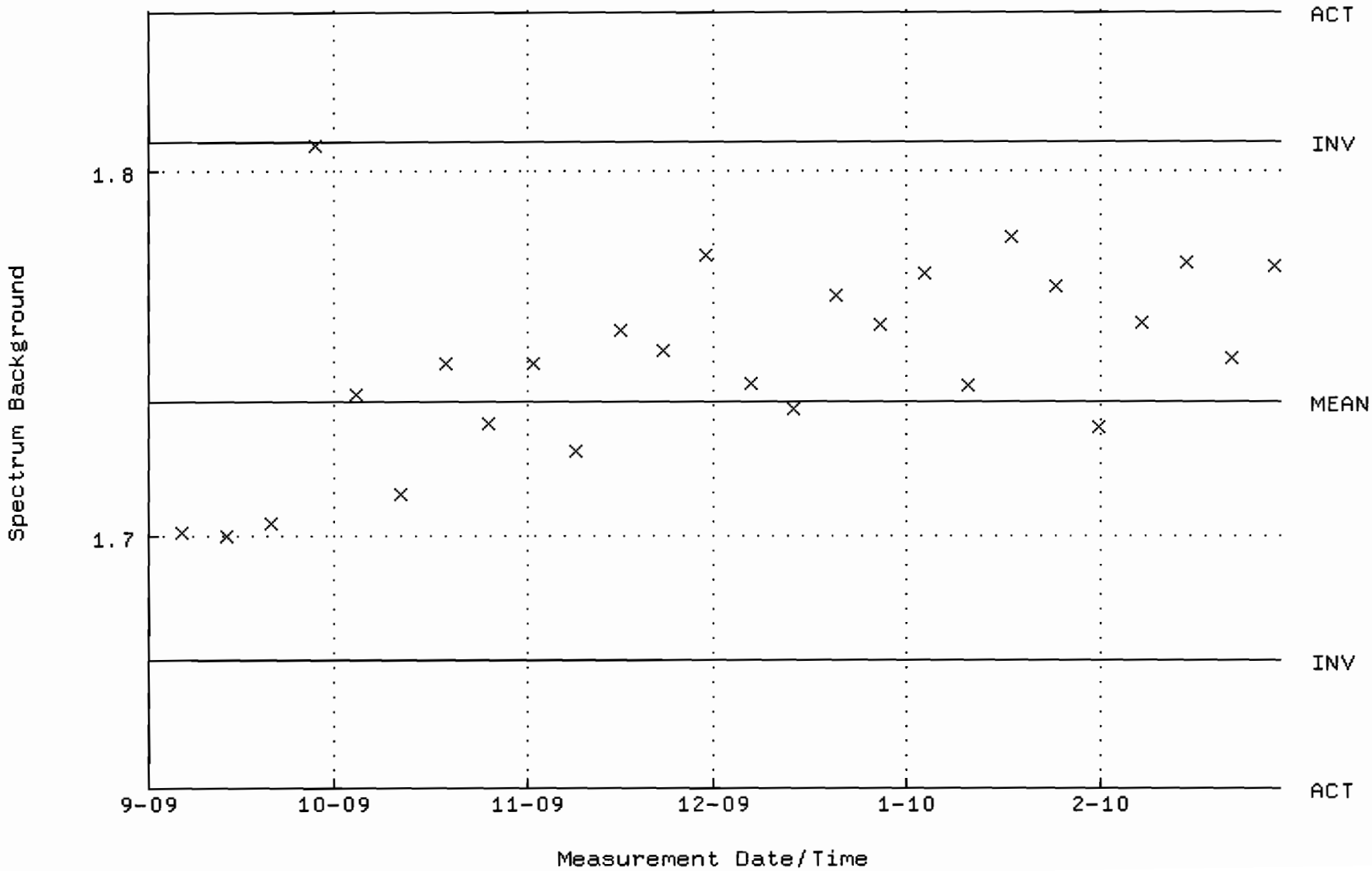

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM04_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 05:22:58 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

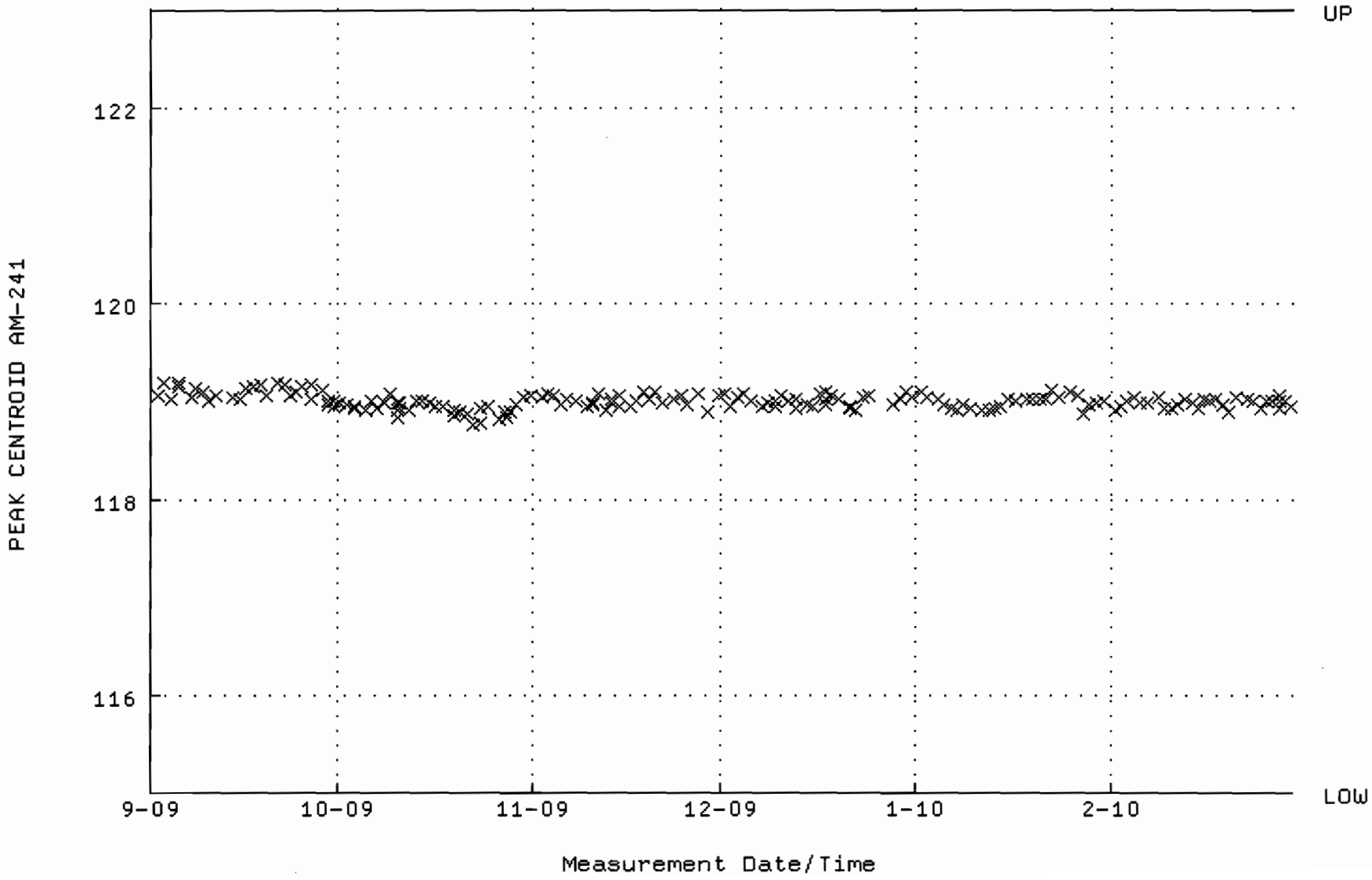

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM04.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:38:33 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.32050 +- 2.495234E-02 (1.89 %)

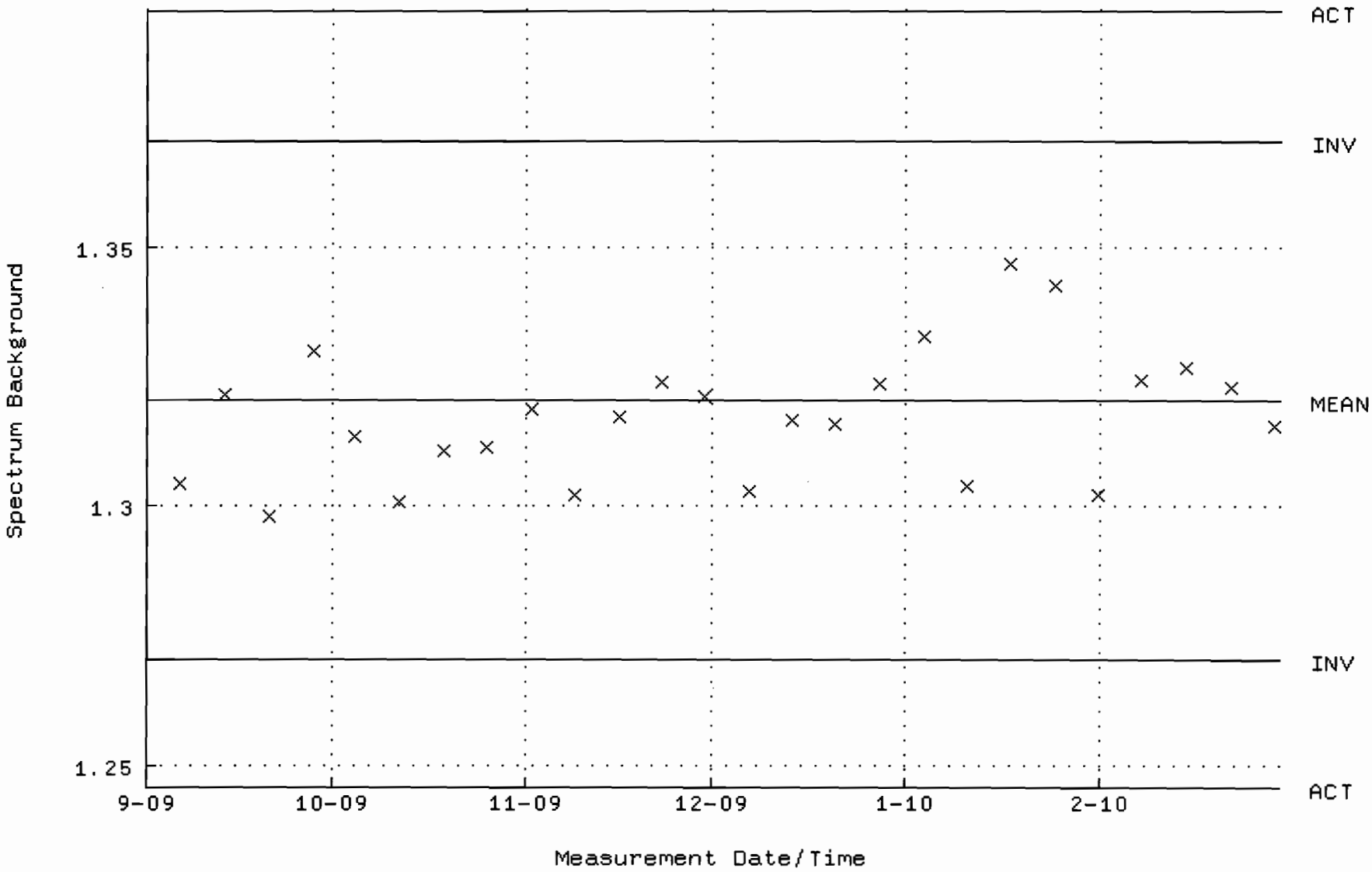

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM06_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:40:19 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

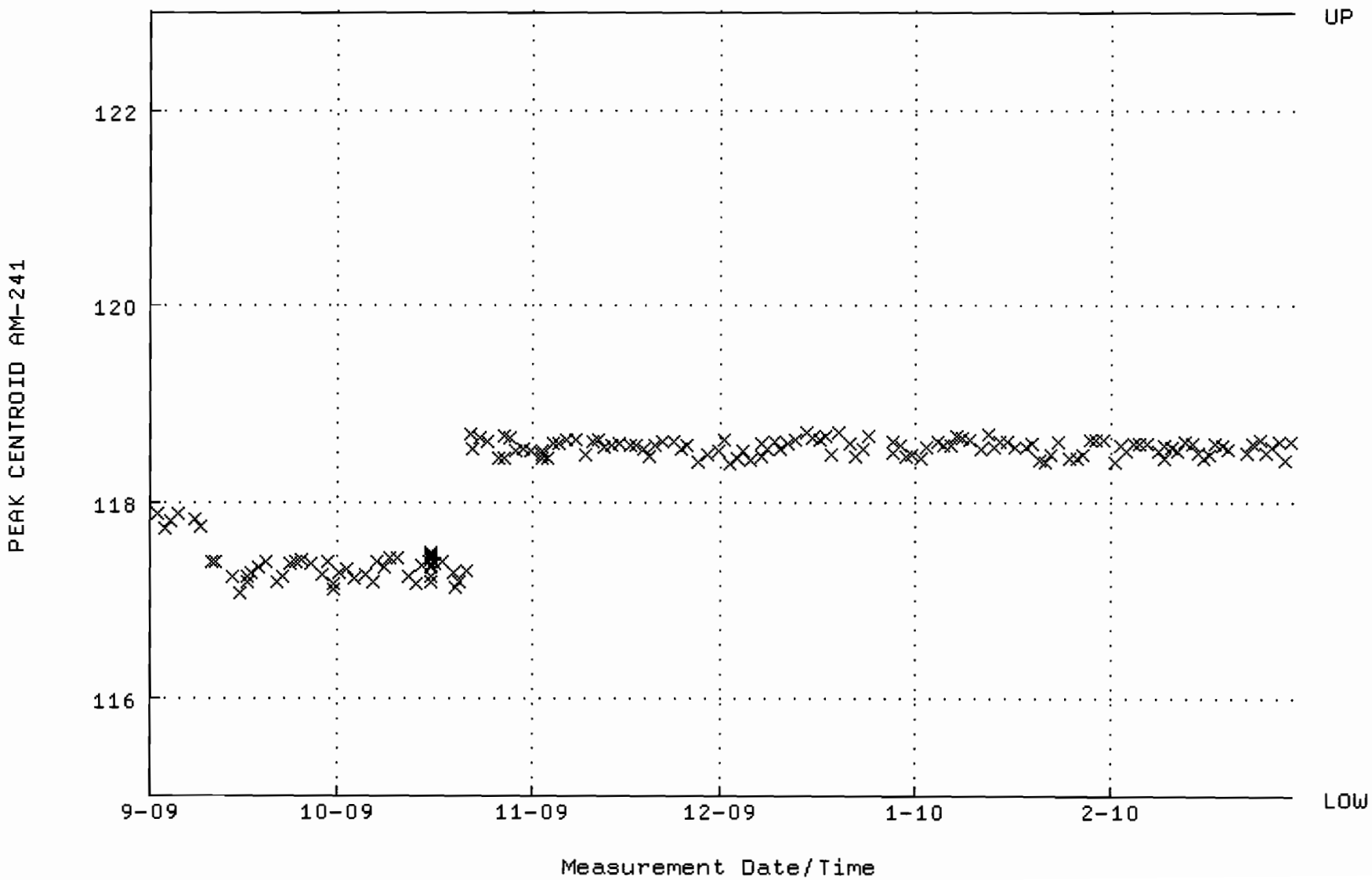

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM06.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:39:28 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.52603 +- 1.215987E-02 (0.80 %)

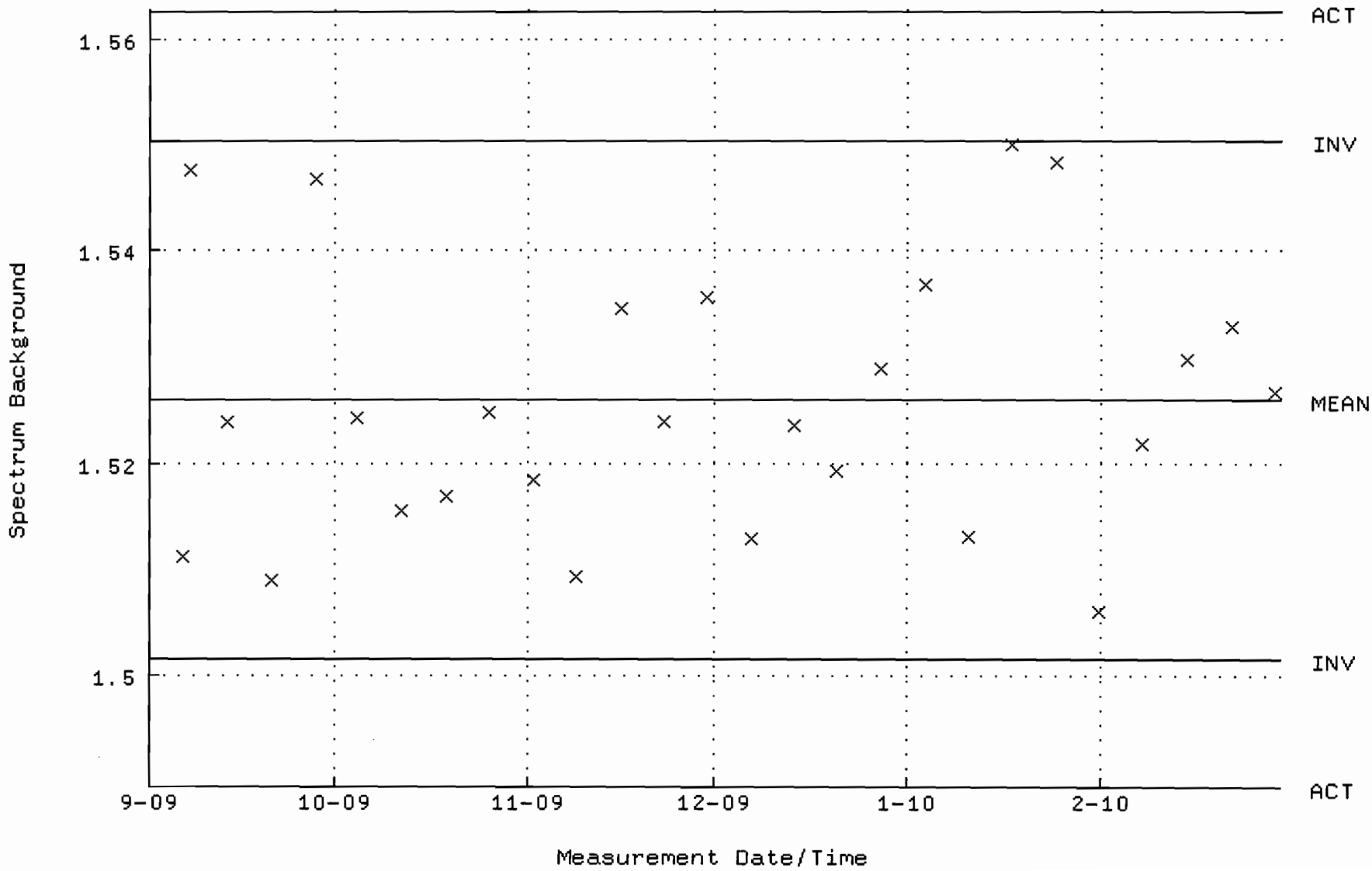

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:32:23 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

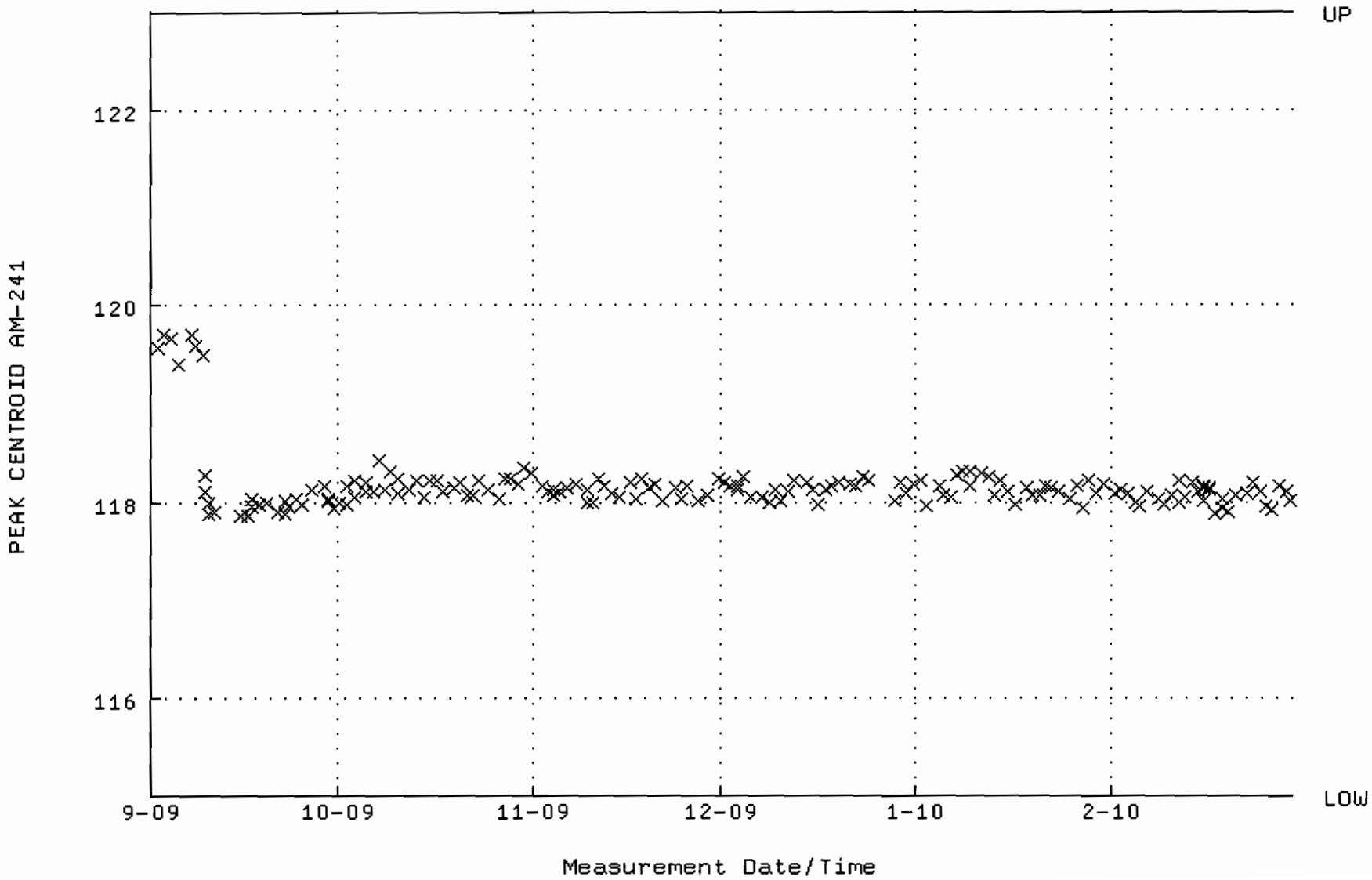

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:43:44 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)

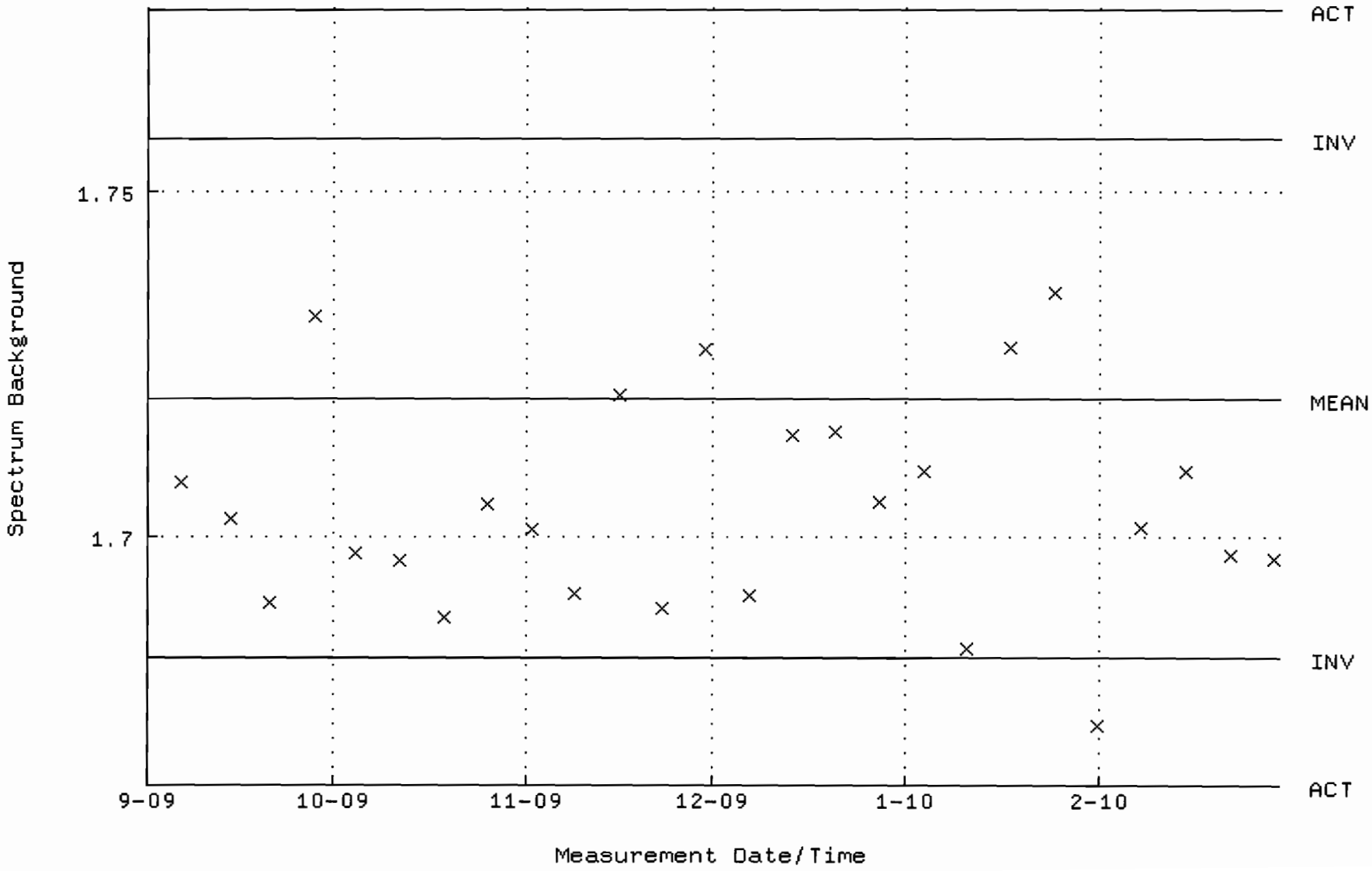

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM17_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 05:06:49 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

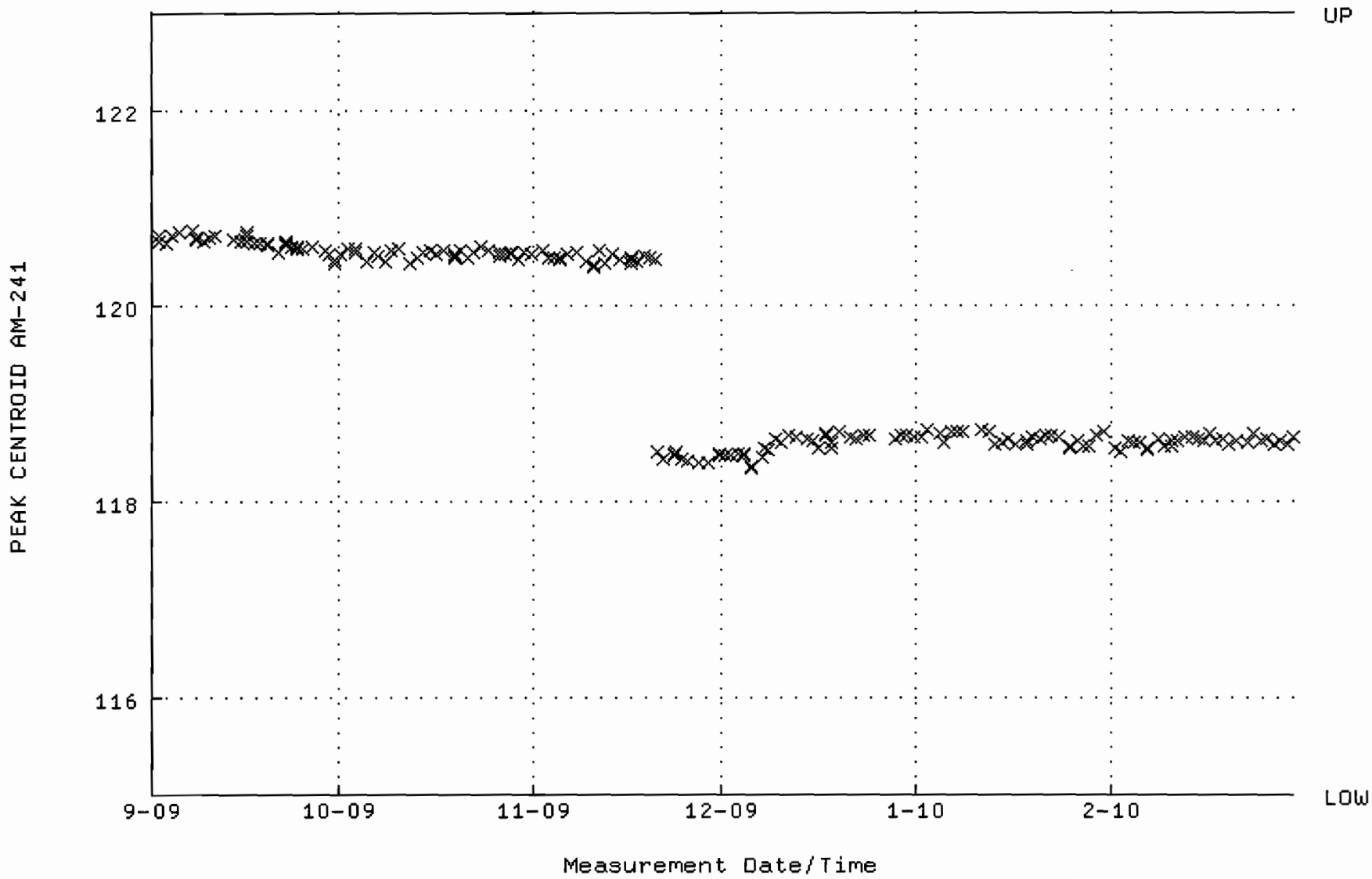

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM17.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:44:33 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.42766 +- 1.396974E-02 (0.98 %)

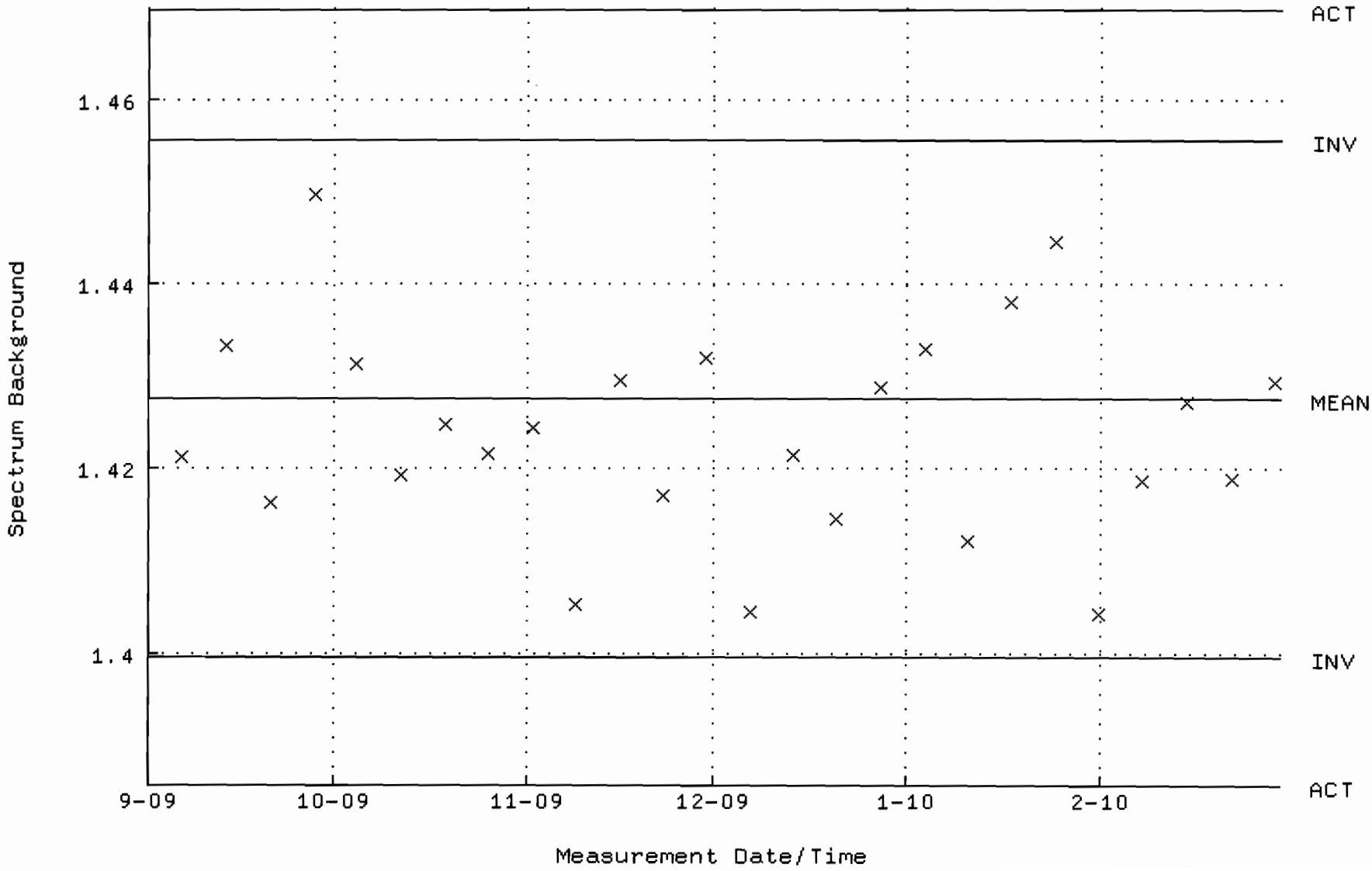

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:13:07 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

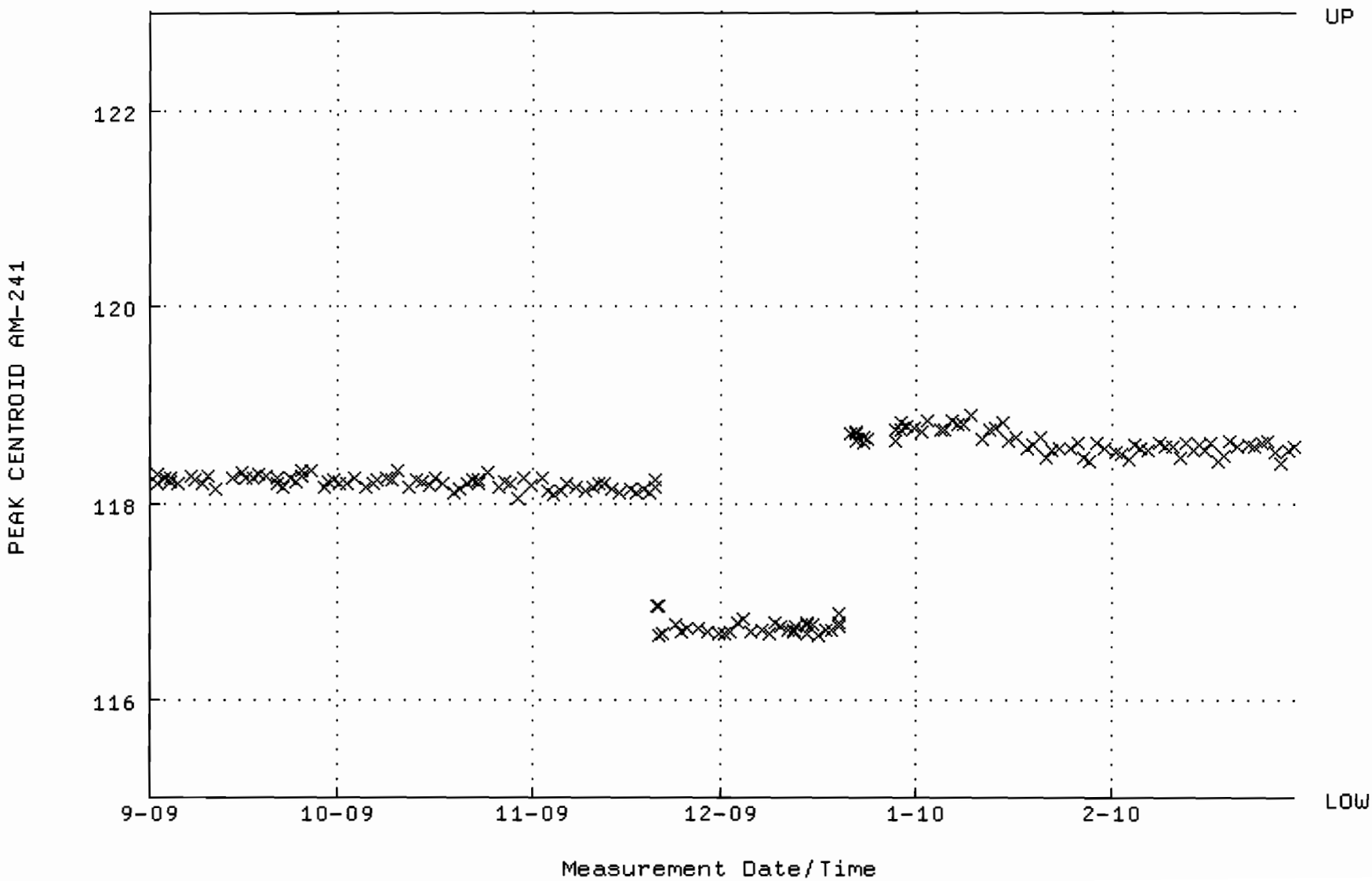

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM18.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:45:03 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)

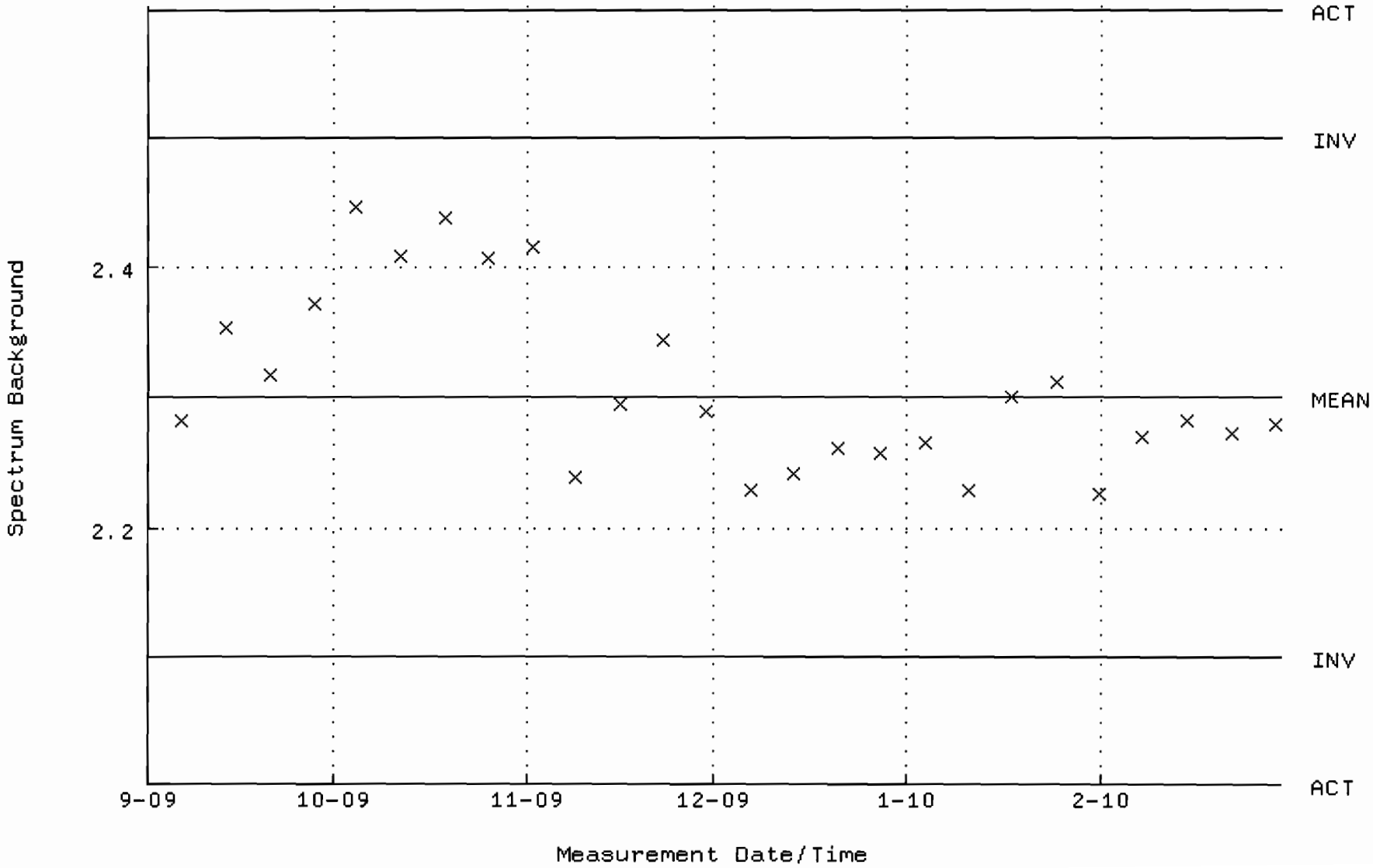

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM19_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 05:06:58 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

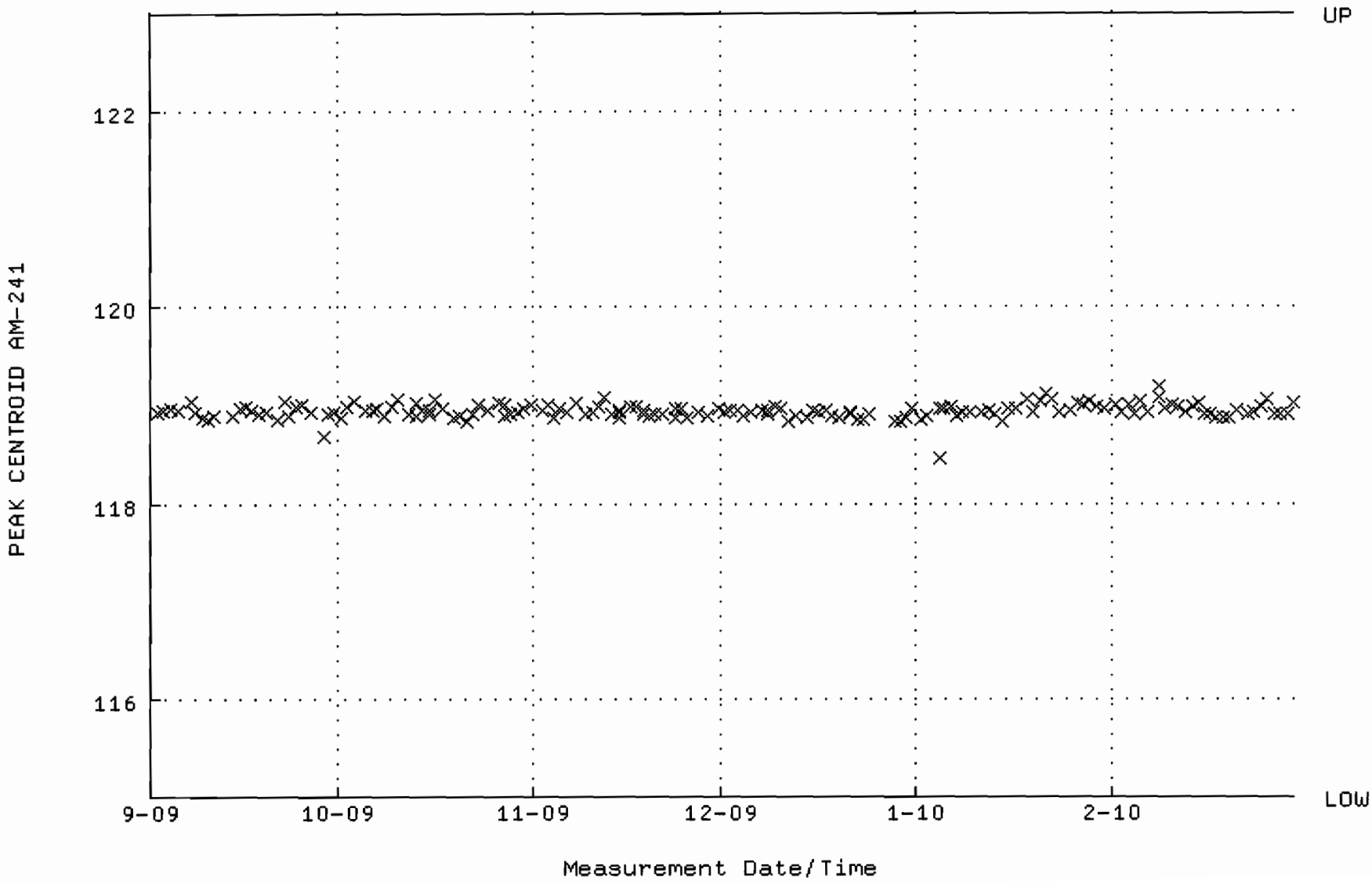

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM19.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:45:39 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.45067 +- 2.046038E-02 (1.41 %)

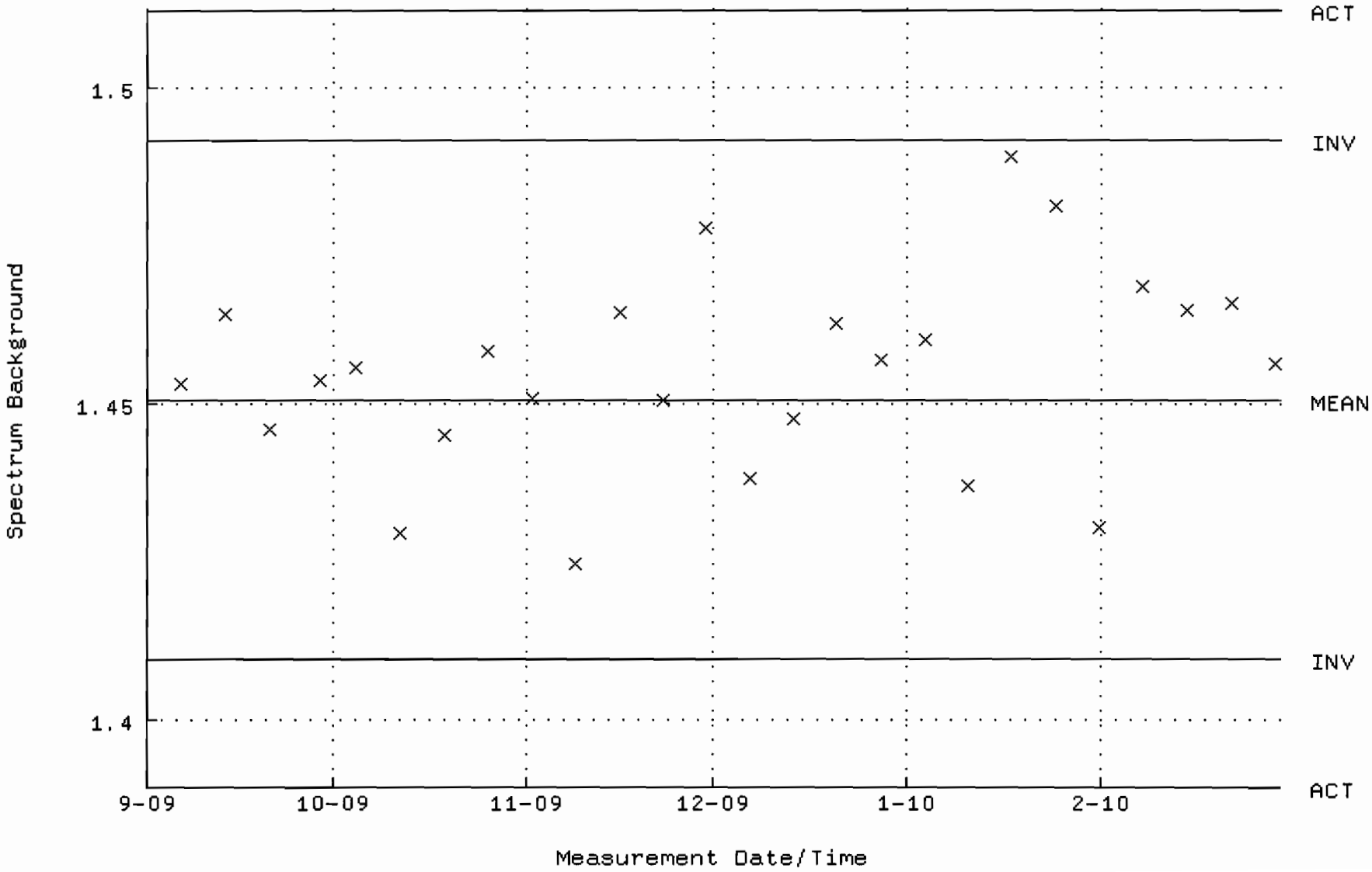

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM21_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-DEC-2009 13:07:42 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

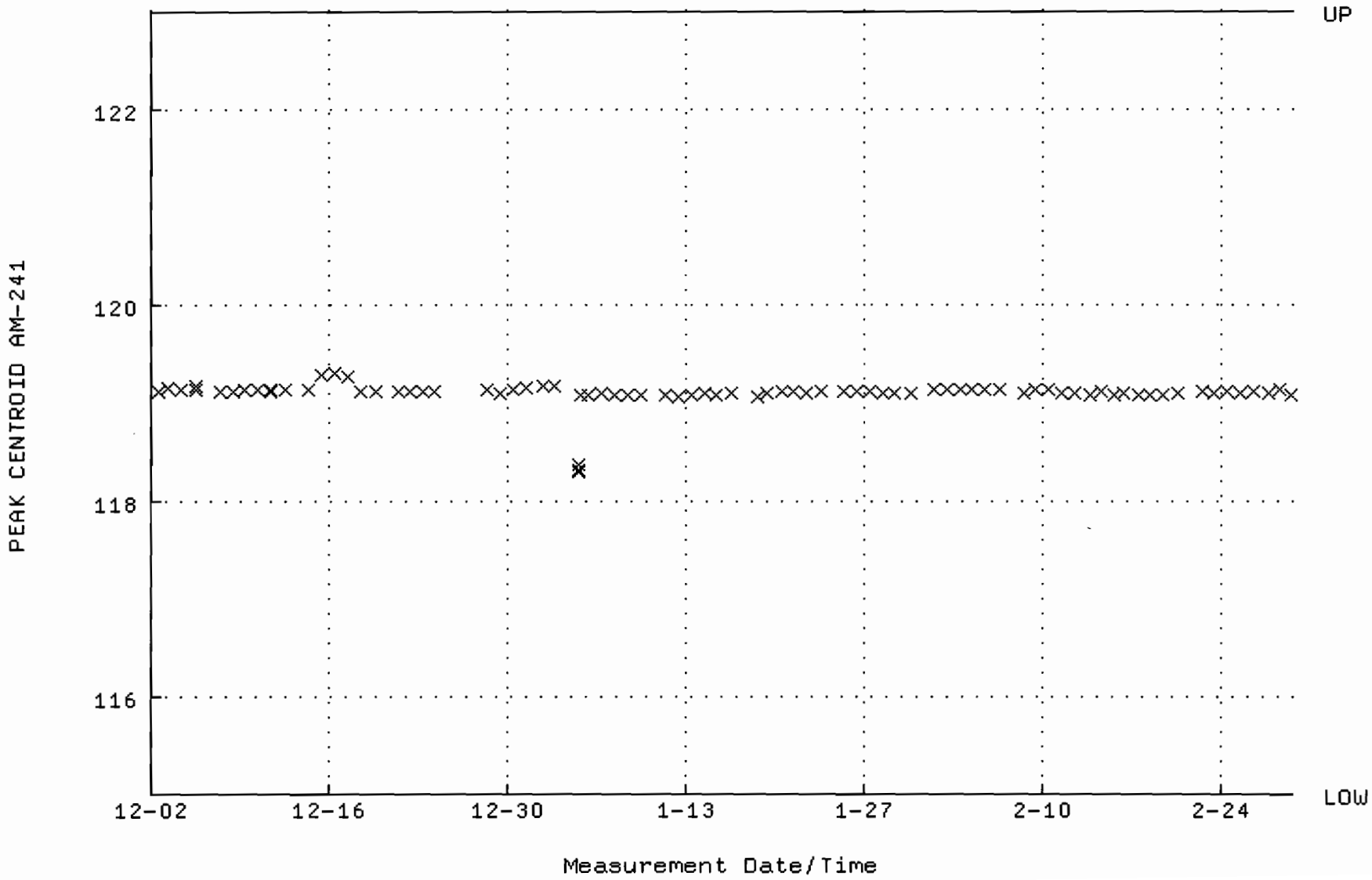

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM21.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-DEC-2009 15:25:38 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.04443 +- 1.452671E-02 (1.39 %)

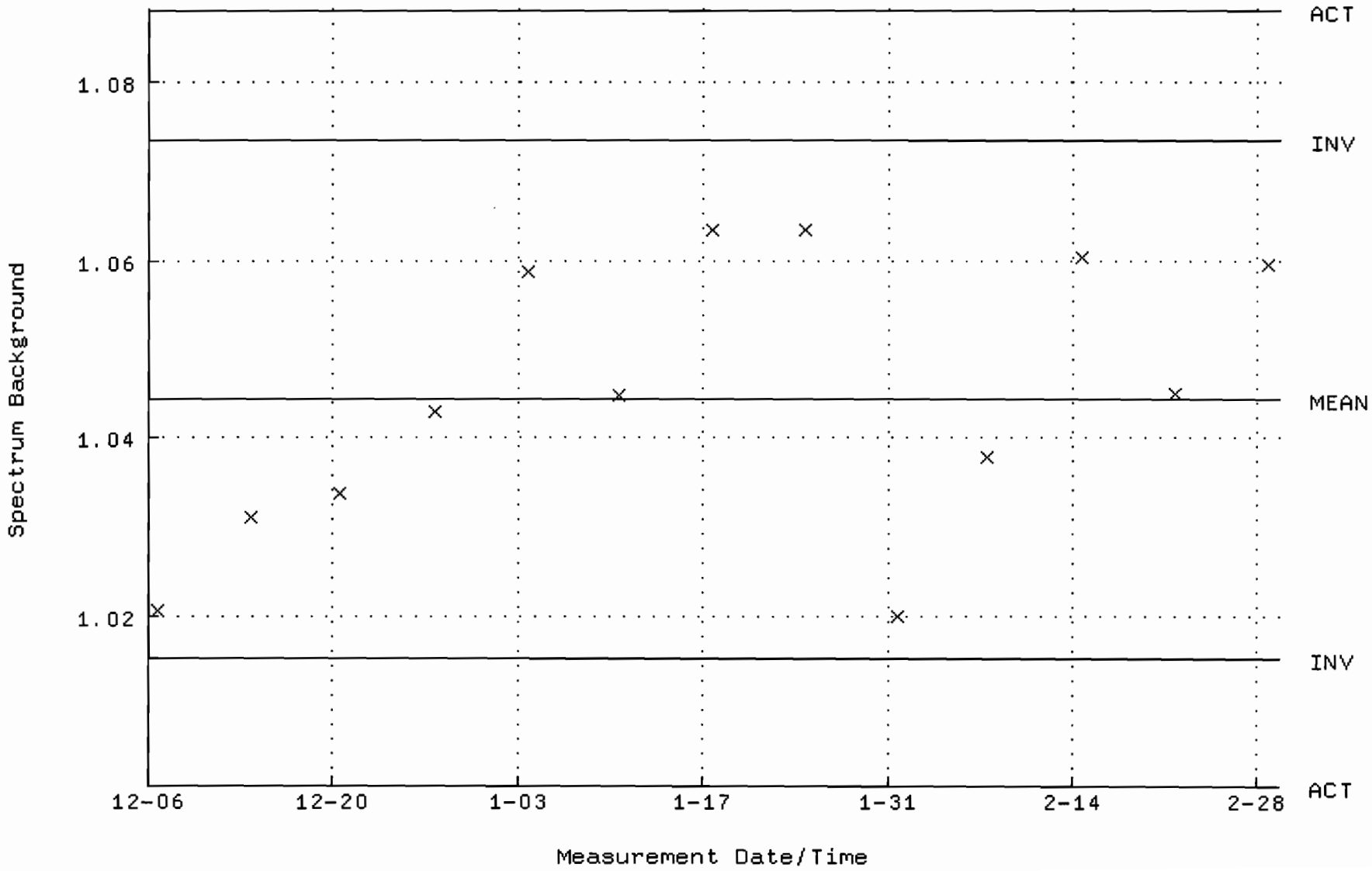

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

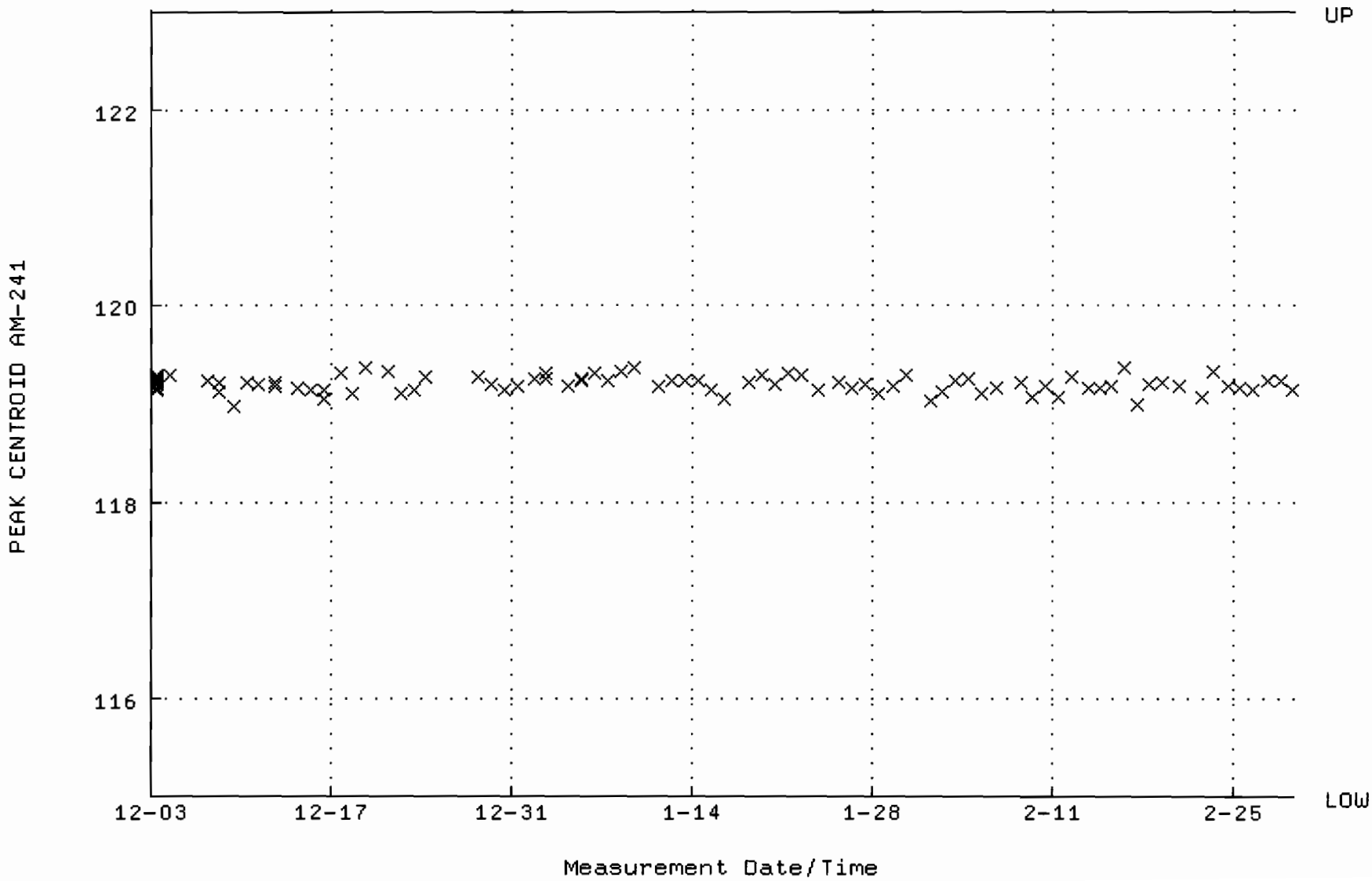

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

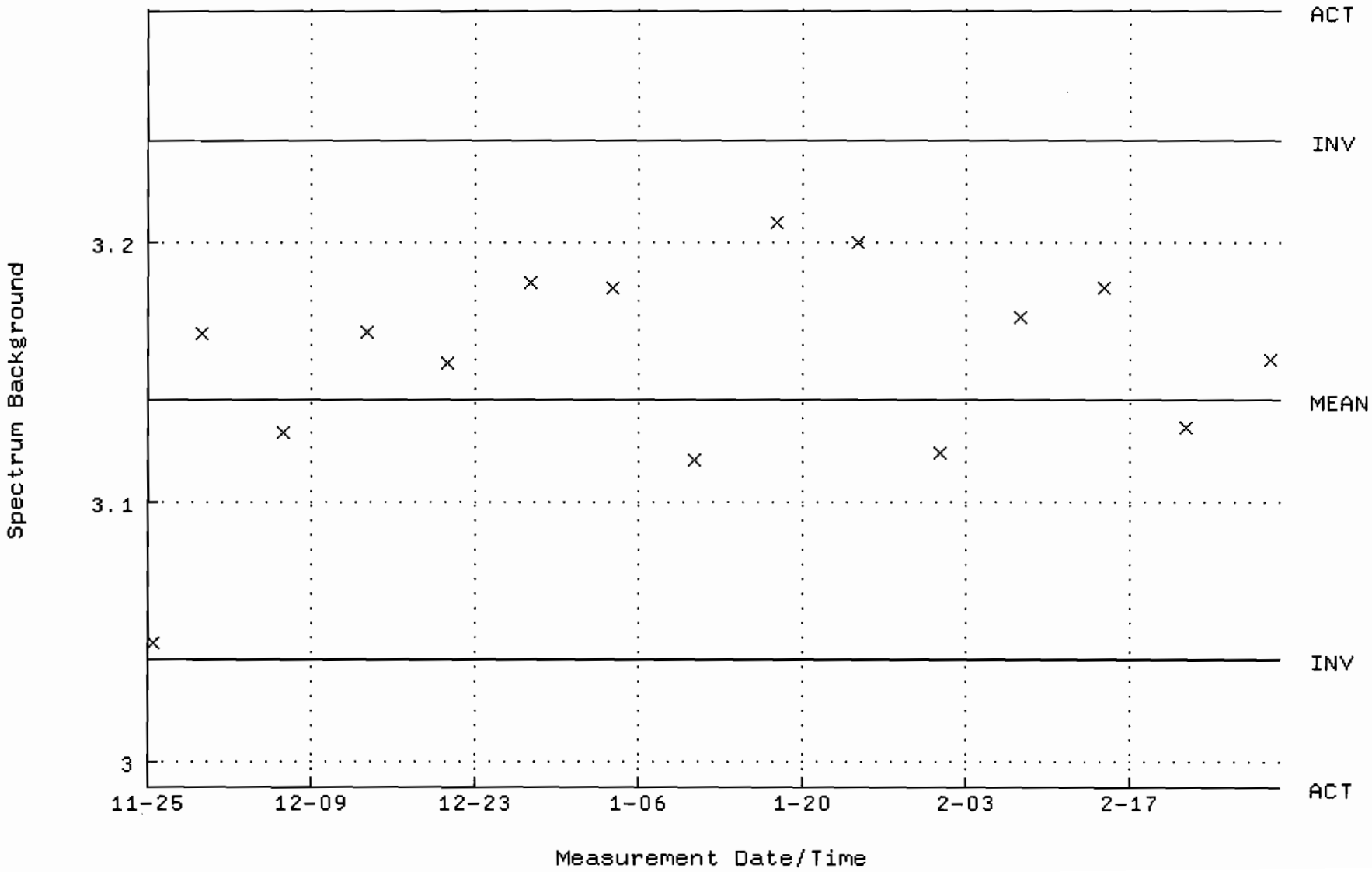

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 9-SEP-2009 16:19:12 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

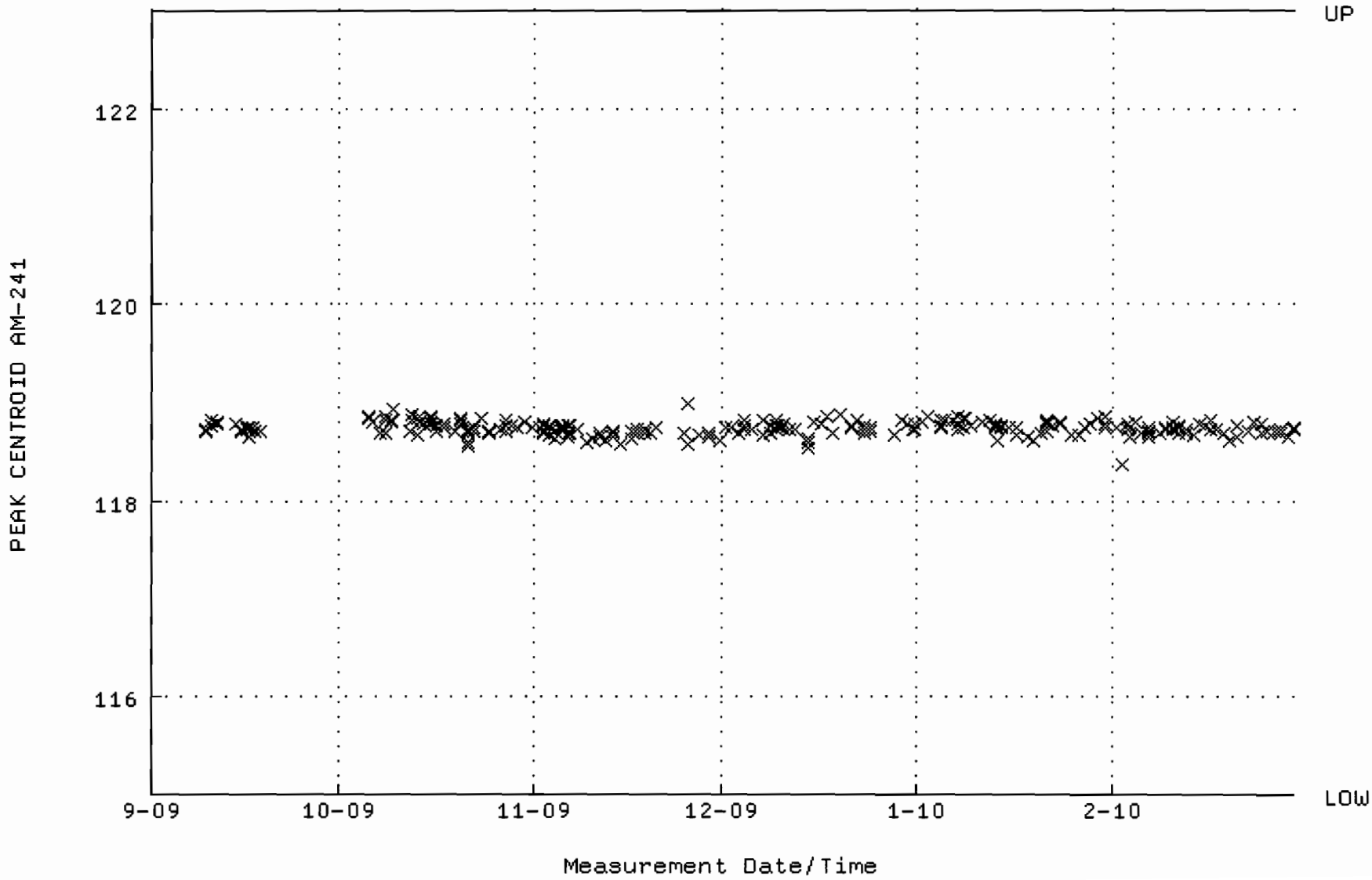

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM23.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-OCT-2009 15:13:53 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.61827 +- 0.119991 (7.41 %)

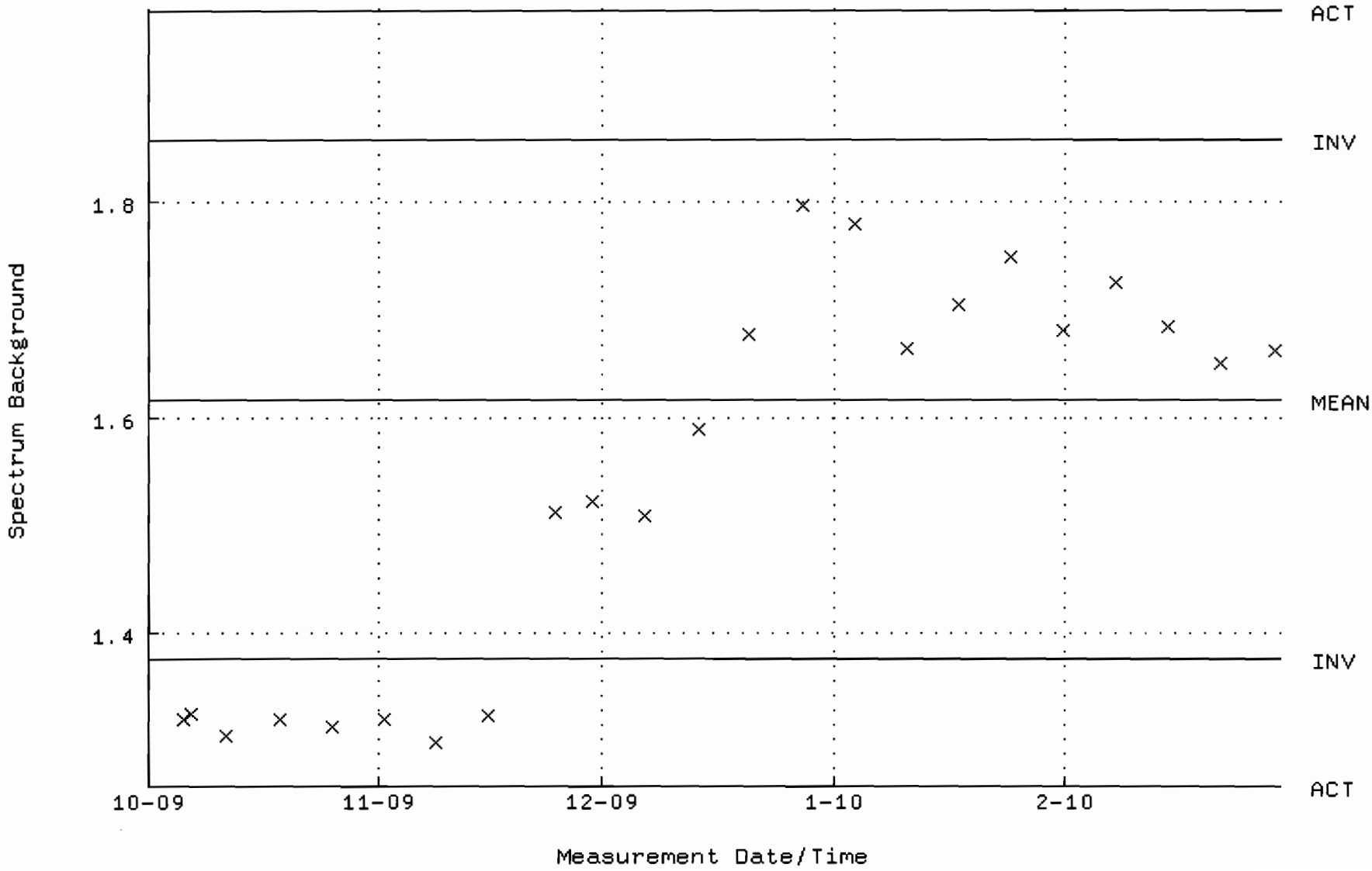

STANDARDS DATA

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

Rec'd 11/30/06
RC-S-045-073-0

Office
24937 Avenue Tibbitts, Valencia, California 91355
Laboratory
1380 Seaboard Industrial Blvd., Atlanta, Georgia 30318

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Atlanta, Georgia 30318

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Fax 404•352•2837

www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER. JAR-1
	Mixed Gamma N2	2510	pCi/L	- VER. JAR-3
	Mixed Gamma N3	2413	pCi/L	- VER. JAR. 5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 verification 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result		
	Mixed Gamma N1	1572	pCi/L	- VER-JAR-5
	Mixed Gamma N2	1495	pCi/L	- VER-JAR-2
	Mixed Gamma N3	1501	pCi/L	- VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**	
Stdev =	42.829	**Rule 3 (Pass/Fail)**		
Certificate Value =	1545.8378	pCi/L		
Lower Limit =	1437.008431	pCi/L		
Upper Limit =	1608.324902	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	85.65823564			
10 % of Mean =	152.26666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATE 4/14/2000 Scott C Reid 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 boxes of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM–1	TRM–2	TRM–3	TRM–4
U–238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U–234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th–230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra–226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb–210	485 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1/3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized rad materials being sent to GEL on behalf of Mark Mistaer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date
QC limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. WESTON	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
Matt L. Stokes 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)

Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726704
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 13
SMO Authorization: [signature]
Bill to: Sandia National Laboratories
Supplier Services, Dept. _____
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL on behalf of Hank Mintzer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date

QC Initials

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	[signature]	DP	Weston / 7577 / 845-0867

1. Relinquished by	[signature] SMO	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Khan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	03/09/2010
Expiration Date:	03/09/2011
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Tara Sides	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/14/2009	09/14/2010
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/09/2010	Ashley Drochter	.011	1000	445-96-2-VV	22.7878 dpm/mL	03/09/2010	03/09/2011
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
03/23/2010	Ashley Drochter	.0163	1000	445-96-2-WW	33.7674 dpm/mL	03/23/2010	03/23/2011
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-VV*

A.Drochter	Isotope	Value	Uncertainty
3/15/2010	445-96-2-VV #1	1.040	0.1630
	445-96-2-VV #2	0.964	0.1480
	445-96-2-VV #3	0.970	0.1550
Mean Value (Counting) =	0.991	96.72	**Pass**
Stdev =	0.042253205		**Rule 3 (Pass/Fail)**
Target =	1.025		
Lower Limit =	0.906826923		
Upper Limit =	1.075839743		
Rule 1 Pass/Fail	**Pass**		
Two sigma =	0.08450641		
10 % of Mean =	0.099133333		
Rule 2 (Pass/Fail)	**Pass**		

The analyst prepared three standard verification sources for standard ***445-96-2-VV*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

3/15/10

3/16/10

1430

NATIONAL PHYSICAL LABORATORY

Teddington Middlesex UK TW11 0LW Telephone +44 20 8977 3222

Certificate of Calibration

UKAS CALIBRATION 0478

PLUTONIUM-236 SOLUTION
R37-02

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

FOR:	GEL Laboratories LLC 2040 Savage Road Charleston, SC 29407 USA
FOR THE ATTENTION OF:	Mr Tim Winters
NPL PRODUCT CODE:	R37-02
IDENTIFICATION:	A09881
DESCRIPTION:	An aqueous solution of ^{236}Pu also containing 2 mol dm^{-3} of nitric acid. The solution is contained in a flame sealed ampoule of type Q and nominal volume 5 ml (squat) as defined in BS 795:1983.
DATE(S) OF CALIBRATION:	26 June 2009 to 1 July 2009
INTENDED USE:	Calibration of instruments for response to ^{236}Pu
STORAGE:	The material may be stored at room temperature in a suitably sealed container. Flame-sealed glass ampoules are recommended for long-term storage. Regulatory conditions may apply to the manner in which this material is stored.

RECEIVED 12/11 AM.

MEASUREMENTS

The samples were prepared by gravimetric dilution of a ^{236}Pu solution, which had been previously standardised using liquid scintillation counting. The accuracy of the dilution factor was checked using liquid scintillation counting.

RESULTS

Principal radionuclide:	^{236}Pu
Reference time:	2009-07-01 12:00 UTC
Activity concentration of principal radionuclide:	170.8 Bq g^{-1}
Expanded uncertainty:	±0.6 Bq g^{-1} (±0.36 %)
Contaminants present:	^{226}Ra, ^{232}U, ^{228}Th, ^{237}Np
Activity concentration of ^{226}Ra:	11.0 mBq g^{-1}
Expanded uncertainty:	±4.0 mBq g^{-1} (±36 %)
Activity concentration of ^{232}U:	0.67 Bq g^{-1}
Expanded uncertainty:	±0.12 Bq g^{-1} (±18 %)
Activity concentration of ^{228}Th:	11.38 mBq g^{-1}
Expanded uncertainty:	±0.46 mBq g^{-1} (±4 %)
Activity concentration of ^{237}Np:	5.00 mBq g^{-1}
Expanded uncertainty:	±0.34 mBq g^{-1} (±8 %)
Sample Mass:	4.97 g ± 0.02 g

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

NOTES

[1]. The reported reference time is stated consistent with the format given in ISO 8601:2004. UTC is the abbreviation for Universal Time, Coordinated. The date is stated in the format YYYY-MM-DD such that 2008-09-01 represents 1 September 2008.

[2]. The recommended half life of ^{236}Pu is 1044 (6) days and is taken from the evaluations published in *Nuclear Data Sheets*.

[3]. The recommended half life of ^{226}Ra is 5.844 (50) × 10^5 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[4]. The recommended half life of ^{232}U is 25800 (800) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[5]. The recommended half life of ^{237}Np is 7.83 (6) × 10^8 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[6]. The recommended half life of ^{228}Th is 698.60 (46) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Checked by:

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1430
Prepared By:	Ashley Drochter
Carrier Conc:	2 M HNO3
Reference Date:	07/01/2009
Ampoule Mass (g):	4.97 g
Uncertainty:	+/- .36 %
LogBook No:	RC-S-051-149

A Solution Material Info	
Isotope:	Plutonium-236
Prepared By:	Ashley Drochter
Prep Date:	01/27/2010
Verification Date:	01/27/2010
Expiration Date:	01/27/2011
Primary Code:	1430-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8051 g
Density(g/mL):	1.0610
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (100 mL) = 492.4266 dpm/mL
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (1.0610 g/mL) / (100 mL) = 464.1156 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/27/2010	Bethany Fiem	33.0429	200	1430-B	76.6786262 dpm/mL	01/27/2010	01/27/2011
03/01/2010	Ashley Drochter	15.2331	200	1430-C	35.3496 dpm/mL	03/01/2010	03/01/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-236 Standard 1430-C

	Isotope	Value	Uncertainty
A. Drochter	1430-C	2.760	0.4480
3/4/2010	1430-C	2.770	0.4520
	1430-C	2.950	0.4850

Mean Value (Counting) =	2.827	104.54659	% of Known Value
Stdev =	0.106926766		
Target =	2.70		
Lower Limit =	2.612813134		
Upper Limit =	3.040520199		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.213853532		
10 % of Mean =	0.282666667		
Rule 2 (Pass/Fail)	**Pass**		

The analyst prepared three standard verification sources for standard 1430-B using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. After approximately ten minutes, two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-236 were calculated by comparison to Pu-239 certified values.

3/5/10

3/5/10

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Calcston AMS 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 965250**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249060003	SAMPLE	MXR1	GAM05	24-MAR-10 08:56	DONE	CAN	11-JUN-09 00:00
249329001	SAMPLE	MXR1	GAM06	24-MAR-10 08:56	DONE	CAN	16-FEB-10 00:00
249329002	SAMPLE	MXR1	GAM07	24-MAR-10 08:57	DONE	CAN	20-JUL-09 00:00
249329003	SAMPLE	MXR1	GAM19	24-MAR-10 08:57	DONE	CAN	12-MAR-09 00:00
249329004	SAMPLE	MXR1	GAM22	24-MAR-10 08:58	DONE	CAN	02-DEC-09 00:00
249331001	SAMPLE	MXR1	GAM04	24-MAR-10 08:58	DONE	CAN	05-MAY-09 00:00
249331002	SAMPLE	MXR1	GAM10	24-MAR-10 09:11	DONE	CAN	13-MAR-10 00:00
249331003	SAMPLE	MXR1	GAM11	24-MAR-10 09:11	DONE	CAN	18-NOV-09 00:00
249331004	SAMPLE	MXR1	GAM15	24-MAR-10 09:12	DONE	CAN	03-FEB-10 00:00
249331005	SAMPLE	MXR1	GAM25	24-MAR-10 09:13	DONE	CAN	07-OCT-09 00:00
249331006	SAMPLE	MXR1	GAM29	24-MAR-10 09:13	DONE	CAN	23-FEB-10 00:00
249331007	SAMPLE	MXR1	GAM01	24-MAR-10 09:21	DONE	CAN	12-JAN-10 00:00
249331008	SAMPLE	MXR1	GAM16	24-MAR-10 09:21	DONE	CAN	16-NOV-09 00:00
249334001	SAMPLE	MXR1	GAM18	24-MAR-10 09:22	DONE	CAN	23-APR-09 00:00
249334002	SAMPLE	MXR1	GAM23	24-MAR-10 09:22	DONE	CAN	02-JUN-09 00:00
249334003	SAMPLE	MXR1	GAM17	24-MAR-10 09:48	DONE	CAN	06-JAN-10 00:00
249334004	SAMPLE	MXR1	GAM21	24-MAR-10 10:53	DONE	CAN	28-JUL-09 00:00
249334006	SAMPLE	MXR1	GAM06	24-MAR-10 11:01	DONE	CAN	16-FEB-10 00:00
249334007	SAMPLE	MXR1	GAM07	24-MAR-10 11:02	DUSE	CAN	20-JUL-09 00:00
1202071014	MB	MXR1	GAM19	24-MAR-10 11:03	DONE	CAN	12-MAR-09 00:00
1202071016	LCS	MXR1	GAM04	24-MAR-10 11:06	DONE	CAN	05-MAY-09 00:00
249334005	SAMPLE	MXR1	GAM15	24-MAR-10 11:16	DONE	CAN	03-FEB-10 00:00
1202071015	DUP	MXR1	GAM01	24-MAR-10 11:24	DONE	CAN	12-JAN-10 00:00
249334007	SAMPLE	MXR1	GAM22	25-MAR-10 14:47	DONE	CAN	02-DEC-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965502**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249060003	SAMPLE	CXM2	1013	27-MAR-10 13:01	DONE		
249329001	SAMPLE	CXM2	1019	27-MAR-10 13:40	DONE		
249329002	SAMPLE	CXM2	1020	27-MAR-10 13:40	DONE		
249329003	SAMPLE	CXM2	1022	27-MAR-10 13:40	DONE		
249329004	SAMPLE	CXM2	1023	27-MAR-10 13:40	DONE		
249331001	SAMPLE	CXM2	1024	27-MAR-10 13:40	DONE		
249331002	SAMPLE	CXM2	1043	27-MAR-10 13:40	DONE		
249331003	SAMPLE	CXM2	1044	27-MAR-10 13:40	DONE		
249331004	SAMPLE	CXM2	1045	27-MAR-10 13:40	DONE		
249331005	SAMPLE	CXM2	1046	27-MAR-10 13:40	DONE		
249331006	SAMPLE	CXM2	1048	27-MAR-10 13:40	DONE		
249331007	SAMPLE	CXM2	1072	27-MAR-10 13:40	DONE		
249331008	SAMPLE	CXM2	1073	27-MAR-10 13:40	DONE		
249334001	SAMPLE	CXM2	1074	27-MAR-10 13:40	DONE		
249334002	SAMPLE	CXM2	1075	27-MAR-10 13:40	DONE		
249334003	SAMPLE	CXM2	1076	27-MAR-10 13:40	DONE		
249334004	SAMPLE	CXM2	1077	27-MAR-10 13:40	DONE		
249334005	SAMPLE	CXM2	1079	27-MAR-10 13:40	DONE		
249334006	SAMPLE	CXM2	1080	27-MAR-10 13:40	DONE		
249334007	SAMPLE	CXM2	1081	27-MAR-10 13:40	DONE		
1202071683	MB	CXM2	1082	27-MAR-10 13:40	DONE		
1202071684	DUP	CXM2	1083	27-MAR-10 13:40	DONE		
1202071685	LCS	CXM2	1085	27-MAR-10 13:40	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965503**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249060003	SAMPLE	CXM2	1072	26-MAR-10 17:20	DONE		
249329001	SAMPLE	CXM2	1073	26-MAR-10 17:20	DONE		
249329002	SAMPLE	CXM2	1074	26-MAR-10 17:20	DONE		
249329003	SAMPLE	CXM2	1075	26-MAR-10 17:20	DONE		
249329004	SAMPLE	CXM2	1076	26-MAR-10 17:20	DONE		
249331001	SAMPLE	CXM2	1077	26-MAR-10 17:20	DONE		
249331002	SAMPLE	CXM2	1079	26-MAR-10 17:20	DONE		
249331003	SAMPLE	CXM2	1080	26-MAR-10 17:20	DONE		
249331004	SAMPLE	CXM2	1081	26-MAR-10 17:20	DONE		
249331005	SAMPLE	CXM2	1082	26-MAR-10 17:20	DONE		
249331006	SAMPLE	CXM2	1083	26-MAR-10 17:20	DONE		
249331007	SAMPLE	CXM2	1084	26-MAR-10 17:20	DONE		
249331008	SAMPLE	CXM2	1085	26-MAR-10 17:20	DUSE		
249334001	SAMPLE	CXM2	1086	26-MAR-10 17:20	DONE		
249334002	SAMPLE	CXM2	1087	26-MAR-10 17:20	DONE		
249334003	SAMPLE	CXM2	1088	26-MAR-10 17:20	DONE		
249334004	SAMPLE	CXM2	1089	26-MAR-10 17:20	DONE		
249334005	SAMPLE	CXM2	1090	26-MAR-10 17:20	DONE		
249334006	SAMPLE	CXM2	1091	26-MAR-10 17:20	DONE		
249334007	SAMPLE	CXM2	1093	26-MAR-10 17:20	DONE		
1202071686	MB	CXM2	1094	26-MAR-10 17:20	DONE		
1202071687	DUP	CXM2	1013	26-MAR-10 21:18	DONE		
1202071688	LCS	CXM2	1014	26-MAR-10 21:18	DONE		
249331008	SAMPLE	CXM2	1031	29-MAR-10 10:30	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 965504**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
249060003	SAMPLE	CXM2	1131	27-MAR-10 12:53	DONE		
249329001	SAMPLE	CXM2	1132	27-MAR-10 12:53	DONE		
249329002	SAMPLE	CXM2	1133	27-MAR-10 12:53	DONE		
249329003	SAMPLE	CXM2	1134	27-MAR-10 12:53	DONE		
249329004	SAMPLE	CXM2	1135	27-MAR-10 12:53	DONE		
249331001	SAMPLE	CXM2	1136	27-MAR-10 12:53	DONE		
249331003	SAMPLE	CXM2	1138	27-MAR-10 12:54	DONE		
249331004	SAMPLE	CXM2	1139	27-MAR-10 12:54	DONE		
249331005	SAMPLE	CXM2	1140	27-MAR-10 12:54	DONE		
249331006	SAMPLE	CXM2	1141	27-MAR-10 12:54	DONE		
249331007	SAMPLE	CXM2	1142	27-MAR-10 12:54	DONE		
249331008	SAMPLE	CXM2	1143	27-MAR-10 12:54	DONE		
249334001	SAMPLE	CXM2	1144	27-MAR-10 12:54	DONE		
249334002	SAMPLE	CXM2	1145	27-MAR-10 12:54	DONE		
249334003	SAMPLE	CXM2	1146	27-MAR-10 12:54	DONE		
249334004	SAMPLE	CXM2	1147	27-MAR-10 12:54	DUSE		
249334005	SAMPLE	CXM2	1148	27-MAR-10 12:54	DUSE		
249334006	SAMPLE	CXM2	1149	27-MAR-10 12:54	DONE		
249334007	SAMPLE	CXM2	1150	27-MAR-10 12:54	DONE		
1202071689	MB	CXM2	1151	27-MAR-10 12:54	DONE		
1202071690	DUP	CXM2	1152	27-MAR-10 12:54	DONE		
1202071691	LCS	CXM2	1153	27-MAR-10 12:54	DONE		
249331002	SAMPLE	CXM2	1154	27-MAR-10 12:54	DONE		
249334004	SAMPLE	CXM2	1117	29-MAR-10 12:37	DONE		
249334005	SAMPLE	CXM2	1118	29-MAR-10 12:38	DONE		

Friday, March 12, 2010

REQUEST NUMBER: 10-2436

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2436
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8081A	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	SW-846:8082	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2436

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	SW-846:8260B	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13000	S	3/11/2010	
		2	RE46-10-13000	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	SW-846:8270C	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2436

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2436C

REQUEST NUMBER: 10-2436

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13000	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13000	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-12972	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-12972	1	GLASS	8270C+8081A+8082	Ice	S
RE46-10-13003	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13003	1	GLASS	8270C+8081A+8082	Ice	S
RE46-10-12967	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-12967	1	GLASS	8270C+8081A+8082	Ice	S
RE46-10-12971	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-12971	1	GLASS	8270C+8081A+8082	Ice	S
RE46-10-12968	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-12968	1	GLASS	8270C+8081A+8082	Ice	S
RE46-10-12969	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-12969	1	GLASS	8270C+8081A+8082	Ice	S
RE46-10-12970	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-12970	1	GLASS	8270C+8081A+8082	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
[illegible]	3/12/10	3:00			
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12970 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1100	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611502		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Brown sandy sediment 5YR 5/4

SAMPLE COMMENTS: O.M. present

LOCATION DESC: 4q-2

FIELD SCREENING/MEASUREMENT RESULTS: Background samples < MDA

PID: 0.2ppm α: 7 β: 906 DPM

COLLECTED BY (PRINT) ~~D. Thomas~~ 3-11-10 M. Davek **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Davek (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12971 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1342	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611503		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Dark reddish brown sandy sediment. 5YR 3/4

SAMPLE COMMENTS: NA

LOCATION DESC: 4q-3

FIELD SCREENING/MEASUREMENT RESULTS: Background samples < MDA

PID: 1.0 ppm

α: 7 dpm DPM

β: 906

COLLECTED BY (PRINT) M. Nauck **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress 3/11/10 (Signature)	3/10/10 1650	(Printed Name) (Signature)	3/11/10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12997 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	Ok
TIME COLLECTED (HH:MM)		0914	SUB-MEDIA:	OTHER	
PRS ID:	46-004(q)	Ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-~~611501~~ 611503 HD 3-11-10	FIELD QC TYPE:	FB	
LOCATION TYPE:	GENERIC	Ok	FIELD PREP:	UF	
TOP DEPTH:	0	HD 0 1'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	3-11-10 1' 2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	pH <2
1		SW-846:6850	250 ML POLY	Ice	Y	~~pH~~ 3/11/10
1		TCN	500 ML POLY	Sodium Hydroxide	Y	pH >12

SAMPLE DESC: QC Sample of RE46-10-12997 HD 3-11-10 72

SAMPLE COMMENTS: NA

LOCATION DESC: 4q-3

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature)	3/11/10 1650	(Printed Name) (Signature)	3/11/10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12994 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1415	SUB-MEDIA:	OTHER	
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46611503	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	~~1'~~ 0' 1'	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	~~2'~~ 1' 2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		METALS-GEL	1 LITER POLY	Nitric Acid	Y	<2 pH
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	>12 ~~pH~~ pH

SAMPLE DESC: QC Sample of RE 46-10-12972 LF 3/11/10

SAMPLE COMMENTS: NA

LOCATION DESC: 49-3

FIELD SCREENING/MEASUREMENT RESULTS: MR 2/10/10 ~~B~~ NA

COLLECTED BY (PRINT) ~~D. Thomas~~ M. Nauck REVIEWED BY (PRINT) Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature)	3/11/10 1650	(Printed Name) (Signature)	3/11/10 1650
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-13003 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1350	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	46-611503	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: QC Sample of RE46-10-12972

SAMPLE COMMENTS: NA

LOCATION DESC: 49-3

FIELD SCREENING/MEASUREMENT RESULTS: Background samples < MDA

PID: 1.0ppm α: 7 DPM β: 906

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature)	3/11/10 1650	(Printed Name) (Signature)	3/11/10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12972 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1350	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	46-611503		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Pinkish gray weathered tuff 5YR 6/2

SAMPLE COMMENTS: Roots present

LOCATION DESC: 4q-3

FIELD SCREENING/MEASUREMENT RESULTS: Background samples < MDA

PID: 0.6 ppm α: 7 β: 906 DPM

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature)	3/11/10 1650	(Printed Name) (Signature)	3/11/10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12968 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		0945	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611501	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1'	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Pinkish gray weathered tuff + sediment 5YR 8/2

SAMPLE COMMENTS: Plant roots

LOCATION DESC: 4q-1

FIELD SCREENING/MEASUREMENT RESULTS: Background Samples < MDA

PID: 3.9ppm α: 7 β: 906 DPM

COLLECTED BY (PRINT) M. Shendo **REVIEWED BY (PRINT)** [signature]

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) [signature]	3-11-10	(Printed Name)	3-11-10
(Signature)	1650	(Signature) [signature]	1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12969 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		1055 3-11-10 ~~1010~~	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611502	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: ~~Gray~~ Brown sandy sediment 5YR 5/4 3-11-10

SAMPLE COMMENTS: O.M. present

LOCATION DESC: 4q-2

FIELD SCREENING/MEASUREMENT RESULTS: Background samples <MDA

PID: 0.7 ppm α: 7 β: 906 DPM

COLLECTED BY (PRINT) J. Romero **REVIEWED BY (PRINT)** M. Vaughn

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Vaughn (Signature)	3-11-10 1650	(Printed Name) (Signature)	3-11-10 1650
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-12967 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	ALLH	OK
TIME COLLECTED (HH:MM)		0915	SUB-MEDIA:	SOIL	NA
PRS ID:	46-004(q)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	46-611501	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1'	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8081A+8082	250 ML GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	

SAMPLE DESC: Dark Brown Silty sediment 7.5 YR 4/3

SAMPLE COMMENTS: roots + O.M. present

LOCATION DESC: Aq-1

FIELD SCREENING/MEASUREMENT RESULTS: Background samples <MDA

PID: 10.7 ppm α: 7 β: 906 DPM

COLLECTED BY (PRINT) ~~S.D. Thomas~~ M. Lauck REVIEWED BY (PRINT) Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) M. Lauck (Signature)	3/11/10 1650	(Printed Name) (Signature)	3/11/10 4:50
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2639 **EVENT NAME:** SWMU 46-004(y), 46-004(u), 46-004(x), 46-004(q)

SAMPLE ID: RE46-10-13000 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		3-11-10	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		~~1475~~ 1350	SUB-MEDIA:	OTHER	
PRS ID:	46-004(q)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	46-611503	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	mr 2/10/10 +	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	2/10/10 +	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	2 mr 2/10/10	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of 46-10-12972

SAMPLE COMMENTS: NA

LOCATION DESC: 49-3

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) ~~M. Rains~~ M. Lauck

REVIEWED BY (PRINT) Lane Andress

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Lane Andress (Signature)	3/11/10 1650	(Printed Name) (Signature)	3/11/10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2436 VALIDATION DATE: 04/26/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Monica Dymerski ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): GC/MS VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Methylene chloride was detected in FTB sample RE46-10-13000, associated with samples -12972, -13003, and -12971. The associated sample results were detects ≤10X the FTB concentration and, thus, were qualified U,V4d.

Reviewed by: ETM Level: 1 Date: 4/26/10

VALIDATOR'S SIGNATURE: Monica L Dymerski DATE: 04/26/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☐	☒	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☒	☐	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335004	**Date Received:**	03/13/2010 09:30	**%Moisture:**	20.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12967	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	969056	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	03/25/2010 02:44	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	03/25/2010 00:35	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7e313.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.429	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.378	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.378	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.378	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.378	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.378	1.26
67-64-1	Acetone	U	6.31	ug/kg	2.09	6.31
75-35-4	1,1-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
74-88-4	Iodomethane	U	6.31	ug/kg	2.02	6.31
75-09-2	Methylene chloride	J	5.42	ug/kg	2.52	6.31
75-15-0	Carbon disulfide	U	6.31	ug/kg	1.58	6.31
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.378	1.26
78-93-3	2-Butanone	U	6.31	ug/kg	1.89	6.31
156-59-2	cis-1,2-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.378	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.378	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.416	1.26
71-55-6	1,1,1-Trichloroethane	U	1.26	ug/kg	0.378	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.378	1.26
56-23-5	Carbon tetrachloride	U	1.26	ug/kg	0.378	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.378	1.26
71-43-2	Benzene	U	1.26	ug/kg	0.378	1.26
79-01-6	Trichloroethylene	U	1.26	ug/kg	0.416	1.26
78-87-5	1,2-Dichloropropane	U	1.26	ug/kg	0.378	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.378	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.378	1.26
108-10-1	4-Methyl-2-pentanone	U	6.31	ug/kg	1.58	6.31
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.378	1.26
108-88-3	Toluene	U	1.26	ug/kg	0.378	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.378	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.378	1.26
591-78-6	2-Hexanone	U	6.31	ug/kg	1.89	6.31
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.378	1.26
127-18-4	Tetrachloroethylene	U	1.26	ug/kg	0.378	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.378	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.378	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.378	1.26

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335004	**Date Received:**	03/13/2010 09:30	**%Moisture:**	20.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12967	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	969056	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	03/25/2010 02:44	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	03/25/2010 00:35	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7e313.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.26	ug/kg	0.378	1.26
179601-23-1	m,p-Xylenes	U	2.52	ug/kg	0.378	2.52
95-47-6	o-Xylene	U	1.26	ug/kg	0.378	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.378	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.378	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.378	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.378	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.378	1.26
103-65-1	n-Propylbenzene	U	1.26	ug/kg	0.378	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.378	1.26
98-82-8	Isopropylbenzene	U	1.26	ug/kg	0.378	1.26
108-67-8	1,3,5-Trimethylbenzene	U	1.26	ug/kg	0.378	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.378	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.378	1.26
95-63-6	1,2,4-Trimethylbenzene	U	1.26	ug/kg	0.378	1.26
135-98-8	sec-Butylbenzene	U	1.26	ug/kg	0.378	1.26
99-87-6	4-Isopropyltoluene	U	1.26	ug/kg	0.378	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26
104-51-8	n-Butylbenzene	U	1.26	ug/kg	0.378	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.378	1.26
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.31	ug/kg	2.02	6.31
630-20-6	1,1,1,2-Tetrachloroethane	U	1.26	ug/kg	0.378	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335006	**Date Received:**	03/13/2010 09:30	**%Moisture:**	10.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12968	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	969056	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	03/25/2010 03:53	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	03/25/2010 00:39	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7e315.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.12	ug/kg	0.380	1.12
74-87-3	Chloromethane	U	1.12	ug/kg	0.335	1.12
75-01-4	Vinyl chloride	U	1.12	ug/kg	0.335	1.12
74-83-9	Bromomethane	U	1.12	ug/kg	0.335	1.12
75-00-3	Chloroethane	U	1.12	ug/kg	0.335	1.12
75-69-4	Trichlorofluoromethane	U	1.12	ug/kg	0.335	1.12
67-64-1	Acetone	U	5.58	ug/kg	1.85	5.58
75-35-4	1,1-Dichloroethylene	U	1.12	ug/kg	0.335	1.12
74-88-4	Iodomethane	U	5.58	ug/kg	1.79	5.58
75-09-2	Methylene chloride	J	4.07	ug/kg	2.23	5.58
75-15-0	Carbon disulfide	U	5.58	ug/kg	1.40	5.58
156-60-5	trans-1,2-Dichloroethylene	U	1.12	ug/kg	0.335	1.12
75-34-3	1,1-Dichloroethane	U	1.12	ug/kg	0.335	1.12
78-93-3	2-Butanone	U	5.58	ug/kg	1.67	5.58
156-59-2	cis-1,2-Dichloroethylene	U	1.12	ug/kg	0.335	1.12
594-20-7	2,2-Dichloropropane	U	1.12	ug/kg	0.335	1.12
67-66-3	Chloroform	U	1.12	ug/kg	0.335	1.12
74-97-5	Bromochloromethane	U	1.12	ug/kg	0.368	1.12
71-55-6	1,1,1-Trichloroethane	U	1.12	ug/kg	0.335	1.12
563-58-6	1,1-Dichloropropene	U	1.12	ug/kg	0.335	1.12
56-23-5	Carbon tetrachloride	U	1.12	ug/kg	0.335	1.12
107-06-2	1,2-Dichloroethane	U	1.12	ug/kg	0.335	1.12
71-43-2	Benzene	U	1.12	ug/kg	0.335	1.12
79-01-6	Trichloroethylene	U	1.12	ug/kg	0.368	1.12
78-87-5	1,2-Dichloropropane	U	1.12	ug/kg	0.335	1.12
75-27-4	Bromodichloromethane	U	1.12	ug/kg	0.335	1.12
74-95-3	Dibromomethane	U	1.12	ug/kg	0.335	1.12
108-10-1	4-Methyl-2-pentanone	U	5.58	ug/kg	1.40	5.58
10061-01-5	cis-1,3-Dichloropropylene	U	1.12	ug/kg	0.335	1.12
108-88-3	Toluene	U	1.12	ug/kg	0.335	1.12
10061-02-6	trans-1,3-Dichloropropylene	U	1.12	ug/kg	0.335	1.12
79-00-5	1,1,2-Trichloroethane	U	1.12	ug/kg	0.335	1.12
591-78-6	2-Hexanone	U	5.58	ug/kg	1.67	5.58
142-28-9	1,3-Dichloropropane	U	1.12	ug/kg	0.335	1.12
127-18-4	Tetrachloroethylene	U	1.12	ug/kg	0.335	1.12
124-48-1	Dibromochloromethane	U	1.12	ug/kg	0.335	1.12
106-93-4	1,2-Dibromoethane	U	1.12	ug/kg	0.335	1.12
108-90-7	Chlorobenzene	U	1.12	ug/kg	0.335	1.12

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335006	**Date Received:**	03/13/2010 09:30	**%Moisture:**	10.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12968	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	969056	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	03/25/2010 03:53	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	03/25/2010 00:39	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7e315.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.12	ug/kg	0.335	1.12
179601-23-1	m,p-Xylenes	U	2.23	ug/kg	0.335	2.23
95-47-6	o-Xylene	U	1.12	ug/kg	0.335	1.12
100-42-5	Styrene	U	1.12	ug/kg	0.335	1.12
75-25-2	Bromoform	U	1.12	ug/kg	0.335	1.12
79-34-5	1,1,2,2-Tetrachloroethane	U	1.12	ug/kg	0.335	1.12
96-18-4	1,2,3-Trichloropropane	U	1.12	ug/kg	0.335	1.12
108-86-1	Bromobenzene	U	1.12	ug/kg	0.335	1.12
103-65-1	n-Propylbenzene	U	1.12	ug/kg	0.335	1.12
95-49-8	2-Chlorotoluene	U	1.12	ug/kg	0.335	1.12
98-82-8	Isopropylbenzene	U	1.12	ug/kg	0.335	1.12
108-67-8	1,3,5-Trimethylbenzene	U	1.12	ug/kg	0.335	1.12
106-43-4	4-Chlorotoluene	U	1.12	ug/kg	0.335	1.12
98-06-6	tert-Butylbenzene	U	1.12	ug/kg	0.335	1.12
95-63-6	1,2,4-Trimethylbenzene	U	1.12	ug/kg	0.335	1.12
135-98-8	sec-Butylbenzene	U	1.12	ug/kg	0.335	1.12
99-87-6	4-Isopropyltoluene	U	1.12	ug/kg	0.335	1.12
541-73-1	1,3-Dichlorobenzene	U	1.12	ug/kg	0.335	1.12
106-46-7	1,4-Dichlorobenzene	U	1.12	ug/kg	0.335	1.12
104-51-8	n-Butylbenzene	U	1.12	ug/kg	0.335	1.12
96-12-8	1,2-Dibromo-3-chloropropane	U	1.12	ug/kg	0.335	1.12
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.58	ug/kg	1.79	5.58
630-20-6	1,1,1,2-Tetrachloroethane	U	1.12	ug/kg	0.335	1.12
95-50-1	1,2-Dichlorobenzene	U	1.12	ug/kg	0.335	1.12

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

ML

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335007	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12969	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	969056	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	03/25/2010 04:26	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	03/25/2010 00:41	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7e316.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.388	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.342	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.342	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.342	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.342	1.14
67-64-1	Acetone	U	5.71	ug/kg	1.89	5.71
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
74-88-4	Iodomethane	U	5.71	ug/kg	1.83	5.71
75-09-2	Methylene chloride	J	5.51	ug/kg	2.28	5.71
75-15-0	Carbon disulfide	U	5.71	ug/kg	1.43	5.71
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.342	1.14
78-93-3	2-Butanone	U	5.71	ug/kg	1.71	5.71
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.342	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.377	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.342	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.342	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.377	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.342	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone	U	5.71	ug/kg	1.43	5.71
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.342	1.14
591-78-6	2-Hexanone	U	5.71	ug/kg	1.71	5.71
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.342	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.342	1.14

MLD
04/26/

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335007	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12969	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	969056	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	03/25/2010 04:26	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	03/25/2010 00:41	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7e316.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.342	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.342	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.342	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.342	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.71	ug/kg	1.83	5.71
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335008	**Date Received:**	03/13/2010 09:30	**%Moisture:**	15.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12970	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	969056	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	03/25/2010 05:00	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	03/25/2010 00:43	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7e317.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.402	1.18
74-87-3	Chloromethane	U	1.18	ug/kg	0.354	1.18
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.354	1.18
74-83-9	Bromomethane	U	1.18	ug/kg	0.354	1.18
75-00-3	Chloroethane	U	1.18	ug/kg	0.354	1.18
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.354	1.18
67-64-1	Acetone	U	5.91	ug/kg	1.96	5.91
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
74-88-4	Iodomethane	U	5.91	ug/kg	1.89	5.91
75-09-2	Methylene chloride	J	5.13	ug/kg	2.36	5.91
75-15-0	Carbon disulfide	U	5.91	ug/kg	1.48	5.91
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.354	1.18
78-93-3	2-Butanone	U	5.91	ug/kg	1.77	5.91
156-59-2	cis-1,2-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.354	1.18
67-66-3	Chloroform	U	1.18	ug/kg	0.354	1.18
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.390	1.18
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.354	1.18
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.354	1.18
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.354	1.18
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.354	1.18
71-43-2	Benzene	U	1.18	ug/kg	0.354	1.18
79-01-6	Trichloroethylene	U	1.18	ug/kg	0.390	1.18
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.354	1.18
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.354	1.18
74-95-3	Dibromomethane	U	1.18	ug/kg	0.354	1.18
108-10-1	4-Methyl-2-pentanone	U	5.91	ug/kg	1.48	5.91
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.354	1.18
108-88-3	Toluene	U	1.18	ug/kg	0.354	1.18
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.354	1.18
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.354	1.18
591-78-6	2-Hexanone	U	5.91	ug/kg	1.77	5.91
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.354	1.18
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.354	1.18
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.354	1.18
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.354	1.18
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.354	1.18

MLI
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335008	**Date Received:**	03/13/2010 09:30	**%Moisture:**	15.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12970	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	969056	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	03/25/2010 05:00	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	03/25/2010 00:43	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7e317.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.354	1.18
179601-23-1	m,p-Xylenes	U	2.36	ug/kg	0.354	2.36
95-47-6	o-Xylene	U	1.18	ug/kg	0.354	1.18
100-42-5	Styrene	U	1.18	ug/kg	0.354	1.18
75-25-2	Bromoform	U	1.18	ug/kg	0.354	1.18
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.354	1.18
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.354	1.18
108-86-1	Bromobenzene	U	1.18	ug/kg	0.354	1.18
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.354	1.18
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.354	1.18
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.354	1.18
108-67-8	1,3,5-Trimethylbenzene	U	1.18	ug/kg	0.354	1.18
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.354	1.18
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.354	1.18
95-63-6	1,2,4-Trimethylbenzene	U	1.18	ug/kg	0.354	1.18
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.354	1.18
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.354	1.18
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.354	1.18
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.354	1.18
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.91	ug/kg	1.89	5.91
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.354	1.18
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335005	**Date Received:**	03/13/2010 09:30	**%Moisture:**	21.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12971	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	969056	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	03/25/2010 03:19	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	03/25/2010 00:37	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7e314.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.28	ug/kg	0.435	1.28	
74-87-3	Chloromethane	U	1.28	ug/kg	0.384	1.28	
75-01-4	Vinyl chloride	U	1.28	ug/kg	0.384	1.28	
74-83-9	Bromomethane	U	1.28	ug/kg	0.384	1.28	
75-00-3	Chloroethane	U	1.28	ug/kg	0.384	1.28	
75-69-4	Trichlorofluoromethane	U	1.28	ug/kg	0.384	1.28	
67-64-1	Acetone	U	6.39	ug/kg	2.12	6.39	
75-35-4	1,1-Dichloroethylene	U	1.28	ug/kg	0.384	1.28	
74-88-4	Iodomethane	U	6.39	ug/kg	2.05	6.39	
75-09-2	Methylene chloride	J	5.30	ug/kg	2.56	6.39	U,V4d
75-15-0	Carbon disulfide	U	6.39	ug/kg	1.60	6.39	
156-60-5	trans-1,2-Dichloroethylene	U	1.28	ug/kg	0.384	1.28	
75-34-3	1,1-Dichloroethane	U	1.28	ug/kg	0.384	1.28	
78-93-3	2-Butanone	U	6.39	ug/kg	1.92	6.39	
156-59-2	cis-1,2-Dichloroethylene	U	1.28	ug/kg	0.384	1.28	
594-20-7	2,2-Dichloropropane	U	1.28	ug/kg	0.384	1.28	
67-66-3	Chloroform	U	1.28	ug/kg	0.384	1.28	
74-97-5	Bromochloromethane	U	1.28	ug/kg	0.422	1.28	
71-55-6	1,1,1-Trichloroethane	U	1.28	ug/kg	0.384	1.28	
563-58-6	1,1-Dichloropropene	U	1.28	ug/kg	0.384	1.28	
56-23-5	Carbon tetrachloride	U	1.28	ug/kg	0.384	1.28	
107-06-2	1,2-Dichloroethane	U	1.28	ug/kg	0.384	1.28	
71-43-2	Benzene	U	1.28	ug/kg	0.384	1.28	
79-01-6	Trichloroethylene	U	1.28	ug/kg	0.422	1.28	
78-87-5	1,2-Dichloropropane	U	1.28	ug/kg	0.384	1.28	
75-27-4	Bromodichloromethane	U	1.28	ug/kg	0.384	1.28	
74-95-3	Dibromomethane	U	1.28	ug/kg	0.384	1.28	
108-10-1	4-Methyl-2-pentanone	U	6.39	ug/kg	1.60	6.39	
10061-01-5	cis-1,3-Dichloropropylene	U	1.28	ug/kg	0.384	1.28	
108-88-3	Toluene	U	1.28	ug/kg	0.384	1.28	
10061-02-6	trans-1,3-Dichloropropylene	U	1.28	ug/kg	0.384	1.28	
79-00-5	1,1,2-Trichloroethane	U	1.28	ug/kg	0.384	1.28	
591-78-6	2-Hexanone	U	6.39	ug/kg	1.92	6.39	
142-28-9	1,3-Dichloropropane	U	1.28	ug/kg	0.384	1.28	
127-18-4	Tetrachloroethylene	U	1.28	ug/kg	0.384	1.28	
124-48-1	Dibromochloromethane	U	1.28	ug/kg	0.384	1.28	
106-93-4	1,2-Dibromoethane	U	1.28	ug/kg	0.384	1.28	
108-90-7	Chlorobenzene	U	1.28	ug/kg	0.384	1.28	

MLI
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335005	**Date Received:**	03/13/2010 09:30	**%Moisture:**	21.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12971	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	969056	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	03/25/2010 03:19	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	03/25/2010 00:37	**Allquot:**	5 g	**Final Volume:**	5 mL
Data File:	7e314.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.28	ug/kg	0.384	1.28
179601-23-1	m,p-Xylenes	U	2.56	ug/kg	0.384	2.56
95-47-6	o-Xylene	U	1.28	ug/kg	0.384	1.28
100-42-5	Styrene	U	1.28	ug/kg	0.384	1.28
75-25-2	Bromoform	U	1.28	ug/kg	0.384	1.28
79-34-5	1,1,2,2-Tetrachloroethane	U	1.28	ug/kg	0.384	1.28
96-18-4	1,2,3-Trichloropropane	U	1.28	ug/kg	0.384	1.28
108-86-1	Bromobenzene	U	1.28	ug/kg	0.384	1.28
103-65-1	n-Propylbenzene	U	1.28	ug/kg	0.384	1.28
95-49-8	2-Chlorotoluene	U	1.28	ug/kg	0.384	1.28
98-82-8	Isopropylbenzene	U	1.28	ug/kg	0.384	1.28
108-67-8	1,3,5-Trimethylbenzene	U	1.28	ug/kg	0.384	1.28
106-43-4	4-Chlorotoluene	U	1.28	ug/kg	0.384	1.28
98-06-6	tert-Butylbenzene	U	1.28	ug/kg	0.384	1.28
95-63-6	1,2,4-Trimethylbenzene	U	1.28	ug/kg	0.384	1.28
135-98-8	sec-Butylbenzene	U	1.28	ug/kg	0.384	1.28
99-87-6	4-Isopropyltoluene	U	1.28	ug/kg	0.384	1.28
541-73-1	1,3-Dichlorobenzene	U	1.28	ug/kg	0.384	1.28
106-46-7	1,4-Dichlorobenzene	U	1.28	ug/kg	0.384	1.28
104-51-8	n-Butylbenzene	U	1.28	ug/kg	0.384	1.28
96-12-8	1,2-Dibromo-3-chloropropane	U	1.28	ug/kg	0.384	1.28
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.39	ug/kg	2.05	6.39
630-20-6	1,1,1,2-Tetrachloroethane	U	1.28	ug/kg	0.384	1.28
95-50-1	1,2-Dichlorobenzene	U	1.28	ug/kg	0.384	1.28

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

MLD
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335002	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12972	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	969056	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	03/25/2010 01:37	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	03/25/2010 00:27	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7e311.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.388	1.14	
74-87-3	Chloromethane	U	1.14	ug/kg	0.342	1.14	
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.342	1.14	
74-83-9	Bromomethane	U	1.14	ug/kg	0.342	1.14	
75-00-3	Chloroethane	U	1.14	ug/kg	0.342	1.14	
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.342	1.14	
67-64-1	Acetone	U	5.70	ug/kg	1.89	5.70	
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.342	1.14	
74-88-4	Iodomethane	U	5.70	ug/kg	1.82	5.70	
75-09-2	Methylene chloride	J	4.55	ug/kg	2.28	5.70	U,V4d
75-15-0	Carbon disulfide	U	5.70	ug/kg	1.42	5.70	
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14	
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.342	1.14	
78-93-3	2-Butanone	U	5.70	ug/kg	1.71	5.70	
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14	
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14	
67-66-3	Chloroform	U	1.14	ug/kg	0.342	1.14	
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.376	1.14	
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.342	1.14	
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.342	1.14	
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.342	1.14	
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.342	1.14	
71-43-2	Benzene	U	1.14	ug/kg	0.342	1.14	
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.376	1.14	
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14	
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.342	1.14	
74-95-3	Dibromomethane	U	1.14	ug/kg	0.342	1.14	
108-10-1	4-Methyl-2-pentanone	U	5.70	ug/kg	1.42	5.70	
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14	
108-88-3	Toluene	U	1.14	ug/kg	0.342	1.14	
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14	
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.342	1.14	
591-78-6	2-Hexanone	U	5.70	ug/kg	1.71	5.70	
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.342	1.14	
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.342	1.14	
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.342	1.14	
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.342	1.14	
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.342	1.14	

ML

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335002	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12972	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	969056	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	03/25/2010 01:37	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	03/25/2010 00:27	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7e311.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.342	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.342	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.342	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.342	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.70	ug/kg	1.82	5.70
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

ML

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	Date Collected:	03/11/2010 12:00	Matrix:	S
Lab Sample ID:	249335001	Date Received:	03/13/2010 09:30		
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13000	Method:	SW846 8260B	SOP Ref:	GL-OA-E-038
Batch ID:	969056	Inst:	VOA7.I	Dilution:	1
Run Date:	03/25/2010 01:03	Analyst:	AXO1	Purge Vol:	5 mL
Prep Date:	03/25/2010 00:25	Aliquot:	5 g	Final Volume:	5 mL
Data File:	7e310.d	Column:	DB-624	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	J	4.08	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

ML
04/26

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335001	**Date Received:**	03/13/2010 09:30		
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13000	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	969056	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	03/25/2010 01:03	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	03/25/2010 00:25	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7e310.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

MLI
04/26

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335003	**Date Received:**	03/13/2010 09:30	**%Moisture:**	11.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13003	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	969056	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	03/25/2010 02:11	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	03/25/2010 00:33	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7e312.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.384	1.13	
74-87-3	Chloromethane	U	1.13	ug/kg	0.339	1.13	
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.339	1.13	
74-83-9	Bromomethane	U	1.13	ug/kg	0.339	1.13	
75-00-3	Chloroethane	U	1.13	ug/kg	0.339	1.13	
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.339	1.13	
67-64-1	Acetone	U	5.65	ug/kg	1.88	5.65	
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.339	1.13	
74-88-4	Iodomethane	U	5.65	ug/kg	1.81	5.65	
75-09-2	Methylene chloride	J	4.46	ug/kg	2.26	5.65	U,V4d
75-15-0	Carbon disulfide	U	5.65	ug/kg	1.41	5.65	
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13	
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.339	1.13	
78-93-3	2-Butanone	U	5.65	ug/kg	1.70	5.65	
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13	
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13	
67-66-3	Chloroform	U	1.13	ug/kg	0.339	1.13	
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.373	1.13	
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.339	1.13	
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.339	1.13	
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.339	1.13	
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.339	1.13	
71-43-2	Benzene	U	1.13	ug/kg	0.339	1.13	
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.373	1.13	
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13	
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.339	1.13	
74-95-3	Dibromomethane	U	1.13	ug/kg	0.339	1.13	
108-10-1	4-Methyl-2-pentanone	U	5.65	ug/kg	1.41	5.65	
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13	
108-88-3	Toluene	U	1.13	ug/kg	0.339	1.13	
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13	
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.339	1.13	
591-78-6	2-Hexanone	U	5.65	ug/kg	1.70	5.65	
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.339	1.13	
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.339	1.13	
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.339	1.13	
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.339	1.13	
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.339	1.13	

ML

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335003	**Date Received:**	03/13/2010 09:30	**%Moisture:**	11.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13003	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	969056	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	03/25/2010 02:11	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	03/25/2010 00:33	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7e312.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.339	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.339	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.339	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.339	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.339	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.339	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.339	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.339	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.339	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.339	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.339	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.339	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.339	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.339	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.65	ug/kg	1.81	5.65
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

ML

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2436 VALIDATION DATE: 04/26/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Monica Dymerski ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): GC/MS SVOC

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV/CCV %Ds were >20% for pyridine; benzoic acid; hexachlorocyclopentadiene; 2-methyl-4,6-dinitrophenol; and 4-nitroaniline. All associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The MS/MSD RPDs were > the laboratory acceptance limit for N-nitrosodipropylamine; o-cresol; 2-nitrophenol; and bis(2-chloroethoxy)methane. Since MS/MSD analyses are not a client requirement for this method, no sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 4/26/10

VALIDATOR'S SIGNATURE: [signature] DATE: 04/26/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335004	**Date Received:**	03/13/2010 09:30	**%Moisture:**	20.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12967	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 19:26	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s1c3025.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	420	ug/kg	84.1	420	
108-95-2	Phenol	U	420	ug/kg	84.1	420	
95-57-8	2-Chlorophenol	U	420	ug/kg	84.1	420	
106-46-7	1,4-Dichlorobenzene	U	420	ug/kg	84.1	420	
621-64-7	N-Nitrosodipropylamine	U	420	ug/kg	84.1	420	
59-50-7	4-Chloro-3-methylphenol	U	420	ug/kg	84.1	420	
83-32-9	Acenaphthene	U	42.0	ug/kg	13.9	42.0	
121-14-2	2,4-Dinitrotoluene	U	420	ug/kg	42.0	420	
100-02-7	4-Nitrophenol	U	420	ug/kg	139	420	
87-86-5	Pentachlorophenol	U	420	ug/kg	105	420	
129-00-0	Pyrene		267	ug/kg	12.6	42.0	
110-86-1	Pyridine	U	420	ug/kg	84.1	420	UJ,SV7c
62-53-3	Aniline	U	420	ug/kg	126	420	
111-44-4	bis(2-Chloroethyl) ether	U	420	ug/kg	84.1	420	
541-73-1	1,3-Dichlorobenzene	U	420	ug/kg	84.1	420	
100-51-6	Benzyl alcohol	U	420	ug/kg	126	420	
95-50-1	1,2-Dichlorobenzene	U	420	ug/kg	84.1	420	
108-60-1	bis(2-Chloroisopropyl)ether	U	420	ug/kg	84.1	420	
95-48-7	o-Cresol	U	420	ug/kg	84.1	420	
65794-96-9	m,p-Cresols	U	420	ug/kg	126	420	
67-72-1	Hexachloroethane	U	420	ug/kg	84.1	420	
98-95-3	Nitrobenzene	U	420	ug/kg	84.1	420	
78-59-1	Isophorone	U	420	ug/kg	84.1	420	
88-75-5	2-Nitrophenol	U	420	ug/kg	84.1	420	
105-67-9	2,4-Dimethylphenol	U	420	ug/kg	147	420	
111-91-1	bis(2-Chloroethoxy)methane	U	420	ug/kg	84.1	420	
120-83-2	2,4-Dichlorophenol	U	420	ug/kg	84.1	420	
65-85-0	Benzoic acid	U	841	ug/kg	210	841	UJ,SV7c
91-20-3	Naphthalene	U	42.0	ug/kg	12.6	42.0	
106-47-8	4-Chloroaniline	U	420	ug/kg	84.1	420	
87-68-3	Hexachlorobutadiene	U	420	ug/kg	84.1	420	
91-57-6	2-Methylnaphthalene	U	42.0	ug/kg	8.41	42.0	
77-47-4	Hexachlorocyclopentadiene	U	420	ug/kg	84.1	420	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	420	ug/kg	84.1	420	
95-95-4	2,4,5-Trichlorophenol	U	420	ug/kg	84.1	420	
91-58-7	2-Chloronaphthalene	U	42.0	ug/kg	13.9	42.0	
88-74-4	2-Nitroaniline	U	420	ug/kg	84.1	420	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	420	ug/kg	84.1	420	

ML

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335004	**Date Received:**	03/13/2010 09:30	**%Moisture:**	20.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12967	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 19:26	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s1c3025.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	420	ug/kg	84.1	420	
606-20-2	2,6-Dinitrotoluene	U	420	ug/kg	42.0	420	
208-96-8	Acenaphthylene	U	42.0	ug/kg	12.6	42.0	
51-28-5	2,4-Dinitrophenol	U	841	ug/kg	160	841	
132-64-9	Dibenzofuran	U	420	ug/kg	84.1	420	
84-66-2	Diethylphthalate	U	420	ug/kg	84.1	420	
86-73-7	Fluorene	U	42.0	ug/kg	12.6	42.0	
7005-72-3	4-Chlorophenylphenylether	U	420	ug/kg	84.1	420	
534-52-1	2-Methyl-4,6-dinitrophenol	U	420	ug/kg	84.1	420	UJ,SV7c
100-01-6	4-Nitroaniline	U	420	ug/kg	126	420	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	420	ug/kg	84.1	420	
122-66-7	Azobenzene	U	420	ug/kg	84.1	420	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	420	ug/kg	84.1	420	
118-74-1	Hexachlorobenzene	U	420	ug/kg	84.1	420	
85-01-8	Phenanthrene		109	ug/kg	12.6	42.0	
120-12-7	Anthracene		73.0	ug/kg	8.41	42.0	
84-74-2	Di-n-butylphthalate	U	420	ug/kg	84.1	420	
206-44-0	Fluoranthene		320	ug/kg	12.6	42.0	
85-68-7	Butylbenzylphthalate	U	420	ug/kg	84.1	420	
56-55-3	Benzo(a)anthracene		145	ug/kg	12.6	42.0	
91-94-1	3,3'-Dichlorobenzidine	U	420	ug/kg	126	420	
218-01-9	Chrysene		200	ug/kg	12.6	42.0	
117-81-7	bis(2-Ethylhexyl)phthalate	J	211	ug/kg	84.1	420	
117-84-0	Di-n-octylphthalate	U	420	ug/kg	84.1	420	
205-99-2	Benzo(b)fluoranthene		170	ug/kg	12.6	42.0	
207-08-9	Benzo(k)fluoranthene	U	42.0	ug/kg	12.6	42.0	
50-32-8	Benzo(a)pyrene		79.9	ug/kg	12.6	42.0	
193-39-5	Indeno(1,2,3-cd)pyrene	J	34.2	ug/kg	12.6	42.0	
53-70-3	Dibenzo(a,h)anthracene	U	42.0	ug/kg	12.6	42.0	
191-24-2	Benzo(ghi)perylene	J	39.7	ug/kg	12.6	42.0	
120-82-1	1,2,4-Trichlorobenzene	U	420	ug/kg	84.1	420	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	340	ug/kg		JA
544-76-3	Hexadecane	8.89	363	ug/kg	94	NJ

ML
04/0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335004	**Date Received:**	03/13/2010 09:30	**%Moisture:**	20.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12967	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 19:26	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s1c3025.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.06	286	ug/kg		J
	Unknown	11.18	169	ug/kg		J
	Unknown	11.48	454	ug/kg		J
1058-61-3	Stigmast-4-en-3-one	11.86	430	ug/kg	95	NJ
	Unknown	11.93	209	ug/kg		J
	Unknown	12.8	1240	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335006	**Date Received:**	03/13/2010 09:30	**%Moisture:**	10.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12968	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 20:14	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s1c3027.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	372	ug/kg	74.4	372	
108-95-2	Phenol	U	372	ug/kg	74.4	372	
95-57-8	2-Chlorophenol	U	372	ug/kg	74.4	372	
106-46-7	1,4-Dichlorobenzene	U	372	ug/kg	74.4	372	
621-64-7	N-Nitrosodipropylamine	U	372	ug/kg	74.4	372	
59-50-7	4-Chloro-3-methylphenol	U	372	ug/kg	74.4	372	
83-32-9	Acenaphthene	U	37.2	ug/kg	12.3	37.2	
121-14-2	2,4-Dinitrotoluene	U	372	ug/kg	37.2	372	
100-02-7	4-Nitrophenol	U	372	ug/kg	123	372	
87-86-5	Pentachlorophenol	U	372	ug/kg	93.0	372	
129-00-0	Pyrene		42.0	ug/kg	11.2	37.2	
110-86-1	Pyridine	U	372	ug/kg	74.4	372	UJ,SV7c
62-53-3	Aniline	U	372	ug/kg	112	372	
111-44-4	bis(2-Chloroethyl) ether	U	372	ug/kg	74.4	372	
541-73-1	1,3-Dichlorobenzene	U	372	ug/kg	74.4	372	
100-51-6	Benzyl alcohol	U	372	ug/kg	112	372	
95-50-1	1,2-Dichlorobenzene	U	372	ug/kg	74.4	372	
108-60-1	bis(2-Chloroisopropyl)ether	U	372	ug/kg	74.4	372	
95-48-7	o-Cresol	U	372	ug/kg	74.4	372	
65794-96-9	m,p-Cresols	U	372	ug/kg	112	372	
67-72-1	Hexachloroethane	U	372	ug/kg	74.4	372	
98-95-3	Nitrobenzene	U	372	ug/kg	74.4	372	
78-59-1	Isophorone	U	372	ug/kg	74.4	372	
88-75-5	2-Nitrophenol	U	372	ug/kg	74.4	372	
105-67-9	2,4-Dimethylphenol	U	372	ug/kg	130	372	
111-91-1	bis(2-Chloroethoxy)methane	U	372	ug/kg	74.4	372	
120-83-2	2,4-Dichlorophenol	U	372	ug/kg	74.4	372	
65-85-0	Benzoic acid	U	744	ug/kg	186	744	UJ,SV7c
91-20-3	Naphthalene	U	37.2	ug/kg	11.2	37.2	
106-47-8	4-Chloroaniline	U	372	ug/kg	74.4	372	
87-68-3	Hexachlorobutadiene	U	372	ug/kg	74.4	372	
91-57-6	2-Methylnaphthalene	U	37.2	ug/kg	7.44	37.2	
77-47-4	Hexachlorocyclopentadiene	U	372	ug/kg	74.4	372	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	372	ug/kg	74.4	372	
95-95-4	2,4,5-Trichlorophenol	U	372	ug/kg	74.4	372	
91-58-7	2-Chloronaphthalene	U	37.2	ug/kg	12.3	37.2	
88-74-4	2-Nitroaniline	U	372	ug/kg	74.4	372	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	372	ug/kg	74.4	372	

ML

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335006	**Date Received:**	03/13/2010 09:30	**%Moisture:**	10.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12968	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 20:14	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s1c3027.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	372	ug/kg	74.4	372	
606-20-2	2,6-Dinitrotoluene	U	372	ug/kg	37.2	372	
208-96-8	Acenaphthylene	U	37.2	ug/kg	11.2	37.2	
51-28-5	2,4-Dinitrophenol	U	744	ug/kg	141	744	
132-64-9	Dibenzofuran	U	372	ug/kg	74.4	372	
84-66-2	Diethylphthalate	U	372	ug/kg	74.4	372	
86-73-7	Fluorene	U	37.2	ug/kg	11.2	37.2	
7005-72-3	4-Chlorophenylphenylether	U	372	ug/kg	74.4	372	
534-52-1	2-Methyl-4,6-dinitrophenol	U	372	ug/kg	74.4	372	UJ,SV7c
100-01-6	4-Nitroaniline	U	372	ug/kg	112	372	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	372	ug/kg	74.4	372	
122-66-7	Azobenzene	U	372	ug/kg	74.4	372	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	372	ug/kg	74.4	372	
118-74-1	Hexachlorobenzene	U	372	ug/kg	74.4	372	
85-01-8	Phenanthrene	J	21.4	ug/kg	11.2	37.2	
120-12-7	Anthracene	U	37.2	ug/kg	7.44	37.2	
84-74-2	Di-n-butylphthalate	U	372	ug/kg	74.4	372	
206-44-0	Fluoranthene		43.2	ug/kg	11.2	37.2	
85-68-7	Butylbenzylphthalate	U	372	ug/kg	74.4	372	
56-55-3	Benzo(a)anthracene	J	28.5	ug/kg	11.2	37.2	
91-94-1	3,3'-Dichlorobenzidine	U	372	ug/kg	112	372	
218-01-9	Chrysene	J	26.8	ug/kg	11.2	37.2	
117-81-7	bis(2-Ethylhexyl)phthalate	J	105	ug/kg	74.4	372	
117-84-0	Di-n-octylphthalate	U	372	ug/kg	74.4	372	
205-99-2	Benzo(b)fluoranthene	J	34.6	ug/kg	11.2	37.2	
207-08-9	Benzo(k)fluoranthene	U	37.2	ug/kg	11.2	37.2	
50-32-8	Benzo(a)pyrene	J	17.4	ug/kg	11.2	37.2	
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.2	ug/kg	11.2	37.2	
53-70-3	Dibenzo(a,h)anthracene	U	37.2	ug/kg	11.2	37.2	
191-24-2	Benzo(ghi)perylene	J	11.6	ug/kg	11.2	37.2	
120-82-1	1,2,4-Trichlorobenzene	U	372	ug/kg	74.4	372	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	243	ug/kg		JA
	Unknown	8.48	174	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335006	**Date Received:**	03/13/2010 09:30	**%Moisture:**	10.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12968	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 20:14	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s1c3027.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-95-8	Eicosane	8.89	223	ug/kg	97	NJ
559-74-0	Friedelan-3-one	12.79	549	ug/kg	95	NJ

MLI

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335007	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12969	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	2
Run Date:	03/30/2010 20:38	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s1c3028.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	759	ug/kg	152	759	
108-95-2	Phenol	U	759	ug/kg	152	759	
95-57-8	2-Chlorophenol	U	759	ug/kg	152	759	
106-46-7	1,4-Dichlorobenzene	U	759	ug/kg	152	759	
621-64-7	N-Nitrosodipropylamine	U	759	ug/kg	152	759	
59-50-7	4-Chloro-3-methylphenol	U	759	ug/kg	152	759	
83-32-9	Acenaphthene	U	75.9	ug/kg	25.0	75.9	
121-14-2	2,4-Dinitrotoluene	U	759	ug/kg	75.9	759	
100-02-7	4-Nitrophenol	U	759	ug/kg	250	759	
87-86-5	Pentachlorophenol	U	759	ug/kg	190	759	
129-00-0	Pyrene	J	56.0	ug/kg	22.8	75.9	
110-86-1	Pyridine	U	759	ug/kg	152	759	UJ,SV7c
62-53-3	Aniline	U	759	ug/kg	228	759	
111-44-4	bis(2-Chloroethyl) ether	U	759	ug/kg	152	759	
541-73-1	1,3-Dichlorobenzene	U	759	ug/kg	152	759	
100-51-6	Benzyl alcohol	U	759	ug/kg	228	759	
95-50-1	1,2-Dichlorobenzene	U	759	ug/kg	152	759	
108-60-1	bis(2-Chloroisopropyl)ether	U	759	ug/kg	152	759	
95-48-7	o-Cresol	U	759	ug/kg	152	759	
65794-96-9	m,p-Cresols	U	759	ug/kg	228	759	
67-72-1	Hexachloroethane	U	759	ug/kg	152	759	
98-95-3	Nitrobenzene	U	759	ug/kg	152	759	
78-59-1	Isophorone	U	759	ug/kg	152	759	
88-75-5	2-Nitrophenol	U	759	ug/kg	152	759	
105-67-9	2,4-Dimethylphenol	U	759	ug/kg	266	759	
111-91-1	bis(2-Chloroethoxy)methane	U	759	ug/kg	152	759	
120-83-2	2,4-Dichlorophenol	U	759	ug/kg	152	759	
65-85-0	Benzoic acid	U	1520	ug/kg	379	1520	UJ,SV7c
91-20-3	Naphthalene	U	75.9	ug/kg	22.8	75.9	
106-47-8	4-Chloroaniline	U	759	ug/kg	152	759	
87-68-3	Hexachlorobutadiene	U	759	ug/kg	152	759	
91-57-6	2-Methylnaphthalene	U	75.9	ug/kg	15.2	75.9	
77-47-4	Hexachlorocyclopentadiene	U	759	ug/kg	152	759	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	759	ug/kg	152	759	
95-95-4	2,4,5-Trichlorophenol	U	759	ug/kg	152	759	
91-58-7	2-Chloronaphthalene	U	75.9	ug/kg	25.0	75.9	
88-74-4	2-Nitroaniline	U	759	ug/kg	152	759	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	759	ug/kg	152	759	

MLI

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	Date Collected:	03/11/2010 12:00	Matrix:	S
Lab Sample ID:	249335007	Date Received:	03/13/2010 09:30	%Moisture:	12.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-12969	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966766	Inst:	MSD1.I	Dilution:	2
Run Date:	03/30/2010 20:38	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	03/19/2010 11:31	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s1c3028.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	759	ug/kg	152	759	
606-20-2	2,6-Dinitrotoluene	U	759	ug/kg	75.9	759	
208-96-8	Acenaphthylene	U	75.9	ug/kg	22.8	75.9	
51-28-5	2,4-Dinitrophenol	U	1520	ug/kg	288	1520	
132-64-9	Dibenzofuran	U	759	ug/kg	152	759	
84-66-2	Diethylphthalate	U	759	ug/kg	152	759	
86-73-7	Fluorene	U	75.9	ug/kg	22.8	75.9	
7005-72-3	4-Chlorophenylphenylether	U	759	ug/kg	152	759	
534-52-1	2-Methyl-4,6-dinitrophenol	U	759	ug/kg	152	759	UJ,SV7c
100-01-6	4-Nitroaniline	U	759	ug/kg	228	759	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	759	ug/kg	152	759	
122-66-7	Azobenzene	U	759	ug/kg	152	759	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	759	ug/kg	152	759	
118-74-1	Hexachlorobenzene	U	759	ug/kg	152	759	
85-01-8	Phenanthrene	J	38.3	ug/kg	22.8	75.9	
120-12-7	Anthracene	U	75.9	ug/kg	15.2	75.9	
84-74-2	Di-n-butylphthalate	U	759	ug/kg	152	759	
206-44-0	Fluoranthene	J	59.7	ug/kg	22.8	75.9	
85-68-7	Butylbenzylphthalate	U	759	ug/kg	152	759	
56-55-3	Benzo(a)anthracene	J	38.7	ug/kg	22.8	75.9	
91-94-1	3,3'-Dichlorobenzidine	U	759	ug/kg	228	759	
218-01-9	Chrysene	J	34.2	ug/kg	22.8	75.9	
117-81-7	bis(2-Ethylhexyl)phthalate	U	759	ug/kg	152	759	
117-84-0	Di-n-octylphthalate	U	759	ug/kg	152	759	
205-99-2	Benzo(b)fluoranthene	J	50.2	ug/kg	22.8	75.9	
207-08-9	Benzo(k)fluoranthene	U	75.9	ug/kg	22.8	75.9	
50-32-8	Benzo(a)pyrene	J	27.1	ug/kg	22.8	75.9	
193-39-5	Indeno(1,2,3-cd)pyrene	U	75.9	ug/kg	22.8	75.9	
53-70-3	Dibenzo(a,h)anthracene	U	75.9	ug/kg	22.8	75.9	
191-24-2	Benzo(ghi)perylene	J	25.4	ug/kg	22.8	75.9	
120-82-1	1,2,4-Trichlorobenzene	U	759	ug/kg	152	759	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
300574-36-1	5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	12.8	857	ug/kg	90	NJ

ML

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	Date Collected:	03/11/2010 12:00	Matrix:	S
Lab Sample ID:	249335008	Date Received:	03/13/2010 09:30	%Moisture:	15.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-12970	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966766	Inst:	MSD1.I	Dilution:	2
Run Date:	03/30/2010 21:01	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	03/19/2010 11:31	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s1c3029.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	785	ug/kg	157	785	
108-95-2	Phenol	U	785	ug/kg	157	785	
95-57-8	2-Chlorophenol	U	785	ug/kg	157	785	
106-46-7	1,4-Dichlorobenzene	U	785	ug/kg	157	785	
621-64-7	N-Nitrosodipropylamine	U	785	ug/kg	157	785	
59-50-7	4-Chloro-3-methylphenol	U	785	ug/kg	157	785	
83-32-9	Acenaphthene	U	78.5	ug/kg	25.9	78.5	
121-14-2	2,4-Dinitrotoluene	U	785	ug/kg	78.5	785	
100-02-7	4-Nitrophenol	U	785	ug/kg	259	785	
87-86-5	Pentachlorophenol	U	785	ug/kg	196	785	
129-00-0	Pyrene	J	53.7	ug/kg	23.6	78.5	
110-86-1	Pyridine	U	785	ug/kg	157	785	UJ,SV7c
62-53-3	Aniline	U	785	ug/kg	236	785	
111-44-4	bis(2-Chloroethyl) ether	U	785	ug/kg	157	785	
541-73-1	1,3-Dichlorobenzene	U	785	ug/kg	157	785	
100-51-6	Benzyl alcohol	U	785	ug/kg	236	785	
95-50-1	1,2-Dichlorobenzene	U	785	ug/kg	157	785	
108-60-1	bis(2-Chloroisopropyl)ether	U	785	ug/kg	157	785	
95-48-7	o-Cresol	U	785	ug/kg	157	785	
65794-96-9	m,p-Cresols	U	785	ug/kg	236	785	
67-72-1	Hexachloroethane	U	785	ug/kg	157	785	
98-95-3	Nitrobenzene	U	785	ug/kg	157	785	
78-59-1	Isophorone	U	785	ug/kg	157	785	
88-75-5	2-Nitrophenol	U	785	ug/kg	157	785	
105-67-9	2,4-Dimethylphenol	U	785	ug/kg	275	785	
111-91-1	bis(2-Chloroethoxy)methane	U	785	ug/kg	157	785	
120-83-2	2,4-Dichlorophenol	U	785	ug/kg	157	785	
65-85-0	Benzoic acid	U	1570	ug/kg	393	1570	UJ,SV7c
91-20-3	Naphthalene	U	78.5	ug/kg	23.6	78.5	
106-47-8	4-Chloroaniline	U	785	ug/kg	157	785	
87-68-3	Hexachlorobutadiene	U	785	ug/kg	157	785	
91-57-6	2-Methylnaphthalene	U	78.5	ug/kg	15.7	78.5	
77-47-4	Hexachlorocyclopentadiene	U	785	ug/kg	157	785	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	785	ug/kg	157	785	
95-95-4	2,4,5-Trichlorophenol	U	785	ug/kg	157	785	
91-58-7	2-Chloronaphthalene	U	78.5	ug/kg	25.9	78.5	
88-74-4	2-Nitroaniline	U	785	ug/kg	157	785	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	785	ug/kg	157	785	

MLI
04/20

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335008	**Date Received:**	03/13/2010 09:30	**%Moisture:**	15.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12970	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	2
Run Date:	03/30/2010 21:01	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s1c3029.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	785	ug/kg	157	785	
606-20-2	2,6-Dinitrotoluene	U	785	ug/kg	78.5	785	
208-96-8	Acenaphthylene	U	78.5	ug/kg	23.6	78.5	
51-28-5	2,4-Dinitrophenol	U	1570	ug/kg	298	1570	
132-64-9	Dibenzofuran	U	785	ug/kg	157	785	
84-66-2	Diethylphthalate	U	785	ug/kg	157	785	
86-73-7	Fluorene	U	78.5	ug/kg	23.6	78.5	
7005-72-3	4-Chlorophenylphenylether	U	785	ug/kg	157	785	
534-52-1	2-Methyl-4,6-dinitrophenol	U	785	ug/kg	157	785	UJ,SV7c
100-01-6	4-Nitroaniline	U	785	ug/kg	236	785	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	785	ug/kg	157	785	
122-66-7	Azobenzene	U	785	ug/kg	157	785	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	785	ug/kg	157	785	
118-74-1	Hexachlorobenzene	U	785	ug/kg	157	785	
85-01-8	Phenanthrene	J	31.3	ug/kg	23.6	78.5	
120-12-7	Anthracene	U	78.5	ug/kg	15.7	78.5	
84-74-2	Di-n-butylphthalate	U	785	ug/kg	157	785	
206-44-0	Fluoranthene	J	44.8	ug/kg	23.6	78.5	
85-68-7	Butylbenzylphthalate	U	785	ug/kg	157	785	
56-55-3	Benzo(a)anthracene	J	37.8	ug/kg	23.6	78.5	
91-94-1	3,3'-Dichlorobenzidine	U	785	ug/kg	236	785	
218-01-9	Chrysene	J	25.4	ug/kg	23.6	78.5	
117-81-7	bis(2-Ethylhexyl)phthalate	U	785	ug/kg	157	785	
117-84-0	Di-n-octylphthalate	U	785	ug/kg	157	785	
205-99-2	Benzo(b)fluoranthene	J	42.4	ug/kg	23.6	78.5	
207-08-9	Benzo(k)fluoranthene	U	78.5	ug/kg	23.6	78.5	
50-32-8	Benzo(a)pyrene	U	78.5	ug/kg	23.6	78.5	
193-39-5	Indeno(1,2,3-cd)pyrene	U	78.5	ug/kg	23.6	78.5	
53-70-3	Dibenzo(a,h)anthracene	U	78.5	ug/kg	23.6	78.5	
191-24-2	Benzo(ghi)perylene	U	78.5	ug/kg	23.6	78.5	
120-82-1	1,2,4-Trichlorobenzene	U	785	ug/kg	157	785	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	415	ug/kg		JA
	Unknown	12.8	396	ug/kg		J

ML

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335005	**Date Received:**	03/13/2010 09:30	**%Moisture:**	21.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12971	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 19:50	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s1c3026.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	426	ug/kg	85.2	426	
108-95-2	Phenol	U	426	ug/kg	85.2	426	
95-57-8	2-Chlorophenol	U	426	ug/kg	85.2	426	
106-46-7	1,4-Dichlorobenzene	U	426	ug/kg	85.2	426	
621-64-7	N-Nitrosodipropylamine	U	426	ug/kg	85.2	426	
59-50-7	4-Chloro-3-methylphenol	U	426	ug/kg	85.2	426	
83-32-9	Acenaphthene	U	42.6	ug/kg	14.1	42.6	
121-14-2	2,4-Dinitrotoluene	U	426	ug/kg	42.6	426	
100-02-7	4-Nitrophenol	U	426	ug/kg	141	426	
87-86-5	Pentachlorophenol	U	426	ug/kg	106	426	
129-00-0	Pyrene		58.7	ug/kg	12.8	42.6	
110-86-1	Pyridine	U	426	ug/kg	85.2	426	UJ,SV7c
62-53-3	Aniline	U	426	ug/kg	128	426	
111-44-4	bis(2-Chloroethyl) ether	U	426	ug/kg	85.2	426	
541-73-1	1,3-Dichlorobenzene	U	426	ug/kg	85.2	426	
100-51-6	Benzyl alcohol	U	426	ug/kg	128	426	
95-50-1	1,2-Dichlorobenzene	U	426	ug/kg	85.2	426	
108-60-1	bis(2-Chloroisopropyl)ether	U	426	ug/kg	85.2	426	
95-48-7	o-Cresol	U	426	ug/kg	85.2	426	
65794-96-9	m,p-Cresols	U	426	ug/kg	128	426	
67-72-1	Hexachloroethane	U	426	ug/kg	85.2	426	
98-95-3	Nitrobenzene	U	426	ug/kg	85.2	426	
78-59-1	Isophorone	U	426	ug/kg	85.2	426	
88-75-5	2-Nitrophenol	U	426	ug/kg	85.2	426	
105-67-9	2,4-Dimethylphenol	U	426	ug/kg	149	426	
111-91-1	bis(2-Chloroethoxy)methane	U	426	ug/kg	85.2	426	
120-83-2	2,4-Dichlorophenol	U	426	ug/kg	85.2	426	
65-85-0	Benzoic acid	U	852	ug/kg	213	852	UJ,SV7c
91-20-3	Naphthalene	U	42.6	ug/kg	12.8	42.6	
106-47-8	4-Chloroaniline	U	426	ug/kg	85.2	426	
87-68-3	Hexachlorobutadiene	U	426	ug/kg	85.2	426	
91-57-6	2-Methylnaphthalene	U	42.6	ug/kg	8.52	42.6	
77-47-4	Hexachlorocyclopentadiene	U	426	ug/kg	85.2	426	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	426	ug/kg	85.2	426	
95-95-4	2,4,5-Trichlorophenol	U	426	ug/kg	85.2	426	
91-58-7	2-Chloronaphthalene	U	42.6	ug/kg	14.1	42.6	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	426	ug/kg	85.2	426	
99-09-2	3-Nitroaniline	U	426	ug/kg	85.2	426	

ML

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335005	**Date Received:**	03/13/2010 09:30	**%Moisture:**	21.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12971	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 19:50	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s1c3026.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	426	ug/kg	85.2	426	
606-20-2	2,6-Dinitrotoluene	U	426	ug/kg	42.6	426	
208-96-8	Acenaphthylene	U	42.6	ug/kg	12.8	42.6	
51-28-5	2,4-Dinitrophenol	U	852	ug/kg	162	852	
132-64-9	Dibenzofuran	U	426	ug/kg	85.2	426	
84-66-2	Diethylphthalate	U	426	ug/kg	85.2	426	
86-73-7	Fluorene	U	42.6	ug/kg	12.8	42.6	
7005-72-3	4-Chlorophenylphenylether	U	426	ug/kg	85.2	426	
534-52-1	2-Methyl-4,6-dinitrophenol	U	426	ug/kg	85.2	426	UJ,SV7c
100-01-6	4-Nitroaniline	U	426	ug/kg	128	426	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	426	ug/kg	85.2	426	
122-66-7	Azobenzene	U	426	ug/kg	85.2	426	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	426	ug/kg	85.2	426	
118-74-1	Hexachlorobenzene	U	426	ug/kg	85.2	426	
85-01-8	Phenanthrene	J	30.2	ug/kg	12.8	42.6	
120-12-7	Anthracene	U	42.6	ug/kg	8.52	42.6	
84-74-2	Di-n-butylphthalate	U	426	ug/kg	85.2	426	
206-44-0	Fluoranthene		55.4	ug/kg	12.8	42.6	
85-68-7	Butylbenzylphthalate	U	426	ug/kg	85.2	426	
56-55-3	Benzo(a)anthracene	U	42.6	ug/kg	12.8	42.6	
91-94-1	3,3'-Dichlorobenzidine	U	426	ug/kg	128	426	
218-01-9	Chrysene	J	33.7	ug/kg	12.8	42.6	
117-81-7	bis(2-Ethylhexyl)phthalate	U	426	ug/kg	85.2	426	
117-84-0	Di-n-octylphthalate	U	426	ug/kg	85.2	426	
205-99-2	Benzo(b)fluoranthene		55.4	ug/kg	12.8	42.6	
207-08-9	Benzo(k)fluoranthene	U	42.6	ug/kg	12.8	42.6	
50-32-8	Benzo(a)pyrene	J	31.6	ug/kg	12.8	42.6	
193-39-5	Indeno(1,2,3-cd)pyrene	J	15.2	ug/kg	12.8	42.6	
53-70-3	Dibenzo(a,h)anthracene	U	42.6	ug/kg	12.8	42.6	
191-24-2	Benzo(ghi)perylene	J	21.7	ug/kg	12.8	42.6	
120-82-1	1,2,4-Trichlorobenzene	U	426	ug/kg	85.2	426	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	354	ug/kg		JA
112-95-8	Eicosane	8.89	185	ug/kg	95	NJ

ML

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335005	**Date Received:**	03/13/2010 09:30	**%Moisture:**	21.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12971	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 19:50	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s1c3026.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	12.8	386	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335002	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12972	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 17:51	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s1c3021.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	380	ug/kg	75.9	380	
108-95-2	Phenol	U	380	ug/kg	75.9	380	
95-57-8	2-Chlorophenol	U	380	ug/kg	75.9	380	
106-46-7	1,4-Dichlorobenzene	U	380	ug/kg	75.9	380	
621-64-7	N-Nitrosodipropylamine	U	380	ug/kg	75.9	380	
59-50-7	4-Chloro-3-methylphenol	U	380	ug/kg	75.9	380	
83-32-9	Acenaphthene	U	38.0	ug/kg	12.5	38.0	
121-14-2	2,4-Dinitrotoluene	U	380	ug/kg	38.0	380	
100-02-7	4-Nitrophenol	U	380	ug/kg	125	380	
87-86-5	Pentachlorophenol	U	380	ug/kg	94.9	380	
129-00-0	Pyrene	U	38.0	ug/kg	11.4	38.0	
110-86-1	Pyridine	U	380	ug/kg	75.9	380	UJ,SV7c
62-53-3	Aniline	U	380	ug/kg	114	380	
111-44-4	bis(2-Chloroethyl) ether	U	380	ug/kg	75.9	380	
541-73-1	1,3-Dichlorobenzene	U	380	ug/kg	75.9	380	
100-51-6	Benzyl alcohol	U	380	ug/kg	114	380	
95-50-1	1,2-Dichlorobenzene	U	380	ug/kg	75.9	380	
108-60-1	bis(2-Chloroisopropyl)ether	U	380	ug/kg	75.9	380	
95-48-7	o-Cresol	U	380	ug/kg	75.9	380	
65794-96-9	m,p-Cresols	U	380	ug/kg	114	380	
67-72-1	Hexachloroethane	U	380	ug/kg	75.9	380	
98-95-3	Nitrobenzene	U	380	ug/kg	75.9	380	
78-59-1	Isophorone	U	380	ug/kg	75.9	380	
88-75-5	2-Nitrophenol	U	380	ug/kg	75.9	380	
105-67-9	2,4-Dimethylphenol	U	380	ug/kg	133	380	
111-91-1	bis(2-Chloroethoxy)methane	U	380	ug/kg	75.9	380	
120-83-2	2,4-Dichlorophenol	U	380	ug/kg	75.9	380	
65-85-0	Benzoic acid	U	759	ug/kg	190	759	UJ,SV7c
91-20-3	Naphthalene	U	38.0	ug/kg	11.4	38.0	
106-47-8	4-Chloroaniline	U	380	ug/kg	75.9	380	
87-68-3	Hexachlorobutadiene	U	380	ug/kg	75.9	380	
91-57-6	2-Methylnaphthalene	U	38.0	ug/kg	7.59	38.0	
77-47-4	Hexachlorocyclopentadiene	U	380	ug/kg	75.9	380	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	380	ug/kg	75.9	380	
95-95-4	2,4,5-Trichlorophenol	U	380	ug/kg	75.9	380	
91-58-7	2-Chloronaphthalene	U	38.0	ug/kg	12.5	38.0	
88-74-4	2-Nitroaniline	U	380	ug/kg	75.9	380	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	380	ug/kg	75.9	380	

MLI

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335002	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12972	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 17:51	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	s1c3021.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	380	ug/kg	75.9	380	
606-20-2	2,6-Dinitrotoluene	U	380	ug/kg	38.0	380	
208-96-8	Acenaphthylene	U	38.0	ug/kg	11.4	38.0	
51-28-5	2,4-Dinitrophenol	U	759	ug/kg	144	759	
132-64-9	Dibenzofuran	U	380	ug/kg	75.9	380	
84-66-2	Diethylphthalate	U	380	ug/kg	75.9	380	
86-73-7	Fluorene	U	38.0	ug/kg	11.4	38.0	
7005-72-3	4-Chlorophenylphenylether	U	380	ug/kg	75.9	380	
534-52-1	2-Methyl-4,6-dinitrophenol	U	380	ug/kg	75.9	380	UJ,SV7c
100-01-6	4-Nitroaniline	U	380	ug/kg	114	380	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	380	ug/kg	75.9	380	
122-66-7	Azobenzene	U	380	ug/kg	75.9	380	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	380	ug/kg	75.9	380	
118-74-1	Hexachlorobenzene	U	380	ug/kg	75.9	380	
85-01-8	Phenanthrene	U	38.0	ug/kg	11.4	38.0	
120-12-7	Anthracene	U	38.0	ug/kg	7.59	38.0	
84-74-2	Di-n-butylphthalate	U	380	ug/kg	75.9	380	
206-44-0	Fluoranthene	U	38.0	ug/kg	11.4	38.0	
85-68-7	Butylbenzylphthalate	U	380	ug/kg	75.9	380	
56-55-3	Benzo(a)anthracene	U	38.0	ug/kg	11.4	38.0	
91-94-1	3,3'-Dichlorobenzidine	U	380	ug/kg	114	380	
218-01-9	Chrysene	U	38.0	ug/kg	11.4	38.0	
117-81-7	bis(2-Ethylhexyl)phthalate	U	380	ug/kg	75.9	380	
117-84-0	Di-n-octylphthalate	U	380	ug/kg	75.9	380	
205-99-2	Benzo(b)fluoranthene	U	38.0	ug/kg	11.4	38.0	
207-08-9	Benzo(k)fluoranthene	U	38.0	ug/kg	11.4	38.0	
50-32-8	Benzo(a)pyrene	U	38.0	ug/kg	11.4	38.0	
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.0	ug/kg	11.4	38.0	
53-70-3	Dibenzo(a,h)anthracene	U	38.0	ug/kg	11.4	38.0	
191-24-2	Benzo(ghi)perylene	U	38.0	ug/kg	11.4	38.0	
120-82-1	1,2,4-Trichlorobenzene	U	380	ug/kg	75.9	380	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	364	ug/kg		JA
	Unknown	12.79	170	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335003	**Date Received:**	03/13/2010 09:30	**%Moisture:**	11.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13003	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 19:02	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	s1c3024.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	376	ug/kg	75.2	376	
108-95-2	Phenol	U	376	ug/kg	75.2	376	
95-57-8	2-Chlorophenol	U	376	ug/kg	75.2	376	
106-46-7	1,4-Dichlorobenzene	U	376	ug/kg	75.2	376	
621-64-7	N-Nitrosodipropylamine	U	376	ug/kg	75.2	376	
59-50-7	4-Chloro-3-methylphenol	U	376	ug/kg	75.2	376	
83-32-9	Acenaphthene	U	37.6	ug/kg	12.4	37.6	
121-14-2	2,4-Dinitrotoluene	U	376	ug/kg	37.6	376	
100-02-7	4-Nitrophenol	U	376	ug/kg	124	376	
87-86-5	Pentachlorophenol	U	376	ug/kg	94.0	376	
129-00-0	Pyrene	J	12.4	ug/kg	11.3	37.6	
110-86-1	Pyridine	U	376	ug/kg	75.2	376	UJ,SV7c
62-53-3	Aniline	U	376	ug/kg	113	376	
111-44-4	bis(2-Chloroethyl) ether	U	376	ug/kg	75.2	376	
541-73-1	1,3-Dichlorobenzene	U	376	ug/kg	75.2	376	
100-51-6	Benzyl alcohol	U	376	ug/kg	113	376	
95-50-1	1,2-Dichlorobenzene	U	376	ug/kg	75.2	376	
108-60-1	bis(2-Chloroisopropyl)ether	U	376	ug/kg	75.2	376	
95-48-7	o-Cresol	U	376	ug/kg	75.2	376	
65794-96-9	m,p-Cresols	U	376	ug/kg	113	376	
67-72-1	Hexachloroethane	U	376	ug/kg	75.2	376	
98-95-3	Nitrobenzene	U	376	ug/kg	75.2	376	
78-59-1	Isophorone	U	376	ug/kg	75.2	376	
88-75-5	2-Nitrophenol	U	376	ug/kg	75.2	376	
105-67-9	2,4-Dimethylphenol	U	376	ug/kg	132	376	
111-91-1	bis(2-Chloroethoxy)methane	U	376	ug/kg	75.2	376	
120-83-2	2,4-Dichlorophenol	U	376	ug/kg	75.2	376	
65-85-0	Benzoic acid	U	752	ug/kg	188	752	UJ,SV7c
91-20-3	Naphthalene	U	37.6	ug/kg	11.3	37.6	
106-47-8	4-Chloroaniline	U	376	ug/kg	75.2	376	
87-68-3	Hexachlorobutadiene	U	376	ug/kg	75.2	376	
91-57-6	2-Methylnaphthalene	U	37.6	ug/kg	7.52	37.6	
77-47-4	Hexachlorocyclopentadiene	U	376	ug/kg	75.2	376	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	376	ug/kg	75.2	376	
95-95-4	2,4,5-Trichlorophenol	U	376	ug/kg	75.2	376	
91-58-7	2-Chloronaphthalene	U	37.6	ug/kg	12.4	37.6	
88-74-4	2-Nitroaniline	U	376	ug/kg	75.2	376	
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	376	ug/kg	75.2	376	

ML

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335003	**Date Received:**	03/13/2010 09:30	**%Moisture:**	11.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-13003	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 19:02	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	s1c3024.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	376	ug/kg	75.2	376	
606-20-2	2,6-Dinitrotoluene	U	376	ug/kg	37.6	376	
208-96-8	Acenaphthylene	U	37.6	ug/kg	11.3	37.6	
51-28-5	2,4-Dinitrophenol	U	752	ug/kg	143	752	
132-64-9	Dibenzofuran	U	376	ug/kg	75.2	376	
84-66-2	Diethylphthalate	U	376	ug/kg	75.2	376	
86-73-7	Fluorene	U	37.6	ug/kg	11.3	37.6	
7005-72-3	4-Chlorophenylphenylether	U	376	ug/kg	75.2	376	
534-52-1	2-Methyl-4,6-dinitrophenol	U	376	ug/kg	75.2	376	UJ,SV7c
100-01-6	4-Nitroaniline	U	376	ug/kg	113	376	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	376	ug/kg	75.2	376	
122-66-7	Azobenzene	U	376	ug/kg	75.2	376	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	376	ug/kg	75.2	376	
118-74-1	Hexachlorobenzene	U	376	ug/kg	75.2	376	
85-01-8	Phenanthrene	U	37.6	ug/kg	11.3	37.6	
120-12-7	Anthracene	U	37.6	ug/kg	7.52	37.6	
84-74-2	Di-n-butylphthalate	U	376	ug/kg	75.2	376	
206-44-0	Fluoranthene	J	14.8	ug/kg	11.3	37.6	
85-68-7	Butylbenzylphthalate	U	376	ug/kg	75.2	376	
56-55-3	Benzo(a)anthracene	U	37.6	ug/kg	11.3	37.6	
91-94-1	3,3'-Dichlorobenzidine	U	376	ug/kg	113	376	
218-01-9	Chrysene	U	37.6	ug/kg	11.3	37.6	
117-81-7	bis(2-Ethylhexyl)phthalate	U	376	ug/kg	75.2	376	
117-84-0	Di-n-octylphthalate	U	376	ug/kg	75.2	376	
205-99-2	Benzo(b)fluoranthene	U	37.6	ug/kg	11.3	37.6	
207-08-9	Benzo(k)fluoranthene	U	37.6	ug/kg	11.3	37.6	
50-32-8	Benzo(a)pyrene	U	37.6	ug/kg	11.3	37.6	
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.6	ug/kg	11.3	37.6	
53-70-3	Dibenzo(a,h)anthracene	U	37.6	ug/kg	11.3	37.6	
191-24-2	Benzo(ghi)perylene	U	37.6	ug/kg	11.3	37.6	
120-82-1	1,2,4-Trichlorobenzene	U	376	ug/kg	75.2	376	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	342	ug/kg		JA

MLI

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2436 VALIDATION DATE: 04/26/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Monica Dymerski ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Organochlorine Pesticides

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The CCV %Ds were >15% on one column only for 4,4'-DDT; methoxychlor; endrin ketone; endrin aldehyde; and alpha-chlordane. All associated sample results were NDs and, thus, were not qualified.
2. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN, and the parent sample raw data were not included in the data package. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 4/26/10

VALIDATOR'S SIGNATURE: Monica L Dymerski DATE: 04/26/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335004	**Date Received:**	03/13/2010 09:30	**%Moisture:**	20.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–12967	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	968594	**Inst:**	ECD3A.I	**Dilution:**	10
Run Date:	03/25/2010 08:51	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/24/2010 10:01	**Aliquot:**	30.01 g	**Final Volume:**	5 mL
Data File:	059f5901.d	**Column:**	1 CLP–1	**Level:**	LOW
	059b5901.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	8.41	ug/kg	2.10	8.41	1
58–89–9	gamma–BHC (Lindane)	U	8.41	ug/kg	2.10	8.41	1
319–85–7	beta–BHC	U	8.41	ug/kg	2.10	8.41	1
319–86–8	delta–BHC	U	8.41	ug/kg	2.10	8.41	1
76–44–8	Heptachlor	U	8.41	ug/kg	2.10	8.41	1
309–00–2	Aldrin	U	8.41	ug/kg	2.10	8.41	1
1024–57–3	Heptachlor epoxide	U	8.41	ug/kg	2.63	8.41	1
5103–74–2	gamma–Chlordane	U	8.41	ug/kg	2.10	8.41	1
5103–71–9	alpha–Chlordane	U	8.41	ug/kg	2.10	8.41	1
959–98–8	Endosulfan I	U	8.41	ug/kg	2.10	8.41	1
72–55–9	4,4'–DDE	U	16.8	ug/kg	4.20	16.8	1
60–57–1	Dieldrin	U	16.8	ug/kg	4.20	16.8	1
72–20–8	Endrin	U	16.8	ug/kg	4.20	16.8	1
72–54–8	4,4'–DDD	U	16.8	ug/kg	4.20	16.8	1
33213–65–9	Endosulfan II	U	16.8	ug/kg	4.20	16.8	1
7421–93–4	Endrin aldehyde	U	16.8	ug/kg	4.20	16.8	1
50–29–3	4,4'–DDT	U	16.8	ug/kg	4.20	16.8	1
1031–07–8	Endosulfan sulfate	U	16.8	ug/kg	4.20	16.8	1
72–43–5	Methoxychlor	U	84.1	ug/kg	21.0	84.1	1
53494–70–5	Endrin ketone	U	16.8	ug/kg	4.20	16.8	1
8001–35–2	Toxaphene	U	210	ug/kg	70.0	210	1

ML

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335006	**Date Received:**	03/13/2010 09:30	**%Moisture:**	10.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–12968	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	968594	**Inst:**	ECD3A.I	**Dilution:**	10
Run Date:	03/25/2010 09:19	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/24/2010 10:01	**Aliquot:**	30 g	**Final Volume:**	5 mL
Data File:	061f6101.d	**Column:**	1 CLP–1	**Level:**	LOW
	061b6101.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.44	ug/kg	1.86	7.44	1
58–89–9	gamma–BHC (Lindane)	U	7.44	ug/kg	1.86	7.44	1
319–85–7	beta–BHC	U	7.44	ug/kg	1.86	7.44	1
319–86–8	delta–BHC	U	7.44	ug/kg	1.86	7.44	1
76–44–8	Heptachlor	U	7.44	ug/kg	1.86	7.44	1
309–00–2	Aldrin	U	7.44	ug/kg	1.86	7.44	1
1024–57–3	Heptachlor epoxide	U	7.44	ug/kg	2.33	7.44	1
5103–74–2	gamma–Chlordane	U	7.44	ug/kg	1.86	7.44	1
5103–71–9	alpha–Chlordane	U	7.44	ug/kg	1.86	7.44	1
959–98–8	Endosulfan I	U	7.44	ug/kg	1.86	7.44	1
72–55–9	4,4'–DDE	U	14.9	ug/kg	3.72	14.9	1
60–57–1	Dieldrin	U	14.9	ug/kg	3.72	14.9	1
72–20–8	Endrin	U	14.9	ug/kg	3.72	14.9	1
72–54–8	4,4'–DDD	U	14.9	ug/kg	3.72	14.9	1
33213–65–9	Endosulfan II	U	14.9	ug/kg	3.72	14.9	1
7421–93–4	Endrin aldehyde	U	14.9	ug/kg	3.72	14.9	1
50–29–3	4,4'–DDT	U	14.9	ug/kg	3.72	14.9	1
1031–07–8	Endosulfan sulfate	U	14.9	ug/kg	3.72	14.9	1
72–43–5	Methoxychlor	U	74.4	ug/kg	18.6	74.4	1
53494–70–5	Endrin ketone	U	14.9	ug/kg	3.72	14.9	1
8001–35–2	Toxaphene	U	186	ug/kg	62.0	186	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335007	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12969	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	968594	**Inst:**	ECD3A.I	**Dilution:**	10
Run Date:	03/25/2010 09:32	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/24/2010 10:01	**Aliquot:**	30.03 g	**Final Volume:**	5 mL
Data File:	062f6201.d	**Column:**	1 CLP-1	**Level:**	LOW
	062b6201.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.60	ug/kg	1.90	7.60	1
58-89-9	gamma-BHC (Lindane)	U	7.60	ug/kg	1.90	7.60	1
319-85-7	beta-BHC	U	7.60	ug/kg	1.90	7.60	1
319-86-8	delta-BHC	U	7.60	ug/kg	1.90	7.60	1
76-44-8	Heptachlor	U	7.60	ug/kg	1.90	7.60	1
309-00-2	Aldrin	U	7.60	ug/kg	1.90	7.60	1
1024-57-3	Heptachlor epoxide	U	7.60	ug/kg	2.38	7.60	1
5103-74-2	gamma-Chlordane	U	7.60	ug/kg	1.90	7.60	1
5103-71-9	alpha-Chlordane	U	7.60	ug/kg	1.90	7.60	1
959-98-8	Endosulfan I	U	7.60	ug/kg	1.90	7.60	1
72-55-9	4,4'-DDE	U	15.2	ug/kg	3.80	15.2	1
60-57-1	Dieldrin	U	15.2	ug/kg	3.80	15.2	1
72-20-8	Endrin	U	15.2	ug/kg	3.80	15.2	1
72-54-8	4,4'-DDD	U	15.2	ug/kg	3.80	15.2	1
33213-65-9	Endosulfan II	U	15.2	ug/kg	3.80	15.2	1
7421-93-4	Endrin aldehyde	U	15.2	ug/kg	3.80	15.2	1
50-29-3	4,4'-DDT	U	15.2	ug/kg	3.80	15.2	1
1031-07-8	Endosulfan sulfate	U	15.2	ug/kg	3.80	15.2	1
72-43-5	Methoxychlor	U	76.0	ug/kg	19.0	76.0	1
53494-70-5	Endrin ketone	U	15.2	ug/kg	3.80	15.2	1
8001-35-2	Toxaphene	U	190	ug/kg	63.3	190	1

ML

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335008**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12970**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**968594**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 09:46**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 10:01**	**Aliquot:**	**30.01 g**	**Final Volume:**	**5 mL**
Data File:	**063f6301.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	063b6301.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.87	ug/kg	1.97	7.87	1
58–89–9	gamma–BHC (Lindane)	U	7.87	ug/kg	1.97	7.87	1
319–85–7	beta–BHC	U	7.87	ug/kg	1.97	7.87	1
319–86–8	delta–BHC	U	7.87	ug/kg	1.97	7.87	1
76–44–8	Heptachlor	U	7.87	ug/kg	1.97	7.87	1
309–00–2	Aldrin	U	7.87	ug/kg	1.97	7.87	1
1024–57–3	Heptachlor epoxide	U	7.87	ug/kg	2.46	7.87	1
5103–74–2	gamma–Chlordane	U	7.87	ug/kg	1.97	7.87	1
5103–71–9	alpha–Chlordane	U	7.87	ug/kg	1.97	7.87	1
959–98–8	Endosulfan I	U	7.87	ug/kg	1.97	7.87	1
72–55–9	4,4'–DDE	U	15.7	ug/kg	3.94	15.7	1
60–57–1	Dieldrin	U	15.7	ug/kg	3.94	15.7	1
72–20–8	Endrin	U	15.7	ug/kg	3.94	15.7	1
72–54–8	4,4'–DDD	U	15.7	ug/kg	3.94	15.7	1
33213–65–9	Endosulfan II	U	15.7	ug/kg	3.94	15.7	1
7421–93–4	Endrin aldehyde	U	15.7	ug/kg	3.94	15.7	1
50–29–3	4,4'–DDT	U	15.7	ug/kg	3.94	15.7	1
1031–07–8	Endosulfan sulfate	U	15.7	ug/kg	3.94	15.7	1
72–43–5	Methoxychlor	U	78.7	ug/kg	19.7	78.7	1
53494–70–5	Endrin ketone	U	15.7	ug/kg	3.94	15.7	1
8001–35–2	Toxaphene	U	197	ug/kg	65.6	197	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**21.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12971**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**968594**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 09:05**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 10:01**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**060f6001.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	060b6001.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	8.52	ug/kg	2.13	8.52	1
58–89–9	gamma–BHC (Lindane)	U	8.52	ug/kg	2.13	8.52	1
319–85–7	beta–BHC	U	8.52	ug/kg	2.13	8.52	1
319–86–8	delta–BHC	U	8.52	ug/kg	2.13	8.52	1
76–44–8	Heptachlor	U	8.52	ug/kg	2.13	8.52	1
309–00–2	Aldrin	U	8.52	ug/kg	2.13	8.52	1
1024–57–3	Heptachlor epoxide	U	8.52	ug/kg	2.66	8.52	1
5103–74–2	gamma–Chlordane	U	8.52	ug/kg	2.13	8.52	1
5103–71–9	alpha–Chlordane	U	8.52	ug/kg	2.13	8.52	1
959–98–8	Endosulfan I	U	8.52	ug/kg	2.13	8.52	1
72–55–9	4,4'–DDE	U	17.0	ug/kg	4.26	17.0	1
60–57–1	Dieldrin	U	17.0	ug/kg	4.26	17.0	1
72–20–8	Endrin	U	17.0	ug/kg	4.26	17.0	1
72–54–8	4,4'–DDD	U	17.0	ug/kg	4.26	17.0	1
33213–65–9	Endosulfan II	U	17.0	ug/kg	4.26	17.0	1
7421–93–4	Endrin aldehyde	U	17.0	ug/kg	4.26	17.0	1
50–29–3	4,4'–DDT	U	17.0	ug/kg	4.26	17.0	1
1031–07–8	Endosulfan sulfate	U	17.0	ug/kg	4.26	17.0	1
72–43–5	Methoxychlor	U	85.2	ug/kg	21.3	85.2	1
53494–70–5	Endrin ketone	U	17.0	ug/kg	4.26	17.0	1
8001–35–2	Toxaphene	U	213	ug/kg	71.0	213	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335002	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–12972	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	968594	**Inst:**	ECD3A.I	**Dilution:**	10
Run Date:	03/25/2010 08:24	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/24/2010 10:01	**Aliquot:**	30.02 g	**Final Volume:**	5 mL
Data File:	057f5701.d	**Column:**	1 CLP–1	**Level:**	LOW
	057b5701.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.59	ug/kg	1.90	7.59	1
58–89–9	gamma–BHC (Lindane)	U	7.59	ug/kg	1.90	7.59	1
319–85–7	beta–BHC	U	7.59	ug/kg	1.90	7.59	1
319–86–8	delta–BHC	U	7.59	ug/kg	1.90	7.59	1
76–44–8	Heptachlor	U	7.59	ug/kg	1.90	7.59	1
309–00–2	Aldrin	U	7.59	ug/kg	1.90	7.59	1
1024–57–3	Heptachlor epoxide	U	7.59	ug/kg	2.37	7.59	1
5103–74–2	gamma–Chlordane	U	7.59	ug/kg	1.90	7.59	1
5103–71–9	alpha–Chlordane	U	7.59	ug/kg	1.90	7.59	1
959–98–8	Endosulfan I	U	7.59	ug/kg	1.90	7.59	1
72–55–9	4,4'–DDE	U	15.2	ug/kg	3.80	15.2	1
60–57–1	Dieldrin	U	15.2	ug/kg	3.80	15.2	1
72–20–8	Endrin	U	15.2	ug/kg	3.80	15.2	1
72–54–8	4,4'–DDD	U	15.2	ug/kg	3.80	15.2	1
33213–65–9	Endosulfan II	U	15.2	ug/kg	3.80	15.2	1
7421–93–4	Endrin aldehyde	U	15.2	ug/kg	3.80	15.2	1
50–29–3	4,4'–DDT	U	15.2	ug/kg	3.80	15.2	1
1031–07–8	Endosulfan sulfate	U	15.2	ug/kg	3.80	15.2	1
72–43–5	Methoxychlor	U	75.9	ug/kg	19.0	75.9	1
53494–70–5	Endrin ketone	U	15.2	ug/kg	3.80	15.2	1
8001–35–2	Toxaphene	U	190	ug/kg	63.2	190	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13003**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**968594**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 08:38**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 10:01**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**058f5801.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	058b5801.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.53	ug/kg	1.88	7.53	1
58–89–9	gamma–BHC (Lindane)	U	7.53	ug/kg	1.88	7.53	1
319–85–7	beta–BHC	U	7.53	ug/kg	1.88	7.53	1
319–86–8	delta–BHC	U	7.53	ug/kg	1.88	7.53	1
76–44–8	Heptachlor	U	7.53	ug/kg	1.88	7.53	1
309–00–2	Aldrin	U	7.53	ug/kg	1.88	7.53	1
1024–57–3	Heptachlor epoxide	U	7.53	ug/kg	2.35	7.53	1
5103–74–2	gamma–Chlordane	U	7.53	ug/kg	1.88	7.53	1
5103–71–9	alpha–Chlordane	U	7.53	ug/kg	1.88	7.53	1
959–98–8	Endosulfan I	U	7.53	ug/kg	1.88	7.53	1
72–55–9	4,4'–DDE	U	15.1	ug/kg	3.77	15.1	1
60–57–1	Dieldrin	U	15.1	ug/kg	3.77	15.1	1
72–20–8	Endrin	U	15.1	ug/kg	3.77	15.1	1
72–54–8	4,4'–DDD	U	15.1	ug/kg	3.77	15.1	1
33213–65–9	Endosulfan II	U	15.1	ug/kg	3.77	15.1	1
7421–93–4	Endrin aldehyde	U	15.1	ug/kg	3.77	15.1	1
50–29–3	4,4'–DDT	U	15.1	ug/kg	3.77	15.1	1
1031–07–8	Endosulfan sulfate	U	15.1	ug/kg	3.77	15.1	1
72–43–5	Methoxychlor	U	75.3	ug/kg	18.8	75.3	1
53494–70–5	Endrin ketone	U	15.1	ug/kg	3.77	15.1	1
8001–35–2	Toxaphene	U	188	ug/kg	62.7	188	1

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2436 VALIDATION DATE: 04/26/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Monica Dymerski ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The CCV %D was >15% on one column only for Aroclor 1260. The Aroclor 1260 results for samples RE46-10-12967, -12968, and -12971 were detects reported from the outlying column and, thus, were qualified J,P7c. The remaining associated sample results were either NDs or were detects reported from the passing column and, thus, were not qualified.

Reviewed by: ETM Level: 1 Date: 4/26/10

VALIDATOR'S SIGNATURE: Monica Dymerski DATE: 04/26/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12967**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 16:17**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**039f3901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	039b3901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
12674–11–2	Aroclor–1016	U	21.0	ug/kg	6.99	21.0		1
11104–28–2	Aroclor–1221	U	21.0	ug/kg	6.99	21.0		1
11141–16–5	Aroclor–1232	U	21.0	ug/kg	6.99	21.0		1
53469–21–9	Aroclor–1242	U	21.0	ug/kg	6.99	21.0		1
12672–29–6	Aroclor–1248	U	21.0	ug/kg	6.99	21.0		1
11097–69–1	Aroclor–1254		51.0	ug/kg	6.99	21.0		2
11096–82–5	Aroclor–1260		23.5	ug/kg	6.99	21.0	J,P7c	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12968**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 16:42**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**041f4101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	041b4101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
12674-11-2	Aroclor-1016	U	18.5	ug/kg	6.17	18.5		1
11104-28-2	Aroclor-1221	U	18.5	ug/kg	6.17	18.5		1
11141-16-5	Aroclor-1232	U	18.5	ug/kg	6.17	18.5		1
53469-21-9	Aroclor-1242	U	18.5	ug/kg	6.17	18.5		1
12672-29-6	Aroclor-1248	U	18.5	ug/kg	6.17	18.5		1
11097-69-1	Aroclor-1254		151	ug/kg	6.17	18.5		2
11096-82-5	Aroclor-1260		58.1	ug/kg	6.17	18.5	J,P7c	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12969**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**20**
Run Date:	**03/23/2010 16:58**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**042f4201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	042b4201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	76.1	ug/kg	25.3	76.1	1
11104-28-2	Aroclor-1221	U	76.1	ug/kg	25.3	76.1	1
11141-16-5	Aroclor-1232	U	76.1	ug/kg	25.3	76.1	1
53469-21-9	Aroclor-1242	U	76.1	ug/kg	25.3	76.1	1
12672-29-6	Aroclor-1248	U	76.1	ug/kg	25.3	76.1	1
11097-69-1	Aroclor-1254	U	76.1	ug/kg	25.3	76.1	1
11096-82-5	Aroclor-1260	U	76.1	ug/kg	25.3	76.1	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335008**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12970**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**20**
Run Date:	**03/23/2010 17:39**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**045f4501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	045b4501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	78.5	ug/kg	26.2	78.5	1
11104–28–2	Aroclor–1221	U	78.5	ug/kg	26.2	78.5	1
11141–16–5	Aroclor–1232	U	78.5	ug/kg	26.2	78.5	1
53469–21–9	Aroclor–1242	U	78.5	ug/kg	26.2	78.5	1
12672–29–6	Aroclor–1248	U	78.5	ug/kg	26.2	78.5	1
11097–69–1	Aroclor–1254	U	78.5	ug/kg	26.2	78.5	1
11096–82–5	Aroclor–1260	U	78.5	ug/kg	26.2	78.5	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**21.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12971**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 16:29**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**040f4001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	040b4001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
12674-11-2	Aroclor-1016	U	21.2	ug/kg	7.07	21.2		1
11104-28-2	Aroclor-1221	U	21.2	ug/kg	7.07	21.2		1
11141-16-5	Aroclor-1232	U	21.2	ug/kg	7.07	21.2		1
53469-21-9	Aroclor-1242	U	21.2	ug/kg	7.07	21.2		1
12672-29-6	Aroclor-1248	U	21.2	ug/kg	7.07	21.2		1
11097-69-1	Aroclor-1254		265	ug/kg	7.07	21.2		2
11096-82-5	Aroclor-1260		96.1	ug/kg	7.07	21.2	J,P7c	2

ML

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335002	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12972	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	967824	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	03/23/2010 15:27	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 22:20	**Aliquot:**	30.17 g	**Final Volume:**	1 mL
Data File:	035f3501.d	**Column:**	1 CLP1	**Level:**	LOW
	035b3501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.78	ug/kg	1.26	3.78	1
11104-28-2	Aroclor-1221	U	3.78	ug/kg	1.26	3.78	1
11141-16-5	Aroclor-1232	U	3.78	ug/kg	1.26	3.78	1
53469-21-9	Aroclor-1242	U	3.78	ug/kg	1.26	3.78	1
12672-29-6	Aroclor-1248	U	3.78	ug/kg	1.26	3.78	1
11097-69-1	Aroclor-1254		10.7	ug/kg	1.26	3.78	2
11096-82-5	Aroclor-1260		4.20	ug/kg	1.26	3.78	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13003**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 16:04**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**038f3801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	038b3801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.8	ug/kg	6.26	18.8	1
11104–28–2	Aroclor–1221	U	18.8	ug/kg	6.26	18.8	1
11141–16–5	Aroclor–1232	U	18.8	ug/kg	6.26	18.8	1
53469–21–9	Aroclor–1242	U	18.8	ug/kg	6.26	18.8	1
12672–29–6	Aroclor–1248	U	18.8	ug/kg	6.26	18.8	1
11097–69–1	Aroclor–1254		95.3	ug/kg	6.26	18.8	2
11096–82–5	Aroclor–1260		36.7	ug/kg	6.26	18.8	1

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2436C

REQUEST NUMBER: 10-2436

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 849335%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13000	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13000	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-12972	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-12972	1	GLASS	8270C+8081A+8082	Ice	S
RE46-10-13003	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13003	1	GLASS	8270C+8081A+8082	Ice	S
RE46-10-12967	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-12967	1	GLASS	8270C+8081A+8082	Ice	S
RE46-10-12971	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-12971	1	GLASS	8270C+8081A+8082	Ice	S
RE46-10-12968	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-12968	1	GLASS	8270C+8081A+8082	Ice	S
RE46-10-12969	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-12969	1	GLASS	8270C+8081A+8082	Ice	S
RE46-10-12970	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-12970	1	GLASS	8270C+8081A+8082	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	3/12/10	3:00	Patricia Dover-Dent [signature]	3/13/10	09:30
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name / Signature

Hard Copy Required

Friday, March 12, 2010

REQUEST NUMBER: 10-2436

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-2436
Per Agreement Number: 126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8081A	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	SW-846:8082	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	

Friday, March 12, 2010

REQUEST NUMBER: 10-2436

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	SW-846:8260B	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13000	S	3/11/2010	
		2	RE46-10-13000	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	SW-846:8270C	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2436

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

March 19, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 249335
SDG: 10-2436

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on March 13, 2010, and analyzed for GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile and GC/MS Volatile. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2436
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 249335
SDG: 10-2436

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Miscellaneous Data.....948

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 249335
SDG # : 10-2436

March 19, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 13, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. Please see attached e-mail for discrepancies. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
249335001	RE46-10-13000
249335002	RE46-10-12972
249335003	RE46-10-13003
249335004	RE46-10-12967
249335005	RE46-10-12971
249335006	RE46-10-12968
249335007	RE46-10-12969
249335008	RE46-10-12970

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile and GC/MS Volatile.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 19 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Friday, March 12, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2436C

REQUEST NUMBER: 10-2436

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 4/11/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 249335%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE46-10-13000	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-13000	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE46-10-12972	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-12972	1	GLASS	8270C+8081A+8082	Ice	S
RE46-10-13003	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-13003	1	GLASS	8270C+8081A+8082	Ice	S
RE46-10-12967	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-12967	1	GLASS	8270C+8081A+8082	Ice	S
RE46-10-12971	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-12971	1	GLASS	8270C+8081A+8082	Ice	S
RE46-10-12968	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-12968	1	GLASS	8270C+8081A+8082	Ice	S
RE46-10-12969	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-12969	1	GLASS	8270C+8081A+8082	Ice	S
RE46-10-12970	1	SEPTUM AMBER GLASS	8260B	Ice	S
RE46-10-12970	1	GLASS	8270C+8081A+8082	Ice	S

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	3/12/10	3:00	Patricia Dover-Dent [signature]	3/13/10	09:30
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Hard Copy Required

Friday, March 12, 2010

REQUEST NUMBER: 10-2436

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2436
Per Agreement Number:126310011
Project Cost Code: MR2A0515BYDO

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 3/12/2010
TURNAROUND/REPORT DUE: 4/11/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8081A	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	SW-846:8082	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	

Hard Copy Required

Friday, March 12, 2010

REQUEST NUMBER: 10-2436

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	SW-846:8260B	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13000	S	3/11/2010	
		2	RE46-10-13000	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	
	SW-846:8270C	1	RE46-10-12967	S	3/11/2010	
		1	RE46-10-12968	S	3/11/2010	
		1	RE46-10-12969	S	3/11/2010	
		1	RE46-10-12970	S	3/11/2010	
		1	RE46-10-12971	S	3/11/2010	
		1	RE46-10-12972	S	3/11/2010	
		1	RE46-10-13003	S	3/11/2010	

Final Page of REQUEST NUMBER 10-2436

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2436**
Received By: Patricia Dover-Dent	**Date Received: March 13, 2010**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe **2,3,6** **12,13**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?			X	Sample ID's affected: **RE46-10-13000, for 8260B the chain of custody states (2)-40ml vial, the lab only rec'd (1).**
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S
7209 7850 4789 2C
7209 7850 4756 2C
7209 7850 4804 2C
7209 7850 4790 3C
7209 7850 4767 6C
7209 7850 4815 12C
7209 7850 4778 13C

PM (or PMA) review: Initials _____ Date 3/16/10

Subject: Sample Receipt for 3/13/10
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Tue, 16 Mar 2010 09:14:44 -0400
To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Keith,

RN 10-2428: the lab rec'd (1) 40ml vial 8260B container for sample WST50-10-13851 instead of (2) as indicated on the COC. Also, all the organic containers and Gross A/B for samples WST50-10-13849 and 13850 were rec'd at a pH of 10. I'm assuming it's the matrix, would you like us to proceed with the analysis?

RN 10-2429: the CN and GENINORG for sample WST50-10-13848 and the TSS, CN and CLO4 for sample WST50-10-13849 were rec'd at a pH of 10. Would you us to proceed with the analysis.?

RN 10-2436: the lab rec'd (1) 40ml vial 8260B container for sample RE46-10-13000 instead of (2) as indicated on the COC.

RN 10-2433: the lab rec'd (1) 40ml vial 8260B container for sample RE46-10-14200 and 13237 instead of (2) as indicated on the COC.

Thanks,
Dionne

--
Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

N ID: SAFA (505) 665-9968
NE VALDEZ
LAMOS NATL LAB.
BLDG 1237 DPU 03

LAMOS, NM 87545
ED STATES US

SHIP DATE: 12MAR10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
) 556-8171
F: MR2A0515BY00

2°

FedEx Express

1 of 3
K# 7209 7850 4789
MASTER ##

SATURDAY ### A1
PRIORITY OVERNIGHT

2940
SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 81.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

2°

FedEx Express

1 of 3
TRK# 7209 7850 4756
0201
MASTER ##

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 41.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

2°

FedEx Express

3 of 3
SH# 7209 7850 4804
tr# 7209 7850 4789 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US

0 CHSA

ORIGIN ID: SAFA
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR2A0515BY00

3°

FedEx Express

2 of 3
MPS# 7209 7850 4790
0263
Matr# 7209 7850 4789 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-0171
REF: MR2A0515BY00

6°

FedEx Express

2 of 3

SATURDAY ### PRIORITY OVERN

MPS# 0263 7209 7850 4767
Matr# 7209 7850 4756 0201

29

X0 CHSA

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 12MAR10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-0171
REF: MR2A0515BY00

12°

FedEx Express

1 of 2

SATURDAY ### A1 PRIORITY OVERNIGHT

TRK# 0201 7209 7850 4815
MASTER

29407
SC-US
CHS

X0 CHSA

Part # 156148-434 NRIT V3 04-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT:
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-0171
REF: MR2A0515BY00

13°

FedEx Express

3 of 3

SATURDAY ### A1 PRIORITY OVERNIGHT

MPS# 0263 7209 7850 4778
Matr# 7209 7850 4756 0201

29407
SC-US
CHS

X0 CHSA

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

GC/MS Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-2436

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	969056
Prep Batch Number:	969055

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
249335001	RE46-10-13000
249335002	RE46-10-12972
249335003	RE46-10-13003
249335004	RE46-10-12967
249335005	RE46-10-12971
249335006	RE46-10-12968
249335007	RE46-10-12969
249335008	RE46-10-12970
1202080566	Method Blank (MB)
1202080569	Laboratory Control Sample (LCS)
1202080570	Laboratory Control Sample (LCS)
1202080567	249335002(RE46-10-12972) Post Spike (PS)
1202080568	249335002(RE46-10-12972) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
Samples 249335 002, 003, 004, 005, 006, 007 and 008 in this SDG were analyzed on an "dry weight" basis.
Samples 249335 001 in this SDG were analyzed on a "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 19.1.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 249335002 (RE46-10-12972) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Package Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
A Data Exception Document was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration

The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA7.I	Gas Chromatograph/Mass Spectrometer	HP6890N/HP5973N	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2436 GEL Work Order: 249335

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

E Organics--Concentration of the target analyte exceeds the instrument calibration range

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

DL Indicates that sample is diluted.
RA Indicates that sample is re-analyzed without re-extraction.
RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 08 APR 2010 **Title: Data Validator**

Roadmap for LANL 10-2436 VOA

This roadmap was analyzed by ale01592 on 03-31-2010, 21:30.
This roadmap was packaged by lys00434 on 04-01-2010, 14:40.

Sample

exclude	manual	datafile	smpid	clientid	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA7.i/032410v7/7e310.d	249335001	RE46-10-13000	25-MAR-2010	01:03	10-2436.sub	1	969056	
☐	N	/chem/VOA7.i/032410v7/7e311.d	249335002	RE46-10-12972	25-MAR-2010	01:37	10-2436.sub	1	969056	
☐	N	/chem/VOA7.i/032410v7/7e312.d	249335003	RE46-10-13003	25-MAR-2010	02:11	10-2436.sub	1	969056	
☐	N	/chem/VOA7.i/032410v7/7e313.d	249335004	RE46-10-12967	25-MAR-2010	02:44	10-2436.sub	1	969056	
☐	N	/chem/VOA7.i/032410v7/7e314.d	249335005	RE46-10-12971	25-MAR-2010	03:19	10-2436.sub	1	969056	
☐	N	/chem/VOA7.i/032410v7/7e315.d	249335006	RE46-10-12968	25-MAR-2010	03:53	10-2436.sub	1	969056	
☐	N	/chem/VOA7.i/032410v7/7e316.d	249335007	RE46-10-12969	25-MAR-2010	04:26	10-2436.sub	1	969056	
☐	N	/chem/VOA7.i/032410v7/7e317.d	249335008	RE46-10-12970	25-MAR-2010	05:00	10-2436.sub	1	969056	

QC Sample

exclude	manual	datafile	smpid	clientid	sampletype	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA7.i/032410v7/7e304LL.d	1202080569	LCS	lcs	24-MAR-2010	21:34	all.sub	1	969056	
☐	N	/chem/VOA7.i/032410v7/7e306LL.d	1202080570	SLCS	lcs	24-MAR-2010	22:42	all.sub	1	969056	
☐	N	/chem/VOA7.i/032410v7/7e308LL.d	1202080566	BLANK	mb	24-MAR-2010	23:49	all.sub	1	969056	
☐	N	/chem/VOA7.i/032410v7/7e319.d	1202080567	RE46-10-12972MS	ms	25-MAR-2010	06:07	10-2436.sub	1	969056	
☐	N	/chem/VOA7.i/032410v7/7e320.d	1202080568	RE46-10-12972MSD	msd	25-MAR-2010	06:41	10-2436.sub	1	969056	

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12967**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 02:44**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:35**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e313.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.429	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.378	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.378	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.378	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.378	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.378	1.26
67-64-1	Acetone	U	6.31	ug/kg	2.09	6.31
75-35-4	1,1-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
74-88-4	Iodomethane	U	6.31	ug/kg	2.02	6.31
75-09-2	Methylene chloride	J	5.42	ug/kg	2.52	6.31
75-15-0	Carbon disulfide	U	6.31	ug/kg	1.58	6.31
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.378	1.26
78-93-3	2-Butanone	U	6.31	ug/kg	1.89	6.31
156-59-2	cis-1,2-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.378	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.378	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.416	1.26
71-55-6	1,1,1-Trichloroethane	U	1.26	ug/kg	0.378	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.378	1.26
56-23-5	Carbon tetrachloride	U	1.26	ug/kg	0.378	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.378	1.26
71-43-2	Benzene	U	1.26	ug/kg	0.378	1.26
79-01-6	Trichloroethylene	U	1.26	ug/kg	0.416	1.26
78-87-5	1,2-Dichloropropane	U	1.26	ug/kg	0.378	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.378	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.378	1.26
108-10-1	4-Methyl-2-pentanone	U	6.31	ug/kg	1.58	6.31
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.378	1.26
108-88-3	Toluene	U	1.26	ug/kg	0.378	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.378	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.378	1.26
591-78-6	2-Hexanone	U	6.31	ug/kg	1.89	6.31
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.378	1.26
127-18-4	Tetrachloroethylene	U	1.26	ug/kg	0.378	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.378	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.378	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.378	1.26

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12967**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 02:44**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:35**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e313.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.26	ug/kg	0.378	1.26
179601-23-1	m,p-Xylenes	U	2.52	ug/kg	0.378	2.52
95-47-6	o-Xylene	U	1.26	ug/kg	0.378	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.378	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.378	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.378	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.378	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.378	1.26
103-65-1	n-Propylbenzene	U	1.26	ug/kg	0.378	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.378	1.26
98-82-8	Isopropylbenzene	U	1.26	ug/kg	0.378	1.26
108-67-8	1,3,5-Trimethylbenzene	U	1.26	ug/kg	0.378	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.378	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.378	1.26
95-63-6	1,2,4-Trimethylbenzene	U	1.26	ug/kg	0.378	1.26
135-98-8	sec-Butylbenzene	U	1.26	ug/kg	0.378	1.26
99-87-6	4-Isopropyltoluene	U	1.26	ug/kg	0.378	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26
104-51-8	n-Butylbenzene	U	1.26	ug/kg	0.378	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.378	1.26
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.31	ug/kg	2.02	6.31
630-20-6	1,1,1,2-Tetrachloroethane	U	1.26	ug/kg	0.378	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12968**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 03:53**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:39**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e315.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.12	ug/kg	0.380	1.12
74-87-3	Chloromethane	U	1.12	ug/kg	0.335	1.12
75-01-4	Vinyl chloride	U	1.12	ug/kg	0.335	1.12
74-83-9	Bromomethane	U	1.12	ug/kg	0.335	1.12
75-00-3	Chloroethane	U	1.12	ug/kg	0.335	1.12
75-69-4	Trichlorofluoromethane	U	1.12	ug/kg	0.335	1.12
67-64-1	Acetone	U	5.58	ug/kg	1.85	5.58
75-35-4	1,1-Dichloroethylene	U	1.12	ug/kg	0.335	1.12
74-88-4	Iodomethane	U	5.58	ug/kg	1.79	5.58
75-09-2	Methylene chloride	J	4.07	ug/kg	2.23	5.58
75-15-0	Carbon disulfide	U	5.58	ug/kg	1.40	5.58
156-60-5	trans-1,2-Dichloroethylene	U	1.12	ug/kg	0.335	1.12
75-34-3	1,1-Dichloroethane	U	1.12	ug/kg	0.335	1.12
78-93-3	2-Butanone	U	5.58	ug/kg	1.67	5.58
156-59-2	cis-1,2-Dichloroethylene	U	1.12	ug/kg	0.335	1.12
594-20-7	2,2-Dichloropropane	U	1.12	ug/kg	0.335	1.12
67-66-3	Chloroform	U	1.12	ug/kg	0.335	1.12
74-97-5	Bromochloromethane	U	1.12	ug/kg	0.368	1.12
71-55-6	1,1,1-Trichloroethane	U	1.12	ug/kg	0.335	1.12
563-58-6	1,1-Dichloropropene	U	1.12	ug/kg	0.335	1.12
56-23-5	Carbon tetrachloride	U	1.12	ug/kg	0.335	1.12
107-06-2	1,2-Dichloroethane	U	1.12	ug/kg	0.335	1.12
71-43-2	Benzene	U	1.12	ug/kg	0.335	1.12
79-01-6	Trichloroethylene	U	1.12	ug/kg	0.368	1.12
78-87-5	1,2-Dichloropropane	U	1.12	ug/kg	0.335	1.12
75-27-4	Bromodichloromethane	U	1.12	ug/kg	0.335	1.12
74-95-3	Dibromomethane	U	1.12	ug/kg	0.335	1.12
108-10-1	4-Methyl-2-pentanone	U	5.58	ug/kg	1.40	5.58
10061-01-5	cis-1,3-Dichloropropylene	U	1.12	ug/kg	0.335	1.12
108-88-3	Toluene	U	1.12	ug/kg	0.335	1.12
10061-02-6	trans-1,3-Dichloropropylene	U	1.12	ug/kg	0.335	1.12
79-00-5	1,1,2-Trichloroethane	U	1.12	ug/kg	0.335	1.12
591-78-6	2-Hexanone	U	5.58	ug/kg	1.67	5.58
142-28-9	1,3-Dichloropropane	U	1.12	ug/kg	0.335	1.12
127-18-4	Tetrachloroethylene	U	1.12	ug/kg	0.335	1.12
124-48-1	Dibromochloromethane	U	1.12	ug/kg	0.335	1.12
106-93-4	1,2-Dibromoethane	U	1.12	ug/kg	0.335	1.12
108-90-7	Chlorobenzene	U	1.12	ug/kg	0.335	1.12

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12968**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 03:53**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:39**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e315.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.12	ug/kg	0.335	1.12
179601-23-1	m,p-Xylenes	U	2.23	ug/kg	0.335	2.23
95-47-6	o-Xylene	U	1.12	ug/kg	0.335	1.12
100-42-5	Styrene	U	1.12	ug/kg	0.335	1.12
75-25-2	Bromoform	U	1.12	ug/kg	0.335	1.12
79-34-5	1,1,2,2-Tetrachloroethane	U	1.12	ug/kg	0.335	1.12
96-18-4	1,2,3-Trichloropropane	U	1.12	ug/kg	0.335	1.12
108-86-1	Bromobenzene	U	1.12	ug/kg	0.335	1.12
103-65-1	n-Propylbenzene	U	1.12	ug/kg	0.335	1.12
95-49-8	2-Chlorotoluene	U	1.12	ug/kg	0.335	1.12
98-82-8	Isopropylbenzene	U	1.12	ug/kg	0.335	1.12
108-67-8	1,3,5-Trimethylbenzene	U	1.12	ug/kg	0.335	1.12
106-43-4	4-Chlorotoluene	U	1.12	ug/kg	0.335	1.12
98-06-6	tert-Butylbenzene	U	1.12	ug/kg	0.335	1.12
95-63-6	1,2,4-Trimethylbenzene	U	1.12	ug/kg	0.335	1.12
135-98-8	sec-Butylbenzene	U	1.12	ug/kg	0.335	1.12
99-87-6	4-Isopropyltoluene	U	1.12	ug/kg	0.335	1.12
541-73-1	1,3-Dichlorobenzene	U	1.12	ug/kg	0.335	1.12
106-46-7	1,4-Dichlorobenzene	U	1.12	ug/kg	0.335	1.12
104-51-8	n-Butylbenzene	U	1.12	ug/kg	0.335	1.12
96-12-8	1,2-Dibromo-3-chloropropane	U	1.12	ug/kg	0.335	1.12
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.58	ug/kg	1.79	5.58
630-20-6	1,1,1,2-Tetrachloroethane	U	1.12	ug/kg	0.335	1.12
95-50-1	1,2-Dichlorobenzene	U	1.12	ug/kg	0.335	1.12

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12969**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 04:26**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:41**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e316.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.388	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.342	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.342	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.342	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.342	1.14
67-64-1	Acetone	U	5.71	ug/kg	1.89	5.71
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
74-88-4	Iodomethane	U	5.71	ug/kg	1.83	5.71
75-09-2	Methylene chloride	J	5.51	ug/kg	2.28	5.71
75-15-0	Carbon disulfide	U	5.71	ug/kg	1.43	5.71
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.342	1.14
78-93-3	2-Butanone	U	5.71	ug/kg	1.71	5.71
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.342	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.377	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.342	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.342	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.377	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.342	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone	U	5.71	ug/kg	1.43	5.71
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.342	1.14
591-78-6	2-Hexanone	U	5.71	ug/kg	1.71	5.71
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.342	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.342	1.14

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12969**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 04:26**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:41**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e316.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.342	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.342	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.342	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.342	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.71	ug/kg	1.83	5.71
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335008**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12970**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 05:00**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:43**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e317.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.402	1.18
74-87-3	Chloromethane	U	1.18	ug/kg	0.354	1.18
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.354	1.18
74-83-9	Bromomethane	U	1.18	ug/kg	0.354	1.18
75-00-3	Chloroethane	U	1.18	ug/kg	0.354	1.18
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.354	1.18
67-64-1	Acetone	U	5.91	ug/kg	1.96	5.91
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
74-88-4	Iodomethane	U	5.91	ug/kg	1.89	5.91
75-09-2	Methylene chloride	J	5.13	ug/kg	2.36	5.91
75-15-0	Carbon disulfide	U	5.91	ug/kg	1.48	5.91
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.354	1.18
78-93-3	2-Butanone	U	5.91	ug/kg	1.77	5.91
156-59-2	cis-1,2-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.354	1.18
67-66-3	Chloroform	U	1.18	ug/kg	0.354	1.18
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.390	1.18
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.354	1.18
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.354	1.18
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.354	1.18
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.354	1.18
71-43-2	Benzene	U	1.18	ug/kg	0.354	1.18
79-01-6	Trichloroethylene	U	1.18	ug/kg	0.390	1.18
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.354	1.18
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.354	1.18
74-95-3	Dibromomethane	U	1.18	ug/kg	0.354	1.18
108-10-1	4-Methyl-2-pentanone	U	5.91	ug/kg	1.48	5.91
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.354	1.18
108-88-3	Toluene	U	1.18	ug/kg	0.354	1.18
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.354	1.18
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.354	1.18
591-78-6	2-Hexanone	U	5.91	ug/kg	1.77	5.91
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.354	1.18
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.354	1.18
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.354	1.18
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.354	1.18
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.354	1.18

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335008**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12970**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 05:00**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:43**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e317.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.354	1.18
179601-23-1	m,p-Xylenes	U	2.36	ug/kg	0.354	2.36
95-47-6	o-Xylene	U	1.18	ug/kg	0.354	1.18
100-42-5	Styrene	U	1.18	ug/kg	0.354	1.18
75-25-2	Bromoform	U	1.18	ug/kg	0.354	1.18
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.354	1.18
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.354	1.18
108-86-1	Bromobenzene	U	1.18	ug/kg	0.354	1.18
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.354	1.18
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.354	1.18
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.354	1.18
108-67-8	1,3,5-Trimethylbenzene	U	1.18	ug/kg	0.354	1.18
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.354	1.18
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.354	1.18
95-63-6	1,2,4-Trimethylbenzene	U	1.18	ug/kg	0.354	1.18
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.354	1.18
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.354	1.18
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.354	1.18
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.354	1.18
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.91	ug/kg	1.89	5.91
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.354	1.18
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**21.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12971**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 03:19**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:37**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e314.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.28	ug/kg	0.435	1.28
74-87-3	Chloromethane	U	1.28	ug/kg	0.384	1.28
75-01-4	Vinyl chloride	U	1.28	ug/kg	0.384	1.28
74-83-9	Bromomethane	U	1.28	ug/kg	0.384	1.28
75-00-3	Chloroethane	U	1.28	ug/kg	0.384	1.28
75-69-4	Trichlorofluoromethane	U	1.28	ug/kg	0.384	1.28
67-64-1	Acetone	U	6.39	ug/kg	2.12	6.39
75-35-4	1,1-Dichloroethylene	U	1.28	ug/kg	0.384	1.28
74-88-4	Iodomethane	U	6.39	ug/kg	2.05	6.39
75-09-2	Methylene chloride	J	5.30	ug/kg	2.56	6.39
75-15-0	Carbon disulfide	U	6.39	ug/kg	1.60	6.39
156-60-5	trans-1,2-Dichloroethylene	U	1.28	ug/kg	0.384	1.28
75-34-3	1,1-Dichloroethane	U	1.28	ug/kg	0.384	1.28
78-93-3	2-Butanone	U	6.39	ug/kg	1.92	6.39
156-59-2	cis-1,2-Dichloroethylene	U	1.28	ug/kg	0.384	1.28
594-20-7	2,2-Dichloropropane	U	1.28	ug/kg	0.384	1.28
67-66-3	Chloroform	U	1.28	ug/kg	0.384	1.28
74-97-5	Bromochloromethane	U	1.28	ug/kg	0.422	1.28
71-55-6	1,1,1-Trichloroethane	U	1.28	ug/kg	0.384	1.28
563-58-6	1,1-Dichloropropene	U	1.28	ug/kg	0.384	1.28
56-23-5	Carbon tetrachloride	U	1.28	ug/kg	0.384	1.28
107-06-2	1,2-Dichloroethane	U	1.28	ug/kg	0.384	1.28
71-43-2	Benzene	U	1.28	ug/kg	0.384	1.28
79-01-6	Trichloroethylene	U	1.28	ug/kg	0.422	1.28
78-87-5	1,2-Dichloropropane	U	1.28	ug/kg	0.384	1.28
75-27-4	Bromodichloromethane	U	1.28	ug/kg	0.384	1.28
74-95-3	Dibromomethane	U	1.28	ug/kg	0.384	1.28
108-10-1	4-Methyl-2-pentanone	U	6.39	ug/kg	1.60	6.39
10061-01-5	cis-1,3-Dichloropropylene	U	1.28	ug/kg	0.384	1.28
108-88-3	Toluene	U	1.28	ug/kg	0.384	1.28
10061-02-6	trans-1,3-Dichloropropylene	U	1.28	ug/kg	0.384	1.28
79-00-5	1,1,2-Trichloroethane	U	1.28	ug/kg	0.384	1.28
591-78-6	2-Hexanone	U	6.39	ug/kg	1.92	6.39
142-28-9	1,3-Dichloropropane	U	1.28	ug/kg	0.384	1.28
127-18-4	Tetrachloroethylene	U	1.28	ug/kg	0.384	1.28
124-48-1	Dibromochloromethane	U	1.28	ug/kg	0.384	1.28
106-93-4	1,2-Dibromoethane	U	1.28	ug/kg	0.384	1.28
108-90-7	Chlorobenzene	U	1.28	ug/kg	0.384	1.28

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**21.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12971**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 03:19**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:37**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e314.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.28	ug/kg	0.384	1.28
179601-23-1	m,p-Xylenes	U	2.56	ug/kg	0.384	2.56
95-47-6	o-Xylene	U	1.28	ug/kg	0.384	1.28
100-42-5	Styrene	U	1.28	ug/kg	0.384	1.28
75-25-2	Bromoform	U	1.28	ug/kg	0.384	1.28
79-34-5	1,1,2,2-Tetrachloroethane	U	1.28	ug/kg	0.384	1.28
96-18-4	1,2,3-Trichloropropane	U	1.28	ug/kg	0.384	1.28
108-86-1	Bromobenzene	U	1.28	ug/kg	0.384	1.28
103-65-1	n-Propylbenzene	U	1.28	ug/kg	0.384	1.28
95-49-8	2-Chlorotoluene	U	1.28	ug/kg	0.384	1.28
98-82-8	Isopropylbenzene	U	1.28	ug/kg	0.384	1.28
108-67-8	1,3,5-Trimethylbenzene	U	1.28	ug/kg	0.384	1.28
106-43-4	4-Chlorotoluene	U	1.28	ug/kg	0.384	1.28
98-06-6	tert-Butylbenzene	U	1.28	ug/kg	0.384	1.28
95-63-6	1,2,4-Trimethylbenzene	U	1.28	ug/kg	0.384	1.28
135-98-8	sec-Butylbenzene	U	1.28	ug/kg	0.384	1.28
99-87-6	4-Isopropyltoluene	U	1.28	ug/kg	0.384	1.28
541-73-1	1,3-Dichlorobenzene	U	1.28	ug/kg	0.384	1.28
106-46-7	1,4-Dichlorobenzene	U	1.28	ug/kg	0.384	1.28
104-51-8	n-Butylbenzene	U	1.28	ug/kg	0.384	1.28
96-12-8	1,2-Dibromo-3-chloropropane	U	1.28	ug/kg	0.384	1.28
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.39	ug/kg	2.05	6.39
630-20-6	1,1,1,2-Tetrachloroethane	U	1.28	ug/kg	0.384	1.28
95-50-1	1,2-Dichlorobenzene	U	1.28	ug/kg	0.384	1.28

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12972**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 01:37**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:27**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e311.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.388	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.342	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.342	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.342	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.342	1.14
67-64-1	Acetone	U	5.70	ug/kg	1.89	5.70
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
74-88-4	Iodomethane	U	5.70	ug/kg	1.82	5.70
75-09-2	Methylene chloride	J	4.55	ug/kg	2.28	5.70
75-15-0	Carbon disulfide	U	5.70	ug/kg	1.42	5.70
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.342	1.14
78-93-3	2-Butanone	U	5.70	ug/kg	1.71	5.70
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.342	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.376	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.342	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.342	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.376	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.342	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone	U	5.70	ug/kg	1.42	5.70
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.342	1.14
591-78-6	2-Hexanone	U	5.70	ug/kg	1.71	5.70
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.342	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.342	1.14

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12972**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 01:37**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:27**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e311.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.342	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.342	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.342	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.342	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.70	ug/kg	1.82	5.70
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335001**	**Date Received:**	**03/13/2010 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13000**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 01:03**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:25**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e310.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	J	4.08	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335001**	**Date Received:**	**03/13/2010 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13000**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 01:03**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:25**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e310.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13003**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 02:11**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:33**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e312.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.384	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.339	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.339	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.339	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.339	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.339	1.13
67-64-1	Acetone	U	5.65	ug/kg	1.88	5.65
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
74-88-4	Iodomethane	U	5.65	ug/kg	1.81	5.65
75-09-2	Methylene chloride	J	4.46	ug/kg	2.26	5.65
75-15-0	Carbon disulfide	U	5.65	ug/kg	1.41	5.65
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.339	1.13
78-93-3	2-Butanone	U	5.65	ug/kg	1.70	5.65
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.339	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.373	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.339	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.339	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.339	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.339	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.339	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.373	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.339	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.339	1.13
108-10-1	4-Methyl-2-pentanone	U	5.65	ug/kg	1.41	5.65
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.339	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.339	1.13
591-78-6	2-Hexanone	U	5.65	ug/kg	1.70	5.65
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.339	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.339	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.339	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.339	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.339	1.13

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13003**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 02:11**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:33**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e312.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Uuits	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.339	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.339	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.339	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.339	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.339	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.339	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.339	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.339	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.339	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.339	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.339	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.339	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.339	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.339	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.65	ug/kg	1.81	5.65
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

QC Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-2436

Matrix Type: SOLID

CAP Column (1) : DB-624

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202080569	LCS for batch 969055	92	90	87
1202080570	LCS for batch 969055	93	98	85
1202080566	MB for batch 969055	97	95	88
249335001	RE46-10-13000	100	98	86
249335002	RE46-10-12972	90	92	81
249335003	RE46-10-13003	90	93	80
249335004	RE46-10-12967	90	94	81
249335005	RE46-10-12971	86	94	81
249335006	RE46-10-12968	90	94	84
249335007	RE46-10-12969	86	92	79
249335008	RE46-10-12970	86	94	80
1202080567	RE46-10-12972PS	84	88	77
1202080568	RE46-10-12972PSD	86	88	81

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(66%-134%)
TOL	= Toluene-d8	(71%-128%)
BFB	= Bromofluorobenzene	(65%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: RE46-10-12972PS
Lab Sample ID: 1202080567
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 12.3
Analysis Date: 03/25/2010 06:07
Prep Batch ID: 969055
Batch ID: 969056

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	35.8	72	39-148
74-87-3	PS	Chloromethane	50.0	0.00	U	32.9	66	42-131
75-01-4	PS	Vinyl chloride	50.0	0.00	U	37.7	75	50-127
74-83-9	PS	Bromomethane	50.0	0.00	U	36.8	74	26-135
75-00-3	PS	Chloroethane	50.0	0.00	U	35.8	72	54-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	35.3	71	55-138
67-64-1	PS	Acetone	250	0.00	U	165	66	20-144
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	36.7	73	55-128
74-88-4	PS	Iodomethane	250	0.00	U	197	79	47-132
75-09-2	PS	Methylene chloride	50.0	3.99	J	40.6	73	56-123
75-15-0	PS	Carbon disulfide	250	0.00	U	191	76	53-133
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	32.8	66	57-119
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	35.7	71	62-125
78-93-3	PS	2-Butanone	250	0.00	U	184	73	30-150
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	34.4	69	60-124
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	32.5	65	56-129
67-66-3	PS	Chloroform	50.0	0.00	U	34.6	69	62-120
74-97-5	PS	Bromochloromethane	50.0	0.00	U	38.2	76	51-135
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	34.3	69	58-129
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	33.8	68	59-126
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	34.6	69	55-132
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	31.8	64	54-121

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2436**	**Sample Type:**	**Post Spike**
Client ID:	**RE46-10-12972PS**	**Matrix:**	**S**
Lab Sample ID:	**1202080567**	**%Moisture:**	**12.3**
Instrument:	**VOA7.I**	**Analysis Date:**	**03/25/2010 06:07**
Analyst:	**AXO1**	**Prep Batch ID**	**969055**
Purge Vol:	**5 mL**	**Batch ID:**	**969056**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	37.5	75	58-120
79-01-6	PS	Trichloroethylene	50.0	0.00	U	36.9	74	54-130
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	38.2	76	59-121
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	37.4	75	57-130
74-95-3	PS	Dibromomethane	50.0	0.00	U	40.0	80	57-124
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	176	71	40-137
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	37.9	76	50-131
108-88-3	PS	Toluene	50.0	0.00	U	33.6	67	54-119
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	32.7	65	47-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	36.3	73	60-130
591-78-6	PS	2-Hexanone	250	0.00	U	148	59	30-139
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	36.2	72	59-125
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	33.8	68	50-126
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	35.8	72	54-131
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	37.7	75	55-127
108-90-7	PS	Chlorobenzene	50.0	0.00	U	35.1	70	50-130
100-41-4	PS	Ethylbenzene	50.0	0.00	U	31.9	64	50-121
179601-23-1	PS	m,p-Xylenes	100	0.00	U	69.8	70	47-125
95-47-6	PS	o-Xylene	50.0	0.00	U	35.9	72	51-127
100-42-5	PS	Styrene	50.0	0.00	U	36.5	73	41-136
75-25-2	PS	Bromoform	50.0	0.00	U	39.9	80	48-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	36.0	72	52-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: RE46-10-12972PS
Lab Sample ID: 1202080567
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 12.3
Analysis Date: 03/25/2010 06:07
Prep Batch ID: 969055
Batch ID: 969056
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	34.4	69	56-139
108-86-1	PS	Bromobenzene	50.0	0.00	U	35.4	71	54-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	29.5	59	46-127
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	29.0	58	47-130
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	30.5	61	42-126
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	30.7	61	44-132
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	28.8	58	46-127
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	32.8	66	48-136
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	30.6	61	42-132
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	30.3	61	47-130
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	30.7	61	36-142
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	32.9	66	41-130
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	33.1	66	41-126
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	28.7	57	37-136
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	38.7	77	42-143
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	36.4	73	58-127
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	34.5	69	42-128

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2436**	**Sample Type:**	**Post Spike Duplicate**
Client ID:	**RE46-10-12972PSD**	**Matrix:**	**S**
Lab Sample ID:	**1202080568**	**%Moisture:**	**12.3**
Instrument:	**VOA7.I**	**Analysis Date:**	**03/25/2010 06:41**
Analyst:	**AXO1**	**Prep Batch ID**	**969055**
Purge Vol:	**5 mL**	**Batch ID:**	**969056**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	38.4	77	39-148	7	0-19
74-87-3	PSD	Chloromethane	50.0	0.00	U	34.3	69	42-131	4	0-23
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	38.6	77	50-127	2	0-23
74-83-9	PSD	Bromomethane	50.0	0.00	U	36.0	72	26-135	2	0-22
75-00-3	PSD	Chloroethane	50.0	0.00	U	38.2	76	54-128	7	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	35.6	71	55-138	1	0-21
67-64-1	PSD	Acetone	250	0.00	U	151	60	20-144	9	0-22
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	37.5	75	55-128	2	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	192	77	47-132	2	0-20
75-09-2	PSD	Methylene chloride	50.0	3.99	J	39.4	71	56-123	3	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	187	75	53-133	2	0-22
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	33.0	66	57-119	1	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	35.7	71	62-125	0	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	171	68	30-150	7	0-21
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	33.9	68	60-124	2	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	32.2	64	56-129	1	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	35.5	71	62-120	2	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	37.8	76	51-135	1	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	35.9	72	58-129	4	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	35.2	70	59-126	4	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	34.1	68	55-132	1	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	32.6	65	54-121	2	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: RE46-10-12972PSD
Lab Sample ID: 1202080568
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 12.3
Analysis Date: 03/25/2010 06:41
Prep Batch ID: 969055
Batch ID: 969056
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	36.7	73	58-120	2	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	36.3	73	54-130	2	0-23
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	37.3	75	59-121	2	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	36.8	74	57-130	2	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	40.3	81	57-124	1	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	171	69	40-137	3	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	37.2	74	50-131	2	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	33.1	66	54-119	2	0-23
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	32.6	65	47-133	0	0-24
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	36.7	73	60-130	1	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	148	59	30-139	0	0-21
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	35.5	71	59-125	2	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	33.9	68	50-126	0	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	36.5	73	54-131	2	0-23
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	38.0	76	55-127	1	0-23
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	35.1	70	50-130	0	0-24
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	32.0	64	50-121	0	0-24
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	70.1	70	47-125	0	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	36.4	73	51-127	1	0-24
100-42-5	PSD	Styrene	50.0	0.00	U	36.0	72	41-136	1	0-24
75-25-2	PSD	Bromoform	50.0	0.00	U	37.8	76	48-143	5	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	34.7	69	52-129	4	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: RE46-10-12972PSD
Lab Sample ID: 1202080568
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 12.3
Analysis Date: 03/25/2010 06:41
Prep Batch ID: 969055
Batch ID: 969056
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	34.6	69	56-139	0	0-34
108-86-1	PSD	Bromobenzene	50.0	0.00	U	34.9	70	54-125	1	0-22
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	29.7	59	46-127	1	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	29.6	59	47-130	2	0-24
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	30.6	61	42-126	0	0-22
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	30.9	62	44-132	1	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	29.1	58	46-127	1	0-26
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	32.0	64	48-136	3	0-24
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	30.9	62	42-132	1	0-26
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	30.3	61	47-130	0	0-27
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	30.4	61	36-142	1	0-27
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	32.6	65	41-130	1	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	33.2	66	41-126	1	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	28.8	58	37-136	0	0-29
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	38.0	76	42-143	2	0-21
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	35.8	72	58-127	2	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	33.8	68	42-128	2	0-24

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 969055 **Matrix:** SOIL

Lab Sample ID: 1202080569

Instrument: VOA7.I **Analysis Date:** 03/24/2010 21:34 **Dilution:** 1

Analyst: AXO1 **Prep Batch ID** 969055

Purge Vol: 5 mL **Batch ID:** 969056

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	48.6	97	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	39.2	78	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	44.7	89	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	42.6	85	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	43.9	88	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	45.8	92	73-143
67-64-1	LCS	Acetone	250	0.0	218	87	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	42.8	86	71-129
74-88-4	LCS	Iodomethane	250	0.0	225	90	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	42.1	84	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	218	87	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	41.4	83	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	44.1	88	73-120
78-93-3	LCS	2-Butanone	250	0.0	216	87	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	39.8	80	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	42.4	85	73-134
67-66-3	LCS	Chloroform	50.0	0.0	42.0	84	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	43.3	87	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	44.7	89	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	43.0	86	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	44.4	89	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	38.4	77	65-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: LCS for batch 969055
Lab Sample ID: 1202080569
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/24/2010 21:34
Dilution: 1
Prep Batch ID: 969055
Batch ID: 969056

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	42.5	85	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	44.2	88	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	42.8	86	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	43.8	88	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	44.4	89	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	205	82	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	45.9	92	78-127
108-88-3	LCS	Toluene	50.0	0.0	39.5	79	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	41.2	82	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	41.4	83	75-120
591-78-6	LCS	2-Hexanone	250	0.0	189	76	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	42.1	84	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	41.0	82	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	43.8	88	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	44.3	89	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	41.3	83	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	39.1	78	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	85.3	85	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	43.0	86	76-122
100-42-5	LCS	Styrene	50.0	0.0	43.9	88	75-125
75-25-2	LCS	Bromoform	50.0	0.0	44.9	90	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	39.8	80	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: LCS for batch 969055
Lab Sample ID: 1202080569
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/24/2010 21:34
Dilution: 1
Prep Batch ID: 969055
Batch ID: 969056

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	39.1	78	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	42.7	85	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	37.3	75	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	37.3	75	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	38.1	76	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	39.4	79	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	37.6	75	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	40.8	82	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	39.4	79	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	40.2	80	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	41.7	83	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	41.6	83	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	41.8	84	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	41.4	83	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	46.8	94	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	43.8	88	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	42.8	86	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: LCS for batch 969055
Lab Sample ID: 1202080570
Instrument: VOA7.I
Analyst: AXO1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/24/2010 22:42
Dilution: 1
Prep Batch ID: 969055
Batch ID: 969056

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	270	108	67-140

Method Blank Summary

SDG Number:	10-2436	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 969055	Instrument ID:	VOA7.I	Data File:	7e308LL.d
Lab Sample ID:	1202080566	Prep Date:	03/24/2010 19:00	Analyzed:	03/24/10 23:49
Column:	DB-624	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 969055	1202080569	7e304LL.d	03/24/10	2134
02	LCS for batch 969055	1202080570	7e306LL.d	03/24/10	2242
03	RE46-10-13000	249335001	7e310.d	03/25/10	0103
04	RE46-10-12972	249335002	7e311.d	03/25/10	0137
05	RE46-10-13003	249335003	7e312.d	03/25/10	0211
06	RE46-10-12967	249335004	7e313.d	03/25/10	0244
07	RE46-10-12971	249335005	7e314.d	03/25/10	0319
08	RE46-10-12968	249335006	7e315.d	03/25/10	0353
09	RE46-10-12969	249335007	7e316.d	03/25/10	0426
10	RE46-10-12970	249335008	7e317.d	03/25/10	0500
11	RE46-10-12972PS	1202080567	7e319.d	03/25/10	0607
12	RE46-10-12972PSD	1202080568	7e320.d	03/25/10	0641

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2436

Instrument ID: VOA7.I **Injection Date/Time:** 17-FEB-10 15:29

Column Description: db624 **Lab File ID** /021710v7/7z309.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	30.8
75	30.0 - 60.0% of mass 95	54.2
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	63
175	5.0 -9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	97.2
177	5.0 - 9.0% of mass 176	6.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD001	W7VM100217-06	7z310.d	17-FEB-10 16:02
VSTD002	W7VM100217-07	7z311.d	17-FEB-10 16:35
VSTD005	W7VM100217-08	7z312.d	17-FEB-10 17:09
VSTD010	W7VM100217-09	7z313.d	17-FEB-10 17:44
VSTD020	W7VM100217-10	7z314.d	17-FEB-10 18:20
VSTD050	W7VM100217-11	7z315.d	17-FEB-10 18:55
VSTD100	W7VM100217-12	7z316.d	17-FEB-10 19:30
VSTD0005	W7VM100217-13	7z318.d	17-FEB-10 20:39
VSTD005S	W7VM100217-14	7z319.d	17-FEB-10 21:14
VSTD010S	W7VM100217-15	7z320.d	17-FEB-10 21:49
VSTD025S	W7VM100217-16	7z321.d	17-FEB-10 22:24
VSTD050S	W7VM100217-17	7z322.d	17-FEB-10 22:59
VSTD100S	W7VM100217-18	7z323.d	17-FEB-10 23:33
VSTD250S	W7VM100217-19	7z324.d	18-FEB-10 00:08
VSTD500S	W7VM100217-20	7z325.d	18-FEB-10 00:42
ICV	W7VM100217-22	7z328.d	18-FEB-10 02:27
SICV	W7VM100217-23	7z329.d	18-FEB-10 03:03

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2436

Instrument ID: VOA7.I **Injection Date/Time:** 24-MAR-10 20:27

Column Description: db624 **Lab File ID** /032410v7/7e302BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	29.1
75	30.0 - 60.0% of mass 95	52.9
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	76.4
175	5.0 -9.0% of mass 174	6.8
176	95.0 - 101.0% of mass 174	96.9
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W7VM100324-01	7e302.d	24-MAR-10 20:27
LCS	1202080569	7e304LL.d	24-MAR-10 21:34
VSTD250S	W7VM100324-04	7e305.d	24-MAR-10 22:09
SLCS	1202080570	7e306LL.d	24-MAR-10 22:42
BLANK	1202080566	7e308LL.d	24-MAR-10 23:49
RE46-10-13000	249335001	7e310.d	25-MAR-10 01:03
RE46-10-12972	249335002	7e311.d	25-MAR-10 01:37
RE46-10-13003	249335003	7e312.d	25-MAR-10 02:11
RE46-10-12967	249335004	7e313.d	25-MAR-10 02:44
RE46-10-12971	249335005	7e314.d	25-MAR-10 03:19
RE46-10-12968	249335006	7e315.d	25-MAR-10 03:53
RE46-10-12969	249335007	7e316.d	25-MAR-10 04:26
RE46-10-12970	249335008	7e317.d	25-MAR-10 05:00
RE46-10-12972MS	1202080567	7e319.d	25-MAR-10 06:07
RE46-10-12972MSD	1202080568	7e320.d	25-MAR-10 06:41

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA7.I

GC Column: DB-624

Client SDG: 10-2436

STD Analysis Time: 24-MAR-10 20:27

Data File: 7e302.d

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	701414		15.3	550753		18.7	289304		21.0
Upper Limit	1402828		15.8	1101506		19.2	578608		21.5
Lower Limit	350707		14.8	275377		18.2	144652		20.5
Sample ID									
BLK01LCS	787545		15.3	612503		18.7	323594		21.0
BLK01SLCS	858030		15.3	624839		18.7	327324		21.0
BLK01	712609		15.3	535340		18.7	267638		21.0
RE46-10-13000	587584		15.3	458396		18.7	224833		21.0
RE46-10-12972	620969		15.3	477086		18.7	236117		21.0
RE46-10-13003	595405		15.3	453265		18.7	223173		21.0
RE46-10-12967	568692		15.3	420358		18.7	201295		21.0
RE46-10-12971	555478		15.3	420373		18.7	204639		21.0
RE46-10-12968	538428		15.3	413522		18.7	196375		21.0
RE46-10-12969	540229		15.3	412001		18.7	205028		21.0
RE46-10-12970	526614		15.3	407361		18.7	206979		21.0
RE46-10-12972MS	547411		15.3	454403		18.7	243420		21.0
RE46-10-12972MSD	590980		15.3	476261		18.7	250323		21.0

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12967**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 02:44**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:35**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e313.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.429	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.378	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.378	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.378	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.378	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.378	1.26
67-64-1	Acetone	U	6.31	ug/kg	2.09	6.31
75-35-4	1,1-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
74-88-4	Iodomethane	U	6.31	ug/kg	2.02	6.31
75-09-2	Methylene chloride	J	5.42	ug/kg	2.52	6.31
75-15-0	Carbon disulfide	U	6.31	ug/kg	1.58	6.31
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.378	1.26
78-93-3	2-Butanone	U	6.31	ug/kg	1.89	6.31
156-59-2	cis-1,2-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.378	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.378	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.416	1.26
71-55-6	1,1,1-Trichloroethane	U	1.26	ug/kg	0.378	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.378	1.26
56-23-5	Carbon tetrachloride	U	1.26	ug/kg	0.378	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.378	1.26
71-43-2	Benzene	U	1.26	ug/kg	0.378	1.26
79-01-6	Trichloroethylene	U	1.26	ug/kg	0.416	1.26
78-87-5	1,2-Dichloropropane	U	1.26	ug/kg	0.378	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.378	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.378	1.26
108-10-1	4-Methyl-2-pentanone	U	6.31	ug/kg	1.58	6.31
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.378	1.26
108-88-3	Toluene	U	1.26	ug/kg	0.378	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.378	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.378	1.26
591-78-6	2-Hexanone	U	6.31	ug/kg	1.89	6.31
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.378	1.26
127-18-4	Tetrachloroethylene	U	1.26	ug/kg	0.378	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.378	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.378	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.378	1.26

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12967**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 02:44**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:35**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e313.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.26	ug/kg	0.378	1.26
179601-23-1	m,p-Xylenes	U	2.52	ug/kg	0.378	2.52
95-47-6	o-Xylene	U	1.26	ug/kg	0.378	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.378	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.378	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.378	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.378	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.378	1.26
103-65-1	n-Propylbenzene	U	1.26	ug/kg	0.378	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.378	1.26
98-82-8	Isopropylbenzene	U	1.26	ug/kg	0.378	1.26
108-67-8	1,3,5-Trimethylbenzene	U	1.26	ug/kg	0.378	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.378	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.378	1.26
95-63-6	1,2,4-Trimethylbenzene	U	1.26	ug/kg	0.378	1.26
135-98-8	sec-Butylbenzene	U	1.26	ug/kg	0.378	1.26
99-87-6	4-Isopropyltoluene	U	1.26	ug/kg	0.378	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26
104-51-8	n-Butylbenzene	U	1.26	ug/kg	0.378	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.378	1.26
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.31	ug/kg	2.02	6.31
630-20-6	1,1,1,2-Tetrachloroethane	U	1.26	ug/kg	0.378	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e313.d
Lab Smp Id: 249335004 Client Smp ID: RE46-10-12967
Inj Date : 25-MAR-2010 02:44
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |249335004|969056|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	20.72070	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	568692	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	420358	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	201295	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.972)	220082	44.7925	56.5
$ 64 Toluene-d8	98	17.134	17.134	(0.918)	641027	46.8540	59.1
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	213810	40.3796	50.9
22 Methylene chloride	86	11.449	11.439	(0.747)	9988	4.29880	5.4(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 7e313.d
Report Date: 03/31/2010 17:54
Lab. ID: 249335004 SampleType: SAMPLE
Injection Date: 25-MAR-2010 02:44
Operator: AXO1 Instrument: VOA7.i
Sample Info: |249335004|969056|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2436
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
22 Methylene chloride			CAS#: 75-09-2			
86	9988	11.45	11.44	80-120	100	( )
84	15300	11.44	11.44	123-183	153	( )
49	27735	11.44	11.44	241-301	278	( )
63 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	7766	17.13	16.94	80-120	100	(T)
43	5147	17.13	16.93	222-282	66	(QT)
100	443888	17.13	16.94	0- 56	5715	(QT)
82 Bromoform			CAS#: 75-25-2			
173	941	19.81	19.54	80-120	100	(T)
175	12293	19.81	19.54	19- 79	1306	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e313.d
Lab Smp Id: 249335004 Client Smp ID: RE46-10-12967
Inj Date : 25-MAR-2010 02:44
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |249335004|969056|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA7.i/032410v7/7e313.d
Date : 25-MAR-2010 02:44
Client ID: RE46-10-12967
Sample Info: |249335004|969056|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AX01
Column diameter: 0.25

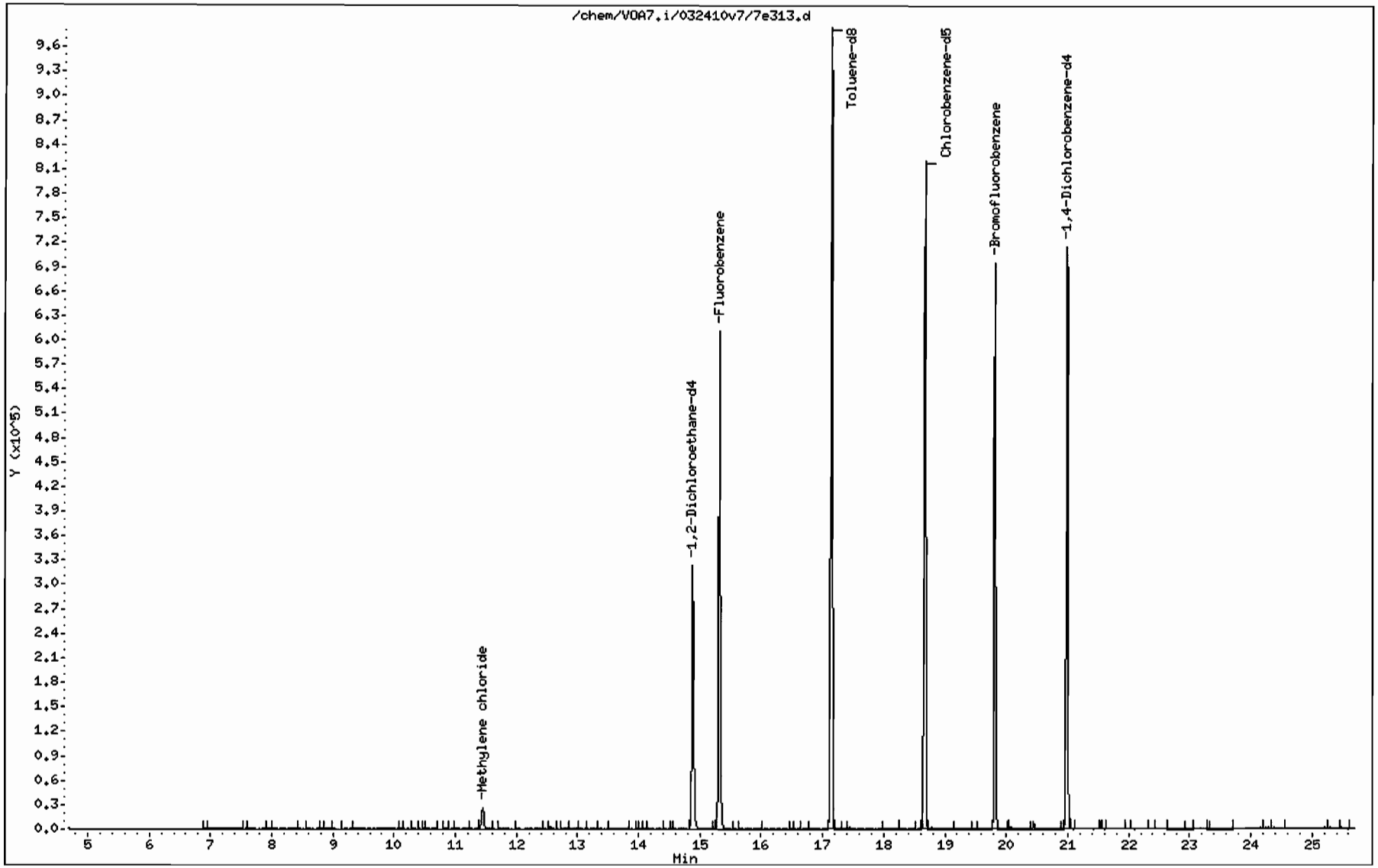

Data File: /chem/VOA7.i/032410v7/7e313.d

Date : 25-MAR-2010 02:44

Client ID: RE46-10-12967

Instrument: VOA7.i

Sample Info: |2493350041969056|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

22 Methylene chloride

Concentration: 5.4 ug/Kg

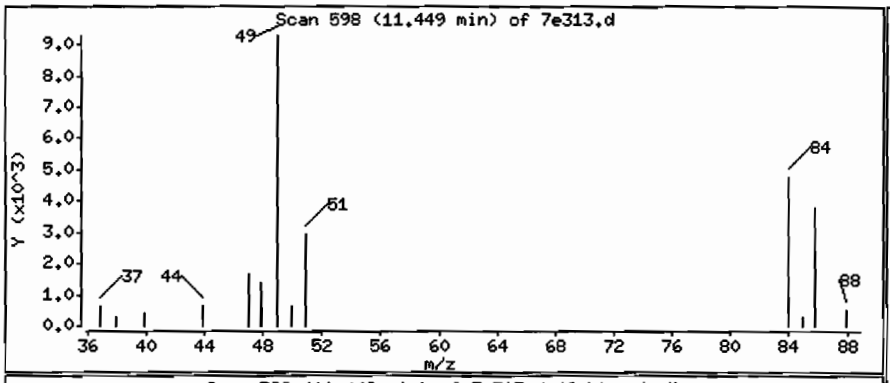

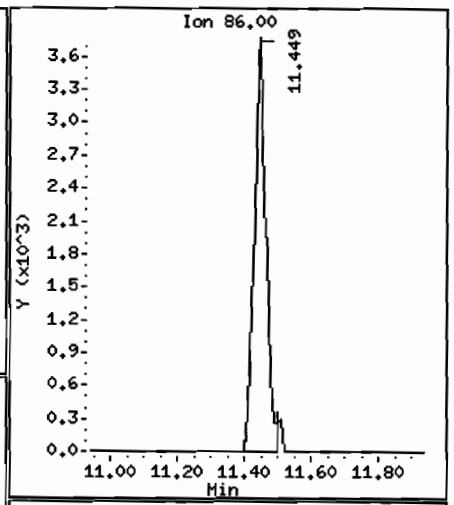

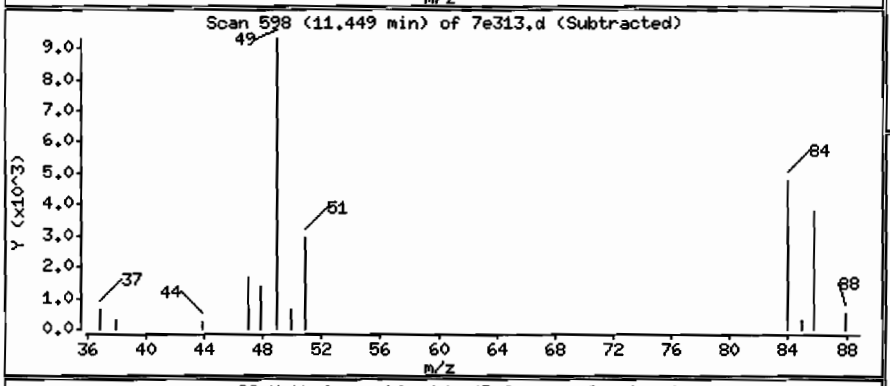

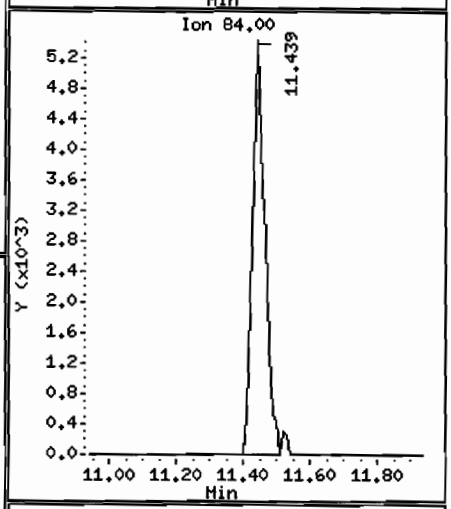

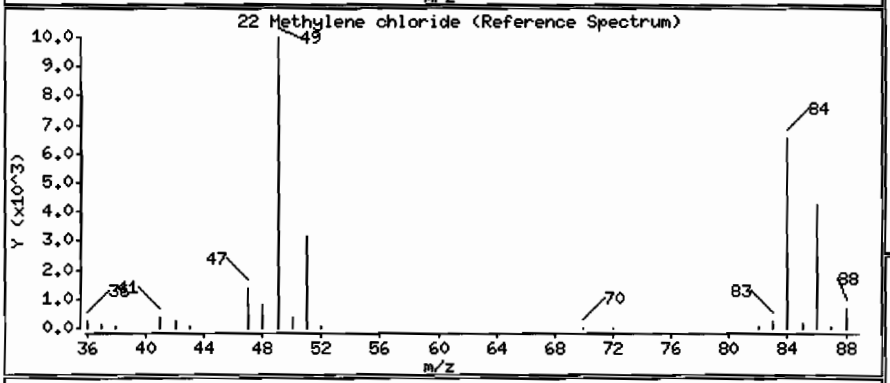

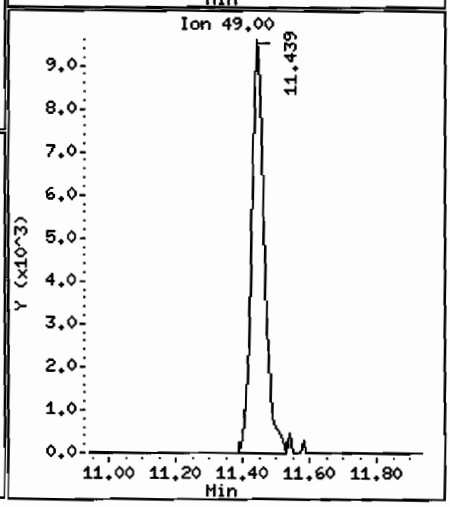

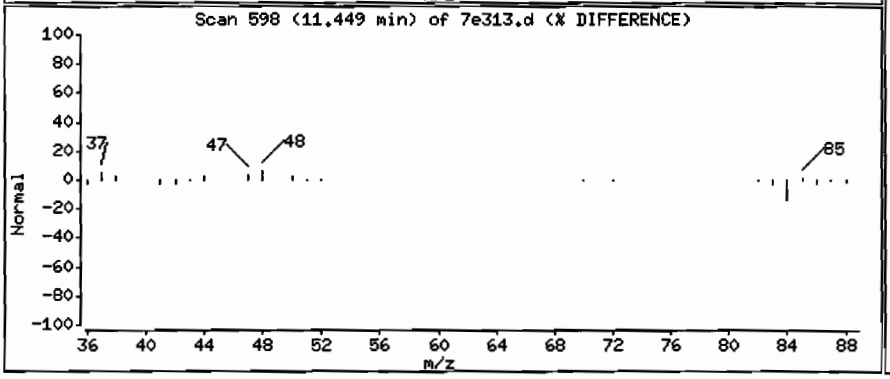

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12968**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 03:53**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:39**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e315.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.12	ug/kg	0.380	1.12
74-87-3	Chloromethane	U	1.12	ug/kg	0.335	1.12
75-01-4	Vinyl chloride	U	1.12	ug/kg	0.335	1.12
74-83-9	Bromomethane	U	1.12	ug/kg	0.335	1.12
75-00-3	Chloroethane	U	1.12	ug/kg	0.335	1.12
75-69-4	Trichlorofluoromethane	U	1.12	ug/kg	0.335	1.12
67-64-1	Acetone	U	5.58	ug/kg	1.85	5.58
75-35-4	1,1-Dichloroethylene	U	1.12	ug/kg	0.335	1.12
74-88-4	Iodomethane	U	5.58	ug/kg	1.79	5.58
75-09-2	Methylene chloride	J	4.07	ug/kg	2.23	5.58
75-15-0	Carbon disulfide	U	5.58	ug/kg	1.40	5.58
156-60-5	trans-1,2-Dichloroethylene	U	1.12	ug/kg	0.335	1.12
75-34-3	1,1-Dichloroethane	U	1.12	ug/kg	0.335	1.12
78-93-3	2-Butanone	U	5.58	ug/kg	1.67	5.58
156-59-2	cis-1,2-Dichloroethylene	U	1.12	ug/kg	0.335	1.12
594-20-7	2,2-Dichloropropane	U	1.12	ug/kg	0.335	1.12
67-66-3	Chloroform	U	1.12	ug/kg	0.335	1.12
74-97-5	Bromochloromethane	U	1.12	ug/kg	0.368	1.12
71-55-6	1,1,1-Trichloroethane	U	1.12	ug/kg	0.335	1.12
563-58-6	1,1-Dichloropropene	U	1.12	ug/kg	0.335	1.12
56-23-5	Carbon tetrachloride	U	1.12	ug/kg	0.335	1.12
107-06-2	1,2-Dichloroethane	U	1.12	ug/kg	0.335	1.12
71-43-2	Benzene	U	1.12	ug/kg	0.335	1.12
79-01-6	Trichloroethylene	U	1.12	ug/kg	0.368	1.12
78-87-5	1,2-Dichloropropane	U	1.12	ug/kg	0.335	1.12
75-27-4	Bromodichloromethane	U	1.12	ug/kg	0.335	1.12
74-95-3	Dibromomethane	U	1.12	ug/kg	0.335	1.12
108-10-1	4-Methyl-2-pentanone	U	5.58	ug/kg	1.40	5.58
10061-01-5	cis-1,3-Dichloropropylene	U	1.12	ug/kg	0.335	1.12
108-88-3	Toluene	U	1.12	ug/kg	0.335	1.12
10061-02-6	trans-1,3-Dichloropropylene	U	1.12	ug/kg	0.335	1.12
79-00-5	1,1,2-Trichloroethane	U	1.12	ug/kg	0.335	1.12
591-78-6	2-Hexanone	U	5.58	ug/kg	1.67	5.58
142-28-9	1,3-Dichloropropane	U	1.12	ug/kg	0.335	1.12
127-18-4	Tetrachloroethylene	U	1.12	ug/kg	0.335	1.12
124-48-1	Dibromochloromethane	U	1.12	ug/kg	0.335	1.12
106-93-4	1,2-Dibromoethane	U	1.12	ug/kg	0.335	1.12
108-90-7	Chlorobenzene	U	1.12	ug/kg	0.335	1.12

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12968**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 03:53**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:39**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e315.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.12	ug/kg	0.335	1.12
179601-23-1	m,p-Xylenes	U	2.23	ug/kg	0.335	2.23
95-47-6	o-Xylene	U	1.12	ug/kg	0.335	1.12
100-42-5	Styrene	U	1.12	ug/kg	0.335	1.12
75-25-2	Bromoform	U	1.12	ug/kg	0.335	1.12
79-34-5	1,1,2,2-Tetrachloroethane	U	1.12	ug/kg	0.335	1.12
96-18-4	1,2,3-Trichloropropane	U	1.12	ug/kg	0.335	1.12
108-86-1	Bromobenzene	U	1.12	ug/kg	0.335	1.12
103-65-1	n-Propylbenzene	U	1.12	ug/kg	0.335	1.12
95-49-8	2-Chlorotoluene	U	1.12	ug/kg	0.335	1.12
98-82-8	Isopropylbenzene	U	1.12	ug/kg	0.335	1.12
108-67-8	1,3,5-Trimethylbenzene	U	1.12	ug/kg	0.335	1.12
106-43-4	4-Chlorotoluene	U	1.12	ug/kg	0.335	1.12
98-06-6	tert-Butylbenzene	U	1.12	ug/kg	0.335	1.12
95-63-6	1,2,4-Trimethylbenzene	U	1.12	ug/kg	0.335	1.12
135-98-8	sec-Butylbenzene	U	1.12	ug/kg	0.335	1.12
99-87-6	4-Isopropyltoluene	U	1.12	ug/kg	0.335	1.12
541-73-1	1,3-Dichlorobenzene	U	1.12	ug/kg	0.335	1.12
106-46-7	1,4-Dichlorobenzene	U	1.12	ug/kg	0.335	1.12
104-51-8	n-Butylbenzene	U	1.12	ug/kg	0.335	1.12
96-12-8	1,2-Dibromo-3-chloropropane	U	1.12	ug/kg	0.335	1.12
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.58	ug/kg	1.79	5.58
630-20-6	1,1,1,2-Tetrachloroethane	U	1.12	ug/kg	0.335	1.12
95-50-1	1,2-Dichlorobenzene	U	1.12	ug/kg	0.335	1.12

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e315.d
Lab Smp Id: 249335006 Client Smp ID: RE46-10-12968
Inj Date : 25-MAR-2010 03:53
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |249335006|969056|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	10.43520	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	538428	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	413522	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	196375	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	210092	45.1627	50.4
$ 64 Toluene-d8	98	17.134	17.134	(0.918)	632996	47.0319	52.5
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	216479	41.9080	46.8
22 Methylene chloride	86	11.459	11.439	(0.748)	8023	3.64716	4.1(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 7e315.d
Report Date: 03/31/2010 17:54
Lab. ID: 249335006 SampleType: SAMPLE
Injection Date: 25-MAR-2010 03:53
Operator: AXO1 Instrument: VOA7.i
Sample Info: |249335006|969056|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2436
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
22 Methylene chloride			CAS#: 75-09-2			
86	8023	11.46	11.44	80-120	100	( )
84	12634	11.45	11.44	123-183	157	( )
49	23021	11.45	11.44	241-301	287	( )
63 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	7779	17.13	16.94	80-120	100	(T)
43	4887	17.14	16.93	222-282	63	(QT)
100	431797	17.13	16.94	0- 56	5551	(QT)
82 Bromoform			CAS#: 75-25-2			
173	795	19.80	19.54	80-120	100	(T)
175	12614	19.81	19.54	19- 79	1586	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e315.d
Lab Smp Id: 249335006 Client Smp ID: RE46-10-12968
Inj Date : 25-MAR-2010 03:53
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |249335006|969056|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA7.i/032410v7/7e315.d

Date : 25-MAR-2010 03:53

Client ID: RE46-10-12968

Sample Info: |2493350061969056|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AX01

Column diameter: 0.25

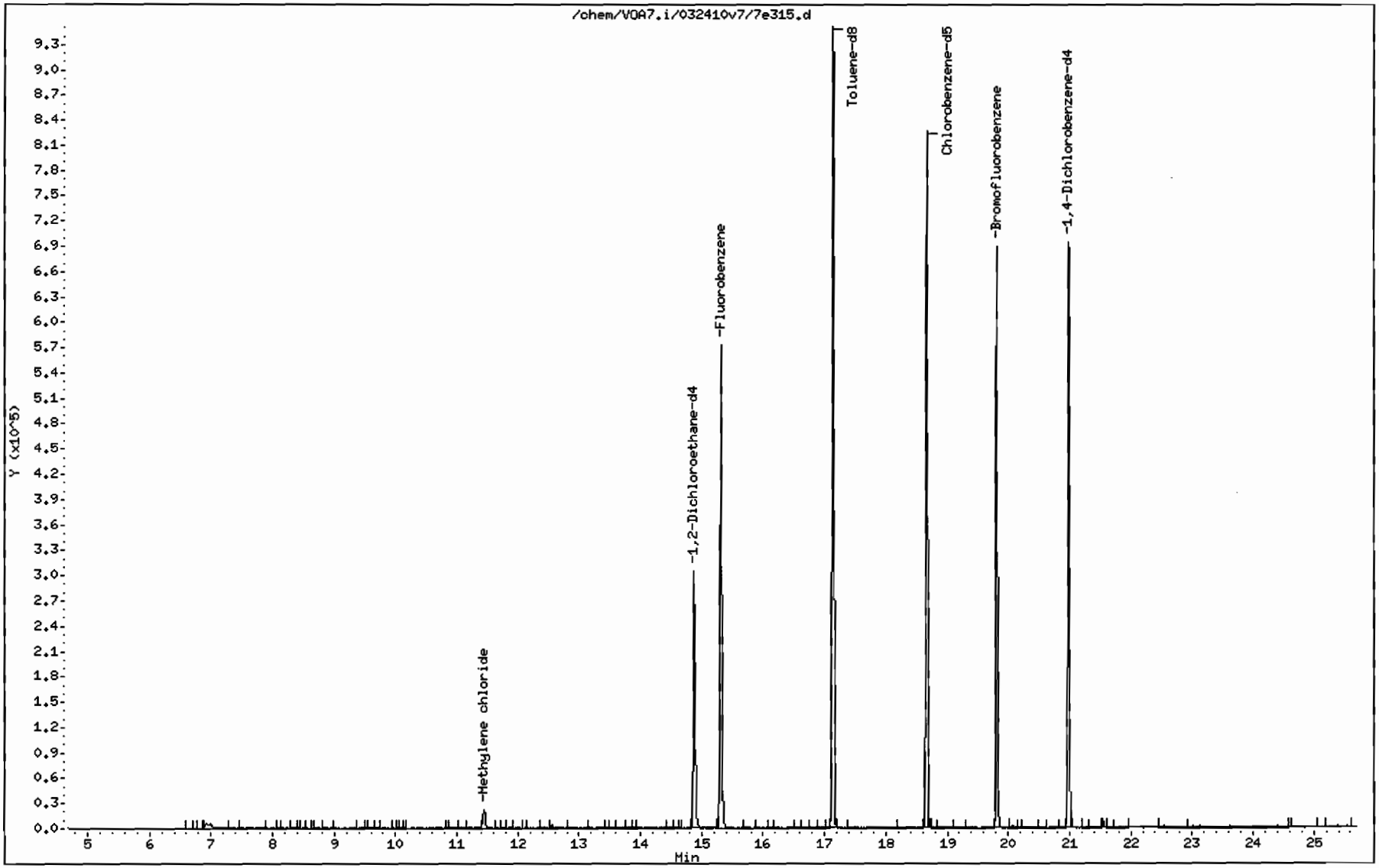

Data File: /chem/VOA7.i/032410v7/7e315.d

Date : 25-MAR-2010 03:53

Client ID: RE46-10-12968

Instrument: VOA7.i

Sample Info: |249335006|969056|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

22 Methylene chloride

Concentration: 4.1 ug/Kg

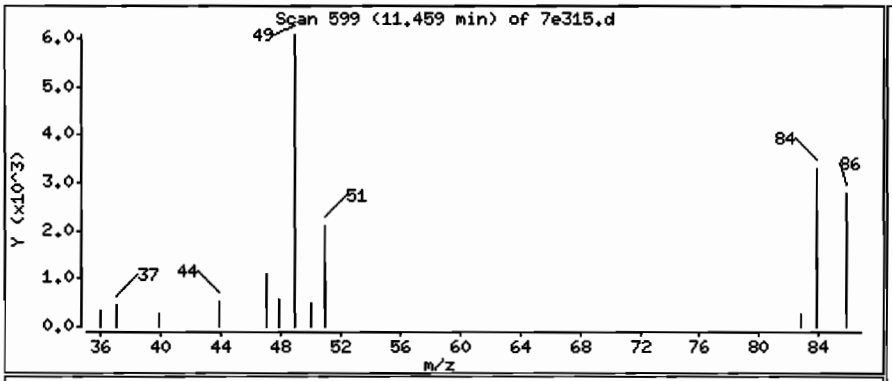

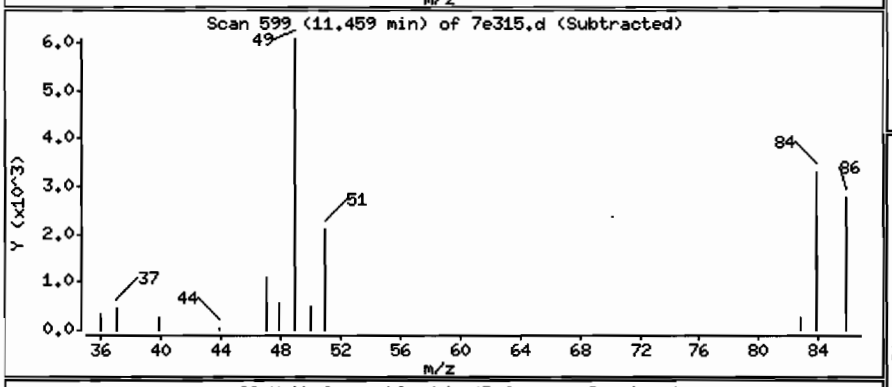

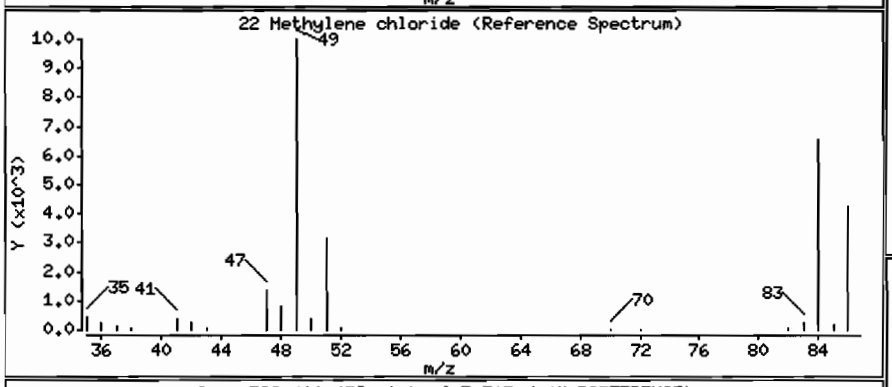

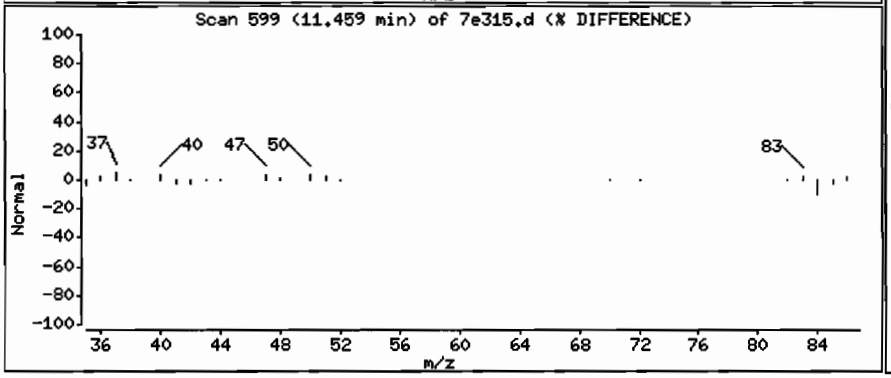

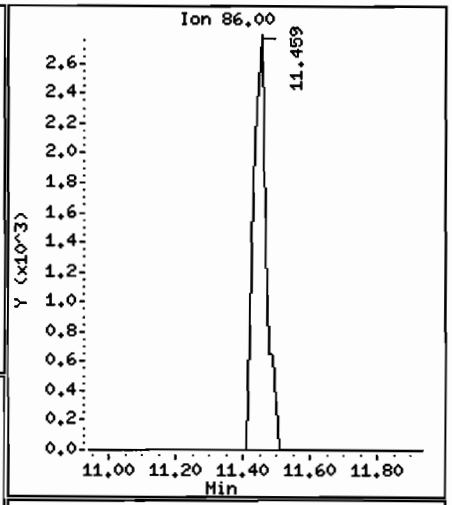

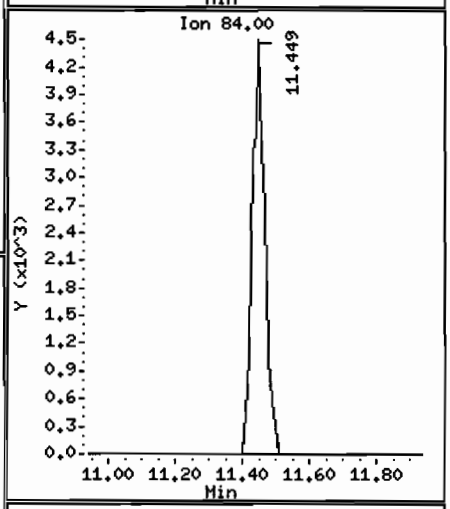

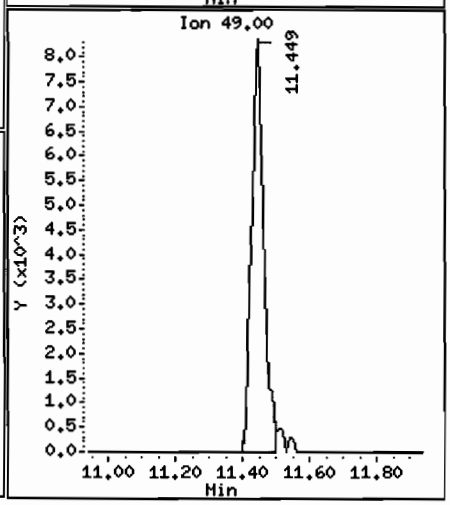

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12969**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 04:26**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:41**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e316.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.388	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.342	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.342	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.342	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.342	1.14
67-64-1	Acetone	U	5.71	ug/kg	1.89	5.71
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
74-88-4	Iodomethane	U	5.71	ug/kg	1.83	5.71
75-09-2	Methylene chloride	J	5.51	ug/kg	2.28	5.71
75-15-0	Carbon disulfide	U	5.71	ug/kg	1.43	5.71
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.342	1.14
78-93-3	2-Butanone	U	5.71	ug/kg	1.71	5.71
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.342	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.377	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.342	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.342	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.377	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.342	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone	U	5.71	ug/kg	1.43	5.71
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.342	1.14
591-78-6	2-Hexanone	U	5.71	ug/kg	1.71	5.71
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.342	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.342	1.14

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12969**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 04:26**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:41**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e316.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.342	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.342	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.342	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.342	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.71	ug/kg	1.83	5.71
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e316.d
Lab Smp Id: 249335007 Client Smp ID: RE46-10-12969
Inj Date : 25-MAR-2010 04:26
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |249335007|969056|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	12.37980	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	540229	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	412001	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	205028	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	199881	42.8244	48.9
$ 64 Toluene-d8	98	17.134	17.134	(0.918)	615918	45.9319	52.4
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	214266	39.7290	45.3
22 Methylene chloride	86	11.439	11.439	(0.747)	10660	4.82975	5.5(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 7e316.d
Report Date: 03/31/2010 17:54
Lab. ID: 249335007 SampleType: SAMPLE
Injection Date: 25-MAR-2010 04:26
Operator: AXO1 Instrument: VOA7.i
Sample Info: |249335007|969056|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2436
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
22 Methylene chloride			CAS#: 75-09-2			
86	10660	11.44	11.44	80-120	100	( )
84	15451	11.44	11.44	123-183	145	( )
49	26663	11.44	11.44	241-301	250	( )
63 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	7197	17.13	16.94	80-120	100	(T)
43	4362	17.13	16.93	222-282	61	(QT)
100	427001	17.13	16.94	0- 56	5932	(QT)
82 Bromoform			CAS#: 75-25-2			
173	831	19.81	19.54	80-120	100	(T)
175	12304	19.81	19.54	19- 79	1480	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e316.d
Lab Smp Id: 249335007 Client Smp ID: RE46-10-12969
Inj Date : 25-MAR-2010 04:26
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |249335007|969056|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA7.i/032410v7/7e316.d
Date : 25-MAR-2010 04:26
Client ID: RE46-10-12969
Sample Info: |2493350071969056|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AX01
Column diameter: 0.25

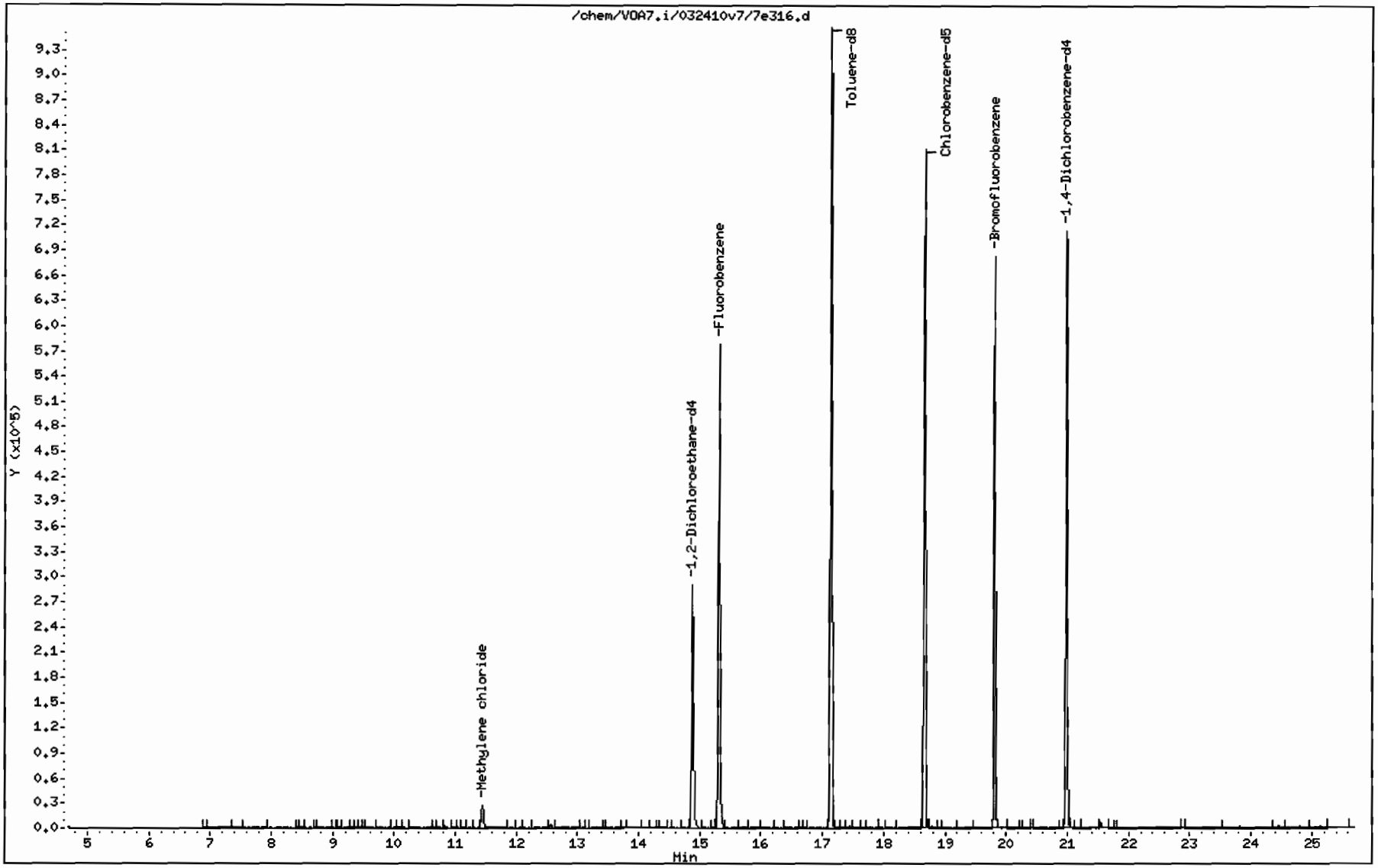

Data File: /chem/VOA7.i/032410v7/7e316.d

Date : 25-MAR-2010 04:26

Client ID: RE46-10-12969

Instrument: VOA7.i

Sample Info: |249335007|969056|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

22 Methylene chloride

Concentration: 5.5 ug/Kg

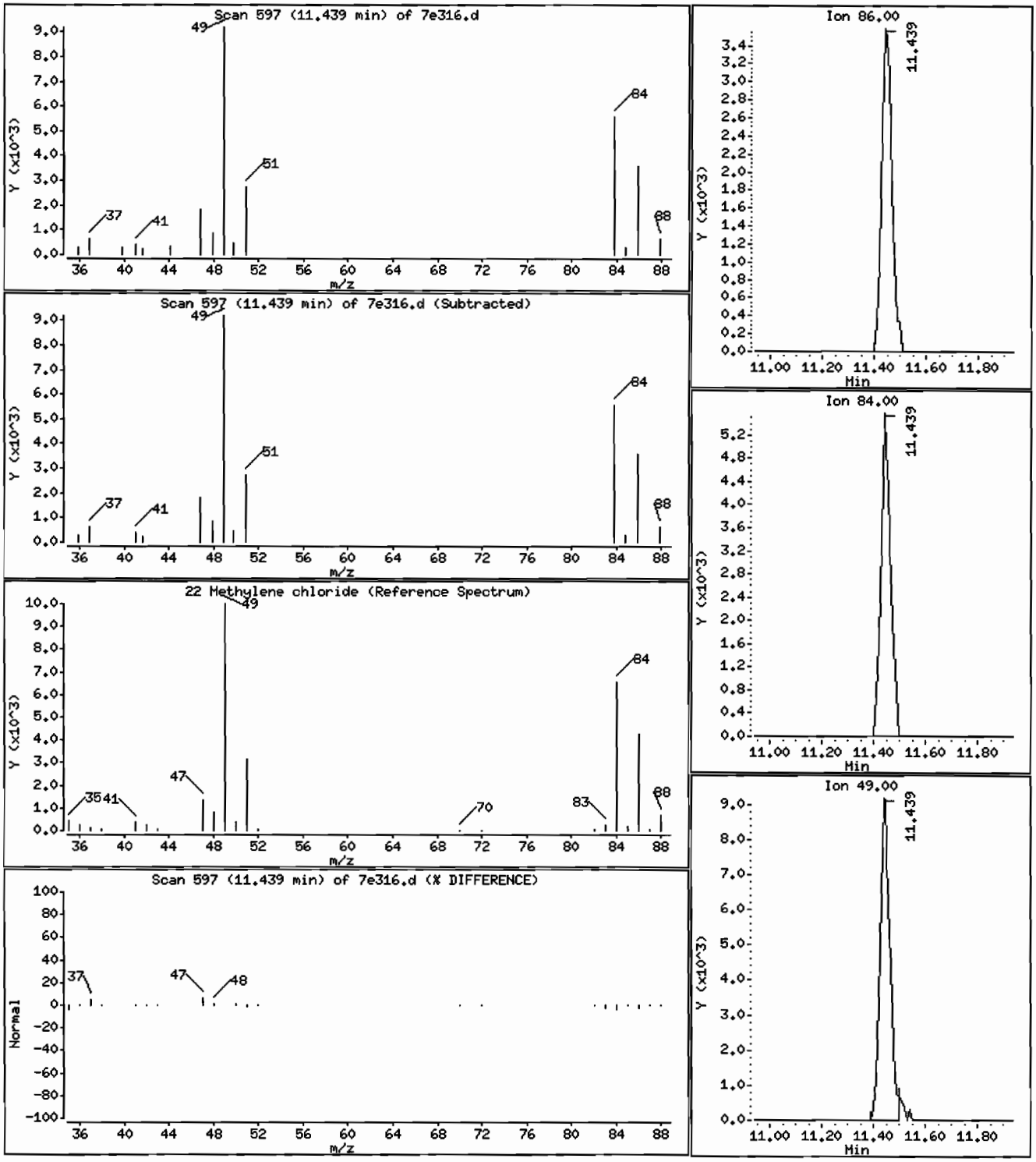

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335008**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12970**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 05:00**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:43**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e317.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.402	1.18
74-87-3	Chloromethane	U	1.18	ug/kg	0.354	1.18
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.354	1.18
74-83-9	Bromomethane	U	1.18	ug/kg	0.354	1.18
75-00-3	Chloroethane	U	1.18	ug/kg	0.354	1.18
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.354	1.18
67-64-1	Acetone	U	5.91	ug/kg	1.96	5.91
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
74-88-4	Iodomethane	U	5.91	ug/kg	1.89	5.91
75-09-2	Methylene chloride	J	5.13	ug/kg	2.36	5.91
75-15-0	Carbon disulfide	U	5.91	ug/kg	1.48	5.91
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.354	1.18
78-93-3	2-Butanone	U	5.91	ug/kg	1.77	5.91
156-59-2	cis-1,2-Dichloroethylene	U	1.18	ug/kg	0.354	1.18
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.354	1.18
67-66-3	Chloroform	U	1.18	ug/kg	0.354	1.18
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.390	1.18
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.354	1.18
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.354	1.18
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.354	1.18
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.354	1.18
71-43-2	Benzene	U	1.18	ug/kg	0.354	1.18
79-01-6	Trichloroethylene	U	1.18	ug/kg	0.390	1.18
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.354	1.18
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.354	1.18
74-95-3	Dibromomethane	U	1.18	ug/kg	0.354	1.18
108-10-1	4-Methyl-2-pentanone	U	5.91	ug/kg	1.48	5.91
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.354	1.18
108-88-3	Toluene	U	1.18	ug/kg	0.354	1.18
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.354	1.18
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.354	1.18
591-78-6	2-Hexanone	U	5.91	ug/kg	1.77	5.91
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.354	1.18
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.354	1.18
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.354	1.18
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.354	1.18
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.354	1.18

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335008**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12970**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 05:00**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:43**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e317.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.354	1.18
179601-23-1	m,p-Xylenes	U	2.36	ug/kg	0.354	2.36
95-47-6	o-Xylene	U	1.18	ug/kg	0.354	1.18
100-42-5	Styrene	U	1.18	ug/kg	0.354	1.18
75-25-2	Bromoform	U	1.18	ug/kg	0.354	1.18
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.354	1.18
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.354	1.18
108-86-1	Bromobenzene	U	1.18	ug/kg	0.354	1.18
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.354	1.18
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.354	1.18
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.354	1.18
108-67-8	1,3,5-Trimethylbenzene	U	1.18	ug/kg	0.354	1.18
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.354	1.18
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.354	1.18
95-63-6	1,2,4-Trimethylbenzene	U	1.18	ug/kg	0.354	1.18
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.354	1.18
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.354	1.18
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.354	1.18
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.354	1.18
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.91	ug/kg	1.89	5.91
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.354	1.18
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.354	1.18

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e317.d
Lab Smp Id: 249335008 Client Smp ID: RE46-10-12970
Inj Date : 25-MAR-2010 05:00
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |249335008|969056|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	15.36530	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	526614	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	407361	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	206979	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.972)	195003	42.8595	50.6
$ 64 Toluene-d8	98	17.134	17.134	(0.918)	620599	46.8082	55.3
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	218416	40.1167	47.4
22 Methylene chloride	86	11.449	11.439	(0.747)	9350	4.34575	5.1(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 7e317.d
Report Date: 03/31/2010 17:54
Lab. ID: 249335008 SampleType: SAMPLE
Injection Date: 25-MAR-2010 05:00
Operator: AXO1 Instrument: VOA7.i
Sample Info: |249335008|969056|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2436
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
22 Methylene chloride			CAS#: 75-09-2			
86	9350	11.45	11.44	80-120	100	( )
84	12991	11.46	11.44	123-183	139	( )
49	24336	11.45	11.44	241-301	260	( )
63 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	7533	17.13	16.94	80-120	100	(T)
43	4101	17.13	16.93	222-282	54	(QT)
100	428392	17.13	16.94	0- 56	5686	(QT)
82 Bromoform			CAS#: 75-25-2			
173	1118	19.81	19.54	80-120	100	(T)
175	12017	19.81	19.54	19- 79	1074	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e317.d
Lab Smp Id: 249335008 Client Smp ID: RE46-10-12970
Inj Date : 25-MAR-2010 05:00
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |249335008|969056|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA7.i/032410v7/7e317.d
Date : 25-MAR-2010 05:00
Client ID: RE46-10-12970
Sample Info: |249335008|969056|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AX01
Column diameter: 0.25

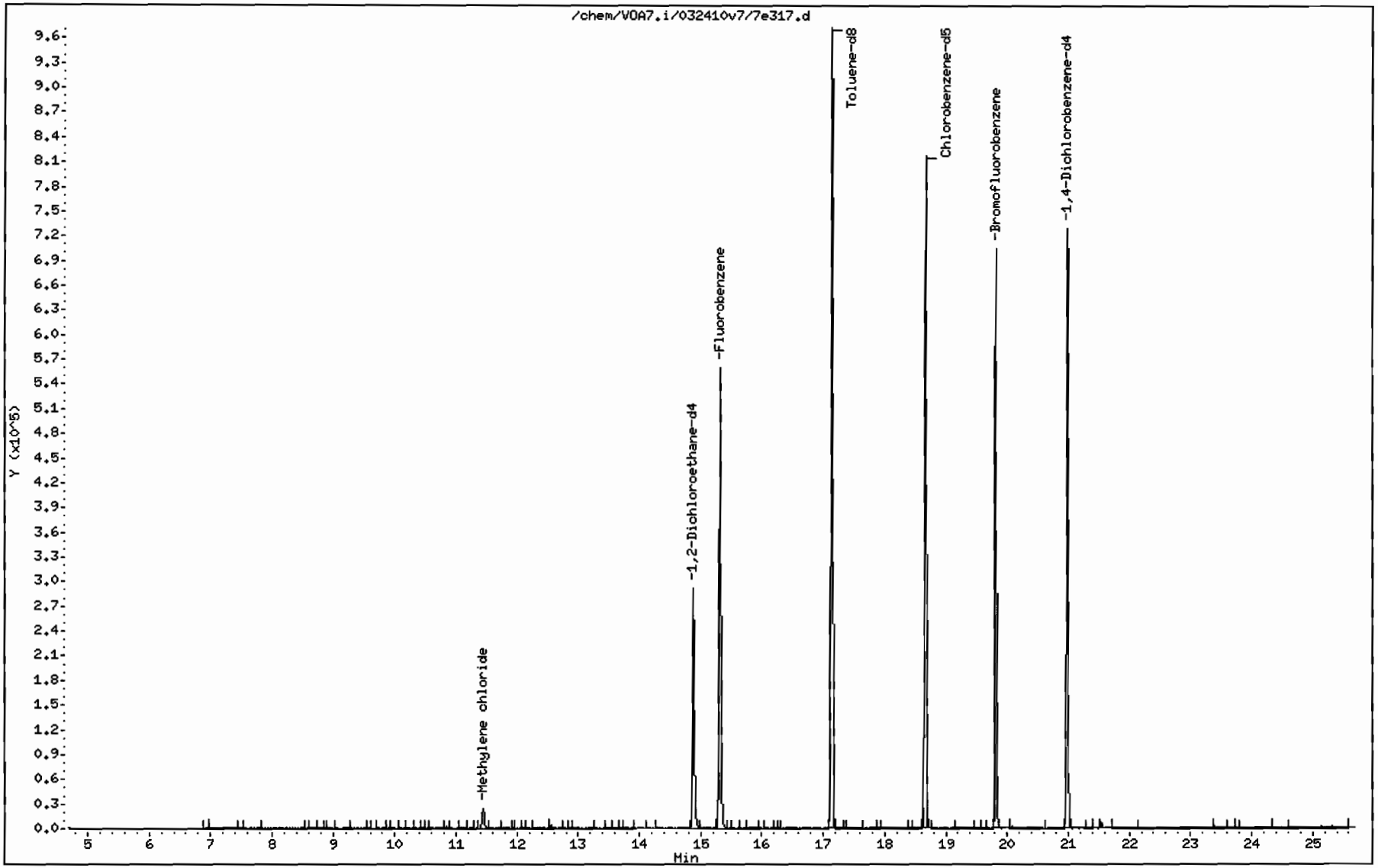

Data File: /chem/VOA7.i/032410v7/7e317.d

Date : 25-MAR-2010 05:00

Client ID: RE46-10-12970

Instrument: VOA7.i

Sample Info: |2493350081969056|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

22 Methylene chloride

Concentration: 5.1 ug/Kg

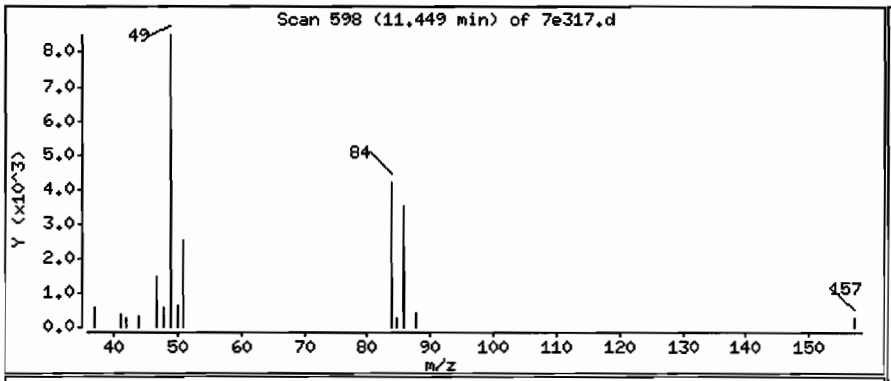

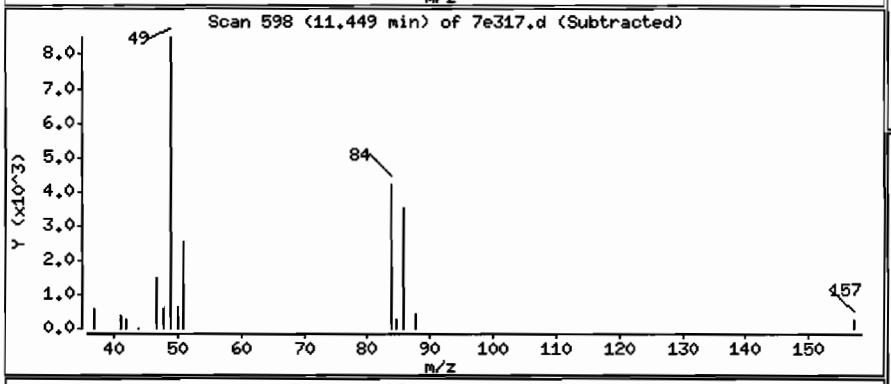

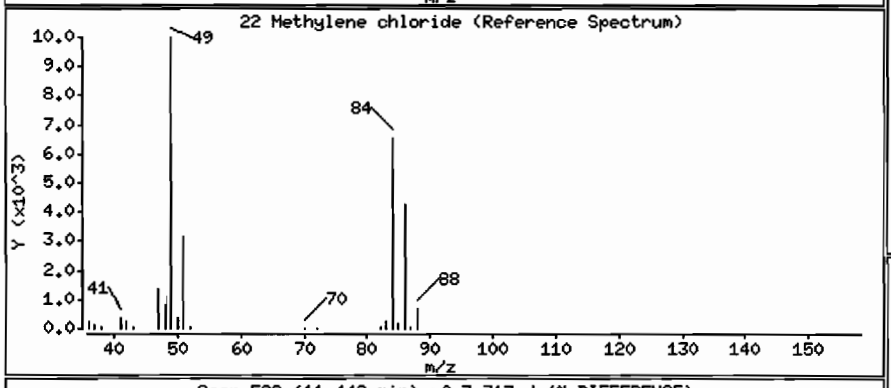

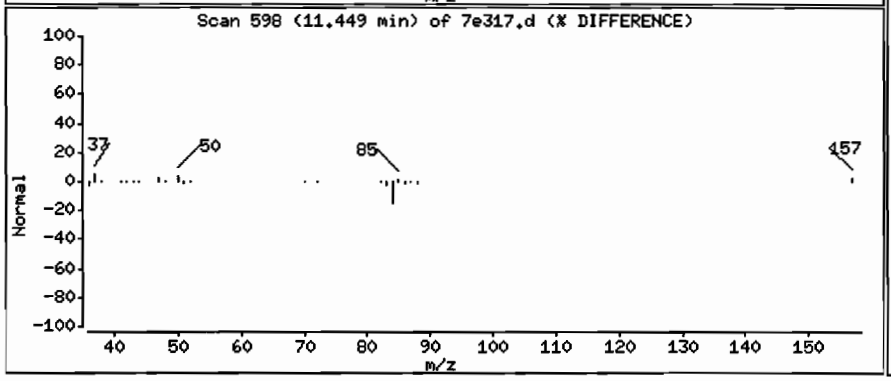

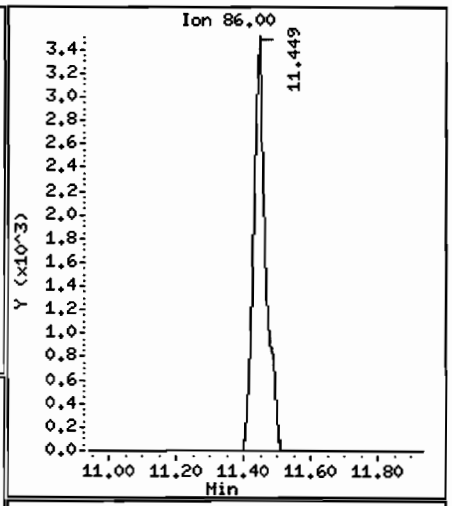

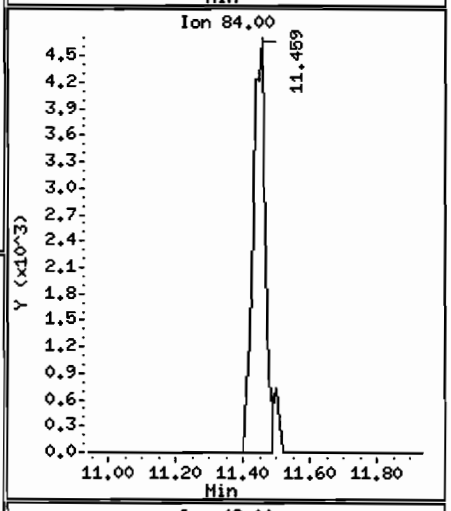

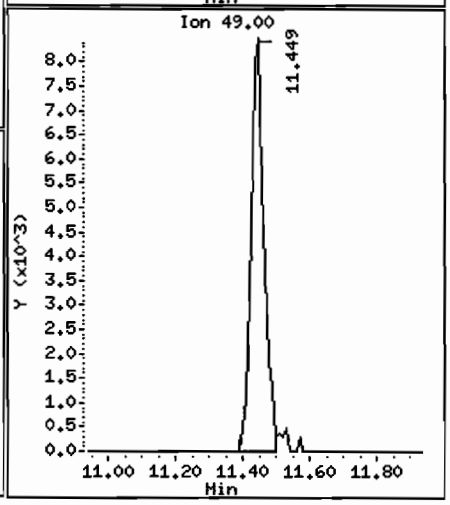

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**21.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12971**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 03:19**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:37**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e314.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.28	ug/kg	0.435	1.28
74-87-3	Chloromethane	U	1.28	ug/kg	0.384	1.28
75-01-4	Vinyl chloride	U	1.28	ug/kg	0.384	1.28
74-83-9	Bromomethane	U	1.28	ug/kg	0.384	1.28
75-00-3	Chloroethane	U	1.28	ug/kg	0.384	1.28
75-69-4	Trichlorofluoromethane	U	1.28	ug/kg	0.384	1.28
67-64-1	Acetone	U	6.39	ug/kg	2.12	6.39
75-35-4	1,1-Dichloroethylene	U	1.28	ug/kg	0.384	1.28
74-88-4	Iodomethane	U	6.39	ug/kg	2.05	6.39
75-09-2	Methylene chloride	J	5.30	ug/kg	2.56	6.39
75-15-0	Carbon disulfide	U	6.39	ug/kg	1.60	6.39
156-60-5	trans-1,2-Dichloroethylene	U	1.28	ug/kg	0.384	1.28
75-34-3	1,1-Dichloroethane	U	1.28	ug/kg	0.384	1.28
78-93-3	2-Butanone	U	6.39	ug/kg	1.92	6.39
156-59-2	cis-1,2-Dichloroethylene	U	1.28	ug/kg	0.384	1.28
594-20-7	2,2-Dichloropropane	U	1.28	ug/kg	0.384	1.28
67-66-3	Chloroform	U	1.28	ug/kg	0.384	1.28
74-97-5	Bromochloromethane	U	1.28	ug/kg	0.422	1.28
71-55-6	1,1,1-Trichloroethane	U	1.28	ug/kg	0.384	1.28
563-58-6	1,1-Dichloropropene	U	1.28	ug/kg	0.384	1.28
56-23-5	Carbon tetrachloride	U	1.28	ug/kg	0.384	1.28
107-06-2	1,2-Dichloroethane	U	1.28	ug/kg	0.384	1.28
71-43-2	Benzene	U	1.28	ug/kg	0.384	1.28
79-01-6	Trichloroethylene	U	1.28	ug/kg	0.422	1.28
78-87-5	1,2-Dichloropropane	U	1.28	ug/kg	0.384	1.28
75-27-4	Bromodichloromethane	U	1.28	ug/kg	0.384	1.28
74-95-3	Dibromomethane	U	1.28	ug/kg	0.384	1.28
108-10-1	4-Methyl-2-pentanone	U	6.39	ug/kg	1.60	6.39
10061-01-5	cis-1,3-Dichloropropylene	U	1.28	ug/kg	0.384	1.28
108-88-3	Toluene	U	1.28	ug/kg	0.384	1.28
10061-02-6	trans-1,3-Dichloropropylene	U	1.28	ug/kg	0.384	1.28
79-00-5	1,1,2-Trichloroethane	U	1.28	ug/kg	0.384	1.28
591-78-6	2-Hexanone	U	6.39	ug/kg	1.92	6.39
142-28-9	1,3-Dichloropropane	U	1.28	ug/kg	0.384	1.28
127-18-4	Tetrachloroethylene	U	1.28	ug/kg	0.384	1.28
124-48-1	Dibromochloromethane	U	1.28	ug/kg	0.384	1.28
106-93-4	1,2-Dibromoethane	U	1.28	ug/kg	0.384	1.28
108-90-7	Chlorobenzene	U	1.28	ug/kg	0.384	1.28

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**21.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12971**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 03:19**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:37**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e314.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.28	ug/kg	0.384	1.28
179601-23-1	m,p-Xylenes	U	2.56	ug/kg	0.384	2.56
95-47-6	o-Xylene	U	1.28	ug/kg	0.384	1.28
100-42-5	Styrene	U	1.28	ug/kg	0.384	1.28
75-25-2	Bromoform	U	1.28	ug/kg	0.384	1.28
79-34-5	1,1,2,2-Tetrachloroethane	U	1.28	ug/kg	0.384	1.28
96-18-4	1,2,3-Trichloropropane	U	1.28	ug/kg	0.384	1.28
108-86-1	Bromobenzene	U	1.28	ug/kg	0.384	1.28
103-65-1	n-Propylbenzene	U	1.28	ug/kg	0.384	1.28
95-49-8	2-Chlorotoluene	U	1.28	ug/kg	0.384	1.28
98-82-8	Isopropylbenzene	U	1.28	ug/kg	0.384	1.28
108-67-8	1,3,5-Trimethylbenzene	U	1.28	ug/kg	0.384	1.28
106-43-4	4-Chlorotoluene	U	1.28	ug/kg	0.384	1.28
98-06-6	tert-Butylbenzene	U	1.28	ug/kg	0.384	1.28
95-63-6	1,2,4-Trimethylbenzene	U	1.28	ug/kg	0.384	1.28
135-98-8	sec-Butylbenzene	U	1.28	ug/kg	0.384	1.28
99-87-6	4-Isopropyltoluene	U	1.28	ug/kg	0.384	1.28
541-73-1	1,3-Dichlorobenzene	U	1.28	ug/kg	0.384	1.28
106-46-7	1,4-Dichlorobenzene	U	1.28	ug/kg	0.384	1.28
104-51-8	n-Butylbenzene	U	1.28	ug/kg	0.384	1.28
96-12-8	1,2-Dibromo-3-chloropropane	U	1.28	ug/kg	0.384	1.28
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.39	ug/kg	2.05	6.39
630-20-6	1,1,1,2-Tetrachloroethane	U	1.28	ug/kg	0.384	1.28
95-50-1	1,2-Dichlorobenzene	U	1.28	ug/kg	0.384	1.28

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e314.d
Lab Smp Id: 249335005 Client Smp ID: RE46-10-12971
Inj Date : 25-MAR-2010 03:19
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |249335005|969056|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	21.79080	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.316	15.317	(1.000)	555478	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	420373	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	204639	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	207022	43.1367	55.2
$ 64 Toluene-d8	98	17.134	17.134	(0.918)	642909	46.9899	60.1
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	217315	40.3709	51.6
22 Methylene chloride	86	11.449	11.439	(0.747)	9408	4.14549	5.3(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 7e314.d
Report Date: 03/31/2010 17:54
Lab. ID: 249335005 SampleType: SAMPLE
Injection Date: 25-MAR-2010 03:19
Operator: AXO1 Instrument: VOA7.i
Sample Info: |249335005|969056|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2436
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
22 Methylene chloride			CAS#: 75-09-2			
86	9408	11.45	11.44	80-120	100	( )
84	12741	11.45	11.44	123-183	135	( )
49	25651	11.44	11.44	241-301	273	( )
63 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	6689	17.13	16.94	80-120	100	(T)
43	4775	17.13	16.93	222-282	71	(QT)
100	447412	17.13	16.94	0- 56	6688	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e314.d
Lab Smp Id: 249335005 Client Smp ID: RE46-10-12971
Inj Date : 25-MAR-2010 03:19
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |249335005|969056|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA7.i/032410v7/7e314.d
Date : 25-MAR-2010 03:19
Client ID: RE46-10-12971
Sample Info: |2493350051969056|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AX01
Column diameter: 0.25

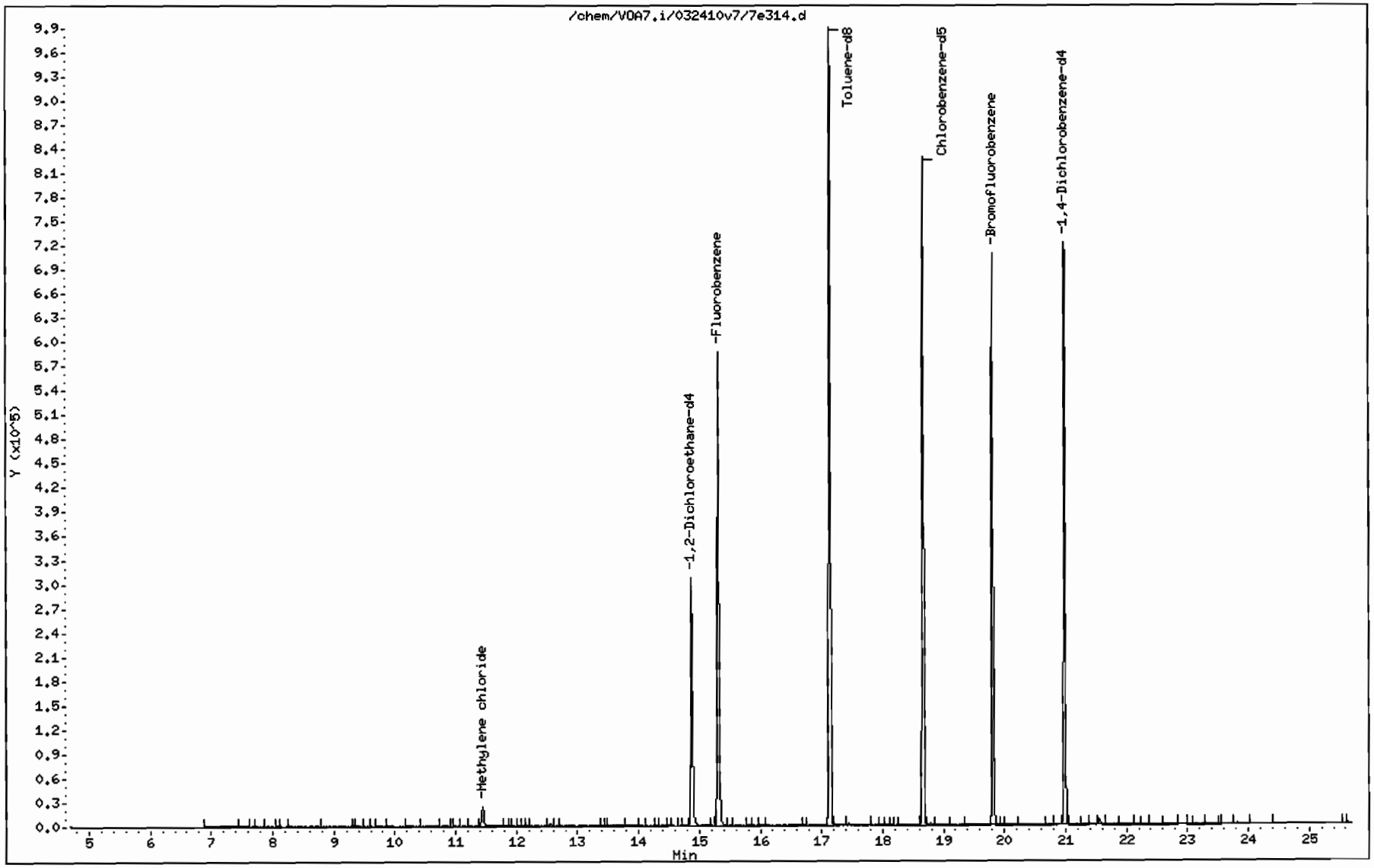

Data File: /chem/VOA7.i/032410v7/7e314.d

Date : 25-MAR-2010 03:19

Client ID: RE46-10-12971

Instrument: VOA7.i

Sample Info: |249335005|969056|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

22 Methylene chloride

Concentration: 5.3 ug/Kg

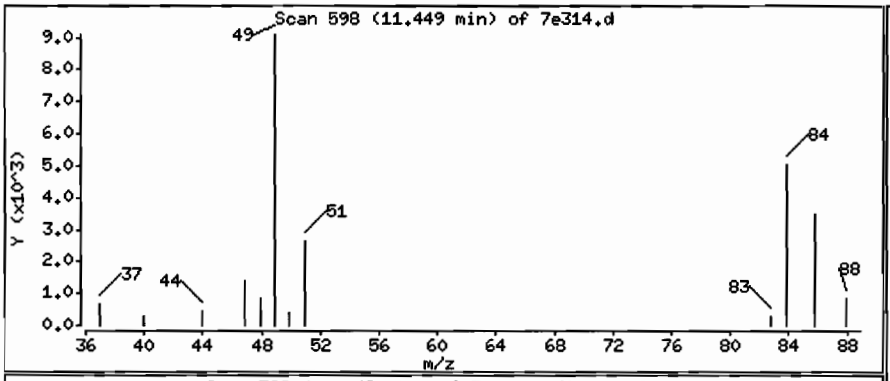

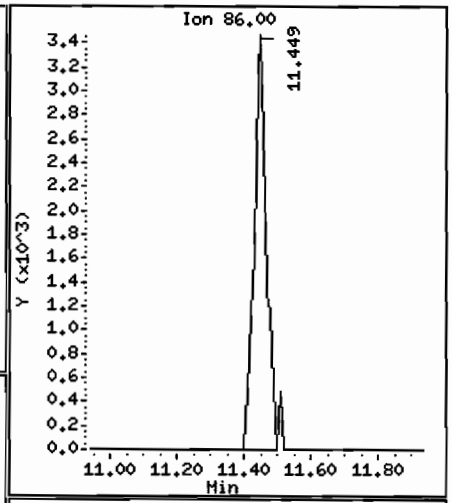

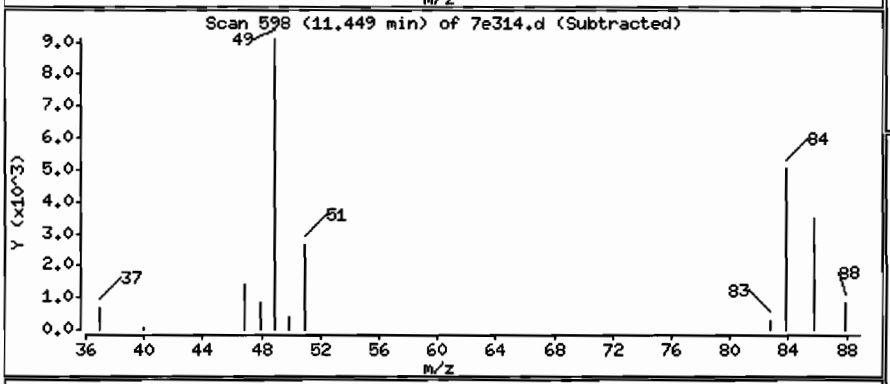

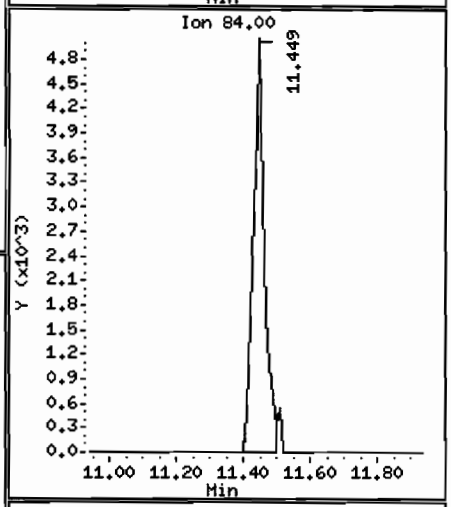

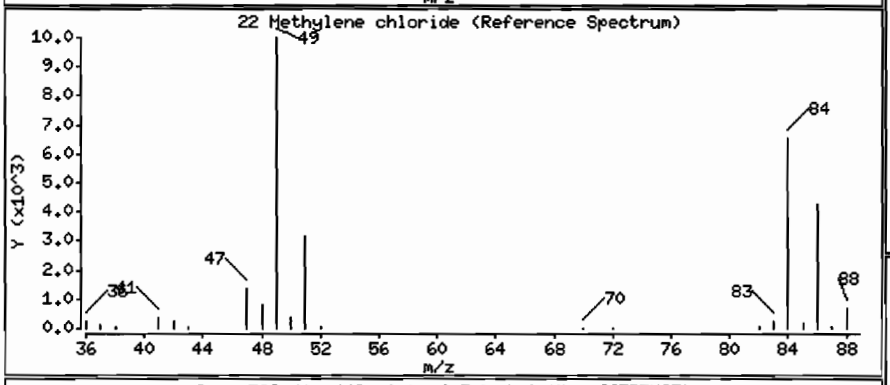

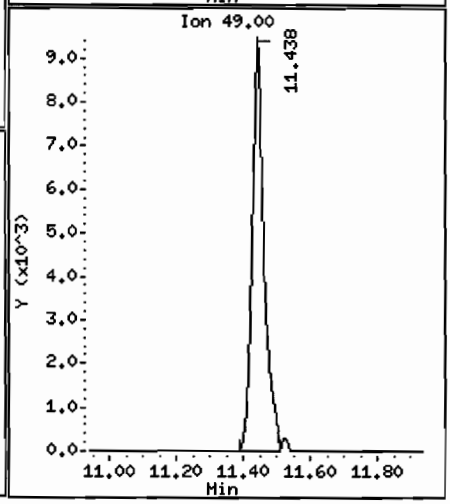

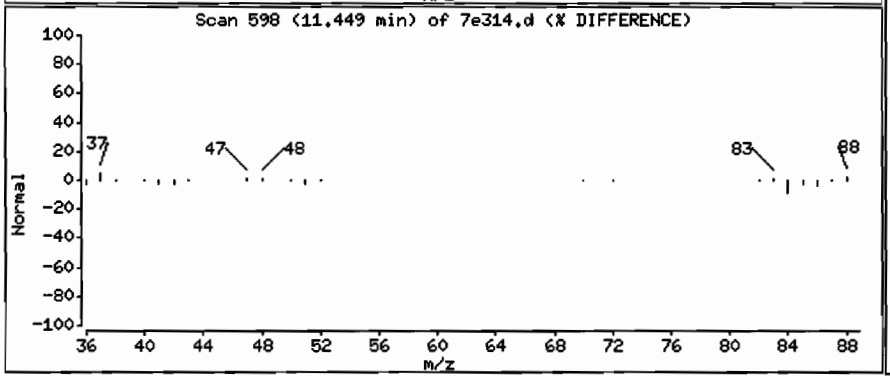

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12972**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 01:37**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:27**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e311.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.14	ug/kg	0.388	1.14
74-87-3	Chloromethane	U	1.14	ug/kg	0.342	1.14
75-01-4	Vinyl chloride	U	1.14	ug/kg	0.342	1.14
74-83-9	Bromomethane	U	1.14	ug/kg	0.342	1.14
75-00-3	Chloroethane	U	1.14	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane	U	1.14	ug/kg	0.342	1.14
67-64-1	Acetone	U	5.70	ug/kg	1.89	5.70
75-35-4	1,1-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
74-88-4	Iodomethane	U	5.70	ug/kg	1.82	5.70
75-09-2	Methylene chloride	J	4.55	ug/kg	2.28	5.70
75-15-0	Carbon disulfide	U	5.70	ug/kg	1.42	5.70
156-60-5	trans-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane	U	1.14	ug/kg	0.342	1.14
78-93-3	2-Butanone	U	5.70	ug/kg	1.71	5.70
156-59-2	cis-1,2-Dichloroethylene	U	1.14	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
67-66-3	Chloroform	U	1.14	ug/kg	0.342	1.14
74-97-5	Bromochloromethane	U	1.14	ug/kg	0.376	1.14
71-55-6	1,1,1-Trichloroethane	U	1.14	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene	U	1.14	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride	U	1.14	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane	U	1.14	ug/kg	0.342	1.14
71-43-2	Benzene	U	1.14	ug/kg	0.342	1.14
79-01-6	Trichloroethylene	U	1.14	ug/kg	0.376	1.14
78-87-5	1,2-Dichloropropane	U	1.14	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane	U	1.14	ug/kg	0.342	1.14
74-95-3	Dibromomethane	U	1.14	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone	U	5.70	ug/kg	1.42	5.70
10061-01-5	cis-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
108-88-3	Toluene	U	1.14	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene	U	1.14	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane	U	1.14	ug/kg	0.342	1.14
591-78-6	2-Hexanone	U	5.70	ug/kg	1.71	5.70
142-28-9	1,3-Dichloropropane	U	1.14	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene	U	1.14	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane	U	1.14	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane	U	1.14	ug/kg	0.342	1.14
108-90-7	Chlorobenzene	U	1.14	ug/kg	0.342	1.14

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12972**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 01:37**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:27**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e311.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.14	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes	U	2.28	ug/kg	0.342	2.28
95-47-6	o-Xylene	U	1.14	ug/kg	0.342	1.14
100-42-5	Styrene	U	1.14	ug/kg	0.342	1.14
75-25-2	Bromoform	U	1.14	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane	U	1.14	ug/kg	0.342	1.14
108-86-1	Bromobenzene	U	1.14	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene	U	1.14	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene	U	1.14	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene	U	1.14	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene	U	1.14	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene	U	1.14	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene	U	1.14	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene	U	1.14	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene	U	1.14	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane	U	1.14	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.70	ug/kg	1.82	5.70
630-20-6	1,1,1,2-Tetrachloroethane	U	1.14	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene	U	1.14	ug/kg	0.342	1.14

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e311.d
Lab Smp Id: 249335002 Client Smp ID: RE46-10-12972
Inj Date : 25-MAR-2010 01:37
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |249335002|969056|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	12.26540	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	620969	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	477086	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	236117	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.972)	242108	45.1270	51.4
$ 64 Toluene-d8	98	17.134	17.134	(0.918)	712280	45.8716	52.3
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	252271	40.6169	46.3
22 Methylene chloride	86	11.449	11.439	(0.747)	10120	3.98893	4.5(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 7e311.d
Report Date: 03/31/2010 17:54
Lab. ID: 249335002 SampleType: SAMPLE
Injection Date: 25-MAR-2010 01:37
Operator: AXO1 Instrument: VOA7.i
Sample Info: |249335002|969056|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2436
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
22 Methylene chloride				CAS#: 75-09-2		
86	10120	11.45	11.44	80-120	100	( )
84	16033	11.45	11.44	123-183	158	( )
49	28021	11.44	11.44	241-301	277	( )
63 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	8270	17.13	16.94	80-120	100	(T)
43	4375	17.13	16.93	222-282	53	(QT)
100	491700	17.13	16.94	0- 56	5945	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e311.d
Lab Smp Id: 249335002 Client Smp ID: RE46-10-12972
Inj Date : 25-MAR-2010 01:37
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |249335002|969056|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA7.i/032410v7/7e311.d
Date : 25-MAR-2010 01:37
Client ID: RE46-10-12972
Sample Info: |249335002|969056|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AX01
Column diameter: 0.25

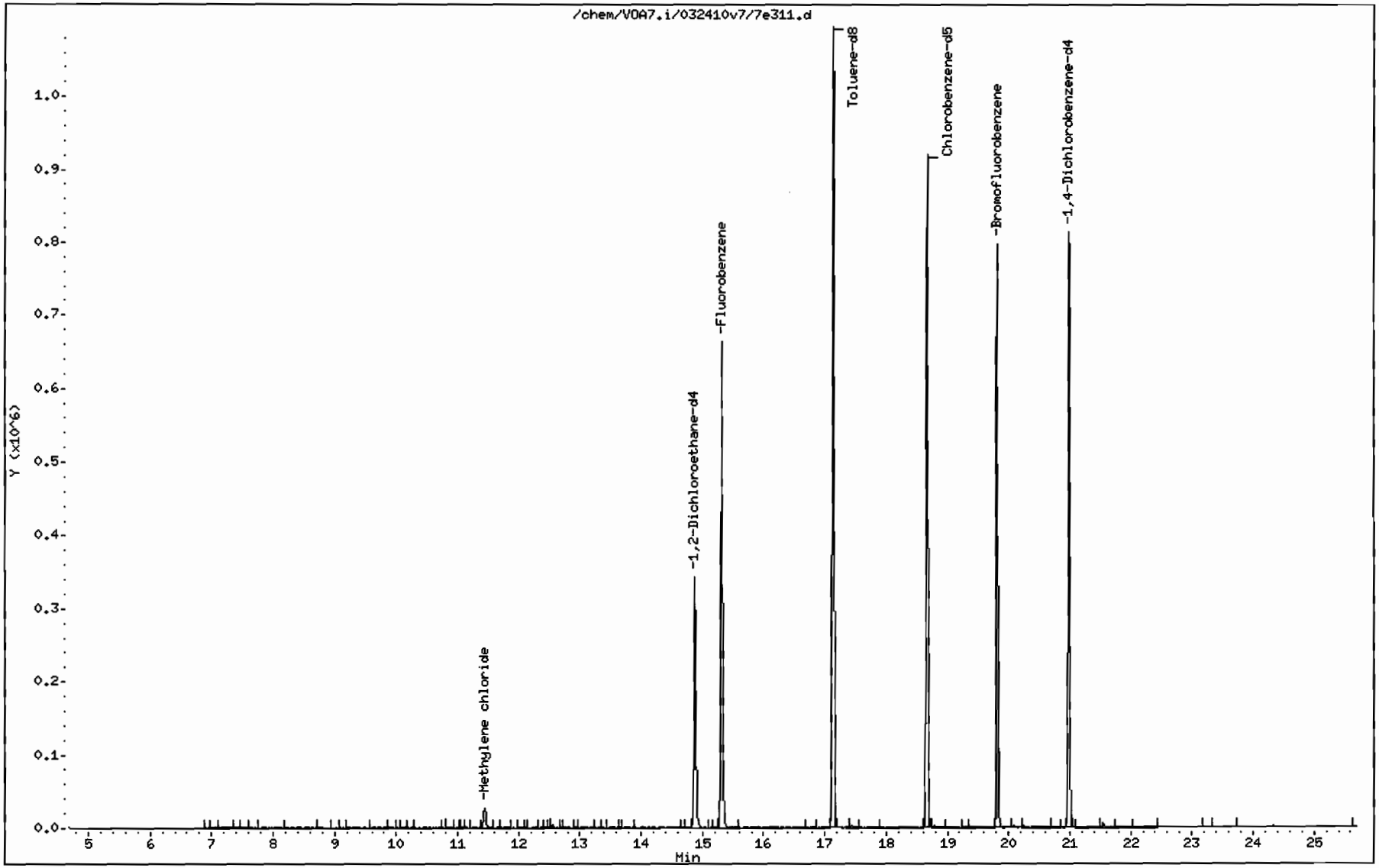

Data File: /chem/VOA7.i/032410v7/7e311.d

Date : 25-MAR-2010 01:37

Client ID: RE46-10-12972

Instrument: VOA7.i

Sample Info: |249335002|969056|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

22 Methylene chloride

Concentration: 4.5 ug/Kg

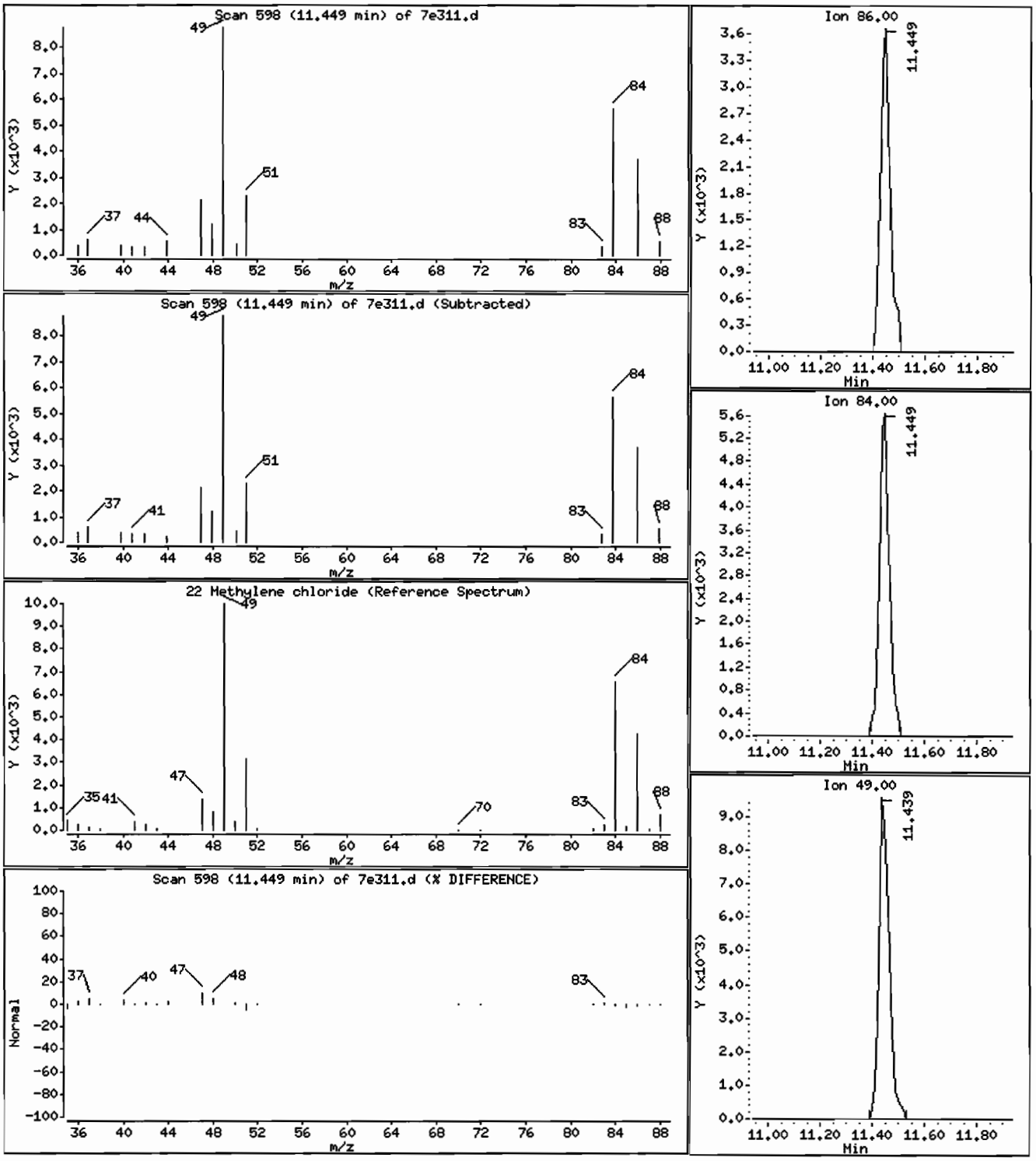

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335001**	**Date Received:**	**03/13/2010 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13000**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 01:03**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:25**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e310.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	J	4.08	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335001**	**Date Received:**	**03/13/2010 09:30**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13000**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 01:03**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:25**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e310.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e310.d
Lab Smp Id: 249335001 Client Smp ID: RE46-10-13000
Inj Date : 25-MAR-2010 01:03
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |249335001|969056|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	587584	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	458396	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	224833	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	253747	49.9837	50.0
$ 64 Toluene-d8	98	17.134	17.134	(0.918)	730133	48.9386	48.9
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	255743	43.2425	43.2
22 Methylene chloride	86	11.449	11.439	(0.747)	9802	4.08310	4.1(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 7e310.d
Report Date: 03/31/2010 17:54
Lab. ID: 249335001 SampleType: SAMPLE
Injection Date: 25-MAR-2010 01:03
Operator: AXO1 Instrument: VOA7.i
Sample Info: |249335001|969056|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2436
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
22 Methylene chloride			CAS#: 75-09-2			
86	9802	11.45	11.44	80-120	100	( )
84	13951	11.45	11.44	123-183	142	( )
49	26751	11.44	11.44	241-301	273	( )
63 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	8140	17.13	16.94	80-120	100	(T)
43	6007	17.13	16.93	222-282	74	(QT)
100	510175	17.13	16.94	0- 56	6267	(QT)
82 Bromoform			CAS#: 75-25-2			
173	739	19.81	19.54	80-120	100	(T)
175	14800	19.81	19.54	19- 79	2002	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e310.d
Lab Smp Id: 249335001 Client Smp ID: RE46-10-13000
Inj Date : 25-MAR-2010 01:03
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |249335001|969056|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA7.i/032410v7/7e310.d

Date : 25-MAR-2010 01:03

Client ID: RE46-10-13000

Sample Info: |2493350011969056|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AXO1

Column diameter: 0.25

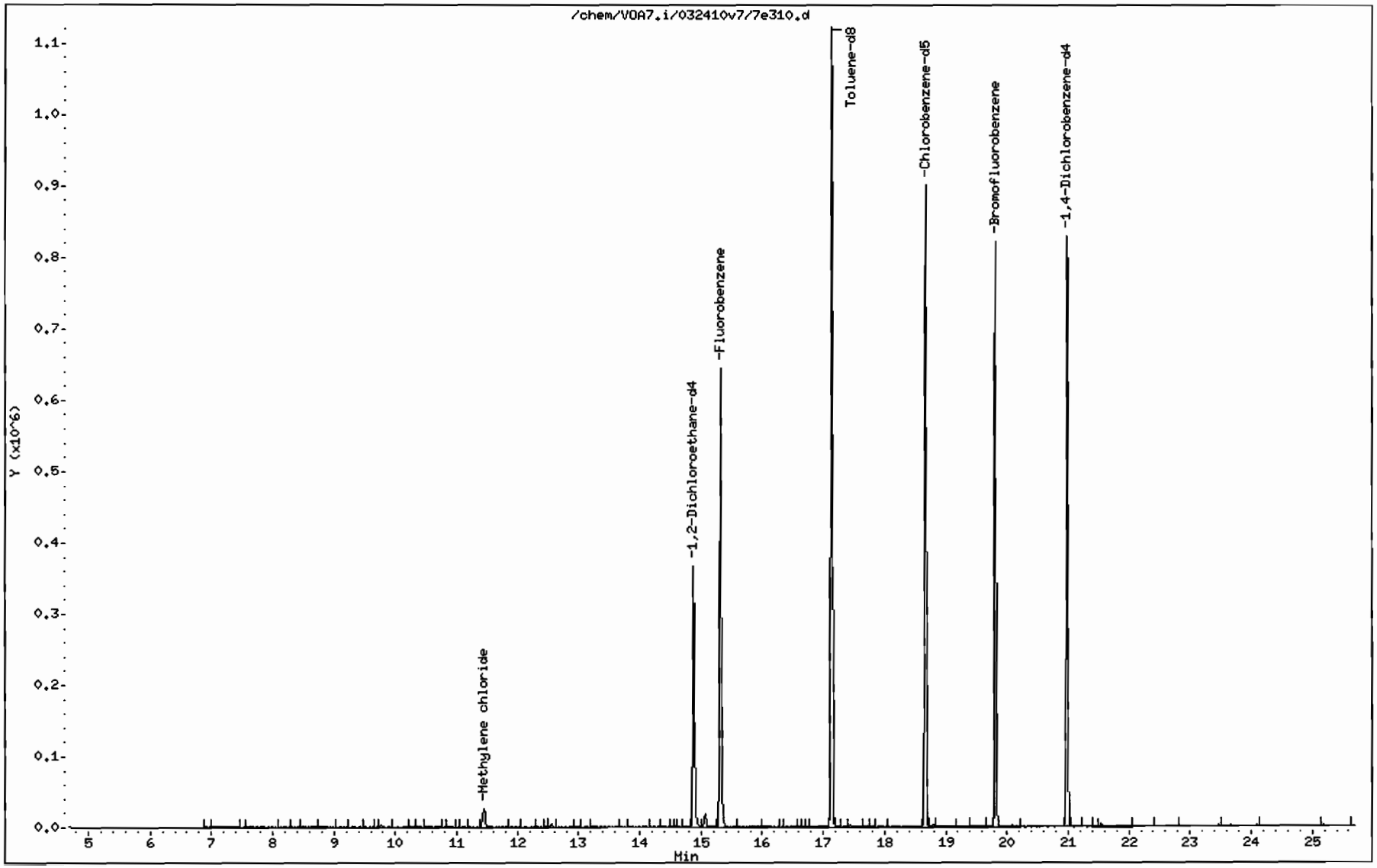

Data File: /chem/VOA7.i/032410v7/7e310.d

Date : 25-MAR-2010 01:03

Client ID: RE46-10-13000

Instrument: VOA7.i

Sample Info: |249335001|969056|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

22 Methylene chloride

Concentration: 4.1 ug/Kg

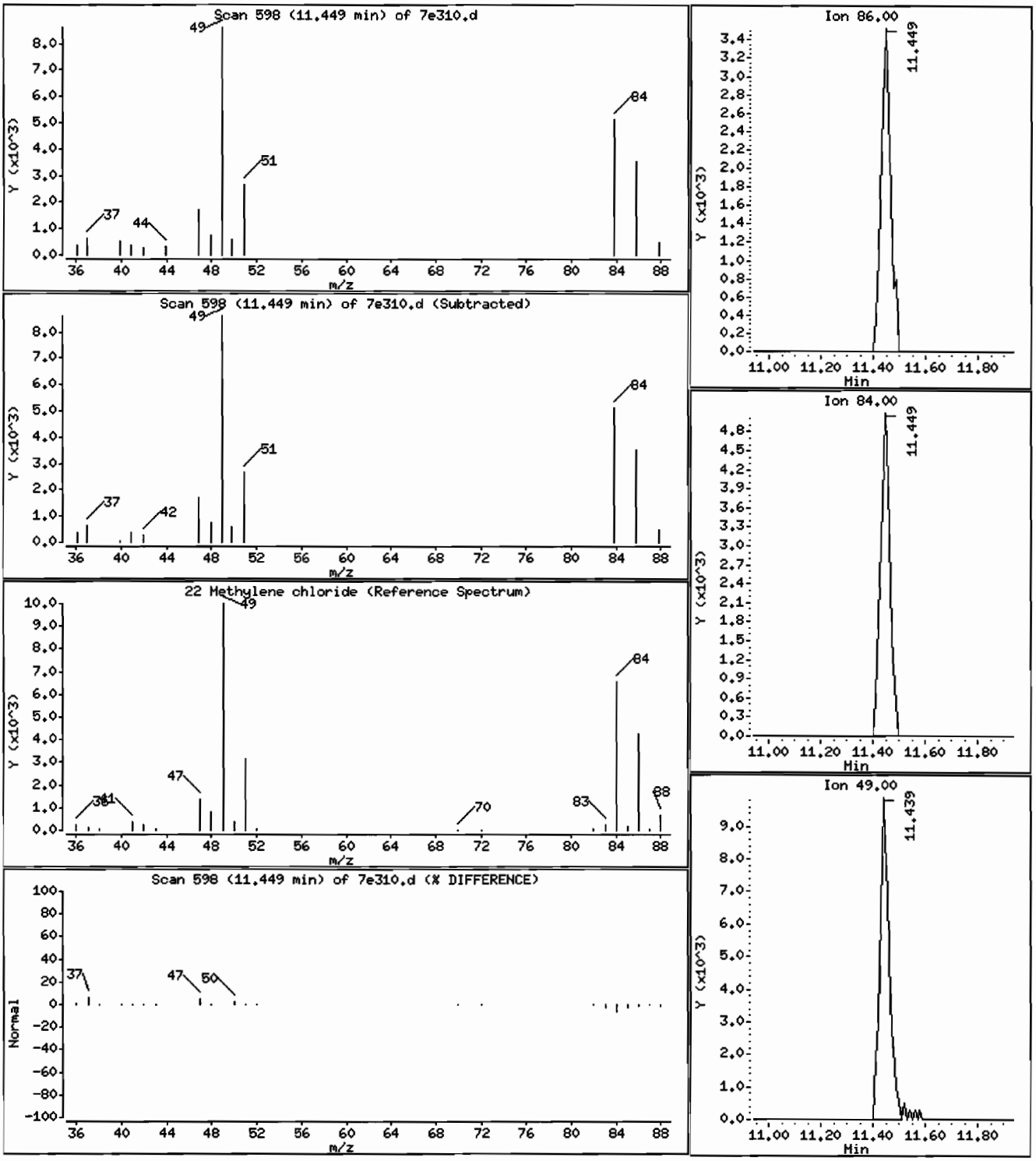

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13003**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 02:11**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:33**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e312.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.384	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.339	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.339	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.339	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.339	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.339	1.13
67-64-1	Acetone	U	5.65	ug/kg	1.88	5.65
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
74-88-4	Iodomethane	U	5.65	ug/kg	1.81	5.65
75-09-2	Methylene chloride	J	4.46	ug/kg	2.26	5.65
75-15-0	Carbon disulfide	U	5.65	ug/kg	1.41	5.65
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.339	1.13
78-93-3	2-Butanone	U	5.65	ug/kg	1.70	5.65
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.339	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.339	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.373	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.339	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.339	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.339	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.339	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.339	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.373	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.339	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.339	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.339	1.13
108-10-1	4-Methyl-2-pentanone	U	5.65	ug/kg	1.41	5.65
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.339	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.339	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.339	1.13
591-78-6	2-Hexanone	U	5.65	ug/kg	1.70	5.65
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.339	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.339	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.339	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.339	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.339	1.13

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13003**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 02:11**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:33**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e312.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.339	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.339	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.339	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.339	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.339	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.339	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.339	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.339	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.339	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.339	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.339	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.339	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.339	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.339	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.339	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.339	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.65	ug/kg	1.81	5.65
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.339	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.339	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e312.d
Lab Smp Id: 249335003 Client Smp ID: RE46-10-13003
Inj Date : 25-MAR-2010 02:11
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |249335003|969056|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	11.50470	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	595405	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	453265	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	223173	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	230814	44.8691	50.7
$ 64 Toluene-d8	98	17.134	17.134	(0.918)	684412	46.3933	52.4
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	233407	39.7594	44.9
22 Methylene chloride	86	11.449	11.439	(0.747)	9596	3.94479	4.4(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 7e312.d
Report Date: 03/31/2010 17:54
Lab. ID: 249335003 SampleType: SAMPLE
Injection Date: 25-MAR-2010 02:11
Operator: AXO1 Instrument: VOA7.i
Sample Info: |249335003|969056|1|VOAF|1|
Miscellaneous Info: LANL 5g N/A
Comment:
Method used: /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2436
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
22 Methylene chloride			CAS#: 75-09-2			
86	9596	11.45	11.44	80-120	100	( )
84	15123	11.44	11.44	123-183	158	( )
49	25664	11.44	11.44	241-301	267	( )
63 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	8078	17.14	16.94	80-120	100	(T)
43	4214	17.13	16.93	222-282	52	(QT)
100	465095	17.13	16.94	0- 56	5757	(QT)
82 Bromoform			CAS#: 75-25-2			
173	720	19.81	19.54	80-120	100	(T)
175	12435	19.81	19.54	19- 79	1726	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e312.d
Lab Smp Id: 249335003 Client Smp ID: RE46-10-13003
Inj Date : 25-MAR-2010 02:11
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |249335003|969056|1|VOAF|1|
Misc Info : LANL 5g N/A
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA7.i/032410v7/7e312.d
Date : 25-MAR-2010 02:11
Client ID: RE46-10-13003
Sample Info: |2493350031969056|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AX01
Column diameter: 0.25

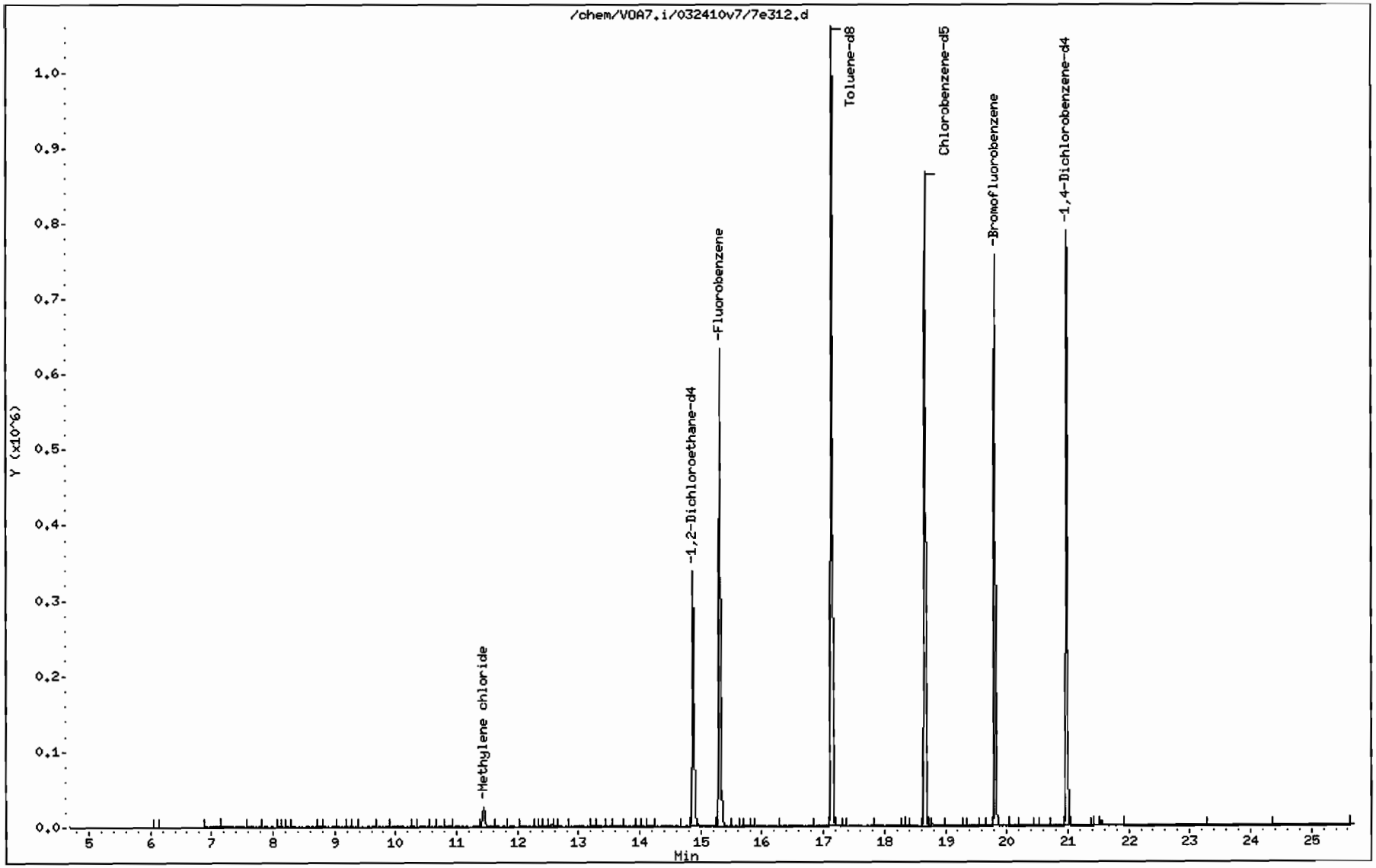

Data File: /chem/VOA7.i/032410v7/7e312.d

Page 2

Date : 25-MAR-2010 02:11

Client ID: RE46-10-13003

Instrument: VOA7.i

Sample Info: |249335003|969056|1|VOAF|1|

Operator: AX01

Column phase: DB-624

Column diameter: 0.25

22 Methylene chloride

Concentration: 4.4 ug/Kg

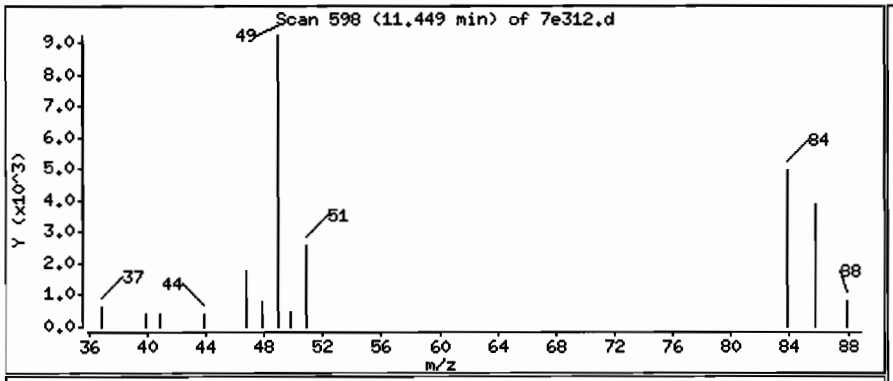

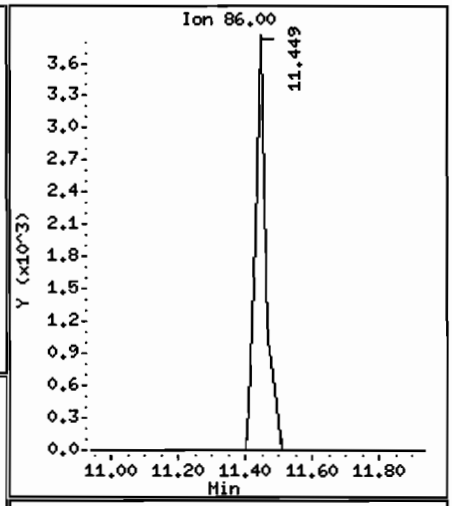

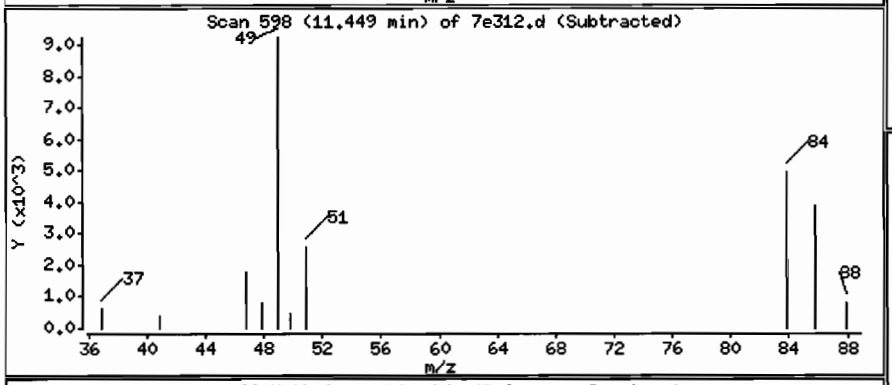

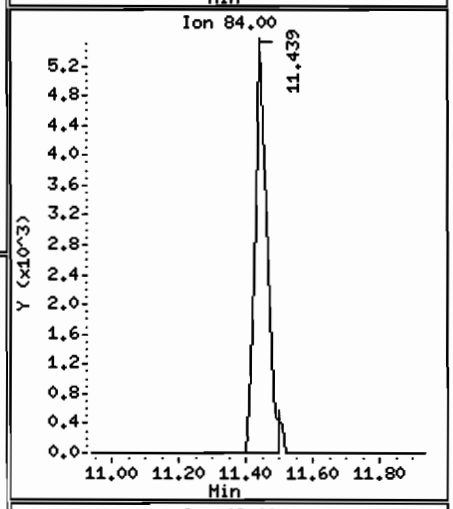

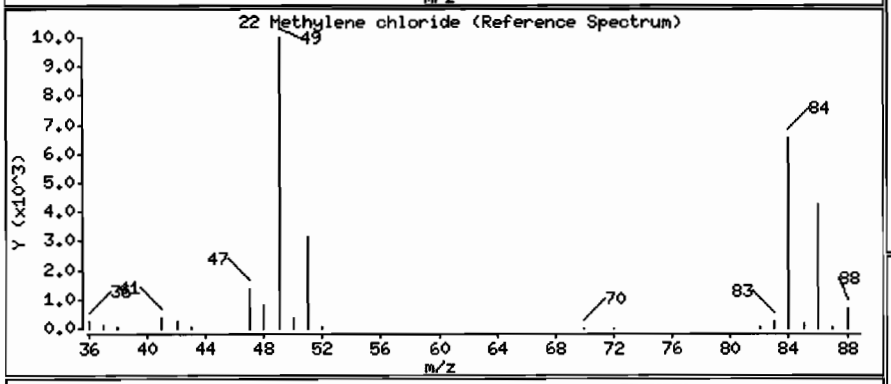

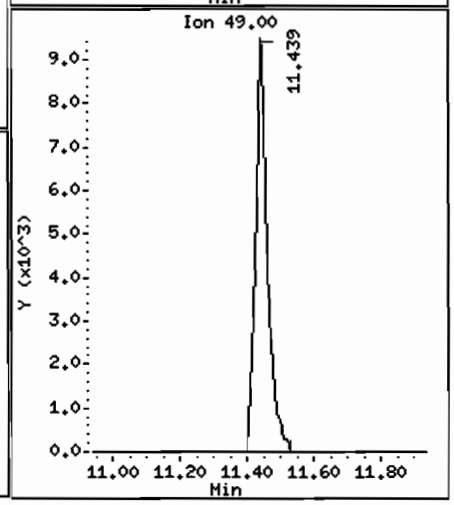

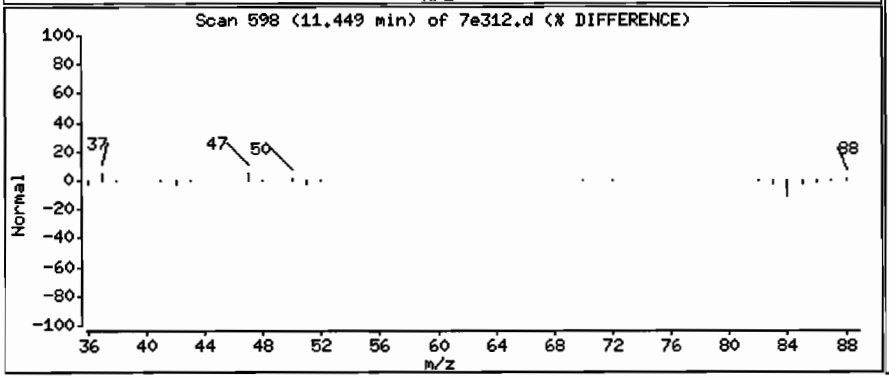

Standard Data

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624

Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Report Date: 25-Mar-2010 21:48

Calibration History

Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Start Cal Date: 17-FEB-2010 16:02
End Cal Date : 18-FEB-2010 00:42

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
17-FEB-2010 21:14	ICALsubS	/chem/VOA7.i/021710v7/7z319.d
17-FEB-2010 16:02	ICALsubL+	/chem/VOA7.i/021710v7/7z310.d
Cal Level: 2 , Cal Amount: 2.00000		
17-FEB-2010 21:49	ICALsubS	/chem/VOA7.i/021710v7/7z320.d
17-FEB-2010 16:35	ICALsubL+	/chem/VOA7.i/021710v7/7z311.d
Cal Level: 3 , Cal Amount: 5.00000		
17-FEB-2010 22:24	ICALsubS	/chem/VOA7.i/021710v7/7z321.d
17-FEB-2010 17:09	ICALsubL+	/chem/VOA7.i/021710v7/7z312.d
Cal Level: 4 , Cal Amount: 10.00000		
17-FEB-2010 22:59	ICALsubS	/chem/VOA7.i/021710v7/7z322.d
17-FEB-2010 17:44	ICALsubL+	/chem/VOA7.i/021710v7/7z313.d
Cal Level: 5 , Cal Amount: 20.00000		
17-FEB-2010 23:33	ICALsubS	/chem/VOA7.i/021710v7/7z323.d
17-FEB-2010 18:20	ICALsubL+	/chem/VOA7.i/021710v7/7z314.d
Cal Level: 6 , Cal Amount: 50.00000		
18-FEB-2010 00:08	ICALsubS	/chem/VOA7.i/021710v7/7z324.d
17-FEB-2010 18:55	ICALsubL+	/chem/VOA7.i/021710v7/7z315.d
Cal Level: 7 , Cal Amount: 100.00000		
18-FEB-2010 00:42	ICALsubS	/chem/VOA7.i/021710v7/7z325.d
17-FEB-2010 19:30	ICALsubL+	/chem/VOA7.i/021710v7/7z316.d
Cal Level: 8 , Cal Amount: 200.00000		
17-FEB-2010 20:39	BENZENE+	/chem/VOA7.i/021710v7/7z318.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

```
| Ccal Level: 6 , Ccal Amount: 50.0                                                |
+==================================================================================+
|24-MAR-2010 20:27 |CALsubL+         |/chem/VOA7.i/032410v7/7e302.d                |
+------------------+-----------------+-----------------------------------------+
| Ccal Level: 6 , Ccal Amount: 50.0                                                |
+==================================================================================+
|24-MAR-2010 22:09 |CALsubS+SS       |/chem/VOA7.i/032410v7/7e305.d                |
+------------------+-----------------+-----------------------------------------+
```

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-FEB-2010 16:02
End Cal Date : 18-FEB-2010 00:42
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Cal Date : 25-Mar-2010 21:34 a1e01592

Calibration File Names:
Level 1: /chem/VOA7.i/021710v7/7z319.d
Level 2: /chem/VOA7.i/021710v7/7z320.d
Level 3: /chem/VOA7.i/021710v7/7z321.d
Level 4: /chem/VOA7.i/021710v7/7z322.d
Level 5: /chem/VOA7.i/021710v7/7z323.d
Level 6: /chem/VOA7.i/021710v7/7z324.d
Level 7: /chem/VOA7.i/021710v7/7z325.d
Level 8: /chem/VOA7.i/021710v7/7z318.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
M 1 1,3-Dichloropropylene	0.42063	0.42665	0.45952	0.44593	0.48874	0.44785					
	0.47574	++++++					AVRG		0.45215		5.45519
M 2 Xylenes (total)	0.62830	0.67143	0.66860	0.64173	0.68474	0.59685					
	0.62692	++++++					AVRG		0.64551		4.80271
M 3 1,2-Dichloroethylene (total)	0.54927	0.50779	0.51933	0.49776	0.47859	0.45089					
	0.46213	++++++					AVRG		0.49511		6.90087
147 Chlorotrifluoroethylene	++++++	0.10076	0.11210	0.09704	0.11905	0.10241					
	++++++	++++++					AVRG		0.10627		8.51602
148 2-Chloro-1,1,1-trifluoroethan	++++++	0.23271	0.22089	0.21365	0.20617	0.20476					
	0.18804	++++++					AVRG		0.21104		7.23518

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-FEB-2010 16:02
End Cal Date : 18-FEB-2010 00:42
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Cal Date : 25-Mar-2010 21:34 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
4 Dichlorodifluoromethane	0.14689	0.16337	0.17771	0.15010	0.15669	0.14834					
	0.14671	+++++					AVRG		0.15569		7.36086
5 Chloromethane	0.52870	0.50818	0.48152	0.45665	0.48246	0.42873					
	0.38772	+++++					AVRG		0.46771		10.25591
6 Vinyl chloride	0.50952	0.46079	0.43218	0.40625	0.41055	0.36375					
	0.32494	+++++					AVRG		0.41543		14.62877
7 Bromomethane	0.25780	0.23623	0.23278	0.22734	0.24344	0.23277					
	0.22760	+++++					AVRG		0.23685		4.53392
8 Chloroethane	0.22734	0.22323	0.21132	0.20164	0.21135	0.20785					
	0.20451	+++++					AVRG		0.21246		4.47108
9 Trichlorofluoromethane	0.35996	0.35068	0.30112	0.30563	0.31443	0.30426					
	0.28982	+++++					AVRG		0.31799		8.38225
10 Ethyl Ether	0.28008	0.32062	0.28724	0.29016	0.29781	0.29886					
	0.29597	+++++					AVRG		0.29582		4.32385
11 Acrolein	0.04418	0.03949	0.04544	0.04756	0.04531	0.05365					
	0.06092	+++++					AVRG		0.04808		14.70368
12 Trichlorotrifluoroethane	0.10245	0.09727	0.09404	0.09075	0.07953	0.07034					
	0.07720	+++++					AVRG		0.08737		13.51328

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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Integrator : HP RTE
Method file : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Cal Date : 25-Mar-2010 21:34 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
13 Acetone	0.37122	0.36279	0.32383	0.32614	0.34124	0.31027					
	0.30889	+++++					AVRG		0.33491		7.33338
14 1,1-Dichloroethylene	0.23466	0.22304	0.23525	0.21218	0.20855	0.19843					
	0.20998	+++++					AVRG		0.21744		6.41898
15 Isopropyl Alcohol	0.03379	0.02848	0.03362	0.03382	0.03438	0.02970					
	0.03385	+++++					AVRG		0.03252		7.32915
16 Iodomethane	0.39608	0.36645	0.40560	0.38566	0.35788	0.35975					
	0.38094	+++++					AVRG		0.37891		4.84456
17 Acetonitrile	0.06193	0.06381	0.05756	0.05797	0.05730	0.06594					
	0.05095	+++++					AVRG		0.05935		8.41770
18 Methyl acetate	0.35515	0.29749	0.32852	0.31506	0.29869	0.29447					
	0.27857	+++++					AVRG		0.30971		8.25337
19 Carbon disulfide	0.89266	0.79048	0.83100	0.78713	0.71568	0.68163					
	0.65599	+++++					AVRG		0.76494		11.07438
20 Allyl chloride	0.53968	0.50526	0.50958	0.48676	0.45362	0.42965					
	0.39621	+++++					AVRG		0.47439		10.59305
21 tert-Butyl Alcohol	0.05167	0.04139	0.04764	0.04767	0.05022	0.04265					
	0.04776	+++++					AVRG		0.04700		7.96307

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-FEB-2010 16:02
End Cal Date : 18-FEB-2010 00:42
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Cal Date : 25-Mar-2010 21:34 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
22 Methylene chloride	+++++	0.23820	0.21441	0.20090	0.19068	0.18599					
	0.19549	+++++					AVRG		0.20428		9.44493
23 Acrylonitrile	0.13731	0.12635	0.14147	0.13774	0.13619	0.13170					
	0.13157	+++++					AVRG		0.13462		3.74591
24 tert-Butyl methyl ether	0.80994	0.81750	0.75450	0.77254	0.73118	0.73829					
	0.78981	+++++					AVRG		0.77339		4.39216
25 trans-1,2-Dichloroethylene	0.50384	0.46689	0.48692	0.46195	0.45327	0.42294					
	0.42206	+++++					AVRG		0.45970		6.61934
26 Vinyl acetate	0.77450	0.85406	0.75761	0.81966	0.81586	0.69432					
	0.60197	+++++					AVRG		0.75971		11.40322
27 Isopropyl ether	+++++	1.28662	1.29461	1.35198	1.29488	1.24203					
	1.18690	+++++					AVRG		1.27617		4.38816
28 1,1-Dichloroethane	0.61604	0.62372	0.63881	0.58962	0.58167	0.55743					
	0.58003	+++++					AVRG		0.59819		4.80576
29 2-Chloro-1,3-butadiene	0.41421	0.42657	0.42523	0.41666	0.39568	0.39845					
	0.37943	+++++					AVRG		0.40803		4.26210
30 Ethyl tert-butyl ether	+++++	0.84231	0.83069	0.85509	0.90158	0.89776					
	0.90285	+++++					AVRG		0.87171		3.75724

GEL Laboratories LLC

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Method file : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Cal Date : 25-Mar-2010 21:34 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
31 2-Butanone	0.38771	0.40391	0.35922	0.36946	0.40769	0.34405					
	0.34266	++++++					AVRG		0.37353		7.19573
32 Ethyl acetate	0.44278	0.41784	0.45125	0.42632	0.40256	0.35807					
	0.33414	++++++					AVRG		0.40471		10.77753
33 cis-1,2-Dichloroethylene	0.59471	0.54869	0.55173	0.53357	0.50390	0.47885					
	0.50219	++++++					AVRG		0.53052		7.33716
34 2,2-Dichloropropane	0.29938	0.24188	0.25597	0.23681	0.21790	0.23089					
	0.25653	++++++					AVRG		0.24848		10.56617
35 Propionitrile	0.07002	0.05258	0.06457	0.05980	0.05683	0.05325					
	0.05642	++++++					AVRG		0.05907		10.68190
36 Methacrylonitrile	0.25818	0.24456	0.27034	0.26013	0.24380	0.22478					
	0.21528	++++++					AVRG		0.24530		8.04738
37 Bromochloromethane	0.40223	0.39817	0.41300	0.40043	0.38909	0.36555					
	0.37692	++++++					AVRG		0.39220		4.15023
38 Chloroform	0.58519	0.49407	0.49340	0.48912	0.49932	0.45410					
	0.47062	++++++					AVRG		0.49798		8.35869
39 Tetrahydrofuran	0.47764	0.44454	0.45944	0.42050	0.41053	0.36338					
	0.35812	++++++					AVRG		0.41916		10.93258

GEL Laboratories LLC

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Cal Date : 25-Mar-2010 21:34 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
41 1,1,1-Trichloroethane	0.33463	0.35201	0.35980	0.33703	0.33680	0.32438					
	0.34747	+++++					AVRG		0.34173		3.50911
42 Isobutyl alcohol	0.01894	0.01694	0.01962	0.01852	0.01823	0.01675					
	0.01640	+++++					AVRG		0.01791		6.84459
43 Cyclohexane	0.66684	0.57907	0.60139	0.53233	0.53775	0.48436					
	0.48668	+++++					AVRG		0.55549		11.78390
44 1,1-Dichloropropene	0.37354	0.38678	0.36871	0.36553	0.35185	0.32521					
	0.33295	+++++					AVRG		0.35780		6.23018
45 Carbon tetrachloride	0.30369	0.24799	0.29060	0.26048	0.26806	0.25705					
	0.27553	+++++					AVRG		0.27191		7.21748
47 1,2-Dichloroethane	0.54033	0.47238	0.50508	0.49698	0.49337	0.45253					
	0.47861	+++++					AVRG		0.49133		5.66795
48 Benzene	1.15482	1.06364	1.13097	1.06471	1.03320	0.97886					
	0.99723	1.32285					AVRG		1.09329		10.11080
49 Methyl tert-amyl ether	+++++	0.62391	0.62516	0.64841	0.70561	0.68979					
	0.72584	+++++					AVRG		0.66978		6.46614
50 Cyclohexene	0.56390	0.50610	0.54171	0.51654	0.51454	0.47290					
	0.48987	+++++					AVRG		0.51508		5.92603

GEL Laboratories LLC

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Method file : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Cal Date : 25-Mar-2010 21:34 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
52 n-Butyl alcohol	0.01179	0.01241	0.01216	0.01341	0.01403	0.01399					
	0.01388	0.01234					AVRG		0.01300		7.09548
53 Trichloroethylene	0.27430	0.26438	0.27397	0.26519	0.27618	0.24387					
	0.25637	+++++					AVRG		0.26489		4.39586
54 Methyl methacrylate	0.22336	0.20671	0.22931	0.22055	0.21809	0.21228					
	0.20756	+++++					AVRG		0.21684		3.87232
55 Methylcyclohexane	0.49966	0.43861	0.44481	0.44006	0.43612	0.40383					
	0.42078	+++++					AVRG		0.44055		6.73024
56 1,2-Dichloropropane	0.39245	0.36897	0.38177	0.37142	0.36583	0.33120					
	0.33677	+++++					AVRG		0.36406		6.16845
57 1,4-Dioxane	0.00348	0.00250	0.00354	0.00334	0.00323	0.00313					
	0.00359	+++++					AVRG		0.00326		11.42936
58 Dibromomethane	0.19196	0.19723	0.19939	0.19727	0.19889	0.19046					
	0.19944	+++++					AVRG		0.19638		1.86881
59 Bromodichloromethane	0.39732	0.36909	0.39631	0.38593	0.41432	0.37605					
	0.39410	+++++					AVRG		0.39044		3.84034
60 2-Nitropropane	0.13385	0.11919	0.14652	0.14531	0.14750	0.14329					
	0.14680	+++++					AVRG		0.14035		7.43854

GEL Laboratories LLC

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
61 2-Chloroethylvinyl ether	0.13828	0.13131	0.13224	0.14312	0.14531	0.15383					
	0.14819	++++++					AVRG		0.14176		5.85520
62 cis-1,3-Dichloropropylene	0.44683	0.46424	0.48235	0.47289	0.50753	0.46544					
	0.48927	++++++					AVRG		0.47551		4.13438
63 4-Methyl-2-pentanone	0.24889	0.25775	0.24134	0.24113	0.27708	0.22508					
	0.23121	++++++					AVRG		0.24607		7.06681
65 Toluene	0.99540	0.91525	0.94675	0.88594	0.89959	0.81410					
	0.84445	++++++					AVRG		0.90021		6.75427
66 Ethyl methacrylate	0.58277	0.54247	0.62302	0.60387	0.58118	0.57129					
	0.50204	++++++					AVRG		0.57238		6.98256
67 trans-1,3-Dichloropropylene	0.57975	0.56956	0.63061	0.60000	0.66595	0.59758					
	0.62680	++++++					AVRG		0.61004		5.45435
68 1,1,2-Trichloroethane	0.34428	0.35523	0.35299	0.34101	0.36031	0.31095					
	0.30944	++++++					AVRG		0.33917		6.14376
69 2-Hexanone	0.73685	0.78422	0.70044	0.68470	0.76383	0.58953					
	0.50687	++++++					AVRG		0.68092		14.65103
70 1,3-Dichloropropane	0.69293	0.71194	0.70218	0.70482	0.75363	0.66338					
	0.63986	++++++					AVRG		0.69553		5.22166

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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Method file : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Cal Date : 25-Mar-2010 21:34 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
71 Tetrachloroethylene	0.28354	0.25342	0.26414	0.23364	0.24287	0.22289					
	0.24094	+++++					AVRG		0.24878		8.14204
72 Dibromochloromethane	0.33269	0.34579	0.36231	0.35639	0.40520	0.36488					
	0.39353	+++++					AVRG		0.36583		6.98702
73 1,2-Dibromoethane	0.36328	0.35222	0.36077	0.36799	0.40005	0.35812					
	0.37253	+++++					AVRG		0.36785		4.25309
74 1-Chlorohexane	0.34706	0.30121	0.31913	0.33191	0.32325	0.30402					
	0.30890	+++++					AVRG		0.31936		5.13508
76 Chlorobenzene	1.01098	0.95127	0.95000	0.91236	0.96965	0.82857					
	0.86362	+++++					AVRG		0.92664		6.81260
77 1,1,1,2-Tetrachloroethane	0.30146	0.31109	0.30197	0.30384	0.34945	0.31502					
	0.35239	+++++					AVRG		0.31932		6.94131
78 Ethylbenzene	1.85154	1.82479	1.76134	1.68668	1.76608	1.44831					
	1.43524	+++++					AVRG		1.68200		10.24073
79 m,p-Xylenes	0.62114	0.67062	0.65895	0.62920	0.66820	0.57827					
	0.60453	+++++					AVRG		0.63299		5.50638
80 o-Xylene	0.64264	0.67305	0.68788	0.66680	0.71782	0.63403					
	0.67170	+++++					AVRG		0.67056		4.16006

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-FEB-2010 16:02
End Cal Date : 18-FEB-2010 00:42
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Cal Date : 25-Mar-2010 21:34 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
81 Styrene	1.03480	1.05435	1.09579	1.08161	1.17767	1.02490					
	1.04761	+++++					AVRG		1.07382		4.85533
82 Bromoform	0.44800	0.46729	0.45445	0.44703	0.54809	0.46991					
	0.51866	+++++					AVRG		0.47906		8.15291
83 Isopropylbenzene	3.49497	3.66615	3.43580	3.19632	3.44542	2.75679					
	2.64705	+++++					AVRG		3.23464		12.06581
84 cis-1,4-Dichloro-2-butene	0.38069	0.31673	0.41215	0.40845	0.41138	0.39737					
	0.39623	+++++					AVRG		0.38900		8.67306
85 Cyclohexanone	0.03195	0.02350	0.02895	0.02863	0.02827	+++++					
	+++++	+++++					AVRG		0.02826		10.75061
87 1,1,2,2-Tetrachloroethane	1.19265	1.21572	1.15731	1.10829	1.25926	1.00651					
	0.98082	+++++					AVRG		1.13151		9.31719
88 trans-1,4-Dichloro-2-butene	0.31891	0.31312	0.36778	0.36391	0.36234	0.36318					
	0.36821	+++++					AVRG		0.35107		6.86595
89 1,2,3-Trichloropropane	0.28647	0.24666	0.22625	0.24828	0.25953	0.22210					
	0.23411	+++++					AVRG		0.24620		8.97349
90 Bromobenzene	0.76034	0.78745	0.77871	0.75408	0.80267	0.68660					
	0.73175	+++++					AVRG		0.75737		5.14118

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-FEB-2010 16:02
End Cal Date : 18-FEB-2010 00:42
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Cal Date : 25-Mar-2010 21:34 ale01592

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
91 n-Propylbenzene	4.68347	4.56352	4.37500	4.07800	4.36558	3.44795					
	3.27290	+++++					AVRG		4.11235		13.35638
92 1,3,5-Trimethylbenzene	2.81587	2.87105	2.68849	2.60394	2.92918	2.42595					
	2.37547	+++++					AVRG		2.67285		8.07975
93 2-Chlorotoluene	3.05461	3.13194	2.82160	2.73305	3.05604	2.48242					
	2.42881	+++++					AVRG		2.81550		10.07173
94 4-Chlorotoluene	2.83303	2.73655	2.57278	2.45072	2.69458	2.22008					
	2.18348	+++++					AVRG		2.52732		10.03292
95 tert-Butylbenzene	2.54254	2.53348	2.52529	2.35277	2.63624	2.17076					
	2.18802	+++++					AVRG		2.42130		7.65601
96 1,2,4-Trimethylbenzene	2.83048	2.81952	2.78705	2.63535	2.97059	2.45445					
	2.43799	+++++					AVRG		2.70506		7.47088
97 Pentachloroethane	0.26106	0.28148	0.29783	0.29968	0.26523	0.29207					
	0.27493	+++++					AVRG		0.28176		5.48711
98 sec-Butylbenzene	3.89578	3.94634	3.68073	3.52735	3.87381	3.06099					
	2.97444	+++++					AVRG		3.56563		11.26370
99 4-Isopropyltoluene	2.79121	2.68596	2.60196	2.47043	2.87417	2.31964					
	2.29722	+++++					AVRG		2.57723		8.71312

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-FEB-2010 16:02
End Cal Date : 18-FEB-2010 00:42
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Cal Date : 25-Mar-2010 21:34 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
100 1,3-Dichlorobenzene	1.69373	1.54028	1.50003	1.42658	1.57954	1.28805					
	1.32887	+++++					AVRG		1.47958		9.64386
102 1,4-Dichlorobenzene	1.53770	1.53666	1.49633	1.39235	1.50686	1.30262					
	1.34055	+++++					AVRG		1.44472		6.77070
103 Benzyl chloride	1.17587	1.11939	1.30663	1.30678	1.28136	1.26359					
	1.21970	+++++					AVRG		1.23904		5.72889
104 n-Butylbenzene	3.34819	3.21649	3.03466	2.89314	3.28392	2.61464					
	2.50844	+++++					AVRG		2.98564		11.02434
105 1,2-Dichlorobenzene	1.50083	1.58906	1.51728	1.49969	1.60799	1.32336					
	1.36521	+++++					AVRG		1.48620		7.15929
106 bis(2-Chloroisopropyl)ether	0.83007	0.63325	0.75441	0.70073	0.68867	0.64153					
	0.64789	+++++					AVRG		0.69951		10.20844
107 1,2-Dibromo-3-chloropropane	584	2275	5481	11354	29844	73362					
	176713	+++++					LINR	0.02102	0.19109		0.99838
108 1,2,4-Trichlorobenzene	1.00820	0.98539	0.92239	0.88204	1.01161	0.84337					
	0.86464	+++++					AVRG		0.93109		7.59068
109 Hexachlorobutadiene	0.50497	0.57866	0.51670	0.47693	0.53727	0.42764					
	0.45720	+++++					AVRG		0.49991		10.16033

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-FEB-2010 16:02
End Cal Date : 18-FEB-2010 00:42
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Cal Date : 25-Mar-2010 21:34 ale01592

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
110 Naphthalene	2.39039	2.32801	2.24690	2.18867	2.66812	2.25278					
	2.29053	+++++					AVRG		2.33792		6.80664
111 1,2,3-Trichlorobenzene	0.99358	0.85784	0.84533	0.78975	0.93501	0.79611					
	0.80769	+++++					AVRG		0.86076		8.92879
$ 46 1,2-Dichloroethane-d4	0.42538	0.44520	0.42789	0.43782	0.42368	0.42998					
	0.43397	+++++					AVRG		0.43199		1.75777
$ 64 Toluene-d8	1.62293	1.66865	1.68737	1.64500	1.61861	1.59016					
	1.55870	+++++					AVRG		1.62735		2.72640
$ 86 Bromofluorobenzene	1.29606	1.36624	1.35275	1.32744	1.29510	1.29800					
	1.27105	+++++					AVRG		1.31523		2.62999

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 17-FEB-2010 16:02
End Cal Date : 18-FEB-2010 00:42
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Cal Date : 25-Mar-2010 21:34 ale01592

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 18-FEB-2010 02:27
Lab File ID: 7z328.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010
Analysis Type: WATER Init. Cal. Times: 16:02 00:42
Lab Sample ID: W7VM100217-22 Quant Type: ISTD
Method: /chem/VOA7.i/021710v7/VOA7-8260B-021710.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	2 Xylenes (total)	0.64551	0.62451	0.62451	0.050	-3.25377	30.00000	Averaged	
M	3 1,2-Dichloroethylene (total	0.49511	0.45815	0.45815	0.050	-7.46472	30.00000	Averaged	
M	1 1,3-Dichloropropylene	0.45215	0.46016	0.46016	0.050	1.77148	30.00000	Averaged	
	4 Dichlorodifluoromethane	0.15569	0.13873	0.13873	0.050	-10.89039	30.00000	Averaged	
	5 Chloromethane	0.46771	0.40064	0.40064	0.100	-14.34049	30.00000	Averaged	spcc
	6 Vinyl chloride	0.41543	0.34912	0.34912	0.050	-15.96116	20.00000	Averaged	ccc
	7 Bromomethane	0.23685	0.22892	0.22892	0.050	-3.35016	30.00000	Averaged	
	8 Chloroethane	0.21246	0.20582	0.20582	0.010	-3.12447	30.00000	Averaged	
	9 Trichlorofluoromethane	0.31799	0.29248	0.29248	0.050	-8.02212	30.00000	Averaged	
	10 Ethyl Ether	0.29582	0.29735	0.29735	0.001	0.51656	30.00000	Averaged	
	13 Acetone	0.33491	0.29721	0.29721	0.050	-11.25680	40.00000	Averaged	
	17 Acetonitrile	0.05935	0.07072	0.07072	0.010	19.15195	30.00000	Averaged	
	14 1,1-Dichloroethylene	0.21744	0.19489	0.19489	0.050	-10.37135	20.00000	Averaged	ccc
	18 Methyl acetate	0.30971	0.30162	0.30162	0.010	-2.61040	40.00000	Averaged	
	16 Iodomethane	0.37891	0.36309	0.36309	0.050	-4.17398	30.00000	Averaged	
	22 Methylene chloride	0.20428	0.19326	0.19326	0.050	-5.39206	30.00000	Averaged	
	19 Carbon disulfide	0.76494	0.70918	0.70918	0.050	-7.28904	30.00000	Averaged	
	24 tert-Butyl methyl ether	0.77339	0.77741	0.77741	0.050	0.51971	30.00000	Averaged	
	25 trans-1,2-Dichloroethylene	0.45970	0.42331	0.42331	0.050	-7.91447	30.00000	Averaged	
	26 Vinyl acetate	0.75971	0.65453	0.65453	0.010	-13.84562	40.00000	Averaged	
	28 1,1-Dichloroethane	0.59819	0.58345	0.58345	0.100	-2.46329	30.00000	Averaged	spcc
	31 2-Butanone	0.37353	0.32999	0.32999	0.030	-11.65784	40.00000	Averaged	
	33 cis-1,2-Dichloroethylene	0.53052	0.49299	0.49299	0.050	-7.07501	30.00000	Averaged	
	34 2,2-Dichloropropane	0.24848	0.22525	0.22525	0.050	-9.35079	30.00000	Averaged	
	38 Chloroform	0.49798	0.47145	0.47145	0.010	-5.32731	20.00000	Averaged	ccc
	37 Bromochloromethane	0.39220	0.37710	0.37710	0.010	-3.84914	30.00000	Averaged	
	41 1,1,1-Trichloroethane	0.34173	0.33281	0.33281	0.010	-2.61185	30.00000	Averaged	
	43 Cyclohexane	0.55549	0.48819	0.48819	0.010	-12.11548	30.00000	Averaged	
	44 1,1-Dichloropropene	0.35780	0.33377	0.33377	0.010	-6.71432	30.00000	Averaged	
	52 n-Butyl alcohol	0.01300	0.01560	0.01560	0.001	20.00901	40.00000	Averaged	
	45 Carbon tetrachloride	0.27191	0.26041	0.26041	0.010	-4.22921	30.00000	Averaged	
$	46 1,2-Dichloroethane-d4	0.43199	0.41602	0.41602	0.010	-3.69539	30.00000	Averaged	
	47 1,2-Dichloroethane	0.49133	0.47654	0.47654	0.010	-3.00919	30.00000	Averaged	
	48 Benzene	1.09329	1.01770	1.01770	0.010	-6.91346	30.00000	Averaged	
	50 Cyclohexene	0.51508	0.47503	0.47503	0.010	-7.77517	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 18-FEB-2010 02:27
Lab File ID: 7z328.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010
Analysis Type: WATER Init. Cal. Times: 16:02 00:42
Lab Sample ID: W7VM100217-22 Quant Type: ISTD
Method: /chem/VOA7.i/021710v7/VOA7-8260B-021710.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	53 Trichloroethylene	0.26489	0.25884	0.25884	0.010	-2.28485	30.00000	Averaged	
	56 1,2-Dichloropropane	0.36406	0.34276	0.34276	0.010	-5.85033	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.44055	0.40776	0.40776	0.010	-7.44328	30.00000	Averaged	
	59 Bromodichloromethane	0.39044	0.39204	0.39204	0.010	0.40888	30.00000	Averaged	
	58 Dibromomethane	0.19638	0.19614	0.19614	0.010	-0.12043	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	0.14176	0.13312	0.13312	0.010	-6.08895	30.00000	Averaged	
	63 4-Methyl-2-pentanone	0.24607	0.23847	0.23847	0.010	-3.08660	40.00000	Averaged	
	62 cis-1,3-Dichloropropylene	0.47551	0.47478	0.47478	0.010	-0.15161	30.00000	Averaged	
$	64 Toluene-d8	1.62735	1.59462	1.59462	0.010	-2.01081	30.00000	Averaged	
	65 Toluene	0.90021	0.86882	0.86882	0.010	-3.48730	20.00000	Averaged	ccc
	67 trans-1,3-Dichloropropylene	0.61004	0.62998	0.62998	0.010	3.26982	30.00000	Averaged	
	68 1,1,2-Trichloroethane	0.33917	0.33086	0.33086	0.010	-2.45158	30.00000	Averaged	
	69 2-Hexanone	0.68092	0.56308	0.56308	0.010	-17.30573	40.00000	Averaged	
	70 1,3-Dichloropropane	0.69553	0.70217	0.70217	0.010	0.95395	30.00000	Averaged	
	71 Tetrachloroethylene	0.24878	0.23181	0.23181	0.010	-6.82091	30.00000	Averaged	
	72 Dibromochloromethane	0.36583	0.38883	0.38883	0.010	6.28730	30.00000	Averaged	
	73 1,2-Dibromoethane	0.36785	0.38653	0.38653	0.010	5.07802	30.00000	Averaged	
	76 Chlorobenzene	0.92664	0.90044	0.90044	0.300	-2.82685	30.00000	Averaged	spcc
	77 1,1,1,2-Tetrachloroethane	0.31932	0.33458	0.33458	0.010	4.77841	30.00000	Averaged	
	78 Ethylbenzene	1.68200	1.51733	1.51733	0.010	-9.78969	20.00000	Averaged	ccc
	79 m,p-Xylenes	0.63299	0.60842	0.60842	0.010	-3.88083	30.00000	Averaged	
	80 o-Xylene	0.67056	0.65668	0.65668	0.010	-2.06991	30.00000	Averaged	
	81 Styrene	1.07382	1.07422	1.07422	0.010	0.03737	30.00000	Averaged	
	82 Bromoform	0.47906	0.50547	0.50547	0.100	5.51185	30.00000	Averaged	spcc
	83 Isopropylbenzene	3.23464	2.86304	2.86304	0.010	-11.48816	30.00000	Averaged	
	87 1,1,2,2-Tetrachloroethane	1.13151	1.04885	1.04885	0.300	-7.30521	30.00000	Averaged	spcc
$	86 Bromofluorobenzene	1.31523	1.28244	1.28244	0.010	-2.49352	30.00000	Averaged	
	89 1,2,3-Trichloropropane	0.24620	0.24376	0.24376	0.010	-0.99197	30.00000	Averaged	
	90 Bromobenzene	0.75737	0.73368	0.73368	0.010	-3.12821	30.00000	Averaged	
	91 n-Propylbenzene	4.11235	3.55350	3.55350	0.010	-13.58941	30.00000	Averaged	
	93 2-Chlorotoluene	2.81550	2.61345	2.61345	0.010	-7.17611	30.00000	Averaged	
	92 1,3,5-Trimethylbenzene	2.67285	2.53769	2.53769	0.010	-5.05667	30.00000	Averaged	
	94 4-Chlorotoluene	2.52732	2.34633	2.34633	0.010	-7.16112	30.00000	Averaged	
	95 tert-Butylbenzene	2.42130	2.26973	2.26973	0.010	-6.25993	30.00000	Averaged	
	96 1,2,4-Trimethylbenzene	2.70506	2.55659	2.55659	0.010	-5.48856	30.00000	Averaged	
	98 sec-Butylbenzene	3.56563	3.18076	3.18076	0.010	-10.79408	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 18-FEB-2010 02:27
Lab File ID: 7z328.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010
Analysis Type: WATER Init. Cal. Times: 16:02 00:42
Lab Sample ID: W7VM100217-22 Quant Type: ISTD
Method: /chem/VOA7.i/021710v7/VOA7-8260B-021710.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 4-Isopropyltoluene	2.57723	2.40283	2.40283	0.010	-6.76672	30.00000	Averaged
100 1,3-Dichlorobenzene	1.47958	1.37420	1.37420	0.010	-7.12232	30.00000	Averaged
102 1,4-Dichlorobenzene	1.44472	1.35364	1.35364	0.010	-6.30431	30.00000	Averaged
104 n-Butylbenzene	2.98564	2.67527	2.67527	0.010	-10.39534	30.00000	Averaged
105 1,2-Dichlorobenzene	1.48620	1.41959	1.41959	0.010	-4.48214	30.00000	Averaged
107 1,2-Dibromo-3-chloropropane	53.98003	50.00000	0.20228	0.010	7.96006	30.00000	Linear
108 1,2,4-Trichlorobenzene	0.93109	0.87331	0.87331	0.010	-6.20563	30.00000	Averaged
109 Hexachlorobutadiene	0.49991	0.45648	0.45648	0.010	-8.68867	30.00000	Averaged
110 Naphthalene	2.33792	2.47041	2.47041	0.010	5.66713	30.00000	Averaged
111 1,2,3-Trichlorobenzene	0.86076	0.87276	0.87276	0.010	1.39435	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 7.69699
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/021710v7/7z328.d
Lab Smp Id: W7VM100217-22 Client Smp ID: ICV
Inj Date : 18-FEB-2010 02:27
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |W7VM100217-22|ICV|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM100126-01E/IVM100214-01
Comment :
Method : /chem/VOA7.i/021710v7/VOA7-8260B-021710.m
Meth Date : 18-Feb-2010 06:55 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 2 Xylenes (total)	106				1553189	150.000	145
M 3 1,2-Dichloroethylene (total)	96				1074106	100.000	92.5
M 1 1,3-Dichloropropylene	75				1078824	100.000	102
4 Dichlorodifluoromethane	85	5.147	5.147	(0.336)	162626	50.0000	44.6
5 Chloromethane	50	5.757	5.757	(0.376)	469635	50.0000	42.8
6 Vinyl chloride	62	6.187	6.187	(0.404)	409246	50.0000	42.0
7 Bromomethane	94	7.418	7.418	(0.484)	268342	50.0000	48.3
8 Chloroethane	64	7.845	7.845	(0.512)	241269	50.0000	48.4
9 Trichlorofluoromethane	101	8.789	8.789	(0.574)	342848	50.0000	46.0
10 Ethyl Ether	59	9.703	9.692	(0.633)	348559	50.0000	50.2
13 Acetone	43	10.413	10.413	(0.680)	1741994	250.000	222
17 Acetonitrile	41	11.073	11.073	(0.723)	1657956	1000.00	1190
14 1,1-Dichloroethylene	96	10.312	10.312	(0.673)	228453	50.0000	44.8
18 Methyl acetate	43	11.215	11.215	(0.732)	1767842	250.000	243
16 Iodomethane	142	10.667	10.667	(0.696)	2128132	250.000	240
22 Methylene chloride	86	11.439	11.439	(0.747)	226549	50.0000	47.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
19 Carbon disulfide	76	10.840	10.840	(0.708)	4156596	250.000	232
24 tert-Butyl methyl ether	73	12.017	12.017	(0.785)	911300	50.0000	50.2
25 trans-1,2-Dichloroethylene	61	12.027	12.017	(0.785)	496217	50.0000	46.0
26 Vinyl acetate	43	12.860	12.860	(0.840)	3836252	250.000	215
28 1,1-Dichloroethane	63	12.799	12.789	(0.836)	683938	50.0000	48.8
31 2-Butanone	43	13.723	13.723	(0.896)	1934081	250.000	221
33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	577889	50.0000	46.5
34 2,2-Dichloropropane	77	13.743	13.743	(0.897)	264039	50.0000	45.3
38 Chloroform	83	14.190	14.190	(0.926)	552641	50.0000	47.3
37 Bromochloromethane	49	14.088	14.088	(0.920)	442048	50.0000	48.1
41 1,1,1-Trichloroethane	97	14.484	14.484	(0.946)	390122	50.0000	48.7
43 Cyclohexane	56	14.586	14.586	(0.952)	572266	50.0000	43.9
44 1,1-Dichloropropene	75	14.697	14.697	(0.960)	391255	50.0000	46.6
52 n-Butyl alcohol	56	15.560	15.560	(1.016)	1829150	5000.00	6000
45 Carbon tetrachloride	117	14.718	14.718	(0.961)	305263	50.0000	47.9
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	487674	50.0000	48.2
47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	558613	50.0000	48.5
48 Benzene	78	14.982	14.982	(0.978)	1192975	50.0000	46.5
50 Cyclohexene	67	15.114	15.114	(0.987)	556844	50.0000	46.1
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	1172223	50.0000	
53 Trichloroethylene	95	15.763	15.763	(1.029)	303421	50.0000	48.8
56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	401792	50.0000	47.1
55 Methylcyclohexane	83	16.027	16.027	(1.046)	477986	50.0000	46.3
59 Bromodichloromethane	83	16.332	16.332	(1.066)	459560	50.0000	50.2
58 Dibromomethane	93	16.179	16.179	(1.056)	229919	50.0000	49.9
61 2-Chloroethylvinyl ether	63	16.606	16.606	(1.084)	780259	250.000	235
63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	988490	250.000	242
62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	556553	50.0000	49.9
$ 64 Toluene-d8	98	17.134	17.134	(0.918)	1321978	50.0000	49.0
65 Toluene	92	17.215	17.215	(0.922)	720271	50.0000	48.2
67 trans-1,3-Dichloropropylene	75	17.388	17.388	(0.931)	522271	50.0000	51.6
68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	274288	50.0000	48.8
69 2-Hexanone	43	17.804	17.794	(0.954)	2334037	250.000	207
70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	582114	50.0000	50.5
71 Tetrachloroethylene	164	17.814	17.814	(0.954)	192175	50.0000	46.6
72 Dibromochloromethane	129	18.058	18.058	(0.967)	322348	50.0000	53.1
73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	320442	50.0000	52.5
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	829022	50.0000	
76 Chlorobenzene	112	18.697	18.697	(1.002)	746485	50.0000	48.6
77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	277371	50.0000	52.4
78 Ethylbenzene	91	18.768	18.758	(1.005)	1257903	50.0000	45.1
79 m,p-Xylenes	106	18.870	18.870	(1.011)	1008788	100.000	96.1
80 o-Xylene	106	19.286	19.286	(1.033)	544401	50.0000	49.0
81 Styrene	104	19.286	19.286	(1.033)	890551	50.0000	50.0
82 Bromoform	173	19.540	19.540	(0.931)	209984	50.0000	52.8
83 Isopropylbenzene	105	19.631	19.631	(0.935)	1189382	50.0000	44.2
87 1,1,2,2-Tetrachloroethane	83	19.885	19.885	(0.947)	435719	50.0000	46.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	532758	50.0000	48.8
89 1,2,3-Trichloropropane	110	19.966	19.966	(0.951)	101263	50.0000	49.5
90 Bromobenzene	156	20.017	20.017	(0.954)	304789	50.0000	48.4
91 n-Propylbenzene	91	20.027	20.027	(0.954)	1476217	50.0000	43.2
93 2-Chlorotoluene	91	20.169	20.169	(0.961)	1085697	50.0000	46.4
92 1,3,5-Trimethylbenzene	105	20.169	20.169	(0.961)	1054223	50.0000	47.5
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	974728	50.0000	46.4
95 tert-Butylbenzene	119	20.535	20.524	(0.978)	942904	50.0000	46.9
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	1062075	50.0000	47.2
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	1321369	50.0000	44.6
99 4-Isopropyltoluene	119	20.859	20.859	(0.994)	998200	50.0000	46.6
100 1,3-Dichlorobenzene	146	20.931	20.930	(0.997)	570879	50.0000	46.4
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	415426	50.0000	
102 1,4-Dichlorobenzene	146	21.012	21.012	(1.001)	562339	50.0000	46.8
104 n-Butylbenzene	91	21.296	21.296	(1.014)	1111378	50.0000	44.8
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	589734	50.0000	47.8
107 1,2-Dibromo-3-chloropropane	157	22.301	22.291	(1.062)	84034	50.0000	54.0
108 1,2,4-Trichlorobenzene	180	23.357	23.357	(1.113)	362796	50.0000	46.9
109 Hexachlorobutadiene	225	23.529	23.529	(1.121)	189632	50.0000	45.6
110 Naphthalene	128	23.743	23.743	(1.131)	1026272	50.0000	52.8
111 1,2,3-Trichlorobenzene	180	24.098	24.098	(1.148)	362567	50.0000	50.7

Data File: /chem/VOA7.i/021710v7/7z328.d
Date : 18-FEB-2010 02:27
Client ID: ICV
Sample Info: IW7VH100217-22|ICV|1|VOAF|1|
Purge Volume: 5.0
Column phase: DB-624

Instrument: VOA7.i
Operator: AXO1
Column diameter: 0.25

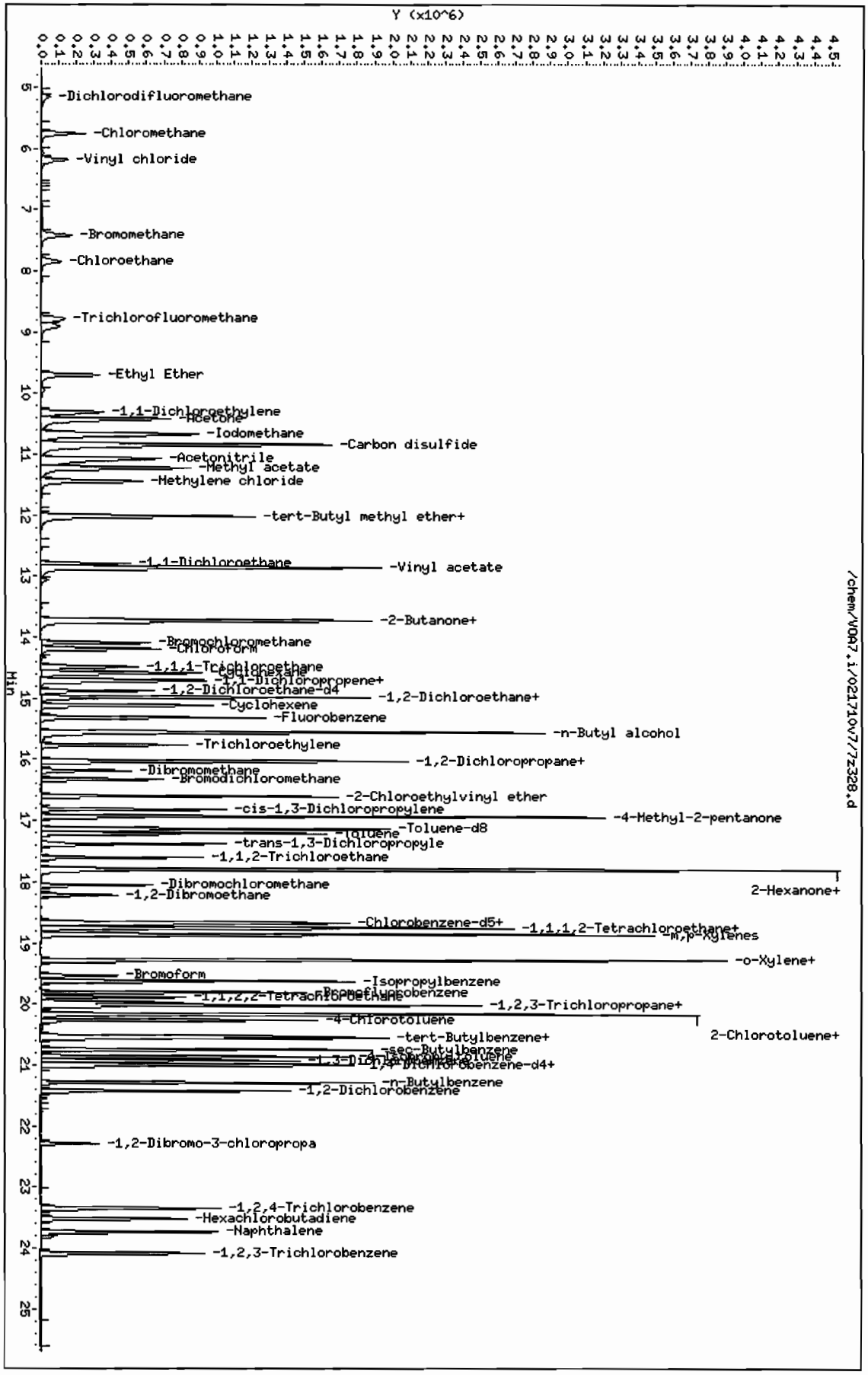

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 18-FEB-2010 03:03
Lab File ID: 7z329.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010
Analysis Type: WATER Init. Cal. Times: 16:02 00:42
Lab Sample ID: W7VM100217-23 Quant Type: ISTD
Method: /chem/VOA7.i/021710v7/VOA7-8260B-021710.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
147 Chlorotrifluoroethylene	0.10627	0.08440	0.08440	0.010	-20.57911	30.00000	Averaged
148 2-Chloro-1,1,1-trifluoroeth	0.21104	0.19071	0.19071	0.010	-9.63206	30.00000	Averaged
11 Acrolein	0.04808	0.06342	0.06342	0.001	31.90544	30.00000	Averaged <-
12 Trichlorotrifluoroethane	0.08737	0.09264	0.09264	0.010	6.03207	30.00000	Averaged
15 Isopropyl Alcohol	0.03252	0.03340	0.03340	0.010	2.69600	40.00000	Averaged
20 Allyl chloride	0.47439	0.45060	0.45060	0.010	-5.01522	30.00000	Averaged
21 tert-Butyl Alcohol	0.04700	0.04729	0.04729	0.001	0.60763	40.00000	Averaged
23 Acrylonitrile	0.13462	0.13550	0.13550	0.010	0.65548	30.00000	Averaged
27 Isopropyl ether	1.27617	1.16451	1.16451	0.010	-8.74982	30.00000	Averaged
29 2-Chloro-1,3-butadiene	0.40803	0.40855	0.40855	0.010	0.12766	30.00000	Averaged
30 Ethyl tert-butyl ether	0.87171	0.84896	0.84896	0.010	-2.60957	30.00000	Averaged
35 Propionitrile	0.05907	0.05400	0.05400	0.010	-8.58473	30.00000	Averaged
32 Ethyl acetate	0.40471	0.34558	0.34558	0.010	-14.60985	40.00000	Averaged
36 Methacrylonitrile	0.24530	0.22257	0.22257	0.010	-9.26511	30.00000	Averaged
39 Tetrahydrofuran	0.41916	0.38326	0.38326	0.010	-8.56559	30.00000	Averaged
42 Isobutyl alcohol	0.01791	0.01700	0.01700	0.005	-5.09066	40.00000	Averaged
49 Methyl tert-amyl ether	0.66978	0.66370	0.66370	0.010	-0.90825	30.00000	Averaged
54 Methyl methacrylate	0.21684	0.20990	0.20990	0.010	-3.19904	30.00000	Averaged
66 Ethyl methacrylate	0.57238	0.56268	0.56268	0.010	-1.69472	30.00000	Averaged
74 1-Chlorohexane	0.31936	0.29112	0.29112	0.010	-8.83992	30.00000	Averaged
57 1,4-Dioxane	0.00326	0.00349	0.00349	0.001	7.06816	40.00000	Averaged
60 2-Nitropropane	0.14035	0.14903	0.14903	0.010	6.18586	30.00000	Averaged
84 cis-1,4-Dichloro-2-butene	0.38900	0.41782	0.41782	0.010	7.40931	30.00000	Averaged
85 Cyclohexanone	0.02826	0.03489	0.03489	0.010	23.43653	40.00000	Averaged
88 trans-1,4-Dichloro-2-butene	0.35107	0.38019	0.38019	0.010	8.29533	30.00000	Averaged
97 Pentachloroethane	0.28176	0.23364	0.23364	0.010	-17.07604	30.00000	Averaged
103 Benzyl chloride	1.23904	1.13837	1.13837	0.010	-8.12535	30.00000	Averaged
106 bis(2-Chloroisopropyl)ether	0.69951	0.66981	0.66981	0.010	-4.24580	30.00000	Averaged
$ 46 1,2-Dichloroethane-d4	0.43199	0.41798	0.41798	0.010	-3.24324	30.00000	Averaged
$ 64 Toluene-d8	1.62735	1.64351	1.64351	0.010	0.99350	30.00000	Averaged
$ 86 Bromofluorobenzene	1.31523	1.27368	1.27368	0.010	-3.15966	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i
Lab File ID: 7z329.d
Analysis Type: WATER
Lab Sample ID: W7VM100217-23
Method: /chem/VOA7.i/021710v7/VOA7-8260B-021710.m

Injection Date: 18-FEB-2010 03:03
Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010
Init. Cal. Times: 16:02 00:42
Quant Type: ISTD

Average %D / Drift Results.	
Calculated Average %D/Drift =	7.69699
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/021710v7/7z329.d
Lab Smp Id: W7VM100217-23 Client Smp ID: SICV
Inj Date : 18-FEB-2010 03:03
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |W7VM100217-23|SICV|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM091216-08B/UVM100125-08C
Comment :
Method : /chem/VOA7.i/021710v7/VOA7-8260B-021710.m
Meth Date : 18-Feb-2010 06:55 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
147 Chlorotrifluoroethylene	116	5.029	5.029	(0.328)	321831	150.000	119
148 2-Chloro-1,1,1-trifluoroethane	118	6.604	6.604	(0.431)	727177	150.000	136
11 Acrolein	56	10.017	10.017	(0.654)	403023	250.000	330
12 Trichlorotrifluoroethane	85	10.373	10.373	(0.677)	588697	250.000	265
15 Isopropyl Alcohol	45	10.779	10.779	(0.704)	2122372	2500.00	2570
20 Allyl chloride	41	11.185	11.185	(0.730)	2863564	250.000	237
21 tert-Butyl Alcohol	59	11.662	11.662	(0.761)	3005064	2500.00	2520
23 Acrylonitrile	53	11.926	11.926	(0.779)	861102	250.000	252
27 Isopropyl ether	45	12.901	12.901	(0.842)	1480087	50.0000	45.6
29 2-Chloro-1,3-butadiene	53	12.961	12.961	(0.846)	519270	50.0000	50.1
30 Ethyl tert-butyl ether	59	13.489	13.489	(0.881)	1079030	50.0000	48.7
35 Propionitrile	54	13.804	13.804	(0.901)	343144	250.000	228
32 Ethyl acetate	43	13.804	13.804	(0.901)	2196159	250.000	213
36 Methacrylonitrile	41	14.038	14.038	(0.916)	1414418	250.000	227
39 Tetrahydrofuran	42	14.159	14.159	(0.675)	797978	250.000	228
42 Isobutyl alcohol	41	14.748	14.748	(0.963)	1080518	2500.00	2370

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
49 Methyl tert-amyl ether	73	15.073	15.073	(0.984)	843562	50.0000	49.5
54 Methyl methacrylate	69	16.078	16.078	(1.050)	1333906	250.000	242
66 Ethyl methacrylate	69	17.408	17.408	(0.933)	2383055	250.000	246
74 1-Chlorohexane	55	18.575	18.575	(1.213)	370019	50.0000	45.6
57 1,4-Dioxane	88	16.159	16.159	(1.055)	221750	2500.00	2680
60 2-Nitropropane	43	16.555	16.555	(1.081)	947088	250.000	265
84 cis-1,4-Dichloro-2-butene	53	19.662	19.662	(0.937)	869937	250.000	268
85 Cyclohexanone	55	19.773	19.773	(1.059)	738736	1250.00	1540
88 trans-1,4-Dichloro-2-butene	53	19.926	19.926	(0.949)	791580	250.000	271
97 Pentachloroethane	167	20.596	20.596	(0.981)	486462	250.000	207
103 Benzyl chloride	91	21.124	21.124	(1.006)	2370168	250.000	230
106 bis(2-Chloroisopropyl)ether	45	21.509	21.509	(1.025)	1394590	250.000	239
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	1270997	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	847043	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	416415	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	531249	50.0000	48.4
$ 64 Toluene-d8	98	17.134	17.134	(0.918)	1392127	50.0000	50.5
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	530378	50.0000	48.4

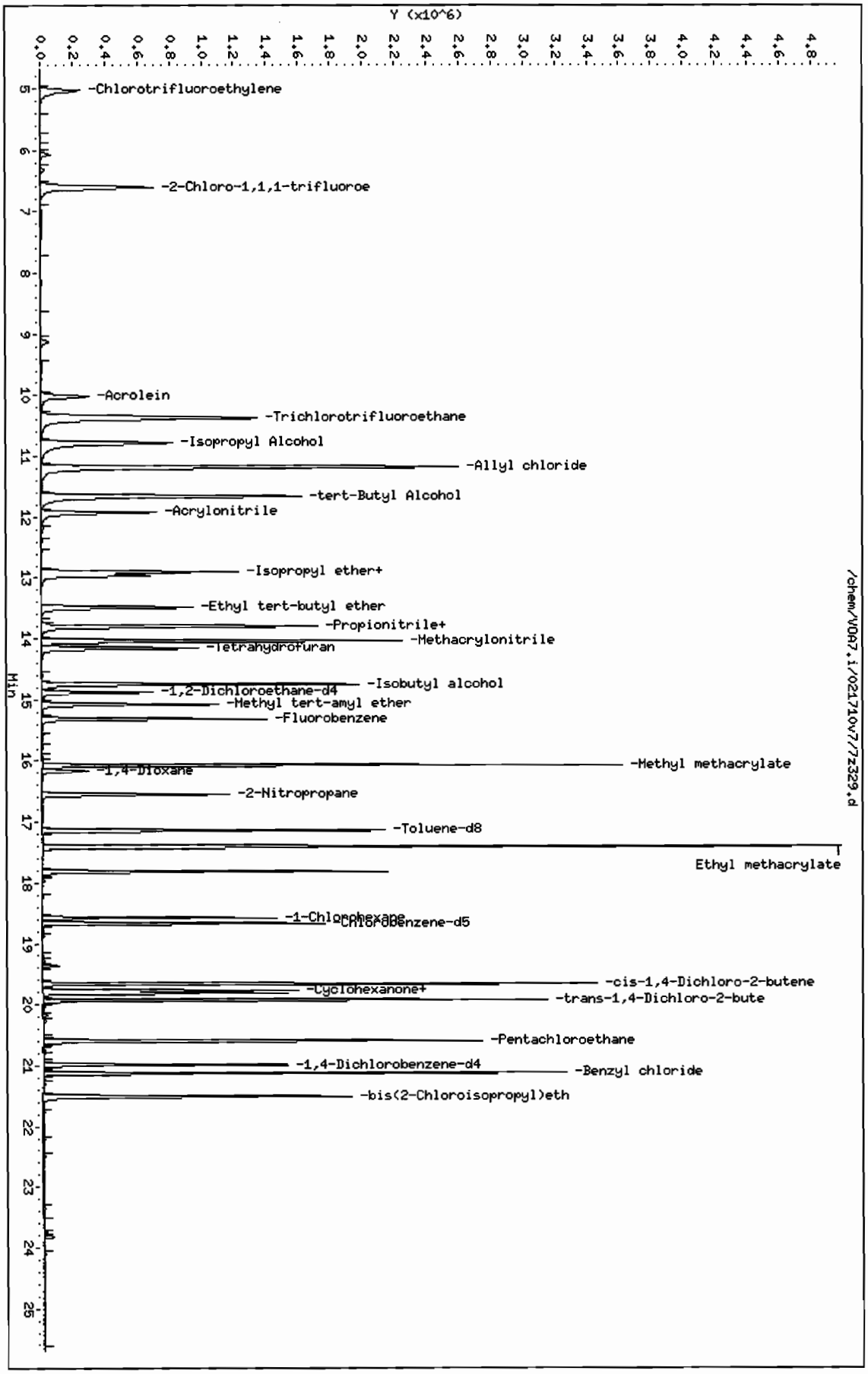
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Date : 18-FEB-2010 03:03
Client ID: SICV
Sample Info: IW7VM100217-23|SICV|1|VOAF|1|
Purge Volume: 5.0
Column phase: DB-624
Instrument: VOA7.i
Operator: AX01
Column diameter: 0.25
Y (x10^6)
Min
-Chlorotrifluoroethylene
-2-Chloro-1,1,1-trifluoroe
-Acrolein
-Trichlorotrifluoroethane
-Isopropyl Alcohol
-Allyl chloride
-tert-Butyl Alcohol
-Acrylonitrile
-Isopropyl ether+
-Ethyl tert-butyl ether
-Propionitrile+
-Methacrylonitrile
-Tetrahydrofuran
-Isobutyl alcohol
-1,2-Dichloroethane-d4
-Methyl tert-amyl ether
-Fluorobenzene
-Methyl methacrylate
-1,4-Dioxane
-2-Nitropropane
-Toluene-d8
Ethyl methacrylate
-1-Chlorohexane
-Chlorobenzene-d5
-cis-1,4-Dichloro-2-butene
-Cyclohexanone+
-trans-1,4-Dichloro-2-bute
-Pentachloroethane
-1,4-Dichlorobenzene-d4
-Benzyl chloride
-bis(2-Chloroisopropyl)eth
/chem/VOA7.i/021710v7/7z329.d

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 24-MAR-2010 20:27
Lab File ID: 7e302.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010
Analysis Type: WATER Init. Cal. Times: 16:02 00:42
Lab Sample ID: W7VM100324-01 Quant Type: ISTD
Method: /chem/VOA7.i/032410v7/VOA7-8260B-021710.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	2 Xylenes (total)	0.64551	0.62701	0.62701	0.050	-2.86593	30.00000	Averaged	
M	3 1,2-Dichloroethylene (total	0.49511	0.45242	0.45242	0.050	-8.62252	30.00000	Averaged	
M	1 1,3-Dichloropropylene	0.45215	0.45380	0.45380	0.050	0.36542	30.00000	Averaged	
	4 Dichlorodifluoromethane	0.15569	0.16110	0.16110	0.050	3.47911	30.00000	Averaged	
	5 Chloromethane	0.46771	0.42538	0.42538	0.100	-9.04959	30.00000	Averaged	spcc
	6 Vinyl chloride	0.41543	0.41327	0.41327	0.050	-0.51922	20.00000	Averaged	ccc
	7 Bromomethane	0.23685	0.22903	0.22903	0.050	-3.30304	30.00000	Averaged	
	8 Chloroethane	0.21246	0.22244	0.22244	0.010	4.69968	30.00000	Averaged	
	9 Trichlorofluoromethane	0.31799	0.33086	0.33086	0.050	4.04868	30.00000	Averaged	
	10 Ethyl Ether	0.29582	0.29077	0.29077	0.001	-1.70836	30.00000	Averaged	
	13 Acetone	0.33491	0.31403	0.31403	0.050	-6.23496	40.00000	Averaged	
	17 Acetonitrile	0.05935	0.06786	0.06786	0.010	14.33928	30.00000	Averaged	
	14 1,1-Dichloroethylene	0.21744	0.22832	0.22832	0.050	5.00239	20.00000	Averaged	ccc
	18 Methyl acetate	0.30971	0.28671	0.28671	0.010	-7.42413	40.00000	Averaged	
	16 Iodomethane	0.37891	0.39841	0.39841	0.050	5.14650	30.00000	Averaged	
	22 Methylene chloride	0.20428	0.19208	0.19208	0.050	-5.97159	30.00000	Averaged	
	19 Carbon disulfide	0.76494	0.75885	0.75885	0.050	-0.79616	30.00000	Averaged	
	24 tert-Butyl methyl ether	0.77339	0.66135	0.66135	0.050	-14.48680	30.00000	Averaged	
	25 trans-1,2-Dichloroethylene	0.45970	0.43042	0.43042	0.050	-6.36921	30.00000	Averaged	
	26 Vinyl acetate	0.75971	0.75206	0.75206	0.010	-1.00678	40.00000	Averaged	
	28 1,1-Dichloroethane	0.59819	0.59158	0.59158	0.100	-1.10519	30.00000	Averaged	spcc
	31 2-Butanone	0.37353	0.38113	0.38113	0.030	2.03354	40.00000	Averaged	
	33 cis-1,2-Dichloroethylene	0.53052	0.47442	0.47442	0.050	-10.57500	30.00000	Averaged	
	34 2,2-Dichloropropane	0.24848	0.25102	0.25102	0.050	1.02227	30.00000	Averaged	
	38 Chloroform	0.49798	0.46502	0.46502	0.010	-6.61866	20.00000	Averaged	ccc
	37 Bromochloromethane	0.39220	0.37831	0.37831	0.010	-3.54118	30.00000	Averaged	
	41 1,1,1-Trichloroethane	0.34173	0.34569	0.34569	0.010	1.15825	30.00000	Averaged	
	43 Cyclohexane	0.55549	0.55388	0.55388	0.010	-0.28890	30.00000	Averaged	
	44 1,1-Dichloropropene	0.35780	0.35012	0.35012	0.010	-2.14441	30.00000	Averaged	
	52 n-Butyl alcohol	0.01300	0.01398	0.01398	0.001	7.53400	40.00000	Averaged	
	45 Carbon tetrachloride	0.27191	0.27151	0.27151	0.010	-0.14836	30.00000	Averaged	
$	46 1,2-Dichloroethane-d4	0.43199	0.38200	0.38200	0.010	-11.57146	30.00000	Averaged	
	47 1,2-Dichloroethane	0.49133	0.41174	0.41174	0.010	-16.19777	30.00000	Averaged	
	48 Benzene	1.09329	1.06071	1.06071	0.010	-2.98011	30.00000	Averaged	
	50 Cyclohexene	0.51508	0.52599	0.52599	0.010	2.11745	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 24-MAR-2010 20:27
Lab File ID: 7e302.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010
Analysis Type: WATER Init. Cal. Times: 16:02 00:42
Lab Sample ID: W7VM100324-01 Quant Type: ISTD
Method: /chem/VOA7.i/032410v7/VOA7-8260B-021710.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	53 Trichloroethylene	0.26489	0.26206	0.26206	0.010	-1.07047	30.00000	Averaged	
	56 1,2-Dichloropropane	0.36406	0.34590	0.34590	0.010	-4.98690	20.00000	Averaged	ccc
	55 Methylcyclohexane	0.44055	0.46948	0.46948	0.010	6.56608	30.00000	Averaged	
	59 Bromodichloromethane	0.39044	0.37728	0.37728	0.010	-3.37196	30.00000	Averaged	
	58 Dibromomethane	0.19638	0.19897	0.19897	0.010	1.31933	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	0.14176	0.14374	0.14374	0.010	1.39764	30.00000	Averaged	
	63 4-Methyl-2-pentanone	0.24607	0.22414	0.22414	0.010	-8.91179	40.00000	Averaged	
	62 cis-1,3-Dichloropropylene	0.47551	0.47833	0.47833	0.010	0.59426	30.00000	Averaged	
$	64 Toluene-d8	1.62735	1.50210	1.50210	0.010	-7.69636	30.00000	Averaged	
	65 Toluene	0.90021	0.82300	0.82300	0.010	-8.57716	20.00000	Averaged	ccc
	67 trans-1,3-Dichloropropylene	0.61004	0.54671	0.54671	0.010	-10.38125	30.00000	Averaged	
	68 1,1,2-Trichloroethane	0.33917	0.30292	0.30292	0.010	-10.68961	30.00000	Averaged	
	69 2-Hexanone	0.68092	0.61452	0.61452	0.010	-9.75142	40.00000	Averaged	
	70 1,3-Dichloropropane	0.69553	0.62946	0.62946	0.010	-9.49981	30.00000	Averaged	
	71 Tetrachloroethylene	0.24878	0.23805	0.23805	0.010	-4.31072	30.00000	Averaged	
	72 Dibromochloromethane	0.36583	0.34798	0.34798	0.010	-4.87993	30.00000	Averaged	
	73 1,2-Dibromoethane	0.36785	0.35012	0.35012	0.010	-4.82038	30.00000	Averaged	
	76 Chlorobenzene	0.92664	0.86732	0.86732	0.300	-6.40075	30.00000	Averaged	spcc
	77 1,1,1,2-Tetrachloroethane	0.31932	0.30868	0.30868	0.010	-3.33168	30.00000	Averaged	
	78 Ethylbenzene	1.68200	1.51213	1.51213	0.010	-10.09930	20.00000	Averaged	ccc
	79 m,p-Xylenes	0.63299	0.61116	0.61116	0.010	-3.44882	30.00000	Averaged	
	80 o-Xylene	0.67056	0.65872	0.65872	0.010	-1.76548	30.00000	Averaged	
	81 Styrene	1.07382	1.04939	1.04939	0.010	-2.27460	30.00000	Averaged	
	82 Bromoform	0.47906	0.47276	0.47276	0.100	-1.31565	30.00000	Averaged	spcc
	83 Isopropylbenzene	3.23464	2.82096	2.82096	0.010	-12.78914	30.00000	Averaged	
	87 1,1,2,2-Tetrachloroethane	1.13151	0.97877	0.97877	0.300	-13.49862	30.00000	Averaged	spcc
$	86 Bromofluorobenzene	1.31523	1.09697	1.09697	0.010	-16.59524	30.00000	Averaged	
	89 1,2,3-Trichloropropane	0.24620	0.20804	0.20804	0.010	-15.49905	30.00000	Averaged	
	90 Bromobenzene	0.75737	0.71453	0.71453	0.010	-5.65664	30.00000	Averaged	
	91 n-Propylbenzene	4.11235	3.55734	3.55734	0.010	-13.49605	30.00000	Averaged	
	93 2-Chlorotoluene	2.81550	2.36610	2.36610	0.010	-15.96160	30.00000	Averaged	
	92 1,3,5-Trimethylbenzene	2.67285	2.40784	2.40784	0.010	-9.91481	30.00000	Averaged	
	94 4-Chlorotoluene	2.52732	2.08913	2.08913	0.010	-17.33802	30.00000	Averaged	
	95 tert-Butylbenzene	2.42130	2.27101	2.27101	0.010	-6.20716	30.00000	Averaged	
	96 1,2,4-Trimethylbenzene	2.70506	2.38903	2.38903	0.010	-11.68283	30.00000	Averaged	
	98 sec-Butylbenzene	3.56563	3.25554	3.25554	0.010	-8.69672	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i
Lab File ID: 7e302.d
Analysis Type: WATER
Lab Sample ID: W7VM100324-01 Quant Type: ISTD
Method: /chem/VOA7.i/032410v7/VOA7-8260B-021710.m

Injection Date: 24-MAR-2010 20:27
Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010
Init. Cal. Times: 16:02 00:42

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 4-Isopropyltoluene	2.57723	2.45479	2.45479	0.010	-4.75059	30.00000	Averaged
100 1,3-Dichlorobenzene	1.47958	1.37336	1.37336	0.010	-7.17908	30.00000	Averaged
102 1,4-Dichlorobenzene	1.44472	1.34716	1.34716	0.010	-6.75308	30.00000	Averaged
104 n-Butylbenzene	2.98564	2.78357	2.78357	0.010	-6.76808	30.00000	Averaged
105 1,2-Dichlorobenzene	1.48620	1.38671	1.38671	0.010	-6.69457	30.00000	Averaged
107 1,2-Dibromo-3-chloropropane	48.28520	50.00000	0.18052	0.010	-3.42960	30.00000	Linear
108 1,2,4-Trichlorobenzene	0.93109	0.96252	0.96252	0.010	3.37520	30.00000	Averaged
109 Hexachlorobutadiene	0.49991	0.48856	0.48856	0.010	-2.27029	30.00000	Averaged
110 Naphthalene	2.33792	2.22449	2.22449	0.010	-4.85171	30.00000	Averaged
111 1,2,3-Trichlorobenzene	0.86076	0.82808	0.82808	0.010	-3.79591	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 6.16224
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e302.d
Lab Smp Id: W7VM100324-01 Client Smp ID: VSTD050
Inj Date : 24-MAR-2010 20:27
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |W7VM100324-01|BFB/CCV|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM100314-07A/UVM100315-07B
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 31-Mar-2010 20:41 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
M 2 Xylenes (total)	106				1035983	150.000	146
M 3 1,2-Dichloroethylene (total)	96				634663	100.000	91.5
M 1 1,3-Dichloropropylene	75				636609	100.000	100
4 Dichlorodifluoromethane	85	5.147	5.147	(0.336)	113001	50.0000	51.7
5 Chloromethane	50	5.757	5.757	(0.376)	298369	50.0000	45.5
6 Vinyl chloride	62	6.187	6.187	(0.404)	289873	50.0000	49.7
7 Bromomethane	94	7.429	7.429	(0.485)	160644	50.0000	48.3
8 Chloroethane	64	7.845	7.845	(0.512)	156026	50.0000	52.3
9 Trichlorofluoromethane	101	8.789	8.789	(0.574)	232070	50.0000	52.0
10 Ethyl Ether	59	9.703	9.703	(0.633)	203948	50.0000	49.1
13 Acetone	43	10.413	10.413	(0.680)	1101328	250.000	234
17 Acetonitrile	41	11.073	11.073	(0.723)	951988	1000.00	1140
14 1,1-Dichloroethylene	96	10.312	10.312	(0.673)	160145	50.0000	52.5
18 Methyl acetate	43	11.215	11.215	(0.732)	1005525	250.000	231
16 Iodomethane	142	10.667	10.667	(0.696)	1397250	250.000	263

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/1)	AMOUNTS ON-COL (ug/1)
	22 Methylene chloride	86	11.439	11.439	(0.747)	134728	50.0000	47.0
	19 Carbon disulfide	76	10.840	10.840	(0.708)	2661334	250.000	248
	24 tert-Butyl methyl ether	73	12.017	12.017	(0.785)	463882	50.0000	42.8
	25 trans-1,2-Dichloroethylene	61	12.027	12.027	(0.785)	301900	50.0000	46.8
	26 Vinyl acetate	43	12.860	12.860	(0.840)	2637542	250.000	247
	28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	414941	50.0000	49.4
	31 2-Butanone	43	13.713	13.713	(0.895)	1336638	250.000	255
	33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	332763	50.0000	44.7
	34 2,2-Dichloropropane	77	13.743	13.743	(0.897)	176070	50.0000	50.5
	38 Chloroform	83	14.190	14.190	(0.926)	326169	50.0000	46.7
	37 Bromochloromethane	49	14.088	14.088	(0.920)	265352	50.0000	48.2
	41 1,1,1-Trichloroethane	97	14.484	14.484	(0.946)	242471	50.0000	50.6
	43 Cyclohexane	56	14.586	14.586	(0.952)	388502	50.0000	49.8
	44 1,1-Dichloropropene	75	14.697	14.697	(0.960)	245581	50.0000	48.9
	52 n-Butyl alcohol	56	15.560	15.560	(1.016)	980721	5000.00	5380
	45 Carbon tetrachloride	117	14.728	14.728	(0.962)	190441	50.0000	49.9
$	46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	267941	50.0000	44.2
	47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	288802	50.0000	41.9
	48 Benzene	78	14.982	14.982	(0.978)	743994	50.0000	48.5
	50 Cyclohexene	67	15.124	15.124	(0.987)	368935	50.0000	51.0
*	51 Fluorobenzene	96	15.317	15.317	(1.000)	701414	50.0000	
	53 Trichloroethylene	95	15.763	15.763	(1.029)	183812	50.0000	49.5
	56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	242622	50.0000	47.5
	55 Methylcyclohexane	83	16.027	16.027	(1.046)	329299	50.0000	53.3
	59 Bromodichloromethane	83	16.332	16.332	(1.066)	264629	50.0000	48.3
	58 Dibromomethane	93	16.179	16.179	(1.056)	139558	50.0000	50.6
	61 2-Chloroethylvinyl ether	63	16.606	16.606	(1.084)	504097	250.000	253
	63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	617222	250.000	228
	62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	335508	50.0000	50.3
$	64 Toluene-d8	98	17.134	17.134	(0.918)	827286	50.0000	46.2
	65 Toluene	92	17.215	17.215	(0.922)	453270	50.0000	45.7
	67 trans-1,3-Dichloropropylene	75	17.387	17.387	(0.931)	301101	50.0000	44.8
	68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	166832	50.0000	44.6
	69 2-Hexanone	43	17.794	17.794	(0.953)	1692246	250.000	226
	70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	346677	50.0000	45.2
	71 Tetrachloroethylene	164	17.814	17.814	(0.954)	131109	50.0000	47.8
	72 Dibromochloromethane	129	18.058	18.058	(0.967)	191649	50.0000	47.6
	73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	192829	50.0000	47.6
*	75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	550753	50.0000	
	76 Chlorobenzene	112	18.697	18.697	(1.002)	477681	50.0000	46.8
	77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	170006	50.0000	48.3
	78 Ethylbenzene	91	18.758	18.758	(1.005)	832808	50.0000	45.0
	79 m,p-Xylenes	106	18.870	18.870	(1.011)	673191	100.000	96.6
	80 o-Xylene	106	19.286	19.286	(1.033)	362792	50.0000	49.1
	81 Styrene	104	19.286	19.286	(1.033)	577956	50.0000	48.9
	82 Bromoform	173	19.540	19.540	(0.931)	136771	50.0000	49.3
	83 Isopropylbenzene	105	19.631	19.631	(0.935)	816115	50.0000	43.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
87 1,1,2,2-Tetrachloroethane	83	19.885	19.885	(0.947)	283162	50.0000	43.2
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	317357	50.0000	41.7
89 1,2,3-Trichloropropane	110	19.966	19.966	(0.951)	60187	50.0000	42.2
90 Bromobenzene	156	20.017	20.017	(0.954)	206716	50.0000	47.2
91 n-Propylbenzene	91	20.027	20.027	(0.954)	1029153	50.0000	43.2
93 2-Chlorotoluene	91	20.169	20.169	(0.961)	684522	50.0000	42.0
92 1,3,5-Trimethylbenzene	105	20.169	20.169	(0.961)	696598	50.0000	45.0
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	604394	50.0000	41.3
95 tert-Butylbenzene	119	20.524	20.524	(0.978)	657011	50.0000	46.9
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	691157	50.0000	44.2
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	941841	50.0000	45.6
99 4-Isopropyltoluene	119	20.859	20.859	(0.994)	710182	50.0000	47.6
100 1,3-Dichlorobenzene	146	20.930	20.930	(0.997)	397319	50.0000	46.4
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	289304	50.0000	
102 1,4-Dichlorobenzene	146	21.012	21.012	(1.001)	389739	50.0000	46.6
104 n-Butylbenzene	91	21.296	21.296	(1.014)	805298	50.0000	46.6
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	401180	50.0000	46.6
107 1,2-Dibromo-3-chloropropane	157	22.291	22.291	(1.062)	52225	50.0000	48.3
108 1,2,4-Trichlorobenzene	180	23.357	23.357	(1.113)	278460	50.0000	51.7
109 Hexachlorobutadiene	225	23.529	23.529	(1.121)	141343	50.0000	48.9
110 Naphthalene	128	23.743	23.743	(1.131)	643553	50.0000	47.6
111 1,2,3-Trichlorobenzene	180	24.088	24.088	(1.147)	239568	50.0000	48.1

Data File: /chem/VOA7.i/032410v7/7e302.d
Date : 24-MAR-2010 20:27
Client ID: VSTD050
Sample Info: IW7VH100324-01|BFB/CCV|1|VOAF|1|
Purge Volume: 5.0
Column phase: DB-624

Instrument: VOA7.i
Operator: AXO1
Column diameter: 0.25

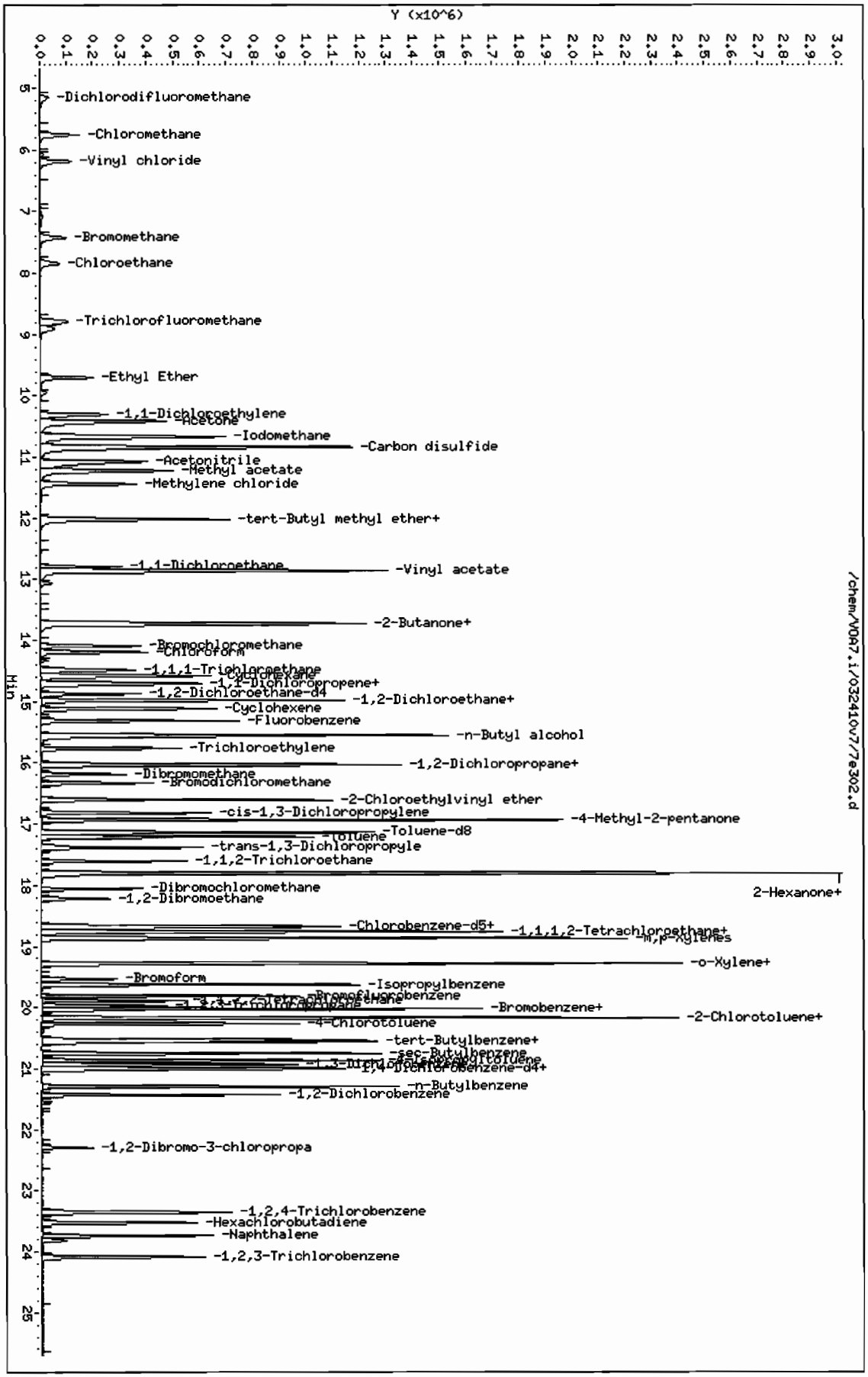

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 24-MAR-2010 22:09
Lab File ID: 7e305.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010
Analysis Type: WATER Init. Cal. Times: 16:02 00:42
Lab Sample ID: W7VM100324-04 Quant Type: ISTD
Method: /chem/VOA7.i/032410v7/VOA7-8260B-021710.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
147 Chlorotrifluoroethylene	0.10627	0.08204	0.08204	0.010	-22.79986	30.00000	Averaged	
148 2-Chloro-1,1,1-trifluoroeth	0.21104	0.20871	0.20871	0.010	-1.10217	30.00000	Averaged	
11 Acrolein	0.04808	0.07521	0.07521	0.001	56.42552	30.00000	Averaged	<-
12 Trichlorotrifluoroethane	0.08737	0.09916	0.09916	0.010	13.49787	30.00000	Averaged	
15 Isopropyl Alcohol	0.03252	0.02836	0.02836	0.010	-12.79082	40.00000	Averaged	
20 Allyl chloride	0.47439	0.44996	0.44996	0.010	-5.15061	30.00000	Averaged	
21 tert-Butyl Alcohol	0.04700	0.03754	0.03754	0.001	-20.12104	40.00000	Averaged	
23 Acrylonitrile	0.13462	0.13048	0.13048	0.010	-3.07157	30.00000	Averaged	
27 Isopropyl ether	1.27617	1.20981	1.20981	0.010	-5.20004	30.00000	Averaged	
29 2-Chloro-1,3-butadiene	0.40803	0.44922	0.44922	0.010	10.09311	30.00000	Averaged	
30 Ethyl tert-butyl ether	0.87171	0.73804	0.73804	0.010	-15.33391	30.00000	Averaged	
35 Propionitrile	0.05907	0.05052	0.05052	0.010	-14.46183	30.00000	Averaged	
32 Ethyl acetate	0.40471	0.31358	0.31358	0.010	-22.51657	40.00000	Averaged	
36 Methacrylonitrile	0.24530	0.20165	0.20165	0.010	-17.79168	30.00000	Averaged	
39 Tetrahydrofuran	0.41916	0.29618	0.29618	0.010	-29.34081	30.00000	Averaged	
42 Isobutyl alcohol	0.01791	0.01375	0.01375	0.005	-23.24855	40.00000	Averaged	
49 Methyl tert-amyl ether	0.66978	0.57355	0.57355	0.010	-14.36777	30.00000	Averaged	
54 Methyl methacrylate	0.21684	0.20632	0.20632	0.010	-4.85138	30.00000	Averaged	
66 Ethyl methacrylate	0.57238	0.51277	0.51277	0.010	-10.41467	30.00000	Averaged	
74 1-Chlorohexane	0.31936	0.32020	0.32020	0.010	0.26488	30.00000	Averaged	
57 1,4-Dioxane	0.00326	0.00299	0.00299	0.001	-8.13444	40.00000	Averaged	
60 2-Nitropropane	0.14035	0.12010	0.12010	0.010	-14.43014	30.00000	Averaged	
84 cis-1,4-Dichloro-2-butene	0.38900	0.36188	0.36188	0.010	-6.97261	30.00000	Averaged	
85 Cyclohexanone	0.02826	0.02176	0.02176	0.010	-22.99898	40.00000	Averaged	
88 trans-1,4-Dichloro-2-butene	0.35107	0.31901	0.31901	0.010	-9.13210	30.00000	Averaged	
97 Pentachloroethane	0.28176	0.44256	0.44256	0.010	57.07116	30.00000	Averaged	<-
103 Benzyl chloride	1.23904	1.43446	1.43446	0.010	15.77109	30.00000	Averaged	
106 bis(2-Chloroisopropyl)ether	0.69951	0.51139	0.51139	0.010	-26.89275	30.00000	Averaged	
$ 46 1,2-Dichloroethane-d4	0.43199	0.38834	0.38834	0.010	-10.10486	30.00000	Averaged	
$ 64 Toluene-d8	1.62735	1.62347	1.62347	0.010	-0.23848	30.00000	Averaged	
$ 86 Bromofluorobenzene	1.31523	1.12729	1.12729	0.010	-14.28964	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA7.i Injection Date: 24-MAR-2010 22:09
Lab File ID: 7e305.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010
Analysis Type: WATER Init. Cal. Times: 16:02 00:42
Lab Sample ID: W7VM100324-04 Quant Type: ISTD
Method: /chem/VOA7.i/032410v7/VOA7-8260B-021710.m

```
|Average %D / Drift Results.                          |
|=====================================================|
|Calculated Average %D/Drift =    6.16224             |
|Maximun Average %D/Drift    =   20.00000             |
|* Passed Average %D/Drift Test.                      |
|_____________________________________________________|
```

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e305.d
Lab Smp Id: W7VM100324-04 Client Smp ID: VSTD250S
Inj Date : 24-MAR-2010 22:09
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |W7VM100324-04|SHORT/SLCS|1|VOAF|1|
Misc Info : GEL 5mL N/A UVM100304-08B/UVM100226-02C
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
147 Chlorotrifluoroethylene	116	5.028	5.028	(0.328)	217570	150.000	116
148 2-Chloro-1,1,1-trifluoroethane	118	6.603	6.603	(0.431)	553478	150.000	148
11 Acrolein	56	10.017	10.017	(0.654)	332401	250.000	391
12 Trichlorotrifluoroethane	85	10.373	10.373	(0.677)	438258	250.000	284
15 Isopropyl Alcohol	45	10.779	10.779	(0.704)	1253482	2500.00	2180
20 Allyl chloride	41	11.185	11.185	(0.730)	1988727	250.000	237
21 tert-Butyl Alcohol	59	11.662	11.662	(0.761)	1659369	2500.00	2000
23 Acrylonitrile	53	11.926	11.926	(0.779)	576708	250.000	242
27 Isopropyl ether	45	12.900	12.900	(0.842)	1069423	50.0000	47.4
29 2-Chloro-1,3-butadiene	53	12.961	12.961	(0.846)	397088	50.0000	55.0
30 Ethyl tert-butyl ether	59	13.489	13.489	(0.881)	652401	50.0000	42.3
35 Propionitrile	54	13.804	13.804	(0.901)	223308	250.000	214
32 Ethyl acetate	43	13.804	13.804	(0.901)	1385966	250.000	194
36 Methacrylonitrile	41	14.037	14.037	(0.916)	891265	250.000	206
39 Tetrahydrofuran	42	14.159	14.159	(0.675)	485632	250.000	177
42 Isobutyl alcohol	41	14.748	14.748	(0.963)	607711	2500.00	1920

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
49 Methyl tert-amyl ether	73	15.073	15.073	(0.984)	506996	50.0000	42.8
54 Methyl methacrylate	69	16.078	16.078	(1.050)	911876	250.000	238
66 Ethyl methacrylate	69	17.408	17.408	(0.933)	1624532	250.000	224
74 1-Chlorohexane	55	18.575	18.575	(1.213)	283045	50.0000	50.1
57 1,4-Dioxane	88	16.159	16.159	(1.055)	132325	2500.00	2300
60 2-Nitropropane	43	16.555	16.555	(1.081)	530801	250.000	214
84 cis-1,4-Dichloro-2-butene	53	19.661	19.661	(0.937)	593354	250.000	232
85 Cyclohexanone	55	19.773	19.773	(1.059)	344727	1250.00	962
88 trans-1,4-Dichloro-2-butene	53	19.925	19.925	(0.949)	523061	250.000	227
97 Pentachloroethane	167	20.595	20.595	(0.981)	725642	250.000	393(A)
103 Benzyl chloride	91	21.123	21.123	(1.006)	2352020	250.000	289
106 bis(2-Chloroisopropyl)ether	45	21.509	21.509	(1.025)	838507	250.000	183
* 51 Fluorobenzene	96	15.316	15.317	(1.000)	883959	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	633635	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	327932	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	343274	50.0000	44.9
$ 64 Toluene-d8	98	17.134	17.134	(0.918)	1028685	50.0000	49.9
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	369675	50.0000	42.8

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA7.i/032410v7/7e305.d
Date : 24-MAR-2010 22:09
Client ID: VSTD250S
Sample Info: IW7VH100324-04|SHORT/SLCS|1|VOAF|1|
Purge Volume: 5.0
Column phase: DB-624

Instrument: VOA7.i
Operator: AXD1
Column diameter: 0.25

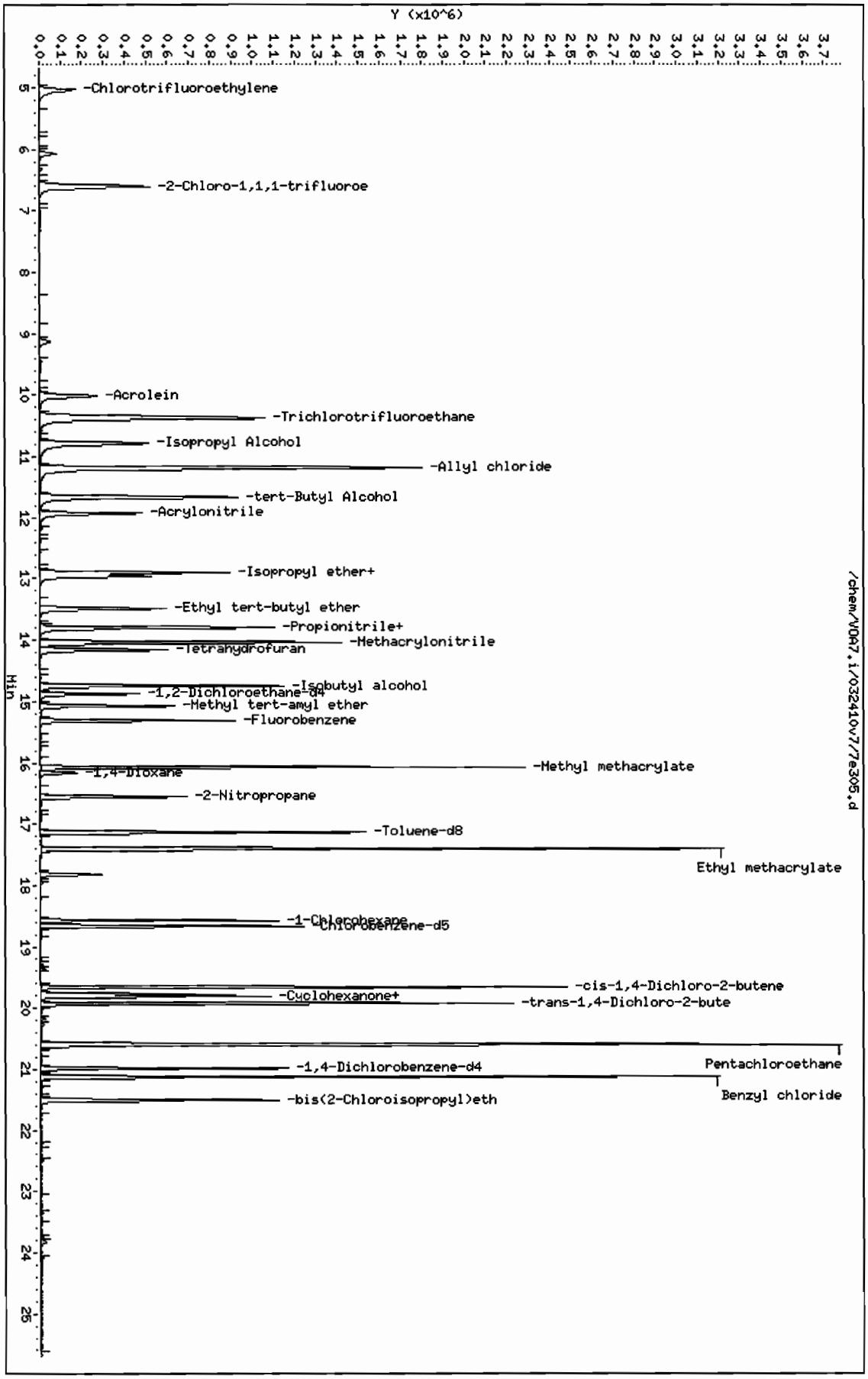

Page 1

QC Data

Data File: /chem/VOA7.i/021710v7/7z309.d

Page 1

Date : 17-FEB-2010 15:29

Client ID: BFB01

Instrument: VOA7.i

Sample Info: |120200-----|RINSE|1|VOAF|1|

Operator: CDS1

Column phase: db624

Column diameter: 0.25

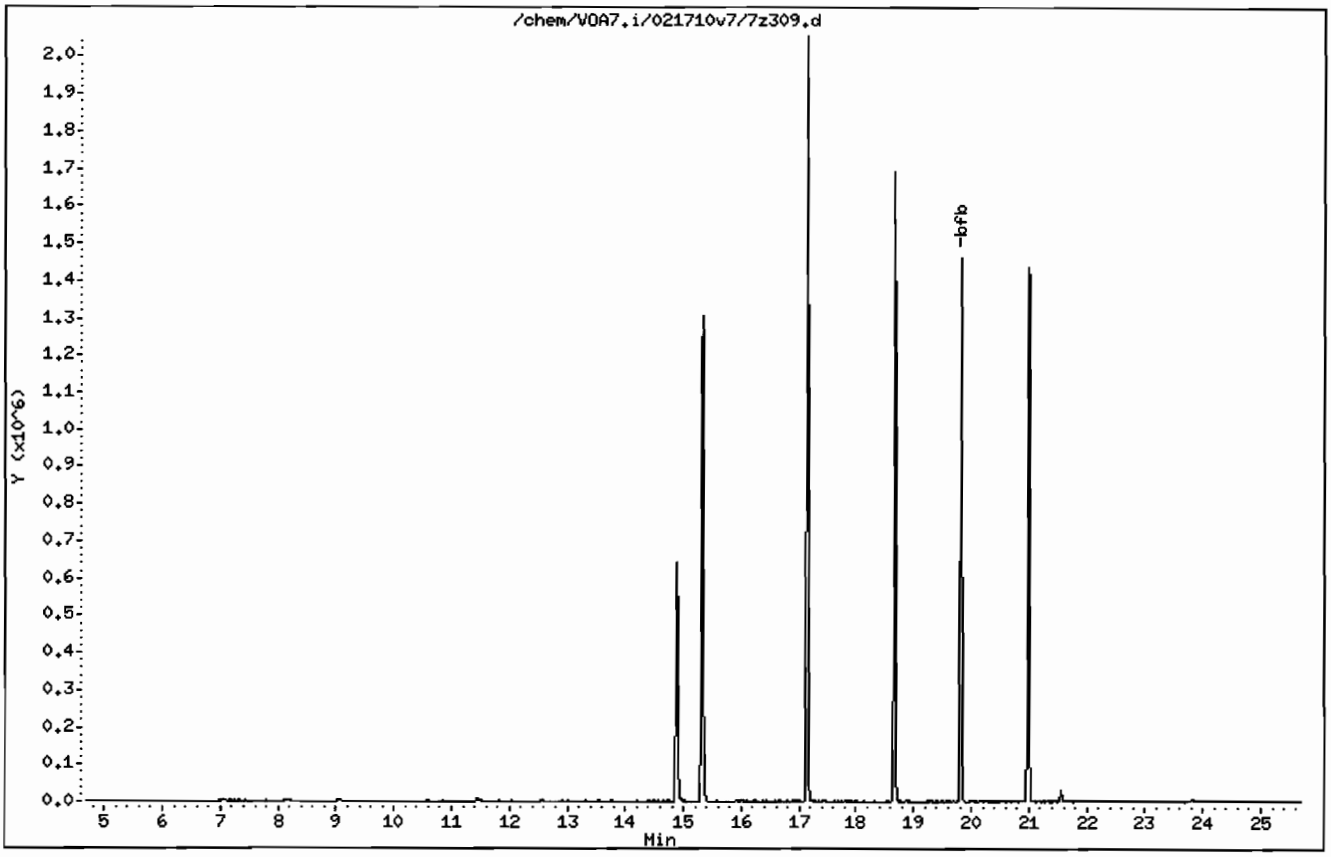

Data File: /chem/VOA7.i/021710v7/7z309.d

Date : 17-FEB-2010 15:29

Client ID: BFB01

Instrument: VOA7.i

Sample Info: |120200-----|RINSE|1|VOAF|1|

Operator: CDS1

Column phase: db624

Column diameter: 0.25

1 bfb

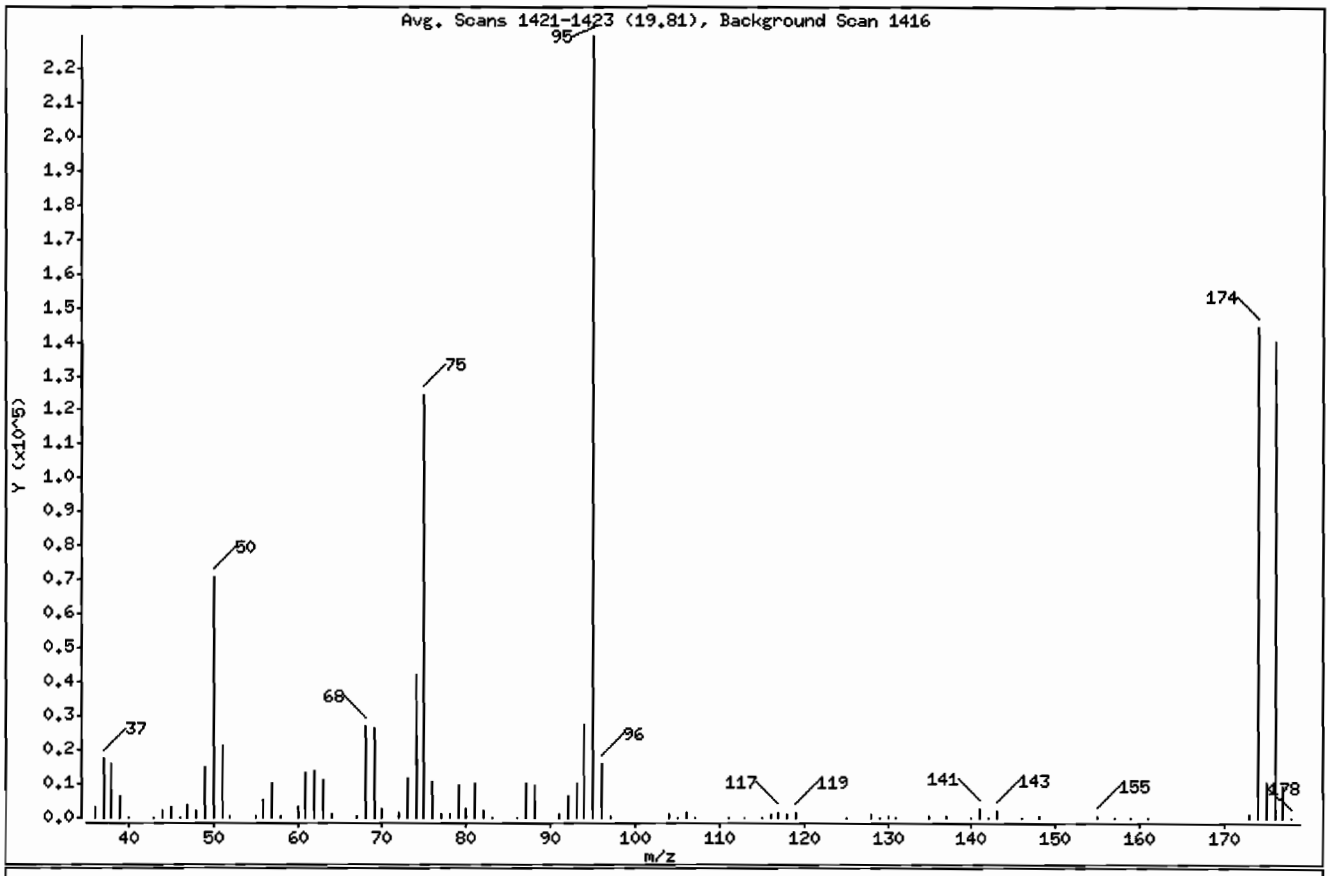

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	30.76
75	30.00 - 60.00% of mass 95	54.23
96	5.00 - 9.00% of mass 95	6.98
173	Less than 2.00% of mass 174	0.36 (0.57)
174	50.00 - 100.00% of mass 95	63.04
175	5.00 - 9.00% of mass 174	4.53 (7.18)
176	95.00 - 101.00% of mass 174	61.26 (97.17)
177	5.00 - 9.00% of mass 176	4.24 (6.92)

Data File: /chem/VOA7.i/021710v7/7z309.d

Date : 17-FEB-2010 15:29

Client ID: BFB01 Instrument: VOA7.i

Sample Info: |120200-----|RINSE|1|VOAF|1|

Operator: CDS1

Column phase: db624 Column diameter: 0.25

Data File: 7z309.d
Spectrum: Avg. Scans 1421-1423 (19.81), Background Scan 1416
Location of Maximum: 95.00
Number of points: 84

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3286	63.00	11103	92.00	6546	135.00	493
37.00	17472	64.00	947	93.00	9939	137.00	490
38.00	16055	67.00	680	94.00	27256	140.00	87
39.00	6161	68.00	26752	95.00	229440	141.00	2431
40.00	202	69.00	26480	96.00	16004	142.00	224
43.00	96	70.00	2378	97.00	507	143.00	2362
44.00	2000	72.00	1351	104.00	1056	146.00	133
45.00	3186	73.00	11623	105.00	224	148.00	278
46.00	155	74.00	42264	106.00	1400	155.00	331
47.00	3534	75.00	124432	107.00	195	157.00	97
48.00	1953	76.00	10309	111.00	126	159.00	99
49.00	14857	77.00	1286	113.00	145	161.00	134
50.00	70568	78.00	973	115.00	130	173.00	824
51.00	20904	79.00	9389	116.00	905	174.00	144640
52.00	786	80.00	2629	117.00	1450	175.00	10392
55.00	762	81.00	10002	118.00	842	176.00	140544
56.00	5200	82.00	2048	119.00	1357	177.00	9727
57.00	9767	83.00	119	125.00	98	178.00	196
58.00	507	86.00	242	128.00	824		
60.00	2962	87.00	10165	129.00	258		
61.00	13385	88.00	9659	130.00	689		
62.00	13596	91.00	822	131.00	232		

Data File: /chem/VOA7.i/032410v7/7e302BFB.d

Page 1

Date : 24-MAR-2010 20:27

Client ID: BFB01

Instrument: VOA7.i

Sample Info: |W7VM100324-01|BFB/CCV|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

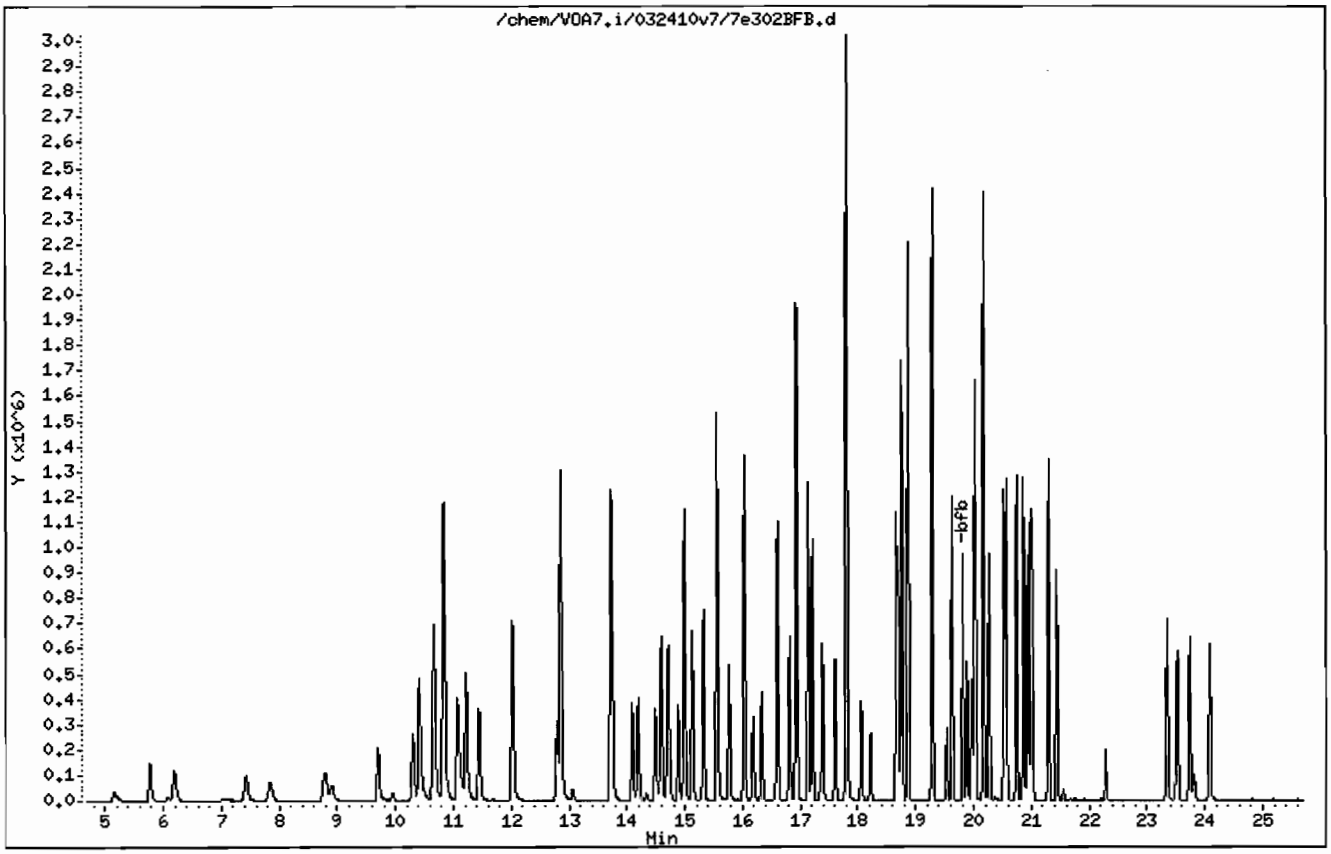

Data File: /chem/VOA7.i/032410v7/7e302BFB.d

Date : 24-MAR-2010 20:27

Client ID: BFB01

Instrument: VOA7.i

Sample Info: |W7VM100324-01|BFB/CCV|1|VOAF|1|

Operator: AX01

Column phase: db624

Column diameter: 0.25

1 bfb

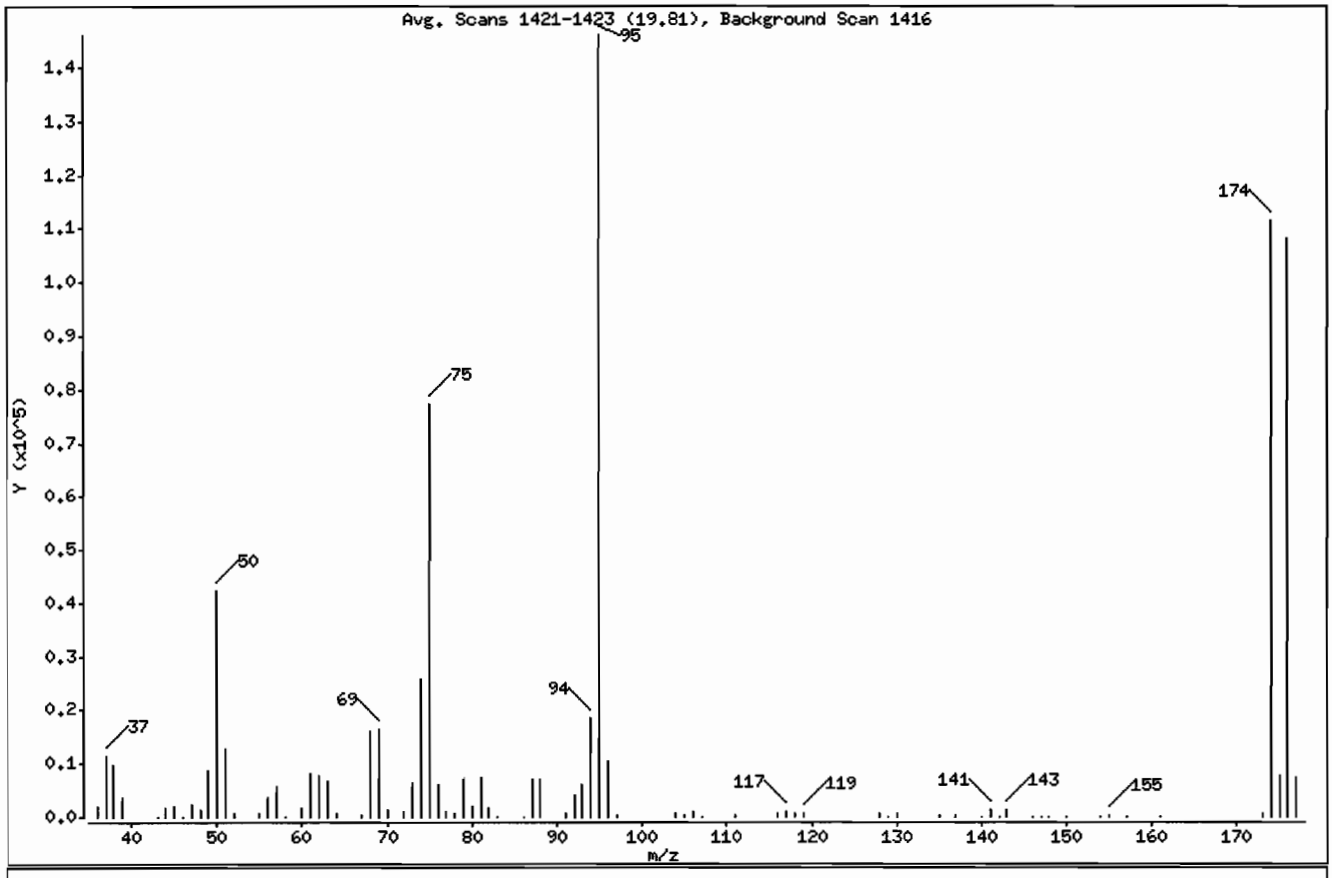

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	29.07
75	30.00 - 60.00% of mass 95	52.93
96	5.00 - 9.00% of mass 95	7.03
173	Less than 2.00% of mass 174	0.47 (0.62)
174	50.00 - 100.00% of mass 95	76.40
175	5.00 - 9.00% of mass 174	5.19 (6.79)
176	95.00 - 101.00% of mass 174	74.02 (96.88)
177	5.00 - 9.00% of mass 176	5.00 (6.75)

Data File: /chem/VOA7.i/032410v7/7e302BFB.d

Date : 24-MAR-2010 20:27

Client ID: BFB01 Instrument: VOA7.i

Sample Info: IW7VM100324-01|BFB/CCV|1|VOAF|1|

Operator: AX01

Column phase: db624 Column diameter: 0.25

Data File: 7e302BFB.d
Spectrum: Avg. Scans 1421-1423 (19.81), Background Scan 1416
Location of Maximum: 95.00
Number of points: 80

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2172	63.00	6718	91.00	837	140.00	123
37.00	11270	64.00	678	92.00	3864	141.00	1494
38.00	9657	67.00	268	93.00	6142	142.00	88
39.00	3802	68.00	16059	94.00	18320	143.00	1477
43.00	121	69.00	16314	95.00	146048	146.00	120
44.00	1560	70.00	1339	96.00	10267	147.00	129
45.00	2076	72.00	857	97.00	372	148.00	118
46.00	93	73.00	6294	104.00	835	150.00	90
47.00	2257	74.00	25792	105.00	256	154.00	87
48.00	1270	75.00	77304	106.00	878	155.00	319
49.00	8808	76.00	6017	107.00	87	157.00	107
50.00	42456	77.00	1154	111.00	179	161.00	113
51.00	12665	78.00	760	116.00	657	173.00	687
52.00	540	79.00	6890	117.00	1082	174.00	111584
55.00	627	80.00	1900	118.00	656	175.00	7578
56.00	3624	81.00	7367	119.00	778	176.00	108104
57.00	5652	82.00	1662	128.00	554	177.00	7296
58.00	149	83.00	100	129.00	93		
60.00	1683	86.00	162	130.00	511		
61.00	7977	87.00	7210	135.00	302		
62.00	7815	88.00	7094	137.00	341		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202080566**				
Client Sample:	**QC for batch 969055**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 969055**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 23:49**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 19:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e308LL.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202080566**				
Client Sample:	**QC for batch 969055**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 969055**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 23:49**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 19:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e308LL.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e308LL.d
Lab Smp Id: 1202080566 Client Smp ID: BLANK
Inj Date : 24-MAR-2010 23:49
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1202080566|969056|1|VOAF|1|
Misc Info : GEL 5g N/A
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/1)	FINAL (ug/Kg)
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	298966	48.5588	48.6
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	712609	50.0000	
$ 64 Toluene-d8	98	17.134	17.134	(0.918)	831108	47.6999	47.7
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	535340	50.0000	
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	308748	43.8554	43.8
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	267638	50.0000	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e308LL.d
Lab Smp Id: 1202080566 Client Smp ID: BLANK
Inj Date : 24-MAR-2010 23:49
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1202080566|969056|1|VOAF|1|
Misc Info : GEL 5g N/A
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA7.i/032410v7/7e308LL.d
Date : 24-MAR-2010 23:49
Client ID: BLANK
Sample Info: |1202080566|969056|1|VOAF|1|

Column phase: DB-624

Instrument: VOA7.i

Operator: AXO1
Column diameter: 0.25

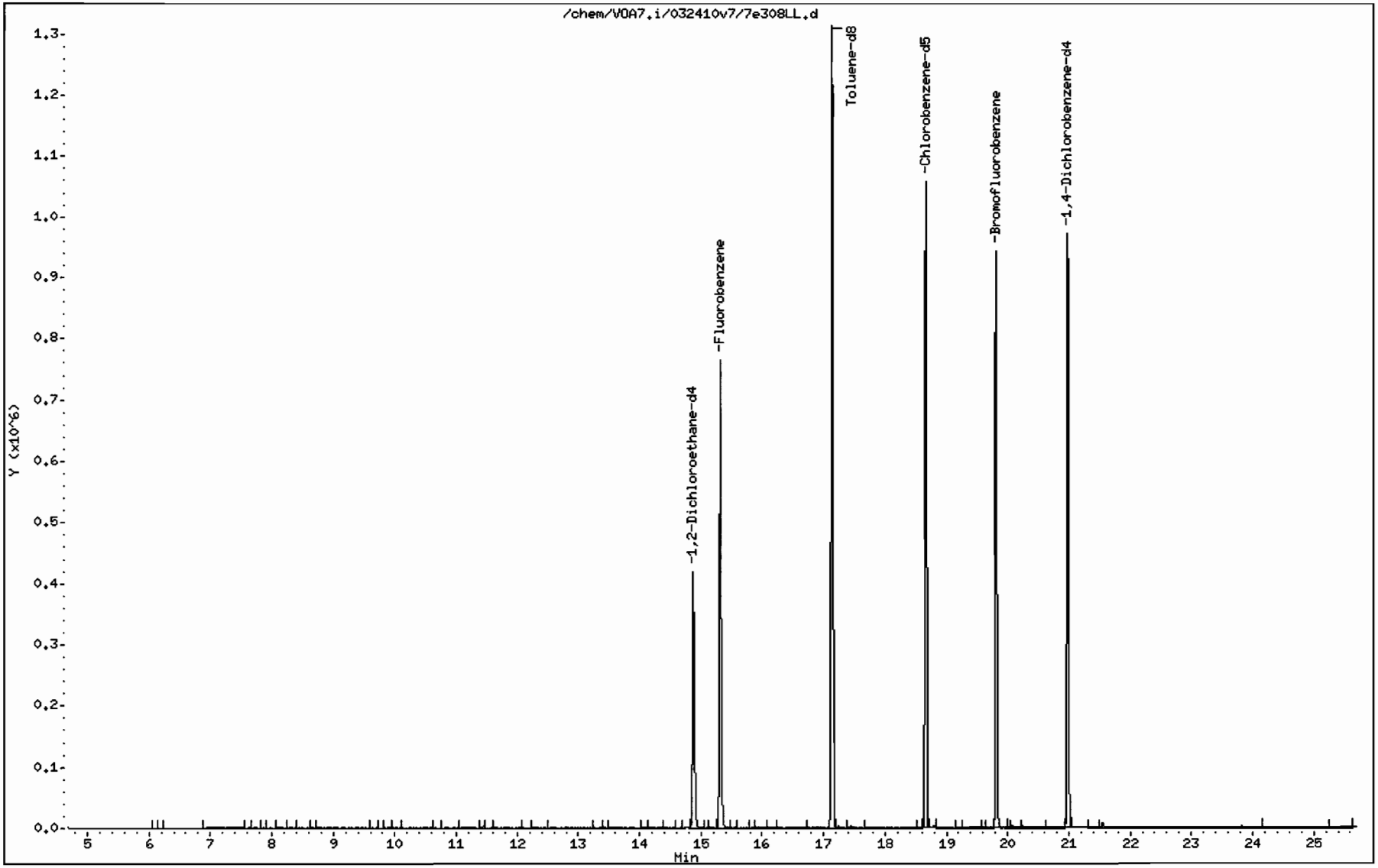

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202080569**				
Client Sample:	**QC for batch 969055**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 969055**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 21:34**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 19:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e304LL.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		48.6	ug/kg	0.340	1.00
74-87-3	Chloromethane		39.2	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		44.7	ug/kg	0.300	1.00
74-83-9	Bromomethane		42.6	ug/kg	0.300	1.00
75-00-3	Chloroethane		43.9	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		45.8	ug/kg	0.300	1.00
67-64-1	Acetone		218	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		42.8	ug/kg	0.300	1.00
74-88-4	Iodomethane		225	ug/kg	1.60	5.00
75-09-2	Methylene chloride		42.1	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		218	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		41.4	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		44.1	ug/kg	0.300	1.00
78-93-3	2-Butanone		216	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		39.8	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		42.4	ug/kg	0.300	1.00
67-66-3	Chloroform		42.0	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		43.3	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		44.7	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		43.0	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		44.4	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		38.4	ug/kg	0.300	1.00
71-43-2	Benzene		42.5	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		44.2	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		42.8	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		43.8	ug/kg	0.300	1.00
74-95-3	Dibromomethane		44.4	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		205	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		45.9	ug/kg	0.300	1.00
108-88-3	Toluene		39.5	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		41.2	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		41.4	ug/kg	0.300	1.00
591-78-6	2-Hexanone		189	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		42.1	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		41.0	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		43.8	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		44.3	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		41.3	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202080569**				
Client Sample:	**QC for batch 969055**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 969055**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 21:34**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 19:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e304LL.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		39.1	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		85.3	ug/kg	0.300	2.00
95-47-6	o-Xylene		43.0	ug/kg	0.300	1.00
100-42-5	Styrene		43.9	ug/kg	0.300	1.00
75-25-2	Bromoform		44.9	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		39.8	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		39.1	ug/kg	0.300	1.00
108-86-1	Bromobenzene		42.7	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		37.3	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		37.3	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		38.1	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		39.4	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		37.6	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		40.8	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		39.4	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		40.2	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		41.7	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		41.6	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		41.8	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		41.4	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		46.8	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		43.8	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		42.8	ug/kg	0.300	1.00

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e304LL.d
Lab Smp Id: 1202080569 Client Smp ID: LCS
Inj Date : 24-MAR-2010 21:34
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1202080569|969056|1|VOAF|1|
Misc Info : GEL 5g N/A UVM100305-01D/IVM100318-01
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
M 1 1,3-Dichloropropylene	75				651542	91.4856	91.5
M 2 Xylenes (total)	106				1014593	128.293	128
M 3 1,2-Dichloroethylene (total)	96				632425	81.2142	81.2
4 Dichlorodifluoromethane	85	5.147	5.147	(0.336)	119230	48.6211	48.6
5 Chloromethane	50	5.757	5.757	(0.376)	288841	39.2084	39.2
6 Vinyl chloride	62	6.187	6.187	(0.404)	292585	44.7149	44.7
7 Bromomethane	94	7.418	7.429	(0.484)	159043	42.6316	42.6
8 Chloroethane	64	7.845	7.845	(0.512)	146878	43.8909	43.9
9 Trichlorofluoromethane	101	8.789	8.789	(0.574)	229401	45.8017	45.8
10 Ethyl Ether	59	9.692	9.703	(0.633)	202689	43.5007	43.5
13 Acetone	43	10.413	10.413	(0.680)	1150204	218.041	218
14 1,1-Dichloroethylene	96	10.302	10.312	(0.673)	146497	42.7744	42.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
16 Iodomethane	142	10.667	10.667	(0.696)	1340876	224.672	225
17 Acetonitrile	41	11.073	11.073	(0.723)	988062	1056.93	1060
18 Methyl acetate	43	11.225	11.215	(0.733)	1057055	216.691	217
19 Carbon disulfide	76	10.840	10.840	(0.708)	2625127	217.881	218
22 Methylene chloride	86	11.449	11.439	(0.747)	135497	42.1114	42.1
24 tert-Butyl methyl ether	73	12.017	12.017	(0.785)	481445	39.5222	39.5
25 trans-1,2-Dichloroethylene	61	12.017	12.027	(0.785)	299961	41.4276	41.4
26 Vinyl acetate	43	12.860	12.860	(0.840)	2739184	228.911	229
28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	415608	44.1103	44.1
31 2-Butanone	43	13.723	13.713	(0.896)	1272343	216.258	216
33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	332464	39.7867	39.8
34 2,2-Dichloropropane	77	13.743	13.743	(0.897)	166071	42.4321	42.4
37 Bromochloromethane	49	14.088	14.088	(0.920)	267199	43.2537	43.2
38 Chloroform	83	14.190	14.190	(0.926)	329161	41.9657	42.0
41 1,1,1-Trichloroethane	97	14.484	14.484	(0.946)	240758	44.7292	44.7
43 Cyclohexane	56	14.586	14.586	(0.952)	372088	42.5270	42.5
44 1,1-Dichloropropene	75	14.697	14.697	(0.960)	242596	43.0471	43.0
45 Carbon tetrachloride	117	14.728	14.728	(0.962)	190091	44.3839	44.4
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	314548	46.2284	46.2
47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	297196	38.4032	38.4
48 Benzene	78	14.982	14.982	(0.978)	732131	42.5157	42.5
50 Cyclohexene	67	15.124	15.124	(0.987)	348295	42.9305	42.9
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	787545	50.0000	
52 n-Butyl alcohol	56	15.560	15.560	(1.016)	1028909	5023.96	5020
53 Trichloroethylene	95	15.763	15.763	(1.029)	184273	44.1655	44.2
55 Methylcyclohexane	83	16.027	16.027	(1.046)	311820	44.9367	44.9
56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	245400	42.7954	42.8
58 Dibromomethane	93	16.179	16.179	(1.056)	137370	44.4118	44.4
59 Bromodichloromethane	83	16.332	16.332	(1.066)	269191	43.7719	43.8
61 2-Chloroethylvinyl ether	63	16.606	16.606	(1.084)	378556	169.544	170
62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	343738	45.8952	45.9
63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	616524	204.531	204
$ 64 Toluene-d8	98	17.134	17.134	(0.918)	901095	45.2015	45.2
65 Toluene	92	17.215	17.215	(0.922)	435725	39.5120	39.5
67 trans-1,3-Dichloropropylene	75	17.388	17.387	(0.931)	307804	41.1888	41.2
68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	172158	41.4351	41.4
69 2-Hexanone	43	17.794	17.794	(0.953)	1578045	189.184	189
70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	358303	42.0527	42.0
71 Tetrachloroethylene	164	17.814	17.814	(0.954)	125070	41.0395	41.0
72 Dibromochloromethane	129	18.058	18.058	(0.967)	196483	43.8439	43.8
73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	199681	44.3126	44.3
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	612503	50.0000	
76 Chlorobenzene	112	18.697	18.697	(1.002)	468515	41.2740	41.3
77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	171337	43.8016	43.8
78 Ethylbenzene	91	18.758	18.758	(1.005)	804749	39.0569	39.0
79 m,p-Xylenes	106	18.870	18.870	(1.011)	661251	85.2775	85.3
80 o-Xylene	106	19.286	19.286	(1.033)	353342	43.0150	43.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
81 Styrene	104	19.286	19.286	(1.033)	577038	43.8668	43.9
82 Bromoform	173	19.540	19.540	(0.931)	139168	44.8867	44.9
83 Isopropylbenzene	105	19.631	19.631	(0.935)	796713	38.0579	38.0
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	370706	43.5508	43.6
87 1,1,2,2-Tetrachloroethane	83	19.885	19.885	(0.947)	291122	39.7546	39.8
89 1,2,3-Trichloropropane	110	19.966	19.966	(0.951)	62253	39.0700	39.1
90 Bromobenzene	156	20.017	20.017	(0.954)	209432	42.7272	42.7
91 n-Propylbenzene	91	20.027	20.027	(0.954)	993200	37.3179	37.3
92 1,3,5-Trimethylbenzene	105	20.169	20.169	(0.961)	681846	39.4168	39.4
93 2-Chlorotoluene	91	20.169	20.169	(0.961)	680038	37.3205	37.3
94 4-Chlorotoluene	91	20.261	20.271	(0.965)	614627	37.5769	37.6
95 tert-Butylbenzene	119	20.524	20.524	(0.978)	640037	40.8438	40.8
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	690303	39.4305	39.4
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	928079	40.2177	40.2
99 4-Isopropyltoluene	119	20.859	20.859	(0.994)	696231	41.7417	41.7
100 1,3-Dichlorobenzene	146	20.931	20.930	(0.997)	398193	41.5838	41.6
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	323594	50.0000	
102 1,4-Dichlorobenzene	146	21.012	21.012	(1.001)	390544	41.7690	41.8
104 n-Butylbenzene	91	21.296	21.296	(1.014)	799408	41.3714	41.4
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	411214	42.7523	42.8
107 1,2-Dibromo-3-chloropropane	157	22.291	22.291	(1.062)	56521	46.7537	46.8
108 1,2,4-Trichlorobenzene	180	23.357	23.357	(1.113)	284419	47.1994	47.2
109 Hexachlorobutadiene	225	23.529	23.529	(1.121)	139496	43.1160	43.1
110 Naphthalene	128	23.743	23.743	(1.131)	694280	45.8855	45.9
111 1,2,3-Trichlorobenzene	180	24.088	24.088	(1.147)	266700	47.8753	47.9

Data File: /chem/VOA7.i/032410v7/7e304LL.d
Date : 24-MAR-2010 21:34
Client ID: LCS
Sample Info: !120208056919690561!!VOAF!!!
Column phase: DB-624

Instrument: VOA7.i
Operator: AXD1
Column diameter: 0.25

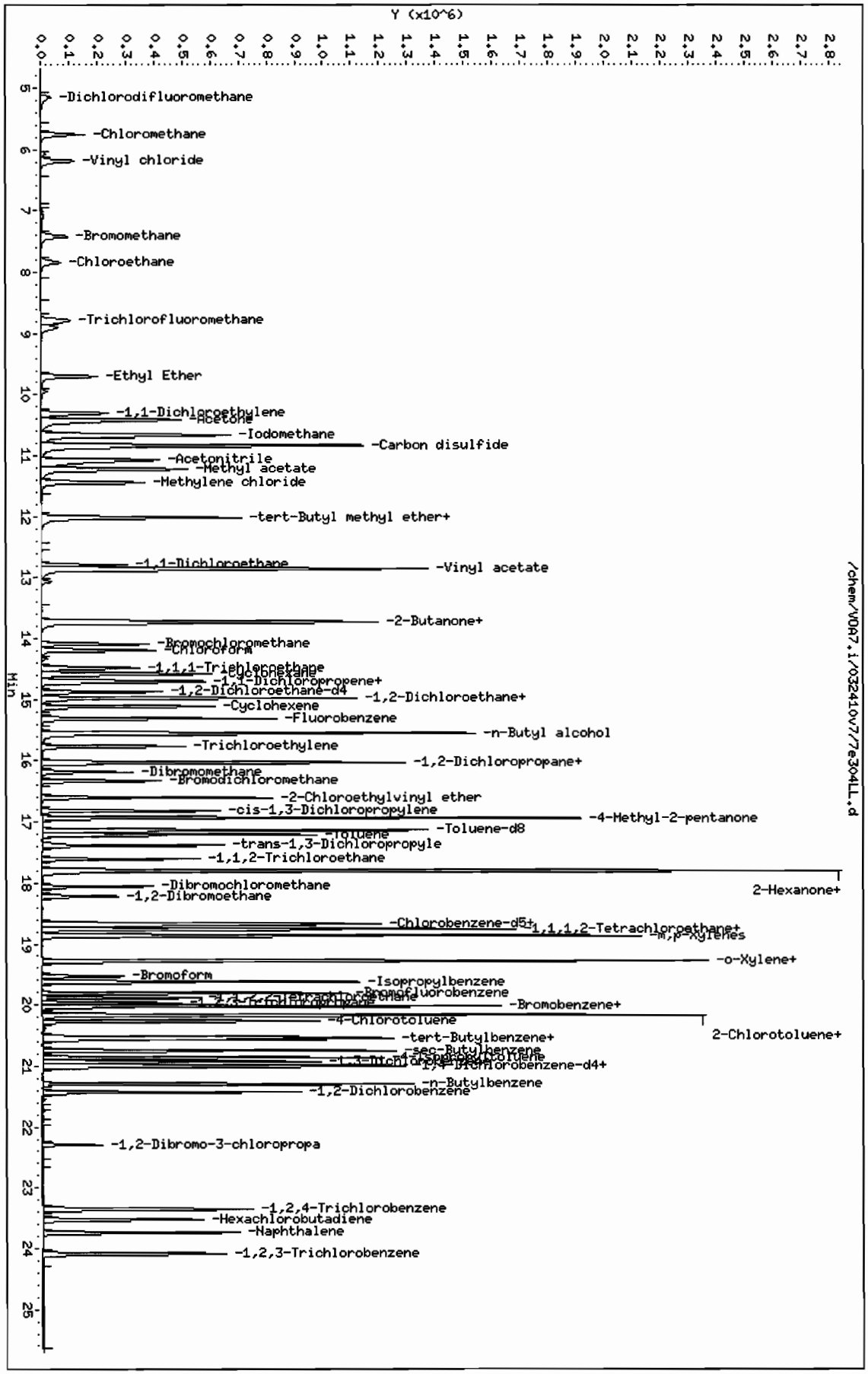

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202080570**				
Client Sample:	**QC for batch 969055**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 969055**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 22:42**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 19:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e306LL.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202080570**				
Client Sample:	**QC for batch 969055**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 969055**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/24/2010 22:42**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/24/2010 19:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e306LL.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		270	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e306LL.d
Lab Smp Id: 1202080570 Client Smp ID: SLCS
Inj Date : 24-MAR-2010 22:42
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1202080570|969056|1|VOAF|1|
Misc Info : GEL 5g N/A UVM100304-08B/UVM100226-02C
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	0.00000	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/1)	FINAL (ug/Kg)
147 Chlorotrifluoroethylene	116	5.029	5.028	(0.328)	211816	116.145	116
148 2-Chloro-1,1,1-trifluoroethane	118	6.604	6.603	(0.431)	537948	148.542	148
11 Acrolein	56	10.017	10.017	(0.654)	329320	399.147	399(R)
12 Trichlorotrifluoroethane	85	10.373	10.373	(0.677)	405537	270.494	270
15 Isopropyl Alcohol	45	10.779	10.779	(0.704)	1320471	2366.15	2370
20 Allyl chloride	41	11.185	11.185	(0.730)	1852112	227.508	228
21 tert-Butyl Alcohol	59	11.662	11.662	(0.761)	1812659	2247.37	2250
23 Acrylonitrile	53	11.926	11.926	(0.779)	596228	258.094	258
27 Isopropyl ether	45	12.901	12.900	(0.842)	1033855	47.2083	47.2
29 2-Chloro-1,3-butadiene	53	12.961	12.961	(0.846)	362708	51.8000	51.8
30 Ethyl tert-butyl ether	59	13.489	13.489	(0.881)	642805	42.9709	43.0
32 Ethyl acetate	43	13.794	13.804	(0.901)	1426948	205.463	205

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
35 Propionitrile	54	13.804	13.804	(0.901)	235015	231.857	232
36 Methacrylonitrile	41	14.038	14.037	(0.916)	918894	218.295	218
39 Tetrahydrofuran	42	14.159	14.159	(0.675)	512245	186.674	187
42 Isobutyl alcohol	41	14.748	14.748	(0.963)	656147	2134.32	2130
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.972)	344589	46.4833	46.5
49 Methyl tert-amyl ether	73	15.073	15.073	(0.984)	511806	44.5285	44.5
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	858030	50.0000	
54 Methyl methacrylate	69	16.078	16.078	(1.050)	909835	244.511	244
57 1,4-Dioxane	88	16.159	16.159	(1.055)	134007	2396.11	2400
60 2-Nitropropane	43	16.555	16.555	(1.081)	552015	229.197	229
$ 64 Toluene-d8	98	17.134	17.134	(0.918)	1000231	49.1838	49.2
66 Ethyl methacrylate	69	17.408	17.408	(0.933)	1630347	227.929	228
74 1-Chlorohexane	55	18.575	18.575	(1.213)	275223	50.2201	50.2
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	624839	50.0000	
84 cis-1,4-Dichloro-2-butene	53	19.662	19.661	(0.937)	607307	238.479	238
85 Cyclohexanone	55	19.773	19.773	(1.059)	365013	1033.50	1030(A)
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	364704	42.3575	42.4
88 trans-1,4-Dichloro-2-butene	53	19.926	19.925	(0.949)	537759	233.987	234
97 Pentachloroethane	167	20.596	20.595	(0.981)	680222	368.783	369(A)
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	327324	50.0000	
103 Benzyl chloride	91	21.124	21.123	(1.006)	2335390	287.915	288
106 bis(2-Chloroisopropyl)ether	45	21.509	21.509	(1.025)	891568	194.695	195

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA7.i/032410v7/7e306LL.d
Date : 24-MAR-2010 22:42
Client ID: SLCS
Sample Info: |1202080570|969056|1|VOAF|1|
Column phase: DB-624

Instrument: VOA7.i
Operator: AXOL
Column diameter: 0.25

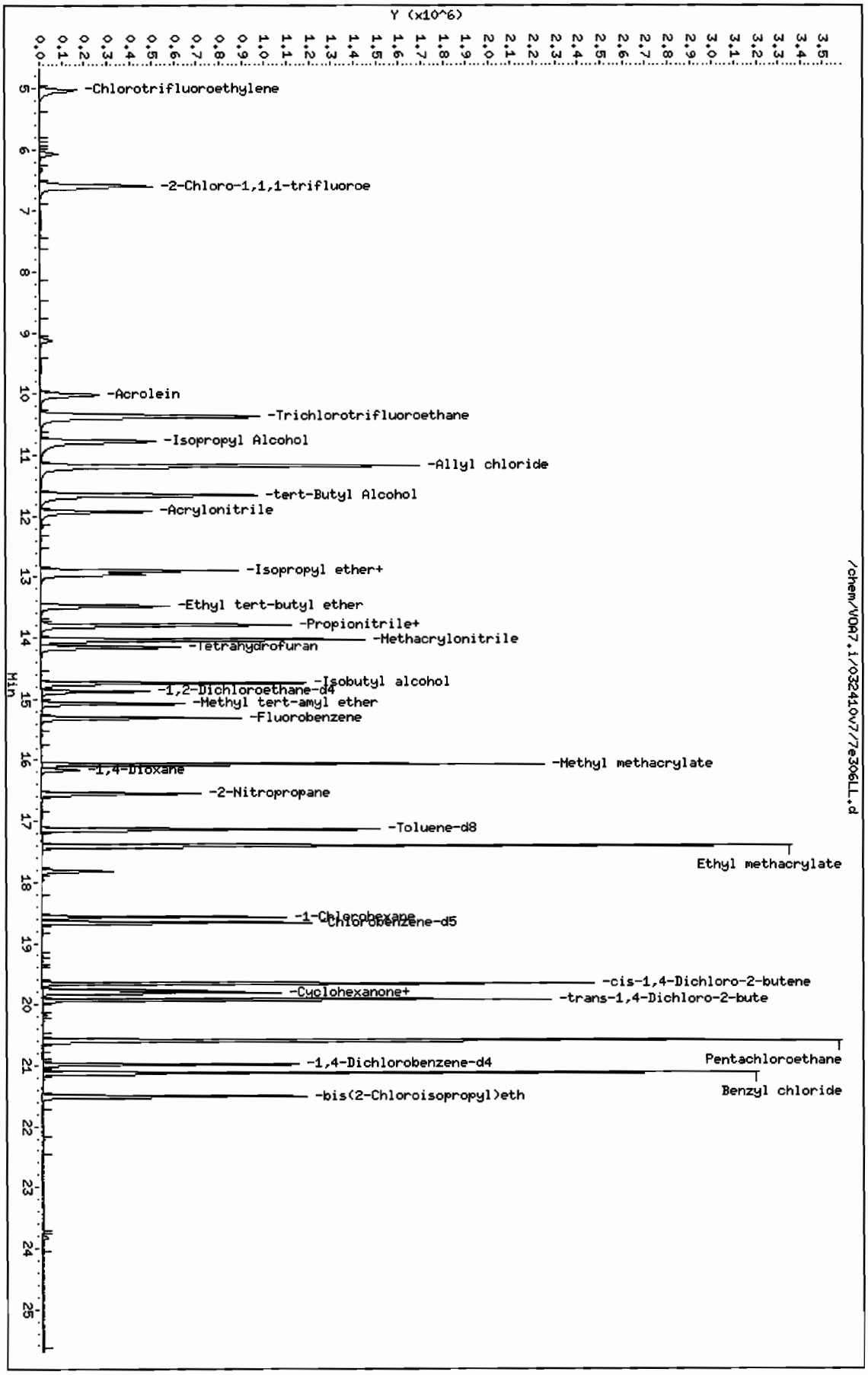

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202080567**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.3**
Client Sample:	**QC for batch 969055**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-12972PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 06:07**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:29**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e319.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		40.9	ug/kg	0.388	1.14
74-87-3	Chloromethane		37.5	ug/kg	0.342	1.14
75-01-4	Vinyl chloride		42.9	ug/kg	0.342	1.14
74-83-9	Bromomethane		41.9	ug/kg	0.342	1.14
75-00-3	Chloroethane		40.8	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane		40.3	ug/kg	0.342	1.14
67-64-1	Acetone		189	ug/kg	1.89	5.70
75-35-4	1,1-Dichloroethylene		41.9	ug/kg	0.342	1.14
74-88-4	Iodomethane		224	ug/kg	1.82	5.70
75-09-2	Methylene chloride		46.3	ug/kg	2.28	5.70
75-15-0	Carbon disulfide		218	ug/kg	1.42	5.70
156-60-5	trans-1,2-Dichloroethylene		37.4	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane		40.7	ug/kg	0.342	1.14
78-93-3	2-Butanone		209	ug/kg	1.71	5.70
156-59-2	cis-1,2-Dichloroethylene		39.2	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane		37.0	ug/kg	0.342	1.14
67-66-3	Chloroform		39.5	ug/kg	0.342	1.14
74-97-5	Bromochloromethane		43.6	ug/kg	0.376	1.14
71-55-6	1,1,1-Trichloroethane		39.1	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene		38.6	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride		39.5	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane		36.3	ug/kg	0.342	1.14
71-43-2	Benzene		42.8	ug/kg	0.342	1.14
79-01-6	Trichloroethylene		42.1	ug/kg	0.376	1.14
78-87-5	1,2-Dichloropropane		43.6	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane		42.7	ug/kg	0.342	1.14
74-95-3	Dibromomethane		45.6	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone		201	ug/kg	1.42	5.70
10061-01-5	cis-1,3-Dichloropropylene		43.2	ug/kg	0.342	1.14
108-88-3	Toluene		38.3	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene		37.3	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane		41.3	ug/kg	0.342	1.14
591-78-6	2-Hexanone		169	ug/kg	1.71	5.70
142-28-9	1,3-Dichloropropane		41.3	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene		38.5	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane		40.8	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane		42.9	ug/kg	0.342	1.14
108-90-7	Chlorobenzene		40.0	ug/kg	0.342	1.14

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202080567**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.3**
Client Sample:	**QC for batch 969055**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-12972PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 06:07**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:29**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e319.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		36.4	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes		79.5	ug/kg	0.342	2.28
95-47-6	o-Xylene		40.9	ug/kg	0.342	1.14
100-42-5	Styrene		41.6	ug/kg	0.342	1.14
75-25-2	Bromoform		45.5	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane		41.0	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane		39.2	ug/kg	0.342	1.14
108-86-1	Bromobenzene		40.4	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene		33.6	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene		33.1	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene		34.8	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene		35.0	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene		32.9	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene		37.4	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene		34.9	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene		34.5	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene		35.0	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene		37.5	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene		37.7	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene		32.7	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane		44.1	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.70	ug/kg	1.82	5.70
630-20-6	1,1,1,2-Tetrachloroethane		41.5	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene		39.3	ug/kg	0.342	1.14

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e319.d
Lab Smp Id: 1202080567 Client Smp ID: RE46-10-12972MS
Inj Date : 25-MAR-2010 06:07
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1202080567|969056|1|VOAF|1|
Misc Info : LANL 5g N/A MS 249336002
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 19 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	12.26540	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	547411	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	454403	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.992	20.991	(1.000)	243420	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.971)	198700	42.0128	47.9
$ 64 Toluene-d8	98	17.134	17.134	(0.918)	651506	44.0522	50.2
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	247440	38.6439	44.0
4 Dichlorodifluoromethane	85	5.148	5.147	(0.336)	61098	35.8450	40.8
5 Chloromethane	50	5.757	5.757	(0.376)	168549	32.9161	37.5
6 Vinyl chloride	62	6.188	6.187	(0.404)	171372	37.6792	42.9
7 Bromomethane	94	7.418	7.429	(0.484)	95372	36.7790	41.9
8 Chloroethane	64	7.845	7.845	(0.512)	83269	35.7983	40.8
9 Trichlorofluoromethane	101	8.789	8.789	(0.574)	123060	35.3480	40.3
13 Acetone	43	10.413	10.413	(0.680)	606693	165.460	188

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
14 1,1-Dichloroethylene	96	10.312	10.312	(0.673)	87485	36.7494	41.9
102 1,4-Dichlorobenzene	146	21.012	21.012	(1.001)	232633	33.0750	37.7
16 Iodomethane	142	10.667	10.667	(0.696)	815901	196.679	224
22 Methylene chloride	86	11.439	11.439	(0.747)	90833	40.6140	46.3
19 Carbon disulfide	76	10.840	10.840	(0.708)	1601210	191.196	218
25 trans-1,2-Dichloroethylene	61	12.027	12.027	(0.785)	165070	32.7985	37.4
28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	233794	35.6986	40.7
31 2-Butanone	43	13.723	13.713	(0.896)	751196	183.689	209
33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	199651	34.3737	39.2
100 1,3-Dichlorobenzene	146	20.931	20.930	(0.997)	236999	32.9019	37.5
34 2,2-Dichloropropane	77	13.743	13.743	(0.897)	88411	32.4989	37.0
38 Chloroform	83	14.190	14.190	(0.926)	188861	34.6410	39.5
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	249505	34.4838	39.3
37 Bromochloromethane	49	14.088	14.088	(0.920)	164206	38.2419	43.6
41 1,1,1-Trichloroethane	97	14.484	14.484	(0.946)	128439	34.3296	39.1
44 1,1-Dichloropropene	75	14.697	14.697	(0.960)	132511	33.8278	38.6
45 Carbon tetrachloride	117	14.728	14.728	(0.962)	103126	34.6413	39.5
47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	171144	31.8162	36.3
48 Benzene	78	14.982	14.982	(0.978)	449090	37.5194	42.8
53 Trichloroethylene	95	15.763	15.763	(1.029)	107087	36.9249	42.1
56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	152305	38.2119	43.6
59 Bromodichloromethane	83	16.332	16.332	(1.066)	159992	37.4279	42.7
58 Dibromomethane	93	16.180	16.179	(1.056)	85968	39.9858	45.6
63 4-Methyl-2-pentanone	58	16.941	16.941	(0.908)	394666	176.484	201
62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	197305	37.9000	43.2
65 Toluene	92	17.215	17.215	(0.922)	275135	33.6302	38.3
67 trans-1,3-Dichloropropylene	75	17.388	17.387	(0.931)	181241	32.6910	37.3
68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	111764	36.2585	41.3
69 2-Hexanone	43	17.794	17.794	(0.953)	915221	147.897	168
70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	228993	36.2270	41.3
71 Tetrachloroethylene	164	17.814	17.814	(0.954)	76358	33.7731	38.5
72 Dibromochloromethane	129	18.058	18.058	(0.967)	119063	35.8120	40.8
73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	125954	37.6764	42.9
76 Chlorobenzene	112	18.697	18.697	(1.002)	295797	35.1248	40.0
77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	105740	36.4372	41.5
78 Ethylbenzene	91	18.758	18.758	(1.005)	487983	31.9234	36.4
79 m,p-Xylenes	106	18.870	18.870	(1.011)	401466	69.7885	79.5
80 o-Xylene	106	19.286	19.286	(1.033)	218906	35.9211	40.9
81 Styrene	104	19.286	19.286	(1.033)	355842	36.4633	41.6
82 Bromoform	173	19.540	19.540	(0.931)	93098	39.9175	45.5
87 1,1,2,2-Tetrachloroethane	83	19.885	19.885	(0.947)	198173	35.9750	41.0
89 1,2,3-Trichloropropane	110	19.966	19.966	(0.951)	41273	34.4344	39.2
90 Bromobenzene	156	20.017	20.017	(0.954)	130569	35.4116	40.4
91 n-Propylbenzene	91	20.027	20.027	(0.954)	590856	29.5125	33.6
93 2-Chlorotoluene	91	20.169	20.169	(0.961)	397599	29.0071	33.1
83 Isopropylbenzene	105	19.631	19.631	(0.935)	480639	30.5215	34.8
92 1,3,5-Trimethylbenzene	105	20.169	20.169	(0.961)	399765	30.7216	35.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	354892	28.8436	32.9
95 tert-Butylbenzene	119	20.525	20.524	(0.978)	386590	32.7956	37.4
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	403387	30.6308	34.9
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	525170	30.2536	34.5
99 4-Isopropyltoluene	119	20.860	20.859	(0.994)	385650	30.7365	35.0
104 n-Butylbenzene	91	21.296	21.296	(1.014)	416979	28.6873	32.7
107 1,2-Dibromo-3-chloropropane	157	22.301	22.291	(1.062)	35054	38.7313	44.1

Data File: /chem/VOA7.i/032410v7/7e319.d
Date : 25-MAR-2010 06:07
Client ID: RE46-10-12972HS
Sample Info: 1120208056719690561|1|VOAF|1|
Column phase: DB-624

Instrument: VOA7.i
Operator: AX01
Column diameter: 0.25

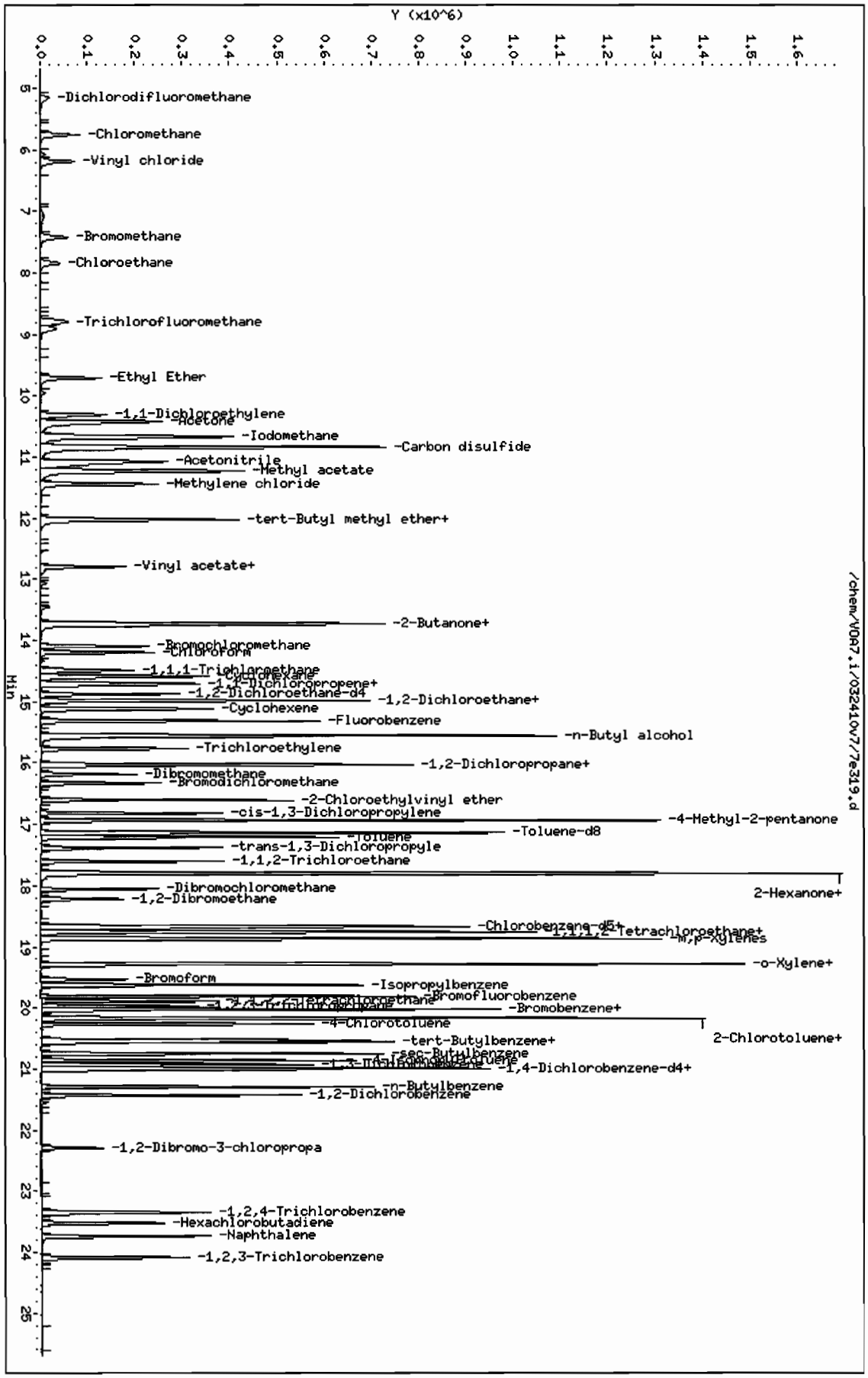

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202080568	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.3
Client Sample:	QC for batch 969055	**Client:**	LANL010	**Project:**	QC
Client ID:	RE46-10-12972PSD	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	969056	**Inst:**	VOA7.I	**Dilution:**	1
Run Date:	03/25/2010 06:41	**Analyst:**	AXO1	**Purge Vol:**	5 mL
Prep Date:	03/25/2010 00:31	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	7e320.d	**Column:**	DB-624	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		43.7	ug/kg	0.388	1.14
74-87-3	Chloromethane		39.1	ug/kg	0.342	1.14
75-01-4	Vinyl chloride		44.0	ug/kg	0.342	1.14
74-83-9	Bromomethane		41.1	ug/kg	0.342	1.14
75-00-3	Chloroethane		43.6	ug/kg	0.342	1.14
75-69-4	Trichlorofluoromethane		40.6	ug/kg	0.342	1.14
67-64-1	Acetone		172	ug/kg	1.89	5.70
75-35-4	1,1-Dichloroethylene		42.7	ug/kg	0.342	1.14
74-88-4	Iodomethane		219	ug/kg	1.82	5.70
75-09-2	Methylene chloride		44.9	ug/kg	2.28	5.70
75-15-0	Carbon disulfide		213	ug/kg	1.42	5.70
156-60-5	trans-1,2-Dichloroethylene		37.6	ug/kg	0.342	1.14
75-34-3	1,1-Dichloroethane		40.7	ug/kg	0.342	1.14
78-93-3	2-Butanone		195	ug/kg	1.71	5.70
156-59-2	cis-1,2-Dichloroethylene		38.6	ug/kg	0.342	1.14
594-20-7	2,2-Dichloropropane		36.8	ug/kg	0.342	1.14
67-66-3	Chloroform		40.4	ug/kg	0.342	1.14
74-97-5	Bromochloromethane		43.1	ug/kg	0.376	1.14
71-55-6	1,1,1-Trichloroethane		40.9	ug/kg	0.342	1.14
563-58-6	1,1-Dichloropropene		40.1	ug/kg	0.342	1.14
56-23-5	Carbon tetrachloride		38.9	ug/kg	0.342	1.14
107-06-2	1,2-Dichloroethane		37.2	ug/kg	0.342	1.14
71-43-2	Benzene		41.9	ug/kg	0.342	1.14
79-01-6	Trichloroethylene		41.3	ug/kg	0.376	1.14
78-87-5	1,2-Dichloropropane		42.5	ug/kg	0.342	1.14
75-27-4	Bromodichloromethane		41.9	ug/kg	0.342	1.14
74-95-3	Dibromomethane		45.9	ug/kg	0.342	1.14
108-10-1	4-Methyl-2-pentanone		195	ug/kg	1.42	5.70
10061-01-5	cis-1,3-Dichloropropylene		42.4	ug/kg	0.342	1.14
108-88-3	Toluene		37.7	ug/kg	0.342	1.14
10061-02-6	trans-1,3-Dichloropropylene		37.2	ug/kg	0.342	1.14
79-00-5	1,1,2-Trichloroethane		41.9	ug/kg	0.342	1.14
591-78-6	2-Hexanone		168	ug/kg	1.71	5.70
142-28-9	1,3-Dichloropropane		40.4	ug/kg	0.342	1.14
127-18-4	Tetrachloroethylene		38.7	ug/kg	0.342	1.14
124-48-1	Dibromochloromethane		41.6	ug/kg	0.342	1.14
106-93-4	1,2-Dibromoethane		43.3	ug/kg	0.342	1.14
108-90-7	Chlorobenzene		40.0	ug/kg	0.342	1.14

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202080568**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.3**
Client Sample:	**QC for batch 969055**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-12972PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**969056**	**Inst:**	**VOA7.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 06:41**	**Analyst:**	**AXO1**	**Purge Vol:**	**5 mL**
Prep Date:	**03/25/2010 00:31**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**7e320.d**	**Column:**	**DB-624**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		36.4	ug/kg	0.342	1.14
179601-23-1	m,p-Xylenes		79.9	ug/kg	0.342	2.28
95-47-6	o-Xylene		41.5	ug/kg	0.342	1.14
100-42-5	Styrene		41.0	ug/kg	0.342	1.14
75-25-2	Bromoform		43.1	ug/kg	0.342	1.14
79-34-5	1,1,2,2-Tetrachloroethane		39.6	ug/kg	0.342	1.14
96-18-4	1,2,3-Trichloropropane		39.4	ug/kg	0.342	1.14
108-86-1	Bromobenzene		39.8	ug/kg	0.342	1.14
103-65-1	n-Propylbenzene		33.9	ug/kg	0.342	1.14
95-49-8	2-Chlorotoluene		33.8	ug/kg	0.342	1.14
98-82-8	Isopropylbenzene		34.9	ug/kg	0.342	1.14
108-67-8	1,3,5-Trimethylbenzene		35.2	ug/kg	0.342	1.14
106-43-4	4-Chlorotoluene		33.2	ug/kg	0.342	1.14
98-06-6	tert-Butylbenzene		36.4	ug/kg	0.342	1.14
95-63-6	1,2,4-Trimethylbenzene		35.3	ug/kg	0.342	1.14
135-98-8	sec-Butylbenzene		34.6	ug/kg	0.342	1.14
99-87-6	4-Isopropyltoluene		34.7	ug/kg	0.342	1.14
541-73-1	1,3-Dichlorobenzene		37.1	ug/kg	0.342	1.14
106-46-7	1,4-Dichlorobenzene		37.9	ug/kg	0.342	1.14
104-51-8	n-Butylbenzene		32.8	ug/kg	0.342	1.14
96-12-8	1,2-Dibromo-3-chloropropane		43.4	ug/kg	0.342	1.14
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.70	ug/kg	1.82	5.70
630-20-6	1,1,1,2-Tetrachloroethane		40.8	ug/kg	0.342	1.14
95-50-1	1,2-Dichlorobenzene		38.6	ug/kg	0.342	1.14

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA7.i/032410v7/7e320.d
Lab Smp Id: 1202080568 Client Smp ID: RE46-10-12972MSD
Inj Date : 25-MAR-2010 06:41
Operator : AXO1 Inst ID: VOA7.i
Smp Info : |1202080568|969056|1|VOAF|1|
Misc Info : LANL 5g N/A MSD 249336002
Comment :
Method : /chem/VOA7.i/032410v7/VOA7-8260B-021710.m
Meth Date : 25-Mar-2010 21:34 ale01592 Quant Type: ISTD
Cal Date : 18-FEB-2010 00:08 Cal File: 7z324.d
Als bottle: 20 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (100/(100-M))*(Vt/Ws)*(Uf) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
M	12.26540	% moisture
Vt	5.00000	Purge Volume (ml)
Ws	5.00000	weight of sample (g)
Uf	1.00000	Unit correction factor
Va	100.00000	Soil Aliquot Volume (uL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/1)	FINAL (ug/Kg)
* 51 Fluorobenzene	96	15.317	15.317	(1.000)	590980	50.0000	
* 75 Chlorobenzene-d5	117	18.667	18.667	(1.000)	476261	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	20.991	20.991	(1.000)	250323	50.0000	
$ 46 1,2-Dichloroethane-d4	65	14.880	14.880	(0.972)	218806	42.8533	48.8
$ 64 Toluene-d8	98	17.134	17.134	(0.918)	682183	44.0094	50.2
$ 86 Bromofluorobenzene	95	19.814	19.814	(0.944)	265206	40.2763	45.9
4 Dichlorodifluoromethane	85	5.147	5.147	(0.336)	70572	38.3508	43.7
5 Chloromethane	50	5.757	5.757	(0.376)	189579	34.2936	39.1
6 Vinyl chloride	62	6.188	6.187	(0.404)	189537	38.6009	44.0
7 Bromomethane	94	7.429	7.429	(0.485)	100880	36.0350	41.1
8 Chloroethane	64	7.845	7.845	(0.512)	96005	38.2308	43.6
9 Trichlorofluoromethane	101	8.799	8.789	(0.574)	133968	35.6443	40.6
13 Acetone	43	10.423	10.413	(0.681)	596936	150.797	172

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
14 1,1-Dichloroethylene	96	10.302	10.312	(0.673)	96331	37.4821	42.7
102 1,4-Dichlorobenzene	146	21.012	21.012	(1.001)	240486	33.2487	37.9
16 Iodomethane	142	10.667	10.667	(0.696)	861451	192.350	219
22 Methylene chloride	86	11.439	11.439	(0.747)	95028	39.3572	44.8
19 Carbon disulfide	76	10.840	10.840	(0.708)	1690927	187.023	213
25 trans-1,2-Dichloroethylene	61	12.027	12.027	(0.785)	179383	33.0148	37.6
28 1,1-Dichloroethane	63	12.799	12.799	(0.836)	252694	35.7399	40.7
31 2-Butanone	43	13.723	13.713	(0.896)	753833	170.744	195
33 cis-1,2-Dichloroethylene	61	13.733	13.733	(0.897)	212259	33.8502	38.6
100 1,3-Dichlorobenzene	146	20.931	20.930	(0.997)	241388	32.5871	37.1
34 2,2-Dichloropropane	77	13.743	13.743	(0.897)	94704	32.2457	36.8
38 Chloroform	83	14.190	14.190	(0.926)	208709	35.4593	40.4
105 1,2-Dichlorobenzene	146	21.438	21.438	(1.021)	251685	33.8258	38.6
37 Bromochloromethane	49	14.088	14.088	(0.920)	175169	37.7875	43.1
41 1,1,1-Trichloroethane	97	14.484	14.484	(0.946)	145021	35.9041	40.9
44 1,1-Dichloropropene	75	14.697	14.697	(0.960)	148740	35.1715	40.1
45 Carbon tetrachloride	117	14.718	14.728	(0.961)	109721	34.1394	38.9
47 1,2-Dichloroethane	62	14.982	14.982	(0.978)	189332	32.6025	37.2
48 Benzene	78	14.982	14.982	(0.978)	474851	36.7469	41.9
53 Trichloroethylene	95	15.763	15.763	(1.029)	113523	36.2583	41.3
56 1,2-Dichloropropane	63	16.037	16.037	(1.047)	160410	37.2783	42.5
59 Bromodichloromethane	83	16.332	16.332	(1.066)	169663	36.7641	41.9
58 Dibromomethane	93	16.180	16.179	(1.056)	93524	40.2933	45.9
63 4-Methyl-2-pentanone	58	16.931	16.941	(0.907)	401677	171.376	195
62 cis-1,3-Dichloropropylene	75	16.819	16.819	(1.098)	208839	37.1581	42.4
65 Toluene	92	17.215	17.215	(0.922)	283835	33.1013	37.7
67 trans-1,3-Dichloropropylene	75	17.388	17.387	(0.931)	189483	32.6091	37.2
68 1,1,2-Trichloroethane	83	17.611	17.611	(0.943)	118643	36.7237	41.8
69 2-Hexanone	43	17.794	17.794	(0.953)	957230	147.586	168
70 1,3-Dichloropropane	76	17.794	17.794	(0.953)	235027	35.4751	40.4
71 Tetrachloroethylene	164	17.814	17.814	(0.954)	80431	33.9419	38.7
72 Dibromochloromethane	129	18.058	18.058	(0.967)	127094	36.4731	41.6
73 1,2-Dibromoethane	107	18.220	18.220	(0.976)	133200	38.0152	43.3
76 Chlorobenzene	112	18.697	18.697	(1.002)	310059	35.1286	40.0
77 1,1,1,2-Tetrachloroethane	131	18.758	18.758	(1.005)	108910	35.8071	40.8
78 Ethylbenzene	91	18.758	18.758	(1.005)	512274	31.9744	36.4
79 m,p-Xylenes	106	18.870	18.870	(1.011)	422719	70.1105	79.9
80 o-Xylene	106	19.286	19.286	(1.033)	232331	36.3744	41.4
81 Styrene	104	19.286	19.286	(1.033)	367879	35.9666	41.0
82 Bromoform	173	19.540	19.540	(0.931)	90771	37.8464	43.1
87 1,1,2,2-Tetrachloroethane	83	19.885	19.885	(0.947)	196657	34.7153	39.6
89 1,2,3-Trichloropropane	110	19.966	19.966	(0.951)	42593	34.5558	39.4
90 Bromobenzene	156	20.017	20.017	(0.954)	132453	34.9319	39.8
91 n-Propylbenzene	91	20.027	20.027	(0.954)	611905	29.7210	33.9
93 2-Chlorotoluene	91	20.169	20.169	(0.961)	417727	29.6351	33.8
83 Isopropylbenzene	105	19.631	19.631	(0.935)	496269	30.6450	34.9
92 1,3,5-Trimethylbenzene	105	20.169	20.169	(0.961)	413604	30.9086	35.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/Kg)
94 4-Chlorotoluene	91	20.271	20.271	(0.966)	368539	29.1268	33.2
95 tert-Butylbenzene	119	20.524	20.524	(0.978)	387439	31.9613	36.4
96 1,2,4-Trimethylbenzene	105	20.565	20.565	(0.980)	418849	30.9278	35.2
98 sec-Butylbenzene	105	20.748	20.748	(0.988)	541601	30.3397	34.6
99 4-Isopropyltoluene	119	20.860	20.859	(0.994)	392315	30.4054	34.6
104 n-Butylbenzene	91	21.296	21.296	(1.014)	430393	28.7937	32.8
107 1,2-Dibromo-3-chloropropane	157	22.291	22.291	(1.062)	35388	38.0413	43.4

Data File: /chem/VOA7.i/032410v7/7e320.d
Date : 25-MAR-2010 06:41
Client ID: RE46-10-12972MSD
Sample Info: 1120208056819690561|1|VOAF|1|
Column phase: DB-624

Instrument: VOA7.i
Operator: AXO1
Column diameter: 0.25

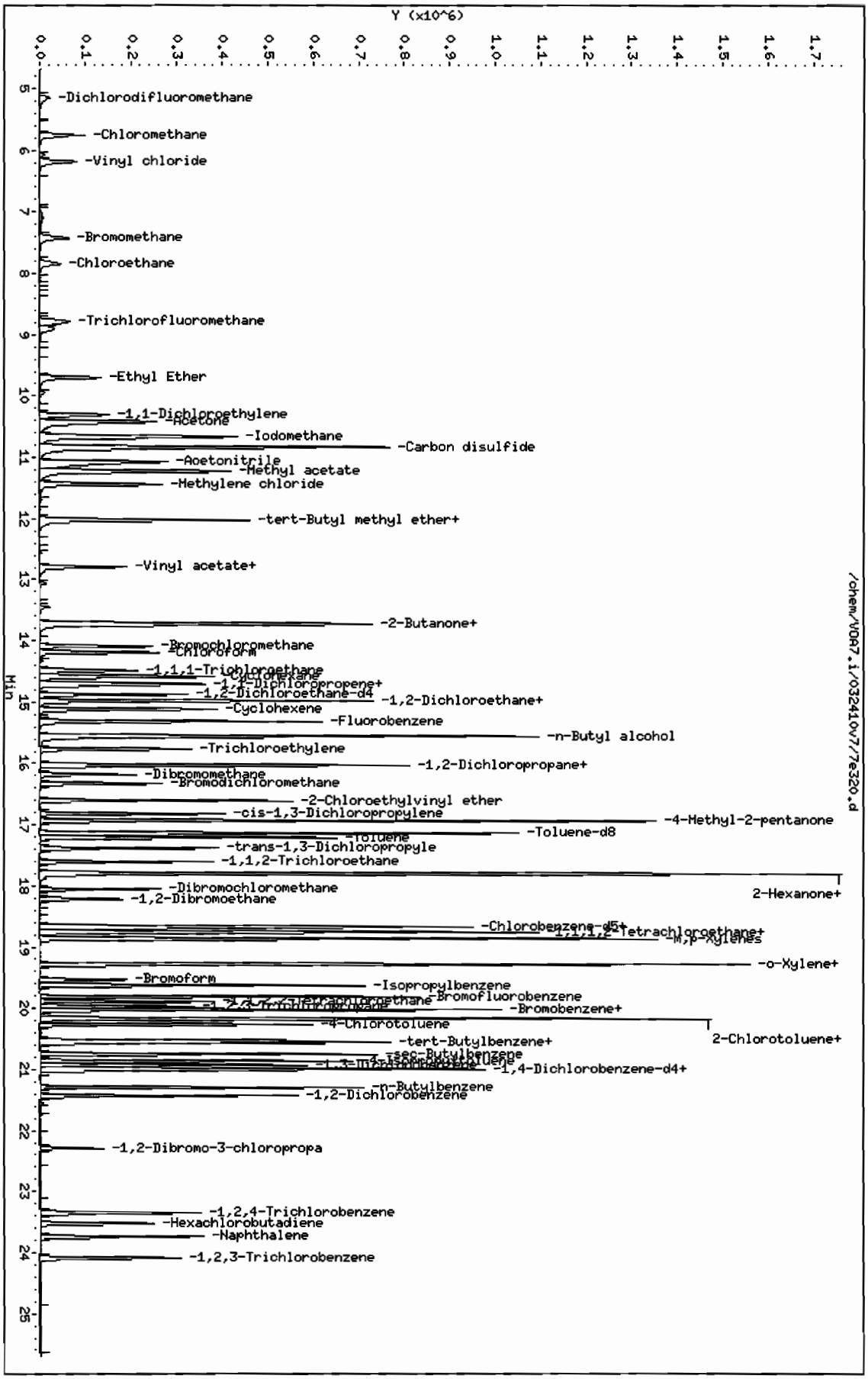

Page 1

Miscellaneous Data

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **969055** Verified by: _____

Analyst: Alex Olson

Method: SW846 5030

Lab SOP: GL-OA-E-038 REV# 14

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202080566 MB	24-MAR-2010 19:00:00	Soil	5	5	1	N/A
1202080569 LCS	24-MAR-2010 19:00:00	Soil	5	5	1	N/A
1202080570 LCS	24-MAR-2010 19:00:00	Soil	5	5	1	N/A
249335001	25-MAR-2010 00:25:00	Misc Solid	5	5	1	N/A
249335002	25-MAR-2010 00:27:00	Soil	5	5	1	N/A
1202080567 PS (249335002)	25-MAR-2010 00:29:00	Soil	5	5	1	N/A
1202080568 PSD (249335002)	25-MAR-2010 00:31:00	Soil	5	5	1	N/A
249335003	25-MAR-2010 00:33:00	Soil	5	5	1	N/A
249335004	25-MAR-2010 00:35:00	Soil	5	5	1	N/A
249335005	25-MAR-2010 00:37:00	Soil	5	5	1	N/A
249335006	25-MAR-2010 00:39:00	Soil	5	5	1	N/A
249335007	25-MAR-2010 00:41:00	Soil	5	5	1	N/A
249335008	25-MAR-2010 00:43:00	Soil	5	5	1	N/A
249527001	25-MAR-2010 00:45:00	Soil	5	5	1	N/A

Reagent/Solvent Lot ID	Description	Amount

Comments:

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA7

Date: 2/17/2010 Method 8260B/624 Operator: AXO1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1941

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 2/17/2010

(See pg. 43 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 021710V7

Daily Standard	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
LONG ICV	W7VM100217-22			5+5	
IS	UVM100203-01	1	1	1	
SS	UVM100203-02	1	1	1	
SHORT ICV	W7VM100217-23			5+5	
BFB	UVM100203-02				1

Purge Amount	
5	Water Purge Vol:
N/A	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
2/17/2010	8:37	7Z301.D	120200-----	GEL	RINSE	5mL	1	N/A	1	w	AXO1	N/A	O	
2/17/2010	9:12	7Z302.D	W7VM100217-01	GEL	CCV	5mL	1	N/A	2	w	AXO1	N/A	X	UVM100106-07C/UVM100202-07C
2/17/2010	9:47	7Z303.D	W7VM100217-02	GEL	LCS	5mL	1	N/A	3	w	AXO1	N/A	X	UVM100126-01D/IVM100214-01
2/17/2010	10:22	7Z304.D	W7VM100217-03	GEL	LCS	5g	1	N/A	4	s	AXO1	N/A	X	UVM100126-01D/IVM100214-01
2/17/2010	11:21	7Z305.D	W7VM100217-04	GEL	LCS	5mL	1	N/A	5	w	AXO1	N/A	X	UVM100126-02C/IVM100214-01
2/17/2010	12:21	7Z306.D	120200-----	GEL	RINSE	5mL	1	N/A	1	w	AXO1	N/A	X	
2/17/2010	12:54	7Z307.D	W7VM100217-05	GEL	LCS	5mL	1	N/A	2	w	AXO1	N/A	X	UVM100126-01D/IVM100214-01
2/17/2010	14:55	7Z308.D	120200-----	GEL	RINSE	5mL	1	N/A	1	w	AXO1	N/A	X	
2/17/2010	15:29	7Z309.D	UVM100203-02	GEL	BFB01	5mL	1	N/A	2	w	AXO1	N/A	O	
2/17/2010	16:02	7Z310.D	W7VM100217-06	GEL	VSTD001	5mL	1	N/A	3	w	AXO1	N/A	O	UVM100106-02C/UVM100202-02C
2/17/2010	16:35	7Z311.D	W7VM100217-07	GEL	VSTD002	5mL	1	N/A	4	w	AXO1	N/A	O	UVM100106-03C/UVM100202-03C
2/17/2010	17:09	7Z312.D	W7VM100217-08	GEL	VSTD005	5mL	1	N/A	5	w	AXO1	N/A	O	UVM100106-04C/UVM100202-04C
2/17/2010	17:44	7Z313.D	W7VM100217-09	GEL	VSTD010	5mL	1	N/A	6	w	AXO1	N/A	O	UVM100106-05C/UVM100202-05C
2/17/2010	18:20	7Z314.D	W7VM100217-10	GEL	VSTD020	5mL	1	N/A	7	w	AXO1	N/A	O	UVM100106-06C/UVM100202-06C
2/17/2010	18:55	7Z315.D	W7VM100217-11	GEL	VSTD050	5mL	1	N/A	8	w	AXO1	N/A	O	UVM100106-07C/UVM100202-07C
2/17/2010	19:30	7Z316.D	W7VM100217-12	GEL	VSTD100	5mL	1	N/A	9	w	AXO1	N/A	O	UVM100106-08C/UVM100202-08C
2/17/2010	20:05	7Z317.D	120200-----	GEL	RINSE	5mL	1	N/A	10	w	AXO1	N/A	X	
2/17/2010	20:39	7Z318.D	W7VM100217-13	GEL	VSTD0005	5mL	1	N/A	11	w	AXO1	N/A	O	UVM100106-01C/UVM100202-01C
2/17/2010	21:14	7Z319.D	W7VM100217-14	GEL	VSTD005S	5mL	1	N/A	12	w	AXO1	N/A	O	UVM100215-01/UVM100125-01D
2/17/2010	21:49	7Z320.D	W7VM100217-15	GEL	VSTD010S	5mL	1	N/A	13	w	AXO1	N/A	O	UVM100215-02/UVM100125-02D
2/17/2010	22:24	7Z321.D	W7VM100217-16	GEL	VSTD020S	5mL	1	N/A	14	w	AXO1	N/A	O	UVM100215-03/UVM100125-03D
2/17/2010	22:59	7Z322.D	W7VM100217-17	GEL	VSTD050S	5mL	1	N/A	15	w	AXO1	N/A	O	UVM100215-04/UVM100125-04D
2/17/2010	23:33	7Z323.D	W7VM100217-18	GEL	VSTD100S	5mL	1	N/A	16	w	AXO1	N/A	O	UVM100215-05/UVM100125-05D
2/18/2010	0:08	7Z324.D	W7VM100217-19	GEL	VSTD250S	5mL	1	N/A	17	w	AXO1	N/A	O	UVM100215-06/UVM100125-06D
2/18/2010	0:42	7Z325.D	W7VM100217-20	GEL	VSTD500S	5mL	1	N/A	18	w	AXO1	N/A	O	UVM100215-07/UVM100125-07D
2/18/2010	1:17	7Z326.D	120200-----	GEL	RINSE	5mL	1	N/A	19	w	AXO1	N/A	X	
2/18/2010	1:52	7Z327.D	W7VM100217-21	GEL	ICV	5mL	1	N/A	20	w	AXO1	N/A	X	UVM100126-02C/IVM100214-01
2/18/2010	2:27	7Z328.D	W7VM100217-22	GEL	ICV	5mL	1	N/A	21	w	AXO1	N/A	O	UVM100126-01E/IVM100214-01
2/18/2010	3:03	7Z329.D	W7VM100217-23	GEL	SICV	5mL	1	N/A	22	w	AXO1	N/A	O	UVM091216-08B/UVM100125-08C
2/18/2010	3:38	7Z330.D	120200-----	GEL	RINSE	5mL	1	N/A	23	w	AXO1	N/A	X	

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA7

Date: 3/24/2010 Method 8260B/624 Operator: AXO1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1941

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 2/17/2010

(See pg. 43 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

CI test lot # 81710

Sequence Number: 032410V7

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W7VM100324-01		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100217-02	1	1	1	
LCS/MS	W7VM100324-02/03			5+5	
BFB	UVM100217-02				1
SHORT	W7VM100324-04/05		5+5	5+5	
DHEC	N/A				

Purge Amount	
5	Water Purge Vol:
5g	Soil Purge Wt.
N	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	CI test (Y/N)	Acceptable (O/X)	Comments
3/24/2010 19:54	7E301.D	120200-----	GEL	RINSE	5mL	1	N/A	1	w	AXO1	N/A	X	
3/24/2010 20:27	7E302.D	W7VM100324-01	GEL	BFB/CCV	5mL	1	N/A	2	w	AXO1	N/A	O	UVM100314-07A/UVM100315-07B
3/24/2010 21:00	7E303.D	W7VM100324-02	GEL	LCS	5mL	1	N/A	3	w	AXO1	N/A	O	UVM100305-01D/IVM100318-01
3/24/2010 21:34	7E304.D	W7VM100324-03	GEL	LCS	5g	1	N/A	4	s	AXO1	N/A	O	UVM100305-01D/IVM100318-01
3/24/2010 22:09	7E305.D	W7VM100324-04	GEL	SHORT/SLCS	5mL	1	N/A	5	w	AXO1	N/A	O	UVM100304-08B/UVM100226-02C
3/24/2010 22:42	7E306.D	W7VM100324-05	GEL	SHORT/SLCS	5g	1	N/A	6	s	AXO1	N/A	O	UVM100304-08B/UVM100226-02C
3/24/2010 23:16	7E307.D	120200-----	GEL	BLANK	5mL	1	N/A	7	w	AXO1	N/A	O	
3/24/2010 23:49	7E308.D	120200-----	GEL	BLANK	5g	1	N/A	8	s	AXO1	N/A	O	
3/25/2010 0:30	7E309.D	249336003	PNTX	968622	5mL	1	pH2	9	w	AXO1	N	O	
3/25/2010 1:03	7E310.D	249335001	LANL	969056	5g	1	N/A	10	s	AXO1	N/A	O	
3/25/2010 1:37	7E311.D	249335002	LANL	969056	5g	1	N/A	11	s	AXO1	N/A	O	
3/25/2010 2:11	7E312.D	249335003	LANL	969056	5g	1	N/A	12	s	AXO1	N/A	O	
3/25/2010 2:44	7E313.D	249335004	LANL	969056	5g	1	N/A	13	s	AXO1	N/A	O	
3/25/2010 3:19	7E314.D	249335005	LANL	969056	5g	1	N/A	14	s	AXO1	N/A	O	
3/25/2010 3:53	7E315.D	249335006	LANL	969056	5g	1	N/A	15	s	AXO1	N/A	O	
3/25/2010 4:26	7E316.D	249335007	LANL	969056	5g	1	N/A	16	s	AXO1	N/A	O	
3/25/2010 5:00	7E317.D	249335008	LANL	969056	5g	1	N/A	17	s	AXO1	N/A	O	
3/25/2010 5:34	7E318.D	249527001	LANL	969056	5g	1	N/A	18	s	AXO1	N/A	O	
3/25/2010 6:07	7E319.D	1202080567	LANL	969056	5g	1	N/A	19	s	AXO1	N/A	O	MS 249336002
3/25/2010 6:41	7E320.D	1202080568	LANL	969056	5g	1	N/A	20	s	AXO1	N/A	O	MSD 249336002

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2436

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	966766
Prep Batch Number:	966763

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
249335002	RE46-10-12972
249335003	RE46-10-13003
249335004	RE46-10-12967
249335005	RE46-10-12971
249335006	RE46-10-12968
249335007	RE46-10-12969
249335008	RE46-10-12970
1202074807	Method Blank (MB)
1202074808	Laboratory Control Sample (LCS)
1202074809	249335002(RE46-10-12972) Matrix Spike (MS)
1202074810	249335002(RE46-10-12972) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 249335002 (RE46-10-12972) was selected for analysis as the matrix spike/matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
Multiple MS/MSD RPD values exceeded their established acceptance limit. Please see the spike recovery report for the specific failures. Because all individual MS and MSD spike recoveries were within their established acceptance limits, the data were reported un-qualified for the RPD value failures.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Samples 249335007 (RE46-10-12969) and 249335008 (RE46-10-12970) were diluted because the extracts were very dark and viscous.

Parmname	**249335**	
	007	**008**
All	2X	2X

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 812224. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to

eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD1.I	HP 5973 Mass Spectrometer	HP6890/HP5973	ZB-5ms	25m x 0.2mm, 0.33um (5% Polysilarylene-95% Polydimethylsiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: _____ **Date:** 4-9-10

Roadmap for LANL 10-2436 SVOA

This roadmap was analyzed by amy01291 on 03-31-2010, 15:51.
This roadmap was packaged by CHA01131 on 04-05-2010, 17:40.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD1.i/s033010.b/s1c3021.d	249335002	30-MAR-2010	17:51	10-2436.sub	RE46-10-12972	1	966766	REPORT
☐	N	/chem/MSD1.i/s033010.b/s1c3024.d	249335003	30-MAR-2010	19:02	10-2436.sub	RE46-10-13003	1	966766	REPORT
☐	N	/chem/MSD1.i/s033010.b/s1c3025.d	249335004	30-MAR-2010	19:26	10-2436.sub	RE46-10-12967	1	966766	REPORT
☐	N	/chem/MSD1.i/s033010.b/s1c3026.d	249335005	30-MAR-2010	19:50	10-2436.sub	RE46-10-12971	1	966766	REPORT
☐	N	/chem/MSD1.i/s033010.b/s1c3027.d	249335006	30-MAR-2010	20:14	10-2436.sub	RE46-10-12968	1	966766	REPORT
☐	N	/chem/MSD1.i/s033010.b/s1c3028.d	249335007	30-MAR-2010	20:38	10-2436.sub	RE46-10-12969	2	966766	REPORT
☐	N	/chem/MSD1.i/s033010.b/s1c3029.d	249335008	30-MAR-2010	21:01	10-2436.sub	RE46-10-12970	2	966766	REPORT

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD1.i/s032910.b/s1c2908-2.d	1202074807	mb	29-MAR-2010	14:58	10-2436.sub	SBLK01	1	966766	REPORT
☐	N	/chem/MSD1.i/s032910.b/s1c2909-2.d	1202074808	lcs	29-MAR-2010	15:22	10-2436.sub	SBLK01LCS	1	966766	REPORT
☐	N	/chem/MSD1.i/s033010.b/s1c3022.d	1202074809	ms	30-MAR-2010	18:15	10-2436.sub	RE46-10-12972MS	1	966766	REPORT
☐	N	/chem/MSD1.i/s033010.b/s1c3023.d	1202074810	msd	30-MAR-2010	18:38	10-2436.sub	RE46-10-12972MSD	1	966766	REPORT

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335004	**Date Received:**	03/13/2010 09:30	**%Moisture:**	20.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12967	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 19:26	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s1c3025.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	420	ug/kg	84.1	420
108-95-2	Phenol	U	420	ug/kg	84.1	420
95-57-8	2-Chlorophenol	U	420	ug/kg	84.1	420
106-46-7	1,4-Dichlorobenzene	U	420	ug/kg	84.1	420
621-64-7	N-Nitrosodipropylamine	U	420	ug/kg	84.1	420
59-50-7	4-Chloro-3-methylphenol	U	420	ug/kg	84.1	420
83-32-9	Acenaphthene	U	42.0	ug/kg	13.9	42.0
121-14-2	2,4-Dinitrotoluene	U	420	ug/kg	42.0	420
100-02-7	4-Nitrophenol	U	420	ug/kg	139	420
87-86-5	Pentachlorophenol	U	420	ug/kg	105	420
129-00-0	Pyrene		267	ug/kg	12.6	42.0
110-86-1	Pyridine	U	420	ug/kg	84.1	420
62-53-3	Aniline	U	420	ug/kg	126	420
111-44-4	bis(2-Chloroethyl) ether	U	420	ug/kg	84.1	420
541-73-1	1,3-Dichlorobenzene	U	420	ug/kg	84.1	420
100-51-6	Benzyl alcohol	U	420	ug/kg	126	420
95-50-1	1,2-Dichlorobenzene	U	420	ug/kg	84.1	420
108-60-1	bis(2-Chloroisopropyl)ether	U	420	ug/kg	84.1	420
95-48-7	o-Cresol	U	420	ug/kg	84.1	420
65794-96-9	m,p-Cresols	U	420	ug/kg	126	420
67-72-1	Hexachloroethane	U	420	ug/kg	84.1	420
98-95-3	Nitrobenzene	U	420	ug/kg	84.1	420
78-59-1	Isophorone	U	420	ug/kg	84.1	420
88-75-5	2-Nitrophenol	U	420	ug/kg	84.1	420
105-67-9	2,4-Dimethylphenol	U	420	ug/kg	147	420
111-91-1	bis(2-Chloroethoxy)methane	U	420	ug/kg	84.1	420
120-83-2	2,4-Dichlorophenol	U	420	ug/kg	84.1	420
65-85-0	Benzoic acid	U	841	ug/kg	210	841
91-20-3	Naphthalene	U	42.0	ug/kg	12.6	42.0
106-47-8	4-Chloroaniline	U	420	ug/kg	84.1	420
87-68-3	Hexachlorobutadiene	U	420	ug/kg	84.1	420
91-57-6	2-Methylnaphthalene	U	42.0	ug/kg	8.41	42.0
77-47-4	Hexachlorocyclopentadiene	U	420	ug/kg	84.1	420
88-06-2	2,4,6-Trichlorophenol	U	420	ug/kg	84.1	420
95-95-4	2,4,5-Trichlorophenol	U	420	ug/kg	84.1	420
91-58-7	2-Chloronaphthalene	U	42.0	ug/kg	13.9	42.0
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	420	ug/kg	84.1	420
99-09-2	3-Nitroaniline	U	420	ug/kg	84.1	420

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12967**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 19:26**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3025.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	420	ug/kg	84.1	420
606-20-2	2,6-Dinitrotoluene	U	420	ug/kg	42.0	420
208-96-8	Acenaphthylene	U	42.0	ug/kg	12.6	42.0
51-28-5	2,4-Dinitrophenol	U	841	ug/kg	160	841
132-64-9	Dibenzofuran	U	420	ug/kg	84.1	420
84-66-2	Diethylphthalate	U	420	ug/kg	84.1	420
86-73-7	Fluorene	U	42.0	ug/kg	12.6	42.0
7005-72-3	4-Chlorophenylphenylether	U	420	ug/kg	84.1	420
534-52-1	2-Methyl-4,6-dinitrophenol	U	420	ug/kg	84.1	420
100-01-6	4-Nitroaniline	U	420	ug/kg	126	420
	p-Nitroaniline					
122-39-4	Diphenylamine	U	420	ug/kg	84.1	420
122-66-7	Azobenzene	U	420	ug/kg	84.1	420
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	420	ug/kg	84.1	420
118-74-1	Hexachlorobenzene	U	420	ug/kg	84.1	420
85-01-8	Phenanthrene		109	ug/kg	12.6	42.0
120-12-7	Anthracene		73.0	ug/kg	8.41	42.0
84-74-2	Di-n-butylphthalate	U	420	ug/kg	84.1	420
206-44-0	Fluoranthene		320	ug/kg	12.6	42.0
85-68-7	Butylbenzylphthalate	U	420	ug/kg	84.1	420
56-55-3	Benzo(a)anthracene		145	ug/kg	12.6	42.0
91-94-1	3,3'-Dichlorobenzidine	U	420	ug/kg	126	420
218-01-9	Chrysene		200	ug/kg	12.6	42.0
117-81-7	bis(2-Ethylhexyl)phthalate	J	211	ug/kg	84.1	420
117-84-0	Di-n-octylphthalate	U	420	ug/kg	84.1	420
205-99-2	Benzo(b)fluoranthene		170	ug/kg	12.6	42.0
207-08-9	Benzo(k)fluoranthene	U	42.0	ug/kg	12.6	42.0
50-32-8	Benzo(a)pyrene		79.9	ug/kg	12.6	42.0
193-39-5	Indeno(1,2,3-cd)pyrene	J	34.2	ug/kg	12.6	42.0
53-70-3	Dibenzo(a,h)anthracene	U	42.0	ug/kg	12.6	42.0
191-24-2	Benzo(ghi)perylene	J	39.7	ug/kg	12.6	42.0
120-82-1	1,2,4-Trichlorobenzene	U	420	ug/kg	84.1	420

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	340	ug/kg		JA
544-76-3	Hexadecane	8.89	363	ug/kg	94	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12967**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 19:26**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3025.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.06	286	ug/kg		J
	Unknown	11.18	169	ug/kg		J
	Unknown	11.48	454	ug/kg		J
1058-61-3	Stigmast-4-en-3-one	11.86	430	ug/kg	95	NJ
	Unknown	11.93	209	ug/kg		J
	Unknown	12.8	1240	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12968**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 20:14**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3027.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	372	ug/kg	74.4	372
108-95-2	Phenol	U	372	ug/kg	74.4	372
95-57-8	2-Chlorophenol	U	372	ug/kg	74.4	372
106-46-7	1,4-Dichlorobenzene	U	372	ug/kg	74.4	372
621-64-7	N-Nitrosodipropylamine	U	372	ug/kg	74.4	372
59-50-7	4-Chloro-3-methylphenol	U	372	ug/kg	74.4	372
83-32-9	Acenaphthene	U	37.2	ug/kg	12.3	37.2
121-14-2	2,4-Dinitrotoluene	U	372	ug/kg	37.2	372
100-02-7	4-Nitrophenol	U	372	ug/kg	123	372
87-86-5	Pentachlorophenol	U	372	ug/kg	93.0	372
129-00-0	Pyrene		42.0	ug/kg	11.2	37.2
110-86-1	Pyridine	U	372	ug/kg	74.4	372
62-53-3	Aniline	U	372	ug/kg	112	372
111-44-4	bis(2-Chloroethyl) ether	U	372	ug/kg	74.4	372
541-73-1	1,3-Dichlorobenzene	U	372	ug/kg	74.4	372
100-51-6	Benzyl alcohol	U	372	ug/kg	112	372
95-50-1	1,2-Dichlorobenzene	U	372	ug/kg	74.4	372
108-60-1	bis(2-Chloroisopropyl)ether	U	372	ug/kg	74.4	372
95-48-7	o-Cresol	U	372	ug/kg	74.4	372
65794-96-9	m,p-Cresols	U	372	ug/kg	112	372
67-72-1	Hexachloroethane	U	372	ug/kg	74.4	372
98-95-3	Nitrobenzene	U	372	ug/kg	74.4	372
78-59-1	Isophorone	U	372	ug/kg	74.4	372
88-75-5	2-Nitrophenol	U	372	ug/kg	74.4	372
105-67-9	2,4-Dimethylphenol	U	372	ug/kg	130	372
111-91-1	bis(2-Chloroethoxy)methane	U	372	ug/kg	74.4	372
120-83-2	2,4-Dichlorophenol	U	372	ug/kg	74.4	372
65-85-0	Benzoic acid	U	744	ug/kg	186	744
91-20-3	Naphthalene	U	37.2	ug/kg	11.2	37.2
106-47-8	4-Chloroaniline	U	372	ug/kg	74.4	372
87-68-3	Hexachlorobutadiene	U	372	ug/kg	74.4	372
91-57-6	2-Methylnaphthalene	U	37.2	ug/kg	7.44	37.2
77-47-4	Hexachlorocyclopentadiene	U	372	ug/kg	74.4	372
88-06-2	2,4,6-Trichlorophenol	U	372	ug/kg	74.4	372
95-95-4	2,4,5-Trichlorophenol	U	372	ug/kg	74.4	372
91-58-7	2-Chloronaphthalene	U	37.2	ug/kg	12.3	37.2
88-74-4	2-Nitroaniline	U	372	ug/kg	74.4	372
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	372	ug/kg	74.4	372

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12968**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 20:14**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3027.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	372	ug/kg	74.4	372
606-20-2	2,6-Dinitrotoluene	U	372	ug/kg	37.2	372
208-96-8	Acenaphthylene	U	37.2	ug/kg	11.2	37.2
51-28-5	2,4-Dinitrophenol	U	744	ug/kg	141	744
132-64-9	Dibenzofuran	U	372	ug/kg	74.4	372
84-66-2	Diethylphthalate	U	372	ug/kg	74.4	372
86-73-7	Fluorene	U	37.2	ug/kg	11.2	37.2
7005-72-3	4-Chlorophenylphenylether	U	372	ug/kg	74.4	372
534-52-1	2-Methyl-4,6-dinitrophenol	U	372	ug/kg	74.4	372
100-01-6	4-Nitroaniline	U	372	ug/kg	112	372
	p-Nitroaniline					
122-39-4	Diphenylamine	U	372	ug/kg	74.4	372
122-66-7	Azobenzene	U	372	ug/kg	74.4	372
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	372	ug/kg	74.4	372
118-74-1	Hexachlorobenzene	U	372	ug/kg	74.4	372
85-01-8	Phenanthrene	J	21.4	ug/kg	11.2	37.2
120-12-7	Anthracene	U	37.2	ug/kg	7.44	37.2
84-74-2	Di-n-butylphthalate	U	372	ug/kg	74.4	372
206-44-0	Fluoranthene		43.2	ug/kg	11.2	37.2
85-68-7	Butylbenzylphthalate	U	372	ug/kg	74.4	372
56-55-3	Benzo(a)anthracene	J	28.5	ug/kg	11.2	37.2
91-94-1	3,3'-Dichlorobenzidine	U	372	ug/kg	112	372
218-01-9	Chrysene	J	26.8	ug/kg	11.2	37.2
117-81-7	bis(2-Ethylhexyl)phthalate	J	105	ug/kg	74.4	372
117-84-0	Di-n-octylphthalate	U	372	ug/kg	74.4	372
205-99-2	Benzo(b)fluoranthene	J	34.6	ug/kg	11.2	37.2
207-08-9	Benzo(k)fluoranthene	U	37.2	ug/kg	11.2	37.2
50-32-8	Benzo(a)pyrene	J	17.4	ug/kg	11.2	37.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.2	ug/kg	11.2	37.2
53-70-3	Dibenzo(a,h)anthracene	U	37.2	ug/kg	11.2	37.2
191-24-2	Benzo(ghi)perylene	J	11.6	ug/kg	11.2	37.2
120-82-1	1,2,4-Trichlorobenzene	U	372	ug/kg	74.4	372

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	243	ug/kg		JA
	Unknown	8.48	174	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12968**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 20:14**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3027.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-95-8	Eicosane	8.89	223	ug/kg	97	NJ
559-74-0	Friedelan-3-one	12.79	549	ug/kg	95	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	Date Collected:	03/11/2010 12:00	Matrix:	S
Lab Sample ID:	249335007	Date Received:	03/13/2010 09:30	%Moisture:	12.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-12969	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966766	Inst:	MSD1.I	Dilution:	2
Run Date:	03/30/2010 20:38	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	03/19/2010 11:31	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s1c3028.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	759	ug/kg	152	759
108-95-2	Phenol	U	759	ug/kg	152	759
95-57-8	2-Chlorophenol	U	759	ug/kg	152	759
106-46-7	1,4-Dichlorobenzene	U	759	ug/kg	152	759
621-64-7	N-Nitrosodipropylamine	U	759	ug/kg	152	759
59-50-7	4-Chloro-3-methylphenol	U	759	ug/kg	152	759
83-32-9	Acenaphthene	U	75.9	ug/kg	25.0	75.9
121-14-2	2,4-Dinitrotoluene	U	759	ug/kg	75.9	759
100-02-7	4-Nitrophenol	U	759	ug/kg	250	759
87-86-5	Pentachlorophenol	U	759	ug/kg	190	759
129-00-0	Pyrene	J	56.0	ug/kg	22.8	75.9
110-86-1	Pyridine	U	759	ug/kg	152	759
62-53-3	Aniline	U	759	ug/kg	228	759
111-44-4	bis(2-Chloroethyl) ether	U	759	ug/kg	152	759
541-73-1	1,3-Dichlorobenzene	U	759	ug/kg	152	759
100-51-6	Benzyl alcohol	U	759	ug/kg	228	759
95-50-1	1,2-Dichlorobenzene	U	759	ug/kg	152	759
108-60-1	bis(2-Chloroisopropyl)ether	U	759	ug/kg	152	759
95-48-7	o-Cresol	U	759	ug/kg	152	759
65794-96-9	m,p-Cresols	U	759	ug/kg	228	759
67-72-1	Hexachloroethane	U	759	ug/kg	152	759
98-95-3	Nitrobenzene	U	759	ug/kg	152	759
78-59-1	Isophorone	U	759	ug/kg	152	759
88-75-5	2-Nitrophenol	U	759	ug/kg	152	759
105-67-9	2,4-Dimethylphenol	U	759	ug/kg	266	759
111-91-1	bis(2-Chloroethoxy)methane	U	759	ug/kg	152	759
120-83-2	2,4-Dichlorophenol	U	759	ug/kg	152	759
65-85-0	Benzoic acid	U	1520	ug/kg	379	1520
91-20-3	Naphthalene	U	75.9	ug/kg	22.8	75.9
106-47-8	4-Chloroaniline	U	759	ug/kg	152	759
87-68-3	Hexachlorobutadiene	U	759	ug/kg	152	759
91-57-6	2-Methylnaphthalene	U	75.9	ug/kg	15.2	75.9
77-47-4	Hexachlorocyclopentadiene	U	759	ug/kg	152	759
88-06-2	2,4,6-Trichlorophenol	U	759	ug/kg	152	759
95-95-4	2,4,5-Trichlorophenol	U	759	ug/kg	152	759
91-58-7	2-Chloronaphthalene	U	75.9	ug/kg	25.0	75.9
88-74-4	2-Nitroaniline	U	759	ug/kg	152	759
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	759	ug/kg	152	759

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12969**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**2**
Run Date:	**03/30/2010 20:38**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3028.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	759	ug/kg	152	759
606-20-2	2,6-Dinitrotoluene	U	759	ug/kg	75.9	759
208-96-8	Acenaphthylene	U	75.9	ug/kg	22.8	75.9
51-28-5	2,4-Dinitrophenol	U	1520	ug/kg	288	1520
132-64-9	Dibenzofuran	U	759	ug/kg	152	759
84-66-2	Diethylphthalate	U	759	ug/kg	152	759
86-73-7	Fluorene	U	75.9	ug/kg	22.8	75.9
7005-72-3	4-Chlorophenylphenylether	U	759	ug/kg	152	759
534-52-1	2-Methyl-4,6-dinitrophenol	U	759	ug/kg	152	759
100-01-6	4-Nitroaniline	U	759	ug/kg	228	759
	p-Nitroaniline					
122-39-4	Diphenylamine	U	759	ug/kg	152	759
122-66-7	Azobenzene	U	759	ug/kg	152	759
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	759	ug/kg	152	759
118-74-1	Hexachlorobenzene	U	759	ug/kg	152	759
85-01-8	Phenanthrene	J	38.3	ug/kg	22.8	75.9
120-12-7	Anthracene	U	75.9	ug/kg	15.2	75.9
84-74-2	Di-n-butylphthalate	U	759	ug/kg	152	759
206-44-0	Fluoranthene	J	59.7	ug/kg	22.8	75.9
85-68-7	Butylbenzylphthalate	U	759	ug/kg	152	759
56-55-3	Benzo(a)anthracene	J	38.7	ug/kg	22.8	75.9
91-94-1	3,3'-Dichlorobenzidine	U	759	ug/kg	228	759
218-01-9	Chrysene	J	34.2	ug/kg	22.8	75.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	759	ug/kg	152	759
117-84-0	Di-n-octylphthalate	U	759	ug/kg	152	759
205-99-2	Benzo(b)fluoranthene	J	50.2	ug/kg	22.8	75.9
207-08-9	Benzo(k)fluoranthene	U	75.9	ug/kg	22.8	75.9
50-32-8	Benzo(a)pyrene	J	27.1	ug/kg	22.8	75.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	75.9	ug/kg	22.8	75.9
53-70-3	Dibenzo(a,h)anthracene	U	75.9	ug/kg	22.8	75.9
191-24-2	Benzo(ghi)perylene	J	25.4	ug/kg	22.8	75.9
120-82-1	1,2,4-Trichlorobenzene	U	759	ug/kg	152	759

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
300574-36-1	5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	12.8	857	ug/kg	90	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335008**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12970**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**2**
Run Date:	**03/30/2010 21:01**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3029.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	785	ug/kg	157	785
108-95-2	Phenol	U	785	ug/kg	157	785
95-57-8	2-Chlorophenol	U	785	ug/kg	157	785
106-46-7	1,4-Dichlorobenzene	U	785	ug/kg	157	785
621-64-7	N-Nitrosodipropylamine	U	785	ug/kg	157	785
59-50-7	4-Chloro-3-methylphenol	U	785	ug/kg	157	785
83-32-9	Acenaphthene	U	78.5	ug/kg	25.9	78.5
121-14-2	2,4-Dinitrotoluene	U	785	ug/kg	78.5	785
100-02-7	4-Nitrophenol	U	785	ug/kg	259	785
87-86-5	Pentachlorophenol	U	785	ug/kg	196	785
129-00-0	Pyrene	J	53.7	ug/kg	23.6	78.5
110-86-1	Pyridine	U	785	ug/kg	157	785
62-53-3	Aniline	U	785	ug/kg	236	785
111-44-4	bis(2-Chloroethyl) ether	U	785	ug/kg	157	785
541-73-1	1,3-Dichlorobenzene	U	785	ug/kg	157	785
100-51-6	Benzyl alcohol	U	785	ug/kg	236	785
95-50-1	1,2-Dichlorobenzene	U	785	ug/kg	157	785
108-60-1	bis(2-Chloroisopropyl)ether	U	785	ug/kg	157	785
95-48-7	o-Cresol	U	785	ug/kg	157	785
65794-96-9	m,p-Cresols	U	785	ug/kg	236	785
67-72-1	Hexachloroethane	U	785	ug/kg	157	785
98-95-3	Nitrobenzene	U	785	ug/kg	157	785
78-59-1	Isophorone	U	785	ug/kg	157	785
88-75-5	2-Nitrophenol	U	785	ug/kg	157	785
105-67-9	2,4-Dimethylphenol	U	785	ug/kg	275	785
111-91-1	bis(2-Chloroethoxy)methane	U	785	ug/kg	157	785
120-83-2	2,4-Dichlorophenol	U	785	ug/kg	157	785
65-85-0	Benzoic acid	U	1570	ug/kg	393	1570
91-20-3	Naphthalene	U	78.5	ug/kg	23.6	78.5
106-47-8	4-Chloroaniline	U	785	ug/kg	157	785
87-68-3	Hexachlorobutadiene	U	785	ug/kg	157	785
91-57-6	2-Methylnaphthalene	U	78.5	ug/kg	15.7	78.5
77-47-4	Hexachlorocyclopentadiene	U	785	ug/kg	157	785
88-06-2	2,4,6-Trichlorophenol	U	785	ug/kg	157	785
95-95-4	2,4,5-Trichlorophenol	U	785	ug/kg	157	785
91-58-7	2-Chloronaphthalene	U	78.5	ug/kg	25.9	78.5
88-74-4	2-Nitroaniline	U	785	ug/kg	157	785
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	785	ug/kg	157	785

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335008**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12970**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**2**
Run Date:	**03/30/2010 21:01**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3029.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	785	ug/kg	157	785
606-20-2	2,6-Dinitrotoluene	U	785	ug/kg	78.5	785
208-96-8	Acenaphthylene	U	78.5	ug/kg	23.6	78.5
51-28-5	2,4-Dinitrophenol	U	1570	ug/kg	298	1570
132-64-9	Dibenzofuran	U	785	ug/kg	157	785
84-66-2	Diethylphthalate	U	785	ug/kg	157	785
86-73-7	Fluorene	U	78.5	ug/kg	23.6	78.5
7005-72-3	4-Chlorophenylphenylether	U	785	ug/kg	157	785
534-52-1	2-Methyl-4,6-dinitrophenol	U	785	ug/kg	157	785
100-01-6	4-Nitroaniline	U	785	ug/kg	236	785
	p-Nitroaniline					
122-39-4	Diphenylamine	U	785	ug/kg	157	785
122-66-7	Azobenzene	U	785	ug/kg	157	785
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	785	ug/kg	157	785
118-74-1	Hexachlorobenzene	U	785	ug/kg	157	785
85-01-8	Phenanthrene	J	31.3	ug/kg	23.6	78.5
120-12-7	Anthracene	U	78.5	ug/kg	15.7	78.5
84-74-2	Di-n-butylphthalate	U	785	ug/kg	157	785
206-44-0	Fluoranthene	J	44.8	ug/kg	23.6	78.5
85-68-7	Butylbenzylphthalate	U	785	ug/kg	157	785
56-55-3	Benzo(a)anthracene	J	37.8	ug/kg	23.6	78.5
91-94-1	3,3'-Dichlorobenzidine	U	785	ug/kg	236	785
218-01-9	Chrysene	J	25.4	ug/kg	23.6	78.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	785	ug/kg	157	785
117-84-0	Di-n-octylphthalate	U	785	ug/kg	157	785
205-99-2	Benzo(b)fluoranthene	J	42.4	ug/kg	23.6	78.5
207-08-9	Benzo(k)fluoranthene	U	78.5	ug/kg	23.6	78.5
50-32-8	Benzo(a)pyrene	U	78.5	ug/kg	23.6	78.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	78.5	ug/kg	23.6	78.5
53-70-3	Dibenzo(a,h)anthracene	U	78.5	ug/kg	23.6	78.5
191-24-2	Benzo(ghi)perylene	U	78.5	ug/kg	23.6	78.5
120-82-1	1,2,4-Trichlorobenzene	U	785	ug/kg	157	785

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	415	ug/kg		JA
	Unknown	12.8	396	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**21.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12971**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 19:50**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3026.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	426	ug/kg	85.2	426
108-95-2	Phenol	U	426	ug/kg	85.2	426
95-57-8	2-Chlorophenol	U	426	ug/kg	85.2	426
106-46-7	1,4-Dichlorobenzene	U	426	ug/kg	85.2	426
621-64-7	N-Nitrosodipropylamine	U	426	ug/kg	85.2	426
59-50-7	4-Chloro-3-methylphenol	U	426	ug/kg	85.2	426
83-32-9	Acenaphthene	U	42.6	ug/kg	14.1	42.6
121-14-2	2,4-Dinitrotoluene	U	426	ug/kg	42.6	426
100-02-7	4-Nitrophenol	U	426	ug/kg	141	426
87-86-5	Pentachlorophenol	U	426	ug/kg	106	426
129-00-0	Pyrene		58.7	ug/kg	12.8	42.6
110-86-1	Pyridine	U	426	ug/kg	85.2	426
62-53-3	Aniline	U	426	ug/kg	128	426
111-44-4	bis(2-Chloroethyl) ether	U	426	ug/kg	85.2	426
541-73-1	1,3-Dichlorobenzene	U	426	ug/kg	85.2	426
100-51-6	Benzyl alcohol	U	426	ug/kg	128	426
95-50-1	1,2-Dichlorobenzene	U	426	ug/kg	85.2	426
108-60-1	bis(2-Chloroisopropyl)ether	U	426	ug/kg	85.2	426
95-48-7	o-Cresol	U	426	ug/kg	85.2	426
65794-96-9	m,p-Cresols	U	426	ug/kg	128	426
67-72-1	Hexachloroethane	U	426	ug/kg	85.2	426
98-95-3	Nitrobenzene	U	426	ug/kg	85.2	426
78-59-1	Isophorone	U	426	ug/kg	85.2	426
88-75-5	2-Nitrophenol	U	426	ug/kg	85.2	426
105-67-9	2,4-Dimethylphenol	U	426	ug/kg	149	426
111-91-1	bis(2-Chloroethoxy)methane	U	426	ug/kg	85.2	426
120-83-2	2,4-Dichlorophenol	U	426	ug/kg	85.2	426
65-85-0	Benzoic acid	U	852	ug/kg	213	852
91-20-3	Naphthalene	U	42.6	ug/kg	12.8	42.6
106-47-8	4-Chloroaniline	U	426	ug/kg	85.2	426
87-68-3	Hexachlorobutadiene	U	426	ug/kg	85.2	426
91-57-6	2-Methylnaphthalene	U	42.6	ug/kg	8.52	42.6
77-47-4	Hexachlorocyclopentadiene	U	426	ug/kg	85.2	426
88-06-2	2,4,6-Trichlorophenol	U	426	ug/kg	85.2	426
95-95-4	2,4,5-Trichlorophenol	U	426	ug/kg	85.2	426
91-58-7	2-Chloronaphthalene	U	42.6	ug/kg	14.1	42.6
88-74-4	2-Nitroaniline	U	426	ug/kg	85.2	426
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	426	ug/kg	85.2	426

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**21.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12971**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 19:50**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3026.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	426	ug/kg	85.2	426
606-20-2	2,6-Dinitrotoluene	U	426	ug/kg	42.6	426
208-96-8	Acenaphthylene	U	42.6	ug/kg	12.8	42.6
51-28-5	2,4-Dinitrophenol	U	852	ug/kg	162	852
132-64-9	Dibenzofuran	U	426	ug/kg	85.2	426
84-66-2	Diethylphthalate	U	426	ug/kg	85.2	426
86-73-7	Fluorene	U	42.6	ug/kg	12.8	42.6
7005-72-3	4-Chlorophenylphenylether	U	426	ug/kg	85.2	426
534-52-1	2-Methyl-4,6-dinitrophenol	U	426	ug/kg	85.2	426
100-01-6	4-Nitroaniline	U	426	ug/kg	128	426
	p-Nitroaniline					
122-39-4	Diphenylamine	U	426	ug/kg	85.2	426
122-66-7	Azobenzene	U	426	ug/kg	85.2	426
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	426	ug/kg	85.2	426
118-74-1	Hexachlorobenzene	U	426	ug/kg	85.2	426
85-01-8	Phenanthrene	J	30.2	ug/kg	12.8	42.6
120-12-7	Anthracene	U	42.6	ug/kg	8.52	42.6
84-74-2	Di-n-butylphthalate	U	426	ug/kg	85.2	426
206-44-0	Fluoranthene		55.4	ug/kg	12.8	42.6
85-68-7	Butylbenzylphthalate	U	426	ug/kg	85.2	426
56-55-3	Benzo(a)anthracene	U	42.6	ug/kg	12.8	42.6
91-94-1	3,3'-Dichlorobenzidine	U	426	ug/kg	128	426
218-01-9	Chrysene	J	33.7	ug/kg	12.8	42.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	426	ug/kg	85.2	426
117-84-0	Di-n-octylphthalate	U	426	ug/kg	85.2	426
205-99-2	Benzo(b)fluoranthene		55.4	ug/kg	12.8	42.6
207-08-9	Benzo(k)fluoranthene	U	42.6	ug/kg	12.8	42.6
50-32-8	Benzo(a)pyrene	J	31.6	ug/kg	12.8	42.6
193-39-5	Indeno(1,2,3-cd)pyrene	J	15.2	ug/kg	12.8	42.6
53-70-3	Dibenzo(a,h)anthracene	U	42.6	ug/kg	12.8	42.6
191-24-2	Benzo(ghi)perylene	J	21.7	ug/kg	12.8	42.6
120-82-1	1,2,4-Trichlorobenzene	U	426	ug/kg	85.2	426

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	354	ug/kg		JA
112-95-8	Eicosane	8.89	185	ug/kg	95	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**21.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12971**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 19:50**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3026.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	12.8	386	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12972**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 17:51**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3021.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	380	ug/kg	75.9	380
108-95-2	Phenol	U	380	ug/kg	75.9	380
95-57-8	2-Chlorophenol	U	380	ug/kg	75.9	380
106-46-7	1,4-Dichlorobenzene	U	380	ug/kg	75.9	380
621-64-7	N-Nitrosodipropylamine	U	380	ug/kg	75.9	380
59-50-7	4-Chloro-3-methylphenol	U	380	ug/kg	75.9	380
83-32-9	Acenaphthene	U	38.0	ug/kg	12.5	38.0
121-14-2	2,4-Dinitrotoluene	U	380	ug/kg	38.0	380
100-02-7	4-Nitrophenol	U	380	ug/kg	125	380
87-86-5	Pentachlorophenol	U	380	ug/kg	94.9	380
129-00-0	Pyrene	U	38.0	ug/kg	11.4	38.0
110-86-1	Pyridine	U	380	ug/kg	75.9	380
62-53-3	Aniline	U	380	ug/kg	114	380
111-44-4	bis(2-Chloroethyl) ether	U	380	ug/kg	75.9	380
541-73-1	1,3-Dichlorobenzene	U	380	ug/kg	75.9	380
100-51-6	Benzyl alcohol	U	380	ug/kg	114	380
95-50-1	1,2-Dichlorobenzene	U	380	ug/kg	75.9	380
108-60-1	bis(2-Chloroisopropyl)ether	U	380	ug/kg	75.9	380
95-48-7	o-Cresol	U	380	ug/kg	75.9	380
65794-96-9	m,p-Cresols	U	380	ug/kg	114	380
67-72-1	Hexachloroethane	U	380	ug/kg	75.9	380
98-95-3	Nitrobenzene	U	380	ug/kg	75.9	380
78-59-1	Isophorone	U	380	ug/kg	75.9	380
88-75-5	2-Nitrophenol	U	380	ug/kg	75.9	380
105-67-9	2,4-Dimethylphenol	U	380	ug/kg	133	380
111-91-1	bis(2-Chloroethoxy)methane	U	380	ug/kg	75.9	380
120-83-2	2,4-Dichlorophenol	U	380	ug/kg	75.9	380
65-85-0	Benzoic acid	U	759	ug/kg	190	759
91-20-3	Naphthalene	U	38.0	ug/kg	11.4	38.0
106-47-8	4-Chloroaniline	U	380	ug/kg	75.9	380
87-68-3	Hexachlorobutadiene	U	380	ug/kg	75.9	380
91-57-6	2-Methylnaphthalene	U	38.0	ug/kg	7.59	38.0
77-47-4	Hexachlorocyclopentadiene	U	380	ug/kg	75.9	380
88-06-2	2,4,6-Trichlorophenol	U	380	ug/kg	75.9	380
95-95-4	2,4,5-Trichlorophenol	U	380	ug/kg	75.9	380
91-58-7	2-Chloronaphthalene	U	38.0	ug/kg	12.5	38.0
88-74-4	2-Nitroaniline	U	380	ug/kg	75.9	380
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	380	ug/kg	75.9	380

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12972**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 17:51**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3021.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	380	ug/kg	75.9	380
606-20-2	2,6-Dinitrotoluene	U	380	ug/kg	38.0	380
208-96-8	Acenaphthylene	U	38.0	ug/kg	11.4	38.0
51-28-5	2,4-Dinitrophenol	U	759	ug/kg	144	759
132-64-9	Dibenzofuran	U	380	ug/kg	75.9	380
84-66-2	Diethylphthalate	U	380	ug/kg	75.9	380
86-73-7	Fluorene	U	38.0	ug/kg	11.4	38.0
7005-72-3	4-Chlorophenylphenylether	U	380	ug/kg	75.9	380
534-52-1	2-Methyl-4,6-dinitrophenol	U	380	ug/kg	75.9	380
100-01-6	4-Nitroaniline	U	380	ug/kg	114	380
	p-Nitroaniline					
122-39-4	Diphenylamine	U	380	ug/kg	75.9	380
122-66-7	Azobenzene	U	380	ug/kg	75.9	380
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	380	ug/kg	75.9	380
118-74-1	Hexachlorobenzene	U	380	ug/kg	75.9	380
85-01-8	Phenanthrene	U	38.0	ug/kg	11.4	38.0
120-12-7	Anthracene	U	38.0	ug/kg	7.59	38.0
84-74-2	Di-n-butylphthalate	U	380	ug/kg	75.9	380
206-44-0	Fluoranthene	U	38.0	ug/kg	11.4	38.0
85-68-7	Butylbenzylphthalate	U	380	ug/kg	75.9	380
56-55-3	Benzo(a)anthracene	U	38.0	ug/kg	11.4	38.0
91-94-1	3,3'-Dichlorobenzidine	U	380	ug/kg	114	380
218-01-9	Chrysene	U	38.0	ug/kg	11.4	38.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	380	ug/kg	75.9	380
117-84-0	Di-n-octylphthalate	U	380	ug/kg	75.9	380
205-99-2	Benzo(b)fluoranthene	U	38.0	ug/kg	11.4	38.0
207-08-9	Benzo(k)fluoranthene	U	38.0	ug/kg	11.4	38.0
50-32-8	Benzo(a)pyrene	U	38.0	ug/kg	11.4	38.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.0	ug/kg	11.4	38.0
53-70-3	Dibenzo(a,h)anthracene	U	38.0	ug/kg	11.4	38.0
191-24-2	Benzo(ghi)perylene	U	38.0	ug/kg	11.4	38.0
120-82-1	1,2,4-Trichlorobenzene	U	380	ug/kg	75.9	380

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	364	ug/kg		JA
	Unknown	12.79	170	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13003**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 19:02**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3024.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	376	ug/kg	75.2	376
108-95-2	Phenol	U	376	ug/kg	75.2	376
95-57-8	2-Chlorophenol	U	376	ug/kg	75.2	376
106-46-7	1,4-Dichlorobenzene	U	376	ug/kg	75.2	376
621-64-7	N-Nitrosodipropylamine	U	376	ug/kg	75.2	376
59-50-7	4-Chloro-3-methylphenol	U	376	ug/kg	75.2	376
83-32-9	Acenaphthene	U	37.6	ug/kg	12.4	37.6
121-14-2	2,4-Dinitrotoluene	U	376	ug/kg	37.6	376
100-02-7	4-Nitrophenol	U	376	ug/kg	124	376
87-86-5	Pentachlorophenol	U	376	ug/kg	94.0	376
129-00-0	Pyrene	J	12.4	ug/kg	11.3	37.6
110-86-1	Pyridine	U	376	ug/kg	75.2	376
62-53-3	Aniline	U	376	ug/kg	113	376
111-44-4	bis(2-Chloroethyl) ether	U	376	ug/kg	75.2	376
541-73-1	1,3-Dichlorobenzene	U	376	ug/kg	75.2	376
100-51-6	Benzyl alcohol	U	376	ug/kg	113	376
95-50-1	1,2-Dichlorobenzene	U	376	ug/kg	75.2	376
108-60-1	bis(2-Chloroisopropyl)ether	U	376	ug/kg	75.2	376
95-48-7	o-Cresol	U	376	ug/kg	75.2	376
65794-96-9	m,p-Cresols	U	376	ug/kg	113	376
67-72-1	Hexachloroethane	U	376	ug/kg	75.2	376
98-95-3	Nitrobenzene	U	376	ug/kg	75.2	376
78-59-1	Isophorone	U	376	ug/kg	75.2	376
88-75-5	2-Nitrophenol	U	376	ug/kg	75.2	376
105-67-9	2,4-Dimethylphenol	U	376	ug/kg	132	376
111-91-1	bis(2-Chloroethoxy)methane	U	376	ug/kg	75.2	376
120-83-2	2,4-Dichlorophenol	U	376	ug/kg	75.2	376
65-85-0	Benzoic acid	U	752	ug/kg	188	752
91-20-3	Naphthalene	U	37.6	ug/kg	11.3	37.6
106-47-8	4-Chloroaniline	U	376	ug/kg	75.2	376
87-68-3	Hexachlorobutadiene	U	376	ug/kg	75.2	376
91-57-6	2-Methylnaphthalene	U	37.6	ug/kg	7.52	37.6
77-47-4	Hexachlorocyclopentadiene	U	376	ug/kg	75.2	376
88-06-2	2,4,6-Trichlorophenol	U	376	ug/kg	75.2	376
95-95-4	2,4,5-Trichlorophenol	U	376	ug/kg	75.2	376
91-58-7	2-Chloronaphthalene	U	37.6	ug/kg	12.4	37.6
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	376	ug/kg	75.2	376
99-09-2	3-Nitroaniline	U	376	ug/kg	75.2	376

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-13003**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 19:02**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3024.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	376	ug/kg	75.2	376
606-20-2	2,6-Dinitrotoluene	U	376	ug/kg	37.6	376
208-96-8	Acenaphthylene	U	37.6	ug/kg	11.3	37.6
51-28-5	2,4-Dinitrophenol	U	752	ug/kg	143	752
132-64-9	Dibenzofuran	U	376	ug/kg	75.2	376
84-66-2	Diethylphthalate	U	376	ug/kg	75.2	376
86-73-7	Fluorene	U	37.6	ug/kg	11.3	37.6
7005-72-3	4-Chlorophenylphenylether	U	376	ug/kg	75.2	376
534-52-1	2-Methyl-4,6-dinitrophenol	U	376	ug/kg	75.2	376
100-01-6	4-Nitroaniline	U	376	ug/kg	113	376
	p-Nitroaniline					
122-39-4	Diphenylamine	U	376	ug/kg	75.2	376
122-66-7	Azobenzene	U	376	ug/kg	75.2	376
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	376	ug/kg	75.2	376
118-74-1	Hexachlorobenzene	U	376	ug/kg	75.2	376
85-01-8	Phenanthrene	U	37.6	ug/kg	11.3	37.6
120-12-7	Anthracene	U	37.6	ug/kg	7.52	37.6
84-74-2	Di-n-butylphthalate	U	376	ug/kg	75.2	376
206-44-0	Fluoranthene	J	14.8	ug/kg	11.3	37.6
85-68-7	Butylbenzylphthalate	U	376	ug/kg	75.2	376
56-55-3	Benzo(a)anthracene	U	37.6	ug/kg	11.3	37.6
91-94-1	3,3'-Dichlorobenzidine	U	376	ug/kg	113	376
218-01-9	Chrysene	U	37.6	ug/kg	11.3	37.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	376	ug/kg	75.2	376
117-84-0	Di-n-octylphthalate	U	376	ug/kg	75.2	376
205-99-2	Benzo(b)fluoranthene	U	37.6	ug/kg	11.3	37.6
207-08-9	Benzo(k)fluoranthene	U	37.6	ug/kg	11.3	37.6
50-32-8	Benzo(a)pyrene	U	37.6	ug/kg	11.3	37.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.6	ug/kg	11.3	37.6
53-70-3	Dibenzo(a,h)anthracene	U	37.6	ug/kg	11.3	37.6
191-24-2	Benzo(ghi)perylene	U	37.6	ug/kg	11.3	37.6
120-82-1	1,2,4-Trichlorobenzene	U	376	ug/kg	75.2	376

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	342	ug/kg		JA

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-2436

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202074807	MB for batch 966763	75	69	83	77	65	88
1202074808	LCS for batch 966763	72	68	73	70	63	83
249335002	RE46-10-12972	66	66	70	61	54	96
1202074809	RE46-10-12972MS	64	65	65	53	60	82
1202074810	RE46-10-12972MSD	59	60	61	59	55	69
249335003	RE46-10-13003	51	51	53	47	48	68
249335004	RE46-10-12967	41	42	46	43	46	60
249335005	RE46-10-12971	48	46	52	48	44	74
249335006	RE46-10-12968	34	36	39	39	39	62
249335007	RE46-10-12969	42 D	42 D	45 D	44 D	44 D	65 D
249335008	RE46-10-12970	56 D	55 D	59 D	56 D	51 D	85 D

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(29%-99%)
PHL	=	Phenol-d5	(33%-98%)
NBZ	=	Nitrobenzene-d5	(31%-105%)
FBP	=	2-Fluorobiphenyl	(25%-109%)
TBP	=	2,4,6-Tribromophenol	(37%-106%)
TPH	=	p-Terphenyl-d14	(13%-150%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: LCS for batch 966763
Lab Sample ID: 1202074808
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/29/2010 15:22
Dilution: 1
Prep Batch ID: 966763
Batch ID: 966766

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	950	57	22-114
108-95-2	LCS	Phenol	1670	0.0	1160	70	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1230	74	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1040	63	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1310	79	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1330	80	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	1190	71	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1330	80	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	739	44	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	1140	69	27-116
129-00-0	LCS	Pyrene	1670	0.0	1260	75	42-113
110-86-1	LCS	Pyridine	1670	0.0	926	56	8-125
62-53-3	LCS	Aniline	1670	0.0	1060	64	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1130	68	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1040	62	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	852	51	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1070	64	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1300	78	28-117
95-48-7	LCS	o-Cresol	1670	0.0	1160	70	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1370	82	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	1060	64	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	1250	75	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: LCS for batch 966763
Lab Sample ID: 1202074808
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/29/2010 15:22
Dilution: 1
Prep Batch ID: 966763
Batch ID: 966766

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1270	76	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	1190	72	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1180	71	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1180	71	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1260	75	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	2870	86	22-138
91-20-3	LCS	Naphthalene	1670	0.0	1160	69	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	1080	65	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1130	68	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1250	75	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	980	59	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1130	68	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1250	75	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1180	71	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1300	78	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1280	77	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	1340	80	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1260	76	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	1300	78	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1170	70	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	1280	77	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	1390	83	51-126

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: LCS for batch 966763
Lab Sample ID: 1202074808
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/29/2010 15:22
Dilution: 1
Prep Batch ID: 966763
Batch ID: 966766

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1270	76	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1320	79	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1320	79	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1430	86	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	1280	77	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1450	87	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1190	71	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1080	65	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	1260	75	46-107
120-12-7	LCS	Anthracene	1670	0.0	1280	77	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1460	87	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1380	83	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1580	95	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1330	80	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1200	72	36-103
218-01-9	LCS	Chrysene	1670	0.0	1320	79	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1690	101	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1500	90	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1200	72	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1310	79	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1330	80	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1430	86	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: LCS for batch 966763
Lab Sample ID: 1202074808
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/29/2010 15:22
Dilution: 1
Prep Batch ID: 966763
Batch ID: 966766

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1370	82	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1420	85	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1120	67	32-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: RE46-10-12972MS
Lab Sample ID: 1202074809
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:15
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1900	0.00	U	1120	59	27-98
108-95-2	MS	Phenol	1900	0.00	U	1200	63	33-94
95-57-8	MS	2-Chlorophenol	1900	0.00	U	1250	66	29-96
106-46-7	MS	1,4-Dichlorobenzene	1900	0.00	U	842	44	27-96
621-64-7	MS	N-Nitrosodipropylamine	1900	0.00	U	810	43	29-102
59-50-7	MS	4-Chloro-3-methylphenol	1900	0.00	U	1350	71	29-110
83-32-9	MS	Acenaphthene	1900	0.00	U	1150	60	17-109
121-14-2	MS	2,4-Dinitrotoluene	1900	0.00	U	1370	72	33-107
100-02-7	MS	4-Nitrophenol	1900	0.00	U	816	43	15-110
87-86-5	MS	Pentachlorophenol	1900	0.00	U	1080	57	23-110
129-00-0	MS	Pyrene	1900	0.00	U	1360	72	24-118
110-86-1	MS	Pyridine	1900	0.00	U	931	49	25-102
62-53-3	MS	Aniline	1900	0.00	U	1240	65	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	1900	0.00	U	1160	61	29-96
541-73-1	MS	1,3-Dichlorobenzene	1900	0.00	U	812	43	26-97
100-51-6	MS	Benzyl alcohol	1900	0.00	U	637	34	19-112
95-50-1	MS	1,2-Dichlorobenzene	1900	0.00	U	916	48	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	1900	0.00	U	1220	65	28-103
95-48-7	MS	o-Cresol	1900	0.00	U	875	46	32-107
65794-96-9	MS	m,p-Cresols	1900	0.00	U	1540	81	33-115
67-72-1	MS	Hexachloroethane	1900	0.00	U	785	41	25-100
98-95-3	MS	Nitrobenzene	1900	0.00	U	1240	66	27-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	10-2436	Sample Type:	Matrix Spike
Client ID:	RE46-10-12972MS	Matrix:	S
Lab Sample ID:	1202074809	%Moisture:	12.3
Instrument:	MSD1.I	Analysis Date:	03/30/2010 18:15
Analyst:	AMY	Prep Batch ID:	966763
Inj. Vol:	.5 uL	Batch ID:	966766

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1900	0.00	U	1260	66	29-104
88-75-5	MS	2-Nitrophenol	1900	0.00	U	728	38	26-102
105-67-9	MS	2,4-Dimethylphenol	1900	0.00	U	1270	67	22-104
111-91-1	MS	bis(2-Chloroethoxy)methane	1900	0.00	U	694	37	27-101
120-83-2	MS	2,4-Dichlorophenol	1900	0.00	U	1060	56	26-103
65-85-0	MS	Benzoic acid	3790	0.00	U	2200	58	13-131
91-20-3	MS	Naphthalene	1900	0.00	U	817	43	23-103
106-47-8	MS	4-Chloroaniline	1900	0.00	U	1230	65	26-103
87-68-3	MS	Hexachlorobutadiene	1900	0.00	U	949	50	28-101
91-57-6	MS	2-Methylnaphthalene	1900	0.00	U	1230	65	27-106
77-47-4	MS	Hexachlorocyclopentadiene	1900	0.00	U	910	48	24-117
88-06-2	MS	2,4,6-Trichlorophenol	1900	0.00	U	1480	78	26-105
95-95-4	MS	2,4,5-Trichlorophenol	1900	0.00	U	1390	74	30-110
91-58-7	MS	2-Chloronaphthalene	1900	0.00	U	1120	59	28-102
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	1220	64	33-106
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	1470	77	33-116
131-11-3	MS	Dimethylphthalate	1900	0.00	U	1260	66	38-113
606-20-2	MS	2,6-Dinitrotoluene	1900	0.00	U	1210	64	29-107
208-96-8	MS	Acenaphthylene	1900	0.00	U	1250	66	25-108
51-28-5	MS	2,4-Dinitrophenol	1900	0.00	U	1150	61	14-102
132-64-9	MS	Dibenzofuran	1900	0.00	U	1280	68	35-112
84-66-2	MS	Diethylphthalate	1900	0.00	U	1390	73	36-122

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: RE46-10-12972MS
Lab Sample ID: 1202074809
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:15
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1900	0.00	U	1350	71	33-105
7005-72-3	MS	4-Chlorophenylphenylether	1900	0.00	U	1360	71	30-110
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1900	0.00	U	1120	59	26-97
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	1620	85	28-135
122-39-4	MS	Diphenylamine	1900	0.00	U	1220	65	33-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1350	71	31-113
101-55-3	MS	4-Bromophenylphenylether	1900	0.00	U	1200	63	31-109
118-74-1	MS	Hexachlorobenzene	1900	0.00	U	1120	59	37-99
85-01-8	MS	Phenanthrene	1900	0.00	U	1370	72	29-109
120-12-7	MS	Anthracene	1900	0.00	U	1320	70	19-118
84-74-2	MS	Di-n-butylphthalate	1900	0.00	U	1470	78	39-123
206-44-0	MS	Fluoranthene	1900	0.00	U	1330	70	33-114
85-68-7	MS	Butylbenzylphthalate	1900	0.00	U	1630	86	35-131
56-55-3	MS	Benzo(a)anthracene	1900	0.00	U	1340	71	30-111
91-94-1	MS	3,3'-Dichlorobenzidine	1900	0.00	U	1110	58	30-124
218-01-9	MS	Chrysene	1900	0.00	U	1340	71	32-108
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1900	0.00	U	1700	89	37-129
117-84-0	MS	Di-n-octylphthalate	1900	0.00	U	1800	95	31-143
205-99-2	MS	Benzo(b)fluoranthene	1900	0.00	U	1350	71	29-118
207-08-9	MS	Benzo(k)fluoranthene	1900	0.00	U	1410	74	32-118
50-32-8	MS	Benzo(a)pyrene	1900	0.00	U	1340	70	33-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1900	0.00	U	1230	65	29-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: RE46-10-12972MS
Lab Sample ID: 1202074809
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:15
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1900	0.00	U	1180	62	27-119
191-24-2	MS	Benzo(ghi)perylene	1900	0.00	U	1130	60	28-112
120-82-1	MS	1,2,4-Trichlorobenzene	1900	0.00	U	1040	55	28-99

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: RE46-10-12972MSD
Lab Sample ID: 1202074810
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:38
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	1900	0.00	U	981	52	27-98	13	0-30
108-95-2	MSD Phenol	1900	0.00	U	1130	60	33-94	6	0-30
95-57-8	MSD 2-Chlorophenol	1900	0.00	U	1200	63	29-96	4	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1900	0.00	U	780	41	27-96	8	0-30
621-64-7	MSD N-Nitrosodipropylamine	1900	0.00	U	1290	68	29-102	46 *	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1900	0.00	U	1280	68	29-110	5	0-30
83-32-9	MSD Acenaphthene	1900	0.00	U	1180	62	17-109	3	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1900	0.00	U	1290	68	33-107	6	0-30
100-02-7	MSD 4-Nitrophenol	1900	0.00	U	711	37	15-110	14	0-30
87-86-5	MSD Pentachlorophenol	1900	0.00	U	1090	57	23-110	1	0-30
129-00-0	MSD Pyrene	1900	0.00	U	1250	66	24-118	8	0-30
110-86-1	MSD Pyridine	1900	0.00	U	821	43	25-102	13	0-30
62-53-3	MSD Aniline	1900	0.00	U	1090	57	18-109	13	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1900	0.00	U	1070	57	29-96	8	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1900	0.00	U	746	39	26-97	8	0-30
100-51-6	MSD Benzyl alcohol	1900	0.00	U	571	30	19-112	11	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1900	0.00	U	848	45	30-97	8	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1900	0.00	U	1150	61	28-103	6	0-30
95-48-7	MSD o-Cresol	1900	0.00	U	1280	67	32-107	38 *	0-30
65794-96-9	MSD m,p-Cresols	1900	0.00	U	1230	65	33-115	22	0-30
67-72-1	MSD Hexachloroethane	1900	0.00	U	720	38	25-100	9	0-30
98-95-3	MSD Nitrobenzene	1900	0.00	U	1200	63	27-106	4	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: RE46-10-12972MSD
Lab Sample ID: 1202074810
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:38
Dilution: 1
Prep Batch ID: 966763
Batch ID: 966766

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1900	0.00	U	1190	63	29-104	6	0-30
88-75-5	MSD 2-Nitrophenol	1900	0.00	U	1200	63	26-102	49 *	0-30
105-67-9	MSD 2,4-Dimethylphenol	1900	0.00	U	1200	63	22-104	5	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1900	0.00	U	1140	60	27-101	49 *	0-30
120-83-2	MSD 2,4-Dichlorophenol	1900	0.00	U	1250	66	26-103	17	0-30
65-85-0	MSD Benzoic acid	3800	0.00	U	2620	69	13-131	18	0-30
91-20-3	MSD Naphthalene	1900	0.00	U	1070	56	23-103	27	0-30
106-47-8	MSD 4-Chloroaniline	1900	0.00	U	1110	58	26-103	10	0-30
87-68-3	MSD Hexachlorobutadiene	1900	0.00	U	888	47	28-101	7	0-30
91-57-6	MSD 2-Methylnaphthalene	1900	0.00	U	1160	61	27-106	6	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1900	0.00	U	797	42	24-117	13	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1900	0.00	U	1220	64	26-105	19	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1900	0.00	U	1330	70	30-110	4	0-30
91-58-7	MSD 2-Chloronaphthalene	1900	0.00	U	1150	60	28-102	2	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1900	0.00	U	1280	67	33-106	5	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1900	0.00	U	1280	67	33-116	14	0-30
131-11-3	MSD Dimethylphthalate	1900	0.00	U	1290	68	38-113	3	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1900	0.00	U	1230	65	29-107	2	0-30
208-96-8	MSD Acenaphthylene	1900	0.00	U	1270	67	25-108	2	0-30
51-28-5	MSD 2,4-Dinitrophenol	1900	0.00	U	1100	58	14-102	4	0-30
132-64-9	MSD Dibenzofuran	1900	0.00	U	1250	66	35-112	2	0-30
84-66-2	MSD Diethylphthalate	1900	0.00	U	1310	69	36-122	6	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: RE46-10-12972MSD
Lab Sample ID: 1202074810
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:38
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1900	0.00	U	1240	65	33-105	9	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1900	0.00	U	1280	67	30-110	6	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1900	0.00	U	1080	57	26-97	4	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1900	0.00	U	1330	70	28-135	19	0-30
122-39-4	MSD	Diphenylamine	1900	0.00	U	1200	63	33-109	2	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1900	0.00	U	1380	73	31-113	2	0-30
101-55-3	MSD	4-Bromophenylphenylether	1900	0.00	U	1160	61	31-109	4	0-30
118-74-1	MSD	Hexachlorobenzene	1900	0.00	U	1040	55	37-99	8	0-30
85-01-8	MSD	Phenanthrene	1900	0.00	U	1240	65	29-109	10	0-30
120-12-7	MSD	Anthracene	1900	0.00	U	1210	64	19-118	9	0-30
84-74-2	MSD	Di-n-butylphthalate	1900	0.00	U	1340	70	39-123	10	0-30
206-44-0	MSD	Fluoranthene	1900	0.00	U	1210	63	33-114	10	0-30
85-68-7	MSD	Butylbenzylphthalate	1900	0.00	U	1490	78	35-131	9	0-30
56-55-3	MSD	Benzo(a)anthracene	1900	0.00	U	1240	65	30-111	8	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1900	0.00	U	958	50	30-124	14	0-30
218-01-9	MSD	Chrysene	1900	0.00	U	1250	66	32-108	7	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1900	0.00	U	1530	80	37-129	11	0-30
117-84-0	MSD	Di-n-octylphthalate	1900	0.00	U	1640	87	31-143	9	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1900	0.00	U	1200	63	29-118	12	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1900	0.00	U	1290	68	32-118	9	0-30
50-32-8	MSD	Benzo(a)pyrene	1900	0.00	U	1240	65	33-115	8	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1900	0.00	U	1100	58	29-114	11	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: RE46-10-12972MSD
Lab Sample ID: 1202074810
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 12.3
Analysis Date: 03/30/2010 18:38
Prep Batch ID: 966763
Batch ID: 966766
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD	Dibenzo(a,h)anthracene	1900	0.00	U	1030	54	27-119	14	0-30
191-24-2	MSD	Benzo(ghi)perylene	1900	0.00	U	1010	53	28-112	11	0-30
120-82-1	MSD	1,2,4-Trichlorobenzene	1900	0.00	U	977	51	28-99	6	0-30

Method Blank Summary

SDG Number:	10-2436	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 966763	Instrument ID:	MSD1.I	Data File:	s1c2908-1.d
Lab Sample ID:	1202074807	Prep Date:	03/19/2010 11:31	Analyzed:	03/29/10 14:58
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 966763	1202074808	s1c2909-1.d	03/29/10	1522
02	RE46-10-12972	249335002	s1c3021.d	03/30/10	1751
03	RE46-10-12972MS	1202074809	s1c3022.d	03/30/10	1815
04	RE46-10-12972MSD	1202074810	s1c3023.d	03/30/10	1838
05	RE46-10-13003	249335003	s1c3024.d	03/30/10	1902
06	RE46-10-12967	249335004	s1c3025.d	03/30/10	1926
07	RE46-10-12971	249335005	s1c3026.d	03/30/10	1950
08	RE46-10-12968	249335006	s1c3027.d	03/30/10	2014
09	RE46-10-12969	249335007	s1c3028.d	03/30/10	2038
10	RE46-10-12970	249335008	s1c3029.d	03/30/10	2101

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2436

Instrument ID: MSD1.I **Injection Date/Time:** 15-MAR-10 16:24

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s031510a.b/s1c1513.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.5
68	Less than 2% of mass 69	1.3
69	Mass 69 Relative Abundance	37.7
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	47.1
197	0 - 1% of mass 198	0.9
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	27.8
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	76.2
442	Greater than 40% of mass 198	94.4
443	17 - 23% of mass 442	19.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100309-08	s1c1515.d	15-MAR-10 17:03
MEGA040	WBN100309-05.1	s1c1516.d	15-MAR-10 17:31
MEGA010	WBN100309-07	s1c1517.d	15-MAR-10 17:59
MEGA020	WBN100309-06	s1c1518.d	15-MAR-10 18:28
MEGA050	WBN100309-04	s1c1519.d	15-MAR-10 18:57
MEGA080	WBN100309-03	s1c1520.d	15-MAR-10 19:26
MEGA100	WBN100309-02	s1c1521.d	15-MAR-10 19:55
MEGA120	WBN100309-01	s1c1522.d	15-MAR-10 20:24
AP010	WBN100312-01	s1c1523.d	15-MAR-10 20:53
AP020	WBN100312-02	s1c1524.d	15-MAR-10 21:17
AP040	WBN100312-03.1	s1c1525.d	15-MAR-10 21:40
AP050	WBN100312-04	s1c1526.d	15-MAR-10 22:04
AP080	WBN100312-05	s1c1527.d	15-MAR-10 22:27
AP100	WBN100312-06	s1c1528.d	15-MAR-10 22:50
AP120	WBN100312-07	s1c1529.d	15-MAR-10 23:14
MEGAICV	WBN100309-09.1	s1c1531-C.d	16-MAR-10 00:06

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2436

Instrument ID: MSD1.I **Injection Date/Time:** 15-MAR-10 16:24

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s031510a.b/s1c1513.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.5
68	Less than 2% of mass 69	1.3
69	Mass 69 Relative Abundance	37.7
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	47.1
197	0 - 1% of mass 198	0.9
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	27.8
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	76.2
442	Greater than 40% of mass 198	94.4
443	17 - 23% of mass 442	19.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
APICV	WBN100312-08.1	s1c1533-C.d	16-MAR-10 00:58

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2436

Instrument ID: MSD1.I **Injection Date/Time:** 29-MAR-10 10:02

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s032910.b/s1c2902.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	44.7
68	Less than 2% of mass 69	0.2
69	Mass 69 Relative Abundance	40.4
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	48
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.5
275	10 - 30% of mass 198	26.5
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	77.5
442	Greater than 40% of mass 198	82
443	17 - 23% of mass 442	19.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-05.4	s1c2903.d	29-MAR-10 10:17
APCVS	WBN100312-08.3	s1c2904.d	29-MAR-10 11:24
SBLK01	1202074807	s1c2908-1.d	29-MAR-10 14:58
SBLK01LCS	1202074808	s1c2909-1.d	29-MAR-10 15:22

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2436

Instrument ID: MSD1.I **Injection Date/Time:** 30-MAR-10 09:49

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s033010.b/s1c3002.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	43.3
68	Less than 2% of mass 69	0.1
69	Mass 69 Relative Abundance	39.9
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	47.7
197	0 - 1% of mass 198	0.4
199	5 - 9% of mass 198	6.5
275	10 - 30% of mass 198	26.5
365	Greater than 1% of mass 198	2.7
441	Present, but less than mass 443	78.2
442	Greater than 40% of mass 198	85.5
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100309-09.2	s1c3005.d	30-MAR-10 11:16
APCVS	WBN100312-08.3	s1c3006.d	30-MAR-10 11:52
RE46-10-12972	249335002	s1c3021.d	30-MAR-10 17:51
RE46-10-12972MS	1202074809	s1c3022.d	30-MAR-10 18:15
RE46-10-12972MSD	1202074810	s1c3023.d	30-MAR-10 18:38
RE46-10-13003	249335003	s1c3024.d	30-MAR-10 19:02
RE46-10-12967	249335004	s1c3025.d	30-MAR-10 19:26
RE46-10-12971	249335005	s1c3026.d	30-MAR-10 19:50
RE46-10-12968	249335006	s1c3027.d	30-MAR-10 20:14
RE46-10-12969	249335007	s1c3028.d	30-MAR-10 20:38
RE46-10-12970	249335008	s1c3029.d	30-MAR-10 21:01

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2436

Instrument: MSD1.I

STD Analysis Time: 29-MAR-10 10:17

GC Column: J&W DB-5MS

Data File: s1c2903.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	393267		3.5	1655594		4.35	825625		5.59	1464986		6.6	1271298		8.17	1100996		9.34
Upper Limit	786534		4	3311188		4.85	1651250		6.09	2929972		7.1	2542596		8.67	2201992		9.84
Lower Limit	196634		3	827797		3.85	412813		5.09	732493		6.1	635649		7.67	550498		8.84
Sample ID																		
BLK01	392001		3.5	1525914		4.35	782209		5.59	1384440		6.6	1166426		8.17	972235		9.34
BLK01LCS	373039		3.5	1576206		4.35	799705		5.59	1430652		6.6	1224060		8.17	1064475		9.35

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: MSD1.I

GC Column: J&W DB-5MS

Client SDG: 10-2436

STD Analysis Time: 30-MAR-10 11:16

Data File: s1c3005.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	424150		3.49	1781069		4.34	897037		5.57	1572324		6.59	1234792		8.16	948754		9.31
Upper Limit	848300		3.99	3562138		4.84	1794074		6.07	3144648		7.09	2469584		8.66	1897508		9.81
Lower Limit	212075		2.99	890535		3.84	448519		5.07	786162		6.09	617396		7.66	474377		8.81
Sample ID																		
RE46-10-12972	467999		3.49	1748123		4.33	932862		5.57	1688689		6.59	1075415		8.15	659354		9.3
RE46-10-12972MS	500002		3.48	2103003		4.33	905835		5.57	1742852		6.59	1350294		8.16	924358		9.32
RE46-10-12972MSD	559948		3.49	2338516		4.34	1146122		5.57	2055958		6.59	1554812		8.16	1076826		9.31
RE46-10-13003	528904		3.49	2020670		4.33	1072681		5.57	1931481		6.59	1398922		8.15	950935		9.3
RE46-10-12967	489963		3.48	1870721		4.33	999453		5.57	1790219		6.59	1239991		8.15	797909		9.3
RE46-10-12971	520635		3.49	1976087		4.33	1045449		5.57	1833218		6.59	1131204		8.15	643855		9.3
RE46-10-12968	422565		3.48	1638209		4.33	869053		5.57	1557696		6.59	1062734		8.15	655828		9.3
RE46-10-12969	517110		3.49	1976341		4.33	1048898		5.57	1906671		6.59	1326118		8.15	852563		9.31
RE46-10-12970	557754		3.49	2079085		4.33	1110329		5.57	1909566		6.59	1107765		8.16	571293		9.31

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12967**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 19:26**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3025.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	420	ug/kg	84.1	420
108-95-2	Phenol	U	420	ug/kg	84.1	420
95-57-8	2-Chlorophenol	U	420	ug/kg	84.1	420
106-46-7	1,4-Dichlorobenzene	U	420	ug/kg	84.1	420
621-64-7	N-Nitrosodipropylamine	U	420	ug/kg	84.1	420
59-50-7	4-Chloro-3-methylphenol	U	420	ug/kg	84.1	420
83-32-9	Acenaphthene	U	42.0	ug/kg	13.9	42.0
121-14-2	2,4-Dinitrotoluene	U	420	ug/kg	42.0	420
100-02-7	4-Nitrophenol	U	420	ug/kg	139	420
87-86-5	Pentachlorophenol	U	420	ug/kg	105	420
129-00-0	Pyrene		267	ug/kg	12.6	42.0
110-86-1	Pyridine	U	420	ug/kg	84.1	420
62-53-3	Aniline	U	420	ug/kg	126	420
111-44-4	bis(2-Chloroethyl) ether	U	420	ug/kg	84.1	420
541-73-1	1,3-Dichlorobenzene	U	420	ug/kg	84.1	420
100-51-6	Benzyl alcohol	U	420	ug/kg	126	420
95-50-1	1,2-Dichlorobenzene	U	420	ug/kg	84.1	420
108-60-1	bis(2-Chloroisopropyl)ether	U	420	ug/kg	84.1	420
95-48-7	o-Cresol	U	420	ug/kg	84.1	420
65794-96-9	m,p-Cresols	U	420	ug/kg	126	420
67-72-1	Hexachloroethane	U	420	ug/kg	84.1	420
98-95-3	Nitrobenzene	U	420	ug/kg	84.1	420
78-59-1	Isophorone	U	420	ug/kg	84.1	420
88-75-5	2-Nitrophenol	U	420	ug/kg	84.1	420
105-67-9	2,4-Dimethylphenol	U	420	ug/kg	147	420
111-91-1	bis(2-Chloroethoxy)methane	U	420	ug/kg	84.1	420
120-83-2	2,4-Dichlorophenol	U	420	ug/kg	84.1	420
65-85-0	Benzoic acid	U	841	ug/kg	210	841
91-20-3	Naphthalene	U	42.0	ug/kg	12.6	42.0
106-47-8	4-Chloroaniline	U	420	ug/kg	84.1	420
87-68-3	Hexachlorobutadiene	U	420	ug/kg	84.1	420
91-57-6	2-Methylnaphthalene	U	42.0	ug/kg	8.41	42.0
77-47-4	Hexachlorocyclopentadiene	U	420	ug/kg	84.1	420
88-06-2	2,4,6-Trichlorophenol	U	420	ug/kg	84.1	420
95-95-4	2,4,5-Trichlorophenol	U	420	ug/kg	84.1	420
91-58-7	2-Chloronaphthalene	U	42.0	ug/kg	13.9	42.0
88-74-4	2-Nitroaniline	U	420	ug/kg	84.1	420
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	420	ug/kg	84.1	420

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12967**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 19:26**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3025.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	420	ug/kg	84.1	420
606-20-2	2,6-Dinitrotoluene	U	420	ug/kg	42.0	420
208-96-8	Acenaphthylene	U	42.0	ug/kg	12.6	42.0
51-28-5	2,4-Dinitrophenol	U	841	ug/kg	160	841
132-64-9	Dibenzofuran	U	420	ug/kg	84.1	420
84-66-2	Diethylphthalate	U	420	ug/kg	84.1	420
86-73-7	Fluorene	U	42.0	ug/kg	12.6	42.0
7005-72-3	4-Chlorophenylphenylether	U	420	ug/kg	84.1	420
534-52-1	2-Methyl-4,6-dinitrophenol	U	420	ug/kg	84.1	420
100-01-6	4-Nitroaniline	U	420	ug/kg	126	420
	p-Nitroaniline					
122-39-4	Diphenylamine	U	420	ug/kg	84.1	420
122-66-7	Azobenzene	U	420	ug/kg	84.1	420
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	420	ug/kg	84.1	420
118-74-1	Hexachlorobenzene	U	420	ug/kg	84.1	420
85-01-8	Phenanthrene		109	ug/kg	12.6	42.0
120-12-7	Anthracene		73.0	ug/kg	8.41	42.0
84-74-2	Di-n-butylphthalate	U	420	ug/kg	84.1	420
206-44-0	Fluoranthene		320	ug/kg	12.6	42.0
85-68-7	Butylbenzylphthalate	U	420	ug/kg	84.1	420
56-55-3	Benzo(a)anthracene		145	ug/kg	12.6	42.0
91-94-1	3,3'-Dichlorobenzidine	U	420	ug/kg	126	420
218-01-9	Chrysene		200	ug/kg	12.6	42.0
117-81-7	bis(2-Ethylhexyl)phthalate	J	211	ug/kg	84.1	420
117-84-0	Di-n-octylphthalate	U	420	ug/kg	84.1	420
205-99-2	Benzo(b)fluoranthene		170	ug/kg	12.6	42.0
207-08-9	Benzo(k)fluoranthene	U	42.0	ug/kg	12.6	42.0
50-32-8	Benzo(a)pyrene		79.9	ug/kg	12.6	42.0
193-39-5	Indeno(1,2,3-cd)pyrene	J	34.2	ug/kg	12.6	42.0
53-70-3	Dibenzo(a,h)anthracene	U	42.0	ug/kg	12.6	42.0
191-24-2	Benzo(ghi)perylene	J	39.7	ug/kg	12.6	42.0
120-82-1	1,2,4-Trichlorobenzene	U	420	ug/kg	84.1	420

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	340	ug/kg		JA
544-76-3	Hexadecane	8.89	363	ug/kg	94	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12967**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 19:26**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3025.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	11.06	286	ug/kg		J
	Unknown	11.18	169	ug/kg		J
	Unknown	11.48	454	ug/kg		J
1058-61-3	Stigmast-4-en-3-one	11.86	430	ug/kg	95	NJ
	Unknown	11.93	209	ug/kg		J
	Unknown	12.8	1240	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3025.d
Lab Smp Id: 249335004 Client Smp ID: RE46-10-12967
Inj Date : 30-MAR-2010 19:26
Operator : AMY Inst ID: MSD1.i
Smp Info : |249335004|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	20.72070	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.481	3.487	(1.000)	489963	40.0000	
* 29 Naphthalene-d8	136	4.334	4.339	(1.000)	1870721	40.0000	
* 46 Acenaphthene-d10	164	5.569	5.575	(1.000)	999453	40.0000	
* 67 Phenanthrene-d10	188	6.587	6.586	(1.000)	1790219	40.0000	
* 91 Chrysene-d12	240	8.151	8.157	(1.000)	1239991	40.0000	
* 98 Perylene-d12	264	9.304	9.310	(1.000)	797909	40.0000	
$ 3 2-Fluorophenol	112	2.716	2.704	(0.780)	517612	41.0260	1720
$ 5 Phenol-d5	99	3.222	3.228	(0.926)	643001	41.8473	1760
$ 20 Nitrobenzene-d5	82	3.840	3.845	(0.886)	266337	23.2128	976
$ 39 2-Fluorobiphenyl	172	5.075	5.075	(0.911)	599348	21.7136	913
$ 60 2,4,6-Tribromophenol	329	6.122	6.128	(1.099)	150319	45.8752	1930
$ 81 p-Terphenyl-d14	244	7.510	7.510	(0.921)	624019	30.1855	1270

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.445	7.451	(0.913)	223684	6.35706	267
68 Phenanthrene	178	6.598	6.604	(1.002)	100263	2.59203	109
69 Anthracene	178	6.628	6.633	(1.006)	65964	1.73652	73.0
76 Fluoranthene	202	7.310	7.316	(1.110)	302383	7.60628	320
89 Benzo(a)anthracene	228	8.139	8.145	(0.999)	100359	3.44318	145
92 Chrysene	228	8.163	8.175	(1.001)	129562	4.75681	200
93 bis(2-Ethylhexyl)phthalate	149	8.075	8.080	(0.991)	99743	5.01134	211(a)
95 Benzo(b)fluoranthene	252	8.939	8.951	(0.961)	88525	4.03423	170
97 Benzo(a)pyrene	252	9.245	9.257	(0.994)	33375	1.89951	79.9
99 Indeno(1,2,3-cd)pyrene	276	10.533	10.551	(1.132)	12144	0.81291	34.2(a)
101 Benzo(ghi)perylene	276	10.927	10.933	(1.174)	11435	0.94375	39.7(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s1c3025.d
Report Date: 03/30/2010 20:57
Lab. ID: 249335004 SampleType: SAMPLE
Injection Date: 30-MAR-2010 19:26
Operator: AMY Instrument: MSD1.i
Sample Info: |249335004|966766|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2436
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	31386	3.22	3.28	80-120	100	( )
93	1213	3.26	3.28	200-260	4	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	37476	3.84	3.74	80-120	100	(T)
42	24530	3.83	3.74	49-109	65	(T)
41 m-Nitroaniline			CAS#: 99-09-2			
138	213	5.57	5.54	80-120	100	( )
92	5048	5.57	5.54	73-133	2368	(Q)
108	18629	5.57	5.54	0- 41	8737	(Q)
43 Dimethylphthalate			CAS#: 131-11-3			
163	180188	5.57	5.36	80-120	100	(T)
164	999453	5.57	5.36	0- 40	555	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	127159	5.57	5.41	80-120	100	(T)
63	2180	5.57	5.41	51-111	2	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	126986	5.57	5.70	80-120	100	(T)
89	1733	5.57	5.70	40-100	1	(QT)
63	2180	5.57	5.70	20- 80	2	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	9989	6.12	5.96	80-120	100	(T)
165	10739	6.12	5.96	62-122	108	(T)
167	3508	6.12	5.96	0- 44	35	(T)
56 p-Nitroaniline			CAS#: 100-01-6			
138	219	5.98	5.97	80-120	100	( )
108	294	5.97	5.97	37- 97	134	(Q)
92	190	5.98	5.97	12- 72	87	(Q)
68 Phenanthrene			CAS#: 85-01-8			
178	100263	6.60	6.60	80-120	100	( )
179	16291	6.60	6.60	0- 45	16	( )
176	16272	6.60	6.60	0- 48	16	( )
69 Anthracene			CAS#: 120-12-7			
178	65964	6.63	6.63	80-120	100	( )
179	10852	6.63	6.63	0- 45	16	( )
176	10245	6.63	6.63	0- 48	16	( )
76 Fluoranthene			CAS#: 206-44-0			
202	302383	7.31	7.32	80-120	100	( )
203	52477	7.31	7.32	0- 47	17	( )
101	42850	7.31	7.32	0- 45	14	( )
79 Pyrene			CAS#: 129-00-0			
202	223684	7.45	7.45	80-120	100	( )
200	43601	7.45	7.45	0- 49	19	( )
101	39780	7.45	7.45	0- 48	18	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	100359	8.14	8.15	80-120	100	( )
226	25644	8.14	8.15	0- 55	26	( )
229	29250	8.14	8.15	0- 49	29	( )
92 Chrysene			CAS#: 218-01-9			
228	129562	8.16	8.17	80-120	100	( )
229	29756	8.16	8.17	0- 49	23	( )
226	35800	8.16	8.17	0- 58	28	( )
93 bis(2-Ethylhexyl)phthalate			CAS#: 117-81-7			
149	99743	8.07	8.08	80-120	100	( )
167	27772	8.07	8.08	0- 59	28	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	88525	8.94	8.95	80-120	100	( )
253	19234	8.94	8.95	0- 52	22	( )
125	16791	8.94	8.95	0- 45	19	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	88627	8.94	8.97	80-120	100	( )
253	20028	8.94	8.97	0- 51	23	( )
125	16849	8.94	8.97	0- 44	19	( )
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	33375	9.25	9.26	80-120	100	( )
253	8310	9.25	9.26	0- 51	25	( )
125	5688	9.25	9.26	0- 45	17	( )
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	12144	10.53	10.55	80-120	100	( )
138	3353	10.54	10.55	10- 70	28	( )
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	4107	10.53	10.56	80-120	100	( )
139	1453	10.54	10.55	0- 53	35	( )
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	11435	10.93	10.93	80-120	100	( )
138	3902	10.92	10.93	1- 61	34	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3025.d
Lab Smp Id: 249335004 Client Smp ID: RE46-10-12967
Inj Date : 30-MAR-2010 19:26
Operator : AMY Inst ID: MSD1.i
Smp Info : |249335004|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	20.72070	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.481	2965416	40.000
* 98 Perylene-d12	9.304	2198568	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.557	600354	8.09807807	340	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Hexadecane				CAS #: 544-76-3			
8.886	474390	8.63088893	363	94	NIST05.L	76090	98
Unknown				CAS #:			
11.063	374514	6.81377631	286	0		0	98
Unknown				CAS #:			
11.180	221376	4.02764181	169	0		0	98
Unknown				CAS #:			
11.480	592929	10.7875426	454	0		0	98
Stigmast-4-en-3-one				CAS #: 1058-61-3			
11.857	561554	10.2167219	430	95	NIST05.L	173936	98
Unknown				CAS #:			
11.933	273086	4.96842805	209	0		0	98
Unknown				CAS #:			
12.798	1617376	29.4259810	1240	0		0	98

Data File: /chem/HSD1.i/s033010.b/s1c3025.d
Date : 30-MAR-2010 19:26
Client ID: RE46-10-12967
Sample Info: 1249335004|966766|1|SVH|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: HSD1.i
Operator: AMY
Column diameter: 0.20

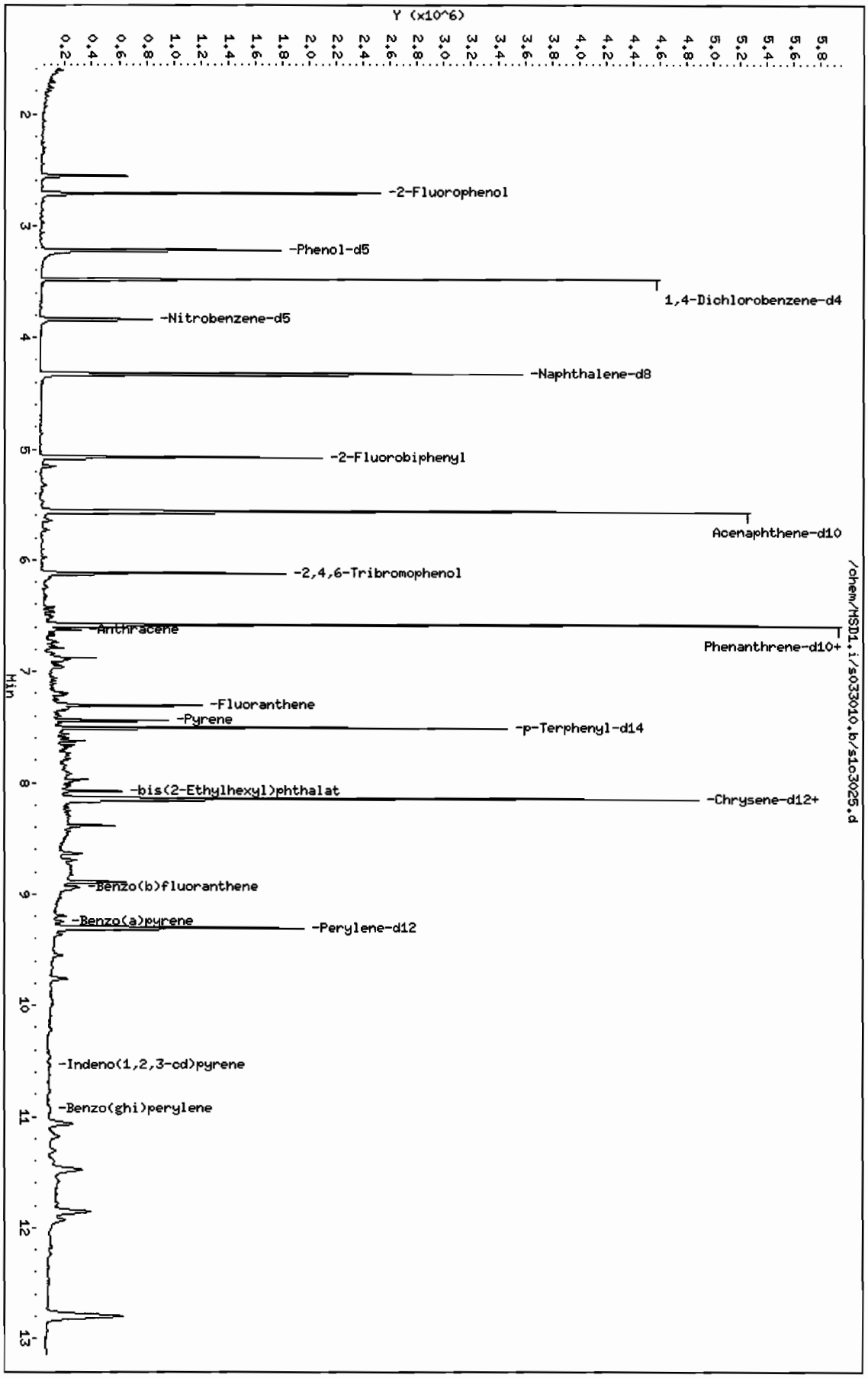

Page 1

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967

Instrument: MSD1.i

Sample Info: |2493350041966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 267 ug/Kg

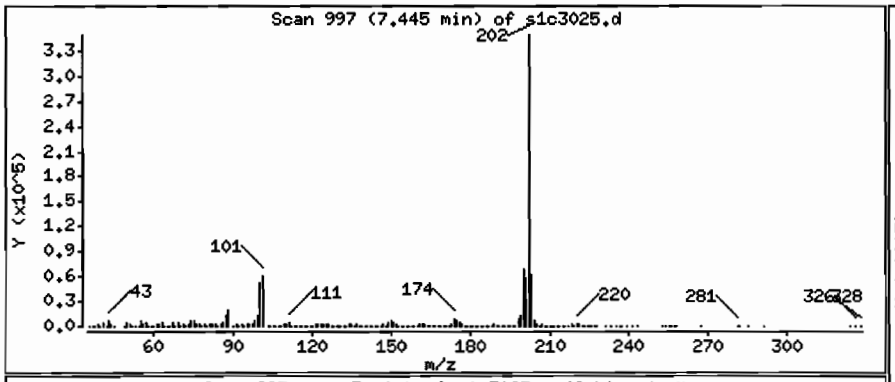

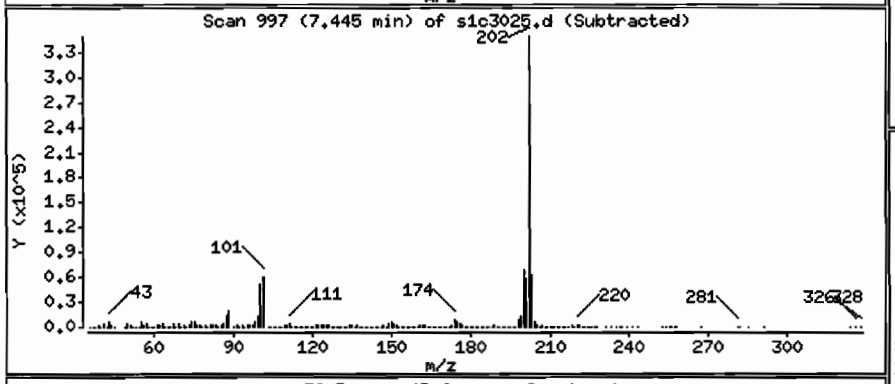

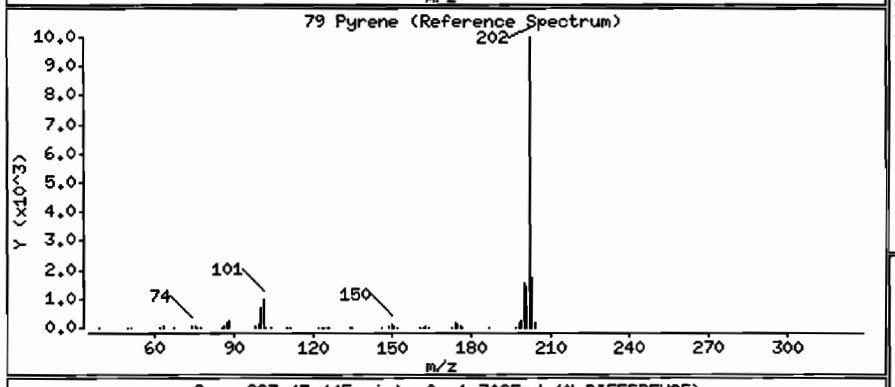

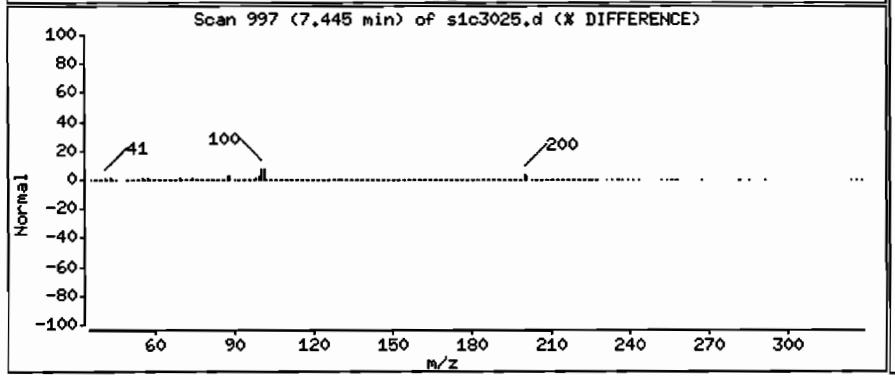

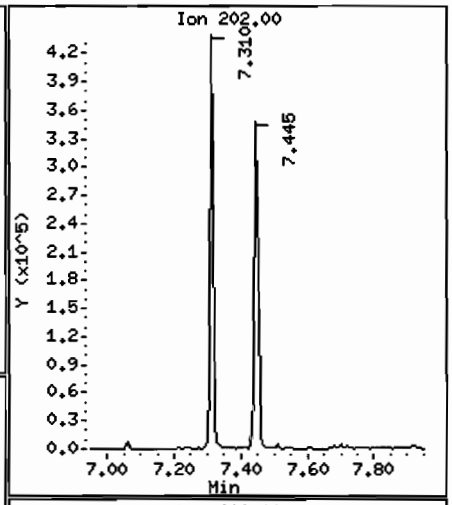

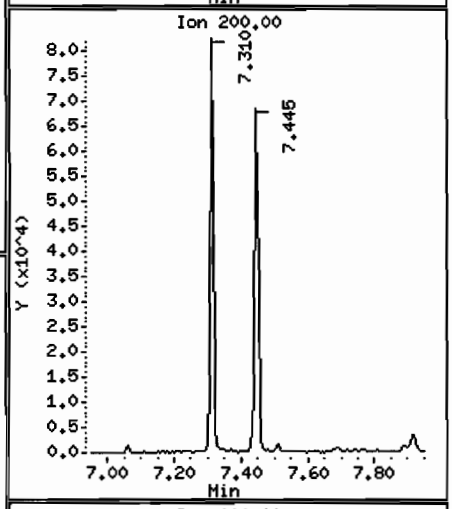

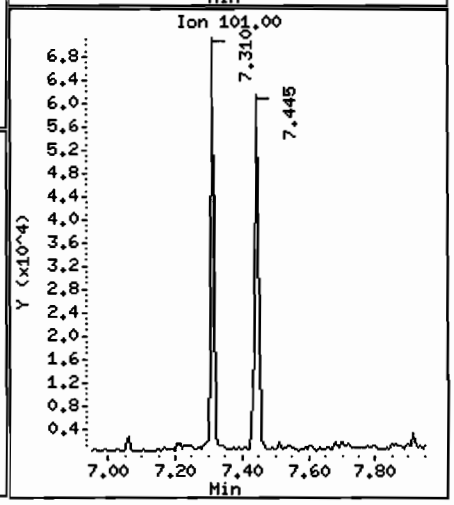

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967

Instrument: MSD1.i

Sample Info: 1249335004|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 109 ug/Kg

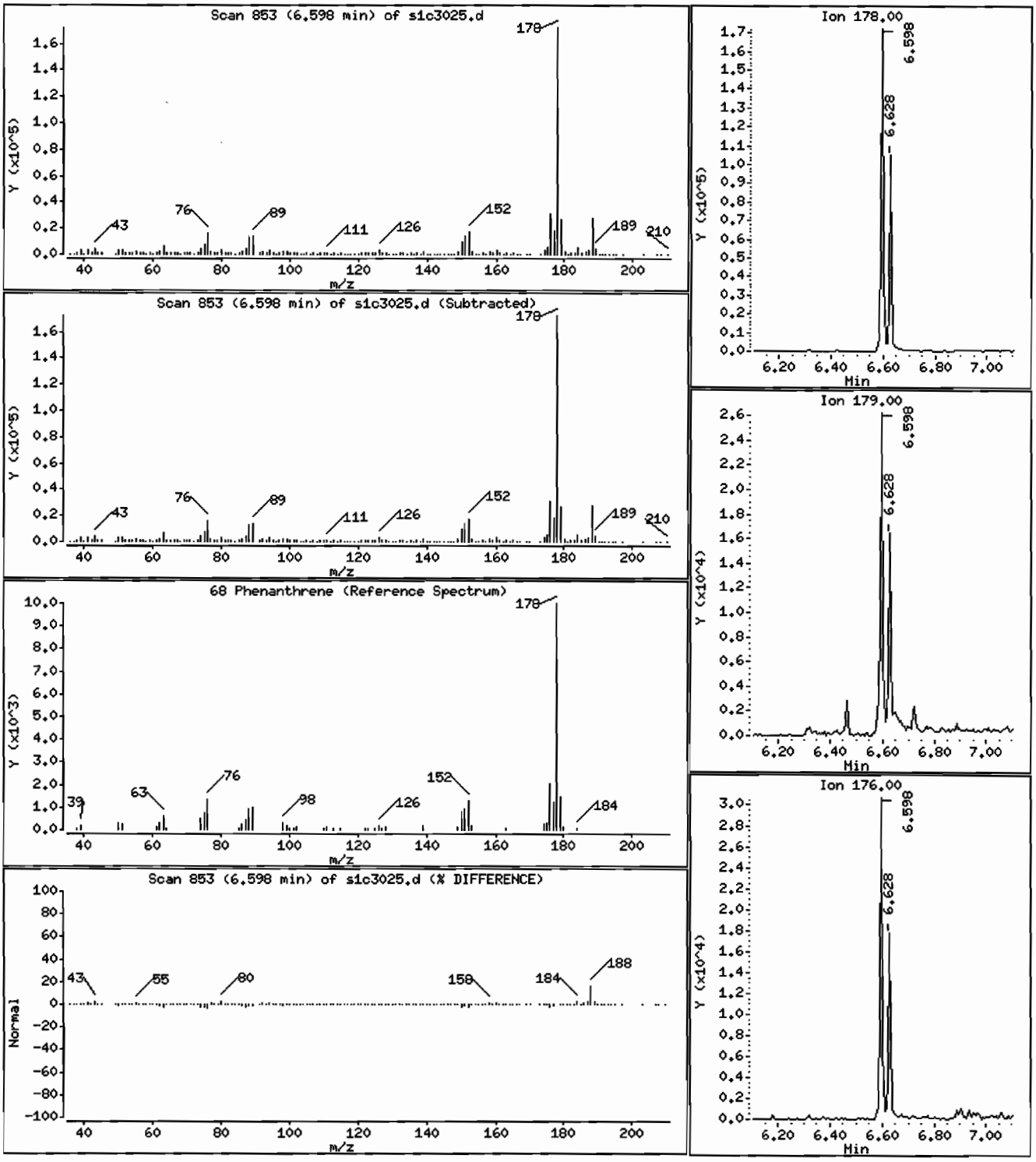

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967

Instrument: MSD1.i

Sample Info: |249335004|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 73.0 ug/Kg

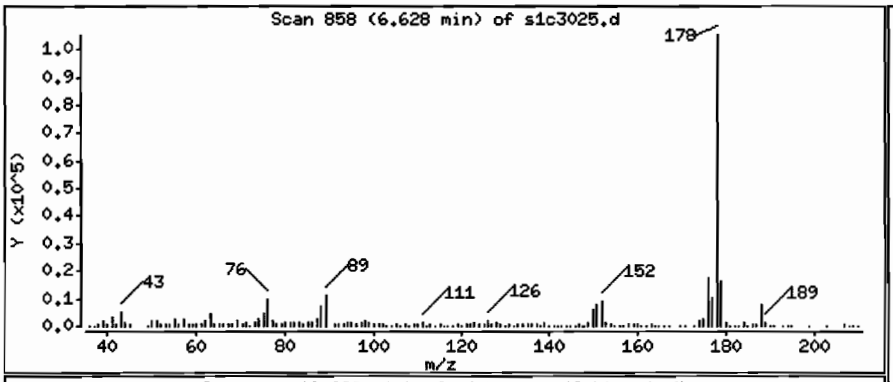

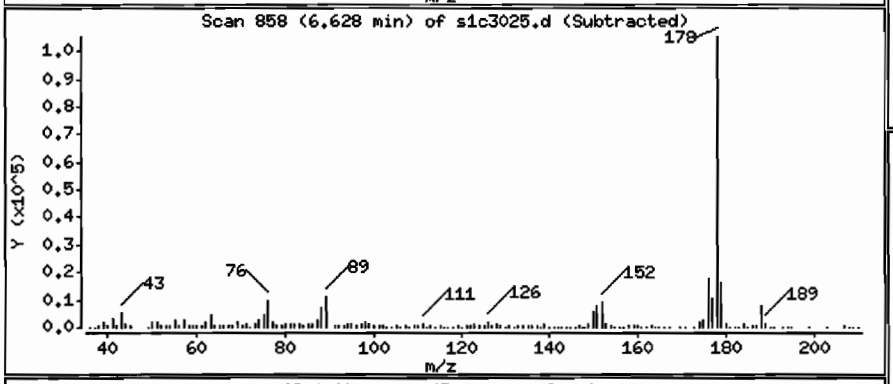

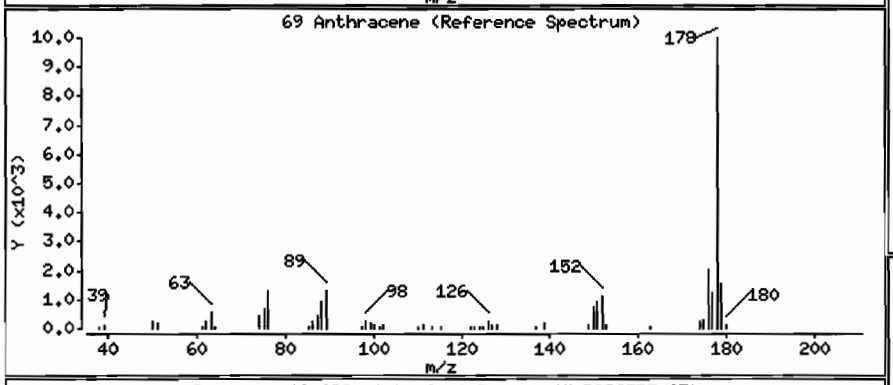

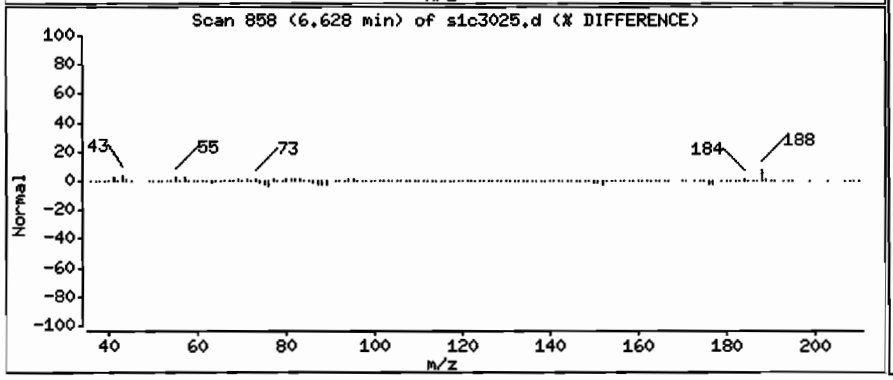

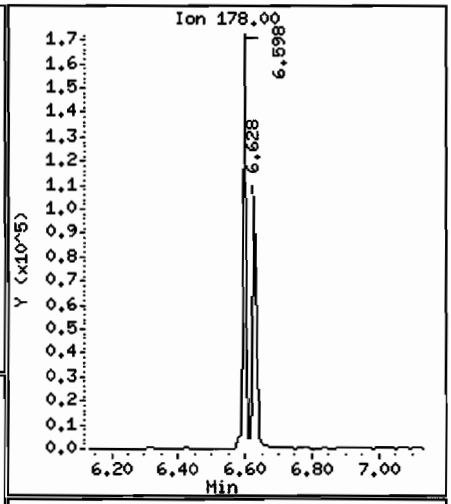

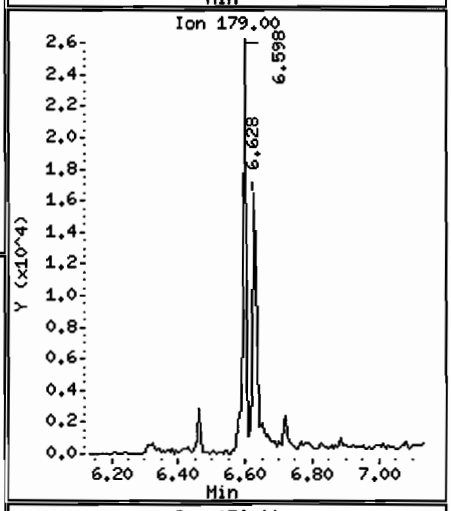

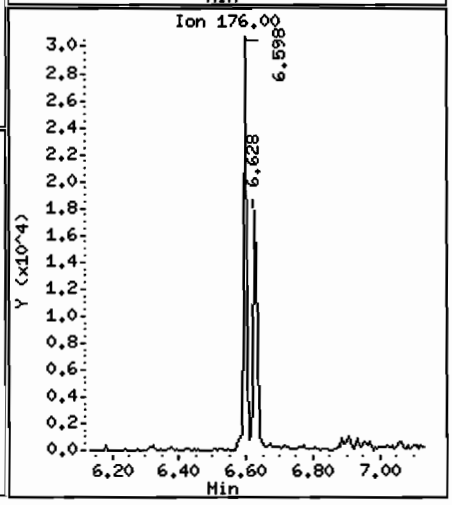

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967

Instrument: MSD1.i

Sample Info: 1249335004|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 320 ug/Kg

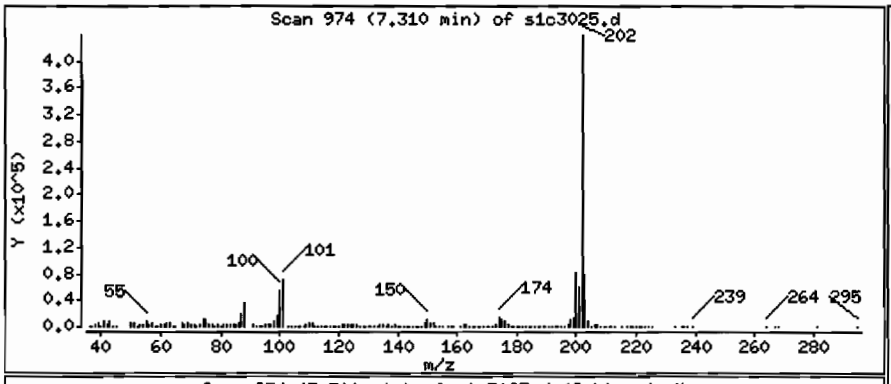

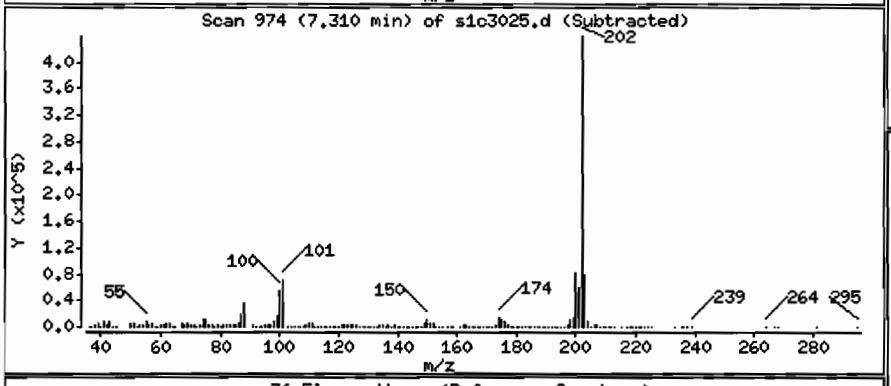

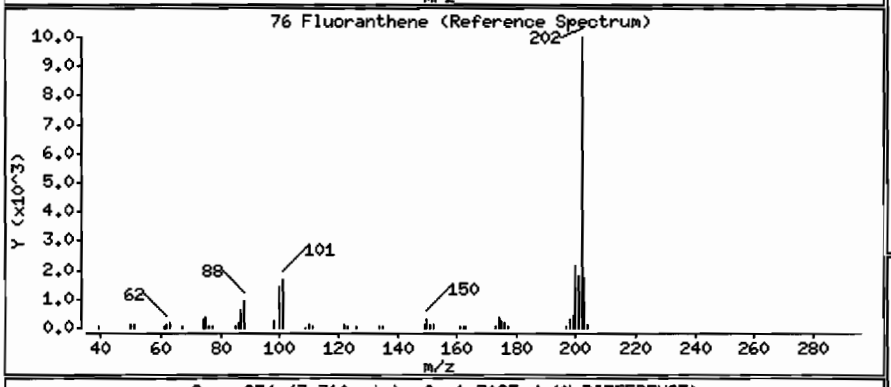

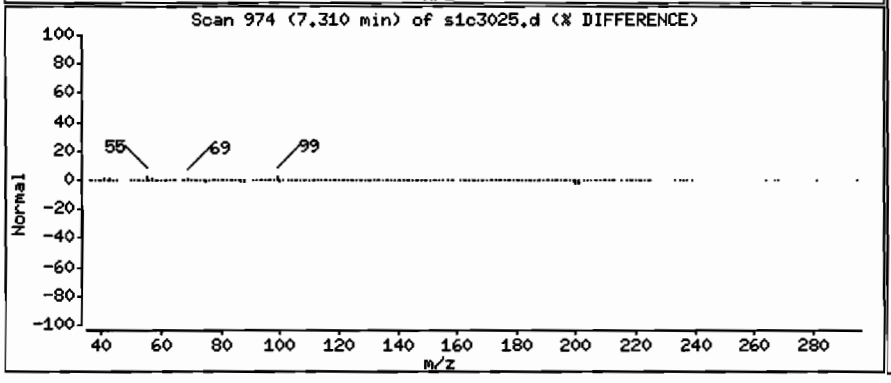

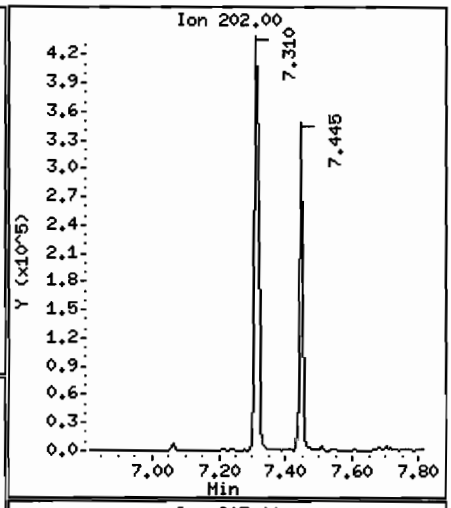

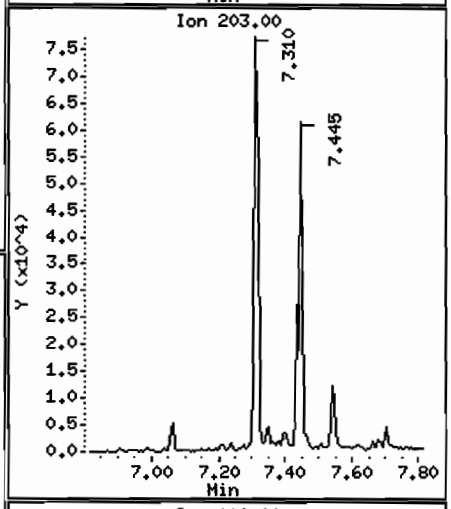

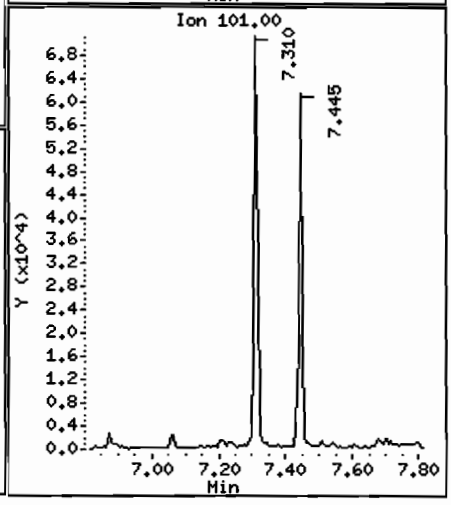

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967

Instrument: MSD1.i

Sample Info: 1249335004196676611SVMI1ILANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 145 ug/Kg

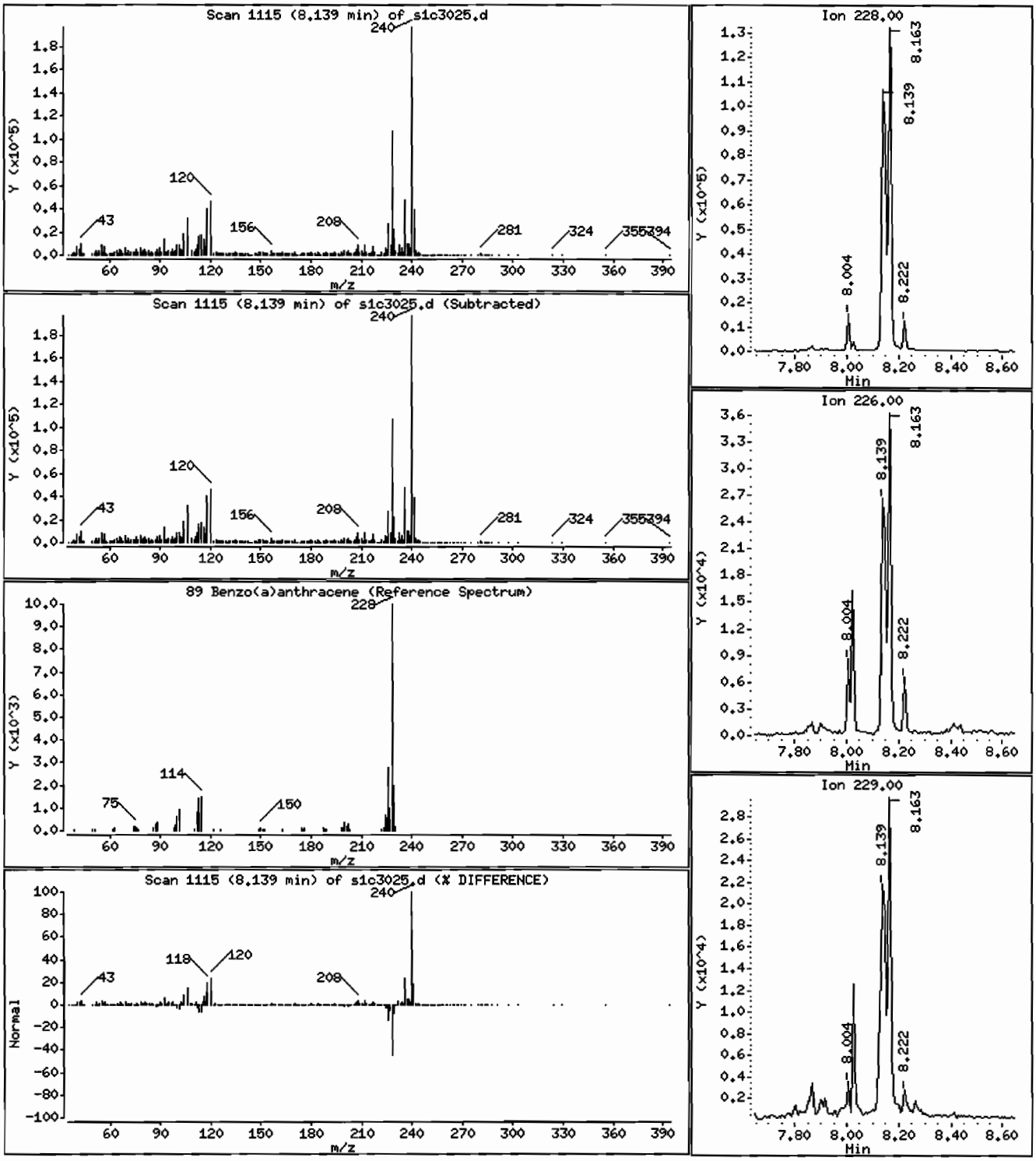

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967

Instrument: MSD1.i

Sample Info: |2493350041966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 200 ug/Kg

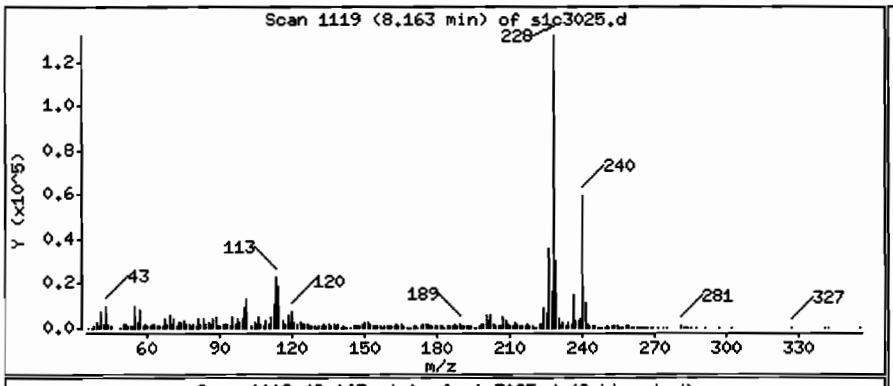

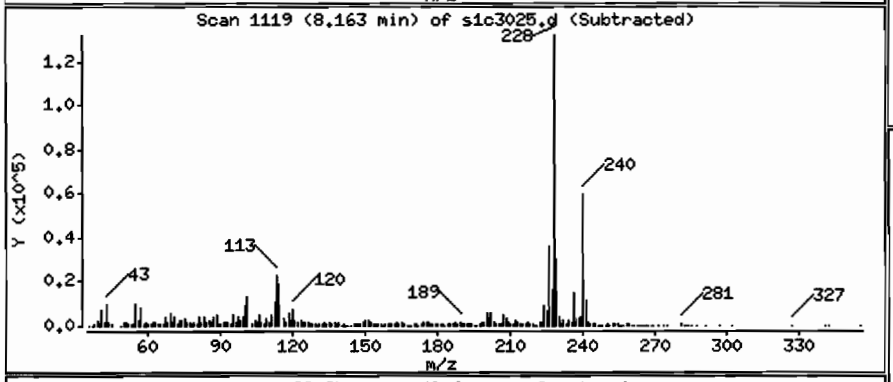

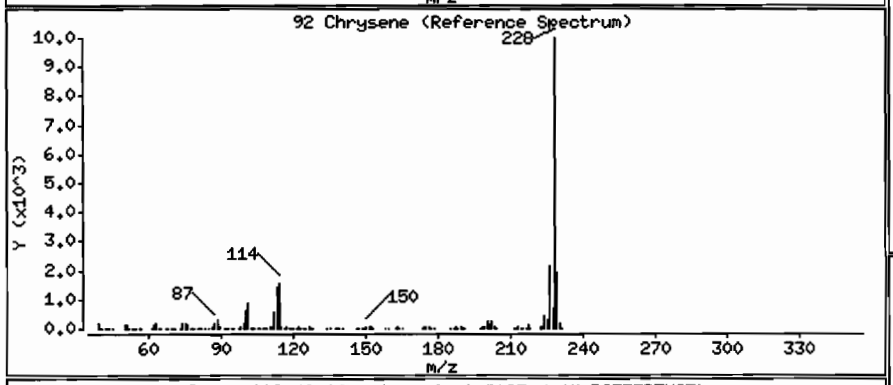

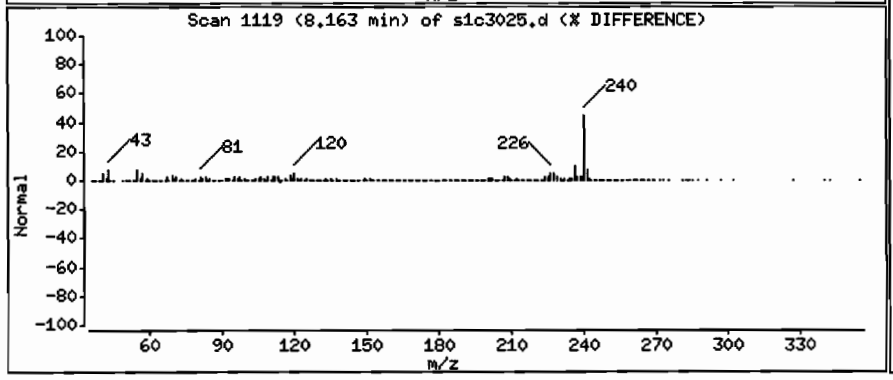

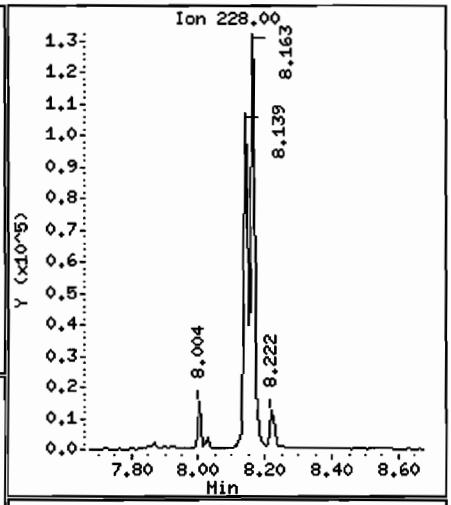

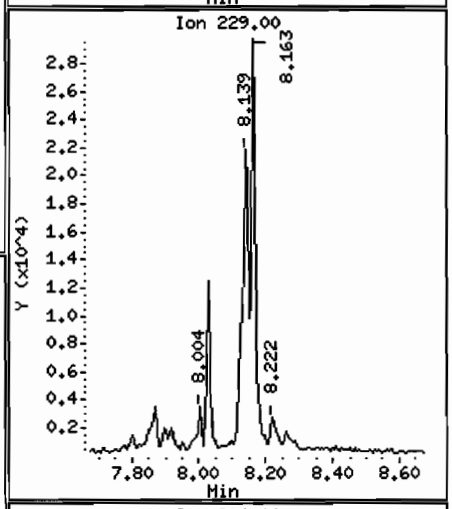

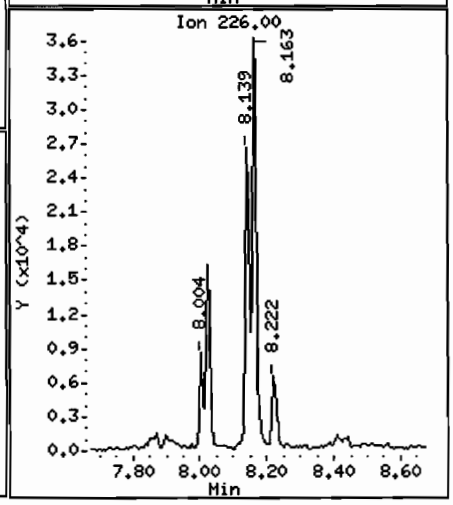

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967 Instrument: MSD1.i

Sample Info: 1249335004|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate Concentration: 211 ug/Kg

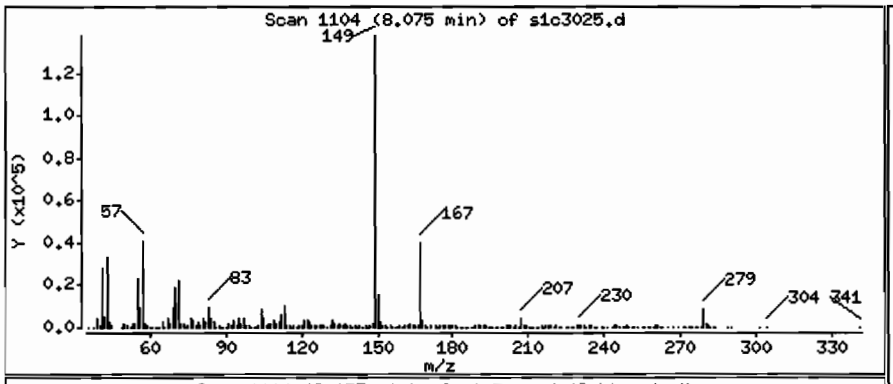

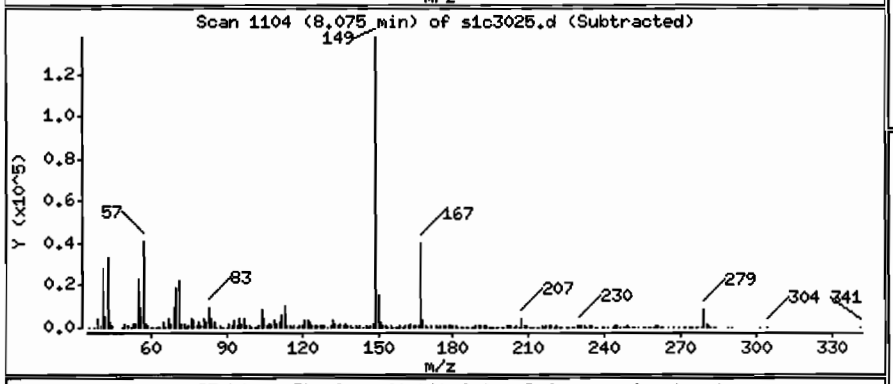

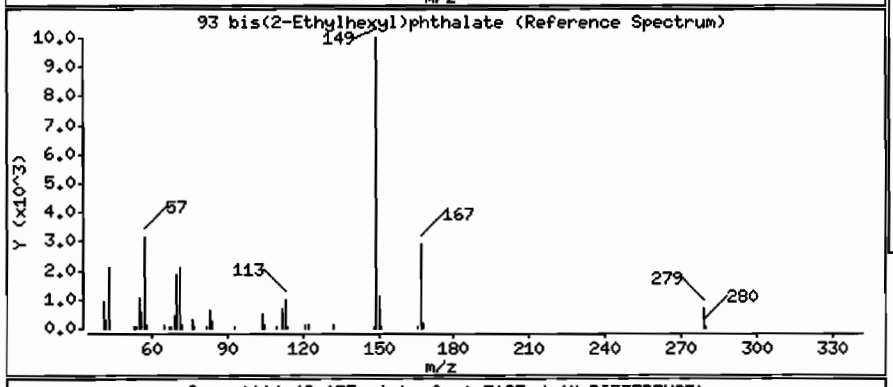

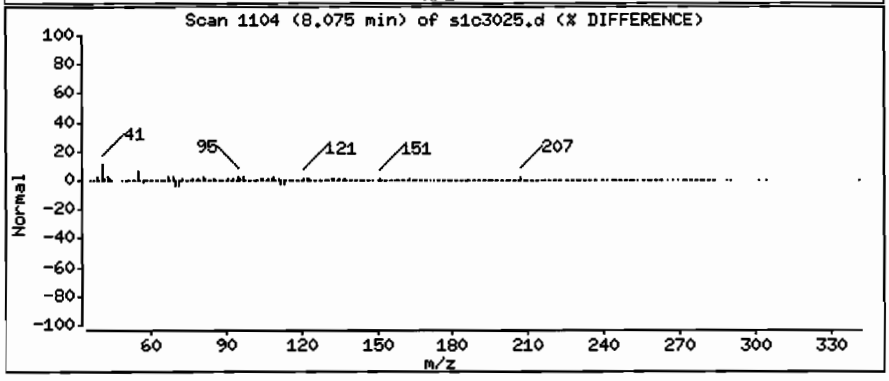

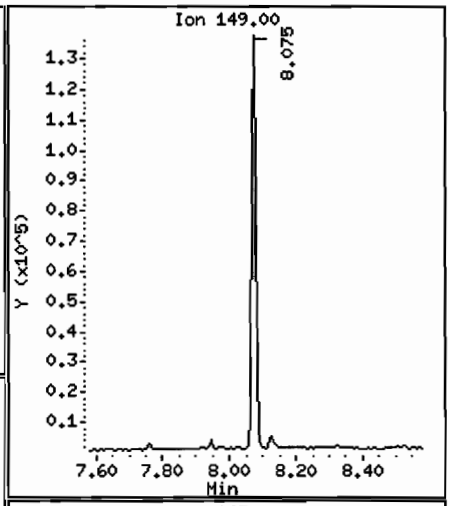

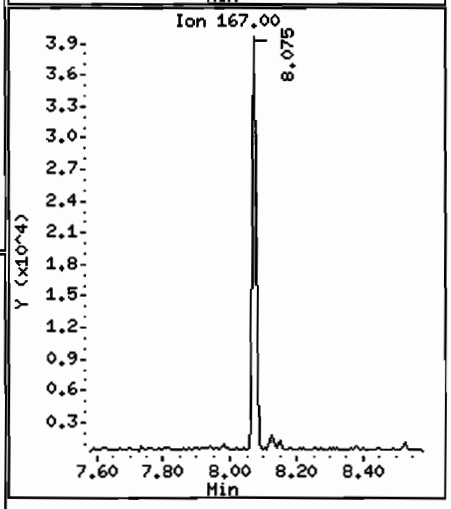

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967

Instrument: MSD1.i

Sample Info: |249335004|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 170 ug/Kg

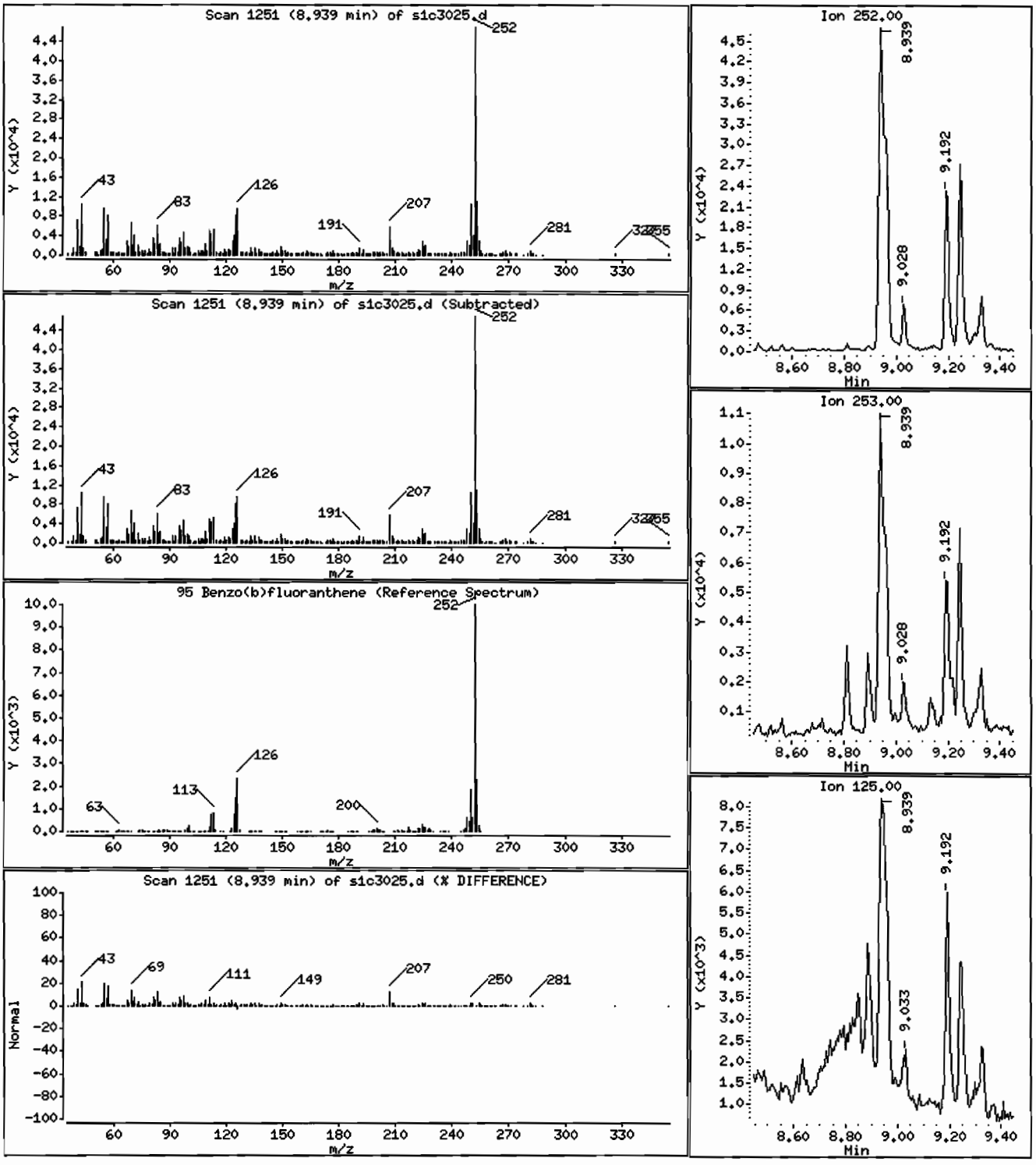

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967

Instrument: MSD1.i

Sample Info: |249335004|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 79.9 ug/Kg

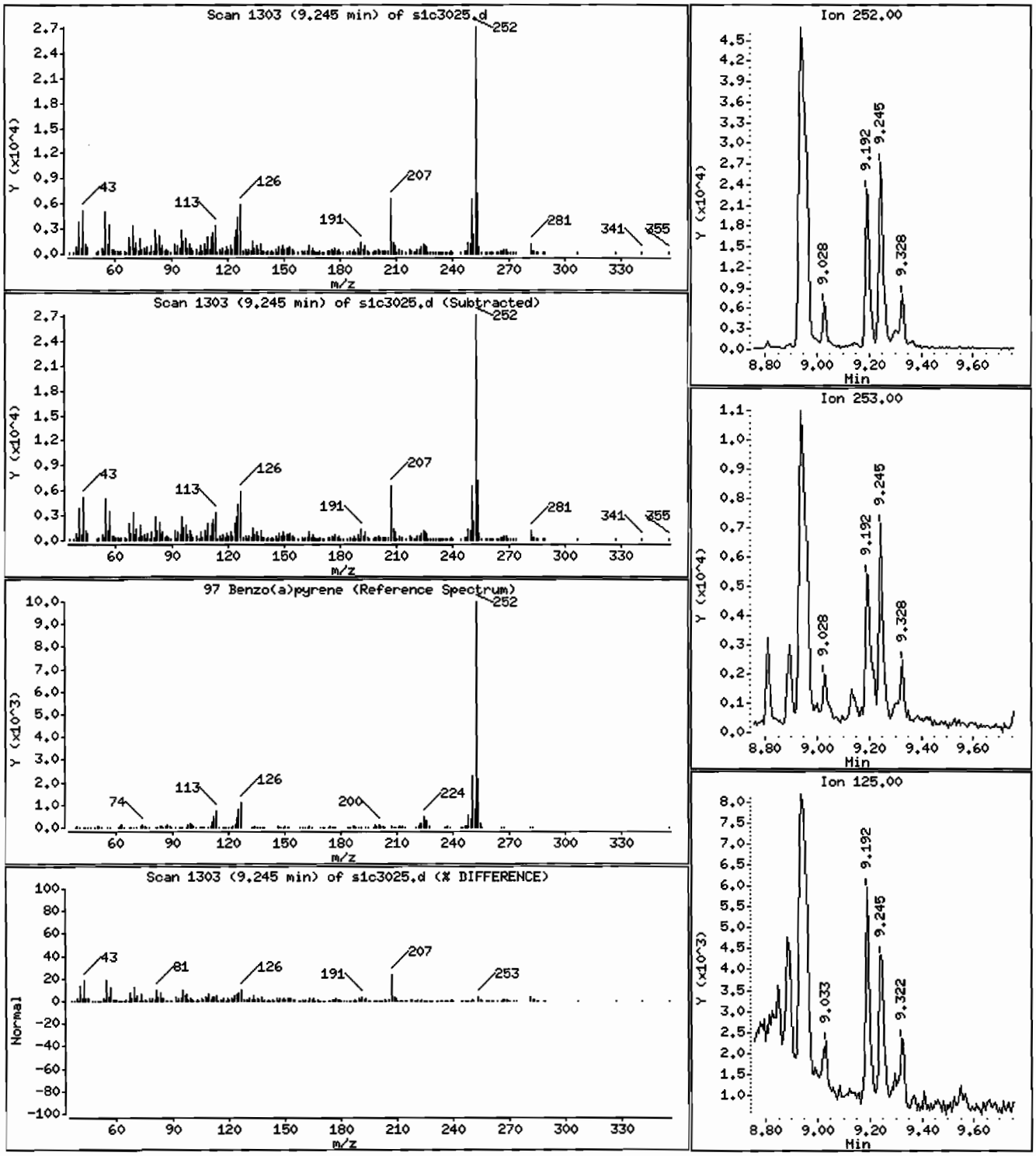

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967

Instrument: MSD1.i

Sample Info: |249335004|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 34.2 ug/Kg

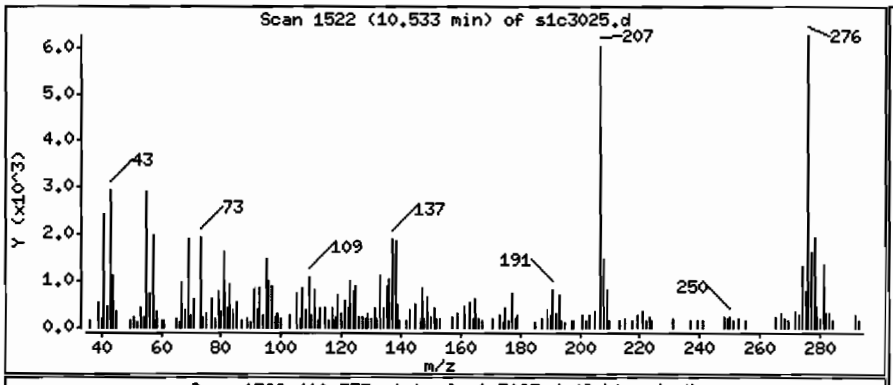

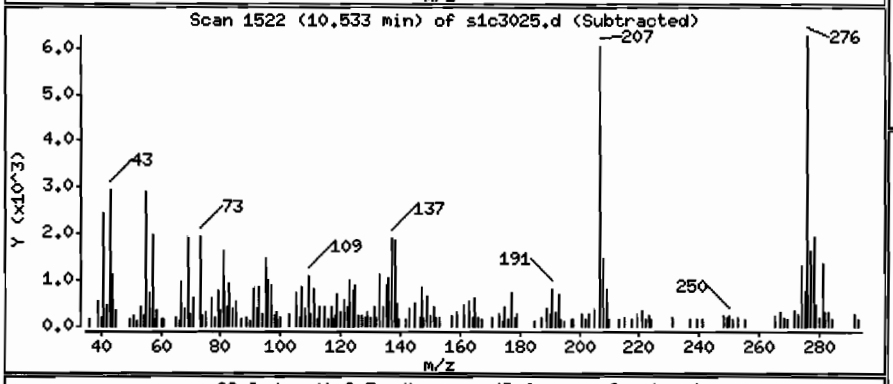

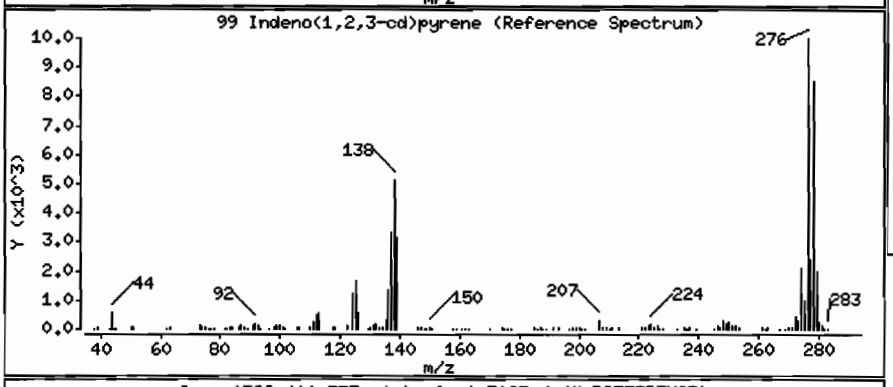

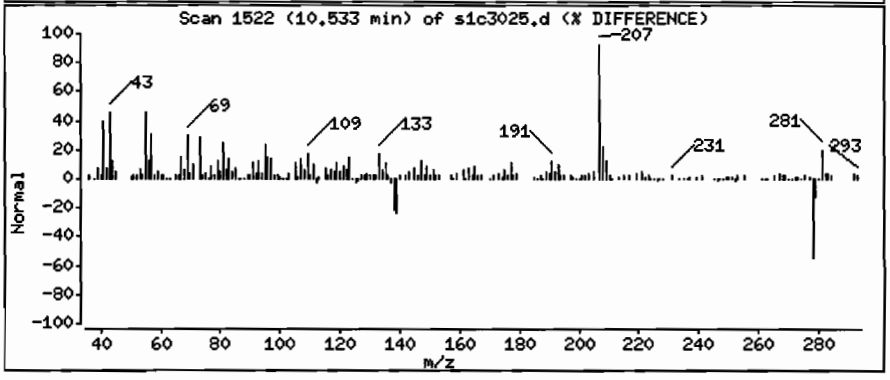

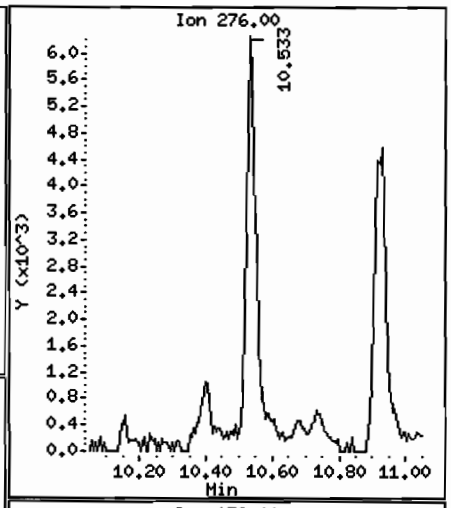

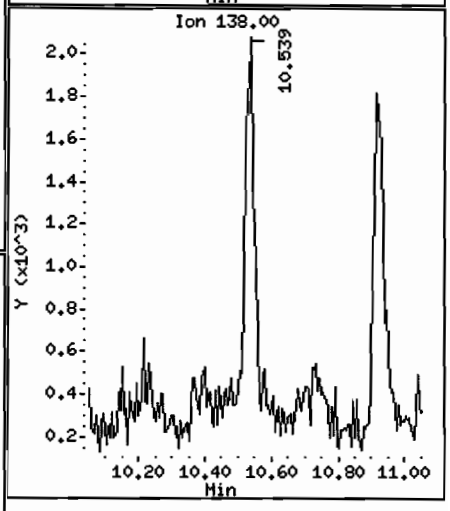

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967

Instrument: MSD1.i

Sample Info: |2493350041966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 39.7 ug/Kg

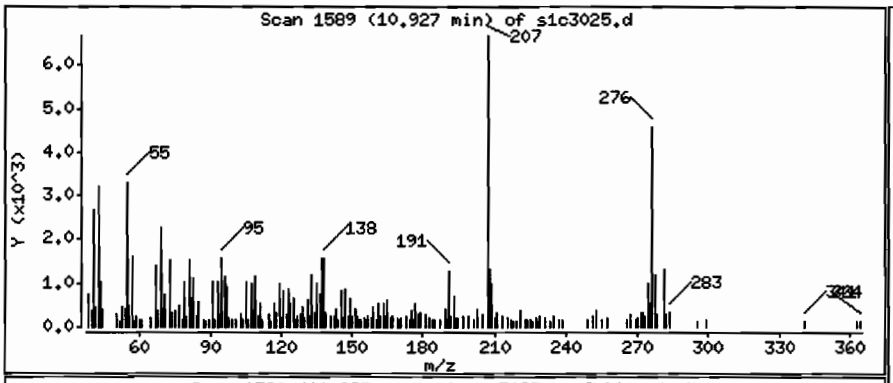

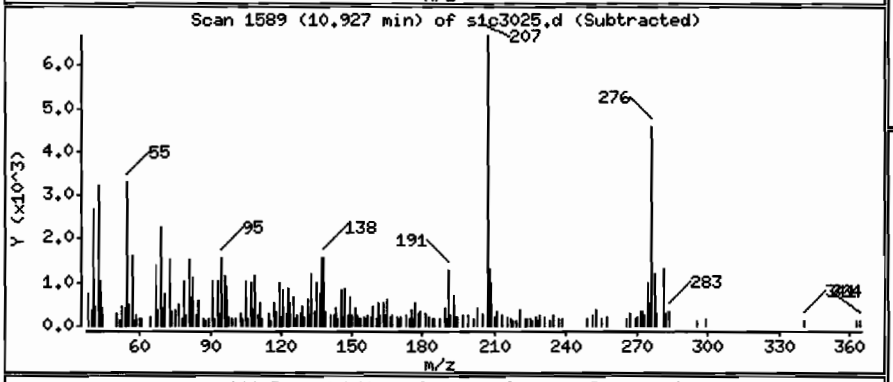

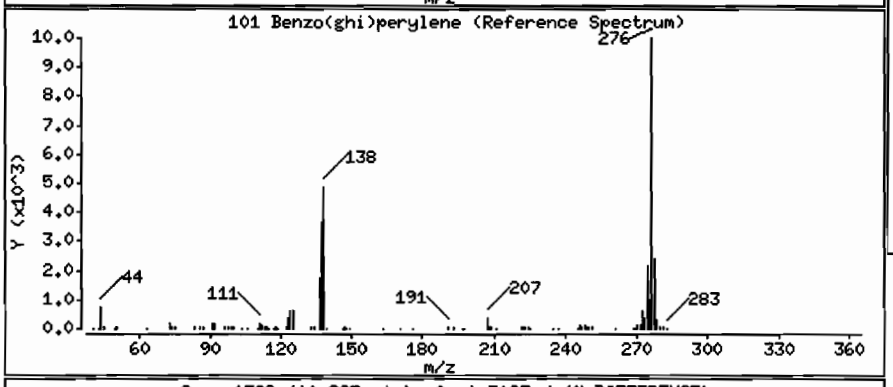

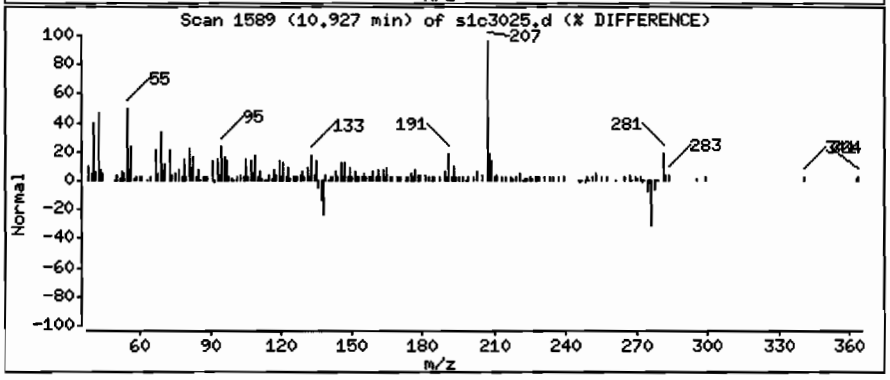

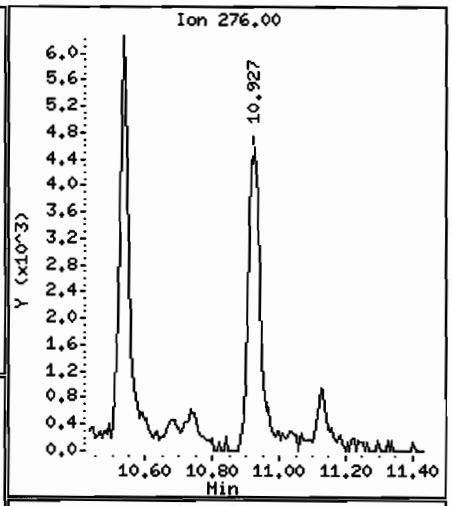

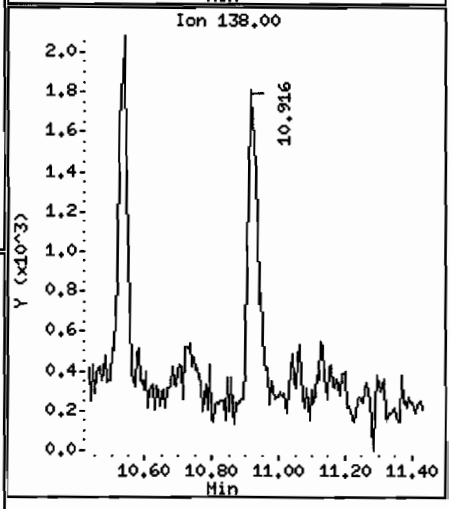

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967

Instrument: MSD1.i

Sample Info: 1249335004|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	53	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	16	C4H7NO2	101

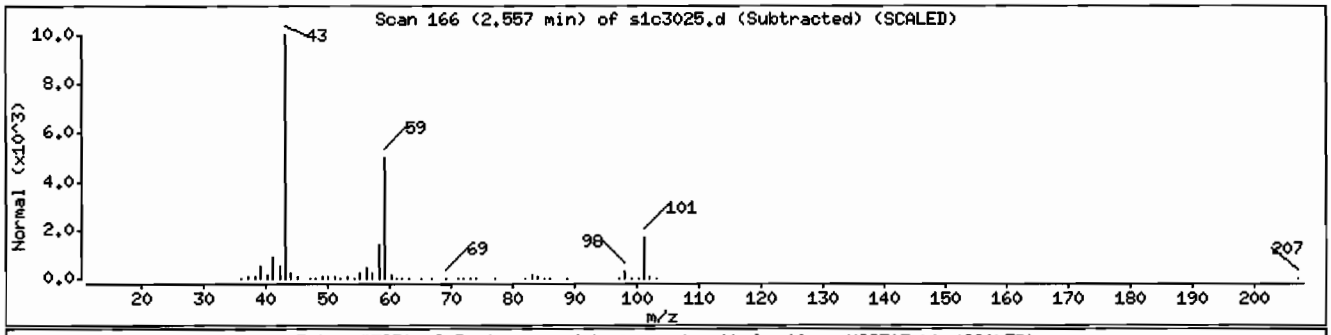

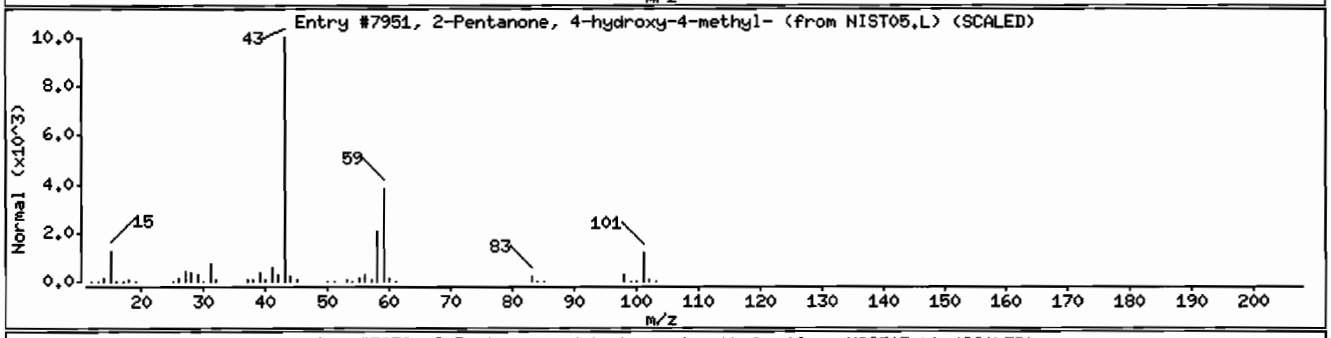

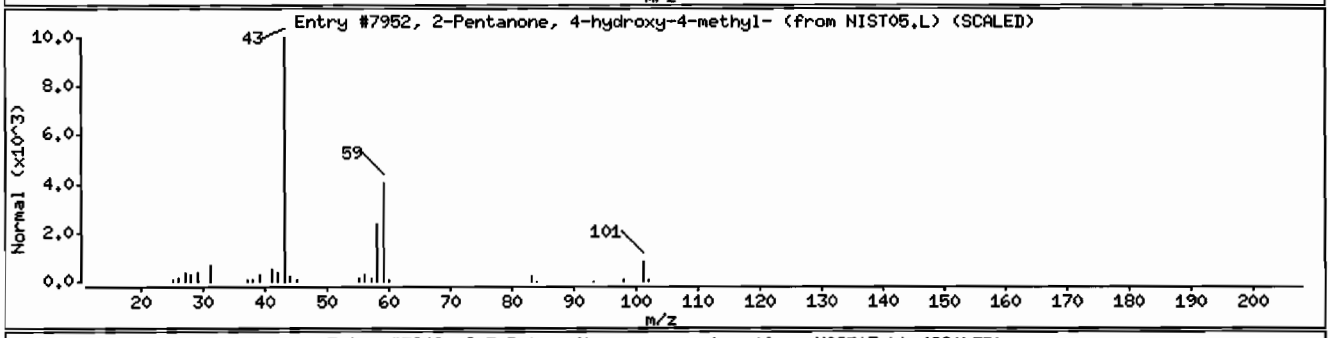

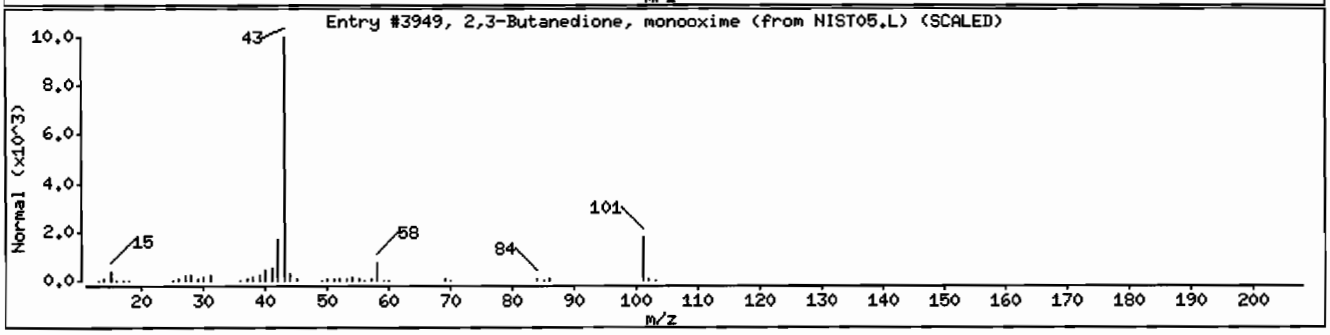

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967

Instrument: MSD1.i

Sample Info: |2493350041966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexadecane	544-76-3	NIST05.L	76090	94	C16H34	226
Octadecane, 2-methyl-	1560-88-9	NIST05.L	104280	93	C19H40	268
Tetratetracontane	7098-22-8	NIST05.L	188836	87	C44H90	619

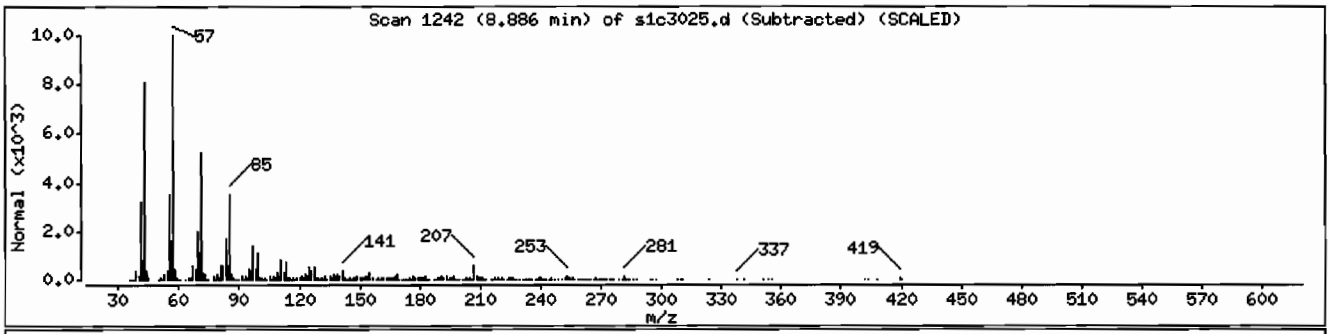

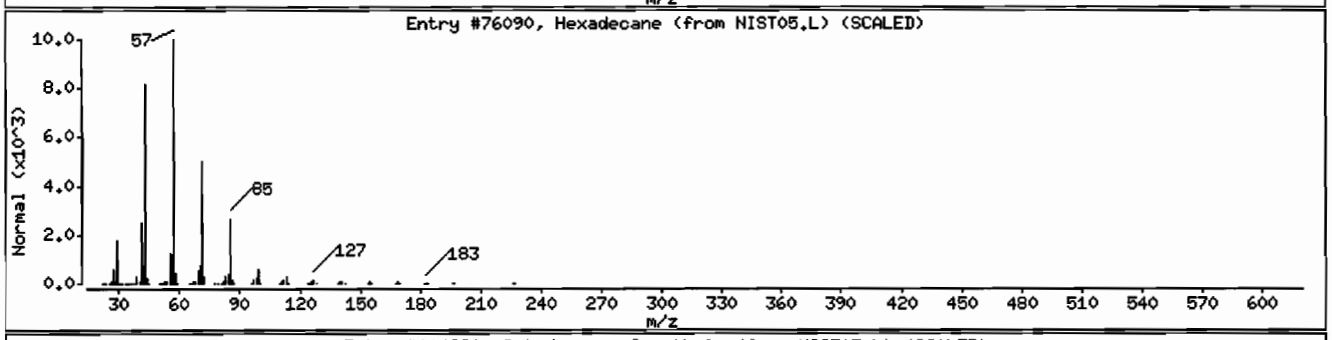

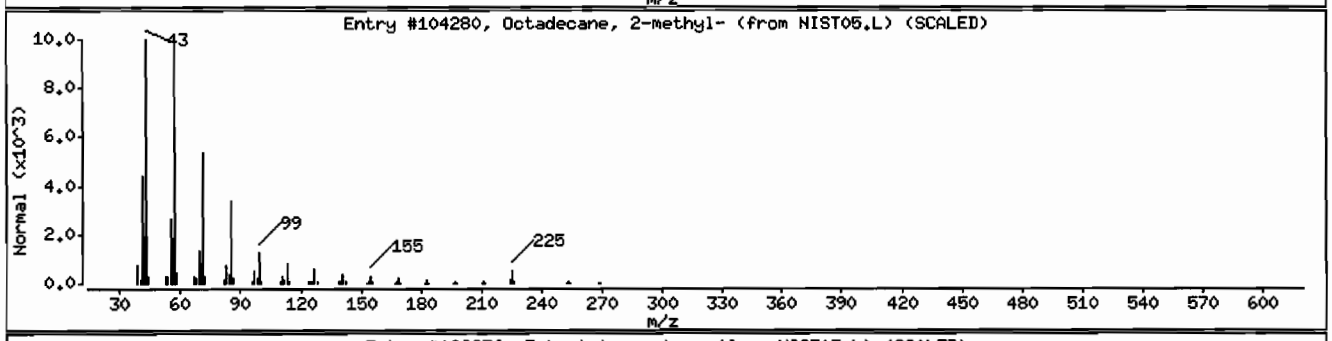

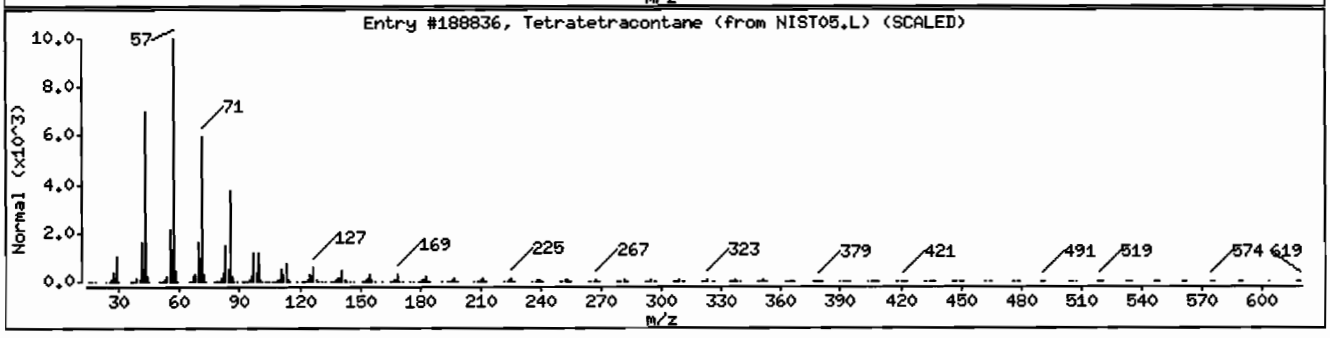

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967

Instrument: MSD1.i

Sample Info: |2493350041966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Azulene, 1,2,3,4,5,6,7,8-octahydro-1,4-d	3691-12-1	NIST05.L	60027	46	C15H24	204
1R,4S,7S,11R-2,2,4,8-Tetramethyltricyclo	1000140-07-6	NIST05.L	59942	45	C15H24	204
1H-3a,7-Methanoazulene, octahydro-1,9,9-	508-55-4	NIST05.L	60016	41	C15H24	204

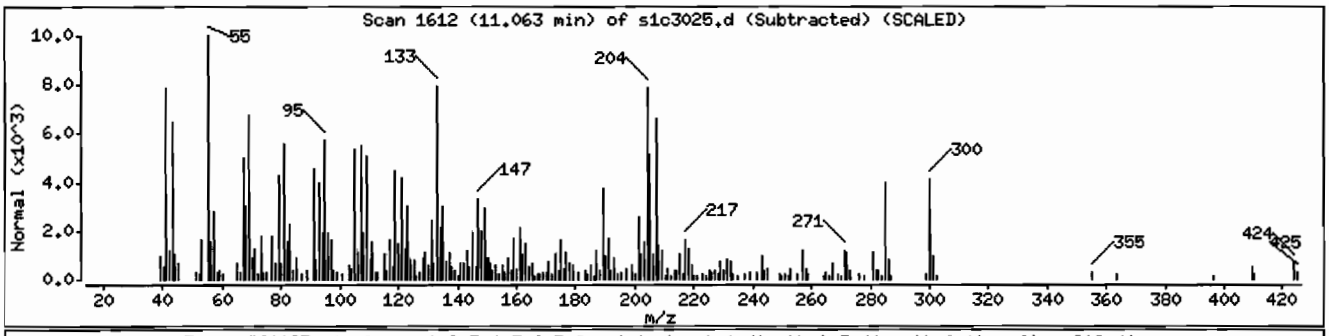

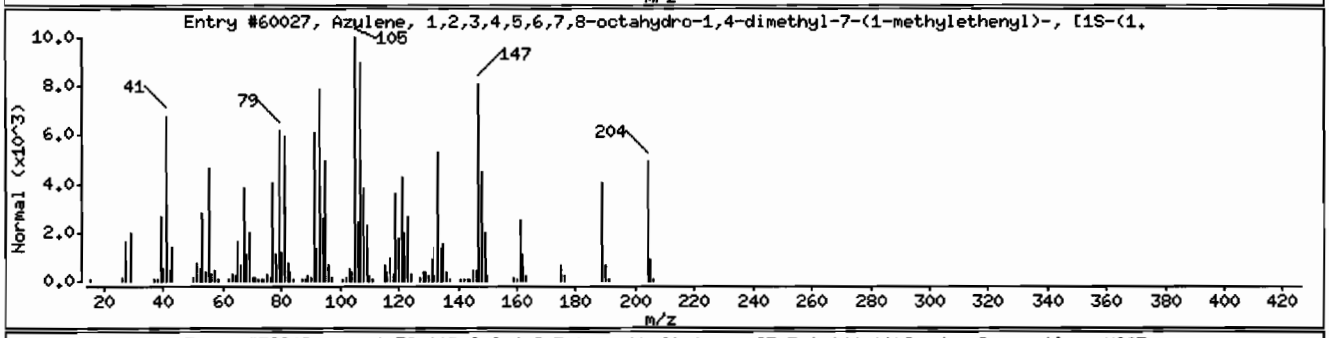

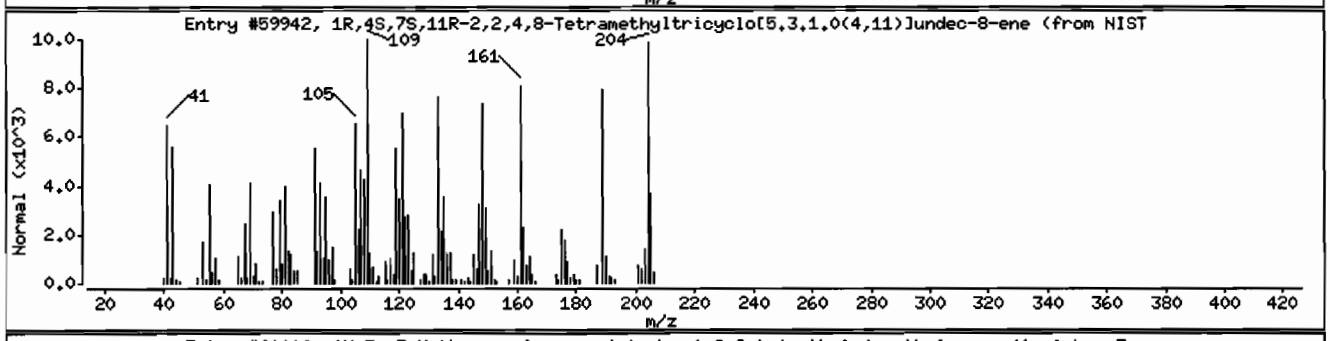

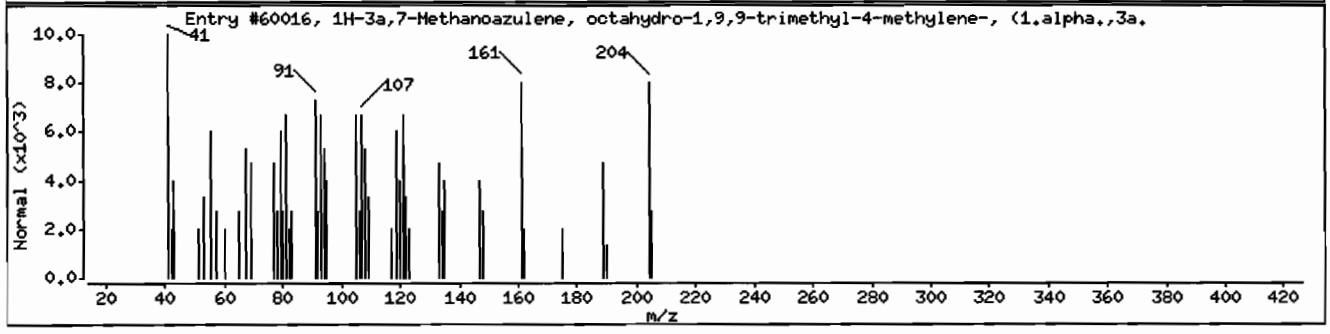

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967 Instrument: MSD1.i

Sample Info: |249335004|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2H-Cyclopropa[a]naphthalen-2-one, 1,1a,4	6831-17-0	NIST05.L	69993	64	C15H22O	218
Pyrene, hexadecahydro-	2435-85-0	NIST05.L	70007	47	C16H26	218
Benzo[b]naphtho[2,3-d]furan	243-42-5	NIST05.L	70000	46	C16H10O	218

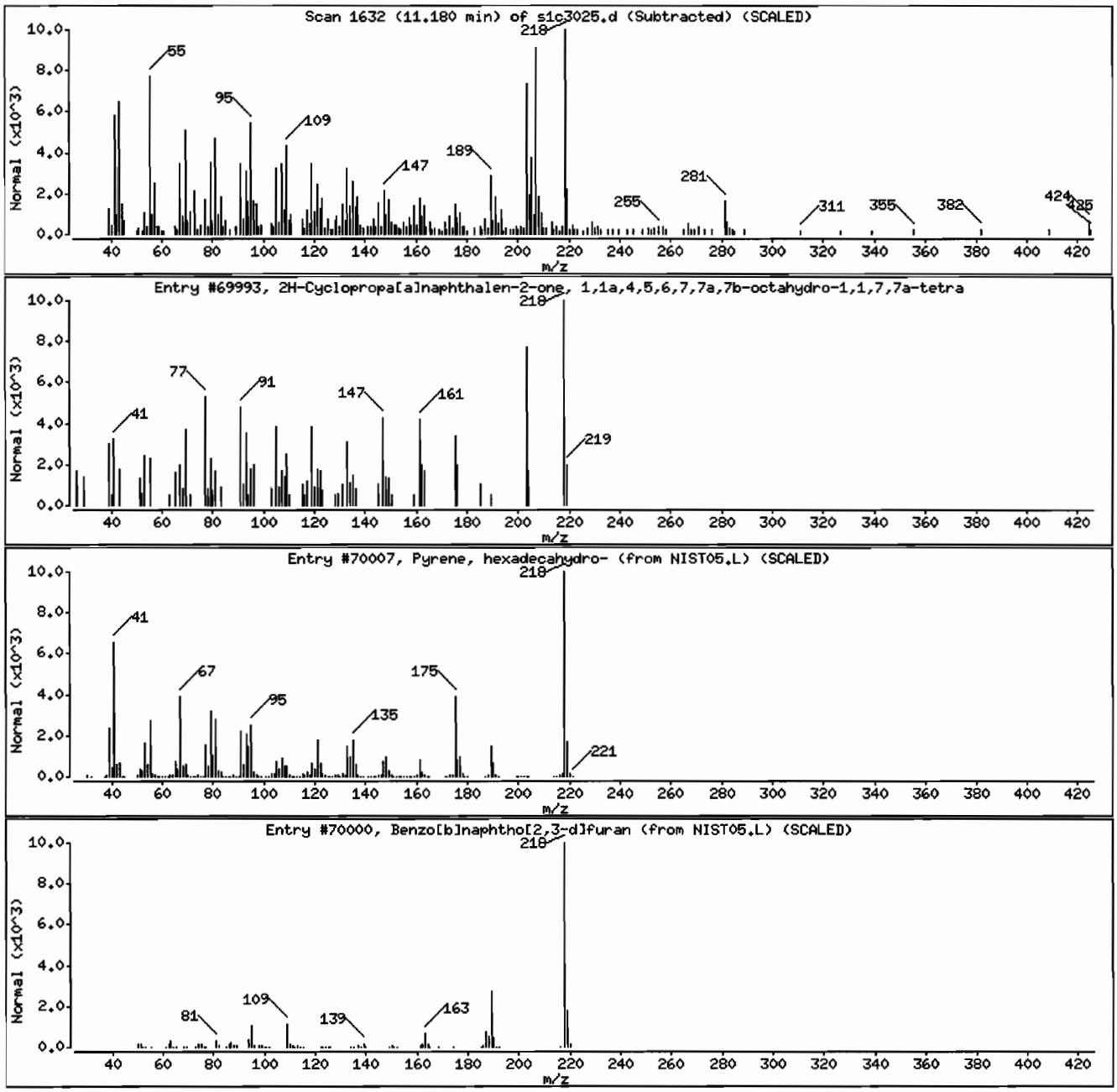

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967 Instrument: MSD1.i

Sample Info: |249335004|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Longifolenaldehyde	19890-84-7	NIST05.L	71344	50	C15H24O	220
D:C-Friedoolean-8-en-3-one	22611-26-3	NIST05.L	176239	49	C30H48O	424
2,6,6,9,2',6',6',9'-Octamethyl-[8,8']bi[	1000189-48-2	NIST05.L	173570	45	C30H50	410

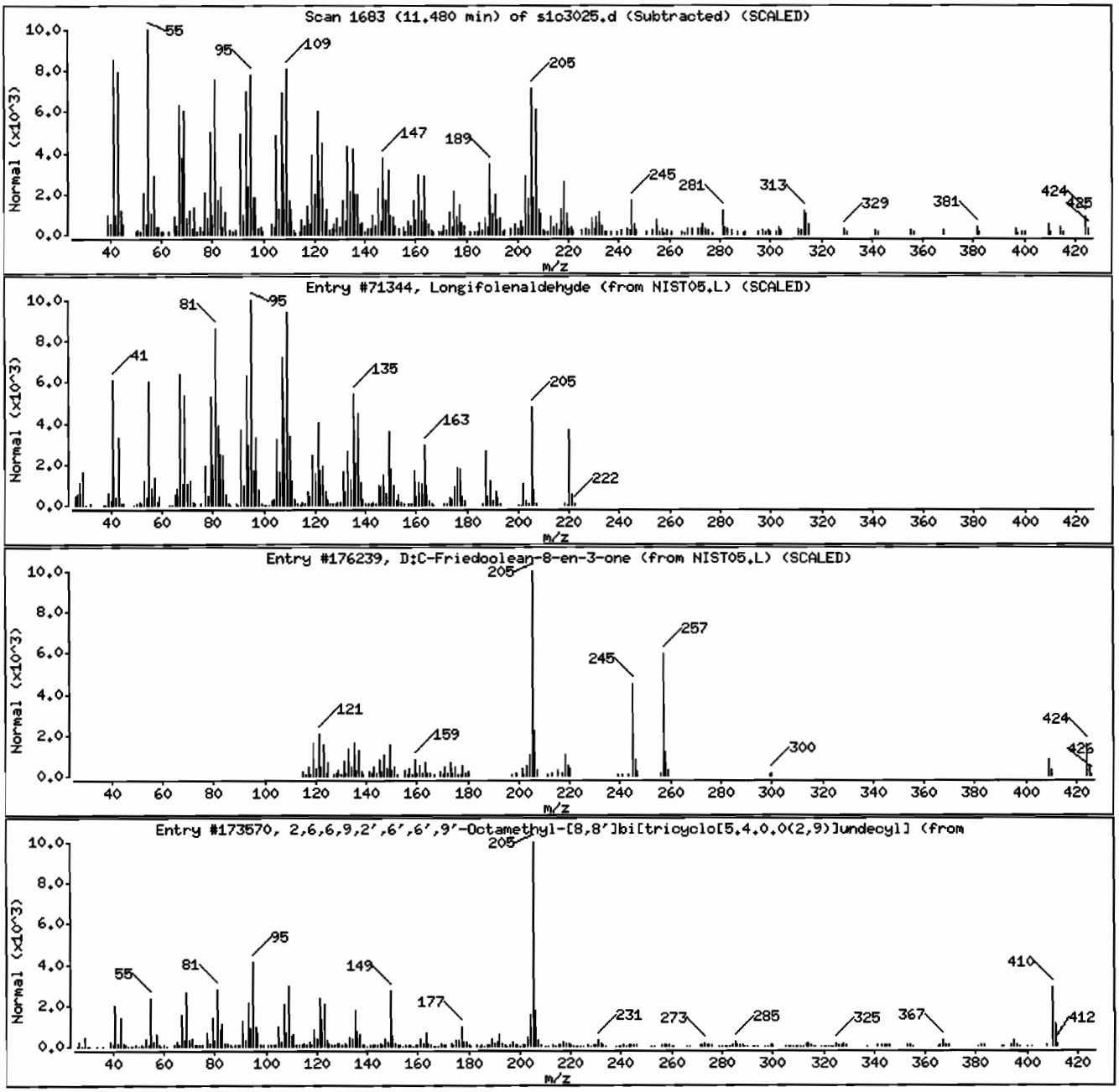

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967

Instrument: MSD1.i

Sample Info: |249335004|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Stigmast-4-en-3-one	1058-61-3	NIST05.L	173936	95	C29H480	412
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117326	84	C19H2802	288
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117325	60	C19H2802	288

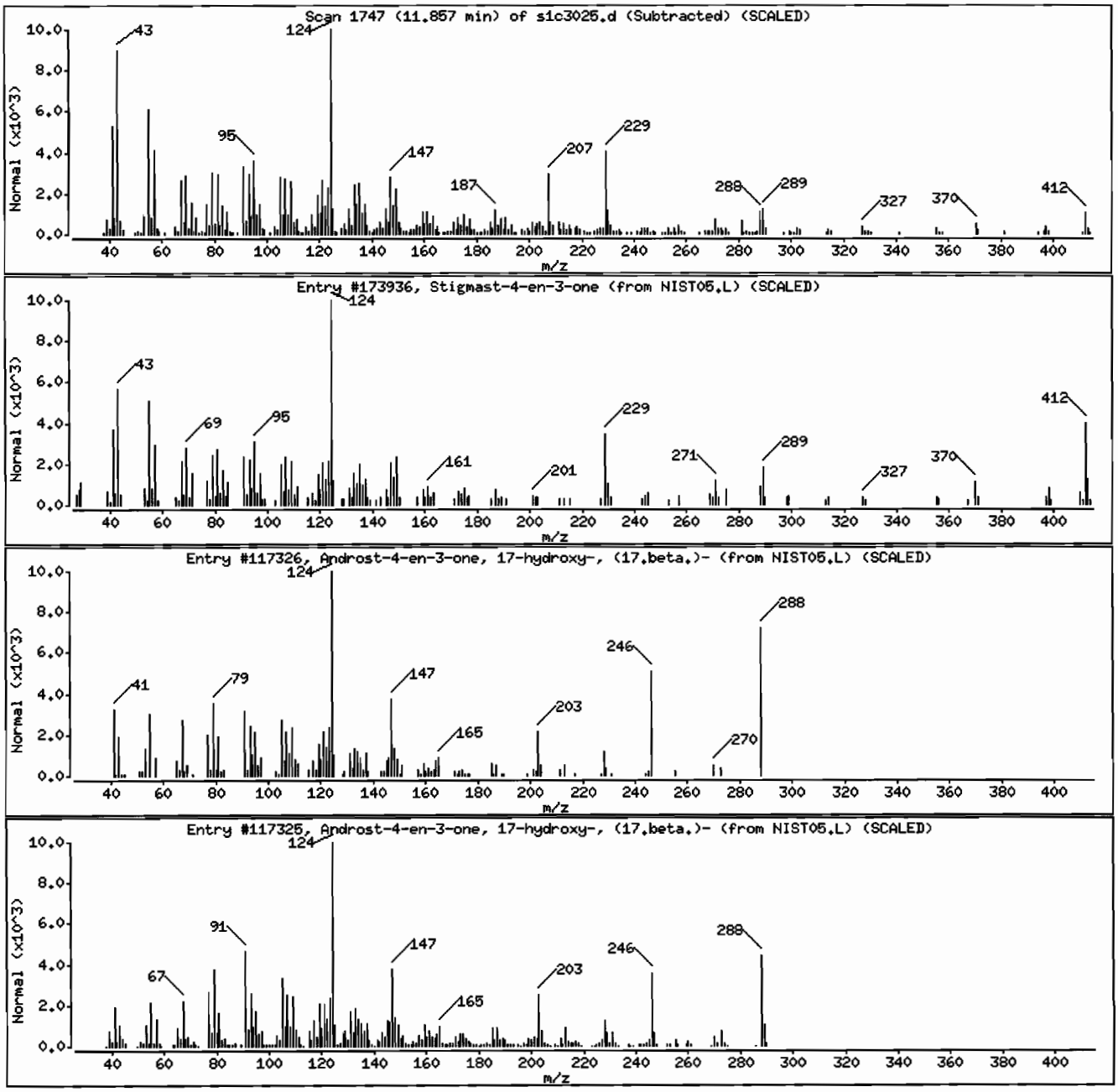

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967

Instrument: MSD1.i

Sample Info: |2493350041966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Pyridine-3-carboxamide, oxime, N-(2-trif	288246-53-7	NIST05.L	112295	60	C13H10F3N3O	281
Cyclopentane, 1,1'-[3-(2-cyclopentylethy	55255-85-1	NIST05.L	127513	16	C22H40	304
1H-Indole, 5-methyl-2-phenyl-	13228-36-9	NIST05.L	62237	11	C15H13N	207

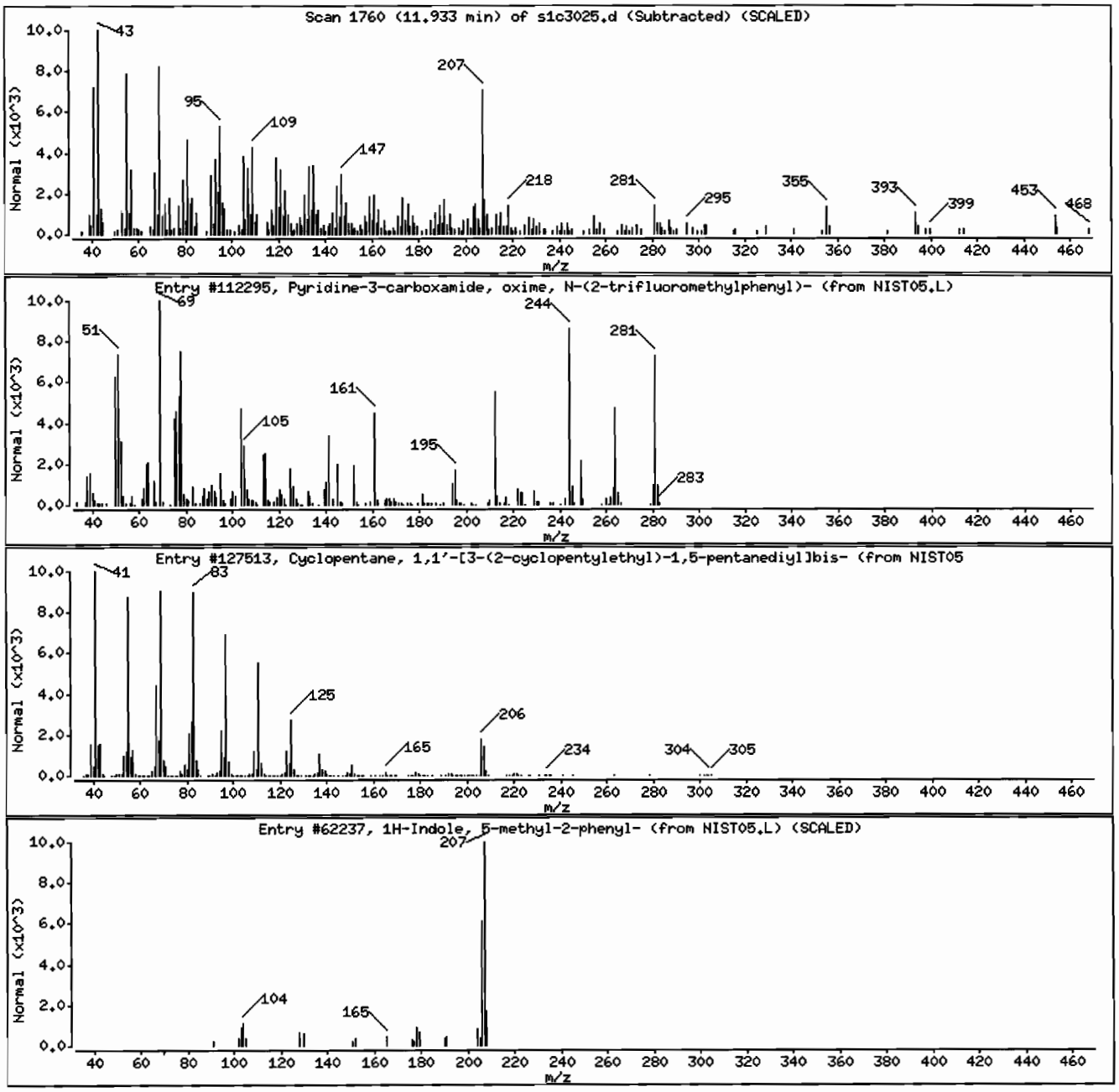

Data File: /chem/MSD1.i/s033010.b/s1c3025.d

Date : 30-MAR-2010 19:26

Client ID: RE46-10-12967 Instrument: MSD1.i

Sample Info: 1249335004|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Friedelan-3-one	559-74-0	NIST05.L	176566	78	C30H500	426
5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	300574-36-1	NIST05.L	68738	59	C6H5BrN2O2	216
13-Tetradece-11-yn-1-ol	1000131-00-4	NIST05.L	62946	58	C14H24O	208

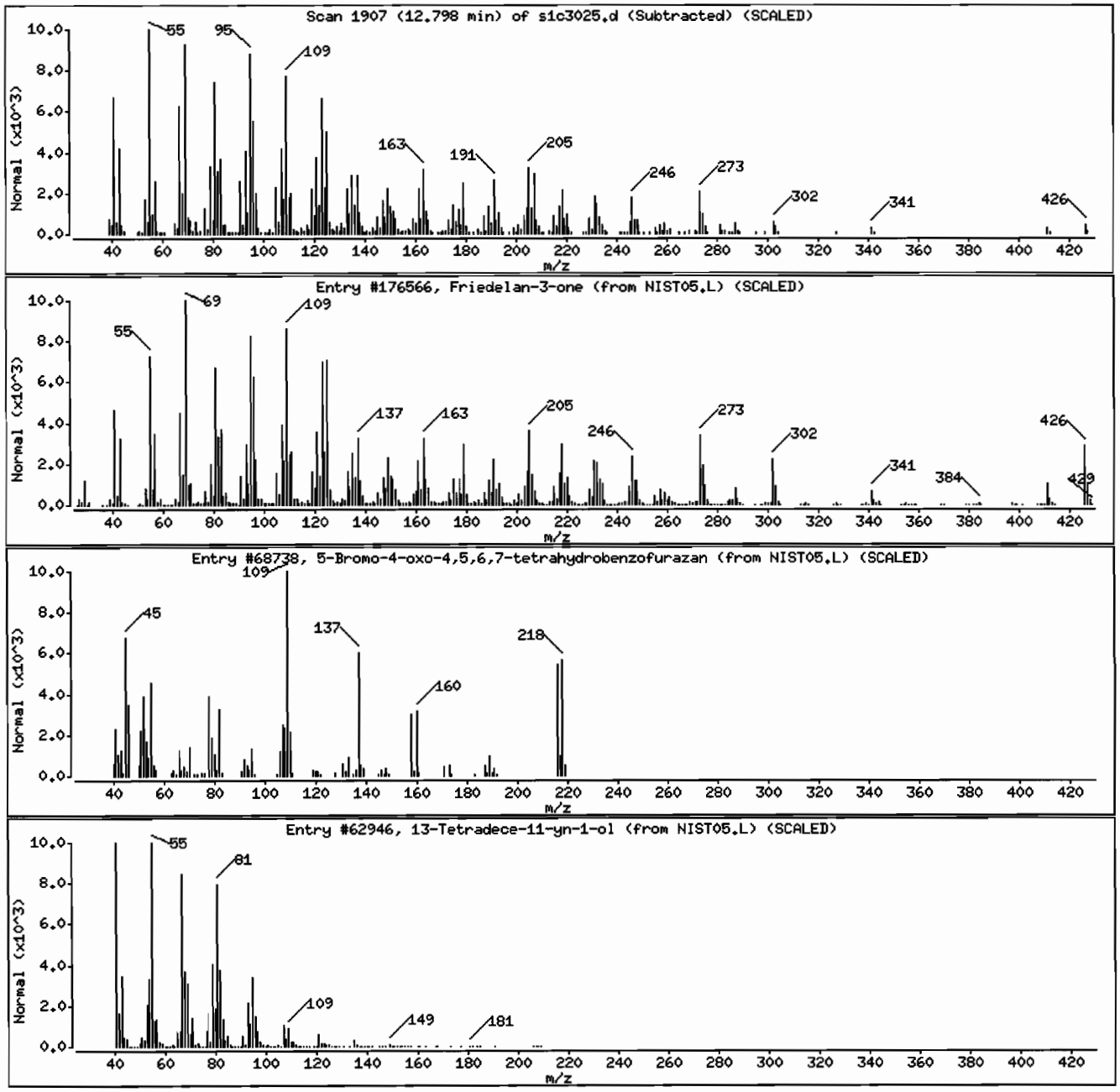

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12968**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 20:14**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3027.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	372	ug/kg	74.4	372
108-95-2	Phenol	U	372	ug/kg	74.4	372
95-57-8	2-Chlorophenol	U	372	ug/kg	74.4	372
106-46-7	1,4-Dichlorobenzene	U	372	ug/kg	74.4	372
621-64-7	N-Nitrosodipropylamine	U	372	ug/kg	74.4	372
59-50-7	4-Chloro-3-methylphenol	U	372	ug/kg	74.4	372
83-32-9	Acenaphthene	U	37.2	ug/kg	12.3	37.2
121-14-2	2,4-Dinitrotoluene	U	372	ug/kg	37.2	372
100-02-7	4-Nitrophenol	U	372	ug/kg	123	372
87-86-5	Pentachlorophenol	U	372	ug/kg	93.0	372
129-00-0	Pyrene		42.0	ug/kg	11.2	37.2
110-86-1	Pyridine	U	372	ug/kg	74.4	372
62-53-3	Aniline	U	372	ug/kg	112	372
111-44-4	bis(2-Chloroethyl) ether	U	372	ug/kg	74.4	372
541-73-1	1,3-Dichlorobenzene	U	372	ug/kg	74.4	372
100-51-6	Benzyl alcohol	U	372	ug/kg	112	372
95-50-1	1,2-Dichlorobenzene	U	372	ug/kg	74.4	372
108-60-1	bis(2-Chloroisopropyl)ether	U	372	ug/kg	74.4	372
95-48-7	o-Cresol	U	372	ug/kg	74.4	372
65794-96-9	m,p-Cresols	U	372	ug/kg	112	372
67-72-1	Hexachloroethane	U	372	ug/kg	74.4	372
98-95-3	Nitrobenzene	U	372	ug/kg	74.4	372
78-59-1	Isophorone	U	372	ug/kg	74.4	372
88-75-5	2-Nitrophenol	U	372	ug/kg	74.4	372
105-67-9	2,4-Dimethylphenol	U	372	ug/kg	130	372
111-91-1	bis(2-Chloroethoxy)methane	U	372	ug/kg	74.4	372
120-83-2	2,4-Dichlorophenol	U	372	ug/kg	74.4	372
65-85-0	Benzoic acid	U	744	ug/kg	186	744
91-20-3	Naphthalene	U	37.2	ug/kg	11.2	37.2
106-47-8	4-Chloroaniline	U	372	ug/kg	74.4	372
87-68-3	Hexachlorobutadiene	U	372	ug/kg	74.4	372
91-57-6	2-Methylnaphthalene	U	37.2	ug/kg	7.44	37.2
77-47-4	Hexachlorocyclopentadiene	U	372	ug/kg	74.4	372
88-06-2	2,4,6-Trichlorophenol	U	372	ug/kg	74.4	372
95-95-4	2,4,5-Trichlorophenol	U	372	ug/kg	74.4	372
91-58-7	2-Chloronaphthalene	U	37.2	ug/kg	12.3	37.2
88-74-4	2-Nitroaniline	U	372	ug/kg	74.4	372
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	372	ug/kg	74.4	372

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12968**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 20:14**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3027.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	372	ug/kg	74.4	372
606-20-2	2,6-Dinitrotoluene	U	372	ug/kg	37.2	372
208-96-8	Acenaphthylene	U	37.2	ug/kg	11.2	37.2
51-28-5	2,4-Dinitrophenol	U	744	ug/kg	141	744
132-64-9	Dibenzofuran	U	372	ug/kg	74.4	372
84-66-2	Diethylphthalate	U	372	ug/kg	74.4	372
86-73-7	Fluorene	U	37.2	ug/kg	11.2	37.2
7005-72-3	4-Chlorophenylphenylether	U	372	ug/kg	74.4	372
534-52-1	2-Methyl-4,6-dinitrophenol	U	372	ug/kg	74.4	372
100-01-6	4-Nitroaniline	U	372	ug/kg	112	372
	p-Nitroaniline					
122-39-4	Diphenylamine	U	372	ug/kg	74.4	372
122-66-7	Azobenzene	U	372	ug/kg	74.4	372
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	372	ug/kg	74.4	372
118-74-1	Hexachlorobenzene	U	372	ug/kg	74.4	372
85-01-8	Phenanthrene	J	21.4	ug/kg	11.2	37.2
120-12-7	Anthracene	U	37.2	ug/kg	7.44	37.2
84-74-2	Di-n-butylphthalate	U	372	ug/kg	74.4	372
206-44-0	Fluoranthene		43.2	ug/kg	11.2	37.2
85-68-7	Butylbenzylphthalate	U	372	ug/kg	74.4	372
56-55-3	Benzo(a)anthracene	J	28.5	ug/kg	11.2	37.2
91-94-1	3,3'-Dichlorobenzidine	U	372	ug/kg	112	372
218-01-9	Chrysene	J	26.8	ug/kg	11.2	37.2
117-81-7	bis(2-Ethylhexyl)phthalate	J	105	ug/kg	74.4	372
117-84-0	Di-n-octylphthalate	U	372	ug/kg	74.4	372
205-99-2	Benzo(b)fluoranthene	J	34.6	ug/kg	11.2	37.2
207-08-9	Benzo(k)fluoranthene	U	37.2	ug/kg	11.2	37.2
50-32-8	Benzo(a)pyrene	J	17.4	ug/kg	11.2	37.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.2	ug/kg	11.2	37.2
53-70-3	Dibenzo(a,h)anthracene	U	37.2	ug/kg	11.2	37.2
191-24-2	Benzo(ghi)perylene	J	11.6	ug/kg	11.2	37.2
120-82-1	1,2,4-Trichlorobenzene	U	372	ug/kg	74.4	372

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	243	ug/kg		JA
	Unknown	8.48	174	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12968**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 20:14**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3027.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-95-8	Eicosane	8.89	223	ug/kg	97	NJ
559-74-0	Friedelan-3-one	12.79	549	ug/kg	95	NJ

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3027.d
Lab Smp Id: 249335006 Client Smp ID: RE46-10-12968
Inj Date : 30-MAR-2010 20:14
Operator : AMY Inst ID: MSD1.i
Smp Info : |249335006|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	10.43520	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.481	3.487	(1.000)	422565	40.0000	
* 29 Naphthalene-d8	136	4.334	4.339	(1.000)	1638209	40.0000	
* 46 Acenaphthene-d10	164	5.569	5.575	(1.000)	869053	40.0000	
* 67 Phenanthrene-d10	188	6.587	6.586	(1.000)	1557696	40.0000	
* 91 Chrysene-d12	240	8.145	8.157	(1.000)	1062734	40.0000	
* 98 Perylene-d12	264	9.298	9.310	(1.000)	655828	40.0000	
$ 3 2-Fluorophenol	112	2.710	2.704	(0.779)	370200	34.0221	1270
$ 5 Phenol-d5	99	3.228	3.228	(0.927)	474530	35.8087	1330
$ 20 Nitrobenzene-d5	82	3.840	3.845	(0.886)	197173	19.6238	730
$ 39 2-Fluorobiphenyl	172	5.075	5.075	(0.911)	467166	19.4643	724
$ 60 2,4,6-Tribromophenol	329	6.122	6.128	(1.099)	111272	39.0541	1450
$ 81 p-Terphenyl-d14	244	7.510	7.510	(0.922)	552221	31.1679	1160

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.445	7.451	(0.914)	34072	1.12983	42.0
68 Phenanthrene	178	6.598	6.604	(1.002)	19353	0.57500	21.4(a)
76 Fluoranthene	202	7.310	7.316	(1.110)	40140	1.16042	43.2
89 Benzo(a)anthracene	228	8.139	8.145	(0.999)	19139	0.76615	28.5(a)
92 Chrysene	228	8.163	8.175	(1.002)	16815	0.72033	26.8(a)
93 bis(2-Ethylhexyl)phthalate	149	8.069	8.080	(0.991)	48108	2.82022	105(a)
95 Benzo(b)fluoranthene	252	8.939	8.951	(0.961)	16771	0.92986	34.6(a)
97 Benzo(a)pyrene	252	9.245	9.257	(0.994)	6768	0.46864	17.4(a)
101 Benzo(ghi)perylene	276	10.922	10.933	(1.175)	3102	0.31148	11.6(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s1c3027.d
Report Date: 03/30/2010 20:58
Lab. ID: 249335006 SampleType: SAMPLE
Injection Date: 30-MAR-2010 20:14
Operator: AMY Instrument: MSD1.i
Sample Info: |249335006|966766|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2436
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	22746	3.23	3.28	80-120	100	( )
93	4970	3.26	3.28	200-260	22	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	26552	3.84	3.74	80-120	100	(T)
42	17825	3.84	3.74	49-109	67	(T)
41 m-Nitroaniline			CAS#: 99-09-2			
138	170	5.57	5.54	80-120	100	( )
92	3894	5.57	5.54	73-133	2284	(Q)
108	15876	5.57	5.54	0- 41	9312	(Q)
43 Dimethylphthalate			CAS#: 131-11-3			
163	159335	5.57	5.36	80-120	100	(T)
164	869053	5.57	5.36	0- 40	545	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	112159	5.57	5.41	80-120	100	(T)
63	1650	5.57	5.41	51-111	1	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	112159	5.57	5.70	80-120	100	(T)
89	1530	5.57	5.70	40-100	1	(QT)
63	1650	5.57	5.70	20- 80	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	8170	6.12	5.96	80-120	100	(T)
165	8488	6.12	5.96	62-122	104	(T)
167	2847	6.12	5.96	0- 44	35	(T)
68 Phenanthrene			CAS#: 85-01-8			
178	19353	6.60	6.60	80-120	100	( )
179	4091	6.60	6.60	0- 45	21	( )
176	3562	6.60	6.60	0- 48	18	( )
69 Anthracene			CAS#: 120-12-7			
178	19353	6.60	6.63	80-120	100	( )
179	4091	6.60	6.63	0- 45	21	( )
176	3562	6.60	6.63	0- 48	18	( )
76 Fluoranthene			CAS#: 206-44-0			
202	40140	7.31	7.32	80-120	100	( )
203	6868	7.31	7.32	0- 47	17	( )
101	5507	7.31	7.32	0- 45	14	( )
79 Pyrene			CAS#: 129-00-0			
202	34072	7.45	7.45	80-120	100	( )
200	6526	7.45	7.45	0- 49	19	( )
101	6368	7.45	7.45	0- 48	19	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	19139	8.14	8.15	80-120	100	( )
226	4691	8.14	8.15	0- 55	25	( )
229	6292	8.14	8.15	0- 49	33	( )
92 Chrysene			CAS#: 218-01-9			
228	16815	8.16	8.17	80-120	100	( )
229	4427	8.16	8.17	0- 49	26	( )
226	4761	8.16	8.17	0- 58	28	( )
93 bis(2-Ethylhexyl)phthalate			CAS#: 117-81-7			
149	48108	8.07	8.08	80-120	100	( )
167	13415	8.07	8.08	0- 59	28	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	16771	8.94	8.95	80-120	100	( )
253	3999	8.94	8.95	0- 52	24	( )
125	5817	8.94	8.95	0- 45	35	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	16778	8.94	8.97	80-120	100	( )
253	3999	8.94	8.97	0- 51	24	( )
125	5688	8.94	8.97	0- 44	34	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	6768	9.25	9.26	80-120	100	( )
253	1603	9.25	9.26	0- 51	24	( )
125	1753	9.25	9.26	0- 45	26	( )
101 Benzo(ghi)perylene			CAS#: 191-24-2			
276	3102	10.92	10.93	80-120	100	( )
138	1801	10.92	10.93	1- 61	58	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3027.d
Lab Smp Id: 249335006 Client Smp ID: RE46-10-12968
Inj Date : 30-MAR-2010 20:14
Operator : AMY Inst ID: MSD1.i
Smp Info : |249335006|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	10.43520	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.481	2538098	40.000
* 91 Chrysene-d12	8.145	2883414	40.000
* 98 Perylene-d12	9.298	1789690	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.546	414078	6.52580313	243	0		0	10
Unknown					CAS #:		
8.481	336054	4.66188667	174	0		0	91
Eicosane					CAS #: 112-95-8		
8.886	268124	5.99263429	223	97	NIST05.L	113489	98
Friedelan-3-one					CAS #: 559-74-0		
12.786	660484	14.7619793	549	95	NIST05.L	176566	98

Data File: /chem/MSD1.i/s033010.b/s1c3027.d
Date : 30-MAR-2010 20:14
Client ID: RE46-10-12968
Sample Info: |2493350061966766|1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

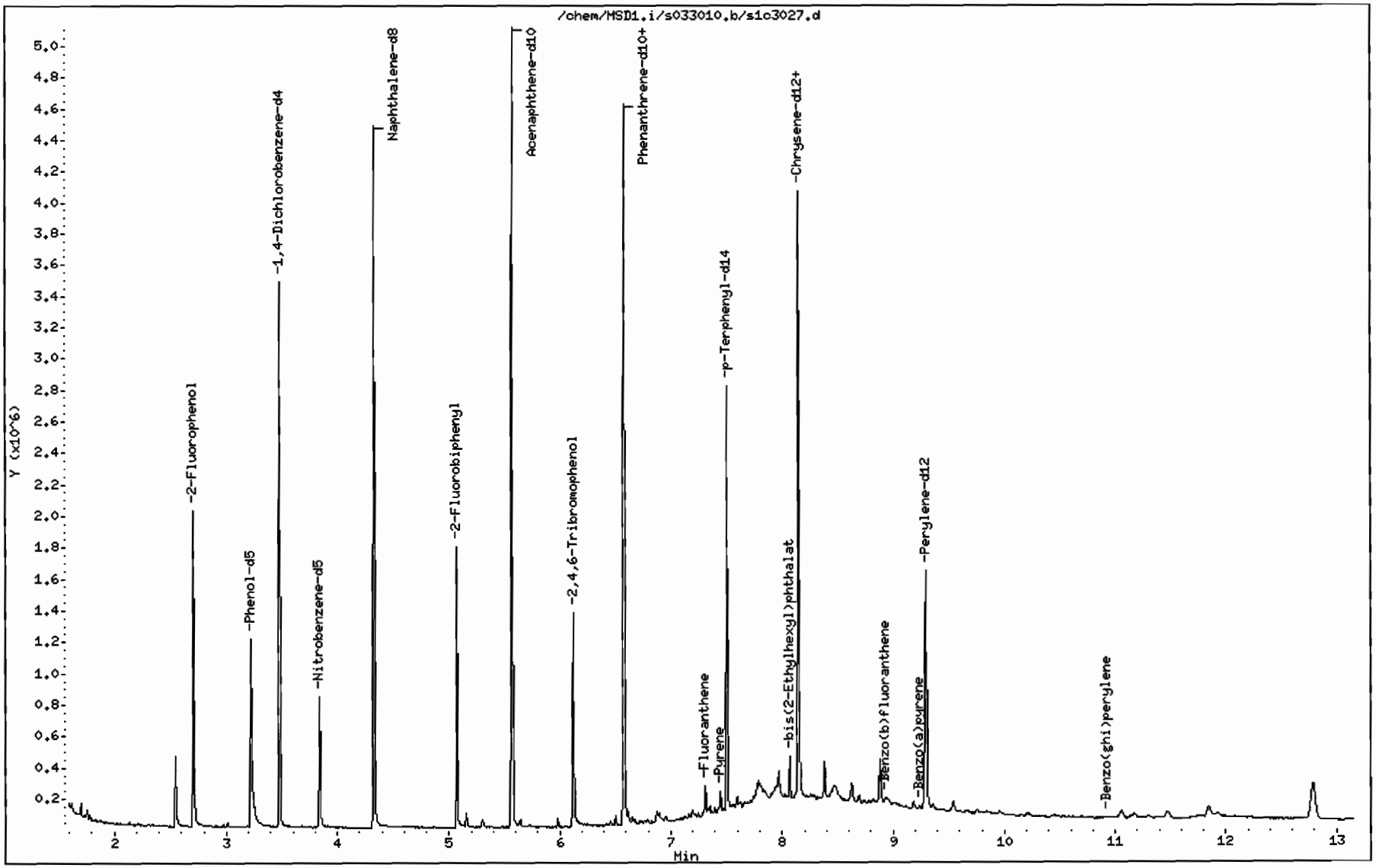

Data File: /chem/MSD1.i/s033010.b/s1c3027.d

Date : 30-MAR-2010 20:14

Client ID: RE46-10-12968

Instrument: MSD1.i

Sample Info: 1249335006196676611SVMI1ILANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 42.0 ug/Kg

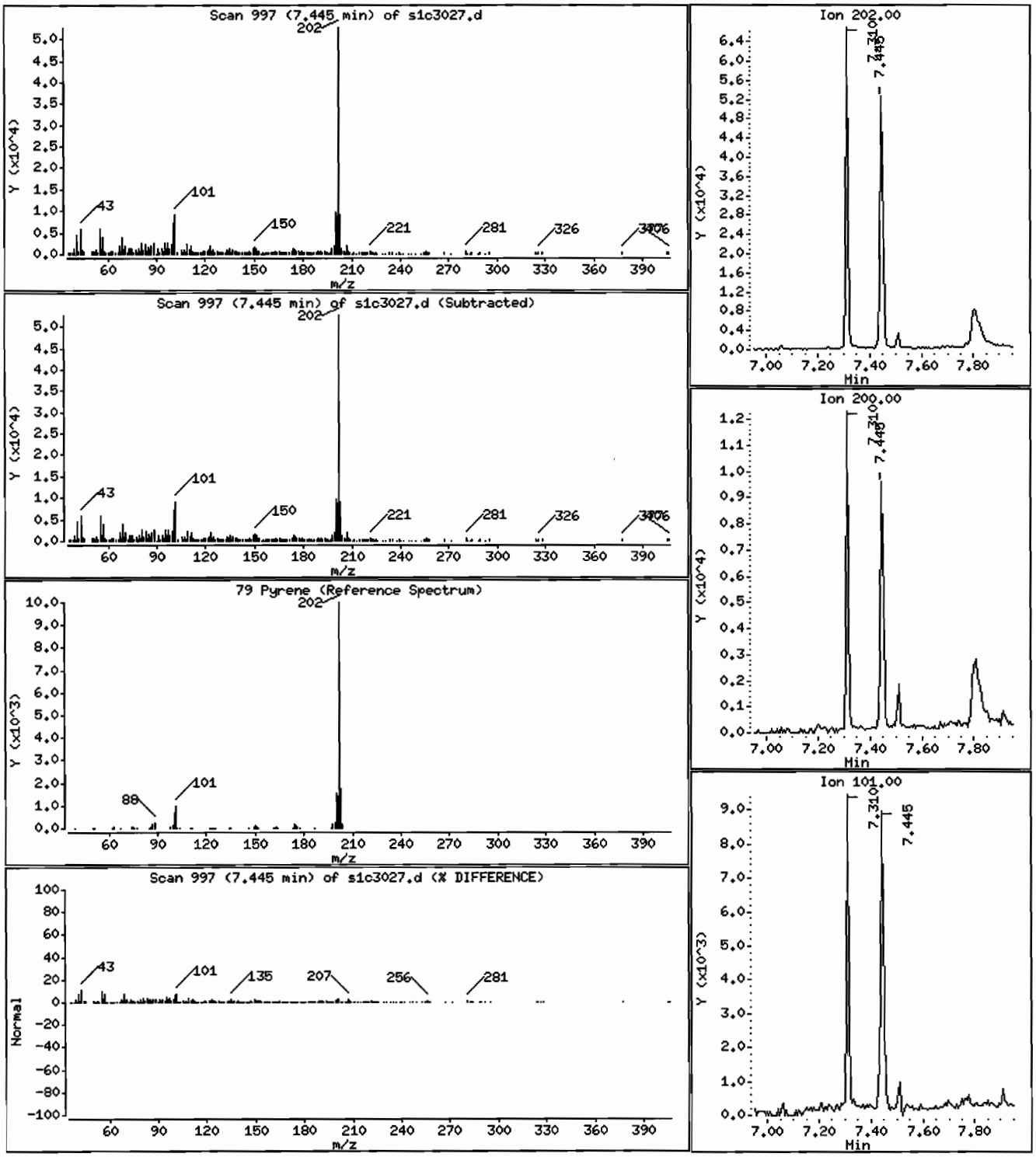

Data File: /chem/MSD1.i/s033010.b/s1c3027.d

Date : 30-MAR-2010 20:14

Client ID: RE46-10-12968

Instrument: MSD1.i

Sample Info: |249335006|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 21.4 ug/Kg

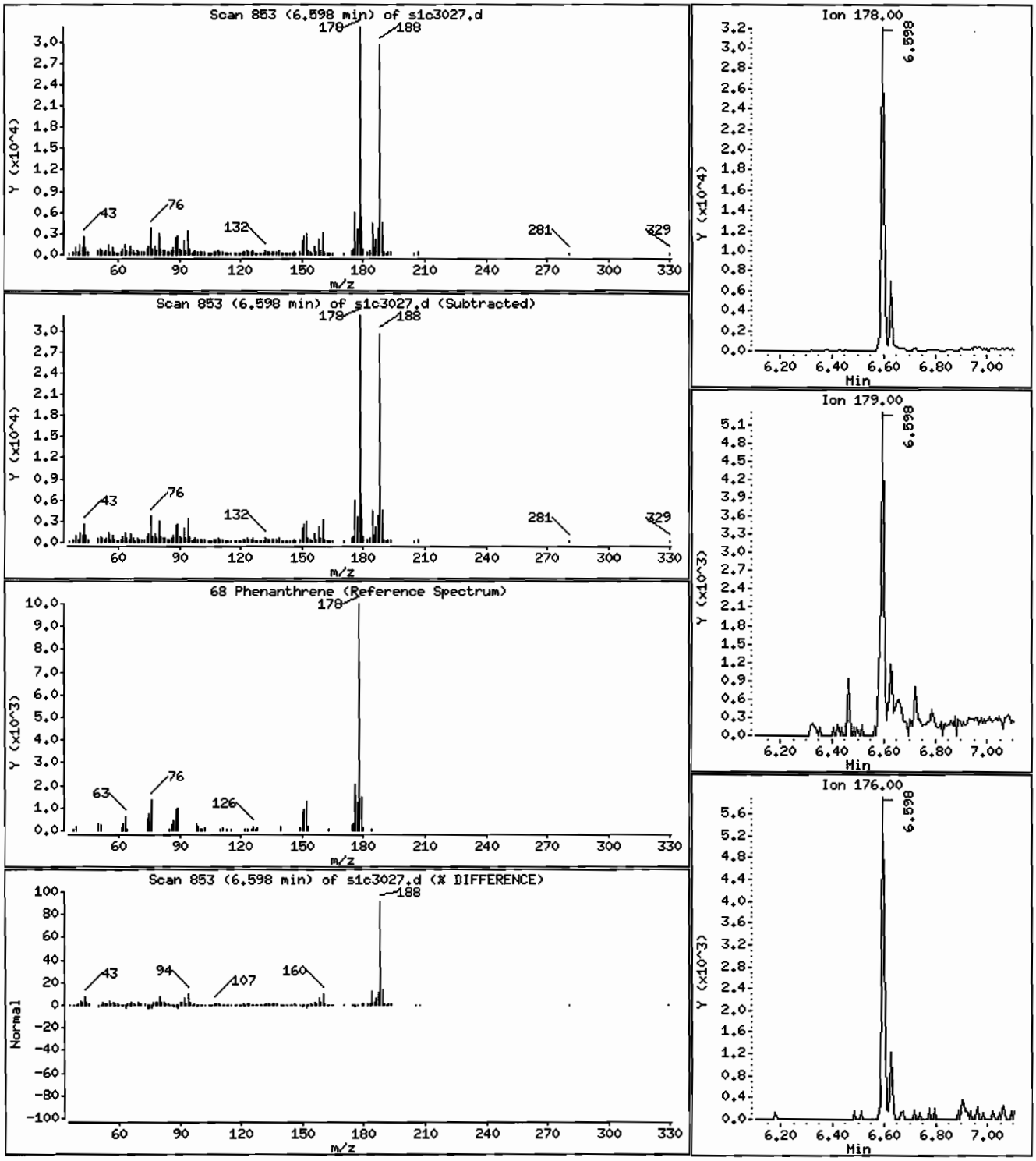

Data File: /chem/MSD1.i/s033010.b/s1c3027.d

Date : 30-MAR-2010 20:14

Client ID: RE46-10-12968

Instrument: MSD1.i

Sample Info: 1249335006|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 43.2 ug/Kg

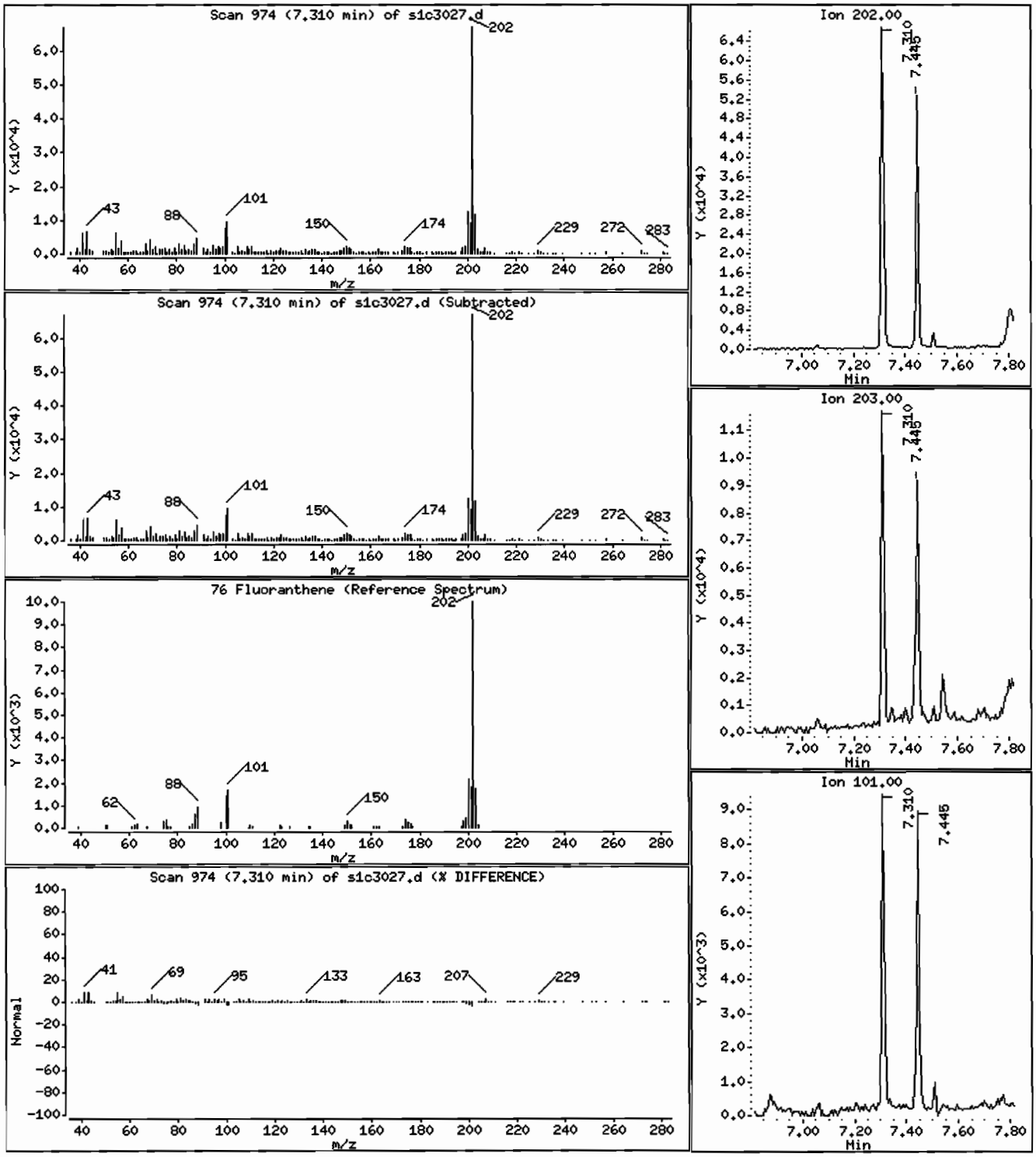

Data File: /chem/MSD1.i/s033010.b/s1c3027.d

Date : 30-MAR-2010 20:14

Client ID: RE46-10-12968 Instrument: MSD1.i

Sample Info: 1249335006|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

89 Benzo(a)anthracene Concentration: 28.5 ug/Kg

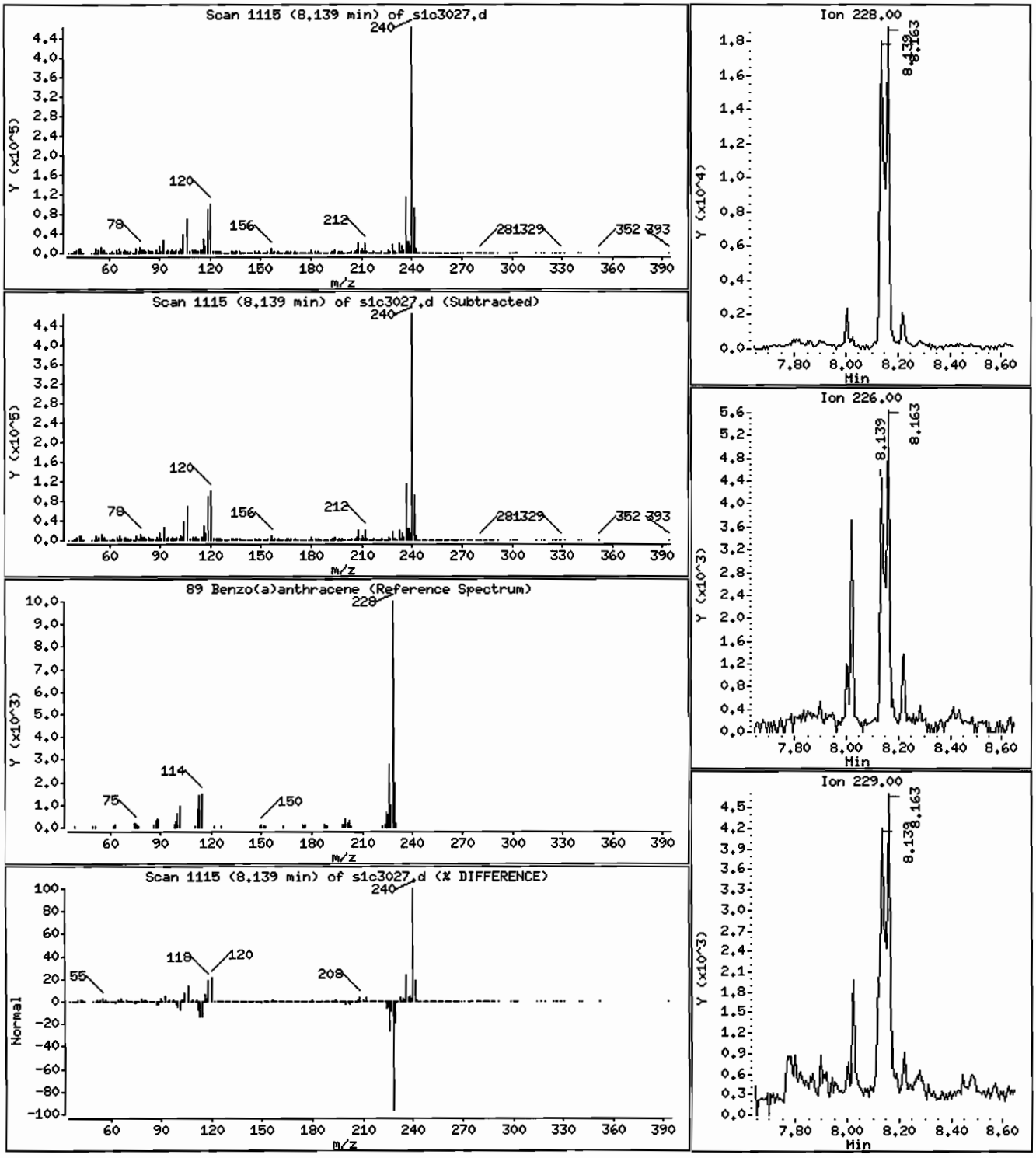

Data File: /chem/MSD1.i/s033010.b/s1c3027.d

Date : 30-MAR-2010 20:14

Client ID: RE46-10-12968

Instrument: MSD1.i

Sample Info: 1249335006|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 26.8 ug/Kg

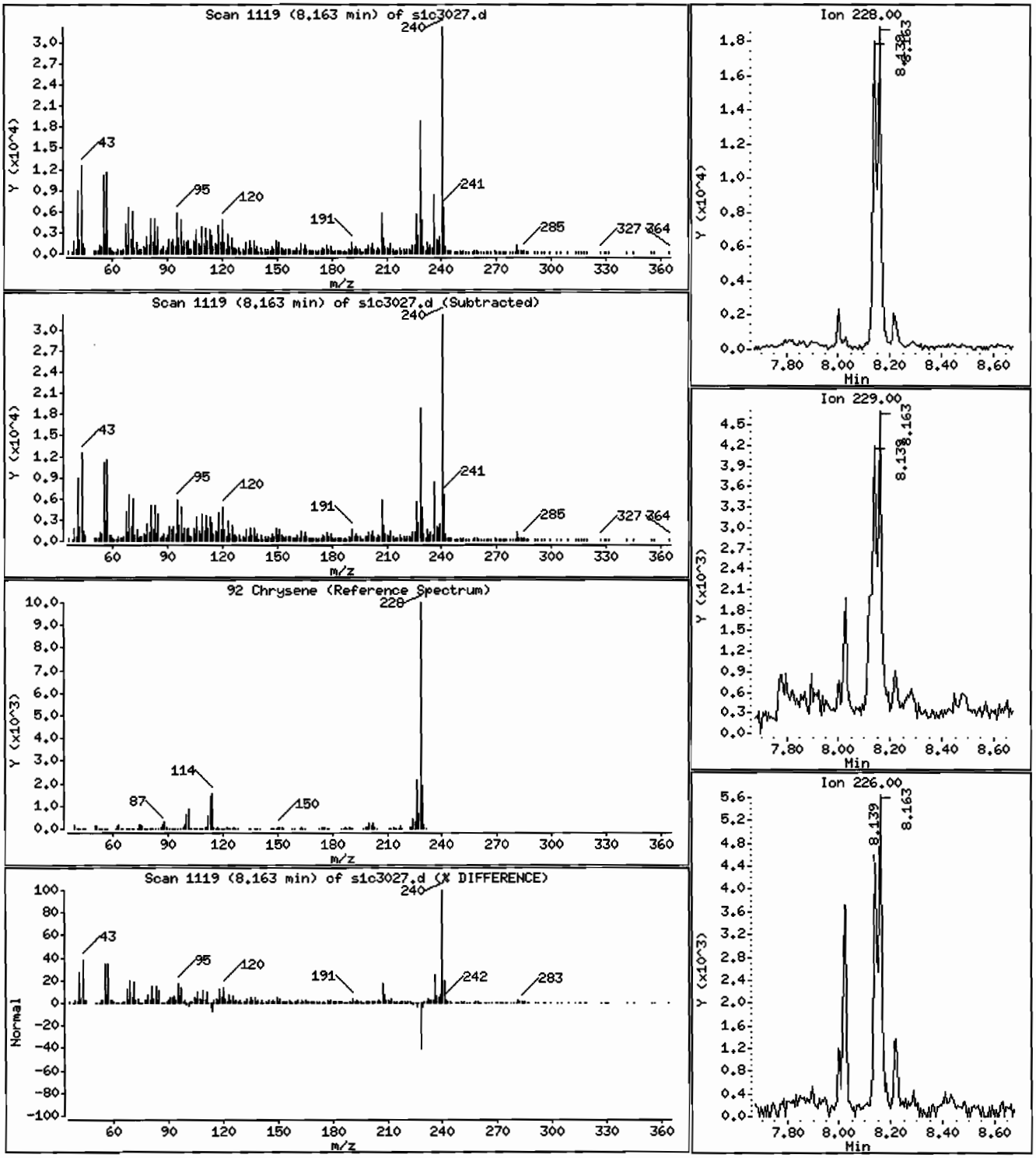

Data File: /chem/MSD1.i/s033010.b/s1c3027.d

Date : 30-MAR-2010 20:14

Client ID: RE46-10-12968

Instrument: MSD1.i

Sample Info: |2493350061966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 105 ug/Kg

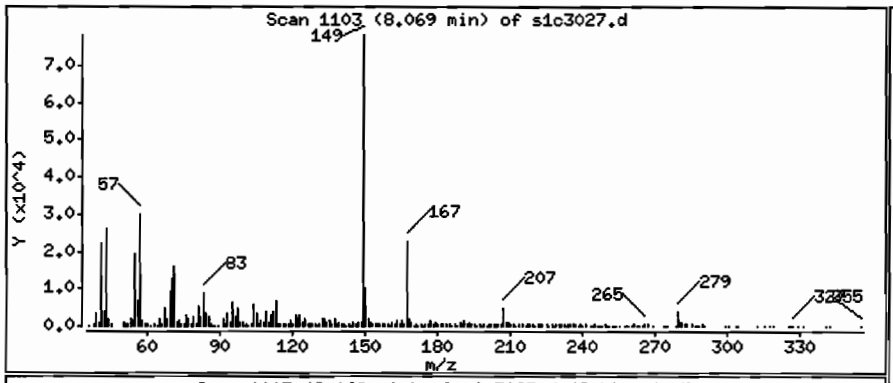

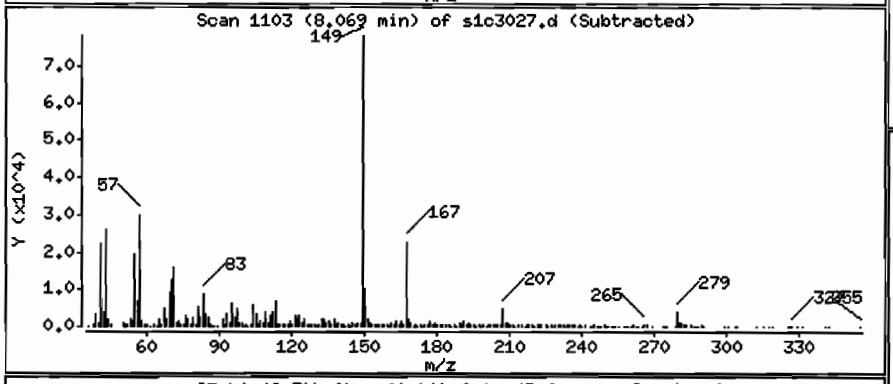

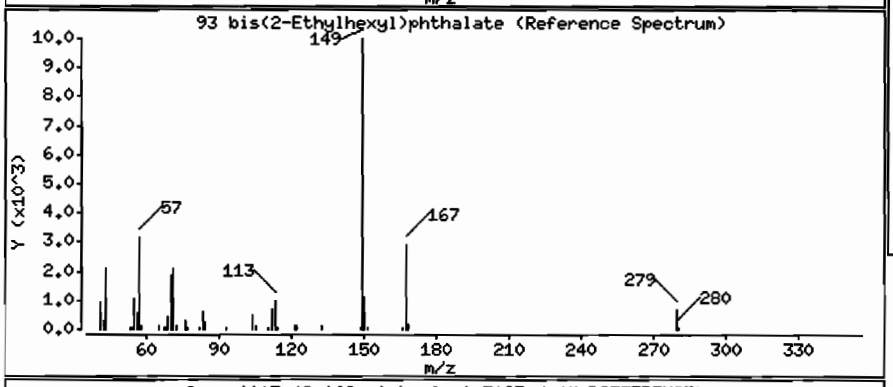

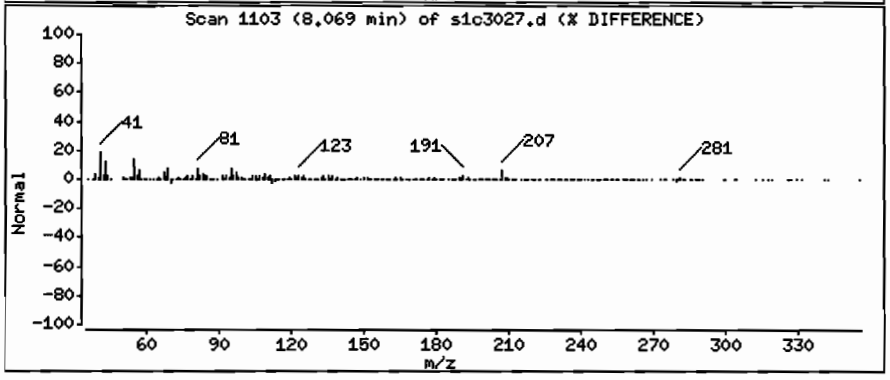

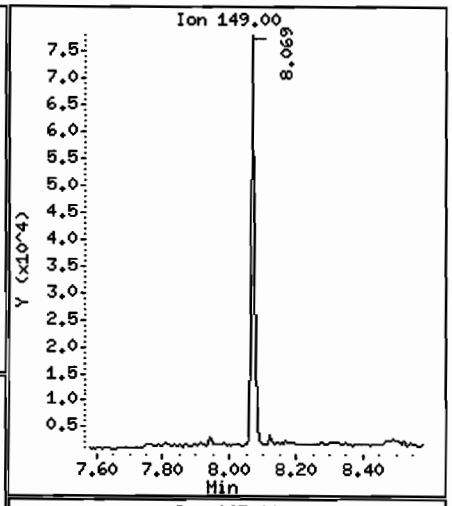

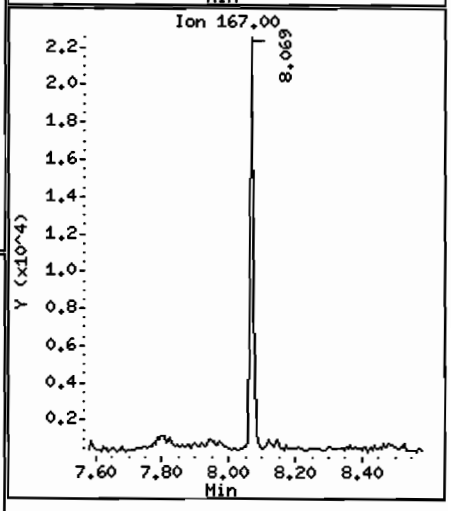

Data File: /chem/MSD1.i/s033010.b/s1c3027.d

Date : 30-MAR-2010 20:14

Client ID: RE46-10-12968

Instrument: MSD1.i

Sample Info: 1249335006|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 34.6 ug/Kg

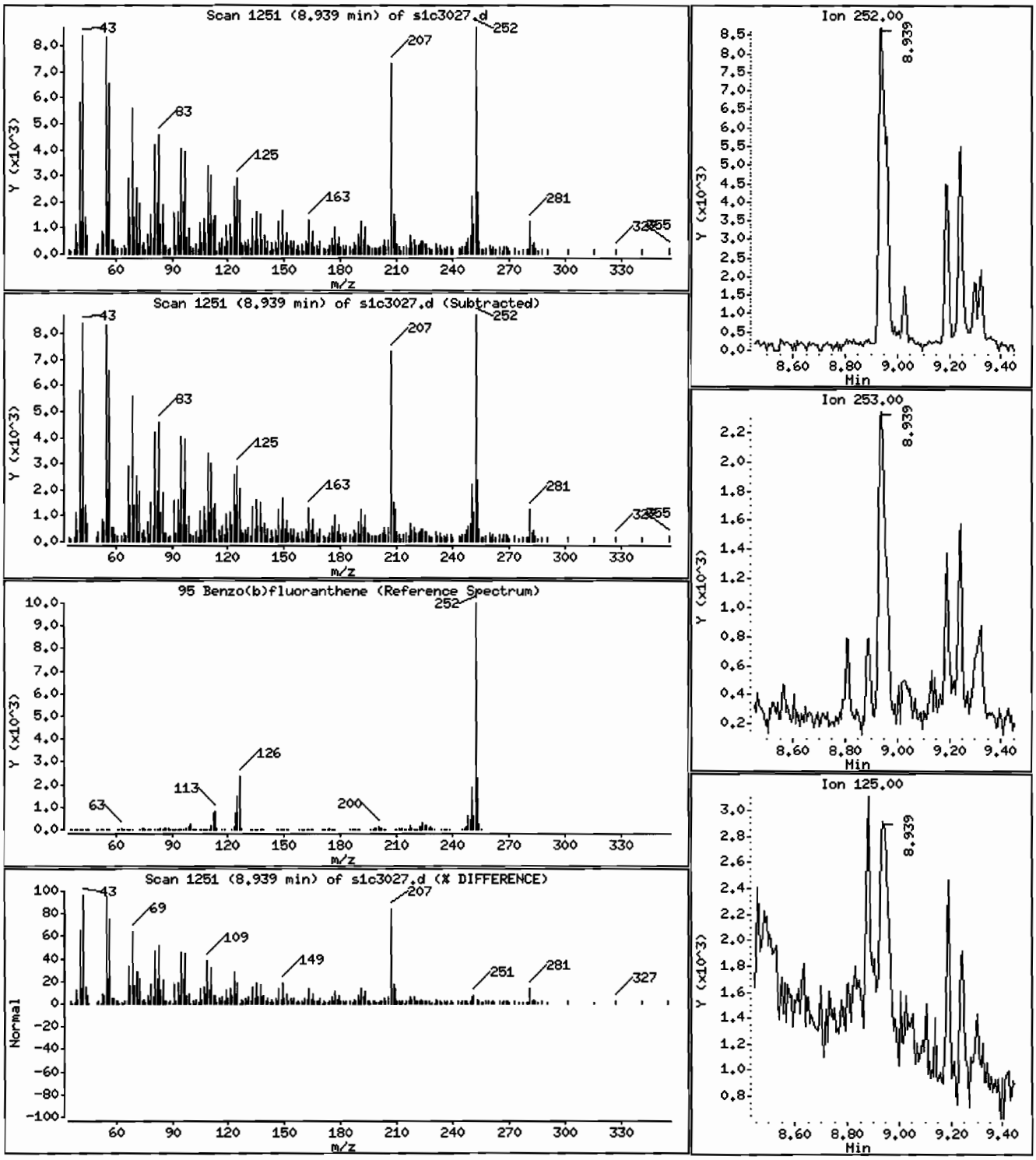

Data File: /chem/MSD1.i/s033010.b/s1c3027.d

Date : 30-MAR-2010 20:14

Client ID: RE46-10-12968

Instrument: MSD1.i

Sample Info: |249335006|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 17.4 ug/Kg

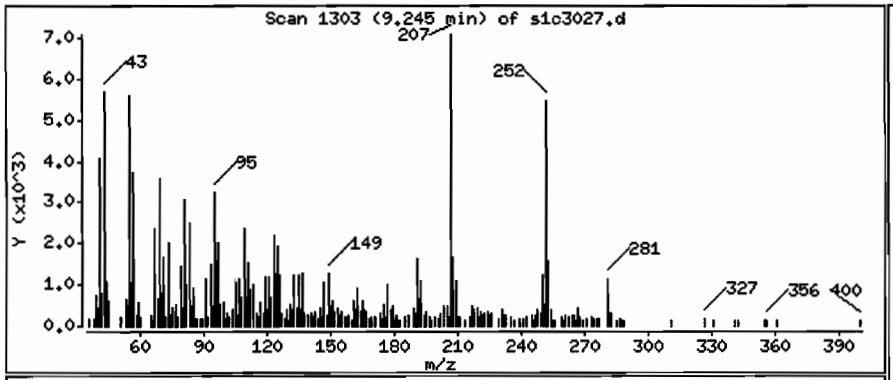

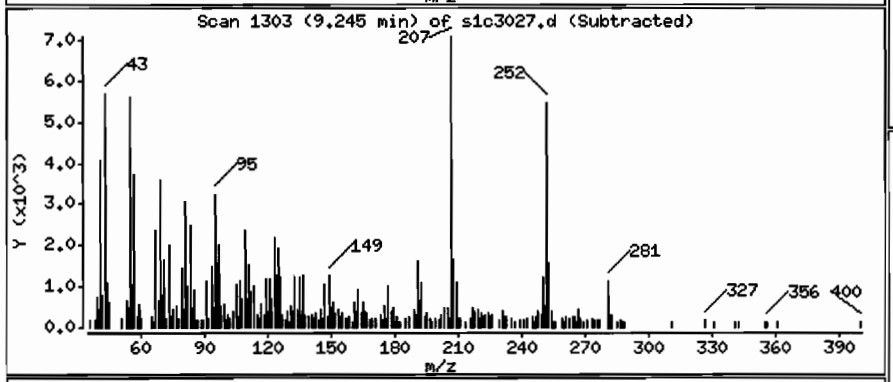

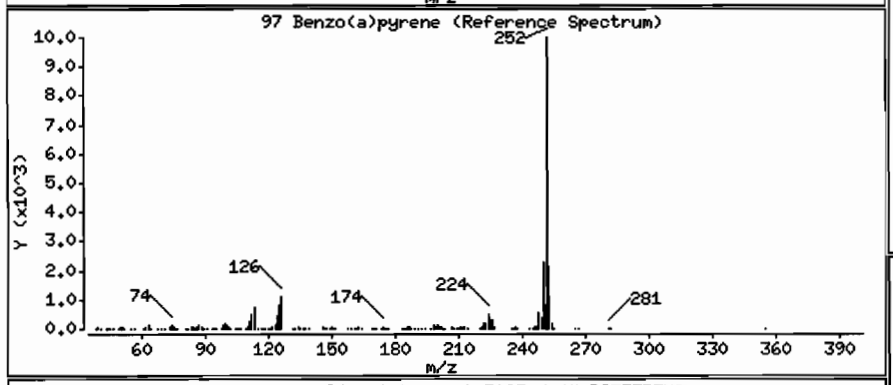

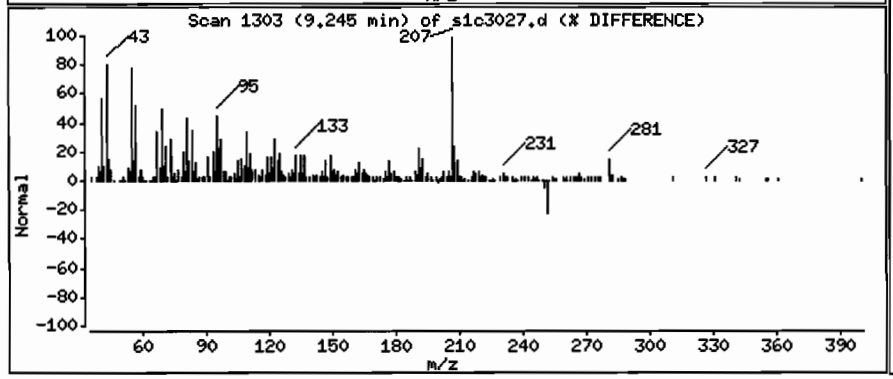

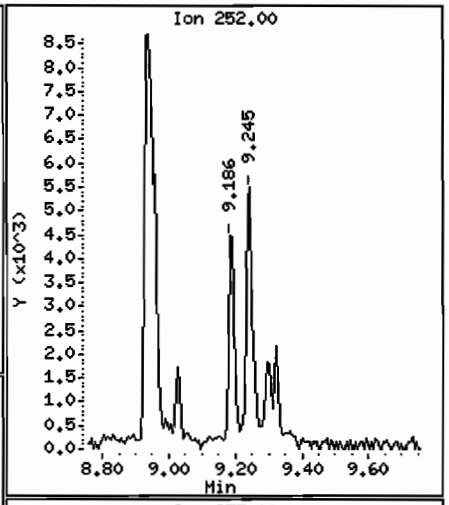

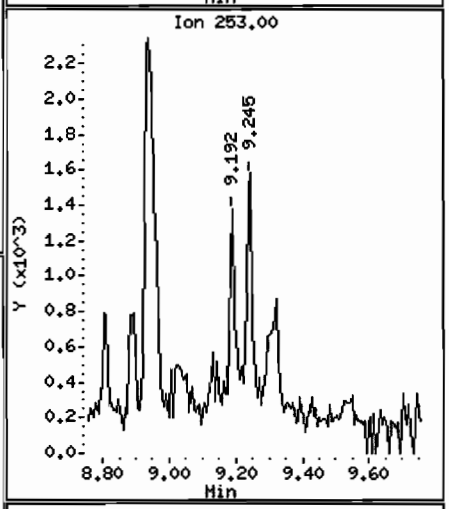

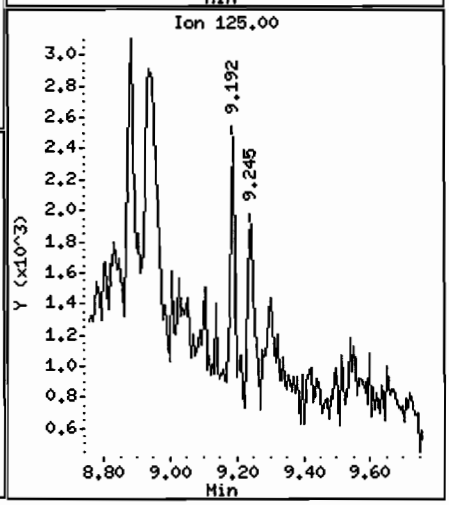

Data File: /chem/MSD1.i/s033010.b/s1c3027.d

Date : 30-MAR-2010 20:14

Client ID: RE46-10-12968

Instrument: MSD1.i

Sample Info: 1249335006|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 11.6 ug/Kg

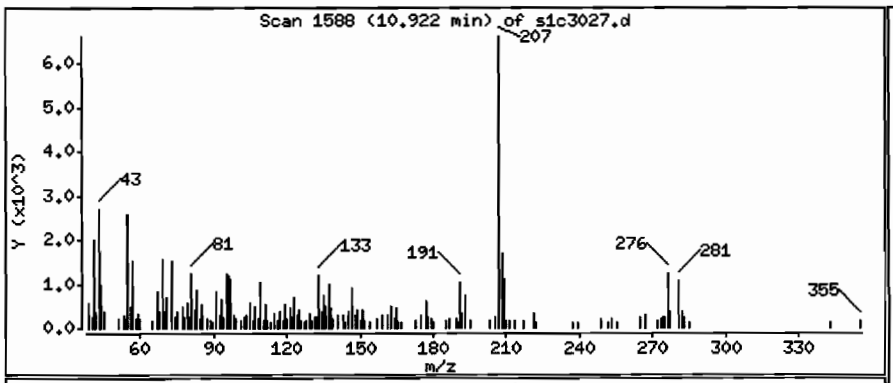

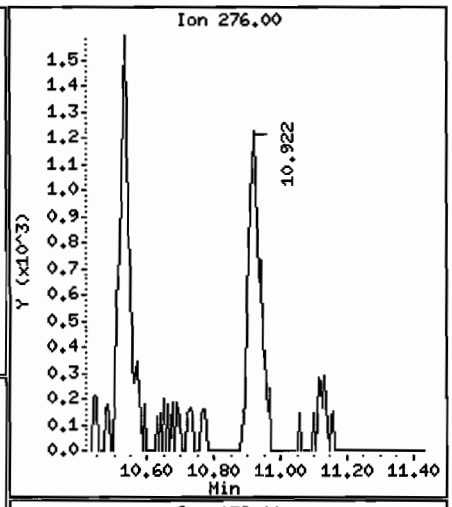

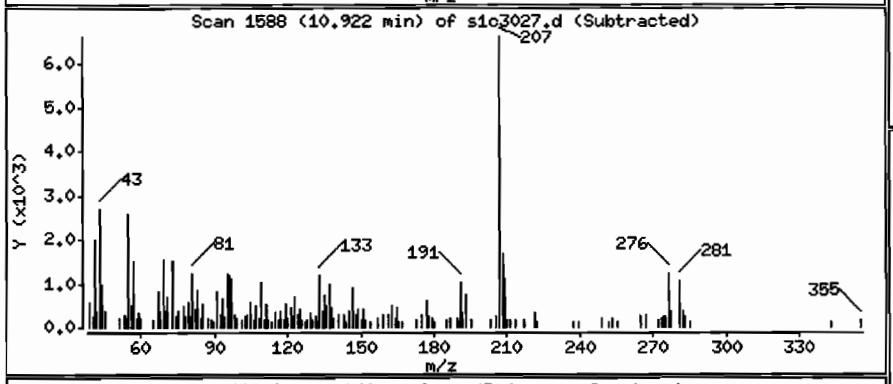

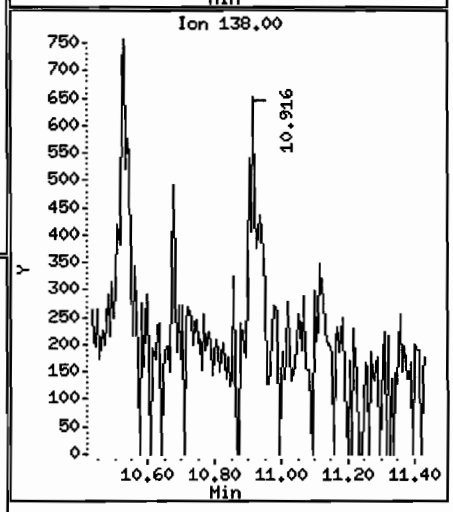

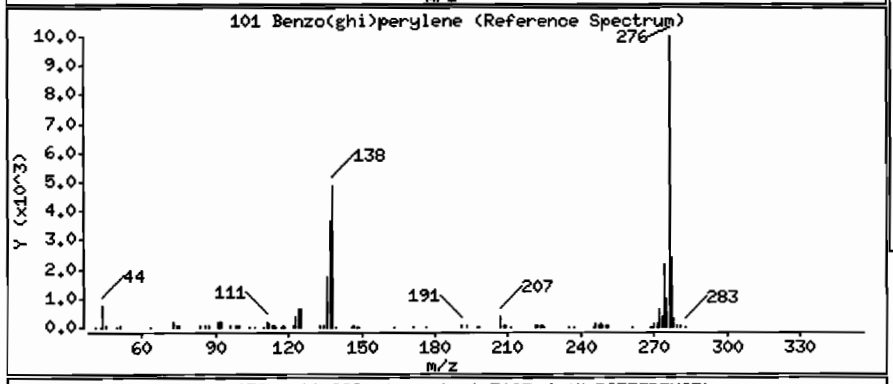

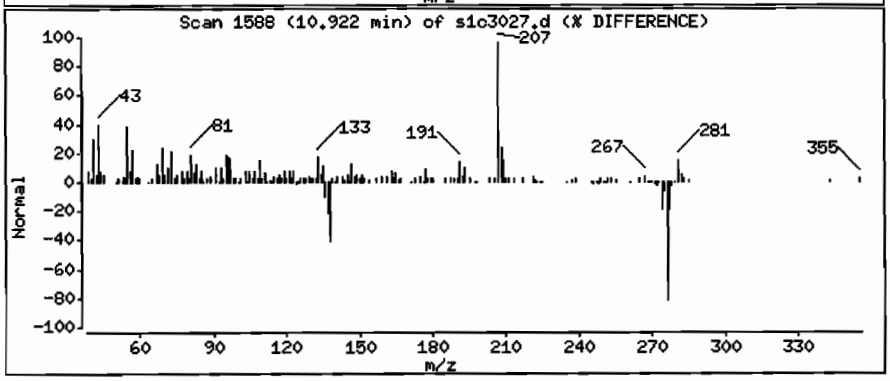

Data File: /chem/MSD1.i/s033010.b/s1c3027.d

Date : 30-MAR-2010 20:14

Client ID: RE46-10-12968

Instrument: MSD1.i

Sample Info: |2493350061966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
t-Butyl nitrite	540-80-7	NIST05.L	4426	39	C4H9NO2	103

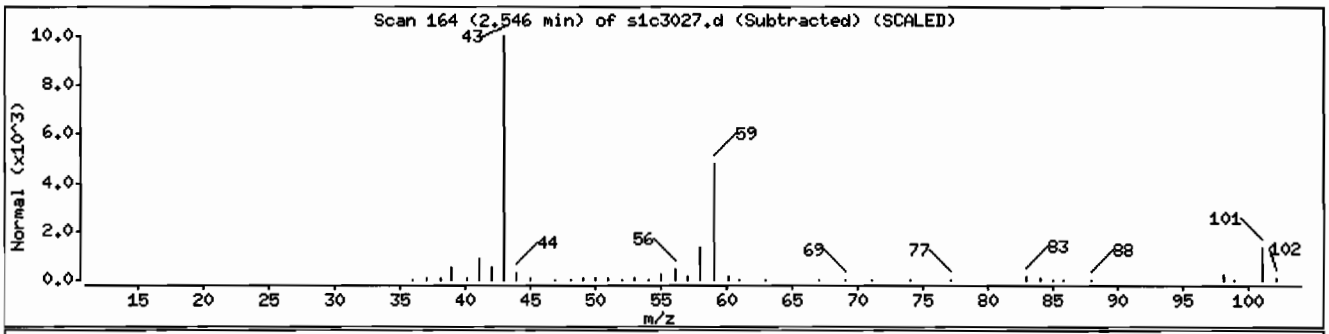

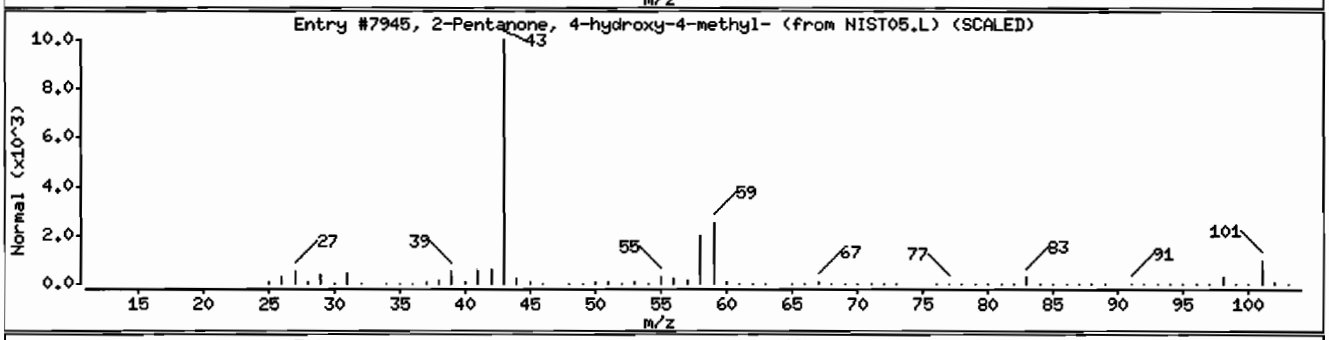

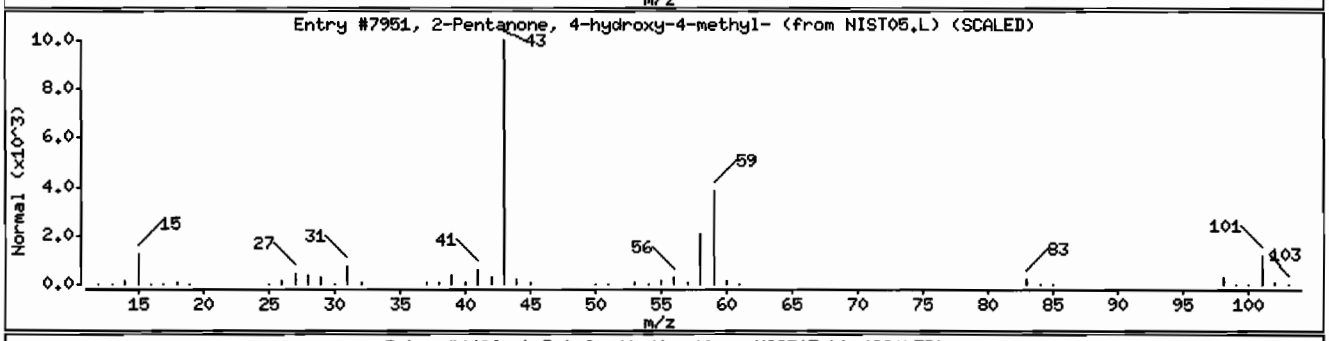

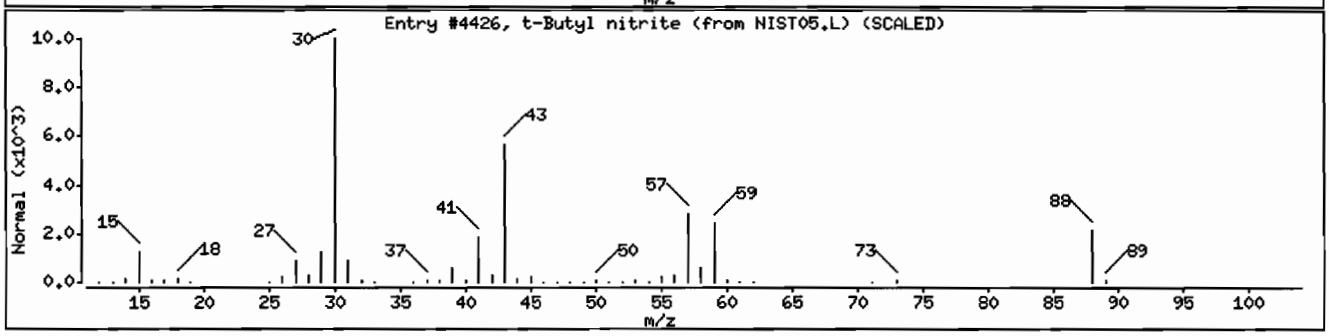

Data File: /chem/MSD1.i/s033010.b/s1c3027.d

Date : 30-MAR-2010 20:14

Client ID: RE46-10-12968

Instrument: MSD1.i

Sample Info: |249335006|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Barbituric acid, 5-allyl-5-(cyclohex-2-e	77409-34-8	NIST05.L	90413	44	C13H16N2O3	248
4-Pentynamide, 2-acetyl-N-(2-methoxyphen	55760-06-0	NIST05.L	113981	44	C17H17NO3	283
6-Isopropenyl-4,8a-dimethyl-4a,5,6,7,8,8	86917-79-5	NIST05.L	69971	42	C15H22O	218

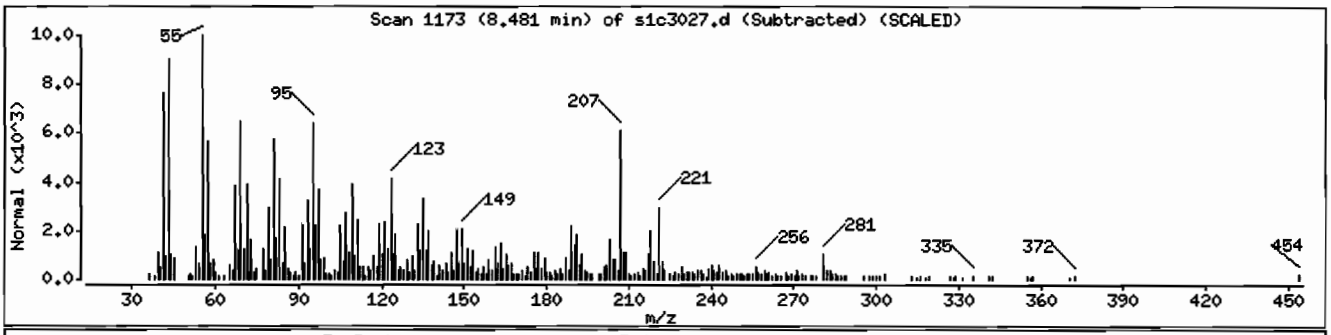

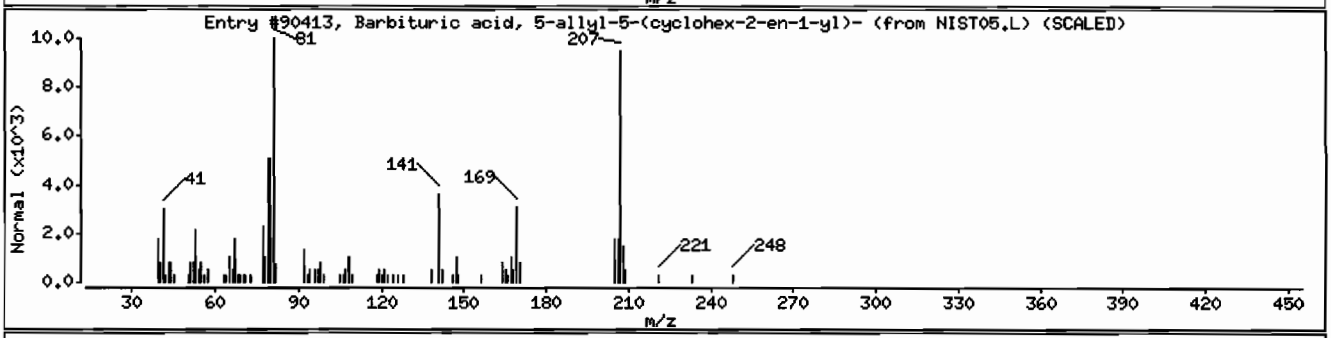

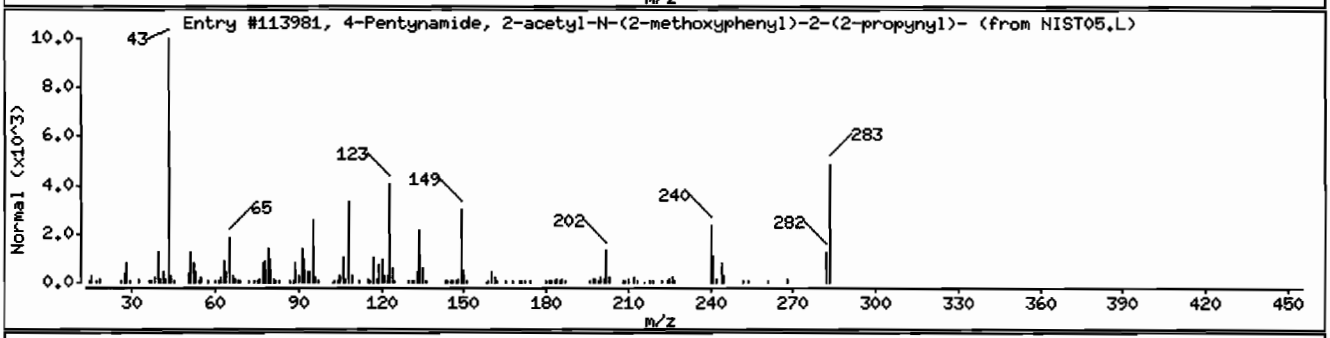

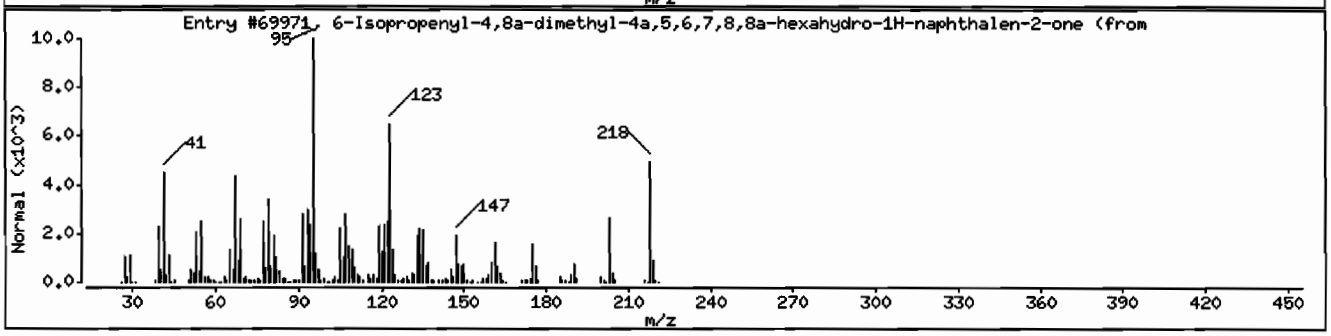

Data File: /chem/MSD1.i/s033010.b/s1c3027.d

Date : 30-MAR-2010 20:14

Client ID: RE46-10-12968 Instrument: MSD1.i

Sample Info: 1249335006|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NIST05.L	113489	97	C20H42	282
Octadecane, 2-methyl-	1560-88-9	NIST05.L	104280	92	C19H40	268
Hexadecane	544-76-3	NIST05.L	76090	91	C16H34	226

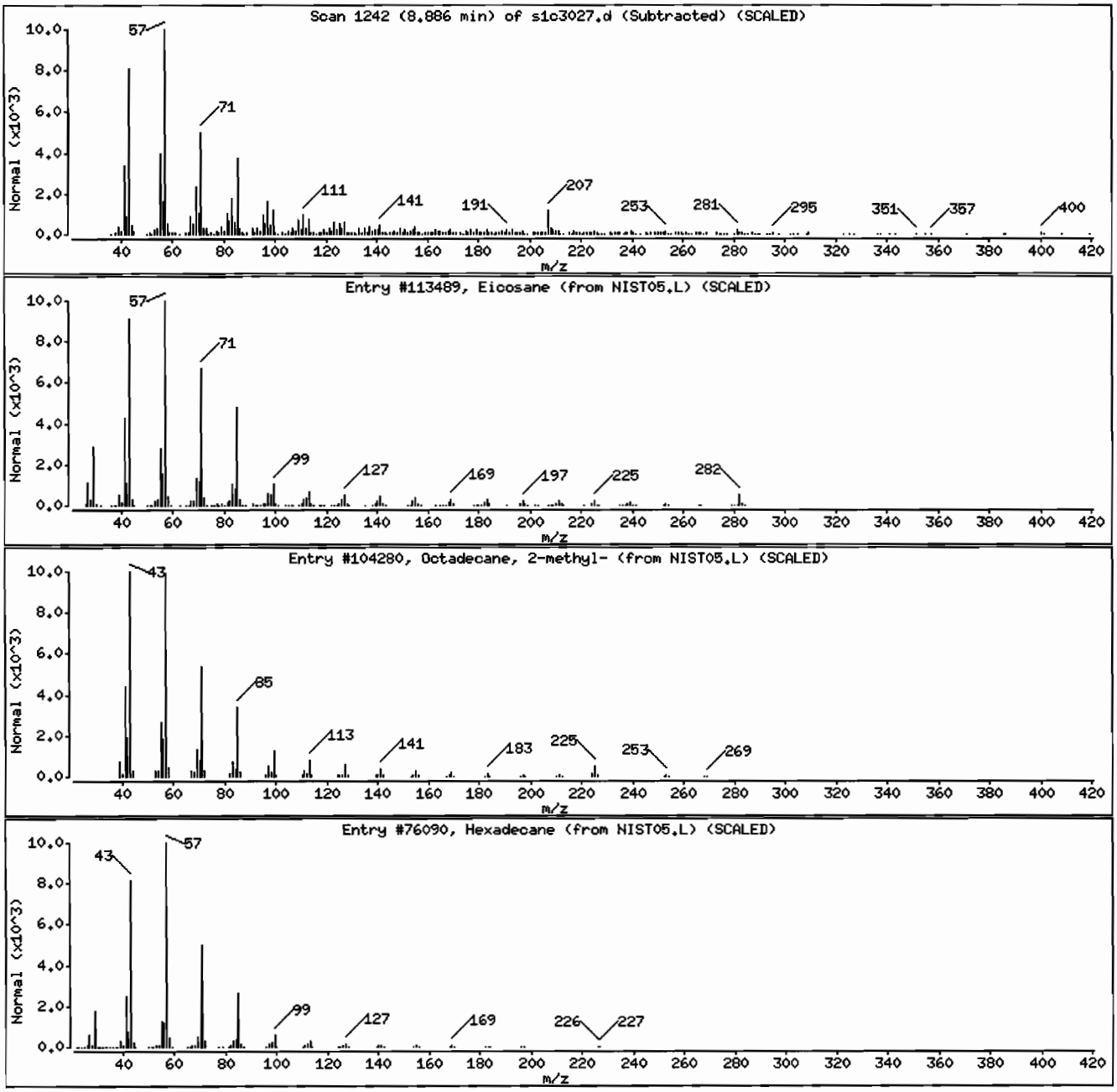

Data File: /chem/MSD1.i/s033010.b/s1c3027.d

Date : 30-MAR-2010 20:14

Client ID: RE46-10-12968 Instrument: MSD1.i

Sample Info: |249335006|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Friedelan-3-one	559-74-0	NIST05.L	176566	95	C30H50O	426
D:A-Friedoursan-3-one	89950-00-5	NIST05.L	176576	58	C30H50O	426
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	49	C13H21NO	207

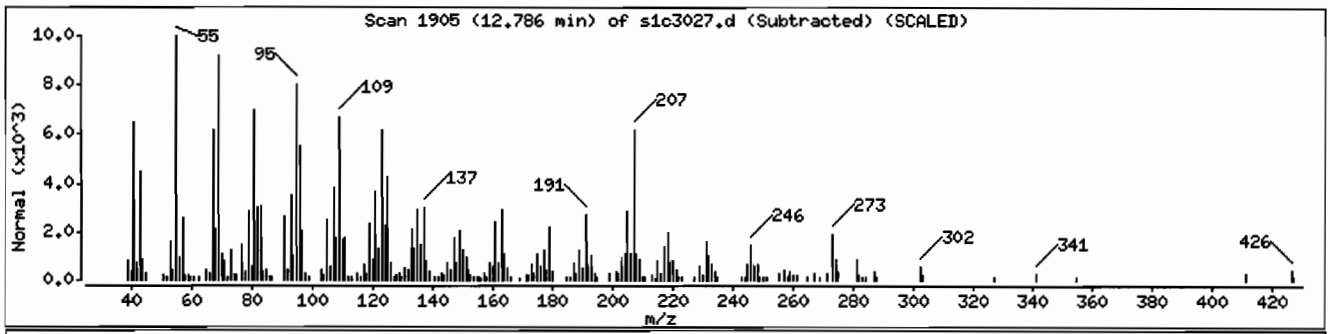

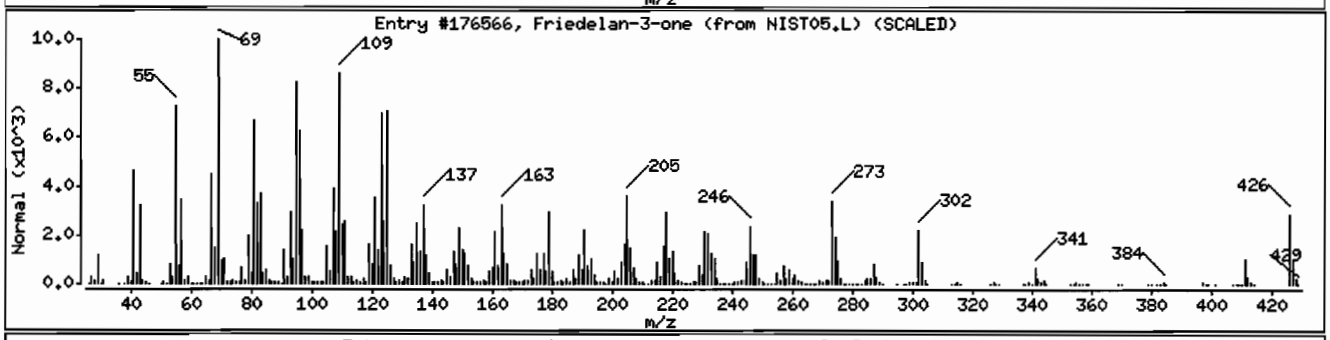

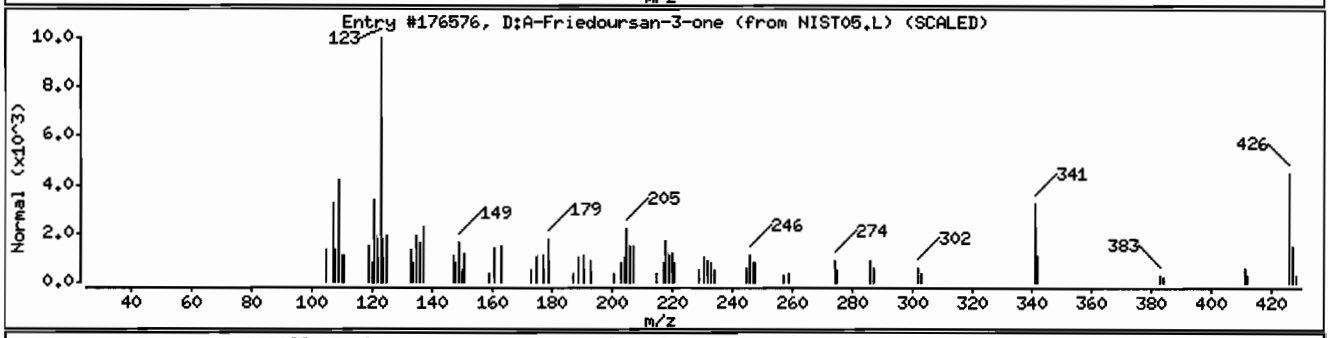

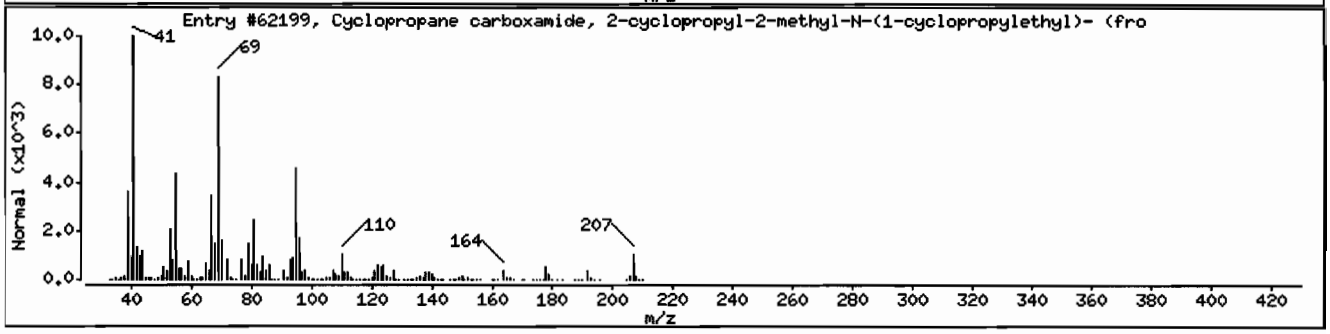

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12969**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**2**
Run Date:	**03/30/2010 20:38**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3028.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	759	ug/kg	152	759
108-95-2	Phenol	U	759	ug/kg	152	759
95-57-8	2-Chlorophenol	U	759	ug/kg	152	759
106-46-7	1,4-Dichlorobenzene	U	759	ug/kg	152	759
621-64-7	N-Nitrosodipropylamine	U	759	ug/kg	152	759
59-50-7	4-Chloro-3-methylphenol	U	759	ug/kg	152	759
83-32-9	Acenaphthene	U	75.9	ug/kg	25.0	75.9
121-14-2	2,4-Dinitrotoluene	U	759	ug/kg	75.9	759
100-02-7	4-Nitrophenol	U	759	ug/kg	250	759
87-86-5	Pentachlorophenol	U	759	ug/kg	190	759
129-00-0	Pyrene	J	56.0	ug/kg	22.8	75.9
110-86-1	Pyridine	U	759	ug/kg	152	759
62-53-3	Aniline	U	759	ug/kg	228	759
111-44-4	bis(2-Chloroethyl) ether	U	759	ug/kg	152	759
541-73-1	1,3-Dichlorobenzene	U	759	ug/kg	152	759
100-51-6	Benzyl alcohol	U	759	ug/kg	228	759
95-50-1	1,2-Dichlorobenzene	U	759	ug/kg	152	759
108-60-1	bis(2-Chloroisopropyl)ether	U	759	ug/kg	152	759
95-48-7	o-Cresol	U	759	ug/kg	152	759
65794-96-9	m,p-Cresols	U	759	ug/kg	228	759
67-72-1	Hexachloroethane	U	759	ug/kg	152	759
98-95-3	Nitrobenzene	U	759	ug/kg	152	759
78-59-1	Isophorone	U	759	ug/kg	152	759
88-75-5	2-Nitrophenol	U	759	ug/kg	152	759
105-67-9	2,4-Dimethylphenol	U	759	ug/kg	266	759
111-91-1	bis(2-Chloroethoxy)methane	U	759	ug/kg	152	759
120-83-2	2,4-Dichlorophenol	U	759	ug/kg	152	759
65-85-0	Benzoic acid	U	1520	ug/kg	379	1520
91-20-3	Naphthalene	U	75.9	ug/kg	22.8	75.9
106-47-8	4-Chloroaniline	U	759	ug/kg	152	759
87-68-3	Hexachlorobutadiene	U	759	ug/kg	152	759
91-57-6	2-Methylnaphthalene	U	75.9	ug/kg	15.2	75.9
77-47-4	Hexachlorocyclopentadiene	U	759	ug/kg	152	759
88-06-2	2,4,6-Trichlorophenol	U	759	ug/kg	152	759
95-95-4	2,4,5-Trichlorophenol	U	759	ug/kg	152	759
91-58-7	2-Chloronaphthalene	U	75.9	ug/kg	25.0	75.9
88-74-4	2-Nitroaniline	U	759	ug/kg	152	759
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	759	ug/kg	152	759

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335007	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46-10-12969	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	2
Run Date:	03/30/2010 20:38	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	s1c3028.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	759	ug/kg	152	759
606-20-2	2,6-Dinitrotoluene	U	759	ug/kg	75.9	759
208-96-8	Acenaphthylene	U	75.9	ug/kg	22.8	75.9
51-28-5	2,4-Dinitrophenol	U	1520	ug/kg	288	1520
132-64-9	Dibenzofuran	U	759	ug/kg	152	759
84-66-2	Diethylphthalate	U	759	ug/kg	152	759
86-73-7	Fluorene	U	75.9	ug/kg	22.8	75.9
7005-72-3	4-Chlorophenylphenylether	U	759	ug/kg	152	759
534-52-1	2-Methyl-4,6-dinitrophenol	U	759	ug/kg	152	759
100-01-6	4-Nitroaniline	U	759	ug/kg	228	759
	p-Nitroaniline					
122-39-4	Diphenylamine	U	759	ug/kg	152	759
122-66-7	Azobenzene	U	759	ug/kg	152	759
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	759	ug/kg	152	759
118-74-1	Hexachlorobenzene	U	759	ug/kg	152	759
85-01-8	Phenanthrene	J	38.3	ug/kg	22.8	75.9
120-12-7	Anthracene	U	75.9	ug/kg	15.2	75.9
84-74-2	Di-n-butylphthalate	U	759	ug/kg	152	759
206-44-0	Fluoranthene	J	59.7	ug/kg	22.8	75.9
85-68-7	Butylbenzylphthalate	U	759	ug/kg	152	759
56-55-3	Benzo(a)anthracene	J	38.7	ug/kg	22.8	75.9
91-94-1	3,3'-Dichlorobenzidine	U	759	ug/kg	228	759
218-01-9	Chrysene	J	34.2	ug/kg	22.8	75.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	759	ug/kg	152	759
117-84-0	Di-n-octylphthalate	U	759	ug/kg	152	759
205-99-2	Benzo(b)fluoranthene	J	50.2	ug/kg	22.8	75.9
207-08-9	Benzo(k)fluoranthene	U	75.9	ug/kg	22.8	75.9
50-32-8	Benzo(a)pyrene	J	27.1	ug/kg	22.8	75.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	75.9	ug/kg	22.8	75.9
53-70-3	Dibenzo(a,h)anthracene	U	75.9	ug/kg	22.8	75.9
191-24-2	Benzo(ghi)perylene	J	25.4	ug/kg	22.8	75.9
120-82-1	1,2,4-Trichlorobenzene	U	759	ug/kg	152	759

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
300574-36-1	5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	12.8	857	ug/kg	90	NJ

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3028.d
Lab Smp Id: 249335007 Client Smp ID: RE46-10-12969
Inj Date : 30-MAR-2010 20:38
Operator : AMY Inst ID: MSD1.i
Smp Info : |249335007|966766|2|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 25
Dil Factor: 2.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	2.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	12.37980	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.487	3.487	(1.000)	517110	40.0000	
* 29 Naphthalene-d8	136	4.334	4.339	(1.000)	1976341	40.0000	
* 46 Acenaphthene-d10	164	5.569	5.575	(1.000)	1048898	40.0000	
* 67 Phenanthrene-d10	188	6.587	6.586	(1.000)	1906671	40.0000	
* 91 Chrysene-d12	240	8.151	8.157	(1.000)	1326118	40.0000	
* 98 Perylene-d12	264	9.310	9.310	(1.000)	852563	40.0000	
$ 3 2-Fluorophenol	112	2.710	2.704	(0.777)	281364	21.1302	1600
$ 5 Phenol-d5	99	3.228	3.228	(0.926)	344107	21.2192	1610
$ 20 Nitrobenzene-d5	82	3.840	3.845	(0.886)	136288	11.2435	853
$ 39 2-Fluorobiphenyl	172	5.075	5.075	(0.911)	318491	10.9946	834
$ 60 2,4,6-Tribromophenol	329	6.122	6.128	(1.099)	75448	21.9402	1660
$ 81 p-Terphenyl-d14	244	7.510	7.510	(0.921)	359484	16.2598	1230

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.445	7.451	(0.913)	27763	0.73777	56.0(a)
68 Phenanthrene	178	6.598	6.604	(1.002)	20824	0.50547	38.3(a)
76 Fluoranthene	202	7.310	7.316	(1.110)	33330	0.78719	59.7(a)
89 Benzo(a)anthracene	228	8.145	8.145	(0.999)	15894	0.50989	38.7(a)
92 Chrysene	228	8.169	8.175	(1.002)	13117	0.45031	34.2(a)
95 Benzo(b)fluoranthene	252	8.945	8.951	(0.961)	15529	0.66232	50.2(a)
97 Benzo(a)pyrene	252	9.251	9.257	(0.994)	6711	0.35747	27.1(aQ)
101 Benzo(ghi)perylene	276	10.927	10.933	(1.174)	4328	0.33430	25.4(aQ)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

SV REPORT

Data file: s1c3028.d
Report Date: 03/30/2010 20:58
Lab. ID: 249335007 SampleType: SAMPLE
Injection Date: 30-MAR-2010 20:38
Operator: AMY Instrument: MSD1.i
Sample Info: |249335007|966766|2|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Dilution Factor= 2.0
Integrator: HP RTE Compound Sublist: 10-2436
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	19923	3.84	3.74	80-120	100	(T)
42	12179	3.84	3.74	49-109	61	(T)
41 m-Nitroaniline				CAS#: 99-09-2		
138	227	5.57	5.54	80-120	100	( )
92	4669	5.57	5.54	73-133	2051	(Q)
108	19143	5.57	5.54	0- 41	8408	(Q)
43 Dimethylphthalate				CAS#: 131-11-3		
163	190083	5.57	5.36	80-120	100	(T)
164	1048898	5.57	5.36	0- 40	552	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	133610	5.57	5.41	80-120	100	(T)
63	2430	5.57	5.41	51-111	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	133610	5.57	5.70	80-120	100	(T)
89	1716	5.57	5.70	40-100	1	(QT)
63	2430	5.57	5.70	20- 80	2	(QT)
56 p-Nitroaniline				CAS#: 100-01-6		
138	304	5.98	5.97	80-120	100	( )
108	330	6.02	5.97	37- 97	109	(Q)
92	1072	6.12	5.97	12- 72	353	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
68 Phenanthrene			CAS#: 85-01-8			
178	20824	6.60	6.60	80-120	100	( )
179	4794	6.60	6.60	0- 45	23	( )
176	4297	6.60	6.60	0- 48	21	( )
69 Anthracene			CAS#: 120-12-7			
178	20824	6.60	6.63	80-120	100	( )
179	4794	6.60	6.63	0- 45	23	( )
176	4297	6.60	6.63	0- 48	21	( )
76 Fluoranthene			CAS#: 206-44-0			
202	33330	7.31	7.32	80-120	100	( )
203	6239	7.31	7.32	0- 47	19	( )
101	4880	7.31	7.32	0- 45	15	( )
79 Pyrene			CAS#: 129-00-0			
202	27763	7.45	7.45	80-120	100	( )
200	5783	7.45	7.45	0- 49	21	( )
101	5674	7.45	7.45	0- 48	20	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	15894	8.15	8.15	80-120	100	( )
226	3036	8.15	8.15	0- 55	19	( )
229	4986	8.15	8.15	0- 49	31	( )
92 Chrysene			CAS#: 218-01-9			
228	13117	8.17	8.17	80-120	100	( )
229	3422	8.16	8.17	0- 49	26	( )
226	4319	8.16	8.17	0- 58	33	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	15529	8.95	8.95	80-120	100	( )
253	4028	8.94	8.95	0- 52	26	( )
125	4531	8.94	8.95	0- 45	29	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	15529	8.95	8.97	80-120	100	( )
253	4028	8.94	8.97	0- 51	26	( )
125	4629	8.94	8.97	0- 44	30	( )
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	6711	9.25	9.26	80-120	100	( )
253	1777	9.25	9.26	0- 51	26	( )
125	5337	9.25	9.26	0- 45	80	(Q)
101 Benzo(ghi)perylene			CAS#: 191-24-2			
276	4328	10.93	10.93	80-120	100	( )
138	2775	10.93	10.93	1- 61	64	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3028.d
Lab Smp Id: 249335007 Client Smp ID: RE46-10-12969
Inj Date : 30-MAR-2010 20:38
Operator : AMY Inst ID: MSD1.i
Smp Info : |249335007|966766|2|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 25
Dil Factor: 2.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	2.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	12.37980	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 98 Perylene-d12	9.310	2400438	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur				CAS #: 300574-36-1			
12.804	677930	11.2967699	857	90	NIST05.L	68738	98

Data File: /chem/MSD1.i/s033010.b/s1c3028.d
Date : 30-MAR-2010 20:38
Client ID: RE46-10-12969
Sample Info: |249335007|966766|2|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

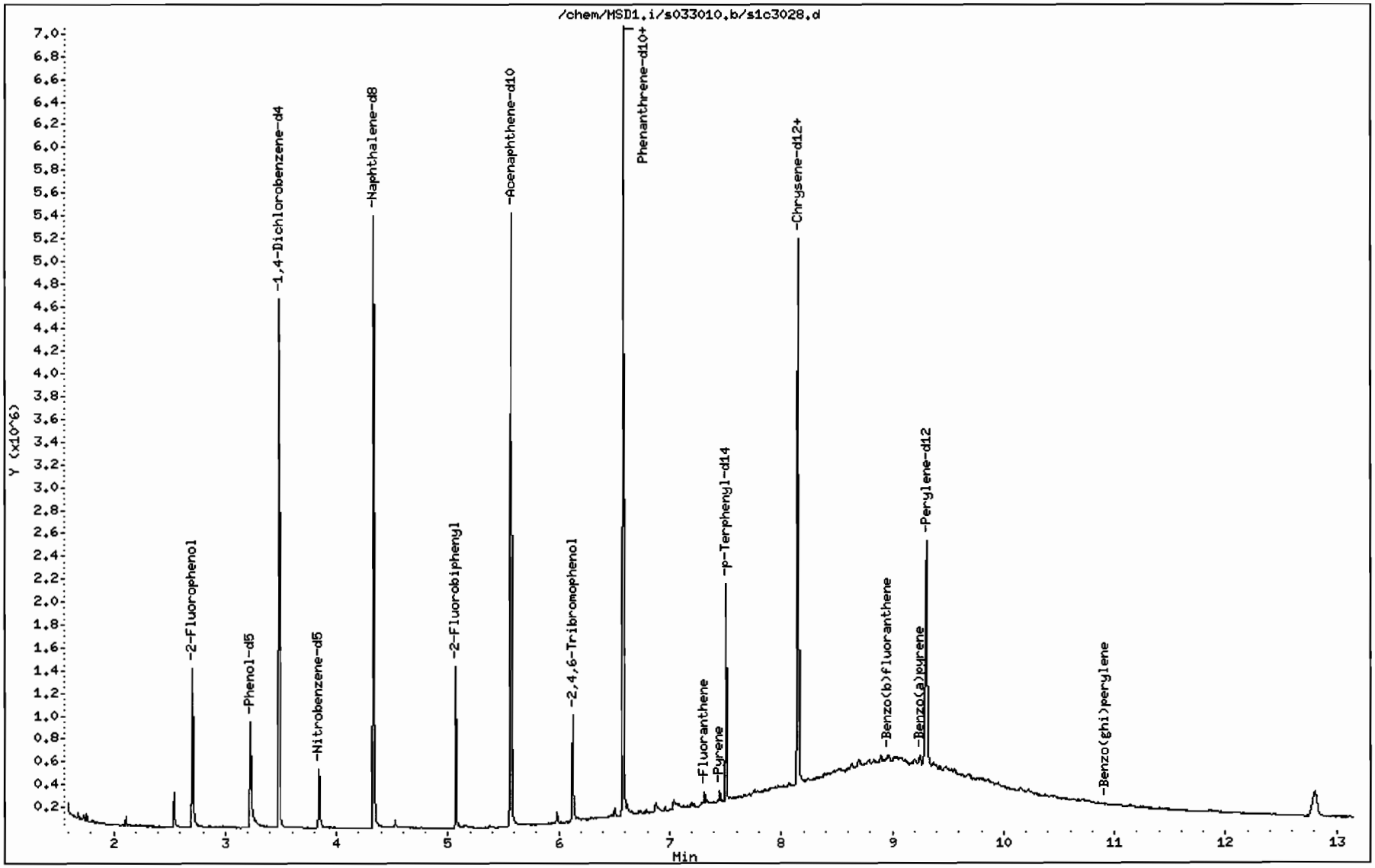

Data File: /chem/MSD1.i/s033010.b/s1c3028.d

Date : 30-MAR-2010 20:38

Client ID: RE46-10-12969

Instrument: MSD1.i

Sample Info: |2493350071966766|2|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 56.0 ug/Kg

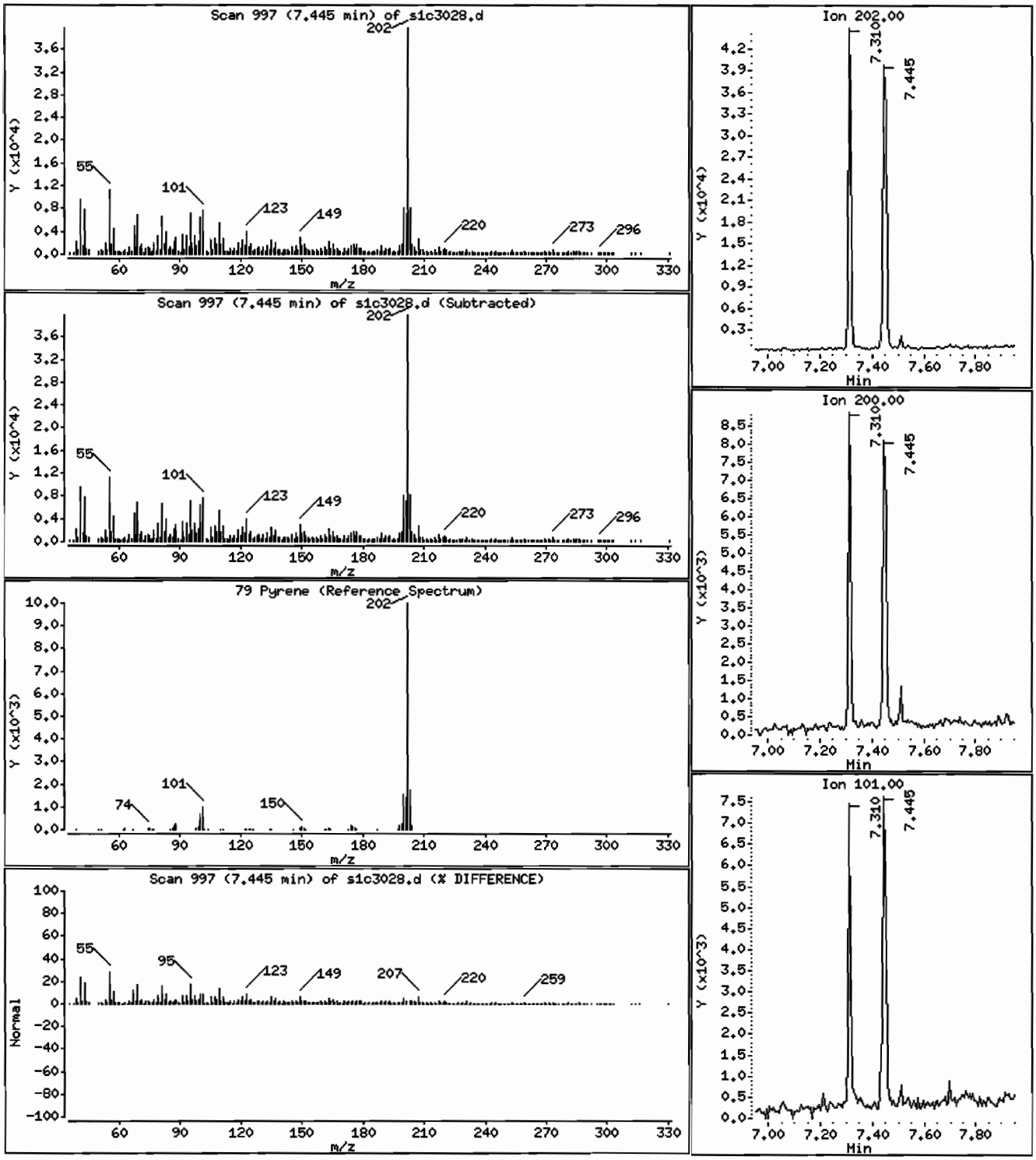

Data File: /chem/MSD1.i/s033010.b/s1c3028.d

Date : 30-MAR-2010 20:38

Client ID: RE46-10-12969

Instrument: MSD1.i

Sample Info: 1249335007196676612|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 38.3 ug/Kg

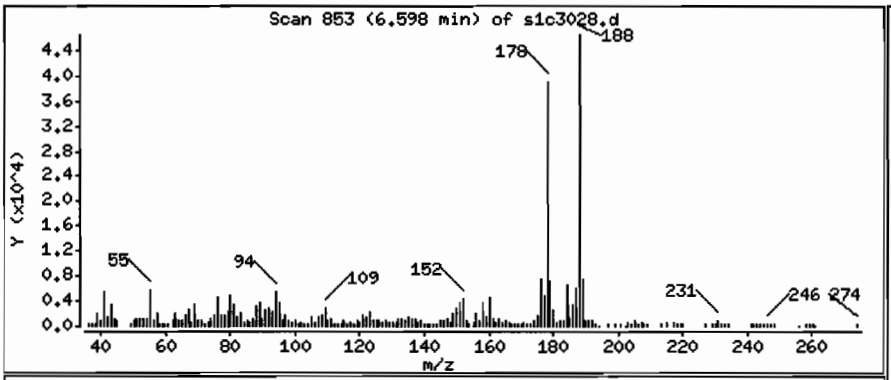

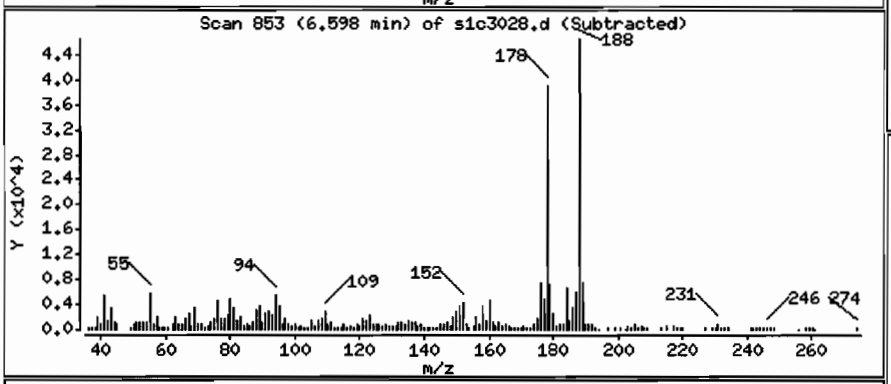

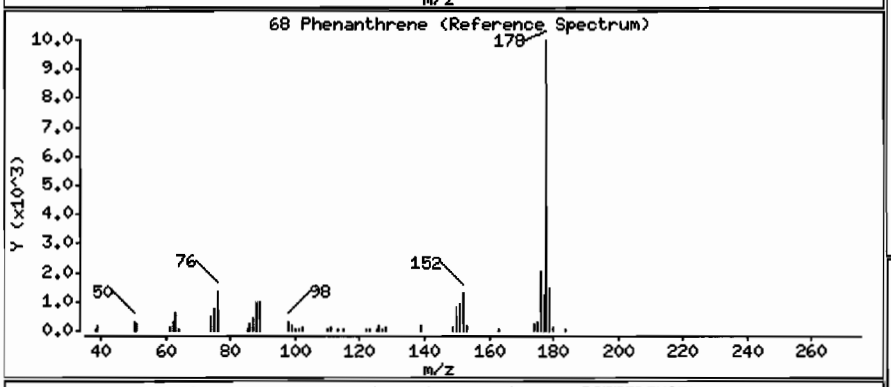

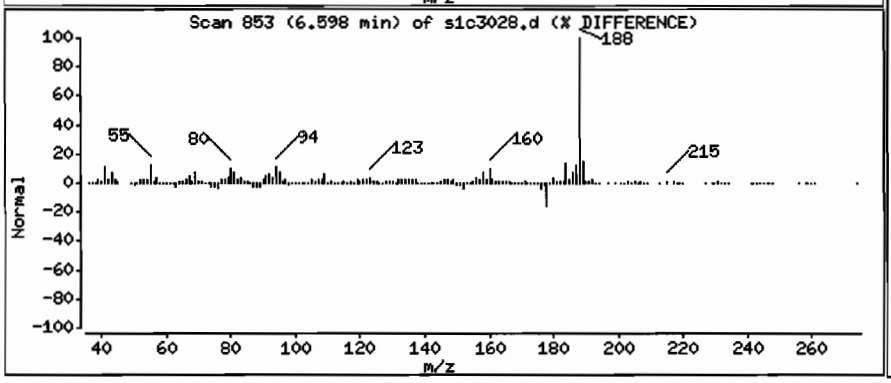

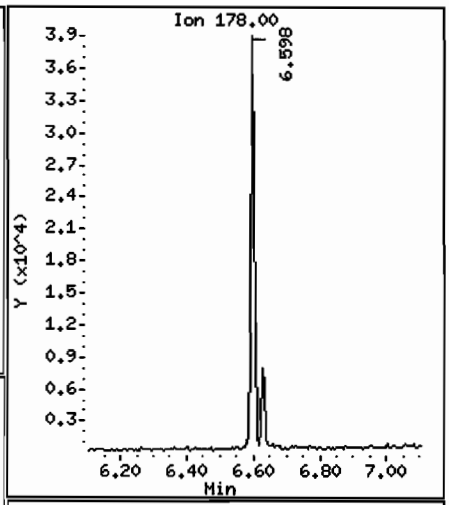

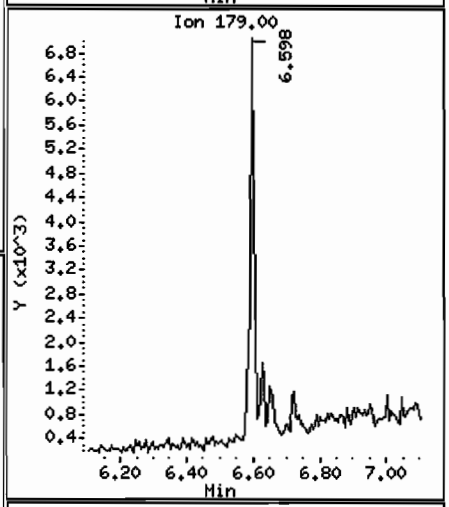

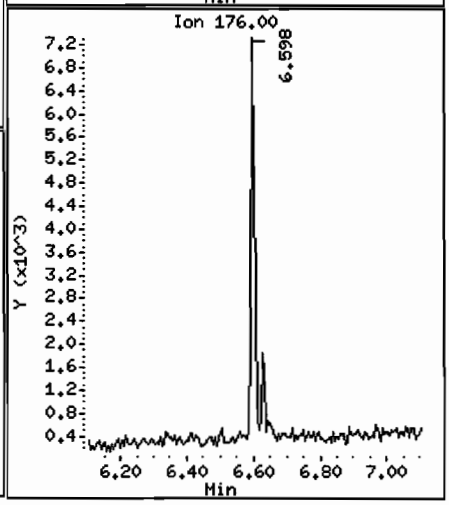

Data File: /chem/MSD1.i/s033010.b/s1c3028.d

Date : 30-MAR-2010 20:38

Client ID: RE46-10-12969

Instrument: MSD1.i

Sample Info: 1249335007196676612|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 59.7 ug/Kg

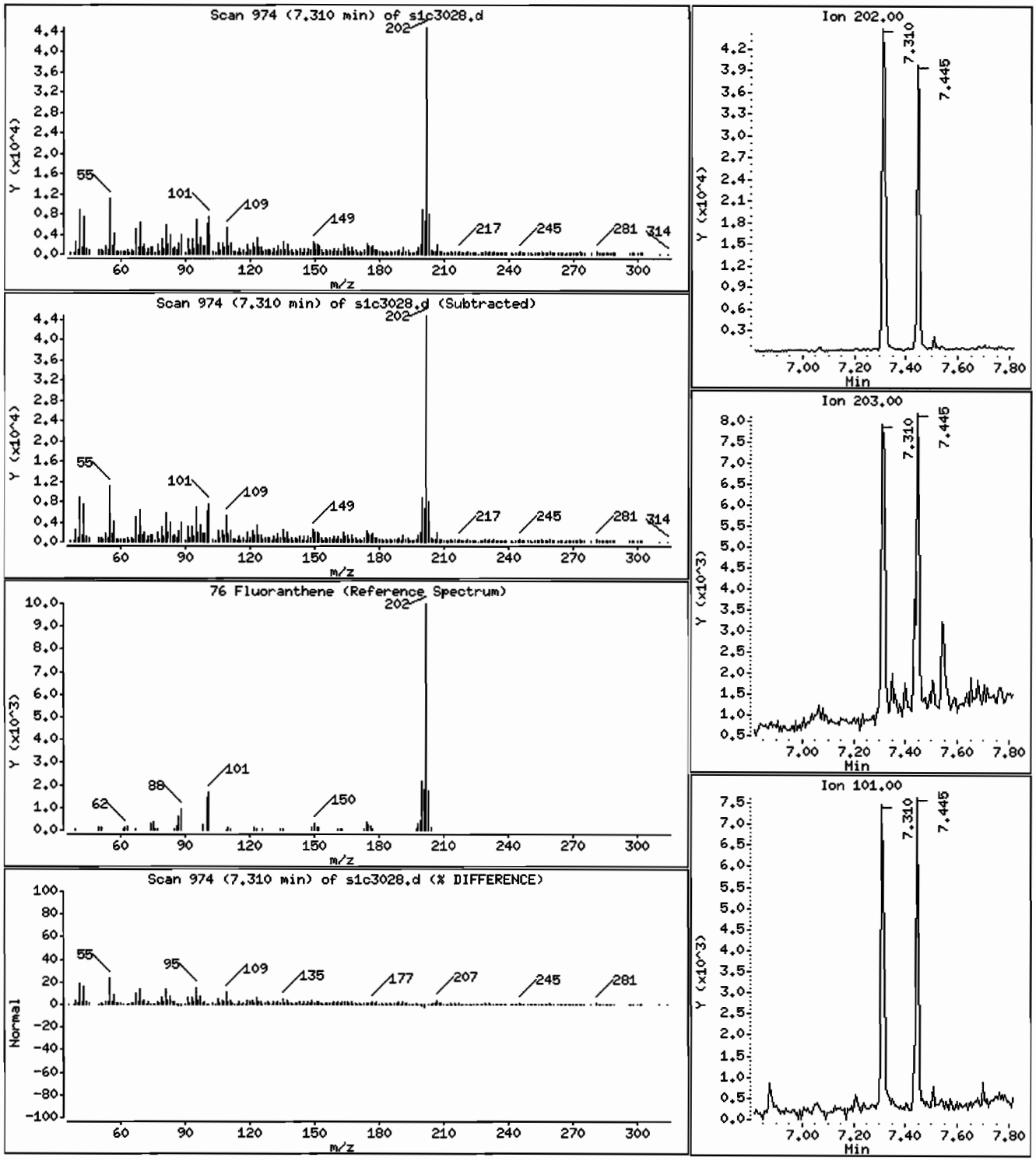

Data File: /chem/MSD1.i/s033010.b/s1c3028.d

Date : 30-MAR-2010 20:38

Client ID: RE46-10-12969

Instrument: MSD1.i

Sample Info: |2493350071966766|2|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 38.7 ug/Kg

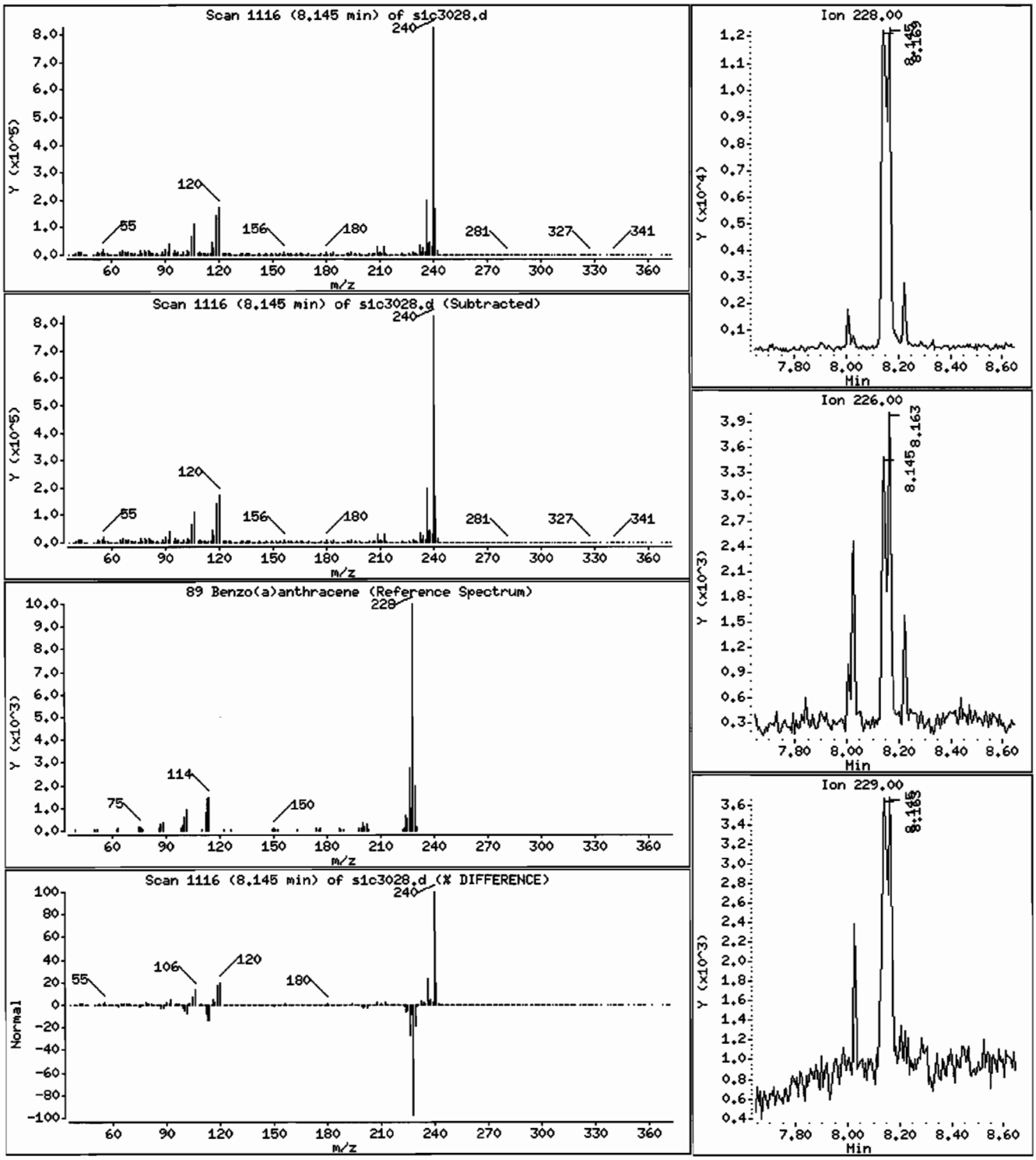

Data File: /chem/MSD1.i/s033010.b/s1c3028.d

Date : 30-MAR-2010 20:38

Client ID: RE46-10-12969

Instrument: MSD1.i

Sample Info: 1249335007|966766121SVMI11LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 34.2 ug/Kg

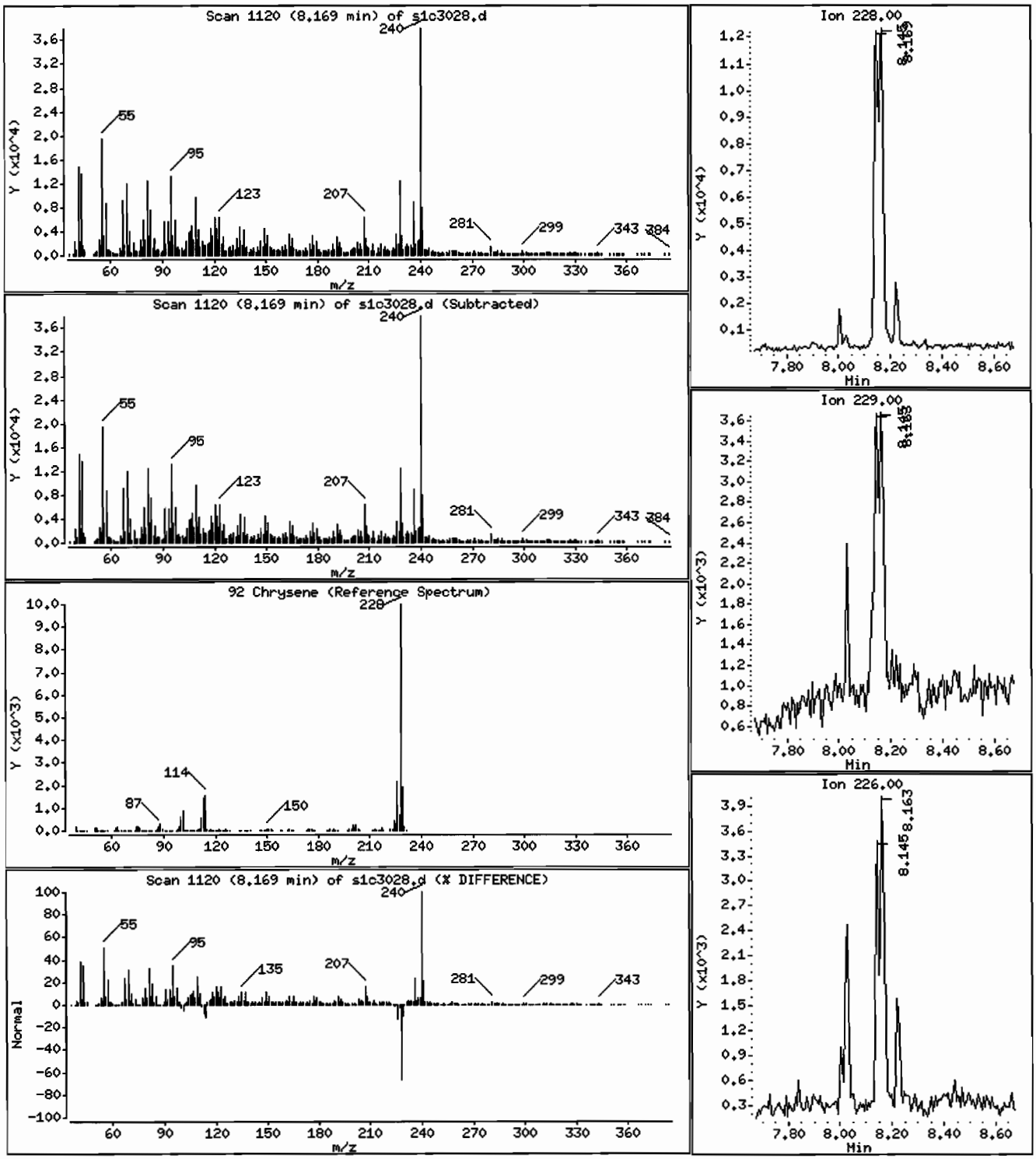

Data File: /chem/MSD1.i/s033010.b/s1c3028.d

Date : 30-MAR-2010 20:38

Client ID: RE46-10-12969

Instrument: MSD1.i

Sample Info: 1249335007|966766|2|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 50.2 ug/Kg

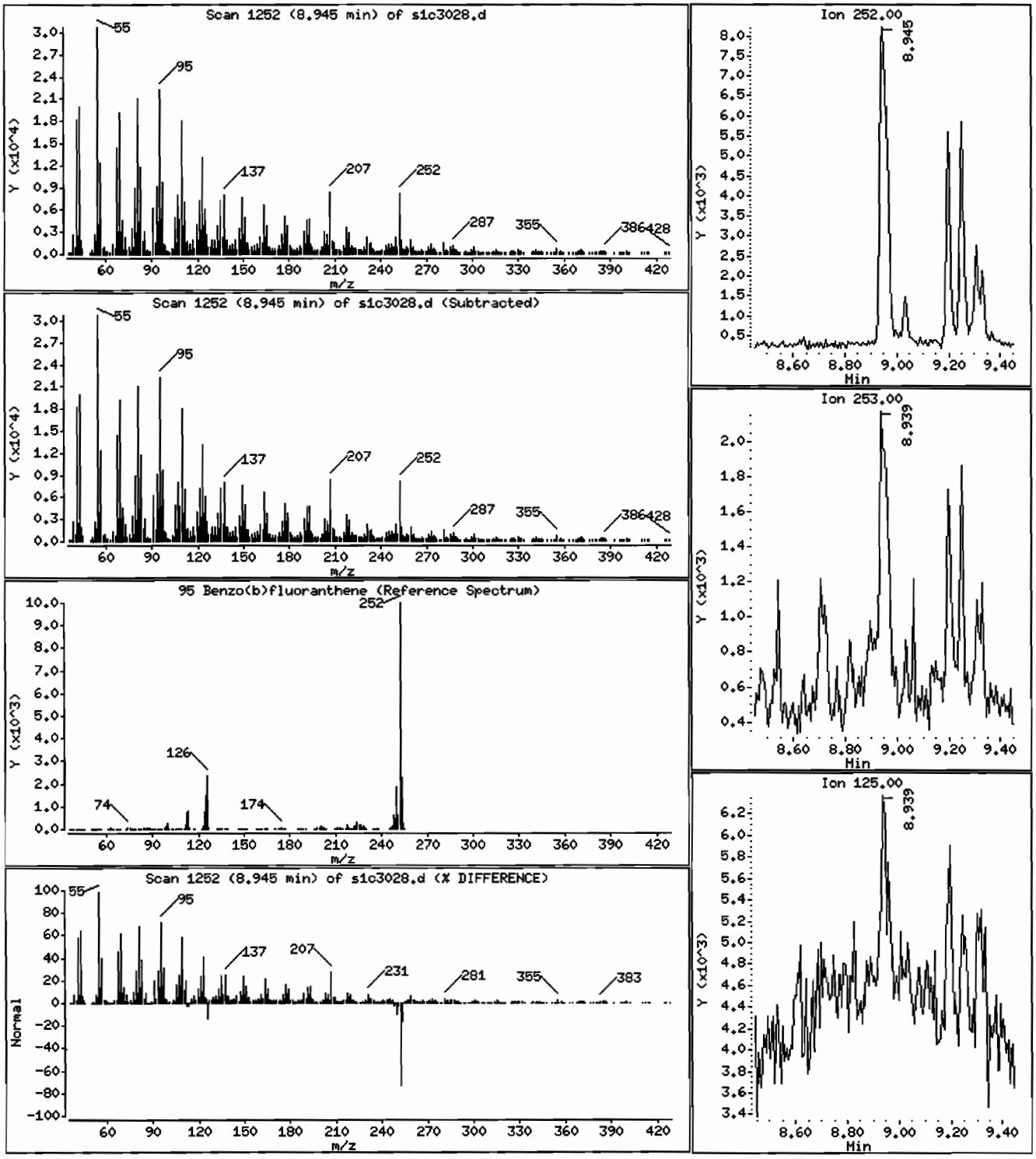

Data File: /chem/MSD1.i/s033010.b/s1c3028.d

Date : 30-MAR-2010 20:38

Client ID: RE46-10-12969

Instrument: MSD1.i

Sample Info: 1249335007196676612|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 27.1 ug/Kg

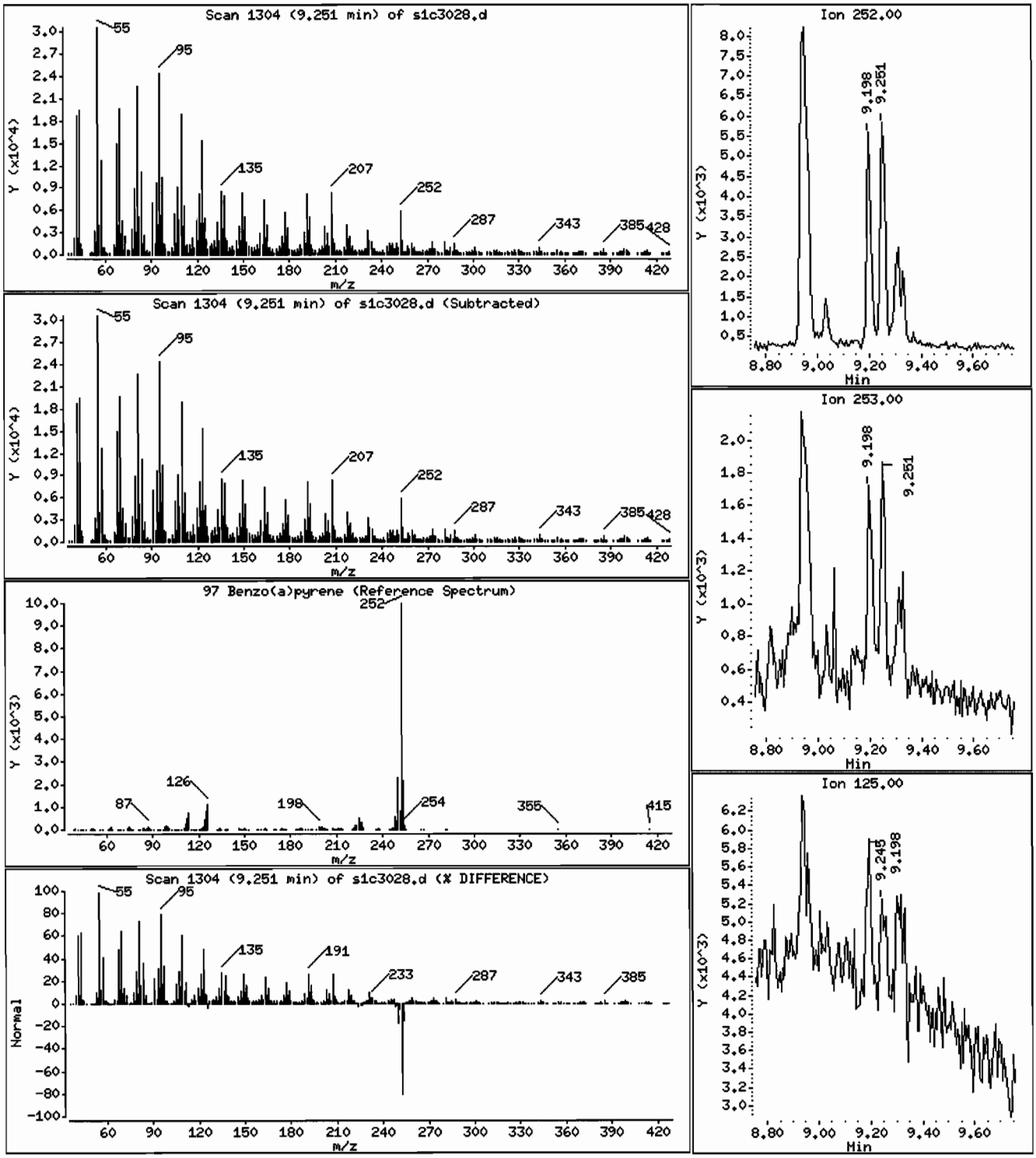

Data File: /chem/MSD1.i/s033010.b/s1c3028.d

Date : 30-MAR-2010 20:38

Client ID: RE46-10-12969

Instrument: MSD1.i

Sample Info: 1249335007|966766|2|SVHI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 25.4 ug/Kg

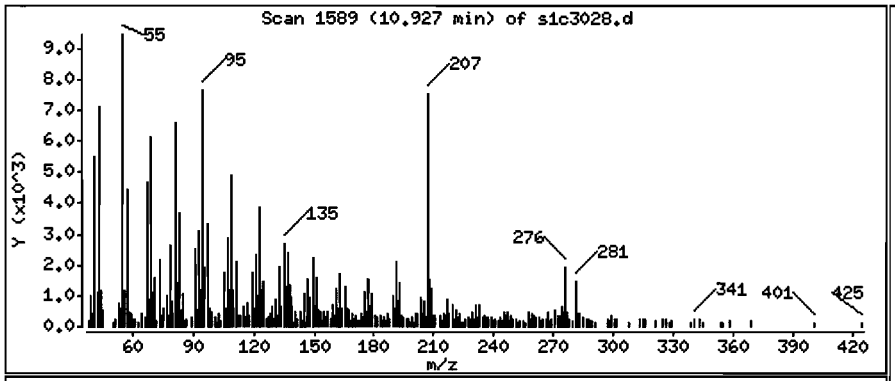

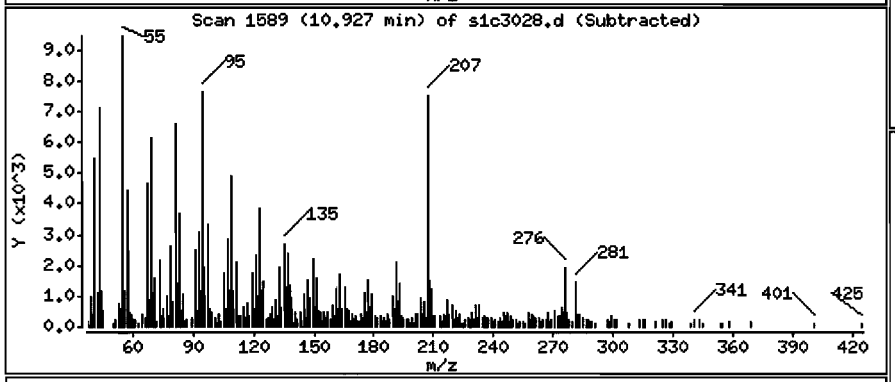

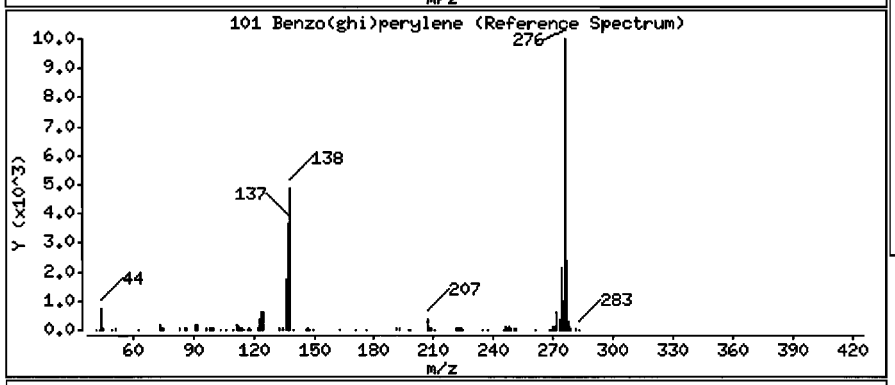

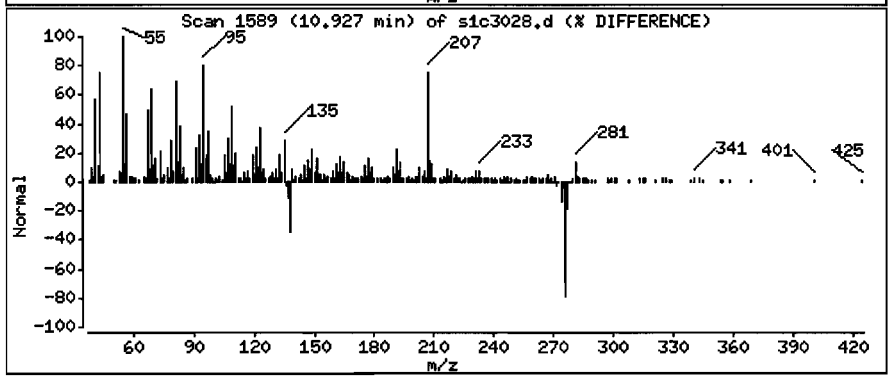

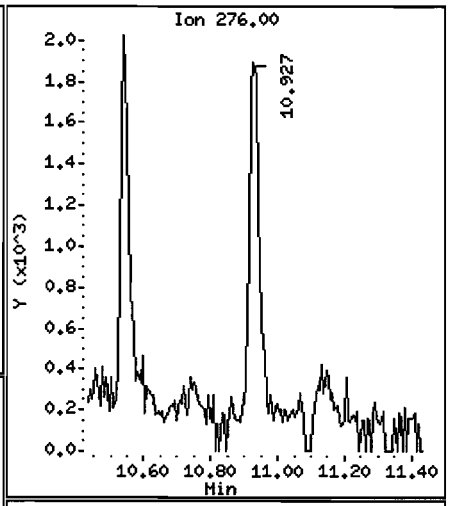

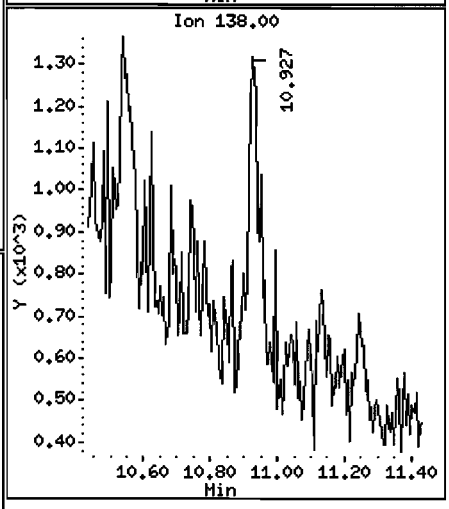

Data File: /chem/MSD1.i/s033010.b/s1c3028.d

Date : 30-MAR-2010 20:38

Client ID: RE46-10-12969

Instrument: MSD1.i

Sample Info: 1249335007196676612|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofur	300574-36-1	NIST05.L	68738	90	C6H5BrN2O2	216
Friedelan-3-one	559-74-0	NIST05.L	176566	86	C30H50O	426
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	49	C13H21NO	207

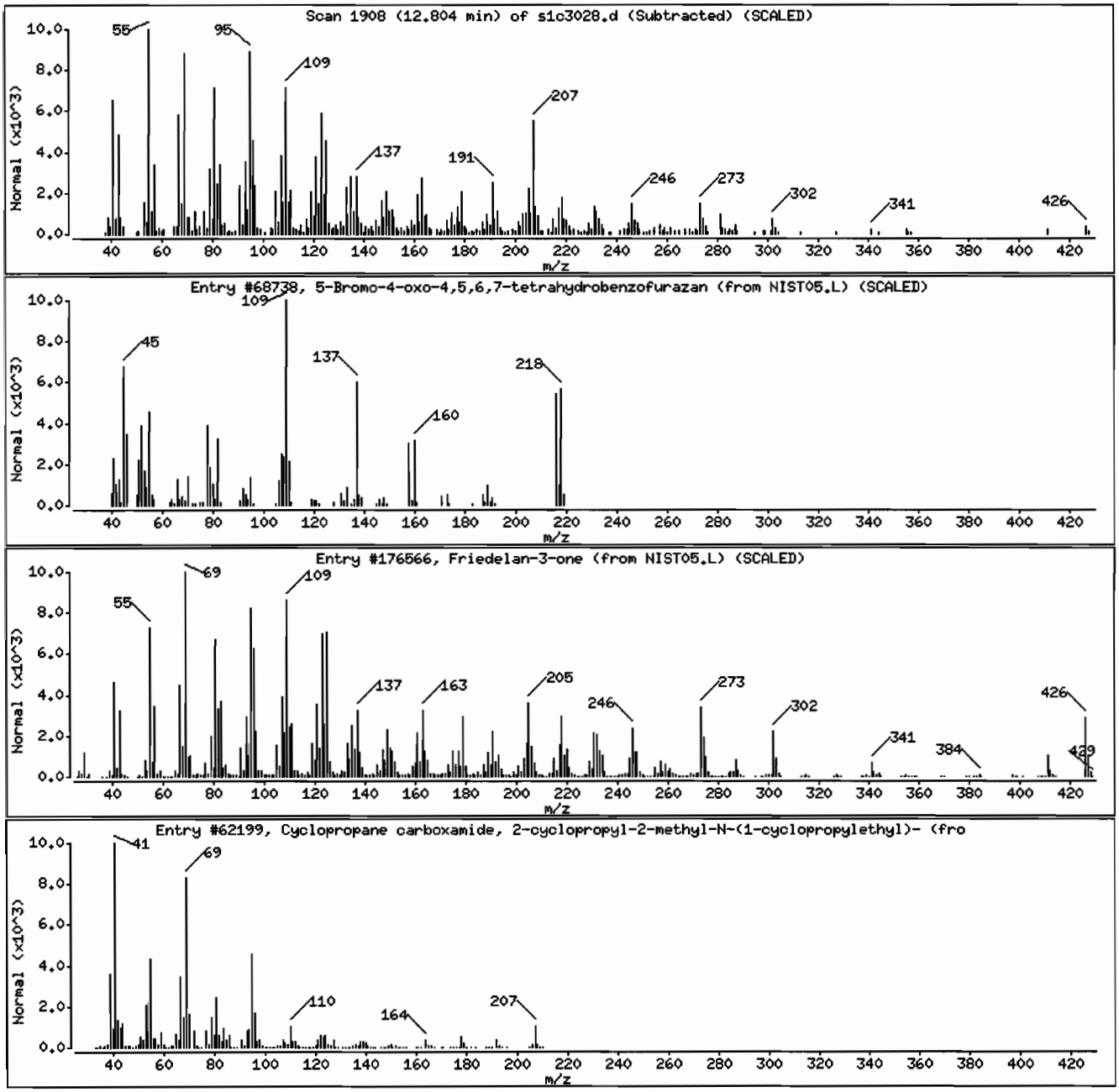

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335008**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12970**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**2**
Run Date:	**03/30/2010 21:01**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3029.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	785	ug/kg	157	785
108-95-2	Phenol	U	785	ug/kg	157	785
95-57-8	2-Chlorophenol	U	785	ug/kg	157	785
106-46-7	1,4-Dichlorobenzene	U	785	ug/kg	157	785
621-64-7	N-Nitrosodipropylamine	U	785	ug/kg	157	785
59-50-7	4-Chloro-3-methylphenol	U	785	ug/kg	157	785
83-32-9	Acenaphthene	U	78.5	ug/kg	25.9	78.5
121-14-2	2,4-Dinitrotoluene	U	785	ug/kg	78.5	785
100-02-7	4-Nitrophenol	U	785	ug/kg	259	785
87-86-5	Pentachlorophenol	U	785	ug/kg	196	785
129-00-0	Pyrene	J	53.7	ug/kg	23.6	78.5
110-86-1	Pyridine	U	785	ug/kg	157	785
62-53-3	Aniline	U	785	ug/kg	236	785
111-44-4	bis(2-Chloroethyl) ether	U	785	ug/kg	157	785
541-73-1	1,3-Dichlorobenzene	U	785	ug/kg	157	785
100-51-6	Benzyl alcohol	U	785	ug/kg	236	785
95-50-1	1,2-Dichlorobenzene	U	785	ug/kg	157	785
108-60-1	bis(2-Chloroisopropyl)ether	U	785	ug/kg	157	785
95-48-7	o-Cresol	U	785	ug/kg	157	785
65794-96-9	m,p-Cresols	U	785	ug/kg	236	785
67-72-1	Hexachloroethane	U	785	ug/kg	157	785
98-95-3	Nitrobenzene	U	785	ug/kg	157	785
78-59-1	Isophorone	U	785	ug/kg	157	785
88-75-5	2-Nitrophenol	U	785	ug/kg	157	785
105-67-9	2,4-Dimethylphenol	U	785	ug/kg	275	785
111-91-1	bis(2-Chloroethoxy)methane	U	785	ug/kg	157	785
120-83-2	2,4-Dichlorophenol	U	785	ug/kg	157	785
65-85-0	Benzoic acid	U	1570	ug/kg	393	1570
91-20-3	Naphthalene	U	78.5	ug/kg	23.6	78.5
106-47-8	4-Chloroaniline	U	785	ug/kg	157	785
87-68-3	Hexachlorobutadiene	U	785	ug/kg	157	785
91-57-6	2-Methylnaphthalene	U	78.5	ug/kg	15.7	78.5
77-47-4	Hexachlorocyclopentadiene	U	785	ug/kg	157	785
88-06-2	2,4,6-Trichlorophenol	U	785	ug/kg	157	785
95-95-4	2,4,5-Trichlorophenol	U	785	ug/kg	157	785
91-58-7	2-Chloronaphthalene	U	78.5	ug/kg	25.9	78.5
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	785	ug/kg	157	785
99-09-2	3-Nitroaniline	U	785	ug/kg	157	785

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	Date Collected:	03/11/2010 12:00	Matrix:	S
Lab Sample ID:	249335008	Date Received:	03/13/2010 09:30	%Moisture:	15.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-12970	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966766	Inst:	MSD1.I	Dilution:	2
Run Date:	03/30/2010 21:01	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	03/19/2010 11:31	Aliquot:	30.09 g	Final Volume:	1 mL
Data File:	s1c3029.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	785	ug/kg	157	785
606-20-2	2,6-Dinitrotoluene	U	785	ug/kg	78.5	785
208-96-8	Acenaphthylene	U	78.5	ug/kg	23.6	78.5
51-28-5	2,4-Dinitrophenol	U	1570	ug/kg	298	1570
132-64-9	Dibenzofuran	U	785	ug/kg	157	785
84-66-2	Diethylphthalate	U	785	ug/kg	157	785
86-73-7	Fluorene	U	78.5	ug/kg	23.6	78.5
7005-72-3	4-Chlorophenylphenylether	U	785	ug/kg	157	785
534-52-1	2-Methyl-4,6-dinitrophenol	U	785	ug/kg	157	785
100-01-6	4-Nitroaniline	U	785	ug/kg	236	785
	p-Nitroaniline					
122-39-4	Diphenylamine	U	785	ug/kg	157	785
122-66-7	Azobenzene	U	785	ug/kg	157	785
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	785	ug/kg	157	785
118-74-1	Hexachlorobenzene	U	785	ug/kg	157	785
85-01-8	Phenanthrene	J	31.3	ug/kg	23.6	78.5
120-12-7	Anthracene	U	78.5	ug/kg	15.7	78.5
84-74-2	Di-n-butylphthalate	U	785	ug/kg	157	785
206-44-0	Fluoranthene	J	44.8	ug/kg	23.6	78.5
85-68-7	Butylbenzylphthalate	U	785	ug/kg	157	785
56-55-3	Benzo(a)anthracene	J	37.8	ug/kg	23.6	78.5
91-94-1	3,3'-Dichlorobenzidine	U	785	ug/kg	236	785
218-01-9	Chrysene	J	25.4	ug/kg	23.6	78.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	785	ug/kg	157	785
117-84-0	Di-n-octylphthalate	U	785	ug/kg	157	785
205-99-2	Benzo(b)fluoranthene	J	42.4	ug/kg	23.6	78.5
207-08-9	Benzo(k)fluoranthene	U	78.5	ug/kg	23.6	78.5
50-32-8	Benzo(a)pyrene	U	78.5	ug/kg	23.6	78.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	78.5	ug/kg	23.6	78.5
53-70-3	Dibenzo(a,h)anthracene	U	78.5	ug/kg	23.6	78.5
191-24-2	Benzo(ghi)perylene	U	78.5	ug/kg	23.6	78.5
120-82-1	1,2,4-Trichlorobenzene	U	785	ug/kg	157	785

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	415	ug/kg		JA
	Unknown	12.8	396	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3029.d
Lab Smp Id: 249335008 Client Smp ID: RE46-10-12970
Inj Date : 30-MAR-2010 21:01
Operator : AMY Inst ID: MSD1.i
Smp Info : |249335008|966766|2|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 26
Dil Factor: 2.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	2.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	15.36530	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.487	3.487	(1.000)	557754	40.0000	
* 29 Naphthalene-d8	136	4.334	4.339	(1.000)	2079085	40.0000	
* 46 Acenaphthene-d10	164	5.569	5.575	(1.000)	1110329	40.0000	
* 67 Phenanthrene-d10	188	6.586	6.586	(1.000)	1909566	40.0000	
* 91 Chrysene-d12	240	8.157	8.157	(1.000)	1107765	40.0000	
* 98 Perylene-d12	264	9.310	9.310	(1.000)	571293	40.0000	
$ 3 2-Fluorophenol	112	2.710	2.704	(0.777)	402539	28.0274	2200
$ 5 Phenol-d5	99	3.228	3.228	(0.926)	478459	27.3540	2150
$ 20 Nitrobenzene-d5	82	3.840	3.845	(0.886)	189189	14.8364	1160
$ 39 2-Fluorobiphenyl	172	5.075	5.075	(0.911)	426779	13.9176	1090
$ 60 2,4,6-Tribromophenol	329	6.122	6.128	(1.099)	92334	25.3651	1990
$ 81 p-Terphenyl-d14	244	7.510	7.510	(0.921)	392672	21.2618	1670

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.451	7.451	(0.913)	21500	0.68396	53.7(a)
68 Phenanthrene	178	6.598	6.604	(1.002)	16443	0.39852	31.3(a)
76 Fluoranthene	202	7.316	7.316	(1.111)	24189	0.57043	44.8(a)
89 Benzo(a)anthracene	228	8.145	8.145	(0.999)	12518	0.48074	37.8(a)
92 Chrysene	228	8.169	8.175	(1.001)	7880	0.32384	25.4(a)
95 Benzo(b)fluoranthene	252	8.951	8.951	(0.961)	8484	0.53999	42.4(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s1c3029.d
Report Date: 03/30/2010 21:17
Lab. ID: 249335008 SampleType: SAMPLE
Injection Date: 30-MAR-2010 21:01
Operator: AMY Instrument: MSD1.i
Sample Info: |249335008|966766|2|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Dilution Factor= 2.0
Integrator: HP RTE Compound Sublist: 10-2436
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	27403	3.84	3.74	80-120	100	(T)
42	17678	3.84	3.74	49-109	65	(T)
41 m-Nitroaniline				CAS#: 99-09-2		
138	187	5.57	5.54	80-120	100	( )
92	5089	5.57	5.54	73-133	2710	(Q)
108	20267	5.57	5.54	0- 41	10792	(Q)
43 Dimethylphthalate				CAS#: 131-11-3		
163	201819	5.57	5.36	80-120	100	(T)
164	1110329	5.57	5.36	0- 40	550	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	141143	5.57	5.41	80-120	100	(T)
63	1729	5.57	5.41	51-111	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	141143	5.57	5.70	80-120	100	(T)
89	1842	5.57	5.70	40-100	1	(QT)
63	1729	5.57	5.70	20- 80	1	(QT)
56 p-Nitroaniline				CAS#: 100-01-6		
138	254	5.99	5.97	80-120	100	( )
108	285	6.05	5.97	37- 97	112	(QT)
92	211	5.98	5.97	12- 72	83	(Q)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
68 Phenanthrene			CAS#: 85-01-8			
178	16443	6.60	6.60	80-120	100	( )
179	3522	6.60	6.60	0- 45	21	( )
176	3096	6.60	6.60	0- 48	19	( )
69 Anthracene			CAS#: 120-12-7			
178	16443	6.60	6.63	80-120	100	( )
179	3522	6.60	6.63	0- 45	21	( )
176	3096	6.60	6.63	0- 48	19	( )
76 Fluoranthene			CAS#: 206-44-0			
202	24189	7.32	7.32	80-120	100	( )
203	4026	7.32	7.32	0- 47	17	( )
101	3183	7.32	7.32	0- 45	13	( )
79 Pyrene			CAS#: 129-00-0			
202	21500	7.45	7.45	80-120	100	( )
200	4512	7.45	7.45	0- 49	21	( )
101	4013	7.45	7.45	0- 48	19	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	12518	8.15	8.15	80-120	100	( )
226	2393	8.15	8.15	0- 55	19	( )
229	4081	8.15	8.15	0- 49	33	( )
92 Chrysene			CAS#: 218-01-9			
228	7880	8.17	8.17	80-120	100	( )
229	1106	8.17	8.17	0- 49	14	( )
226	2780	8.17	8.17	0- 58	35	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	8484	8.95	8.95	80-120	100	( )
253	2504	8.95	8.95	0- 52	30	( )
125	1683	8.95	8.95	0- 45	20	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	8486	8.95	8.97	80-120	100	( )
253	2504	8.95	8.97	0- 51	30	( )
125	1940	8.95	8.97	0- 44	23	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3029.d
Lab Smp Id: 249335008 Client Smp ID: RE46-10-12970
Inj Date : 30-MAR-2010 21:01
Operator : AMY Inst ID: MSD1.i
Smp Info : |249335008|966766|2|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 26
Dil Factor: 2.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	2.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	15.36530	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.487	3339264	40.000
* 98 Perylene-d12	9.310	1506462	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.546	440929	5.28175495	415	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
Unknown				CAS #:			
12.804	189806	5.03978110	396	0		0	98

Data File: /chem/MSD1.i/s033010.b/s1c3029.d
Date : 30-MAR-2010 21:01
Client ID: RE46-10-12970
Sample Info: 1249335008196676612|SVH1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AHY
Column diameter: 0.20

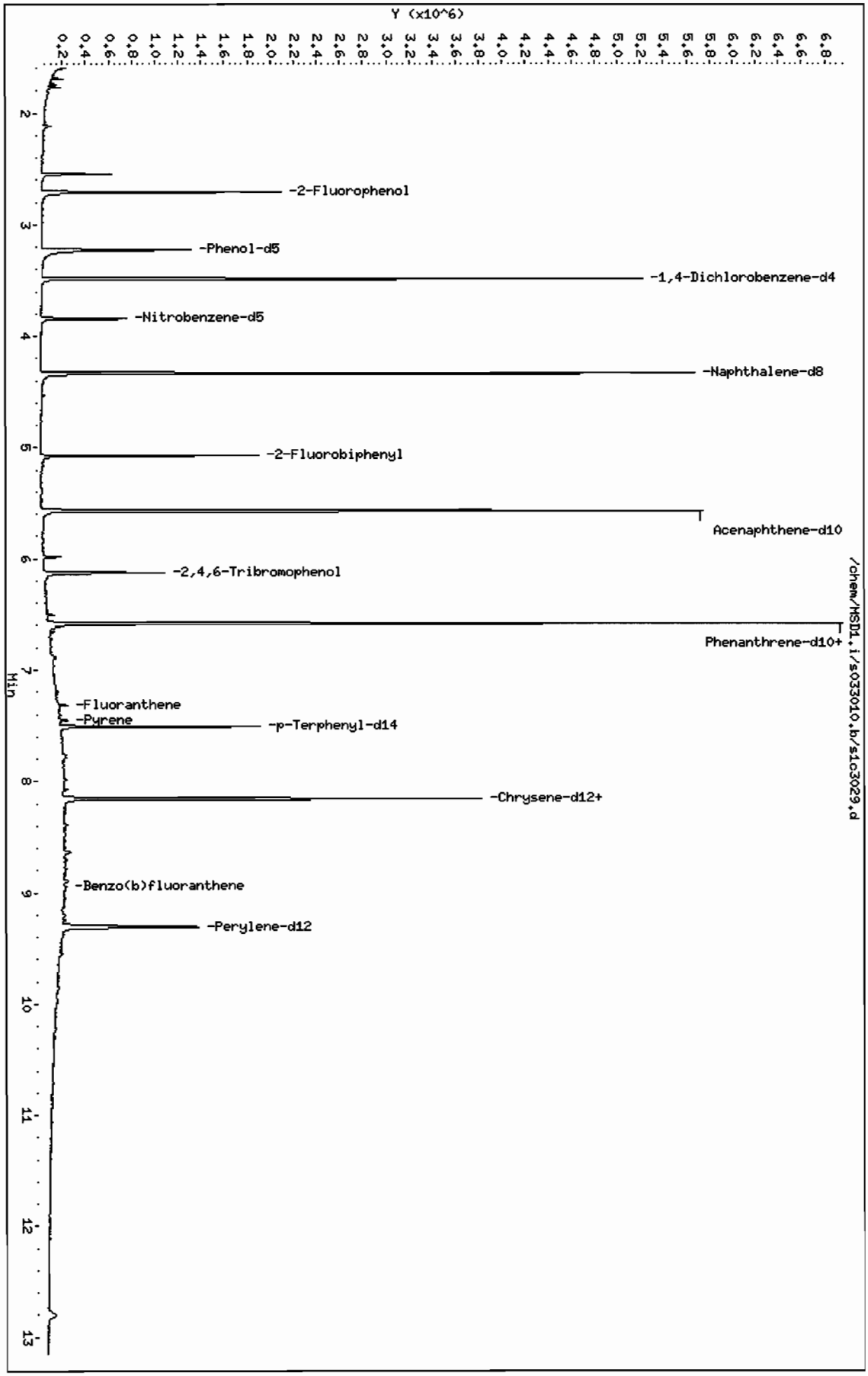

Data File: /chem/MSD1.i/s033010.b/s1c3029.d

Date : 30-MAR-2010 21:01

Client ID: RE46-10-12970

Instrument: MSD1.i

Sample Info: 1249335008196676612|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 53.7 ug/Kg

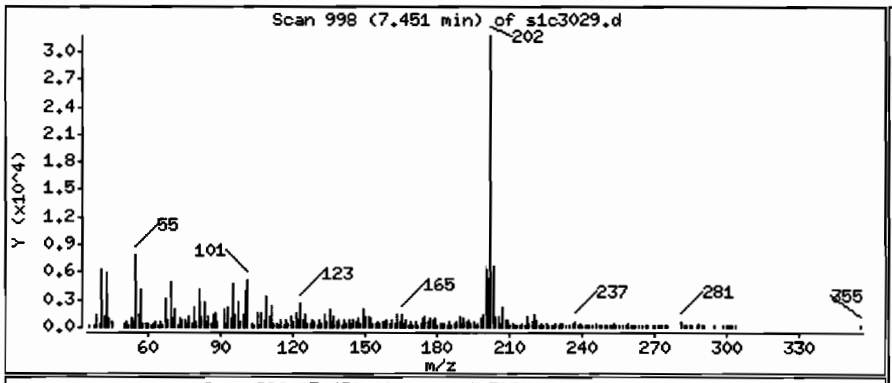

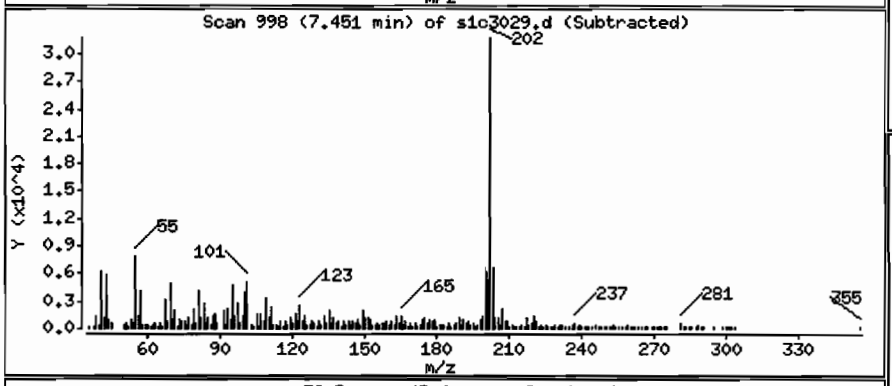

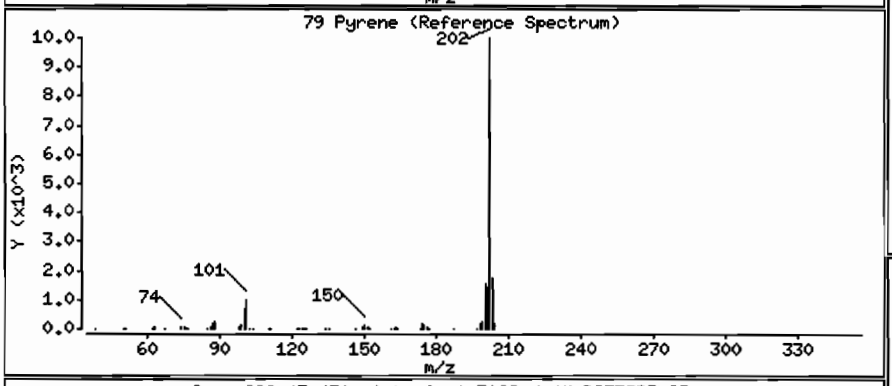

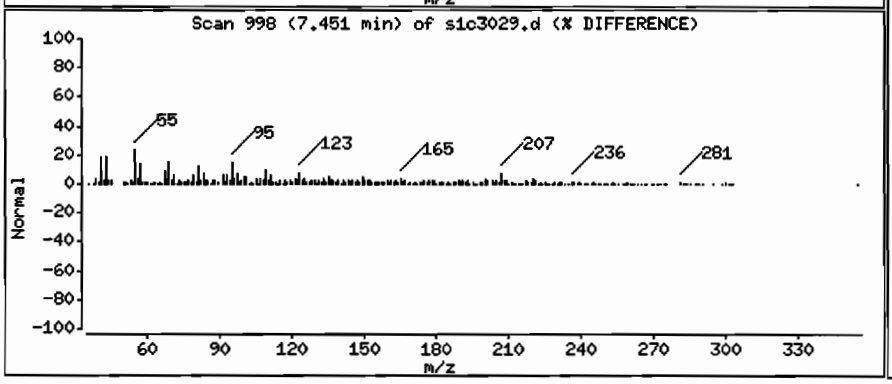

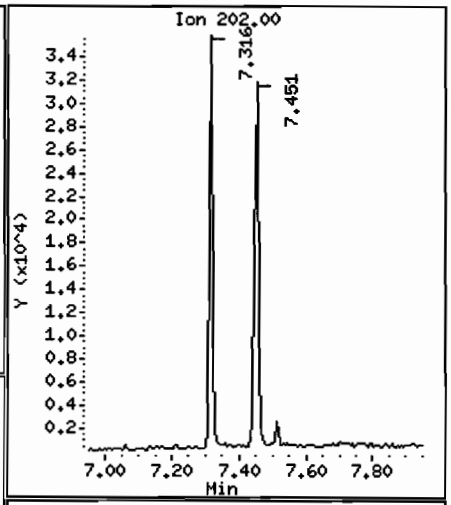

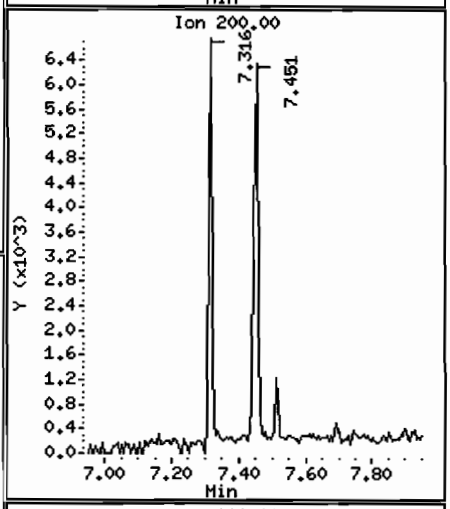

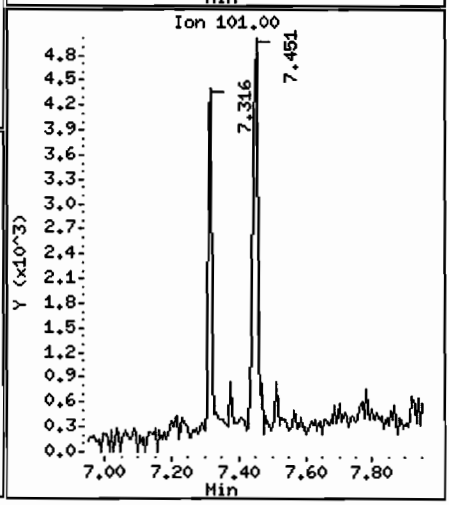

Data File: /chem/MSD1.i/s033010.b/s1c3029.d

Date : 30-MAR-2010 21:01

Client ID: RE46-10-12970

Instrument: MSD1.i

Sample Info: 1249335008|966766|2|SVHI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 31.3 ug/Kg

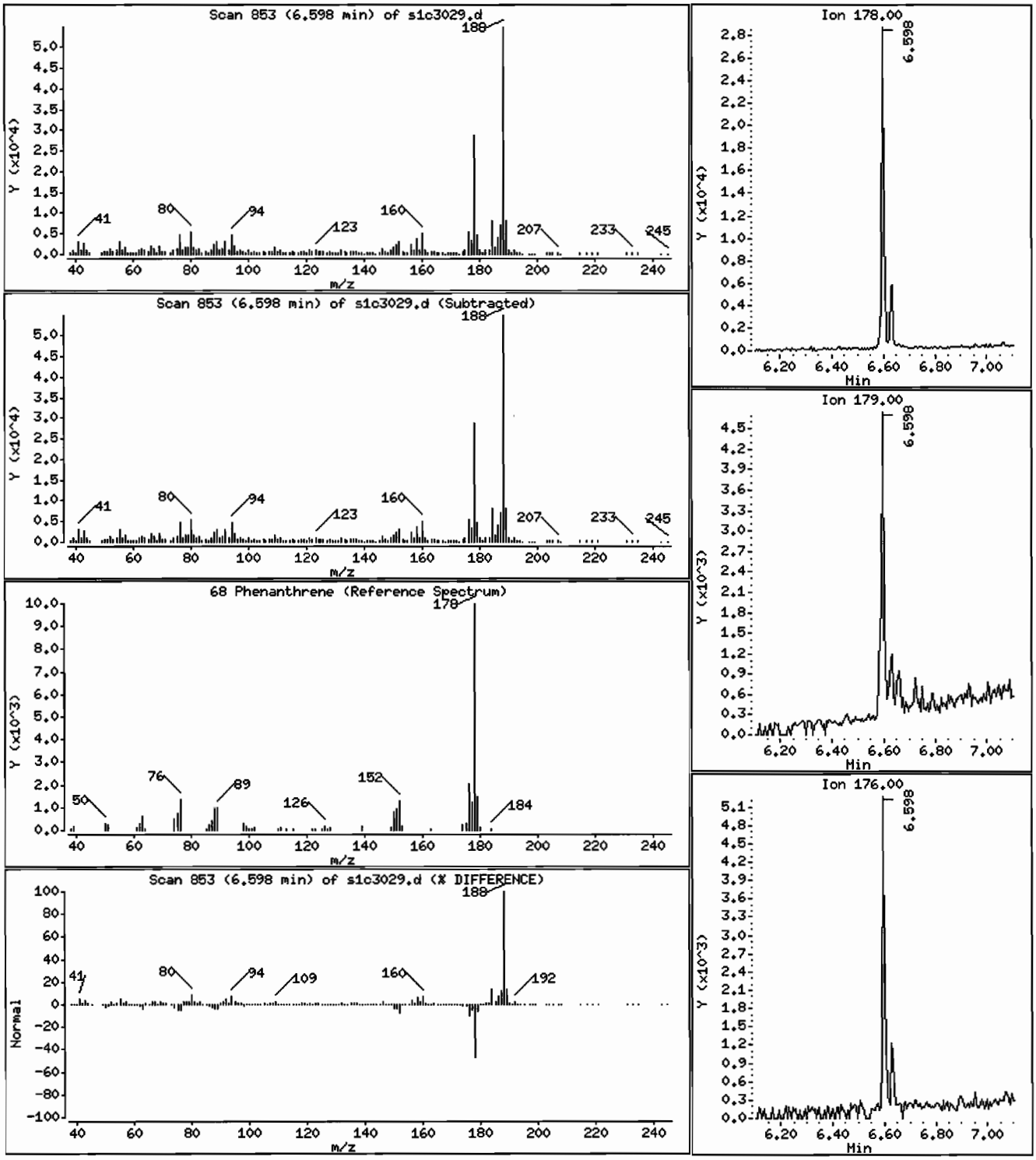

Data File: /chem/MSD1.i/s033010.b/s1c3029.d

Date : 30-MAR-2010 21:01

Client ID: RE46-10-12970

Instrument: MSD1.i

Sample Info: 1249335008|966766|2|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 44.8 ug/Kg

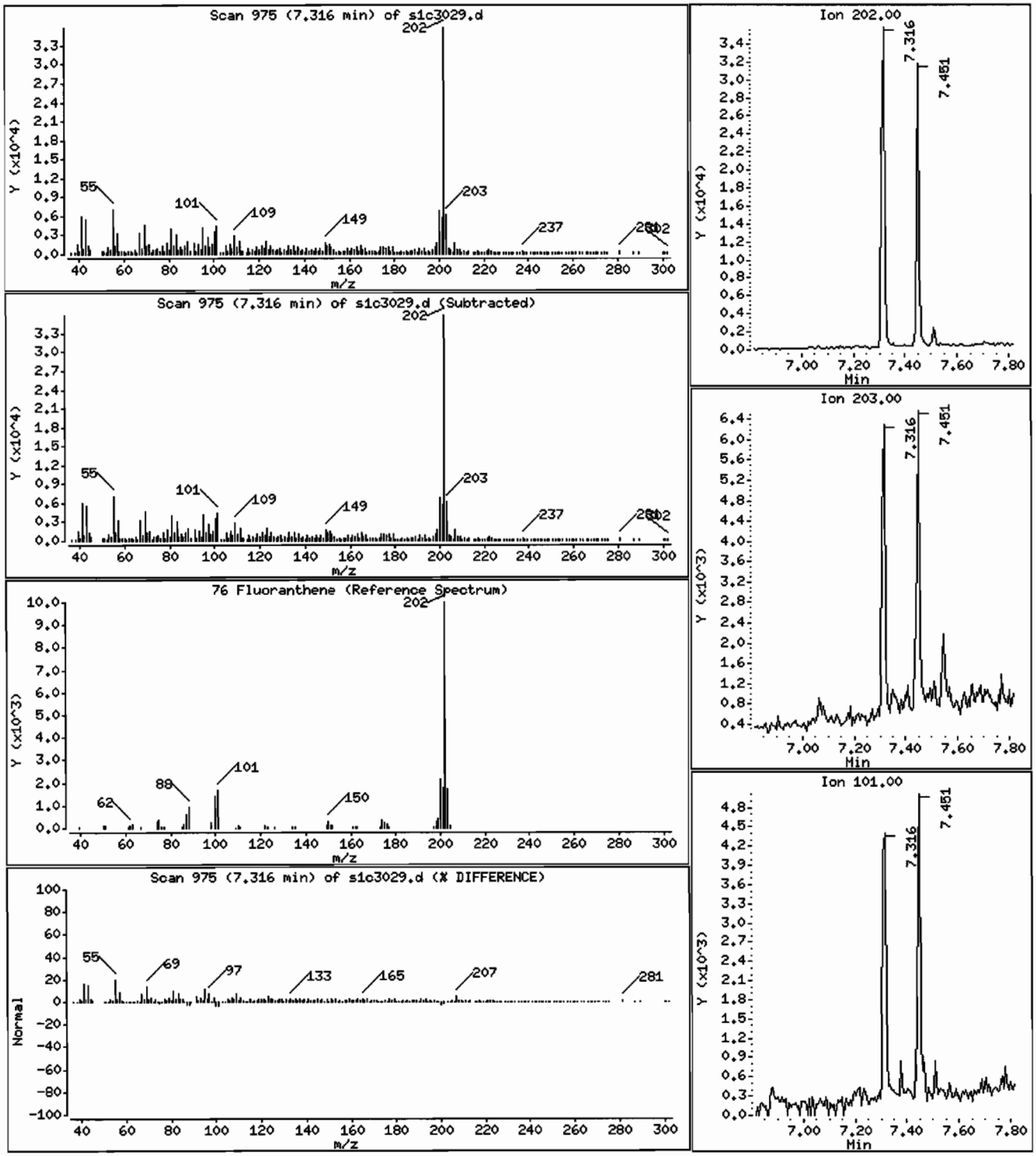

Data File: /chem/MSD1.i/s033010.b/s1c3029.d

Date : 30-MAR-2010 21:01

Client ID: RE46-10-12970

Instrument: MSD1.i

Sample Info: 1249335008196676612|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 37.8 ug/Kg

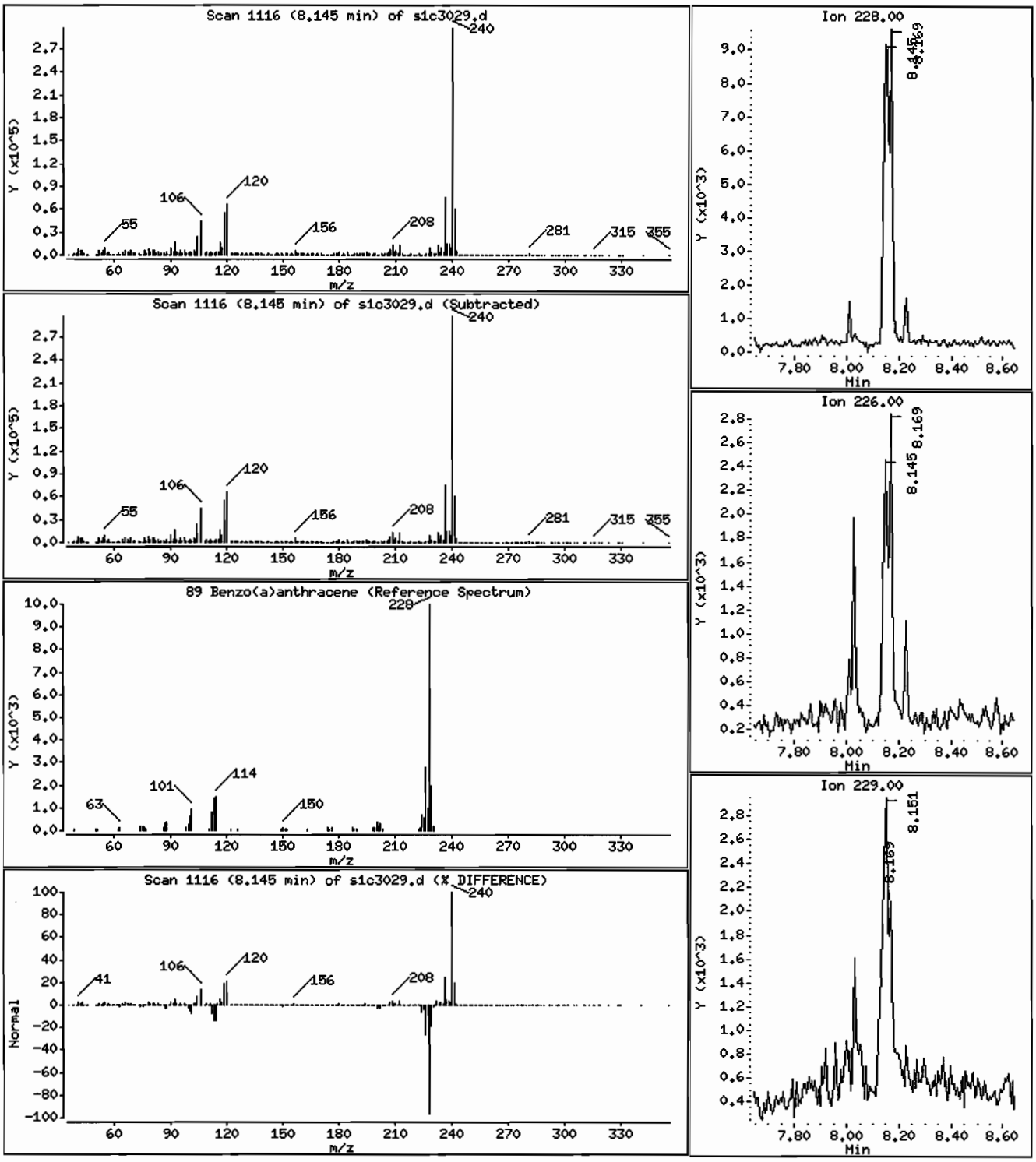

Data File: /chem/MSD1.i/s033010.b/s1c3029.d

Date : 30-MAR-2010 21:01

Client ID: RE46-10-12970

Instrument: MSD1.i

Sample Info: 1249335008196676612|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 25.4 ug/Kg

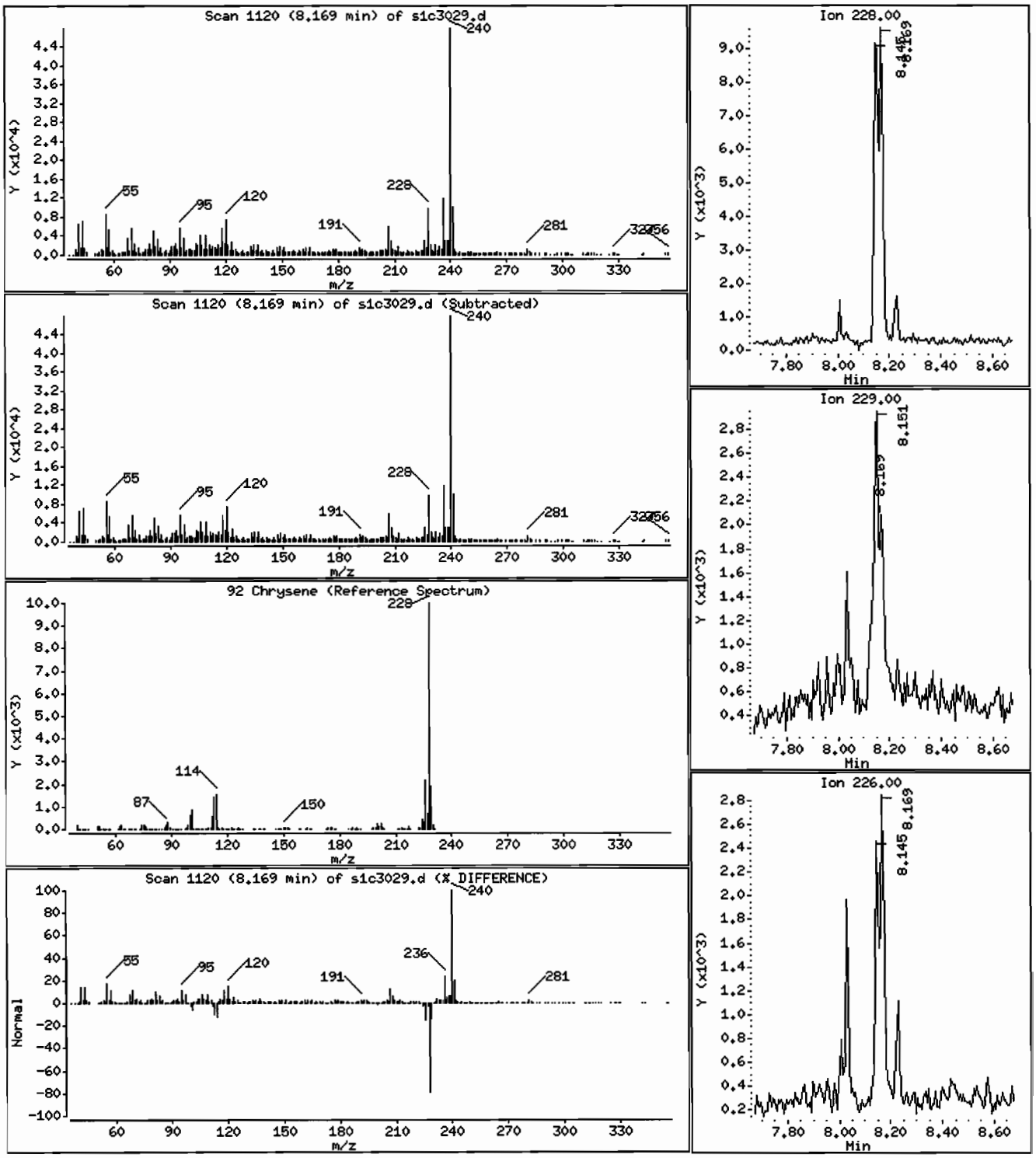

Data File: /chem/MSD1.i/s033010.b/s1c3029.d

Date : 30-MAR-2010 21:01

Client ID: RE46-10-12970

Instrument: MSD1.i

Sample Info: |249335008|966766|2|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 42.4 ug/Kg

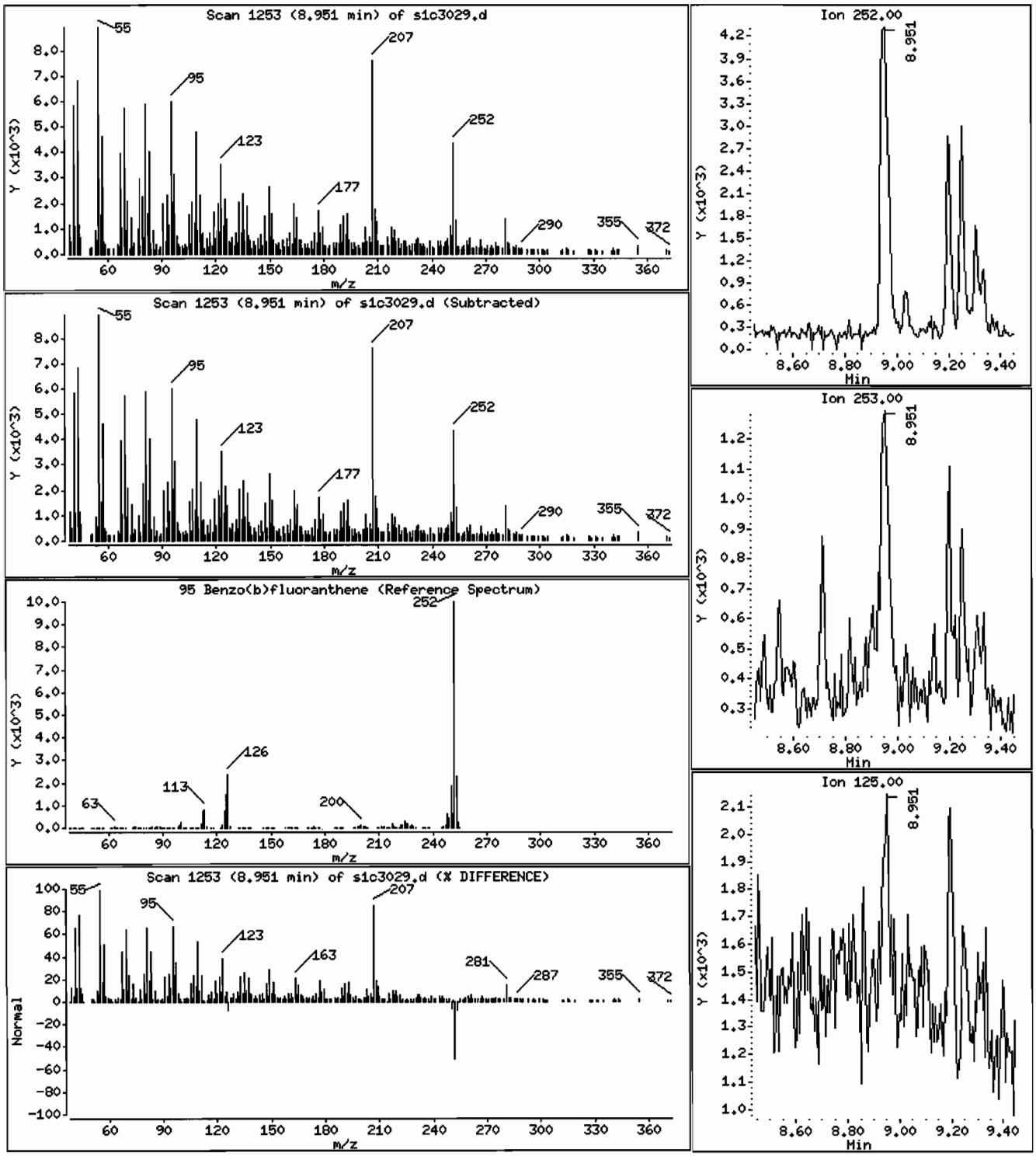

Data File: /chem/MSD1.i/s033010.b/s1c3029.d

Date : 30-MAR-2010 21:01

Client ID: RE46-10-12970

Instrument: MSD1.i

Sample Info: 1249335008196676612ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
t-Butyl nitrite	540-80-7	NIST05.L	4426	39	C4H9NO2	103

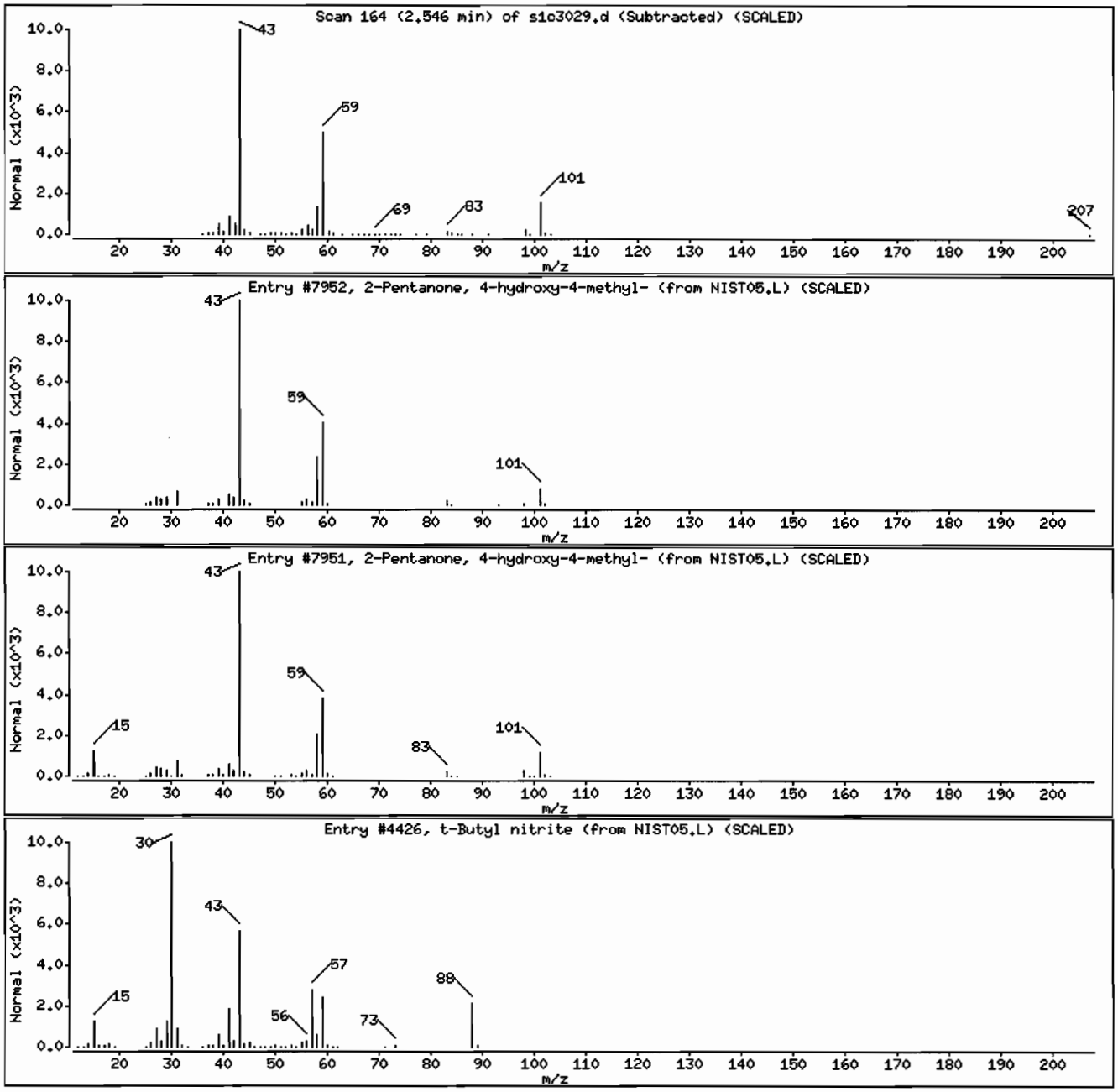

Data File: /chem/MSD1.i/s033010.b/s1c3029.d

Date : 30-MAR-2010 21:01

Client ID: RE46-10-12970 Instrument: MSD1.i

Sample Info: |249335008|966766|2|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,2-Bis(trimethylsilyl)benzene	17151-09-6	NIST05.L	72520	27	C12H22Si2	222
[1,2,4]Triazolo[1,5-a]pyrimidine-6-carbo	1000316-75-8	NIST05.L	62334	27	C8H9N5O2	207
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	27	C15H13N	207

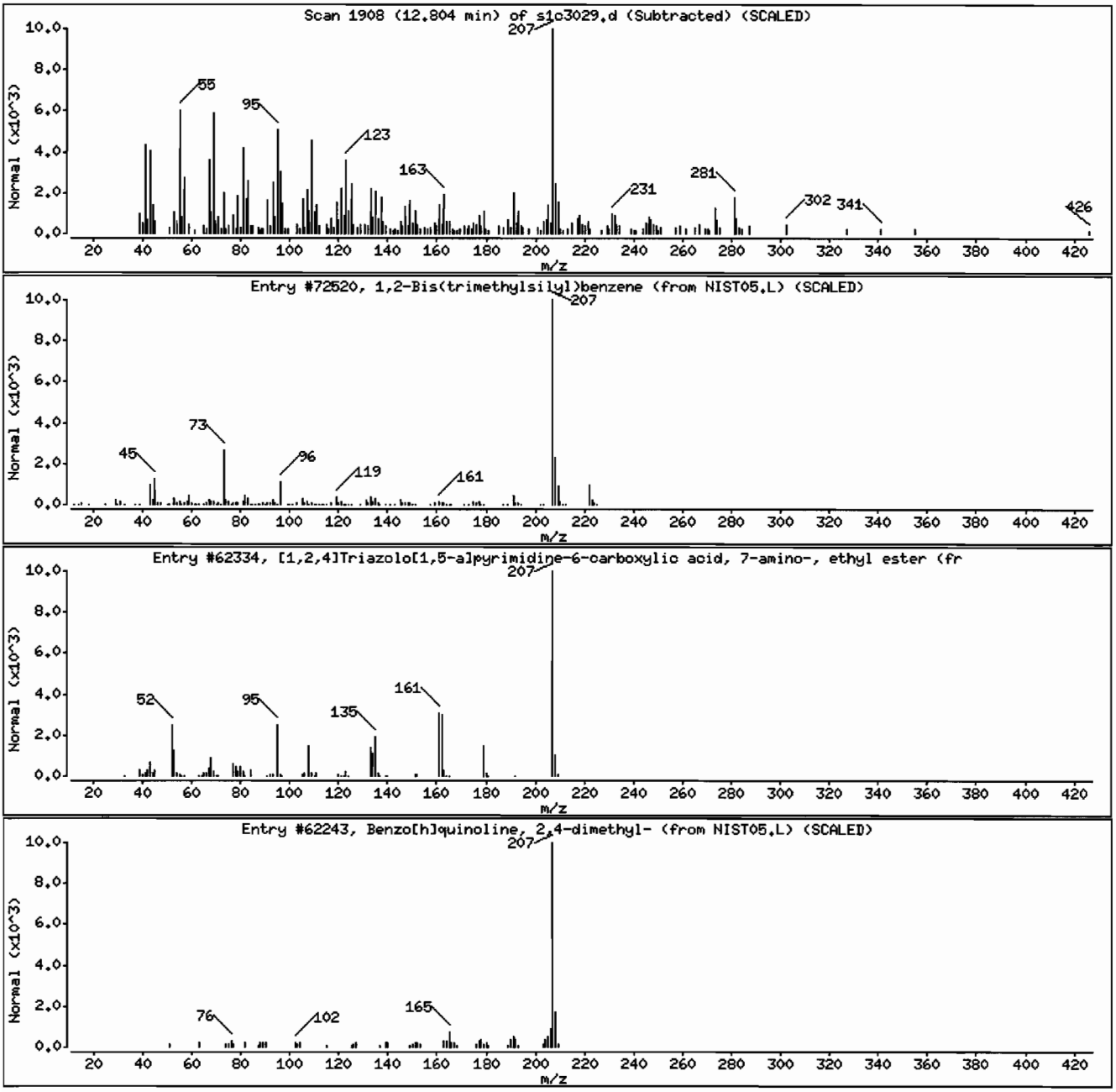

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**21.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12971**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 19:50**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3026.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	426	ug/kg	85.2	426
108-95-2	Phenol	U	426	ug/kg	85.2	426
95-57-8	2-Chlorophenol	U	426	ug/kg	85.2	426
106-46-7	1,4-Dichlorobenzene	U	426	ug/kg	85.2	426
621-64-7	N-Nitrosodipropylamine	U	426	ug/kg	85.2	426
59-50-7	4-Chloro-3-methylphenol	U	426	ug/kg	85.2	426
83-32-9	Acenaphthene	U	42.6	ug/kg	14.1	42.6
121-14-2	2,4-Dinitrotoluene	U	426	ug/kg	42.6	426
100-02-7	4-Nitrophenol	U	426	ug/kg	141	426
87-86-5	Pentachlorophenol	U	426	ug/kg	106	426
129-00-0	Pyrene		58.7	ug/kg	12.8	42.6
110-86-1	Pyridine	U	426	ug/kg	85.2	426
62-53-3	Aniline	U	426	ug/kg	128	426
111-44-4	bis(2-Chloroethyl) ether	U	426	ug/kg	85.2	426
541-73-1	1,3-Dichlorobenzene	U	426	ug/kg	85.2	426
100-51-6	Benzyl alcohol	U	426	ug/kg	128	426
95-50-1	1,2-Dichlorobenzene	U	426	ug/kg	85.2	426
108-60-1	bis(2-Chloroisopropyl)ether	U	426	ug/kg	85.2	426
95-48-7	o-Cresol	U	426	ug/kg	85.2	426
65794-96-9	m,p-Cresols	U	426	ug/kg	128	426
67-72-1	Hexachloroethane	U	426	ug/kg	85.2	426
98-95-3	Nitrobenzene	U	426	ug/kg	85.2	426
78-59-1	Isophorone	U	426	ug/kg	85.2	426
88-75-5	2-Nitrophenol	U	426	ug/kg	85.2	426
105-67-9	2,4-Dimethylphenol	U	426	ug/kg	149	426
111-91-1	bis(2-Chloroethoxy)methane	U	426	ug/kg	85.2	426
120-83-2	2,4-Dichlorophenol	U	426	ug/kg	85.2	426
65-85-0	Benzoic acid	U	852	ug/kg	213	852
91-20-3	Naphthalene	U	42.6	ug/kg	12.8	42.6
106-47-8	4-Chloroaniline	U	426	ug/kg	85.2	426
87-68-3	Hexachlorobutadiene	U	426	ug/kg	85.2	426
91-57-6	2-Methylnaphthalene	U	42.6	ug/kg	8.52	42.6
77-47-4	Hexachlorocyclopentadiene	U	426	ug/kg	85.2	426
88-06-2	2,4,6-Trichlorophenol	U	426	ug/kg	85.2	426
95-95-4	2,4,5-Trichlorophenol	U	426	ug/kg	85.2	426
91-58-7	2-Chloronaphthalene	U	42.6	ug/kg	14.1	42.6
88-74-4	2-Nitroaniline	U	426	ug/kg	85.2	426
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	426	ug/kg	85.2	426

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	Date Collected:	03/11/2010 12:00	Matrix:	S
Lab Sample ID:	249335005	Date Received:	03/13/2010 09:30	%Moisture:	21.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-12971	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966766	Inst:	MSD1.I	Dilution:	1
Run Date:	03/30/2010 19:50	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	03/19/2010 11:31	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s1c3026.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	426	ug/kg	85.2	426
606-20-2	2,6-Dinitrotoluene	U	426	ug/kg	42.6	426
208-96-8	Acenaphthylene	U	42.6	ug/kg	12.8	42.6
51-28-5	2,4-Dinitrophenol	U	852	ug/kg	162	852
132-64-9	Dibenzofuran	U	426	ug/kg	85.2	426
84-66-2	Diethylphthalate	U	426	ug/kg	85.2	426
86-73-7	Fluorene	U	42.6	ug/kg	12.8	42.6
7005-72-3	4-Chlorophenylphenylether	U	426	ug/kg	85.2	426
534-52-1	2-Methyl-4,6-dinitrophenol	U	426	ug/kg	85.2	426
100-01-6	4-Nitroaniline	U	426	ug/kg	128	426
	p-Nitroaniline					
122-39-4	Diphenylamine	U	426	ug/kg	85.2	426
122-66-7	Azobenzene	U	426	ug/kg	85.2	426
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	426	ug/kg	85.2	426
118-74-1	Hexachlorobenzene	U	426	ug/kg	85.2	426
85-01-8	Phenanthrene	J	30.2	ug/kg	12.8	42.6
120-12-7	Anthracene	U	42.6	ug/kg	8.52	42.6
84-74-2	Di-n-butylphthalate	U	426	ug/kg	85.2	426
206-44-0	Fluoranthene		55.4	ug/kg	12.8	42.6
85-68-7	Butylbenzylphthalate	U	426	ug/kg	85.2	426
56-55-3	Benzo(a)anthracene	U	42.6	ug/kg	12.8	42.6
91-94-1	3,3'-Dichlorobenzidine	U	426	ug/kg	128	426
218-01-9	Chrysene	J	33.7	ug/kg	12.8	42.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	426	ug/kg	85.2	426
117-84-0	Di-n-octylphthalate	U	426	ug/kg	85.2	426
205-99-2	Benzo(b)fluoranthene		55.4	ug/kg	12.8	42.6
207-08-9	Benzo(k)fluoranthene	U	42.6	ug/kg	12.8	42.6
50-32-8	Benzo(a)pyrene	J	31.6	ug/kg	12.8	42.6
193-39-5	Indeno(1,2,3-cd)pyrene	J	15.2	ug/kg	12.8	42.6
53-70-3	Dibenzo(a,h)anthracene	U	42.6	ug/kg	12.8	42.6
191-24-2	Benzo(ghi)perylene	J	21.7	ug/kg	12.8	42.6
120-82-1	1,2,4-Trichlorobenzene	U	426	ug/kg	85.2	426

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	354	ug/kg		JA
112-95-8	Eicosane	8.89	185	ug/kg	95	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**21.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12971**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 19:50**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3026.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	12.8	386	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3026.d
Lab Smp Id: 249335005 Client Smp ID: RE46-10-12971
Inj Date : 30-MAR-2010 19:50
Operator : AMY Inst ID: MSD1.i
Smp Info : |249335005|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	21.79080	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.487	3.487	(1.000)	520635	40.0000	
* 29 Naphthalene-d8	136	4.334	4.339	(1.000)	1976087	40.0000	
* 46 Acenaphthene-d10	164	5.569	5.575	(1.000)	1045449	40.0000	
* 67 Phenanthrene-d10	188	6.587	6.586	(1.000)	1833218	40.0000	
* 91 Chrysene-d12	240	8.151	8.157	(1.000)	1131204	40.0000	
* 98 Perylene-d12	264	9.304	9.310	(1.000)	643855	40.0000	
$ 3 2-Fluorophenol	112	2.716	2.704	(0.779)	644326	48.0607	2050
$ 5 Phenol-d5	99	3.228	3.228	(0.926)	755295	46.2596	1970
$ 20 Nitrobenzene-d5	82	3.840	3.845	(0.886)	316273	26.0952	1110
$ 39 2-Fluorobiphenyl	172	5.075	5.075	(0.911)	699759	24.2359	1030
$ 60 2,4,6-Tribromophenol	329	6.122	6.128	(1.099)	152023	44.3540	1890
$ 81 p-Terphenyl-d14	244	7.510	7.510	(0.921)	697326	36.9755	1570

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.445	7.451	(0.913)	44276	1.37933	58.7
68 Phenanthrene	178	6.598	6.604	(1.002)	28079	0.70888	30.2(a)
76 Fluoranthene	202	7.310	7.316	(1.110)	52953	1.30076	55.4
92 Chrysene	228	8.169	8.175	(1.002)	19670	0.79163	33.7(a)
95 Benzo(b)fluoranthene	252	8.945	8.951	(0.961)	23022	1.30018	55.4
97 Benzo(a)pyrene	252	9.251	9.257	(0.994)	10522	0.74214	31.6(a)
99 Indeno(1,2,3-cd)pyrene	276	10.539	10.551	(1.133)	4309	0.35746	15.2(a)
101 Benzo(ghi)perylene	276	10.927	10.933	(1.174)	4994	0.51078	21.7(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s1c3026.d
Report Date: 03/30/2010 20:58
Lab. ID: 249335005 SampleType: SAMPLE
Injection Date: 30-MAR-2010 19:50
Operator: AMY Instrument: MSD1.i
Sample Info: |249335005|966766|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2436
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	33777	3.23	3.28	80-120	100	( )
93	828	3.26	3.28	200-260	2	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	44567	3.84	3.74	80-120	100	(T)
42	29942	3.84	3.74	49-109	67	(T)
41 m-Nitroaniline			CAS#: 99-09-2			
138	204	5.57	5.54	80-120	100	( )
92	4630	5.57	5.54	73-133	2263	(Q)
108	18721	5.57	5.54	0- 41	9150	(Q)
43 Dimethylphthalate			CAS#: 131-11-3			
163	187426	5.57	5.36	80-120	100	(T)
164	1045449	5.57	5.36	0- 40	558	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	132220	5.57	5.41	80-120	100	(T)
63	1743	5.57	5.41	51-111	1	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	132220	5.57	5.70	80-120	100	(T)
89	1675	5.57	5.70	40-100	1	(QT)
63	1743	5.57	5.70	20- 80	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	11592	6.12	5.96	80-120	100	(T)
165	12998	6.12	5.96	62-122	112	(T)
167	4458	6.12	5.96	0- 44	38	(T)
56 p-Nitroaniline			CAS#: 100-01-6			
138	132	5.73	5.97	80-120	100	(T)
108	165	5.75	5.97	37- 97	125	(QT)
92	250	5.73	5.97	12- 72	189	(QT)
68 Phenanthrene			CAS#: 85-01-8			
178	28079	6.60	6.60	80-120	100	( )
179	5957	6.60	6.60	0- 45	21	( )
176	5700	6.60	6.60	0- 48	20	( )
69 Anthracene			CAS#: 120-12-7			
178	28079	6.60	6.63	80-120	100	( )
179	5957	6.60	6.63	0- 45	21	( )
176	5700	6.60	6.63	0- 48	20	( )
76 Fluoranthene			CAS#: 206-44-0			
202	52953	7.31	7.32	80-120	100	( )
203	9052	7.31	7.32	0- 47	17	( )
101	7948	7.31	7.32	0- 45	15	( )
79 Pyrene			CAS#: 129-00-0			
202	44276	7.45	7.45	80-120	100	( )
200	8526	7.45	7.45	0- 49	19	( )
101	8618	7.45	7.45	0- 48	19	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	24892	8.15	8.15	80-120	100	( )
226	5069	8.15	8.15	0- 55	20	( )
229	7912	8.15	8.15	0- 49	32	( )
92 Chrysene			CAS#: 218-01-9			
228	19670	8.17	8.17	80-120	100	( )
229	5794	8.17	8.17	0- 49	29	( )
226	6568	8.16	8.17	0- 58	33	( )
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	23022	8.95	8.95	80-120	100	( )
253	3849	8.95	8.95	0- 52	17	( )
125	5194	8.94	8.95	0- 45	23	( )
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	23036	8.95	8.97	80-120	100	( )
253	4343	8.95	8.97	0- 51	19	( )
125	6771	8.94	8.97	0- 44	29	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
97 Benzo(a)pyrene			CAS#: 50-32-8			
252	10522	9.25	9.26	80-120	100	( )
253	3171	9.25	9.26	0- 51	30	( )
125	1639	9.25	9.26	0- 45	16	( )
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	4309	10.54	10.55	80-120	100	( )
138	1068	10.53	10.55	10- 70	25	( )
101 Benzo(ghi)perylene			CAS#: 191-24-2			
276	4994	10.93	10.93	80-120	100	( )
138	1608	10.93	10.93	1- 61	32	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3026.d
Lab Smp Id: 249335005 Client Smp ID: RE46-10-12971
Inj Date : 30-MAR-2010 19:50
Operator : AMY Inst ID: MSD1.i
Smp Info : |249335005|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	21.79080	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.487	3137208	40.000
* 98 Perylene-d12	9.304	1758273	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.552	652194	8.31560015	354	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Eicosane				CAS #: 112-95-8			
8.892	191421	4.35474817	185	95	NIST05.L	113492	98
Unknown				CAS #:			
12.798	398824	9.07307515	386	0		0	98

Data File: /chem/MSD1.i/s033010.b/s1c3026.d
Date : 30-MAR-2010 19:50
Client ID: RE46-10-12971
Sample Info: 1249335005|966766|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

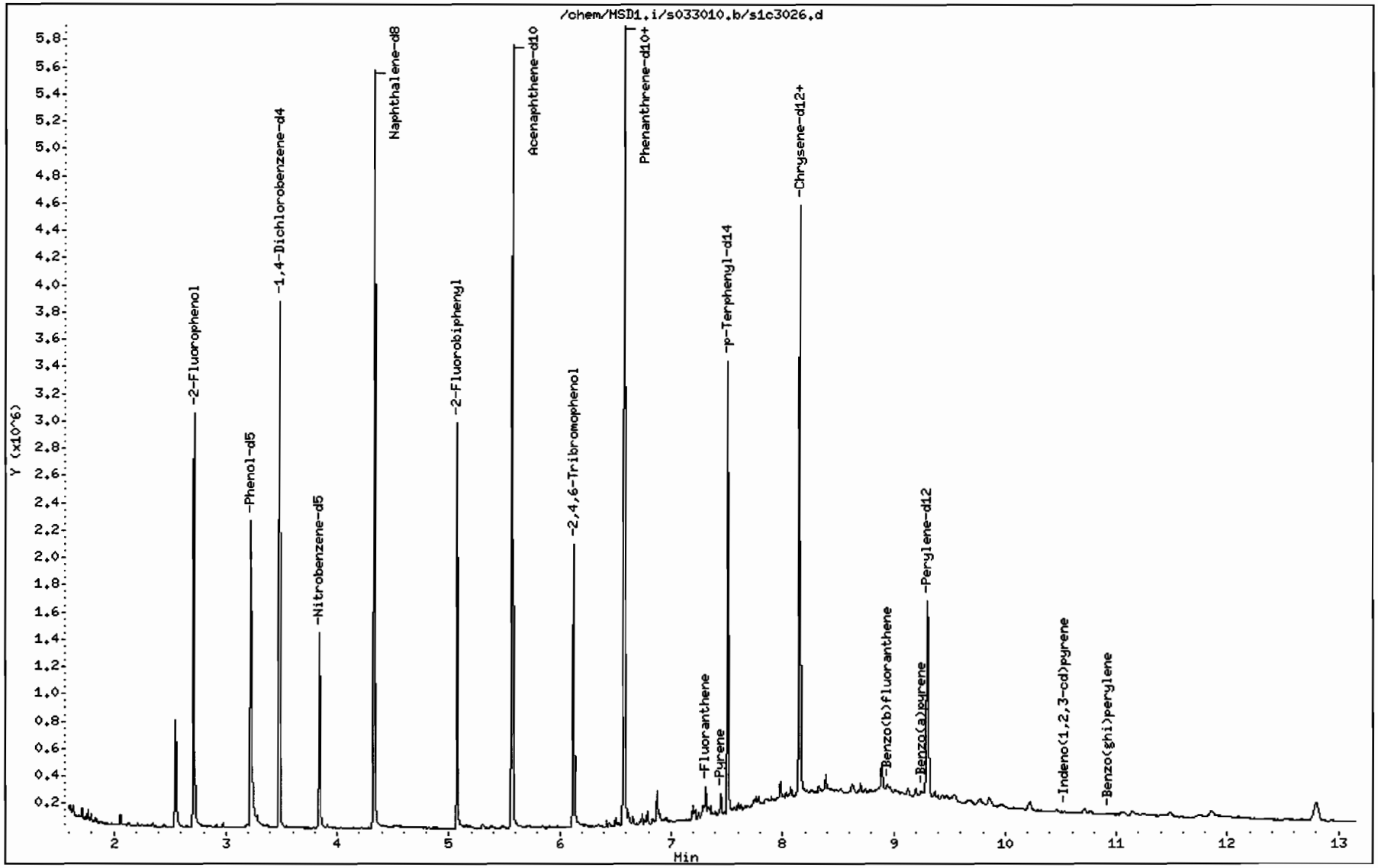

Data File: /chem/MSD1.i/s033010.b/s1c3026.d

Date : 30-MAR-2010 19:50

Client ID: RE46-10-12971

Instrument: MSD1.i

Sample Info: 1249335005|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 58.7 ug/Kg

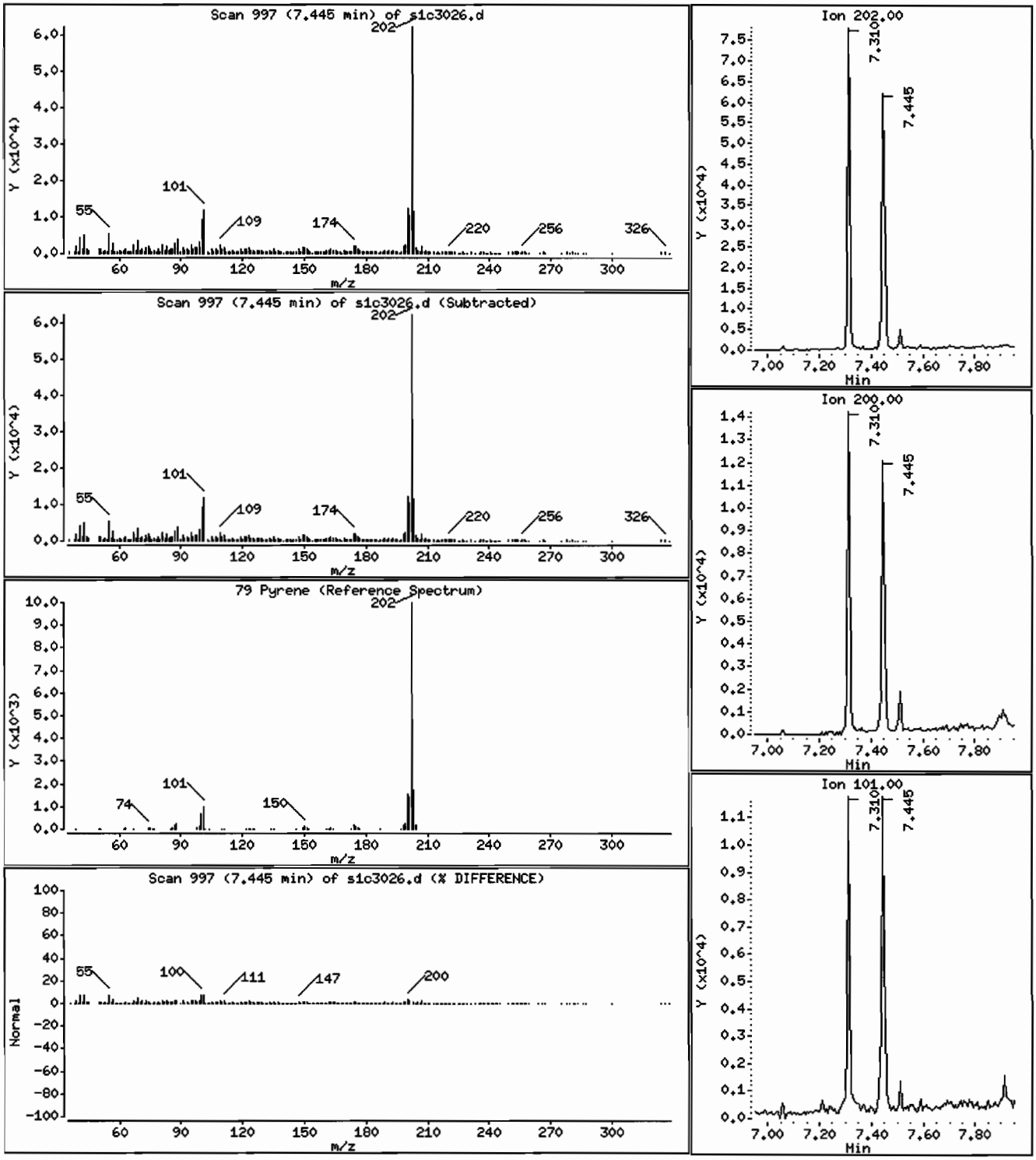

Data File: /chem/MSD1.i/s033010.b/s1c3026.d

Date : 30-MAR-2010 19:50

Client ID: RE46-10-12971

Instrument: MSD1.i

Sample Info: 1249335005196676611SVMI1ILANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 30.2 ug/Kg

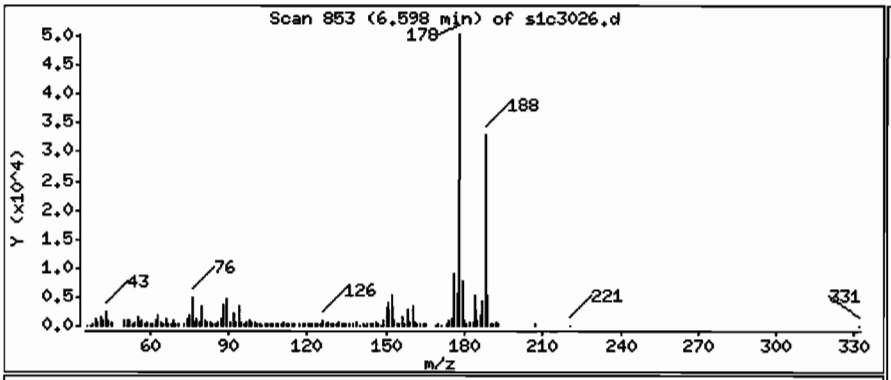

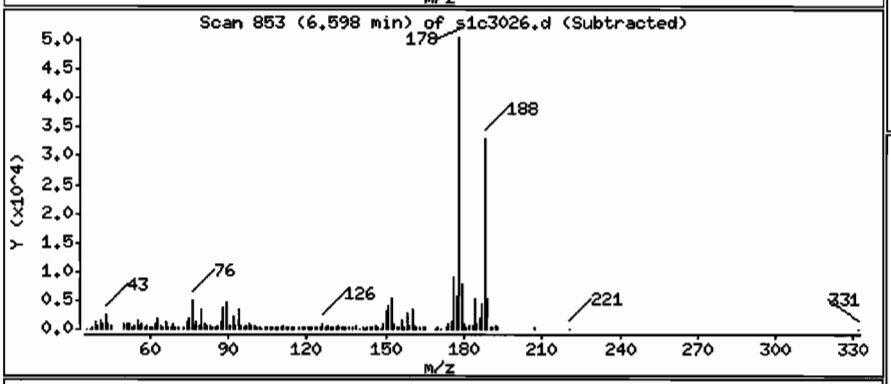

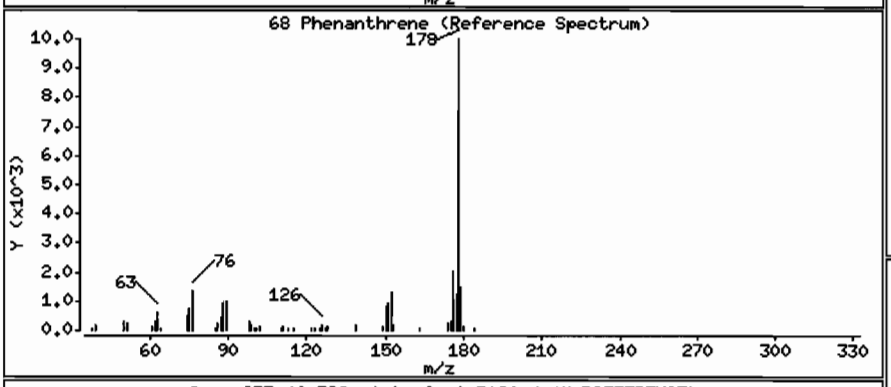

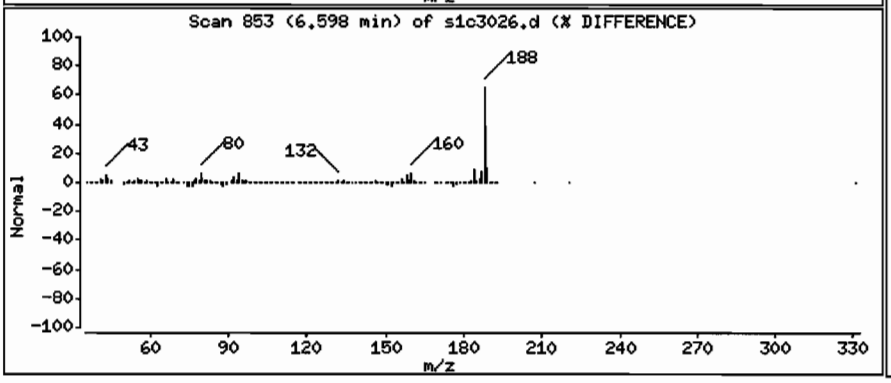

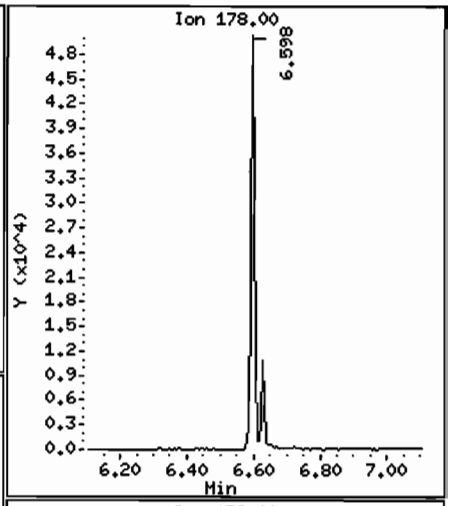

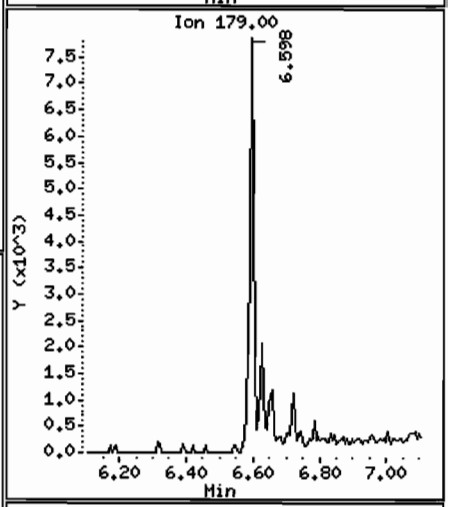

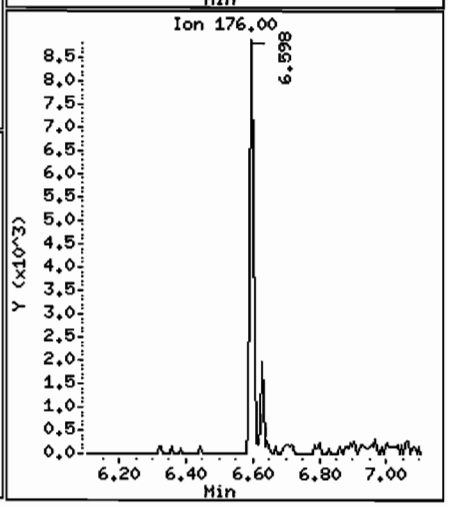

Data File: /chem/MSD1.i/s033010.b/s1c3026.d

Page 4

Date : 30-MAR-2010 19:50

Client ID: RE46-10-12971

Instrument: MSD1.i

Sample Info: |249335005|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 55.4 ug/Kg

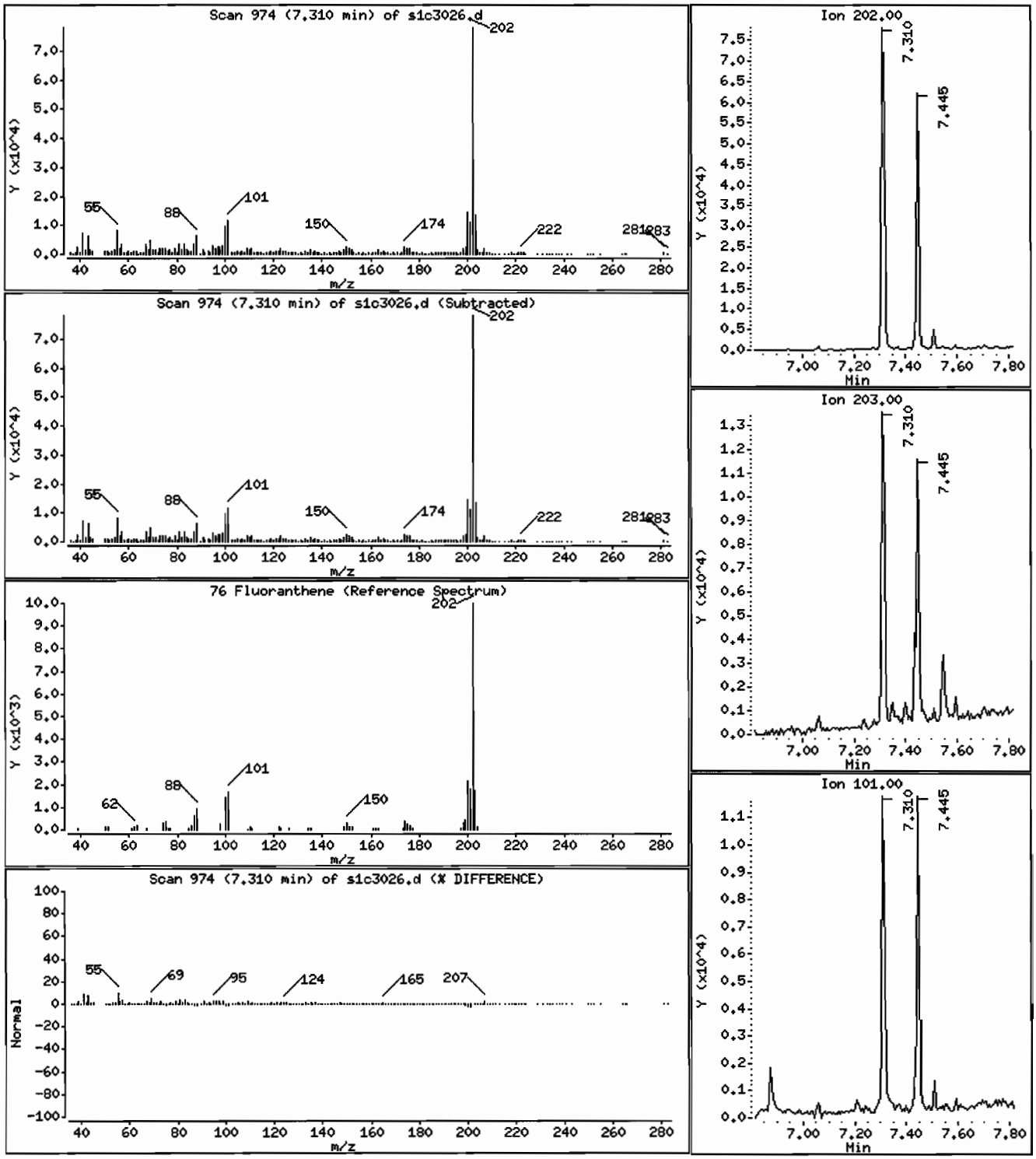

Data File: /chem/MSD1.i/s033010.b/s1c3026.d

Date : 30-MAR-2010 19:50

Client ID: RE46-10-12971

Instrument: MSD1.i

Sample Info: |249335005|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 33.7 ug/Kg

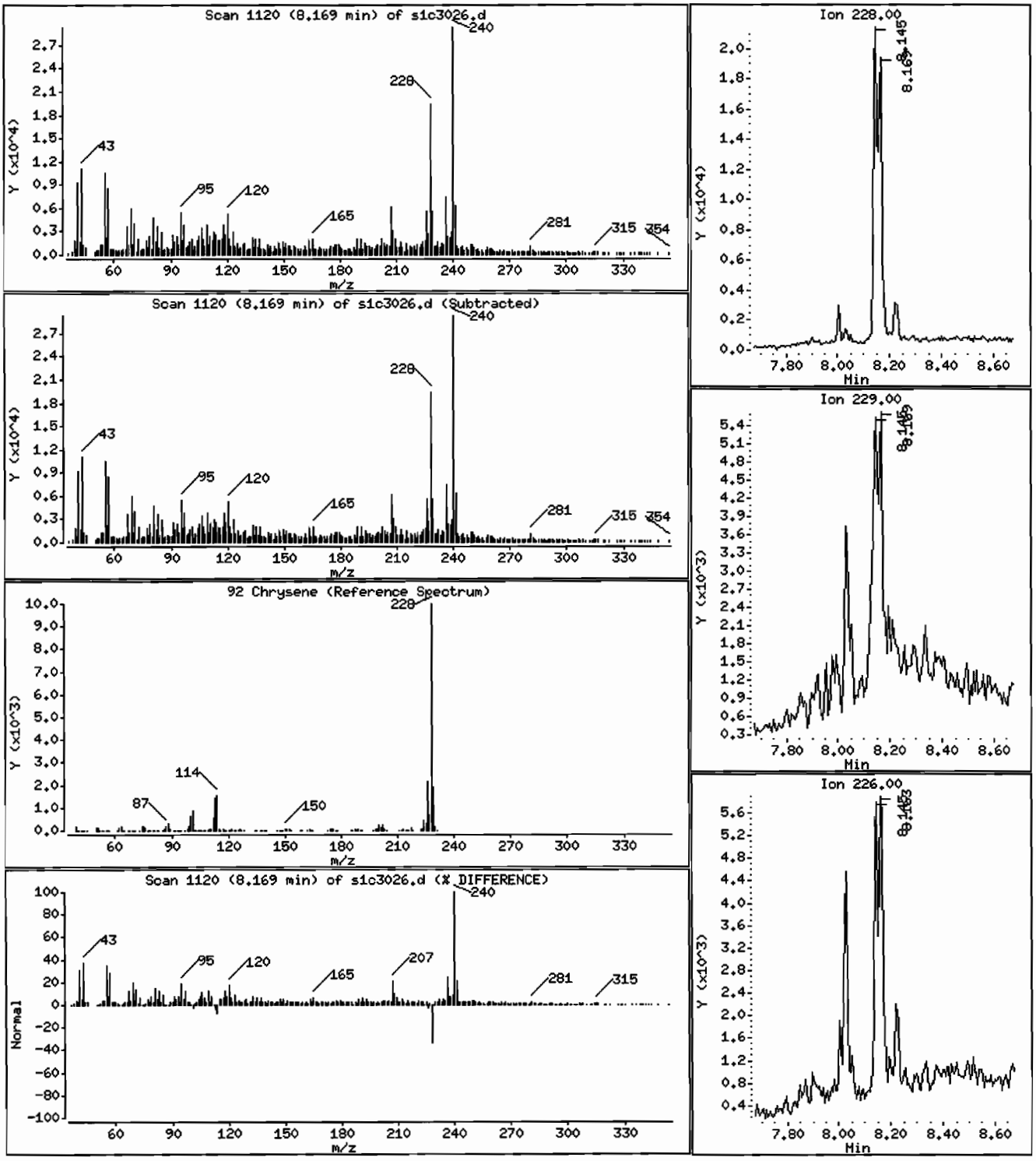

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Date : 30-MAR-2010 19:50

Client ID: RE46-10-12971

Instrument: MSD1.i

Sample Info: |2493350051966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 55.4 ug/Kg

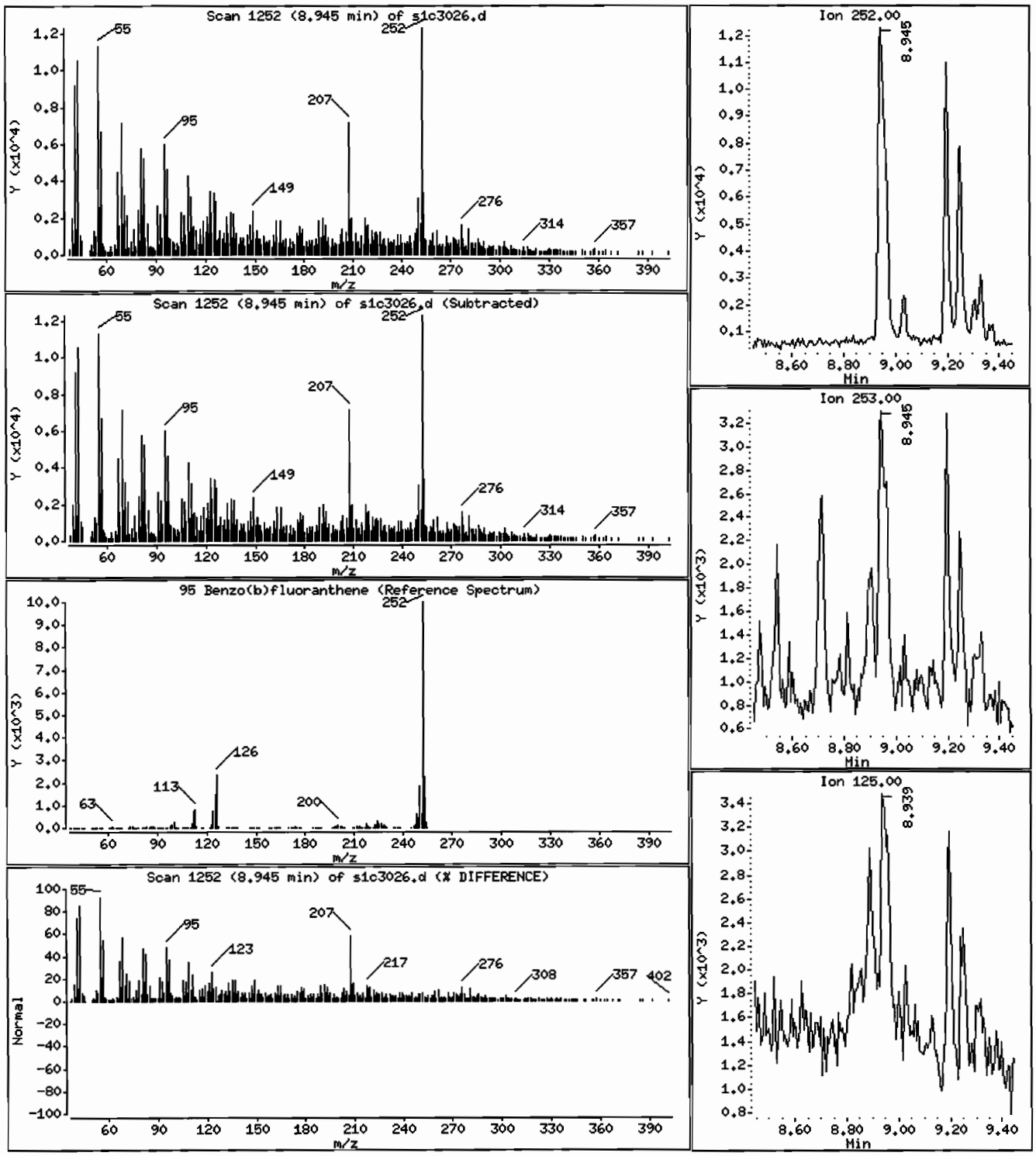

Data File: /chem/MSD1.i/s033010.b/s1c3026.d

Date : 30-MAR-2010 19:50

Client ID: RE46-10-12971

Instrument: MSD1.i

Sample Info: |249335005|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 31.6 ug/Kg

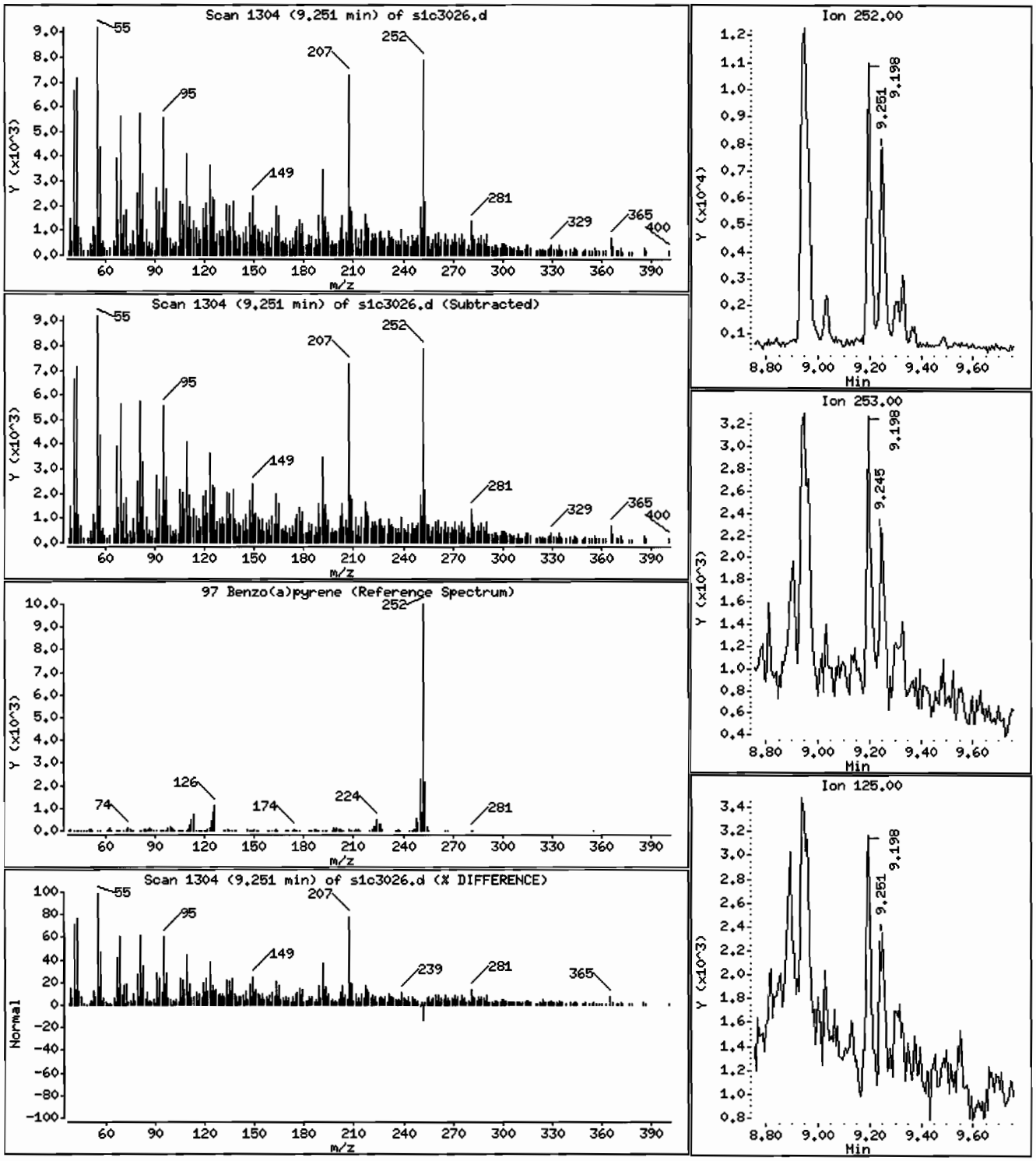

Data File: /chem/MSD1.i/s033010.b/s1c3026.d

Date : 30-MAR-2010 19:50

Client ID: RE46-10-12971

Instrument: MSD1.i

Sample Info: |249335005|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 15.2 ug/Kg

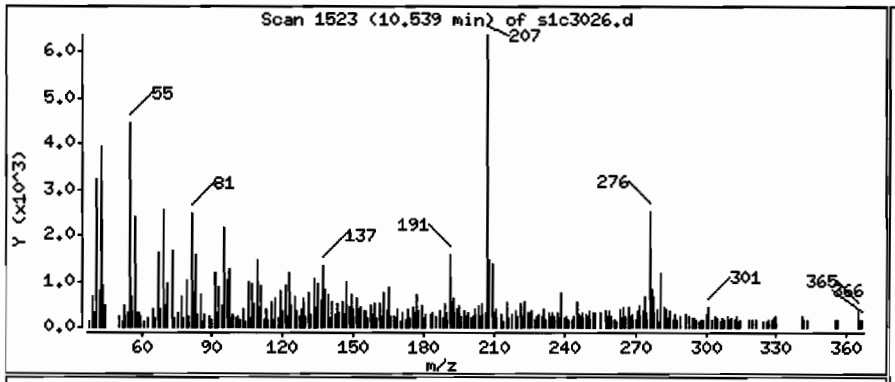

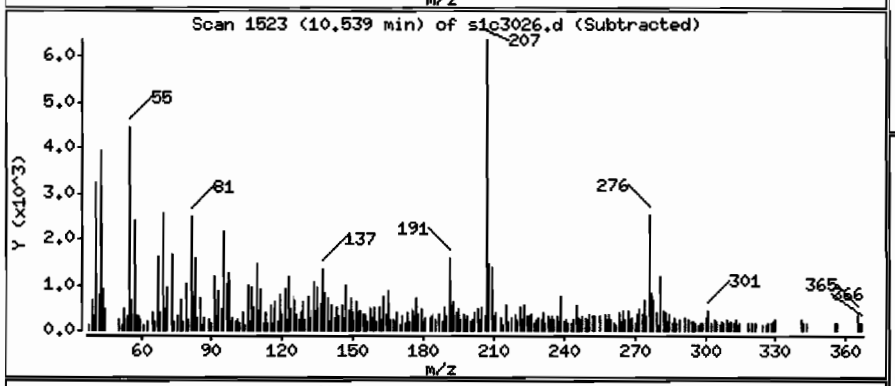

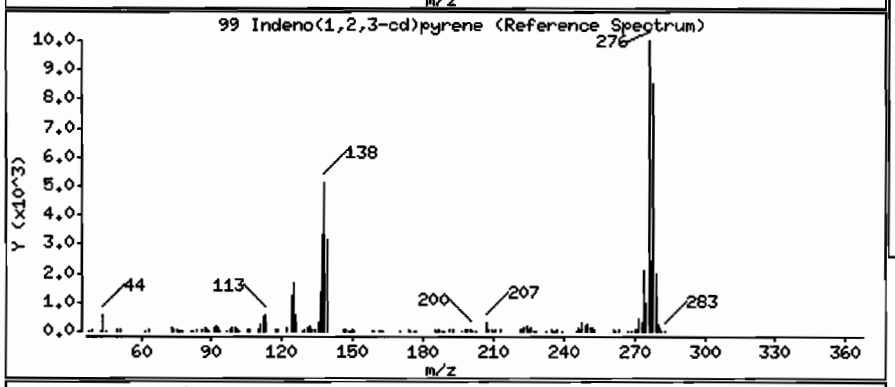

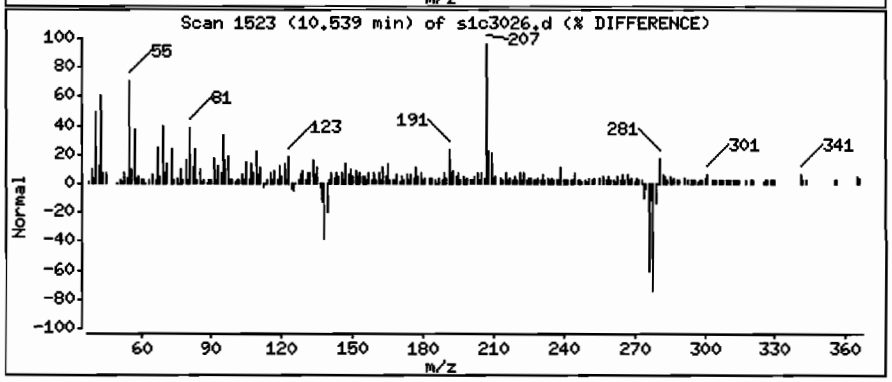

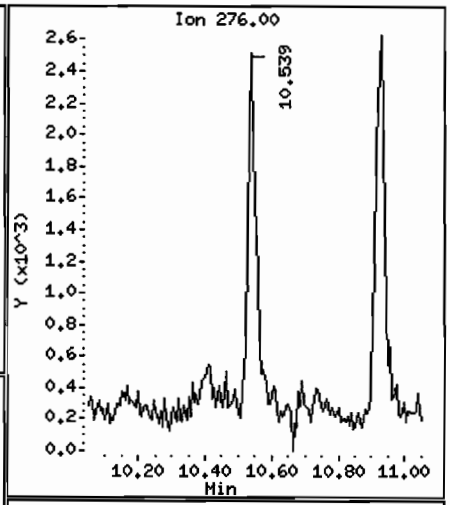

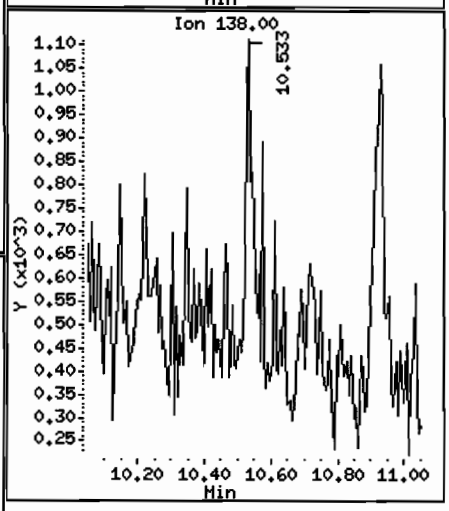

Data File: /chem/MSD1.i/s033010.b/s1c3026.d

Date : 30-MAR-2010 19:50

Client ID: RE46-10-12971 Instrument: MSD1.i

Sample Info: |2493350051966766|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

101 Benzo(ghi)perylene Concentration: 21.7 ug/Kg

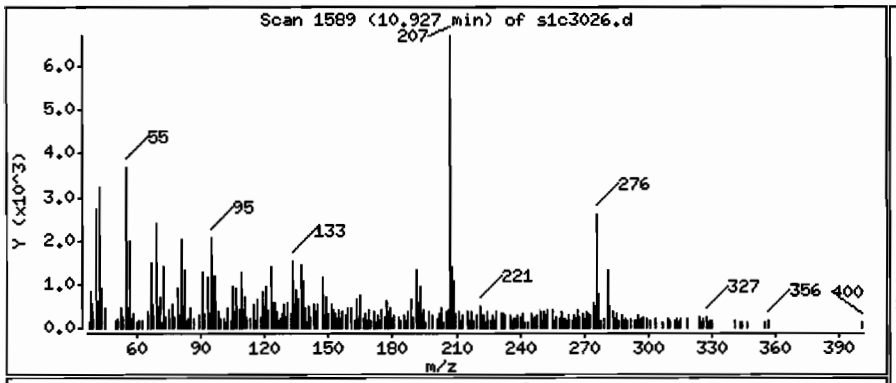

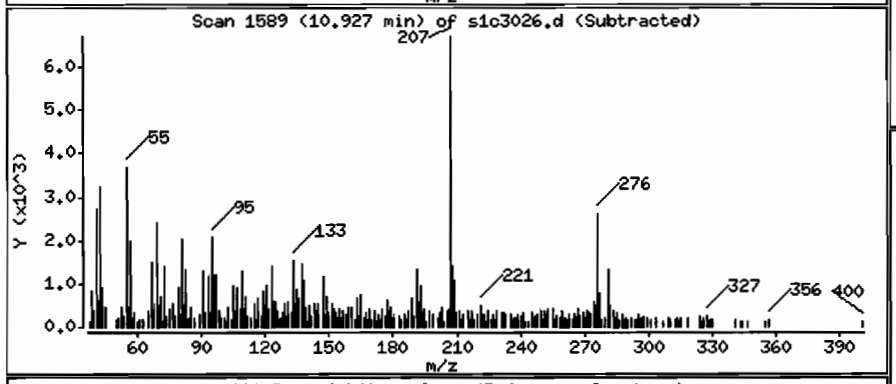

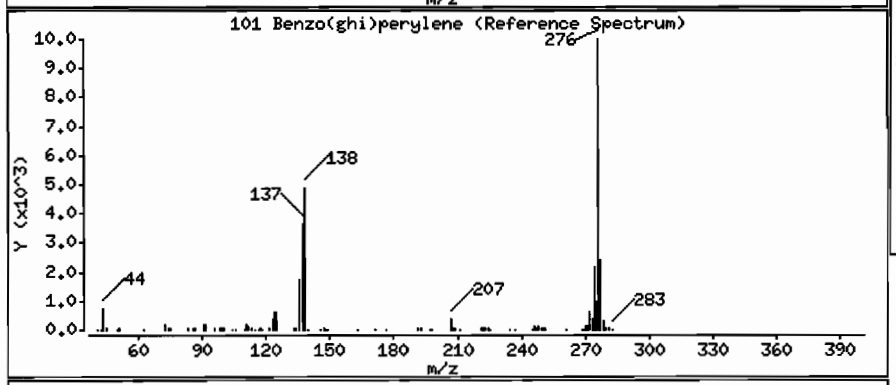

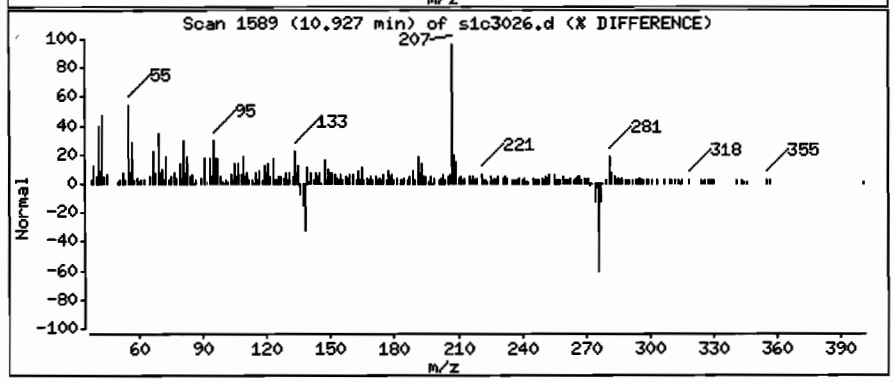

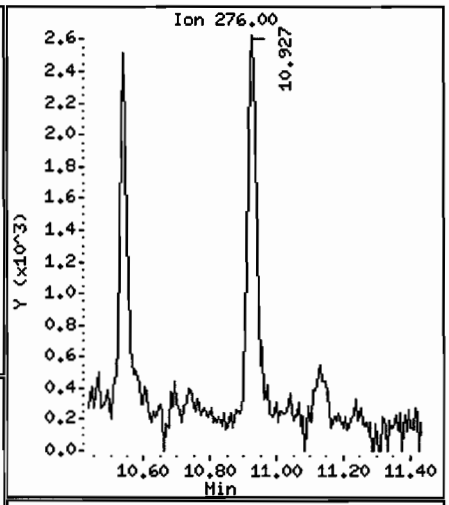

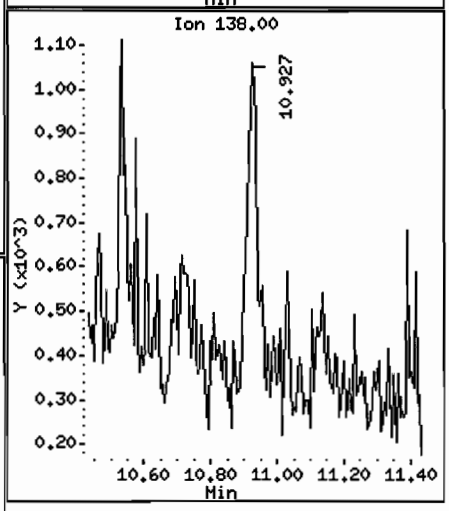

Data File: /chem/MSD1.i/s033010.b/s1c3026.d

Date : 30-MAR-2010 19:50

Client ID: RE46-10-12971

Instrument: MSD1.i

Sample Info: |249335005|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116

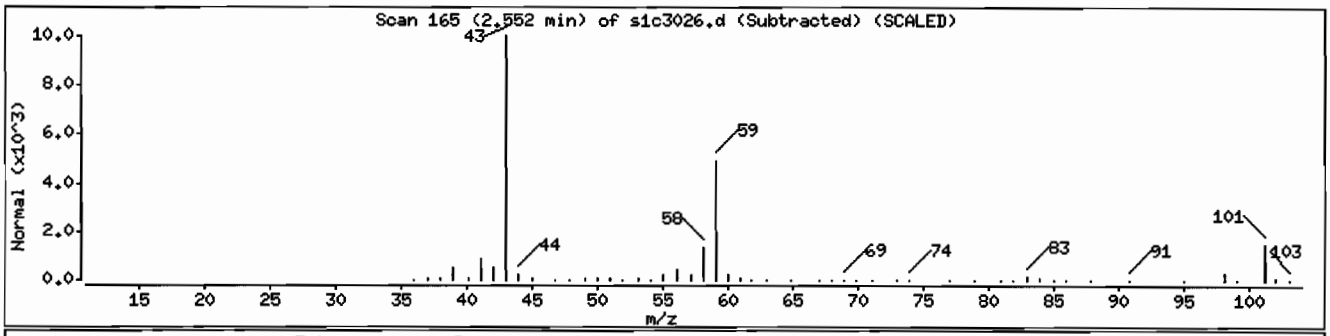

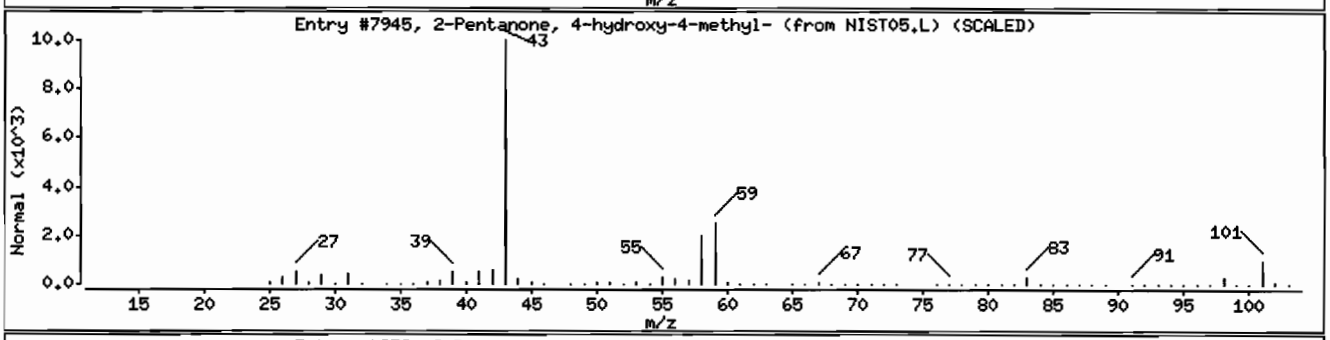

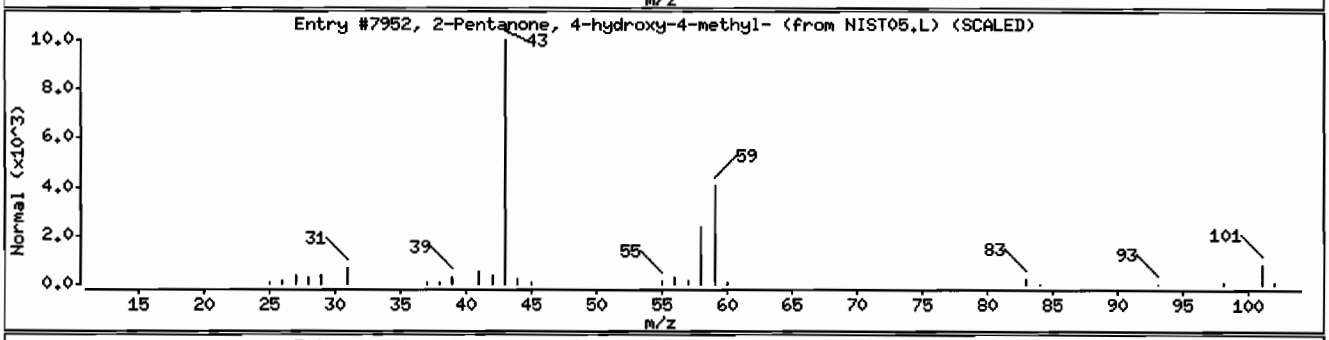

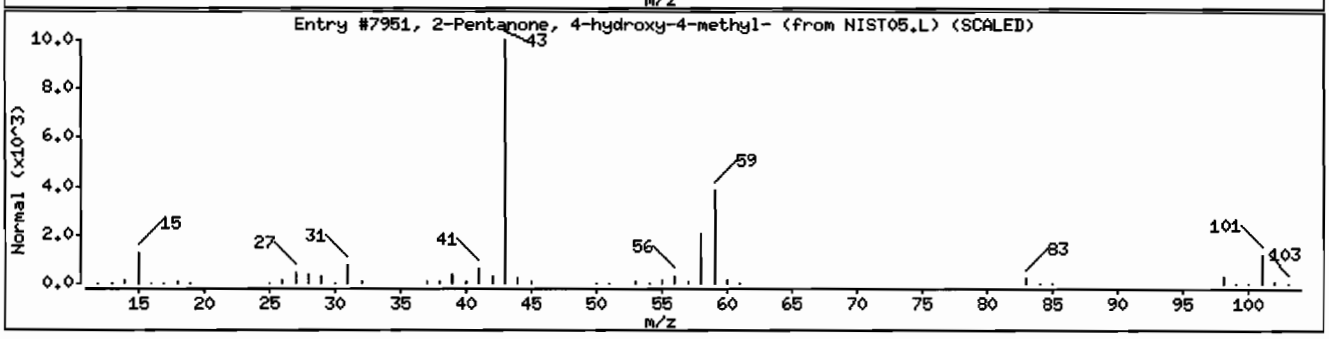

Data File: /chem/MSD1.i/s033010.b/s1c3026.d

Date : 30-MAR-2010 19:50

Client ID: RE46-10-12971

Instrument: MSD1.i

Sample Info: 1249335005196676611SVMI1ILANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NIST05.L	113492	95	C20H42	282
Octadecane	593-45-3	NIST05.L	94929	89	C18H38	254
Heptadecane	629-78-7	NIST05.L	85525	86	C17H36	240

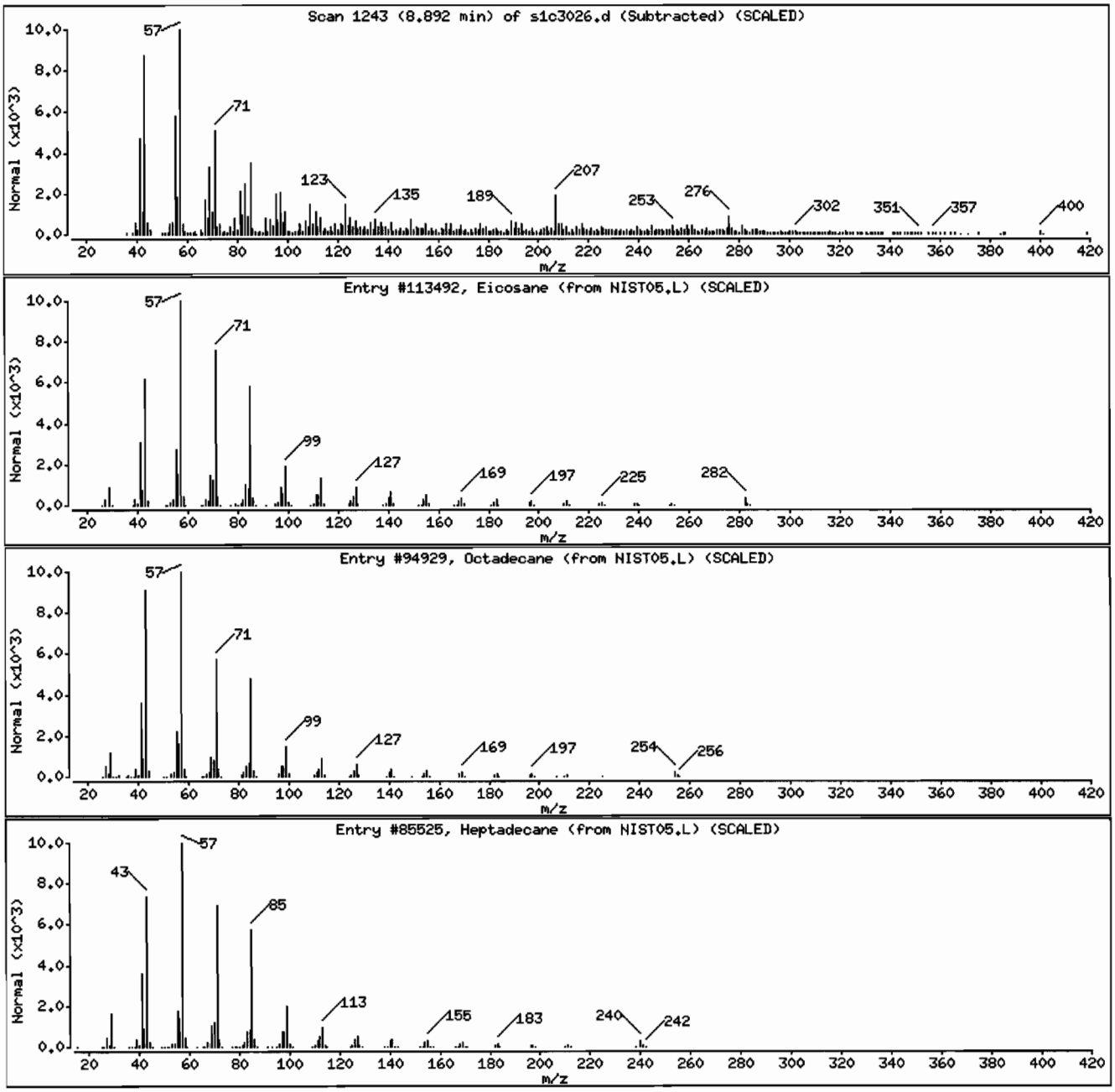

Data File: /chem/MSD1.i/s033010.b/s1c3026.d

Date : 30-MAR-2010 19:50

Client ID: RE46-10-12971 Instrument: MSD1.i

Sample Info: |249335005|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-e	1000188-72-8	NIST05.L	69963	48	C15H220	218
Naphthalene, decahydro-1,4a-dimethyl-7-(	30824-81-8	NIST05.L	63072	30	C15H28	208
2,4a,5,8a-Tetramethyl-1,2,3,4,4a,7,8,8a-	20558-22-9	NIST05.L	62979	30	C14H240	208

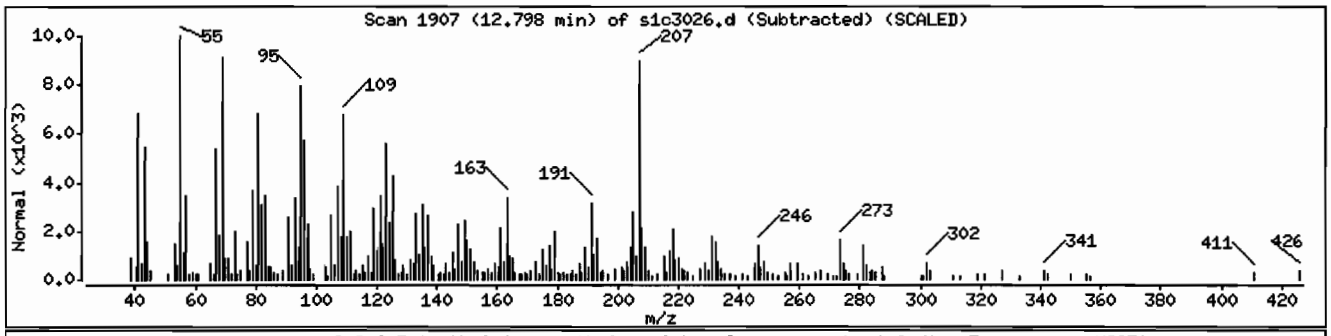

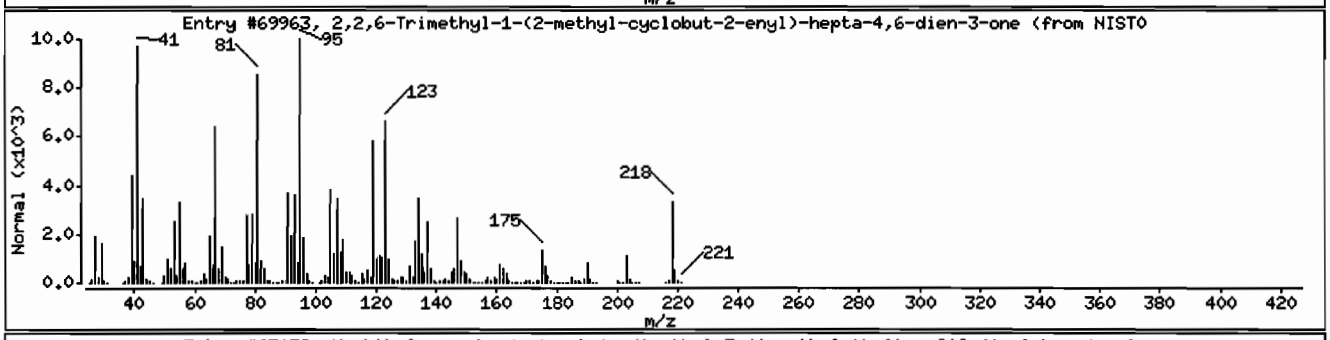

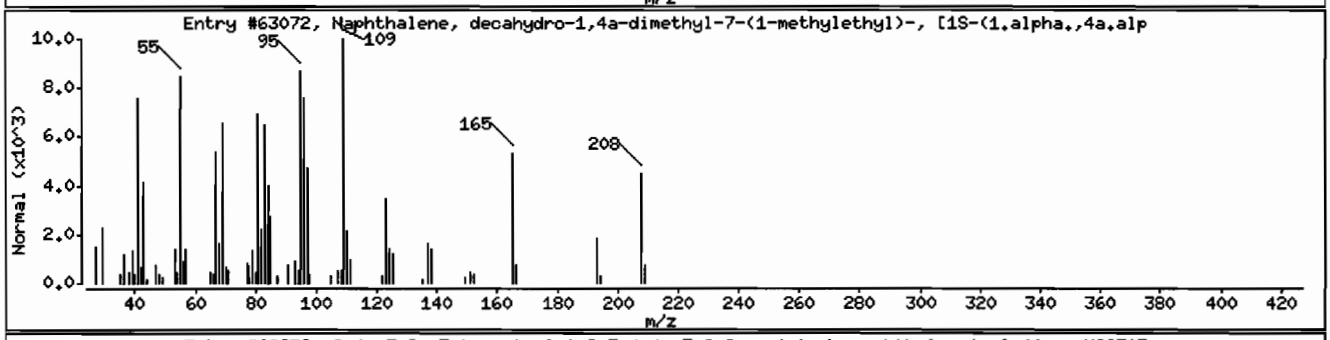

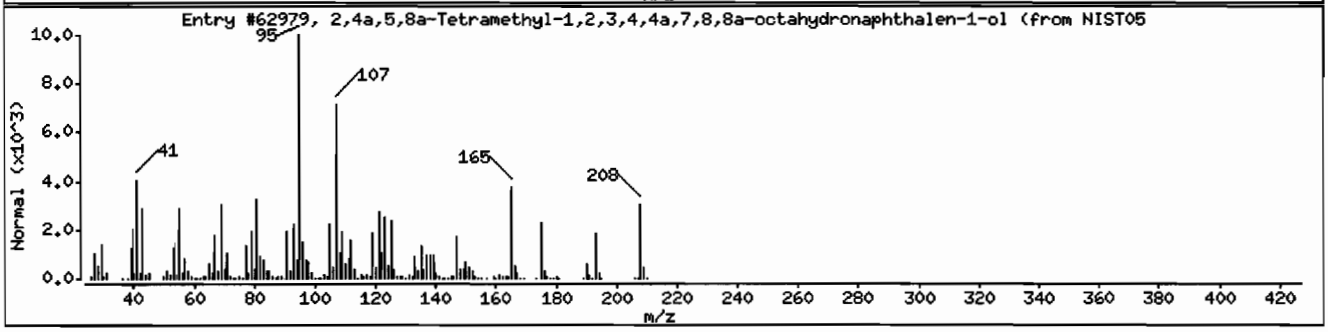

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12972**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 17:51**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3021.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	380	ug/kg	75.9	380
108-95-2	Phenol	U	380	ug/kg	75.9	380
95-57-8	2-Chlorophenol	U	380	ug/kg	75.9	380
106-46-7	1,4-Dichlorobenzene	U	380	ug/kg	75.9	380
621-64-7	N-Nitrosodipropylamine	U	380	ug/kg	75.9	380
59-50-7	4-Chloro-3-methylphenol	U	380	ug/kg	75.9	380
83-32-9	Acenaphthene	U	38.0	ug/kg	12.5	38.0
121-14-2	2,4-Dinitrotoluene	U	380	ug/kg	38.0	380
100-02-7	4-Nitrophenol	U	380	ug/kg	125	380
87-86-5	Pentachlorophenol	U	380	ug/kg	94.9	380
129-00-0	Pyrene	U	38.0	ug/kg	11.4	38.0
110-86-1	Pyridine	U	380	ug/kg	75.9	380
62-53-3	Aniline	U	380	ug/kg	114	380
111-44-4	bis(2-Chloroethyl) ether	U	380	ug/kg	75.9	380
541-73-1	1,3-Dichlorobenzene	U	380	ug/kg	75.9	380
100-51-6	Benzyl alcohol	U	380	ug/kg	114	380
95-50-1	1,2-Dichlorobenzene	U	380	ug/kg	75.9	380
108-60-1	bis(2-Chloroisopropyl)ether	U	380	ug/kg	75.9	380
95-48-7	o-Cresol	U	380	ug/kg	75.9	380
65794-96-9	m,p-Cresols	U	380	ug/kg	114	380
67-72-1	Hexachloroethane	U	380	ug/kg	75.9	380
98-95-3	Nitrobenzene	U	380	ug/kg	75.9	380
78-59-1	Isophorone	U	380	ug/kg	75.9	380
88-75-5	2-Nitrophenol	U	380	ug/kg	75.9	380
105-67-9	2,4-Dimethylphenol	U	380	ug/kg	133	380
111-91-1	bis(2-Chloroethoxy)methane	U	380	ug/kg	75.9	380
120-83-2	2,4-Dichlorophenol	U	380	ug/kg	75.9	380
65-85-0	Benzoic acid	U	759	ug/kg	190	759
91-20-3	Naphthalene	U	38.0	ug/kg	11.4	38.0
106-47-8	4-Chloroaniline	U	380	ug/kg	75.9	380
87-68-3	Hexachlorobutadiene	U	380	ug/kg	75.9	380
91-57-6	2-Methylnaphthalene	U	38.0	ug/kg	7.59	38.0
77-47-4	Hexachlorocyclopentadiene	U	380	ug/kg	75.9	380
88-06-2	2,4,6-Trichlorophenol	U	380	ug/kg	75.9	380
95-95-4	2,4,5-Trichlorophenol	U	380	ug/kg	75.9	380
91-58-7	2-Chloronaphthalene	U	38.0	ug/kg	12.5	38.0
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	380	ug/kg	75.9	380
99-09-2	3-Nitroaniline	U	380	ug/kg	75.9	380

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	Date Collected:	03/11/2010 12:00	Matrix:	S
Lab Sample ID:	249335002	Date Received:	03/13/2010 09:30	%Moisture:	12.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-12972	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966766	Inst:	MSD1.I	Dilution:	1
Run Date:	03/30/2010 17:51	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	03/19/2010 11:31	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s1c3021.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	380	ug/kg	75.9	380
606-20-2	2,6-Dinitrotoluene	U	380	ug/kg	38.0	380
208-96-8	Acenaphthylene	U	38.0	ug/kg	11.4	38.0
51-28-5	2,4-Dinitrophenol	U	759	ug/kg	144	759
132-64-9	Dibenzofuran	U	380	ug/kg	75.9	380
84-66-2	Diethylphthalate	U	380	ug/kg	75.9	380
86-73-7	Fluorene	U	38.0	ug/kg	11.4	38.0
7005-72-3	4-Chlorophenylphenylether	U	380	ug/kg	75.9	380
534-52-1	2-Methyl-4,6-dinitrophenol	U	380	ug/kg	75.9	380
100-01-6	4-Nitroaniline	U	380	ug/kg	114	380
	p-Nitroaniline					
122-39-4	Diphenylamine	U	380	ug/kg	75.9	380
122-66-7	Azobenzene	U	380	ug/kg	75.9	380
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	380	ug/kg	75.9	380
118-74-1	Hexachlorobenzene	U	380	ug/kg	75.9	380
85-01-8	Phenanthrene	U	38.0	ug/kg	11.4	38.0
120-12-7	Anthracene	U	38.0	ug/kg	7.59	38.0
84-74-2	Di-n-butylphthalate	U	380	ug/kg	75.9	380
206-44-0	Fluoranthene	U	38.0	ug/kg	11.4	38.0
85-68-7	Butylbenzylphthalate	U	380	ug/kg	75.9	380
56-55-3	Benzo(a)anthracene	U	38.0	ug/kg	11.4	38.0
91-94-1	3,3'-Dichlorobenzidine	U	380	ug/kg	114	380
218-01-9	Chrysene	U	38.0	ug/kg	11.4	38.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	380	ug/kg	75.9	380
117-84-0	Di-n-octylphthalate	U	380	ug/kg	75.9	380
205-99-2	Benzo(b)fluoranthene	U	38.0	ug/kg	11.4	38.0
207-08-9	Benzo(k)fluoranthene	U	38.0	ug/kg	11.4	38.0
50-32-8	Benzo(a)pyrene	U	38.0	ug/kg	11.4	38.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.0	ug/kg	11.4	38.0
53-70-3	Dibenzo(a,h)anthracene	U	38.0	ug/kg	11.4	38.0
191-24-2	Benzo(ghi)perylene	U	38.0	ug/kg	11.4	38.0
120-82-1	1,2,4-Trichlorobenzene	U	380	ug/kg	75.9	380

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.56	364	ug/kg		JA
	Unknown	12.79	170	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3021.d
Lab Smp Id: 249335002 Client Smp ID: RE46-10-12972
Inj Date : 30-MAR-2010 17:51
Operator : AMY Inst ID: MSD1.i
Smp Info : |249335002|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 18:13 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	12.26540	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.487	3.487	(1.000)	467999	40.0000	
* 29 Naphthalene-d8	136	4.334	4.339	(1.000)	1748123	40.0000	
* 46 Acenaphthene-d10	164	5.569	5.575	(1.000)	932862	40.0000	
* 67 Phenanthrene-d10	188	6.587	6.586	(1.000)	1688689	40.0000	
* 91 Chrysene-d12	240	8.151	8.157	(1.000)	1075415	40.0000	
* 98 Perylene-d12	264	9.304	9.310	(1.000)	659354	40.0000	
$ 3 2-Fluorophenol	112	2.716	2.704	(0.779)	800733	66.4447	2520
$ 5 Phenol-d5	99	3.228	3.228	(0.926)	967006	65.8875	2500
$ 20 Nitrobenzene-d5	82	3.840	3.845	(0.886)	375379	35.0109	1330
$ 39 2-Fluorobiphenyl	172	5.075	5.075	(0.911)	785183	30.4767	1160
$ 60 2,4,6-Tribromophenol	329	6.122	6.128	(1.099)	166461	54.4279	2070
$ 81 p-Terphenyl-d14	244	7.510	7.510	(0.921)	860089	47.9718	1820

ION RATIO REPORT

SV REPORT

Data file: s1c3021.d
Report Date: 03/30/2010 18:17
Lab. ID: 249335002 SampleType: SAMPLE
Injection Date: 30-MAR-2010 17:51
Operator: AMY Instrument: MSD1.i
Sample Info: |249335002|966766|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2436
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	45811	3.23	3.28	80-120	100	( )
93	445	3.26	3.28	200-260	1	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	51881	3.84	3.74	80-120	100	(T)
42	33561	3.84	3.74	49-109	65	(T)
41 m-Nitroaniline			CAS#: 99-09-2			
138	189	5.57	5.54	80-120	100	( )
92	4027	5.57	5.54	73-133	2124	(Q)
108	16923	5.57	5.54	0- 41	8927	(Q)
43 Dimethylphthalate			CAS#: 131-11-3			
163	171010	5.57	5.36	80-120	100	(T)
164	932862	5.57	5.36	0- 40	545	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	119510	5.57	5.41	80-120	100	(T)
63	1734	5.57	5.41	51-111	1	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	119510	5.57	5.70	80-120	100	(T)
89	1542	5.57	5.70	40-100	1	(QT)
63	1734	5.57	5.70	20- 80	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	12625	6.12	5.96	80-120	100	(T)
165	13156	6.12	5.96	62-122	104	(T)
167	4402	6.12	5.96	0- 44	35	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3021.d
Lab Smp Id: 249335002 Client Smp ID: RE46-10-12972
Inj Date : 30-MAR-2010 17:51
Operator : AMY Inst ID: MSD1.i
Smp Info : |249335002|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 18:13 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	12.26540	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.487	2825145	40.000
* 98 Perylene-d12	9.304	1860492	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
2.557	678021	9.59979940	364	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
Unknown				CAS #:			
12.792	208853	4.49028241	170	0		0	98

Data File: /chem/MSD1.i/s033010.b/s1c3021.d
Date : 30-MAR-2010 17:51
Client ID: RE46-10-12972
Sample Info: 1249335002196676611SVMI11LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

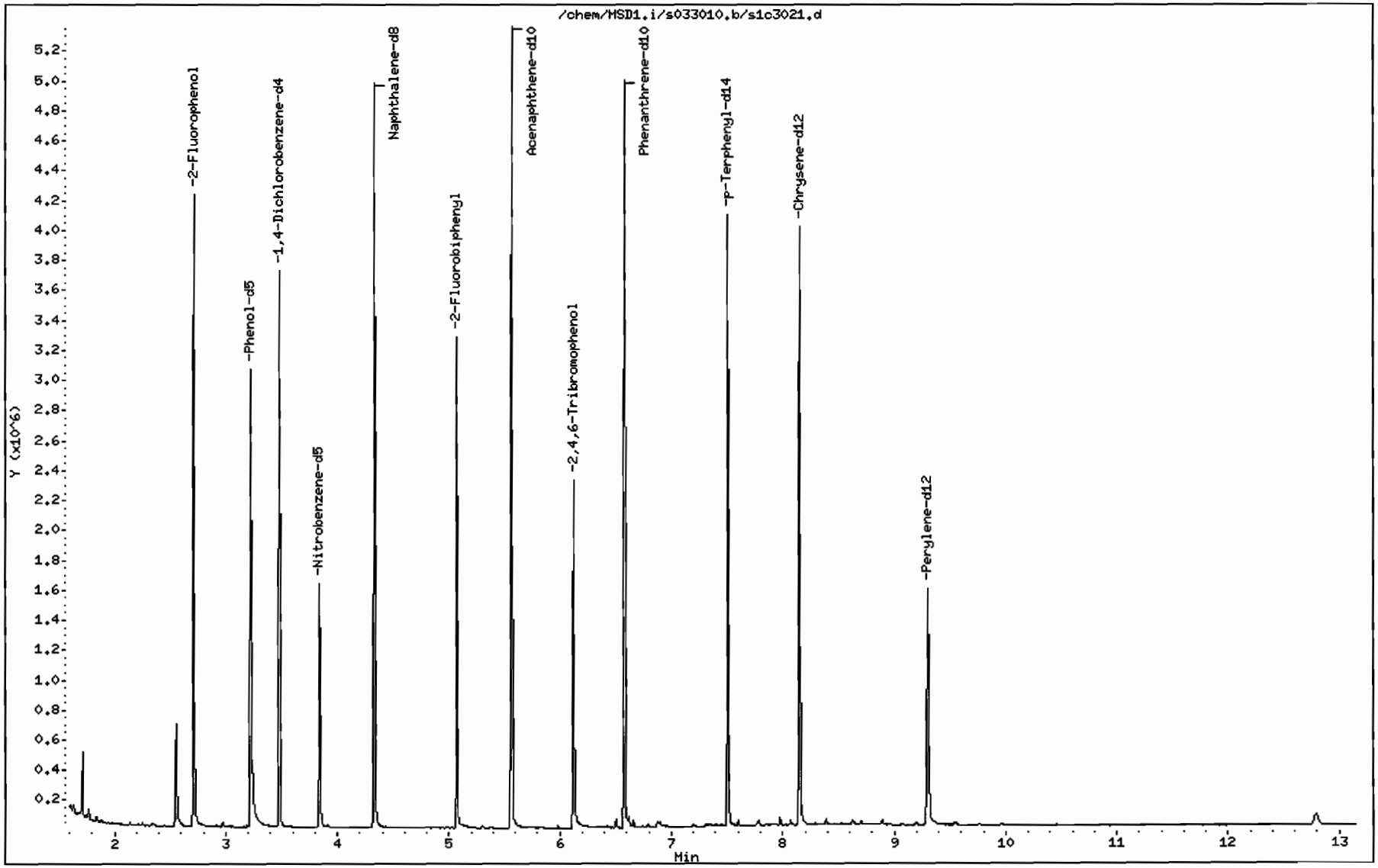

Data File: /chem/MSD1.i/s033010.b/s1c3021.d

Date : 30-MAR-2010 17:51

Client ID: RE46-10-12972

Instrument: MSD1.i

Sample Info: |2493350021966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116

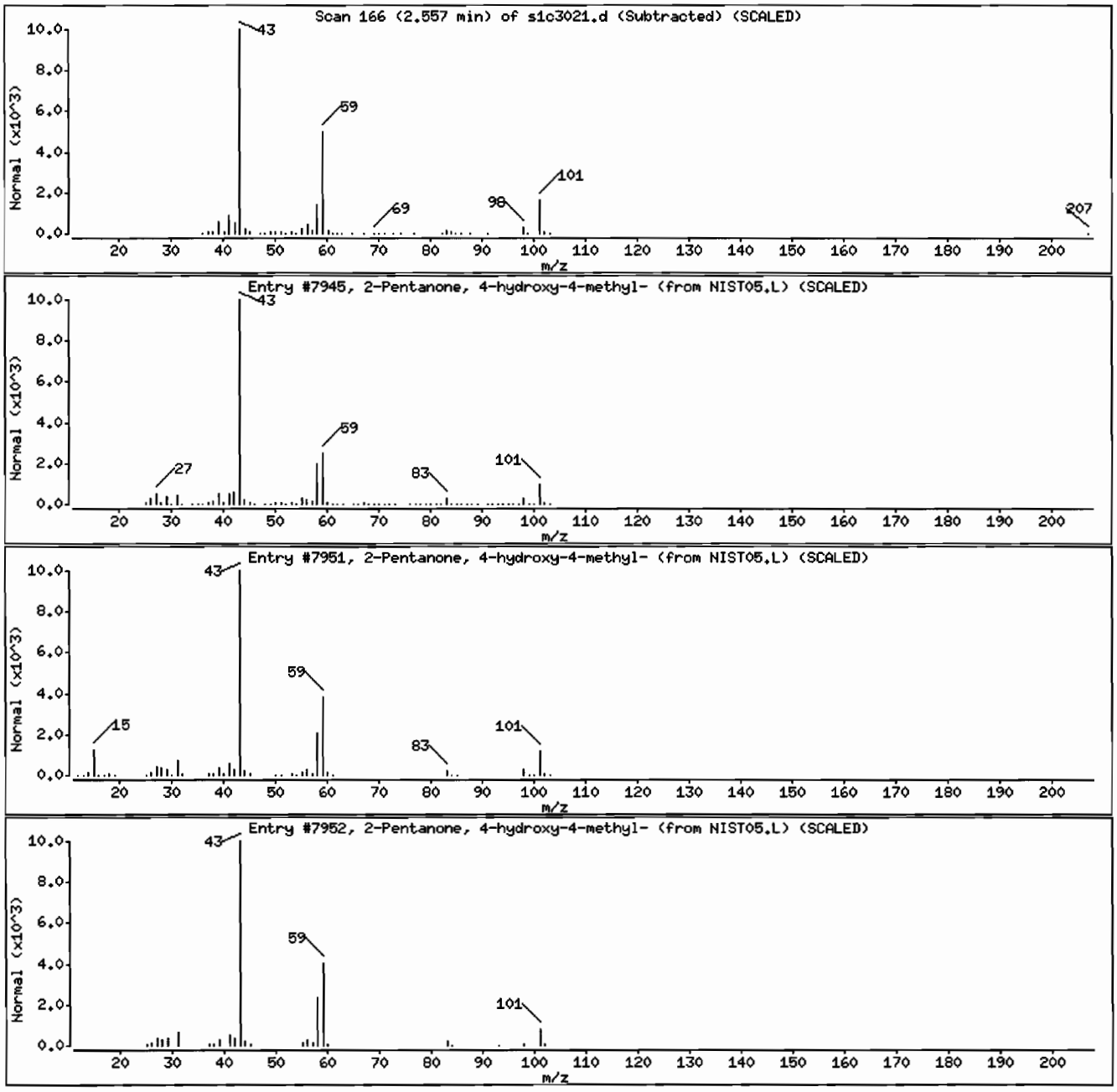

Data File: /chem/MSD1.i/s033010.b/s1c3021.d

Date : 30-MAR-2010 17:51

Client ID: RE46-10-12972 Instrument: MSD1.i

Sample Info: |249335002|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Ethylacridine	55751-83-2	NIST05.L	62222	25	C15H13N	207
1H-Indole, 1-methyl-2-phenyl-	3558-24-5	NIST05.L	62235	22	C15H13N	207
9,10-Methanoanthracen-11-ol, 9,10-dihydr	126615-74-5	NIST05.L	92233	22	C18H18O	250

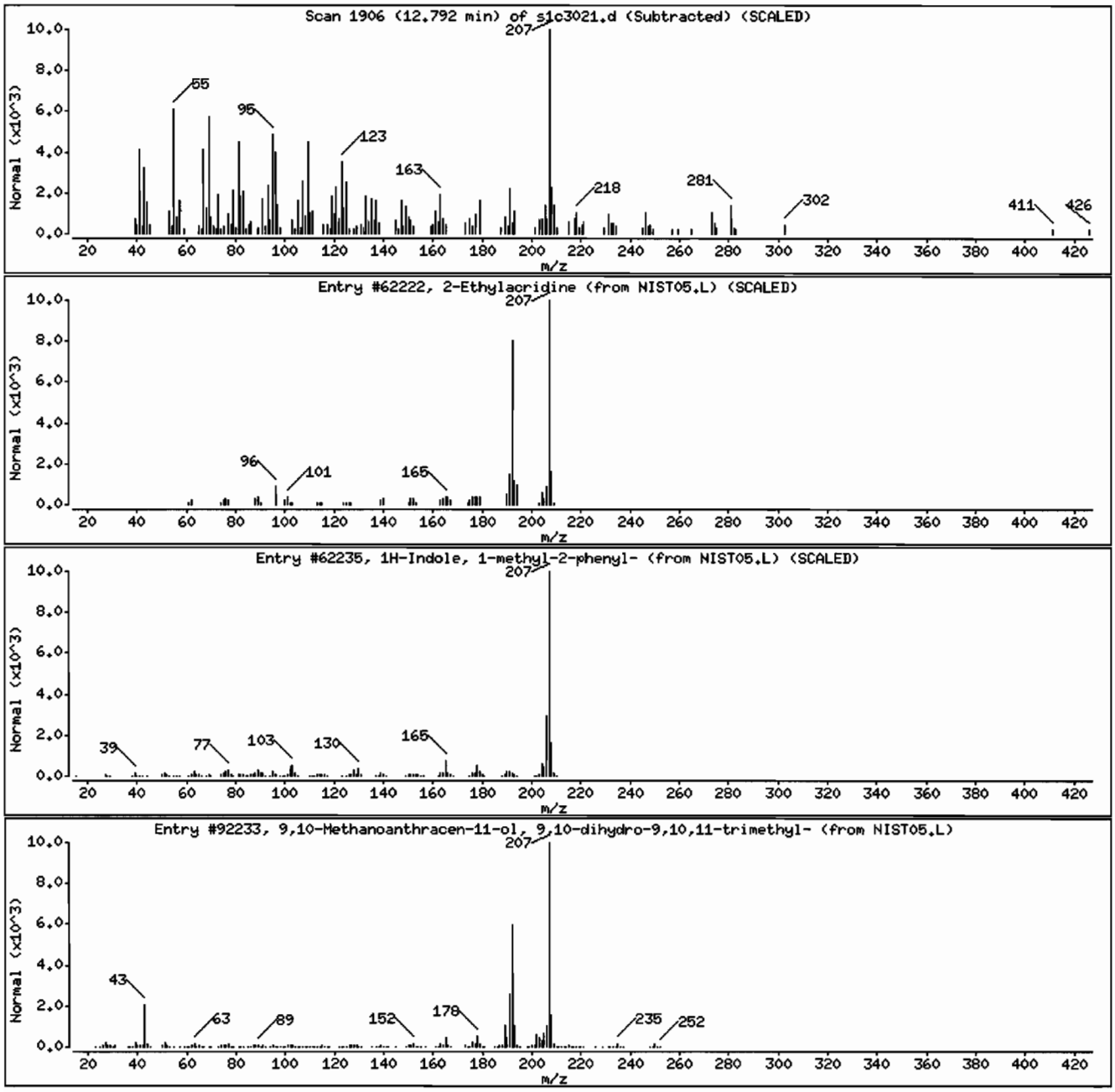

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	Date Collected:	03/11/2010 12:00	Matrix:	S
Lab Sample ID:	249335003	Date Received:	03/13/2010 09:30	%Moisture:	11.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13003	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966766	Inst:	MSD1.I	Dilution:	1
Run Date:	03/30/2010 19:02	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	03/19/2010 11:31	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	s1c3024.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	376	ug/kg	75.2	376
108-95-2	Phenol	U	376	ug/kg	75.2	376
95-57-8	2-Chlorophenol	U	376	ug/kg	75.2	376
106-46-7	1,4-Dichlorobenzene	U	376	ug/kg	75.2	376
621-64-7	N-Nitrosodipropylamine	U	376	ug/kg	75.2	376
59-50-7	4-Chloro-3-methylphenol	U	376	ug/kg	75.2	376
83-32-9	Acenaphthene	U	37.6	ug/kg	12.4	37.6
121-14-2	2,4-Dinitrotoluene	U	376	ug/kg	37.6	376
100-02-7	4-Nitrophenol	U	376	ug/kg	124	376
87-86-5	Pentachlorophenol	U	376	ug/kg	94.0	376
129-00-0	Pyrene	J	12.4	ug/kg	11.3	37.6
110-86-1	Pyridine	U	376	ug/kg	75.2	376
62-53-3	Aniline	U	376	ug/kg	113	376
111-44-4	bis(2-Chloroethyl) ether	U	376	ug/kg	75.2	376
541-73-1	1,3-Dichlorobenzene	U	376	ug/kg	75.2	376
100-51-6	Benzyl alcohol	U	376	ug/kg	113	376
95-50-1	1,2-Dichlorobenzene	U	376	ug/kg	75.2	376
108-60-1	bis(2-Chloroisopropyl)ether	U	376	ug/kg	75.2	376
95-48-7	o-Cresol	U	376	ug/kg	75.2	376
65794-96-9	m,p-Cresols	U	376	ug/kg	113	376
67-72-1	Hexachloroethane	U	376	ug/kg	75.2	376
98-95-3	Nitrobenzene	U	376	ug/kg	75.2	376
78-59-1	Isophorone	U	376	ug/kg	75.2	376
88-75-5	2-Nitrophenol	U	376	ug/kg	75.2	376
105-67-9	2,4-Dimethylphenol	U	376	ug/kg	132	376
111-91-1	bis(2-Chloroethoxy)methane	U	376	ug/kg	75.2	376
120-83-2	2,4-Dichlorophenol	U	376	ug/kg	75.2	376
65-85-0	Benzoic acid	U	752	ug/kg	188	752
91-20-3	Naphthalene	U	37.6	ug/kg	11.3	37.6
106-47-8	4-Chloroaniline	U	376	ug/kg	75.2	376
87-68-3	Hexachlorobutadiene	U	376	ug/kg	75.2	376
91-57-6	2-Methylnaphthalene	U	37.6	ug/kg	7.52	37.6
77-47-4	Hexachlorocyclopentadiene	U	376	ug/kg	75.2	376
88-06-2	2,4,6-Trichlorophenol	U	376	ug/kg	75.2	376
95-95-4	2,4,5-Trichlorophenol	U	376	ug/kg	75.2	376
91-58-7	2-Chloronaphthalene	U	37.6	ug/kg	12.4	37.6
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	376	ug/kg	75.2	376
99-09-2	3-Nitroaniline	U	376	ug/kg	75.2	376

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	Date Collected:	03/11/2010 12:00	Matrix:	S
Lab Sample ID:	249335003	Date Received:	03/13/2010 09:30	%Moisture:	11.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE46-10-13003	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	966766	Inst:	MSD1.I	Dilution:	1
Run Date:	03/30/2010 19:02	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	03/19/2010 11:31	Aliquot:	30.06 g	Final Volume:	1 mL
Data File:	s1c3024.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	376	ug/kg	75.2	376
606-20-2	2,6-Dinitrotoluene	U	376	ug/kg	37.6	376
208-96-8	Acenaphthylene	U	37.6	ug/kg	11.3	37.6
51-28-5	2,4-Dinitrophenol	U	752	ug/kg	143	752
132-64-9	Dibenzofuran	U	376	ug/kg	75.2	376
84-66-2	Diethylphthalate	U	376	ug/kg	75.2	376
86-73-7	Fluorene	U	37.6	ug/kg	11.3	37.6
7005-72-3	4-Chlorophenylphenylether	U	376	ug/kg	75.2	376
534-52-1	2-Methyl-4,6-dinitrophenol	U	376	ug/kg	75.2	376
100-01-6	4-Nitroaniline	U	376	ug/kg	113	376
	p-Nitroaniline					
122-39-4	Diphenylamine	U	376	ug/kg	75.2	376
122-66-7	Azobenzene	U	376	ug/kg	75.2	376
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	376	ug/kg	75.2	376
118-74-1	Hexachlorobenzene	U	376	ug/kg	75.2	376
85-01-8	Phenanthrene	U	37.6	ug/kg	11.3	37.6
120-12-7	Anthracene	U	37.6	ug/kg	7.52	37.6
84-74-2	Di-n-butylphthalate	U	376	ug/kg	75.2	376
206-44-0	Fluoranthene	J	14.8	ug/kg	11.3	37.6
85-68-7	Butylbenzylphthalate	U	376	ug/kg	75.2	376
56-55-3	Benzo(a)anthracene	U	37.6	ug/kg	11.3	37.6
91-94-1	3,3'-Dichlorobenzidine	U	376	ug/kg	113	376
218-01-9	Chrysene	U	37.6	ug/kg	11.3	37.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	376	ug/kg	75.2	376
117-84-0	Di-n-octylphthalate	U	376	ug/kg	75.2	376
205-99-2	Benzo(b)fluoranthene	U	37.6	ug/kg	11.3	37.6
207-08-9	Benzo(k)fluoranthene	U	37.6	ug/kg	11.3	37.6
50-32-8	Benzo(a)pyrene	U	37.6	ug/kg	11.3	37.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.6	ug/kg	11.3	37.6
53-70-3	Dibenzo(a,h)anthracene	U	37.6	ug/kg	11.3	37.6
191-24-2	Benzo(ghi)perylene	U	37.6	ug/kg	11.3	37.6
120-82-1	1,2,4-Trichlorobenzene	U	376	ug/kg	75.2	376

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.55	342	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3024.d
Lab Smp Id: 249335003 Client Smp ID: RE46-10-13003
Inj Date : 30-MAR-2010 19:02
Operator : AMY Inst ID: MSD1.i
Smp Info : |249335003|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	11.50470	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.487	3.487	(1.000)	528904	40.0000	
* 29 Naphthalene-d8	136	4.334	4.339	(1.000)	2020670	40.0000	
* 46 Acenaphthene-d10	164	5.569	5.575	(1.000)	1072681	40.0000	
* 67 Phenanthrene-d10	188	6.587	6.586	(1.000)	1931481	40.0000	
* 91 Chrysene-d12	240	8.151	8.157	(1.000)	1398922	40.0000	
* 98 Perylene-d12	264	9.304	9.310	(1.000)	950935	40.0000	
$ 3 2-Fluorophenol	112	2.716	2.704	(0.779)	696571	51.1454	1920
$ 5 Phenol-d5	99	3.228	3.228	(0.926)	849029	51.1876	1920
$ 20 Nitrobenzene-d5	82	3.840	3.845	(0.886)	329416	26.5800	999
$ 39 2-Fluorobiphenyl	172	5.075	5.075	(0.911)	696895	23.5240	884
$ 60 2,4,6-Tribromophenol	329	6.122	6.128	(1.099)	168640	47.9531	1800
$ 81 p-Terphenyl-d14	244	7.510	7.510	(0.921)	793383	34.0179	1280

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	7.445	7.451	(0.913)	13084	0.32960	12.4(a)
76 Fluoranthene	202	7.310	7.316	(1.110)	16880	0.39355	14.8(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s1c3024.d
Report Date: 03/30/2010 20:57
Lab. ID: 249335003 SampleType: SAMPLE
Injection Date: 30-MAR-2010 19:02
Operator: AMY Instrument: MSD1.i
Sample Info: |249335003|966766|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S||WBN100310-01|
Comment:
Method used: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2436
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	40069	3.23	3.28	80-120	100	( )
93	369	3.26	3.28	200-260	1	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	45882	3.84	3.74	80-120	100	(T)
42	30490	3.84	3.74	49-109	66	(T)
41 m-Nitroaniline			CAS#: 99-09-2			
138	123	5.57	5.54	80-120	100	( )
92	4591	5.57	5.54	73-133	3705	(Q)
108	19373	5.57	5.54	0- 41	15636	(Q)
43 Dimethylphthalate			CAS#: 131-11-3			
163	193232	5.57	5.36	80-120	100	(T)
164	1072681	5.57	5.36	0- 40	555	(QT)
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	136366	5.57	5.41	80-120	100	(T)
63	2337	5.57	5.41	51-111	2	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	136366	5.57	5.70	80-120	100	(T)
89	1598	5.57	5.70	40-100	1	(QT)
63	2337	5.57	5.70	20- 80	2	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	13037	6.12	5.96	80-120	100	(T)
165	12993	6.12	5.96	62-122	100	(T)
167	4023	6.12	5.96	0- 44	31	(T)
76 Fluoranthene			CAS#: 206-44-0			
202	16880	7.31	7.32	80-120	100	( )
203	3067	7.31	7.32	0- 47	18	( )
101	3028	7.31	7.32	0- 45	18	( )
79 Pyrene			CAS#: 129-00-0			
202	13084	7.45	7.45	80-120	100	( )
200	2505	7.45	7.45	0- 49	19	( )
101	2970	7.45	7.45	0- 48	23	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	11314	8.15	8.15	80-120	100	( )
226	2121	8.14	8.15	0- 55	19	( )
229	3193	8.15	8.15	0- 49	28	( )
92 Chrysene			CAS#: 218-01-9			
228	11314	8.15	8.17	80-120	100	( )
229	3193	8.15	8.17	0- 49	28	( )
226	2121	8.14	8.17	0- 58	19	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3024.d
Lab Smp Id: 249335003 Client Smp ID: RE46-10-13003
Inj Date : 30-MAR-2010 19:02
Operator : AMY Inst ID: MSD1.i
Smp Info : |249335003|966766|1|SVM|1|LANL
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	11.50470	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.487	3179636	40.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
2.552	722180	9.08506396	342	0		0	10

Data File: /chem/MSD1.i/s033010.b/s1c3024.d
Date : 30-MAR-2010 19:02
Client ID: RE46-10-13003
Sample Info: |249335003|966766|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

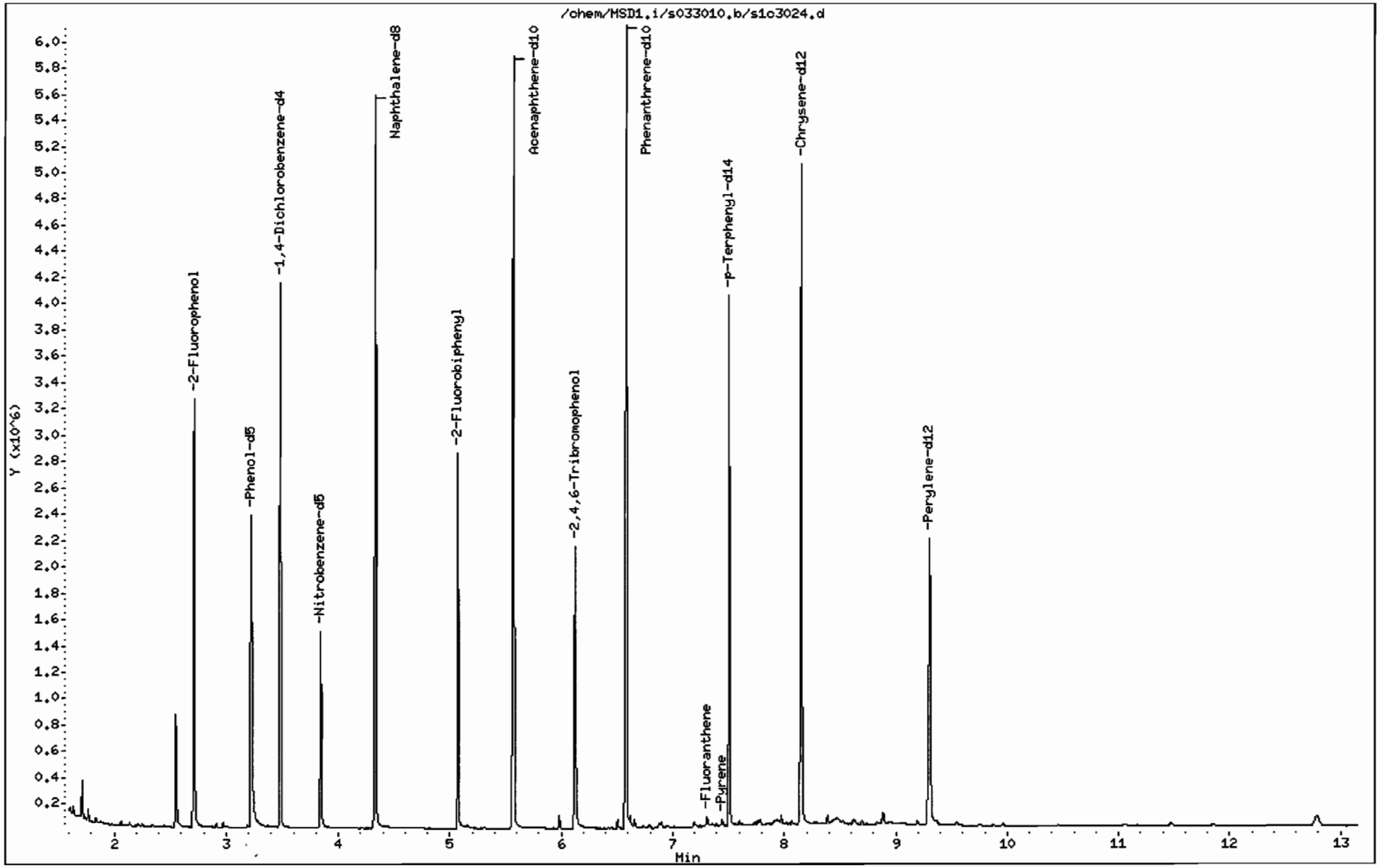

Data File: /chem/MSD1.i/s033010.b/s1c3024.d

Date : 30-MAR-2010 19:02

Client ID: RE46-10-13003

Instrument: MSD1.i

Sample Info: |249335003|966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 12.4 ug/Kg

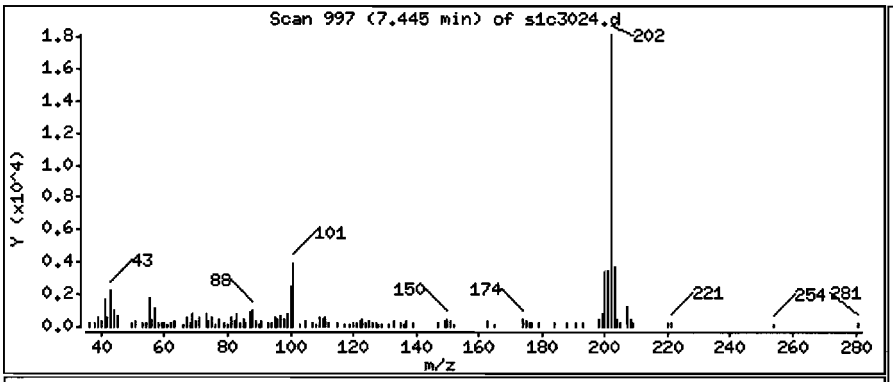

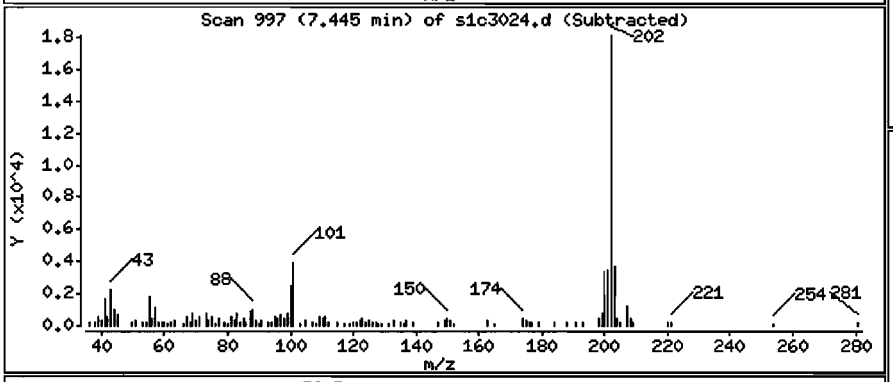

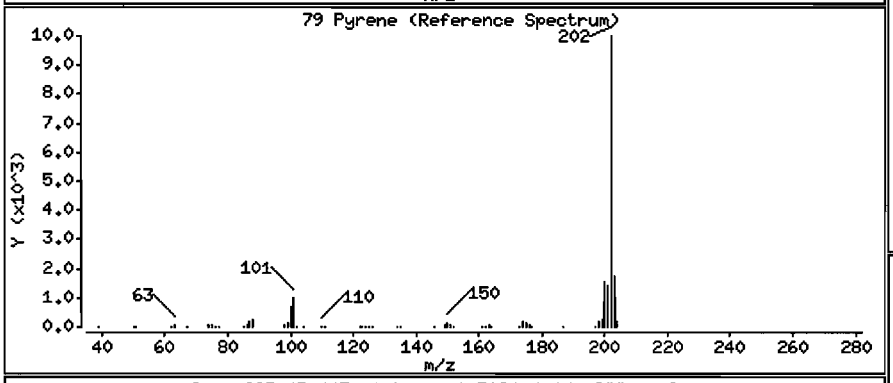

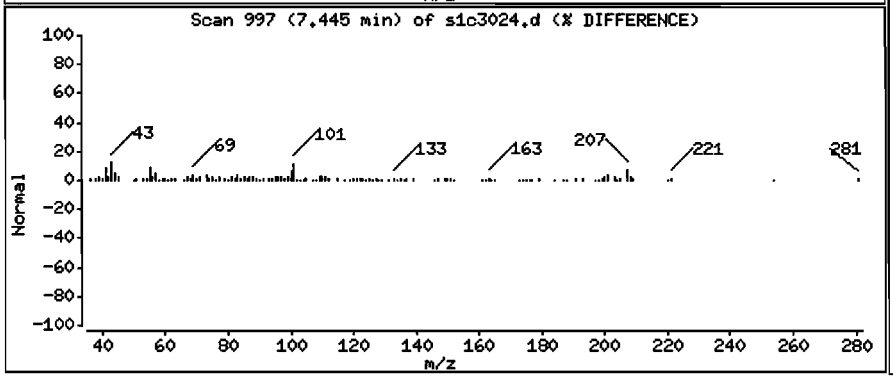

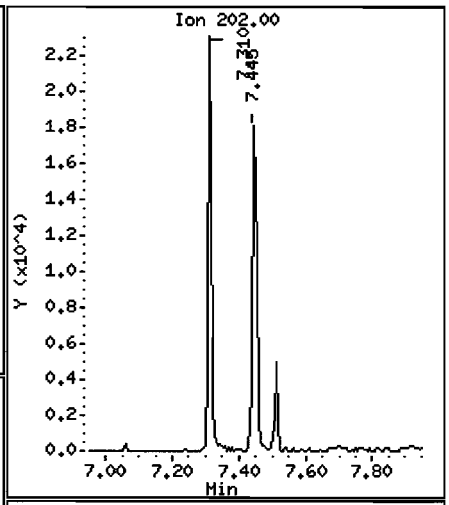

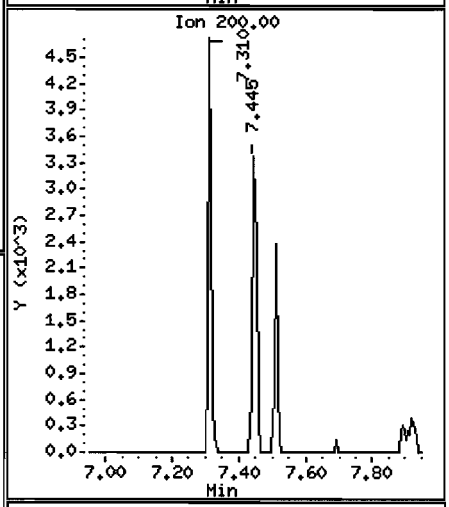

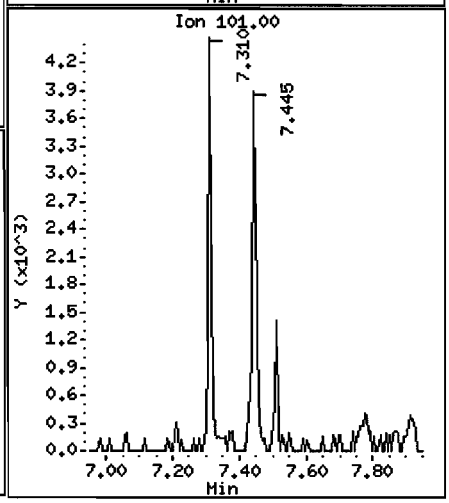

Data File: /chem/MSD1.i/s033010.b/s1c3024.d

Date : 30-MAR-2010 19:02

Client ID: RE46-10-13003

Instrument: MSD1.i

Sample Info: |2493350031966766|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 14.8 ug/Kg

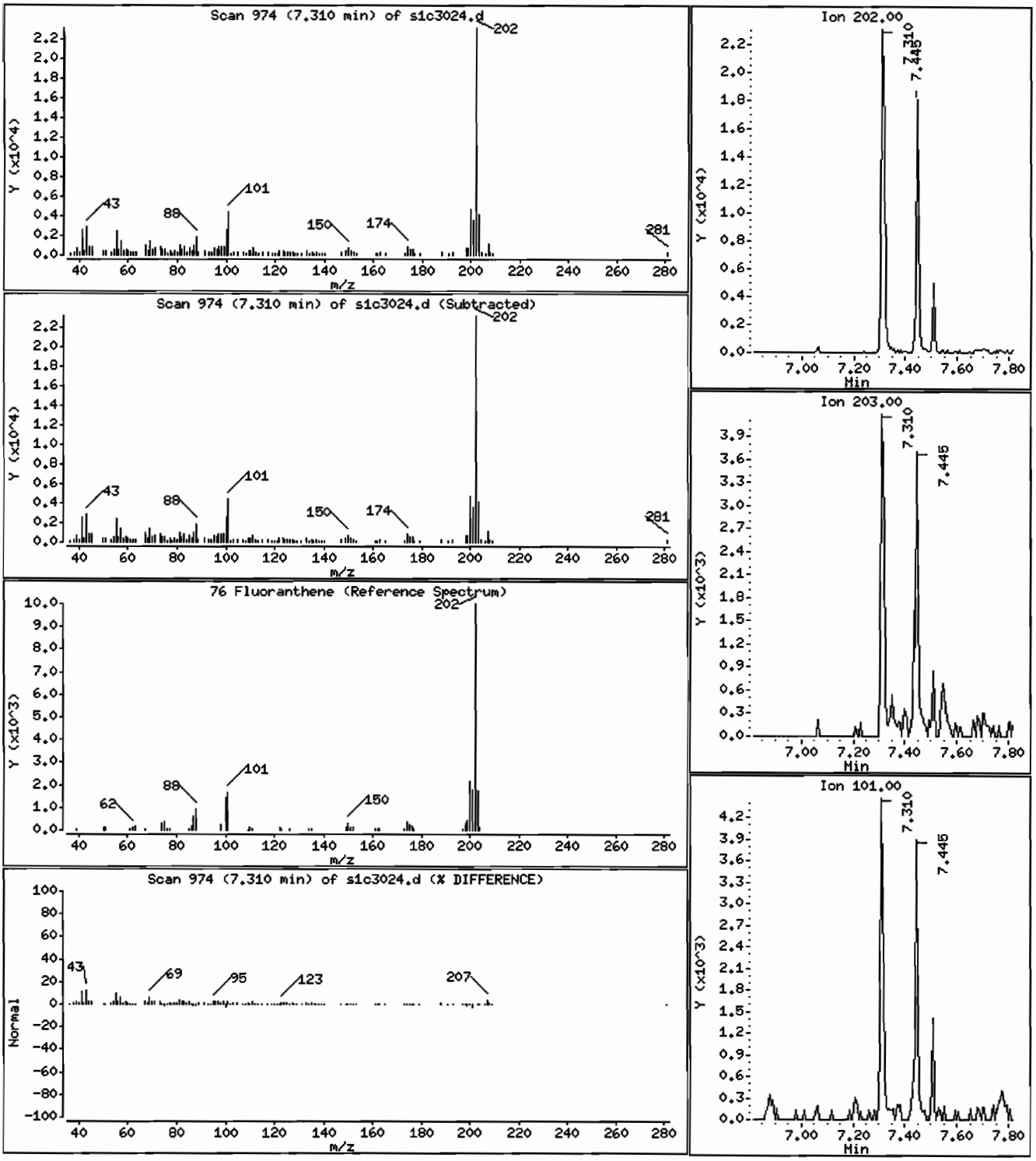

Data File: /chem/MSD1.i/s033010.b/s1c3024.d

Date : 30-MAR-2010 19:02

Client ID: RE46-10-13003

Instrument: MSD1.i

Sample Info: |249335003|966766|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116

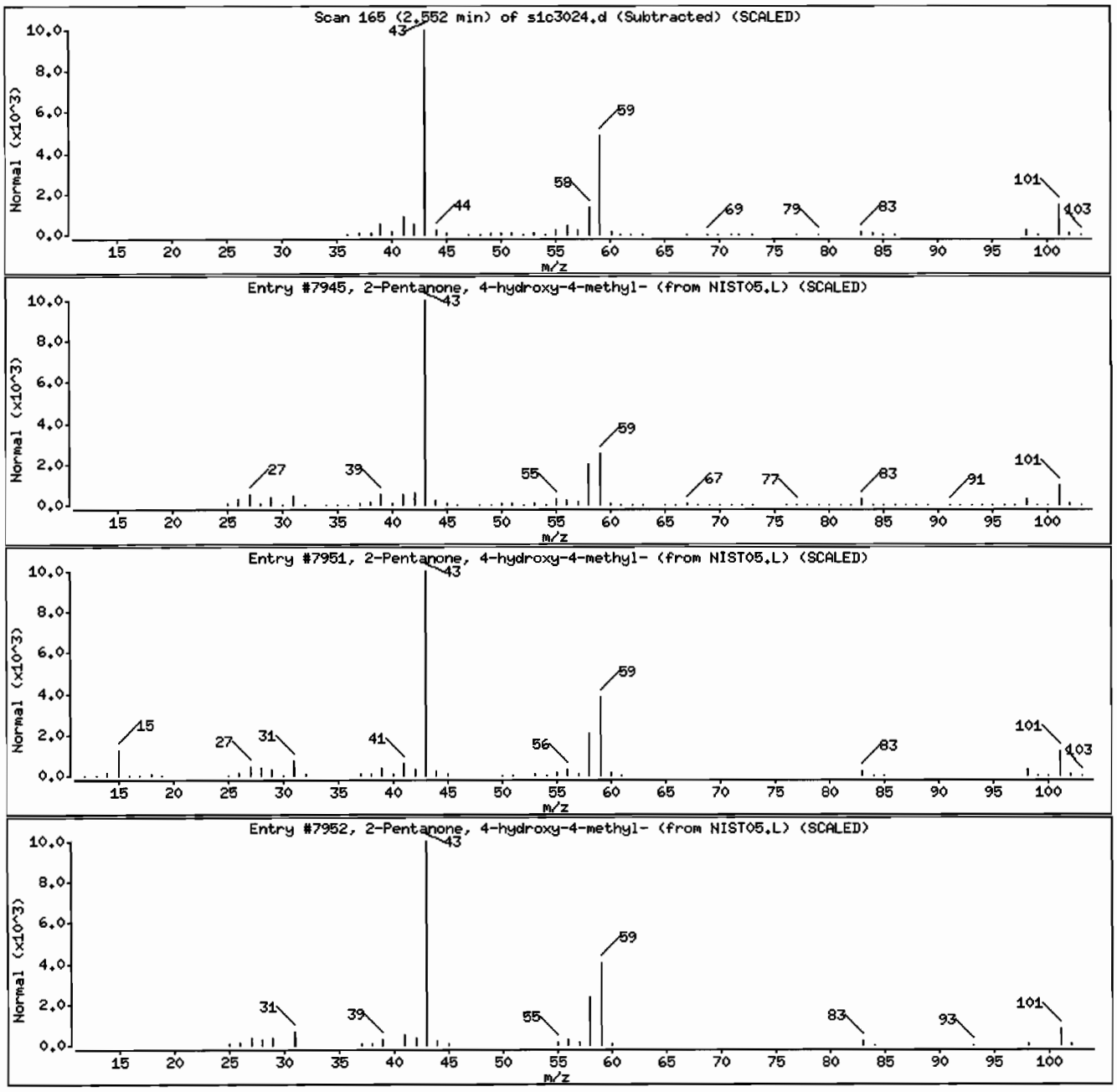

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 29-Mar-2010 17:03

Calibration History

Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Start Cal Date: 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
15-MAR-2010 17:03	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1515.d
Cal Level: 2 , Cal Amount: 10.00000		
17-MAR-2010 00:15	nev	/chem/MSD1.i/s031610.b/s1c1616.d
16-MAR-2010 21:51	hex	/chem/MSD1.i/s031610.b/s1c1610.d
16-MAR-2010 19:03	pest	/chem/MSD1.i/s031610.b/s1c1603.d
15-MAR-2010 20:53	ap12	/chem/MSD1.i/s031510a.b/s1c1523.d
15-MAR-2010 17:59	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1517.d
Cal Level: 3 , Cal Amount: 20.00000		
17-MAR-2010 00:39	nev	/chem/MSD1.i/s031610.b/s1c1617.d
16-MAR-2010 22:15	hex	/chem/MSD1.i/s031610.b/s1c1611.d
16-MAR-2010 19:28	pest	/chem/MSD1.i/s031610.b/s1c1604.d
15-MAR-2010 21:17	ap12	/chem/MSD1.i/s031510a.b/s1c1524.d
15-MAR-2010 18:28	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1518.d
Cal Level: 4 , Cal Amount: 40.00000		
17-MAR-2010 01:03	nev	/chem/MSD1.i/s031610.b/s1c1618.d
16-MAR-2010 22:40	hex	/chem/MSD1.i/s031610.b/s1c1612.d
16-MAR-2010 19:52	pest	/chem/MSD1.i/s031610.b/s1c1605.d
15-MAR-2010 21:40	ap12	/chem/MSD1.i/s031510a.b/s1c1525.d
15-MAR-2010 17:31	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1516.d
Cal Level: 5 , Cal Amount: 50.00000		
17-MAR-2010 01:27	nev	/chem/MSD1.i/s031610.b/s1c1619.d
16-MAR-2010 23:03	hex	/chem/MSD1.i/s031610.b/s1c1613.d
16-MAR-2010 20:16	pest	/chem/MSD1.i/s031610.b/s1c1606.d
15-MAR-2010 22:04	ap12	/chem/MSD1.i/s031510a.b/s1c1526.d
15-MAR-2010 18:57	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1519.d
Cal Level: 6 , Cal Amount: 80.00000		
17-MAR-2010 01:50	nev	/chem/MSD1.i/s031610.b/s1c1620.d
16-MAR-2010 23:27	hex	/chem/MSD1.i/s031610.b/s1c1614.d
16-MAR-2010 20:39	pest	/chem/MSD1.i/s031610.b/s1c1607.d
15-MAR-2010 22:27	ap12	/chem/MSD1.i/s031510a.b/s1c1527.d
15-MAR-2010 19:26	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1520.d
Cal Level: 7 , Cal Amount: 100.00000		

17-MAR-2010 02:13	nev	/chem/MSD1.i/s031610.b/s1c1621.d
16-MAR-2010 23:51	hex	/chem/MSD1.i/s031610.b/s1c1615.d
16-MAR-2010 21:03	pest	/chem/MSD1.i/s031610.b/s1c1608.d
15-MAR-2010 22:50	ap12	/chem/MSD1.i/s031510a.b/s1c1528.d
15-MAR-2010 19:55	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1521.d

Cal Level: 8 , Cal Amount: 120.00000

17-MAR-2010 02:37	nev	/chem/MSD1.i/s031610.b/s1c1622.d
16-MAR-2010 21:28	pest	/chem/MSD1.i/s031610.b/s1c1609.d
15-MAR-2010 23:14	ap12	/chem/MSD1.i/s031510a.b/s1c1529.d
15-MAR-2010 20:24	MEGAIICARE	/chem/MSD1.i/s031510a.b/s1c1522.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0

29-MAR-2010 10:17	MEGAIICARE	/chem/MSD1.i/s032910.b/s1c2903.d

Ccal Level: 4 , Ccal Amount: 40.0

29-MAR-2010 14:05	nev	/chem/MSD1.i/s032910.b/s1c2907.d

Ccal Level: 4 , Ccal Amount: 40.0

29-MAR-2010 12:12	nev	/chem/MSD1.i/s032910.b/s1c2906.d

Ccal Level: 4 , Ccal Amount: 40.0

29-MAR-2010 11:48	pest	/chem/MSD1.i/s032910.b/s1c2905.d

Ccal Level: 4 , Ccal Amount: 40.0

29-MAR-2010 11:24	ap12	/chem/MSD1.i/s032910.b/s1c2904.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Calibration File Names:
Level 1: /chem/MSD1.i/s031510a.b/s1c1515.d
Level 2: /chem/MSD1.i/s031610.b/s1c1616.d
Level 3: /chem/MSD1.i/s031610.b/s1c1617.d
Level 4: /chem/MSD1.i/s031610.b/s1c1618.d
Level 5: /chem/MSD1.i/s031610.b/s1c1619.d
Level 6: /chem/MSD1.i/s031610.b/s1c1620.d
Level 7: /chem/MSD1.i/s031610.b/s1c1621.d
Level 8: /chem/MSD1.i/s031610.b/s1c1622.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.48131	0.55093	0.57608	0.58157	0.60481					
	0.64746	0.60610					AVRG		0.57832		9.04876
2 Pyridine	+++++	0.84632	0.93658	0.92242	0.81225	0.93849					
	0.82504	0.92570					AVRG		0.88669		6.33692
4 Aniline	+++++	0.54420	0.56799	0.56510	0.56874	0.56005					
	0.58635	0.57409					AVRG		0.56665		2.27765
209 Benzaldehyde	+++++	0.86759	0.87971	0.88058	0.86585	0.83648					
	0.83171	0.80849					AVRG		0.85292		3.23204
6 Phenol	+++++	1.29398	1.34703	1.35133	1.33620	1.30948					
	1.36336	1.30191					AVRG		1.32904		2.03692

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
7 bis(2-Chloroethyl) ether	+++++	0.86870	0.89762	0.93750	0.92566	0.91584					
	0.93301	0.90455					AVRG		0.91184		2.62192
8 2-Chlorophenol	+++++	1.10578	1.14390	1.14227	1.13239	1.10735					
	1.13818	1.09907					AVRG		1.12413		1.71559
203 n-Decane	+++++	1.51348	1.55612	1.50258	1.42479	1.38387					
	1.36005	1.29418					AVRG		1.43358		6.58986
9 1,3-Dichlorobenzene	+++++	1.27497	1.30790	1.28451	1.23875	1.22043					
	1.24970	1.19894					AVRG		1.25360		3.03485
11 1,4-Dichlorobenzene	+++++	1.28353	1.33282	1.29429	1.26258	1.24583					
	1.25252	1.18863					AVRG		1.26574		3.55650
12 Benzyl alcohol	+++++	0.52933	0.57579	0.60613	0.60166	0.58504					
	0.61392	0.58420					AVRG		0.58515		4.80559
13 1,2-Dichlorobenzene	+++++	1.20310	1.23454	1.20561	1.18595	1.15496					
	1.17196	1.12464					AVRG		1.18297		3.06630
14 bis(2-Chloroisopropyl)ether	+++++	2.00601	2.04332	2.00341	1.94439	1.86355					
	1.89800	1.81476					AVRG		1.93906		4.33321
15 o-Cresol	+++++	0.88156	0.87536	0.85555	0.84949	0.82834					
	0.85588	0.82207					AVRG		0.85261		2.58113

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INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.18052	1.19161	1.20084	1.18098	1.16240					
	1.15538	1.12895					AVRG		1.17153		2.08764
17 N-Nitrosodipropylamine	0.62960	0.73420	0.75918	0.74992	0.75691	0.75710					
	0.65547	0.65162					AVRG		0.71175		7.84783
18 m,p-Cresols	+++++	1.06680	1.11671	1.10321	1.09614	1.08953					
	1.16869	1.09451					AVRG		1.10508		2.88155
19 Hexachloroethane	+++++	0.46679	0.49780	0.49841	0.48367	0.47761					
	0.48408	0.45898					AVRG		0.48105		3.06027
21 Nitrobenzene	+++++	0.28445	0.28425	0.27510	0.26249	0.25339					
	0.24370	0.23130					AVRG		0.26210		7.82293
22 Isophorone	+++++	0.51247	0.51789	0.51616	0.49095	0.47802					
	0.46663	0.44451					AVRG		0.48952		5.73271
23 2-Nitrophenol	+++++	0.13772	0.14310	0.14080	0.13759	0.13161					
	0.12885	0.12698					AVRG		0.13523		4.54421
24 2,4-Dimethylphenol	+++++	0.25370	0.26120	0.25278	0.24221	0.23144					
	0.22972	0.22058					AVRG		0.24166		6.18897
25 bis(2-Chloroethoxy)methane	+++++	0.32251	0.32278	0.31582	0.29812	0.28926					
	0.27986	0.26749					AVRG		0.29940		7.28569

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INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.21230	0.21517	0.21170	0.20284	0.19488					
	0.19174	0.18275					AVRG		0.20163		6.07289
27 Benzoic acid	+++++	+++++	0.10588	0.11678	0.12828	0.14941					
	0.15166	0.13535					AVRG		0.13123		13.73773
28 1,2,4-Trichlorobenzene	+++++	0.27425	0.27115	0.26365	0.24765	0.23306					
	0.22478	0.21188					AVRG		0.24663		9.82642
30 Naphthalene	0.93565	0.88535	0.87638	0.84378	0.79155	0.72952					
	0.70721	0.64855					AVRG		0.80225		12.46317
204 alpha-Terpineol	+++++	0.25055	0.24745	0.24511	0.22871	0.21434					
	0.20767	0.19325					AVRG		0.22672		9.82239
31 4-Chloroaniline	+++++	0.36850	0.39383	0.40557	0.28121	0.36732					
	0.35713	0.34387					AVRG		0.35963		11.25009
189 Caprolactam	+++++	0.07102	0.07266	0.06483	0.06266	0.06878					
	0.06299	0.06698					AVRG		0.06713		5.79727
32 Hexachlorobutadiene	+++++	0.15412	0.15407	0.14923	0.13864	0.13134					
	0.12715	0.11827					AVRG		0.13897		10.12939
33 4-Chloro-3-methylphenol	+++++	0.22047	0.22621	0.22536	0.20543	0.20769					
	0.19229	0.19532					AVRG		0.21040		6.61598

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.56372	0.55542	0.55121	0.53770	0.50774	0.46650					
	0.45984	0.43246					AVRG		0.50932		9.91095
35 1-Methylnaphthalene	0.56082	0.54281	0.54230	0.53093	0.49657	0.46597					
	0.44390	0.41799					AVRG		0.50016		10.50358
36 Hexachlorocyclopentadiene	+++++	0.22574	0.25617	0.26823	0.27221	0.25304					
	0.25610	0.23969					AVRG		0.25303		6.33373
208 1,1'-Biphenyl	+++++	1.26360	1.27978	1.23727	1.23785	1.17683					
	1.14450	1.11135					AVRG		1.20731		5.27488
205 2,3-Dichloroaniline	+++++	0.53876	0.54284	0.54261	0.52433	0.51018					
	0.51581	0.49471					AVRG		0.52418		3.51338
37 2,4,6-Trichlorophenol	+++++	0.29134	0.30885	0.30643	0.29867	0.28919					
	0.29712	0.28886					AVRG		0.29721		2.71658
38 2,4,5-Trichlorophenol	+++++	0.30519	0.33304	0.33769	0.33698	0.32356					
	0.30453	0.28641					AVRG		0.31820		6.21690
40 2-Chloronaphthalene	0.98550	0.99053	1.01566	0.98277	0.94552	0.92134					
	0.92529	0.89872					AVRG		0.95817		4.29147
42 o-Nitroaniline	+++++	0.24888	0.27748	0.27777	0.28022	0.27333					
	0.28650	0.28000					AVRG		0.27488		4.41359

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	28007	80600	219453	340348	512860					
	684808	821624					LINR	0.18134	0.26460		0.99898
43 Dimethylphthalate	+++++	1.14003	1.16194	1.14175	1.10205	1.07794					
	1.09725	1.07365					AVRG		1.11352		3.08852
44 2,6-Dinitrotoluene	+++++	0.25273	0.26441	0.26462	0.25689	0.25242					
	0.26499	0.25359					AVRG		0.25852		2.29604
45 Acenaphthylene	1.52722	1.57642	1.63607	1.60105	1.52856	1.47925					
	1.51676	1.43231					AVRG		1.53720		4.28288
47 Acenaphthene	1.01963	1.01169	1.02608	1.00468	0.96322	0.93979					
	0.94089	0.91056					AVRG		0.97707		4.49269
48 2,4-Dinitrophenol	+++++	+++++	46048	105894	168875	256090					
	381316	452254					LINR	0.28796	0.15040		0.99203
49 Dibenzofuran	+++++	1.35528	1.38752	1.35336	1.30876	1.26147					
	1.29890	1.22495					AVRG		1.31289		4.35277
50 2,4-Dinitrotoluene	+++++	0.30395	0.32720	0.32686	0.32764	0.31655					
	0.32953	0.32289					AVRG		0.32209		2.82172
51 Diethylphthalate	+++++	1.14920	1.17067	1.17703	1.10199	1.07083					
	1.10123	1.03953					AVRG		1.11578		4.64501

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
52 4-Nitrophenol	+++++	0.14092	0.17709	0.18373	0.18296	0.18282					
	0.19690	0.19984					AVRG		0.18061		10.70634
53 Fluorene	1.15179	1.13424	1.17552	1.11825	1.09833	1.04292					
	1.06955	1.01494					AVRG		1.10069		5.01271
54 4-Chlorophenylphenylether	+++++	0.56288	0.56955	0.56309	0.54739	0.51544					
	0.52901	0.48602					AVRG		0.53905		5.67579
55 2-Methyl-4,6-dinitrophenol	+++++	0.06579	0.08576	0.09355	0.09827	0.09719					
	0.10532	0.10450					AVRG		0.09291		14.72211
56 p-Nitroaniline	+++++	44466	85988	178203	291032	459551					
	638067	788664					LINR	0.20815	0.24971		0.99328
133 Diphenylamine	+++++	0.53589	0.52271	0.52892	0.50868	0.49430					
	0.49769	0.48739					AVRG		0.51080		3.65934
58 1,2-Diphenylhydrazine	+++++	0.59750	0.61143	0.61936	0.57900	0.56697					
	0.58709	0.55120					AVRG		0.58751		4.11062
59 Tributylphosphate	+++++	1.14754	1.07503	1.20023	1.18306	1.15601					
	1.12250	1.11183					AVRG		1.14231		3.76162
61 4-Bromophenylphenylether	+++++	0.18230	0.18729	0.19059	0.17585	0.17909					
	0.17658	0.17255					AVRG		0.18061		3.59651

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.20285	0.20502	0.20403	0.19105	0.19097					
	0.19090	0.18723					AVRG		0.19601		3.87134
207 Atrazine	+++++	0.04345	0.04700	0.04687	0.04368	0.04033					
	0.04026	0.03729					AVRG		0.04270		8.45596
65 Pentachlorophenol	+++++	0.07661	0.09366	0.10433	0.10380	0.10111					
	0.10411	0.10059					AVRG		0.09774		10.25964
206 n-Octadecane	+++++	0.51303	0.51675	0.49724	0.44977	0.43575					
	0.38801	0.36730					AVRG		0.45255		13.22743
68 Phenanthrene	0.92166	0.89396	0.90660	0.90959	0.85988	0.82303					
	0.81082	0.78870					AVRG		0.86428		5.91708
69 Anthracene	0.84086	0.86290	0.91101	0.89896	0.86184	0.80270					
	0.83086	0.78087					AVRG		0.84875		5.24647
72 Di-n-butylphthalate	+++++	1.10170	1.13117	1.12488	1.05162	1.02219					
	0.99566	0.89945					AVRG		1.04667		7.91560
76 Fluoranthene	0.88568	0.90229	0.95506	0.94219	0.89756	0.84861					
	0.85090	0.82377					AVRG		0.88826		5.17441
77 Benzidine	+++++	0.33087	0.31277	0.34623	0.35175	0.35654					
	0.40314	0.39753					AVRG		0.35698		9.25880

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
79 Pyrene	1.05629	1.17081	1.18814	1.25135	1.09633	1.11700					
	1.09129	1.10929					AVRG		1.13506		5.59485
85 Butylbenzylphthalate	+++++	0.48587	0.51180	0.53080	0.47419	0.47337					
	0.47670	0.44787					AVRG		0.48580		5.64477
89 Benzo(a)anthracene	0.97891	0.92957	0.96418	0.96061	0.94441	0.91041					
	0.91379	0.92003					AVRG		0.94024		2.73007
90 3,3'-Dichlorobenzidine	+++++	0.26285	0.29690	0.30231	0.30189	0.31146					
	0.30625	0.29460					AVRG		0.29661		5.36155
92 Chrysene	0.94574	0.88503	0.91743	0.93219	0.82886	0.83196					
	0.87236	0.81542					AVRG		0.87862		5.70854
93 bis(2-Ethylhexyl)phthalate	0.43832	0.70353	0.70263	0.74405	0.64952	0.65087					
	0.65480	0.59271					AVRG		0.64205		14.66900
94 Di-n-octylphthalate	+++++	1.18194	1.33938	1.46820	1.29055	1.30639					
	1.32377	1.28569					AVRG		1.31370		6.47148
95 Benzo(b)fluoranthene	0.91547	0.94451	1.14233	1.15275	1.04632	1.11553					
	1.23361	1.24988					AVRG		1.10005		11.19905
96 Benzo(k)fluoranthene	1.00488	1.15852	1.17217	1.12934	1.04724	0.97081					
	0.95533	0.94587					AVRG		1.04802		8.91358

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.69158	0.84417	0.93465	0.93864	0.89785	0.90677					
	0.92192	0.91098					AVRG		0.88082		9.29852
99 Indeno(1,2,3-cd)pyrene	0.70465	0.75580	0.73925	0.77833	0.75258	0.75133					
	0.78102	0.72823					AVRG		0.74890		3.36430
100 Dibenzo(a,h)anthracene	0.58557	0.61665	0.60400	0.63131	0.62600	0.62695					
	0.65127	0.60885					AVRG		0.61883		3.20627
101 Benzo(ghi)perylene	0.61886	0.62652	0.58848	0.61465	0.60633	0.59957					
	0.62683	0.57810					AVRG		0.60742		2.92249
102 1,4-Dioxane	+++++	0.33625	0.33115	0.33317	0.33267	0.33159					
	0.32370	0.32223					AVRG		0.33011		1.56471
103 Methyl methacrylate	+++++	0.18737	0.19375	0.19519	0.19155	0.19092					
	0.18526	0.18670					AVRG		0.19011		1.97325
104 Ethyl methacrylate	+++++	0.72691	0.73265	0.73429	0.73093	0.73460					
	0.71086	0.71021					AVRG		0.72578		1.47783
105 2-Picoline	+++++	1.15993	1.22732	1.21134	1.16158	1.13996					
	1.13594	1.16959					AVRG		1.17224		2.95381
106 N-Nitrosomethylethylamine	+++++	0.41323	0.44270	0.45752	0.45916	0.45596					
	0.45176	0.45292					AVRG		0.44761		3.59465

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.44805	0.44742	0.44444	0.43792	0.42505					
	0.44332	0.42292					AVRG		0.43845		2.37974
108 N-Nitrosodiethylamine	+++++	0.47787	0.49716	0.50739	0.51401	0.49785					
	0.51154	0.48756					AVRG		0.49906		2.63168
109 Ethyl Methanesulfonate	+++++	0.57975	0.58758	0.60799	0.60114	0.60221					
	0.60154	0.60035					AVRG		0.59722		1.65050
110 Pentachloroethane	+++++	0.31441	0.32027	0.32096	0.31590	0.31481					
	0.30763	0.30109					AVRG		0.31358		2.24801
111 N-Nitrosopyrrolidine	+++++	0.48068	0.49876	0.52566	0.52798	0.51075					
	0.39954	0.41996					AVRG		0.48048		10.66752
113 N-Nitrosomorpholine	+++++	0.60745	0.63246	0.65190	0.63285	0.60689					
	0.62254	0.57938					AVRG		0.61907		3.79814
114 o-Toluidine	+++++	1.60737	1.61678	1.65653	1.61059	1.70102					
	1.72289	1.64344					AVRG		1.65123		2.76038
115 N-Nitrosopiperidine	+++++	0.12321	0.12601	0.12756	0.12596	0.12593					
	0.12740	0.12651					AVRG		0.12608		1.13874
116 a,a-Dimethylphenethylamine	+++++	0.64272	0.73019	0.76676	0.76896	0.78943					
	0.79287	0.78678					AVRG		0.75396		7.09670

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	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.11831	0.12383	0.12606	0.12645	0.12268					
	0.11843	0.11673					AVRG		0.12178		3.24920
118 2,6-Dichlorophenol	+++++	0.18896	0.19290	0.19690	0.19629	0.19933					
	0.20029	0.19683					AVRG		0.19593		1.97765
119 Hexachloropropene	+++++	0.10255	0.10472	0.10945	0.11027	0.11133					
	0.11188	0.10849					AVRG		0.10838		3.21898
120 p-Phenylenediamine	+++++	0.22040	0.24467	0.26814	0.26998	0.23102					
	0.25571	0.22843					AVRG		0.24548		8.05852
121 N-Nitrosodi-n-butylamine	+++++	0.16659	0.18185	0.18429	0.18241	0.17560					
	0.18083	0.17280					AVRG		0.17777		3.59114
122 Safrole	+++++	0.18915	0.18712	0.18535	0.18566	0.18346					
	0.18235	0.17774					AVRG		0.18440		2.00392
123 1,2,4,5-Tetrachlorobenzene	+++++	0.46078	0.47777	0.45645	0.46288	0.45329					
	0.43710	0.42145					AVRG		0.45282		4.06359
124 Isosafrole	+++++	0.33174	0.34080	0.33541	0.33569	0.33612					
	0.33099	0.31950					AVRG		0.33289		2.02044
125 1,4-Naphthoquinone	+++++	0.30653	0.34858	0.34119	0.33884	0.28393					
	0.30455	0.24989					AVRG		0.31050		11.48205

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126 m-Dinitrobenzene	+++++	0.16428	0.17750	0.17641	0.17624	0.17562					
	0.17950	0.17318					AVRG		0.17468		2.84237
127 Pentachlorobenzene	+++++	0.41357	0.41820	0.41192	0.41463	0.39943					
	0.39426	0.38339					AVRG		0.40506		3.19014
128 1-Naphthylamine	+++++	0.85053	0.87290	0.94059	0.95535	0.93741					
	0.94760	0.90004					AVRG		0.91492		4.46223
129 2-Naphthylamine	+++++	0.90857	0.93595	0.97839	0.98163	0.98509					
	0.96685	0.90301					AVRG		0.95136		3.69912
130 2,3,4,6-Tetrachlorophenol	+++++	0.23414	0.25736	0.26969	0.27526	0.27561					
	0.29039	0.29434					AVRG		0.27097		7.54303
131 5-Nitro-o-toluidine	+++++	0.25629	0.26757	0.27295	0.28243	0.28781					
	0.29736	0.27843					AVRG		0.27755		4.86769
132 Thionazin	+++++	0.13222	0.14989	0.15624	0.16026	0.15739					
	0.15386	0.15436					AVRG		0.15203		6.12353
134 Sulfotepp	+++++	0.09507	0.10071	0.10217	0.10904	0.10687					
	0.10274	0.09988					AVRG		0.10235		4.49615
135 Phorate	+++++	0.34213	0.36781	0.38380	0.39924	0.37859					
	0.37281	0.36768					AVRG		0.37315		4.69895

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.09191	0.09969	0.11986	0.12125	0.11182					
	0.11719	0.10511					AVRG		0.10955		10.10200
137 Phenacetin	+++++	0.23987	0.25244	0.26244	0.25618	0.26446					
	0.23277	0.23699					AVRG		0.24931		5.10991
138 Diallate	+++++	0.22190	0.24073	0.24088	0.23577	0.23011					
	0.21831	0.21589					AVRG		0.22908		4.58674
139 Dimethoate	+++++	0.17817	0.19912	0.22444	0.23150	0.22807					
	0.23409	0.22866					AVRG		0.21772		9.63460
140 4-Aminobiphenyl	+++++	0.56389	0.53953	0.53363	0.55119	0.57024					
	0.56079	0.52491					AVRG		0.54917		3.08530
141 Pentachloronitrobenzene	+++++	0.06618	0.07086	0.06822	0.06527	0.06285					
	0.05741	0.05649					AVRG		0.06390		8.38789
142 Pronamide	+++++	0.26010	0.27782	0.26926	0.26628	0.25163					
	0.24306	0.22688					AVRG		0.25643		6.76864
143 Dinoseb	+++++	42032	109896	241806	362268	554762					
	739915	883430					LINR	0.12360	0.15949		0.99973
144 Disulfoton	+++++	0.25987	0.27785	0.28849	0.30293	0.28767					
	0.28505	0.27845					AVRG		0.28290		4.64445

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.14617	0.16957	0.19340	0.20062	0.19984					
	0.19455	0.19503					AVRG		0.18560		10.93136
146 4-Nitroquinoline-1-oxide	+++++	0.02224	0.02139	0.02092	0.01927	0.01698					
	0.01685	0.01531					AVRG		0.01899		13.96783
147 Methapyrilene	+++++	0.45025	0.46844	0.46090	0.44622	0.41321					
	0.40110	0.38374					AVRG		0.43198		7.52216
148 Isodrin	+++++	0.09682	0.10352	0.10396	0.09979	0.09798					
	0.09275	0.08899					AVRG		0.09769		5.58440
149 Aramite	+++++	0.03608	0.03979	0.04171	0.04125	0.04126					
	0.03867	0.03683					AVRG		0.03937		5.73272
150 Kepone	+++++	0.06379	0.06458	0.07250	0.07099	0.06772					
	0.06995	0.06610					AVRG		0.06795		4.88605
151 p-(Dimethylamino)azobenzene	+++++	0.25785	0.29219	0.28221	0.28774	0.27254					
	0.25982	0.25644					AVRG		0.27269		5.49543
152 Chlorobenzilate	+++++	0.25234	0.30086	0.29966	0.29572	0.29175					
	0.28610	0.28032					AVRG		0.28668		5.86548
153 3,3'-Dimethylbenzidine	+++++	0.50686	0.54666	0.53977	0.51658	0.49689					
	0.51154	0.49896					AVRG		0.51675		3.75626

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
154 Famphur	+++++	0.34377	0.36448	0.39007	0.42302	0.39437						
	0.37103	0.39016					AVRG		0.38241		6.62802	
155 2-Acetylaminofluorene	+++++	0.25217	0.29018	0.31083	0.31317	0.33589						
	0.32396	0.32656					AVRG		0.30754		9.24021	
157 7,12Dimethylbenz(a)anthracene	+++++	0.45815	0.51069	0.51242	0.51569	0.49445						
	0.48680	0.48614					AVRG		0.49490		4.10926	
158 3-Methylcholanthrene	+++++	0.36714	0.38058	0.40375	0.40579	0.42147						
	0.41872	0.38268					AVRG		0.39716		5.20030	
26 Phthalic anhydride	+++++	19730	43771	127253	187651	289719						
	416145	476347					LINR	0.13758	0.06980		0.99534	
173 Carbazole	0.75416	0.55973	0.50398	0.58851	0.63196	0.63155						
	0.67911	0.67915					AVRG		0.62852		12.43724	
174 Hexachlorophene	+++++	0.04471	0.06336	0.06157	0.05855	0.06373						
	0.06189	+++++					AVRG		0.05897		12.24318	<-
179 Dibenzo(a,e)pyrene	+++++	0.26190	0.22013	0.26336	0.28128	0.29331						
	0.30244	0.25461					AVRG		0.26815		10.25029	
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
184 p-Benzoquinone	+++++	0.02161	0.03352	0.04535	0.04376	0.07385					
	0.07767	0.08334					AVRG		0.05416		44.36257 <-
191 Parathion	+++++	0.04697	0.05833	0.06426	0.06627	0.06793					
	0.06844	0.06730					AVRG		0.06279		12.39061
192 Methoxychlor	+++++	0.57551	0.60730	0.63679	0.59916	0.58706					
	0.57902	0.56585					AVRG		0.59295		4.03471
210 m-Toluidine	+++++	1.30665	1.39228	1.19281	1.30686	1.27578					
	1.34890	1.29557					AVRG		1.30269		4.75731
211 p-Toluidine	+++++	1.00504	1.07656	1.17574	1.16519	1.18358					
	1.35310	1.42496					AVRG		1.19774		12.25762
212 Cis Diallate	+++++	0.20688	0.23600	0.23149	0.23015	0.22689					
	0.21828	0.21831					AVRG		0.22400		4.48057
213 Trans Diallate	+++++	0.26106	0.28321	0.28339	0.27738	0.27071					
	0.25683	0.25399					AVRG		0.26951		4.58674
214 1,4-Dinitrobenzene	+++++	0.13104	0.14815	0.15439	0.15456	0.15507					
	0.16251	0.16370					AVRG		0.15277		7.16324
215 2-Ethoxyethanol	+++++	0.53224	0.49495	0.60483	0.53175	0.58093					
	0.58845	0.58827					AVRG		0.56020		7.23512

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	#####	0.10419	0.09605	0.09779	0.11898	0.12663					
	#####	#####					AVRG		0.10873		12.39591
229 2,2'-Dichlorobenzil	#####	0.61480	0.59947	0.62746	0.69807	0.65332					
	#####	0.62091					AVRG		0.63567		5.55608
230 4-Chlorothioanisole	#####	0.20853	0.21619	0.22540	0.24716	0.23723					
	#####	0.23418					AVRG		0.22812		6.24742
231 4-Chlorothiophenol	#####	30234	112284	306425	365157	697489					
	#####	1143337					LINR	0.21751	0.19835		0.99869
232 bis(p-Chlorophenyl)sulfone	#####	0.35952	0.33795	0.34086	0.37344	0.34056					
	#####	0.34284					AVRG		0.34920		4.06083
233 bis(p-Chlorophenyl)disulfide	#####	0.14011	0.12134	0.11862	0.13869	0.11855					
	#####	0.11699					AVRG		0.12572		8.51160
234 Diphenyl disulfide	#####	0.20120	0.18976	0.19271	0.20800	0.19332					
	#####	0.18695					AVRG		0.19532		4.01284
235 Diphenyl sulfide	#####	0.74581	0.74229	0.73697	0.79603	0.72939					
	#####	0.71533					AVRG		0.74430		3.70255
236 Phenyl sulfone	#####	0.40759	0.40387	0.39936	0.42996	0.43270					
	#####	0.41933					AVRG		0.41547		3.36680

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INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
237 Hydroxymethyl phthalimide	++++++	0.09912	0.07622	0.07991	0.08769	0.07293						
	++++++	++++++					AVRG		0.08317		12.59097	
238 Phthalic acid	++++++	10449	28513	88919	143249	236309						
	++++++	402355					LINR	0.26238	0.07086		0.99477	
239 Thiophenol	++++++	67713	188965	470443	614639	1033285						
	++++++	1654650					LINR	0.14815	1.09311		0.99958	
240 bis(Chloromethyl)ether	++++++	0.71212	0.67839	0.70743	0.74887	0.72004						
	++++++	0.68326					AVRG		0.70835		3.63799	
241 Octachlorostyrene	++++++	0.06765	0.06582	0.06626	0.07146	0.06797						
	++++++	0.06723					AVRG		0.06773		2.95458	
M 225 Trichlorophenols	++++++	0.29826	0.32094	0.32206	0.31782	0.30637						
	0.30083	0.28764					AVRG		0.30770		4.24698	
M 226 Tetrachlorophenols	++++++	0.23414	0.25736	0.26969	0.27526	0.27561						
	0.29039	0.29434					AVRG		0.27097		7.54303	
M 227 Benzo(b,k)fluoranthene	0.96018	1.05151	1.15725	1.14105	1.04678	1.04317						
	1.09447	1.09787					AVRG		1.07403		5.84293	
M 228 TTO Sum Semivolatiles	++++++	++++++	++++++	++++++	++++++	++++++						
	++++++	++++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
$ 3 2-Fluorophenol	+++++	0.98916	1.04952	1.03866	1.01258	1.04909						
	1.05590	1.01518					AVRG		1.03001		2.40514	
$ 5 Phenol-d5	+++++	1.21023	1.26338	1.26104	1.25802	1.25196						
	1.28766	1.24863					AVRG		1.25441		1.85086	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.26549	0.26697	0.25893	0.24381	0.23345						
	0.23192	0.21675					AVRG		0.24533		7.80447	
$ 39 2-Fluorobiphenyl	+++++	1.15336	1.18485	1.15935	1.08955	1.07025						
	1.06825	1.00732					AVRG		1.10470		5.72577	
$ 60 2,4,6-Tribromophenol	+++++	0.11966	0.13450	0.13464	0.13078	0.13150						
	0.13448	0.13242					AVRG		0.13114		4.03837	
$ 81 p-Terphenyl-d14	+++++	0.67586	0.69797	0.72034	0.64106	0.66159						
	0.63852	0.63275					AVRG		0.66687		4.96192	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-2010 17:03
End Cal Date : 17-MAR-2010 02:37
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Cal Date : 29-Mar-2010 17:00 amy01291

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 16-MAR-2010 00:06
Lab File ID: s1c1531-C.d Init. Cal. Date(s): 15-MAR-2010 15-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 23:14
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.03001	1.02290	1.02290	0.000	-0.69041	60.00000	Averaged
$ 5 Phenol-d5	1.25441	1.20148	1.20148	0.000	-4.22017	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.24533	0.26385	0.26385	0.000	7.54898	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.10470	1.13321	1.13321	0.000	2.58082	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.13114	0.13446	0.13446	0.000	2.53458	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.66687	0.77179	0.77179	0.000	15.73336	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.57832	0.54586	0.54586	0.000	-5.61225	60.00000	Averaged
2 Pyridine	0.88669	0.70919	0.70919	0.000	-20.01842	60.00000	Averaged
4 Aniline	0.56665	0.52337	0.52337	0.000	-7.63644	60.00000	Averaged
6 Phenol	1.32904	1.32788	1.32788	0.001	-0.08757	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.91184	0.84454	0.84454	0.000	-7.38071	60.00000	Averaged
8 2-Chlorophenol	1.12413	1.13019	1.13019	0.000	0.53916	60.00000	Averaged
203 n-Decane	1.43358	1.46128	1.46128	0.000	1.93209	60.00000	Averaged
9 1,3-Dichlorobenzene	1.25360	1.26448	1.26448	0.000	0.86787	60.00000	Averaged
11 1,4-Dichlorobenzene	1.26574	1.25702	1.25702	0.001	-0.68916	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.18297	1.18332	1.18332	0.000	0.02990	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.93906	1.88849	1.88849	0.000	-2.60809	60.00000	Averaged
12 Benzyl alcohol	0.58515	0.58561	0.58561	0.000	0.07823	60.00000	Averaged
15 o-Cresol	0.85261	0.82283	0.82283	0.000	-3.49268	60.00000	Averaged
18 m,p-Cresols	1.10508	1.10323	1.10323	0.000	-0.16779	60.00000	Averaged
17 N-Nitrosodipropylamine	0.71175	0.74714	0.74714	0.050	4.97174	60.00000	Averaged spcc
19 Hexachloroethane	0.48105	0.47727	0.47727	0.000	-0.78517	60.00000	Averaged
21 Nitrobenzene	0.26210	0.25658	0.25658	0.000	-2.10249	60.00000	Averaged
22 Isophorone	0.48952	0.47890	0.47890	0.000	-2.16837	60.00000	Averaged
23 2-Nitrophenol	0.13523	0.14085	0.14085	0.001	4.15139	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.24166	0.25005	0.25005	0.000	3.47157	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29940	0.28107	0.28107	0.000	-6.12482	60.00000	Averaged
26 2,4-Dichlorophenol	0.20163	0.20625	0.20625	0.001	2.29407	20.00000	Averaged ccc
27 Benzoic acid	0.13123	0.12474	0.12474	0.000	-4.94543	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24663	0.24666	0.24666	0.000	0.01333	60.00000	Averaged
30 Naphthalene	0.80225	0.78052	0.78052	0.000	-2.70857	60.00000	Averaged
204 alpha-Terpineol	0.22672	0.21458	0.21458	0.000	-5.35543	60.00000	Averaged
31 4-Chloroaniline	0.35963	0.35869	0.35869	0.000	-0.26196	60.00000	Averaged
32 Hexachlorobutadiene	0.13897	0.14357	0.14357	0.001	3.31020	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21040	0.22374	0.22374	0.001	6.34099	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.50932	0.52245	0.52245	0.000	2.57656	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 16-MAR-2010 00:06
Lab File ID: s1c1531-C.d Init. Cal. Date(s): 15-MAR-2010 15-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 23:14
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.50016	0.49755	0.49755	0.000	-0.52273	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.25303	0.19467	0.19467	0.050	-23.06155	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.52418	0.50577	0.50577	0.000	-3.51182	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.29721	0.29539	0.29539	0.001	-0.61138	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.31820	0.33668	0.33668	0.000	5.80772	60.00000	Averaged	
40	2-Chloronaphthalene	0.95817	0.94646	0.94646	0.000	-1.22152	60.00000	Averaged	
42	o-Nitroaniline	0.27488	0.26452	0.26452	0.000	-3.76874	60.00000	Averaged	
41	m-Nitroaniline	36.73213	40.00000	0.19500	0.000	-8.16968	60.00000	Linear	
43	Dimethylphthalate	1.11352	1.08063	1.08063	0.000	-2.95321	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.25852	0.24851	0.24851	0.000	-3.87225	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.32209	0.31265	0.31265	0.000	-2.93147	60.00000	Averaged	
45	Acenaphthylene	1.53720	1.54799	1.54799	0.000	0.70164	60.00000	Averaged	
47	Acenaphthene	0.97707	0.91780	0.91780	0.001	-6.06569	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	37.48260	40.00000	0.09763	0.050	-6.29351	60.00000	Linear	spcc
49	Dibenzofuran	1.31289	1.29719	1.29719	0.000	-1.19596	60.00000	Averaged	
51	Diethylphthalate	1.11578	1.09491	1.09491	0.000	-1.87066	60.00000	Averaged	
52	4-Nitrophenol	0.18061	0.17000	0.17000	0.050	-5.87640	60.00000	Averaged	spcc
53	Fluorene	1.10069	1.04957	1.04957	0.000	-4.64491	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.53905	0.52393	0.52393	0.000	-2.80632	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	0.09291	0.11435	0.11435	0.000	23.07674	60.00000	Averaged	
56	p-Nitroaniline	35.66289	40.00000	0.17066	0.000	-10.84276	60.00000	Linear	
133	Diphenylamine	0.51080	0.50164	0.50164	0.001	-1.79347	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.58751	0.59618	0.59618	0.000	1.47601	60.00000	Averaged	
61	4-Bromophenylphenylether	0.18061	0.17379	0.17379	0.000	-3.77567	60.00000	Averaged	
63	Hexachlorobenzene	0.19601	0.19605	0.19605	0.000	0.02411	60.00000	Averaged	
65	Pentachlorophenol	0.09774	0.10068	0.10068	0.001	3.00467	20.00000	Averaged	ccc
206	n-Octadecane	0.45255	0.47916	0.47916	0.000	5.88003	60.00000	Averaged	
68	Phenanthrene	0.86428	0.83654	0.83654	0.000	-3.20979	60.00000	Averaged	
69	Anthracene	0.84875	0.81908	0.81908	0.000	-3.49615	60.00000	Averaged	
72	Di-n-butylphthalate	1.04667	1.06104	1.06104	0.000	1.37316	60.00000	Averaged	
76	Fluoranthene	0.88826	0.88004	0.88004	0.001	-0.92535	20.00000	Averaged	ccc
79	Pyrene	1.13506	1.12192	1.12192	0.000	-1.15795	60.00000	Averaged	
85	Butylbenzylphthalate	0.48580	0.52166	0.52166	0.000	7.38189	60.00000	Averaged	
89	Benzo(a)anthracene	0.94024	0.87136	0.87136	0.000	-7.32597	60.00000	Averaged	
92	Chrysene	0.87862	0.86034	0.86034	0.000	-2.08090	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.64205	0.71657	0.71657	0.000	11.60668	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 16-MAR-2010 00:06
Lab File ID: s1c1531-C.d Init. Cal. Date(s): 15-MAR-2010 15-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 23:14
Lab Sample ID: WBN100309-09.1 Quant Type: ISTD
Method: /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.31370	1.46537	1.46537	0.001	11.54482	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	1.10005	1.10472	1.10472	0.000	0.42452	60.00000	Averaged	
96 Benzo(k)fluoranthene	1.04802	1.02616	1.02616	0.000	-2.08628	60.00000	Averaged	
97 Benzo(a)pyrene	0.88082	0.86533	0.86533	0.001	-1.75848	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	0.74890	0.69774	0.69774	0.000	-6.83179	60.00000	Averaged	
100 Dibenzo(a,h)anthracene	0.61883	0.56849	0.56849	0.000	-8.13353	60.00000	Averaged	
101 Benzo(ghi)perylene	0.60742	0.55469	0.55469	0.000	-8.67993	60.00000	Averaged	
126 m-Dinitrobenzene	0.17468	0.16956	0.16956	0.000	-2.92632	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.27097	0.24966	0.24966	0.000	-7.86483	60.00000	Averaged	
143 Dinoseb	39.78917	40.00000	0.13894	0.000	-0.52707	60.00000	Linear	
173 Carbazole	0.62852	0.63568	0.63568	0.000	1.13969	60.00000	Averaged	
184 p-Benzoquinone	0.05416	0.05435	0.05435	0.000	0.36410	60.00000	Averaged	
192 Methoxychlor	0.59295	0.60790	0.60790	0.000	2.52000	60.00000	Averaged	
211 p-Toluidine	1.19774	1.00121	1.00121	0.000	-16.40798	60.00000	Averaged	
210 m-Toluidine	1.30269	1.02040	1.02040	0.000	-21.66987	60.00000	Averaged	
26 Phthalic anhydride	62.54000	40.00000	0.09952	0.000	56.35001	60.00000	Linear	
179 Dibenzo(a,e)pyrene	0.26815	0.15655	0.15655	0.000	-41.61909	60.00000	Averaged	
214 1,4-Dinitrobenzene	0.15277	0.14752	0.14752	0.000	-3.44172	60.00000	Averaged	
215 2-Ethoxyethanol	0.56020	0.56879	0.56879	0.000	1.53272	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	0.10873	0.12473	0.12473	0.000	14.71987	60.00000	Averaged	
M 225 Trichlorophenols	0.30770	0.31603	0.31603	0.000	2.70763	60.00000	Averaged	
M 226 Tetrachlorophenols	0.27097	0.24966	0.24966	0.000	-7.86483	60.00000	Averaged	
M 227 Benzo(b,k)fluoranthene	1.07403	1.06544	1.06544	0.000	-0.80047	60.00000	Averaged	

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Data file : /chem/MSD1.i/s031510a.b/s1c1531-C.d
Lab Smp Id: WBN100309-09.1 Client Smp ID: MEGAICV
Inj Date : 16-MAR-2010 00:06
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN100309-09.1|040 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m
Meth Date : 16-Mar-2010 18:32 amy01291 Quant Type: ISTD
Cal Date : 15-MAR-2010 23:14 Cal File: s1c1529.d
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.540	3.540	(1.000)	549504	40.0000	
* 29 Naphthalene-d8	136	4.398	4.398	(1.000)	2266874	40.0000	
* 46 Acenaphthene-d10	164	5.639	5.639	(1.000)	1149176	40.0000	
* 67 Phenanthrene-d10	188	6.645	6.645	(1.000)	1944808	40.0000	
* 91 Chrysene-d12	240	8.227	8.227	(1.000)	1527388	40.0000	
* 98 Perylene-d12	264	9.422	9.422	(1.000)	1037428	40.0000	
$ 3 2-Fluorophenol	112	2.751	2.751	(0.777)	562088	40.0000	39.7
$ 5 Phenol-d5	99	3.281	3.281	(0.927)	660216	40.0000	38.3
$ 20 Nitrobenzene-d5	82	3.904	3.904	(0.888)	598120	40.0000	43.0
$ 39 2-Fluorobiphenyl	172	5.139	5.139	(0.911)	1302262	40.0000	41.0
$ 60 2,4,6-Tribromophenol	329	6.186	6.186	(1.097)	154522	40.0000	41.0
$ 81 p-Terphenyl-d14	244	7.569	7.569	(0.920)	1178825	40.0000	46.3
1 N-Methyl-N-nitrosomethylamine	74	2.075	2.075	(0.586)	299955	40.0000	37.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.104	2.104	(0.595)	389700	40.0000	32.0
4 Aniline	66	3.334	3.334	(0.942)	287596	40.0000	36.9
6 Phenol	94	3.292	3.292	(0.930)	729674	40.0000	40.0
7 bis(2-Chloroethyl) ether	63	3.357	3.357	(0.948)	464078	40.0000	37.0
8 2-Chlorophenol	128	3.410	3.410	(0.963)	621046	40.0000	40.2
203 n-Decane	43	3.398	3.398	(0.960)	802979	40.0000	40.8
9 1,3-Dichlorobenzene	146	3.504	3.504	(0.990)	694836	40.0000	40.3
11 1,4-Dichlorobenzene	146	3.551	3.551	(1.003)	690738	40.0000	39.7
13 1,2-Dichlorobenzene	146	3.651	3.651	(1.032)	650239	40.0000	40.0
14 bis(2-Chloroisopropyl)ether	45	3.692	3.692	(1.043)	1037733	40.0000	39.0
12 Benzyl alcohol	108	3.622	3.622	(1.023)	321795	40.0000	40.0
15 o-Cresol	107	3.675	3.675	(1.038)	452147	40.0000	38.6
18 m,p-Cresols	107	3.781	3.781	(1.068)	606229	40.0000	39.9
17 N-Nitrosodipropylamine	70	3.792	3.792	(1.071)	410554	40.0000	42.0
19 Hexachloroethane	117	3.875	3.875	(1.095)	262262	40.0000	39.7
21 Nitrobenzene	77	3.916	3.916	(0.890)	581645	40.0000	39.2
22 Isophorone	82	4.075	4.075	(0.926)	1085614	40.0000	39.1
23 2-Nitrophenol	139	4.128	4.128	(0.938)	319284	40.0000	41.7
24 2,4-Dimethylphenol	122	4.134	4.134	(0.940)	566834	40.0000	41.4
25 bis(2-Chloroethoxy)methane	93	4.198	4.198	(0.955)	637142	40.0000	37.6
26 2,4-Dichlorophenol	162	4.292	4.292	(0.976)	467547	40.0000	40.9
27 Benzoic acid	105	4.210	4.210	(0.957)	282761	40.0000	38.0
28 1,2,4-Trichlorobenzene	180	4.351	4.351	(0.989)	559154	40.0000	40.0
30 Naphthalene	128	4.410	4.410	(1.003)	1769339	40.0000	38.9
204 alpha-Terpineol	59	4.398	4.398	(1.000)	486432	40.0000	37.8
31 4-Chloroaniline	127	4.434	4.434	(1.008)	813105	40.0000	39.9
32 Hexachlorobutadiene	225	4.481	4.481	(1.019)	325462	40.0000	41.3
33 4-Chloro-3-methylphenol	107	4.757	4.757	(1.082)	507185	40.0000	42.5
34 2-Methylnaphthalene	142	4.886	4.886	(1.111)	1184321	40.0000	41.0
35 1-Methylnaphthalene	142	4.963	4.963	(1.128)	1127876	40.0000	39.8
36 Hexachlorocyclopentadiene	237	4.992	4.992	(0.885)	223715	40.0000	30.8
205 2,3-Dichloroaniline	161	5.086	5.086	(0.902)	581217	40.0000	38.6
37 2,4,6-Trichlorophenol	196	5.081	5.081	(0.901)	339457	40.0000	39.8
38 2,4,5-Trichlorophenol	196	5.110	5.110	(0.906)	386902	40.0000	42.3
40 2-Chloronaphthalene	162	5.239	5.239	(0.929)	1087651	40.0000	39.5
42 o-Nitroaniline	65	5.304	5.304	(0.941)	303984	40.0000	38.5
41 m-Nitroaniline	138	5.598	5.598	(0.993)	224087	40.0000	36.7
43 Dimethylphthalate	163	5.422	5.422	(0.961)	1241836	40.0000	38.8
44 2,6-Dinitrotoluene	165	5.469	5.469	(0.970)	285584	40.0000	38.4
50 2,4-Dinitrotoluene	165	5.757	5.757	(1.021)	359286	40.0000	38.8
45 Acenaphthylene	152	5.539	5.539	(0.982)	1778911	40.0000	40.3
47 Acenaphthene	154	5.663	5.663	(1.004)	1054717	40.0000	37.6
48 2,4-Dinitrophenol	184	5.663	5.663	(1.004)	112191	40.0000	37.5(Q)
49 Dibenzofuran	168	5.781	5.781	(1.025)	1490699	40.0000	39.5
51 Diethylphthalate	149	5.910	5.910	(1.048)	1258244	40.0000	39.2
52 4-Nitrophenol	139	5.704	5.704	(1.011)	195355	40.0000	37.6
53 Fluorene	166	6.022	6.022	(1.068)	1206137	40.0000	38.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	6.004	6.004	(1.065)	602084	40.0000	38.9
55 2-Methyl-4,6-dinitrophenol	198	6.045	6.045	(0.910)	222389	40.0000	49.2
56 p-Nitroaniline	138	6.033	6.033	(1.070)	196118	40.0000	35.7
133 Diphenylamine	169	6.086	6.086	(0.916)	975585	40.0000	39.3
58 1,2-Diphenylhydrazine	77	6.116	6.116	(0.920)	1159455	40.0000	40.6
61 4-Bromophenylphenylether	248	6.339	6.339	(0.954)	337982	40.0000	38.5
63 Hexachlorobenzene	284	6.392	6.392	(0.962)	381287	40.0000	40.0
65 Pentachlorophenol	266	6.516	6.516	(0.981)	195806	40.0000	41.2
206 n-Octadecane	57	6.516	6.516	(0.981)	931872	40.0000	42.4
68 Phenanthrene	178	6.663	6.663	(1.003)	1626907	40.0000	38.7
69 Anthracene	178	6.692	6.692	(1.007)	1592952	40.0000	38.6
72 Di-n-butylphthalate	149	6.957	6.957	(1.047)	2063520	40.0000	40.5
76 Fluoranthene	202	7.375	7.375	(1.110)	1711505	40.0000	39.6
79 Pyrene	202	7.510	7.510	(0.913)	1713608	40.0000	39.5
85 Butylbenzylphthalate	149	7.822	7.822	(0.951)	796781	40.0000	43.0
89 Benzo(a)anthracene	228	8.216	8.216	(0.999)	1330902	40.0000	37.1
92 Chrysene	228	8.245	8.245	(1.002)	1314075	40.0000	39.2
93 bis(2-Ethylhexyl)phthalate	149	8.139	8.139	(0.989)	1094484	40.0000	44.6
94 Di-n-octylphthalate	149	8.580	8.580	(0.911)	1520212	40.0000	44.6
95 Benzo(b)fluoranthene	252	9.045	9.045	(0.960)	1146067	40.0000	40.2
96 Benzo(k)fluoranthene	252	9.069	9.069	(0.963)	1064562	40.0000	39.2
97 Benzo(a)pyrene	252	9.363	9.363	(0.994)	897717	40.0000	39.3
99 Indeno(1,2,3-cd)pyrene	276	10.710	10.710	(1.137)	723851	40.0000	37.3
100 Dibenzo(a,h)anthracene	278	10.710	10.710	(1.137)	589771	40.0000	36.7
101 Benzo(ghi)perylene	276	11.104	11.104	(1.179)	575456	40.0000	36.5
126 m-Dinitrobenzene	168	5.457	5.457	(0.968)	194860	40.0000	38.8
130 2,3,4,6-Tetrachlorophenol	232	5.863	5.863	(1.040)	286902	40.0000	36.8
143 Dinoseb	211	6.616	6.616	(0.996)	270206	40.0000	39.8
173 Carbazole	167	6.780	6.780	(1.020)	1236279	40.0000	40.4
184 p-Benzoquinone	54	3.040	3.040	(0.859)	29868	40.0000	40.1
192 Methoxychlor	227	8.122	8.122	(0.987)	928494	40.0000	41.0
211 p-Toluidine	106	3.822	3.822	(1.080)	550171	40.0000	33.4
210 m-Toluidine	106	3.845	3.845	(1.086)	560714	40.0000	31.3
26 Phthalic anhydride	104	4.928	4.928	(1.120)	225607	40.0000	62.5
179 Dibenzo(a,e)pyrene	302	14.127	14.127	(1.499)	162405	40.0000	23.4
214 1,4-Dinitrobenzene	168	5.398	5.398	(0.957)	169521	40.0000	38.6
215 2-Ethoxyethanol	59	1.928	1.928	(0.545)	312551	40.0000	40.6
216 Methylenebis(2-chloroaniline)	231	8.169	8.169	(0.993)	190517	40.0000	45.9(Q)
M 225 Trichlorophenols	196				726359	80.0000	82.2
M 226 Tetrachlorophenols	232				286902	40.0000	36.8
M 227 Benzo(b,k)fluoranthene	252				2210629	80.0000	79.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s031510a.b/s1c1531-C.d
Date : 16-MAR-2010 00:06
Client ID: MECAICV
Sample Info: IWBN100309-09,1|040 PPM|1|SVMF|1|MECAICV
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

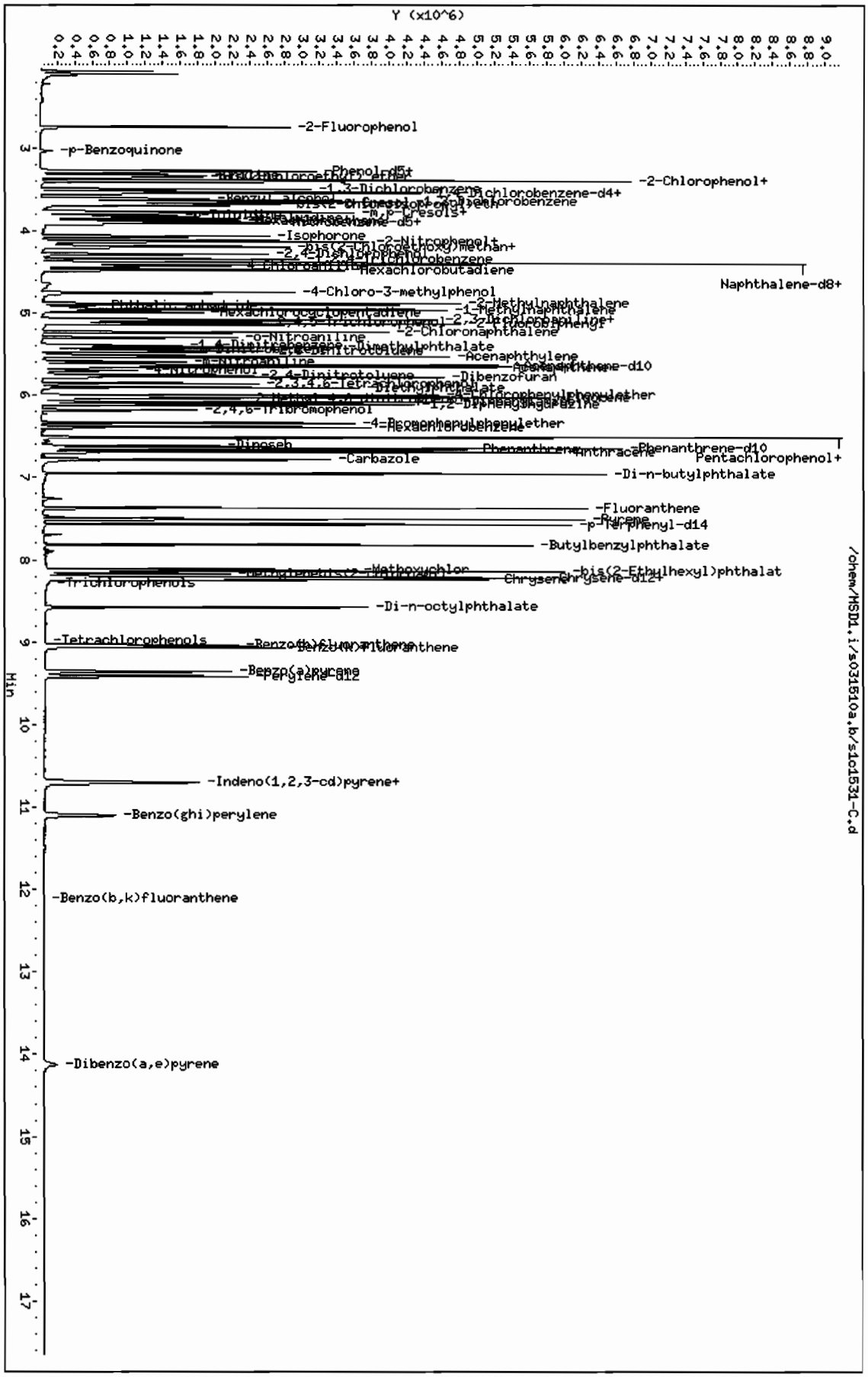

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 16-MAR-2010 00:58
Lab File ID: s1c1533-C.d Init. Cal. Date(s): 15-MAR-2010 15-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 23:14
Lab Sample ID: WBN100312-08.1 Quant Type: ISTD
Method: /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.85292	0.68008	0.68008	0.000	-20.26453	60.00000	Averaged
16 Acetophenone	1.17153	1.12950	1.12950	0.000	-3.58768	60.00000	Averaged
189 Caprolactam	0.06713	0.07865	0.07865	0.000	17.16278	60.00000	Averaged
208 1,1'-Biphenyl	1.20731	1.24253	1.24253	0.000	2.91691	60.00000	Averaged
207 Atrazine	0.04270	0.04582	0.04582	0.000	7.30954	60.00000	Averaged
77 Benzidine	0.35698	0.37062	0.37062	0.000	3.82346	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.29661	0.28340	0.28340	0.000	-4.45426	60.00000	Averaged
102 1,4-Dioxane	0.33011	0.39318	0.39318	0.000	19.10465	60.00000	Averaged
103 Methyl methacrylate	0.19011	0.22942	0.22942	0.000	20.67753	60.00000	Averaged
104 Ethyl methacrylate	0.72578	0.86096	0.86096	0.000	18.62534	60.00000	Averaged
105 2-Picoline	1.17224	1.10026	1.10026	0.000	-6.14016	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44761	0.42428	0.42428	0.000	-5.21062	60.00000	Averaged
107 Methyl methanesulfonate	0.43845	0.44831	0.44831	0.000	2.24962	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49906	0.45859	0.45859	0.000	-8.10798	60.00000	Averaged
109 Ethyl Methanesulfonate	0.59722	0.71040	0.71040	0.000	18.95004	60.00000	Averaged
110 Pentachloroethane	0.31358	0.42274	0.42274	0.000	34.81217	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.48048	0.46459	0.46459	0.000	-3.30543	60.00000	Averaged
113 N-Nitrosomorpholine	0.61907	0.62440	0.62440	0.000	0.86172	60.00000	Averaged
114 o-Toluidine	1.65123	1.50789	1.50789	0.000	-8.68062	60.00000	Averaged
115 N-Nitrosopiperidine	0.12608	0.12465	0.12465	0.000	-1.13856	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.75396	0.72190	0.72190	0.000	-4.25126	60.00000	Averaged
118 2,6-Dichlorophenol	0.19593	0.19899	0.19899	0.000	1.56009	60.00000	Averaged
119 Hexachloropropene	0.10838	0.16507	0.16507	0.000	52.30319	60.00000	Averaged
120 p-Phenylenediamine	0.24548	0.21979	0.21979	0.000	-10.46278	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.17777	0.17279	0.17279	0.000	-2.79909	60.00000	Averaged
122 Safrole	0.18440	0.21297	0.21297	0.000	15.49122	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.45282	0.48216	0.48216	0.000	6.48115	60.00000	Averaged
124 Isosafrole	0.33289	0.44131	0.44131	0.000	32.56803	60.00000	Averaged
125 1,4-Naphthoquinone	0.31050	0.31046	0.31046	0.000	-0.01416	60.00000	Averaged
127 Pentachlorobenzene	0.40506	0.41650	0.41650	0.000	2.82553	60.00000	Averaged
128 1-Naphthylamine	0.91492	0.89910	0.89910	0.000	-1.72848	60.00000	Averaged
129 2-Naphthylamine	0.95136	0.96361	0.96361	0.000	1.28847	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27755	0.27172	0.27172	0.000	-2.10010	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.10955	0.14168	0.14168	0.000	29.32993	60.00000	Averaged
137 Phenacetin	0.24931	0.27034	0.27034	0.000	8.43612	60.00000	Averaged
138 Diallate	0.22908	0.21844	0.21844	0.000	-4.64753	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 16-MAR-2010 00:58
Lab File ID: s1c1533-C.d Init. Cal. Date(s): 15-MAR-2010 15-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 23:14
Lab Sample ID: WBN100312-08.1 Quant Type: ISTD
Method: /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.22400	0.28393	0.28393	0.000	26.75242	60.00000	Averaged
213 Trans Diallate	0.26951	0.25699	0.25699	0.000	-4.64753	60.00000	Averaged
140 4-Aminobiphenyl	0.54917	0.57230	0.57230	0.000	4.21119	60.00000	Averaged
141 Pentachloronitrobenzene	0.06390	0.06712	0.06712	0.000	5.03569	60.00000	Averaged
142 Pronamide	0.25643	0.27212	0.27212	0.000	6.11647	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01899	0.02168	0.02168	0.000	14.16476	60.00000	Averaged
147 Methapyrilene	0.43198	0.39087	0.39087	0.000	-9.51560	60.00000	Averaged
148 Isodrin	0.09769	0.09221	0.09221	0.000	-5.60212	60.00000	Averaged
149 Aramite	0.03937	0.03962	0.03962	0.000	0.63434	60.00000	Averaged
150 Kepone	0.06795	0.06455	0.06455	0.000	-4.99143	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.27269	0.27283	0.27283	0.000	0.05211	60.00000	Averaged
152 Chlorobenzilate	0.28668	0.28881	0.28881	0.000	0.74438	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.51675	0.48602	0.48602	0.000	-5.94807	60.00000	Averaged
155 2-Acetylaminofluorene	0.30754	0.27548	0.27548	0.000	-10.42377	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.49490	0.49248	0.49248	0.000	-0.49024	60.00000	Averaged
158 3-Methylcholanthrene	0.39716	0.41605	0.41605	0.000	4.75488	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD1.i/s031510a.b/s1c1533-C.d
Lab Smp Id: WBN100312-08.1 Client Smp ID: APICV
Inj Date : 16-MAR-2010 00:58
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN100312-08.1|40 PPM|1|SVMF|1|APICV
Misc Info : |MSD8270||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s031510a.b/MSD1-M8270C-031510.m
Meth Date : 16-Mar-2010 18:25 amy01291 Quant Type: ISTD
Cal Date : 15-MAR-2010 23:14 Cal File: s1c1529.d
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.540	3.540	(1.000)	570333	40.0000	
* 29 Naphthalene-d8	136	4.392	4.392	(1.000)	2167474	40.0000	
* 46 Acenaphthene-d10	164	5.634	5.634	(1.000)	1148170	40.0000	
* 67 Phenanthrene-d10	188	6.645	6.645	(1.000)	2008546	40.0000	
* 91 Chrysene-d12	240	8.222	8.222	(1.000)	1752326	40.0000	
* 98 Perylene-d12	264	9.416	9.416	(1.000)	1218375	40.0000	
209 Benzaldehyde	77	3.269	3.269	(0.924)	387870	40.0000	31.9
16 Acetophenone	105	3.793	3.793	(1.071)	644189	40.0000	38.6
189 Caprolactam	113	4.687	4.687	(1.067)	170479	40.0000	46.9
208 1,1'-Biphenyl	154	5.216	5.216	(0.926)	1426632	40.0000	41.2
207 Atrazine	173	6.434	6.434	(0.968)	92029	40.0000	42.9
77 Benzidine	184	7.433	7.433	(0.904)	649454	40.0000	41.5
90 3,3'-Dichlorobenzidine	252	8.175	8.175	(0.994)	496602	40.0000	38.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
102 1,4-Dioxane	88	1.928	1.928	(0.545)	224241	40.0000	47.6
103 Methyl methacrylate	100	1.928	1.928	(0.545)	130843	40.0000	48.3
104 Ethyl methacrylate	69	2.281	2.281	(0.644)	491033	40.0000	47.4
105 2-Picoline	93	2.463	2.463	(0.696)	627514	40.0000	37.5
106 N-Nitrosomethylethylamine	88	2.510	2.510	(0.709)	241983	40.0000	37.9
107 Methyl methanesulfonate	80	2.663	2.663	(0.752)	255686	40.0000	40.9
108 N-Nitrosodiethylamine	102	2.887	2.887	(0.816)	261551	40.0000	36.8
109 Ethyl Methanesulfonate	79	3.051	3.051	(0.862)	405164	40.0000	47.6
110 Pentachloroethane	167	3.369	3.369	(0.952)	241105	40.0000	53.9
111 N-Nitrosopyrrolidine	100	3.787	3.787	(1.070)	264973	40.0000	38.7(Q)
113 N-Nitrosomorpholine	56	3.810	3.810	(1.076)	356118	40.0000	40.3
114 o-Toluidine	106	3.822	3.822	(1.080)	860002	40.0000	36.5
115 N-Nitrosopiperidine	114	4.016	4.016	(0.914)	270170	40.0000	39.5
116 a,a-Dimethylphenethylamine	58	4.257	4.257	(0.969)	1564710	40.0000	38.3
118 2,6-Dichlorophenol	162	4.445	4.445	(1.012)	431295	40.0000	40.6
119 Hexachloropropene	213	4.469	4.469	(1.017)	357787	40.0000	60.9
120 p-Phenylenediamine	108	4.687	4.687	(1.067)	476398	40.0000	35.8
121 N-Nitrosodi-n-butylamine	84	4.651	4.651	(1.059)	374522	40.0000	38.9(Q)
122 Safrole	162	4.810	4.810	(1.095)	461610	40.0000	46.2
123 1,2,4,5-Tetrachlorobenzene	216	5.004	5.004	(0.888)	553607	40.0000	42.6
124 Isosafrole	162	5.181	5.181	(0.920)	506697	40.0000	53.0
125 1,4-Naphthoquinone	158	5.357	5.357	(0.951)	356459	40.0000	40.0
127 Pentachlorobenzene	250	5.745	5.745	(1.020)	478217	40.0000	41.1
128 1-Naphthylamine	143	5.834	5.834	(1.035)	1032325	40.0000	39.3
129 2-Naphthylamine	143	5.892	5.892	(1.046)	1106392	40.0000	40.5
131 5-Nitro-o-toluidine	152	6.022	6.022	(1.069)	311981	40.0000	39.2
136 1,3,5-Trinitrobenzene	75	6.251	6.251	(0.941)	284563	40.0000	51.7
137 Phenacetin	108	6.292	6.292	(0.947)	542989	40.0000	43.4(Q)
138 Diallate	86	6.269	6.269	(0.943)	438742	40.0000	38.1
212 Cis Diallate	86	6.328	6.328	(0.952)	85542	6.00000	7.6
213 Trans Diallate	86	6.269	6.269	(0.943)	438742	34.0000	32.4
140 4-Aminobiphenyl	169	6.510	6.510	(0.980)	1149481	40.0000	41.7
141 Pentachloronitrobenzene	237	6.522	6.522	(0.981)	134805	40.0000	42.0(Q)
142 Pronamide	173	6.528	6.528	(0.982)	546564	40.0000	42.4
146 4-Nitroquinoline-1-oxide	101	7.122	7.122	(1.072)	43554	40.0000	45.7
147 Methapyrilene	58	7.145	7.145	(1.075)	785090	40.0000	36.2
148 Isodrin	193	7.286	7.286	(1.096)	185218	40.0000	37.8
149 Aramite	185	7.533	7.533	(1.134)	79580	40.0000	40.2
150 Kepone	272	7.898	7.898	(1.189)	129661	40.0000	38.0
151 p-(Dimethylamino)azobenzene	120	7.645	7.645	(0.930)	478086	40.0000	40.0
152 Chlorobenzilate	251	7.663	7.663	(0.932)	506091	40.0000	40.3
153 3,3'-Dimethylbenzidine	212	7.839	7.839	(0.953)	851659	40.0000	37.6
155 2-Acetylaminofluorene	181	7.992	7.992	(0.972)	482731	40.0000	35.8
157 7,12Dimethylbenz(a)anthracene	256	9.022	9.022	(0.958)	600023	40.0000	39.8
158 3-Methylcholanthrene	268	9.704	9.704	(1.031)	506900	40.0000	41.9(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s031510a.b/s1c1533-C.d
Date : 16-MAR-2010 00:58
Client ID: APICV
Sample Info: IWBN100312-08,1|40 PPM|1|SVMF|1|APICV
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: ANY
Column diameter: 0.20

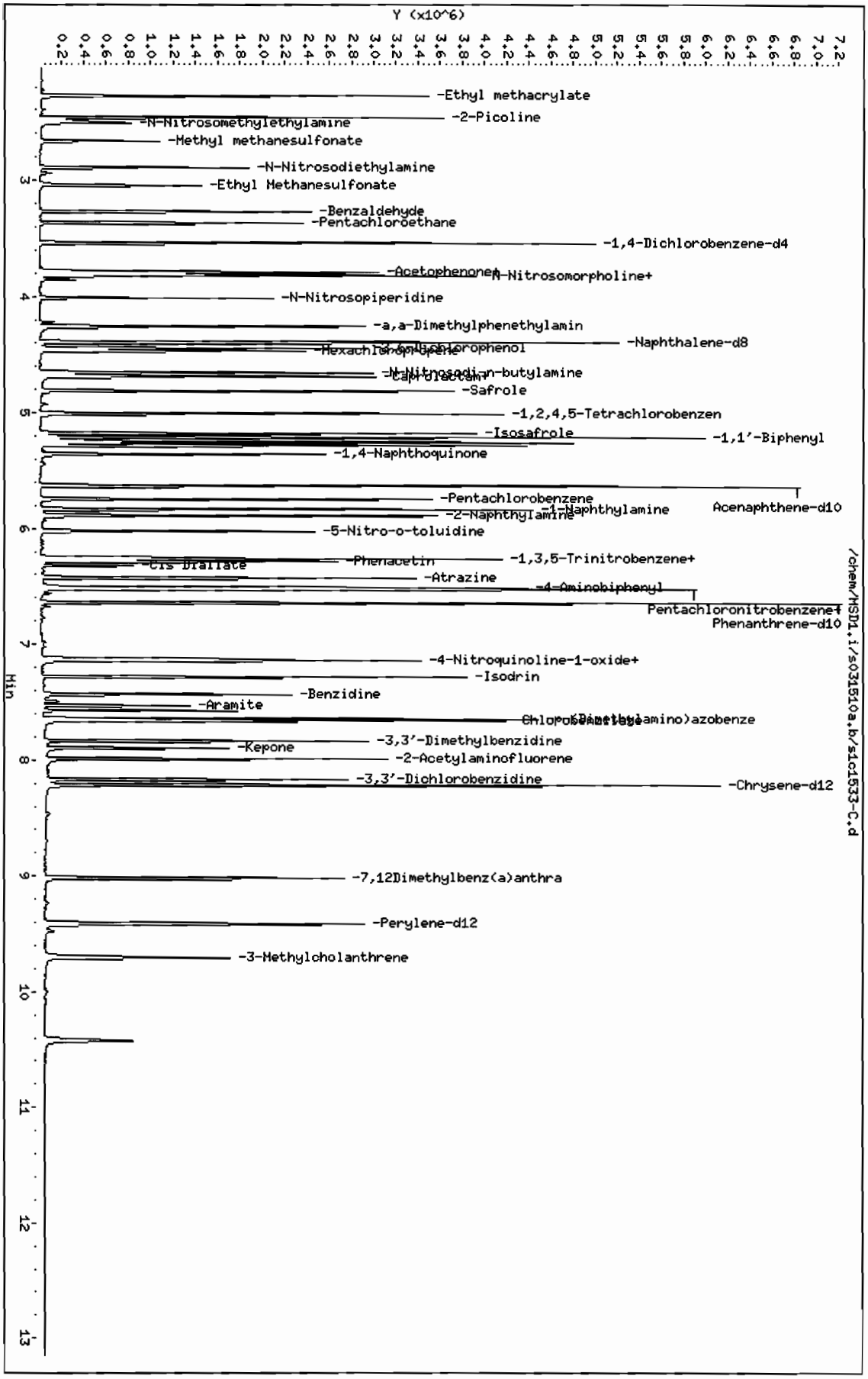

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 29-MAR-2010 10:17
Lab File ID: s1c2903.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100309-05.4 Quant Type: ISTD
Method: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.03001	0.96858	0.96858	0.000	-5.96433	60.00000	Averaged
$ 5 Phenol-d5	1.25441	1.18422	1.18422	0.000	-5.59553	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.24533	0.24019	0.24019	0.000	-2.09755	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.10470	1.07838	1.07838	0.000	-2.38268	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.13114	0.11820	0.11820	0.000	-9.86683	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.66687	0.63425	0.63425	0.000	-4.89082	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.57832	0.52486	0.52486	0.000	-9.24392	60.00000	Averaged
2 Pyridine	0.88669	0.88124	0.88124	0.000	-0.61402	60.00000	Averaged
4 Aniline	0.56665	0.55839	0.55839	0.000	-1.45615	60.00000	Averaged
6 Phenol	1.32904	1.27487	1.27487	0.001	-4.07584	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.91184	0.85850	0.85850	0.000	-5.85020	60.00000	Averaged
8 2-Chlorophenol	1.12413	1.09570	1.09570	0.000	-2.52901	60.00000	Averaged
203 n-Decane	1.43358	1.51809	1.51809	0.000	5.89515	60.00000	Averaged
9 1,3-Dichlorobenzene	1.25360	1.18779	1.18779	0.000	-5.24993	60.00000	Averaged
11 1,4-Dichlorobenzene	1.26574	1.20336	1.20336	0.001	-4.92899	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.18297	1.12993	1.12993	0.000	-4.48357	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.93906	2.00800	2.00800	0.000	3.55530	60.00000	Averaged
12 Benzyl alcohol	0.58515	0.62178	0.62178	0.000	6.25886	60.00000	Averaged
15 o-Cresol	0.85261	0.80438	0.80438	0.000	-5.65638	60.00000	Averaged
18 m,p-Cresols	1.10508	1.07002	1.07002	0.000	-3.17285	60.00000	Averaged
17 N-Nitrosodipropylamine	0.71175	0.76559	0.76559	0.050	7.56411	60.00000	Averaged spcc
19 Hexachloroethane	0.48105	0.47028	0.47028	0.000	-2.23866	60.00000	Averaged
21 Nitrobenzene	0.26210	0.25449	0.25449	0.000	-2.90354	60.00000	Averaged
22 Isophorone	0.48952	0.49940	0.49940	0.000	2.01924	60.00000	Averaged
23 2-Nitrophenol	0.13523	0.13024	0.13024	0.001	-3.69419	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.24166	0.23514	0.23514	0.000	-2.69670	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29940	0.29889	0.29889	0.000	-0.17329	60.00000	Averaged
26 2,4-Dichlorophenol	0.20163	0.19875	0.19875	0.001	-1.42551	20.00000	Averaged ccc
27 Benzoic acid	0.13123	0.09521	0.09521	0.000	-27.44938	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24663	0.23495	0.23495	0.000	-4.73488	60.00000	Averaged
30 Naphthalene	0.80225	0.78201	0.78201	0.000	-2.52314	60.00000	Averaged
204 alpha-Terpineol	0.22672	0.24185	0.24185	0.000	6.67239	60.00000	Averaged
31 4-Chloroaniline	0.35963	0.37866	0.37866	0.000	5.29124	60.00000	Averaged
32 Hexachlorobutadiene	0.13897	0.13488	0.13488	0.001	-2.94176	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21040	0.21712	0.21712	0.001	3.19581	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.50932	0.50121	0.50121	0.000	-1.59402	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 29-MAR-2010 10:17
Lab File ID: s1c2903.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100309-05.4 Quant Type: ISTD
Method: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.50016	0.48830	0.48830	0.000	-2.37217	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.25303	0.18326	0.18326	0.050	-27.57124	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.52418	0.51241	0.51241	0.000	-2.24444	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.29721	0.29360	0.29360	0.001	-1.21359	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.31820	0.28350	0.28350	0.000	-10.90472	60.00000	Averaged	
40	2-Chloronaphthalene	0.95817	0.92585	0.92585	0.000	-3.37317	60.00000	Averaged	
42	o-Nitroaniline	0.27488	0.27705	0.27705	0.000	0.78989	60.00000	Averaged	
41	m-Nitroaniline	36.80954	40.00000	0.19551	0.000	-7.97614	60.00000	Linear	
43	Dimethylphthalate	1.11352	1.09166	1.09166	0.000	-1.96311	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.25852	0.25217	0.25217	0.000	-2.45674	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.32209	0.31738	0.31738	0.000	-1.46221	60.00000	Averaged	
45	Acenaphthylene	1.53720	1.53511	1.53511	0.000	-0.13615	60.00000	Averaged	
47	Acenaphthene	0.97707	0.93988	0.93988	0.001	-3.80608	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	35.65502	40.00000	0.09076	0.050	-10.86246	60.00000	Linear	spcc
49	Dibenzofuran	1.31289	1.28522	1.28522	0.000	-2.10799	60.00000	Averaged	
51	Diethylphthalate	1.11578	1.11546	1.11546	0.000	-0.02852	60.00000	Averaged	
52	4-Nitrophenol	0.18061	0.15588	0.15588	0.050	-13.69365	60.00000	Averaged	spcc
53	Fluorene	1.10069	1.09331	1.09331	0.000	-0.67087	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.53905	0.53490	0.53490	0.000	-0.77107	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	0.09291	0.08787	0.08787	0.000	-5.42443	60.00000	Averaged	
56	p-Nitroaniline	35.27605	40.00000	0.16824	0.000	-11.80988	60.00000	Linear	
133	Diphenylamine	0.51080	0.49578	0.49578	0.001	-2.93901	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.58751	0.60059	0.60059	0.000	2.22705	60.00000	Averaged	
61	4-Bromophenylphenylether	0.18061	0.16634	0.16634	0.000	-7.90110	60.00000	Averaged	
63	Hexachlorobenzene	0.19601	0.16962	0.16962	0.000	-13.46100	60.00000	Averaged	
65	Pentachlorophenol	0.09774	0.09385	0.09385	0.001	-3.98782	20.00000	Averaged	ccc
206	n-Octadecane	0.45255	0.49308	0.49308	0.000	8.95720	60.00000	Averaged	
68	Phenanthrene	0.86428	0.84028	0.84028	0.000	-2.77686	60.00000	Averaged	
69	Anthracene	0.84875	0.82478	0.82478	0.000	-2.82426	60.00000	Averaged	
72	Di-n-butylphthalate	1.04667	1.09364	1.09364	0.000	4.48735	60.00000	Averaged	
76	Fluoranthene	0.88826	0.88938	0.88938	0.001	0.12689	20.00000	Averaged	ccc
79	Pyrene	1.13506	1.09136	1.09136	0.000	-3.85035	60.00000	Averaged	
85	Butylbenzylphthalate	0.48580	0.52223	0.52223	0.000	7.49872	60.00000	Averaged	
89	Benzo(a)anthracene	0.94024	0.95235	0.95235	0.000	1.28810	60.00000	Averaged	
92	Chrysene	0.87862	0.86342	0.86342	0.000	-1.73015	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.64205	0.75161	0.75161	0.000	17.06342	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s1c2903.d
Analysis Type: WATER
Lab Sample ID: WBN100309-05.4
Method: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m

Injection Date: 29-MAR-2010 10:17
Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Init. Cal. Times: 17:03 02:37
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.31370	1.36785	1.36785	0.001	4.12158	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.10005	1.02049	1.02049	0.000	-7.23215	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.04802	1.00781	1.00781	0.000	-3.83671	60.00000	Averaged	
	97 Benzo(a)pyrene	0.88082	0.85558	0.85558	0.001	-2.86515	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.74890	0.76587	0.76587	0.000	2.26634	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.61883	0.59755	0.59755	0.000	-3.43768	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.60742	0.64694	0.64694	0.000	6.50614	60.00000	Averaged	
	126 m-Dinitrobenzene	0.17468	0.16463	0.16463	0.000	-5.75405	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27097	0.25748	0.25748	0.000	-4.97802	60.00000	Averaged	
	143 Dinoseb	37.29094	40.00000	0.12898	0.000	-6.77264	60.00000	Linear	
	173 Carbazole	0.62852	0.71496	0.71496	0.000	13.75282	60.00000	Averaged	
	184 p-Benzoquinone	0.05416	0.06075	0.06075	0.000	12.16872	60.00000	Averaged	
	192 Methoxychlor	0.59295	0.61465	0.61465	0.000	3.65824	60.00000	Averaged	
	211 p-Toluidine	1.19774	1.06397	1.06397	0.000	-11.16869	60.00000	Averaged	
	210 m-Toluidine	1.30269	1.13169	1.13169	0.000	-13.12687	60.00000	Averaged	
	26 Phthalic anhydride	39.56802	40.00000	0.05944	0.000	-1.07995	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	0.26815	0.31082	0.31082	0.000	15.91379	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.15277	0.14327	0.14327	0.000	-6.21996	60.00000	Averaged	
	215 2-Ethoxyethanol	0.56020	0.45708	0.45708	0.000	-18.40856	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.10873	0.07362	0.07362	0.000	-32.29474	60.00000	Averaged	
M	225 Trichlorophenols	0.30770	0.28855	0.28855	0.000	-6.22442	60.00000	Averaged	
M	226 Tetrachlorophenols	0.27097	0.25748	0.25748	0.000	-4.97802	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	1.07403	1.01415	1.01415	0.000	-5.57556	60.00000	Averaged	

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Data file : /chem/MSD1.i/s032910.b/s1c2903.d
Lab Smp Id: WBN100309-05.4 Client Smp ID: MEGACVS
Inj Date : 29-MAR-2010 10:17
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN100309-05.4|40 PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.504	3.504	(1.000)	393267	40.0000	
* 29 Naphthalene-d8	136	4.351	4.351	(1.000)	1655594	40.0000	
* 46 Acenaphthene-d10	164	5.592	5.592	(1.000)	825625	40.0000	
* 67 Phenanthrene-d10	188	6.598	6.598	(1.000)	1464986	40.0000	
* 91 Chrysene-d12	240	8.175	8.175	(1.000)	1271298	40.0000	
* 98 Perylene-d12	264	9.339	9.339	(1.000)	1100996	40.0000	
$ 3 2-Fluorophenol	112	2.716	2.716	(0.775)	380910	40.0000	37.6
$ 5 Phenol-d5	99	3.240	3.240	(0.924)	465716	40.0000	37.8
$ 20 Nitrobenzene-d5	82	3.863	3.863	(0.888)	397651	40.0000	39.2
$ 39 2-Fluorobiphenyl	172	5.093	5.093	(0.911)	890339	40.0000	39.0
$ 60 2,4,6-Tribromophenol	329	6.139	6.139	(1.098)	97589	40.0000	36.0
$ 81 p-Terphenyl-d14	244	7.528	7.528	(0.921)	806327	40.0000	38.0
1 N-Methyl-N-nitrosomethylamine	74	2.052	2.052	(0.585)	206411	40.0000	36.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.081	2.081	(0.594)	346563	40.0000	39.8
4 Aniline	66	3.299	3.299	(0.941)	219598	40.0000	39.4
6 Phenol	94	3.251	3.251	(0.928)	501365	40.0000	38.4
7 bis(2-Chloroethyl) ether	63	3.316	3.316	(0.946)	337618	40.0000	37.6
8 2-Chlorophenol	128	3.369	3.369	(0.961)	430904	40.0000	39.0
203 n-Decane	43	3.363	3.363	(0.960)	597016	40.0000	42.4
9 1,3-Dichlorobenzene	146	3.469	3.469	(0.990)	467117	40.0000	37.9
11 1,4-Dichlorobenzene	146	3.510	3.510	(1.002)	473240	40.0000	38.0
13 1,2-Dichlorobenzene	146	3.610	3.610	(1.030)	444363	40.0000	38.2
14 bis(2-Chloroisopropyl)ether	45	3.651	3.651	(1.042)	789681	40.0000	41.4
12 Benzyl alcohol	108	3.575	3.575	(1.020)	244524	40.0000	42.5
15 o-Cresol	107	3.634	3.634	(1.037)	316336	40.0000	37.7
18 m,p-Cresols	107	3.740	3.740	(1.067)	420804	40.0000	38.7
17 N-Nitrosodipropylamine	70	3.751	3.751	(1.070)	301080	40.0000	43.0
19 Hexachloroethane	117	3.834	3.834	(1.094)	184945	40.0000	39.1
21 Nitrobenzene	77	3.875	3.875	(0.890)	421324	40.0000	38.8
22 Isophorone	82	4.028	4.028	(0.926)	826808	40.0000	40.8
23 2-Nitrophenol	139	4.087	4.087	(0.939)	215621	40.0000	38.5
24 2,4-Dimethylphenol	122	4.093	4.093	(0.941)	389304	40.0000	38.9
25 bis(2-Chloroethoxy)methane	93	4.157	4.157	(0.955)	494833	40.0000	39.9
26 2,4-Dichlorophenol	162	4.245	4.245	(0.976)	329053	40.0000	39.4
27 Benzoic acid	105	4.163	4.163	(0.957)	157621	40.0000	29.0
28 1,2,4-Trichlorobenzene	180	4.304	4.304	(0.989)	388986	40.0000	38.1
30 Naphthalene	128	4.369	4.369	(1.004)	1294686	40.0000	39.0
204 alpha-Terpineol	59	4.351	4.351	(1.000)	400410	40.0000	42.7
31 4-Chloroaniline	127	4.393	4.393	(1.009)	626909	40.0000	42.1
32 Hexachlorobutadiene	225	4.440	4.440	(1.020)	223314	40.0000	38.8
33 4-Chloro-3-methylphenol	107	4.710	4.710	(1.082)	359463	40.0000	41.3
34 2-Methylnaphthalene	142	4.845	4.845	(1.114)	829792	40.0000	39.4
35 1-Methylnaphthalene	142	4.916	4.916	(1.130)	808421	40.0000	39.0
36 Hexachlorocyclopentadiene	237	4.945	4.945	(0.884)	151307	40.0000	29.0
205 2,3-Dichloroaniline	161	5.045	5.045	(0.902)	423060	40.0000	39.1
37 2,4,6-Trichlorophenol	196	5.040	5.040	(0.901)	242405	40.0000	39.5
38 2,4,5-Trichlorophenol	196	5.063	5.063	(0.905)	234064	40.0000	35.6
40 2-Chloronaphthalene	162	5.192	5.192	(0.928)	764401	40.0000	38.6
42 o-Nitroaniline	65	5.257	5.257	(0.940)	228743	40.0000	40.3
41 m-Nitroaniline	138	5.551	5.551	(0.993)	161418	40.0000	36.8
43 Dimethylphthalate	163	5.375	5.375	(0.961)	901299	40.0000	39.2
44 2,6-Dinitrotoluene	165	5.428	5.428	(0.971)	208199	40.0000	39.0
50 2,4-Dinitrotoluene	165	5.716	5.716	(1.022)	262036	40.0000	39.4
45 Acenaphthylene	152	5.492	5.492	(0.982)	1267425	40.0000	39.9
47 Acenaphthene	154	5.610	5.610	(1.003)	775989	40.0000	38.5
48 2,4-Dinitrophenol	184	5.622	5.622	(1.005)	74930	40.0000	35.6(Q)
49 Dibenzofuran	168	5.734	5.734	(1.025)	1061106	40.0000	39.2
51 Diethylphthalate	149	5.869	5.869	(1.049)	920955	40.0000	40.0
52 4-Nitrophenol	139	5.657	5.657	(1.012)	128696	40.0000	34.5
53 Fluorene	166	5.975	5.975	(1.068)	902663	40.0000	39.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	5.963	5.963	(1.066)	441625	40.0000	39.7
55 2-Methyl-4,6-dinitrophenol	198	6.004	6.004	(0.910)	128728	40.0000	37.8
56 p-Nitroaniline	138	5.987	5.987	(1.070)	138907	40.0000	35.3
133 Diphenylamine	169	6.045	6.045	(0.916)	726317	40.0000	38.8
58 1,2-Diphenylhydrazine	77	6.075	6.075	(0.921)	879859	40.0000	40.9
61 4-Bromophenylphenylether	248	6.292	6.292	(0.954)	243680	40.0000	36.8
63 Hexachlorobenzene	284	6.345	6.345	(0.962)	248494	40.0000	34.6
65 Pentachlorophenol	266	6.469	6.469	(0.980)	137484	40.0000	38.4
206 n-Octadecane	57	6.475	6.475	(0.981)	722362	40.0000	43.6
68 Phenanthrene	178	6.616	6.616	(1.003)	1230999	40.0000	38.9
69 Anthracene	178	6.645	6.645	(1.007)	1208294	40.0000	38.9
72 Di-n-butylphthalate	149	6.916	6.916	(1.048)	1602161	40.0000	41.8
76 Fluoranthene	202	7.328	7.328	(1.111)	1302936	40.0000	40.0
79 Pyrene	202	7.469	7.469	(0.914)	1387444	40.0000	38.4
85 Butylbenzylphthalate	149	7.781	7.781	(0.952)	663910	40.0000	43.0
89 Benzo(a)anthracene	228	8.163	8.163	(0.999)	1210722	40.0000	40.5
92 Chrysene	228	8.192	8.192	(1.002)	1097668	40.0000	39.3
93 bis(2-Ethylhexyl)phthalate	149	8.092	8.092	(0.990)	955517	40.0000	46.8
94 Di-n-octylphthalate	149	8.528	8.528	(0.913)	1505994	40.0000	41.6
95 Benzo(b)fluoranthene	252	8.975	8.975	(0.961)	1123558	40.0000	37.1
96 Benzo(k)fluoranthene	252	8.998	8.998	(0.963)	1109595	40.0000	38.5
97 Benzo(a)pyrene	252	9.286	9.286	(0.994)	941992	40.0000	38.8
99 Indeno(1,2,3-cd)pyrene	276	10.598	10.598	(1.135)	843222	40.0000	40.9
100 Dibenzo(a,h)anthracene	278	10.598	10.598	(1.135)	657903	40.0000	38.6
101 Benzo(ghi)perylene	276	10.986	10.986	(1.176)	712276	40.0000	42.6
126 m-Dinitrobenzene	168	5.410	5.410	(0.967)	135919	40.0000	37.7
130 2,3,4,6-Tetrachlorophenol	232	5.816	5.816	(1.040)	212583	40.0000	38.0
143 Dinoseb	211	6.569	6.569	(0.996)	188948	40.0000	37.3
173 Carbazole	167	6.739	6.739	(1.021)	1047403	40.0000	45.5
184 p-Benzoquinone	54	3.010	3.010	(0.859)	23890	40.0000	44.9
192 Methoxychlor	227	8.075	8.075	(0.988)	781398	40.0000	41.5
211 p-Toluidine	106	3.781	3.781	(1.079)	418423	40.0000	35.5
210 m-Toluidine	106	3.804	3.804	(1.086)	445056	40.0000	34.7
26 Phthalic anhydride	104	4.887	4.887	(1.123)	98408	40.0000	39.6
179 Dibenzo(a,e)pyrene	302	13.933	13.933	(1.492)	342209	40.0000	46.4
214 1,4-Dinitrobenzene	168	5.351	5.351	(0.957)	118288	40.0000	37.5
215 2-Ethoxyethanol	59	1.904	1.904	(0.543)	179753	40.0000	32.6
216 Methylenebis(2-chloroaniline)	231	8.122	8.122	(0.994)	93587	40.0000	27.1
M 225 Trichlorophenols	196				476469	80.0000	75.0
M 226 Tetrachlorophenols	232				212583	40.0000	38.0
M 227 Benzo(b,k)fluoranthene	252				2233153	80.0000	75.5

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s032910.b/s1c2903.d
Date : 29-MAR-2010 10:17
Client ID: MEGACVS
Sample Info: IWBN100309-05.4|40 PPM|1|SVMF|1|MEGACVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

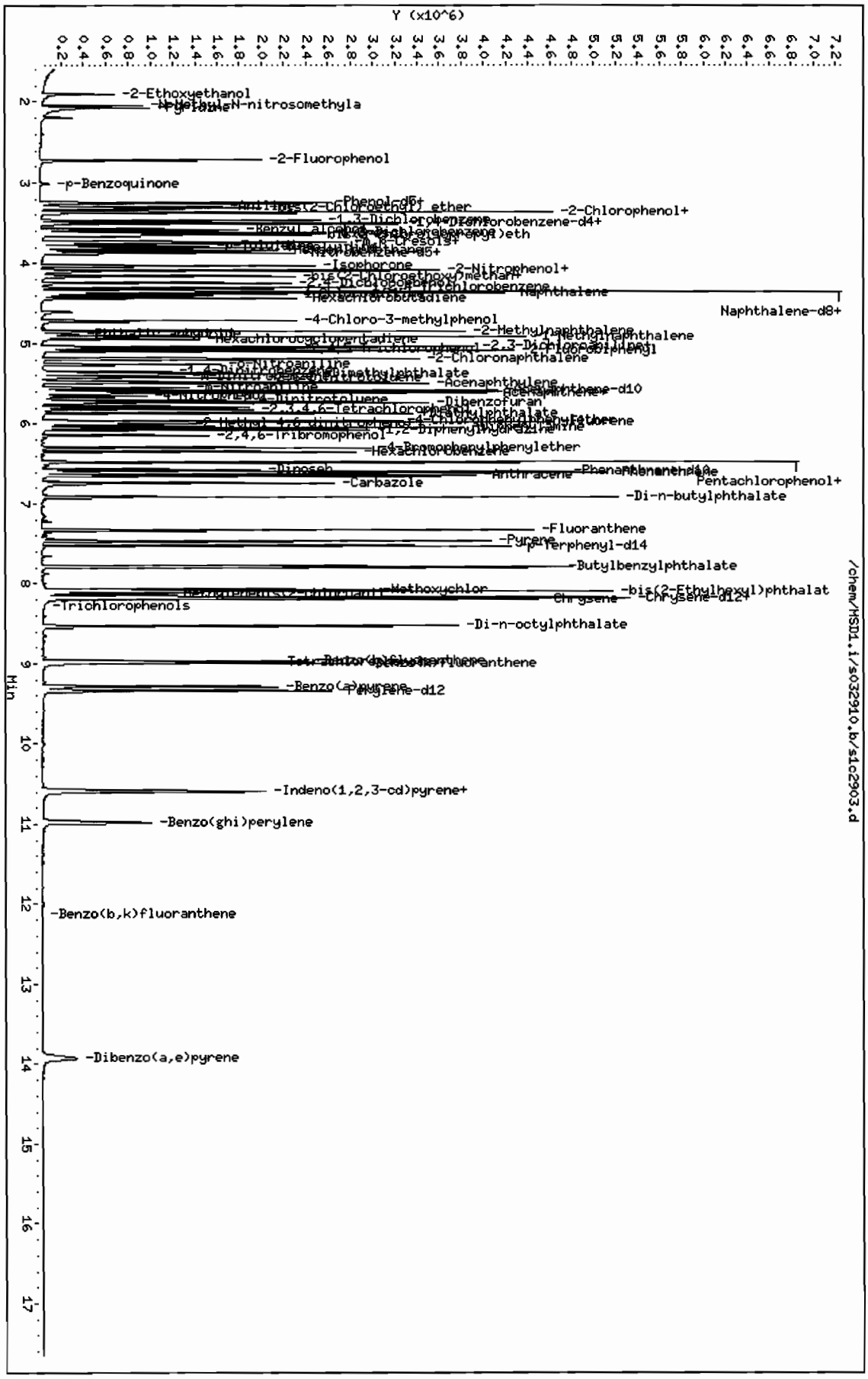

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 29-MAR-2010 11:24
Lab File ID: s1c2904.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100312-08.3 Quant Type: ISTD
Method: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.85292	0.72408	0.72408	0.000	-15.10490	60.00000	Averaged
16 Acetophenone	1.17153	1.13446	1.13446	0.000	-3.16369	60.00000	Averaged
189 Caprolactam	0.06713	0.07767	0.07767	0.000	15.70402	60.00000	Averaged
208 1,1'-Biphenyl	1.20731	1.22486	1.22486	0.000	1.45380	60.00000	Averaged
207 Atrazine	0.04270	0.04603	0.04603	0.000	7.80373	60.00000	Averaged
77 Benzidine	0.35698	0.23676	0.23676	0.000	-33.67535	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.29661	0.25584	0.25584	0.000	-13.74628	60.00000	Averaged
102 1,4-Dioxane	0.33011	0.39835	0.39835	0.000	20.67221	60.00000	Averaged
103 Methyl methacrylate	0.19011	0.23202	0.23202	0.000	22.04785	60.00000	Averaged
104 Ethyl methacrylate	0.72578	0.87117	0.87117	0.000	20.03181	60.00000	Averaged
105 2-Picoline	1.17224	1.11505	1.11505	0.000	-4.87834	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44761	0.43186	0.43186	0.000	-3.51797	60.00000	Averaged
107 Methyl methanesulfonate	0.43845	0.48961	0.48961	0.000	11.66863	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49906	0.46118	0.46118	0.000	-7.59065	60.00000	Averaged
109 Ethyl Methanesulfonate	0.59722	0.73802	0.73802	0.000	23.57492	60.00000	Averaged
110 Pentachloroethane	0.31358	0.43420	0.43420	0.000	38.46483	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.48048	0.46843	0.46843	0.000	-2.50629	60.00000	Averaged
113 N-Nitrosomorpholine	0.61907	0.65723	0.65723	0.000	6.16417	60.00000	Averaged
114 o-Toluidine	1.65123	1.56964	1.56964	0.000	-4.94140	60.00000	Averaged
115 N-Nitrosopiperidine	0.12608	0.12634	0.12634	0.000	0.20398	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.75396	0.71080	0.71080	0.000	-5.72462	60.00000	Averaged
118 2,6-Dichlorophenol	0.19593	0.20940	0.20940	0.000	6.87420	60.00000	Averaged
119 Hexachloropropene	0.10838	0.16096	0.16096	0.000	48.51215	60.00000	Averaged
120 p-Phenylenediamine	0.24548	0.20622	0.20622	0.000	-15.99085	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.17777	0.18288	0.18288	0.000	2.87732	60.00000	Averaged
122 Safrole	0.18440	0.21310	0.21310	0.000	15.56257	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.45282	0.48633	0.48633	0.000	7.40211	60.00000	Averaged
124 Isosafrole	0.33289	0.43475	0.43475	0.000	30.59762	60.00000	Averaged
125 1,4-Naphthoquinone	0.31050	0.31950	0.31950	0.000	2.89864	60.00000	Averaged
127 Pentachlorobenzene	0.40506	0.39486	0.39486	0.000	-2.51813	60.00000	Averaged
128 1-Naphthylamine	0.91492	0.83596	0.83596	0.000	-8.63013	60.00000	Averaged
129 2-Naphthylamine	0.95136	0.87495	0.87495	0.000	-8.03080	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27755	0.23849	0.23849	0.000	-14.07210	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.10955	0.14462	0.14462	0.000	32.01853	60.00000	Averaged
137 Phenacetin	0.24931	0.24277	0.24277	0.000	-2.62375	60.00000	Averaged
138 Diallate	0.22908	0.22213	0.22213	0.000	-3.03449	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 29-MAR-2010 11:24
Lab File ID: s1c2904.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100312-08.3 Quant Type: ISTD
Method: /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.22400	0.29915	0.29915	0.000	33.55058	60.00000	Averaged
213 Trans Diallate	0.26951	0.26133	0.26133	0.000	-3.03449	60.00000	Averaged
140 4-Aminobiphenyl	0.54917	0.46271	0.46271	0.000	-15.74275	60.00000	Averaged
141 Pentachloronitrobenzene	0.06390	0.06942	0.06942	0.000	8.64095	60.00000	Averaged
142 Pronamide	0.25643	0.28204	0.28204	0.000	9.98355	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01899	0.01978	0.01978	0.000	4.14115	60.00000	Averaged
147 Methapyrilene	0.43198	0.41545	0.41545	0.000	-3.82670	60.00000	Averaged
148 Isodrin	0.09769	0.09587	0.09587	0.000	-1.85805	60.00000	Averaged
149 Aramite	0.03937	0.04011	0.04011	0.000	1.88160	60.00000	Averaged
150 Kepone	0.06795	0.06753	0.06753	0.000	-0.61927	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.27269	0.29239	0.29239	0.000	7.22626	60.00000	Averaged
152 Chlorobenzilate	0.28668	0.33141	0.33141	0.000	15.60332	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.51675	0.47334	0.47334	0.000	-8.40152	60.00000	Averaged
155 2-Acetylaminofluorene	0.30754	0.25043	0.25043	0.000	-18.56956	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.49490	0.46634	0.46634	0.000	-5.77164	60.00000	Averaged
158 3-Methylcholanthrene	0.39716	0.39879	0.39879	0.000	0.41001	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2904.d
Lab Smp Id: WBN100312-08.3 Client Smp ID: APCVS
Inj Date : 29-MAR-2010 11:24
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN100312-08.3|40 PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 13:45 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.498	3.498	(1.000)	398599	40.0000	
* 29 Naphthalene-d8	136	4.351	4.351	(1.000)	1517792	40.0000	
* 46 Acenaphthene-d10	164	5.586	5.586	(1.000)	815436	40.0000	
* 67 Phenanthrene-d10	188	6.598	6.598	(1.000)	1403354	40.0000	
* 91 Chrysene-d12	240	8.169	8.169	(1.000)	1075052	40.0000	
* 98 Perylene-d12	264	9.333	9.333	(1.000)	823178	40.0000	
209 Benzaldehyde	77	3.234	3.234	(0.924)	288619	40.0000	34.0
16 Acetophenone	105	3.751	3.751	(1.072)	452196	40.0000	38.7
189 Caprolactam	113	4.640	4.640	(1.066)	117893	40.0000	46.3
208 1,1'-Biphenyl	154	5.169	5.169	(0.925)	998797	40.0000	40.6
207 Atrazine	173	6.386	6.386	(0.968)	64596	40.0000	43.1
77 Benzidine	184	7.392	7.392	(0.905)	254532	40.0000	26.5
90 3,3'-Dichlorobenzidine	252	8.122	8.122	(0.994)	275036	40.0000	34.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
102 1,4-Dioxane	88	1.904	1.904	(0.544)	158782	40.0000	48.3
103 Methyl methacrylate	100	1.899	1.899	(0.543)	92483	40.0000	48.8
104 Ethyl methacrylate	69	2.251	2.251	(0.644)	347246	40.0000	48.0
105 2-Picoline	93	2.434	2.434	(0.696)	444458	40.0000	38.0
106 N-Nitrosomethylethylamine	88	2.481	2.481	(0.709)	172139	40.0000	38.6
107 Methyl methanesulfonate	80	2.634	2.634	(0.753)	195157	40.0000	44.7
108 N-Nitrosodiethylamine	102	2.851	2.851	(0.815)	183824	40.0000	37.0
109 Ethyl Methanesulfonate	79	3.016	3.016	(0.862)	294174	40.0000	49.4
110 Pentachloroethane	167	3.328	3.328	(0.951)	173071	40.0000	55.4
111 N-Nitrosopyrrolidine	100	3.745	3.745	(1.071)	186717	40.0000	39.0(Q)
113 N-Nitrosomorpholine	56	3.763	3.763	(1.076)	261971	40.0000	42.5
114 o-Toluidine	106	3.781	3.781	(1.081)	625656	40.0000	38.0
115 N-Nitrosopiperidine	114	3.975	3.975	(0.913)	191758	40.0000	40.1
116 a,a-Dimethylphenethylamine	58	4.216	4.216	(0.969)	1078841	40.0000	37.7
118 2,6-Dichlorophenol	162	4.398	4.398	(1.011)	317821	40.0000	42.7
119 Hexachloropropene	213	4.422	4.422	(1.016)	244307	40.0000	59.4
120 p-Phenylenediamine	108	4.645	4.645	(1.068)	313005	40.0000	33.6
121 N-Nitrosodi-n-butylamine	84	4.610	4.610	(1.059)	277578	40.0000	41.2(Q)
122 Safrole	162	4.769	4.769	(1.096)	323446	40.0000	46.2
123 1,2,4,5-Tetrachlorobenzene	216	4.957	4.957	(0.887)	396575	40.0000	43.0
124 Isosafrole	162	5.134	5.134	(0.919)	354510	40.0000	52.2
125 1,4-Naphthoquinone	158	5.316	5.316	(0.952)	260534	40.0000	41.2
127 Pentachlorobenzene	250	5.698	5.698	(1.020)	321982	40.0000	39.0
128 1-Naphthylamine	143	5.787	5.787	(1.036)	681672	40.0000	36.5
129 2-Naphthylamine	143	5.845	5.845	(1.046)	713469	40.0000	36.8
131 5-Nitro-o-toluidine	152	5.975	5.975	(1.069)	194475	40.0000	34.4
136 1,3,5-Trinitrobenzene	75	6.210	6.210	(0.941)	202955	40.0000	52.8
137 Phenacetin	108	6.245	6.245	(0.946)	340687	40.0000	39.0(Q)
138 Diallate	86	6.222	6.222	(0.943)	311731	40.0000	38.8
212 Cis Diallate	86	6.286	6.286	(0.953)	62973	6.00000	8.0
213 Trans Diallate	86	6.222	6.222	(0.943)	311731	34.0000	33.0
140 4-Aminobiphenyl	169	6.469	6.469	(0.980)	649352	40.0000	33.7
141 Pentachloronitrobenzene	237	6.475	6.475	(0.981)	97420	40.0000	43.4(Q)
142 Pronamide	173	6.486	6.486	(0.983)	395796	40.0000	44.0
146 4-Nitroquinoline-1-oxide	101	7.081	7.081	(1.073)	27759	40.0000	41.6
147 Methapyrilene	58	7.098	7.098	(1.076)	583023	40.0000	38.5
148 Isodrin	193	7.239	7.239	(1.097)	134543	40.0000	39.2
149 Aramite	185	7.492	7.492	(1.135)	56291	40.0000	40.8
150 Kepone	272	7.851	7.851	(1.190)	94762	40.0000	39.8
151 p-(Dimethylamino)azobenzene	120	7.604	7.604	(0.931)	314337	40.0000	42.9
152 Chlorobenzilate	251	7.622	7.622	(0.933)	356281	40.0000	46.2
153 3,3'-Dimethylbenzidine	212	7.798	7.798	(0.955)	508863	40.0000	36.6
155 2-Acetylaminofluorene	181	7.945	7.945	(0.973)	269224	40.0000	32.6
157 7,12Dimethylbenz(a)anthracene	256	8.951	8.951	(0.959)	383881	40.0000	37.7
158 3-Methylcholanthrene	268	9.610	9.610	(1.030)	328275	40.0000	40.2(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

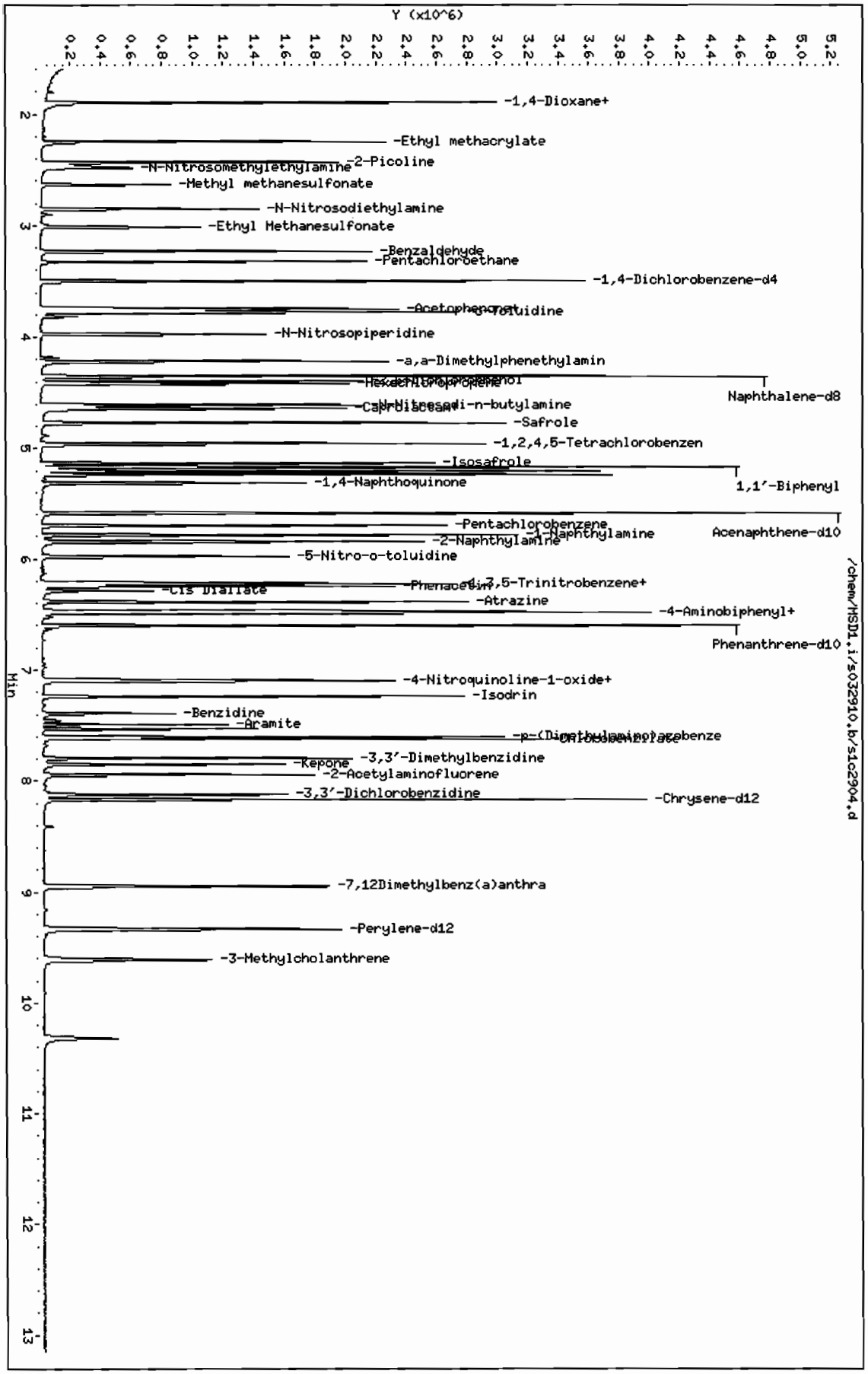
Data File: /chem/MSD1.i/s032910.b/s1c2904.d
Date : 29-MAR-2010 11:24
Client ID: APCVS
Sample Info: IWBN100312-08,3140 PPM11ISVHF11APCVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS
Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20
Page 1
Y (x10^6)
Min
-1,4-Dioxane+
-Ethyl methacrylate
-2-Picoline
-N-Nitrosomethylethylamine
-Methyl methanesulfonate
-N-Nitrosodiethylamine
-Ethyl Methanesulfonate
-Benzaldehyde
-Pentachloroethane
-1,4-Dichlorobenzene-d4
-Acetophenone
-o-Toluidine
-N-Nitrosopiperidine
-a,a-Dimethylphenethylamin
-Hexachloropropene
-Phenol
Naphthalene-d8
-Caprolactam
-N-Nitrosodi-n-butylamine
-Safrole
-1,2,4,5-Tetrachlorobenzen
-Isosafrole
-1,4-Naphthoquinone
1,1'-Biphenyl
-Pentachlorobenzene
-1-Naphthylamine
Acenaphthene-d10
-2-Naphthylamine
-5-Nitro-o-toluidine
-Phenacetin
-1,3,5-Trinitrobenzene+
-Cis Diallate
-Atrazine
-4-Aminobiphenyl+
Phenanthrene-d10
-4-Nitroquinoline-1-oxide+
-Isodrin
-Benzidine
-Aramite
-p-(Dimethylamino)azobenze
-Chlorobenzilate
-3,3'-Dimethylbenzidine
-Kepone
-2-Acetylaminofluorene
-3,3'-Dichlorobenzidine
-Chrysene-d12
-7,12Dimethylbenz(a)anthra
-Perylene-d12
-3-Methylcholanthrene
/chem/MSD1.i/s032910.b/s1c2904.d

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 30-MAR-2010 11:16
Lab File ID: s1c3005.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100309-09.2 Quant Type: ISTD
Method: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.03001	0.97224	0.97224	0.000	-5.60922	60.00000	Averaged
$ 5 Phenol-d5	1.25441	1.15916	1.15916	0.000	-7.59331	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.24533	0.24657	0.24657	0.000	0.50470	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.10470	1.07317	1.07317	0.000	-2.85458	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.13114	0.11075	0.11075	0.000	-15.54524	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.66687	0.70381	0.70381	0.000	5.53890	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.57832	0.52017	0.52017	0.000	-10.05614	60.00000	Averaged
2 Pyridine	0.88669	0.64590	0.64590	0.000	-27.15554	60.00000	Averaged
4 Aniline	0.56665	0.50814	0.50814	0.000	-10.32469	60.00000	Averaged
6 Phenol	1.32904	1.26070	1.26070	0.001	-5.14196	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.91184	0.80146	0.80146	0.000	-12.10501	60.00000	Averaged
8 2-Chlorophenol	1.12413	1.10506	1.10506	0.000	-1.69693	60.00000	Averaged
203 n-Decane	1.43358	1.51842	1.51842	0.000	5.91796	60.00000	Averaged
9 1,3-Dichlorobenzene	1.25360	1.20118	1.20118	0.000	-4.18119	60.00000	Averaged
11 1,4-Dichlorobenzene	1.26574	1.21299	1.21299	0.001	-4.16776	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.18297	1.13680	1.13680	0.000	-3.90232	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.93906	1.90389	1.90389	0.000	-1.81414	60.00000	Averaged
12 Benzyl alcohol	0.58515	0.60833	0.60833	0.000	3.96093	60.00000	Averaged
15 o-Cresol	0.85261	0.81769	0.81769	0.000	-4.09558	60.00000	Averaged
18 m,p-Cresols	1.10508	1.07268	1.07268	0.000	-2.93208	60.00000	Averaged
17 N-Nitrosodipropylamine	0.71175	0.74844	0.74844	0.050	5.15473	60.00000	Averaged spcc
19 Hexachloroethane	0.48105	0.46696	0.46696	0.000	-2.92903	60.00000	Averaged
21 Nitrobenzene	0.26210	0.25196	0.25196	0.000	-3.86721	60.00000	Averaged
22 Isophorone	0.48952	0.45809	0.45809	0.000	-6.41928	60.00000	Averaged
23 2-Nitrophenol	0.13523	0.12959	0.12959	0.001	-4.17480	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.24166	0.23467	0.23467	0.000	-2.89181	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29940	0.26566	0.26566	0.000	-11.27026	60.00000	Averaged
26 2,4-Dichlorophenol	0.20163	0.19859	0.19859	0.001	-1.50805	20.00000	Averaged ccc
27 Benzoic acid	0.13123	0.07208	0.07208	0.000	-45.06896	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24663	0.23238	0.23238	0.000	-5.77791	60.00000	Averaged
30 Naphthalene	0.80225	0.74011	0.74011	0.000	-7.74593	60.00000	Averaged
204 alpha-Terpineol	0.22672	0.21216	0.21216	0.000	-6.42217	60.00000	Averaged
31 4-Chloroaniline	0.35963	0.33516	0.33516	0.000	-6.80508	60.00000	Averaged
32 Hexachlorobutadiene	0.13897	0.13327	0.13327	0.001	-4.10596	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21040	0.21194	0.21194	0.001	0.73346	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.50932	0.49139	0.49139	0.000	-3.52026	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 30-MAR-2010 11:16
Lab File ID: s1c3005.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100309-09.2 Quant Type: ISTD
Method: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.50016	0.46830	0.46830	0.000	-6.37005	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.25303	0.17084	0.17084	0.050	-32.48160	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.52418	0.48627	0.48627	0.000	-7.23233	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.29721	0.28356	0.28356	0.001	-4.59073	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.31820	0.31532	0.31532	0.000	-0.90288	60.00000	Averaged	
40	2-Chloronaphthalene	0.95817	0.89409	0.89409	0.000	-6.68755	60.00000	Averaged	
42	o-Nitroaniline	0.27488	0.26244	0.26244	0.000	-4.52562	60.00000	Averaged	
41	m-Nitroaniline	33.55082	40.00000	0.17395	0.000	-16.12296	60.00000	Linear	
43	Dimethylphthalate	1.11352	1.03703	1.03703	0.000	-6.86931	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.25852	0.23494	0.23494	0.000	-9.12072	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.32209	0.30002	0.30002	0.000	-6.85241	60.00000	Averaged	
45	Acenaphthylene	1.53720	1.46511	1.46511	0.000	-4.68992	60.00000	Averaged	
47	Acenaphthene	0.97707	0.87885	0.87885	0.001	-10.05216	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	32.32201	40.00000	0.07822	0.050	-19.19498	60.00000	Linear	spcc
49	Dibenzofuran	1.31289	1.25025	1.25025	0.000	-4.77136	60.00000	Averaged	
51	Diethylphthalate	1.11578	1.05401	1.05401	0.000	-5.53622	60.00000	Averaged	
52	4-Nitrophenol	0.18061	0.14624	0.14624	0.050	-19.02686	60.00000	Averaged	spcc
53	Fluorene	1.10069	1.00694	1.00694	0.000	-8.51757	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.53905	0.49709	0.49709	0.000	-7.78420	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	0.09291	0.10309	0.10309	0.000	10.95740	60.00000	Averaged	
56	p-Nitroaniline	30.15847	40.00000	0.13630	0.000	-24.60382	60.00000	Linear	
133	Diphenylamine	0.51080	0.46816	0.46816	0.001	-8.34624	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.58751	0.57195	0.57195	0.000	-2.64886	60.00000	Averaged	
61	4-Bromophenylphenylether	0.18061	0.15452	0.15452	0.000	-14.44514	60.00000	Averaged	
63	Hexachlorobenzene	0.19601	0.16240	0.16240	0.000	-17.14608	60.00000	Averaged	
65	Pentachlorophenol	0.09774	0.08766	0.08766	0.001	-10.31326	20.00000	Averaged	ccc
206	n-Octadecane	0.45255	0.46938	0.46938	0.000	3.71842	60.00000	Averaged	
68	Phenanthrene	0.86428	0.79557	0.79557	0.000	-7.94976	60.00000	Averaged	
69	Anthracene	0.84875	0.76924	0.76924	0.000	-9.36832	60.00000	Averaged	
72	Di-n-butylphthalate	1.04667	1.01537	1.01537	0.000	-2.98987	60.00000	Averaged	
76	Fluoranthene	0.88826	0.82115	0.82115	0.001	-7.55445	20.00000	Averaged	ccc
79	Pyrene	1.13506	1.05018	1.05018	0.000	-7.47848	60.00000	Averaged	
85	Butylbenzylphthalate	0.48580	0.51292	0.51292	0.000	5.58287	60.00000	Averaged	
89	Benzo(a)anthracene	0.94024	0.88537	0.88537	0.000	-5.83579	60.00000	Averaged	
92	Chrysene	0.87862	0.81172	0.81172	0.000	-7.61510	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.64205	0.69085	0.69085	0.000	7.60015	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 30-MAR-2010 11:16
Lab File ID: s1c3005.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: WATER Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100309-09.2 Quant Type: ISTD
Method: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.31370	1.28823	1.28823	0.001	-1.93928	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.10005	0.89587	0.89587	0.000	-18.56068	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.04802	1.07461	1.07461	0.000	2.53764	60.00000	Averaged	
	97 Benzo(a)pyrene	0.88082	0.80671	0.80671	0.001	-8.41399	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.74890	0.67517	0.67517	0.000	-9.84507	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.61883	0.52587	0.52587	0.000	-15.02086	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.60742	0.55451	0.55451	0.000	-8.71047	60.00000	Averaged	
	126 m-Dinitrobenzene	0.17468	0.15979	0.15979	0.000	-8.52079	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27097	0.23622	0.23622	0.000	-12.82606	60.00000	Averaged	
	143 Dinoseb	37.11070	40.00000	0.12826	0.000	-7.22326	60.00000	Linear	
	173 Carbazole	0.62852	0.59968	0.59968	0.000	-4.58827	60.00000	Averaged	
	184 p-Benzoquinone	0.05416	0.03898	0.03898	0.000	-28.01735	60.00000	Averaged	
	192 Methoxychlor	0.59295	0.61530	0.61530	0.000	3.76890	60.00000	Averaged	
	211 p-Toluidine	1.19774	0.90366	0.90366	0.000	-24.55249	60.00000	Averaged	
	210 m-Toluidine	1.30269	0.95810	0.95810	0.000	-26.45250	60.00000	Averaged	
	26 Phthalic anhydride	45.70096	40.00000	0.07014	0.000	14.25239	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	0.26815	0.16491	0.16491	0.000	-38.50022	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.15277	0.14110	0.14110	0.000	-7.64232	60.00000	Averaged	
	215 2-Ethoxyethanol	0.56020	0.59286	0.59286	0.000	5.83044	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.10873	0.08917	0.08917	0.000	-17.99210	60.00000	Averaged	
M	225 Trichlorophenols	0.30770	0.29944	0.29944	0.000	-2.68392	60.00000	Averaged	
M	226 Tetrachlorophenols	0.27097	0.23622	0.23622	0.000	-12.82606	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	1.07403	0.98524	0.98524	0.000	-8.26704	60.00000	Averaged	

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Data file : /chem/MSD1.i/s033010.b/s1c3005.d
Lab Smp Id: WBN100309-09.2 Client Smp ID: MEGACVS
Inj Date : 30-MAR-2010 11:16
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN100309-09.2|40 PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.487	3.487	(1.000)	424150	40.0000	
* 29 Naphthalene-d8	136	4.339	4.339	(1.000)	1781069	40.0000	
* 46 Acenaphthene-d10	164	5.575	5.575	(1.000)	897037	40.0000	
* 67 Phenanthrene-d10	188	6.586	6.586	(1.000)	1572324	40.0000	
* 91 Chrysene-d12	240	8.157	8.157	(1.000)	1234792	40.0000	
* 98 Perylene-d12	264	9.310	9.310	(1.000)	948754	40.0000	
$ 3 2-Fluorophenol	112	2.704	2.704	(0.776)	412374	40.0000	37.8
$ 5 Phenol-d5	99	3.228	3.228	(0.926)	491659	40.0000	37.0
$ 20 Nitrobenzene-d5	82	3.845	3.845	(0.886)	439159	40.0000	40.2
$ 39 2-Fluorobiphenyl	172	5.075	5.075	(0.910)	962672	40.0000	38.8
$ 60 2,4,6-Tribromophenol	329	6.128	6.128	(1.099)	99350	40.0000	33.8
$ 81 p-Terphenyl-d14	244	7.510	7.510	(0.921)	869056	40.0000	42.2
1 N-Methyl-N-nitrosomethylamine	74	2.040	2.040	(0.585)	220628	40.0000	36.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.069	2.069	(0.593)	273959	40.0000	29.1
4 Aniline	66	3.281	3.281	(0.941)	215528	40.0000	35.9
6 Phenol	94	3.240	3.240	(0.929)	534727	40.0000	37.9
7 bis(2-Chloroethyl) ether	63	3.304	3.304	(0.948)	339940	40.0000	35.2
8 2-Chlorophenol	128	3.357	3.357	(0.963)	468710	40.0000	39.3
203 n-Decane	43	3.351	3.351	(0.961)	644038	40.0000	42.4
9 1,3-Dichlorobenzene	146	3.451	3.451	(0.990)	509482	40.0000	38.3
11 1,4-Dichlorobenzene	146	3.498	3.498	(1.003)	514490	40.0000	38.3
13 1,2-Dichlorobenzene	146	3.598	3.598	(1.032)	482175	40.0000	38.4
14 bis(2-Chloroisopropyl)ether	45	3.640	3.640	(1.044)	807533	40.0000	39.3
12 Benzyl alcohol	108	3.563	3.563	(1.022)	258023	40.0000	41.6
15 o-Cresol	107	3.622	3.622	(1.039)	346822	40.0000	38.4
18 m,p-Cresols	107	3.722	3.722	(1.067)	454978	40.0000	38.8
17 N-Nitrosodipropylamine	70	3.740	3.740	(1.073)	317450	40.0000	42.1
19 Hexachloroethane	117	3.822	3.822	(1.096)	198060	40.0000	38.8
21 Nitrobenzene	77	3.863	3.863	(0.890)	448757	40.0000	38.4
22 Isophorone	82	4.016	4.016	(0.925)	815898	40.0000	37.4
23 2-Nitrophenol	139	4.069	4.069	(0.938)	230805	40.0000	38.3
24 2,4-Dimethylphenol	122	4.075	4.075	(0.939)	417969	40.0000	38.8
25 bis(2-Chloroethoxy)methane	93	4.139	4.139	(0.954)	473160	40.0000	35.5
26 2,4-Dichlorophenol	162	4.234	4.234	(0.976)	353695	40.0000	39.4
27 Benzoic acid	105	4.145	4.145	(0.955)	128386	40.0000	22.0
28 1,2,4-Trichlorobenzene	180	4.292	4.292	(0.989)	413885	40.0000	37.7
30 Naphthalene	128	4.351	4.351	(1.003)	1318182	40.0000	36.9
204 alpha-Terpineol	59	4.339	4.339	(1.000)	377879	40.0000	37.4
31 4-Chloroaniline	127	4.381	4.381	(1.009)	596941	40.0000	37.3
32 Hexachlorobutadiene	225	4.422	4.422	(1.019)	237357	40.0000	38.4
33 4-Chloro-3-methylphenol	107	4.698	4.698	(1.083)	377479	40.0000	40.3
34 2-Methylnaphthalene	142	4.828	4.828	(1.113)	875207	40.0000	38.6
35 1-Methylnaphthalene	142	4.898	4.898	(1.129)	834076	40.0000	37.4
36 Hexachlorocyclopentadiene	237	4.934	4.934	(0.885)	153249	40.0000	27.0
205 2,3-Dichloroaniline	161	5.028	5.028	(0.902)	436199	40.0000	37.1
37 2,4,6-Trichlorophenol	196	5.022	5.022	(0.901)	254368	40.0000	38.2
38 2,4,5-Trichlorophenol	196	5.045	5.045	(0.905)	282858	40.0000	39.6
40 2-Chloronaphthalene	162	5.175	5.175	(0.928)	802030	40.0000	37.3
42 o-Nitroaniline	65	5.245	5.245	(0.941)	235421	40.0000	38.2
41 m-Nitroaniline	138	5.539	5.539	(0.994)	156043	40.0000	33.6
43 Dimethylphthalate	163	5.363	5.363	(0.962)	930250	40.0000	37.2
44 2,6-Dinitrotoluene	165	5.410	5.410	(0.970)	210753	40.0000	36.4
50 2,4-Dinitrotoluene	165	5.698	5.698	(1.022)	269127	40.0000	37.2
45 Acenaphthylene	152	5.475	5.475	(0.982)	1314257	40.0000	38.1
47 Acenaphthene	154	5.598	5.598	(1.004)	788363	40.0000	36.0
48 2,4-Dinitrophenol	184	5.604	5.604	(1.005)	70169	40.0000	32.3(Q)
49 Dibenzofuran	168	5.716	5.716	(1.025)	1121519	40.0000	38.1
51 Diethylphthalate	149	5.851	5.851	(1.050)	945486	40.0000	37.8
52 4-Nitrophenol	139	5.639	5.639	(1.012)	131187	40.0000	32.4
53 Fluorene	166	5.957	5.957	(1.069)	903263	40.0000	36.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	5.945	5.945	(1.066)	445911	40.0000	36.9
55 2-Methyl-4,6-dinitrophenol	198	5.986	5.986	(0.909)	162091	40.0000	44.4
56 p-Nitroaniline	138	5.969	5.969	(1.071)	122263	40.0000	30.2
133 Diphenylamine	169	6.028	6.028	(0.915)	736106	40.0000	36.7
58 1,2-Diphenylhydrazine	77	6.057	6.057	(0.920)	899284	40.0000	38.9
61 4-Bromophenylphenylether	248	6.281	6.281	(0.954)	242951	40.0000	34.2
63 Hexachlorobenzene	284	6.333	6.333	(0.962)	255344	40.0000	33.1
65 Pentachlorophenol	266	6.457	6.457	(0.980)	137836	40.0000	35.9
206 n-Octadecane	57	6.463	6.463	(0.981)	738012	40.0000	41.5
68 Phenanthrene	178	6.604	6.604	(1.003)	1250897	40.0000	36.8
69 Anthracene	178	6.633	6.633	(1.007)	1209493	40.0000	36.2
72 Di-n-butylphthalate	149	6.904	6.904	(1.048)	1596497	40.0000	38.8
76 Fluoranthene	202	7.316	7.316	(1.111)	1291121	40.0000	37.0
79 Pyrene	202	7.451	7.451	(0.913)	1296752	40.0000	37.0
85 Butylbenzylphthalate	149	7.769	7.769	(0.952)	633353	40.0000	42.2
89 Benzo(a)anthracene	228	8.145	8.145	(0.999)	1093247	40.0000	37.7
92 Chrysene	228	8.175	8.175	(1.002)	1002301	40.0000	37.0
93 bis(2-Ethylhexyl)phthalate	149	8.080	8.080	(0.991)	853054	40.0000	43.0
94 Di-n-octylphthalate	149	8.510	8.510	(0.914)	1222209	40.0000	39.2
95 Benzo(b)fluoranthene	252	8.951	8.951	(0.961)	849963	40.0000	32.6
96 Benzo(k)fluoranthene	252	8.974	8.974	(0.964)	1019545	40.0000	41.0
97 Benzo(a)pyrene	252	9.257	9.257	(0.994)	765366	40.0000	36.6
99 Indeno(1,2,3-cd)pyrene	276	10.551	10.551	(1.133)	640570	40.0000	36.1
100 Dibenzo(a,h)anthracene	278	10.557	10.557	(1.134)	498924	40.0000	34.0
101 Benzo(ghi)perylene	276	10.933	10.933	(1.174)	526093	40.0000	36.5
126 m-Dinitrobenzene	168	5.392	5.392	(0.967)	143340	40.0000	36.6
130 2,3,4,6-Tetrachlorophenol	232	5.798	5.798	(1.040)	211894	40.0000	34.9
143 Dinoseb	211	6.557	6.557	(0.996)	201662	40.0000	37.1
173 Carbazole	167	6.728	6.728	(1.021)	942892	40.0000	38.2
184 p-Benzoquinone	54	2.993	2.993	(0.858)	16535	40.0000	28.8
192 Methoxychlor	227	8.057	8.057	(0.988)	759770	40.0000	41.5
211 p-Toluidine	106	3.769	3.769	(1.081)	383289	40.0000	30.2
210 m-Toluidine	106	3.792	3.792	(1.088)	406377	40.0000	29.4
26 Phthalic anhydride	104	4.869	4.869	(1.122)	124926	40.0000	45.7
179 Dibenzo(a,e)pyrene	302	13.839	13.839	(1.486)	156458	40.0000	24.6
214 1,4-Dinitrobenzene	168	5.339	5.339	(0.958)	126570	40.0000	36.9
215 2-Ethoxyethanol	59	1.893	1.893	(0.543)	251463	40.0000	42.3
216 Methylenebis(2-chloroaniline)	231	8.104	8.104	(0.994)	110102	40.0000	32.8
M 225 Trichlorophenols	196				537226	80.0000	77.8
M 226 Tetrachlorophenols	232				211894	40.0000	34.9
M 227 Benzo(b,k)fluoranthene	252				1869508	80.0000	73.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s033010.b/s1c3005.d
Date : 30-MAR-2010 11:16
Client ID: MEGACVS
Sample Info: IWBN100309-09,2140 PPM1I1SVHF1I1MEGACVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AHY
Column diameter: 0.20

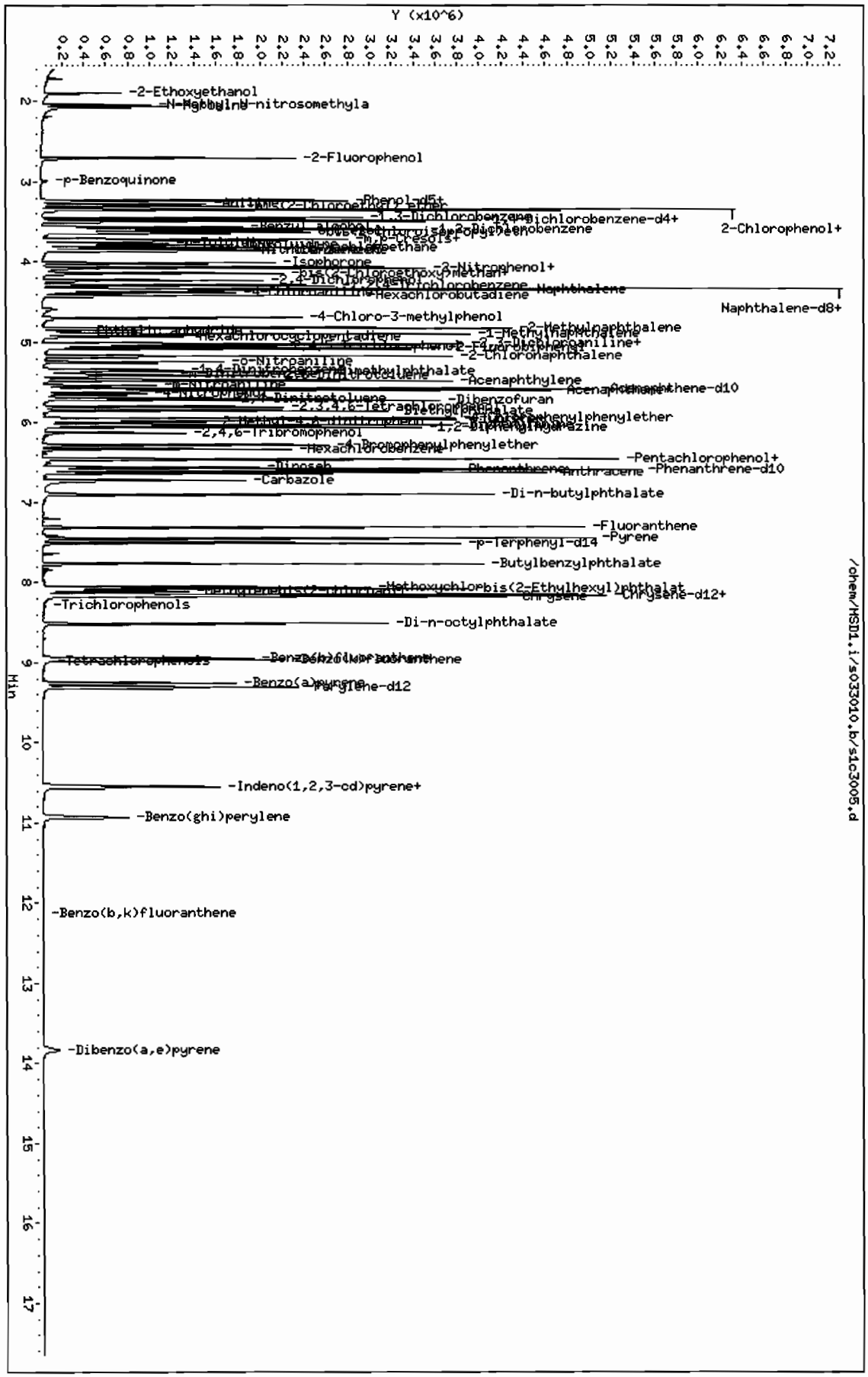

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 30-MAR-2010 11:52
Lab File ID: s1c3006.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100312-08.3 Quant Type: ISTD
Method: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.85292	0.71798	0.71798	0.000	-15.82061	60.00000	Averaged
16 Acetophenone	1.17153	1.15425	1.15425	0.000	-1.47489	60.00000	Averaged
189 Caprolactam	0.06713	0.07688	0.07688	0.000	14.51995	60.00000	Averaged
208 1,1'-Biphenyl	1.20731	1.25334	1.25334	0.000	3.81266	60.00000	Averaged
207 Atrazine	0.04270	0.04473	0.04473	0.000	4.75158	60.00000	Averaged
77 Benzidine	0.35698	0.33498	0.33498	0.000	-6.16032	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.29661	0.25464	0.25464	0.000	-14.14975	60.00000	Averaged
102 1,4-Dioxane	0.33011	0.40835	0.40835	0.000	23.70058	60.00000	Averaged
103 Methyl methacrylate	0.19011	0.23530	0.23530	0.000	23.77434	60.00000	Averaged
104 Ethyl methacrylate	0.72578	0.88781	0.88781	0.000	22.32455	60.00000	Averaged
105 2-Picoline	1.17224	1.12078	1.12078	0.000	-4.38920	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44761	0.43186	0.43186	0.000	-3.51788	60.00000	Averaged
107 Methyl methanesulfonate	0.43845	0.48594	0.48594	0.000	10.83192	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49906	0.45895	0.45895	0.000	-8.03690	60.00000	Averaged
109 Ethyl Methanesulfonate	0.59722	0.72418	0.72418	0.000	21.25685	60.00000	Averaged
110 Pentachloroethane	0.31358	0.42752	0.42752	0.000	36.33573	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.48048	0.48580	0.48580	0.000	1.10900	60.00000	Averaged
113 N-Nitrosomorpholine	0.61907	0.67830	0.67830	0.000	9.56807	60.00000	Averaged
114 o-Toluidine	1.65123	1.58480	1.58480	0.000	-4.02305	60.00000	Averaged
115 N-Nitrosopiperidine	0.12608	0.12502	0.12502	0.000	-0.84443	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.75396	0.71514	0.71514	0.000	-5.14816	60.00000	Averaged
118 2,6-Dichlorophenol	0.19593	0.20753	0.20753	0.000	5.92045	60.00000	Averaged
119 Hexachloropropene	0.10838	0.16853	0.16853	0.000	55.49696	60.00000	Averaged
120 p-Phenylenediamine	0.24548	0.24020	0.24020	0.000	-2.15027	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.17777	0.18699	0.18699	0.000	5.18921	60.00000	Averaged
122 Safrole	0.18440	0.21344	0.21344	0.000	15.74421	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.45282	0.48310	0.48310	0.000	6.68690	60.00000	Averaged
124 Isosafrole	0.33289	0.43810	0.43810	0.000	31.60439	60.00000	Averaged
125 1,4-Naphthoquinone	0.31050	0.33231	0.33231	0.000	7.02272	60.00000	Averaged
127 Pentachlorobenzene	0.40506	0.39840	0.39840	0.000	-1.64496	60.00000	Averaged
128 1-Naphthylamine	0.91492	0.88998	0.88998	0.000	-2.72585	60.00000	Averaged
129 2-Naphthylamine	0.95136	0.94086	0.94086	0.000	-1.10302	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27755	0.25961	0.25961	0.000	-6.46458	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.10955	0.15689	0.15689	0.000	43.22219	60.00000	Averaged
137 Phenacetin	0.24931	0.24554	0.24554	0.000	-1.51200	60.00000	Averaged
138 Diallate	0.22908	0.21874	0.21874	0.000	-4.51577	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 30-MAR-2010 11:52
Lab File ID: s1c3006.d Init. Cal. Date(s): 15-MAR-2010 17-MAR-2010
Analysis Type: Init. Cal. Times: 17:03 02:37
Lab Sample ID: WBN100312-08.3 Quant Type: ISTD
Method: /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.22400	0.28107	0.28107	0.000	25.47792	60.00000	Averaged
213 Trans Diallate	0.26951	0.25734	0.25734	0.000	-4.51577	60.00000	Averaged
140 4-Aminobiphenyl	0.54917	0.50240	0.50240	0.000	-8.51602	60.00000	Averaged
141 Pentachloronitrobenzene	0.06390	0.06662	0.06662	0.000	4.26133	60.00000	Averaged
142 Pronamide	0.25643	0.27940	0.27940	0.000	8.95468	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01899	0.02167	0.02167	0.000	14.08548	60.00000	Averaged
147 Methapyrilene	0.43198	0.39074	0.39074	0.000	-9.54621	60.00000	Averaged
148 Isodrin	0.09769	0.09285	0.09285	0.000	-4.94997	60.00000	Averaged
149 Aramite	0.03937	0.03787	0.03787	0.000	-3.81381	60.00000	Averaged
150 Kepone	0.06795	0.06709	0.06709	0.000	-1.26668	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.27269	0.28578	0.28578	0.000	4.80118	60.00000	Averaged
152 Chlorobenzilate	0.28668	0.29786	0.29786	0.000	3.90074	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.51675	0.50014	0.50014	0.000	-3.21485	60.00000	Averaged
155 2-Acetylaminofluorene	0.30754	0.23952	0.23952	0.000	-22.11607	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.49490	0.45575	0.45575	0.000	-7.91167	60.00000	Averaged
158 3-Methylcholanthrene	0.39716	0.39674	0.39674	0.000	-0.10618	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3006.d
Lab Smp Id: WBN100312-08.3 Client Smp ID: APCVS
Inj Date : 30-MAR-2010 11:52
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN100312-08.3|40 PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 15:07 11o00884 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: hpclpl

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.487	3.487	(1.000)	473646	40.0000	
* 29 Naphthalene-d8	136	4.334	4.334	(1.000)	1822094	40.0000	
* 46 Acenaphthene-d10	164	5.569	5.569	(1.000)	984135	40.0000	
* 67 Phenanthrene-d10	188	6.586	6.586	(1.000)	1741405	40.0000	
* 91 Chrysene-d12	240	8.157	8.157	(1.000)	1382608	40.0000	
* 98 Perylene-d12	264	9.310	9.310	(1.000)	1009720	40.0000	
209 Benzaldehyde	77	3.222	3.222	(0.924)	340068	40.0000	33.7
16 Acetophenone	105	3.740	3.740	(1.073)	546705	40.0000	39.4
189 Caprolactam	113	4.628	4.628	(1.068)	140081	40.0000	45.8
208 1,1'-Biphenyl	154	5.157	5.157	(0.926)	1233457	40.0000	41.5
207 Atrazine	173	6.375	6.375	(0.968)	77887	40.0000	41.9
77 Benzidine	184	7.380	7.380	(0.905)	463152	40.0000	37.5
90 3,3'-Dichlorobenzidine	252	8.110	8.110	(0.994)	352065	40.0000	34.3
102 1,4-Dioxane	88	1.898	1.898	(0.544)	193412	40.0000	49.5
103 Methyl methacrylate	100	1.893	1.893	(0.543)	111450	40.0000	49.5
104 Ethyl methacrylate	69	2.240	2.240	(0.642)	420506	40.0000	48.9
105 2-Picoline	93	2.422	2.422	(0.695)	530855	40.0000	38.2
106 N-Nitrosomethylethylamine	88	2.469	2.469	(0.708)	204549	40.0000	38.6
107 Methyl methanesulfonate	80	2.622	2.622	(0.752)	230163	40.0000	44.3
108 N-Nitrosodiethylamine	102	2.840	2.840	(0.814)	217379	40.0000	36.8
109 Ethyl Methanesulfonate	79	2.998	2.998	(0.860)	343003	40.0000	48.5
110 Pentachloroethane	167	3.310	3.310	(0.949)	202494	40.0000	54.5(H)
111 N-Nitrosopyrrolidine	100	3.734	3.734	(1.071)	230099	40.0000	40.4(Q)
113 N-Nitrosomorpholine	56	3.751	3.751	(1.076)	321275	40.0000	43.8
114 o-Toluidine	106	3.763	3.763	(1.079)	750635	40.0000	38.4
115 N-Nitrosopiperidine	114	3.957	3.957	(0.913)	227795	40.0000	39.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.198	4.198	(0.969)	1303057	40.0000	37.9
118 2,6-Dichlorophenol	162	4.387	4.387	(1.012)	378136	40.0000	42.4
119 Hexachloropropene	213	4.404	4.404	(1.016)	307082	40.0000	62.2
120 p-Phenylenediamine	108	4.628	4.628	(1.068)	437666	40.0000	39.1
121 N-Nitrosodi-n-butylamine	84	4.592	4.592	(1.060)	340718	40.0000	42.1(QH)
122 Safrole	162	4.751	4.751	(1.096)	388904	40.0000	46.3
123 1,2,4,5-Tetrachlorobenzene	216	4.945	4.945	(0.888)	475432	40.0000	42.7
124 Isosafrole	162	5.122	5.122	(0.920)	431150	40.0000	52.6
125 1,4-Naphthoquinone	158	5.298	5.298	(0.951)	327036	40.0000	42.8
127 Pentachlorobenzene	250	5.686	5.686	(1.021)	392075	40.0000	39.3
128 1-Naphthylamine	143	5.775	5.775	(1.037)	875860	40.0000	38.9
129 2-Naphthylamine	143	5.828	5.828	(1.046)	925935	40.0000	39.6
131 5-Nitro-o-toluidine	152	5.963	5.963	(1.071)	255488	40.0000	37.4
136 1,3,5-Trinitrobenzene	75	6.198	6.198	(0.941)	273217	40.0000	57.3
137 Phenacetin	108	6.233	6.233	(0.946)	427581	40.0000	39.4(Q)
138 Diallate	86	6.210	6.210	(0.943)	380914	40.0000	38.2
212 Cis Diallate	86	6.275	6.275	(0.953)	73419	6.00000	7.5
213 Trans Diallate	86	6.210	6.210	(0.943)	380914	34.0000	32.5
140 4-Aminobiphenyl	169	6.457	6.457	(0.980)	874884	40.0000	36.6
141 Pentachloronitrobenzene	237	6.463	6.463	(0.981)	116014	40.0000	41.7(Q)
142 Pronamide	173	6.475	6.475	(0.983)	486544	40.0000	43.6
146 4-Nitroquinoline-1-oxide	101	7.069	7.069	(1.073)	37735	40.0000	45.6
147 Methapyrilene	58	7.086	7.086	(1.076)	680441	40.0000	36.2
148 Isodrin	193	7.228	7.228	(1.097)	161693	40.0000	38.0
149 Aramite	185	7.480	7.480	(1.136)	65946	40.0000	38.5
150 Kepone	272	7.839	7.839	(1.190)	116823	40.0000	39.5
151 p-(Dimethylamino)azobenzene	120	7.592	7.592	(0.931)	395121	40.0000	41.9
152 Chlorobenzilate	251	7.610	7.610	(0.933)	411823	40.0000	41.6
153 3,3'-Dimethylbenzidine	212	7.780	7.780	(0.954)	691498	40.0000	38.7
155 2-Acetylaminofluorene	181	7.933	7.933	(0.973)	331165	40.0000	31.2
157 7,12Dimethylbenz(a)anthracene	256	8.927	8.927	(0.959)	460179	40.0000	36.8
158 3-Methylcholanthrene	268	9.586	9.586	(1.030)	400596	40.0000	40.0(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s033010.b/s1c3006.d
Date : 30-MAR-2010 11:52
Client ID: APCVS
Sample Info: IWBN100312-08,3140 PPM11SVHF11APCVS
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

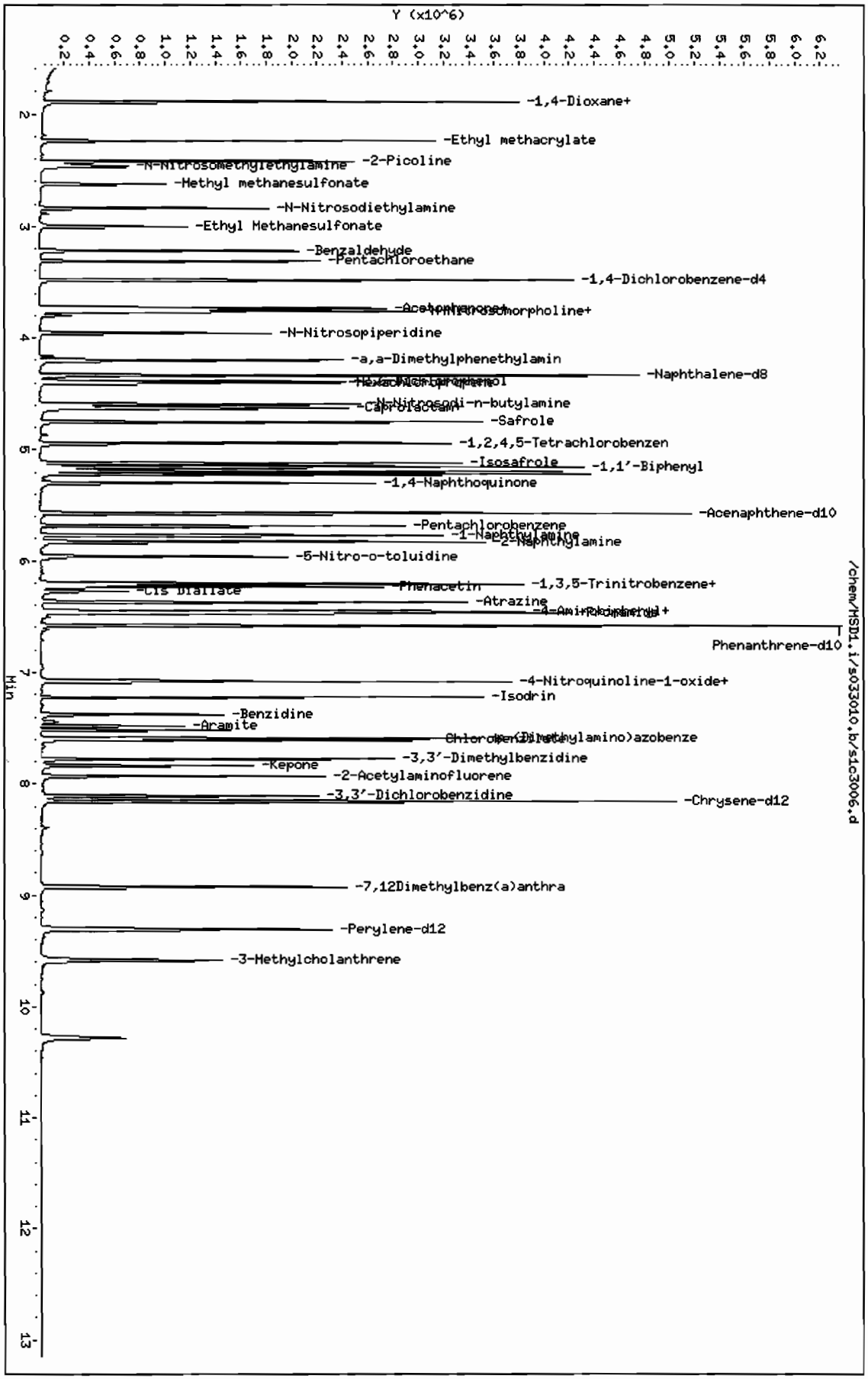

QC Data

Data File: /chem/MSD1.i/s031510a.b/s1c1513.d

Page 1

Date : 15-MAR-2010 16:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

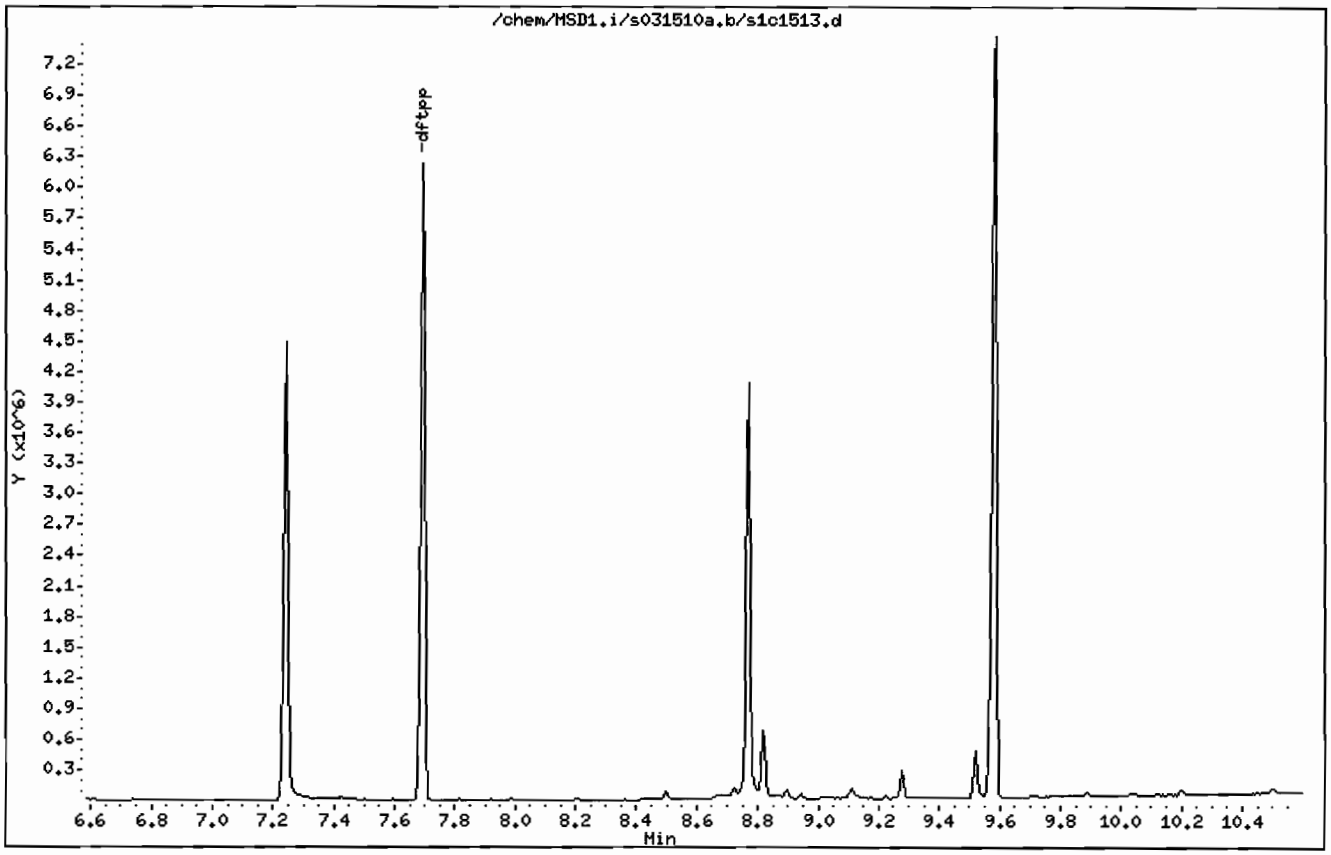

Data File: /chem/MSD1.i/s031510a.b/s1c1513.d

Date : 15-MAR-2010 16:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01,2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

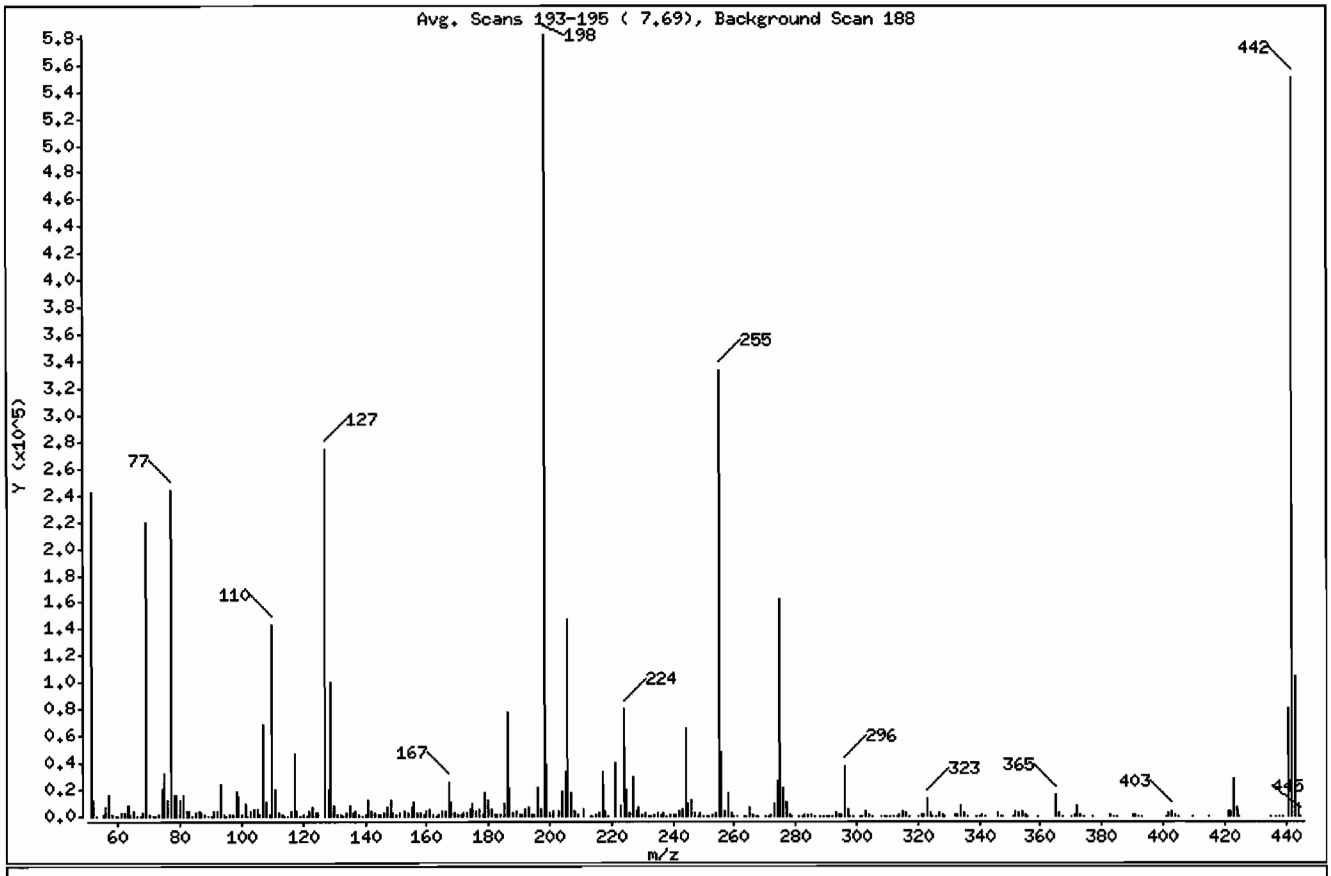

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.53
68	Less than 2.00% of mass 69	0.51 (1.35)
69	Mass 69 relative abundance	37.65
70	Less than 2.00% of mass 69	0.19 (0.50)
127	40.00 - 60.00% of mass 198	47.13
197	Less than 1.00% of mass 198	0.87
199	5.00 - 9.00% of mass 198	6.62
275	10.00 - 30.00% of mass 198	27.82
365	Greater than 1.00% of mass 198	2.87
441	Present, but less than mass 443	13.73
442	Greater than 40.00% of mass 198	94.43
443	17.00 - 23.00% of mass 442	18.01 (19.07)

Data File: /chem/MSD1.i/s031510a.b/s1c1513.d

Date : 15-MAR-2010 16:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01,2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c1513.d
Spectrum: Avg. Scans 193-195 (7.69), Background Scan 188
Location of Maximum: 198.00
Number of points: 318

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	241856	133.00	233	217.00	33440	304.00	1315
52.00	11973	134.00	2979	218.00	4340	305.00	229
53.00	550	135.00	7765	219.00	552	308.00	622
55.00	1434	136.00	3066	221.00	40216	309.00	430
56.00	7062	137.00	4020	223.00	8568	310.00	399
57.00	15923	138.00	768	224.00	79800	311.00	61
58.00	764	139.00	640	225.00	20032	312.00	64
59.00	319	140.00	1357	226.00	2076	313.00	424
60.00	272	141.00	12558	227.00	29024	314.00	1973
61.00	2874	142.00	4154	228.00	4167	315.00	3997
62.00	3241	143.00	2743	229.00	6393	316.00	2374
63.00	8658	144.00	712	230.00	992	317.00	382
64.00	1210	145.00	768	231.00	2774	320.00	195
65.00	4250	146.00	2531	232.00	580	321.00	1265
66.00	387	147.00	6077	233.00	575	322.00	771
67.00	409	148.00	12137	234.00	1864	323.00	13849
68.00	2960	149.00	2536	235.00	2265	324.00	2561
69.00	219264	150.00	832	236.00	1470	325.00	289
70.00	1093	151.00	2872	237.00	2709	326.00	323
71.00	133	153.00	3854	238.00	449	327.00	2325
72.00	179	154.00	3086	239.00	1254	328.00	1194
73.00	1688	155.00	6466	240.00	914	329.00	236
74.00	20248	156.00	10263	241.00	1755	332.00	829
75.00	32520	157.00	2602	242.00	4114	333.00	1241
76.00	11845	158.00	2440	243.00	4729	334.00	8459
77.00	243136	159.00	1768	244.00	66136	335.00	2502
78.00	16271	160.00	3741	245.00	8903	336.00	280
79.00	15405	161.00	5825	246.00	11386	339.00	198
80.00	11726	162.00	1644	247.00	2217	340.00	170
81.00	15993	163.00	523	248.00	520	341.00	1444
82.00	3893	164.00	805	249.00	2394	342.00	479
83.00	3871	165.00	4606	250.00	445	346.00	2761
84.00	493	166.00	3872	251.00	626	347.00	538
85.00	2923	167.00	24776	252.00	581	348.00	51
86.00	4314	168.00	11154	253.00	1303	351.00	197

Data File: /chem/MSD1.i/s031510a.b/s1c1513.d

Date : 15-MAR-2010 16:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c1513.d
Spectrum: Avg. Scans 193-195 (7.69), Background Scan 188
Location of Maximum: 198.00
Number of points: 318

m/z	Y	m/z	Y	m/z	Y	m/z	Y
87.00	2188	169.00	2168	254.00	2657	352.00	3844
88.00	813	170.00	995	255.00	333376	353.00	2892
89.00	436	171.00	1257	256.00	48232	354.00	4664
90.00	120	172.00	2258	257.00	3755	355.00	903
91.00	3924	173.00	2862	258.00	16736	356.00	63
92.00	4234	174.00	5478	259.00	2653	359.00	420
93.00	23712	175.00	9699	260.00	525	365.00	16680
94.00	1838	176.00	3662	261.00	587	366.00	2565
95.00	558	177.00	5122	263.00	193	367.00	153
96.00	1017	178.00	1461	264.00	610	370.00	387
97.00	719	179.00	18056	265.00	6158	371.00	1044
98.00	18368	180.00	12432	266.00	1260	372.00	7396
99.00	14347	181.00	5882	267.00	85	373.00	1784
100.00	1400	182.00	1044	268.00	175	374.00	207
101.00	9027	183.00	874	270.00	318	377.00	138
102.00	579	184.00	1418	271.00	587	383.00	1767
103.00	3545	185.00	9135	272.00	849	384.00	549
104.00	5824	186.00	78248	273.00	9829	385.00	71
105.00	5163	187.00	21168	274.00	26920	390.00	1009
106.00	1408	188.00	2310	275.00	161984	391.00	772
107.00	67632	189.00	4285	276.00	20992	392.00	564
108.00	11058	190.00	733	277.00	11136	393.00	53
109.00	813	191.00	1865	278.00	1960	401.00	465
110.00	143296	192.00	5338	279.00	441	402.00	2965
111.00	19696	193.00	6535	281.00	109	403.00	4056
112.00	2414	194.00	1550	282.00	293	404.00	1650
113.00	688	195.00	1175	283.00	1412	405.00	243
114.00	227	196.00	20984	284.00	1001	410.00	158
115.00	194	197.00	5045	285.00	1940	415.00	186
116.00	4126	198.00	582336	286.00	378	421.00	3617
117.00	47152	199.00	38536	288.00	143	422.00	3691
118.00	3544	200.00	2810	289.00	457	423.00	27832
119.00	489	201.00	3621	290.00	408	424.00	6215
120.00	946	203.00	3872	291.00	293	425.00	667
121.00	449	204.00	18384	292.00	459	435.00	50

Data File: /chem/MSD1.i/s031510a.b/s1c1513.d

Date : 15-MAR-2010 16:24

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c1513.d
Spectrum: Avg. Scans 193-195 (7.69), Background Scan 188
Location of Maximum: 198.00
Number of points: 318

m/z	Y	m/z	Y	m/z	Y	m/z	Y
122.00	4605	205.00	32968	293.00	2865	437.00	58
123.00	7129	206.00	147328	294.00	693	438.00	140
124.00	3149	207.00	17968	295.00	842	439.00	571
125.00	3000	208.00	4366	296.00	36816	441.00	79952
127.00	274432	209.00	1412	297.00	5113	442.00	549952
128.00	19888	211.00	5781	298.00	338	443.00	104896
129.00	100192	213.00	385	299.00	59	444.00	9485
130.00	8398	214.00	109	301.00	414	445.00	593
131.00	1681	215.00	1479	302.00	653		
132.00	1065	216.00	2829	303.00	4624		

Data File: /chem/MSD1.i/s032910.b/s1c2902.d

Date : 29-MAR-2010 10:02

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

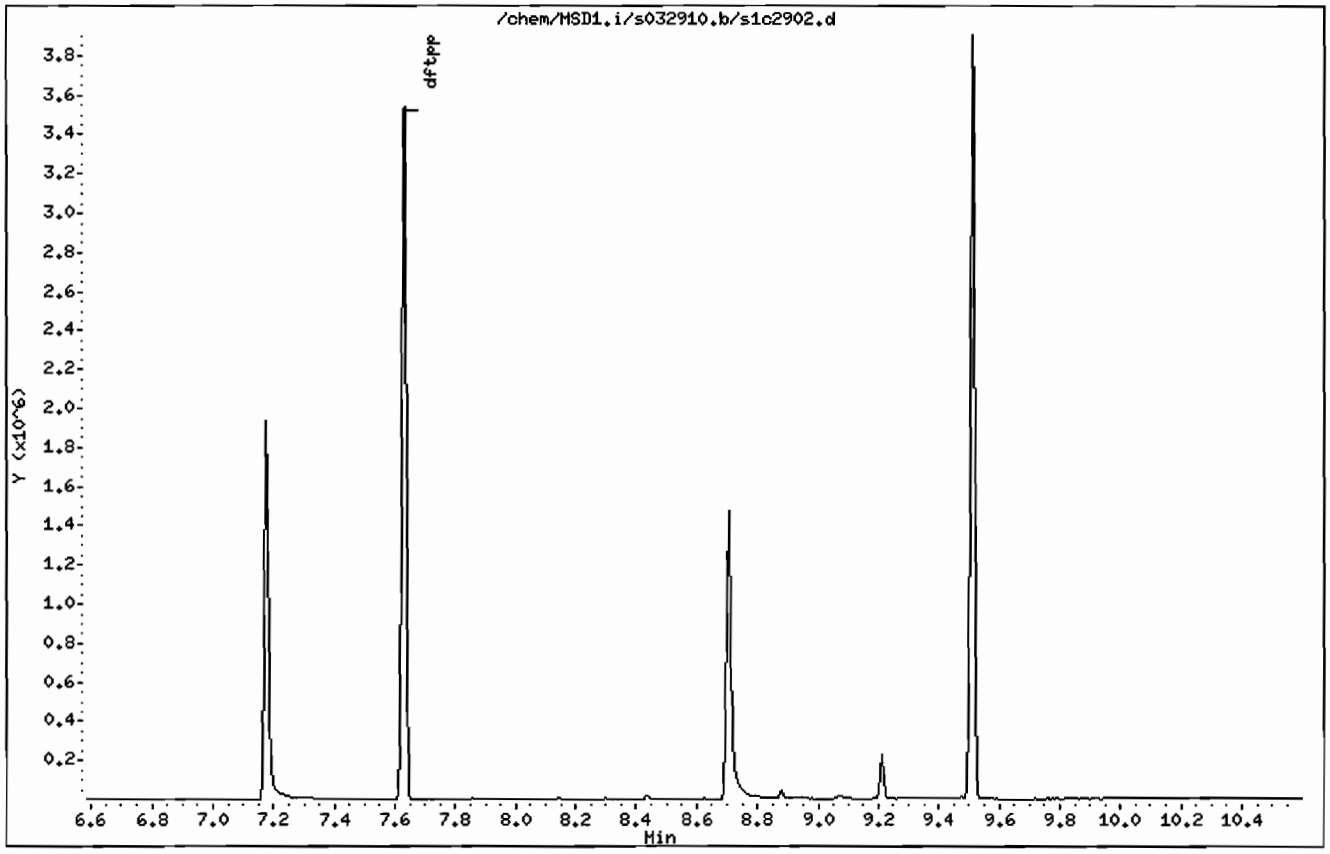

Data File: /chem/MSD1.i/s032910.b/s1c2902.d

Date : 29-MAR-2010 10:02

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN100306-01.2150 PPMI1ISVMFI1IDFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

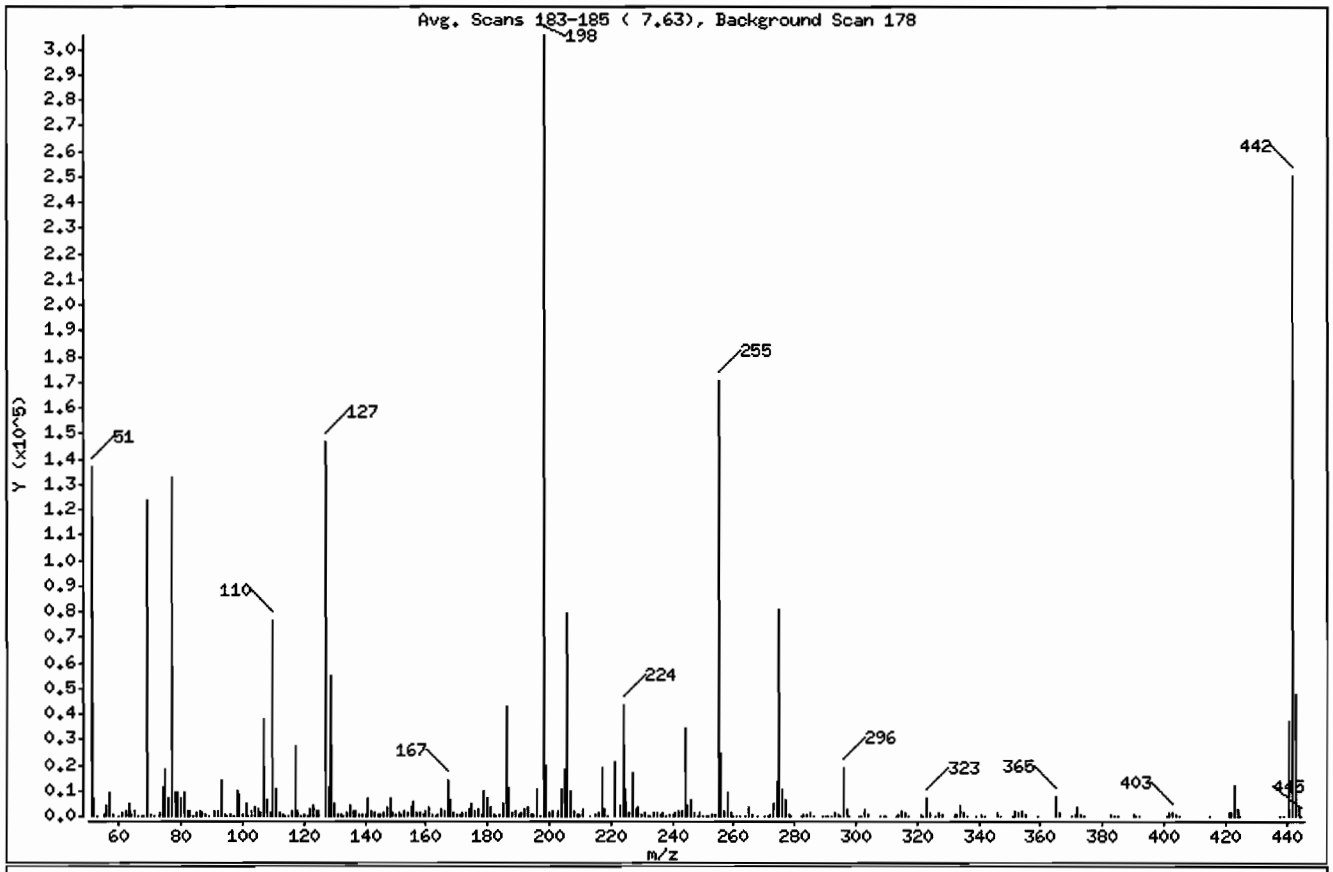

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	44.72
68	Less than 2.00% of mass 69	0.06 (0.16)
69	Mass 69 relative abundance	40.35
70	Less than 2.00% of mass 69	0.19 (0.46)
127	40.00 - 60.00% of mass 198	48.02
197	Less than 1.00% of mass 198	0.04
199	5.00 - 9.00% of mass 198	6.54
275	10.00 - 30.00% of mass 198	26.47
365	Greater than 1.00% of mass 198	2.64
441	Present, but less than mass 443	12.13
442	Greater than 40.00% of mass 198	81.96
443	17.00 - 23.00% of mass 442	15.65 (19.10)

Data File: /chem/MSD1.i/s032910.b/s1c2902.d

Date : 29-MAR-2010 10:02

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01,2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c2902.d
Spectrum: Avg. Scans 183-185 (7.63), Background Scan 178
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	136512	131.00	904	207.00	10091	293.00	1446
52.00	6799	132.00	466	208.00	2442	294.00	384
53.00	337	133.00	343	209.00	900	295.00	334
55.00	887	134.00	1530	210.00	757	296.00	18880
56.00	3960	135.00	4154	211.00	3067	297.00	2811
57.00	9162	136.00	1799	213.00	240	298.00	186
58.00	404	137.00	2053	215.00	821	301.00	254
60.00	203	138.00	439	216.00	1527	302.00	273
61.00	1537	139.00	358	217.00	18632	303.00	2474
62.00	1829	140.00	599	218.00	2610	304.00	681
63.00	4816	141.00	6720	219.00	221	308.00	294
64.00	695	142.00	2213	221.00	20744	309.00	155
65.00	2315	143.00	1492	223.00	4478	310.00	200
66.00	141	144.00	436	224.00	43480	313.00	143
67.00	125	145.00	390	225.00	10720	314.00	910
68.00	197	146.00	1391	226.00	1224	315.00	2088
69.00	123208	147.00	3552	227.00	16848	316.00	1217
70.00	571	148.00	7137	228.00	2533	317.00	208
71.00	136	149.00	1703	229.00	3396	321.00	717
73.00	1100	150.00	422	230.00	532	322.00	309
74.00	11515	151.00	1092	231.00	1549	323.00	6759
75.00	18240	152.00	608	232.00	349	324.00	1352
76.00	6877	153.00	2226	233.00	286	326.00	65
77.00	132416	154.00	1647	234.00	1084	327.00	1181
78.00	8970	155.00	3694	235.00	1182	328.00	620
79.00	9009	156.00	5789	236.00	752	332.00	431
80.00	6707	157.00	1408	237.00	1628	333.00	661
81.00	8947	158.00	1353	238.00	188	334.00	3987
82.00	2245	159.00	932	239.00	636	335.00	1099
83.00	2213	160.00	2085	240.00	572	336.00	142
84.00	100	161.00	3222	241.00	1054	339.00	53
85.00	1604	162.00	933	242.00	1948	341.00	764
86.00	2389	163.00	214	243.00	2279	342.00	206
87.00	1157	164.00	358	244.00	34216	346.00	1288
88.00	370	165.00	2636	245.00	4363	347.00	177

Date : 29-MAR-2010 10:02

Client ID: DFTPP Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s1c2902.d
Spectrum: Avg. Scans 183-185 (7.63), Background Scan 178
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
89.00	230	166.00	2240	246.00	6556	351.00	121
91.00	2098	167.00	14324	247.00	1283	352.00	1902
92.00	2342	168.00	6172	248.00	264	353.00	1353
93.00	13839	169.00	1301	249.00	1138	354.00	2147
94.00	997	170.00	494	250.00	200	355.00	414
95.00	331	171.00	628	251.00	338	359.00	117
96.00	744	172.00	1192	252.00	254	365.00	8047
97.00	241	173.00	1611	253.00	834	366.00	1232
98.00	10166	174.00	3008	254.00	939	370.00	149
99.00	8545	175.00	5217	255.00	170560	371.00	450
100.00	827	176.00	2030	256.00	24448	372.00	3335
101.00	4996	177.00	2760	257.00	1782	373.00	861
102.00	233	178.00	945	258.00	8961	374.00	70
103.00	2049	179.00	9933	259.00	1397	383.00	874
104.00	3267	180.00	7173	260.00	254	384.00	206
105.00	3022	181.00	3362	261.00	286	385.00	50
106.00	1142	182.00	507	262.00	73	390.00	452
107.00	38144	183.00	226	264.00	267	391.00	336
108.00	6219	184.00	819	265.00	3676	392.00	176
109.00	1754	185.00	4979	266.00	643	401.00	153
110.00	76280	186.00	42744	268.00	251	402.00	1320
111.00	10757	187.00	11446	270.00	202	403.00	1712
112.00	1456	188.00	1226	271.00	338	404.00	592
113.00	358	189.00	2390	272.00	359	405.00	53
114.00	144	190.00	352	273.00	5156	415.00	83
115.00	274	191.00	1149	274.00	13423	421.00	1585
116.00	2356	192.00	2927	275.00	80816	422.00	1623
117.00	27248	193.00	3617	276.00	10819	423.00	12242
118.00	2066	194.00	719	277.00	5998	424.00	2496
119.00	227	195.00	563	278.00	987	425.00	202
120.00	482	196.00	10529	279.00	207	438.00	186
121.00	277	197.00	129	282.00	221	439.00	331
122.00	2746	198.00	305280	283.00	744	441.00	37024
123.00	3951	199.00	19952	284.00	466	442.00	250240
124.00	1854	200.00	1684	285.00	1094	443.00	47792

Data File: /chem/MSD1.i/s032910.b/s1c2902.d

Date : 29-MAR-2010 10:02

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c2902.d
Spectrum: Avg. Scans 183-185 (7.63), Background Scan 178
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
125.00	1827	201.00	2064	286.00	181	444.00	4263
127.00	146560	203.00	1917	289.00	182	445.00	300
128.00	11073	204.00	10570	290.00	199		
129.00	54712	205.00	18288	291.00	56		
130.00	4581	206.00	79024	292.00	239		

Data File: /chem/MSD1.i/s033010.b/s1c3002.d

Date : 30-MAR-2010 09:49

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

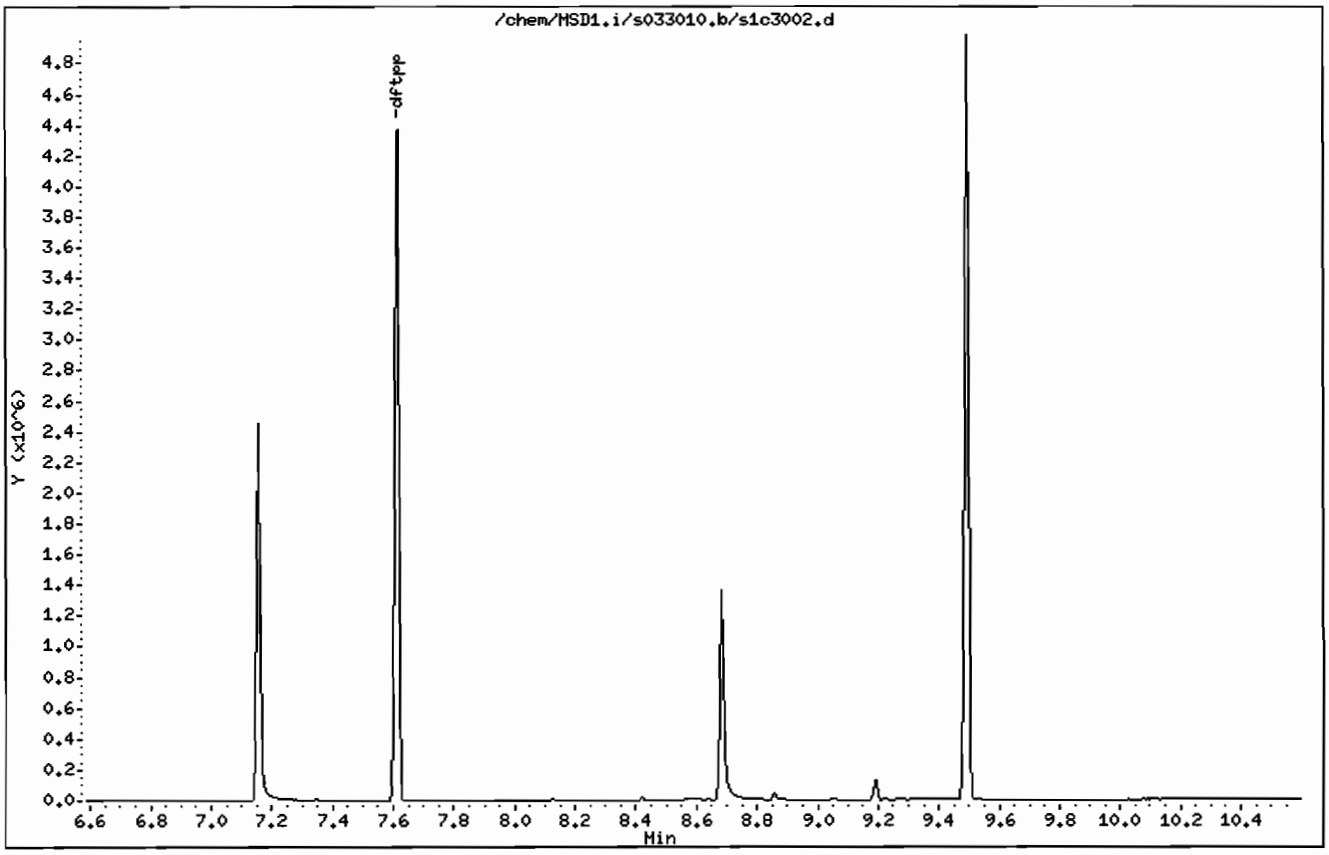

Data File: /chem/MSD1.i/s033010.b/s1c3002.d

Date : 30-MAR-2010 09:49

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

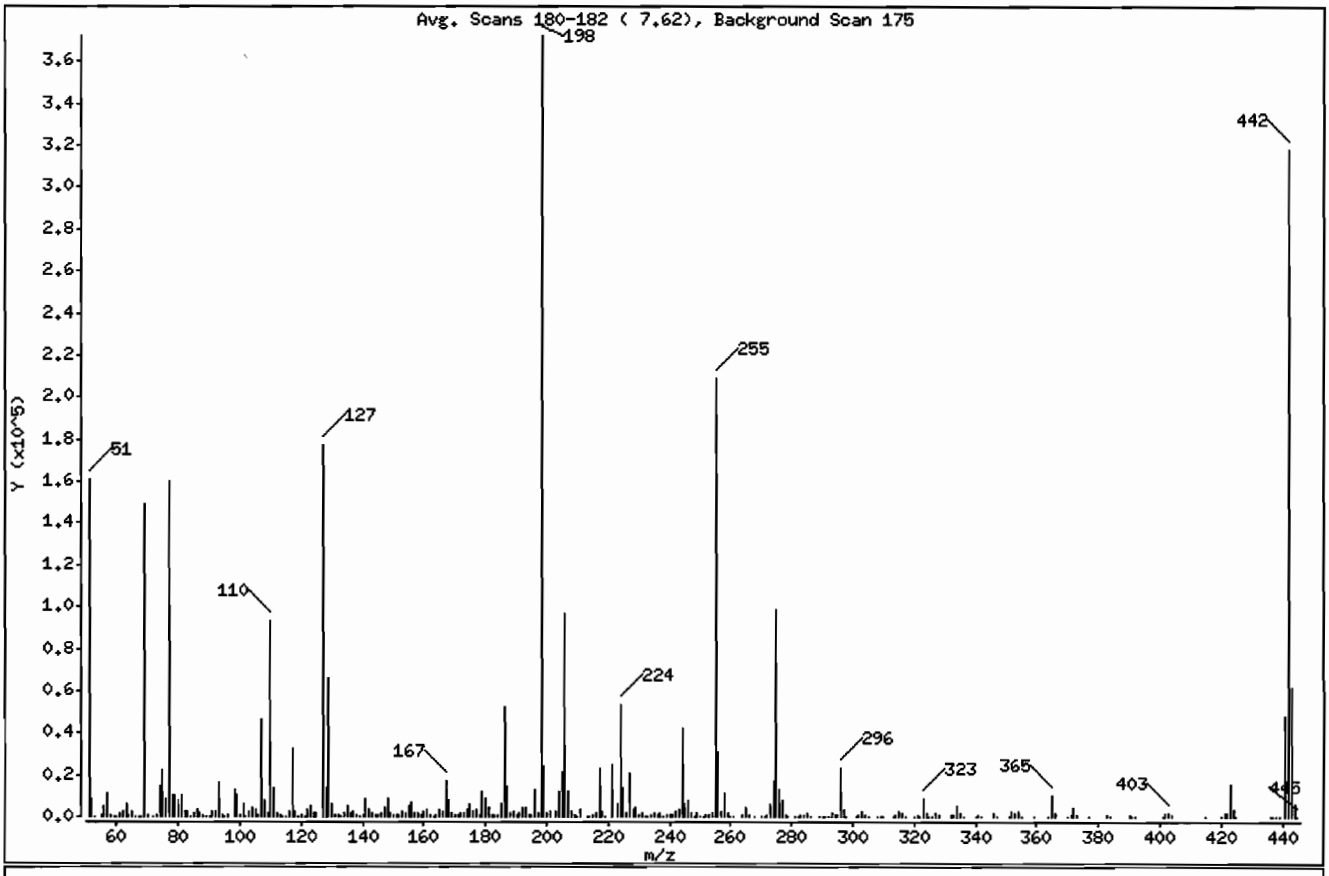

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	43.28
68	Less than 2.00% of mass 69	0.03 (0.08)
69	Mass 69 relative abundance	39.93
70	Less than 2.00% of mass 69	0.18 (0.45)
127	40.00 - 60.00% of mass 198	47.67
197	Less than 1.00% of mass 198	0.43
199	5.00 - 9.00% of mass 198	6.48
275	10.00 - 30.00% of mass 198	26.49
365	Greater than 1.00% of mass 198	2.67
441	Present, but less than mass 443	12.85
442	Greater than 40.00% of mass 198	85.47
443	17.00 - 23.00% of mass 442	16.44 (19.23)

Data File: /chem/MSD1.i/s033010.b/s1c3002.d

Date : 30-MAR-2010 09:49

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c3002.d
Spectrum: Avg. Scans 180-182 (7.62), Background Scan 175
Location of Maximum: 198.00
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	161088	132.00	678	210.00	155	297.00	3357
52.00	8245	133.00	340	211.00	3781	298.00	217
53.00	304	134.00	1965	213.00	278	301.00	284
55.00	1034	135.00	5195	214.00	58	302.00	541
56.00	4848	136.00	2101	215.00	1015	303.00	2725
57.00	10833	137.00	2571	216.00	1869	304.00	899
58.00	466	138.00	881	217.00	23000	305.00	51
59.00	141	139.00	411	218.00	2677	308.00	338
60.00	195	140.00	793	219.00	298	309.00	238
61.00	1811	141.00	8285	221.00	24968	310.00	318
62.00	2153	142.00	3078	223.00	5937	313.00	247
63.00	6027	143.00	1925	224.00	53024	314.00	1079
64.00	835	144.00	431	225.00	13381	315.00	2395
65.00	2988	145.00	445	226.00	1346	316.00	1516
66.00	183	146.00	1524	227.00	20480	317.00	247
67.00	181	147.00	4144	228.00	3101	320.00	128
68.00	122	148.00	8608	229.00	4211	321.00	693
69.00	148672	149.00	1913	230.00	673	322.00	336
70.00	676	150.00	552	231.00	1844	323.00	8232
72.00	50	151.00	1188	232.00	391	324.00	1352
73.00	1198	152.00	832	233.00	417	325.00	121
74.00	14502	153.00	2747	234.00	1240	326.00	169
75.00	22432	154.00	2117	235.00	1647	327.00	1415
76.00	8264	155.00	4955	236.00	1038	328.00	699
77.00	159808	156.00	7054	237.00	1660	332.00	548
78.00	10313	157.00	1797	238.00	243	333.00	833
79.00	10655	158.00	1472	239.00	851	334.00	4819
80.00	7855	159.00	1205	240.00	594	335.00	1370
81.00	10245	160.00	2774	241.00	1206	336.00	142
82.00	2702	161.00	3654	242.00	2620	340.00	76
83.00	2593	162.00	1219	243.00	3051	341.00	956
84.00	300	163.00	267	244.00	42168	342.00	242
85.00	1992	164.00	519	245.00	5868	346.00	1505
86.00	3011	165.00	3065	246.00	7353	347.00	243
87.00	1383	166.00	2541	247.00	1555	351.00	98

Data File: /chem/MSD1.i/s033010.b/s1c3002.d

Date : 30-MAR-2010 09:49

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c3002.d
Spectrum: Avg. Scans 180-182 (7.62), Background Scan 175
Location of Maximum: 198.00
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	444	167.00	16816	248.00	362	352.00	2213
89.00	293	168.00	7723	249.00	1467	353.00	1631
90.00	70	169.00	1384	250.00	288	354.00	2490
91.00	2424	170.00	522	251.00	328	355.00	420
92.00	2897	171.00	752	252.00	497	359.00	125
93.00	16363	172.00	1498	253.00	875	364.00	59
94.00	1076	173.00	2109	254.00	1890	365.00	9955
95.00	288	174.00	3630	255.00	208832	366.00	1375
96.00	836	175.00	6318	256.00	30440	370.00	131
98.00	12475	176.00	2343	257.00	2261	371.00	621
99.00	9859	177.00	3464	258.00	10828	372.00	4168
100.00	906	178.00	1014	259.00	1830	373.00	1067
101.00	5895	179.00	12298	260.00	309	377.00	52
102.00	396	180.00	8285	261.00	275	383.00	1083
103.00	2463	181.00	4073	264.00	470	384.00	254
104.00	3942	182.00	661	265.00	3980	390.00	532
105.00	3647	183.00	551	266.00	771	391.00	372
106.00	809	184.00	992	268.00	68	392.00	387
107.00	46088	185.00	6035	270.00	204	401.00	195
108.00	7356	186.00	52024	271.00	357	402.00	1449
109.00	1900	187.00	14319	272.00	604	403.00	2044
110.00	92984	188.00	1456	273.00	6379	404.00	793
111.00	13314	189.00	2689	274.00	16808	415.00	54
112.00	1681	190.00	581	275.00	98640	420.00	61
113.00	497	191.00	1543	276.00	12828	421.00	2023
114.00	128	192.00	3937	277.00	7510	422.00	2108
115.00	226	193.00	4243	278.00	1272	423.00	15652
116.00	2773	194.00	930	279.00	200	424.00	3177
117.00	32528	195.00	740	281.00	52	425.00	311
118.00	2433	196.00	13027	282.00	234	436.00	69
119.00	317	197.00	1614	283.00	834	437.00	70
120.00	467	198.00	372288	284.00	490	438.00	247
121.00	171	199.00	24120	285.00	1365	439.00	272
122.00	3158	200.00	1913	286.00	195	441.00	47848
123.00	4713	201.00	2204	289.00	235	442.00	318208

Data File: /chem/MSD1.i/s033010.b/s1c3002.d

Date : 30-MAR-2010 09:49

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN100306-01.2|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1c3002.d
Spectrum: Avg. Scans 180-182 (7.62), Background Scan 175
Location of Maximum: 198.00
Number of points: 304

m/z	Y	m/z	Y	m/z	Y	m/z	Y
124.00	2130	203.00	2555	290.00	249	443.00	61200
125.00	2011	204.00	11986	291.00	191	444.00	5590
127.00	177408	205.00	21648	292.00	403	445.00	261
128.00	13488	206.00	97040	293.00	1681		
129.00	66152	207.00	12001	294.00	578		
130.00	5671	208.00	2943	295.00	612		
131.00	1028	209.00	1046	296.00	23160		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074807**				
Client Sample:	**QC for batch 966763**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966763**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 14:58**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2908-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074807**				
Client Sample:	**QC for batch 966763**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 966763**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 14:58**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2908-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.72	519	ug/kg		J
	Unknown Aldol Condensate	2.56	473	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2908-2.d
Lab Smp Id: 1202074807 Client Smp ID: SBLK01
Inj Date : 29-MAR-2010 14:58
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202074807|966766|1|SVM|1|SBLK01
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.499	3.504	(1.000)	392001	40.0000	
* 29 Naphthalene-d8	136	4.351	4.351	(1.000)	1525914	40.0000	
* 46 Acenaphthene-d10	164	5.587	5.592	(1.000)	782209	40.0000	
* 67 Phenanthrene-d10	188	6.598	6.598	(1.000)	1384440	40.0000	
* 91 Chrysene-d12	240	8.169	8.175	(1.000)	1166426	40.0000	
* 98 Perylene-d12	264	9.339	9.339	(1.000)	972235	40.0000	
$ 3 2-Fluorophenol	112	2.728	2.716	(0.780)	760122	75.3033	2510
$ 5 Phenol-d5	99	3.240	3.240	(0.926)	853018	69.3889	2310
$ 20 Nitrobenzene-d5	82	3.857	3.863	(0.886)	386255	41.2714	1380
$ 39 2-Fluorobiphenyl	172	5.093	5.093	(0.912)	829929	38.4178	1280
$ 60 2,4,6-Tribromophenol	329	6.140	6.139	(1.099)	167249	65.2180	2170
$ 81 p-Terphenyl-d14	244	7.528	7.528	(0.922)	853861	43.9085	1460

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2908-2.d
Lab Smp Id: 1202074807 Client Smp ID: SBLK01
Inj Date : 29-MAR-2010 14:58
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202074807|966766|1|SVM|1|SBLK01
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.499	2384903	40.000

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.716	928365	15.5706912	519	0		0	10
Unknown Aldol Condensate				CAS #:			
2.563	846078	14.1905638	473	0		0	10

Data File: /chem/MSD1.i/s032910.b/s1c2908-2.d
Date : 29-MAR-2010 14:58
Client ID: SBLK01
Sample Info: |1202074807|966766|1|SVM|1|SBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

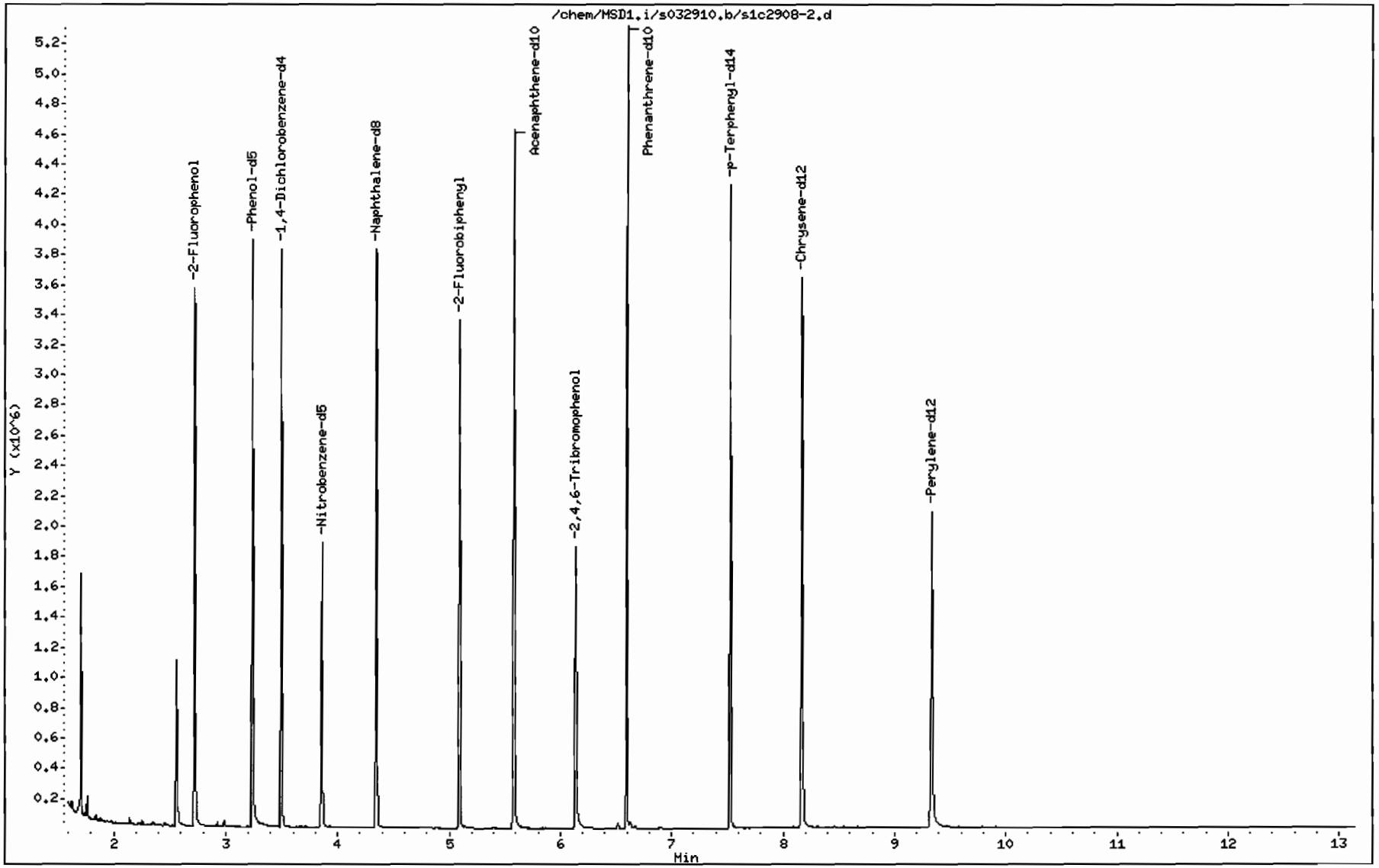

Data File: /chem/MSD1.i/s032910.b/s1c2908-2.d

Date : 29-MAR-2010 14:58

Client ID: SBLK01

Instrument: MSD1.i

Sample Info: |1202074807196676611|SVMI1|SBLK01

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	45	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	33	C5H12O2	104
Propanoic acid, 2-methyl-, propyl ester	644-49-5	NIST05.L	13119	25	C7H14O2	130

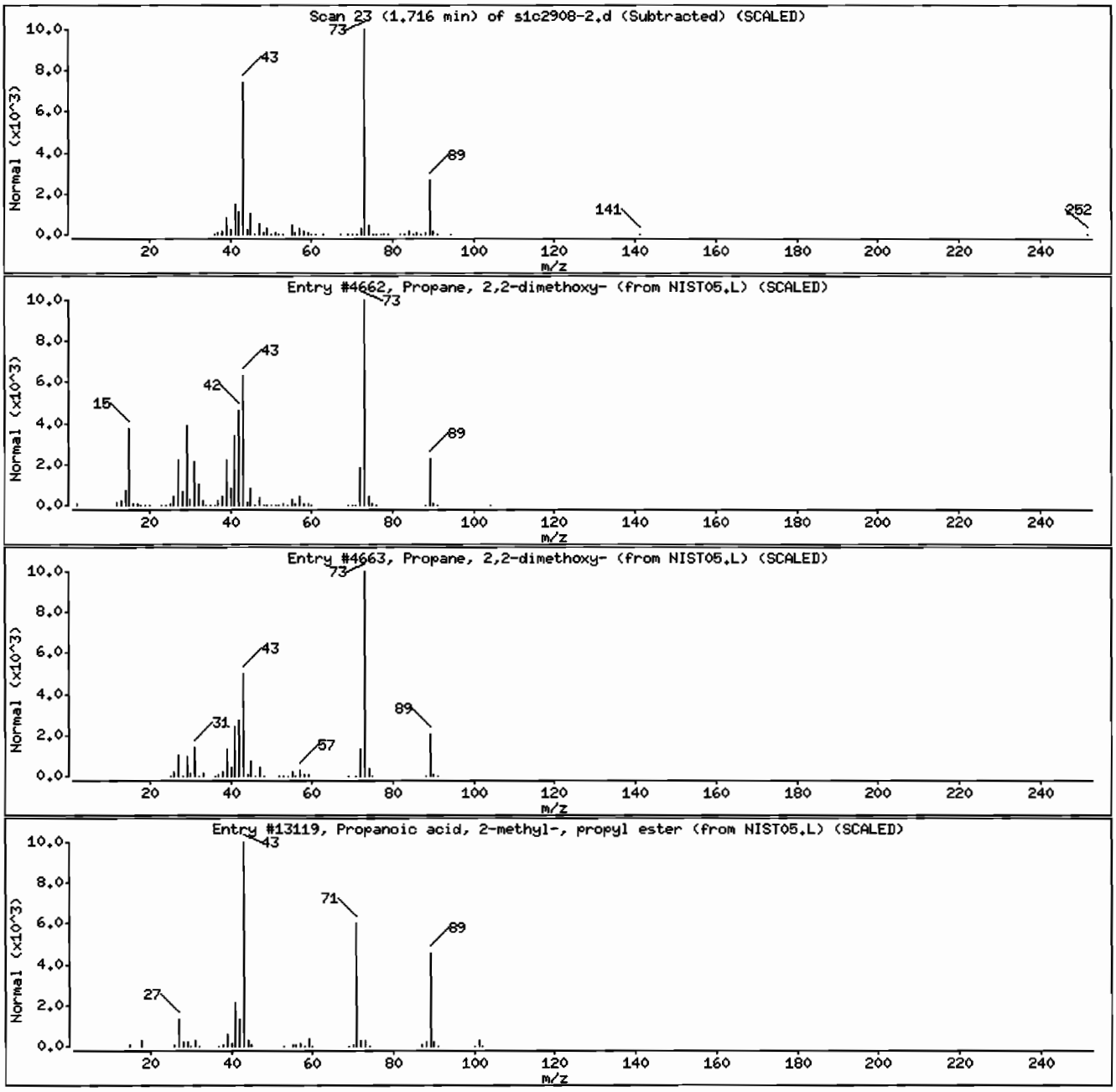

Data File: /chem/MSD1.i/s032910.b/s1c2908-2.d

Date : 29-MAR-2010 14:58

Client ID: SBLK01 Instrument: MSD1.i

Sample Info: |1202074807|966766|1|SVM|1|SBLK01

Volume Injected (uL): 0.5 Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116

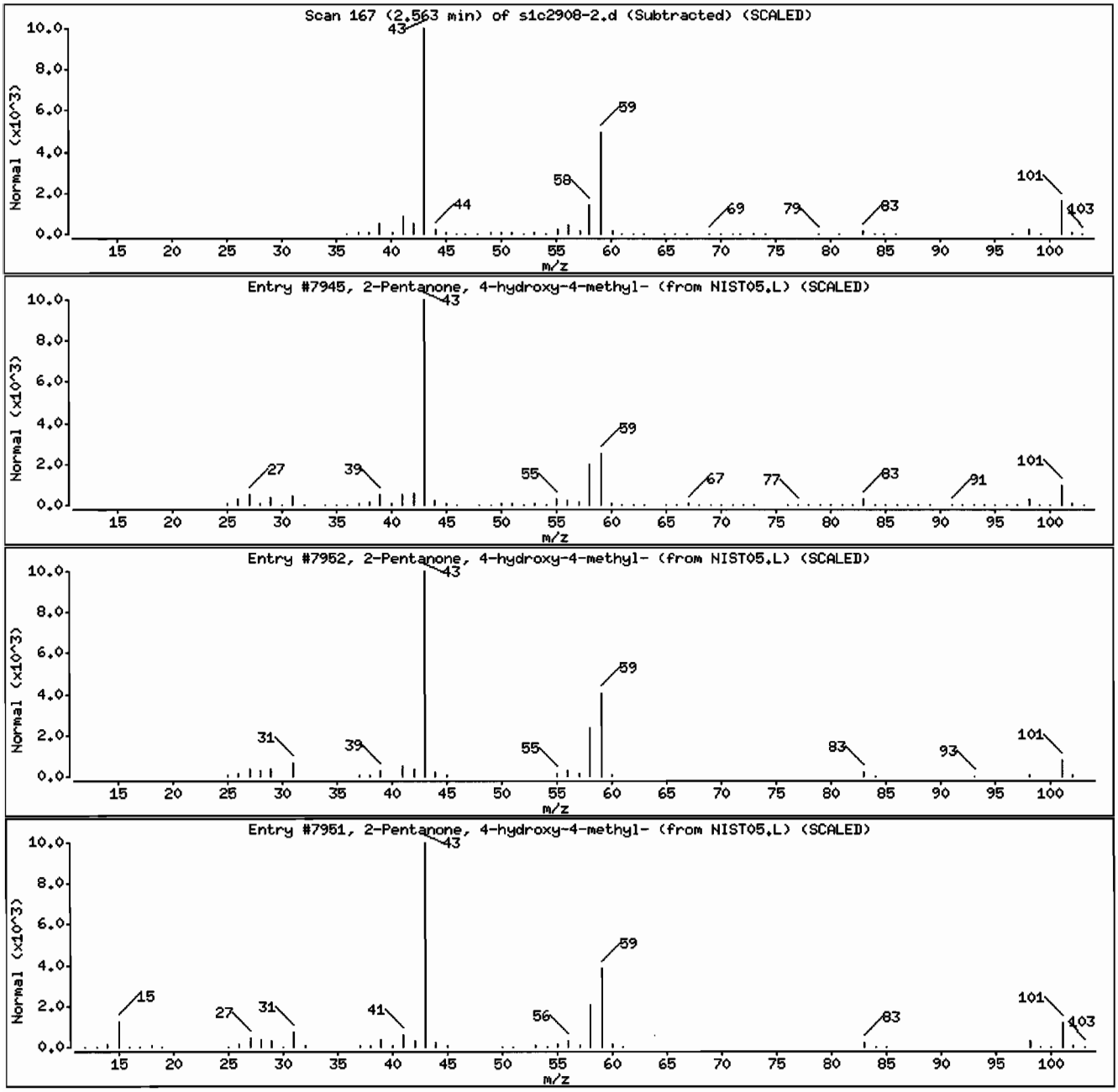

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436			**Matrix:**	SOIL
Lab Sample ID:	1202074808				
Client Sample:	QC for batch 966763	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 966763	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/29/2010 15:22	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	s1c2909-1.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		950	ug/kg	66.7	333
108-95-2	Phenol		1160	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1230	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1040	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1310	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1330	ug/kg	66.7	333
83-32-9	Acenaphthene		1190	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1330	ug/kg	33.3	333
100-02-7	4-Nitrophenol		739	ug/kg	110	333
87-86-5	Pentachlorophenol		1140	ug/kg	83.3	333
129-00-0	Pyrene		1260	ug/kg	10.0	33.3
110-86-1	Pyridine		926	ug/kg	66.7	333
62-53-3	Aniline		1060	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1130	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1040	ug/kg	66.7	333
100-51-6	Benzyl alcohol		852	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1070	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1300	ug/kg	66.7	333
95-48-7	o-Cresol		1160	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1370	ug/kg	100	333
67-72-1	Hexachloroethane		1060	ug/kg	66.7	333
98-95-3	Nitrobenzene		1250	ug/kg	66.7	333
78-59-1	Isophorone		1270	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1190	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1180	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1180	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1260	ug/kg	66.7	333
65-85-0	Benzoic acid		2870	ug/kg	167	667
91-20-3	Naphthalene		1160	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1080	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1130	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1250	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		980	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1130	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1250	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1180	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1300	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1280	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202074808**				
Client Sample:	**QC for batch 966763**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 966763**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/29/2010 15:22**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s1c2909-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1340	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1260	ug/kg	33.3	333
208-96-8	Acenaphthylene		1300	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1170	ug/kg	127	667
132-64-9	Dibenzofuran		1280	ug/kg	66.7	333
84-66-2	Diethylphthalate		1390	ug/kg	66.7	333
86-73-7	Fluorene		1270	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1320	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1320	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1430	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1280	ug/kg	66.7	333
122-66-7	Azobenzene		1450	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1190	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1080	ug/kg	66.7	333
85-01-8	Phenanthrene		1260	ug/kg	10.0	33.3
120-12-7	Anthracene		1280	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1460	ug/kg	66.7	333
206-44-0	Fluoranthene		1380	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1580	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1330	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1200	ug/kg	100	333
218-01-9	Chrysene		1320	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1690	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1500	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1200	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1310	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1330	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1430	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1370	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1420	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1120	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD1.i/s032910.b/s1c2909-2.d
Lab Smp Id: 1202074808 Client Smp ID: SBLK01LCS
Inj Date : 29-MAR-2010 15:22
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202074808|966766|1|SVM|1|SBLK01LCS
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s032910.b/MSD1-M8270C-031610.m
Meth Date : 29-Mar-2010 17:00 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.504	3.504	(1.000)	373039	40.0000	
* 29 Naphthalene-d8	136	4.351	4.351	(1.000)	1576206	40.0000	
* 46 Acenaphthene-d10	164	5.587	5.592	(1.000)	799705	40.0000	
* 67 Phenanthrene-d10	188	6.604	6.598	(1.000)	1430652	40.0000	
* 91 Chrysene-d12	240	8.175	8.175	(1.000)	1224060	40.0000	
* 98 Perylene-d12	264	9.345	9.339	(1.000)	1064475	40.0000	
$ 3 2-Fluorophenol	112	2.728	2.716	(0.778)	689088	71.7362	2390
$ 5 Phenol-d5	99	3.246	3.240	(0.926)	794756	67.9358	2260
$ 20 Nitrobenzene-d5	82	3.863	3.863	(0.888)	355070	36.7288	1220
$ 39 2-Fluorobiphenyl	172	5.092	5.093	(0.912)	773894	35.0402	1170
$ 60 2,4,6-Tribromophenol	329	6.145	6.139	(1.100)	164682	62.8120	2090
$ 81 p-Terphenyl-d14	244	7.528	7.528	(0.921)	851189	41.7102	1390

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.251	3.251	(0.928)	432204	34.8703	1160
8 2-Chlorophenol	128	3.375	3.369	(0.963)	385766	36.7970	1230
11 1,4-Dichlorobenzene	146	3.510	3.510	(1.002)	369265	31.2823	1040
17 N-Nitrosodipropylamine	70	3.745	3.751	(1.069)	261349	39.3731	1310(Q)
28 1,2,4-Trichlorobenzene	180	4.304	4.304	(0.989)	327171	33.6648	1120
33 4-Chloro-3-methylphenol	107	4.728	4.710	(1.087)	330308	39.8408	1330
47 Acenaphthene	154	5.610	5.610	(1.004)	696274	35.6439	1190
50 2,4-Dinitrotoluene	165	5.710	5.716	(1.022)	257168	39.9367	1330
52 4-Nitrophenol	139	5.669	5.657	(1.015)	80075	22.1762	739
65 Pentachlorophenol	266	6.475	6.469	(0.980)	120079	34.3479	1140
79 Pyrene	202	7.469	7.469	(0.914)	1310957	37.7420	1260
2 Pyridine	79	2.099	2.081	(0.599)	229784	27.7879	926
4 Aniline	66	3.293	3.299	(0.940)	168585	31.9017	1060
7 bis(2-Chloroethyl) ether	63	3.316	3.316	(0.946)	288918	33.9752	1130
9 1,3-Dichlorobenzene	146	3.469	3.469	(0.990)	363250	31.0708	1040
12 Benzyl alcohol	108	3.581	3.575	(1.022)	139433	25.5507	852
13 1,2-Dichlorobenzene	146	3.610	3.610	(1.030)	354901	32.1692	1070
14 bis(2-Chloroisopropyl)ether	45	3.651	3.651	(1.042)	706140	39.0485	1300
15 o-Cresol	107	3.640	3.634	(1.039)	277377	34.8841	1160
18 m,p-Cresols	107	3.734	3.740	(1.065)	425046	41.2426	1370(Q)
19 Hexachloroethane	117	3.834	3.834	(1.094)	142717	31.8122	1060
21 Nitrobenzene	77	3.875	3.875	(0.890)	387020	37.4733	1250
22 Isophorone	82	4.028	4.028	(0.926)	732923	37.9959	1270
23 2-Nitrophenol	139	4.081	4.087	(0.938)	190905	35.8245	1190
24 2,4-Dimethylphenol	122	4.093	4.093	(0.941)	336321	35.3178	1180
25 bis(2-Chloroethoxy)methane	93	4.151	4.157	(0.954)	418340	35.4583	1180
26 2,4-Dichlorophenol	162	4.251	4.245	(0.977)	299411	37.6849	1260
27 Benzoic acid	105	4.187	4.163	(0.962)	445149	86.0861	2870
30 Naphthalene	128	4.369	4.369	(1.004)	1095977	34.6688	1160
31 4-Chloroaniline	127	4.393	4.393	(1.009)	458169	32.3306	1080
32 Hexachlorobutadiene	225	4.434	4.440	(1.019)	185732	33.9160	1130
34 2-Methylnaphthalene	142	4.845	4.845	(1.114)	755577	37.6471	1250
36 Hexachlorocyclopentadiene	237	4.945	4.945	(0.885)	148671	29.3894	980
37 2,4,6-Trichlorophenol	196	5.040	5.040	(0.902)	200848	33.8015	1130
38 2,4,5-Trichlorophenol	196	5.069	5.063	(0.907)	237787	37.3784	1240
40 2-Chloronaphthalene	162	5.192	5.192	(0.929)	678501	35.4193	1180
42 o-Nitroaniline	65	5.257	5.257	(0.941)	213594	38.8661	1300
41 m-Nitroaniline	138	5.551	5.551	(0.994)	164337	38.3193	1280
43 Dimethylphthalate	163	5.375	5.375	(0.962)	892295	40.0813	1340
44 2,6-Dinitrotoluene	165	5.428	5.428	(0.972)	195428	37.8110	1260
45 Acenaphthylene	152	5.487	5.492	(0.982)	1197358	38.9604	1300
48 2,4-Dinitrophenol	184	5.622	5.622	(1.006)	71279	35.2231	1170
49 Dibenzofuran	168	5.734	5.734	(1.026)	1010545	38.4997	1280
51 Diethylphthalate	149	5.869	5.869	(1.051)	928291	41.6136	1390
53 Fluorene	166	5.975	5.975	(1.069)	837120	38.0410	1270
54 4-Chlorophenylphenylether	204	5.963	5.963	(1.067)	426322	39.5581	1320
55 2-Methyl-4,6-dinitrophenol	198	6.004	6.004	(0.909)	131288	39.5085	1320

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	5.992	5.987	(1.073)	172481	42.8745	1430
133 Diphenylamine	169	6.045	6.045	(0.915)	702138	38.4327	1280
58 1,2-Diphenylhydrazine	77	6.075	6.075	(0.920)	912034	43.4033	1450
61 4-Bromophenylphenylether	248	6.298	6.292	(0.954)	229917	35.5930	1190
63 Hexachlorobenzene	284	6.345	6.345	(0.961)	226145	32.2584	1080
68 Phenanthrene	178	6.616	6.616	(1.002)	1164972	37.6866	1260
69 Anthracene	178	6.651	6.645	(1.007)	1168311	38.4860	1280
72 Di-n-butylphthalate	149	6.916	6.916	(1.047)	1636635	43.7189	1460
76 Fluoranthene	202	7.333	7.328	(1.110)	1311570	41.2837	1380
85 Butylbenzylphthalate	149	7.781	7.781	(0.952)	705983	47.4890	1580
89 Benzo(a)anthracene	228	8.163	8.163	(0.999)	1152328	40.0493	1330
90 3,3'-Dichlorobenzidine	252	8.128	8.122	(0.994)	326543	35.9762	1200
92 Chrysene	228	8.192	8.192	(1.002)	1064659	39.5972	1320
93 bis(2-Ethylhexyl)phthalate	149	8.092	8.092	(0.990)	994334	50.6081	1690
94 Di-n-octylphthalate	149	8.528	8.528	(0.912)	1575360	45.0617	1500
95 Benzo(b)fluoranthene	252	8.975	8.975	(0.960)	1056813	36.1003	1200
96 Benzo(k)fluoranthene	252	8.998	8.998	(0.963)	1097279	39.3434	1310
97 Benzo(a)pyrene	252	9.286	9.286	(0.994)	938685	40.0459	1330
99 Indeno(1,2,3-cd)pyrene	276	10.598	10.598	(1.134)	857376	43.0202	1430
100 Dibenzo(a,h)anthracene	278	10.604	10.598	(1.135)	678459	41.1983	1370
101 Benzo(ghi)perylene	276	10.986	10.986	(1.176)	690211	42.6991	1420
1 N-Methyl-N-nitrosomethylamine	74	2.069	2.052	(0.590)	153685	28.4949	950

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s032910.b/s1o2909-2.d
Date : 29-MAR-2010 15:22
Client ID: SBLK01LCS
Sample Info: I120207480B|966766|1|SVM11|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

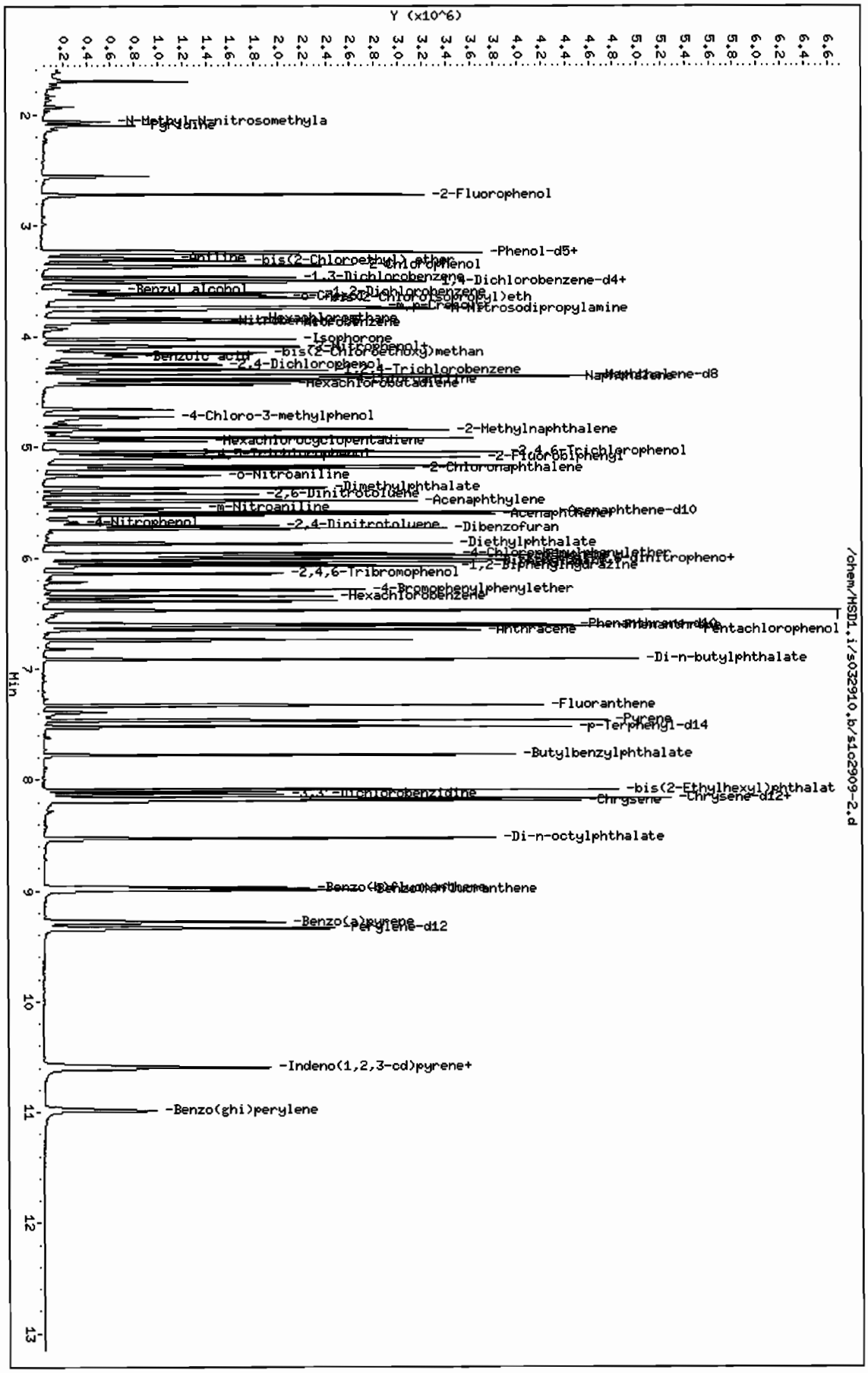

Page 1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202074809	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.3
Client Sample:	QC for batch 966763	**Client:**	LANL010	**Project:**	QC
Client ID:	RE46-10-12972MS	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 18:15	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s1c3022.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1120	ug/kg	75.9	379
108-95-2	Phenol		1200	ug/kg	75.9	379
95-57-8	2-Chlorophenol		1250	ug/kg	75.9	379
106-46-7	1,4-Dichlorobenzene		842	ug/kg	75.9	379
621-64-7	N-Nitrosodipropylamine		810	ug/kg	75.9	379
59-50-7	4-Chloro-3-methylphenol		1350	ug/kg	75.9	379
83-32-9	Acenaphthene		1150	ug/kg	12.5	37.9
121-14-2	2,4-Dinitrotoluene		1370	ug/kg	37.9	379
100-02-7	4-Nitrophenol		816	ug/kg	125	379
87-86-5	Pentachlorophenol		1080	ug/kg	94.8	379
129-00-0	Pyrene		1360	ug/kg	11.4	37.9
110-86-1	Pyridine		931	ug/kg	75.9	379
62-53-3	Aniline		1240	ug/kg	114	379
111-44-4	bis(2-Chloroethyl) ether		1160	ug/kg	75.9	379
541-73-1	1,3-Dichlorobenzene		812	ug/kg	75.9	379
100-51-6	Benzyl alcohol		637	ug/kg	114	379
95-50-1	1,2-Dichlorobenzene		916	ug/kg	75.9	379
108-60-1	bis(2-Chloroisopropyl)ether		1220	ug/kg	75.9	379
95-48-7	o-Cresol		875	ug/kg	75.9	379
65794-96-9	m,p-Cresols		1540	ug/kg	114	379
67-72-1	Hexachloroethane		785	ug/kg	75.9	379
98-95-3	Nitrobenzene		1240	ug/kg	75.9	379
78-59-1	Isophorone		1260	ug/kg	75.9	379
88-75-5	2-Nitrophenol		728	ug/kg	75.9	379
105-67-9	2,4-Dimethylphenol		1270	ug/kg	133	379
111-91-1	bis(2-Chloroethoxy)methane		694	ug/kg	75.9	379
120-83-2	2,4-Dichlorophenol		1060	ug/kg	75.9	379
65-85-0	Benzoic acid		2200	ug/kg	190	759
91-20-3	Naphthalene		817	ug/kg	11.4	37.9
106-47-8	4-Chloroaniline		1230	ug/kg	75.9	379
87-68-3	Hexachlorobutadiene		949	ug/kg	75.9	379
91-57-6	2-Methylnaphthalene		1230	ug/kg	7.59	37.9
77-47-4	Hexachlorocyclopentadiene		910	ug/kg	75.9	379
88-06-2	2,4,6-Trichlorophenol		1480	ug/kg	75.9	379
95-95-4	2,4,5-Trichlorophenol		1390	ug/kg	75.9	379
91-58-7	2-Chloronaphthalene		1120	ug/kg	12.5	37.9
88-74-4	2-Nitroaniline		1220	ug/kg	75.9	379
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1470	ug/kg	75.9	379

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202074809	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.3
Client Sample:	QC for batch 966763	**Client:**	LANL010	**Project:**	QC
Client ID:	RE46-10-12972MS	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 18:15	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s1c3022.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1260	ug/kg	75.9	379
606-20-2	2,6-Dinitrotoluene		1210	ug/kg	37.9	379
208-96-8	Acenaphthylene		1250	ug/kg	11.4	37.9
51-28-5	2,4-Dinitrophenol		1150	ug/kg	144	759
132-64-9	Dibenzofuran		1280	ug/kg	75.9	379
84-66-2	Diethylphthalate		1390	ug/kg	75.9	379
86-73-7	Fluorene		1350	ug/kg	11.4	37.9
7005-72-3	4-Chlorophenylphenylether		1360	ug/kg	75.9	379
534-52-1	2-Methyl-4,6-dinitrophenol		1120	ug/kg	75.9	379
100-01-6	4-Nitroaniline		1620	ug/kg	114	379
	p-Nitroaniline					
122-39-4	Diphenylamine		1220	ug/kg	75.9	379
122-66-7	Azobenzene		1350	ug/kg	75.9	379
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1200	ug/kg	75.9	379
118-74-1	Hexachlorobenzene		1120	ug/kg	75.9	379
85-01-8	Phenanthrene		1370	ug/kg	11.4	37.9
120-12-7	Anthracene		1320	ug/kg	7.59	37.9
84-74-2	Di-n-butylphthalate		1470	ug/kg	75.9	379
206-44-0	Fluoranthene		1330	ug/kg	11.4	37.9
85-68-7	Butylbenzylphthalate		1630	ug/kg	75.9	379
56-55-3	Benzo(a)anthracene		1340	ug/kg	11.4	37.9
91-94-1	3,3'-Dichlorobenzidine		1110	ug/kg	114	379
218-01-9	Chrysene		1340	ug/kg	11.4	37.9
117-81-7	bis(2-Ethylhexyl)phthalate		1700	ug/kg	75.9	379
117-84-0	Di-n-octylphthalate		1800	ug/kg	75.9	379
205-99-2	Benzo(b)fluoranthene		1350	ug/kg	11.4	37.9
207-08-9	Benzo(k)fluoranthene		1410	ug/kg	11.4	37.9
50-32-8	Benzo(a)pyrene		1340	ug/kg	11.4	37.9
193-39-5	Indeno(1,2,3-cd)pyrene		1230	ug/kg	11.4	37.9
53-70-3	Dibenzo(a,h)anthracene		1180	ug/kg	11.4	37.9
191-24-2	Benzo(ghi)perylene		1130	ug/kg	11.4	37.9
120-82-1	1,2,4-Trichlorobenzene		1040	ug/kg	75.9	379

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3022.d
Lab Smp Id: 1202074809 Client Smp ID: RE46-10-12972MS
Inj Date : 30-MAR-2010 18:15
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202074809|966766|1|SVM|1|LANLMS
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 19 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	12.26540	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.481	3.487	(1.000)	500002	40.0000	
* 29 Naphthalene-d8	136	4.334	4.339	(1.000)	2103003	40.0000	
* 46 Acenaphthene-d10	164	5.575	5.575	(1.000)	905835	40.0000	
* 67 Phenanthrene-d10	188	6.586	6.586	(1.000)	1742852	40.0000	
* 91 Chrysene-d12	240	8.157	8.157	(1.000)	1350294	40.0000	
* 98 Perylene-d12	264	9.316	9.310	(1.000)	924358	40.0000	
$ 3 2-Fluorophenol	112	2.710	2.704	(0.779)	819816	63.6740	2420
$ 5 Phenol-d5	99	3.234	3.228	(0.929)	1014320	64.6878	2450
$ 20 Nitrobenzene-d5	82	3.845	3.845	(0.887)	421246	32.6589	1240
$ 39 2-Fluorobiphenyl	172	5.081	5.075	(0.911)	667073	26.6648	1010
$ 60 2,4,6-Tribromophenol	329	6.128	6.128	(1.099)	179621	60.4832	2290
$ 81 p-Terphenyl-d14	244	7.516	7.510	(0.921)	923188	41.0091	1560

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.240	3.240	(0.931)	524585	31.5766	1200
8 2-Chlorophenol	128	3.351	3.357	(0.963)	464227	33.0370	1250
11 1,4-Dichlorobenzene	146	3.487	3.498	(1.002)	351405	22.2101	842
17 N-Nitrosodipropylamine	70	3.728	3.740	(1.071)	189981	21.3536	810(Q)
28 1,2,4-Trichlorobenzene	180	4.287	4.292	(0.989)	355706	27.4325	1040
33 4-Chloro-3-methylphenol	107	4.710	4.698	(1.087)	393989	35.6177	1350
47 Acenaphthene	154	5.598	5.598	(1.004)	668430	30.2094	1140
50 2,4-Dinitrotoluene	165	5.698	5.698	(1.022)	262703	36.0164	1370
52 4-Nitrophenol	139	5.657	5.639	(1.015)	88010	21.5181	816
65 Pentachlorophenol	266	6.463	6.457	(0.981)	120809	28.3665	1080
79 Pyrene	202	7.451	7.451	(0.913)	1375549	35.8994	1360
2 Pyridine	79	2.110	2.069	(0.606)	272068	24.5469	931
4 Aniline	66	3.275	3.281	(0.941)	231451	32.6765	1240
7 bis(2-Chloroethyl) ether	63	3.292	3.304	(0.946)	349910	30.6991	1160
9 1,3-Dichlorobenzene	146	3.445	3.451	(0.990)	335509	21.4108	812
12 Benzyl alcohol	108	3.569	3.563	(1.025)	122931	16.8066	637
13 1,2-Dichlorobenzene	146	3.587	3.598	(1.030)	357014	24.1436	916
14 bis(2-Chloroisopropyl)ether	45	3.628	3.640	(1.042)	782502	32.2836	1220
15 o-Cresol	107	3.622	3.622	(1.041)	245842	23.0672	875(Q)
18 m,p-Cresols	107	3.722	3.722	(1.069)	559197	40.4816	1540(Q)
19 Hexachloroethane	117	3.810	3.822	(1.095)	124486	20.7024	785
21 Nitrobenzene	77	3.857	3.863	(0.890)	451701	32.7802	1240
22 Isophorone	82	4.010	4.016	(0.925)	854213	33.1908	1260
23 2-Nitrophenol	139	4.069	4.069	(0.939)	136381	19.1818	728(Q)
24 2,4-Dimethylphenol	122	4.081	4.075	(0.942)	424834	33.4374	1270
25 bis(2-Chloroethoxy)methane	93	4.140	4.139	(0.955)	288059	18.2997	694
26 2,4-Dichlorophenol	162	4.234	4.234	(0.977)	295030	27.8316	1060
27 Benzoic acid	105	4.175	4.145	(0.963)	400070	57.9878	2200
30 Naphthalene	128	4.351	4.351	(1.004)	908332	21.5355	817
31 4-Chloroaniline	127	4.381	4.381	(1.011)	613511	32.4477	1230
32 Hexachlorobutadiene	225	4.422	4.422	(1.020)	182883	25.0302	949
34 2-Methylnaphthalene	142	4.828	4.828	(1.114)	865482	32.3210	1220
36 Hexachlorocyclopentadiene	237	4.934	4.934	(0.885)	137449	23.9876	910
37 2,4,6-Trichlorophenol	196	5.022	5.022	(0.901)	262710	39.0325	1480
38 2,4,5-Trichlorophenol	196	5.057	5.045	(0.907)	264934	36.7664	1390
40 2-Chloronaphthalene	162	5.175	5.175	(0.928)	641711	29.5740	1120
42 o-Nitroaniline	65	5.245	5.245	(0.941)	200348	32.1846	1220
41 m-Nitroaniline	138	5.539	5.539	(0.994)	188121	38.6488	1460
43 Dimethylphthalate	163	5.357	5.363	(0.961)	835340	33.1267	1260
44 2,6-Dinitrotoluene	165	5.410	5.410	(0.970)	186408	31.8403	1210
45 Acenaphthylene	152	5.475	5.475	(0.982)	1144444	32.8756	1250
48 2,4-Dinitrophenol	184	5.610	5.604	(1.006)	64060	30.3264	1150(Q)
49 Dibenzofuran	168	5.716	5.716	(1.025)	1004798	33.7957	1280
51 Diethylphthalate	149	5.851	5.851	(1.050)	925999	36.6473	1390
53 Fluorene	166	5.957	5.957	(1.069)	890121	35.7103	1350
54 4-Chlorophenylphenylether	204	5.945	5.945	(1.066)	436167	35.7299	1360
55 2-Methyl-4,6-dinitrophenol	198	5.986	5.986	(0.909)	119986	29.6394	1120

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	5.975	5.969	(1.072)	194218	42.6706	1620
133 Diphenylamine	169	6.028	6.028	(0.915)	717937	32.2580	1220
58 1,2-Diphenylhydrazine	77	6.057	6.057	(0.920)	911671	35.6143	1350
61 4-Bromophenylphenylether	248	6.281	6.281	(0.954)	249739	31.7361	1200
63 Hexachlorobenzene	284	6.333	6.333	(0.962)	253253	29.6540	1120
68 Phenanthrene	178	6.604	6.604	(1.003)	1358719	36.0807	1370
69 Anthracene	178	6.633	6.633	(1.007)	1288170	34.8330	1320
72 Di-n-butylphthalate	149	6.904	6.904	(1.048)	1770992	38.8336	1470
76 Fluoranthene	202	7.316	7.316	(1.111)	1356513	35.0497	1330
85 Butylbenzylphthalate	149	7.769	7.769	(0.952)	702662	42.8469	1620
89 Benzo(a)anthracene	228	8.145	8.145	(0.999)	1124710	35.4351	1340
90 3,3'-Dichlorobenzidine	252	8.110	8.110	(0.994)	292278	29.1908	1110
92 Chrysene	228	8.175	8.175	(1.002)	1050752	35.4265	1340
93 bis(2-Ethylhexyl)phthalate	149	8.080	8.080	(0.991)	969669	44.7389	1700
94 Di-n-octylphthalate	149	8.510	8.510	(0.913)	1439913	47.4307	1800
95 Benzo(b)fluoranthene	252	8.951	8.951	(0.961)	907819	35.7114	1350
96 Benzo(k)fluoranthene	252	8.974	8.974	(0.963)	898543	37.1013	1410
97 Benzo(a)pyrene	252	9.257	9.257	(0.994)	716669	35.2089	1340
99 Indeno(1,2,3-cd)pyrene	276	10.551	10.551	(1.133)	559624	32.3365	1230
100 Dibenzo(a,h)anthracene	278	10.557	10.557	(1.133)	444934	31.1134	1180
101 Benzo(ghi)perylene	276	10.933	10.933	(1.174)	418645	29.8248	1130
1 N-Methyl-N-nitrosomethylamine	74	2.087	2.040	(0.600)	213611	29.5490	1120

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s033010.b/s1c3022.d
Date : 30-MAR-2010 18:15
Client ID: RE46-10-12972MS
Sample Info: 1120074809196676611|SVM11|LANLMS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

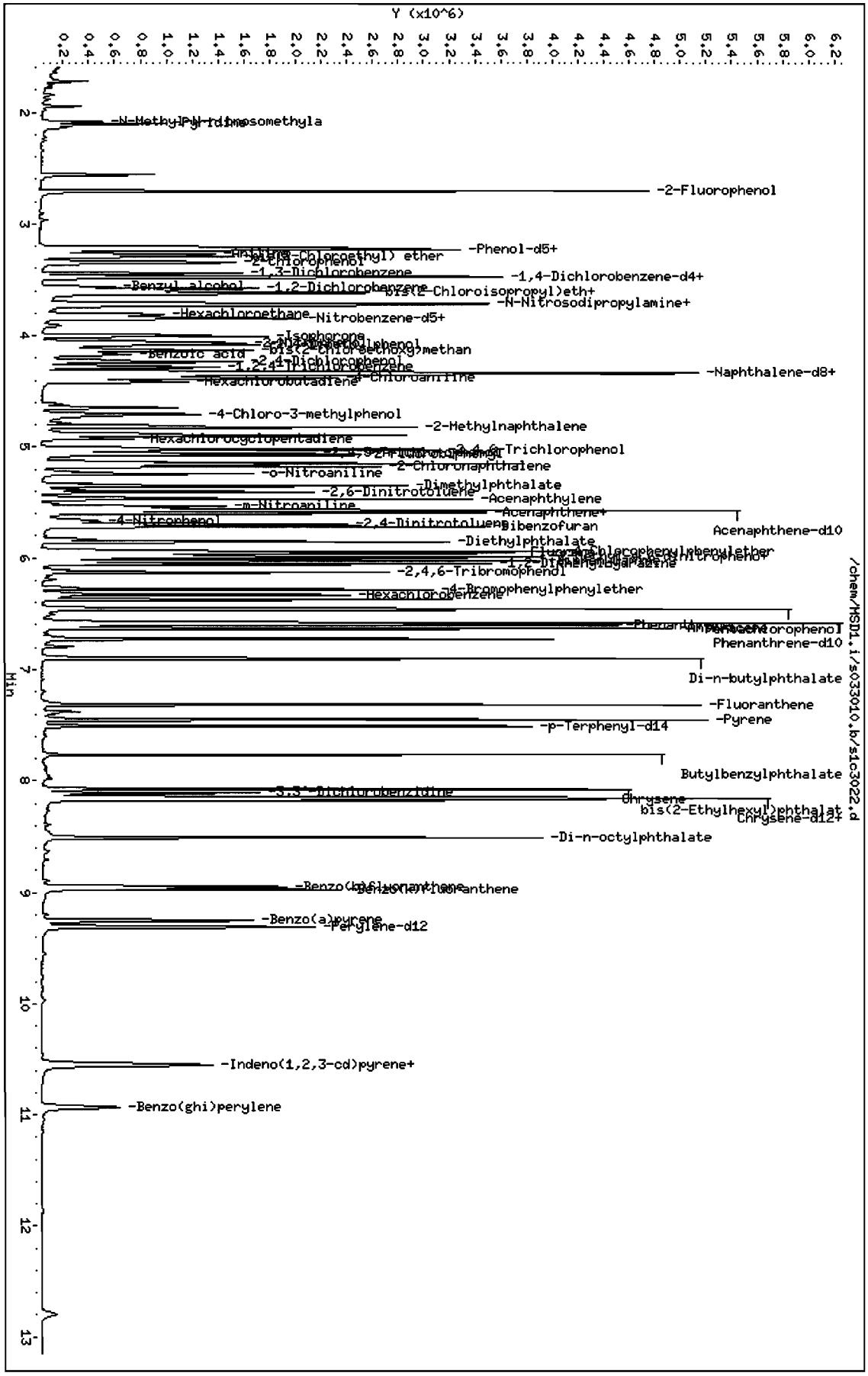

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	1202074810	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.3
Client Sample:	QC for batch 966763	**Client:**	LANL010	**Project:**	QC
Client ID:	RE46-10-12972MSD	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	966766	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	03/30/2010 18:38	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	03/19/2010 11:31	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	s1c3023.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		981	ug/kg	76.0	380
108-95-2	Phenol		1130	ug/kg	76.0	380
95-57-8	2-Chlorophenol		1200	ug/kg	76.0	380
106-46-7	1,4-Dichlorobenzene		780	ug/kg	76.0	380
621-64-7	N-Nitrosodipropylamine		1290	ug/kg	76.0	380
59-50-7	4-Chloro-3-methylphenol		1280	ug/kg	76.0	380
83-32-9	Acenaphthene		1180	ug/kg	12.5	38.0
121-14-2	2,4-Dinitrotoluene		1290	ug/kg	38.0	380
100-02-7	4-Nitrophenol		711	ug/kg	125	380
87-86-5	Pentachlorophenol		1090	ug/kg	95.0	380
129-00-0	Pyrene		1250	ug/kg	11.4	38.0
110-86-1	Pyridine		821	ug/kg	76.0	380
62-53-3	Aniline		1090	ug/kg	114	380
111-44-4	bis(2-Chloroethyl) ether		1070	ug/kg	76.0	380
541-73-1	1,3-Dichlorobenzene		746	ug/kg	76.0	380
100-51-6	Benzyl alcohol		571	ug/kg	114	380
95-50-1	1,2-Dichlorobenzene		848	ug/kg	76.0	380
108-60-1	bis(2-Chloroisopropyl)ether		1150	ug/kg	76.0	380
95-48-7	o-Cresol		1280	ug/kg	76.0	380
65794-96-9	m,p-Cresols		1230	ug/kg	114	380
67-72-1	Hexachloroethane		720	ug/kg	76.0	380
98-95-3	Nitrobenzene		1200	ug/kg	76.0	380
78-59-1	Isophorone		1190	ug/kg	76.0	380
88-75-5	2-Nitrophenol		1200	ug/kg	76.0	380
105-67-9	2,4-Dimethylphenol		1200	ug/kg	133	380
111-91-1	bis(2-Chloroethoxy)methane		1140	ug/kg	76.0	380
120-83-2	2,4-Dichlorophenol		1250	ug/kg	76.0	380
65-85-0	Benzoic acid		2620	ug/kg	190	760
91-20-3	Naphthalene		1070	ug/kg	11.4	38.0
106-47-8	4-Chloroaniline		1110	ug/kg	76.0	380
87-68-3	Hexachlorobutadiene		888	ug/kg	76.0	380
91-57-6	2-Methylnaphthalene		1160	ug/kg	7.60	38.0
77-47-4	Hexachlorocyclopentadiene		797	ug/kg	76.0	380
88-06-2	2,4,6-Trichlorophenol		1220	ug/kg	76.0	380
95-95-4	2,4,5-Trichlorophenol		1330	ug/kg	76.0	380
91-58-7	2-Chloronaphthalene		1150	ug/kg	12.5	38.0
88-74-4	2-Nitroaniline		1280	ug/kg	76.0	380
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1280	ug/kg	76.0	380

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202074810**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.3**
Client Sample:	**QC for batch 966763**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46-10-12972MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**966766**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**03/30/2010 18:38**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/19/2010 11:31**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**s1c3023.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1290	ug/kg	76.0	380
606-20-2	2,6-Dinitrotoluene		1230	ug/kg	38.0	380
208-96-8	Acenaphthylene		1270	ug/kg	11.4	38.0
51-28-5	2,4-Dinitrophenol		1100	ug/kg	144	760
132-64-9	Dibenzofuran		1250	ug/kg	76.0	380
84-66-2	Diethylphthalate		1310	ug/kg	76.0	380
86-73-7	Fluorene		1240	ug/kg	11.4	38.0
7005-72-3	4-Chlorophenylphenylether		1280	ug/kg	76.0	380
534-52-1	2-Methyl-4,6-dinitrophenol		1080	ug/kg	76.0	380
100-01-6	4-Nitroaniline		1330	ug/kg	114	380
	p-Nitroaniline					
122-39-4	Diphenylamine		1200	ug/kg	76.0	380
122-66-7	Azobenzene		1380	ug/kg	76.0	380
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1160	ug/kg	76.0	380
118-74-1	Hexachlorobenzene		1040	ug/kg	76.0	380
85-01-8	Phenanthrene		1240	ug/kg	11.4	38.0
120-12-7	Anthracene		1210	ug/kg	7.60	38.0
84-74-2	Di-n-butylphthalate		1340	ug/kg	76.0	380
206-44-0	Fluoranthene		1210	ug/kg	11.4	38.0
85-68-7	Butylbenzylphthalate		1490	ug/kg	76.0	380
56-55-3	Benzo(a)anthracene		1240	ug/kg	11.4	38.0
91-94-1	3,3'-Dichlorobenzidine		958	ug/kg	114	380
218-01-9	Chrysene		1250	ug/kg	11.4	38.0
117-81-7	bis(2-Ethylhexyl)phthalate		1530	ug/kg	76.0	380
117-84-0	Di-n-octylphthalate		1640	ug/kg	76.0	380
205-99-2	Benzo(b)fluoranthene		1200	ug/kg	11.4	38.0
207-08-9	Benzo(k)fluoranthene		1290	ug/kg	11.4	38.0
50-32-8	Benzo(a)pyrene		1240	ug/kg	11.4	38.0
193-39-5	Indeno(1,2,3-cd)pyrene		1100	ug/kg	11.4	38.0
53-70-3	Dibenzo(a,h)anthracene		1030	ug/kg	11.4	38.0
191-24-2	Benzo(ghi)perylene		1010	ug/kg	11.4	38.0
120-82-1	1,2,4-Trichlorobenzene		977	ug/kg	76.0	380

GEL Laboratories LLC

Data file : /chem/MSD1.i/s033010.b/s1c3023.d
Lab Smp Id: 1202074810 Client Smp ID: RE46-10-12972MSD
Inj Date : 30-MAR-2010 18:38
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202074810|966766|1|SVM|1|LANLMSD
Misc Info : |MSD8270_S||WBN100310-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s033010.b/MSD1-M8270C-031610.m
Meth Date : 30-Mar-2010 20:54 amy01291 Quant Type: ISTD
Cal Date : 17-MAR-2010 01:50 Cal File: s1c1620.d
Als bottle: 20 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2436.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	12.26540	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.487	3.487	(1.000)	559948	40.0000	
* 29 Naphthalene-d8	136	4.340	4.339	(1.000)	2338516	40.0000	
* 46 Acenaphthene-d10	164	5.575	5.575	(1.000)	1146122	40.0000	
* 67 Phenanthrene-d10	188	6.586	6.586	(1.000)	2055958	40.0000	
* 91 Chrysene-d12	240	8.157	8.157	(1.000)	1554812	40.0000	
* 98 Perylene-d12	264	9.310	9.310	(1.000)	1076826	40.0000	
$ 3 2-Fluorophenol	112	2.716	2.704	(0.779)	849193	58.8947	2240
$ 5 Phenol-d5	99	3.234	3.228	(0.927)	1045252	59.5240	2260
$ 20 Nitrobenzene-d5	82	3.845	3.845	(0.886)	437663	30.5144	1160
$ 39 2-Fluorobiphenyl	172	5.081	5.075	(0.911)	935229	29.5462	1120
$ 60 2,4,6-Tribromophenol	329	6.128	6.128	(1.099)	206815	55.0399	2090
$ 81 p-Terphenyl-d14	244	7.510	7.510	(0.921)	897139	34.6099	1310

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.240	3.240	(0.929)	554668	29.8131	1130
8 2-Chlorophenol	128	3.357	3.357	(0.963)	499151	31.7195	1200
11 1,4-Dichlorobenzene	146	3.493	3.498	(1.002)	363960	20.5409	780
17 N-Nitrosodipropylamine	70	3.734	3.740	(1.071)	337685	33.8920	1290(Q)
28 1,2,4-Trichlorobenzene	180	4.293	4.292	(0.989)	370924	25.7252	977
33 4-Chloro-3-methylphenol	107	4.710	4.698	(1.085)	415912	33.8129	1280
47 Acenaphthene	154	5.598	5.598	(1.004)	872618	31.1694	1180
50 2,4-Dinitrotoluene	165	5.698	5.698	(1.022)	313114	33.9278	1290
52 4-Nitrophenol	139	5.657	5.639	(1.015)	96924	18.7293	711
65 Pentachlorophenol	266	6.463	6.457	(0.981)	143966	28.6559	1090
79 Pyrene	202	7.451	7.451	(0.913)	1454996	32.9779	1250
2 Pyridine	79	2.110	2.069	(0.605)	268215	21.6086	821
4 Aniline	66	3.281	3.281	(0.941)	227487	28.6786	1090(Q)
7 bis(2-Chloroethyl) ether	63	3.298	3.304	(0.946)	360869	28.2711	1070
9 1,3-Dichlorobenzene	146	3.451	3.451	(0.990)	344719	19.6435	746
12 Benzyl alcohol	108	3.569	3.563	(1.024)	123119	15.0303	571
13 1,2-Dichlorobenzene	146	3.593	3.598	(1.030)	369565	22.3167	848
14 bis(2-Chloroisopropyl)ether	45	3.634	3.640	(1.042)	821611	30.2682	1150
15 o-Cresol	107	3.622	3.622	(1.039)	401770	33.6621	1280
18 m,p-Cresols	107	3.722	3.722	(1.067)	500136	32.3300	1230(Q)
19 Hexachloroethane	117	3.816	3.822	(1.094)	127691	18.9620	720
21 Nitrobenzene	77	3.857	3.863	(0.889)	482995	31.5212	1200
22 Isophorone	82	4.010	4.016	(0.924)	895860	31.3034	1190
23 2-Nitrophenol	139	4.069	4.069	(0.938)	250290	31.6576	1200
24 2,4-Dimethylphenol	122	4.081	4.075	(0.940)	447555	31.6781	1200
25 bis(2-Chloroethoxy)methane	93	4.140	4.139	(0.954)	526943	30.1041	1140
26 2,4-Dichlorophenol	162	4.234	4.234	(0.976)	386744	32.8092	1250
27 Benzoic acid	105	4.181	4.145	(0.963)	530201	69.1100	2620
30 Naphthalene	128	4.351	4.351	(1.003)	1316397	28.0671	1070
31 4-Chloroaniline	127	4.381	4.381	(1.009)	614801	29.2412	1110
32 Hexachlorobutadiene	225	4.422	4.422	(1.019)	189912	23.3745	888
34 2-Methylnaphthalene	142	4.828	4.828	(1.112)	906027	30.4275	1160
36 Hexachlorocyclopentadiene	237	4.934	4.934	(0.885)	152102	20.9797	797
37 2,4,6-Trichlorophenol	196	5.022	5.022	(0.901)	273184	32.0791	1220
38 2,4,5-Trichlorophenol	196	5.057	5.045	(0.907)	320244	35.1247	1330
40 2-Chloronaphthalene	162	5.175	5.175	(0.928)	827887	30.1550	1140
42 o-Nitroaniline	65	5.245	5.245	(0.941)	265161	33.6659	1280
41 m-Nitroaniline	138	5.540	5.539	(0.994)	199874	33.6170	1280
43 Dimethylphthalate	163	5.357	5.363	(0.961)	1085042	34.0078	1290
44 2,6-Dinitrotoluene	165	5.410	5.410	(0.970)	240571	32.4768	1230
45 Acenaphthylene	152	5.475	5.475	(0.982)	1472206	33.4246	1270
48 2,4-Dinitrophenol	184	5.610	5.604	(1.006)	75328	28.9979	1100(Q)
49 Dibenzofuran	168	5.716	5.716	(1.025)	1242869	33.0389	1250
51 Diethylphthalate	149	5.851	5.851	(1.050)	1100982	34.4374	1310
53 Fluorene	166	5.957	5.957	(1.069)	1028796	32.6206	1240
54 4-Chlorophenylphenylether	204	5.945	5.945	(1.066)	518708	33.5830	1280
55 2-Methyl-4,6-dinitrophenol	198	5.987	5.986	(0.909)	135414	28.3562	1080

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	5.975	5.969	(1.072)	191401	35.0765	1330
133 Diphenylamine	169	6.028	6.028	(0.915)	831280	31.6625	1200
58 1,2-Diphenylhydrazine	77	6.057	6.057	(0.920)	1096119	36.2986	1380
61 4-Bromophenylphenylether	248	6.281	6.281	(0.954)	282897	30.4749	1160
63 Hexachlorobenzene	284	6.334	6.333	(0.962)	276157	27.4114	1040
68 Phenanthrene	178	6.604	6.604	(1.003)	1449484	32.6291	1240
69 Anthracene	178	6.634	6.633	(1.007)	1385547	31.7604	1210
72 Di-n-butylphthalate	149	6.904	6.904	(1.048)	1895695	35.2375	1340
76 Fluoranthene	202	7.316	7.316	(1.111)	1449225	31.7426	1200
85 Butylbenzylphthalate	149	7.763	7.769	(0.952)	740733	39.2270	1490
89 Benzo(a)anthracene	228	8.145	8.145	(0.999)	1192280	32.6228	1240
90 3,3'-Dichlorobenzidine	252	8.110	8.110	(0.994)	290919	25.2332	958
92 Chrysene	228	8.175	8.175	(1.002)	1127212	33.0054	1250
93 bis(2-Ethylhexyl)phthalate	149	8.075	8.080	(0.990)	1002991	40.1892	1530
94 Di-n-octylphthalate	149	8.504	8.510	(0.913)	1531668	43.3094	1640
95 Benzo(b)fluoranthene	252	8.945	8.951	(0.961)	939475	31.7240	1200
96 Benzo(k)fluoranthene	252	8.969	8.974	(0.963)	956427	33.8998	1290
97 Benzo(a)pyrene	252	9.251	9.257	(0.994)	771443	32.5336	1240
99 Indeno(1,2,3-cd)pyrene	276	10.545	10.551	(1.133)	585700	29.0513	1100
100 Dibenzo(a,h)anthracene	278	10.551	10.557	(1.133)	450822	27.0615	1030
101 Benzo(ghi)perylene	276	10.927	10.933	(1.174)	435605	26.6391	1010
1 N-Methyl-N-nitrosomethylamine	74	2.075	2.040	(0.595)	209162	25.8360	981

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s033010.b/s1c3023.d
Date : 30-MAR-2010 18:38
Client ID: RE46-10-12972MSD
Sample Info: 1120207481019667661|1|SVMI1ILANLMSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

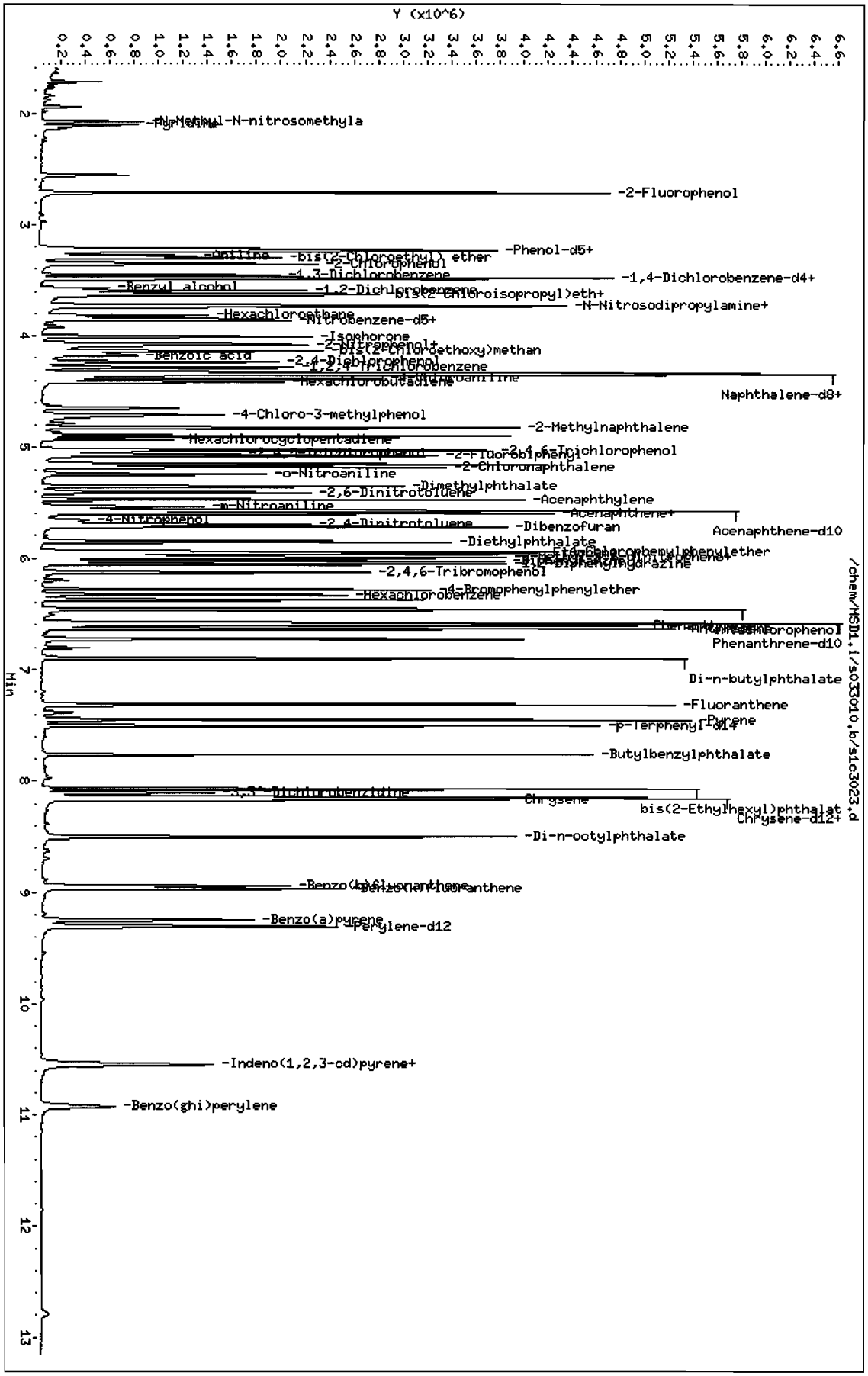

Page 1

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 966763 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202074807 MB	19-MAR-2010 11:31:00	30	1	0.03333
1202074808 LCS	19-MAR-2010 11:31:00	30	1	0.03333
249329001	19-MAR-2010 11:31:00	30.06	1	0.03327
249329002	19-MAR-2010 11:31:00	30.08	1	0.03324
249329003	19-MAR-2010 11:31:00	30	1	0.03333
249329004	19-MAR-2010 11:31:00	30.06	1	0.03327
249332001	19-MAR-2010 11:31:00	30.09	1	0.03323
249332002	19-MAR-2010 11:31:00	30.02	1	0.03331
249332003	19-MAR-2010 11:31:00	30.01	1	0.03332
249332004	19-MAR-2010 11:31:00	30.02	1	0.03331
249332005	19-MAR-2010 11:31:00	30.06	1	0.03327
249332006	19-MAR-2010 11:31:00	30.02	1	0.03331
249332007	19-MAR-2010 11:31:00	30.03	1	0.0333
249332009	19-MAR-2010 11:31:00	30.09	1	0.03323
249335002	19-MAR-2010 11:31:00	30.02	1	0.03331
1202074809 MS (249335002)	19-MAR-2010 11:31:00	30.05	1	0.03328
1202074810 MSD (249335002)	19-MAR-2010 11:31:00	30.01	1	0.03332
249335003	19-MAR-2010 11:31:00	30.06	1	0.03327
249335004	19-MAR-2010 11:31:00	30	1	0.03333
249335005	19-MAR-2010 11:31:00	30.03	1	0.0333
249335006	19-MAR-2010 11:31:00	30	1	0.03333
249335007	19-MAR-2010 11:31:00	30.09	1	0.03323
249335008	19-MAR-2010 11:31:00	30.09	1	0.03323

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202074808	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
LCS	1202074808	BENZIDINE LCS	UE100310-23	1	mL
MS	1202074809	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MS	1202074809	BENZIDINE LCS	UE100310-23	1	mL
MSD	1202074810	BNA LCS w/o Benzidine 50ppm	UE100310-15	1	mL
MSD	1202074810	BENZIDINE LCS	UE100310-23	1	mL
SURR	All	BNA for all Surrogate	UE100310-10	1	mL
REGNT	All	Acetone	1273739-B1	150	mL
REGNT	All	Methylene Chloride	1281955-D	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: RWH

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 03/15/2010 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1294 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN10306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD1.i/s031510a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s1c1513.d	WBN100306-01.2	AMY	15-MAR-2010 16:24	50 PPM	s031510a	1.0	DFTPP	PASSING
s1c1514.d	INSTBLK	AMY	15-MAR-2010 16:40		all	1.0		
s1c1515.d	WBN100309-08	AMY	15-MAR-2010 17:03	001 PPM	MEGAIICARE	1.0	MEGA001	ICAL LVL1-PASSING
s1c1516.d	WBN100309-05.1	AMY	15-MAR-2010 17:31	040 PPM	MEGAIICARE	1.0	MEGA040	ICAL LVL4-PASSING
s1c1517.d	WBN100309-07	AMY	15-MAR-2010 17:59	010 PPM	MEGAIICARE	1.0	MEGA010	ICAL LVL2-PASSING
s1c1518.d	WBN100309-06	AMY	15-MAR-2010 18:28	020 PPM	MEGAIICARE	1.0	MEGA020	ICAL LVL3-PASSING
s1c1519.d	WBN100309-04	AMY	15-MAR-2010 18:57	050 PPM	MEGAIICARE	1.0	MEGA050	ICAL LVL5-PASSING
s1c1520.d	WBN100309-03	AMY	15-MAR-2010 19:26	080 PPM	MEGAIICARE	1.0	MEGA080	ICAL LVL6-PASSING
s1c1521.d	WBN100309-02	AMY	15-MAR-2010 19:55	100 PPM	MEGAIICARE	1.0	MEGA100	ICAL LVL7-PASSING
s1c1522.d	WBN100309-01	AMY	15-MAR-2010 20:24	120 PPM	MEGAIICARE	1.0	MEGA120	ICAL LVL8-PASSING
s1c1523.d	WBN100312-01	AMY	15-MAR-2010 20:53	10 PPM	ap12	1.0	AP010	ICAL LVL2-PASSING
s1c1524.d	WBN100312-02	AMY	15-MAR-2010 21:17	20 PPM	ap12	1.0	AP020	ICAL LVL3-PASSING
s1c1525.d	WBN100312-03.1	AMY	15-MAR-2010 21:40	40 PPM	ap12	1.0	AP040	ICAL LVL4-PASSING
s1c1526.d	WBN100312-04	AMY	15-MAR-2010 22:04	50 PPM	ap12	1.0	AP050	ICAL LVL5-PASSING
s1c1527.d	WBN100312-05	AMY	15-MAR-2010 22:27	80 PPM	ap12	1.0	AP080	ICAL LVL6-PASSING
s1c1528.d	WBN100312-06	AMY	15-MAR-2010 22:50	100 PPM	ap12	1.0	AP100	ICAL LVL7-PASSING
s1c1529.d	WBN100312-07	AMY	15-MAR-2010 23:14	120 PPM	ap12	1.0	AP120	ICAL LVL8-PASSING
s1c1530.d	WBN100309-05.1	AMY	15-MAR-2010 23:37	040 PPM	MEGAIICARE	1.0	M625CVS	M625CVS-Restek
s1c1531.d	WBN100309-09.1	AMY	16-MAR-2010 00:06	040 PPM	MEGAIICARE	1.0	MEGA040	MEGAICV-O2Si

s1c1532.d	WBN100312-03.1	AMY	16-MAR-2010 00:34	40 PPM	s031510a		1.0	AP625CVS	AP625CVS-Restek
s1c1533.d	WBN100312-08.1	AMY	16-MAR-2010 00:58	40 PPM	ap12		1.0	APICV	APICV-O2Si
s1c1534.d	1202070109	AMY	16-MAR-2010 01:21	964896	249232		1.0	SBLK01	REPORT
s1c1535.d	1202070110	AMY	16-MAR-2010 01:44	964896	249232		1.0	SBLK01LCS	REPORT
s1c1536.d	1202068412	AMY	16-MAR-2010 02:07	964150	248963		1.0	SBLK01	REPORT
s1c1537.d	1202068413	AMY	16-MAR-2010 02:30	964150	248963		1.0	LCS	REPORT
s1c1538.d	249232003	AMY	16-MAR-2010 02:53	964896	249232		1.0	BJCO	REPORT
s1c1539.d	1202070111	AMY	16-MAR-2010 03:16	964896	249232		1.0	MS	REPORT
s1c1540.d	1202070112	AMY	16-MAR-2010 03:38	964896	249232		1.0	MSD	REPORT-narrate several spikes fail, not enough sample for RE
s1c1541.d	249232010	AMY	16-MAR-2010 04:01	964896	249232		1.0	BJCO	REPORT. RR s1c1552-fails. RE-s1c1832, confirms within hold.
s1c1542.d	248963001	AMY	16-MAR-2010 04:24	964150	248963		1.0	SWPC	REPORT
s1c1543.d	1202068414	AMY	16-MAR-2010 04:46	964150	248963		1.0	MS	REPORT
s1c1544.d	1202068415	AMY	16-MAR-2010 05:08	964150	248963		1.0	MSD	REPORT
s1c1545.d	249059001	AMY	16-MAR-2010 05:31	964150	249059		4.0	SONO	REPORT-several surrogates fail low due to 4X dilution.
s1c1546.d	249175001	AMY	16-MAR-2010 05:53	964150	249175		1.0	SWPC	REPORT
s1c1547.d	249175002	AMY	16-MAR-2010 06:16	964150	249175		1.0	SWPC	REPORT
s1c1548.d	1202071132	AMY	16-MAR-2010 14:37	965294	248719		1.0	SBLK01	DUSE-report original batch 963058, sample s1c1239
s1c1549.d	1202071133	AMY	16-MAR-2010 15:00	965294	248719		1.0	SBLK01LCS	DUSE-report original batch 963058, sample s1c1239
s1c1550.d	1202071134	AMY	16-MAR-2010 15:25	965294	248719		1.0	SBLK01LCSD	DUSE-report original batch 963058, sample s1c1239
s1c1551.d	248719002	AMY	16-MAR-2010 15:48	965294	248719		1.0	GEEL	DUSE-report s1c1239
s1c1552.d	249232010	AMY	16-MAR-2010 16:12	964896	249232		1.0	BJCO	DUSE-acid surrogate failures. Sent for RE (confirm failure)

Instrument Batch: /chem/MSD1.i/s031510a.b

Page: 1

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 03/29/2010 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1294 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN10306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD1.i/s032910.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s1c2902.d	WBN100306-01.2	AMY	29-MAR-2010 10:02	50 PPM	s032910	1.0	DFTPP	PASSING
s1c2903.d	WBN100309-05.4	AMY	29-MAR-2010 10:17	40 PPM	MEGAIICARE	1.0	MEGACVS	PASSING (393267)
s1c2904.d	WBN100312-08.3	AMY	29-MAR-2010 11:24	40 PPM	ap12	1.0	APCVS	PASSING
s1c2905.d	WBN100304-26.3	AMY	29-MAR-2010 11:48	40 PPM	pest	1.0	PESTCVS	PASSING
s1c2906.d	UBN100325-09.2	AMY	29-MAR-2010 12:12	40 PPM	nev	1.0	NCVS	DUSE-not needed
s1c2907.d	UBN100127-08.2	AMY	29-MAR-2010 14:05	40 PPM	nev	1.0	NCVS	DUSE-not needed
s1c2908-1.d	1202074807	AMY	29-MAR-2010 14:58	966766	10-2433	1.0	SBLK01	REPORT
s1c2908-2.d	1202074807	AMY	29-MAR-2010 14:58	966766	10-2436	1.0	SBLK01	REPORT
s1c2908.d	1202074807	AMY	29-MAR-2010 14:58	966766	10-2430	1.0	SBLK01	REPORT
s1c2909-1.d	1202074808	AMY	29-MAR-2010 15:22	966766	10-2433	1.0	SBLK01LCS	REPORT
s1c2909-2.d	1202074808	AMY	29-MAR-2010 15:22	966766	10-2436	1.0	SBLK01LCS	REPORT
s1c2909.d	1202074808	AMY	29-MAR-2010 15:22	966766	10-2430	1.0	SBLK01LCS	REPORT
s1c2910.d	249329001	AMY	29-MAR-2010 15:58	966766	10-2430	1.0	LANL	REPORT
s1c2911.d	249329002	AMY	29-MAR-2010 16:21	966766	10-2430	1.0	LANL	REPORT
s1c2912.d	249329003	AMY	29-MAR-2010 16:45	966766	10-2430	1.0	LANL	REPORT
s1c2913.d	249329004	AMY	29-MAR-2010 17:09	966766	10-2430	1.0	LANL	REPORT
s1c2914.d	249332001	AMY	29-MAR-2010 17:33	966766	10-2433	1.0	LANL	REPORT
s1c2915.d	249332002	AMY	29-MAR-2010 17:56	966766	10-2433	1.0	LANL	REPORT

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 03/30/2010 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1294 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN10306-01.2 Internal Std ID: WBN100310-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD1.i/s033010.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s1c3001.d	INSTBLK	AMY	30-MAR-2010 09:24		s033010	1.0		DUSE
s1c3002.d	WBN100306-01.2	AMY	30-MAR-2010 09:49	50 PPM	s033010	1.0	DFTPP	PASSING
s1c3003.d	WBN100309-05.4	AMY	30-MAR-2010 10:04	40 PPM	MEGAIICARE	1.0	MEGACVS	DUSE
s1c3004.d	WBN100309-09.2	AMY	30-MAR-2010 10:45	40 PPM	MEGAIICARE	1.0	MEGACVS	DUSE-wrong std
s1c3005.d	WBN100309-09.2	AMY	30-MAR-2010 11:16	40 PPM	MEGAIICARE	1.0	MEGACVS	pass 424150
s1c3006.d	WBN100312-08.3	AMY	30-MAR-2010 11:52	40 PPM	s033010	1.0	APCVS	PASSING
s1c3007.d	WBN100304-26.3	AMY	30-MAR-2010 12:15	40 PPM	s033010	1.0	PESTCVS	PASSING
s1c3008.d	249332003	AMY	30-MAR-2010 12:40	966766	10-2433	1.0	LANL	REPORT
s1c3009.d	249332004	AMY	30-MAR-2010 13:04	966766	10-2433	1.0	LANL	REPORT
s1c3010.d	249332005	AMY	30-MAR-2010 13:27	966766	10-2433	1.0	LANL	REPORT
s1c3011.d	249332006	AMY	30-MAR-2010 13:51	966766	10-2433	1.0	LANL	REPORT
s1c3012.d	249332007	AMY	30-MAR-2010 14:13	966766	10-2433	1.0	LANL	REPORT
s1c3013.d	249332009	AMY	30-MAR-2010 14:36	966766	10-2433	1.0	LANL	REPORT
s1c3014.d	UBN100325-09.2	AMY	30-MAR-2010 15:03	40 PPM	nev	1.0	NEVCVS	REPORT
s1c3015.d	1202083357	AMY	30-MAR-2010 15:27	970241	249062	1.0	SBLK04	REPORT
s1c3016.d	1202083358	AMY	30-MAR-2010 15:50	970241	249062	1.0	SBLK04LCS	REPORT
s1c3017.d	1202083359	AMY	30-MAR-2010 16:15	970241	249062	1.0	SBLK04LCSD	REPORT
s1c3018.d	249062002	AMY	30-MAR-2010 16:39	970241	249062	1.0	BRCM	pass surr-out of hold-RE of s6c2528
s1c3019.d	249062004	AMY	30-MAR-2010 17:03	970241	249062	1.0	BRCM	pass surr-out of hold-RE of s6c2531

s1c3020.d	249062018	AMY	30-MAR-2010 17:27	970241	249062		1.0	BRCM	pass surr-out of hold-RE of s6c2544
s1c3021.d	249335002	AMY	30-MAR-2010 17:51	966766	10-2436		1.0	LANL	REPORT
s1c3022.d	1202074809	AMY	30-MAR-2010 18:15	966766	10-2436		1.0	LANLMS	REPORT
s1c3023.d	1202074810	AMY	30-MAR-2010 18:38	966766	10-2436		1.0	LANLMSD	REPORT
s1c3024.d	249335003	AMY	30-MAR-2010 19:02	966766	10-2436		1.0	LANL	REPORT
s1c3025.d	249335004	AMY	30-MAR-2010 19:26	966766	10-2436		1.0	LANL	REPORT
s1c3026.d	249335005	AMY	30-MAR-2010 19:50	966766	10-2436		1.0	LANL	REPORT
s1c3027.d	249335006	AMY	30-MAR-2010 20:14	966766	10-2436		1.0	LANL	REPORT
s1c3028.d	249335007	AMY	30-MAR-2010 20:38	966766	10-2436		2.0	LANL	REPORT
s1c3029.d	249335008	AMY	30-MAR-2010 21:01	966766	10-2436		2.0	LANL	REPORT

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
31-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
966766	See Below		

Potentially affected work order(s)(SDG): 249329(10-2430),249332(10-2433),249335(10-2436)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The MS(1202074809)/MSD(1202074810) RPD values were not within the acceptance limits for multiple spiked compounds.	1. Since The MS and MSD individually passed spike recovery for all target compounds, the data were reported un-qualified for the RPD value failures.

Originator's Name:

Amy Carroll 31-MAR-10

Data Validator/Group Leader:

Daniel Beacham 05-APR-10

GC SEMIVOLATILE PESTICIDE ANALYSIS

Pesticide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2436

Method/Analysis Information

Procedure:	**Analysis of Organochlorine Pesticides and Chlorinated Hydrocarbons by ECD**
Analytical Method:	SW846 8081A
Prep Method:	SW846 3550B
Analytical Batch Number:	968594
Prep Batch Number:	968591

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8081A:

Sample ID	Client ID
249335002	RE46-10-12972
249335003	RE46-10-13003
249335004	RE46-10-12967
249335005	RE46-10-12971
249335006	RE46-10-12968
249335007	RE46-10-12969
249335008	RE46-10-12970
1202079296	Method Blank (MB)
1202079297	Laboratory Control Sample (LCS)
1202079300	Laboratory Control Sample (LCS)-Toxaphene LCS Only
1202079298	249523001(RE46-10-13016) Matrix Spike (MS)
1202079299	249523001(RE46-10-13016) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 10.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y

axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

One of the five quantified peaks did not meet the acceptance criteria in Toxaphene standards analyzed for this SDG; however, the average concentrationt of the five peaks met the acceptance criteria.

Several target analytes recovered outside of the acceptance limits with negative and/or positive bias on one analytical column in the standards bracketing the samples in this SDG. The negative and/or positive bias for the analytical data is a result of instrument response decreasing and/or increasing after the initial calibration. The instrument response never decreased to a point where the target analytes would not be detected. These target analytes were not detected in the associated samples; therefore, the non-compliance has no adverse effects on the data.

Surrogate recovery did not meet the acceptance criteria in the standards bracketing the samples in this SDG; however, this had no adverse effects on the data as all samples associated with this SDG met surrogate recovery acceptance criteria well.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-2471) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information:

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. Florisil clean-up was performed for this batch.

Sample Dilutions
All samples in this SDG were diluted at 1:10 due to their slight yellow hue, strong odor, and the presence of white particulate floating within the sample matrices.

Sample Re-extraction/Re-analysis
Re-extraction was not performed for this SDG.

Miscellaneous Information:

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG. A data exception report (DER) was not generated for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The lower results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD3A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD3A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 4/9/10

Roadmap for LANL 10-2436 PEST

This roadmap was analyzed by hea01125 on 03-29-2010, 15:43.
This roadmap was validated by yml on 04-09-2010, 10:52.
This roadmap was validated by jim01140 on 04-09-2010, 12:21.
This roadmap was validated by jim01140 on 04-09-2010, 12:28.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/032410pa.b/057f5701.d	249335002	sample	25-MAR-2010	08:24	10-2436.sub	RE46-10-12972	10.00000	968594	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/032410pa.b/058f5801.d	249335003	sample	25-MAR-2010	08:38	10-2436.sub	RE46-10-13003	10.00000	968594	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/032410pa.b/059f5901.d	249335004	sample	25-MAR-2010	08:51	10-2436.sub	RE46-10-12967	10.00000	968594	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/032410pa.b/060f6001.d	249335005	sample	25-MAR-2010	09:05	10-2436.sub	RE46-10-12971	10.00000	968594	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/032410pa.b/061f6101.d	249335006	sample	25-MAR-2010	09:19	10-2436.sub	RE46-10-12968	10.00000	968594	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/032410pa.b/062f6201.d	249335007	sample	25-MAR-2010	09:32	10-2436.sub	RE46-10-12969	10.00000	968594	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/032410pa.b/063f6301.d	249335008	sample	25-MAR-2010	09:46	10-2436.sub	RE46-10-12970	10.00000	968594	USE, uploaded both columns, reporting lower result

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/032410pa.b/057b5701.d	249335002	sample	25-MAR-2010	08:24	10-2436.sub	RE46-10-12972	10.00000	968594	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/032410pa.b/058b5801.d	249335003	sample	25-MAR-2010	08:38	10-2436.sub	RE46-10-13003	10.00000	968594	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/032410pa.b/059b5901.d	249335004	sample	25-MAR-2010	08:51	10-2436.sub	RE46-10-12967	10.00000	968594	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/032410pa.b/060b6001.d	249335005	sample	25-MAR-2010	09:05	10-2436.sub	RE46-10-12971	10.00000	968594	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/032410pa.b/061b6101.d	249335006	sample	25-MAR-2010	09:19	10-2436.sub	RE46-10-12968	10.00000	968594	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/032410pa.b/062b6201.d	249335007	sample	25-MAR-2010	09:32	10-2436.sub	RE46-10-12969	10.00000	968594	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/032410pa.b/063b6301.d	249335008	sample	25-MAR-2010	09:46	10-2436.sub	RE46-10-12970	10.00000	968594	USE, uploaded both columns, reporting lower result

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/032410pa.b/044f4401.d	1202079296	mb	25-MAR-2010	05:27	10-2436.sub	PBLK01	1.00000	968594	USE, uploaded both columns, reporting lower result
■	N	/chem/ecd3a.i/032410pa.b/045f4501.d	1202079297	lcs	25-MAR-2010	05:41	10-2436.sub	PBLK01LCS	1.00000	968594	DUSE - Endosulfan sulfate low on back - check low too -
☐	N	/chem/ecd3a.i/032510p.b/025f2501.d	1202079297	lcs	25-MAR-2010	22:07	10-2436.sub	PBLK01LCS	1.00000	968594	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/032410pa.b/046f4601.d	1202079300	lcs	25-MAR-2010	05:54	10-2436.sub	PBLK01TLCS	1.00000	968594	USE, uploaded both columns, reporting lower result

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/032410pa.b/044b4401.d	1202079296	mb	25-MAR-2010	05:27	10-2436.sub	PBLK01	1.00000	968594	USE, uploaded both columns, reporting lower result
■	N	/chem/ecd3a.i/032410pa.b/045b4501.d	1202079297	lcs	25-MAR-2010	05:41	10-2436.sub	PBLK01LCS	1.00000	968594	DUSE - Endosulfan sulfate low on back - check low too -
☐	N	/chem/ecd3a.i/032510p.b/025b2501.d	1202079297	lcs	25-MAR-2010	22:07	10-2436.sub	PBLK01LCS	1.00000	968594	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/032410pa.b/046b4601.d	1202079300	lcs	25-MAR-2010	05:54	10-2436.sub	PBLK01TLCS	1.00000	968594	USE, uploaded both columns, reporting lower result

SAMPLE DATA SUMMARY

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335004	**Date Received:**	03/13/2010 09:30	**%Moisture:**	20.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–12967	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	968594	**Inst:**	ECD3A.I	**Dilution:**	10
Run Date:	03/25/2010 08:51	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/24/2010 10:01	**Aliquot:**	30.01 g	**Final Volume:**	5 mL
Data File:	059f5901.d	**Column:**	1 CLP–1	**Level:**	LOW
	059b5901.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	8.41	ug/kg	2.10	8.41	1
58–89–9	gamma–BHC (Lindane)	U	8.41	ug/kg	2.10	8.41	1
319–85–7	beta–BHC	U	8.41	ug/kg	2.10	8.41	1
319–86–8	delta–BHC	U	8.41	ug/kg	2.10	8.41	1
76–44–8	Heptachlor	U	8.41	ug/kg	2.10	8.41	1
309–00–2	Aldrin	U	8.41	ug/kg	2.10	8.41	1
1024–57–3	Heptachlor epoxide	U	8.41	ug/kg	2.63	8.41	1
5103–74–2	gamma–Chlordane	U	8.41	ug/kg	2.10	8.41	1
5103–71–9	alpha–Chlordane	U	8.41	ug/kg	2.10	8.41	1
959–98–8	Endosulfan 1	U	8.41	ug/kg	2.10	8.41	1
72–55–9	4,4'–DDE	U	16.8	ug/kg	4.20	16.8	1
60–57–1	Dieldrin	U	16.8	ug/kg	4.20	16.8	1
72–20–8	Endrin	U	16.8	ug/kg	4.20	16.8	1
72–54–8	4,4'–DDD	U	16.8	ug/kg	4.20	16.8	1
33213–65–9	Endosulfan II	U	16.8	ug/kg	4.20	16.8	1
7421–93–4	Endrin aldehyde	U	16.8	ug/kg	4.20	16.8	1
50–29–3	4,4'–DDT	U	16.8	ug/kg	4.20	16.8	1
1031–07–8	Endosulfan sulfate	U	16.8	ug/kg	4.20	16.8	1
72–43–5	Methoxychlor	U	84.1	ug/kg	21.0	84.1	1
53494–70–5	Endrin ketone	U	16.8	ug/kg	4.20	16.8	1
8001–35–2	Toxaphene	U	210	ug/kg	70.0	210	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12968**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**968594**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 09:19**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 10:01**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**061f6101.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	061b6101.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.44	ug/kg	1.86	7.44	1
58–89–9	gamma–BHC (Lindane)	U	7.44	ug/kg	1.86	7.44	1
319–85–7	beta–BHC	U	7.44	ug/kg	1.86	7.44	1
319–86–8	delta–BHC	U	7.44	ug/kg	1.86	7.44	1
76–44–8	Heptachlor	U	7.44	ug/kg	1.86	7.44	1
309–00–2	Aldrin	U	7.44	ug/kg	1.86	7.44	1
1024–57–3	Heptachlor epoxide	U	7.44	ug/kg	2.33	7.44	1
5103–74–2	gamma–Chlordane	U	7.44	ug/kg	1.86	7.44	1
5103–71–9	alpha–Chlordane	U	7.44	ug/kg	1.86	7.44	1
959–98–8	Endosulfan I	U	7.44	ug/kg	1.86	7.44	1
72–55–9	4,4'–DDE	U	14.9	ug/kg	3.72	14.9	1
60–57–1	Dieldrin	U	14.9	ug/kg	3.72	14.9	1
72–20–8	Endrin	U	14.9	ug/kg	3.72	14.9	1
72–54–8	4,4'–DDD	U	14.9	ug/kg	3.72	14.9	1
33213–65–9	Endosulfan II	U	14.9	ug/kg	3.72	14.9	1
7421–93–4	Endrin aldehyde	U	14.9	ug/kg	3.72	14.9	1
50–29–3	4,4'–DDT	U	14.9	ug/kg	3.72	14.9	1
1031–07–8	Endosulfan sulfate	U	14.9	ug/kg	3.72	14.9	1
72–43–5	Methoxychlor	U	74.4	ug/kg	18.6	74.4	1
53494–70–5	Endrin ketone	U	14.9	ug/kg	3.72	14.9	1
8001–35–2	Toxaphene	U	186	ug/kg	62.0	186	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12969**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**968594**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 09:32**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 10:01**	**Aliquot:**	**30.03 g**	**Final Volume:**	**5 mL**
Data File:	**062f6201.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	062b6201.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.60	ug/kg	1.90	7.60	1
58–89–9	gamma–BHC (Lindane)	U	7.60	ug/kg	1.90	7.60	1
319–85–7	beta–BHC	U	7.60	ug/kg	1.90	7.60	1
319–86–8	delta–BHC	U	7.60	ug/kg	1.90	7.60	1
76–44–8	Heptachlor	U	7.60	ug/kg	1.90	7.60	1
309–00–2	Aldrin	U	7.60	ug/kg	1.90	7.60	1
1024–57–3	Heptachlor epoxide	U	7.60	ug/kg	2.38	7.60	1
5103–74–2	gamma–Chlordane	U	7.60	ug/kg	1.90	7.60	1
5103–71–9	alpha–Chlordane	U	7.60	ug/kg	1.90	7.60	1
959–98–8	Endosulfan I	U	7.60	ug/kg	1.90	7.60	1
72–55–9	4,4'–DDE	U	15.2	ug/kg	3.80	15.2	1
60–57–1	Dieldrin	U	15.2	ug/kg	3.80	15.2	1
72–20–8	Endrin	U	15.2	ug/kg	3.80	15.2	1
72–54–8	4,4'–DDD	U	15.2	ug/kg	3.80	15.2	1
33213–65–9	Endosulfan II	U	15.2	ug/kg	3.80	15.2	1
7421–93–4	Endrin aldehyde	U	15.2	ug/kg	3.80	15.2	1
50–29–3	4,4'–DDT	U	15.2	ug/kg	3.80	15.2	1
1031–07–8	Endosulfan sulfate	U	15.2	ug/kg	3.80	15.2	1
72–43–5	Methoxychlor	U	76.0	ug/kg	19.0	76.0	1
53494–70–5	Endrin ketone	U	15.2	ug/kg	3.80	15.2	1
8001–35–2	Toxaphene	U	190	ug/kg	63.3	190	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335008**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12970**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**968594**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 09:46**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 10:01**	**Aliquot:**	**30.01 g**	**Final Volume:**	**5 mL**
Data File:	**063f6301.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	063b6301.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.87	ug/kg	1.97	7.87	1
58–89–9	gamma–BHC (Lindane)	U	7.87	ug/kg	1.97	7.87	1
319–85–7	beta–BHC	U	7.87	ug/kg	1.97	7.87	1
319–86–8	delta–BHC	U	7.87	ug/kg	1.97	7.87	1
76–44–8	Heptachlor	U	7.87	ug/kg	1.97	7.87	1
309–00–2	Aldrin	U	7.87	ug/kg	1.97	7.87	1
1024–57–3	Heptachlor epoxide	U	7.87	ug/kg	2.46	7.87	1
5103–74–2	gamma–Chlordane	U	7.87	ug/kg	1.97	7.87	1
5103–71–9	alpha–Chlordane	U	7.87	ug/kg	1.97	7.87	1
959–98–8	Endosulfan I	U	7.87	ug/kg	1.97	7.87	1
72–55–9	4,4'–DDE	U	15.7	ug/kg	3.94	15.7	1
60–57–1	Dieldrin	U	15.7	ug/kg	3.94	15.7	1
72–20–8	Endrin	U	15.7	ug/kg	3.94	15.7	1
72–54–8	4,4'–DDD	U	15.7	ug/kg	3.94	15.7	1
33213–65–9	Endosulfan II	U	15.7	ug/kg	3.94	15.7	1
7421–93–4	Endrin aldehyde	U	15.7	ug/kg	3.94	15.7	1
50–29–3	4,4'–DDT	U	15.7	ug/kg	3.94	15.7	1
1031–07–8	Endosulfan sulfate	U	15.7	ug/kg	3.94	15.7	1
72–43–5	Methoxychlor	U	78.7	ug/kg	19.7	78.7	1
53494–70–5	Endrin ketone	U	15.7	ug/kg	3.94	15.7	1
8001–35–2	Toxaphene	U	197	ug/kg	65.6	197	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**21.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12971**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**968594**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 09:05**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 10:01**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**060f6001.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	060b6001.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	8.52	ug/kg	2.13	8.52	1
58-89-9	gamma-BHC (Lindane)	U	8.52	ug/kg	2.13	8.52	1
319-85-7	beta-BHC	U	8.52	ug/kg	2.13	8.52	1
319-86-8	delta-BHC	U	8.52	ug/kg	2.13	8.52	1
76-44-8	Heptachlor	U	8.52	ug/kg	2.13	8.52	1
309-00-2	Aldrin	U	8.52	ug/kg	2.13	8.52	1
1024-57-3	Heptachlor epoxide	U	8.52	ug/kg	2.66	8.52	1
5103-74-2	gamma-Chlordane	U	8.52	ug/kg	2.13	8.52	1
5103-71-9	alpha-Chlordane	U	8.52	ug/kg	2.13	8.52	1
959-98-8	Endosulfan I	U	8.52	ug/kg	2.13	8.52	1
72-55-9	4,4'-DDE	U	17.0	ug/kg	4.26	17.0	1
60-57-1	Dieldrin	U	17.0	ug/kg	4.26	17.0	1
72-20-8	Endrin	U	17.0	ug/kg	4.26	17.0	1
72-54-8	4,4'-DDD	U	17.0	ug/kg	4.26	17.0	1
33213-65-9	Endosulfan II	U	17.0	ug/kg	4.26	17.0	1
7421-93-4	Endrin aldehyde	U	17.0	ug/kg	4.26	17.0	1
50-29-3	4,4'-DDT	U	17.0	ug/kg	4.26	17.0	1
1031-07-8	Endosulfan sulfate	U	17.0	ug/kg	4.26	17.0	1
72-43-5	Methoxychlor	U	85.2	ug/kg	21.3	85.2	1
53494-70-5	Endrin ketone	U	17.0	ug/kg	4.26	17.0	1
8001-35-2	Toxaphene	U	213	ug/kg	71.0	213	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12972**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**968594**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 08:24**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 10:01**	**Aliquot:**	**30.02 g**	**Final Volume:**	**5 mL**
Data File:	**057f5701.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	057b5701.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.59	ug/kg	1.90	7.59	1
58–89–9	gamma–BHC (Lindane)	U	7.59	ug/kg	1.90	7.59	1
319–85–7	beta–BHC	U	7.59	ug/kg	1.90	7.59	1
319–86–8	delta–BHC	U	7.59	ug/kg	1.90	7.59	1
76–44–8	Heptachlor	U	7.59	ug/kg	1.90	7.59	1
309–00–2	Aldrin	U	7.59	ug/kg	1.90	7.59	1
1024–57–3	Heptachlor epoxide	U	7.59	ug/kg	2.37	7.59	1
5103–74–2	gamma–Chlordane	U	7.59	ug/kg	1.90	7.59	1
5103–71–9	alpha–Chlordane	U	7.59	ug/kg	1.90	7.59	1
959–98–8	Endosulfan 1	U	7.59	ug/kg	1.90	7.59	1
72–55–9	4,4'–DDE	U	15.2	ug/kg	3.80	15.2	1
60–57–1	Dieldrin	U	15.2	ug/kg	3.80	15.2	1
72–20–8	Endrin	U	15.2	ug/kg	3.80	15.2	1
72–54–8	4,4'–DDD	U	15.2	ug/kg	3.80	15.2	1
33213–65–9	Endosulfan II	U	15.2	ug/kg	3.80	15.2	1
7421–93–4	Endrin aldehyde	U	15.2	ug/kg	3.80	15.2	1
50–29–3	4,4'–DDT	U	15.2	ug/kg	3.80	15.2	1
1031–07–8	Endosulfan sulfate	U	15.2	ug/kg	3.80	15.2	1
72–43–5	Methoxychlor	U	75.9	ug/kg	19.0	75.9	1
53494–70–5	Endrin ketone	U	15.2	ug/kg	3.80	15.2	1
8001–35–2	Toxaphene	U	190	ug/kg	63.2	190	1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13003**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**968594**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 08:38**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 10:01**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**058f5801.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	058b5801.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.53	ug/kg	1.88	7.53	1
58–89–9	gamma–BHC (Lindane)	U	7.53	ug/kg	1.88	7.53	1
319–85–7	beta–BHC	U	7.53	ug/kg	1.88	7.53	1
319–86–8	delta–BHC	U	7.53	ug/kg	1.88	7.53	1
76–44–8	Heptachlor	U	7.53	ug/kg	1.88	7.53	1
309–00–2	Aldrin	U	7.53	ug/kg	1.88	7.53	1
1024–57–3	Heptachlor epoxide	U	7.53	ug/kg	2.35	7.53	1
5103–74–2	gamma–Chlordane	U	7.53	ug/kg	1.88	7.53	1
5103–71–9	alpha–Chlordane	U	7.53	ug/kg	1.88	7.53	1
959–98–8	Endosulfan I	U	7.53	ug/kg	1.88	7.53	1
72–55–9	4,4'–DDE	U	15.1	ug/kg	3.77	15.1	1
60–57–1	Dieldrin	U	15.1	ug/kg	3.77	15.1	1
72–20–8	Endrin	U	15.1	ug/kg	3.77	15.1	1
72–54–8	4,4'–DDD	U	15.1	ug/kg	3.77	15.1	1
33213–65–9	Endosulfan II	U	15.1	ug/kg	3.77	15.1	1
7421–93–4	Endrin aldehyde	U	15.1	ug/kg	3.77	15.1	1
50–29–3	4,4'–DDT	U	15.1	ug/kg	3.77	15.1	1
1031–07–8	Endosulfan sulfate	U	15.1	ug/kg	3.77	15.1	1
72–43–5	Methoxychlor	U	75.3	ug/kg	18.8	75.3	1
53494–70–5	Endrin ketone	U	15.1	ug/kg	3.77	15.1	1
8001–35–2	Toxaphene	U	188	ug/kg	62.7	188	1

QUALITY CONTROL SUMMARY

Pesticide

Surrogate Recovery Report

SDG Number: 10–2436

Matrix Type: SOLID

CAP Column (1) : CLP–1 **CAP Column (2) : CLP–2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
1202079296	MB for batch 968591	54		48		93		77	
1202079300	LCS for batch 968591	83		72		89		81	
249335002	RE46–10–12972	57	D	58	D	80	D	71	D
249335003	RE46–10–13003	61	D	62	D	79	D	75	D
249335004	RE46–10–12967	53	D	53	D	54	D	52	D
249335005	RE46–10–12971	49	D	51	D	62	D	53	D
249335006	RE46–10–12968	59	D	62	D	64	D	58	D
249335007	RE46–10–12969	50	D	47	D	52	D	45	D
249335008	RE46–10–12970	48	D	48	D	51	D	46	D
1202079297	LCS for batch 968591	75		71		90		85	

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%–120%)
DCB = Decachlorobiphenyl	(30%–116%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Sample Type: Laboratory Control Sample
Client ID: LCS for batch 968591
Matrix: SOIL
Lab Sample ID: 1202079297
Instrument: ECD3A.I
Analysis Date: 03/25/2010 22:07
Dilution: 1
Analyst: HXJ1
Prep Batch ID: 968591
Inj. Vol: 1 uL
Batch ID: 968594

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
319-84-6	LCS	alpha-BHC	16.7	0.0	12.3	74	57-130
58-89-9	LCS	gamma-BHC (Lindane)	16.7	0.0	13.2	79	56-132
319-85-7	LCS	beta-BHC	16.7	0.0	11.8	71	53-123
319-86-8	LCS	delta-BHC	16.7	0.0	12.8	77	56-130
76-44-8	LCS	Heptachlor	16.7	0.0	12.7	76	51-131
309-00-2	LCS	Aldrin	16.7	0.0	11.5	69	51-124
1024-57-3	LCS	Heptachlor epoxide	16.7	0.0	12.1	73	52-123
5103-74-2	LCS	gamma-Chlordane	16.7	0.0	13.0	78	57-126
5103-71-9	LCS	alpha-Chlordane	16.7	0.0	13.2	79	53-128
959-98-8	LCS	Endosulfan I	16.7	0.0	12.8	77	43-126
72-55-9	LCS	4,4'-DDE	41.7	0.0	33.7	81	59-122
60-57-1	LCS	Dieldrin	41.7	0.0	32.0	77	52-120
72-20-8	LCS	Endrin	41.7	0.0	36.2	87	61-135
72-54-8	LCS	4,4'-DDD	41.7	0.0	36.2	87	60-129
33213-65-9	LCS	Endosulfan II	41.7	0.0	33.7	81	50-126
7421-93-4	LCS	Endrin aldehyde	41.7	0.0	22.7	55	47-117
50-29-3	LCS	4,4'-DDT	41.7	0.0	38.6	93	50-142
1031-07-8	LCS	Endosulfan sulfate	41.7	0.0	27.6	66	61-132
72-43-5	LCS	Methoxychlor	167	0.0	139	83	59-140
53494-70-5	LCS	Endrin ketone	41.7	0.0	30.3	73	57-129

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: **10–2436**
Sample Type: **Laboratory Control Sample**
Client ID: **LCS for batch 968591**
Matrix: **SOIL**
Lab Sample ID: **1202079300**
Instrument: **ECD3A.I**
Analysis Date: **03/25/2010 05:54**
Dilution: 1
Analyst: **HXJ1**
Prep Batch ID: **968591**
Inj. Vol: **1 uL**
Batch ID: **968594**

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
8001–35–2	LCS Toxaphene	133	0.0	101	76	50–129

Pesticide
Quality Control Summary
Spike Recovery Report

SDG Number:	**10-2471**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE46-10-13016MS**	**Matrix:**	**S**
Lab Sample ID:	**1202079298**	**%Moisture:**	**24.9**
Instrument:	**ECD3A.I**	**Analysis Date:**	**03/26/2010 01:59**
Analyst:	**HXJ1**	**Prep Batch ID:**	**968591**
Inj. Vol:	**1 uL**	**Batch ID:**	**968594**

Dilution: 10

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
319-84-6	MS	alpha-BHC	22.2	0.00	U	10.3	47	36-122
58-89-9	MS	gamma-BHC (Lindane)	22.2	0.00	U	10.8	49	37-126
319-85-7	MS	beta-BHC	22.2	0.00	U	11.2	50	33-129
319-86-8	MS	delta-BHC	22.2	0.00	U	10.4	47	32-125
76-44-8	MS	Heptachlor	22.2	0.00	U	10.9	49	33-128
309-00-2	MS	Aldrin	22.2	0.00	U	11.9	53	40-120
1024-57-3	MS	Heptachlor epoxide	22.2	0.00	U	11.1	50	30-128
5103-74-2	MS	gamma-Chlordane	22.2	0.00	U	9.70	44	35-133
5103-71-9	MS	alpha-Chlordane	22.2	0.00	U	11.2	50	36-129
959-98-8	MS	Endosulfan I	22.2	0.00	U	11.1	50	31-118
72-55-9	MS	4,4'-DDE	55.4	0.00	U	30.9	56	36-127
60-57-1	MS	Dieldrin	55.4	0.00	U	27.5	50	32-126
72-20-8	MS	Endrin	55.4	0.00	U	32.0	58	37-137
72-54-8	MS	4,4'-DDD	55.4	0.00	U	31.2	56	34-131
33213-65-9	MS	Endosulfan II	55.4	0.00	U	28.0	51	25-128
7421-93-4	MS	Endrin aldehyde	55.4	0.00	U	18.3	33	30-120
50-29-3	MS	4,4'-DDT	55.4	0.00	U	34.9	63	30-147
1031-07-8	MS	Endosulfan sulfate	55.4	0.00	U	18.6	34	32-127
72-43-5	MS	Methoxychlor	222	0.00	U	118	53	32-144
53494-70-5	MS	Endrin ketone	55.4	0.00	U	25.4	46	35-130

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2471
Client ID: RE46–10–13016MSD
Lab Sample ID: 1202079299
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 24.9
Analysis Date: 03/26/2010 02:12
Prep Batch ID: 968591
Batch ID: 968594
Dilution: 10

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
319–84–6	MSD alpha–BHC	22.2	0.00	U	11.1	50	36–122	7	0–32
58–89–9	MSD gamma–BHC (Lindane)	22.2	0.00	U	11.4	51	37–126	5	0–29
319–85–7	MSD beta–BHC	22.2	0.00	U	11.0	50	33–129	2	0–30
319–86–8	MSD delta–BHC	22.2	0.00	U	10.4	47	32–125	0	0–29
76–44–8	MSD Heptachlor	22.2	0.00	U	11.4	51	33–128	4	0–33
309–00–2	MSD Aldrin	22.2	0.00	U	13.0	59	40–120	9	0–31
1024–57–3	MSD Heptachlor epoxide	22.2	0.00	U	11.4	52	30–128	3	0–32
5103–74–2	MSD gamma–Chlordane	22.2	0.00	U	9.77	44	35–133	1	0–34
5103–71–9	MSD alpha–Chlordane	22.2	0.00	U	10.9	49	36–129	2	0–34
959–98–8	MSD Endosulfan I	22.2	0.00	U	10.8	49	31–118	3	0–29
72–55–9	MSD 4,4'–DDE	55.4	0.00	U	27.7	50	36–127	11	0–31
60–57–1	MSD Dieldrin	55.4	0.00	U	27.5	50	32–126	0	0–31
72–20–8	MSD Endrin	55.4	0.00	U	30.9	56	37–137	4	0–27
72–54–8	MSD 4,4'–DDD	55.4	0.00	U	28.9	52	34–131	8	0–25
33213–65–9	MSD Endosulfan II	55.4	0.00	U	25.8	46	25–128	8	0–31
7421–93–4	MSD Endrin aldehyde	55.4	0.00	U	17.8	32	30–120	3	0–30
50–29–3	MSD 4,4'–DDT	55.4	0.00	U	32.7	59	30–147	7	0–27
1031–07–8	MSD Endosulfan sulfate	55.4	0.00	U	18.7	34	32–127	0	0–30
72–43–5	MSD Methoxychlor	222	0.00	U	117	53	32–144	1	0–31
53494–70–5	MSD Endrin ketone	55.4	0.00	U	25.1	45	35–130	1	0–26

Method Blank Summary

SDG Number:	10–2436	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 968591	Instrument ID:	ECD3A.I_2 ECD3A.I_1	Data File:	044b4401.d 044f4401.d
Lab Sample ID:	1202079296				
Column:	CLP–2 CLP–1	Prep Date:	03/24/2010 10:01	Analyzed:	03/25/10 05:27
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 968591	1202079300	046f4601.d 046b4601.d	03/25/10	0554
02	RE46–10–12972	249335002	057f5701.d 057b5701.d	03/25/10	0824
03	RE46–10–13003	249335003	058f5801.d 058b5801.d	03/25/10	0838
04	RE46–10–12967	249335004	059f5901.d 059b5901.d	03/25/10	0851
05	RE46–10–12971	249335005	060f6001.d 060b6001.d	03/25/10	0905
06	RE46–10–12968	249335006	061f6101.d 061b6101.d	03/25/10	0919
07	RE46–10–12969	249335007	062f6201.d 062b6201.d	03/25/10	0932
08	RE46–10–12970	249335008	063f6301.d 063b6301.d	03/25/10	0946
09	LCS for batch 968591	1202079297	025f2501.d 025b2501.d	03/25/10	2207

SAMPLE DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12967**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**968594**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 08:51**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 10:01**	**Aliquot:**	**30.01 g**	**Final Volume:**	**5 mL**
Data File:	**059f5901.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	059b5901.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	8.41	ug/kg	2.10	8.41	1
58–89–9	gamma–BHC (Lindane)	U	8.41	ug/kg	2.10	8.41	1
319–85–7	beta–BHC	U	8.41	ug/kg	2.10	8.41	1
319–86–8	delta–BHC	U	8.41	ug/kg	2.10	8.41	1
76–44–8	Heptachlor	U	8.41	ug/kg	2.10	8.41	1
309–00–2	Aldrin	U	8.41	ug/kg	2.10	8.41	1
1024–57–3	Heptachlor epoxide	U	8.41	ug/kg	2.63	8.41	1
5103–74–2	gamma–Chlordane	U	8.41	ug/kg	2.10	8.41	1
5103–71–9	alpha–Chlordane	U	8.41	ug/kg	2.10	8.41	1
959–98–8	Endosulfan I	U	8.41	ug/kg	2.10	8.41	1
72–55–9	4,4'–DDE	U	16.8	ug/kg	4.20	16.8	1
60–57–1	Dieldrin	U	16.8	ug/kg	4.20	16.8	1
72–20–8	Endrin	U	16.8	ug/kg	4.20	16.8	1
72–54–8	4,4'–DDD	U	16.8	ug/kg	4.20	16.8	1
33213–65–9	Endosulfan II	U	16.8	ug/kg	4.20	16.8	1
7421–93–4	Endrin aldehyde	U	16.8	ug/kg	4.20	16.8	1
50–29–3	4,4'–DDT	U	16.8	ug/kg	4.20	16.8	1
1031–07–8	Endosulfan sulfate	U	16.8	ug/kg	4.20	16.8	1
72–43–5	Methoxychlor	U	84.1	ug/kg	21.0	84.1	1
53494–70–5	Endrin ketone	U	16.8	ug/kg	4.20	16.8	1
8001–35–2	Toxaphene	U	210	ug/kg	70.0	210	1

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CLP-1

Data file : /chem/ecd3a.i/032410pa.b/059f5901.d
Lab Smp Id: 249335004 Client Smp ID: RE46-10-12967
Inj Date : 25-MAR-2010 08:51
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |249335004|10|
Misc Info : |ECD81A_1S|968594|SVP|LANL|SOIL|RE46-10-12967|||
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Meth Date : 25-Mar-2010 14:57 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 59
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: l0-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	20.72070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.579	2.579	0.000	725227	10.5405	22.2	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.665	7.665	0.000	566454	10.8547	22.8	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/059f5901.d
Date : 25-MAR-2010 08:51
Client ID: RE46-10-12967
Sample Info: |2493350041101|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

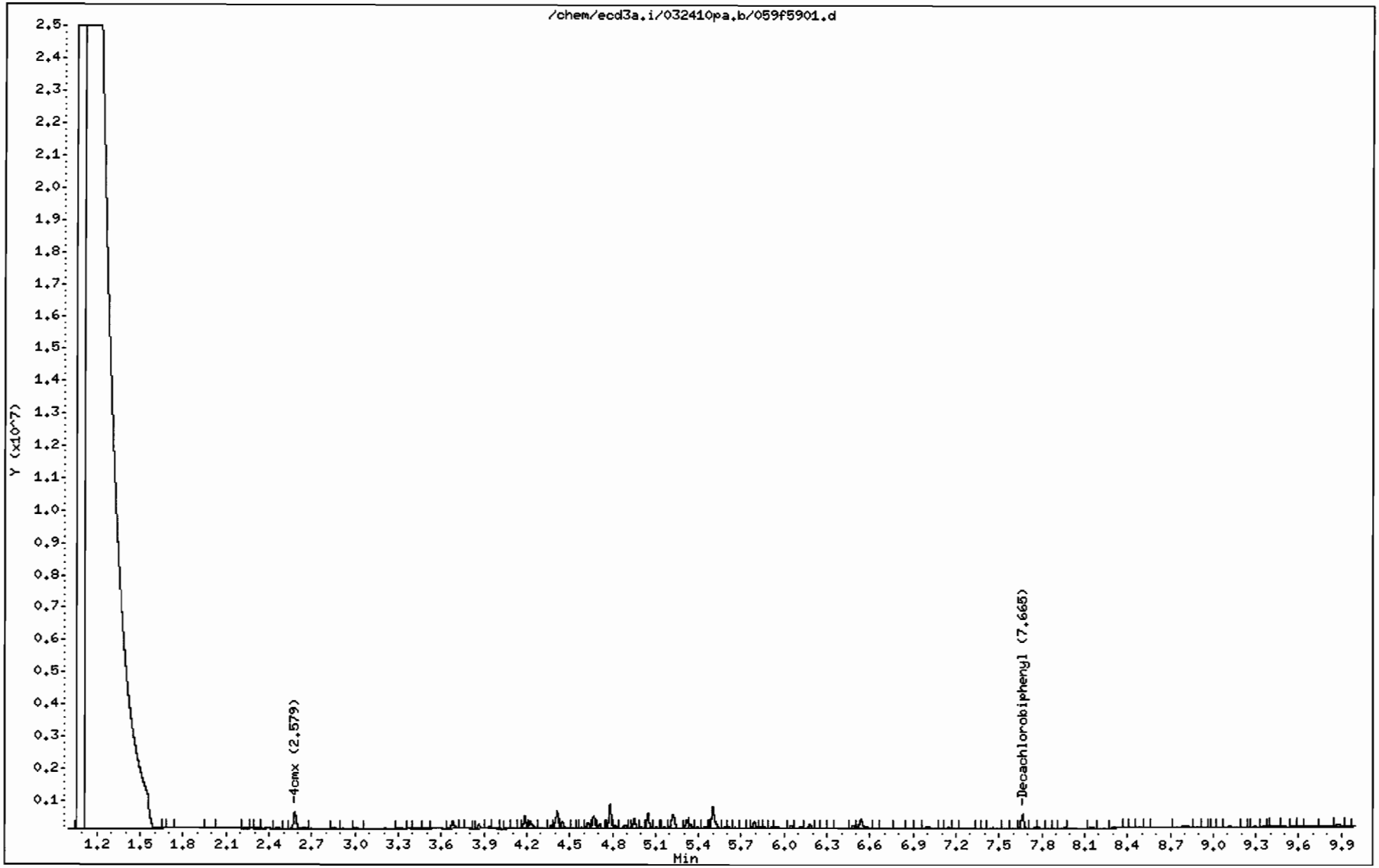

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/032410pa.b/059b5901.d
Lab Smp Id: 249335004 Client Smp ID: RE46-10-12967
Inj Date : 25-MAR-2010 08:51
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |249335004|10|
Misc Info : |ECD81A_1S|968594|SVP|LANL|SOIL|RE46-10-12967|||
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Meth Date : 25-Mar-2010 14:33 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 59
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	20.72070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.813	2.813	0.000	7375964	10.6140	22.3	80.00- 120.00	100.00(M)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.681	8.682	-0.001	4638953	10.4482	22.0	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/032410pa.b/059b5901.d

Page 1

Date : 25-MAR-2010 08:51

Client ID: RE46-10-12967

Instrument: ecd3a.i

Sample Info: |249335004|10|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

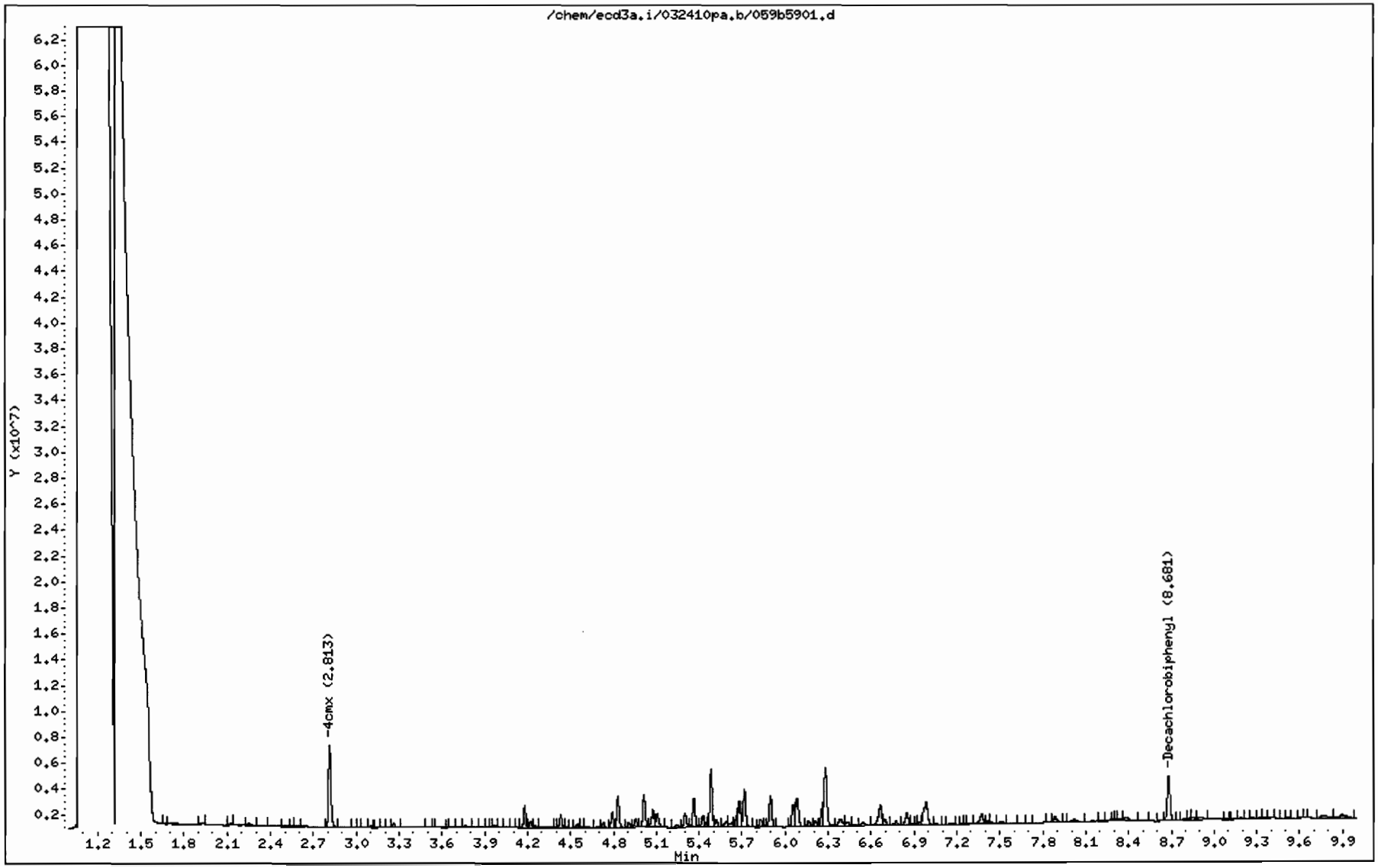

Comment: Manually Integrated
Data File: /chem/ecd3a.i/032410pa.b/059b5901.d
Operator: HXJ1
Injection Date: 25-MAR-2010 08:51
Instrument: ecd3a.i
Client Sample ID: RE46-10-12967

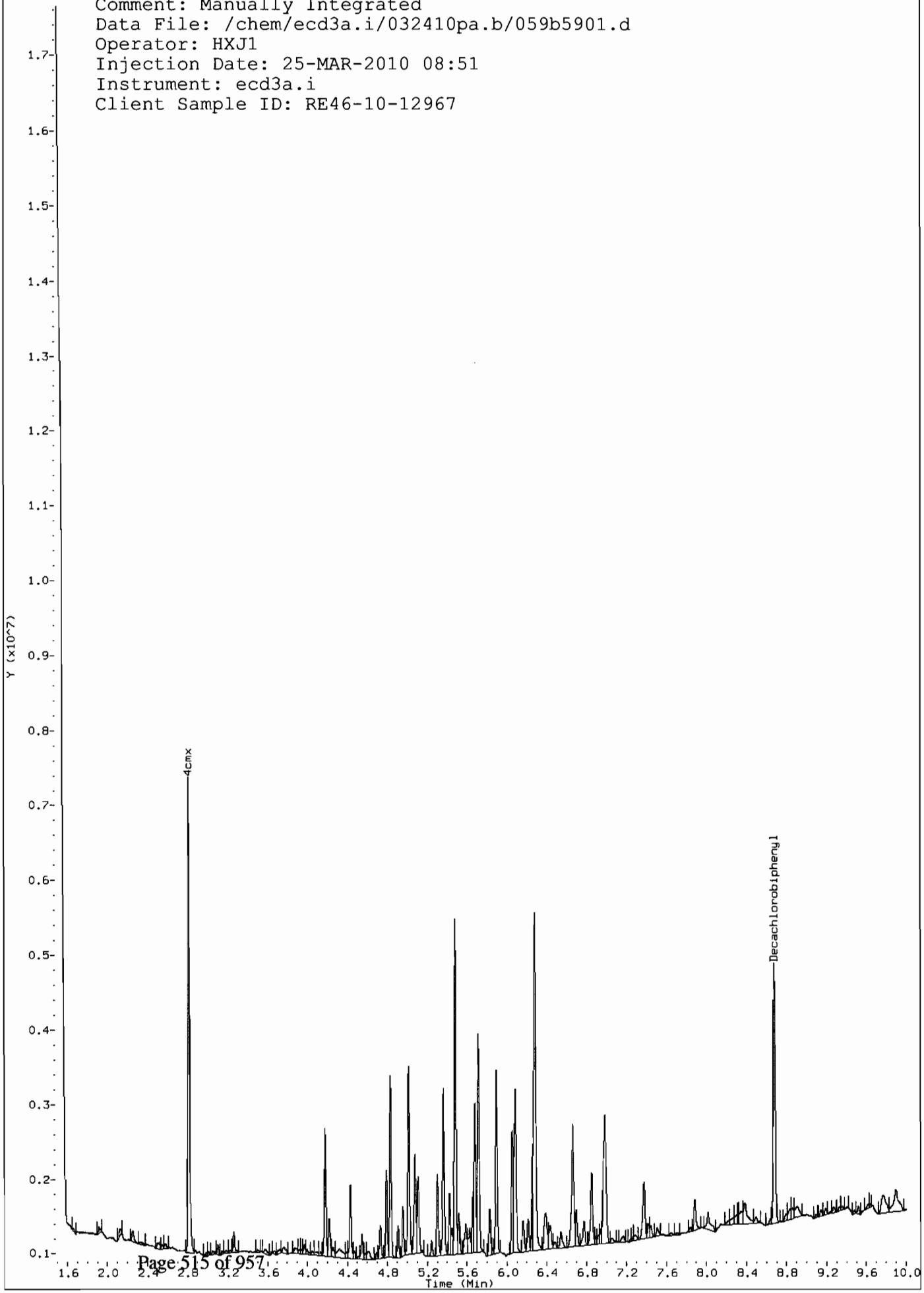

Comment: Before manual integration
Data File: /chem/ecd3a.i/032410pa.b/orig-059b5901.d
Operator: HXJ1
Injection Date: 25-MAR-2010 08:51
Instrument: ecd3a.i
Client Sample ID: RE46-10-12967

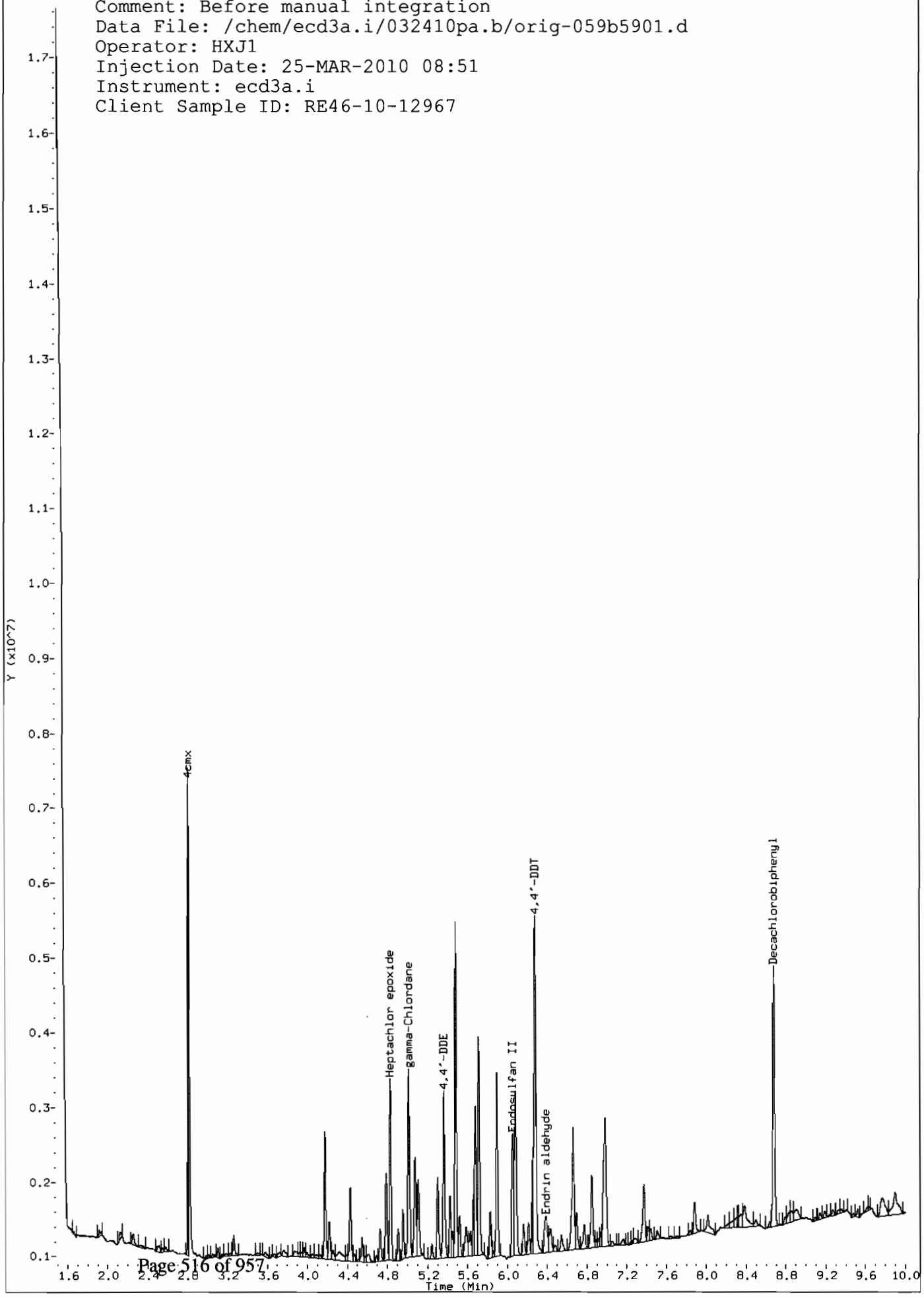

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335006**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**10.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12968**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**968594**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 09:19**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 10:01**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**061f6101.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	061b6101.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	7.44	ug/kg	1.86	7.44	1
58-89-9	gamma-BHC (Lindane)	U	7.44	ug/kg	1.86	7.44	1
319-85-7	beta-BHC	U	7.44	ug/kg	1.86	7.44	1
319-86-8	delta-BHC	U	7.44	ug/kg	1.86	7.44	1
76-44-8	Heptachlor	U	7.44	ug/kg	1.86	7.44	1
309-00-2	Aldrin	U	7.44	ug/kg	1.86	7.44	1
1024-57-3	Heptachlor epoxide	U	7.44	ug/kg	2.33	7.44	1
5103-74-2	gamma-Chlordane	U	7.44	ug/kg	1.86	7.44	1
5103-71-9	alpha-Chlordane	U	7.44	ug/kg	1.86	7.44	1
959-98-8	Endosulfan I	U	7.44	ug/kg	1.86	7.44	1
72-55-9	4,4'-DDE	U	14.9	ug/kg	3.72	14.9	1
60-57-1	Dieldrin	U	14.9	ug/kg	3.72	14.9	1
72-20-8	Endrin	U	14.9	ug/kg	3.72	14.9	1
72-54-8	4,4'-DDD	U	14.9	ug/kg	3.72	14.9	1
33213-65-9	Endosulfan II	U	14.9	ug/kg	3.72	14.9	1
7421-93-4	Endrin aldehyde	U	14.9	ug/kg	3.72	14.9	1
50-29-3	4,4'-DDT	U	14.9	ug/kg	3.72	14.9	1
1031-07-8	Endosulfan sulfate	U	14.9	ug/kg	3.72	14.9	1
72-43-5	Methoxychlor	U	74.4	ug/kg	18.6	74.4	1
53494-70-5	Endrin ketone	U	14.9	ug/kg	3.72	14.9	1
8001-35-2	Toxaphene	U	186	ug/kg	62.0	186	1

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CLP-1

Data file : /chem/ecd3a.i/032410pa.b/061f6101.d
Lab Smp Id: 249335006 Client Smp ID: RE46-10-12968
Inj Date : 25-MAR-2010 09:19
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |249335006|10|
Misc Info : |ECD81A_1S|968594|SVP|LANL|SOIL|RE46-10-12968|||
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Meth Date : 25-Mar-2010 14:57 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 61
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	10.43520	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.579	0.001	807605	11.7378	21.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.664	7.665	-0.001	668393	12.8082	23.8	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/061f6101.d

Date : 25-MAR-2010 09:19

Client ID: RE46-10-12968

Sample Info: |2493350061101|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

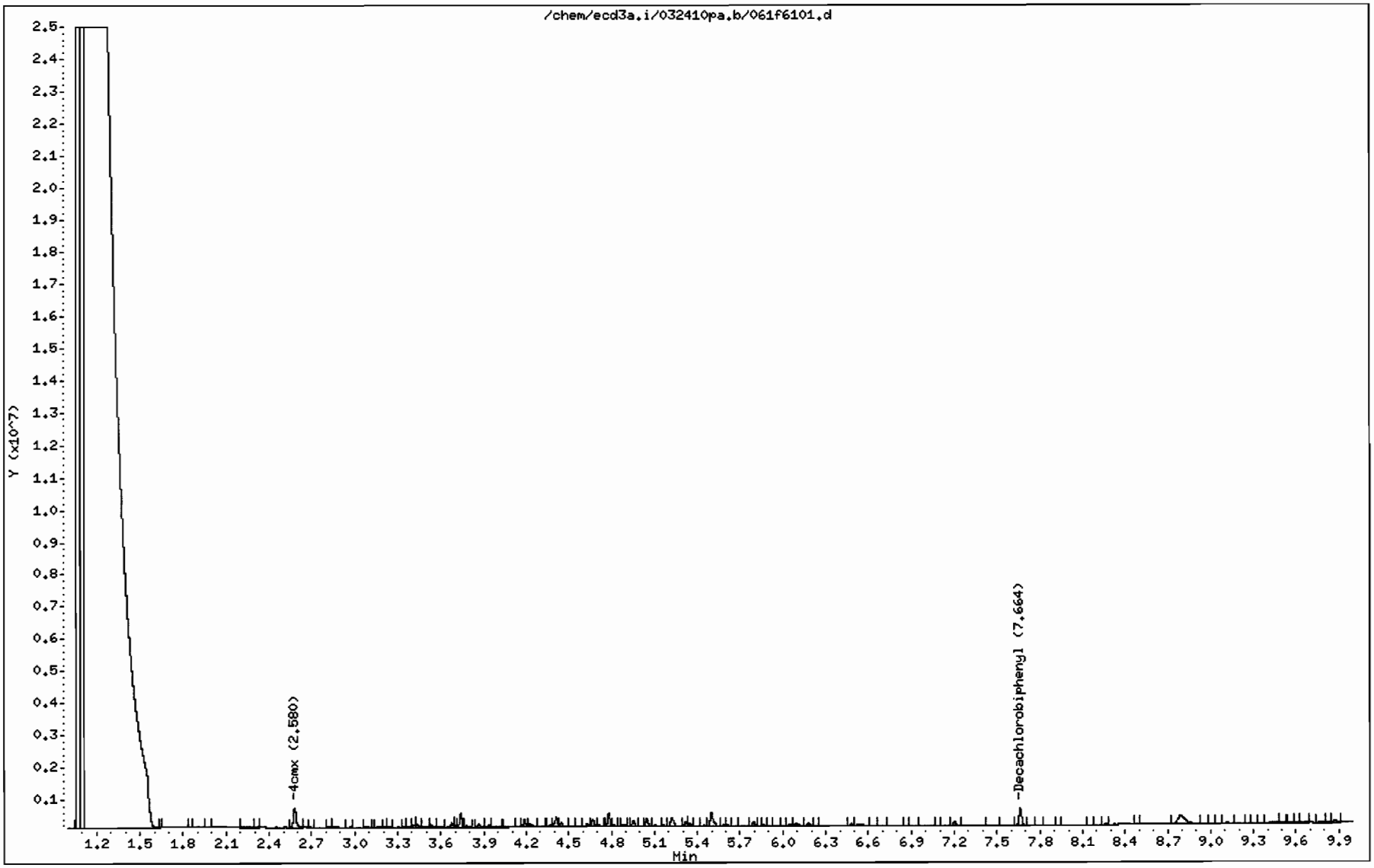

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CLP-2

Data file : /chem/ecd3a.i/032410pa.b/061b6101.d
Lab Smp Id: 249335006 Client Smp ID: RE46-10-12968
Inj Date : 25-MAR-2010 09:19
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |249335006|10|
Misc Info : |ECD81A_1S|968594|SVP|LANL|SOIL|RE46-10-12968|||
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Meth Date : 25-Mar-2010 14:33 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 61
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	10.43520	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.812	2.813	-0.001	8552973	12.3077	22.9	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.681	8.682	-0.001	5119788	11.5312	21.4	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/061b6101.d

Page 1

Date : 25-MAR-2010 09:19

Client ID: RE46-10-12968

Instrument: ecd3a.i

Sample Info: |2493350061101|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

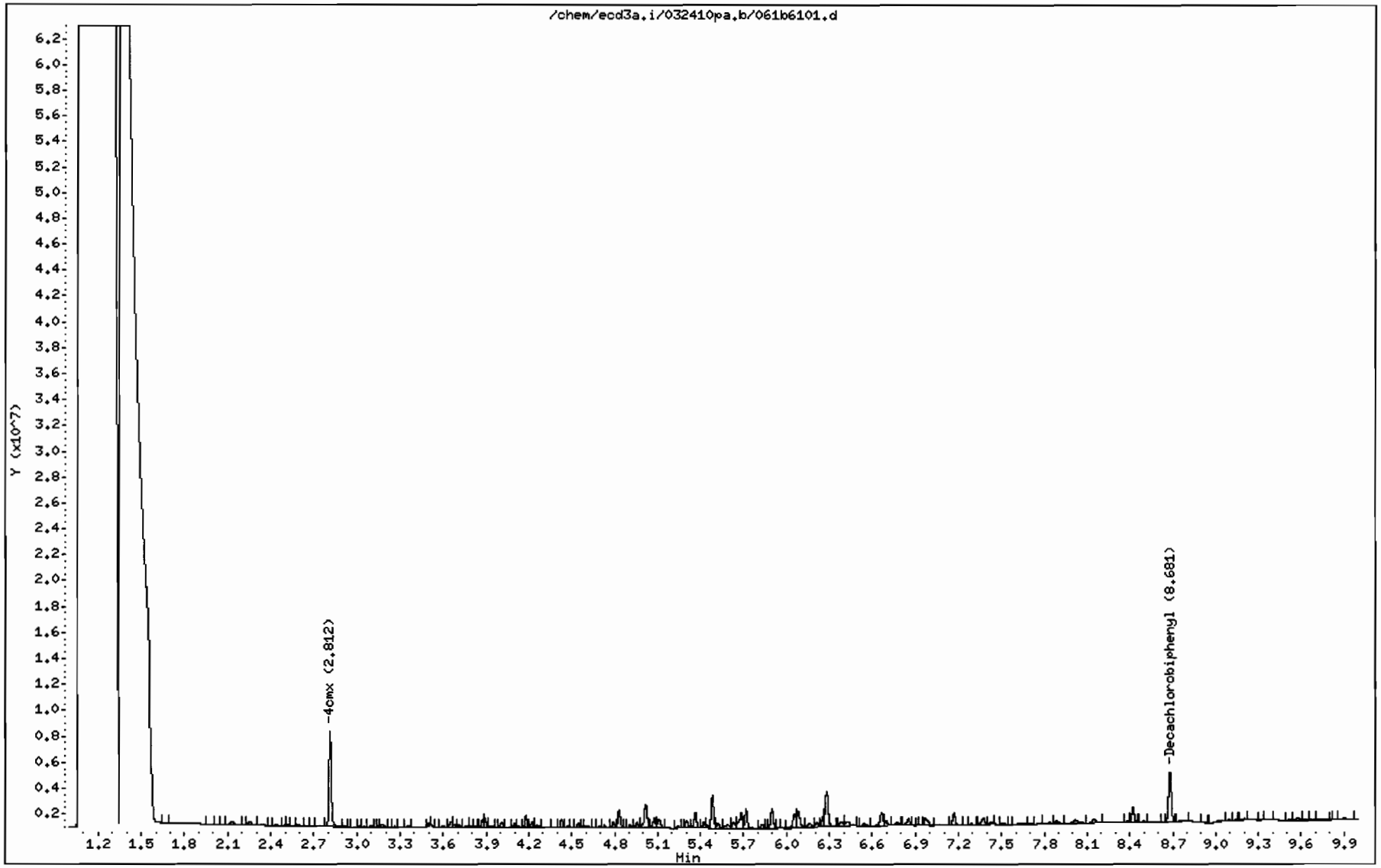

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12969**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**968594**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 09:32**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 10:01**	**Aliquot:**	**30.03 g**	**Final Volume:**	**5 mL**
Data File:	**062f6201.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	062b6201.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.60	ug/kg	1.90	7.60	1
58–89–9	gamma–BHC (Lindane)	U	7.60	ug/kg	1.90	7.60	1
319–85–7	beta–BHC	U	7.60	ug/kg	1.90	7.60	1
319–86–8	delta–BHC	U	7.60	ug/kg	1.90	7.60	1
76–44–8	Heptachlor	U	7.60	ug/kg	1.90	7.60	1
309–00–2	Aldrin	U	7.60	ug/kg	1.90	7.60	1
1024–57–3	Heptachlor epoxide	U	7.60	ug/kg	2.38	7.60	1
5103–74–2	gamma–Chlordane	U	7.60	ug/kg	1.90	7.60	1
5103–71–9	alpha–Chlordane	U	7.60	ug/kg	1.90	7.60	1
959–98–8	Endosulfan I	U	7.60	ug/kg	1.90	7.60	1
72–55–9	4,4'–DDE	U	15.2	ug/kg	3.80	15.2	1
60–57–1	Dieldrin	U	15.2	ug/kg	3.80	15.2	1
72–20–8	Endrin	U	15.2	ug/kg	3.80	15.2	1
72–54–8	4,4'–DDD	U	15.2	ug/kg	3.80	15.2	1
33213–65–9	Endosulfan II	U	15.2	ug/kg	3.80	15.2	1
7421–93–4	Endrin aldehyde	U	15.2	ug/kg	3.80	15.2	1
50–29–3	4,4'–DDT	U	15.2	ug/kg	3.80	15.2	1
1031–07–8	Endosulfan sulfate	U	15.2	ug/kg	3.80	15.2	1
72–43–5	Methoxychlor	U	76.0	ug/kg	19.0	76.0	1
53494–70–5	Endrin ketone	U	15.2	ug/kg	3.80	15.2	1
8001–35–2	Toxaphene	U	190	ug/kg	63.3	190	1

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CLP-1

Data file : /chem/ecd3a.i/032410pa.b/062f6201.d
Lab Smp Id: 249335007 Client Smp ID: RE46-10-12969
Inj Date : 25-MAR-2010 09:32
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |249335007|10|
Misc Info : |ECD81A_1S|968594|SVP|LANL|SOIL|RE46-10-12969|||
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Meth Date : 25-Mar-2010 14:57 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 62
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weigth of sample extracted (g)
M	12.37980	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.579	0.001	694279	10.0907	19.2	80.00- 120.00	100.00(M)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.664	7.665	-0.001	545074	10.4450	19.8	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/032410pa.b/062f6201.d

Date : 25-MAR-2010 09:32

Client ID: RE46-10-12969

Sample Info: |2493350071101|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

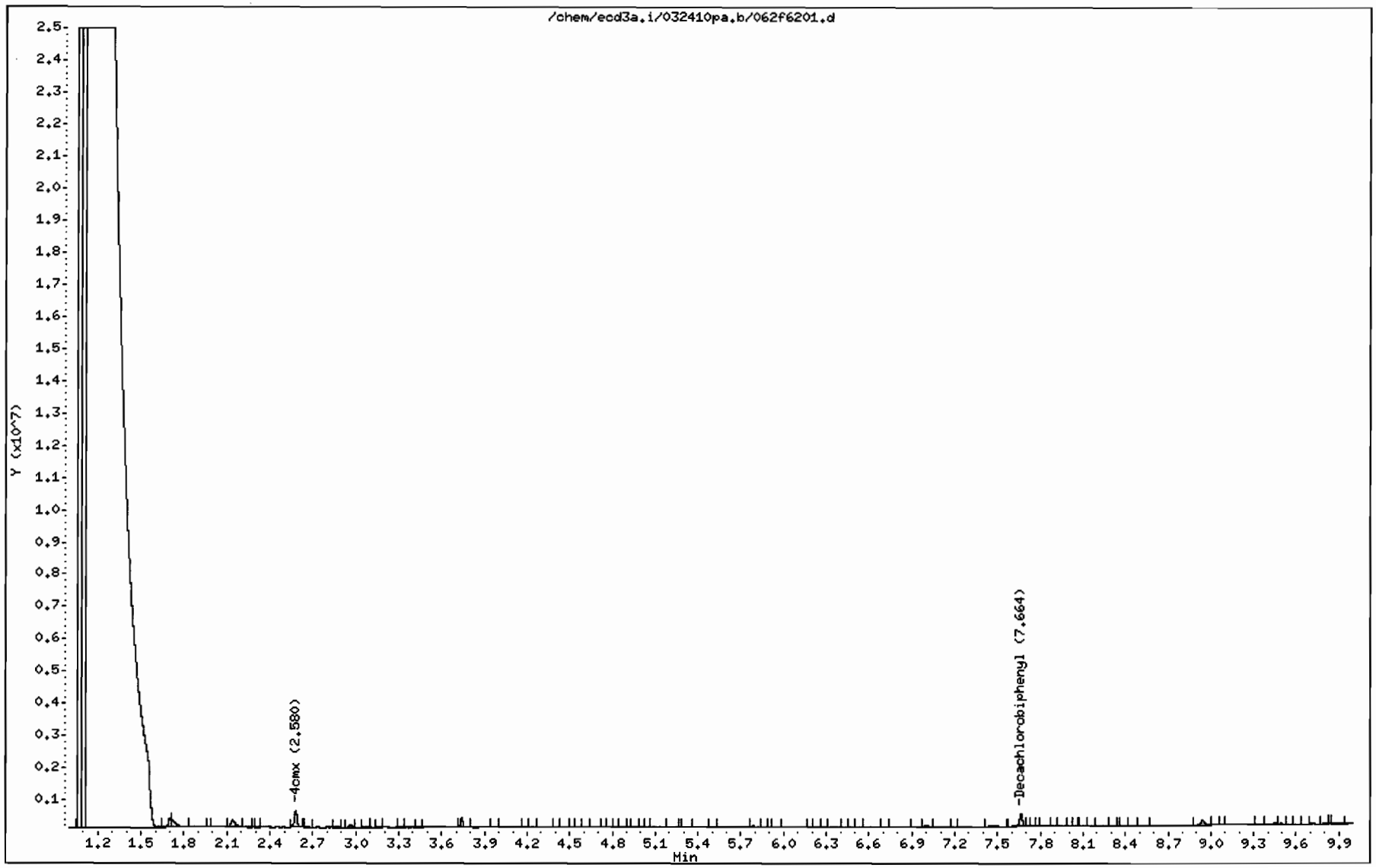

Comment: Manually Integrated
Data File: /chem/ecd3a.i/032410pa.b/062f6201.d
Operator: HXJ1
Injection Date: 25-MAR-2010 09:32
Instrument: ecd3a.i
Client Sample ID: RE46-10-12969

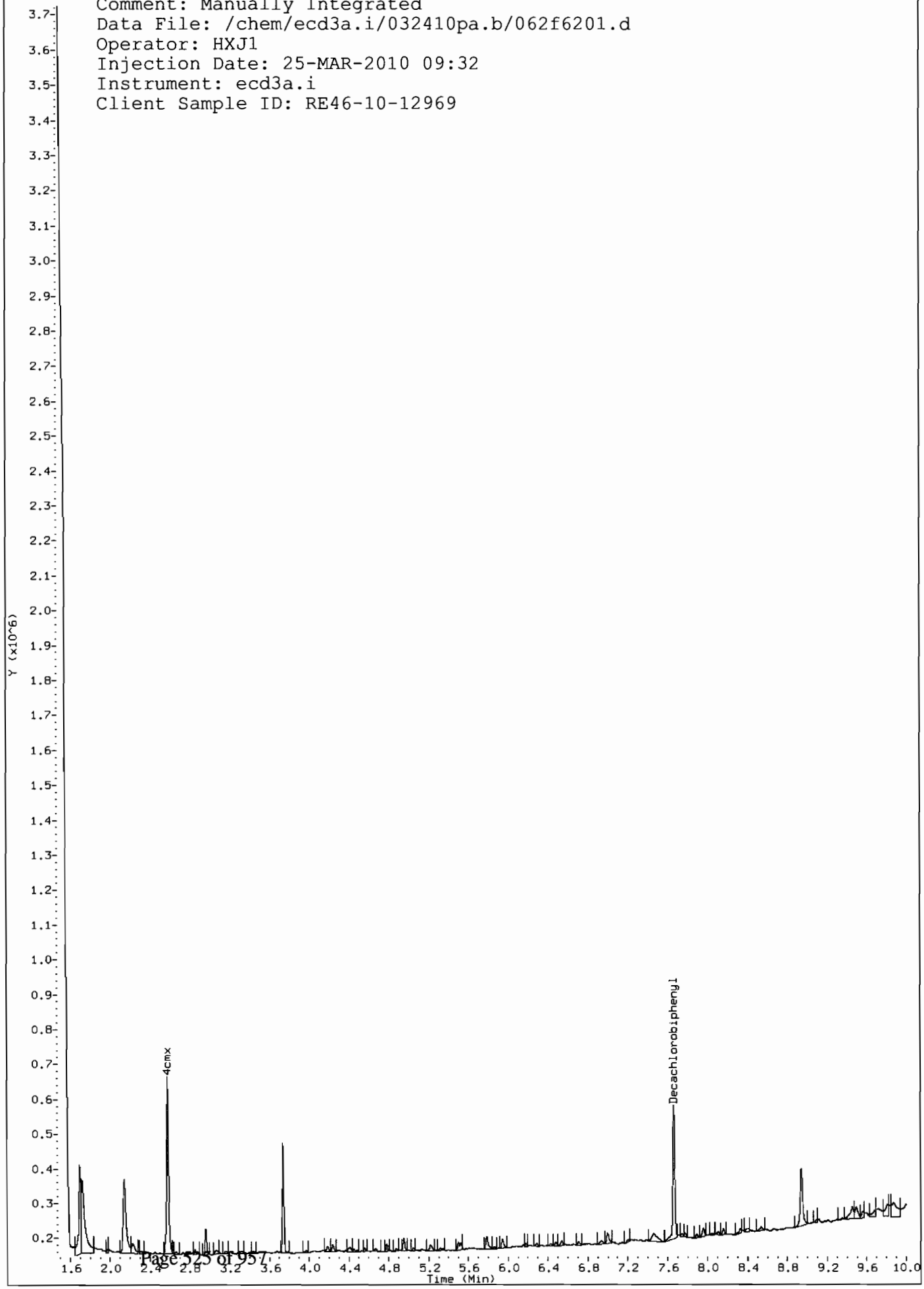

Comment: Before manual integration
Data File: /chem/ecd3a.i/032410pa.b/orig-062f6201.d
Operator: HXJ1
Injection Date: 25-MAR-2010 09:32
Instrument: ecd3a.i
Client Sample ID: RE46-10-12969

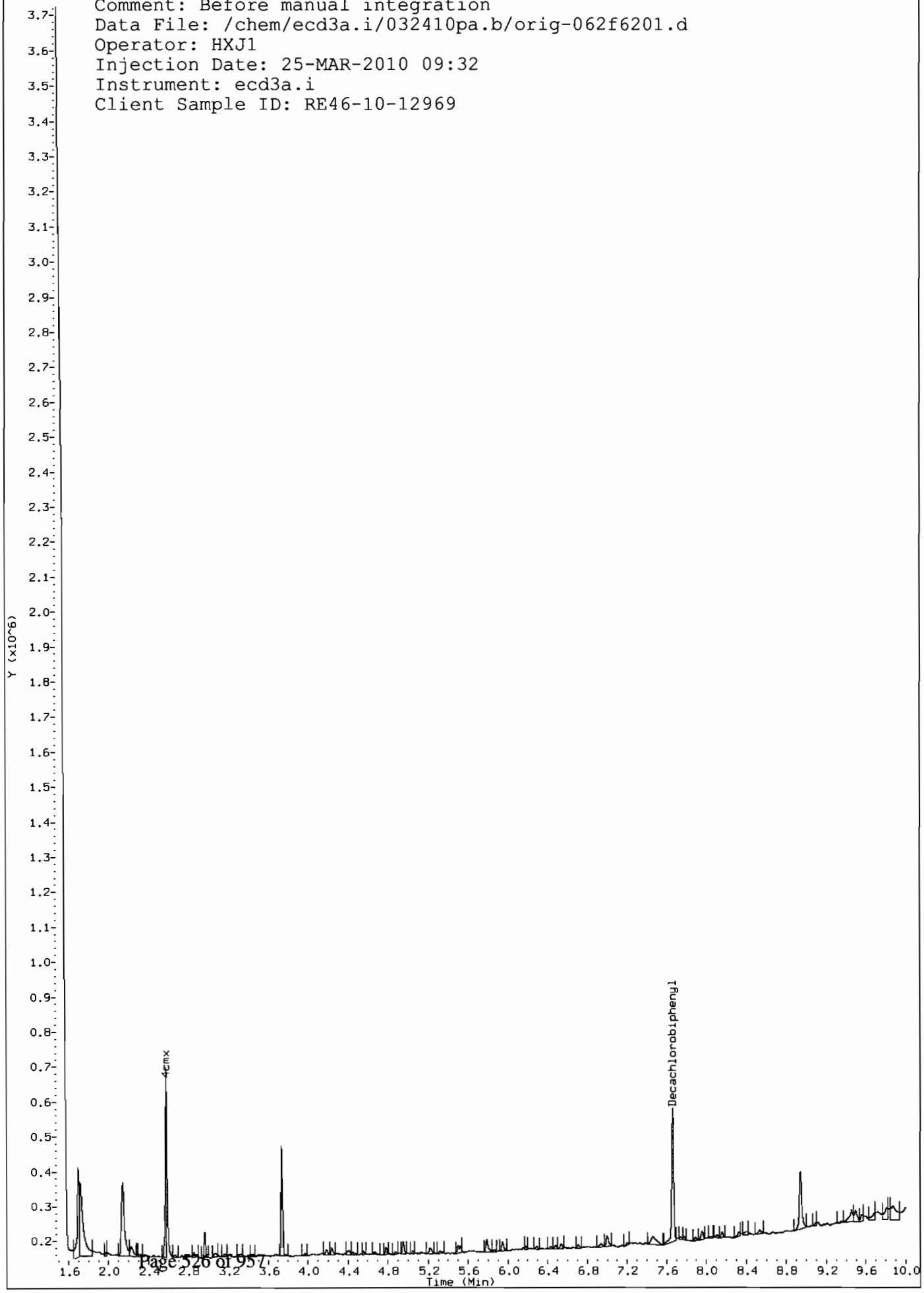

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CLP-2

Data file : /chem/ecd3a.i/032410pa.b/062b6201.d
Lab Smp Id: 249335007 Client Smp ID: RE46-10-12969
Inj Date : 25-MAR-2010 09:32
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |249335007|10|
Misc Info : |ECD81A_1S|968594|SVP|LANL|SOIL|RE46-10-12969|||
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Meth Date : 25-Mar-2010 14:33 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 62
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weigth of sample extracted (g)
M	12.37980	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.812	2.813	-0.001	6504315	9.35968	17.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.681	8.682	-0.001	4003255	9.01644	17.1	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/062b6201.d
Date : 25-MAR-2010 09:32
Client ID: RE46-10-12969
Sample Info: |2493350071101|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

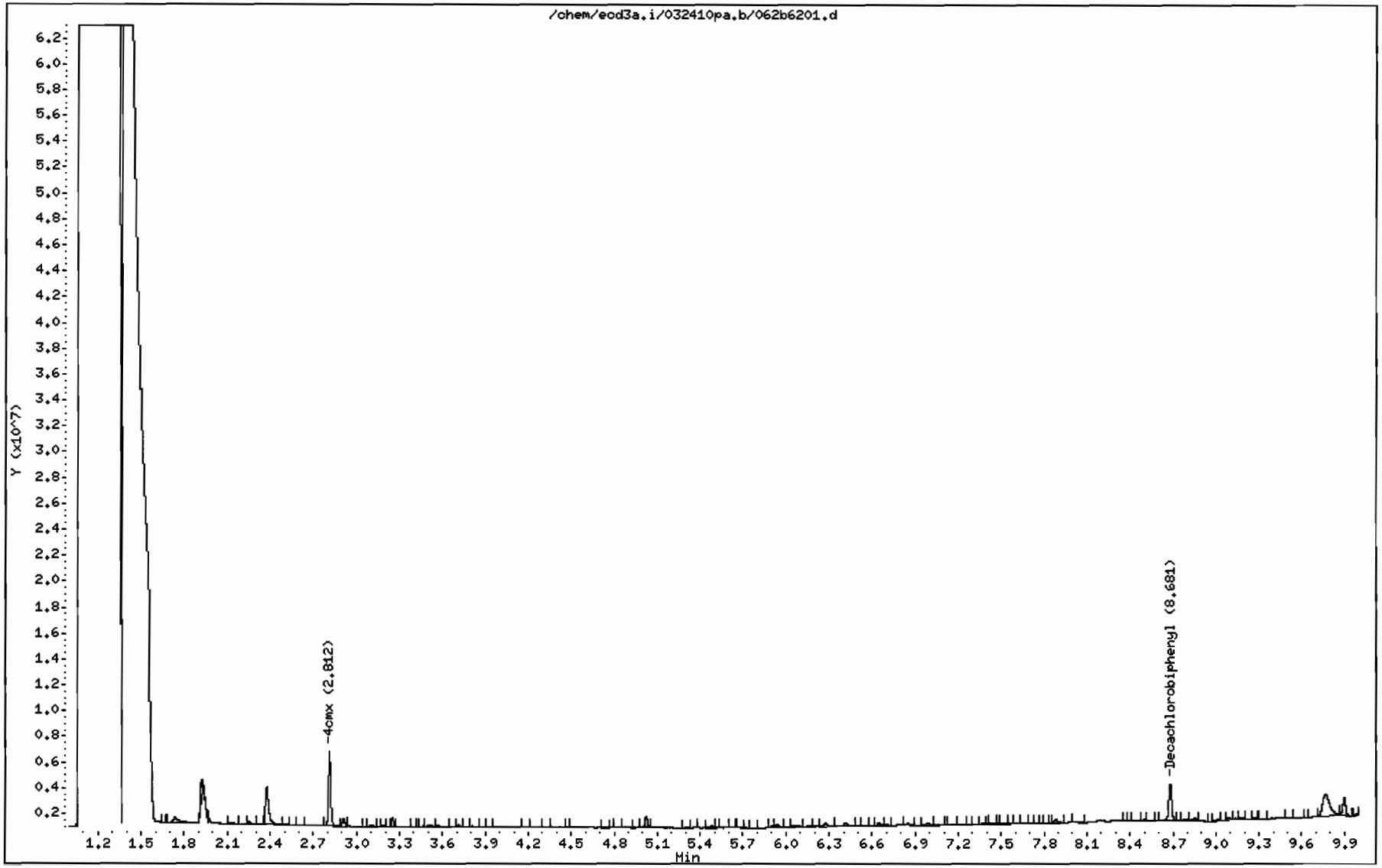

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335008**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12970**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**968594**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 09:46**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 10:01**	**Aliquot:**	**30.01 g**	**Final Volume:**	**5 mL**
Data File:	**063f6301.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	063b6301.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.87	ug/kg	1.97	7.87	1
58–89–9	gamma–BHC (Lindane)	U	7.87	ug/kg	1.97	7.87	1
319–85–7	beta–BHC	U	7.87	ug/kg	1.97	7.87	1
319–86–8	delta–BHC	U	7.87	ug/kg	1.97	7.87	1
76–44–8	Heptachlor	U	7.87	ug/kg	1.97	7.87	1
309–00–2	Aldrin	U	7.87	ug/kg	1.97	7.87	1
1024–57–3	Heptachlor epoxide	U	7.87	ug/kg	2.46	7.87	1
5103–74–2	gamma–Chlordane	U	7.87	ug/kg	1.97	7.87	1
5103–71–9	alpha–Chlordane	U	7.87	ug/kg	1.97	7.87	1
959–98–8	Endosulfan I	U	7.87	ug/kg	1.97	7.87	1
72–55–9	4,4'–DDE	U	15.7	ug/kg	3.94	15.7	1
60–57–1	Dieldrin	U	15.7	ug/kg	3.94	15.7	1
72–20–8	Endrin	U	15.7	ug/kg	3.94	15.7	1
72–54–8	4,4'–DDD	U	15.7	ug/kg	3.94	15.7	1
33213–65–9	Endosulfan II	U	15.7	ug/kg	3.94	15.7	1
7421–93–4	Endrin aldehyde	U	15.7	ug/kg	3.94	15.7	1
50–29–3	4,4'–DDT	U	15.7	ug/kg	3.94	15.7	1
1031–07–8	Endosulfan sulfate	U	15.7	ug/kg	3.94	15.7	1
72–43–5	Methoxychlor	U	78.7	ug/kg	19.7	78.7	1
53494–70–5	Endrin ketone	U	15.7	ug/kg	3.94	15.7	1
8001–35–2	Toxaphene	U	197	ug/kg	65.6	197	1

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CLP-1

Data file : /chem/ecd3a.i/032410pa.b/063f6301.d
Lab Smp Id: 249335008 Client Smp ID: RE46-10-12970
Inj Date : 25-MAR-2010 09:46
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |249335008|10|
Misc Info : |ECD81A_1S|968594|SVP|LANL|SOIL|RE46-10-12970|||
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Meth Date : 25-Mar-2010 14:57 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 63
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	15.36530	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.579	0.001	656606	9.54320	18.8	80.00- 120.00	100.00
$ 32 Decachlorobipheny1					CAS #: 2051-24-3		
7.664	7.665	-0.001	527896	10.1159	19.9	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/063f6301.d

Page 1

Date : 25-MAR-2010 09:46

Client ID: RE46-10-12970

Instrument: ecd3a.i

Sample Info: |2493350081101|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

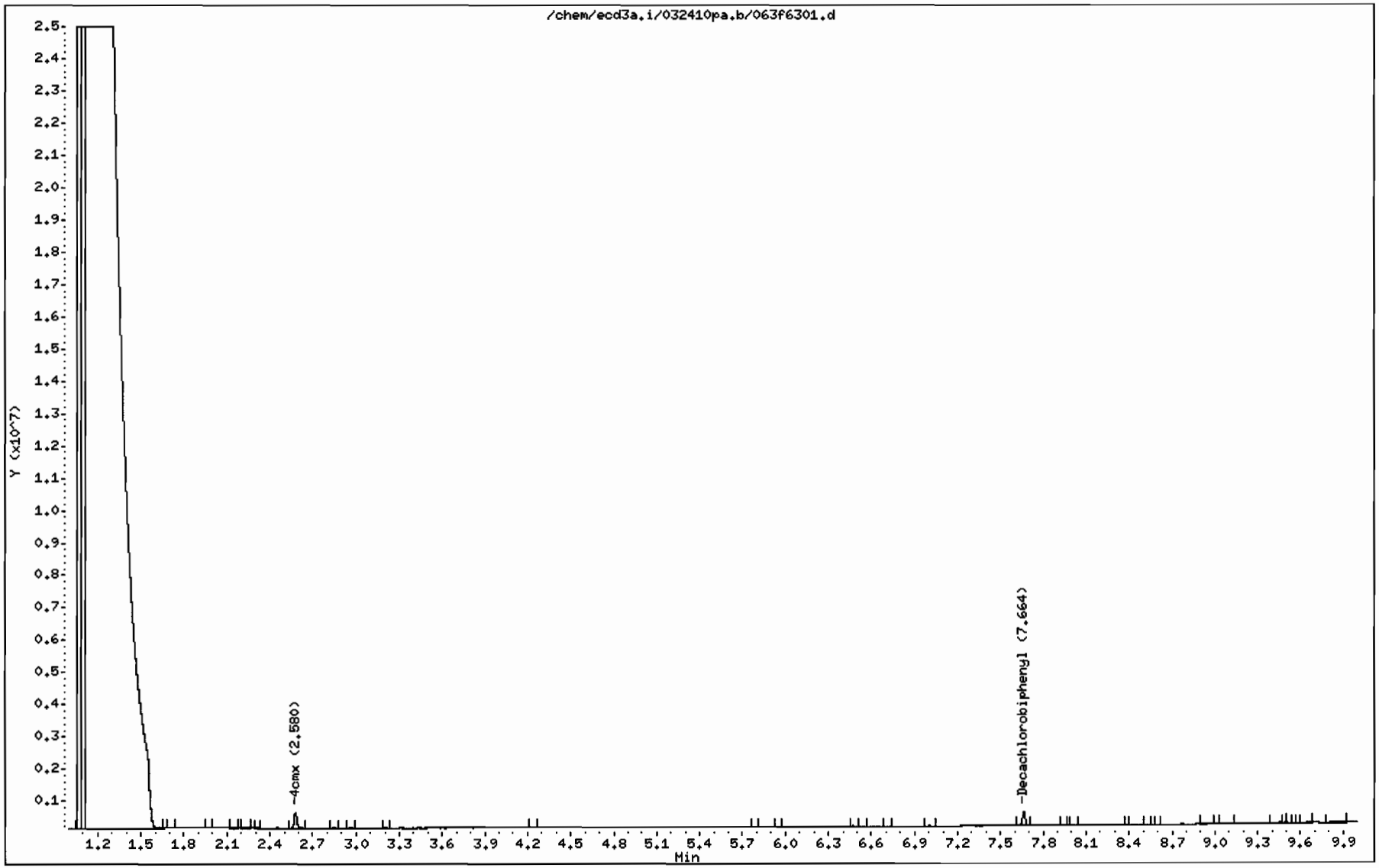

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/032410pa.b/063b6301.d
Lab Smp Id: 249335008 Client Smp ID: RE46-10-12970
Inj Date : 25-MAR-2010 09:46
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |249335008|10|
Misc Info : |ECD81A_1S|968594|SVP|LANL|SOIL|RE46-10-12970|||
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Meth Date : 25-Mar-2010 14:33 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 63
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weigth of sample extracted (g)
M	15.36530	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.812	2.813	-0.001	6622971	9.53043	18.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.681	8.682	-0.001	4044029	9.10828	17.9	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/063b6301.d

Page 1

Date : 25-MAR-2010 09:46

Client ID: RE46-10-12970

Instrument: ecd3a.i

Sample Info: |2493350081101

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

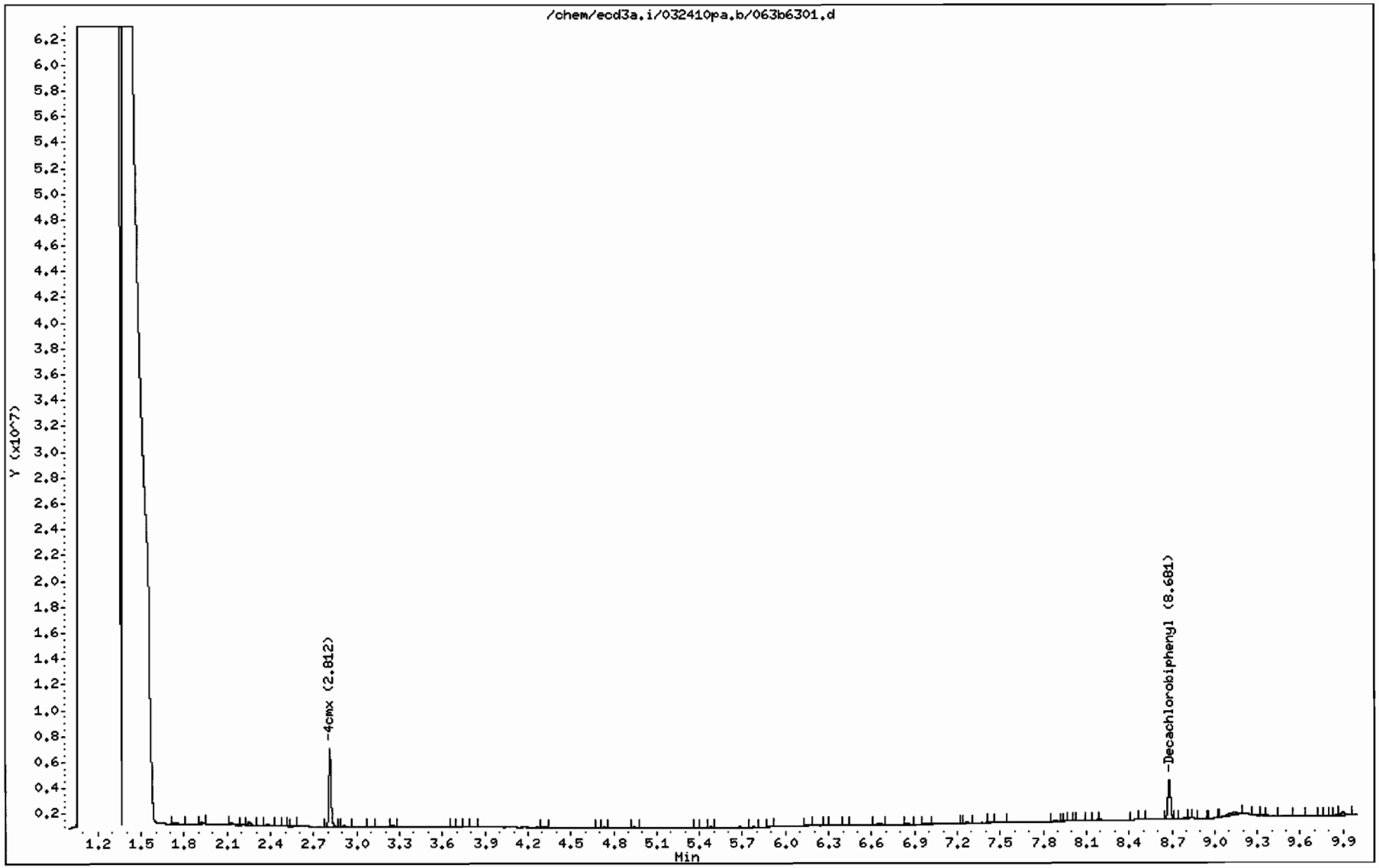

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**21.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12971**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**968594**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 09:05**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 10:01**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**060f6001.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	060b6001.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	8.52	ug/kg	2.13	8.52	1
58–89–9	gamma–BHC (Lindane)	U	8.52	ug/kg	2.13	8.52	1
319–85–7	beta–BHC	U	8.52	ug/kg	2.13	8.52	1
319–86–8	delta–BHC	U	8.52	ug/kg	2.13	8.52	1
76–44–8	Heptachlor	U	8.52	ug/kg	2.13	8.52	1
309–00–2	Aldrin	U	8.52	ug/kg	2.13	8.52	1
1024–57–3	Heptachlor epoxide	U	8.52	ug/kg	2.66	8.52	1
5103–74–2	gamma–Chlordane	U	8.52	ug/kg	2.13	8.52	1
5103–71–9	alpha–Chlordane	U	8.52	ug/kg	2.13	8.52	1
959–98–8	Endosulfan I	U	8.52	ug/kg	2.13	8.52	1
72–55–9	4,4'–DDE	U	17.0	ug/kg	4.26	17.0	1
60–57–1	Dieldrin	U	17.0	ug/kg	4.26	17.0	1
72–20–8	Endrin	U	17.0	ug/kg	4.26	17.0	1
72–54–8	4,4'–DDD	U	17.0	ug/kg	4.26	17.0	1
33213–65–9	Endosulfan II	U	17.0	ug/kg	4.26	17.0	1
7421–93–4	Endrin aldehyde	U	17.0	ug/kg	4.26	17.0	1
50–29–3	4,4'–DDT	U	17.0	ug/kg	4.26	17.0	1
1031–07–8	Endosulfan sulfate	U	17.0	ug/kg	4.26	17.0	1
72–43–5	Methoxychlor	U	85.2	ug/kg	21.3	85.2	1
53494–70–5	Endrin ketone	U	17.0	ug/kg	4.26	17.0	1
8001–35–2	Toxaphene	U	213	ug/kg	71.0	213	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/032410pa.b/060f6001.d
Lab Smp Id: 249335005 Client Smp ID: RE46-10-12971
Inj Date : 25-MAR-2010 09:05
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |249335005|10|
Misc Info : |ECD81A_1S|968594|SVP|LANL|SOIL|RE46-10-12971|||
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Meth Date : 25-Mar-2010 14:57 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 60
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	21.79080	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.579	0.001	669654	9.73284	20.7	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.663	7.665	-0.002	644337	12.3472	26.3	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/060f6001.d

Page 1

Date : 25-MAR-2010 09:05

Client ID: RE46-10-12971

Instrument: ecd3a.i

Sample Info: |2493350051|0|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

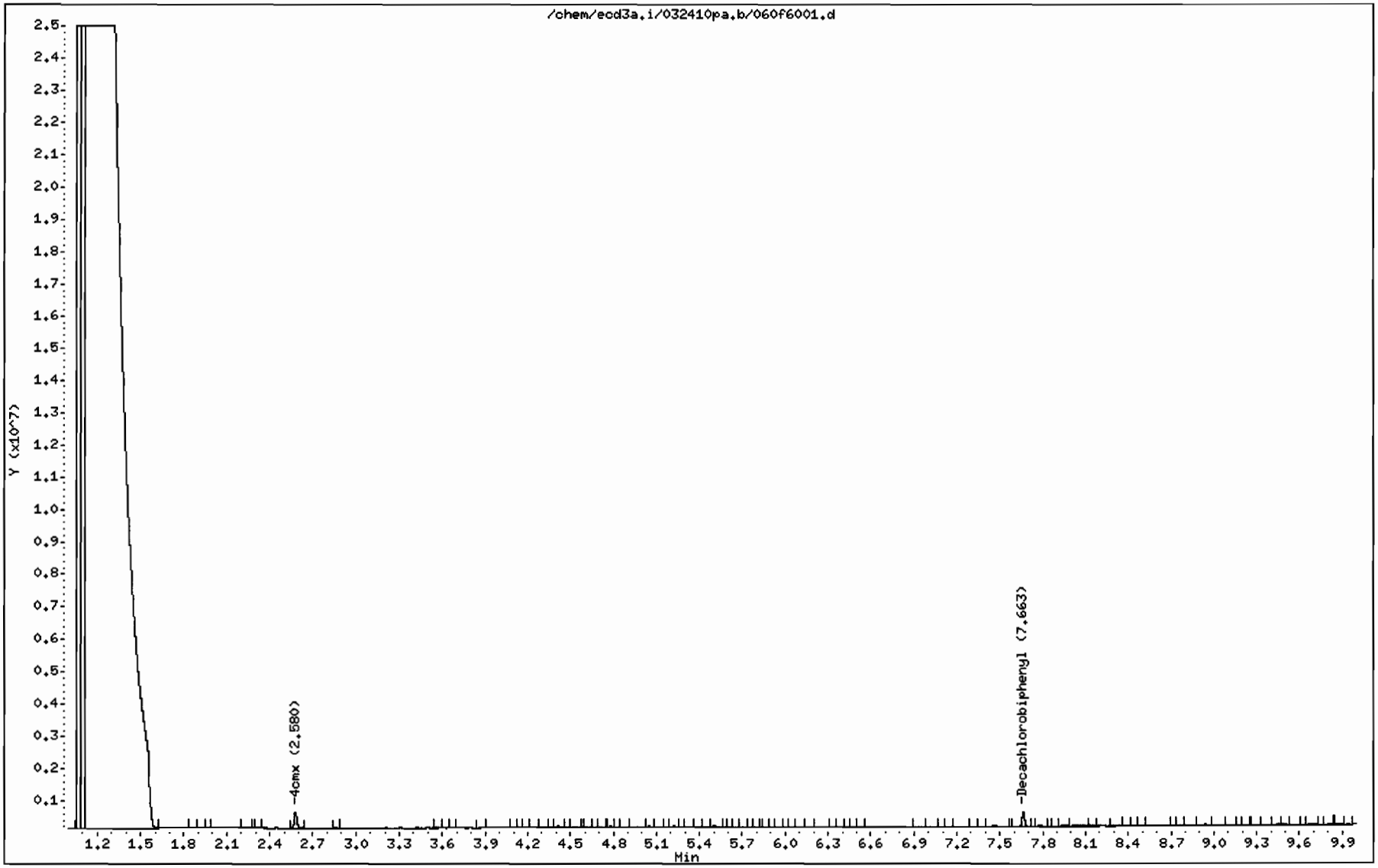

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/032410pa.b/060b6001.d
Lab Smp Id: 249335005 Client Smp ID: RE46-10-12971
Inj Date : 25-MAR-2010 09:05
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |249335005|10|
Misc Info : |ECD81A_1S|968594|SVP|LANL|SOIL|RE46-10-12971|||
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Meth Date : 25-Mar-2010 14:33 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 60
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	21.79080	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.812	2.813	-0.001	7084508	10.1946	21.7	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.681	8.682	-0.001	4681769	10.5446	22.5	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/060b6001.d

Date : 25-MAR-2010 09:05

Client ID: RE46-10-12971

Instrument: ecd3a.i

Sample Info: |249335005|10|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

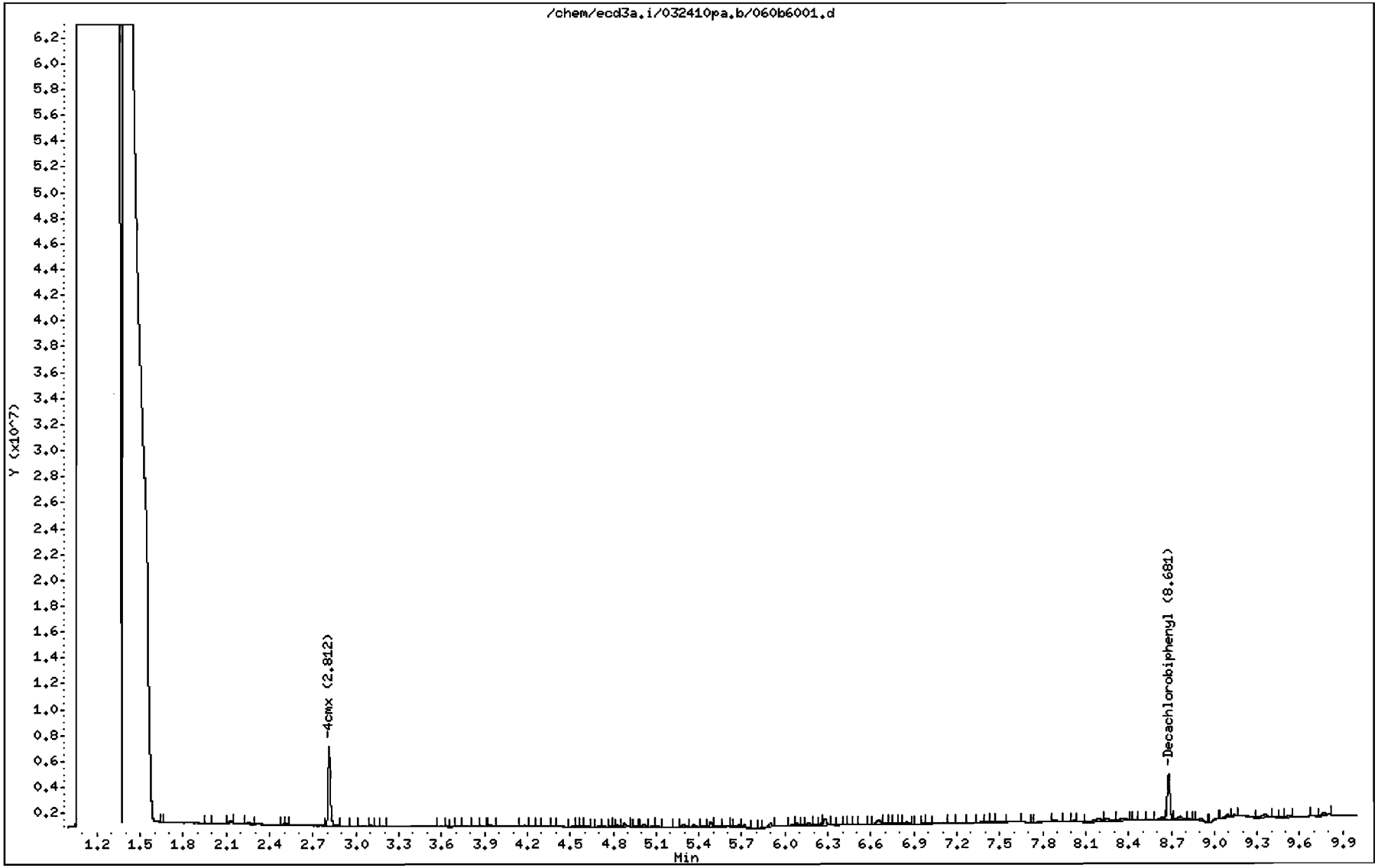

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335002	**Date Received:**	03/13/2010 09:30	**%Moisture:**	12.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–12972	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	968594	**Inst:**	ECD3A.I	**Dilution:**	10
Run Date:	03/25/2010 08:24	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	03/24/2010 10:01	**Aliquot:**	30.02 g	**Final Volume:**	5 mL
Data File:	057f5701.d	**Column:**	1 CLP–1	**Level:**	LOW
	057b5701.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.59	ug/kg	1.90	7.59	1
58–89–9	gamma–BHC (Lindane)	U	7.59	ug/kg	1.90	7.59	1
319–85–7	beta–BHC	U	7.59	ug/kg	1.90	7.59	1
319–86–8	delta–BHC	U	7.59	ug/kg	1.90	7.59	1
76–44–8	Heptachlor	U	7.59	ug/kg	1.90	7.59	1
309–00–2	Aldrin	U	7.59	ug/kg	1.90	7.59	1
1024–57–3	Heptachlor epoxide	U	7.59	ug/kg	2.37	7.59	1
5103–74–2	gamma–Chlordane	U	7.59	ug/kg	1.90	7.59	1
5103–71–9	alpha–Chlordane	U	7.59	ug/kg	1.90	7.59	1
959–98–8	Endosulfan I	U	7.59	ug/kg	1.90	7.59	1
72–55–9	4,4'–DDE	U	15.2	ug/kg	3.80	15.2	1
60–57–1	Dieldrin	U	15.2	ug/kg	3.80	15.2	1
72–20–8	Endrin	U	15.2	ug/kg	3.80	15.2	1
72–54–8	4,4'–DDD	U	15.2	ug/kg	3.80	15.2	1
33213–65–9	Endosulfan II	U	15.2	ug/kg	3.80	15.2	1
7421–93–4	Endrin aldehyde	U	15.2	ug/kg	3.80	15.2	1
50–29–3	4,4'–DDT	U	15.2	ug/kg	3.80	15.2	1
1031–07–8	Endosulfan sulfate	U	15.2	ug/kg	3.80	15.2	1
72–43–5	Methoxychlor	U	75.9	ug/kg	19.0	75.9	1
53494–70–5	Endrin ketone	U	15.2	ug/kg	3.80	15.2	1
8001–35–2	Toxaphene	U	190	ug/kg	63.2	190	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/032410pa.b/057f5701.d
Lab Smp Id: 249335002 Client Smp ID: RE46-10-12972
Inj Date : 25-MAR-2010 08:24
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |249335002|10|
Misc Info : |ECD81A_1S|968594|SVP|LANL|SOIL|RE46-10-12972|||
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Meth Date : 25-Mar-2010 14:57 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 57
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	12.26540	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.579	2.579	0.000	779865	11.3347	21.5	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.665	7.665	0.000	829774	15.9006	30.2	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/057f5701.d

Date : 25-MAR-2010 08:24

Client ID: RE46-10-12972

Sample Info: |2493350021101

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

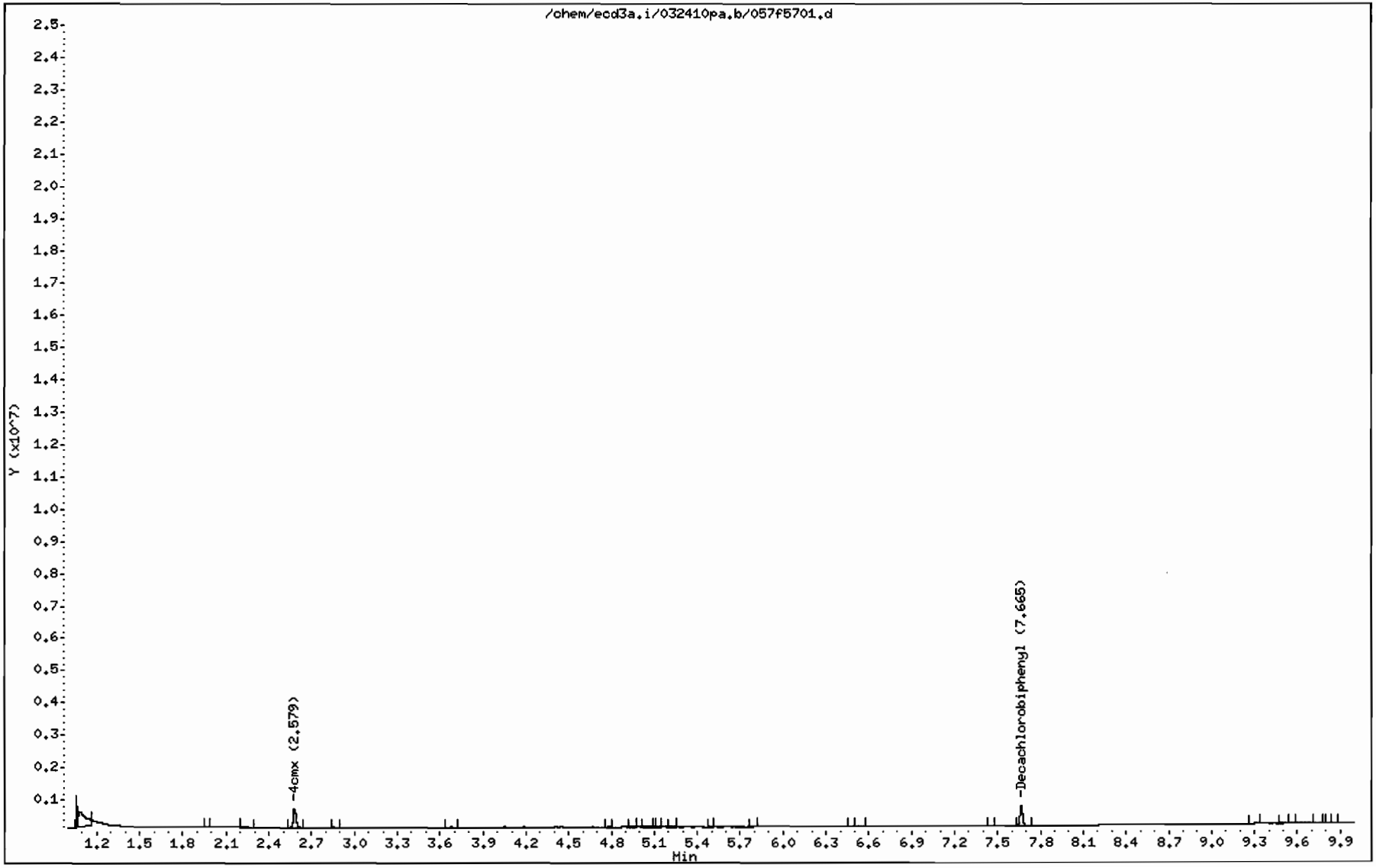

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/032410pa.b/057b5701.d
Lab Smp Id: 249335002 Client Smp ID: RE46-10-12972
Inj Date : 25-MAR-2010 08:24
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |249335002|10|
Misc Info : |ECD81A_1S|968594|SVP|LANL|SOIL|RE46-10-12972|||
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Meth Date : 25-Mar-2010 14:33 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 57
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weigth of sample extracted (g)
M	12.26540	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.812	2.813	-0.001	8090911	11.6428	22.1	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.681	8.682	-0.001	6291474	14.1701	26.9	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/057b5701.d

Page 1

Date : 25-MAR-2010 08:24

Client ID: RE46-10-12972

Instrument: ecd3a.i

Sample Info: |2493350021101

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

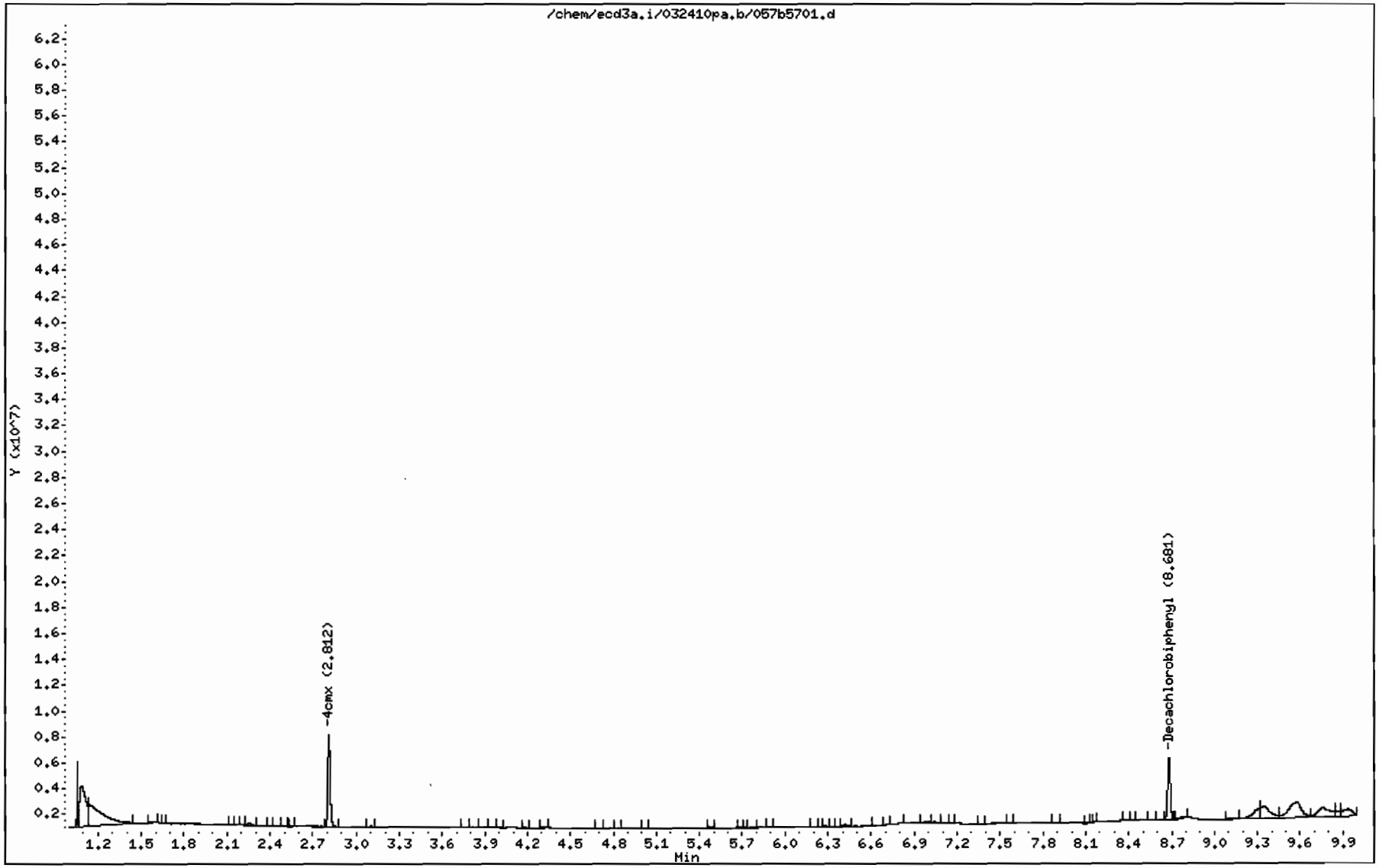

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13003**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**968594**	**Inst:**	**ECD3A.I**	**Dilution:**	**10**
Run Date:	**03/25/2010 08:38**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 10:01**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**058f5801.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	058b5801.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	7.53	ug/kg	1.88	7.53	1
58–89–9	gamma–BHC (Lindane)	U	7.53	ug/kg	1.88	7.53	1
319–85–7	beta–BHC	U	7.53	ug/kg	1.88	7.53	1
319–86–8	delta–BHC	U	7.53	ug/kg	1.88	7.53	1
76–44–8	Heptachlor	U	7.53	ug/kg	1.88	7.53	1
309–00–2	Aldrin	U	7.53	ug/kg	1.88	7.53	1
1024–57–3	Heptachlor epoxide	U	7.53	ug/kg	2.35	7.53	1
5103–74–2	gamma–Chlordane	U	7.53	ug/kg	1.88	7.53	1
5103–71–9	alpha–Chlordane	U	7.53	ug/kg	1.88	7.53	1
959–98–8	Endosulfan I	U	7.53	ug/kg	1.88	7.53	1
72–55–9	4,4'–DDE	U	15.1	ug/kg	3.77	15.1	1
60–57–1	Dieldrin	U	15.1	ug/kg	3.77	15.1	1
72–20–8	Endrin	U	15.1	ug/kg	3.77	15.1	1
72–54–8	4,4'–DDD	U	15.1	ug/kg	3.77	15.1	1
33213–65–9	Endosulfan II	U	15.1	ug/kg	3.77	15.1	1
7421–93–4	Endrin aldehyde	U	15.1	ug/kg	3.77	15.1	1
50–29–3	4,4'–DDT	U	15.1	ug/kg	3.77	15.1	1
1031–07–8	Endosulfan sulfate	U	15.1	ug/kg	3.77	15.1	1
72–43–5	Methoxychlor	U	75.3	ug/kg	18.8	75.3	1
53494–70–5	Endrin ketone	U	15.1	ug/kg	3.77	15.1	1
8001–35–2	Toxaphene	U	188	ug/kg	62.7	188	1

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CLP-1

Data file : /chem/ecd3a.i/032410pa.b/058f5801.d
Lab Smp Id: 249335003 Client Smp ID: RE46-10-13003
Inj Date : 25-MAR-2010 08:38
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |249335003|10|
Misc Info : |ECD81A_1S|968594|SVP|LANL|SOIL|RE46-10-13003|||
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Meth Date : 25-Mar-2010 14:57 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 58
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	11.50470	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.579	0.001	837965	12.1791	22.9	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.664	7.665	-0.001	829124	15.8882	29.9	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/058f5801.d
Date : 25-MAR-2010 08:38
Client ID: RE46-10-13003
Sample Info: |249335003|10|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

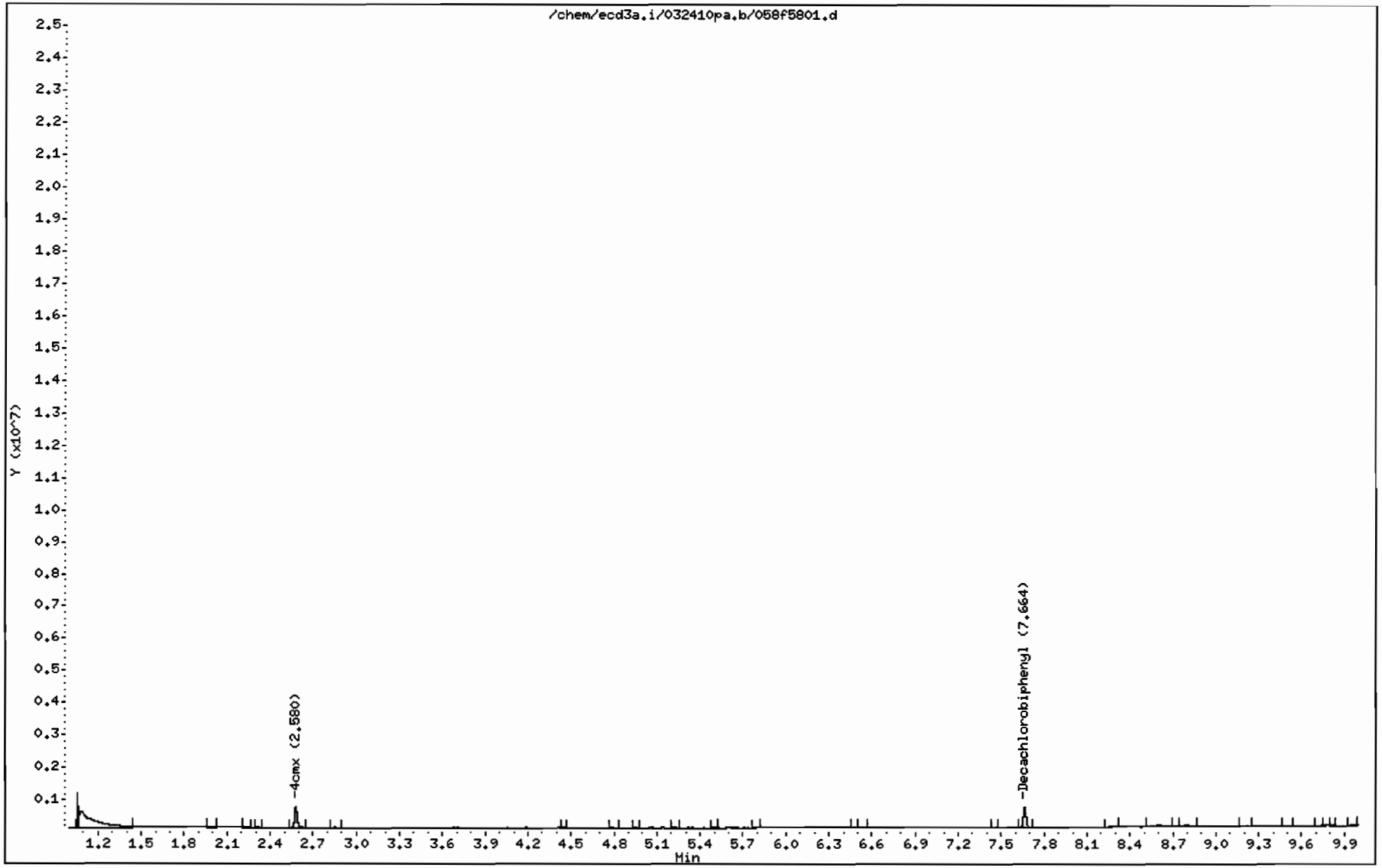

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/032410pa.b/058b5801.d
Lab Smp Id: 249335003 Client Smp ID: RE46-10-13003
Inj Date : 25-MAR-2010 08:38
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |249335003|10|
Misc Info : |ECD81A_1S|968594|SVP|LANL|SOIL|RE46-10-13003|||
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Meth Date : 25-Mar-2010 14:33 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 58
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	11.50470	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.811	2.813	-0.002	8653739	12.4527	23.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.681	8.682	-0.001	6659127	14.9982	28.2	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/058b5801.d

Page 1

Date : 25-MAR-2010 08:38

Client ID: RE46-10-13003

Instrument: ecd3a.i

Sample Info: |2493350031|10|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

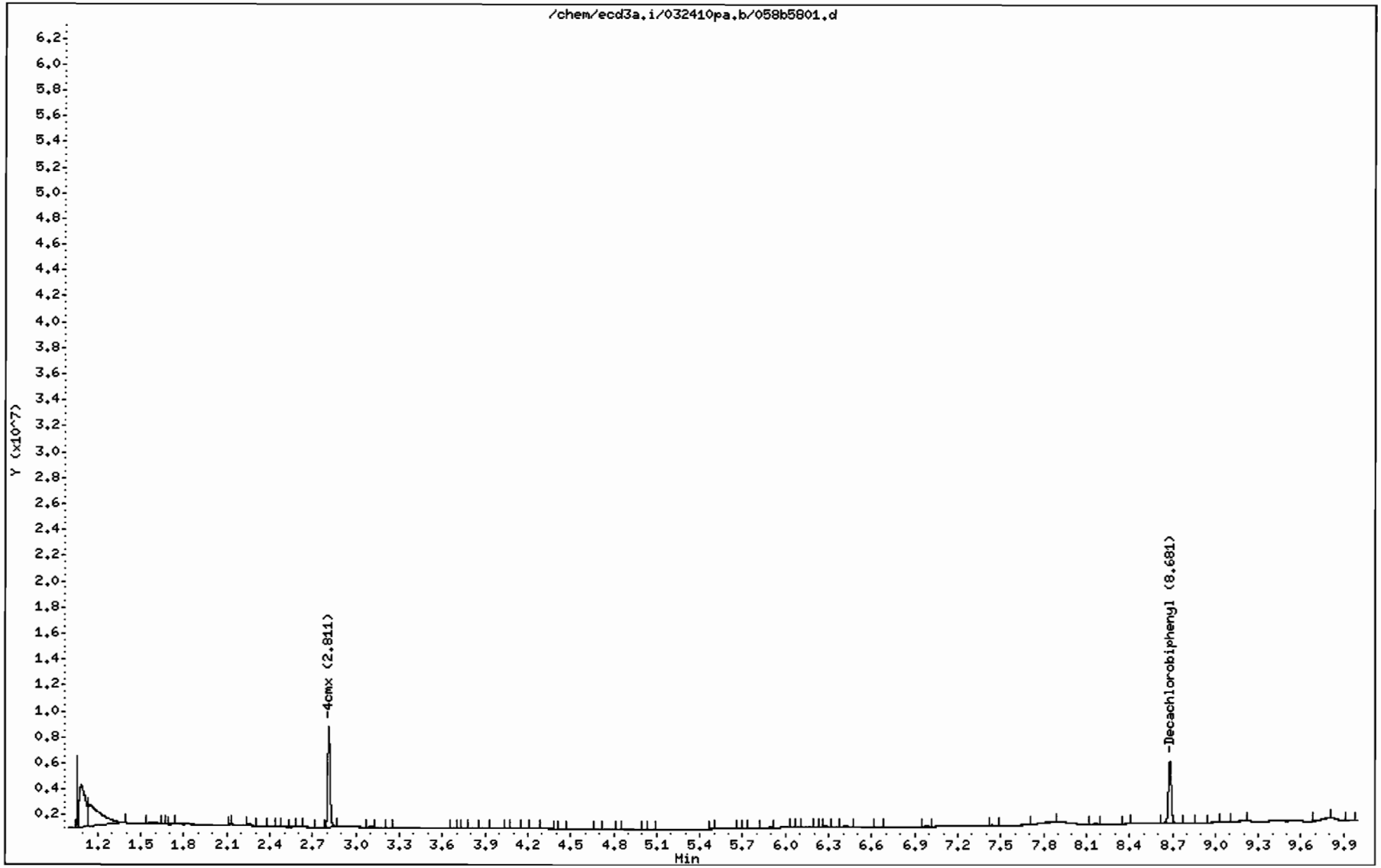

STANDARDS DATA

Report Date: 25-Mar-2010 13:49

Calibration History

Method : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Start Cal Date: 29-DEC-2009 17:34
End Cal Date : 24-MAR-2010 21:56

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
19-MAR-2010 16:56	ar1660	/chem/ecd3a.i/031910pb.b/011f1101.d
03-FEB-2010 16:55	gapa	/chem/ecd3a.i/020310p.b/011f1101.d
15-FEB-2010 00:23	chlor	/chem/ecd3a.i/021410p.b/003f0301.d
19-MAR-2010 15:34	tox	/chem/ecd3a.i/031910pb.b/005f0501.d
24-MAR-2010 21:01	indab	/chem/ecd3a.i/032410pa.b/007f0701.d
Cal Level: 2 , Cal Amount: 10.00000		
19-MAR-2010 17:09	ar1660	/chem/ecd3a.i/031910pb.b/012f1201.d
03-FEB-2010 17:08	gapa	/chem/ecd3a.i/020310p.b/012f1201.d
15-FEB-2010 00:36	chlor	/chem/ecd3a.i/021410p.b/004f0401.d
19-MAR-2010 15:47	tox	/chem/ecd3a.i/031910pb.b/006f0601.d
24-MAR-2010 21:15	indab	/chem/ecd3a.i/032410pa.b/008f0801.d
Cal Level: 3 , Cal Amount: 50.00000		
19-MAR-2010 17:23	ar1660	/chem/ecd3a.i/031910pb.b/013f1301.d
03-FEB-2010 17:22	gapa	/chem/ecd3a.i/020310p.b/013f1301.d
15-FEB-2010 00:50	chlor	/chem/ecd3a.i/021410p.b/005f0501.d
19-MAR-2010 16:01	tox	/chem/ecd3a.i/031910pb.b/007f0701.d
24-MAR-2010 21:29	indab	/chem/ecd3a.i/032410pa.b/009f0901.d
Cal Level: 4 , Cal Amount: 100.00000		
19-MAR-2010 19:12	ar1221	/chem/ecd3a.i/031910p.b/021f2101.d
19-MAR-2010 18:58	ar1232	/chem/ecd3a.i/031910p.b/020f2001.d
19-MAR-2010 18:45	ar1248	/chem/ecd3a.i/031910p.b/019f1901.d
19-MAR-2010 18:31	ar1242	/chem/ecd3a.i/031910p.b/018f1801.d
19-MAR-2010 18:18	ar1254	/chem/ecd3a.i/031910p.b/017f1701.d
19-MAR-2010 17:37	ar1660	/chem/ecd3a.i/031910pb.b/014f1401.d
03-FEB-2010 17:35	gapa	/chem/ecd3a.i/020310p.b/014f1401.d
15-FEB-2010 01:03	chlor	/chem/ecd3a.i/021410p.b/006f0601.d
19-MAR-2010 16:15	tox	/chem/ecd3a.i/031910pb.b/008f0801.d
24-MAR-2010 21:42	indab	/chem/ecd3a.i/032410pa.b/010f1001.d
Cal Level: 5 , Cal Amount: 200.00000		
19-MAR-2010 17:50	ar1660	/chem/ecd3a.i/031910pb.b/015f1501.d
03-FEB-2010 17:49	gapa	/chem/ecd3a.i/020310p.b/015f1501.d
15-FEB-2010 01:17	chlor	/chem/ecd3a.i/021410p.b/007f0701.d
19-MAR-2010 16:28	tox	/chem/ecd3a.i/031910pb.b/009f0901.d
24-MAR-2010 21:56	indab	/chem/ecd3a.i/032410pa.b/011f1101.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
25-MAR-2010 10:13	indab	/chem/ecd3a.i/032410pa.b/065f6501.d
Ccal Level: 4 , Ccal Amount: 100		
25-MAR-2010 07:57	indab	/chem/ecd3a.i/032410pa.b/055f5501.d
Ccal Level: 4 , Ccal Amount: 100		
25-MAR-2010 05:00	indab	/chem/ecd3a.i/032410pa.b/042f4201.d
Ccal Level: 4 , Ccal Amount: 100		
25-MAR-2010 02:43	indab	/chem/ecd3a.i/032410pa.b/032f3201.d
Ccal Level: 4 , Ccal Amount: 100		
25-MAR-2010 00:27	indab	/chem/ecd3a.i/032410pa.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 100		
24-MAR-2010 20:12	chlor	/chem/ecd3a.i/032410pa.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 100		
24-MAR-2010 19:58	tox	/chem/ecd3a.i/032410pa.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 100		
24-MAR-2010 22:09	indab	/chem/ecd3a.i/032410pa.b/012f1201.d
Ccal Level: 4 , Ccal Amount: 100		
24-MAR-2010 21:42	indab	/chem/ecd3a.i/032410pa.b/010f1001.d
Ccal Level: 4 , Ccal Amount: 100		
24-MAR-2010 20:39	indab	/chem/ecd3a.i/032410pa.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 100		
24-MAR-2010 19:44	indab	/chem/ecd3a.i/032410pa.b/003f0301.d

Report Date: 25-Mar-2010 13:48

Calibration History

Method : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Start Cal Date: 29-DEC-2009 17:34
End Cal Date : 24-MAR-2010 21:56

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
19-MAR-2010 16:56	ar1660	/chem/ecd3a.i/031910pb.b/011b1101.d
03-FEB-2010 16:55	gapa	/chem/ecd3a.i/020310p.b/011b1101.d
15-FEB-2010 00:23	chlor	/chem/ecd3a.i/021410p.b/003b0301.d
19-MAR-2010 15:34	tox	/chem/ecd3a.i/031910pb.b/005b0501.d
24-MAR-2010 21:01	indab	/chem/ecd3a.i/032410pa.b/007b0701.d
Cal Level: 2 , Cal Amount: 10.00000		
19-MAR-2010 17:09	ar1660	/chem/ecd3a.i/031910pb.b/012b1201.d
03-FEB-2010 17:08	gapa	/chem/ecd3a.i/020310p.b/012b1201.d
15-FEB-2010 00:36	chlor	/chem/ecd3a.i/021410p.b/004b0401.d
19-MAR-2010 15:47	tox	/chem/ecd3a.i/031910pb.b/006b0601.d
24-MAR-2010 21:15	indab	/chem/ecd3a.i/032410pa.b/008b0801.d
Cal Level: 3 , Cal Amount: 50.00000		
19-MAR-2010 17:23	ar1660	/chem/ecd3a.i/031910pb.b/013b1301.d
03-FEB-2010 17:22	gapa	/chem/ecd3a.i/020310p.b/013b1301.d
15-FEB-2010 00:50	chlor	/chem/ecd3a.i/021410p.b/005b0501.d
19-MAR-2010 16:01	tox	/chem/ecd3a.i/031910pb.b/007b0701.d
24-MAR-2010 21:29	indab	/chem/ecd3a.i/032410pa.b/009b0901.d
Cal Level: 4 , Cal Amount: 100.00000		
19-MAR-2010 19:12	ar1221	/chem/ecd3a.i/031910p.b/021b2101.d
19-MAR-2010 18:58	ar1232	/chem/ecd3a.i/031910p.b/020b2001.d
19-MAR-2010 18:45	ar1248	/chem/ecd3a.i/031910p.b/019b1901.d
19-MAR-2010 18:31	ar1242	/chem/ecd3a.i/031910p.b/018b1801.d
19-MAR-2010 18:18	ar1254	/chem/ecd3a.i/031910p.b/017b1701.d
19-MAR-2010 17:37	ar1660	/chem/ecd3a.i/031910pb.b/014b1401.d
03-FEB-2010 17:35	gapa	/chem/ecd3a.i/020310p.b/014b1401.d
15-FEB-2010 01:03	chlor	/chem/ecd3a.i/021410p.b/006b0601.d
19-MAR-2010 16:15	tox	/chem/ecd3a.i/031910pb.b/008b0801.d
24-MAR-2010 21:42	indab	/chem/ecd3a.i/032410pa.b/010b1001.d
Cal Level: 5 , Cal Amount: 200.00000		
19-MAR-2010 17:50	ar1660	/chem/ecd3a.i/031910pb.b/015b1501.d
03-FEB-2010 17:49	gapa	/chem/ecd3a.i/020310p.b/015b1501.d
15-FEB-2010 01:17	chlor	/chem/ecd3a.i/021410p.b/007b0701.d
19-MAR-2010 16:28	tox	/chem/ecd3a.i/031910pb.b/009b0901.d
24-MAR-2010 21:56	indab	/chem/ecd3a.i/032410pa.b/011b1101.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
25-MAR-2010 10:13	indab	/chem/ecd3a.i/032410pa.b/065b6501.d
Ccal Level: 4 , Ccal Amount: 100		
25-MAR-2010 07:57	indab	/chem/ecd3a.i/032410pa.b/055b5501.d
Ccal Level: 4 , Ccal Amount: 100		
25-MAR-2010 05:00	indab	/chem/ecd3a.i/032410pa.b/042b4201.d
Ccal Level: 4 , Ccal Amount: 100		
25-MAR-2010 02:43	indab	/chem/ecd3a.i/032410pa.b/032b3201.d
Ccal Level: 4 , Ccal Amount: 100		
25-MAR-2010 00:27	indab	/chem/ecd3a.i/032410pa.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 100		
24-MAR-2010 20:12	chlor	/chem/ecd3a.i/032410pa.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 100		
24-MAR-2010 19:58	tox	/chem/ecd3a.i/032410pa.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 100		
24-MAR-2010 22:09	indab	/chem/ecd3a.i/032410pa.b/012b1201.d
Ccal Level: 4 , Ccal Amount: 100		
24-MAR-2010 21:42	indab	/chem/ecd3a.i/032410pa.b/010b1001.d
Ccal Level: 4 , Ccal Amount: 100		
24-MAR-2010 20:39	indab	/chem/ecd3a.i/032410pa.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 100		
24-MAR-2010 19:44	indab	/chem/ecd3a.i/032410pa.b/003b0301.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Mar-2010 13:45 Number of Cpnds : 44
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	769.000000
Initial:End Threshold	384.500000
Initial:Area Threshold	7690.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	10.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.579	2.549-2.609	6.880e+04
63 2,4,5-Trichlorophenol	1.334	1.234-1.434	
59 Hexachlorobenzene	2.949	2.849-3.049	7.510e+04
2 Aroclor-1221	2.693	2.663-2.723	8.450e+02
	2.795	2.765-2.825	4.886e+02
	2.825	2.795-2.855	2.132e+03
3 Aroclor-1016	3.078	3.048-3.108	2.426e+03
	3.414	3.384-3.444	1.925e+03
	3.431	3.401-3.461	3.172e+03
	3.585	3.555-3.615	1.322e+03
	3.678	3.648-3.708	1.035e+03
4 Aroclor-1232	3.413	3.383-3.443	1.017e+03
	3.431	3.401-3.461	1.640e+03
	3.535	3.505-3.565	1.084e+03
	3.586	3.556-3.616	7.085e+02
	3.737	3.707-3.767	9.673e+02
5 alpha-BHC	2.975	2.945-3.005	9.720e+04
6 Aroclor-1242	3.078	2.978-3.178	2.078e+03
	3.535	3.435-3.635	1.785e+03
	3.863	3.763-3.963	1.328e+03
	4.223	4.123-4.323	1.362e+03
	4.426	4.326-4.526	1.272e+03
7 gamma-BHC (Lindane)	3.215	3.185-3.245	8.769e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.526	3.426-3.626	2.729e+03
	4.314	4.214-4.414	1.560e+03
	4.413	4.313-4.513	1.252e+03
	4.485	4.385-4.585	9.274e+03
	4.605	4.505-4.705	7.352e+03
9 Aroclor-1248	3.413	3.313-3.513	1.265e+03
	3.677	3.577-3.777	1.663e+03
	3.863	3.763-3.963	2.277e+03
	4.223	4.123-4.323	2.698e+03
	4.426	4.326-4.526	2.802e+03
10 Heptachlor	3.591	3.561-3.621	7.282e+04
11 Aldrin	3.842	3.812-3.872	8.301e+04
12 beta-BHC	3.279	3.249-3.309	3.871e+04
13 delta-BHC	3.424	3.394-3.454	8.737e+04
14 Heptachlor epoxide	4.370	4.340-4.400	7.397e+04
15 Aroclor-1254	4.185	4.155-4.215	2.187e+03
	4.412	4.382-4.442	3.882e+03
	4.668	4.638-4.698	2.394e+03
	4.781	4.751-4.811	4.180e+03
	5.045	5.015-5.075	3.176e+03
16 Endosulfan I	4.734	4.704-4.764	7.036e+04
17 gamma-Chlordane	4.483	4.453-4.513	7.346e+04
18 alpha-Chlordane	4.604	4.574-4.634	7.334e+04
19 4,4'-DDE	4.675	4.645-4.705	6.965e+04
20 Dieldrin	4.959	4.929-4.989	7.538e+04
21 Aroclor-1260	4.952	4.852-5.052	3.026e+03
	5.218	5.118-5.318	4.446e+03
	5.610	5.510-5.710	2.587e+03
	5.863	5.763-5.963	2.811e+03
	6.481	6.381-6.581	3.154e+03
22 Endrin	5.184	5.154-5.214	5.968e+04
23 Toxaphene	4.861	4.831-4.891	5.326e+02
	4.966	4.936-4.996	8.075e+02
	5.051	5.021-5.081	9.765e+02
	5.207	5.177-5.237	1.252e+03
	5.621	5.591-5.651	6.009e+02
24 Endosulfan II	5.406	5.376-5.436	6.322e+04
25 4,4'-DDD	5.251	5.221-5.281	5.655e+04
26 4,4'-DDT	5.527	5.497-5.557	4.862e+04
27 Endrin aldehyde	5.826	5.796-5.856	5.205e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m

	Compound	RT	RT Window	RF
	28 Methoxychlor	6.031	6.001-6.061	2.386e+04
	29 Endosulfan sulfate	6.275	6.245-6.305	5.389e+04
	30 Aroclor-1268	5.050	4.950-5.150	
		5.067	4.967-5.167	
		5.185	5.085-5.285	
		5.378	5.278-5.478	
		5.531	5.431-5.631	
	61 Aroclor-1262	4.121	4.021-4.221	
		4.289	4.189-4.389	
		4.525	4.425-4.625	
		4.671	4.571-4.771	
		4.854	4.754-4.954	
	31 Endrin ketone	6.570	6.540-6.600	7.105e+04
	51 Mirex	6.301	6.271-6.331	4.158e+04
	52 C-Nonachlor	5.346	5.316-5.376	6.572e+04
	53 O-Chlordane	4.397	4.367-4.427	5.216e+04
	54 T-Nonachlor	4.711	4.681-4.741	6.529e+04
	55 1,2-Dichlorobenzene	6.525	6.495-6.555	
	56 2,4-DDE	4.477	4.447-4.507	4.235e+04
	58 2,4-DDD	4.964	4.934-4.994	3.545e+04
	57 2,4-DDT	5.209	5.179-5.239	3.142e+04
$	32 Decachlorobiphenyl	7.665	7.635-7.695	5.218e+04
M	62 TTO Sum Pesticides	1.000	0.980-1.020	

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COMPOUND LISTING

Method file : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Mar-2010 13:43 Number of Cpnds : 43
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	2363.000000
Initial:End Threshold	1181.500000
Initial:Area Threshold	23630.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	8.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.813	2.783-2.843	6.949e+05
61 2,4,5-Trichlorophenol	1.631	1.531-1.731	
59 Hexachlorobenzene	3.282	3.252-3.312	5.247e+05
2 Aroclor-1221	3.021	2.991-3.051	7.554e+03
	3.129	3.099-3.159	4.662e+03
	3.178	3.148-3.208	1.579e+04
3 Aroclor-1016	3.680	3.650-3.710	5.546e+03
	3.709	3.679-3.739	7.379e+03
	3.894	3.864-3.924	2.241e+04
	4.011	3.981-4.041	1.437e+04
	4.102	4.072-4.132	9.268e+03
4 Aroclor-1232	3.875	3.845-3.905	8.055e+03
	3.893	3.863-3.923	1.100e+04
	4.011	3.981-4.041	7.646e+03
	4.102	4.072-4.132	4.961e+03
	4.432	4.402-4.462	5.187e+03
5 alpha-BHC	3.292	3.262-3.322	1.013e+06
6 Aroclor-1242	3.500	3.470-3.530	1.553e+04
	3.894	3.864-3.924	1.845e+04
	4.010	3.980-4.040	1.220e+04
	4.433	4.402-4.463	8.747e+03
	4.840	4.810-4.870	9.075e+03
7 gamma-BHC (Lindane)	3.594	3.564-3.624	8.356e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.865	3.835-3.895	1.981e+04
	4.807	4.777-4.837	9.089e+03
	5.035	5.005-5.065	4.150e+04
	5.130	5.100-5.160	3.461e+04
	5.180	5.150-5.210	3.481e+04
9 Aroclor-1248	3.894	3.864-3.924	1.100e+04
	4.182	4.152-4.212	1.175e+04
	4.433	4.403-4.463	1.435e+04
	4.550	4.520-4.580	1.318e+04
	5.065	5.035-5.095	1.606e+04
10 Heptachlor	3.997	3.967-4.027	6.675e+05
11 Aldrin	4.303	4.273-4.333	6.287e+05
12 beta-BHC	3.656	3.626-3.686	3.520e+05
13 delta-BHC	3.921	3.891-3.951	8.059e+05
14 Heptachlor epoxide	4.845	4.815-4.875	4.452e+05
15 Aroclor-1254	4.833	4.803-4.863	1.371e+04
	5.016	4.987-5.046	1.497e+04
	5.449	5.419-5.479	1.515e+03
	5.718	5.688-5.748	1.760e+04
	6.282	6.253-6.312	2.294e+04
16 Endosulfan I	5.239	5.209-5.269	4.051e+05
17 gamma-Chlordane	5.034	5.004-5.064	4.463e+05
18 alpha-Chlordane	5.178	5.148-5.208	4.465e+05
19 4,4'-DDE	5.339	5.309-5.369	4.182e+05
20 Dieldrin	5.517	5.487-5.547	4.631e+05
21 Aroclor-1260	5.685	5.655-5.715	1.743e+04
	5.899	5.869-5.929	2.268e+04
	6.378	6.348-6.408	1.773e+04
	6.438	6.407-6.468	1.005e+04
	7.376	7.346-7.406	3.234e+04
22 Endrin	5.832	5.802-5.862	4.063e+05
23 Toxaphene	5.490	5.460-5.520	6.913e+03
	5.801	5.771-5.831	6.370e+03
	6.001	5.971-6.031	6.787e+03
	6.043	6.013-6.073	1.227e+04
	6.230	6.200-6.260	5.221e+03
24 Endosulfan II	6.051	6.021-6.081	4.464e+05
25 4,4'-DDD	5.939	5.909-5.969	4.052e+05
26 4,4'-DDT	6.275	6.245-6.305	3.995e+05
27 Endrin aldehyde	6.405	6.375-6.435	3.999e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m

Compound	RT	RT Window	RF
28 Methoxychlor	7.015	6.985-7.045	2.003e+05
29 Endosulfan sulfate	6.707	6.677-6.737	4.686e+05
30 Aroclor-1268	5.217	5.187-5.247	
	5.596	5.566-5.626	
	5.628	5.598-5.658	
	5.769	5.739-5.799	
	6.149	6.119-6.179	
60 Aroclor-1262	4.689	4.589-4.789	
	4.779	4.679-4.879	
	5.074	4.974-5.174	
	5.224	5.124-5.324	
	5.396	5.296-5.496	
31 Endrin ketone	7.291	7.261-7.321	6.035e+05
51 Mirex	7.404	7.374-7.434	2.838e+05
52 C-Nonachlor	6.046	6.016-6.076	3.876e+05
53 O-Chlordane	4.876	4.846-4.906	2.657e+05
54 T-Nonachlor	5.249	5.219-5.279	3.254e+05
55 1,2-Dichlorobenzene	6.619	6.589-6.649	
56 2,4-DDE	5.143	5.113-5.173	1.999e+05
58 2,4-DDD	5.669	5.639-5.699	1.903e+05
57 2,4-DDT	5.992	5.962-6.022	1.965e+05
$ 32 Decachlorobiphenyl	8.682	8.652-8.712	4.440e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 24-MAR-2010 21:56
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Cal Date : 25-Mar-2010 13:45 hea01125
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd3a.i/031910pb.b/011f1101.d
Level 2: /chem/ecd3a.i/031910pb.b/012f1201.d
Level 3: /chem/ecd3a.i/031910pb.b/013f1301.d
Level 4: /chem/ecd3a.i/031910p.b/021f2101.d
Level 5: /chem/ecd3a.i/031910pb.b/015f1501.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
63 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Hexachlorobenzene	82047	75676	73003	72625	72132	75097	5.487
2 Aroclor-1221(1)	+++++	+++++	+++++	845	+++++	845	0.000
(2)	+++++	+++++	+++++	489	+++++	489	0.000
(3)	+++++	+++++	+++++	2132	+++++	2132	0.000
3 Aroclor-1016(1)	2631	2519	2403	2334	2241	2426	6.316
(2)	1986	1941	1838	1915	1944	1925	2.839
(3)	3220	3184	3183	3140	3132	3172	1.138
(4)	1352	1339	1300	1293	1328	1322	1.885
(5)	1169	1080	1017	928	983	1035	8.968
4 Aroclor-1232(1)	+++++	+++++	+++++	1017	+++++	1017	0.000
(2)	+++++	+++++	+++++	1640	+++++	1640	0.000
(3)	+++++	+++++	+++++	1084	+++++	1084	0.000
(4)	+++++	+++++	+++++	709	+++++	709	0.000
(5)	+++++	+++++	+++++	967	+++++	967	0.000
5 alpha-BHC	76352	84601	101820	108632	114588	97199	16.651
6 Aroclor-1242(1)	+++++	+++++	+++++	2078	+++++	2078	0.000
(2)	+++++	+++++	+++++	1785	+++++	1785	0.000
(3)	+++++	+++++	+++++	1328	+++++	1328	0.000
(4)	+++++	+++++	+++++	1362	+++++	1362	0.000
(5)	+++++	+++++	+++++	1272	+++++	1272	0.000
7 gamma-BHC (Lindane)	72675	78105	90430	95858	101400	87694	13.726
8 Chlordane (tech.)(1)	2422	2465	2708	2884	3166	2729	11.287
(2)	1461	1483	1516	1593	1746	1560	7.416
(3)	1000	1062	1222	1374	1603	1252	19.479
(4)	8132	8404	9428	9931	10473	9274	10.723
(5)	6602	6889	7575	7807	7888	7352	7.816

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 24-MAR-2010 21:56
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Cal Date : 25-Mar-2010 13:45 hea01125
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	1265	+++++	1265	0.000
(2)	+++++	+++++	+++++	1663	+++++	1663	0.000
(3)	+++++	+++++	+++++	2277	+++++	2277	0.000
(4)	+++++	+++++	+++++	2698	+++++	2698	0.000
(5)	+++++	+++++	+++++	2802	+++++	2802	0.000
10 Heptachlor	62376	68277	74379	77858	81208	72820	10.365
11 Aldrin	67768	75325	86657	90941	94371	83013	13.423
12 beta-BHC	37051	37359	37942	39662	41534	38710	4.842
13 delta-BHC	71346	78281	90436	95271	101494	87366	14.143
14 Heptachlor epoxide	63672	67639	76465	79692	82364	73966	10.807
15 Aroclor-1254(1)	+++++	+++++	+++++	2187	+++++	2187	0.000
(2)	+++++	+++++	+++++	3882	+++++	3882	0.000
(3)	+++++	+++++	+++++	2394	+++++	2394	0.000
(4)	+++++	+++++	+++++	4180	+++++	4180	0.000
(5)	+++++	+++++	+++++	3176	+++++	3176	0.000
16 Endosulfan I	61544	65076	73113	75274	76796	70361	9.502
17 gamma-Chlordane	60959	64868	75892	80615	84983	73463	13.949
18 alpha-Chlordane	63618	66078	75205	79143	82639	73337	11.221
19 4,4'-DDE	55850	61941	73267	76865	80328	69650	14.869
20 Dieldrin	63939	69409	78701	81193	83670	75382	11.101
21 Aroclor-1260(1)	3194	3062	3022	2926	2925	3026	3.683
(2)	4577	4446	4446	4343	4419	4446	1.898
(3)	2677	2577	2600	2498	2585	2587	2.479
(4)	2801	2744	2820	2777	2911	2811	2.244
(5)	3185	3054	2985	3135	3412	3154	5.170
22 Endrin	51205	54813	61869	63441	67086	59683	10.901
23 Toxaphene(1)	477	506	536	564	580	533	7.879
(2)	797	792	808	790	851	808	3.146
(3)	892	946	978	1002	1065	977	6.607
(4)	1118	1204	1241	1327	1371	1252	8.001
(5)	521	584	619	612	667	601	8.896
24 Endosulfan II	55985	59361	65170	66881	68681	63216	8.455
25 4,4'-DDD	47494	50651	58927	61074	64610	56551	12.748

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 24-MAR-2010 21:56
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Cal Date : 25-Mar-2010 13:45 hea01125
Curve Type : Average

	Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	___ RRF	% RSD
	26 4,4'-DDT	40113	43591	50368	53049	55979	48620	13.584
	27 Endrin aldehyde	48360	50215	53128	53916	54644	52053	5.115
	28 Methoxychlor	23020	23135	23364	23996	25763	23856	4.742
	29 Endosulfan sulfate	48419	49874	54998	56899	59243	53887	8.555
	30 Aroclor-1268 (1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	61 Aroclor-1262 (1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	31 Endrin ketone	66642	68835	72076	73167	74520	71048	4.556
	51 Mirex	46970	41684	39766	39693	39782	41579	7.524
	52 C-Nonachlor	61669	63304	67157	68112	68361	65721	4.628
	53 O-Chlordane	53873	51905	51938	51668	51400	52157	1.885
	54 T-Nonachlor	64324	63349	65522	66666	66574	65287	2.206
	55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	56 2,4-DDE	40688	42524	43567	42869	42118	42353	2.531
	58 2,4-DDD	35151	35632	35705	35621	35141	35450	0.788
	57 2,4-DDT	30607	31760	31581	31495	31682	31425	1.490
M	62 TTO Sum Pesticides	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	1 4cmx	61683	64781	70405	72539	74610	68804	7.864
$	32 Decachlorobiphenyl	51705	50928	51468	52641	54183	52185	2.448

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 24-MAR-2010 21:56
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Cal Date : 25-Mar-2010 13:43 hea01125
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd3a.i/031910pb.b/011b1101.d
Level 2: /chem/ecd3a.i/031910pb.b/012b1201.d
Level 3: /chem/ecd3a.i/031910pb.b/013b1301.d
Level 4: /chem/ecd3a.i/031910p.b/021b2101.d
Level 5: /chem/ecd3a.i/031910pb.b/015b1501.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
61 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Hexachlorobenzene	638883	552521	498046	477710	456314	524695	13.942
2 Aroclor-1221(1)	+++++	+++++	+++++	7554	+++++	7554	0.000
(2)	+++++	+++++	+++++	4662	+++++	4662	0.000
(3)	+++++	+++++	+++++	15792	+++++	15792	0.000
3 Aroclor-1016(1)	6193	5810	5569	5267	4892	5546	8.989
(2)	8487	7883	7531	6945	6047	7379	12.618
(3)	24723	23599	23053	21504	19189	22414	9.561
(4)	15932	15362	14674	13653	12230	14370	10.211
(5)	10054	9536	9411	8877	8465	9268	6.622
4 Aroclor-1232(1)	+++++	+++++	+++++	8055	+++++	8055	0.000
(2)	+++++	+++++	+++++	11004	+++++	11004	0.000
(3)	+++++	+++++	+++++	7646	+++++	7646	0.000
(4)	+++++	+++++	+++++	4961	+++++	4961	0.000
(5)	+++++	+++++	+++++	5187	+++++	5187	0.000
5 alpha-BHC	895211	955079	1050716	1070787	1094919	1013342	8.359
6 Aroclor-1242(1)	+++++	+++++	+++++	15526	+++++	15526	0.000
(2)	+++++	+++++	+++++	18452	+++++	18452	0.000
(3)	+++++	+++++	+++++	12202	+++++	12202	0.000
(4)	+++++	+++++	+++++	8747	+++++	8747	0.000
(5)	+++++	+++++	+++++	9075	+++++	9075	0.000
7 gamma-BHC (Lindane)	767187	793514	857584	870088	889605	835595	6.287
8 Chlordane (tech.)(1)	18941	18772	19642	20493	21200	19810	5.209
(2)	9654	8891	8620	8794	9486	9089	4.989
(3)	41050	39830	41174	42615	42823	41498	2.974
(4)	34185	32623	34296	35479	36454	34608	4.184
(5)	34493	33596	34773	35789	35412	34813	2.445

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 24-MAR-2010 21:56
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Cal Date : 25-Mar-2010 13:43 hea01125
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	10997	+++++	10997	0.000
(2)	+++++	+++++	+++++	11753	+++++	11753	0.000
(3)	+++++	+++++	+++++	14351	+++++	14351	0.000
(4)	+++++	+++++	+++++	13182	+++++	13182	0.000
(5)	+++++	+++++	+++++	16061	+++++	16061	0.000
10 Heptachlor	676225	668202	689760	664723	638435	667469	2.827
11 Aldrin	647964	622454	636845	628187	608260	628742	2.378
12 beta-BHC	357803	347725	350880	350674	352955	352007	1.062
13 delta-BHC	739156	753611	829850	842119	864783	805904	6.948
14 Heptachlor epoxide	453413	445550	448836	444924	433406	445226	1.666
15 Aroclor-1254(1)	+++++	+++++	+++++	13715	+++++	13715	0.000
(2)	+++++	+++++	+++++	14973	+++++	14973	0.000
(3)	+++++	+++++	+++++	1515	+++++	1515	0.000
(4)	+++++	+++++	+++++	17595	+++++	17595	0.000
(5)	+++++	+++++	+++++	22938	+++++	22938	0.000
16 Endosulfan I	410527	404238	407201	406634	396708	405061	1.279
17 gamma-Chlordane	434283	425126	445996	461177	464763	446269	3.808
18 alpha-Chlordane	440934	432172	445313	455569	458462	446490	2.410
19 4,4'-DDE	401982	414418	434500	426385	413815	418220	2.999
20 Dieldrin	461376	464963	476864	463432	448732	463074	2.166
21 Aroclor-1260(1)	19203	18045	17628	16870	15402	17430	8.106
(2)	25377	23683	22905	21687	19749	22680	9.330
(3)	19147	18469	17776	16988	16283	17733	6.431
(4)	11307	10402	10007	9313	9206	10047	8.564
(5)	33671	32625	31661	31487	32262	32341	2.699
22 Endrin	408378	407733	416199	402940	396286	406307	1.808
23 Toxaphene(1)	5866	6736	7118	7129	7715	6913	9.863
(2)	5630	6181	6492	6405	7141	6370	8.573
(3)	6232	6595	6951	6815	7340	6787	6.066
(4)	11157	11912	12344	12327	13595	12267	7.212
(5)	4320	4949	5428	5341	6070	5221	12.347
24 Endosulfan II	458384	458978	451291	437863	425677	446439	3.223
25 4,4'-DDD	390727	395124	412142	414132	413683	405161	2.789

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 24-MAR-2010 21:56
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Cal Date : 25-Mar-2010 13:43 hea01125
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
26 4,4'-DDT	360469	371267	415265	423126	427201	399466	7.811
27 Endrin aldehyde	422563	414068	402904	390078	369805	399884	5.194
28 Methoxychlor	220286	213823	189692	183641	194211	200331	7.930
29 Endosulfan sulfate	462891	464300	478931	473196	463915	468647	1.512
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
60 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Endrin ketone	624759	626011	606874	587586	572437	603534	3.875
51 Mirex	331656	289442	264627	265905	267186	283763	10.100
52 C-Nonachlor	399290	392506	388456	383488	374228	387594	2.438
53 O-Chlordane	323094	270726	251625	244327	238954	265745	12.885
54 T-Nonachlor	363784	327181	317318	312166	306607	325411	6.991
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 2,4-DDE	241272	213798	191249	182163	171219	199940	13.961
58 2,4-DDD	218419	199549	183738	178310	171502	190304	9.888
57 2,4-DDT	209437	197934	193413	192124	189515	196485	3.998
$ 1 4cmx	733419	728069	702188	670994	639975	694929	5.677
$ 32 Decachlorobiphenyl	473576	441606	431462	432583	440748	443995	3.866

Report Date: 26-Mar-2010 12:14

Calibration History

Method : /chem/ecd3a.i/032510p.b/ECD3-F-8081-021010pa.m
Start Cal Date: 29-DEC-2009 17:34
End Cal Date : 24-MAR-2010 21:56

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
19-MAR-2010 16:56	ar1660	/chem/ecd3a.i/031910pb.b/011f1101.d
03-FEB-2010 16:55	gapa	/chem/ecd3a.i/020310p.b/011f1101.d
15-FEB-2010 00:23	chlor	/chem/ecd3a.i/021410p.b/003f0301.d
19-MAR-2010 15:34	tox	/chem/ecd3a.i/031910pb.b/005f0501.d
24-MAR-2010 21:01	indab	/chem/ecd3a.i/032410pa.b/007f0701.d

Cal Level: 2 , Cal Amount: 10.00000		
19-MAR-2010 17:09	ar1660	/chem/ecd3a.i/031910pb.b/012f1201.d
03-FEB-2010 17:08	gapa	/chem/ecd3a.i/020310p.b/012f1201.d
15-FEB-2010 00:36	chlor	/chem/ecd3a.i/021410p.b/004f0401.d
19-MAR-2010 15:47	tox	/chem/ecd3a.i/031910pb.b/006f0601.d
24-MAR-2010 21:15	indab	/chem/ecd3a.i/032410pa.b/008f0801.d

Cal Level: 3 , Cal Amount: 50.00000		
19-MAR-2010 17:23	ar1660	/chem/ecd3a.i/031910pb.b/013f1301.d
03-FEB-2010 17:22	gapa	/chem/ecd3a.i/020310p.b/013f1301.d
15-FEB-2010 00:50	chlor	/chem/ecd3a.i/021410p.b/005f0501.d
19-MAR-2010 16:01	tox	/chem/ecd3a.i/031910pb.b/007f0701.d
24-MAR-2010 21:29	indab	/chem/ecd3a.i/032410pa.b/009f0901.d

Cal Level: 4 , Cal Amount: 100.00000		
19-MAR-2010 19:12	ar1221	/chem/ecd3a.i/031910p.b/021f2101.d
19-MAR-2010 18:58	ar1232	/chem/ecd3a.i/031910p.b/020f2001.d
19-MAR-2010 18:45	ar1248	/chem/ecd3a.i/031910p.b/019f1901.d
19-MAR-2010 18:31	ar1242	/chem/ecd3a.i/031910p.b/018f1801.d
19-MAR-2010 18:18	ar1254	/chem/ecd3a.i/031910p.b/017f1701.d
19-MAR-2010 17:37	ar1660	/chem/ecd3a.i/031910pb.b/014f1401.d
03-FEB-2010 17:35	gapa	/chem/ecd3a.i/020310p.b/014f1401.d
15-FEB-2010 01:03	chlor	/chem/ecd3a.i/021410p.b/006f0601.d
19-MAR-2010 16:15	tox	/chem/ecd3a.i/031910pb.b/008f0801.d
24-MAR-2010 21:42	indab	/chem/ecd3a.i/032410pa.b/010f1001.d

Cal Level: 5 , Cal Amount: 200.00000		
19-MAR-2010 17:50	ar1660	/chem/ecd3a.i/031910pb.b/015f1501.d
03-FEB-2010 17:49	gapa	/chem/ecd3a.i/020310p.b/015f1501.d
15-FEB-2010 01:17	chlor	/chem/ecd3a.i/021410p.b/007f0701.d
19-MAR-2010 16:28	tox	/chem/ecd3a.i/031910pb.b/009f0901.d
24-MAR-2010 21:56	indab	/chem/ecd3a.i/032410pa.b/011f1101.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
25-MAR-2010 17:23	chlor	/chem/ecd3a.i/032510p.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 100		
25-MAR-2010 17:09	tox	/chem/ecd3a.i/032510p.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 100		
25-MAR-2010 16:56	indab	/chem/ecd3a.i/032510p.b/003f0301.d

Report Date: 26-Mar-2010 12:13

Calibration History

Method : /chem/ecd3a.i/032510p.b/ECD3-B-8081-021010pa.m
Start Cal Date: 29-DEC-2009 17:34
End Cal Date : 24-MAR-2010 21:56

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
19-MAR-2010 16:56	ar1660	/chem/ecd3a.i/031910pb.b/011b1101.d
03-FEB-2010 16:55	gapa	/chem/ecd3a.i/020310p.b/011b1101.d
15-FEB-2010 00:23	chlor	/chem/ecd3a.i/021410p.b/003b0301.d
19-MAR-2010 15:34	tox	/chem/ecd3a.i/031910pb.b/005b0501.d
24-MAR-2010 21:01	indab	/chem/ecd3a.i/032410pa.b/007b0701.d
Cal Level: 2 , Cal Amount: 10.00000		
19-MAR-2010 17:09	ar1660	/chem/ecd3a.i/031910pb.b/012b1201.d
03-FEB-2010 17:08	gapa	/chem/ecd3a.i/020310p.b/012b1201.d
15-FEB-2010 00:36	chlor	/chem/ecd3a.i/021410p.b/004b0401.d
19-MAR-2010 15:47	tox	/chem/ecd3a.i/031910pb.b/006b0601.d
24-MAR-2010 21:15	indab	/chem/ecd3a.i/032410pa.b/008b0801.d
Cal Level: 3 , Cal Amount: 50.00000		
19-MAR-2010 17:23	ar1660	/chem/ecd3a.i/031910pb.b/013b1301.d
03-FEB-2010 17:22	gapa	/chem/ecd3a.i/020310p.b/013b1301.d
15-FEB-2010 00:50	chlor	/chem/ecd3a.i/021410p.b/005b0501.d
19-MAR-2010 16:01	tox	/chem/ecd3a.i/031910pb.b/007b0701.d
24-MAR-2010 21:29	indab	/chem/ecd3a.i/032410pa.b/009b0901.d
Cal Level: 4 , Cal Amount: 100.00000		
19-MAR-2010 19:12	ar1221	/chem/ecd3a.i/031910p.b/021b2101.d
19-MAR-2010 18:58	ar1232	/chem/ecd3a.i/031910p.b/020b2001.d
19-MAR-2010 18:45	ar1248	/chem/ecd3a.i/031910p.b/019b1901.d
19-MAR-2010 18:31	ar1242	/chem/ecd3a.i/031910p.b/018b1801.d
19-MAR-2010 18:18	ar1254	/chem/ecd3a.i/031910p.b/017b1701.d
19-MAR-2010 17:37	ar1660	/chem/ecd3a.i/031910pb.b/014b1401.d
03-FEB-2010 17:35	gapa	/chem/ecd3a.i/020310p.b/014b1401.d
15-FEB-2010 01:03	chlor	/chem/ecd3a.i/021410p.b/006b0601.d
19-MAR-2010 16:15	tox	/chem/ecd3a.i/031910pb.b/008b0801.d
24-MAR-2010 21:42	indab	/chem/ecd3a.i/032410pa.b/010b1001.d
Cal Level: 5 , Cal Amount: 200.00000		
19-MAR-2010 17:50	ar1660	/chem/ecd3a.i/031910pb.b/015b1501.d
03-FEB-2010 17:49	gapa	/chem/ecd3a.i/020310p.b/015b1501.d
15-FEB-2010 01:17	chlor	/chem/ecd3a.i/021410p.b/007b0701.d
19-MAR-2010 16:28	tox	/chem/ecd3a.i/031910pb.b/009b0901.d
24-MAR-2010 21:56	indab	/chem/ecd3a.i/032410pa.b/011b1101.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

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+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|25-MAR-2010 17:23 |chlor            |/chem/ecd3a.i/032510p.b/005b0501.d      |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|25-MAR-2010 17:09 |tox              |/chem/ecd3a.i/032510p.b/004b0401.d      |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|25-MAR-2010 16:56 |indab            |/chem/ecd3a.i/032510p.b/003b0301.d      |
+------------------+-----------------+----------------------------------------+
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GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/032510p.b/ECD3-F-8081-021010pa.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Mar-2010 18:11 Number of Cpnds : 44
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	769.000000
Initial:End Threshold	384.500000
Initial:Area Threshold	7690.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	10.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.577	2.547-2.607	6.880e+04
63 2,4,5-Trichlorophenol	1.334	1.234-1.434	
59 Hexachlorobenzene	2.949	2.849-3.049	7.510e+04
2 Aroclor-1221	2.693	2.663-2.723	8.450e+02
	2.795	2.765-2.825	4.886e+02
	2.825	2.795-2.855	2.132e+03
3 Aroclor-1016	3.078	3.048-3.108	2.426e+03
	3.414	3.384-3.444	1.925e+03
	3.431	3.401-3.461	3.172e+03
	3.585	3.555-3.615	1.322e+03
	3.678	3.648-3.708	1.035e+03
4 Aroclor-1232	3.413	3.383-3.443	1.017e+03
	3.431	3.401-3.461	1.640e+03
	3.535	3.505-3.565	1.084e+03
	3.586	3.556-3.616	7.085e+02
	3.737	3.707-3.767	9.673e+02
5 alpha-BHC	2.973	2.943-3.003	9.720e+04
6 Aroclor-1242	3.078	2.978-3.178	2.078e+03
	3.535	3.435-3.635	1.785e+03
	3.863	3.763-3.963	1.328e+03
	4.223	4.123-4.323	1.362e+03
	4.426	4.326-4.526	1.272e+03
7 gamma-BHC (Lindane)	3.213	3.183-3.243	8.769e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/032510p.b/ECD3-F-8081-021010pa.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.523	3.423-3.623	2.729e+03
	4.311	4.211-4.411	1.560e+03
	4.409	4.309-4.509	1.252e+03
	4.482	4.382-4.582	9.274e+03
	4.602	4.502-4.702	7.352e+03
9 Aroclor-1248	3.413	3.313-3.513	1.265e+03
	3.677	3.577-3.777	1.663e+03
	3.863	3.763-3.963	2.277e+03
	4.223	4.123-4.323	2.698e+03
	4.426	4.326-4.526	2.802e+03
10 Heptachlor	3.588	3.558-3.618	7.282e+04
11 Aldrin	3.841	3.811-3.871	8.301e+04
12 beta-BHC	3.277	3.247-3.307	3.871e+04
13 delta-BHC	3.422	3.392-3.452	8.737e+04
14 Heptachlor epoxide	4.368	4.338-4.398	7.397e+04
15 Aroclor-1254	4.185	4.155-4.215	2.187e+03
	4.412	4.382-4.442	3.882e+03
	4.668	4.638-4.698	2.394e+03
	4.781	4.751-4.811	4.180e+03
	5.045	5.015-5.075	3.176e+03
16 Endosulfan I	4.732	4.702-4.762	7.036e+04
17 gamma-Chlordane	4.481	4.451-4.511	7.346e+04
18 alpha-Chlordane	4.602	4.572-4.632	7.334e+04
19 4,4'-DDE	4.673	4.643-4.703	6.965e+04
20 Dieldrin	4.958	4.928-4.988	7.538e+04
21 Aroclor-1260	4.952	4.852-5.052	3.026e+03
	5.218	5.118-5.318	4.446e+03
	5.610	5.510-5.710	2.587e+03
	5.863	5.763-5.963	2.811e+03
	6.481	6.381-6.581	3.154e+03
22 Endrin	5.183	5.153-5.213	5.968e+04
23 Toxaphene	4.860	4.830-4.890	5.326e+02
	4.964	4.934-4.994	8.075e+02
	5.048	5.018-5.078	9.765e+02
	5.205	5.175-5.235	1.252e+03
	5.617	5.587-5.647	6.009e+02
24 Endosulfan II	5.404	5.374-5.434	6.322e+04
25 4,4'-DDD	5.248	5.218-5.278	5.655e+04
26 4,4'-DDT	5.525	5.495-5.555	4.862e+04
27 Endrin aldehyde	5.825	5.795-5.855	5.205e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/032510p.b/ECD3-F-8081-021010pa.m

	Compound	RT	RT Window	RF
	28 Methoxychlor	6.029	5.999-6.059	2.386e+04
	29 Endosulfan sulfate	6.274	6.244-6.304	5.389e+04
	30 Aroclor-1268	5.050	4.950-5.150	
		5.067	4.967-5.167	
		5.185	5.085-5.285	
		5.378	5.278-5.478	
		5.531	5.431-5.631	
	61 Aroclor-1262	4.121	4.021-4.221	
		4.289	4.189-4.389	
		4.525	4.425-4.625	
		4.671	4.571-4.771	
		4.854	4.754-4.954	
	31 Endrin ketone	6.569	6.539-6.599	7.105e+04
	51 Mirex	6.301	6.271-6.331	4.158e+04
	52 C-Nonachlor	5.346	5.316-5.376	6.572e+04
	53 O-Chlordane	4.397	4.367-4.427	5.216e+04
	54 T-Nonachlor	4.711	4.681-4.741	6.529e+04
	55 1,2-Dichlorobenzene	6.525	6.495-6.555	
	56 2,4-DDE	4.477	4.447-4.507	4.235e+04
	58 2,4-DDD	4.964	4.934-4.994	3.545e+04
	57 2,4-DDT	5.209	5.179-5.239	3.142e+04
$	32 Decachlorobiphenyl	7.664	7.634-7.694	5.218e+04
M	62 TTO Sum Pesticides	1.000	0.980-1.020	

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/032510p.b/ECD3-B-8081-021010pa.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Mar-2010 18:10 Number of Cpnds : 43
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	2363.000000
Initial:End Threshold	1181.500000
Initial:Area Threshold	23630.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	8.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.811	2.781-2.841	6.949e+05
61 2,4,5-Trichlorophenol	1.631	1.531-1.731	
59 Hexachlorobenzene	3.282	3.252-3.312	5.247e+05
2 Aroclor-1221	3.021	2.991-3.051	7.554e+03
	3.129	3.099-3.159	4.662e+03
	3.178	3.148-3.208	1.579e+04
3 Aroclor-1016	3.680	3.650-3.710	5.546e+03
	3.709	3.679-3.739	7.379e+03
	3.894	3.864-3.924	2.241e+04
	4.011	3.981-4.041	1.437e+04
	4.102	4.072-4.132	9.268e+03
4 Aroclor-1232	3.875	3.845-3.905	8.055e+03
	3.893	3.863-3.923	1.100e+04
	4.011	3.981-4.041	7.646e+03
	4.102	4.072-4.132	4.961e+03
	4.432	4.402-4.462	5.187e+03
5 alpha-BHC	3.289	3.259-3.319	1.013e+06
6 Aroclor-1242	3.500	3.470-3.530	1.553e+04
	3.894	3.864-3.924	1.845e+04
	4.010	3.980-4.040	1.220e+04
	4.433	4.402-4.463	8.747e+03
	4.840	4.810-4.870	9.075e+03
7 gamma-BHC (Lindane)	3.591	3.561-3.621	8.356e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/032510p.b/ECD3-B-8081-021010pa.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.863	3.833-3.893	1.981e+04
	4.804	4.774-4.834	9.089e+03
	5.033	5.003-5.063	4.150e+04
	5.127	5.097-5.157	3.461e+04
	5.177	5.147-5.207	3.481e+04
9 Aroclor-1248	3.894	3.864-3.924	1.100e+04
	4.182	4.152-4.212	1.175e+04
	4.433	4.403-4.463	1.435e+04
	4.550	4.520-4.580	1.318e+04
	5.065	5.035-5.095	1.606e+04
10 Heptachlor	3.996	3.966-4.026	6.675e+05
11 Aldrin	4.300	4.270-4.330	6.287e+05
12 beta-BHC	3.654	3.624-3.684	3.520e+05
13 delta-BHC	3.920	3.890-3.950	8.059e+05
14 Heptachlor epoxide	4.843	4.813-4.873	4.452e+05
15 Aroclor-1254	4.833	4.803-4.863	1.371e+04
	5.016	4.987-5.046	1.497e+04
	5.449	5.419-5.479	1.515e+03
	5.718	5.688-5.748	1.760e+04
	6.282	6.253-6.312	2.294e+04
16 Endosulfan I	5.238	5.208-5.268	4.051e+05
17 gamma-Chlordane	5.032	5.002-5.062	4.463e+05
18 alpha-Chlordane	5.176	5.146-5.206	4.465e+05
19 4,4'-DDE	5.337	5.307-5.367	4.182e+05
20 Dieldrin	5.515	5.485-5.545	4.631e+05
21 Aroclor-1260	5.685	5.655-5.715	1.743e+04
	5.899	5.869-5.929	2.268e+04
	6.378	6.348-6.408	1.773e+04
	6.438	6.407-6.468	1.005e+04
	7.376	7.346-7.406	3.234e+04
22 Endrin	5.830	5.800-5.860	4.063e+05
23 Toxaphene	5.489	5.459-5.519	6.913e+03
	5.801	5.771-5.831	6.370e+03
	6.000	5.970-6.030	6.787e+03
	6.040	6.010-6.070	1.227e+04
	6.229	6.199-6.259	5.221e+03
24 Endosulfan II	6.050	6.020-6.080	4.464e+05
25 4,4'-DDD	5.938	5.908-5.968	4.052e+05
26 4,4'-DDT	6.273	6.243-6.303	3.995e+05
27 Endrin aldehyde	6.404	6.374-6.434	3.999e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/032510p.b/ECD3-B-8081-021010pa.m

Compound	RT	RT Window	RF
28 Methoxychlor	7.014	6.984-7.044	2.003e+05
29 Endosulfan sulfate	6.705	6.675-6.735	4.686e+05
30 Aroclor-1268	5.217	5.187-5.247	
	5.596	5.566-5.626	
	5.628	5.598-5.658	
	5.769	5.739-5.799	
	6.149	6.119-6.179	
60 Aroclor-1262	4.689	4.589-4.789	
	4.779	4.679-4.879	
	5.074	4.974-5.174	
	5.224	5.124-5.324	
	5.396	5.296-5.496	
31 Endrin ketone	7.290	7.260-7.320	6.035e+05
51 Mirex	7.404	7.374-7.434	2.838e+05
52 C-Nonachlor	6.046	6.016-6.076	3.876e+05
53 O-Chlordane	4.876	4.846-4.906	2.657e+05
54 T-Nonachlor	5.249	5.219-5.279	3.254e+05
55 1,2-Dichlorobenzene	6.619	6.589-6.649	
56 2,4-DDE	5.143	5.113-5.173	1.999e+05
58 2,4-DDD	5.669	5.639-5.699	1.903e+05
57 2,4-DDT	5.992	5.962-6.022	1.965e+05
$ 32 Decachlorobiphenyl	8.683	8.653-8.713	4.440e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 24-MAR-2010 21:56
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/032510p.b/ECD3-F-8081-021010pa.m
Cal Date : 25-Mar-2010 18:11 hea01125
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd3a.i/031910pb.b/011f1101.d
Level 2: /chem/ecd3a.i/031910pb.b/012f1201.d
Level 3: /chem/ecd3a.i/031910pb.b/013f1301.d
Level 4: /chem/ecd3a.i/031910p.b/021f2101.d
Level 5: /chem/ecd3a.i/031910pb.b/015f1501.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	___ RRF	% RSD
63 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Hexachlorobenzene	82047	75676	73003	72625	72132	75097	5.487
2 Aroclor-1221(1)	+++++	+++++	+++++	845	+++++	845	0.000
(2)	+++++	+++++	+++++	489	+++++	489	0.000
(3)	+++++	+++++	+++++	2132	+++++	2132	0.000
3 Aroclor-1016(1)	2631	2519	2403	2334	2241	2426	6.316
(2)	1986	1941	1838	1915	1944	1925	2.839
(3)	3220	3184	3183	3140	3132	3172	1.138
(4)	1352	1339	1300	1293	1328	1322	1.885
(5)	1169	1080	1017	928	983	1035	8.968
4 Aroclor-1232(1)	+++++	+++++	+++++	1017	+++++	1017	0.000
(2)	+++++	+++++	+++++	1640	+++++	1640	0.000
(3)	+++++	+++++	+++++	1084	+++++	1084	0.000
(4)	+++++	+++++	+++++	709	+++++	709	0.000
(5)	+++++	+++++	+++++	967	+++++	967	0.000
5 alpha-BHC	76352	84601	101820	108632	114588	97199	16.651
6 Aroclor-1242(1)	+++++	+++++	+++++	2078	+++++	2078	0.000
(2)	+++++	+++++	+++++	1785	+++++	1785	0.000
(3)	+++++	+++++	+++++	1328	+++++	1328	0.000
(4)	+++++	+++++	+++++	1362	+++++	1362	0.000
(5)	+++++	+++++	+++++	1272	+++++	1272	0.000
7 gamma-BHC (Lindane)	72675	78105	90430	95858	101400	87694	13.726
8 Chlordane (tech.)(1)	2422	2465	2708	2884	3166	2729	11.287
(2)	1461	1483	1516	1593	1746	1560	7.416
(3)	1000	1062	1222	1374	1603	1252	19.479
(4)	8132	8404	9428	9931	10473	9274	10.723
(5)	6602	6889	7575	7807	7888	7352	7.816

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 24-MAR-2010 21:56
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/032510p.b/ECD3-F-8081-021010pa.m
Cal Date : 25-Mar-2010 18:11 hea01125
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	1265	+++++	1265	0.000
(2)	+++++	+++++	+++++	1663	+++++	1663	0.000
(3)	+++++	+++++	+++++	2277	+++++	2277	0.000
(4)	+++++	+++++	+++++	2698	+++++	2698	0.000
(5)	+++++	+++++	+++++	2802	+++++	2802	0.000
10 Heptachlor	62376	68277	74379	77858	81208	72820	10.365
11 Aldrin	67768	75325	86657	90941	94371	83013	13.423
12 beta-BHC	37051	37359	37942	39662	41534	38710	4.842
13 delta-BHC	71346	78281	90436	95271	101494	87366	14.143
14 Heptachlor epoxide	63672	67639	76465	79692	82364	73966	10.807
15 Aroclor-1254(1)	+++++	+++++	+++++	2187	+++++	2187	0.000
(2)	+++++	+++++	+++++	3882	+++++	3882	0.000
(3)	+++++	+++++	+++++	2394	+++++	2394	0.000
(4)	+++++	+++++	+++++	4180	+++++	4180	0.000
(5)	+++++	+++++	+++++	3176	+++++	3176	0.000
16 Endosulfan I	61544	65076	73113	75274	76796	70361	9.502
17 gamma-Chlordane	60959	64868	75892	80615	84983	73463	13.949
18 alpha-Chlordane	63618	66078	75205	79143	82639	73337	11.221
19 4,4'-DDE	55850	61941	73267	76865	80328	69650	14.869
20 Dieldrin	63939	69409	78701	81193	83670	75382	11.101
21 Aroclor-1260(1)	3194	3062	3022	2926	2925	3026	3.683
(2)	4577	4446	4446	4343	4419	4446	1.898
(3)	2677	2577	2600	2498	2585	2587	2.479
(4)	2801	2744	2820	2777	2911	2811	2.244
(5)	3185	3054	2985	3135	3412	3154	5.170
22 Endrin	51205	54813	61869	63441	67086	59683	10.901
23 Toxaphene(1)	477	506	536	564	580	533	7.879
(2)	797	792	808	790	851	808	3.146
(3)	892	946	978	1002	1065	977	6.607
(4)	1118	1204	1241	1327	1371	1252	8.001
(5)	521	584	619	612	667	601	8.896
24 Endosulfan II	55985	59361	65170	66881	68681	63216	8.455
25 4,4'-DDD	47494	50651	58927	61074	64610	56551	12.748

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 24-MAR-2010 21:56
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/032510p.b/ECD3-F-8081-021010pa.m
Cal Date : 25-Mar-2010 18:11 hea01125
Curve Type : Average

	Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
	26 4,4'-DDT	40113	43591	50368	53049	55979	48620	13.584
	27 Endrin aldehyde	48360	50215	53128	53916	54644	52053	5.115
	28 Methoxychlor	23020	23135	23364	23996	25763	23856	4.742
	29 Endosulfan sulfate	48419	49874	54998	56899	59243	53887	8.555
	30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	61 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	31 Endrin ketone	66642	68835	72076	73167	74520	71048	4.556
	51 Mirex	46970	41684	39766	39693	39782	41579	7.524
	52 C-Nonachlor	61669	63304	67157	68112	68361	65721	4.628
	53 O-Chlordane	53873	51905	51938	51668	51400	52157	1.885
	54 T-Nonachlor	64324	63349	65522	66666	66574	65287	2.206
	55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	56 2,4-DDE	40688	42524	43567	42869	42118	42353	2.531
	58 2,4-DDD	35151	35632	35705	35621	35141	35450	0.788
	57 2,4-DDT	30607	31760	31581	31495	31682	31425	1.490
M	62 TTO Sum Pesticides	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	1 4cmx	61683	64781	70405	72539	74610	68804	7.864
$	32 Decachlorobiphenyl	51705	50928	51468	52641	54183	52185	2.448

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 24-MAR-2010 21:56
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/032510p.b/ECD3-B-8081-021010pa.m
Cal Date : 25-Mar-2010 18:10 hea01125
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd3a.i/031910pb.b/011b1101.d
Level 2: /chem/ecd3a.i/031910pb.b/012b1201.d
Level 3: /chem/ecd3a.i/031910pb.b/013b1301.d
Level 4: /chem/ecd3a.i/031910p.b/021b2101.d
Level 5: /chem/ecd3a.i/031910pb.b/015b1501.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
61 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Hexachlorobenzene	638883	552521	498046	477710	456314	524695	13.942
2 Aroclor-1221(1)	+++++	+++++	+++++	7554	+++++	7554	0.000
(2)	+++++	+++++	+++++	4662	+++++	4662	0.000
(3)	+++++	+++++	+++++	15792	+++++	15792	0.000
3 Aroclor-1016(1)	6193	5810	5569	5267	4892	5546	8.989
(2)	8487	7883	7531	6945	6047	7379	12.618
(3)	24723	23599	23053	21504	19189	22414	9.561
(4)	15932	15362	14674	13653	12230	14370	10.211
(5)	10054	9536	9411	8877	8465	9268	6.622
4 Aroclor-1232(1)	+++++	+++++	+++++	8055	+++++	8055	0.000
(2)	+++++	+++++	+++++	11004	+++++	11004	0.000
(3)	+++++	+++++	+++++	7646	+++++	7646	0.000
(4)	+++++	+++++	+++++	4961	+++++	4961	0.000
(5)	+++++	+++++	+++++	5187	+++++	5187	0.000
5 alpha-BHC	895211	955079	1050716	1070787	1094919	1013342	8.359
6 Aroclor-1242(1)	+++++	+++++	+++++	15526	+++++	15526	0.000
(2)	+++++	+++++	+++++	18452	+++++	18452	0.000
(3)	+++++	+++++	+++++	12202	+++++	12202	0.000
(4)	+++++	+++++	+++++	8747	+++++	8747	0.000
(5)	+++++	+++++	+++++	9075	+++++	9075	0.000
7 gamma-BHC (Lindane)	767187	793514	857584	870088	889605	835595	6.287
8 Chlordane (tech.)(1)	18941	18772	19642	20493	21200	19810	5.209
(2)	9654	8891	8620	8794	9486	9089	4.989
(3)	41050	39830	41174	42615	42823	41498	2.974
(4)	34185	32623	34296	35479	36454	34608	4.184
(5)	34493	33596	34773	35789	35412	34813	2.445

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 24-MAR-2010 21:56
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/032510p.b/ECD3-B-8081-021010pa.m
Cal Date : 25-Mar-2010 18:10 hea01125
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	10997	+++++	10997	0.000
(2)	+++++	+++++	+++++	11753	+++++	11753	0.000
(3)	+++++	+++++	+++++	14351	+++++	14351	0.000
(4)	+++++	+++++	+++++	13182	+++++	13182	0.000
(5)	+++++	+++++	+++++	16061	+++++	16061	0.000
10 Heptachlor	676225	668202	689760	664723	638435	667469	2.827
11 Aldrin	647964	622454	636845	628187	608260	628742	2.378
12 beta-BHC	357803	347725	350880	350674	352955	352007	1.062
13 delta-BHC	739156	753611	829850	842119	864783	805904	6.948
14 Heptachlor epoxide	453413	445550	448836	444924	433406	445226	1.666
15 Aroclor-1254(1)	+++++	+++++	+++++	13715	+++++	13715	0.000
(2)	+++++	+++++	+++++	14973	+++++	14973	0.000
(3)	+++++	+++++	+++++	1515	+++++	1515	0.000
(4)	+++++	+++++	+++++	17595	+++++	17595	0.000
(5)	+++++	+++++	+++++	22938	+++++	22938	0.000
16 Endosulfan I	410527	404238	407201	406634	396708	405061	1.279
17 gamma-Chlordane	434283	425126	445996	461177	464763	446269	3.808
18 alpha-Chlordane	440934	432172	445313	455569	458462	446490	2.410
19 4,4'-DDE	401982	414418	434500	426385	413815	418220	2.999
20 Dieldrin	461376	464963	476864	463432	448732	463074	2.166
21 Aroclor-1260(1)	19203	18045	17628	16870	15402	17430	8.106
(2)	25377	23683	22905	21687	19749	22680	9.330
(3)	19147	18469	17776	16988	16283	17733	6.431
(4)	11307	10402	10007	9313	9206	10047	8.564
(5)	33671	32625	31661	31487	32262	32341	2.699
22 Endrin	408378	407733	416199	402940	396286	406307	1.808
23 Toxaphene(1)	5866	6736	7118	7129	7715	6913	9.863
(2)	5630	6181	6492	6405	7141	6370	8.573
(3)	6232	6595	6951	6815	7340	6787	6.066
(4)	11157	11912	12344	12327	13595	12267	7.212
(5)	4320	4949	5428	5341	6070	5221	12.347
24 Endosulfan II	458384	458978	451291	437863	425677	446439	3.223
25 4,4'-DDD	390727	395124	412142	414132	413683	405161	2.789

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 24-MAR-2010 21:56
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/032510p.b/ECD3-B-8081-021010pa.m
Cal Date : 25-Mar-2010 18:10 hea01125
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
26 4,4'-DDT	360469	371267	415265	423126	427201	399466	7.811
27 Endrin aldehyde	422563	414068	402904	390078	369805	399884	5.194
28 Methoxychlor	220286	213823	189692	183641	194211	200331	7.930
29 Endosulfan sulfate	462891	464300	478931	473196	463915	468647	1.512
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
60 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Endrin ketone	624759	626011	606874	587586	572437	603534	3.875
51 Mirex	331656	289442	264627	265905	267186	283763	10.100
52 C-Nonachlor	399290	392506	388456	383488	374228	387594	2.438
53 O-Chlordane	323094	270726	251625	244327	238954	265745	12.885
54 T-Nonachlor	363784	327181	317318	312166	306607	325411	6.991
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 2,4-DDE	241272	213798	191249	182163	171219	199940	13.961
58 2,4-DDD	218419	199549	183738	178310	171502	190304	9.888
57 2,4-DDT	209437	197934	193413	192124	189515	196485	3.998
$ 1 4cmx	733419	728069	702188	670994	639975	694929	5.677
$ 32 Decachlorobiphenyl	473576	441606	431462	432583	440748	443995	3.866

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/19/10 03/24/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :03/24/10

Lab Sample ID (PEM): WPE100125-99 Time Analyzed :1931

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	3.84	3.81	3.87	126	100	26.0
4,4'-DDE						
Endrin	5.18	5.15	5.21	119	100	19.0
4,4'-DDD						
4,4'-DDT	5.53	5.50	5.56	106	100	6.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.10 Endrin % breakdown (1): 4.00

Combined % breakdown (1): 6.10

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/19/10 03/24/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :03/24/10

Lab Sample ID (PEM): WPE100125-99 Time Analyzed :1931

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.30	4.27	4.33	112	100	12.0
4,4'-DDE						
Endrin	5.83	5.80	5.86	114	100	14.0
4,4'-DDD						
4,4'-DDT	6.28	6.25	6.31	105	100	5.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 1.50 Endrin % breakdown (1): 6.20

Combined % breakdown (1): 7.70

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/19/10 03/24/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :03/24/10

Lab Sample ID (PEM): WPE100125-99 Time Analyzed :2237

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	3.84	3.81	3.87	128	100	28.0
4,4'-DDE						
Endrin	5.19	5.15	5.21	116	100	16.0
4,4'-DDD						
4,4'-DDT	5.53	5.50	5.56	96.3	100	-3.7
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 4.20 Endrin % breakdown (1): 5.40

Combined % breakdown (1): 9.60

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/19/10 03/24/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :03/24/10

Lab Sample ID (PEM): WPE100125-99 Time Analyzed :2237

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.30	4.27	4.33	114	100	14.0
4,4'-DDE						
Endrin	5.83	5.80	5.86	114	100	14.0
4,4'-DDD						
4,4'-DDT	6.28	6.25	6.31	98.7	100	-1.3
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 4.20 Endrin % breakdown (1): 7.80

Combined % breakdown (1): 12.00

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/19/10 03/24/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :03/25/10

Lab Sample ID (PEM): WPE100125-99 Time Analyzed :1642

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	3.84	3.81	3.87	130	100	30.0
4,4'-DDE						
Endrin	5.18	5.15	5.21	123	100	23.0
4,4'-DDD						
4,4'-DDT	5.53	5.50	5.56	113	100	13.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 1.50 Endrin % breakdown (1): 3.80

Combined % breakdown (1): 5.30

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/19/10 03/24/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :03/25/10

Lab Sample ID (PEM): WPE100125-99 Time Analyzed :1642

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.30	4.27	4.33	115	100	15.0
4,4'-DDE						
Endrin	5.83	5.80	5.86	118	100	18.0
4,4'-DDD						
4,4'-DDT	6.27	6.24	6.30	112	100	12.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 1.50 Endrin % breakdown (1): 5.50

Combined % breakdown (1): 7.00

FORM VII PEST-1 OLM03.0

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/24/10 Time: 1958

Lab File ID: 004F0401 Init. Calib. Date(s): 03/19/10 03/19/10

Heated Purge: (Y/N) N Init. Calib. Times: 1534 1628

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	532.562	550.670	0.01	3.4	15.0
(2)	807.550	807.075	0.01	-0.0	15.0
(3)	976.534	1000.529	0.01	2.4	15.0
(4)	1252.111	1232.762	0.01	-1.5	15.0
(5)	600.892	556.620	0.01	-7.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/24/10 Time: 1958

Lab File ID: 004B0401 Init. Calib. Date(s): 03/19/10 03/19/10

Heated Purge: (Y/N) N Init. Calib. Times: 1534 1628

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	6912.846	7878.808	0.01	14.0	15.0
(2)	6369.903	6551.238	0.01	2.8	15.0
(3)	6786.669	6808.756	0.01	0.3	15.0
(4)	12266.923	11885.809	0.01	-3.1	15.0
(5)	5221.456	5019.235	0.01	-3.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/24/10 Time: 2209

Lab File ID: 012F1201 Init. Calib. Date(s): 03/24/10 03/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 2101 2156

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	97198.616	104695.50	0.01	7.7	15.0
beta-BHC	38709.551	38035.720	0.01	-1.7	15.0
delta-BHC	87365.516	89931.100	0.01	2.9	15.0
gamma-BHC (Lindane)	87693.756	95007.340	0.01	8.3	15.0
Heptachlor	72819.770	71788.420	0.01	-1.4	15.0
Aldrin	83012.512	84272.400	0.01	1.5	15.0
Heptachlor epoxide	73966.489	76412.880	0.01	3.3	15.0
Endosulfan I	70360.750	75101.180	0.01	6.7	15.0
Dieldrin	75382.265	77587.385	0.01	2.9	15.0
4,4'-DDE	69650.463	74712.090	0.01	7.3	15.0
Endrin	59682.913	64961.825	0.01	8.8	15.0
Endosulfan II	63215.529	65126.420	0.01	3.0	15.0
4,4'-DDD	56551.146	59125.785	0.01	4.6	15.0
Endosulfan sulfate	53886.737	54738.800	0.01	1.6	15.0
4,4'-DDT	48619.953	53588.075	0.01	10.2	15.0
Methoxychlor	23855.637	23316.536	0.01	-2.2	15.0
Endrin ketone	71047.932	68897.960	0.01	-3.0	15.0
Endrin aldehyde	52052.604	51469.750	0.01	-1.1	15.0
gamma-Chlordane	73463.418	81633.300	0.01	11.1	15.0
alpha-Chlordane	73336.637	71020.190	0.01	-3.2	15.0
4cmx	68803.573	73090.515	0.01	6.2	15.0
Decachlorobiphenyl	52184.948	53159.135	0.01	1.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/24/10 Time: 2209

Lab File ID: 012B1201 Init. Calib. Date(s): 03/24/10 03/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 2101 2156

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	1013342.3	1029369.8	0.01	1.6	15.0
beta-BHC	352007.41	337699.47	0.01	-4.1	15.0
delta-BHC	805903.88	796015.14	0.01	-1.2	15.0
gamma-BHC (Lindane)	835595.40	862366.78	0.01	3.2	15.0
Heptachlor	667468.92	616796.06	0.01	-7.6	15.0
Aldrin	628741.88	584927.75	0.01	-7.0	15.0
Heptachlor epoxide	445225.60	430820.12	0.01	-3.2	15.0
Endosulfan I	405061.47	405834.02	0.01	0.2	15.0
Dieldrin	463073.51	443616.09	0.01	-4.2	15.0
4,4'-DDE	418219.96	412665.89	0.01	-1.3	15.0
Endrin	406307.33	409107.56	0.01	0.7	15.0
Endosulfan II	446438.73	427455.21	0.01	-4.2	15.0
4,4'-DDD	405161.38	401732.37	0.01	-0.8	15.0
Endosulfan sulfate	468646.67	457404.76	0.01	-2.4	15.0
4,4'-DDT	399465.73	429265.36	0.01	7.4	15.0
Methoxychlor	200330.74	179196.56	0.01	-10.5	15.0
Endrin ketone	603533.61	556464.90	0.01	-7.8	15.0
Endrin aldehyde	399883.76	371155.91	0.01	-7.2	15.0
gamma-Chlordane	446268.83	463493.65	0.01	3.8	15.0
alpha-Chlordane	446490.09	409156.38	0.01	-8.4	15.0
4cmx	694929.09	672843.68	0.01	-3.2	15.0
Decachlorobiphenyl	443995.04	436240.40	0.01	-1.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/25/10 Time: 0500

Lab File ID: 042F4201 Init. Calib. Date(s): 03/24/10 03/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 2101 2156

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	97198.616	102169.03	0.01	5.1	15.0
beta-BHC	38709.551	36402.803	0.01	-6.0	15.0
delta-BHC	87365.516	87149.122	0.01	-0.2	15.0
gamma-BHC (Lindane)	87693.756	93558.640	0.01	6.7	15.0
Heptachlor	72819.770	75440.825	0.01	3.6	15.0
Aldrin	83012.512	81416.583	0.01	-1.9	15.0
Heptachlor epoxide	73966.489	74884.842	0.01	1.2	15.0
Endosulfan I	70360.750	71951.183	0.01	2.3	15.0
Dieldrin	75382.265	76271.300	0.01	1.2	15.0
4,4'-DDE	69650.463	73870.925	0.01	6.0	15.0
Endrin	59682.913	68610.397	0.01	15.0	15.0
Endosulfan II	63215.529	63568.666	0.01	0.6	15.0
4,4'-DDD	56551.146	62067.344	0.01	9.8	15.0
Endosulfan sulfate	53886.737	52774.738	0.01	-2.1	15.0
4,4'-DDT	48619.953	48337.823	0.01	-0.6	15.0
Methoxychlor	23855.637	22685.412	0.01	-4.9	15.0
Endrin ketone	71047.932	67402.627	0.01	-5.1	15.0
Endrin aldehyde	52052.604	49962.298	0.01	-4.0	15.0
gamma-Chlordane	73463.418	77305.234	0.01	5.2	15.0
alpha-Chlordane	73336.637	67263.869	0.01	-8.3	15.0
4cmx	68803.573	71277.525	0.01	3.6	15.0
Decachlorobiphenyl	52184.948	47588.075	0.01	-8.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/25/10 Time: 0500

Lab File ID: 042B4201 Init. Calib. Date(s): 03/24/10 03/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 2101 2156

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	1013342.3	843666.77	0.01	-16.7	15.0	<-
beta-BHC	352007.41	277665.79	0.01	-21.1	15.0	<-
delta-BHC	805903.88	626151.31	0.01	-22.3	15.0	<-
gamma-BHC (Lindane)	835595.40	707535.47	0.01	-15.3	15.0	<-
Heptachlor	667468.92	538036.45	0.01	-19.4	15.0	<-
Aldrin	628741.88	490613.06	0.01	-22.0	15.0	<-
Heptachlor epoxide	445225.60	362367.45	0.01	-18.6	15.0	<-
Endosulfan I	405061.47	338974.61	0.01	-16.3	15.0	<-
Dieldrin	463073.51	375887.70	0.01	-18.8	15.0	<-
4,4'-DDE	418219.96	348848.75	0.01	-16.6	15.0	<-
Endrin	406307.33	355282.76	0.01	-12.6	15.0	
Endosulfan II	446438.73	354674.02	0.01	-20.6	15.0	<-
4,4'-DDD	405161.38	341598.74	0.01	-15.7	15.0	<-
Endosulfan sulfate	468646.67	351721.02	0.01	-24.9	15.0	<-
4,4'-DDT	399465.73	308688.54	0.01	-22.7	15.0	<-
Methoxychlor	200330.74	147122.93	0.01	-26.6	15.0	<-
Endrin ketone	603533.61	433238.09	0.01	-28.2	15.0	<-
Endrin aldehyde	399883.76	296371.12	0.01	-25.9	15.0	<-
gamma-Chlordane	446268.83	372264.95	0.01	-16.6	15.0	<-
alpha-Chlordane	446490.09	327218.87	0.01	-26.7	15.0	<-
4cmx	694929.09	571588.11	0.01	-17.7	15.0	<-
Decachlorobiphenyl	443995.04	316803.83	0.01	-28.6	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/25/10 Time: 0757

Lab File ID: 055F5501 Init. Calib. Date(s): 03/24/10 03/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 2101 2156

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	97198.616	105453.13	0.01	8.5	15.0
beta-BHC	38709.551	37836.775	0.01	-2.2	15.0
delta-BHC	87365.516	89344.266	0.01	2.3	15.0
gamma-BHC (Lindane)	87693.756	95939.078	0.01	9.4	15.0
Heptachlor	72819.770	73734.679	0.01	1.2	15.0
Aldrin	83012.512	83691.634	0.01	0.8	15.0
Heptachlor epoxide	73966.489	76311.343	0.01	3.2	15.0
Endosulfan I	70360.750	73932.954	0.01	5.1	15.0
Dieldrin	75382.265	77135.145	0.01	2.3	15.0
4,4'-DDE	69650.463	74805.739	0.01	7.4	15.0
Endrin	59682.913	66795.991	0.01	11.9	15.0
Endosulfan II	63215.529	64423.366	0.01	1.9	15.0
4,4'-DDD	56551.146	63485.562	0.01	12.3	15.0
Endosulfan sulfate	53886.737	53214.847	0.01	-1.2	15.0
4,4'-DDT	48619.953	47378.648	0.01	-2.6	15.0
Methoxychlor	23855.637	21291.203	0.01	-10.7	15.0
Endrin ketone	71047.932	68017.101	0.01	-4.3	15.0
Endrin aldehyde	52052.604	50585.466	0.01	-2.8	15.0
gamma-Chlordane	73463.418	80192.788	0.01	9.2	15.0
alpha-Chlordane	73336.637	69841.614	0.01	-4.8	15.0
4cmx	68803.573	73163.975	0.01	6.3	15.0
Decachlorobiphenyl	52184.948	50459.440	0.01	-3.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/25/10 Time: 0757

Lab File ID: 055B5501 Init. Calib. Date(s): 03/24/10 03/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 2101 2156

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	1013342.3	949928.72	0.01	-6.2	15.0	
beta-BHC	352007.41	310483.01	0.01	-11.8	15.0	
delta-BHC	805903.88	720112.68	0.01	-10.6	15.0	
gamma-BHC (Lindane)	835595.40	797824.18	0.01	-4.5	15.0	
Heptachlor	667468.92	582752.32	0.01	-12.7	15.0	
Aldrin	628741.88	543094.90	0.01	-13.6	15.0	
Heptachlor epoxide	445225.60	402807.83	0.01	-9.5	15.0	
Endosulfan I	405061.47	379461.72	0.01	-6.3	15.0	
Dieldrin	463073.51	415005.03	0.01	-10.4	15.0	
4,4'-DDE	418219.96	387651.05	0.01	-7.3	15.0	
Endrin	406307.33	392238.92	0.01	-3.5	15.0	
Endosulfan II	446438.73	384303.25	0.01	-13.9	15.0	
4,4'-DDD	405161.38	383049.39	0.01	-5.4	15.0	
Endosulfan sulfate	468646.67	401115.31	0.01	-14.4	15.0	
4,4'-DDT	399465.73	336818.32	0.01	-15.7	15.0	<-
Methoxychlor	200330.74	150582.23	0.01	-24.8	15.0	<-
Endrin ketone	603533.61	493806.15	0.01	-18.2	15.0	<-
Endrin aldehyde	399883.76	327165.69	0.01	-18.2	15.0	<-
gamma-Chlordane	446268.83	423713.38	0.01	-5.0	15.0	
alpha-Chlordane	446490.09	374416.13	0.01	-16.1	15.0	<-
4cmx	694929.09	627615.61	0.01	-9.7	15.0	
Decachlorobiphenyl	443995.04	358246.90	0.01	-19.3	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/25/10 Time: 1013

Lab File ID: 065F6501 Init. Calib. Date(s): 03/24/10 03/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 2101 2156

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	97198.616	103754.29	0.01	6.7	15.0
beta-BHC	38709.551	37305.130	0.01	-3.6	15.0
delta-BHC	87365.516	87906.360	0.01	0.6	15.0
gamma-BHC (Lindane)	87693.756	94604.020	0.01	7.9	15.0
Heptachlor	72819.770	71843.530	0.01	-1.3	15.0
Aldrin	83012.512	82257.540	0.01	-0.9	15.0
Heptachlor epoxide	73966.489	75135.600	0.01	1.6	15.0
Endosulfan I	70360.750	72773.120	0.01	3.4	15.0
Dieldrin	75382.265	75822.795	0.01	0.6	15.0
4,4'-DDE	69650.463	73632.650	0.01	5.7	15.0
Endrin	59682.913	65393.645	0.01	9.6	15.0
Endosulfan II	63215.529	63557.320	0.01	0.5	15.0
4,4'-DDD	56551.146	63913.230	0.01	13.0	15.0
Endosulfan sulfate	53886.737	52586.390	0.01	-2.4	15.0
4,4'-DDT	48619.953	44490.835	0.01	-8.5	15.0
Methoxychlor	23855.637	20284.850	0.01	-15.0	15.0
Endrin ketone	71047.932	67052.600	0.01	-5.6	15.0
Endrin aldehyde	52052.604	50028.985	0.01	-3.9	15.0
gamma-Chlordane	73463.418	78967.980	0.01	7.5	15.0
alpha-Chlordane	73336.637	68794.370	0.01	-6.2	15.0
4cmx	68803.573	72356.890	0.01	5.2	15.0
Decachlorobiphenyl	52184.948	49375.385	0.01	-5.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/25/10 Time: 1013

Lab File ID: 065B6501 Init. Calib. Date(s): 03/24/10 03/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 2101 2156

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	1013342.3	937810.79	0.01	-7.4	15.0	
beta-BHC	352007.41	305954.49	0.01	-13.1	15.0	
delta-BHC	805903.88	714930.05	0.01	-11.3	15.0	
gamma-BHC (Lindane)	835595.40	788487.44	0.01	-5.6	15.0	
Heptachlor	667468.92	573940.95	0.01	-14.0	15.0	
Aldrin	628741.88	537396.91	0.01	-14.5	15.0	
Heptachlor epoxide	445225.60	396437.25	0.01	-11.0	15.0	
Endosulfan I	405061.47	372330.34	0.01	-8.1	15.0	
Dieldrin	463073.51	409035.72	0.01	-11.7	15.0	
4,4'-DDE	418219.96	382609.40	0.01	-8.5	15.0	
Endrin	406307.33	385321.90	0.01	-5.2	15.0	
Endosulfan II	446438.73	391889.73	0.01	-12.2	15.0	
4,4'-DDD	405161.38	396761.02	0.01	-2.1	15.0	
Endosulfan sulfate	468646.67	402920.48	0.01	-14.0	15.0	
4,4'-DDT	399465.73	324693.07	0.01	-18.7	15.0	<-
Methoxychlor	200330.74	146531.56	0.01	-26.8	15.0	<-
Endrin ketone	603533.61	490319.90	0.01	-18.8	15.0	<-
Endrin aldehyde	399883.76	333250.53	0.01	-16.7	15.0	<-
gamma-Chlordane	446268.83	416074.60	0.01	-6.8	15.0	
alpha-Chlordane	446490.09	367600.35	0.01	-17.7	15.0	<-
4cmx	694929.09	620029.48	0.01	-10.8	15.0	
Decachlorobiphenyl	443995.04	349064.28	0.01	-21.4	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/25/10 Time: 1656

Lab File ID: 003F0301 Init. Calib. Date(s): 03/24/10 03/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 2101 2156

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	97198.616	105676.79	0.01	8.7	15.0
beta-BHC	38709.551	38517.260	0.01	-0.5	15.0
delta-BHC	87365.516	92340.310	0.01	5.7	15.0
gamma-BHC (Lindane)	87693.756	96890.680	0.01	10.5	15.0
Heptachlor	72819.770	74918.390	0.01	2.9	15.0
Aldrin	83012.512	84782.290	0.01	2.1	15.0
Heptachlor epoxide	73966.489	76992.610	0.01	4.1	15.0
Endosulfan I	70360.750	75931.530	0.01	7.9	15.0
Dieldrin	75382.265	78043.955	0.01	3.5	15.0
4,4'-DDE	69650.463	74743.775	0.01	7.3	15.0
Endrin	59682.913	66675.600	0.01	11.7	15.0
Endosulfan II	63215.529	65523.340	0.01	3.6	15.0
4,4'-DDD	56551.146	58714.010	0.01	3.8	15.0
Endosulfan sulfate	53886.737	54254.780	0.01	0.7	15.0
4,4'-DDT	48619.953	55261.255	0.01	13.6	15.0
Methoxychlor	23855.637	23200.977	0.01	-2.7	15.0
Endrin ketone	71047.932	69561.225	0.01	-2.1	15.0
Endrin aldehyde	52052.604	51500.160	0.01	-1.1	15.0
gamma-Chlordane	73463.418	81464.300	0.01	10.9	15.0
alpha-Chlordane	73336.637	70984.250	0.01	-3.2	15.0
4cmx	68803.573	72673.670	0.01	5.6	15.0
Decachlorobiphenyl	52184.948	51446.890	0.01	-1.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/25/10 Time: 1656

Lab File ID: 003B0301 Init. Calib. Date(s): 03/24/10 03/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 2101 2156

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	1013342.3	1021373.3	0.01	0.8	15.0
beta-BHC	352007.41	334331.39	0.01	-5.0	15.0
delta-BHC	805903.88	800721.34	0.01	-0.6	15.0
gamma-BHC (Lindane)	835595.40	859907.36	0.01	2.9	15.0
Heptachlor	667468.92	629364.93	0.01	-5.7	15.0
Aldrin	628741.88	582249.75	0.01	-7.4	15.0
Heptachlor epoxide	445225.60	429846.47	0.01	-3.4	15.0
Endosulfan I	405061.47	404989.12	0.01	-0.0	15.0
Dieldrin	463073.51	441092.73	0.01	-4.7	15.0
4,4'-DDE	418219.96	415271.23	0.01	-0.7	15.0
Endrin	406307.33	412806.14	0.01	1.6	15.0
Endosulfan II	446438.73	421253.88	0.01	-5.6	15.0
4,4'-DDD	405161.38	394037.36	0.01	-2.7	15.0
Endosulfan sulfate	468646.67	441740.55	0.01	-5.7	15.0
4,4'-DDT	399465.73	432442.56	0.01	8.2	15.0
Methoxychlor	200330.74	175428.00	0.01	-12.4	15.0
Endrin ketone	603533.61	544842.07	0.01	-9.7	15.0
Endrin aldehyde	399883.76	360004.66	0.01	-10.0	15.0
gamma-Chlordane	446268.83	459484.65	0.01	3.0	15.0
alpha-Chlordane	446490.09	404717.62	0.01	-9.4	15.0
4cmx	694929.09	654198.36	0.01	-5.9	15.0
Decachlorobiphenyl	443995.04	404722.16	0.01	-8.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/25/10 Time: 1709

Lab File ID: 004F0401 Init. Calib. Date(s): 03/19/10 03/19/10

Heated Purge: (Y/N) N Init. Calib. Times: 1534 1628

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	532.562	585.519	0.01	9.9	15.0
(2)	807.550	873.606	0.01	8.2	15.0
(3)	976.534	1064.559	0.01	9.0	15.0
(4)	1252.111	1322.898	0.01	5.6	15.0
(5)	600.892	605.424	0.01	0.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/25/10 Time: 1709

Lab File ID: 004B0401 Init. Calib. Date(s): 03/19/10 03/19/10

Heated Purge: (Y/N) N Init. Calib. Times: 1534 1628

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
Toxaphene	6912.846	8334.108	0.01	20.6	15.0	<-
(2)	6369.903	6766.804	0.01	6.2	15.0	
(3)	6786.669	7563.888	0.01	11.4	15.0	
(4)	12266.923	12397.322	0.01	1.1	15.0	
(5)	5221.456	5220.340	0.01	-0.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/25/10 Time: 2126

Lab File ID: 022F2201 Init. Calib. Date(s): 03/24/10 03/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 2101 2156

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	97198.616	109602.78	0.01	12.8	15.0	
beta-BHC	38709.551	39591.895	0.01	2.3	15.0	
delta-BHC	87365.516	95767.065	0.01	9.6	15.0	
gamma-BHC (Lindane)	87693.756	99885.759	0.01	13.9	15.0	
Heptachlor	72819.770	76490.912	0.01	5.0	15.0	
Aldrin	83012.512	86780.734	0.01	4.5	15.0	
Heptachlor epoxide	73966.489	78914.972	0.01	6.7	15.0	
Endosulfan I	70360.750	77186.818	0.01	9.7	15.0	
Dieldrin	75382.265	79699.238	0.01	5.7	15.0	
4,4'-DDE	69650.463	76970.109	0.01	10.5	15.0	
Endrin	59682.913	68874.174	0.01	15.4	15.0	<-
Endosulfan II	63215.529	66889.564	0.01	5.8	15.0	
4,4'-DDD	56551.146	61505.673	0.01	8.8	15.0	
Endosulfan sulfate	53886.737	55914.278	0.01	3.8	15.0	
4,4'-DDT	48619.953	56823.126	0.01	16.9	15.0	<-
Methoxychlor	23855.637	23938.736	0.01	0.3	15.0	
Endrin ketone	71047.932	70693.058	0.01	-0.5	15.0	
Endrin aldehyde	52052.604	52309.086	0.01	0.5	15.0	
gamma-Chlordane	73463.418	83796.890	0.01	14.1	15.0	
alpha-Chlordane	73336.637	72749.953	0.01	-0.8	15.0	
4cmx	68803.573	75599.495	0.01	9.9	15.0	
Decachlorobiphenyl	52184.948	52268.965	0.01	0.2	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/25/10 Time: 2126

Lab File ID: 022B2201 Init. Calib. Date(s): 03/24/10 03/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 2101 2156

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	1013342.3	1034868.3	0.01	2.1	15.0
beta-BHC	352007.41	340477.83	0.01	-3.3	15.0
delta-BHC	805903.88	815631.94	0.01	1.2	15.0
gamma-BHC (Lindane)	835595.40	874664.57	0.01	4.7	15.0
Heptachlor	667468.92	640266.95	0.01	-4.1	15.0
Aldrin	628741.88	590801.30	0.01	-6.0	15.0
Heptachlor epoxide	445225.60	437154.68	0.01	-1.8	15.0
Endosulfan I	405061.47	412277.91	0.01	1.8	15.0
Dieldrin	463073.51	450357.68	0.01	-2.7	15.0
4,4'-DDE	418219.96	424125.11	0.01	1.4	15.0
Endrin	406307.33	425375.93	0.01	4.7	15.0
Endosulfan II	446438.73	429786.49	0.01	-3.7	15.0
4,4'-DDD	405161.38	407943.41	0.01	0.7	15.0
Endosulfan sulfate	468646.67	457078.62	0.01	-2.5	15.0
4,4'-DDT	399465.73	449888.04	0.01	12.6	15.0
Methoxychlor	200330.74	182210.40	0.01	-9.0	15.0
Endrin ketone	603533.61	557050.60	0.01	-7.7	15.0
Endrin aldehyde	399883.76	366376.80	0.01	-8.4	15.0
gamma-Chlordane	446268.83	467838.19	0.01	4.8	15.0
alpha-Chlordane	446490.09	413306.67	0.01	-7.4	15.0
4cmx	694929.09	669266.20	0.01	-3.7	15.0
Decachlorobiphenyl	443995.04	416556.86	0.01	-6.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/25/10 Time: 2139

Lab File ID: 023F2301 Init. Calib. Date(s): 03/19/10 03/19/10

Heated Purge: (Y/N) N Init. Calib. Times: 1534 1628

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	532.562	579.813	0.01	8.9	15.0
(2)	807.550	847.404	0.01	4.9	15.0
(3)	976.534	1063.974	0.01	9.0	15.0
(4)	1252.111	1314.534	0.01	5.0	15.0
(5)	600.892	608.749	0.01	1.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/25/10 Time: 2139

Lab File ID: 023B2301 Init. Calib. Date(s): 03/19/10 03/19/10

Heated Purge: (Y/N) N Init. Calib. Times: 1534 1628

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
Toxaphene	6912.846	8423.279	0.01	21.8	15.0	<-
(2)	6369.903	6838.376	0.01	7.4	15.0	
(3)	6786.669	7036.407	0.01	3.7	15.0	
(4)	12266.923	12855.535	0.01	4.8	15.0	
(5)	5221.456	5351.975	0.01	2.5	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/25/10 Time: 2220

Lab File ID: 026F2601 Init. Calib. Date(s): 03/24/10 03/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 2101 2156

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	97198.616	109569.09	0.01	12.7	15.0	
beta-BHC	38709.551	39745.539	0.01	2.7	15.0	
delta-BHC	87365.516	95098.208	0.01	8.8	15.0	
gamma-BHC (Lindane)	87693.756	100176.75	0.01	14.2	15.0	
Heptachlor	72819.770	76453.264	0.01	5.0	15.0	
Aldrin	83012.512	87218.748	0.01	5.1	15.0	
Heptachlor epoxide	73966.489	79229.196	0.01	7.1	15.0	
Endosulfan I	70360.750	77718.203	0.01	10.4	15.0	
Dieldrin	75382.265	80052.457	0.01	6.2	15.0	
4,4'-DDE	69650.463	77324.660	0.01	11.0	15.0	
Endrin	59682.913	68770.584	0.01	15.2	15.0	<-
Endosulfan II	63215.529	67217.530	0.01	6.3	15.0	
4,4'-DDD	56551.146	62020.428	0.01	9.7	15.0	
Endosulfan sulfate	53886.737	56331.443	0.01	4.5	15.0	
4,4'-DDT	48619.953	56730.826	0.01	16.7	15.0	<-
Methoxychlor	23855.637	23934.768	0.01	0.3	15.0	
Endrin ketone	71047.932	71215.711	0.01	0.2	15.0	
Endrin aldehyde	52052.604	52750.810	0.01	1.3	15.0	
gamma-Chlordane	73463.418	84181.745	0.01	14.6	15.0	
alpha-Chlordane	73336.637	73199.361	0.01	-0.2	15.0	
4cmx	68803.573	75783.655	0.01	10.1	15.0	
Decachlorobiphenyl	52184.948	49558.890	0.01	-5.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD3A Calibration Date: 03/25/10 Time: 2220

Lab File ID: 026B2601 Init. Calib. Date(s): 03/24/10 03/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 2101 2156

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	1013342.3	1039297.1	0.01	2.6	15.0	
beta-BHC	352007.41	341053.62	0.01	-3.1	15.0	
delta-BHC	805903.88	818117.14	0.01	1.5	15.0	
gamma-BHC (Lindane)	835595.40	878007.17	0.01	5.1	15.0	
Heptachlor	667468.92	639549.21	0.01	-4.2	15.0	
Aldrin	628741.88	594518.16	0.01	-5.4	15.0	
Heptachlor epoxide	445225.60	439030.09	0.01	-1.4	15.0	
Endosulfan I	405061.47	414466.42	0.01	2.3	15.0	
Dieldrin	463073.51	451825.55	0.01	-2.4	15.0	
4,4'-DDE	418219.96	426881.67	0.01	2.1	15.0	
Endrin	406307.33	424169.51	0.01	4.4	15.0	
Endosulfan II	446438.73	433324.24	0.01	-2.9	15.0	
4,4'-DDD	405161.38	411869.95	0.01	1.6	15.0	
Endosulfan sulfate	468646.67	461745.58	0.01	-1.5	15.0	
4,4'-DDT	399465.73	450384.12	0.01	12.7	15.0	
Methoxychlor	200330.74	163477.97	0.01	-18.4	15.0	<-
Endrin ketone	603533.61	563955.85	0.01	-6.6	15.0	
Endrin aldehyde	399883.76	371215.25	0.01	-7.2	15.0	
gamma-Chlordane	446268.83	470951.15	0.01	5.5	15.0	
alpha-Chlordane	446490.09	415313.13	0.01	-7.0	15.0	
4cmx	694929.09	675704.30	0.01	-2.8	15.0	
Decachlorobiphenyl	443995.04	419869.93	0.01	-5.4	15.0	

FORM VII PEST

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/032410pa.b/002f0201.d
Lab Smp Id: WPE100125-99DG Client Smp ID: PEM01
Inj Date : 24-MAR-2010 19:31
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100125-99DG
Misc Info :
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Meth Date : 25-Mar-2010 14:57 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
3.842	3.842	0.000	10430333	125.648	126	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.675	4.675	0.000	29017	0.41661	0.417	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.184	5.184	0.000	7122993	119.347	119	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.253	5.251	0.002	84753	1.49870	1.50	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.829	5.826	0.003	102533	1.96980	1.97	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.528	5.527	0.001	5169368	106.322	106	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.571	6.570	0.001	191156	2.69052	2.69	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.579	2.579	0.000	14080064	204.641	205	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.666	7.665	0.001	10478401	200.794	201	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/032410pa.b/002f0201.d

Date : 24-MAR-2010 19:31

Client ID: PEM01

Sample Info: IWPE100125-99DG

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

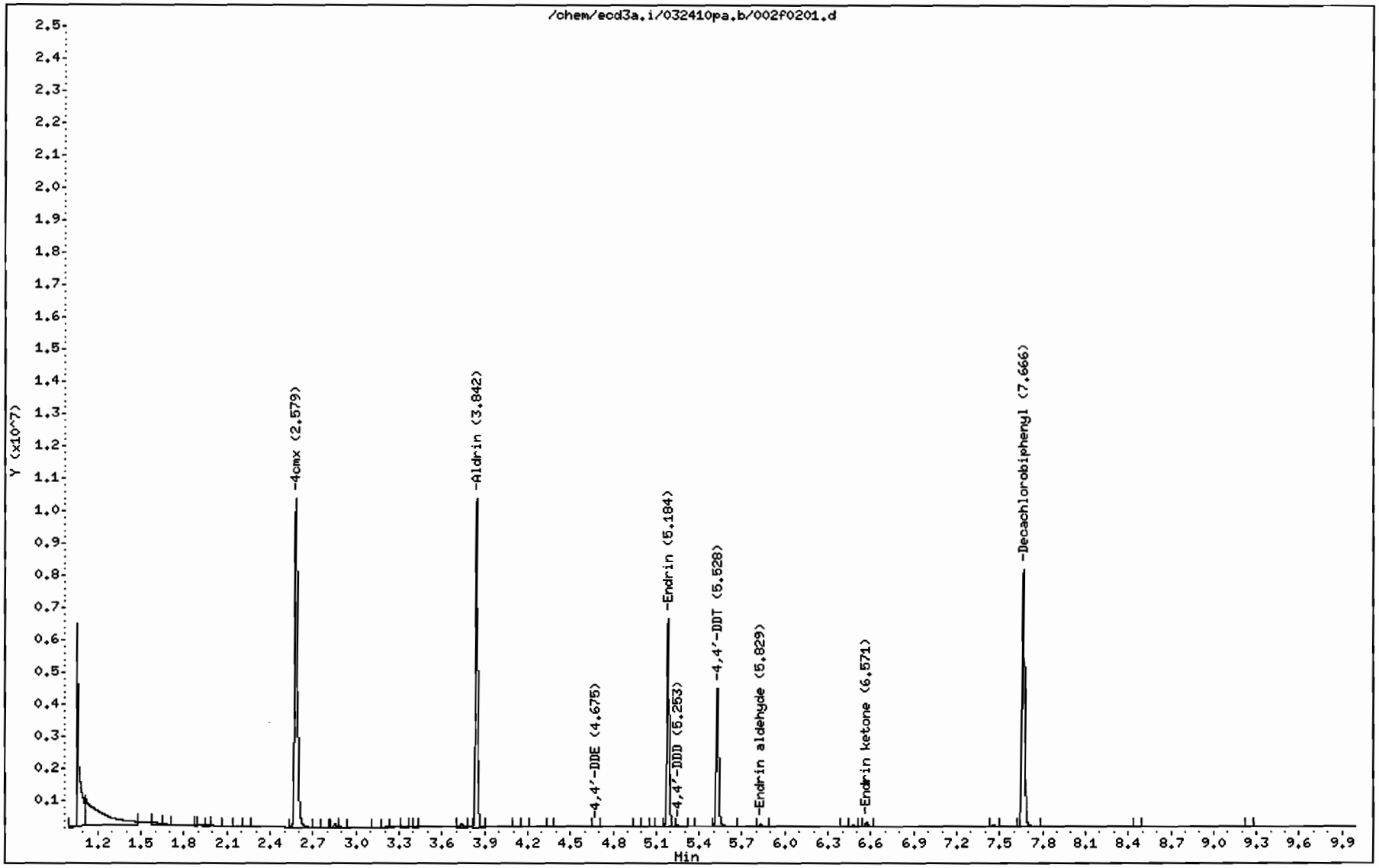

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CLP-2

Data file : /chem/ecd3a.i/032410pa.b/002b0201.d
Lab Smp Id: WPE100125-99DG Client Smp ID: PEM01
Inj Date : 24-MAR-2010 19:31
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100125-99DG
Misc Info :
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Meth Date : 25-Mar-2010 14:33 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.302	4.303	-0.001	70527556	112.173	112	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.340	5.339	0.001	212545	0.50821	0.508	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.833	5.832	0.001	46239664	113.805	114	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.940	5.939	0.001	427458	1.05503	1.06	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.407	6.405	0.002	1003595	2.50972	2.51	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.276	6.275	0.001	42051091	105.268	105	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.292	7.291	0.001	2036834	3.37485	3.37	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.813	2.813	0.000	130187768	187.340	187	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.683	8.682	0.001	83557004	188.194	188	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/032410pa.b/002b0201.d
Date : 24-MAR-2010 19:31
Client ID: PEM01
Sample Info: IWPE100125-99DG

Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

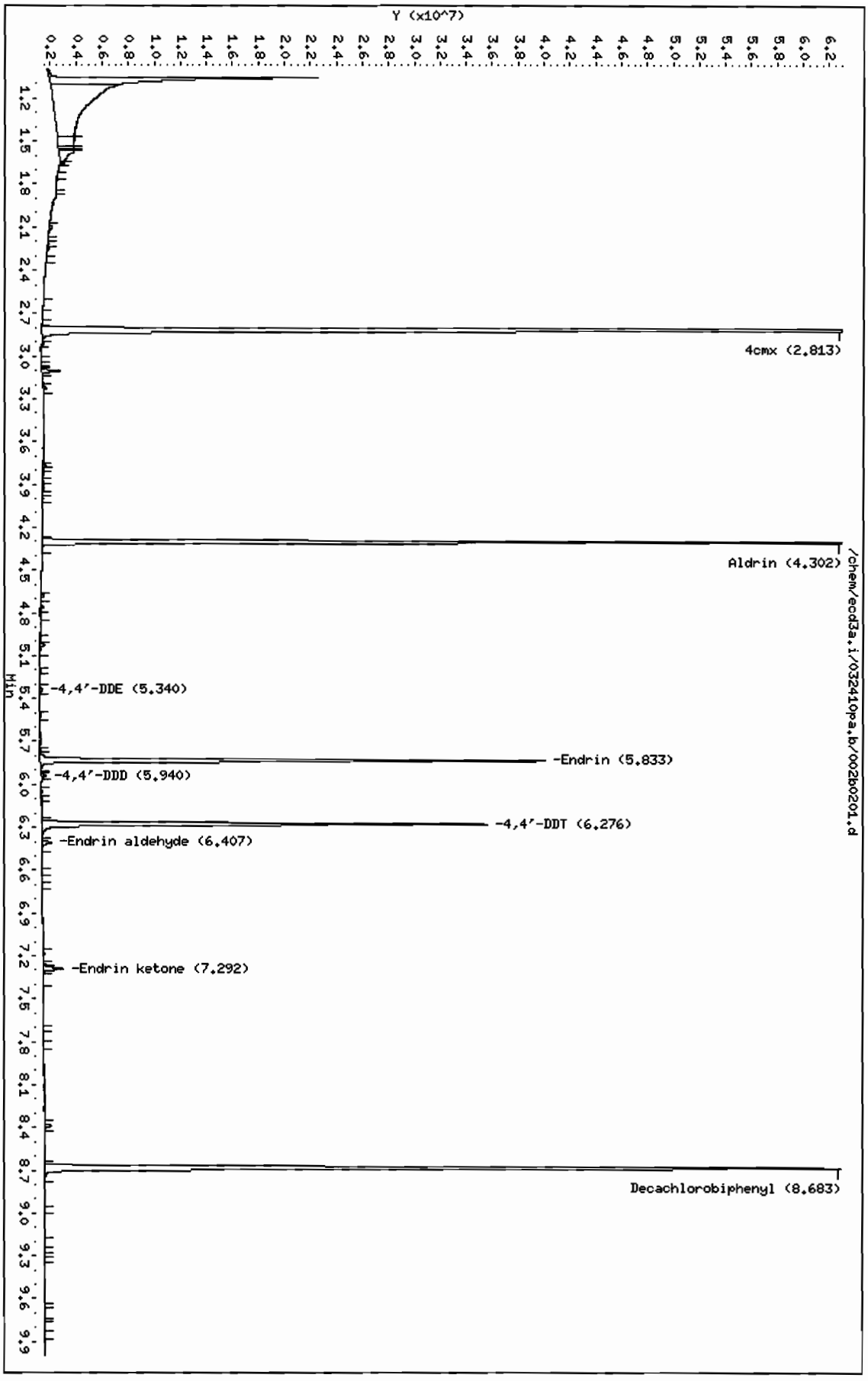

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GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/032410pa.b/014f1401.d
Lab Smp Id: WPE100125-99DG Client Smp ID: PEM02
Inj Date : 24-MAR-2010 22:37
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100125-99DG
Misc Info :
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Meth Date : 25-Mar-2010 14:57 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 14 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
3.843	3.842	0.001	10603580	127.735	128	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.676	4.675	0.001	27371	0.39298	0.393	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.185	5.184	0.001	6928521	116.089	116	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.253	5.251	0.002	175855	3.10966	3.11	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.829	5.826	0.003	108672	2.08773	2.09	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.529	5.527	0.002	4682472	96.3076	96.3	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.572	6.570	0.002	288659	4.06288	4.06	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.579	2.579	0.000	14688288	213.481	213	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.665	7.665	0.000	10688437	204.818	205	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/032410pa.b/014f1401.d
Date : 24-MAR-2010 22:37
Client ID: PEM02
Sample Info: IWPE100125-99DG

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

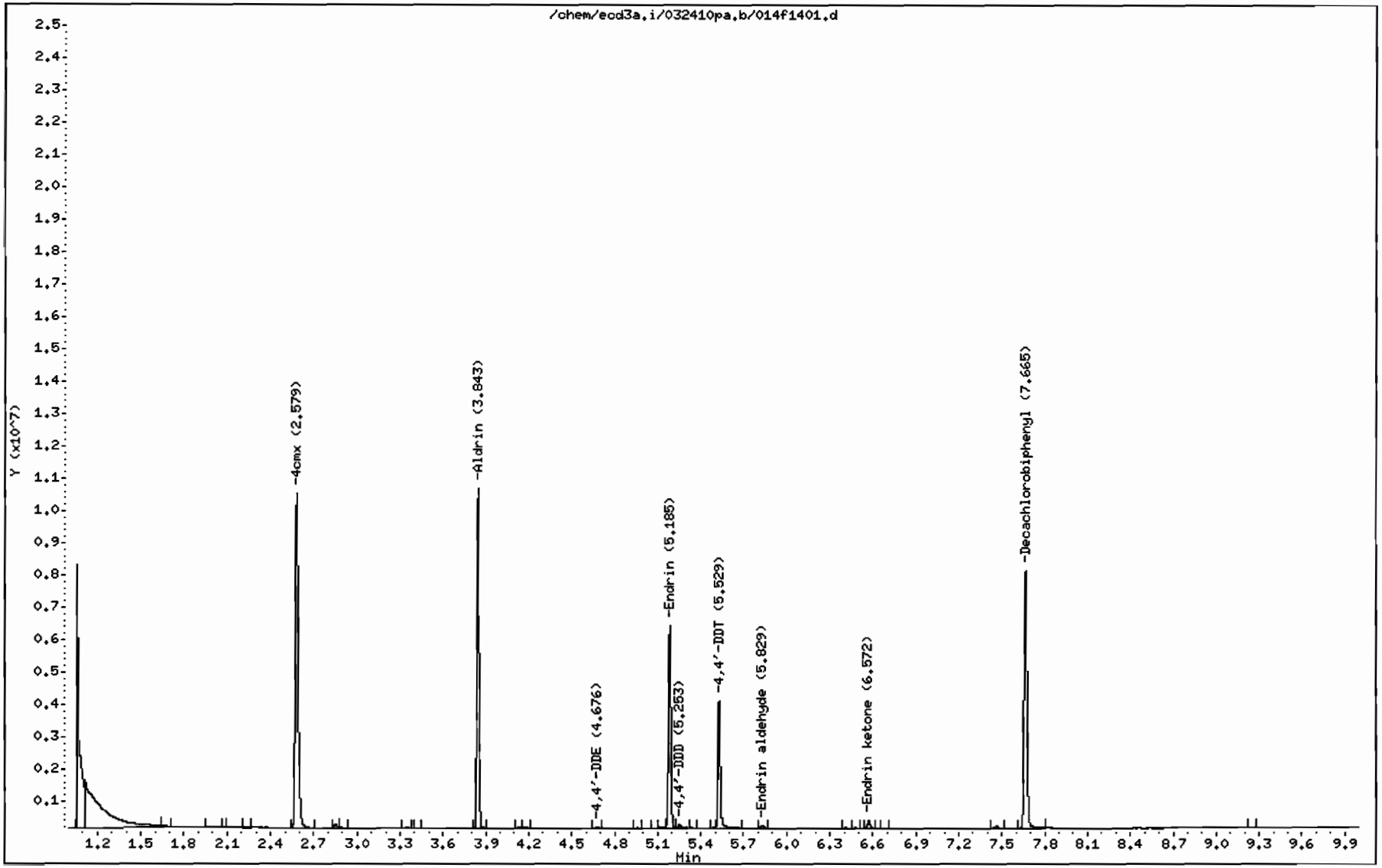

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CLP-2

Data file : /chem/ecd3a.i/032410pa.b/014b1401.d
Lab Smp Id: WPE100125-99DG Client Smp ID: PEM02
Inj Date : 24-MAR-2010 22:37
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100125-99DG
Misc Info :
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Meth Date : 25-Mar-2010 14:33 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 14 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.303	4.303	0.000	71814301	114.219	114	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.340	5.339	0.001	249509	0.59660	0.596	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.832	5.832	0.000	46148571	113.580	114	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.941	5.939	0.002	1466870	3.62046	3.62	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.408	6.405	0.003	1085401	2.71429	2.71	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.276	6.275	0.001	39417022	98.6744	98.7	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.292	7.291	0.001	2824424	4.67981	4.68	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.813	2.813	0.000	136590544	196.553	196	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.682	8.682	0.000	87923722	198.029	198	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/032410pa.b/014b1401.d

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Date : 24-MAR-2010 22:37

Client ID: PEM02

Instrument: ecd3a.i

Sample Info: IWPE100125-99DG

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

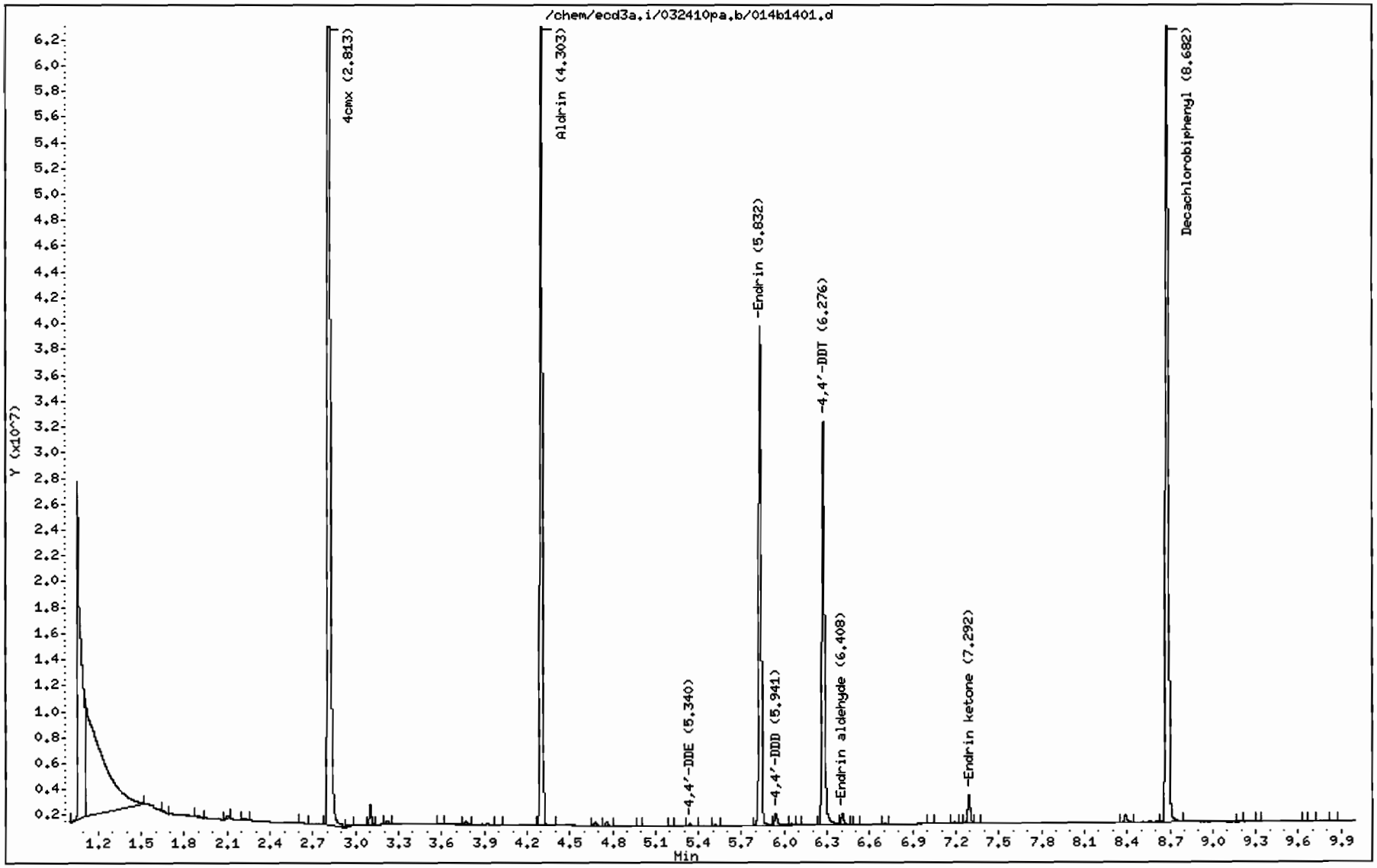

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CLP-1

Data file : /chem/ecd3a.i/032510p.b/002f0201.d
Lab Smp Id: WPE100125-99DG Client Smp ID: PEM01
Inj Date : 25-MAR-2010 16:42
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100125-99DG
Misc Info :
Comment :
Method : /chem/ecd3a.i/032510p.b/ECD3-F-8081-021010pa.m
Meth Date : 26-Mar-2010 14:56 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
3.841	3.841	0.000	10789870	129.979	130	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.183	5.183	0.000	7348104	123.119	123	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.527	5.525	0.002	5515459	113.440	113	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.569	6.569	0.000	204380	2.87665	2.88	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.576	2.577	-0.001	14314467	208.048	208	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.664	7.664	0.000	10217882	195.801	196	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/032510p.b/002F0201.d
Date : 25-MAR-2010 16:42
Client ID: PEM01
Sample Info: IWPE100125-99DG
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

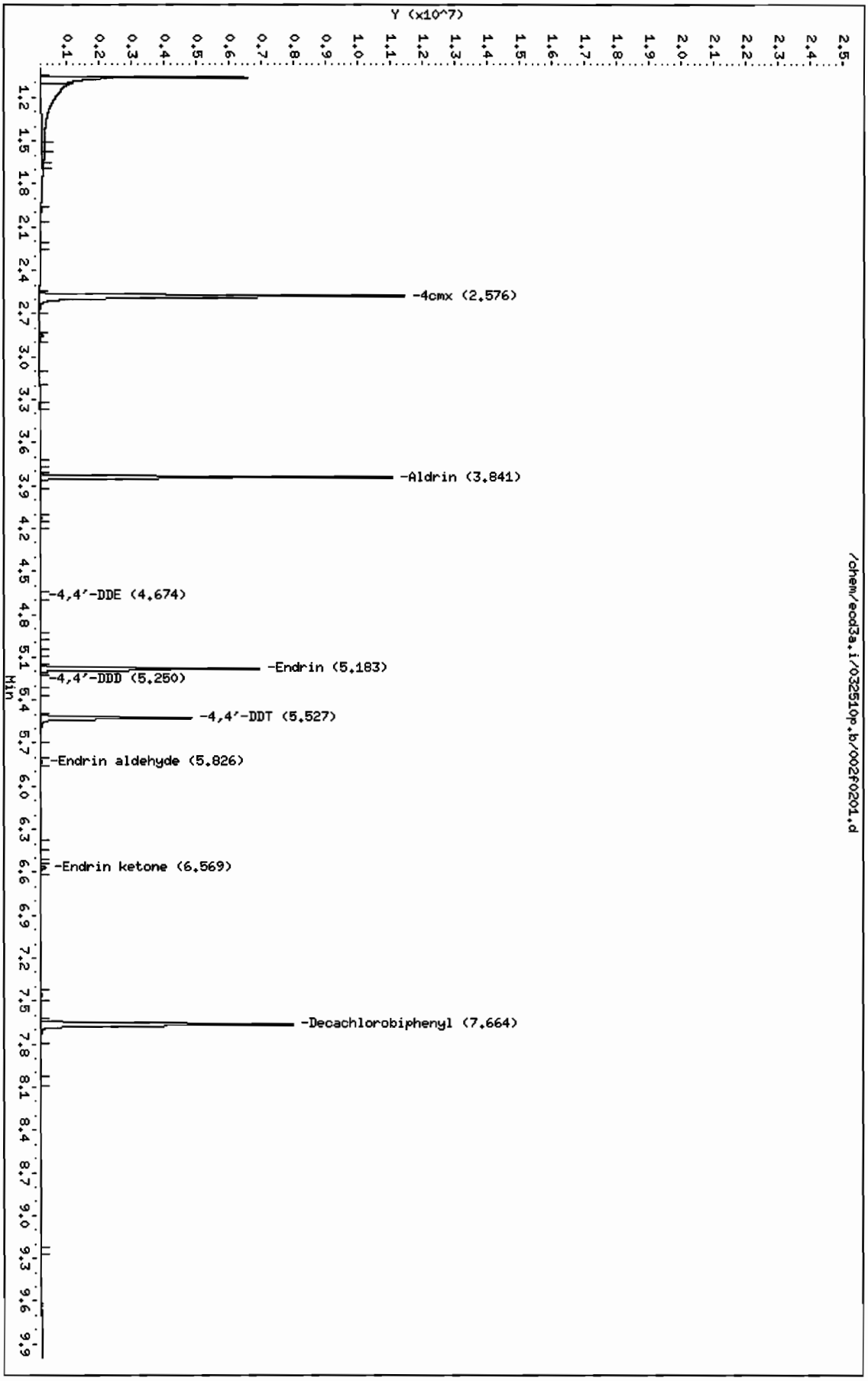

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CLP-2

Data file : /chem/ecd3a.i/032510p.b/002b0201.d
Lab Smp Id: WPE100125-99DG Client Smp ID: PEM01
Inj Date : 25-MAR-2010 16:42
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100125-99DG
Misc Info :
Comment :
Method : /chem/ecd3a.i/032510p.b/ECD3-B-8081-021010pa.m
Meth Date : 26-Mar-2010 14:54 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.301	4.300	0.001	72368239	115.100	115	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.337	5.337	0.000	188946	0.45179	0.452	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.831	5.830	0.001	47803284	117.653	118	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.939	5.938	0.001	488842	1.20654	1.21	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
6.404	6.404	0.000	867523	2.16944	2.17	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.273	6.273	0.000	44838119	112.245	112	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.290	7.290	0.000	1928232	3.19490	3.19	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.811	2.811	0.000	130026405	187.107	187	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.682	8.683	-0.001	80311372	180.883	181	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/032510p.b/002b0201.d

Date : 25-MAR-2010 16:42

Client ID: PEM01

Sample Info: IWPE100125-99DG

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

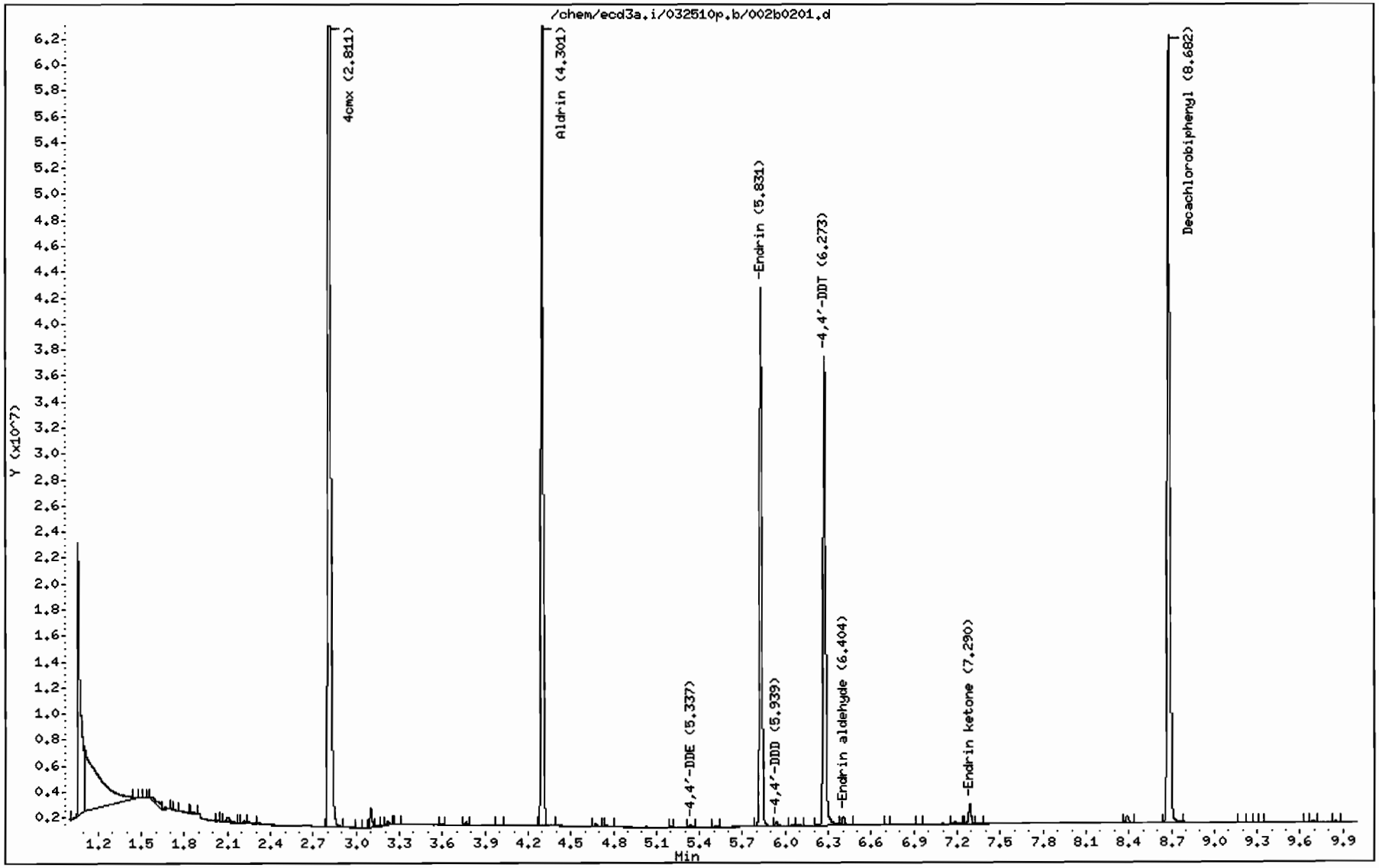

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/032410pa.b/004f0401.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 24-MAR-2010 19:58
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100125-52TX
Misc Info : |TOXAPHICV
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Meth Date : 25-Mar-2010 14:57 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
4.861	4.861	0.000	1101339	2000.00	2070	80.00- 120.00	100.00(M)
4.966	4.966	0.000	1614150	2000.00	2000	126.56- 166.56	146.56
5.051	5.051	0.000	2001058	2000.00	2050	161.69- 201.69	181.69
5.207	5.207	0.000	2465524	2000.00	1970	203.87- 243.87	223.87
5.621	5.621	0.000	1113240	2000.00	1850	81.08- 121.08	101.08

Average of Peak Amounts = 1.99e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/032410pa.b/004f0401.d

Date : 24-MAR-2010 19:58

Client ID: TOXAPH01

Sample Info: IWPE100125-52TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

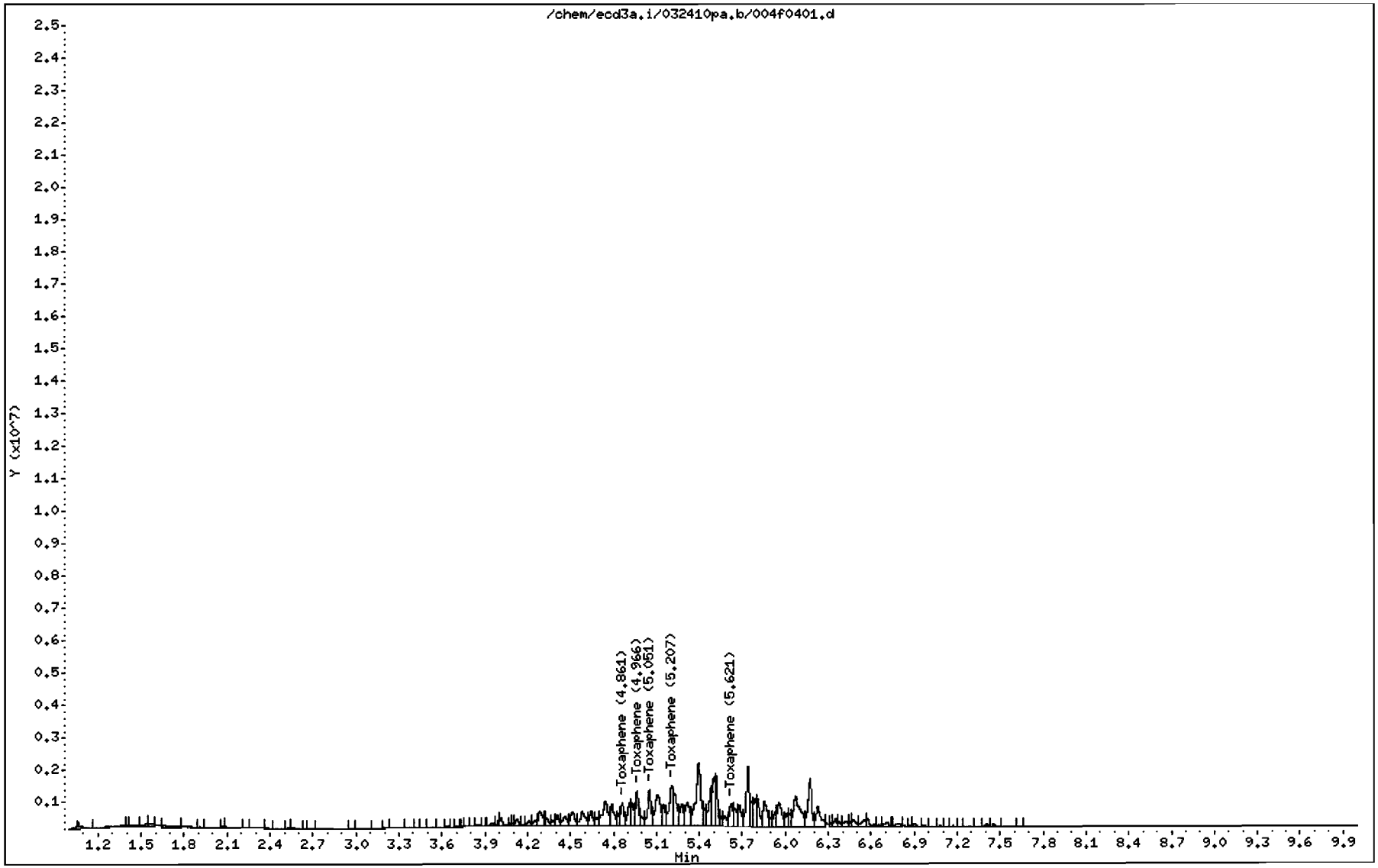

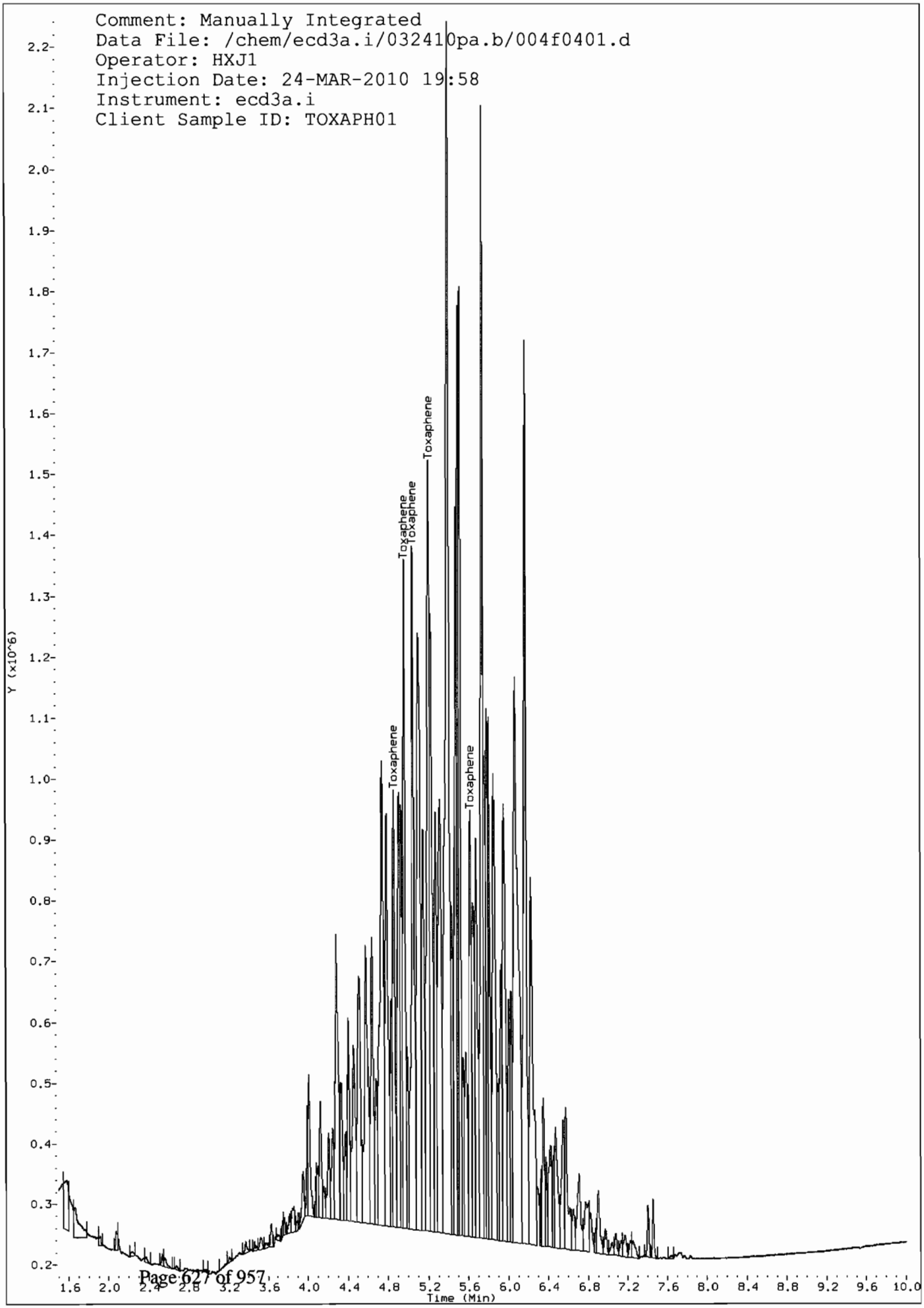
Comment: Manually Integrated
Data File: /chem/ecd3a.i/032410pa.b/004f0401.d
Operator: HXJ1
Injection Date: 24-MAR-2010 19:58
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

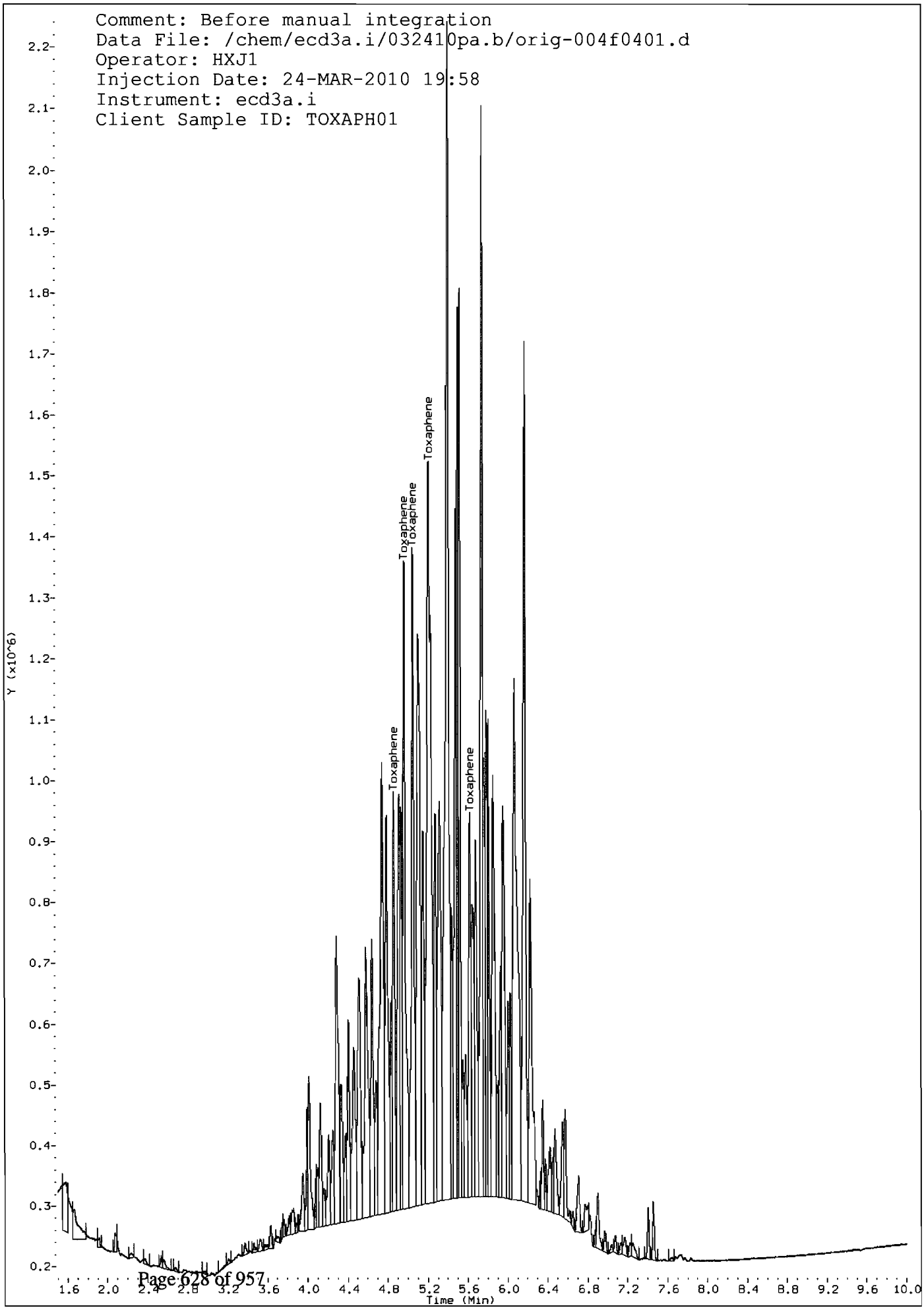
Comment: Before manual integration
Data File: /chem/ecd3a.i/032410pa.b/orig-004f0401.d
Operator: HXJ1
Injection Date: 24-MAR-2010 19:58
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/032410pa.b/004b0401.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 24-MAR-2010 19:58
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100125-52TX
Misc Info : |TOXAPHICV
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Meth Date : 25-Mar-2010 14:33 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.490	5.490	0.000	15757615	2000.00	2280	80.00- 120.00	100.00(M)
5.801	5.801	0.000	13102477	2000.00	2060	63.15- 103.15	83.15
6.001	6.001	0.000	13617512	2000.00	2010	66.42- 106.42	86.42
6.043	6.043	0.000	23771618	2000.00	1940	130.86- 170.86	150.86
6.230	6.230	0.000	10038470	2000.00	1920	43.71- 83.71	63.71

Average of Peak Amounts = 2.04e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/032410pa.b/004b0401.d

Page 1

Date : 24-MAR-2010 19:58

Client ID: TOXAPH01

Instrument: ecd3a.i

Sample Info: IWPE100125-52TX

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

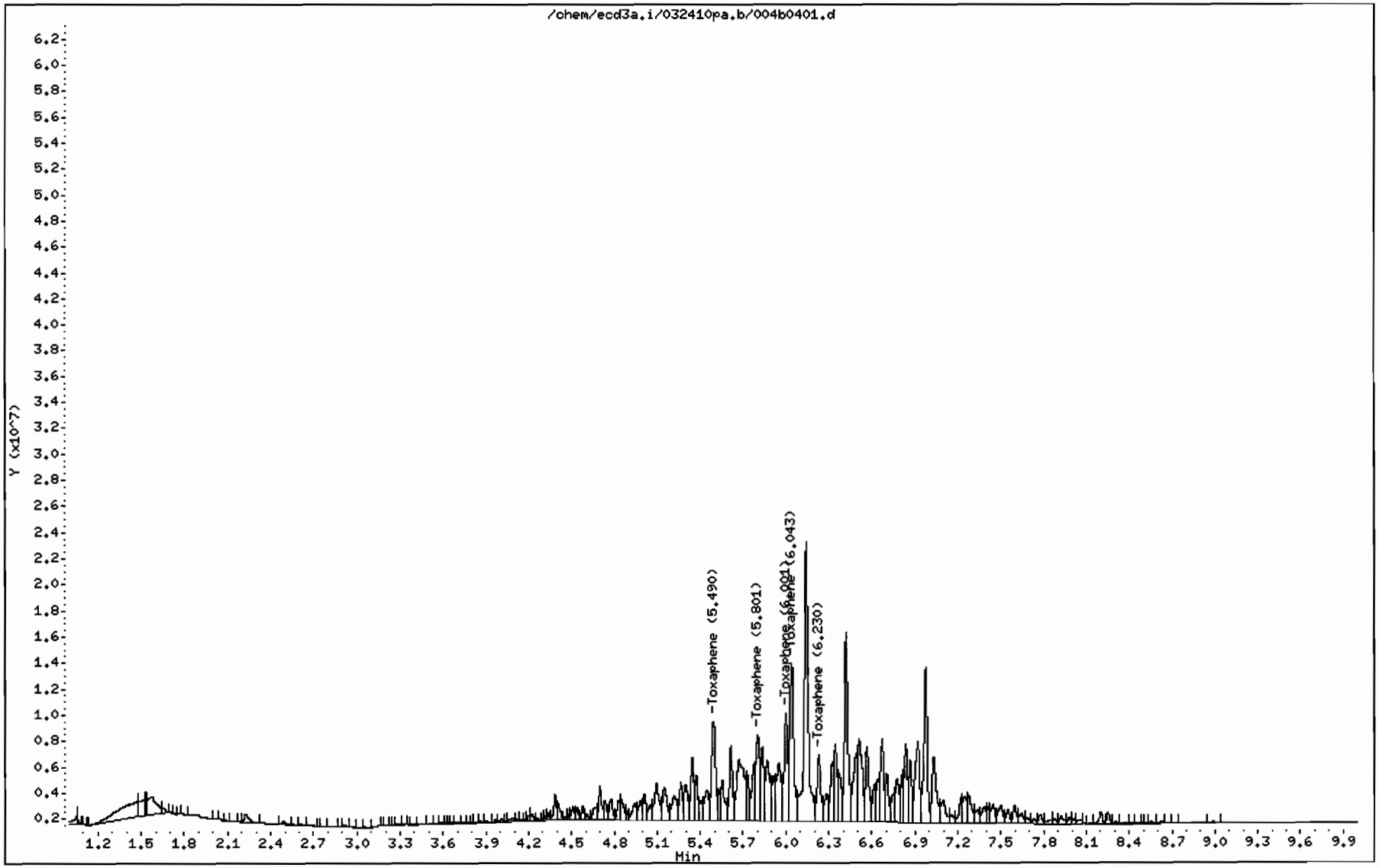

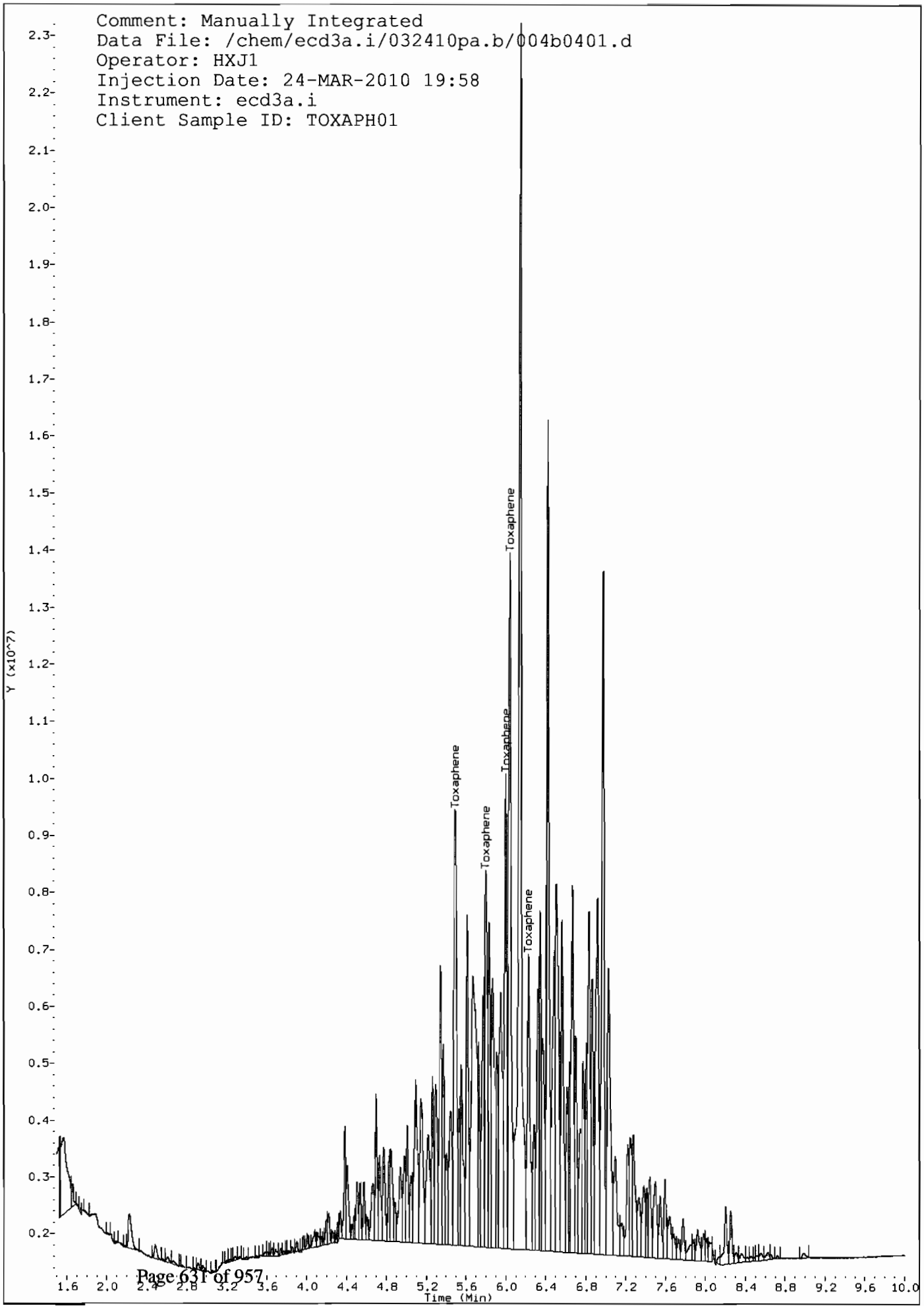
Comment: Manually Integrated
Data File: /chem/ecd3a.i/032410pa.b/004b0401.d
Operator: HXJ1
Injection Date: 24-MAR-2010 19:58
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

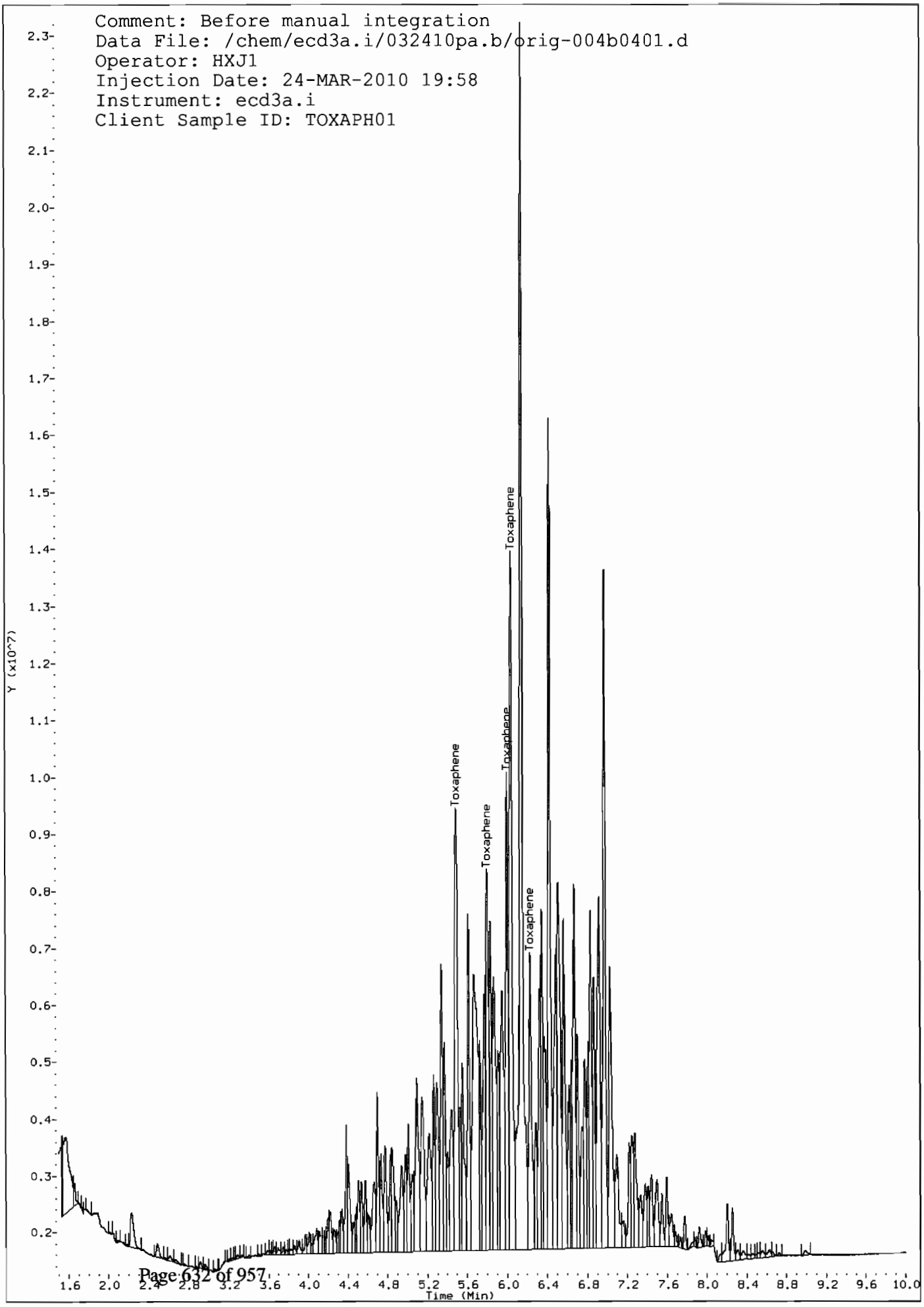
Comment: Before manual integration
Data File: /chem/ecd3a.i/032410pa.b/orig-004b0401.d
Operator: HXJ1
Injection Date: 24-MAR-2010 19:58
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/032410pa.b/012f1201.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB01
Inj Date : 24-MAR-2010 22:09
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Meth Date : 25-Mar-2010 14:57 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
2.975	2.975	0.000	10469550	100.000	108	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.215	3.215	0.000	9500734	100.000	108	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.279	3.279	0.000	3803572	100.000	98.2	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.591	3.591	0.000	7178842	100.000	98.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.424	3.424	0.000	8993110	100.000	103	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.842	3.842	0.000	8427240	100.000	102	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.370	4.370	0.000	7641288	100.000	103	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.483	4.483	0.000	8163330	100.000	111	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.604	4.604	0.000	7102019	100.000	96.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.734	4.734	0.000	7510118	100.000	107	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.675	4.675	0.000	14942418	200.000	214	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.959	4.959	0.000	15517477	200.000	206	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.184	5.184	0.000	12992365	200.000	218	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.251	5.251	0.000	11825157	200.000	209	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.406	5.406	0.000	13025284	200.000	206	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.826	5.826	0.000	10293950	200.000	198	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.527	5.527	0.000	10717615	200.000	220	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.275	6.275	0.000	10947760	200.000	203	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.031	6.031	0.000	23316536	1000.00	977	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.570	6.570	0.000	13779592	200.000	194	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.579	2.579	0.000	14618103	200.000	212	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.665	7.665	0.000	10631827	200.000	204	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/012f1201.d
Date : 24-MAR-2010 22:09
Client ID: INDAB01
Sample Info: IWPE100306-10AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

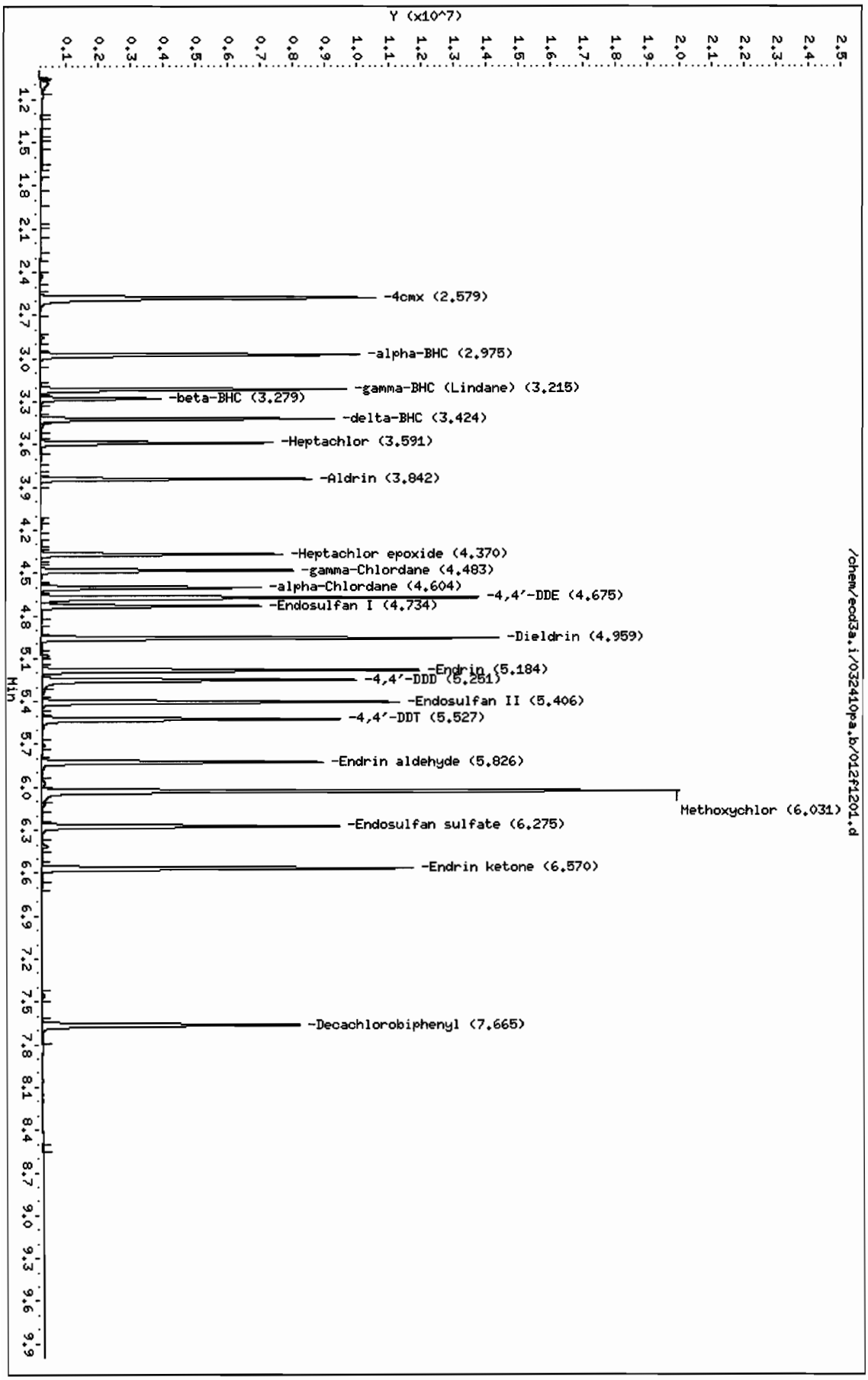

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/032410pa.b/012b1201.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB01
Inj Date : 24-MAR-2010 22:09
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Meth Date : 25-Mar-2010 14:33 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.292	3.292	0.000	102936982	100.000	102	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.594	3.594	0.000	86236678	100.000	103	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.656	3.656	0.000	33769947	100.000	95.9	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.997	3.997	0.000	61679606	100.000	92.4	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.921	3.921	0.000	79601514	100.000	98.8	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.303	4.303	0.000	58492775	100.000	93.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.845	4.845	0.000	43082012	100.000	96.8	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.034	5.034	0.000	46349365	100.000	104	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.178	5.178	0.000	40915638	100.000	91.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.239	5.239	0.000	40583402	100.000	100	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.339	5.339	0.000	82533177	200.000	197	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.517	5.517	0.000	88723219	200.000	192	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.832	5.832	0.000	81821512	200.000	201	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.939	5.939	0.000	80346474	200.000	198	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.051	6.051	0.000	85491042	200.000	191	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.405	6.405	0.000	74231182	200.000	186	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.275	6.275	0.000	85853073	200.000	215	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.707	6.707	0.000	91480952	200.000	195	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.015	7.015	0.000	179196561	1000.00	894	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.291	7.291	0.000	111292980	200.000	184	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.813	2.813	0.000	134568735	200.000	194	80.00- 120.00	100.00(M)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.682	8.682	0.000	87248080	200.000	196	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/032410pa.b/012b1201.d
Date : 24-MAR-2010 22:09
Client ID: INDAB01
Sample Info: IWPE100305-10AB

Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

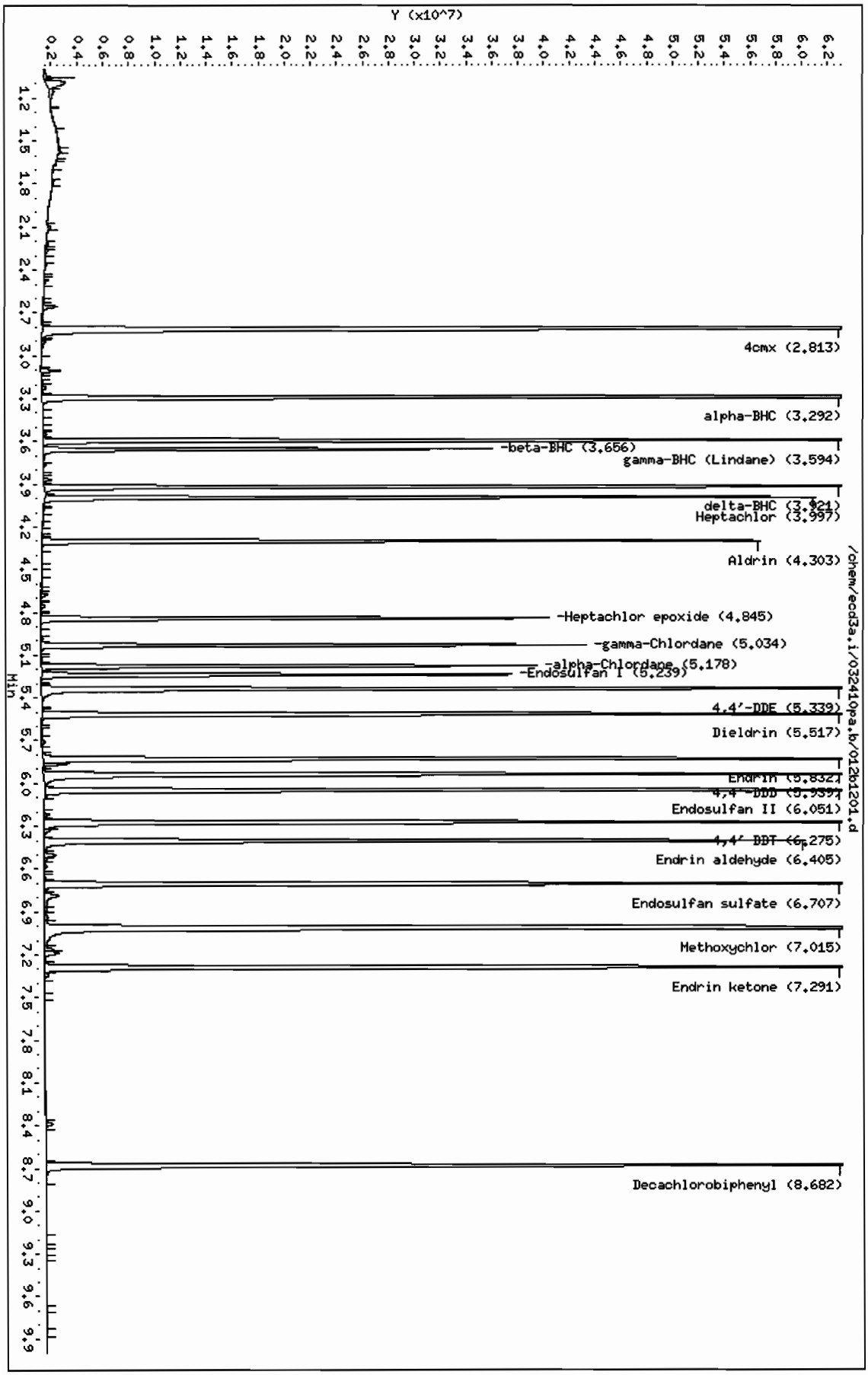

Page 1

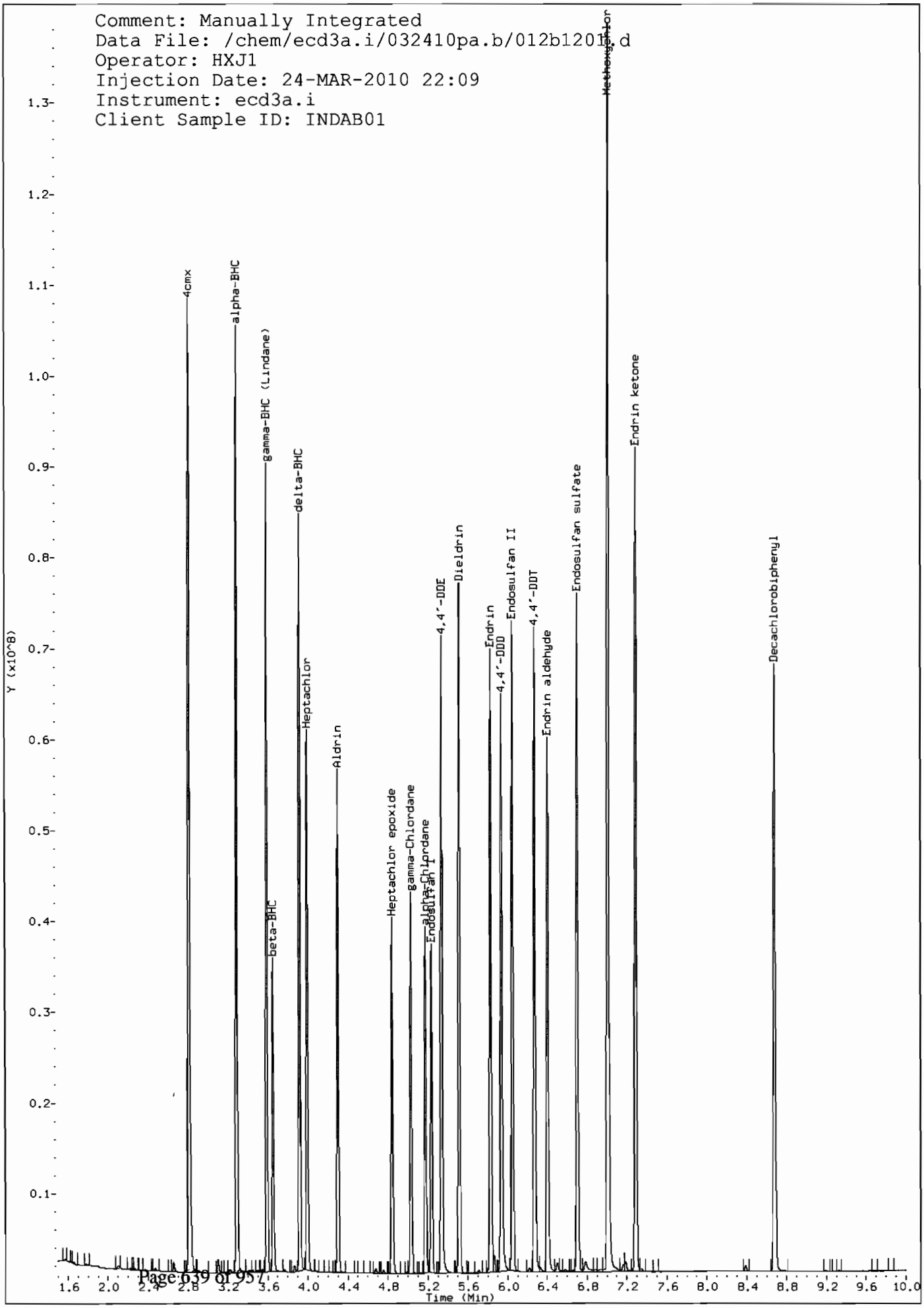
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Data File: /chem/ecd3a.i/032410pa.b/012b1201.d
Operator: HXJ1
Injection Date: 24-MAR-2010 22:09
Instrument: ecd3a.i
Client Sample ID: INDAB01
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

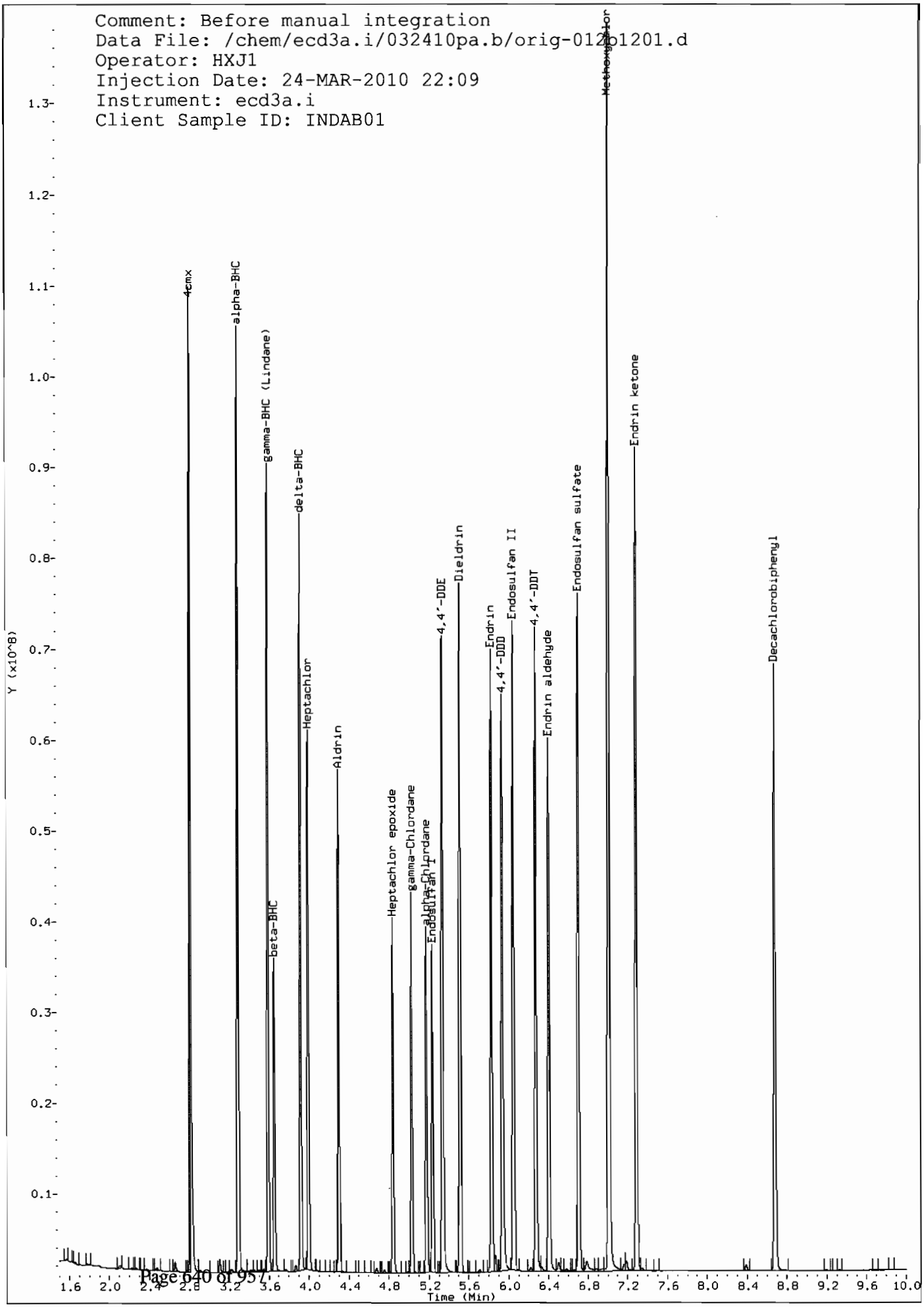
Comment: Before manual integration
Data File: /chem/ecd3a.i/032410pa.b/orig-012b1201.d
Operator: HXJ1
Injection Date: 24-MAR-2010 22:09
Instrument: ecd3a.i
Client Sample ID: INDAB01
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/032410pa.b/042f4201.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB04
Inj Date : 25-MAR-2010 05:00
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Meth Date : 25-Mar-2010 14:57 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 42 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

				AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)		
RT	EXP RT	DLT RT	RESPONSE			TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
2.975	2.975	0.000	10216902	100.000	105	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.215	3.215	0.000	9355863	100.000	107	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.279	3.279	0.000	3640280	100.000	94.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.591	3.591	0.000	7544082	100.000	104	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.424	3.424	0.000	8714912	100.000	99.8	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.843	3.842	0.001	8141658	100.000	98.1	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.370	4.370	0.000	7488484	100.000	101	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.483	4.483	0.000	7730523	100.000	105	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.604	4.604	0.000	6726386	100.000	91.7	80.00- 120.00	100.00

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.733	4.734	-0.001	7195118	100.000	102	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.675	4.675	0.000	14774184	200.000	212	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.959	4.959	0.000	15254260	200.000	202	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.184	5.184	0.000	13722079	200.000	230	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.251	5.251	0.000	12413468	200.000	220	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.406	5.406	0.000	12713733	200.000	201	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.827	5.826	0.001	9992459	200.000	192	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.527	5.527	0.000	9667564	200.000	199	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.275	6.275	0.000	10554947	200.000	196	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.030	6.031	-0.001	22685412	1000.00	951	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.570	6.570	0.000	13480525	200.000	190	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.579	2.579	0.000	14255505	200.000	207	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.666	7.665	0.001	9517615	200.000	182	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/042f4201.d
Date : 25-MAR-2010 05:00
Client ID: INDAB04
Sample Info: IWPE100305-10AB

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

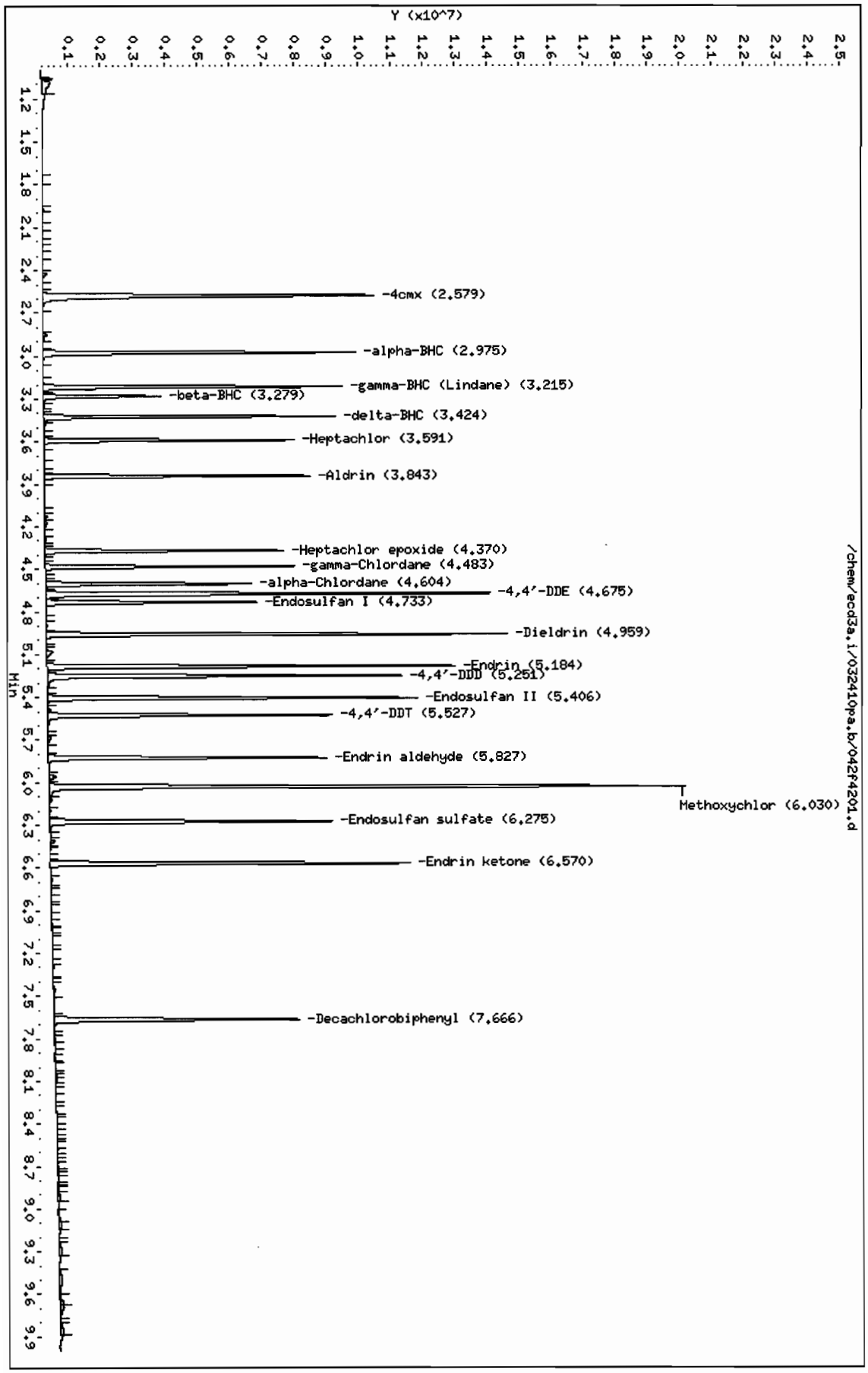

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/032410pa.b/042b4201.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB04
Inj Date : 25-MAR-2010 05:00
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Meth Date : 25-Mar-2010 14:33 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 42 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.291	3.292	-0.001	84366676	100.000	83.2	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.593	3.594	-0.001	70753547	100.000	84.7	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.655	3.656	-0.001	27766579	100.000	78.9	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.997	3.997	0.000	53803644	100.000	80.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.921	3.921	0.000	62615130	100.000	77.7	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.302	4.303	-0.001	49061306	100.000	78.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.843	4.845	-0.002	36236745	100.000	81.4	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.033	5.034	-0.001	37226495	100.000	83.4	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.178	5.178	0.000	32721887	100.000	73.3	80.00- 120.00	100.00

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                     CAS #: 959-98-8
  5.238   5.239  -0.001        33897461 100.000     83.7  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   19 4,4'-DDE                                         CAS #: 72-55-9
  5.339   5.339   0.000        69769750 200.000      167  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   20 Dieldrin                                         CAS #: 60-57-1
  5.516   5.517  -0.001        75177540 200.000      162  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   22 Endrin                                           CAS #: 72-20-8
  5.831   5.832  -0.001        71056552 200.000      175  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   25 4,4'-DDD                                         CAS #: 72-54-8
  5.938   5.939  -0.001        68319747 200.000      169  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   24 Endosulfan II                                    CAS #: 33213-65-9
  6.050   6.051  -0.001        70934803 200.000      159  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   27 Endrin aldehyde                                  CAS #: 7421-93-4
  6.405   6.405   0.000        59274224 200.000      148  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   26 4,4'-DDT                                         CAS #: 50-29-3
  6.273   6.275  -0.002        61737707 200.000      154  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   29 Endosulfan sulfate                               CAS #: 1031-07-8
  6.706   6.707  -0.001        70344203 200.000      150  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   28 Methoxychlor                                     CAS #: 72-43-5
  7.014   7.015  -0.001       147122934 1000.00      734  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   31 Endrin ketone                                    CAS #: 53494-70-5
  7.290   7.291  -0.001        86647618 200.000      144  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                             CAS #: 877-09-8
  2.812   2.813  -0.001       114317623 200.000      164  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                               CAS #: 2051-24-3
  8.682   8.682   0.000        63360766 200.000      143  80.00- 120.00   100.00
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Data File: /chem/ecd3a.i/032410pa.b/042b4201.d
Date : 25-MAR-2010 05:00
Client ID: INDAB04
Sample Info: IWPE100305-10AB

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

Column phase: CLP-2

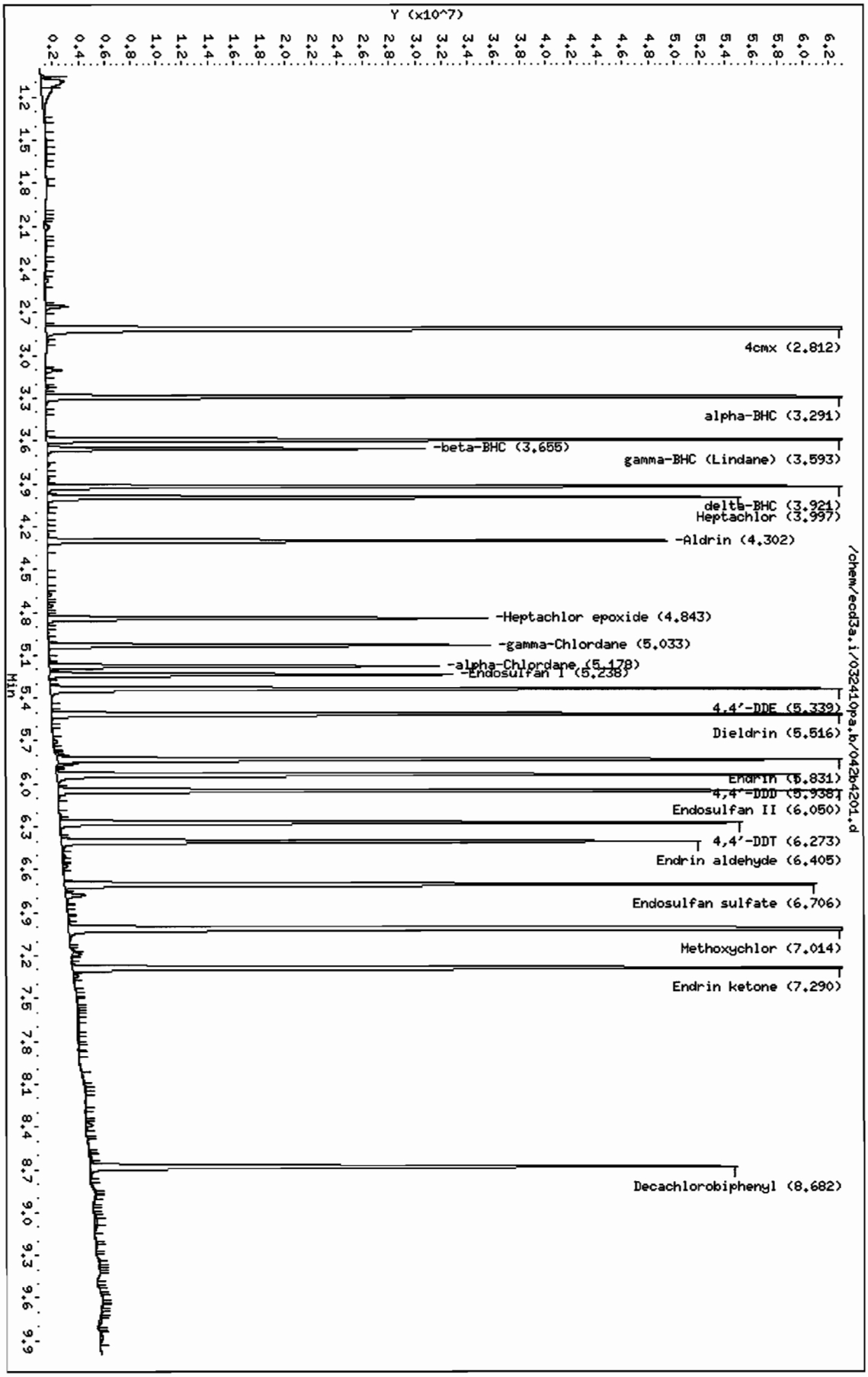

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GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/032410pa.b/055f5501.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB05
Inj Date : 25-MAR-2010 07:57
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Meth Date : 25-Mar-2010 14:57 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 55 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
2.975	2.975	0.000	10545313	100.000	108	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.215	3.215	0.000	9593907	100.000	109	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.279	3.279	0.000	3783677	100.000	97.7	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.590	3.591	-0.001	7373467	100.000	101	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.424	3.424	0.000	8934426	100.000	102	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.842	3.842	0.000	8369163	100.000	101	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.370	4.370	0.000	7631134	100.000	103	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.483	4.483	0.000	8019278	100.000	109	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.604	4.604	0.000	6984161	100.000	95.2	80.00- 120.00	100.00

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.732	4.734	-0.002	7393295	100.000	105	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.674	4.675	-0.001	14961147	200.000	215	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.959	4.959	0.000	15427028	200.000	205	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.184	5.184	0.000	13359198	200.000	224	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.250	5.251	-0.001	12697112	200.000	224	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.405	5.406	-0.001	12884673	200.000	204	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.826	5.826	0.000	10117093	200.000	194	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.527	5.527	0.000	9475729	200.000	195	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.275	6.275	0.000	10642969	200.000	198	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.030	6.031	-0.001	21291203	1000.00	892	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.570	6.570	0.000	13603420	200.000	191	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.579	2.579	0.000	14632795	200.000	213	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.665	7.665	0.000	10091888	200.000	193	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/055f5501.d
Date : 25-MAR-2010 07:57
Client ID: INDAB05
Sample Info: IWPE100305-10AB

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

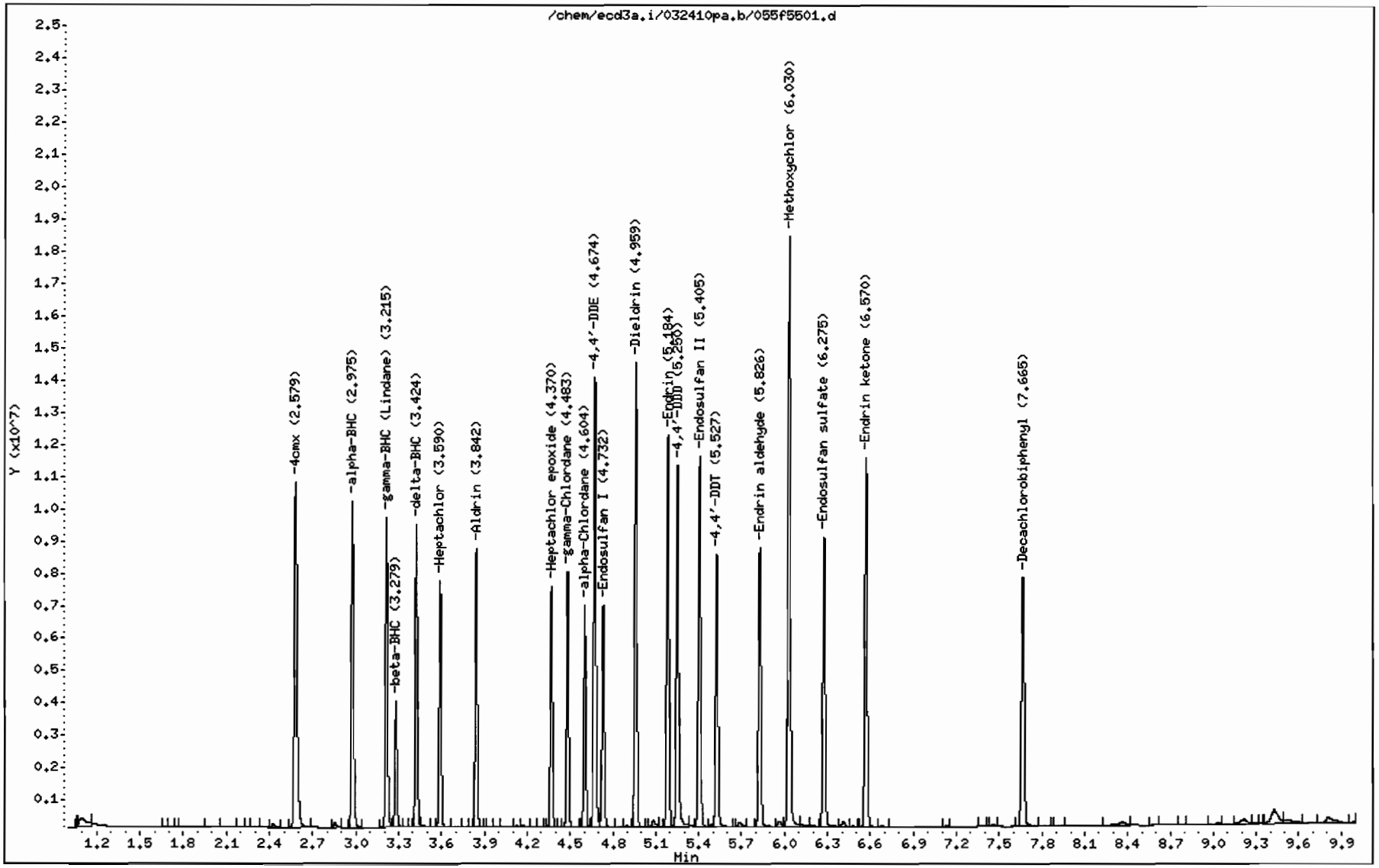

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/032410pa.b/055b5501.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB05
Inj Date : 25-MAR-2010 07:57
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Meth Date : 25-Mar-2010 14:33 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 55 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.291	3.292	-0.001	94992871	100.000	93.7	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.593	3.594	-0.001	79782417	100.000	95.5	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.656	3.656	0.000	31048300	100.000	88.2	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.997	3.997	0.000	58275231	100.000	87.3	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.921	3.921	0.000	72011267	100.000	89.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.302	4.303	-0.001	54309490	100.000	86.4	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.843	4.845	-0.002	40280783	100.000	90.5	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.033	5.034	-0.001	42371338	100.000	94.9	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.178	5.178	0.000	37441612	100.000	83.8	80.00- 120.00	100.00

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endsulfan I					CAS #: 959-98-8		
5.238	5.239	-0.001	37946171	100.000	93.7	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.338	5.339	-0.001	77530209	200.000	185	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.516	5.517	-0.001	83001006	200.000	179	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.831	5.832	-0.001	78447784	200.000	193	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.939	5.939	0.000	76609877	200.000	189	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.051	6.051	0.000	76860650	200.000	172	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.405	6.405	0.000	65433137	200.000	164	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.274	6.275	-0.001	67363663	200.000	169	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.707	6.707	0.000	80223061	200.000	171	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.015	7.015	0.000	150582225	1000.00	752	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.290	7.291	-0.001	98761230	200.000	164	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.812	2.813	-0.001	125523123	200.000	181	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.683	8.682	0.001	71649379	200.000	161	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/055b5501.d

Date : 25-MAR-2010 07:57

Client ID: INDAB05

Sample Info: IWPE100305-10AB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

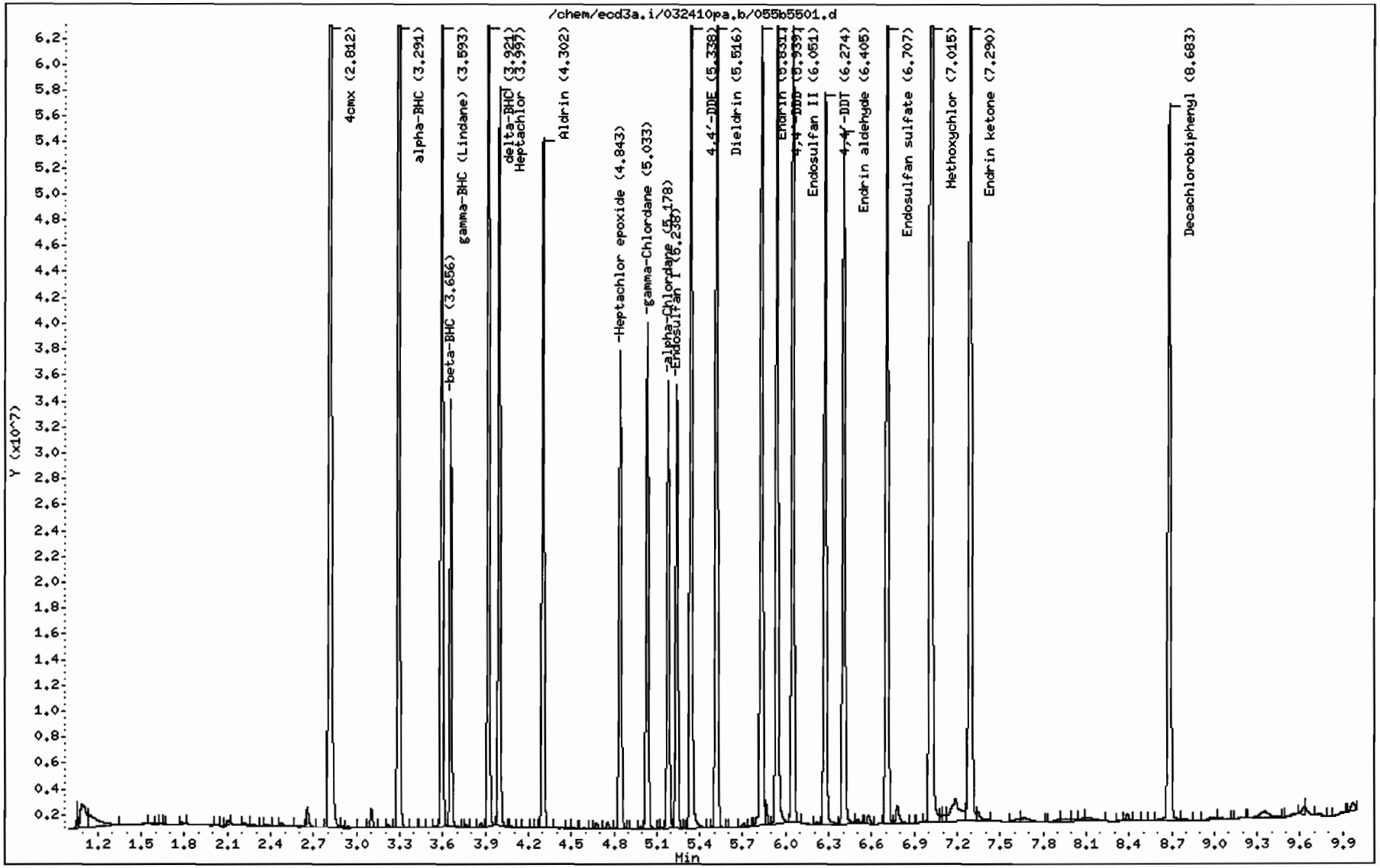

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/032410pa.b/065f6501.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB06
Inj Date : 25-MAR-2010 10:13
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Meth Date : 25-Mar-2010 14:57 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 65 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
2.975	2.975	0.000	10375429	100.000	107	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.214	3.215	-0.001	9460402	100.000	108	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.279	3.279	0.000	3730513	100.000	96.4	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.590	3.591	-0.001	7184353	100.000	98.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.423	3.424	-0.001	8790636	100.000	101	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.843	3.842	0.001	8225754	100.000	99.1	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.370	4.370	0.000	7513560	100.000	102	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.483	4.483	0.000	7896798	100.000	107	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.604	4.604	0.000	6879437	100.000	93.8	80.00- 120.00	100.00

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.733	4.734	-0.001	7277312	100.000	103	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.674	4.675	-0.001	14726530	200.000	211	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.959	4.959	0.000	15164559	200.000	201	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.183	5.184	-0.001	13078729	200.000	219	80.00- 120.00	100.00(M)
25 4,4'-DDD					CAS #: 72-54-8		
5.250	5.251	-0.001	12782646	200.000	226	80.00- 120.00	100.00(M)
24 Endosulfan II					CAS #: 33213-65-9		
5.405	5.406	-0.001	12711464	200.000	201	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
5.826	5.826	0.000	10005797	200.000	192	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
5.526	5.527	-0.001	8898167	200.000	183	80.00- 120.00	100.00(M)
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.275	6.275	0.000	10517278	200.000	195	80.00- 120.00	100.00(M)
28 Methoxychlor					CAS #: 72-43-5		
6.030	6.031	-0.001	20284850	1000.00	850	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
6.569	6.570	-0.001	13410520	200.000	189	80.00- 120.00	100.00(M)
$ 1 4cmx					CAS #: 877-09-8		
2.579	2.579	0.000	14471378	200.000	210	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.664	7.665	-0.001	9875077	200.000	189	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/032410pa.b/065f6501.d
Date : 25-MAR-2010 10:13
Client ID: INDAB06
Sample Info: IWPE100305-10AB

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

Column phase: CLP-1

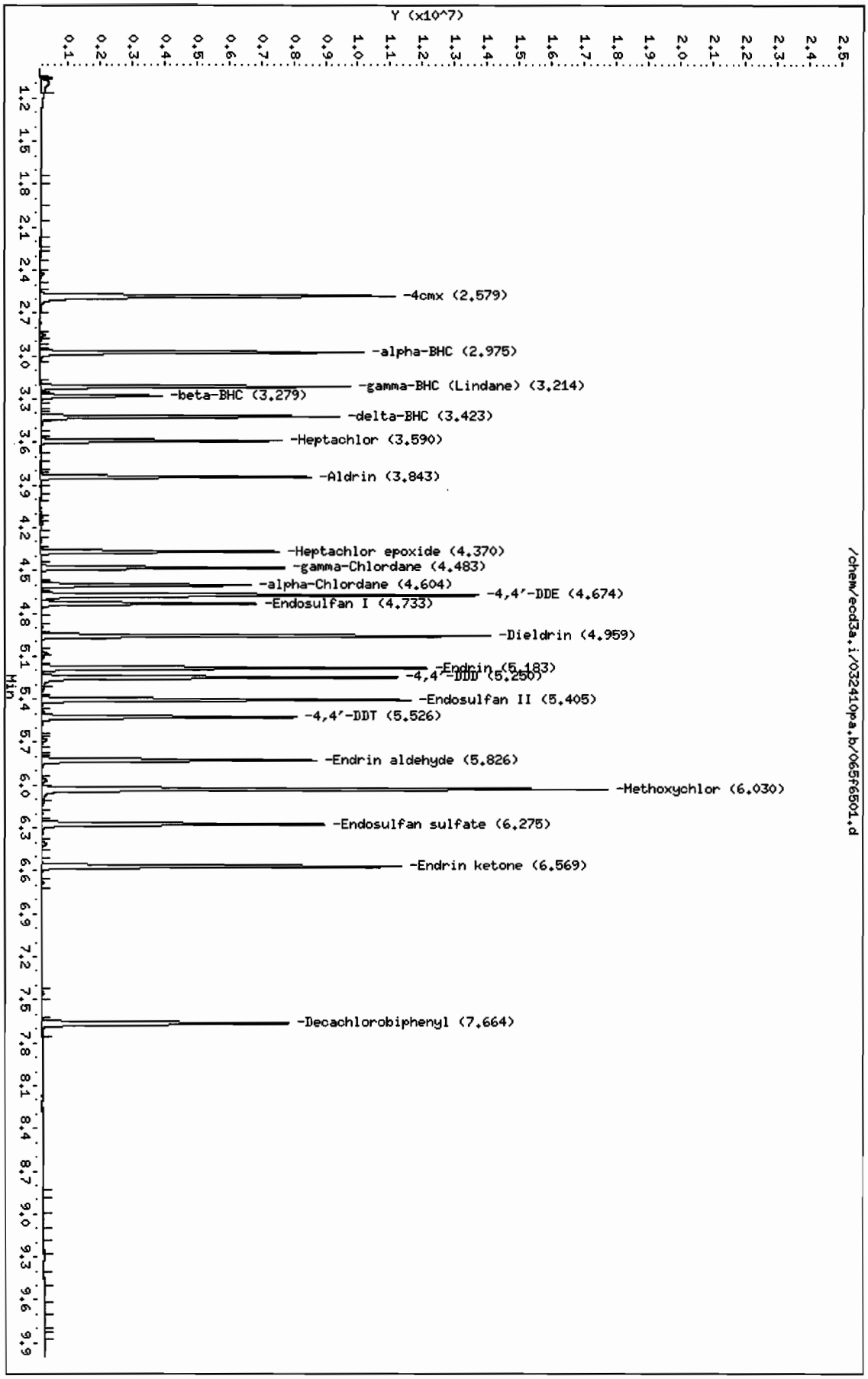

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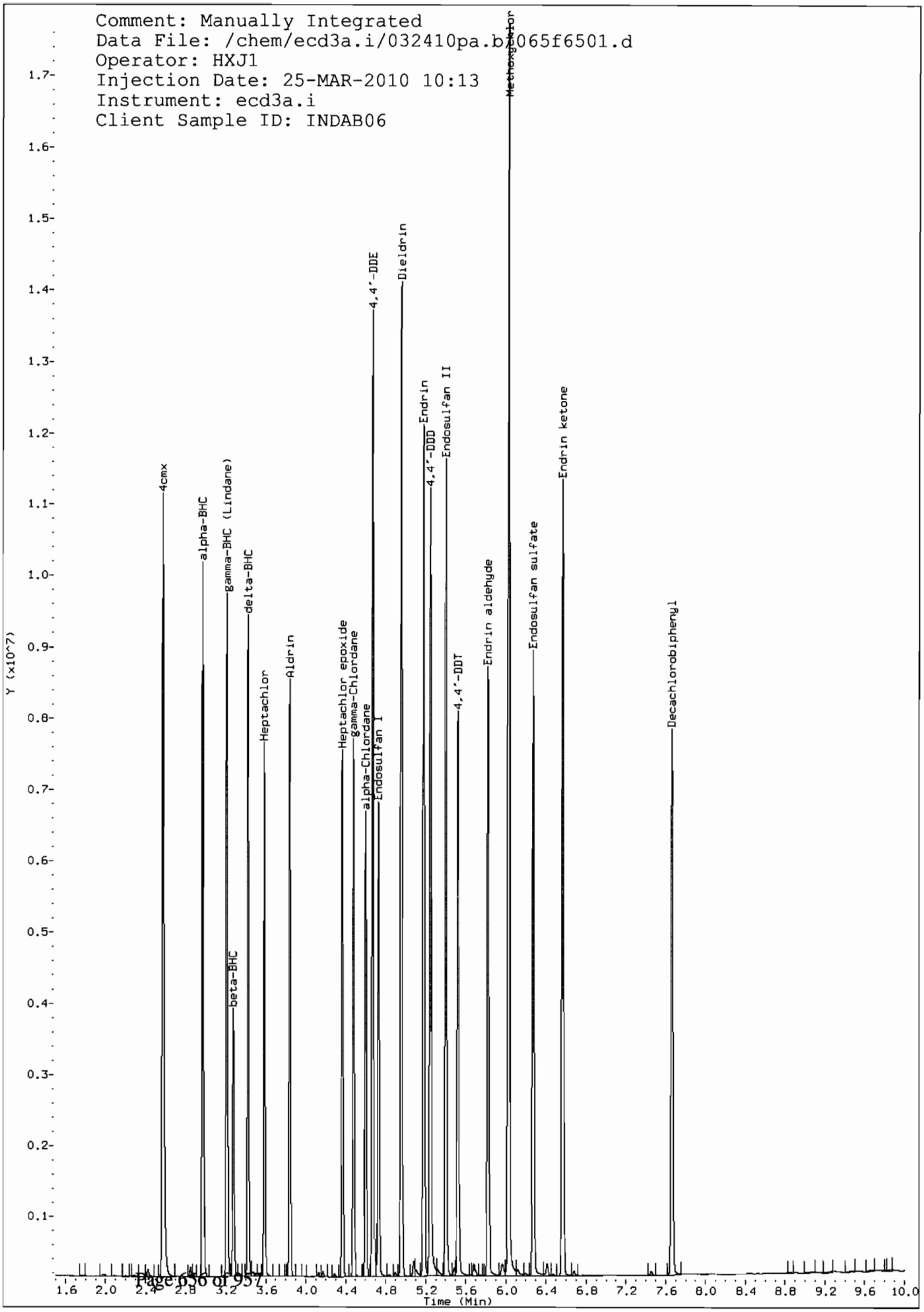
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Operator: HXJ1
Injection Date: 25-MAR-2010 10:13
Instrument: ecd3a.i
Client Sample ID: INDAB06
Y (x10^7)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

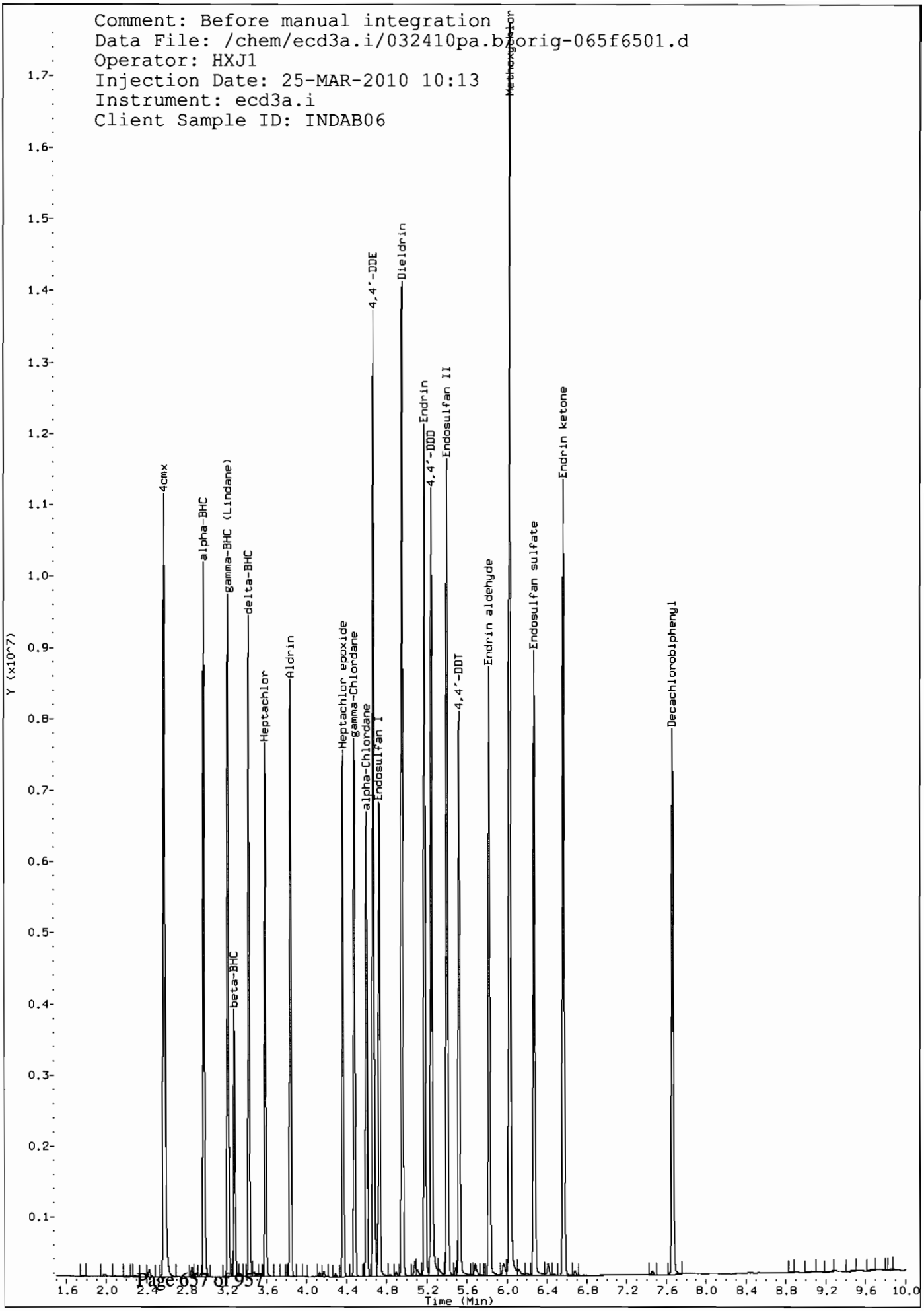
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Operator: HXJ1
Injection Date: 25-MAR-2010 10:13
Instrument: ecd3a.i
Client Sample ID: INDAB06
Methoxychlor
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
Endrin ketone
4cmx
alpha-BHC
gamma-BHC (Lindane)
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Decachlorobiphenyl
beta-BHC
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/032410pa.b/065b6501.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB06
Inj Date : 25-MAR-2010 10:13
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Meth Date : 25-Mar-2010 14:33 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 65 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.291	3.292	-0.001	93781079	100.000	92.5	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.592	3.594	-0.002	78848744	100.000	94.4	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.655	3.656	-0.001	30595449	100.000	86.9	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.997	3.997	0.000	57394094	100.000	86.0	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.921	3.921	0.000	71493004	100.000	88.7	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.302	4.303	-0.001	53739691	100.000	85.5	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.843	4.845	-0.002	39643724	100.000	89.0	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.032	5.034	-0.002	41607460	100.000	93.2	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.178	5.178	0.000	36760034	100.000	82.3	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.238	5.239	-0.001	37233033	100.000	91.9	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.338	5.339	-0.001	76521879	200.000	183	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.516	5.517	-0.001	81807143	200.000	177	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.830	5.832	-0.002	77064379	200.000	190	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.938	5.939	-0.001	79352204	200.000	196	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.050	6.051	-0.001	78377945	200.000	176	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.404	6.405	-0.001	66650106	200.000	167	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.273	6.275	-0.002	64938613	200.000	162	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.706	6.707	-0.001	80584096	200.000	172	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.014	7.015	-0.001	146531561	1000.00	731	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.289	7.291	-0.002	98063980	200.000	162	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.812	2.813	-0.001	124005897	200.000	178	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.681	8.682	-0.001	69812855	200.000	157	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/065b6501.d
Date : 25-MAR-2010 10:13
Client ID: INDAB06
Sample Info: IWPE100305-10AB
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

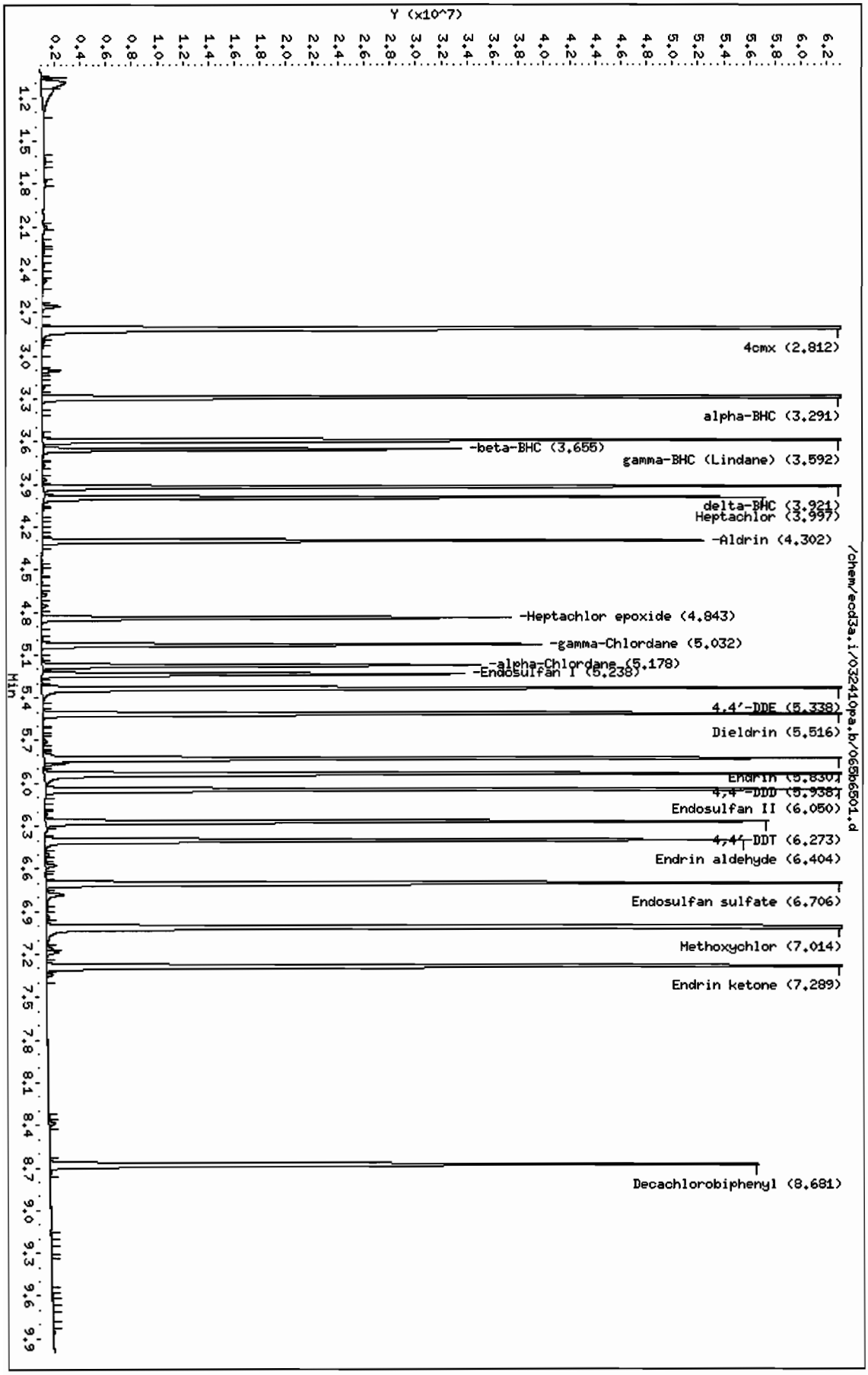

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CLP-1

Data file : /chem/ecd3a.i/032510p.b/003f0301.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB01
Inj Date : 25-MAR-2010 16:56
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/032510p.b/ECD3-F-8081-021010pa.m
Meth Date : 26-Mar-2010 14:56 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
2.973	2.973	0.000	10567679	100.000	109	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.213	3.213	0.000	9689068	100.000	110	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.277	3.277	0.000	3851726	100.000	99.5	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.588	3.588	0.000	7491839	100.000	103	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.422	3.422	0.000	9234031	100.000	106	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.841	3.841	0.000	8478229	100.000	102	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.368	4.368	0.000	7699261	100.000	104	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.481	4.481	0.000	8146430	100.000	111	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.602	4.602	0.000	7098425	100.000	96.8	80.00- 120.00	100.00

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.732	4.732	0.000	7593153	100.000	108	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.673	4.673	0.000	14948755	200.000	215	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.958	4.958	0.000	15608791	200.000	207	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.183	5.183	0.000	13335120	200.000	223	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.248	5.248	0.000	11742802	200.000	208	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.404	5.404	0.000	13104668	200.000	207	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.825	5.825	0.000	10300032	200.000	198	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.525	5.525	0.000	11052251	200.000	227	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.274	6.274	0.000	10850956	200.000	201	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.029	6.029	0.000	23200977	1000.00	972	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.569	6.569	0.000	13912245	200.000	196	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.577	2.577	0.000	14534734	200.000	211	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.664	7.664	0.000	10289378	200.000	197	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032510p.b/003f0301.d
Date : 25-MAR-2010 16:56
Client ID: INDAB01
Sample Info: IWPE100305-10AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

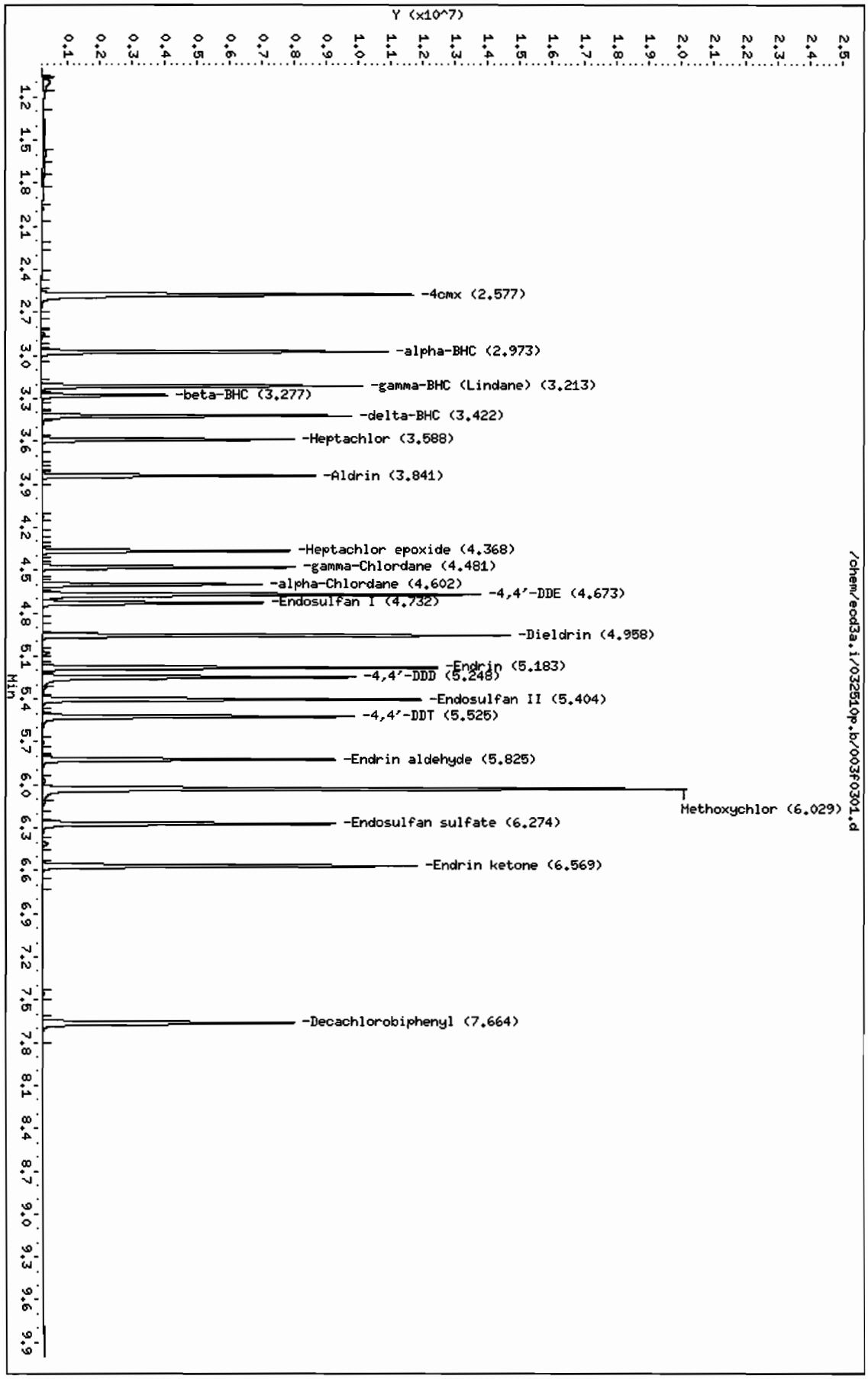

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/032510p.b/003b0301.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB01
Inj Date : 25-MAR-2010 16:56
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/032510p.b/ECD3-B-8081-021010pa.m
Meth Date : 26-Mar-2010 14:54 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.289	3.289	0.000	102137333	100.000	101	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.591	3.591	0.000	85990735	100.000	103	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.654	3.654	0.000	33433138	100.000	95.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.996	3.996	0.000	62936492	100.000	94.3	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.920	3.920	0.000	80072134	100.000	99.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.300	4.300	0.000	58224974	100.000	92.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.843	4.843	0.000	42984647	100.000	96.5	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.032	5.032	0.000	45948465	100.000	103	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.176	5.176	0.000	40471761	100.000	90.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.238	5.238	0.000	40498912	100.000	100	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.337	5.337	0.000	83054246	200.000	198	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.515	5.515	0.000	88218545	200.000	190	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.830	5.830	0.000	82561228	200.000	203	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.938	5.938	0.000	78807471	200.000	194	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.050	6.050	0.000	84250776	200.000	189	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.404	6.404	0.000	72000931	200.000	180	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.273	6.273	0.000	86488511	200.000	216	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.705	6.705	0.000	88348110	200.000	188	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.014	7.014	0.000	175428000	1000.00	876	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.290	7.290	0.000	108968414	200.000	180	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.811	2.811	0.000	130839673	200.000	188	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.683	8.683	0.000	80944433	200.000	182	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032510p.b/0036o301.d
Date : 25-MAR-2010 16:56
Client ID: INDAB01
Sample Info: IWPE100305-10AB
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

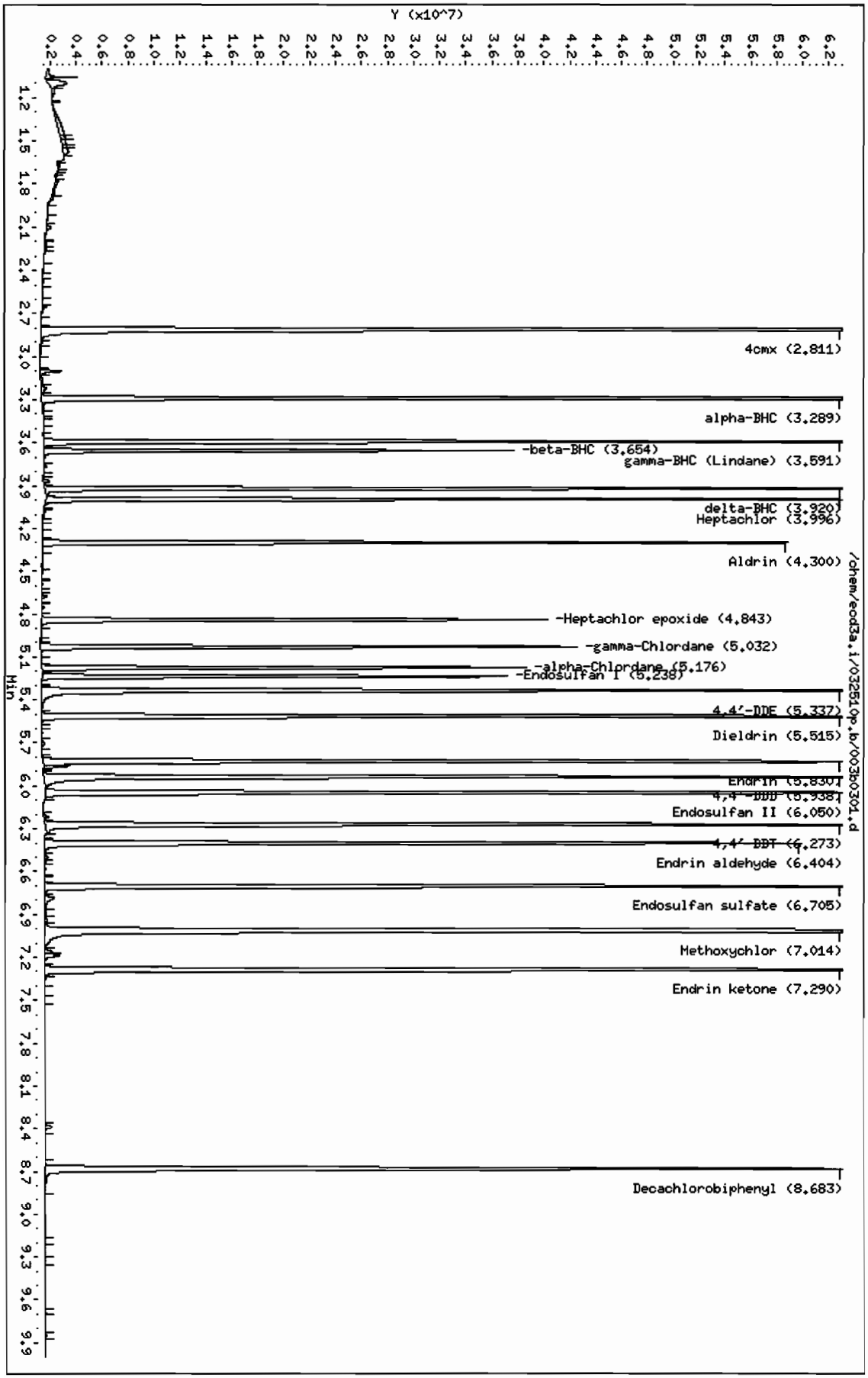

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CLP-1

Data file : /chem/ecd3a.i/032510p.b/004f0401.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 25-MAR-2010 17:09
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100125-52TX
Misc Info : |TOXAPHICV
Comment :
Method : /chem/ecd3a.i/032510p.b/ECD3-F-8081-021010pa.m
Meth Date : 26-Mar-2010 14:56 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
4.860	4.860	0.000	1171038	2000.00	2200	80.00- 120.00	100.00(M)
4.964	4.964	0.000	1747213	2000.00	2160	126.15- 166.15	149.20
5.048	5.048	0.000	2129118	2000.00	2180	163.50- 203.50	181.81
5.205	5.205	0.000	2645795	2000.00	2110	206.72- 246.72	225.94
5.617	5.617	0.000	1210848	2000.00	2020	84.99- 124.99	103.40

Average of Peak Amounts = 2.13e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/032510p.b/004f0401.d

Page 1

Date : 25-MAR-2010 17:09

Client ID: TOXAPH01

Instrument: ecd3a.i

Sample Info: IWPE100125-52TX

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

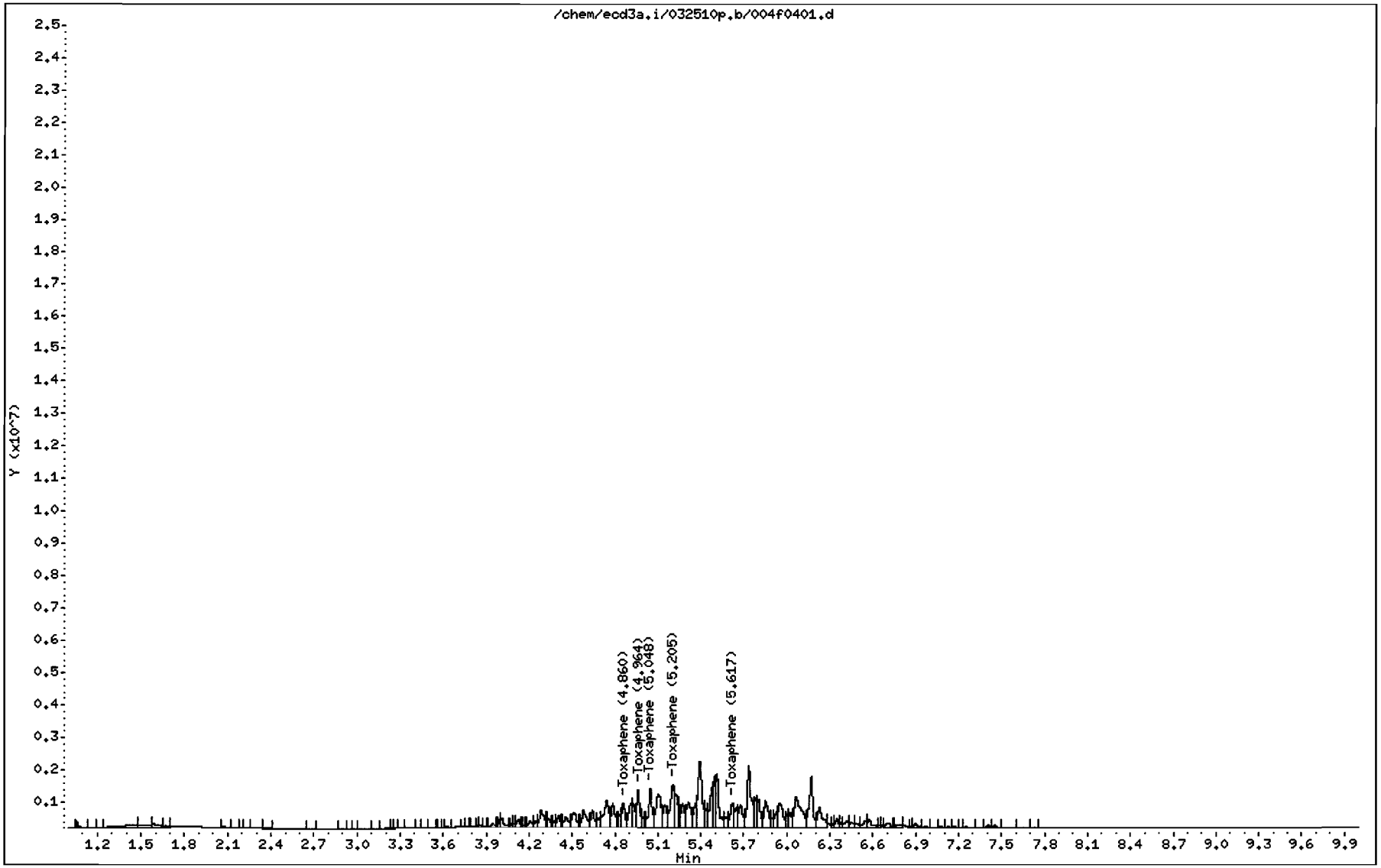

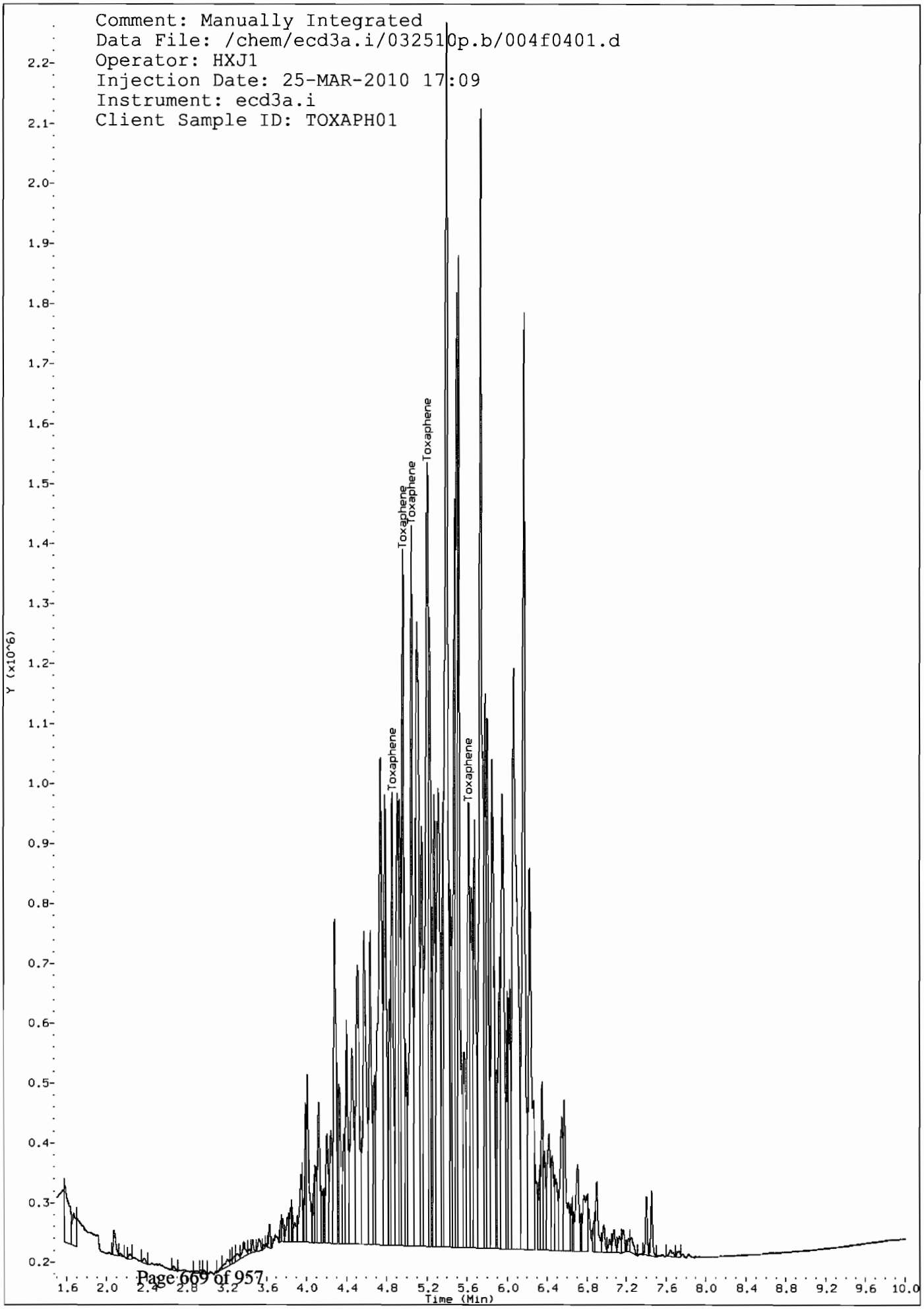
Comment: Manually Integrated
Data File: /chem/ecd3a.i/032510p.b/004f0401.d
Operator: HXJ1
Injection Date: 25-MAR-2010 17:09
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

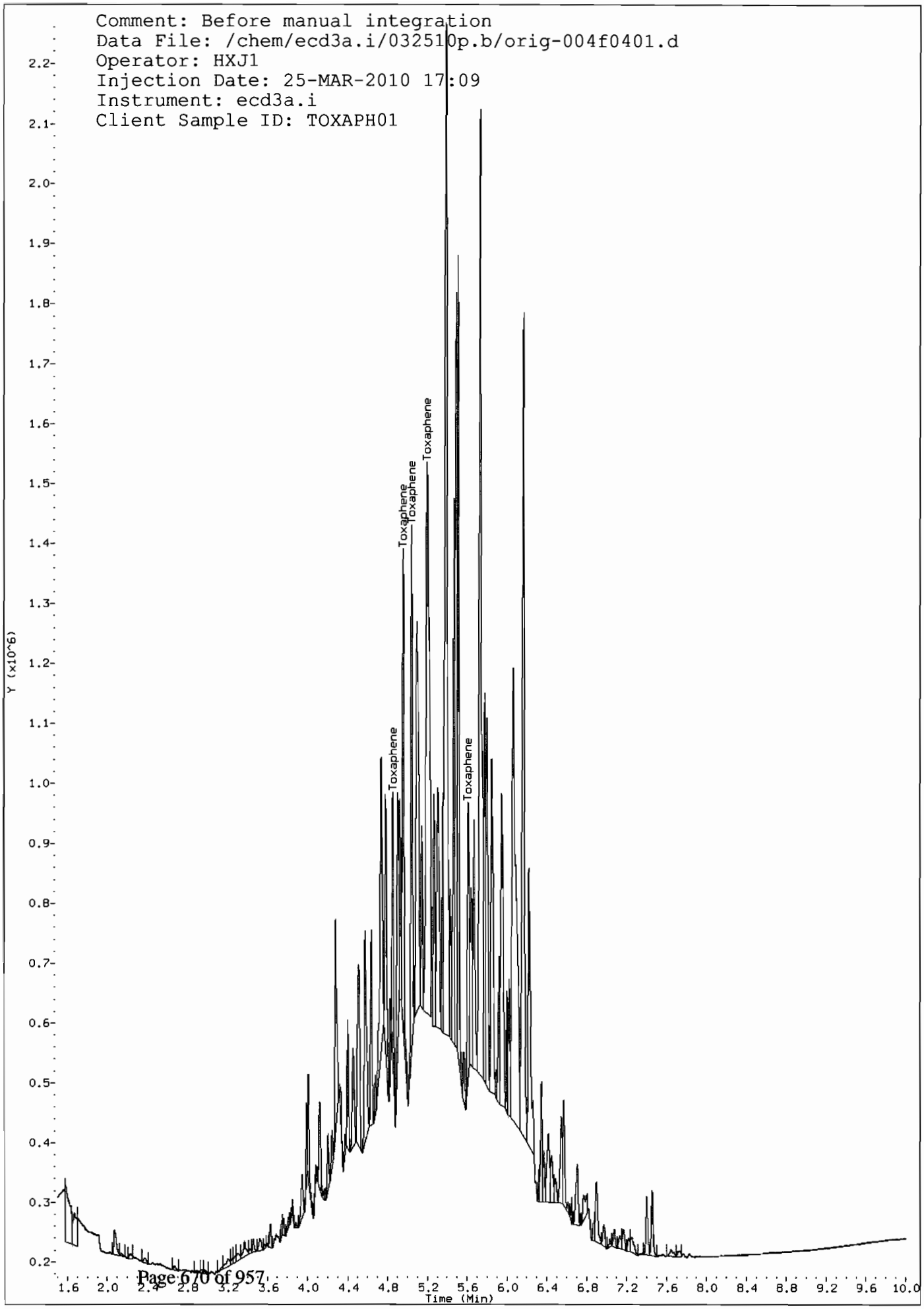
Comment: Before manual integration
Data File: /chem/ecd3a.i/032510p.b/orig-004f0401.d
Operator: HXJ1
Injection Date: 25-MAR-2010 17:09
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/032510p.b/004b0401.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 25-MAR-2010 17:09
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100125-52TX
Misc Info : |TOXAPHICV
Comment :
Method : /chem/ecd3a.i/032510p.b/ECD3-B-8081-021010pa.m
Meth Date : 26-Mar-2010 14:54 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.489	5.489	0.000	16668216	2000.00	2410	80.00- 120.00	100.00
5.801	5.801	0.000	13533608	2000.00	2120	61.18- 101.18	81.19
6.000	6.000	0.000	15127776	2000.00	2230	63.54- 103.54	90.76
6.040	6.040	0.000	24794643	2000.00	2020	132.62- 172.62	148.75
6.229	6.229	0.000	10440681	2000.00	2000	43.54- 83.54	62.64

Average of Peak Amounts = 2.16e+03

Data File: /chem/ecd3a.i/032510p.b/004b0401.d

Date : 25-MAR-2010 17:09

Client ID: TOXAPH01

Sample Info: IWPE100125-52TX

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

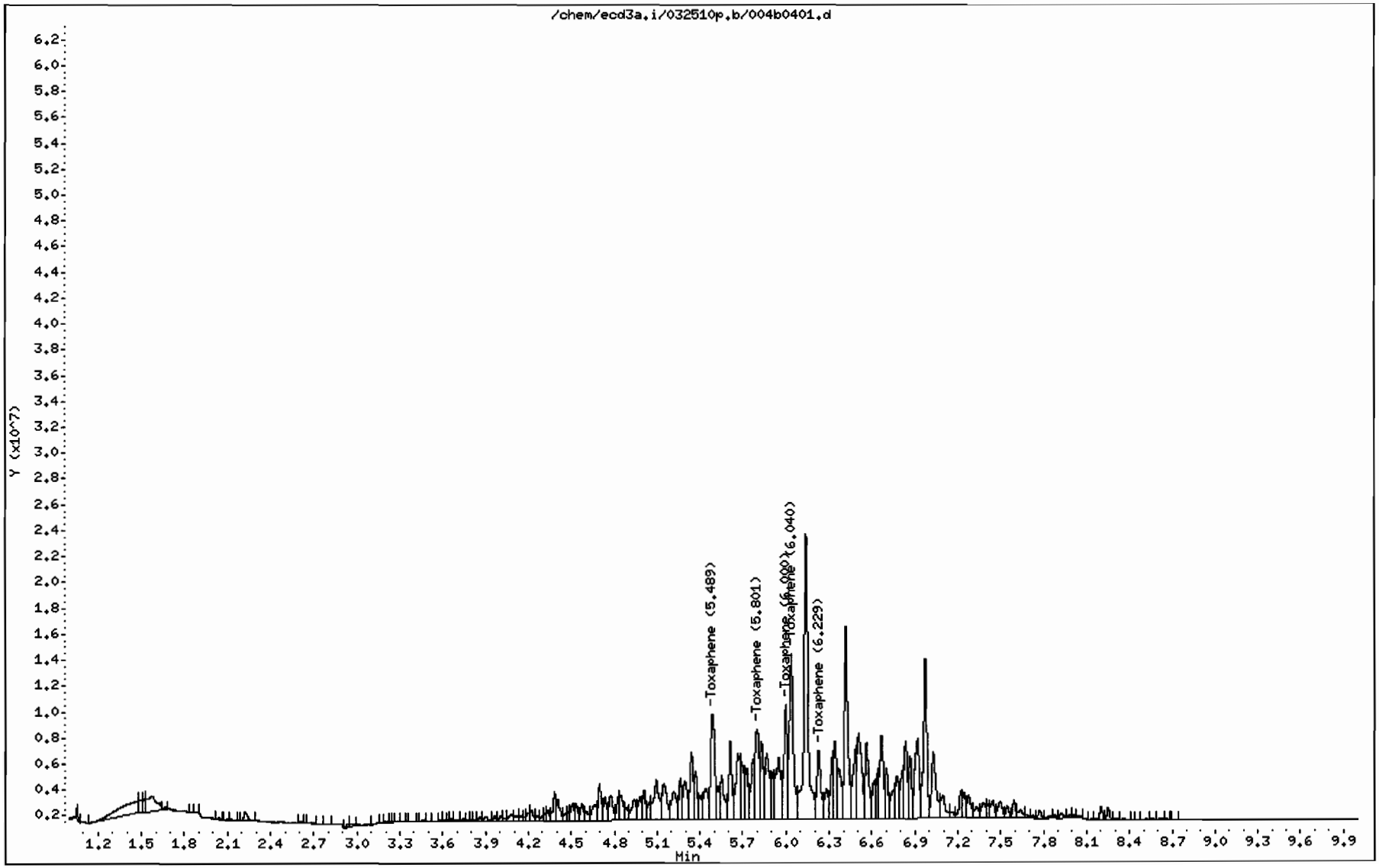

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CLP-1

Data file : /chem/ecd3a.i/032510p.b/022f2201.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB03
Inj Date : 25-MAR-2010 21:26
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/032510p.b/ECD3-F-8081-021010pa.m
Meth Date : 26-Mar-2010 14:56 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
2.973	2.973	0.000	10960277	100.000	113	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.213	3.213	0.000	9988575	100.000	114	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.278	3.277	0.001	3959189	100.000	102	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.588	3.588	0.000	7649091	100.000	105	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.422	3.422	0.000	9576706	100.000	110	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.841	3.841	0.000	8678073	100.000	104	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.369	4.368	0.001	7891497	100.000	107	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.482	4.481	0.001	8379688	100.000	114	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.603	4.602	0.001	7274995	100.000	99.2	80.00- 120.00	100.00

```
                                          AMOUNTS
                                        CAL-AMT   ON-COL
  RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
  ==   ====== ========        ======== =======  =======   ============    =====

  16 Endosulfan I                                     CAS #: 959-98-8
 4.732   4.732   0.000         7718681 100.000      110  80.00- 120.00   100.00
-------------------------------------------------------------------------------
  19 4,4'-DDE                                         CAS #: 72-55-9
 4.674   4.673   0.001        15394021 200.000      221  80.00- 120.00   100.00
-------------------------------------------------------------------------------
  20 Dieldrin                                         CAS #: 60-57-1
 4.958   4.958   0.000        15939847 200.000      211  80.00- 120.00   100.00
-------------------------------------------------------------------------------
  22 Endrin                                           CAS #: 72-20-8
 5.183   5.183   0.000        13774834 200.000      231  80.00- 120.00   100.00
-------------------------------------------------------------------------------
  25 4,4'-DDD                                         CAS #: 72-54-8
 5.249   5.248   0.001        12301134 200.000      218  80.00- 120.00   100.00
-------------------------------------------------------------------------------
  24 Endosulfan II                                    CAS #: 33213-65-9
 5.404   5.404   0.000        13377912 200.000      212  80.00- 120.00   100.00
-------------------------------------------------------------------------------
  27 Endrin aldehyde                                  CAS #: 7421-93-4
 5.825   5.825   0.000        10461817 200.000      201  80.00- 120.00   100.00
-------------------------------------------------------------------------------
  26 4,4'-DDT                                         CAS #: 50-29-3
 5.526   5.525   0.001        11364625 200.000      234  80.00- 120.00   100.00
-------------------------------------------------------------------------------
  29 Endosulfan sulfate                               CAS #: 1031-07-8
 6.273   6.274  -0.001        11182855 200.000      208  80.00- 120.00   100.00
-------------------------------------------------------------------------------
  28 Methoxychlor                                     CAS #: 72-43-5
 6.030   6.029   0.001        23938736 1000.00     1000  80.00- 120.00   100.00
-------------------------------------------------------------------------------
  31 Endrin ketone                                    CAS #: 53494-70-5
 6.569   6.569   0.000        14138611 200.000      199  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$   1 4cmx                                            CAS #: 877-09-8
 2.576   2.577  -0.001        15119899 200.000      220  80.00- 120.00   100.00
-------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                              CAS #: 2051-24-3
 7.664   7.664   0.000        10453793 200.000      200  80.00- 120.00   100.00
-------------------------------------------------------------------------------
```

Data File: /chem/ecd3a.i/032510p.b/022f2201.d
Date : 25-MAR-2010 21:26
Client ID: INDAB03
Sample Info: IWPE100305-10AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

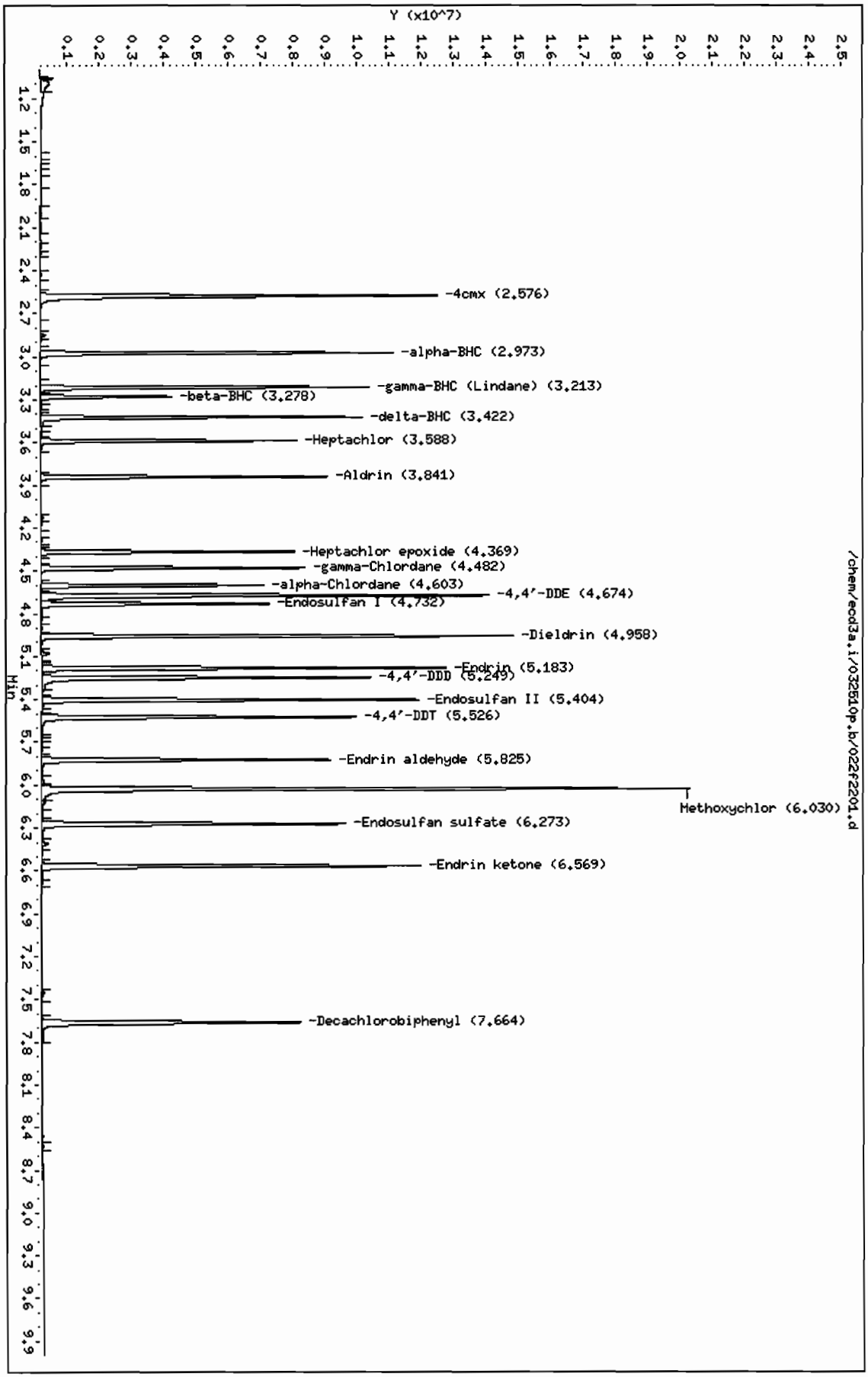

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/032510p.b/022b2201.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB03
Inj Date : 25-MAR-2010 21:26
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/032510p.b/ECD3-B-8081-021010pa.m
Meth Date : 26-Mar-2010 14:54 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.289	3.289	0.000	103486830	100.000	102	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.591	3.591	0.000	87466457	100.000	105	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.654	3.654	0.000	34047783	100.000	96.7	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.995	3.996	-0.001	64026695	100.000	95.9	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.920	3.920	0.000	81563194	100.000	101	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.301	4.300	0.001	59080130	100.000	94.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.843	4.843	0.000	43715468	100.000	98.2	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.032	5.032	0.000	46783819	100.000	105	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.177	5.176	0.001	41330667	100.000	92.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.238	5.238	0.000	41227791	100.000	102	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.337	5.337	0.000	84825022	200.000	203	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.516	5.515	0.001	90071537	200.000	194	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.830	5.830	0.000	85075186	200.000	209	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.937	5.938	-0.001	81588681	200.000	201	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.050	6.050	0.000	85957299	200.000	192	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.404	6.404	0.000	73275360	200.000	183	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.273	6.273	0.000	89977608	200.000	225	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.705	6.705	0.000	91415725	200.000	195	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.015	7.014	0.001	182210397	1000.00	910	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.289	7.290	-0.001	111410121	200.000	184	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.810	2.811	-0.001	133853241	200.000	193	80.00- 120.00	100.00(M)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.683	8.683	0.000	83311373	200.000	188	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/032510p.b/022b2201.d
Date : 25-MAR-2010 21:26
Client ID: INDAB03
Sample Info: IWE100305-10AB
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

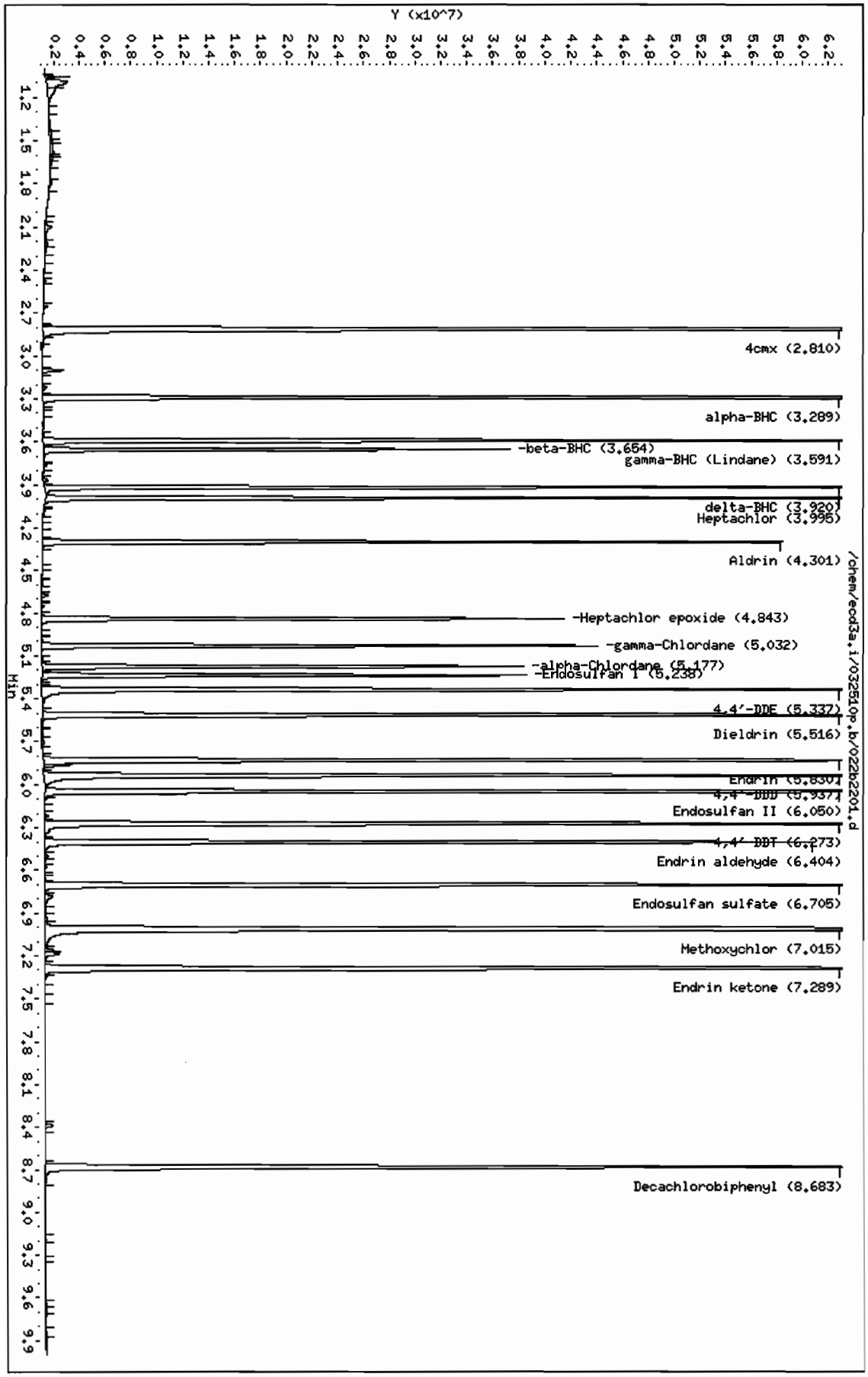

Page 1

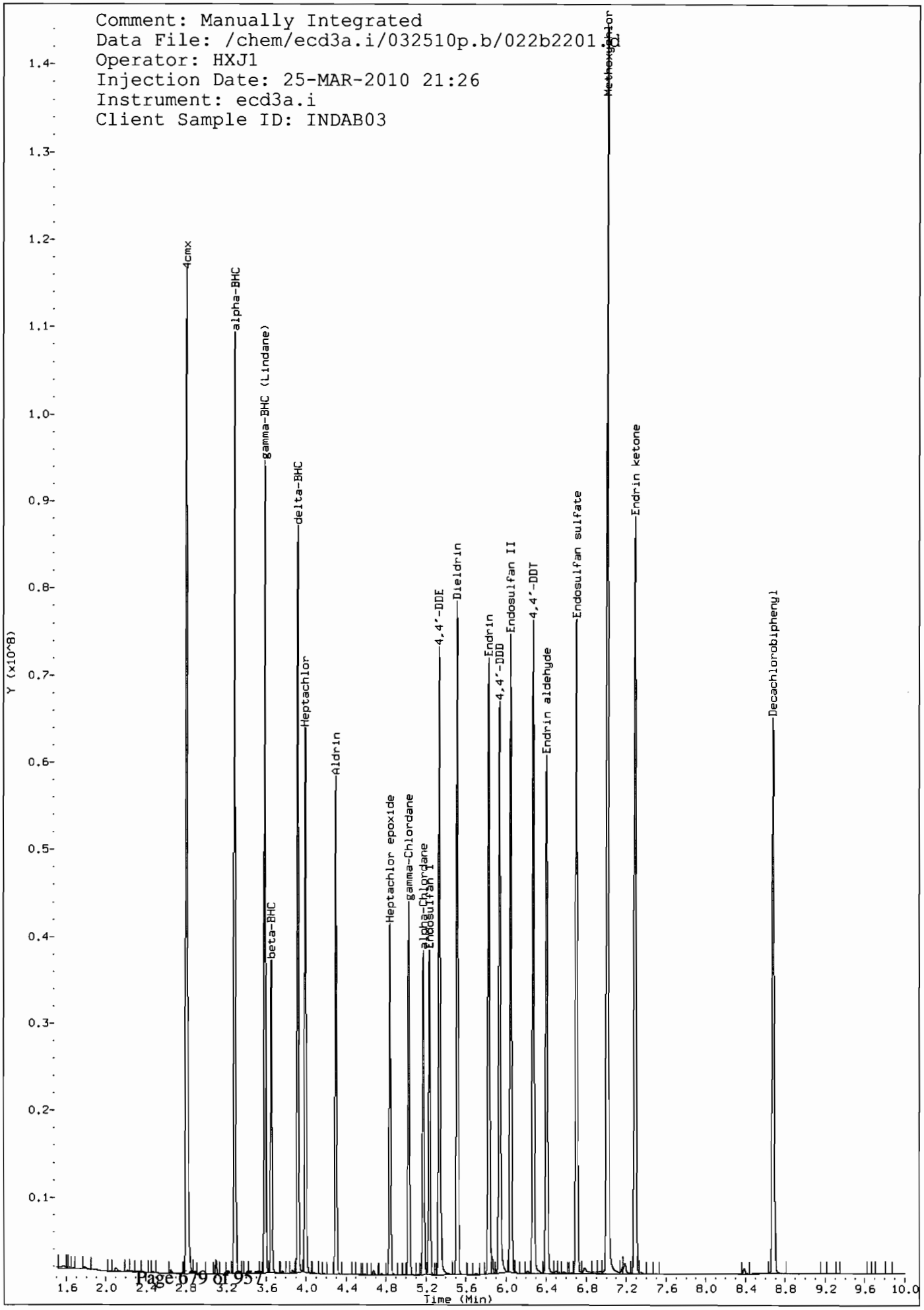
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Data File: /chem/ecd3a.i/032510p.b/022b2201.d
Operator: HXJ1
Injection Date: 25-MAR-2010 21:26
Instrument: ecd3a.i
Client Sample ID: INDAB03
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

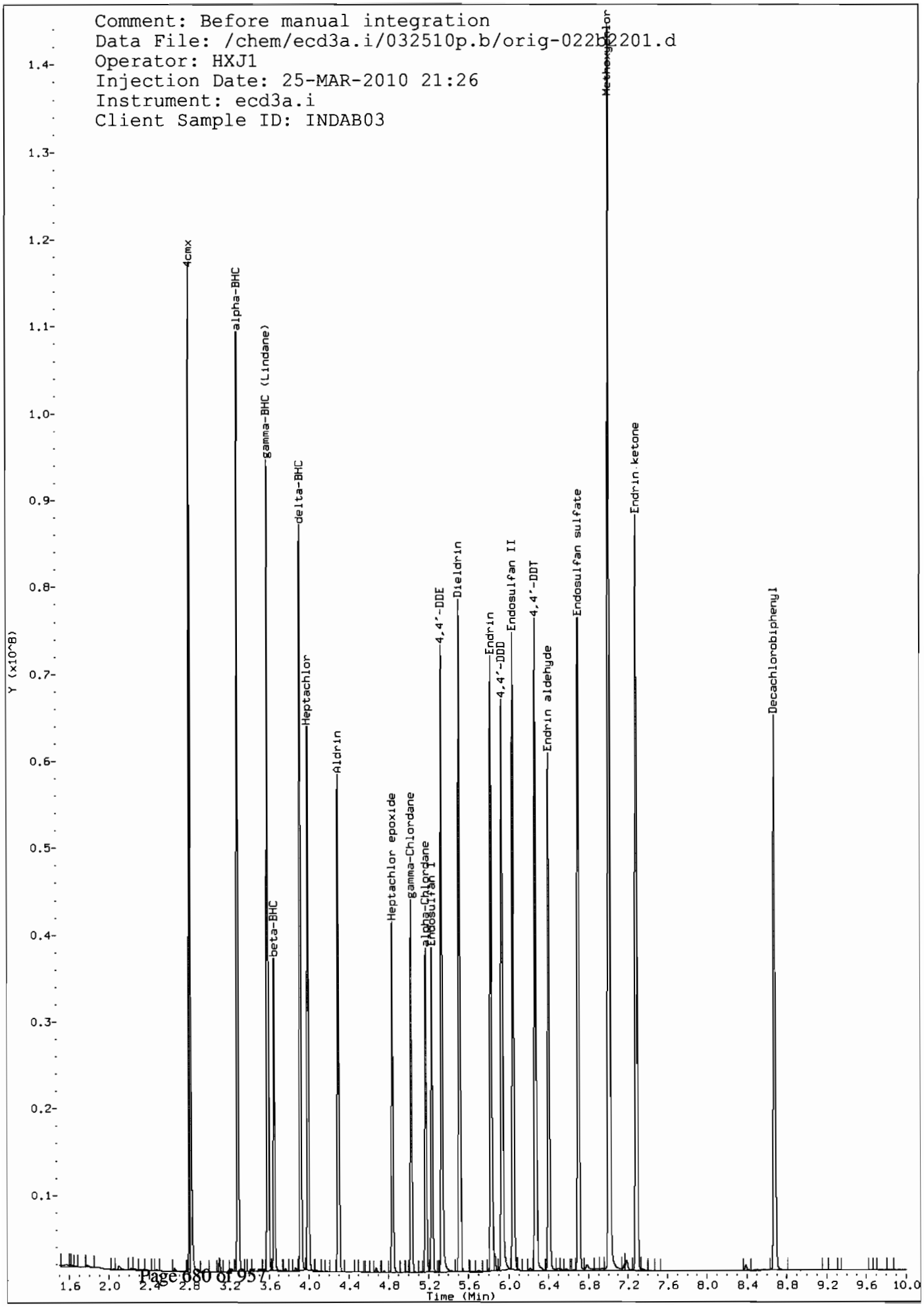
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Operator: HXJ1
Injection Date: 25-MAR-2010 21:26
Instrument: ecd3a.i
Client Sample ID: INDAB03
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone
Decachlorobiphenyl

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CLP-1

Data file : /chem/ecd3a.i/032510p.b/023f2301.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH03
Inj Date : 25-MAR-2010 21:39
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100125-52TX
Misc Info : |TOXAPHICV
Comment :
Method : /chem/ecd3a.i/032510p.b/ECD3-F-8081-021010pa.m
Meth Date : 26-Mar-2010 14:56 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
4.860	4.860	0.000	1159626	2000.00	2180	80.00- 120.00	100.00(M)
4.962	4.964	-0.002	1694809	2000.00	2100	126.15- 166.15	146.15
5.047	5.048	-0.001	2127947	2000.00	2180	163.50- 203.50	183.50
5.204	5.205	-0.001	2629069	2000.00	2100	206.72- 246.72	226.72
5.618	5.617	0.001	1217498	2000.00	2030	84.99- 124.99	104.99

Average of Peak Amounts = 2.12e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/032510p.b/023f2301.d

Date : 25-MAR-2010 21:39

Client ID: TOXAPH03

Sample Info: IWPE100125-52TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

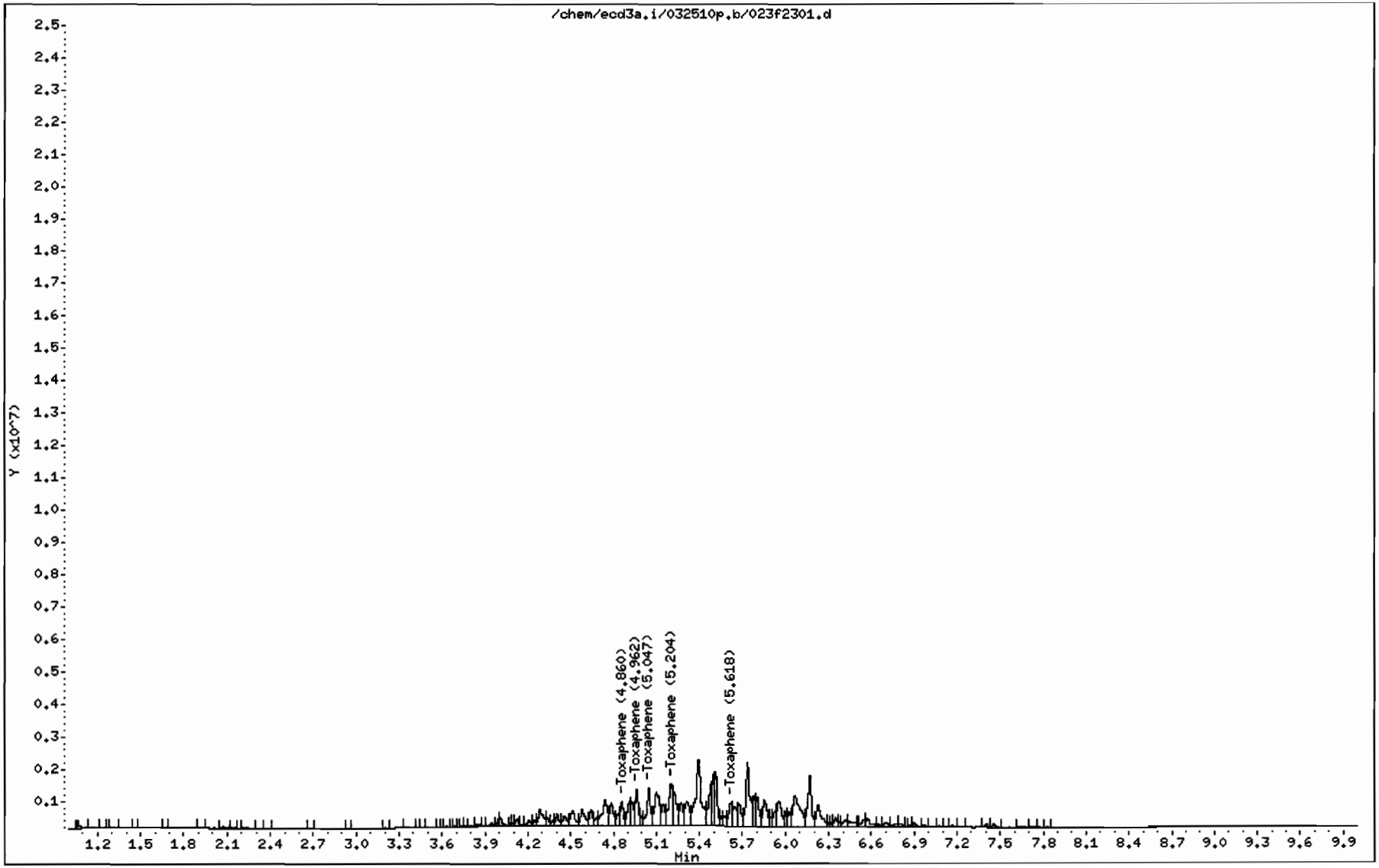

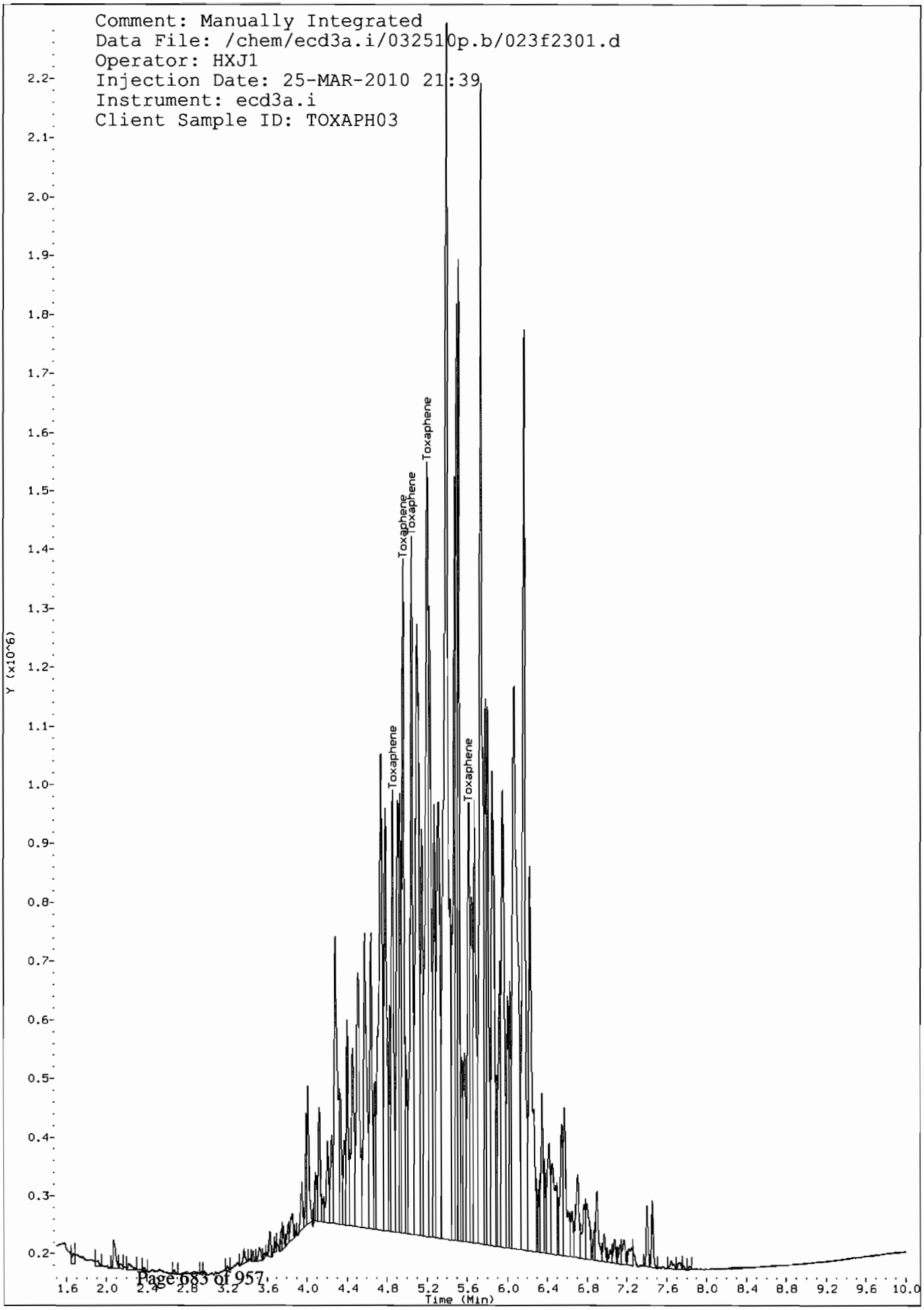
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Operator: HXJ1
Injection Date: 25-MAR-2010 21:39
Instrument: ecd3a.i
Client Sample ID: TOXAPH03
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

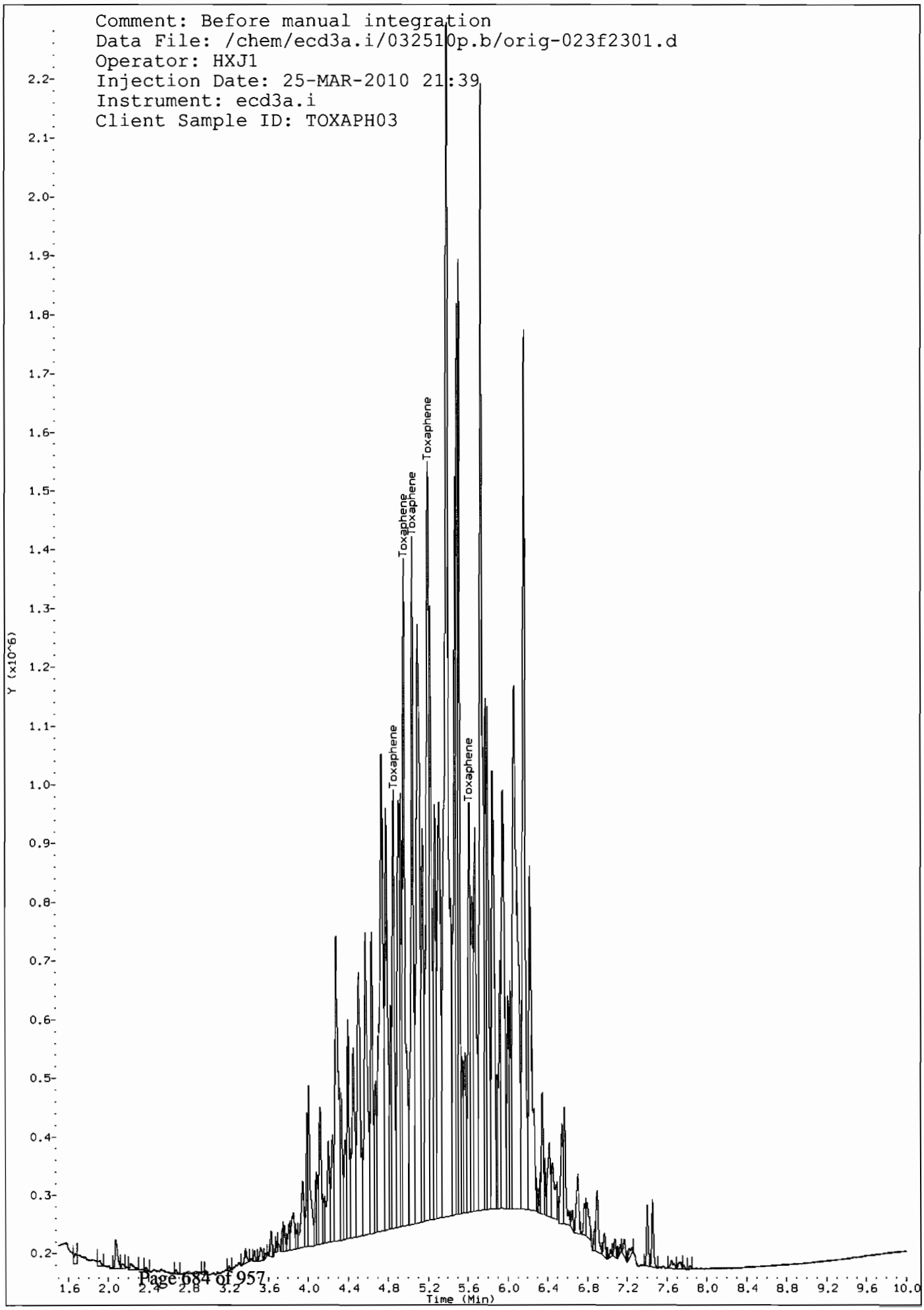
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Operator: HXJ1
Injection Date: 25-MAR-2010 21:39
Instrument: ecd3a.i
Client Sample ID: TOXAPH03
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/032510p.b/023b2301.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH03
Inj Date : 25-MAR-2010 21:39
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100125-52TX
Misc Info : |TOXAPHICV
Comment :
Method : /chem/ecd3a.i/032510p.b/ECD3-B-8081-021010pa.m
Meth Date : 26-Mar-2010 14:54 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.488	5.489	-0.001	16846558	2000.00	2440	80.00- 120.00	100.00(M)
5.801	5.801	0.000	13676752	2000.00	2150	61.18- 101.18	81.18
5.998	6.000	-0.002	14072814	2000.00	2070	63.54- 103.54	83.54
6.038	6.040	-0.002	25711070	2000.00	2100	132.62- 172.62	152.62
6.228	6.229	-0.001	10703950	2000.00	2050	43.54- 83.54	63.54

Average of Peak Amounts = 2.16e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/032510p.b/023b2301.d

Date : 25-MAR-2010 21:39

Client ID: TOXAPH03

Sample Info: IWPE100125-52TX

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

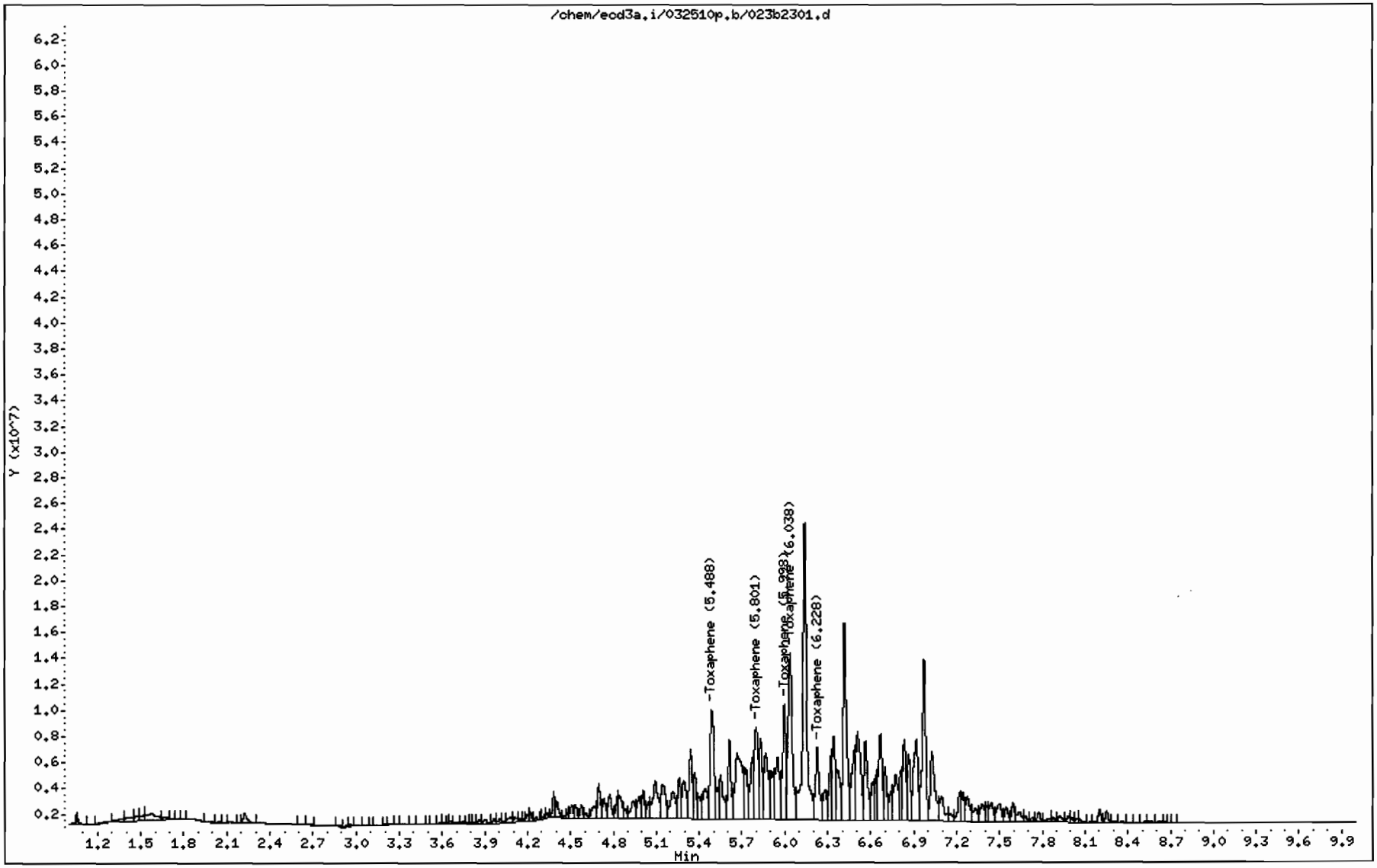

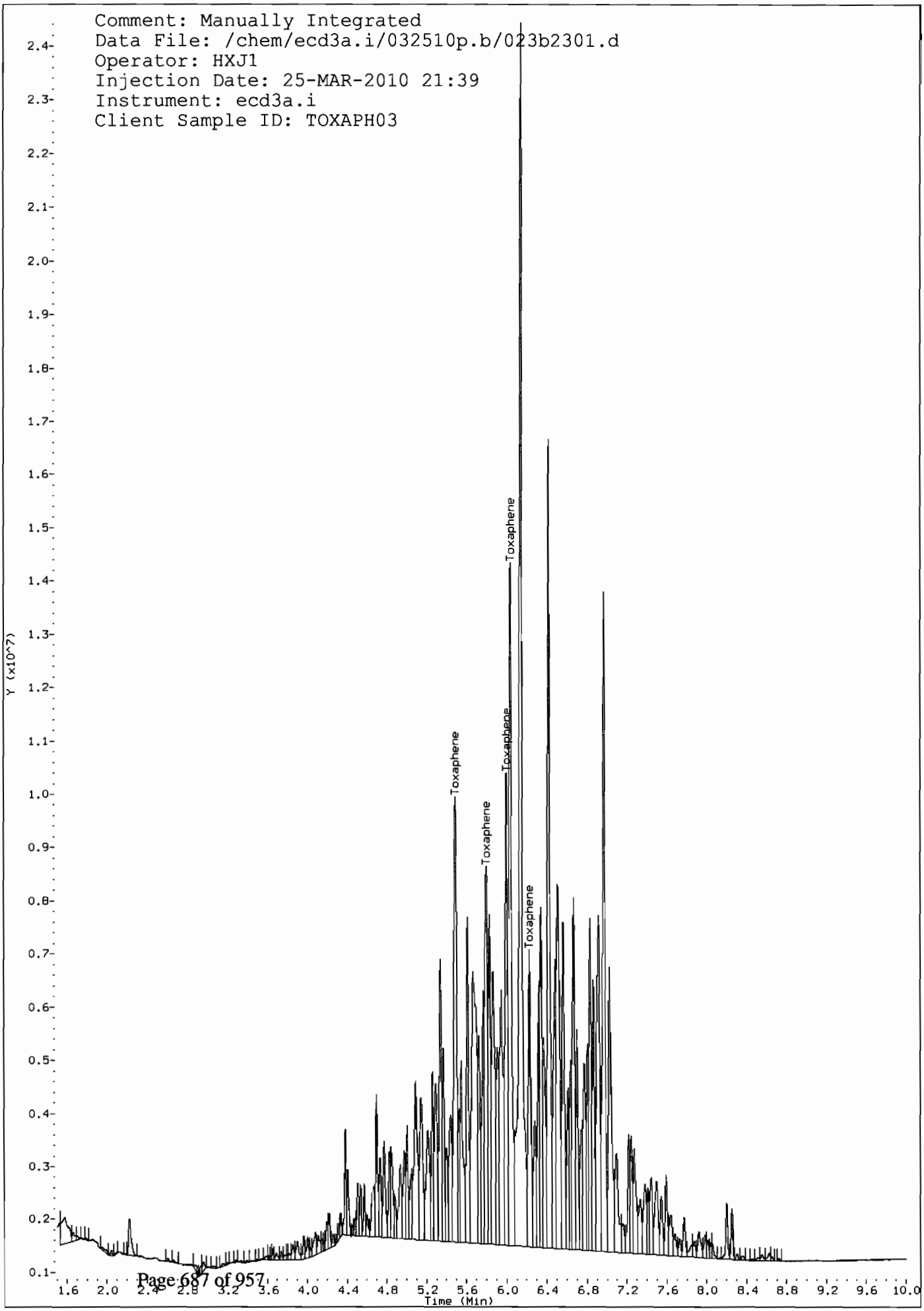
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Data File: /chem/ecd3a.i/032510p.b/023b2301.d
Operator: HXJ1
Injection Date: 25-MAR-2010 21:39
Instrument: ecd3a.i
Client Sample ID: TOXAPH03
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

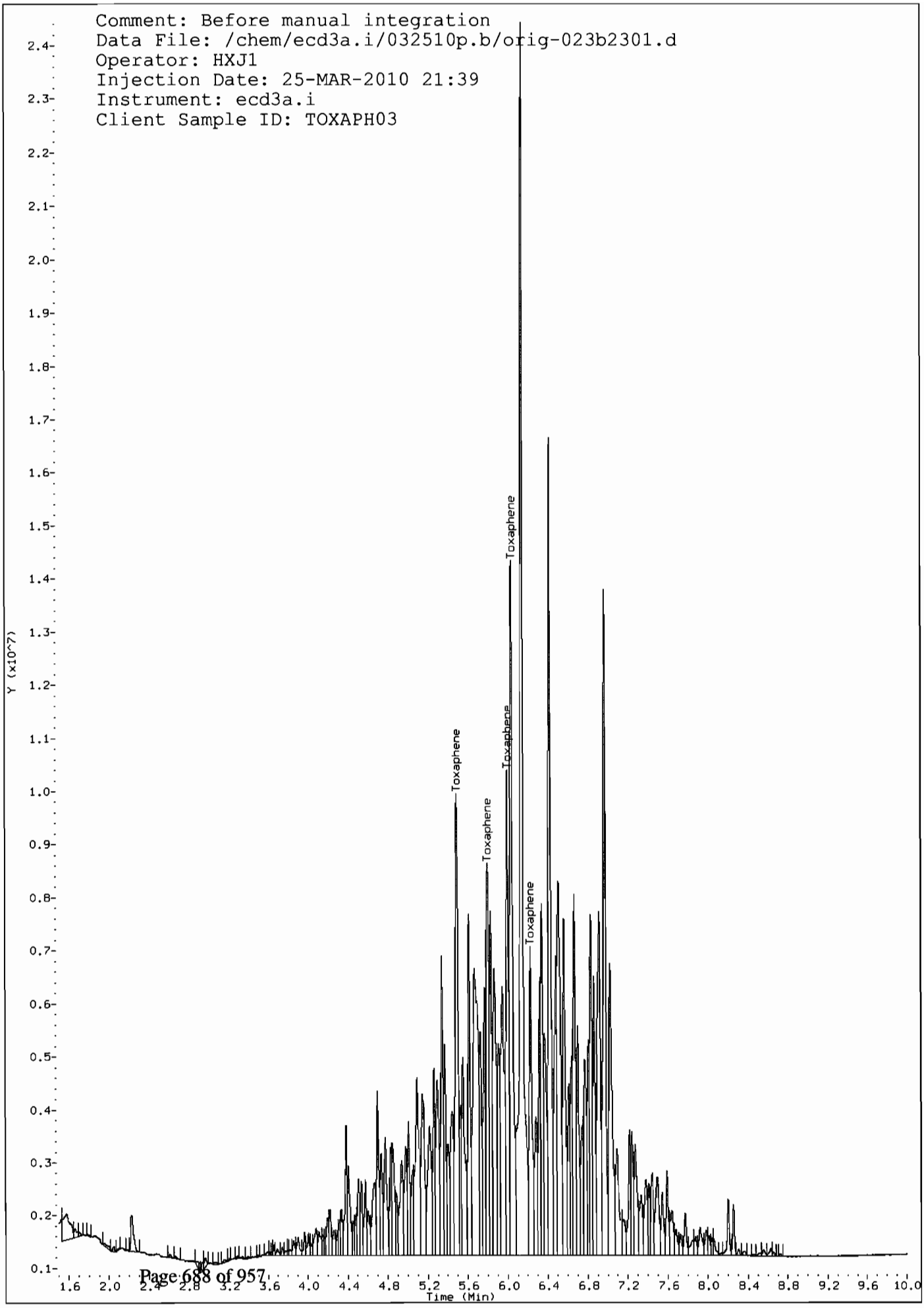
Comment: Before manual integration
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Operator: HXJ1
Injection Date: 25-MAR-2010 21:39
Instrument: ecd3a.i
Client Sample ID: TOXAPH03
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/032510p.b/026f2601.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB04
Inj Date : 25-MAR-2010 22:20
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/032510p.b/ECD3-F-8081-021010pa.m
Meth Date : 26-Mar-2010 14:56 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 26 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
2.973	2.973	0.000	10956908	100.000	113	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.213	3.213	0.000	10017674	100.000	114	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.278	3.277	0.001	3974553	100.000	103	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.589	3.588	0.001	7645326	100.000	105	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.422	3.422	0.000	9509820	100.000	109	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.842	3.841	0.001	8721874	100.000	105	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.369	4.368	0.001	7922919	100.000	107	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.482	4.481	0.001	8418174	100.000	114	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.604	4.602	0.002	7319936	100.000	99.8	80.00- 120.00	100.00

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.732	4.732	0.000	7771820	100.000	110	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.674	4.673	0.001	15464931	200.000	222	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.959	4.958	0.001	16010491	200.000	212	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.183	5.183	0.000	13754116	200.000	230	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.250	5.248	0.002	12404085	200.000	219	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.405	5.404	0.001	13443506	200.000	213	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.825	5.825	0.000	10550162	200.000	203	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.527	5.525	0.002	11346165	200.000	233	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.274	6.274	0.000	11266288	200.000	209	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.030	6.029	0.001	23934768	1000.00	1000	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.569	6.569	0.000	14243142	200.000	200	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.577	2.577	0.000	15156731	200.000	220	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.665	7.664	0.001	9911778	200.000	190	80.00- 120.00	100.00

Data File: /chem/eod3a.i/032510p.b/0262f2601.d
Date : 25-MAR-2010 22:20
Client ID: INDAB04
Sample Info: IWPE100305-10AB
Column phase: CLP-1

Instrument: eod3a.i
Operator: HXJ1
Column diameter: 0.25

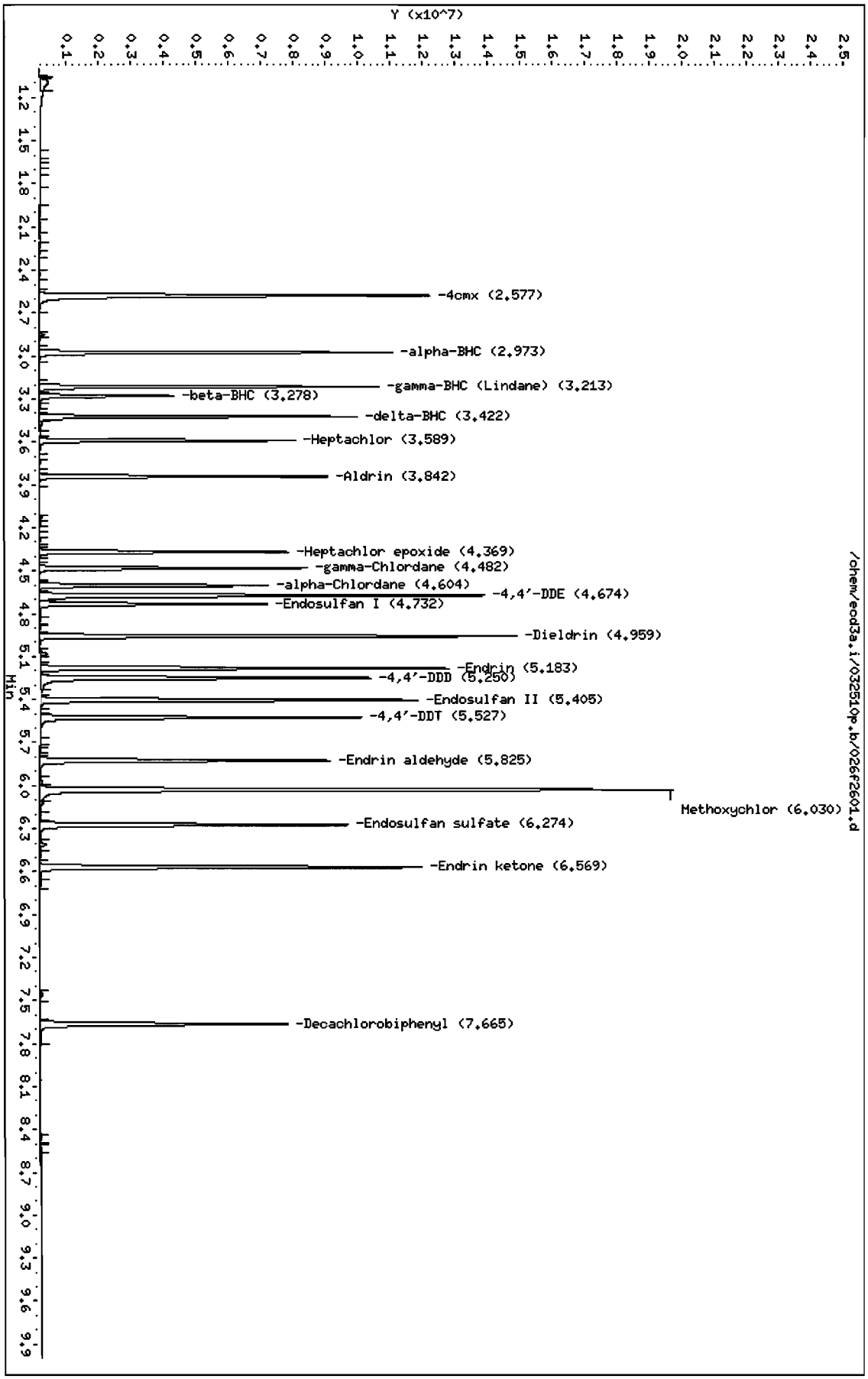

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CLP-2

Data file : /chem/ecd3a.i/032510p.b/026b2601.d
Lab Smp Id: WPE100305-10AB Client Smp ID: INDAB04
Inj Date : 25-MAR-2010 22:20
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100305-10AB
Misc Info : |ABICV
Comment :
Method : /chem/ecd3a.i/032510p.b/ECD3-B-8081-021010pa.m
Meth Date : 26-Mar-2010 14:54 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 26 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.290	3.289	0.001	103929707	100.000	102	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.592	3.591	0.001	87800716	100.000	105	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.654	3.654	0.000	34105362	100.000	96.9	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.996	3.996	0.000	63954920	100.000	95.8	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.920	3.920	0.000	81811714	100.000	102	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.301	4.300	0.001	59451816	100.000	94.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.843	4.843	0.000	43903009	100.000	98.6	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.033	5.032	0.001	47095115	100.000	106	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.178	5.176	0.002	41531313	100.000	93.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.238	5.238	0.000	41446642	100.000	102	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.339	5.337	0.002	85376334	200.000	204	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.516	5.515	0.001	90365110	200.000	195	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.831	5.830	0.001	84833902	200.000	209	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.938	5.938	0.000	82373990	200.000	203	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.051	6.050	0.001	86664848	200.000	194	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.405	6.404	0.001	74243049	200.000	186	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.274	6.273	0.001	90076824	200.000	225	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.706	6.705	0.001	92349116	200.000	197	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.015	7.014	0.001	163477968	1000.00	816	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.290	7.290	0.000	112791170	200.000	187	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.810	2.811	-0.001	135140860	200.000	194	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.683	8.683	0.000	83973986	200.000	189	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032510p.b/026b2601.d
Date : 25-MAR-2010 22:20
Client ID: INDAB04
Sample Info: IWPE100305-10AB

Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

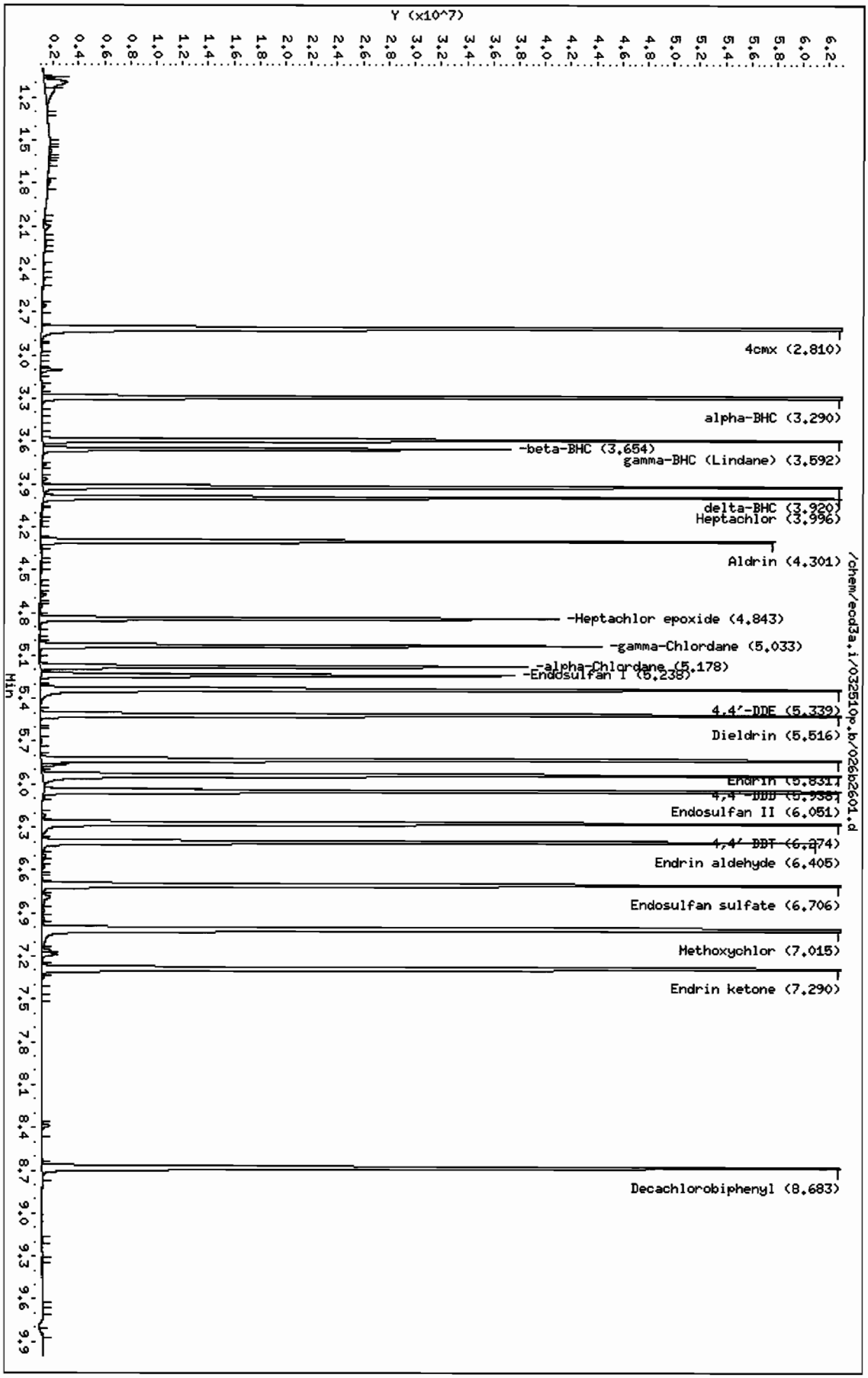

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8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/19/10 03/19/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.58 DCB: 7.66

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100211-99	03/19/10	1438	2.58	7.66
02	PEM01	WPE100125-99	03/19/10	1452	2.58	7.66
03	INDAB01	WPE100305-10	03/19/10	1506	2.58	7.66
04	CHLOR01	WPE100305-00	03/19/10	1519		
05	TOXAPH01	WPE100319-11	03/19/10	1534		
06	TOXAPH02	WPE100319-12	03/19/10	1547		
07	TOXAPH03	WPE100319-13	03/19/10	1601		
08	TOXAPH04	WPE100319-14	03/19/10	1615		
09	TOXAPH05	IPE100204-40	03/19/10	1628		
10	TOXAPH01	WPE100125-52	03/19/10	1642		
11	AR166001	WPE100319-41	03/19/10	1656	2.58	7.66
12	AR166002	WPE100319-42	03/19/10	1709	2.58	7.66
13	AR166003	WPE100319-43	03/19/10	1723	2.58	7.66
14	AR166004	WPE100319-44	03/19/10	1737	2.58	7.66
15	AR166005	IAR100311-01	03/19/10	1750	2.58	7.66
16	AR166001	WPE091209-60	03/19/10	1804	2.58	7.66
17	AR125401	WAR100219-54	03/19/10	1818		
18	AR124201	WAR100219-42	03/19/10	1831		
19	AR124801	WAR100223-48	03/19/10	1845		
20	AR123201	WAR100104-32	03/19/10	1858	2.58	7.66
21	AR122101	WAR100104-21	03/19/10	1912	2.58	7.66
22	PIBLK02	WAR100211-99	03/19/10	1926	2.58	7.66
23	ZZZZZ	ZZZZZ	03/19/10	1939	2.58	7.66
24	ZZZZZ	ZZZZZ	03/19/10	1953	2.58	7.66
25	ZZZZZ	ZZZZZ	03/19/10	2007	2.58	7.66
26	ZZZZZ	ZZZZZ	03/19/10	2020	2.58	7.66
27	ZZZZZ	ZZZZZ	03/19/10	2034	2.58	7.66
28	ZZZZZ	ZZZZZ	03/19/10	2048	2.58	7.66
29	ZZZZZ	ZZZZZ	03/19/10	2101	2.58	7.66
30	INDAB02	WPE100305-10	03/19/10	2115	2.58	7.66
31	PIBLK03	WAR100211-99	03/19/10	2129	2.58	7.66
32	ZZZZZ	ZZZZZ	03/19/10	2142	2.58	7.66

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/19/10 03/19/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.82 DCB: 8.69

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100211-99	03/19/10	1438	2.81	8.68
02	PEM01	WPE100125-99	03/19/10	1452	2.82	8.69
03	INDAB01	WPE100305-10	03/19/10	1506	2.82	8.69
04	CHLOR01	WPE100305-00	03/19/10	1519		
05	TOXAPH01	WPE100319-11	03/19/10	1534		
06	TOXAPH02	WPE100319-12	03/19/10	1547		
07	TOXAPH03	WPE100319-13	03/19/10	1601		
08	TOXAPH04	WPE100319-14	03/19/10	1615		
09	TOXAPH05	IPE100204-40	03/19/10	1628		
10	TOXAPH01	WPE100125-52	03/19/10	1642		
11	AR166001	WPE100319-41	03/19/10	1656	2.82	8.69
12	AR166002	WPE100319-42	03/19/10	1709	2.82	8.68
13	AR166003	WPE100319-43	03/19/10	1723	2.82	8.68
14	AR166004	WPE100319-44	03/19/10	1737	2.82	8.69
15	AR166005	IAR100311-01	03/19/10	1750	2.82	8.68
16	AR166001	WPE091209-60	03/19/10	1804	2.82	8.68
17	AR125401	WAR100219-54	03/19/10	1818		
18	AR124201	WAR100219-42	03/19/10	1831		
19	AR124801	WAR100223-48	03/19/10	1845		
20	AR123201	WAR100104-32	03/19/10	1858	2.82	8.68
21	AR122101	WAR100104-21	03/19/10	1912	2.82	8.69
22	PIBLK02	WAR100211-99	03/19/10	1926	2.82	8.68
23	ZZZZZ	ZZZZZ	03/19/10	1939	2.82	8.68
24	ZZZZZ	ZZZZZ	03/19/10	1953	2.82	8.68
25	ZZZZZ	ZZZZZ	03/19/10	2007	2.82	8.68
26	ZZZZZ	ZZZZZ	03/19/10	2020	2.82	8.68
27	ZZZZZ	ZZZZZ	03/19/10	2034	2.82	8.68
28	ZZZZZ	ZZZZZ	03/19/10	2048	2.82	8.68
29	ZZZZZ	ZZZZZ	03/19/10	2101	2.81	8.68
30	INDAB02	WPE100305-10	03/19/10	2115	2.82	8.68
31	PIBLK03	WAR100211-99	03/19/10	2129	2.82	8.68
32	ZZZZZ	ZZZZZ	03/19/10	2142	2.82	8.68

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/19/10 03/24/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.58 DCB: 7.66

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100211-99	03/24/10	1917	2.58	7.66
02	PEM01	WPE100125-99	03/24/10	1931	2.58	7.67
03	ZZZZZ	ZZZZZ	03/24/10	1944	2.58	7.67
04	TOXAPH01	WPE100125-52	03/24/10	1958		
05	CHLOR01	WPE100305-00	03/24/10	2012		
06	ZZZZZ	ZZZZZ	03/24/10	2039	2.58	7.67
07	INDAB01	WPE100323-01	03/24/10	2101	2.58	7.67
08	INDAB02	WPE100323-02	03/24/10	2115	2.58	7.67
09	INDAB03	WPE100323-03	03/24/10	2129	2.58	7.67
10	INDAB04	WPE100323-04	03/24/10	2142	2.58	7.66
11	INDAB05	IPE100319-02	03/24/10	2156	2.58	7.67
12	INDAB01	WPE100305-10	03/24/10	2209	2.58	7.66
13	PIBLK02	WAR100211-99	03/24/10	2223	2.58	7.66
14	PEM02	WPE100125-99	03/24/10	2237	2.58	7.67
15	ZZZZZ	ZZZZZ	03/24/10	2252	2.58	7.67
16	ZZZZZ	ZZZZZ	03/24/10	2305	2.58	7.67
17	ZZZZZ	ZZZZZ	03/24/10	2319	2.58	7.67
18	ZZZZZ	ZZZZZ	03/24/10	2333	2.58	7.66
19	ZZZZZ	ZZZZZ	03/24/10	2346	2.58	7.67
20	ZZZZZ	ZZZZZ	03/25/10	0000	2.58	7.66
21	ZZZZZ	ZZZZZ	03/25/10	0014	2.58	7.67
22	INDAB02	WPE100305-10	03/25/10	0027	2.58	7.67
23	PIBLK03	WAR100211-99	03/25/10	0041	2.58	7.66
24	ZZZZZ	ZZZZZ	03/25/10	0054	2.58	7.66
25	ZZZZZ	ZZZZZ	03/25/10	0108	2.58	7.66
26	ZZZZZ	ZZZZZ	03/25/10	0122	2.58	7.66
27	ZZZZZ	ZZZZZ	03/25/10	0135	2.58	7.66
28	ZZZZZ	ZZZZZ	03/25/10	0149	2.58	7.66
29	ZZZZZ	ZZZZZ	03/25/10	0203	2.58	7.67
30	ZZZZZ	ZZZZZ	03/25/10	0216	2.58	7.67
31	ZZZZZ	ZZZZZ	03/25/10	0230	2.58	7.67
32	INDAB03	WPE100305-10	03/25/10	0243	2.58	7.67

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/19/10 03/24/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.58 DCB: 7.66

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK04	WAR100211-99	03/25/10	0257	2.58	7.67
02	ZZZZZ	ZZZZZ	03/25/10	0311	2.58	7.67
03	ZZZZZ	ZZZZZ	03/25/10	0324	2.58	7.66
04	ZZZZZ	ZZZZZ	03/25/10	0338	2.58	7.66
05	ZZZZZ	ZZZZZ	03/25/10	0351	2.58	7.67
06	ZZZZZ	ZZZZZ	03/25/10	0405	2.58	7.66
07	ZZZZZ	ZZZZZ	03/25/10	0419	2.58	7.66
08	ZZZZZ	ZZZZZ	03/25/10	0432	2.58	7.66
09	ZZZZZ	ZZZZZ	03/25/10	0446	2.58	7.67
10	INDAB04	WPE100305-10	03/25/10	0500	2.58	7.67
11	PIBLK05	WAR100211-99	03/25/10	0513	2.58	7.67
12	PBLK01	1202079296	03/25/10	0527	2.58	7.67
13	ZZZZZ	ZZZZZ	03/25/10	0541	2.58	7.67
14	PBLK01TLCS	1202079300	03/25/10	0554	2.58	7.67
15	ZZZZZ	ZZZZZ	03/25/10	0608	2.58	7.66
16	ZZZZZ	ZZZZZ	03/25/10	0621	2.58	7.67
17	ZZZZZ	ZZZZZ	03/25/10	0635	2.58	7.66
18	ZZZZZ	ZZZZZ	03/25/10	0649	2.58	7.66
19	ZZZZZ	ZZZZZ	03/25/10	0702	2.58	7.67
20	ZZZZZ	ZZZZZ	03/25/10	0716	2.58	7.67
21	ZZZZZ	ZZZZZ	03/25/10	0730	2.58	7.66
22	PIBLK06	WAR100211-99	03/25/10	0743	2.58	7.67
23	INDAB05	WPE100305-10	03/25/10	0757	2.58	7.67
24	PIBLK07	WAR100211-99	03/25/10	0811	2.58	7.66
25	RE46-10-12972	249335002	03/25/10	0824	2.58	7.66
26	RE46-10-13003	249335003	03/25/10	0838	2.58	7.66
27	RE46-10-12967	249335004	03/25/10	0851	2.58	7.67
28	RE46-10-12971	249335005	03/25/10	0905	2.58	7.66
29	RE46-10-12968	249335006	03/25/10	0919	2.58	7.66
30	RE46-10-12969	249335007	03/25/10	0932	2.58	7.66
31	RE46-10-12970	249335008	03/25/10	0946	2.58	7.66
32	PIBLK08	WAR100211-99	03/25/10	1000	2.58	7.66

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/19/10 03/24/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.58 DCB: 7.66

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	INDAB06	WPE100305-10	03/25/10	1013	2.58	7.66
02	PIBLK09	WAR100211-99	03/25/10	1027	2.58	7.66
03						
04						
05						
06						
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	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/19/10 03/24/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.81 DCB: 8.68

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100211-99	03/24/10	1917	2.81	8.68
02	PEM01	WPE100125-99	03/24/10	1931	2.81	8.68
03	ZZZZZ	ZZZZZ	03/24/10	1944	2.81	8.68
04	TOXAPH01	WPE100125-52	03/24/10	1958		
05	CHLOR01	WPE100305-00	03/24/10	2012		
06	ZZZZZ	ZZZZZ	03/24/10	2039	2.81	8.68
07	INDAB01	WPE100323-01	03/24/10	2101	2.82	8.69
08	INDAB02	WPE100323-02	03/24/10	2115	2.81	8.68
09	INDAB03	WPE100323-03	03/24/10	2129	2.81	8.68
10	INDAB04	WPE100323-04	03/24/10	2142	2.81	8.68
11	INDAB05	IPE100319-02	03/24/10	2156	2.81	8.68
12	INDAB01	WPE100305-10	03/24/10	2209	2.81	8.68
13	PIBLK02	WAR100211-99	03/24/10	2223	2.81	8.68
14	PEM02	WPE100125-99	03/24/10	2237	2.81	8.68
15	ZZZZZ	ZZZZZ	03/24/10	2252	2.82	8.68
16	ZZZZZ	ZZZZZ	03/24/10	2305	2.81	8.68
17	ZZZZZ	ZZZZZ	03/24/10	2319	2.81	8.68
18	ZZZZZ	ZZZZZ	03/24/10	2333	2.81	8.68
19	ZZZZZ	ZZZZZ	03/24/10	2346	2.81	8.68
20	ZZZZZ	ZZZZZ	03/25/10	0000	2.81	8.68
21	ZZZZZ	ZZZZZ	03/25/10	0014	2.81	8.68
22	INDAB02	WPE100305-10	03/25/10	0027	2.81	8.68
23	PIBLK03	WAR100211-99	03/25/10	0041	2.81	8.68
24	ZZZZZ	ZZZZZ	03/25/10	0054	2.81	8.68
25	ZZZZZ	ZZZZZ	03/25/10	0108	2.81	8.68
26	ZZZZZ	ZZZZZ	03/25/10	0122	2.81	8.68
27	ZZZZZ	ZZZZZ	03/25/10	0135	2.81	8.68
28	ZZZZZ	ZZZZZ	03/25/10	0149	2.81	8.68
29	ZZZZZ	ZZZZZ	03/25/10	0203	2.81	8.68
30	ZZZZZ	ZZZZZ	03/25/10	0216	2.81	8.68
31	ZZZZZ	ZZZZZ	03/25/10	0230	2.81	8.68
32	INDAB03	WPE100305-10	03/25/10	0243	2.81	8.68

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/19/10 03/24/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.81 DCB: 8.68

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK04	WAR100211-99	03/25/10	0257	2.81	8.68
02	ZZZZZ	ZZZZZ	03/25/10	0311	2.81	8.68
03	ZZZZZ	ZZZZZ	03/25/10	0324	2.81	8.68
04	ZZZZZ	ZZZZZ	03/25/10	0338	2.81	8.68
05	ZZZZZ	ZZZZZ	03/25/10	0351	2.81	8.68
06	ZZZZZ	ZZZZZ	03/25/10	0405	2.81	8.68
07	ZZZZZ	ZZZZZ	03/25/10	0419	2.81	8.68
08	ZZZZZ	ZZZZZ	03/25/10	0432	2.81	8.68
09	ZZZZZ	ZZZZZ	03/25/10	0446	2.81	8.68
10	INDAB04	WPE100305-10	03/25/10	0500	2.81	8.68
11	PIBLK05	WAR100211-99	03/25/10	0513	2.81	8.68
12	PBLK01	1202079296	03/25/10	0527	2.81	8.68
13	ZZZZZ	ZZZZZ	03/25/10	0541	2.81	8.68
14	PBLK01TLCS	1202079300	03/25/10	0554	2.81	8.68
15	ZZZZZ	ZZZZZ	03/25/10	0608	2.81	8.68
16	ZZZZZ	ZZZZZ	03/25/10	0621	2.81	8.68
17	ZZZZZ	ZZZZZ	03/25/10	0635	2.81	8.68
18	ZZZZZ	ZZZZZ	03/25/10	0649	2.81	8.68
19	ZZZZZ	ZZZZZ	03/25/10	0702	2.81	8.68
20	ZZZZZ	ZZZZZ	03/25/10	0716	2.81	8.68
21	ZZZZZ	ZZZZZ	03/25/10	0730	2.81	8.68
22	PIBLK06	WAR100211-99	03/25/10	0743	2.81	8.68
23	INDAB05	WPE100305-10	03/25/10	0757	2.81	8.68
24	PIBLK07	WAR100211-99	03/25/10	0811	2.81	8.68
25	RE46-10-12972	249335002	03/25/10	0824	2.81	8.68
26	RE46-10-13003	249335003	03/25/10	0838	2.81	8.68
27	RE46-10-12967	249335004	03/25/10	0851	2.81	8.68
28	RE46-10-12971	249335005	03/25/10	0905	2.81	8.68
29	RE46-10-12968	249335006	03/25/10	0919	2.81	8.68
30	RE46-10-12969	249335007	03/25/10	0932	2.81	8.68
31	RE46-10-12970	249335008	03/25/10	0946	2.81	8.68
32	PIBLK08	WAR100211-99	03/25/10	1000	2.81	8.68

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D

PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/19/10 03/24/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.81 DCB: 8.68

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	INDAB06	WPE100305-10	03/25/10	1013	2.81	8.68
02	PIBLK09	WAR100211-99	03/25/10	1027	2.81	8.68
03						
04						
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	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/19/10 03/24/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.58 DCB: 7.66

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100211-99	03/25/10	1629	2.58	7.67
02	PEM01	WPE100125-99	03/25/10	1642	2.58	7.66
03	INDAB01	WPE100305-10	03/25/10	1656	2.58	7.66
04	TOXAPH01	WPE100125-52	03/25/10	1709		
05	CHLOR01	WPE100305-00	03/25/10	1723		
06	PIBLK02	WAR100211-99	03/25/10	1747	2.58	7.67
07	ZZZZZ	ZZZZZ	03/25/10	1801	2.58	7.67
08	ZZZZZ	ZZZZZ	03/25/10	1815	2.58	7.66
09	ZZZZZ	ZZZZZ	03/25/10	1828	2.58	7.66
10	ZZZZZ	ZZZZZ	03/25/10	1842	2.58	7.66
11	ZZZZZ	ZZZZZ	03/25/10	1856	2.58	7.66
12	ZZZZZ	ZZZZZ	03/25/10	1909	2.58	7.66
13	INDAB02	WPE100305-10	03/25/10	1923	2.58	7.67
14	TOXAPH02	WPE100125-52	03/25/10	1936		
15	PIBLK03	WAR100211-99	03/25/10	1950	2.58	7.66
16	ZZZZZ	ZZZZZ	03/25/10	2004	2.58	7.67
17	ZZZZZ	ZZZZZ	03/25/10	2017	2.58	7.66
18	ZZZZZ	ZZZZZ	03/25/10	2031	2.58	7.66
19	ZZZZZ	ZZZZZ	03/25/10	2045	2.58	7.66
20	ZZZZZ	ZZZZZ	03/25/10	2058	2.58	7.67
21	ZZZZZ	ZZZZZ	03/25/10	2112	2.58	7.66
22	INDAB03	WPE100305-10	03/25/10	2126	2.58	7.66
23	TOXAPH03	WPE100125-52	03/25/10	2139		
24	PIBLK04	WAR100211-99	03/25/10	2153	2.58	7.67
25	PBLK01LCS	1202079297	03/25/10	2207	2.58	7.66
26	INDAB04	WPE100305-10	03/25/10	2220	2.58	7.66
27	PIBLK05	WAR100211-99	03/25/10	2234	2.58	7.67
28	ZZZZZ	ZZZZZ	03/25/10	2248	2.58	7.67
29	ZZZZZ	ZZZZZ	03/25/10	2301	2.58	7.67
30	ZZZZZ	ZZZZZ	03/25/10	2315	2.58	7.66
31	ZZZZZ	ZZZZZ	03/25/10	2329	2.58	7.67
32	ZZZZZ	ZZZZZ	03/25/10	2342	2.58	7.66

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/19/10 03/24/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.81 DCB: 8.68

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100211-99	03/25/10	1629	2.81	8.68
02	PEM01	WPE100125-99	03/25/10	1642	2.81	8.68
03	INDAB01	WPE100305-10	03/25/10	1656	2.81	8.68
04	TOXAPH01	WPE100125-52	03/25/10	1709		
05	CHLOR01	WPE100305-00	03/25/10	1723		
06	PIBLK02	WAR100211-99	03/25/10	1747	2.81	8.69
07	ZZZZZ	ZZZZZ	03/25/10	1801	2.81	8.68
08	ZZZZZ	ZZZZZ	03/25/10	1815	2.81	8.68
09	ZZZZZ	ZZZZZ	03/25/10	1828	2.81	8.68
10	ZZZZZ	ZZZZZ	03/25/10	1842	2.81	8.68
11	ZZZZZ	ZZZZZ	03/25/10	1856	2.81	8.68
12	ZZZZZ	ZZZZZ	03/25/10	1909	2.81	8.68
13	INDAB02	WPE100305-10	03/25/10	1923	2.81	8.68
14	TOXAPH02	WPE100125-52	03/25/10	1936		
15	PIBLK03	WAR100211-99	03/25/10	1950	2.81	8.68
16	ZZZZZ	ZZZZZ	03/25/10	2004	2.81	8.68
17	ZZZZZ	ZZZZZ	03/25/10	2017	2.81	8.68
18	ZZZZZ	ZZZZZ	03/25/10	2031	2.81	8.68
19	ZZZZZ	ZZZZZ	03/25/10	2045	2.81	8.68
20	ZZZZZ	ZZZZZ	03/25/10	2058	2.81	8.68
21	ZZZZZ	ZZZZZ	03/25/10	2112	2.81	8.68
22	INDAB03	WPE100305-10	03/25/10	2126	2.81	8.68
23	TOXAPH03	WPE100125-52	03/25/10	2139		
24	PIBLK04	WAR100211-99	03/25/10	2153	2.81	8.68
25	PBLK01LCS	1202079297	03/25/10	2207	2.81	8.68
26	INDAB04	WPE100305-10	03/25/10	2220	2.81	8.68
27	PIBLK05	WAR100211-99	03/25/10	2234	2.81	8.68
28	ZZZZZ	ZZZZZ	03/25/10	2248	2.81	8.68
29	ZZZZZ	ZZZZZ	03/25/10	2301	2.81	8.68
30	ZZZZZ	ZZZZZ	03/25/10	2315	2.81	8.68
31	ZZZZZ	ZZZZZ	03/25/10	2329	2.81	8.68
32	ZZZZZ	ZZZZZ	03/25/10	2342	2.81	8.68

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

Identification Summary

SDG Number: 10–2436 **Client ID:** LCS for batch 968591

Lab Sample ID: 1202079300

Data File:	046f4601.d	**Data File:**	046b4601.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	25–MAR–10 05:54	**Analyzed:**	25–MAR–10 05:54

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							7.19
Column 1	1	4.86	4.83 – 4.89	112		ug/kg	
	2	4.96	4.94 – 5	114		ug/kg	
	3	5.05	5.02 – 5.08	108		ug/kg	
	4	5.21	5.18 – 5.24	108		ug/kg	
	5	5.62	5.59 – 5.65	103		ug/kg	
					109		
Column 2	1	5.49	5.46 – 5.52	100		ug/kg	
	2	5.8	5.77 – 5.83	102		ug/kg	
	3	6	5.97 – 6.03	118		ug/kg	
	4	6.04	6.01 – 6.07	102		ug/kg	
	5	6.23	6.2 – 6.26	84.6		ug/kg	
					101		

Identification Summary

SDG Number: 10–2436 **Client ID:** LCS for batch 968591

Lab Sample ID: 1202079297

Data File:	025f2501.d	**Data File:**	025b2501.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	25–MAR–10 22:07	**Analyzed:**	25–MAR–10 22:07

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							13.6
Column 1	1	2.97	2.94 – 3	14.1		ug/kg	
Column 2	1	3.29	3.26 – 3.32	12.3		ug/kg	
gamma–BHC (Lindane)							9.02
Column 1	1	3.21	3.18 – 3.24	14.4		ug/kg	
Column 2	1	3.59	3.56 – 3.62	13.2		ug/kg	
beta–BHC							9.11
Column 1	1	3.28	3.25 – 3.31	12.9		ug/kg	
Column 2	1	3.66	3.62 – 3.68	11.8		ug/kg	
delta–BHC							14
Column 1	1	3.42	3.39 – 3.45	14.7		ug/kg	
Column 2	1	3.92	3.89 – 3.95	12.8		ug/kg	
Heptachlor							8.64
Column 1	1	3.59	3.56 – 3.62	13.9		ug/kg	
Column 2	1	4	3.97 – 4.03	12.7		ug/kg	

Identification Summary

SDG Number: 10–2436 **Client ID:** LCS for batch 968591

Lab Sample ID: 1202079297

Data File:	025f2501.d	**Data File:**	025b2501.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	25–MAR–10 22:07	**Analyzed:**	25–MAR–10 22:07

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							8.5
Column 1	1	3.84	3.81 – 3.87	12.6		ug/kg	
Column 2	1	4.3	4.27 – 4.33	11.5		ug/kg	
Heptachlor epoxide							13.9
Column 1	1	4.37	4.34 – 4.4	13.9		ug/kg	
Column 2	1	4.84	4.81 – 4.87	12.1		ug/kg	
gamma–Chlordane							5.28
Column 1	1	4.48	4.45 – 4.51	13.7		ug/kg	
Column 2	1	5.03	5 – 5.06	13		ug/kg	
alpha–Chlordane							5.6
Column 1	1	4.6	4.57 – 4.63	13.9		ug/kg	
Column 2	1	5.18	5.15 – 5.21	13.2		ug/kg	
Endosulfan I							5.38
Column 1	1	4.73	4.7 – 4.76	13.5		ug/kg	
Column 2	1	5.24	5.21 – 5.27	12.8		ug/kg	

Identification Summary

SDG Number: 10–2436 **Client ID:** LCS for batch 968591

Lab Sample ID: 1202079297

Data File:	025f2501.d	**Data File:**	025b2501.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	25–MAR–10 22:07	**Analyzed:**	25–MAR–10 22:07

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								4.6
	Column 1	1	4.67	4.64 – 4.7	35.3		ug/kg	
	Column 2	1	5.34	5.31 – 5.37	33.7		ug/kg	
Dieldrin								7.85
	Column 1	1	4.96	4.93 – 4.99	34.6		ug/kg	
	Column 2	1	5.52	5.48 – 5.54	32		ug/kg	
Endrin								10.7
	Column 1	1	5.18	5.15 – 5.21	40.3		ug/kg	
	Column 2	1	5.83	5.8 – 5.86	36.2		ug/kg	
4,4'–DDD								8.65
	Column 1	1	5.25	5.22 – 5.28	39.5		ug/kg	
	Column 2	1	5.94	5.91 – 5.97	36.2		ug/kg	
Endosulfan II								10.4
	Column 1	1	5.4	5.37 – 5.43	37.4		ug/kg	
	Column 2	1	6.05	6.02 – 6.08	33.7		ug/kg	

Identification Summary

SDG Number: 10–2436 **Client ID:** LCS for batch 968591

Lab Sample ID: 1202079297

Data File:	025f2501.d	**Data File:**	025b2501.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	25–MAR–10 22:07	**Analyzed:**	25–MAR–10 22:07

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							5.82
Column 1	1	5.83	5.8 – 5.86	24.1		ug/kg	
Column 2	1	6.4	6.37 – 6.43	22.7		ug/kg	
4,4'–DDT							8.34
Column 1	1	5.53	5.5 – 5.56	42		ug/kg	
Column 2	1	6.27	6.24 – 6.3	38.6		ug/kg	
Endosulfan sulfate							6
Column 1	1	6.27	6.24 – 6.3	29.3		ug/kg	
Column 2	1	6.71	6.68 – 6.74	27.6		ug/kg	
Methoxychlor							10.4
Column 1	1	6.03	6 – 6.06	154		ug/kg	
Column 2	1	7.01	6.98 – 7.04	139		ug/kg	
Endrin ketone							7.84
Column 1	1	6.57	6.54 – 6.6	32.7		ug/kg	
Column 2	1	7.29	7.26 – 7.32	30.3		ug/kg	

QUALITY CONTROL DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202079296**				
Client Sample:	**QC for batch 968591**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 968591**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**968594**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 05:27**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 10:01**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**044f4401.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	044b4401.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.667	ug/kg	0.167	0.667	1
58-89-9	gamma-BHC (Lindane)	U	0.667	ug/kg	0.167	0.667	1
319-85-7	beta-BHC	U	0.667	ug/kg	0.167	0.667	1
319-86-8	delta-BHC	U	0.667	ug/kg	0.167	0.667	1
76-44-8	Heptachlor	U	0.667	ug/kg	0.167	0.667	1
309-00-2	Aldrin	U	0.667	ug/kg	0.167	0.667	1
1024-57-3	Heptachlor epoxide	U	0.667	ug/kg	0.208	0.667	1
5103-74-2	gamma-Chlordane	U	0.667	ug/kg	0.167	0.667	1
5103-71-9	alpha-Chlordane	U	0.667	ug/kg	0.167	0.667	1
959-98-8	Endosulfan I	U	0.667	ug/kg	0.167	0.667	1
72-55-9	4,4'-DDE	U	1.33	ug/kg	0.333	1.33	1
60-57-1	Dieldrin	U	1.33	ug/kg	0.333	1.33	1
72-20-8	Endrin	U	1.33	ug/kg	0.333	1.33	1
72-54-8	4,4'-DDD	U	1.33	ug/kg	0.333	1.33	1
33213-65-9	Endosulfan II	U	1.33	ug/kg	0.333	1.33	1
7421-93-4	Endrin aldehyde	U	1.33	ug/kg	0.333	1.33	1
50-29-3	4,4'-DDT	U	1.33	ug/kg	0.333	1.33	1
1031-07-8	Endosulfan sulfate	U	1.33	ug/kg	0.333	1.33	1
72-43-5	Methoxychlor	U	6.67	ug/kg	1.67	6.67	1
53494-70-5	Endrin ketone	U	1.33	ug/kg	0.333	1.33	1
8001-35-2	Toxaphene	U	16.7	ug/kg	5.55	16.7	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/032410pa.b/044f4401.d
Lab Smp Id: 1202079296 Client Smp ID: PBLK01
Inj Date : 25-MAR-2010 05:27
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202079296|1|
Misc Info : |ECD81A_1S|968594|SVP|MB|SOIL|MB|||
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Meth Date : 25-Mar-2010 14:57 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 44 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.580	2.579	0.001	7446654	108.231	18.0	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.665	7.665	0.000	9665068	185.208	30.9	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/044f4401.d

Page 1

Date : 25-MAR-2010 05:27

Client ID: PBLK01

Instrument: ecd3a.i

Sample Info: |1202079296|1|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

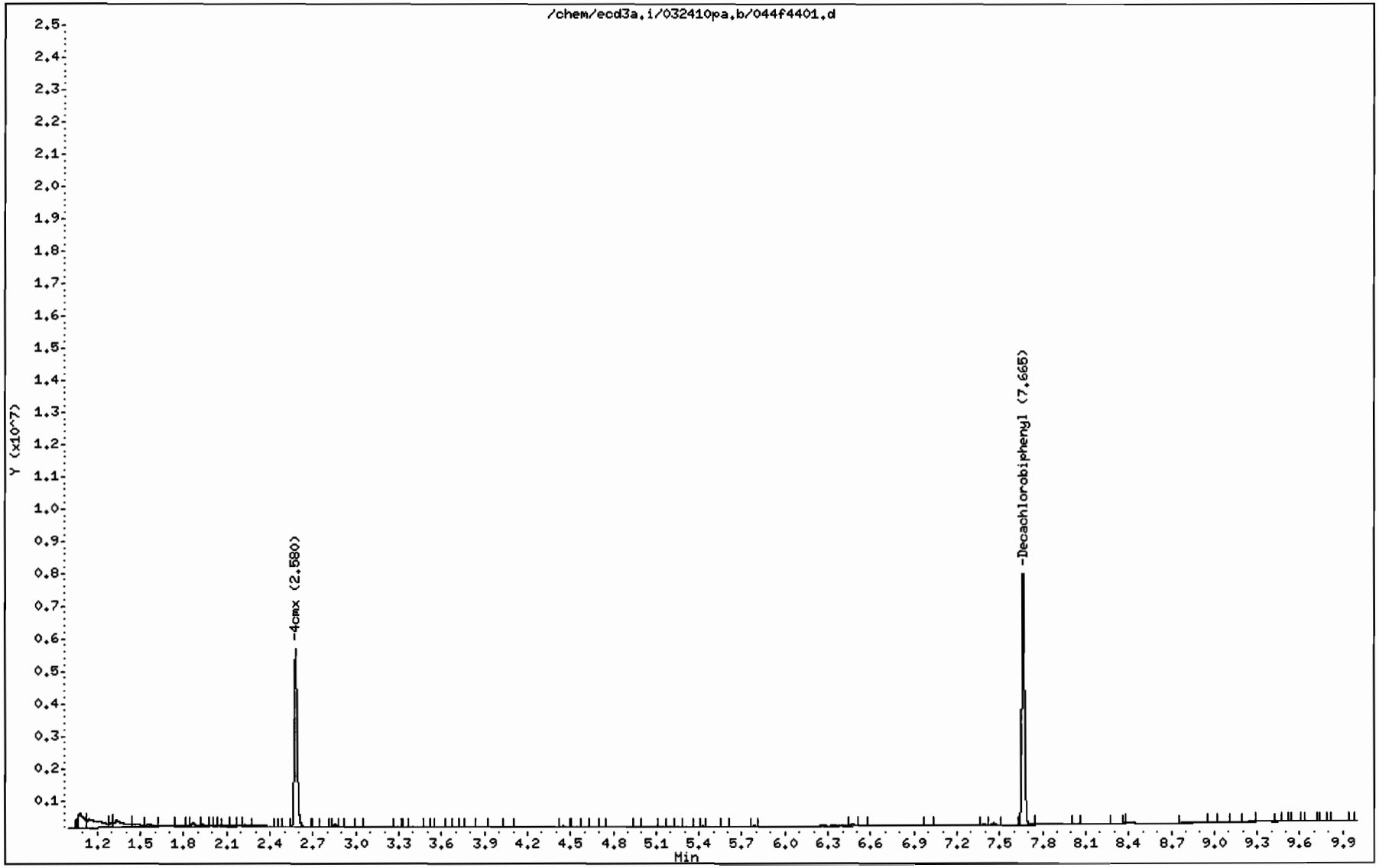

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CLP-2

Data file : /chem/ecd3a.i/032410pa.b/044b4401.d
Lab Smp Id: 1202079296 Client Smp ID: PBLK01
Inj Date : 25-MAR-2010 05:27
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202079296|1|
Misc Info : |ECD81A_1S|968594|SVP|MB|SOIL|MB|||
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Meth Date : 25-Mar-2010 14:33 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 44 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.812	2.813	-0.001	66144777	95.1821	15.9	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.682	8.682	0.000	68238818	153.693	25.6	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032410pa.b/044b4401.d

Page 1

Date : 25-MAR-2010 05:27

Client ID: PBLK01

Instrument: ecd3a.i

Sample Info: |1202079296|1|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

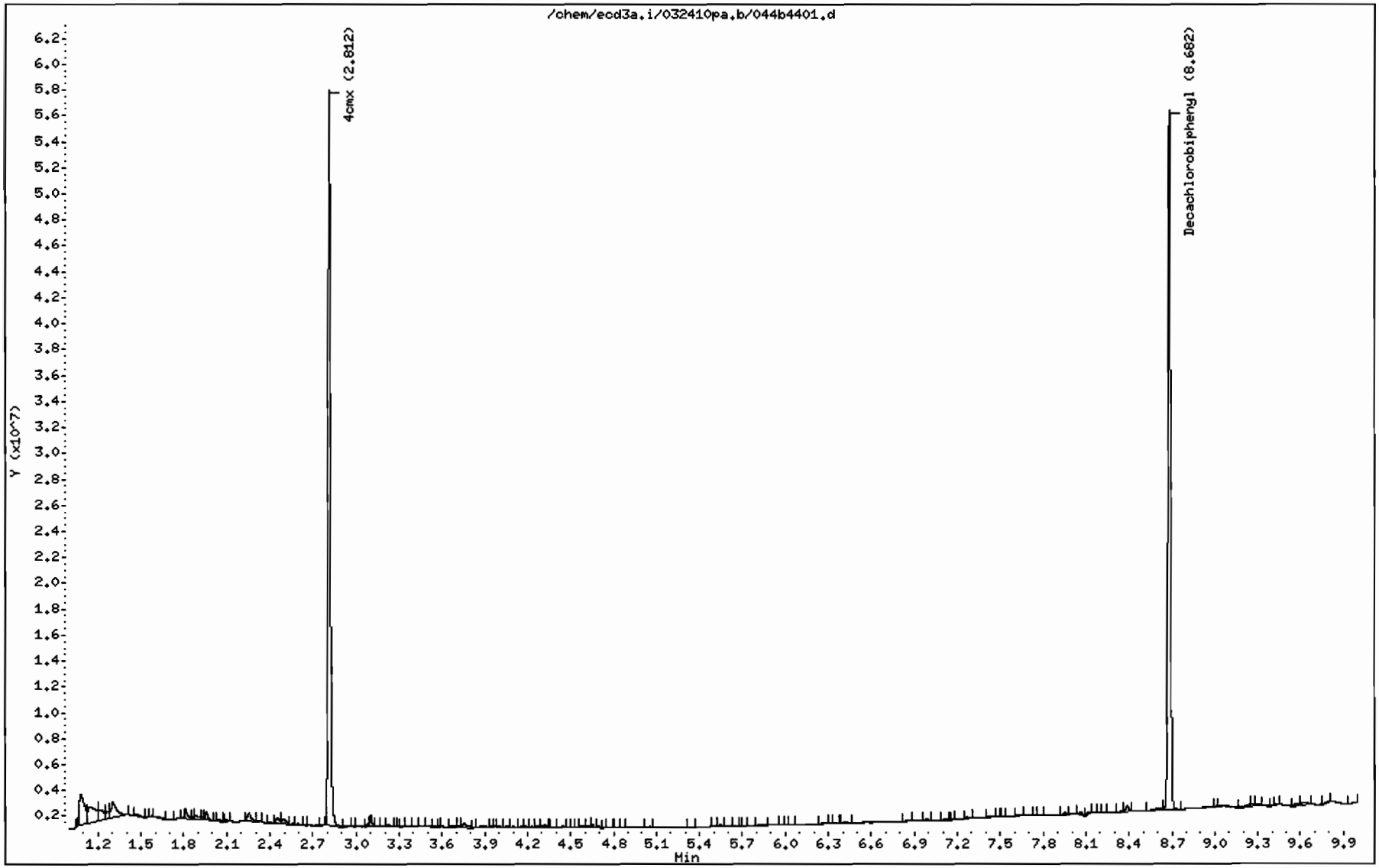

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202079297**				
Client Sample:	**QC for batch 968591**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 968591**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**968594**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 22:07**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 10:01**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**025f2501.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	025b2501.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC		12.3	ug/kg	0.167	0.667	2
58-89-9	gamma-BHC (Lindane)		13.2	ug/kg	0.167	0.667	2
319-85-7	beta-BHC		11.8	ug/kg	0.167	0.667	2
319-86-8	delta-BHC		12.8	ug/kg	0.167	0.667	2
76-44-8	Heptachlor		12.7	ug/kg	0.167	0.667	2
309-00-2	Aldrin		11.5	ug/kg	0.167	0.667	2
1024-57-3	Heptachlor epoxide		12.1	ug/kg	0.208	0.667	2
5103-74-2	gamma-Chlordane		13.0	ug/kg	0.167	0.667	2
5103-71-9	alpha-Chlordane		13.2	ug/kg	0.167	0.667	2
959-98-8	Endosulfan I		12.8	ug/kg	0.167	0.667	2
72-55-9	4,4'-DDE		33.7	ug/kg	0.333	1.33	2
60-57-1	Dieldrin		32.0	ug/kg	0.333	1.33	2
72-20-8	Endrin		36.2	ug/kg	0.333	1.33	2
72-54-8	4,4'-DDD		36.2	ug/kg	0.333	1.33	2
33213-65-9	Endosulfan II		33.7	ug/kg	0.333	1.33	2
7421-93-4	Endrin aldehyde		22.7	ug/kg	0.333	1.33	2
50-29-3	4,4'-DDT		38.6	ug/kg	0.333	1.33	2
1031-07-8	Endosulfan sulfate		27.6	ug/kg	0.333	1.33	2
72-43-5	Methoxychlor		139	ug/kg	1.67	6.67	2
53494-70-5	Endrin ketone		30.3	ug/kg	0.333	1.33	2
8001-35-2	Toxaphene	U	16.7	ug/kg	5.55	16.7	1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/032510p.b/025f2501.d
Lab Smp Id: 1202079297 Client Smp ID: PBLK01LCS
Inj Date : 25-MAR-2010 22:07
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202079297|1|
Misc Info : |ECD81A_1S|968594|SVP|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd3a.i/032510p.b/ECD3-F-8081-021010pa.m
Meth Date : 26-Mar-2010 14:56 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 25 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.577	2.577	0.000	10315681	149.929	25.0	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.665	7.664	0.001	9374062	179.632	29.9	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
2.974	2.973	0.001	8209410	84.4602	14.1	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.213	3.213	0.000	7581704	86.4566	14.4	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.279	3.277	0.002	3006781	77.6754	12.9	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.423	3.422	0.001	7714561	88.3021	14.7	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.590	3.588	0.002	6064832	83.2855	13.9	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.842	3.841	0.001	6262403	75.4393	12.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.369	4.368	0.001	6172725	83.4530	13.9	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.483	4.481	0.002	6026068	82.0282	13.7	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.604	4.602	0.002	6129655	83.5824	13.9	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.732	4.732	0.000	5714828	81.2218	13.5	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.674	4.673	0.001	14760948	211.929	35.3	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.959	4.958	0.001	15634280	207.400	34.6	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.184	5.183	0.001	14416636	241.554	40.2	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.249	5.248	0.001	13395294	236.870	39.5	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.404	5.404	0.000	14183672	224.370	37.4	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.826	5.825	0.001	7524539	144.556	24.1	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.527	5.525	0.002	12237846	251.704	42.0	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.274	6.274	0.000	9478027	175.888	29.3	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.030	6.029	0.001	22084141	925.741	154	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.569	6.569	0.000	13949869	196.344	32.7	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032510p.b/025f2501.d
Date : 25-MAR-2010 22:07
Client ID: PBLK01LCS
Sample Info: 1120207929711
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

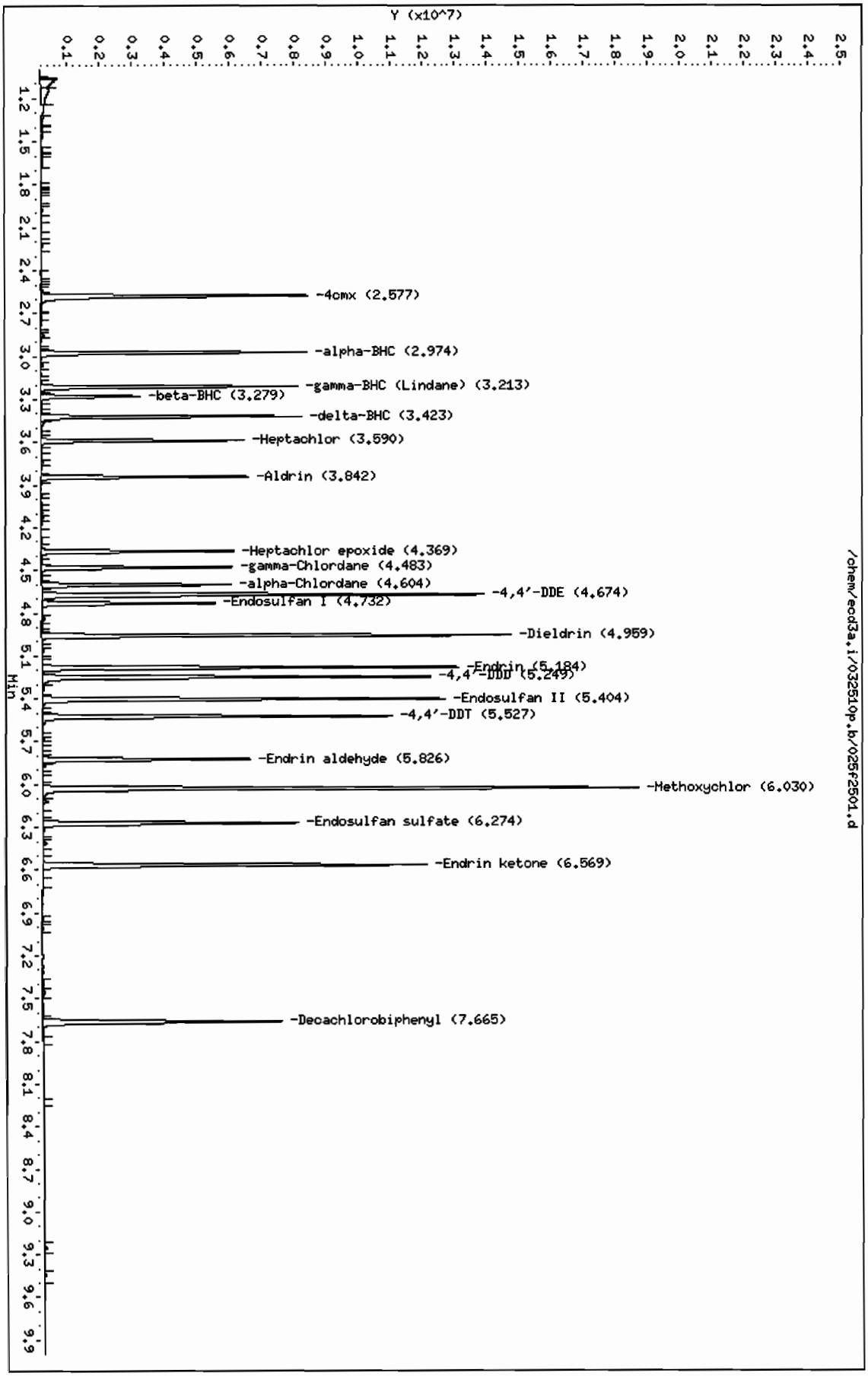

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CLP-2

Data file : /chem/ecd3a.i/032510p.b/025b2501.d
Lab Smp Id: 1202079297 Client Smp ID: PBLK01LCS
Inj Date : 25-MAR-2010 22:07
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202079297|1|
Misc Info : |ECD81A_1S|968594|SVP|LCS|SOIL|LCS|||
Comment :
Method : /chem/ecd3a.i/032510p.b/ECD3-B-8081-021010pa.m
Meth Date : 26-Mar-2010 14:54 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 25 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.811	2.811	0.000	98106382	141.175	23.5	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.682	8.683	-0.001	75832296	170.795	28.5	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.290	3.289	0.001	74699327	73.7158	12.3	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.592	3.591	0.001	66006781	78.9937	13.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.655	3.654	0.001	24960201	70.9082	11.8	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.920	3.920	0.000	61824402	76.7144	12.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.996	3.996	0.000	50985460	76.3863	12.7	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.300	4.300	0.000	43566518	69.2916	11.5	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.842	4.843	-0.001	32317682	72.5872	12.1	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.031	5.032	-0.001	34722677	77.8066	13.0	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.177	5.176	0.001	35284617	79.0267	13.2	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.237	5.238	-0.001	31175298	76.9644	12.8	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.337	5.337	0.000	84646381	202.397	33.7	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.516	5.515	0.001	88788291	191.737	32.0	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.830	5.830	0.000	88192264	217.058	36.2	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.938	5.938	0.000	88015935	217.237	36.2	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.049	6.050	-0.001	90278797	202.220	33.7	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.404	6.404	0.000	54535400	136.378	22.7	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.273	6.273	0.000	92498084	231.554	38.6	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.705	6.705	0.000	77626841	165.640	27.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.014	7.014	0.000	167098636	834.114	139	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.289	7.290	-0.001	109560652	181.532	30.2	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032510p.b/025b2501.d
Date : 25-MAR-2010 22:07
Client ID: PBLK01LCS
Sample Info: 1120207929711
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

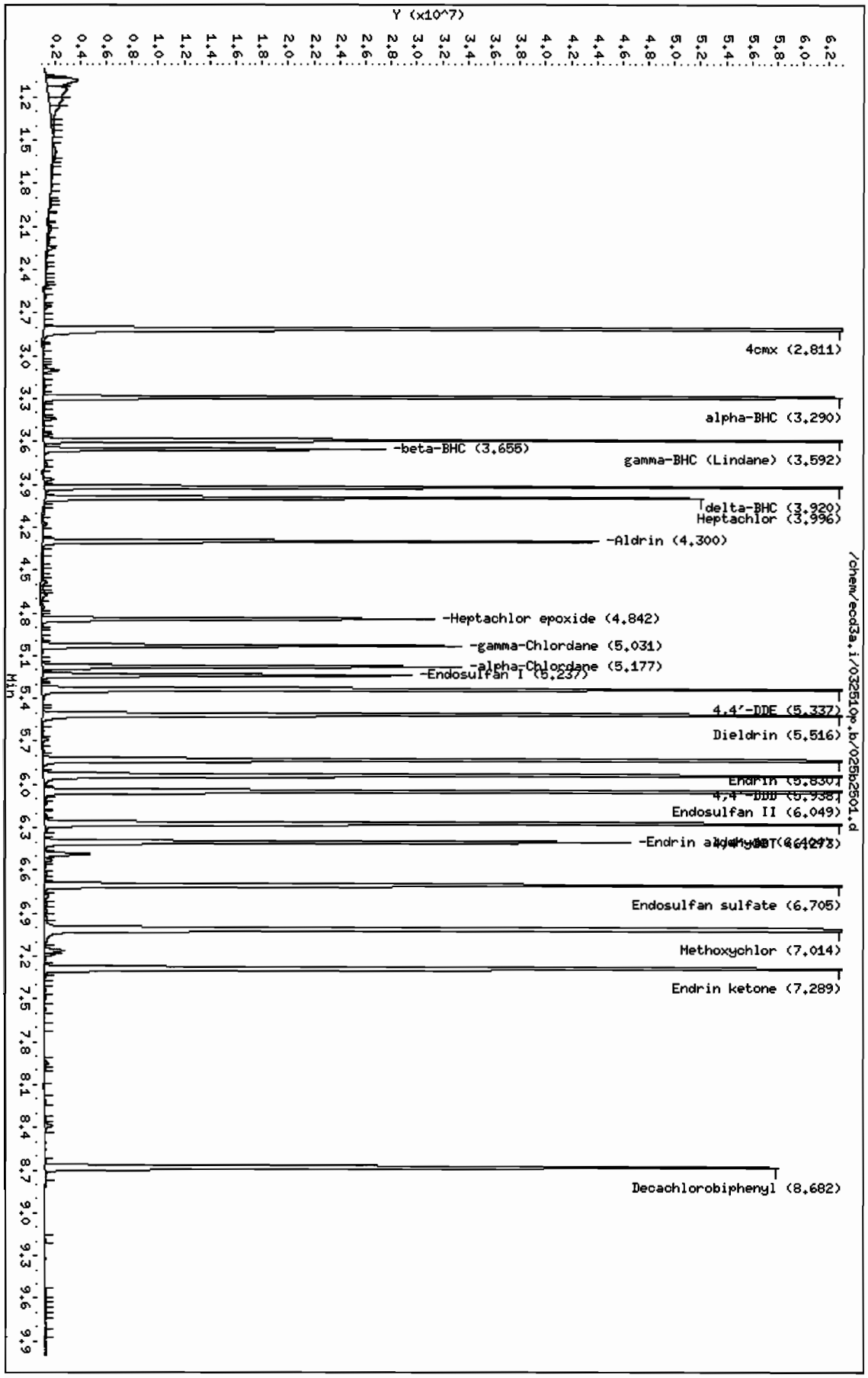

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202079300**				
Client Sample:	**QC for batch 968591**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 968591**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**968594**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**03/25/2010 05:54**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/24/2010 10:01**	**Aliquot:**	**30 g**	**Final Volume:**	**5 mL**
Data File:	**046f4601.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	046b4601.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.667	ug/kg	0.167	0.667	1
58–89–9	gamma–BHC (Lindane)	U	0.667	ug/kg	0.167	0.667	1
319–85–7	beta–BHC	U	0.667	ug/kg	0.167	0.667	1
319–86–8	delta–BHC	U	0.667	ug/kg	0.167	0.667	1
76–44–8	Heptachlor	U	0.667	ug/kg	0.167	0.667	1
309–00–2	Aldrin	U	0.667	ug/kg	0.167	0.667	1
1024–57–3	Heptachlor epoxide	U	0.667	ug/kg	0.208	0.667	1
5103–74–2	gamma–Chlordane	U	0.667	ug/kg	0.167	0.667	1
5103–71–9	alpha–Chlordane	U	0.667	ug/kg	0.167	0.667	1
959–98–8	Endosulfan I	U	0.667	ug/kg	0.167	0.667	1
72–55–9	4,4'–DDE	U	1.33	ug/kg	0.333	1.33	1
60–57–1	Dieldrin	U	1.33	ug/kg	0.333	1.33	1
72–20–8	Endrin	U	1.33	ug/kg	0.333	1.33	1
72–54–8	4,4'–DDD	U	1.33	ug/kg	0.333	1.33	1
33213–65–9	Endosulfan II	U	1.33	ug/kg	0.333	1.33	1
7421–93–4	Endrin aldehyde	U	1.33	ug/kg	0.333	1.33	1
50–29–3	4,4'–DDT	U	1.33	ug/kg	0.333	1.33	1
1031–07–8	Endosulfan sulfate	U	1.33	ug/kg	0.333	1.33	1
72–43–5	Methoxychlor	U	6.67	ug/kg	1.67	6.67	1
53494–70–5	Endrin ketone	U	1.33	ug/kg	0.333	1.33	1
8001–35–2	Toxaphene		101	ug/kg	5.55	16.7	2

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/032410pa.b/046f4601.d
Lab Smp Id: 1202079300 Client Smp ID: PBLK01TLCS
Inj Date : 25-MAR-2010 05:54
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202079300|1|
Misc Info : |ECD81A_1S|968594|SVP|TLCS|SOIL|TLCS|||
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-F-8081-021010pa.m
Meth Date : 25-Mar-2010 14:57 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 46 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.579	2.579	0.000	11475346	166.784	27.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.665	7.665	0.000	9264772	177.537	29.6	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
4.860	4.861	-0.001	356803	669.974	112	80.00- 120.00	100.00(M)
4.965	4.966	-0.001	554017	686.047	114	126.56- 166.56	188.73
5.049	5.051	-0.002	630691	645.846	108	161.69- 201.69	176.76
5.206	5.207	-0.001	809041	646.142	108	203.87- 243.87	342.72
5.618	5.621	-0.003	370189	616.066	103	81.08- 121.08	103.75

Average of Peak Concentrations = 109

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/032410pa.b/046f4601.d
Date : 25-MAR-2010 05:54
Client ID: PBLK01TLCS
Sample Info: |120207930011|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

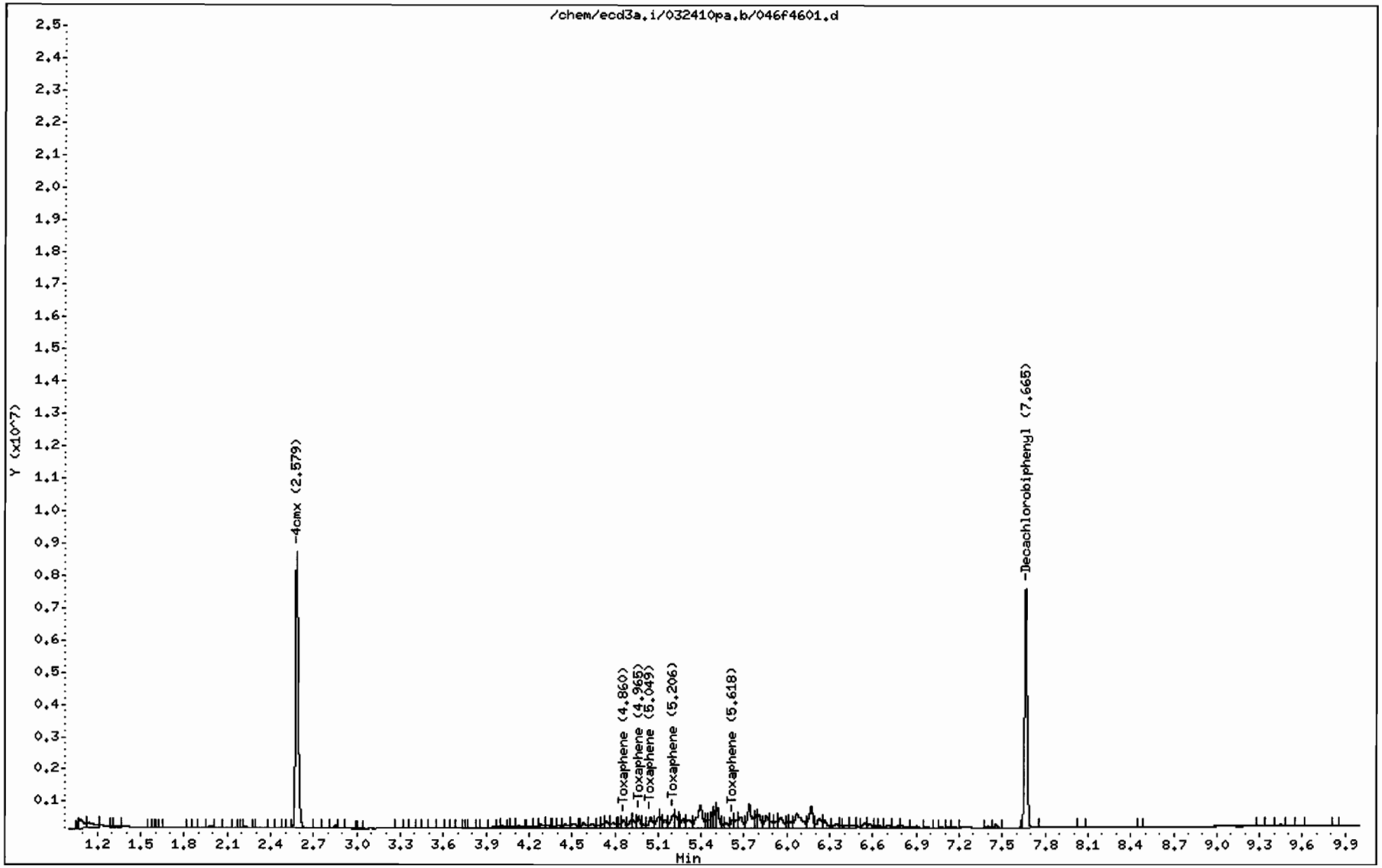

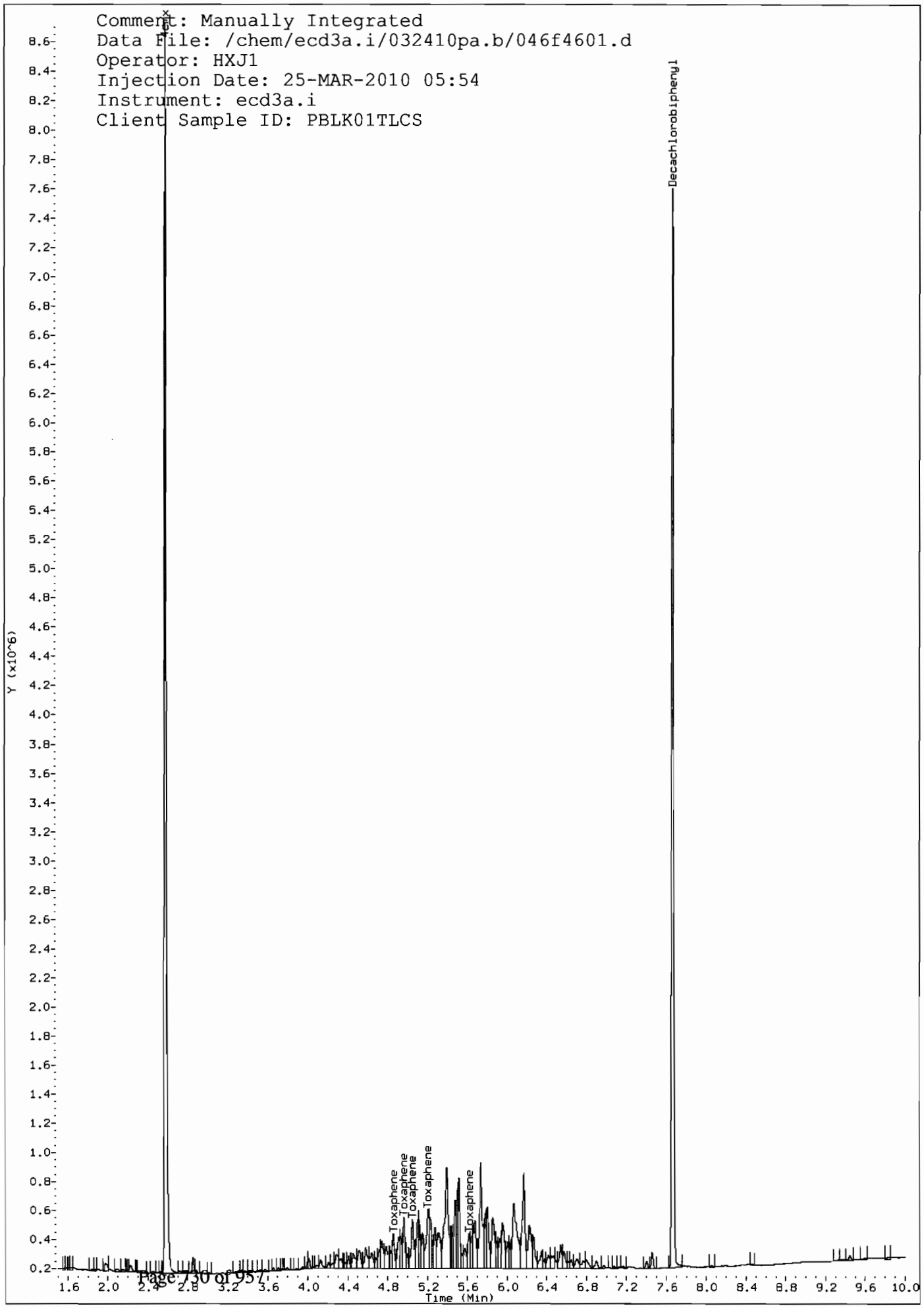
Comment: Manually Integrated
Data File: /chem/ecd3a.i/032410pa.b/046f4601.d
Operator: HXJ1
Injection Date: 25-MAR-2010 05:54
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS
Tex
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd3a.i/032410pa.b/orig-046f4601.d
Operator: HXJ1
Injection Date: 25-MAR-2010 05:54
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS

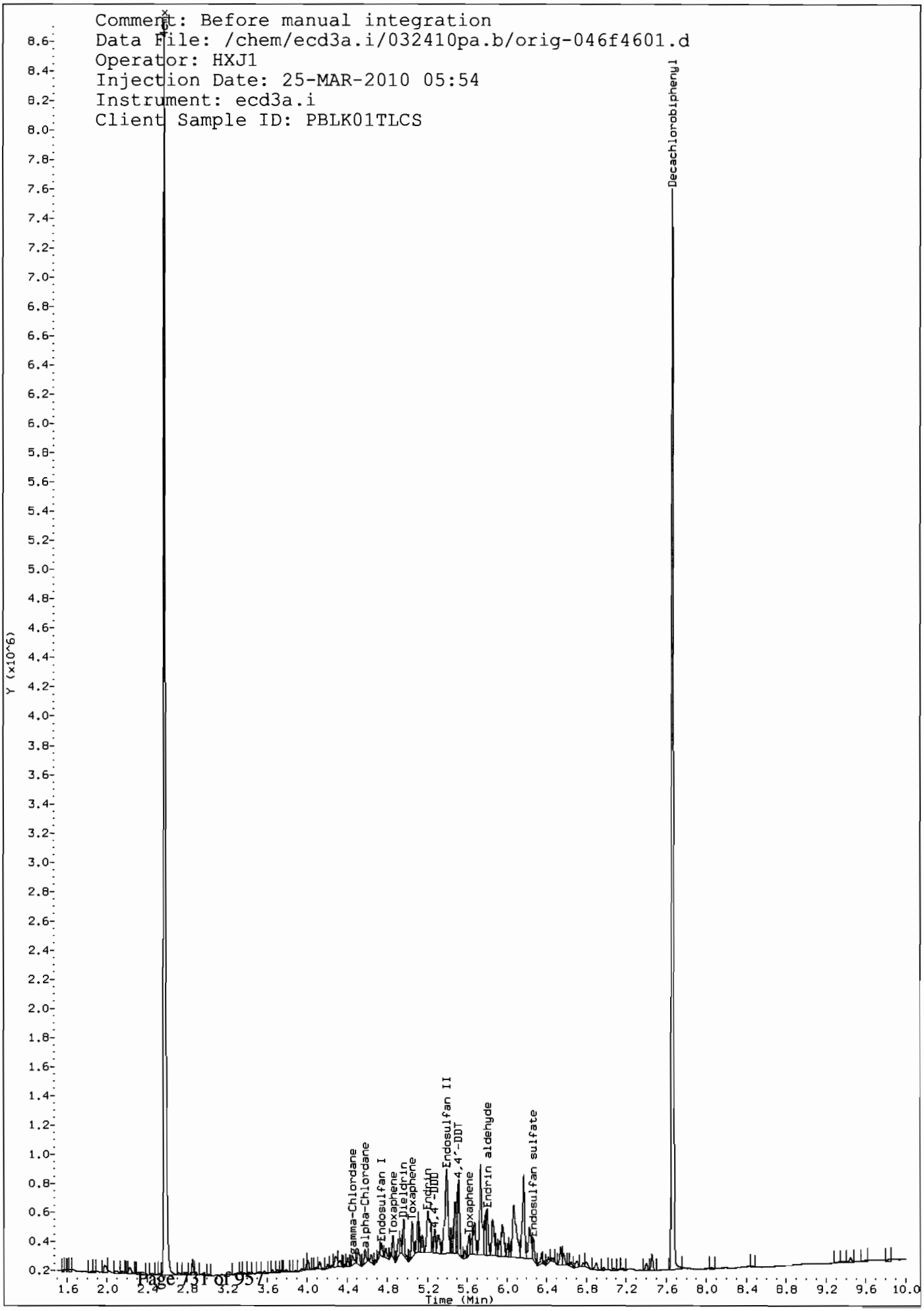

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/032410pa.b/046b4601.d
Lab Smp Id: 1202079300 Client Smp ID: PBLK01TLCS
Inj Date : 25-MAR-2010 05:54
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202079300|1|
Misc Info : |ECD81A_1S|968594|SVP|TLCS|SOIL|TLCS|||
Comment :
Method : /chem/ecd3a.i/032410pa.b/ECD3-B-8081-021010pa.m
Meth Date : 25-Mar-2010 14:33 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 46 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.812	2.813	-0.001	100283529	144.308	24.0	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.682	8.682	0.000	72010074	162.187	27.0	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.495	5.490	0.005	4158230	601.522	100	80.00- 120.00	100.00
5.802	5.801	0.001	3891812	610.969	102	63.15- 103.15	93.59
5.999	6.001	-0.002	4807855	708.426	118	66.42- 106.42	115.62
6.040	6.043	-0.003	7472184	609.133	102	130.86- 170.86	179.70
6.229	6.230	-0.001	2650295	507.578	84.6	43.71- 83.71	63.74

Average of Peak Concentrations = 101

Data File: /chem/eod3a.i/032410pa.b/046b4601.d

Date : 25-MAR-2010 05:54

Client ID: PBLK01TLCS

Sample Info: |1202079300|1|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: eod3a.i

Operator: HXJ1

Column diameter: 0.25

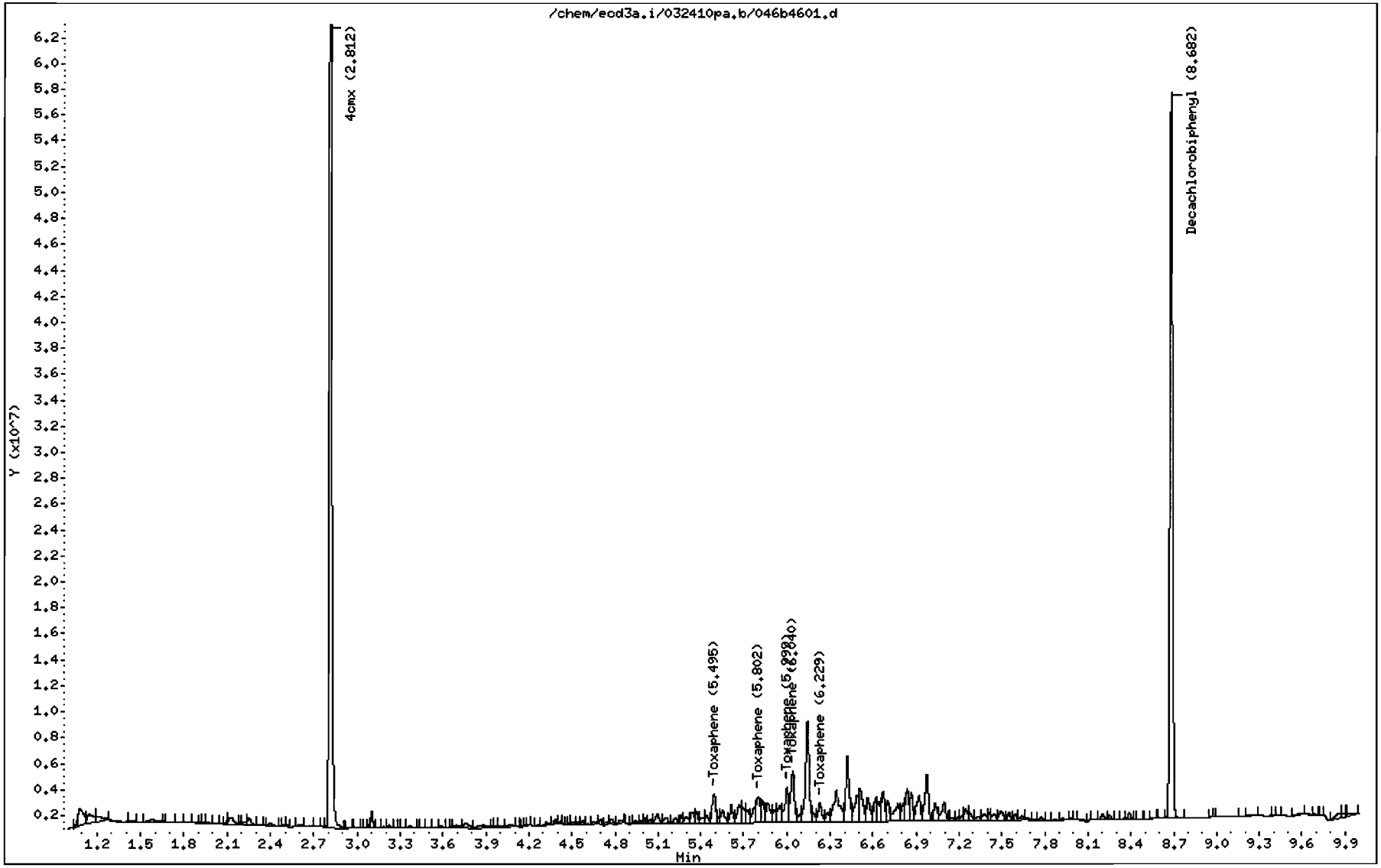

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD3

DATE: 03/23/2010 METHOD: ECD3-B-8081-021010pa.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-041
EPA Method: 8081
8081A
Sequence Number: 031910pb.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100211-99IB	HXJ1	19-MAR-2010 14:38		031910p	1.0		Clean
002b0201.d	WPE100125-99DG	HXJ1	19-MAR-2010 14:52		031910p	1.0		(b) DDT 2.3%, Endrin 5.8%; (f) DDT 2.3%, Endrin 4.2%
003b0301.d	WPE100305-10AB	HXJ1	19-MAR-2010 15:06		031910p	1.0		All okay
004b0401.d	WPE100305-00CL	HXJ1	19-MAR-2010 15:19		031910p	1.0		All okay
005b0501.d	WPE100319-11TX	HXJ1	19-MAR-2010 15:34		031910p	1.0		TOXAPH level 1
006b0601.d	WPE100319-12TX	HXJ1	19-MAR-2010 15:47		031910p	1.0		TOXAPH level 2
007b0701.d	WPE100319-13TX	HXJ1	19-MAR-2010 16:01		031910p	1.0		TOXAPH level 3
008b0801.d	WPE100319-14TX	HXJ1	19-MAR-2010 16:15		031910p	1.0		TOXAPH level 4
009b0901.d	IPE100204-40TX	HXJ1	19-MAR-2010 16:28		031910p	1.0		TOXAPH level 5
010b1001.d	WPE100125-52TX	HXJ1	19-MAR-2010 16:42		031910p	1.0		All okay
011b1101.d	WPE100319-41 60	HXJ1	19-MAR-2010 16:56		031910p	1.0		AR1660 level 1
012b1201.d	WPE100319-42 60	HXJ1	19-MAR-2010 17:09		031910p	1.0		AR1660 level 2
013b1301.d	WPE100319-43 60	HXJ1	19-MAR-2010 17:23		031910p	1.0		AR1660 level 3
014b1401.d	WPE100319-44 60	HXJ1	19-MAR-2010 17:37		031910p	1.0		AR1660 level 4
015b1501.d	IAR100311-01 60	HXJ1	19-MAR-2010 17:50		031910p	1.0		AR1660 level 5

Instrument Batch: /chem/ecd3a.i/031910pb.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016b1601.d	WPE091209-60	HXJ1	19-MAR-2010 18:04		031910p	1.0		All okay

017b1701.d	WAR100219-54	HXJ1	19-MAR-2010 18:18		031910p		1.0		Pattern only
018b1801.d	WAR100219-42	HXJ1	19-MAR-2010 18:31		031910p		1.0		Pattern only
019b1901.d	WAR100223-48	HXJ1	19-MAR-2010 18:45		031910p		1.0		Pattern only
020b2001.d	WAR100104-32	HXJ1	19-MAR-2010 18:58		031910p		1.0		Pattern only
021b2101.d	WAR100104-21	HXJ1	19-MAR-2010 19:12		031910p		1.0		Pattern only
022b2201.d	WAR100211-99IB	HXJ1	19-MAR-2010 19:26		031910p		1.0		Clean
023b2301.d	1202074134	HXJ1	19-MAR-2010 19:39	966500	249378		1.0	MB	DUSE - see sequence 031910p.b for 608 method
024b2401.d	1202074135	HXJ1	19-MAR-2010 19:53	966500	249378		1.0	LCS	DUSE - see sequence 031910p.b for 608 method
025b2501.d	249378001	HXJ1	19-MAR-2010 20:07	966500	249378		1.0	BJCO	DUSE - see sequence 031910p.b for 608 method
026b2601.d	1202074136	HXJ1	19-MAR-2010 20:20	966500	249378		1.0	MS	DUSE - see sequence 031910p.b for 608 method
027b2701.d	1202074137	HXJ1	19-MAR-2010 20:34	966500	249378		1.0	MSD	DUSE - see sequence 031910p.b for 608 method
028b2801.d	249378010	HXJ1	19-MAR-2010 20:48	966500	249378		1.0	BJCO	DUSE - see sequence 031910p.b for 608 method
029b2901.d	249378019	HXJ1	19-MAR-2010 21:01	966500	249378		1.0	BJCO	DUSE - see sequence 031910p.b for 608 method
030b3001.d	WPE100305-10AB	HXJ1	19-MAR-2010 21:15		031910p		1.0		(b) Methoxychlor low; (f) All okay
031b3101.d	WAR100211-99IB	HXJ1	19-MAR-2010 21:29		031910pb		1.0		Clean
032b3201.d	1202074901	HXJ1	19-MAR-2010 21:42	966803	249246		1.0	MB	USE, uploaded both columns, reporting higher result
033b3301.d	1202074902	HXJ1	19-MAR-2010 21:56	966803	249246		1.0	LCS	USE, uploaded both columns, reporting higher result
034b3401.d	1202074905	HXJ1	19-MAR-2010 22:10	966803	249246		1.0	TLCS	USE, uploaded both columns, reporting higher result
035b3501.d	249246007	HXJ1	19-MAR-2010 22:23	966803	249246		10.0	BY12	USE, uploaded both columns, reporting higher result

Instrument Batch: /chem/ecd3a.i/031910pb.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	1202074903	HXJ1	19-MAR-2010 22:37	966803	249246	10.0	MS	USE, uploaded both columns, reporting higher result
037b3701.d	1202074904	HXJ1	19-MAR-2010 22:50	966803	249246	10.0	MSD	USE, uploaded both columns, reporting higher result
038b3801.d	249246008	HXJ1	19-MAR-2010 23:04	966803	249246	10.0	BY12	USE, uploaded both columns, reporting higher result
039b3901.d	249246013	HXJ1	19-MAR-2010 23:18	966803	249246	10.0	BY12	USE, uploaded both columns, reporting higher result
040b4001.d	WAR100211-99IB	HXJ1	19-MAR-2010 23:31		031910pb	1.0		Clean
041b4101.d	WPE100305-10AB	HXJ1	19-MAR-2010 23:45		031910pb	1.0		All okay

042b4201.d	WAR100211-99IB	HXJ1	19-MAR-2010 23:59		031910pb	1.0	Clean

Instrument Batch: /chem/ecd3a.i/031910pb.b

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD3

DATE: 03/26/2010 METHOD: ECD3-B-8081-021010pa.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-041
EPA Method: 8081
8081A
Sequence Number: 032410pa.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100211-99IB	HXJ1	24-MAR-2010 19:17		032410pa	1.0		Clean
002b0201.d	WPE100125-99DG	HXJ1	24-MAR-2010 19:31		032410pa	1.0		(b) DDT 1.5%, Endrin 6.2%; (f) DDT 2.1%, Endrin 4.0%
003b0301.d	WPE100305-10AB	HXJ1	24-MAR-2010 19:44		032410pa	1.0		DUSE
004b0401.d	WPE100125-52TX	HXJ1	24-MAR-2010 19:58		032410pa	1.0		All okay
005b0501.d	WPE100305-00CL	HXJ1	24-MAR-2010 20:12		032410pa	1.0		(b) Passes on average; (f) All okay
006b0601.d	WPE100305-10AB	HXJ1	24-MAR-2010 20:39		032410pa	1.0		DUSE
007b0701.d	WPE100323-01AB	HXJ1	24-MAR-2010 21:01		032410pa	1.0		INDAB ICAL level 1
008b0801.d	WPE100323-02AB	HXJ1	24-MAR-2010 21:15		032410pa	1.0		INDAB ICAL level 2
009b0901.d	WPE100323-03AB	HXJ1	24-MAR-2010 21:29		032410pa	1.0		INDAB ICAL level 3
010b1001.d	WPE100323-04AB	HXJ1	24-MAR-2010 21:42		032410pa	1.0		INDAB ICAL level 4
011b1101.d	IPE100319-02AB	HXJ1	24-MAR-2010 21:56		032410pa	1.0		INDAB ICAL level 5
012b1201.d	WPE100305-10AB	HXJ1	24-MAR-2010 22:09		032410pa	1.0		All okay
013b1301.d	WAR100211-99IB	HXJ1	24-MAR-2010 22:23		032410pa	1.0		Clean
014b1401.d	WPE100125-99DG	HXJ1	24-MAR-2010 22:37		032410pa	1.0		(b) DDT 4.2%, Endrin 7.8%; (f) DDT 4.2%, Endrin 5.4%
015b1501.d	1202073666	HXJ1	24-MAR-2010 22:52	968391	249196	1.0	TB	USE, uploaded both columns, reporting higher result

Instrument Batch: /chem/ecd3a.i/032410pa.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016b1601.d	1202073847	HXJ1	24-MAR-2010 23:05	968391	249268	1.0	TB	USE, uploaded both columns, reporting higher result

017b1701.d	1202076813	HXJ1	24-MAR-2010 23:19	968391	EUI-7561	1.0	TB	USE, uploaded both columns, reporting higher result
018b1801.d	1202078897	HXJ1	24-MAR-2010 23:33	968391	EUI-7561	1.0	MB	USE, uploaded both columns, reporting higher result
019b1901.d	1202078907	HXJ1	24-MAR-2010 23:46	968391	EUI-7561	1.0	LCS	USE, uploaded both columns, reporting higher result
020b2001.d	1202078908	HXJ1	25-MAR-2010 00:00	968391	EUI-7561	1.0	TLCS	USE, uploaded both columns, reporting higher result
021b2101.d	1202078909	HXJ1	25-MAR-2010 00:14	968391	EUI-7561	1.0	CLCS	USE, uploaded both columns, reporting higher result
022b2201.d	WPE100305-10AB	HXJ1	25-MAR-2010 00:27		032410pa	1.0		(b) Methoxychlor low (Passes 8081B); (f) All okay
023b2301.d	WAR100211-99IB	HXJ1	25-MAR-2010 00:41		032410pa	1.0		Clean
024b2401.d	249661001	HXJ1	25-MAR-2010 00:54	968391	EUI-7561	1.0	CARE	USE, uploaded both columns, reporting higher result
025b2501.d	1202079116	HXJ1	25-MAR-2010 01:08	968391	EUI-7561	1.0	MS	USE, uploaded both columns, reporting higher result
026b2601.d	1202079219	HXJ1	25-MAR-2010 01:22	968391	EUI-7561	1.0	MSD	USE, uploaded both columns, reporting higher result
027b2701.d	1202079117	HXJ1	25-MAR-2010 01:35	968391	EUI-7561	1.0	TMS	USE, uploaded both columns, reporting higher result
028b2801.d	1202079220	HXJ1	25-MAR-2010 01:49	968391	EUI-7561	1.0	TMSD	USE, uploaded both columns, reporting higher result
029b2901.d	1202079118	HXJ1	25-MAR-2010 02:03	968391	EUI-7561	1.0	CMS	USE, uploaded both columns, reporting higher result
030b3001.d	1202079221	HXJ1	25-MAR-2010 02:16	968391	EUI-7561	1.0	CMSD	USE, uploaded both columns, reporting higher result
031b3101.d	249717001	HXJ1	25-MAR-2010 02:30	968391	EUI-7568	1.0	CARE	USE, uploaded both columns, reporting higher result
032b3201.d	WPE100305-10AB	HXJ1	25-MAR-2010 02:43		032410pa	1.0		(b) DCB, alpha-CHL, Endrin aldehyde, Methoxychlor, Endrin ketone low (All passed 8081B); (f) Endrin elevated
033b3301.d	WAR100211-99IB	HXJ1	25-MAR-2010 02:57		032410pa	1.0		Clean
034b3401.d	249196001	HXJ1	25-MAR-2010 03:11	968391	249196	1.0	ENRG	USE, uploaded both columns, reporting higher result
035b3501.d	1202078898	HXJ1	25-MAR-2010 03:24	968391	249196	1.0	MS	USE, uploaded both columns, reporting higher result

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	1202078899	HXJ1	25-MAR-2010 03:38	968391	249196	1.0	TMS	USE, uploaded both columns, reporting higher result
037b3701.d	1202078900	HXJ1	25-MAR-2010 03:51	968391	249196	1.0	CMS	USE, uploaded both columns, reporting higher result
038b3801.d	249268001	HXJ1	25-MAR-2010 04:05	968391	249268	1.0	MECP	USE, uploaded both columns, reporting higher result
039b3901.d	1202078901	HXJ1	25-MAR-2010 04:19	968391	249268	1.0	MS	USE, uploaded both columns, reporting higher result NCR - DCB, gamma-BHC low on back - matrix interference
040b4001.d	1202078902	HXJ1	25-MAR-2010 04:32	968391	249268	1.0	TMS	USE, uploaded both columns, reporting higher result

041b4101.d	1202078903	HXJ1	25-MAR-2010 04:46	968391	249268		1.0	CMS	USE, uploaded both columns, reporting higher result
042b4201.d	WPE100305-10AB	HXJ1	25-MAR-2010 05:00		032410pa		1.0		(b) 4cmx, DCB, Multiple analtyes low (f) All okay
043b4301.d	WAR100211-99IB	HXJ1	25-MAR-2010 05:13		032410pa		1.0		Clean
044b4401.d	1202079296	HXJ1	25-MAR-2010 05:27	968594	10-2436		1.0	MB	USE, uploaded both columns, reporting lower result
045b4501.d	1202079297	HXJ1	25-MAR-2010 05:41	968594	10-2436		1.0	LCS	DUSE - Endosulfan sulfate low on back - check low too - see seq. 032510.b for re-analysis
046b4601.d	1202079300	HXJ1	25-MAR-2010 05:54	968594	10-2436		1.0	TLCS	USE, uploaded both columns, reporting lower result
047b4701.d	249523001	HXJ1	25-MAR-2010 06:08	968594	10-2471		10.0	LANL	DUSE - several spikes low in matrix QC - check low too - see seq. 032510.b for re-analysis
048b4801.d	1202079298	HXJ1	25-MAR-2010 06:21	968594	10-2471		10.0	MS	DUSE - several spikes low - check low too - see seq. 032510.b for re-analysis
049b4901.d	1202079299	HXJ1	25-MAR-2010 06:35	968594	10-2471		10.0	MSD	DUSE - several spikes low - check low too - see seq. 032510.b for re-analysis
050b5001.d	249523002	HXJ1	25-MAR-2010 06:49	968594	10-2471		10.0	LANL	USE, uploaded both columns, reporting lower result
051b5101.d	249523003	HXJ1	25-MAR-2010 07:02	968594	10-2471		10.0	LANL	USE, uploaded both columns, reporting lower result
052b5201.d	249523004	HXJ1	25-MAR-2010 07:16	968594	10-2471		10.0	LANL	USE, uploaded both columns, reporting lower result
053b5301.d	249523006	HXJ1	25-MAR-2010 07:30	968594	10-2471		10.0	LANL	USE, uploaded both columns, reporting lower result
054b5401.d	WAR100211-99IB	HXJ1	25-MAR-2010 07:43		032410pa		1.0		Clean
055b5501.d	WPE100305-10AB	HXJ1	25-MAR-2010 07:57		032410pa		1.0		(b) DCB, alpha-CHL, Endrin aldehyde, Methoxychlor, Endrin ketone, DDT low; (f) All okay

Instrument Batch: /chem/ecd3a.i/032410pa.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	WAR100211-99IB	HXJ1	25-MAR-2010 08:11		032410pa	1.0		Clean
057b5701.d	249335002	HXJ1	25-MAR-2010 08:24	968594	10-2436	10.0	LANL	USE, uploaded both columns, reporting lower result
058b5801.d	249335003	HXJ1	25-MAR-2010 08:38	968594	10-2436	10.0	LANL	USE, uploaded both columns, reporting lower result
059b5901.d	249335004	HXJ1	25-MAR-2010 08:51	968594	10-2436	10.0	LANL	USE, uploaded both columns, reporting lower result
060b6001.d	249335005	HXJ1	25-MAR-2010 09:05	968594	10-2436	10.0	LANL	USE, uploaded both columns, reporting lower result
061b6101.d	249335006	HXJ1	25-MAR-2010 09:19	968594	10-2436	10.0	LANL	USE, uploaded both columns, reporting lower result
062b6201.d	249335007	HXJ1	25-MAR-2010 09:32	968594	10-2436	10.0	LANL	USE, uploaded both columns, reporting lower result

063b6301.d	249335008	HXJ1	25-MAR-2010 09:46	968594	10-2436	10.0	LANL	USE, uploaded both columns, reporting lower result
064b6401.d	WAR100211-99IB	HXJ1	25-MAR-2010 10:00		032410pa	1.0		Clean
065b6501.d	WPE100305-10AB	HXJ1	25-MAR-2010 10:13		032410pa	1.0		(b) DCB, alpha-CHL, Endrin aldehyde, Methoxychlor, Endrin ketone, DDT low; (f) All okay
066b6601.d	WAR100211-99IB	HXJ1	25-MAR-2010 10:27		032410pa	1.0		Clean

Instrument Batch: /chem/ecd3a.i/032410pa.b

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD3

DATE: 03/29/2010 METHOD: ECD3-B-8081-021010pa.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-041
EPA Method: 8081
8081A
Sequence Number: 032510p.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100211-99IB	HXJ1	25-MAR-2010 16:29		032510p	1.0		Clean
002b0201.d	WPE100125-99DG	HXJ1	25-MAR-2010 16:42		032510p	1.0		(b) DDT 1.5%, Endrin 5.5%; (f) DDT 1.5%, Endrin 3.8%
003b0301.d	WPE100305-10AB	HXJ1	25-MAR-2010 16:56		032510p	1.0		All okay
004b0401.d	WPE100125-52TX	HXJ1	25-MAR-2010 17:09		032510p	1.0		All okay
005b0501.d	WPE100305-00CL	HXJ1	25-MAR-2010 17:23		032510p	1.0		(b) Elevated - NOT TARGET (f) All okay
006b0601.d	WAR100211-99IB	HXJ1	25-MAR-2010 17:47		032510p	1.0		Clean
007b0701.d	1202047518	HXJ1	25-MAR-2010 18:01	955060	2010MDLVECD3TOX-L	1.0	MB	USE - data reported from ECD 7 sequence 021210.b
008b0801.d	1202047519	HXJ1	25-MAR-2010 18:15	955060	2010MDLVECD3TOX-L	1.0	TLCS	USE - data reported from ECD 7 sequence 021210.b
009b0901.d	243924001	HXJ1	25-MAR-2010 18:28	955060	2010MDLVECD3TOX-L	1.0	QCQA	USE, uploaded both columns, reporting both results
010b1001.d	243924002	HXJ1	25-MAR-2010 18:42	955060	2010MDLVECD3TOX-L	1.0	QCQA	USE, uploaded both columns, reporting both results
011b1101.d	243924003	HXJ1	25-MAR-2010 18:56	955060	2010MDLVECD3TOX-L	1.0	QCQA	USE, uploaded both columns, reporting both results
012b1201.d	243924004	HXJ1	25-MAR-2010 19:09	955060	2010MDLVECD3TOX-L	1.0	QCQA	USE, uploaded both columns, reporting both results
013b1301.d	WPE100305-10AB	HXJ1	25-MAR-2010 19:23		032510p	1.0		All okay
014b1401.d	WPE100125-52TX	HXJ1	25-MAR-2010 19:36		032510p	1.0		(b) Passes on average; (f) All okay
015b1501.d	WAR100211-99IB	HXJ1	25-MAR-2010 19:50		032510p	1.0		Clean

Instrument Batch: /chem/ecd3a.i/032510p.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016b1601.d	1202080341	HXJ1	25-MAR-2010 20:04	968964	2010MDLVECD3TOX-S	1.0	MB	USE - data reported from ECD 7 sequence 032510.b

017b1701.d	1202080342	HXJ1	25-MAR-2010 20:17	968964	2010MDLVECD3TOX-S	1.0	TLCS	USE - data reported from ECD 7 sequence 021210.b
018b1801.d	244350001	HXJ1	25-MAR-2010 20:31	968964	2010MDLVECD3TOX-S	1.0	QCQA	USE, uploaded both columns, reporting both results
019b1901.d	244350002	HXJ1	25-MAR-2010 20:45	968964	2010MDLVECD3TOX-S	1.0	QCQA	USE, uploaded both columns, reporting both results
020b2001.d	244350003	HXJ1	25-MAR-2010 20:58	968964	2010MDLVECD3TOX-S	1.0	QCQA	USE, uploaded both columns, reporting both results
021b2101.d	244350004	HXJ1	25-MAR-2010 21:12	968964	2010MDLVECD3TOX-S	1.0	QCQA	USE, uploaded both columns, reporting both results
022b2201.d	WPE100305-10AB	HXJ1	25-MAR-2010 21:26		032510p	1.0		(b) All okay; (f) Endrin elevated
023b2301.d	WPE100125-52TX	HXJ1	25-MAR-2010 21:39		032510p	1.0		(b) Passes on average; (f) All okay
024b2401.d	WAR100211-99IB	HXJ1	25-MAR-2010 21:53		032510p	1.0		Clean
025b2501.d	1202079297	HXJ1	25-MAR-2010 22:07	968594	10-2436	1.0	LCS	USE, uploaded both columns, reporting lower result
026b2601.d	WPE100305-10AB	HXJ1	25-MAR-2010 22:20		032510p	1.0		(b) Methoxychlor low; (f) Endrin, DDT elevated
027b2701.d	WAR100211-99IB	HXJ1	25-MAR-2010 22:34		032510p	1.0		Clean
028b2801.d	1202080477	HXJ1	25-MAR-2010 22:48	969008	249759	1.0	MB	USE, uploaded both columns, reporting higher result
029b2901.d	1202080478	HXJ1	25-MAR-2010 23:01	969008	249759	1.0	LCS	USE, uploaded both columns, reporting higher result
030b3001.d	1202080481	HXJ1	25-MAR-2010 23:15	969008	249759	1.0	TLCS	USE, uploaded both columns, reporting higher result
031b3101.d	249759010	HXJ1	25-MAR-2010 23:29	969008	249759	10.0	BY12	USE, uploaded both columns, reporting higher result
032b3201.d	1202080479	HXJ1	25-MAR-2010 23:42	969008	249759	10.0	MS	USE, uploaded both columns, reporting higher result
033b3301.d	1202080480	HXJ1	25-MAR-2010 23:56	969008	249759	10.0	MSD	USE, uploaded both columns, reporting higher result
034b3401.d	249759013	HXJ1	26-MAR-2010 00:09	969008	249759	10.0	BY12	USE, uploaded both columns, reporting higher result
035b3501.d	249759016	HXJ1	26-MAR-2010 00:23	969008	249759	10.0	BY12	USE, uploaded both columns, reporting higher result

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	249759020	HXJ1	26-MAR-2010 00:37	969008	249759	10.0	BY12	USE, uploaded both columns, reporting higher result
037b3701.d	249759024	HXJ1	26-MAR-2010 00:50	969008	249759	10.0	BY12	USE, uploaded both columns, reporting higher result
038b3801.d	WAR100211-99IB	HXJ1	26-MAR-2010 01:04		032510p	1.0		Clean
039b3901.d	WPE100305-10AB	HXJ1	26-MAR-2010 01:18		032510p	1.0		(b) All okay; (f) gamma-BHC, gamma-CHL, Endrin, DDT elevated
040b4001.d	WAR100211-99IB	HXJ1	26-MAR-2010 01:31		032510p	1.0		Clean
041b4101.d	249523001	HXJ1	26-MAR-2010 01:45	968594	10-2471	10.0	LANL	USE, uploaded both columns, reporting lower result

042b4201.d	1202079298	HXJ1	26-MAR-2010 01:59	968594	10-2471	10.0	MS	USE, uploaded both columns, reporting lower result
043b4301.d	1202079299	HXJ1	26-MAR-2010 02:12	968594	10-2471	10.0	MSD	USE, uploaded both columns, reporting lower result
044b4401.d	WAR100211-99IB	HXJ1	26-MAR-2010 02:26		032510p	1.0		Clean
045b4501.d	WPE100305-10AB	HXJ1	26-MAR-2010 02:39		032510p	1.0		(b) All okay; (f) Multiple analtyes elevated
046b4601.d	WAR100211-99IB	HXJ1	26-MAR-2010 02:53		032510p	1.0		Clean

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CLP-2

Data file : /chem/ecd3a.i/032510p.b/042b4201.d
Lab Smp Id: 1202079298 Client Smp ID: RE46-10-13016MS
Inj Date : 26-MAR-2010 01:59
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202079298|10|
Misc Info : |ECD81A_1S|968594|SVP|MS|SOIL|MS|||
Comment :
Method : /chem/ecd3a.i/032510p.b/ECD3-B-8081-021010pa.m
Meth Date : 26-Mar-2010 14:54 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015b1501.d
Als bottle: 42 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2471.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	24.85200	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.811	2.811	0.000	6701595	9.64357	21.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.682	8.683	-0.001	6193019	13.9484	30.9	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.290	3.289	0.001	4549451	4.48955	9.96	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.592	3.591	0.001	4297751	5.14334	11.4	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.655	3.654	0.001	1538254	4.36995	9.69	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.920	3.920	0.000	3875834	4.80930	10.7	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.995	3.996	-0.001	3407845	5.10562	11.3	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.301	4.300	0.001	3357569	5.34014	11.8	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.841	4.843	-0.002	3024858	6.79399	15.1	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.032	5.032	0.000	2158645	4.83710	10.7	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.177	5.176	0.001	2293054	5.13573	11.4	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.238	5.238	0.000	2057503	5.07949	11.3	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.338	5.337	0.001	3848989	9.20327	20.4	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.516	5.515	0.001	5646168	12.1928	27.0	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.830	5.830	0.000	4664442	11.4801	25.5	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.937	5.938	-0.001	4979116	12.2892	27.2	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.050	6.050	0.000	5778361	12.9432	28.7	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.404	6.404	0.000	3286206	8.21790	18.2	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.273	6.273	0.000	6236783	15.6128	34.6	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.705	6.705	0.000	4542057	9.69186	21.5	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.013	7.014	-0.001	10974225	54.7805	121	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.289	7.290	-0.001	8055290	13.3469	29.6	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032510p.b/042b4201.d
Date : 26-MAR-2010 01:59
Client ID: RE46-10-13016MS
Sample Info: 1120207929811O1
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

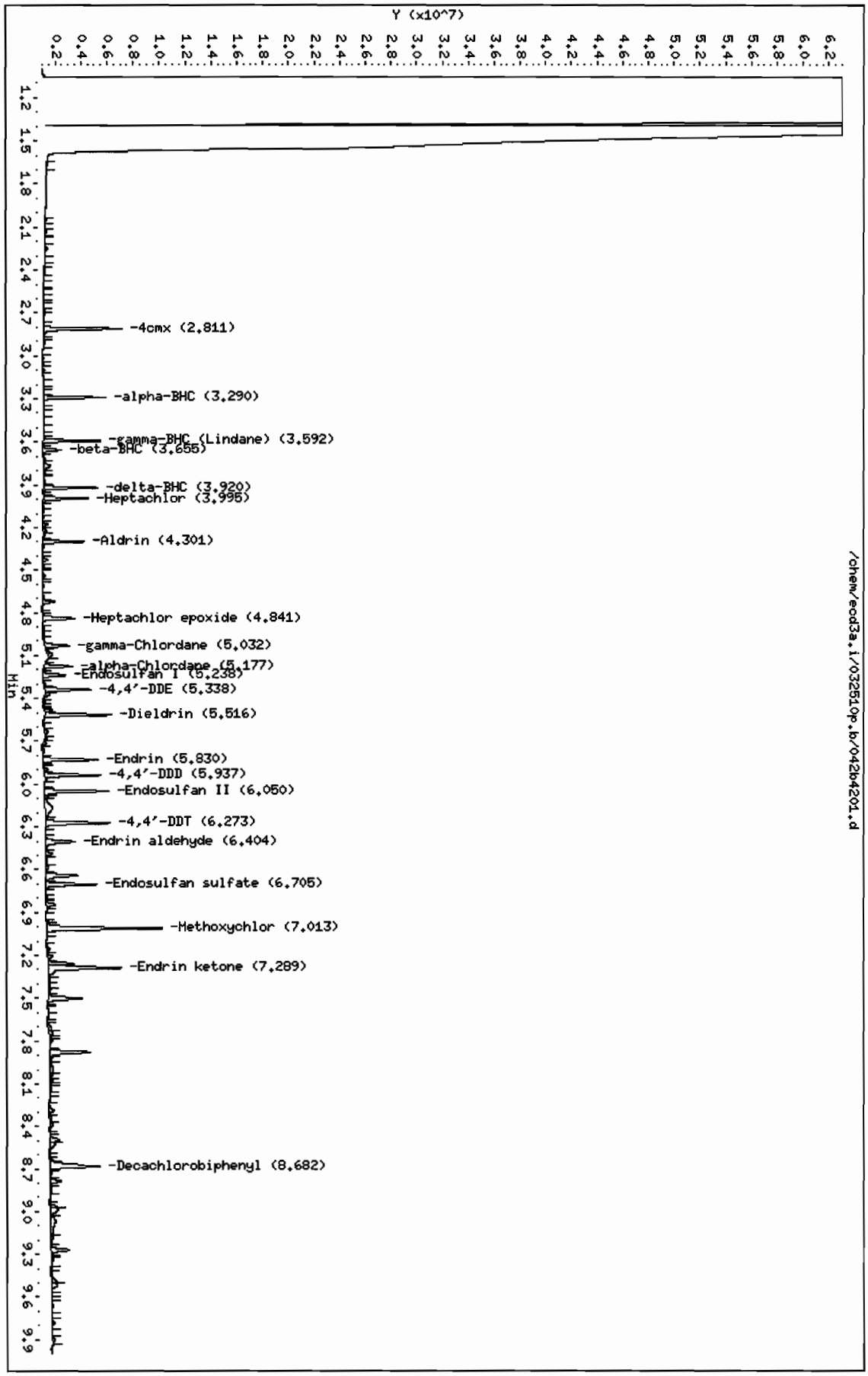

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CLP-1

Data file : /chem/ecd3a.i/032510p.b/042f4201.d
Lab Smp Id: 1202079298 Client Smp ID: RE46-10-13016MS
Inj Date : 26-MAR-2010 01:59
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202079298|10|
Misc Info : |ECD81A_1S|968594|SVP|MS|SOIL|MS|||
Comment :
Method : /chem/ecd3a.i/032510p.b/ECD3-F-8081-021010pa.m
Meth Date : 26-Mar-2010 14:56 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 42 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2471.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	24.85200	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.577	2.577	0.000	688623	10.0085	22.2	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.664	7.664	0.000	739365	14.1682	31.4	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
2.973	2.973	0.000	453068	4.66126	10.3	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.213	3.213	0.000	427710	4.87732	10.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.278	3.277	0.001	195386	5.04750	11.2	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.423	3.422	0.001	410900	4.70323	10.4	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.589	3.588	0.001	359089	4.93120	10.9	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.841	3.841	0.000	443686	5.34482	11.8	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.368	4.368	0.000	370889	5.01429	11.1	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.482	4.481	0.001	321319	4.37387	9.70	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.603	4.602	0.001	369166	5.03386	11.2	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.732	4.732	0.000	352746	5.01340	11.1	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.673	4.673	0.000	971180	13.9436	30.9	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.958	4.958	0.000	934343	12.3947	27.5	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.183	5.183	0.000	861543	14.4353	32.0	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.249	5.248	0.001	796489	14.0844	31.2	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.404	5.404	0.000	798494	12.6313	28.0	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.825	5.825	0.000	428844	8.23867	18.3	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.526	5.525	0.001	764131	15.7164	34.8	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.274	6.274	0.000	452943	8.40547	18.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.030	6.029	0.001	1270493	53.2576	118	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.569	6.569	0.000	813445	11.4493	25.4	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032510p.b/042f4201.d
Date : 26-MAR-2010 01:59
Client ID: RE46-10-13016HS
Sample Info: 1120207929811011
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

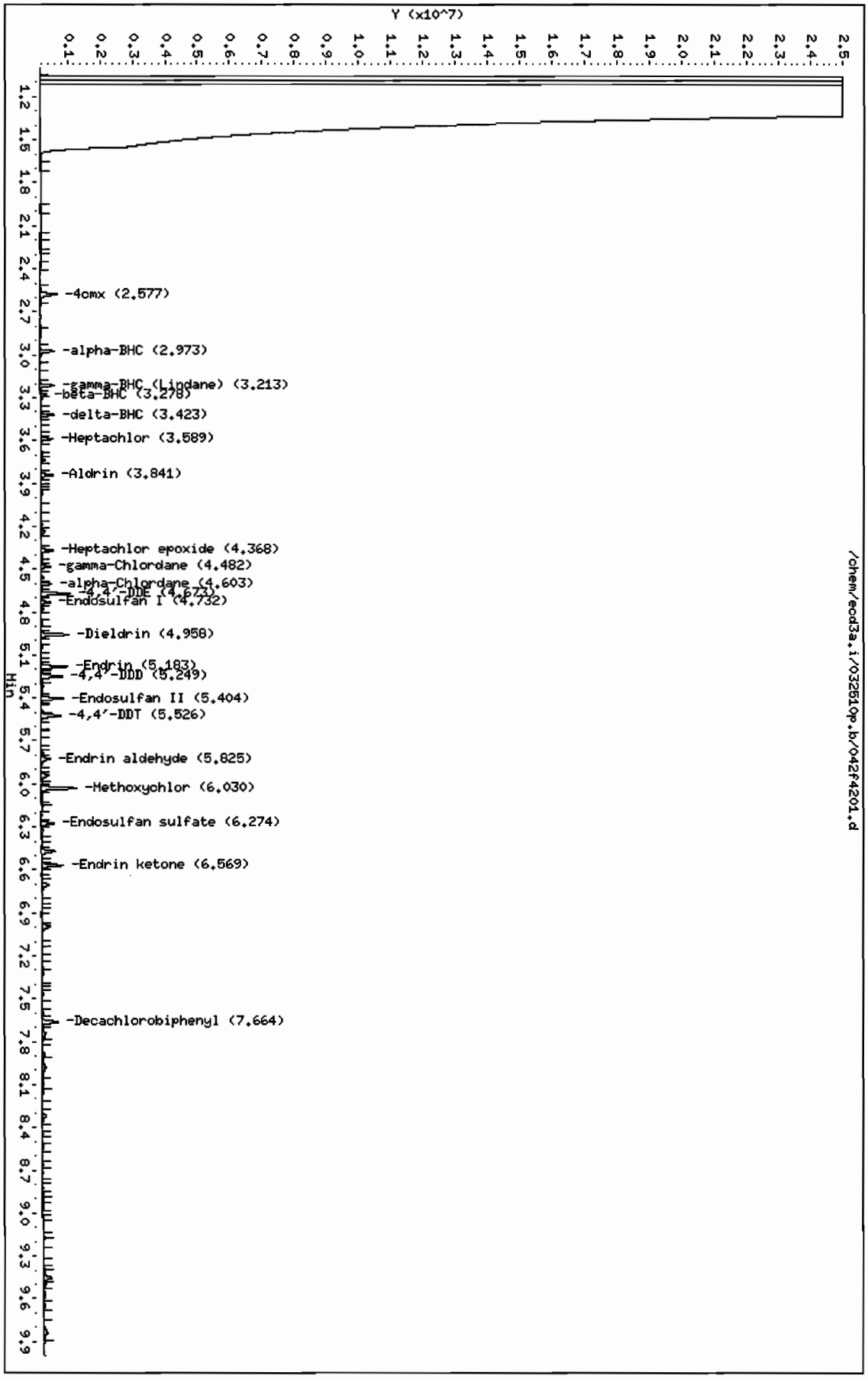

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/032510p.b/043b4301.d
Lab Smp Id: 1202079299 Client Smp ID: RE46-10-13016MSD
Inj Date : 26-MAR-2010 02:12
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202079299|10|
Misc Info : |ECD81A_1S|968594|SVP|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd3a.i/032510p.b/ECD3-B-8081-021010pa.m
Meth Date : 26-Mar-2010 14:54 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015bl501.d
Als bottle: 43 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2471.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	24.85200	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.810	2.811	-0.001	7011246	10.0892	22.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.682	8.683	-0.001	5908675	13.3080	29.5	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.290	3.289	0.001	4757869	4.69522	10.4	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.592	3.591	0.001	4589963	5.49304	12.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.655	3.654	0.001	1524915	4.33205	9.61	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.920	3.920	0.000	3959623	4.91327	10.9	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.996	3.996	0.000	3424345	5.13034	11.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.300	4.300	0.000	3419726	5.43900	12.1	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.842	4.843	-0.001	3050715	6.85207	15.2	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.032	5.032	0.000	2208781	4.94944	11.0	80.00- 120.00	100.00(M)
18 alpha-Chlordane					CAS #: 5103-71-9		
5.177	5.176	0.001	2440082	5.46503	12.1	80.00- 120.00	100.00(M)
16 Endosulfan I					CAS #: 959-98-8		
5.238	5.238	0.000	2067933	5.10523	11.3	80.00- 120.00	100.00(M)
19 4,4'-DDE					CAS #: 72-55-9		
5.338	5.337	0.001	3890380	9.30223	20.6	80.00- 120.00	100.00(M)
20 Dieldrin					CAS #: 60-57-1		
5.516	5.515	0.001	6083145	13.1365	29.1	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.831	5.830	0.001	4780528	11.7658	26.1	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.938	5.938	0.000	4824143	11.9067	26.4	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.050	6.050	0.000	5617968	12.5840	27.9	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
6.406	6.404	0.002	3939163	9.85077	21.8	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.274	6.273	0.001	5882924	14.7270	32.7	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.706	6.705	0.001	4438467	9.47082	21.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.013	7.014	-0.001	11009631	54.9573	122	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
7.289	7.290	-0.001	6982361	11.5691	25.6	80.00- 120.00	100.00(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/032510p.b/043b4301.d

Date : 26-MAR-2010 02:12

Client ID: RE46-10-13016MSD

Sample Info: |1202079299|10|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

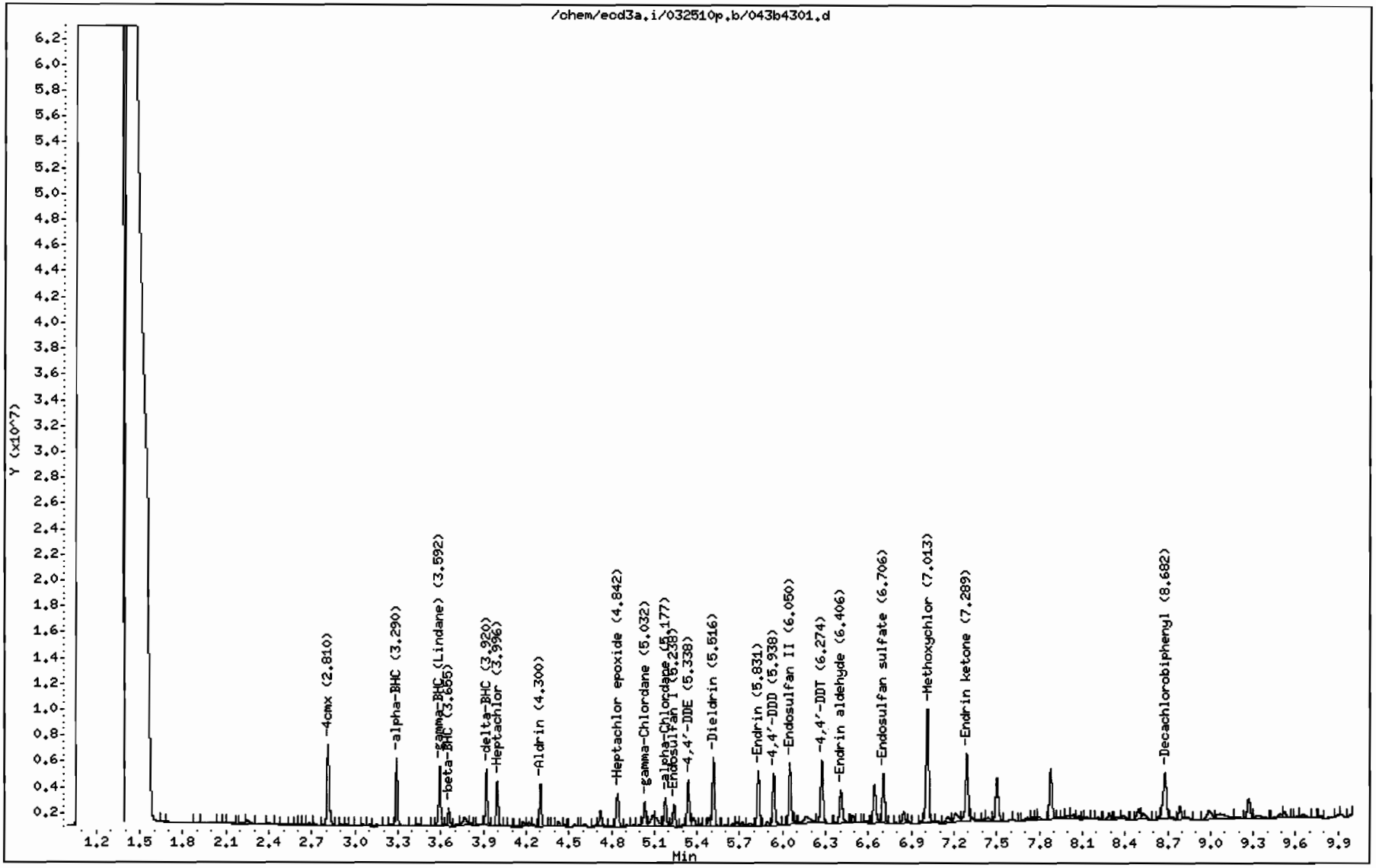

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/032510p.b/043f4301.d
Lab Smp Id: 1202079299 Client Smp ID: RE46-10-13016MSD
Inj Date : 26-MAR-2010 02:12
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202079299|10|
Misc Info : |ECD81A_1S|968594|SVP|MSD|SOIL|MSD|||
Comment :
Method : /chem/ecd3a.i/032510p.b/ECD3-F-8081-021010pa.m
Meth Date : 26-Mar-2010 14:56 hea01125 Quant Type: ESTD
Cal Date : 19-MAR-2010 17:50 Cal File: 015f1501.d
Als bottle: 43 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-2471.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weigth of sample extracted (g)
M	24.85200	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.577	2.577	0.000	713816	10.3747	23.0	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.664	7.664	0.000	548780	10.5161	23.3	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
2.973	2.973	0.000	487804	5.01864	11.1	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.213	3.213	0.000	451511	5.14873	11.4	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.278	3.277	0.001	191956	4.95889	11.0	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.423	3.422	0.001	410040	4.69339	10.4	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.589	3.588	0.001	374735	5.14607	11.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.841	3.841	0.000	487662	5.87457	13.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.369	4.368	0.001	381169	5.15328	11.4	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.482	4.481	0.001	323583	4.40469	9.77	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.604	4.602	0.002	360572	4.91668	10.9	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.732	4.732	0.000	342172	4.86311	10.8	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.673	4.673	0.000	871364	12.5105	27.7	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
4.958	4.958	0.000	935938	12.4159	27.5	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.184	5.183	0.001	831575	13.9332	30.9	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.249	5.248	0.001	736681	13.0268	28.9	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.405	5.404	0.001	734157	11.6136	25.8	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.827	5.825	0.002	417252	8.01598	17.8	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.526	5.525	0.001	715767	14.7217	32.6	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.275	6.274	0.001	453272	8.41157	18.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.030	6.029	0.001	1255112	52.6128	117	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.570	6.569	0.001	803309	11.3066	25.1	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/032510p.b/043f4301.d
Date : 26-MAR-2010 02:12
Client ID: RE46-10-13016MSD
Sample Info: 1120207929911O1
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

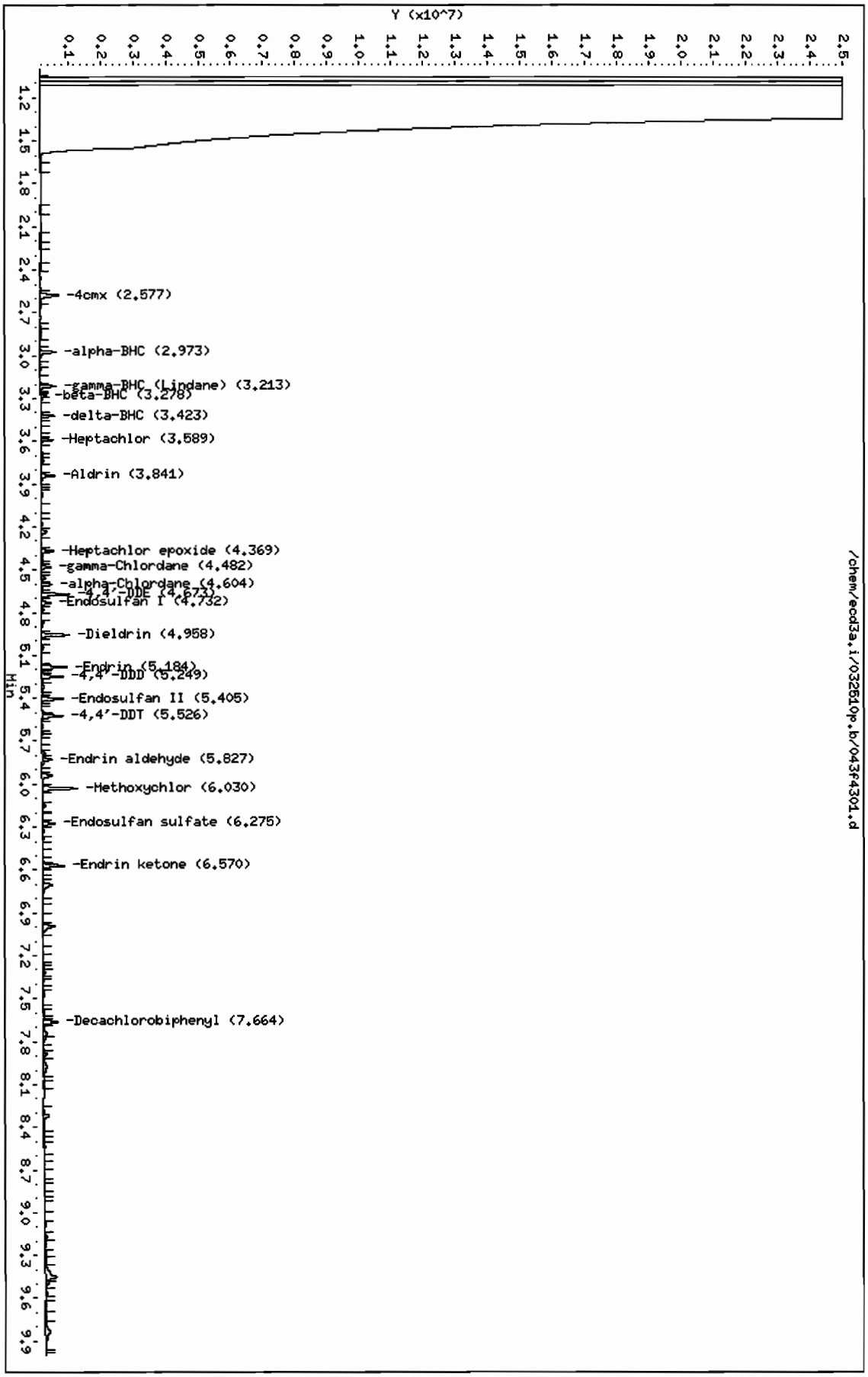

Page 1

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 968591 **Verified by:** _____

Analyst: Joshua McCartney

Method: SW846 3550B

Lab SOP: GL–OA–E–010 REV# 18

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202079296 MB	24–MAR–2010 10:01:00	30	Florisil	5	1	10	5	0.16667
1202079297 LCS	24–MAR–2010 10:01:00	30	Florisil	5	1	10	5	0.16667
1202079300 LCS	24–MAR–2010 10:01:00	30	Florisil	5	1	10	5	0.16667
249335002	24–MAR–2010 10:01:00	30.02	Florisil	5	1	10	5	0.16656
249335003	24–MAR–2010 10:01:00	30	Florisil	5	1	10	5	0.16667
249335004	24–MAR–2010 10:01:00	30.01	Florisil	5	1	10	5	0.16661
249335005	24–MAR–2010 10:01:00	30	Florisil	5	1	10	5	0.16667
249335006	24–MAR–2010 10:01:00	30	Florisil	5	1	10	5	0.16667
249335007	24–MAR–2010 10:01:00	30.03	Florisil	5	1	10	5	0.1665
249335008	24–MAR–2010 10:01:00	30.01	Florisil	5	1	10	5	0.16661
249523001	24–MAR–2010 10:01:00	30	Florisil	5	1	10	5	0.16667
1202079298 MS (249523001)	24–MAR–2010 10:01:00	30	Florisil	5	1	10	5	0.16667
1202079299 MSD (249523001)	24–MAR–2010 10:01:00	30	Florisil	5	1	10	5	0.16667
249523002	24–MAR–2010 10:01:00	30.02	Florisil	5	1	10	5	0.16656
249523003	24–MAR–2010 10:01:00	30	Florisil	5	1	10	5	0.16667
249523004	24–MAR–2010 10:01:00	30	Florisil	5	1	10	5	0.16667
249523006	24–MAR–2010 10:01:00	30	Florisil	5	1	10	5	0.16667

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202079297	PESTSPIKE	UE100310–04	1	mL
LCS	1202079300	Toxaphene TCLP LCS	WE100206–11	2	mL
MS	1202079298	PESTSPIKE	UE100310–04	1	mL
MSD	1202079299	PESTSPIKE	UE100310–04	1	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE100302–09	1	mL
REGNT	All	Acetone	1273823–B1	150	mL
REGNT	All	Hexane	1279341–B2	150	mL
REGNT	All	Florisil cartridge 1000mg per cartridge	1286912–28	1	g
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 03/24/2010

Clean up Initials: JAM

Verified By: RWH

Final Solvent: Hexane

Clean Up SOP: GL–OA–E–036

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2436

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	967824
Prep Batch Number:	967820

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
249335002	RE46-10-12972
249335003	RE46-10-13003
249335004	RE46-10-12967
249335005	RE46-10-12971
249335006	RE46-10-12968
249335007	RE46-10-12969
249335008	RE46-10-12970
1202077524	Method Blank (MB)
1202077525	Laboratory Control Sample (LCS)
1202077526	249335002(RE46-10-12972) Matrix Spike (MS)
1202077527	249335002(RE46-10-12972) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All calibration verification standard (CVS, ICV, or CCV) requirements have not been met for this SDG.

The standard bracketing sample 249335008 (RE46-10-12970) failed to meet the acceptance criteria with positive bias; however this had no adverse effects on the data as there were no Aroclors detected in sample 249335008 (RE46-10-12970).

Surrogate recovery did not meet the acceptance criteria in the standards bracketing the samples in this SDG; however, this had no adverse effects on the data as the surrogate recovery was well within the acceptance range in the samples in this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 249335002 (RE46-10-12972) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina.

Sample Dilutions
Samples 249335003 (RE46-10-13003) (1:5), 249335004 (RE46-10-12967) (1:5), 249335005 (RE46-10-12971) (1:5), 249335006 (RE46-10-12968) (1:5), 249335007 (RE46-10-12969) (1:20) and 249335008 (RE46-10-12970) (1:20) were diluted due to the oily matrix of the extracts.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD8A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD8A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimi Cao Date: 4/9/10

Roadmap for LANL 10-2436 PCB

This roadmap was analyzed by jen01212 on 03-24-2010, 10:01.
This roadmap was packaged by yml on 04-08-2010, 18:36.
This roadmap was validated by jim01140 on 04-09-2010, 09:40.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032310.b/035f3501.d	249335002	sample	23-MAR-2010	15:27	10-2436.sub	RE46-10-12972	1.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/038f3801.d	249335003	sample	23-MAR-2010	16:04	10-2436.sub	RE46-10-13003	5.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/039f3901.d	249335004	sample	23-MAR-2010	16:17	10-2436.sub	RE46-10-12967	5.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/040f4001.d	249335005	sample	23-MAR-2010	16:29	10-2436.sub	RE46-10-12971	5.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/041f4101.d	249335006	sample	23-MAR-2010	16:42	10-2436.sub	RE46-10-12968	5.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/042f4201.d	249335007	sample	23-MAR-2010	16:58	10-2436.sub	RE46-10-12969	20.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/045f4501.d	249335008	sample	23-MAR-2010	17:39	10-2436.sub	RE46-10-12970	20.00000	967824	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032310.b/035b3501.d	249335002	sample	23-MAR-2010	15:27	10-2436.sub	RE46-10-12972	1.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/038b3801.d	249335003	sample	23-MAR-2010	16:04	10-2436.sub	RE46-10-13003	5.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/039b3901.d	249335004	sample	23-MAR-2010	16:17	10-2436.sub	RE46-10-12967	5.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/040b4001.d	249335005	sample	23-MAR-2010	16:29	10-2436.sub	RE46-10-12971	5.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/041b4101.d	249335006	sample	23-MAR-2010	16:42	10-2436.sub	RE46-10-12968	5.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/042b4201.d	249335007	sample	23-MAR-2010	16:58	10-2436.sub	RE46-10-12969	20.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/045b4501.d	249335008	sample	23-MAR-2010	17:39	10-2436.sub	RE46-10-12970	20.00000	967824	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032310.b/021f2101-2.d	1202077524	mb	23-MAR-2010	12:26	10-2436.sub	PBLK01	1.00000	967824	
☐	N	/chem/ecd8a.i/032310.b/022f2201-2.d	1202077525	lcs	23-MAR-2010	12:38	10-2436.sub	PBLK01LCS	1.00000	967824	
☐	N	/chem/ecd8a.i/032310.b/036f3601.d	1202077526	ms	23-MAR-2010	15:40	10-2436.sub	RE46-10-12972MS	1.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/037f3701.d	1202077527	msd	23-MAR-2010	15:52	10-2436.sub	RE46-10-12972MSD	1.00000	967824	UPLOAD BOTH, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/032310.b/021b2101-2.d	1202077524	mb	23-MAR-2010	12:26	10-2436.sub	PBLK01	1.00000	967824	

☐	N	/chem/ecd8a.i/032310.b/022b2201-2.d	1202077525	lcs	23-MAR-2010	12:38	10-2436.sub	PBLK01LCS	1.00000	967824	
☐	N	/chem/ecd8a.i/032310.b/036b3601.d	1202077526	ms	23-MAR-2010	15:40	10-2436.sub	RE46-10-12972MS	1.00000	967824	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/032310.b/037b3701.d	1202077527	msd	23-MAR-2010	15:52	10-2436.sub	RE46-10-12972MSD	1.00000	967824	UPLOAD BOTH, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12967**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 16:17**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**039f3901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	039b3901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	21.0	ug/kg	6.99	21.0	1
11104–28–2	Aroclor–1221	U	21.0	ug/kg	6.99	21.0	1
11141–16–5	Aroclor–1232	U	21.0	ug/kg	6.99	21.0	1
53469–21–9	Aroclor–1242	U	21.0	ug/kg	6.99	21.0	1
12672–29–6	Aroclor–1248	U	21.0	ug/kg	6.99	21.0	1
11097–69–1	Aroclor–1254		51.0	ug/kg	6.99	21.0	2
11096–82–5	Aroclor–1260		23.5	ug/kg	6.99	21.0	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335006	**Date Received:**	03/13/2010 09:30	**%Moisture:**	10.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–12968	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967824	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/23/2010 16:42	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 22:20	**Aliquot:**	30.11 g	**Final Volume:**	1 mL
Data File:	041f4101.d	**Column:**	1 CLP1	**Level:**	LOW
	041b4101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.5	ug/kg	6.17	18.5	1
11104–28–2	Aroclor–1221	U	18.5	ug/kg	6.17	18.5	1
11141–16–5	Aroclor–1232	U	18.5	ug/kg	6.17	18.5	1
53469–21–9	Aroclor–1242	U	18.5	ug/kg	6.17	18.5	1
12672–29–6	Aroclor–1248	U	18.5	ug/kg	6.17	18.5	1
11097–69–1	Aroclor–1254		151	ug/kg	6.17	18.5	2
11096–82–5	Aroclor–1260		58.1	ug/kg	6.17	18.5	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12969**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**20**
Run Date:	**03/23/2010 16:58**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**042f4201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	042b4201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	76.1	ug/kg	25.3	76.1	1
11104–28–2	Aroclor–1221	U	76.1	ug/kg	25.3	76.1	1
11141–16–5	Aroclor–1232	U	76.1	ug/kg	25.3	76.1	1
53469–21–9	Aroclor–1242	U	76.1	ug/kg	25.3	76.1	1
12672–29–6	Aroclor–1248	U	76.1	ug/kg	25.3	76.1	1
11097–69–1	Aroclor–1254	U	76.1	ug/kg	25.3	76.1	1
11096–82–5	Aroclor–1260	U	76.1	ug/kg	25.3	76.1	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335008**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**15.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12970**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**20**
Run Date:	**03/23/2010 17:39**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**045f4501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	045b4501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	78.5	ug/kg	26.2	78.5	1
11104-28-2	Aroclor-1221	U	78.5	ug/kg	26.2	78.5	1
11141-16-5	Aroclor-1232	U	78.5	ug/kg	26.2	78.5	1
53469-21-9	Aroclor-1242	U	78.5	ug/kg	26.2	78.5	1
12672-29-6	Aroclor-1248	U	78.5	ug/kg	26.2	78.5	1
11097-69-1	Aroclor-1254	U	78.5	ug/kg	26.2	78.5	1
11096-82-5	Aroclor-1260	U	78.5	ug/kg	26.2	78.5	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**21.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46-10-12971**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 16:29**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prcp Date:	**03/22/2010 22:20**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**040f4001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	040b4001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	21.2	ug/kg	7.07	21.2	1
11104-28-2	Aroclor-1221	U	21.2	ug/kg	7.07	21.2	1
11141-16-5	Aroclor-1232	U	21.2	ug/kg	7.07	21.2	1
53469-21-9	Aroclor-1242	U	21.2	ug/kg	7.07	21.2	1
12672-29-6	Aroclor-1248	U	21.2	ug/kg	7.07	21.2	1
11097-69-1	Aroclor-1254		265	ug/kg	7.07	21.2	2
11096-82-5	Aroclor-1260		96.1	ug/kg	7.07	21.2	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12972**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 15:27**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	035b3501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.78	ug/kg	1.26	3.78	1
11104–28–2	Aroclor–1221	U	3.78	ug/kg	1.26	3.78	1
11141–16–5	Aroclor–1232	U	3.78	ug/kg	1.26	3.78	1
53469–21–9	Aroclor–1242	U	3.78	ug/kg	1.26	3.78	1
12672–29–6	Aroclor–1248	U	3.78	ug/kg	1.26	3.78	1
11097–69–1	Aroclor–1254		10.7	ug/kg	1.26	3.78	2
11096–82–5	Aroclor–1260		4.20	ug/kg	1.26	3.78	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13003**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 16:04**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**038f3801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	038b3801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.8	ug/kg	6.26	18.8	1
11104–28–2	Aroclor–1221	U	18.8	ug/kg	6.26	18.8	1
11141–16–5	Aroclor–1232	U	18.8	ug/kg	6.26	18.8	1
53469–21–9	Aroclor–1242	U	18.8	ug/kg	6.26	18.8	1
12672–29–6	Aroclor–1248	U	18.8	ug/kg	6.26	18.8	1
11097–69–1	Aroclor–1254		95.3	ug/kg	6.26	18.8	2
11096–82–5	Aroclor–1260		36.7	ug/kg	6.26	18.8	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–2436

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #		4CMX 2 %REC #		DCB 1 %REC #		DCB 2 %REC #	
1202077524	MB for batch 967820	85		91		96		98	
1202077525	LCS for batch 967820	89		95		97		105	
249335002	RE46–10–12972	86		92		91		99	
1202077526	RE46–10–12972MS	85		90		94		98	
1202077527	RE46–10–12972MSD	81		85		81		95	
249335003	RE46–10–13003	50	D	49	D	56	D	64	D
249335004	RE46–10–12967	79	D	79	D	93	D	92	D
249335005	RE46–10–12971	71	D	71	D	86	D	92	D
249335006	RE46–10–12968	79	D	78	D	93	D	96	D
249335007	RE46–10–12969	57	D	55	D	41	D	70	D
249335008	RE46–10–12970	77	D	70	D	90	D	89	D

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%–120%)
DCB = Decachlorobiphenyl	(30%–116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2436
Client ID: LCS for batch 967820
Lab Sample ID: 1202077525
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/23/2010 12:38
Dilution: 1
Prep Batch ID: 967820
Batch ID: 967824

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	28.8	86	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	32.8	98	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2436**
Client ID: **RE46-10-12972MS**
Lab Sample ID: **1202077526**
Instrument: **ECD8A.I**
Analyst: **JAOC**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike**
Matrix: **S**
%Moisture: **12.3**
Analysis Date: **03/23/2010 15:40**
Prep Batch ID: **967820**
Batch ID: **967824**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	38.0	0.00	U	28.5	75	23-119
11096-82-5	MS	Aroclor-1260	38.0	4.20		35.8	83	28-124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10–2436**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE46–10–12972MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202077527**	**%Moisture:**	**12.3**
Instrument:	**ECD8A.I**	**Analysis Date:**	**03/23/2010 15:52**
Analyst:	**JAOC**	**Prep Batch ID**	**967820**
Inj. Vol:	**1 uL**	**Batch ID:**	**967824**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	37.9	0.00	U	27.8	73	23–119	2	0–28
11096–82–5	MSD Aroclor–1260	37.9	4.20		33.9	78	28–124	5	0–30

Method Blank Summary

SDG Number:	10–2436	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 967820	Instrument ID:	ECD8A.I_2 ECD8A.I_1	Data File:	021b2101–1.d 021f2101–1.d
Lab Sample ID:	1202077524				
Column:	CLP2 CLP1	Prep Date:	03/22/2010 22:20	Analyzed:	03/23/10 12:26
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 967820	1202077525	022f2201–1.d 022b2201–1.d	03/23/10	1238
02 RE46–10–12972	249335002	035f3501.d 035b3501.d	03/23/10	1527
03 RE46–10–12972MS	1202077526	036f3601.d 036b3601.d	03/23/10	1540
04 RE46–10–12972MSD	1202077527	037f3701.d 037b3701.d	03/23/10	1552
05 RE46–10–13003	249335003	038f3801.d 038b3801.d	03/23/10	1604
06 RE46–10–12967	249335004	039f3901.d 039b3901.d	03/23/10	1617
07 RE46–10–12971	249335005	040f4001.d 040b4001.d	03/23/10	1629
08 RE46–10–12968	249335006	041f4101.d 041b4101.d	03/23/10	1642
09 RE46–10–12969	249335007	042f4201.d 042b4201.d	03/23/10	1658
10 RE46–10–12970	249335008	045f4501.d 045b4501.d	03/23/10	1739

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335004**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**20.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12967**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 16:17**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**039f3901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	039b3901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	21.0	ug/kg	6.99	21.0	1
11104–28–2	Aroclor–1221	U	21.0	ug/kg	6.99	21.0	1
11141–16–5	Aroclor–1232	U	21.0	ug/kg	6.99	21.0	1
53469–21–9	Aroclor–1242	U	21.0	ug/kg	6.99	21.0	1
12672–29–6	Aroclor–1248	U	21.0	ug/kg	6.99	21.0	1
11097–69–1	Aroclor–1254		51.0	ug/kg	6.99	21.0	2
11096–82–5	Aroclor–1260		23.5	ug/kg	6.99	21.0	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/039f3901.d
Lab Smp Id: 249335004 Client Smp ID: RE46-10-12967
Inj Date : 23-MAR-2010 16:17
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249335004|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12967|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 39
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	20.72070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.248	0.000	3955778	31.6560	6.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	3055062	37.0980	7.8	80.00- 120.00	100.00(M)
6 Aroclor-1254					CAS #: 11097-69-1		
3.830	3.830	0.000	762850	176.017	36.9	80.00- 120.00	100.00(M)
4.017	4.017	0.000	1179106	204.474	42.9	87.01- 127.01	154.57
4.213	4.213	0.000	778955	174.711	36.7	49.92- 89.92	102.11
4.299	4.300	-0.001	1705818	226.791	47.6	31.87- 71.87	223.61
4.495	4.496	-0.001	1192029	207.338	43.5	16.76- 56.76	156.26

Average of Peak Concentrations = 41.5

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.429	-0.001	887063	150.603	31.6	80.00- 120.00	100.00(M)
4.624	4.625	-0.001	1558717	183.480	38.5	127.82- 167.82	175.72
4.901	4.900	0.001	362447	71.5412	15.0	67.21- 107.21	40.86
5.071	5.072	-0.001	226196	42.4461	8.9	73.14- 113.14	25.50
5.482	5.483	-0.001	363760	64.4852	13.5	79.68- 119.68	41.01
Average of Peak Concentrations =					21.5		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032310.b/039f3901.d

Date : 23-MAR-2010 16:17

Client ID: RE46-10-12967

Sample Info: |249335004|5|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

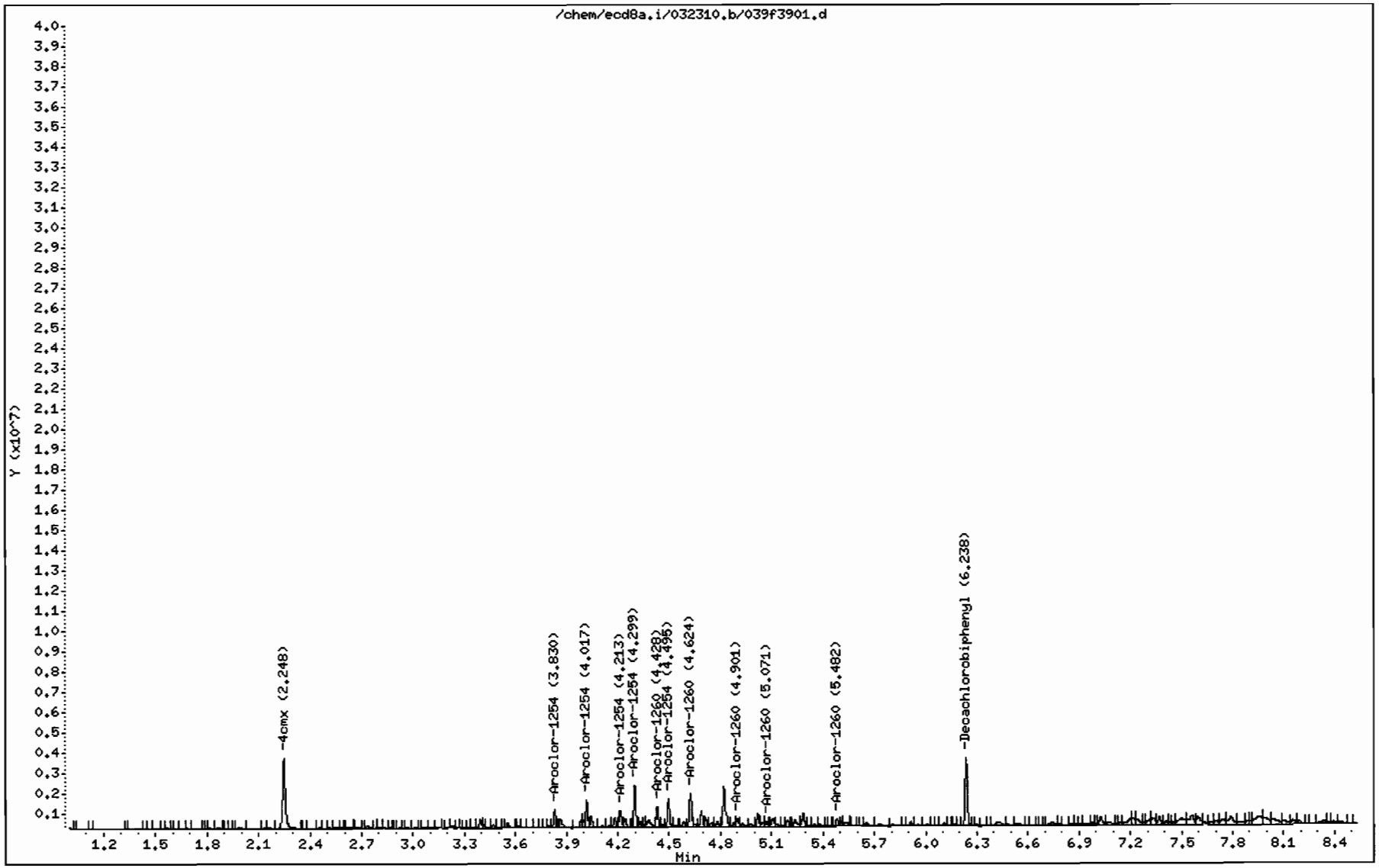

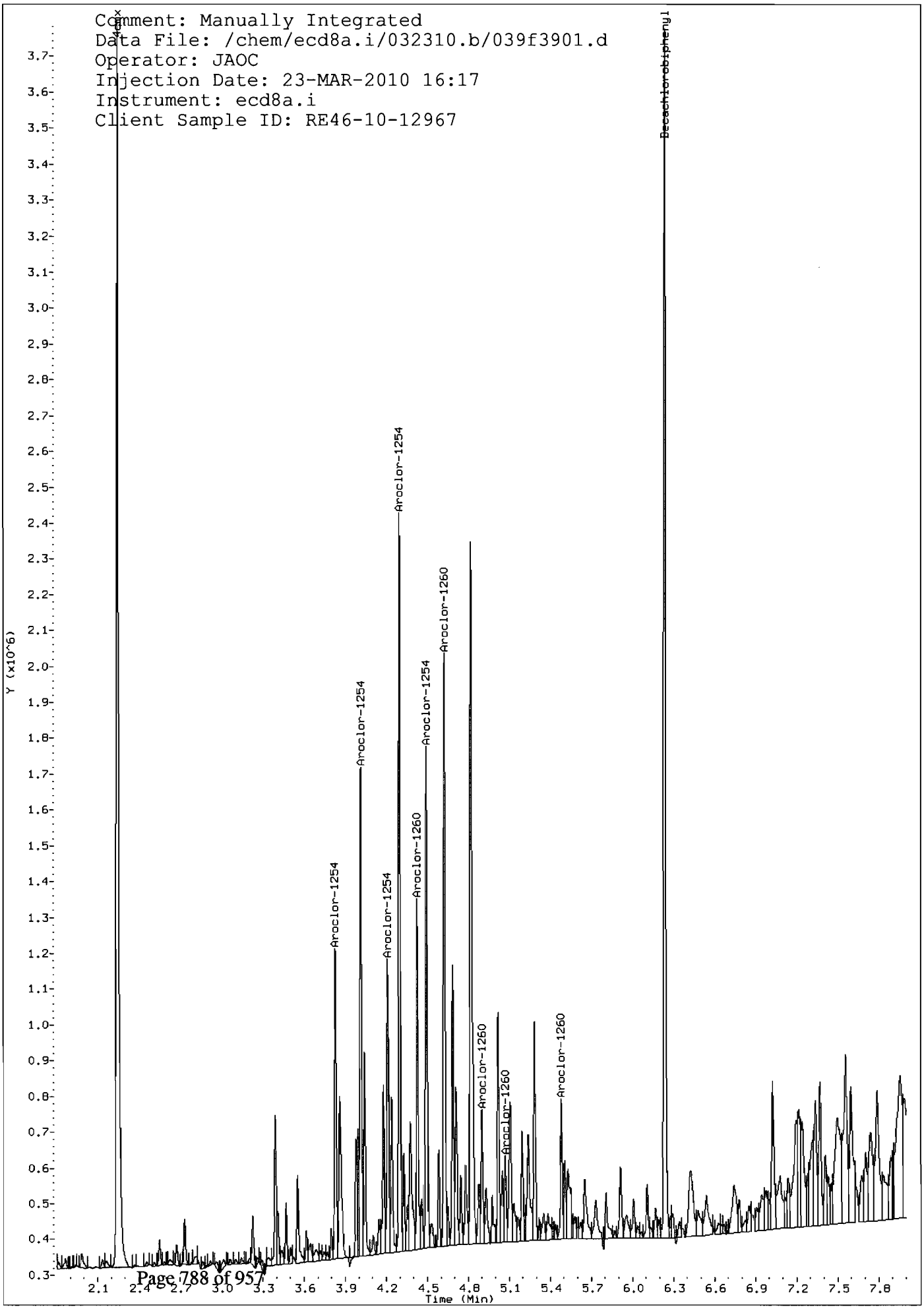
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032310.b/039f3901.d
Operator: JAOC
Injection Date: 23-MAR-2010 16:17
Instrument: ecd8a.i
Client Sample ID: RE46-10-12967
Decachlorobiphenyl
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^6)
Time (Min)

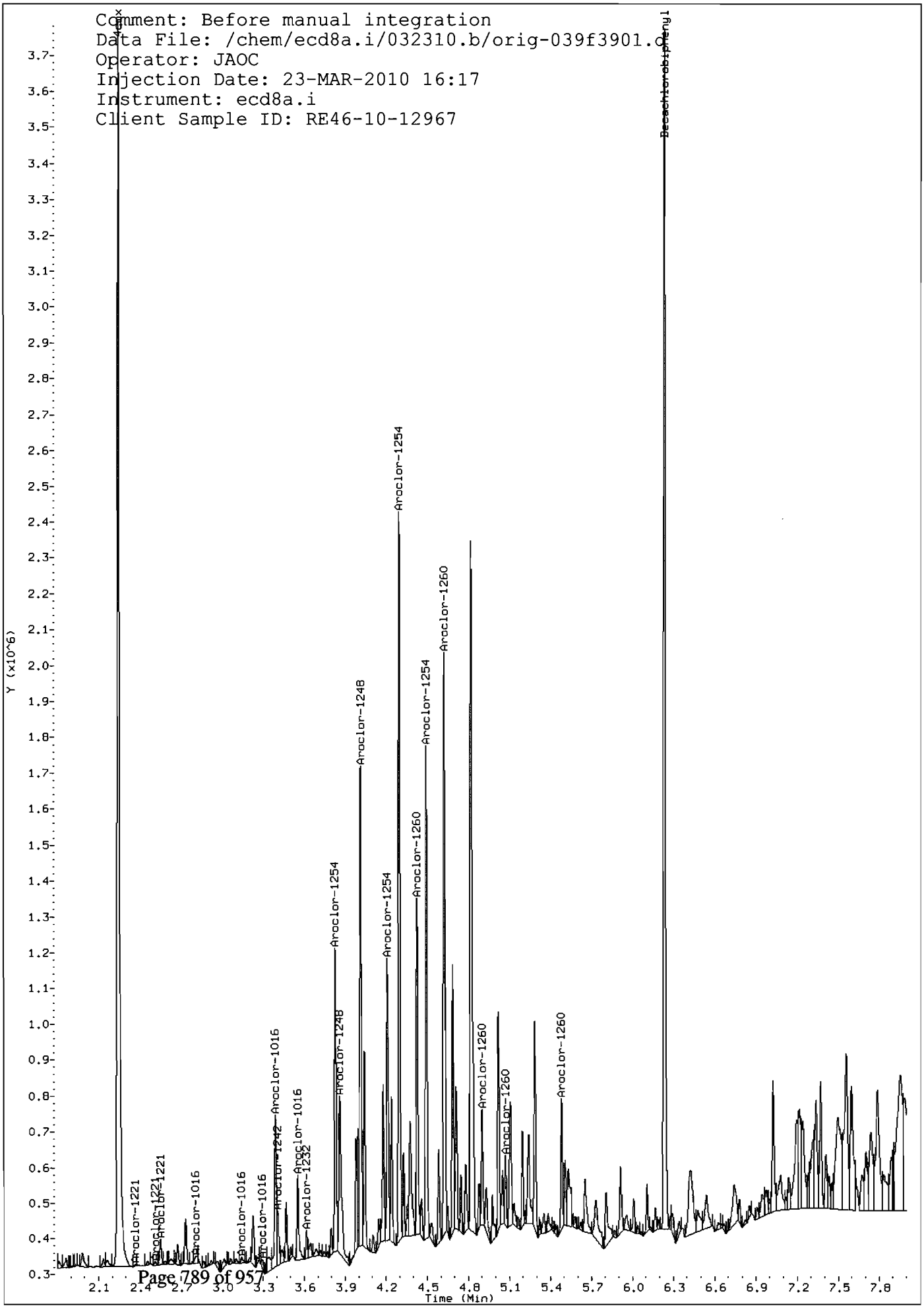
Comment: Before manual integration
Data File: /chem/ecd8a.i/032310.b/orig-039f3901.D
Operator: JAOC
Injection Date: 23-MAR-2010 16:17
Instrument: ecd8a.i
Client Sample ID: RE46-10-12967
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1242
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/039b3901.d
Lab Smp Id: 249335004 Client Smp ID: RE46-10-12967
Inj Date : 23-MAR-2010 16:17
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249335004|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12967|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 39
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	20.72070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.476	0.000	2634213	31.5165	6.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.824	-0.002	2188439	36.9341	7.8	80.00- 120.00	100.00(M)
6 Aroclor-1254					CAS #: 11097-69-1		
4.301	4.301	0.000	542927	174.202	36.6	80.00- 120.00	100.00(M)
4.440	4.440	0.000	759668	218.412	45.8	91.97- 131.97	139.92
4.768	4.769	-0.001	1193999	247.100	51.9	138.62- 178.62	219.92
4.930	4.931	-0.001	732364	209.603	44.0	93.56- 133.56	134.89
5.056	5.057	-0.001	803970	365.160	76.6	51.06- 91.06	148.08

Average of Peak Concentrations = 51.0

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.907	0.000	772012	196.016	41.1	80.00- 120.00	100.00(M)
5.056	5.056	0.000	803970	169.955	35.7	102.64- 142.64	104.14
5.374	5.373	0.001	287366	80.1210	16.8	72.26- 112.26	37.22
5.579	5.580	-0.001	176245	47.4767	10.0	76.20- 116.20	22.83
6.010	6.011	-0.001	387804	66.3896	13.9	134.50- 174.50	50.23
Average of Peak Concentrations =					23.5		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032310.b/039b3901.d

Page 1

Date : 23-MAR-2010 16:17

Client ID: RE46-10-12967

Instrument: ecd8a.i

Sample Info: |249335004151

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

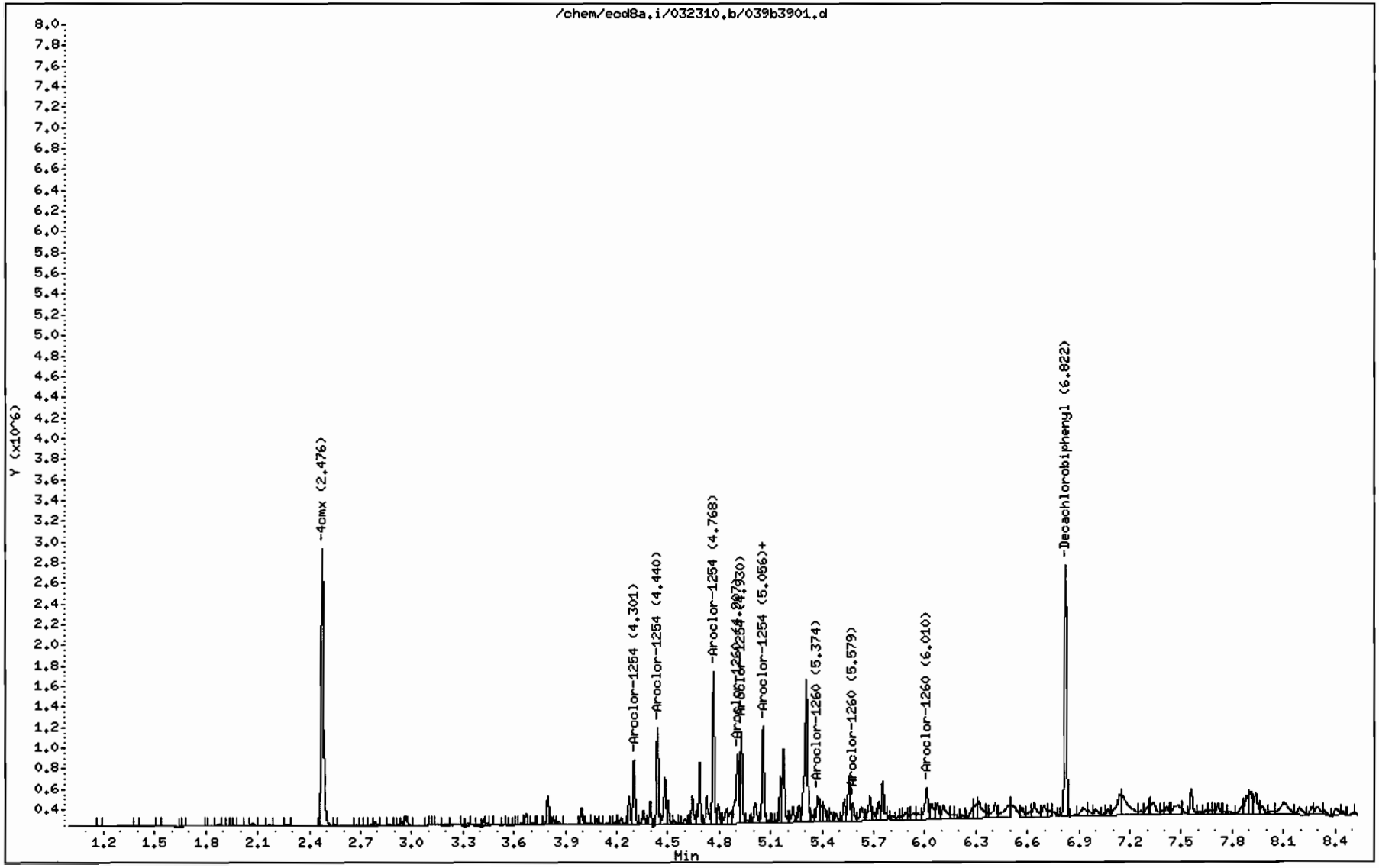

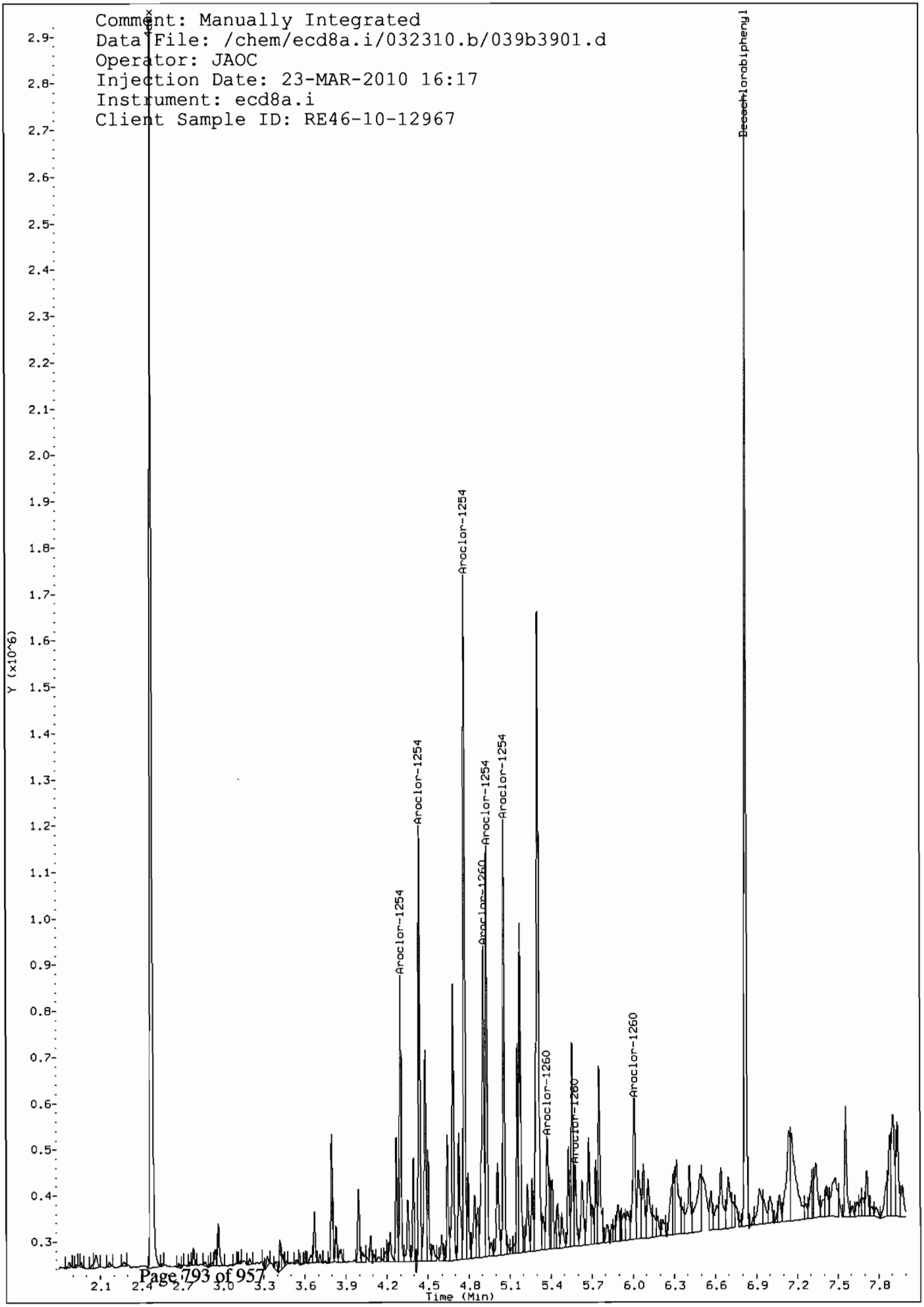
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032310.b/039b3901.d
Operator: JAOC
Injection Date: 23-MAR-2010 16:17
Instrument: ecd8a.i
Client Sample ID: RE46-10-12967
Decachlorobiphenyl
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
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Y (x10^6)
Time (Min)

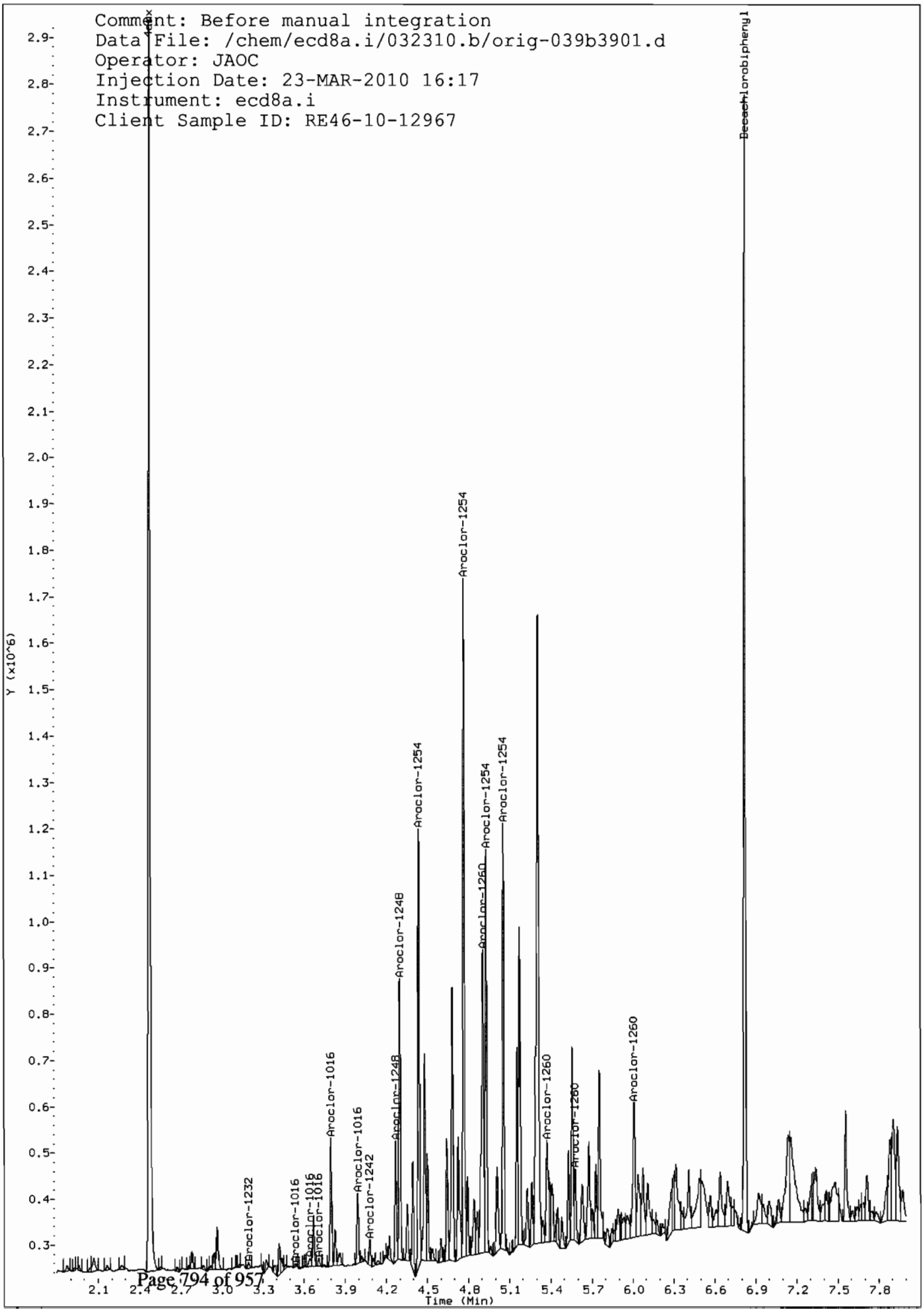
Comment: Before manual integration
Data File: /chem/ecd8a.i/032310.b/orig-039b3901.d
Operator: JAOC
Injection Date: 23-MAR-2010 16:17
Instrument: ecd8a.i
Client Sample ID: RE46-10-12967
Decachlorobiphenyl
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1248
Aroclor-1248
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1232
Aroclor-1016
Y (x10^6)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335006	**Date Received:**	03/13/2010 09:30	**%Moisture:**	10.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–12968	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967824	**Inst:**	ECD8A.I	**Dilution:**	5
Run Date:	03/23/2010 16:42	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 22:20	**Aliquot:**	30.11 g	**Final Volume:**	1 mL
Data File:	041f4101.d	**Column:**	1 CLP1	**Level:**	LOW
	041b4101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.5	ug/kg	6.17	18.5	1
11104–28–2	Aroclor–1221	U	18.5	ug/kg	6.17	18.5	1
11141–16–5	Aroclor–1232	U	18.5	ug/kg	6.17	18.5	1
53469–21–9	Aroclor–1242	U	18.5	ug/kg	6.17	18.5	1
12672–29–6	Aroclor–1248	U	18.5	ug/kg	6.17	18.5	1
11097–69–1	Aroclor–1254		151	ug/kg	6.17	18.5	2
11096–82–5	Aroclor–1260		58.1	ug/kg	6.17	18.5	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/041f4101.d
Lab Smp Id: 249335006 Client Smp ID: RE46-10-12968
Inj Date : 23-MAR-2010 16:42
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249335006|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12968|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 41
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weight of sample extracted (g)
M	10.43520	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.248	0.001	3965296	31.7322	5.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	3061036	37.1706	6.9	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.829	3.830	-0.001	2719362	627.454	116	80.00- 120.00	100.00
4.017	4.017	0.000	4031456	699.113	130	87.01- 127.01	148.25
4.213	4.213	0.000	3034957	680.709	126	49.92- 89.92	111.61
4.299	4.300	-0.001	5445438	723.980	134	31.87- 71.87	200.25
4.494	4.496	-0.002	3771172	655.947	122	16.76- 56.76	138.68
Average of Peak Concentrations =					126		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.429	-0.001	2662805	452.085	83.8	80.00- 120.00	100.00
4.624	4.625	-0.001	5190453	610.980	113	127.82- 167.82	194.92
4.899	4.900	-0.001	716995	141.523	26.2	67.21- 107.21	26.93
5.070	5.072	-0.002	611408	114.732	21.3	73.14- 113.14	22.96
5.482	5.483	-0.001	1135357	201.269	37.3	79.68- 119.68	42.64
Average of Peak Concentrations =					56.3		

Data File: /chem/ecd8a.i/032310.b/041f4101.d

Date : 23-MAR-2010 16:42

Client ID: RE46-10-12968

Sample Info: |249335006|5|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

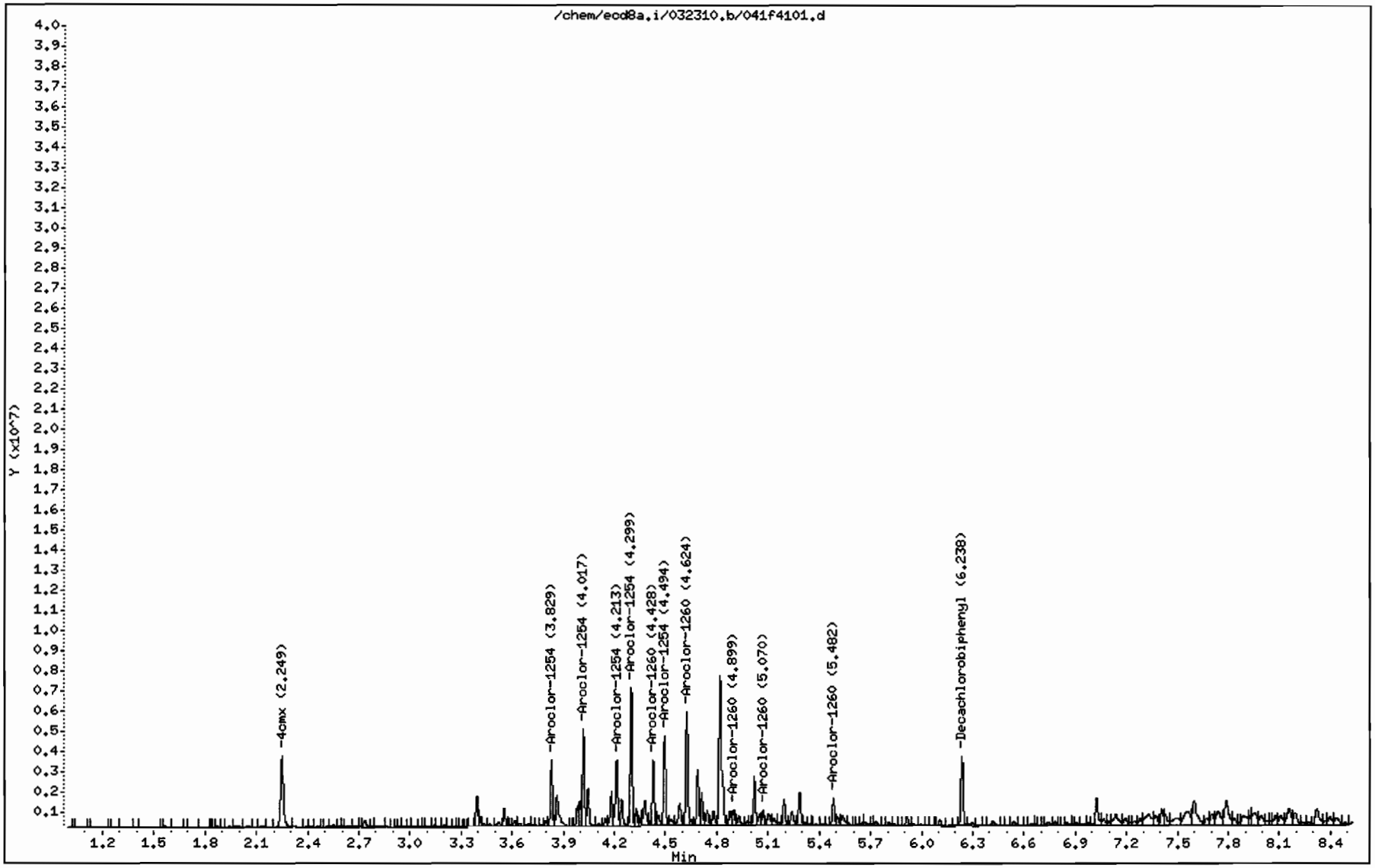

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/041b4101.d
Lab Smp Id: 249335006 Client Smp ID: RE46-10-12968
Inj Date : 23-MAR-2010 16:42
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249335006|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12968|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 41
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weight of sample extracted (g)
M	10.43520	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	2622628	31.3779	5.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	2278749	38.4583	7.1	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
4.300	4.301	-0.001	2033717	652.531	121	80.00- 120.00	100.00
4.439	4.440	-0.001	2816362	809.732	150	91.97- 131.97	138.48
4.768	4.769	-0.001	3880419	803.060	149	138.62- 178.62	190.80
4.929	4.931	-0.002	2360883	675.686	125	93.56- 133.56	116.09
5.056	5.057	-0.001	2493832	1132.69	210	51.06- 91.06	122.62

Average of Peak Concentrations = 151

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.906	4.907	-0.001	2063530	523.937	97.1	80.00- 120.00	100.00
5.056	5.056	0.000	2493832	527.184	97.7	102.64- 142.64	120.85
5.376	5.373	0.003	789167	220.029	40.8	72.26- 112.26	38.24
5.579	5.580	-0.001	434567	117.063	21.7	76.20- 116.20	21.06
6.011	6.011	0.000	1040211	178.078	33.0	134.50- 174.50	50.41
Average of Peak Concentrations =					58.1		

Data File: /chem/ecd8a.i/032310.b/041b4101.d

Date : 23-MAR-2010 16:42

Client ID: RE46-10-12968

Sample Info: 1249335006151

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

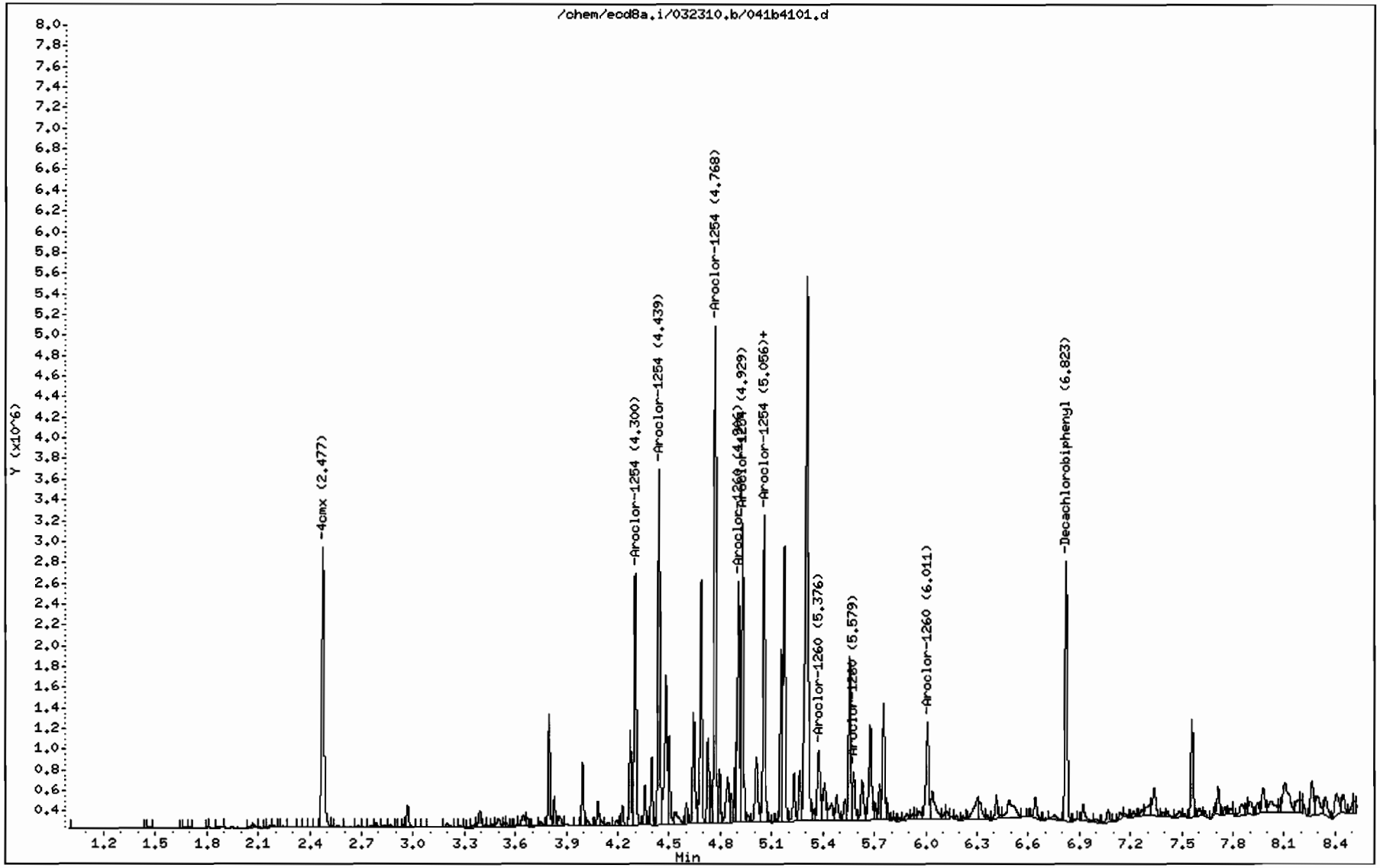

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335007**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12969**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**20**
Run Date:	**03/23/2010 16:58**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**042f4201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	042b4201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	76.1	ug/kg	25.3	76.1	1
11104–28–2	Aroclor–1221	U	76.1	ug/kg	25.3	76.1	1
11141–16–5	Aroclor–1232	U	76.1	ug/kg	25.3	76.1	1
53469–21–9	Aroclor–1242	U	76.1	ug/kg	25.3	76.1	1
12672–29–6	Aroclor–1248	U	76.1	ug/kg	25.3	76.1	1
11097–69–1	Aroclor–1254	U	76.1	ug/kg	25.3	76.1	1
11096–82–5	Aroclor–1260	U	76.1	ug/kg	25.3	76.1	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/042f4201.d
Lab Smp Id: 249335007 Client Smp ID: RE46-10-12969
Inj Date : 23-MAR-2010 16:58
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249335007|20|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12969|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 42
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	12.37980	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.247	2.248	-0.001	711623	5.69475	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.236	6.240	-0.004	340094	4.12981	3.1	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/042f4201.d

Date : 23-MAR-2010 16:58

Client ID: RE46-10-12969

Sample Info: 1249335007I201

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

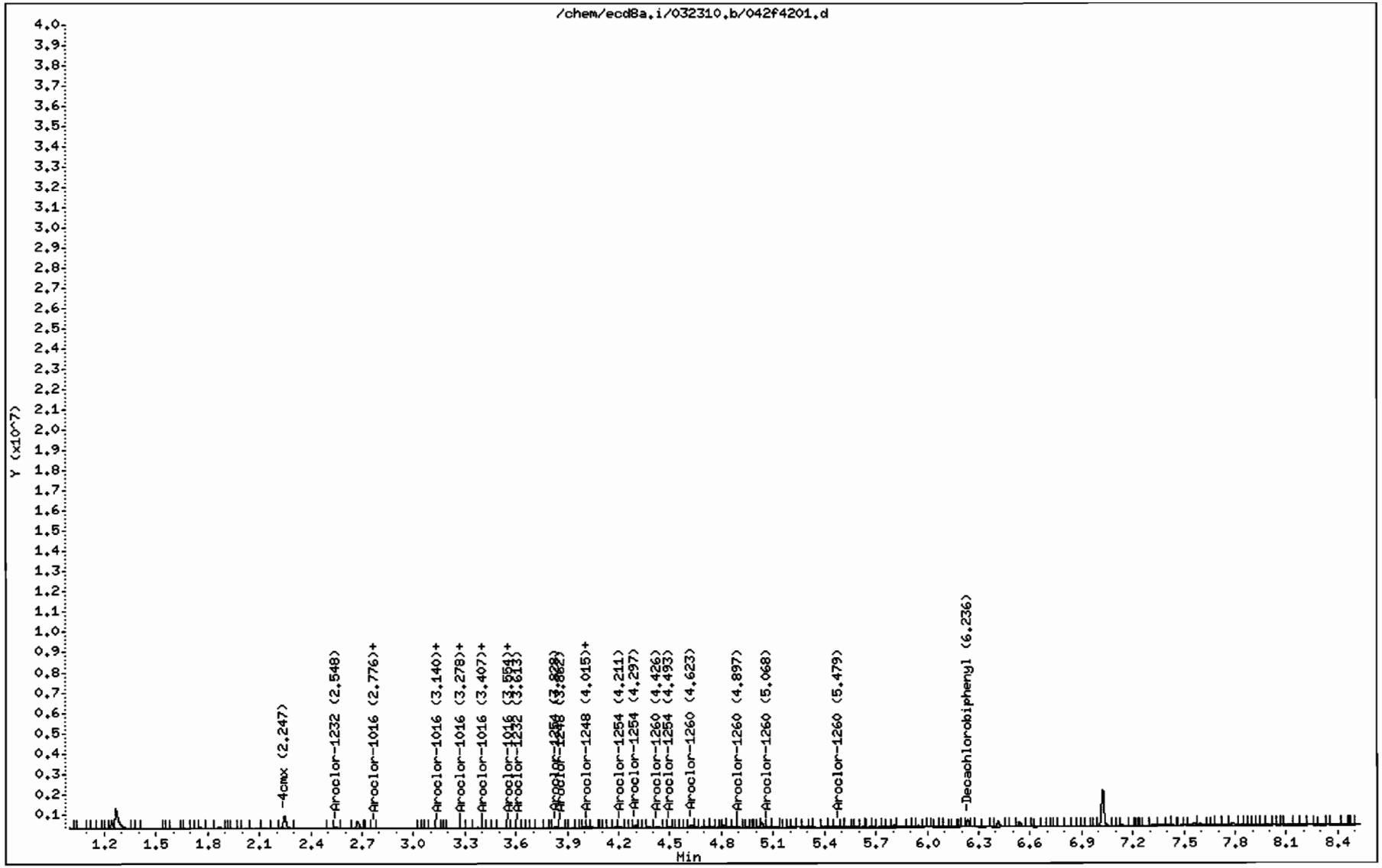

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/042b4201.d
Lab Smp Id: 249335007 Client Smp ID: RE46-10-12969
Inj Date : 23-MAR-2010 16:58
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249335007|20|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12969|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 42
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	12.37980	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.476	0.000	462332	5.53147	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.824	-0.002	414054	6.98797	5.3	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/042b4201.d

Date : 23-MAR-2010 16:58

Client ID: RE46-10-12969

Sample Info: |2493350071201

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

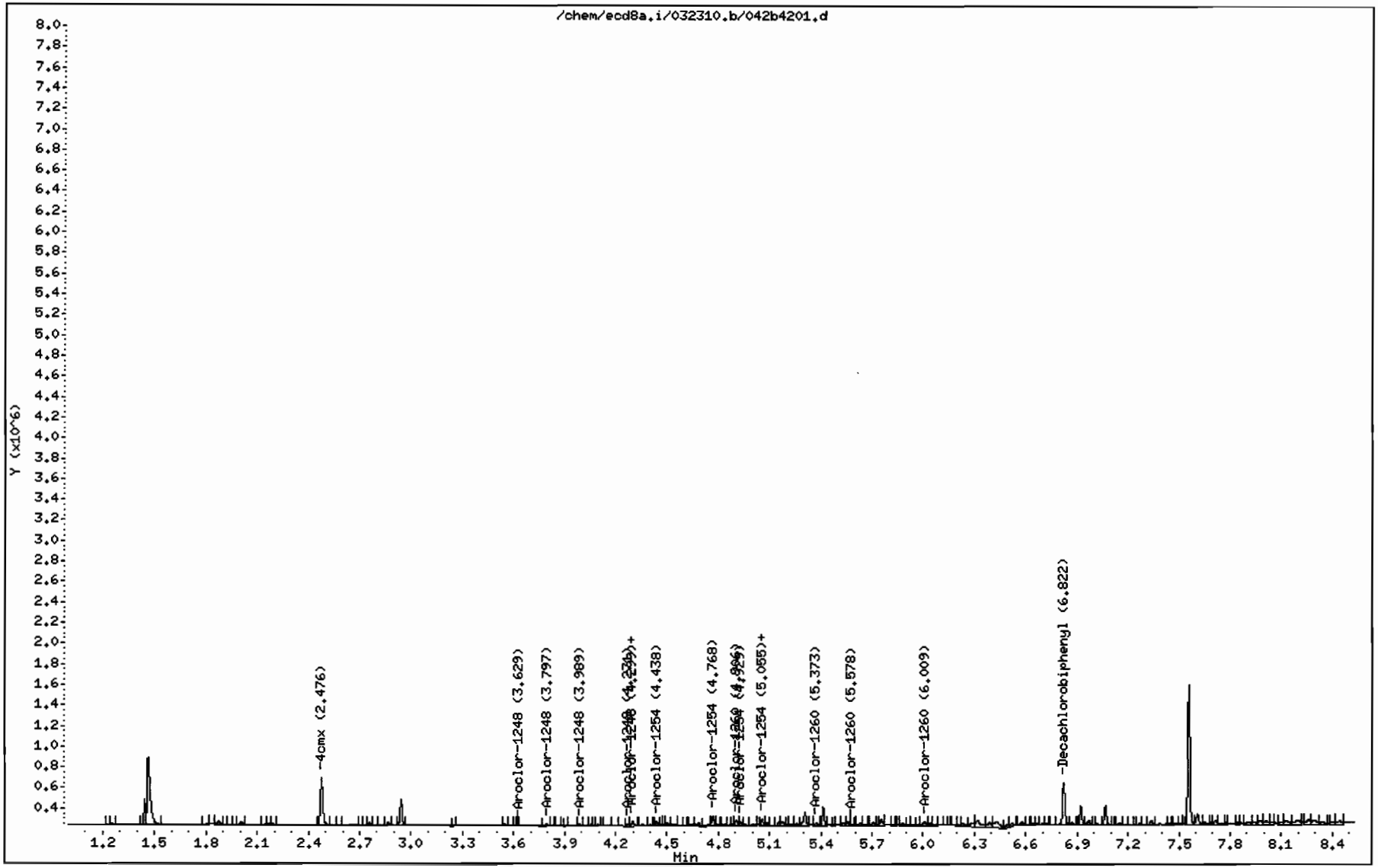

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2436	**Date Collected:**	03/11/2010 12:00	**Matrix:**	S
Lab Sample ID:	249335008	**Date Received:**	03/13/2010 09:30	**%Moisture:**	15.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE46–10–12970	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	967824	**Inst:**	ECD8A.I	**Dilution:**	20
Run Date:	03/23/2010 17:39	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	03/22/2010 22:20	**Aliquot:**	30.09 g	**Final Volume:**	1 mL
Data File:	045f4501.d	**Column:**	1 CLP1	**Level:**	LOW
	045b4501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	78.5	ug/kg	26.2	78.5	1
11104–28–2	Aroclor–1221	U	78.5	ug/kg	26.2	78.5	1
11141–16–5	Aroclor–1232	U	78.5	ug/kg	26.2	78.5	1
53469–21–9	Aroclor–1242	U	78.5	ug/kg	26.2	78.5	1
12672–29–6	Aroclor–1248	U	78.5	ug/kg	26.2	78.5	1
11097–69–1	Aroclor–1254	U	78.5	ug/kg	26.2	78.5	1
11096–82–5	Aroclor–1260	U	78.5	ug/kg	26.2	78.5	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/045f4501.d
Lab Smp Id: 249335008 Client Smp ID: RE46-10-12970
Inj Date : 23-MAR-2010 17:39
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249335008|20|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12970|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 45
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	15.36530	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.248	0.000	963059	7.70685	6.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	738952	8.97320	7.0	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/045f4501.d

Date : 23-MAR-2010 17:39

Client ID: RE46-10-12970

Sample Info: |2493350081201|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

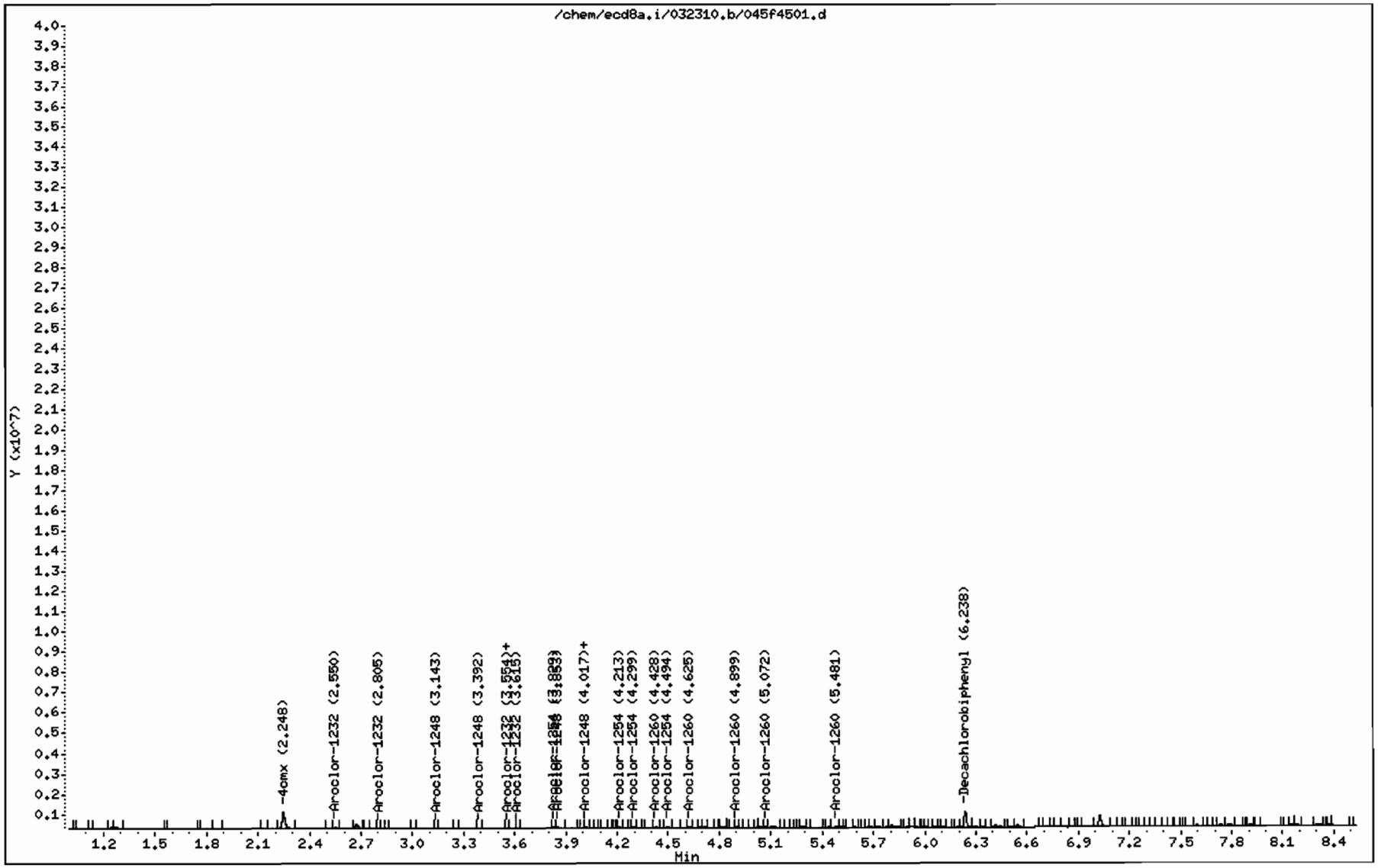

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/045b4501.d
Lab Smp Id: 249335008 Client Smp ID: RE46-10-12970
Inj Date : 23-MAR-2010 17:39
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249335008|20|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12970|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 45
Dil Factor: 20.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.09000	Weight of sample extracted (g)
M	15.36530	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	589131	7.04854	5.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	529034	8.92848	7.0	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/045b4501.d

Date : 23-MAR-2010 17:39

Client ID: RE46-10-12970

Sample Info: 1249335008120|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

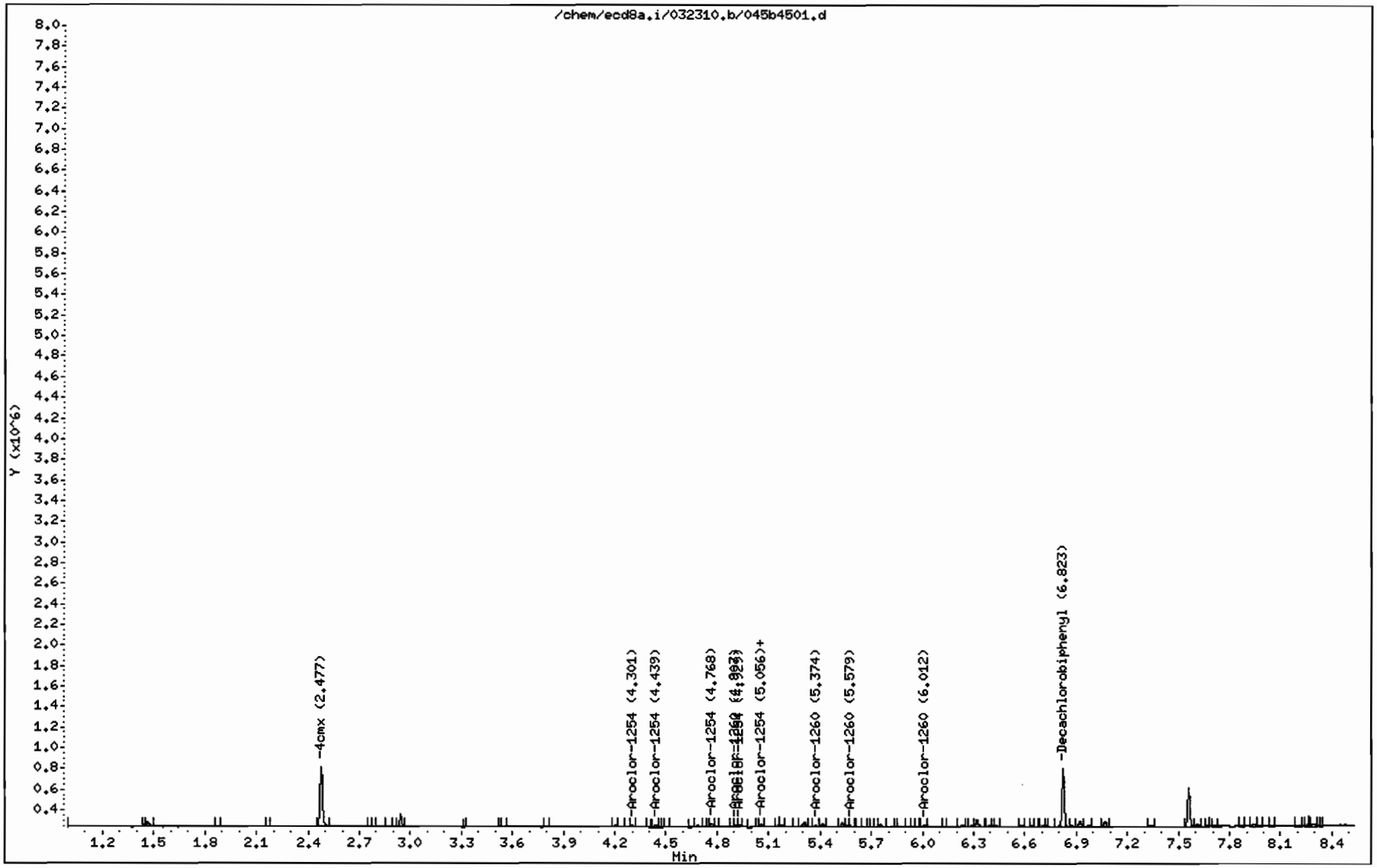

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335005**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**21.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12971**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 16:29**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**040f4001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	040b4001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	21.2	ug/kg	7.07	21.2	1
11104–28–2	Aroclor–1221	U	21.2	ug/kg	7.07	21.2	1
11141–16–5	Aroclor–1232	U	21.2	ug/kg	7.07	21.2	1
53469–21–9	Aroclor–1242	U	21.2	ug/kg	7.07	21.2	1
12672–29–6	Aroclor–1248	U	21.2	ug/kg	7.07	21.2	1
11097–69–1	Aroclor–1254		265	ug/kg	7.07	21.2	2
11096–82–5	Aroclor–1260		96.1	ug/kg	7.07	21.2	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/040f4001.d
Lab Smp Id: 249335005 Client Smp ID: RE46-10-12971
Inj Date : 23-MAR-2010 16:29
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249335005|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12971|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 40
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weight of sample extracted (g)
M	21.79080	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.248	0.001	3540876	28.3358	6.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.237	6.240	-0.003	2837946	34.4616	7.3	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.830	3.830	0.000	4005000	924.097	196	80.00- 120.00	100.00
4.017	4.017	0.000	5748958	996.952	212	87.01- 127.01	143.54
4.213	4.213	0.000	4521761	1014.18	215	49.92- 89.92	112.90
4.299	4.300	-0.001	8312802	1105.20	235	31.87- 71.87	207.56
4.495	4.496	-0.001	5536607	963.021	204	16.76- 56.76	138.24
			Average of Peak Concentrations =		212		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.427	4.429	-0.002	3721731	631.866	134	80.00- 120.00	100.00
4.625	4.625	0.000	7372094	867.786	184	127.82- 167.82	198.08
4.899	4.900	-0.001	1007756	198.915	42.2	67.21- 107.21	27.08
5.071	5.072	-0.001	853147	160.095	34.0	73.14- 113.14	22.92
5.482	5.483	-0.001	1553187	275.340	58.5	79.68- 119.68	41.73
Average of Peak Concentrations =					90.5		

Data File: /chem/ecd8a.i/032310.b/040f4001.d

Page 1

Date : 23-MAR-2010 16:29

Client ID: RE46-10-12971

Instrument: ecd8a.i

Sample Info: |249335005151

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

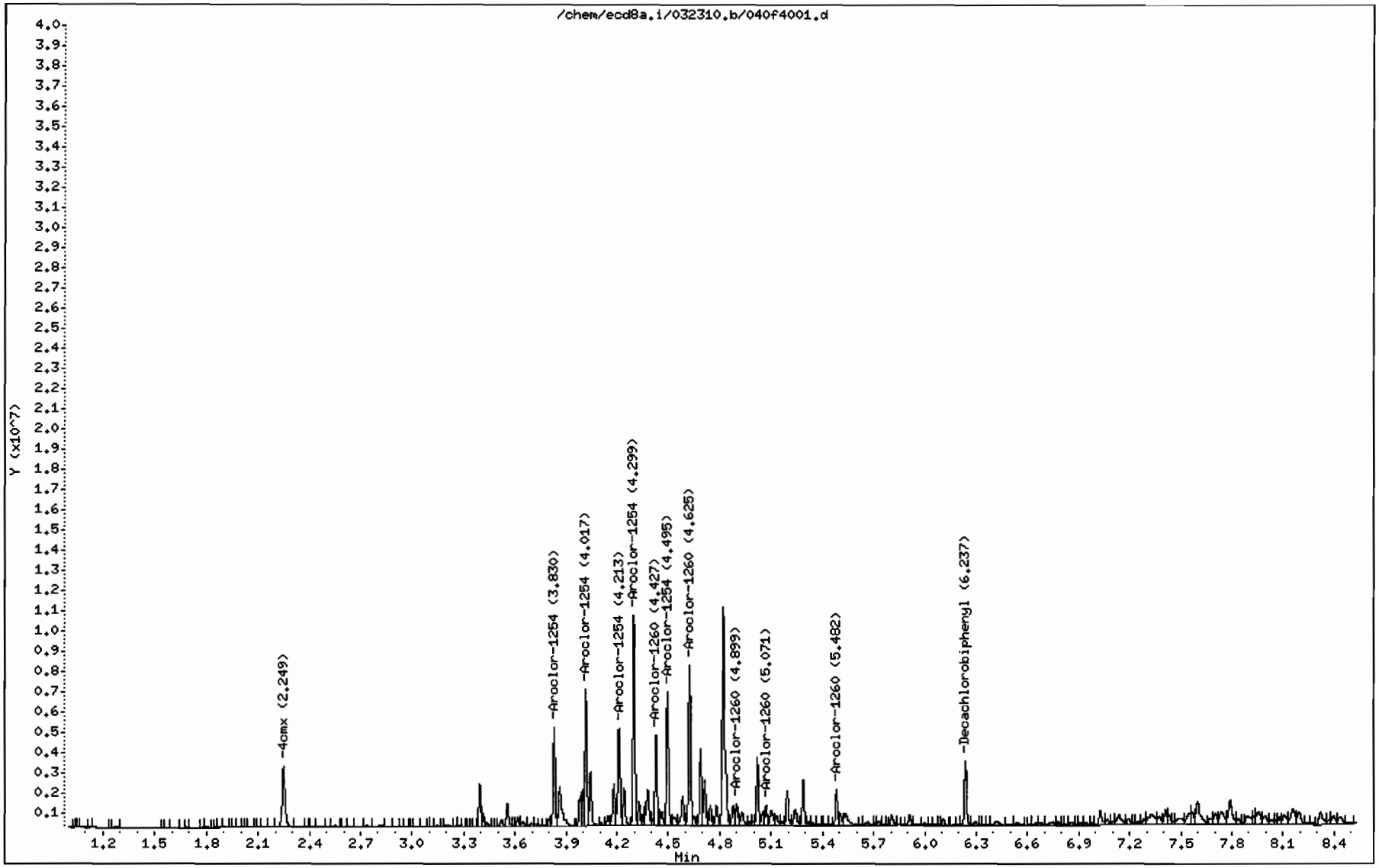

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/040b4001.d
Lab Smp Id: 249335005 Client Smp ID: RE46-10-12971
Inj Date : 23-MAR-2010 16:29
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249335005|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12971|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 40
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weight of sample extracted (g)
M	21.79080	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.476	0.000	2387884	28.5693	6.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	2173543	36.6827	7.8	80.00- 120.00	100.00(M)
6 Aroclor-1254					CAS #: 11097-69-1		
4.301	4.301	0.000	3152211	1011.41	215	80.00- 120.00	100.00(M)
4.440	4.440	0.000	4252922	1222.76	260	91.97- 131.97	134.92
4.768	4.769	-0.001	6267986	1297.17	275	138.62- 178.62	198.84
4.931	4.931	0.000	3617559	1035.35	220	93.56- 133.56	114.76
5.056	5.057	-0.001	3681951	1672.33	355	51.06- 91.06	116.81
Average of Peak Concentrations =					265		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.907	0.000	3071490	779.862	166	80.00- 120.00	100.00(M)
5.056	5.056	0.000	3681951	778.347	165	102.64- 142.64	119.88
5.376	5.373	0.003	1057046	294.717	62.6	72.26- 112.26	34.41
5.579	5.580	-0.001	633661	170.695	36.2	76.20- 116.20	20.63
6.011	6.011	0.000	1391637	238.240	50.6	134.50- 174.50	45.31
Average of Peak Concentrations =					96.1		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032310.b/040b4001.d
Date : 23-MAR-2010 16:29
Client ID: RE46-10-12971
Sample Info: |249335005|5|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

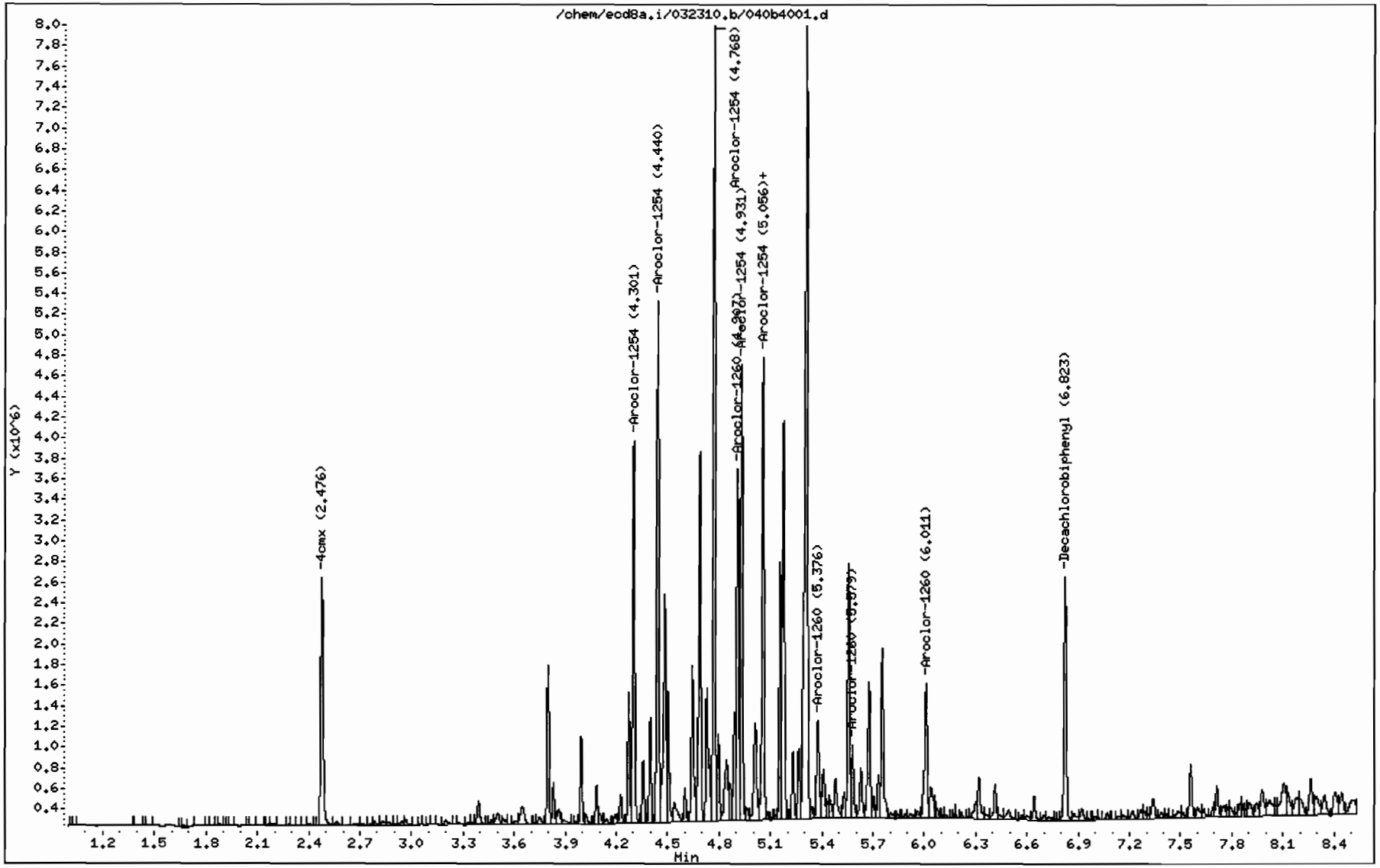

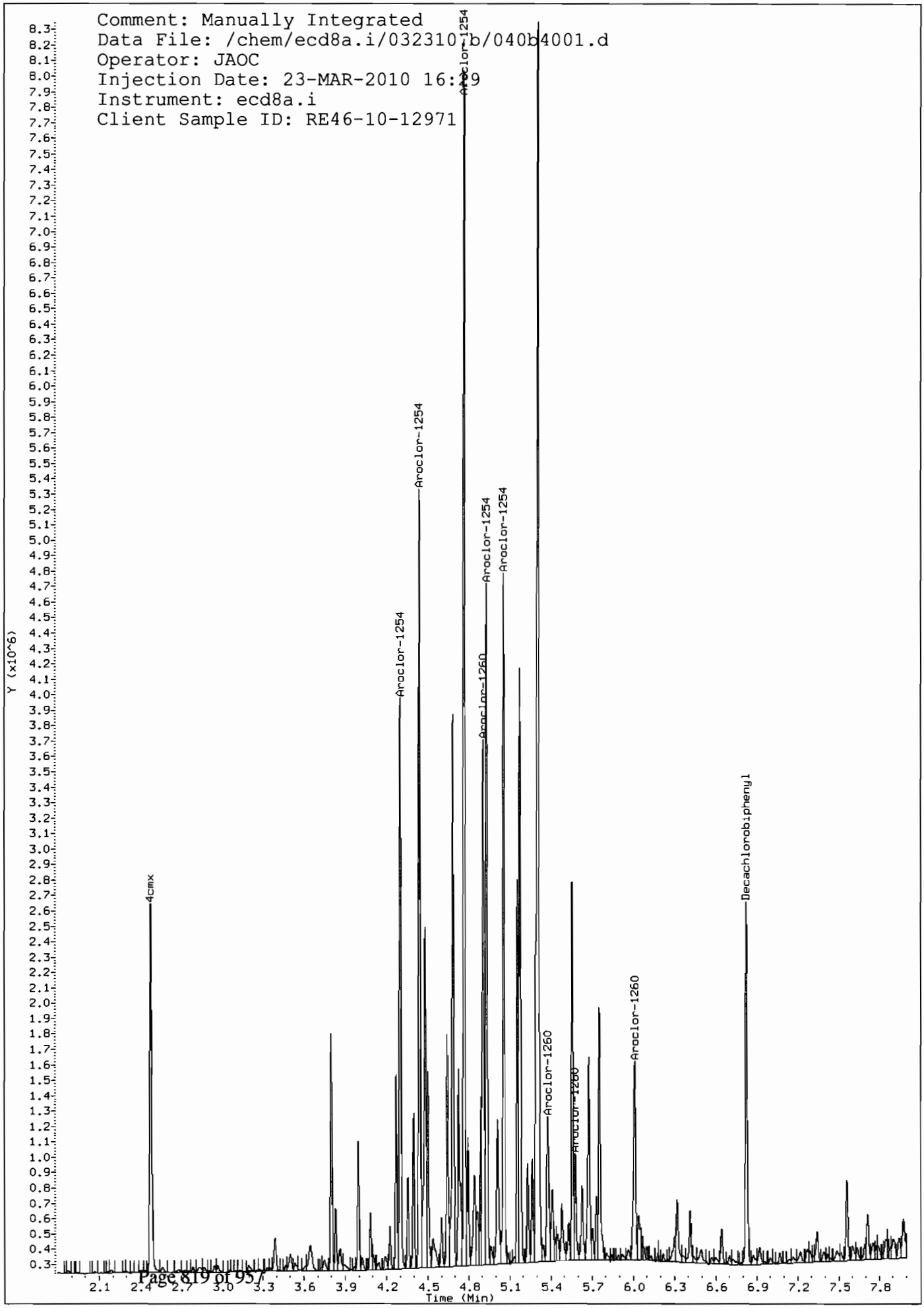
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032310rb/040b4001.d
Operator: JAOC
Injection Date: 23-MAR-2010 16:29
Instrument: ecd8a.i
Client Sample ID: RE46-10-12971
Y (x10^6)
Time (Min)
4cmx
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
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Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

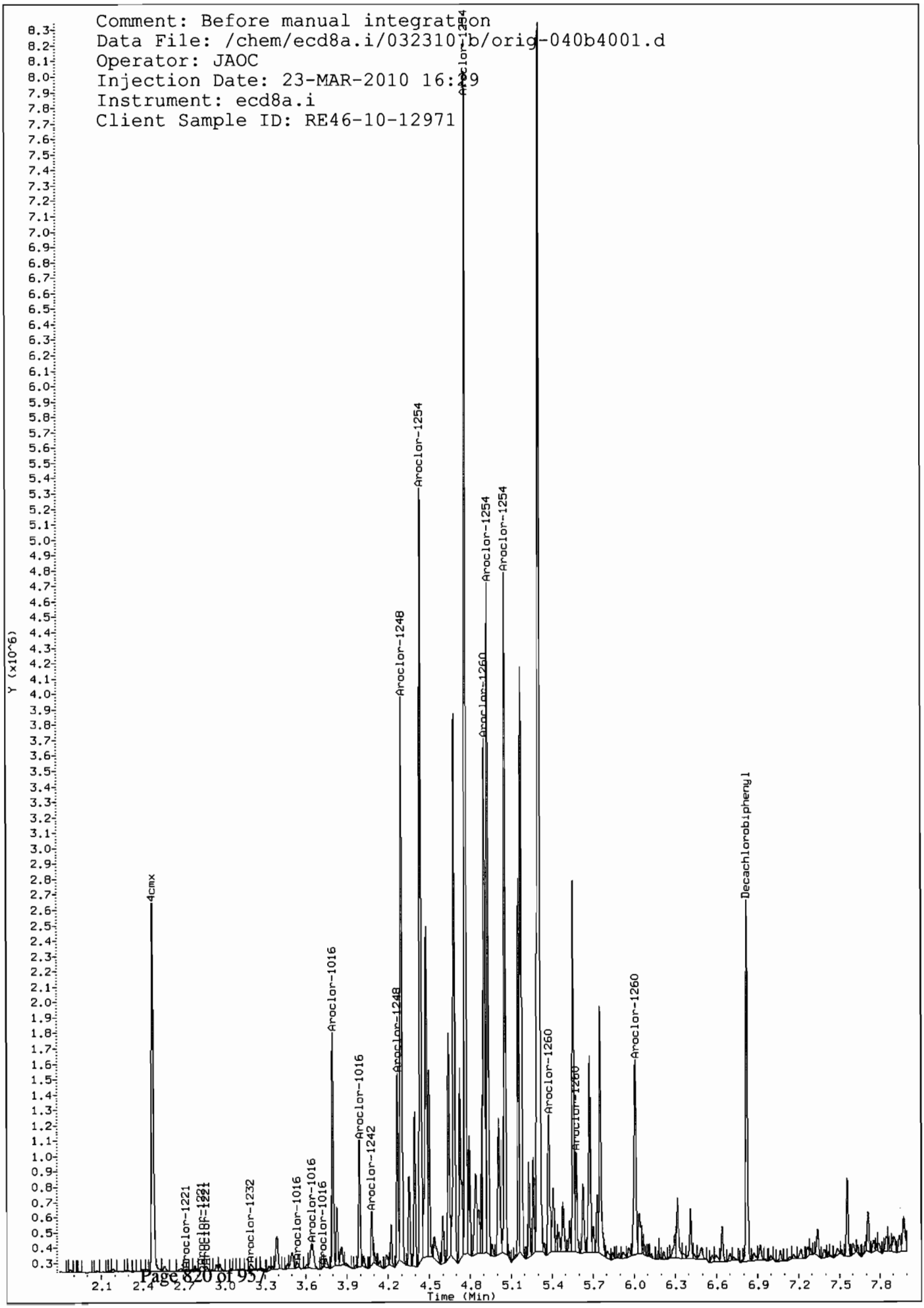
Comment: Before manual integration
Data File: /chem/ecd8a.i/032310rb/orig-040b4001.d
Operator: JAOC
Injection Date: 23-MAR-2010 16:29
Instrument: ecd8a.i
Client Sample ID: RE46-10-12971
Y (x10^6)
Time (Min)
4cmx
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335002**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–12972**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 15:27**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.17 g**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	035b3501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.78	ug/kg	1.26	3.78	1
11104–28–2	Aroclor–1221	U	3.78	ug/kg	1.26	3.78	1
11141–16–5	Aroclor–1232	U	3.78	ug/kg	1.26	3.78	1
53469–21–9	Aroclor–1242	U	3.78	ug/kg	1.26	3.78	1
12672–29–6	Aroclor–1248	U	3.78	ug/kg	1.26	3.78	1
11097–69–1	Aroclor–1254		10.7	ug/kg	1.26	3.78	2
11096–82–5	Aroclor–1260		4.20	ug/kg	1.26	3.78	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/035f3501.d
Lab Smp Id: 249335002 Client Smp ID: RE46-10-12972
Inj Date : 23-MAR-2010 15:27
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249335002|1|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12972|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weight of sample extracted (g)
M	12.26540	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.248	0.001	21392897	171.196	6.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	15045882	182.704	6.9	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.830	3.830	0.000	910098	209.992	7.9	80.00- 120.00	100.00
4.017	4.017	0.000	1422354	246.657	9.3	87.01- 127.01	156.29
4.214	4.213	0.001	979448	219.680	8.3	49.92- 89.92	107.62
4.299	4.300	-0.001	2011079	267.376	10.1	31.87- 71.87	220.97
4.494	4.496	-0.002	1566047	272.394	10.3	16.76- 56.76	172.07

Average of Peak Concentrations = 9.2

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.429	-0.001	937932	159.240	6.0	80.00- 120.00	100.00
4.624	4.625	-0.001	1771298	208.504	7.9	127.82- 167.82	188.85
4.899	4.900	-0.001	357879	70.6396	2.7	67.21- 107.21	38.16
5.070	5.072	-0.002	234630	44.0288	1.7	73.14- 113.14	25.02
5.481	5.483	-0.002	399683	70.8534	2.7	79.68- 119.68	42.61
			Average of Peak Concentrations =		4.2		

Data File: /chem/ecd8a.i/032310.b/035f3501.d

Date : 23-MAR-2010 15:27

Client ID: RE46-10-12972

Sample Info: |249335002|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

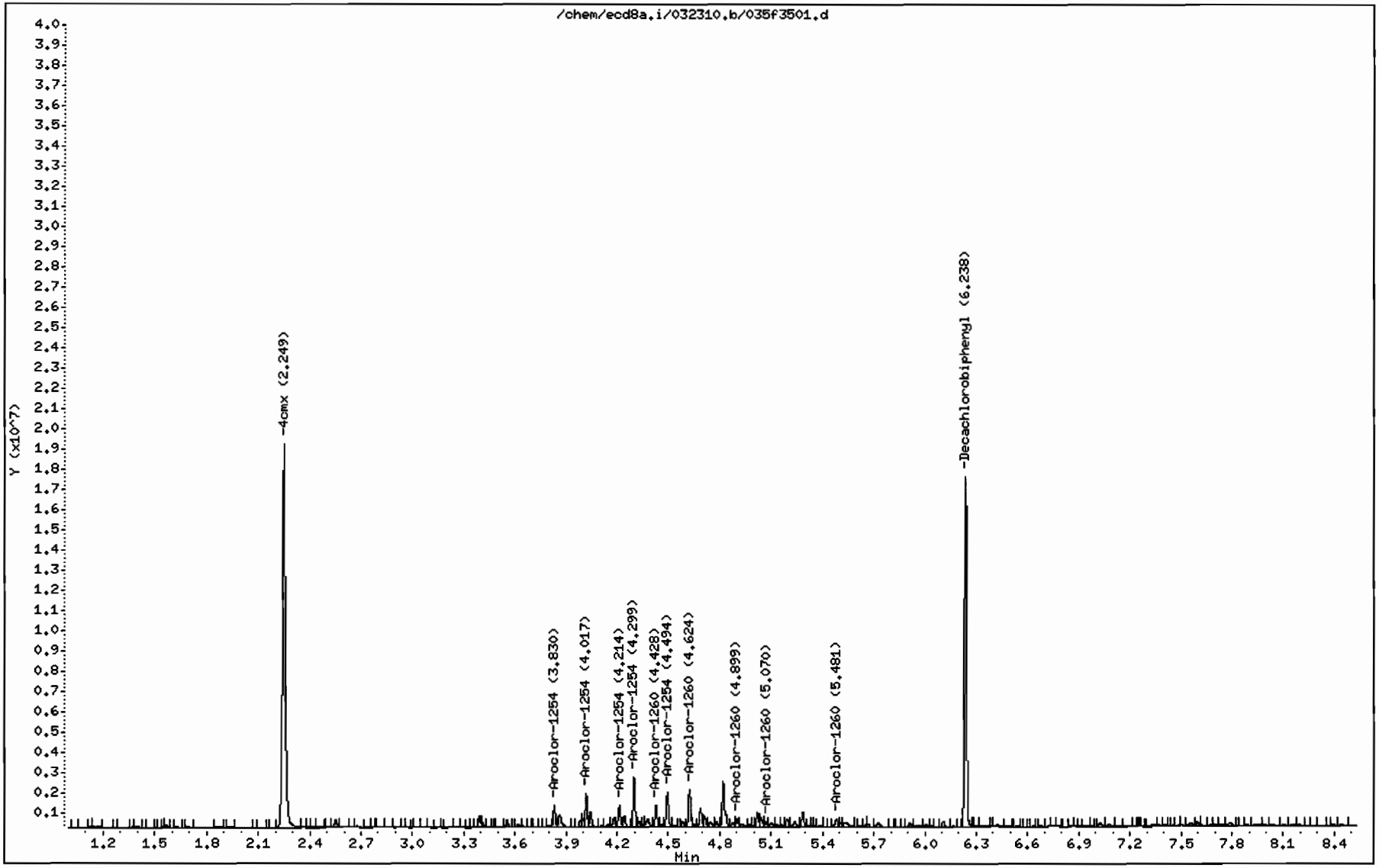

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/035b3501.d
Lab Smp Id: 249335002 Client Smp ID: RE46-10-12972
Inj Date : 23-MAR-2010 15:27
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249335002|1|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-12972|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weight of sample extracted (g)
M	12.26540	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	15317967	183.269	6.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.824	-0.002	11733838	198.031	7.5	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
4.301	4.301	0.000	648428	208.052	7.9	80.00- 120.00	100.00
4.440	4.440	0.000	917014	263.651	10.0	91.97- 131.97	141.42
4.769	4.769	0.000	1393092	288.303	10.9	138.62- 178.62	214.84
4.930	4.931	-0.001	913249	261.372	9.9	93.56- 133.56	140.84
5.056	5.057	-0.001	862462	391.726	14.8	51.06- 91.06	133.01

Average of Peak Concentrations = 10.7

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.907	0.000	813840	206.637	7.8	80.00- 120.00	100.00
5.056	5.056	0.000	862462	182.320	6.9	102.64- 142.64	105.97
5.375	5.373	0.002	249120	69.4576	2.6	72.26- 112.26	30.61
5.579	5.580	-0.001	142290	38.3300	1.4	76.20- 116.20	17.48
6.010	6.011	-0.001	346083	59.2473	2.2	134.50- 174.50	42.52
Average of Peak Concentrations =					4.2		

Data File: /chem/ecd8a.i/032310.b/035b3501.d

Date : 23-MAR-2010 15:27

Client ID: RE46-10-12972

Sample Info: |249335002|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

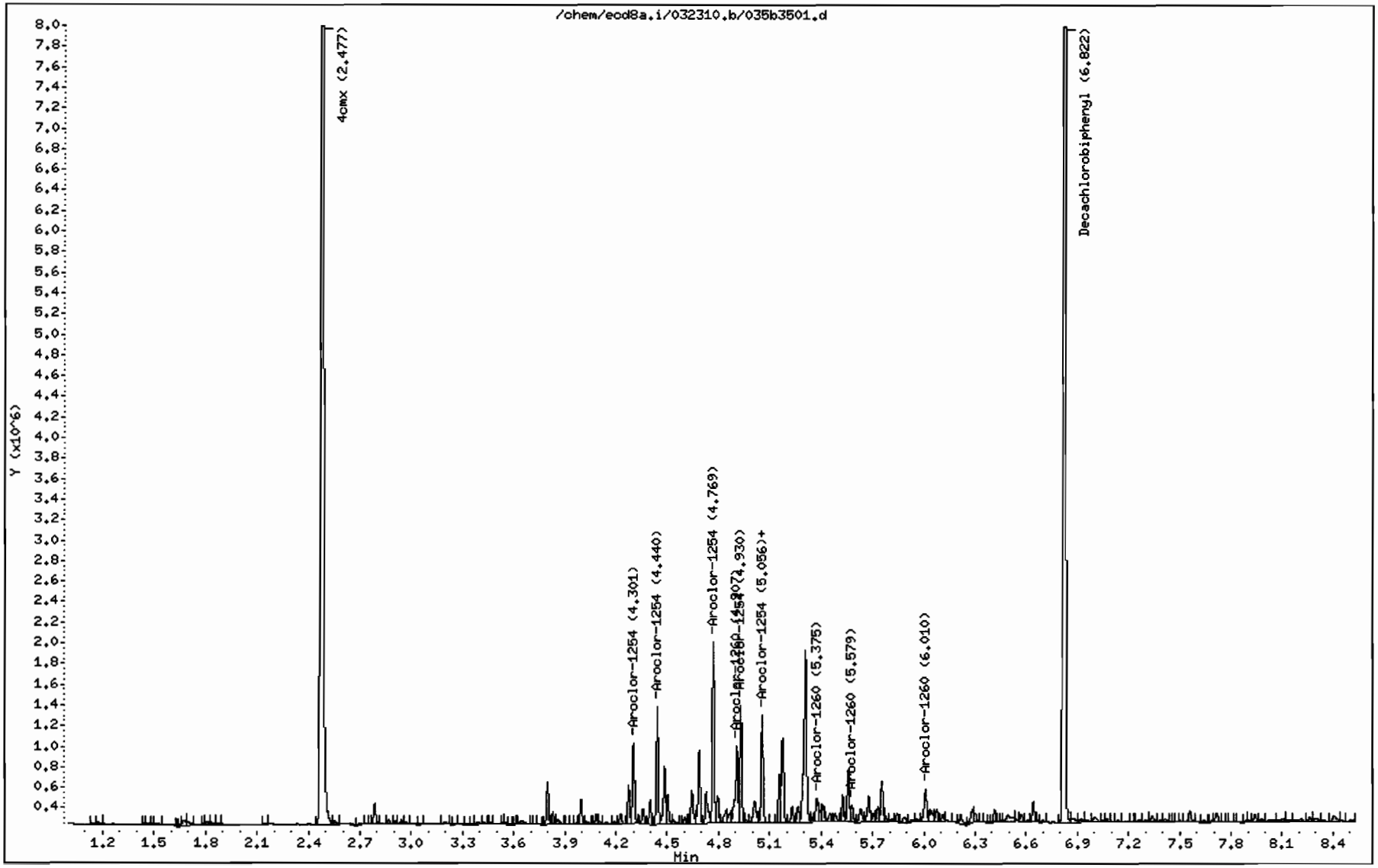

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**249335003**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**11.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE46–10–13003**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**5**
Run Date:	**03/23/2010 16:04**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**038f3801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	038b3801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	18.8	ug/kg	6.26	18.8	1
11104–28–2	Aroclor–1221	U	18.8	ug/kg	6.26	18.8	1
11141–16–5	Aroclor–1232	U	18.8	ug/kg	6.26	18.8	1
53469–21–9	Aroclor–1242	U	18.8	ug/kg	6.26	18.8	1
12672–29–6	Aroclor–1248	U	18.8	ug/kg	6.26	18.8	1
11097–69–1	Aroclor–1254		95.3	ug/kg	6.26	18.8	2
11096–82–5	Aroclor–1260		36.7	ug/kg	6.26	18.8	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/038f3801.d
Lab Smp Id: 249335003 Client Smp ID: RE46-10-13003
Inj Date : 23-MAR-2010 16:04
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249335003|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-13003|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 38
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: l0-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	11.50470	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.248	0.001	2512729	20.1080	3.8	80.00- 120.00	100.00
$ 12 Decachlorobipheny1					CAS #: 2051-24-3		
6.238	6.240	-0.002	1833547	22.2650	4.2	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.829	3.830	-0.001	1715770	395.890	74.4	80.00- 120.00	100.00
4.017	4.017	0.000	2523292	437.575	82.2	87.01- 127.01	147.06
4.213	4.213	0.000	1886005	423.011	79.5	49.92- 89.92	109.92
4.299	4.300	-0.001	3370731	448.144	84.2	31.87- 71.87	196.46
4.494	4.496	-0.002	2291467	398.571	74.9	16.76- 56.76	133.55
Average of Peak Concentrations =					79.0		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.429	-0.001	1783723	302.836	56.9	80.00- 120.00	100.00
4.624	4.625	-0.001	3242700	381.706	71.7	127.82- 167.82	181.79
4.899	4.900	-0.001	468663	92.5065	17.4	67.21- 107.21	26.27
5.071	5.072	-0.001	403612	75.7386	14.2	73.14- 113.14	22.63
5.481	5.483	-0.002	699196	123.949	23.3	79.68- 119.68	39.20
Average of Peak Concentrations =					36.7		

Data File: /chem/ecd8a.i/032310.b/038f3801.d

Date : 23-MAR-2010 16:04

Client ID: RE46-10-13003

Sample Info: 1249335003151

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

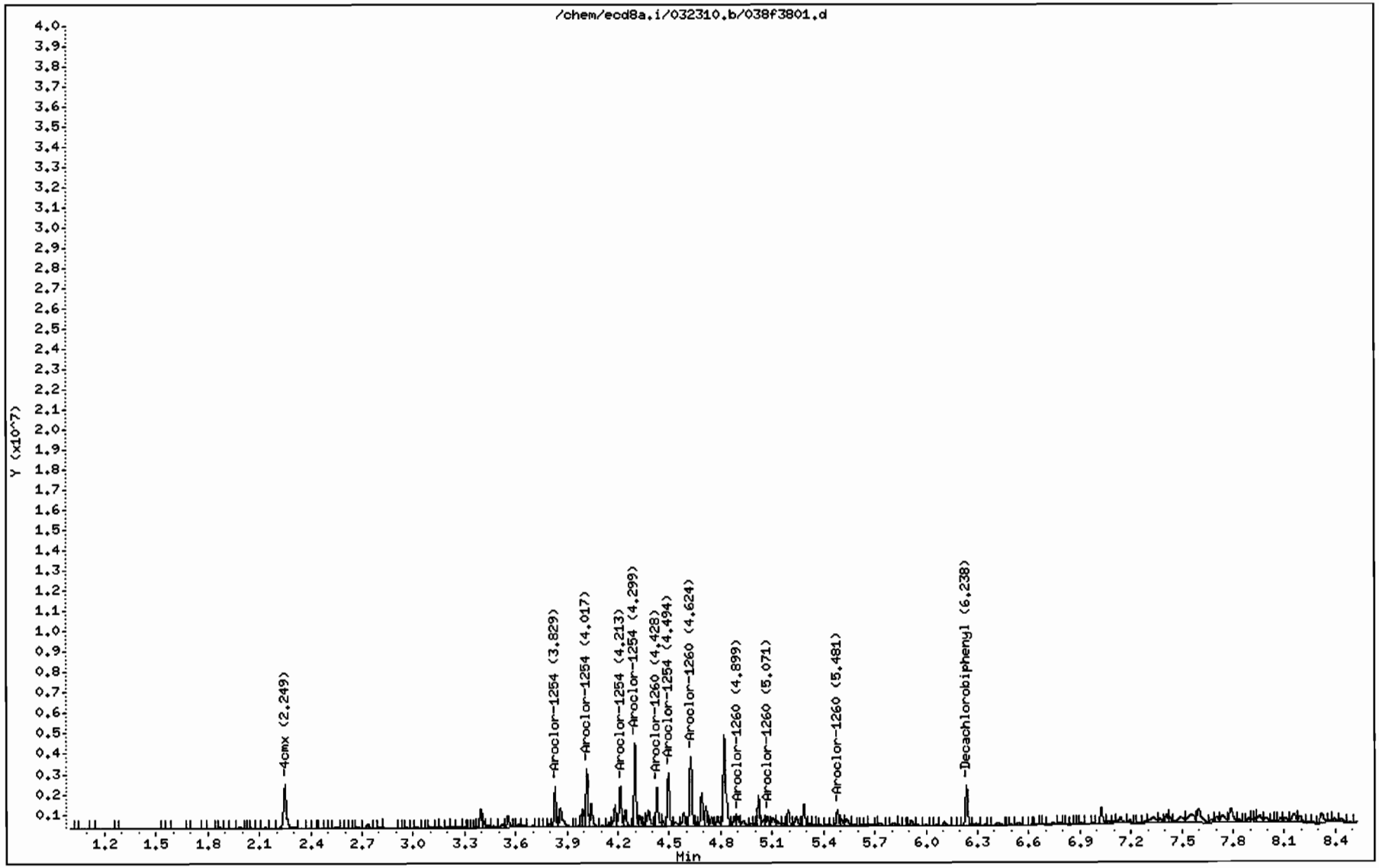

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/038b3801.d
Lab Smp Id: 249335003 Client Smp ID: RE46-10-13003
Inj Date : 23-MAR-2010 16:04
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |249335003|5|
Misc Info : |ECD82P_1S|967824|SVA|LANL|SOIL|RE46-10-13003|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 38
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	11.50470	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	1632958	19.5372	3.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	1512650	25.5289	4.8	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
4.300	4.301	-0.001	1266076	406.228	76.3	80.00- 120.00	100.00
4.439	4.440	-0.001	1733523	498.405	93.6	91.97- 131.97	136.92
4.768	4.769	-0.001	2399641	496.610	93.3	138.62- 178.62	189.53
4.930	4.931	-0.001	1473545	421.730	79.2	93.56- 133.56	116.39
5.055	5.057	-0.002	1571002	713.542	134	51.06- 91.06	124.08

Average of Peak Concentrations = 95.3

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.907	0.000	1278649	324.653	61.0	80.00- 120.00	100.00
5.055	5.056	-0.001	1571002	332.102	62.4	102.64- 142.64	122.86
5.375	5.373	0.002	473824	132.108	24.8	72.26- 112.26	37.06
5.579	5.580	-0.001	303922	81.8703	15.4	76.20- 116.20	23.77
6.011	6.011	0.000	622176	106.513	20.0	134.50- 174.50	48.66
Average of Peak Concentrations =					36.7		

Data File: /chem/ecd8a.i/032310.b/038b3801.d

Date : 23-MAR-2010 16:04

Client ID: RE46-10-13003

Sample Info: |249335003|5|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

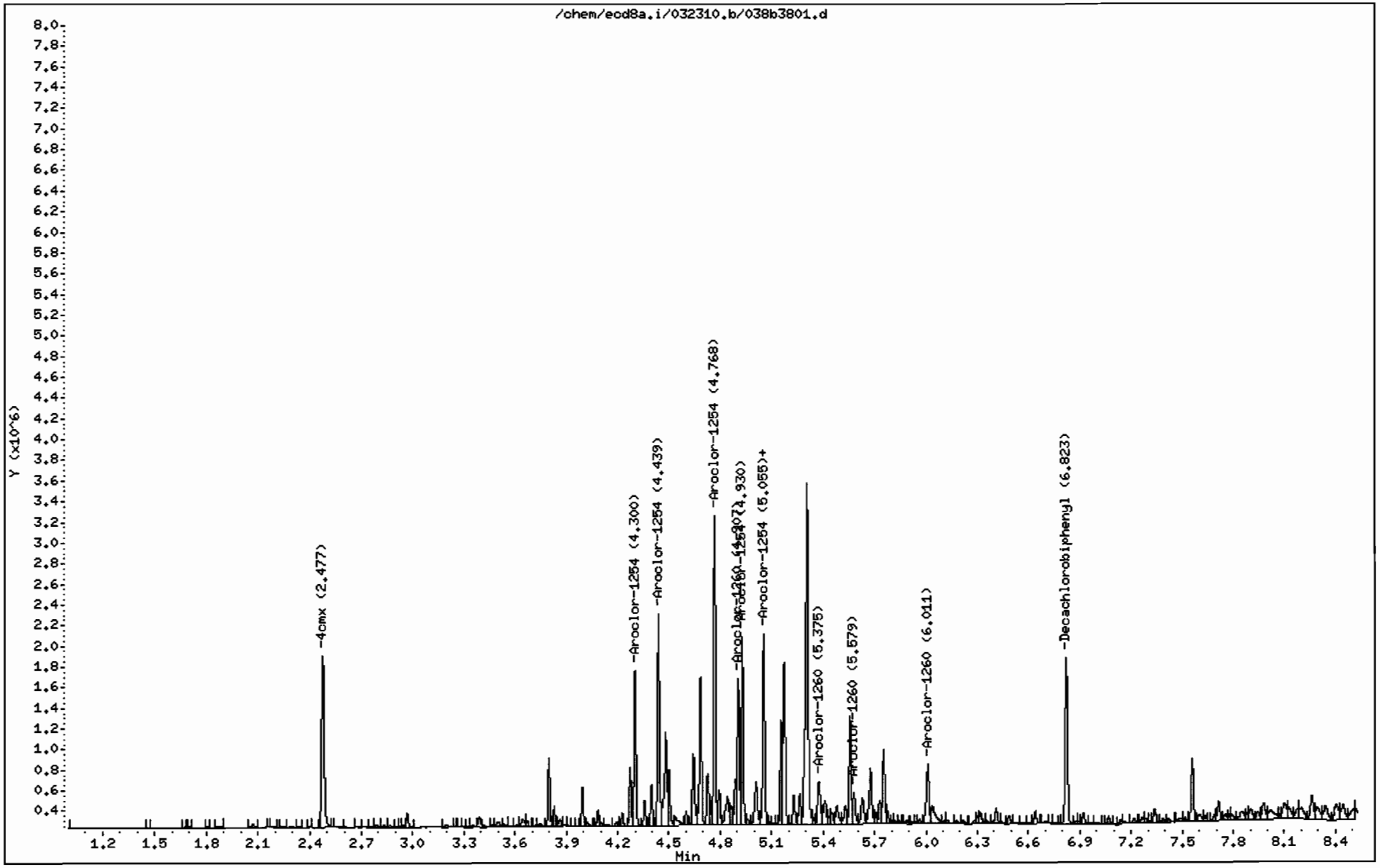

STANDARDS DATA

Report Date: 24-Mar-2010 09:23

Calibration History

Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
23-FEB-2010 10:43	AR1221	/chem/ecd8a.i/022310.b/013f1301.d
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028f2801.d
09-MAR-2010 10:41	AR1248	/chem/ecd8a.i/030910.b/013f1301.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014f1401.d
09-MAR-2010 09:27	AR1254	/chem/ecd8a.i/030910.b/007f0701.d
18-MAR-2010 06:25	AR1660	/chem/ecd8a.i/031810.b/002f0201.d
Cal Level: 2 , Cal Amount: 250.00000		
23-FEB-2010 10:55	AR1221	/chem/ecd8a.i/022310.b/014f1401.d
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029f2901.d
09-MAR-2010 10:53	AR1248	/chem/ecd8a.i/030910.b/014f1401.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015f1501.d
09-MAR-2010 09:39	AR1254	/chem/ecd8a.i/030910.b/008f0801.d
18-MAR-2010 06:38	AR1660	/chem/ecd8a.i/031810.b/003f0301.d
Cal Level: 3 , Cal Amount: 500.00000		
23-FEB-2010 11:07	AR1221	/chem/ecd8a.i/022310.b/015f1501.d
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030f3001.d
09-MAR-2010 11:05	AR1248	/chem/ecd8a.i/030910.b/015f1501.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016f1601.d
09-MAR-2010 09:51	AR1254	/chem/ecd8a.i/030910.b/009f0901.d
18-MAR-2010 06:50	AR1660	/chem/ecd8a.i/031810.b/004f0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036f3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034f3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031f3101.d
23-FEB-2010 11:20	AR1221	/chem/ecd8a.i/022310.b/016f1601.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026f2601.d
09-MAR-2010 11:18	AR1248	/chem/ecd8a.i/030910.b/016f1601.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017f1701.d
09-MAR-2010 10:04	AR1254	/chem/ecd8a.i/030910.b/010f1001.d
18-MAR-2010 07:02	AR1660	/chem/ecd8a.i/031810.b/005f0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
23-FEB-2010 11:32	AR1221	/chem/ecd8a.i/022310.b/017f1701.d
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032f3201.d
09-MAR-2010 11:30	AR1248	/chem/ecd8a.i/030910.b/017f1701.d

03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018f1801.d
09-MAR-2010 10:16	AR1254	/chem/ecd8a.i/030910.b/011f1101.d
18-MAR-2010 07:15	AR1660	/chem/ecd8a.i/031810.b/006f0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:56	AR1660	/chem/ecd8a.i/032310.b/046f4601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:15	AR1660	/chem/ecd8a.i/032310.b/043f4301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 14:38	AR1660	/chem/ecd8a.i/032310.b/031f3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:46	AR1242	/chem/ecd8a.i/032310.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 12:01	AR1660	/chem/ecd8a.i/032310.b/019f1901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:48	AR1268	/chem/ecd8a.i/032310.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:36	AR1262	/chem/ecd8a.i/032310.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:23	AR1221	/chem/ecd8a.i/032310.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:11	AR1232	/chem/ecd8a.i/032310.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:59	AR1248	/chem/ecd8a.i/032310.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:34	AR1254	/chem/ecd8a.i/032310.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:22	AR1660	/chem/ecd8a.i/032310.b/002f0201.d

Report Date: 24-Mar-2010 09:23

Calibration History

Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
23-FEB-2010 10:43	AR1221	/chem/ecd8a.i/022310.b/013b1301.d
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028b2801.d
09-MAR-2010 10:41	AR1248	/chem/ecd8a.i/030910.b/013b1301.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014b1401.d
09-MAR-2010 09:27	AR1254	/chem/ecd8a.i/030910.b/007b0701.d
18-MAR-2010 06:25	AR1660	/chem/ecd8a.i/031810.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
23-FEB-2010 10:55	AR1221	/chem/ecd8a.i/022310.b/014b1401.d
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029b2901.d
09-MAR-2010 10:53	AR1248	/chem/ecd8a.i/030910.b/014b1401.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015b1501.d
09-MAR-2010 09:39	AR1254	/chem/ecd8a.i/030910.b/008b0801.d
18-MAR-2010 06:38	AR1660	/chem/ecd8a.i/031810.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
23-FEB-2010 11:07	AR1221	/chem/ecd8a.i/022310.b/015b1501.d
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030b3001.d
09-MAR-2010 11:05	AR1248	/chem/ecd8a.i/030910.b/015b1501.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016b1601.d
09-MAR-2010 09:51	AR1254	/chem/ecd8a.i/030910.b/009b0901.d
18-MAR-2010 06:50	AR1660	/chem/ecd8a.i/031810.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036b3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034b3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031b3101.d
23-FEB-2010 11:20	AR1221	/chem/ecd8a.i/022310.b/016b1601.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026b2601.d
09-MAR-2010 11:18	AR1248	/chem/ecd8a.i/030910.b/016b1601.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017b1701.d
09-MAR-2010 10:04	AR1254	/chem/ecd8a.i/030910.b/010b1001.d
18-MAR-2010 07:02	AR1660	/chem/ecd8a.i/031810.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
23-FEB-2010 11:32	AR1221	/chem/ecd8a.i/022310.b/017b1701.d
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032b3201.d
09-MAR-2010 11:30	AR1248	/chem/ecd8a.i/030910.b/017b1701.d
03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018b1801.d
09-MAR-2010 10:16	AR1254	/chem/ecd8a.i/030910.b/011b1101.d
18-MAR-2010 07:15	AR1660	/chem/ecd8a.i/031810.b/006b0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:56	AR1660	/chem/ecd8a.i/032310.b/046b4601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 17:15	AR1660	/chem/ecd8a.i/032310.b/043b4301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 14:38	AR1660	/chem/ecd8a.i/032310.b/031b3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 12:01	AR1660	/chem/ecd8a.i/032310.b/019b1901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:48	AR1268	/chem/ecd8a.i/032310.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:36	AR1262	/chem/ecd8a.i/032310.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:23	AR1221	/chem/ecd8a.i/032310.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 09:11	AR1232	/chem/ecd8a.i/032310.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:59	AR1248	/chem/ecd8a.i/032310.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:46	AR1242	/chem/ecd8a.i/032310.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:34	AR1254	/chem/ecd8a.i/032310.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-MAR-2010 08:22	AR1660	/chem/ecd8a.i/032310.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Mar-2010 08:51 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	758.000000
Initial:End Threshold	379.000000
Initial:Area Threshold	734.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.500000
6.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.806	2.776-2.836	4.772e+03
	3.157	3.127-3.187	5.397e+03
	3.301	3.271-3.331	2.352e+03
	3.393	3.363-3.423	2.192e+03
	3.555	3.525-3.585	3.079e+03
2 Aroclor-1221	2.389	2.359-2.419	1.568e+03
	2.503	2.473-2.533	9.154e+02
	2.534	2.504-2.564	3.573e+03
3 Aroclor-1232	2.535	2.505-2.565	2.601e+03
	2.806	2.776-2.836	2.261e+03
	3.301	3.271-3.331	1.243e+03
	3.555	3.525-3.585	1.479e+03
	3.617	3.587-3.647	9.227e+02
4 Aroclor-1242	2.806	2.776-2.836	3.974e+03
	3.157	3.127-3.187	4.796e+03
	3.393	3.363-3.423	1.805e+03
	3.410	3.380-3.440	1.889e+03
	3.556	3.526-3.586	2.645e+03
5 Aroclor-1248	3.143	3.113-3.173	2.721e+03
	3.392	3.362-3.422	3.402e+03
	3.555	3.525-3.585	4.371e+03
	3.860	3.830-3.890	5.250e+03
	4.020	3.990-4.050	4.212e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m

Compound	RT	RT Window	RF
6 Aroclor-1254	3.830	3.800-3.860	4.334e+03
	4.017	3.987-4.047	5.767e+03
	4.213	4.183-4.243	4.459e+03
	4.300	4.270-4.330	7.522e+03
	4.496	4.466-4.526	5.749e+03
7 Aroclor-1260	4.429	4.399-4.459	5.890e+03
	4.625	4.595-4.655	8.495e+03
	4.900	4.870-4.930	5.066e+03
	5.072	5.042-5.102	5.329e+03
	5.483	5.453-5.513	5.641e+03
8 Aroclor-1262	4.331	4.301-4.361	3.367e+03
	4.429	4.399-4.459	5.243e+03
	4.624	4.594-4.654	7.103e+03
	4.900	4.870-4.930	8.580e+03
	5.071	5.041-5.101	7.966e+03
9 Aroclor-1268	5.507	5.477-5.537	1.632e+04
	5.534	5.504-5.564	1.572e+04
	5.668	5.638-5.698	1.207e+04
	5.913	5.883-5.943	6.023e+03
	6.110	6.080-6.140	3.601e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.248	2.218-2.278	1.250e+05
$ 12 Decachlorobiphenyl	6.240	6.210-6.270	8.235e+04
13 4,4'-DDT	4.852	4.832-4.872	2.393e+04
14 4,4'-DDD	4.658	4.638-4.678	1.570e+05
15 4,4'-DDE	4.234	4.214-4.254	1.340e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Mar-2010 08:39 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	733.000000
Initial:End Threshold	366.500000
Initial:Area Threshold	522.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	2.000000
9.000:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.548	3.518-3.578	3.678e+03
	3.647	3.617-3.677	2.551e+03
	3.723	3.693-3.753	1.492e+03
	3.799	3.769-3.829	1.478e+03
	3.995	3.965-4.025	2.025e+03
2 Aroclor-1221	2.717	2.687-2.747	9.481e+02
	2.829	2.799-2.859	5.911e+02
	2.877	2.847-2.907	2.179e+03
3 Aroclor-1232	3.195	3.165-3.225	1.515e+03
	3.548	3.518-3.578	1.744e+03
	3.648	3.618-3.678	1.176e+03
	3.723	3.693-3.753	7.101e+02
	3.798	3.768-3.828	6.182e+02
4 Aroclor-1242	3.196	3.166-3.226	2.677e+03
	3.548	3.518-3.578	3.126e+03
	3.648	3.618-3.678	2.127e+03
	3.995	3.965-4.025	1.703e+03
	4.084	4.054-4.114	1.567e+03
5 Aroclor-1248	3.646	3.616-3.676	1.329e+03
	3.798	3.768-3.828	2.249e+03
	3.994	3.964-4.024	2.790e+03
	4.272	4.242-4.302	3.273e+03
	4.305	4.275-4.335	3.592e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	4.301	4.271-4.331	3.117e+03
		4.440	4.410-4.470	3.478e+03
		4.769	4.739-4.799	4.832e+03
		4.931	4.901-4.961	3.494e+03
		5.057	5.027-5.087	2.202e+03
	7 Aroclor-1260	4.907	4.877-4.937	3.939e+03
		5.056	5.026-5.086	4.730e+03
		5.373	5.343-5.403	3.587e+03
		5.580	5.550-5.610	3.712e+03
		6.011	5.981-6.041	5.841e+03
	8 Aroclor-1262	4.907	4.877-4.937	3.276e+03
		5.056	5.026-5.086	3.827e+03
		5.373	5.343-5.403	5.446e+03
		5.580	5.550-5.610	5.047e+03
		6.008	5.978-6.038	7.196e+03
	9 Aroclor-1268	6.006	5.976-6.036	1.138e+04
		6.039	6.009-6.069	1.041e+04
		6.217	6.187-6.247	8.192e+03
		6.414	6.384-6.444	4.057e+03
		6.643	6.613-6.673	2.464e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.476	2.446-2.506	8.358e+04
$	12 Decachlorobiphenyl	6.824	6.794-6.854	5.925e+04
	13 4,4'-DDT	5.323	5.303-5.343	1.460e+04
	14 4,4'-DDD	5.102	5.082-5.122	1.001e+05
	15 4,4'-DDE	4.691	4.671-4.711	8.898e+04

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Cal Date : 24-Mar-2010 08:51 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/022310.b/013f1301.d
Level 2: /chem/ecd8a.i/022310.b/014f1401.d
Level 3: /chem/ecd8a.i/022310.b/015f1501.d
Level 4: /chem/ecd8a.i/020310a.b/036f3601.d
Level 5: /chem/ecd8a.i/022310.b/017f1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	5919	5050	4827	4394	3671	4772	17.374
(2)	6305	5464	5600	5079	4539	5397	12.103
(3)	2780	2401	2389	2196	1992	2352	12.417
(4)	2749	2248	2191	2001	1769	2192	16.589
(5)	3808	3166	3086	2824	2511	3079	15.627
2 Aroclor-1221(1)	1843	1746	1580	1468	1203	1568	15.964
(2)	1118	1046	917	835	660	915	19.675
(3)	4334	3992	3544	3325	2672	3573	17.859
3 Aroclor-1232(1)	+++++	+++++	+++++	2601	+++++	2601	0.000
(2)	+++++	+++++	+++++	2261	+++++	2261	0.000
(3)	+++++	+++++	+++++	1243	+++++	1243	0.000
(4)	+++++	+++++	+++++	1479	+++++	1479	0.000
(5)	+++++	+++++	+++++	923	+++++	923	0.000
4 Aroclor-1242(1)	4726	4372	4070	3706	2998	3974	16.680
(2)	5172	5152	4949	4680	4027	4796	9.873
(3)	2139	1968	1820	1683	1417	1805	15.251
(4)	2229	2050	1908	1759	1500	1889	14.735
(5)	3065	2855	2678	2500	2127	2645	13.507
5 Aroclor-1248(1)	3009	2847	2875	2619	2254	2721	10.891
(2)	3979	3666	3503	3232	2633	3402	14.930
(3)	4974	4644	4593	4148	3497	4371	13.049
(4)	5772	5534	5553	5051	4341	5250	10.905
(5)	4772	4453	4399	4004	3430	4212	12.231
6 Aroclor-1254(1)	4848	4583	4256	4143	3840	4334	9.026
(2)	6355	6045	5692	5573	5168	5767	7.878
(3)	4755	4649	4399	4320	4170	4459	5.382
(4)	7994	7880	7432	7366	6934	7522	5.676
(5)	6153	6013	5632	5615	5334	5749	5.750

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Cal Date : 24-Mar-2010 08:51 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	7147	5970	6060	5488	4785	5890	14.695
	(2)	10103	8518	8810	7994	7052	8495	13.185
	(3)	6142	5086	5206	4683	4213	5066	14.134
	(4)	6261	5444	5587	4872	4481	5329	12.849
	(5)	6525	5540	5787	5277	5076	5641	9.964
	8 Aroclor-1262(1)	3851	3558	3311	3256	2859	3367	10.954
	(2)	5935	5551	5239	5102	4386	5243	10.995
	(3)	7996	7523	7022	6963	6012	7103	10.414
	(4)	9555	9028	8567	8433	7318	8580	9.694
	(5)	8875	8357	7946	7802	6850	7966	9.421
	9 Aroclor-1268(1)	+++++	+++++	+++++	16324	+++++	16324	0.000
	(2)	+++++	+++++	+++++	15723	+++++	15723	0.000
	(3)	+++++	+++++	+++++	12075	+++++	12075	0.000
	(4)	+++++	+++++	+++++	6023	+++++	6023	0.000
	(5)	+++++	+++++	+++++	36012	+++++	36012	0.000
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	23929	+++++	23929	0.000
	14 4,4'-DDD	+++++	+++++	+++++	157020	+++++	157020	0.000
	15 4,4'-DDE	+++++	+++++	+++++	133975	+++++	133975	0.000
$	11 4cmx	136153	126431	127871	122774	111579	124961	7.155
$	12 Decachlorobiphenyl	95355	82633	85082	76716	71970	82351	10.796

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Cal Date : 24-Mar-2010 08:39 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/022310.b/013b1301.d
Level 2: /chem/ecd8a.i/022310.b/014b1401.d
Level 3: /chem/ecd8a.i/022310.b/015b1501.d
Level 4: /chem/ecd8a.i/020310a.b/036b3601.d
Level 5: /chem/ecd8a.i/022310.b/017b1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	___ RRF	% RSD
1 Aroclor-1016(1)	3858	3610	3858	3627	3436	3678	4.905
(2)	2824	2559	2590	2465	2318	2551	7.270
(3)	1619	1461	1511	1446	1422	1492	5.243
(4)	1671	1484	1494	1405	1335	1478	8.500
(5)	2238	2022	2057	1951	1857	2025	6.982
2 Aroclor-1221(1)	1008	1017	964	925	826	948	8.179
(2)	642	644	604	571	494	591	10.518
(3)	2384	2349	2220	2116	1827	2179	10.256
3 Aroclor-1232(1)	+++++	+++++	+++++	1515	+++++	1515	0.000
(2)	+++++	+++++	+++++	1744	+++++	1744	0.000
(3)	+++++	+++++	+++++	1176	+++++	1176	0.000
(4)	+++++	+++++	+++++	710	+++++	710	0.000
(5)	+++++	+++++	+++++	618	+++++	618	0.000
4 Aroclor-1242(1)	2949	2857	2758	2609	2213	2677	10.779
(2)	3213	3196	3180	3232	2808	3126	5.721
(3)	2287	2232	2178	2099	1842	2127	8.178
(4)	1820	1782	1741	1678	1497	1703	7.463
(5)	1675	1595	1607	1522	1434	1567	5.872
5 Aroclor-1248(1)	1413	1408	1337	1299	1188	1329	6.944
(2)	2387	2358	2277	2198	2024	2249	6.480
(3)	2920	2903	2849	2753	2523	2790	5.825
(4)	3350	3368	3334	3259	3054	3273	3.955
(5)	3677	3689	3657	3584	3353	3592	3.894
6 Aroclor-1254(1)	3242	3137	3080	3079	3045	3117	2.483
(2)	3591	3494	3433	3454	3418	3478	1.994
(3)	4854	4823	4800	4853	4830	4832	0.471
(4)	3516	3466	3440	3510	3538	3494	1.145
(5)	2281	2214	2159	2166	2188	2202	2.240

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 18-MAR-2010 07:15
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Cal Date : 24-Mar-2010 08:39 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	4310	3885	4025	3827	3646	3939	6.300
	(2)	5135	4638	4867	4591	4421	4730	5.847
	(3)	3916	3515	3674	3464	3365	3587	5.999
	(4)	4033	3615	3813	3590	3510	3712	5.689
	(5)	6224	5645	6036	5678	5624	5841	4.664
	8 Aroclor-1262(1)	3545	3367	3269	3249	2948	3276	6.635
	(2)	4038	3929	3844	3825	3498	3827	5.277
	(3)	5683	5613	5515	5463	4958	5446	5.255
	(4)	5266	5178	5090	5067	4633	5047	4.838
	(5)	7327	7356	7286	7270	6740	7196	3.572
	9 Aroclor-1268(1)	+++++	+++++	+++++	11384	+++++	11384	0.000
	(2)	+++++	+++++	+++++	10412	+++++	10412	0.000
	(3)	+++++	+++++	+++++	8192	+++++	8192	0.000
	(4)	+++++	+++++	+++++	4057	+++++	4057	0.000
	(5)	+++++	+++++	+++++	24640	+++++	24640	0.000
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	14596	+++++	14596	0.000
	14 4,4'-DDD	+++++	+++++	+++++	100145	+++++	100145	0.000
	15 4,4'-DDE	+++++	+++++	+++++	88982	+++++	88982	0.000
$	11 4cmx	83925	81585	84996	84651	82754	83582	1.685
$	12 Decachlorobiphenyl	64763	57453	61017	56769	56260	59252	6.076

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 0822

Lab File ID: 002F0201 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4356.912	0.01	-8.7	15.0
(2)	5397.398	5314.052	0.01	-1.5	15.0
(3)	2351.643	2244.950	0.01	-4.5	15.0
(4)	2191.567	2026.561	0.01	-7.5	15.0
(5)	3078.945	2883.384	0.01	-6.4	15.0
Aroclor-1260	5890.060	5924.060	0.01	0.6	15.0
(2)	8495.287	8697.557	0.01	2.4	15.0
(3)	5066.269	5099.908	0.01	0.7	15.0
(4)	5329.016	5481.293	0.01	2.8	15.0
(5)	5640.982	5903.839	0.01	4.6	15.0
4cmx	124961.40	128432.09	0.01	2.8	15.0
Decachlorobiphenyl	82351.042	86595.090	0.01	5.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 0822

Lab File ID: 002B0201 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3813.714	0.01	3.7	15.0
(2)	2551.186	2498.966	0.01	-2.0	15.0
(3)	1492.032	1490.552	0.01	-0.1	15.0
(4)	1477.704	1447.833	0.01	-2.0	15.0
(5)	2024.804	2010.893	0.01	-0.7	15.0
Aroclor-1260	3938.505	4265.170	0.01	8.3	15.0
(2)	4730.476	5176.085	0.01	9.4	15.0
(3)	3586.650	3889.009	0.01	8.4	15.0
(4)	3712.238	4037.036	0.01	8.7	15.0
(5)	5841.333	6431.111	0.01	10.1	15.0
4cmx	83582.102	90007.610	0.01	7.7	15.0
Decachlorobiphenyl	59252.492	64417.740	0.01	8.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 0834

Lab File ID: 003F0301 Init. Calib. Date(s): 03/09/10 03/09/10

Heated Purge: (Y/N) N Init. Calib. Times: 0927 1016

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	4333.962	4170.264	0.01	-3.8	15.0
(2)	5766.534	5614.913	0.01	-2.6	15.0
(3)	4458.524	4376.011	0.01	-1.8	15.0
(4)	7521.536	7372.606	0.01	-2.0	15.0
(5)	5749.206	5596.135	0.01	-2.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 0834

Lab File ID: 003B0301 Init. Calib. Date(s): 03/09/10 03/09/10

Heated Purge: (Y/N) N Init. Calib. Times: 0927 1016

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	3116.660	3312.879	0.01	6.3	15.0
(2)	3478.140	3709.562	0.01	6.6	15.0
(3)	4832.039	5255.007	0.01	8.8	15.0
(4)	3494.052	3762.160	0.01	7.7	15.0
(5)	2201.695	2353.978	0.01	6.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 1201

Lab File ID: 019F1901 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4188.230	0.01	-12.2	15.0
(2)	5397.398	5213.562	0.01	-3.4	15.0
(3)	2351.643	2188.215	0.01	-6.9	15.0
(4)	2191.567	1921.201	0.01	-12.3	15.0
(5)	3078.945	2770.682	0.01	-10.0	15.0
Aroclor-1260	5890.060	5694.698	0.01	-3.3	15.0
(2)	8495.287	8561.344	0.01	0.8	15.0
(3)	5066.269	5038.763	0.01	-0.5	15.0
(4)	5329.016	5300.445	0.01	-0.5	15.0
(5)	5640.982	5859.339	0.01	3.9	15.0
4cmx	124961.40	125576.24	0.01	0.5	15.0
Decachlorobiphenyl	82351.042	84887.520	0.01	3.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 1201

Lab File ID: 019B1901 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3750.070	0.01	2.0	15.0
(2)	2551.186	2478.563	0.01	-2.8	15.0
(3)	1492.032	1508.121	0.01	1.1	15.0
(4)	1477.704	1443.862	0.01	-2.3	15.0
(5)	2024.804	1995.748	0.01	-1.4	15.0
Aroclor-1260	3938.505	4152.360	0.01	5.4	15.0
(2)	4730.476	5056.096	0.01	6.9	15.0
(3)	3586.650	3778.164	0.01	5.3	15.0
(4)	3712.238	4002.290	0.01	7.8	15.0
(5)	5841.333	6250.416	0.01	7.0	15.0
4cmx	83582.102	89527.720	0.01	7.1	15.0
Decachlorobiphenyl	59252.492	61113.380	0.01	3.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 1438

Lab File ID: 031F3101 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4253.348	0.01	-10.9	15.0
(2)	5397.398	5344.393	0.01	-1.0	15.0
(3)	2351.643	2222.771	0.01	-5.5	15.0
(4)	2191.567	2002.583	0.01	-8.6	15.0
(5)	3078.945	2809.397	0.01	-8.8	15.0
Aroclor-1260	5890.060	5831.201	0.01	-1.0	15.0
(2)	8495.287	8623.550	0.01	1.5	15.0
(3)	5066.269	5100.014	0.01	0.7	15.0
(4)	5329.016	5507.514	0.01	3.3	15.0
(5)	5640.982	6022.391	0.01	6.8	15.0
4cmx	124961.40	127305.18	0.01	1.9	15.0
Decachlorobiphenyl	82351.042	89433.280	0.01	8.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 1438

Lab File ID: 031B3101 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3677.771	3823.176	0.01	4.0	15.0
(2)	2551.186	2501.019	0.01	-2.0	15.0
(3)	1492.032	1515.874	0.01	1.6	15.0
(4)	1477.704	1456.490	0.01	-1.4	15.0
(5)	2024.804	1992.410	0.01	-1.6	15.0
Aroclor-1260	3938.505	4274.803	0.01	8.5	15.0
(2)	4730.476	5217.673	0.01	10.3	15.0
(3)	3586.650	3927.164	0.01	9.5	15.0
(4)	3712.238	4092.848	0.01	10.2	15.0
(5)	5841.333	6569.408	0.01	12.5	15.0
4cmx	83582.102	90223.040	0.01	7.9	15.0
Decachlorobiphenyl	59252.492	65888.720	0.01	11.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 1715

Lab File ID: 043F4301 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4772.270	4387.961	0.01	-8.0	15.0
(2)	5397.398	5481.409	0.01	1.6	15.0
(3)	2351.643	2281.308	0.01	-3.0	15.0
(4)	2191.567	2015.891	0.01	-8.0	15.0
(5)	3078.945	2919.036	0.01	-5.2	15.0
Aroclor-1260	5890.060	5916.917	0.01	0.4	15.0
(2)	8495.287	8852.494	0.01	4.2	15.0
(3)	5066.269	5234.355	0.01	3.3	15.0
(4)	5329.016	5645.988	0.01	5.9	15.0
(5)	5640.982	6224.889	0.01	10.4	15.0
4cmx	124961.40	130794.92	0.01	4.7	15.0
Decachlorobiphenyl	82351.042	91379.690	0.01	11.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 1715

Lab File ID: 043B4301 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	3677.771	4067.387	0.01	10.6	15.0	
(2)	2551.186	2587.933	0.01	1.4	15.0	
(3)	1492.032	1572.937	0.01	5.4	15.0	
(4)	1477.704	1509.203	0.01	2.1	15.0	
(5)	2024.804	2071.776	0.01	2.3	15.0	
Aroclor-1260	3938.505	4442.130	0.01	12.8	15.0	
(2)	4730.476	5425.638	0.01	14.7	15.0	
(3)	3586.650	4075.254	0.01	13.6	15.0	
(4)	3712.238	4236.399	0.01	14.1	15.0	
(5)	5841.333	6803.558	0.01	16.5	15.0	<-
4cmx	83582.102	92219.980	0.01	10.3	15.0	
Decachlorobiphenyl	59252.492	67358.470	0.01	13.7	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 1756

Lab File ID: 046F4601 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	4772.270	4615.886	0.01	-3.3	15.0	
(2)	5397.398	5848.853	0.01	8.4	15.0	
(3)	2351.643	2442.485	0.01	3.9	15.0	
(4)	2191.567	2151.630	0.01	-1.8	15.0	
(5)	3078.945	3115.315	0.01	1.2	15.0	
Aroclor-1260	5890.060	6547.804	0.01	11.2	15.0	
(2)	8495.287	9678.934	0.01	13.9	15.0	
(3)	5066.269	5710.101	0.01	12.7	15.0	
(4)	5329.016	6098.892	0.01	14.4	15.0	
(5)	5640.982	6526.566	0.01	15.7	15.0	<-
4cmx	124961.40	136617.50	0.01	9.3	15.0	
Decachlorobiphenyl	82351.042	94790.210	0.01	15.1	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

Instrument ID: ECD8A Calibration Date: 03/23/10 Time: 1756

Lab File ID: 046B4601 Init. Calib. Date(s): 03/18/10 03/18/10

Heated Purge: (Y/N) N Init. Calib. Times: 0625 0715

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	3677.771	4104.398	0.01	11.6	15.0	
(2)	2551.186	2633.780	0.01	3.2	15.0	
(3)	1492.032	1605.904	0.01	7.6	15.0	
(4)	1477.704	1537.153	0.01	4.0	15.0	
(5)	2024.804	2133.129	0.01	5.3	15.0	
Aroclor-1260	3938.505	4526.235	0.01	14.9	15.0	
(2)	4730.476	5551.086	0.01	17.3	15.0	<-
(3)	3586.650	4175.939	0.01	16.4	15.0	<-
(4)	3712.238	4354.389	0.01	17.3	15.0	<-
(5)	5841.333	6992.814	0.01	19.7	15.0	<-
4cmx	83582.102	93874.570	0.01	12.3	15.0	
Decachlorobiphenyl	59252.492	69488.200	0.01	17.3	15.0	<-

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/002f0201.d
Lab Smp Id: WAR100224-60 01 Client Smp ID: AR166001
Inj Date : 23-MAR-2010 08:22
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.248	0.000	12843209	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.240	6.240	0.000	8659509	100.000	105	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.806	2.806	0.000	4356912	1000.00	913	80.00- 120.00	100.00(M)
3.157	3.157	0.000	5314052	1000.00	984	104.48- 144.48	121.97
3.301	3.301	0.000	2244950	1000.00	955	32.25- 72.25	51.53
3.393	3.393	0.000	2026561	1000.00	925	25.87- 65.87	46.51
3.555	3.555	0.000	2883384	1000.00	936	46.15- 86.15	66.18
Average of Peak Amounts =					943		
7 Aroclor-1260					CAS #: 11096-82-5		
4.429	4.429	0.000	5924060	1000.00	1000	80.00- 120.00	100.00(M)
4.625	4.625	0.000	8697557	1000.00	1020	130.34- 170.34	146.82
4.900	4.900	0.000	5099908	1000.00	1010	68.48- 108.48	86.09
5.072	5.072	0.000	5481293	1000.00	1030	73.08- 113.08	92.53
5.483	5.483	0.000	5903839	1000.00	1050	82.89- 122.89	99.66
Average of Peak Amounts =					1.02e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/032310.b/002f0201.d
Date : 23-MAR-2010 08:22
Client ID: AR166001
Sample Info: IWAR100224-60 01
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

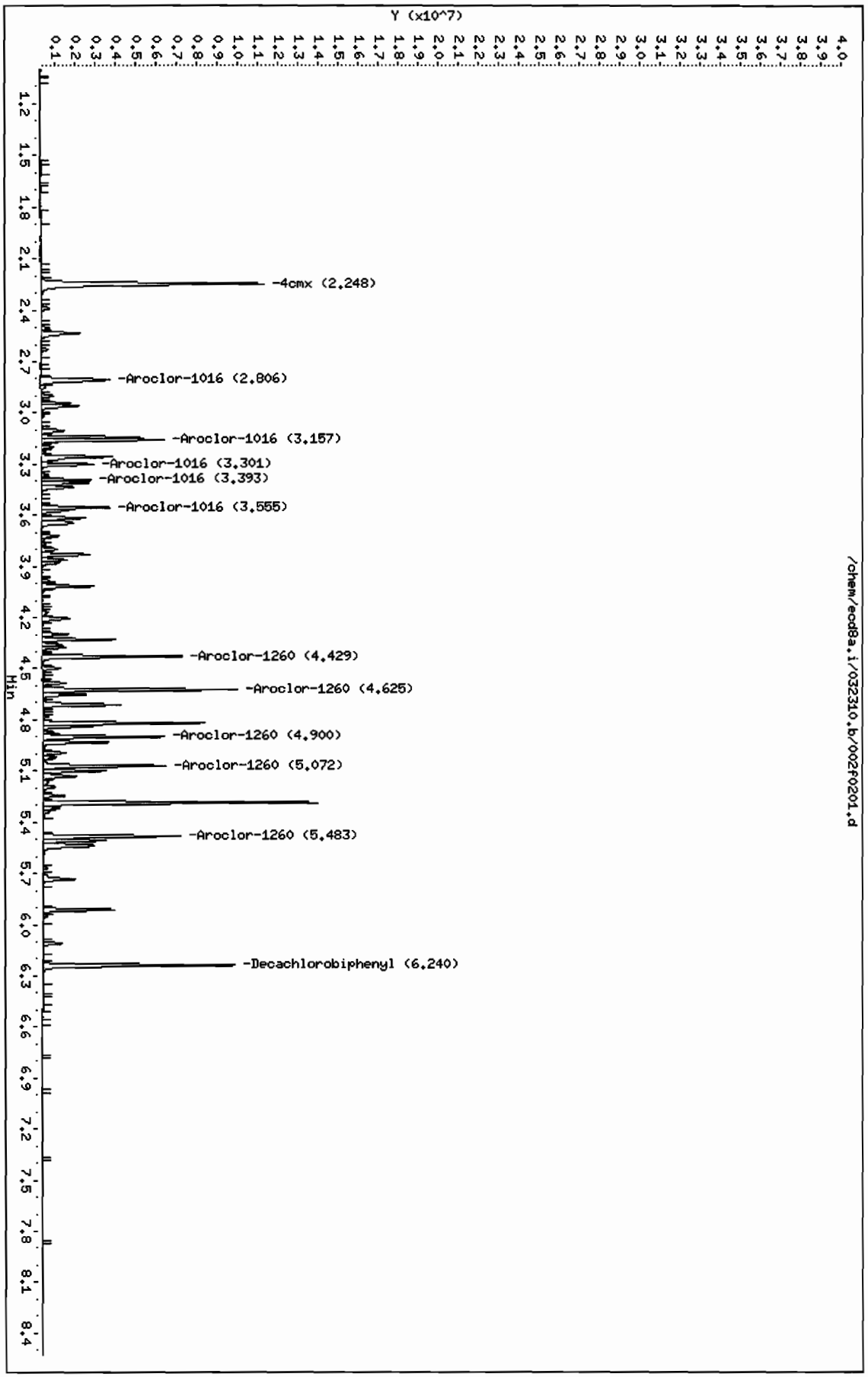

Page 1

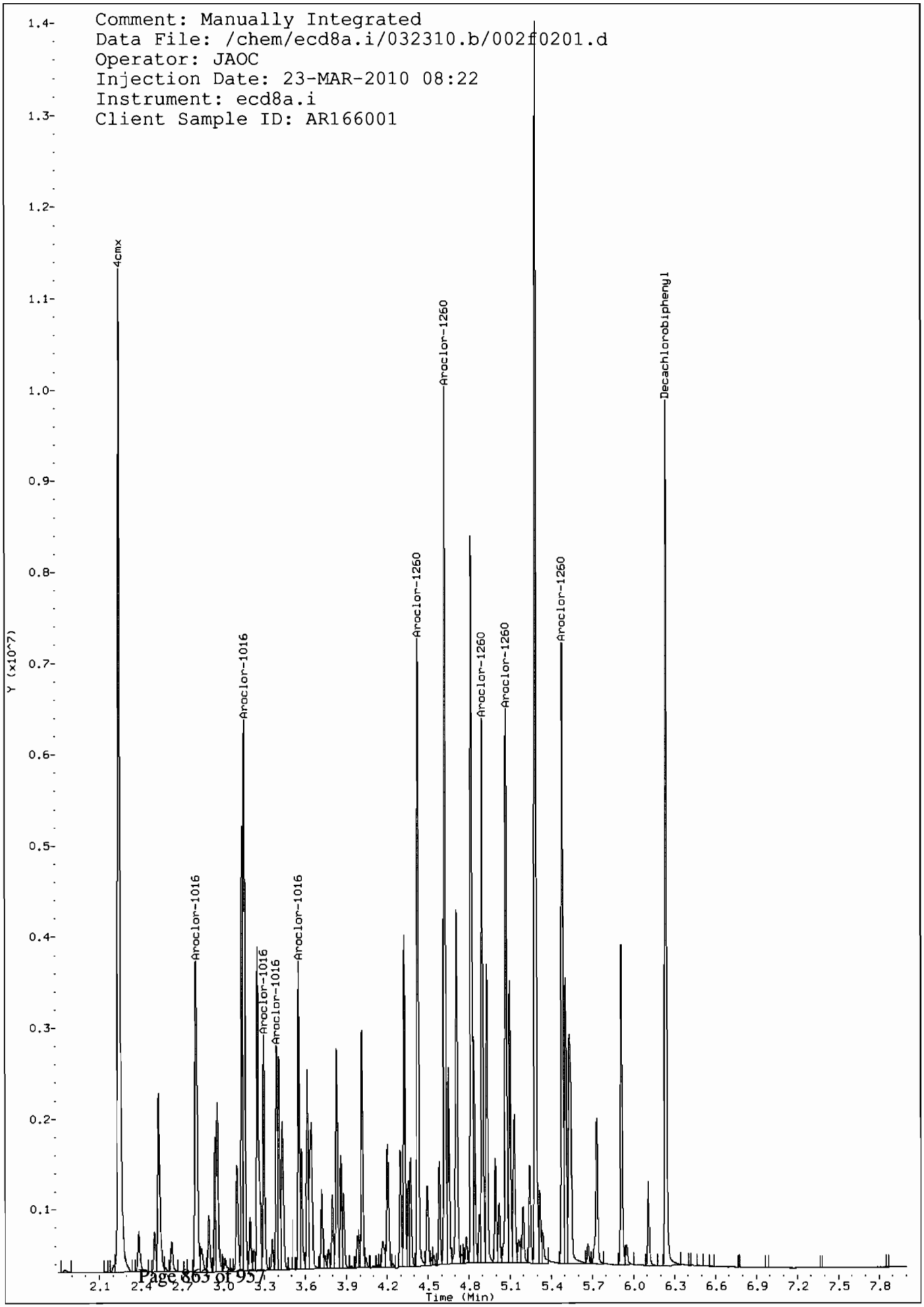
Comment: Manually Integrated
Data File: /chem/ecd8a.i/032310.b/002f0201.d
Operator: JAOC
Injection Date: 23-MAR-2010 08:22
Instrument: ecd8a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

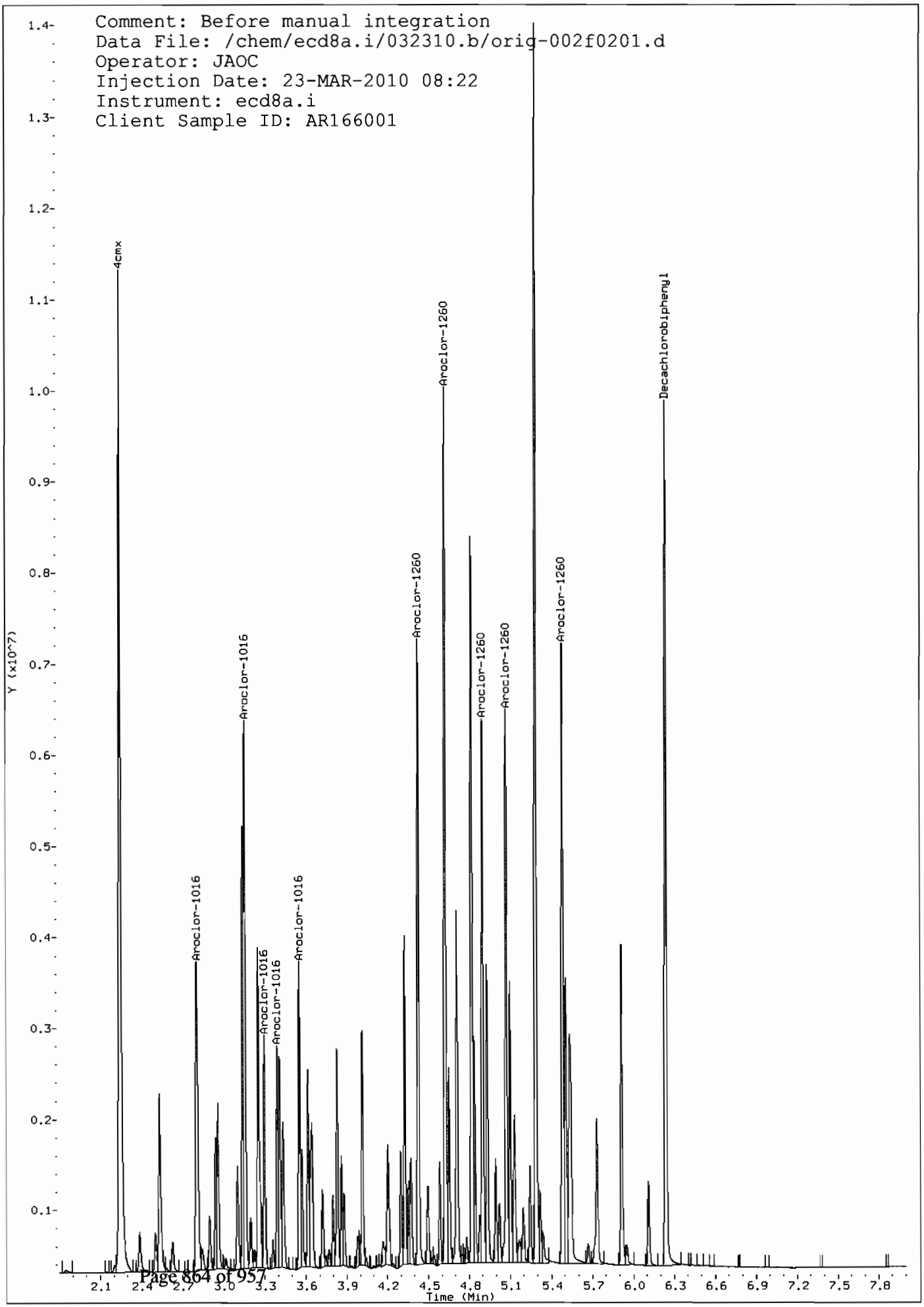
Comment: Before manual integration
Data File: /chem/ecd8a.i/032310.b/orig-002f0201.d
Operator: JAOC
Injection Date: 23-MAR-2010 08:22
Instrument: ecd8a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/002b0201.d
Lab Smp Id: WAR100224-60 01 Client Smp ID: AR166001
Inj Date : 23-MAR-2010 08:22
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.476	0.000	9000761	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.824	6.824	0.000	6441774	100.000	109	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.548	0.000	3813713	1000.00	1040	80.00- 120.00	100.00
3.647	3.647	0.000	2498965	1000.00	980	46.09- 86.09	65.53
3.723	3.723	0.000	1490551	1000.00	999	20.22- 60.22	39.08
3.799	3.799	0.000	1447833	1000.00	980	18.50- 58.50	37.96
3.995	3.995	0.000	2010893	1000.00	993	33.22- 73.22	52.73
Average of Peak Amounts =					998		
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.907	0.000	4265170	1000.00	1080	80.00- 120.00	100.00
5.056	5.056	0.000	5176085	1000.00	1090	101.76- 141.76	121.36
5.373	5.373	0.000	3889008	1000.00	1080	70.99- 110.99	91.18
5.580	5.580	0.000	4037036	1000.00	1090	76.39- 116.39	94.65
6.011	6.011	0.000	6431111	1000.00	1100	130.53- 170.53	150.78
Average of Peak Amounts =					1.09e+03		

Data File: /chem/ecd8a.i/032310.b/002b0201.d
Date : 23-MAR-2010 08:22
Client ID: AR166001
Sample Info: IWAR100224-60 01

Column phase: CLP2

Instrument: ecd8a.i

Operator: JADC
Column diameter: 0.25

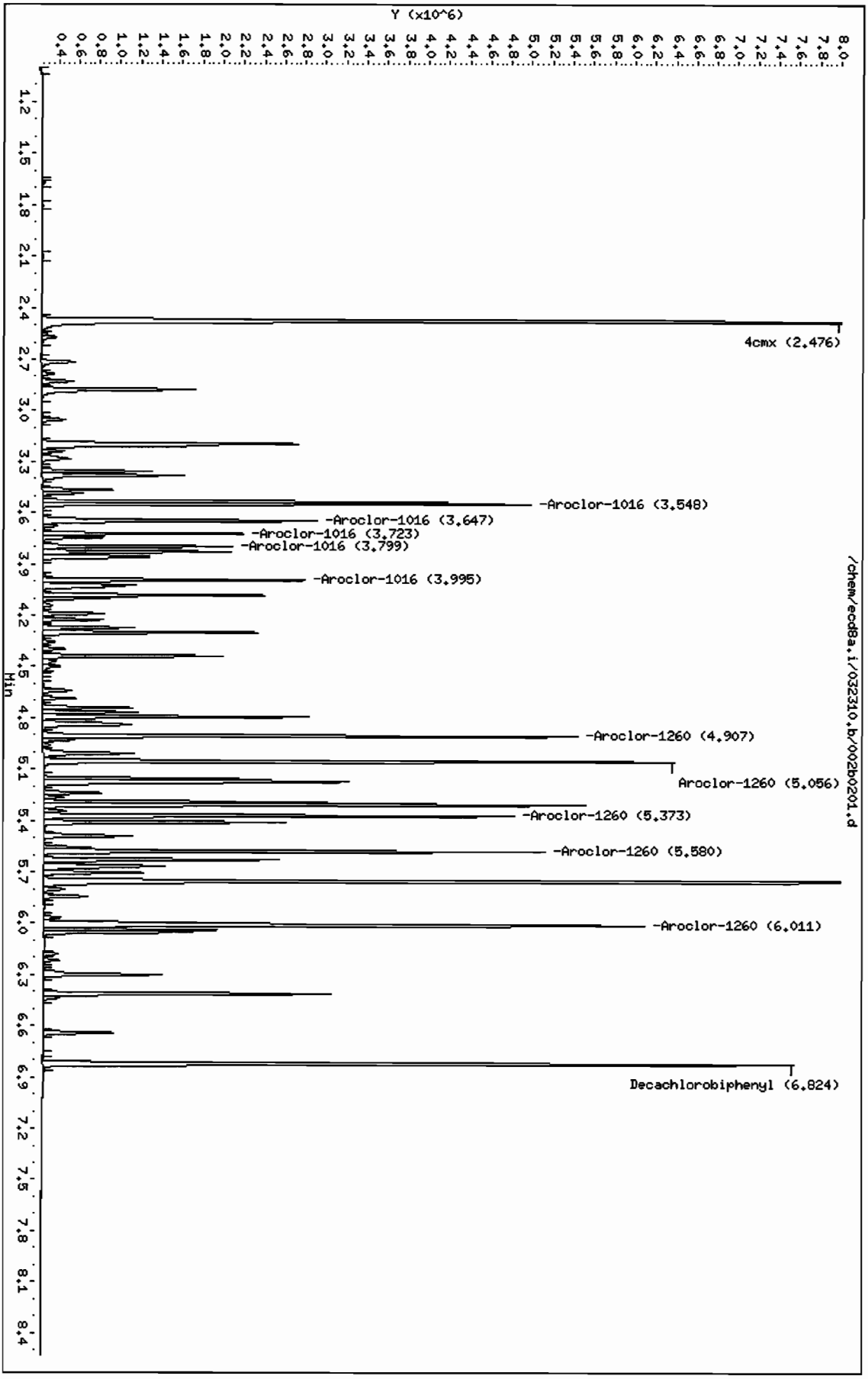

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 23-MAR-2010 08:34
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100219-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.830	3.830	0.000	4170263	1000.00	962	80.00- 120.00	100.00
4.017	4.017	0.000	5614912	1000.00	974	114.64- 154.64	134.64
4.213	4.213	0.000	4376010	1000.00	981	84.93- 124.93	104.93
4.300	4.300	0.000	7372606	1000.00	980	156.79- 196.79	176.79
4.496	4.496	0.000	5596134	1000.00	973	114.19- 154.19	134.19
Average of Peak Amounts =					974		

Data File: /chem/ecd8a.i/032310.b/003f0301.d

Date : 23-MAR-2010 08:34

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

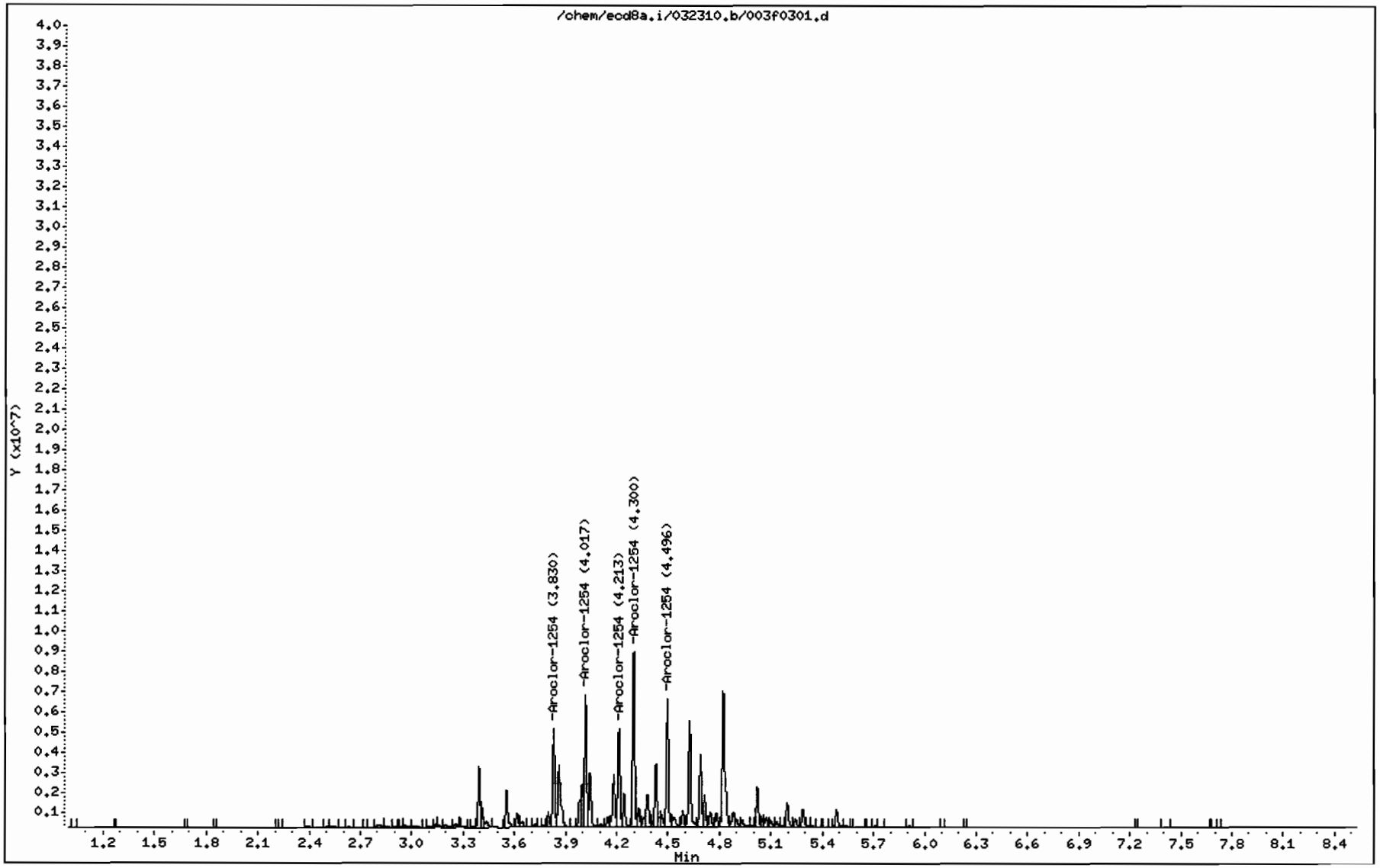

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 23-MAR-2010 08:34
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100219-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.301	4.301	0.000	3312879	1000.00	1060	80.00- 120.00	100.00
4.440	4.440	0.000	3709561	1000.00	1070	91.97- 131.97	111.97
4.769	4.769	0.000	5255007	1000.00	1090	138.62- 178.62	158.62
4.931	4.931	0.000	3762160	1000.00	1080	93.56- 133.56	113.56
5.057	5.057	0.000	2353978	1000.00	1070	51.06- 91.06	71.06

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd8a.i/032310.b/003b0301.d

Date : 23-MAR-2010 08:34

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

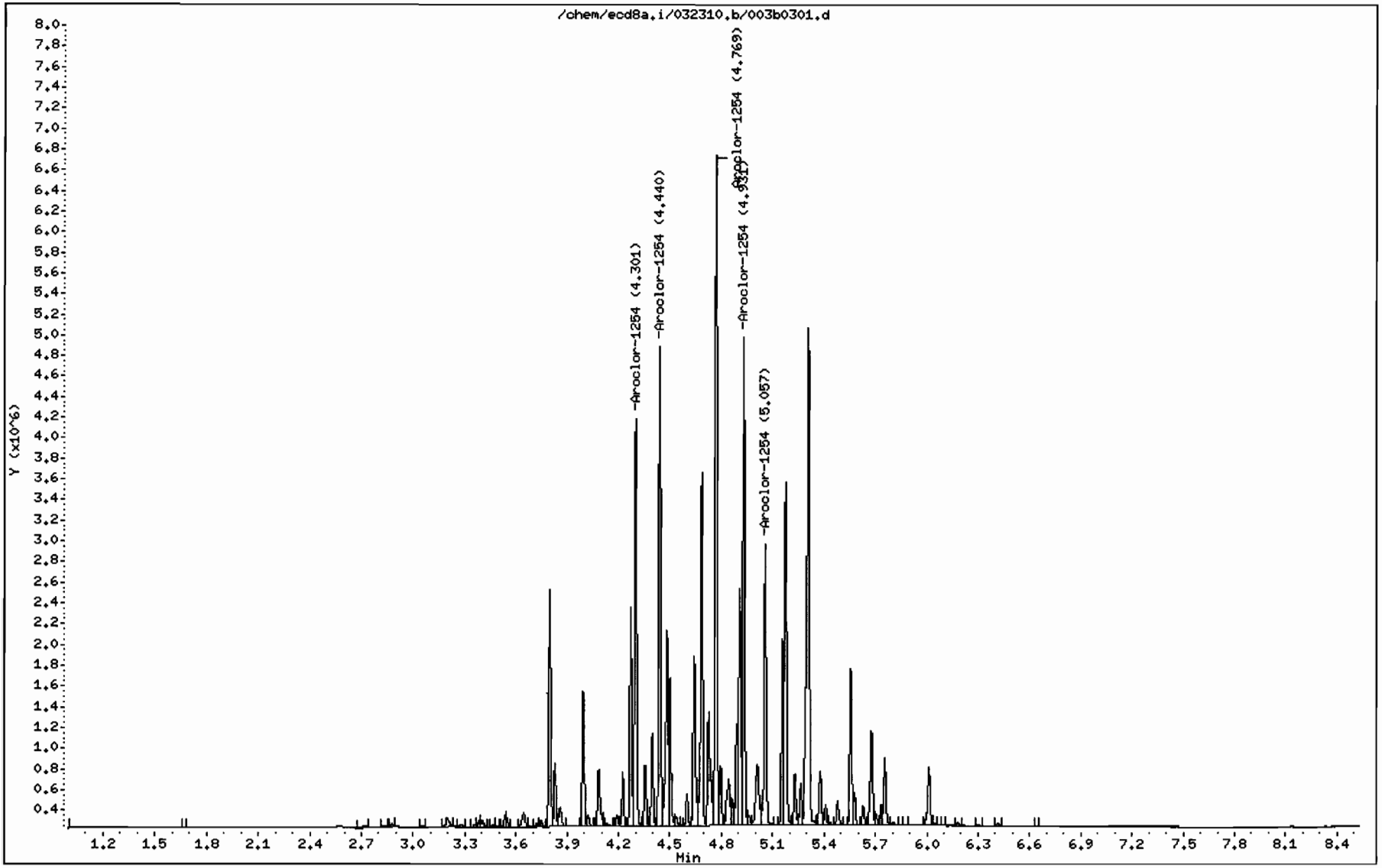

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 23-MAR-2010 08:46
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 14:46 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.806	2.806	0.000	3840147	1000.00	966	80.00- 120.00	100.00
3.157	3.157	0.000	4639711	1000.00	967	100.82- 140.82	120.82
3.393	3.393	0.000	1693716	1000.00	938	24.11- 64.11	44.11
3.410	3.410	0.000	1789282	1000.00	947	26.59- 66.59	46.59
3.556	3.556	0.000	2521270	1000.00	953	45.66- 85.66	65.66
Average of Peak Amounts =					954		

Data File: /chem/ecd8a.i/032310.b/004f0401.d

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Date : 23-MAR-2010 08:46

Client ID: AR124201

Instrument: ecd8a.i

Sample Info: IWAR091217-42

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

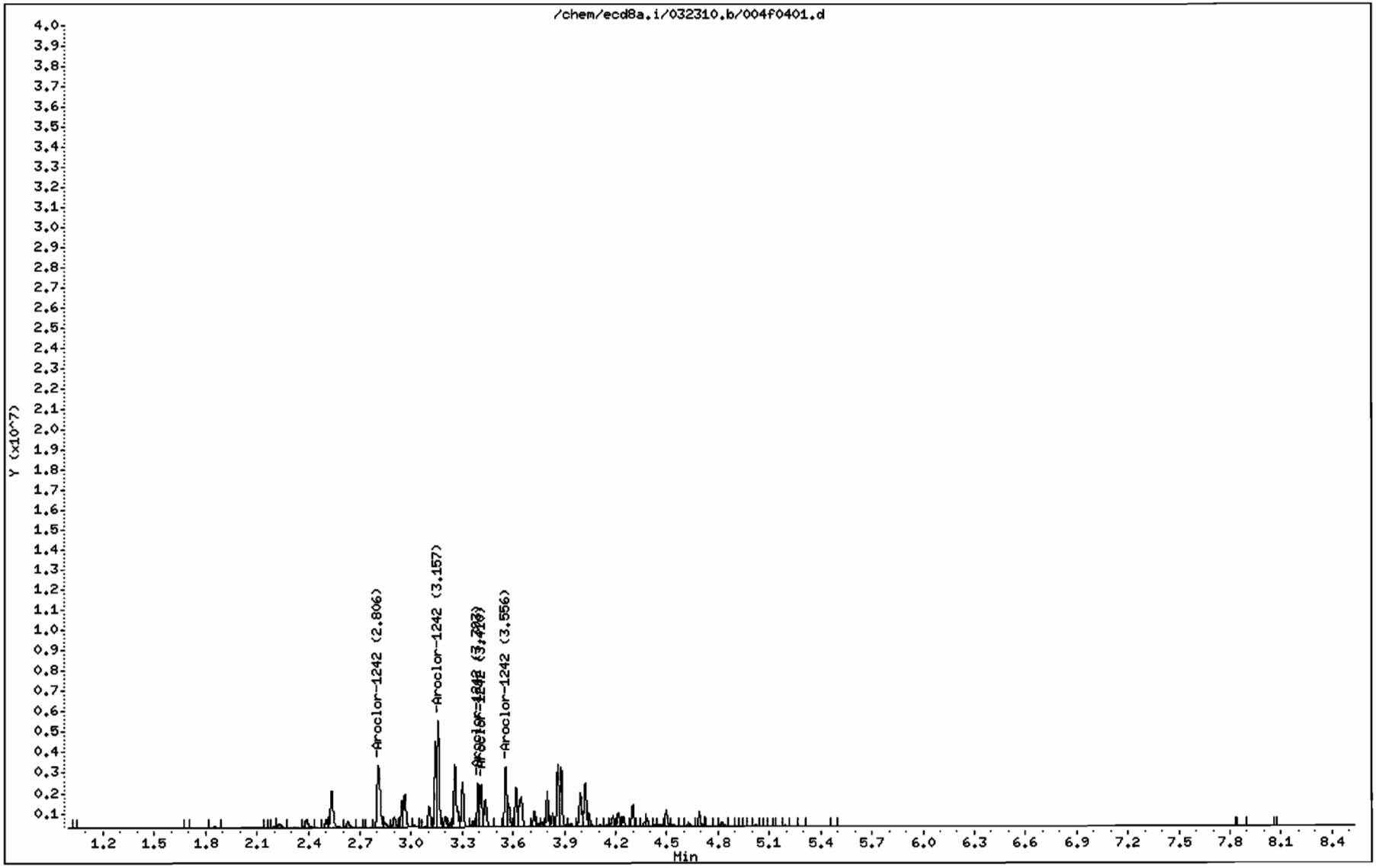

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 23-MAR-2010 08:46
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.196	3.196	0.000	2760376	1000.00	1030	80.00- 120.00	100.00
3.548	3.548	0.000	3278645	1000.00	1050	98.78- 138.78	118.78
3.648	3.648	0.000	2184772	1000.00	1030	59.15- 99.15	79.15
3.995	3.995	0.000	1734065	1000.00	1020	42.82- 82.82	62.82
4.084	4.084	0.000	1612745	1000.00	1030	38.42- 78.42	58.42

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd8a.i/032310.b/004b0401.d

Page 1

Date : 23-MAR-2010 08:46

Client ID: AR124201

Instrument: ecd8a.i

Sample Info: IWAR091217-42

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

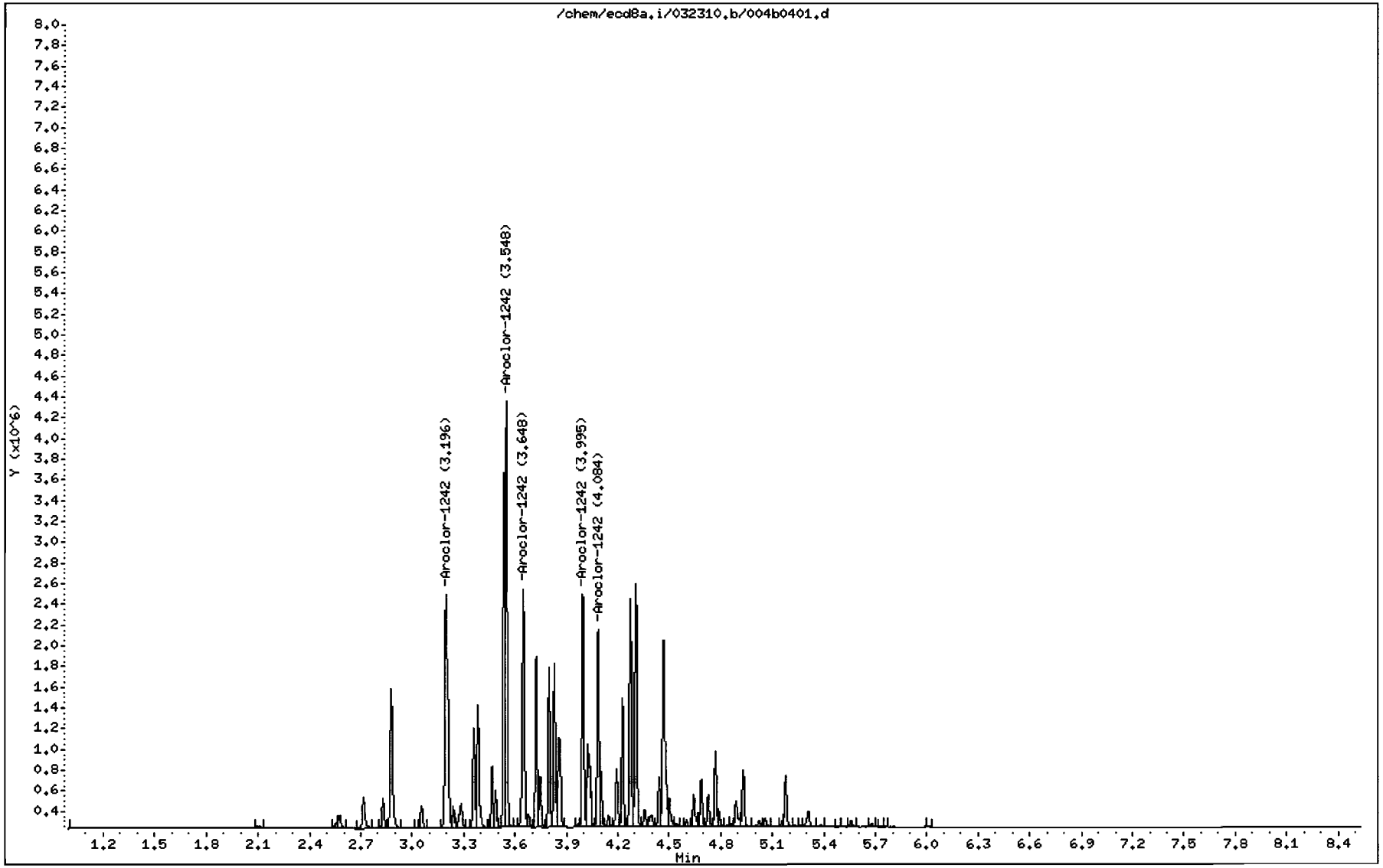

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 23-MAR-2010 08:59
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100223-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

				AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)		
RT	EXP RT	DLT RT	RESPONSE			TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.143	3.143	0.000	2512808	1000.00	924	80.00- 120.00	100.00
3.392	3.392	0.000	3268730	1000.00	961	110.08- 150.08	130.08
3.555	3.555	0.000	4190216	1000.00	959	146.75- 186.75	166.75
3.860	3.860	0.000	5007690	1000.00	954	179.29- 219.29	199.29
4.020	4.020	0.000	3933750	1000.00	934	136.55- 176.55	156.55
Average of Peak Amounts =					946		

Data File: /chem/ecd8a.i/032310.b/005f0501.d

Date : 23-MAR-2010 08:59

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

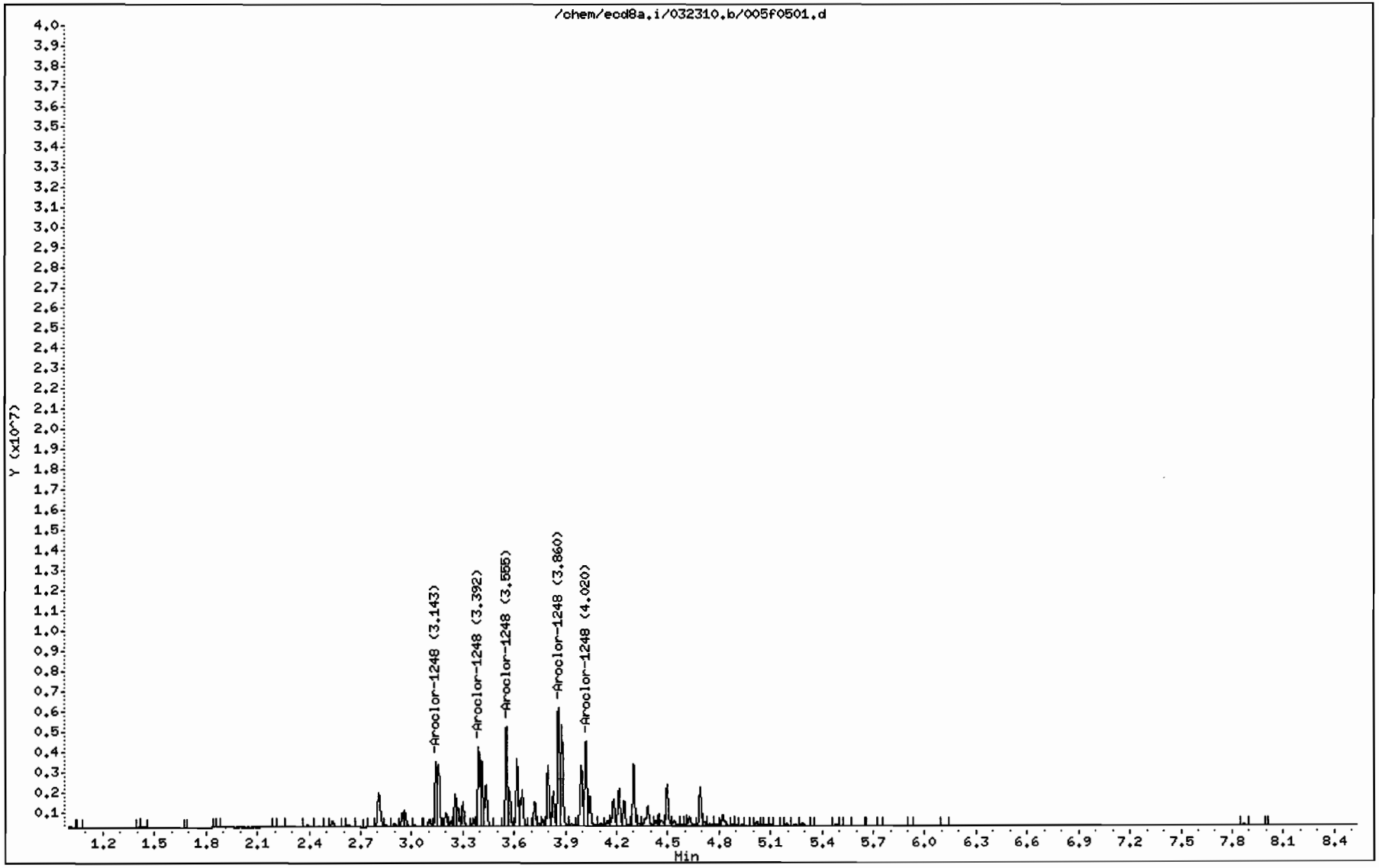

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 23-MAR-2010 08:59
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100223-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.646	3.646	0.000	1335703	1000.00	1000	80.00- 120.00	100.00
3.798	3.798	0.000	2421805	1000.00	1080	161.31- 201.31	181.31
3.994	3.994	0.000	3054451	1000.00	1090	208.68- 248.68	228.68
4.272	4.272	0.000	3538646	1000.00	1080	244.93- 284.93	264.93
4.305	4.305	0.000	3916908	1000.00	1090	273.25- 313.25	293.25

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd8a.i/032310.b/005b0501.d

Page 1

Date : 23-MAR-2010 08:59

Client ID: AR124801

Instrument: ecd8a.i

Sample Info: IWAR100223-48

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

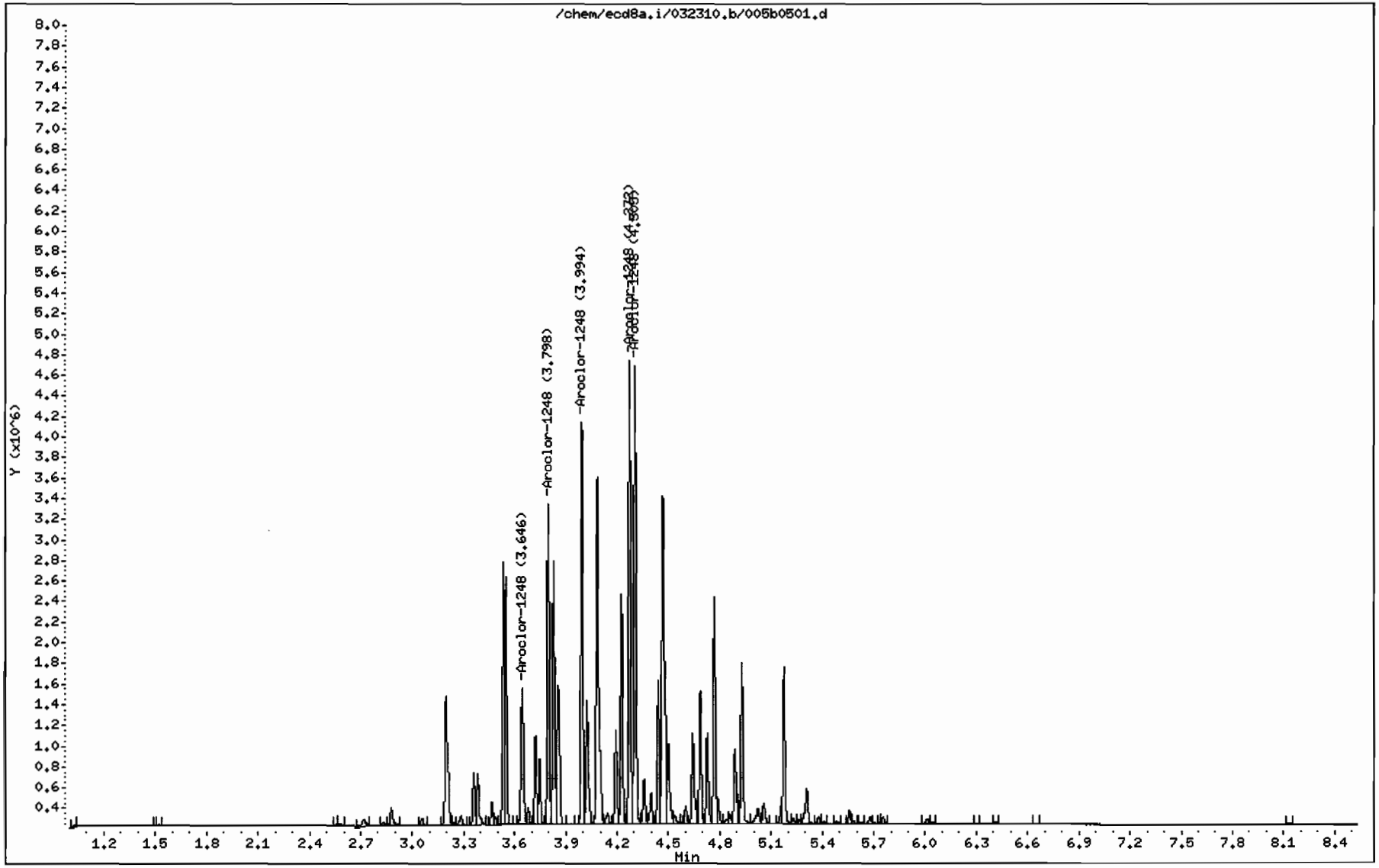

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 23-MAR-2010 09:11
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.535	2.535	0.000	2708474	1000.00	1040	80.00- 120.00	100.00
2.806	2.806	0.000	2297537	1000.00	1020	64.83- 104.83	84.83
3.301	3.301	0.000	1211921	1000.00	975	24.75- 64.75	44.75
3.555	3.555	0.000	1456816	1000.00	985	33.79- 73.79	53.79
3.617	3.617	0.000	882284	1000.00	956	12.57- 52.57	32.57
Average of Peak Amounts =					995		

Data File: /chem/ecd8a.i/032310.b/006f0601.d

Page 1

Date : 23-MAR-2010 09:11

Client ID: AR123201

Instrument: ecd8a.i

Sample Info: IWAR100104-32

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

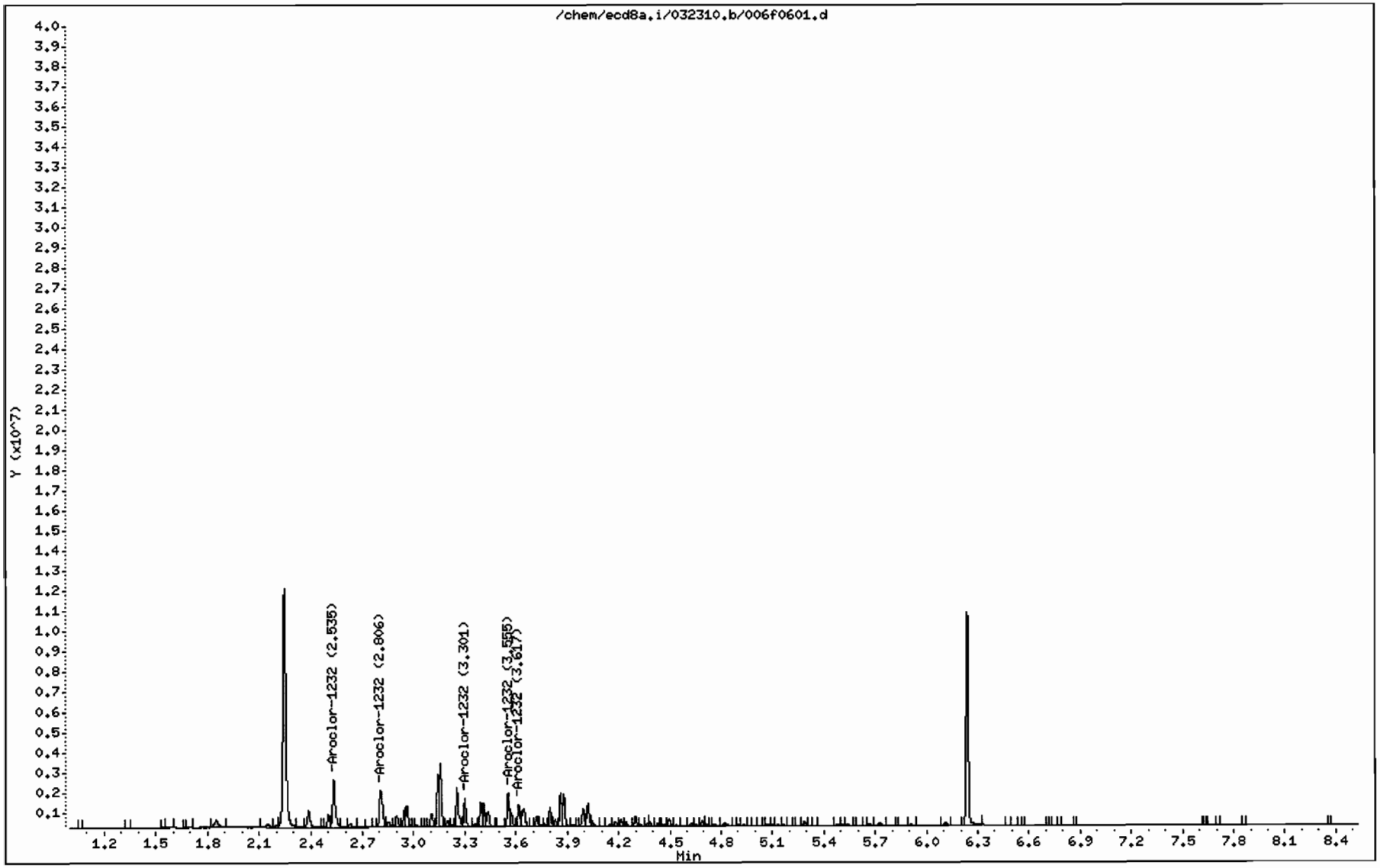

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 23-MAR-2010 09:11
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
3.195	3.195	0.000	1702408	1000.00	1120	80.00- 120.00	100.00
3.548	3.548	0.000	1923574	1000.00	1100	92.99- 132.99	112.99
3.648	3.648	0.000	1312323	1000.00	1120	57.09- 97.09	77.09
3.723	3.723	0.000	788615	1000.00	1110	26.32- 66.32	46.32
3.798	3.798	0.000	681169	1000.00	1100	20.01- 60.01	40.01

Average of Peak Amounts = 1.11e+03

Data File: /chem/ecd8a.i/032310.b/006b0601.d

Page 1

Date : 23-MAR-2010 09:11

Client ID: AR123201

Instrument: ecd8a.i

Sample Info: IWAR100104-32

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

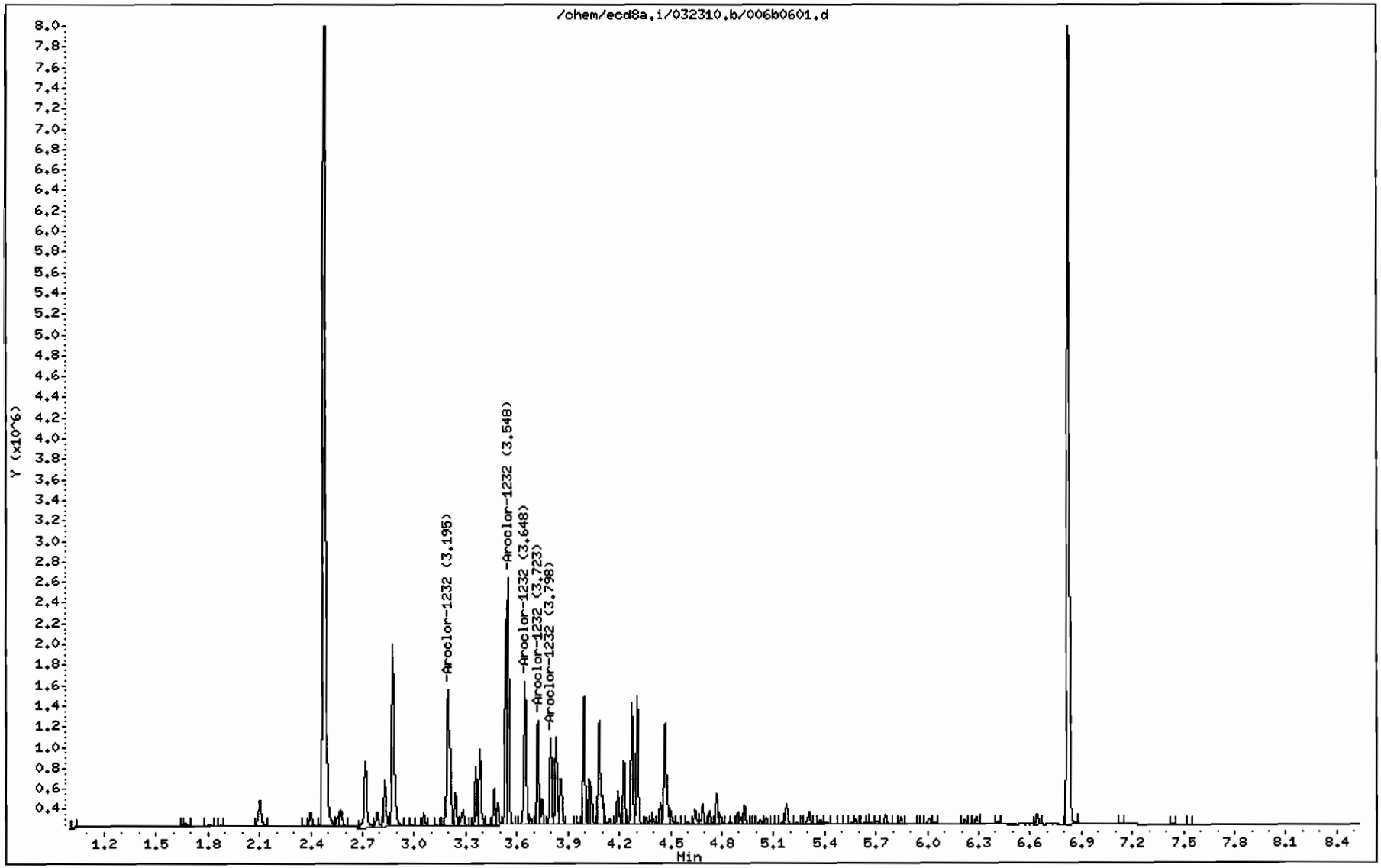

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 23-MAR-2010 09:23
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.389	2.389	0.000	1570477	1000.00	1000	80.00- 120.00	100.00
2.503	2.503	0.000	909439	1000.00	993	37.91- 77.91	57.91
2.534	2.534	0.000	3510933	1000.00	982	203.56- 243.56	223.56
Average of Peak Amounts =					993		

Data File: /chem/ecd8a.i/032310.b/007f0701.d

Page 1

Date : 23-MAR-2010 09:23

Client ID: AR122101

Instrument: ecd8a.i

Sample Info: IWAR100104-21

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

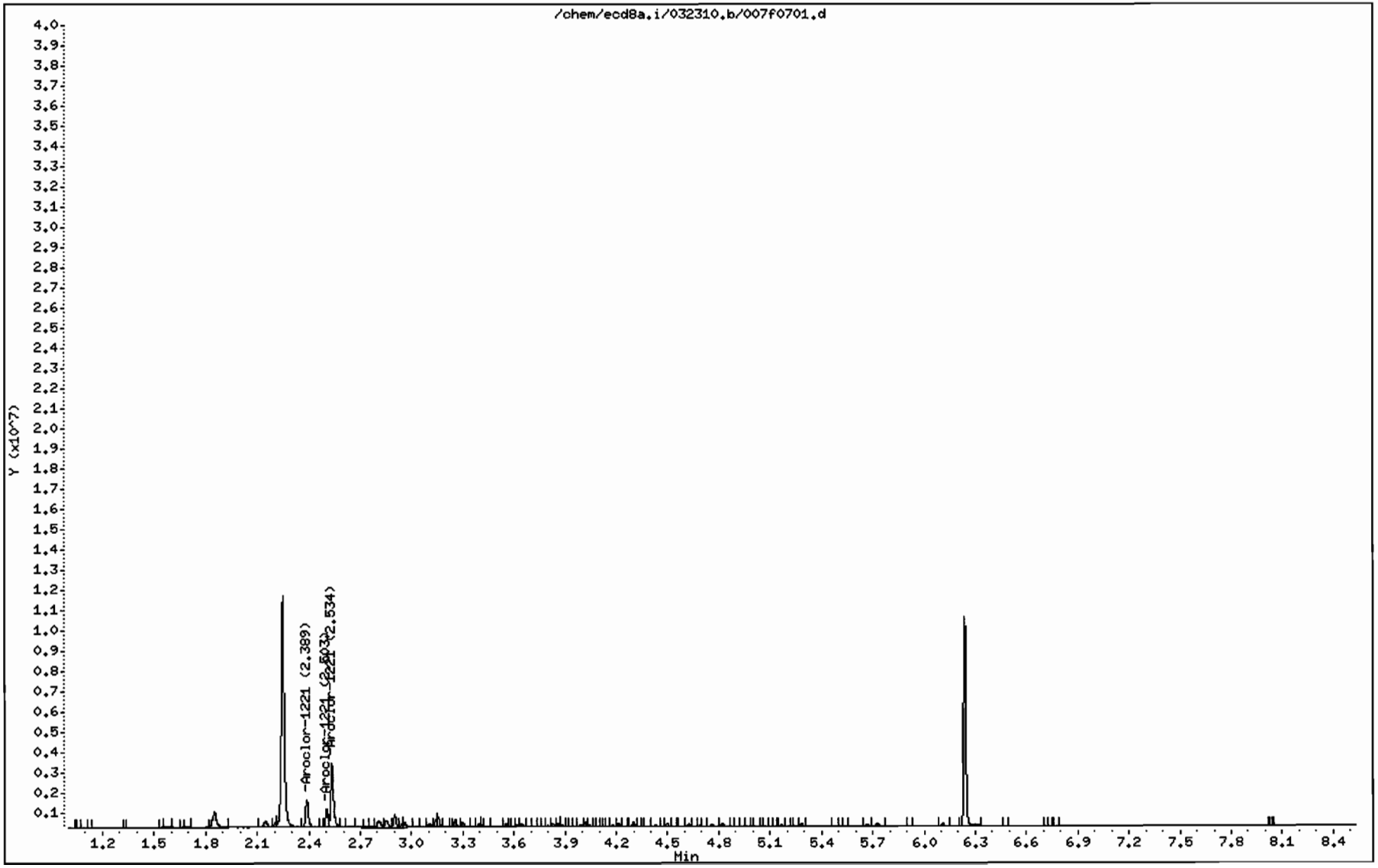

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 23-MAR-2010 09:23
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.717	2.717	0.000	1097982	1000.00	1160	80.00- 120.00	100.00
2.829	2.829	0.000	655989	1000.00	1110	39.74- 79.74	59.74
2.877	2.877	0.000	2379444	1000.00	1090	196.71- 236.71	216.71

Average of Peak Amounts = 1.12e+03

Data File: /chem/ecd8a.i/032310.b/007b0701.d

Page 1

Date : 23-MAR-2010 09:23

Client ID: AR122101

Instrument: ecd8a.i

Sample Info: IWAR100104-21

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

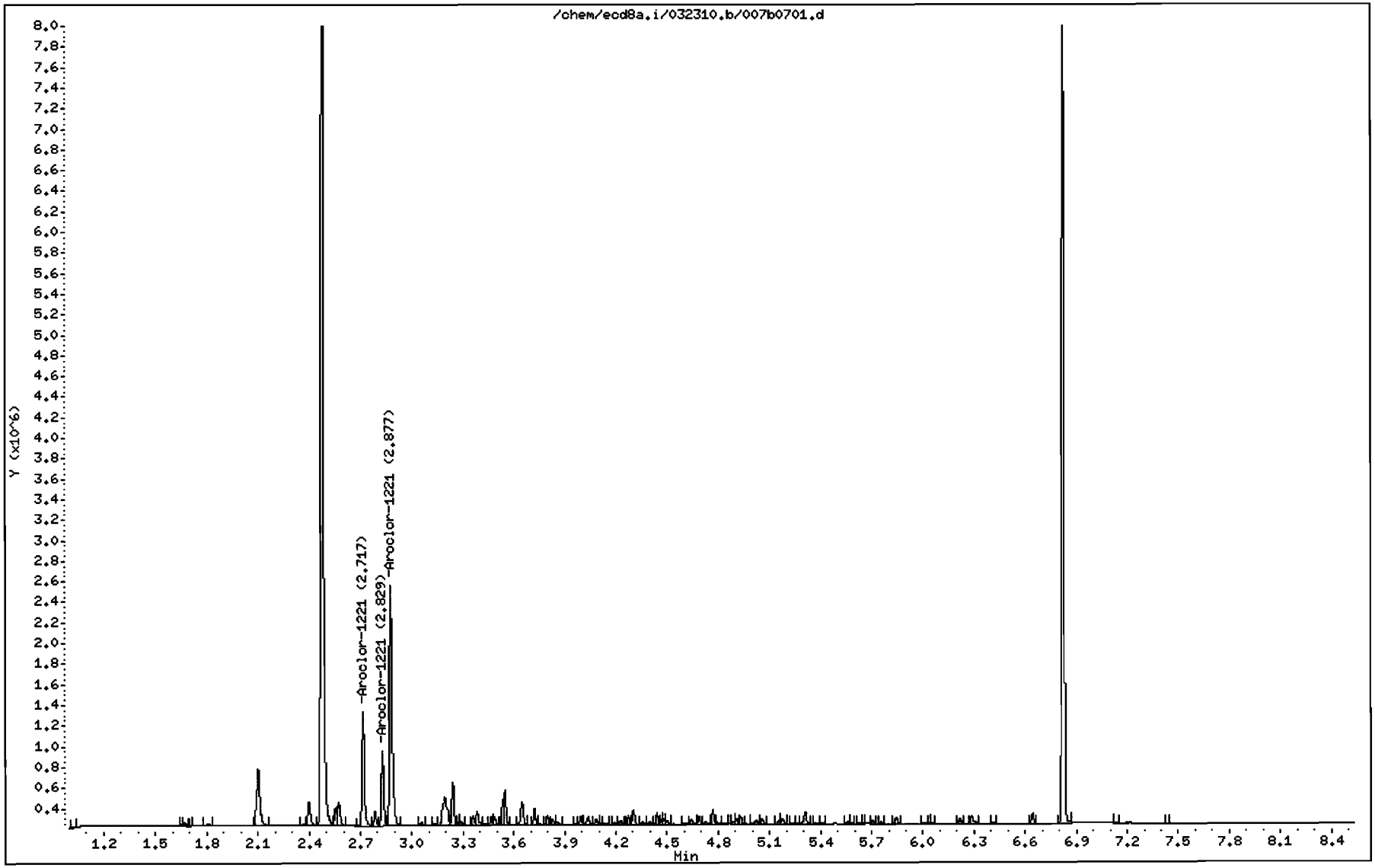

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/019f1901.d
Lab Smp Id: WAR100224-60 02 Client Smp ID: AR166002
Inj Date : 23-MAR-2010 12:01
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 02
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 12:11 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.250	2.248	0.002	12557624	100.000	100	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.240	6.240	0.000	8488752	100.000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.806	2.806	0.000	4188230	1000.00	878	80.00- 120.00	100.00
3.158	3.157	0.001	5213561	1000.00	966	104.48- 144.48	124.48
3.301	3.301	0.000	2188215	1000.00	930	32.25- 72.25	52.25
3.394	3.393	0.001	1921200	1000.00	877	25.87- 65.87	45.87
3.555	3.555	0.000	2770682	1000.00	900	46.15- 86.15	66.15
Average of Peak Amounts =					910		
7 Aroclor-1260					CAS #: 11096-82-5		
4.430	4.429	0.001	5694698	1000.00	967	80.00- 120.00	100.00
4.625	4.625	0.000	8561344	1000.00	1010	130.34- 170.34	150.34
4.901	4.900	0.001	5038762	1000.00	994	68.48- 108.48	88.48
5.073	5.072	0.001	5300444	1000.00	995	73.08- 113.08	93.08
5.485	5.483	0.002	5859338	1000.00	1040	82.89- 122.89	102.89
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd8a.i/032310.b/019f1901.d

Page 1

Date : 23-MAR-2010 12:01

Client ID: AR166002

Instrument: ecd8a.i

Sample Info: IWAR100224-60 02

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

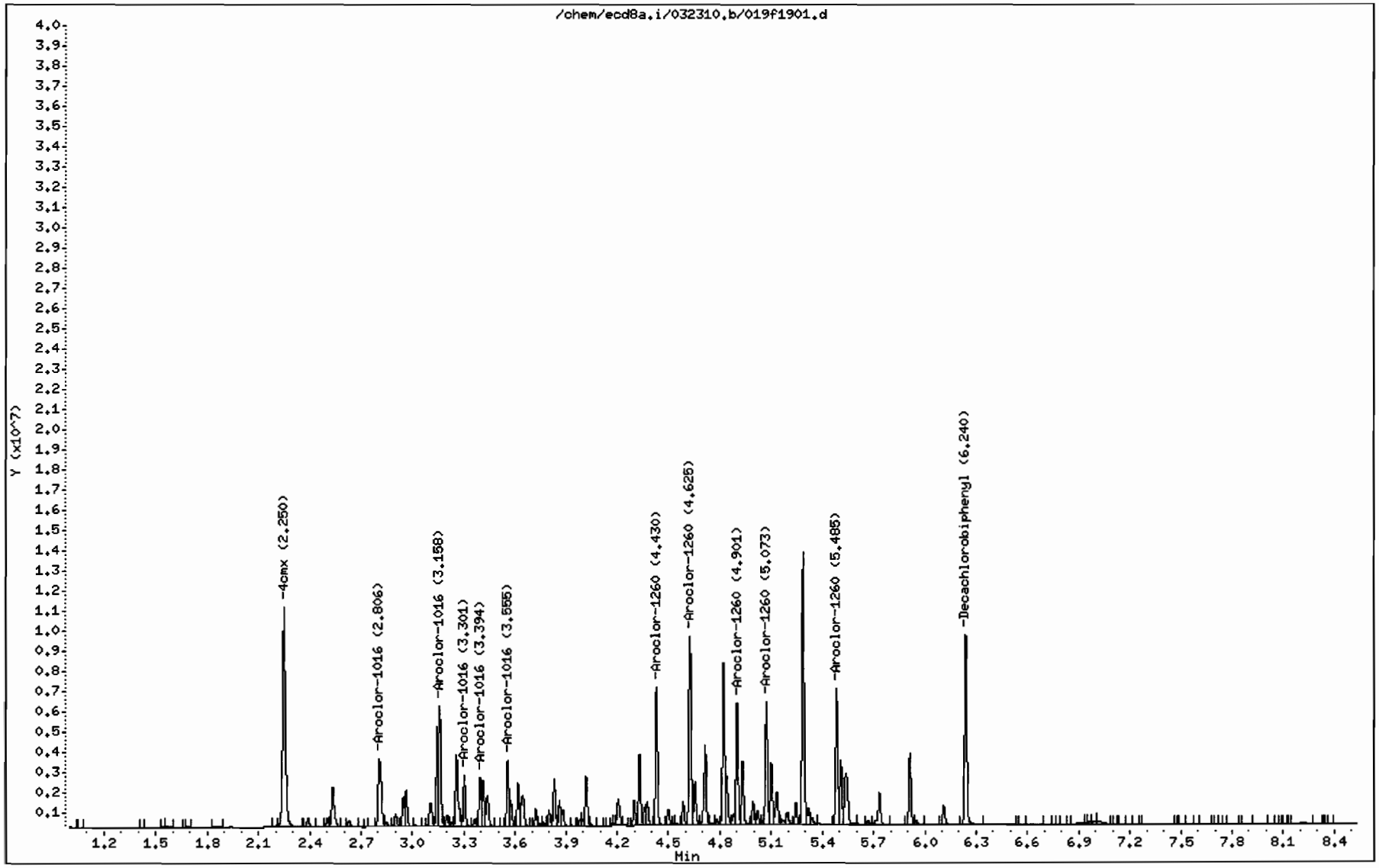

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/019b1901.d
Lab Smp Id: WAR100224-60 02 Client Smp ID: AR166002
Inj Date : 23-MAR-2010 12:01
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 02
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 12:10 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	8952772	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	6111338	100.000	103	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.548	0.000	3750070	1000.00	1020	80.00- 120.00	100.00
3.647	3.647	0.000	2478563	1000.00	972	46.09- 86.09	66.09
3.724	3.723	0.001	1508121	1000.00	1010	20.22- 60.22	40.22
3.799	3.799	0.000	1443861	1000.00	977	18.50- 58.50	38.50
3.995	3.995	0.000	1995747	1000.00	986	33.22- 73.22	53.22
Average of Peak Amounts =					993		
7 Aroclor-1260					CAS #: 11096-82-5		
4.908	4.907	0.001	4152359	1000.00	1050	80.00- 120.00	100.00
5.057	5.056	0.001	5056096	1000.00	1070	101.76- 141.76	121.76
5.373	5.373	0.000	3778164	1000.00	1050	70.99- 110.99	90.99
5.580	5.580	0.000	4002289	1000.00	1080	76.39- 116.39	96.39
6.010	6.011	-0.001	6250415	1000.00	1070	130.53- 170.53	150.53
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd8a.i/032310.b/019b1901.d
Date : 23-MAR-2010 12:01
Client ID: AR166002
Sample Info: IWAR100224-60 02

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

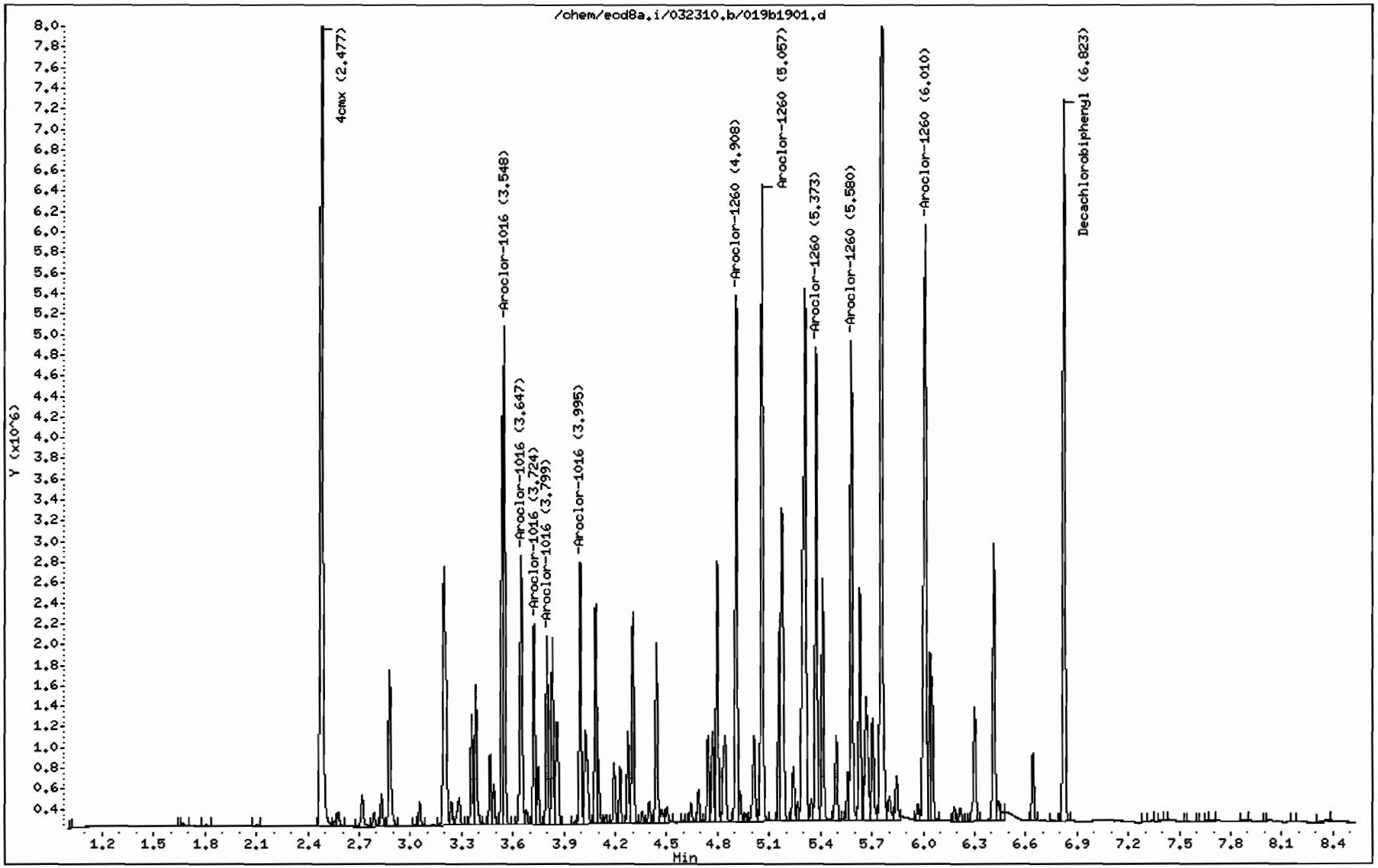

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/031f3101.d
Lab Smp Id: WAR100224-60 03 Client Smp ID: AR166003
Inj Date : 23-MAR-2010 14:38
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 03
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 23-Mar-2010 14:48 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.247	2.248	-0.001	12730518	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobipheny1					CAS #: 2051-24-3		
6.236	6.240	-0.004	8943328	100.000	109	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.803	2.806	-0.003	4253348	1000.00	891	80.00- 120.00	100.00
3.154	3.157	-0.003	5344393	1000.00	990	105.65- 145.65	125.65
3.298	3.301	-0.003	2222770	1000.00	945	32.26- 72.26	52.26
3.390	3.393	-0.003	2002583	1000.00	914	27.08- 67.08	47.08
3.552	3.555	-0.003	2809397	1000.00	912	46.05- 86.05	66.05
Average of Peak Amounts =					931		
7 Aroclor-1260					CAS #: 11096-82-5		
4.426	4.429	-0.003	5831201	1000.00	990	80.00- 120.00	100.00
4.622	4.625	-0.003	8623549	1000.00	1020	127.89- 167.89	147.89
4.897	4.900	-0.003	5100013	1000.00	1010	67.46- 107.46	87.46
5.069	5.072	-0.003	5507513	1000.00	1030	74.45- 114.45	94.45
5.480	5.483	-0.003	6022391	1000.00	1070	83.28- 123.28	103.28
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd8a.i/032310.b/031f3101.d
Date : 23-MAR-2010 14:38
Client ID: AR166003
Sample Info: IWAR100224-60 03

Instrument: ecd8a.i
Operator: JADC
Column diameter: 0.25

Column phase: CLP1

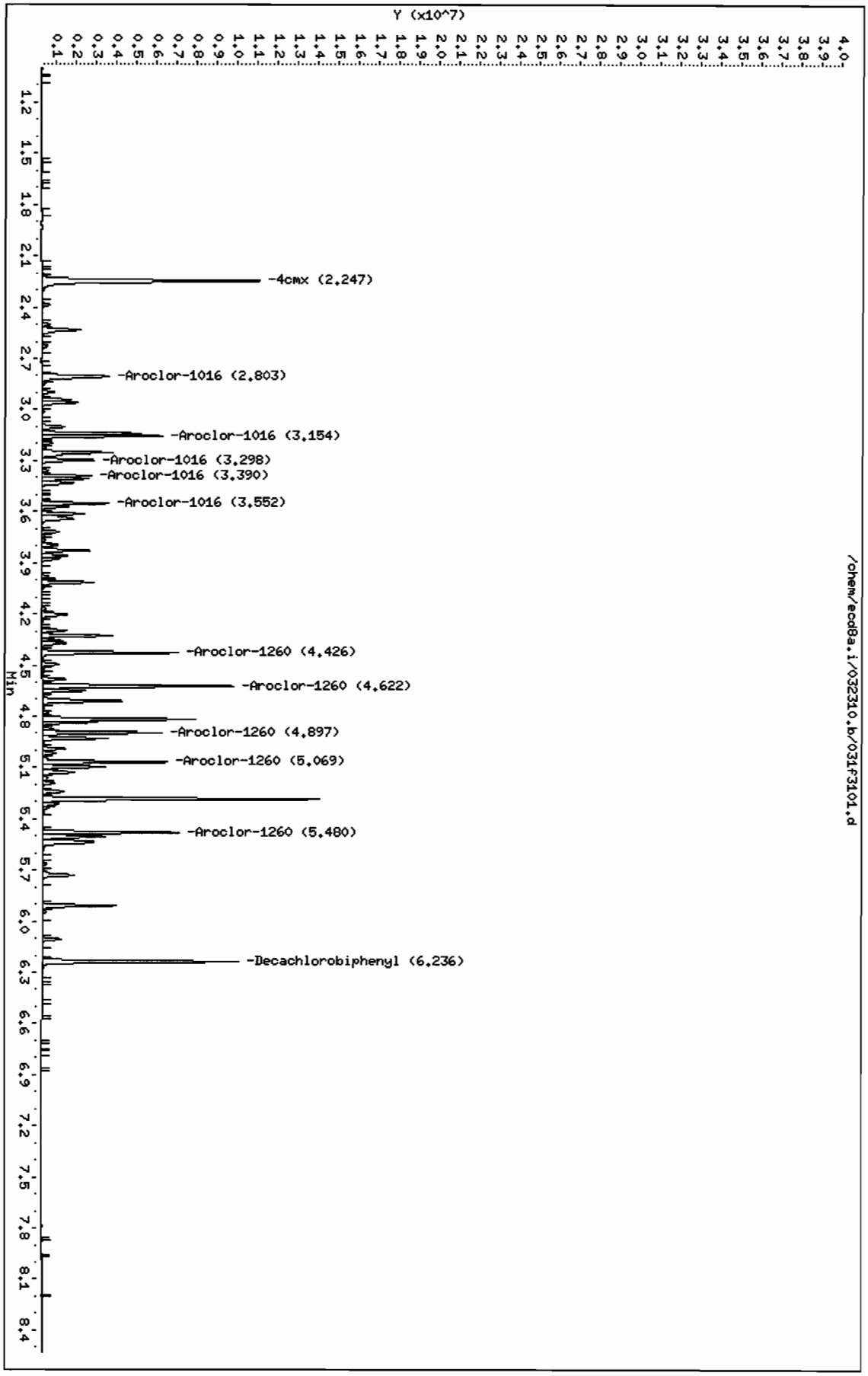

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/031b3101.d
Lab Smp Id: WAR100224-60 03 Client Smp ID: AR166003
Inj Date : 23-MAR-2010 14:38
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 03
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 23-Mar-2010 14:47 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.475	2.476	-0.001	9022304	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.824	-0.002	6588872	100.000	111	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.546	3.548	-0.002	3823176	1000.00	1040	80.00- 120.00	100.00
3.645	3.647	-0.002	2501018	1000.00	980	45.42- 85.42	65.42
3.722	3.723	-0.001	1515874	1000.00	1020	19.65- 59.65	39.65
3.797	3.799	-0.002	1456489	1000.00	986	18.10- 58.10	38.10
3.993	3.995	-0.002	1992410	1000.00	984	32.11- 72.11	52.11
Average of Peak Amounts =					1e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.905	4.907	-0.002	4274803	1000.00	1080	80.00- 120.00	100.00
5.054	5.056	-0.002	5217673	1000.00	1100	102.06- 142.06	122.06
5.371	5.373	-0.002	3927164	1000.00	1090	71.87- 111.87	91.87
5.578	5.580	-0.002	4092848	1000.00	1100	75.74- 115.74	95.74
6.009	6.011	-0.002	6569408	1000.00	1120	133.68- 173.68	153.68
Average of Peak Amounts =					1.1e+03		

Data File: /chem/ecd8a.i/032310.b/031b3101.d

Page 1

Date : 23-MAR-2010 14:38

Client ID: AR166003

Instrument: ecd8a.i

Sample Info: IWAR100224-60 03

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

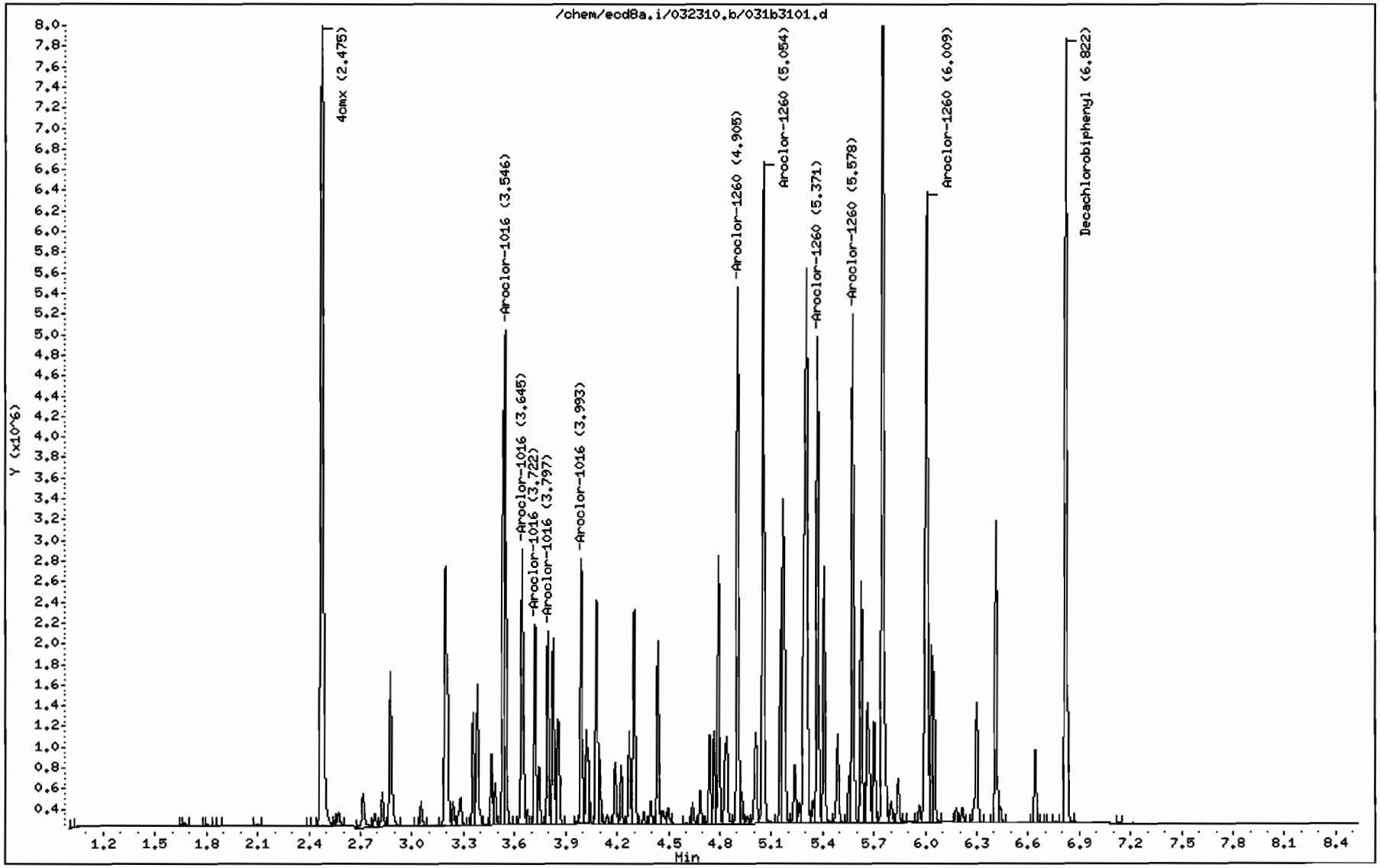

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/043f4301.d
Lab Smp Id: WAR100224-60 04 Client Smp ID: AR166004
Inj Date : 23-MAR-2010 17:15
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 04
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 43 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.247	2.248	-0.001	13079492	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.236	6.240	-0.004	9137969	100.000	111	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.804	2.806	-0.002	4387960	1000.00	919	80.00- 120.00	100.00
3.154	3.157	-0.003	5481408	1000.00	1020	106.71- 146.71	124.92
3.298	3.301	-0.003	2281308	1000.00	970	32.91- 72.91	51.99
3.390	3.393	-0.003	2015891	1000.00	920	26.61- 66.61	45.94
3.552	3.555	-0.003	2919035	1000.00	948	47.49- 87.49	66.52
Average of Peak Amounts =					955		
7 Aroclor-1260					CAS #: 11096-82-5		
4.425	4.429	-0.004	5916917	1000.00	1000	80.00- 120.00	100.00
4.622	4.625	-0.003	8852494	1000.00	1040	127.82- 167.82	149.61
4.897	4.900	-0.003	5234355	1000.00	1030	67.21- 107.21	88.46
5.069	5.072	-0.003	5645987	1000.00	1060	73.14- 113.14	95.42
5.480	5.483	-0.003	6224889	1000.00	1100	79.68- 119.68	105.20
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd8a.i/032310.b/043f4301.d

Page 1

Date : 23-MAR-2010 17:15

Client ID: AR166004

Instrument: ecd8a.i

Sample Info: IWAR100224-60 04

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

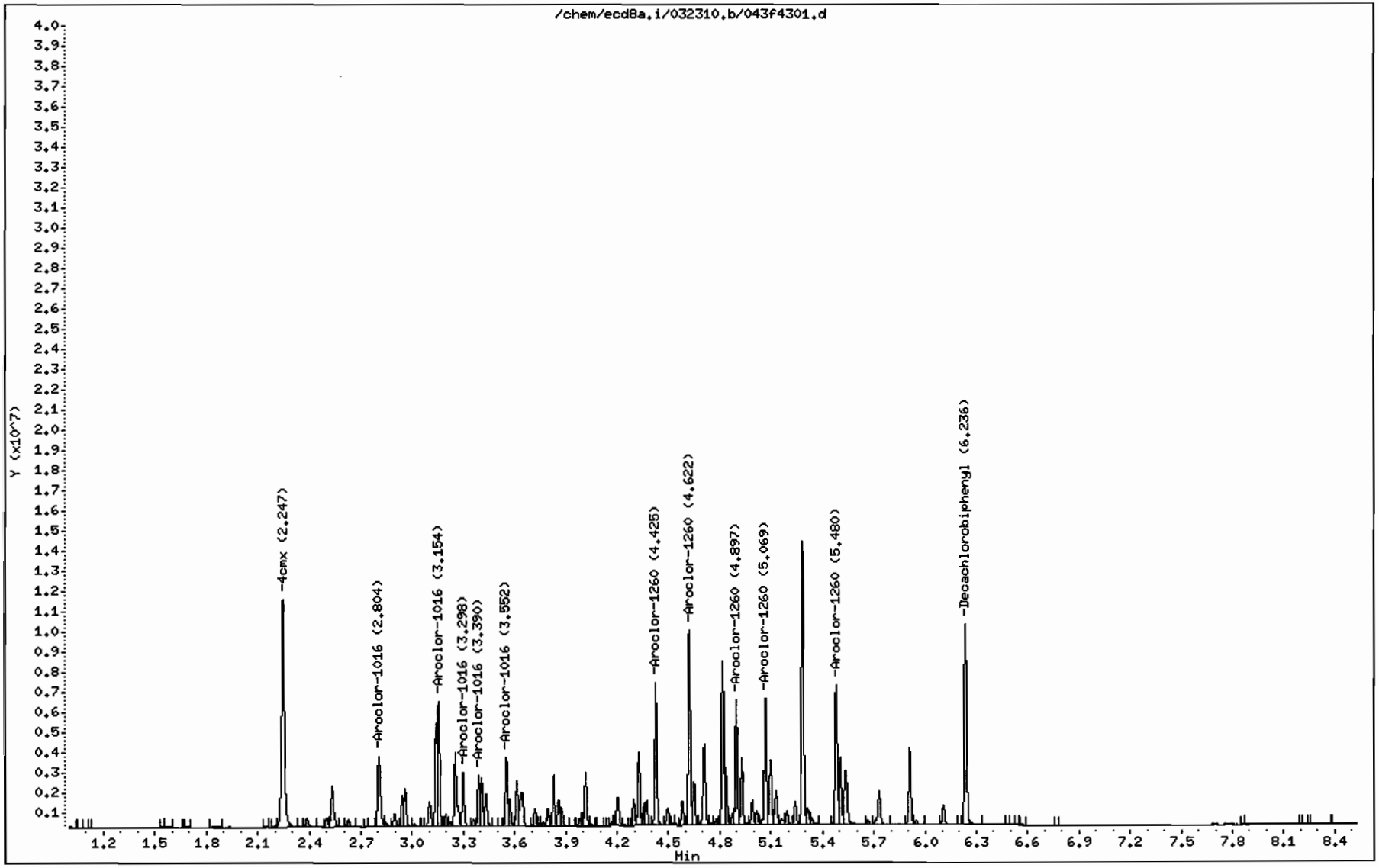

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/043b4301.d
Lab Smp Id: WAR100224-60 04 Client Smp ID: AR166004
Inj Date : 23-MAR-2010 17:15
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 04
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 43 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.476	0.000	9221998	100.000	110	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.821	6.824	-0.003	6735847	100.000	114	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.546	3.548	-0.002	4067387	1000.00	1100	80.00- 120.00	100.00
3.646	3.647	-0.001	2587933	1000.00	1010	44.17- 84.17	63.63
3.721	3.723	-0.002	1572936	1000.00	1050	19.13- 59.13	38.67
3.796	3.799	-0.003	1509202	1000.00	1020	17.45- 57.45	37.10
3.993	3.995	-0.002	2071776	1000.00	1020	31.97- 71.97	50.94
Average of Peak Amounts =					1.04e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.906	4.907	-0.001	4442130	1000.00	1130	80.00- 120.00	100.00
5.054	5.056	-0.002	5425637	1000.00	1150	102.64- 142.64	122.14
5.371	5.373	-0.002	4075253	1000.00	1140	72.26- 112.26	91.74
5.578	5.580	-0.002	4236399	1000.00	1140	76.20- 116.20	95.37
6.009	6.011	-0.002	6803558	1000.00	1160	134.50- 174.50	153.16
Average of Peak Amounts =					1.14e+03		

Data File: /chem/ecd8a.i/032310.b/043b4301.d
Date : 23-MAR-2010 17:15
Client ID: AR166004
Sample Info: IWAR100224-60 04

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

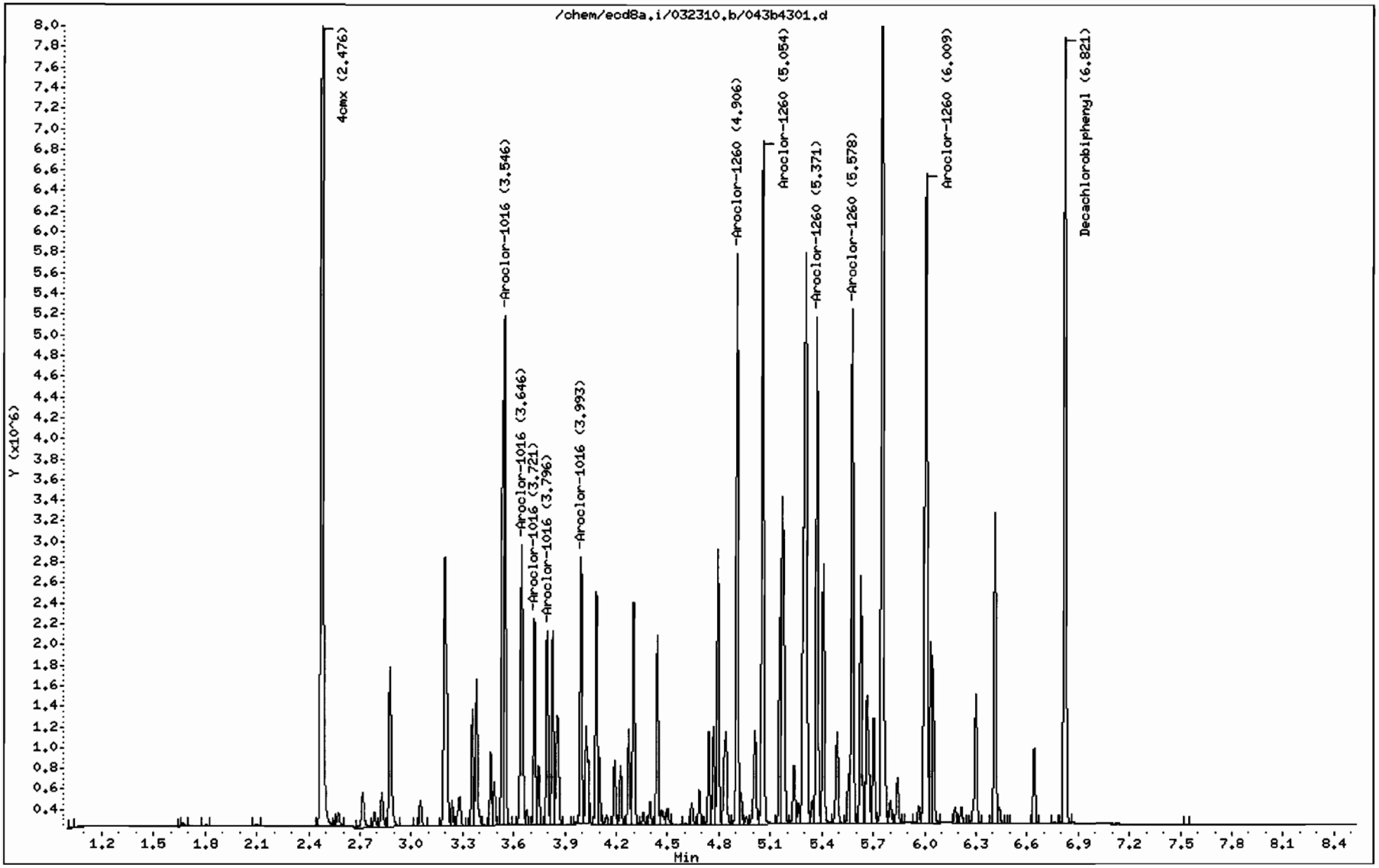

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/046f4601.d
Lab Smp Id: WAR100224-60 05 Client Smp ID: AR166005
Inj Date : 23-MAR-2010 17:56
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 05
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 46 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.247	2.248	-0.001	13661750	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.236	6.240	-0.004	9479021	100.000	115	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.804	2.806	-0.002	4615885	1000.00	967	80.00- 120.00	100.00
3.155	3.157	-0.002	5848852	1000.00	1080	106.71- 146.71	126.71
3.298	3.301	-0.003	2442485	1000.00	1040	32.91- 72.91	52.91
3.391	3.393	-0.002	2151630	1000.00	982	26.61- 66.61	46.61
3.553	3.555	-0.002	3115315	1000.00	1010	47.49- 87.49	67.49
Average of Peak Amounts =					1.02e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.427	4.429	-0.002	6547804	1000.00	1110	80.00- 120.00	100.00
4.622	4.625	-0.003	9678934	1000.00	1140	127.82- 167.82	147.82
4.897	4.900	-0.003	5710100	1000.00	1130	67.21- 107.21	87.21
5.070	5.072	-0.002	6098892	1000.00	1140	73.14- 113.14	93.14
5.481	5.483	-0.002	6526565	1000.00	1160	79.68- 119.68	99.68
Average of Peak Amounts =					1.14e+03		

Data File: /chem/ecd8a.i/032310.b/046f4601.d

Page 1

Date : 23-MAR-2010 17:56

Client ID: AR166005

Instrument: ecd8a.i

Sample Info: IWAR100224-60 05

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

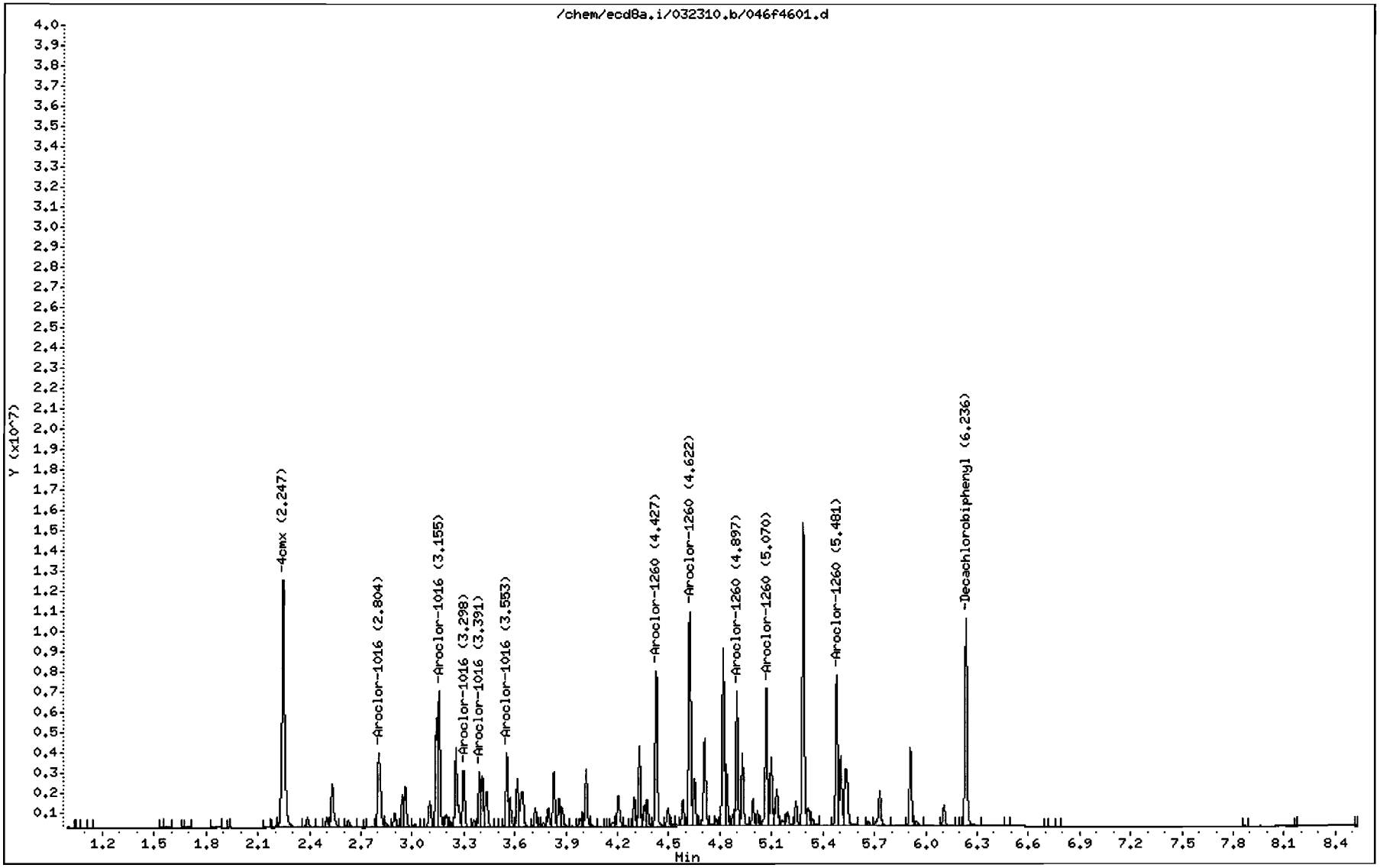

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/046b4601.d
Lab Smp Id: WAR100224-60 05 Client Smp ID: AR166005
Inj Date : 23-MAR-2010 17:56
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100224-60 05
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 46 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.476	0.000	9387457	100.000	112	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.824	-0.002	6948820	100.000	117	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.547	3.548	-0.001	4104398	1000.00	1120	80.00- 120.00	100.00
3.646	3.647	-0.001	2633780	1000.00	1030	44.17- 84.17	64.17
3.722	3.723	-0.001	1605903	1000.00	1080	19.13- 59.13	39.13
3.797	3.799	-0.002	1537153	1000.00	1040	17.45- 57.45	37.45
3.993	3.995	-0.002	2133128	1000.00	1050	31.97- 71.97	51.97
Average of Peak Amounts =					1.06e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.906	4.907	-0.001	4526235	1000.00	1150	80.00- 120.00	100.00
5.055	5.056	-0.001	5551086	1000.00	1170	102.64- 142.64	122.64
5.372	5.373	-0.001	4175938	1000.00	1160	72.26- 112.26	92.26
5.577	5.580	-0.003	4354388	1000.00	1170	76.20- 116.20	96.20
6.009	6.011	-0.002	6992813	1000.00	1200	134.50- 174.50	154.50
Average of Peak Amounts =					1.17e+03		

Data File: /chem/ecd8a.i/032310.b/046b4601.d

Date : 23-MAR-2010 17:56

Client ID: AR166005

Sample Info: IWAR100224-60 05

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

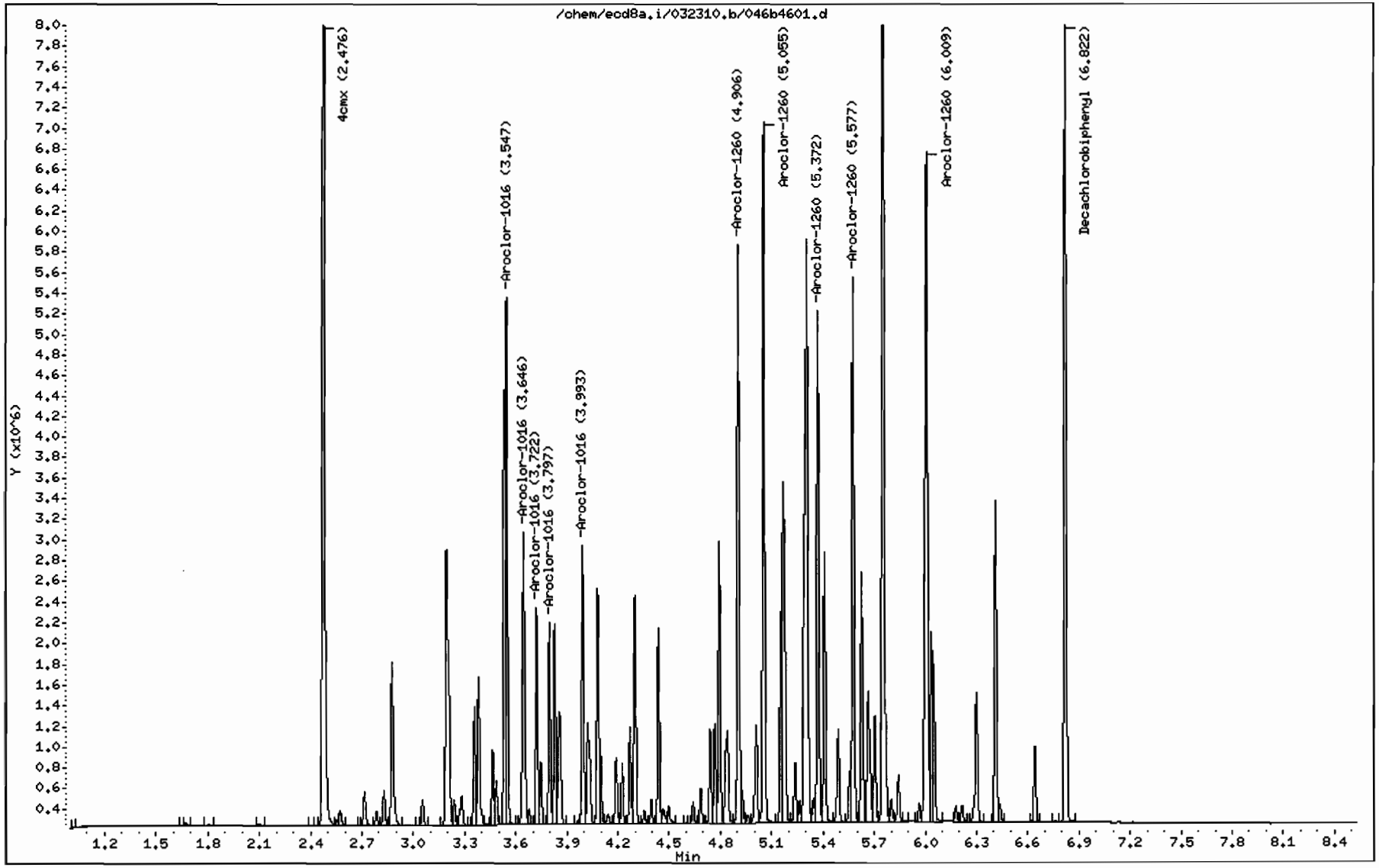

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/09/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/09/10	0759	2.25	6.24
02	ZZZZZ	ZZZZZ	03/09/10	0811	2.25	6.24
03	ZZZZZ	ZZZZZ	03/09/10	0824		
04	AR124201	WAR091217-42	03/09/10	0836		
05	ZZZZZ	ZZZZZ	03/09/10	0848		
06	AR166001	WAR100309-60	03/09/10	0908	2.25	6.24
07	AR125401	WAR100309-05	03/09/10	0927		
08	AR125402	WAR100309-06	03/09/10	0939		
09	AR125403	WAR100309-07	03/09/10	0951		
10	AR125404	WAR100309-08	03/09/10	1004		
11	AR125405	IAR100219-02	03/09/10	1016		
12	AR125401	WAR100201-54	03/09/10	1029		
13	AR124801	WAR100309-09	03/09/10	1041		
14	AR124802	WAR100309-10	03/09/10	1053		
15	AR124803	WAR100309-11	03/09/10	1105		
16	AR124804	WAR100309-12	03/09/10	1118		
17	AR124805	IAR100211-01	03/09/10	1130		
18	AR124801	WAR091217-48	03/09/10	1143		
19	AR123201	WAR100104-32	03/09/10	1155		
20	AR122101	WAR100104-21	03/09/10	1207		
21	AR126201	WAR100104-62	03/09/10	1220		
22	AR126801	WAR100107-68	03/09/10	1232		
23	DDTANALOGSTD	WAR091219-DD	03/09/10	1244		
24	PIBLK02	WAR100219-99	03/09/10	1257	2.25	6.24
25	ZZZZZ	ZZZZZ	03/09/10	1309	2.25	6.24
26	AR166002	WAR100309-60	03/09/10	1322	2.25	6.24
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/09/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/09/10	0759	2.48	6.83
02	ZZZZZ	ZZZZZ	03/09/10	0811	2.48	6.83
03	ZZZZZ	ZZZZZ	03/09/10	0824		
04	AR124201	WAR091217-42	03/09/10	0836		
05	ZZZZZ	ZZZZZ	03/09/10	0848		
06	AR166001	WAR100309-60	03/09/10	0908	2.48	6.83
07	AR125401	WAR100309-05	03/09/10	0927		
08	AR125402	WAR100309-06	03/09/10	0939		
09	AR125403	WAR100309-07	03/09/10	0951		
10	AR125404	WAR100309-08	03/09/10	1004		
11	AR125405	IAR100219-02	03/09/10	1016		
12	AR125401	WAR100201-54	03/09/10	1029		
13	AR124801	WAR100309-09	03/09/10	1041		
14	AR124802	WAR100309-10	03/09/10	1053		
15	AR124803	WAR100309-11	03/09/10	1105		
16	AR124804	WAR100309-12	03/09/10	1118		
17	AR124805	IAR100211-01	03/09/10	1130		
18	AR124801	WAR091217-48	03/09/10	1143		
19	AR123201	WAR100104-32	03/09/10	1155		
20	AR122101	WAR100104-21	03/09/10	1207		
21	AR126201	WAR100104-62	03/09/10	1220		
22	AR126801	WAR100107-68	03/09/10	1232		
23	DDTANALOGSTD	WAR091219-DD	03/09/10	1244		
24	PIBLK02	WAR100219-99	03/09/10	1257	2.48	6.83
25	ZZZZZ	ZZZZZ	03/09/10	1309	2.48	6.83
26	AR166002	WAR100309-60	03/09/10	1322	2.48	6.83
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/18/10	0613	2.25	6.24
02	AR166001	WAR100317-01	03/18/10	0625	2.25	6.24
03	AR166002	WAR100317-02	03/18/10	0638	2.25	6.24
04	AR166003	WAR100317-03	03/18/10	0650	2.25	6.24
05	AR166004	WAR100317-04	03/18/10	0702	2.25	6.24
06	AR166005	IAR100311-01	03/18/10	0715	2.25	6.24
07	AR166001	WAR100224-60	03/18/10	0727	2.25	6.24
08	AR125401	WAR100201-54	03/18/10	0739		
09	AR124201	WAR091217-42	03/18/10	0752		
10	AR124801	WAR091217-48	03/18/10	0804		
11	AR123201	WAR100104-32	03/18/10	0817		
12	AR122101	WAR100104-21	03/18/10	0829		
13	AR126201	WAR100104-62	03/18/10	0841		
14	AR126801	WAR100107-68	03/18/10	0854		
15	DDTANALOGSTD	WAR091219-DD	03/18/10	0906		
16	PIBLK02	WAR100219-99	03/18/10	0919	2.25	6.24
17	ZZZZZ	ZZZZZ	03/18/10	0931	2.25	6.24
18	ZZZZZ	ZZZZZ	03/18/10	0943	2.25	6.24
19	ZZZZZ	ZZZZZ	03/18/10	0955	2.25	6.24
20	ZZZZZ	ZZZZZ	03/18/10	1008	2.25	6.24
21	ZZZZZ	ZZZZZ	03/18/10	1020	2.25	6.24
22	ZZZZZ	ZZZZZ	03/18/10	1033	2.25	6.25
23	ZZZZZ	ZZZZZ	03/18/10	1045	2.25	6.24
24	ZZZZZ	ZZZZZ	03/18/10	1057	2.25	6.24
25	ZZZZZ	ZZZZZ	03/18/10	1110	2.25	6.24
26	ZZZZZ	ZZZZZ	03/18/10	1122	2.25	6.25
27	AR166002	WAR100224-60	03/18/10	1139	2.25	6.24
28	PIBLK03	WAR100219-99	03/18/10	1151	2.25	6.24
29	ZZZZZ	ZZZZZ	03/18/10	1203	2.25	6.24
30	ZZZZZ	ZZZZZ	03/18/10	1216	2.25	6.29*
31	ZZZZZ	ZZZZZ	03/18/10	1228	2.25	6.26
32	ZZZZZ	ZZZZZ	03/18/10	1240	2.25	6.24

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/18/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/18/10	0613	2.48	6.82
02	AR166001	WAR100317-01	03/18/10	0625	2.48	6.83
03	AR166002	WAR100317-02	03/18/10	0638	2.48	6.83
04	AR166003	WAR100317-03	03/18/10	0650	2.48	6.83
05	AR166004	WAR100317-04	03/18/10	0702	2.48	6.83
06	AR166005	IAR100311-01	03/18/10	0715	2.48	6.83
07	AR166001	WAR100224-60	03/18/10	0727	2.48	6.83
08	AR125401	WAR100201-54	03/18/10	0739		
09	AR124201	WAR091217-42	03/18/10	0752		
10	AR124801	WAR091217-48	03/18/10	0804		
11	AR123201	WAR100104-32	03/18/10	0817		
12	AR122101	WAR100104-21	03/18/10	0829		
13	AR126201	WAR100104-62	03/18/10	0841		
14	AR126801	WAR100107-68	03/18/10	0854		
15	DDTANALOGSTD	WAR091219-DD	03/18/10	0906		
16	PIBLK02	WAR100219-99	03/18/10	0919	2.48	6.83
17	ZZZZZ	ZZZZZ	03/18/10	0931	2.48	6.83
18	ZZZZZ	ZZZZZ	03/18/10	0943	2.48	6.82
19	ZZZZZ	ZZZZZ	03/18/10	0955	2.48	6.82
20	ZZZZZ	ZZZZZ	03/18/10	1008	2.48	6.83
21	ZZZZZ	ZZZZZ	03/18/10	1020	2.48	6.83
22	ZZZZZ	ZZZZZ	03/18/10	1033	2.48	6.83
23	ZZZZZ	ZZZZZ	03/18/10	1045	2.48	6.83
24	ZZZZZ	ZZZZZ	03/18/10	1057	2.48	6.83
25	ZZZZZ	ZZZZZ	03/18/10	1110	2.48	6.83
26	ZZZZZ	ZZZZZ	03/18/10	1122	2.48	6.83
27	AR166002	WAR100224-60	03/18/10	1139	2.48	6.82
28	PIBLK03	WAR100219-99	03/18/10	1151	2.48	6.83
29	ZZZZZ	ZZZZZ	03/18/10	1203	2.48	6.83
30	ZZZZZ	ZZZZZ	03/18/10	1216	2.48	6.86*
31	ZZZZZ	ZZZZZ	03/18/10	1228	2.48	6.84
32	ZZZZZ	ZZZZZ	03/18/10	1240	2.48	6.83

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/23/10	0809	2.25	6.24
02	AR166001	WAR100224-60	03/23/10	0822	2.25	6.24
03	AR125401	WAR100219-54	03/23/10	0834		
04	AR124201	WAR091217-42	03/23/10	0846		
05	AR124801	WAR100223-48	03/23/10	0859		
06	AR123201	WAR100104-32	03/23/10	0911		
07	AR122101	WAR100104-21	03/23/10	0923		
08	AR126201	WAR100104-62	03/23/10	0936		
09	AR126801	WAR100107-68	03/23/10	0948		
10	DDTANALOGSTD	WAR091219-DD	03/23/10	1000		
11	PIBLK02	WAR100219-99	03/23/10	1013	2.25	6.24
12	ZZZZZ	ZZZZZ	03/23/10	1025	2.25	6.24
13	ZZZZZ	ZZZZZ	03/23/10	1037	2.25	6.24
14	ZZZZZ	ZZZZZ	03/23/10	1050	2.25	6.24
15	ZZZZZ	ZZZZZ	03/23/10	1102	2.25	6.24
16	ZZZZZ	ZZZZZ	03/23/10	1114	2.25	6.24
17	ZZZZZ	ZZZZZ	03/23/10	1127	2.25	6.24
18	ZZZZZ	ZZZZZ	03/23/10	1143	2.25	6.24
19	AR166002	WAR100224-60	03/23/10	1201	2.25	6.24
20	PIBLK03	WAR100219-99	03/23/10	1214	2.25	6.24
21	PBLK01	1202077524	03/23/10	1226	2.25	6.24
22	PBLK01LCS	1202077525	03/23/10	1238	2.25	6.24
23	ZZZZZ	ZZZZZ	03/23/10	1251	2.25	6.24
24	ZZZZZ	ZZZZZ	03/23/10	1303	2.25	6.24
25	ZZZZZ	ZZZZZ	03/23/10	1315	2.25	6.24
26	ZZZZZ	ZZZZZ	03/23/10	1328	2.25	6.24
27	ZZZZZ	ZZZZZ	03/23/10	1340	2.25	6.24
28	ZZZZZ	ZZZZZ	03/23/10	1352	2.25	6.24
29	ZZZZZ	ZZZZZ	03/23/10	1405	2.25	6.24
30	ZZZZZ	ZZZZZ	03/23/10	1421	2.25	6.24
31	AR166003	WAR100224-60	03/23/10	1438	2.25	6.24
32	PIBLK04	WAR100219-99	03/23/10	1450	2.25	6.24

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/23/10	1503	2.25	6.24
02	ZZZZZ	ZZZZZ	03/23/10	1515	2.25	6.24
03	RE46-10-12972	249335002	03/23/10	1527	2.25	6.24
04	RE46-10-12972MS	1202077526	03/23/10	1540	2.25	6.24
05	RE46-10-12972MSD	1202077527	03/23/10	1552	2.25	6.24
06	RE46-10-13003	249335003	03/23/10	1604	2.25	6.24
07	RE46-10-12967	249335004	03/23/10	1617	2.25	6.24
08	RE46-10-12971	249335005	03/23/10	1629	2.25	6.24
09	RE46-10-12968	249335006	03/23/10	1642	2.25	6.24
10	RE46-10-12969	249335007	03/23/10	1658	2.25	6.24
11	AR166004	WAR100224-60	03/23/10	1715	2.25	6.24
12	PIBLK05	WAR100219-99	03/23/10	1727	2.25	6.24
13	RE46-10-12970	249335008	03/23/10	1739	2.25	6.24
14	AR166005	WAR100224-60	03/23/10	1756	2.25	6.24
15	PIBLK06	WAR100219-99	03/23/10	1808	2.25	6.24
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30						
31						
32						

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/23/10	0809	2.48	6.82
02	AR166001	WAR100224-60	03/23/10	0822	2.48	6.82
03	AR125401	WAR100219-54	03/23/10	0834		
04	AR124201	WAR091217-42	03/23/10	0846		
05	AR124801	WAR100223-48	03/23/10	0859		
06	AR123201	WAR100104-32	03/23/10	0911		
07	AR122101	WAR100104-21	03/23/10	0923		
08	AR126201	WAR100104-62	03/23/10	0936		
09	AR126801	WAR100107-68	03/23/10	0948		
10	DDTANALOGSTD	WAR091219-DD	03/23/10	1000		
11	PIBLK02	WAR100219-99	03/23/10	1013	2.48	6.82
12	ZZZZZ	ZZZZZ	03/23/10	1025	2.48	6.82
13	ZZZZZ	ZZZZZ	03/23/10	1037	2.48	6.82
14	ZZZZZ	ZZZZZ	03/23/10	1050	2.48	6.82
15	ZZZZZ	ZZZZZ	03/23/10	1102	2.48	6.82
16	ZZZZZ	ZZZZZ	03/23/10	1114	2.48	6.82
17	ZZZZZ	ZZZZZ	03/23/10	1127	2.48	6.82
18	ZZZZZ	ZZZZZ	03/23/10	1143	2.48	6.82
19	AR166002	WAR100224-60	03/23/10	1201	2.48	6.82
20	PIBLK03	WAR100219-99	03/23/10	1214	2.48	6.82
21	PBLK01	1202077524	03/23/10	1226	2.48	6.82
22	PBLK01LCS	1202077525	03/23/10	1238	2.48	6.82
23	ZZZZZ	ZZZZZ	03/23/10	1251	2.48	6.82
24	ZZZZZ	ZZZZZ	03/23/10	1303	2.48	6.82
25	ZZZZZ	ZZZZZ	03/23/10	1315	2.48	6.82
26	ZZZZZ	ZZZZZ	03/23/10	1328	2.48	6.82
27	ZZZZZ	ZZZZZ	03/23/10	1340	2.48	6.82
28	ZZZZZ	ZZZZZ	03/23/10	1352	2.48	6.82
29	ZZZZZ	ZZZZZ	03/23/10	1405	2.48	6.82
30	ZZZZZ	ZZZZZ	03/23/10	1421	2.48	6.82
31	AR166003	WAR100224-60	03/23/10	1438	2.48	6.82
32	PIBLK04	WAR100219-99	03/23/10	1450	2.48	6.82

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2436

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/09/10 03/18/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/23/10	1503	2.48	6.82
02	ZZZZZ	ZZZZZ	03/23/10	1515	2.48	6.82
03	RE46-10-12972	249335002	03/23/10	1527	2.48	6.82
04	RE46-10-12972MS	1202077526	03/23/10	1540	2.48	6.82
05	RE46-10-12972MSD	1202077527	03/23/10	1552	2.48	6.82
06	RE46-10-13003	249335003	03/23/10	1604	2.48	6.82
07	RE46-10-12967	249335004	03/23/10	1617	2.48	6.82
08	RE46-10-12971	249335005	03/23/10	1629	2.48	6.82
09	RE46-10-12968	249335006	03/23/10	1642	2.48	6.82
10	RE46-10-12969	249335007	03/23/10	1658	2.48	6.82
11	AR166004	WAR100224-60	03/23/10	1715	2.48	6.82
12	PIBLK05	WAR100219-99	03/23/10	1727	2.48	6.82
13	RE46-10-12970	249335008	03/23/10	1739	2.48	6.82
14	AR166005	WAR100224-60	03/23/10	1756	2.48	6.82
15	PIBLK06	WAR100219-99	03/23/10	1808	2.48	6.82
16						
17						
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26						
27						
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29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–2436 **Client ID:** LCS for batch 967820

Lab Sample ID: 1202077525

Data File:	022f2201.d	**Data File:**	022b2201.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 12:38	**Analyzed:**	23–MAR–10 12:38

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							6.16
Column 1	1	2.81	2.78 – 2.84	26		ug/kg	
	2	3.16	3.13 – 3.19	28.5		ug/kg	
	3	3.3	3.27 – 3.33	27.7		ug/kg	
	4	3.39	3.36 – 3.42	26.8		ug/kg	
	5	3.55	3.52 – 3.58	26.4		ug/kg	
					27.1		
Column 2	1	3.55	3.52 – 3.58	29.9		ug/kg	
	2	3.65	3.62 – 3.68	28		ug/kg	
	3	3.72	3.69 – 3.75	28.6		ug/kg	
	4	3.8	3.77 – 3.83	28.8		ug/kg	
	5	3.99	3.96 – 4.02	28.6		ug/kg	
					28.8		
Aroclor–1260							4.38
Column 1	1	4.43	4.4 – 4.46	31.1		ug/kg	
	2	4.62	4.59 – 4.65	32.2		ug/kg	
	3	4.9	4.87 – 4.93	32.2		ug/kg	
	4	5.07	5.04 – 5.1	31.4		ug/kg	
	5	5.48	5.45 – 5.51	30.4		ug/kg	
					31.4		
Column 2	1	4.91	4.88 – 4.94	32.1		ug/kg	
	2	5.06	5.03 – 5.09	32.7		ug/kg	
	3	5.37	5.34 – 5.4	33.4		ug/kg	
	4	5.58	5.55 – 5.61	31.1		ug/kg	
	5	6.01	5.98 – 6.04	34.8		ug/kg	
					32.9		

Identification Summary

SDG Number: 10–2436 **Client ID:** RE46–10–12967

Lab Sample ID: 249335004

Data File:	039f3901.d	**Data File:**	039b3901.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 16:17	**Analyzed:**	23–MAR–10 16:17

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							20.4
Column 1	1	3.83	3.8 – 3.86	36.9		ug/kg	
	2	4.02	3.99 – 4.05	42.9		ug/kg	
	3	4.21	4.18 – 4.24	36.7		ug/kg	
	4	4.3	4.27 – 4.33	47.6		ug/kg	
	5	4.49	4.47 – 4.53	43.5		ug/kg	
					41.5		
Column 2	1	4.3	4.27 – 4.33	36.6		ug/kg	
	2	4.44	4.41 – 4.47	45.8		ug/kg	
	3	4.77	4.74 – 4.8	51.9		ug/kg	
	4	4.93	4.9 – 4.96	44		ug/kg	
	5	5.06	5.03 – 5.09	76.6		ug/kg	
					51		
Aroclor–1260							8.84
Column 1	1	4.43	4.4 – 4.46	31.6		ug/kg	
	2	4.62	4.59 – 4.65	38.5		ug/kg	
	3	4.9	4.87 – 4.93	15		ug/kg	
	4	5.07	5.04 – 5.1	8.91		ug/kg	
	5	5.48	5.45 – 5.51	13.5		ug/kg	
					21.5		
Column 2	1	4.91	4.88 – 4.94	41.1		ug/kg	
	2	5.06	5.03 – 5.09	35.7		ug/kg	
	3	5.37	5.34 – 5.4	16.8		ug/kg	
	4	5.58	5.55 – 5.61	9.96		ug/kg	
	5	6.01	5.98 – 6.04	13.9		ug/kg	
					23.5		

Identification Summary

SDG Number: 10–2436 **Client ID:** RE46–10–12968

Lab Sample ID: 249335006

Data File:	041f4101.d	**Data File:**	041b4101.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 16:42	**Analyzed:**	23–MAR–10 16:42

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							18.4
Column 1	1	3.83	3.8 – 3.86	116		ug/kg	
	2	4.02	3.99 – 4.05	130		ug/kg	
	3	4.21	4.18 – 4.24	126		ug/kg	
	4	4.3	4.27 – 4.33	134		ug/kg	
	5	4.49	4.47 – 4.53	122		ug/kg	
					126		
Column 2	1	4.3	4.27 – 4.33	121		ug/kg	
	2	4.44	4.41 – 4.47	150		ug/kg	
	3	4.77	4.74 – 4.8	149		ug/kg	
	4	4.93	4.9 – 4.96	125		ug/kg	
	5	5.06	5.03 – 5.09	210		ug/kg	
					151		
Aroclor–1260							2.96
Column 1	1	4.43	4.4 – 4.46	83.8		ug/kg	
	2	4.62	4.59 – 4.65	113		ug/kg	
	3	4.9	4.87 – 4.93	26.2		ug/kg	
	4	5.07	5.04 – 5.1	21.3		ug/kg	
	5	5.48	5.45 – 5.51	37.3		ug/kg	
					56.4		
Column 2	1	4.91	4.88 – 4.94	97.1		ug/kg	
	2	5.06	5.03 – 5.09	97.7		ug/kg	
	3	5.38	5.34 – 5.4	40.8		ug/kg	
	4	5.58	5.55 – 5.61	21.7		ug/kg	
	5	6.01	5.98 – 6.04	33		ug/kg	
					58.1		

Identification Summary

SDG Number: 10–2436 **Client ID:** RE46–10–12971

Lab Sample ID: 249335005

Data File:	040f4001.d	**Data File:**	040b4001.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 16:29	**Analyzed:**	23–MAR–10 16:29

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							22
Column 1	1	3.83	3.8 – 3.86	196		ug/kg	
	2	4.02	3.99 – 4.05	212		ug/kg	
	3	4.21	4.18 – 4.24	215		ug/kg	
	4	4.3	4.27 – 4.33	235		ug/kg	
	5	4.49	4.47 – 4.53	204		ug/kg	
					212		
Column 2	1	4.3	4.27 – 4.33	215		ug/kg	
	2	4.44	4.41 – 4.47	260		ug/kg	
	3	4.77	4.74 – 4.8	275		ug/kg	
	4	4.93	4.9 – 4.96	220		ug/kg	
	5	5.06	5.03 – 5.09	355		ug/kg	
					265		
Aroclor–1260							5.82
Column 1	1	4.43	4.4 – 4.46	134		ug/kg	
	2	4.62	4.59 – 4.65	184		ug/kg	
	3	4.9	4.87 – 4.93	42.2		ug/kg	
	4	5.07	5.04 – 5.1	34		ug/kg	
	5	5.48	5.45 – 5.51	58.5		ug/kg	
					90.6		
Column 2	1	4.91	4.88 – 4.94	166		ug/kg	
	2	5.06	5.03 – 5.09	165		ug/kg	
	3	5.38	5.34 – 5.4	62.6		ug/kg	
	4	5.58	5.55 – 5.61	36.2		ug/kg	
	5	6.01	5.98 – 6.04	50.6		ug/kg	
					96		

Identification Summary

SDG Number: 10–2436 **Client ID:** RE46–10–12972

Lab Sample ID: 249335002

Data File:	035f3501.d	**Data File:**	035b3501.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 15:27	**Analyzed:**	23–MAR–10 15:27

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							15
Column 1	1	3.83	3.8 – 3.86	7.93		ug/kg	
	2	4.02	3.99 – 4.05	9.32		ug/kg	
	3	4.21	4.18 – 4.24	8.3		ug/kg	
	4	4.3	4.27 – 4.33	10.1		ug/kg	
	5	4.49	4.47 – 4.53	10.3		ug/kg	
					9.19		
Column 2	1	4.3	4.27 – 4.33	7.86		ug/kg	
	2	4.44	4.41 – 4.47	9.96		ug/kg	
	3	4.77	4.74 – 4.8	10.9		ug/kg	
	4	4.93	4.9 – 4.96	9.88		ug/kg	
	5	5.06	5.03 – 5.09	14.8		ug/kg	
					10.7		
Aroclor–1260							.492
Column 1	1	4.43	4.4 – 4.46	6.02		ug/kg	
	2	4.62	4.59 – 4.65	7.88		ug/kg	
	3	4.9	4.87 – 4.93	2.67		ug/kg	
	4	5.07	5.04 – 5.1	1.66		ug/kg	
	5	5.48	5.45 – 5.51	2.68		ug/kg	
					4.18		
Column 2	1	4.91	4.88 – 4.94	7.81		ug/kg	
	2	5.06	5.03 – 5.09	6.89		ug/kg	
	3	5.38	5.34 – 5.4	2.62		ug/kg	
	4	5.58	5.55 – 5.61	1.45		ug/kg	
	5	6.01	5.98 – 6.04	2.24		ug/kg	
					4.2		

Identification Summary

SDG Number: 10–2436 **Client ID:** RE46–10–12972MS

Lab Sample ID: 1202077526

Data File:	036f3601.d	**Data File:**	036b3601.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 15:40	**Analyzed:**	23–MAR–10 15:40

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							8.98
Column 1	1	2.81	2.78 – 2.84	26.9		ug/kg	
	2	3.16	3.13 – 3.19	30.4		ug/kg	
	3	3.3	3.27 – 3.33	27.2		ug/kg	
	4	3.39	3.36 – 3.42	30.1		ug/kg	
	5	3.55	3.52 – 3.58	28.1		ug/kg	
					28.6		
Column 2	1	3.55	3.52 – 3.58	32.3		ug/kg	
	2	3.65	3.62 – 3.68	29.7		ug/kg	
	3	3.72	3.69 – 3.75	30		ug/kg	
	4	3.8	3.77 – 3.83	32.9		ug/kg	
	5	3.99	3.96 – 4.02	31.2		ug/kg	
					31.2		
Aroclor–1254							75.1
Column 1	1	3.83	3.8 – 3.86	17.6		ug/kg	
	2	4.02	3.99 – 4.05	15.9		ug/kg	
	3	4.21	4.18 – 4.24	12.2		ug/kg	
	4	4.3	4.27 – 4.33	8.69		ug/kg	
	5	4.5	4.47 – 4.53	8.68		ug/kg	
					12.6		
Column 2	1	4.3	4.27 – 4.33	20.9		ug/kg	
	2	4.44	4.41 – 4.47	17.2		ug/kg	
	3	4.77	4.74 – 4.8	9.27		ug/kg	
	4	4.93	4.9 – 4.96	5.85		ug/kg	
	5	5.06	5.03 – 5.09	85.4		ug/kg	
					27.7		

Identification Summary

SDG Number: 10–2436 **Client ID:** RE46–10–12972MS

Lab Sample ID: 1202077526

Data File:	036f3601.d	**Data File:**	036b3601.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 15:40	**Analyzed:**	23–MAR–10 15:40

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1260							6.07
Column 1	1	4.43	4.4 – 4.46	35.2		ug/kg	
	2	4.62	4.59 – 4.65	37.7		ug/kg	
	3	4.9	4.87 – 4.93	35.8		ug/kg	
	4	5.07	5.04 – 5.1	34		ug/kg	
	5	5.48	5.45 – 5.51	36.5		ug/kg	
					35.9		
Column 2	1	4.91	4.88 – 4.94	38.6		ug/kg	
	2	5.06	5.03 – 5.09	39.8		ug/kg	
	3	5.37	5.34 – 5.4	38		ug/kg	
	4	5.58	5.55 – 5.61	36		ug/kg	
	5	6.01	5.98 – 6.04	38.1		ug/kg	
					38.1		

Identification Summary

SDG Number: 10–2436 **Client ID:** RE46–10–12972MSD

Lab Sample ID: 1202077527

Data File:	037f3701.d	**Data File:**	037b3701.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 15:52	**Analyzed:**	23–MAR–10 15:52

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							10.6
Column 1	1	2.8	2.78 – 2.84	26.8		ug/kg	
	2	3.16	3.13 – 3.19	30.3		ug/kg	
	3	3.3	3.27 – 3.33	26.9		ug/kg	
	4	3.39	3.36 – 3.42	27.5		ug/kg	
	5	3.55	3.52 – 3.58	27.8		ug/kg	
					27.8		
Column 2	1	3.55	3.52 – 3.58	31.3		ug/kg	
	2	3.65	3.62 – 3.68	30		ug/kg	
	3	3.72	3.69 – 3.75	30.5		ug/kg	
	4	3.8	3.77 – 3.83	32.1		ug/kg	
	5	3.99	3.96 – 4.02	31.1		ug/kg	
					31		
Aroclor–1254							76.7
Column 1	1	3.83	3.8 – 3.86	16.7		ug/kg	
	2	4.02	3.99 – 4.05	14.5		ug/kg	
	3	4.2	4.18 – 4.24	11.1		ug/kg	
	4	4.3	4.27 – 4.33	7.31		ug/kg	
	5	4.5	4.47 – 4.53	7.06		ug/kg	
					11.4		
Column 2	1	4.3	4.27 – 4.33	20.1		ug/kg	
	2	4.44	4.41 – 4.47	15.5		ug/kg	
	3	4.77	4.74 – 4.8	7.87		ug/kg	
	4	4.93	4.9 – 4.96	4.57		ug/kg	
	5	5.06	5.03 – 5.09	79.3		ug/kg	
					25.5		

Identification Summary

SDG Number: 10–2436 **Client ID:** RE46–10–12972MSD

Lab Sample ID: 1202077527

Data File:	037f3701.d	**Data File:**	037b3701.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 15:52	**Analyzed:**	23–MAR–10 15:52

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1260							6.09
Column 1	1	4.43	4.4 – 4.46	34.2		ug/kg	
	2	4.62	4.59 – 4.65	34.6		ug/kg	
	3	4.9	4.87 – 4.93	35		ug/kg	
	4	5.07	5.04 – 5.1	33.1		ug/kg	
	5	5.48	5.45 – 5.51	32.6		ug/kg	
					33.9		
Column 2	1	4.91	4.88 – 4.94	37.5		ug/kg	
	2	5.06	5.03 – 5.09	36.9		ug/kg	
	3	5.37	5.34 – 5.4	37.2		ug/kg	
	4	5.58	5.55 – 5.61	32.3		ug/kg	
	5	6.01	5.98 – 6.04	36.3		ug/kg	
					36		

Identification Summary

SDG Number: 10–2436 **Client ID:** RE46–10–13003

Lab Sample ID: 249335003

Data File:	038f3801.d	**Data File:**	038b3801.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–MAR–10 16:04	**Analyzed:**	23–MAR–10 16:04

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							18.7
Column 1	1	3.83	3.8 – 3.86	74.4		ug/kg	
	2	4.02	3.99 – 4.05	82.2		ug/kg	
	3	4.21	4.18 – 4.24	79.5		ug/kg	
	4	4.3	4.27 – 4.33	84.2		ug/kg	
	5	4.49	4.47 – 4.53	74.9		ug/kg	
					79		
Column 2	1	4.3	4.27 – 4.33	76.3		ug/kg	
	2	4.44	4.41 – 4.47	93.7		ug/kg	
	3	4.77	4.74 – 4.8	93.3		ug/kg	
	4	4.93	4.9 – 4.96	79.3		ug/kg	
	5	5.06	5.03 – 5.09	134		ug/kg	
					95.3		
Aroclor–1260							.0522
Column 1	1	4.43	4.4 – 4.46	56.9		ug/kg	
	2	4.62	4.59 – 4.65	71.7		ug/kg	
	3	4.9	4.87 – 4.93	17.4		ug/kg	
	4	5.07	5.04 – 5.1	14.2		ug/kg	
	5	5.48	5.45 – 5.51	23.3		ug/kg	
					36.7		
Column 2	1	4.91	4.88 – 4.94	61		ug/kg	
	2	5.06	5.03 – 5.09	62.4		ug/kg	
	3	5.38	5.34 – 5.4	24.8		ug/kg	
	4	5.58	5.55 – 5.61	15.4		ug/kg	
	5	6.01	5.98 – 6.04	20		ug/kg	
					36.7		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2436**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202077524**				
Client Sample:	**QC for batch 967820**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 967820**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:26**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**021f2101-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	021b2101-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/021f2101-2.d
Lab Smp Id: 1202077524 Client Smp ID: PBLK01
Inj Date : 23-MAR-2010 12:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077524|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 21 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.248	0.000	21275087	170.253	5.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	15848889	192.455	6.4	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/021f2101-2.d

Date : 23-MAR-2010 12:26

Client ID: PBLK01

Sample Info: |120207752412|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

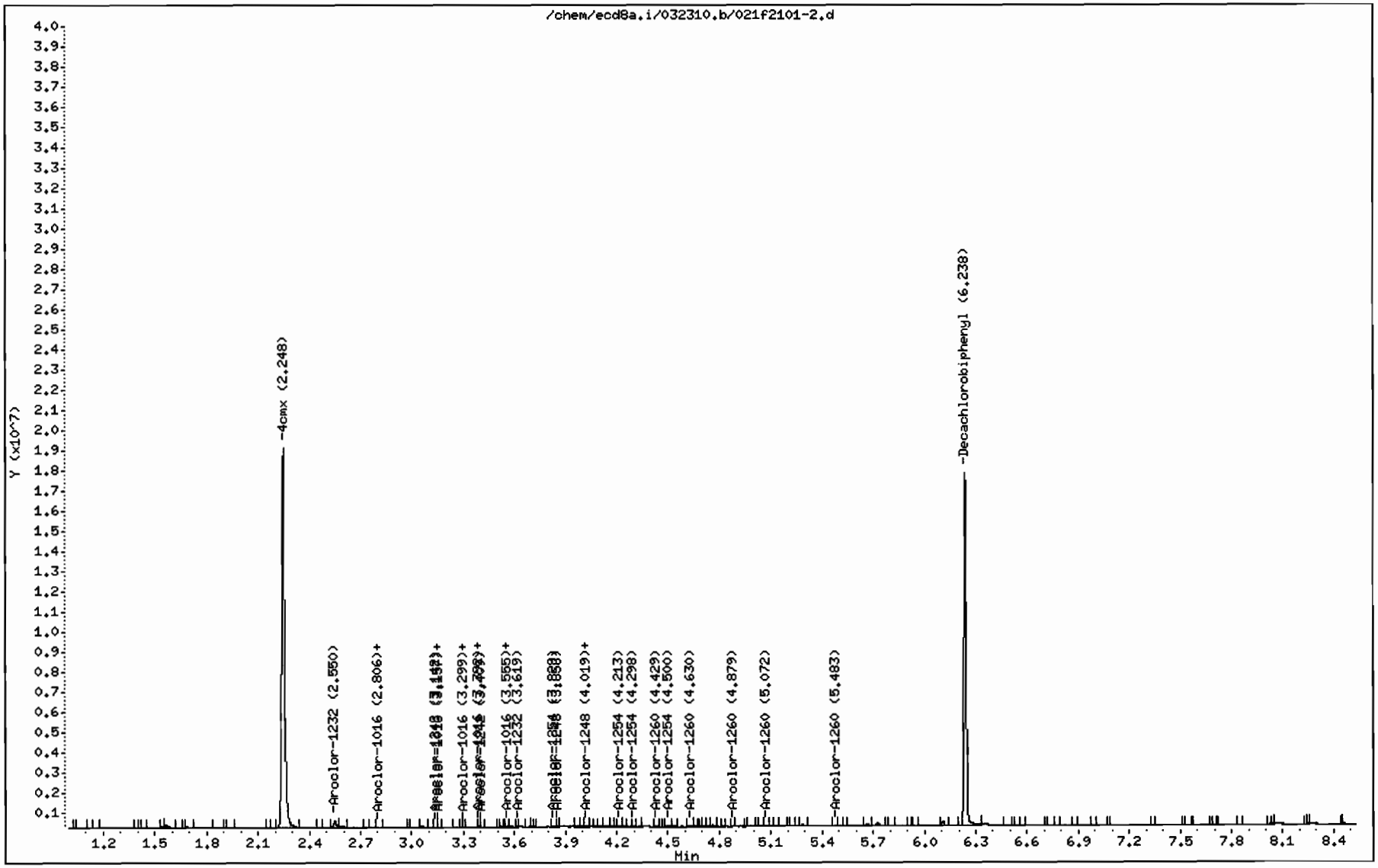

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/021b2101-2.d
Lab Smp Id: 1202077524 Client Smp ID: PBLK01
Inj Date : 23-MAR-2010 12:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077524|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 21 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	15146143	181.213	6.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	11669286	196.942	6.6	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/032310.b/021b2101-2.d

Page 1

Date : 23-MAR-2010 12:26

Client ID: PBLK01

Instrument: ecd8a.i

Sample Info: |1202077524|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

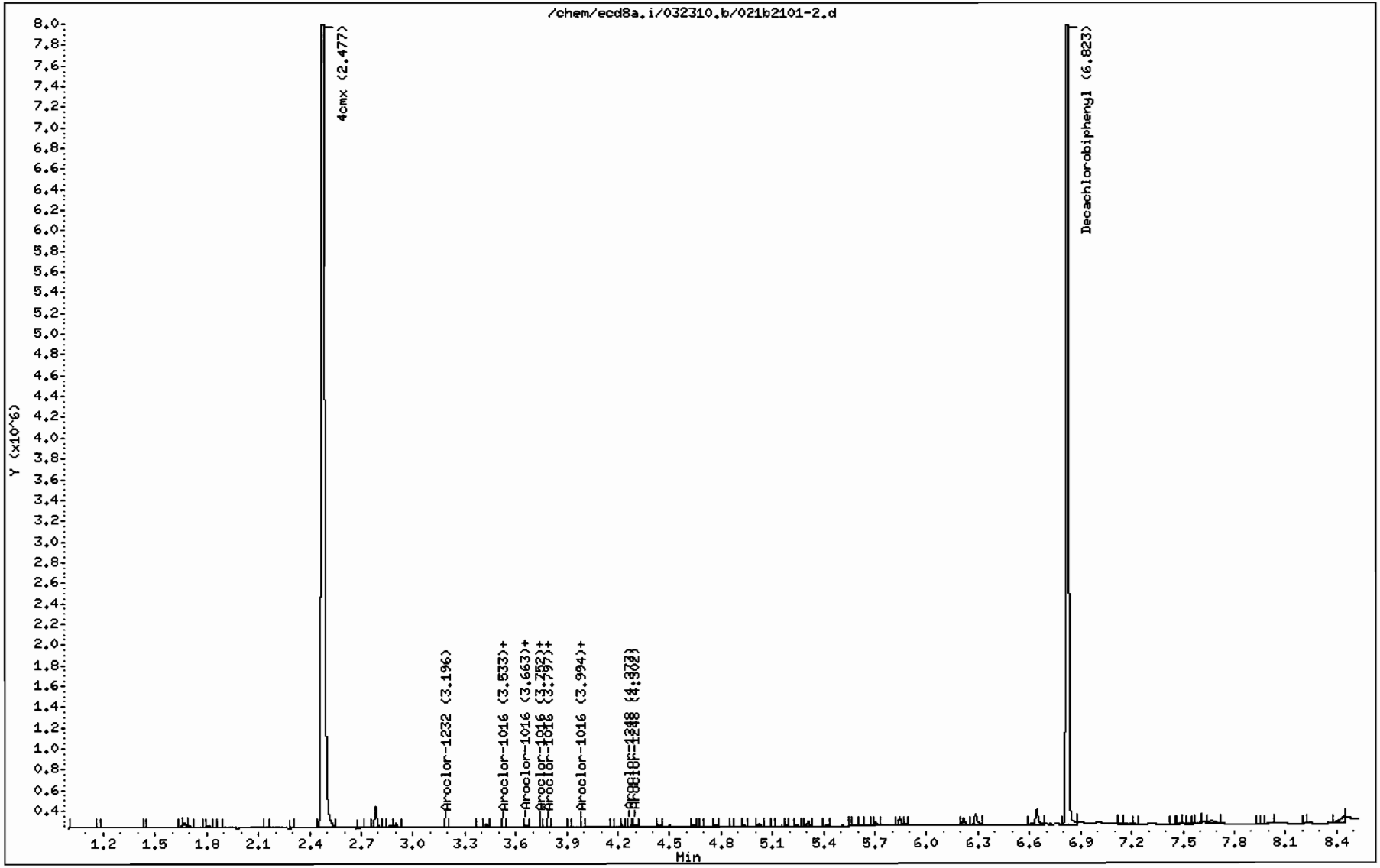

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202077525**				
Client Sample:	**QC for batch 967820**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 967820**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 12:38**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**022f2201–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	022b2201–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		28.8	ug/kg	1.11	3.33	2
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		32.8	ug/kg	1.11	3.33	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/022f2201-2.d
Lab Smp Id: 1202077525 Client Smp ID: PBLK01LCS
Inj Date : 23-MAR-2010 12:38
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077525|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 22 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.248	0.001	22287691	178.357	5.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.239	6.240	-0.001	16008470	194.393	6.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.805	2.806	-0.001	3724861	780.522	26.0	80.00- 120.00	100.00
3.156	3.157	-0.001	4623049	856.533	28.6	106.71- 146.71	124.11
3.300	3.301	-0.001	1951962	830.042	27.7	32.91- 72.91	52.40
3.392	3.393	-0.001	1760013	803.084	26.8	26.61- 66.61	47.25

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.555	3.555	0.000	2436153	791.230	26.4	47.49- 87.49	65.40
Average of Peak Concentrations =					27.1		
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.429	-0.001	5500093	933.792	31.1	80.00- 120.00	100.00
4.624	4.625	-0.001	8201358	965.401	32.2	127.82- 167.82	149.11
4.900	4.900	0.000	4888449	964.901	32.2	67.21- 107.21	88.88
5.071	5.072	-0.001	5020047	942.021	31.4	73.14- 113.14	91.27
5.482	5.483	-0.001	5139009	911.013	30.4	79.68- 119.68	93.43
Average of Peak Concentrations =					31.5		

Data File: /chem/ecd8a.i/032310.b/022f2201-2.d

Page 1

Date : 23-MAR-2010 12:38

Client ID: PBLK01LCS

Instrument: ecd8a.i

Sample Info: |120207752511|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

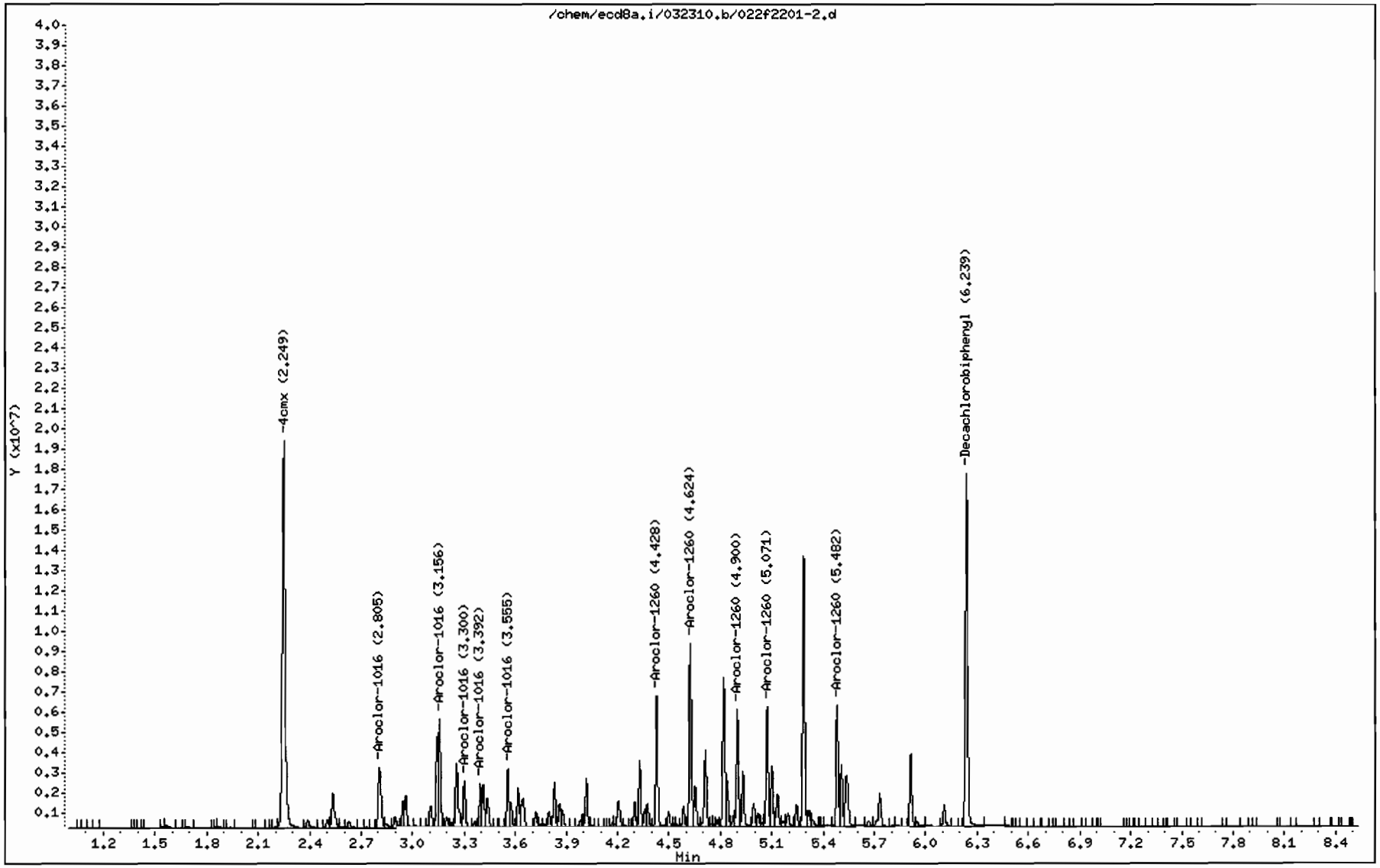

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/022b2201-2.d
Lab Smp Id: 1202077525 Client Smp ID: PBLK01LCS
Inj Date : 23-MAR-2010 12:38
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077525|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 22 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.476	2.476	0.000	15844573	189.569	6.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	12410533	209.452	7.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.548	0.000	3300626	897.453	29.9	80.00- 120.00	100.00
3.647	3.647	0.000	2139608	838.672	28.0	44.17- 84.17	64.82
3.723	3.723	0.000	1281937	859.189	28.6	19.13- 59.13	38.84
3.798	3.799	-0.001	1278154	864.960	28.8	17.45- 57.45	38.72

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.995	3.995	0.000	1739987	859.336	28.6	31.97- 71.97	52.72
Average of Peak Concentrations =					28.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.908	4.907	0.001	3797082	964.092	32.1	80.00- 120.00	100.00
5.056	5.056	0.000	4645285	981.991	32.7	102.64- 142.64	122.34
5.373	5.373	0.000	3597095	1002.91	33.4	72.26- 112.26	94.73
5.580	5.580	0.000	3467947	934.193	31.1	76.20- 116.20	91.33
6.010	6.011	-0.001	6104953	1045.13	34.8	134.50- 174.50	160.78
Average of Peak Concentrations =					32.8		

Data File: /chem/ecd8a.i/032310.b/022b2201-2.d
Date : 23-MAR-2010 12:38
Client ID: PBLK01LCS
Sample Info: |120207752511|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

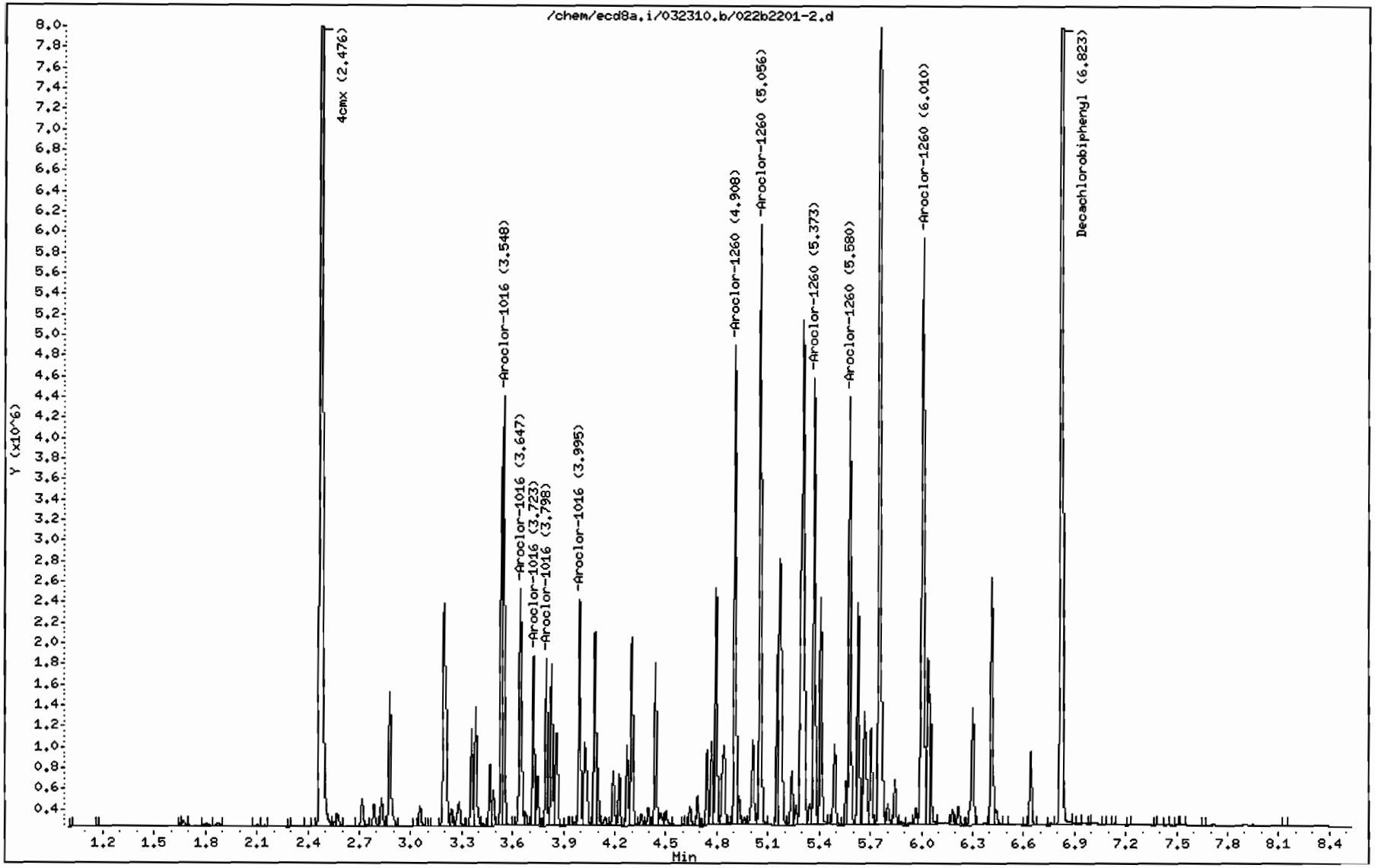

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202077526**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.3**
Client Sample:	**QC for batch 967820**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46–10–12972MS**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 15:40**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**036f3601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	036b3601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		28.5	ug/kg	1.26	3.80	1
11104–28–2	Aroclor–1221	U	3.80	ug/kg	1.26	3.80	1
11141–16–5	Aroclor–1232	U	3.80	ug/kg	1.26	3.80	1
53469–21–9	Aroclor–1242	U	3.80	ug/kg	1.26	3.80	1
12672–29–6	Aroclor–1248	U	3.80	ug/kg	1.26	3.80	1
11097–69–1	Aroclor–1254	P	27.7	ug/kg	1.26	3.80	2
11096–82–5	Aroclor–1260		35.8	ug/kg	1.26	3.80	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/036f3601.d
Lab Smp Id: 1202077526 Client Smp ID: RE46-10-12972MS
Inj Date : 23-MAR-2010 15:40
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077526|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	12.26540	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.248	2.248	0.000	21217036	169.789	6.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.238	6.240	-0.002	15454515	187.666	7.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.805	2.806	-0.001	3387328	709.794	26.9	80.00- 120.00	100.00
3.157	3.157	0.000	4322575	800.863	30.4	106.71- 146.71	127.61
3.300	3.301	-0.001	1685615	716.782	27.2	32.91- 72.91	49.76
3.392	3.393	-0.001	1737838	792.966	30.1	26.61- 66.61	51.30
3.554	3.555	-0.001	2281015	740.843	28.1	47.49- 87.49	67.34

Average of Peak Concentrations = 28.5

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.830	3.830	0.000	2006678	463.012	17.6	80.00- 120.00	100.00
4.017	4.017	0.000	2414490	418.707	15.9	87.01- 127.01	120.32
4.207	4.213	-0.006	1427332	320.136	12.2	49.92- 89.92	71.13
4.299	4.300	-0.001	1721394	228.862	8.7	31.87- 71.87	85.78
4.496	4.496	0.000	1314493	228.639	8.7	16.76- 56.76	65.51
Average of Peak Concentrations =					12.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.429	-0.001	5468453	928.421	35.2	80.00- 120.00	100.00
4.623	4.625	-0.002	8444446	994.015	37.7	127.82- 167.82	154.42
4.899	4.900	-0.001	4781267	943.745	35.8	67.21- 107.21	87.43
5.071	5.072	-0.001	4776254	896.273	34.0	73.14- 113.14	87.34
5.482	5.483	-0.001	5417471	960.377	36.4	79.68- 119.68	99.07
Average of Peak Concentrations =					35.8		

Data File: /chem/ecd8a.i/032310.b/036f3601.d

Page 1

Date : 23-MAR-2010 15:40

Client ID: RE46-10-12972MS

Instrument: ecd8a.i

Sample Info: |120207752611|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

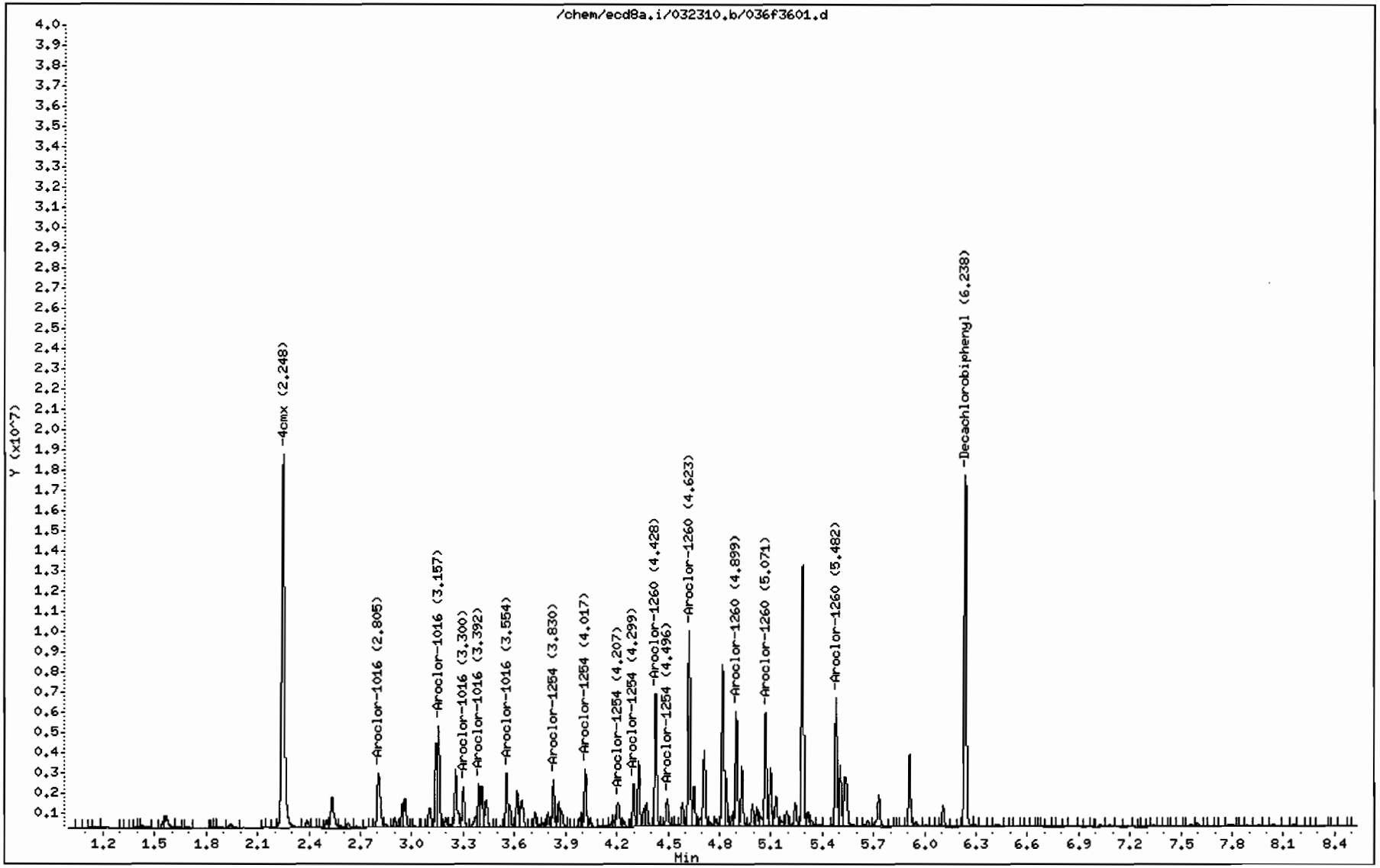

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/036b3601.d
Lab Smp Id: 1202077526 Client Smp ID: RE46-10-12972MS
Inj Date : 23-MAR-2010 15:40
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077526|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	12.26540	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	15003680	179.508	6.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.823	6.824	-0.001	11658273	196.756	7.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.548	0.000	3130184	851.109	32.3	80.00- 120.00	100.00
3.647	3.647	0.000	1996057	782.403	29.7	44.17- 84.17	63.77
3.723	3.723	0.000	1180716	791.348	30.0	19.13- 59.13	37.72
3.798	3.799	-0.001	1282086	867.621	32.9	17.45- 57.45	40.96
3.994	3.995	-0.001	1665260	822.430	31.2	31.97- 71.97	53.20

Average of Peak Concentrations = 31.2

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.301	4.301	0.000	1717399	551.038	20.9	80.00- 120.00	100.00
4.439	4.440	-0.001	1580069	454.286	17.2	91.97- 131.97	92.00
4.768	4.769	-0.001	1179584	244.117	9.3	138.62- 178.62	68.68
4.930	4.931	-0.001	538272	154.054	5.8	93.56- 133.56	31.34
5.056	5.057	-0.001	4956612	2251.27	85.4	51.06- 91.06	288.61
			Average of Peak Concentrations =		27.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.907	0.000	4009379	1018.00	38.6	80.00- 120.00	100.00
5.056	5.056	0.000	4956612	1047.80	39.8	102.64- 142.64	123.63
5.373	5.373	0.000	3590248	1001.00	38.0	72.26- 112.26	89.55
5.578	5.580	-0.002	3518672	947.857	36.0	76.20- 116.20	87.76
6.010	6.011	-0.001	5865064	1004.06	38.1	134.50- 174.50	146.28
			Average of Peak Concentrations =		38.1		

Data File: /chem/ecd8a.i/032310.b/036b3601.d
Date : 23-MAR-2010 15:40
Client ID: RE46-10-12972MS
Sample Info: |1202077526|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

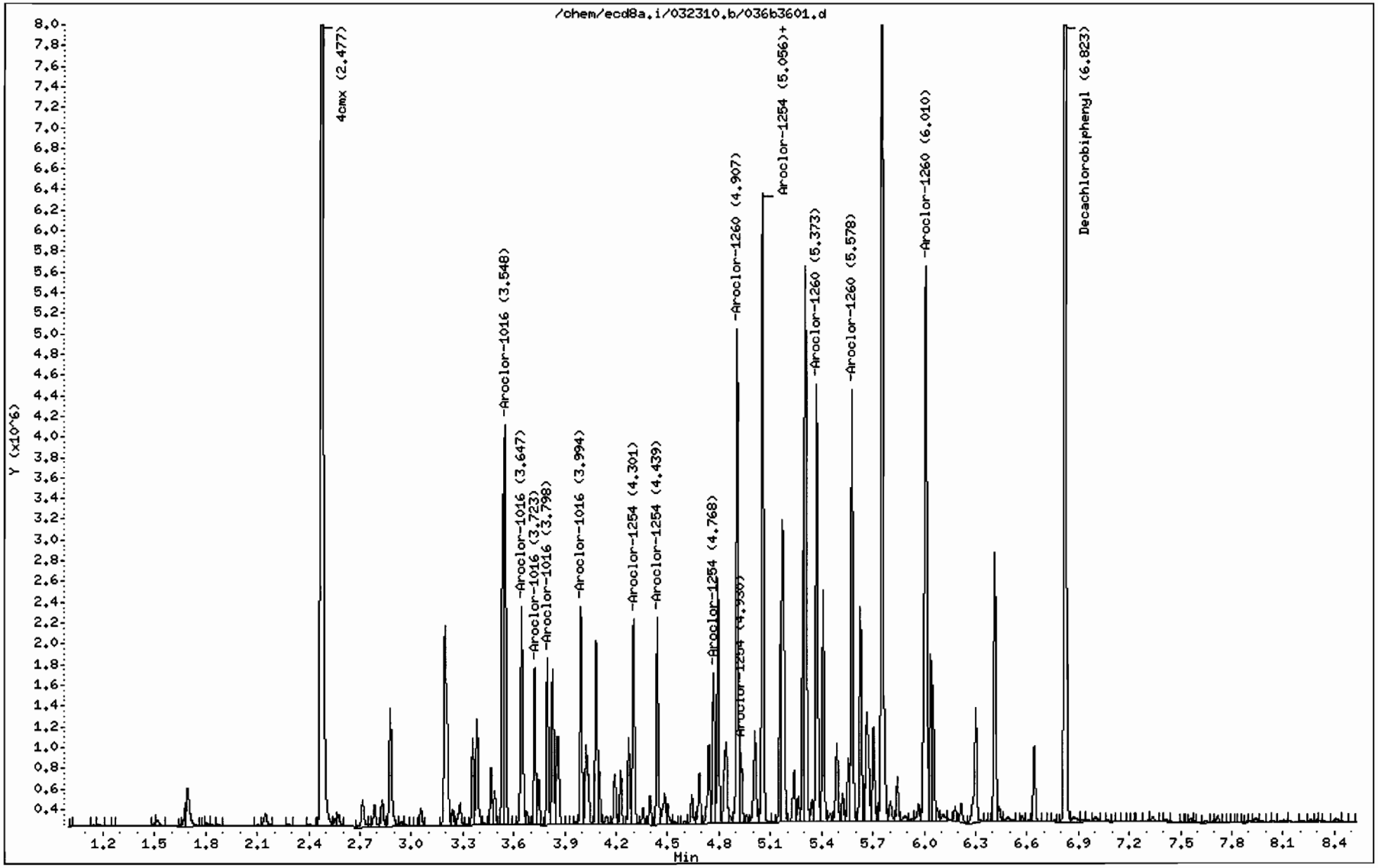

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2436**	**Date Collected:**	**03/11/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**1202077527**	**Date Received:**	**03/13/2010 09:30**	**%Moisture:**	**12.3**
Client Sample:	**QC for batch 967820**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE46–10–12972MSD**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**967824**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**03/23/2010 15:52**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/22/2010 22:20**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**037f3701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	037b3701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		27.8	ug/kg	1.26	3.79	1
11104–28–2	Aroclor–1221	U	3.79	ug/kg	1.26	3.79	1
11141–16–5	Aroclor–1232	U	3.79	ug/kg	1.26	3.79	1
53469–21–9	Aroclor–1242	U	3.79	ug/kg	1.26	3.79	1
12672–29–6	Aroclor–1248	U	3.79	ug/kg	1.26	3.79	1
11097–69–1	Aroclor–1254	P	25.5	ug/kg	1.26	3.79	2
11096–82–5	Aroclor–1260		33.9	ug/kg	1.26	3.79	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/037f3701.d
Lab Smp Id: 1202077527 Client Smp ID: RE46-10-12972MSD
Inj Date : 23-MAR-2010 15:52
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077527|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-F-8082-031810.m
Meth Date : 24-Mar-2010 08:51 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017f1701.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	12.26540	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.249	2.248	0.001	20317373	162.589	6.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.237	6.240	-0.003	13401392	162.735	6.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.805	2.806	-0.001	3369255	706.007	26.8	80.00- 120.00	100.00
3.157	3.157	0.000	4313081	799.104	30.3	106.71- 146.71	128.01
3.300	3.301	-0.001	1665314	708.149	26.8	32.91- 72.91	49.43
3.392	3.393	-0.001	1589172	725.130	27.5	26.61- 66.61	47.17
3.555	3.555	0.000	2257740	733.284	27.8	47.49- 87.49	67.01

Average of Peak Concentrations = 27.8

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.830	3.830	0.000	1912091	441.188	16.7	80.00- 120.00	100.00
4.017	4.017	0.000	2208522	382.990	14.5	87.01- 127.01	115.50
4.205	4.213	-0.008	1307858	293.339	11.1	49.92- 89.92	68.40
4.299	4.300	-0.001	1450422	192.836	7.3	31.87- 71.87	75.86
4.496	4.496	0.000	1071036	186.293	7.1	16.76- 56.76	56.01
Average of Peak Concentrations =					11.3		
7 Aroclor-1260					CAS #: 11096-82-5		
4.428	4.429	-0.001	5310347	901.578	34.2	80.00- 120.00	100.00
4.623	4.625	-0.002	7748015	912.037	34.6	127.82- 167.82	145.90
4.899	4.900	-0.001	4680631	923.881	35.0	67.21- 107.21	88.14
5.071	5.072	-0.001	4650542	872.683	33.1	73.14- 113.14	87.58
5.482	5.483	-0.001	4848204	859.461	32.6	79.68- 119.68	91.30
Average of Peak Concentrations =					33.9		

Data File: /chem/ecd8a.i/032310.b/037f3701.d
Date : 23-MAR-2010 15:52
Client ID: RE46-10-12972MSD
Sample Info: |1202077527|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

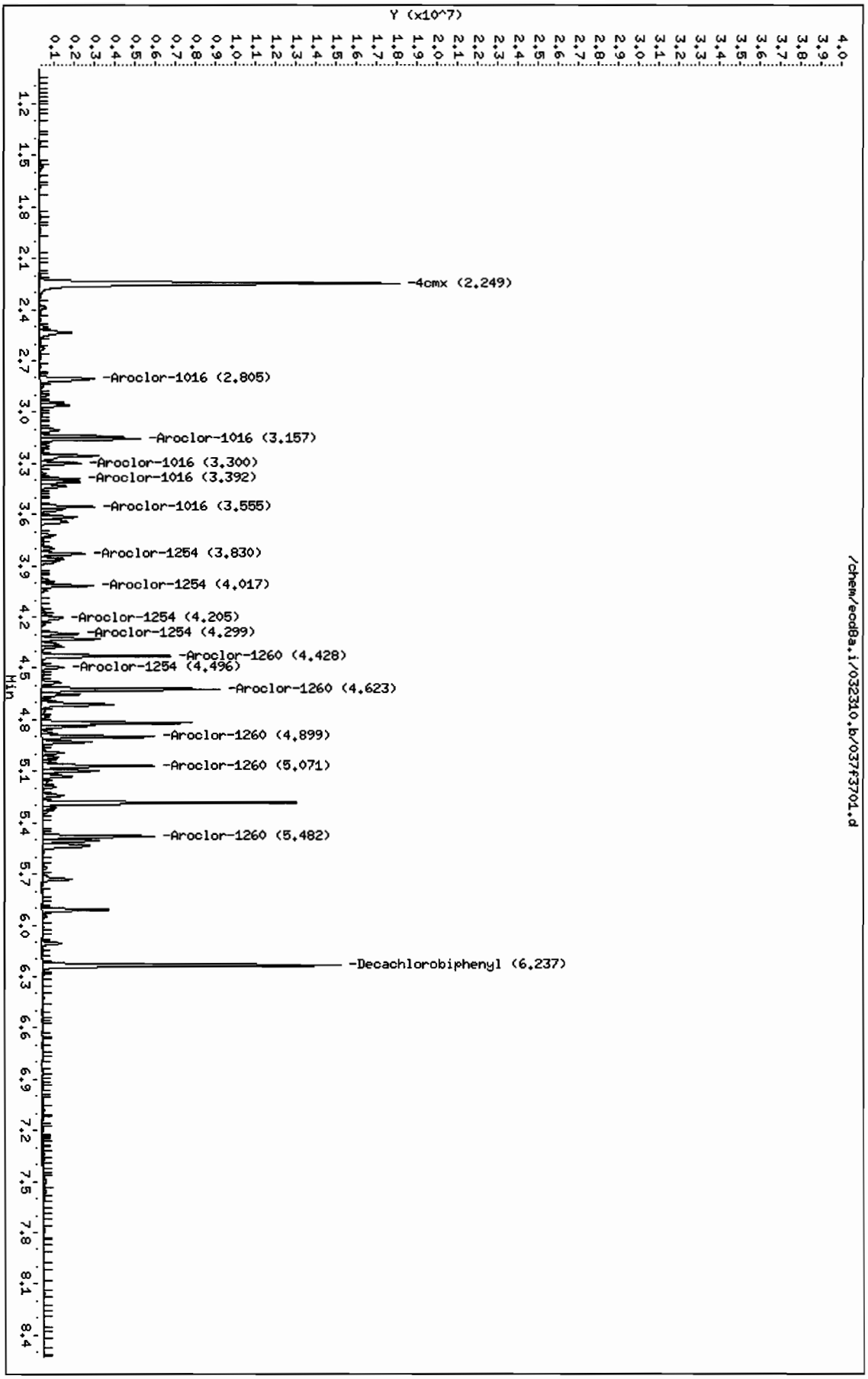

Page 1

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/032310.b/037b3701.d
Lab Smp Id: 1202077527 Client Smp ID: RE46-10-12972MSD
Inj Date : 23-MAR-2010 15:52
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202077527|1|
Misc Info : |ECD82P_1S|967824|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/032310.b/ECD8-B-8082-031810.m
Meth Date : 24-Mar-2010 08:39 jen01212 Quant Type: ESTD
Cal Date : 23-FEB-2010 11:32 Cal File: 017b1701.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2436.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	12.26540	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.477	2.476	0.001	14285646	170.918	6.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.822	6.824	-0.002	11236540	189.638	7.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.548	3.548	0.000	3033291	824.763	31.3	80.00- 120.00	100.00
3.647	3.647	0.000	2018867	791.344	30.0	44.17- 84.17	66.56
3.722	3.723	-0.001	1198144	803.028	30.4	19.13- 59.13	39.50
3.798	3.799	-0.001	1250346	846.141	32.1	17.45- 57.45	41.22
3.994	3.995	-0.001	1658928	819.303	31.1	31.97- 71.97	54.69
Average of Peak Concentrations =					31.0		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.301	4.301	0.000	1655857	531.292	20.1	80.00- 120.00	100.00
4.440	4.440	0.000	1425999	409.989	15.5	91.97- 131.97	86.12
4.768	4.769	-0.001	1002257	207.419	7.9	138.62- 178.62	60.53
4.930	4.931	-0.001	420840	120.445	4.6	93.56- 133.56	25.42
5.056	5.057	-0.001	4603623	2090.95	79.3	51.06- 91.06	278.02
			Average of Peak Concentrations =		25.5		
7 Aroclor-1260					CAS #: 11096-82-5		
4.907	4.907	0.000	3889804	987.635	37.4	80.00- 120.00	100.00
5.056	5.056	0.000	4603623	973.184	36.9	102.64- 142.64	118.35
5.372	5.373	-0.001	3519769	981.353	37.2	72.26- 112.26	90.49
5.579	5.580	-0.001	3161698	851.696	32.3	76.20- 116.20	81.28
6.010	6.011	-0.001	5588125	956.652	36.3	134.50- 174.50	143.66
			Average of Peak Concentrations =		36.0		

Data File: /chem/ecd8a.i/032310.b/037b3701.d
Date : 23-MAR-2010 15:52
Client ID: RE46-10-12972MSD
Sample Info: 1120207752714
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

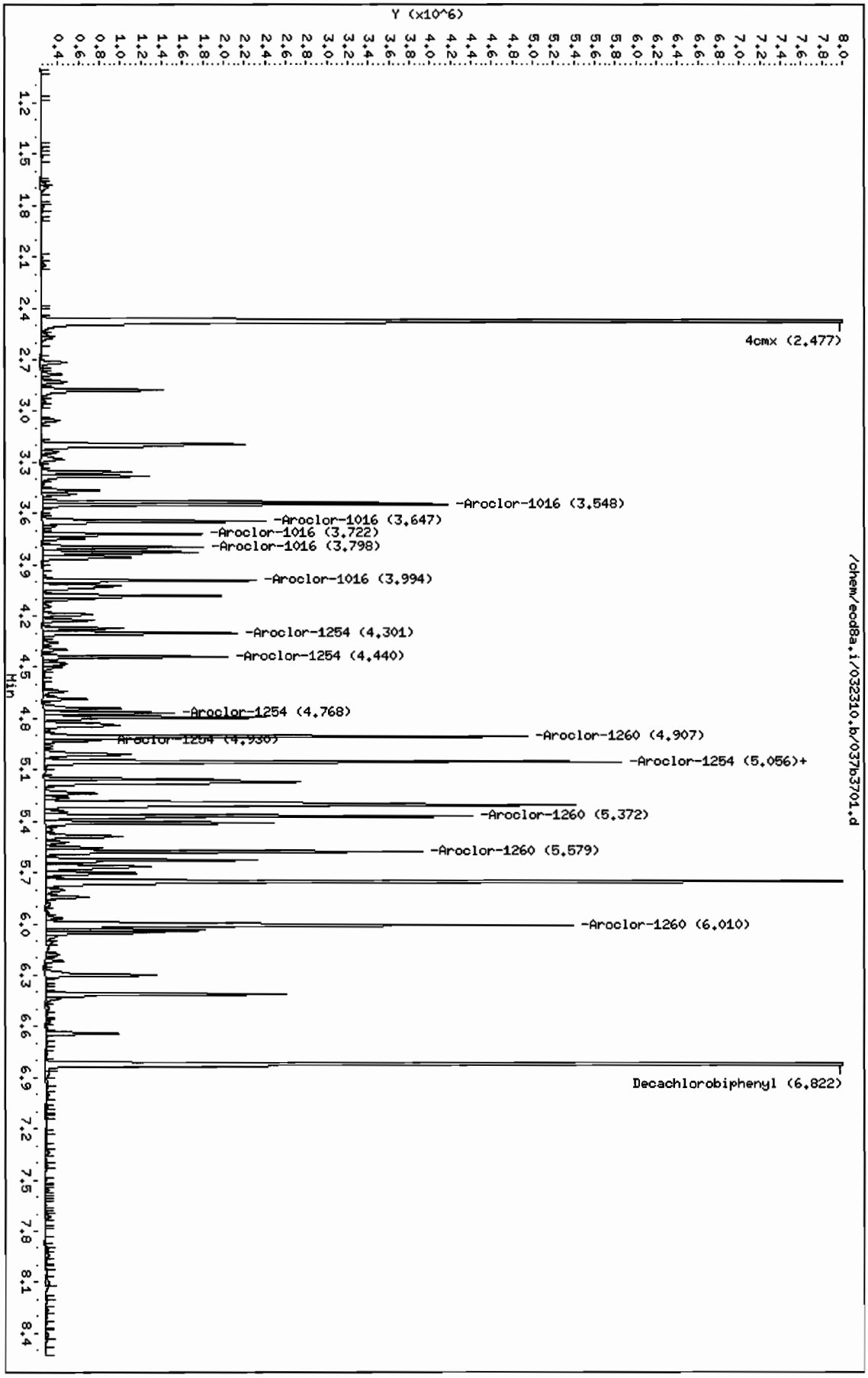

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 03/09/2010 METHOD: ECD8-F-8082-020310a.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/030910.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	JAOC	09-MAR-2010 07:59		030910	1.0		CLEAN
002f0201.d	WAR100225-60 01	JAOC	09-MAR-2010 08:11		030910	1.0		DUSE
003f0301.d	WAR100201-54	JAOC	09-MAR-2010 08:24		030910	1.0		DUSE
004f0401.d	WAR091217-42	JAOC	09-MAR-2010 08:36		030910	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091217-48	JAOC	09-MAR-2010 08:48		030910	1.0		DUSE
006f0601.d	WAR100309-60 01	JAOC	09-MAR-2010 09:08		030910	1.0		PASSES BOTH COLUMNS
007f0701.d	WAR100309-05 54	JAOC	09-MAR-2010 09:27		030910	1.0		1254 LEVEL 1
008f0801.d	WAR100309-06 54	JAOC	09-MAR-2010 09:39		030910	1.0		1254 LEVEL 2
009f0901.d	WAR100309-07 54	JAOC	09-MAR-2010 09:51		030910	1.0		1254 LEVEL 3
010f1001.d	WAR100309-08 54	JAOC	09-MAR-2010 10:04		030910	1.0		1254 LEVEL 4
011f1101.d	IAR100219-02 54	JAOC	09-MAR-2010 10:16		030910	1.0		1254 LEVEL 5
012f1201.d	WAR100201-54	JAOC	09-MAR-2010 10:29		030910	1.0		PASSES BOTH COLUMNS
013f1301.d	WAR100309-09 48	JAOC	09-MAR-2010 10:41		030910	1.0		1248 LEVEL 1
014f1401.d	WAR100309-10 48	JAOC	09-MAR-2010 10:53		030910	1.0		1248 LEVEL 2
015f1501.d	WAR100309-11 48	JAOC	09-MAR-2010 11:05		030910	1.0		1248 LEVEL 3

Instrument Batch: /chem/ecd8a.i/030910.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR100309-12 48	JAOC	09-MAR-2010 11:18		030910	1.0		1248 LEVEL 4
017f1701.d	IAR100211-01 48	JAOC	09-MAR-2010 11:30		030910	1.0		1248 LEVEL 5

018f1801.d	WAR091217-48	JAOC	09-MAR-2010 11:43		030910		1.0	PASSES BOTH COLUMNS
019f1901.d	WAR100104-32	JAOC	09-MAR-2010 11:55		030910		1.0	PATTERN ONLY
020f2001.d	WAR100104-21	JAOC	09-MAR-2010 12:07		030910		1.0	PATTERN ONLY
021f2101.d	WAR100104-62	JAOC	09-MAR-2010 12:20		030910		1.0	PATTERN ONLY
022f2201.d	WAR100107-68	JAOC	09-MAR-2010 12:32		030910		1.0	PATTERN ONLY
023f2301.d	WAR091219-DDT	JAOC	09-MAR-2010 12:44		030910		1.0	DDT
024f2401.d	WAR100219-99 02	JAOC	09-MAR-2010 12:57		030910		1.0	CLEAN
025f2501.d	248545006	JAOC	09-MAR-2010 13:09	961905	10-2213		1.0 LANL	UPLOAD BOTH, USE HIGHER
026f2601.d	WAR100309-60 02	JAOC	09-MAR-2010 13:22		030910		1.0	PASSES BOTH COLUMNS

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 03/19/2010 METHOD: ECD8-F-8082-031810.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/031810.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	JAOC	18-MAR-2010 06:13		031810	1.0		CLEAN
002f0201.d	WAR100318-01 60	JAOC	18-MAR-2010 06:25		031810	1.0		1660 LEVEL 1
003f0301.d	WAR100318-02 60	JAOC	18-MAR-2010 06:38		031810	1.0		1660 LEVEL 2
004f0401.d	WAR100318-03 60	JAOC	18-MAR-2010 06:50		031810	1.0		1660 LEVEL 3
005f0501.d	WAR100318-04 60	JAOC	18-MAR-2010 07:02		031810	1.0		1660 LEVEL 4
006f0601.d	IAR100311-01 60	JAOC	18-MAR-2010 07:15		031810	1.0		1660 LEVEL 5
007f0701.d	WAR100224-60 01	JAOC	18-MAR-2010 07:27		031810	1.0		PASSES BOTH COLUMNS
008f0801.d	WAR100201-54	JAOC	18-MAR-2010 07:39		031810	1.0		PASSES BOTH COLUMNS
009f0901.d	WAR091217-42	JAOC	18-MAR-2010 07:52		031810	1.0		PASSES BOTH COLUMNS
010f1001.d	WAR091217-48	JAOC	18-MAR-2010 08:04		031810	1.0		PASSES BOTH COLUMNS
011f1101.d	WAR100104-32	JAOC	18-MAR-2010 08:17		031810	1.0		PATTERN ONLY
012f1201.d	WAR100104-21	JAOC	18-MAR-2010 08:29		031810	1.0		PATTERN ONLY
013f1301.d	WAR100104-62	JAOC	18-MAR-2010 08:41		031810	1.0		PATTERN ONLY
014f1401.d	WAR100107-68	JAOC	18-MAR-2010 08:54		031810	1.0		PATTERN ONLY
015f1501.d	WAR091219-DDT	JAOC	18-MAR-2010 09:06		031810	1.0		DDT

Instrument Batch: /chem/ecd8a.i/031810.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR100219-99 02	JAOC	18-MAR-2010 09:19		031810	1.0		CLEAN
017f1701.d	1202073907	JAOC	18-MAR-2010 09:31	966402	10033	1.0	QC A	UPLOAD BOTH, USE HIGHER

018f1801.d	1202073908	JAOC	18-MAR-2010 09:43	966402	10033		1.0	QC A	UPLOAD BOTH, USE HIGHER
019f1901.d	1202073909	JAOC	18-MAR-2010 09:55	966402	10033		1.0	QC A	UPLOAD BOTH, USE HIGHER
020f2001.d	248554001	JAOC	18-MAR-2010 10:08	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
021f2101.d	248554002	JAOC	18-MAR-2010 10:20	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
022f2201.d	248554003	JAOC	18-MAR-2010 10:33	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
023f2301.d	248554004	JAOC	18-MAR-2010 10:45	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
024f2401.d	248554005	JAOC	18-MAR-2010 10:57	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
025f2501.d	248554006	JAOC	18-MAR-2010 11:10	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
026f2601.d	248554007	JAOC	18-MAR-2010 11:22	966402	10033		5.0	WSRS	UPLOAD BOTH, USE HIGHER
027f2701.d	WAR100224-60 02	JAOC	18-MAR-2010 11:39		031810		1.0		PASSES BOTH COLUMNS
028f2801.d	WAR100219-99 03	JAOC	18-MAR-2010 11:51		031810		1.0		CLEAN
029f2901.d	248554008	JAOC	18-MAR-2010 12:03	966402	10033		5.0	WSRS	UPLOAD BOTH, USE HIGHER
030f3001.d	248554009	JAOC	18-MAR-2010 12:16	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
031f3101.d	248554010	JAOC	18-MAR-2010 12:28	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
032f3201.d	248554011	JAOC	18-MAR-2010 12:40	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
033f3301.d	248554012	JAOC	18-MAR-2010 12:53	966402	10033		1.0	WSRS	DUSE, 5X RERUN END SEQUENCE
034f3401.d	248554013	JAOC	18-MAR-2010 13:05	966402	10033		1.0	WSRS	DUSE, AFTER OVERRANGE RERUN END SEQUENCE
035f3501.d	248554014	JAOC	18-MAR-2010 13:17	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/031810.b Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	248554015	JAOC	18-MAR-2010 13:30	966402	10033	1.0	WSRS	UPLOAD BOTH, USE HIGHER
037f3701.d	248554016	JAOC	18-MAR-2010 13:42	966402	10033	1.0	WSRS	UPLOAD BOTH, USE HIGHER
038f3801.d	248554017	JAOC	18-MAR-2010 13:54	966402	10033	1.0	WSRS	UPLOAD BOTH, USE HIGHER
039f3901.d	WAR100224-60 03	JAOC	18-MAR-2010 14:11		031810	1.0		PASSES BOTH COLUMNS
040f4001.d	WAR100219-99 04	JAOC	18-MAR-2010 14:23		031810	1.0		CLEAN
041f4101.d	248554018	JAOC	18-MAR-2010 14:36	966402	10033	1.0	WSRS	DUSE, 5X RERUN 031910

042f4201.d	248554019	JAOC	18-MAR-2010 14:48	966402	10033		1.0	WSRS	DUSE, AFTER OVERRANGE RERUN 031910
043f4301.d	248554020	JAOC	18-MAR-2010 15:01	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
044f4401.d	248554012	JAOC	18-MAR-2010 15:13	966402	10033		5.0	WSRS	UPLOAD BOTH, USE HIGHER
045f4501.d	248554013	JAOC	18-MAR-2010 15:25	966402	10033		1.0	WSRS	UPLOAD BOTH, USE HIGHER
046f4601.d	WAR100224-60 04	JAOC	18-MAR-2010 15:38		031810		1.0		PASSES BOTH COLUMNS
047f4701.d	WAR100219-99 05	JAOC	18-MAR-2010 15:50		031810		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 03/24/2010 METHOD: ECD8-F-8082-031810.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1281992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/032310.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	JAOC	23-MAR-2010 08:09		032310	1.0		CLEAN
002f0201.d	WAR100224-60 01	JAOC	23-MAR-2010 08:22		032310	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR100219-54	JAOC	23-MAR-2010 08:34		032310	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091217-42	JAOC	23-MAR-2010 08:46		032310	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR100223-48	JAOC	23-MAR-2010 08:59		032310	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR100104-32	JAOC	23-MAR-2010 09:11		032310	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	JAOC	23-MAR-2010 09:23		032310	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	JAOC	23-MAR-2010 09:36		032310	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	JAOC	23-MAR-2010 09:48		032310	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	JAOC	23-MAR-2010 10:00		032310	1.0		DDT
011f1101.d	WAR100219-99 02	JAOC	23-MAR-2010 10:13		032310	1.0		CLEAN
012f1201.d	1202077508	JAOC	23-MAR-2010 10:25	967817	10-2168	1.0	QC A	UPLOAD BOTH, USE HIGHER
013f1301.d	1202077509	JAOC	23-MAR-2010 10:37	967817	10-2168	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	1202077510	JAOC	23-MAR-2010 10:50	967817	10-2168	1.0	QC A	UPLOAD BOTH, USE HIGHER
015f1501.d	248394006	JAOC	23-MAR-2010 11:02	967817	10-2168	1.0	LANL	UPLOAD BOTH, USE HIGHER: DOESN'T CONFIRM $FAILURE

Instrument Batch: /chem/ecd8a.i/032310.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	248514002	JAOC	23-MAR-2010 11:14	967817	10-2196	1.0	LANL	UPLOAD BOTH, USE HIGHER: DOESN'T CONFIRM $FAILURE
017f1701.d	248519002	JAOC	23-MAR-2010 11:27	967817	10-2199	1.0	LANL	UPLOAD BOTH, USE HIGHER: DOESN'T CONFIRM $FAILURE

018f1801.d	248519004	JAOC	23-MAR-2010 11:43	967817	10-2199		1.0	LANL	UPLOAD BOTH, USE HIGHER: DOESN'T CONFIRM $FAILURE
019f1901.d	WAR100224-60 02	JAOC	23-MAR-2010 12:01		032310		1.0		PASSES BOTH COLUMNS
020f2001.d	WAR100219-99 03	JAOC	23-MAR-2010 12:14		032310		1.0		CLEAN
021f2101.d	1202077524	JAOC	23-MAR-2010 12:26	967824	10-2412		1.0	QC A	UPLOAD BOTH, USE HIGHER
022f2201.d	1202077525	JAOC	23-MAR-2010 12:38	967824	10-2412		1.0	QC A	UPLOAD BOTH, USE HIGHER
023f2301.d	249244001	JAOC	23-MAR-2010 12:51	967824	10-2412		10.0	LANL	UPLOAD BOTH, USE HIGHER
024f2401.d	249244002	JAOC	23-MAR-2010 13:03	967824	10-2412		5.0	LANL	UPLOAD BOTH, USE HIGHER
025f2501.d	249244003	JAOC	23-MAR-2010 13:15	967824	10-2412		1.0	LANL	UPLOAD BOTH, USE HIGHER
026f2601.d	249244004	JAOC	23-MAR-2010 13:28	967824	10-2412		1.0	LANL	UPLOAD BOTH, USE HIGHER
027f2701.d	249244005	JAOC	23-MAR-2010 13:40	967824	10-2412		5.0	LANL	UPLOAD BOTH, USE HIGHER
028f2801.d	249244006	JAOC	23-MAR-2010 13:52	967824	10-2412		10.0	LANL	UPLOAD BOTH, USE HIGHER
029f2901.d	249329001	JAOC	23-MAR-2010 14:05	967824	10-2430		5.0	LANL	UPLOAD BOTH, USE HIGHER
030f3001.d	249329002	JAOC	23-MAR-2010 14:21	967824	10-2430		5.0	LANL	UPLOAD BOTH, USE HIGHER
031f3101.d	WAR100224-60 03	JAOC	23-MAR-2010 14:38		032310		1.0		PASSES BOTH COLUMNS
032f3201.d	WAR100219-99 04	JAOC	23-MAR-2010 14:50		032310		1.0		CLEAN
033f3301.d	249329003	JAOC	23-MAR-2010 15:03	967824	10-2430		5.0	LANL	UPLOAD BOTH, USE HIGHER
034f3401.d	249329004	JAOC	23-MAR-2010 15:15	967824	10-2430		5.0	LANL	UPLOAD BOTH, USE HIGHER
035f3501.d	249335002	JAOC	23-MAR-2010 15:27	967824	10-2436		1.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/032310.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202077526	JAOC	23-MAR-2010 15:40	967824	10-2436	1.0	QC A	UPLOAD BOTH, USE HIGHER
037f3701.d	1202077527	JAOC	23-MAR-2010 15:52	967824	10-2436	1.0	QC A	UPLOAD BOTH, USE HIGHER
038f3801.d	249335003	JAOC	23-MAR-2010 16:04	967824	10-2436	5.0	LANL	UPLOAD BOTH, USE HIGHER
039f3901.d	249335004	JAOC	23-MAR-2010 16:17	967824	10-2436	5.0	LANL	UPLOAD BOTH, USE HIGHER
040f4001.d	249335005	JAOC	23-MAR-2010 16:29	967824	10-2436	5.0	LANL	UPLOAD BOTH, USE HIGHER
041f4101.d	249335006	JAOC	23-MAR-2010 16:42	967824	10-2436	5.0	LANL	UPLOAD BOTH, USE HIGHER

042f4201.d	249335007	JAOC	23-MAR-2010 16:58	967824	10-2436	20.0	LANL	UPLOAD BOTH, USE HIGHER
043f4301.d	WAR100224-60 04	JAOC	23-MAR-2010 17:15		032310	1.0		FRONT PASSING ALL PEAKS, BACK PASSING AVG
044f4401.d	WAR100219-99 05	JAOC	23-MAR-2010 17:27		032310	1.0		CLEAN
045f4501.d	249335008	JAOC	23-MAR-2010 17:39	967824	10-2436	20.0	LANL	UPLOAD BOTH, USE HIGHER
046f4601.d	WAR100224-60 05	JAOC	23-MAR-2010 17:56		032310	1.0		BACK FAILS HIGH 1260 AND DCB, FRONT PASSING AVG
047f4701.d	WAR100219-99 06	JAOC	23-MAR-2010 18:08		032310	1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 967820 **Verified by:** _____

Analyst: Andrew Schwemin **Lab SOP:** GL-OA-E-010 REV# 18

Method: SW846 3550B **Instrument:** Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202077524 MB	22-MAR-2010 22:20:00	30	H2SO4/KMn2		2	9	1	0.03333
1202077525 LCS	22-MAR-2010 22:20:00	30	H2SO4/KMn2		2	9	1	0.03333
249244001	22-MAR-2010 22:20:00	30.02	H2SO4/KMn2		2	9	1	0.03331
249244002	22-MAR-2010 22:20:00	30.18	H2SO4/KMn2		2	9	1	0.03313
249244003	22-MAR-2010 22:20:00	30.09	H2SO4/KMn2		2	9	1	0.03323
249244004	22-MAR-2010 22:20:00	30.08	H2SO4/KMn2		2	9	1	0.03324
249244005	22-MAR-2010 22:20:00	30.05	H2SO4/KMn2		2	9	1	0.03328
249244006	22-MAR-2010 22:20:00	30.02	H2SO4/KMn2		2	9	1	0.03331
249329001	22-MAR-2010 22:20:00	30.02	H2SO4/KMn2		2	9	1	0.03331
249329002	22-MAR-2010 22:20:00	30.19	H2SO4/KMn2		2	9	1	0.03312
249329003	22-MAR-2010 22:20:00	30.05	H2SO4/KMn2		2	9	1	0.03328
249329004	22-MAR-2010 22:20:00	30.18	H2SO4/KMn2		2	9	1	0.03313
249335002	22-MAR-2010 22:20:00	30.17	H2SO4/KMn2		2	9	1	0.03315
1202077526 MS (249335002)	22-MAR-2010 22:20:00	30.03	H2SO4/KMn2		2	9	1	0.0333
1202077527 MSD (249335002)	22-MAR-2010 22:20:00	30.06	H2SO4/KMn2		2	9	1	0.03327
249335003	22-MAR-2010 22:20:00	30.07	H2SO4/KMn2		2	9	1	0.03326
249335004	22-MAR-2010 22:20:00	30.05	H2SO4/KMn2		2	9	1	0.03328
249335005	22-MAR-2010 22:20:00	30.11	H2SO4/KMn2		2	9	1	0.03321
249335006	22-MAR-2010 22:20:00	30.11	H2SO4/KMn2		2	9	1	0.03321
249335007	22-MAR-2010 22:20:00	30.01	H2SO4/KMn2		2	9	1	0.03332
249335008	22-MAR-2010 22:20:00	30.09	H2SO4/KMn2		2	9	1	0.03323

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202077525	PCB Laboratory Control	WE100311-07	1	mL
MS	1202077526	PCB Laboratory Control	WE100311-07	1	mL
MSD	1202077527	PCB Laboratory Control	WE100311-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100310-16	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1289815-B1	150	mL
REGNT	All	Hexane	1289823-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Clean up Date: 22-MAR-2010
Clean up Initials: AJS
Verified By: AV
Final Solvent: Hexane
Clean Up SOP: GL-OA-E-037